RF Test Report

Report No.: AGC00552190801EE10

PRODUCT DESIGNATION	:	Smart Phone
BRAND NAME	:	CUBOT
MODEL NAME	:	R15 PRO
APPLICANT	:	Shenzhen Huafurui Technology Co., Ltd.
DATE OF ISSUE	:	Aug. 22, 2019
STANDARD(S)	:	EN 301 908-1 V11.1.1 (2016-07) EN 301 908-13 V11.1.2 (2017-07)
REPORT VERSION	:	V1.0

Attestation of Global Compliance (Shenzhen) Co., Ltd

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Report Revise Record

Report Version	Revise Time	Issued Date	Valid Version	Notes
V1.0	/	Aug. 22, 2019	Valid	Initial release

TABLE OF CONTENTS

1. TEST REPORT CERTIFICATION

Manufacturer	Shenzhen Huafurui Technology Co., Ltd.
Address	Unit 1401 &1402, 14/F, Jin qi zhi gu mansion (No. 4 building of Chong wen Garden), Crossing of the Liu xian street and Tang ling road, Tao yuan street, Nan shan district, Shenzhen,P.R. China
Factory Name	Shenzhen Huafurui Technology Co., Ltd.
Address	Unit 1401 &1402, 14/F, Jin qi zhi gu mansion (No. 4 building of Chong wen Garden), Crossing of the Liu xian street and Tang ling road, Tao yuan street, Nan shan district, Shenzhen,P.R. China
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Product Designation	Smart Phone
Brand Name	CUBOT
Test Model	R15 PRO
Date of test	Aug. 06, 2019~Aug. 22, 2019
Deviation	None
Condition of Test Sample	Normal
Report Template	AGCRT-EC-LTE2/RF

We, Attestation of Global Compliance (Shenzhen) Co., Ltd., for compliance with the requirements set forth in the European Standard ETSI EN 301 908-1/-13. The results of testing in this report apply to the product system which was tested only. Other similar equipment will not necessarily produce the same results due to production tolerance and measurement uncertainties.The test results of this report relate only to the tested sample identified in this report.

Prepared By	Donjon Huang (Project Engineer)	Aug. 22, 2019
Reviewed By	Max Zhang (Reviewer)	Aug. 22, 2019
Approved By	Forrest Lei Authorized Officer	Aug. 22, 2019

2. GENERAL INFORMATION

2.1. DESCRIPTION OF EUT

2.1.1. FINAL EQUIPMENT BUILD STATUS

Details of technical specification refer to the description in follows:

Product Name	Smart Phone
Brand Name	CUBOT
Test Model	R15 PRO
Product Type	LTE
Hardware Version	V625_MB_V2.0
Software Version	CUBOT_R15_PRO_9031C-1_V01_20190730
LTE Support Band	☒FDD Band 1 ☒FDD Band 3 ☒FDD Band 7 ☒FDD Band 8 ☒FDD Band 20 ☐TDD Band 33 ☐TDD Band 34 ☐TDD Band 38 ☐TDD Band 40 ☐TDD Band 42 ☐TDD Band 43 (EU Bands) ☐FDD Band 2 ☐FDD Band 4 ☐FDD Band 5 ☒FDD Band 19 ☐FDD Band 25 ☐FDD Band 26 ☐TDD Band 41 (Non-EU Bands)
TX Frequency Range	FDD Band 1: 1920 MHz – 1980 MHz FDD Band 3: 1710 MHz – 1785 MHz FDD Band 7: 2500 MHz – 2570 MHz FDD Band 8: 880 MHz – 915 MHz FDD Band 20: 832 MHz – 862 MHz
RX Frequency Range	FDD Band 1: 2110 MHz – 2170 MHz FDD Band 3: 1805 MHz – 1880 MHz FDD Band 7: 2620 MHz – 2690 MHz FDD Band 8: 925 MHz – 960 MHz FDD Band 20: 791 MHz – 821 MHz
Modulation Mode	QPSK/16QAM
Antenna Type	PIFA Antenna
LTE Antenna Gain	1.9dBi(Band 1); 1.7dBi(Band 3); 1.17dBi(Band 7);2.2dBi(Band 8); 1.6dBi(Band 20)
Diversity Antenna Gain	1.78Bi(Band 1); 1.64dBi(Band 3); 1.05dBi(Band 7);1.82dBi(Band 8); 1.54dBi(Band 20)
Power Class	FDD Band 1:3, FDD Band 3:3, FDD Band 7:3, FDD Band 8:3, FDD Band 20:3
GSM Release Version	N/A
SIM Card Description	There are dual-SIM cards, just one for GSM/WCDMA/LTE and the other only for GSM.
Diversity Antenna Description	Diversity antenna is only used to receive. Its purpose is to increase sensitivity of LTE. The receiver items test results in the report already contain the diversity antenna test.

2.1.2. PHOTOGRAPHS OF THE EUT

Please see APPENX A for photographs of the EUT.

2.1.3. IDENTIFICATION OF SAMPLES EUT

The EUT Identity consists of numerical and letter characters (see the table below), the first five numerical characters indicates the Type of the EUT defined by AGC, the next letter character indicates the test sample, and the following two numerical characters indicates the software version of the test sample.

SAMPLE A01

Sample Reference Number	A01
Factory Name	Shenzhen Huafurui Technology Co., Ltd.
Test Model	R15 PRO
Product Type	FDD Band 1; FDD Band 3; FDD Band 7; FDD Band 8; FDD Band 20
Frequency Bands	QPSK/16QAM;

2.2. TYPE OF PICS/PIXIT INFORMATION

Item	Operating bands RF Baseline Implementation capabilities	Support	Allowed Value	Comments
1	Frequency band: 1920-1980, 2110-2170 MHz	YES	Yes/No	Band 1
2	Frequency band: 1850-1910, 1930-1990 MHz	NO	Yes/No	Band 2
3	UE Power Class 3 (+23 dBm)	YES	Yes/No	--
4	Frequency band: 1710-1785, 1805-1880 MHz	YES	Yes/No	Band 3
5	Frequency band: 1710-1755, 2110-2155 MHz	NO	Yes/No	Band 4
6	Frequency band: 824-849, 869-894 MHz	NO	Yes/No	Band 5
7	Frequency band: 830-840, 875-885 MHz	NO	Yes/No	Band 6
8	Frequency band: 2500-2570, 2620-2690 MHz	YES	Yes/No	Band 7
9	Frequency band: 880-915, 925-960 MHz	YES	Yes/No	Band 8
10	Frequency band: 1749.9-1784.9, 1844.9-1879.9 MHz	NO	Yes/No	Band 9
11	Frequency band: 1710-1770, 2110-2170 MHz	NO	Yes/No	Band 10
12	Frequency band: 1427.9-1452.9, 1475.9-1500.9 MHz	NO	Yes/No	Band 11
13	Frequency band: 699-716, 729-746 MHz	NO	Yes/No	Band 12
14	Frequency band: 777-787, 746-756 MHz	NO	Yes/No	Band 13
15	Frequency band: 788-798, 758-768 MHz	NO	Yes/No	Band 14
16	Reserved	NO	Yes/No	Band 15
17	Reserved	NO	Yes/No	Band 16
18	Frequency band:704 – 716 , 734 – 746 MHz	NO	Yes/No	Band 17
19	Frequency band: 815-830,860-875 MHz	NO	Yes/No	Band 18
20	Frequency band: 830-845,875-890 MHz	YES	Yes/No	Band 19
21	Frequency band: 832-862,791-821MHz	NO	Yes/No	Band 20
22	Frequency band: 1447.9-1462.9,1495.9-1510.9 MHz	NO	Yes/No	Band 21
23	Frequency band: 3410-3490,3510-3590 MHz	NO	Yes/No	Band 22
24	Frequency band: 2000-2020,2180-2200 MHz	NO	Yes/No	Band 23

25	Frequency band: 1626.5-1660.5,1525-1559 MHz	NO	Yes/No	Band 24
26	Frequency band: 1850-1915,1930-1995 MHz	NO	Yes/No	Band 25
27	Frequency band: 814-849,859-894 MHz	NO	Yes/No	Band 26
28	Frequency band: 807-824,852-869 MHz	NO	Yes/No	Band 27
29	Frequency band: 703-748,758-803 MHz	NO	Yes/No	Band 28
30	Frequency band: N/A,DL: 717-728 MHz	NO	Yes/No	Band 29
31	Frequency band:2305-2315, 2350- 2360 MHz	NO	Yes/No	Band 30
32	Frequency band:452.5-457.5, 462.5 - 467.5MHz	NO	Yes/No	Band 31
33				…
34	Frequency band:1900-1920, 1900-1920 MHz	NO	Yes/No	Band 33
35	Frequency band:2010-2025, 2010-2025 MHz	NO	Yes/No	Band 34
36	Frequency band:18501910, 1850-1910 MHz	NO	Yes/No	Band 35
37	Frequency band:1930-1990, 1930-1990 MHz	NO	Yes/No	Band 36
38	Frequency band:19101930, 1910-1930 MHz	NO	Yes/No	Band 37
39	Frequency band:2570-2620, 2570-2620 MHz	NO	Yes/No	Band 38
40	Frequency band:1880-1920, 1880-1920 MHz	NO	Yes/No	Band 39
41	Frequency band:2300-2400, 2300-2400 MHz	NO	Yes/No	Band 40
42	Frequency band:2496-2690, 2496- 2690 MHz	NO	Yes/No	Band 41
43	Frequency band:3400-3600, 3400-3600 MHz	NO	Yes/No	Band 42
44	Frequency band:3600-3800, 3600-3800 MHz	NO	Yes/No	Band 43
45	Frequency band:703-803, 703-803 MHz	NO	Yes/No	Band 44

Note 1: Band 6 is not applicable.
Note 2: Restricted to E-UTRA operation when carrier aggregation is configured. The downlink operating band is paired with the uplink operating band (external) of the carrier aggregation configuration that is supporting the configured Pcell.

3. IDENTIFICATION OF THE RESPONSIBLE TESTING LOCATION

Test Site	Attestation of Global Compliance (Shenzhen) Co., Ltd
Location	1-2/F, Building 19, Junfeng Industrial Park, Chongqing Road, Heping Community, Fuhai Street, Bao 'an District, Shenzhen, Guangdong, China
Note: Section 5.3.1 items were tested in the Laboratory of Location 2. Others were tested in the Laboratory of Location 1.	

LIST OF EQUIPMENTS USED OF AGC&NETC

No.	Type	Manufacturer	S/N	Cal. Date	Cal. Due
1	H & T Chamber ETH225-40A	Test EQ	WIT-05121302	Feb. 27, 2019	Feb. 26, 2020
2	Wireless communication test CMW500	R&S	120909	July 11, 2019	July 10, 2020
3	Wireless communication test set 8960	Agilent	GB46200384	July 11, 2019	July 10, 2020
4	Power Splitter 7100LC	KALMUS	04-02/17-06-001	June 12,2019	June 11, 2020
5	Attenuator	JFW	50FHC-006-50	June 12,2019	June 11, 2020
6	Vector Signal Generator SMU200A	R&S	104332	Sep. 20, 2018	Sep. 19, 2019
8	EXA Signal Analyzer N9010A	Agilent	MY53470504	Dec. 20, 2018	Dec. 19, 2019
9	MXG Vector Signal Generator N5182A	AGILENT	MY50140530	Sep. 20, 2018	Sep. 19, 2019
10	PSG Analog Signal Generator E8257D	AGILENT	MY45141029	Sep. 20, 2018	Sep. 19, 2019
11	MXA Signal Analyzer N9020A	AGILENT	W1312-60196	Dec. 20, 2018	Dec. 19, 2019
12	Universal Switch Control Unit	JS TONSCEND	N/A	---	---
13	Programmable Power Supply PPT-1830	GW INSTEK	EM907629	Aug.18, 2018	Aug.17, 2019
13	Programmable Power Supply PPT-1830	GW INSTEK	EM907629	Aug.16, 2019	Aug.15, 2020
14	DC Power Source	N/A	GBD-60V30A	Feb. 27, 2019	Feb. 26, 2020
15	Attenuator	JFW	50FHC-006-50	June 12,2019	June 11, 2020
16	EMI Test Receiver	ESCI	100694	June 12,2019	June 11, 2020
17	Double-Ridged Waveguide Horn Antenna 3117	ETS LINDGREN	00034609	Mar. 01, 2018	Feb. 28, 2020

No.	Type	Manufacturer	S/N	Cal. Date	Cal. Due
18	Broadband Antenna VULB9168	SCHWARZBECK	D69250	Mar. 01, 2018	Feb. 28, 2020
19	Triple Loop Antenna RF300	LAPLACE	N/A	Mar. 01, 2018	Feb. 28, 2020
20	Artificial Mains Network ENV4200	R&S	101116	July 11, 2019	July 10, 2020
21	Artificial Mains Network ENV216	R&S	101242	July 11, 2019	July 10, 2020
22	Filter Bank Notch 1(880-915MHz)	MICRO-TRONICS	010	Feb. 27, 2019	Feb. 26, 2020
23	Filter Bank Notch 2(1710-1785MHz)	MICRO-TRONICS	009	Feb. 27, 2019	Feb. 26, 2020
24	Filter Bank Notch 3(1920-1980MHz)	MICRO-TRONICS	008	Feb. 27, 2019	Feb. 26, 2020

4. MEASUREMENT UNCERTAINTY

Parameter	Conditions	Test System Uncertainty
Transmitter Maximum Output power	--	±0,7 dB
Transmitter spectrum emissions mask	--	±1,5 dB
Transmitter spurious emissions	9 kHz < f ≤ 4 GHz: ±2,0 dB 4 GHz < f ≤ 12,75 GHz: ±4,0 dB	±2,0 dB ±4,0 dB
Transmitter Minimum output power	--	±1,0 dB
Receiver Adjacent Channel Selectivity(ACS)	--	±1,1 dB
Receiver Blocking characteristics	1 MHz < finterferer ≤ 3 GHz 3 GHz < finterferer ≤ 12,75 GHz	±1,3 dB ±3,2 dB
Receiver spurious response	1 MHz < finterferer ≤ 3 GHz 3 GHz < finterferer ≤ 12,75 GHz	±1,3 dB ±3,2 dB
Receiver intermodulation characteristics	--	±1,4 dB
Receiver spurious emissions	30 MHz ≤ f ≤ 4,0 GHz: ±2,0 dB 4 GHz < f ≤ 12,75 GHz: ±4,0 dB	±2,0 dB ±4,0 dB
Transmitter adjacent channel leakage power ratio	--	±0,8 dB

NOTE 1: For RF tests it should be noted that the uncertainties in table 5.2-1 apply to the test system operating into a nominal 50 Ω load and do not include system effects due to mismatch between the EUT and the test system.

NOTE 2: If the test system for a test is known to have a measurement uncertainty greater than that specified in table 5.2-1, this equipment can still be used provided that an adjustment is made follows: any additional uncertainty in the test system over and above that specified in table 5.2-1 should be used to tighten the test requirements - making the test harder to pass (for some tests, e.g. receiver tests, this may require modification of stimulus signals). This procedure will ensure that a test system not compliant with table 5.2-1 does not increase the probability of passing an EUT that would otherwise have failed a test if a test system compliant with table 5.2-1 had been used.

5. TEST RESULT

5.1. APPLIED REFERENCE DOCUMENTS

Leading reference documents for testing:

No.	Identity	Document Title
1	ETSI EN 301 908-1	IMT cellular networks; Harmonised Standard covering the essential requirements of article 3.2 of the Directive 2014/53/EU; Part 1: Introduction and common requirements
2	ETSI EN 301 908-13	IMT cellular networks; Harmonised Standard covering the essential requirements of article 3.2 of the Directive 2014/53/EU; Part 13: Evolved Universal Terrestrial Radio Access (E-UTRA) User Equipment (UE)

Specific reference documents for testing:

No.	Identity	Document Title
3	ETSI TS 136 521-1	LTE; Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) conformance specification; Radio transmission and reception; Part 1: Conformance testing

5.2. TEST ENVIRONMENT/CONDITIONS

Normal Temperature (NT)	15 ... 35 °C
Relative Humidity	30 ... 75 %
Air Pressure	980 ... 1020 kPa
Adapter Test Model Name	HJ-0501000B3EU
Details of Power Supply (Rated Input)	AC100-240V, 50/60Hz, 0.15A
Details of Power Supply (Rated Output)	DC5.0V,1000mA
Extreme Temperature	Low Temperature (TL) = -10°C High Temperature (TH) = +40°C
Extreme Voltage of the EUT	Low Voltage = DC 3.23V Normal Voltage= DC 3.80V High Voltage = DC 4.35V
Note: The Limit Voltage 4.35V was declared by manufacturer, The EUT couldn't be operate normally with higher voltage. The maximum temperature of 40 is not a standard requirement and is measured according to the maximum service temperature stated by the manufacturer.	

5.3. ITEMS USED IN THE TEST RESULTS LIST

Terms in the column “Verdict” for the test results list of the section:

Verdict	Description
PASS	EUT passed this test case
FAIL	EUT failed this test case
INC.	EUT did not pass and did not fail this test case, therefore the verdict is inconclusive
FOUR-FAITH	Test case not applicable for the EUT, see the column “Note” for detailed

5.4. TEST RESULTS LIST

ETSI EN 301 908-1

Test case	Description	Condition	FDD Band 1		FDD Band 3		FDD Band 7	
			Sample	Result	Sample	Result	Sample	Result
5.3.1	Radiated emission (UE)	NTC	A01	PASS	A01	PASS	A01	PASS
5.3.3	Control and monitoring functions (UE)	NTC	A01	PASS	A01	PASS	A01	PASS

Test case	Description	Condition	FDD Band 8		FDD Band 20	
			Sample	Result	Sample	Result
5.3.1	Radiated emission (UE)	NTC	A01	PASS	A01	PASS
5.3.3	Control and monitoring functions (UE)	NTC	A01	PASS	A01	PASS

ETSI EN 301 908-13

Teat case in ETSI	Description	Test Channel Bandwidths	condition	FDD Band 3	
				Sample	Result
4.2.2	Transmitter Maximum Output Power	1.4MHz 5MHz 20MHz	NTC	A01	PASS
			HTHV	A01	PASS
			HTLV	A01	PASS
			LTHV	A01	PASS
			LTLV	A01	PASS
4.2.5	Transmitter Minimum Output Power	1.4MHz 5MHz 20MHz	NTC	A01	PASS
			HTHV	A01	PASS
			HTLV	A01	PASS
			LTHV	A01	PASS
			LTLV	A01	PASS
4.2.3	Transmitter Spectrum Emission Mask	1.4MHz 5MHz 10MHz 20MHz	NTC	A01	PASS
4.2.11	Transmitter Adjacent Channel Leakage Power Ratio	1.4MHz 5MHz 10MHz 20MHz	NTC	A01	PASS
			HTHV	A01	PASS
			HTLV	A01	PASS
			LTHV	A01	PASS
			LTLV	A01	PASS
4.2.4	Transmitter Spurious Emissions	1.4MHz 5MHz 20MHz	NTC	A01	PASS

4.2.6	Receiver Adjacent Channel	1.4MHz 5MHz 20MHz	NTC	A01	PASS
4.2.7	Receiver Blocking Characteristics	1.4MHz 5MHz 20MHz	In band	A01	PASS
	Receiver Blocking Characteristics		Out Band	A01	PASS
	Receiver Blocking Characteristics		Narrow Band	A01	PASS
4.2.8	Receiver Spurious Response	1.4MHz 5MHz 20MHz	NTC	A01	PASS
4.2.9	Receiver Intermodulation Characteristics	1.4MHz 5MHz 20MHz	NTC	A01	PASS
4.2.10	Receiver Spurious Emissions	20MHz	NTC	A01	PASS
4.2.12	Receiver Reference Sensitivity Level	1.4MHz 5MHz 20MHz	NTC	A01	PASS
Channel Bandwidths to be tested: lowest, 1.4 MHz and 20 MHZ highest channel bandwidth Band 3: 1.4MHz/3MHz/5MHz/10MHz/15MHz/20MHz					

Teat case in ETSI	Description	Test Channel Bandwidths	condition	FDD Band 8	
				Sample	Result
4.2.2	Transmitter Maximum Output Power	1.4MHz 5MHz 10MHz	NTC	A01	PASS
			HTHV	A01	PASS
			HTLV	A01	PASS
			LTHV	A01	PASS
			LTLV	A01	PASS
4.2.5	Transmitter Minimum Output Power	1.4MHz 5MHz 10MHz	NTC	A01	PASS
			HTHV	A01	PASS
			HTLV	A01	PASS
			LTHV	A01	PASS
			LTLV	A01	PASS
4.2.3	Transmitter Spectrum Emission Mask	1.4MHz 5MHz 10MHz	NTC	A01	PASS
4.2.11	Transmitter Adjacent Channel Leakage Power Ratio	1.4MHz 5MHz 10MHz	NTC	A01	PASS
			HTHV	A01	PASS
			HTLV	A01	PASS
			LTHV	A01	PASS
			LTLV	A01	PASS
4.2.4	Transmitter Spurious Emissions	1.4MHz 5MHz 10MHz	NTC	A01	PASS

4.2.6	Receiver Adjacent Channel	1.4MHz 5MHz 10MHz	NTC	A01	PASS
4.2.7	Receiver Blocking Characteristics	1.4MHz 5MHz 10MHz	In band	A01	PASS
	Receiver Blocking Characteristics		Out Band	A01	PASS
	Receiver Blocking Characteristics		Narrow Band	A01	PASS
4.2.8	Receiver Spurious Response	1.4MHz 5MHz 10MHz	NTC	A01	PASS
4.2.9	Receiver Intermodulation Characteristics	1.4MHz 5MHz 10MHz	NTC	A01	PASS
4.2.10	Receiver Spurious Emissions	10MHz	NTC	A01	PASS
4.2.12	Receiver Reference Sensitivity Level	1.4MHz 5MHz 10MHz	NTC	A01	PASS
Channel Bandwidths to be tested: lowest, 5 MHz and highest channel bandwidth Band 8: 1.4MHz/3MHz/5MHz/10MHz					

Teat case in ETSI	Description	Test Channel Bandwidths	condition	FDD Band 1		FDD Band 7		FDD Band 20		Remark
				Sample	Result	Sample	Result	Sample	Result	
4.2.2	Transmitter Maximum Output Power	5MHz 20MHz	NTC	A01	PASS	A01	PASS	A01	PASS	--
			HTHV	A01	PASS	A01	PASS	A01	PASS	--
			HTLV	A01	PASS	A01	PASS	A01	PASS	--
			LTHV	A01	PASS	A01	PASS	A01	PASS	--
			LTLV	A01	PASS	A01	PASS	A01	PASS	--
4.2.5	Transmitter Minimum Output Power	5MHz 20MHz	NTC	A01	PASS	A01	PASS	A01	PASS	--
			HTHV	A01	PASS	A01	PASS	A01	PASS	--
			HTLV	A01	PASS	A01	PASS	A01	PASS	--
			LTHV	A01	PASS	A01	PASS	A01	PASS	--
			LTLV	A01	PASS	A01	PASS	A01	PASS	--
4.2.3	Transmitter Spectrum Emission Mask	5MHz 10MHz 20MHz	NTC	A01	PASS	A01	PASS	A01	PASS	--
4.2.11	Transmitter Adjacent Channel Leakage Power Ratio	5MHz 10MHz 20MHz	NTC	A01	PASS	A01	PASS	A01	PASS	--
			HTHV	A01	PASS	A01	PASS	A01	PASS	--
			HTLV	A01	PASS	A01	PASS	A01	PASS	--
			LTHV	A01	PASS	A01	PASS	A01	PASS	--
			LTLV	A01	PASS	A01	PASS	A01	PASS	--
4.2.4	Transmitter Spurious Emissions	5MHz 20MHz	NTC	A01	PASS	A01	PASS	A01	PASS	--

4.2.6	Receiver Adjacent Channel	5MHz 20MHz	NTC	A01	PASS	A01	PASS	A01	PASS	--
4.2.7	Receiver Blocking Characteristics	5MHz 20MHz	In band	A01	PASS	A01	PASS	A01	PASS	--
	Receiver Blocking Characteristics		Out Band	A01	PASS	A01	PASS	A01	PASS	--
	Receiver Blocking Characteristics		Narrow Band	A01	PASS	A01	PASS	A01	PASS	--
4.2.8	Receiver Spurious Response	5MHz 20MHz	NTC	A01	PASS	A01	PASS	A01	PASS	--
4.2.9	Receiver Intermodulation Characteristics	5MHz 20MHz	NTC	A01	PASS	A01	PASS	A01	PASS	--
4.2.10	Receiver Spurious Emissions	20MHz	NTC	A01	PASS	A01	PASS	A01	PASS	--
4.2.12	Receiver Reference Sensitivity Level	5MHz 20MHz	NTC	A01	PASS	A01	PASS	A01	PASS	--
Channel Bandwidths to be tested: lowest, 5 MHZ and highest channel 20MHz bandwidth.										

Note：1.Test reports have put the diversity antenna coupled together by the power divider test.
2. The test result is SIM Card 1 (only SIM Card 1 support LTE) and recorded in the test report.

Appendix A for Band 1

1. Transmitter Maximum Output Power

Note: All test modes were carried out for all operation modes and record the worst test mode (LTE BAND 1 TNVN) of fellow

Test Result

NTNV

Channel Bandwidth=Lowest (5 MHz)

Channel Bandwidth=Lowest (5 MHz)							
Condition	Modulation	Channel Bandwidth	Channel	RB allocation		Average Power (dBm)	Verdict
				RB Size	RB Offset		
Normal	QPSK	5 MHz	Low range	1	0	24.20	Pass
					max	24.61	Pass
				Partial	0	24.05	Pass
					max	24.55	Pass
			Mid range	1	0	24.56	Pass
					max	24.49	Pass
				Partial	0	24.57	Pass
					max	24.58	Pass
			High range	1	0	24.45	Pass
					max	24.49	Pass
				Partial	0	24.51	Pass
					max	24.52	Pass

Channel Bandwidth=Highest (20 MHz)

Channel Bandwidth=Highest (20 MHz)							
Condition	Modulation	Channel Bandwidth	Channel	RB allocation		Average Power (dBm)	Verdict
				RB Size	RB Offset		
Normal	QPSK	20 MHz	Low range	1	0	24.06	Pass
					max	24.37	Pass
				Partial	0	24.28	Pass
					max	24.33	Pass
			Mid range	1	0	24.38	Pass
					max	23.99	Pass
				Partial	0	24.01	Pass
					max	23.93	Pass
			High range	1	0	23.74	Pass
					max	23.68	Pass
				Partial	0	23.96	Pass
					max	23.85	Pass

2. Transmitter Minimum Output Power

Note: All test modes were carried out for all operation modes and record the worst test mode (LTE BAND 1 TNVN) of fellow

Test Result

NTNV

Channel Bandwidth=Lowest (5 MHz)

Channel Bandwidth=Lowest (5 MHz)							
Condition	Modulation	Channel Bandwidth	Channel	RB allocation		Average Power (dBm)	Verdict
				RB Size	RB Offset		
Normal	QPSK	5 MHz	Low range	Full	0	-48.31	Pass
			Mid range	Full	0	-49.91	Pass
			High range	Full	0	-50.00	Pass

Channel Bandwidth=Highest (20 MHz)

Channel Bandwidth=Highest (20 MHz)							
Condition	Modulation	Channel Bandwidth	Channel	RB allocation		Average Power (dBm)	Verdict
				RB Size	RB Offset		
Normal	QPSK	20MHz	Low range	Full	0	-49.24	Pass
			Mid range	Full	0	-49.48	Pass
			High range	Full	0	-49.56	Pass

3. Transmitter Spectrum Emission Mask

Test Result

NTNV

Channel Bandwidth=Lowest (5 MHz)

Channel Bandwidth=Lowest (5 MHz)							
Condition	Modulation	Channel Bandwidth	Channel	RB allocation		UE output power	Verdict
				RB Size	RB Offset		
Normal	QPSK	5 MHz	Low range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			Mid range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			High range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
	16QAM		Low range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			Mid range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			High range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass

Channel Bandwidth= (10 MHz)

Channel Bandwidth= (10 MHz)							
Condition	Modulation	Channel Bandwidth	Channel	RB allocation		UE output power	Verdict
				RB Size	RB Offset		
Normal	QPSK	10 MHz	Low range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			Mid range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			High range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
	16QAM		Low range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass

			Mid range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			High range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass

Channel Bandwidth=Highest (20 MHz)

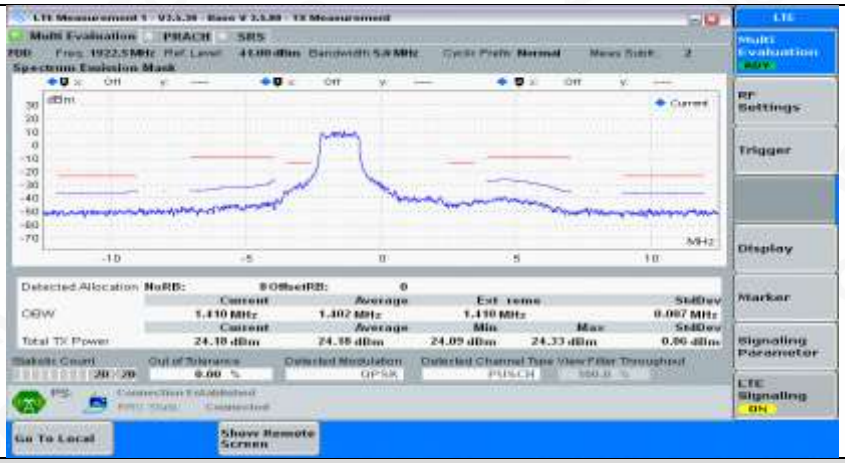
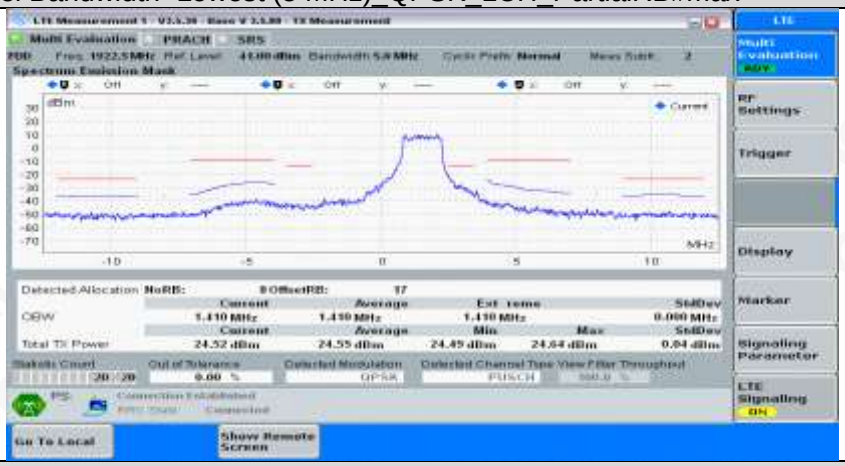
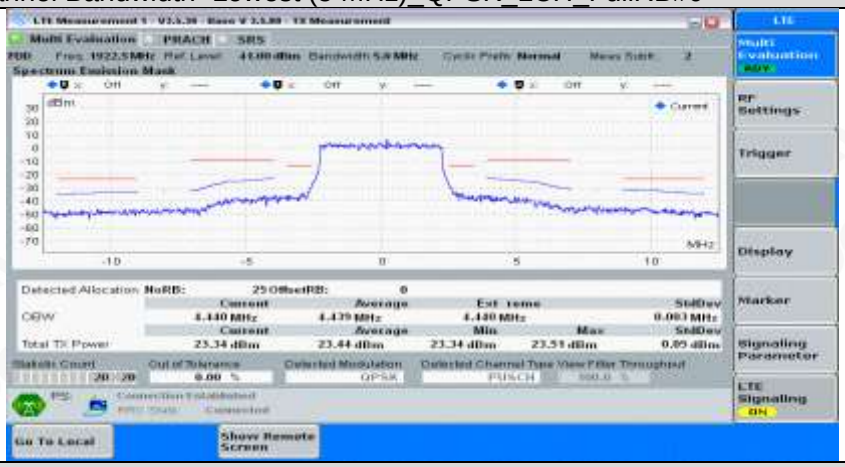
Channel Bandwidth=Highest (20 MHz)							
Condition	Modulation	Channel Bandwidth	Channel	RB allocation		UE output power	Verdict
				RB Size	RB Offset		
Normal	QPSK	20 MHz	Low range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			Mid range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			High range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
	16QAM		Low range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			Mid range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			High range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass

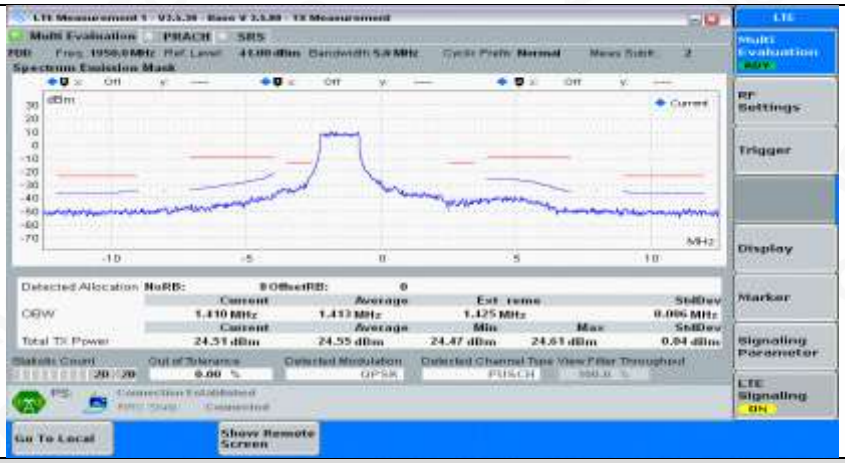
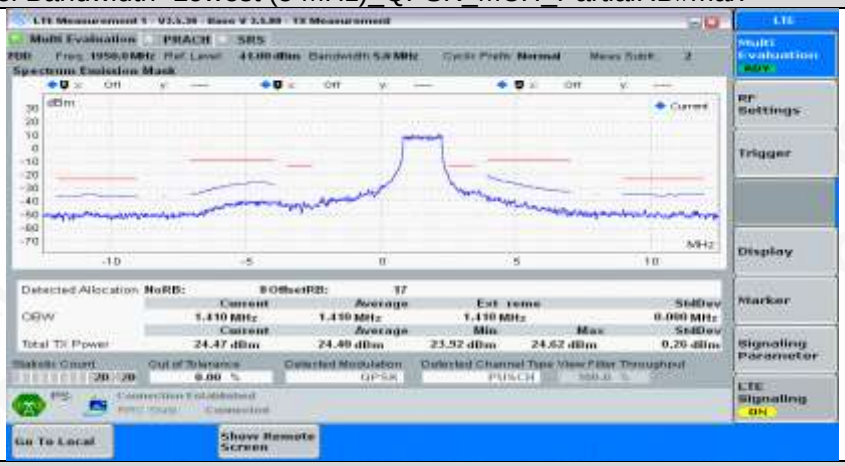
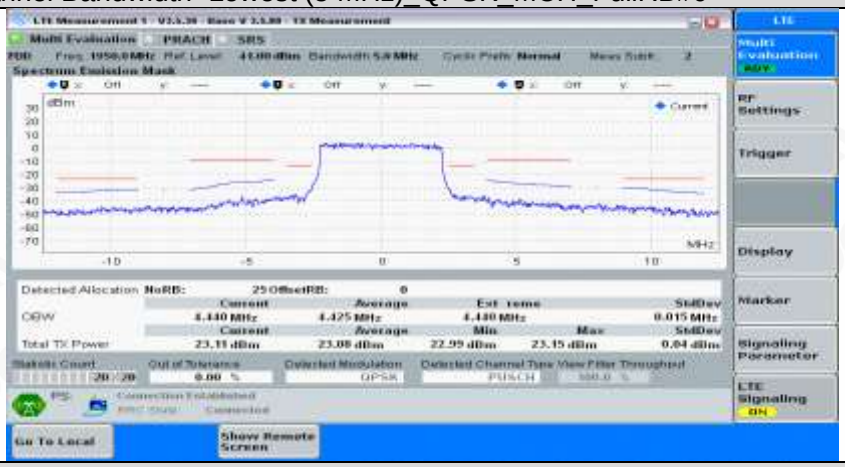
Test Graphs

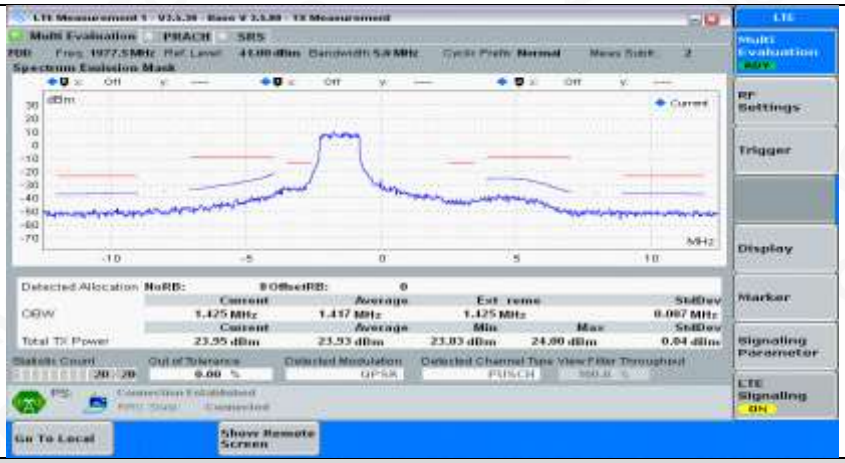
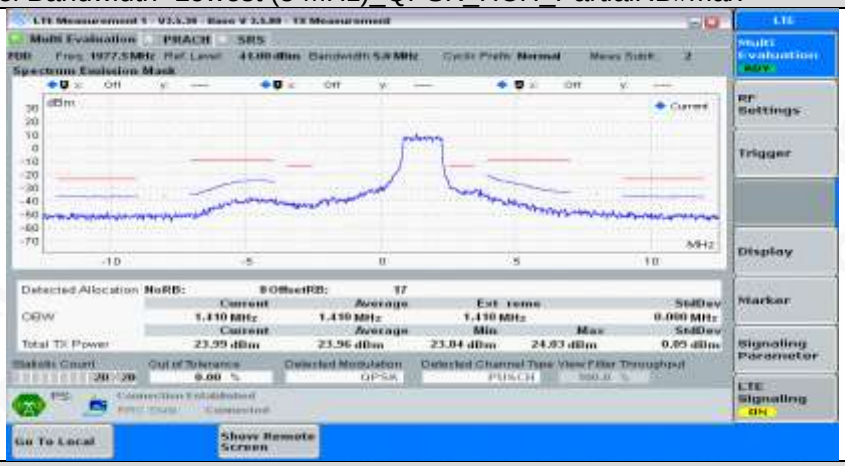
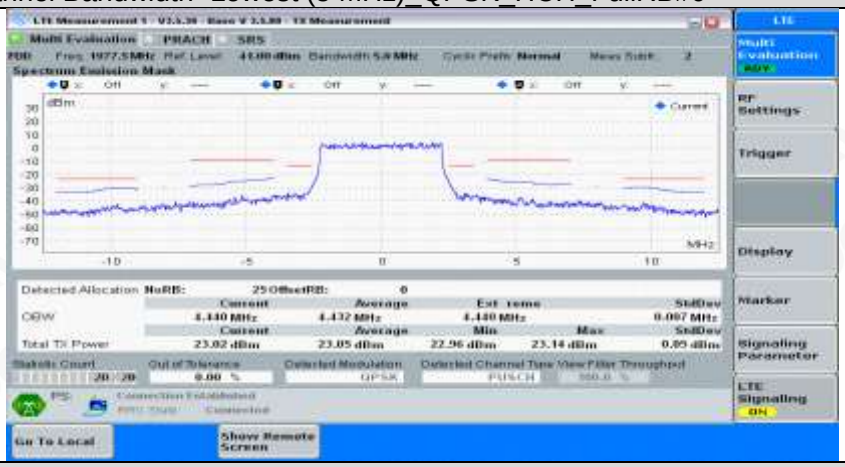
NTNV

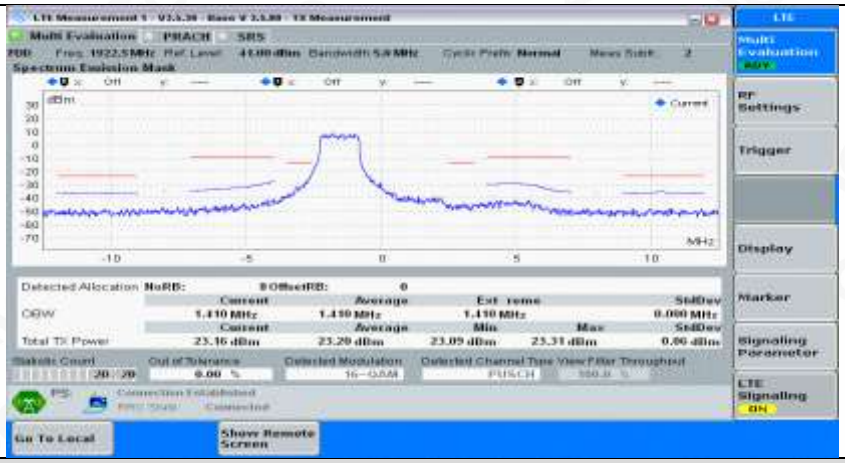
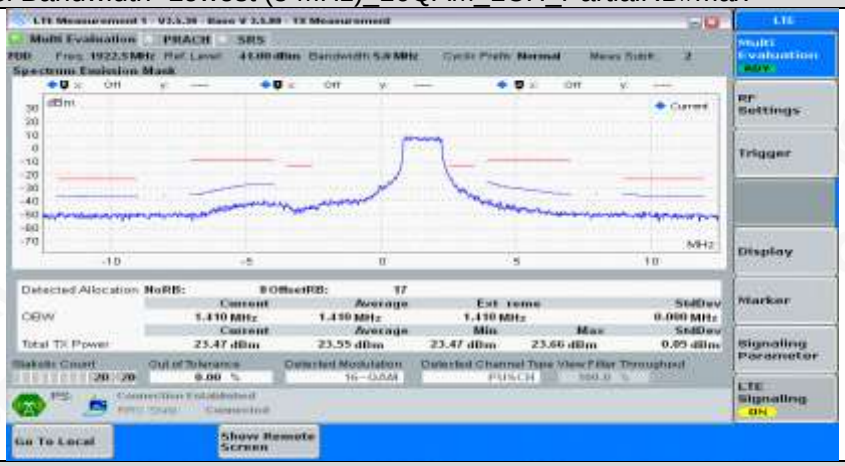
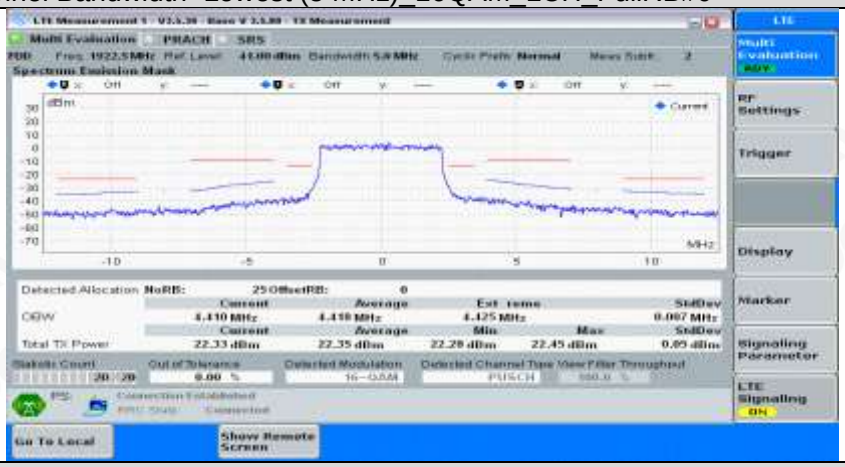
Channel Bandwidth=Lowest (5 MHz)

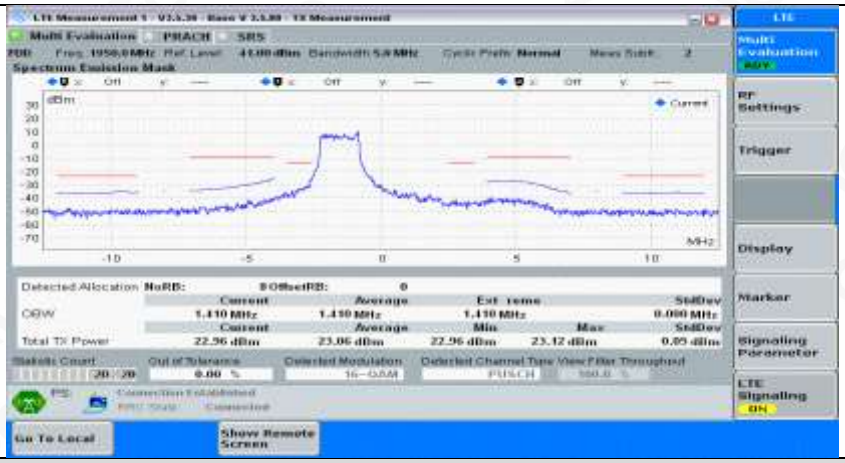
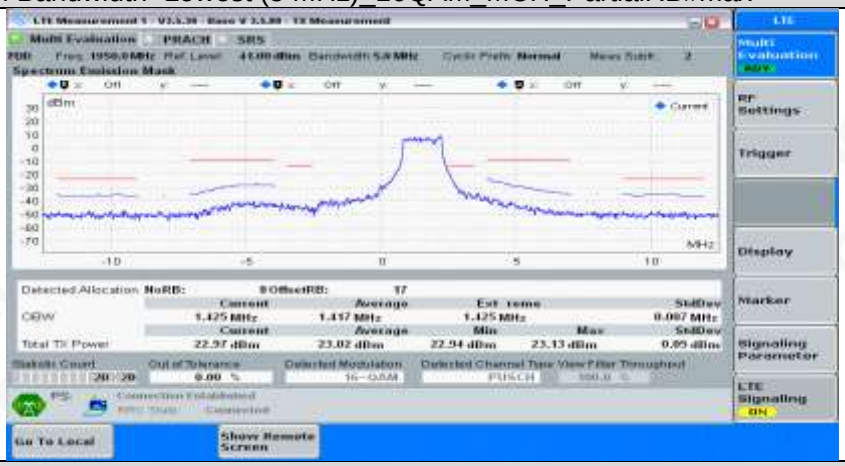
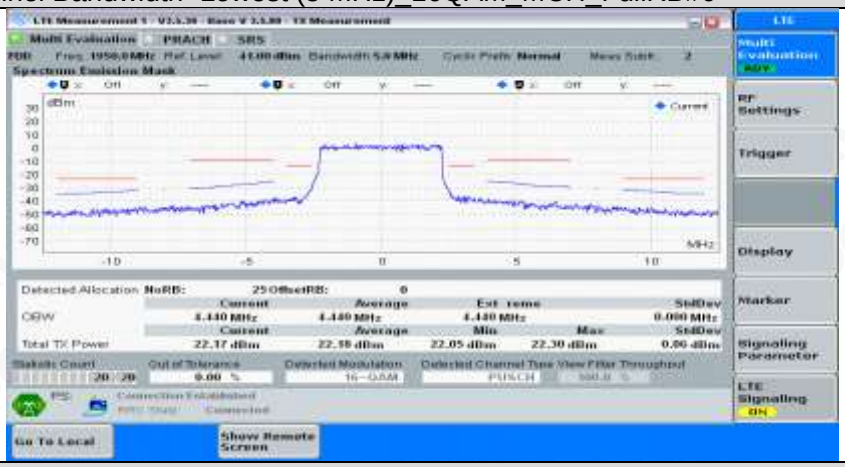
Channel Bandwidth=Lowest (5 MHz)_QPSK_LCH_PartialRB#0

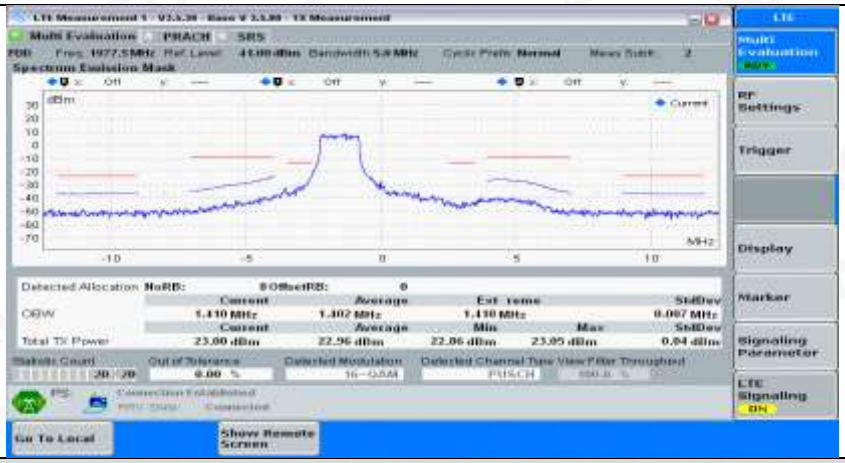
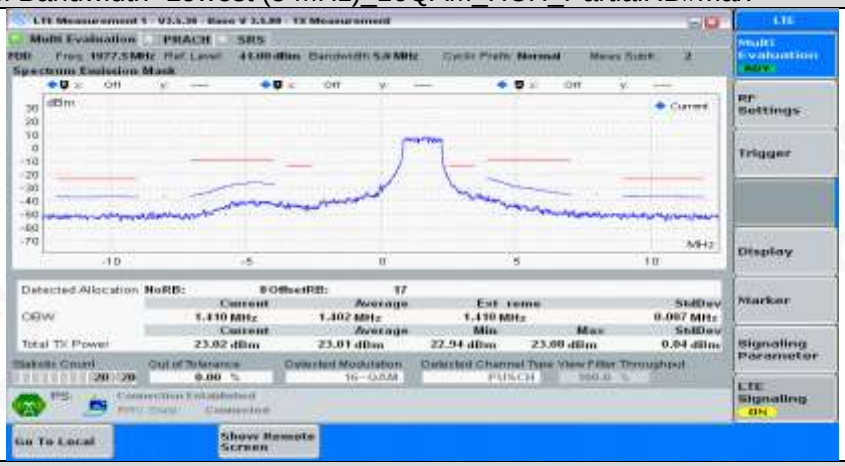
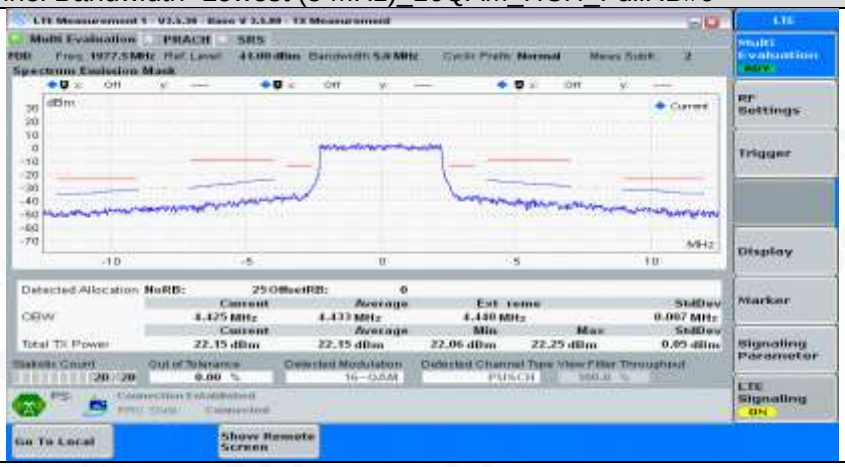
QPSK		
Channel Bandwidth=Lowest (5 MHz)_QPSK_LCH_PartialRB#max		
QPSK		
Channel Bandwidth=Lowest (5 MHz)_QPSK_LCH_FullRB#0		
QPSK		
Channel Bandwidth=Lowest (5 MHz)_QPSK_MCH_PartialRB#0		

QPSK		
Channel Bandwidth=Lowest (5 MHz)_QPSK_MCH_PartialRB#max		
QPSK		
Channel Bandwidth=Lowest (5 MHz)_QPSK_MCH_FullRB#0		
QPSK		
Channel Bandwidth=Lowest (5 MHz)_QPSK_HCH_PartialRB#0		

QPSK		
Channel Bandwidth=Lowest (5 MHz)_QPSK_HCH_PartialRB#max		
QPSK		
Channel Bandwidth=Lowest (5 MHz)_QPSK_HCH_FullRB#0		
QPSK		
Channel Bandwidth=Lowest (5 MHz)_16QAM_LCH_PartialRB#0		

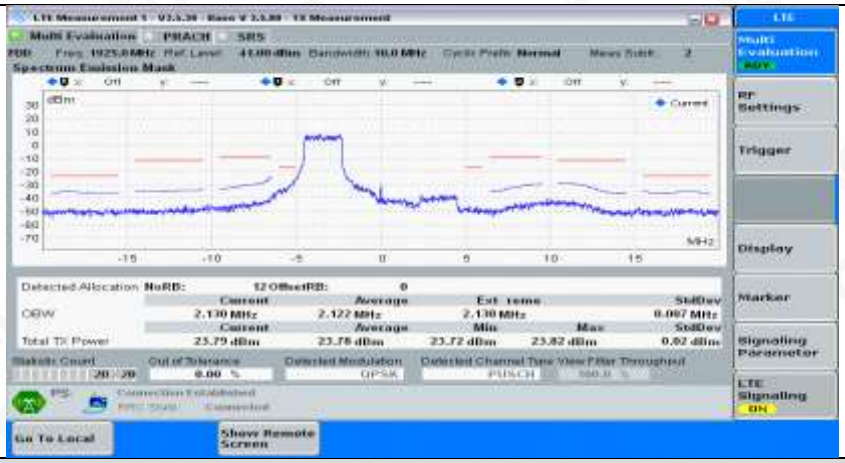
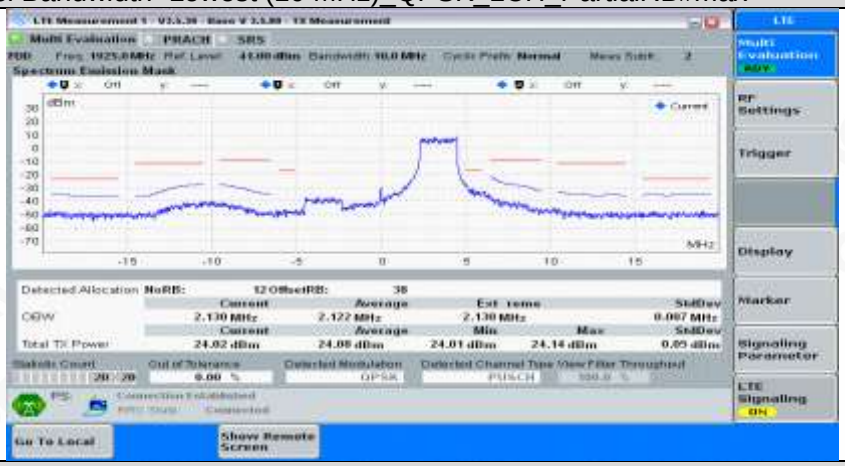
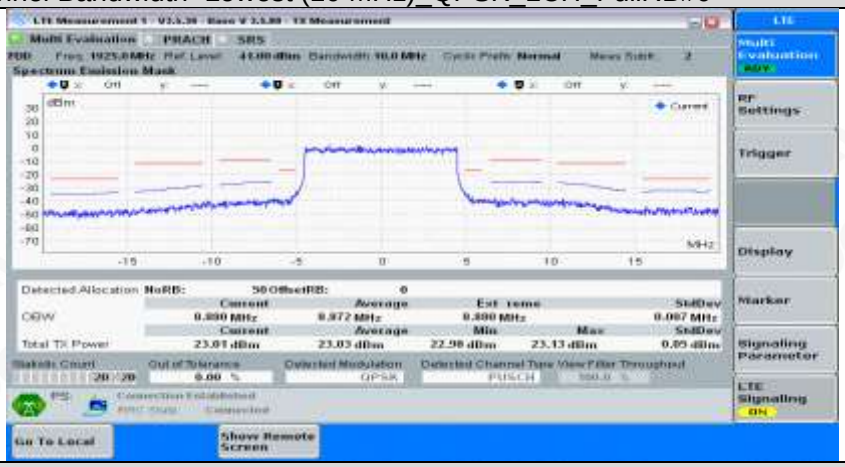
16QAM	
Channel Bandwidth=Lowest (5 MHz)_16QAM_LCH_PartialRB#max	
16QAM	
Channel Bandwidth=Lowest (5 MHz)_16QAM_LCH_FullRB#0	
16QAM	
Channel Bandwidth=Lowest (5 MHz)_16QAM_MCH_PartialRB#0	

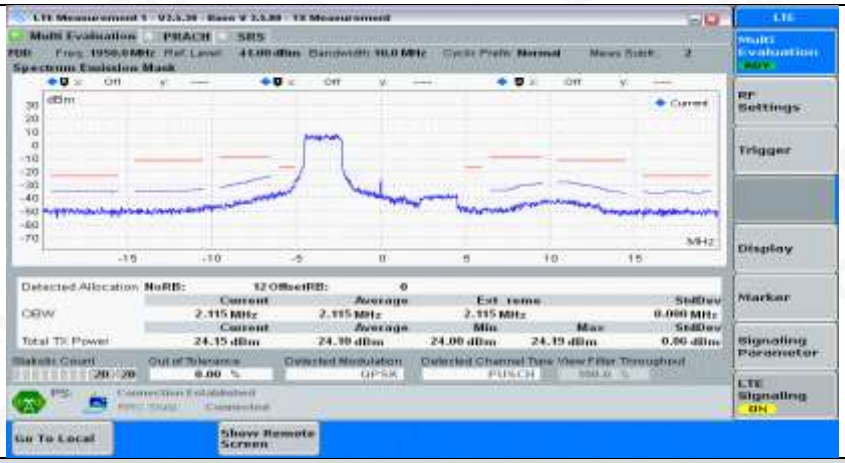
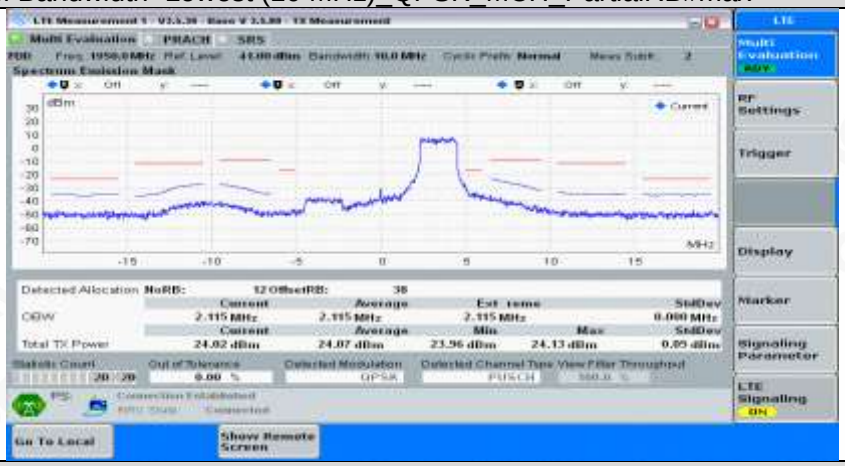
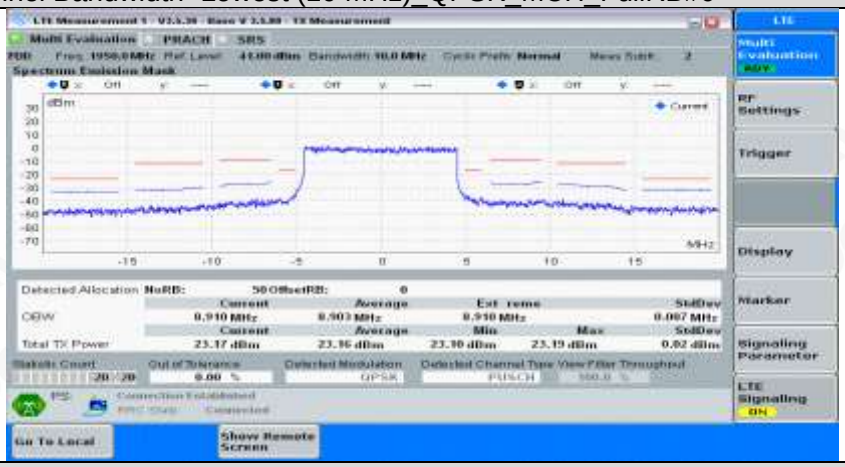
16QAM	
Channel Bandwidth=Lowest (5 MHz)_16QAM_MCH_PartialRB#max	
16QAM	
Channel Bandwidth=Lowest (5 MHz)_16QAM_MCH_FullRB#0	
16QAM	
Channel Bandwidth=Lowest (5 MHz)_16QAM_HCH_PartialRB#0	

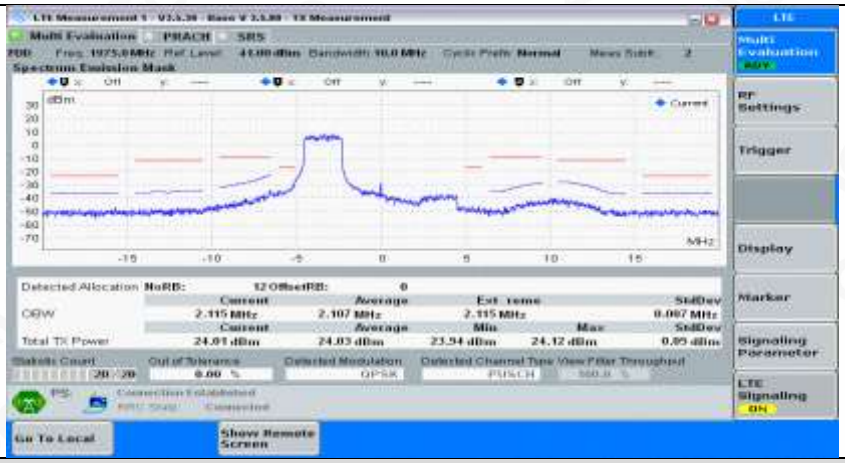
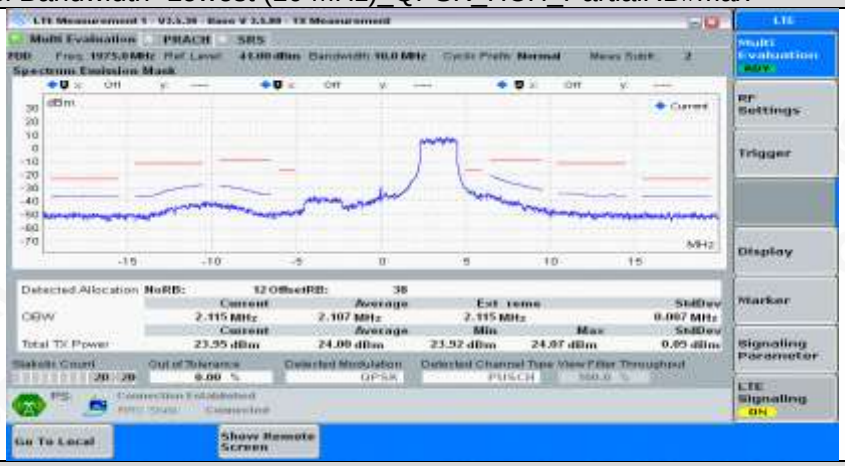
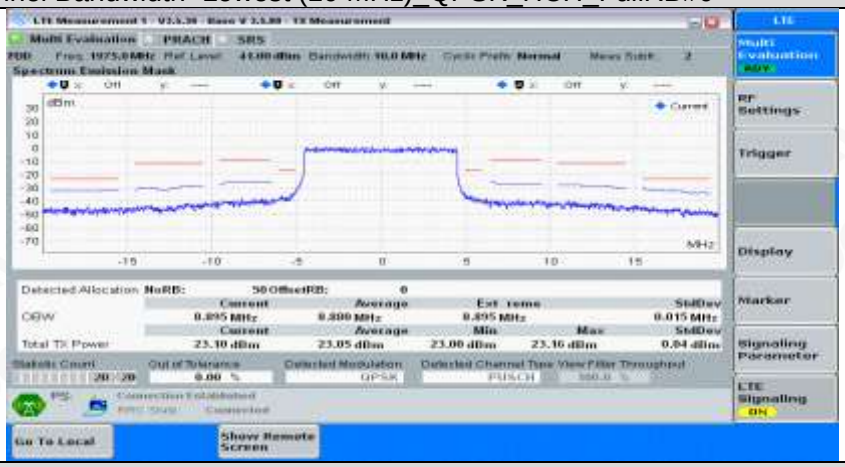
16QAM		
Channel Bandwidth=Lowest (5 MHz)_16QAM_HCH_PartialRB#max		
16QAM		
Channel Bandwidth=Lowest (5 MHz)_16QAM_HCH_FullRB#0		
16QAM		

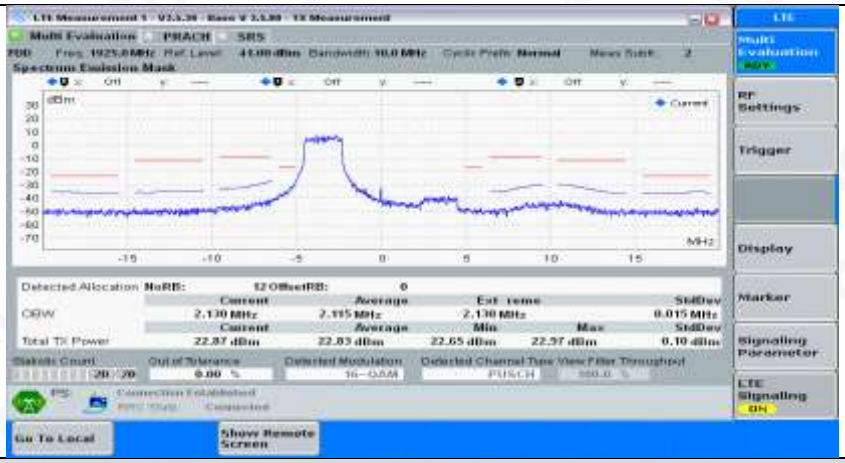
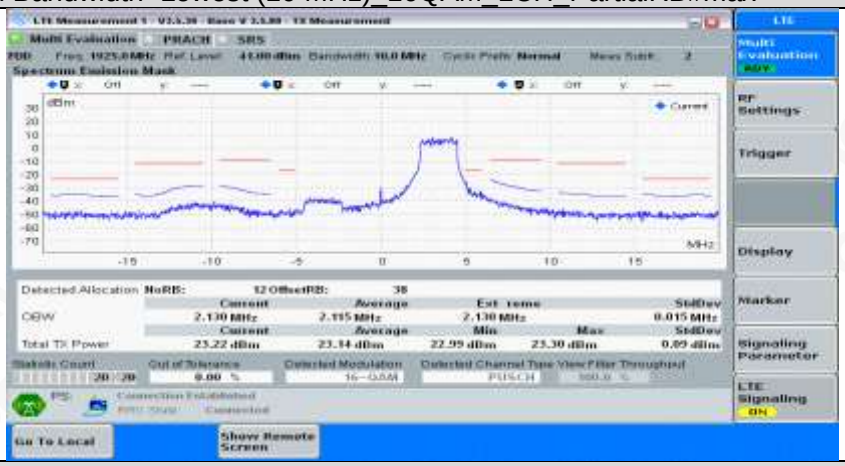
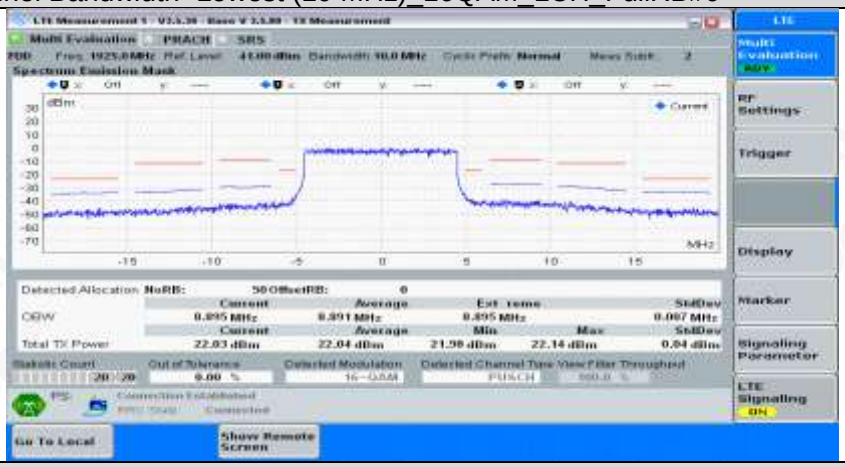
Channel Bandwidth= (10 MHz)

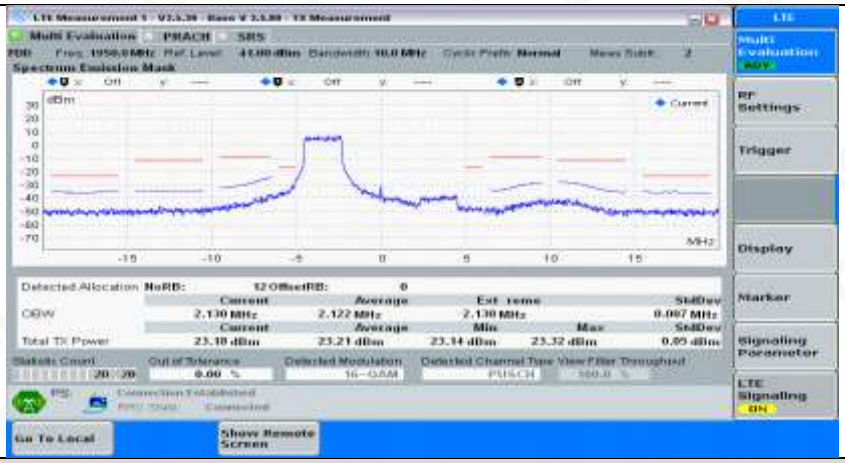
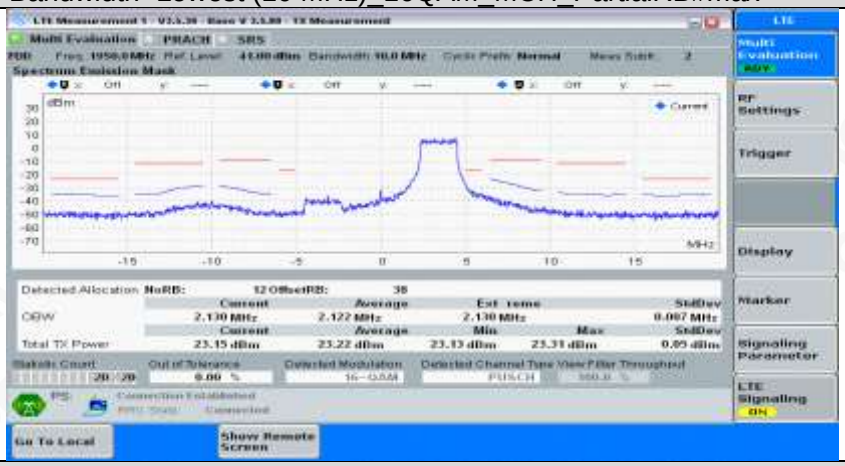
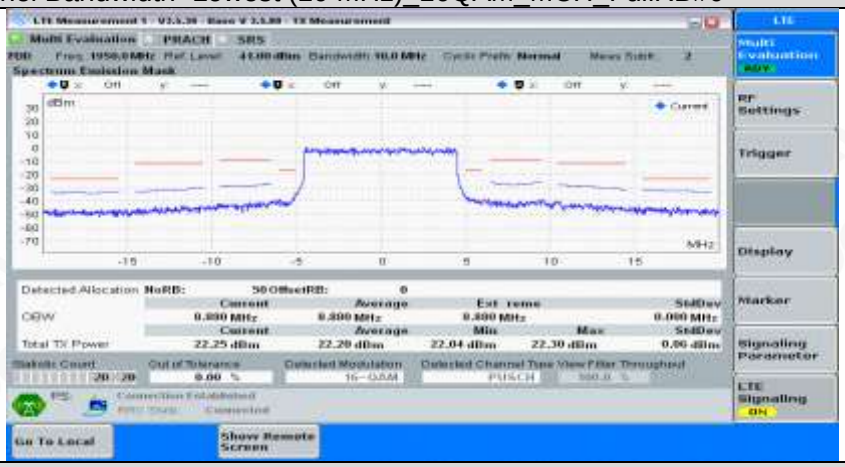
Channel Bandwidth=Lowest (10 MHz)_QPSK_LCH_PartialRB#0

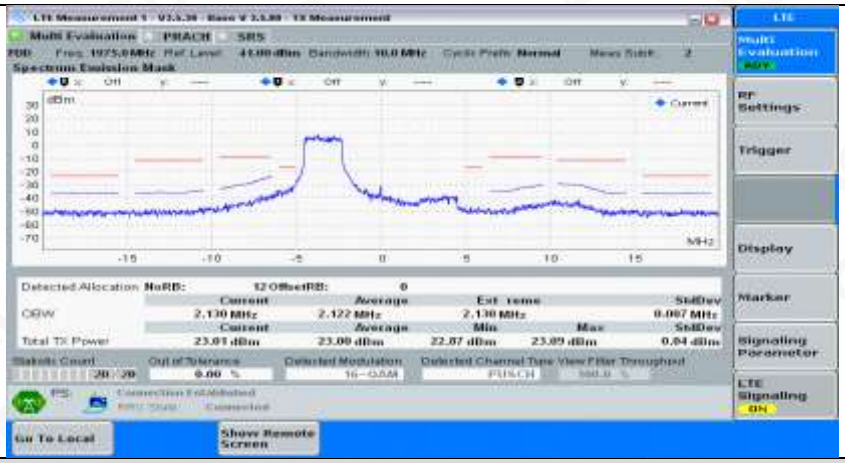
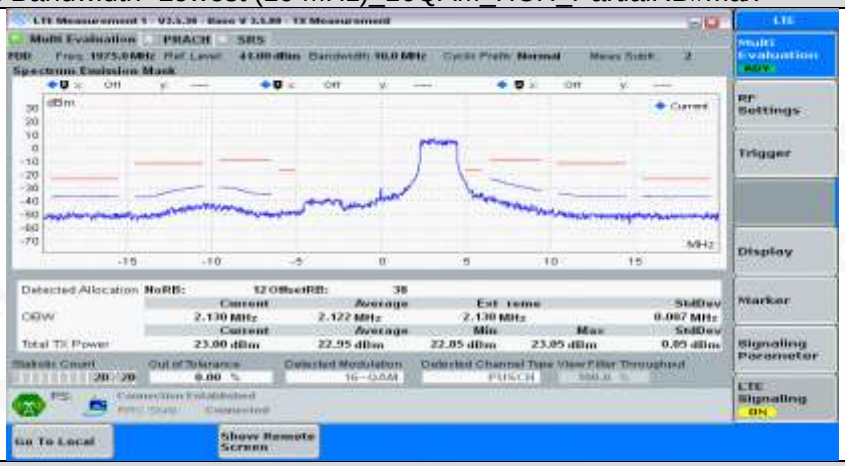
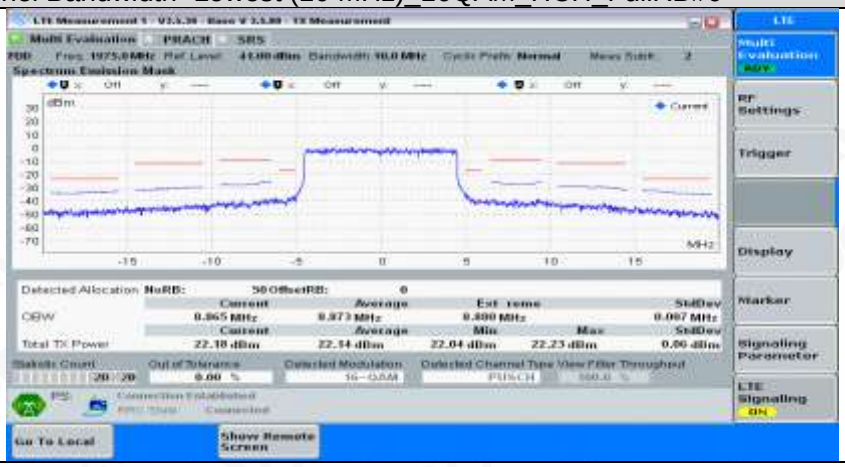
QPSK	
Channel Bandwidth=Lowest (10 MHz)_QPSK_LCH_PartialRB#max	
QPSK	
Channel Bandwidth=Lowest (10 MHz)_QPSK_LCH_FullRB#0	
QPSK	
Channel Bandwidth=Lowest (10 MHz)_QPSK_MCH_PartialRB#0	

QPSK		
Channel Bandwidth=Lowest (10 MHz)_QPSK_MCH_PartialRB#max		
QPSK		
Channel Bandwidth=Lowest (10 MHz)_QPSK_MCH_FullRB#0		
QPSK		
Channel Bandwidth=Lowest (10 MHz)_QPSK_HCH_PartialRB#0		

QPSK		
Channel Bandwidth=Lowest (10 MHz)_QPSK_HCH_PartialRB#max		
QPSK		
Channel Bandwidth=Lowest (10 MHz)_QPSK_HCH_FullRB#0		
QPSK		
Channel Bandwidth=Lowest (10 MHz)_16QAM_LCH_PartialRB#0		

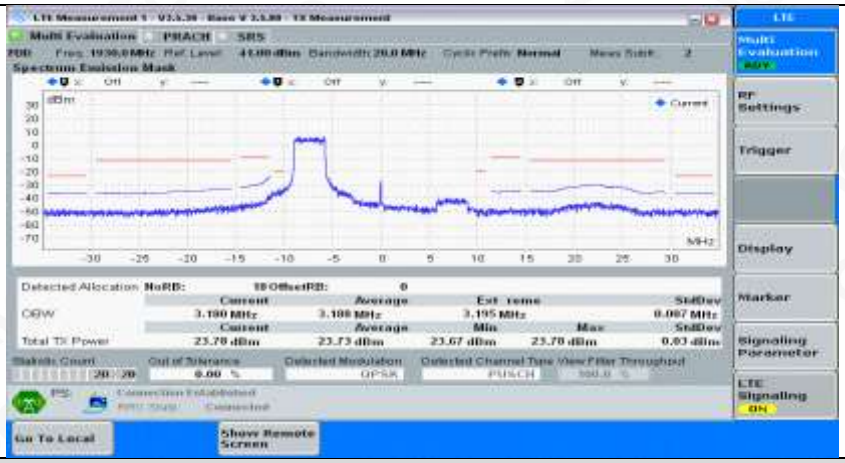
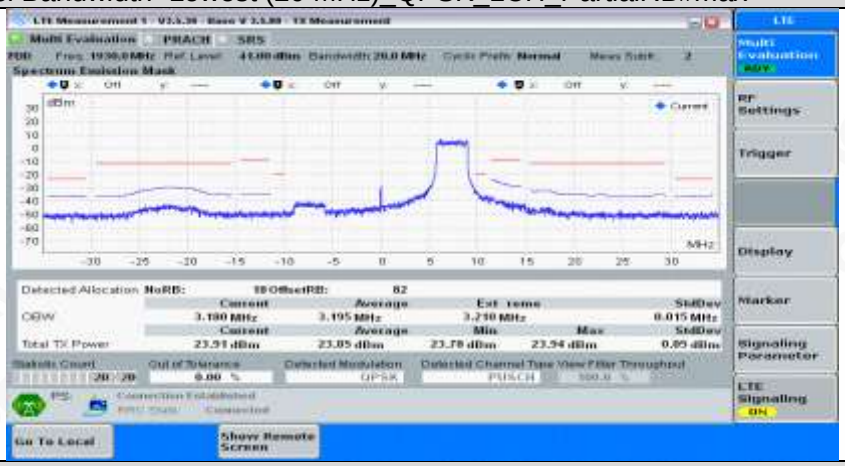
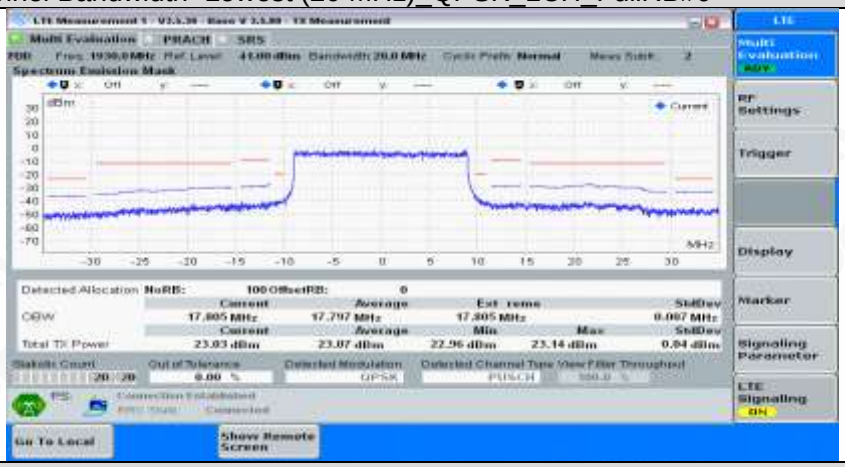
16QAM		
Channel Bandwidth=Lowest (10 MHz)_16QAM_LCH_PartialRB#max		
16QAM		
Channel Bandwidth=Lowest (10 MHz)_16QAM_LCH_FullRB#0		
16QAM		
Channel Bandwidth=Lowest (10 MHz)_16QAM_MCH_PartialRB#0		

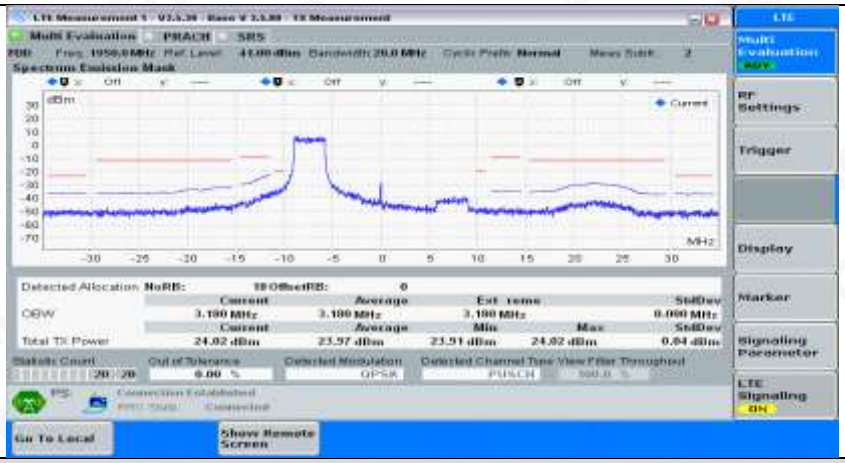
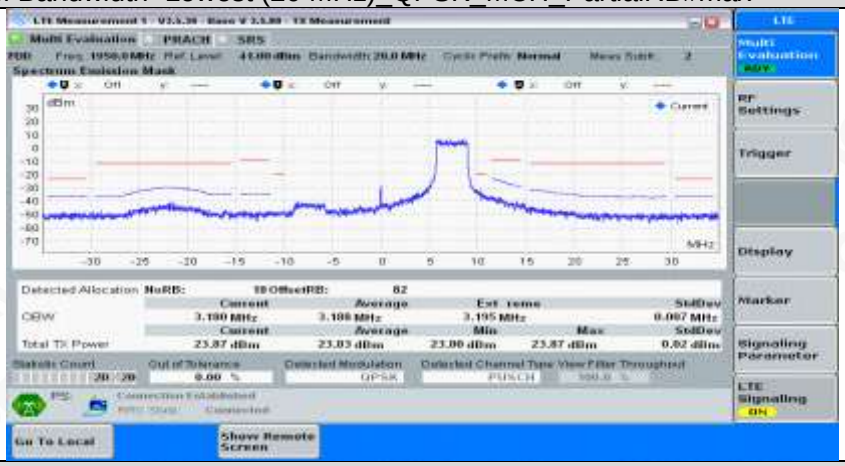
16QAM	
Channel Bandwidth=Lowest (10 MHz)_16QAM_MCH_PartialRB#max	
16QAM	
Channel Bandwidth=Lowest (10 MHz)_16QAM_MCH_FullRB#0	
16QAM	
Channel Bandwidth=Lowest (10 MHz)_16QAM_HCH_PartialRB#0	

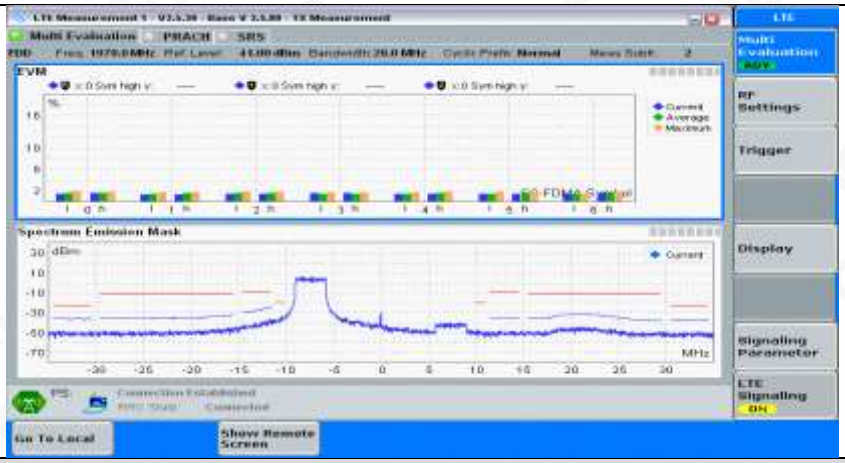
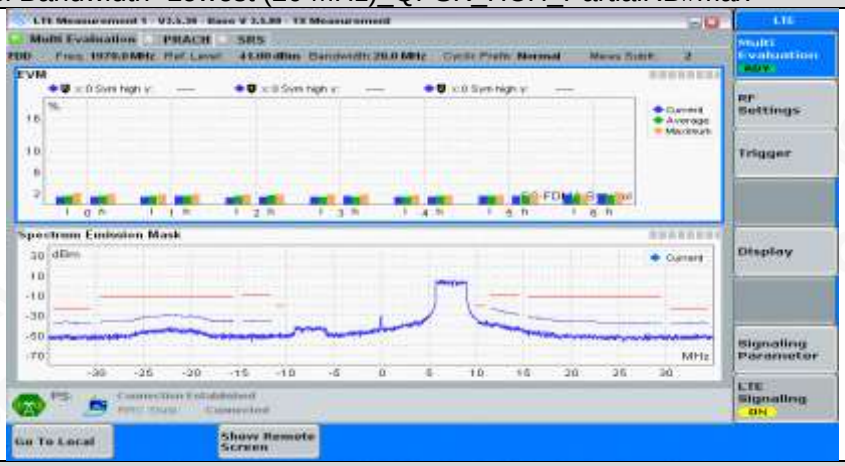
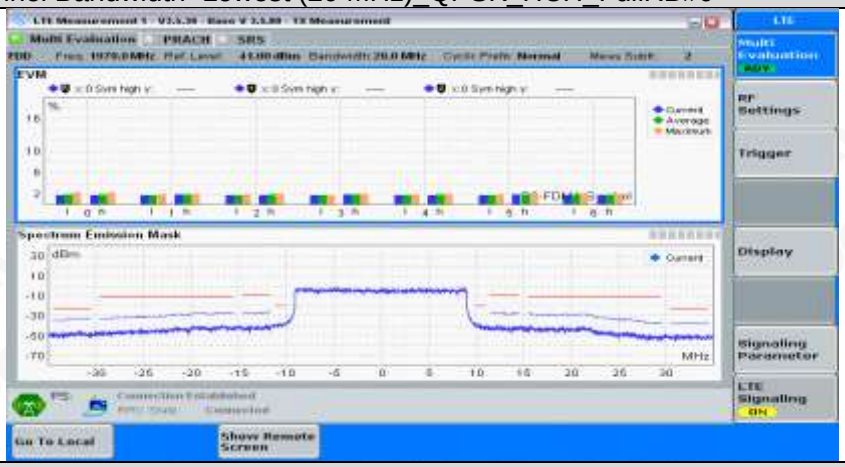
16QAM		
Channel Bandwidth=Lowest (10 MHz)_16QAM_HCH_PartialRB#max		
16QAM		
Channel Bandwidth=Lowest (10 MHz)_16QAM_HCH_FullRB#0		
16QAM		

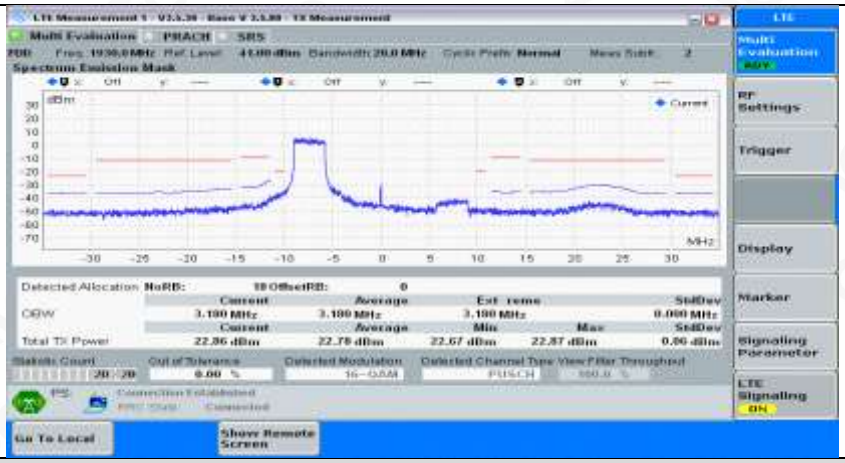
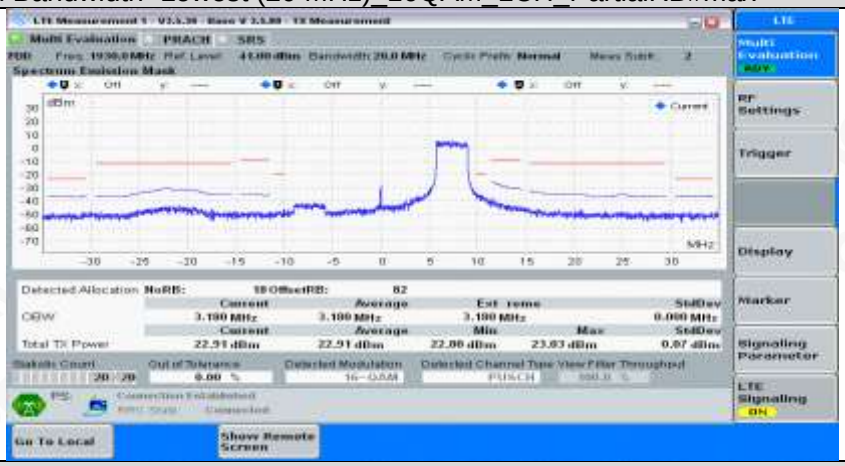
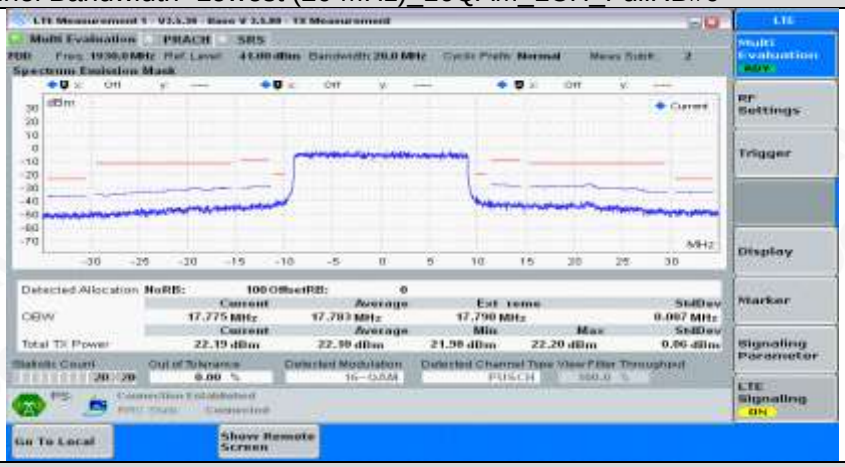
Channel Bandwidth=Highest (20 MHz)

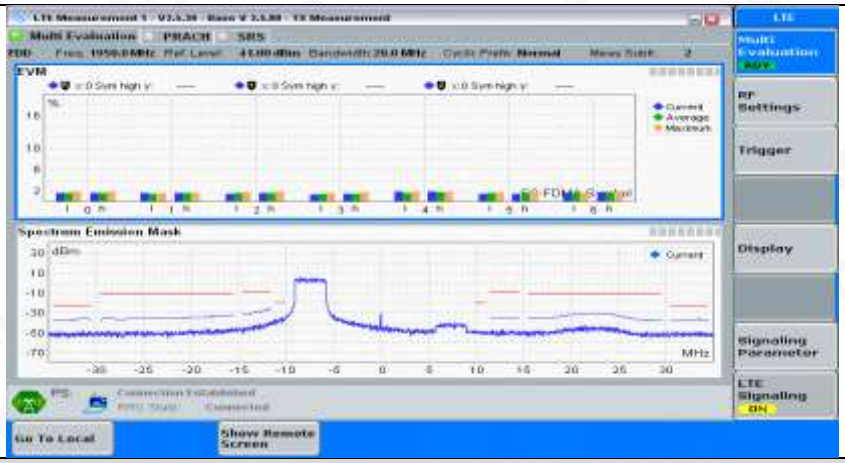
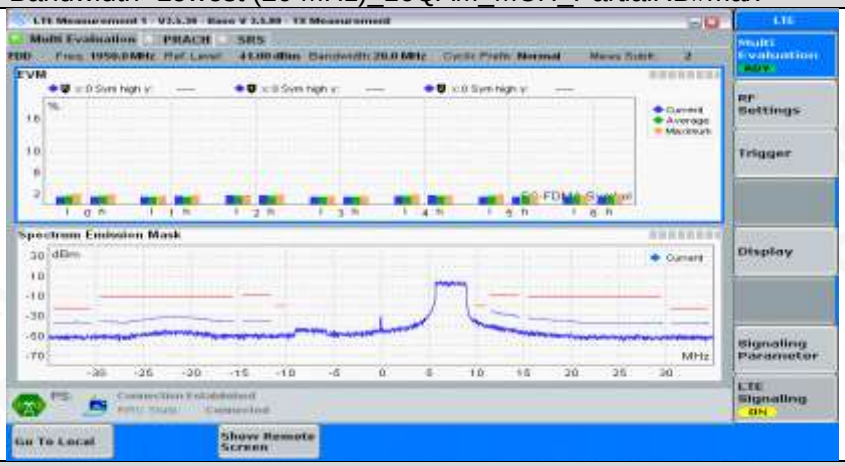
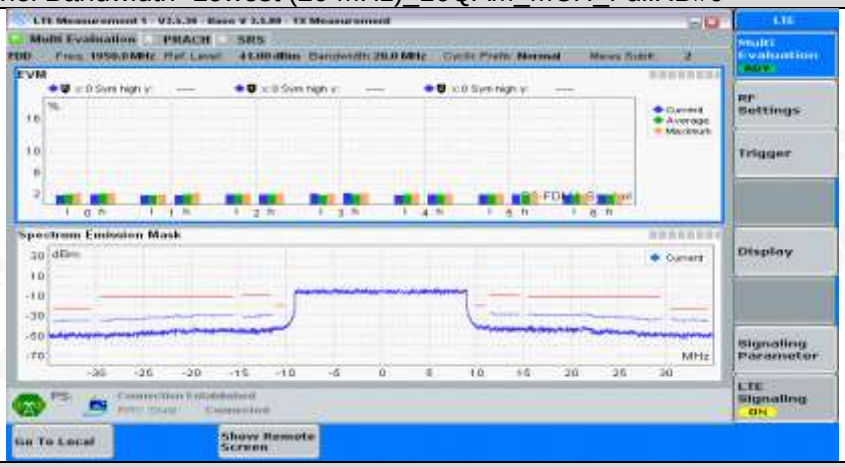
Channel Bandwidth=Lowest (20 MHz)_QPSK_LCH_PartialRB#0

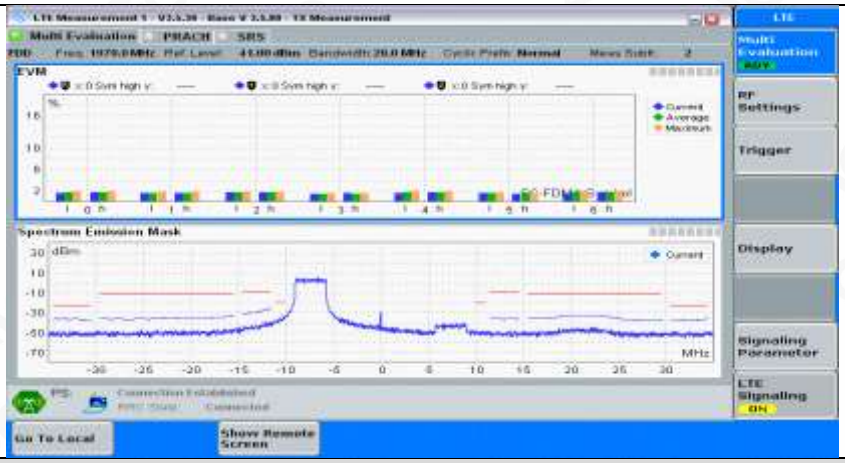
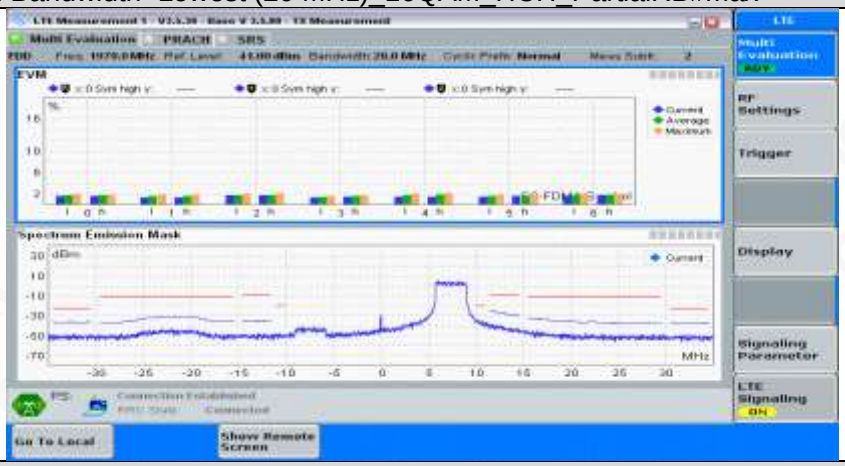
QPSK	
Channel Bandwidth=Lowest (20 MHz)_QPSK_LCH_PartialRB#max	
QPSK	
Channel Bandwidth=Lowest (20 MHz)_QPSK_LCH_FullRB#0	
QPSK	
Channel Bandwidth=Lowest (20 MHz)_QPSK_MCH_PartialRB#0	

QPSK		
Channel Bandwidth=Lowest (20 MHz)_QPSK_MCH_PartialRB#max		
QPSK		
Channel Bandwidth=Lowest (20 MHz)_QPSK_MCH_FullRB#0		
QPSK		
Channel Bandwidth=Lowest (20 MHz)_QPSK_HCH_PartialRB#0		

QPSK	
Channel Bandwidth=Lowest (20 MHz)_QPSK_HCH_PartialRB#max	
QPSK	
Channel Bandwidth=Lowest (20 MHz)_QPSK_HCH_FullRB#0	
QPSK	
Channel Bandwidth=Lowest (20 MHz)_16QAM_LCH_PartialRB#0	

16QAM		
Channel Bandwidth=Lowest (20 MHz)_16QAM_LCH_PartialRB#max		
16QAM		
Channel Bandwidth=Lowest (20 MHz)_16QAM_LCH_FullRB#0		
16QAM		
Channel Bandwidth=Lowest (20 MHz)_16QAM_MCH_PartialRB#0		

16QAM	
Channel Bandwidth=Lowest (20 MHz)_16QAM_MCH_PartialRB#max	
16QAM	
Channel Bandwidth=Lowest (20 MHz)_16QAM_MCH_FullRB#0	
16QAM	
Channel Bandwidth=Lowest (20 MHz)_16QAM_HCH_PartialRB#0	

16QAM		
Channel Bandwidth=Lowest (20 MHz)_16QAM_HCH_PartialRB#max		
16QAM		
Channel Bandwidth=Lowest (20 MHz)_16QAM_HCH_FullRB#0		
16QAM		

4. Transmitter Adjacent Channel Leakage Power Ratio(ACLR)

Test Result

NTNV

Channel Bandwidth=Lowest (5 MHz)

Channel Bandwidth=Lowest (5 MHz)							
Condition	Modulation	Channel Bandwidth	Channel	RB allocation		UE output power	Verdict
				RB Size	RB Offset		
Normal	QPSK	5 MHz	Low range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			Mid range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			High range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
	16QAM		Low range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			Mid range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			High range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass

Channel Bandwidth= (10 MHz)

Channel Bandwidth= (10 MHz)							
Condition	Modulation	Channel Bandwidth	Channel	RB allocation		UE output power	Verdict
				RB Size	RB Offset		
Normal	QPSK	10 MHz	Low range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			Mid range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			High range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
	16QAM		Low range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass

			Mid range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			High range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass

Channel Bandwidth=Highest (20 MHz)

Channel Bandwidth=Highest (20 MHz)							
Condition	Modulation	Channel Bandwidth	Channel	RB allocation		UE output power	Verdict
				RB Size	RB Offset		
Normal	QPSK	20 MHz	Low range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			Mid range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			High range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
	16QAM		Low range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			Mid range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			High range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass

Test Graphs

NTNV

Channel Bandwidth=Lowest (5 MHz)

Channel Bandwidth=Lowest (5 MHz)_QPSK_LCH_PartialRB#0

QPSK	
Channel Bandwidth=Lowest (5 MHz)_QPSK_LCH_PartialRB#max	
QPSK	
Channel Bandwidth=Lowest (5 MHz)_QPSK_LCH_FullRB#0	
QPSK	
Channel Bandwidth=Lowest (5 MHz)_QPSK_MCH_PartialRB#0	

QPSK		
Channel Bandwidth=Lowest (5 MHz)_QPSK_MCH_PartialRB#max		
QPSK		
Channel Bandwidth=Lowest (5 MHz)_QPSK_MCH_FullRB#0		
QPSK		
Channel Bandwidth=Lowest (5 MHz)_QPSK_HCH_PartialRB#0		

QPSK	
Channel Bandwidth=Lowest (5 MHz)_QPSK_HCH_PartialRB#max	
QPSK	
Channel Bandwidth=Lowest (5 MHz)_QPSK_HCH_FullRB#0	
QPSK	
Channel Bandwidth=Lowest (5 MHz)_16QAM_LCH_PartialRB#0	

16QAM	
Channel Bandwidth=Lowest (5 MHz)_16QAM_LCH_PartialRB#max	
16QAM	
Channel Bandwidth=Lowest (5 MHz)_16QAM_LCH_FullRB#0	
16QAM	
Channel Bandwidth=Lowest (5 MHz)_16QAM_MCH_PartialRB#0	

16QAM	
Channel Bandwidth=Lowest (5 MHz)_16QAM_MCH_PartialRB#max	
16QAM	
Channel Bandwidth=Lowest (5 MHz)_16QAM_MCH_FullRB#0	
16QAM	
Channel Bandwidth=Lowest (5 MHz)_16QAM_HCH_PartialRB#0	

16QAM		
Channel Bandwidth=Lowest (5 MHz)_16QAM_HCH_PartialRB#max		
16QAM		
Channel Bandwidth=Lowest (5 MHz)_16QAM_HCH_FullRB#0		
16QAM		

Channel Bandwidth= (10 MHz)

Channel Bandwidth=Lowest (10 MHz)_QPSK_LCH_PartialRB#0

QPSK	
Channel Bandwidth=Lowest (10 MHz)_QPSK_LCH_PartialRB#max	
QPSK	
Channel Bandwidth=Lowest (10 MHz)_QPSK_LCH_FullRB#0	
QPSK	
Channel Bandwidth=Lowest (10 MHz)_QPSK_MCH_PartialRB#0	

QPSK	
Channel Bandwidth=Lowest (10 MHz)_QPSK_MCH_PartialRB#max	
QPSK	
Channel Bandwidth=Lowest (10 MHz)_QPSK_MCH_FullRB#0	
QPSK	
Channel Bandwidth=Lowest (10 MHz)_QPSK_HCH_PartialRB#0	

QPSK	
Channel Bandwidth=Lowest (10 MHz)_QPSK_HCH_PartialRB#max	
QPSK	
Channel Bandwidth=Lowest (10 MHz)_QPSK_HCH_FullRB#0	
QPSK	
Channel Bandwidth=Lowest (10 MHz)_16QAM_LCH_PartialRB#0	

16QAM		
Channel Bandwidth=Lowest (10 MHz)_16QAM_LCH_PartialRB#max		
16QAM		
Channel Bandwidth=Lowest (10 MHz)_16QAM_LCH_FullRB#0		
16QAM		
Channel Bandwidth=Lowest (10 MHz)_16QAM_MCH_PartialRB#0		

16QAM		
Channel Bandwidth=Lowest (10 MHz)_16QAM_MCH_PartialRB#max		
16QAM		
Channel Bandwidth=Lowest (10 MHz)_16QAM_MCH_FullRB#0		
16QAM		
Channel Bandwidth=Lowest (10 MHz)_16QAM_HCH_PartialRB#0		

16QAM		
Channel Bandwidth=Lowest (10 MHz)_16QAM_HCH_PartialRB#max		
16QAM		
Channel Bandwidth=Lowest (10 MHz)_16QAM_HCH_FullRB#0		
16QAM		

Channel Bandwidth=Highest (20 MHz)

Channel Bandwidth=Lowest (20 MHz)_QPSK_LCH_PartialRB#0

QPSK		
Channel Bandwidth=Lowest (20 MHz)_QPSK_LCH_PartialRB#max		
QPSK		
Channel Bandwidth=Lowest (20 MHz)_QPSK_LCH_FullRB#0		
QPSK		
Channel Bandwidth=Lowest (20 MHz)_QPSK_MCH_PartialRB#0		

QPSK		
Channel Bandwidth=Lowest (20 MHz)_QPSK_MCH_PartialRB#max		
QPSK		
Channel Bandwidth=Lowest (20 MHz)_QPSK_MCH_FullRB#0		
QPSK		
Channel Bandwidth=Lowest (20 MHz)_QPSK_HCH_PartialRB#0		

QPSK	
Channel Bandwidth=Lowest (20 MHz)_QPSK_HCH_PartialRB#max	
QPSK	
Channel Bandwidth=Lowest (20 MHz)_QPSK_HCH_FullRB#0	
QPSK	
Channel Bandwidth=Lowest (20 MHz)_16QAM_LCH_PartialRB#0	

16QAM	
Channel Bandwidth=Lowest (20 MHz)_16QAM_LCH_PartialRB#max	
16QAM	
Channel Bandwidth=Lowest (20 MHz)_16QAM_LCH_FullRB#0	
16QAM	
Channel Bandwidth=Lowest (20 MHz)_16QAM_MCH_PartialRB#0	

16QAM		
Channel Bandwidth=Lowest (20 MHz)_16QAM_MCH_PartialRB#max		
16QAM		
Channel Bandwidth=Lowest (20 MHz)_16QAM_MCH_FullRB#0		
16QAM		
Channel Bandwidth=Lowest (20 MHz)_16QAM_HCH_PartialRB#0		

16QAM		
Channel Bandwidth=Lowest (20 MHz)_16QAM_HCH_PartialRB#max		
16QAM		
Channel Bandwidth=Lowest (20 MHz)_16QAM_HCH_FullRB#0		
16QAM		

5. Transmitter Spurious Emissions

Test Result

NTNV

Channel Bandwidth=Lowest (5 MHz)

Channel Bandwidth=Lowest (5 MHz)							
Condition	Modulation	Channel Bandwidth	Channel	RB allocation		UE output power	Verdict
				RB Size	RB Offset		
Normal	QPSK	5 MHz	Low range	1	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			Mid range	1	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			High range	1	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass

Channel Bandwidth=Highest (20 MHz)

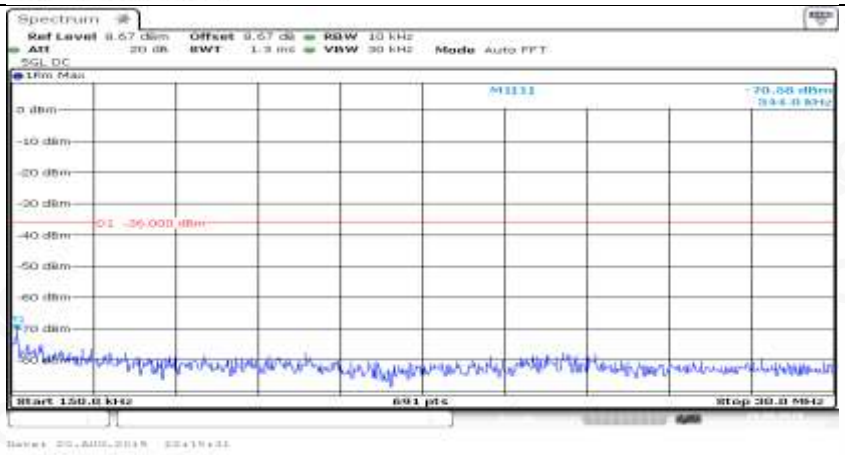
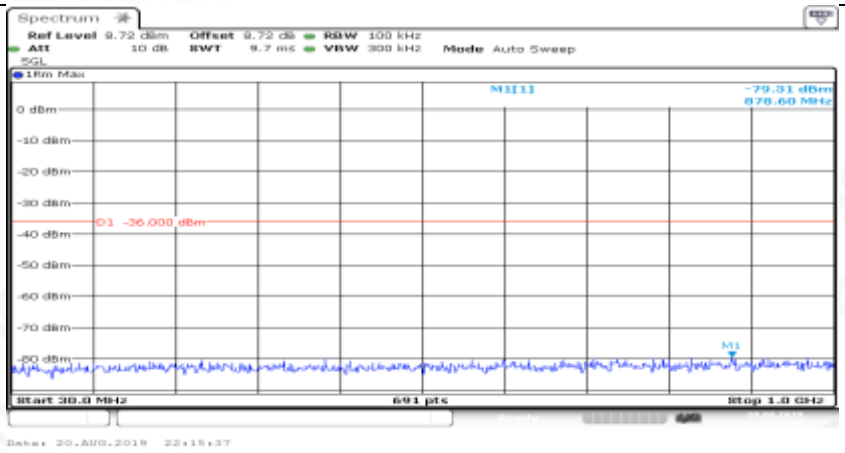
Channel Bandwidth=Highest (20 MHz)							
Condition	Modulation	Channel Bandwidth	Channel	RB allocation		UE output power	Verdict
				RB Size	RB Offset		
Normal	QPSK	20 MHz	Low range	1	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			Mid range	1	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			High range	1	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass

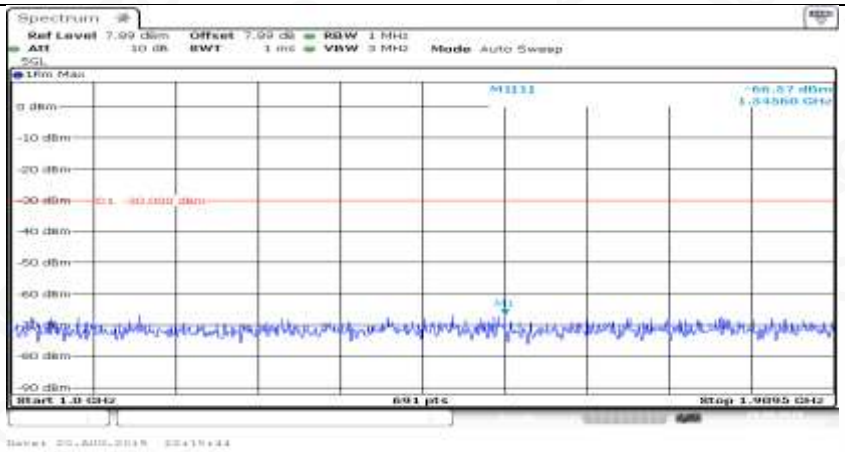
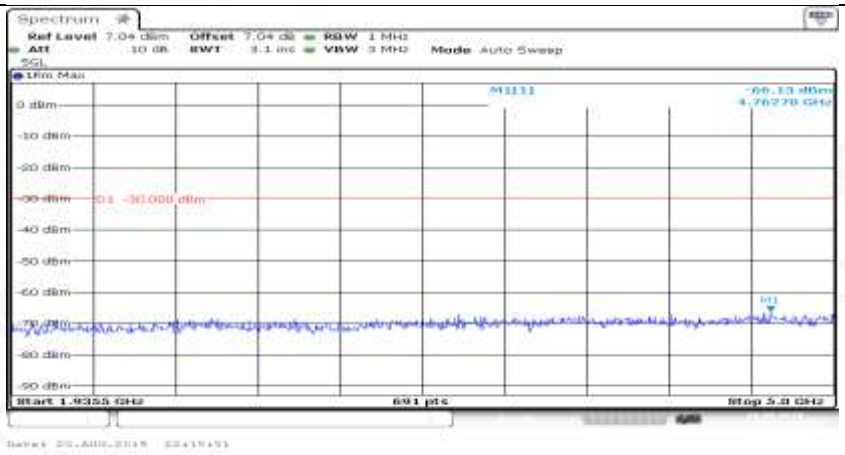
Test Graphs

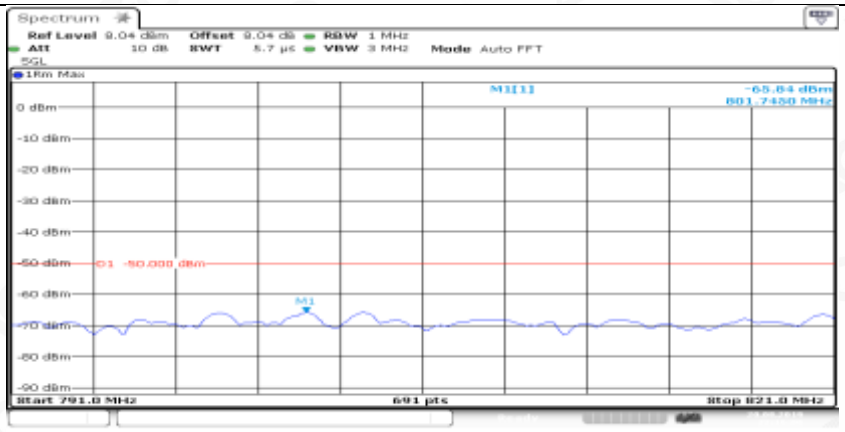
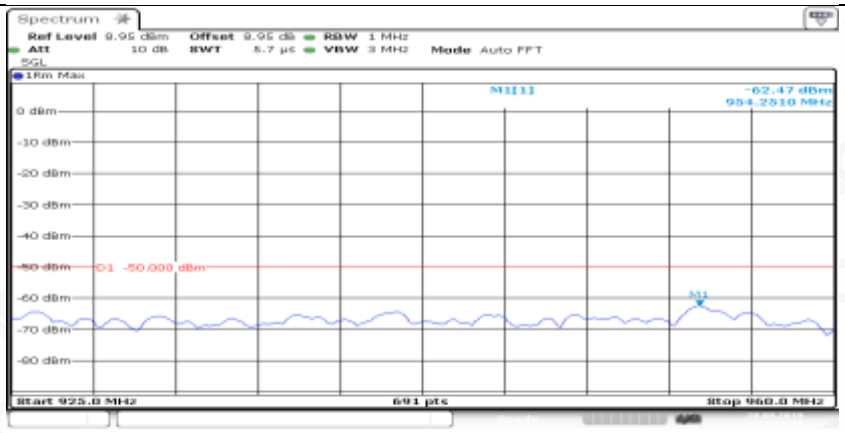
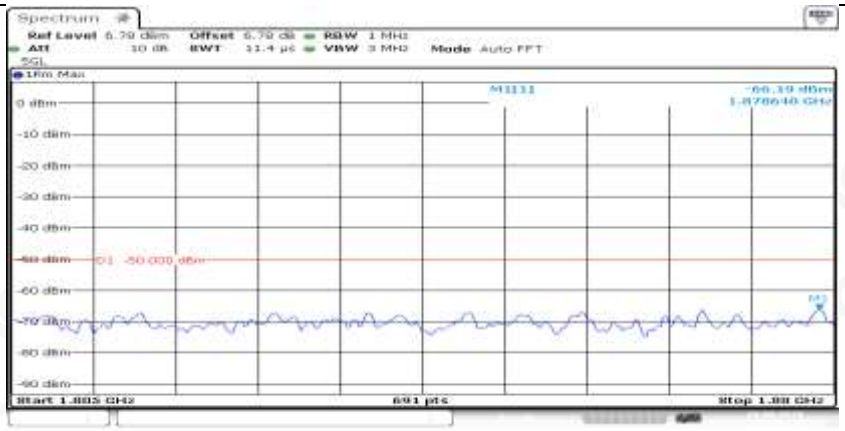
NTNV

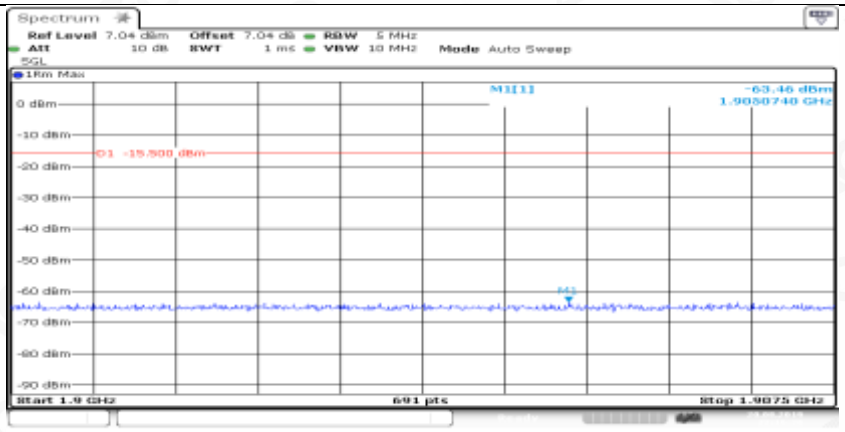
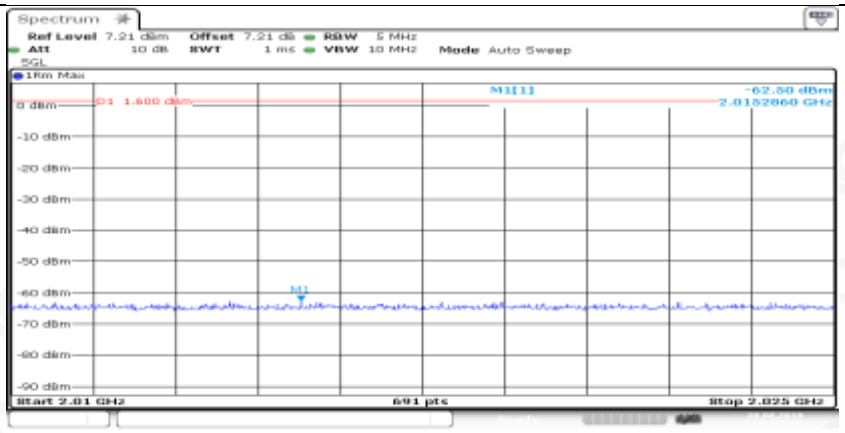
Channel Bandwidth=Lowest (5 MHz)

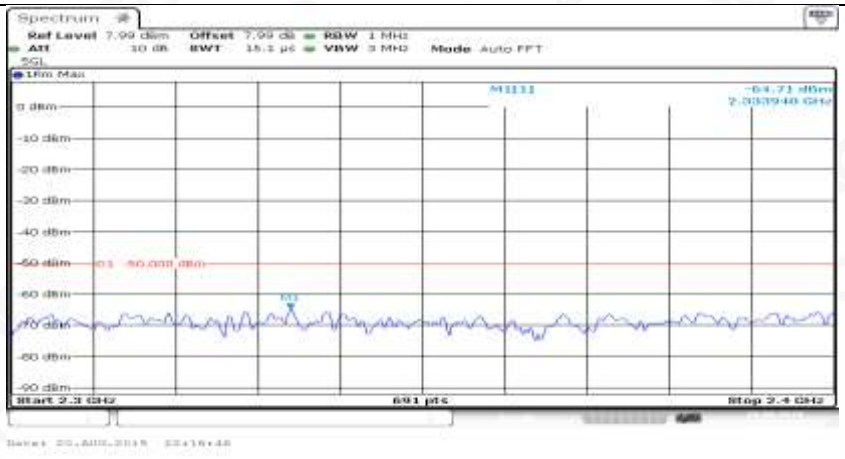
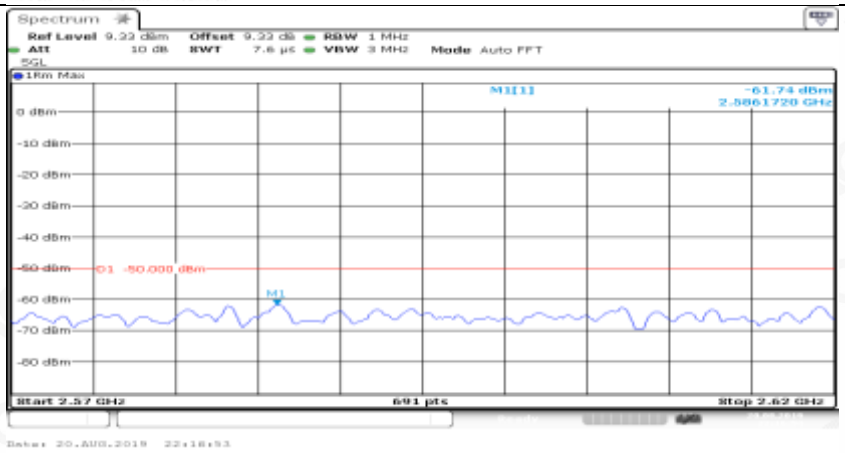
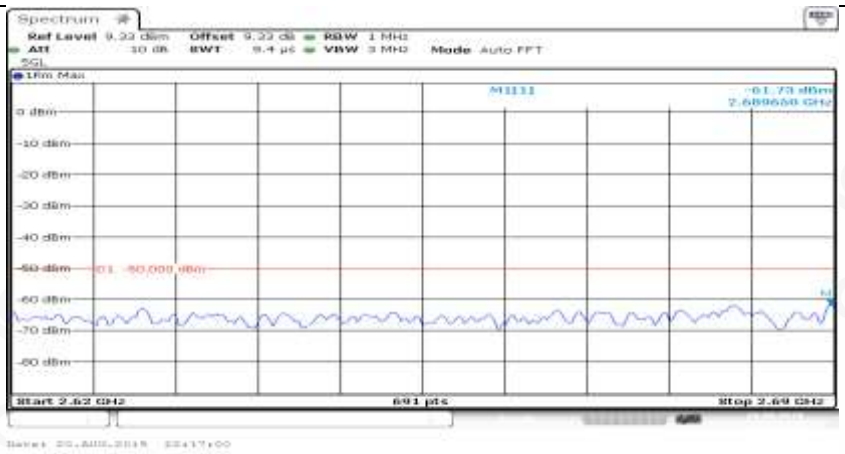
Channel Bandwidth=Lowest (5 MHz)_QPSK_LCH_1RB#0

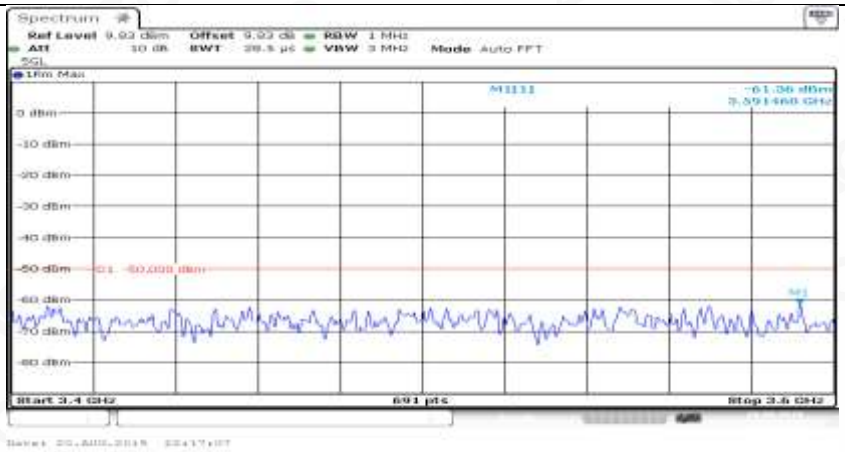
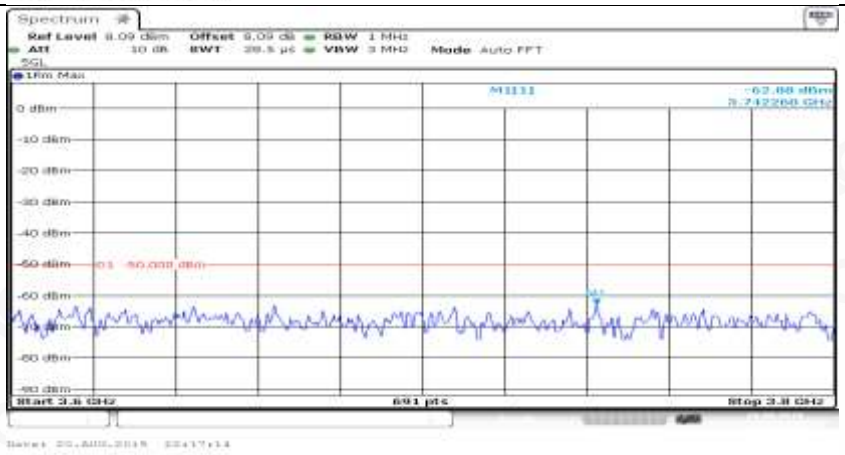
General	
General	
General	

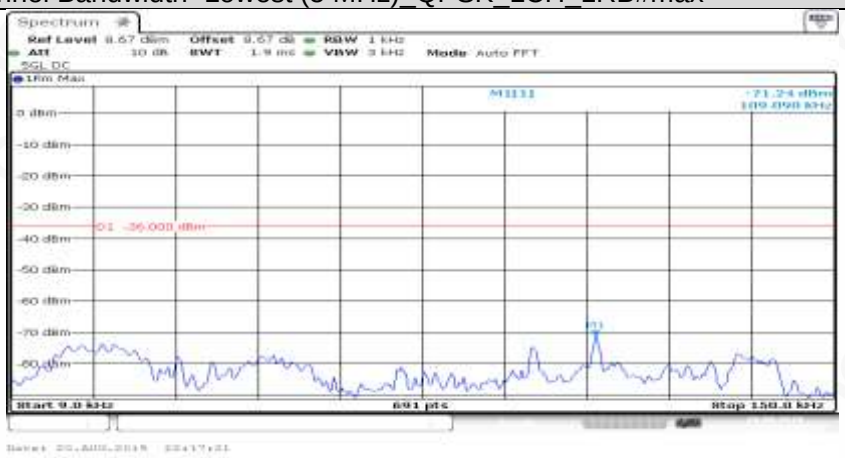
General	
General	
General	

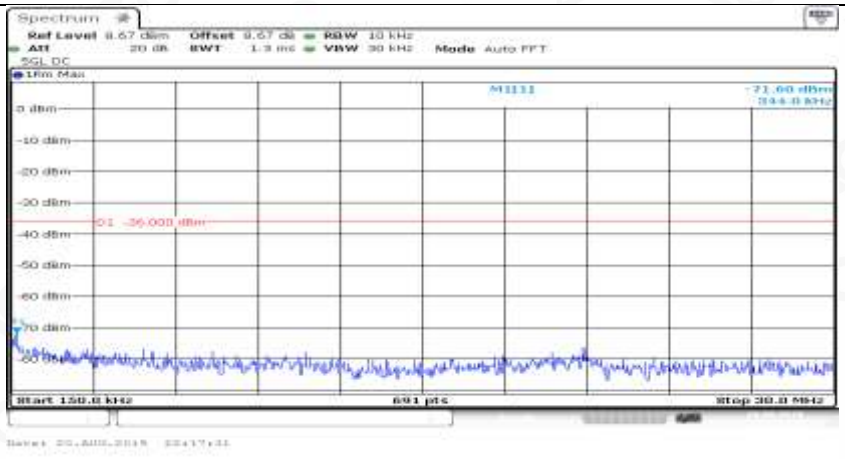
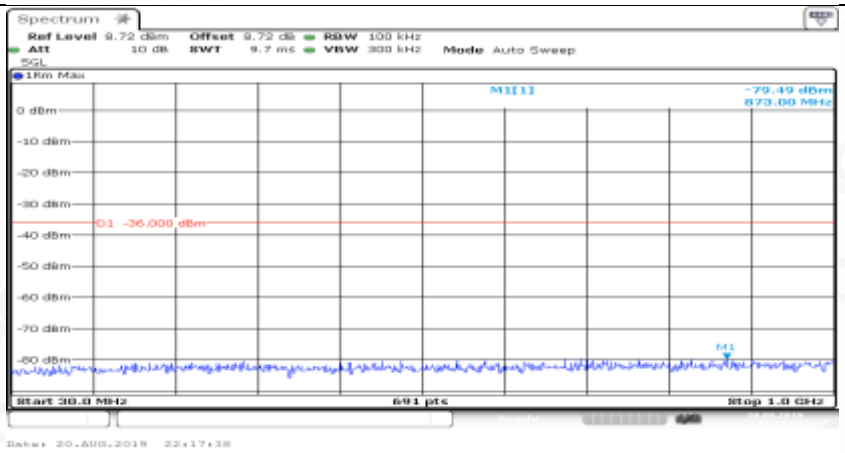
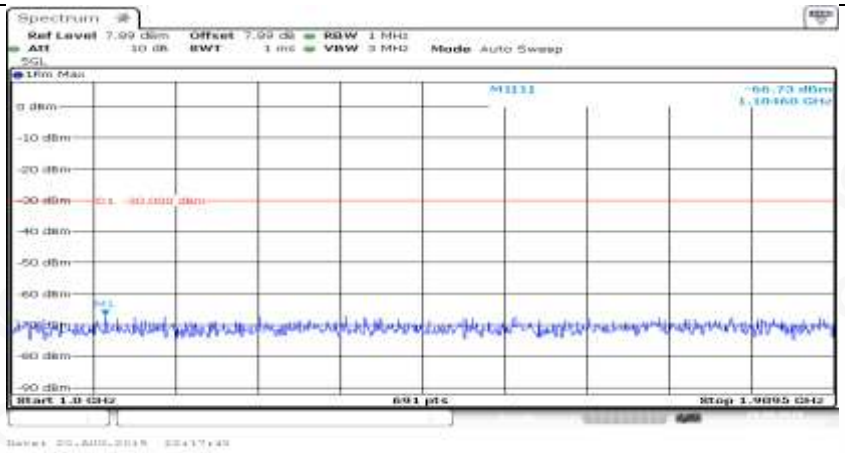
Co-existence	
Co-existence	
Co-existence	

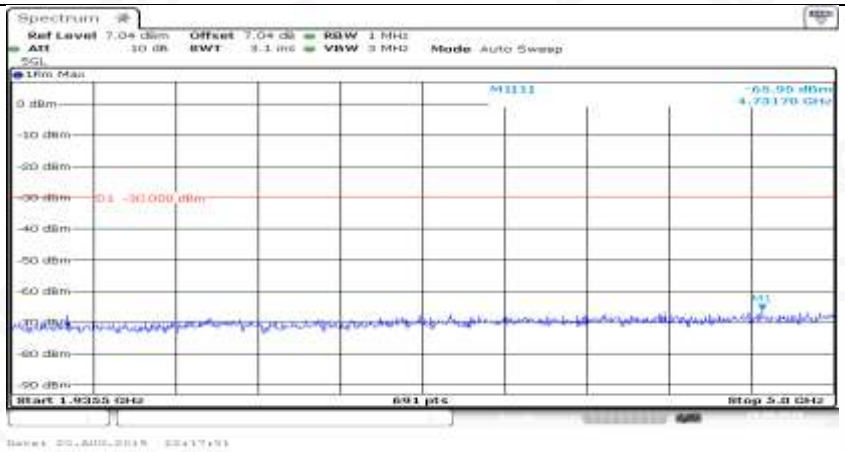
Co-existence	
Co-existence	
Co-existence	

Co-existence	
Co-existence	
Co-existence	

Co-existence	
Co-existence	
Additional	NA

Channel Bandwidth=Lowest (5 MHz)_QPSK_LCH_1RB#max	
General	

General		
General		
General		

General	
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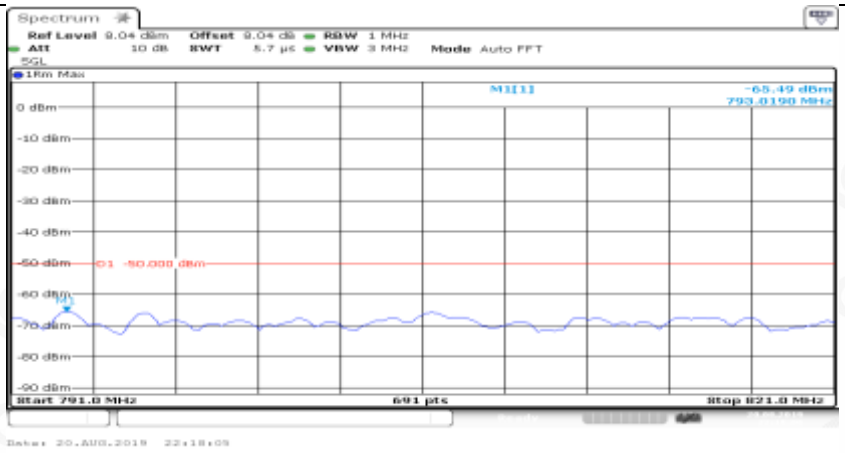
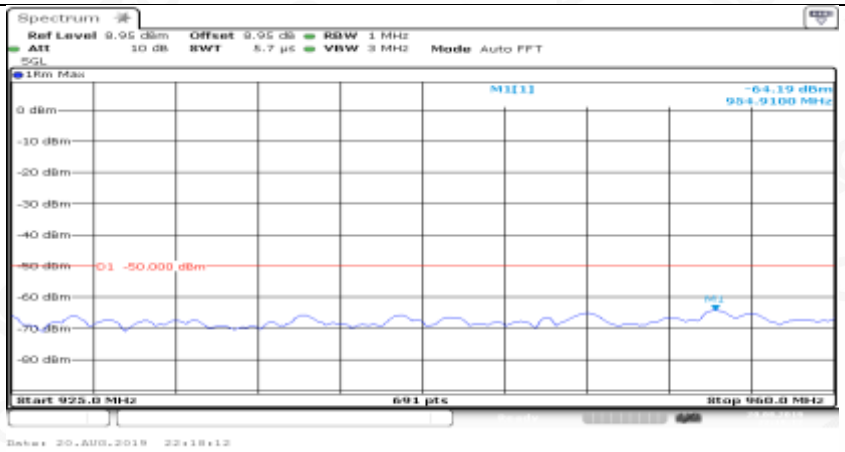
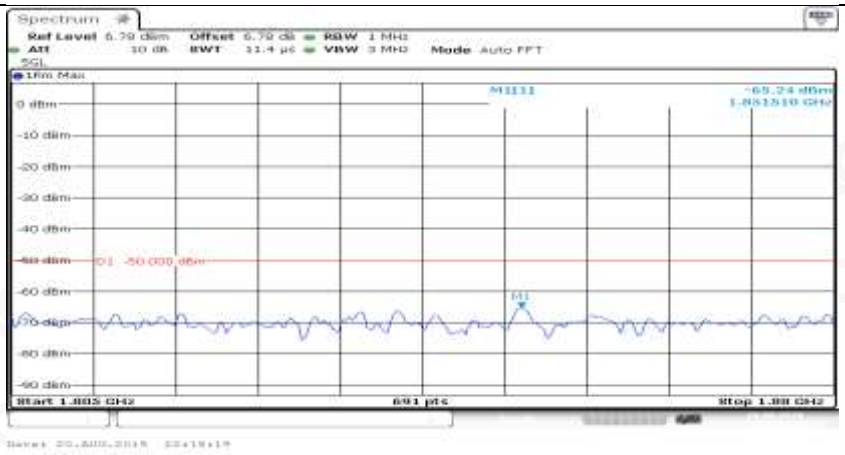
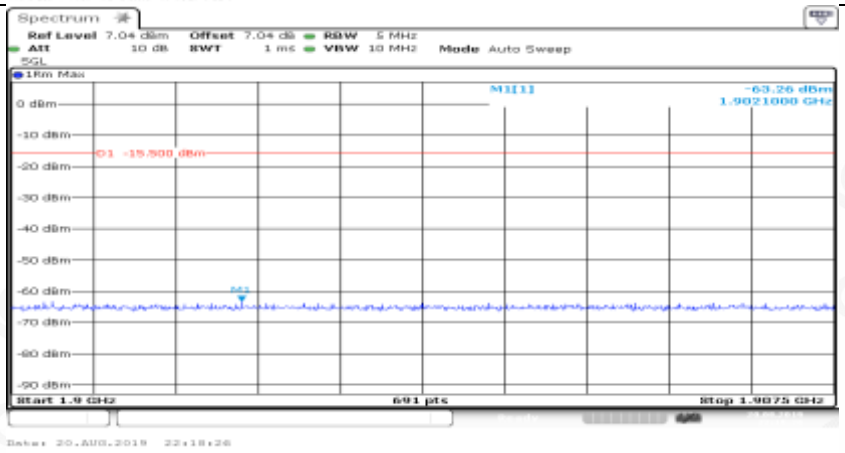
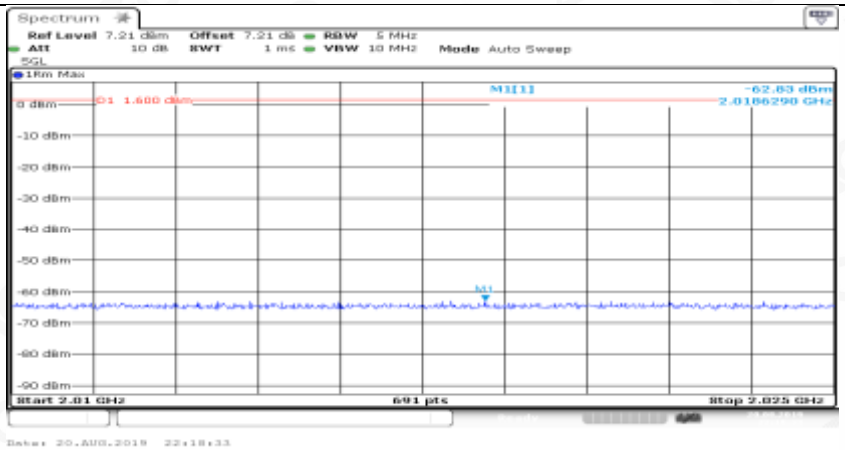
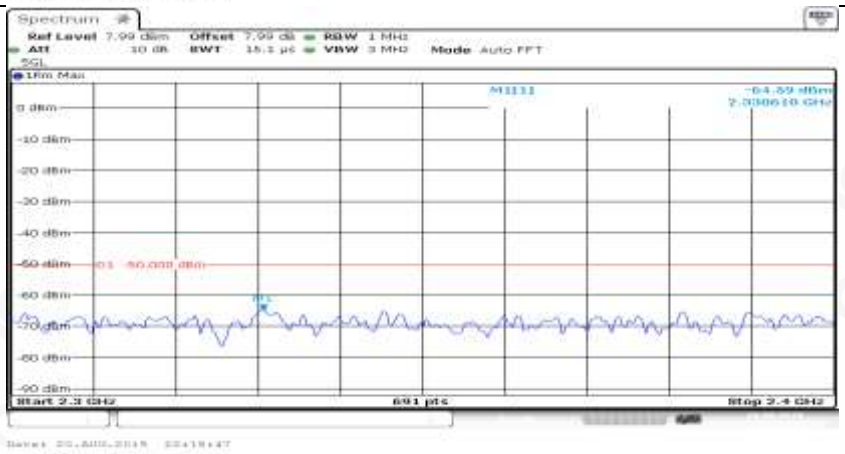
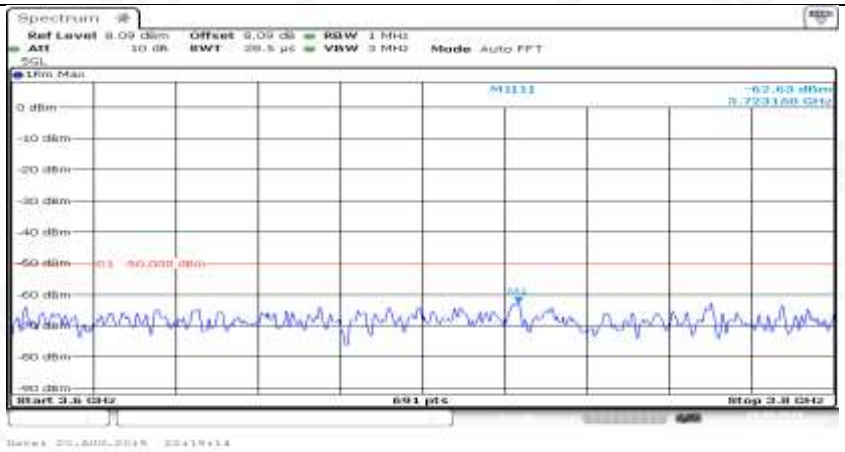
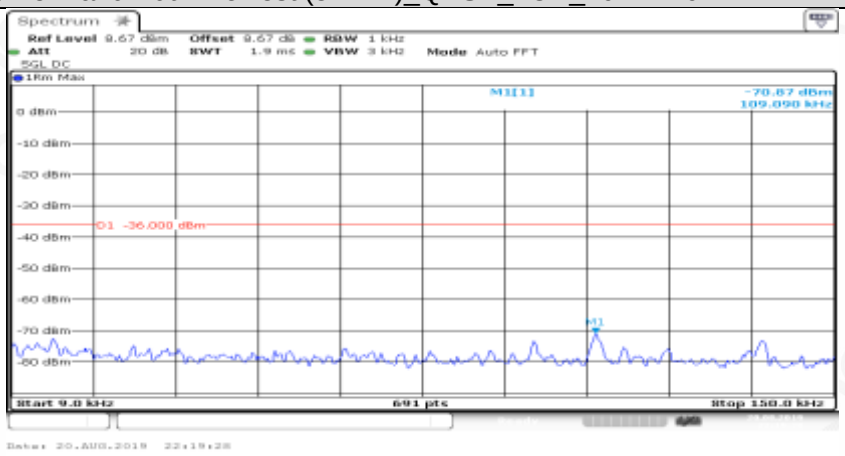
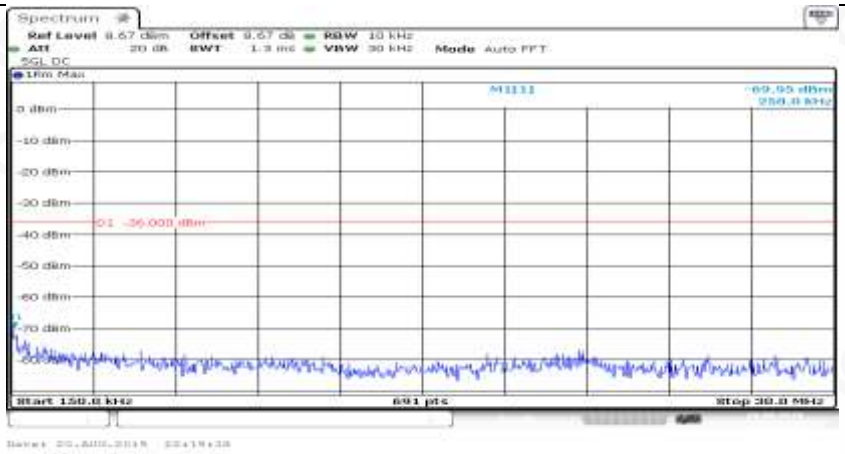
Co-existence	

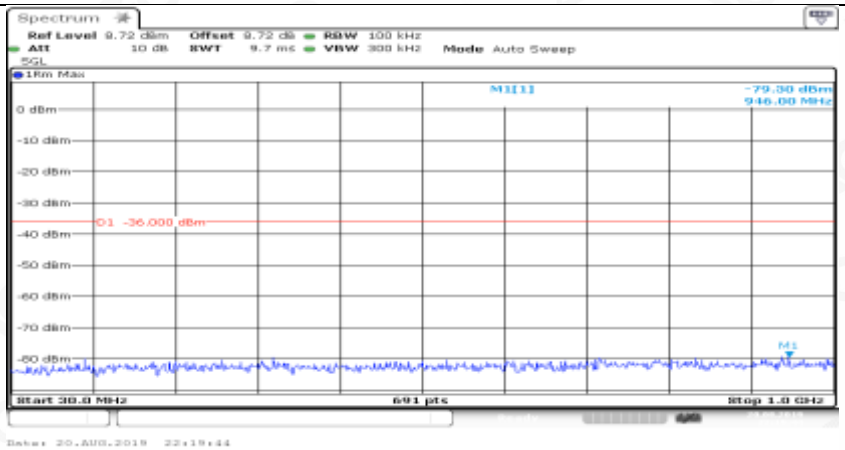
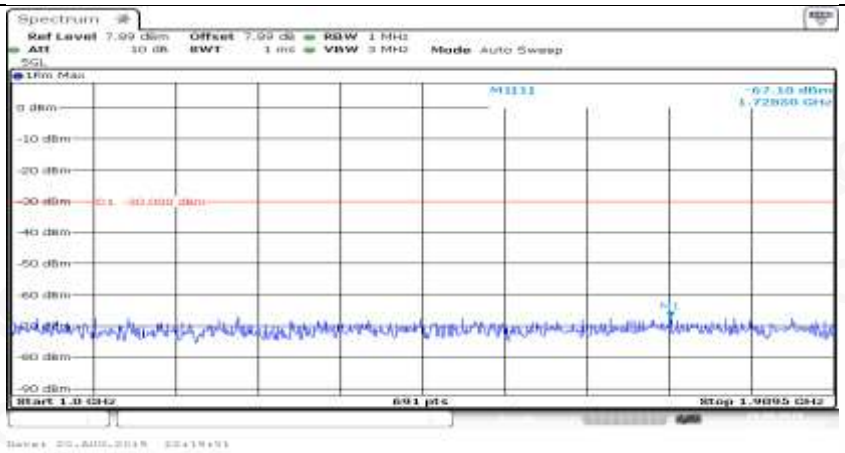
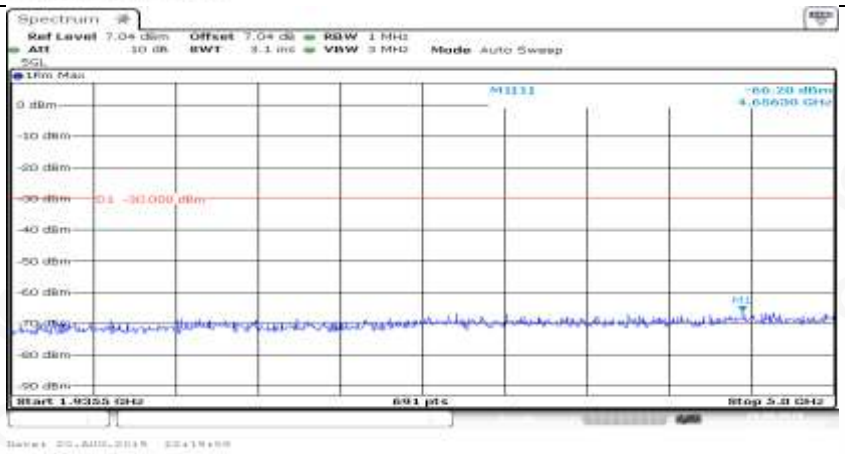
Co-existence	
Co-existence	
Co-existence	

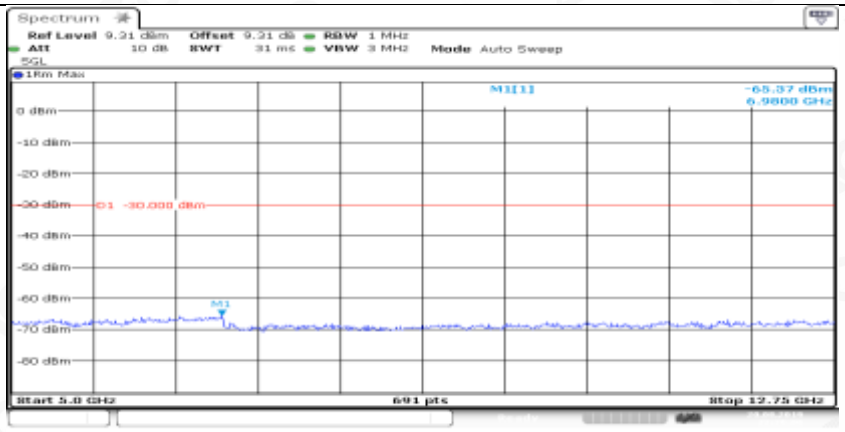
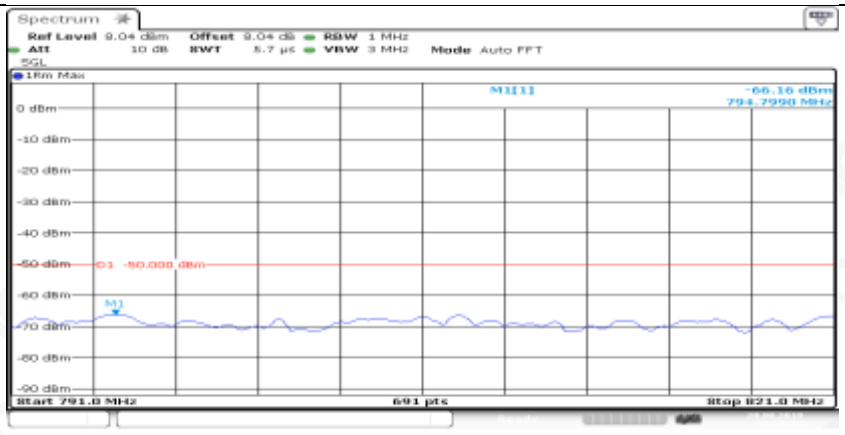
Co-existence	
Co-existence	
Co-existence	

Co-existence	
Co-existence	
Co-existence	

Co-existence	
Additional	NA

Channel Bandwidth=Lowest (5 MHz)_QPSK_LCH_FullRB#0	
General	
General	

General	
General	
General	

General	
Co-existence	
Co-existence	

Co-existence	
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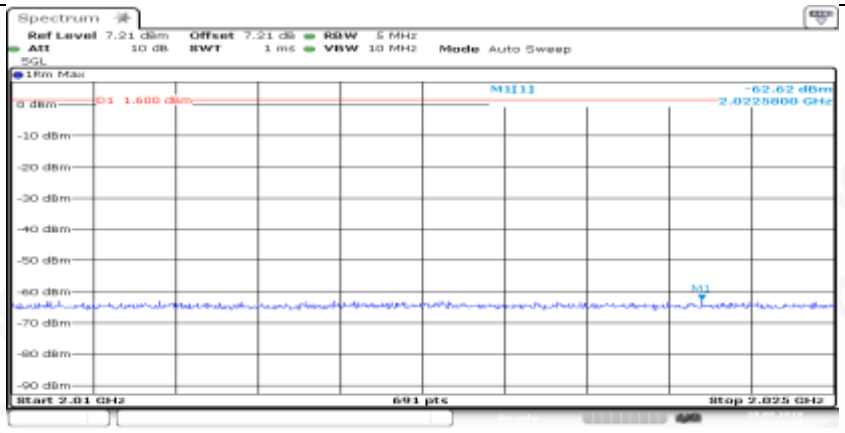
Co-existence	

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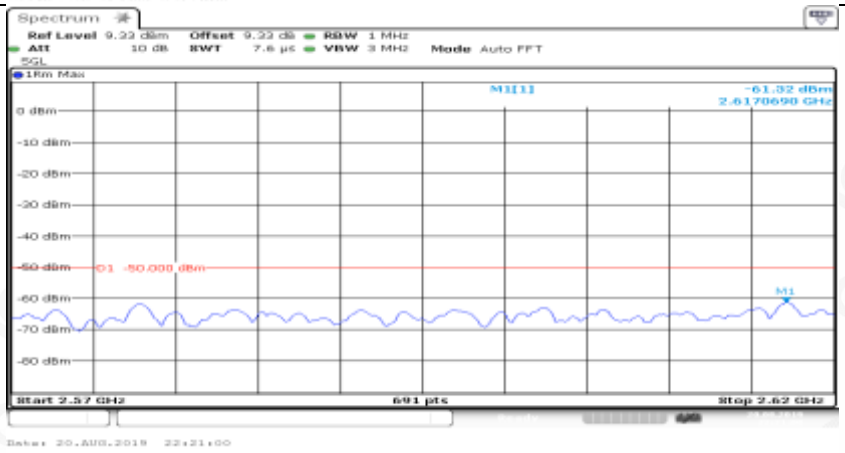
Co-existence	

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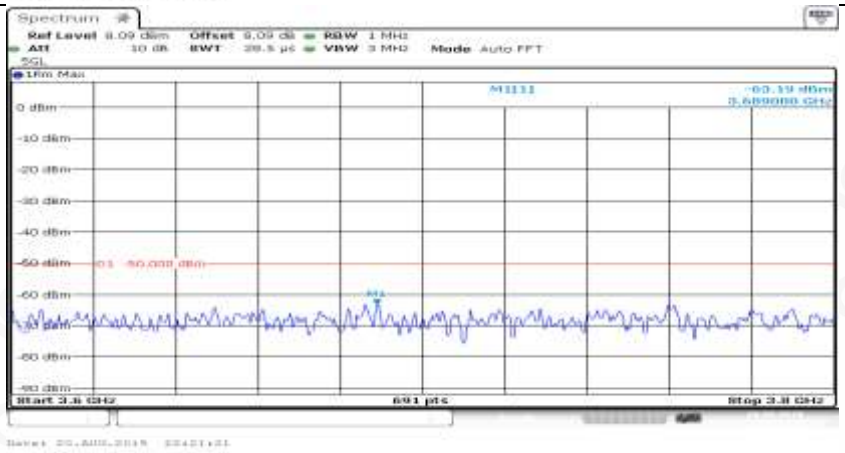
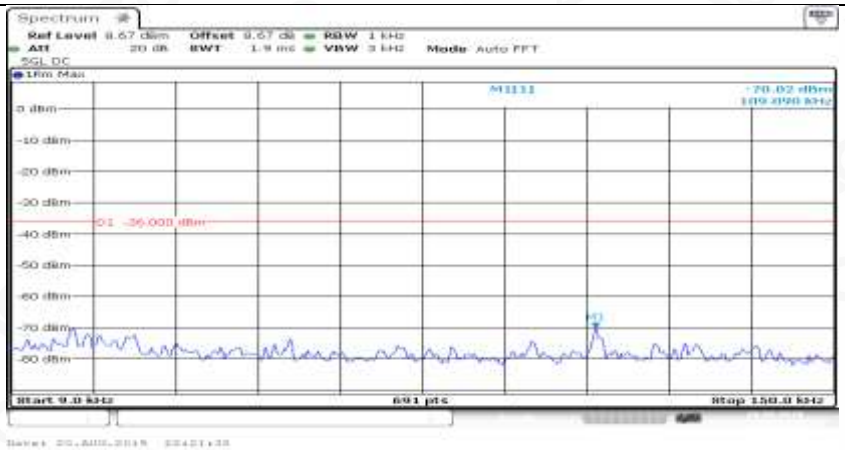
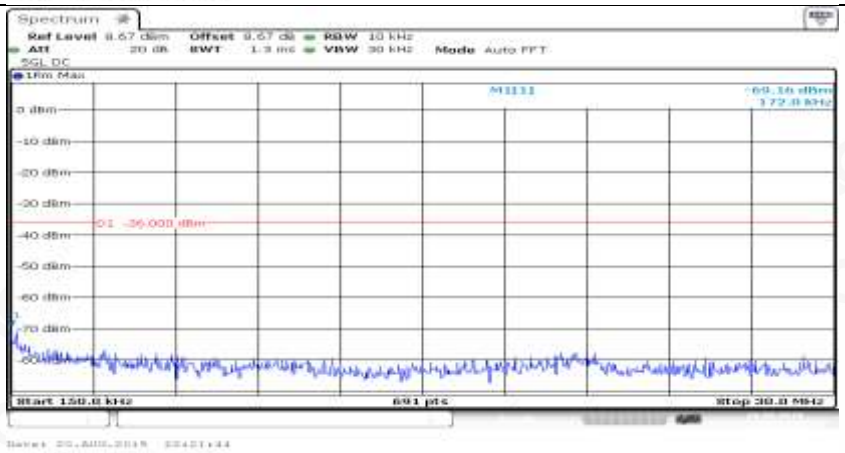
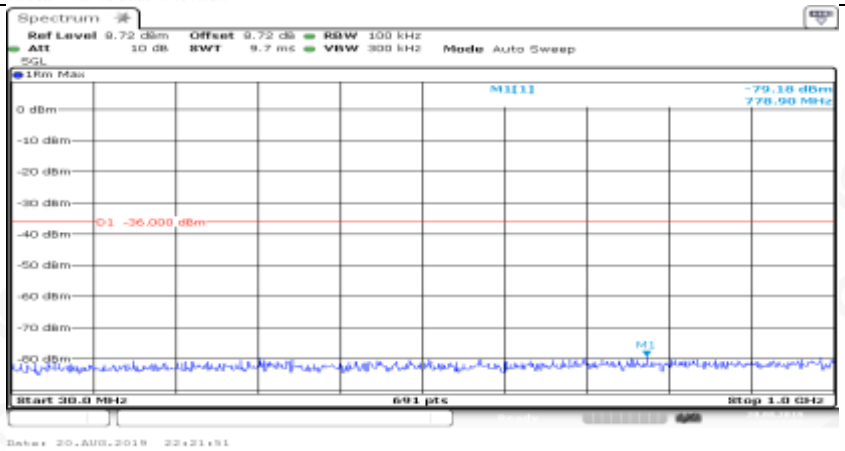
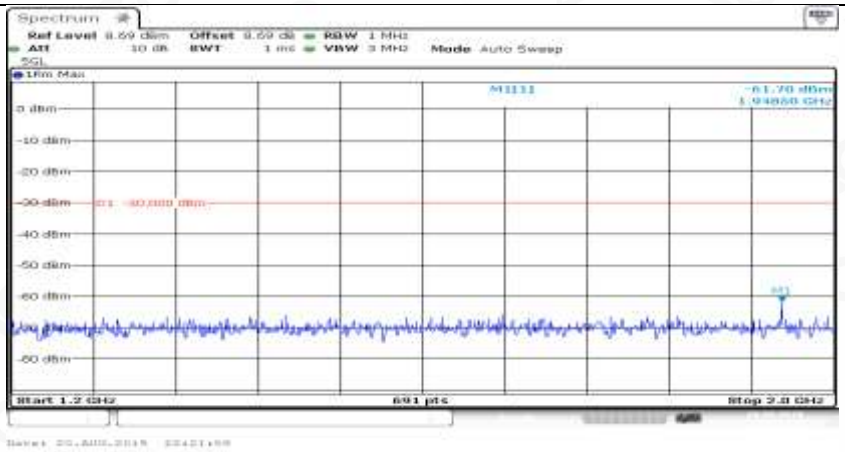
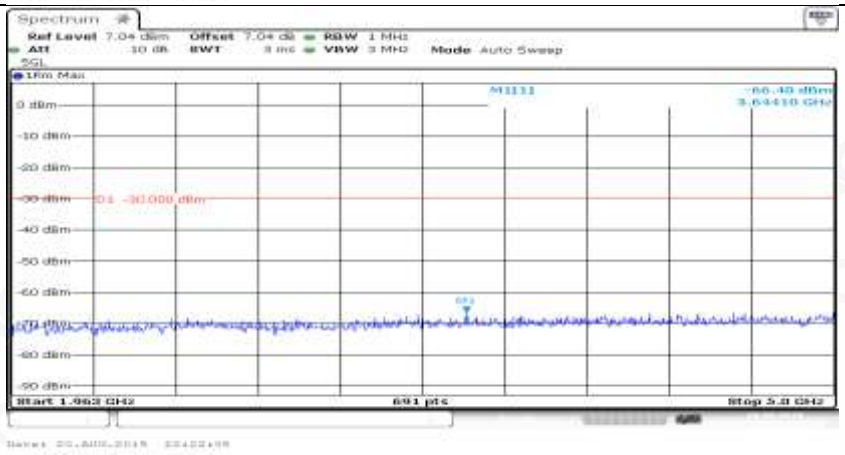
Co-existence	
Additional	NA

Channel Bandwidth=Lowest (5 MHz)_QPSK_MCH_1RB#0

General	
General	
General	

General	
General	
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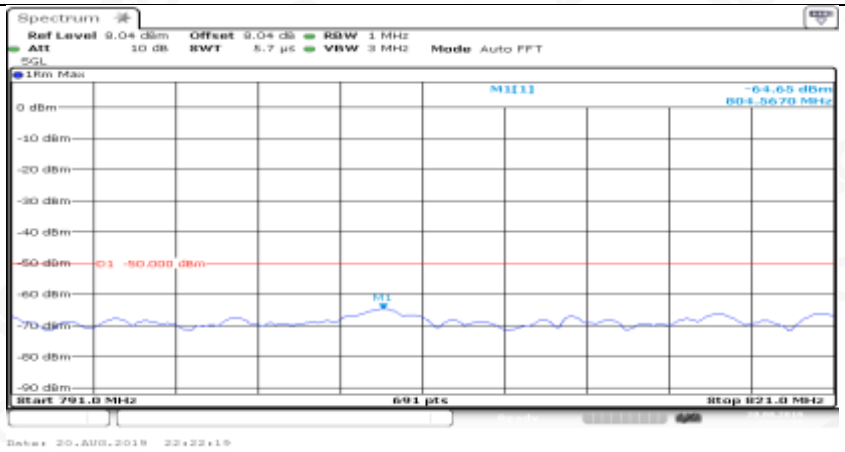
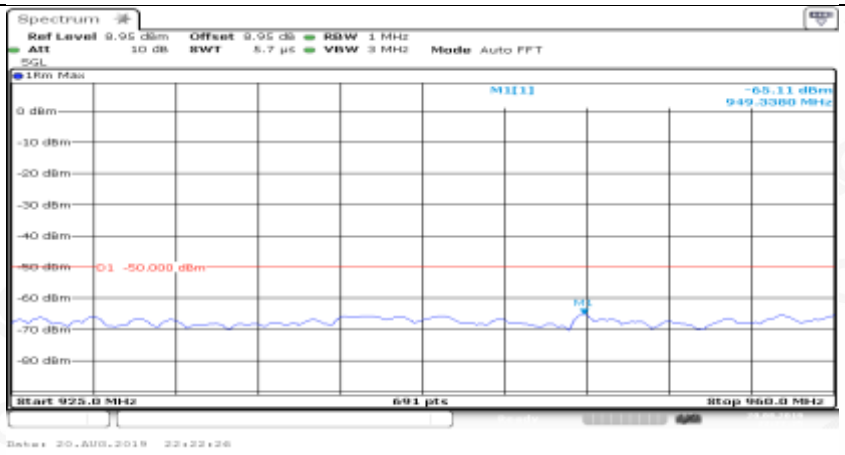
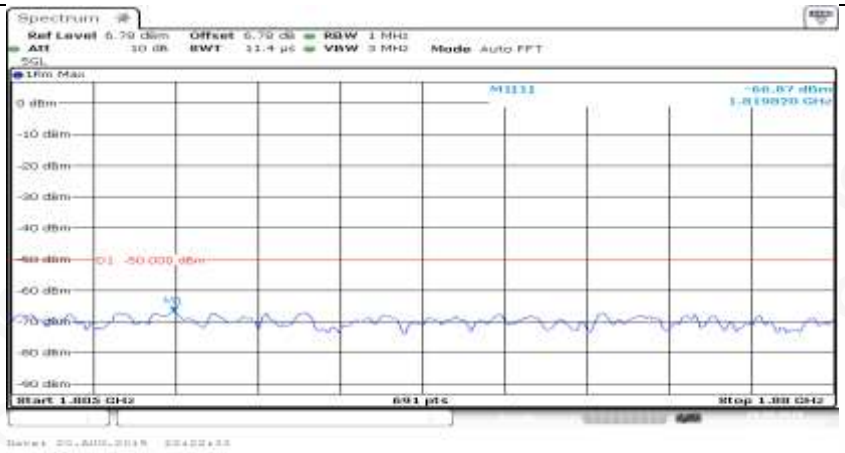
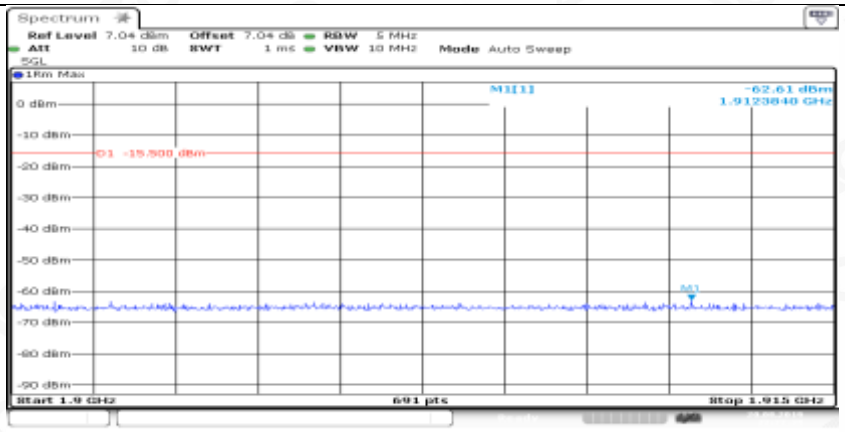
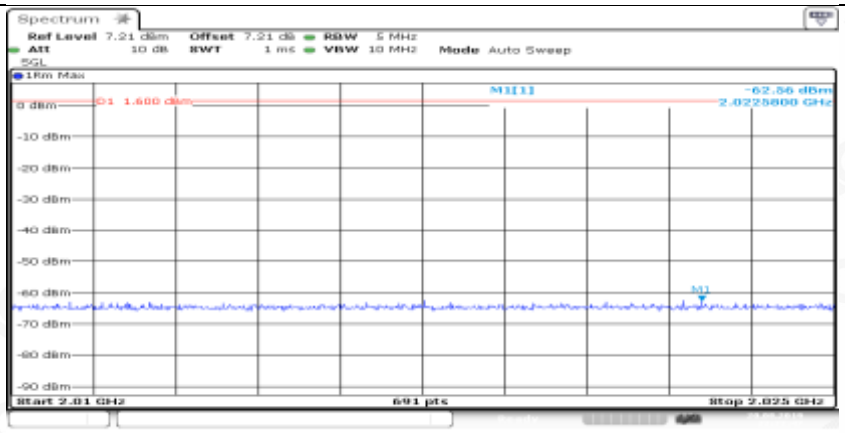
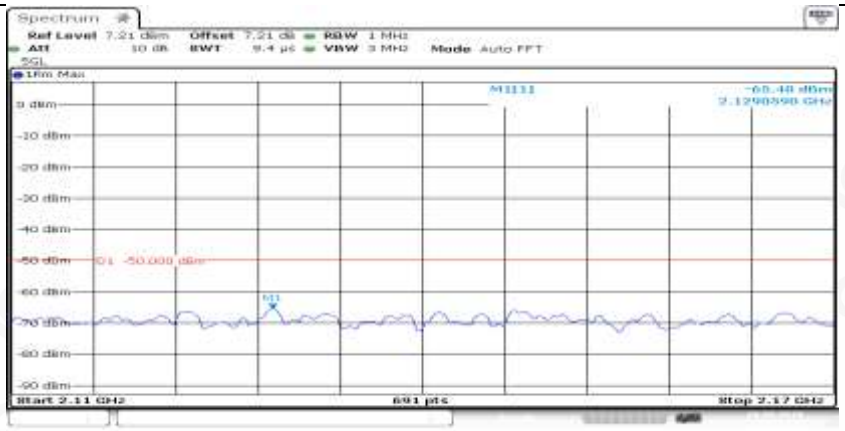
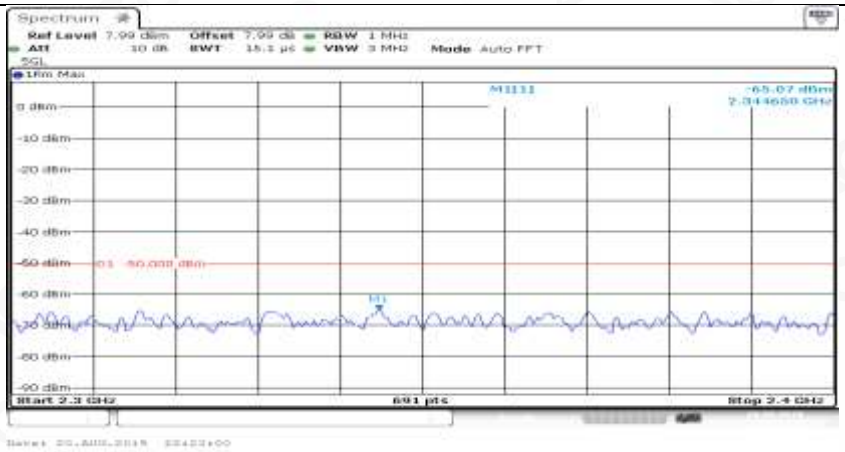
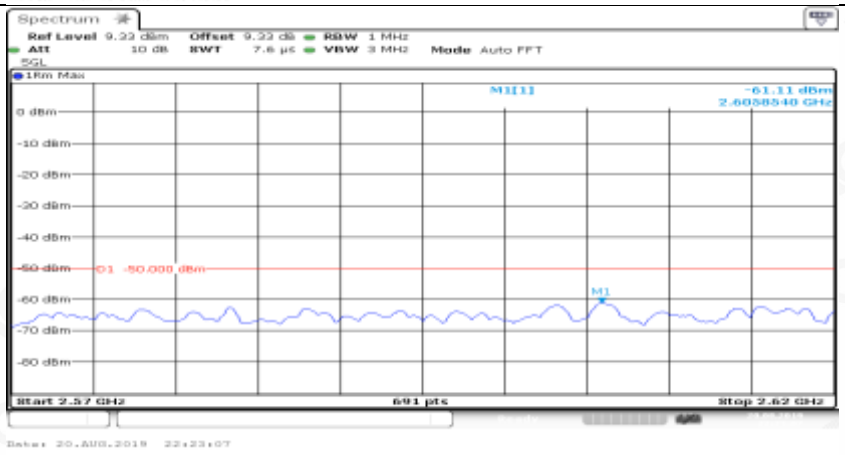
Co-existence	
Co-existence	
Co-existence	

Co-existence	
Co-existence	
Co-existence	

Co-existence	
Co-existence	
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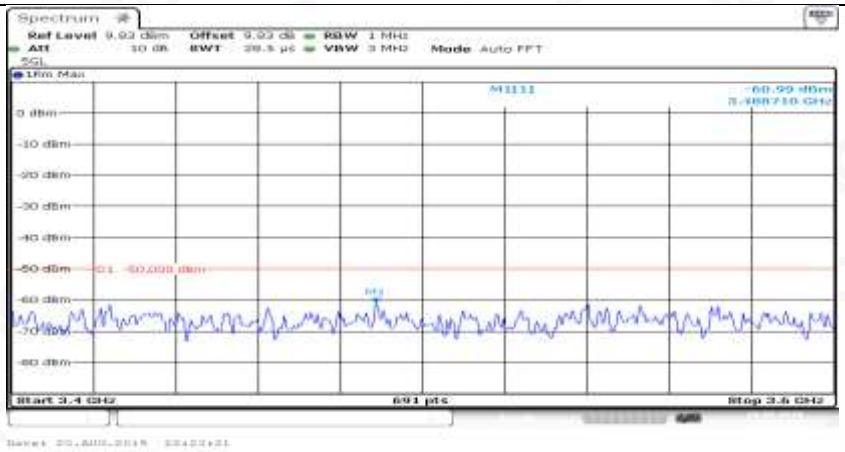
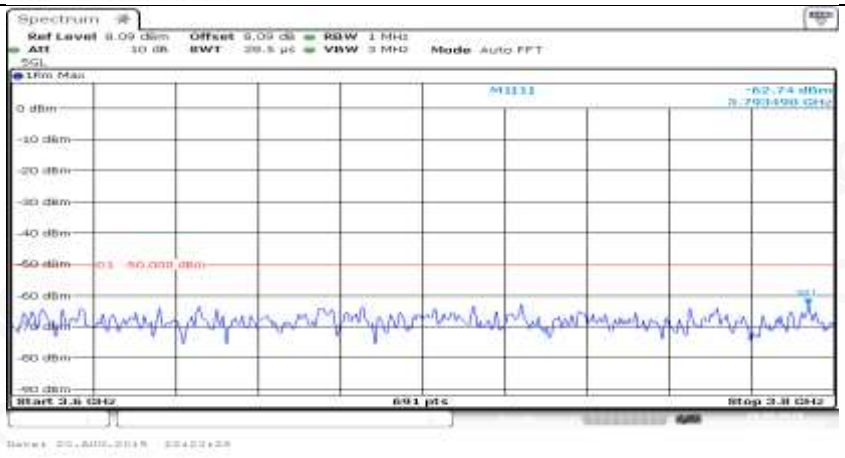
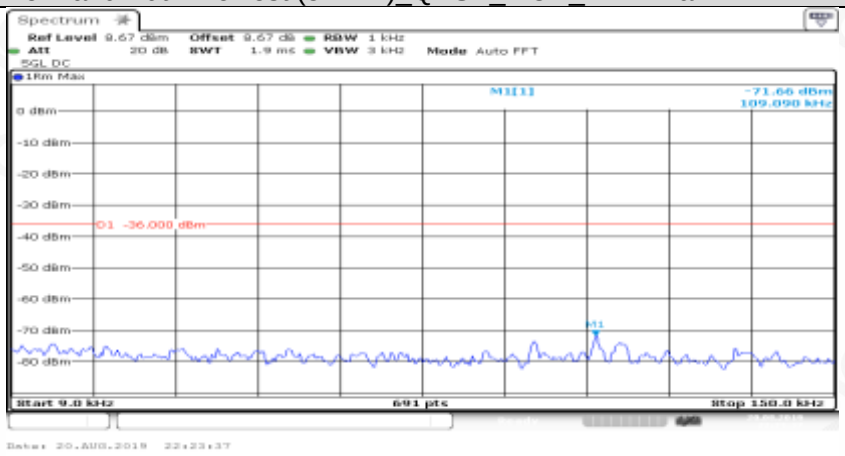
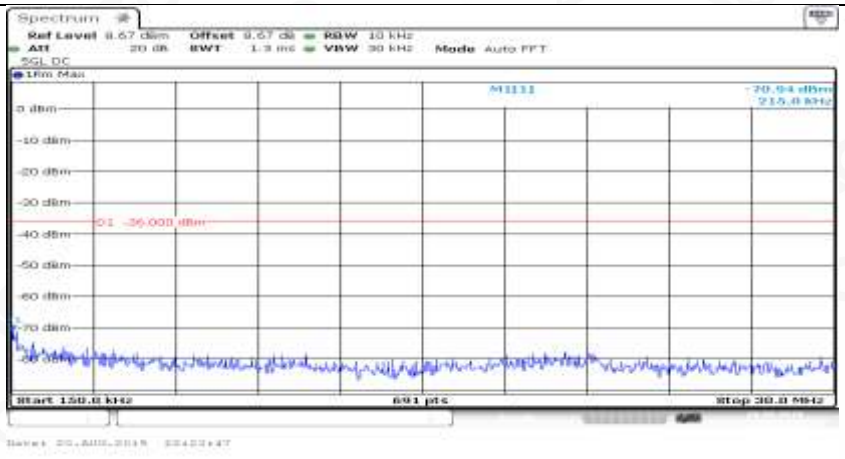
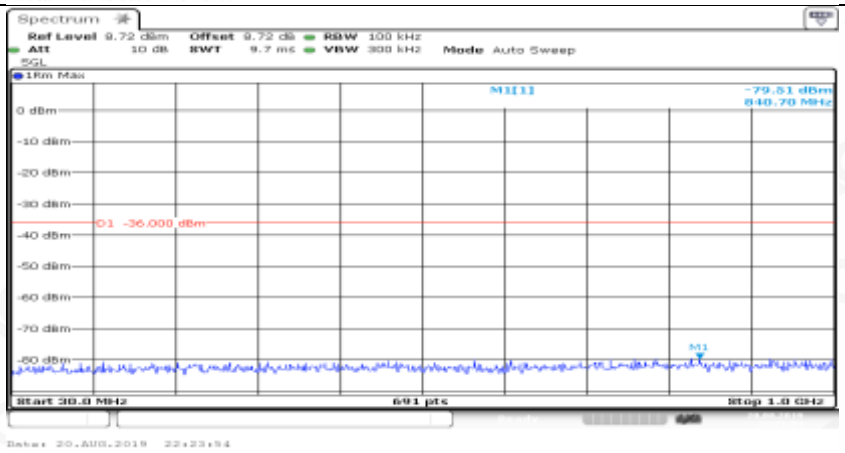
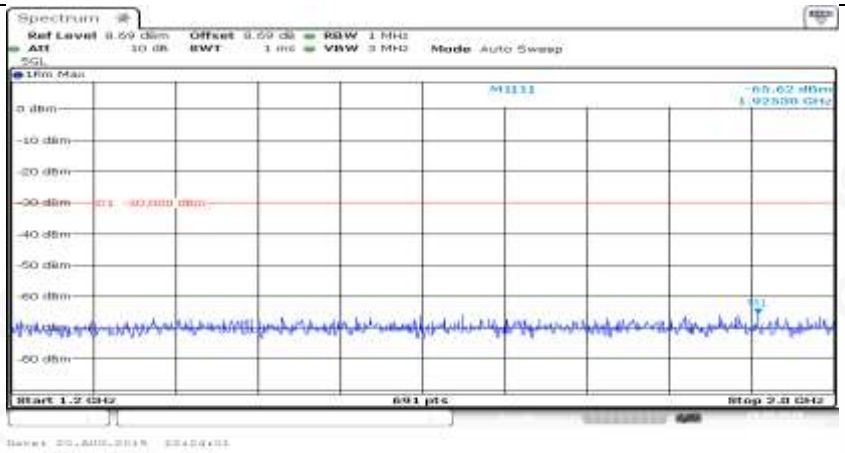
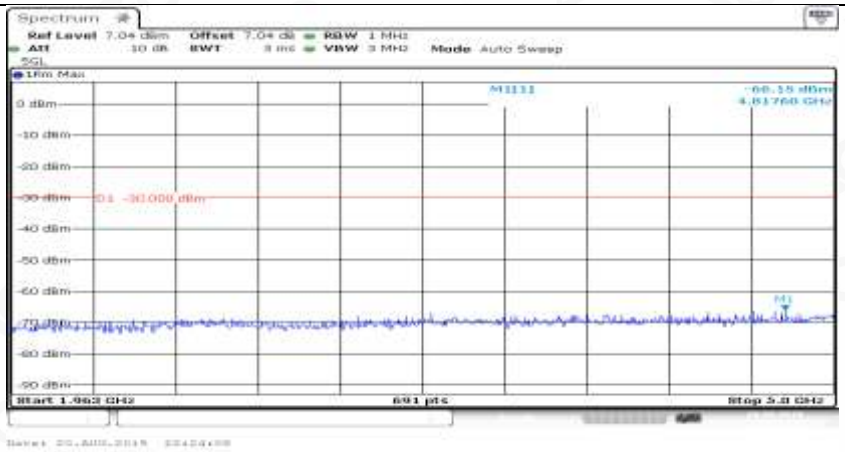
Co-existence	
Co-existence	
Additional	NA

Channel Bandwidth=Lowest (5 MHz)_QPSK_MCH_1RB#max	
General	

General	
General	
General	

General	
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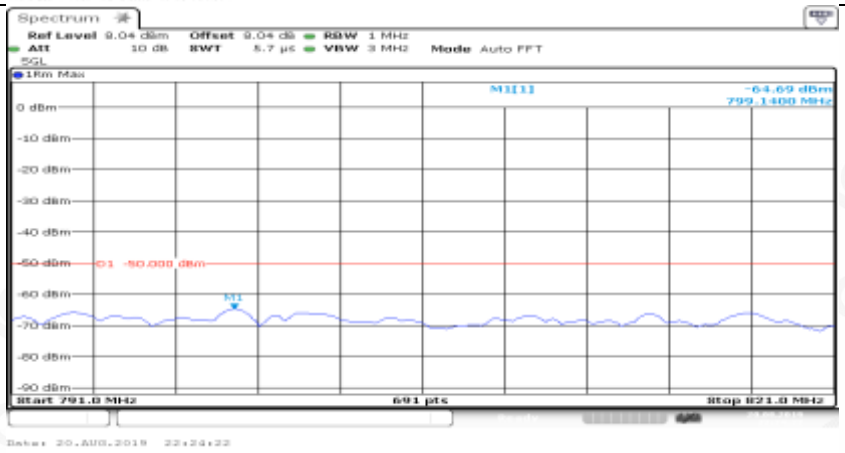
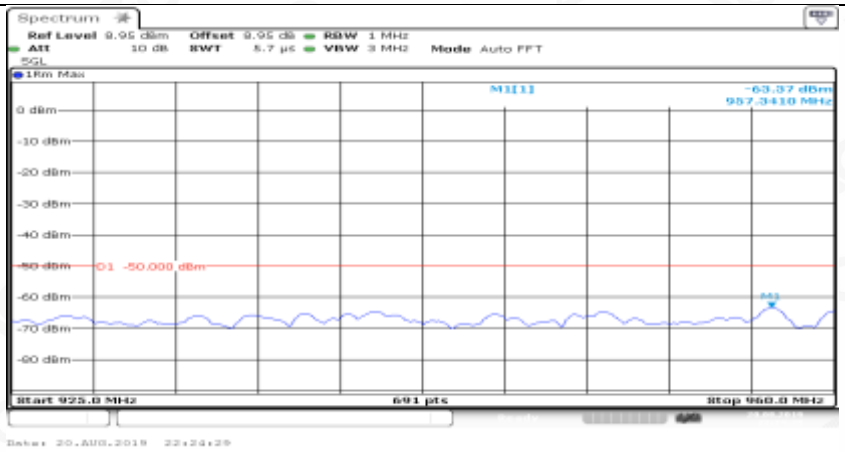
Co-existence	

Co-existence	
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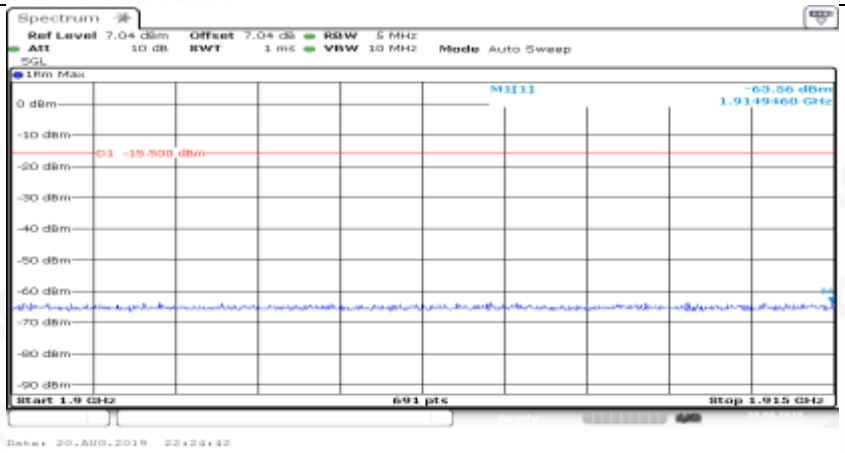
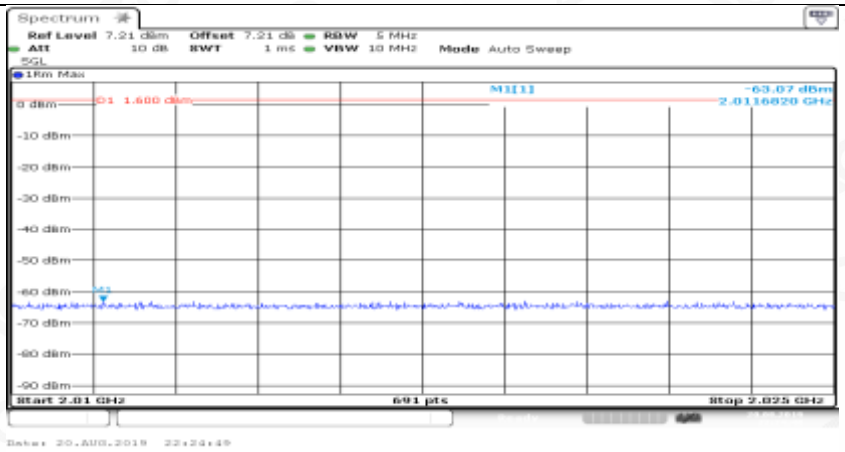
Co-existence	

Co-existence	
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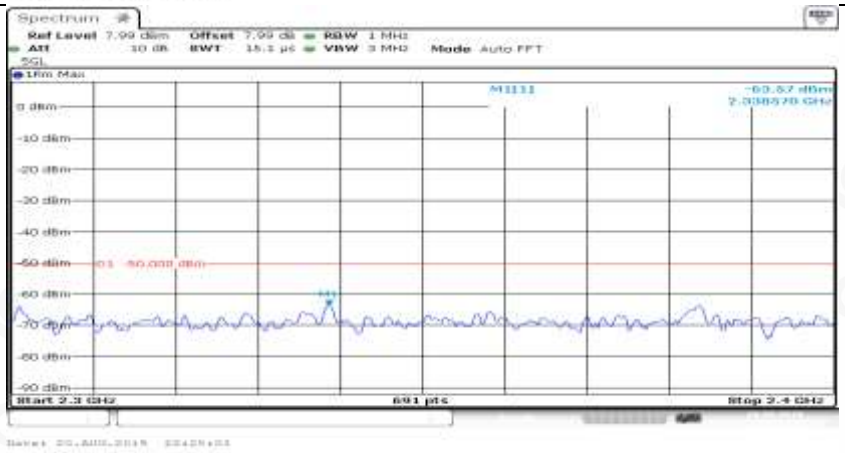
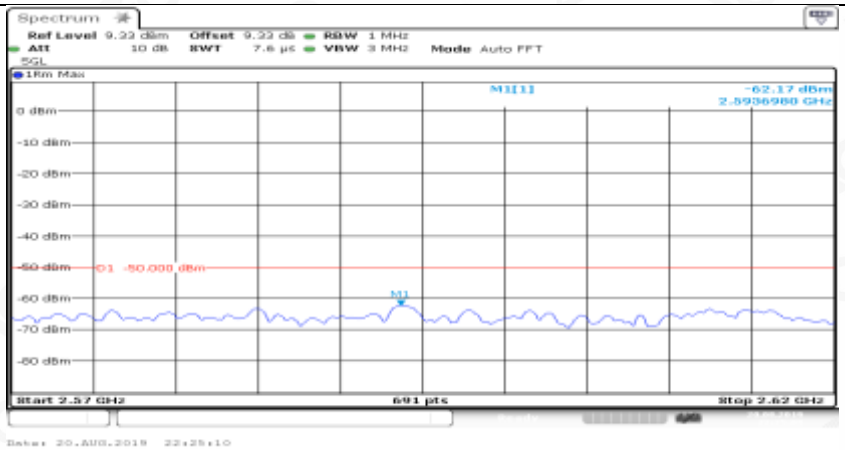
Co-existence	

Co-existence	
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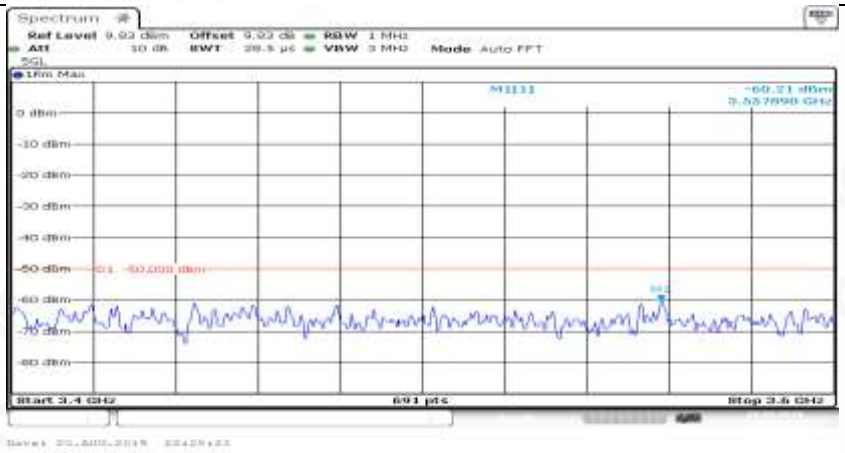
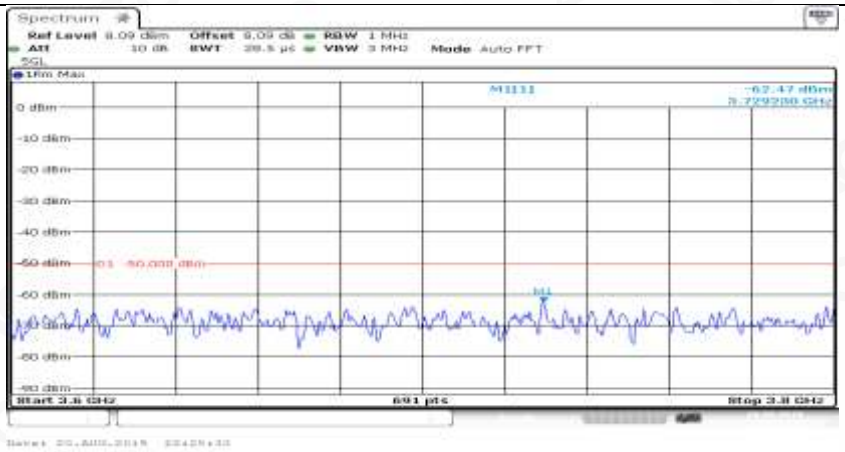
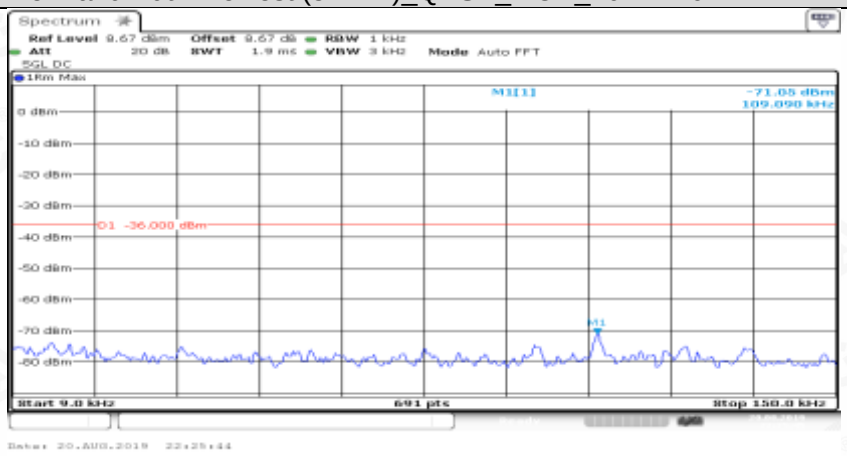
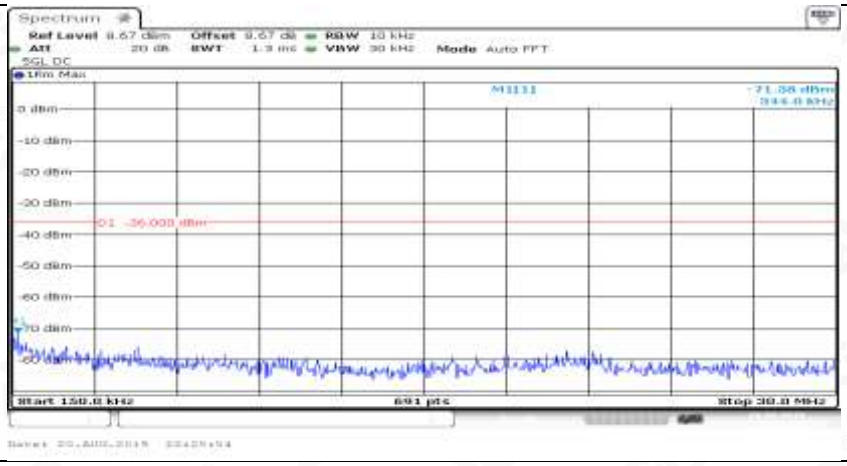
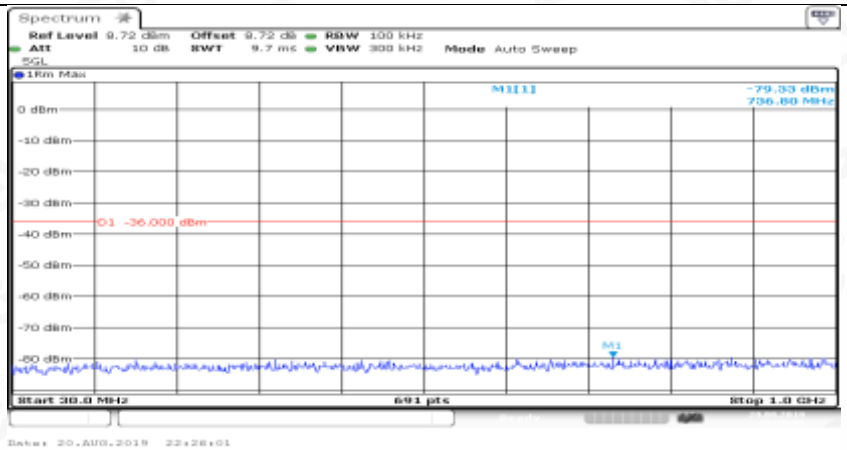
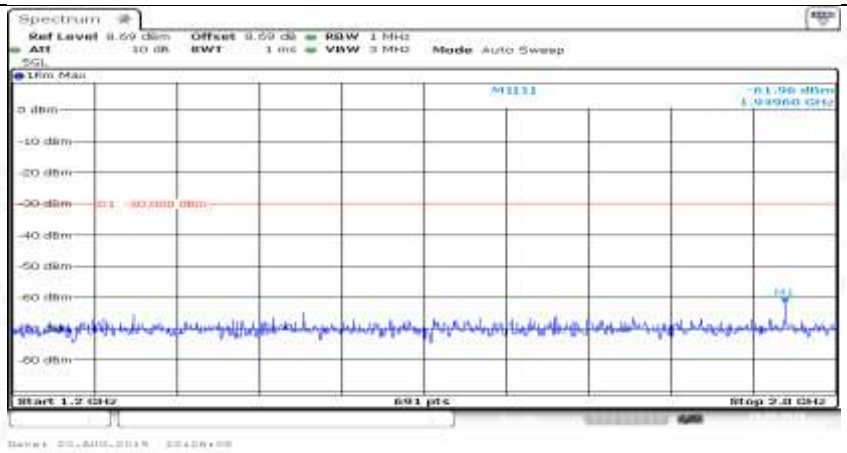
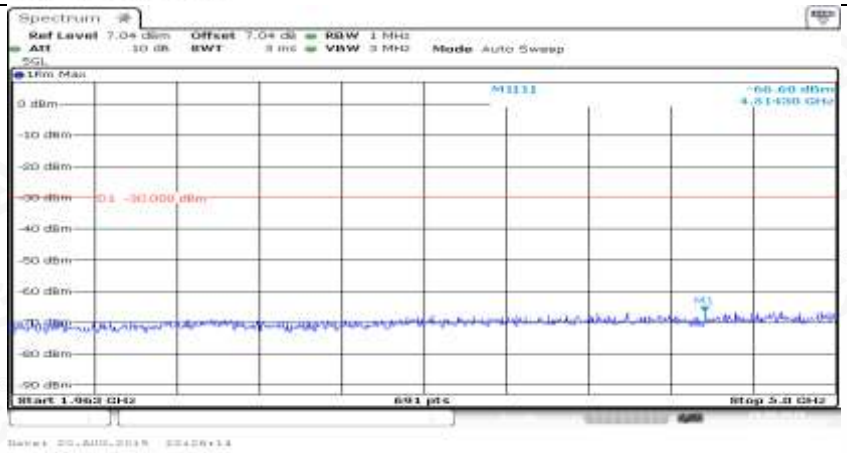
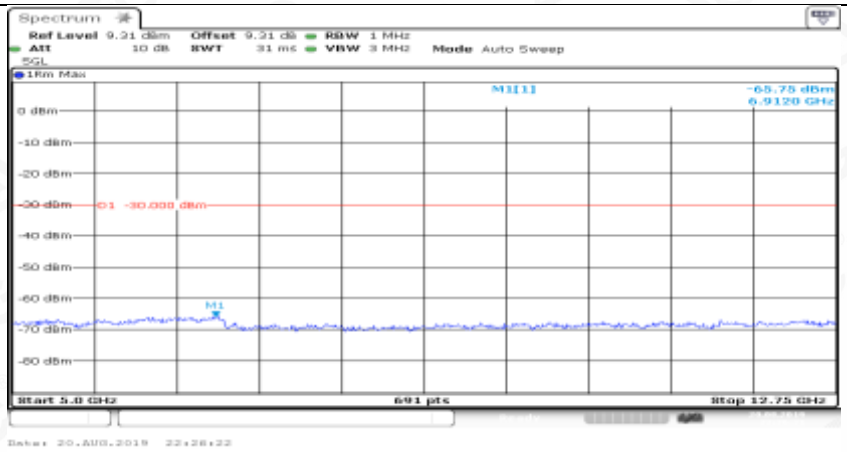
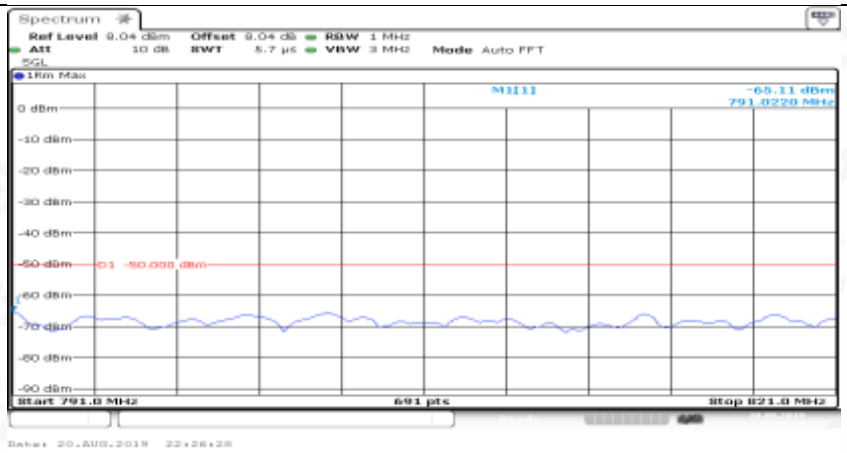
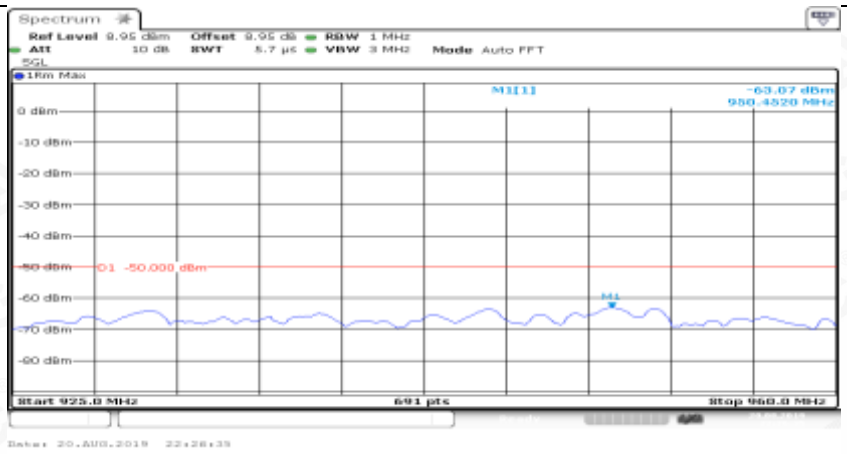
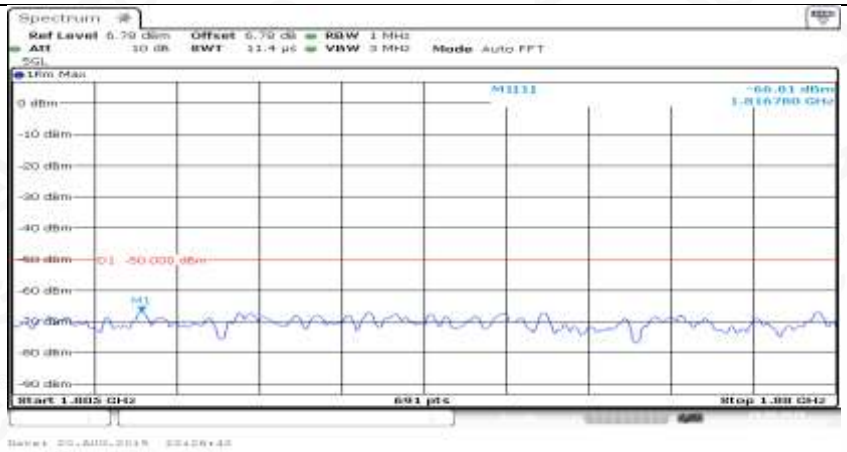
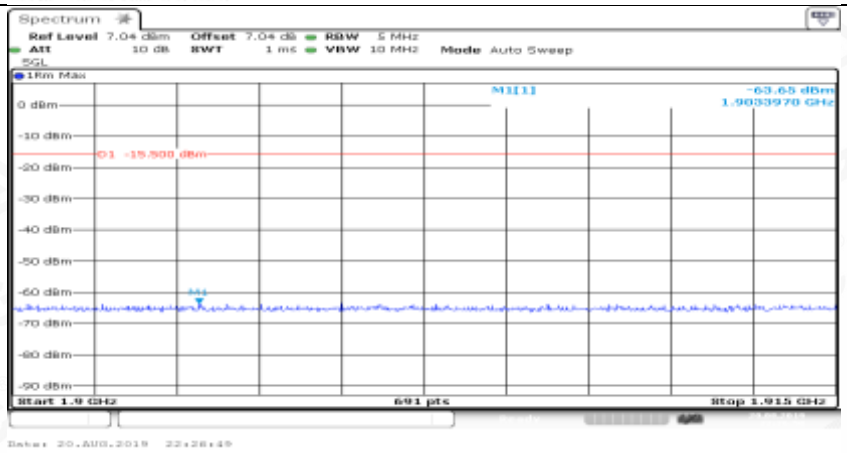
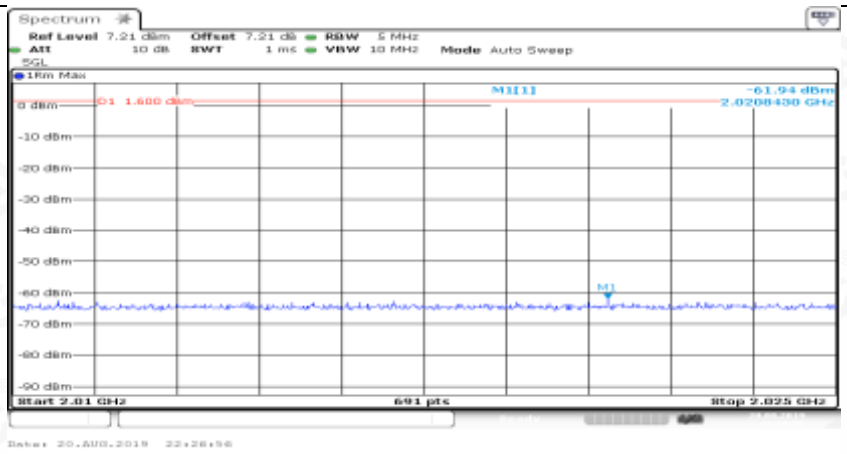
Co-existence	

Co-existence	
Additional	NA

Channel Bandwidth=Lowest (5 MHz)_QPSK_MCH_FullRB#0	
General	
General	

General		
General		
General		

General		
Co-existence		
Co-existence		

Co-existence		
Co-existence		
Co-existence		

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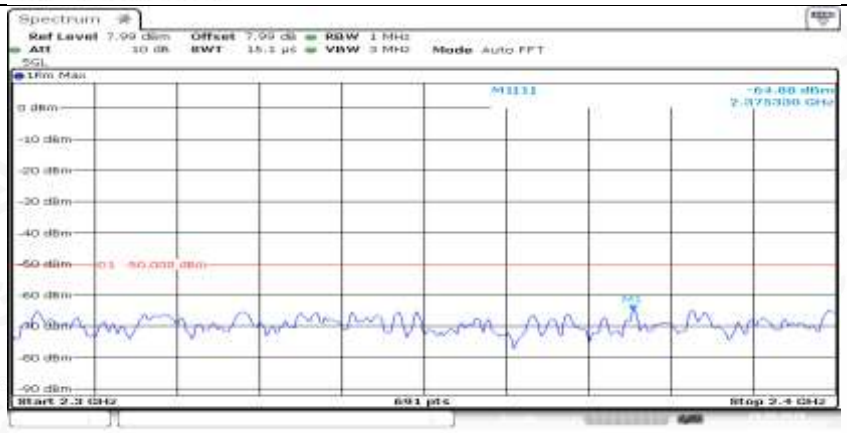
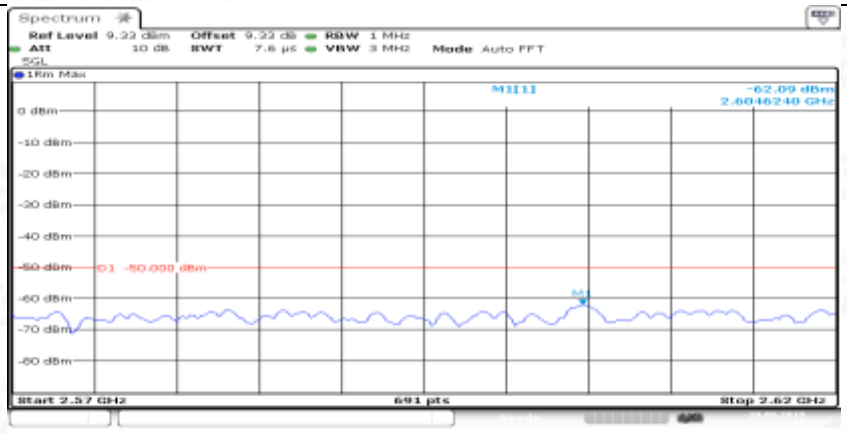
Co-existence		
Co-existence		

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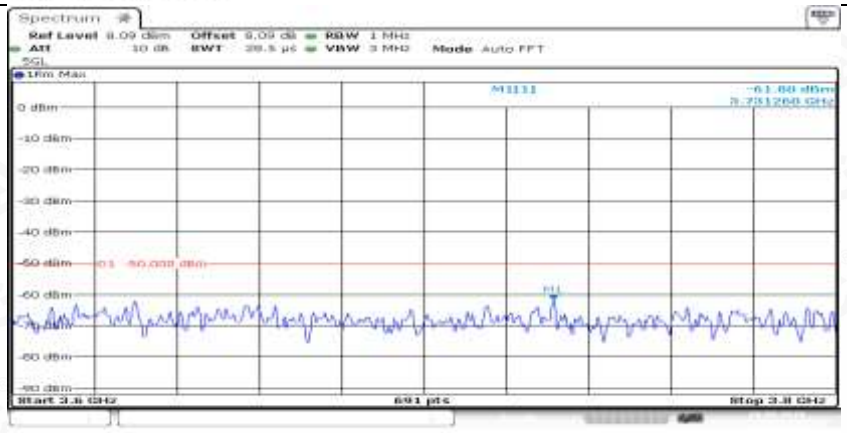
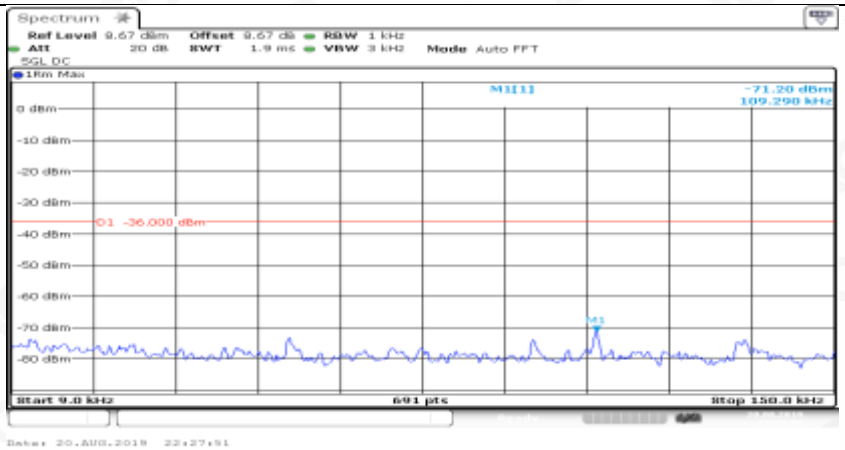
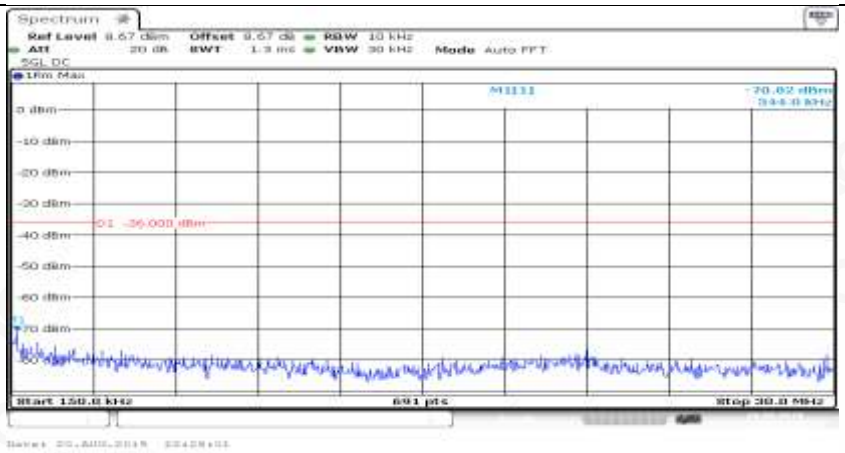
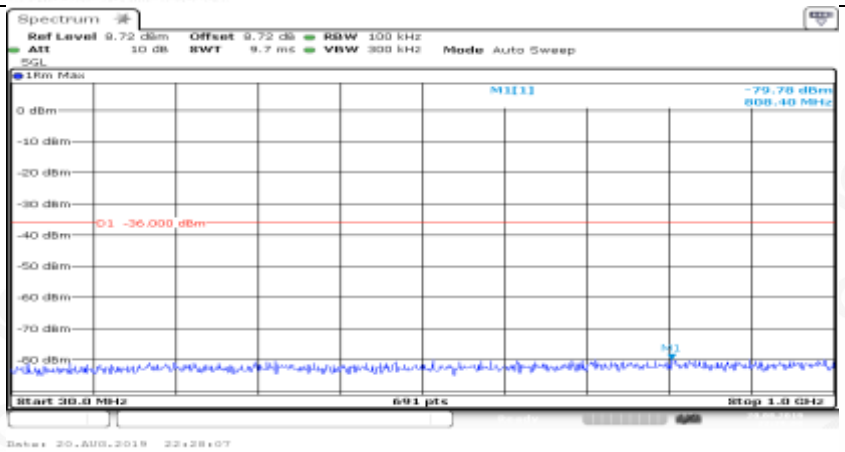
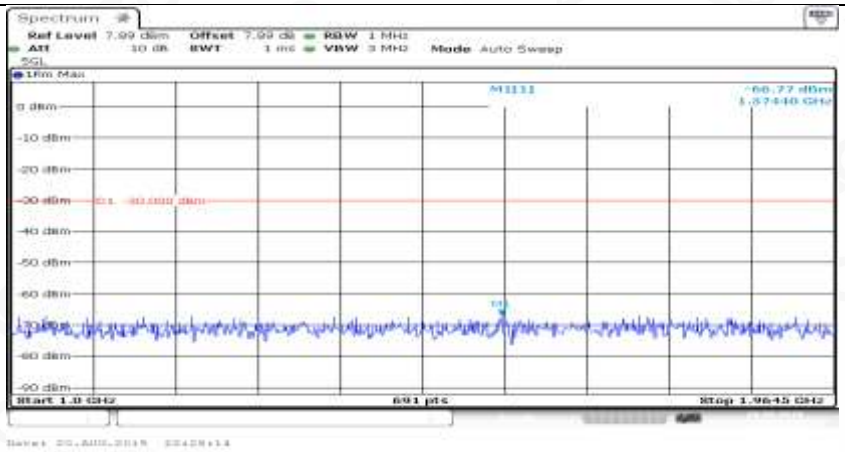
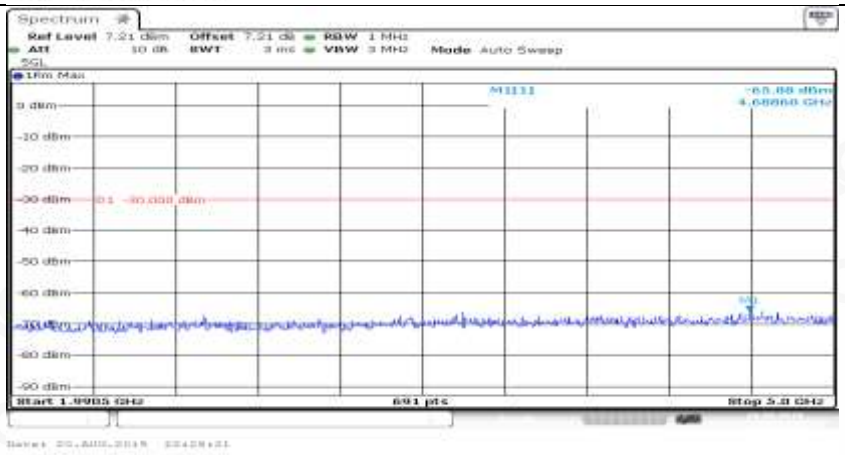
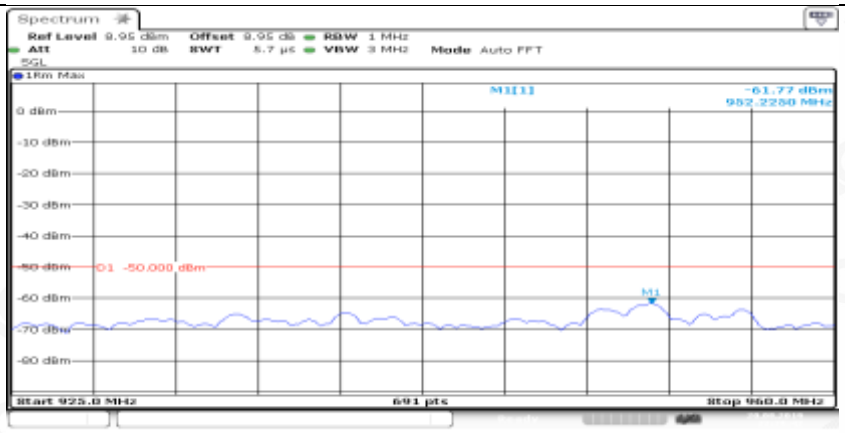
Co-existence	
Additional	NA

Channel Bandwidth=Lowest (5 MHz)_QPSK_HCH_1RB#0

General	
General	
General	

General	
General	
General	

Co-existence	
Co-existence	
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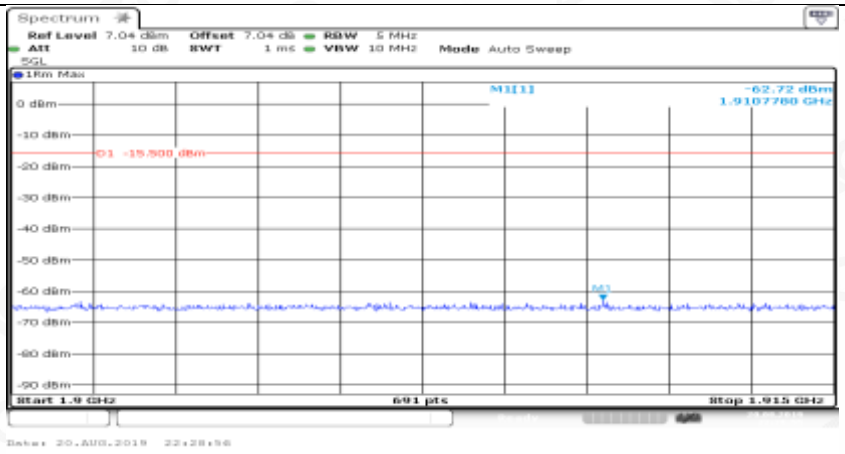
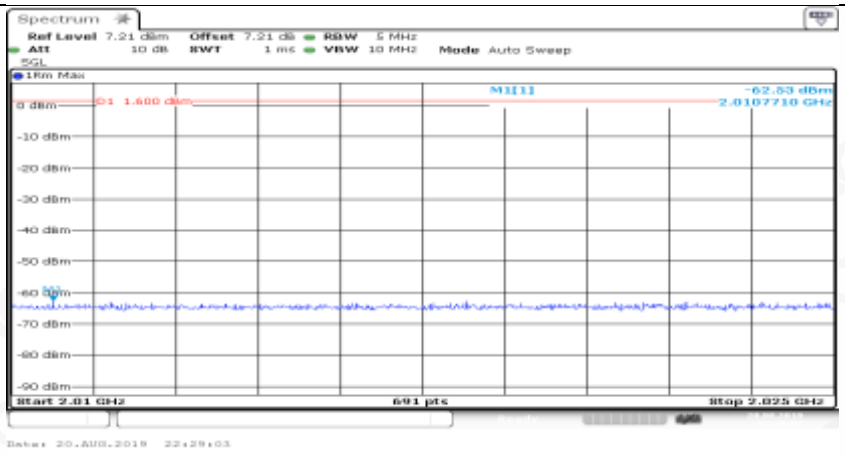
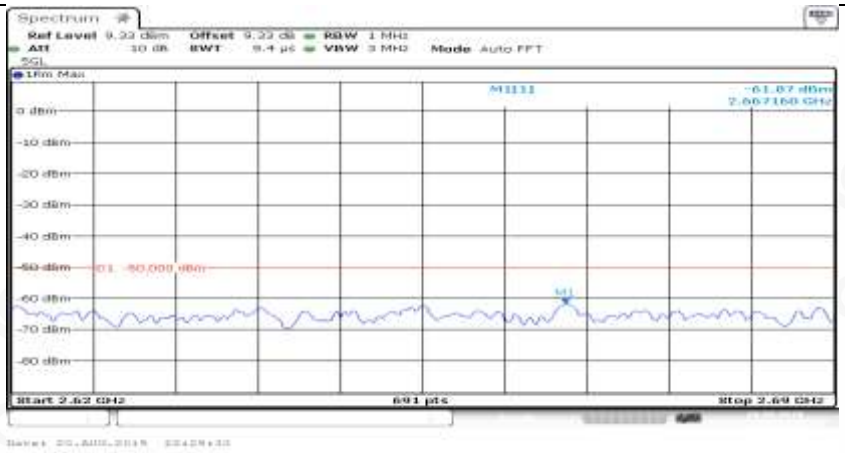
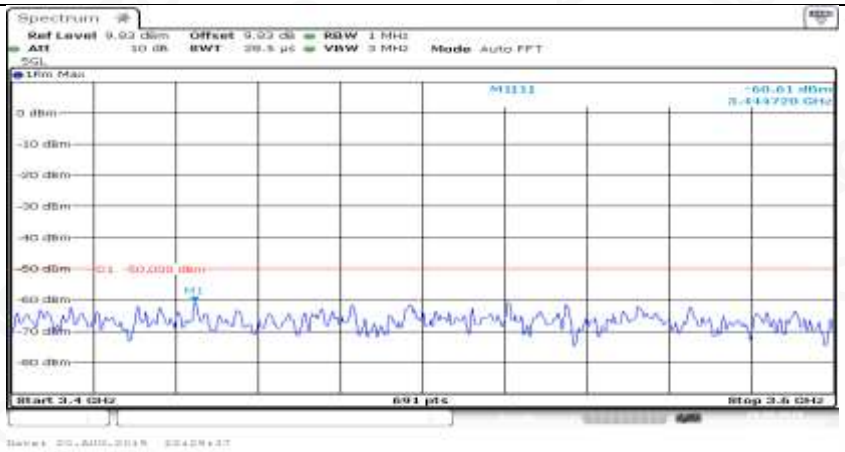
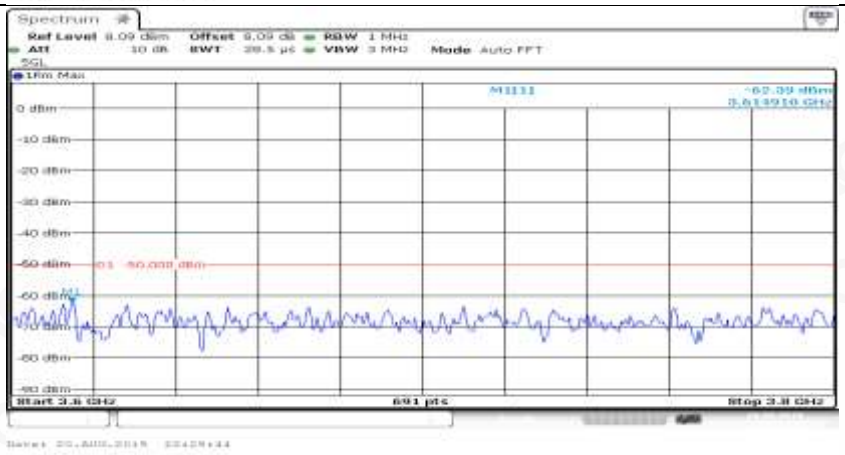
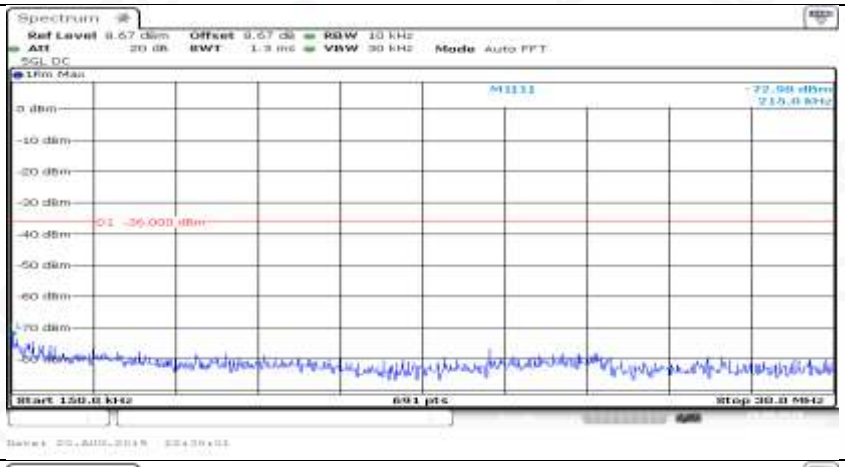
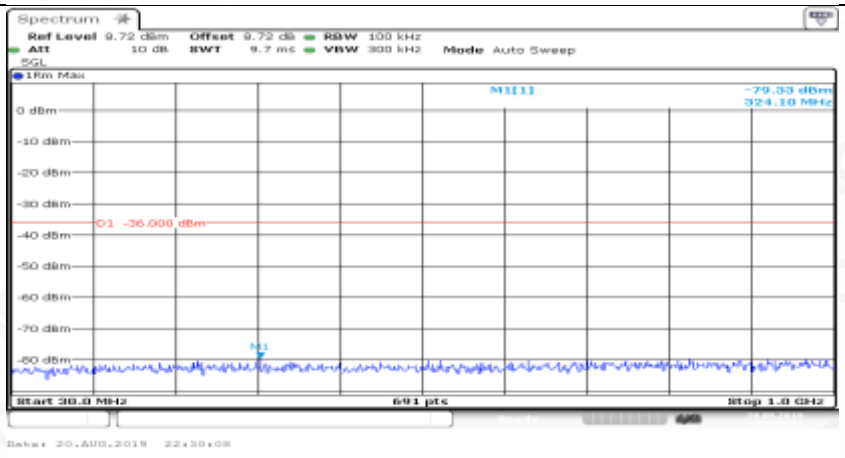
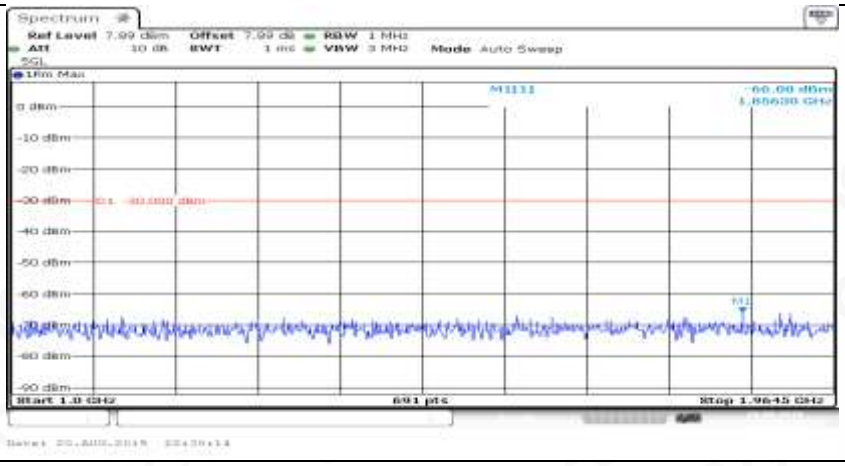
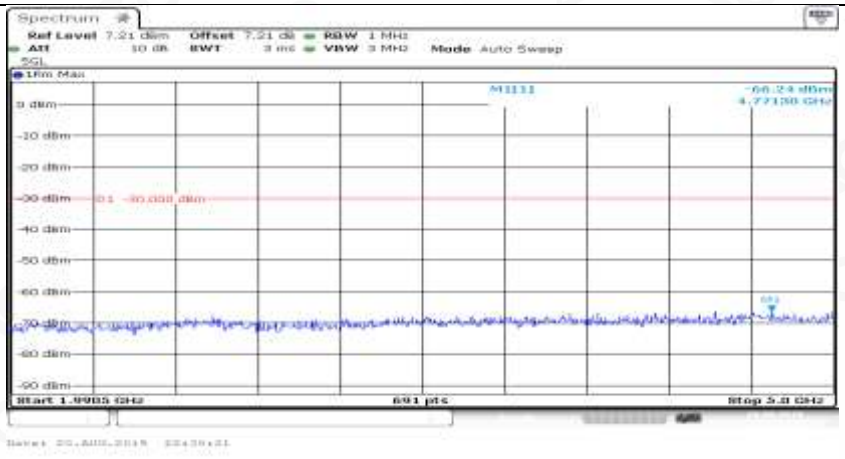
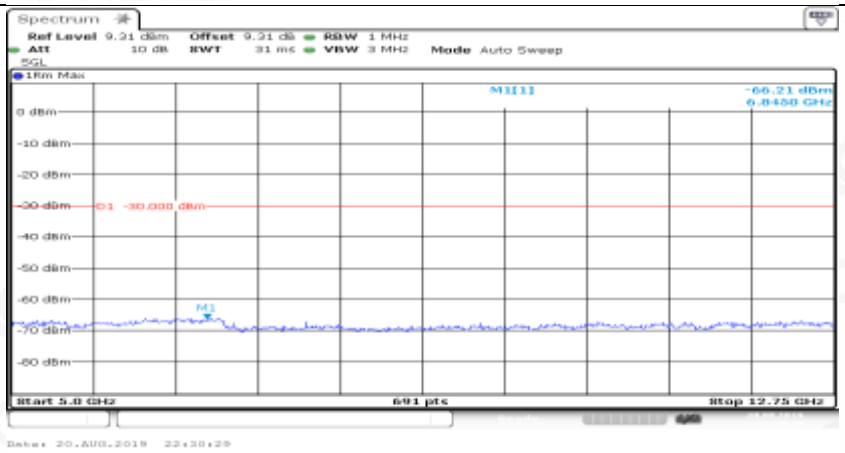
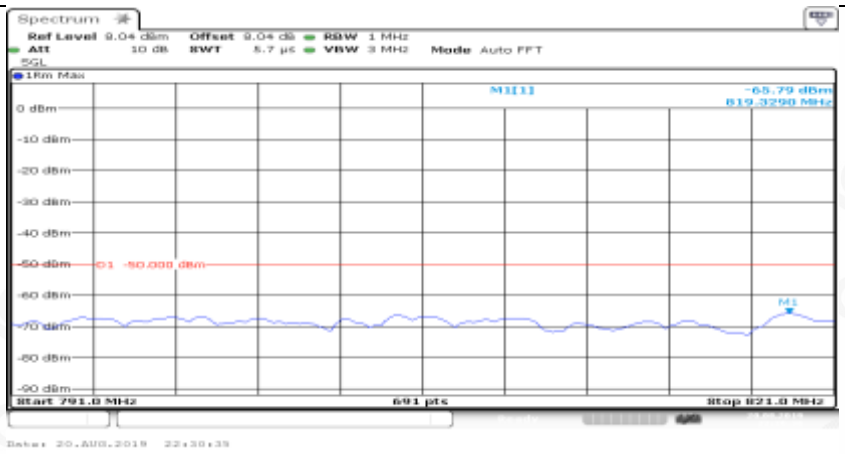
Co-existence	
Co-existence	
Co-existence	

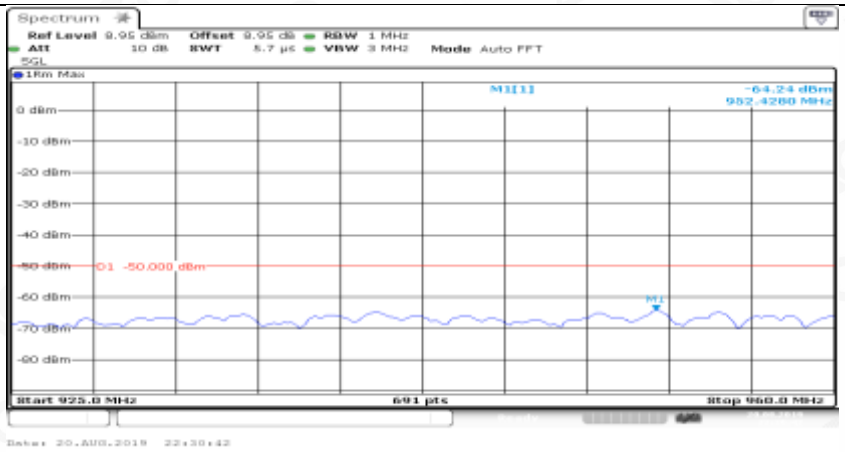
Co-existence	
Co-existence	
Co-existence	

Co-existence	
Co-existence	
Additional	NA

Channel Bandwidth=Lowest (5 MHz)_QPSK_HCH_1RB#max	
General	

General	
General	
General	

General	
General	
Co-existence	

Co-existence	
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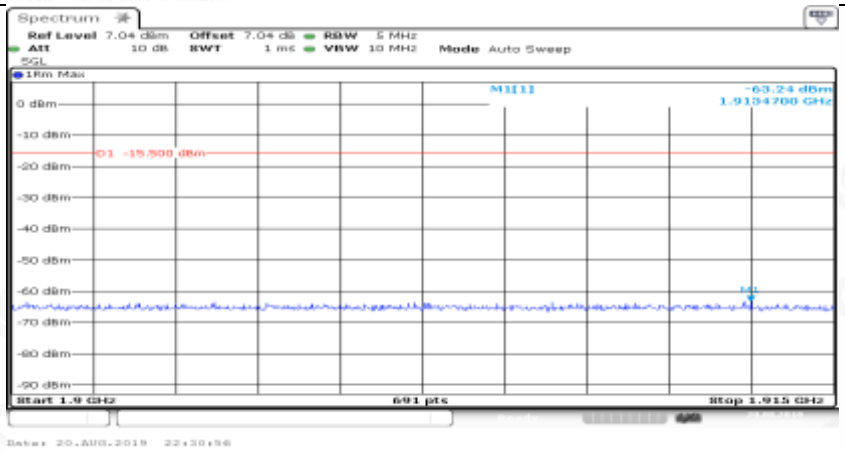
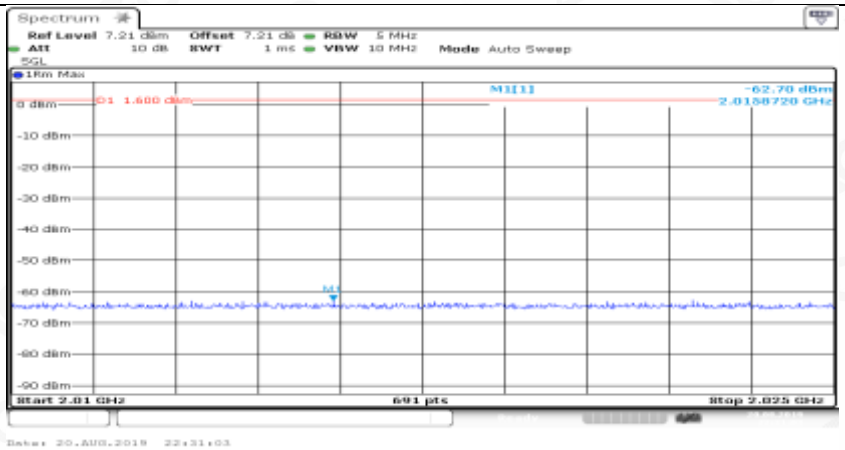
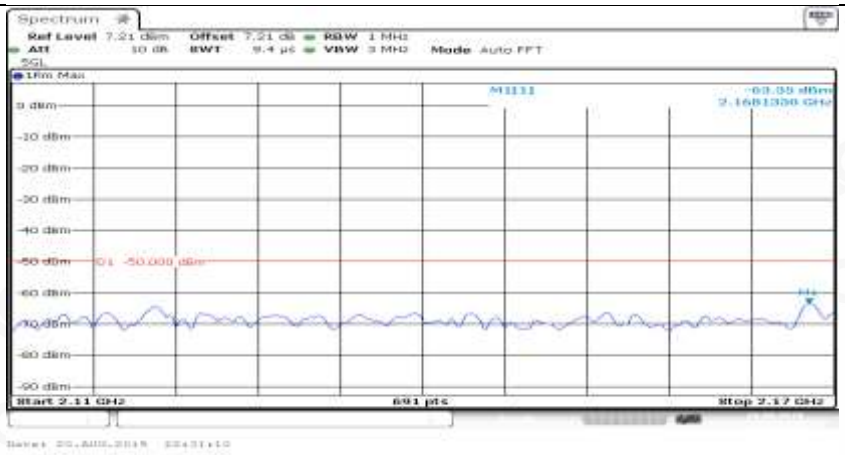
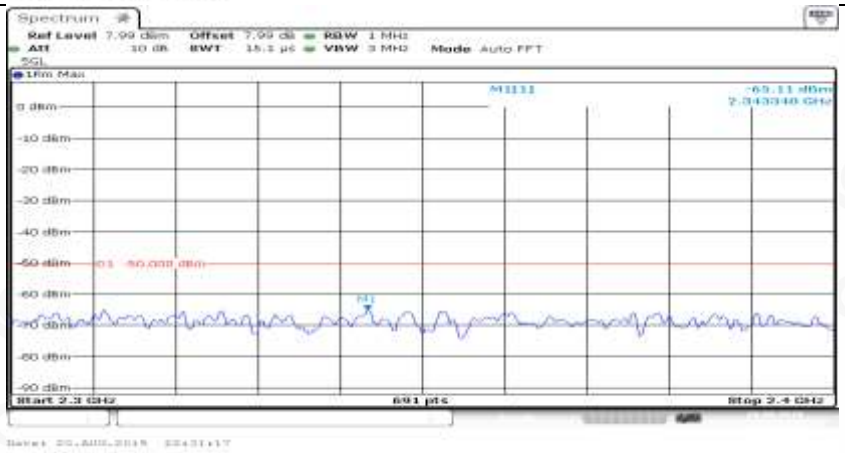
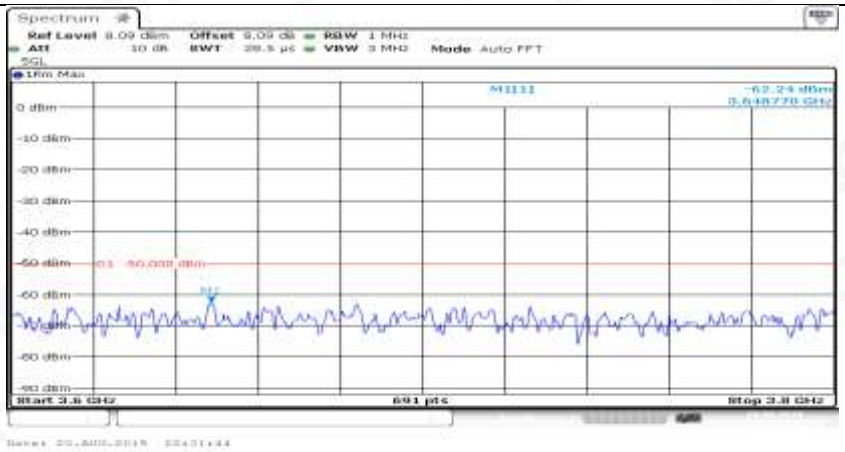
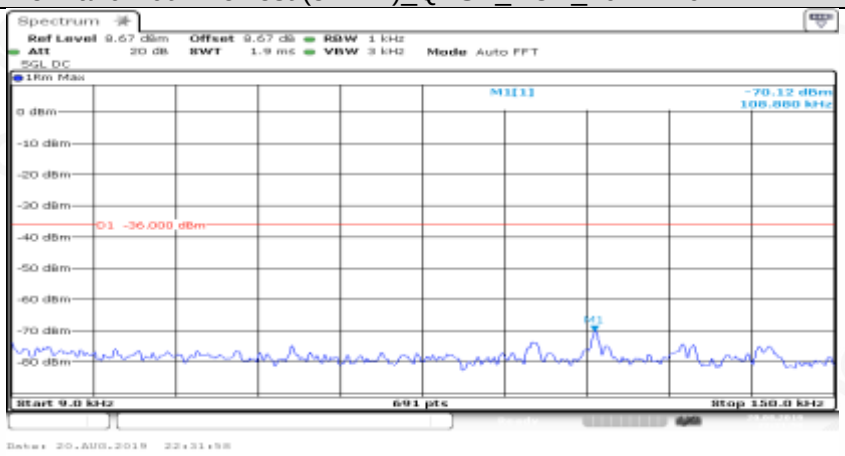
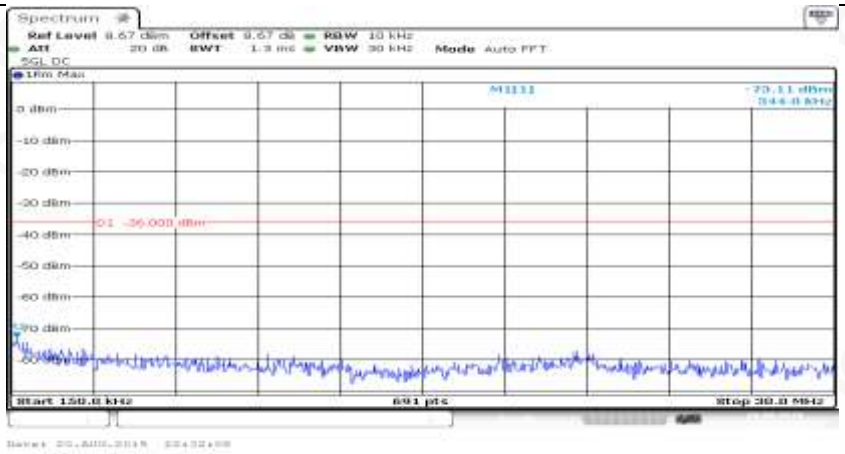
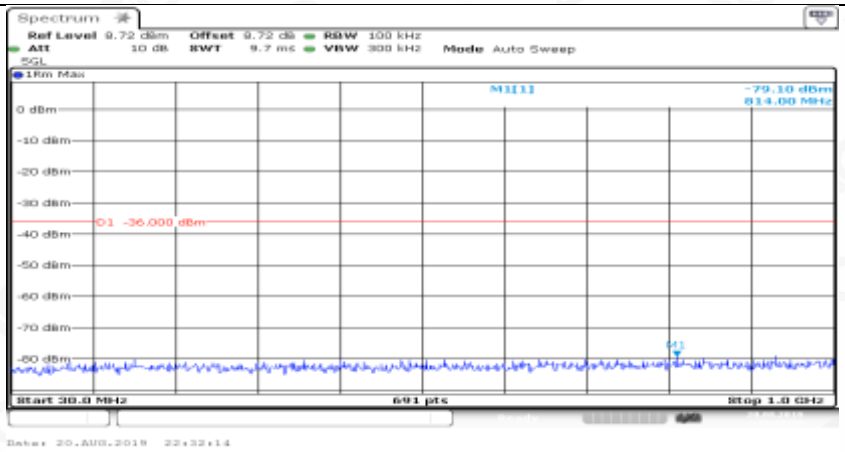
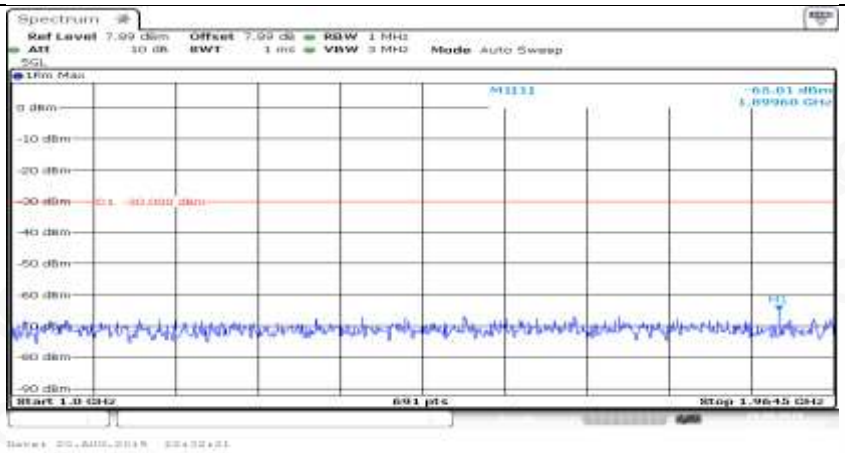
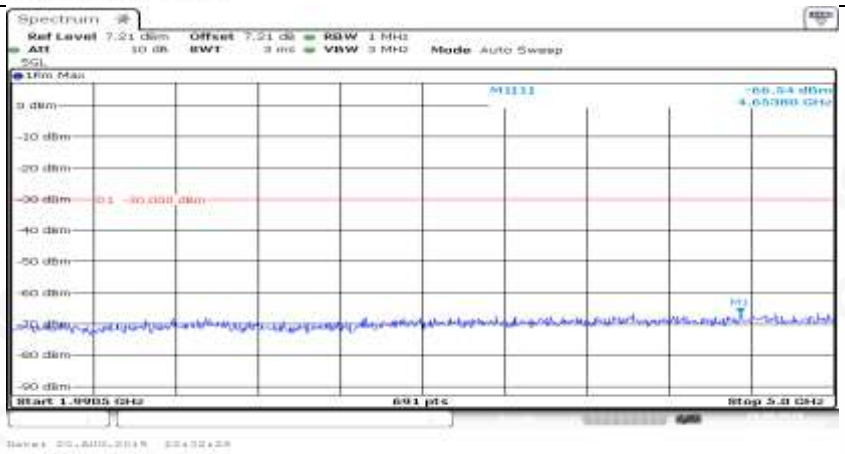
Co-existence	

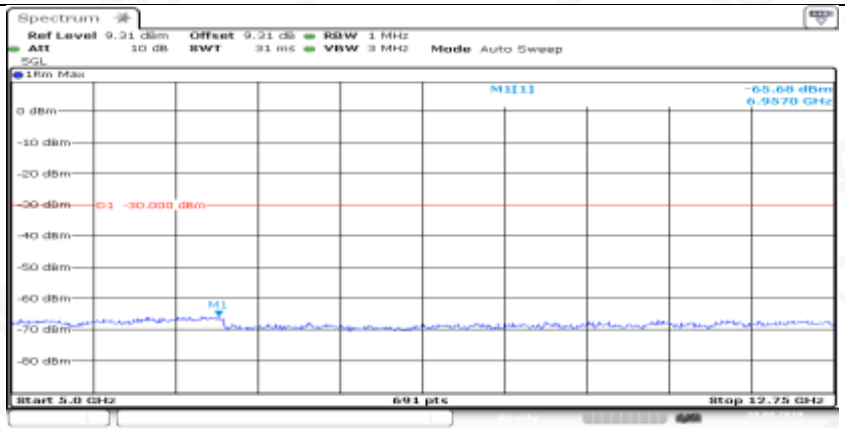
Co-existence	
Co-existence	
Co-existence	

Co-existence	
Co-existence	
Co-existence	

Co-existence	
Additional	NA

Channel Bandwidth=Lowest (5 MHz)_QPSK_HCH_FullRB#0	
General	
General	

General	
General	
General	

General	
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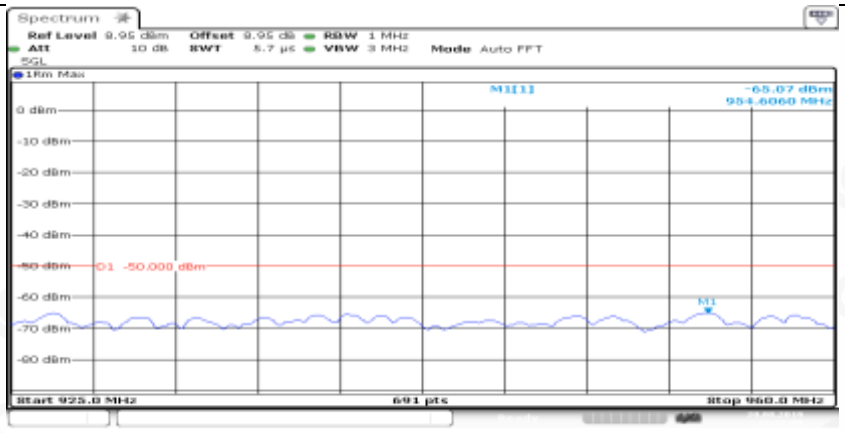
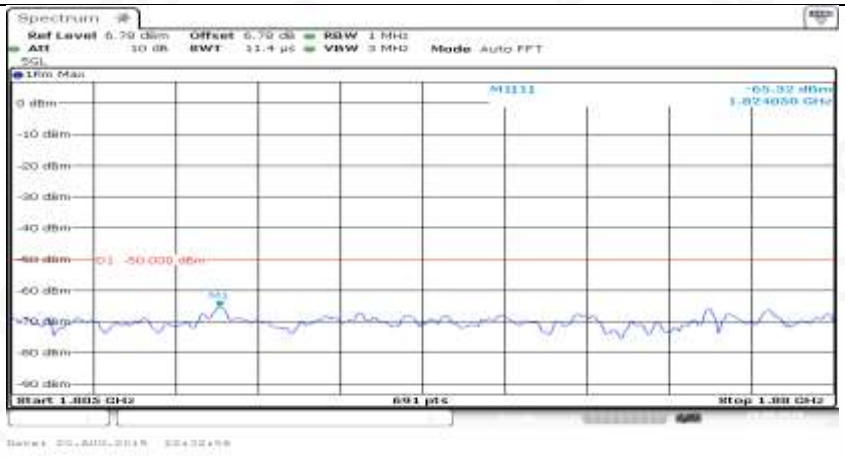
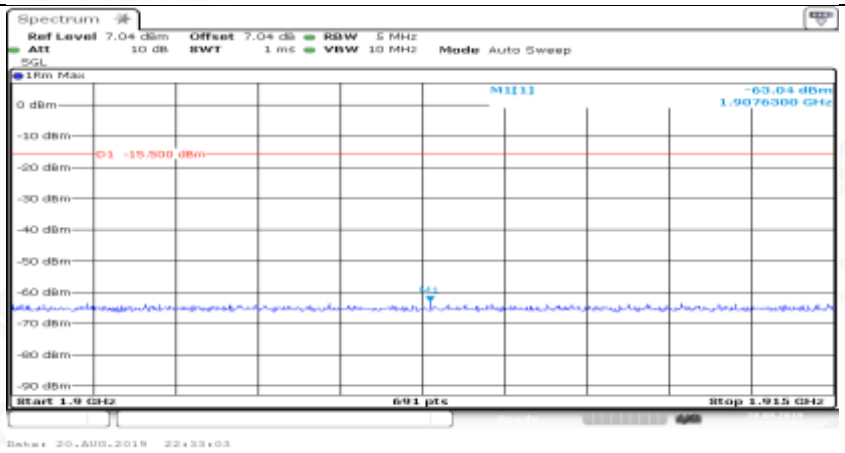
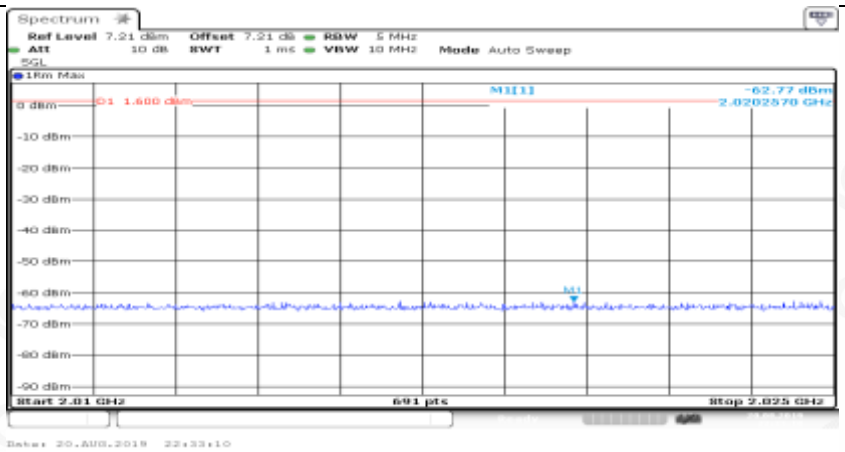
Co-existence	

Co-existence	
Co-existence	
Co-existence	

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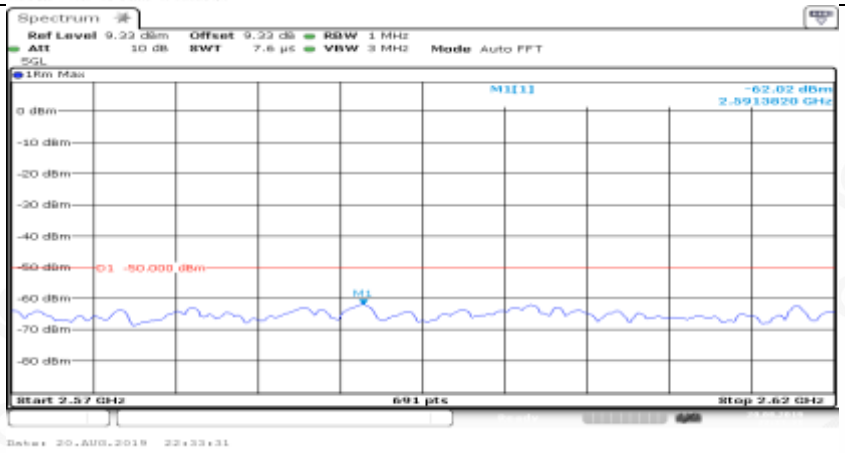
Co-existence	

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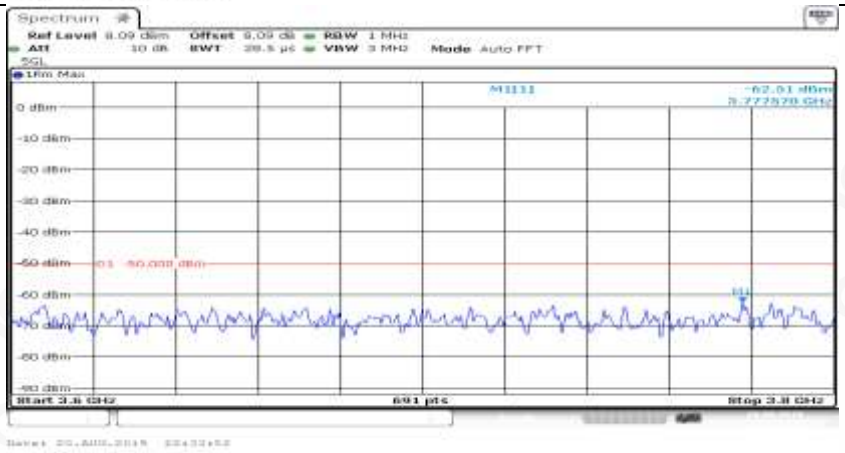
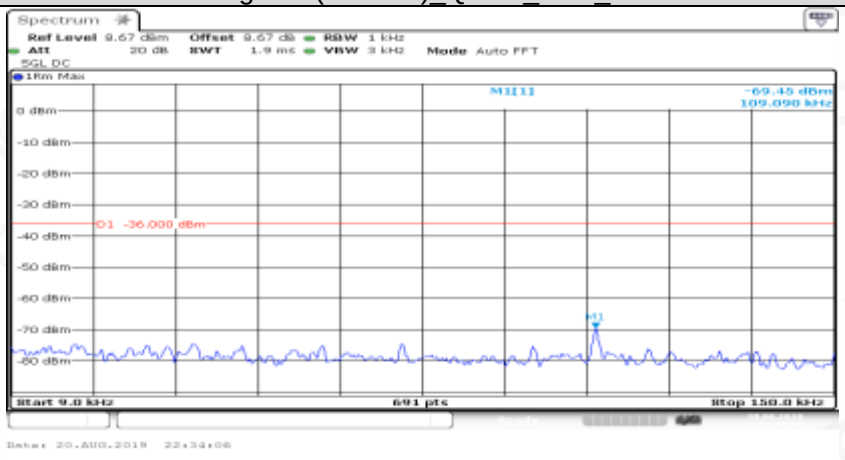
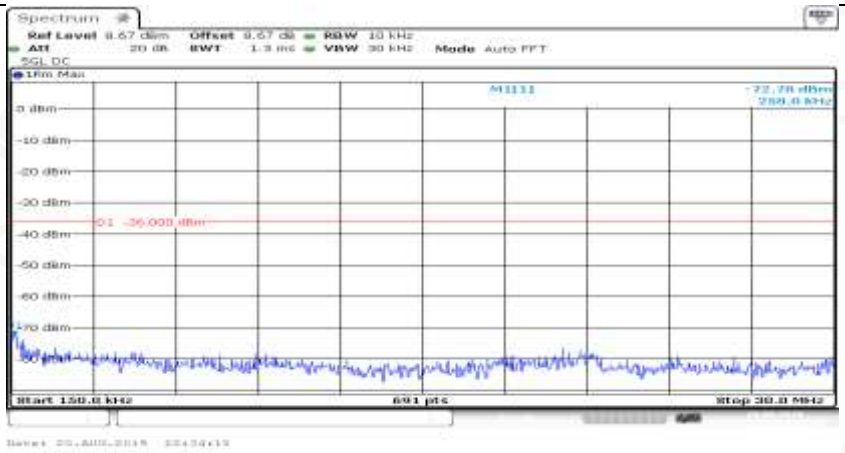
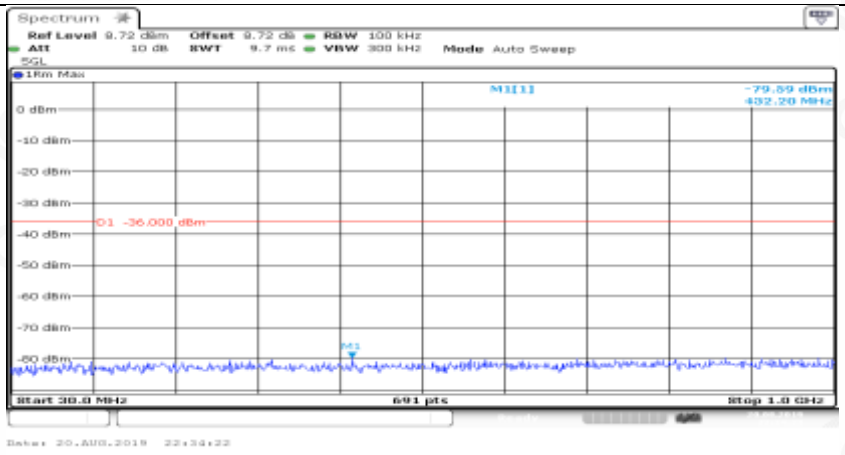
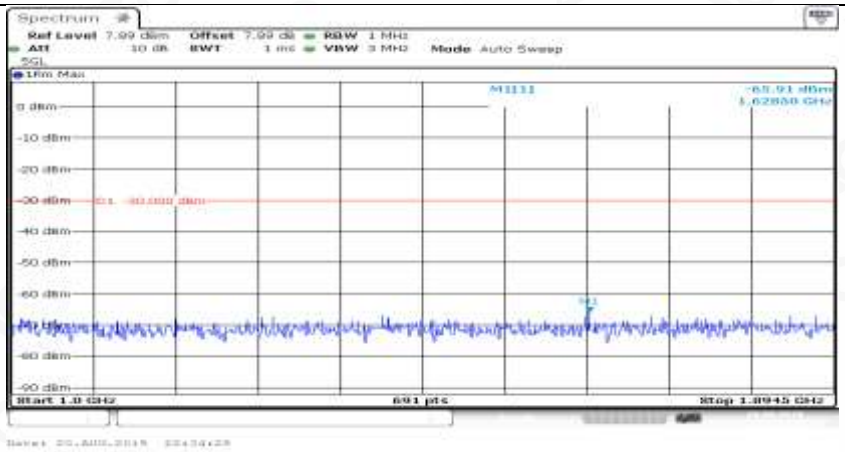
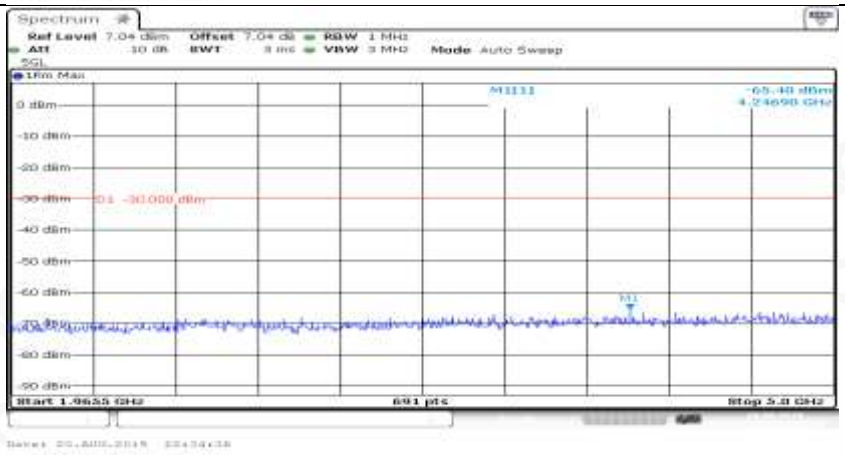
Co-existence	
Additional	NA

Channel Bandwidth= (20 MHz)

Channel Bandwidth=Highest (20 MHz)_QPSK_LCH_1RB#0	
General	
General	
General	

General	
General	
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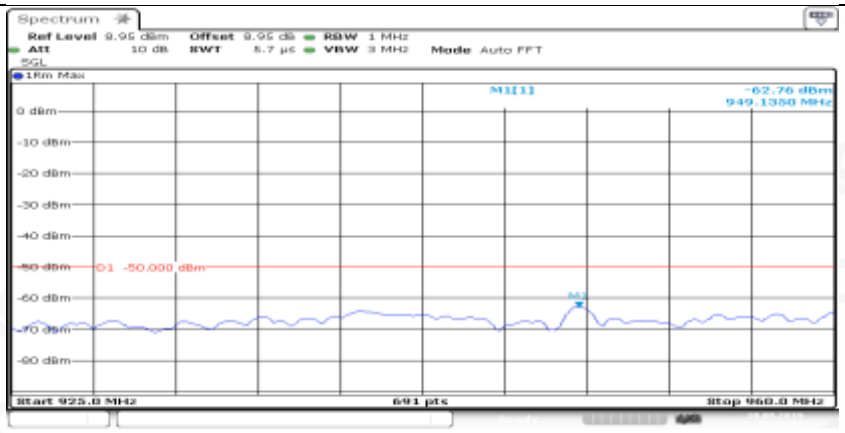
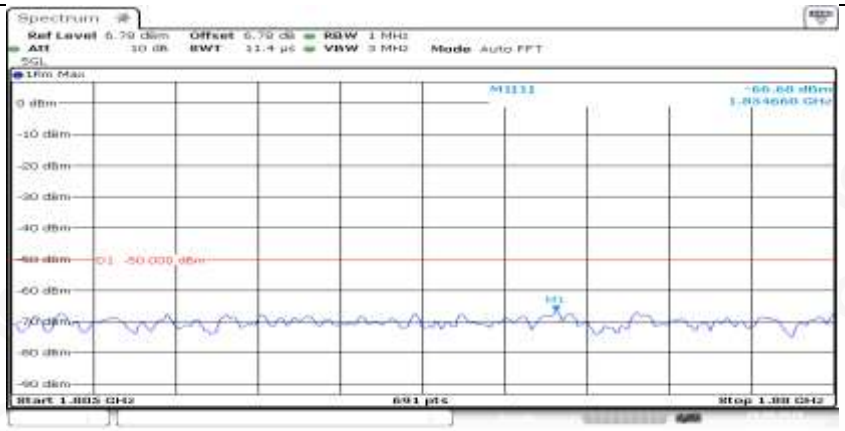
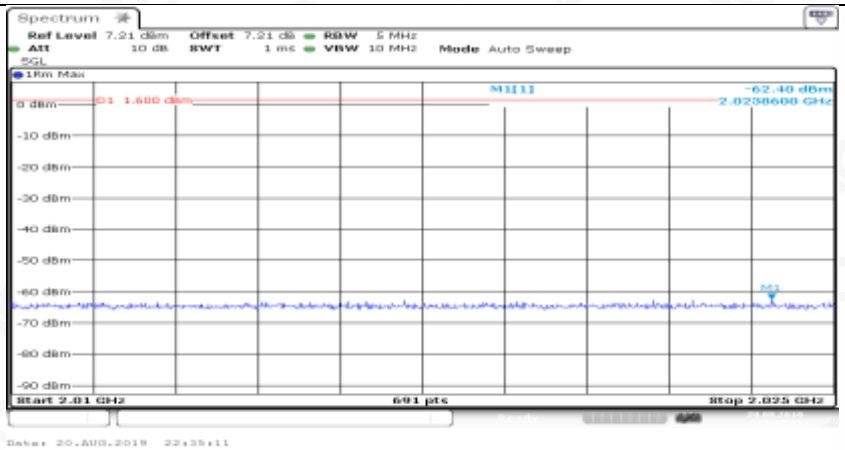
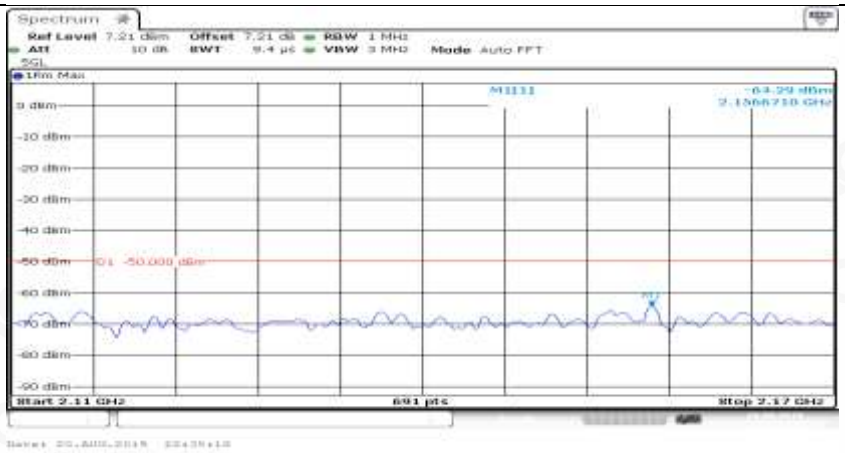
Co-existence	
Co-existence	

Co-existence	
Co-existence	
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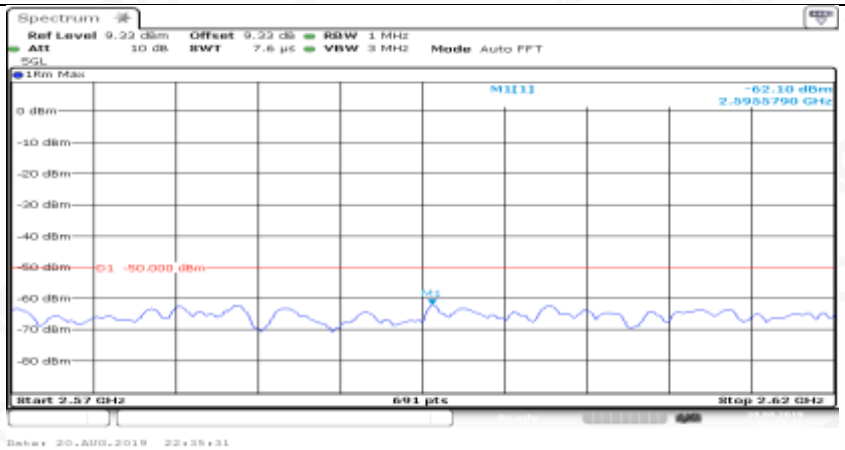
Co-existence	
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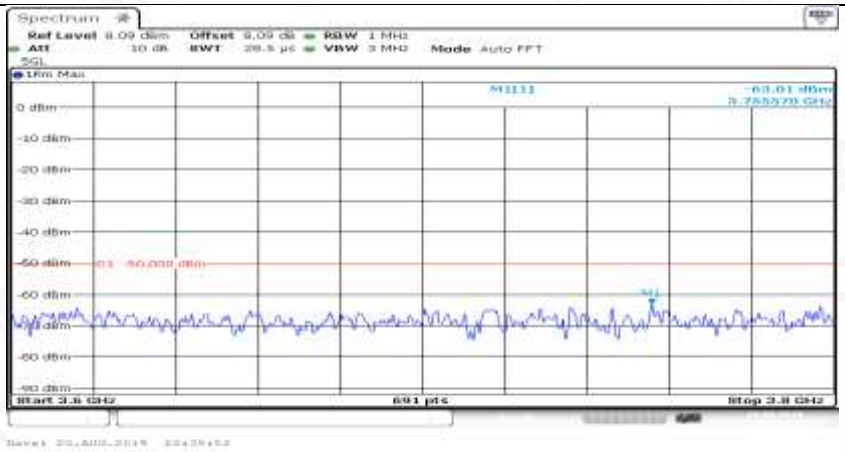
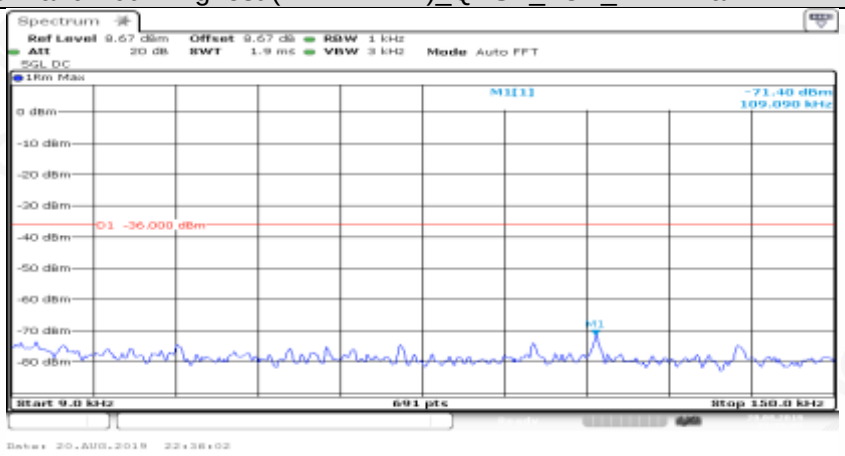
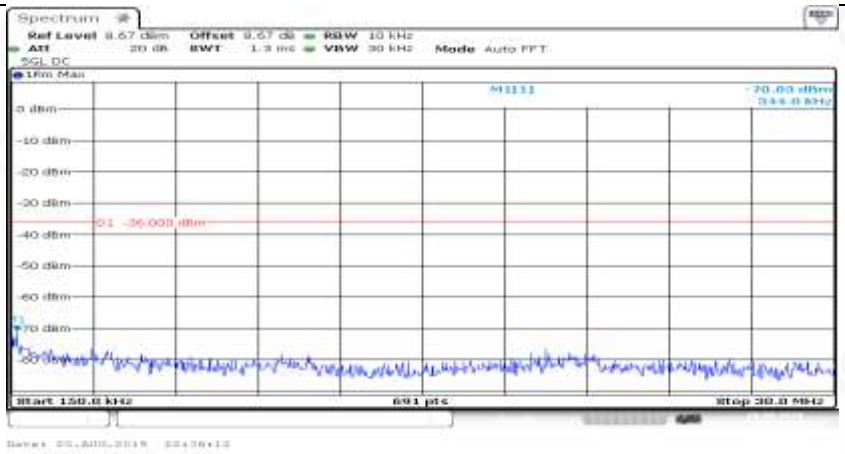
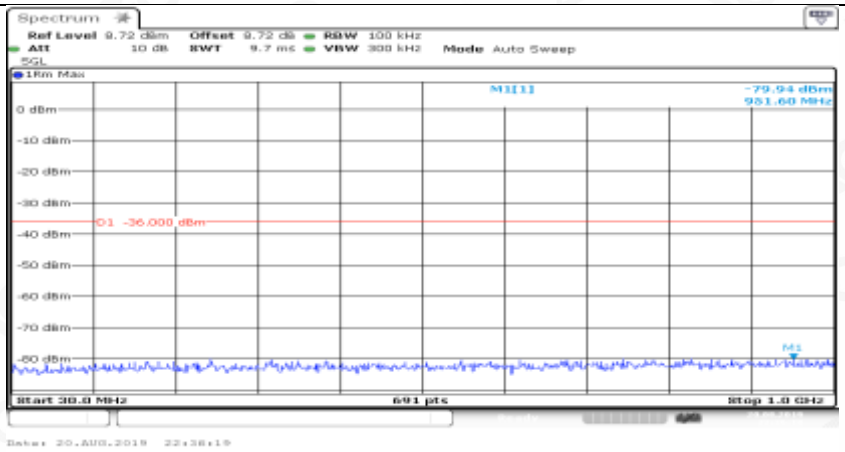
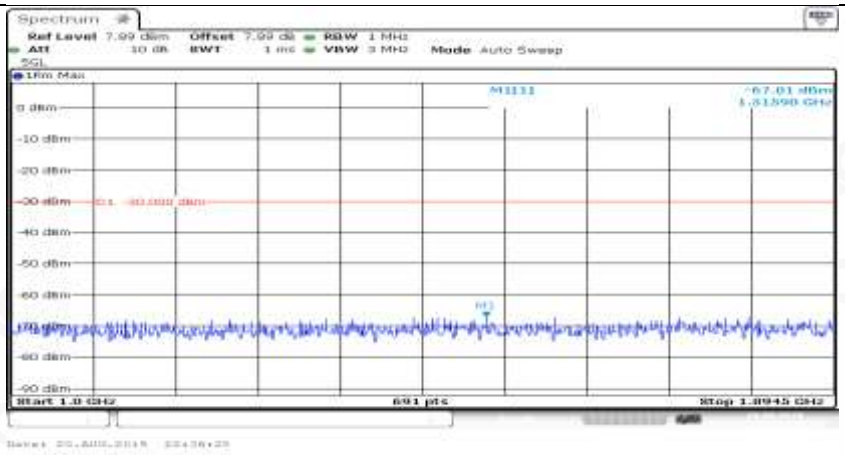
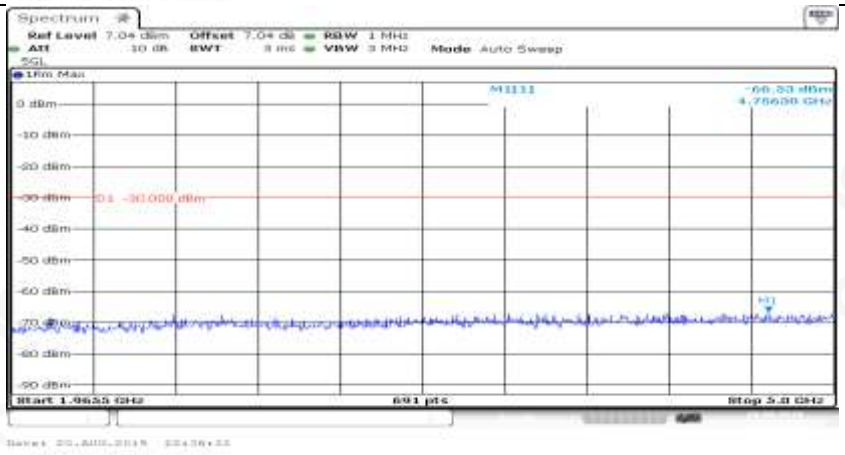
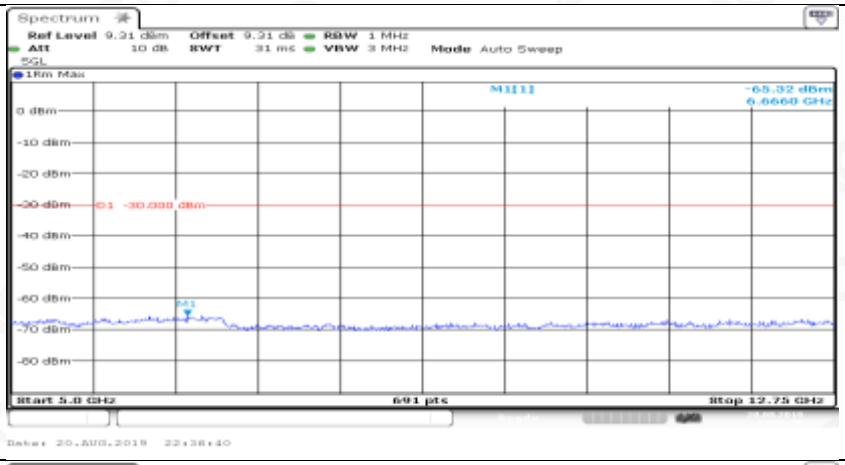
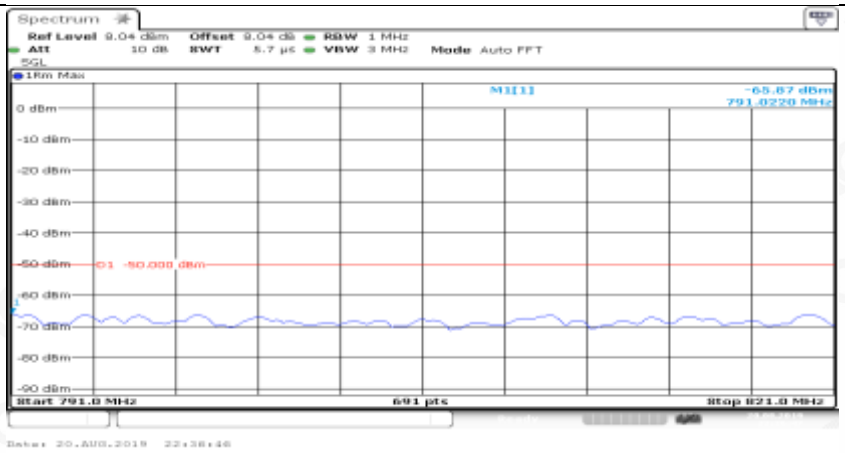
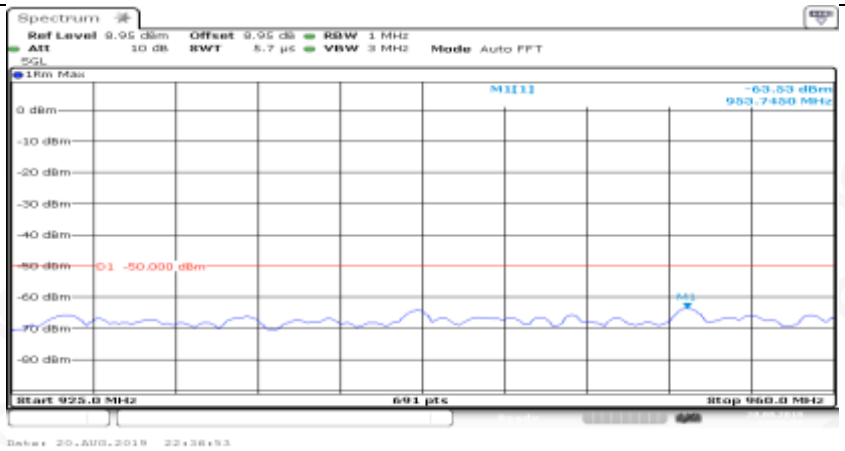
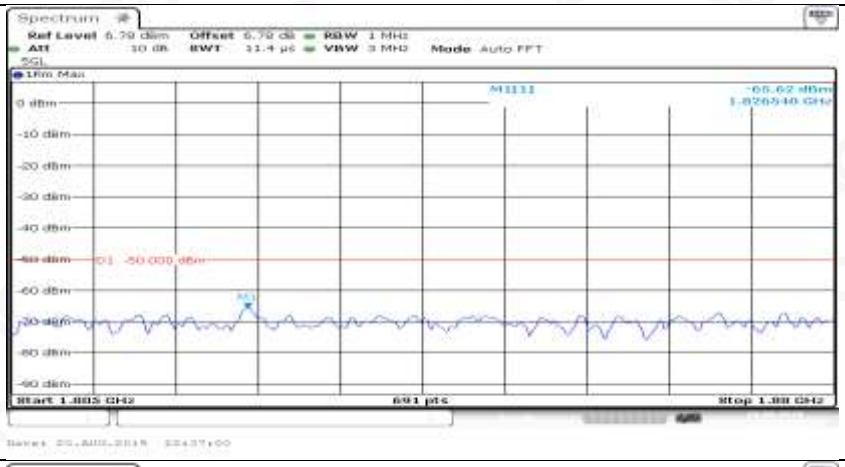
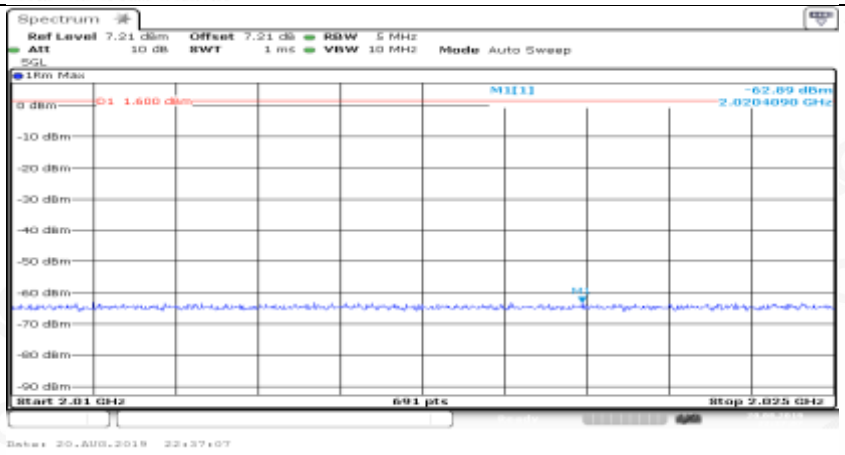
Co-existence	

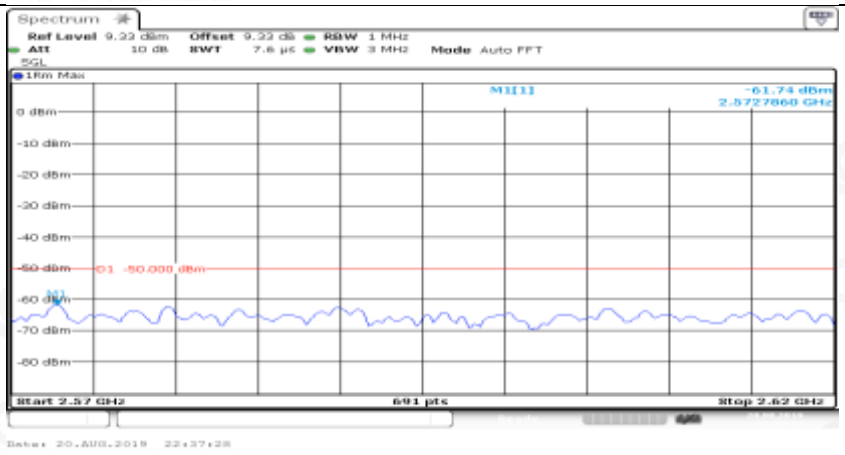
Co-existence	
Additional	NA

Channel Bandwidth=Highest (#BWH MHz)_QPSK_LCH_1RB#max	
General	
General	

General	
General	
General	

General	
Co-existence	
Co-existence	

Co-existence	
Co-existence	
Co-existence	

Co-existence	
Co-existence	
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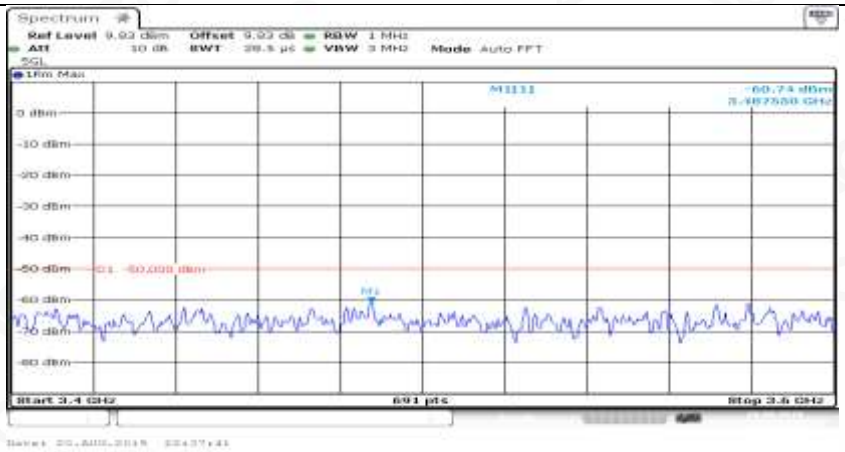
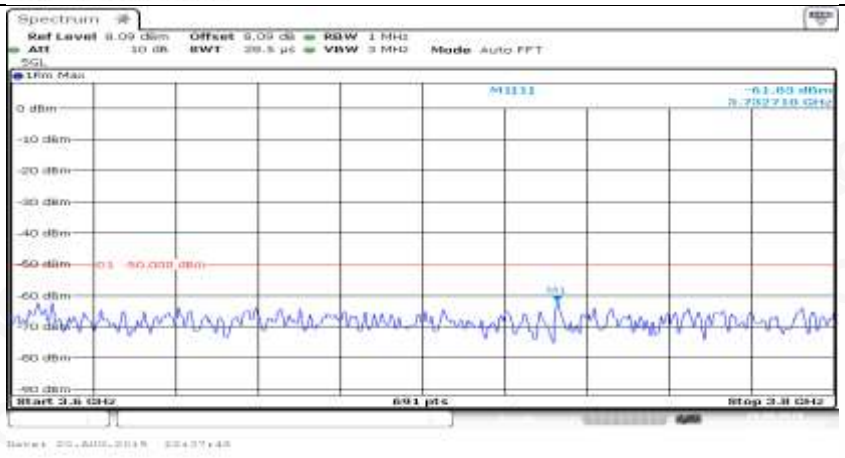
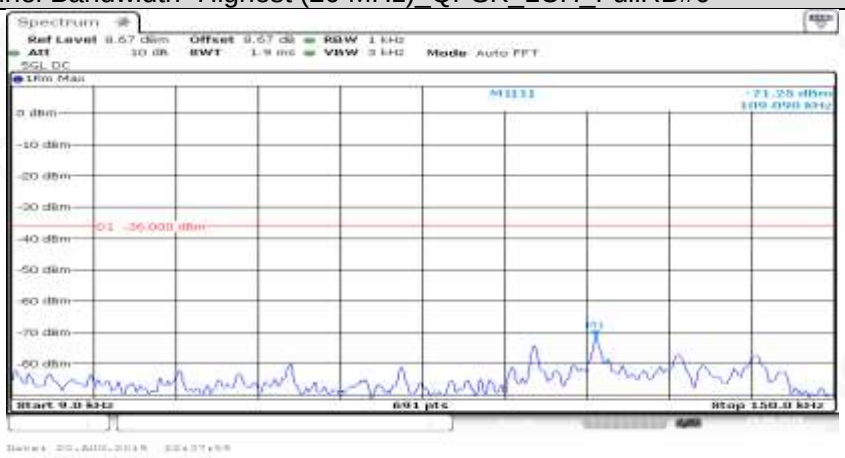
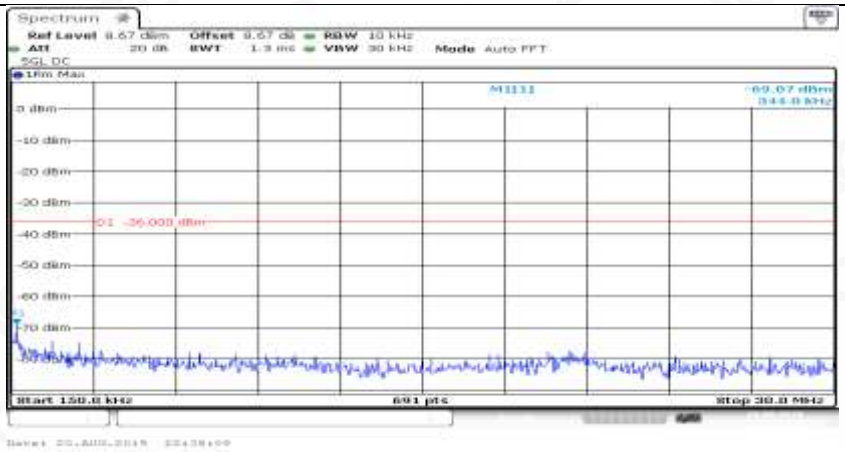
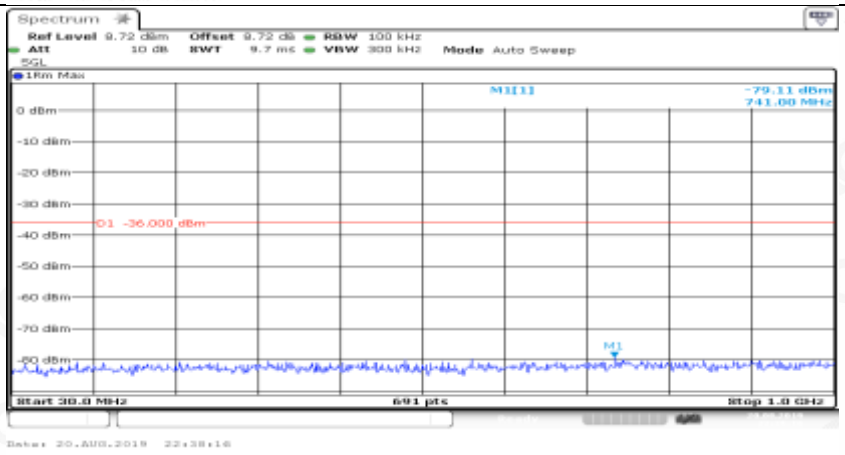
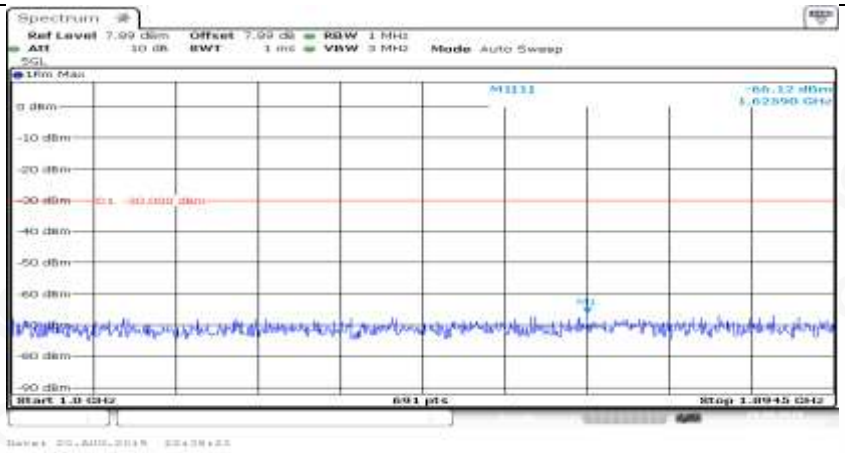
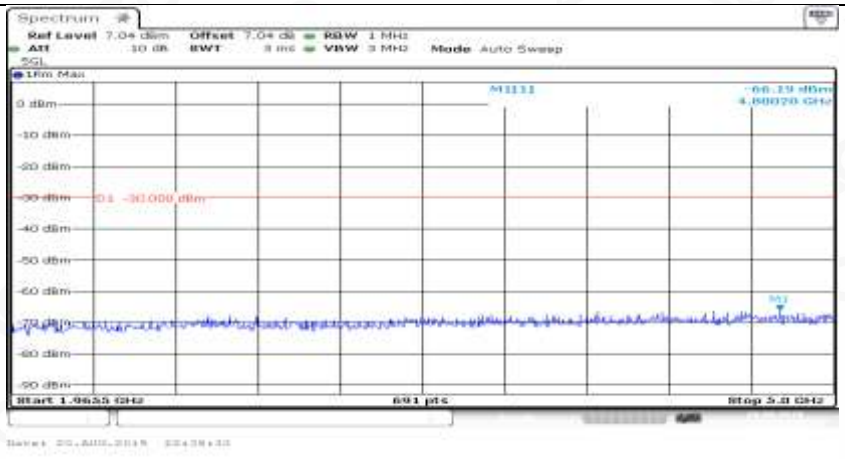
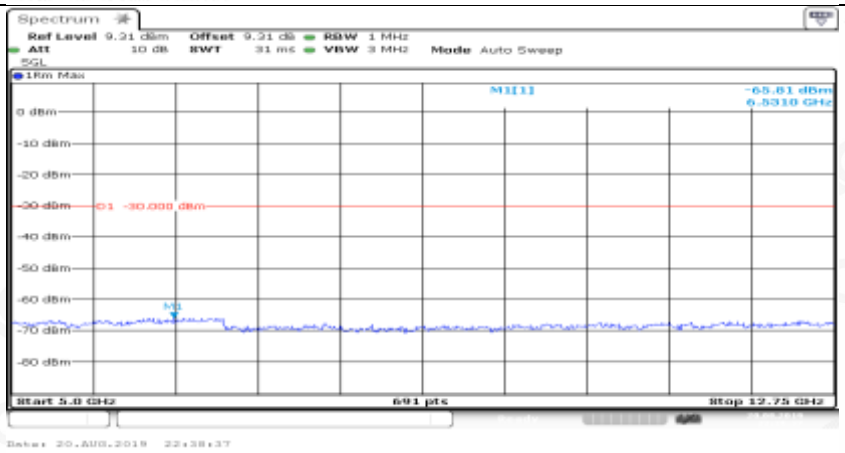
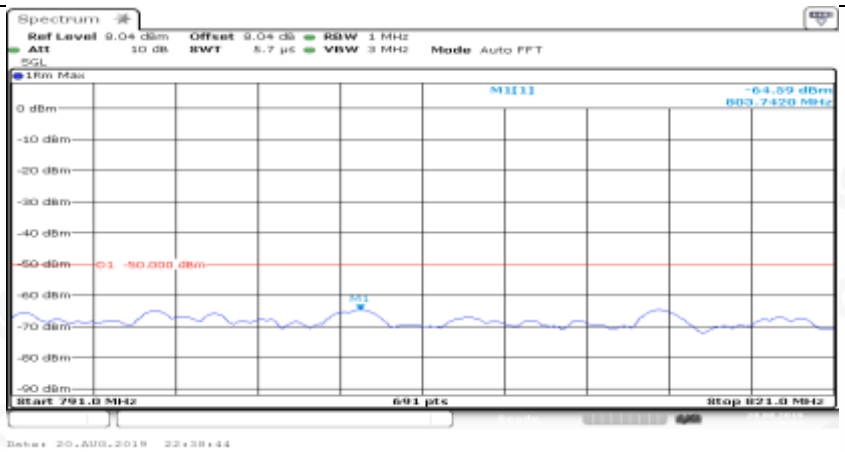
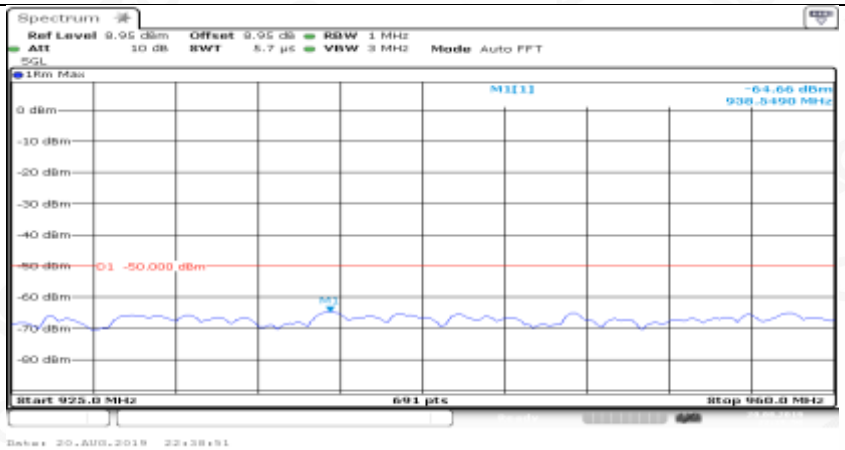
Co-existence	
Co-existence	
Additional	NA

Channel Bandwidth=Highest (20 MHz)_QPSK_LCH_FullRB#0	
General	

General	
General	
General	

General	
General	
Co-existence	

Co-existence	
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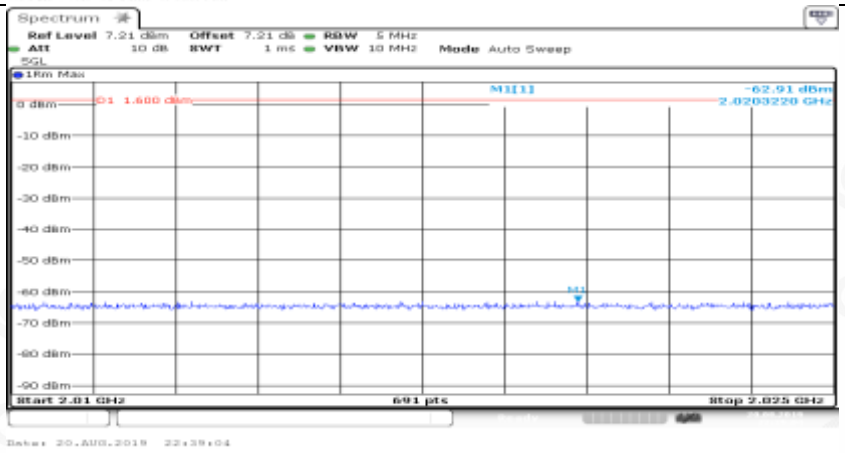
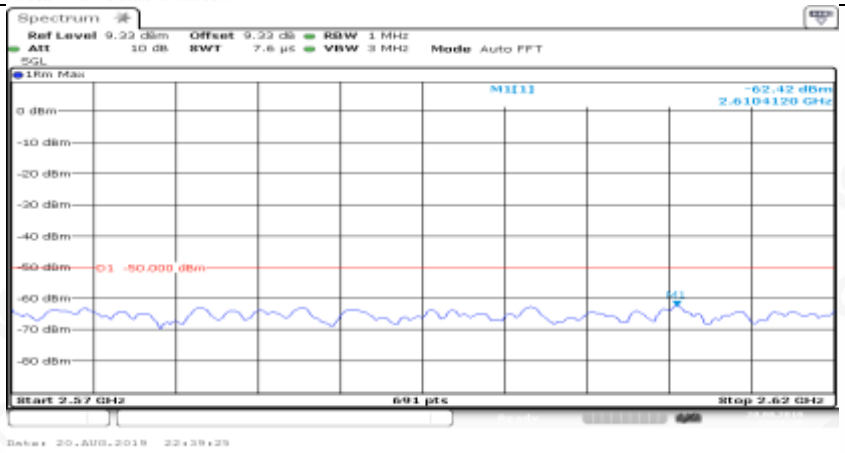
Co-existence	

Co-existence	
Co-existence	
Co-existence	

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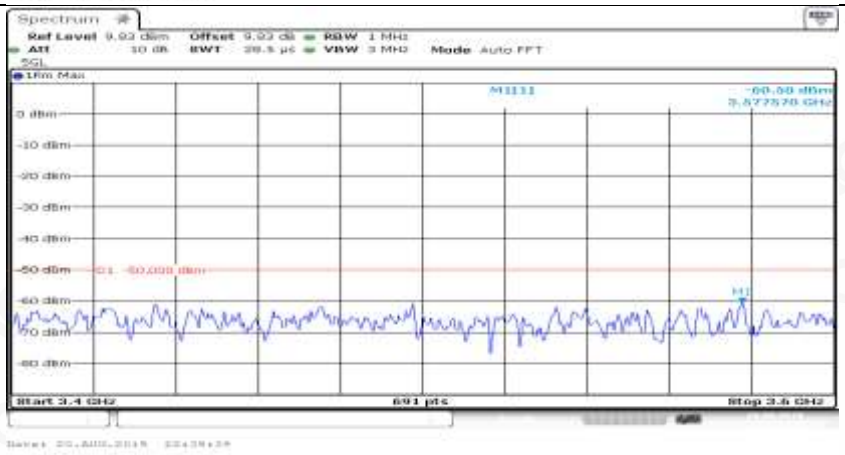
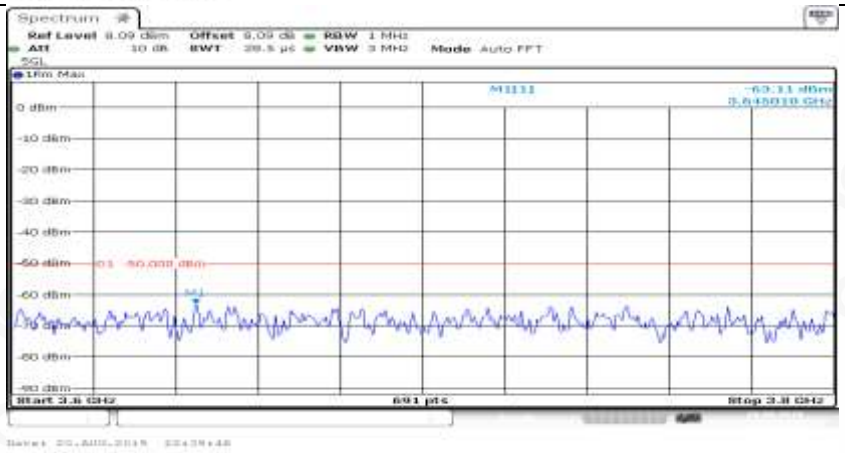
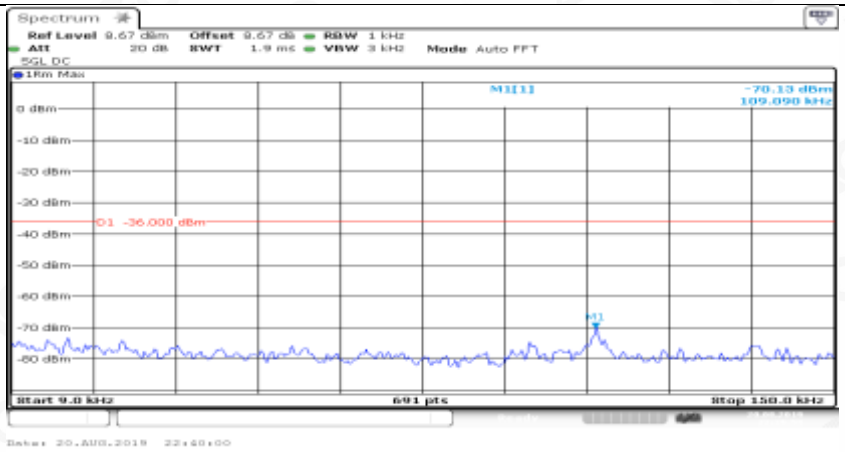
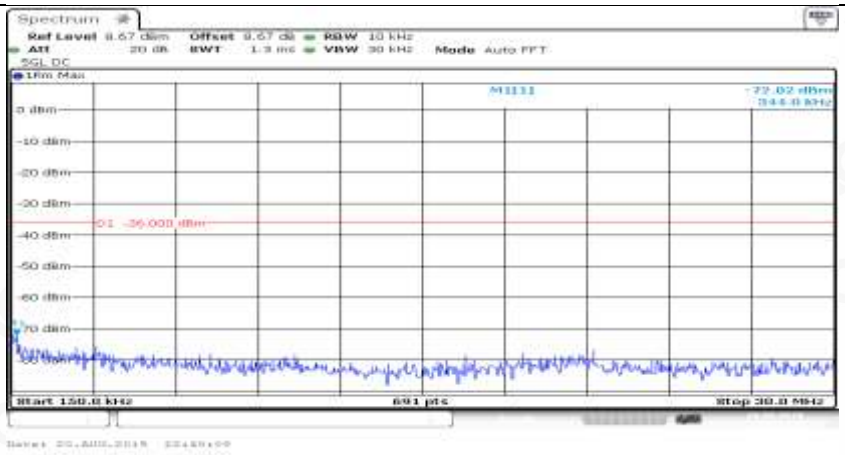
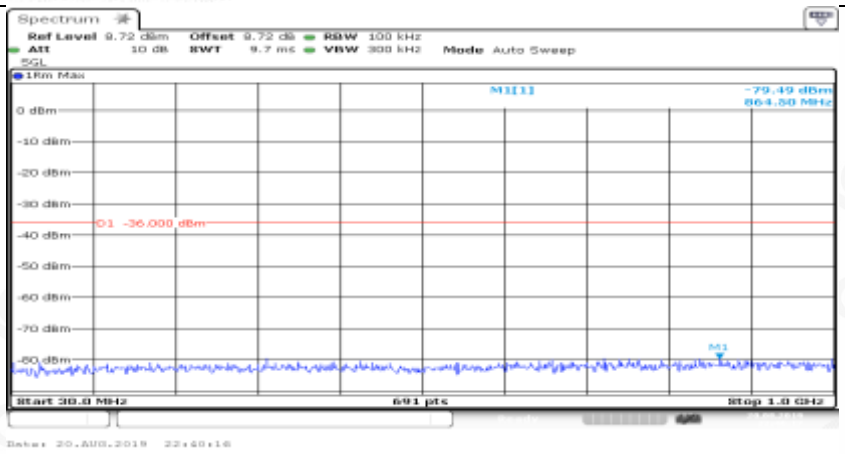
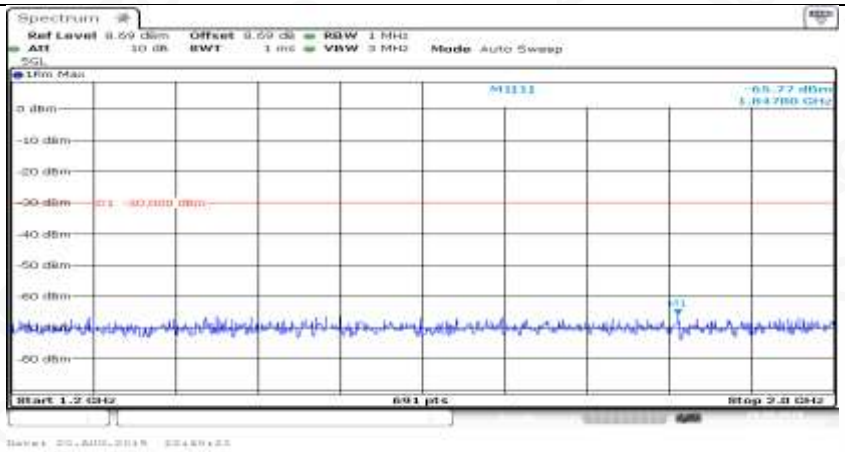
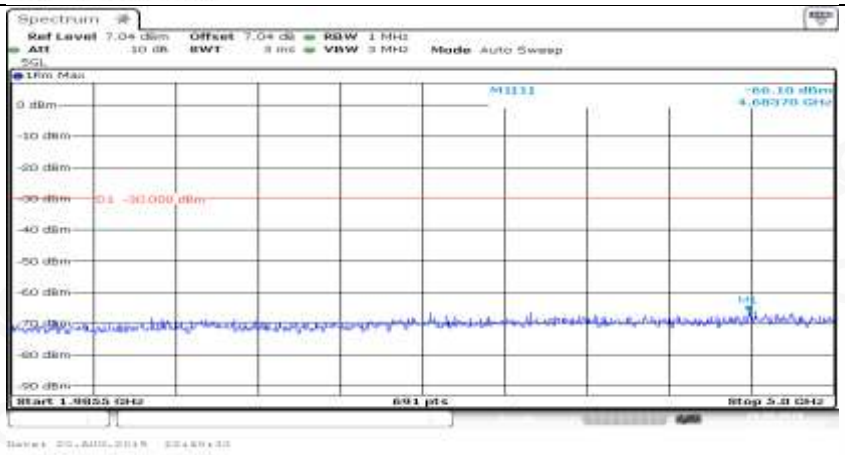
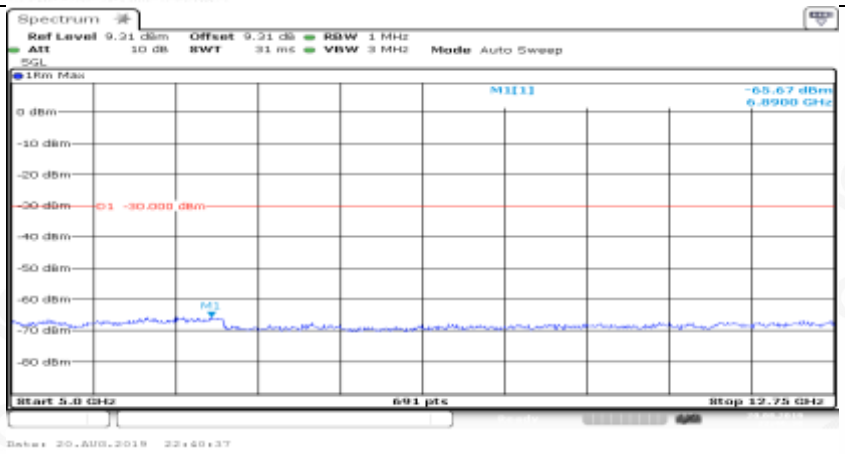
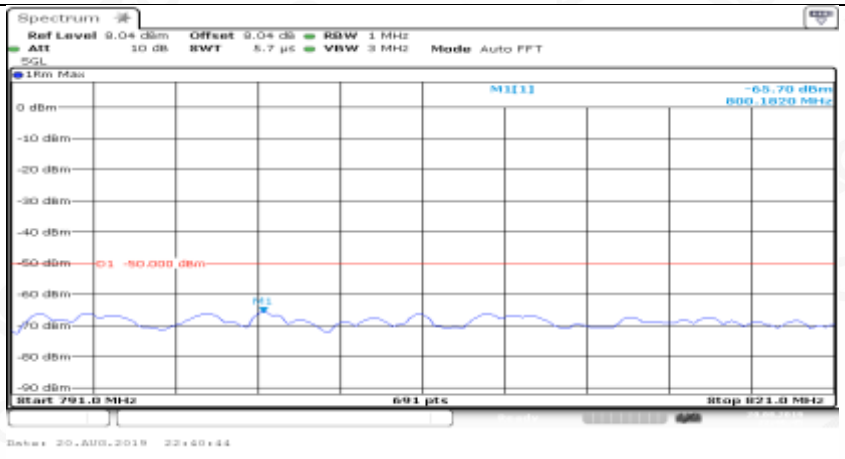
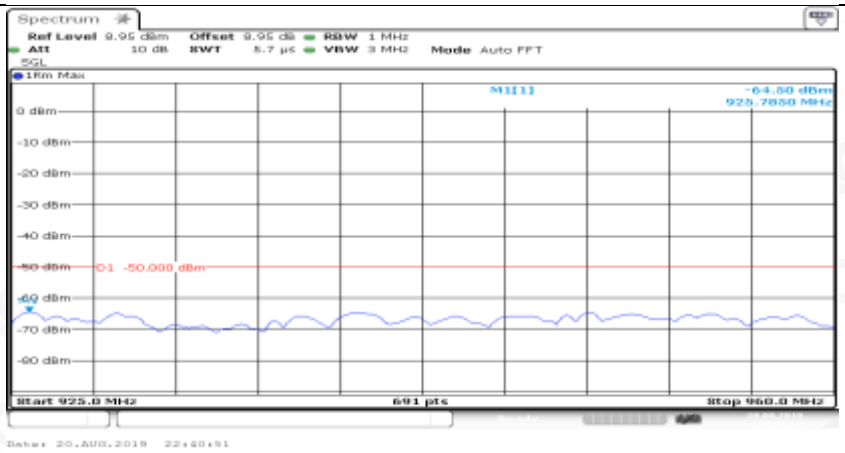
Co-existence	
Co-existence	
Additional	NA

Channel Bandwidth=Highest (20 MHz)_QPSK_MCH_1RB#0

General	
General	
General	

General	
General	
General	

Co-existence	
Co-existence	
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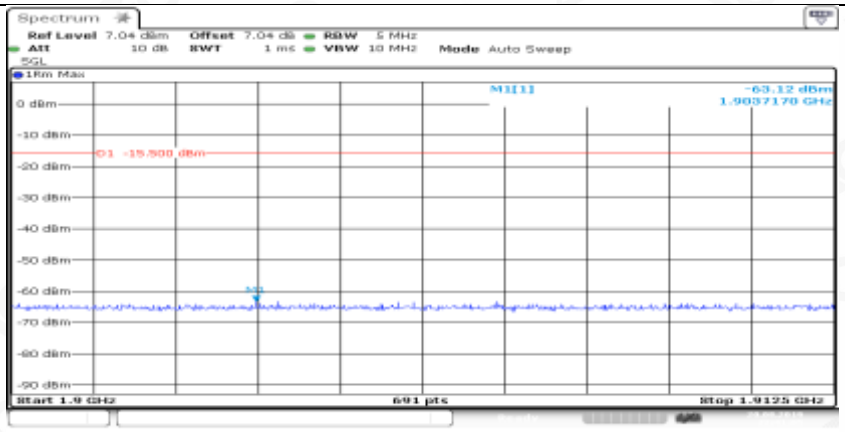
Co-existence	
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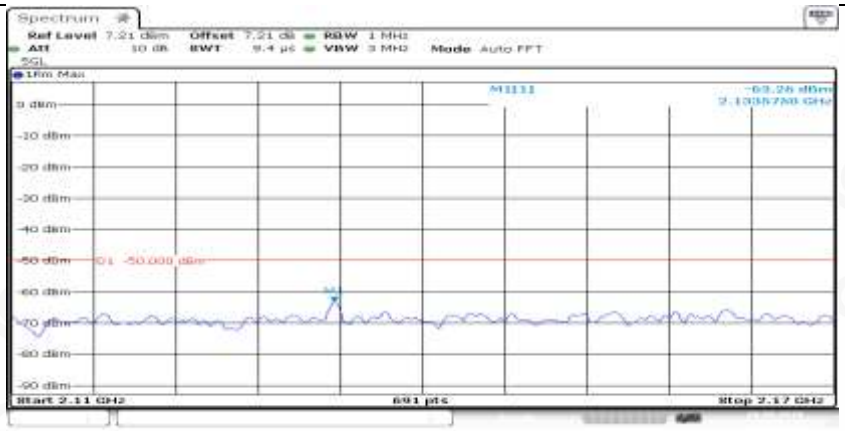
Co-existence	

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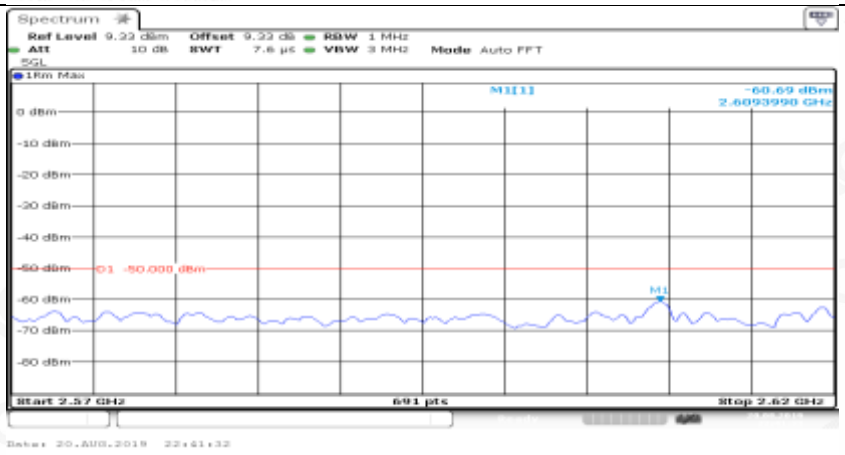
Co-existence	
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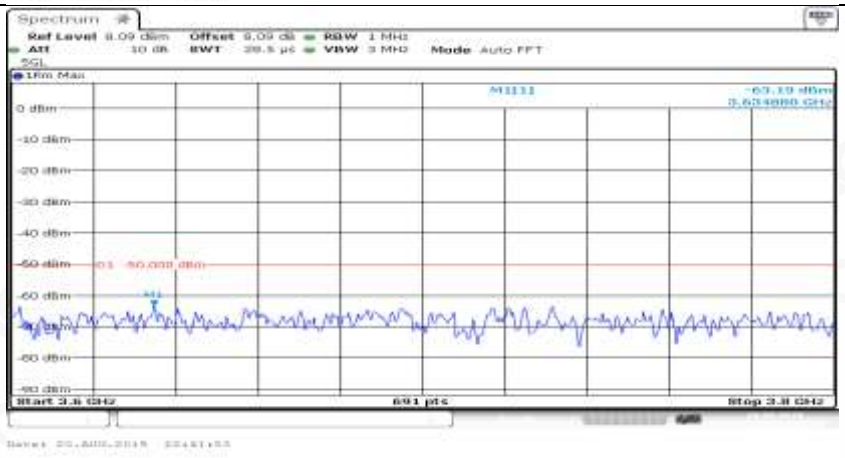
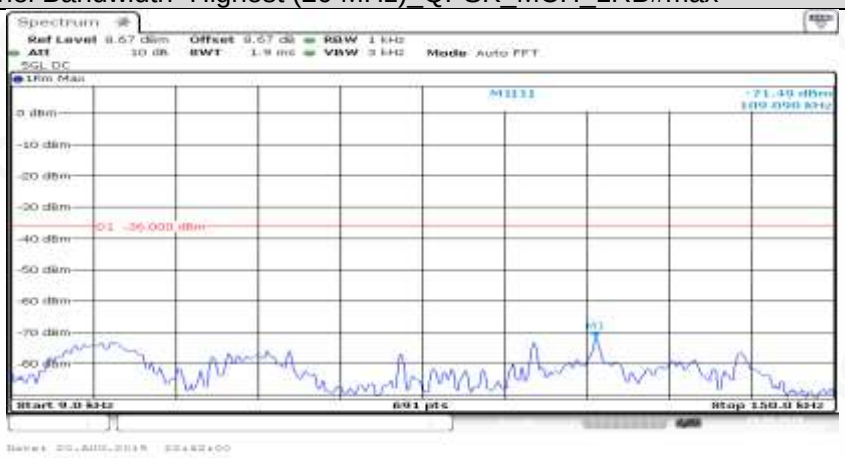
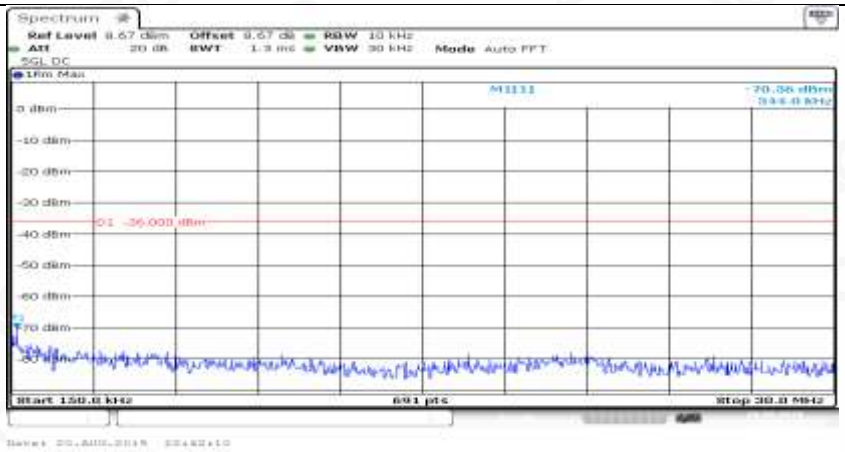
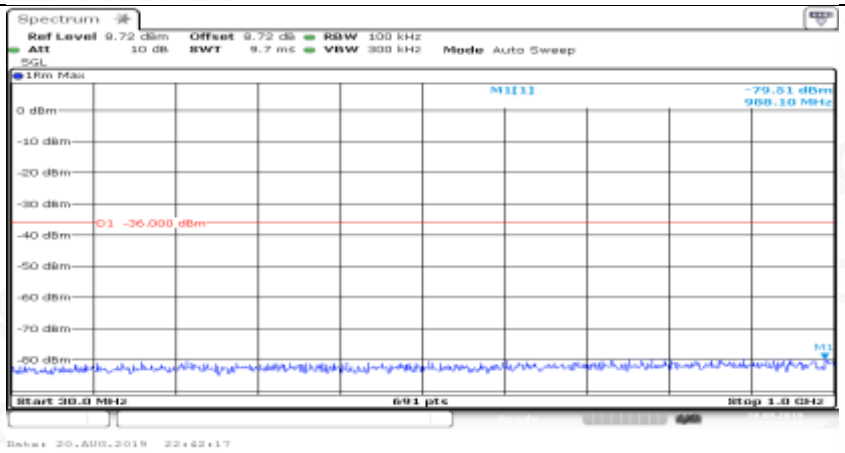
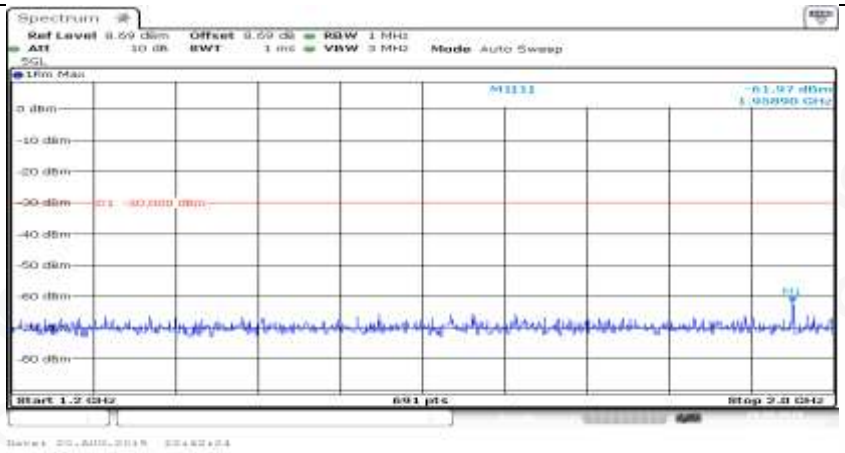
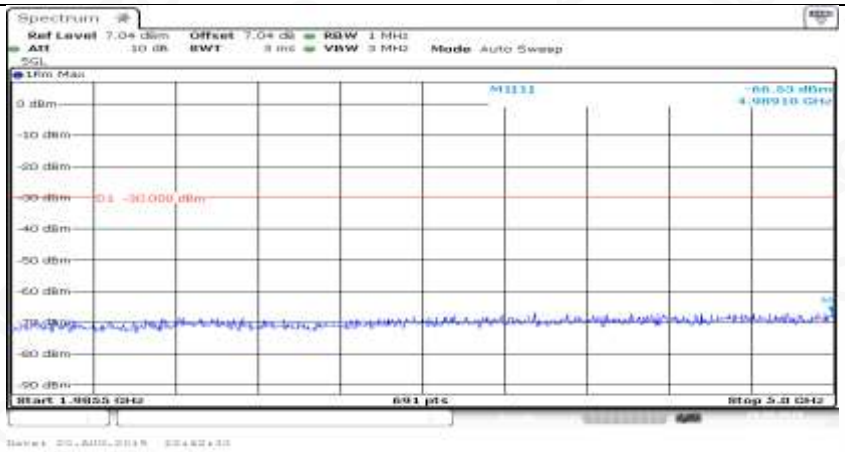
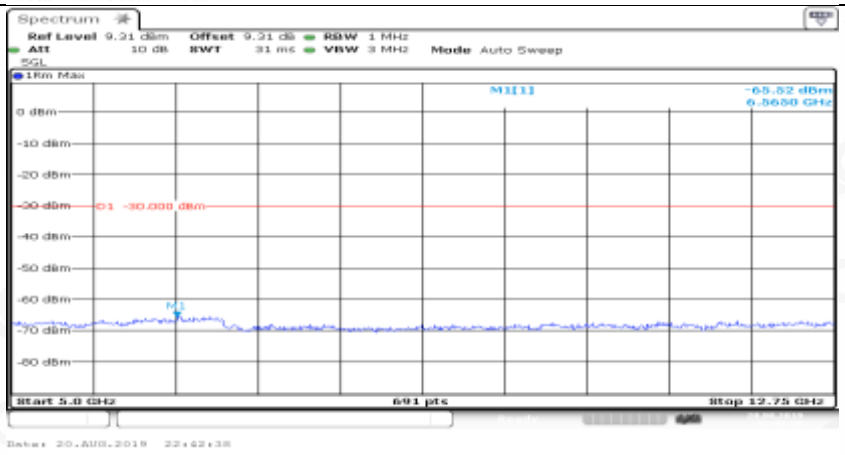
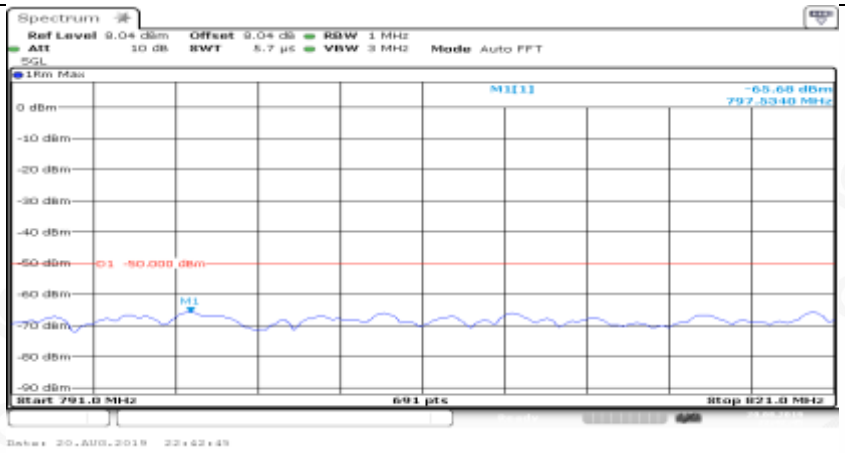
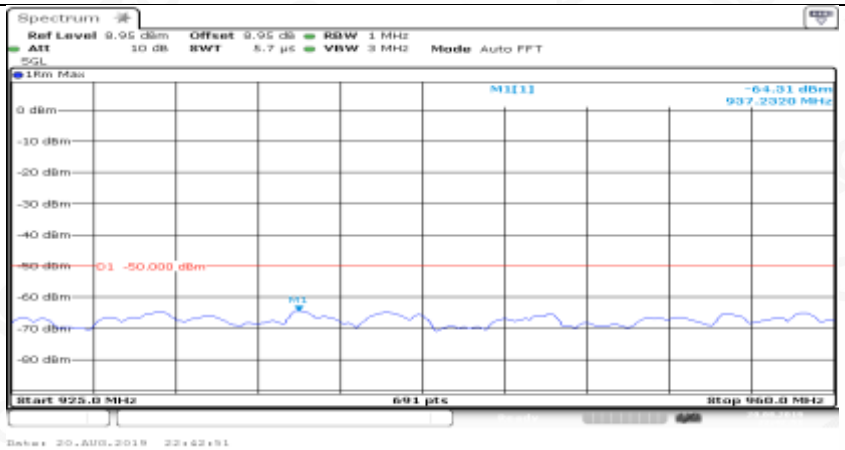
Co-existence	
Additional	NA

Channel Bandwidth=Highest (20 MHz)_QPSK_MCH_1RB#max	
General	

General	
General	
General	

General	
General	
Co-existence	

Co-existence	
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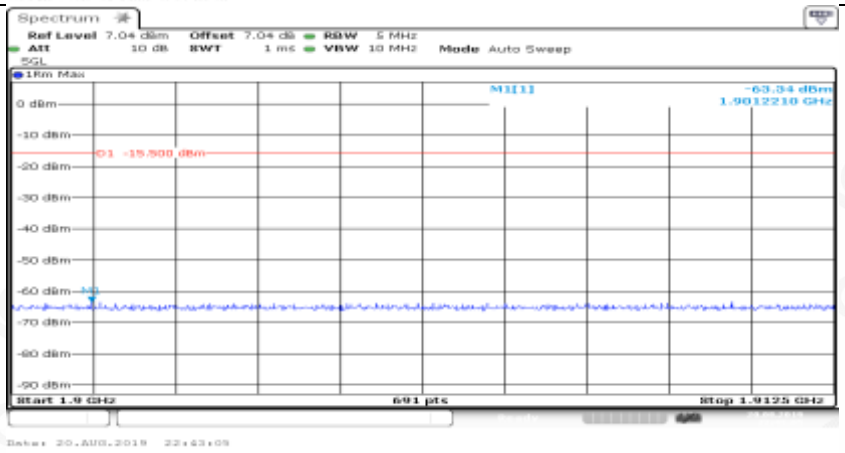
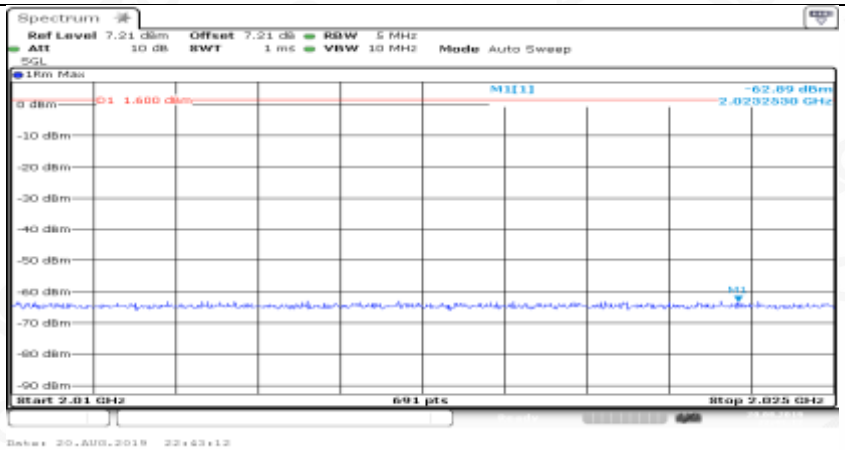
Co-existence	

Co-existence	
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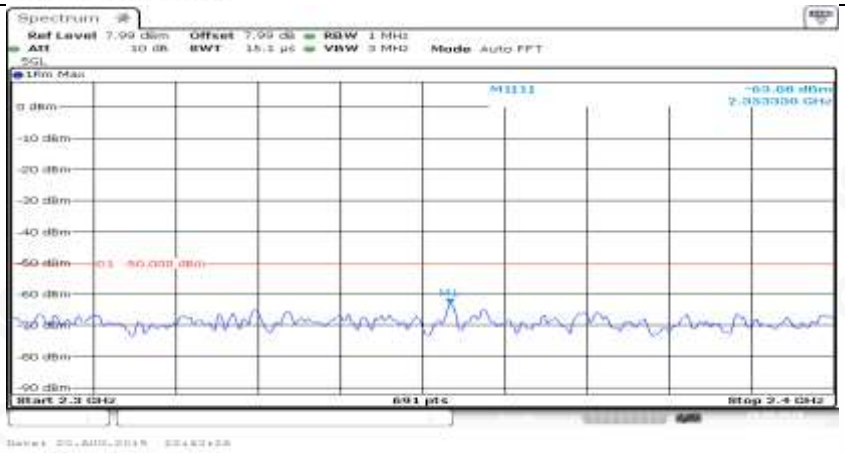
Co-existence	

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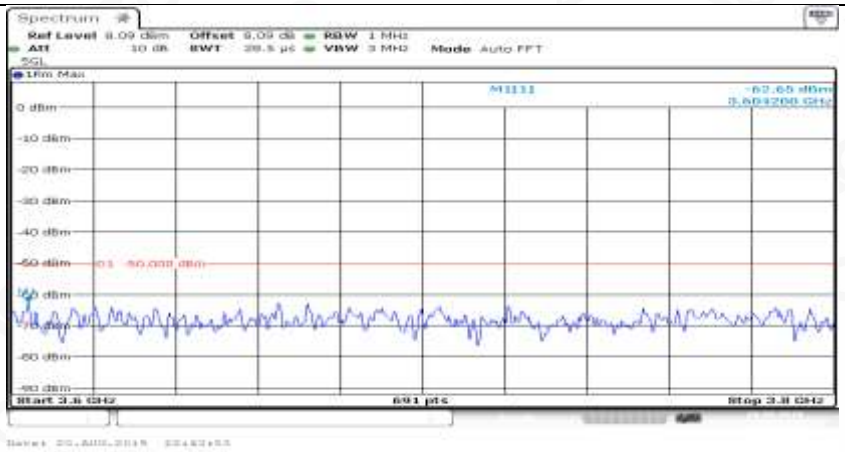
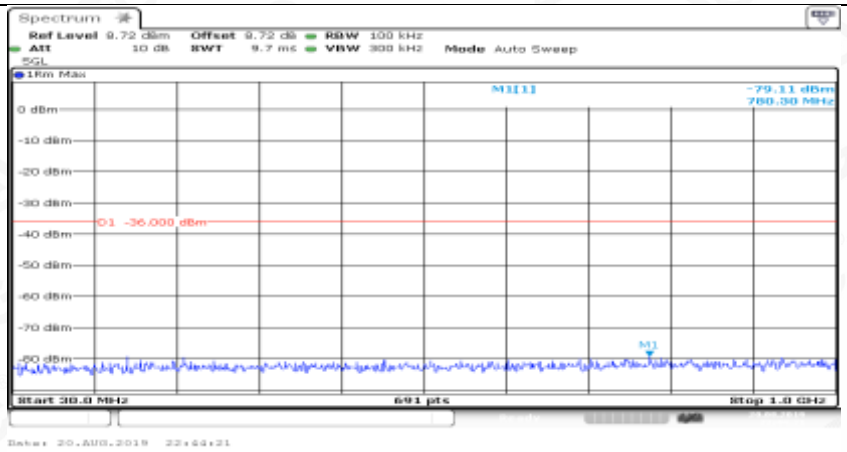
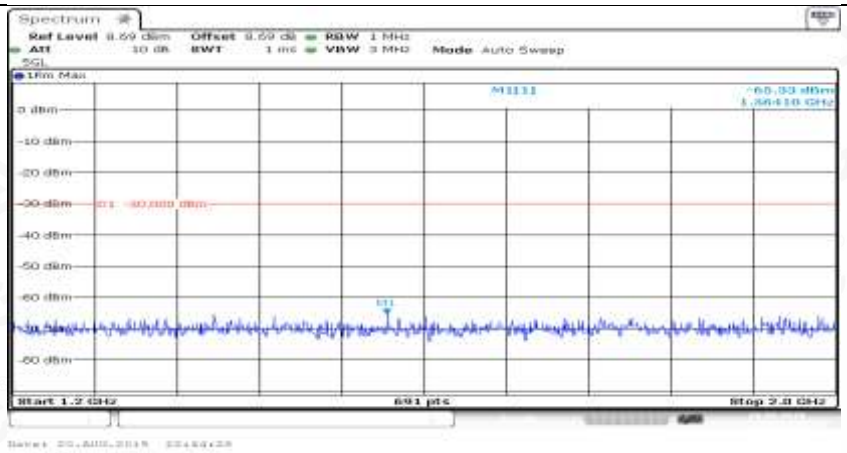
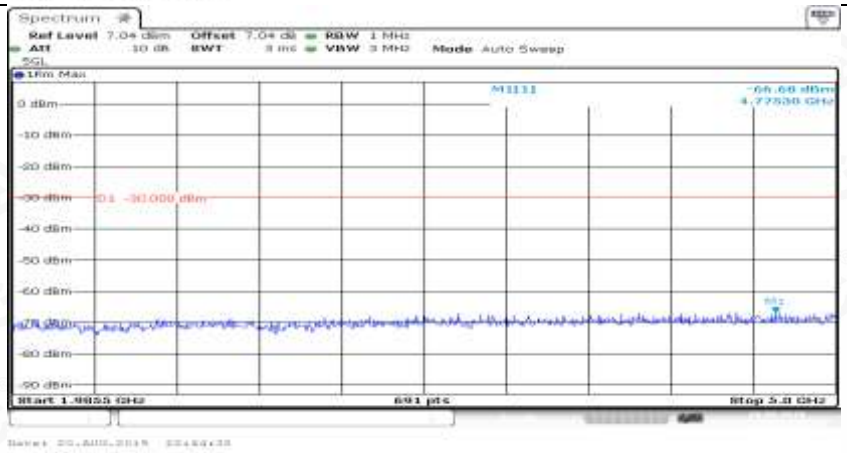
Co-existence	
Co-existence	

Co-existence	
Additional	NA

Channel Bandwidth=Highest (20 MHz)_QPSK_MCH_FullRB#0	
General	
General	

General		
General		
General		

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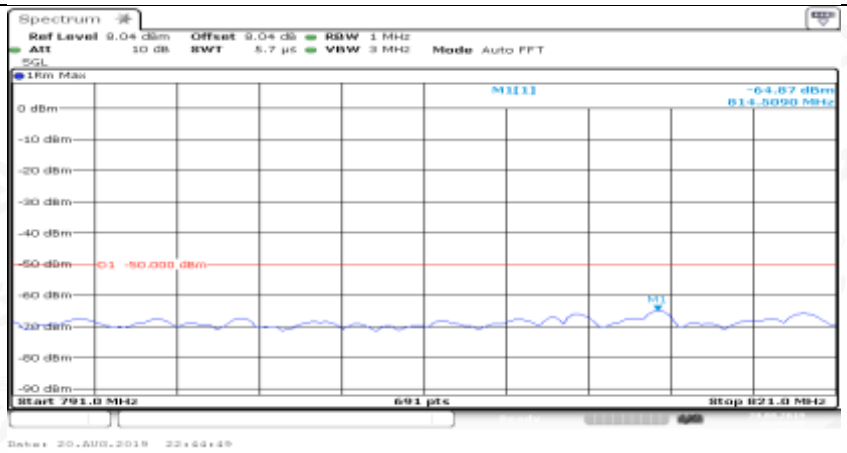
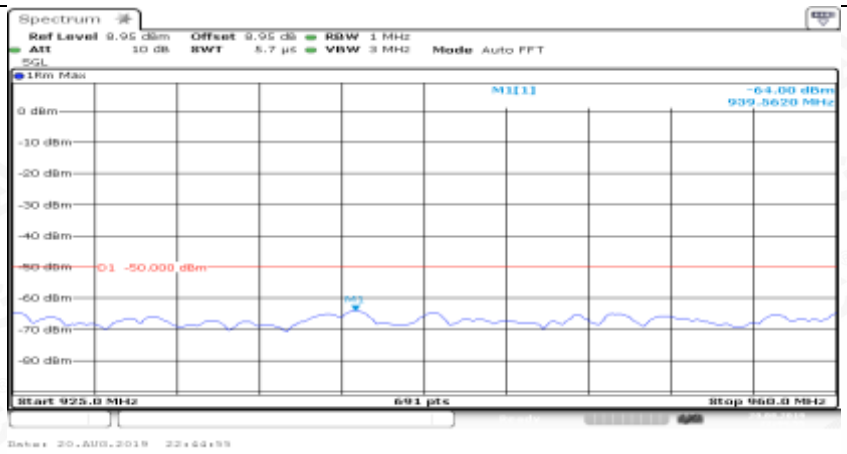
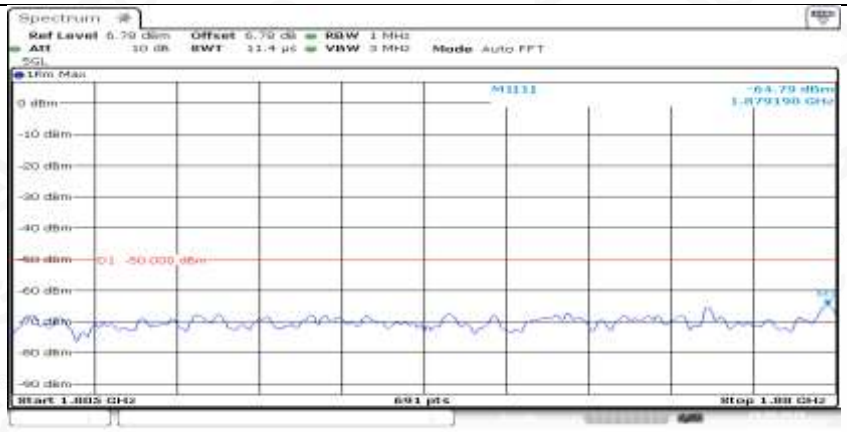
Co-existence		
Co-existence		

Co-existence		
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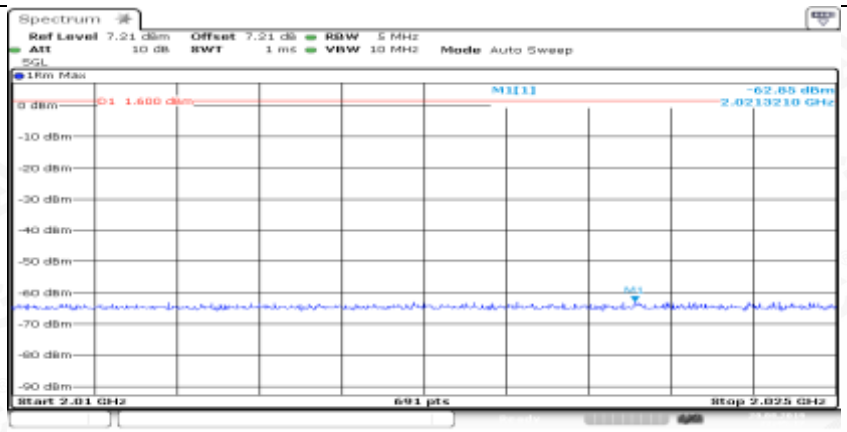
Co-existence		

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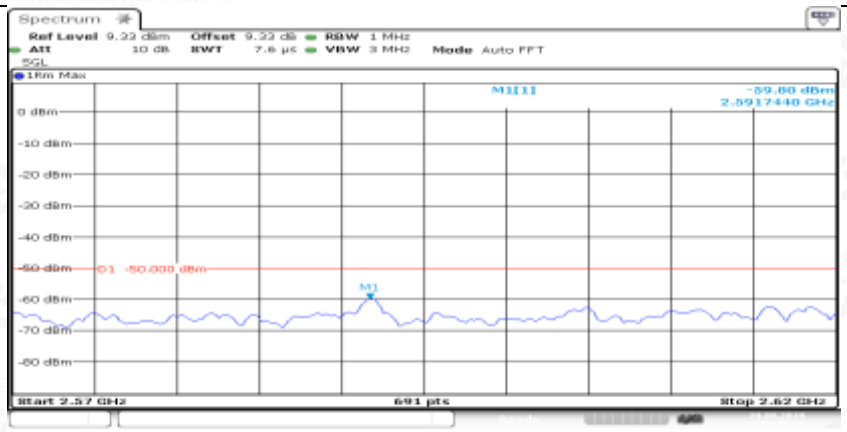
Co-existence		

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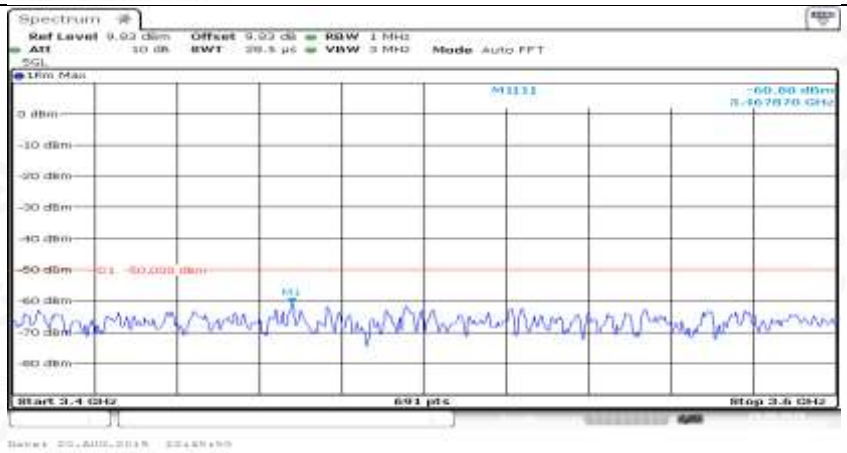
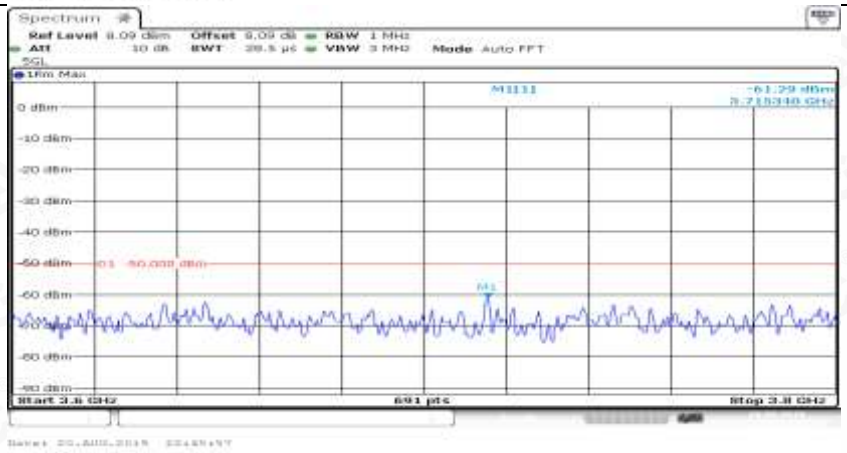
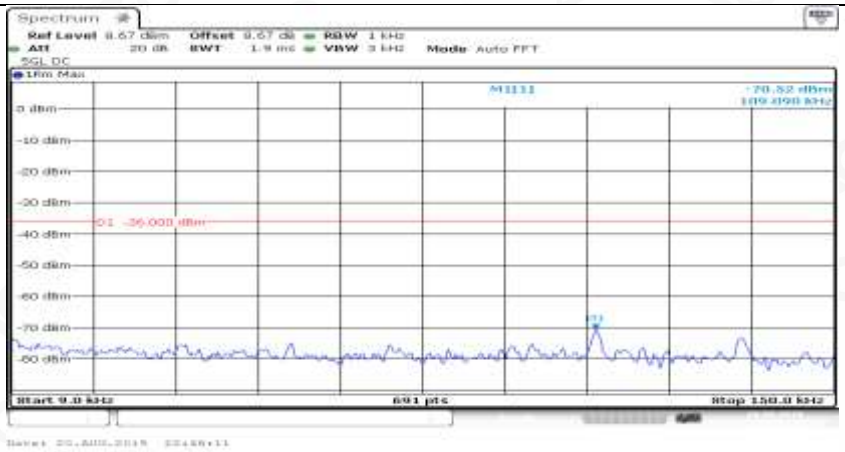
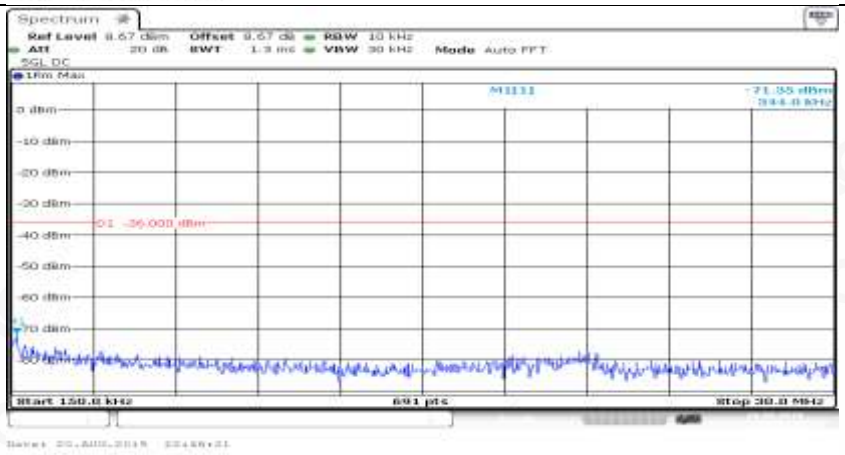
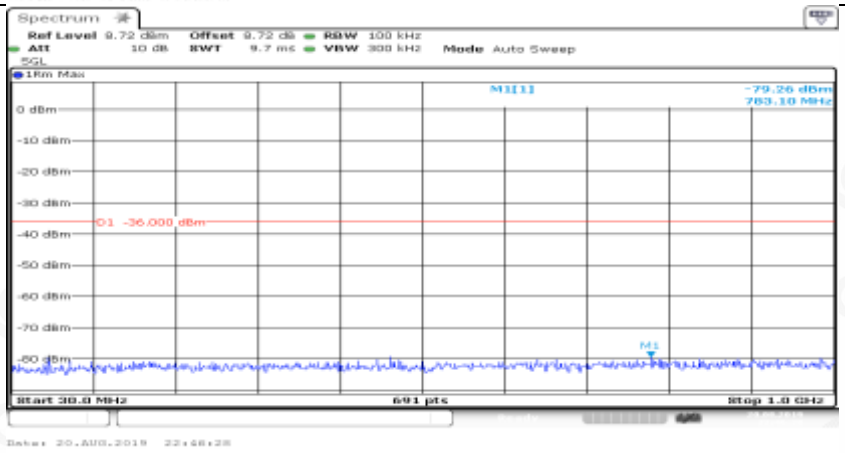
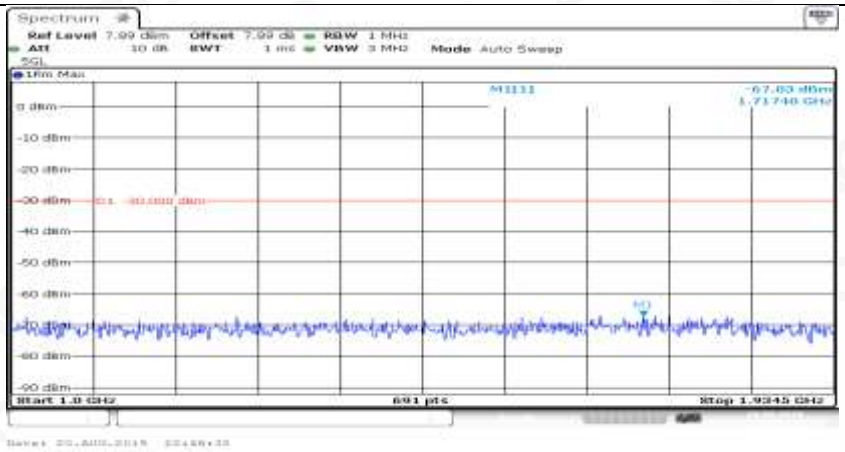
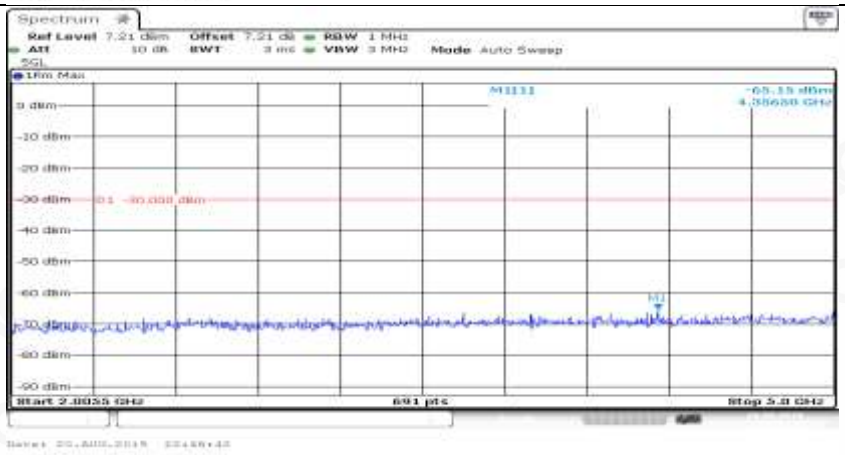
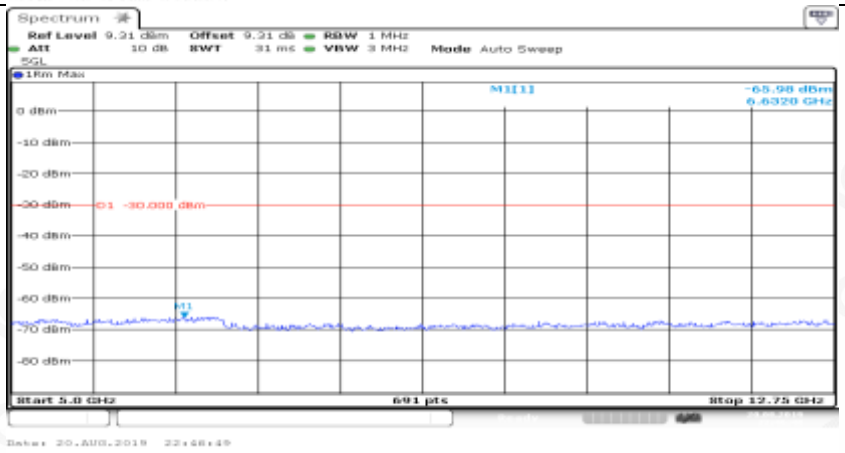
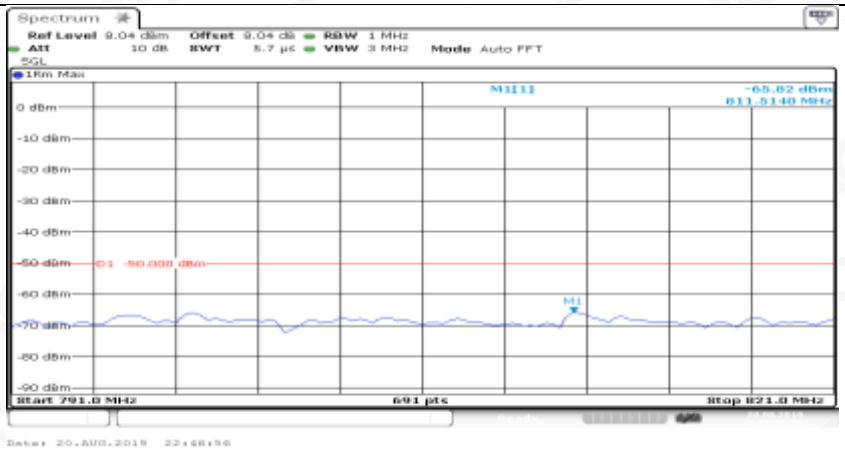
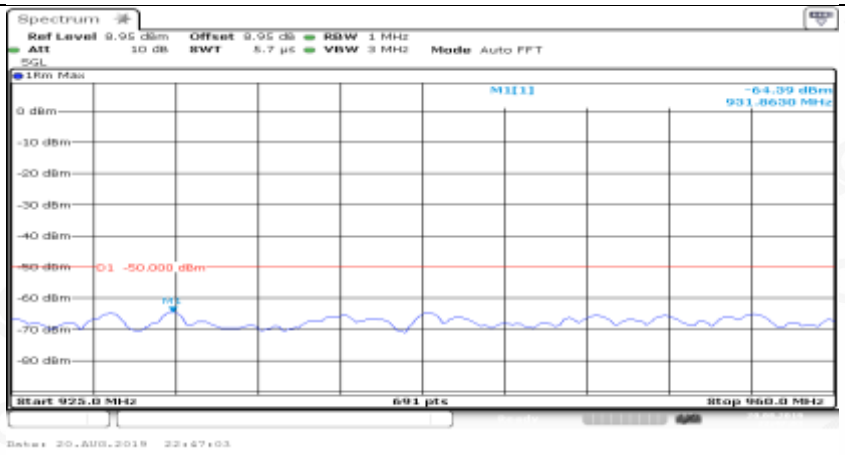
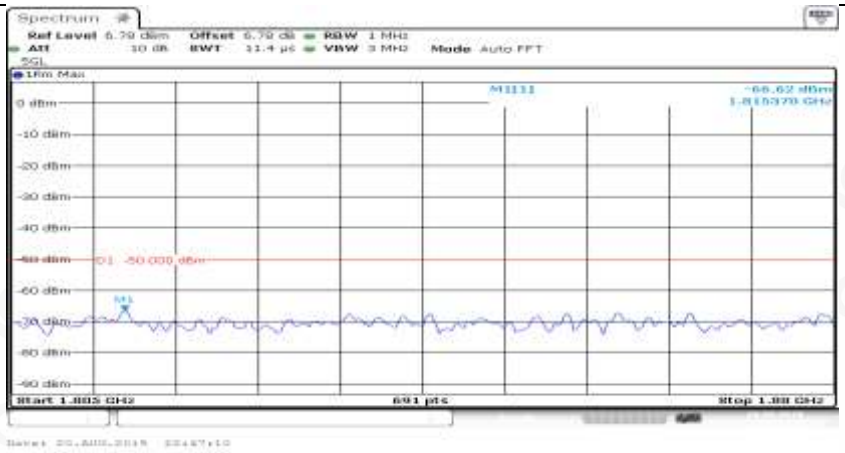
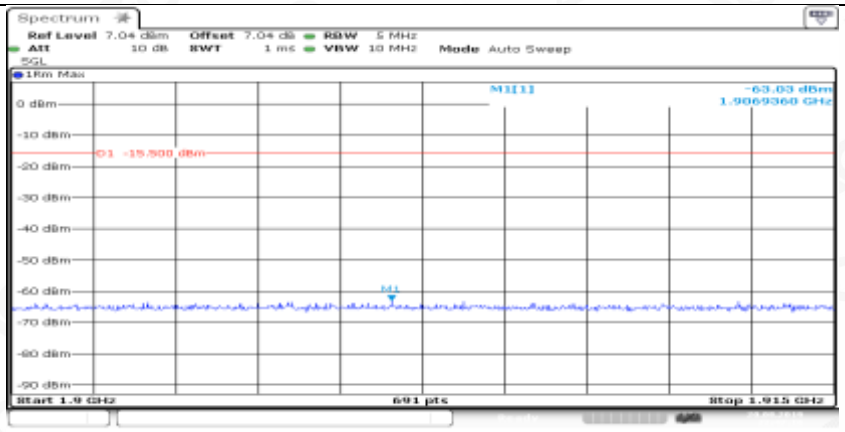
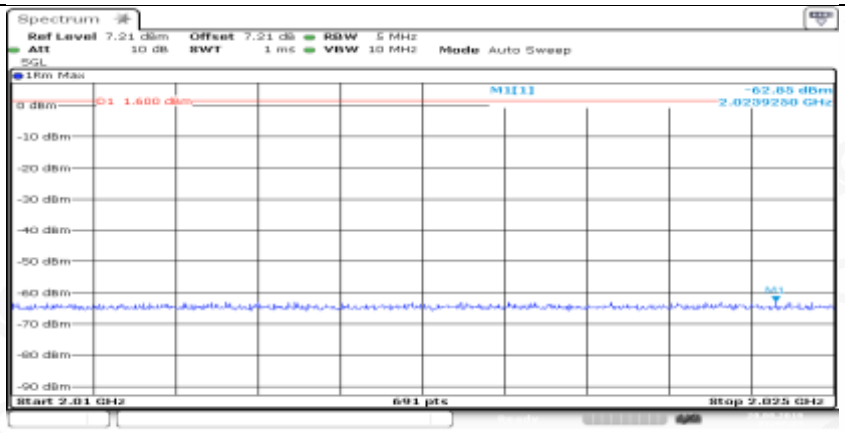
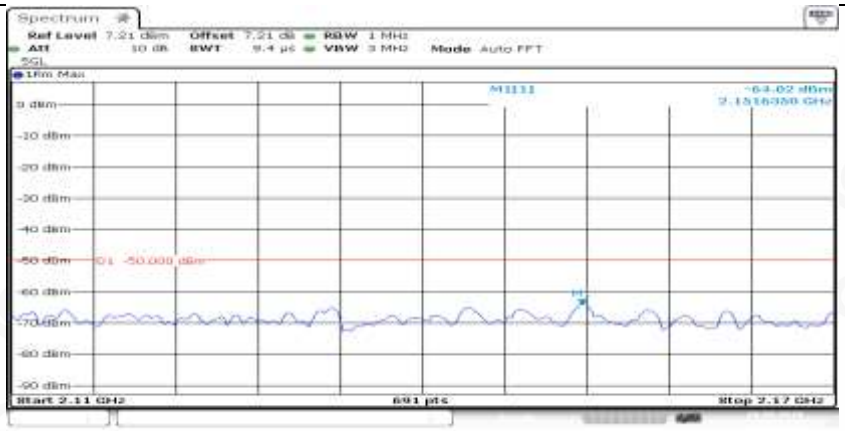
Co-existence	
Co-existence	
Additional	NA

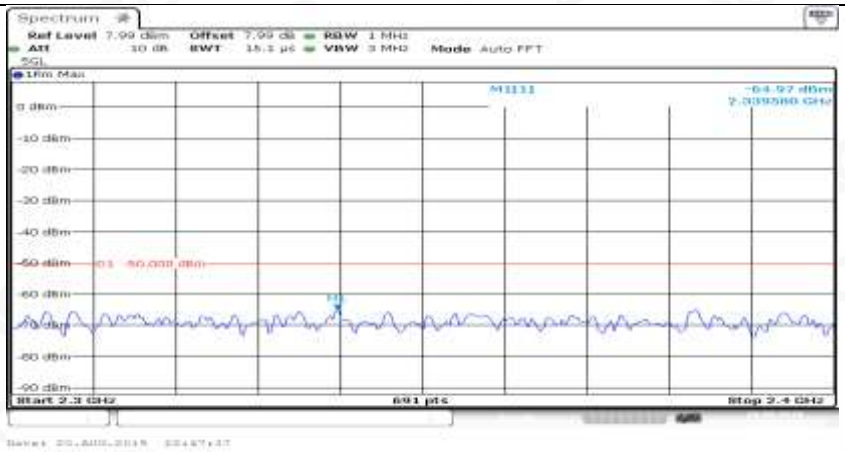
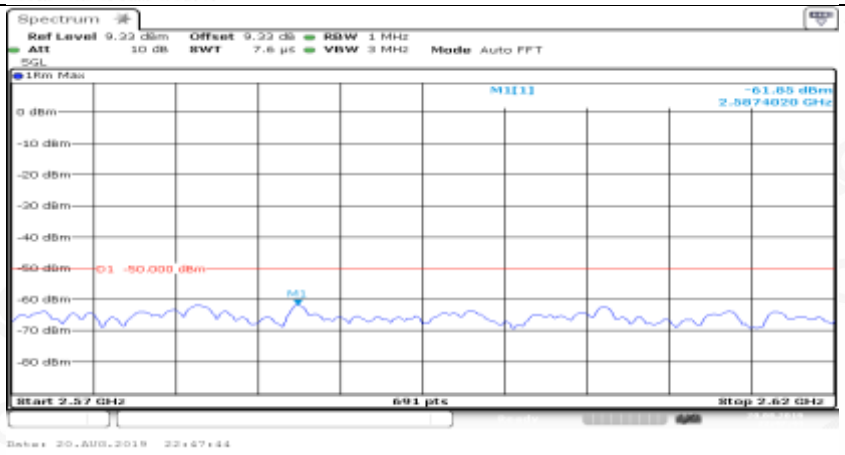
Channel Bandwidth=Highest (20 MHz)_QPSK_HCH_1RB#0

General	
General	
General	

General	
General	
General	

Co-existence	
Co-existence	
Co-existence	

Co-existence	
Co-existence	
Co-existence	

Co-existence	
Co-existence	
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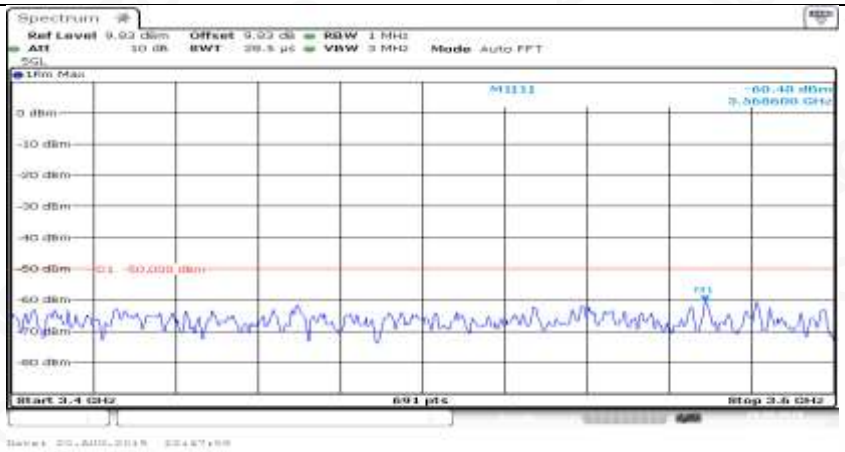
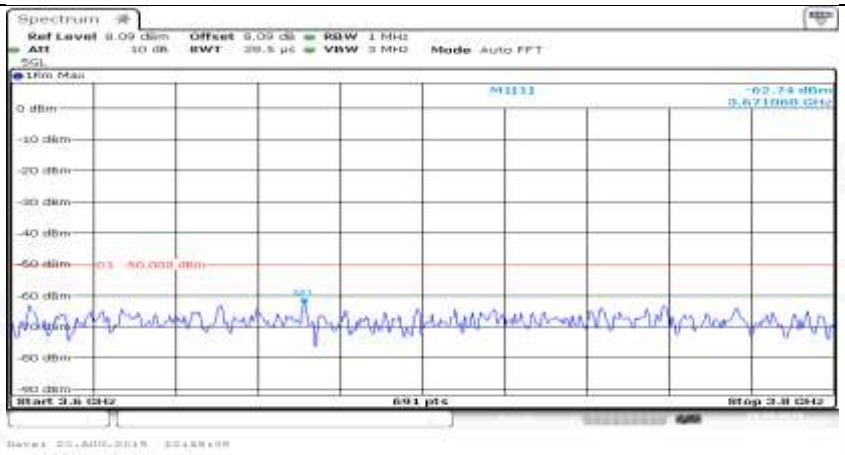
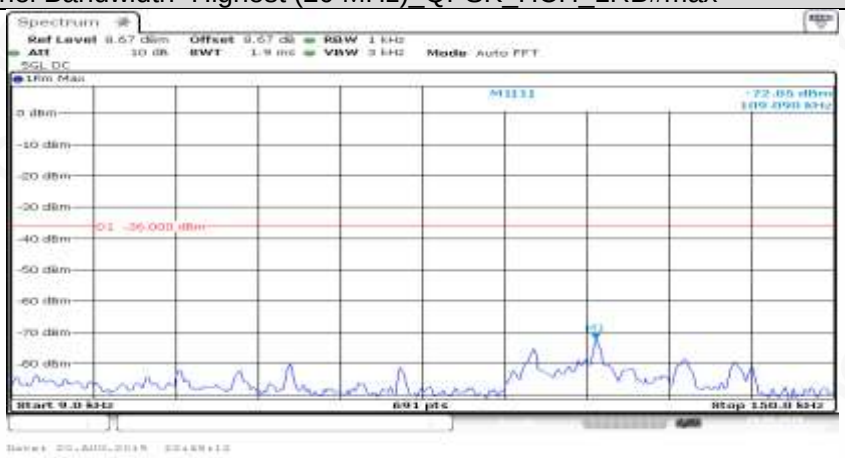
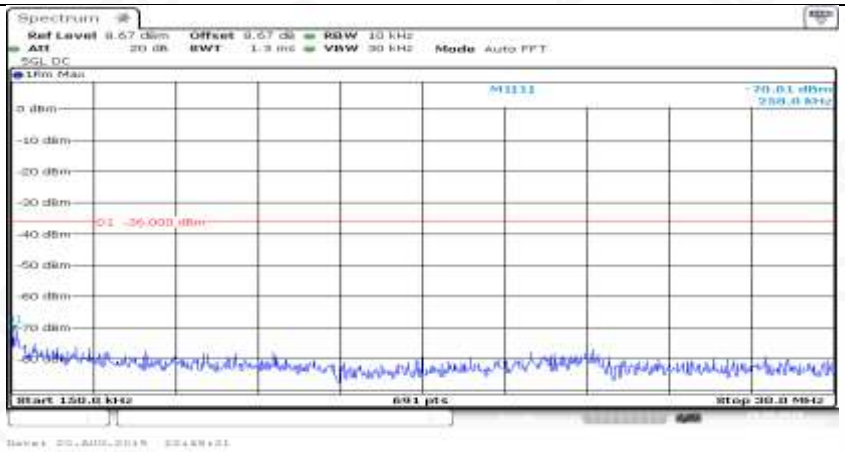
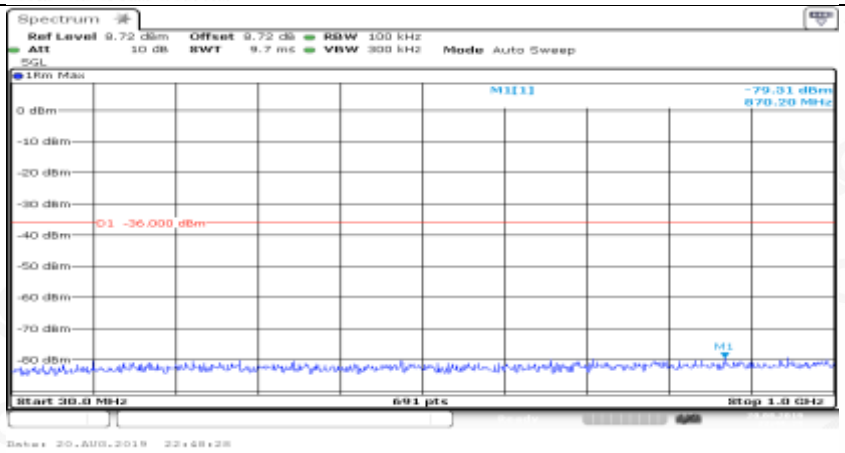
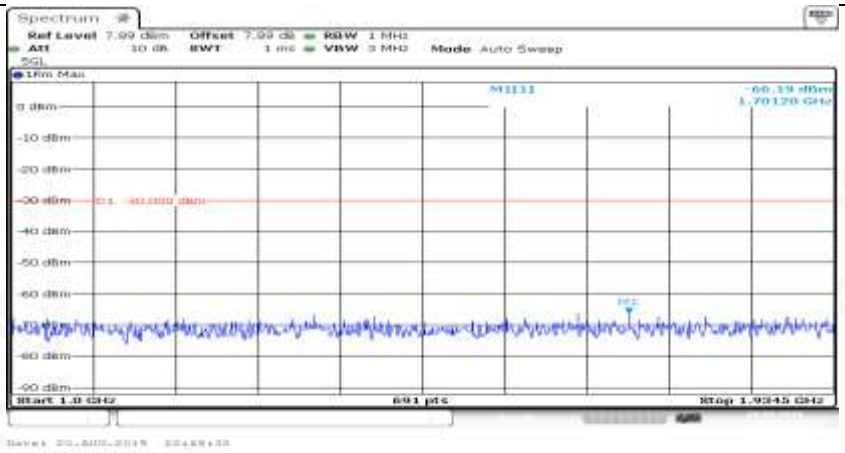
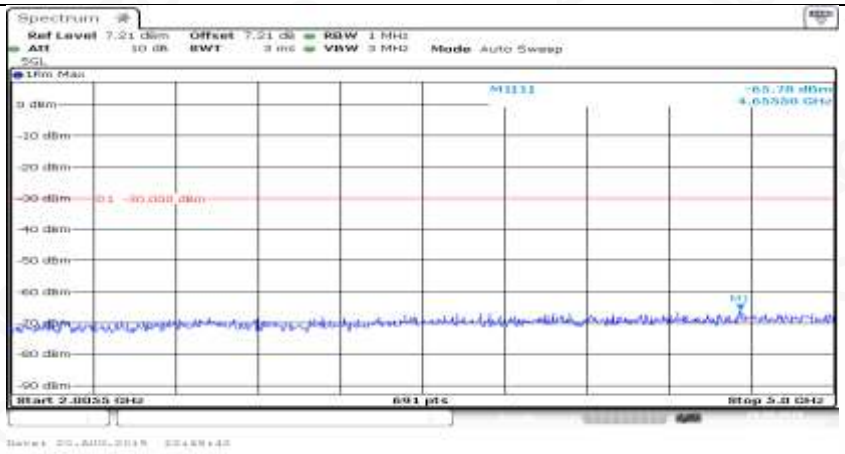
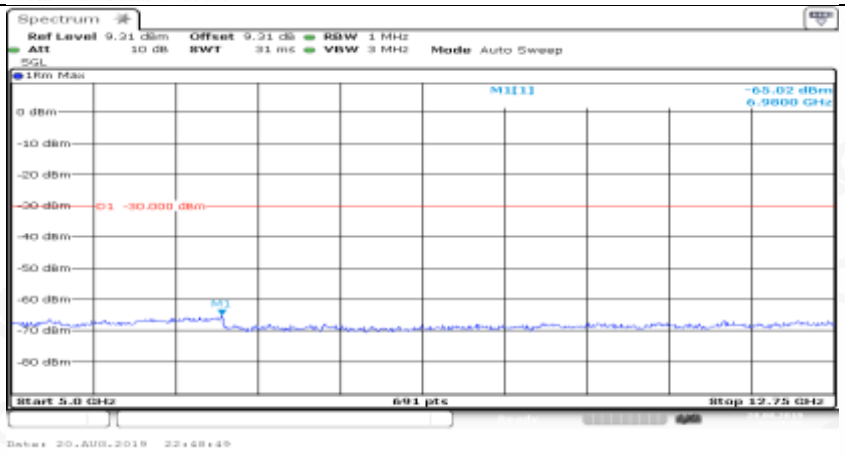
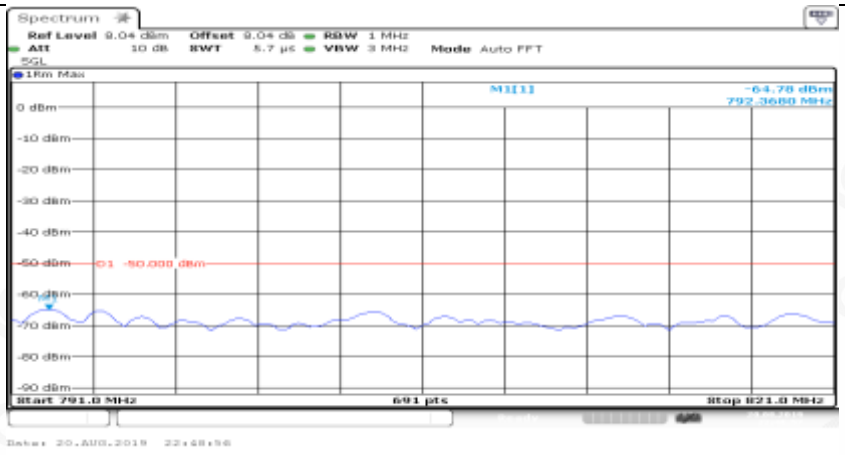
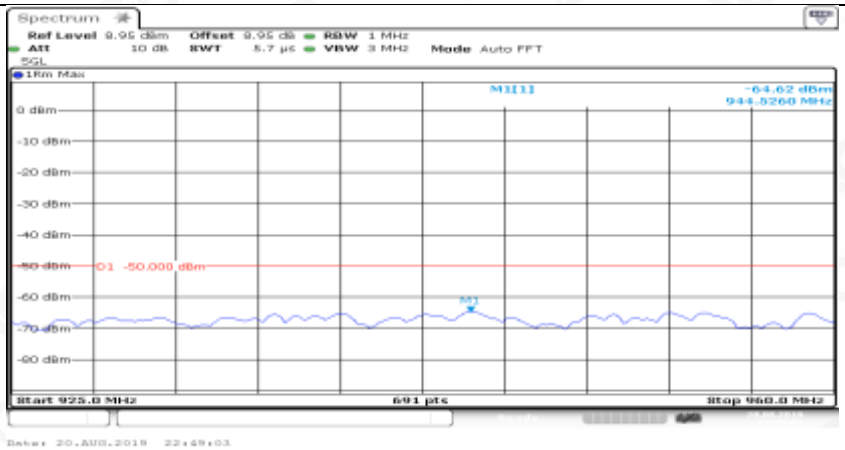
Co-existence	
Co-existence	
Additional	NA

Channel Bandwidth=Highest (20 MHz)_QPSK_HCH_1RB#max	
General	

General		
General		
General		

General	
General	
Co-existence	

Co-existence	
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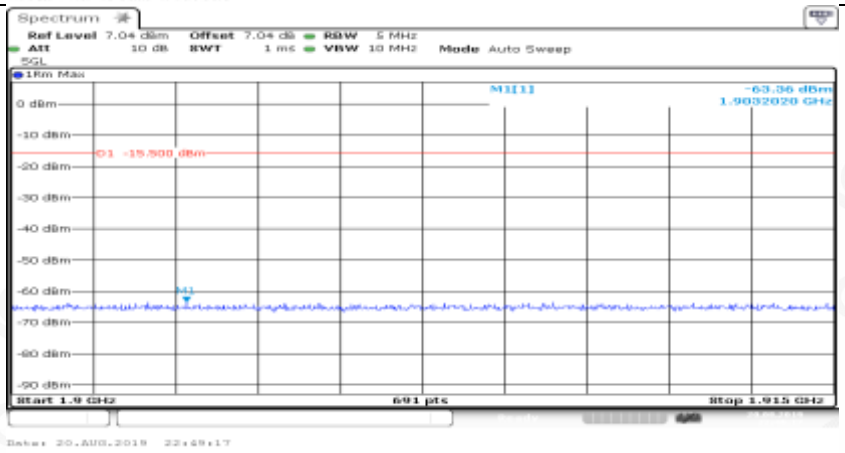
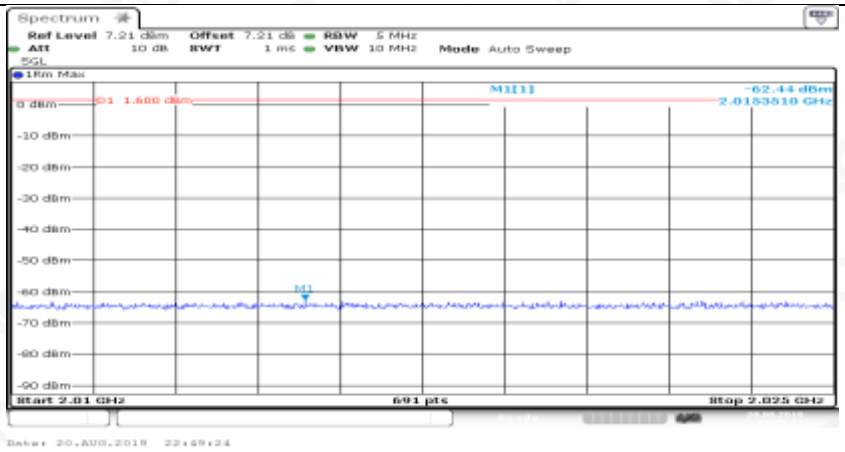
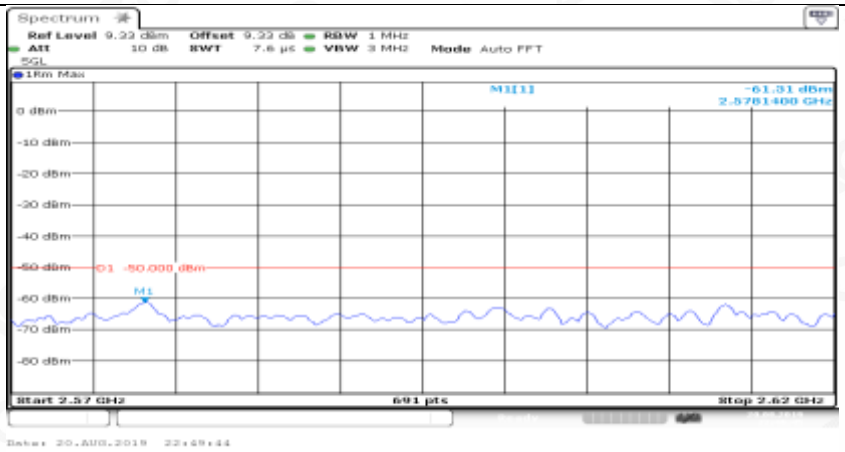
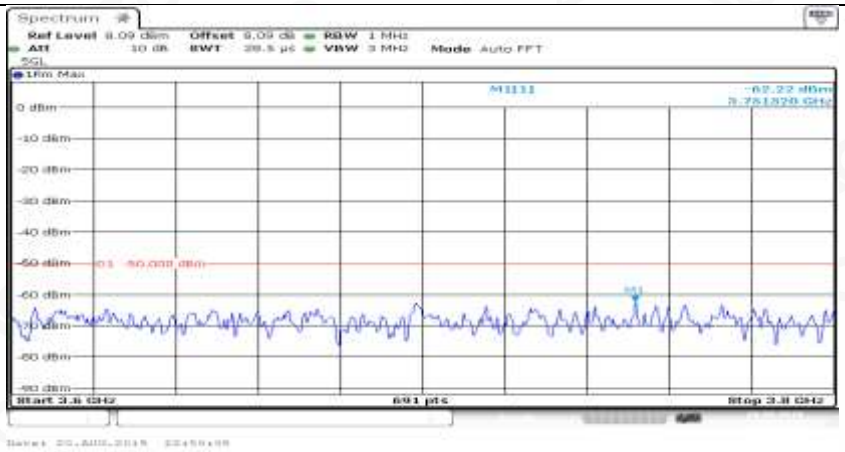
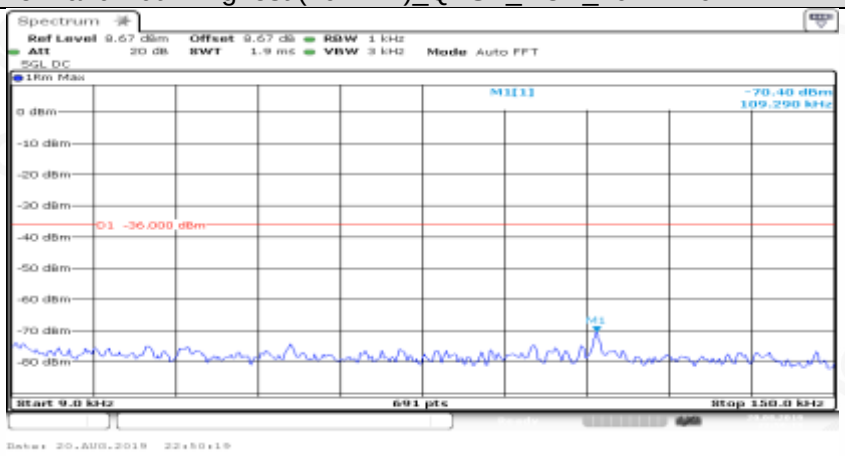
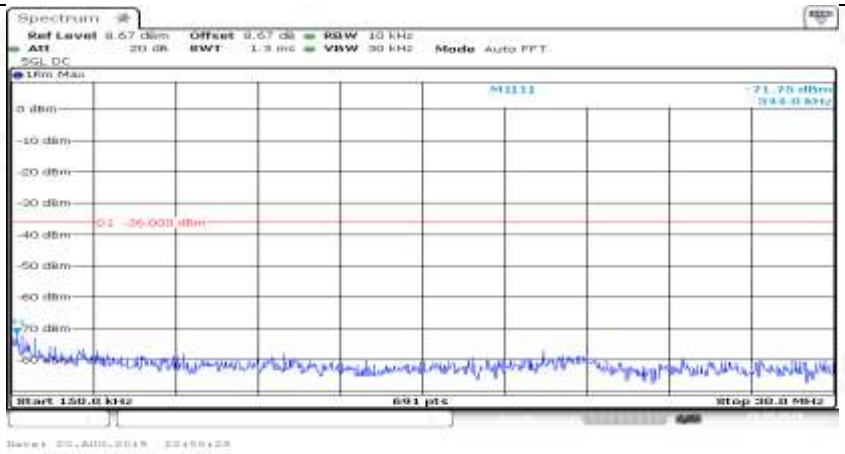
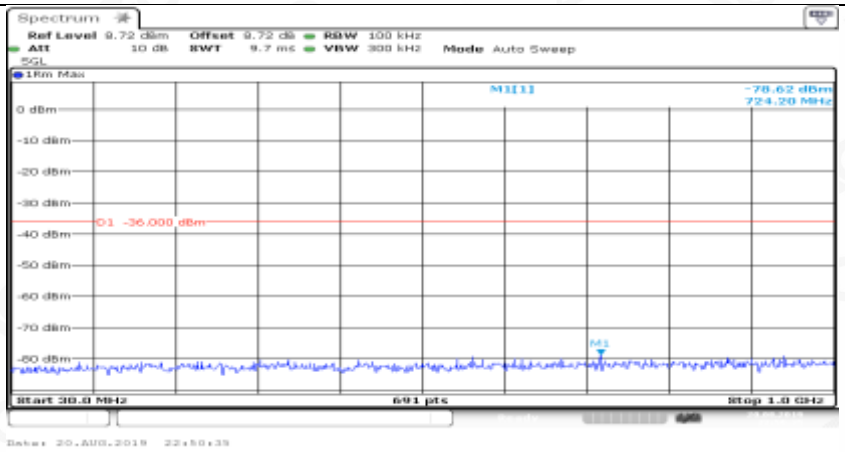
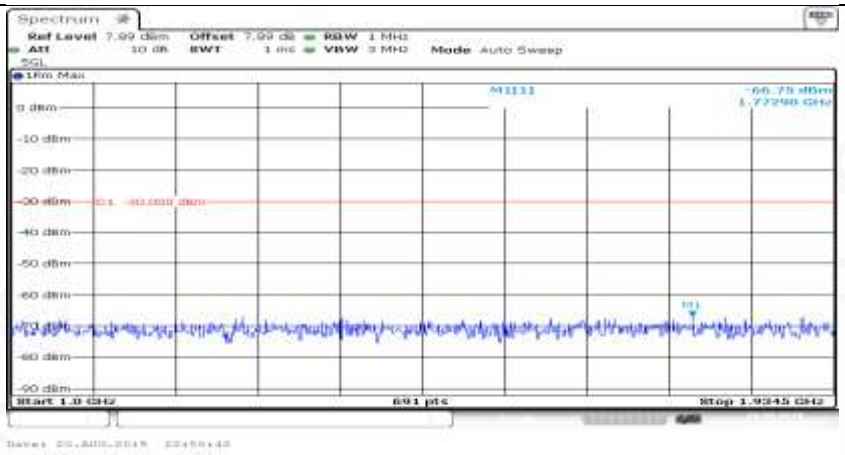
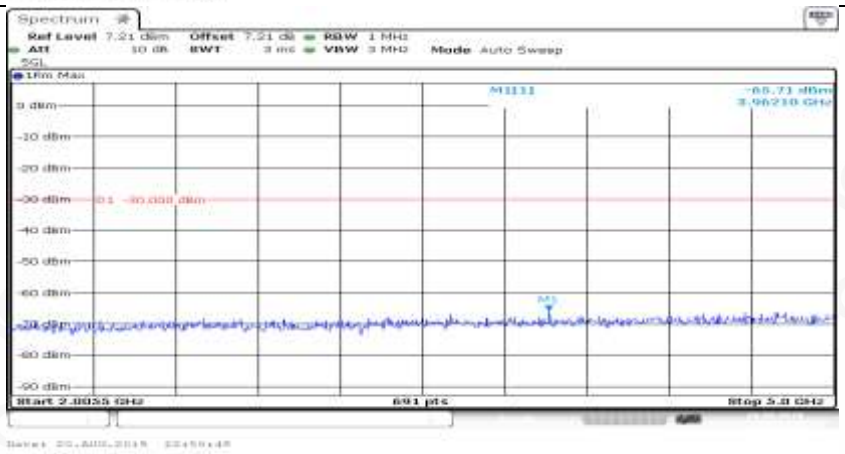
Co-existence	

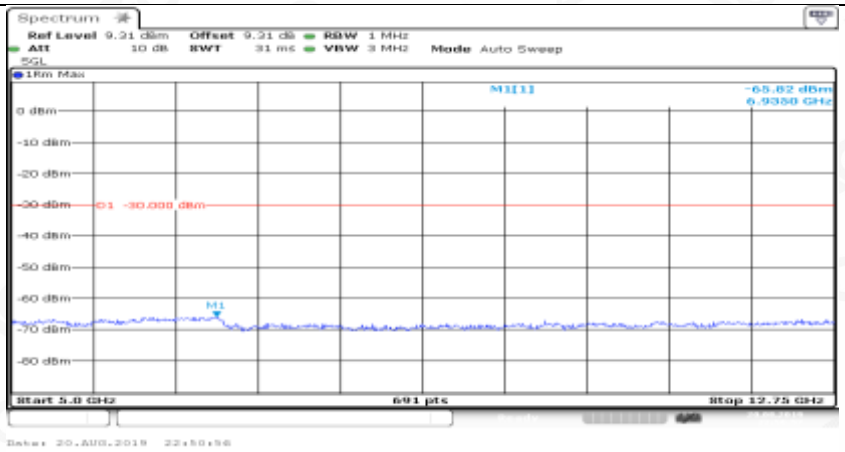
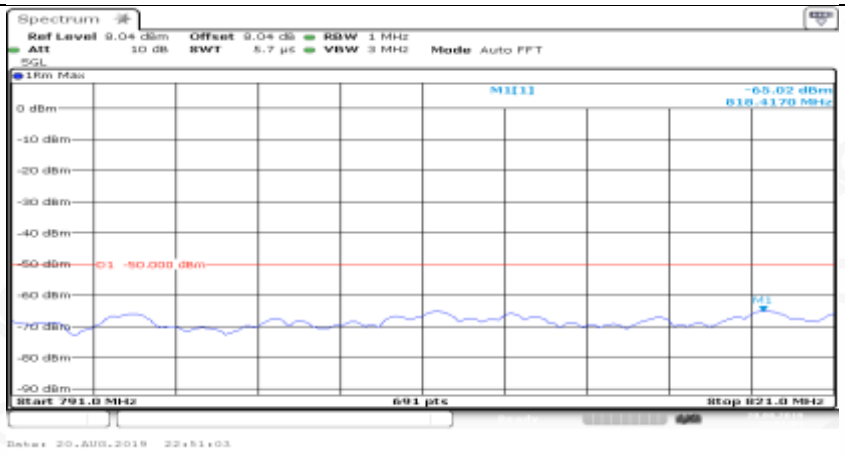
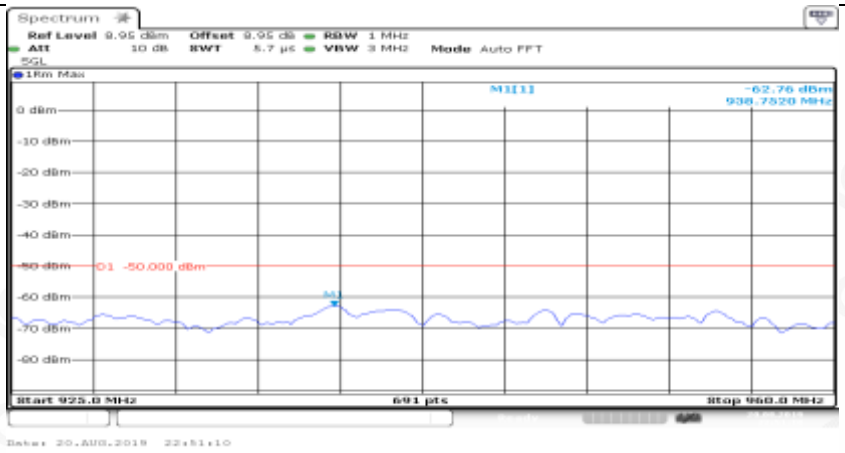
Co-existence	
Co-existence	
Co-existence	

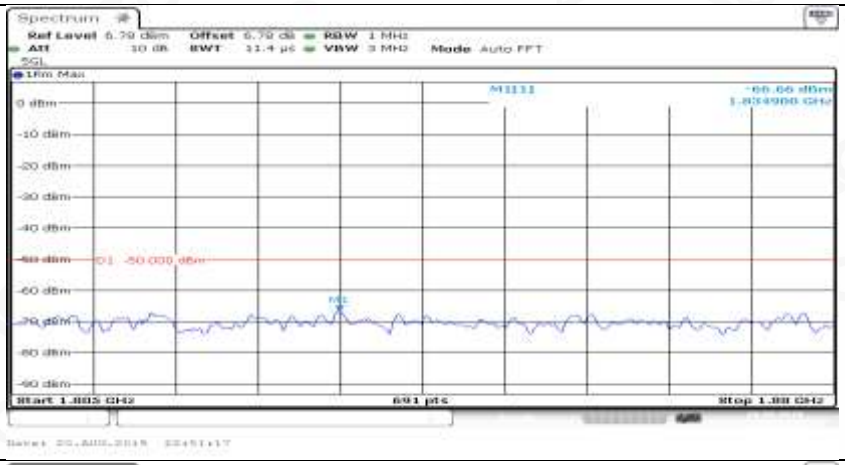
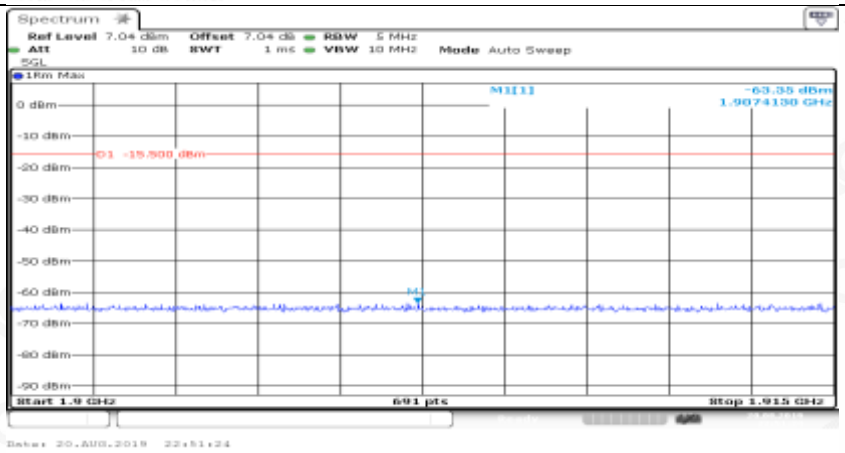
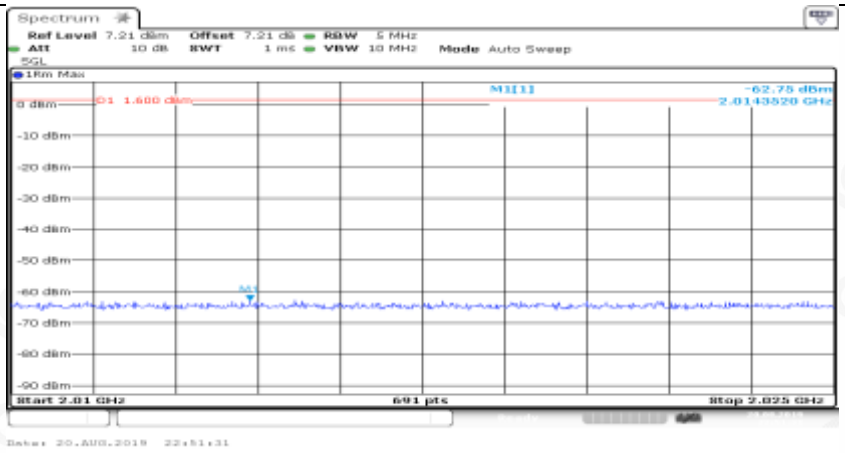
Co-existence	
Co-existence	
Co-existence	

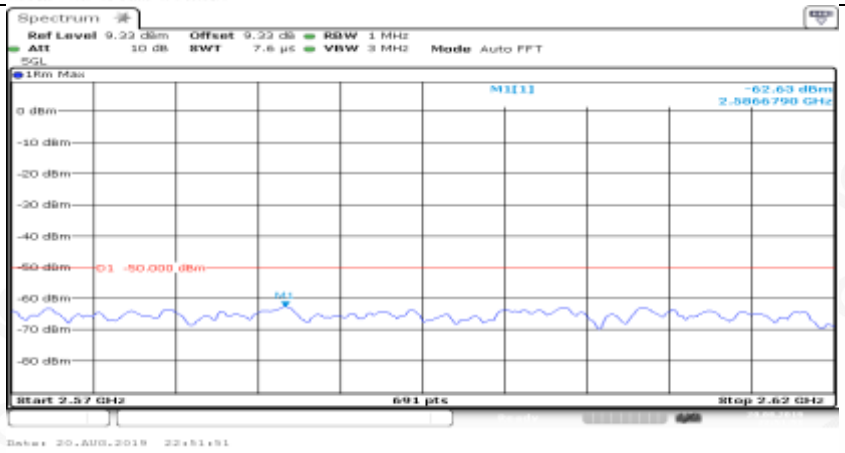
Co-existence	
Additional	NA

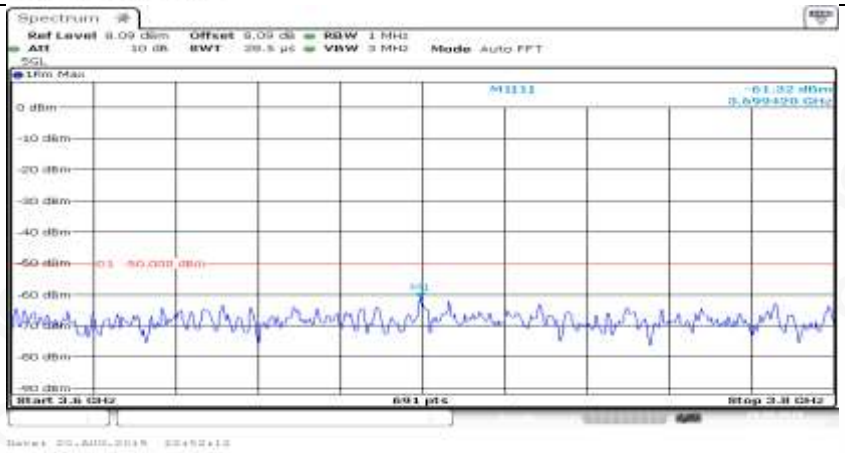
Channel Bandwidth=Highest (20 MHz)_QPSK_HCH_FullRB#0	
General	
General	

General	
General	
General	

General	
Co-existence	
Co-existence	

Co-existence	
Co-existence	
Co-existence	

Co-existence	
Co-existence	
Co-existence	

Co-existence	
Co-existence	
Co-existence	
Additional	NA

6. Receiver Spurious Emissions

Test Result

NTNV

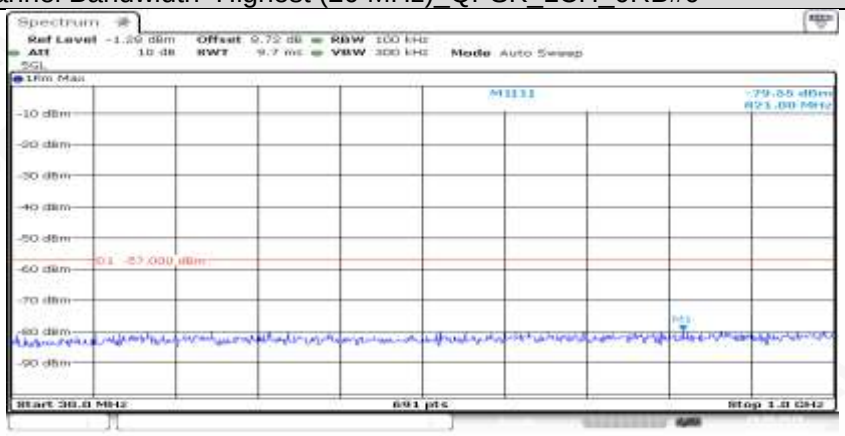
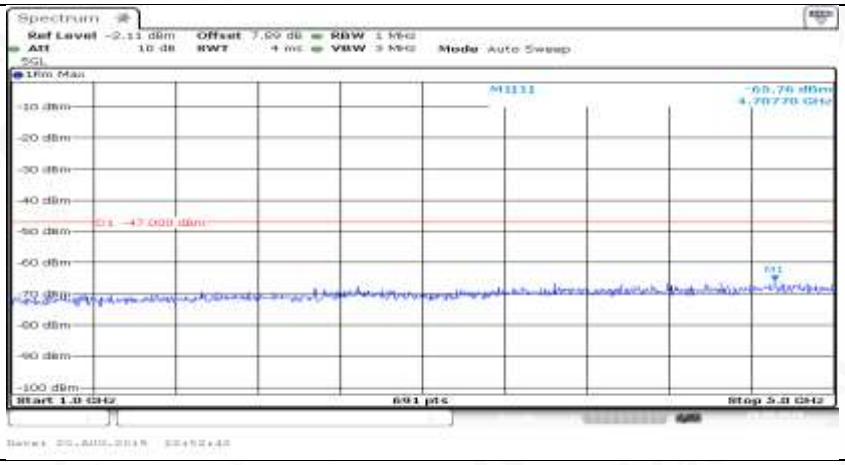
Channel Bandwidth=Highest

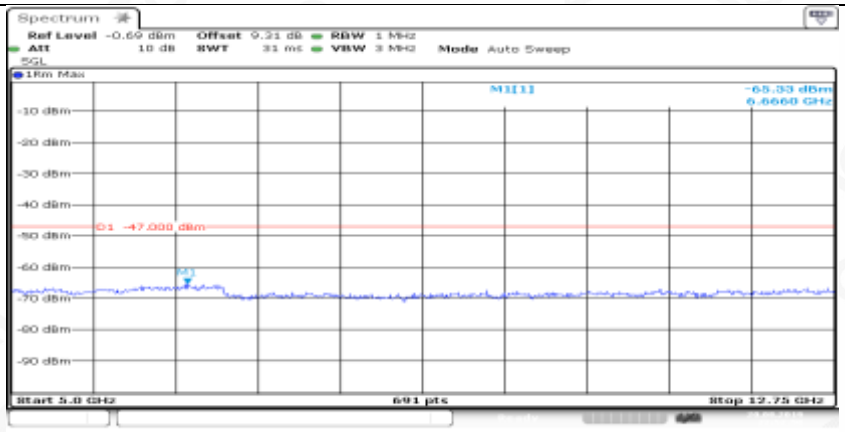
Condition	Modulation	Channel Bandwidth	Channel	RB allocation		Verdict
				RB Size	RB Offset	
Normal	QPSK	20 MHz	Low range	0	0	Pass
			Mid range	0	0	Pass
			High range	0	0	Pass

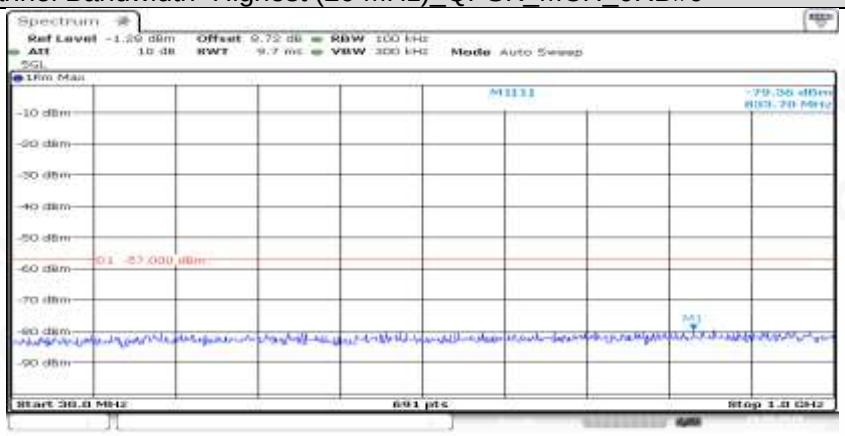
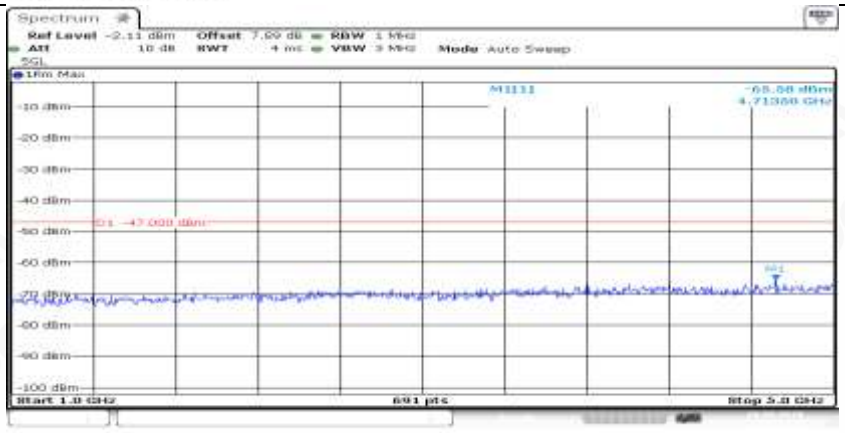
Test Graphs

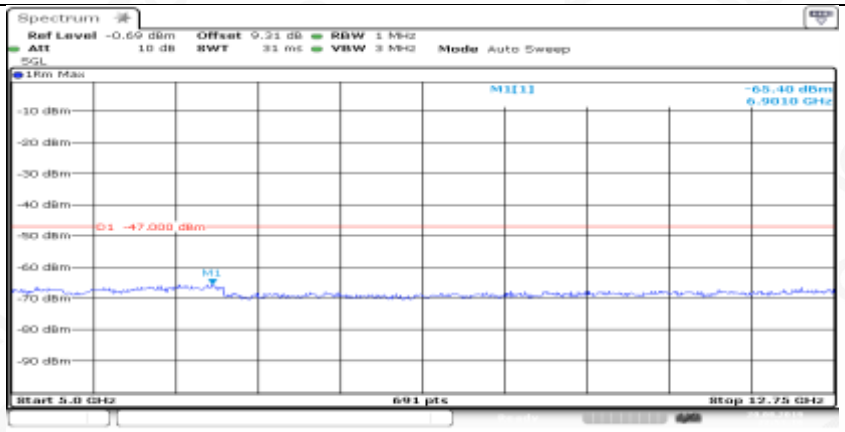
NTNV

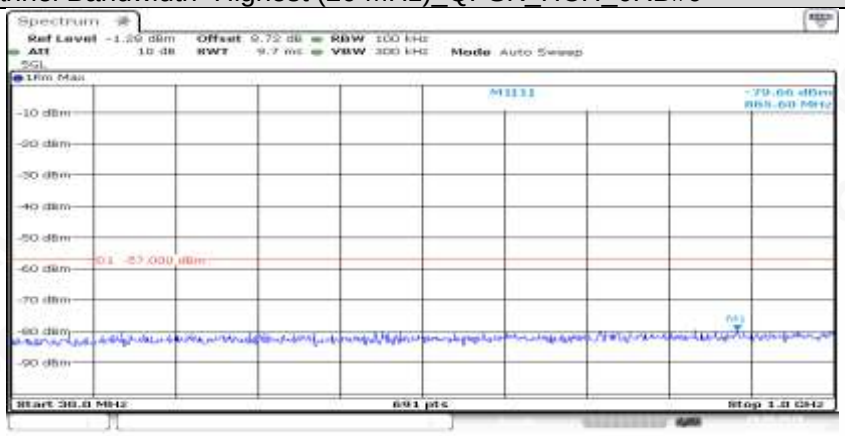
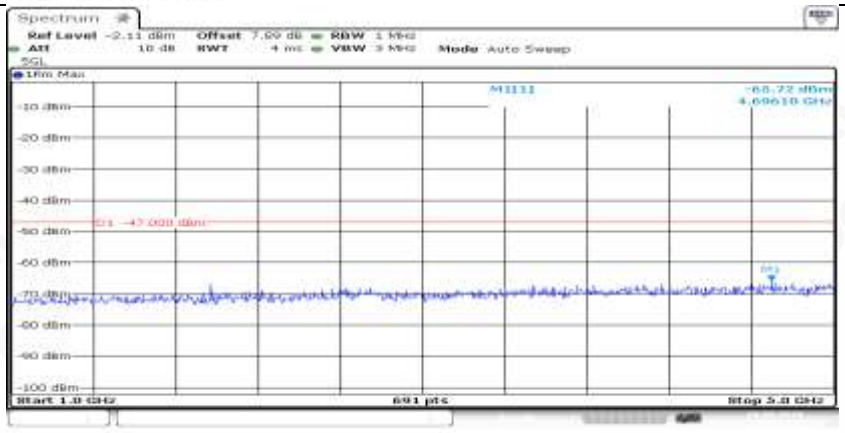
Channel Bandwidth=Highest

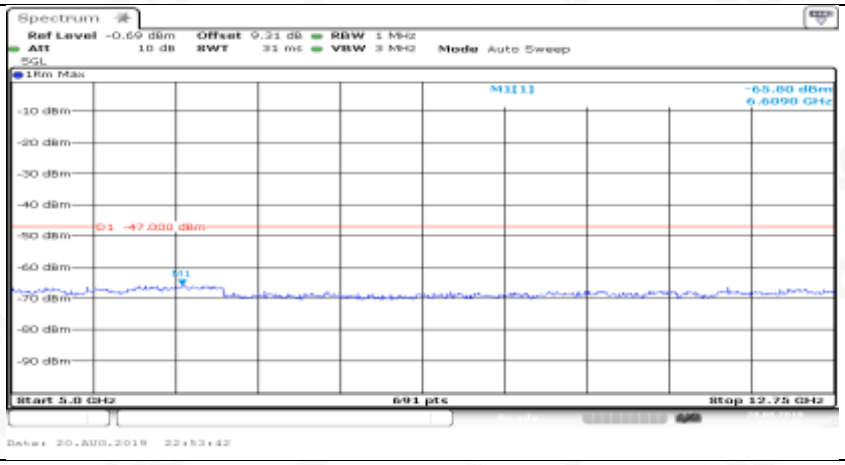
Channel Bandwidth=Highest (20 MHz)_QPSK_LCH_0RB#0	
LCH	
LCH	

LCH	

Channel Bandwidth=Highest (20 MHz)_QPSK_MCH_0RB#0	
MCH	
MCH	

MCH	

Channel Bandwidth=Highest (20 MHz)_QPSK_HCH_0RB#0	
HCH	
HCH	

HCH	 Spectrum Ref Level -0.69 dBm Offset 9.21 dB RBW 1 MHz Att 10 dB SWT 31 ms VBW 3 MHz Mode Auto Sweep SGL 1Rm Max M1[1] -65.80 dBm 6.6090 GHz -10 dBm -20 dBm -30 dBm -40 dBm D1 -47.000 dBm -50 dBm -60 dBm D1 -70 dBm -80 dBm -90 dBm Start 5.0 GHz 691 pts Stop 12.75 GHz Date: 20.AUG.2019 22:53:42	

7. Receiver Adjacent Channel Selectivity (ACS)

Test Results

The equipment **passed** the requirement of this clause.

Test Environment	NC				
Test Frequencies	Mid range				
Test Channel Bandwidths	Lowest, 5MHz, Highest 20MHz				
Test Parameters for Channel Bandwidths					
	Downlink Configuration		**Uplink Configuration**		
Ch BW	Mod' n	RB allocation	Mod' n	RB allocation	CASE 1
		FDD		FDD	Throughput Limit
5MHz	QPSK	Full	QPSK	25	≥ 95 %
10MHz	QPSK	Full	QPSK	15,20,25	≥ 95 %
20MHz	QPSK	Full	QPSK	100	≥ 95 %
Verdict	**PASS**				
Ch BW	Mod' n	RB allocation	Mod' n	RB allocation	CASE 2
		FDD		FDD	Throughput Limit
5MHz	QPSK	Full	QPSK	25	≥ 95 %
10MHz	QPSK	Full	QPSK	15,20,25	≥ 95 %
20MHz	QPSK	Full	QPSK	100	≥ 95 %
Verdict	**PASS**				

8. Receiver blocking characteristics

Test Results

The equipment **passed** the requirement of this clause.

In-Band Blocking

Test Environment			NC		
Test Frequencies			Mid range		
Test Channel Bandwidths			Lowest, 5MHz, Highest 20MHz		
Test Parameters for Channel Bandwidths					
	Downlink Configuration		**Uplink Configuration**		CASE1
Ch BW	Mod' n	RB allocation	Mod' n	RB allocation	Throughput Limit
		FDD		FDD	
5MHz	QPSK	Full	QPSK	25	≥ 95 %
10MHz	QPSK	Full	QPSK	15,20,25	≥ 95 %
20MHz	QPSK	Full	QPSK	100	≥ 95 %
Verdict	**PASS**				

In-Band Blocking

	Downlink Configuration		**Uplink Configuration**		CASE2
Ch BW	Mod' n	RB allocation	Mod' n	RB allocation	Throughput Limit
		FDD		FDD	
5MHz	QPSK	Full	QPSK	25	≥ 95 %
10MHz	QPSK	Full	QPSK	15,20,25	≥ 95 %
20MHz	QPSK	Full	QPSK	100	≥ 95 %
Verdict	**PASS**				

Out-of Band Blocking

Test Environment			NC		
Test Frequencies			Low range for FInterferer below FDL_low High range for FInterferer above FDL_high		
Test Channel Bandwidths			Lowest, 5MHz, Highest 20MHz		
Test Parameters for Channel Bandwidths					
	Downlink Configuration		**Uplink Configuration**		RANGE1/RANGE2/RANGE3
Ch BW	Mod' n	RB allocation	Mod' n	RB allocation	Throughput Limit
		FDD		FDD	
5MHz	QPSK	Full	QPSK	25	≥ 95 %
10MHz	QPSK	Full	QPSK	15,20,25	≥ 95 %
20MHz	QPSK	Full	QPSK	100	≥ 95 %

Verdict	PASS

Narrow Band

Test Environment	NC				
Test Frequencies	Mid range				
Test Channel Bandwidths	Lowest, 5MHz, Highest 20MHz				
Test Parameters for Channel Bandwidths					
	Downlink Configuration		**Uplink Configuration**		
Ch BW	Mod' n	RB allocation	Mod' n	RB allocation	Throughput Limit
		FDD		FDD	
5MHz	QPSK	Full	QPSK	25	≥ 95 %
10MHz	QPSK	Full	QPSK	15,20,25	≥ 95 %
20MHz	QPSK	Full	QPSK	100	≥ 95 %
Verdict	**PASS**				

9. Receiver Spurious Response

Test Results

The equipment **passed** the requirement of this clause.

Test Environment					NC
Test Frequencies					Mid range
Test Channel Bandwidths					Lowest, 5MHz, Highest 20MHz
Test Parameters for Channel Bandwidths					
	Downlink Configuration		**Uplink Configuration**		
Ch BW	Mod' n	RB allocation	Mod' n	RB allocation	CASE 1
		FDD		FDD	Throughput Limit
5MHz	QPSK	Full	QPSK	25	≥ 95 %
10MHz	QPSK	Full	QPSK	15,20,25	≥ 95 %
20MHz	QPSK	Full	QPSK	100	≥ 95 %
Verdict	**Pass**				
Ch BW	Mod' n	RB allocation	Mod' n	RB allocation	CASE 2
		FDD		FDD	Throughput Limit
5MHz	QPSK	Full	QPSK	25	≥ 95 %
10MHz	QPSK	Full	QPSK	15,20,25	≥ 95 %
20MHz	QPSK	Full	QPSK	100	≥ 95 %
Verdict	**Pass**				

10. Receiver Intermodulation Characteristics

Test Results

The equipment **passed** the requirement of this clause.

Test Band	Band 1					
Test Environment	NC					
Test Frequencies	Mid range					
Test Channel Bandwidths	Lowest, 5MHz, Highest					
Test Parameters for Channel Bandwidths						
	Downlink Configuration		**Uplink Configuration**			
Ch BW	Mod' n	RB allocation	Mod' n	RB allocation	Meas. Throughput	Throughput Limit
		FDD		FDD		
5MHz	QPSK	Full	QPSK	25	PASS	≥ 95 %
10MHz	QPSK	Full	QPSK	15,20,25	PASS	≥ 95 %
20MHz	QPSK	Full	QPSK	100	PASS	≥ 95 %
Verdict	**PASS**					

11. Receiver Reference Sensitivity Level

Test Results

Note: All the modes had been tested, but only the worst data recorded in the report.

NTNV

	Test Band			Band 1			
	TestEnvironment			NC			
	Test Frequencies			Midrange			
	TestChannelBandwidths			Lowest,5MHz,Highest 20MHz			
	Test Parameters for Channel Bandwidths						
		DownlinkConfiguration		**Uplink Configuration**			
	Ch BW	Mod' n	RB allocation	Mod' n	RB allocation	Meas. Throughput	Throughput Limit
			FDD		FDD		
TNVN	5MHz	QPSK	Full	QPSK	25	Pass	≥ 95 %
	10MHz	QPSK	Full	QPSK	15,20,25	Pass	≥ 95 %
	20MHz	QPSK	Full	QPSK	100	Pass	≥ 95 %
	Verdict	**Pass**					

12. Radiated spurious emissions - MS in idle mode

Test Result

NTNV

Channel Bandwidth=Highest= (20 MHz)

Frequency	Modulation	RBW	Max .Level (dbm)	Test Conditions=TNVN		
				Test Channel		
				LCH	MCH	HCH
30 MHz ≤f < 1 GHz	QPSK	100 kHz	-57	-72.85	-72.77	-72.65
1 GHz ≤f ≤ 5 GHz		1 MHz	-47	-76.36	-76.41	-76.44
5 GHz ≤f ≤12.75 GHz		1 MHz	-47	-70.53	-70.27	-70.37

Appendix B for Band 3

1. Transmitter Maximum Output Power

Note: All test modes were carried out for all operation modes and record the worst test mode (LTE BAND 3 TNVN) of fellow

Test Result

NTNV

Channel Bandwidth=Lowest (1.4 MHz)

Channel Bandwidth=Lowest (1.4 MHz)							
Condition	Modulation	Channel Bandwidth	Channel	RB allocation		Average Power (dBm)	Verdict
				RB Size	RB Offset		
Normal	QPSK	1.4 MHz	Low range	1	0	23.84	Pass
					max	23.84	Pass
				Partial	0	23.87	Pass
					max	23.86	Pass
			Mid range	1	0	23.95	Pass
					max	23.96	Pass
				Partial	0	23.90	Pass
					max	23.93	Pass
			High range	1	0	23.89	Pass
					max	23.96	Pass
				Partial	0	24.10	Pass
					max	23.91	Pass

Channel Bandwidth= (5 MHz)

Channel Bandwidth= (5 MHz)							
Condition	Modulation	Channel Bandwidth	Channel	RB allocation		Average Power (dBm)	Verdict
				RB Size	RB Offset		
Normal	QPSK	5MHz	Low range	1	0	23.91	Pass
					max	23.88	Pass
				Partial	0	23.85	Pass
					max	23.90	Pass
			Mid range	1	0	23.88	Pass
					max	23.93	Pass
				Partial	0	23.95	Pass
					max	23.94	Pass
			High range	1	0	23.94	Pass
					max	23.91	Pass
				Partial	0	23.90	Pass

					max	23.86	Pass

Channel Bandwidth=Highest (20 MHz)

Channel Bandwidth=Highest (20 MHz)							
Condition	Modulation	Channel Bandwidth	Channel	RB allocation		Average Power (dBm)	Verdict
				RB Size	RB Offset		
Normal	QPSK	20 MHz	Low range	1	0	23.66	Pass
					max	23.72	Pass
				Partial	0	23.76	Pass
					max	23.76	Pass
			Mid range	1	0	23.61	Pass
					max	23.77	Pass
				Partial	0	23.74	Pass
					max	23.86	Pass
			High range	1	0	23.69	Pass
					max	23.64	Pass
				Partial	0	23.90	Pass
					max	23.85	Pass

2. Transmitter Minimum Output Power

Note: All test modes were carried out for all operation modes and record the worst test mode (LTE BAND 3 TNVN) of fellow

Test Result

NTNV

Channel Bandwidth=Lowest (1.4 MHz)

Channel Bandwidth=Lowest (1.4 MHz)							
Condition	Modulation	Channel Bandwidth	Channel	RB allocation		Average Power (dBm)	Verdict
				RB Size	RB Offset		
Normal	QPSK	1.4 MHz	Low range	Full	0	-47.88	Pass
			Mid range	Full	0	-50.82	Pass
			High range	Full	0	-50.52	Pass

Channel Bandwidth= (5 MHz)

Channel Bandwidth= (5 MHz)							
Condition	Modulation	Channel Bandwidth	Channel	RB allocation		Average Power (dBm)	Verdict
				RB Size	RB Offset		
Normal	QPSK	5MHz	Low range	Full	0	-50.16	Pass
			Mid range	Full	0	-50.40	Pass
			High range	Full	0	-50.29	Pass

Channel Bandwidth=Highest (20 MHz)

Channel Bandwidth=Highest (20 MHz)							
Condition	Modulation	Channel Bandwidth	Channel	RB allocation		Average Power (dBm)	Verdict
				RB Size	RB Offset		
Normal	QPSK	20 MHz	Low range	Full	0	-49.95	Pass
			Mid range	Full	0	-50.08	Pass
			High range	Full	0	-50.01	Pass

3. Transmitter Spectrum Emission Mask

Test Result

NTNV

Channel Bandwidth=Lowest (1.4 MHz)

Channel Bandwidth=Lowest (1.4MHz)							
Condition	Modulation	Channel Bandwidth	Channel	RB allocation		UE output power	Verdict
				RB Size	RB Offset		
Normal	QPSK	1.4 MHz	Low range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			Mid range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			High range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
	16QAM		Low range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			Mid range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			High range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass

Channel Bandwidth= (5 MHz)

Channel Bandwidth= (5 MHz)							
Condition	Modulation	Channel Bandwidth	Channel	RB allocation		UE output power	Verdict
				RB Size	RB Offset		
Normal	QPSK	5 MHz	Low range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			Mid range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			High range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass

	16QAM		Low range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			Mid range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			High range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass

Channel Bandwidth= (10 MHz)

Channel Bandwidth= (10 MHz)							
Condition	Modulation	Channel Bandwidth	Channel	RB allocation		UE output power	Verdict
				RB Size	RB Offset		
Normal	QPSK	10 MHz	Low range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			Mid range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			High range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
	16QAM		Low range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			Mid range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			High range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass

Channel Bandwidth=Highest (20 MHz)

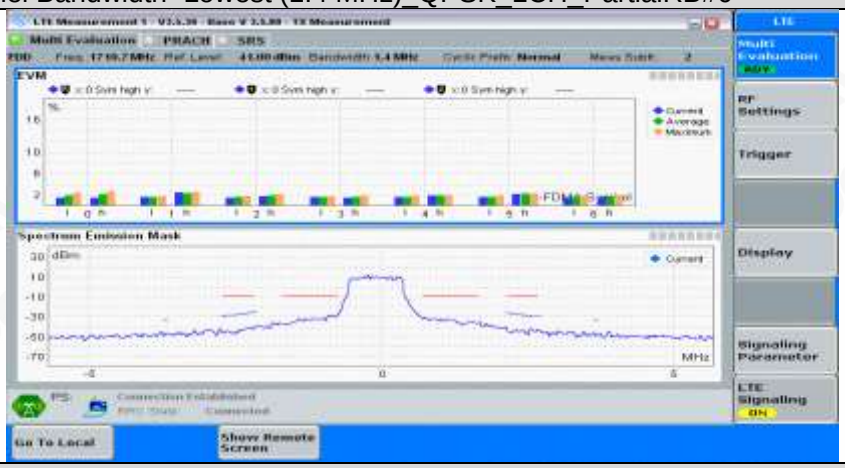
Channel Bandwidth=Highest (#BWH MHz)							
Condition	Modulation	Channel Bandwidth	Channel	RB allocation		UE output power	Verdict
				RB Size	RB Offset		
Normal	QPSK	20 MHz	Low range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass

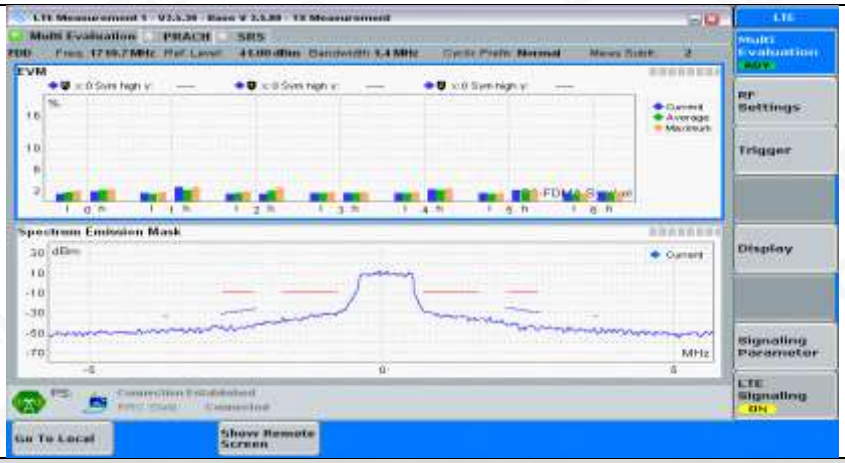
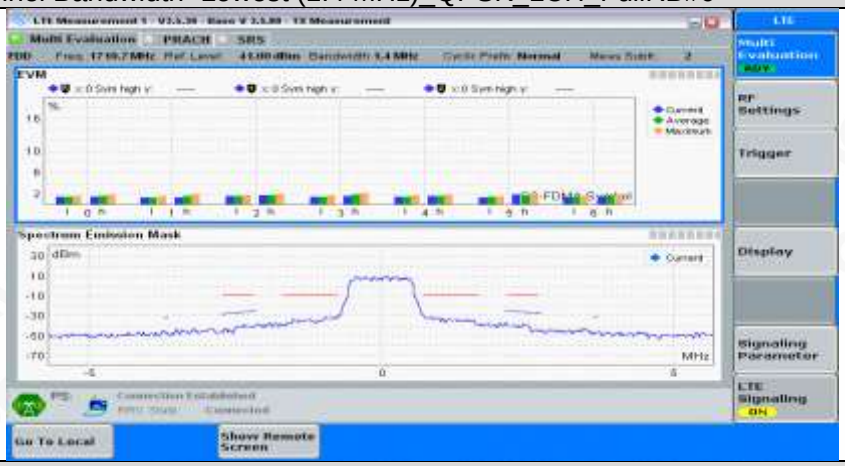
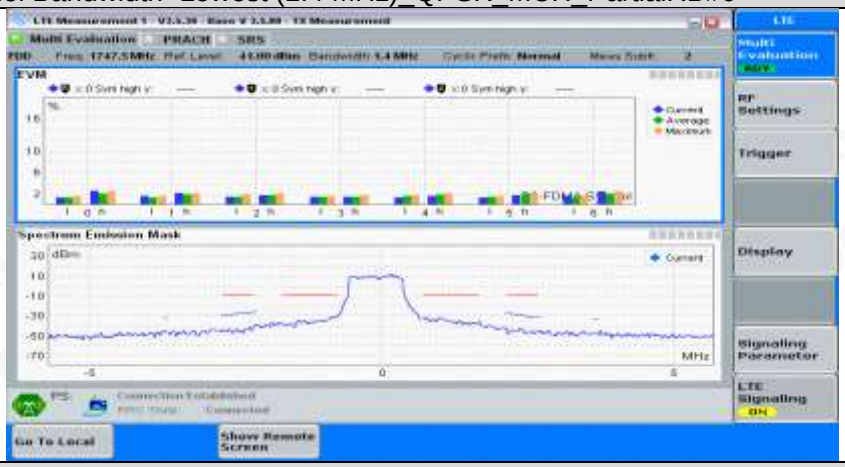
				Full	0	PUMAX	Pass
			Mid range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			High range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
	16QAM		Low range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			Mid range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			High range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass

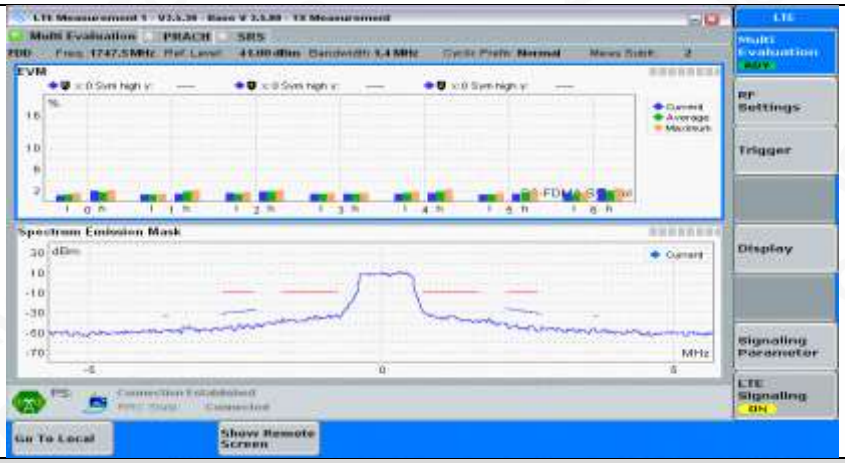
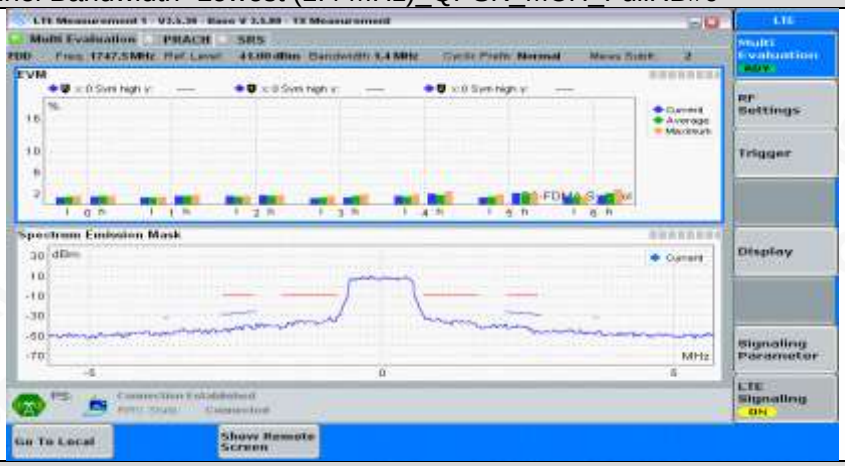
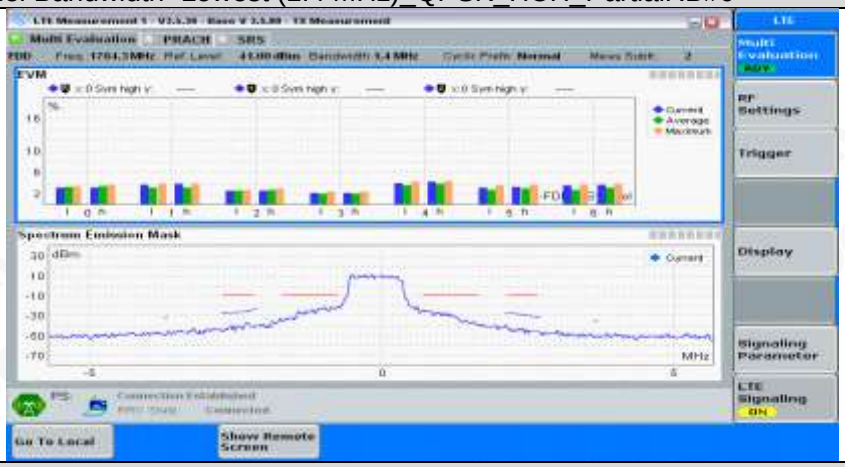
Test Graphs

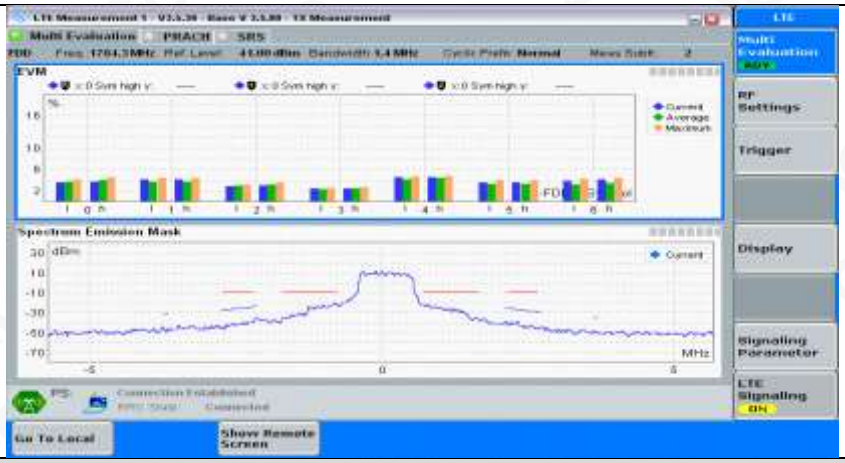
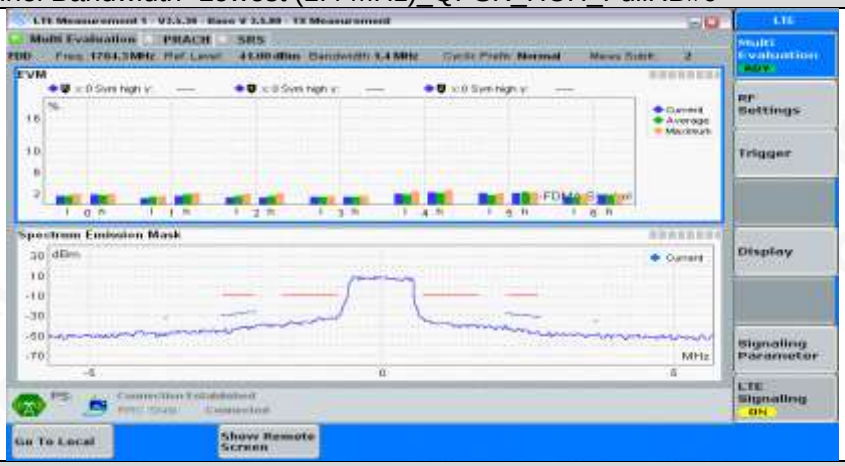
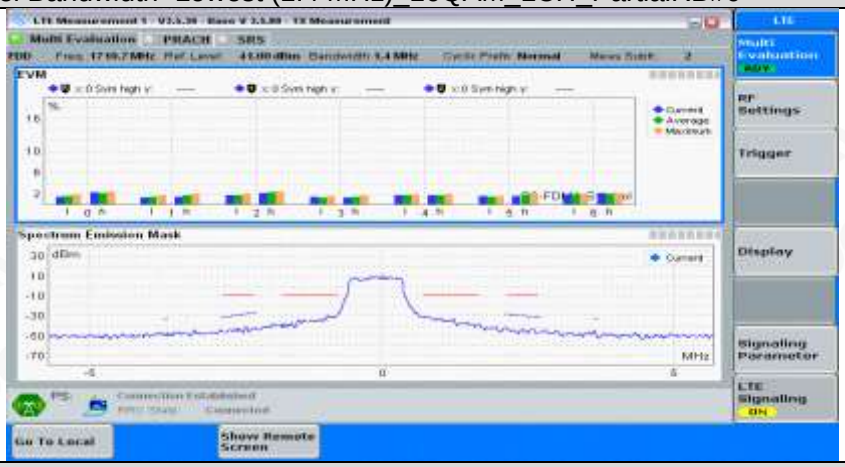
NTNV

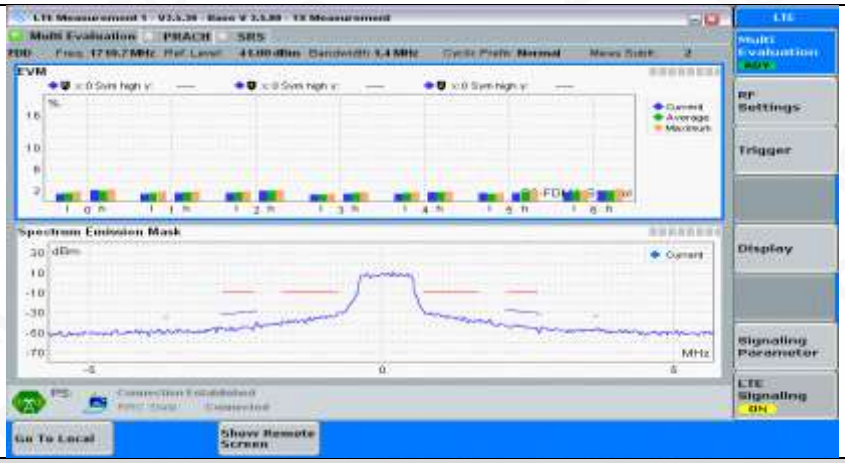
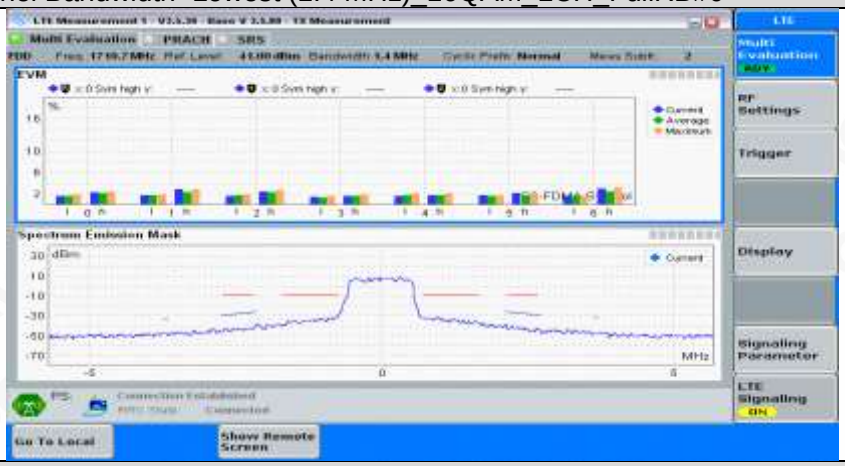
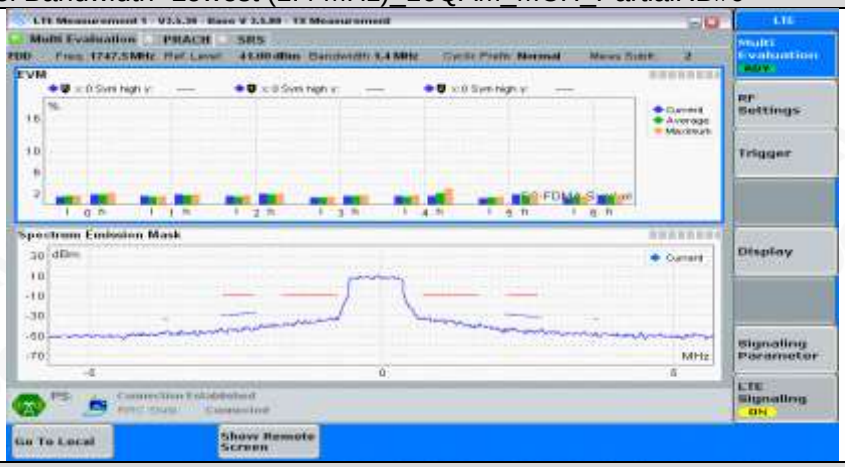
Channel Bandwidth=Lowest (1.4 MHz)

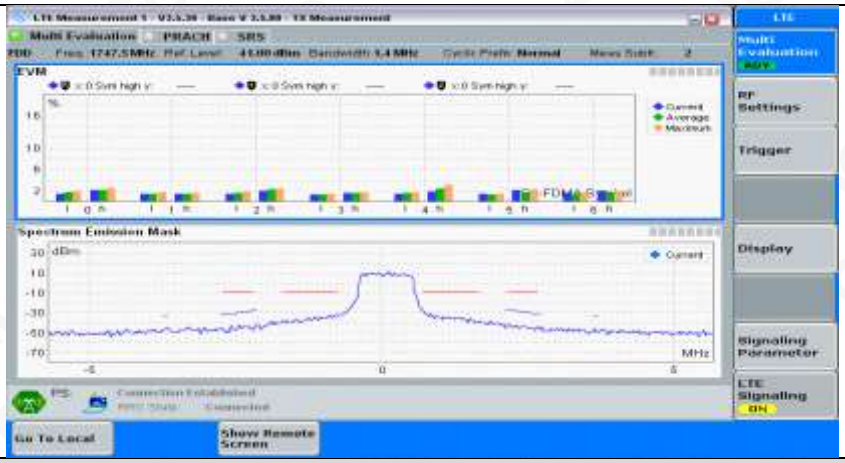
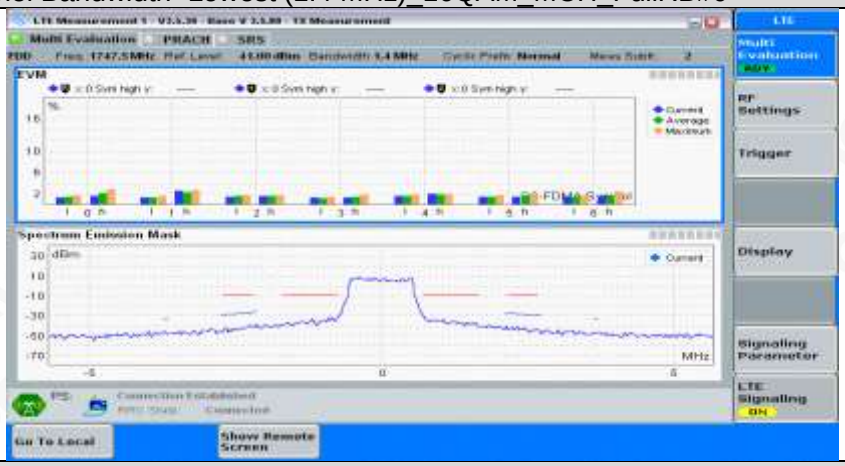
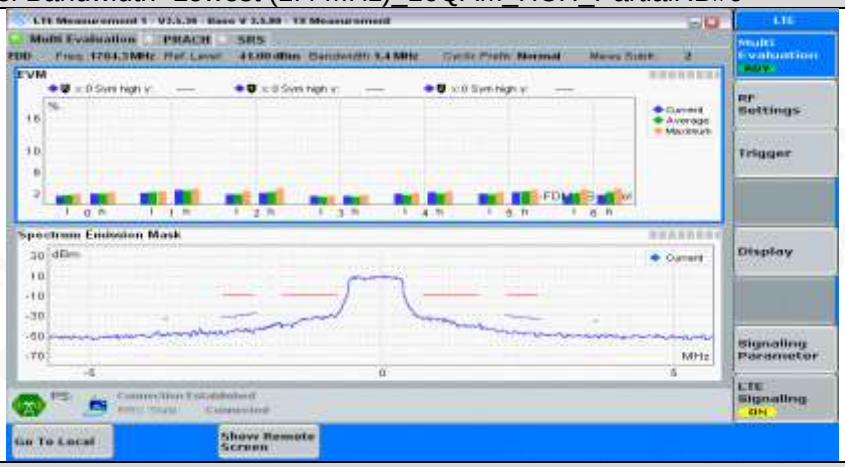
Channel Bandwidth=Lowest (1.4 MHz)_QPSK_LCH_PartialRB#0	
QPSK	
Channel Bandwidth=Lowest (1.4 MHz)_QPSK_LCH_PartialRB#max	

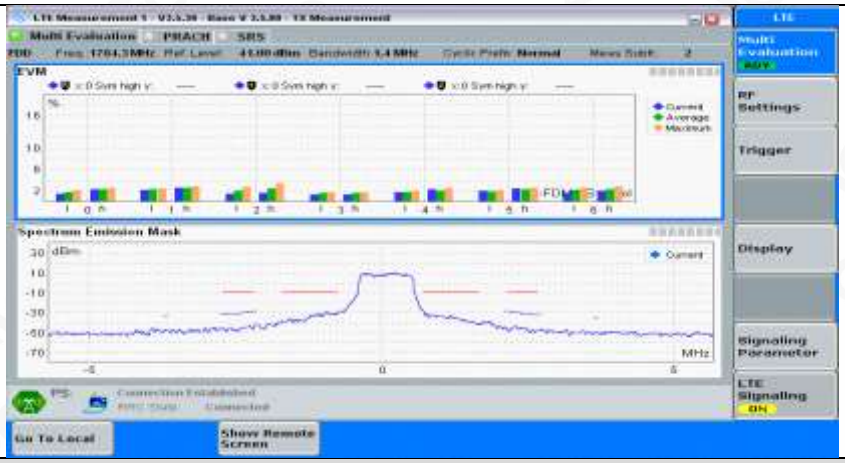
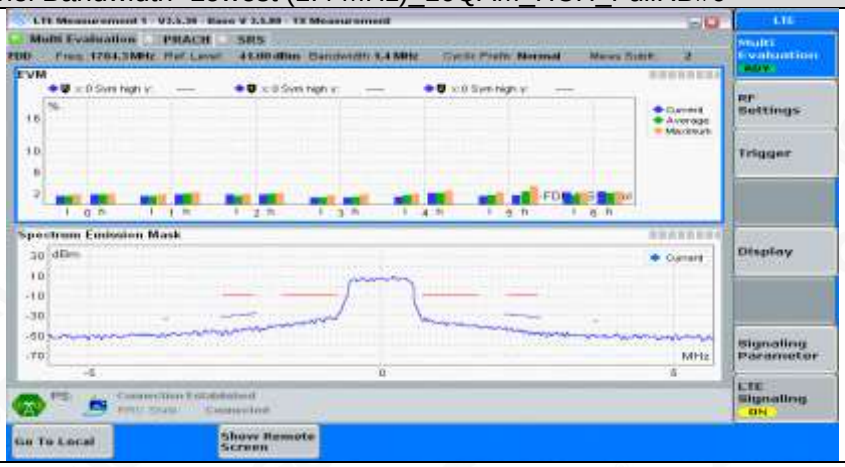
QPSK		
Channel Bandwidth=Lowest (1.4 MHz)_QPSK_LCH_FullRB#0		
QPSK		
Channel Bandwidth=Lowest (1.4 MHz)_QPSK_MCH_PartialRB#0		
QPSK		
Channel Bandwidth=Lowest (1.4 MHz)_QPSK_MCH_PartialRB#max		

QPSK		
Channel Bandwidth=Lowest (1.4 MHz)_QPSK_MCH_FullRB#0		
QPSK		
Channel Bandwidth=Lowest (1.4 MHz)_QPSK_HCH_PartialRB#0		
QPSK		
Channel Bandwidth=Lowest (1.4 MHz)_QPSK_HCH_PartialRB#max		

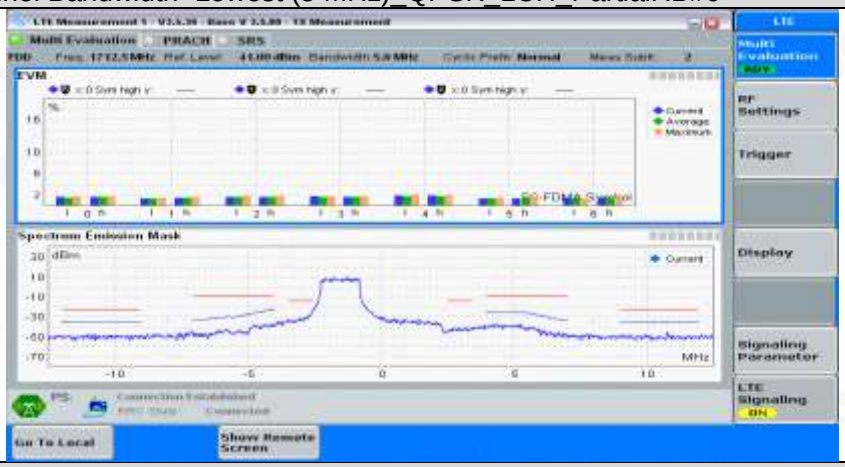
QPSK		
Channel Bandwidth=Lowest (1.4 MHz)_QPSK_HCH_FullRB#0		
QPSK		
Channel Bandwidth=Lowest (1.4 MHz)_16QAM_LCH_PartialRB#0		
16QAM		
Channel Bandwidth=Lowest (1.4 MHz)_16QAM_LCH_PartialRB#max		

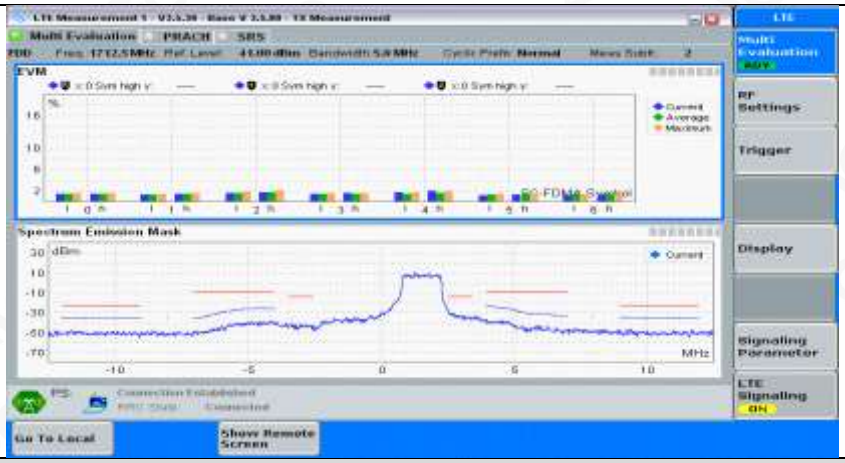
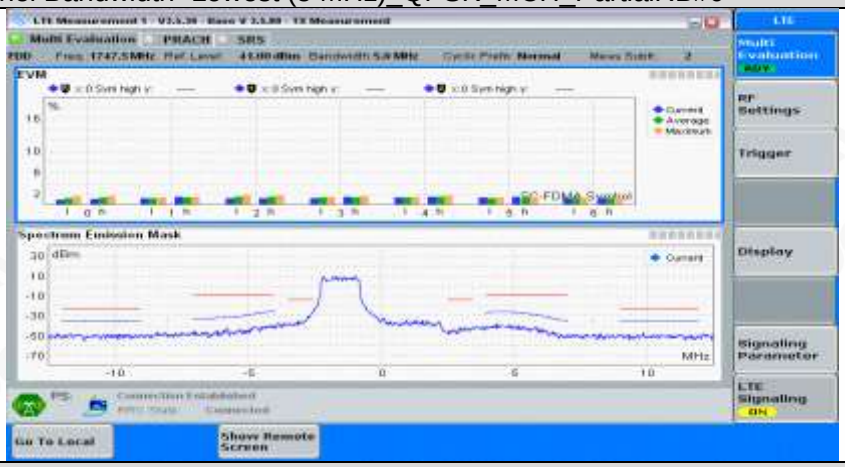
16QAM	
Channel Bandwidth=Lowest (1.4 MHz)_16QAM_LCH_FullRB#0	
16QAM	
Channel Bandwidth=Lowest (1.4 MHz)_16QAM_MCH_PartialRB#0	
16QAM	
Channel Bandwidth=Lowest (1.4 MHz)_16QAM_MCH_PartialRB#max	

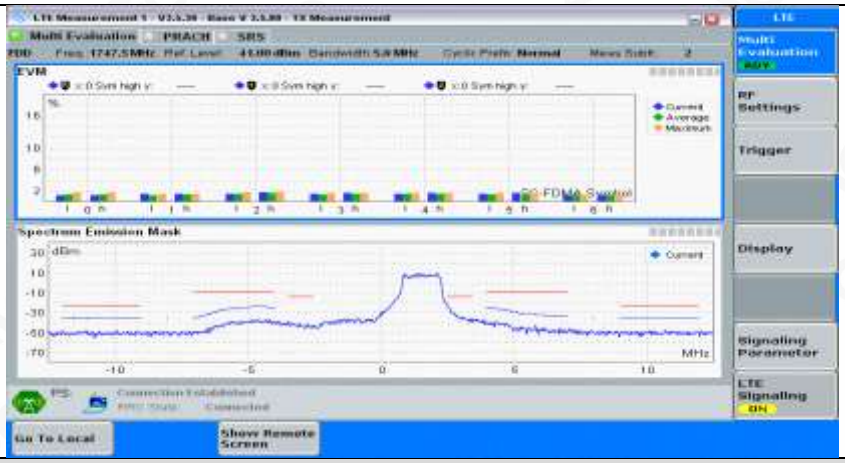
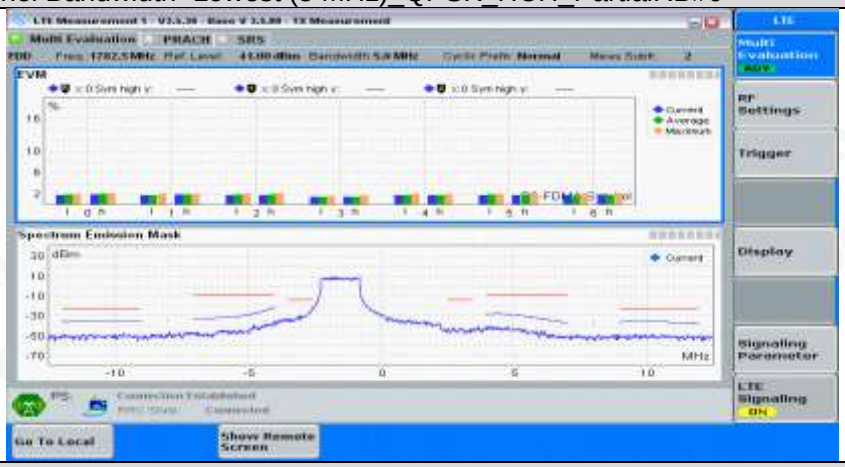
16QAM	
Channel Bandwidth=Lowest (1.4 MHz)_16QAM_MCH_FullRB#0	
16QAM	
Channel Bandwidth=Lowest (1.4 MHz)_16QAM_HCH_PartialRB#0	
16QAM	
Channel Bandwidth=Lowest (1.4 MHz)_16QAM_HCH_PartialRB#max	

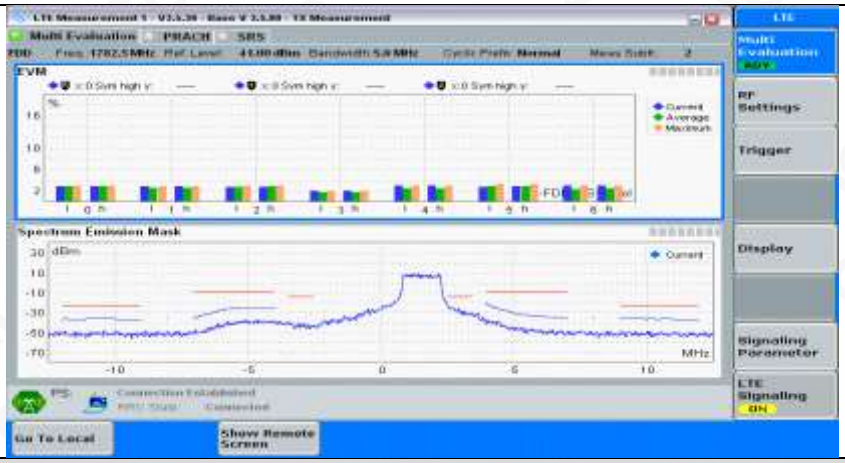
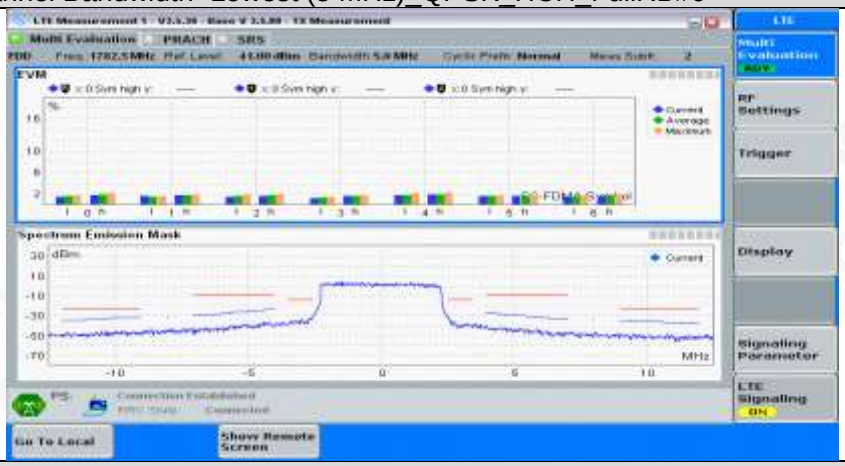
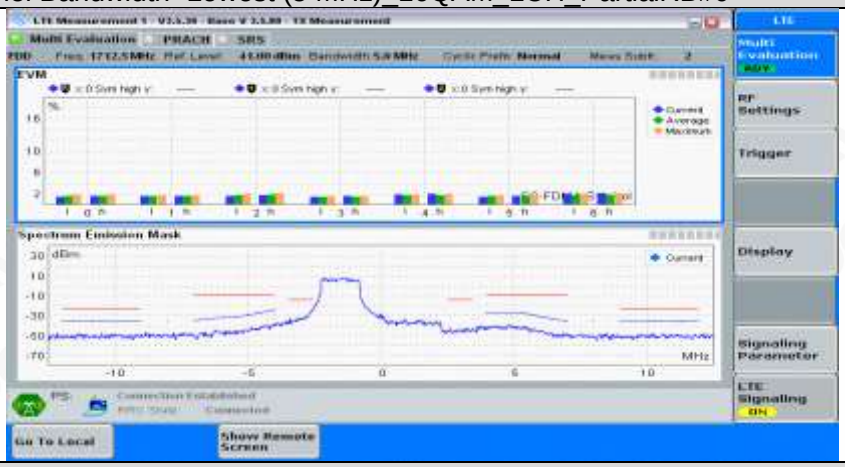
16QAM		
Channel Bandwidth=Lowest (1.4 MHz)_16QAM_HCH_FullRB#0		
16QAM		

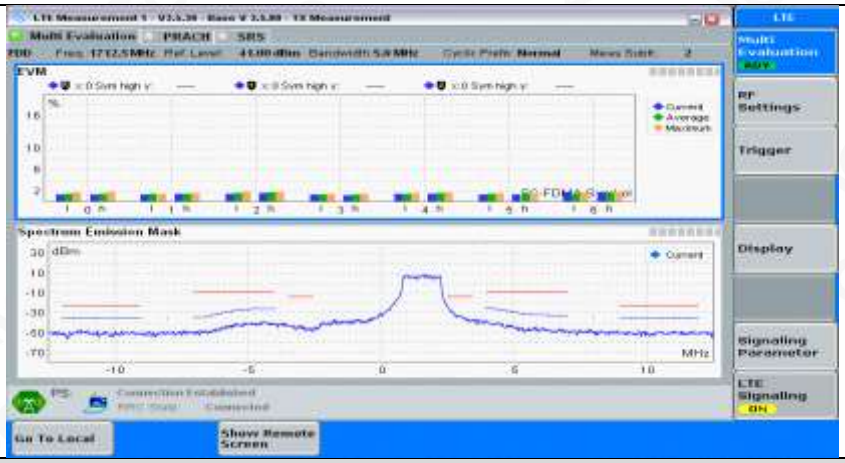
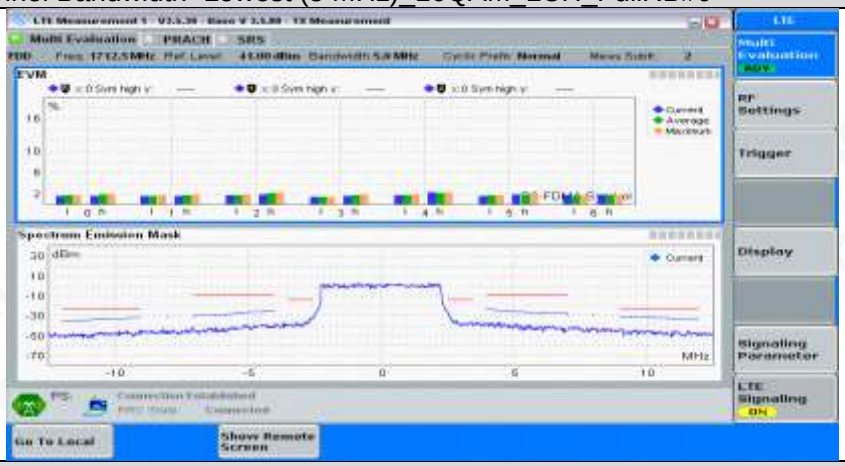
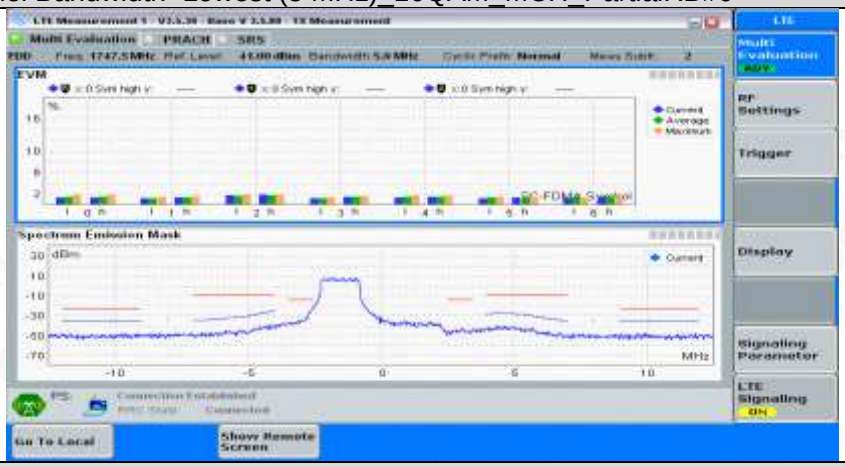
Channel Bandwidth= (5 MHz)

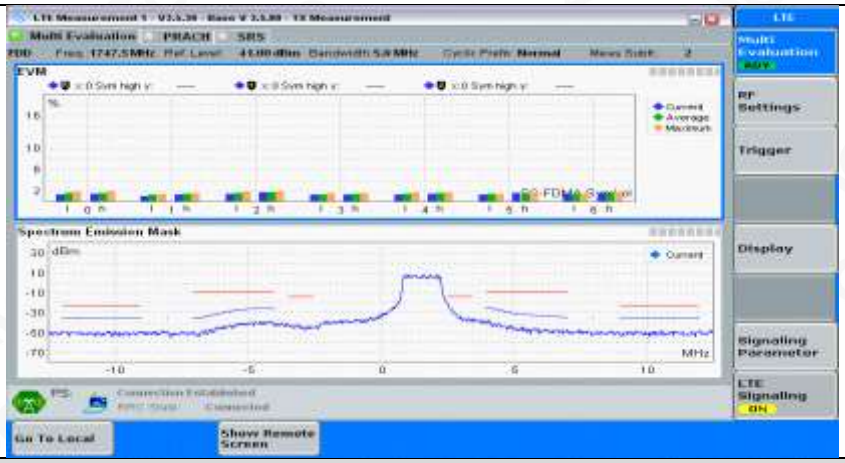
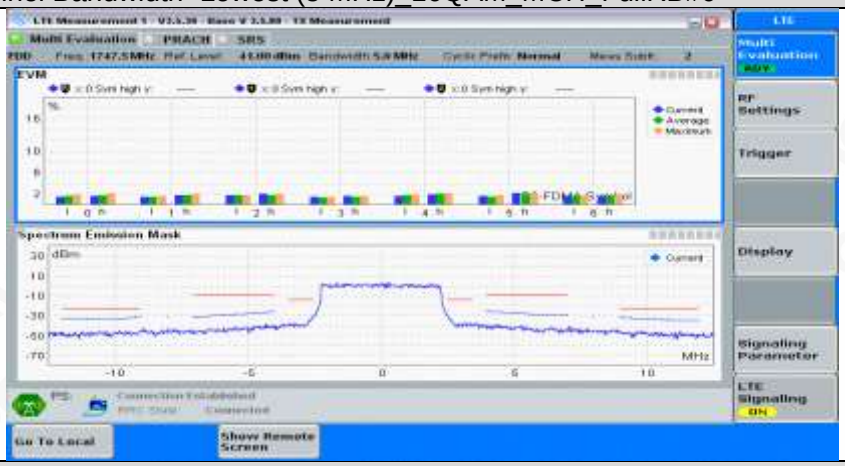
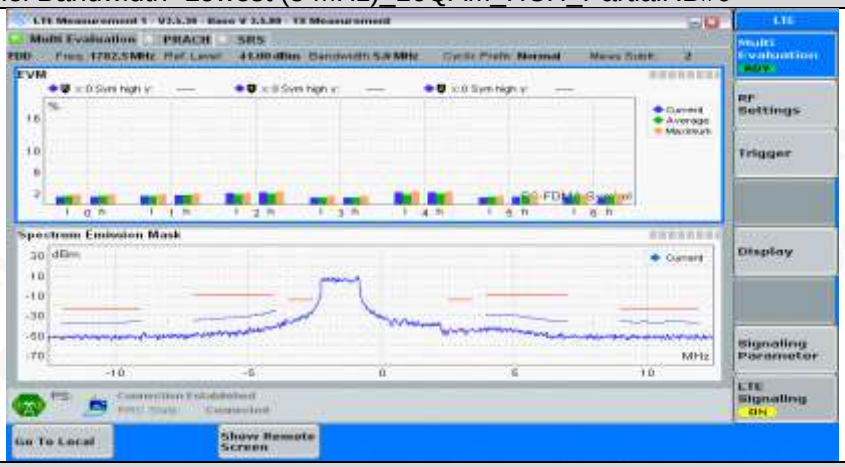
Channel Bandwidth=Lowest (5 MHz)_QPSK_LCH_PartialRB#0		
QPSK		
Channel Bandwidth=Lowest (5 MHz)_QPSK_LCH_PartialRB#max		

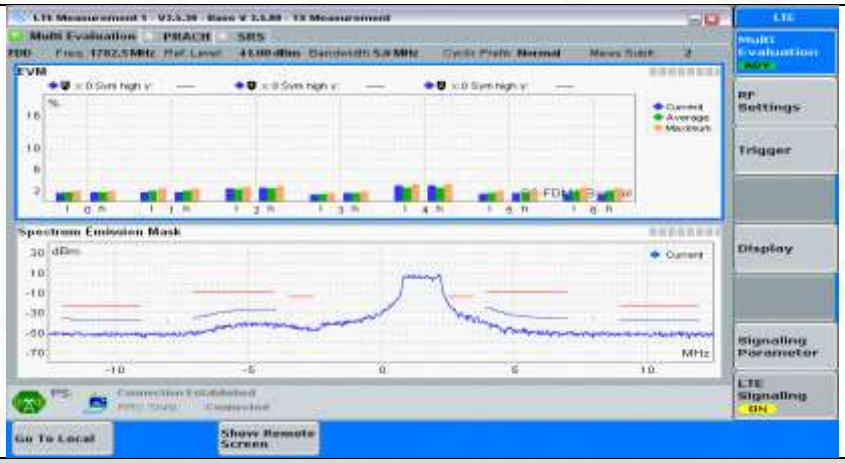
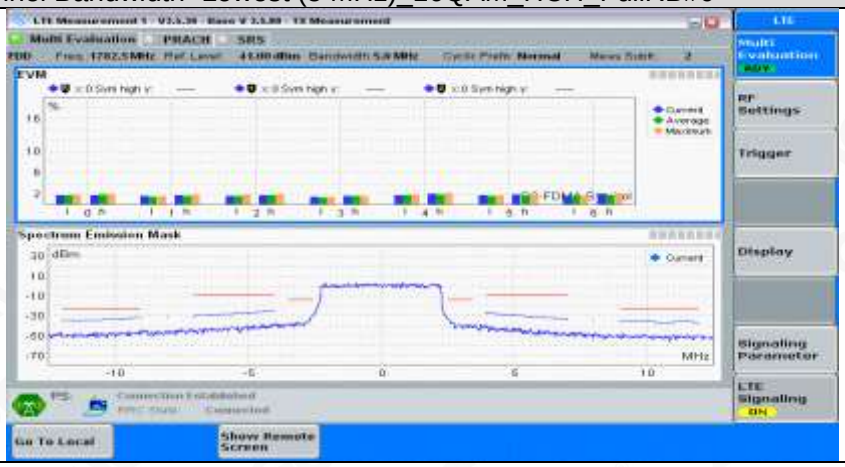
QPSK		
Channel Bandwidth=Lowest (5 MHz)_QPSK_LCH_FullRB#0		
QPSK		
Channel Bandwidth=Lowest (5 MHz)_QPSK_MCH_PartialRB#0		
QPSK		
Channel Bandwidth=Lowest (5 MHz)_QPSK_MCH_PartialRB#max		

QPSK	
Channel Bandwidth=Lowest (5 MHz)_QPSK_MCH_FullRB#0	
QPSK	
Channel Bandwidth=Lowest (5 MHz)_QPSK_HCH_PartialRB#0	
QPSK	
Channel Bandwidth=Lowest (5 MHz)_QPSK_HCH_PartialRB#max	

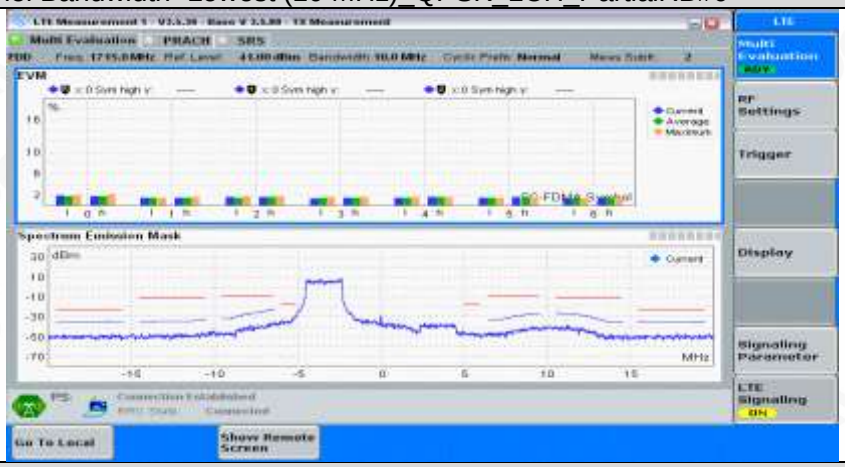
QPSK	
Channel Bandwidth=Lowest (5 MHz)_QPSK_HCH_FullRB#0	
QPSK	
Channel Bandwidth=Lowest (5 MHz)_16QAM_LCH_PartialRB#0	
16QAM	
Channel Bandwidth=Lowest (5 MHz)_16QAM_LCH_PartialRB#max	

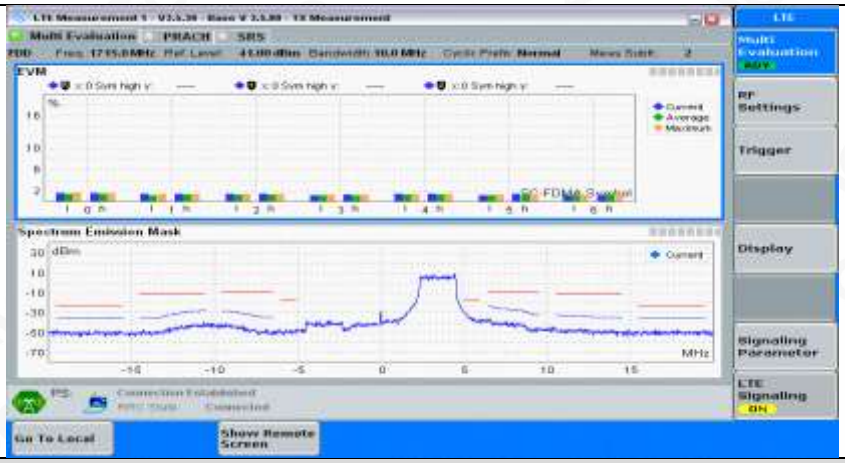
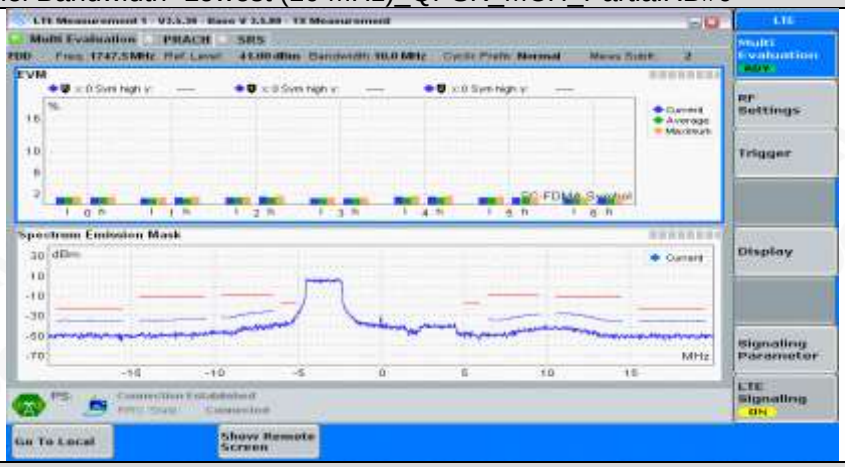
16QAM	
Channel Bandwidth=Lowest (5 MHz)_16QAM_LCH_FullRB#0	
16QAM	
Channel Bandwidth=Lowest (5 MHz)_16QAM_MCH_PartialRB#0	
16QAM	
Channel Bandwidth=Lowest (5 MHz)_16QAM_MCH_PartialRB#max	

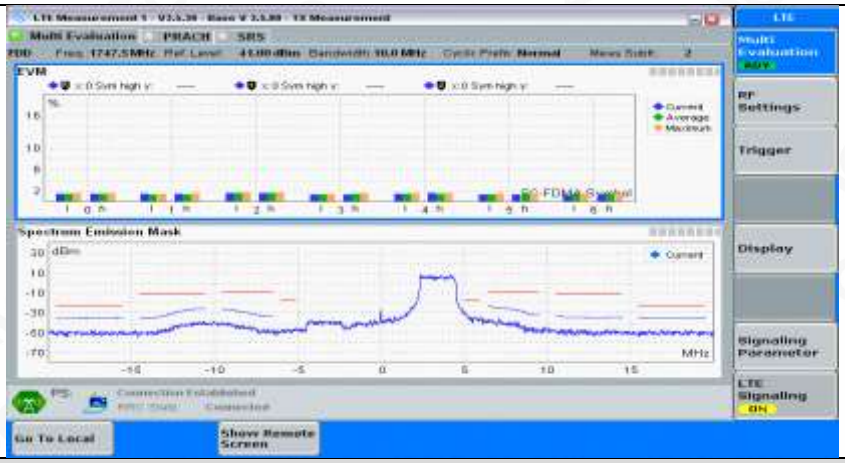
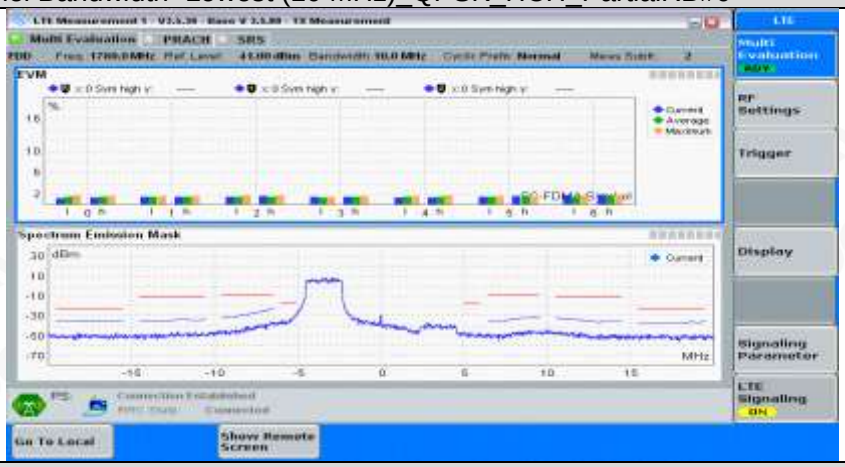
16QAM	
Channel Bandwidth=Lowest (5 MHz)_16QAM_MCH_FullRB#0	
16QAM	
Channel Bandwidth=Lowest (5 MHz)_16QAM_HCH_PartialRB#0	
16QAM	
Channel Bandwidth=Lowest (5 MHz)_16QAM_HCH_PartialRB#max	

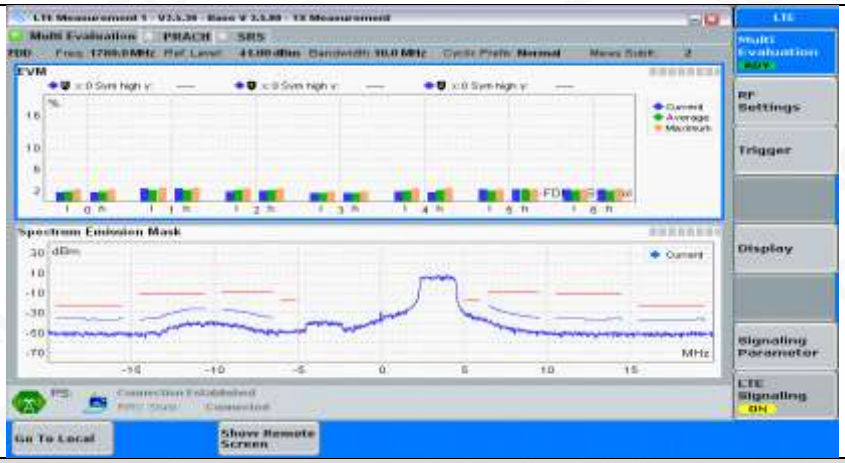
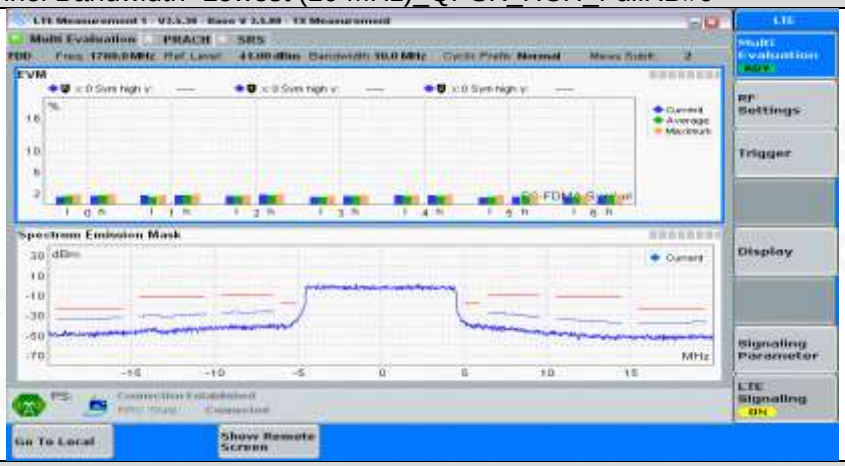
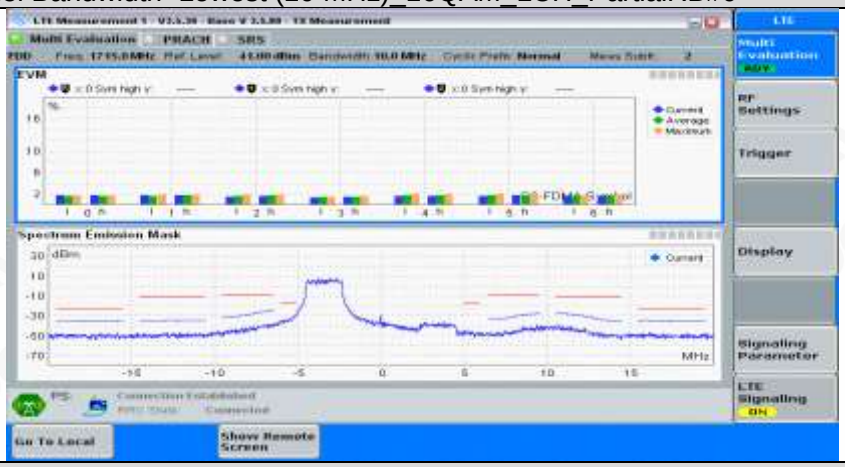
16QAM	
Channel Bandwidth=Lowest (5 MHz)_16QAM_HCH_FullRB#0	
16QAM	

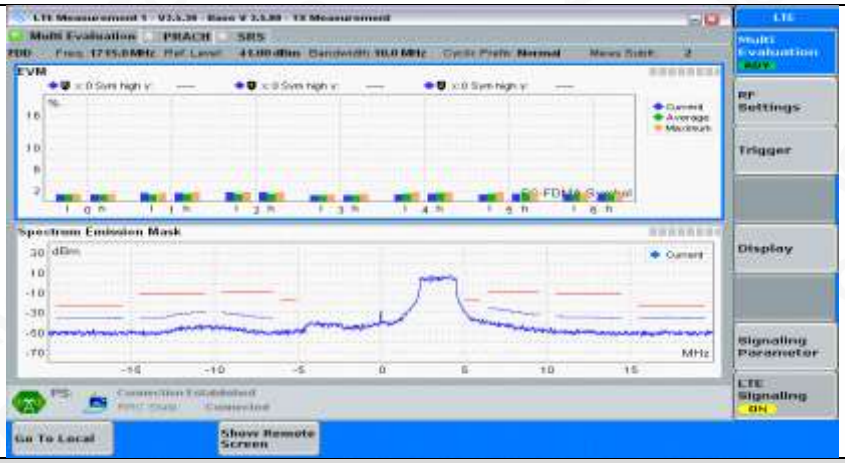
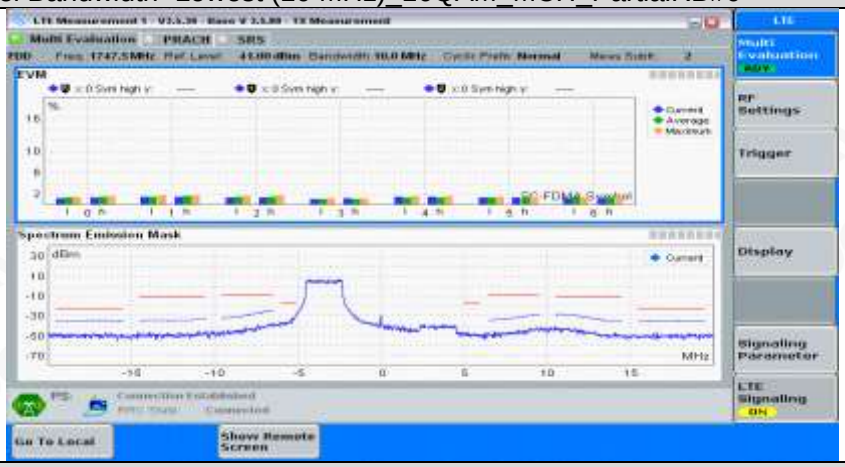
Channel Bandwidth= (10 MHz)

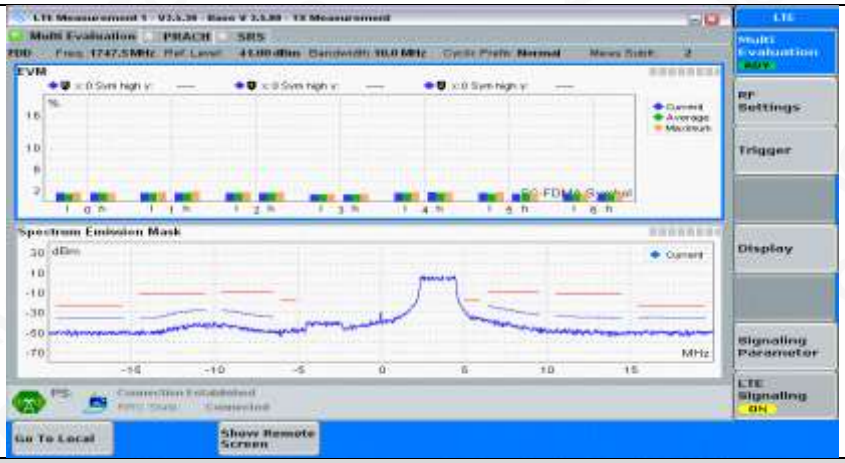
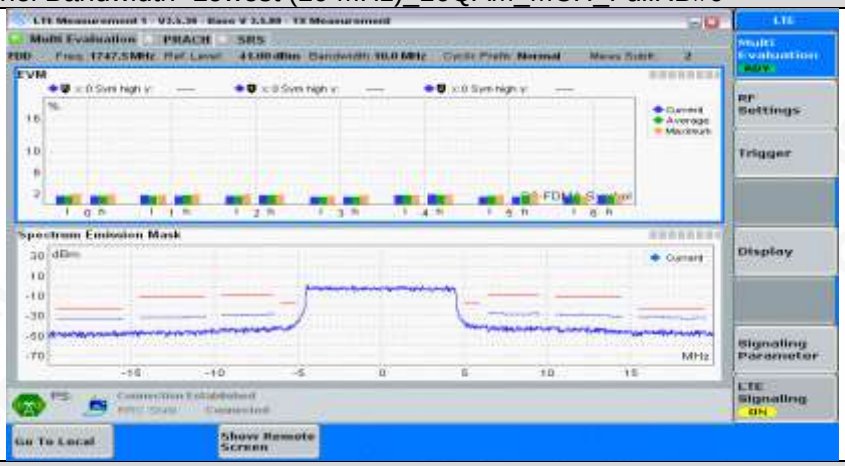
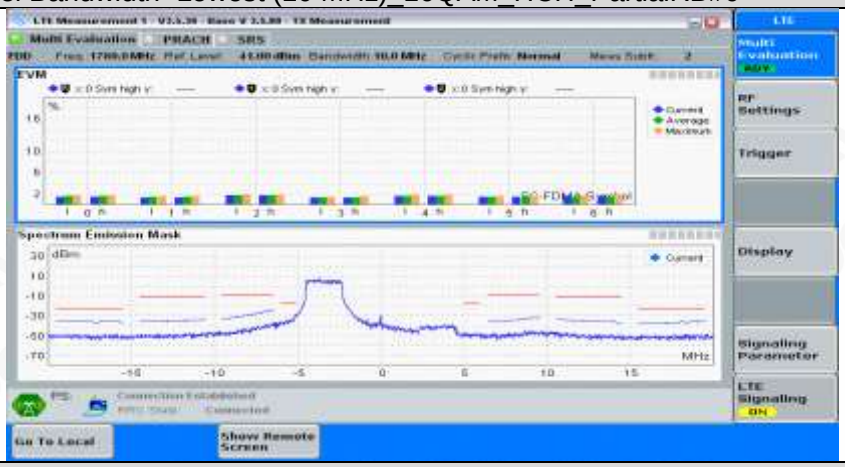
Channel Bandwidth=Lowest (10 MHz)_QPSK_LCH_PartialRB#0	
QPSK	
Channel Bandwidth=Lowest (10 MHz)_QPSK_LCH_PartialRB#max	

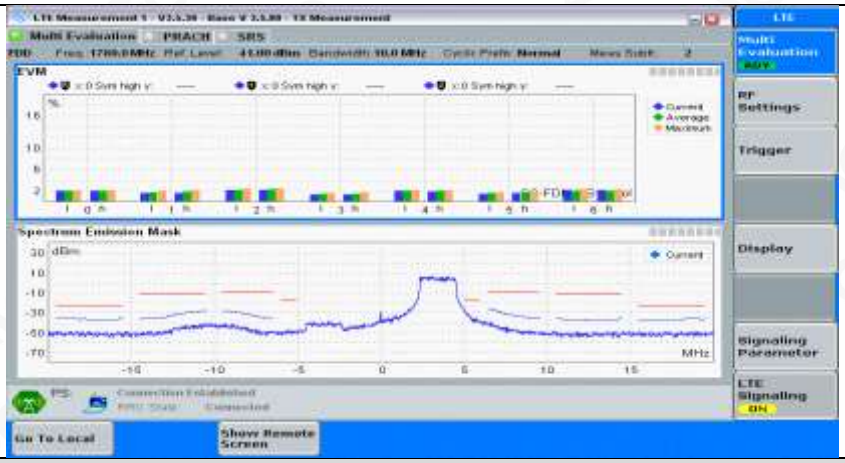
QPSK		
Channel Bandwidth=Lowest (10 MHz)_QPSK_LCH_FullRB#0		
QPSK		
Channel Bandwidth=Lowest (10 MHz)_QPSK_MCH_PartialRB#0		
QPSK		
Channel Bandwidth=Lowest (10 MHz)_QPSK_MCH_PartialRB#max		

QPSK	
Channel Bandwidth=Lowest (10 MHz)_QPSK_MCH_FullRB#0	
QPSK	
Channel Bandwidth=Lowest (10 MHz)_QPSK_HCH_PartialRB#0	
QPSK	
Channel Bandwidth=Lowest (10 MHz)_QPSK_HCH_PartialRB#max	

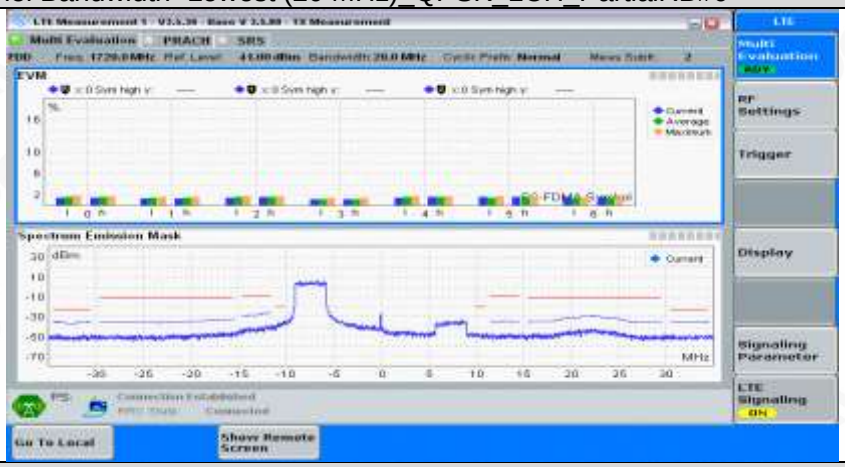
QPSK		
Channel Bandwidth=Lowest (10 MHz)_QPSK_HCH_FullRB#0		
QPSK		
Channel Bandwidth=Lowest (10 MHz)_16QAM_LCH_PartialRB#0		
16QAM		
Channel Bandwidth=Lowest (10 MHz)_16QAM_LCH_PartialRB#max		

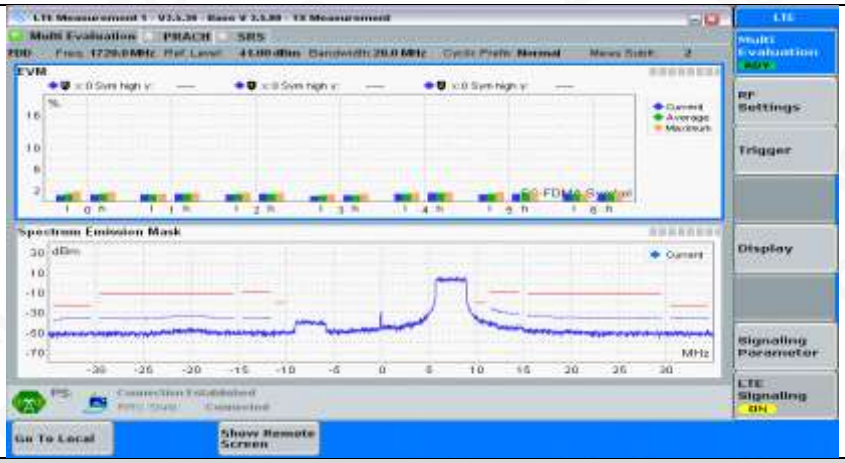
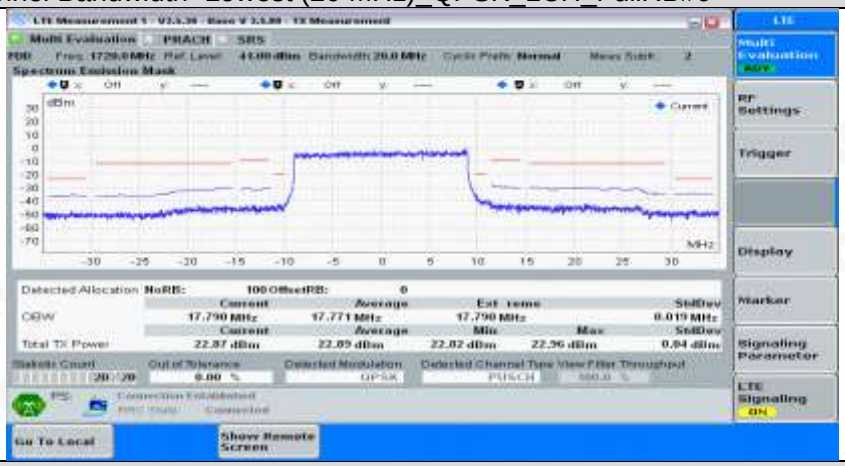
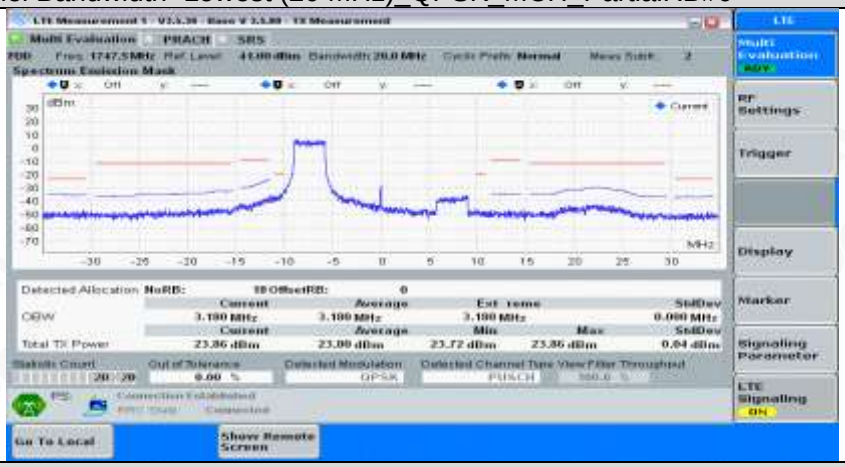
16QAM	
Channel Bandwidth=Lowest (10 MHz)_16QAM_LCH_FullRB#0	
16QAM	
Channel Bandwidth=Lowest (10 MHz)_16QAM_MCH_PartialRB#0	
16QAM	
Channel Bandwidth=Lowest (10 MHz)_16QAM_MCH_PartialRB#max	

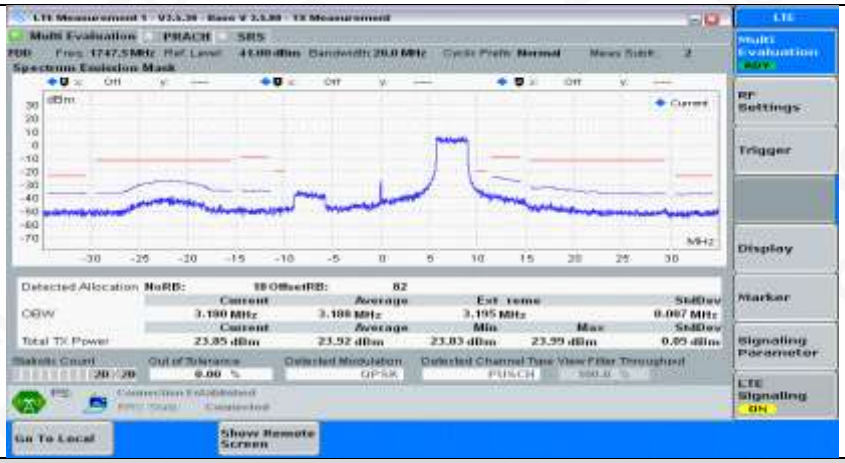
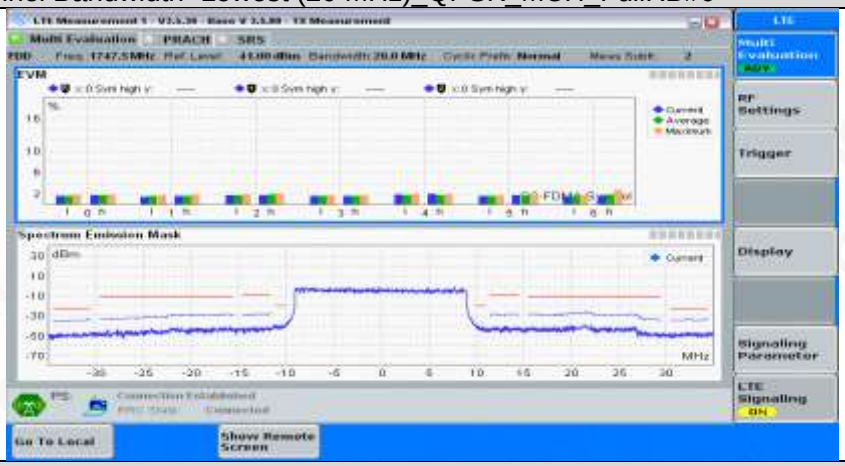
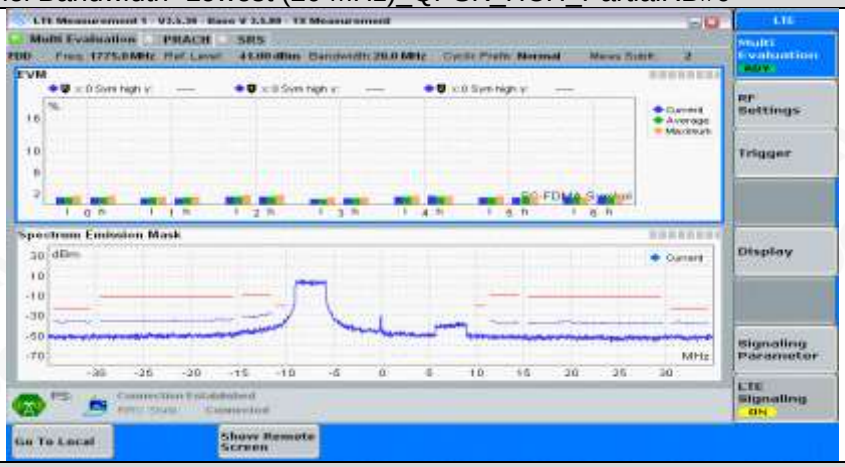
16QAM	
Channel Bandwidth=Lowest (10 MHz)_16QAM_MCH_FullRB#0	
16QAM	
Channel Bandwidth=Lowest (10 MHz)_16QAM_HCH_PartialRB#0	
16QAM	
Channel Bandwidth=Lowest (10 MHz)_16QAM_HCH_PartialRB#max	

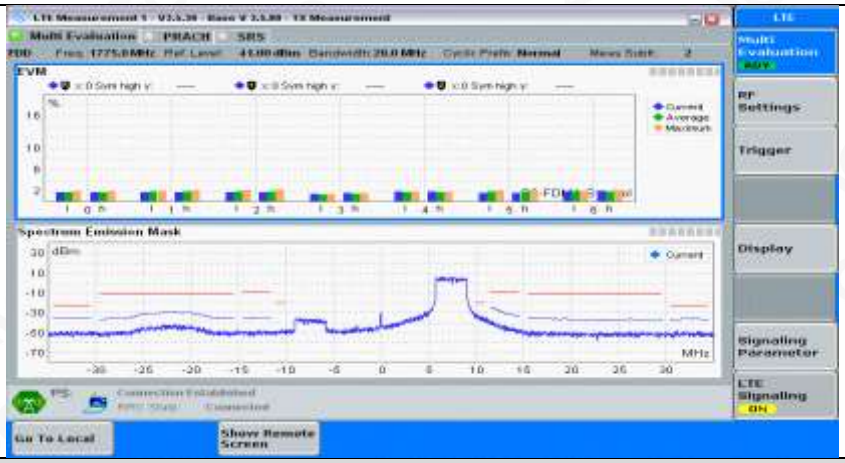
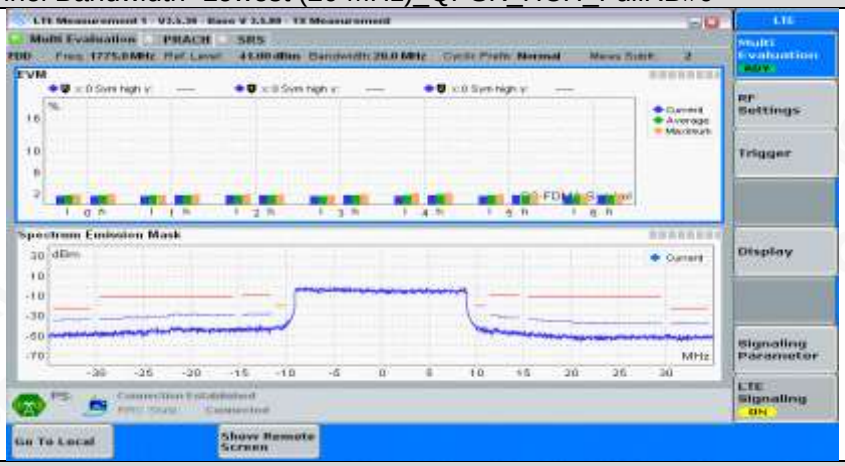
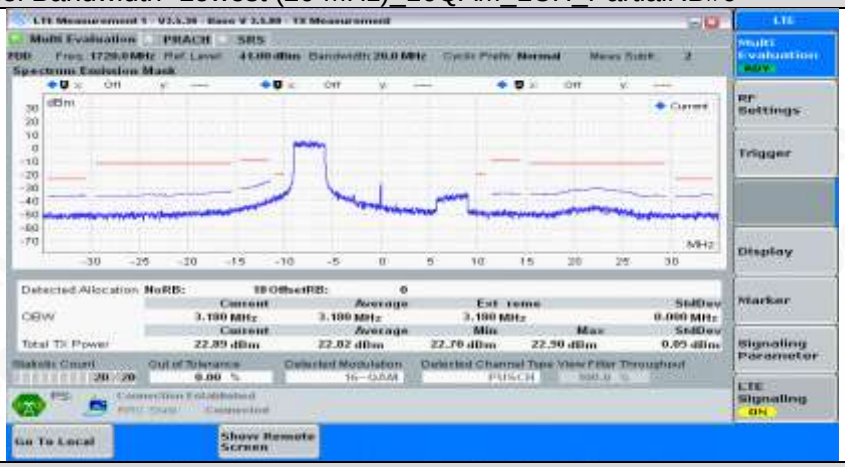
16QAM	
Channel Bandwidth=Lowest (10 MHz)_16QAM_HCH_FullRB#0	
16QAM	

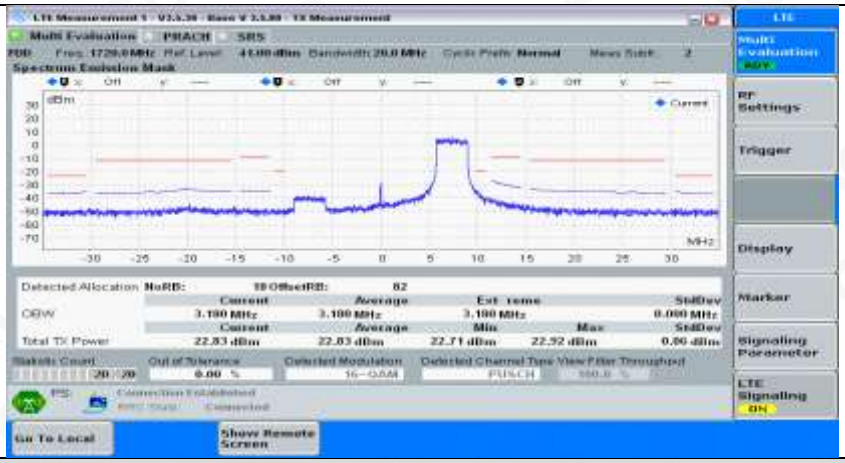
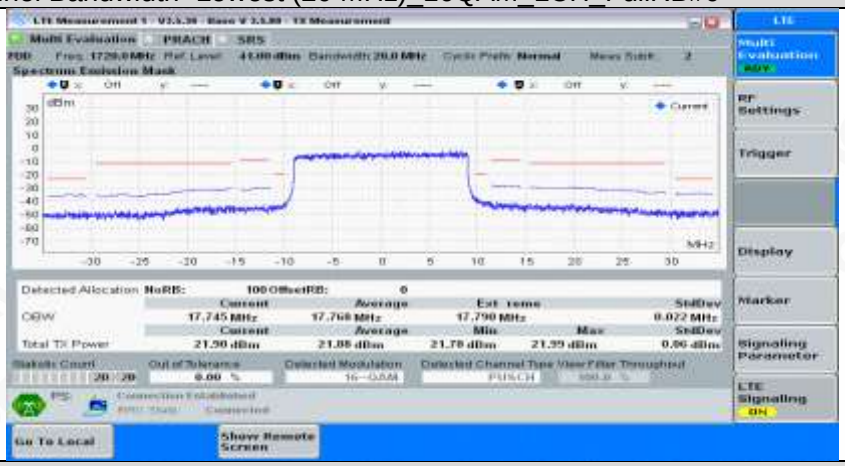
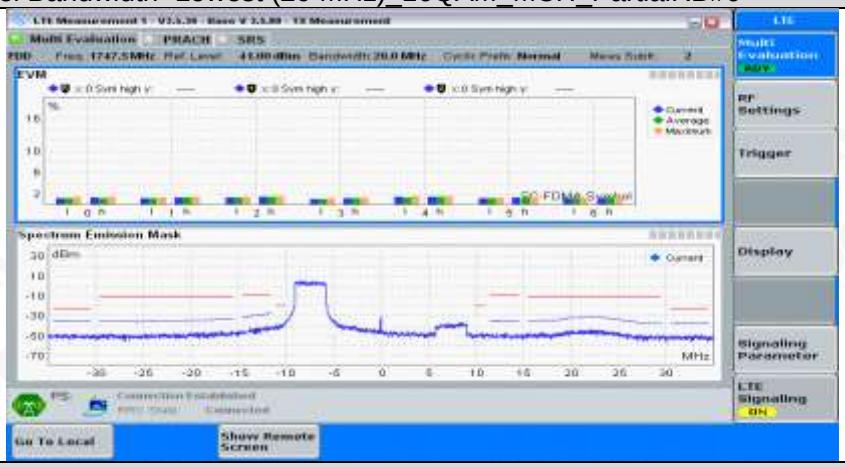
Channel Bandwidth=Highest (20 MHz)

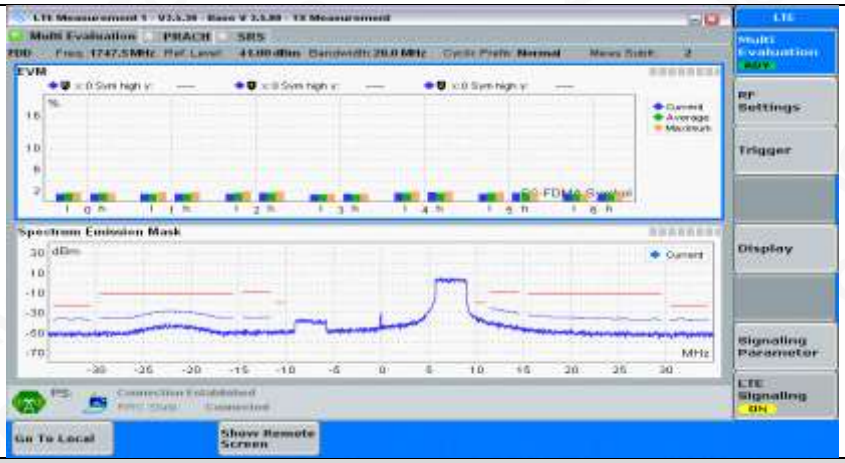
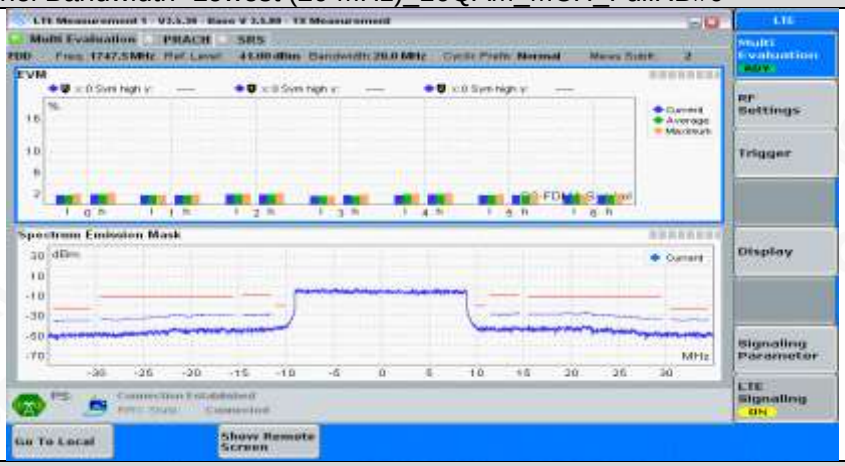
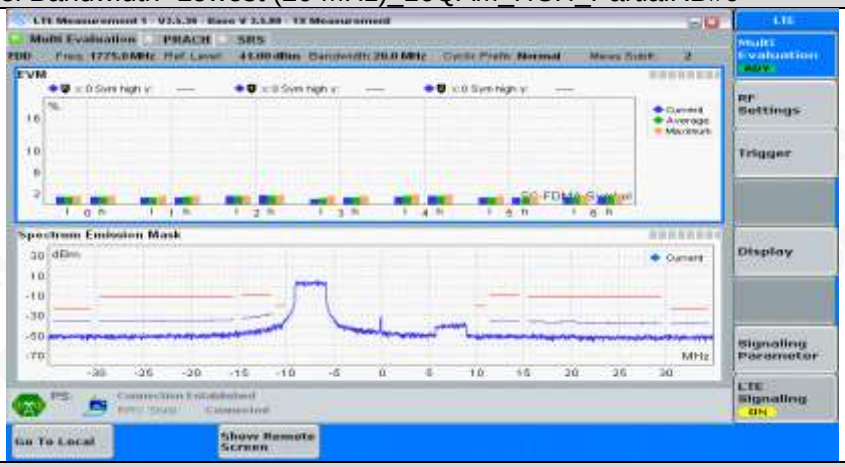
Channel Bandwidth=Lowest (20 MHz)_QPSK_LCH_PartialRB#0	
QPSK	
Channel Bandwidth=Lowest (20 MHz)_QPSK_LCH_PartialRB#max	

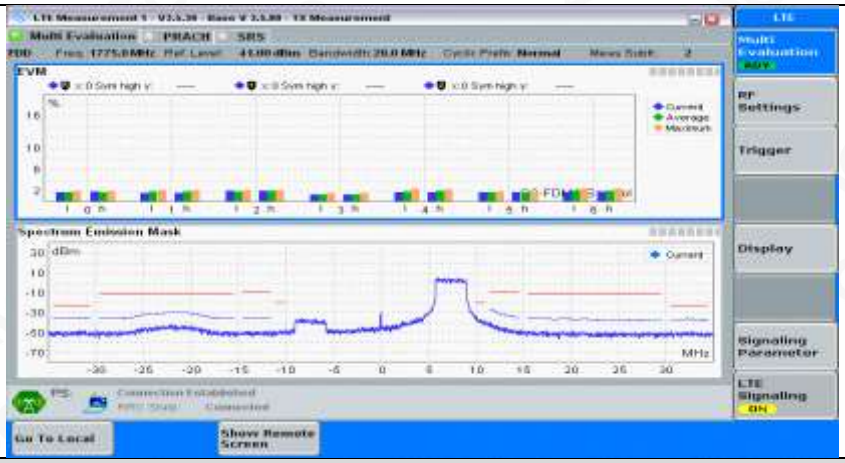
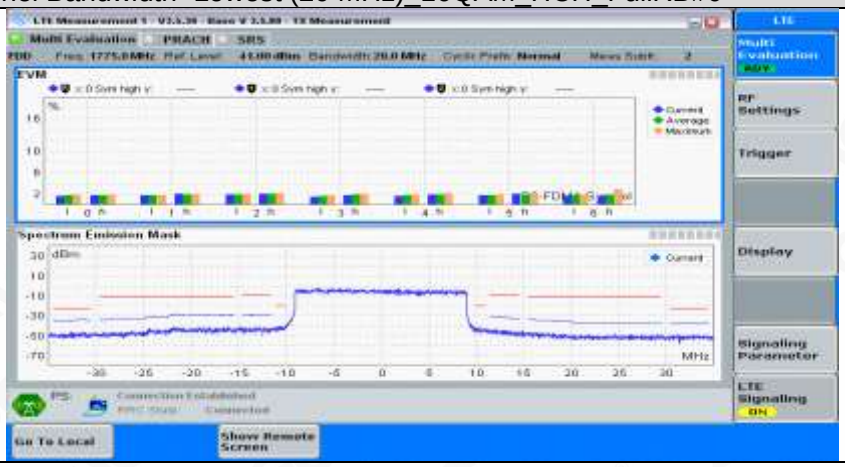
QPSK		
Channel Bandwidth=Lowest (20 MHz)_QPSK_LCH_FullRB#0		
QPSK		
Channel Bandwidth=Lowest (20 MHz)_QPSK_MCH_PartialRB#0		
QPSK		
Channel Bandwidth=Lowest (20 MHz)_QPSK_MCH_PartialRB#max		

QPSK		
Channel Bandwidth=Lowest (20 MHz)_QPSK_MCH_FullRB#0		
QPSK		
Channel Bandwidth=Lowest (20 MHz)_QPSK_HCH_PartialRB#0		
QPSK		
Channel Bandwidth=Lowest (20 MHz)_QPSK_HCH_PartialRB#max		

QPSK		
Channel Bandwidth=Lowest (20 MHz)_QPSK_HCH_FullRB#0		
QPSK		
Channel Bandwidth=Lowest (20 MHz)_16QAM_LCH_PartialRB#0		
16QAM		
Channel Bandwidth=Lowest (20 MHz)_16QAM_LCH_PartialRB#max		

16QAM		
Channel Bandwidth=Lowest (20 MHz)_16QAM_LCH_FullRB#0		
16QAM		
Channel Bandwidth=Lowest (20 MHz)_16QAM_MCH_PartialRB#0		
16QAM		
Channel Bandwidth=Lowest (20 MHz)_16QAM_MCH_PartialRB#max		

16QAM	
Channel Bandwidth=Lowest (20 MHz)_16QAM_MCH_FullRB#0	
16QAM	
Channel Bandwidth=Lowest (20 MHz)_16QAM_HCH_PartialRB#0	
16QAM	
Channel Bandwidth=Lowest (20 MHz)_16QAM_HCH_PartialRB#max	

16QAM		
Channel Bandwidth=Lowest (20 MHz)_16QAM_HCH_FullRB#0		
16QAM		

4. Transmitter Adjacent Channel Leakage Power Ratio(ACLR)

Test Result

NTNV

Channel Bandwidth=Lowest (1.4 MHz)

Channel Bandwidth=Lowest (1.4 MHz)							
Condition	Modulation	Channel Bandwidth	Channel	RB allocation		UE output power	Verdict
				RB Size	RB Offset		
Normal	QPSK	1.4 MHz	Low range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			Mid range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			High range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
	16QAM		Low range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			Mid range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			High range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass

Channel Bandwidth= (5 MHz)

Channel Bandwidth= (5 MHz)							
Condition	Modulation	Channel Bandwidth	Channel	RB allocation		UE output power	Verdict
				RB Size	RB Offset		
Normal	QPSK	5 MHz	Low range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			Mid range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			High range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
	16QAM		Low range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass

			Mid range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			High range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass

Channel Bandwidth= (10 MHz)

Channel Bandwidth= (10 MHz)							
Condition	Modulation	Channel Bandwidth	Channel	RB allocation		UE output power	Verdict
				RB Size	RB Offset		
Normal	QPSK	10 MHz	Low range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			Mid range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			High range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
	16QAM		Low range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			Mid range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			High range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass

Channel Bandwidth=Highest (20 MHz)

Channel Bandwidth=Highest (20 MHz)							
Condition	Modulation	Channel Bandwidth	Channel	RB allocation		UE output power	Verdict
				RB Size	RB Offset		
Normal	QPSK	20 MHz	Low range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			Mid range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			High range	Partial	0	PUMAX	Pass

					max	PUMAX	Pass
				Full	0	PUMAX	Pass
	16QAM		Low range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			Mid range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			High range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass

Test Graphs

NTNV

Channel Bandwidth=Lowest (1.4 MHz)

Channel Bandwidth=Lowest (1.4 MHz)_QPSK_LCH_PartialRB#0	
QPSK	
Channel Bandwidth=Lowest (1.4 MHz)_QPSK_LCH_PartialRB#max	
QPSK	
Channel Bandwidth=Lowest (1.4 MHz)_QPSK_LCH_FullRB#0	

QPSK	
Channel Bandwidth=Lowest (1.4 MHz)_QPSK_MCH_PartialRB#0	
QPSK	
Channel Bandwidth=Lowest (1.4 MHz)_QPSK_MCH_PartialRB#max	
QPSK	
Channel Bandwidth=Lowest (1.4 MHz)_QPSK_MCH_FullRB#0	

QPSK	
Channel Bandwidth=Lowest (1.4 MHz)_QPSK_HCH_PartialRB#0	
QPSK	
Channel Bandwidth=Lowest (1.4 MHz)_QPSK_HCH_PartialRB#max	
QPSK	
Channel Bandwidth=Lowest (1.4 MHz)_QPSK_HCH_FullRB#0	

QPSK	
Channel Bandwidth=Lowest (1.4 MHz)_16QAM_LCH_PartialRB#0	
16QAM	
Channel Bandwidth=Lowest (1.4 MHz)_16QAM_LCH_PartialRB#max	
16QAM	
Channel Bandwidth=Lowest (1.4 MHz)_16QAM_LCH_FullRB#0	

16QAM	
Channel Bandwidth=Lowest (1.4 MHz)_16QAM_MCH_PartialRB#0	
16QAM	
Channel Bandwidth=Lowest (1.4 MHz)_16QAM_MCH_PartialRB#max	
16QAM	
Channel Bandwidth=Lowest (1.4 MHz)_16QAM_MCH_FullRB#0	

16QAM	
Channel Bandwidth=Lowest (1.4 MHz)_16QAM_HCH_PartialRB#0	
16QAM	
Channel Bandwidth=Lowest (1.4 MHz)_16QAM_HCH_PartialRB#max	
16QAM	
Channel Bandwidth=Lowest (1.4 MHz)_16QAM_HCH_FullRB#0	

16QAM		

Channel Bandwidth= (5 MHz)

Channel Bandwidth=Lowest (5 MHz)_QPSK_LCH_PartialRB#0		
QPSK		
Channel Bandwidth=Lowest (5 MHz)_QPSK_LCH_PartialRB#max		
QPSK		
Channel Bandwidth=Lowest (5 MHz)_QPSK_LCH_FullRB#0		

QPSK	
Channel Bandwidth=Lowest (5 MHz)_QPSK_MCH_PartialRB#0	
QPSK	
Channel Bandwidth=Lowest (5 MHz)_QPSK_MCH_PartialRB#max	
QPSK	
Channel Bandwidth=Lowest (5 MHz)_QPSK_MCH_FullRB#0	

QPSK	
Channel Bandwidth=Lowest (5 MHz)_QPSK_HCH_PartialRB#0	
QPSK	
Channel Bandwidth=Lowest (5 MHz)_QPSK_HCH_PartialRB#max	
QPSK	
Channel Bandwidth=Lowest (5 MHz)_QPSK_HCH_FullRB#0	

QPSK		
Channel Bandwidth=Lowest (5 MHz)_16QAM_LCH_PartialRB#0		
16QAM		
Channel Bandwidth=Lowest (5 MHz)_16QAM_LCH_PartialRB#max		
16QAM		
Channel Bandwidth=Lowest (5 MHz)_16QAM_LCH_FullRB#0		

16QAM	
Channel Bandwidth=Lowest (5 MHz)_16QAM_MCH_PartialRB#0	
16QAM	
Channel Bandwidth=Lowest (5 MHz)_16QAM_MCH_PartialRB#max	
16QAM	
Channel Bandwidth=Lowest (5 MHz)_16QAM_MCH_FullRB#0	

16QAM	
Channel Bandwidth=Lowest (5 MHz)_16QAM_HCH_PartialRB#0	
16QAM	
Channel Bandwidth=Lowest (5 MHz)_16QAM_HCH_PartialRB#max	
16QAM	
Channel Bandwidth=Lowest (5 MHz)_16QAM_HCH_FullRB#0	

16QAM		

Channel Bandwidth= (10 MHz)

Channel Bandwidth=Lowest (10 MHz)_QPSK_LCH_PartialRB#0		
QPSK		
Channel Bandwidth=Lowest (10 MHz)_QPSK_LCH_PartialRB#max		
QPSK		
Channel Bandwidth=Lowest (10 MHz)_QPSK_LCH_FullRB#0		

QPSK		
Channel Bandwidth=Lowest (10 MHz)_QPSK_MCH_PartialRB#0		
QPSK		
Channel Bandwidth=Lowest (10 MHz)_QPSK_MCH_PartialRB#max		
QPSK		
Channel Bandwidth=Lowest (10 MHz)_QPSK_MCH_FullRB#0		

QPSK	
Channel Bandwidth=Lowest (10 MHz)_QPSK_HCH_PartialRB#0	
QPSK	
Channel Bandwidth=Lowest (10 MHz)_QPSK_HCH_PartialRB#max	
QPSK	
Channel Bandwidth=Lowest (10 MHz)_QPSK_HCH_FullRB#0	

QPSK		
Channel Bandwidth=Lowest (10 MHz)_16QAM_LCH_PartialRB#0		
16QAM		
Channel Bandwidth=Lowest (10 MHz)_16QAM_LCH_PartialRB#max		
16QAM		
Channel Bandwidth=Lowest (10 MHz)_16QAM_LCH_FullRB#0		

16QAM	
Channel Bandwidth=Lowest (10 MHz)_16QAM_MCH_PartialRB#0	
16QAM	
Channel Bandwidth=Lowest (10 MHz)_16QAM_MCH_PartialRB#max	
16QAM	
Channel Bandwidth=Lowest (10 MHz)_16QAM_MCH_FullRB#0	

16QAM	
Channel Bandwidth=Lowest (10 MHz)_16QAM_HCH_PartialRB#0	
16QAM	
Channel Bandwidth=Lowest (10 MHz)_16QAM_HCH_PartialRB#max	
16QAM	
Channel Bandwidth=Lowest (10 MHz)_16QAM_HCH_FullRB#0	

16QAM	

Channel Bandwidth=Highest (20 MHz)

Channel Bandwidth=Lowest (20 MHz)_QPSK_LCH_PartialRB#0	
QPSK	
Channel Bandwidth=Lowest (20 MHz)_QPSK_LCH_PartialRB#max	
QPSK	
Channel Bandwidth=Lowest (20 MHz)_QPSK_LCH_FullRB#0	

QPSK	
Channel Bandwidth=Lowest (20 MHz)_QPSK_MCH_PartialRB#0	
QPSK	
Channel Bandwidth=Lowest (20 MHz)_QPSK_MCH_PartialRB#max	
QPSK	
Channel Bandwidth=Lowest (20 MHz)_QPSK_MCH_FullRB#0	

QPSK		
Channel Bandwidth=Lowest (20 MHz)_QPSK_HCH_PartialRB#0		
QPSK		
Channel Bandwidth=Lowest (20 MHz)_QPSK_HCH_PartialRB#max		
QPSK		
Channel Bandwidth=Lowest (20 MHz)_QPSK_HCH_FullRB#0		

QPSK	
Channel Bandwidth=Lowest (20 MHz)_16QAM_LCH_PartialRB#0	
16QAM	
Channel Bandwidth=Lowest (20 MHz)_16QAM_LCH_PartialRB#max	
16QAM	
Channel Bandwidth=Lowest (20 MHz)_16QAM_LCH_FullRB#0	

16QAM	
Channel Bandwidth=Lowest (20 MHz)_16QAM_MCH_PartialRB#0	
16QAM	
Channel Bandwidth=Lowest (20 MHz)_16QAM_MCH_PartialRB#max	
16QAM	
Channel Bandwidth=Lowest (20 MHz)_16QAM_MCH_FullRB#0	

16QAM	
Channel Bandwidth=Lowest (20 MHz)_16QAM_HCH_PartialRB#0	
16QAM	
Channel Bandwidth=Lowest (20 MHz)_16QAM_HCH_PartialRB#max	
16QAM	
Channel Bandwidth=Lowest (20 MHz)_16QAM_HCH_FullRB#0	

16QAM		

Multi Evaluation
PRACH
SRS
EVM
Spectrum ACLR
LTE
Multi Evaluation
RF Settings
Trigger
Display
Signaling Parameter
LTE Signaling
Go To Local
Show Remote Screen

5. Transmitter Spurious Emissions

Test Result

NTNV

Channel Bandwidth=Lowest (1.4 MHz)

Channel Bandwidth=Lowest (1.4 MHz)							
Condition	Modulation	Channel Bandwidth	Channel	RB allocation		UE output power	Verdict
				RB Size	RB Offset		
Normal	QPSK	1.4 MHz	Low range	1	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			Mid range	1	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			High range	1	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass

Channel Bandwidth= (5 MHz)

Channel Bandwidth= (5 MHz)							
Condition	Modulation	Channel Bandwidth	Channel	RB allocation		UE output power	Verdict
				RB Size	RB Offset		
Normal	QPSK	5 MHz	Low range	1	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			Mid range	1	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			High range	1	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass

Channel Bandwidth=Highest (20 MHz)

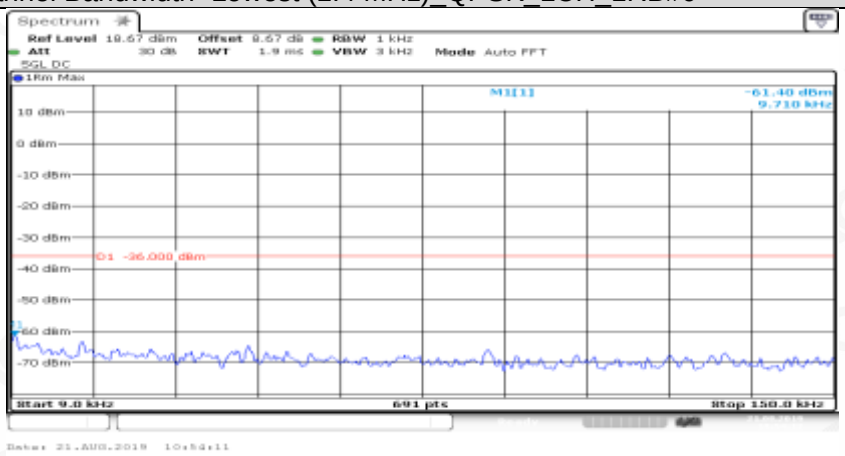
Channel Bandwidth=Highest (20 MHz)							
Condition	Modulation	Channel Bandwidth	Channel	RB allocation		UE output power	Verdict
				RB Size	RB Offset		
Normal	QPSK	20 MHz	Low range	1	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			Mid range	1	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass

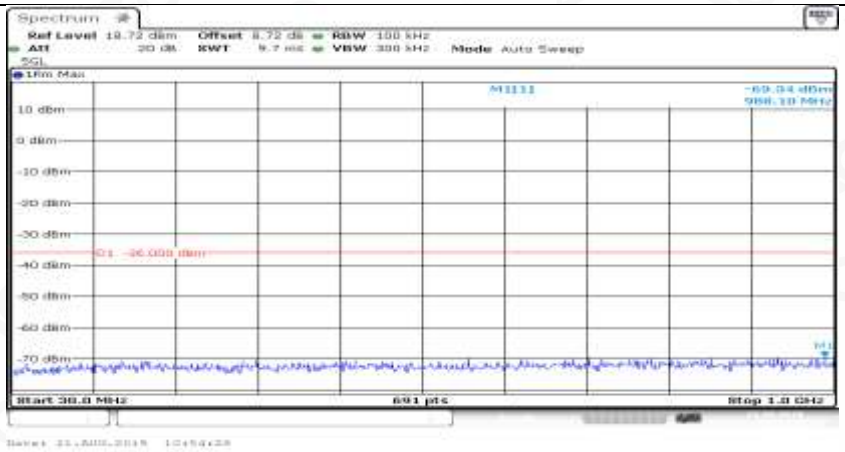
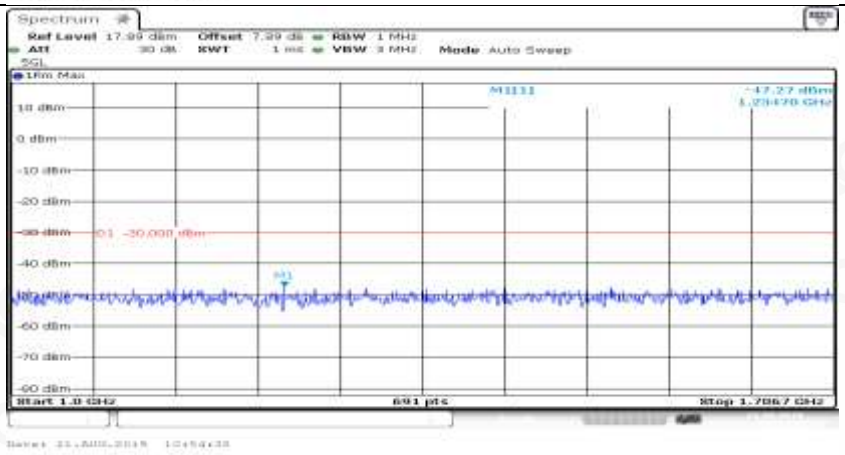
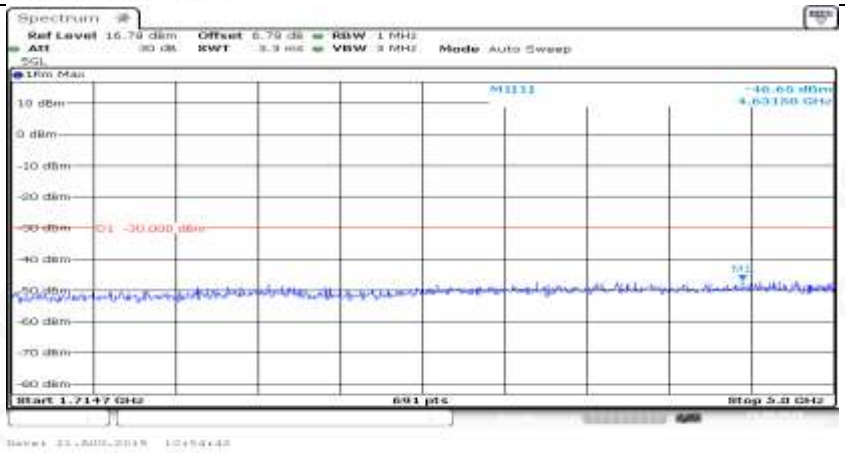
			High range	1	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass

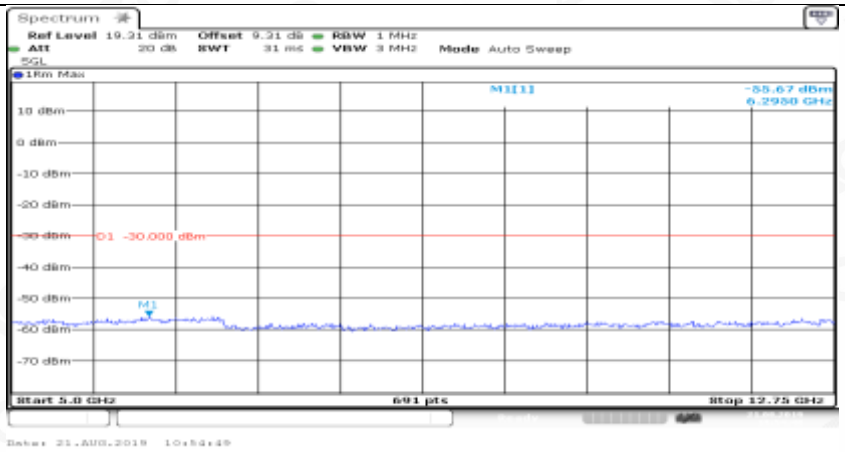
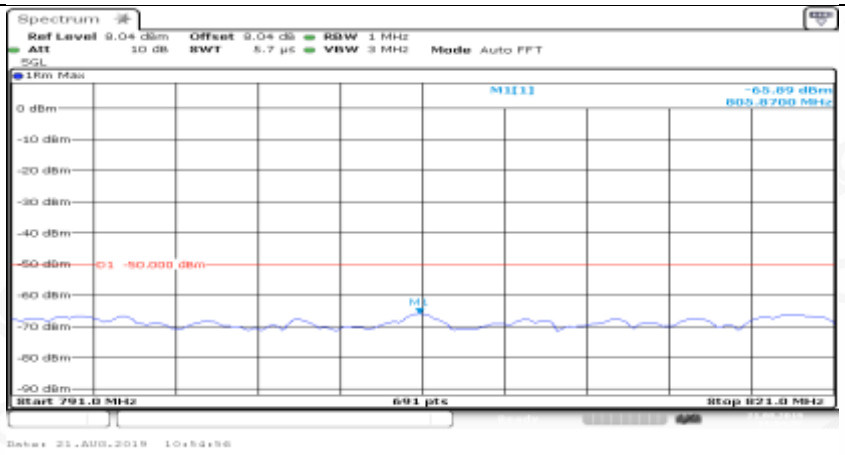
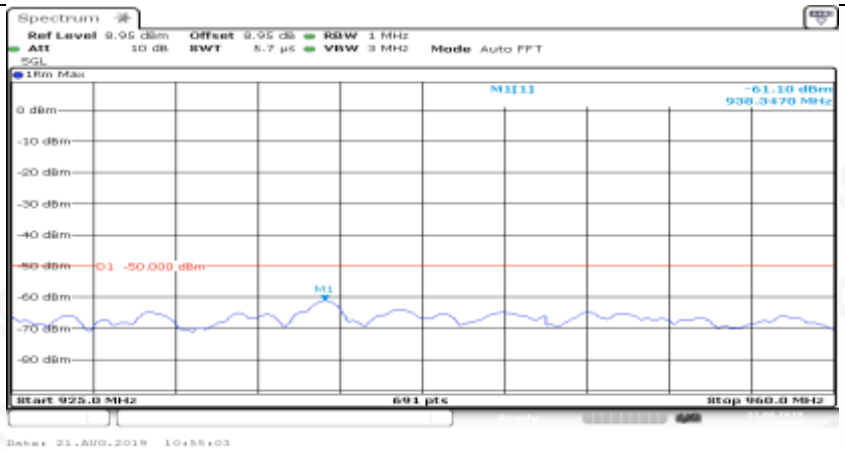
Test Graphs

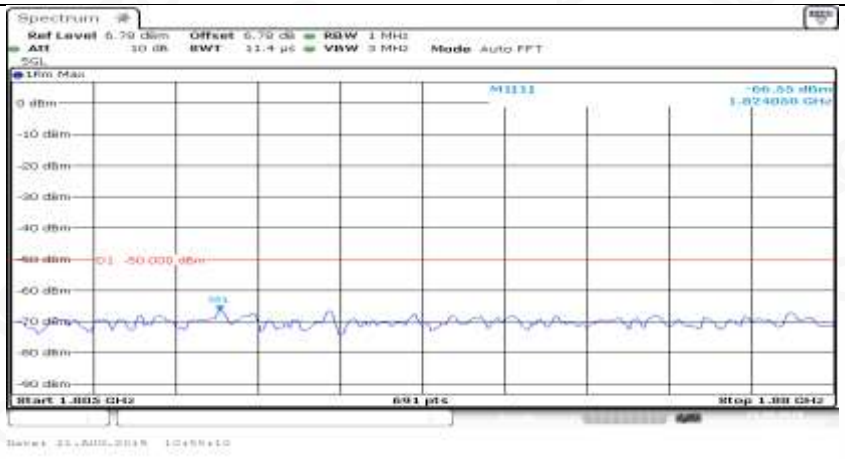
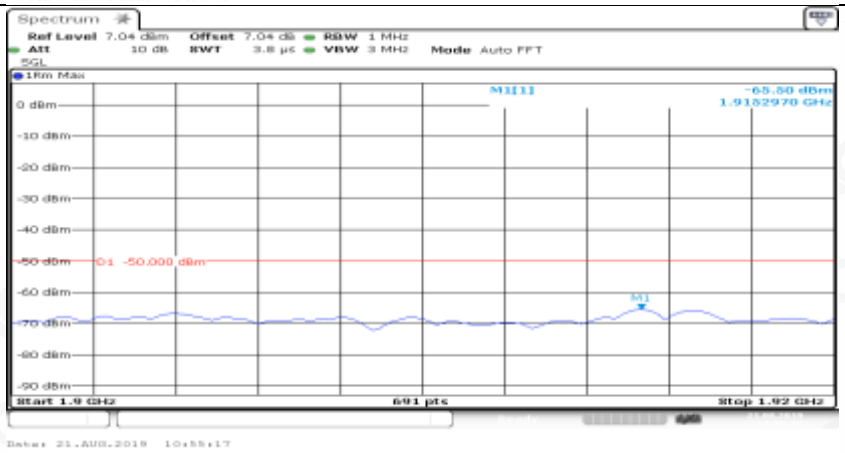
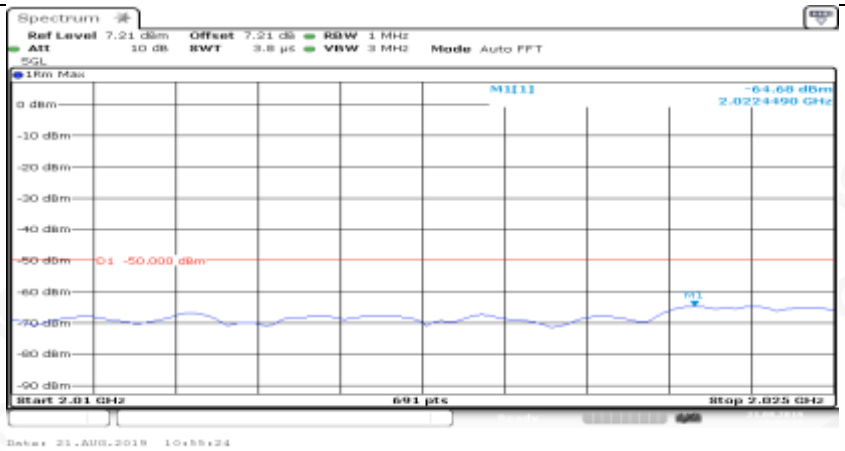
NTNV

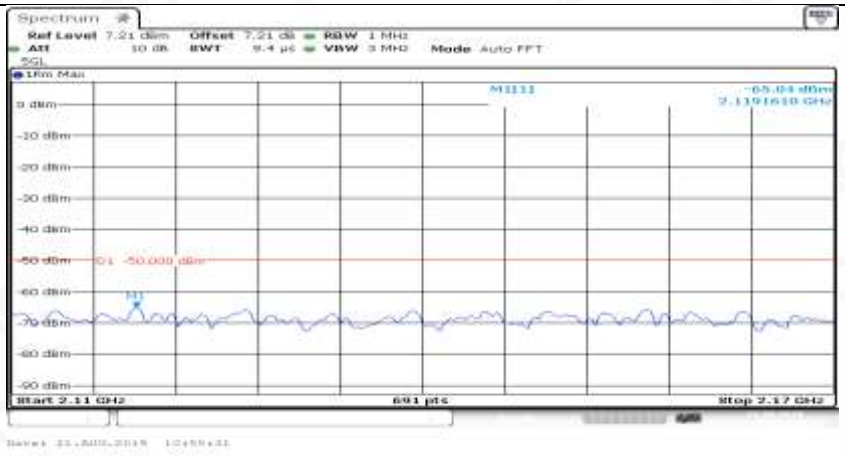
Channel Bandwidth=Lowest (1.4 MHz)

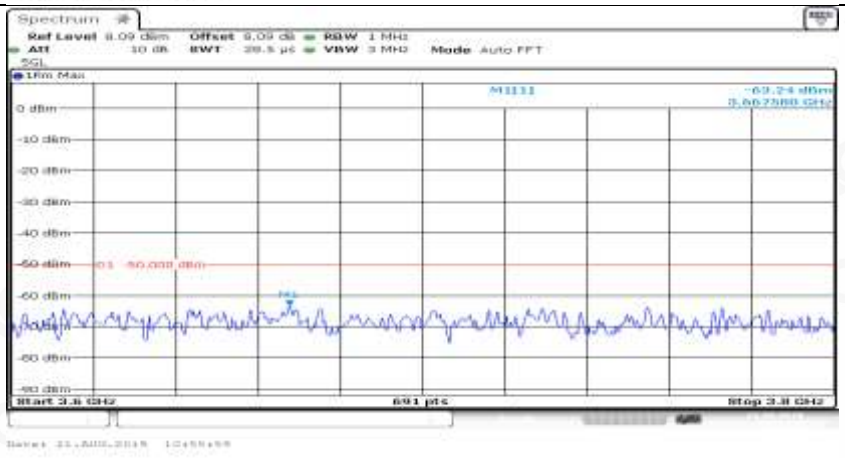
Channel Bandwidth=Lowest (1.4 MHz)_QPSK_LCH_1RB#0	
General	
General	

General	
General	
General	

General	
Co-existence	
Co-existence	

Co-existence	
Co-existence	
Co-existence	

Co-existence	
Co-existence	
Co-existence	

Co-existence	
Co-existence	
Additional	NA

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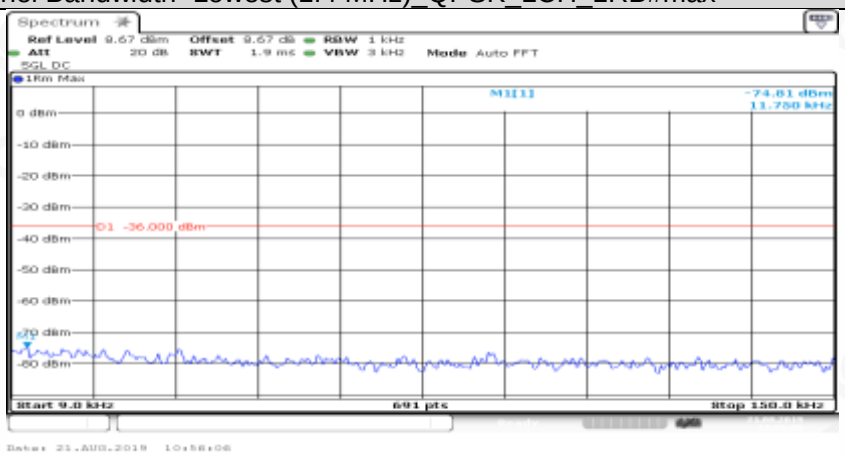
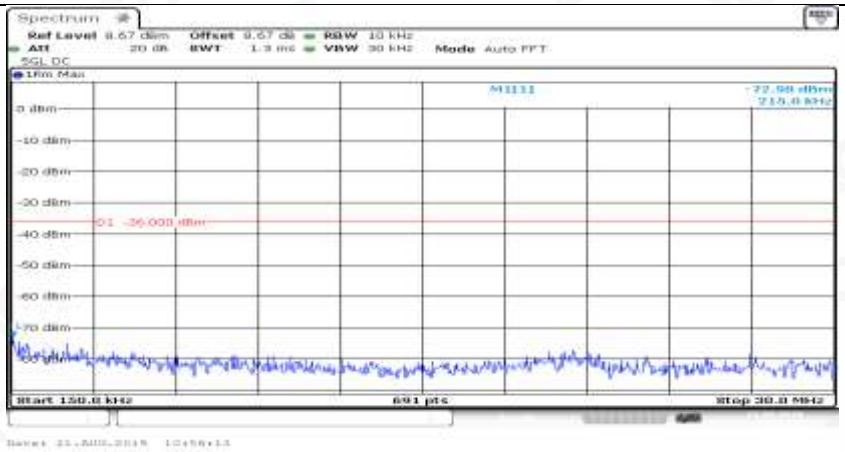
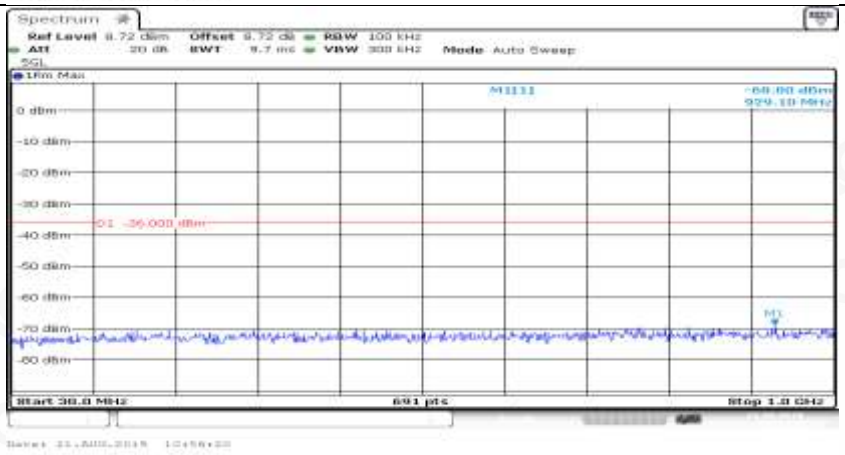
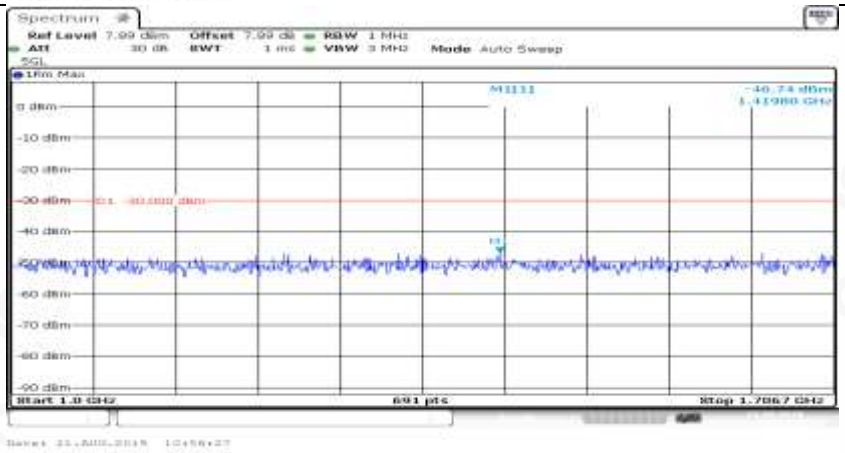
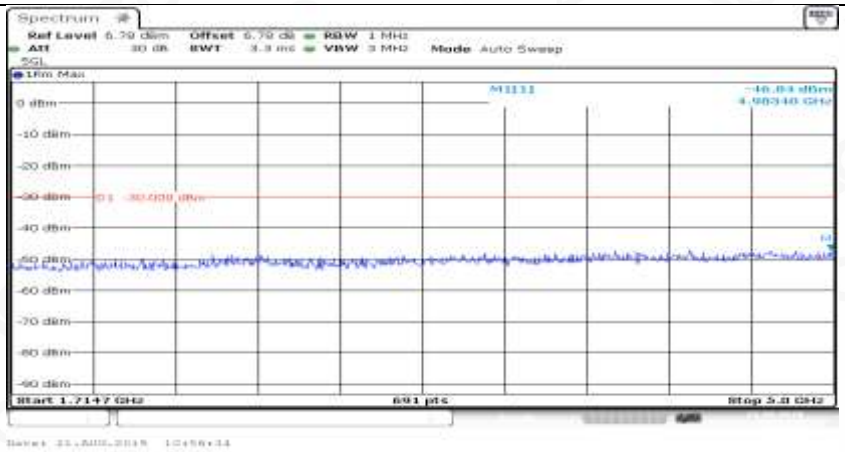
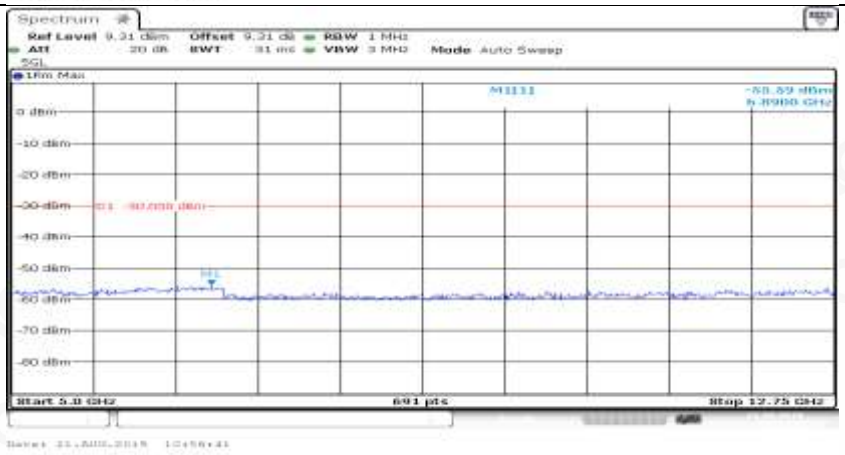
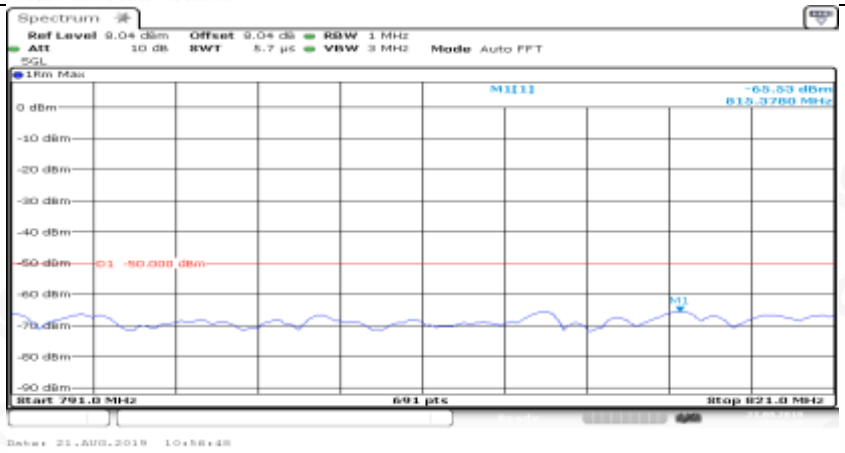
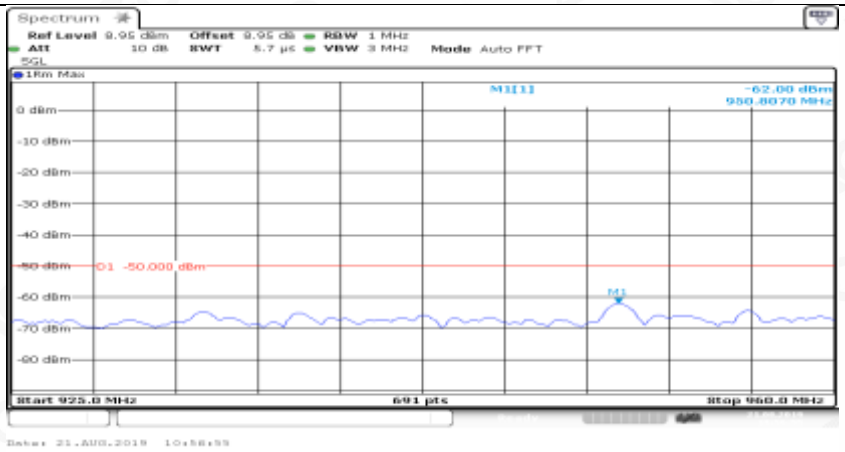
General	

General	
General	
General	

General	
General	
Co-existence	

Co-existence	
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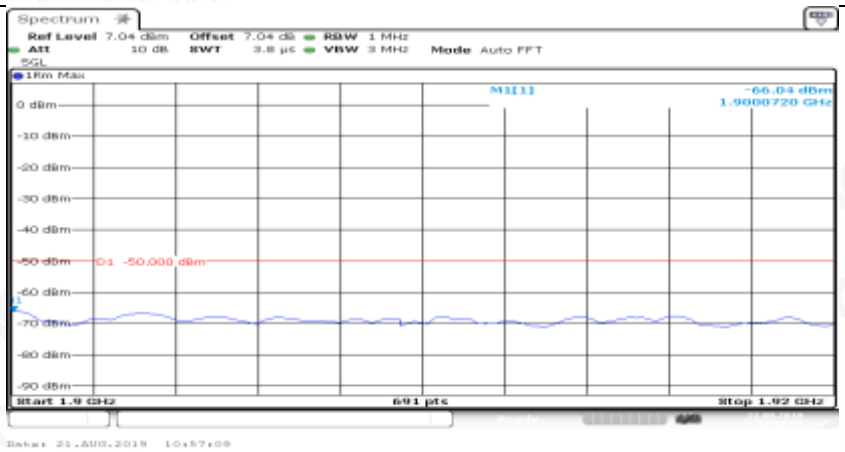
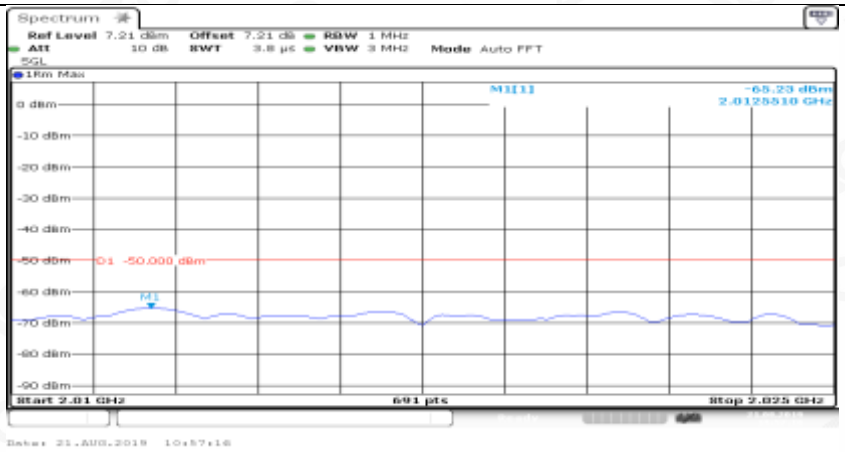
Co-existence	

Co-existence	
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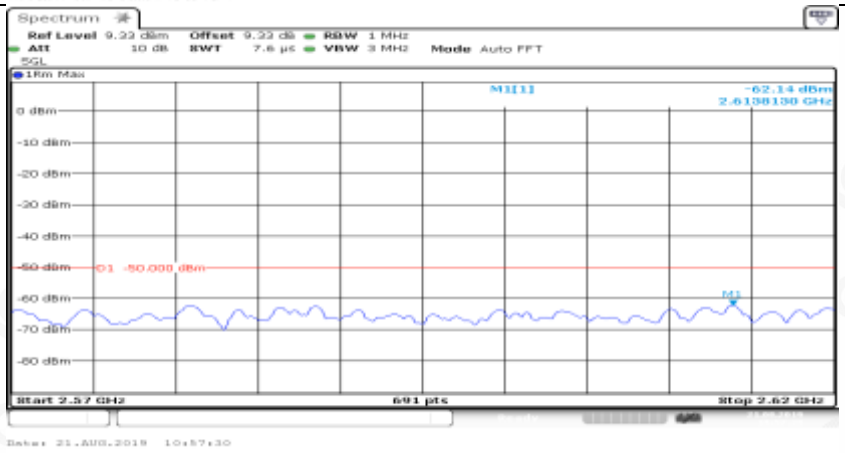
Co-existence	

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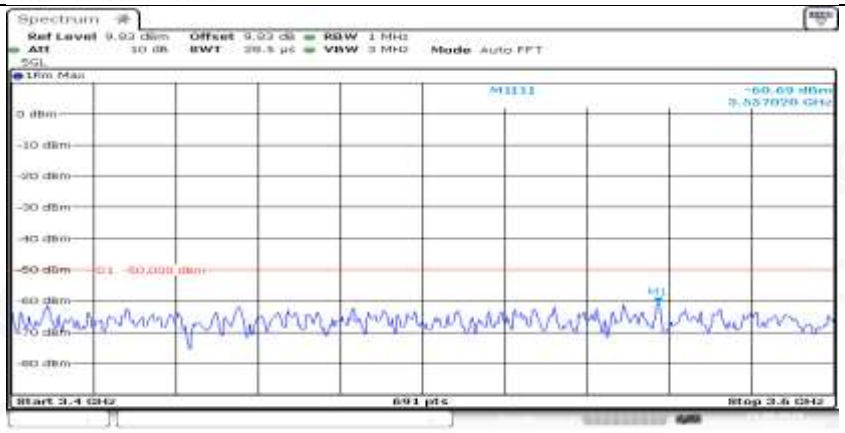
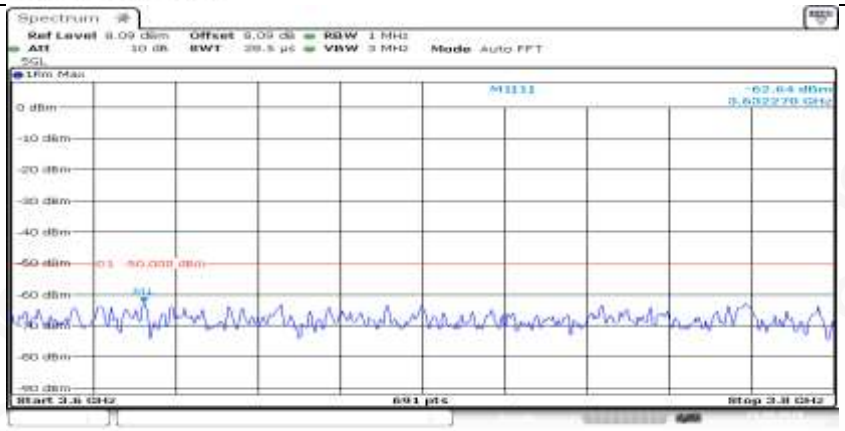
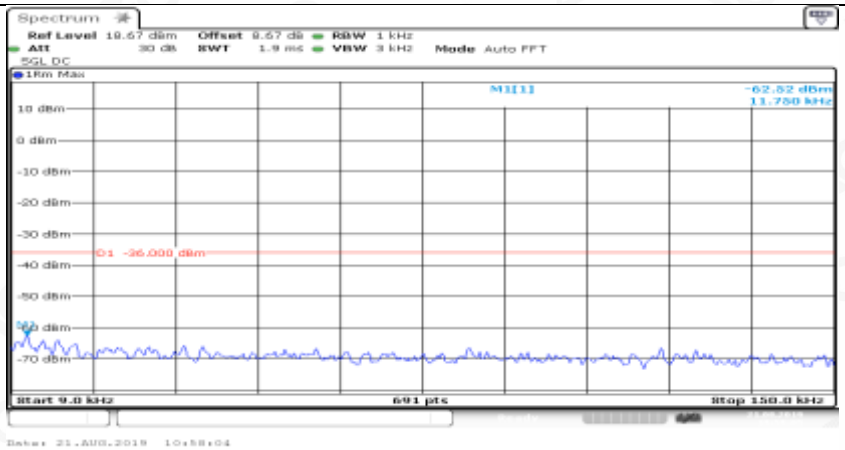
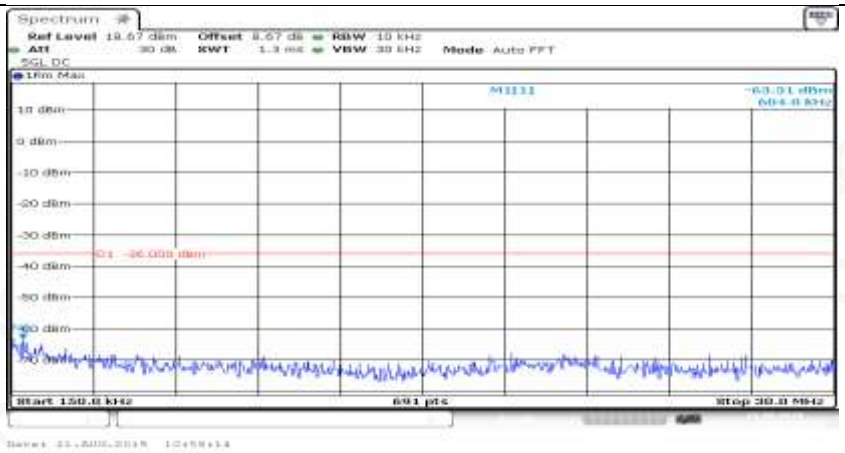
Co-existence	
Co-existence	
Additional	NA

Channel Bandwidth=Lowest (1.4 MHz)_QPSK_LCH_FullRB#0

General	
General	
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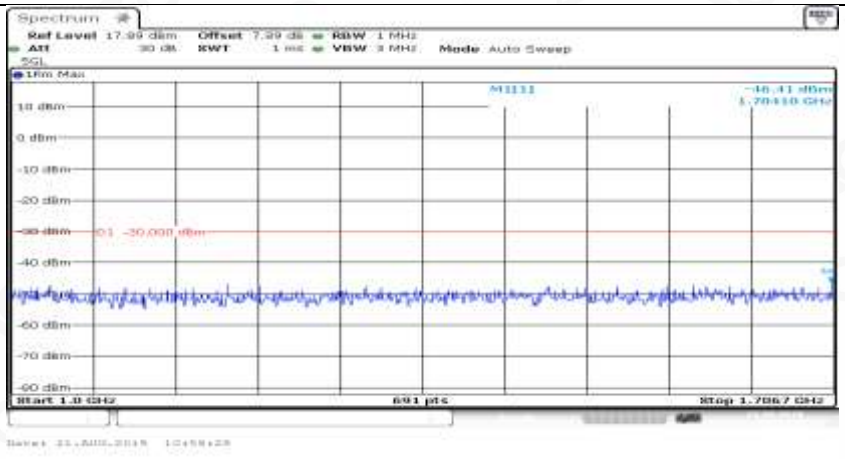
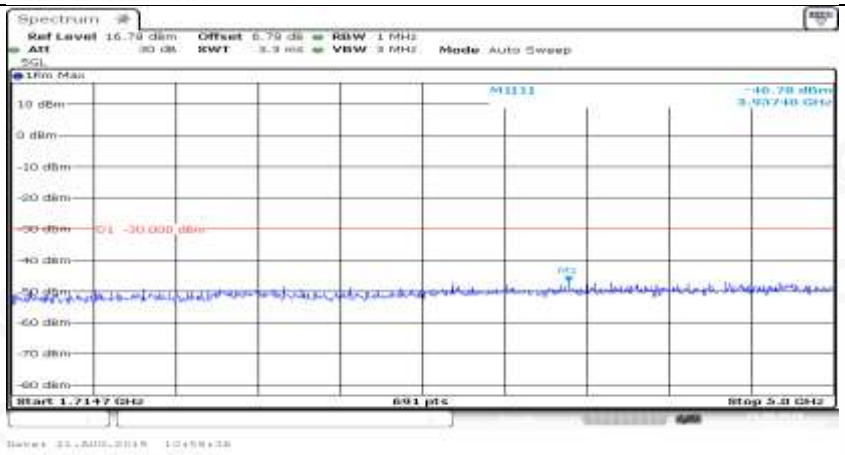
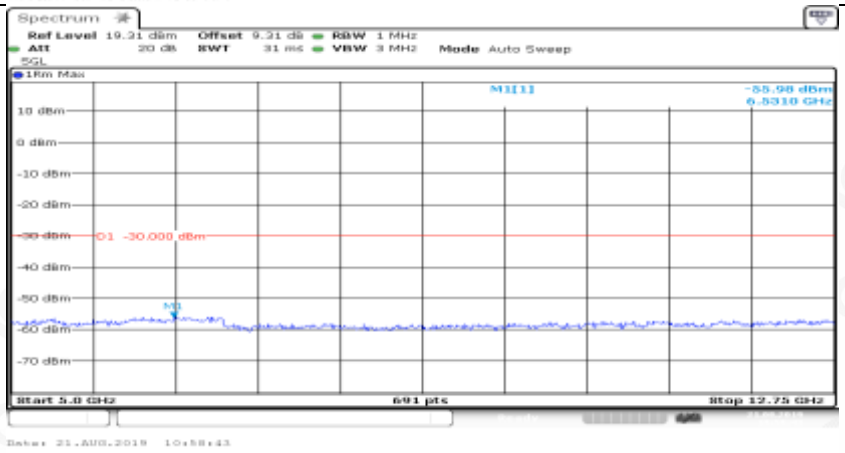
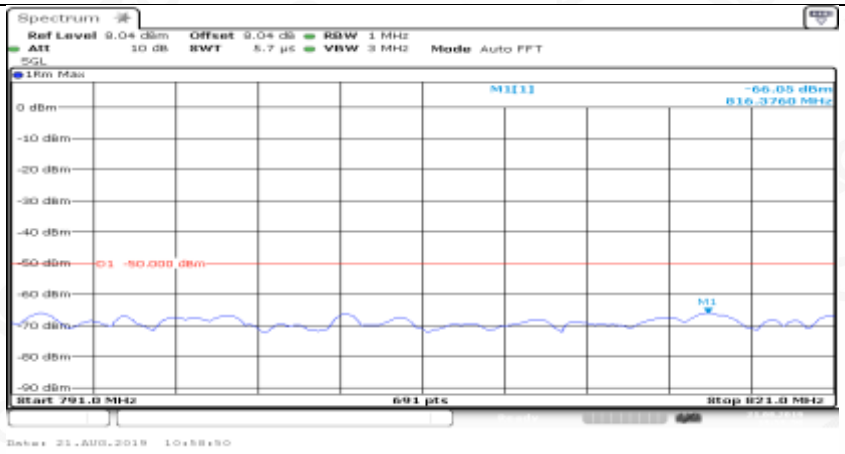
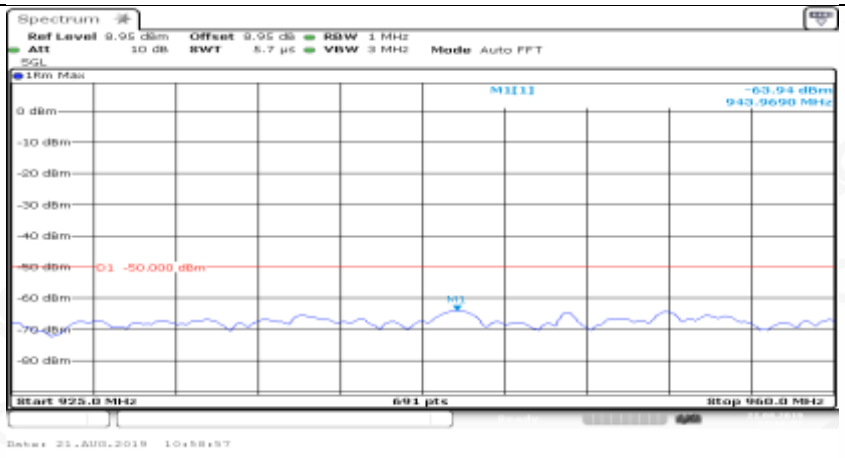
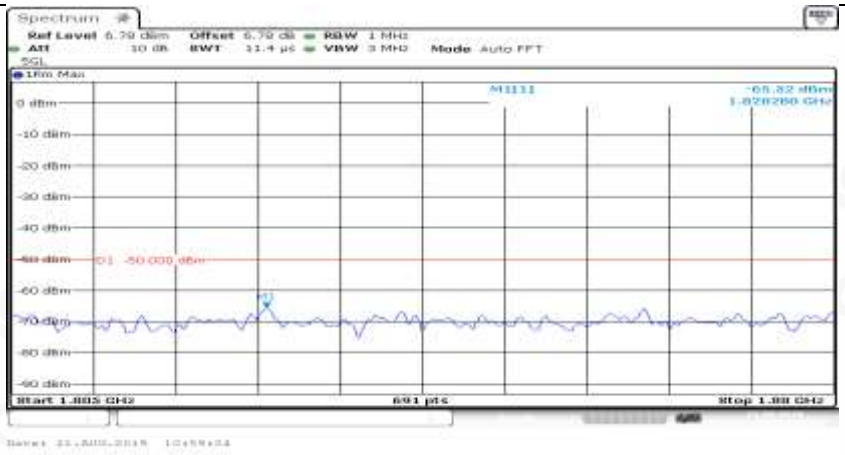
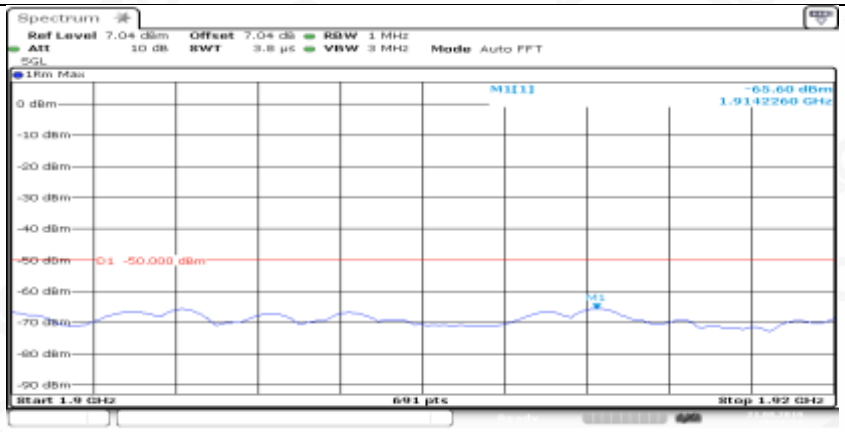
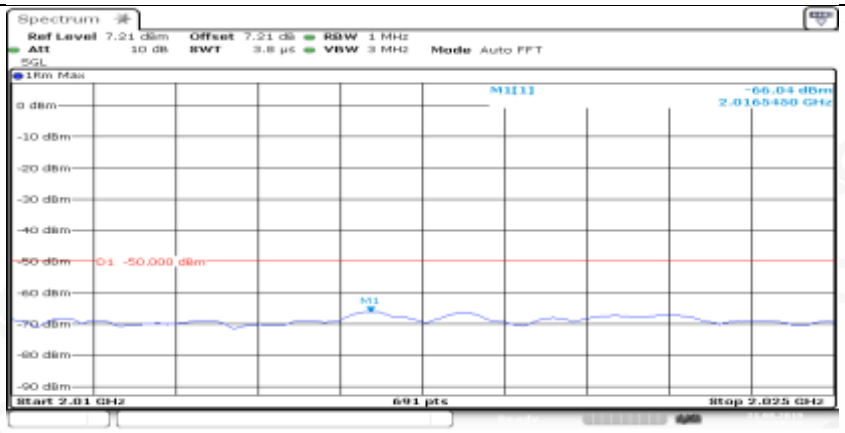
General	
General	
General	

Co-existence	
Co-existence	
Co-existence	

Co-existence	
Co-existence	
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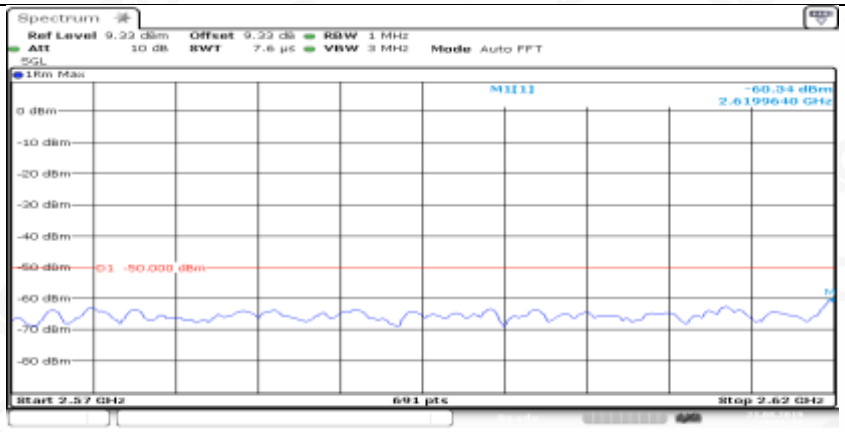
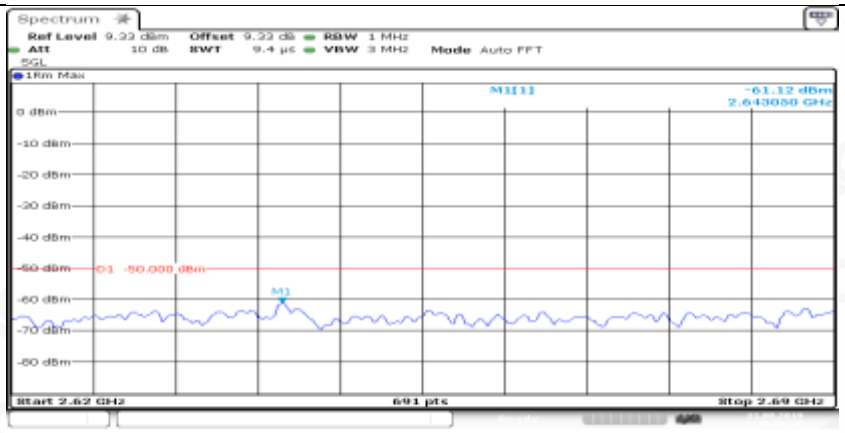
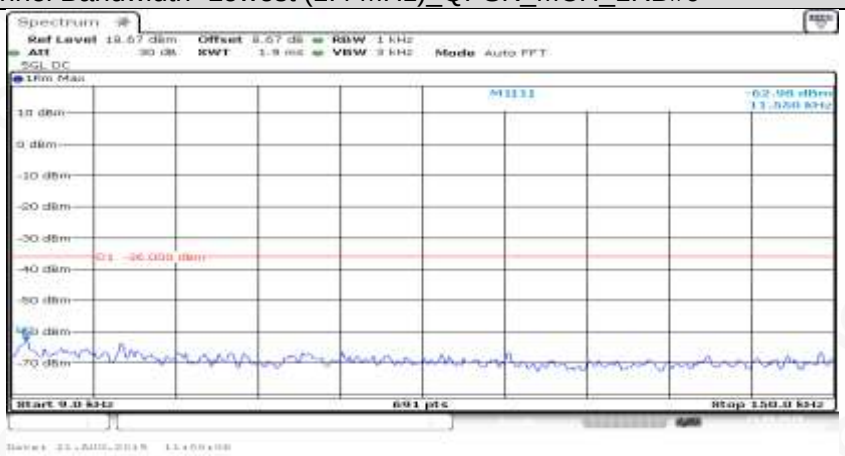
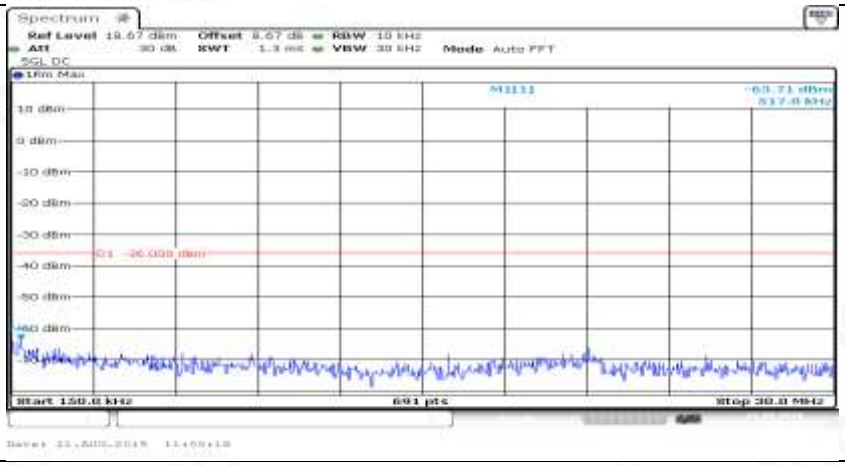
Co-existence	
Co-existence	
Co-existence	

Co-existence	
Additional	NA

Channel Bandwidth=Lowest (1.4 MHz)_QPSK_MCH_1RB#0	
General	
General	

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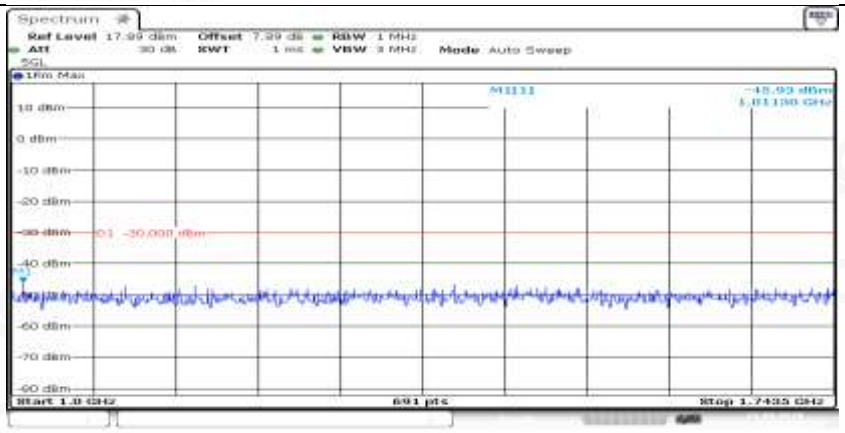
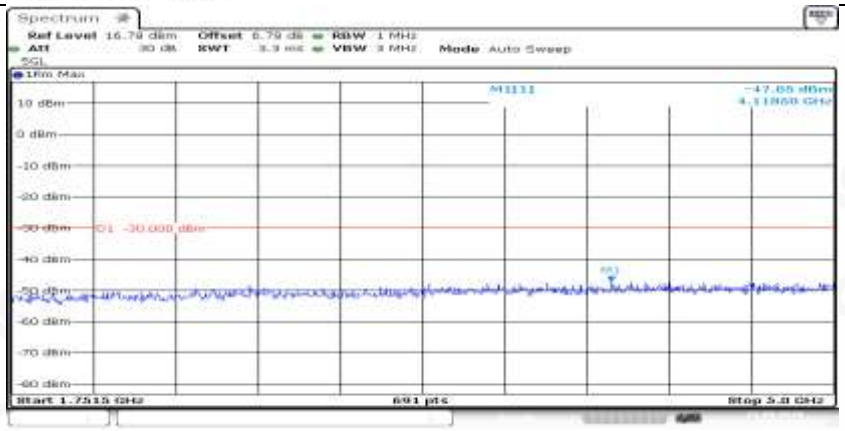
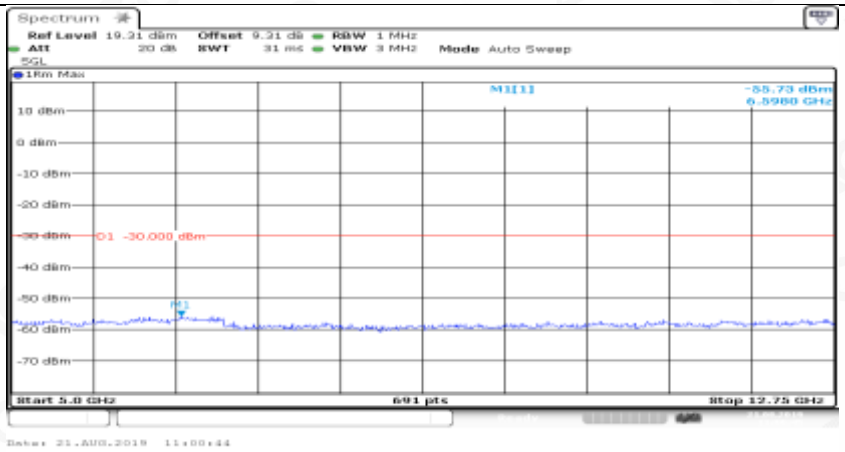
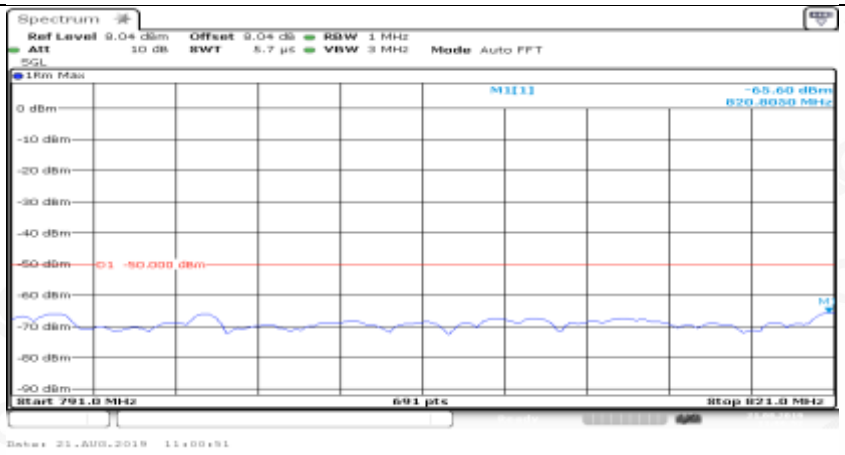
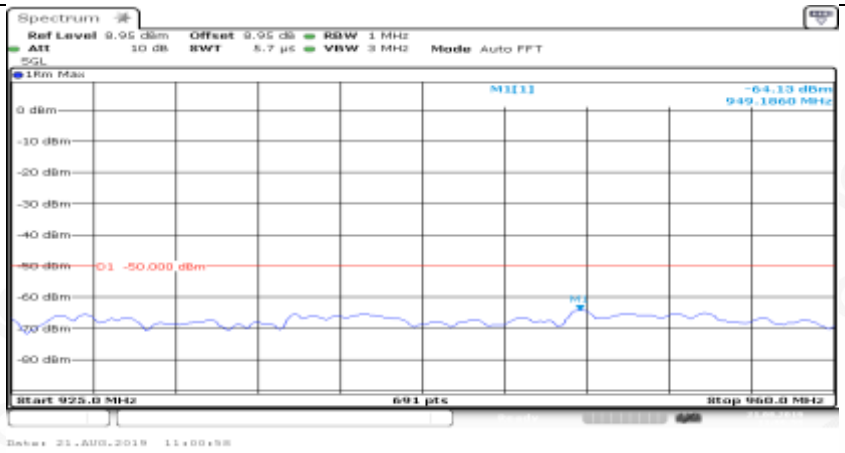
General	
General	

General	
Co-existence	
Co-existence	

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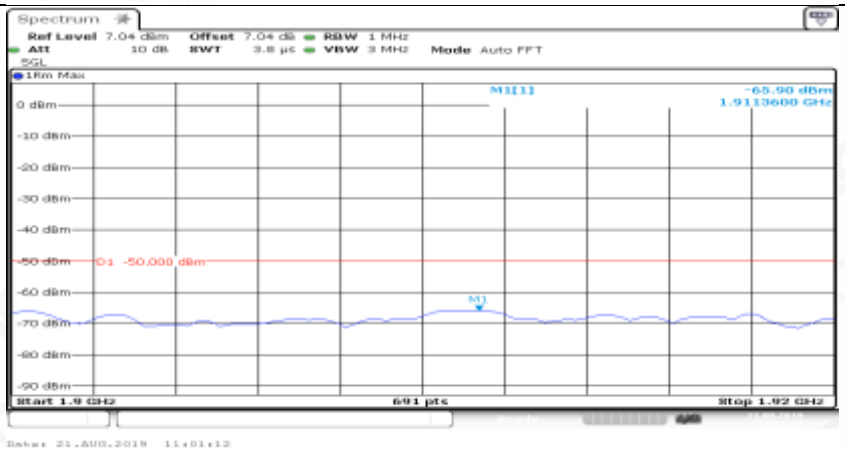
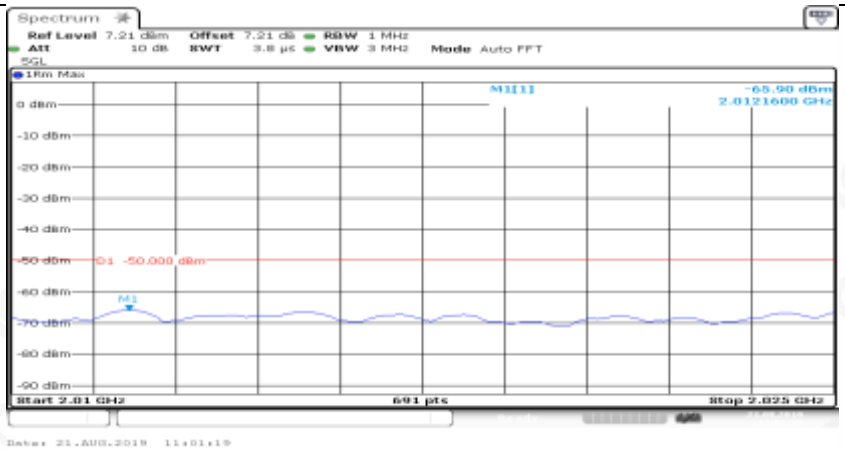
Co-existence	
Co-existence	

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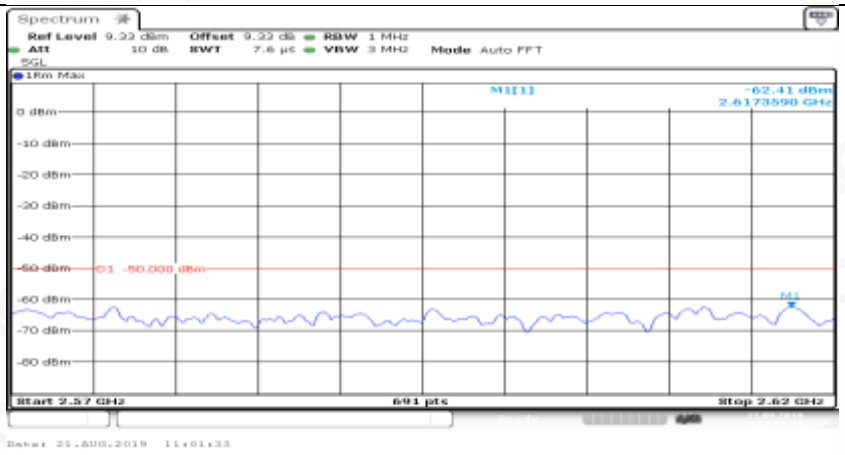
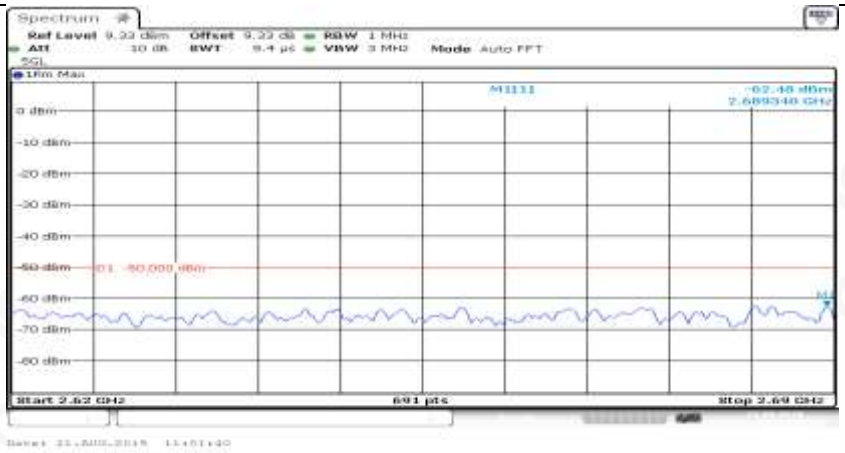
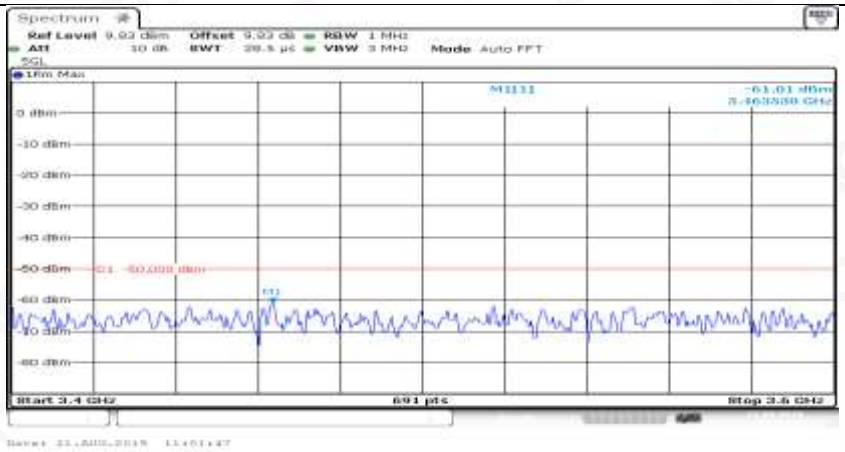
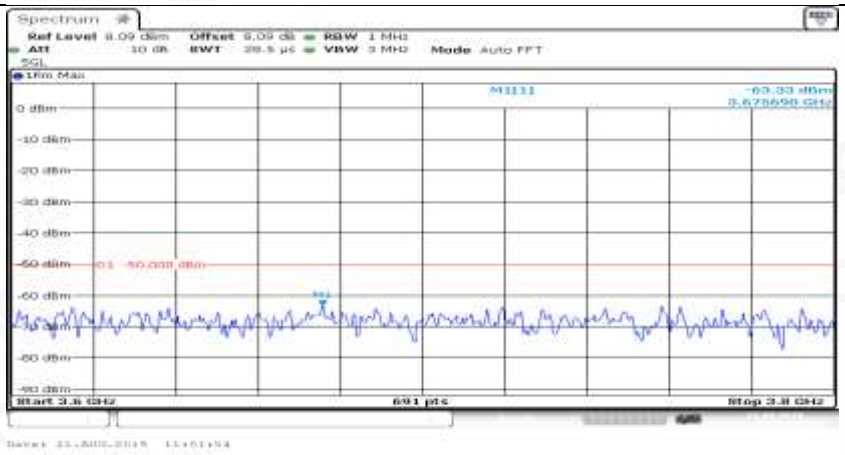
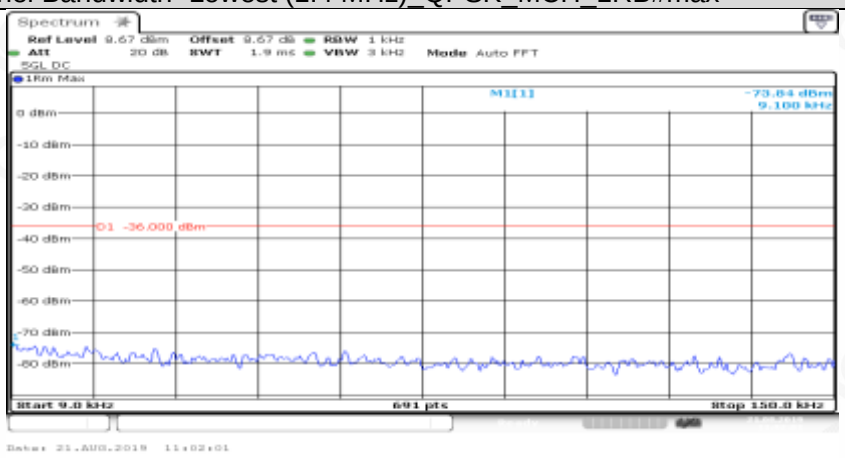
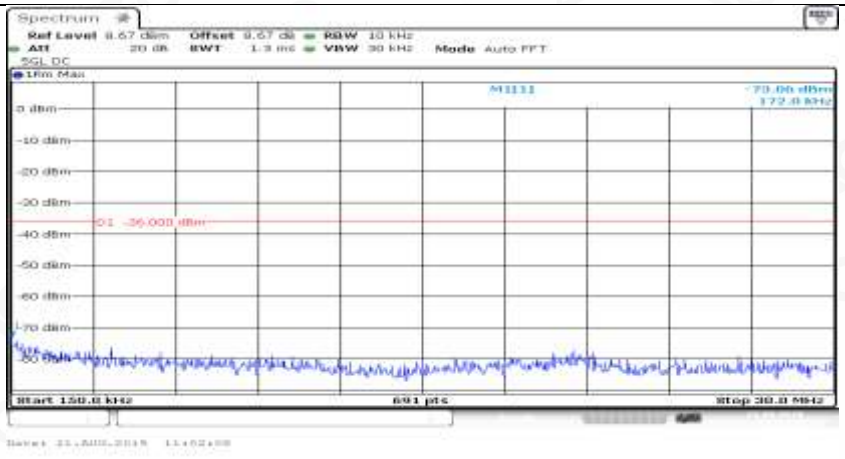
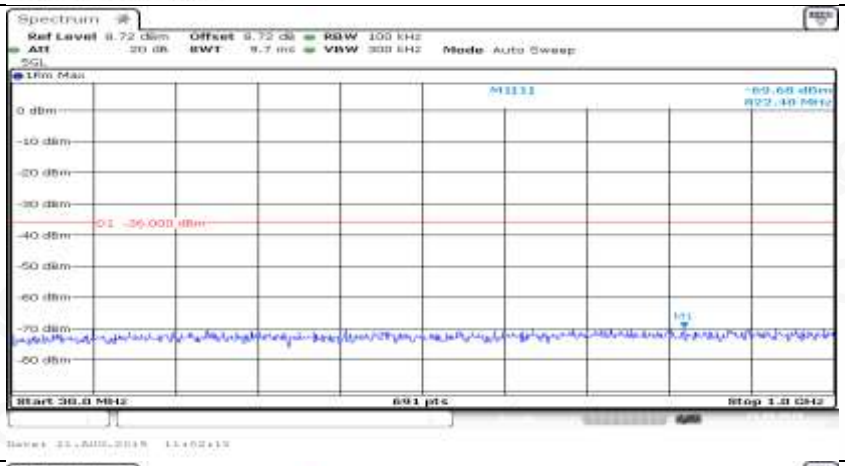
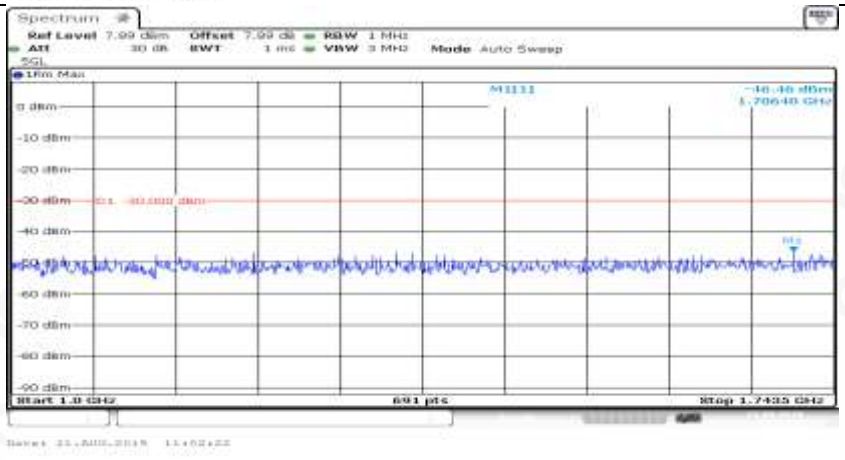
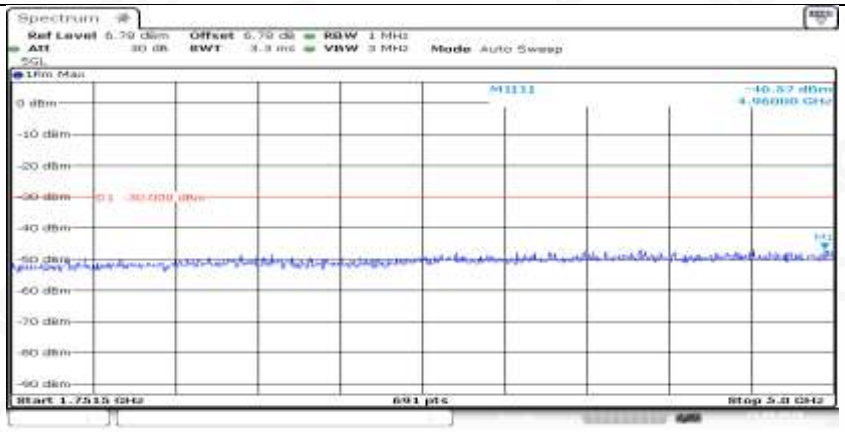
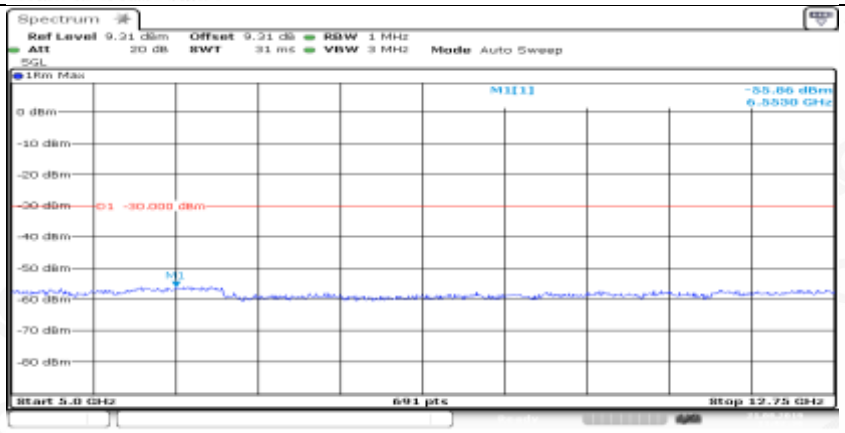
Co-existence	
Co-existence	

Co-existence	
Co-existence	
Additional	NA

Channel Bandwidth=Lowest (1.4 MHz)_QPSK_MCH_1RB#max	
General	

General	
General	
General	

General	
General	
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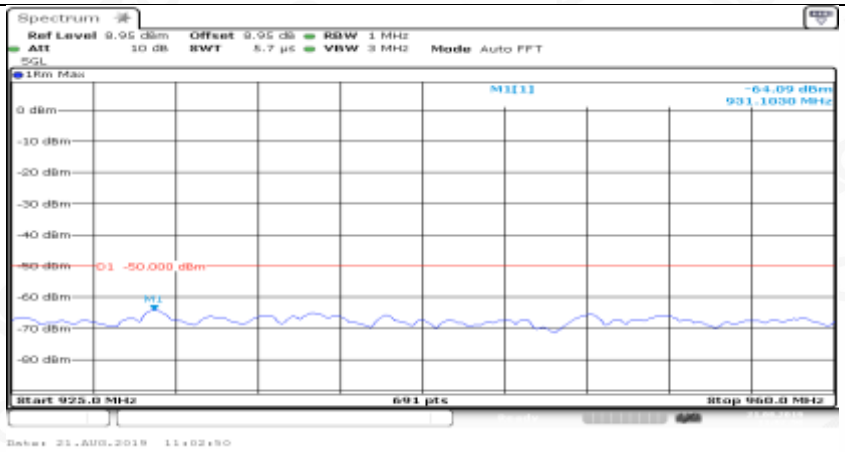
Co-existence	
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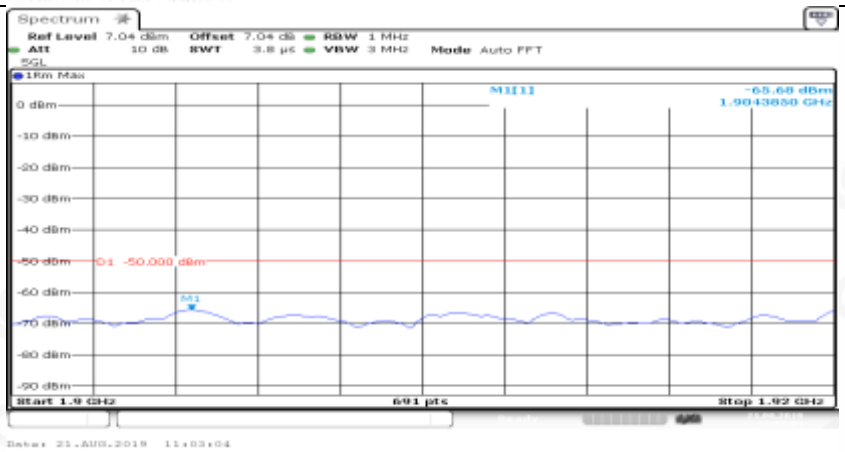
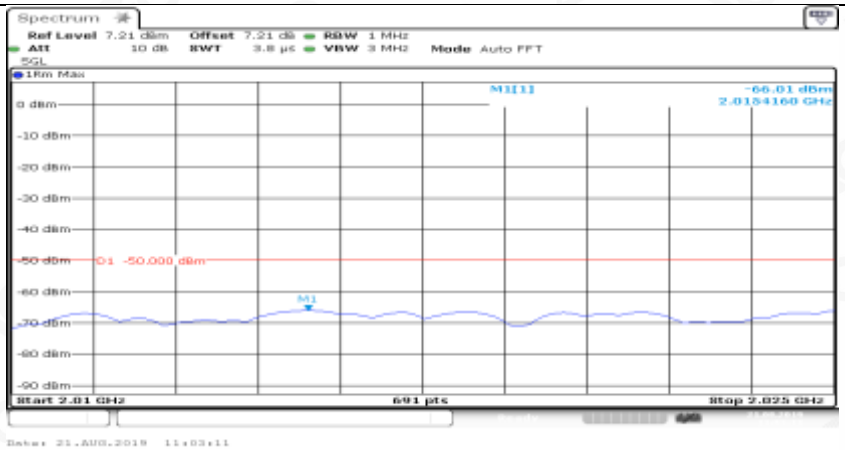
Co-existence	

Co-existence	
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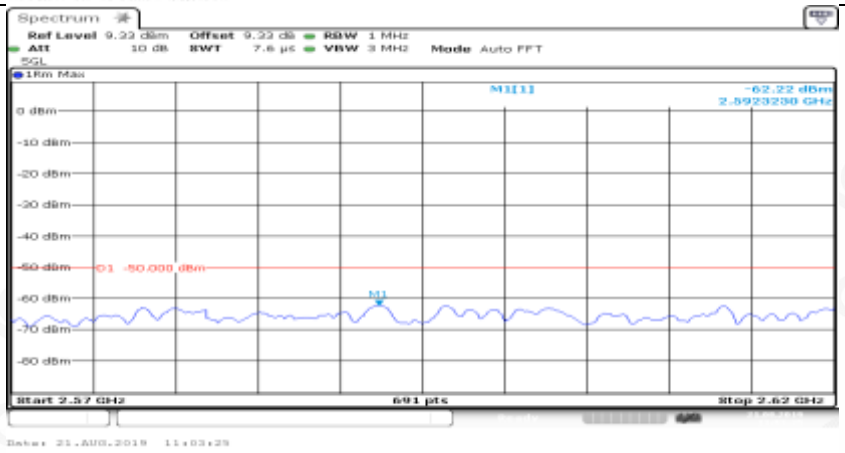
Co-existence	

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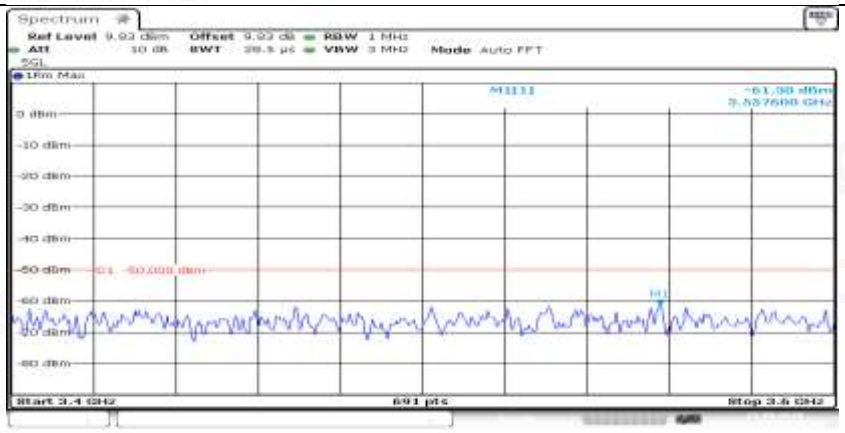
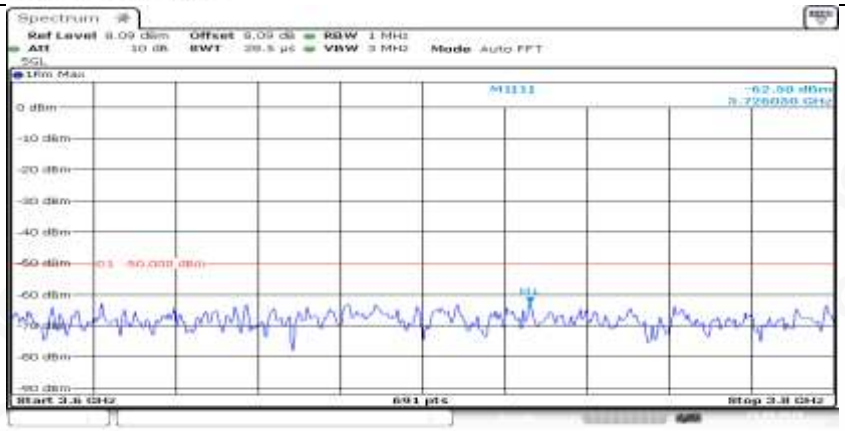
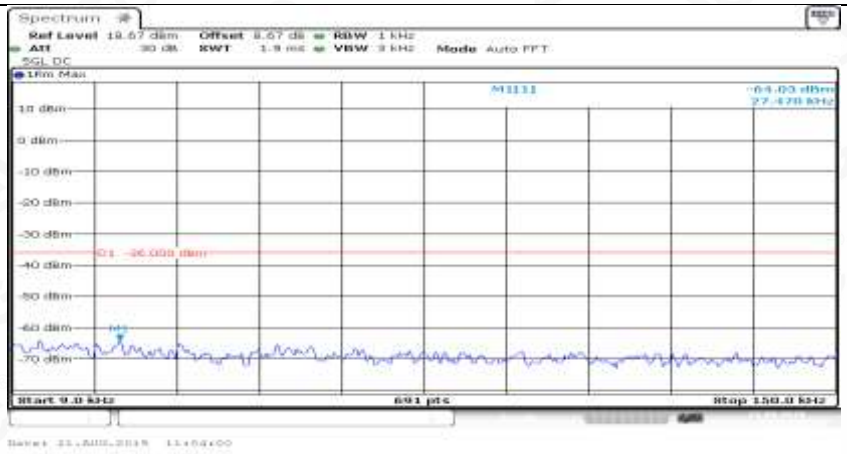
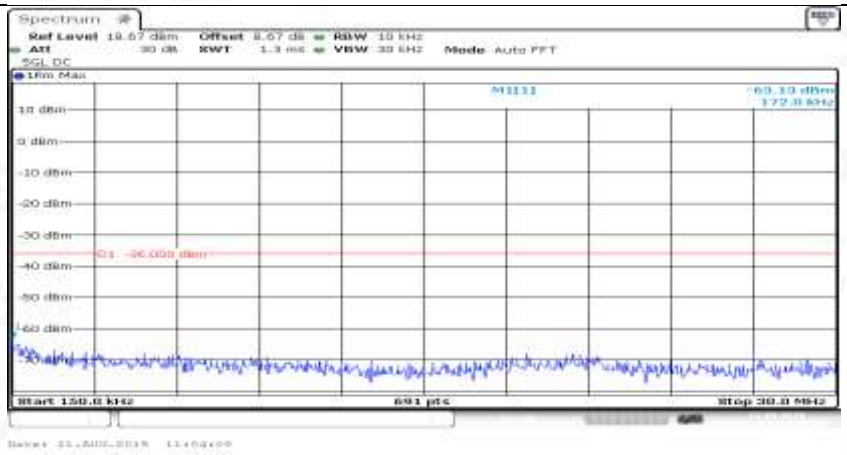
Co-existence	
Co-existence	
Additional	NA

Channel Bandwidth=Lowest (1.4 MHz)_QPSK_MCH_FullRB#0

General		
General		
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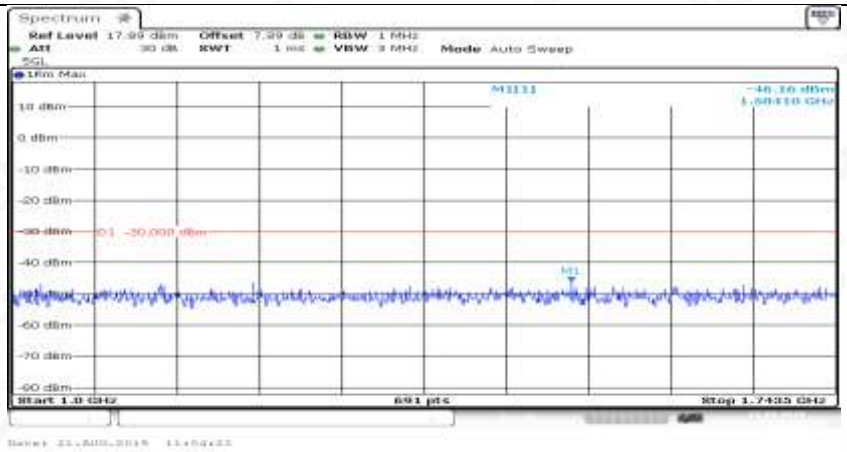
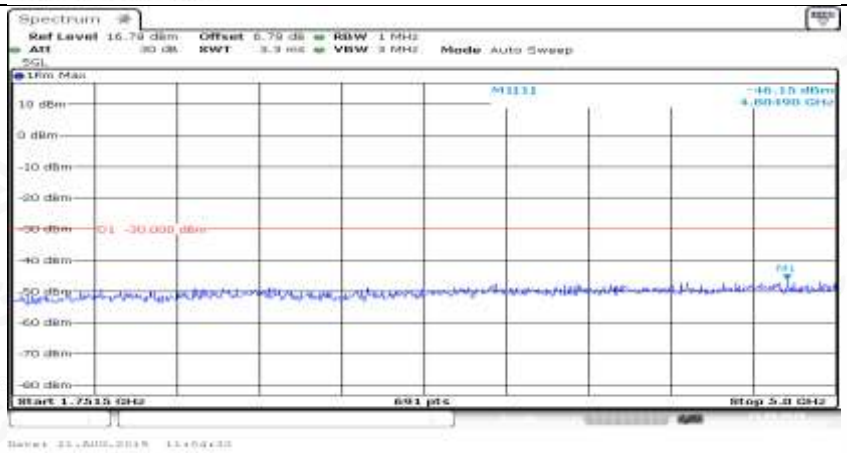
General		
General		
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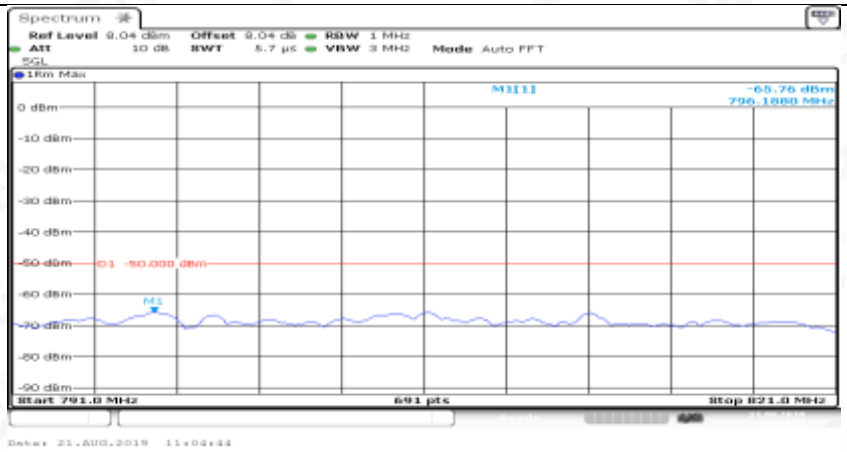
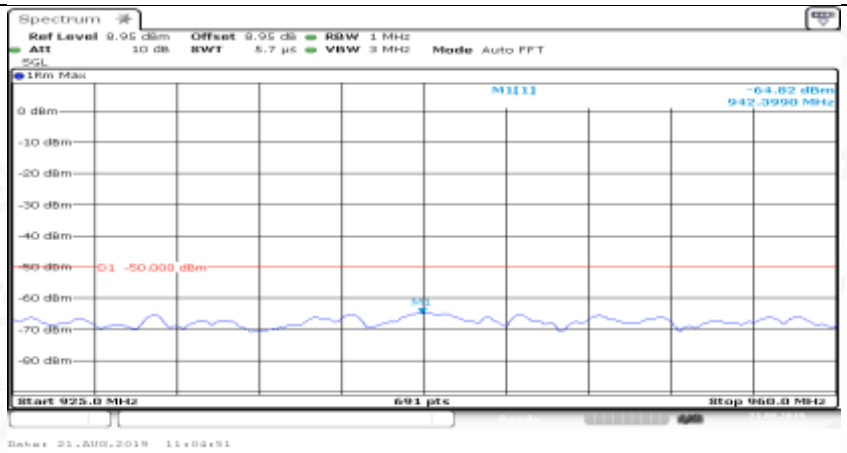
Co-existence		
Co-existence		
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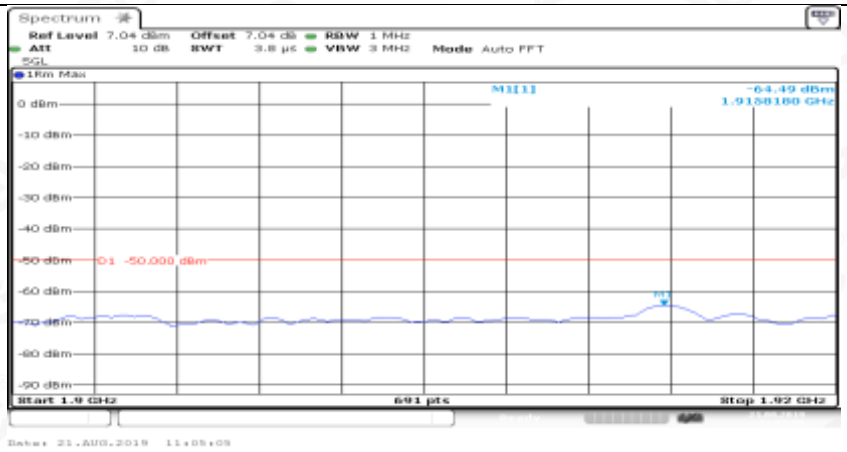
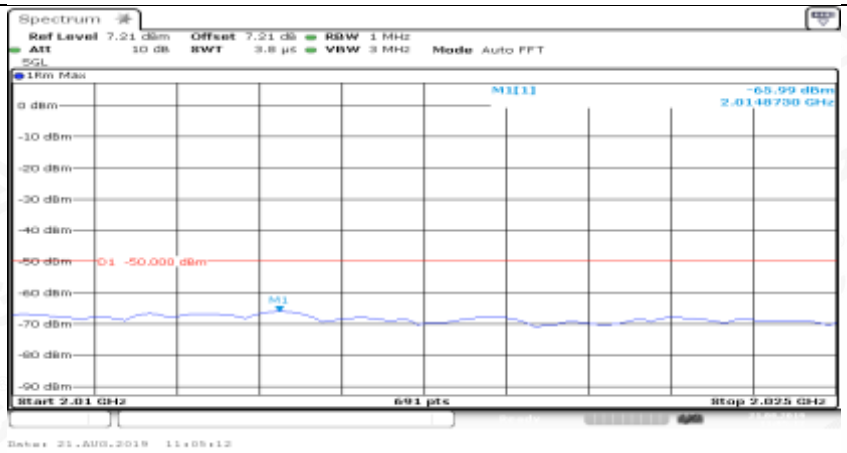
Co-existence		
Co-existence		
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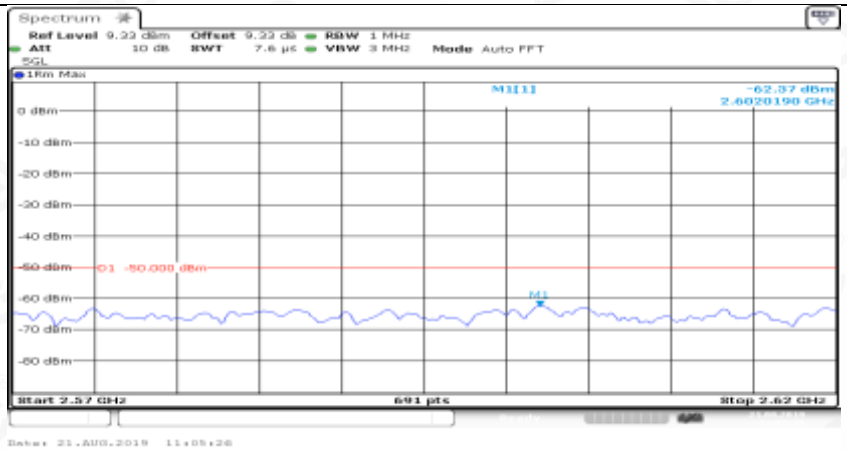
Co-existence		
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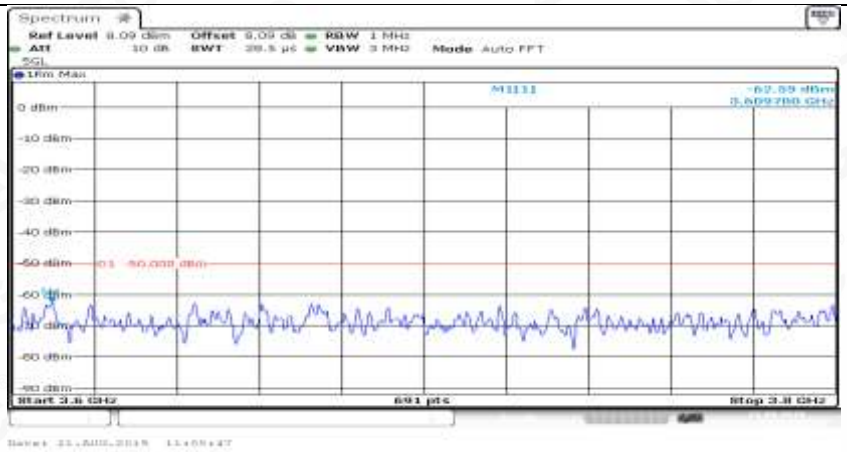
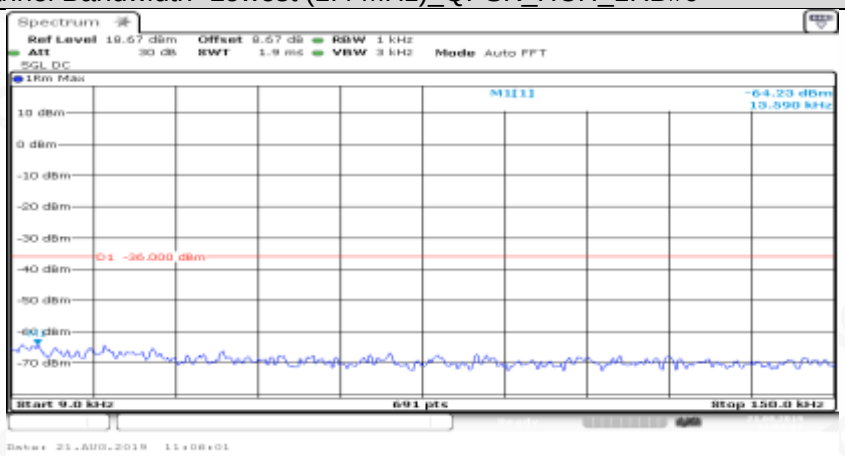
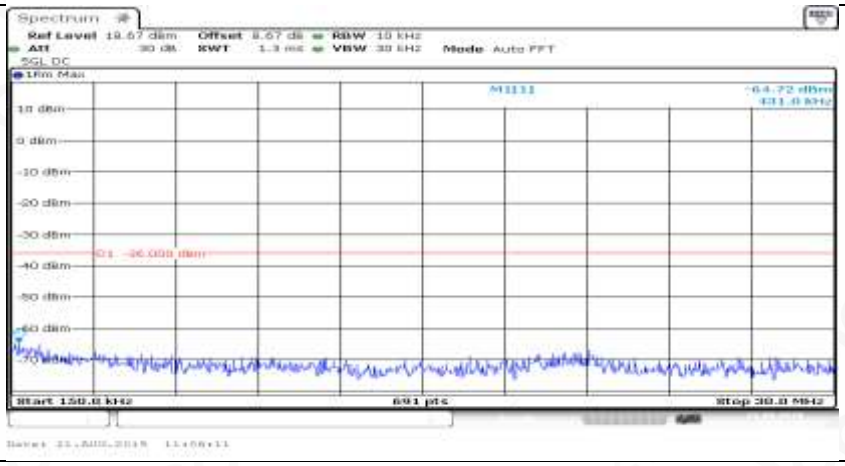
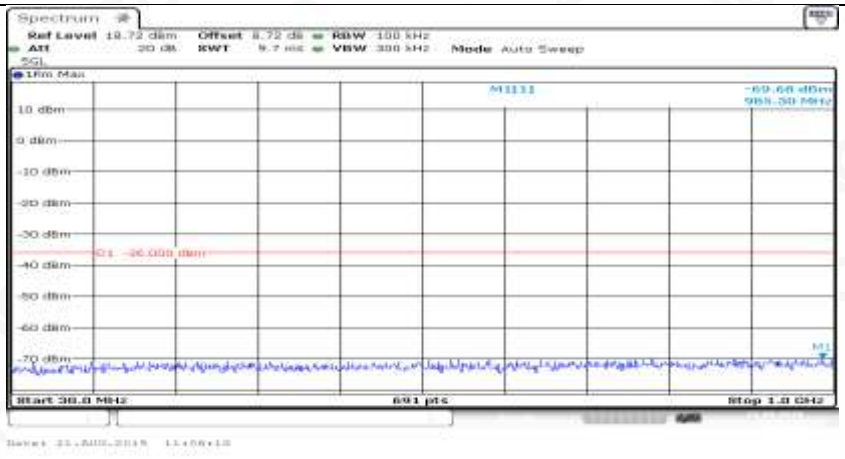
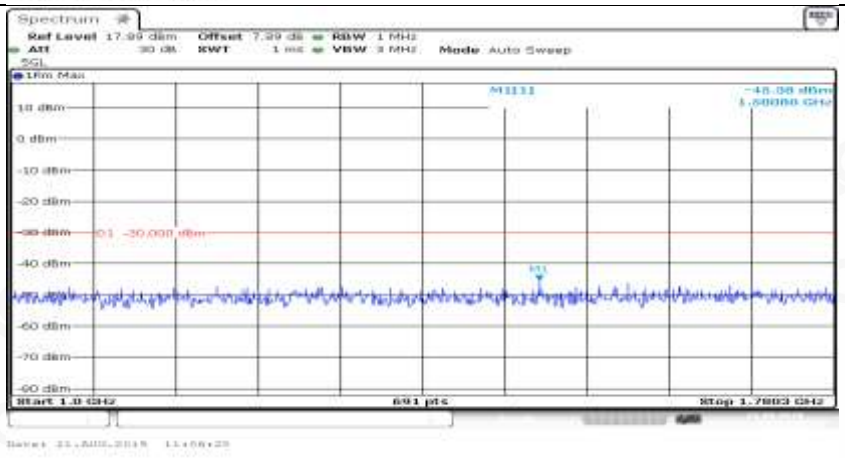
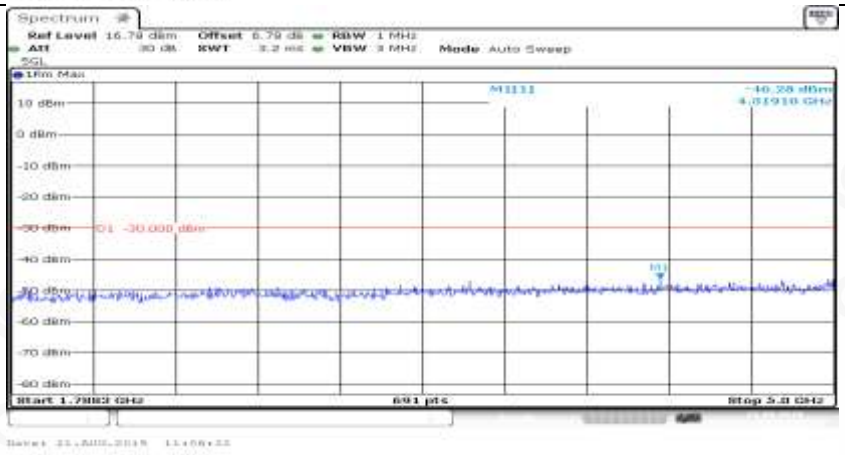
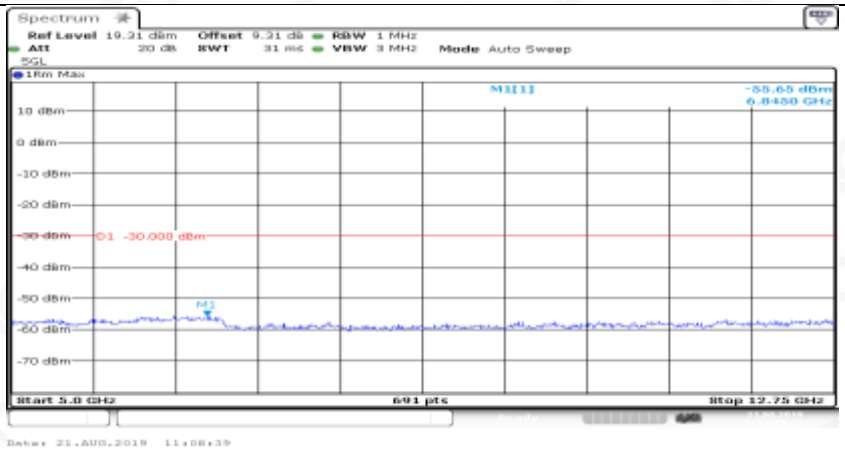
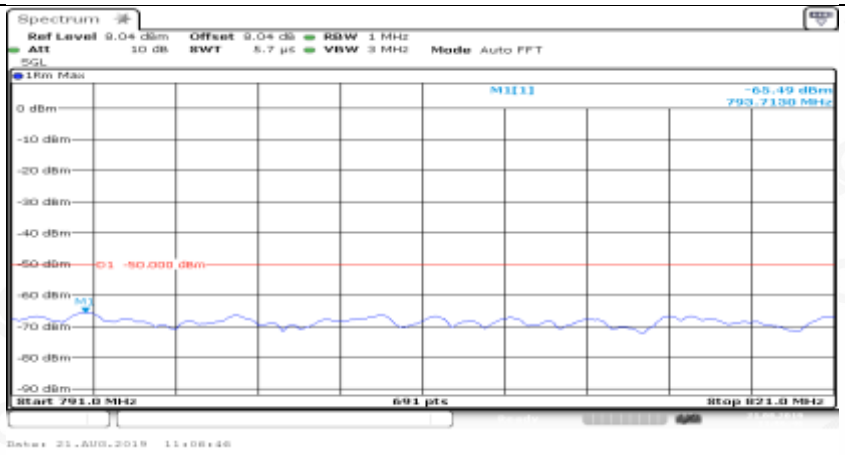
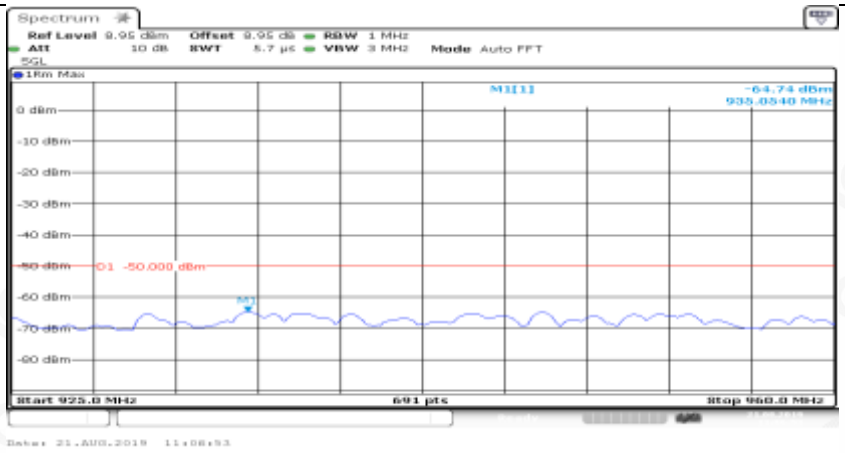
Co-existence		

Co-existence	
Additional	NA

Channel Bandwidth=Lowest (1.4 MHz)_QPSK_HCH_1RB#0	
General	
General	

General	
General	
General	

General	
Co-existence	
Co-existence	

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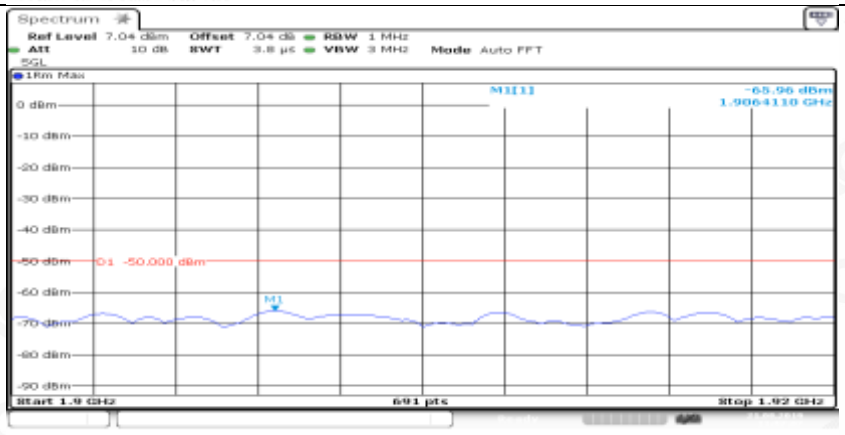
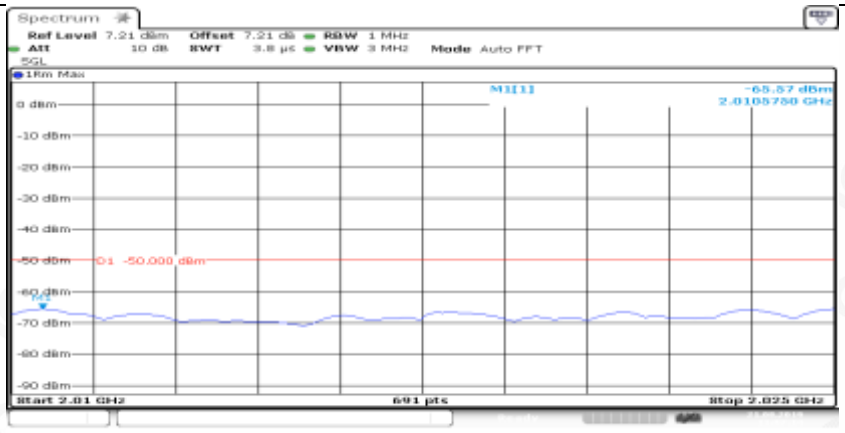
Co-existence	
Co-existence	

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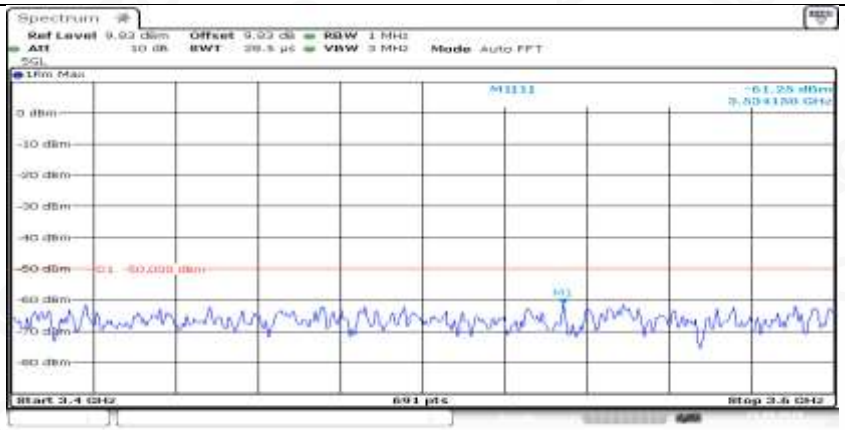
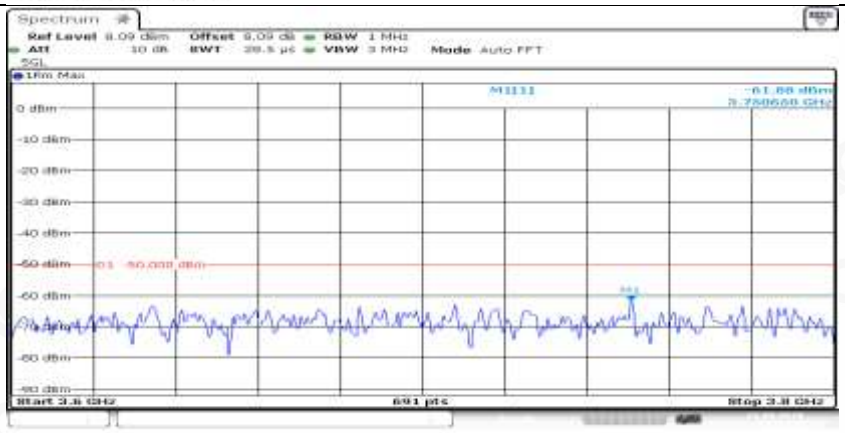
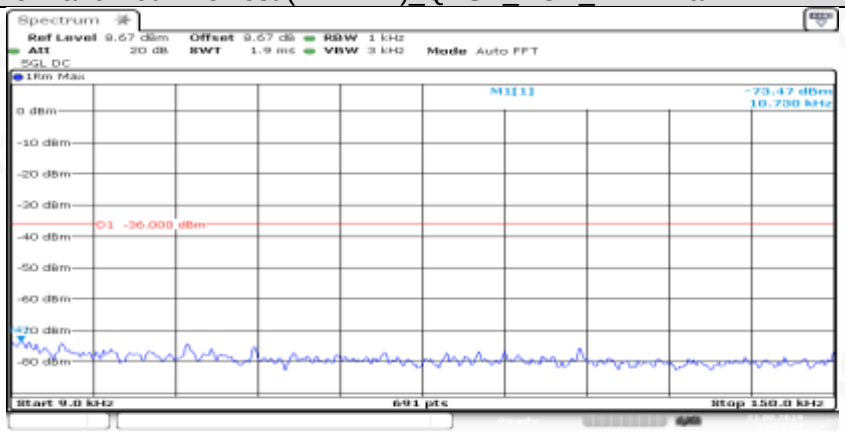
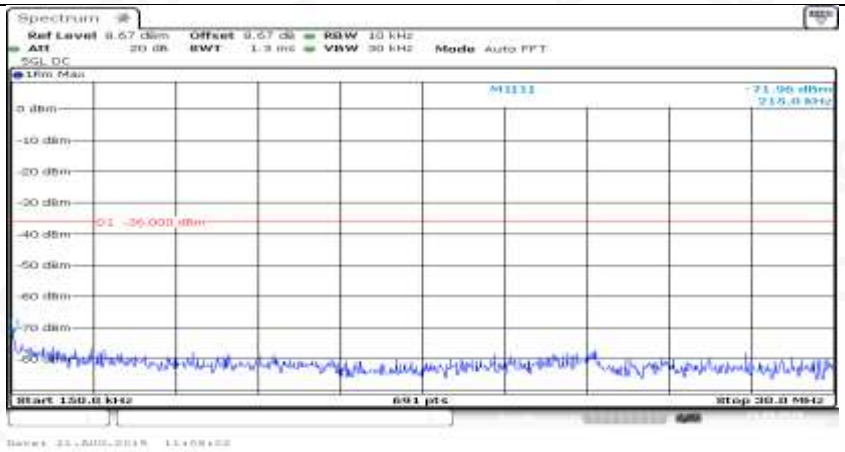
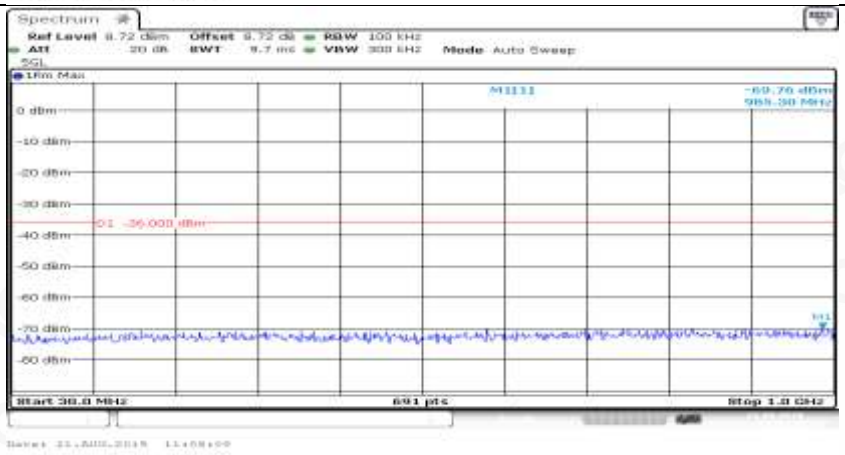
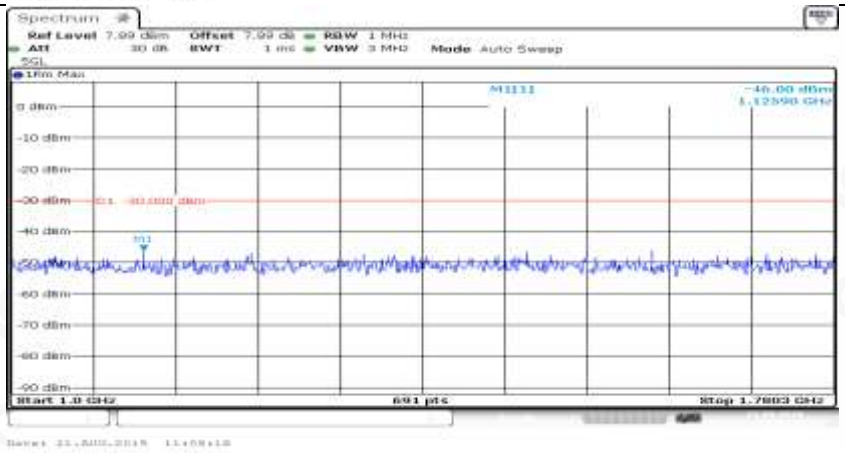
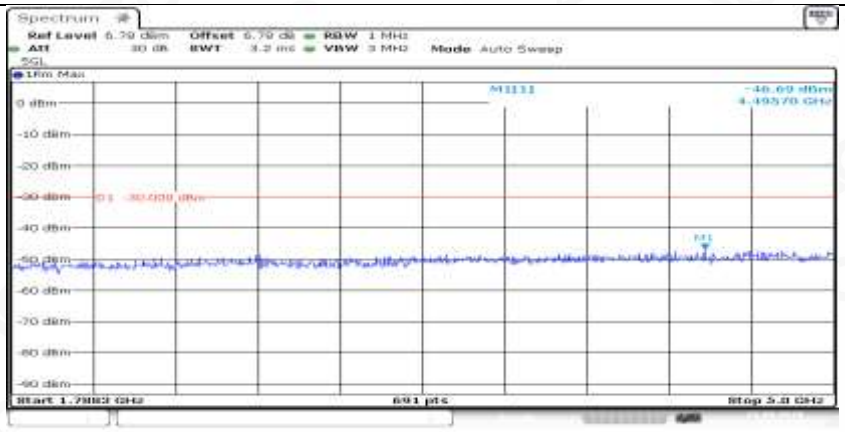
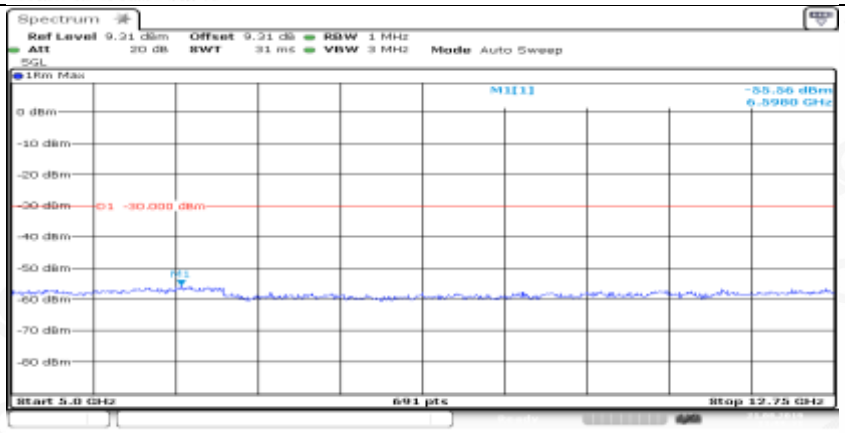
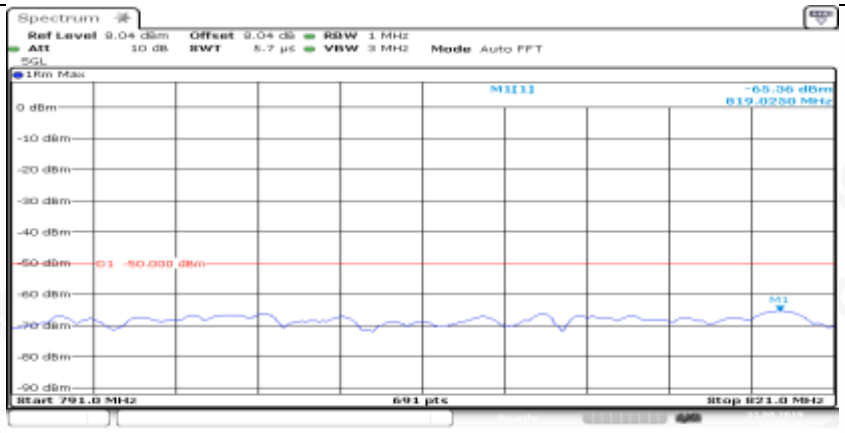
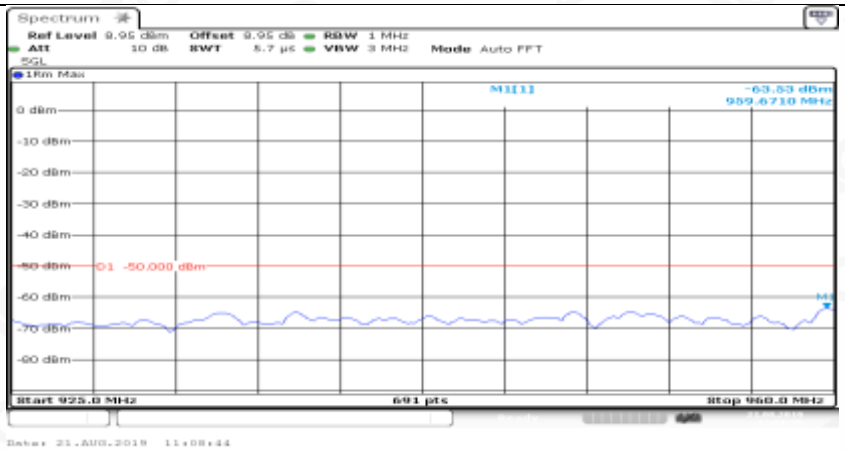
Co-existence	

Co-existence	
Co-existence	
Additional	NA

Channel Bandwidth=Lowest (1.4 MHz)_QPSK_HCH_1RB#max	
General	

General	
General	
General	

General	
General	
Co-existence	

Co-existence	
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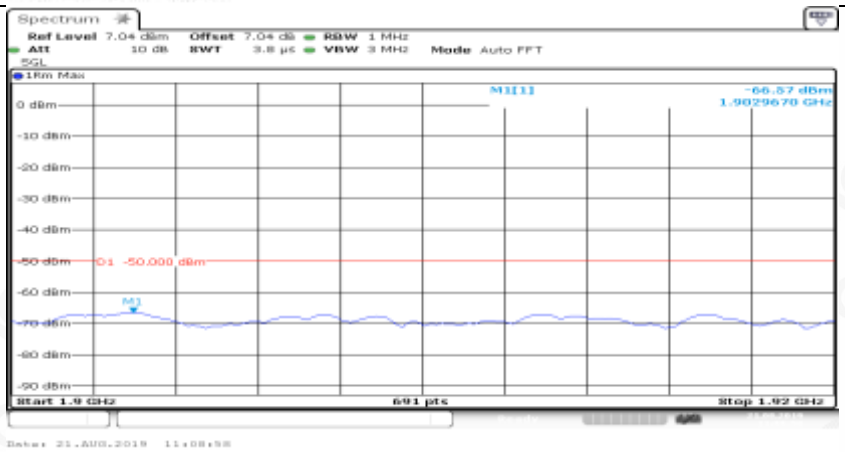
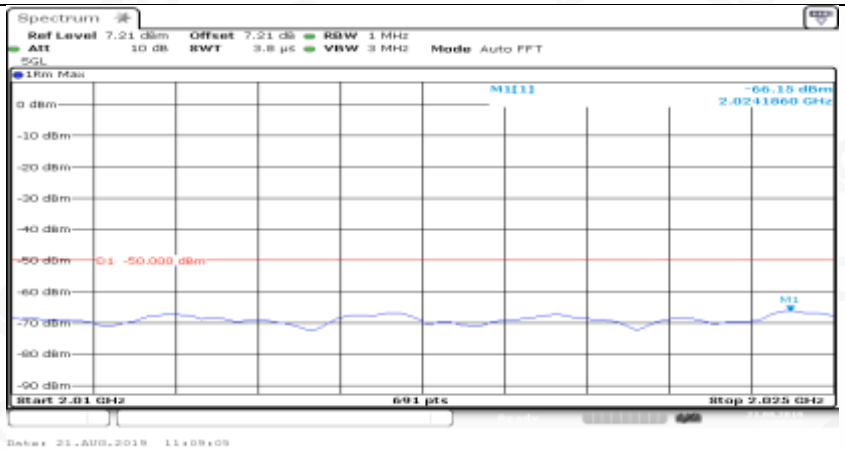
Co-existence	

Co-existence	
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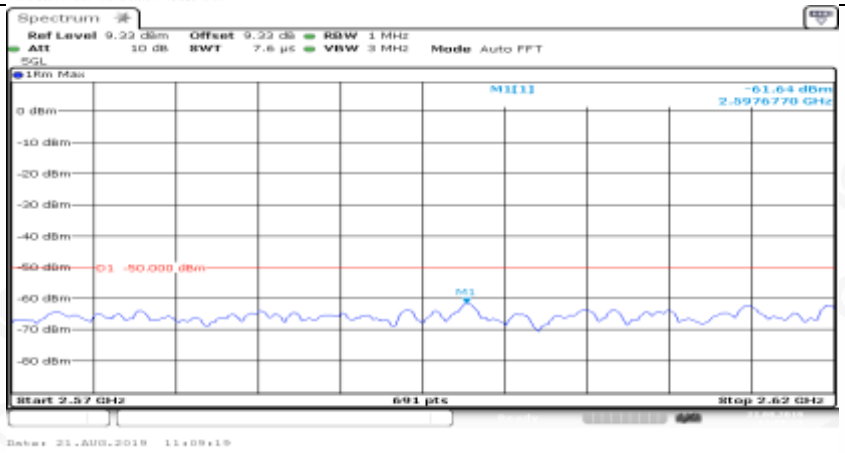
Co-existence	

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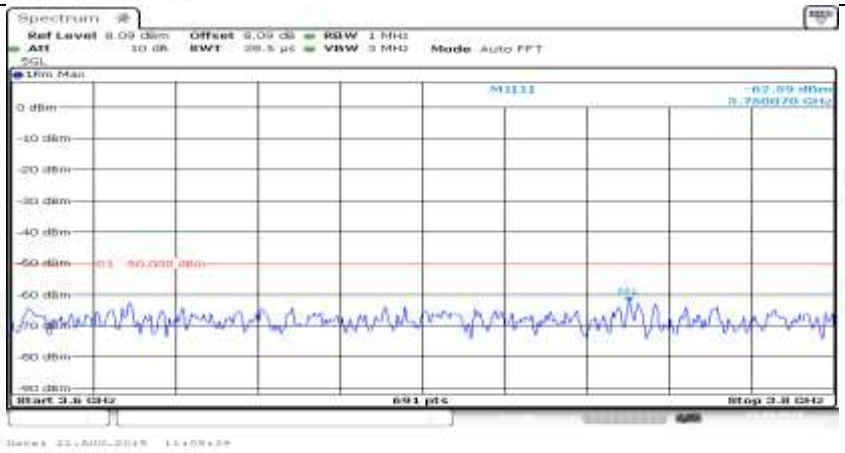
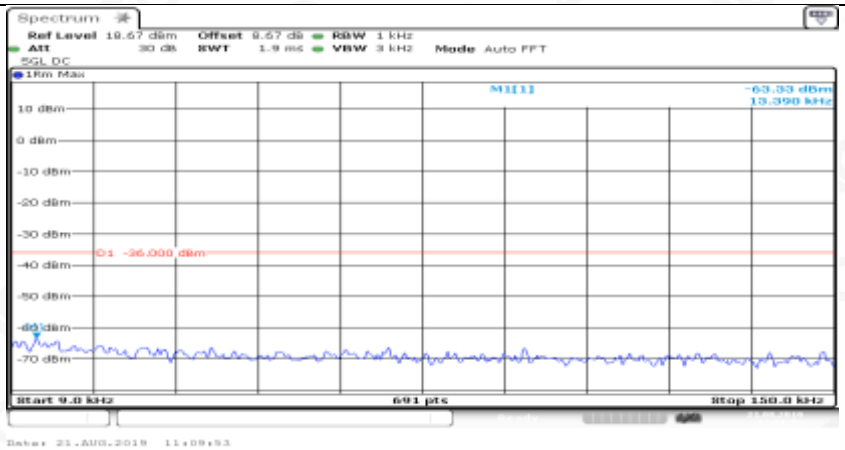
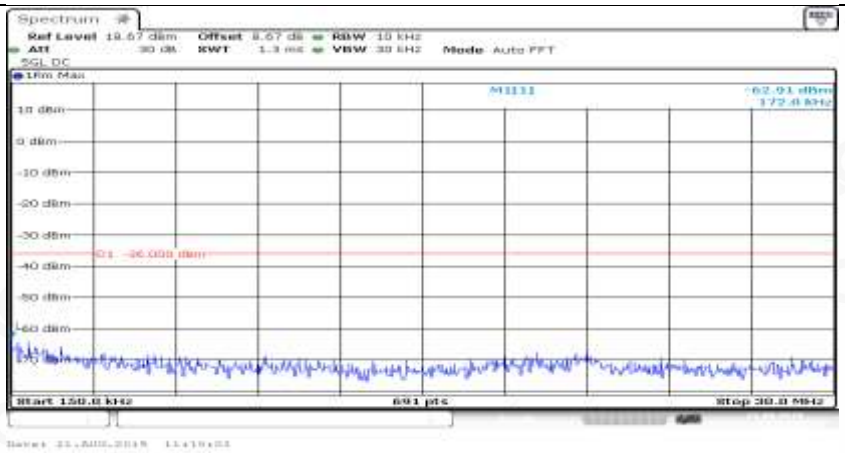
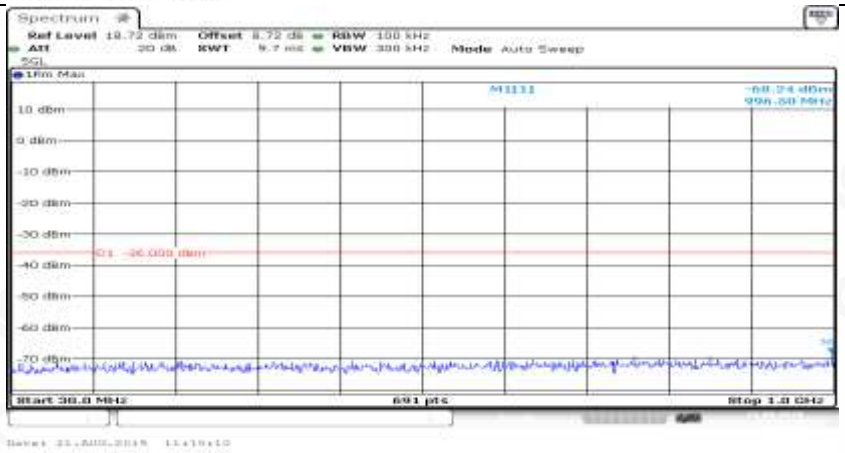
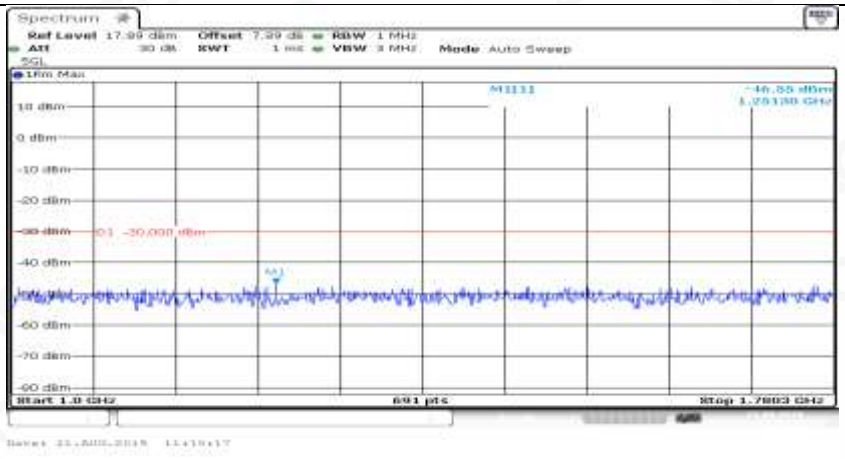
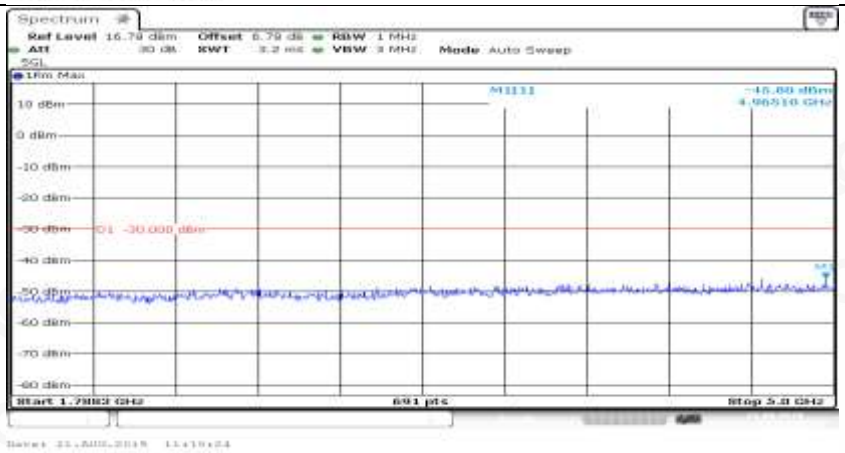
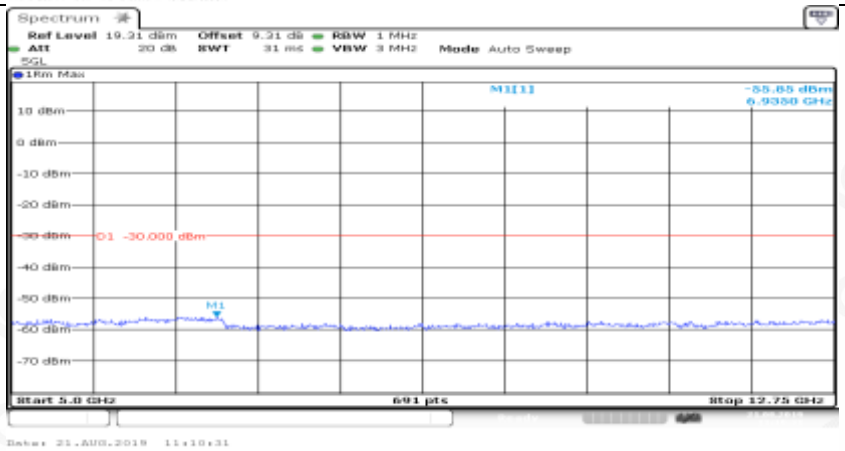
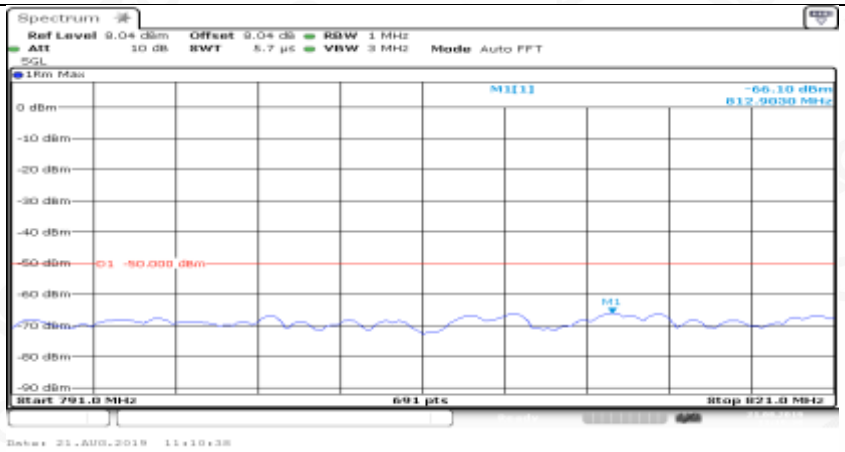
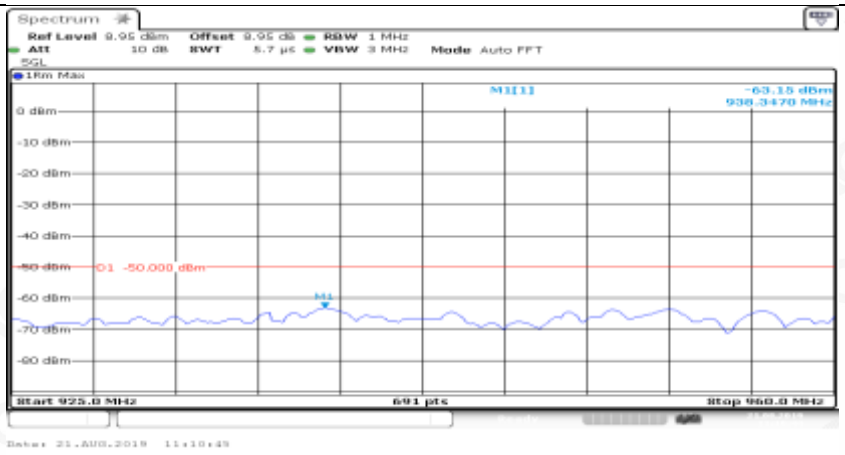
Co-existence	
Additional	NA

Channel Bandwidth=Lowest (1.4 MHz)_QPSK_HCH_FullRB#0

General	
General	
General	

General	
General	
General	

Co-existence	
Co-existence	
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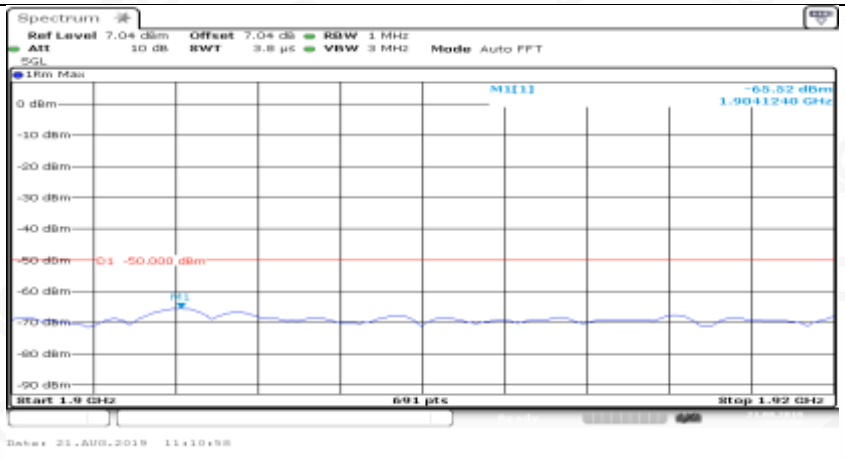
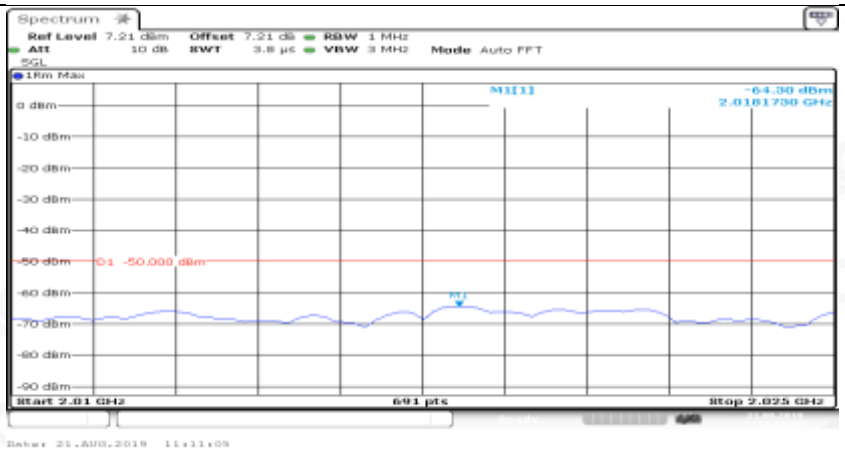
Co-existence	
Co-existence	
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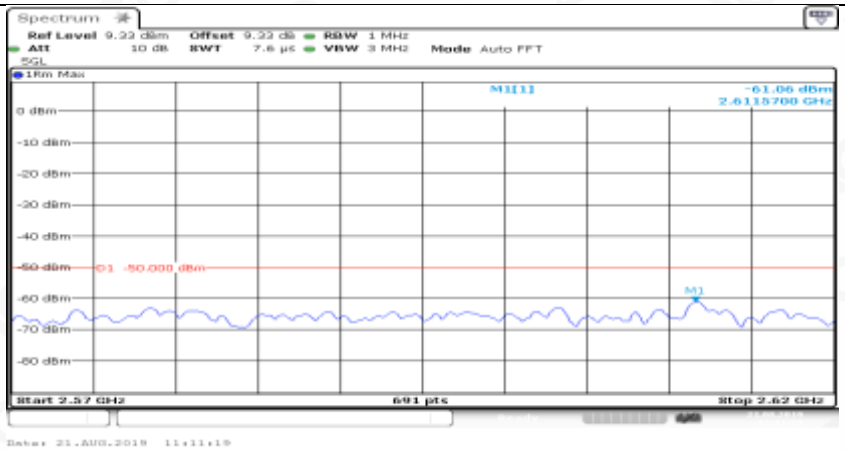
Co-existence	
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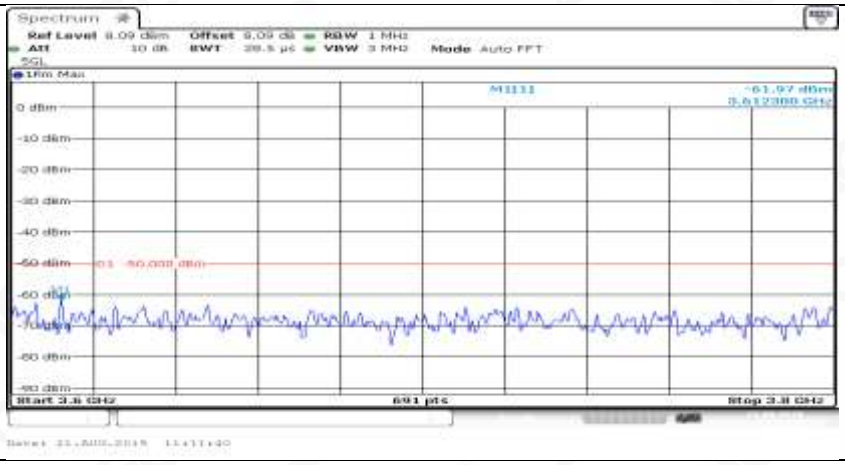
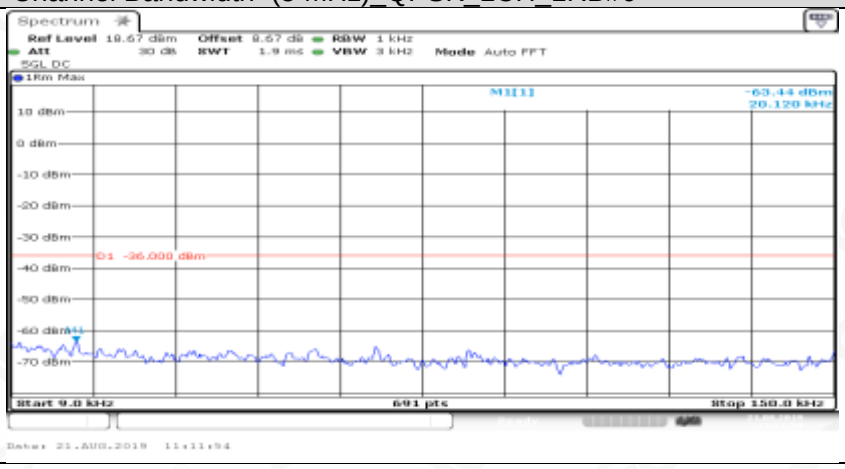
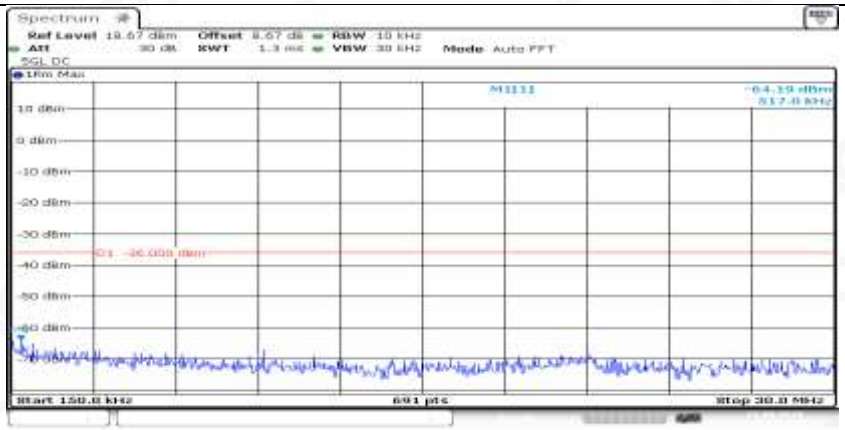
Co-existence	

Co-existence	
Additional	NA

Channel Bandwidth= (5 MHz)

Channel Bandwidth=(5 MHz)_QPSK_LCH_1RB#0	
General	

General	
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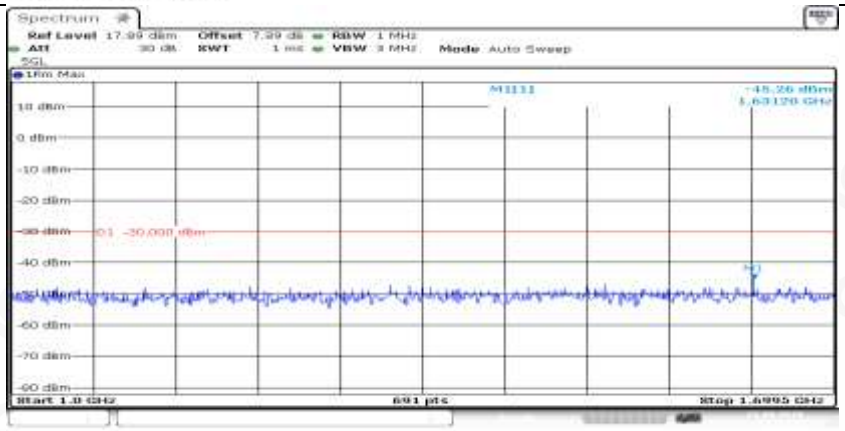
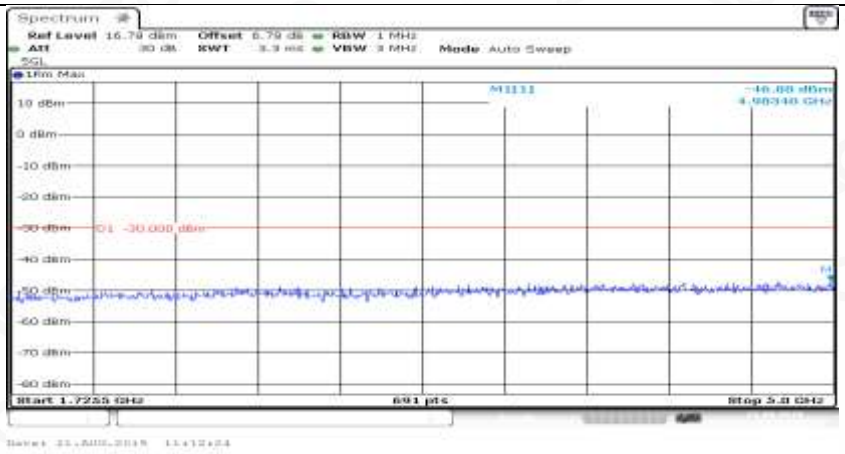
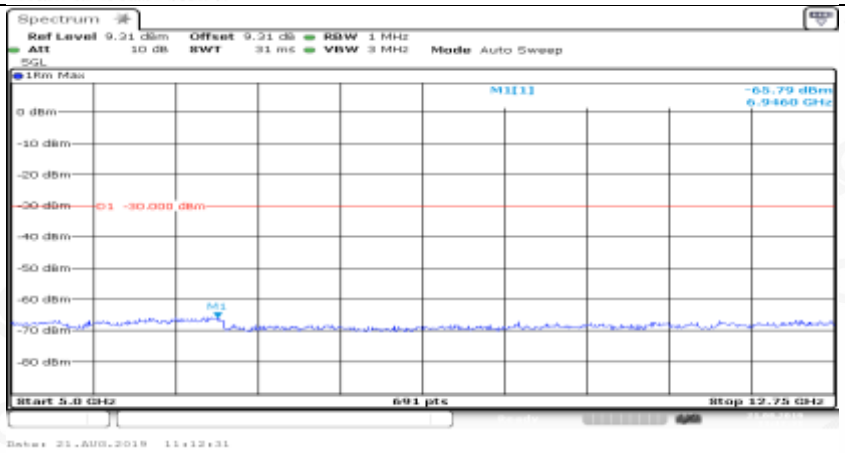
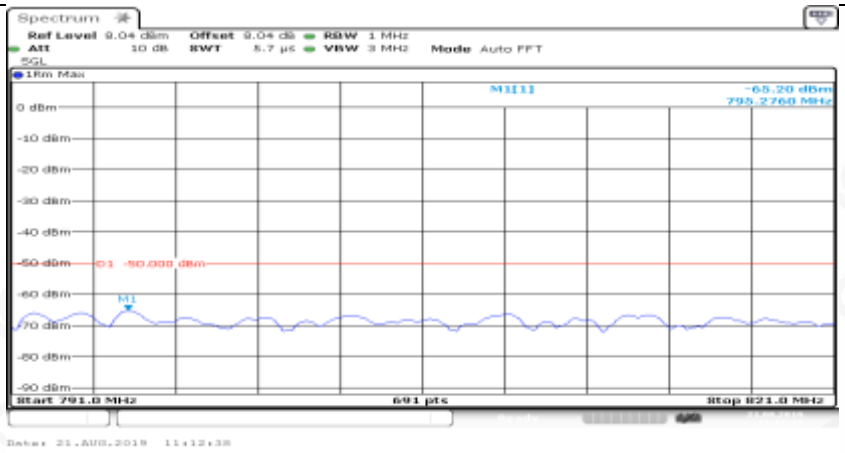
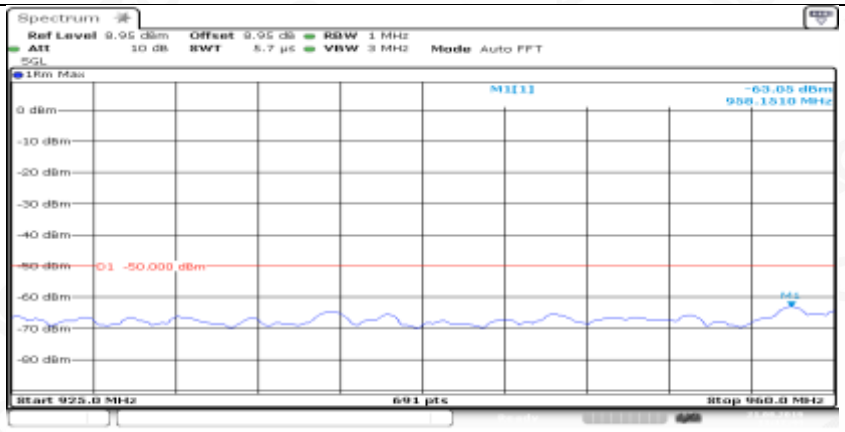
General	

General	
General	
Co-existence	

Co-existence	
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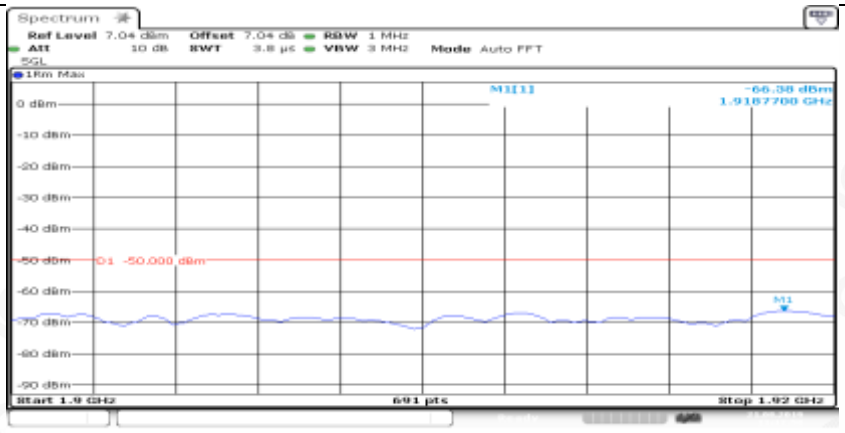
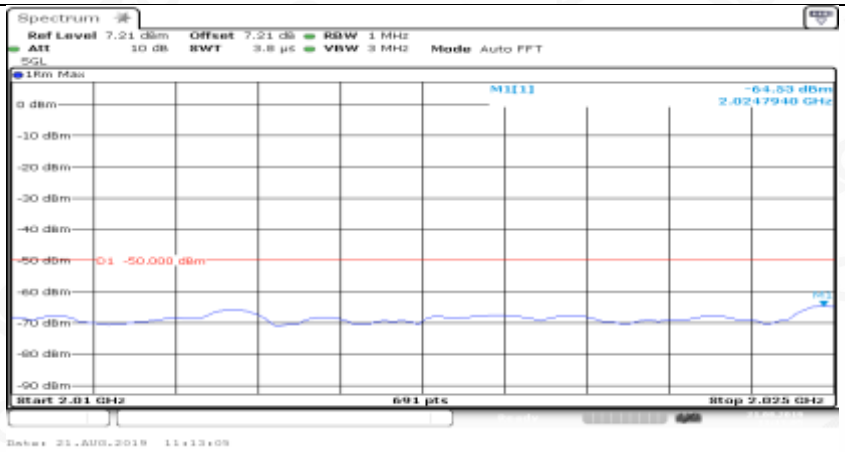
Co-existence	

Co-existence	
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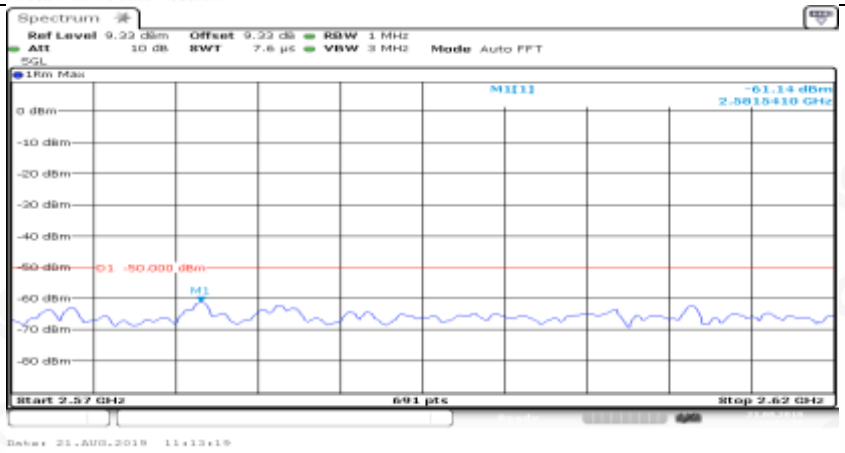
Co-existence	

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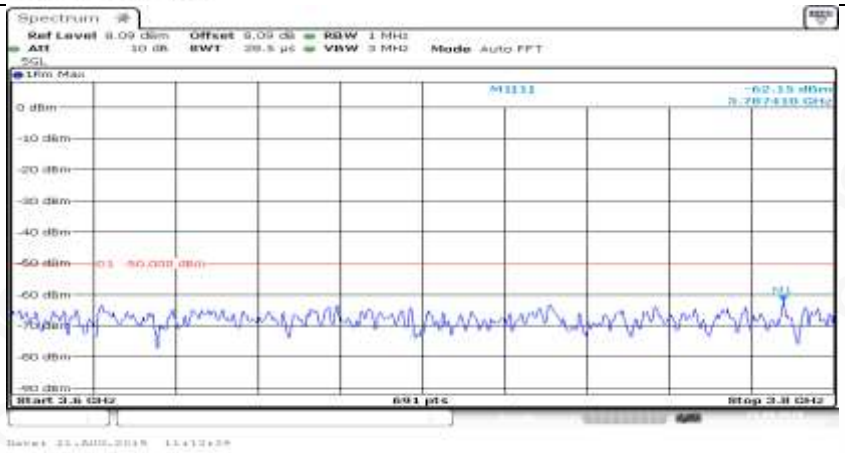
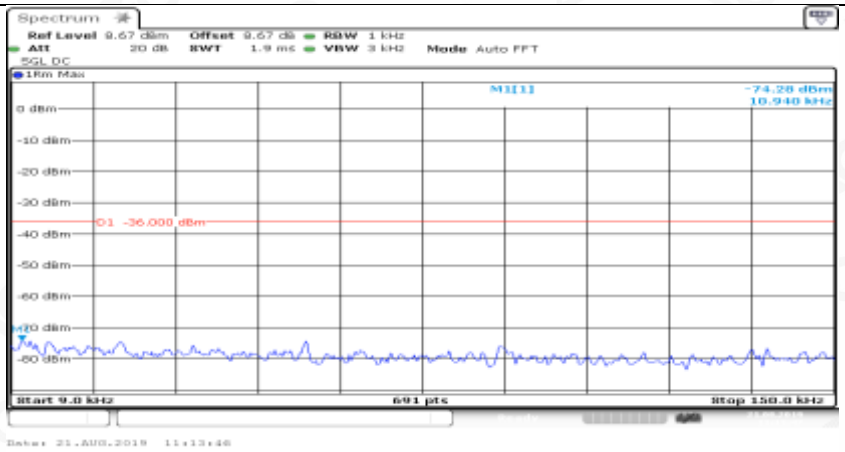
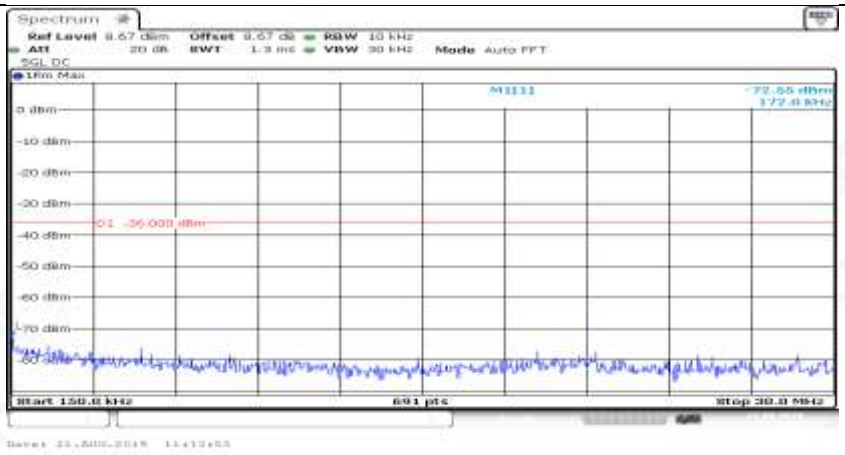
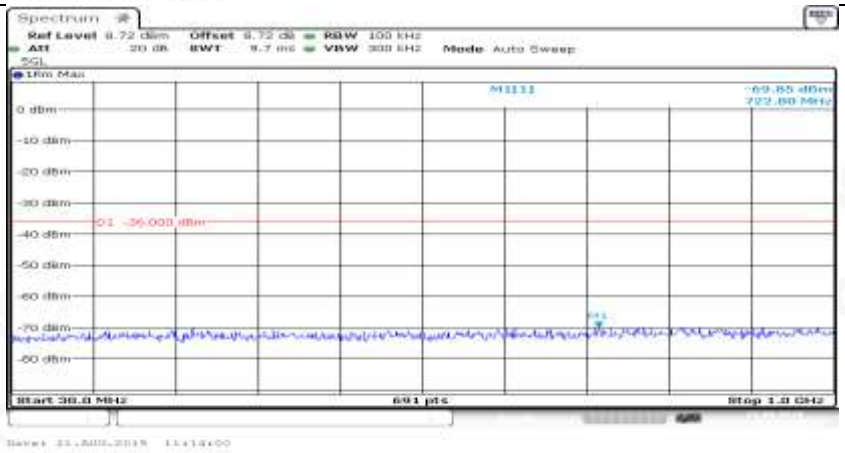
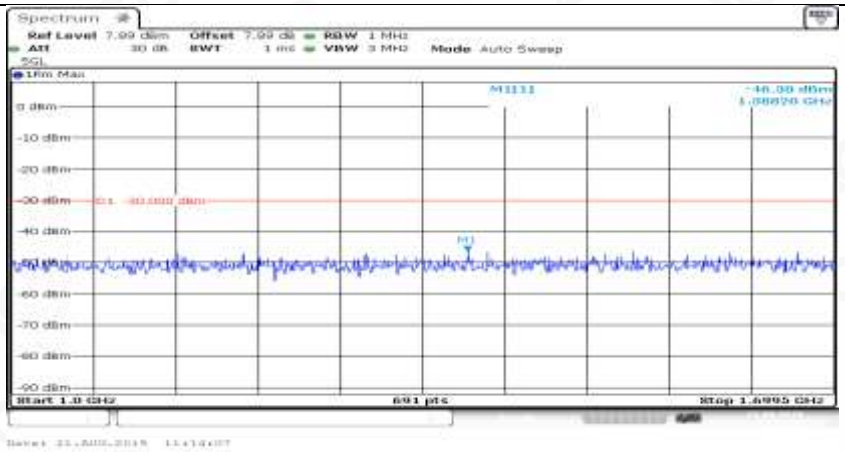
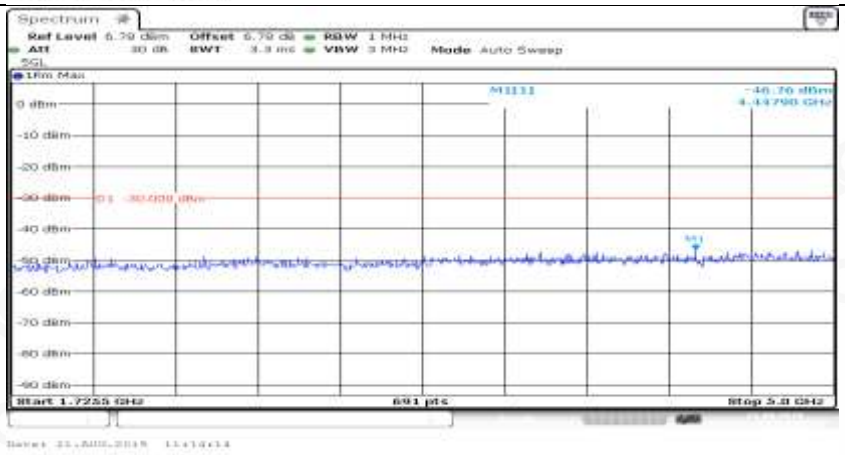
Co-existence	
Additional	NA

Channel Bandwidth= (5 MHz)_QPSK_LCH_1RB#max

General	
General	
General	

General	
General	
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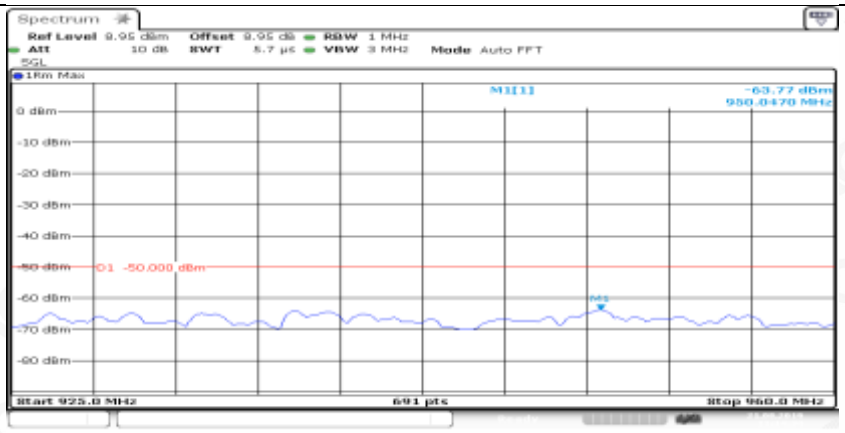
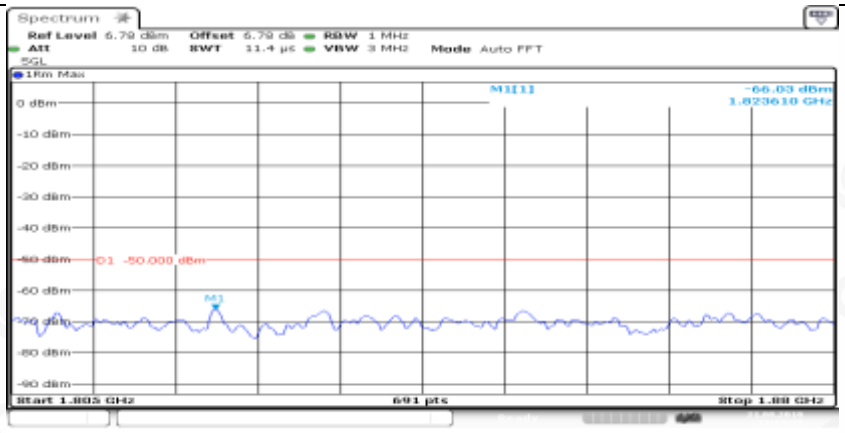
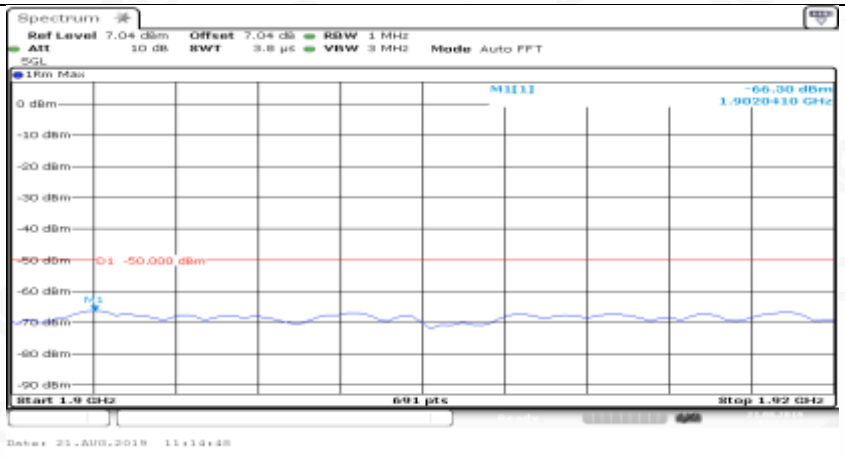
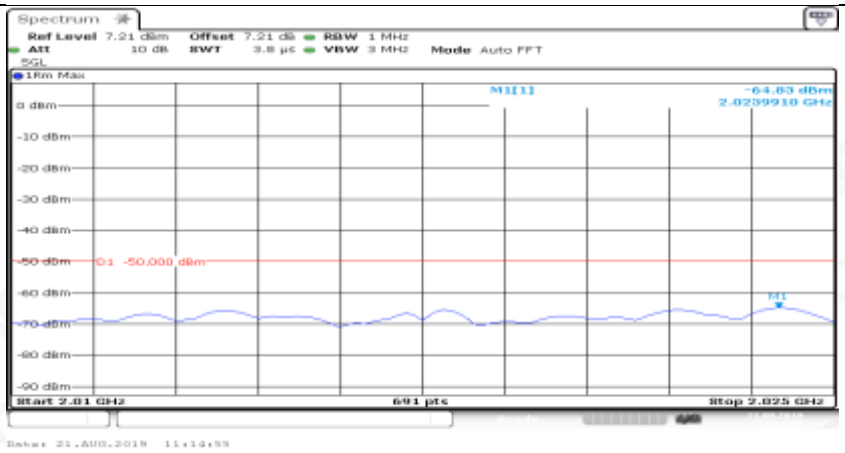
Co-existence	
Co-existence	
Co-existence	

Co-existence	
Co-existence	
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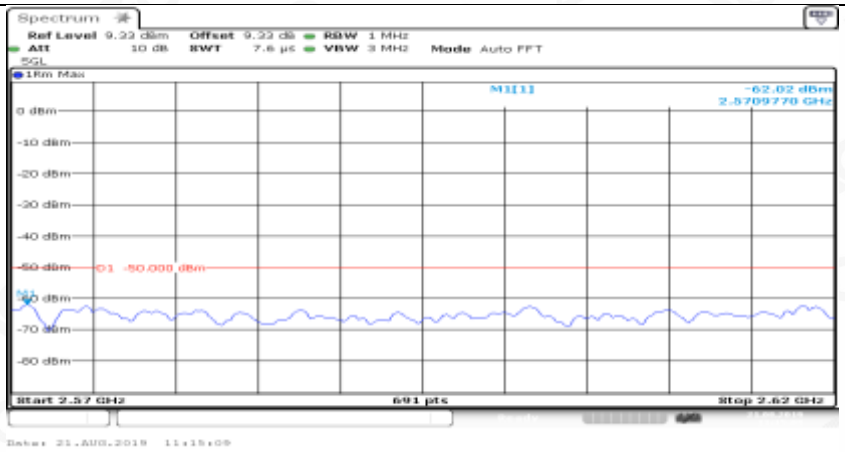
Co-existence	
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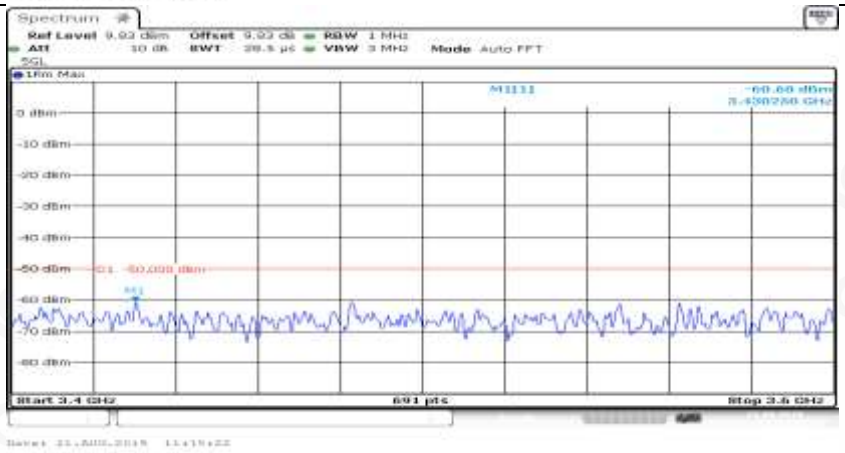
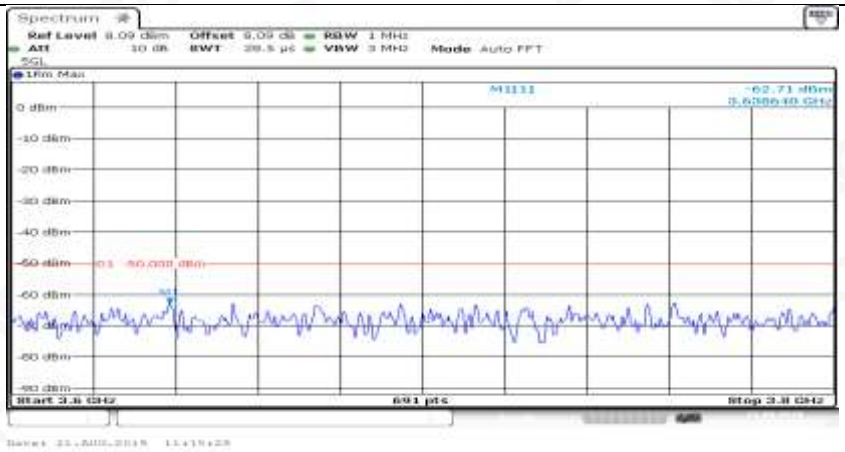
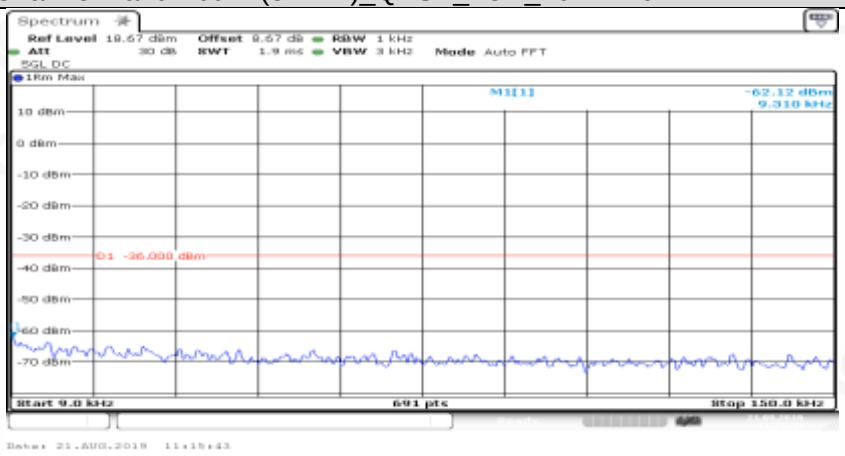
Co-existence	

Co-existence	
Additional	NA

Channel Bandwidth= (5 MHz)_QPSK_LCH_FullRB#0	
General	
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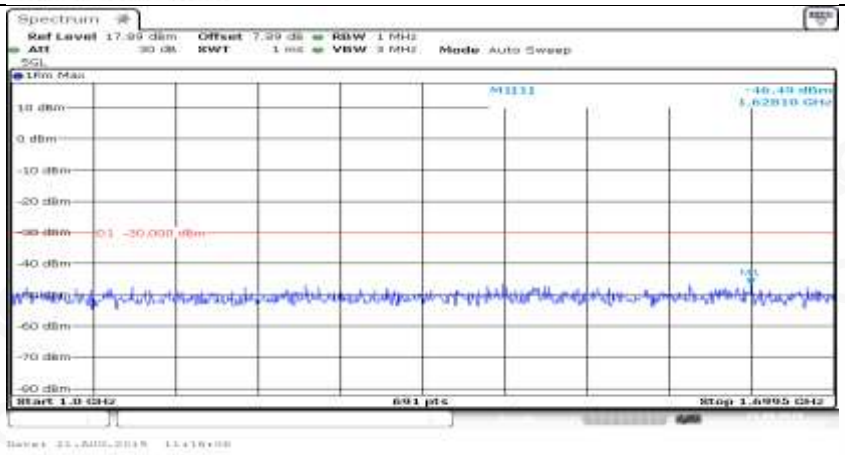
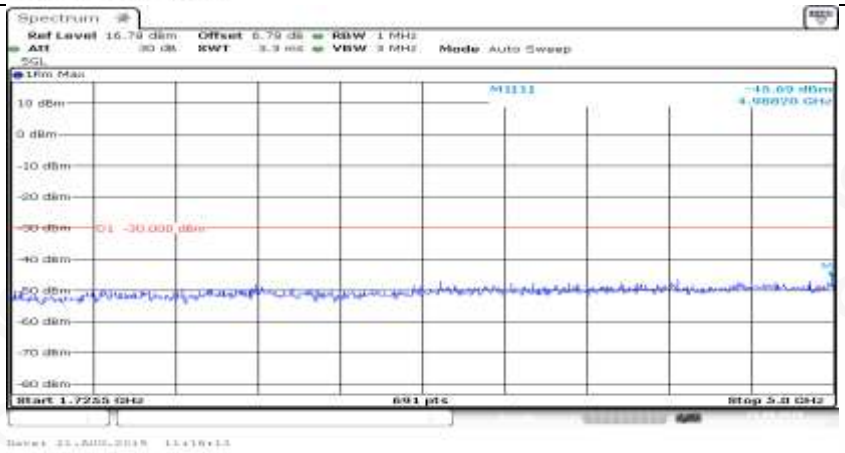
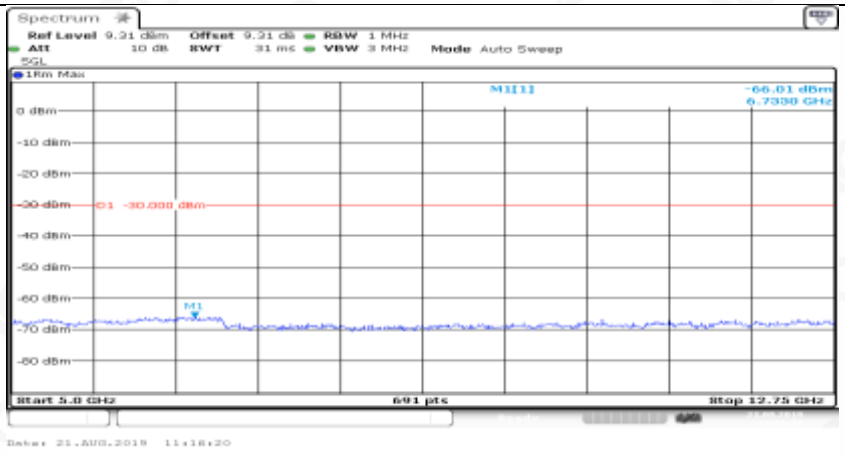
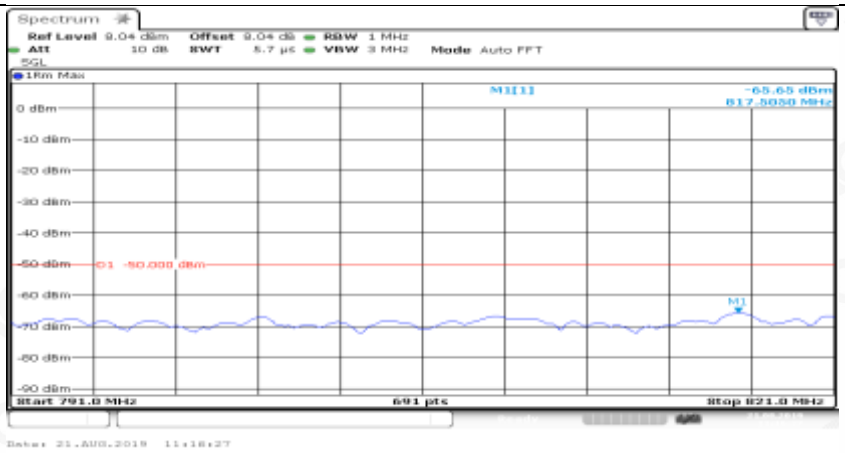
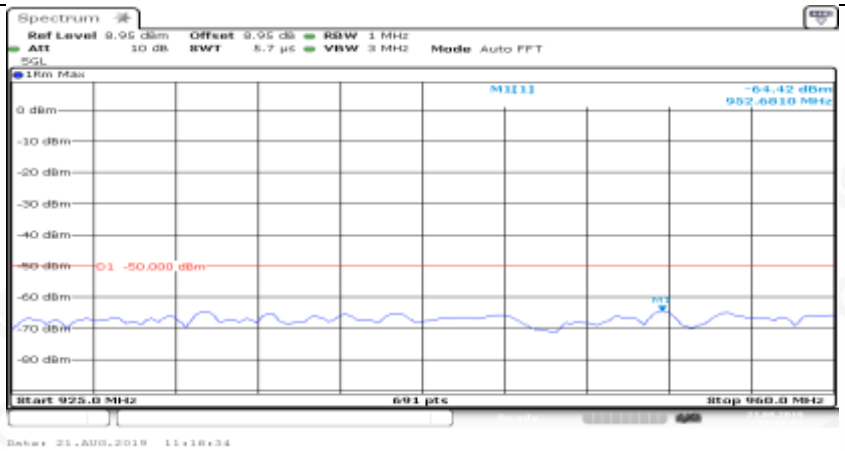
General	
General	

General	
Co-existence	
Co-existence	

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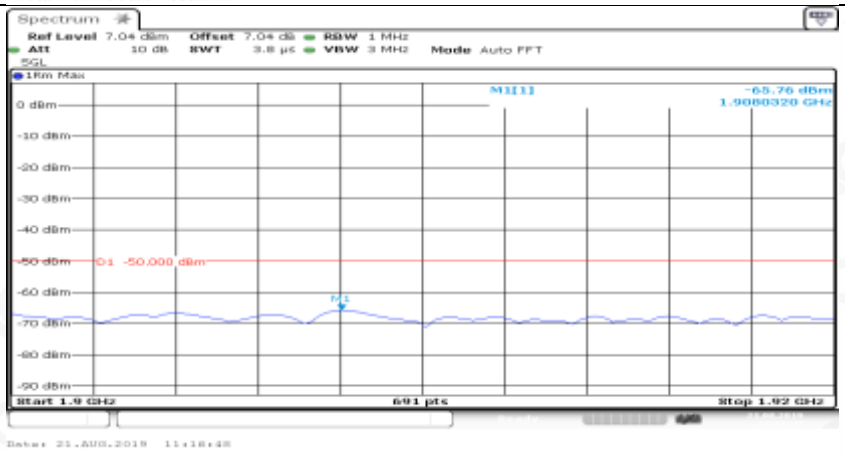
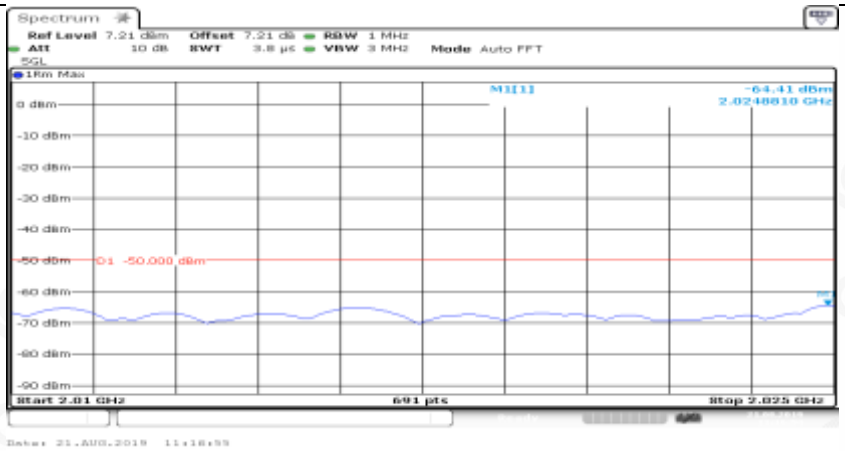
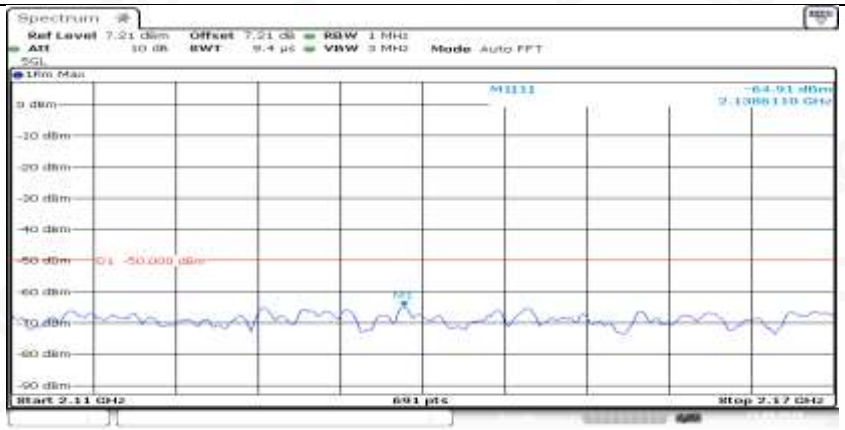
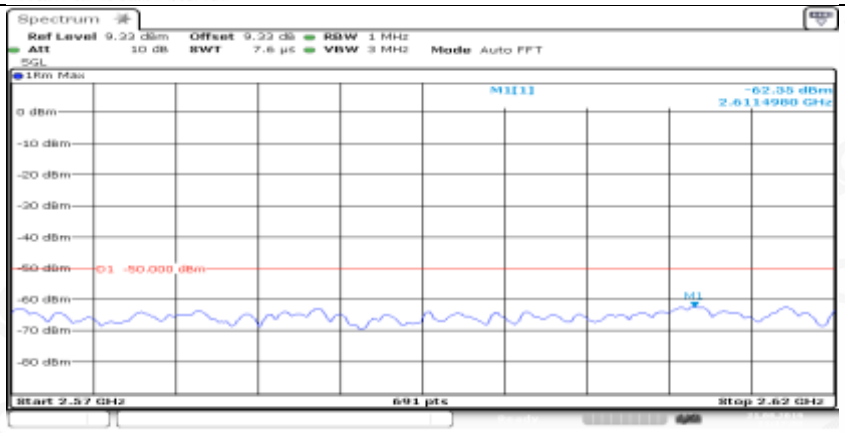
Co-existence	
Co-existence	

Co-existence	
Co-existence	
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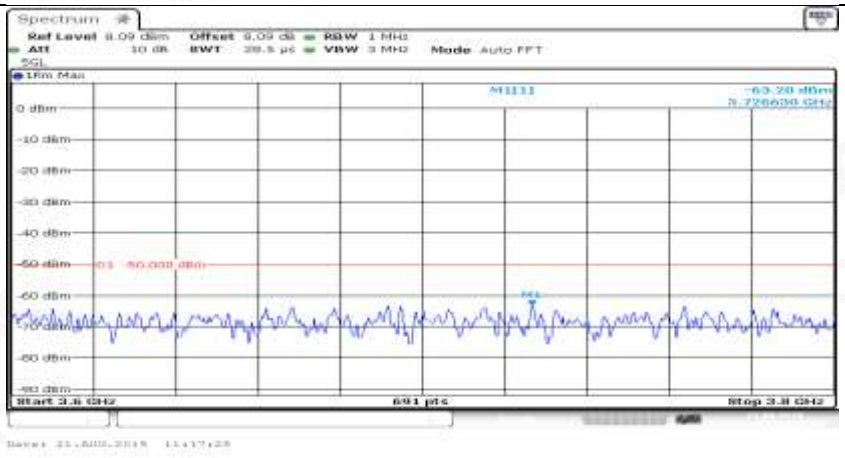
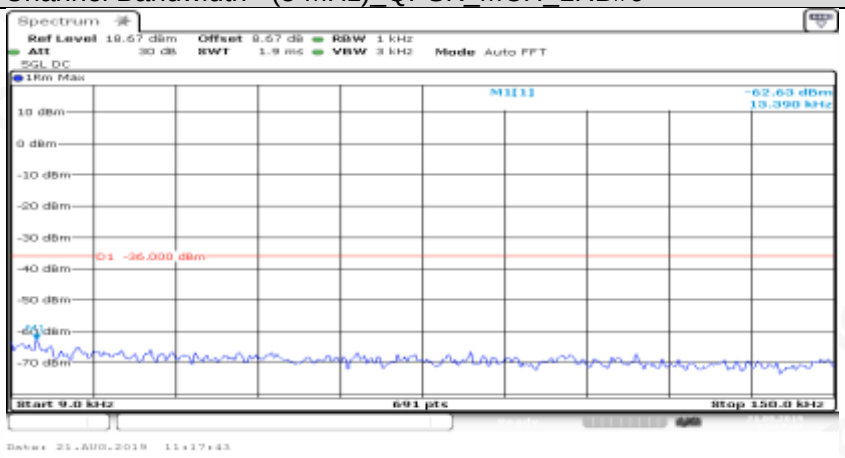
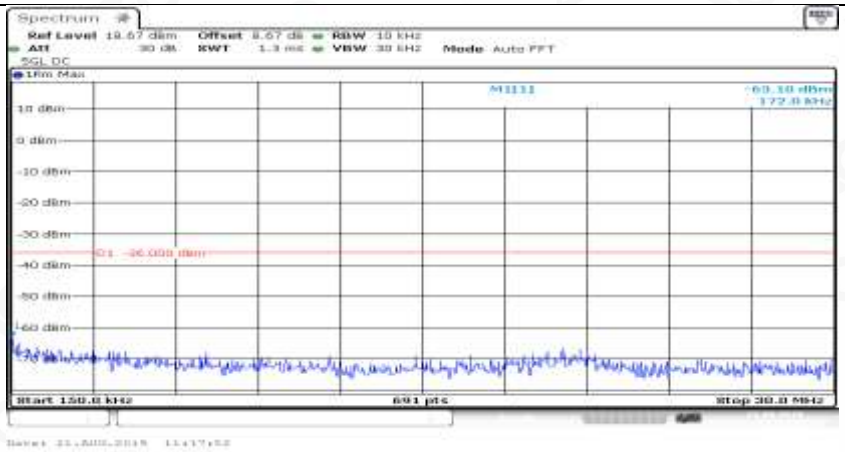
Co-existence	
Additional	NA

Channel Bandwidth= (5 MHz)_QPSK_MCH_1RB#0	
General	

General	
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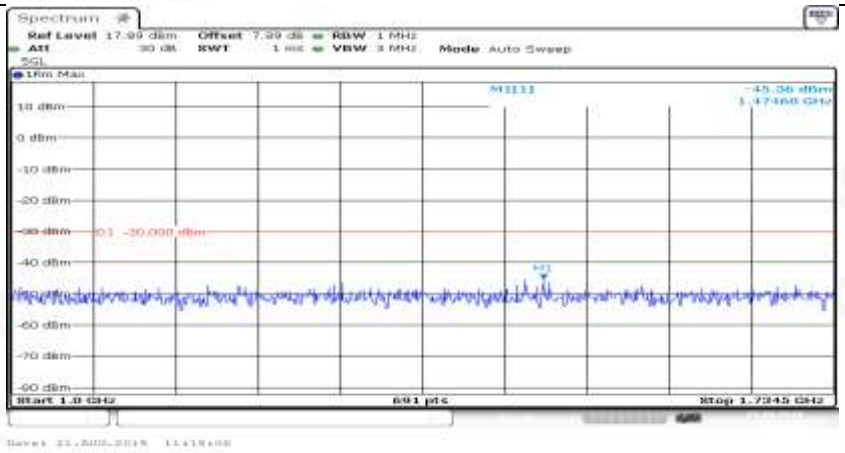
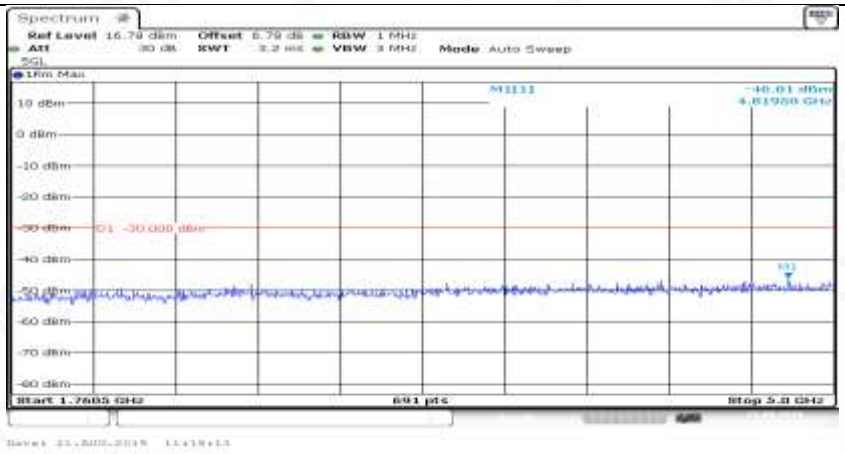
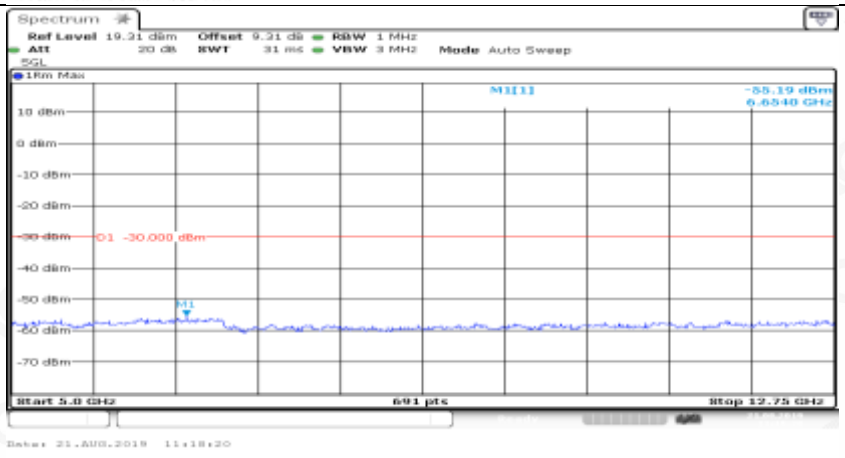
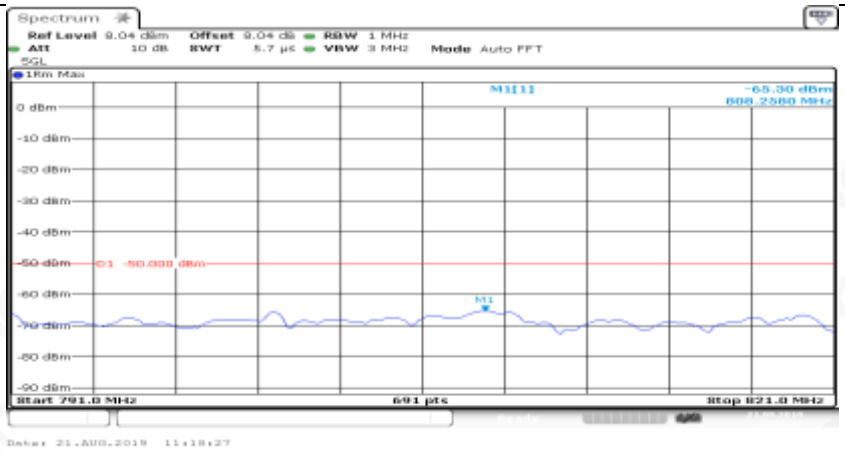
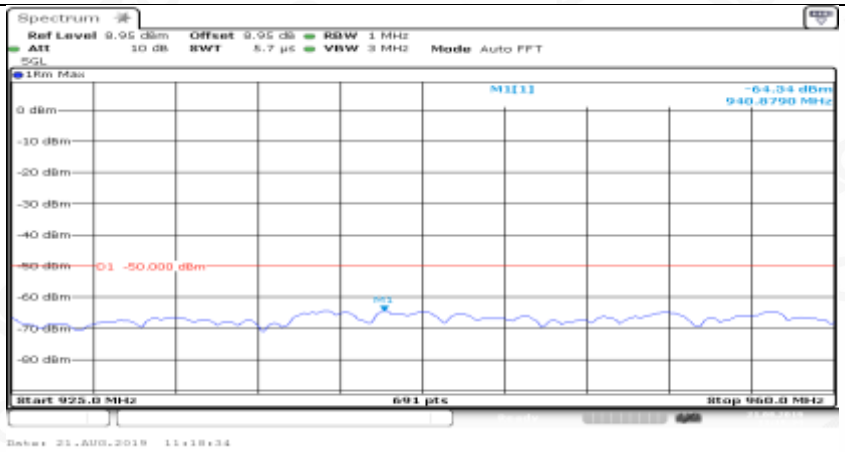
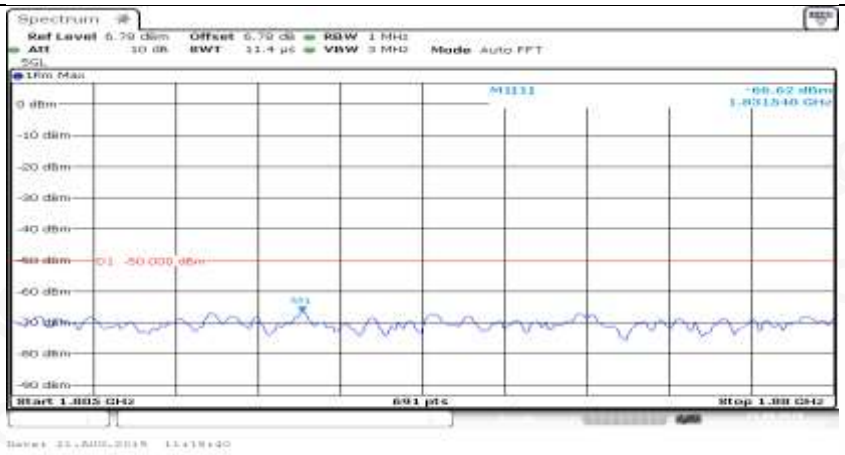
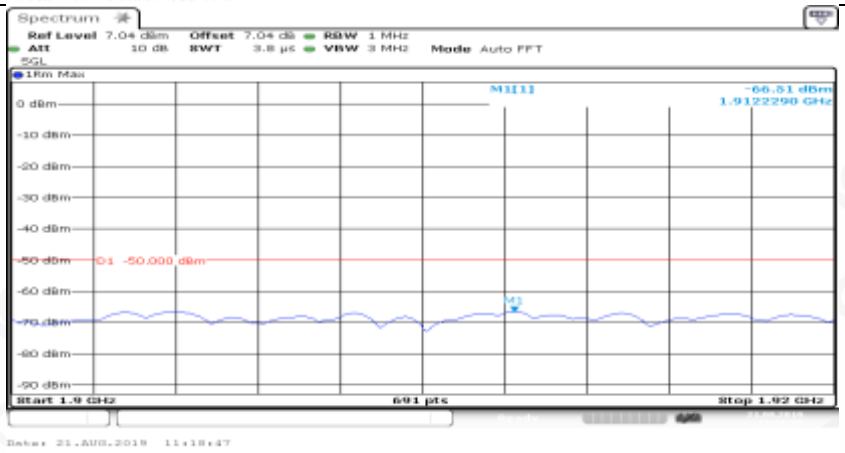
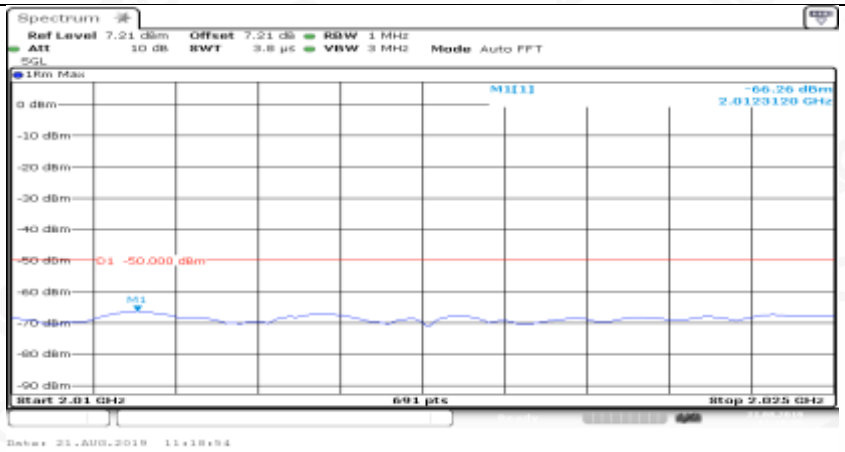
General	

General	
General	
Co-existence	

Co-existence	
Co-existence	
Co-existence	

Co-existence	
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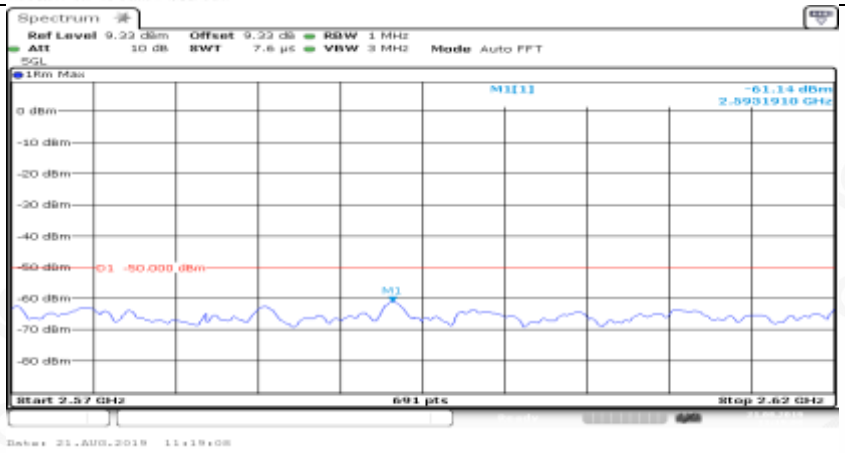
Co-existence	

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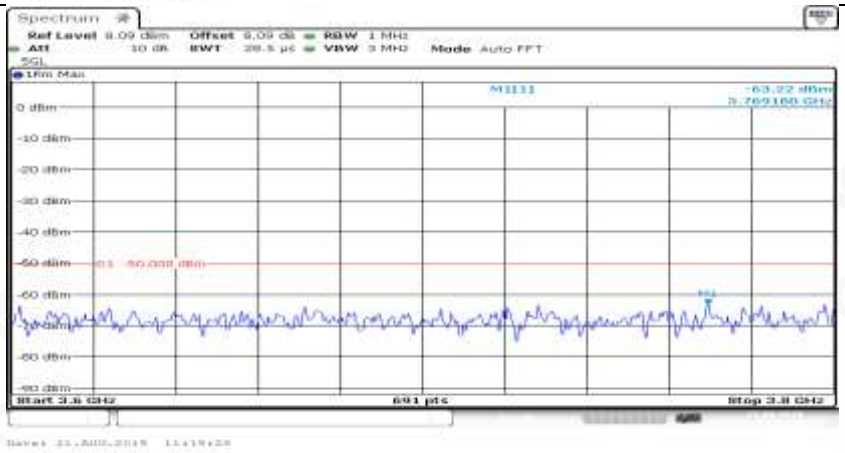
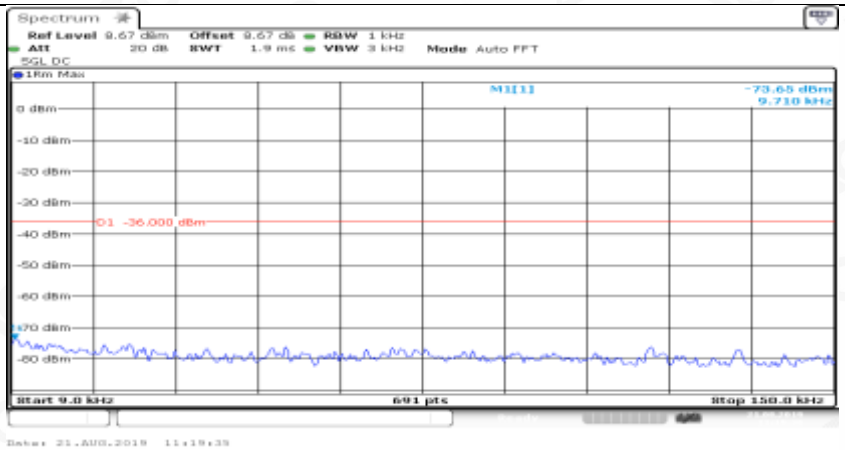
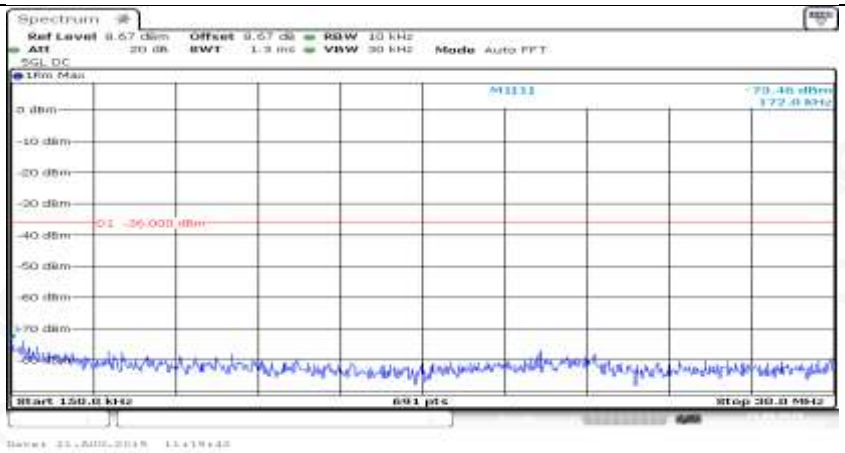
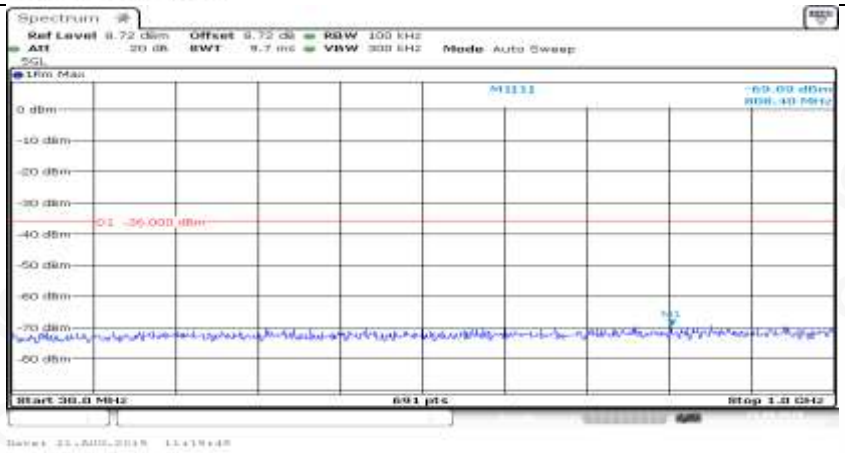
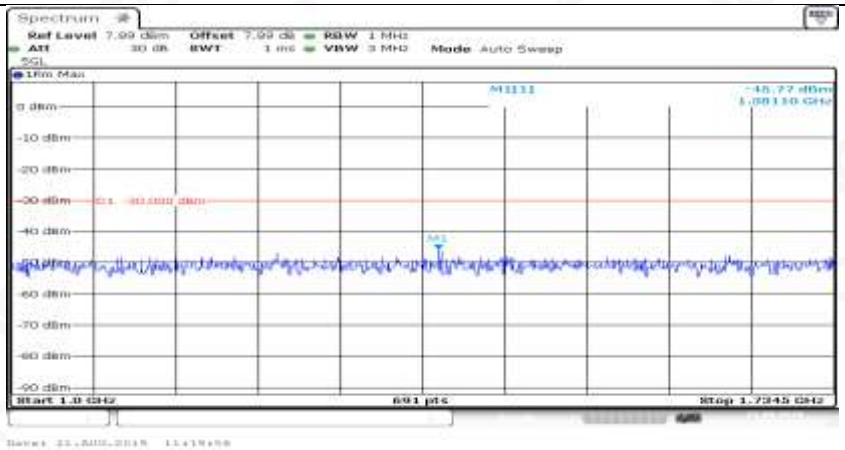
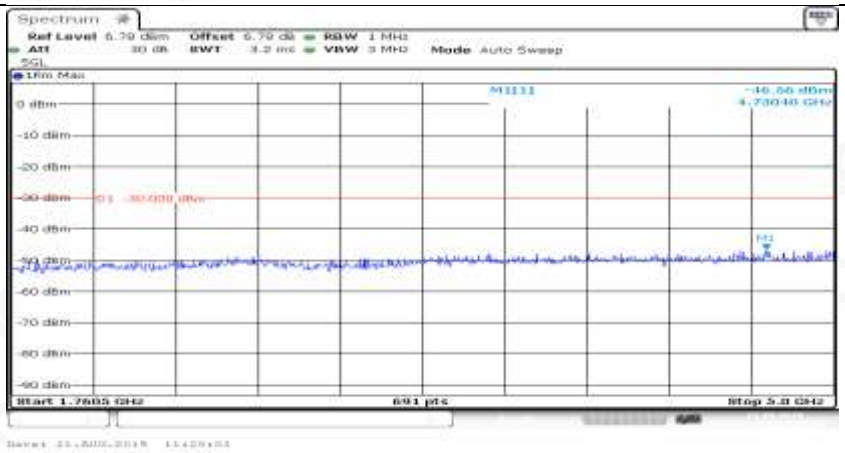
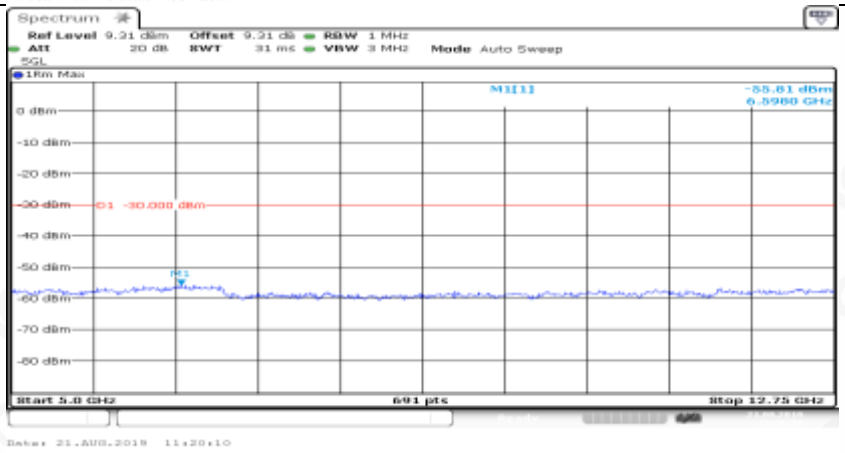
Co-existence	
Additional	NA

Channel Bandwidth= (5 MHz)_QPSK_MCH_1RB#max

General	
General	
General	

General	
General	
General	

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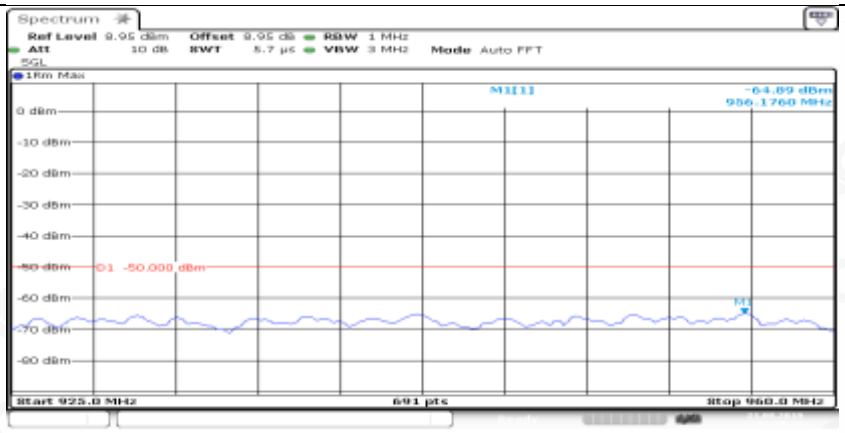
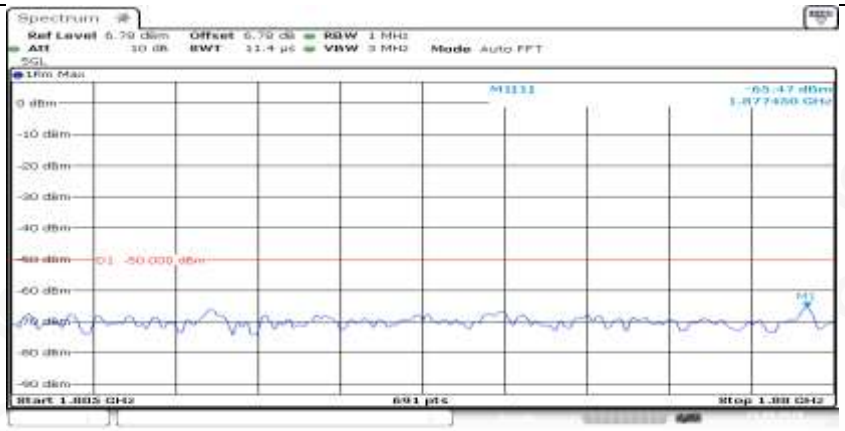
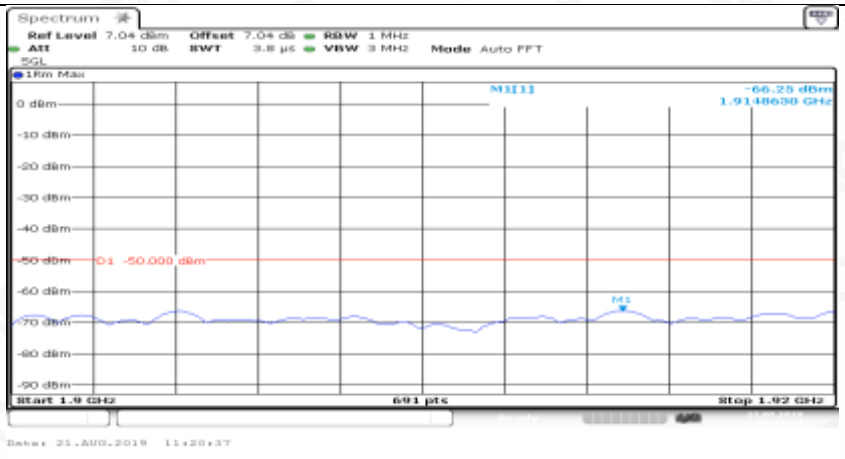
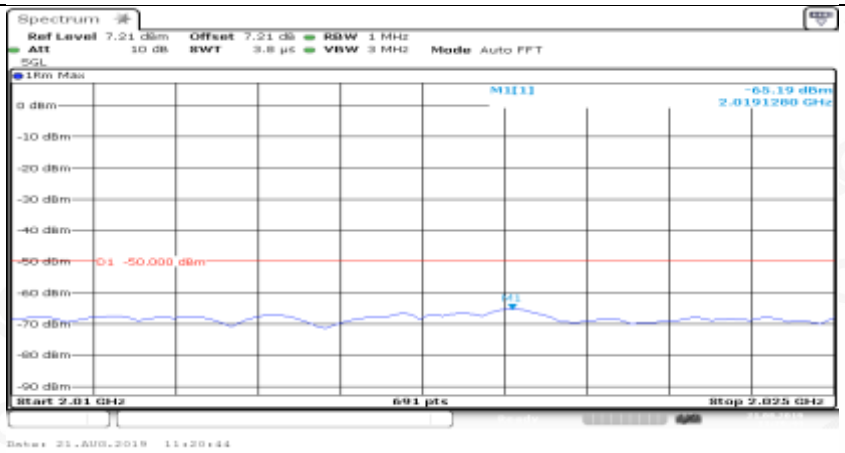
Co-existence	
Co-existence	

Co-existence	
Co-existence	
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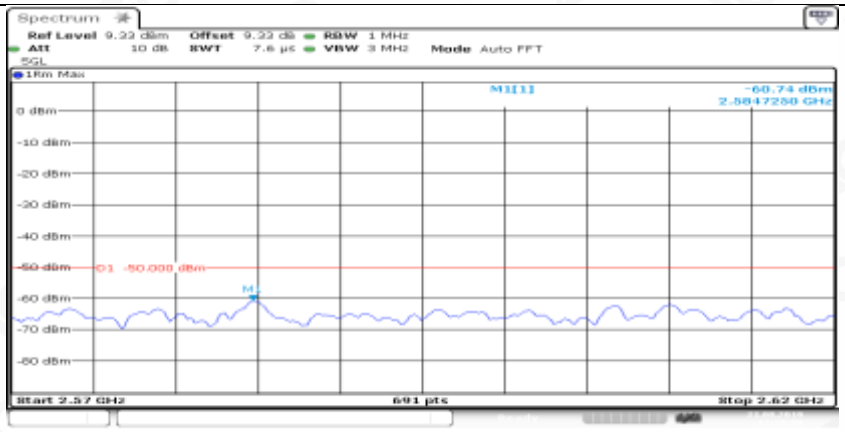
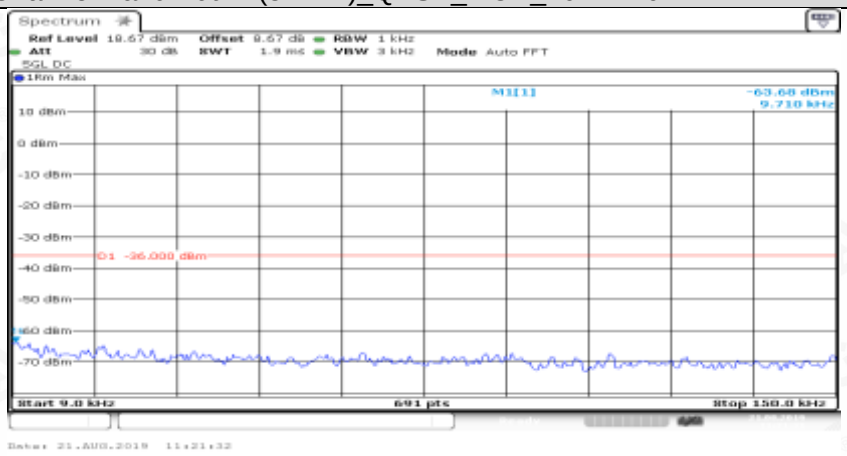
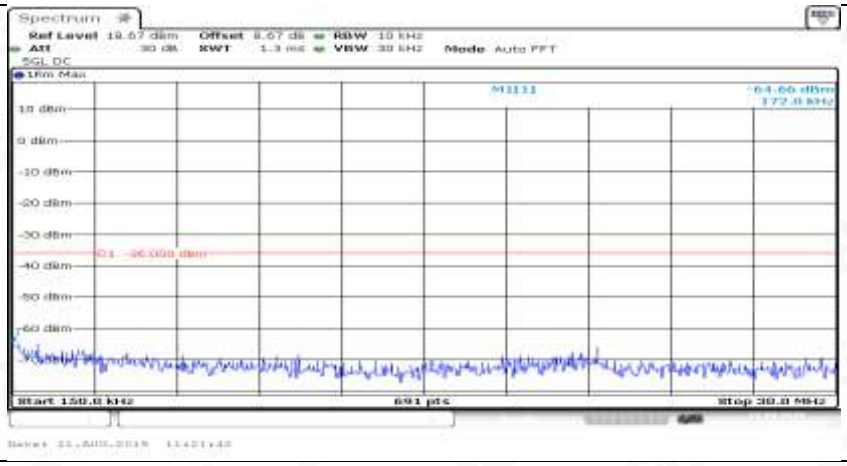
Co-existence	
Co-existence	
Co-existence	

Co-existence	
Additional	NA

Channel Bandwidth= (5 MHz)_QPSK_MCH_FullRB#0	
General	
General	

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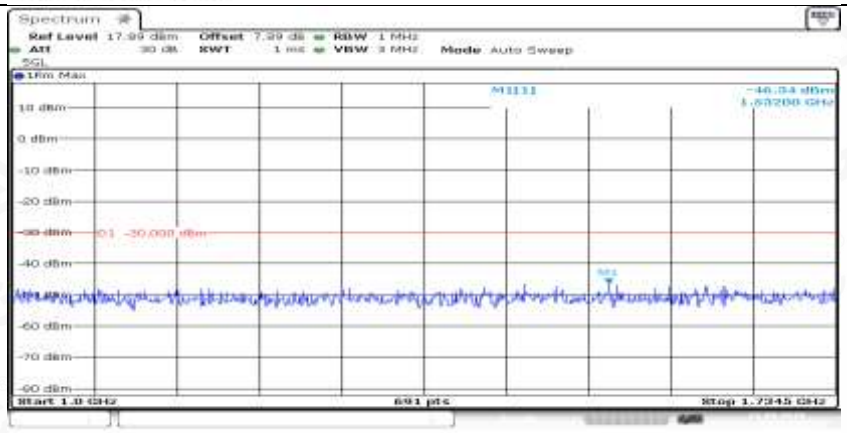
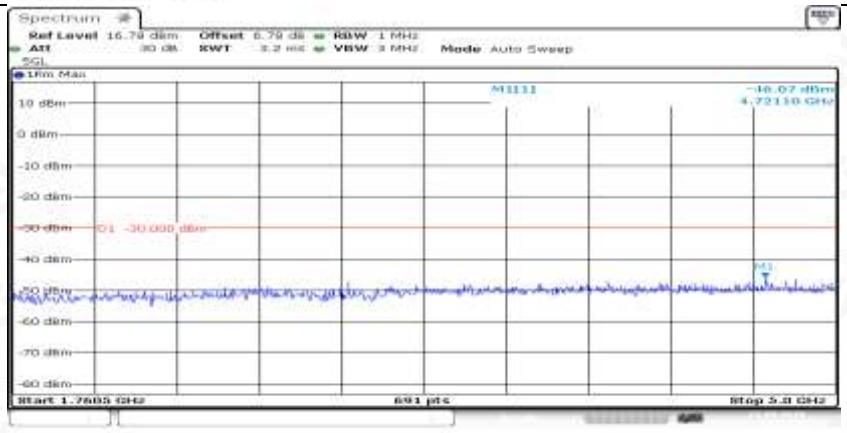
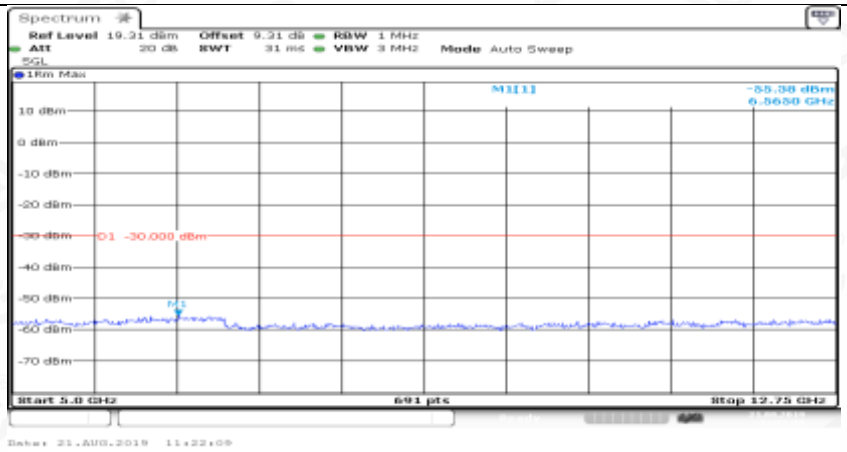
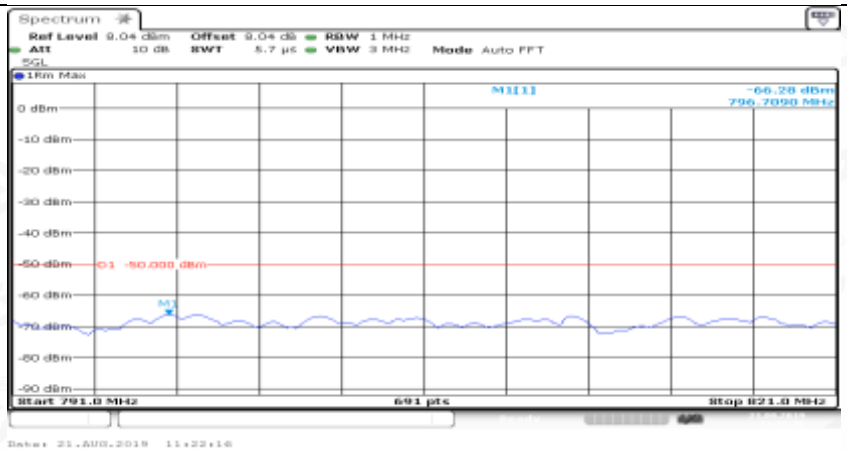
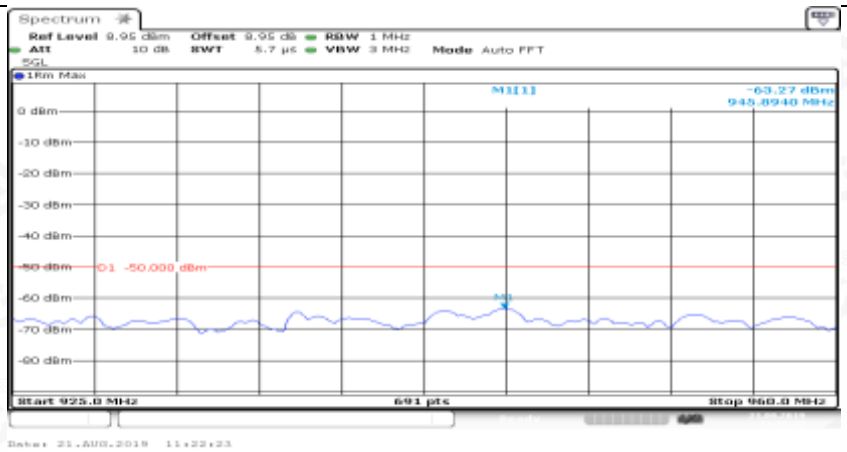
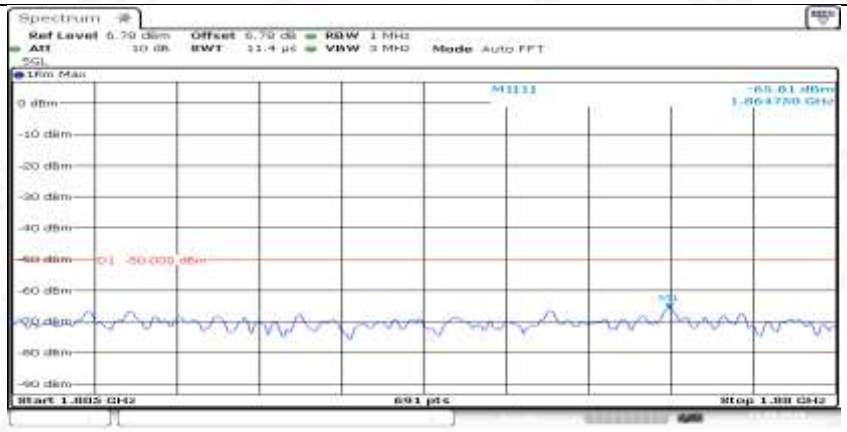
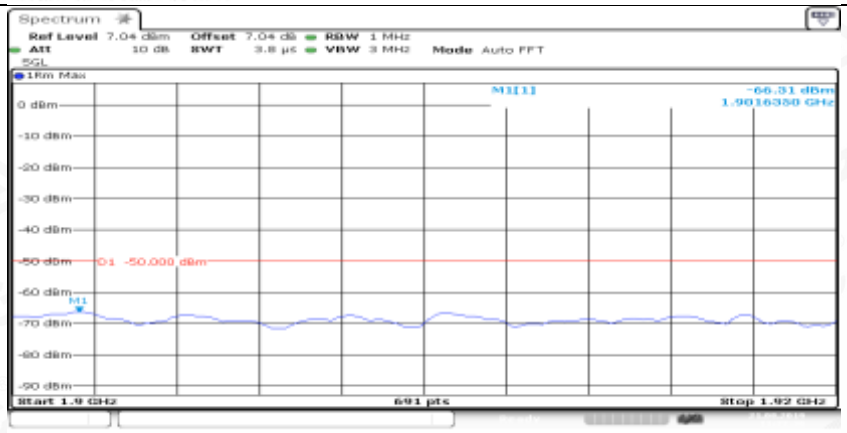
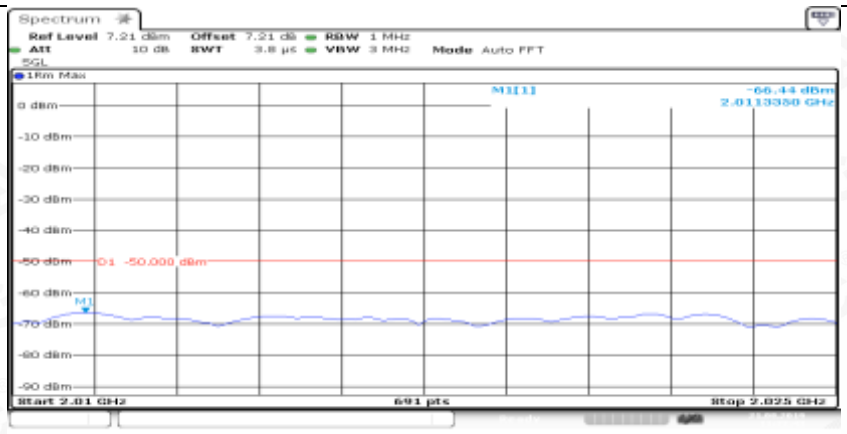
General	
General	

General		
Co-existence		
Co-existence		

Co-existence		
Co-existence		
Co-existence		

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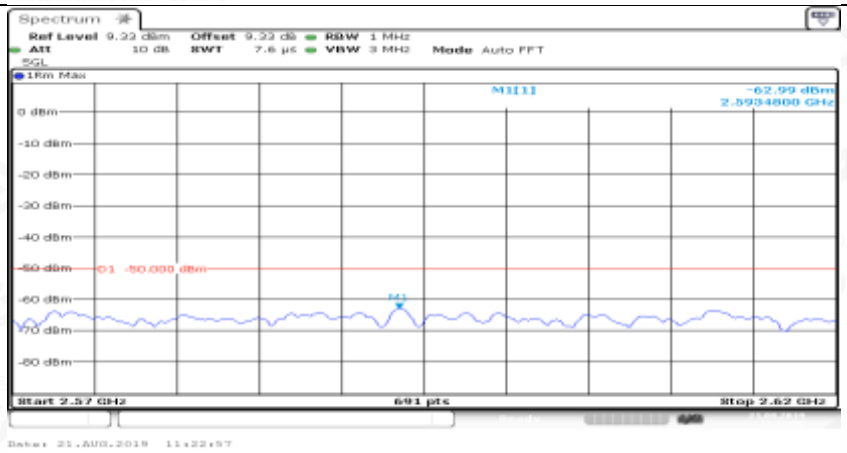
Co-existence		
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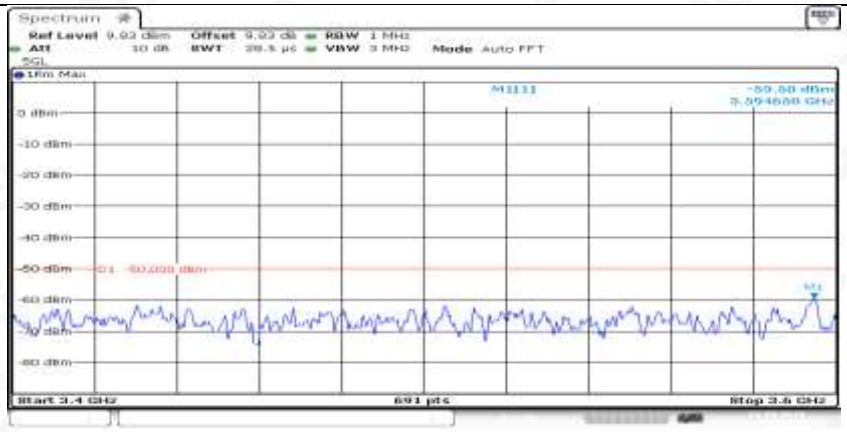
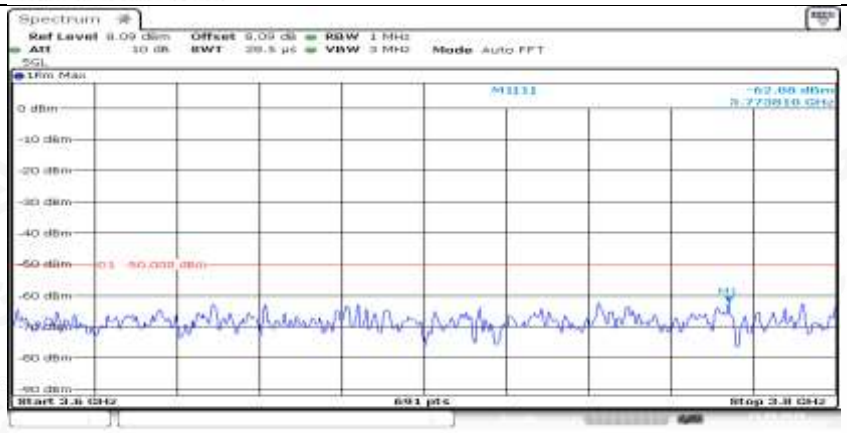
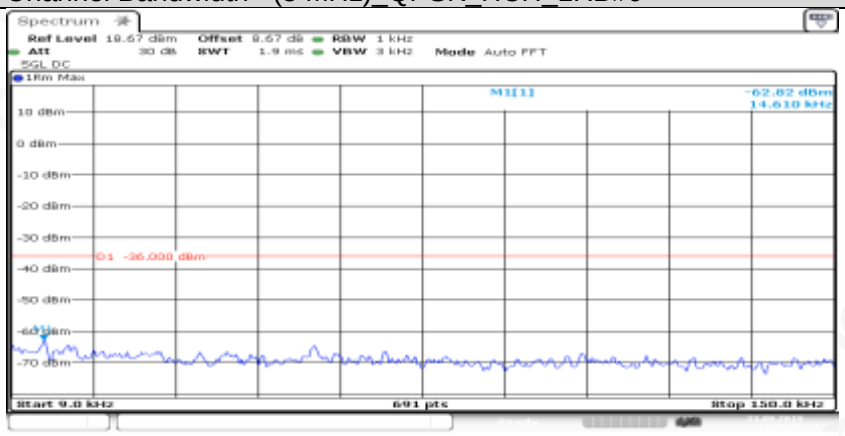
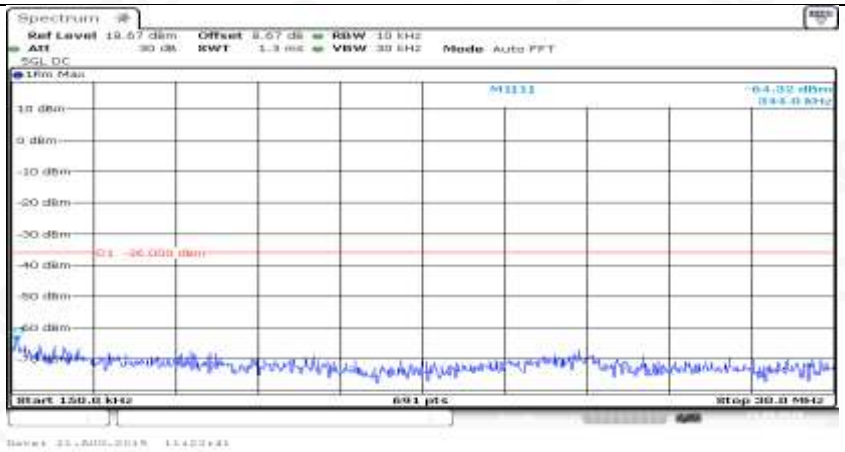
Co-existence	
Co-existence	
Additional	NA

Channel Bandwidth= (5 MHz)_QPSK_HCH_1RB#0	
General	

General	
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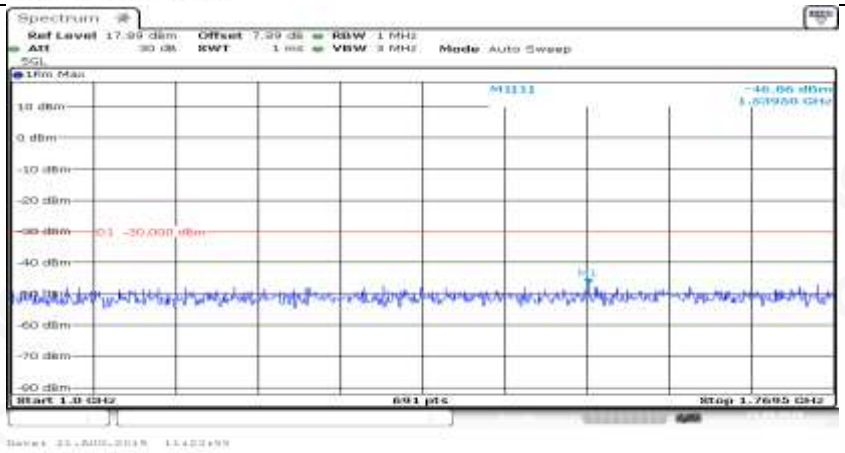
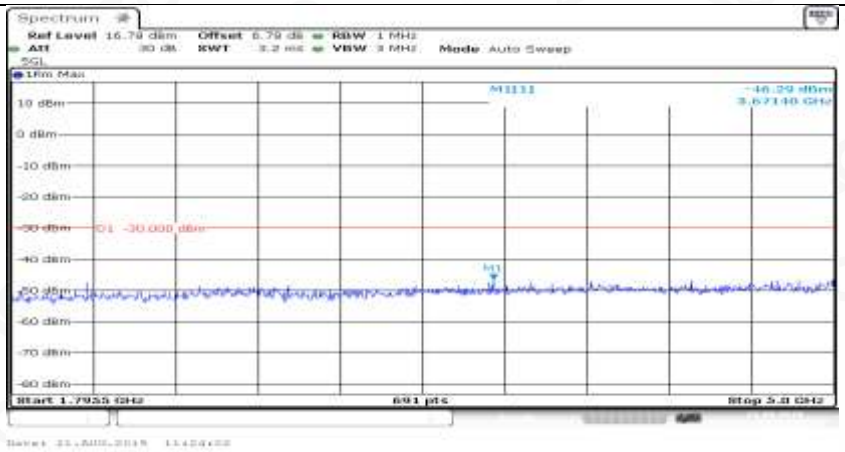
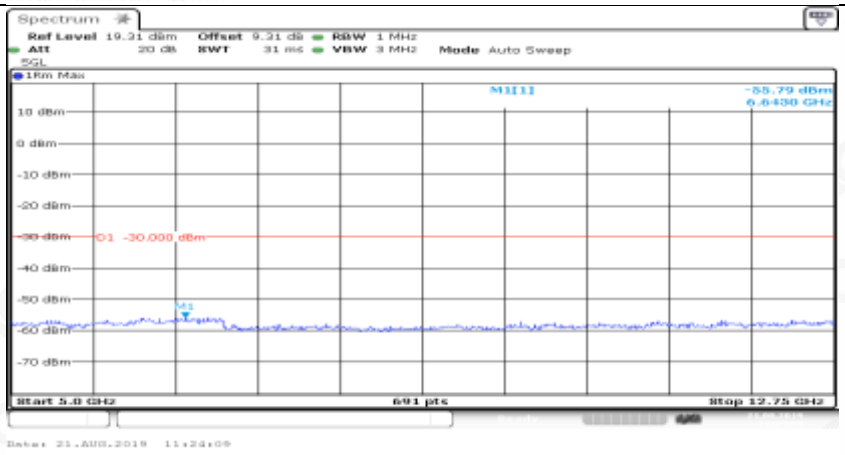
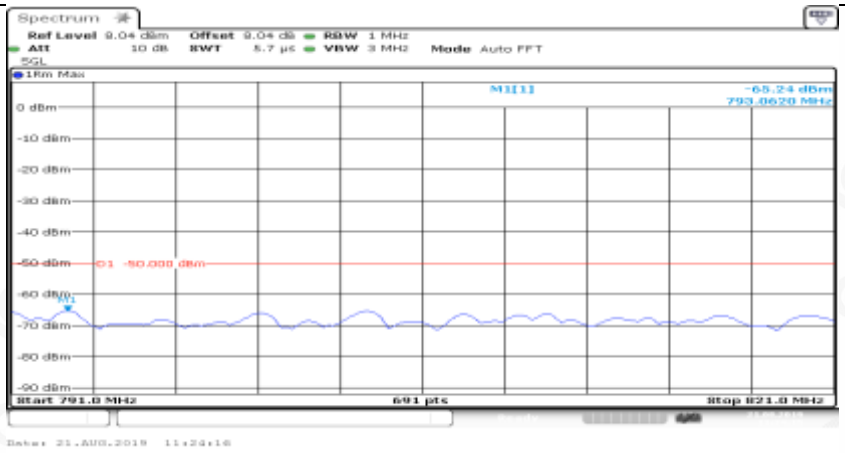
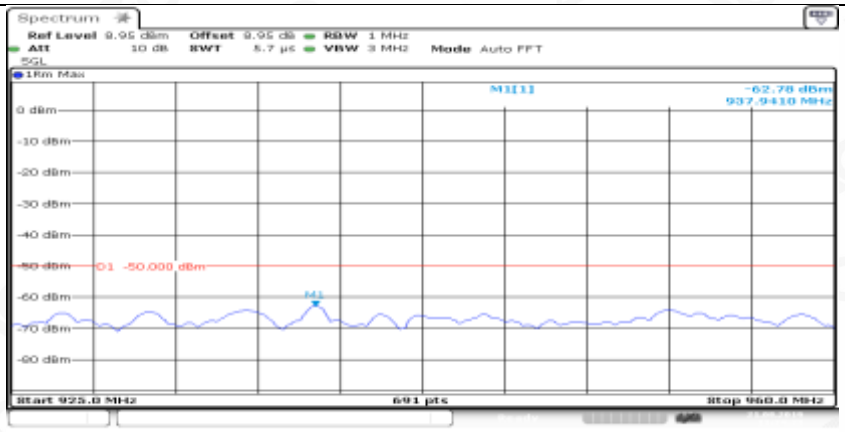
General	

General	
General	
Co-existence	

Co-existence	
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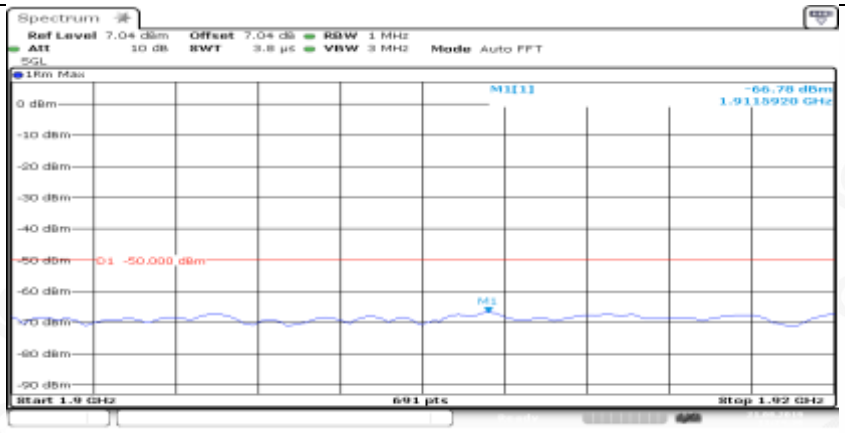
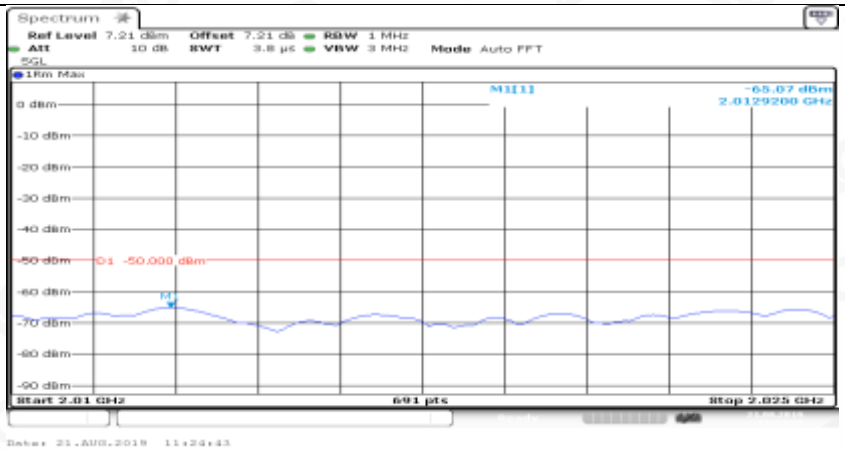
Co-existence	

Co-existence	
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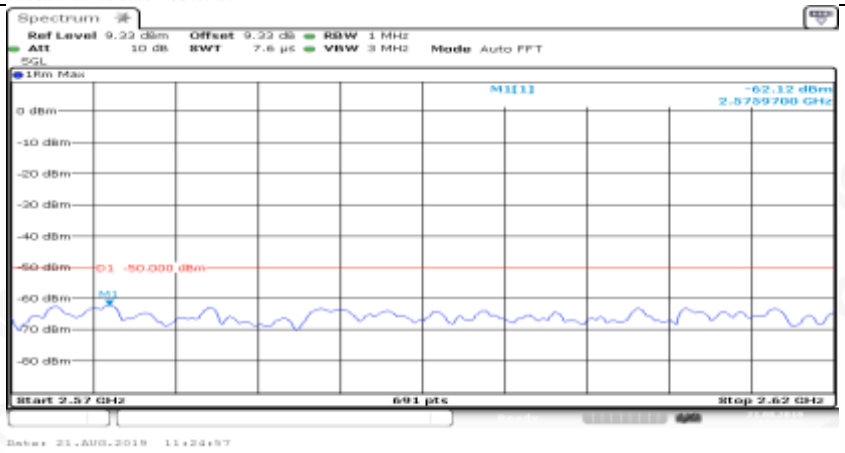
Co-existence	

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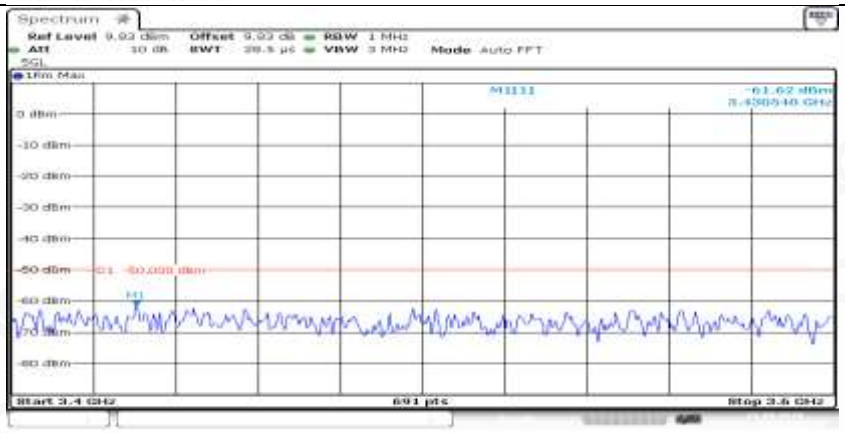
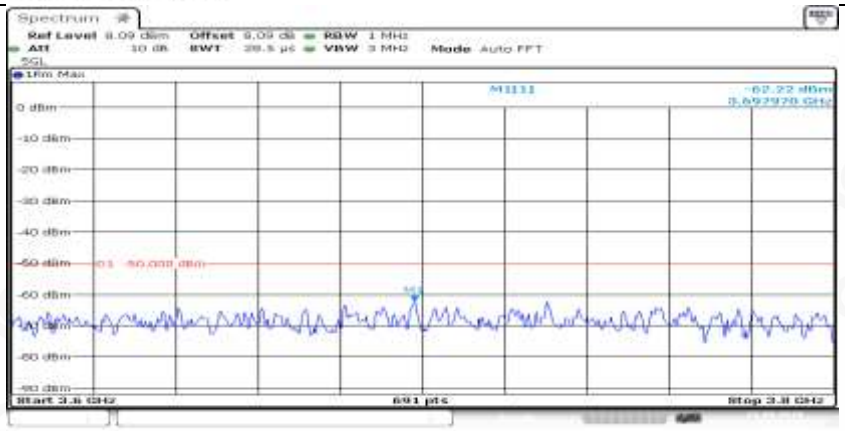
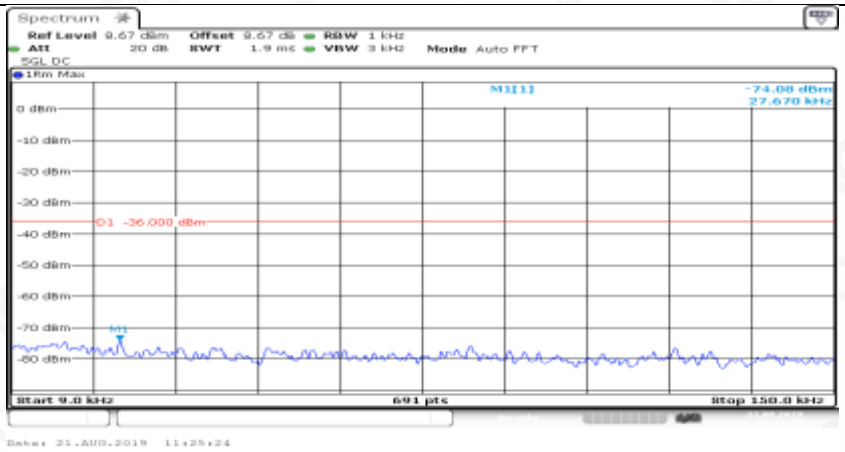
Co-existence	
Co-existence	
Additional	NA

Channel Bandwidth= (5 MHz)_QPSK_HCH_1RB#max

General	
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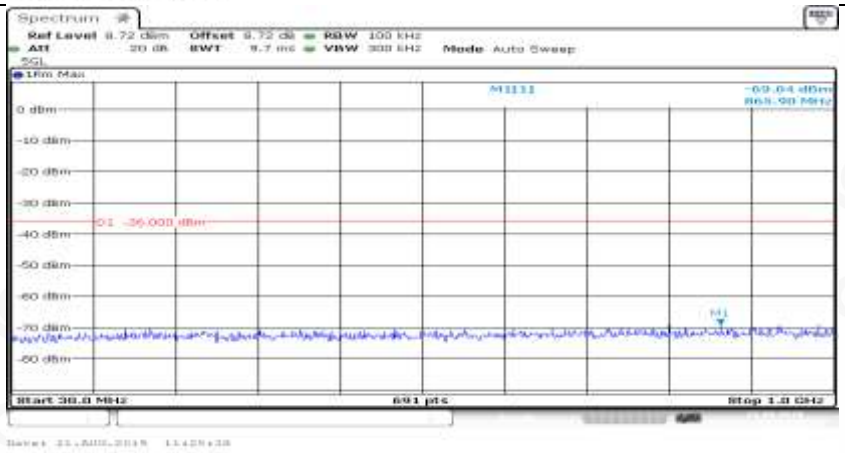
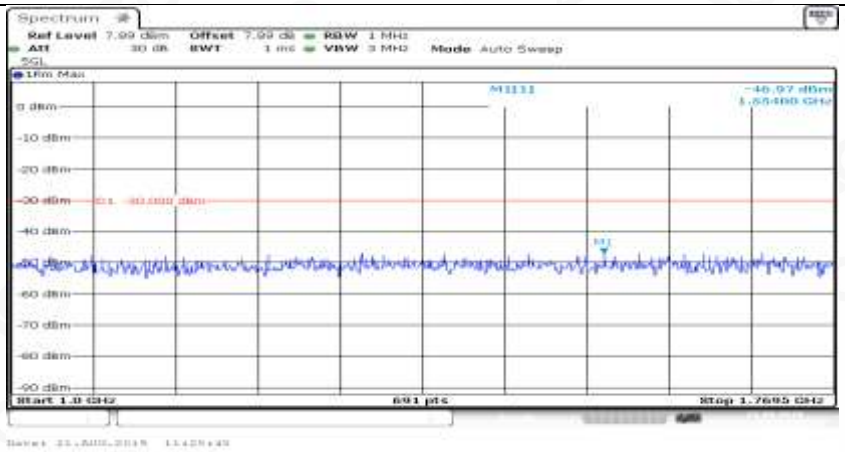
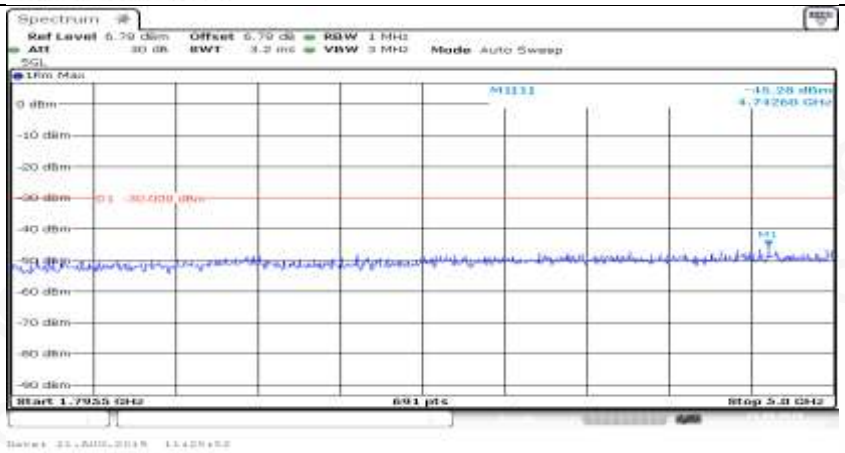
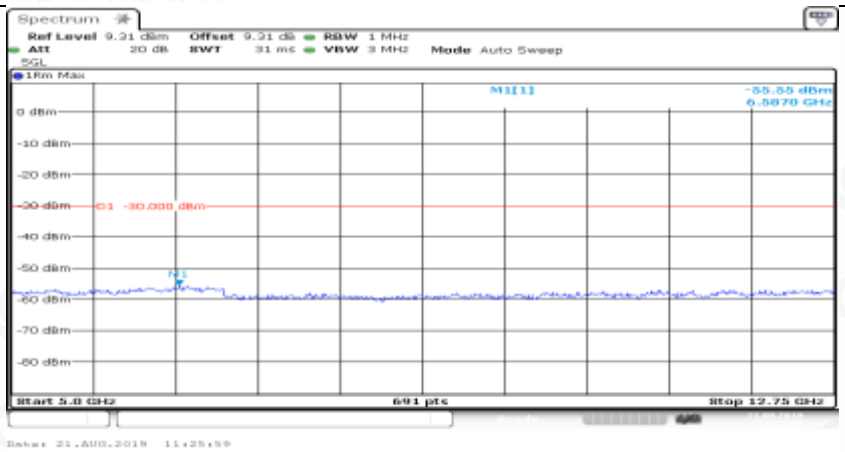
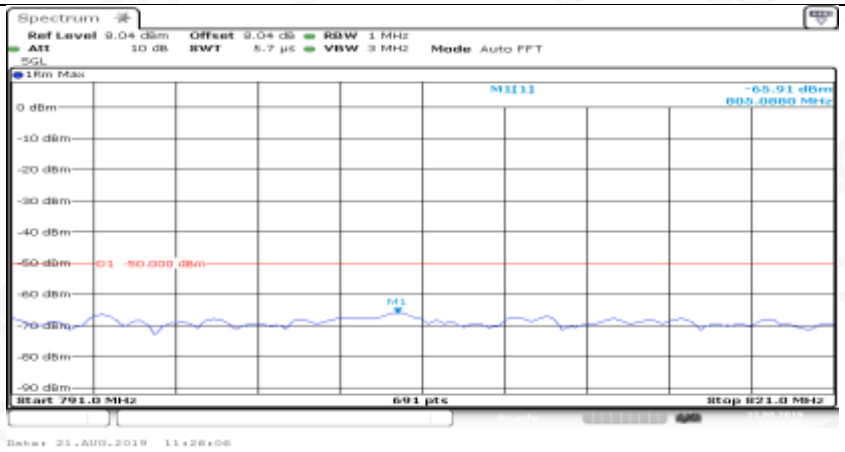
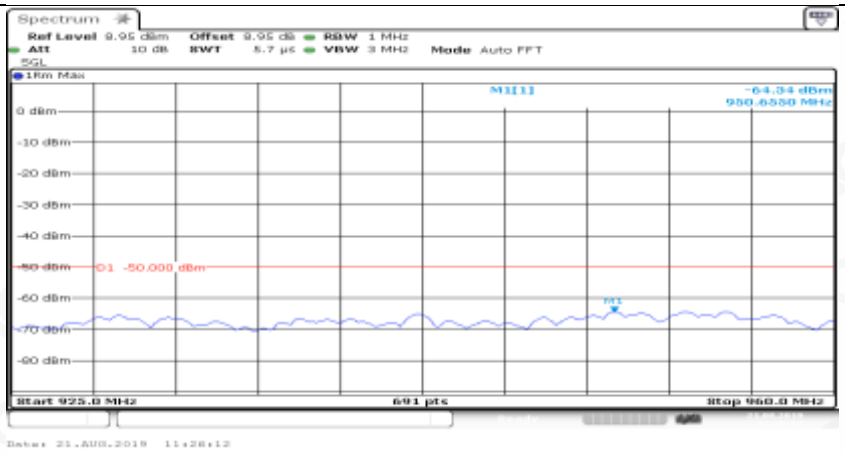
General	

General	
General	
General	

Co-existence	
Co-existence	
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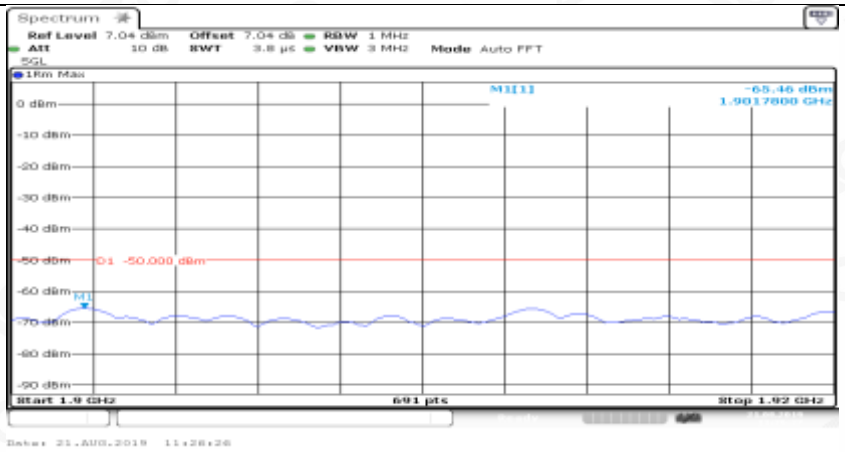
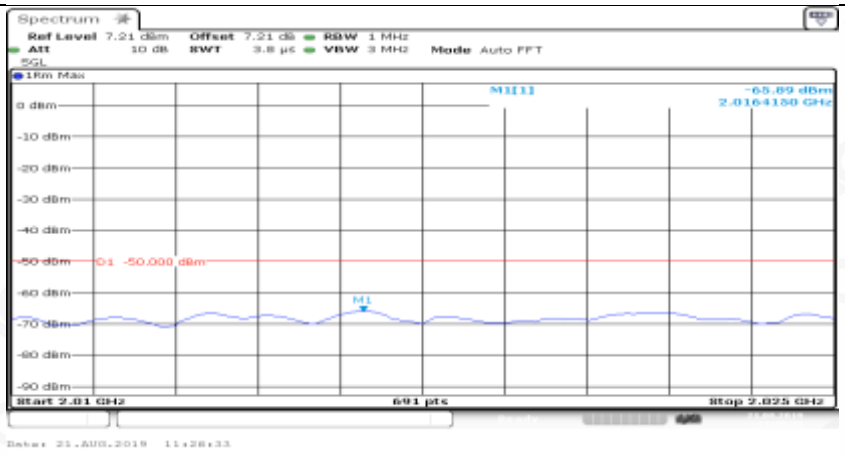
Co-existence	
Co-existence	
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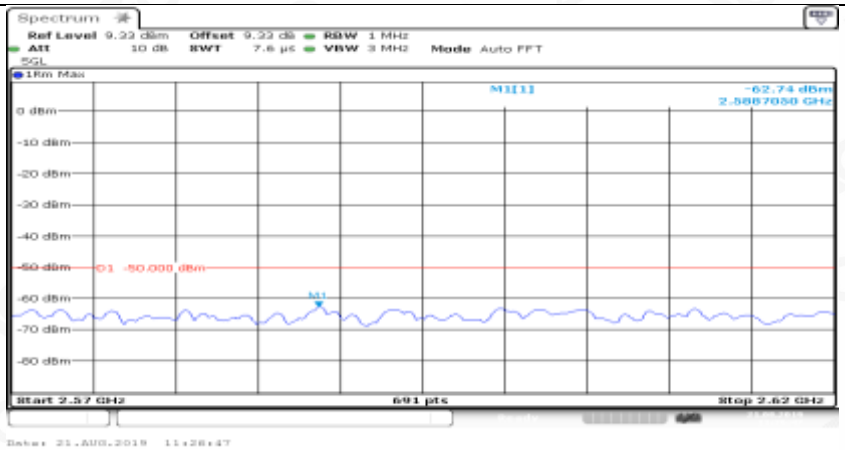
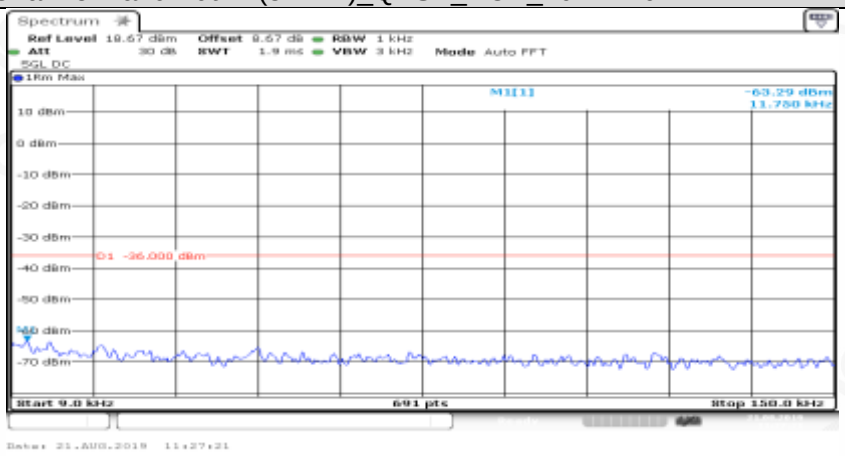
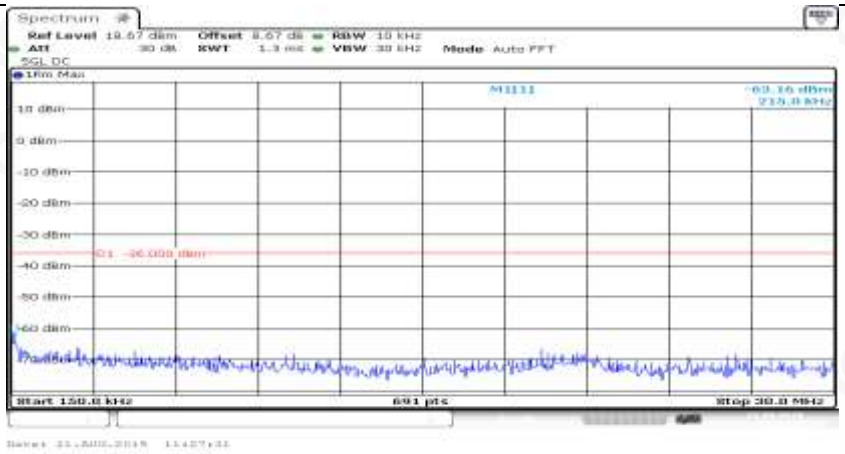
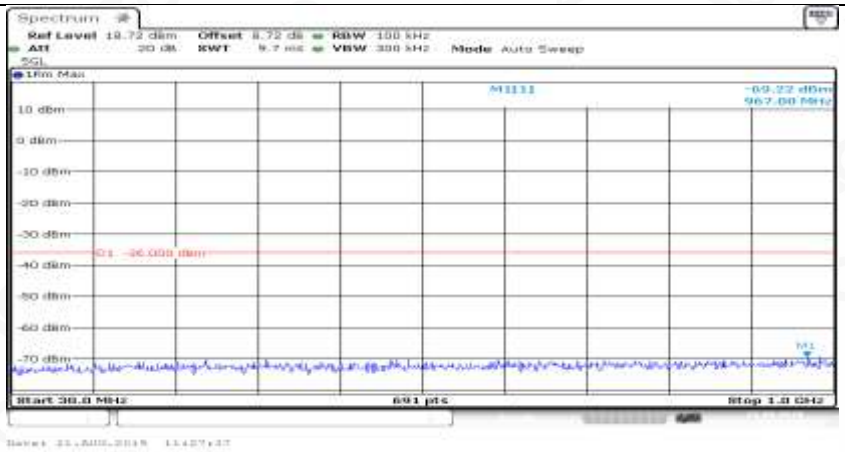
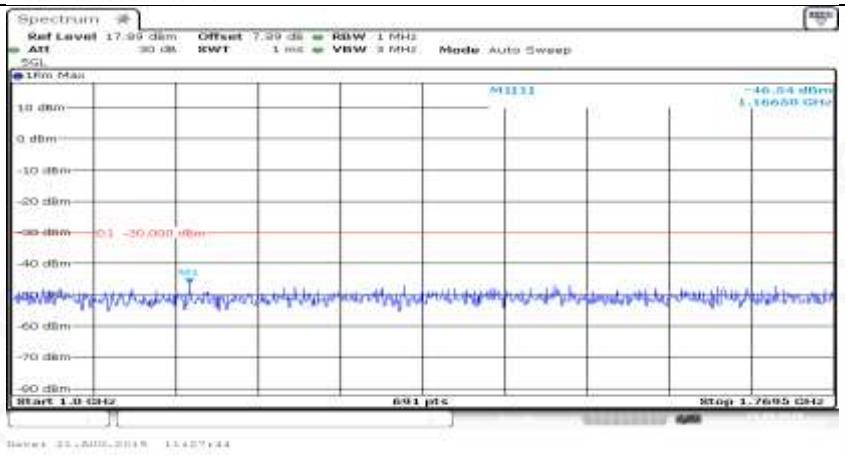
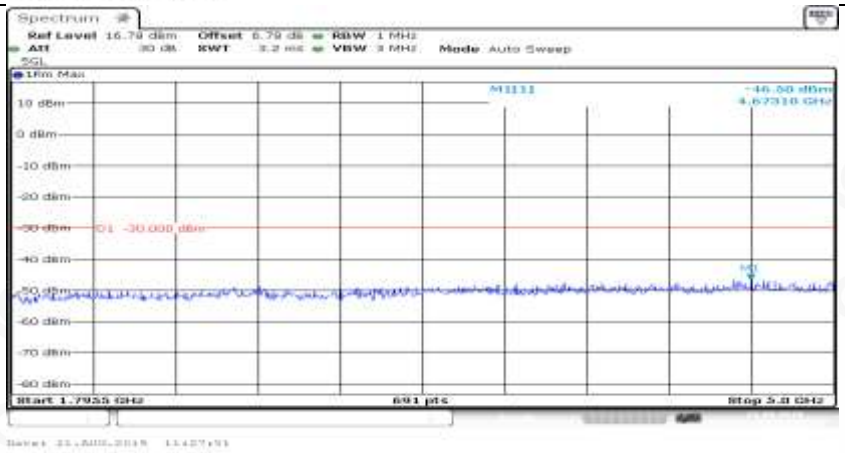
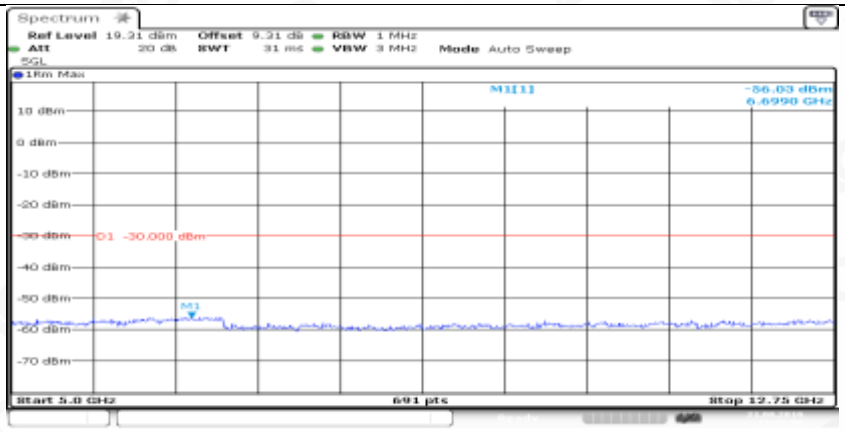
Co-existence	
Co-existence	
Co-existence	

Co-existence	
Additional	NA

Channel Bandwidth= (5 MHz)_QPSK_HCH_FullRB#0	
General	
General	

General	
General	
General	

General	
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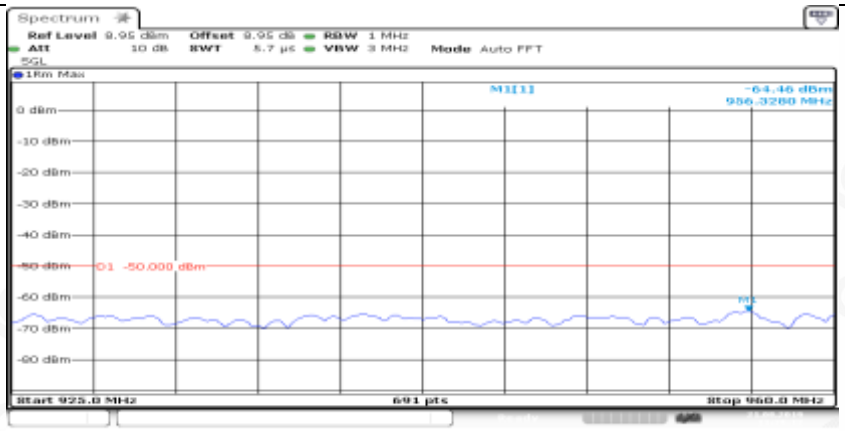
Co-existence	

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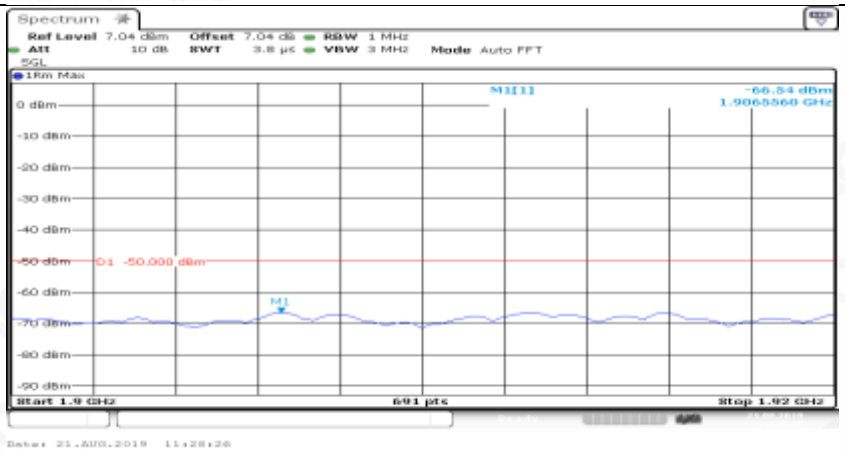
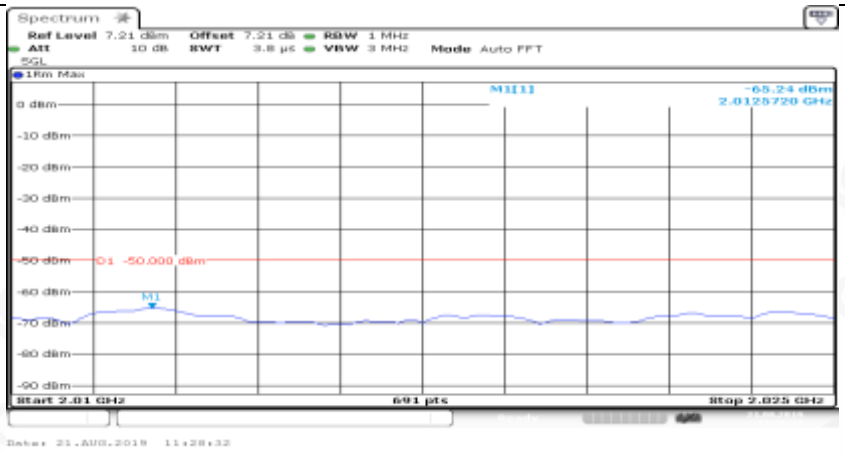
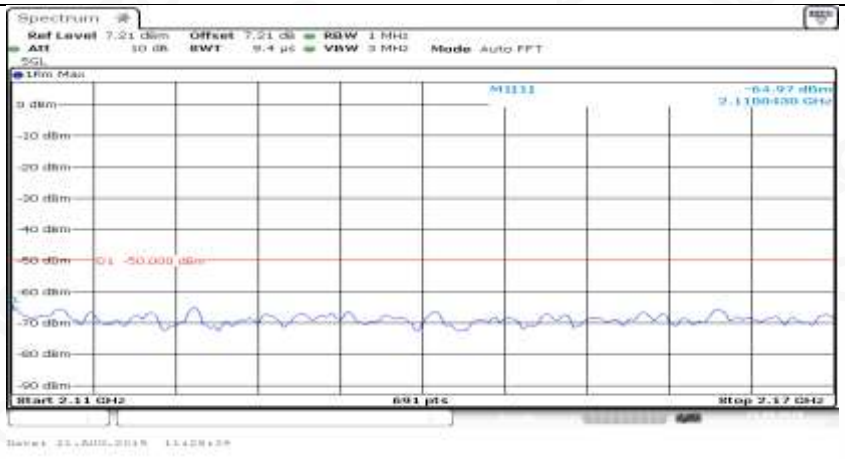
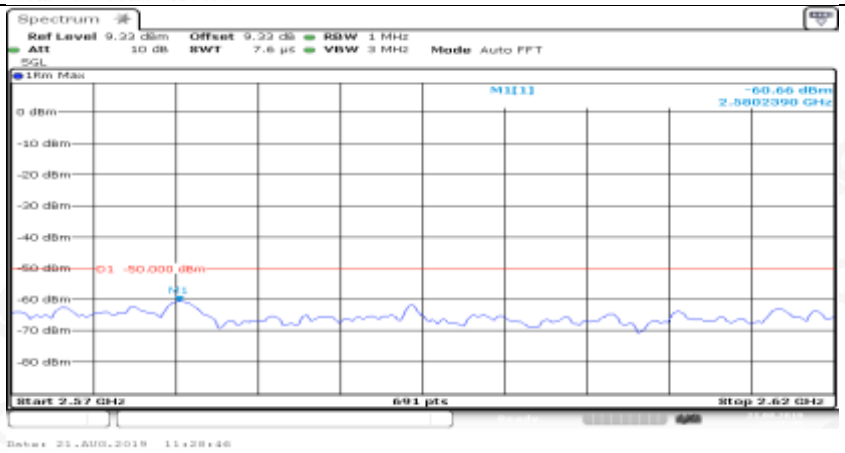
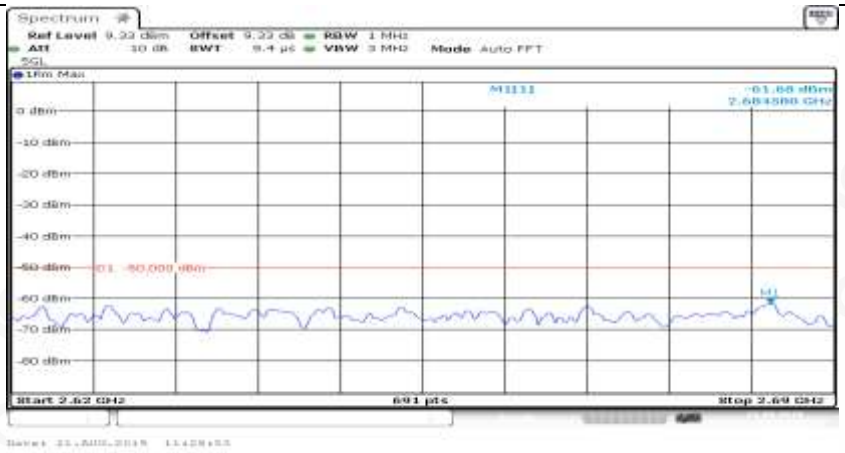
Co-existence	
Co-existence	

Co-existence	
Co-existence	
Co-existence	

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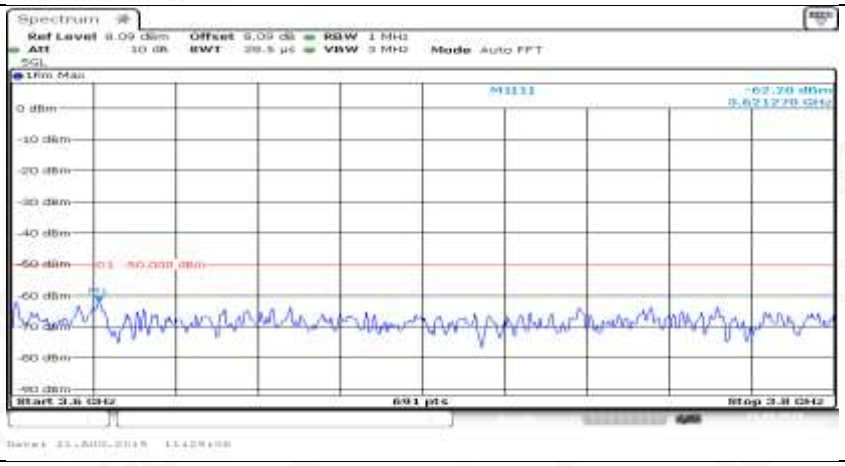
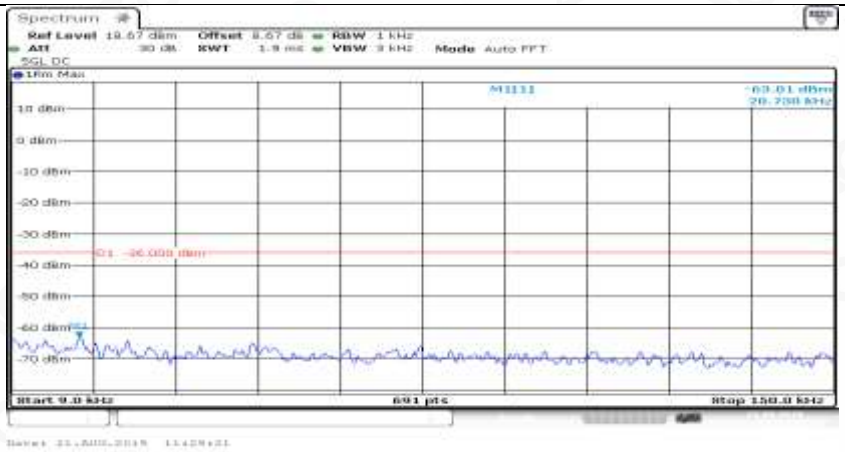
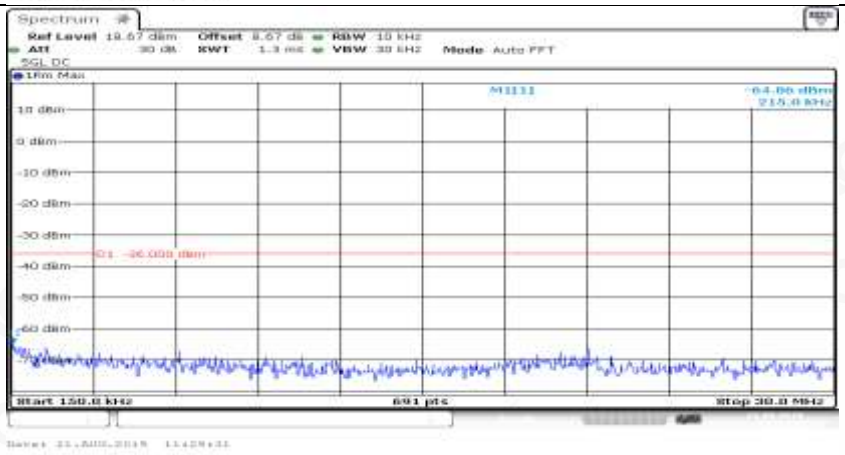
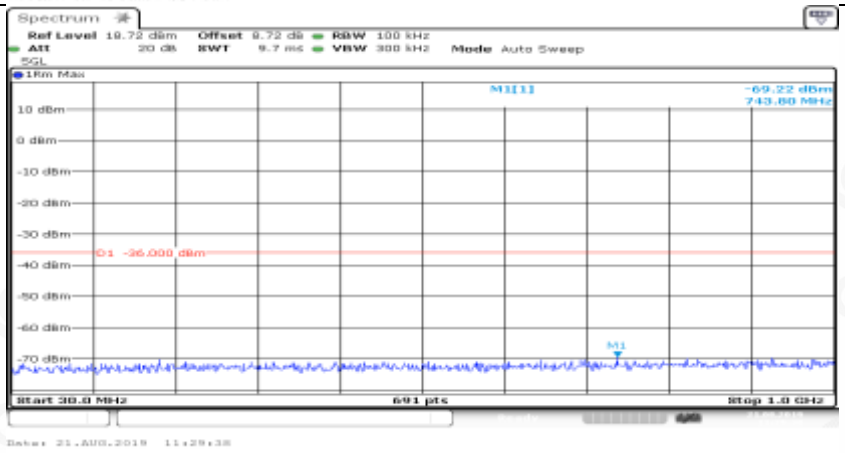
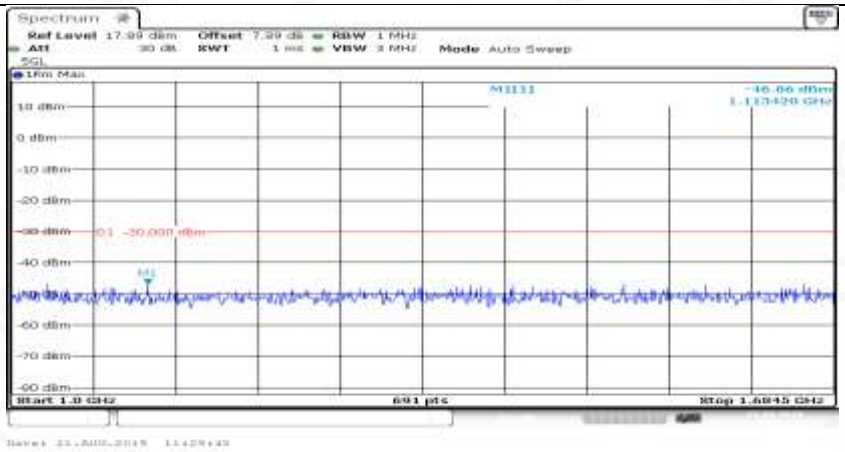
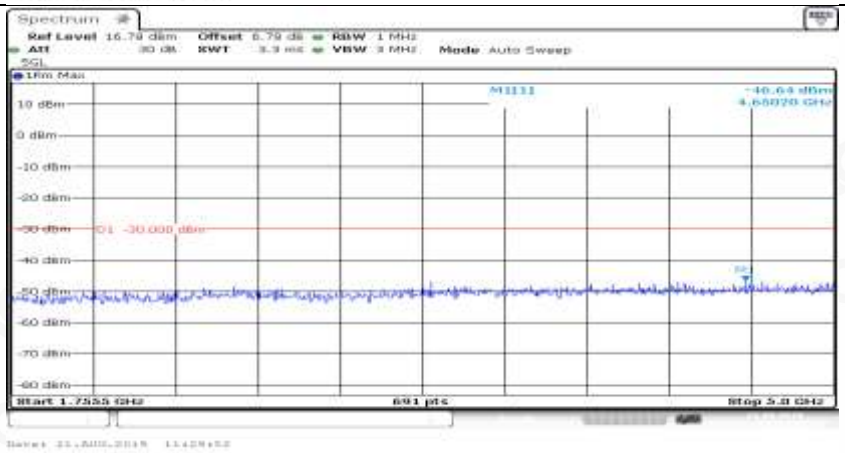
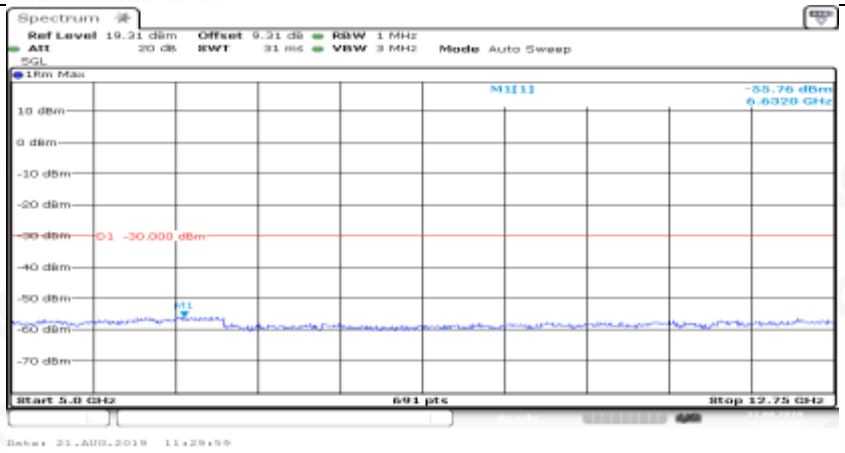
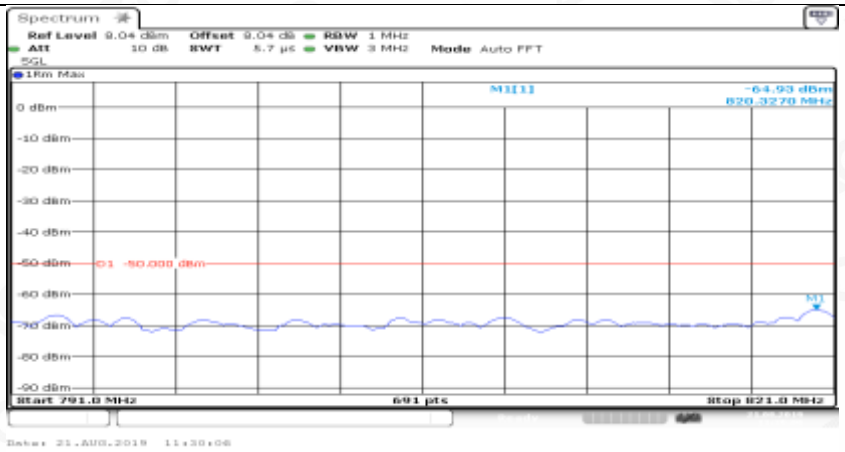
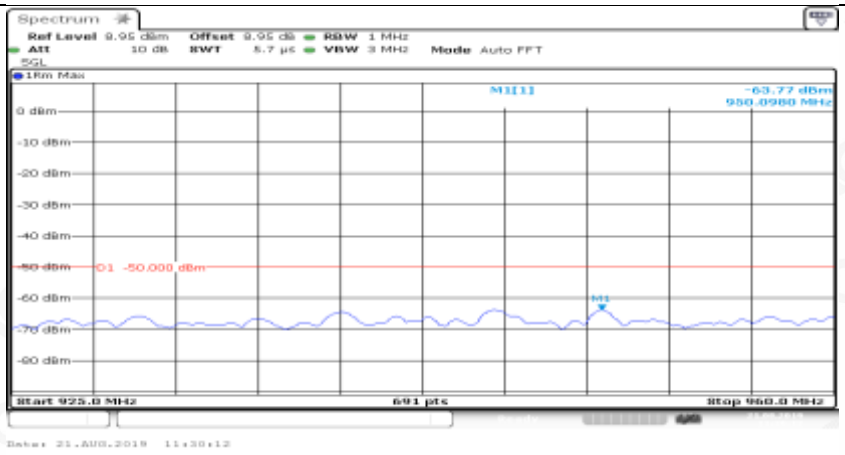
Co-existence	
Additional	NA

Channel Bandwidth= (20 MHz)

Channel Bandwidth=Highest (20 MHz)_QPSK_LCH_1RB#0

General	
General	
General	

General	
General	
General	

Co-existence	
Co-existence	
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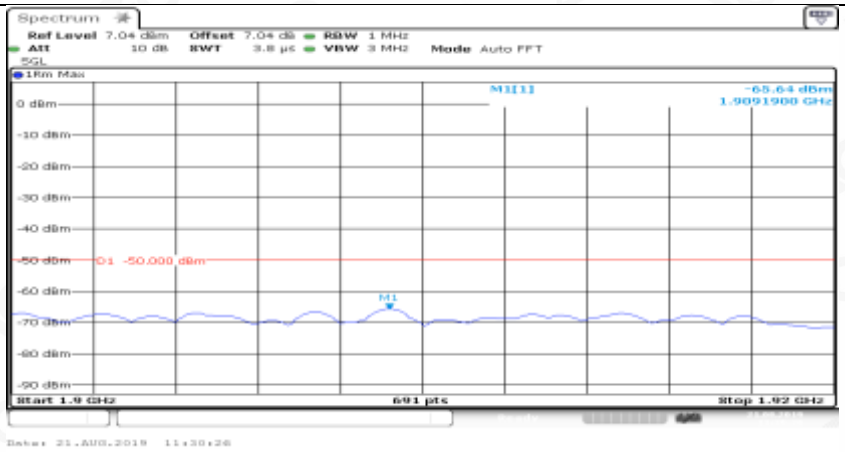
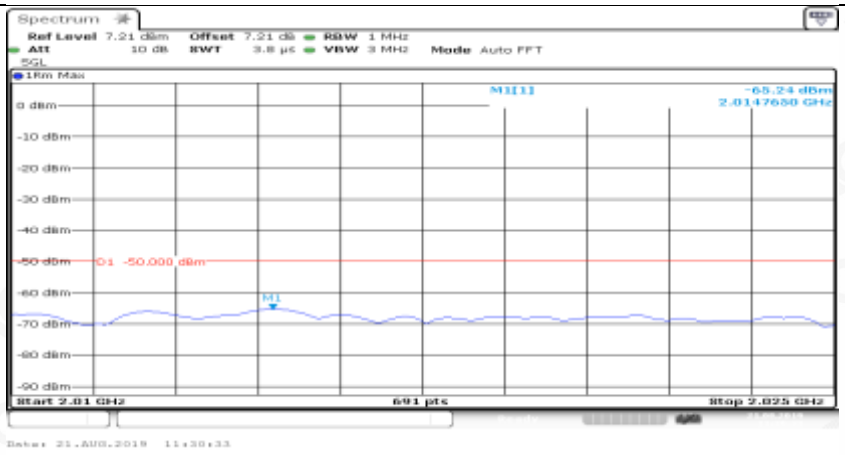
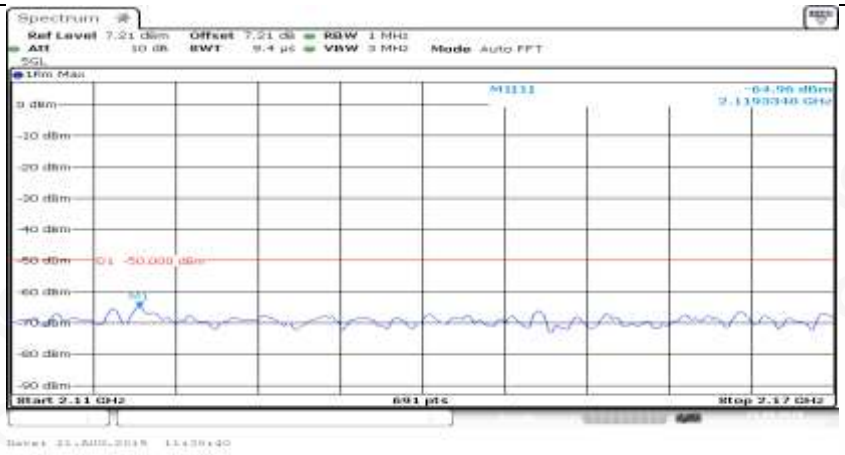
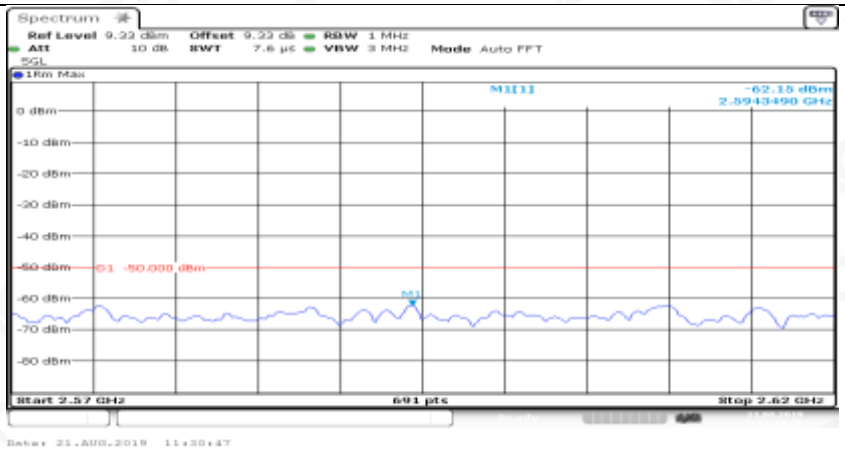
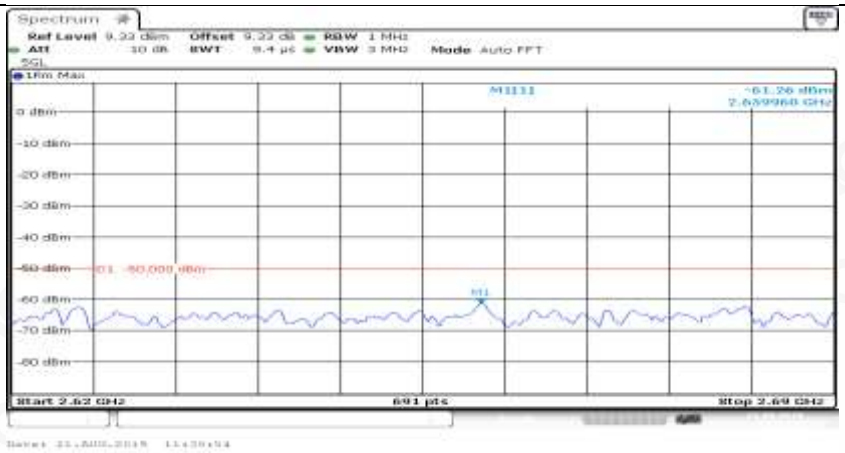
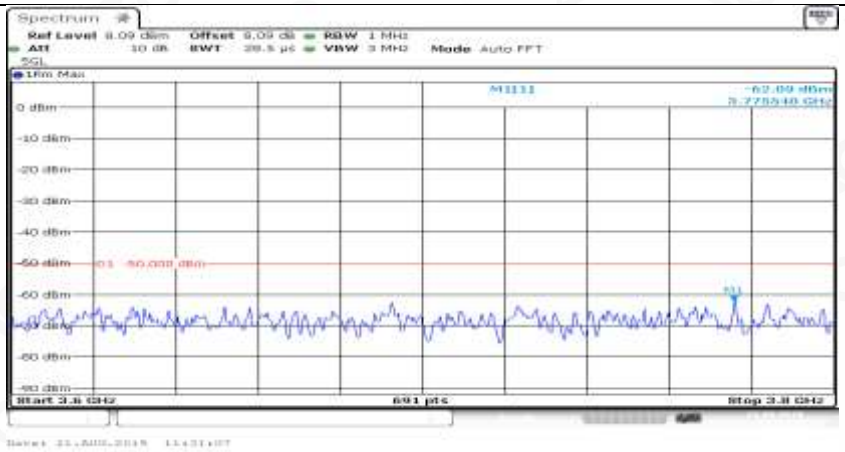
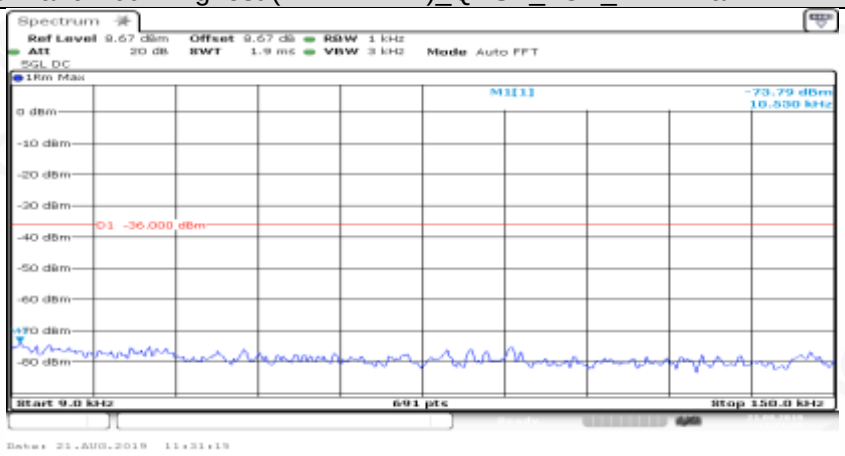
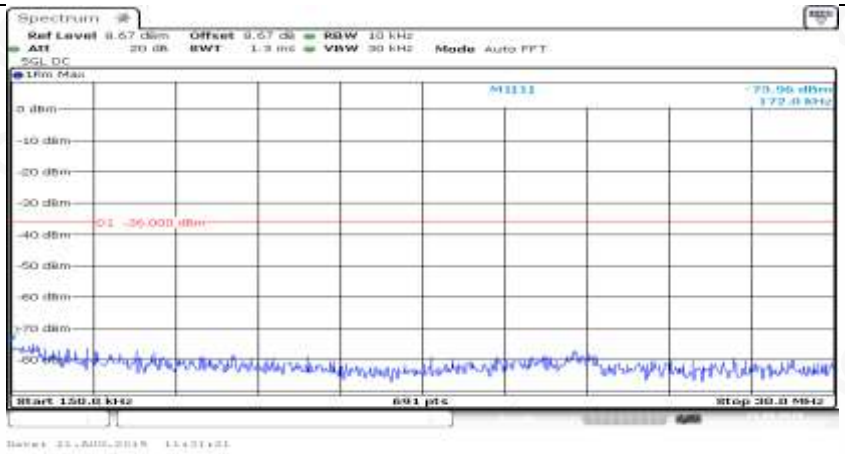
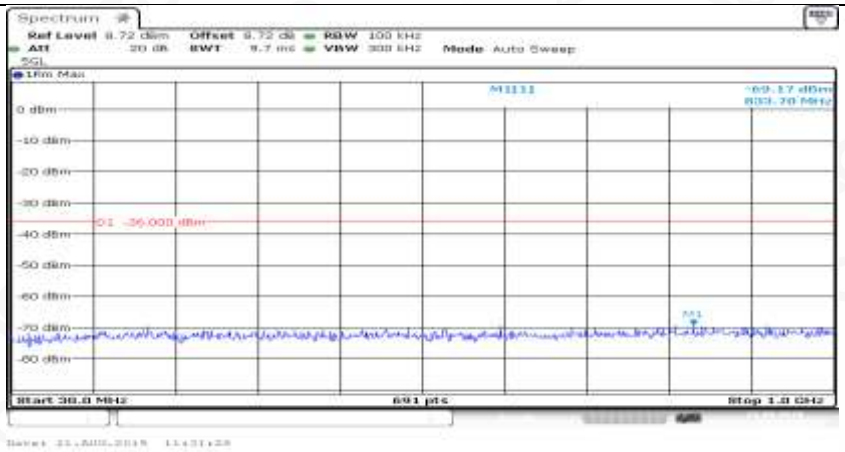
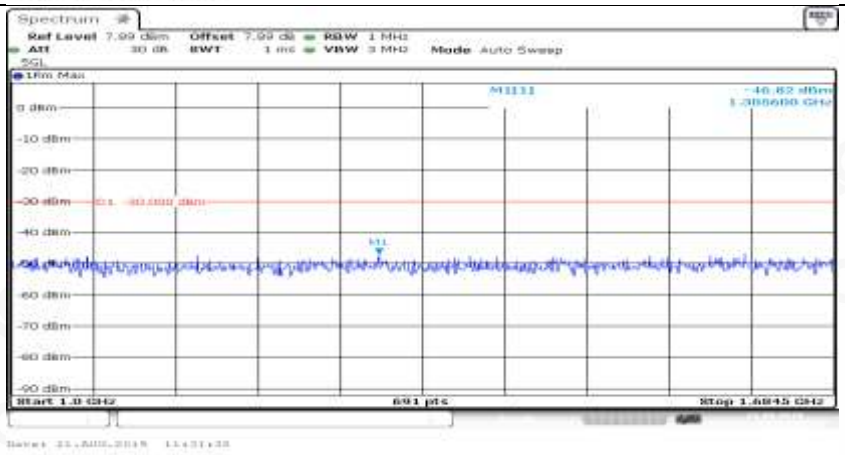
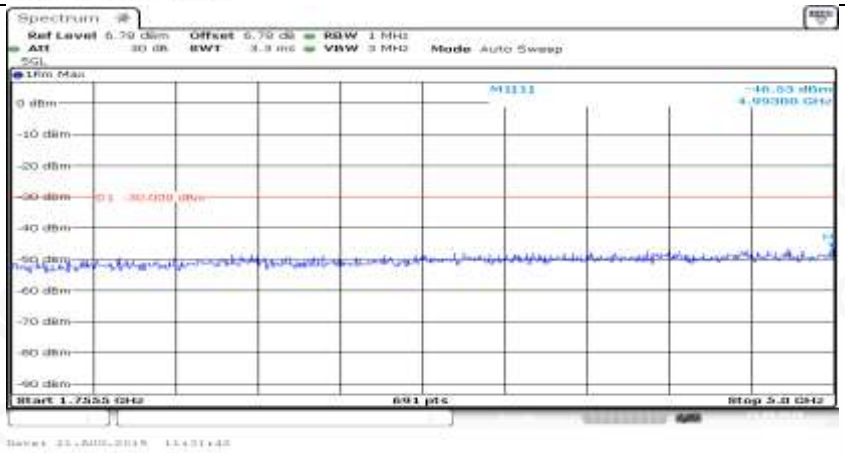
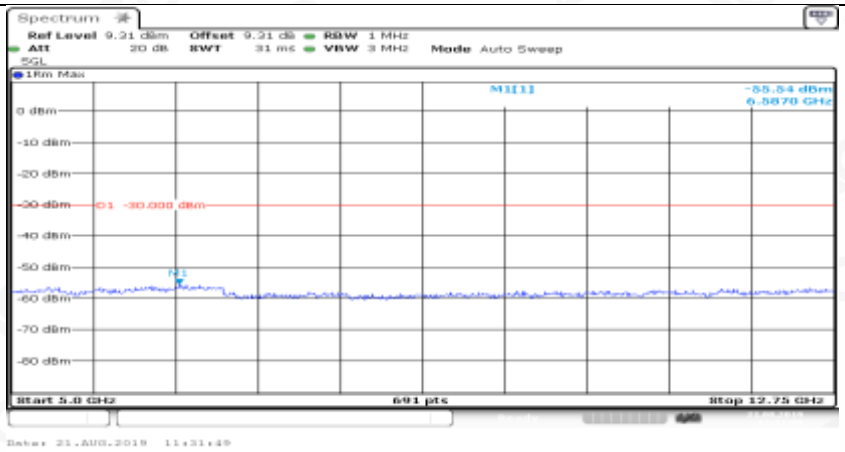
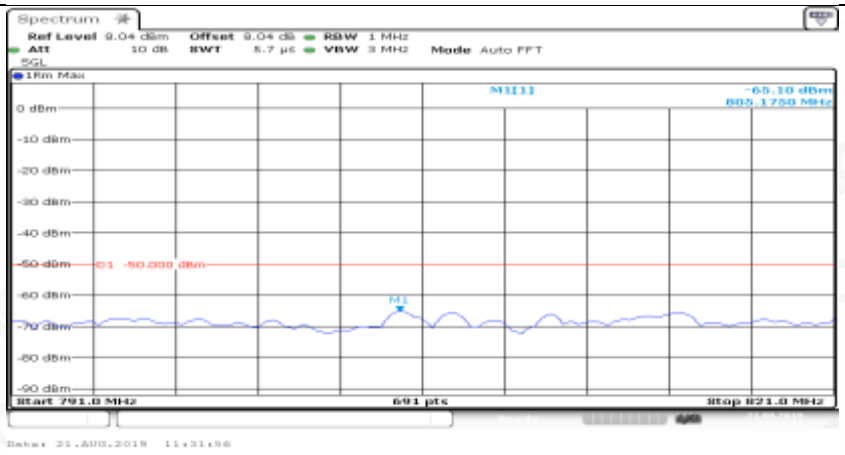
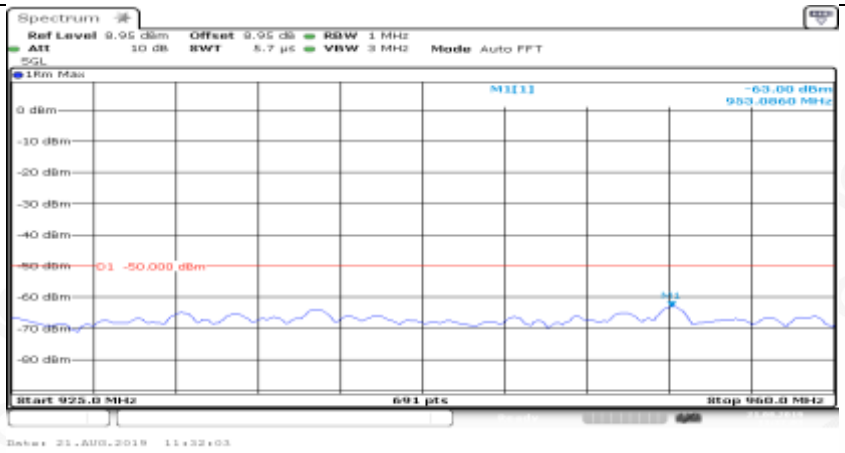
Co-existence	
Co-existence	
Co-existence	

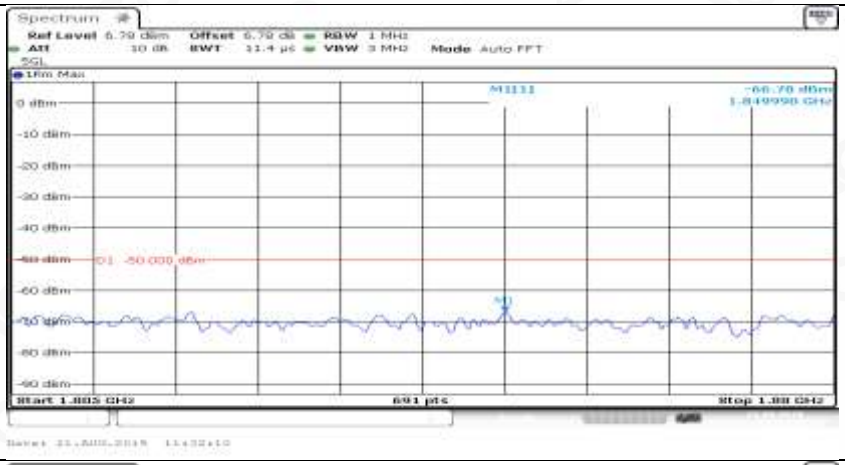
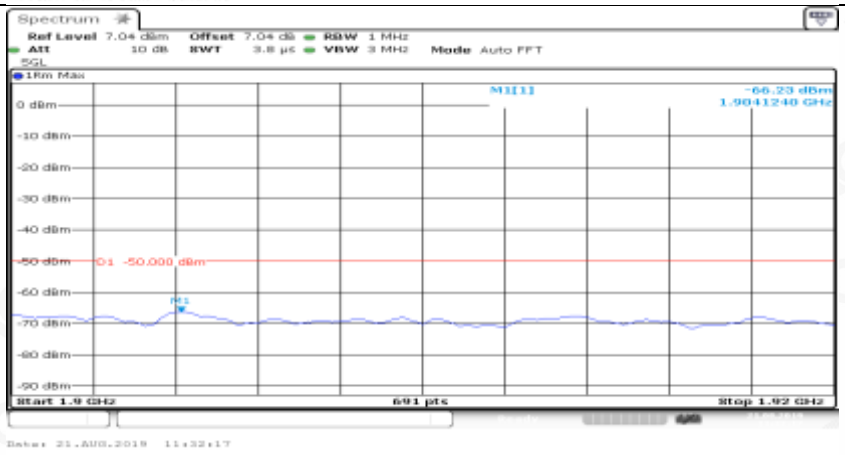
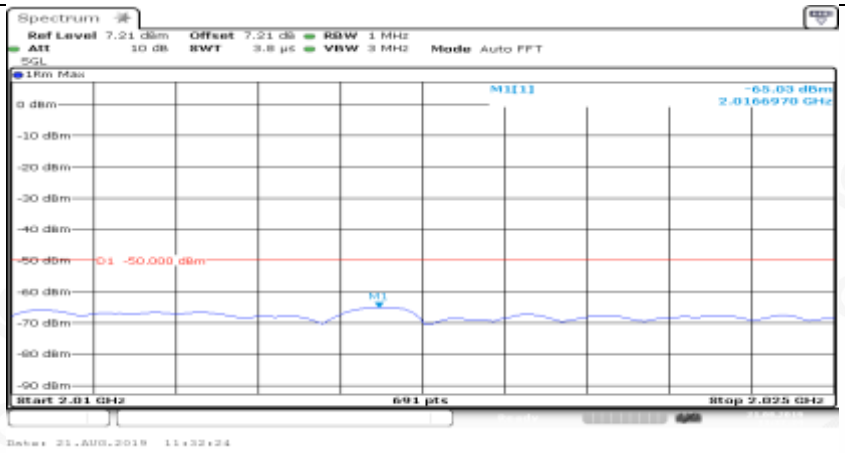
Co-existence	
Co-existence	
Co-existence	

Co-existence	
Additional	NA

Channel Bandwidth=Highest (#BWH MHz)_QPSK_LCH_1RB#max	
General	
General	

General	
General	
General	

General	
Co-existence	
Co-existence	

Co-existence	
Co-existence	
Co-existence	

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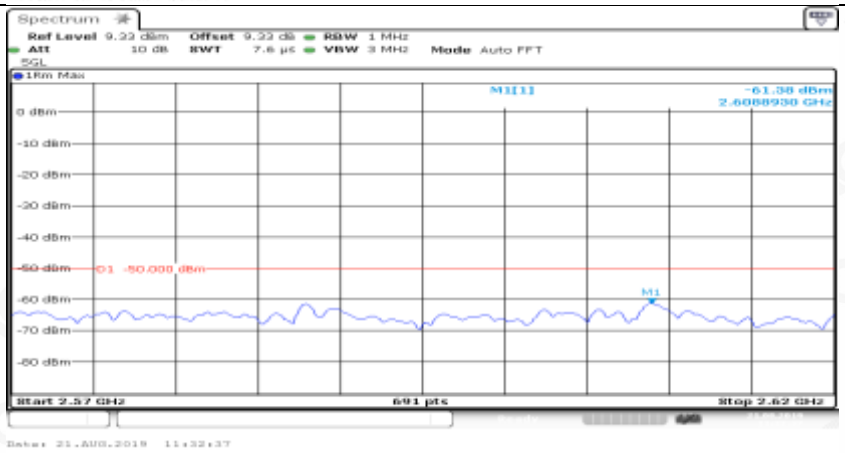
Co-existence	
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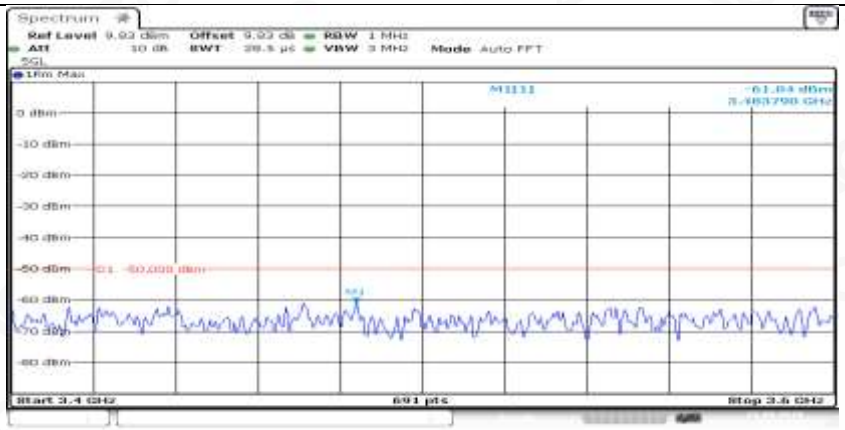
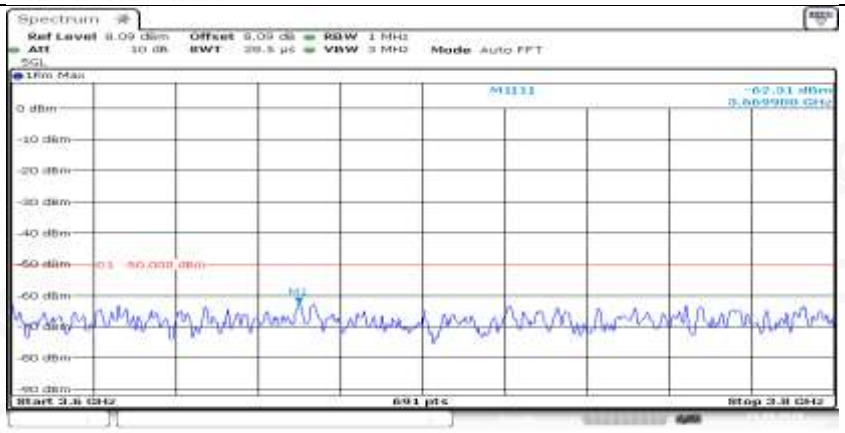
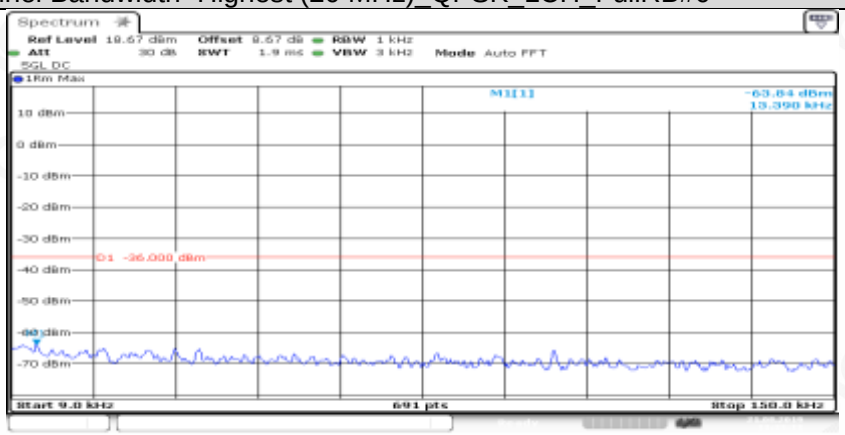
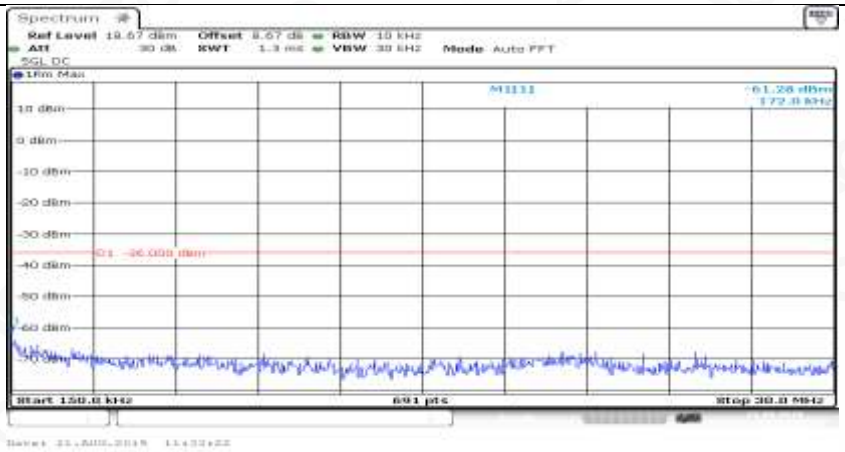
Co-existence	
Co-existence	
Additional	NA

Channel Bandwidth=Highest (20 MHz)_QPSK_LCH_FullRB#0	
General	

General	
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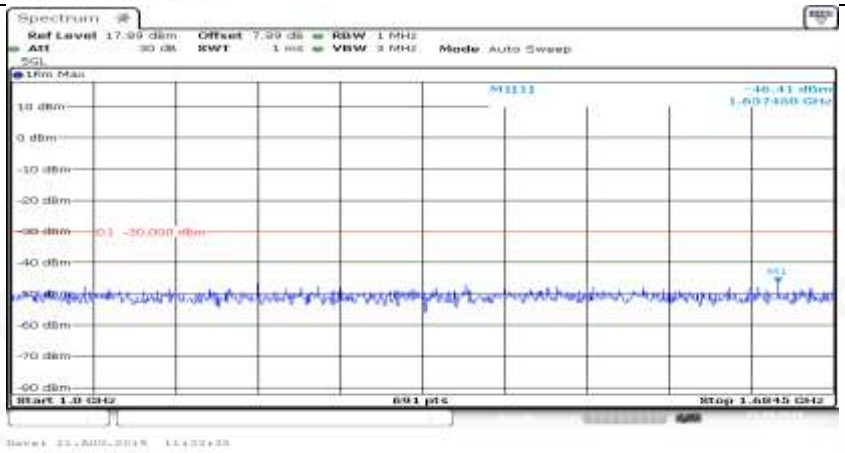
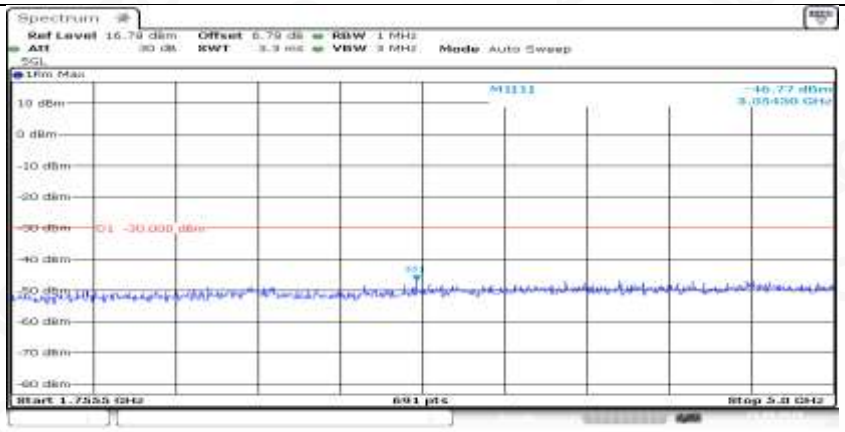
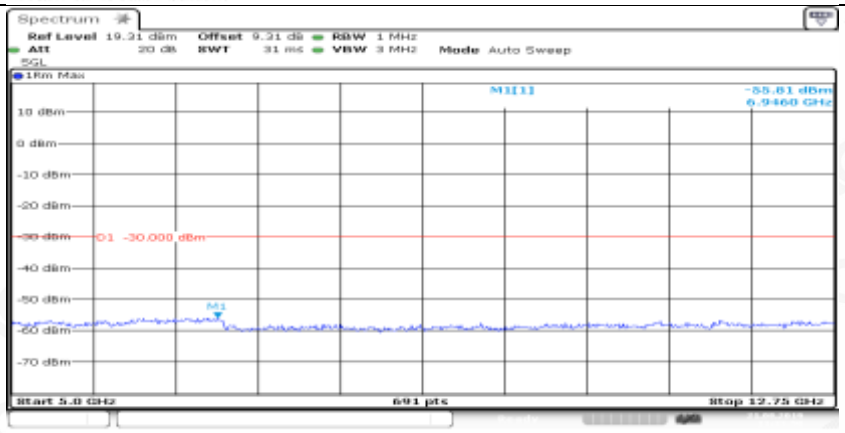
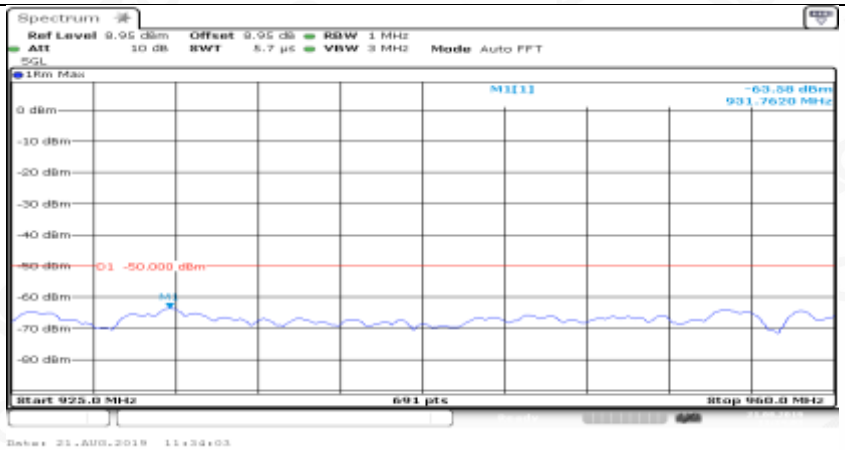
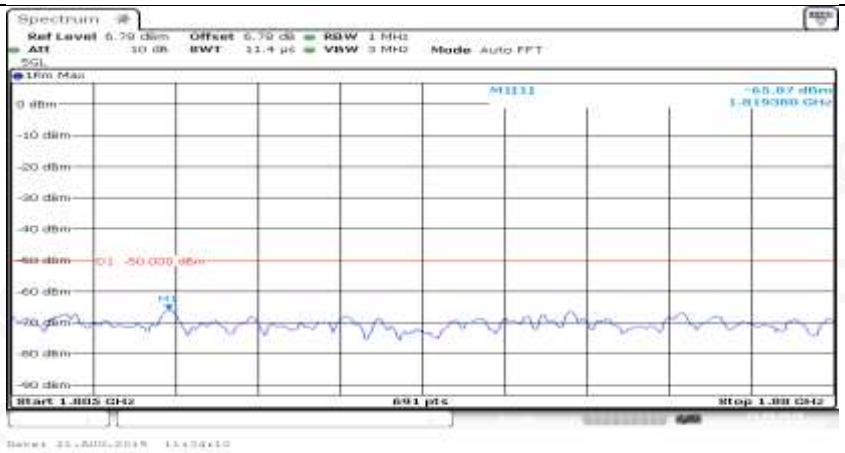
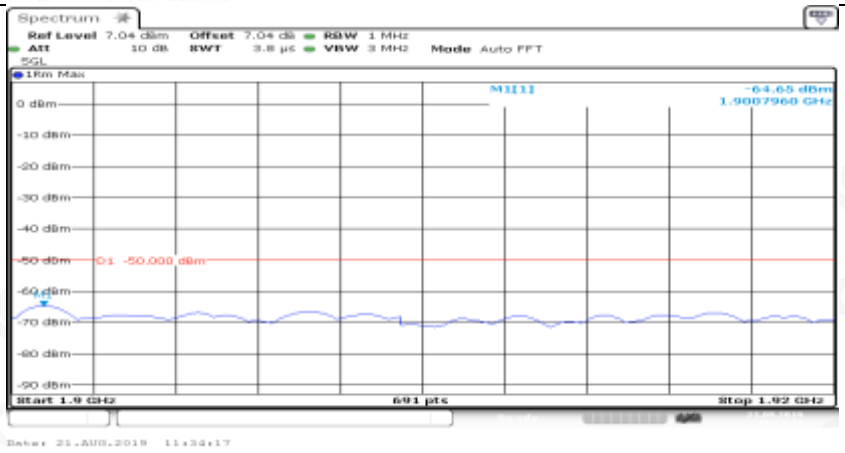
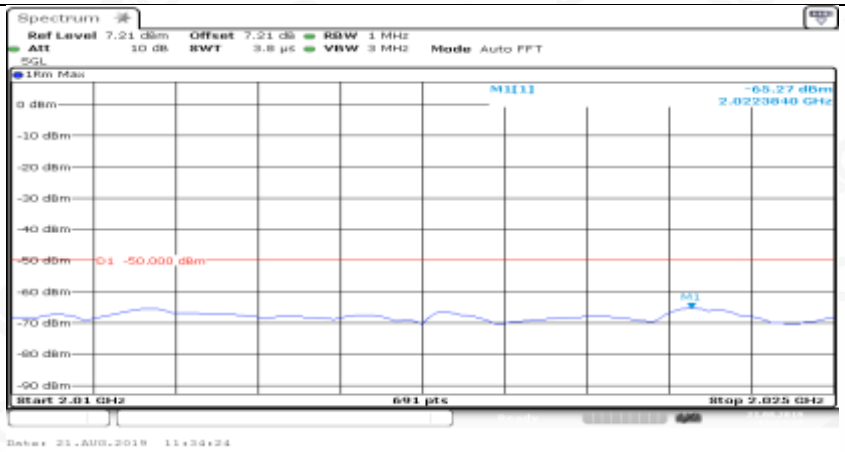
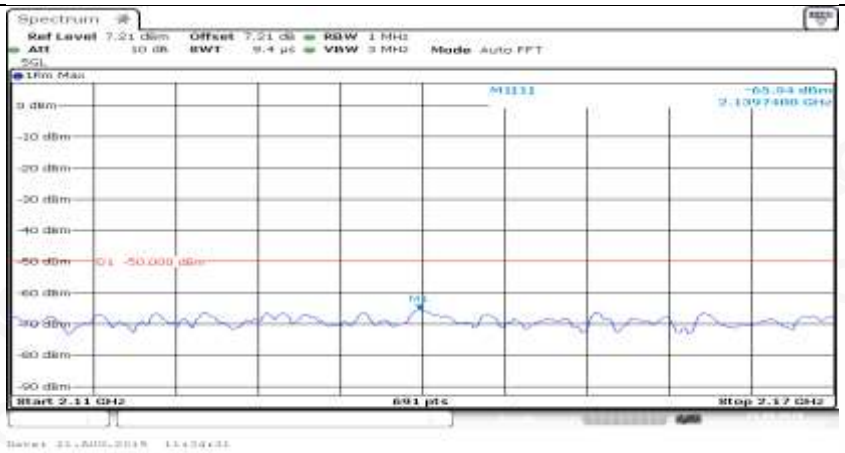
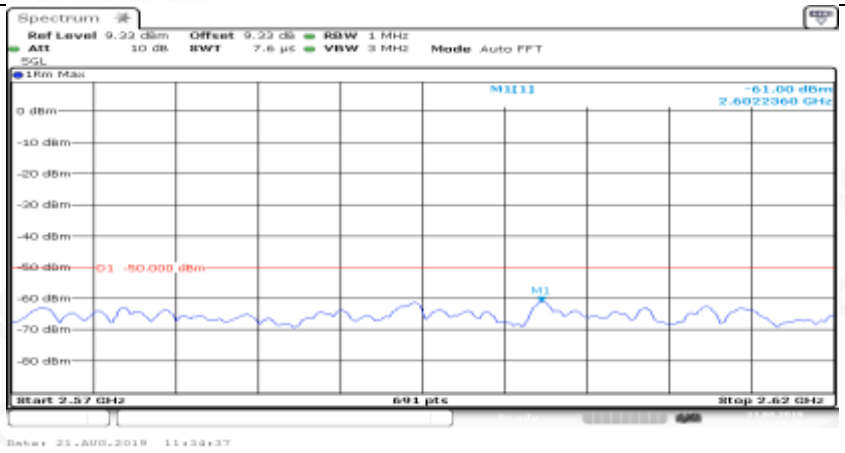
General	

General	
General	
Co-existence	

Co-existence	
Co-existence	
Co-existence	

Co-existence	
Co-existence	
Co-existence	

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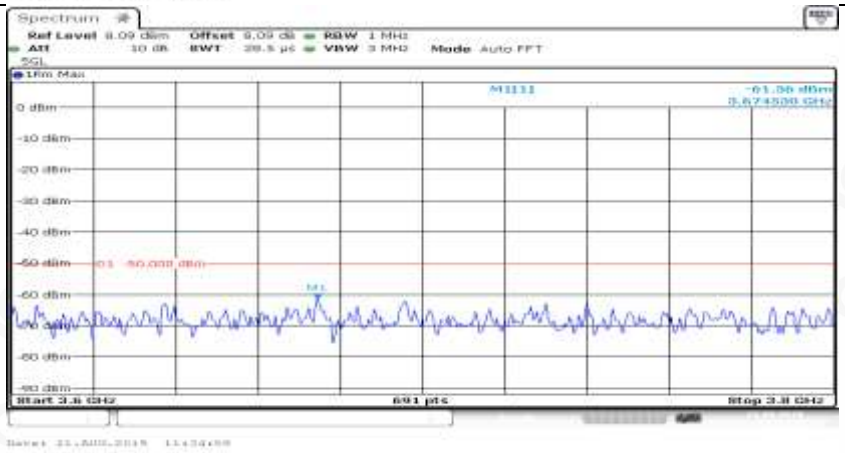
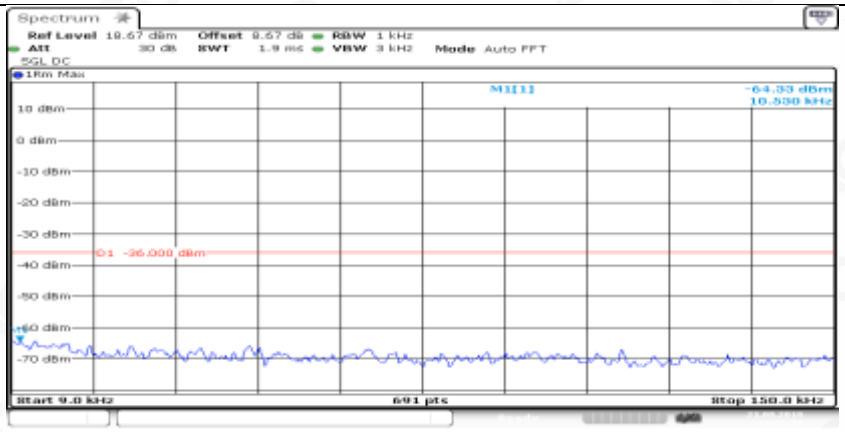
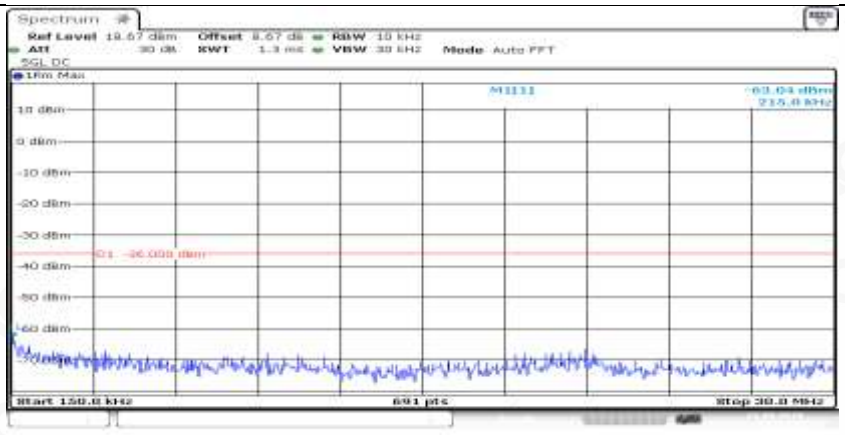
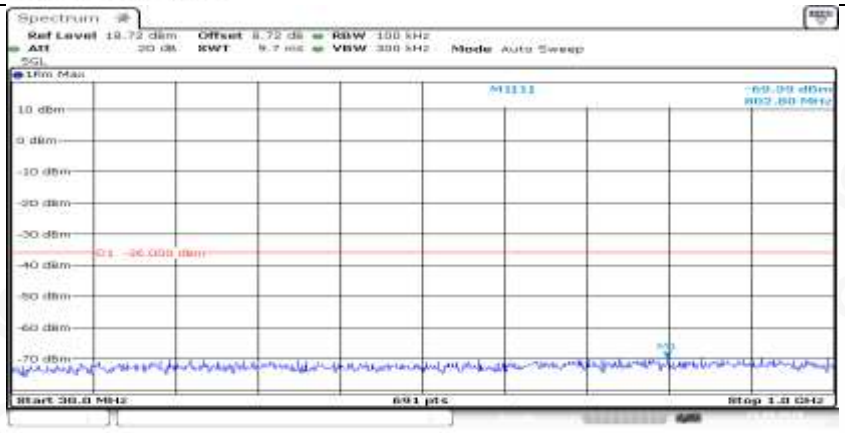
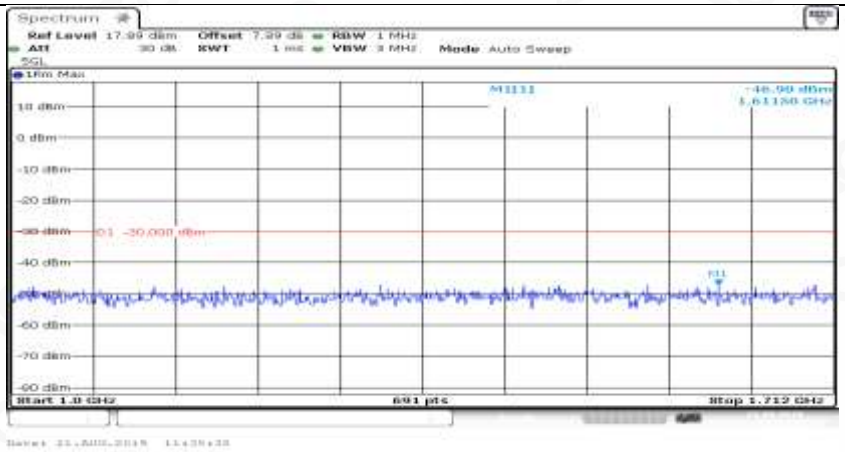
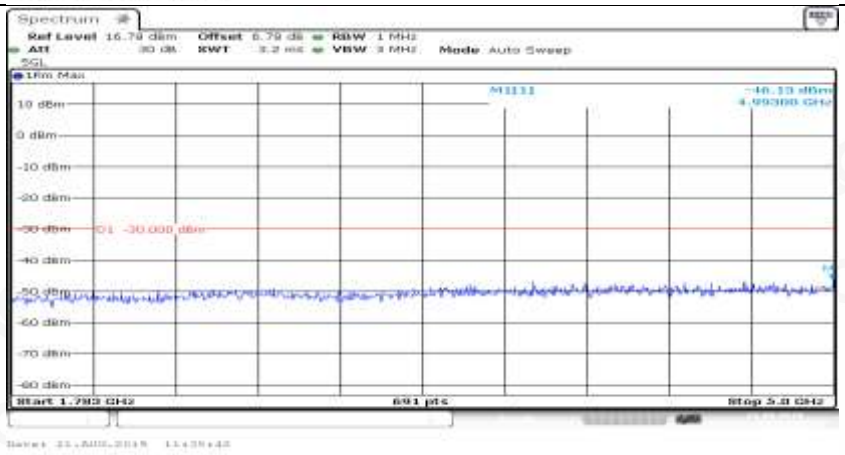
Co-existence	
Additional	NA

Channel Bandwidth=Highest (20 MHz)_QPSK_MCH_1RB#0

General	
General	
General	

General	
General	
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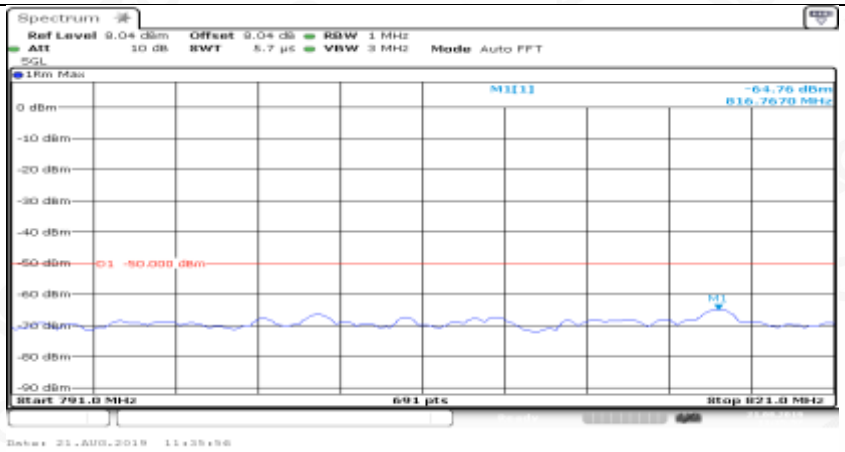
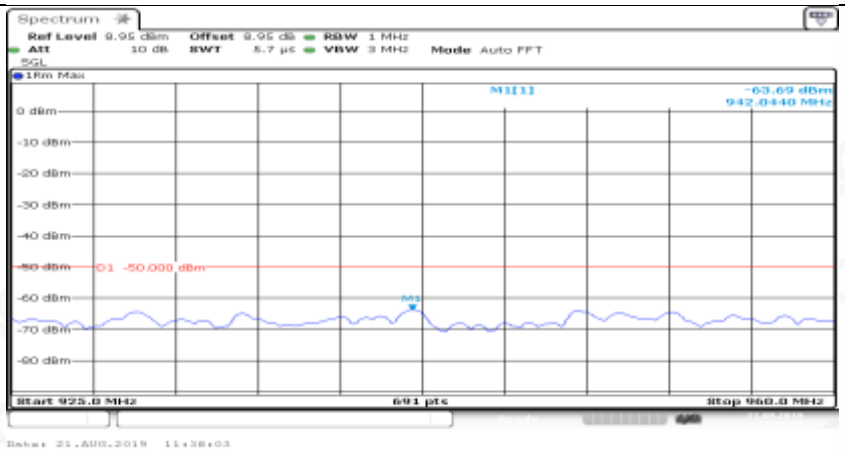
Co-existence	
Co-existence	
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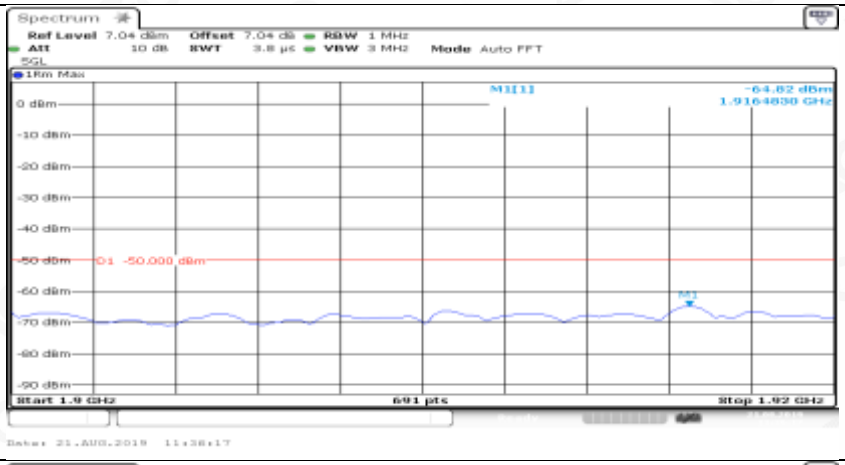
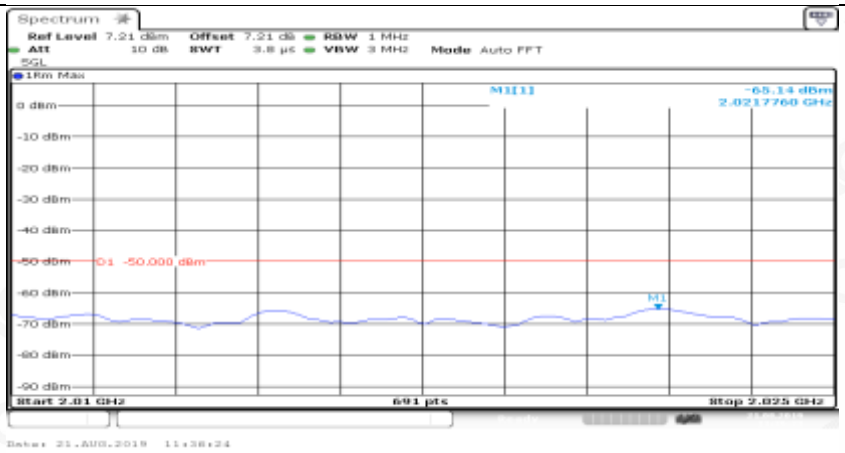
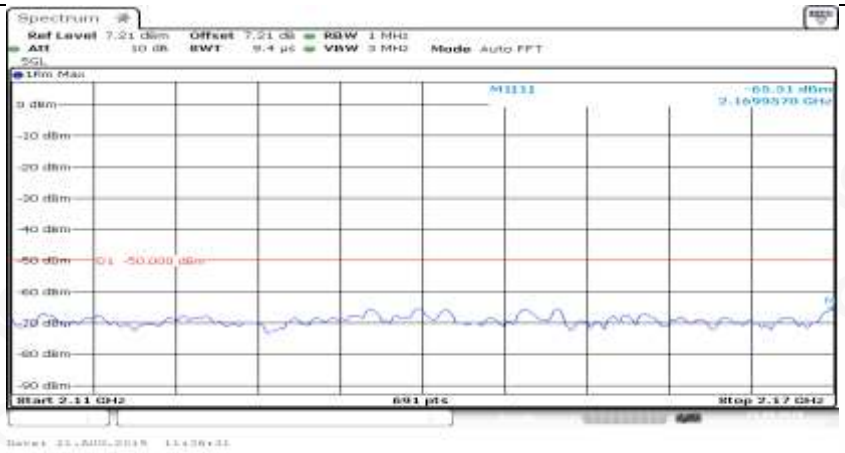
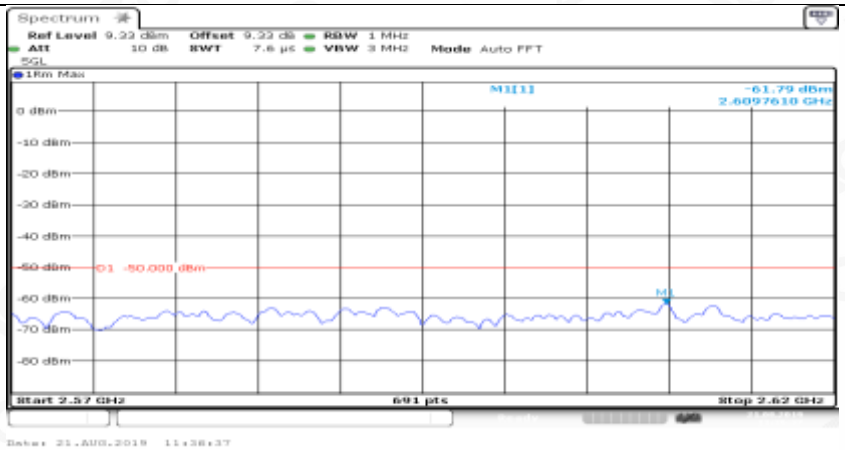
Co-existence	
Co-existence	
Co-existence	

Co-existence	
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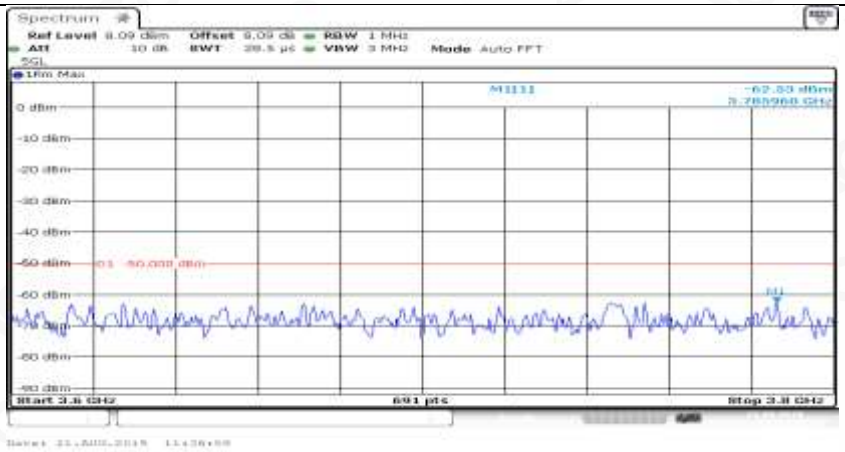
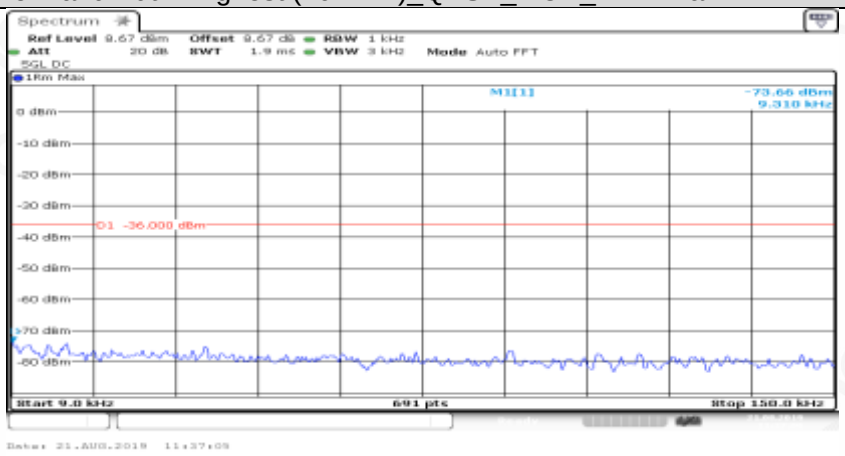
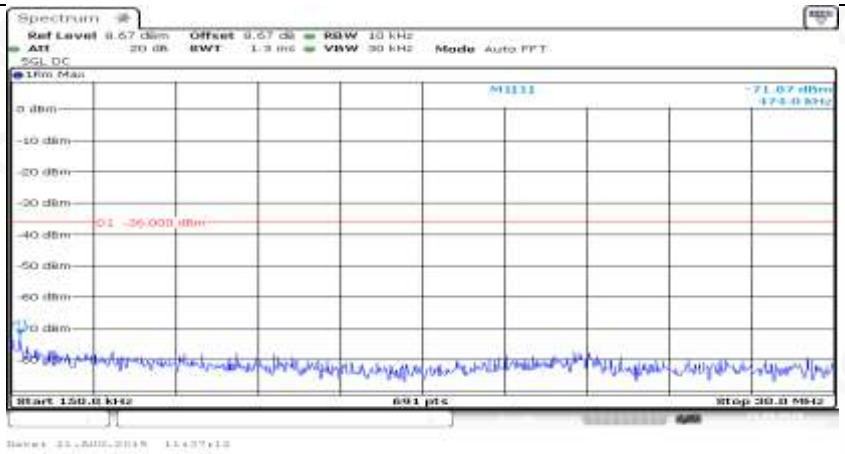
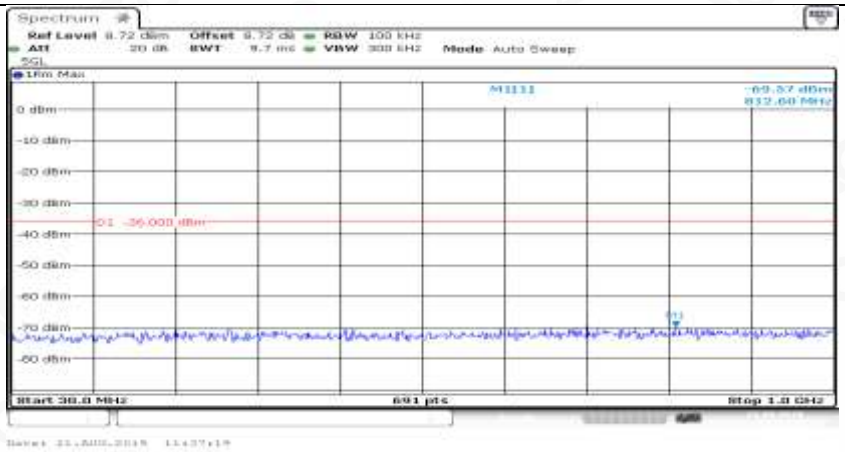
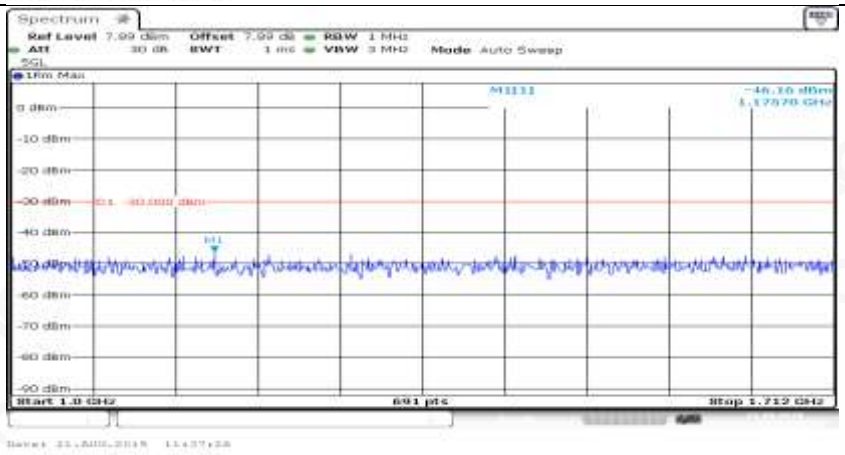
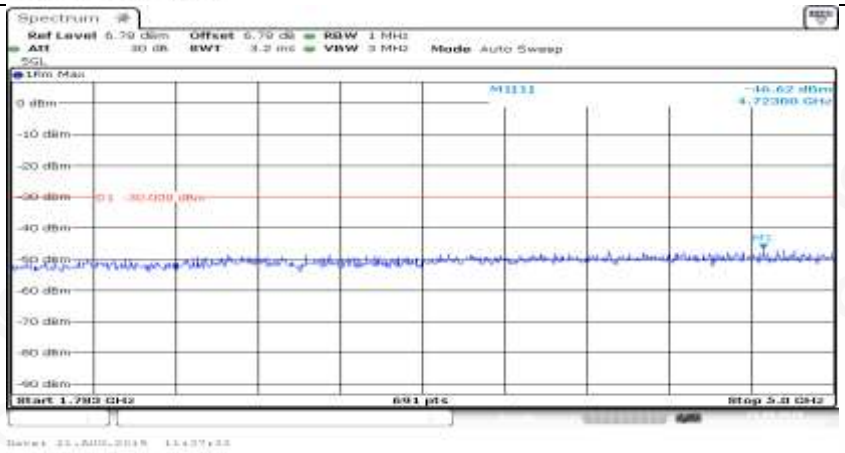
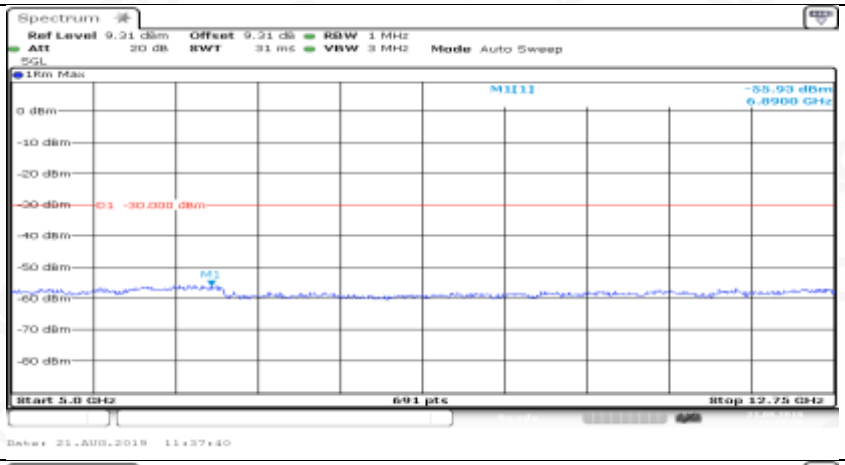
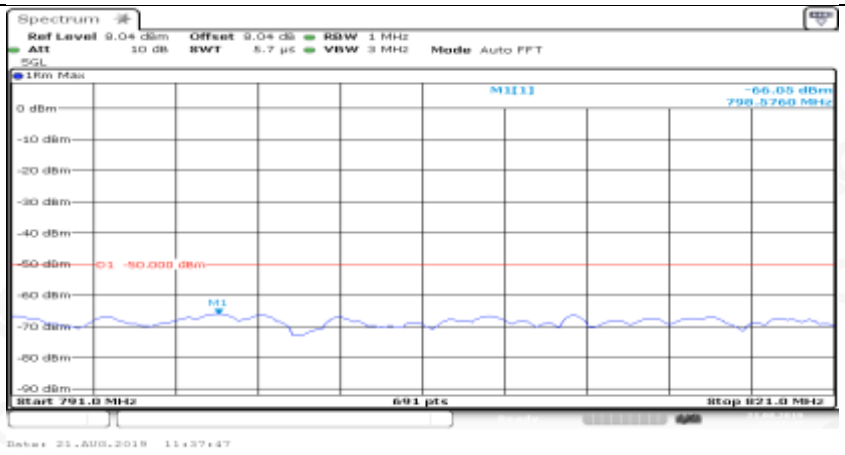
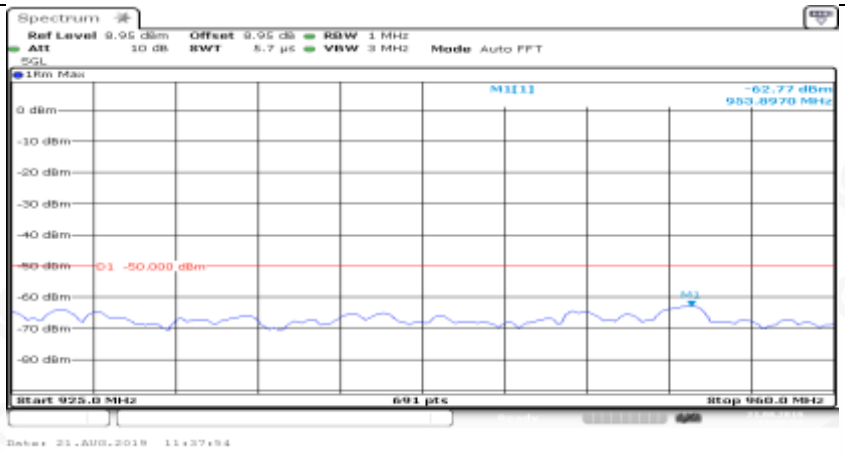
Co-existence	

Co-existence	
Additional	NA

Channel Bandwidth=Highest (20 MHz)_QPSK_MCH_1RB#max	
General	
General	

General	
General	
General	

General	
Co-existence	
Co-existence	

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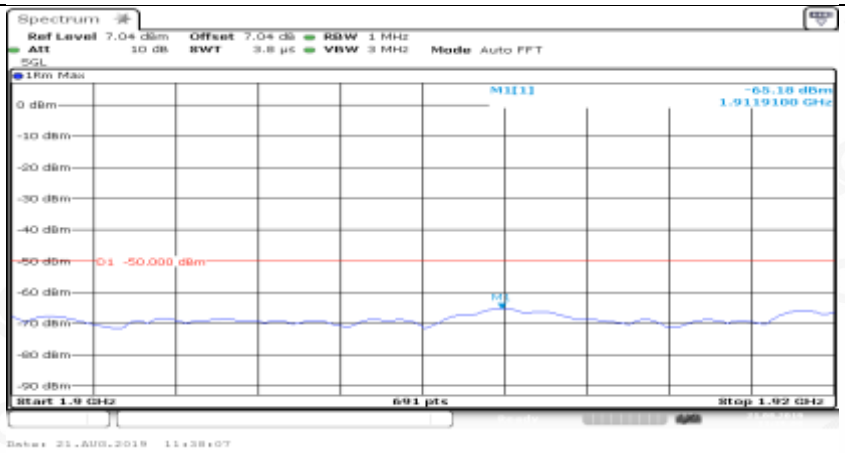
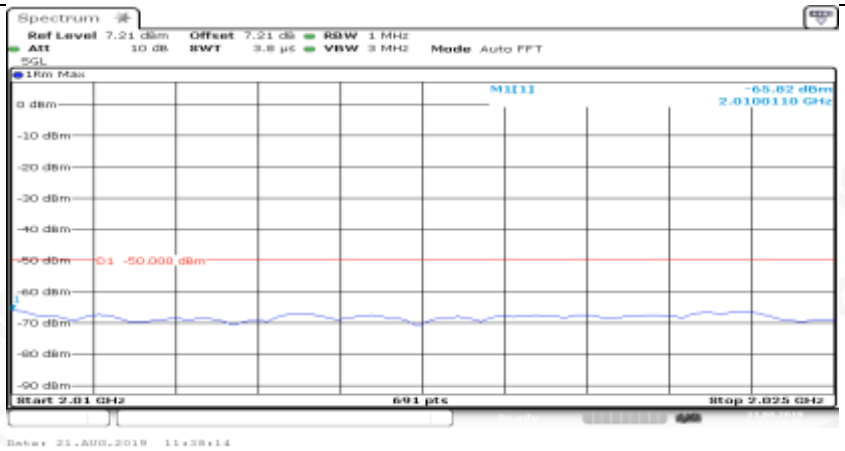
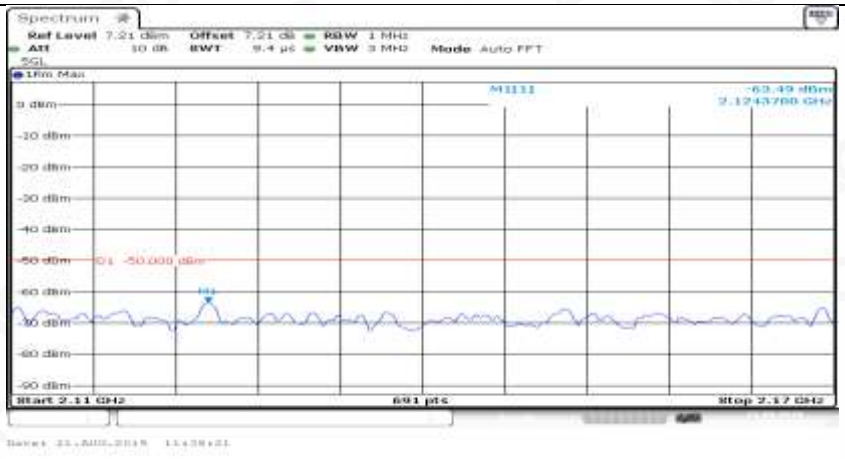
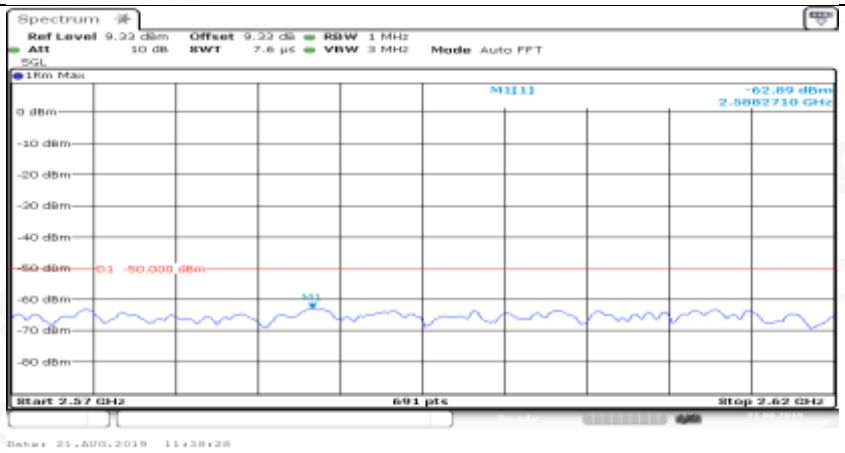
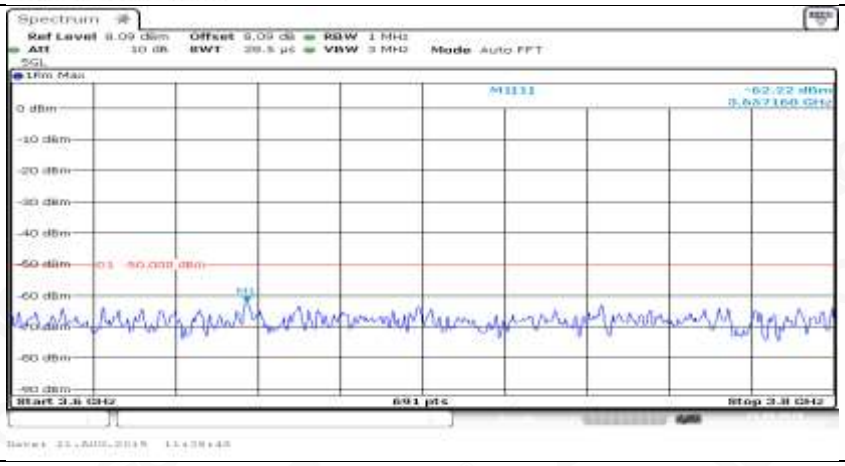
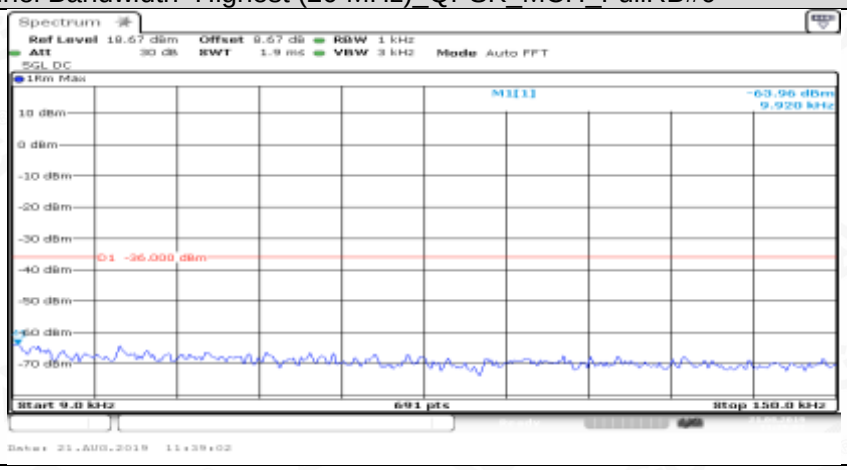
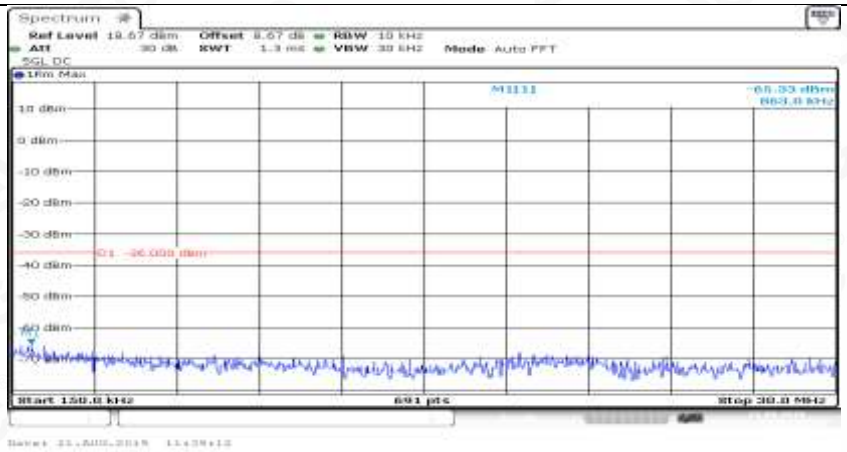
Co-existence	
Co-existence	

Co-existence	
Co-existence	
Co-existence	

Co-existence	
Co-existence	
Additional	NA

Channel Bandwidth=Highest (20 MHz)_QPSK_MCH_FullRB#0	
General	

General		
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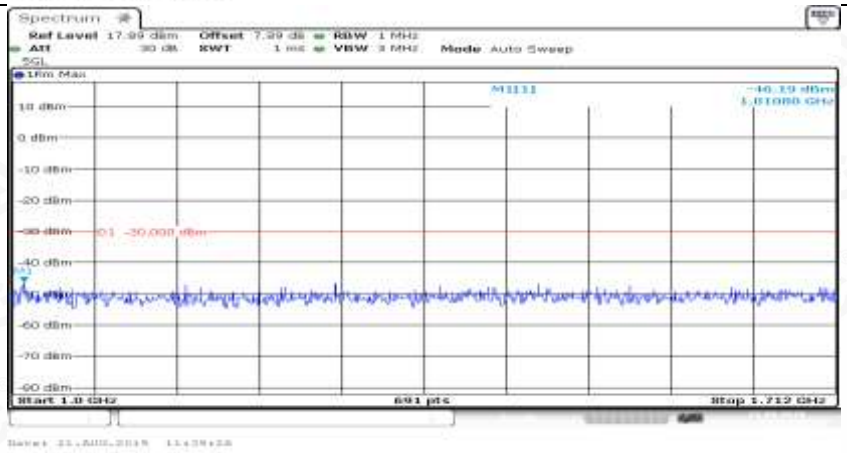
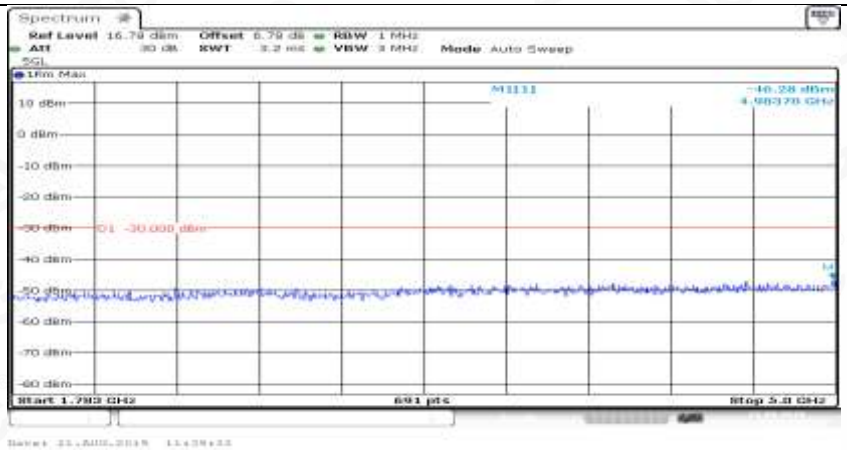
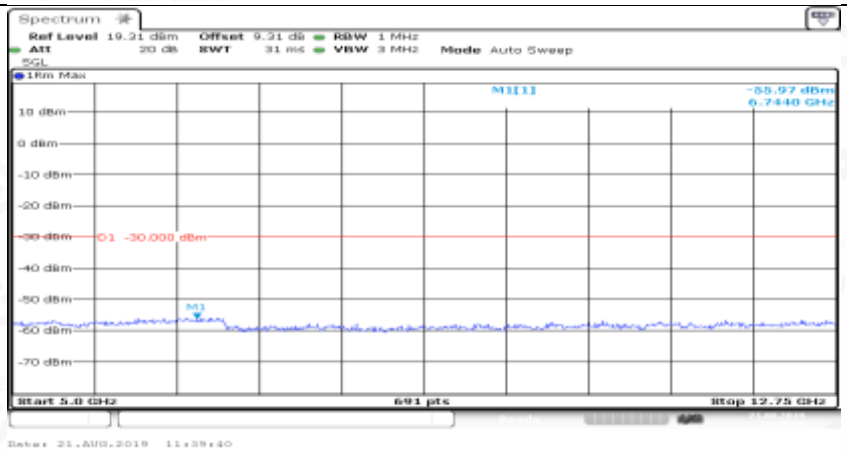
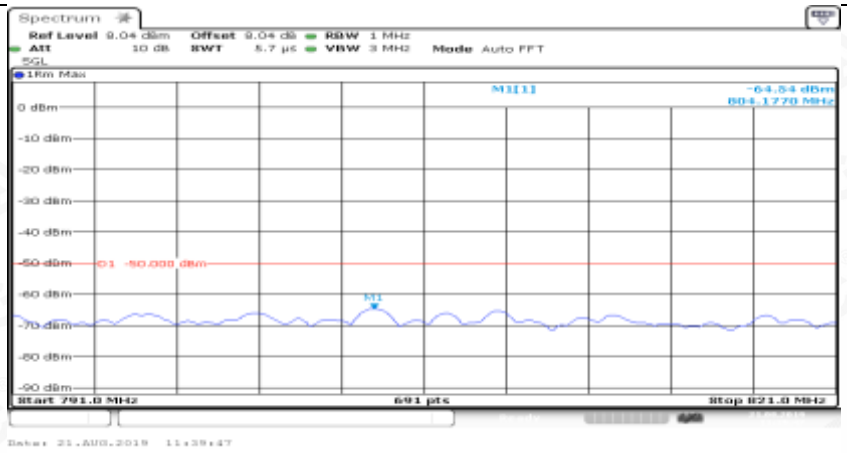
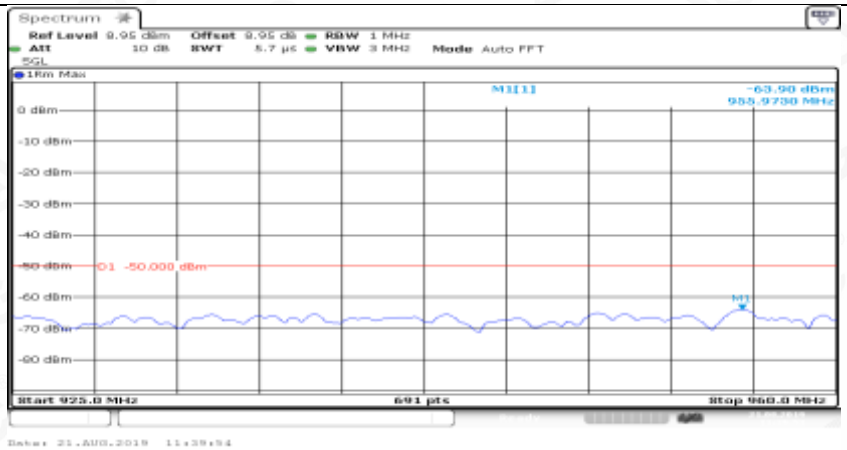
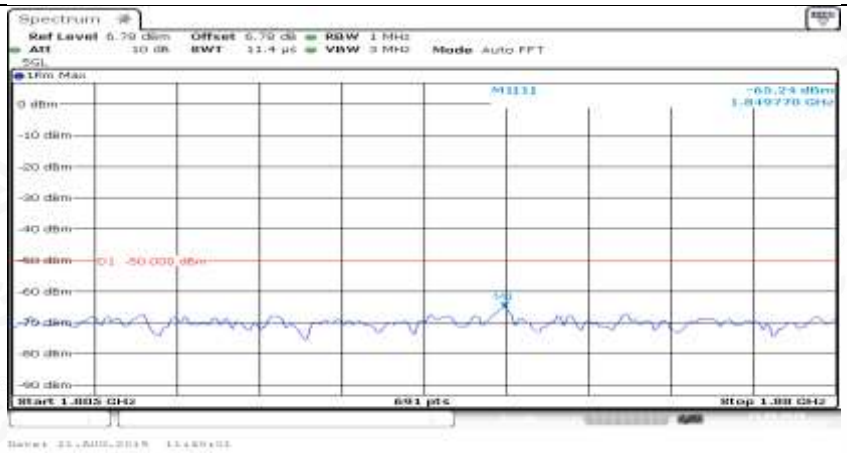
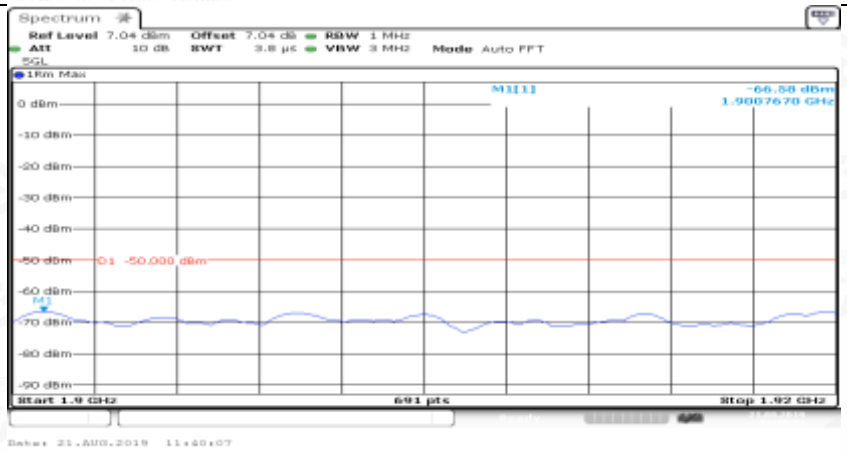
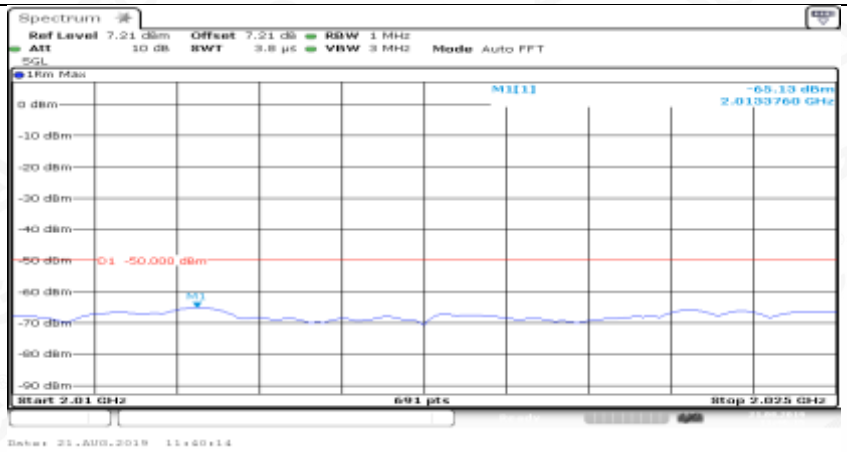
General		

General		
General		
Co-existence		

Co-existence		
Co-existence		
Co-existence		

Co-existence		
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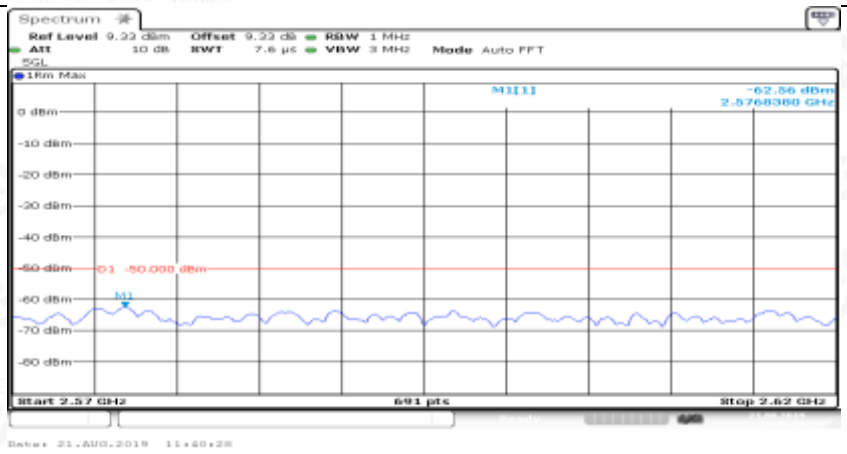
Co-existence		

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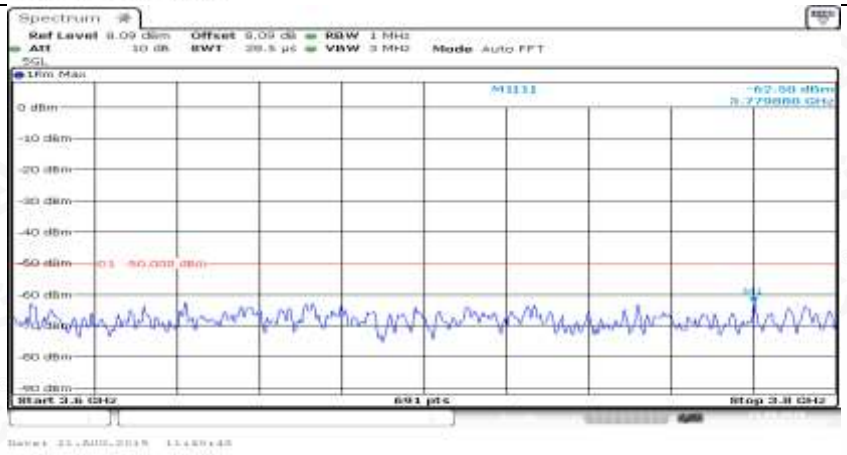
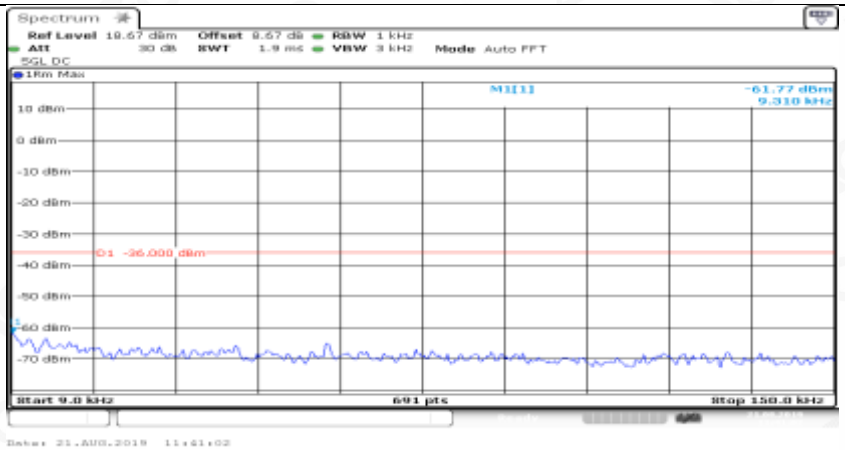
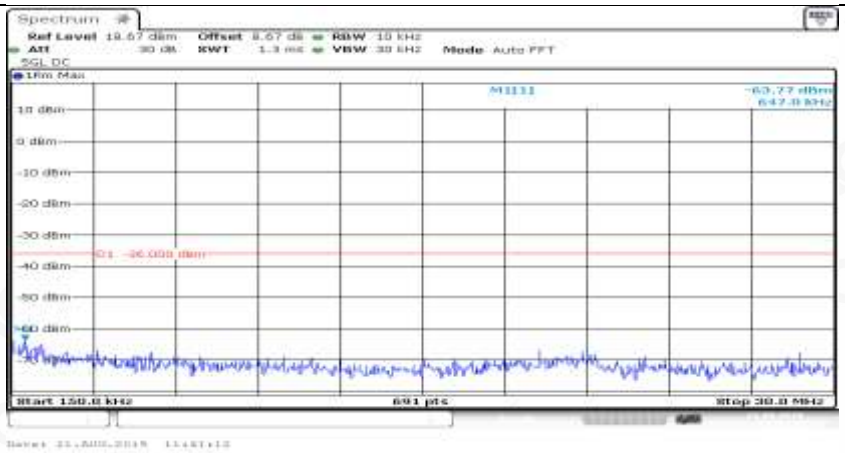
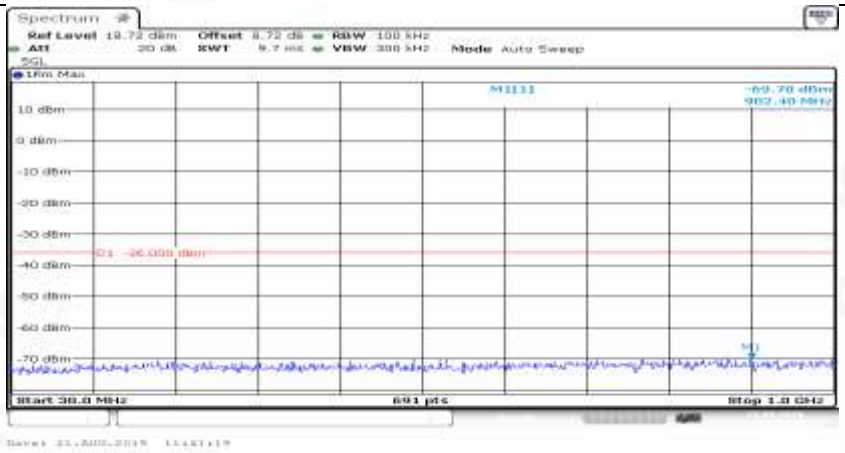
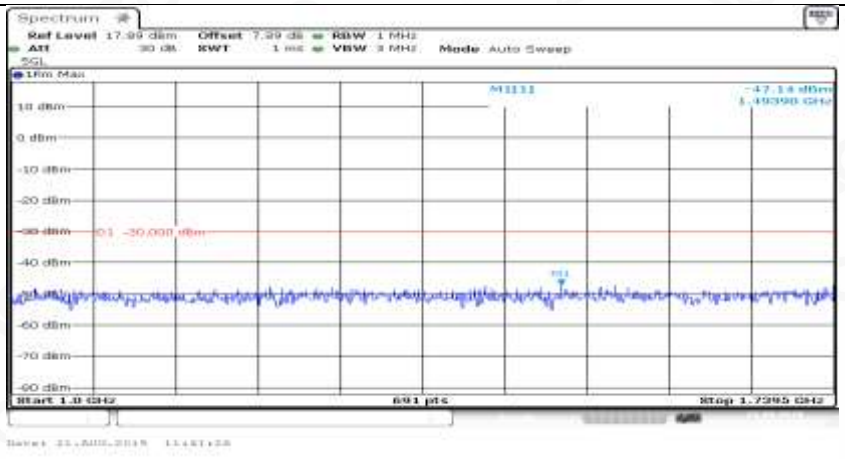
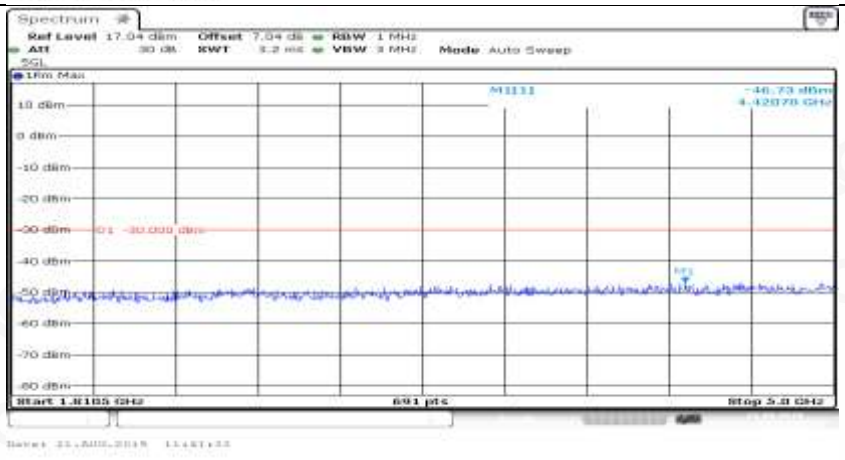
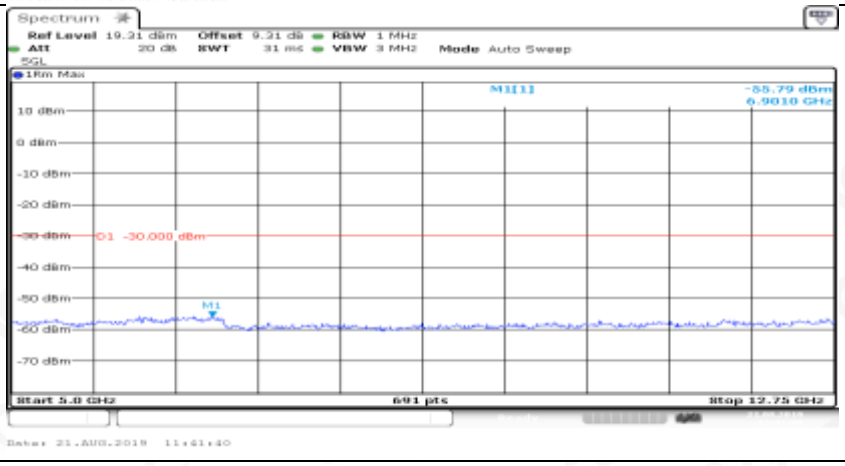
Co-existence	
Additional	NA

Channel Bandwidth=Highest (20 MHz)_QPSK_HCH_1RB#0

General	
General	
General	

General		
General		
General		

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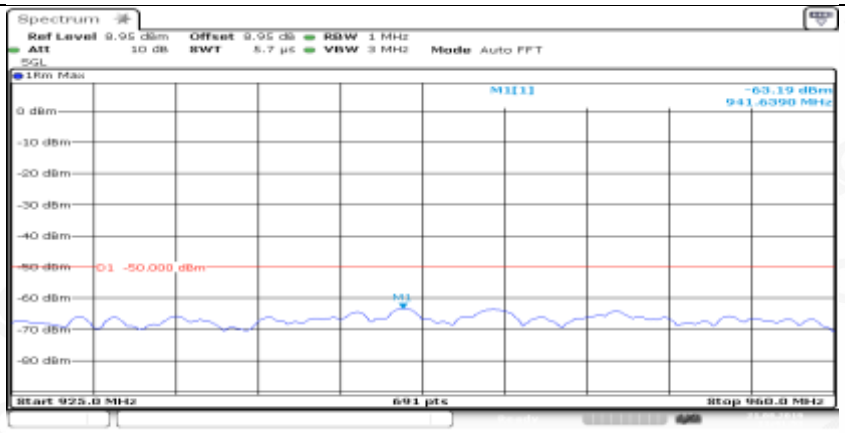
Co-existence	
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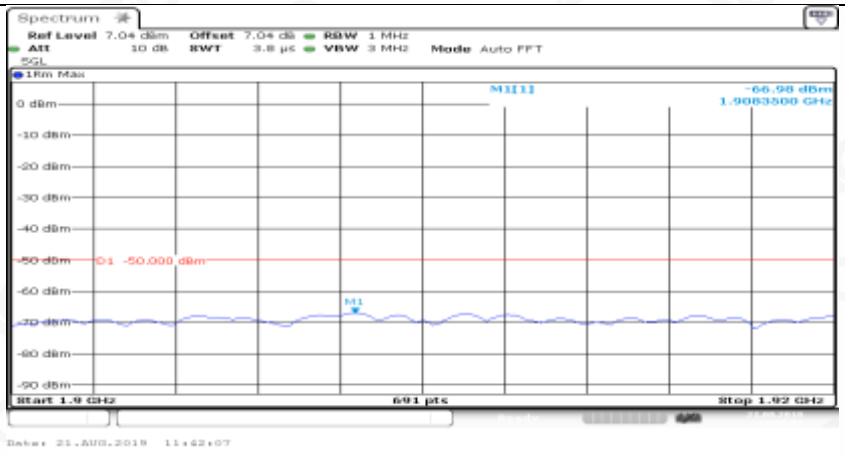
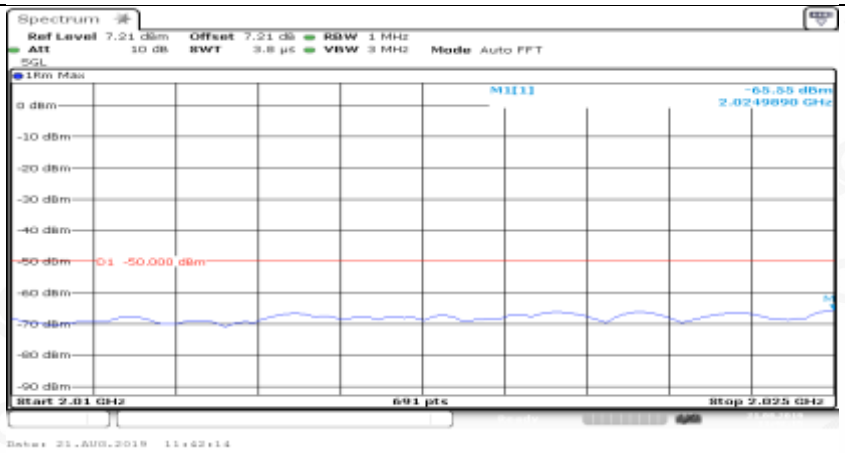
Co-existence	
Co-existence	
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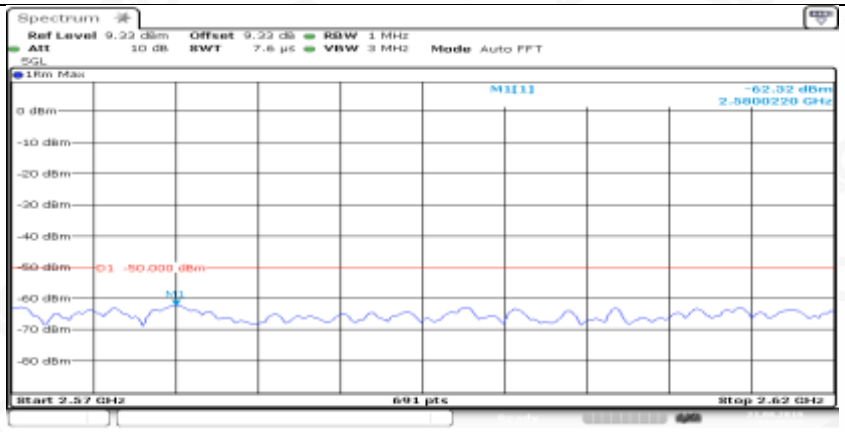
Co-existence	
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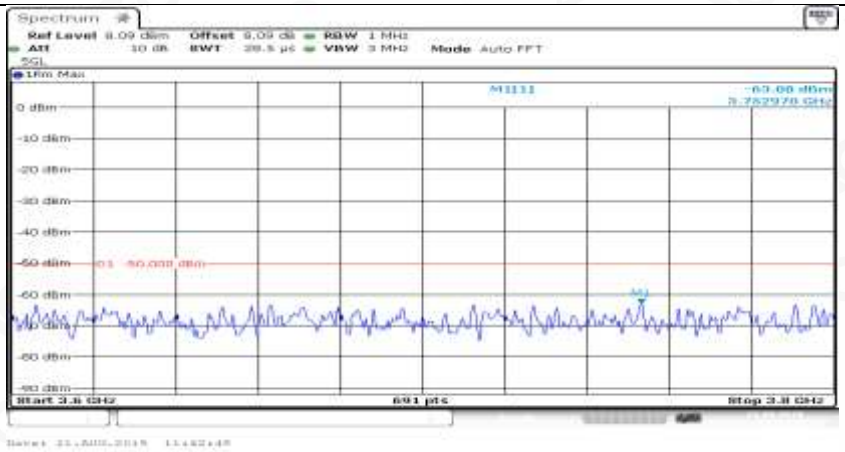
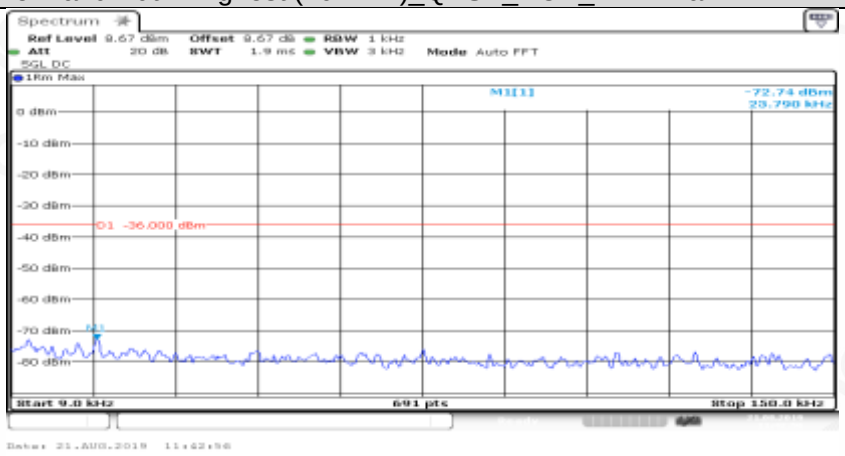
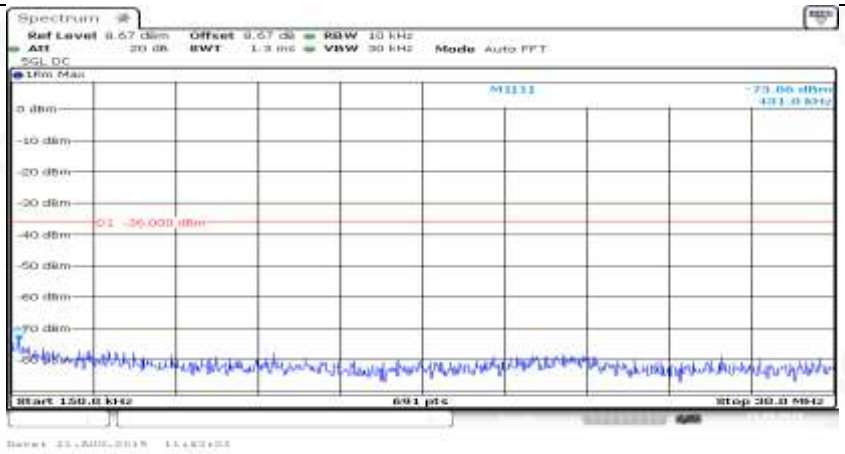
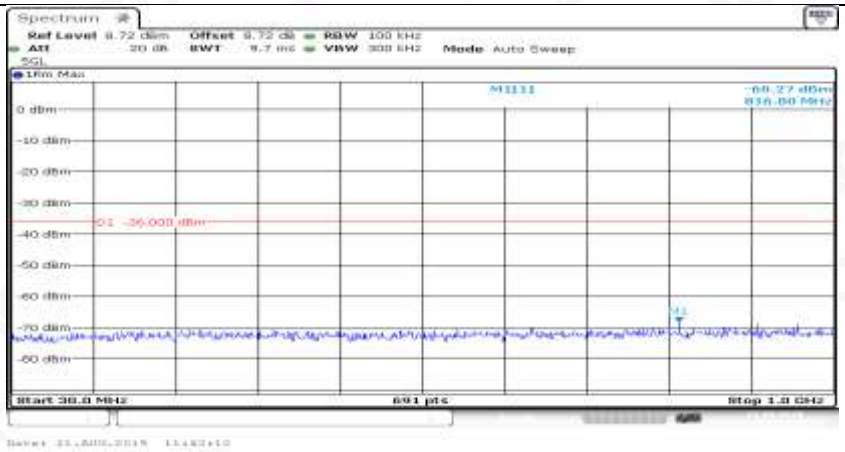
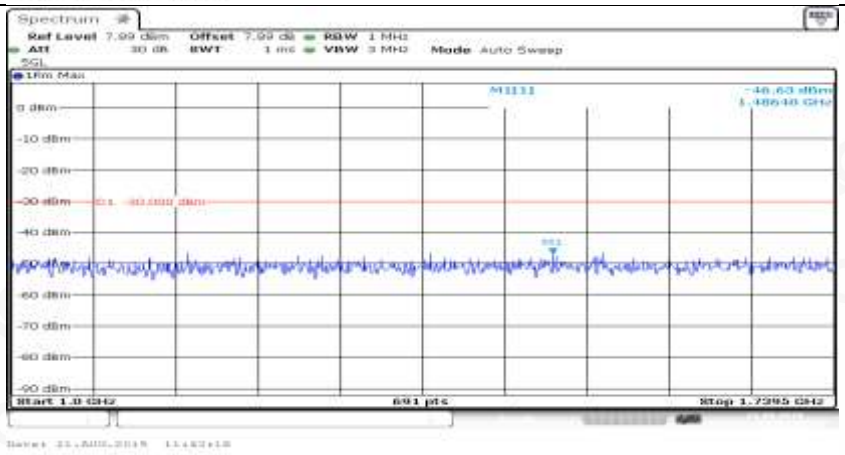
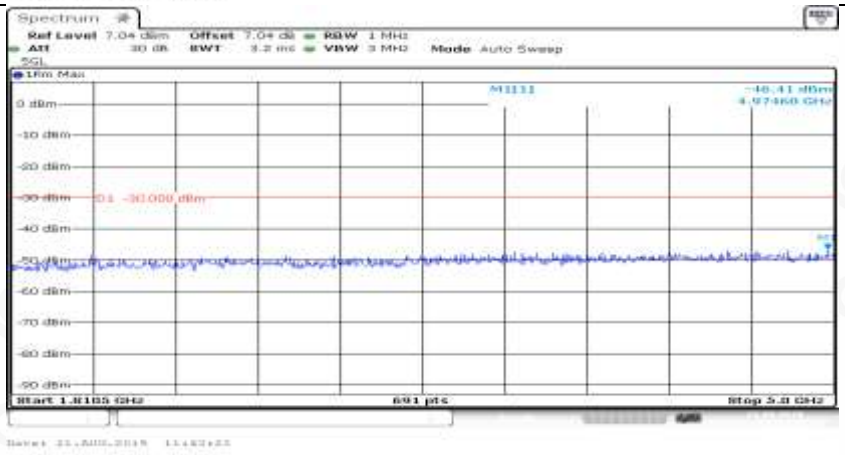
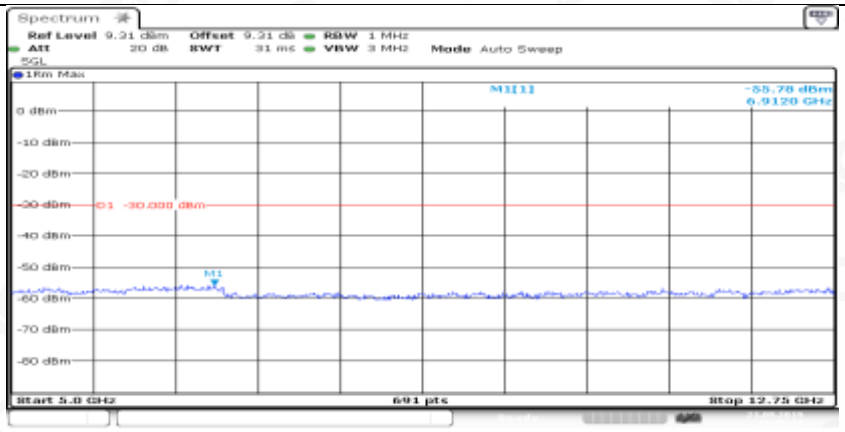
Co-existence	

Co-existence	
Additional	NA

Channel Bandwidth=Highest (20 MHz)_QPSK_HCH_1RB#max	
General	
General	

General	
General	
General	

General	
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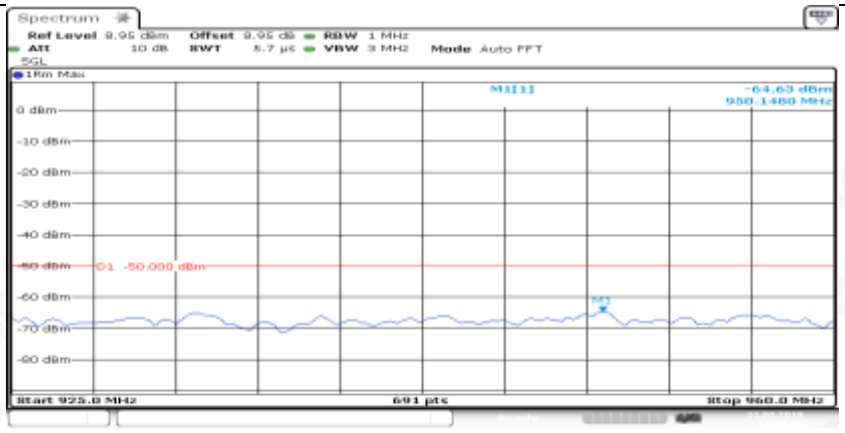
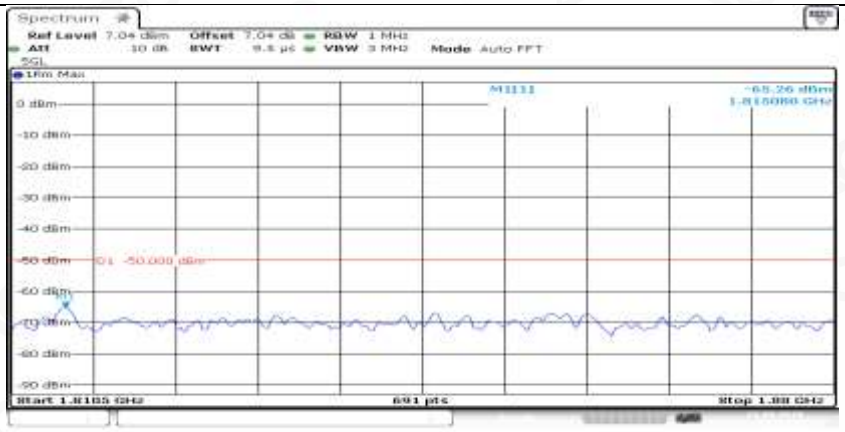
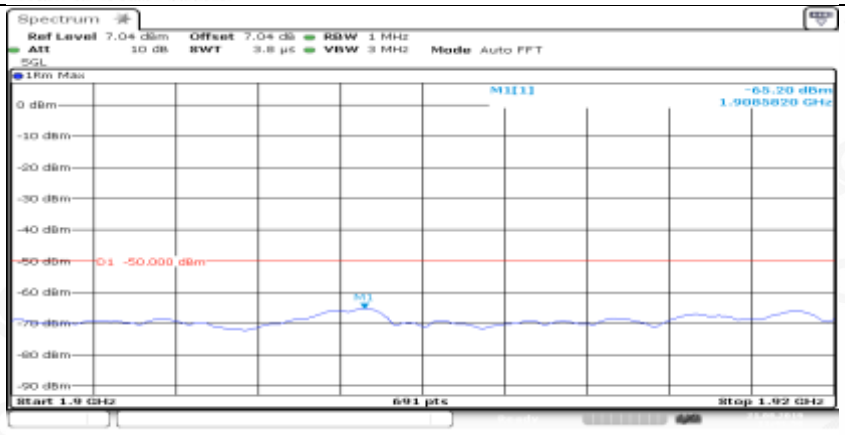
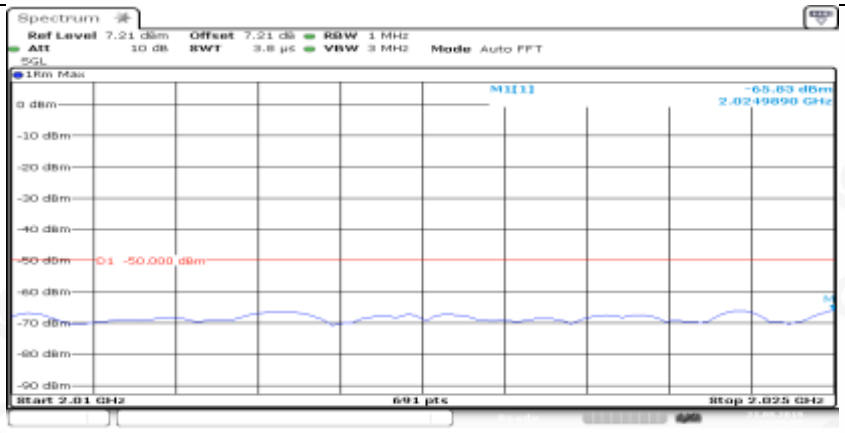
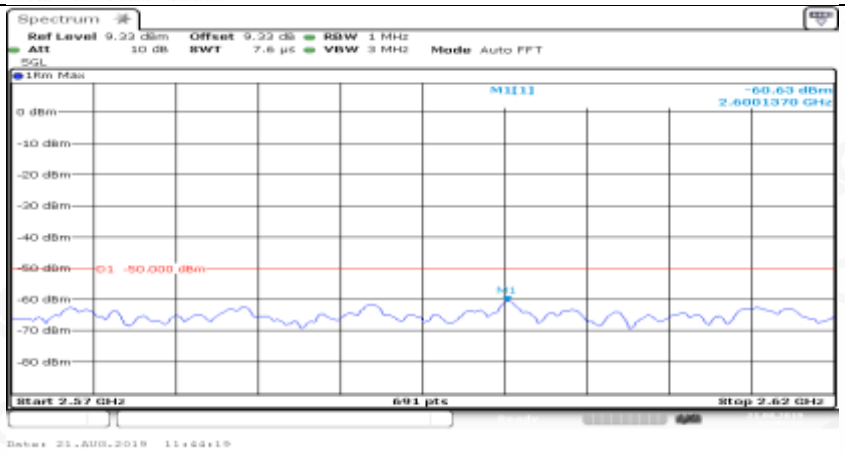
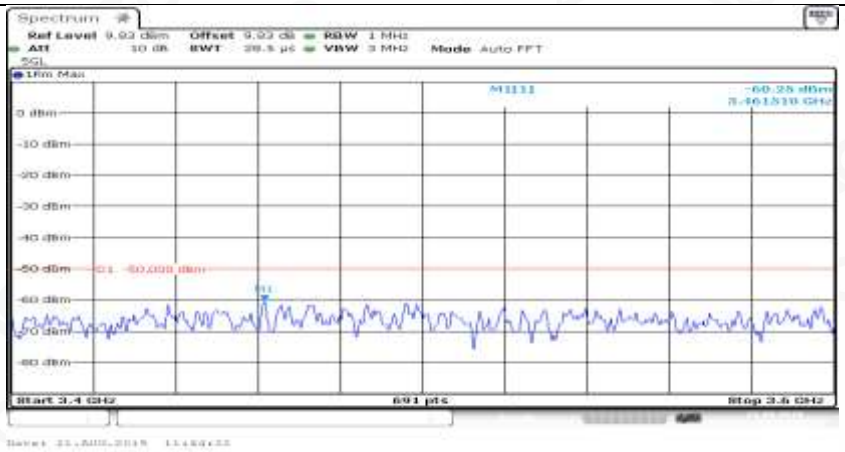
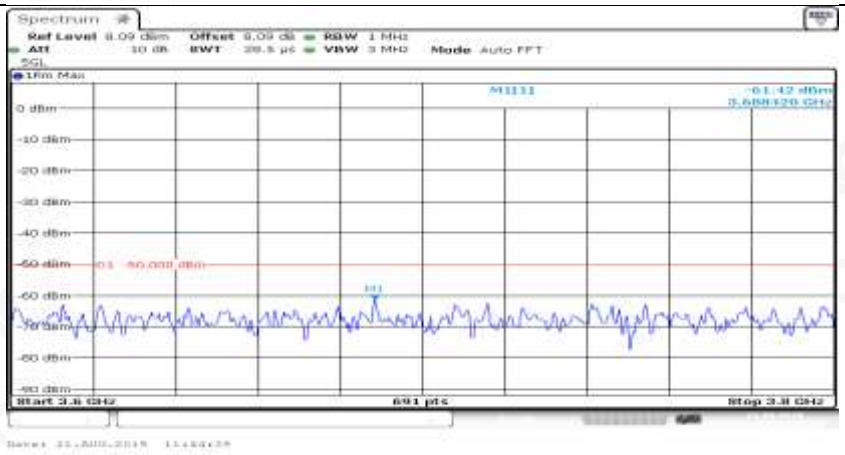
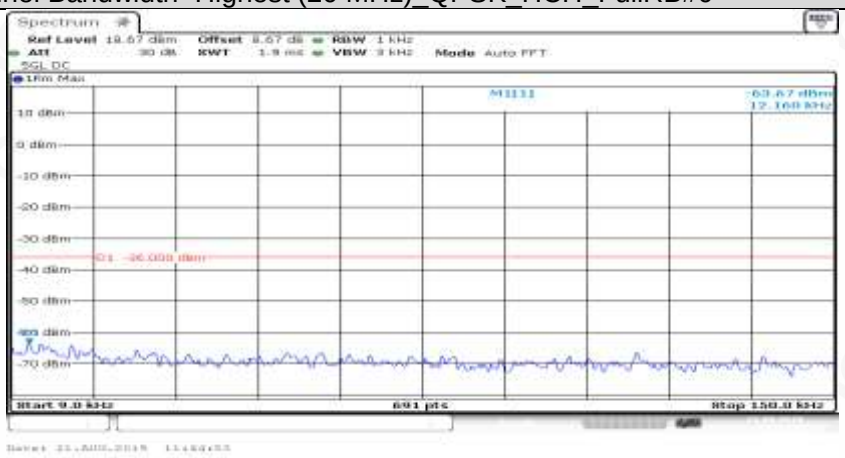
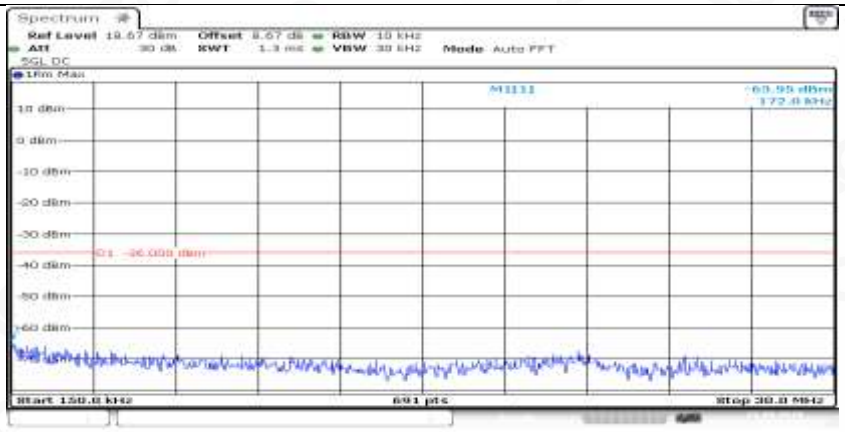
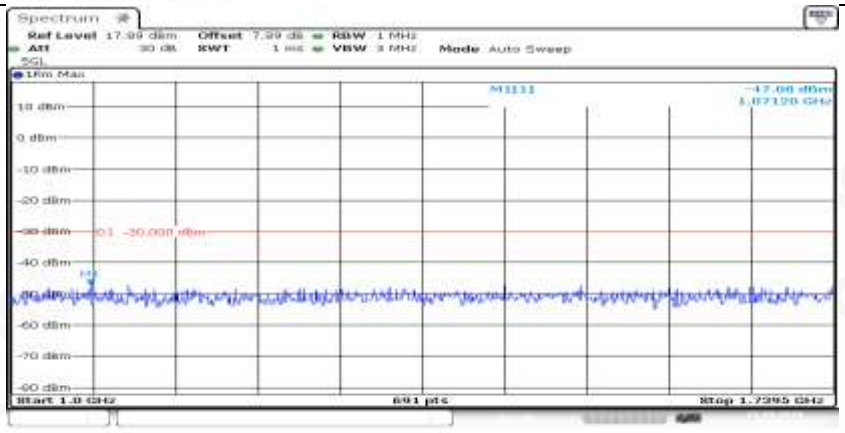
Co-existence	

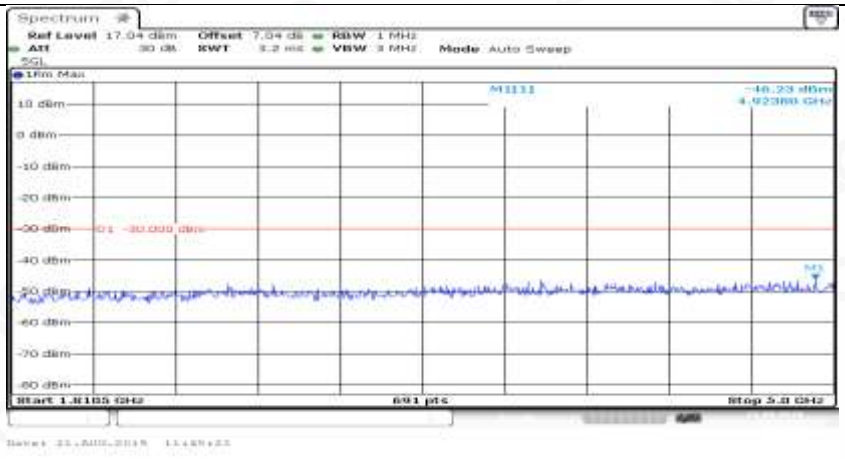
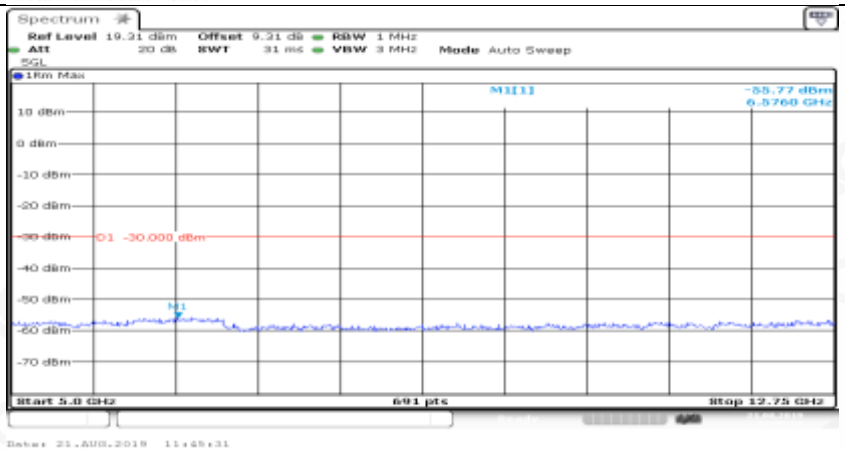
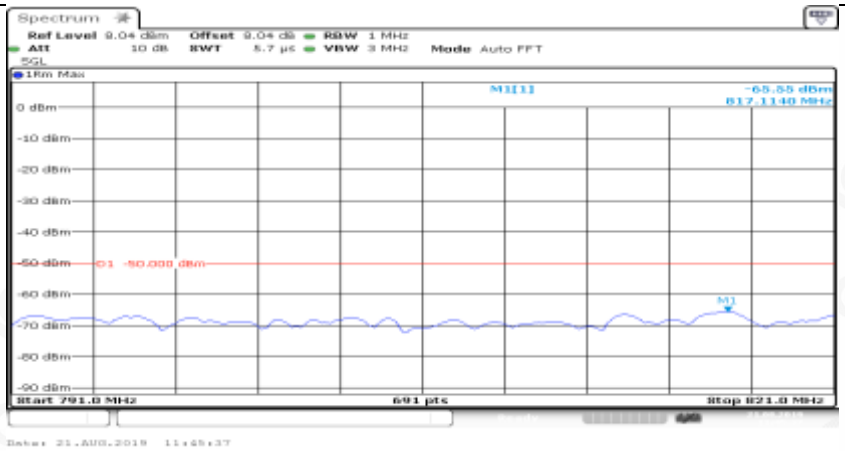
Co-existence	
Co-existence	
Co-existence	

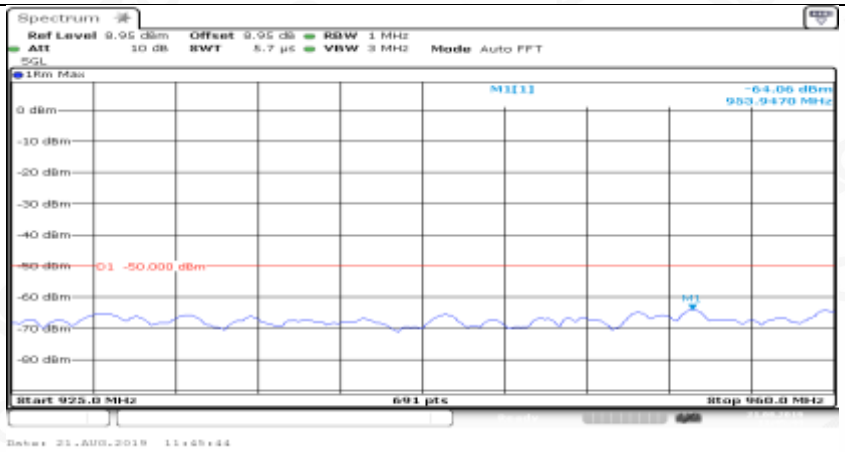
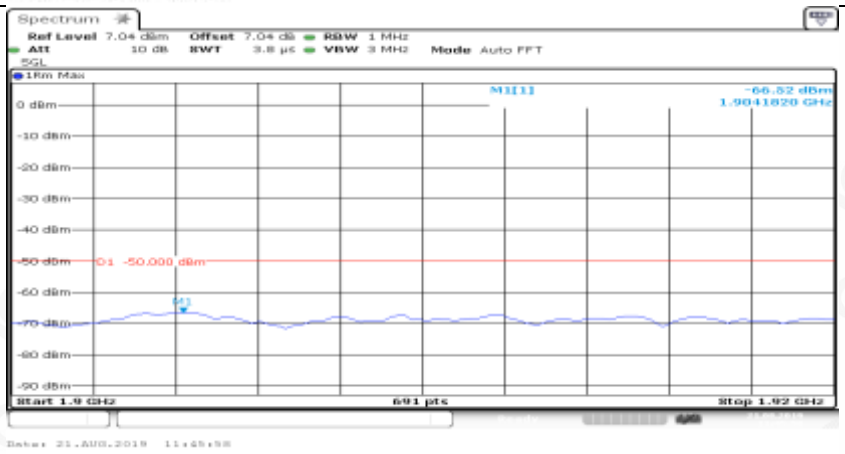
Co-existence	
Co-existence	
Co-existence	

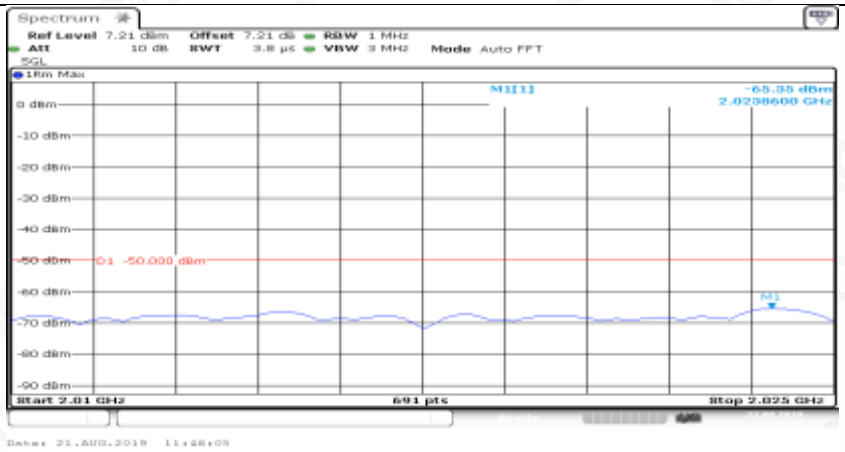
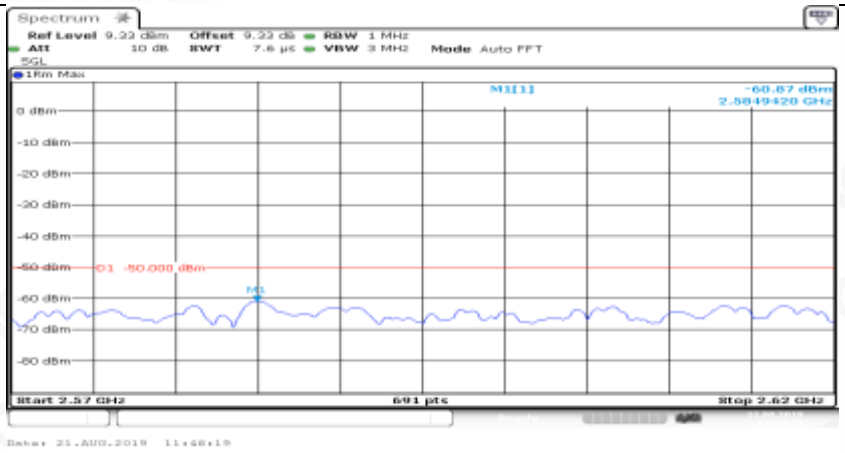
Co-existence	
Co-existence	
Additional	NA

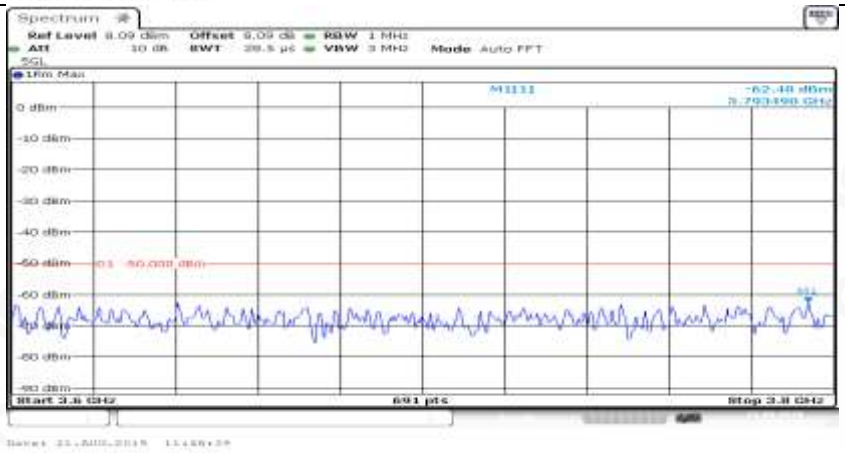
Channel Bandwidth=Highest (20 MHz)_QPSK_HCH_FullRB#0	
General	

General	
General	
General	

General	
General	
Co-existence	

Co-existence	
Co-existence	
Co-existence	

Co-existence	
Co-existence	
Co-existence	

Co-existence	
Co-existence	
Co-existence	
Additional	NA

6. Receiver Spurious Emissions

Test Result

NTNV

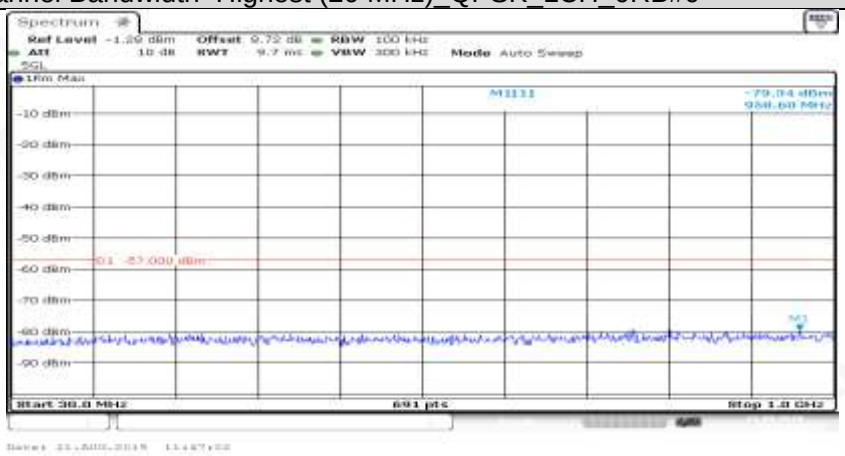
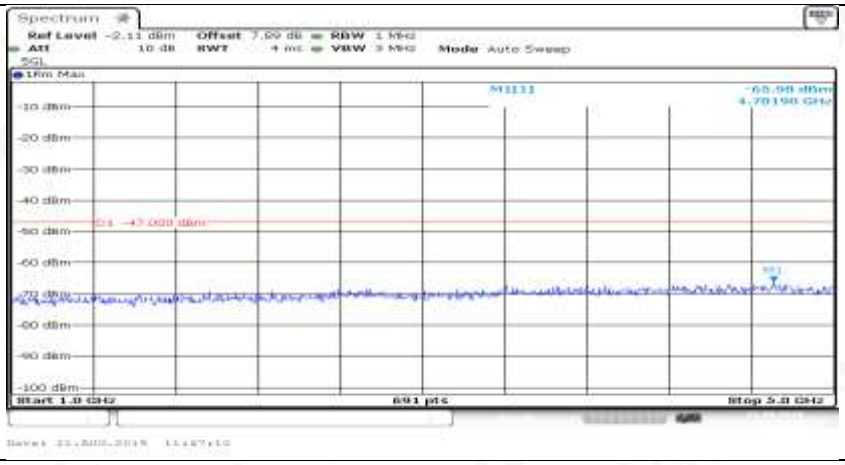
Channel Bandwidth=Highest

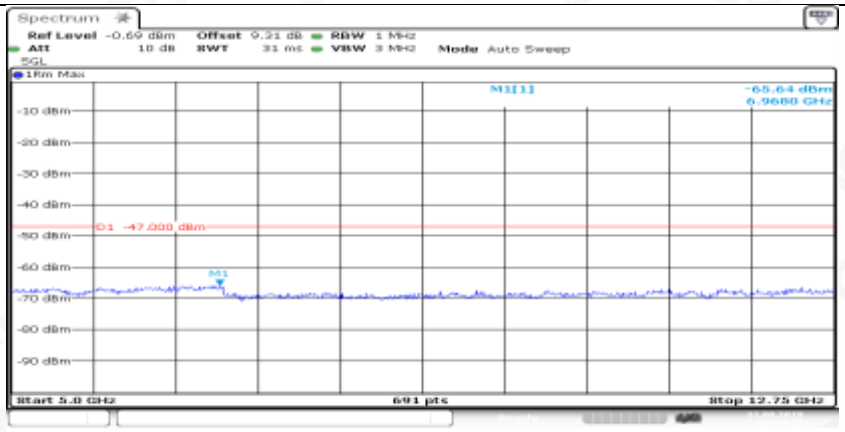
Condition	Modulation	Channel Bandwidth	Channel	RB allocation		Verdict
				RB Size	RB Offset	
Normal	QPSK	20 MHz	Low range	0	0	Pass
			Mid range	0	0	Pass
			High range	0	0	Pass

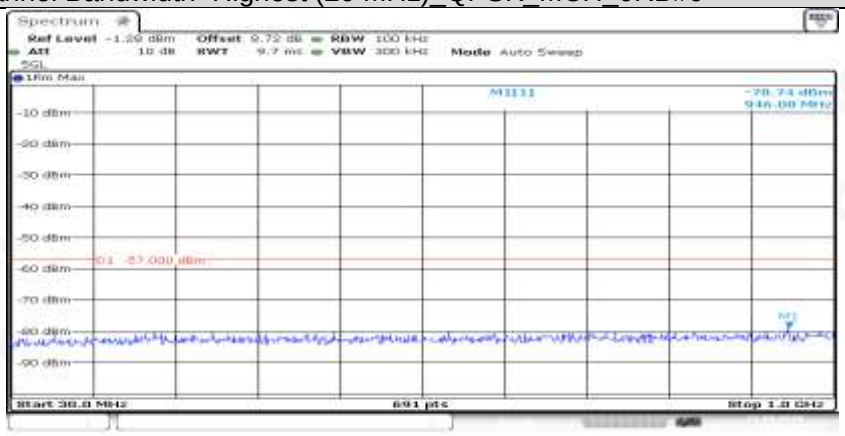
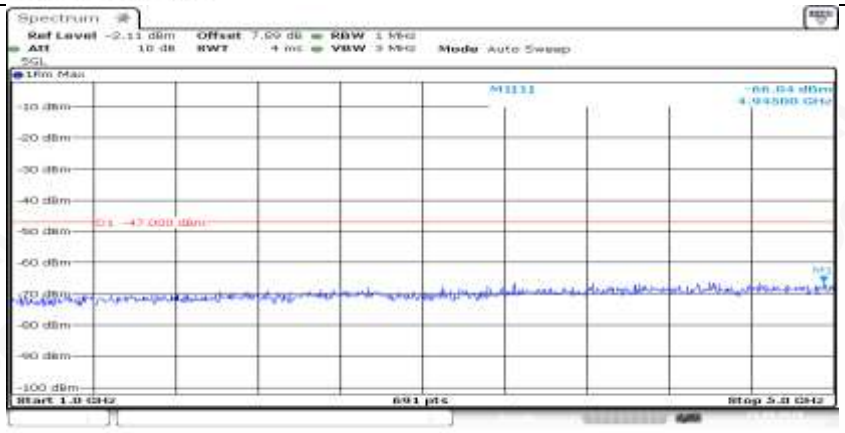
Test Graphs

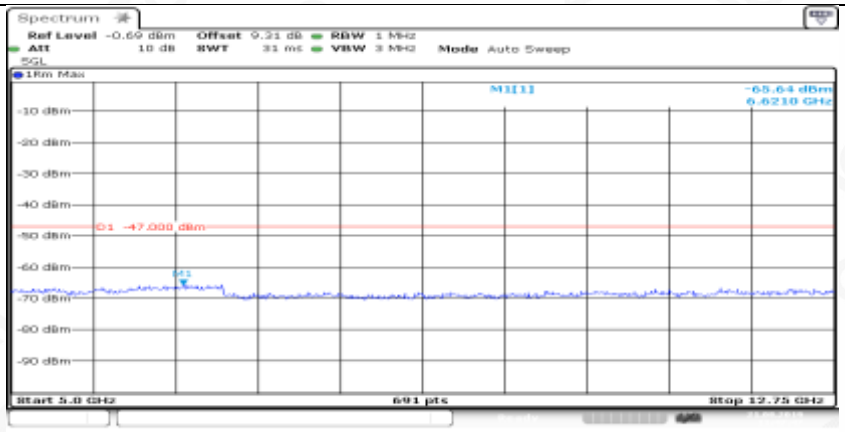
NTNV

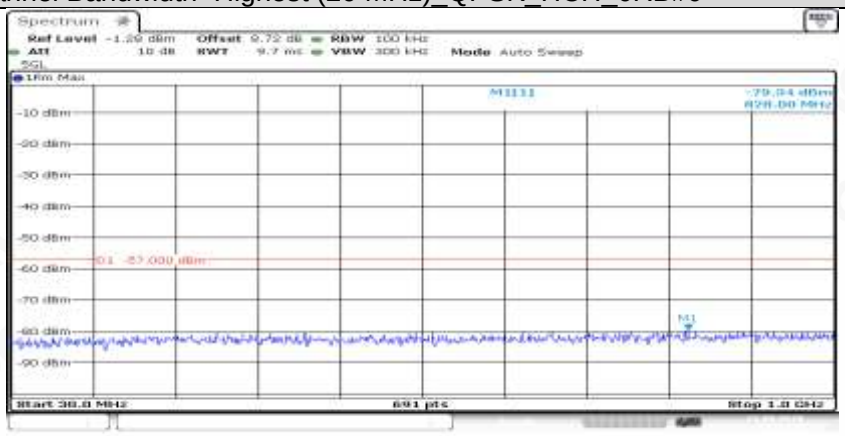
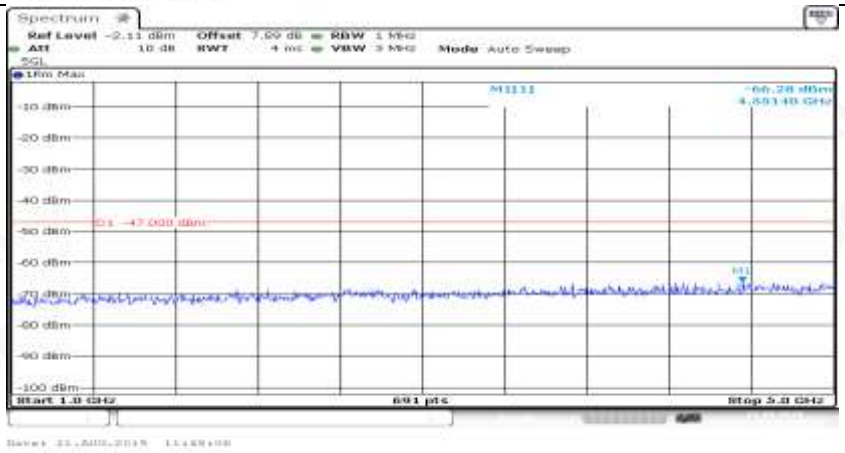
Channel Bandwidth=Highest

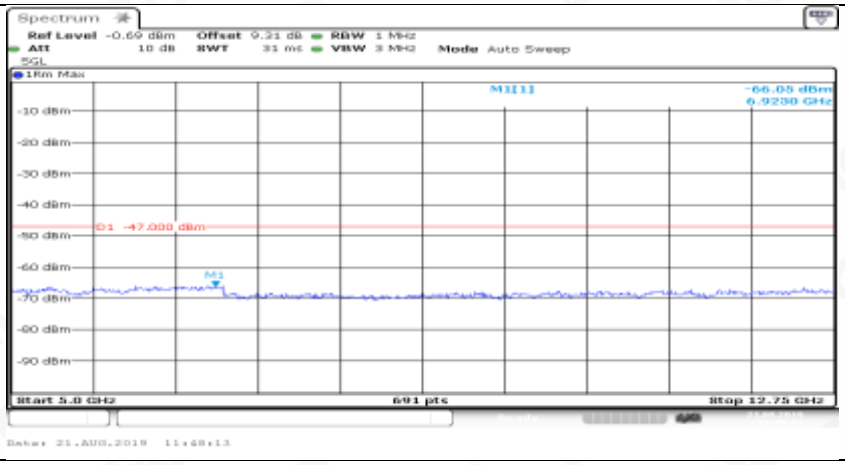
Channel Bandwidth=Highest (20 MHz)_QPSK_LCH_0RB#0	
LCH	
LCH	

LCH	

Channel Bandwidth=Highest (20 MHz)_QPSK_MCH_0RB#0	
MCH	
MCH	

MCH	

Channel Bandwidth=Highest (20 MHz)_QPSK_HCH_0RB#0	
HCH	
HCH	

HCH	 Spectrum Ref Level -0.69 dBm Offset 9.21 dB RBW 1 MHz Att 10 dB SWT 31 ms VBW 3 MHz Mode Auto Sweep SGL 1Rm Max M1[1] -66.05 dBm 6.9230 GHz -10 dBm -20 dBm -30 dBm -40 dBm D1 -47.000 dBm -50 dBm -60 dBm M1 -70 dBm -80 dBm -90 dBm Start 5.0 GHz 691 pts Stop 12.75 GHz Date: 21.AUG.2019 11:48:13

7. Receiver Adjacent Channel Selectivity (ACS)

Test Results

The equipment **passed** the requirement of this clause.

Test Environment			NC		
Test Frequencies			Mid range		
Test Channel Bandwidths			Lowest, 1.4MHz, Highest 20MHz		
Test Parameters for Channel Bandwidths					
	Downlink Configuration		**Uplink Configuration**		
Ch BW	Mod' n	RB allocation	Mod' n	RB allocation	CASE 1
		FDD		FDD	Throughput Limit
1.4MHz	QPSK	Full	QPSK	6	⩾ 95 %
5MHz	QPSK	Full	QPSK	15,20,25	⩾ 95 %
20MHz	QPSK	Full	QPSK	50	⩾ 95 %
Verdict	**Pass**				
Ch BW	Mod' n	RB allocation	Mod' n	RB allocation	CASE 2
		FDD		FDD	Throughput Limit
1.4MHz	QPSK	Full	QPSK	6	⩾ 95 %
5MHz	QPSK	Full	QPSK	15,20,25	⩾ 95 %
20MHz	QPSK	Full	QPSK	50	⩾ 95 %
Verdict	**Pass**				

8. Receiver blocking characteristics

Test Results

The equipment **passed** the requirement of this clause.

In-Band Blocking

Test Environment			NC		
Test Frequencies			Mid range		
Test Channel Bandwidths			Lowest, 1.4MHz, Highest 20MHz		
Test Parameters for Channel Bandwidths					
	Downlink Configuration		**Uplink Configuration**		CASE1
Ch BW	Mod' n	RB allocation	Mod' n	RB allocation	Throughput Limit
		FDD		FDD	
1.4MHz	QPSK	Full	QPSK	6	⩾ 95 %
5MHz	QPSK	Full	QPSK	15,20,25	⩾ 95 %
20MHz	QPSK	Full	QPSK	50	⩾ 95 %
Verdict	**Pass**				

In-Band Blocking

	Downlink Configuration		**Uplink Configuration**		CASE2
Ch BW	Mod' n	RB allocation	Mod' n	RB allocation	Throughput Limit
		FDD		FDD	
1.4MHz	QPSK	Full	QPSK	6	⩾ 95 %
5MHz	QPSK	Full	QPSK	15,20,25	⩾ 95 %
20MHz	QPSK	Full	QPSK	50	⩾ 95 %
Verdict	**Pass**				

Out-of Band Blocking

Test Environment			NC		
Test Frequencies			Low range for FInterferer below FDL_low High range for FInterferer above FDL_high		
Test Channel Bandwidths			Lowest, 1.4MHz, Highest 20MHz		
Test Parameters for Channel Bandwidths					
	Downlink Configuration		**Uplink Configuration**		RANGE1/RANGE2/RANGE3
Ch BW	Mod' n	RB allocation	Mod' n	RB allocation	Throughput Limit
		FDD		FDD	
1.4MHz	QPSK	Full	QPSK	6	⩾ 95 %
5MHz	QPSK	Full	QPSK	15,20,25	⩾ 95 %

20MHz	QPSK	Full	QPSK	50	⩾ 95 %
Verdict	**Pass**				

Narrow Band

Test Environment			NC		
Test Frequencies			Mid range		
Test Channel Bandwidths			Lowest, 1.4MHz, Highest 20MHz		
Test Parameters for Channel Bandwidths					
	Downlink Configuration				**Downlink Configuration**
Ch BW	Mod' n	Ch BW	Mod' n	Ch BW	Mod' n
1.4MHz	QPSK	1.4MHz	QPSK	1.4MHz	QPSK
5MHz	QPSK	10MHz	QPSK	5MHz	QPSK
20MHz	QPSK	20MHz	QPSK	20MHz	QPSK
Verdict	**Pass**				

9. Receiver Spurious Response

Test Results

The equipment **passed** the requirement of this clause.

Test Environment			NC		
Test Frequencies			Mid range		
Test Channel Bandwidths			Lowest, 1.4MHz, Highest 20MHz		
Test Parameters for Channel Bandwidths					
	Downlink Configuration		**Uplink Configuration**		
Ch BW	Mod' n	RB allocation	Mod' n	RB allocation	CASE 1
		FDD		FDD	Throughput Limit
1.4MHz	QPSK	Full	QPSK	6	⩾ 95 %
5MHz	QPSK	Full	QPSK	15,20,25	⩾ 95 %
20MHz	QPSK	Full	QPSK	50	⩾ 95 %
Verdict	**Pass**				
Ch BW	Mod' n	RB allocation	Mod' n	RB allocation	CASE 2
		FDD		FDD	Throughput Limit
1.4MHz	QPSK	Full	QPSK	6	⩾ 95 %
5MHz	QPSK	Full	QPSK	15,20,25	⩾ 95 %
20MHz	QPSK	Full	QPSK	50	⩾ 95 %
Verdict	**Pass**				

10. Receiver Intermodulation Characteristics

Test Results

The equipment **passed** the requirement of this clause.

Test Band	Band 3					
Test Environment	NC					
Test Frequencies	Mid range					
Test Channel Bandwidths	Lowest, 1.4MHz, Highest 20MHz					
Test Parameters for Channel Bandwidths						
	Downlink Configuration				**Downlink Configuration**	
Ch BW	Mod' n	Ch BW	Mod' n	Ch BW	Mod' n	Ch BW
1.4MHz	QPSK	1.4MHz	QPSK	1.4MHz	QPSK	1.4MHz
5MHz	QPSK	5MHz	QPSK	5MHz	QPSK	10MHz
20MHz	QPSK	20MHz	QPSK	20MHz	QPSK	20MHz
Verdict	**Pass**					

11. Receiver Reference Sensitivity Level

Test Results

Note: All the modes had been tested, but only the worst data recorded in the report.

NTNV

	Test Band			Band 3			
	TestEnvironment			NC			
	Test Frequencies			Midrange			
	TestChannelBandwidths			Lowest,1.4MHz,Highest 20MHz			
	Test Parameters for Channel Bandwidths						
		DownlinkConfiguration		**Uplink Configuration**			
	Ch BW	Mod' n	RB allocation	Mod' n	RB allocation	Meas. Throughput	Throughput Limit
			FDD		FDD		
TNVN	1.4MHz	QPSK	Full	QPSK	6	Pass	≥ 95 %
	5MHz	QPSK	Full	QPSK	15,20,25	Pass	≥ 95 %
	20MHz	QPSK	Full	QPSK	50	Pass	≥ 95 %
	Verdict	**Pass**					

12. Radiated spurious emissions - MS in idle mode

Test Result

NTNV

Channel Bandwidth=Highest= (20 MHz)

Frequency	Modulation	RBW	Max .Level (dbm)	Test Conditions=TNVN		
				Test Channel		
				LCH	MCH	HCH
30 MHz ≤f < 1 GHz	QPSK	100 kHz	-57	-73.12	-73.01	-73.13
1 GHz ≤f ≤ 5 GHz		1 MHz	-47	-75.00	-75.20	-75.24
5 GHz ≤f ≤12.75 GHz		1 MHz	-47	-69.79	-69.43	-69.55

Appendix C for Band 7

1. Transmitter Maximum Output Power

Note: All test modes were carried out for all operation modes and record the worst test mode (LTE BAND 7 TNVN) of fellow

Test Result

NTNV

Channel Bandwidth=Lowest (5 MHz)

Channel Bandwidth=Lowest (5 MHz)							
Condition	Modulation	Channel Bandwidth	Channel	RB allocation		Average Power (dBm)	Verdict
				RB Size	RB Offset		
Normal	QPSK	5 MHz	Low range	1	0	24.00	Pass
					max	24.07	Pass
				Partial	0	24.15	Pass
					max	24.20	Pass
			Mid range	1	0	24.49	Pass
					max	24.48	Pass
				Partial	0	24.48	Pass
					max	24.45	Pass
			High range	1	0	24.74	Pass
					max	24.29	Pass
				Partial	0	24.95	Pass
					max	24.37	Pass

Channel Bandwidth=Highest (20 MHz)

Channel Bandwidth=Highest (20 MHz)							
Condition	Modulation	Channel Bandwidth	Channel	RB allocation		Average Power (dBm)	Verdict
				RB Size	RB Offset		
Normal	QPSK	20 MHz	Low range	1	0	23.83	Pass
					max	24.07	Pass
				Partial	0	23.93	Pass
					max	24.18	Pass
			Mid range	1	0	24.13	Pass
					max	23.67	Pass
				Partial	0	24.25	Pass
					max	23.71	Pass
			High range	1	0	23.50	Pass
					max	24.08	Pass
				Partial	0	24.05	Pass
					max	24.56	Pass

2. Transmitter Minimum Output Power

Note: All test modes were carried out for all operation modes and record the worst test mode (LTE BAND 7 TNVN) of fellow

Test Result

NTNV

Channel Bandwidth=Lowest (5 MHz)

Channel Bandwidth=Lowest (5 MHz)							
Condition	Modulation	Channel Bandwidth	Channel	RB allocation		Average Power (dBm)	Verdict
				RB Size	RB Offset		
Normal	QPSK	5 MHz	Low range	Full	0	-43.60	Pass
			Mid range	Full	0	-51.16	Pass
			High range	Full	0	-50.13	Pass

Channel Bandwidth=Highest (20 MHz)

Channel Bandwidth=Highest (20 MHz)							
Condition	Modulation	Channel Bandwidth	Channel	RB allocation		Average Power (dBm)	Verdict
				RB Size	RB Offset		
Normal	QPSK	20MHz	Low range	Full	0	-49.11	Pass
			Mid range	Full	0	-49.52	Pass
			High range	Full	0	-48.79	Pass

3. Transmitter Spectrum Emission Mask

Test Result

NTNV

Channel Bandwidth=Lowest (5 MHz)

Channel Bandwidth=Lowest (5 MHz)							
Condition	Modulation	Channel Bandwidth	Channel	RB allocation		UE output power	Verdict
				RB Size	RB Offset		
Normal	QPSK	5 MHz	Low range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			Mid range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			High range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
	16QAM		Low range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			Mid range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			High range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass

Channel Bandwidth= (10 MHz)

Channel Bandwidth= (10 MHz)							
Condition	Modulation	Channel Bandwidth	Channel	RB allocation		UE output power	Verdict
				RB Size	RB Offset		
Normal	QPSK	10 MHz	Low range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			Mid range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			High range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
	16QAM		Low range	Partial	0	PUMAX	Pass

					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			Mid range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			High range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass

Channel Bandwidth=Highest (20 MHz)

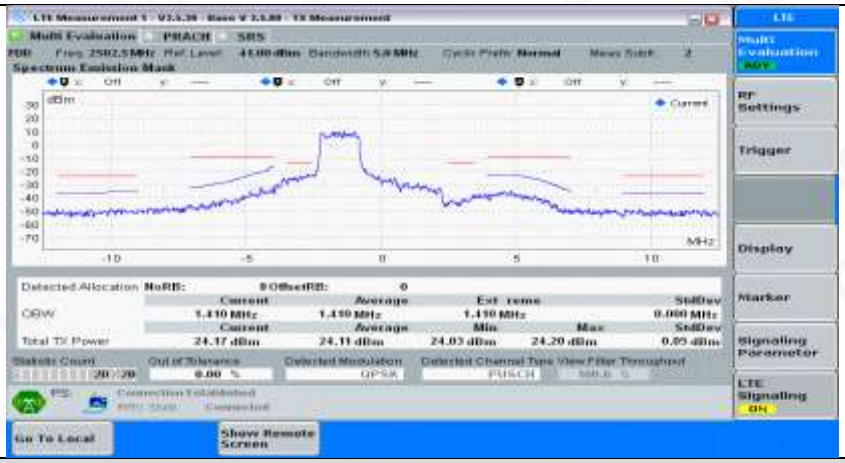
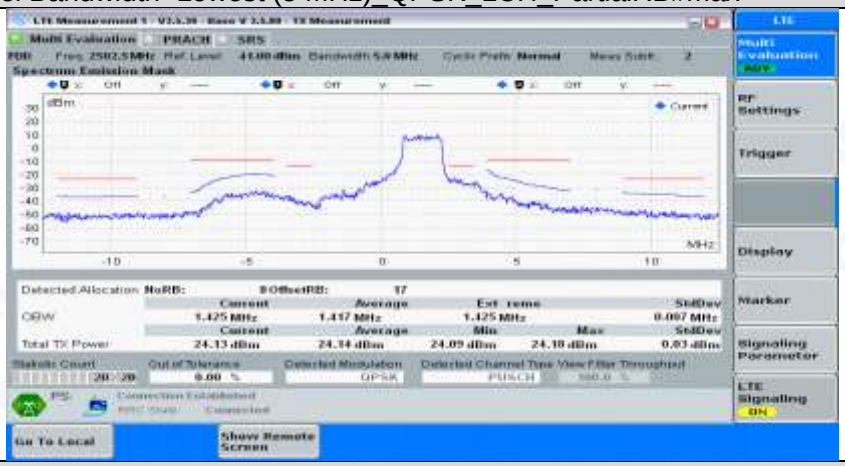
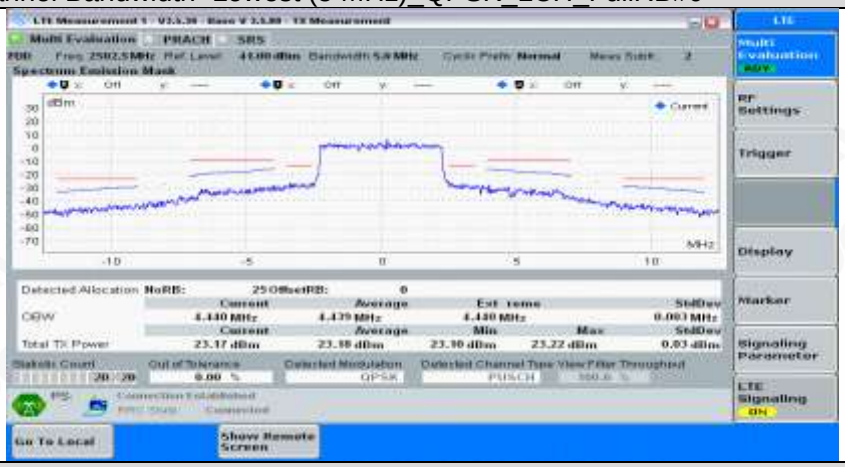
Channel Bandwidth=Highest (20 MHz)							
Condition	Modulation	Channel Bandwidth	Channel	RB allocation		UE output power	Verdict
				RB Size	RB Offset		
Normal	QPSK	20 MHz	Low range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			Mid range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			High range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
	16QAM		Low range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			Mid range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			High range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass

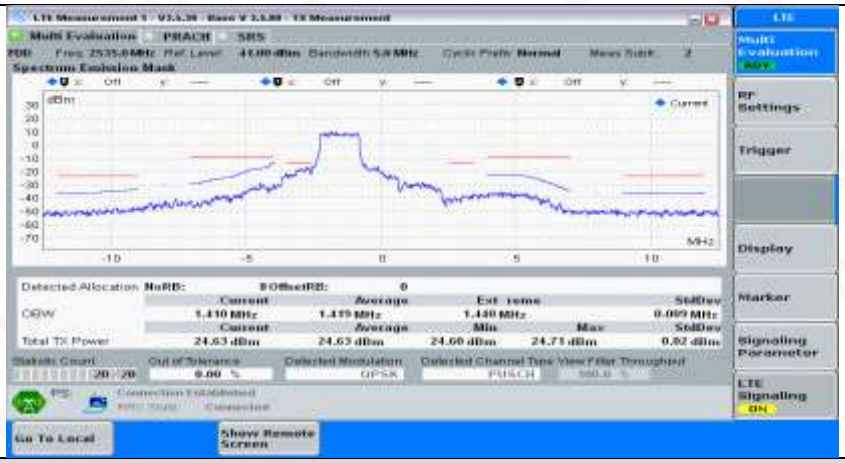
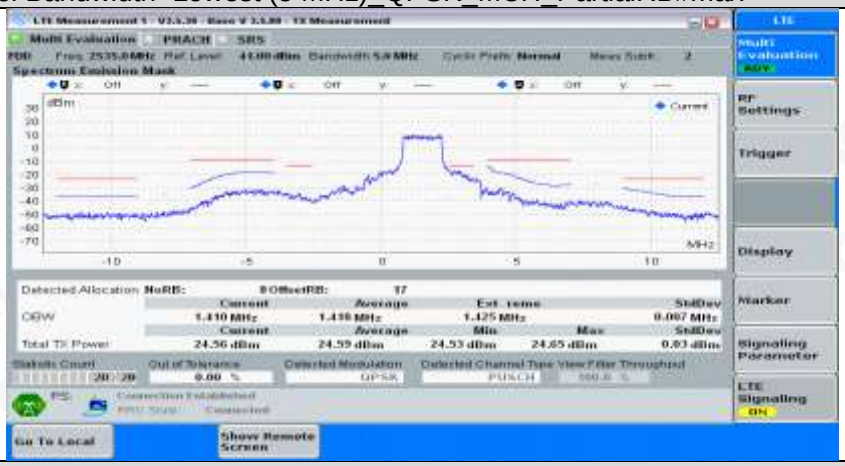
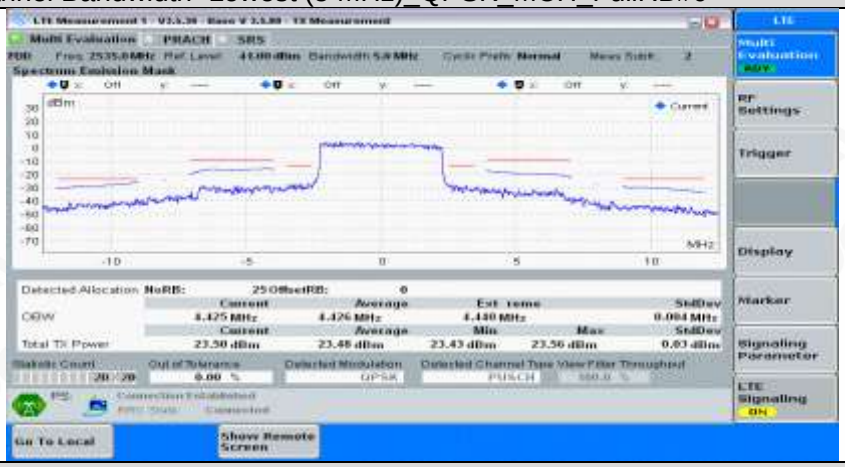
Test Graphs

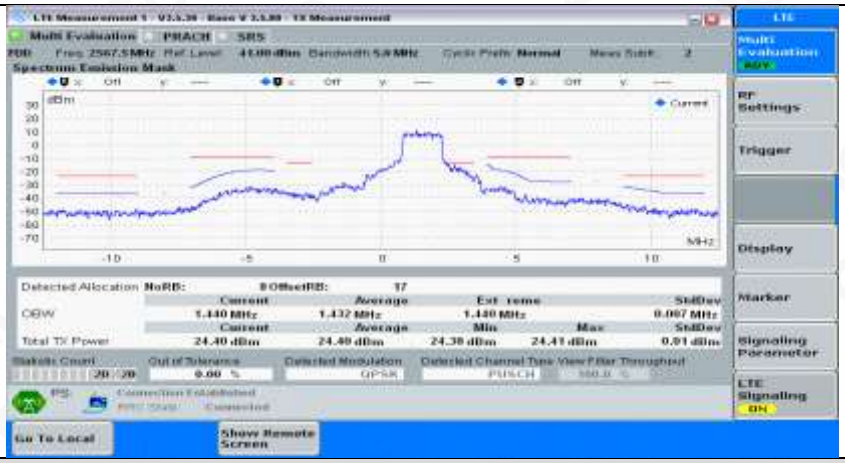
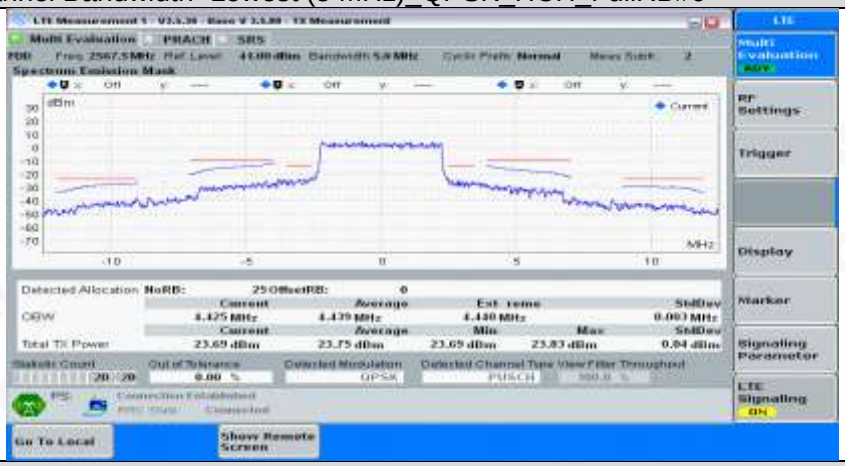
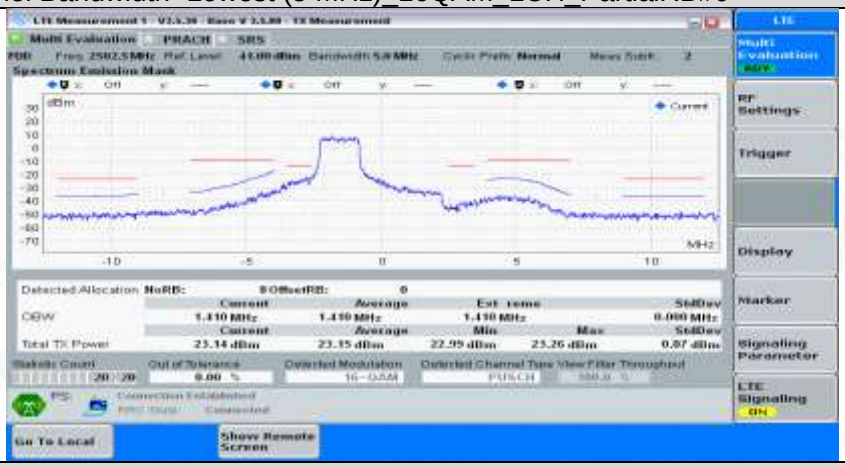
NTNV

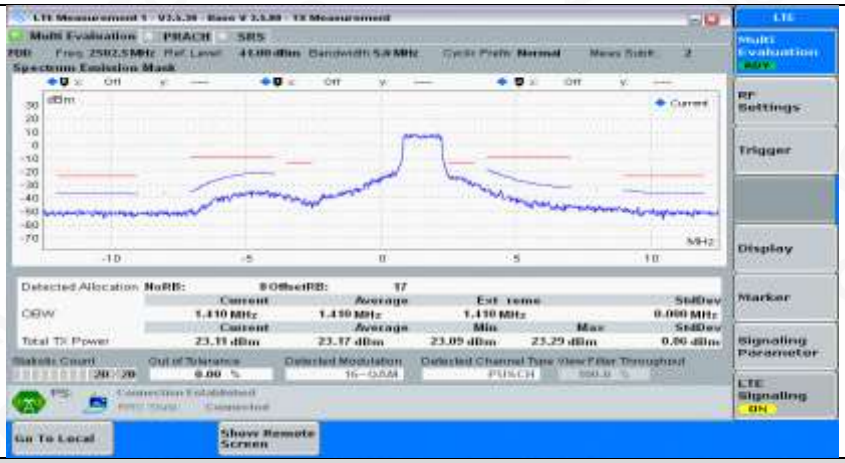
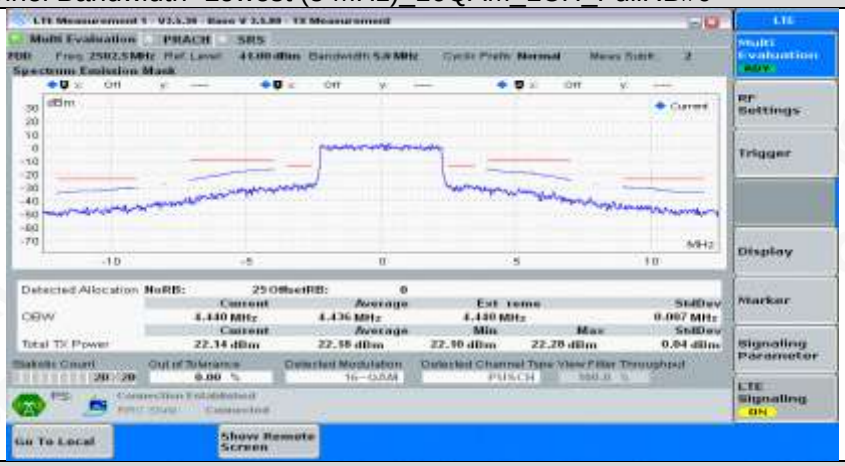
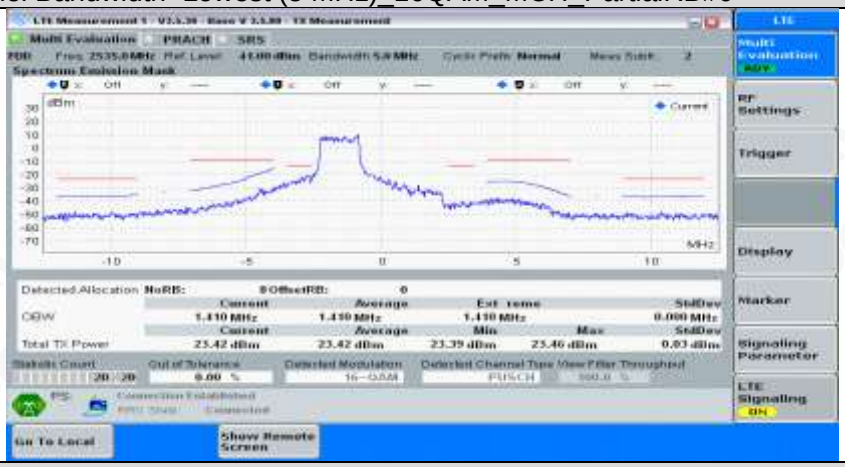
Channel Bandwidth=Lowest (5 MHz)

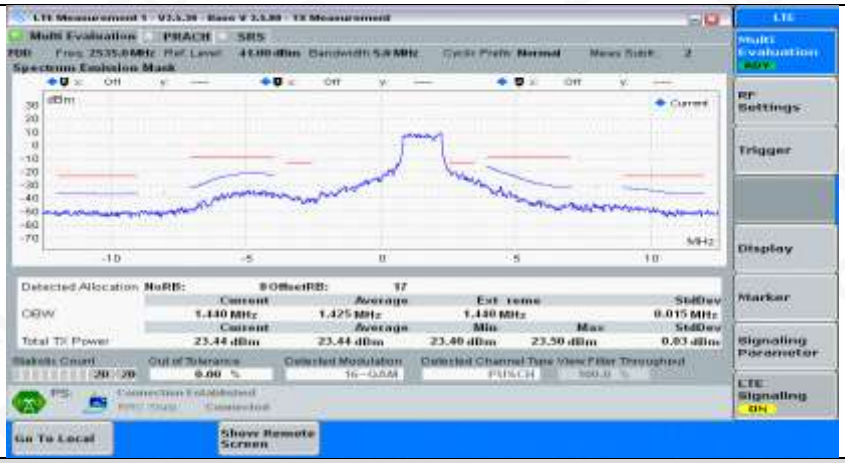
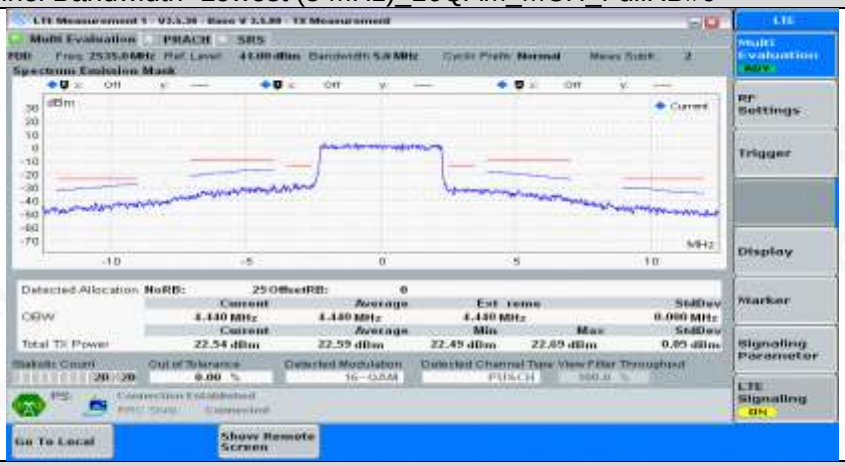
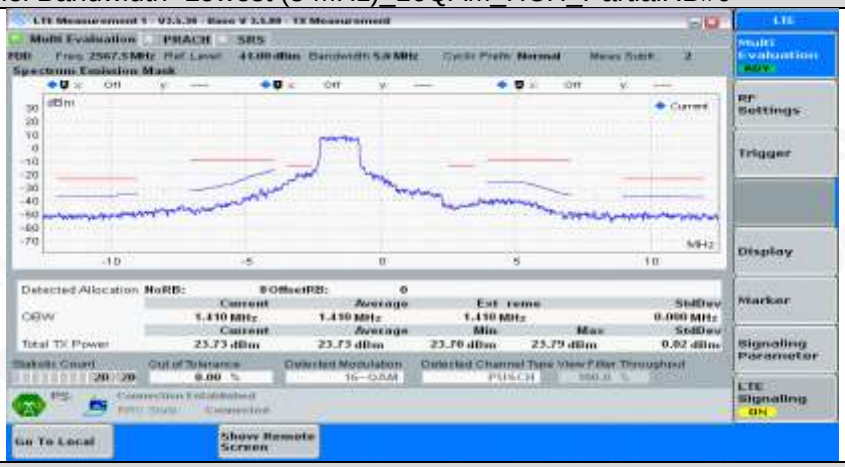
Channel Bandwidth=Lowest (5 MHz)_QPSK_LCH_PartialRB#0

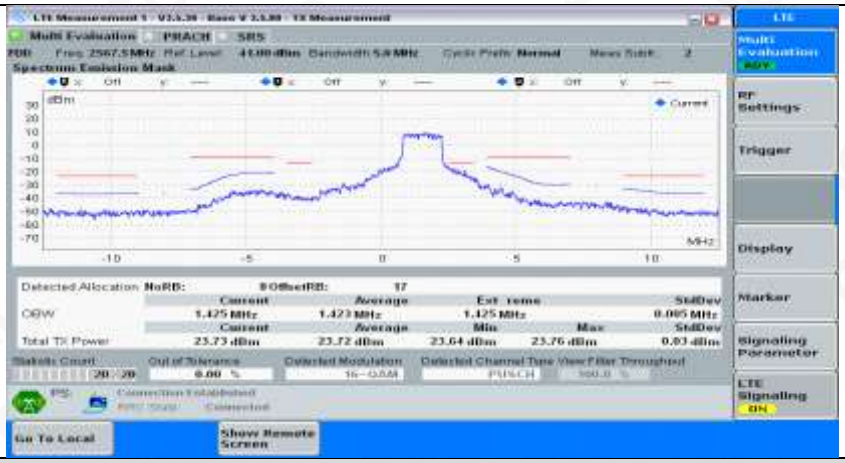
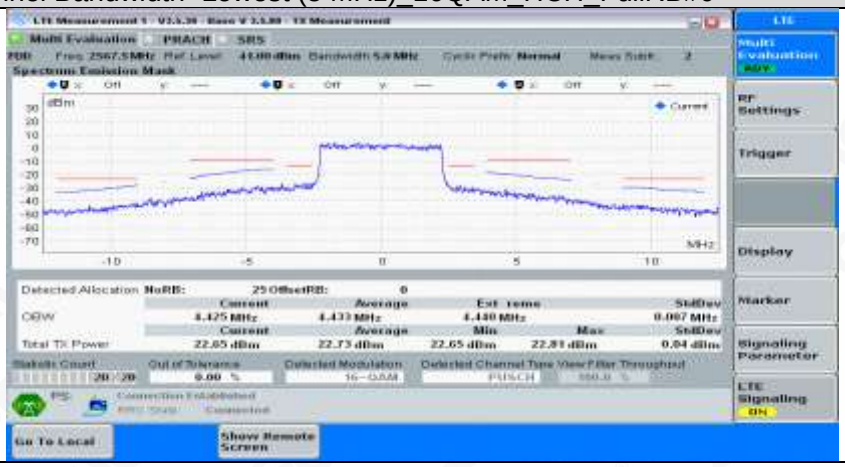
QPSK		
Channel Bandwidth=Lowest (5 MHz)_QPSK_LCH_PartialRB#max		
QPSK		
Channel Bandwidth=Lowest (5 MHz)_QPSK_LCH_FullRB#0		
QPSK		
Channel Bandwidth=Lowest (5 MHz)_QPSK_MCH_PartialRB#0		

QPSK	
Channel Bandwidth=Lowest (5 MHz)_QPSK_MCH_PartialRB#max	
QPSK	
Channel Bandwidth=Lowest (5 MHz)_QPSK_MCH_FullRB#0	
QPSK	
Channel Bandwidth=Lowest (5 MHz)_QPSK_HCH_PartialRB#0	
QPSK	#BWL-Img-QPSK-HCH-P-L-Emask
Channel Bandwidth=Lowest (5 MHz)_QPSK_HCH_PartialRB#max	

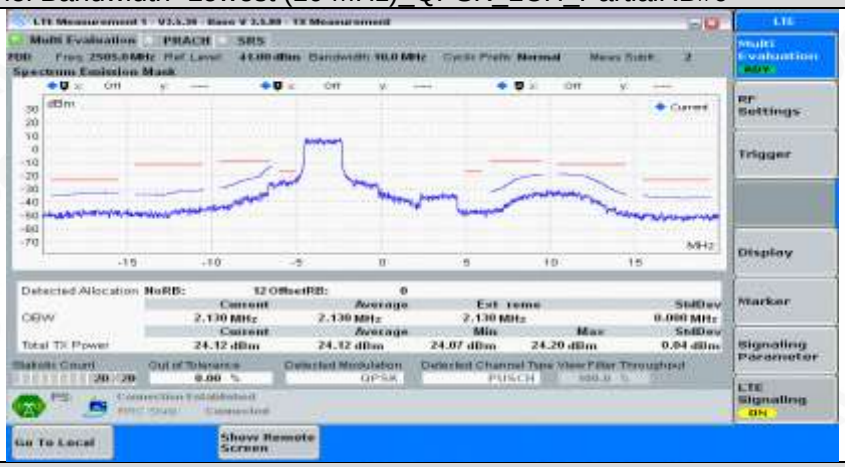
QPSK		
Channel Bandwidth=Lowest (5 MHz)_QPSK_HCH_FullRB#0		
QPSK		
Channel Bandwidth=Lowest (5 MHz)_16QAM_LCH_PartialRB#0		
16QAM		
Channel Bandwidth=Lowest (5 MHz)_16QAM_LCH_PartialRB#max		

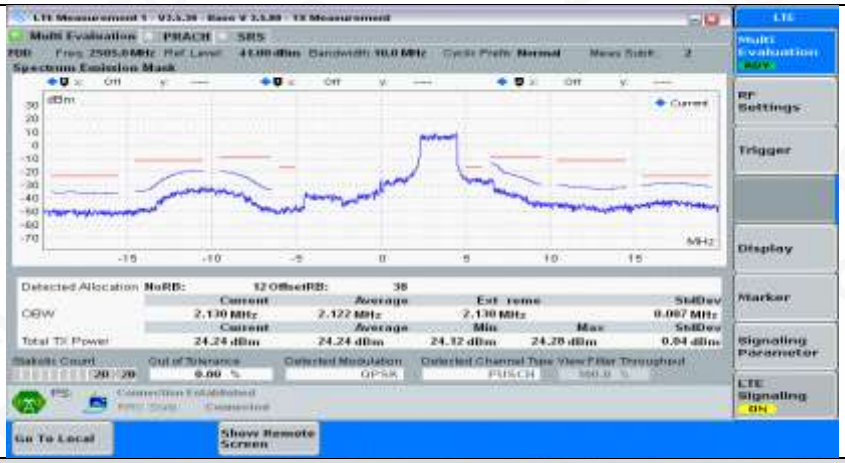
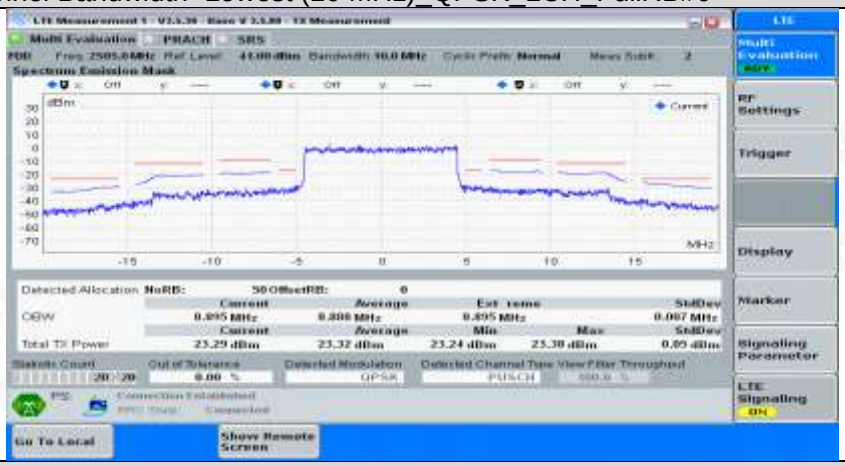
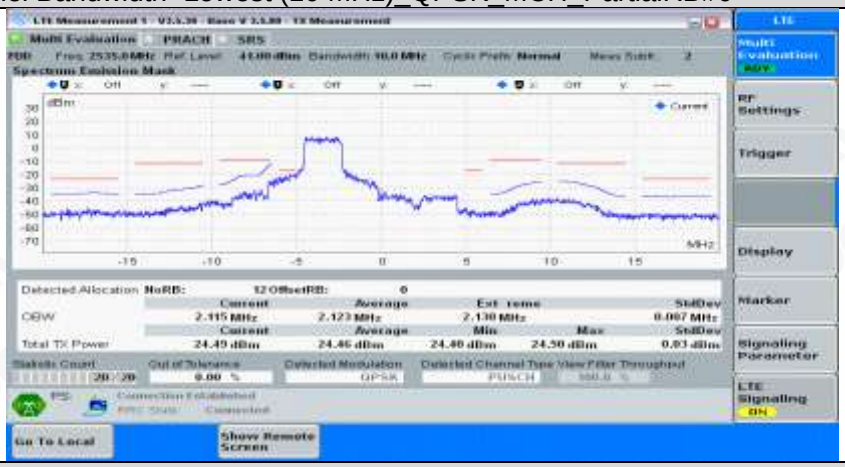
16QAM		
Channel Bandwidth=Lowest (5 MHz)_16QAM_LCH_FullRB#0		
16QAM		
Channel Bandwidth=Lowest (5 MHz)_16QAM_MCH_PartialRB#0		
16QAM		
Channel Bandwidth=Lowest (5 MHz)_16QAM_MCH_PartialRB#max		

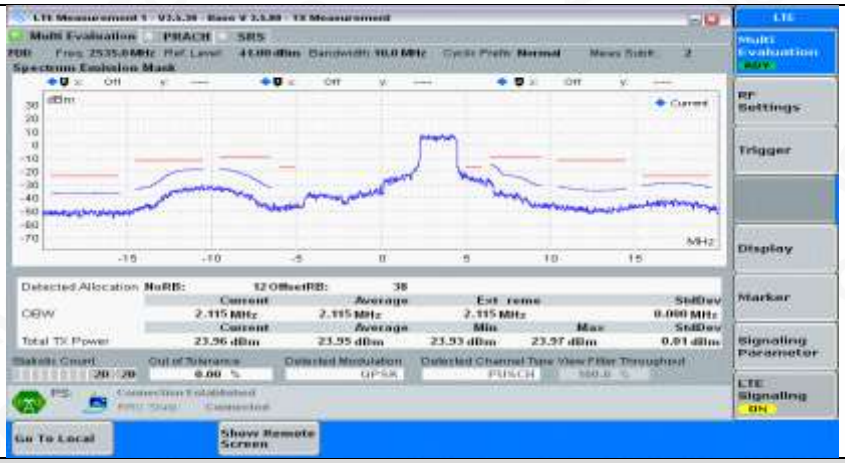
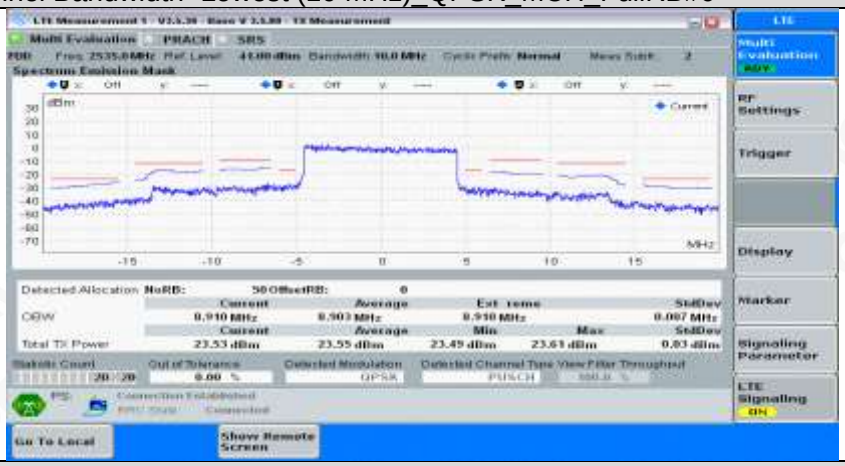
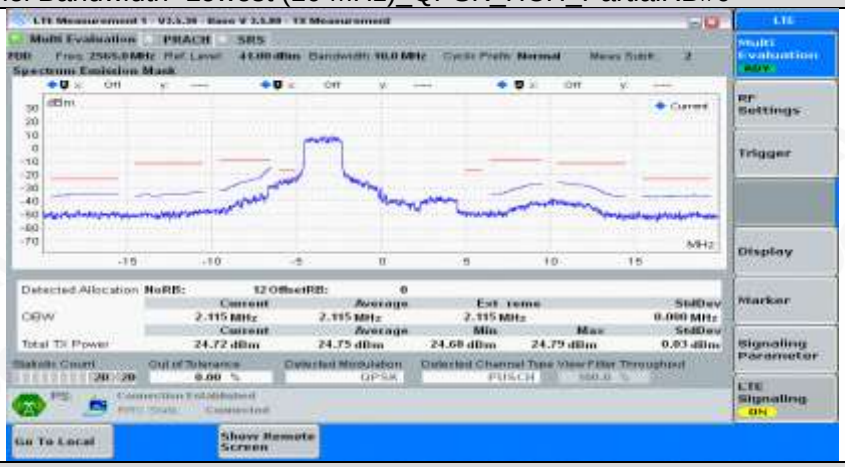
16QAM	
Channel Bandwidth=Lowest (5 MHz)_16QAM_MCH_FullRB#0	
16QAM	
Channel Bandwidth=Lowest (5 MHz)_16QAM_HCH_PartialRB#0	
16QAM	
Channel Bandwidth=Lowest (5 MHz)_16QAM_HCH_PartialRB#max	

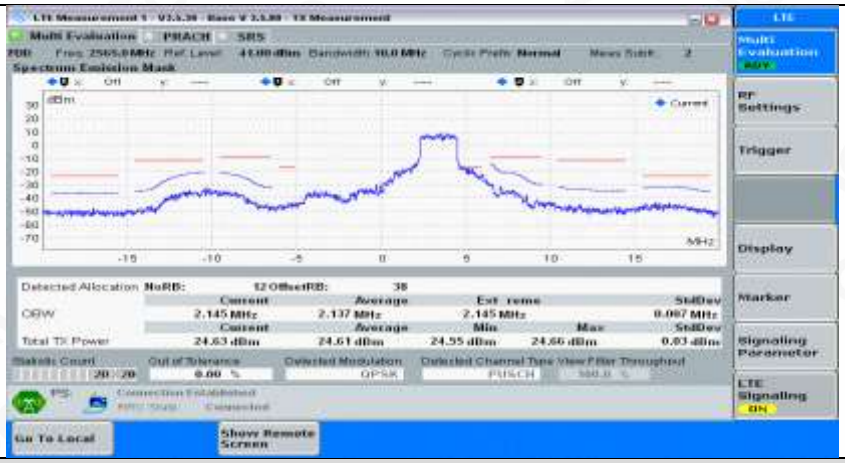
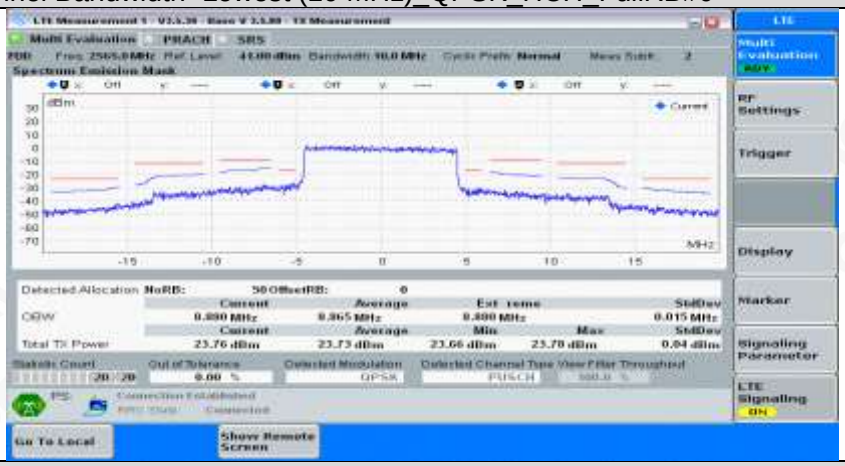
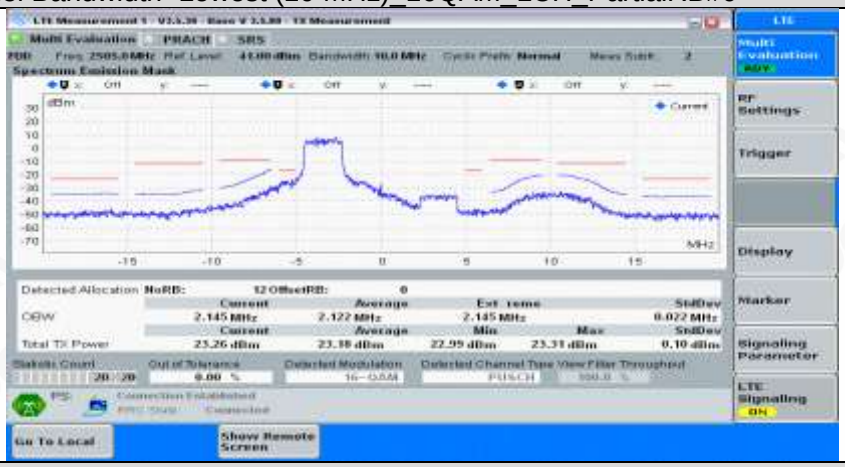
16QAM		
Channel Bandwidth=Lowest (5 MHz)_16QAM_HCH_FullRB#0		
16QAM		

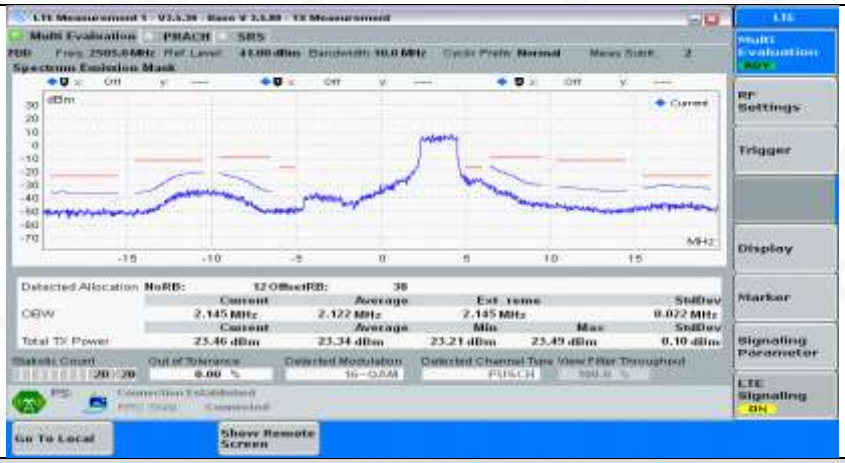
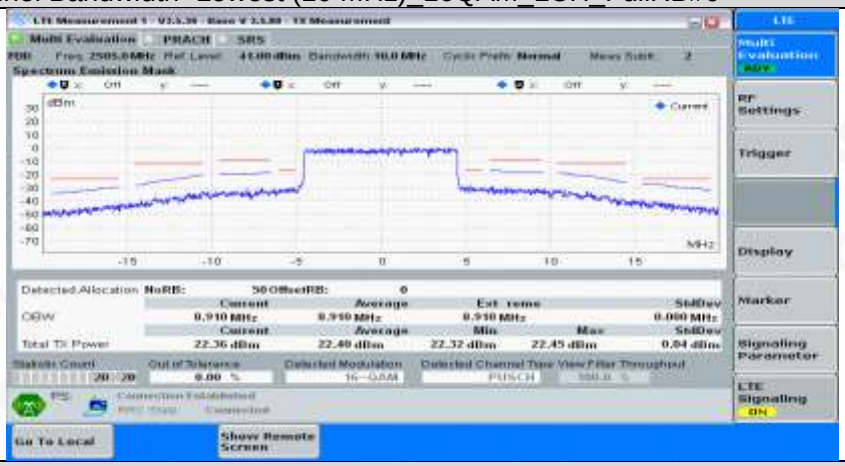
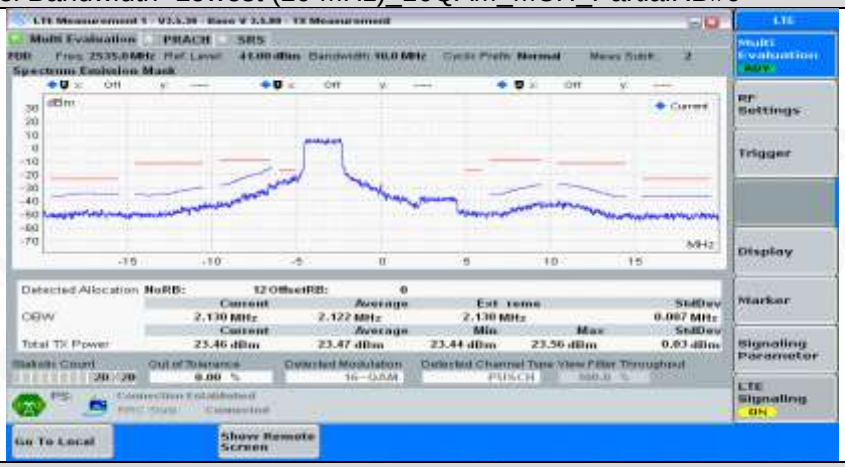
Channel Bandwidth= (10 MHz)

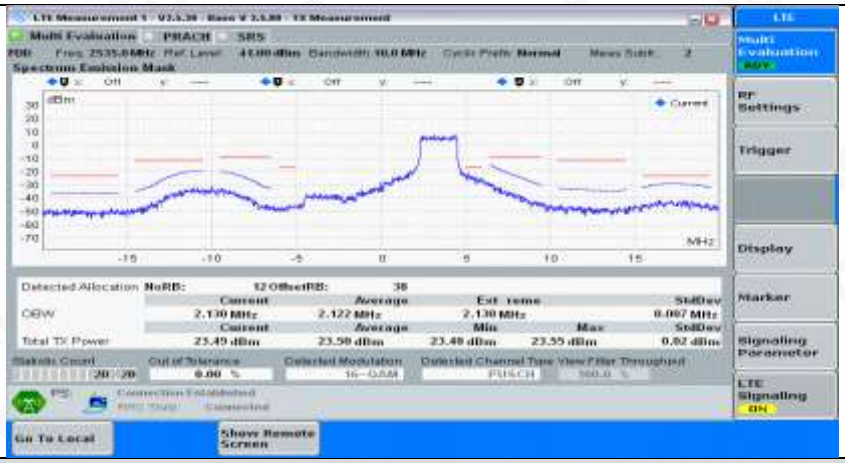
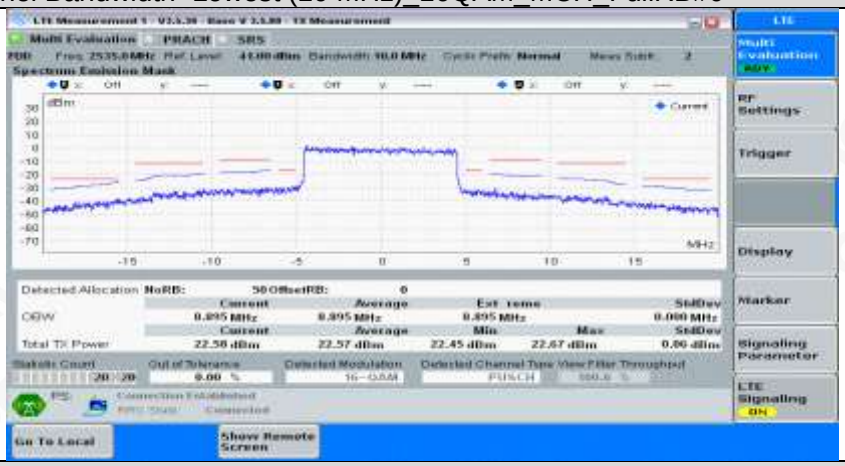
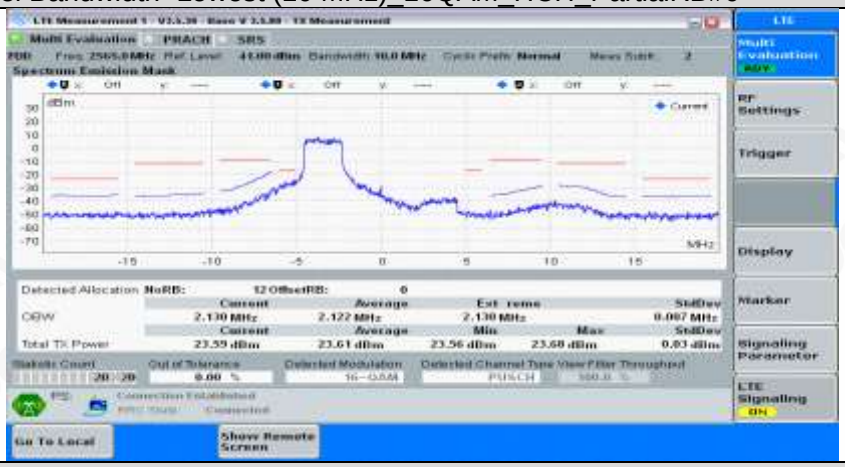
Channel Bandwidth=Lowest (10 MHz)_QPSK_LCH_PartialRB#0		
QPSK		
Channel Bandwidth=Lowest (10 MHz)_QPSK_LCH_PartialRB#max		

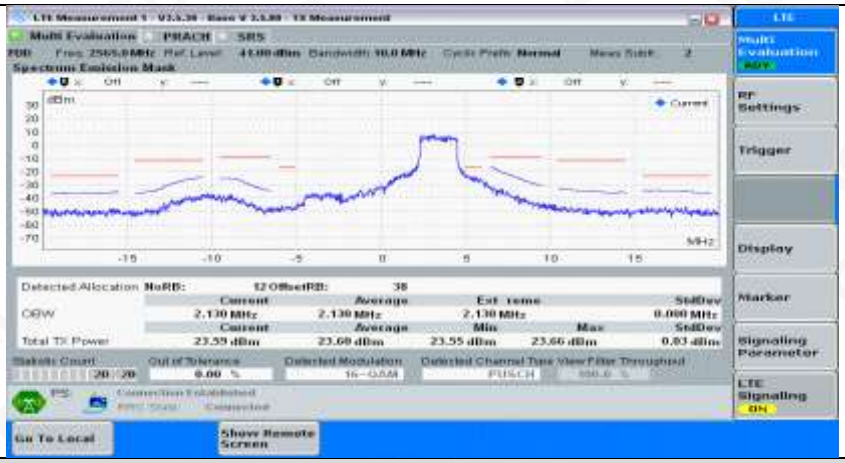
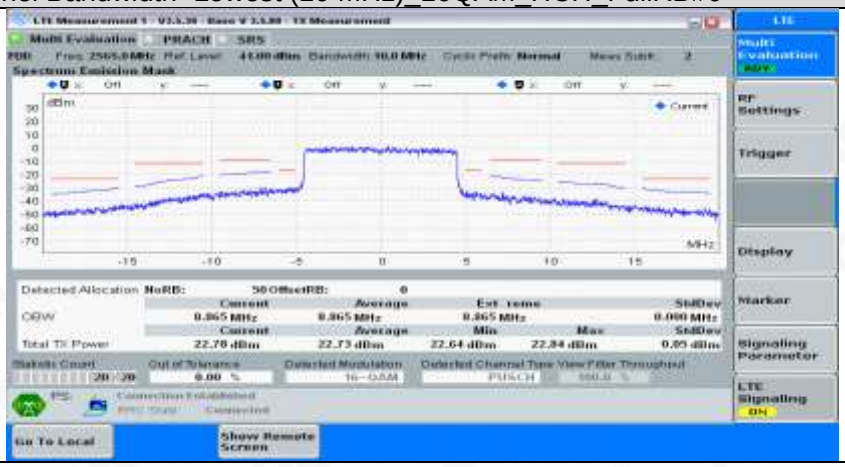
QPSK		
Channel Bandwidth=Lowest (10 MHz)_QPSK_LCH_FullRB#0		
QPSK		
Channel Bandwidth=Lowest (10 MHz)_QPSK_MCH_PartialRB#0		
QPSK		
Channel Bandwidth=Lowest (10 MHz)_QPSK_MCH_PartialRB#max		

QPSK		
Channel Bandwidth=Lowest (10 MHz)_QPSK_MCH_FullRB#0		
QPSK		
Channel Bandwidth=Lowest (10 MHz)_QPSK_HCH_PartialRB#0		
QPSK		
Channel Bandwidth=Lowest (10 MHz)_QPSK_HCH_PartialRB#max		

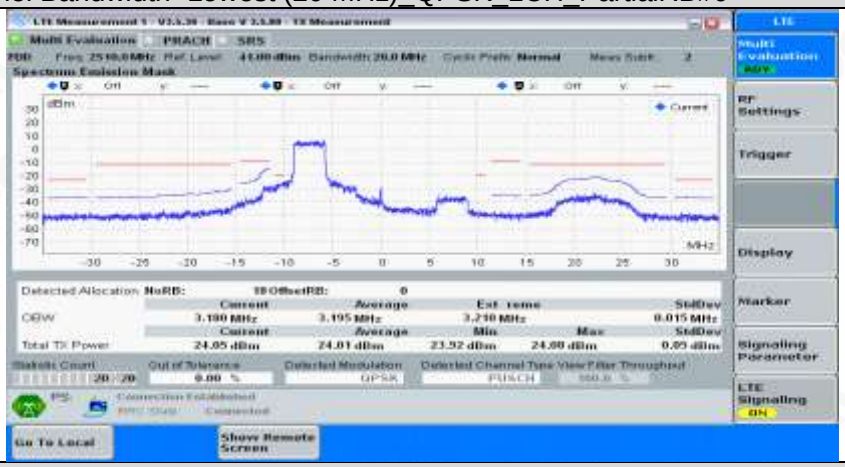
QPSK		
Channel Bandwidth=Lowest (10 MHz)_QPSK_HCH_FullRB#0		
QPSK		
Channel Bandwidth=Lowest (10 MHz)_16QAM_LCH_PartialRB#0		
16QAM		
Channel Bandwidth=Lowest (10 MHz)_16QAM_LCH_PartialRB#max		

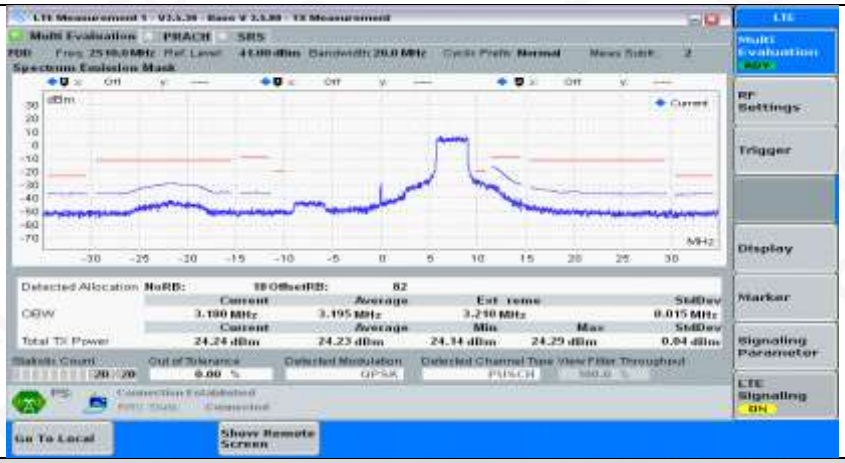
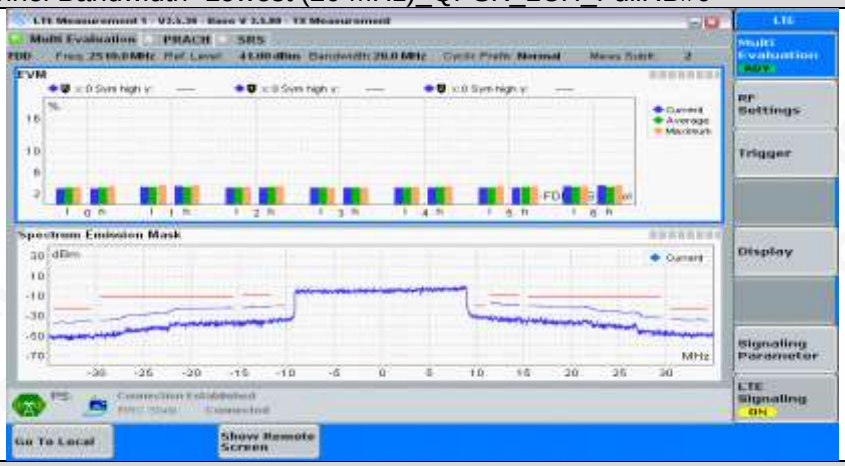
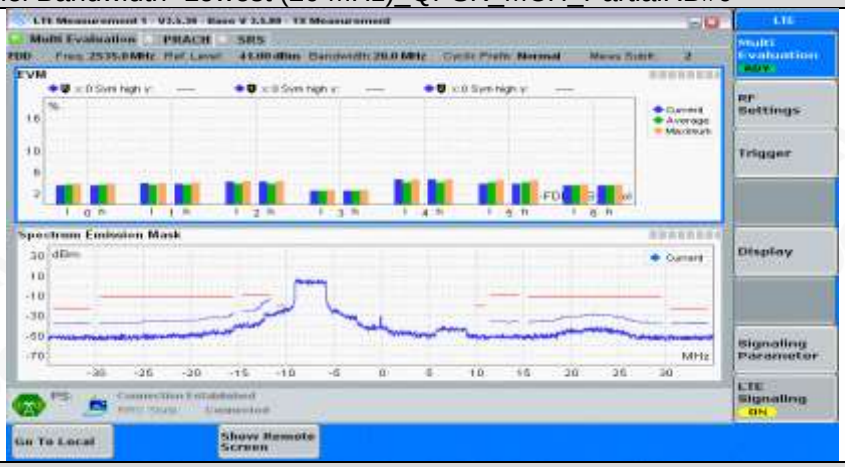
16QAM	
Channel Bandwidth=Lowest (10 MHz)_16QAM_LCH_FullRB#0	
16QAM	
Channel Bandwidth=Lowest (10 MHz)_16QAM_MCH_PartialRB#0	
16QAM	
Channel Bandwidth=Lowest (10 MHz)_16QAM_MCH_PartialRB#max	

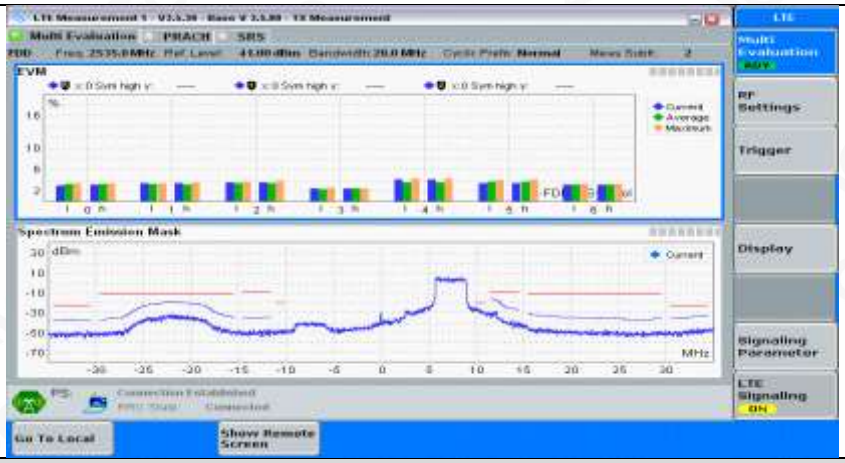
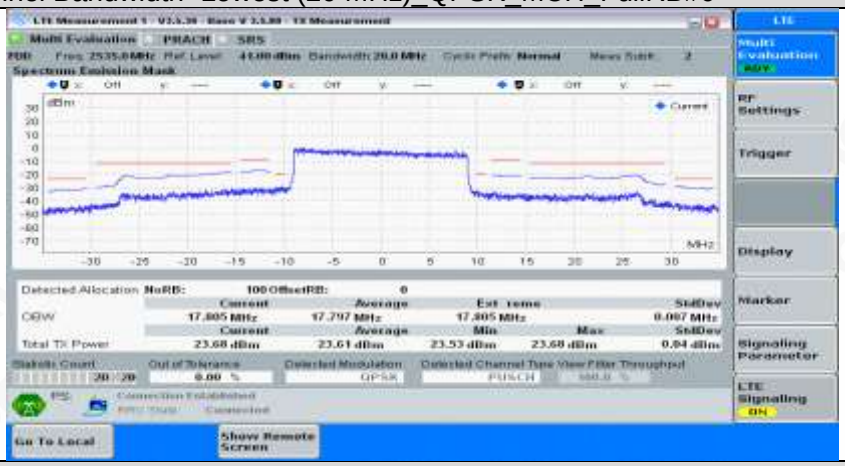
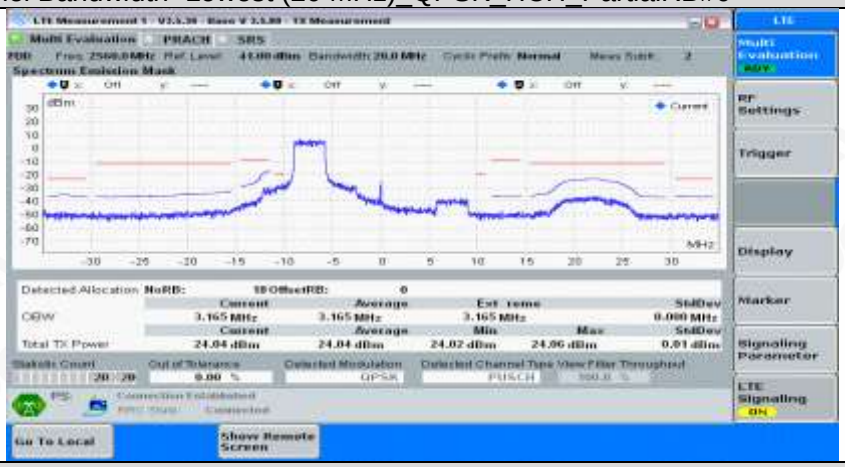
16QAM	
Channel Bandwidth=Lowest (10 MHz)_16QAM_MCH_FullRB#0	
16QAM	
Channel Bandwidth=Lowest (10 MHz)_16QAM_HCH_PartialRB#0	
16QAM	
Channel Bandwidth=Lowest (10 MHz)_16QAM_HCH_PartialRB#max	

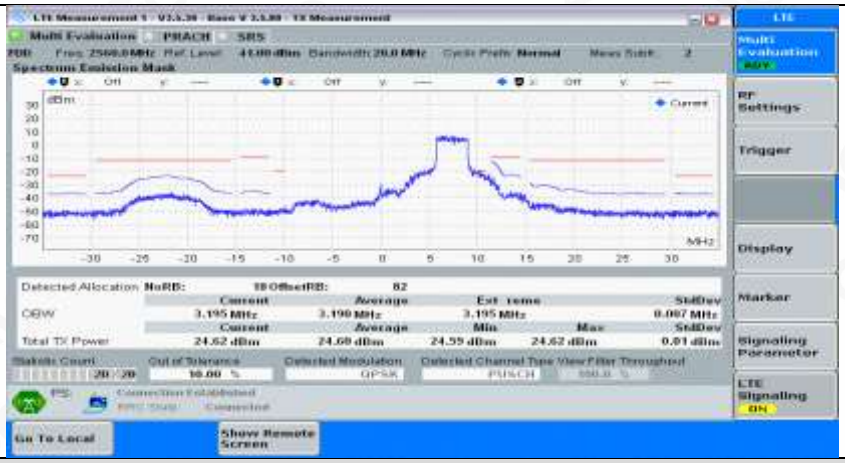
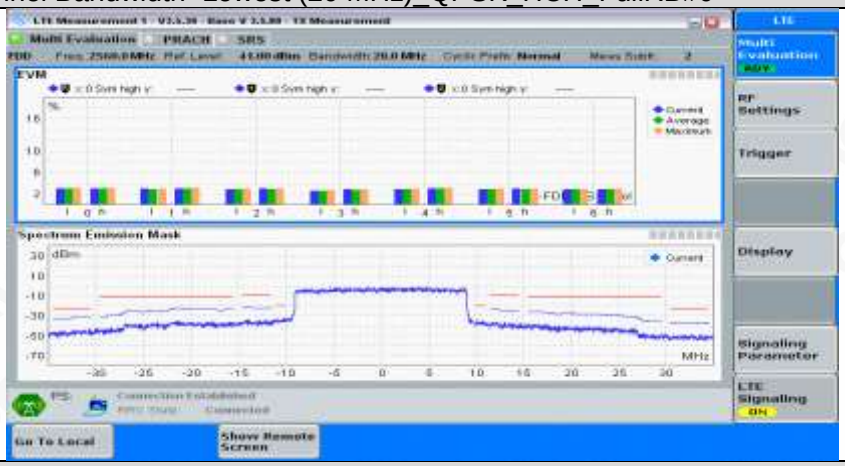
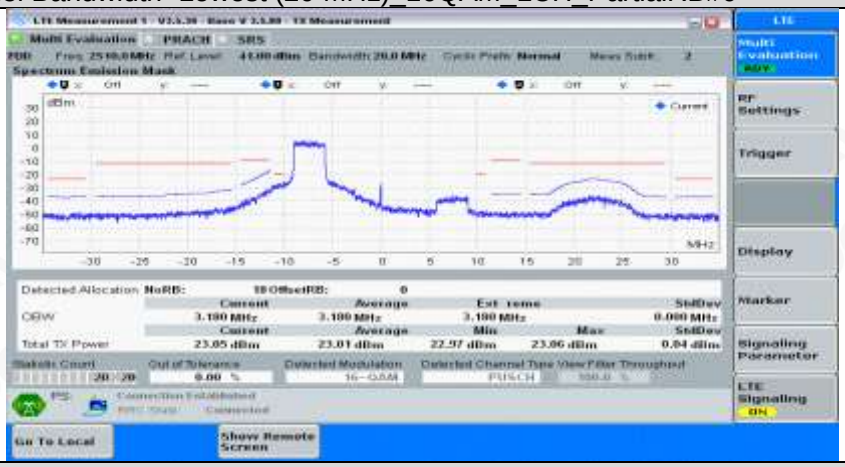
16QAM		
Channel Bandwidth=Lowest (10 MHz)_16QAM_HCH_FullRB#0		
16QAM		

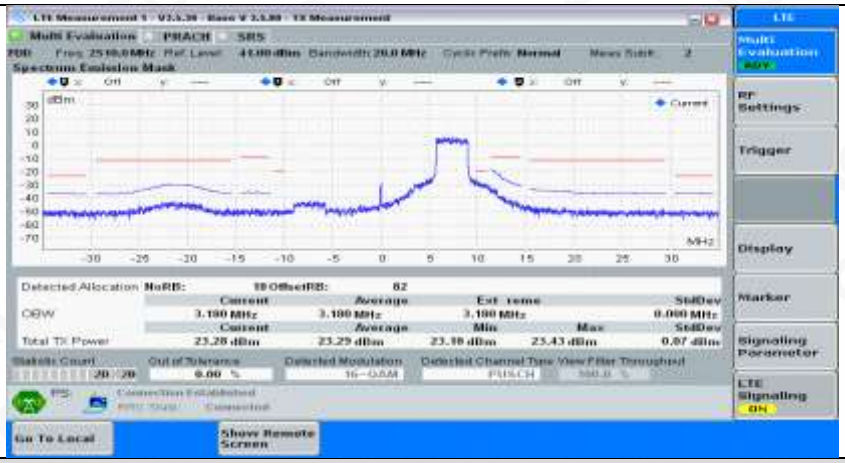
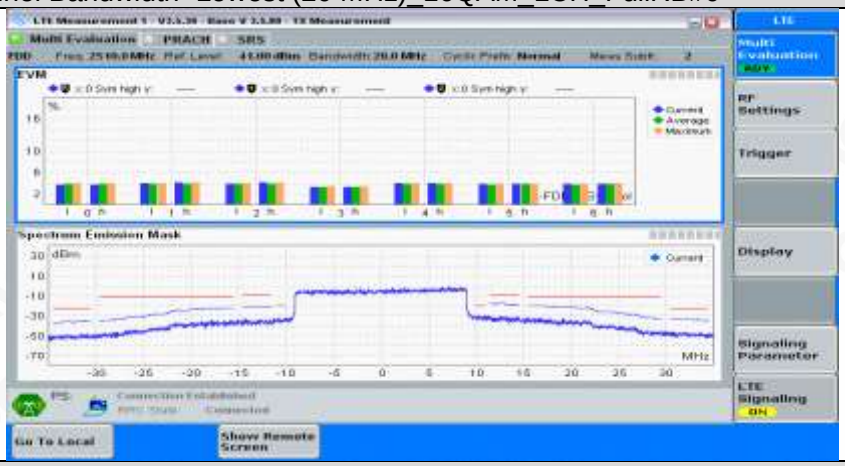
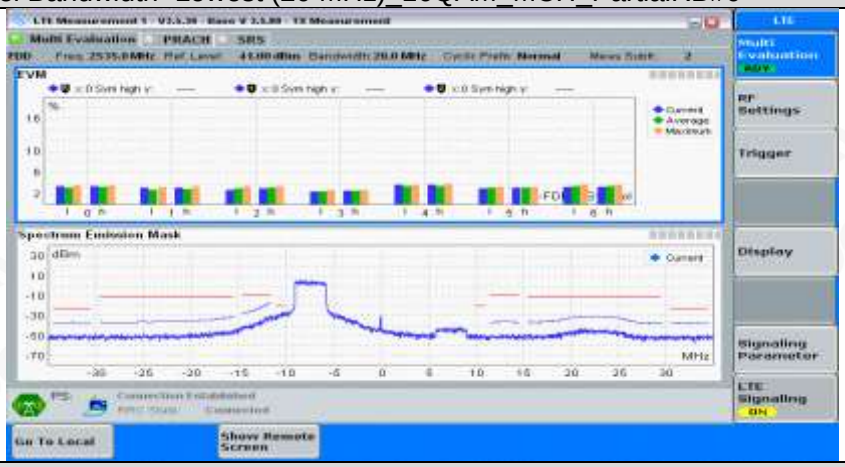
Channel Bandwidth=Highest (20 MHz)

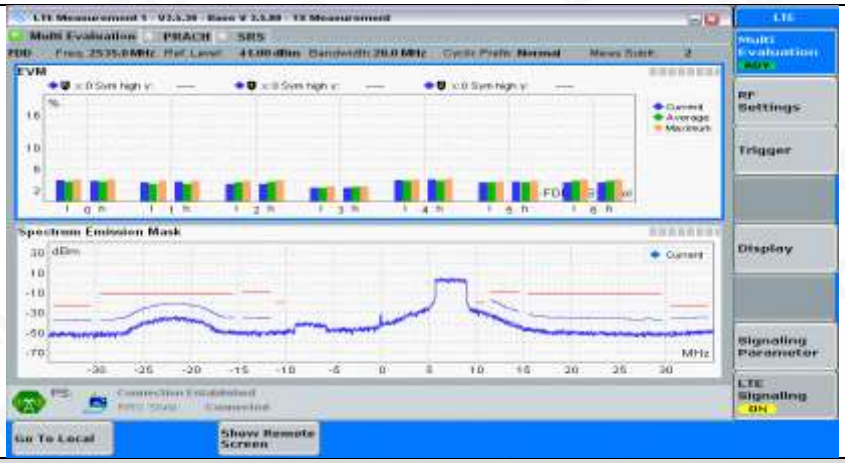
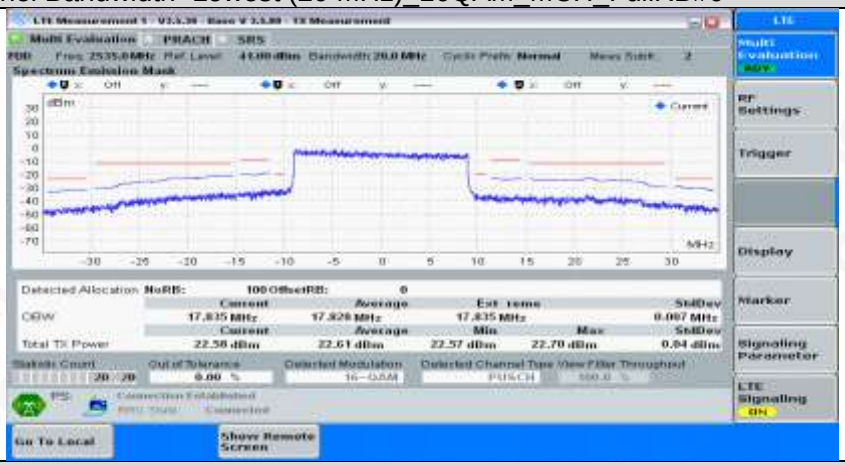
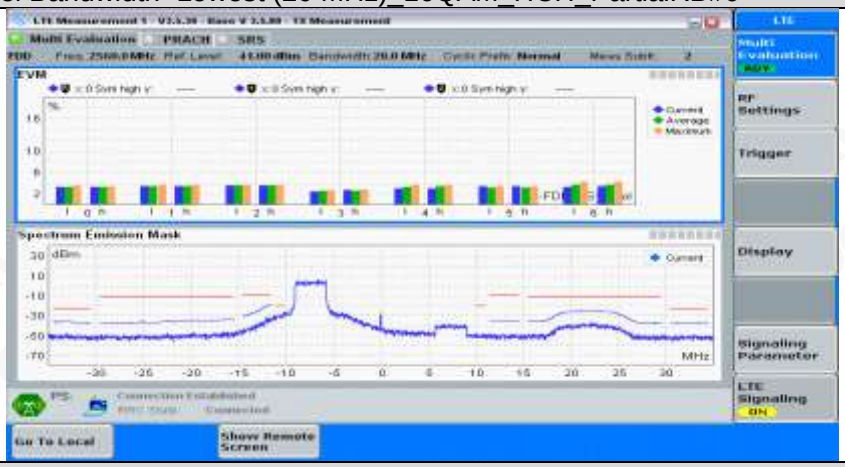
Channel Bandwidth=Lowest (20 MHz)_QPSK_LCH_PartialRB#0		
QPSK		
Channel Bandwidth=Lowest (20 MHz)_QPSK_LCH_PartialRB#max		

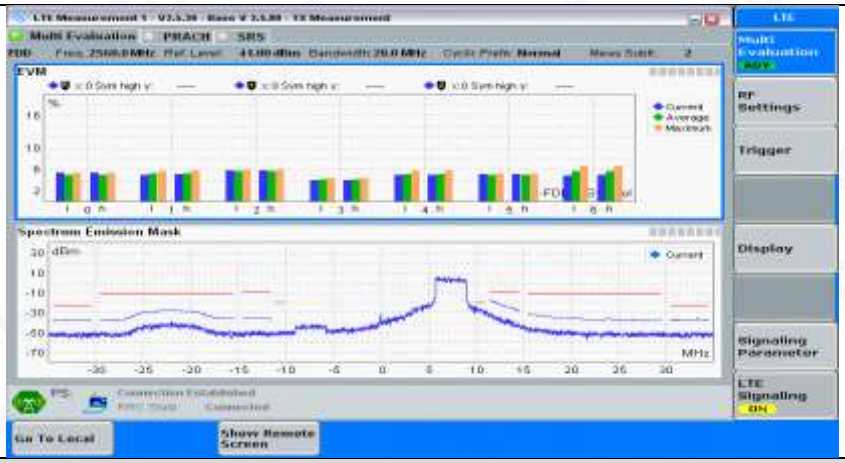
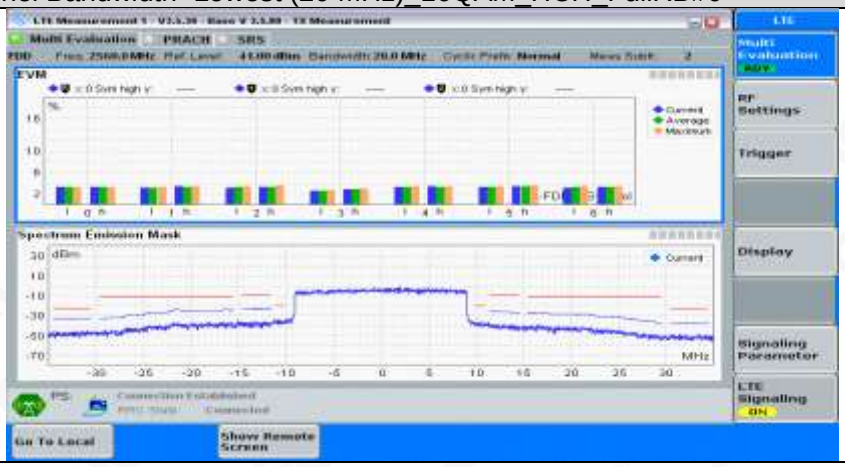
QPSK		
Channel Bandwidth=Lowest (20 MHz)_QPSK_LCH_FullRB#0		
QPSK		
Channel Bandwidth=Lowest (20 MHz)_QPSK_MCH_PartialRB#0		
QPSK		
Channel Bandwidth=Lowest (20 MHz)_QPSK_MCH_PartialRB#max		

QPSK		
Channel Bandwidth=Lowest (20 MHz)_QPSK_MCH_FullRB#0		
QPSK		
Channel Bandwidth=Lowest (20 MHz)_QPSK_HCH_PartialRB#0		
QPSK		
Channel Bandwidth=Lowest (20 MHz)_QPSK_HCH_PartialRB#max		

QPSK		
Channel Bandwidth=Lowest (20 MHz)_QPSK_HCH_FullRB#0		
QPSK		
Channel Bandwidth=Lowest (20 MHz)_16QAM_LCH_PartialRB#0		
16QAM		
Channel Bandwidth=Lowest (20 MHz)_16QAM_LCH_PartialRB#max		

16QAM		
Channel Bandwidth=Lowest (20 MHz)_16QAM_LCH_FullRB#0		
16QAM		
Channel Bandwidth=Lowest (20 MHz)_16QAM_MCH_PartialRB#0		
16QAM		
Channel Bandwidth=Lowest (20 MHz)_16QAM_MCH_PartialRB#max		

16QAM		
Channel Bandwidth=Lowest (20 MHz)_16QAM_MCH_FullRB#0		
16QAM		
Channel Bandwidth=Lowest (20 MHz)_16QAM_HCH_PartialRB#0		
16QAM		
Channel Bandwidth=Lowest (20 MHz)_16QAM_HCH_PartialRB#max		

16QAM		
Channel Bandwidth=Lowest (20 MHz)_16QAM_HCH_FullRB#0		
16QAM		

4. Transmitter Adjacent Channel Leakage Power Ratio(ACLR)

Test Result

NTNV

Channel Bandwidth=Lowest (5 MHz)

Channel Bandwidth=Lowest (5 MHz)							
Condition	Modulation	Channel Bandwidth	Channel	RB allocation		UE output power	Verdict
				RB Size	RB Offset		
Normal	QPSK	5 MHz	Low range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			Mid range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			High range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
	16QAM		Low range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			Mid range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			High range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass

Channel Bandwidth= (10 MHz)

Channel Bandwidth= (10 MHz)							
Condition	Modulation	Channel Bandwidth	Channel	RB allocation		UE output power	Verdict
				RB Size	RB Offset		
Normal	QPSK	10 MHz	Low range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			Mid range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			High range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass

	16QAM		Low range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			Mid range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			High range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass

Channel Bandwidth=Highest (20 MHz)

Channel Bandwidth=Highest (20 MHz)							
Condition	Modulation	Channel Bandwidth	Channel	RB allocation		UE output power	Verdict
				RB Size	RB Offset		
Normal	QPSK	20 MHz	Low range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			Mid range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			High range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
	16QAM		Low range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			Mid range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			High range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass

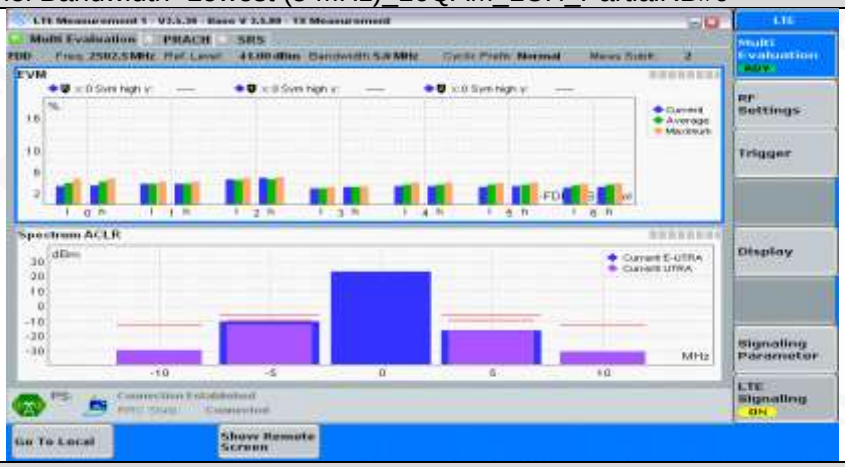
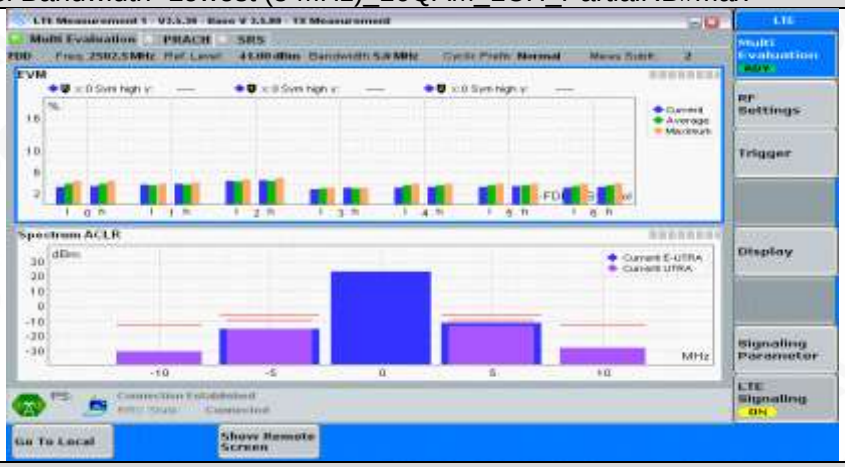
Test Graphs

NTNV

Channel Bandwidth=Lowest (5 MHz)

Channel Bandwidth=Lowest (5 MHz)_QPSK_LCH_PartialRB#0	
QPSK	
Channel Bandwidth=Lowest (5 MHz)_QPSK_LCH_PartialRB#max	
QPSK	
Channel Bandwidth=Lowest (5 MHz)_QPSK_LCH_FullRB#0	
QPSK	
Channel Bandwidth=Lowest (5 MHz)_QPSK_MCH_PartialRB#0	

QPSK	
Channel Bandwidth=Lowest (5 MHz)_QPSK_MCH_PartialRB#max	
QPSK	
Channel Bandwidth=Lowest (5 MHz)_QPSK_MCH_FullRB#0	
QPSK	
Channel Bandwidth=Lowest (5 MHz)_QPSK_HCH_PartialRB#0	
QPSK	#BWL-Img-QPSK-HCH-P-L-TNVN-Aclr
Channel Bandwidth=Lowest (5 MHz)_QPSK_HCH_PartialRB#max	

QPSK	
Channel Bandwidth=Lowest (5 MHz)_QPSK_HCH_FullRB#0	
QPSK	#BWL-Img-QPSK-HCH-F-L-TNVN-Aclr
Channel Bandwidth=Lowest (5 MHz)_16QAM_LCH_PartialRB#0	
16QAM	
Channel Bandwidth=Lowest (5 MHz)_16QAM_LCH_PartialRB#max	
16QAM	
Channel Bandwidth=Lowest (5 MHz)_16QAM_LCH_FullRB#0	

16QAM		
Channel Bandwidth=Lowest (5 MHz)_16QAM_MCH_PartialRB#0		
16QAM		
Channel Bandwidth=Lowest (5 MHz)_16QAM_MCH_PartialRB#max		
16QAM		
Channel Bandwidth=Lowest (5 MHz)_16QAM_MCH_FullRB#0		

16QAM	
Channel Bandwidth=Lowest (5 MHz)_16QAM_HCH_PartialRB#0	
16QAM	
Channel Bandwidth=Lowest (5 MHz)_16QAM_HCH_PartialRB#max	
16QAM	
Channel Bandwidth=Lowest (5 MHz)_16QAM_HCH_FullRB#0	

16QAM	

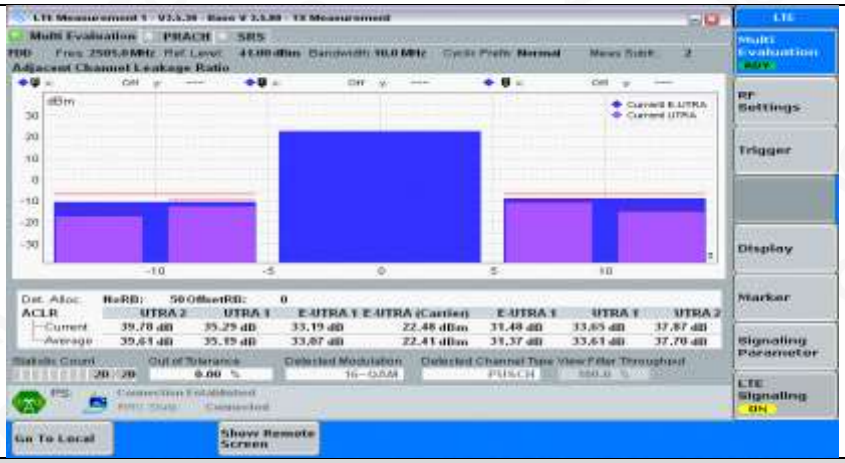
Channel Bandwidth= (10 MHz)

Channel Bandwidth=Lowest (10 MHz)_QPSK_LCH_PartialRB#0	
QPSK	
Channel Bandwidth=Lowest (10 MHz)_QPSK_LCH_PartialRB#max	
QPSK	
Channel Bandwidth=Lowest (10 MHz)_QPSK_LCH_FullRB#0	

QPSK		
Channel Bandwidth=Lowest (10 MHz)_QPSK_MCH_PartialRB#0		
QPSK		
Channel Bandwidth=Lowest (10 MHz)_QPSK_MCH_PartialRB#max		
QPSK		
Channel Bandwidth=Lowest (10 MHz)_QPSK_MCH_FullRB#0		

QPSK	
Channel Bandwidth=Lowest (10 MHz)_QPSK_HCH_PartialRB#0	
QPSK	
Channel Bandwidth=Lowest (10 MHz)_QPSK_HCH_PartialRB#max	
QPSK	
Channel Bandwidth=Lowest (10 MHz)_QPSK_HCH_FullRB#0	

QPSK	
Channel Bandwidth=Lowest (10 MHz)_16QAM_LCH_PartialRB#0	
16QAM	
Channel Bandwidth=Lowest (10 MHz)_16QAM_LCH_PartialRB#max	
16QAM	
Channel Bandwidth=Lowest (10 MHz)_16QAM_LCH_FullRB#0	

16QAM	
Channel Bandwidth=Lowest (10 MHz)_16QAM_MCH_PartialRB#0	
16QAM	
Channel Bandwidth=Lowest (10 MHz)_16QAM_MCH_PartialRB#max	
16QAM	
Channel Bandwidth=Lowest (10 MHz)_16QAM_MCH_FullRB#0	

16QAM	
Channel Bandwidth=Lowest (10 MHz)_16QAM_HCH_PartialRB#0	
16QAM	
Channel Bandwidth=Lowest (10 MHz)_16QAM_HCH_PartialRB#max	
16QAM	
Channel Bandwidth=Lowest (10 MHz)_16QAM_HCH_FullRB#0	

16QAM	

Channel Bandwidth=Highest (20 MHz)

Channel Bandwidth=Lowest (20 MHz)_QPSK_LCH_PartialRB#0	
QPSK	
Channel Bandwidth=Lowest (20 MHz)_QPSK_LCH_PartialRB#max	
QPSK	
Channel Bandwidth=Lowest (20 MHz)_QPSK_LCH_FullRB#0	

QPSK	
Channel Bandwidth=Lowest (20 MHz)_QPSK_MCH_PartialRB#0	
QPSK	
Channel Bandwidth=Lowest (20 MHz)_QPSK_MCH_PartialRB#max	
QPSK	
Channel Bandwidth=Lowest (20 MHz)_QPSK_MCH_FullRB#0	

QPSK	
Channel Bandwidth=Lowest (20 MHz)_QPSK_HCH_PartialRB#0	
QPSK	
Channel Bandwidth=Lowest (20 MHz)_QPSK_HCH_PartialRB#max	
QPSK	
Channel Bandwidth=Lowest (20 MHz)_QPSK_HCH_FullRB#0	

QPSK	
Channel Bandwidth=Lowest (20 MHz)_16QAM_LCH_PartialRB#0	
16QAM	
Channel Bandwidth=Lowest (20 MHz)_16QAM_LCH_PartialRB#max	
16QAM	
Channel Bandwidth=Lowest (20 MHz)_16QAM_LCH_FullRB#0	

16QAM	
Channel Bandwidth=Lowest (20 MHz)_16QAM_MCH_PartialRB#0	
16QAM	
Channel Bandwidth=Lowest (20 MHz)_16QAM_MCH_PartialRB#max	
16QAM	
Channel Bandwidth=Lowest (20 MHz)_16QAM_MCH_FullRB#0	

16QAM	
Channel Bandwidth=Lowest (20 MHz)_16QAM_HCH_PartialRB#0	
16QAM	
Channel Bandwidth=Lowest (20 MHz)_16QAM_HCH_PartialRB#max	
16QAM	
Channel Bandwidth=Lowest (20 MHz)_16QAM_HCH_FullRB#0	

16QAM		

5. Transmitter Spurious Emissions

Test Result

NTNV

Channel Bandwidth=Lowest (5 MHz)

Channel Bandwidth=Lowest (5 MHz)							
Condition	Modulation	Channel Bandwidth	Channel	RB allocation		UE output power	Verdict
				RB Size	RB Offset		
Normal	QPSK	5 MHz	Low range	1	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			Mid range	1	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			High range	1	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass

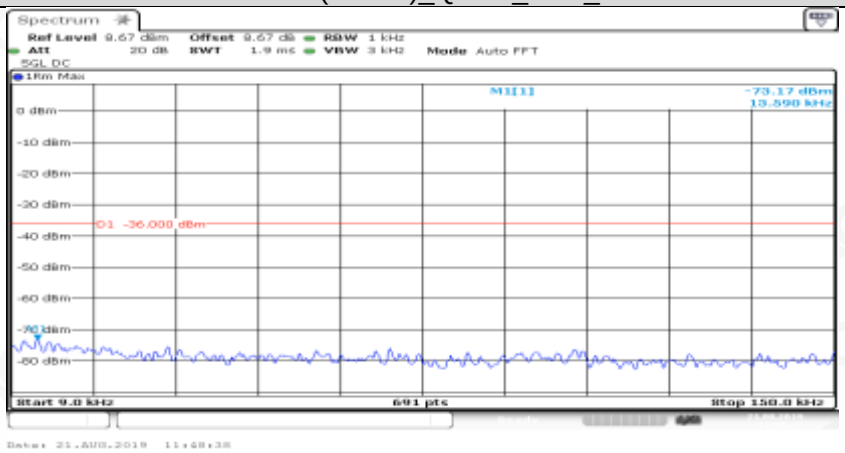
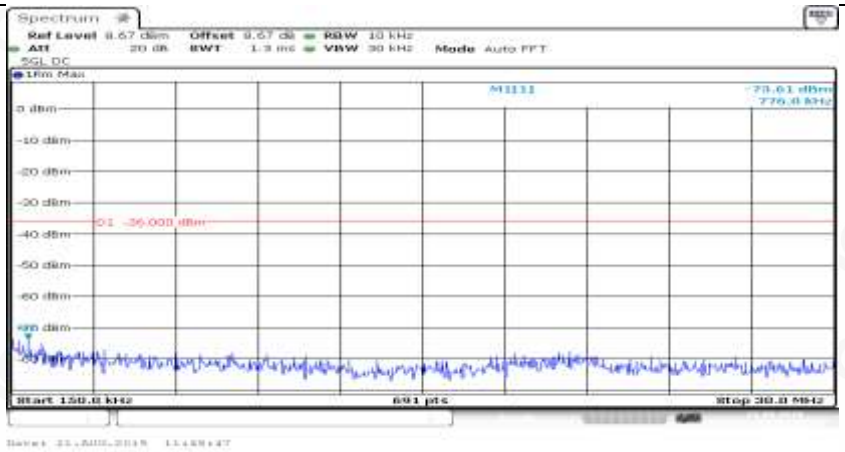
Channel Bandwidth=Highest (20 MHz)

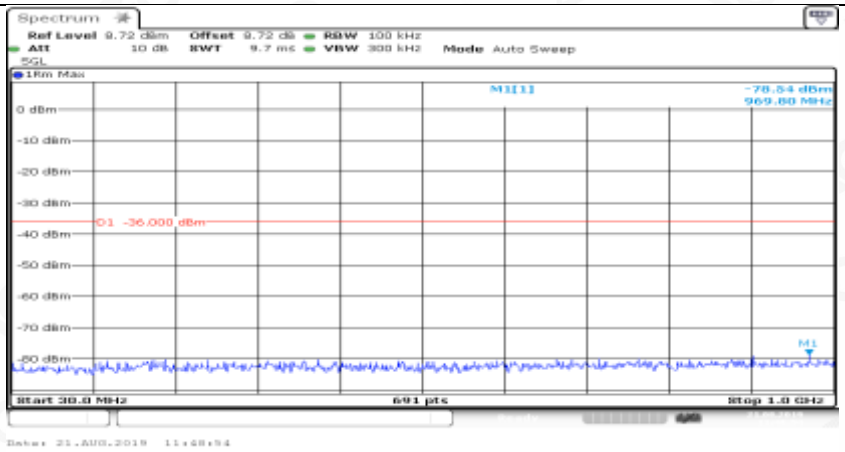
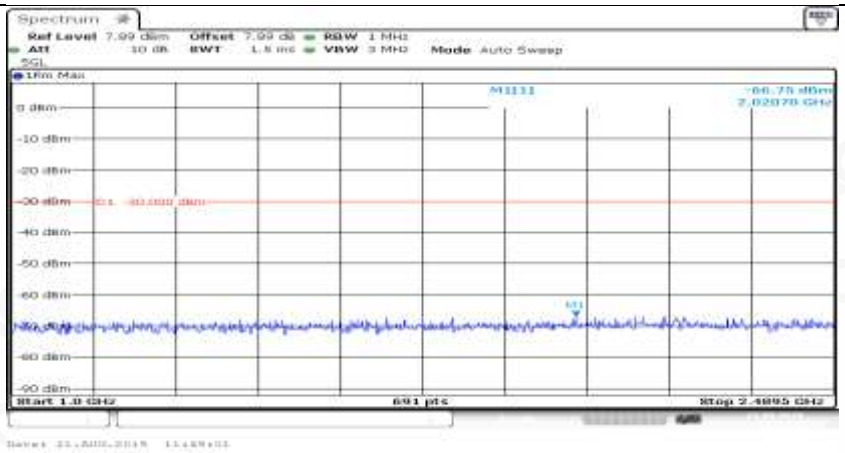
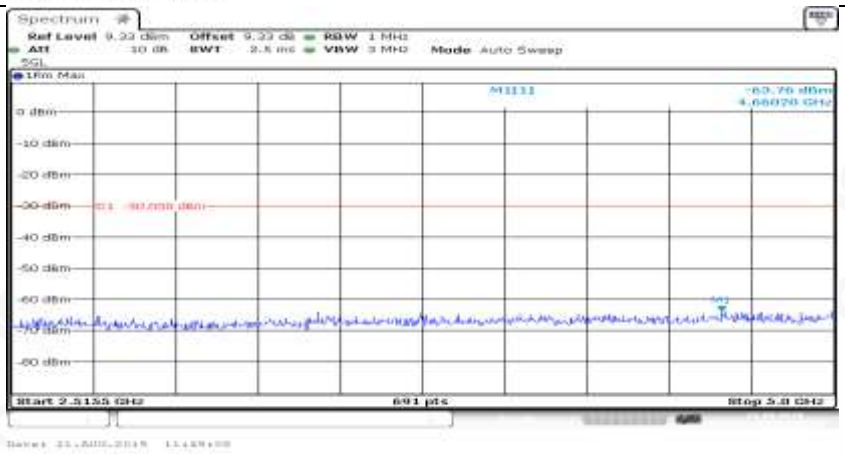
Channel Bandwidth=Highest (20 MHz)							
Condition	Modulation	Channel Bandwidth	Channel	RB allocation		UE output power	Verdict
				RB Size	RB Offset		
Normal	QPSK	20 MHz	Low range	1	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			Mid range	1	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			High range	1	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass

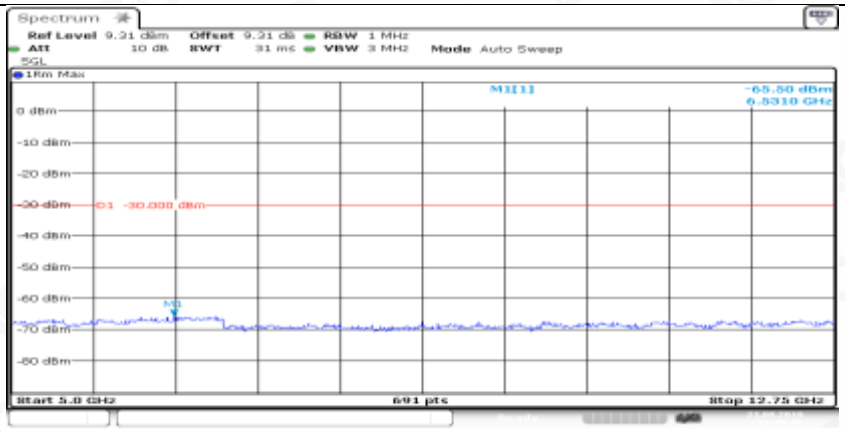
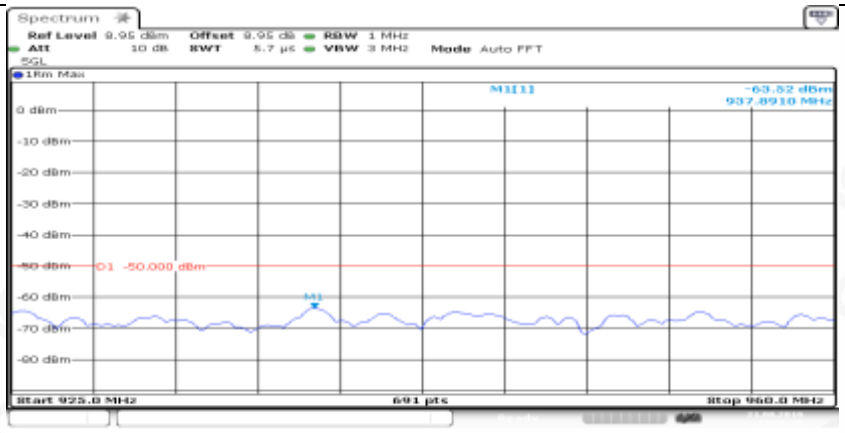
Test Graphs

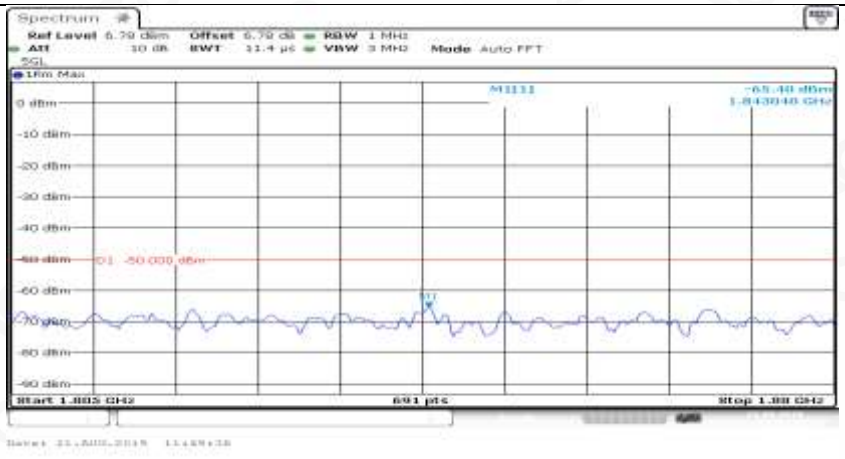
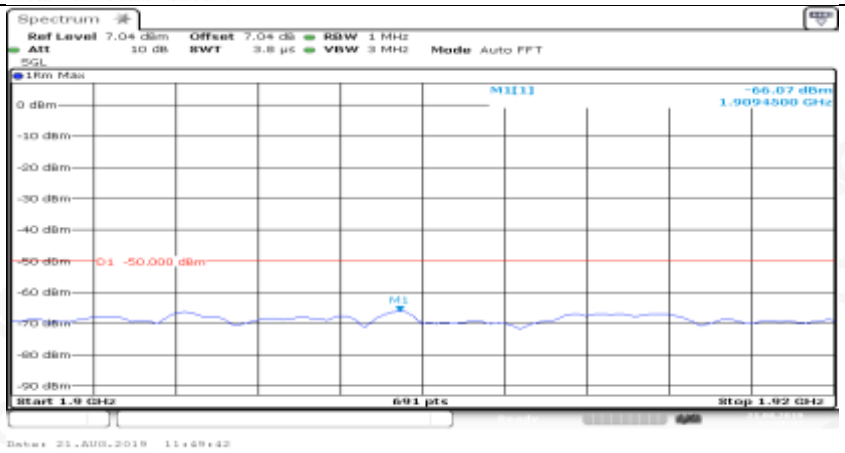
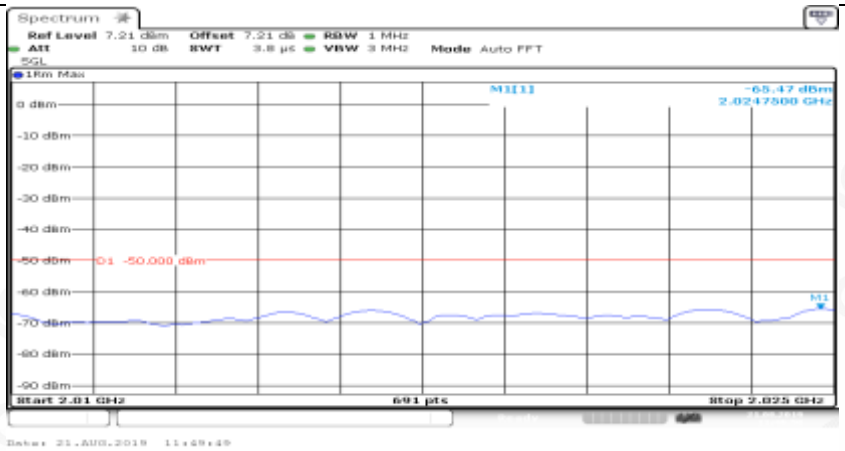
NTNV

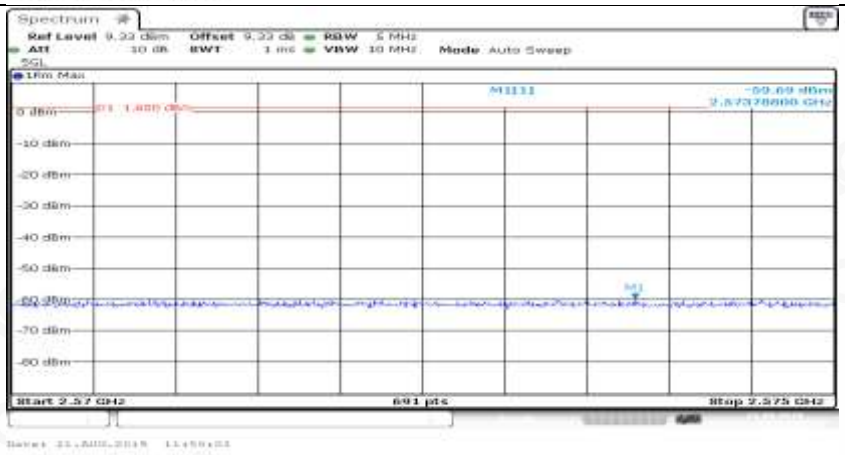
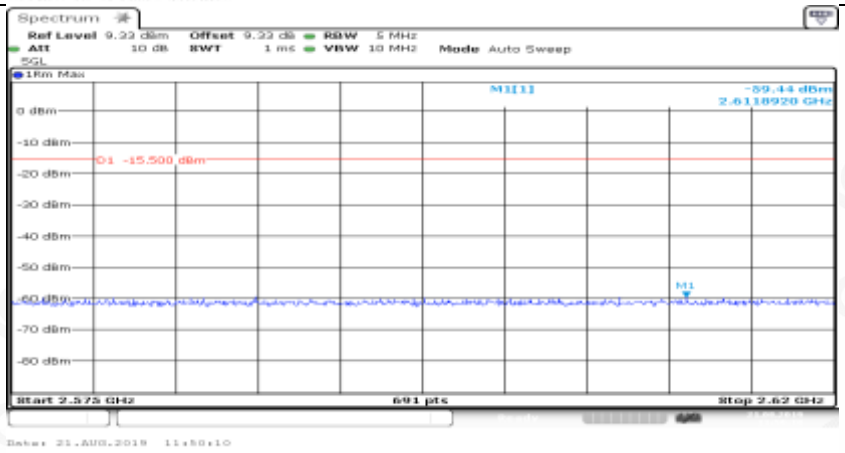
Channel Bandwidth=Lowest (5 MHz)

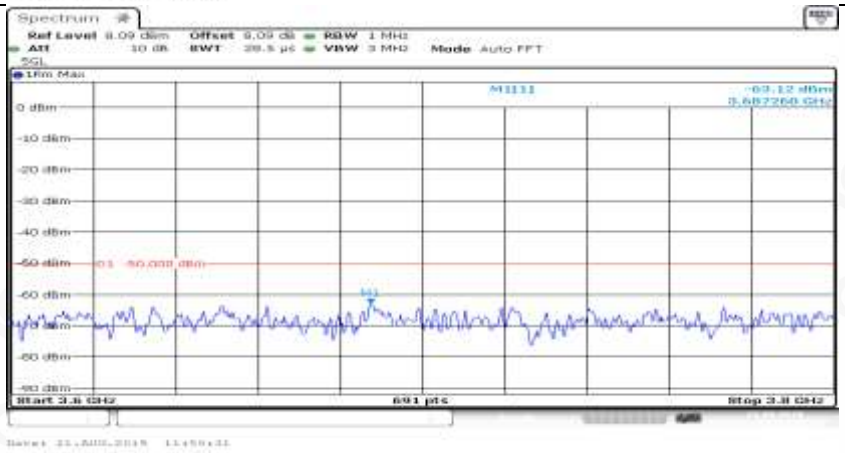
Channel Bandwidth=Lowest (5 MHz)_QPSK_LCH_1RB#0	
General	
General	

General	
General	
General	

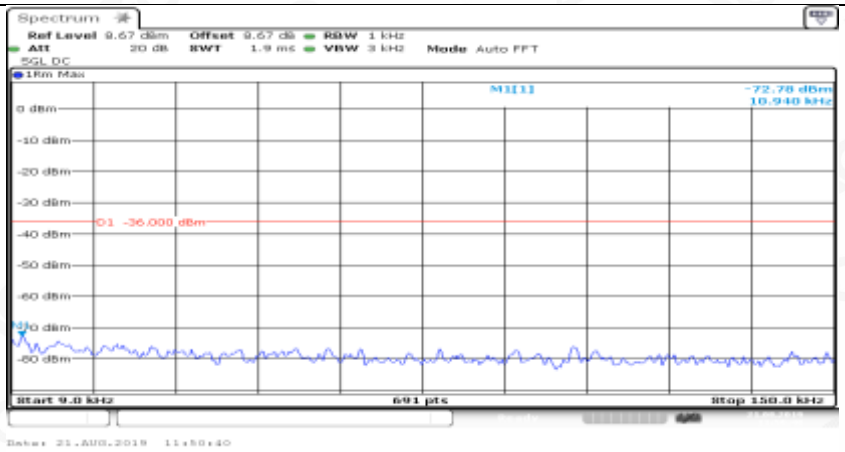
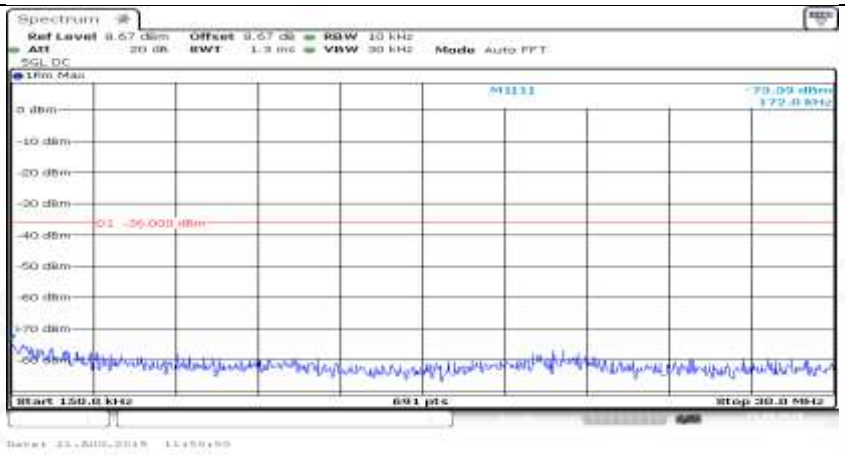
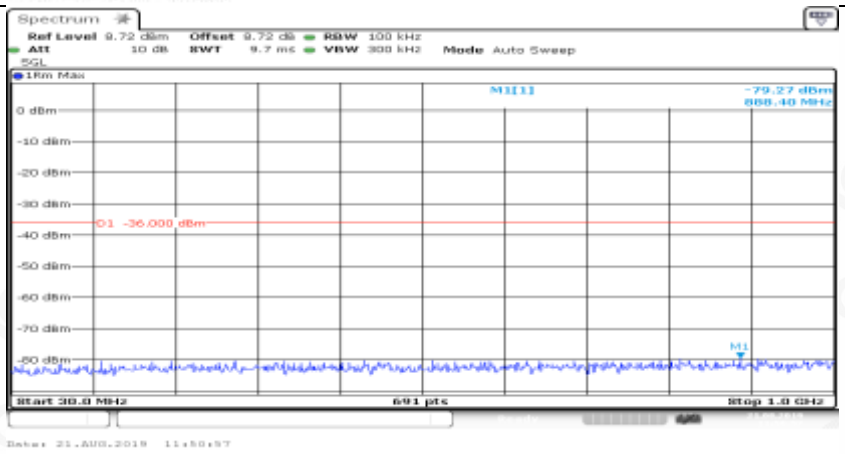
General	
Co-existence	
Co-existence	

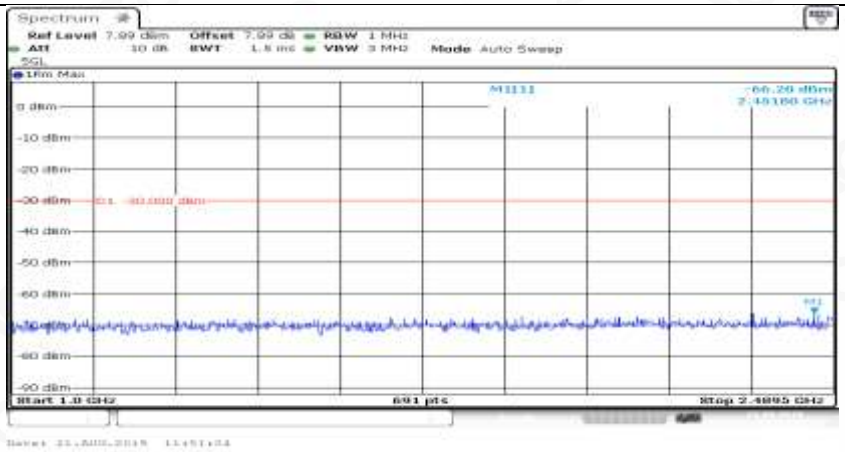
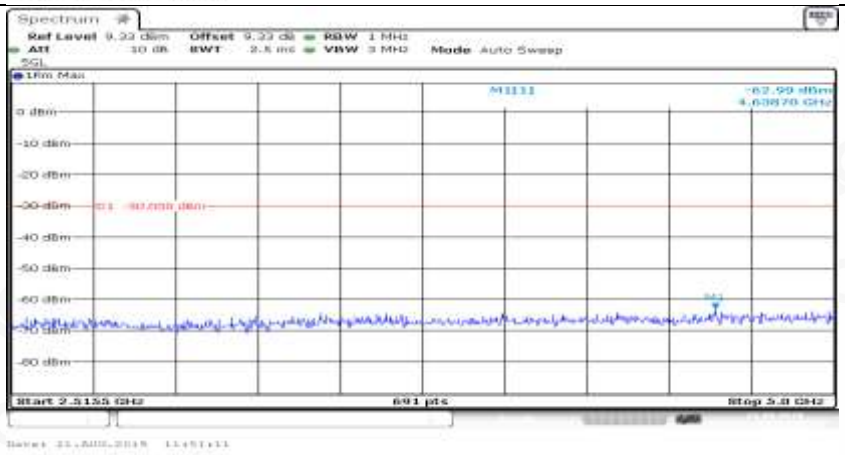
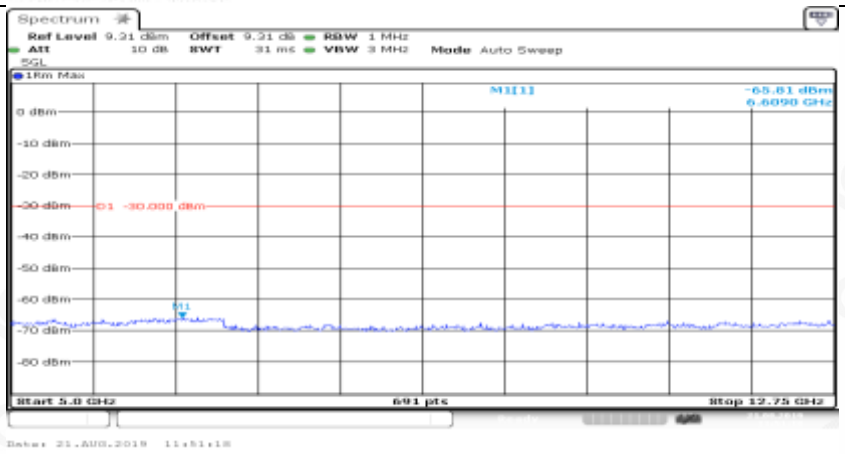
Co-existence	
Co-existence	
Co-existence	

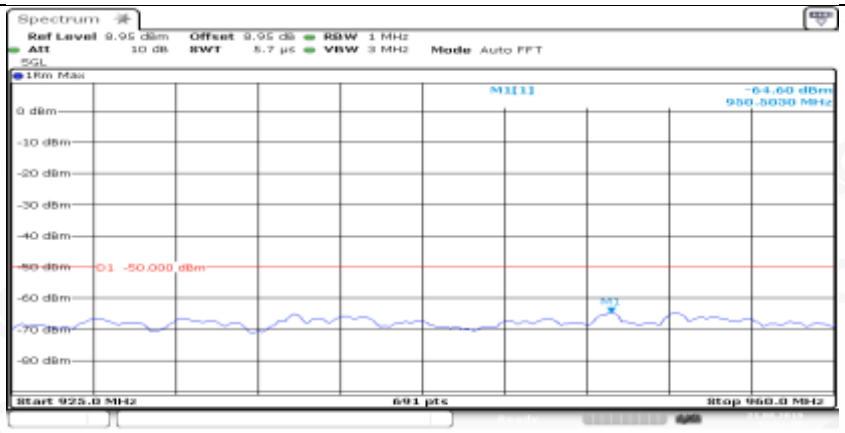
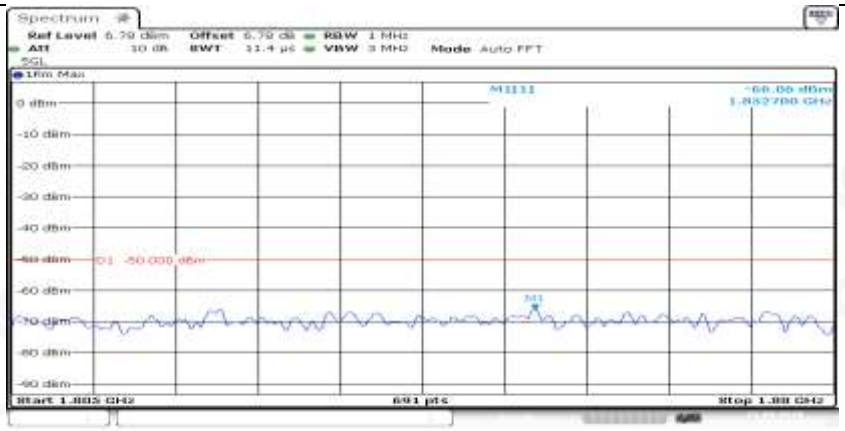
Co-existence	
Co-existence	
Co-existence	

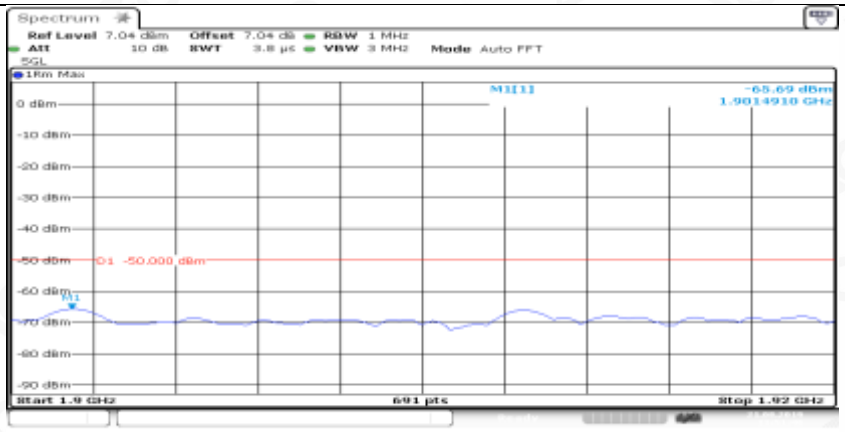
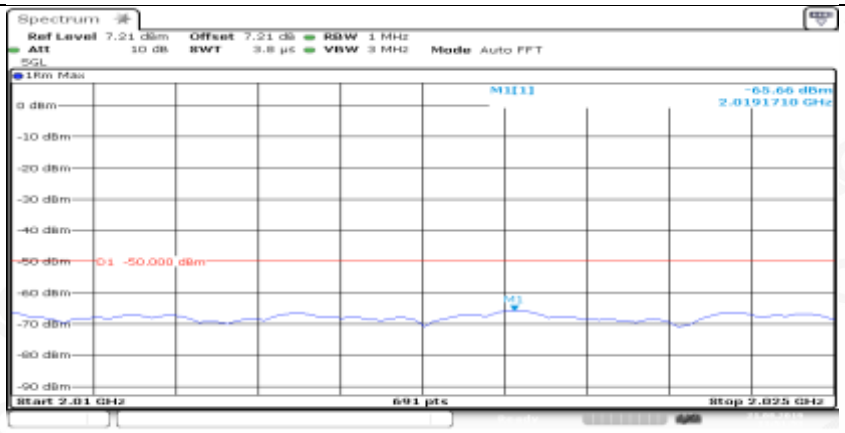
Co-existence	
Co-existence	
Co-existence	
Additional	NA

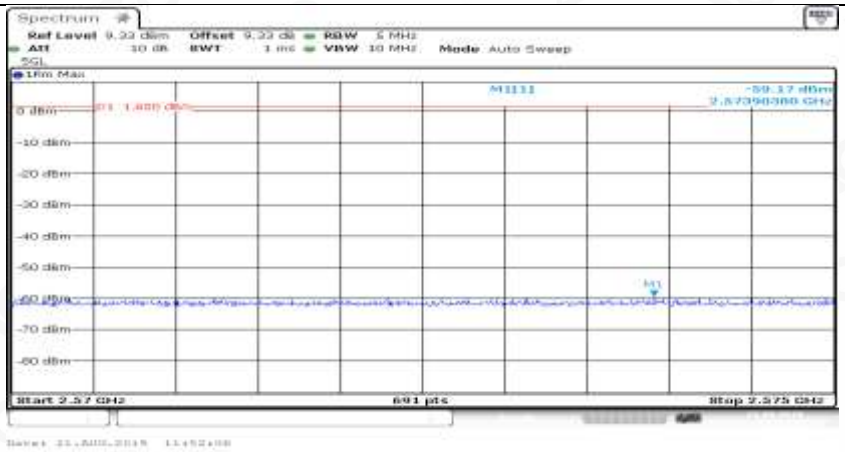
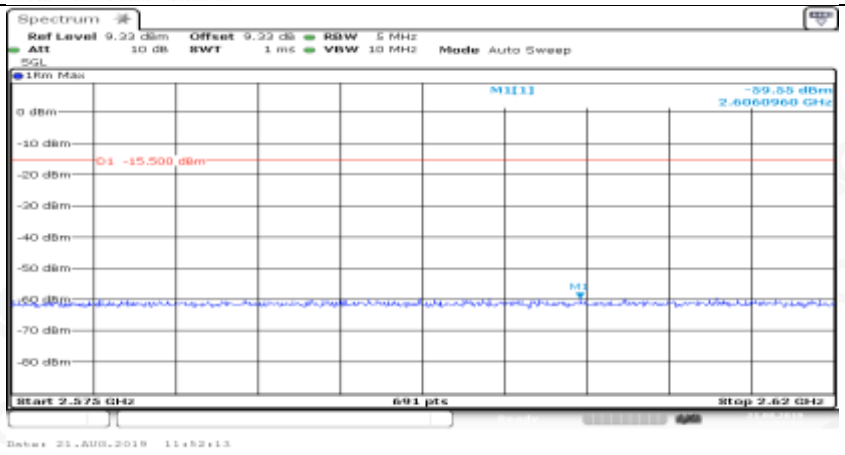
Channel Bandwidth=Lowest (5 MHz)_QPSK_LCH_1RB#max

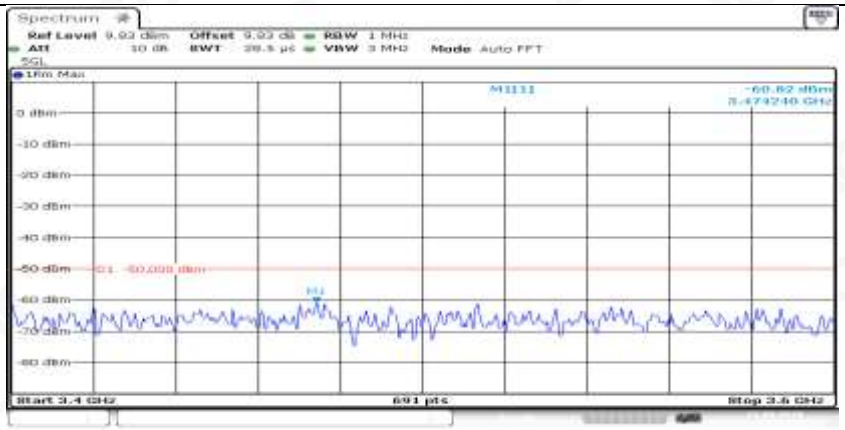
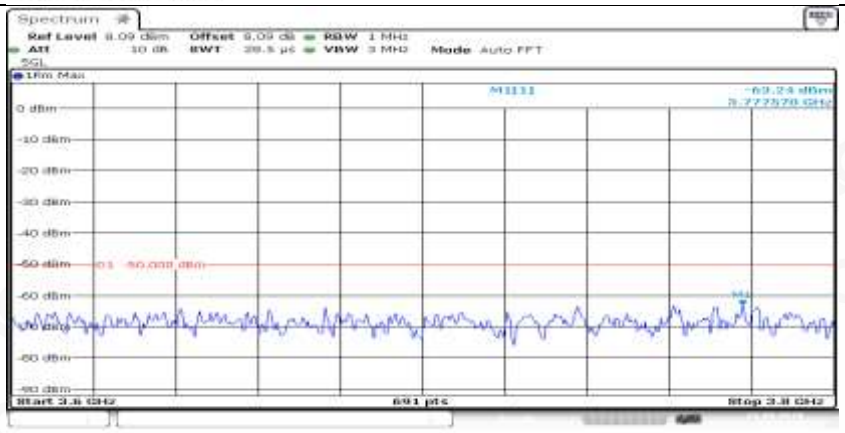
General	
General	
General	

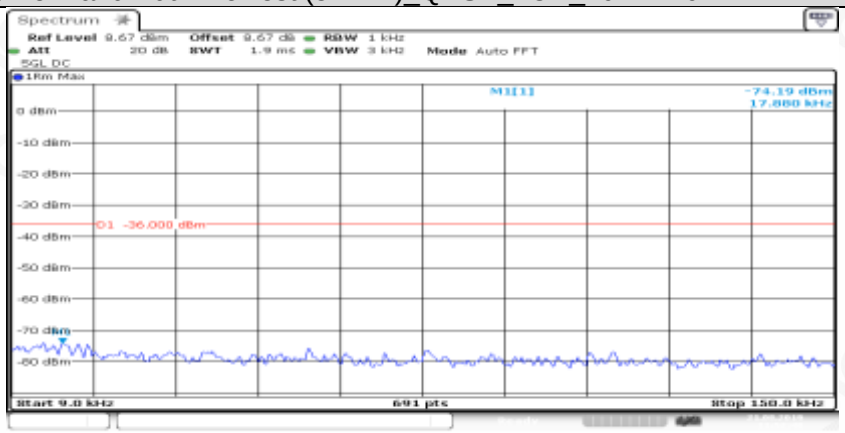
General	
General	
General	

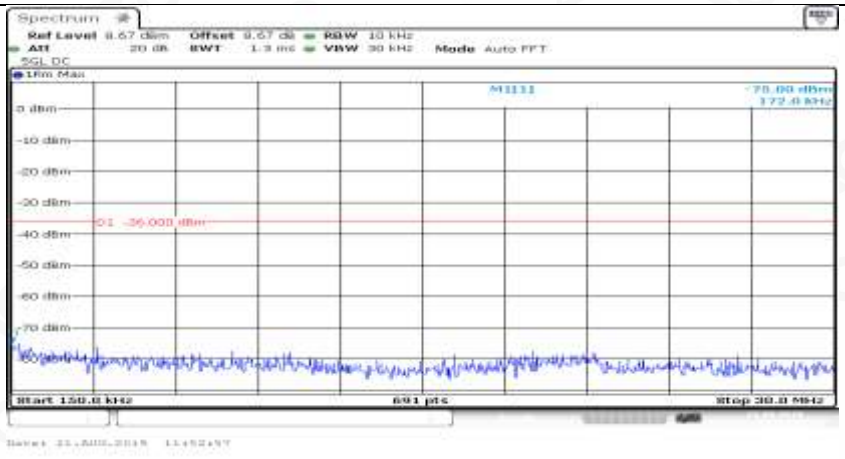
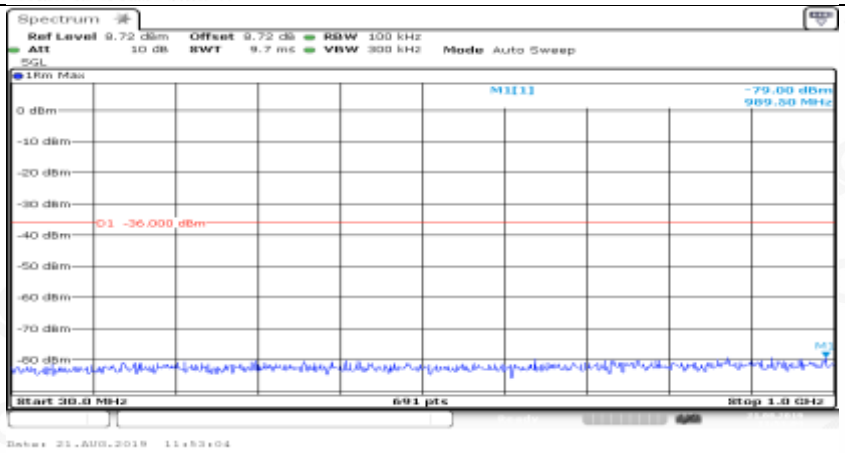
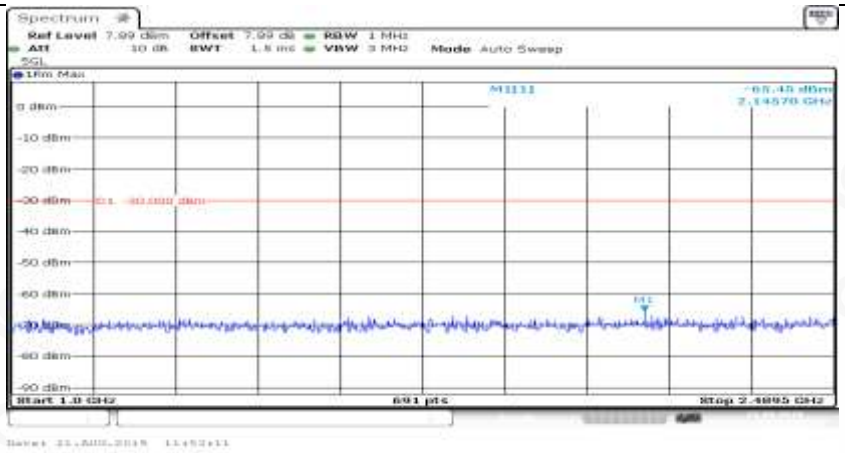
Co-existence	
Co-existence	
Co-existence	

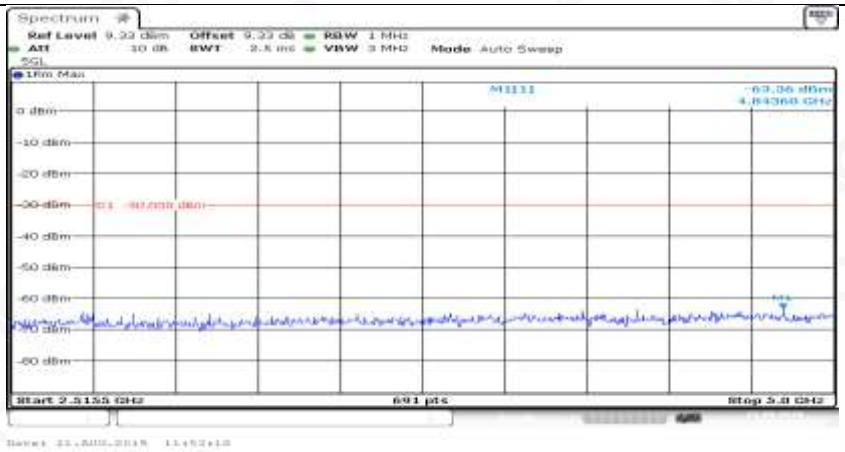
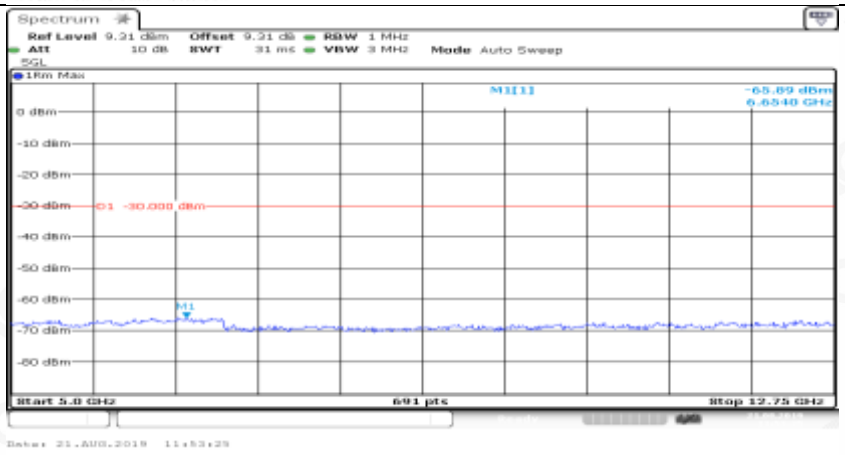
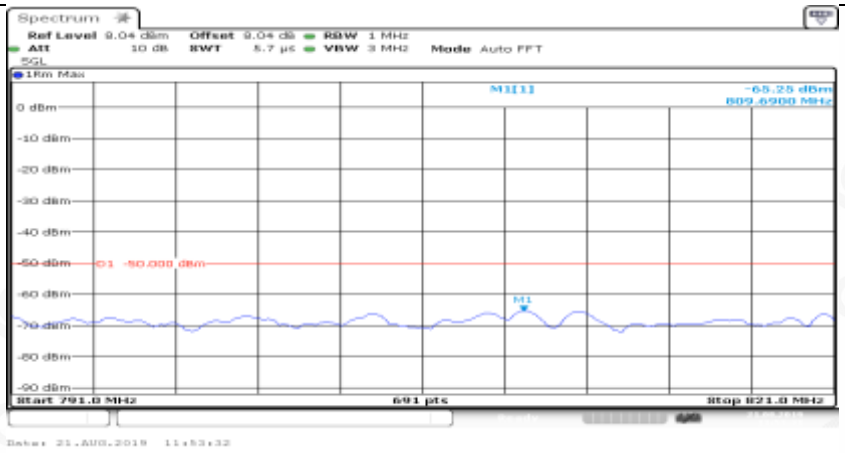
Co-existence	
Co-existence	
Co-existence	

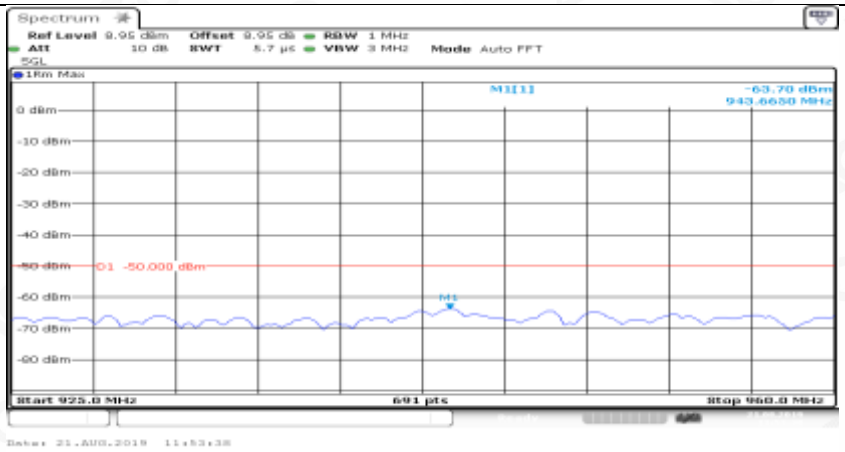
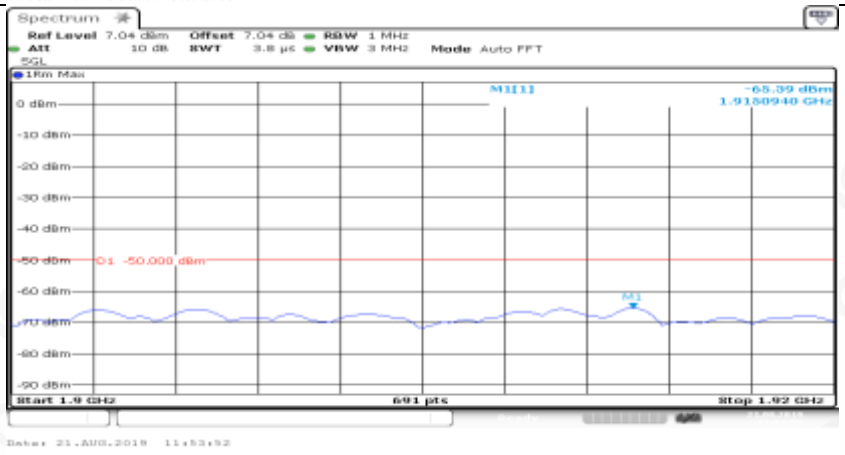
Co-existence	
Co-existence	
Co-existence	

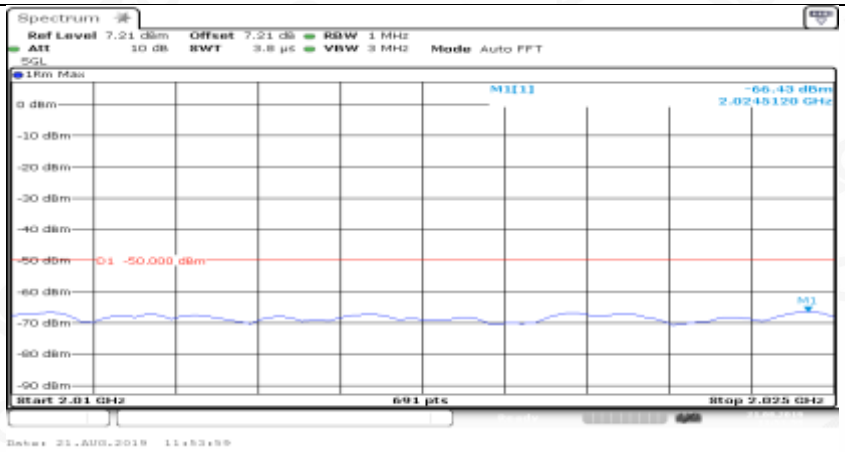
Co-existence	
Co-existence	
Additional	NA

Channel Bandwidth=Lowest (5 MHz)_QPSK_LCH_FullRB#0	
General	

General	
General	
General	

General	
General	
Co-existence	

Co-existence	
Co-existence	
Co-existence	

Co-existence	
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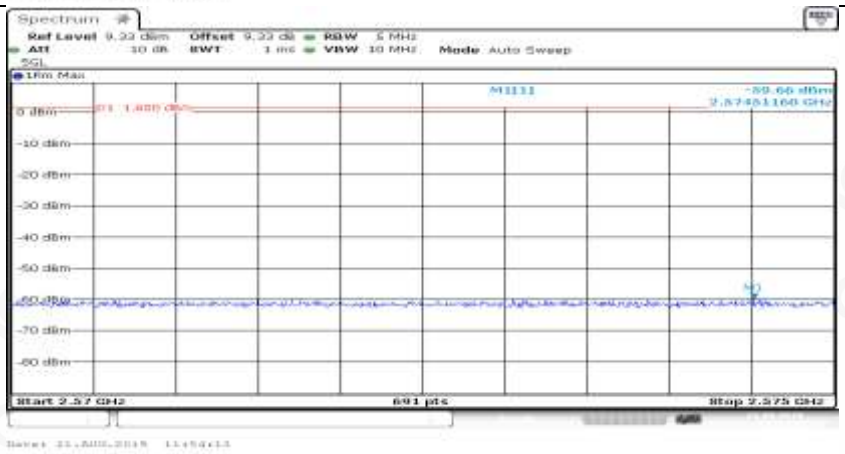
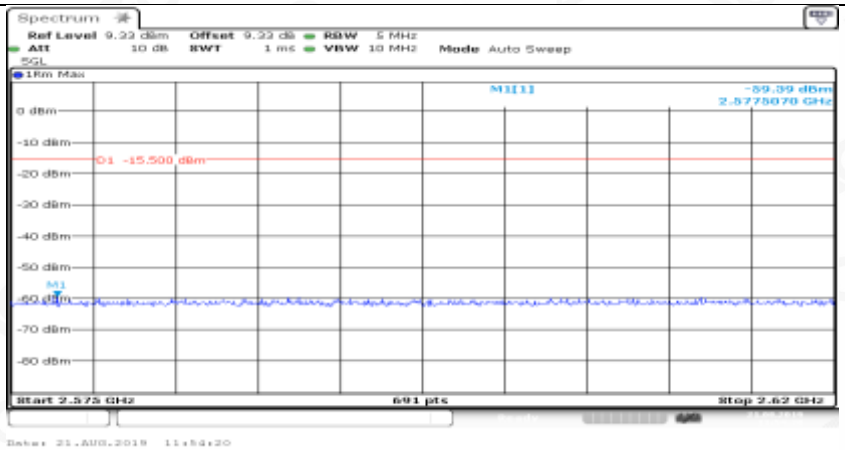
Co-existence	

Co-existence	
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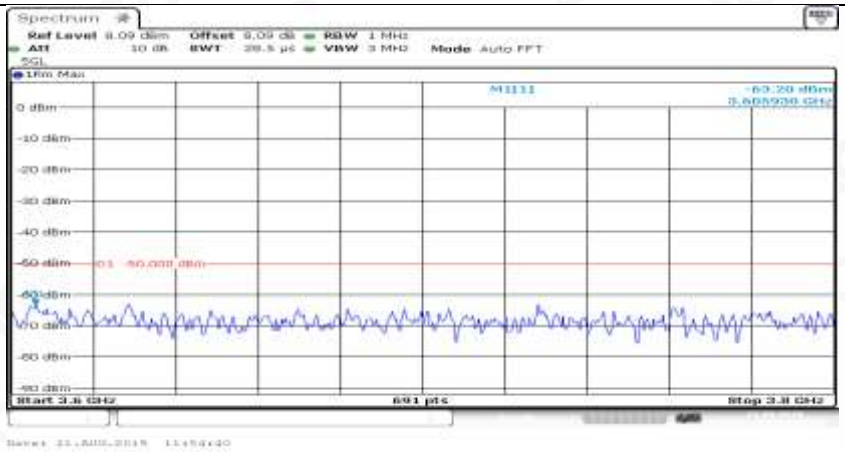
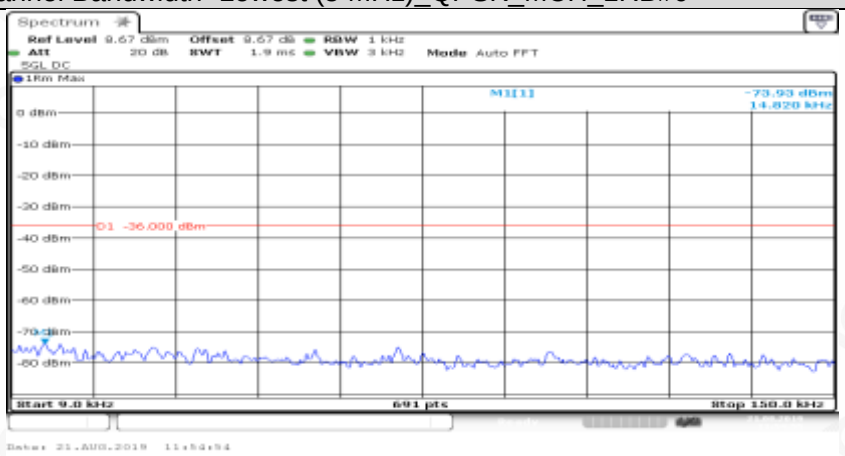
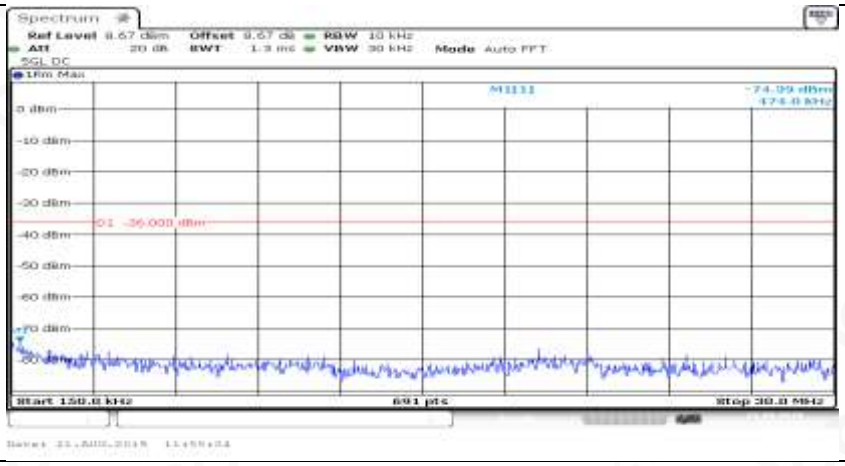
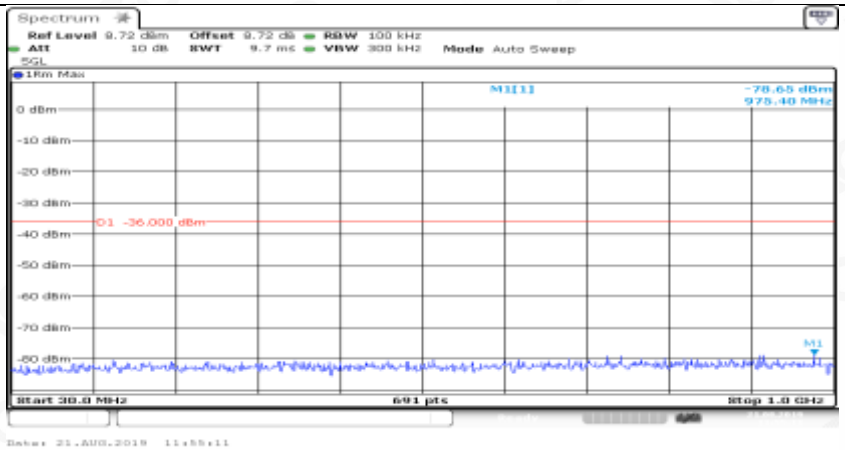
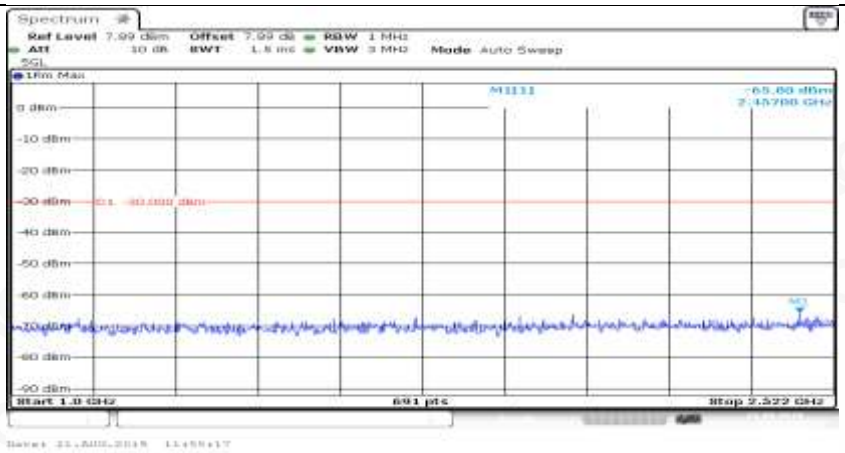
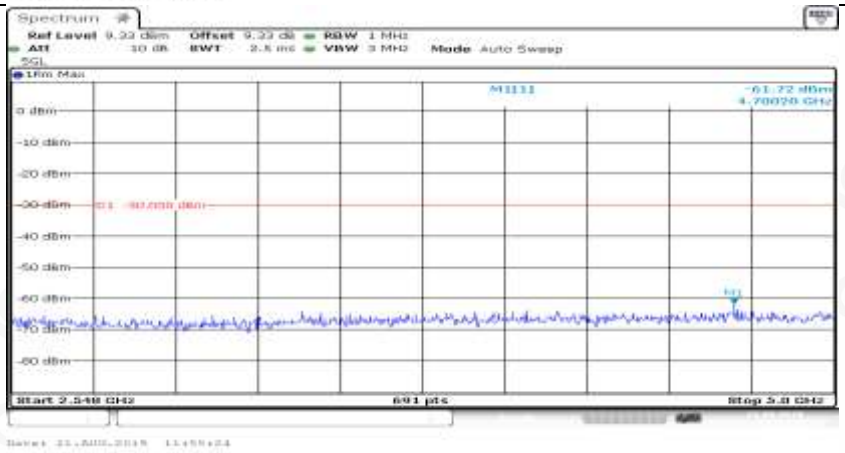
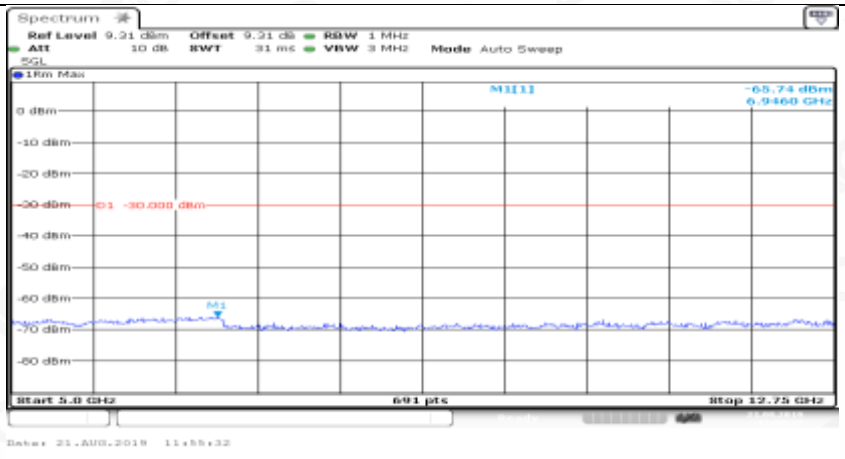
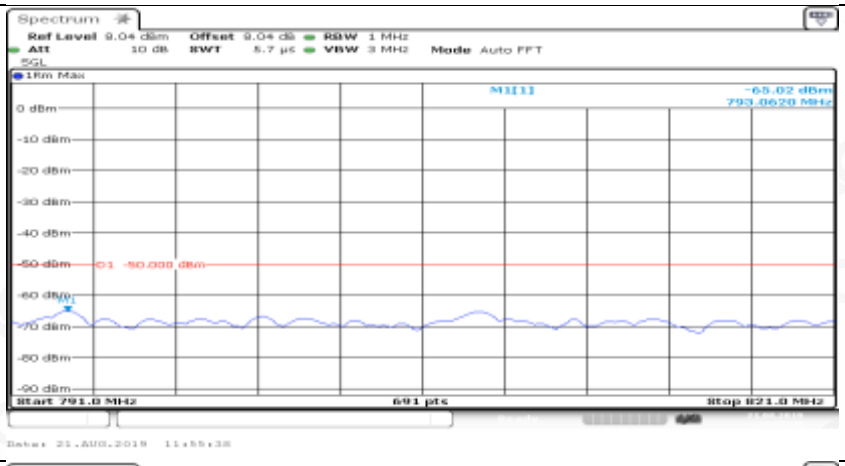
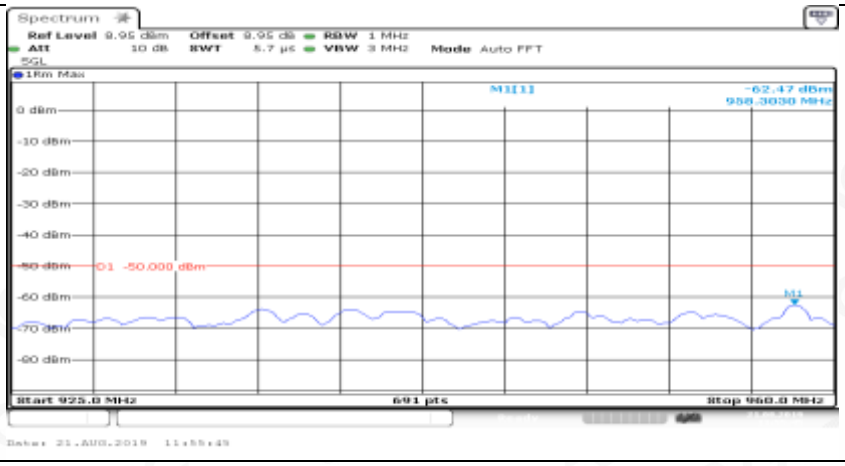
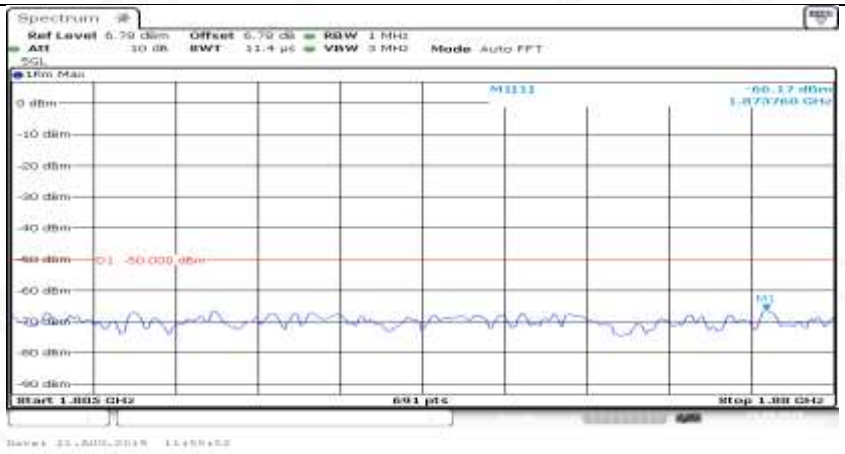
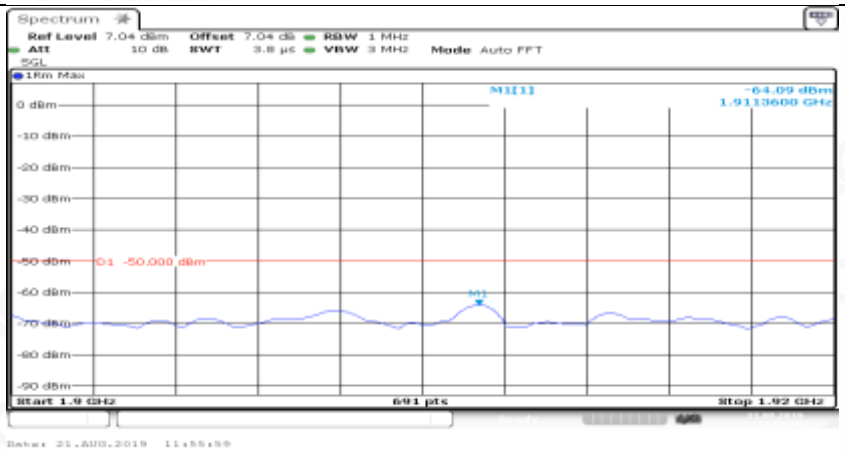
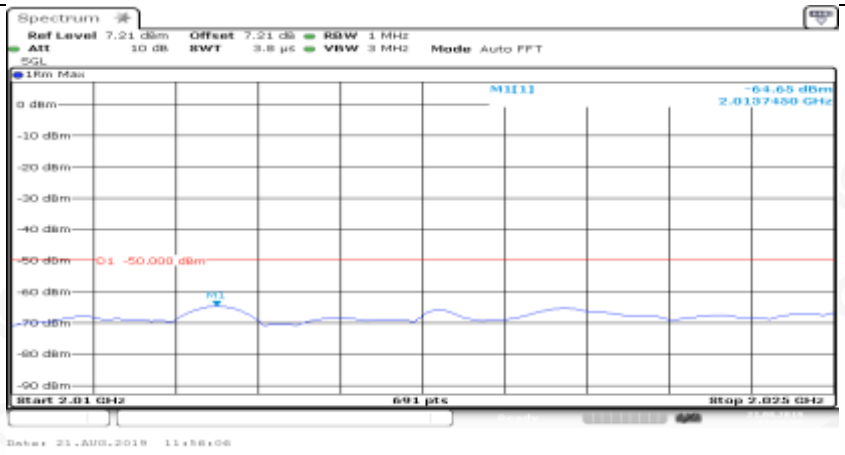
Co-existence	
Additional	NA

Channel Bandwidth=Lowest (5 MHz)_QPSK_MCH_1RB#0	
General	
General	

General	
General	
General	

General	
Co-existence	
Co-existence	

Co-existence	
Co-existence	
Co-existence	

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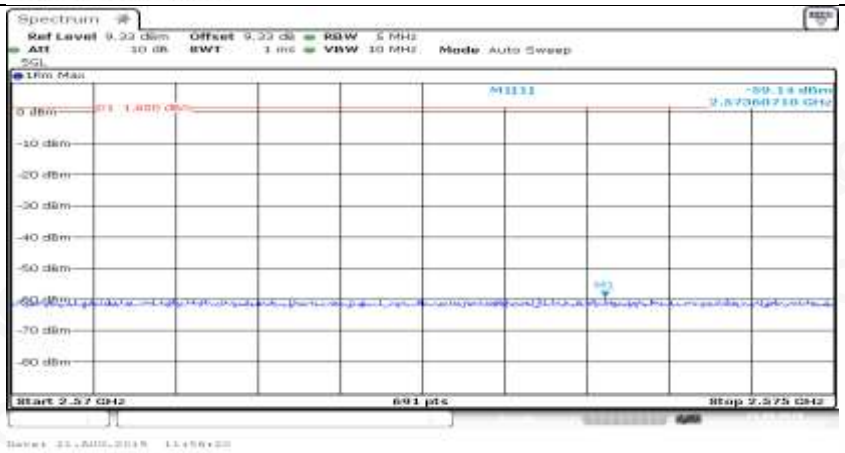
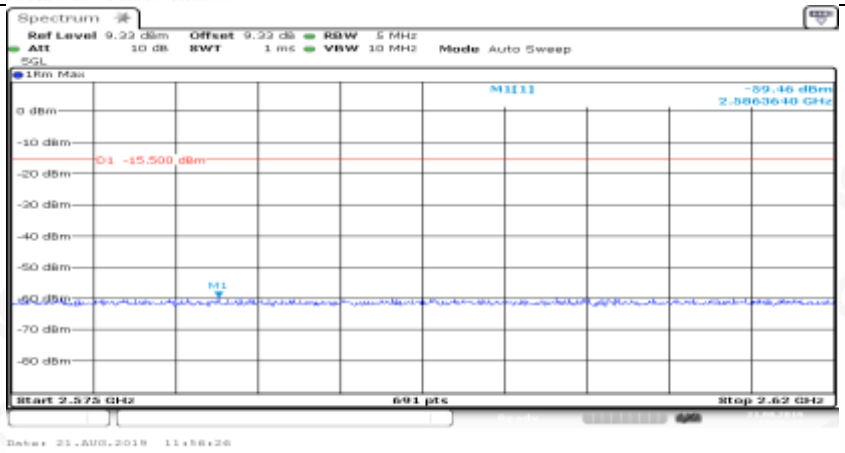
Co-existence	
Co-existence	

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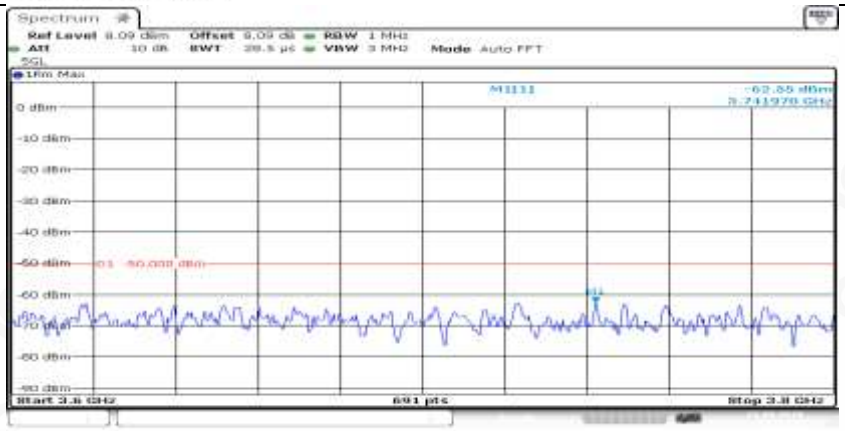
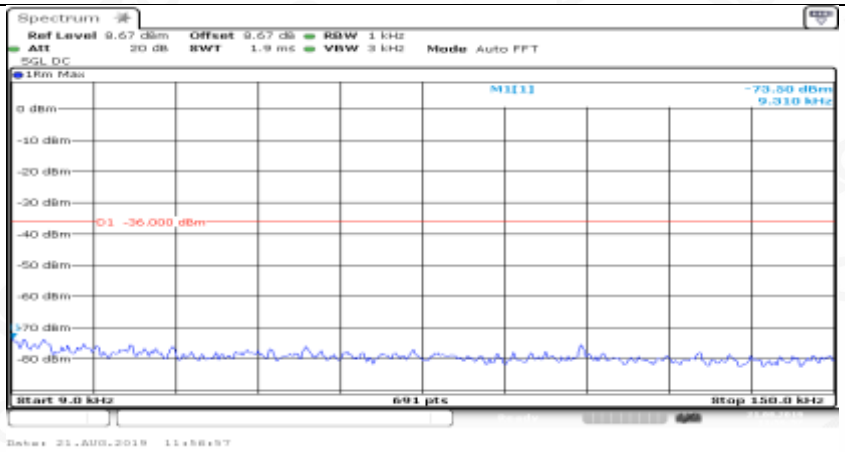
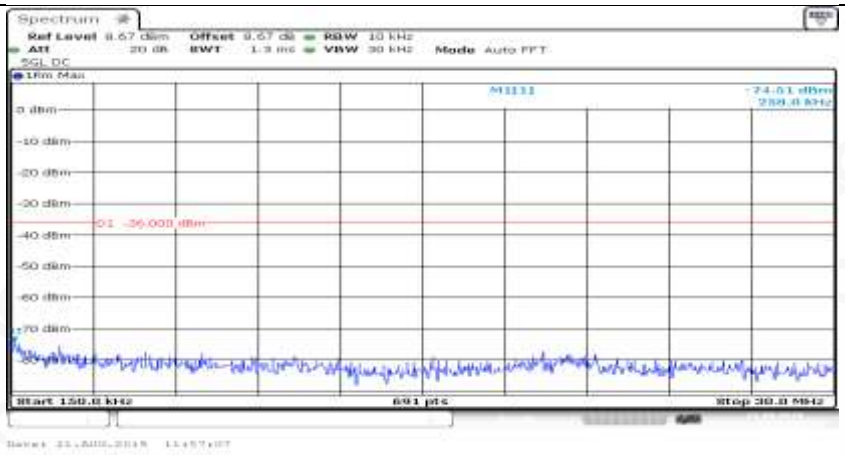
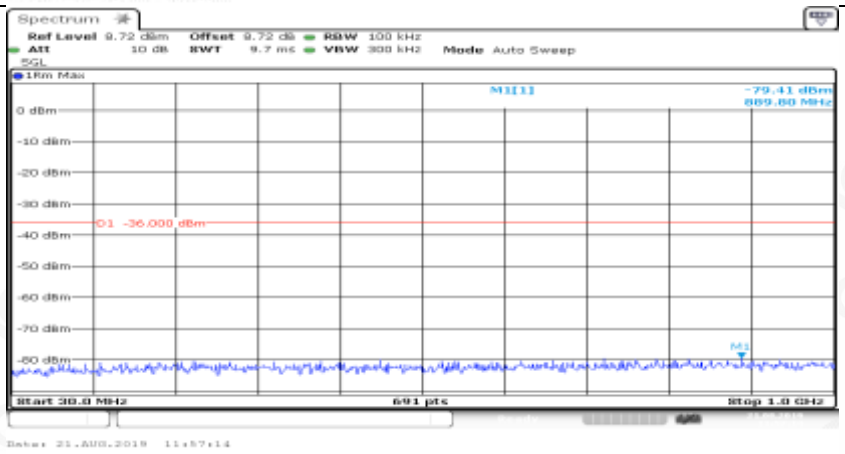
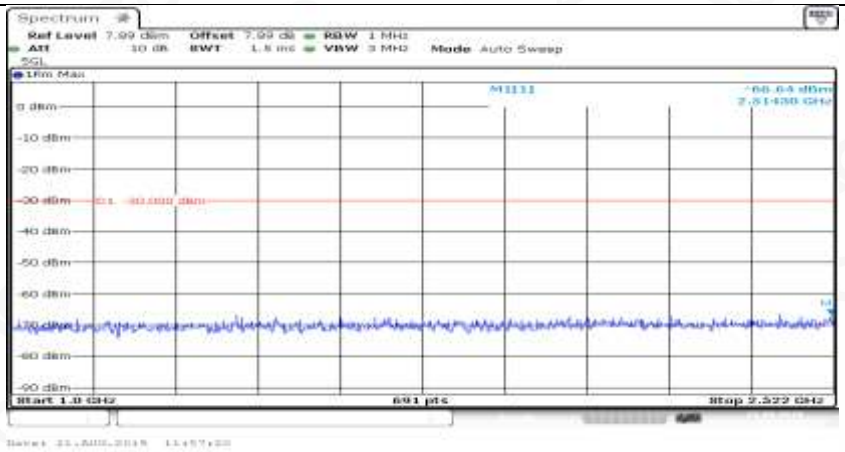
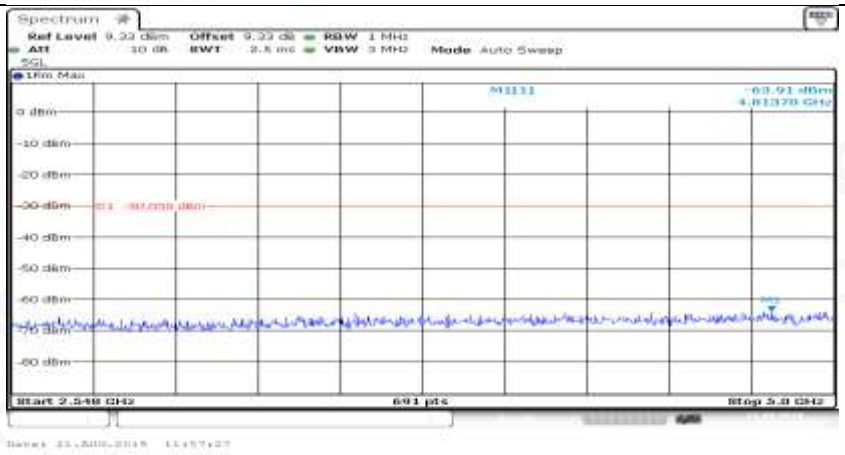
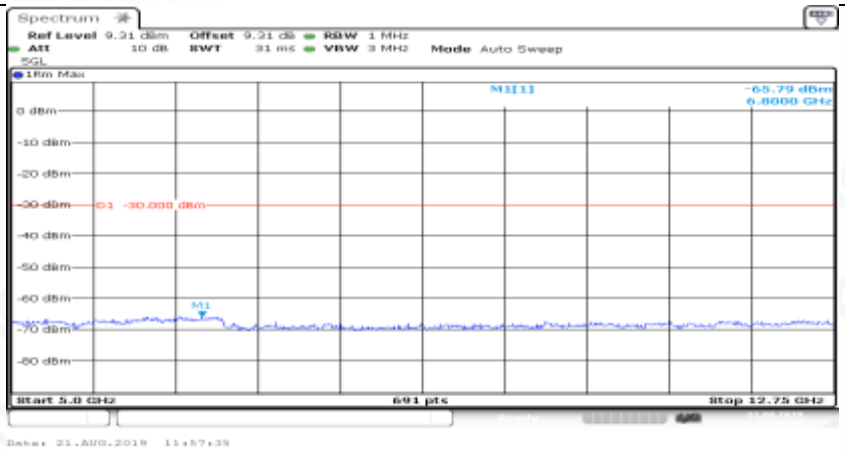
Co-existence	
Additional	NA

Channel Bandwidth=Lowest (5 MHz)_QPSK_MCH_1RB#max

General	
General	
General	

General	
General	
General	

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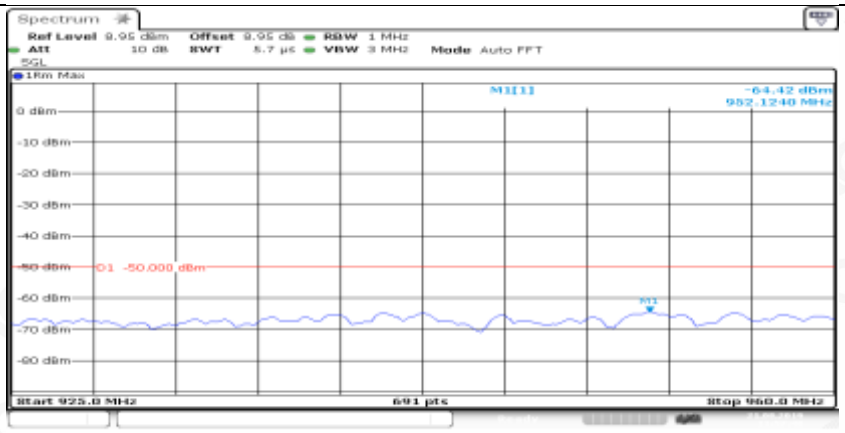
Co-existence	
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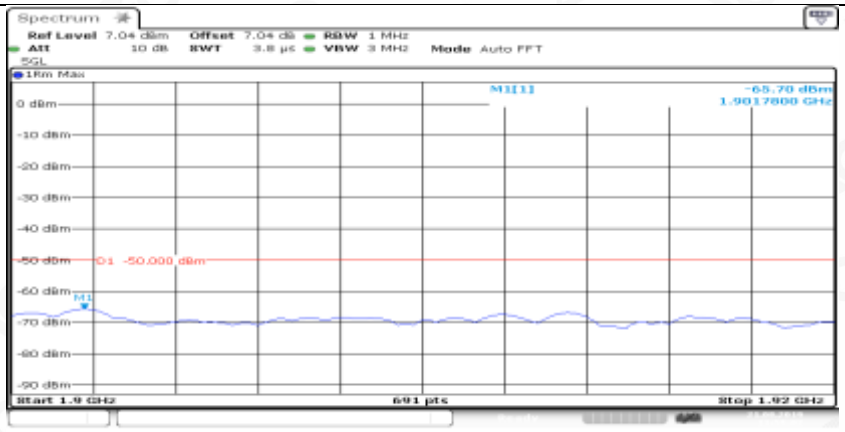
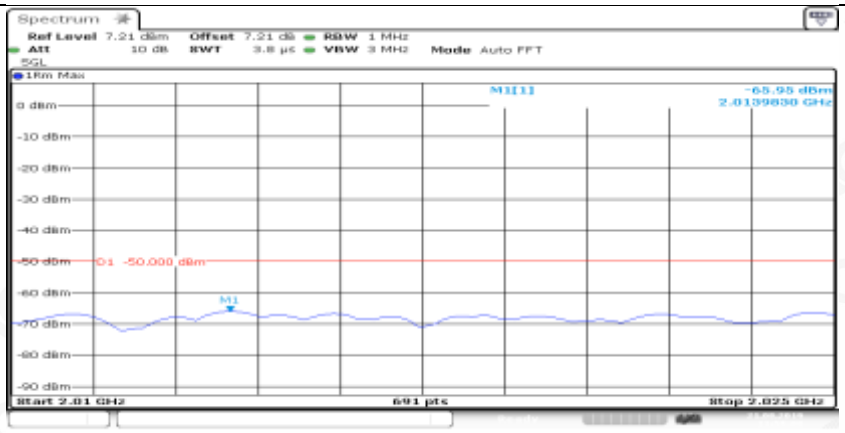
Co-existence	
Co-existence	
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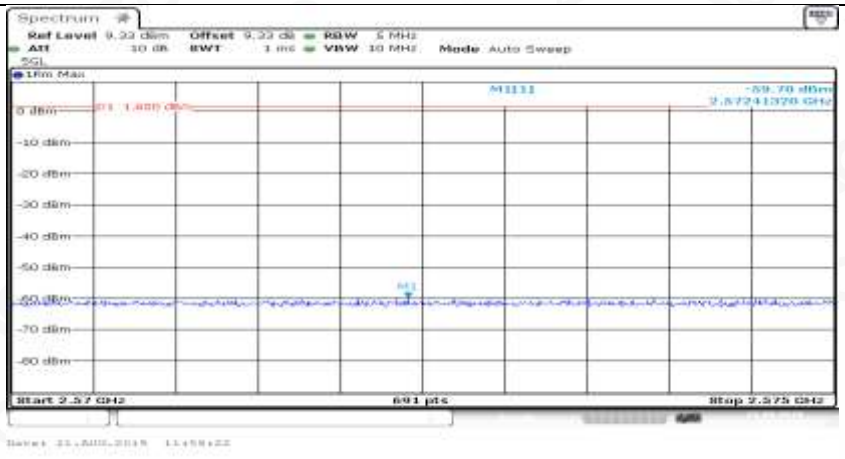
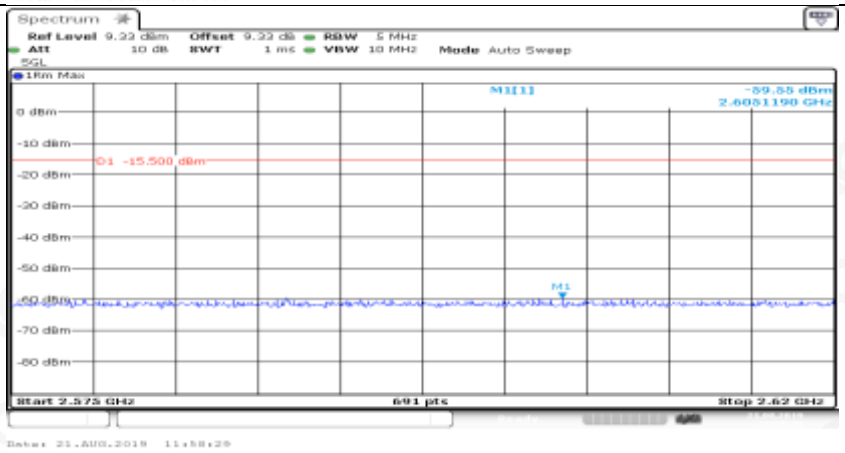
Co-existence	
Co-existence	
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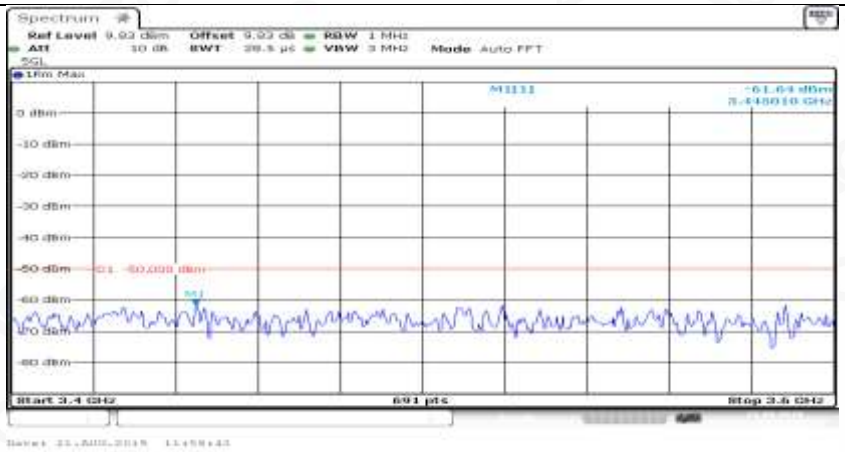
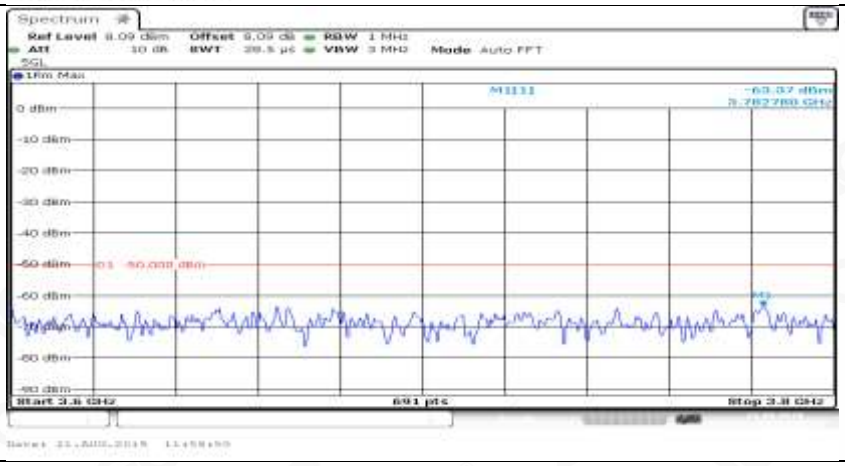
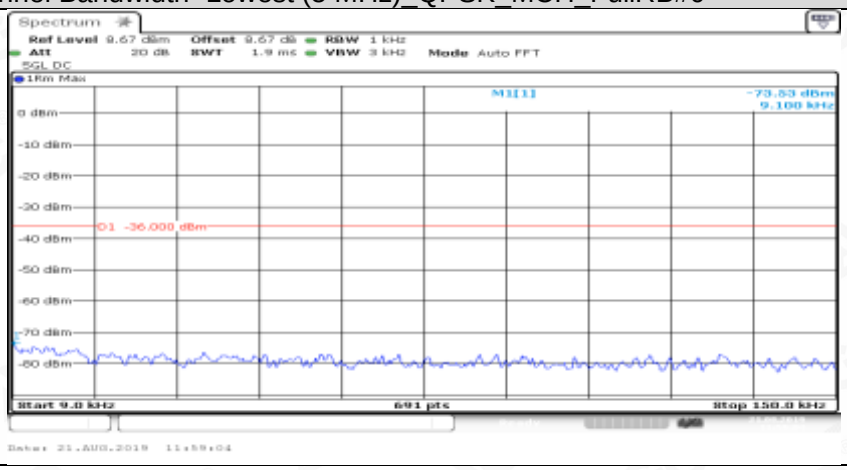
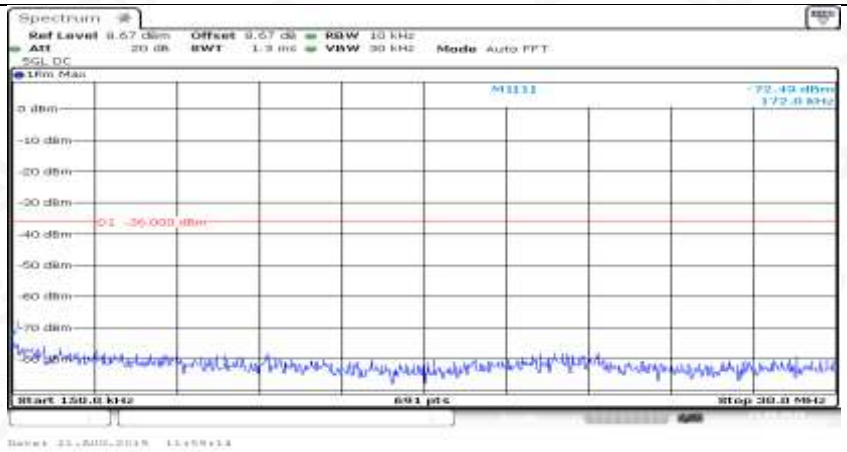
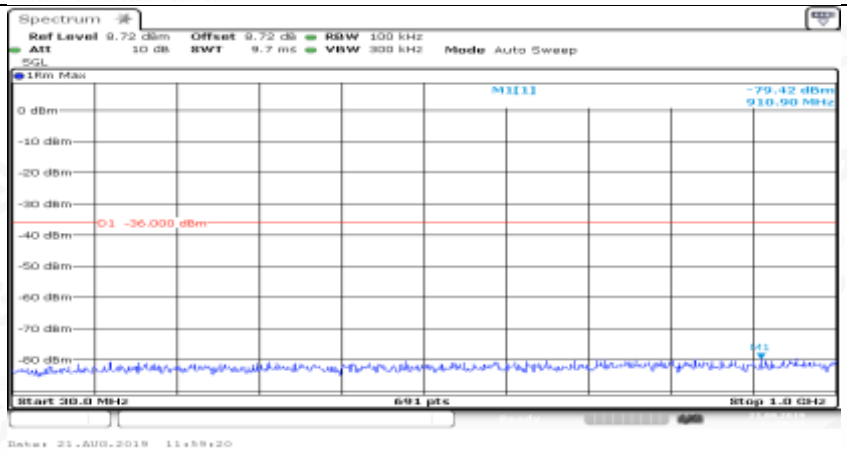
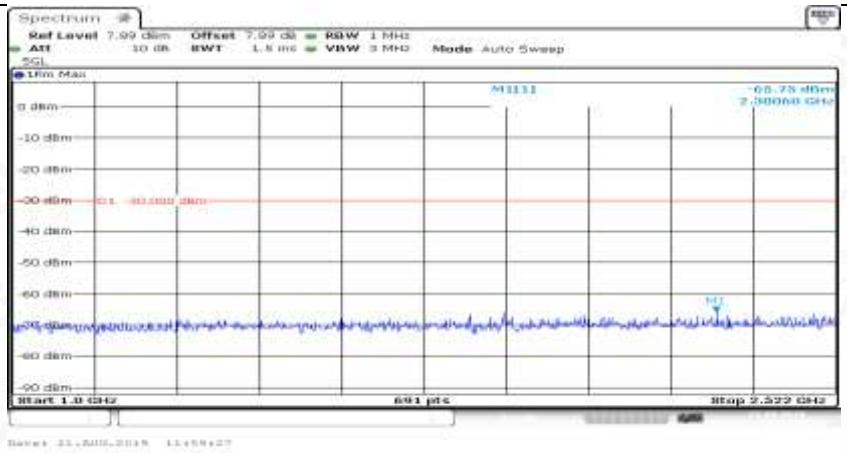
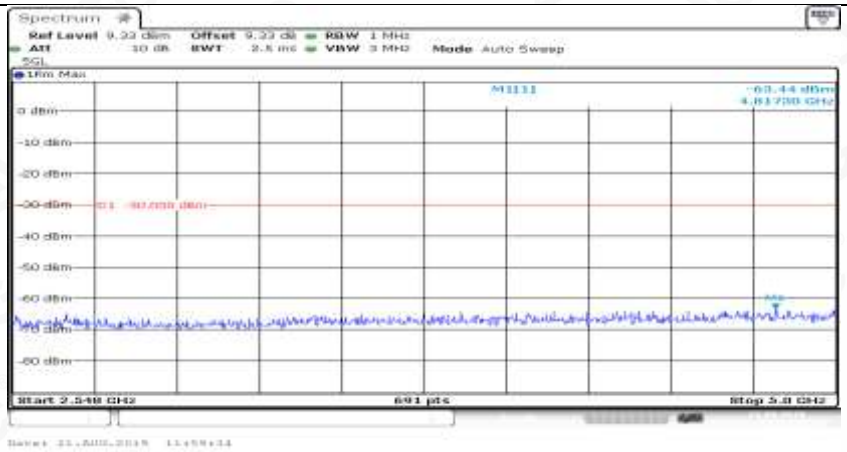
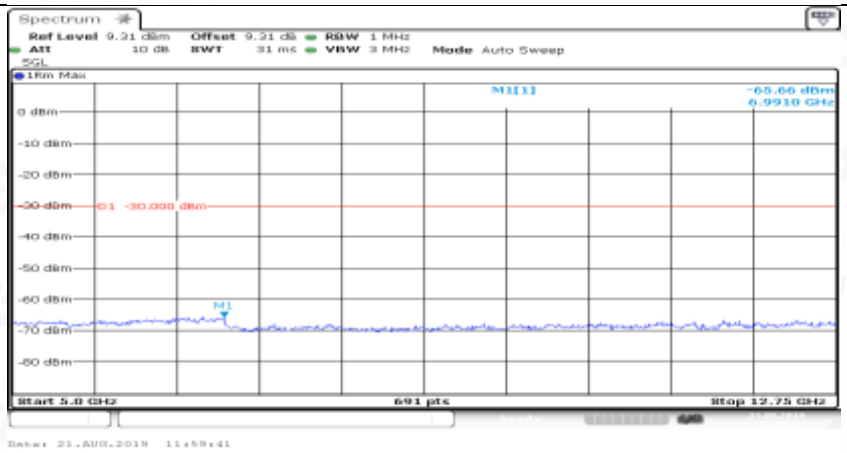
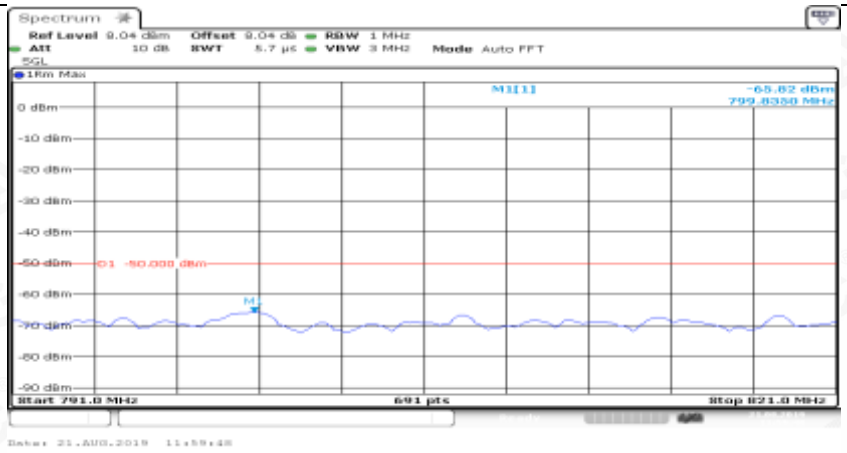
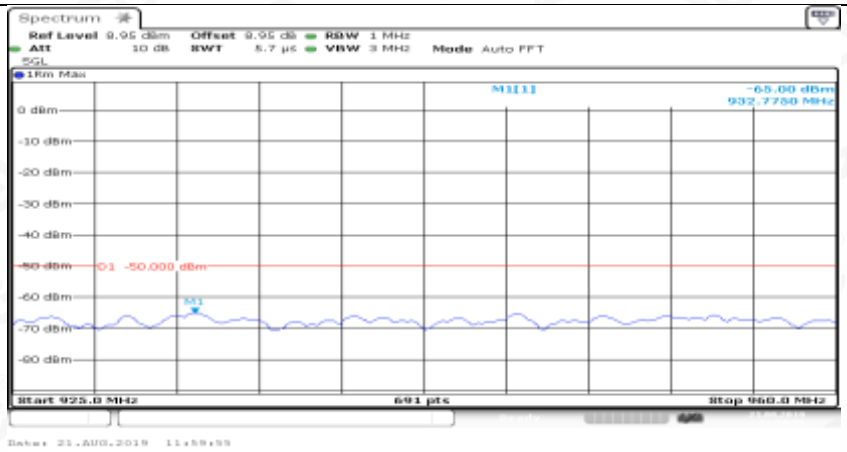
Co-existence	
Co-existence	
Additional	NA

Channel Bandwidth=Lowest (5 MHz)_QPSK_MCH_FullRB#0	
General	

General		
General		
General		

General		
General		
Co-existence		

Co-existence		
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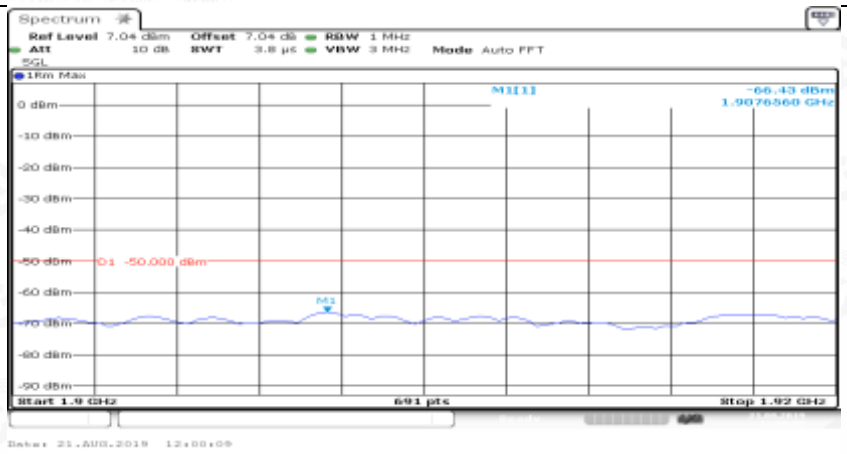
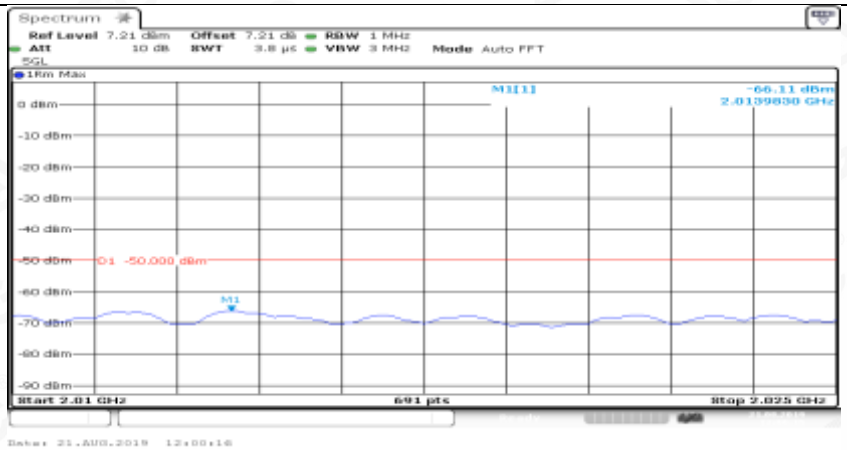
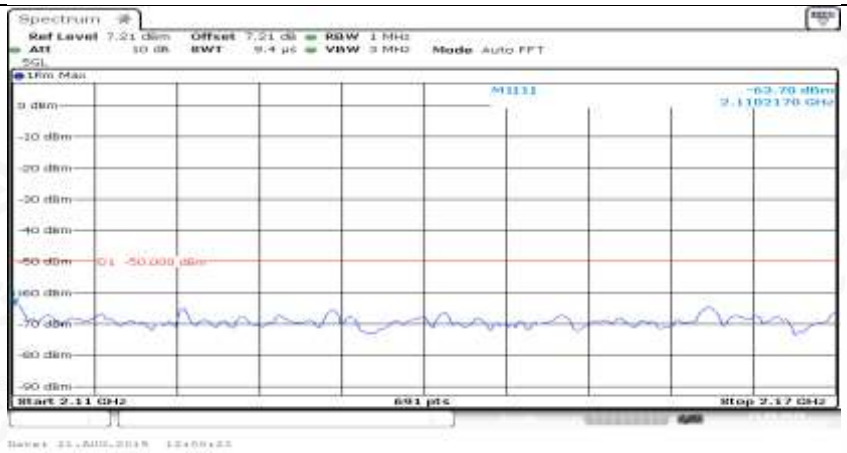
Co-existence		

Co-existence		
Co-existence		
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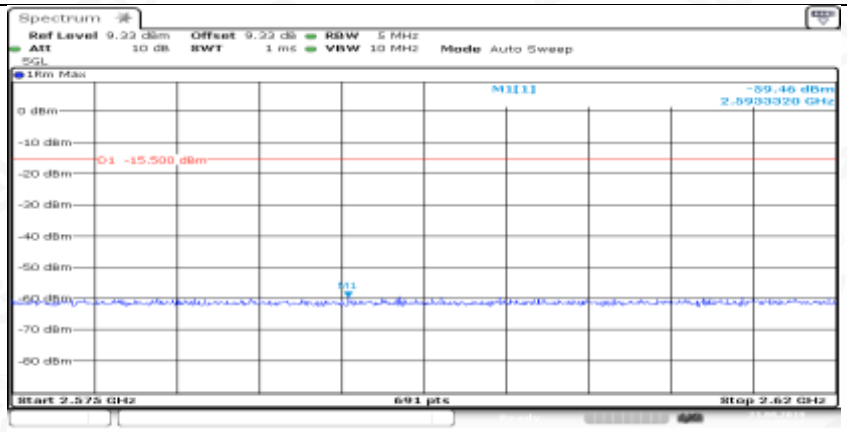
Co-existence		
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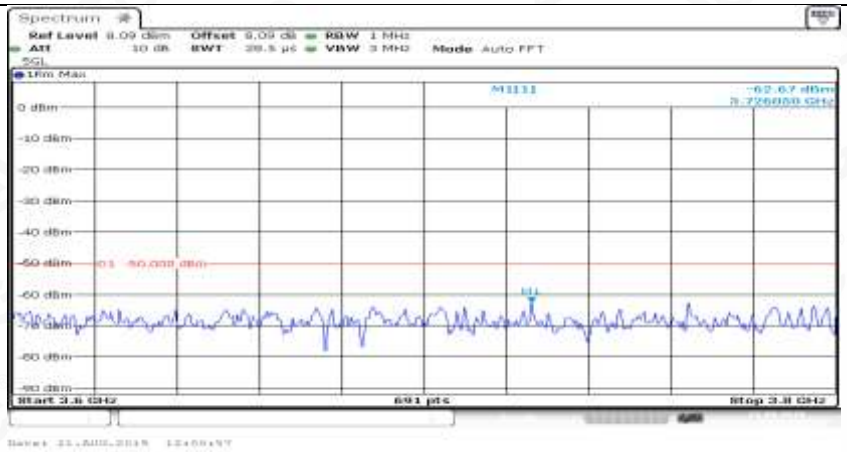
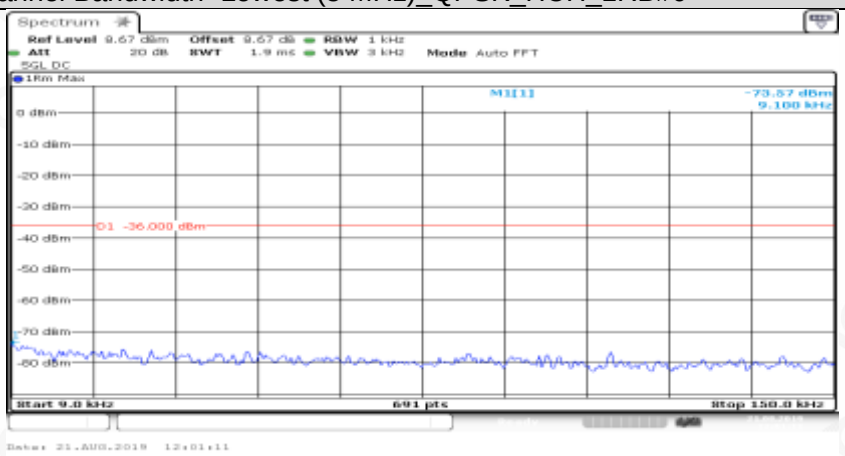
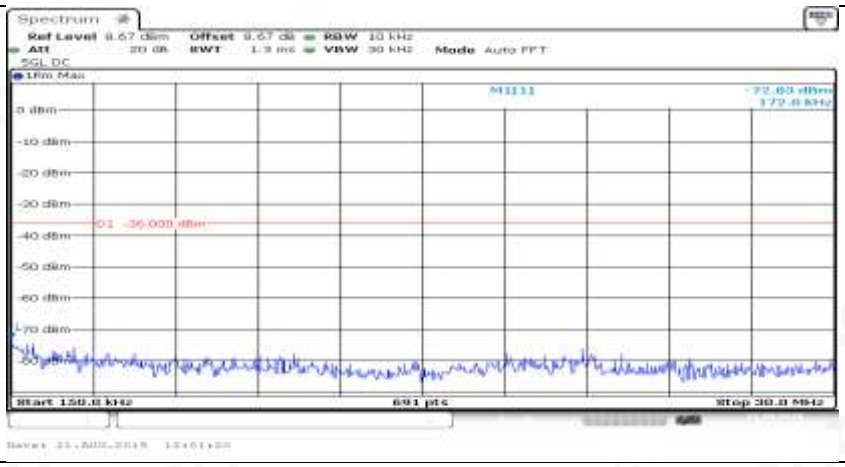
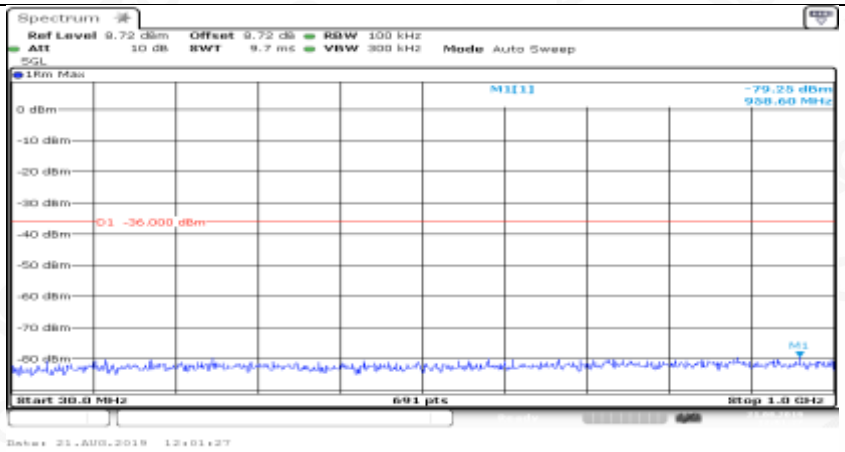
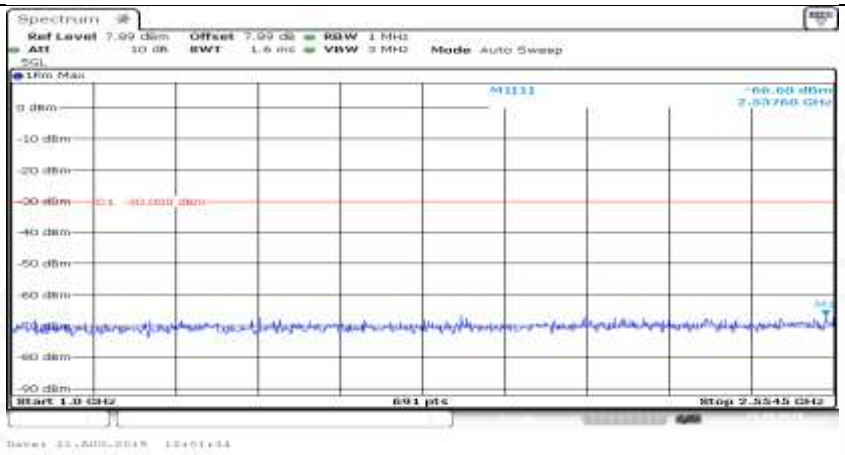
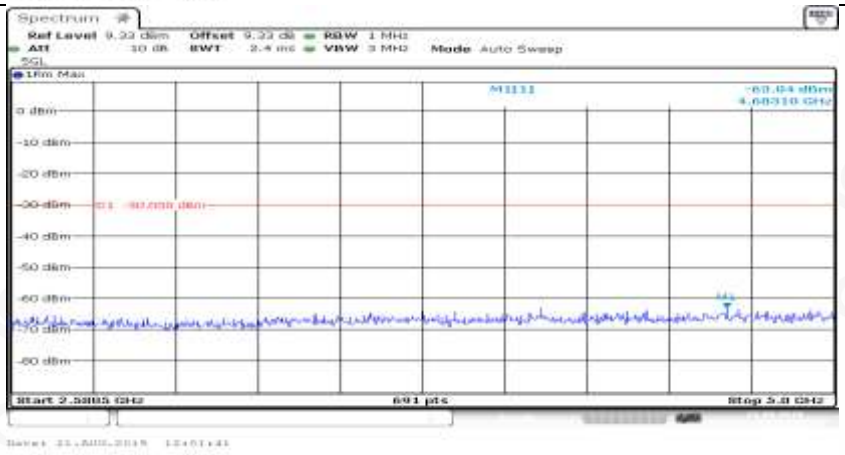
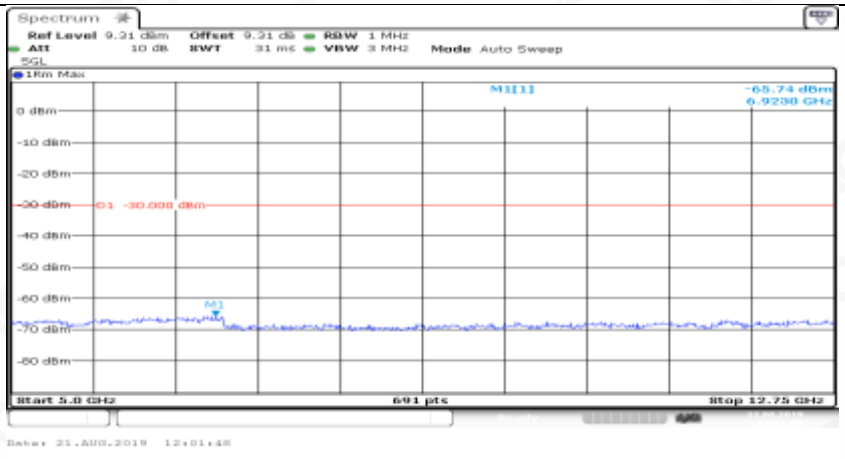
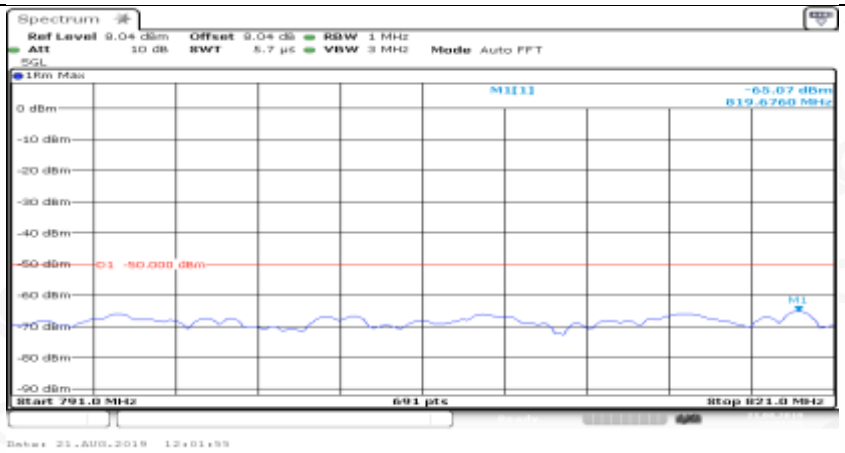
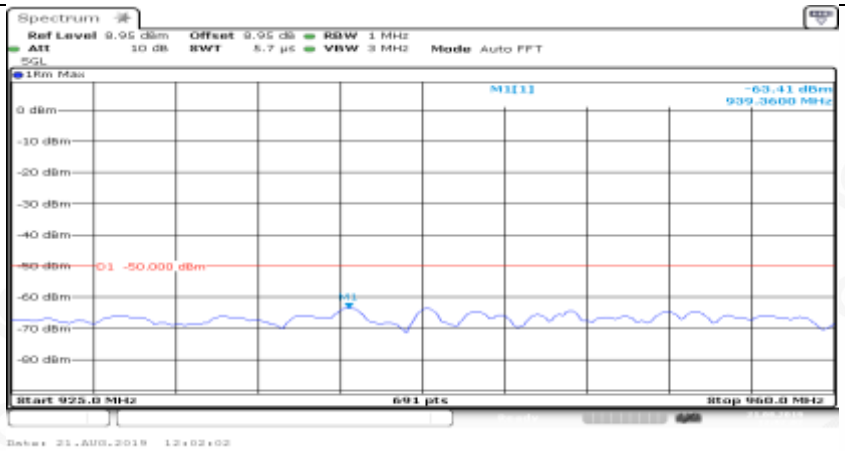
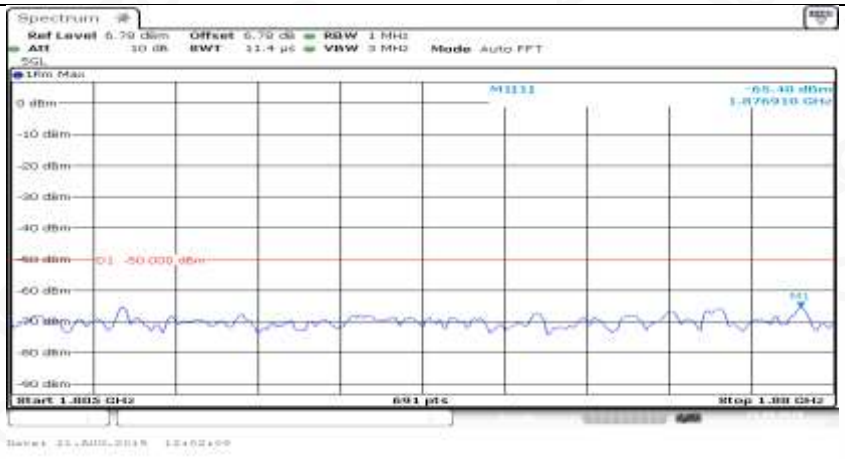
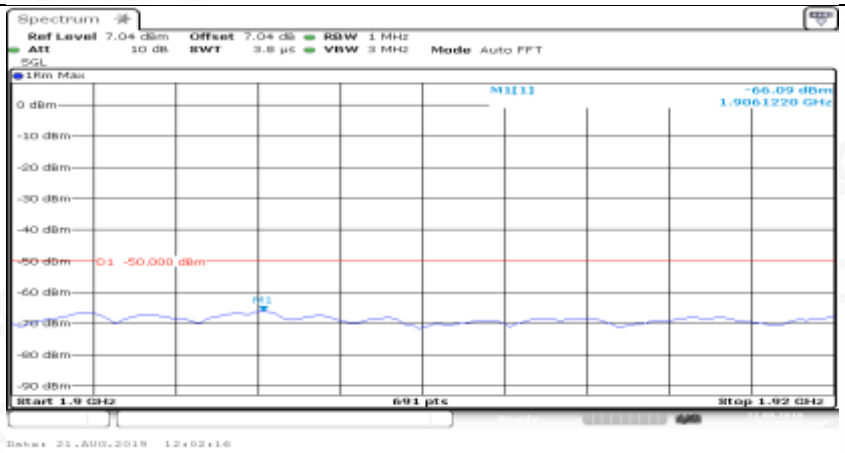
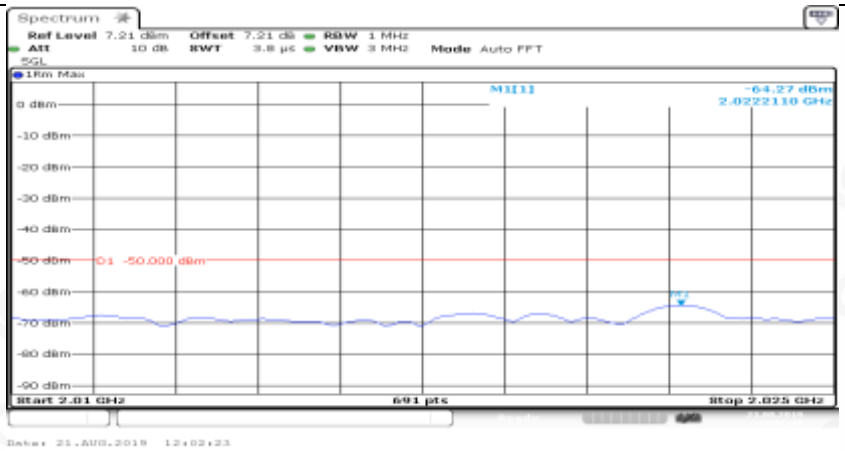
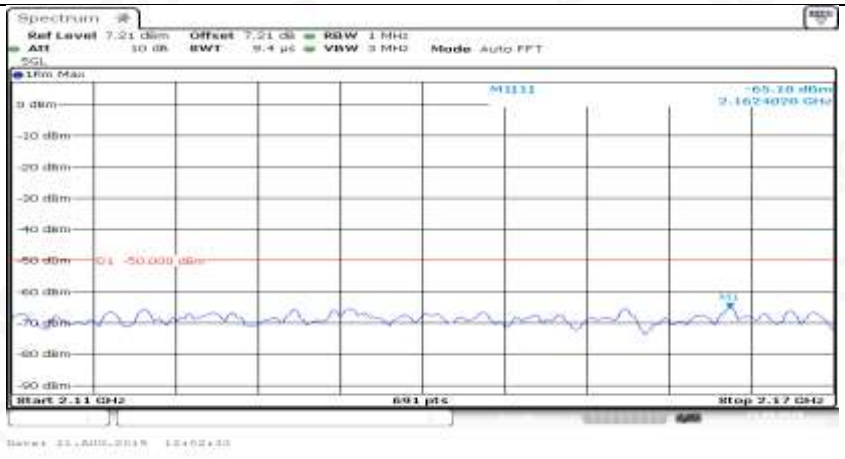
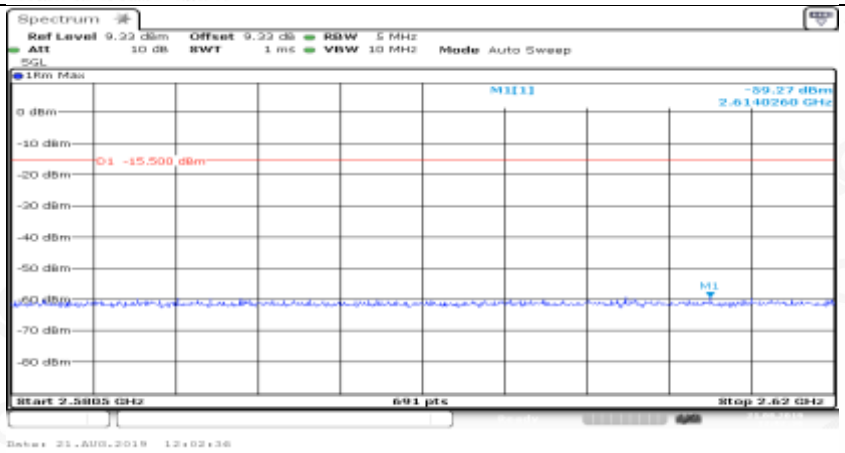
Co-existence	
Additional	NA

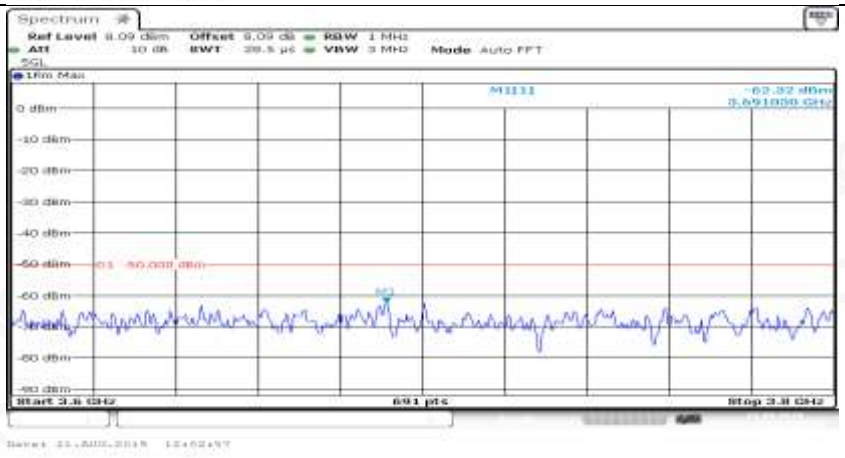
Channel Bandwidth=Lowest (5 MHz)_QPSK_HCH_1RB#0	
General	
General	

General	
General	
General	

General	
Co-existence	
Co-existence	

Co-existence	
Co-existence	
Co-existence	

Co-existence	
Co-existence	
Co-existence	

Co-existence	
Co-existence	
Additional	NA

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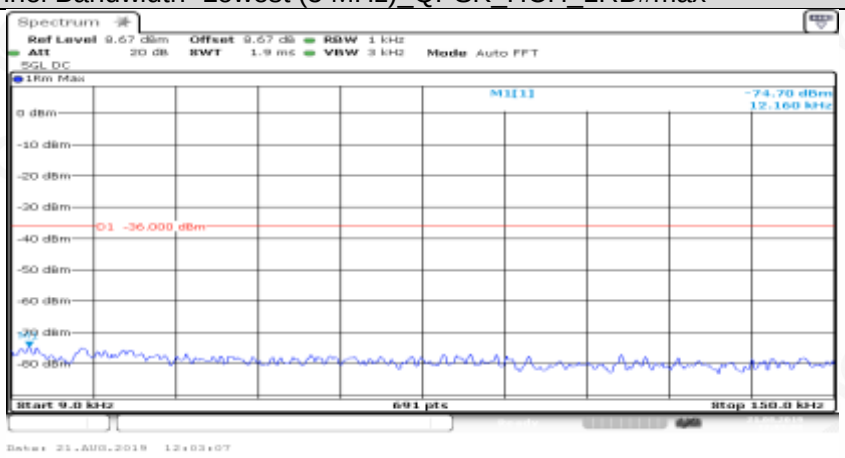
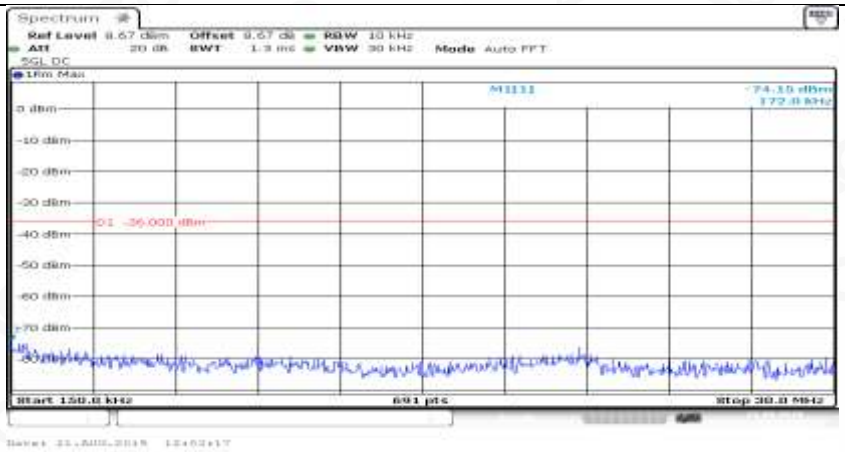
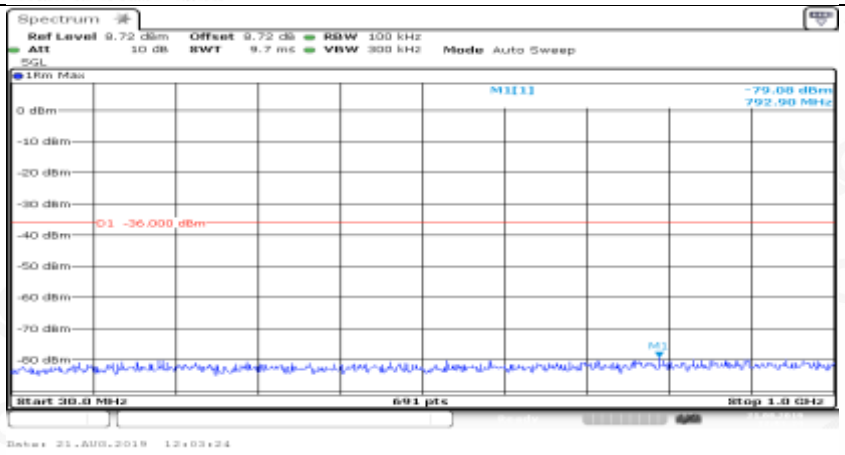
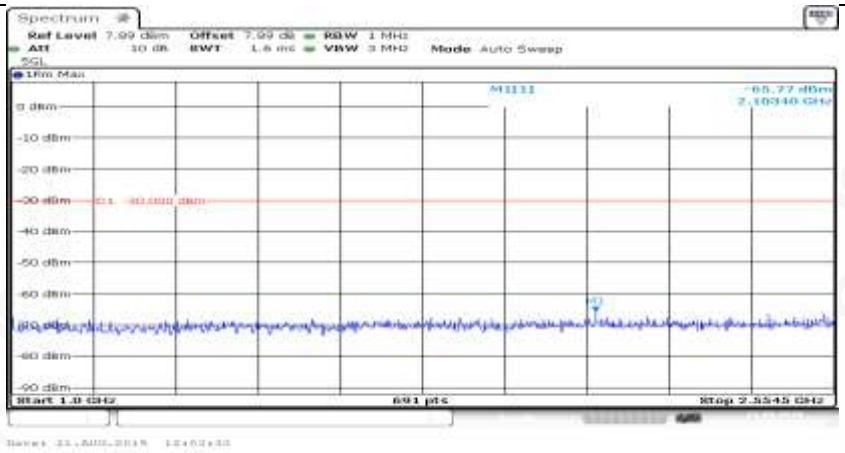
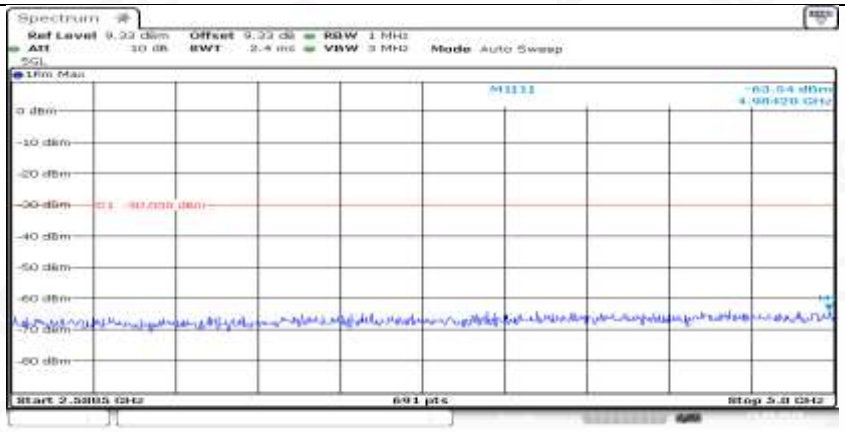
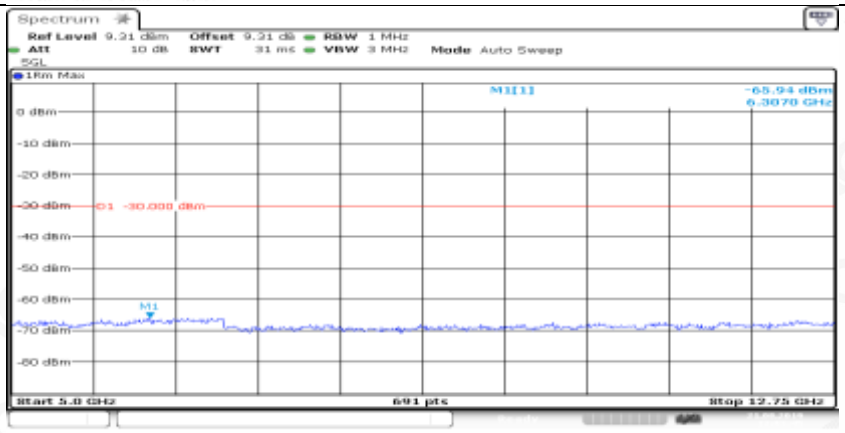
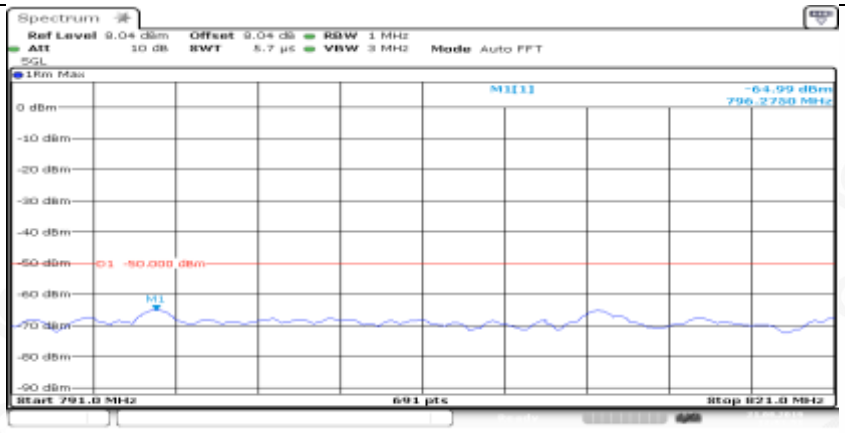
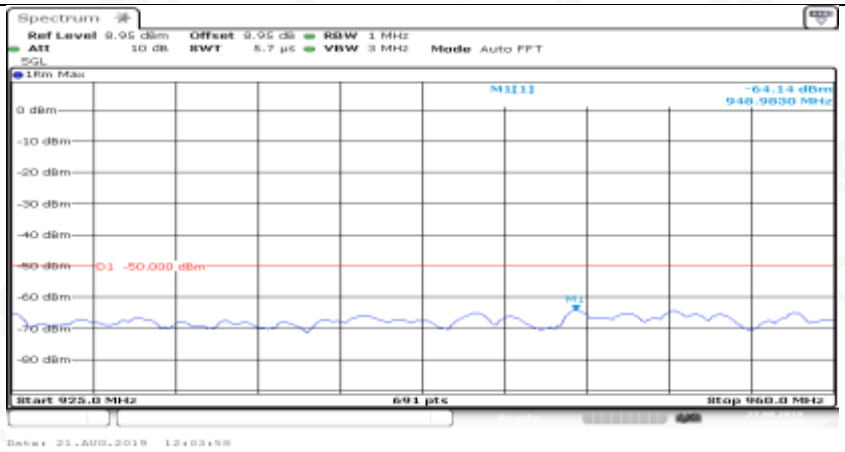
General	

General	
General	
General	

General	
General	
Co-existence	

Co-existence	
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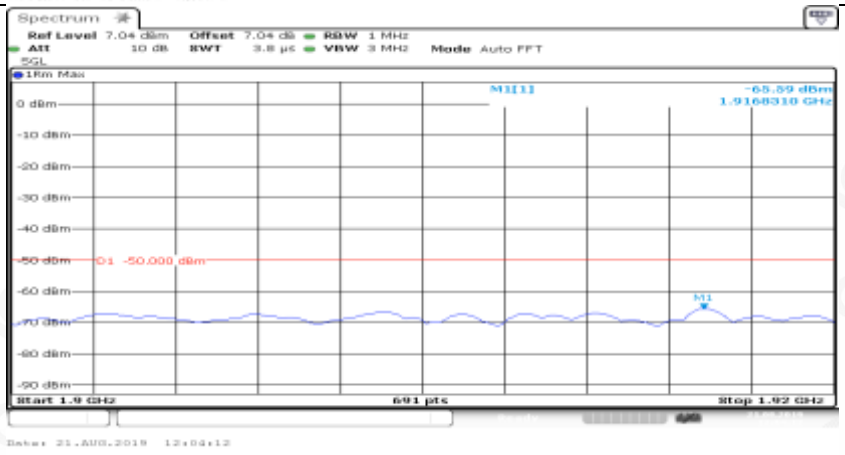
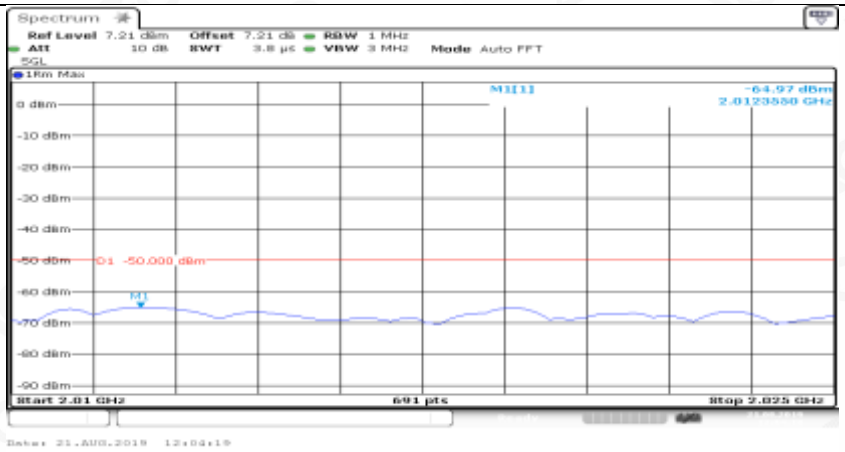
Co-existence	

Co-existence	
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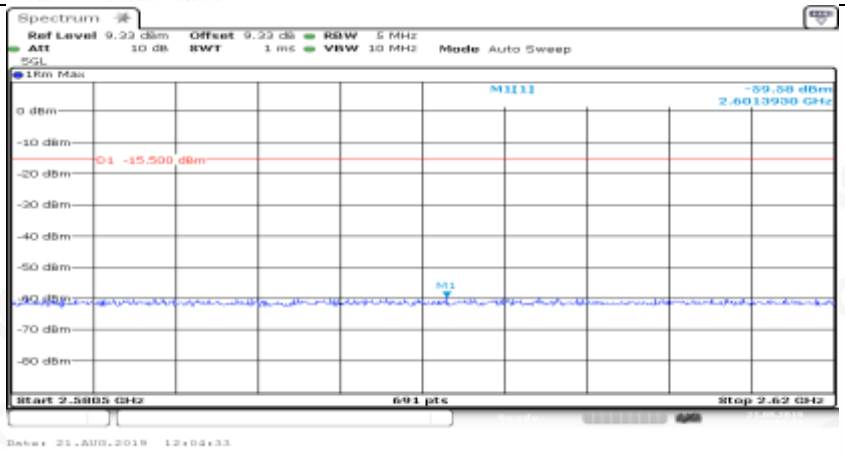
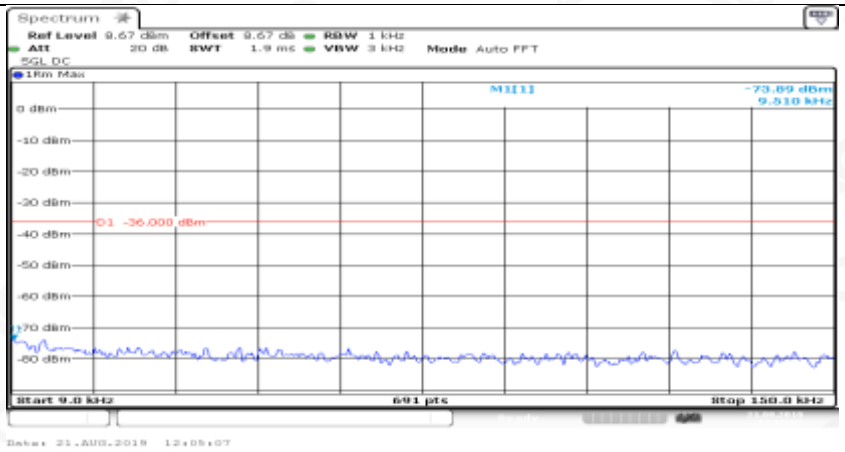
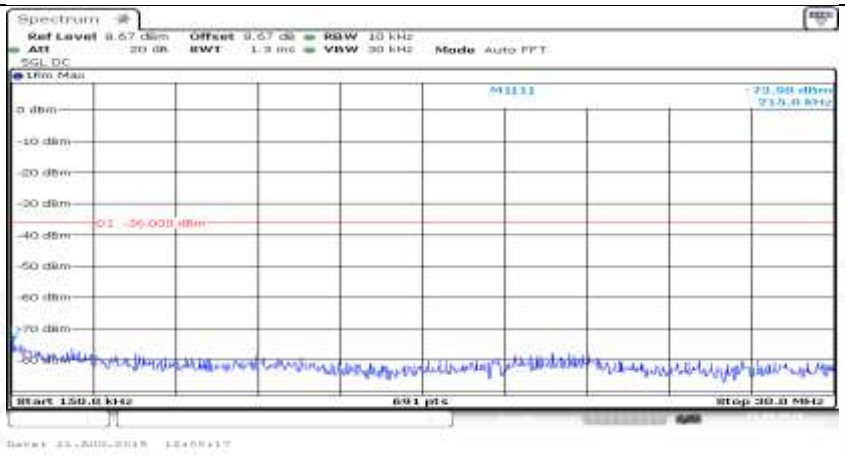
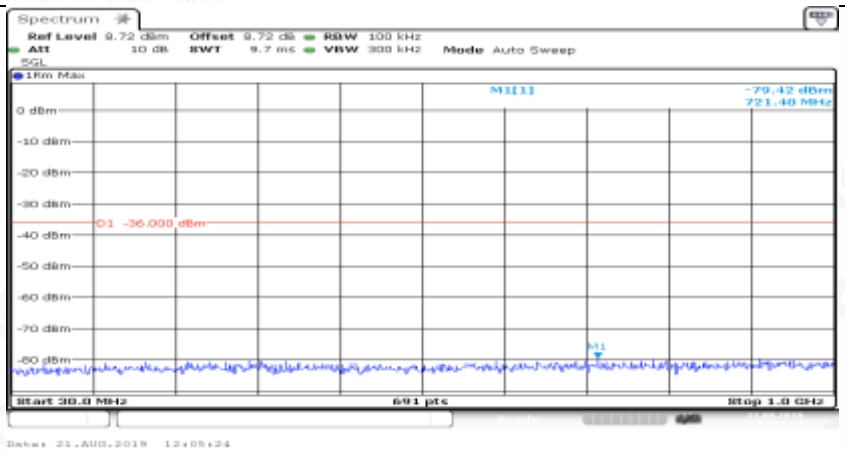
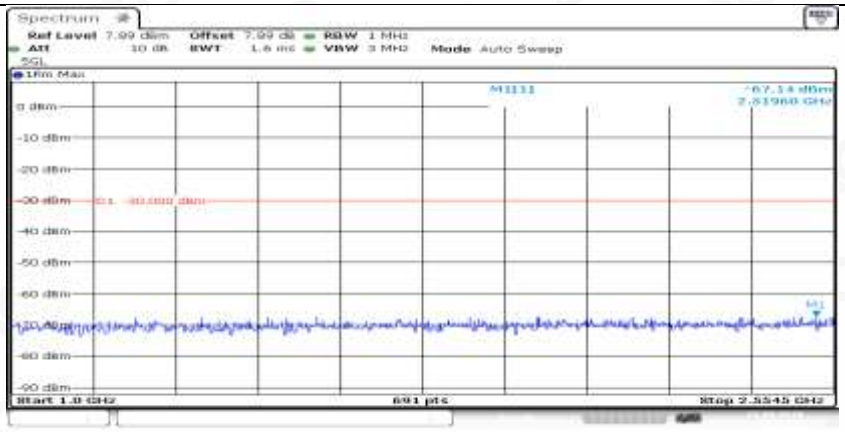
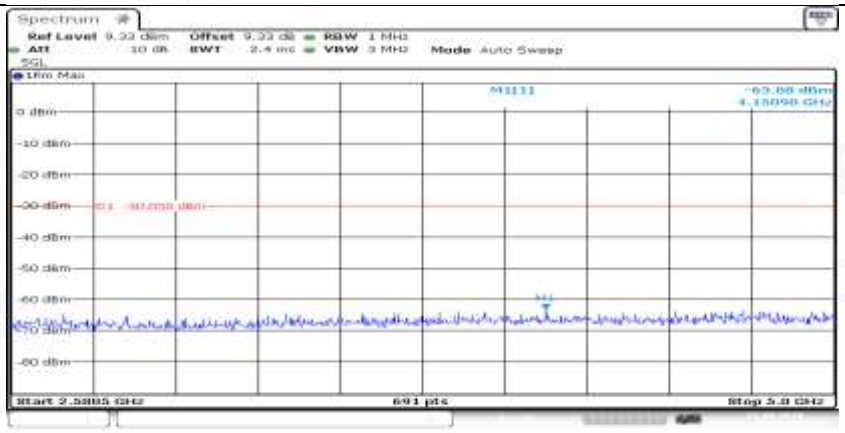
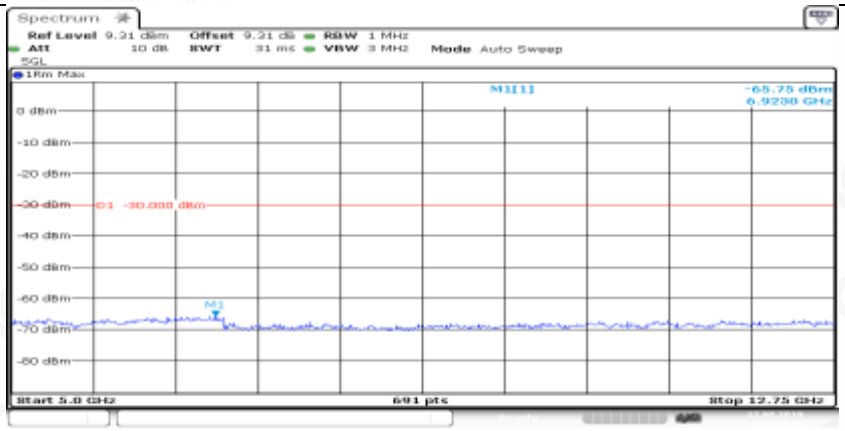
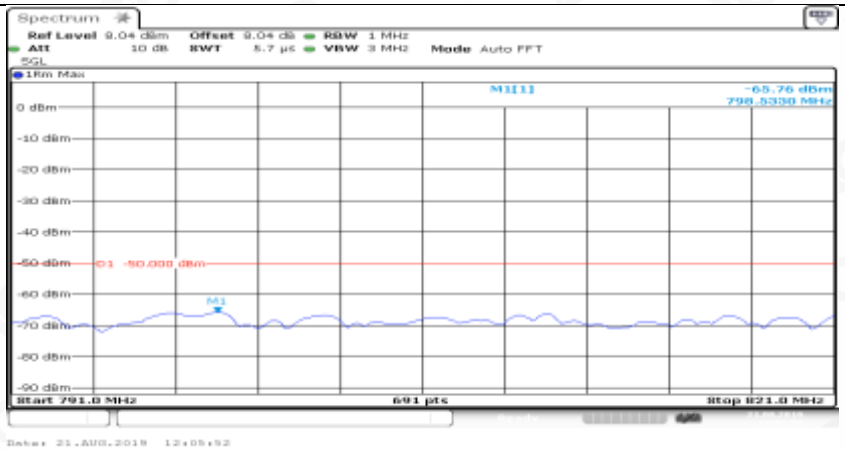
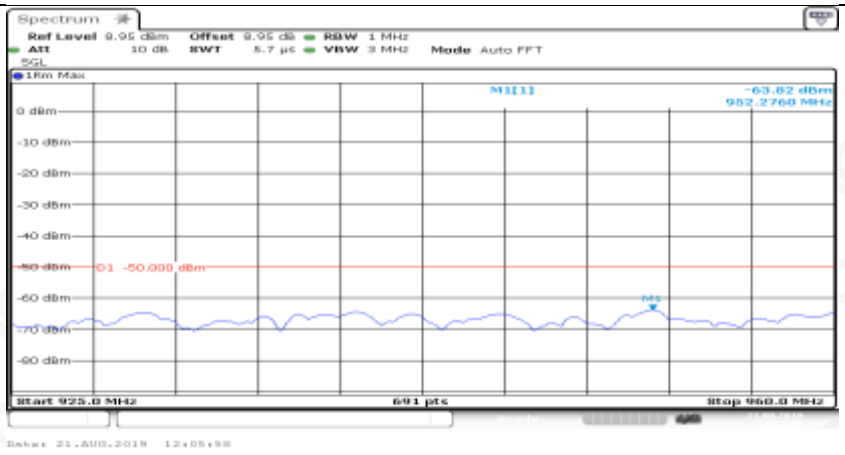
Co-existence	

Co-existence	
Co-existence	
Co-existence	
Additional	NA

Channel Bandwidth=Lowest (5 MHz)_QPSK_HCH_FullRB#0

General	
General	
General	

General	
General	
General	

Co-existence	
Co-existence	
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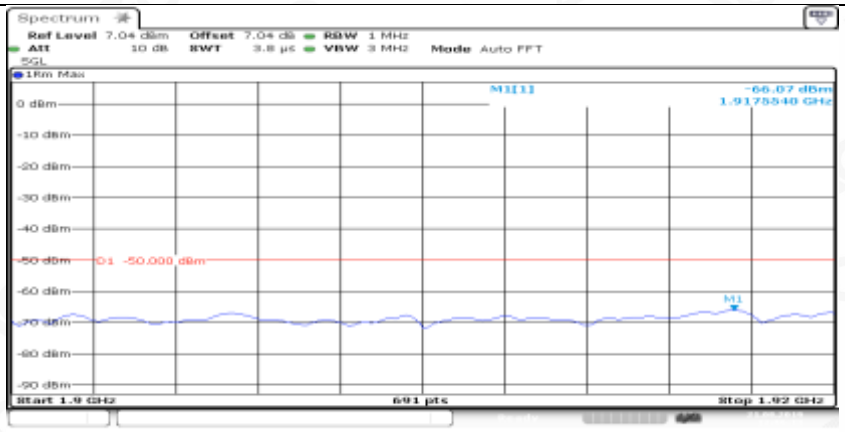
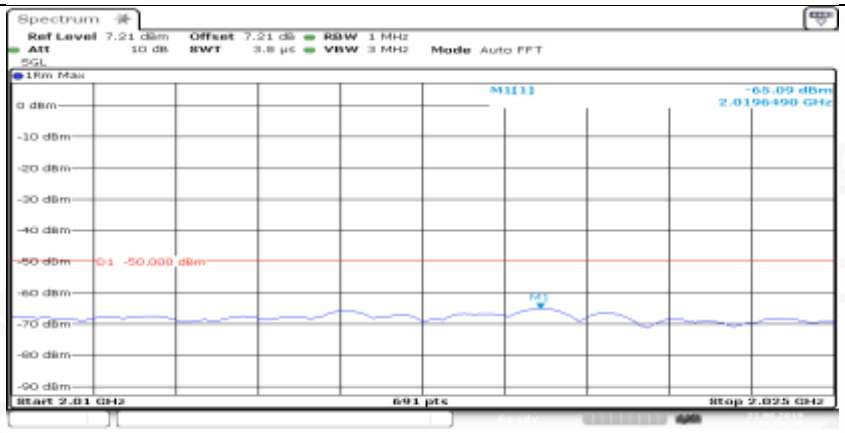
Co-existence	
Co-existence	
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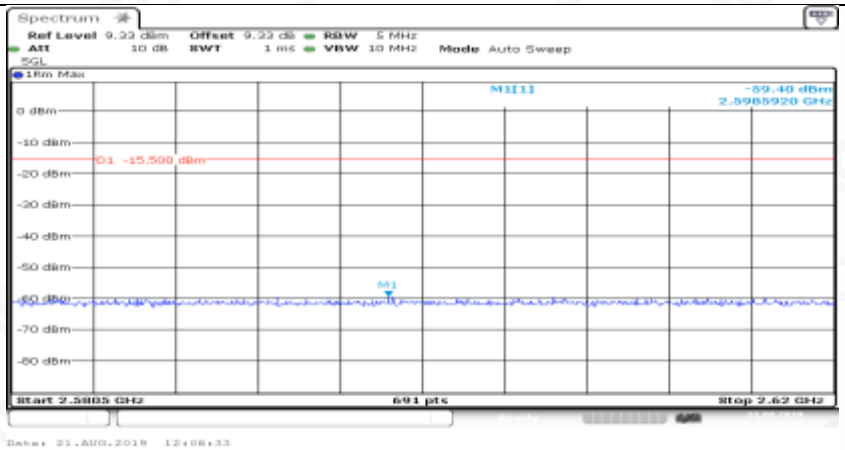
Co-existence	
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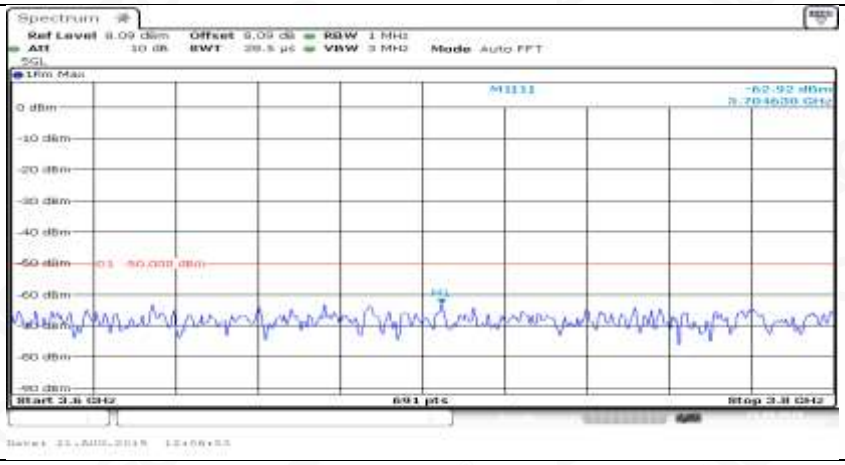
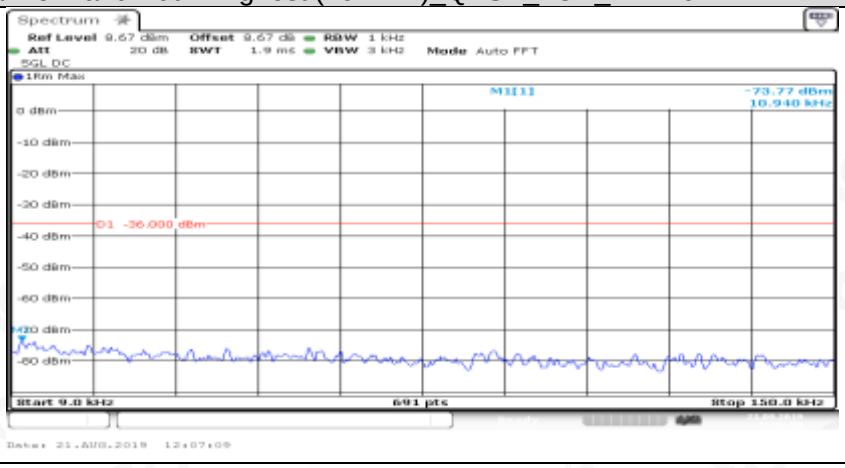
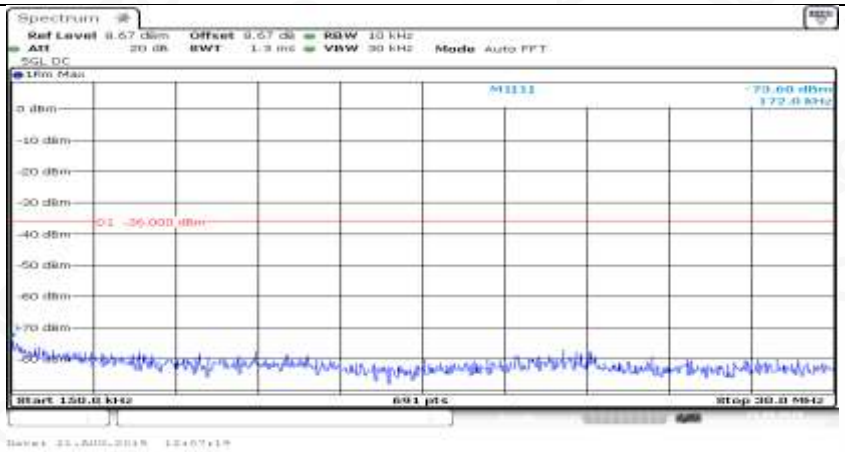
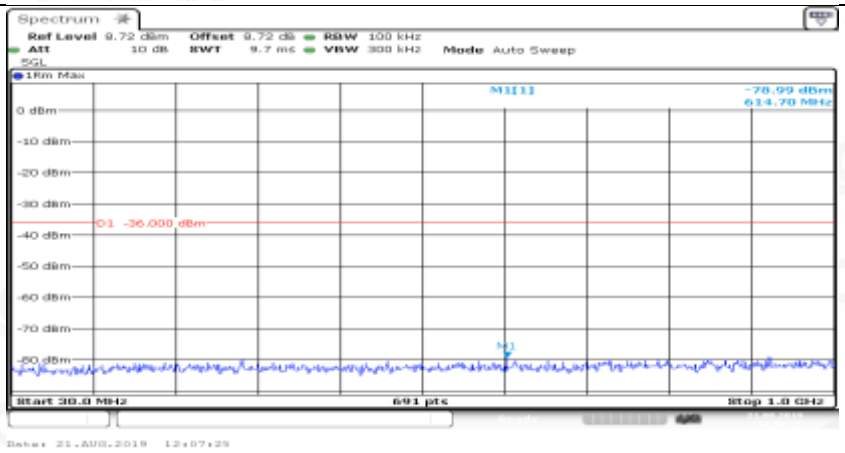
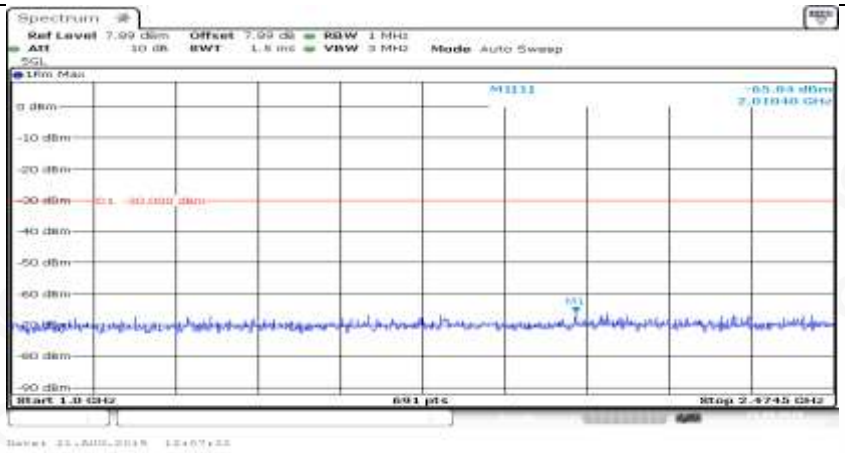
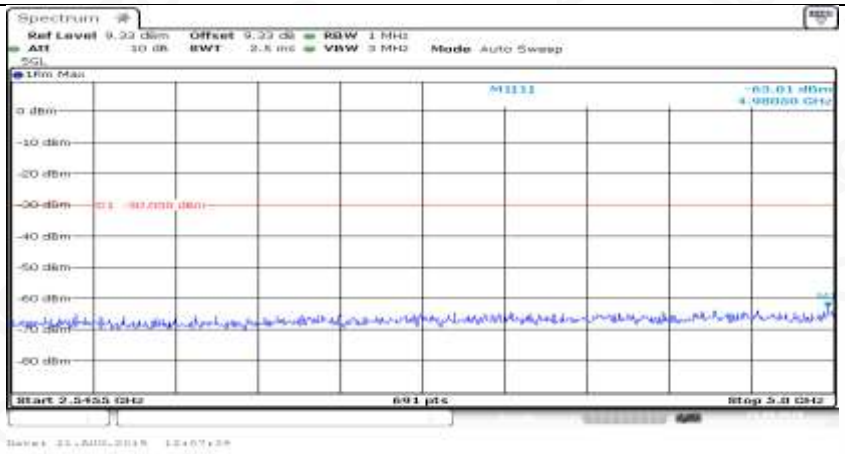
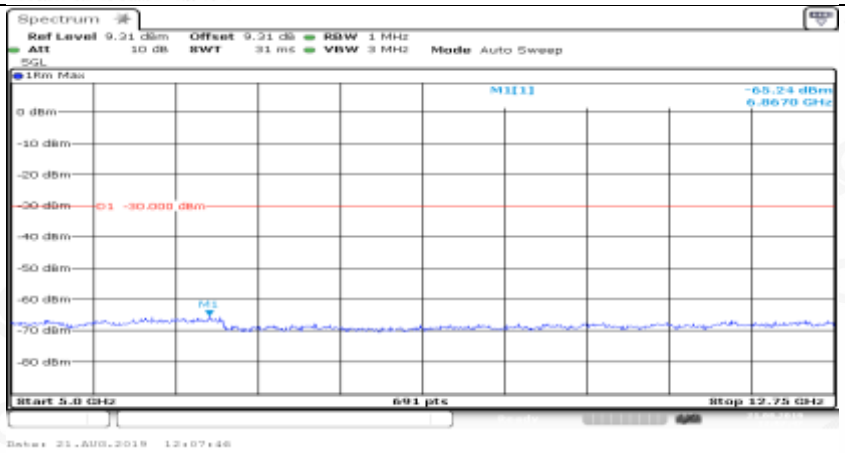
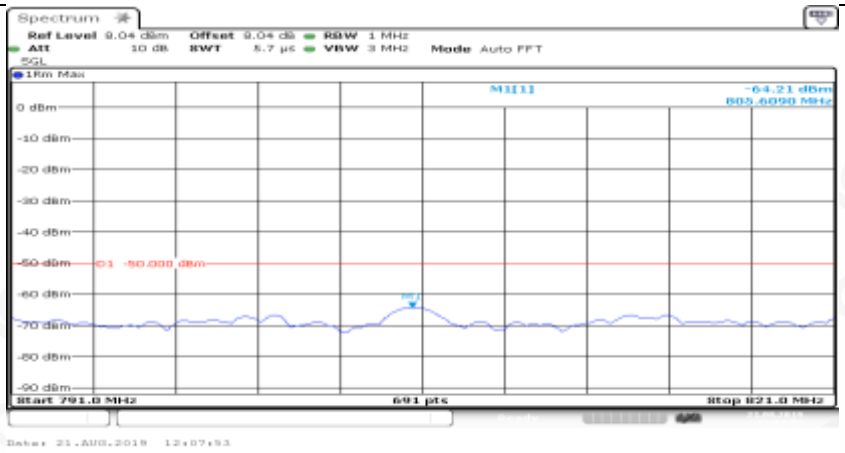
Co-existence	

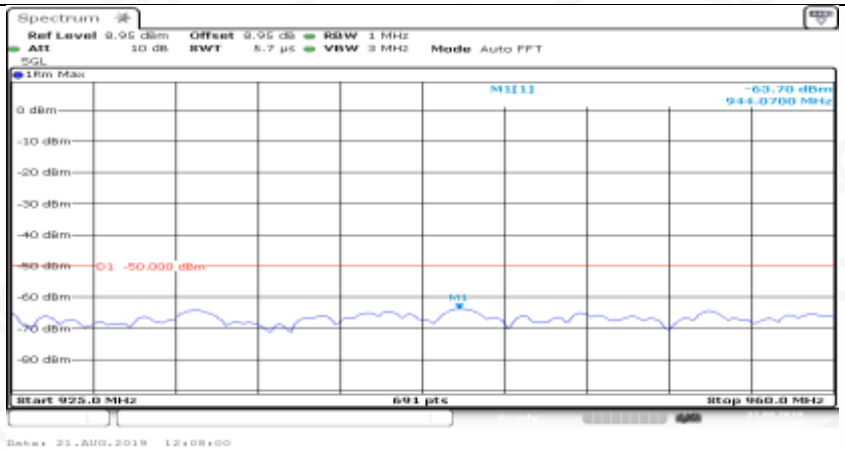
Co-existence	
Additional	NA

Channel Bandwidth= (20 MHz)

Channel Bandwidth=Highest (20 MHz)_QPSK_LCH_1RB#0	
General	

General		
General		
General		

General	
General	
Co-existence	

Co-existence	
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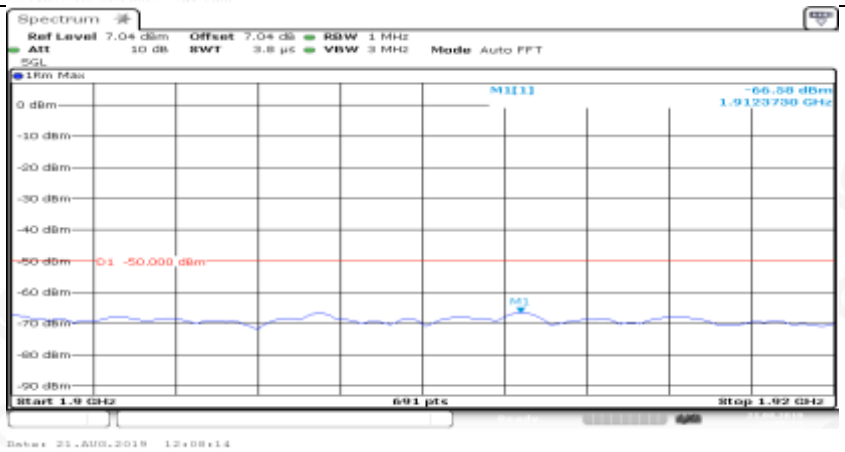
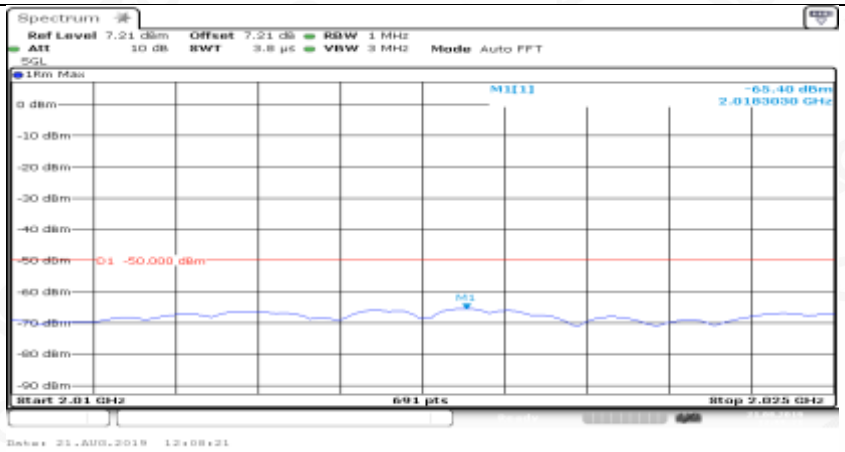
Co-existence	

Co-existence	
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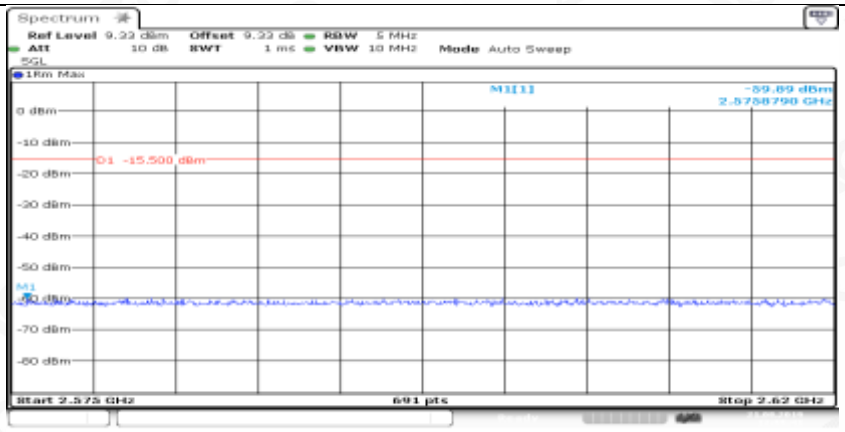
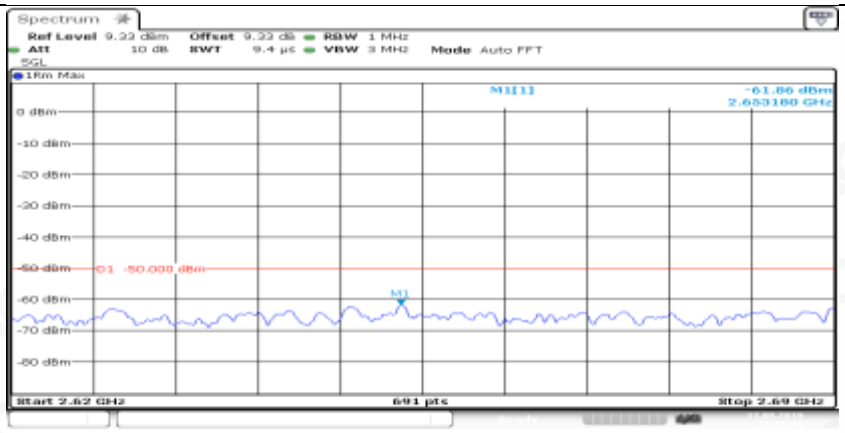
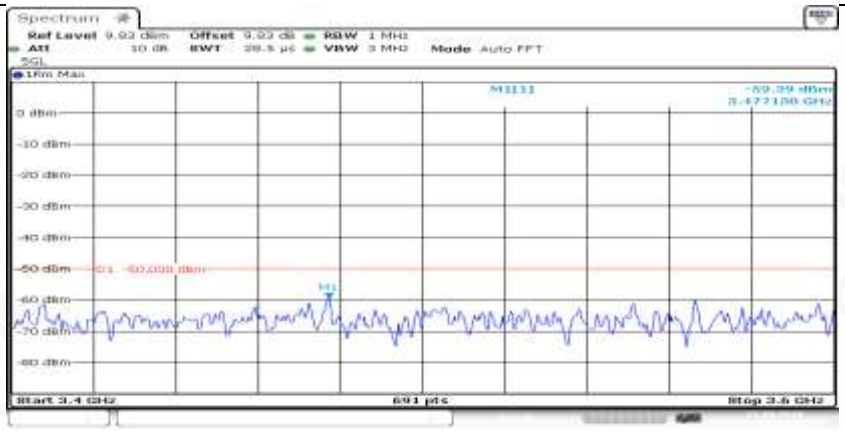
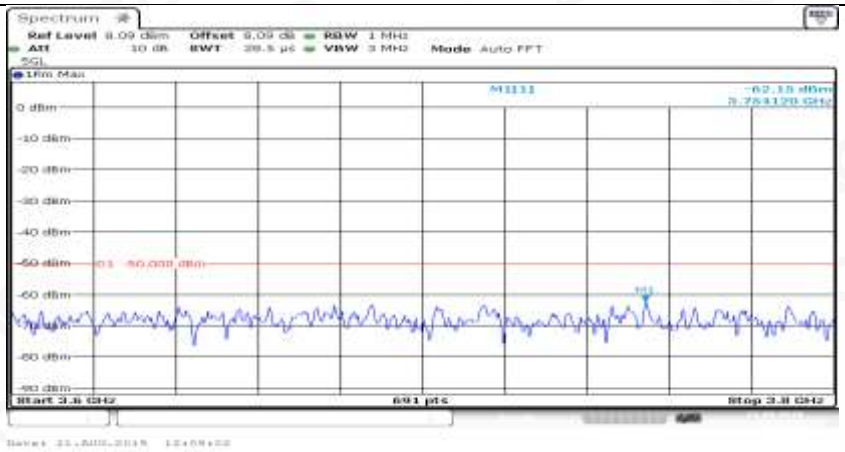
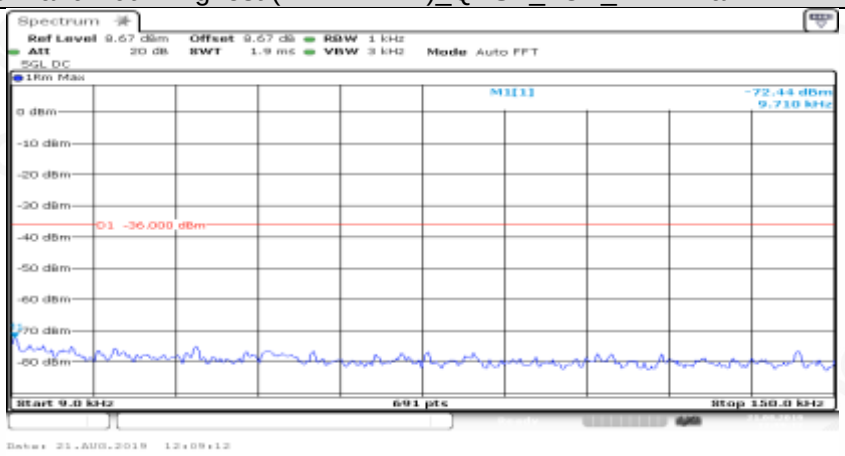
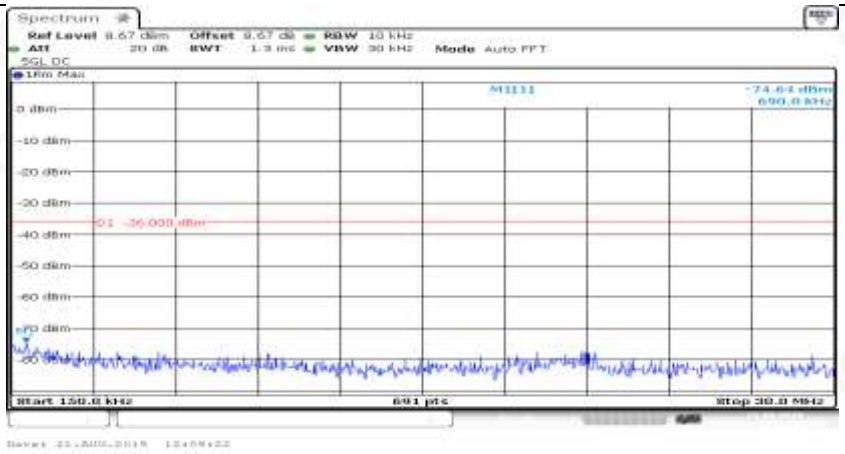
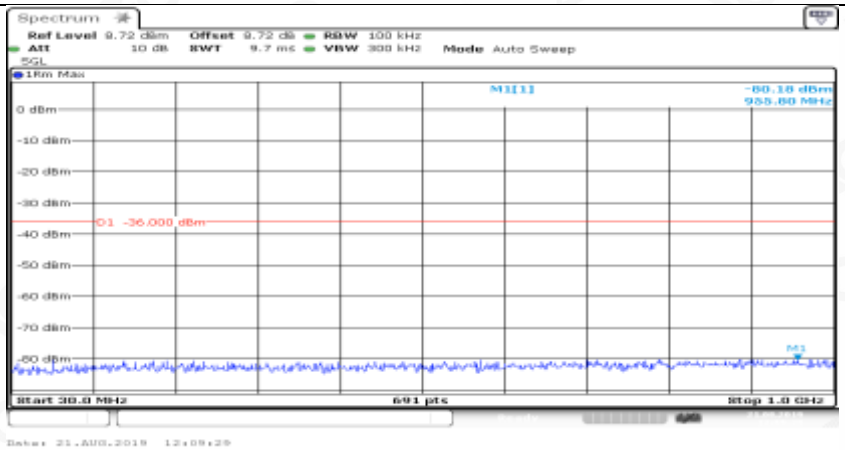
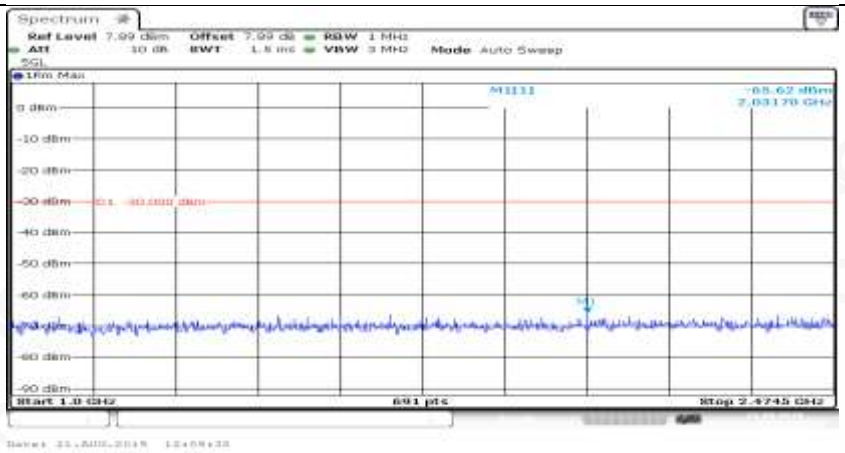
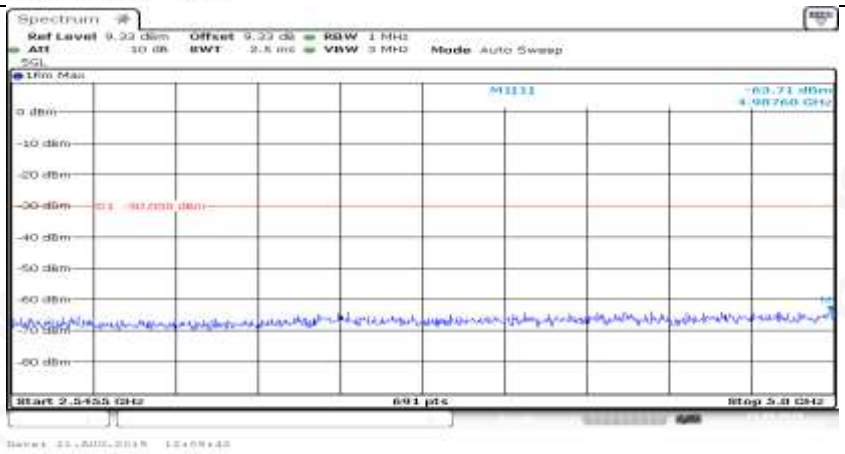
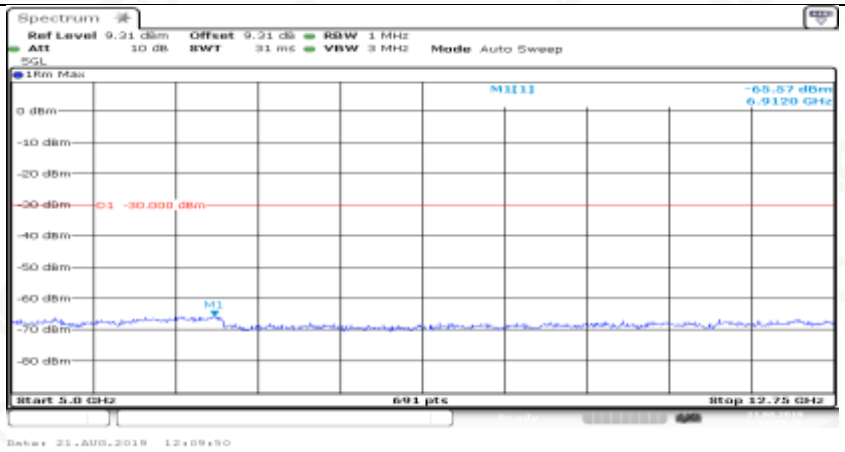
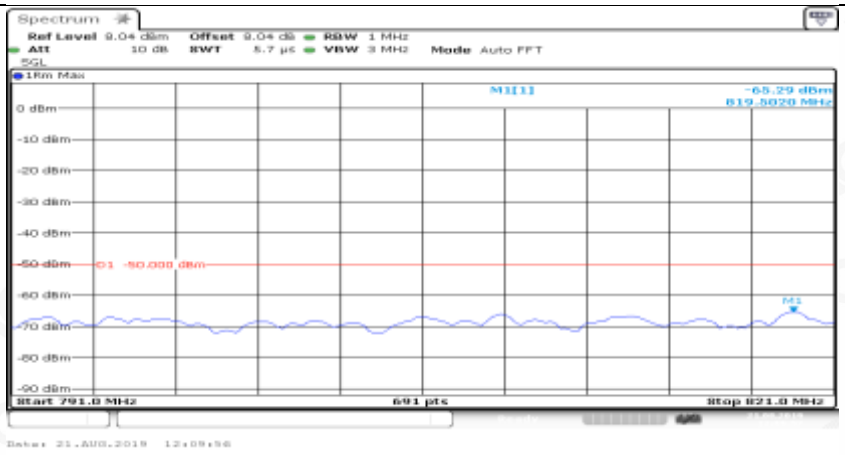
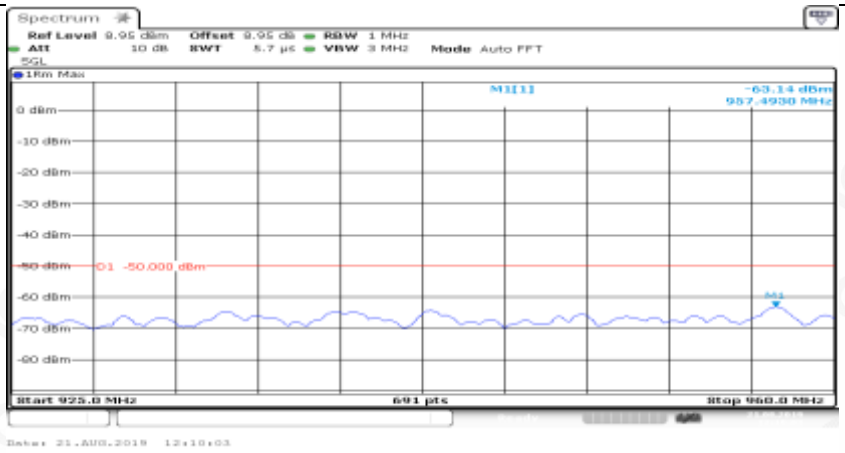
Co-existence	

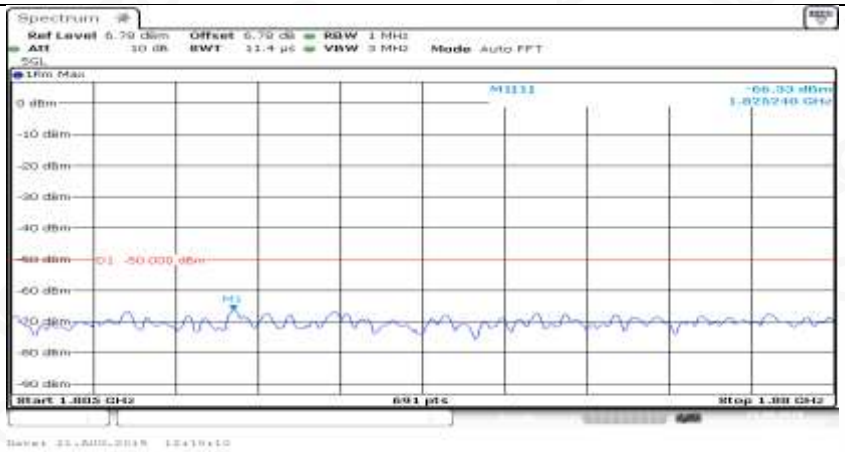
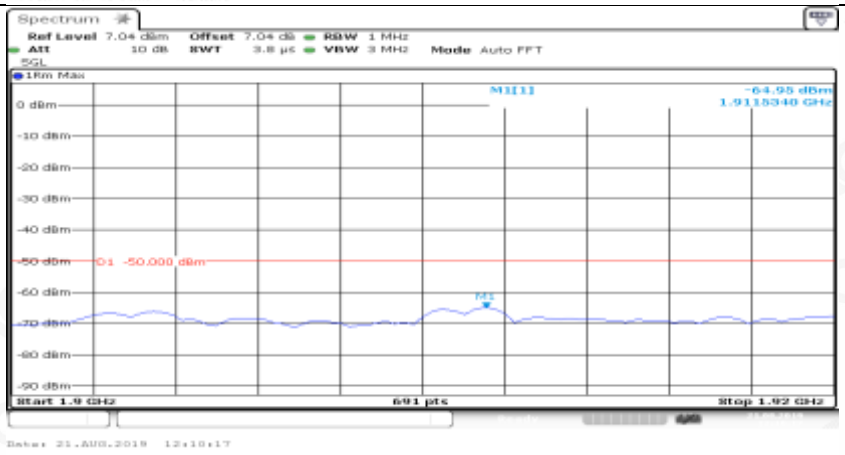
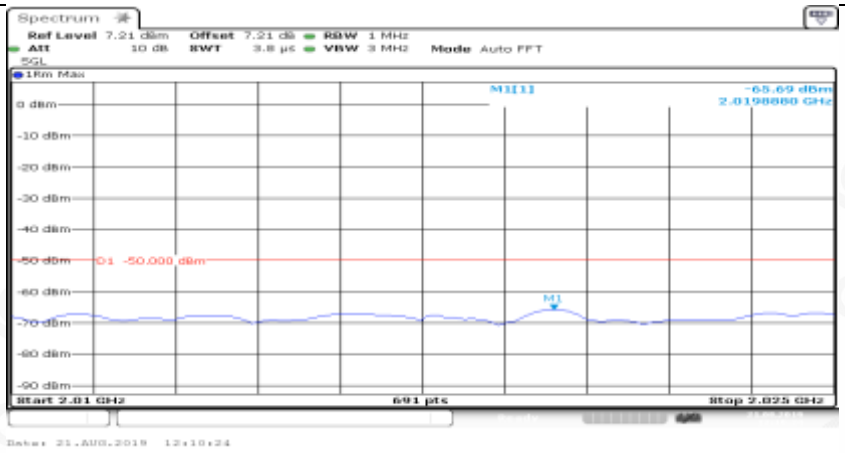
Co-existence	
Co-existence	
Co-existence	

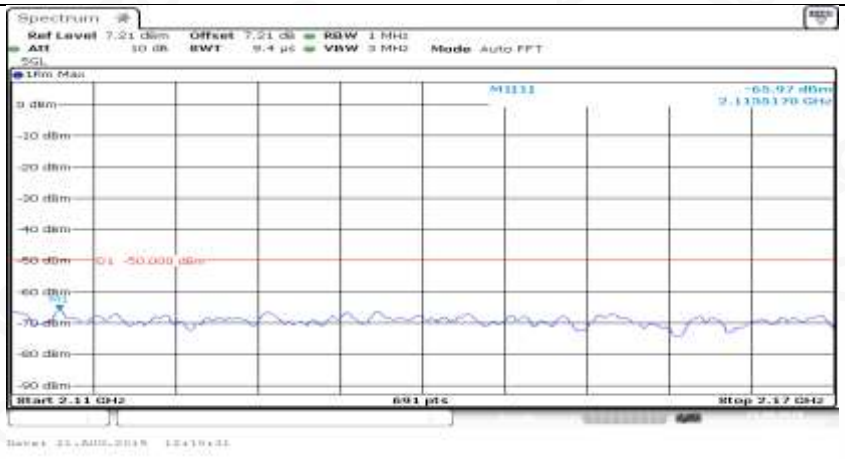
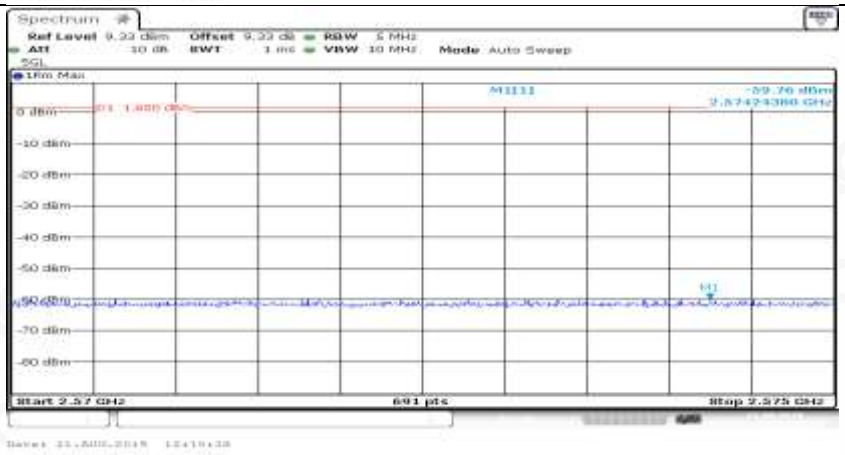
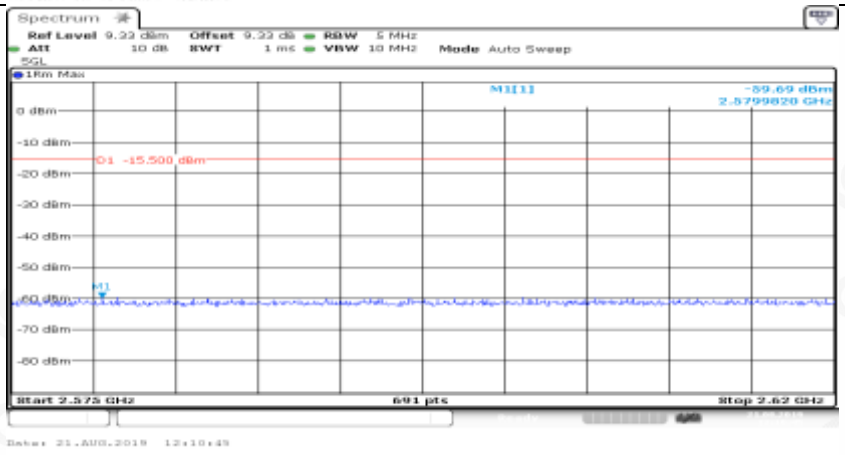
Co-existence	
Additional	NA

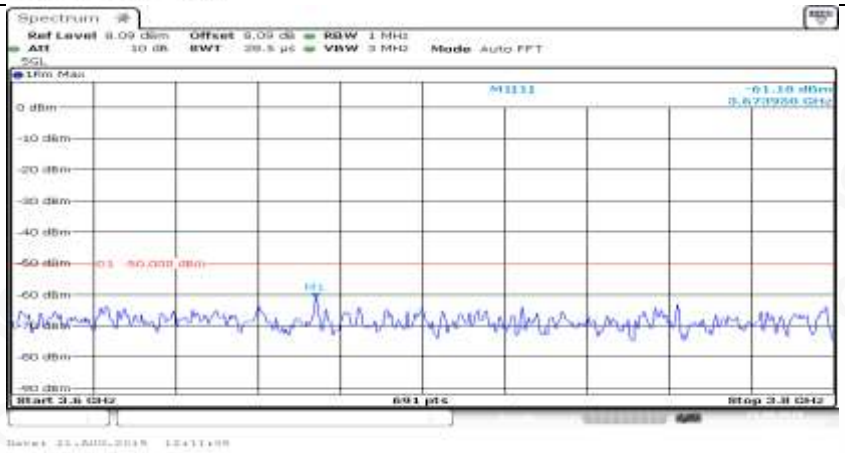
Channel Bandwidth=Highest (#BWH MHz)_QPSK_LCH_1RB#max	
General	
General	

General	
General	
General	

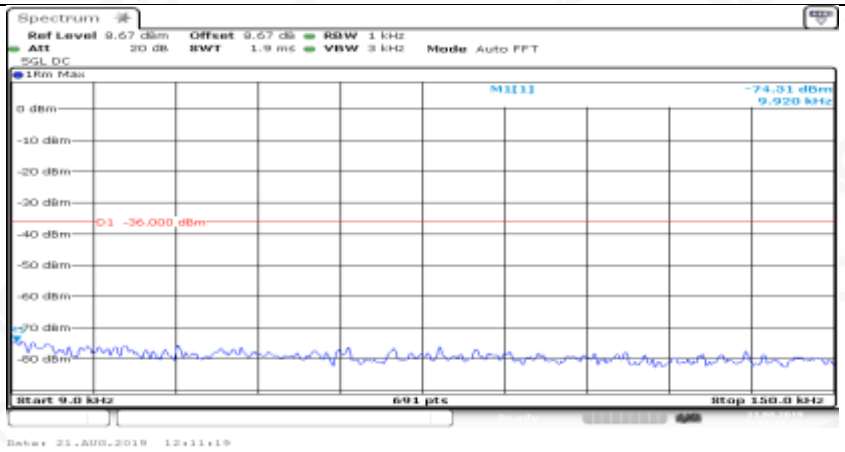
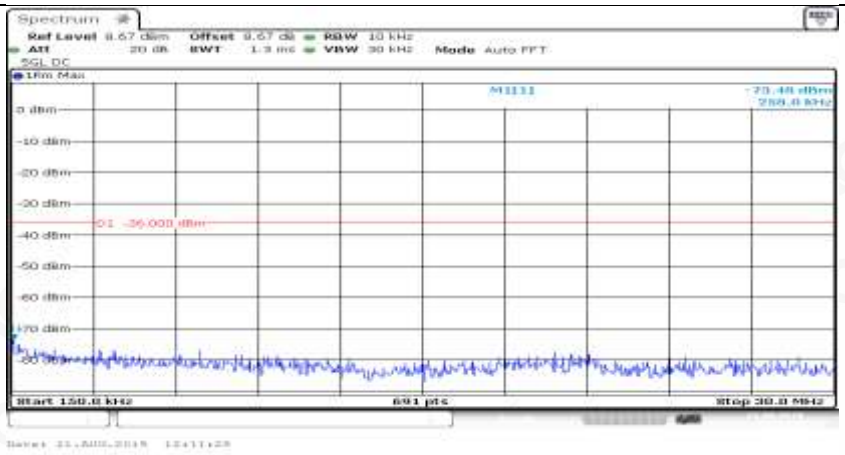
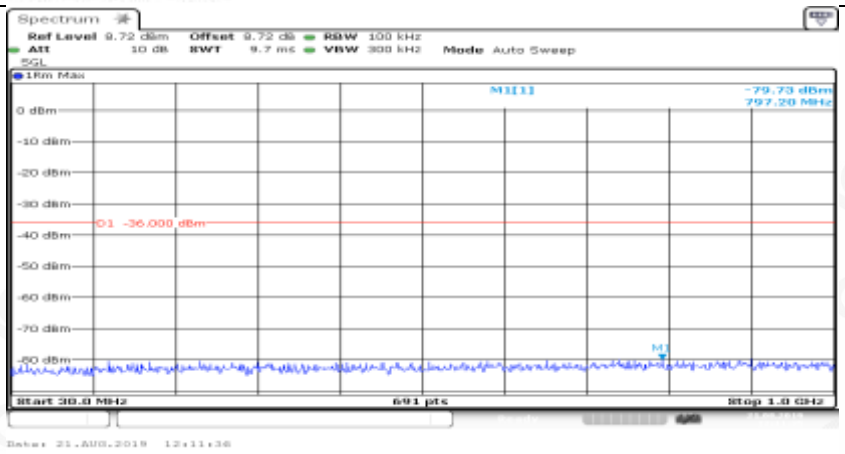
General	
Co-existence	
Co-existence	

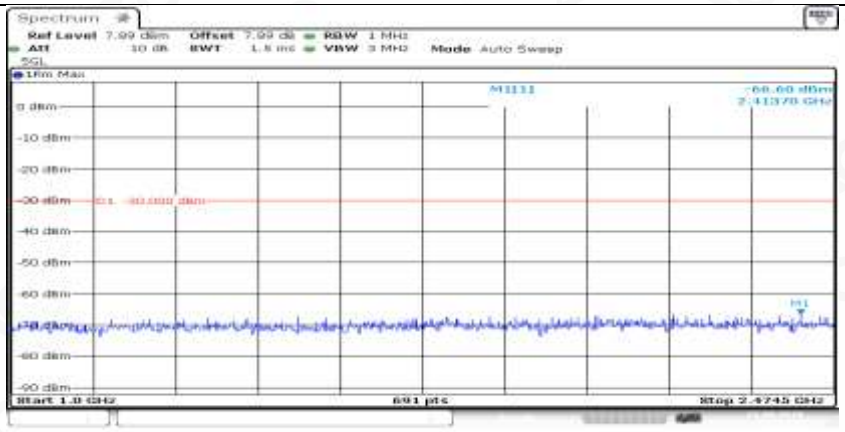
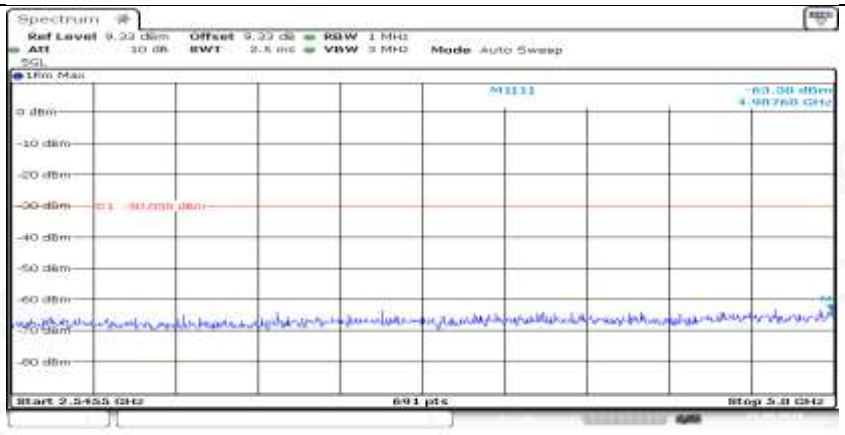
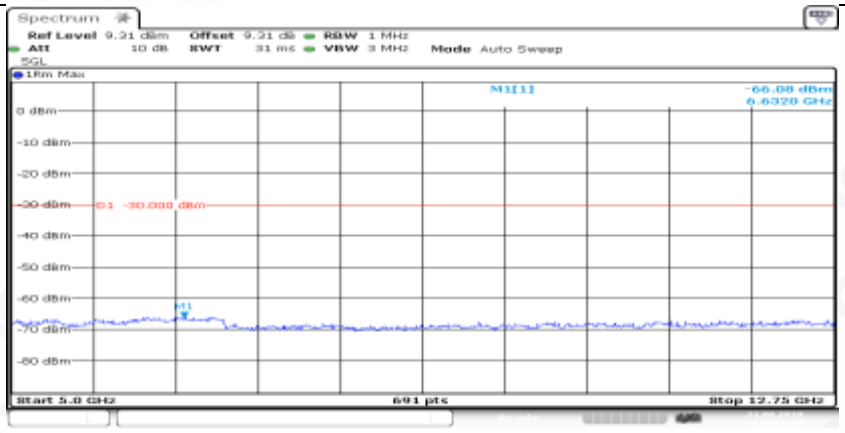
Co-existence	
Co-existence	
Co-existence	

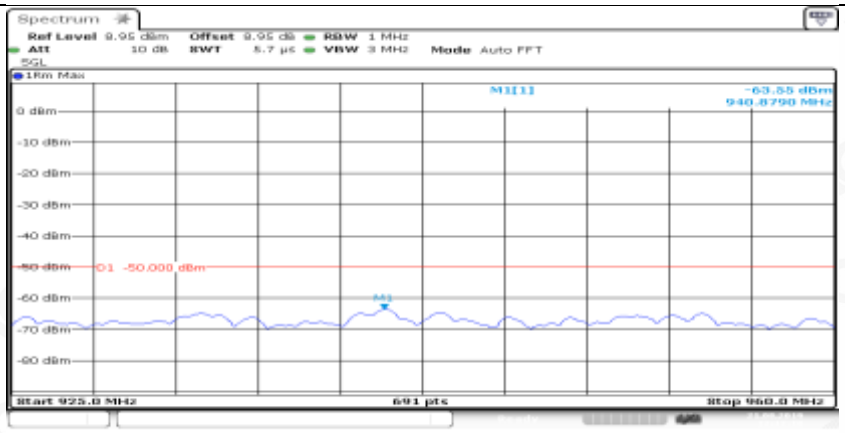
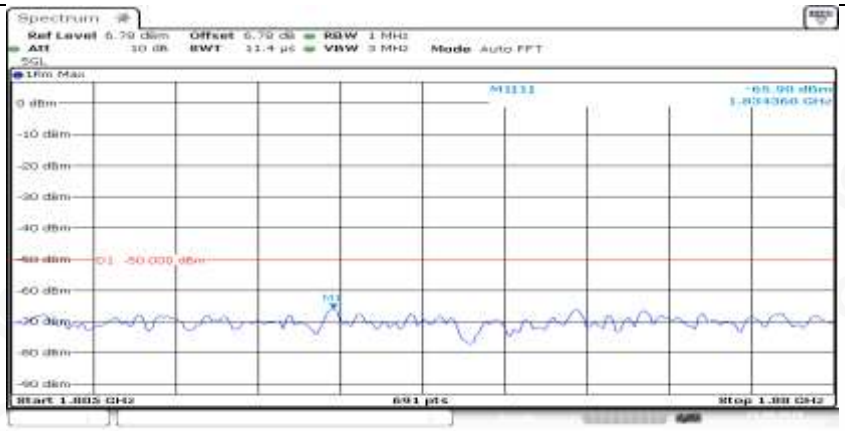
Co-existence	
Co-existence	
Co-existence	

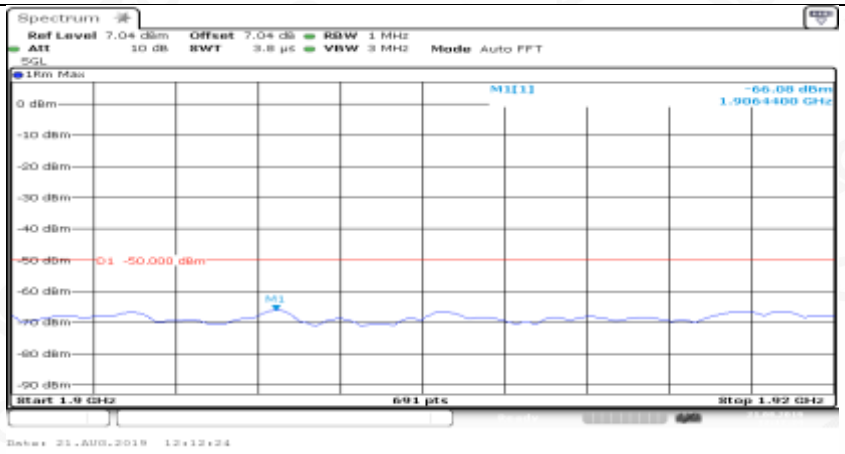
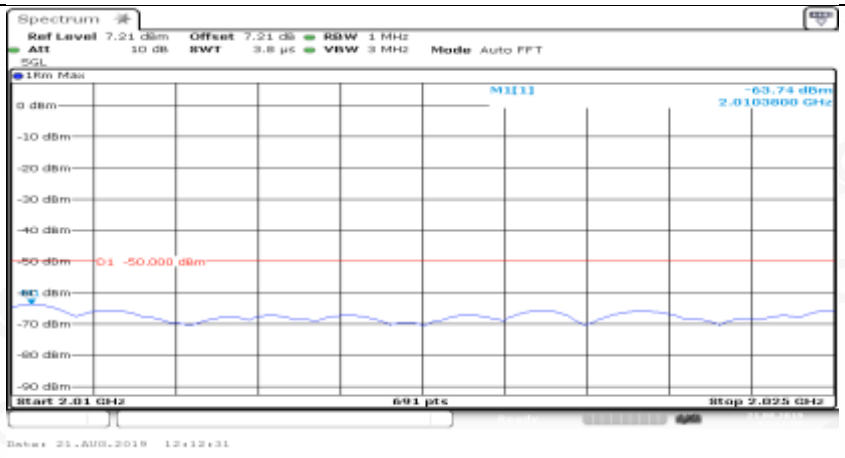
Co-existence	
Co-existence	
Co-existence	
Additional	NA

Channel Bandwidth=Highest (20 MHz)_QPSK_LCH_FullRB#0

General	
General	
General	

General	
General	
General	

Co-existence	
Co-existence	
Co-existence	

Co-existence	
Co-existence	
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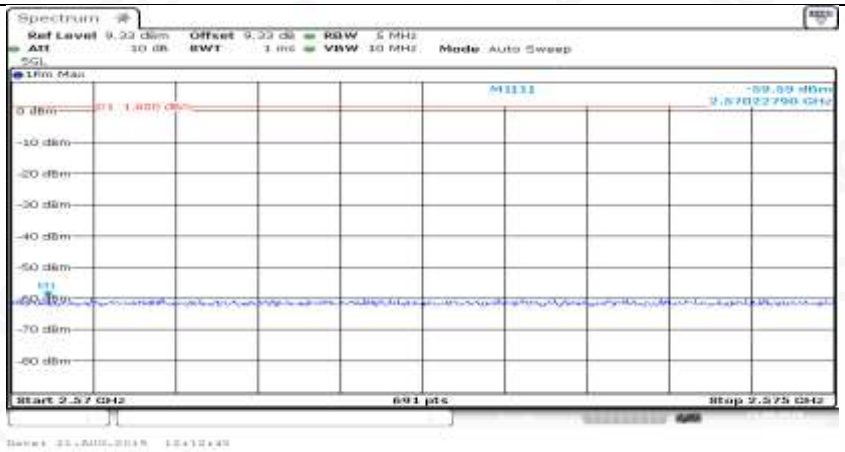
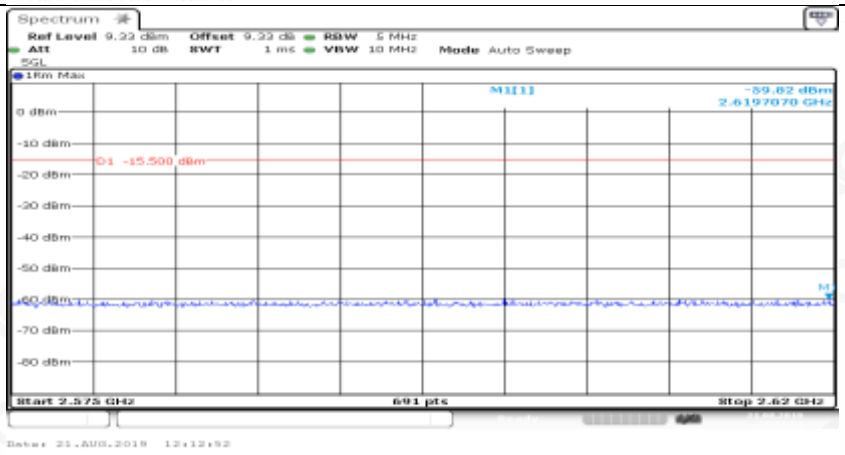
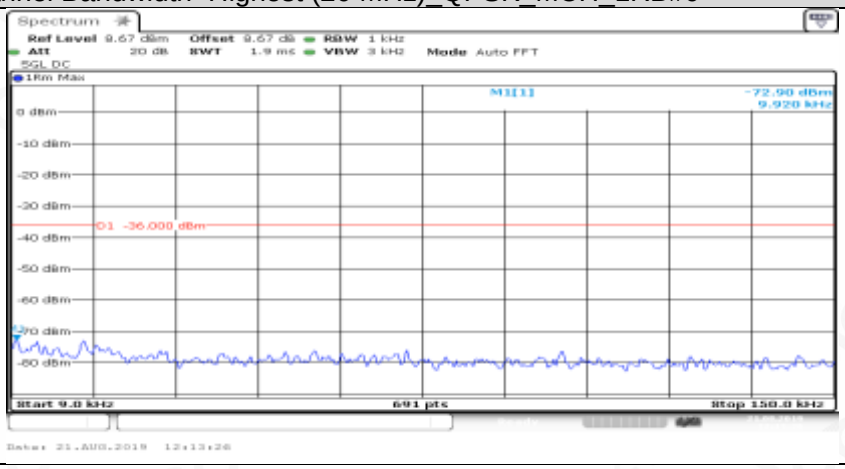
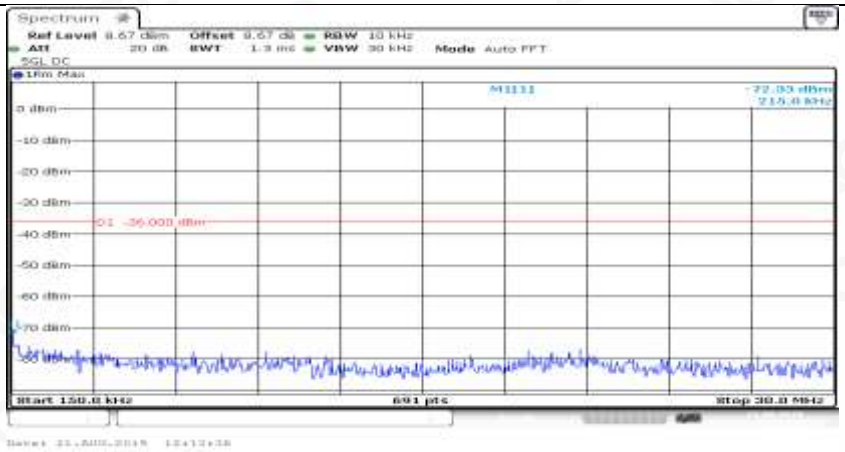
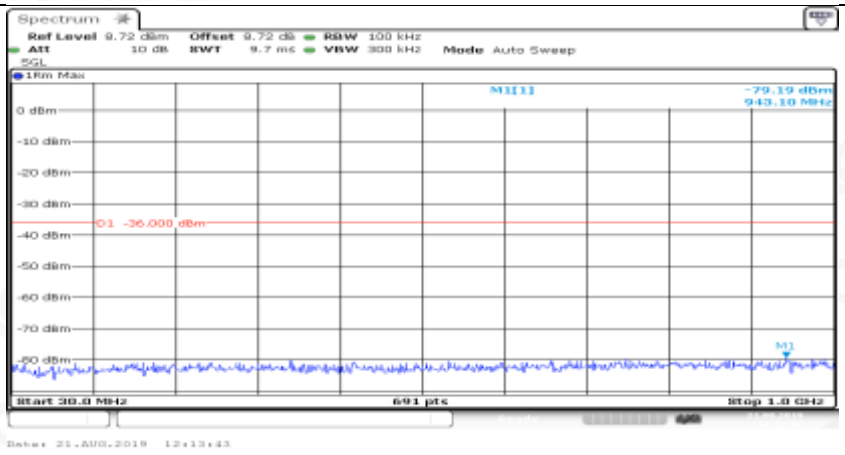
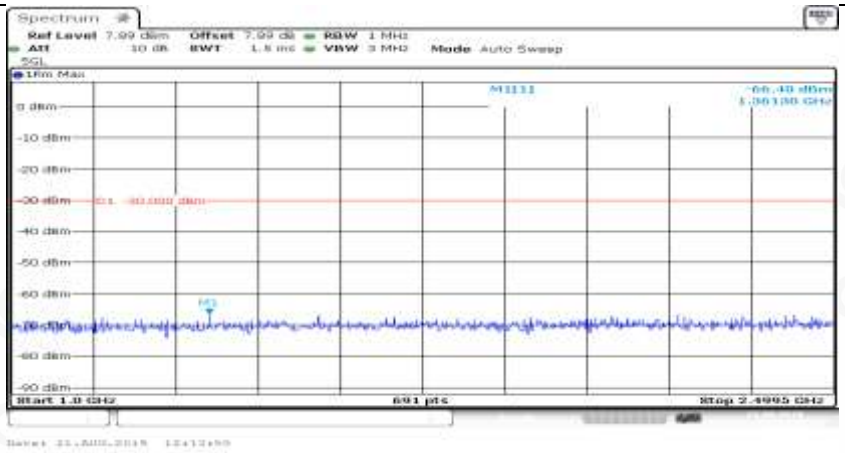
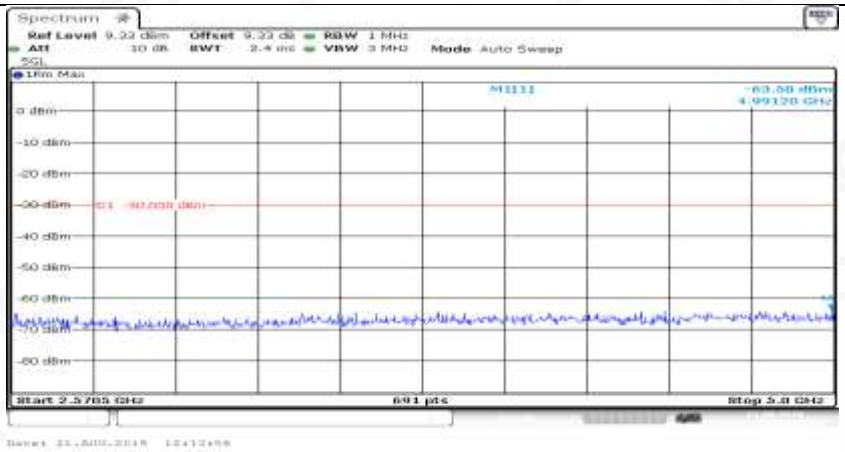
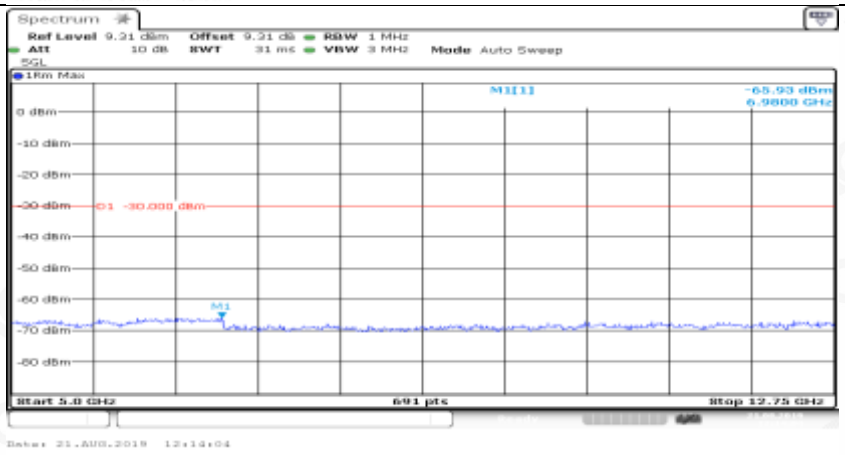
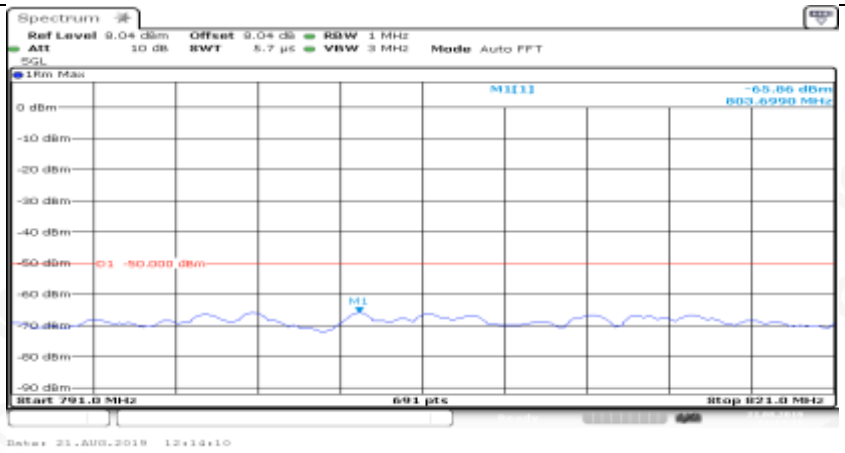
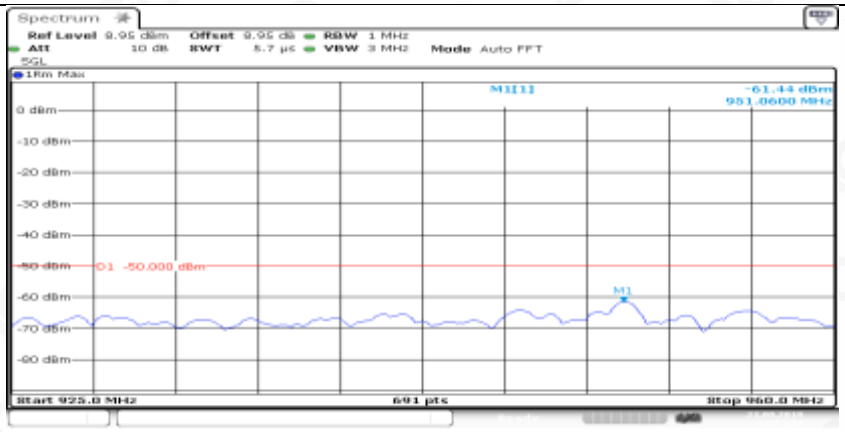
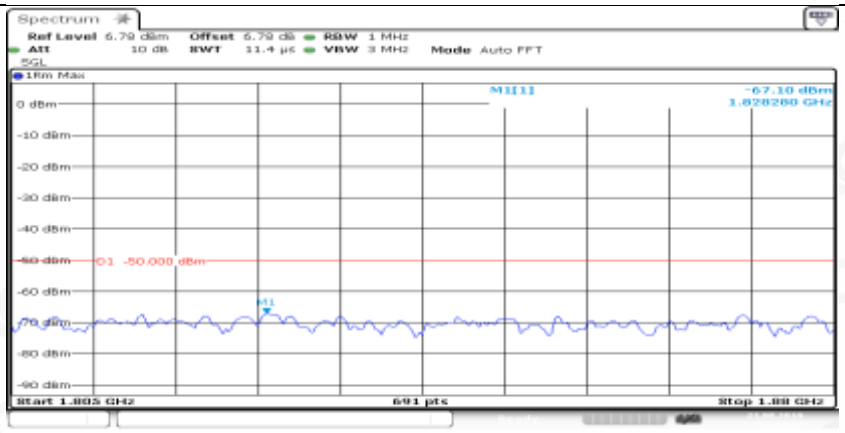
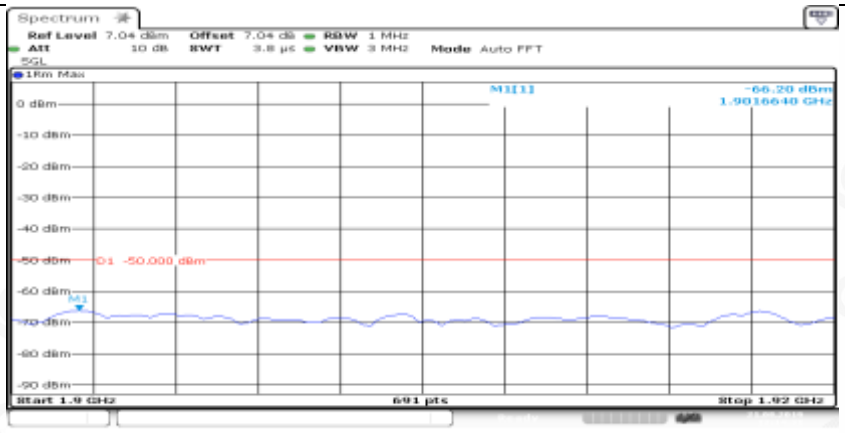
Co-existence	
Co-existence	
Co-existence	

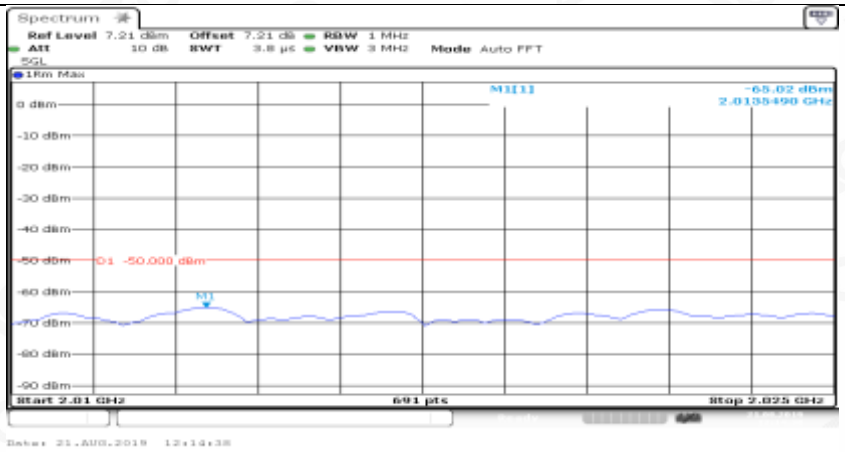
Co-existence	
Co-existence	
Additional	NA

Channel Bandwidth=Highest (20 MHz)_QPSK_MCH_1RB#0	
General	

General	
General	
General	

General	
General	
Co-existence	

Co-existence	
Co-existence	
Co-existence	

Co-existence	
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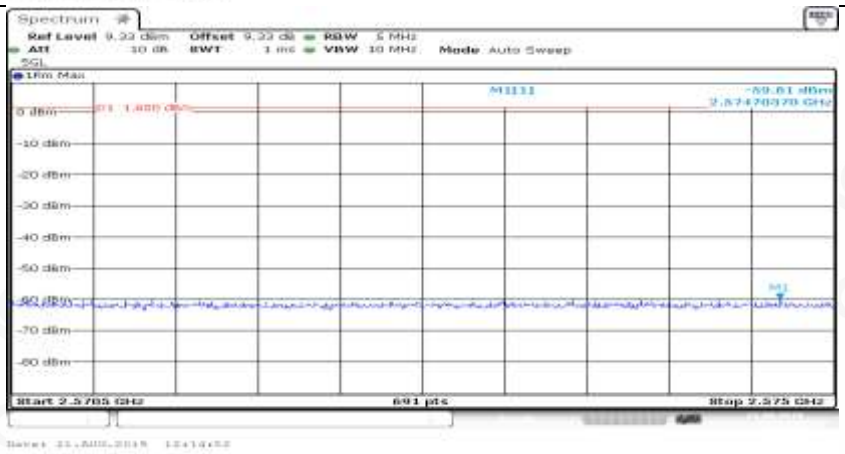
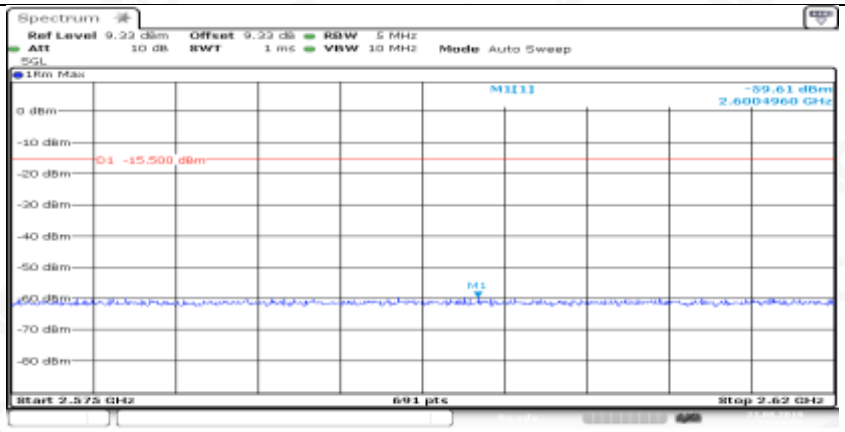
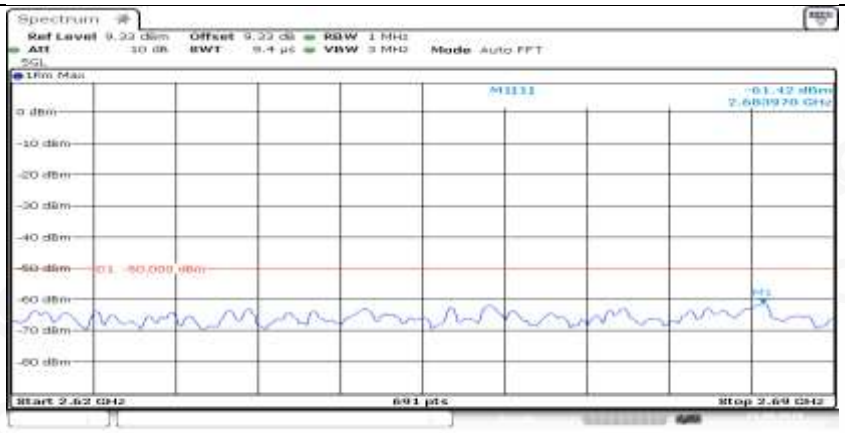
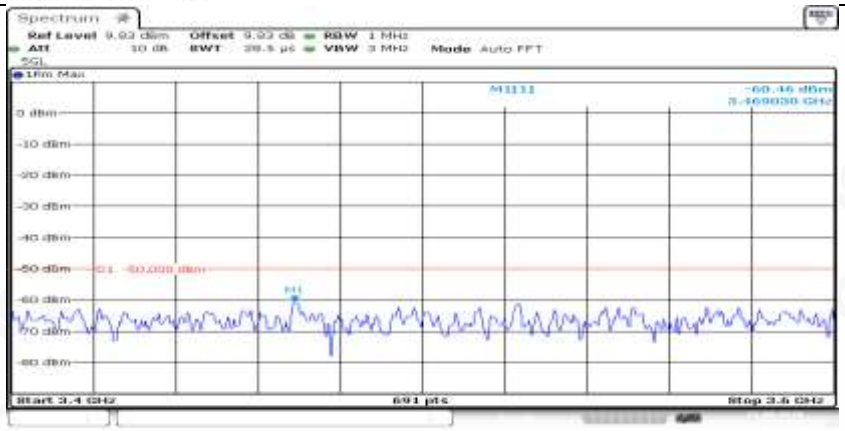
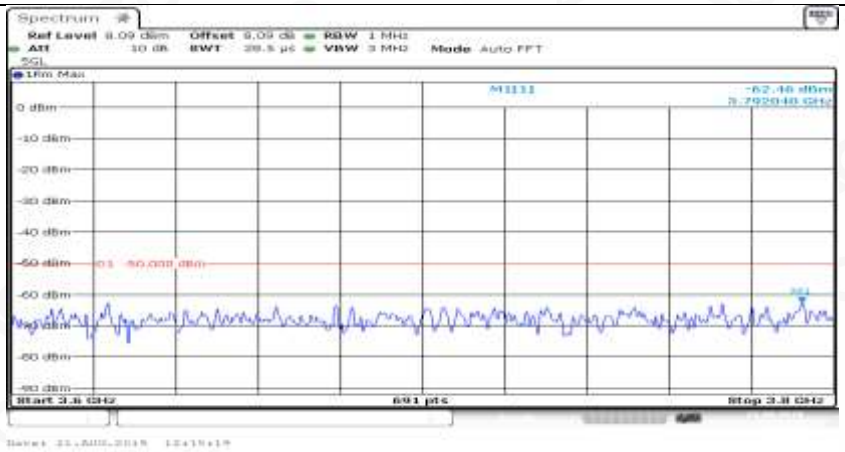
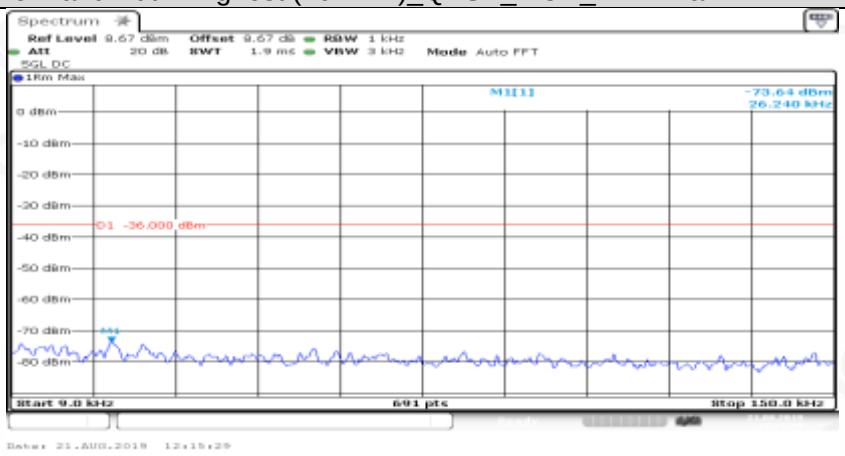
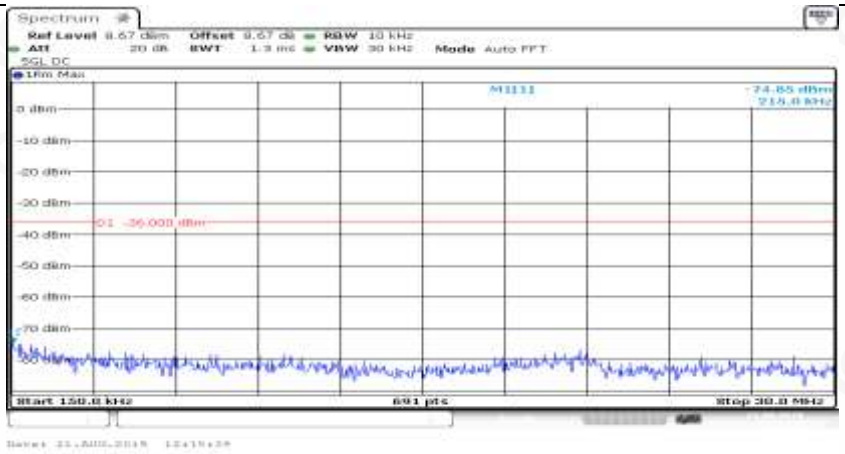
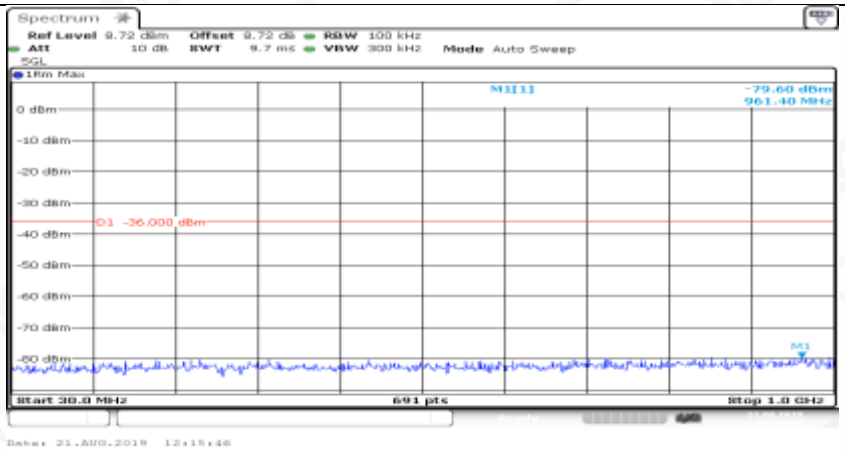
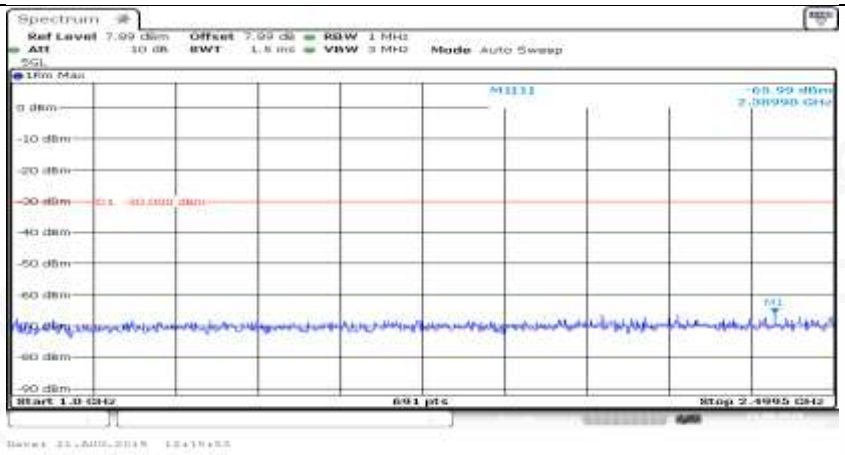
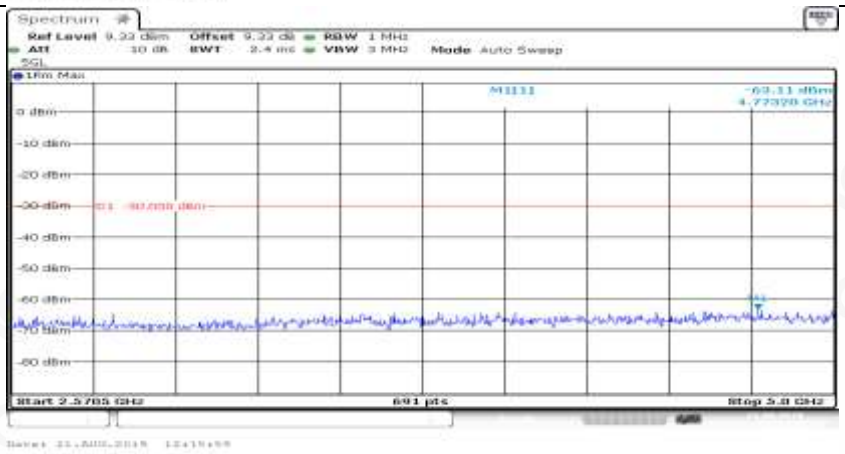
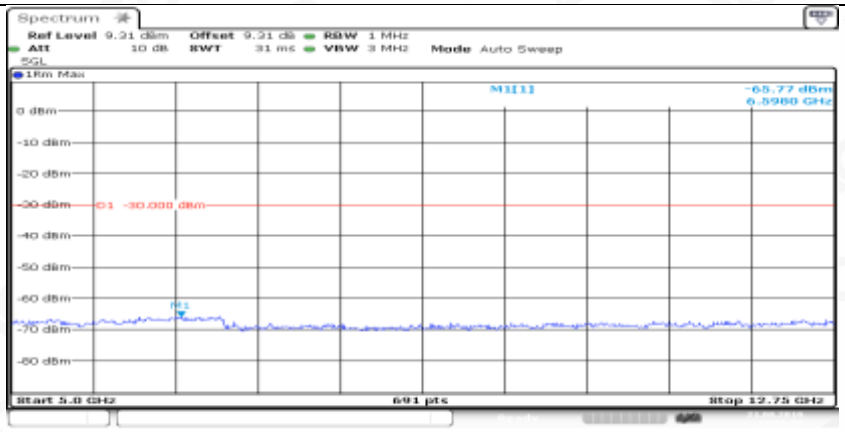
Co-existence	

Co-existence	
Co-existence	
Co-existence	

Co-existence	
Additional	NA

Channel Bandwidth=Highest (20 MHz)_QPSK_MCH_1RB#max	
General	
General	

General	
General	
General	

General	
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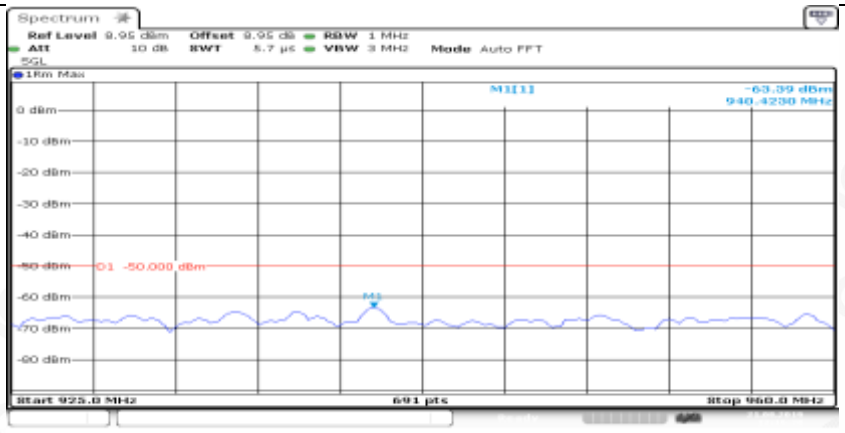
Co-existence	

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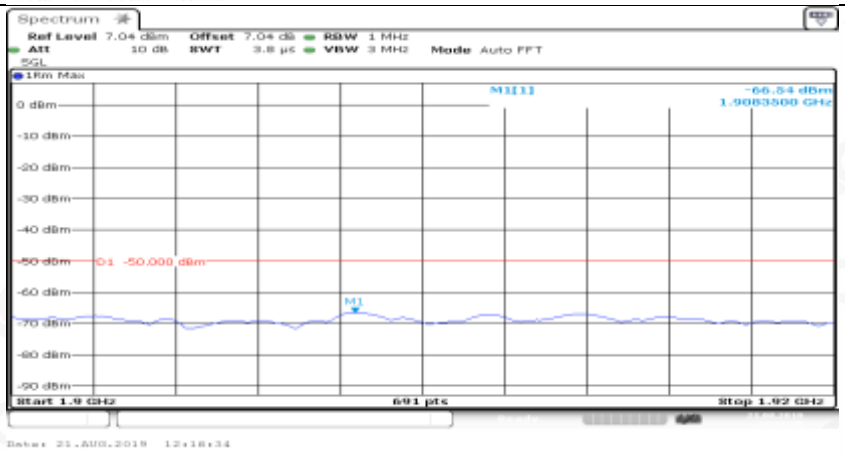
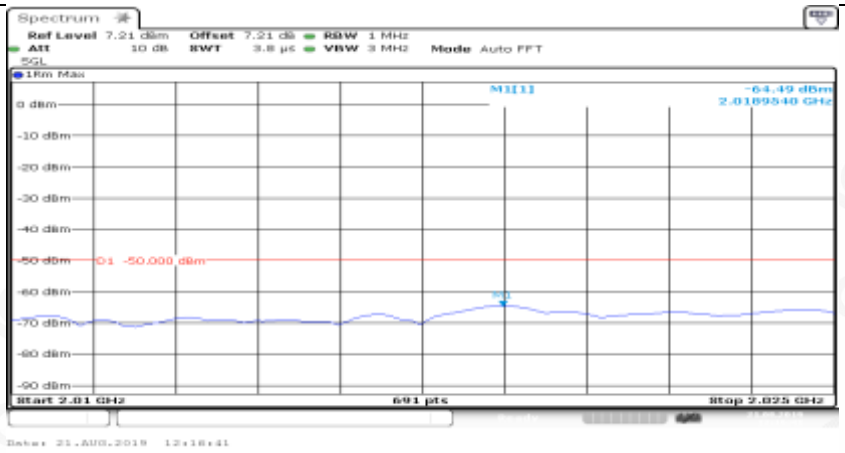
Co-existence	
Co-existence	

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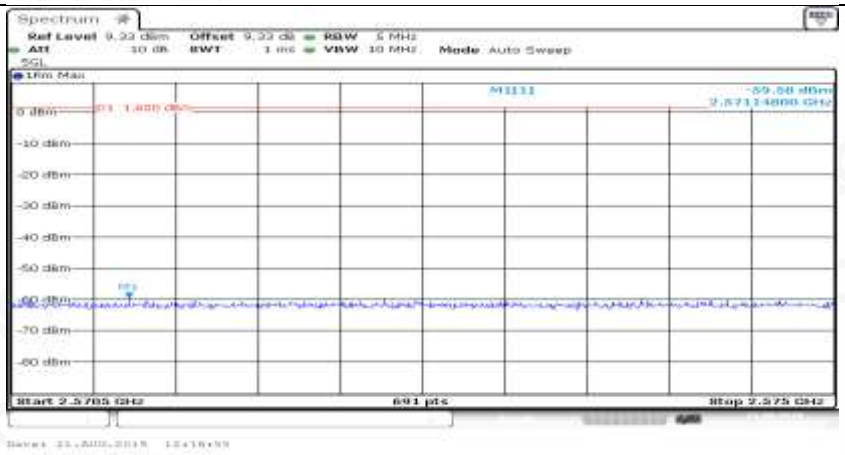
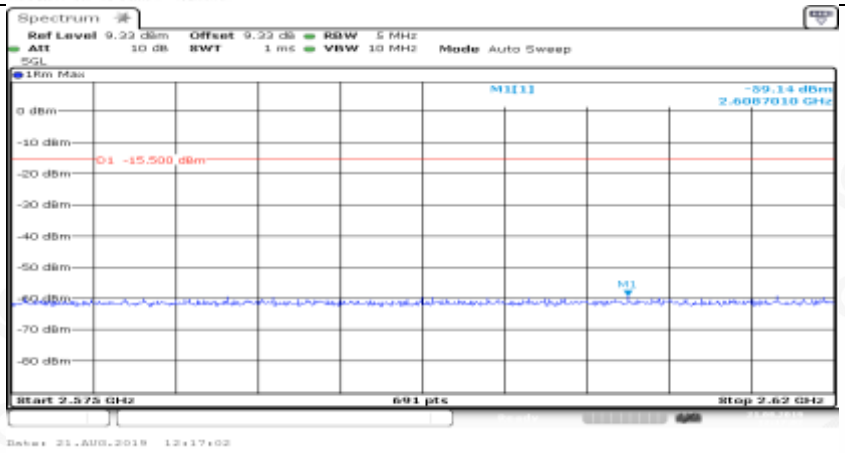
Co-existence	
Co-existence	

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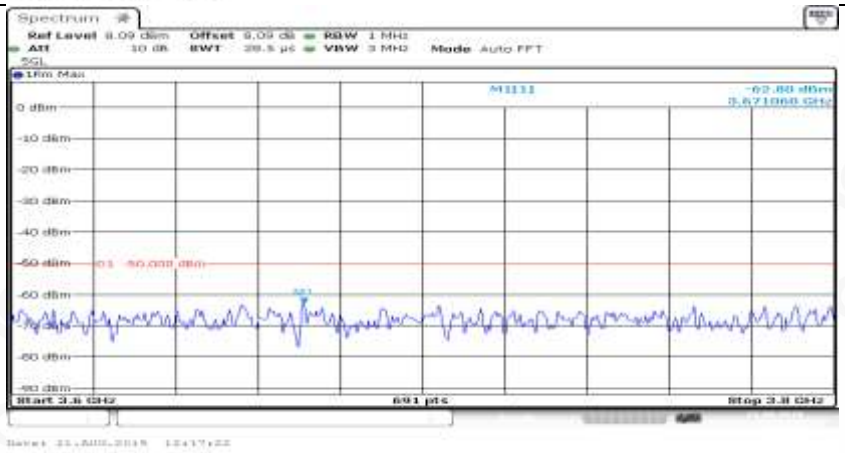
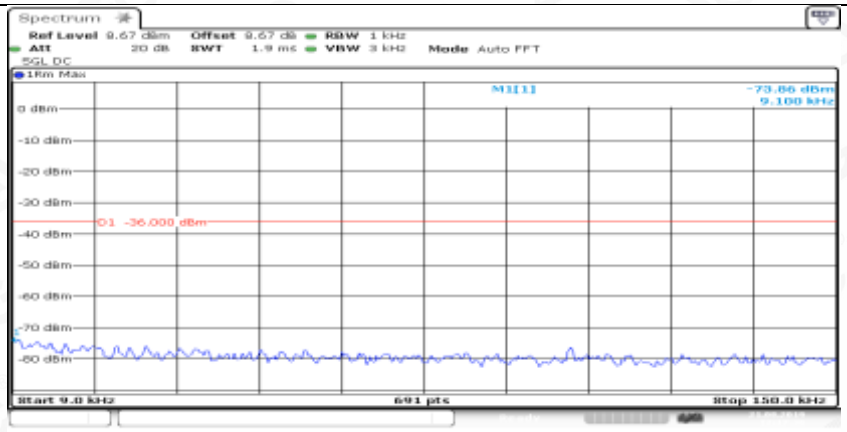
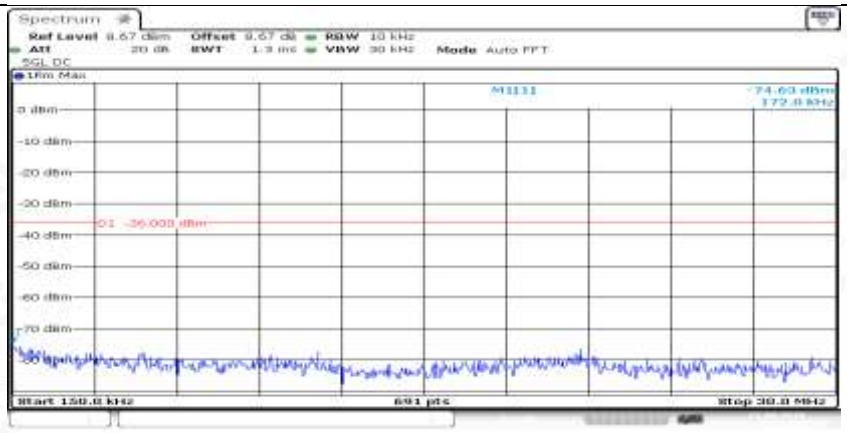
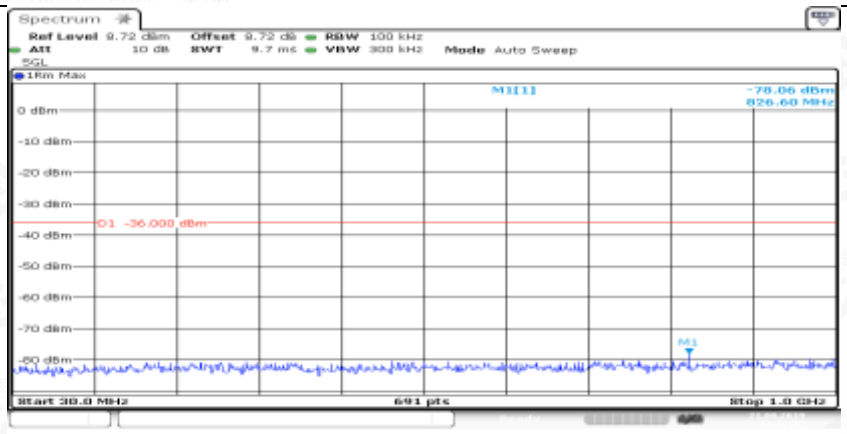
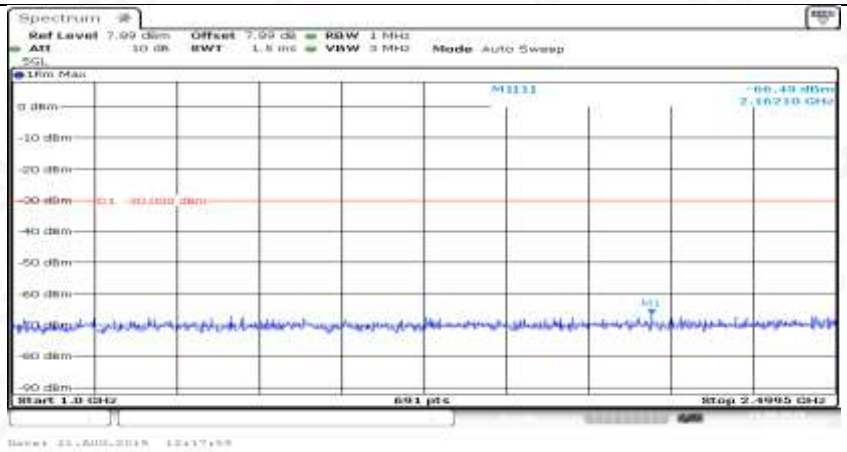
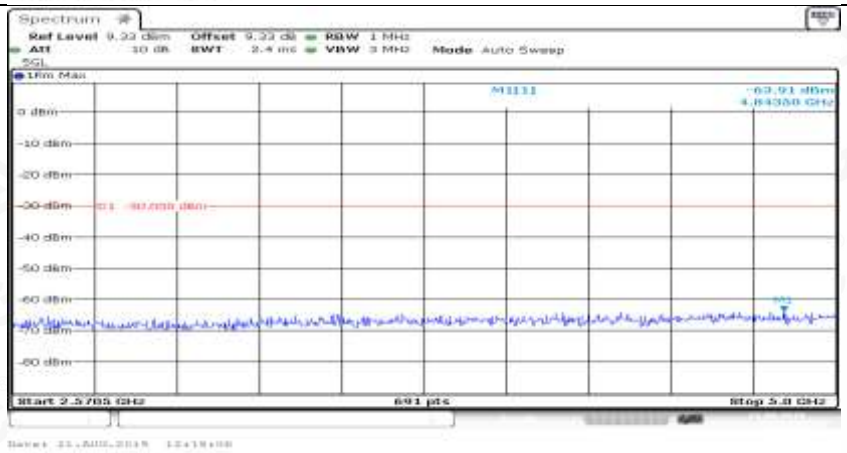
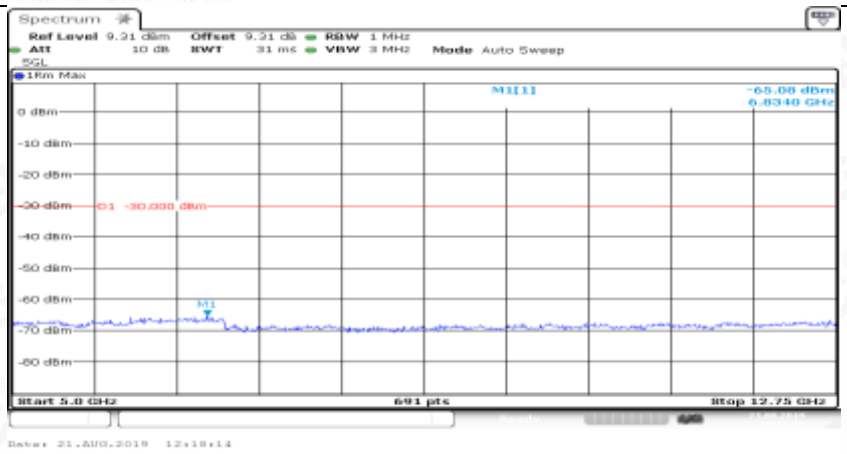
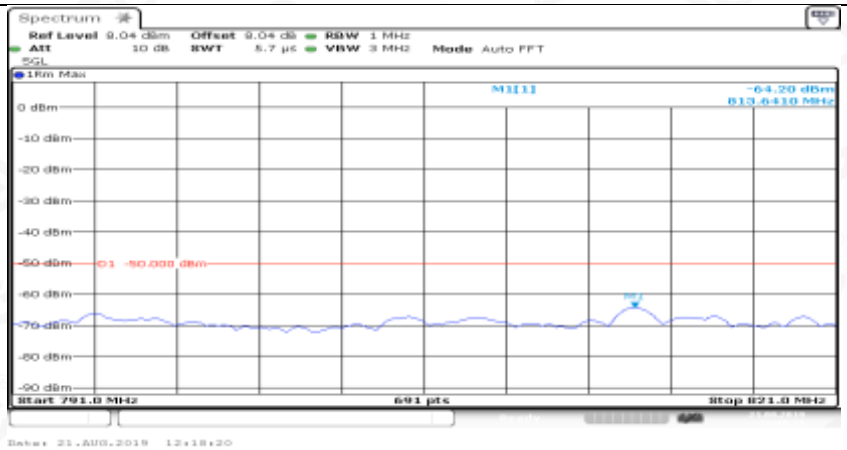
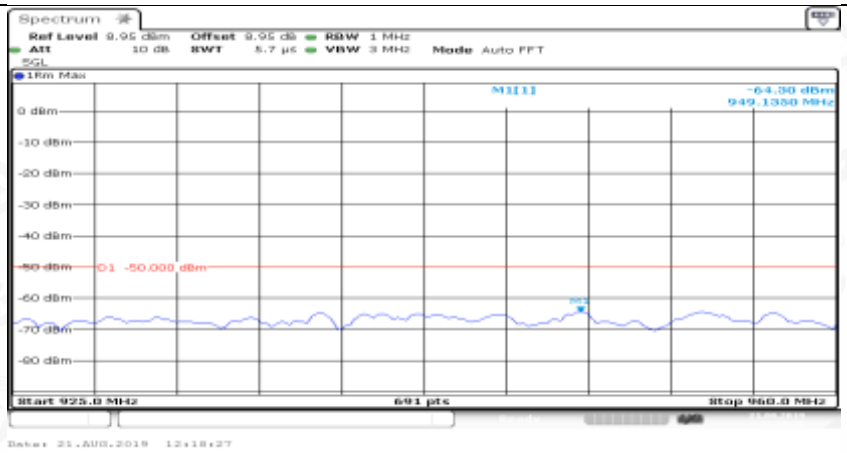
Co-existence	
Additional	NA

Channel Bandwidth=Highest (20 MHz)_QPSK_MCH_FullRB#0

General		
General		
General		

General		
General		
General		

Co-existence		
Co-existence		
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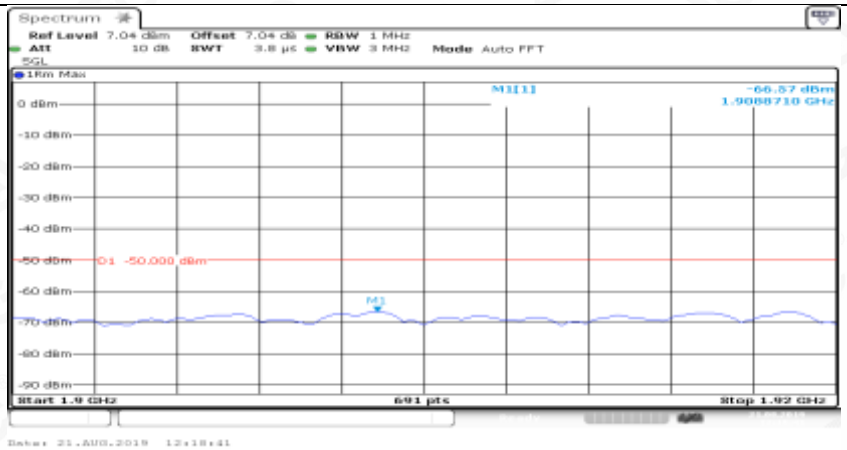
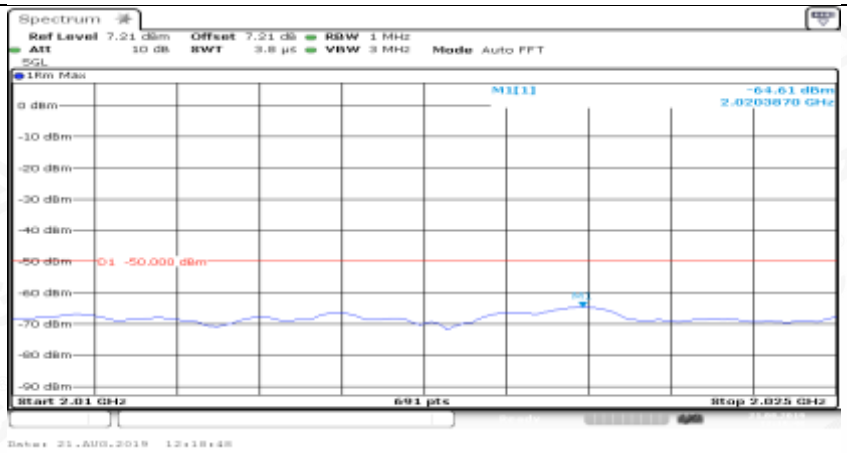
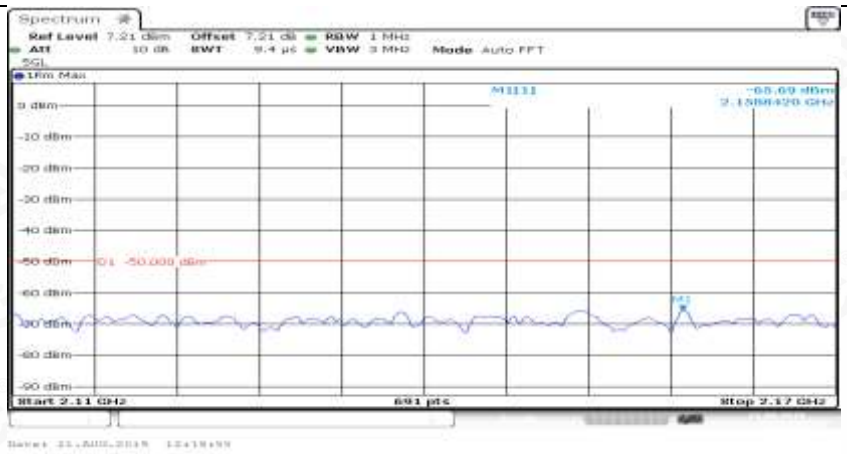
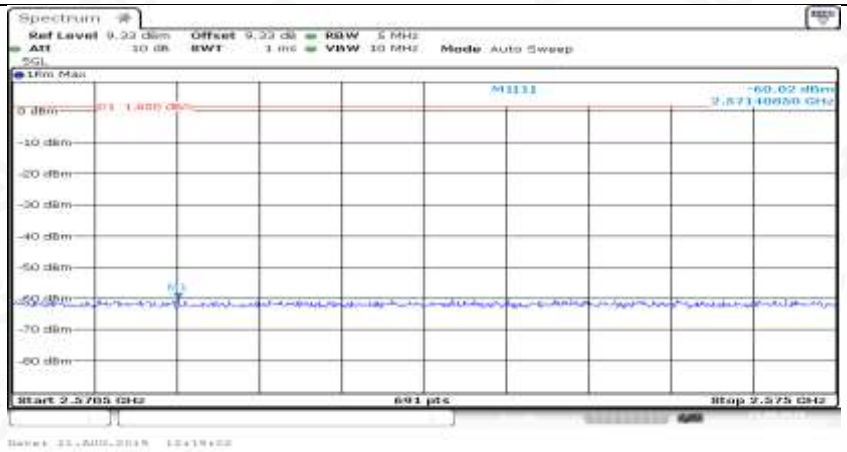
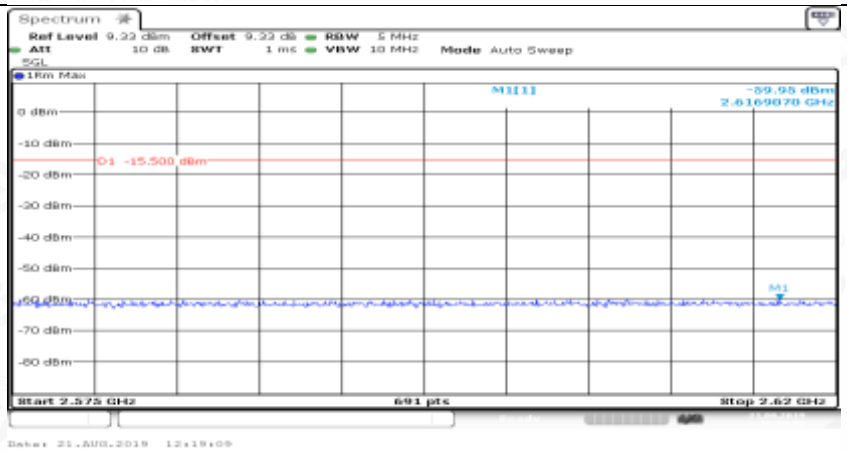
Co-existence		
Co-existence		
Co-existence		

Co-existence		
Co-existence		
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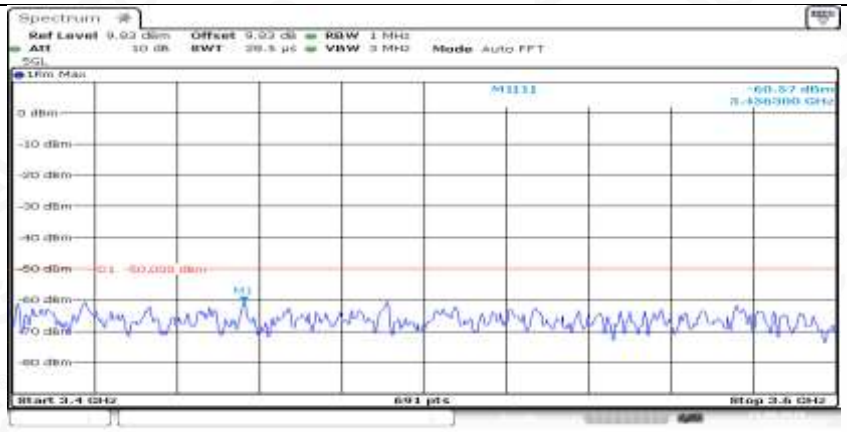
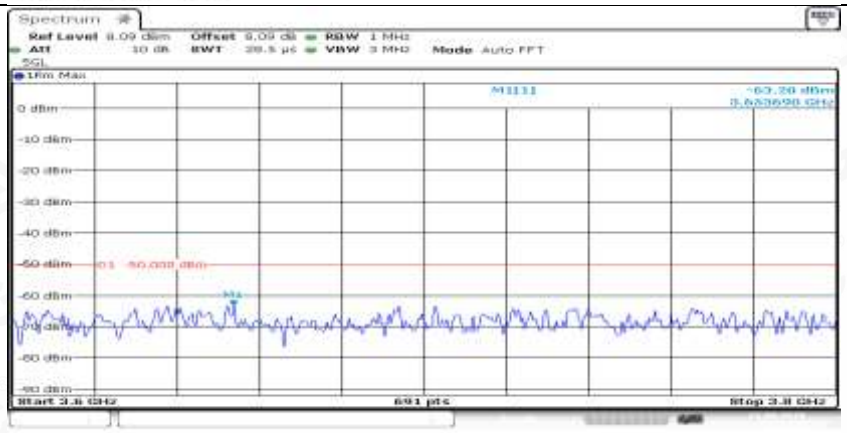
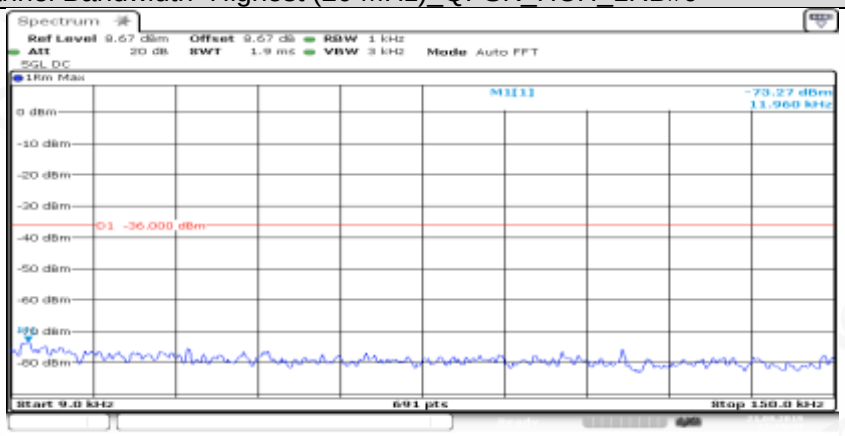
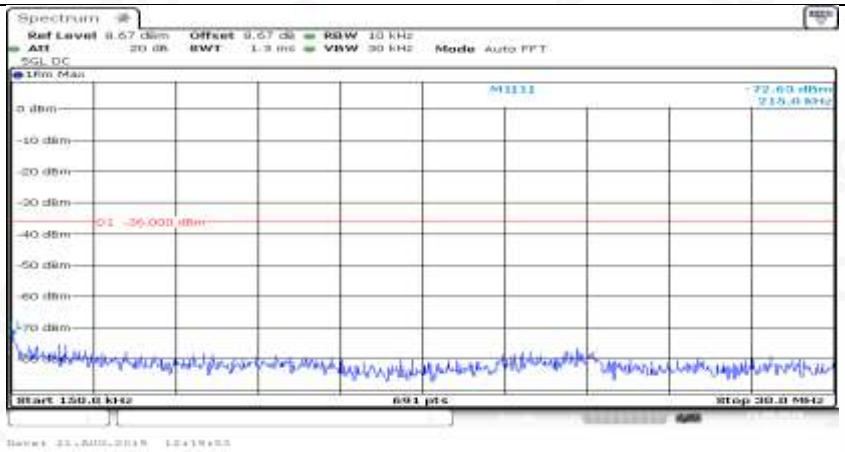
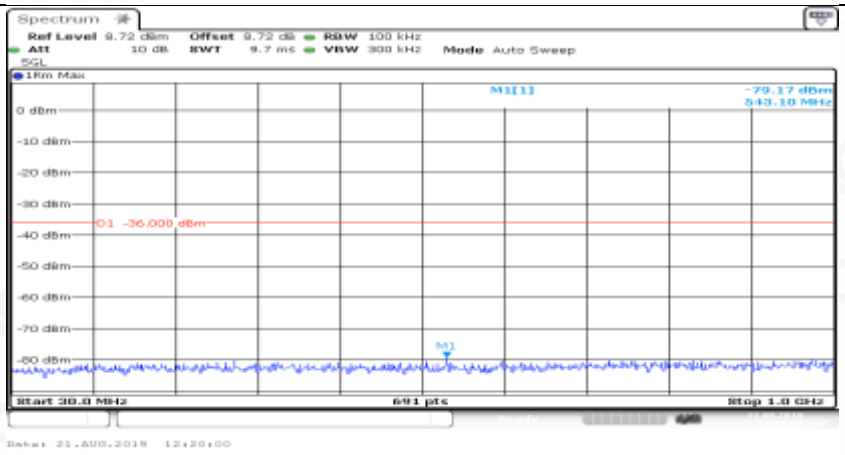
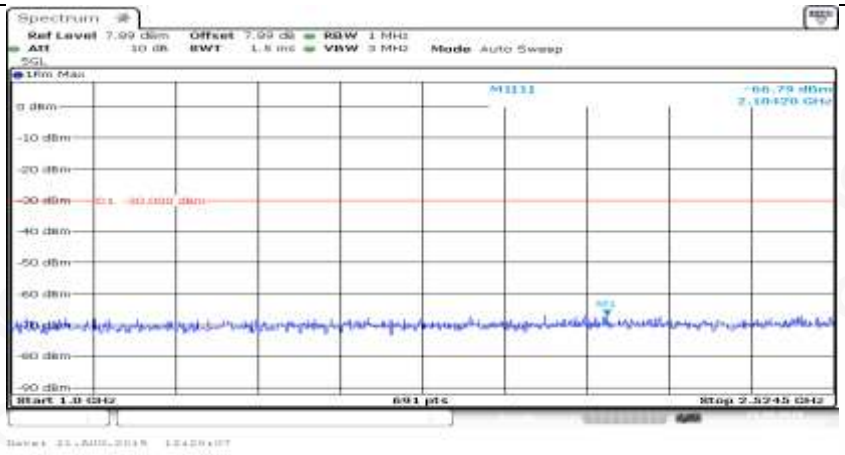
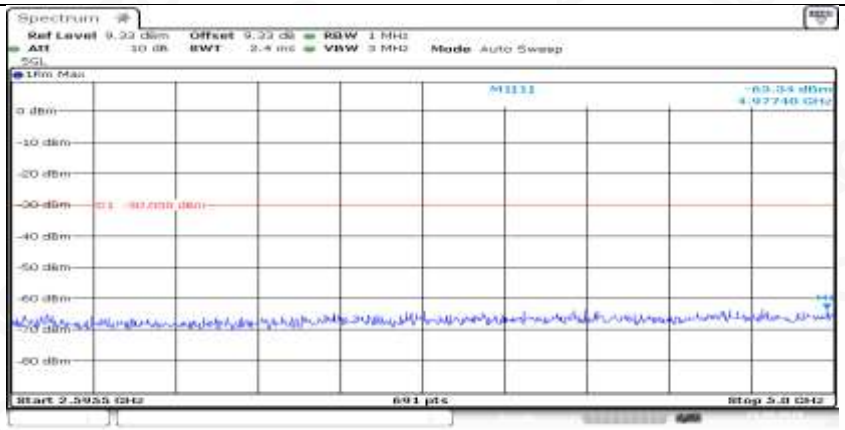
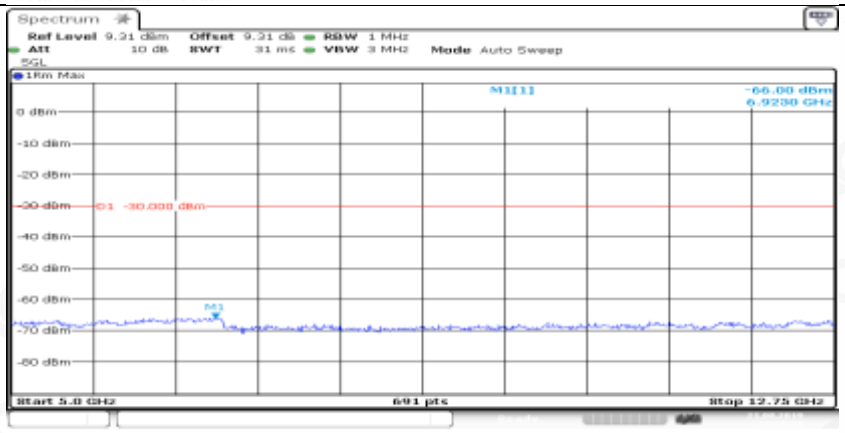
Co-existence	
Co-existence	
Additional	NA

Channel Bandwidth=Highest (20 MHz)_QPSK_HCH_1RB#0	
General	

General		
General		
General		

General	
General	
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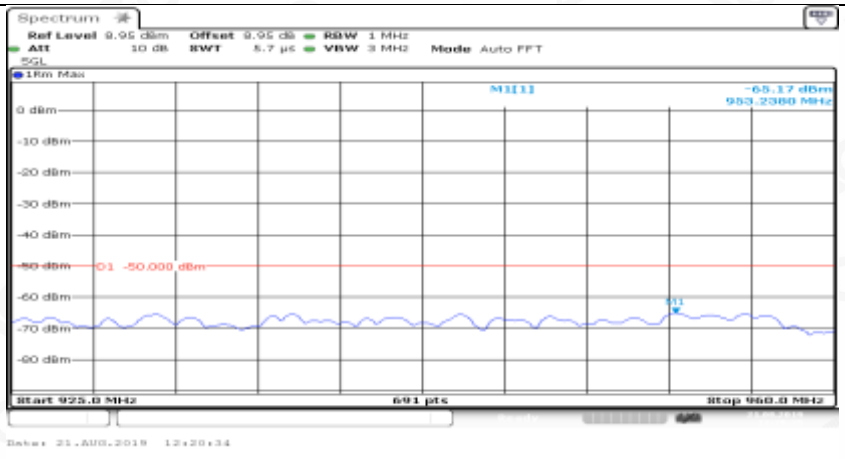
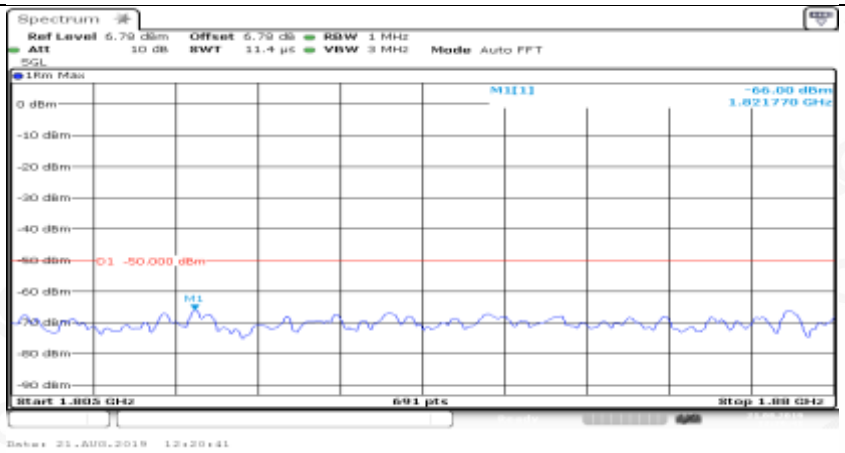
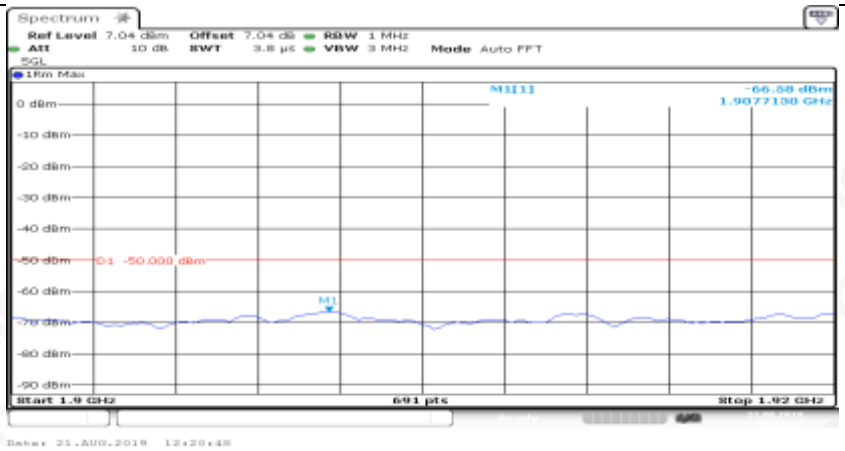
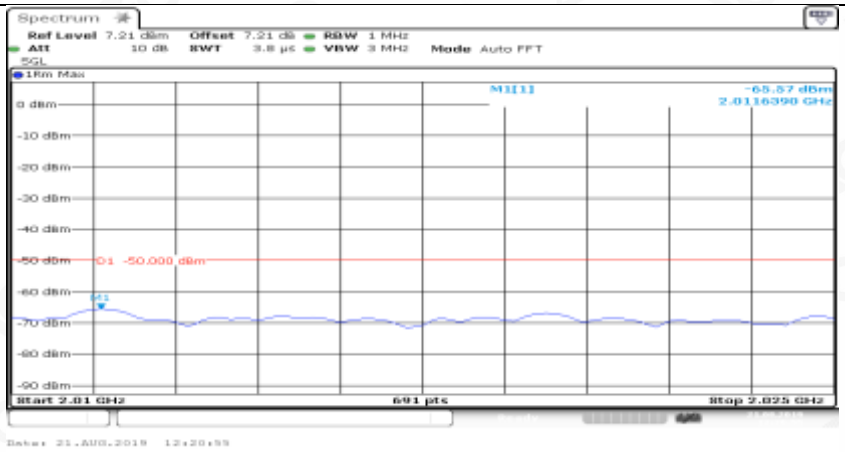
Co-existence	
Co-existence	
Co-existence	

Co-existence	
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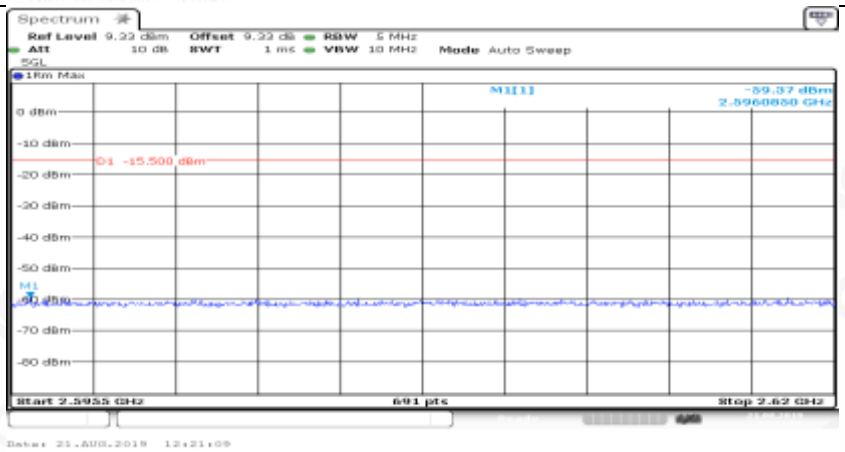
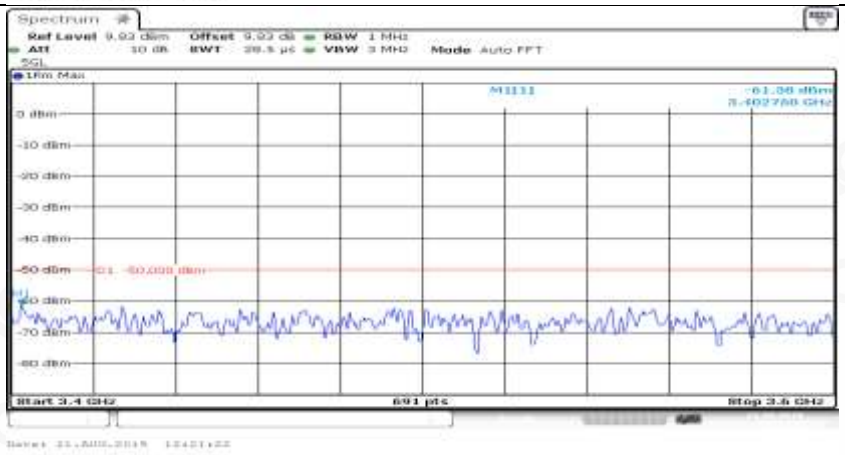
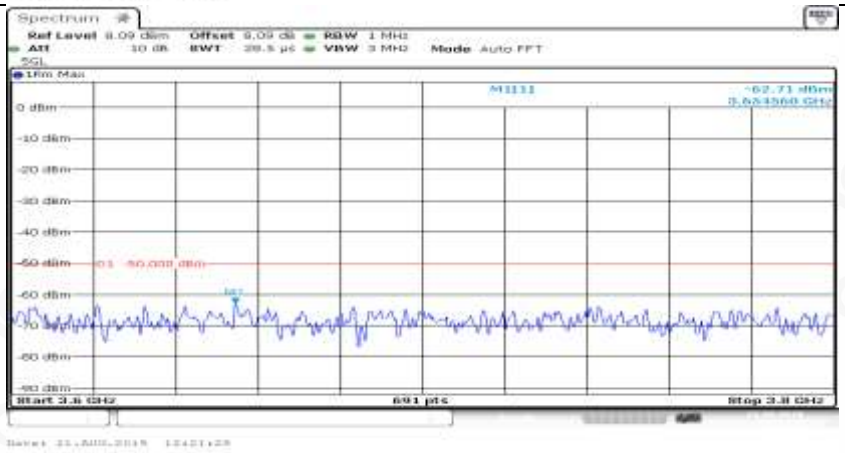
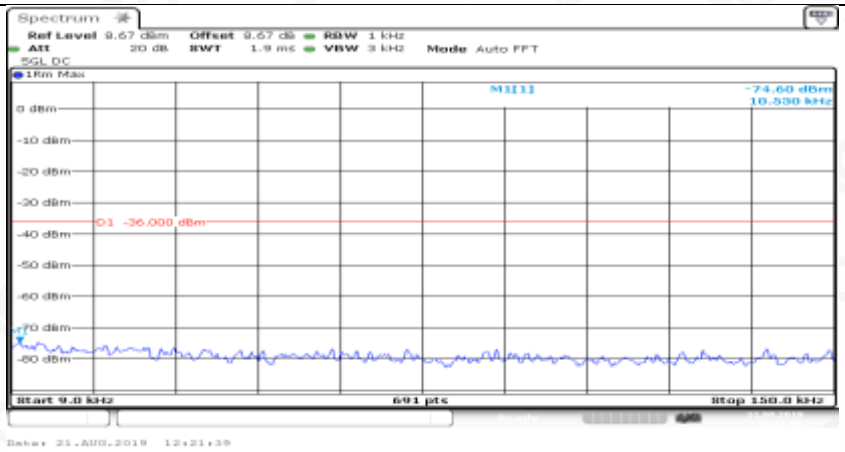
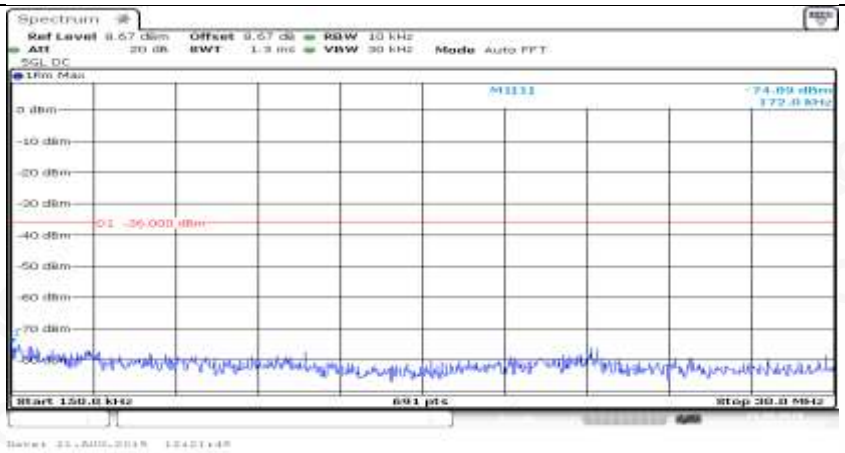
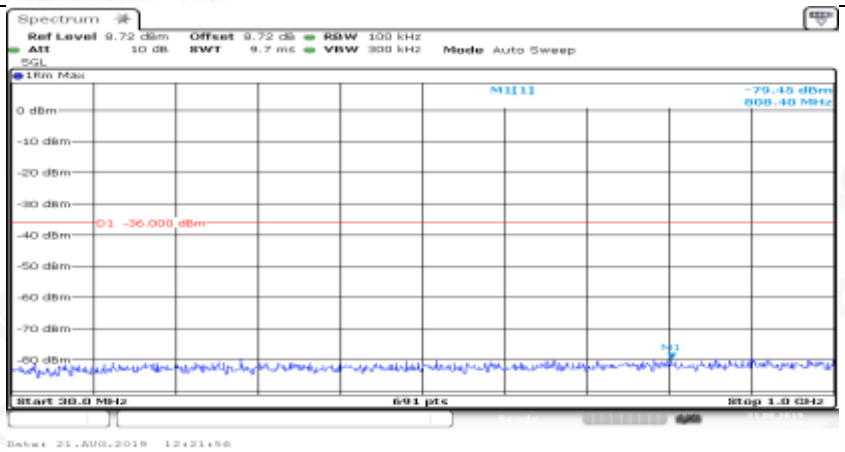
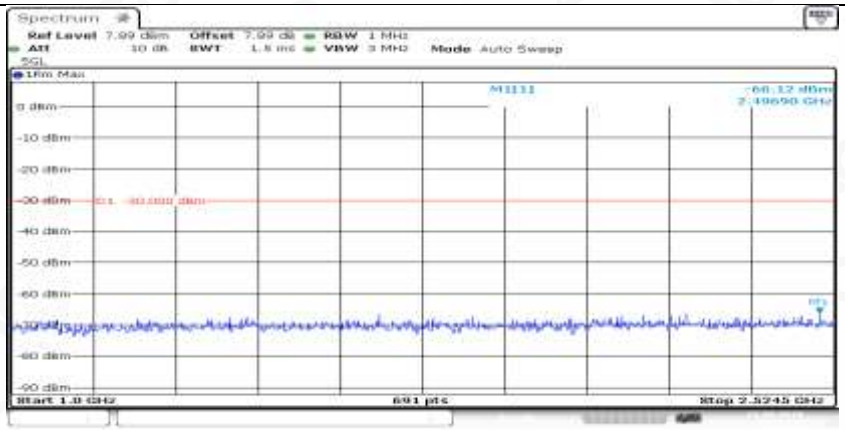
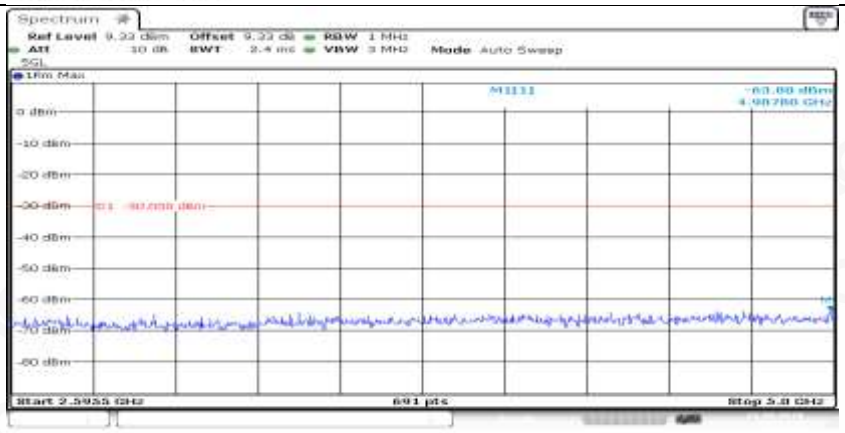
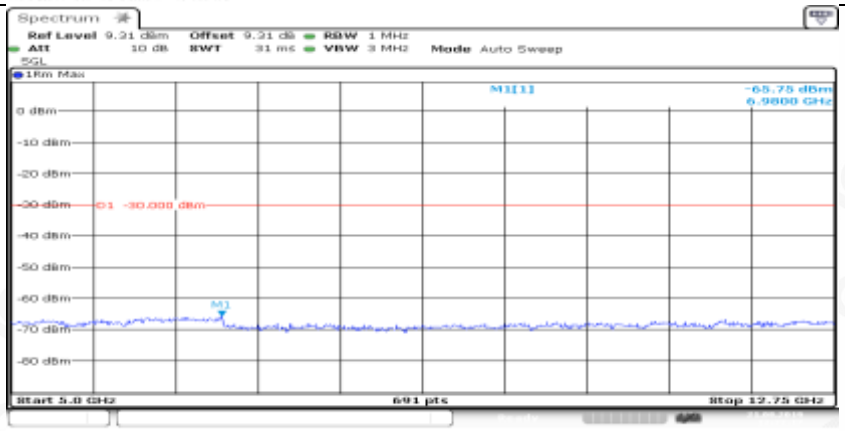
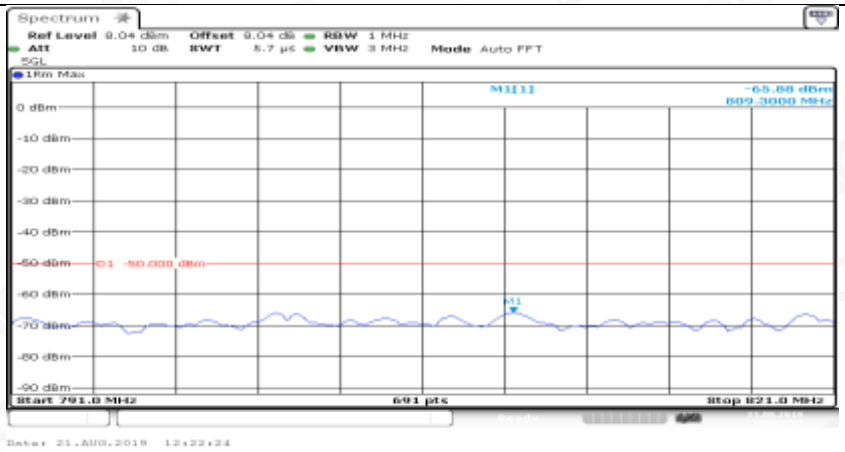
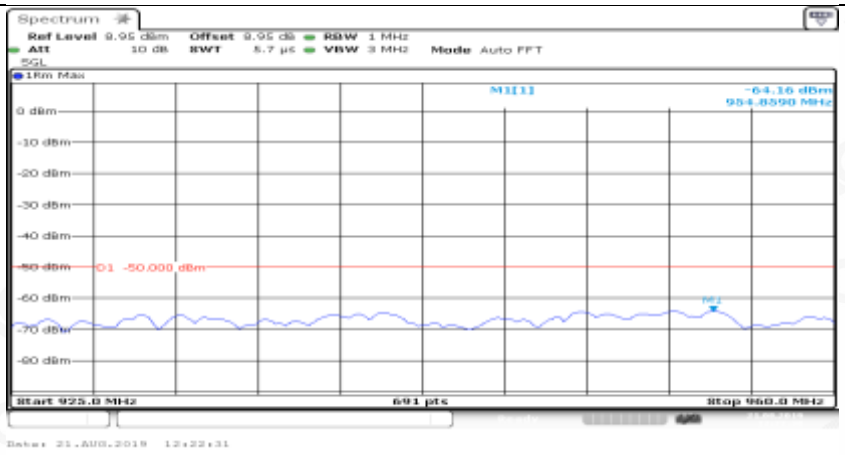
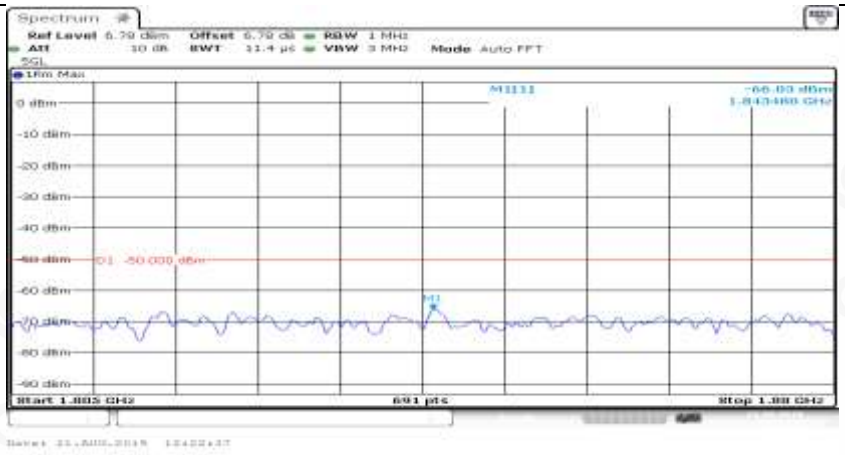
Co-existence	

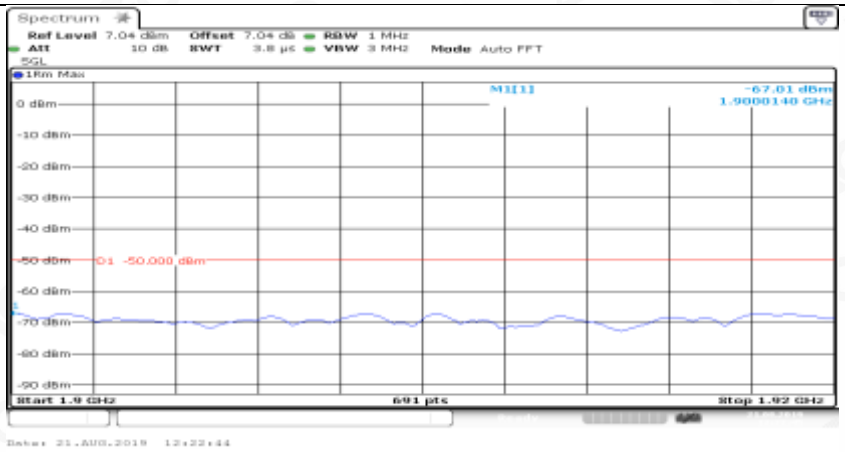
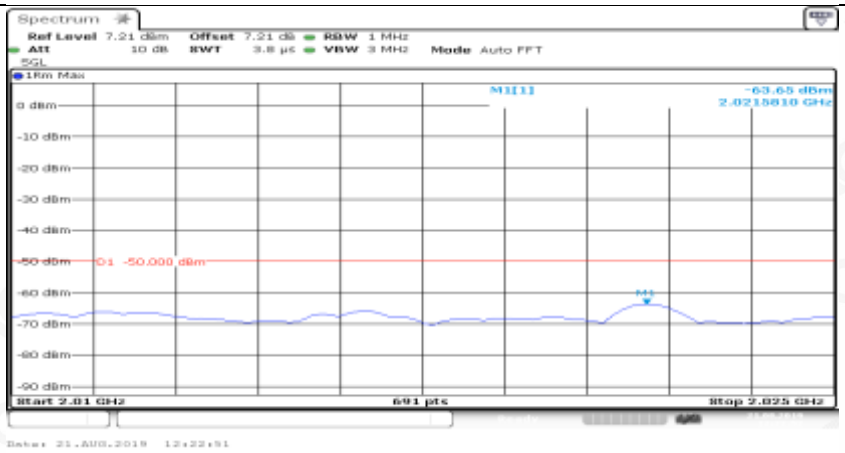
Co-existence	
Co-existence	
Co-existence	
Additional	NA

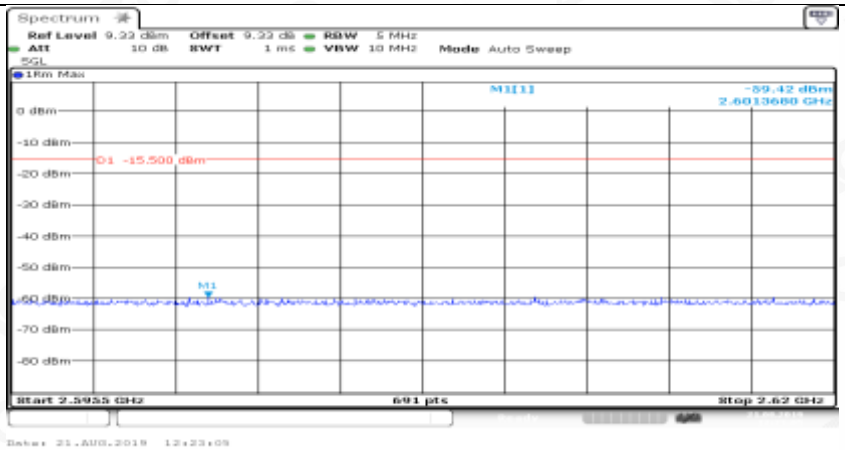
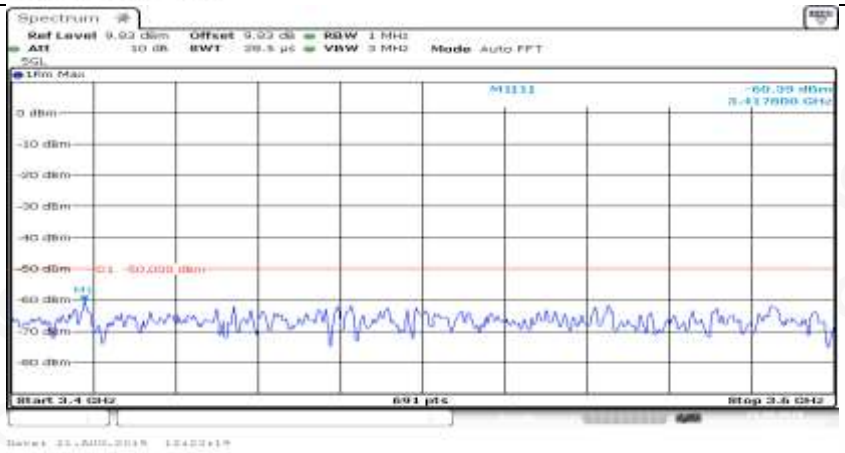
Channel Bandwidth=Highest (20 MHz)_QPSK_HCH_1RB#max

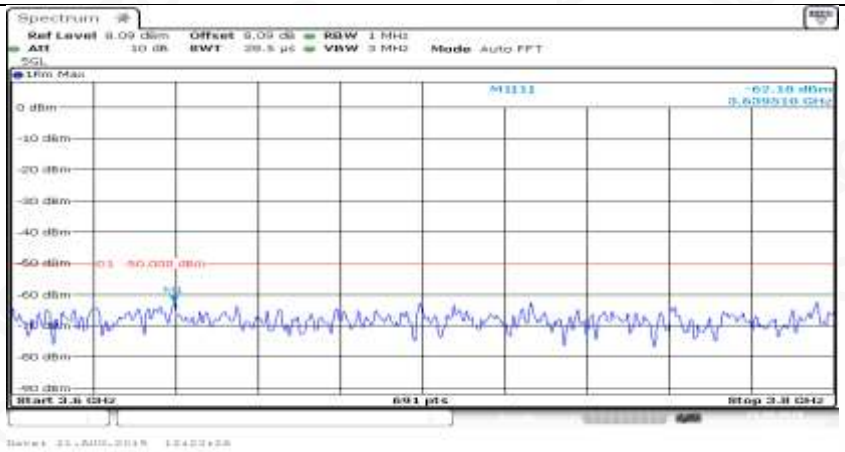
General	
General	
General	

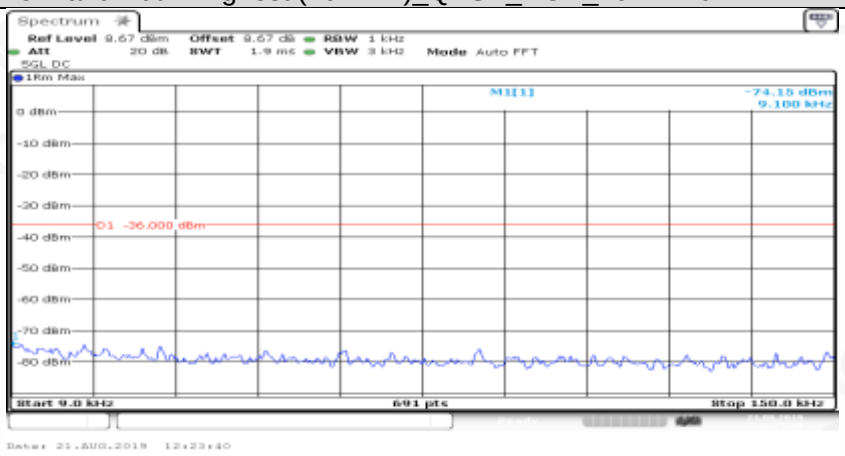
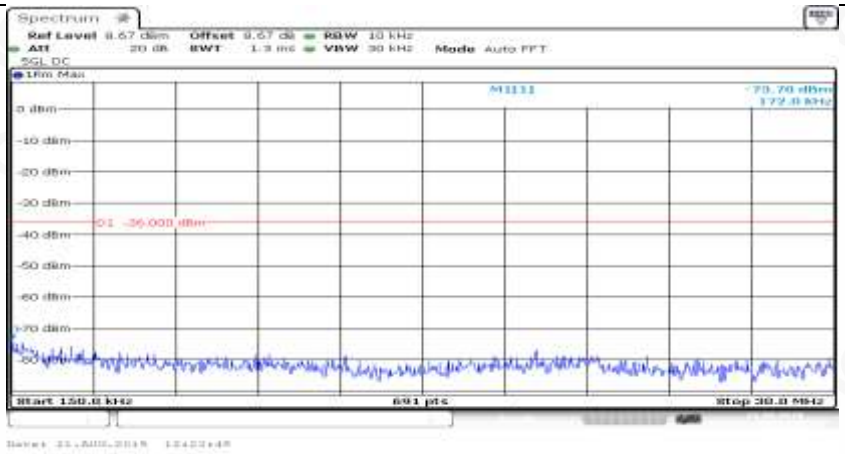
General	
General	
General	

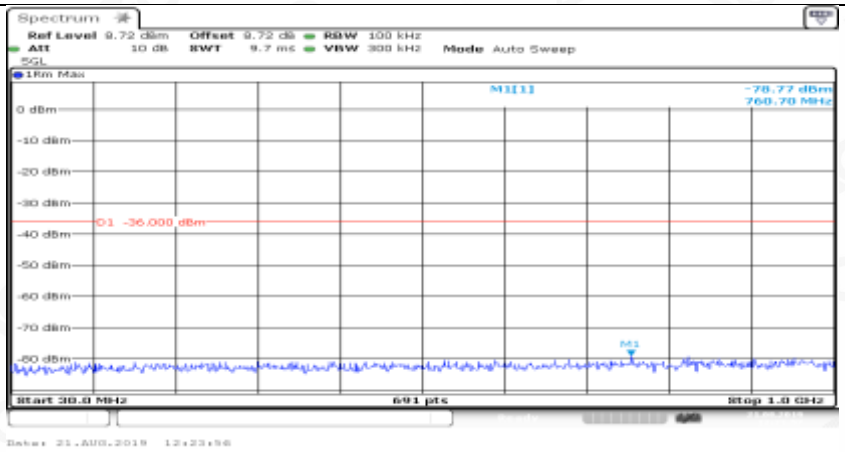
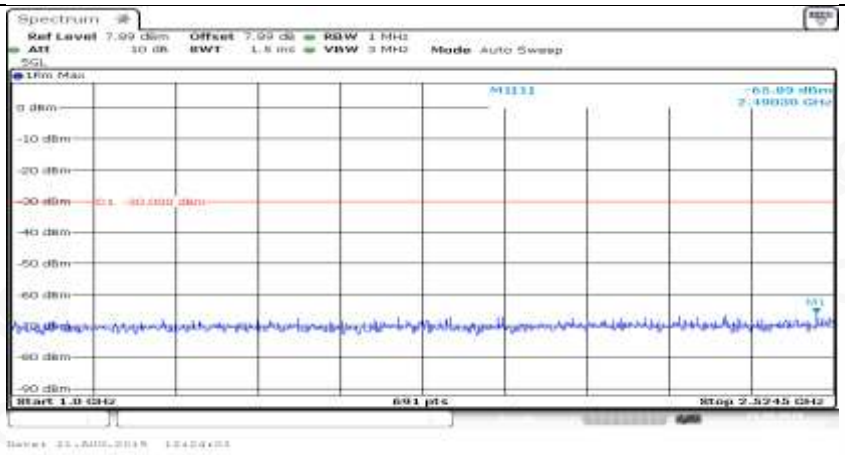
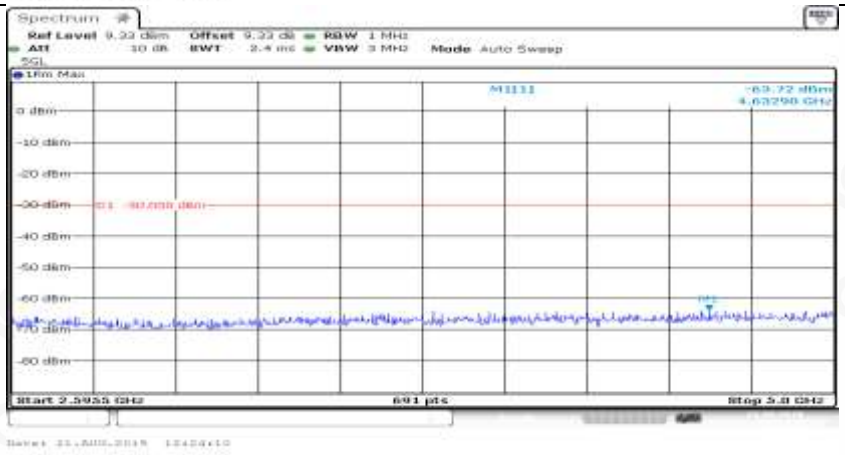
Co-existence	
Co-existence	
Co-existence	

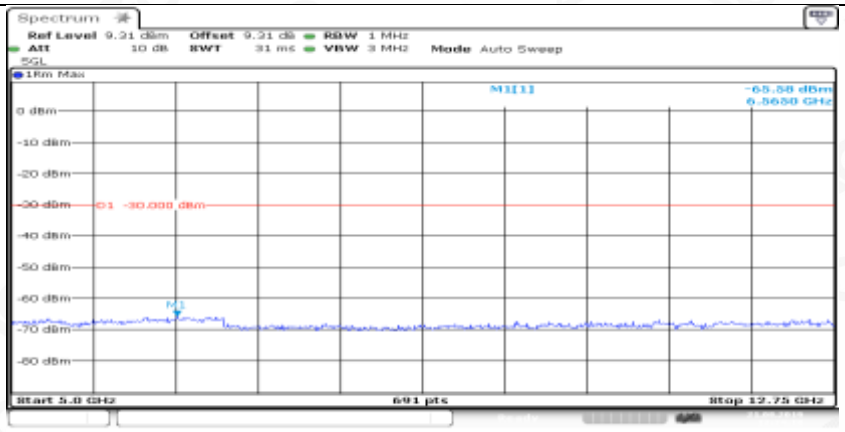
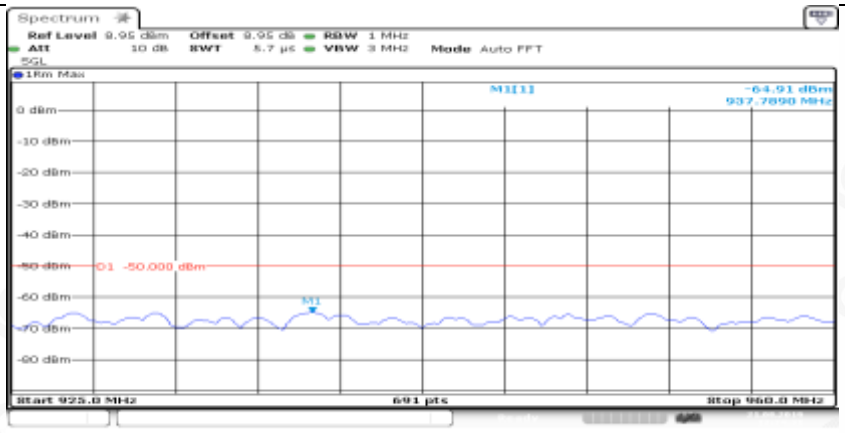
Co-existence	
Co-existence	
Co-existence	

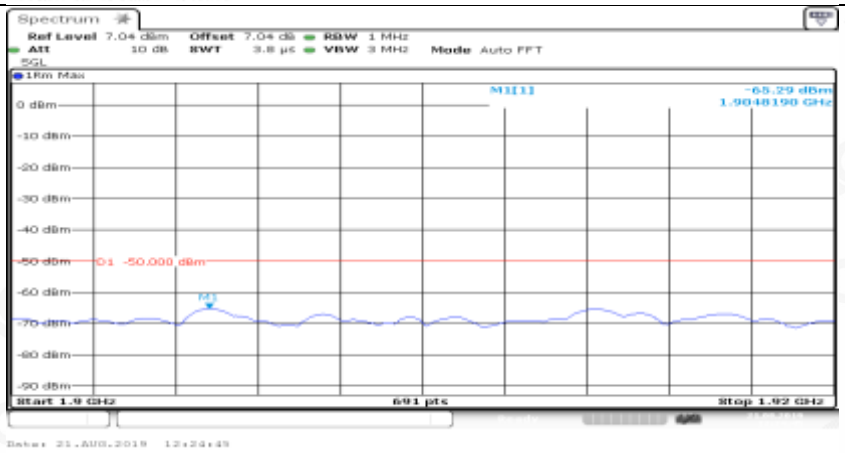
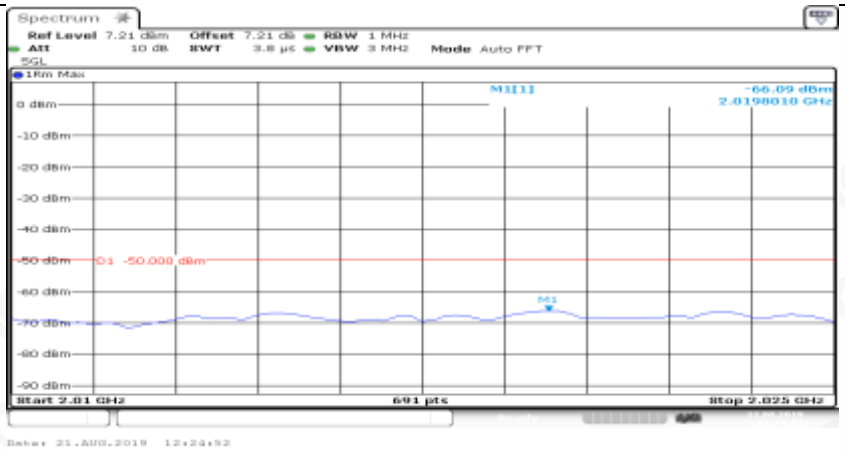
Co-existence	
Co-existence	
Co-existence	

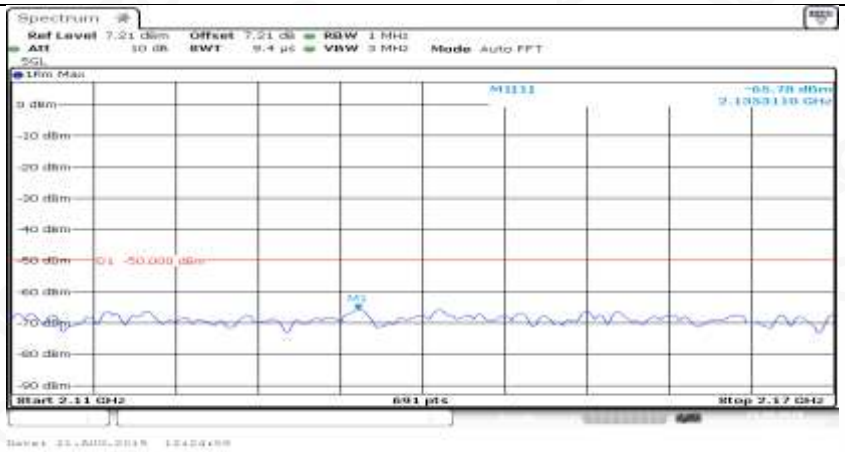
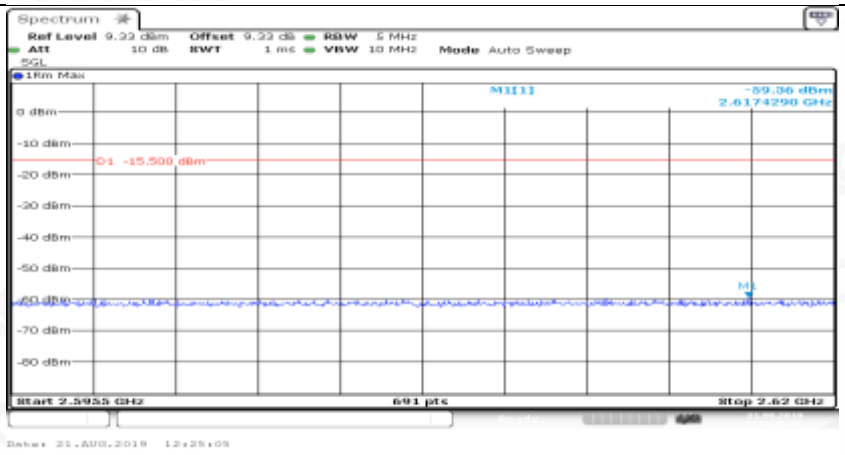
Co-existence	
Additional	NA

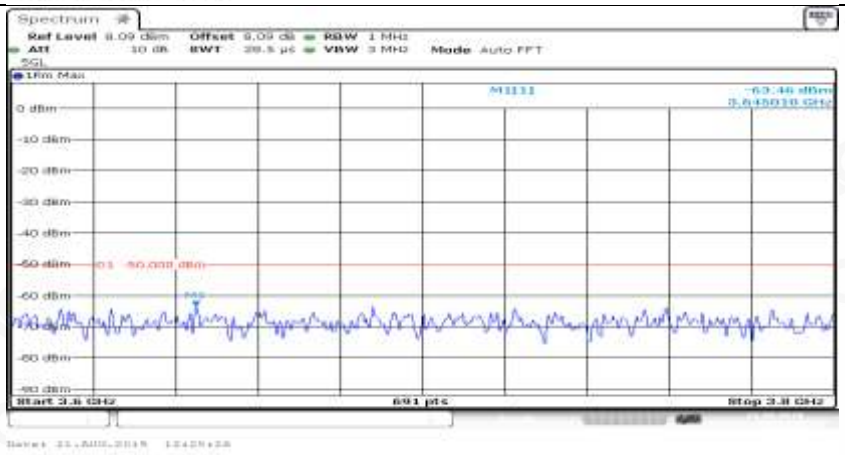
Channel Bandwidth=Highest (20 MHz)_QPSK_HCH_FullRB#0	
General	
General	

General	
General	
General	

General	
Co-existence	
Co-existence	

Co-existence	
Co-existence	
Co-existence	

Co-existence	
Co-existence	
Co-existence	

Co-existence	
Co-existence	
Additional	NA

6. Receiver Spurious Emissions

Test Result

NTNV

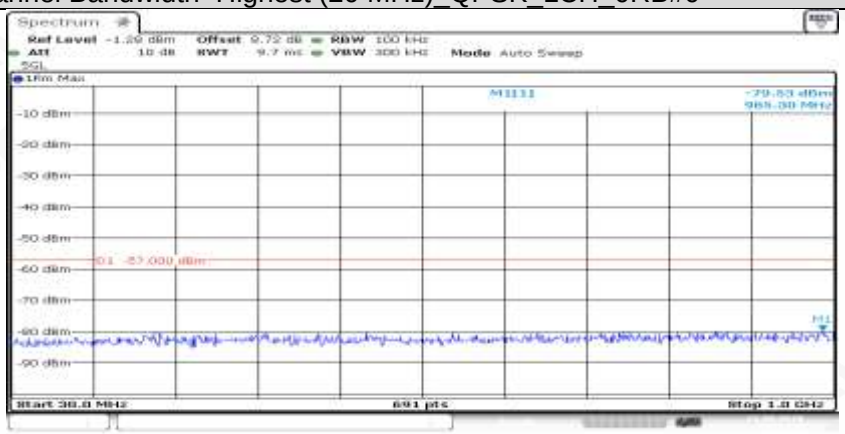
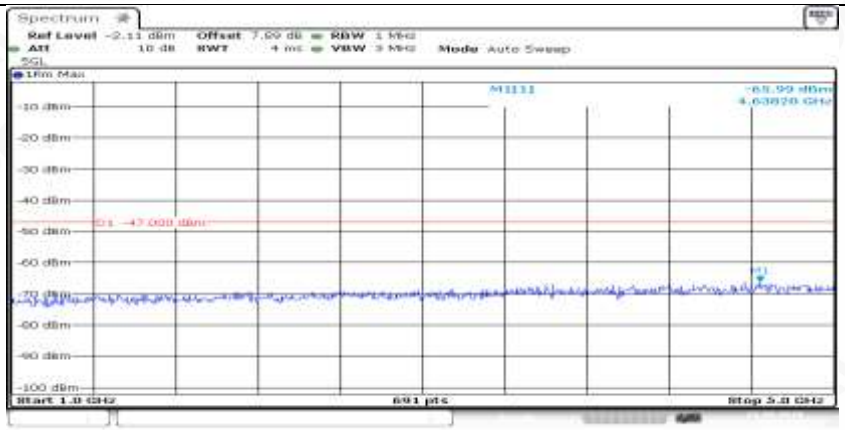
Channel Bandwidth=Highest

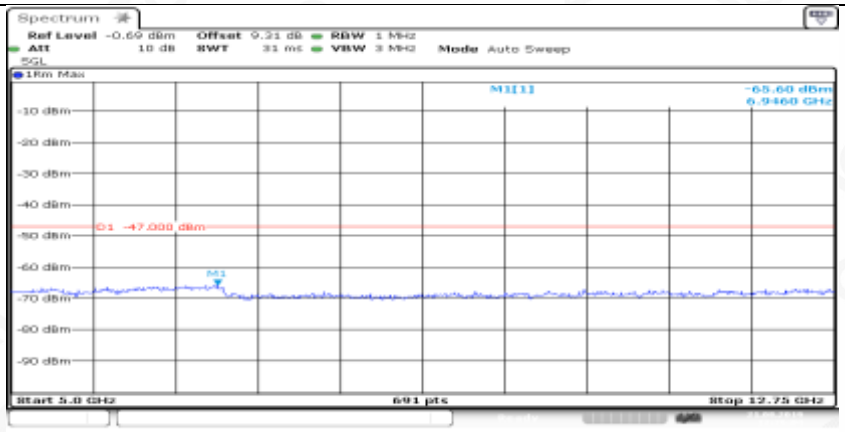
Condition	Modulation	Channel Bandwidth	Channel	RB allocation		Verdict
				RB Size	RB Offset	
Normal	QPSK	20 MHz	Low range	0	0	Pass
			Mid range	0	0	Pass
			High range	0	0	Pass

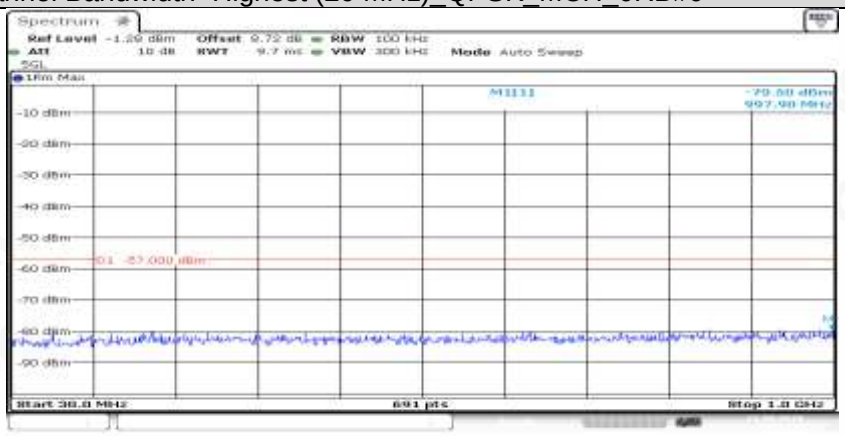
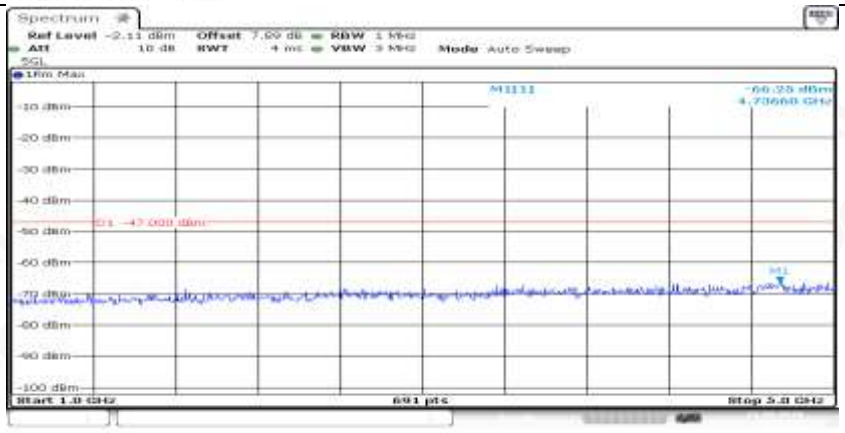
Test Graphs

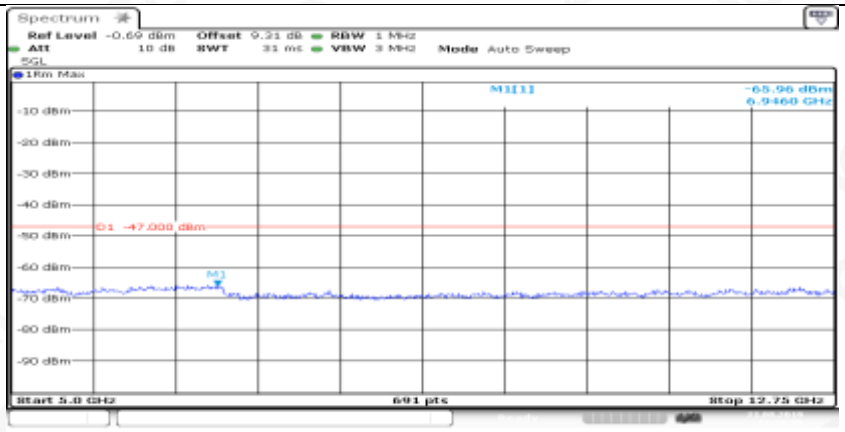
NTNV

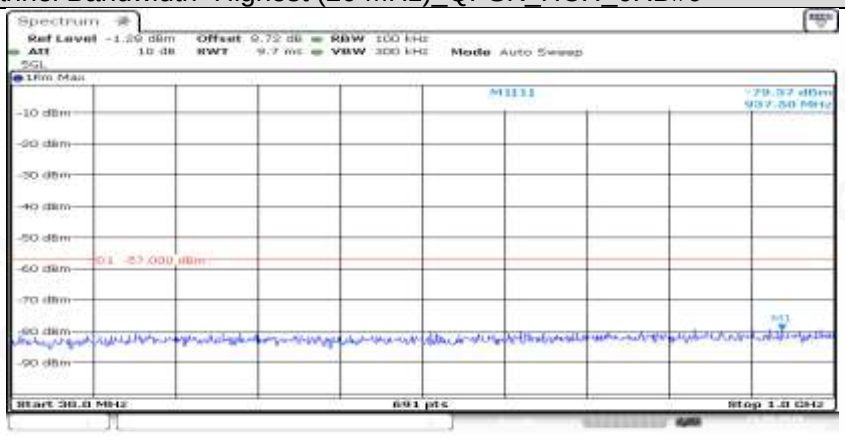
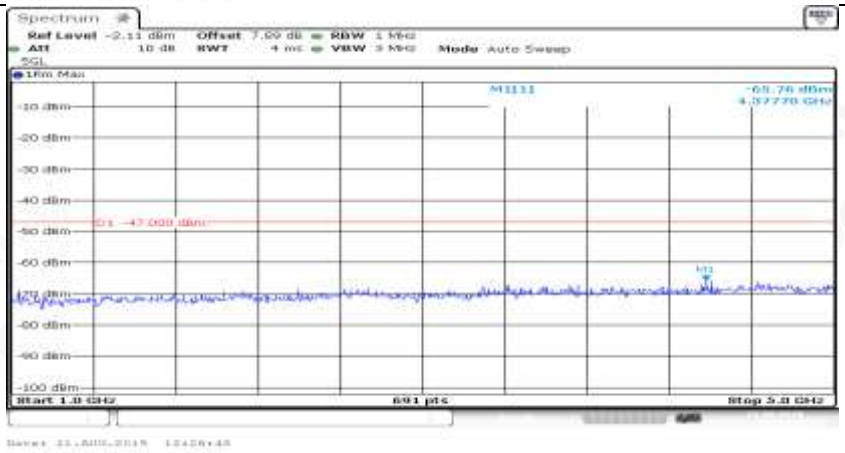
Channel Bandwidth=Highest

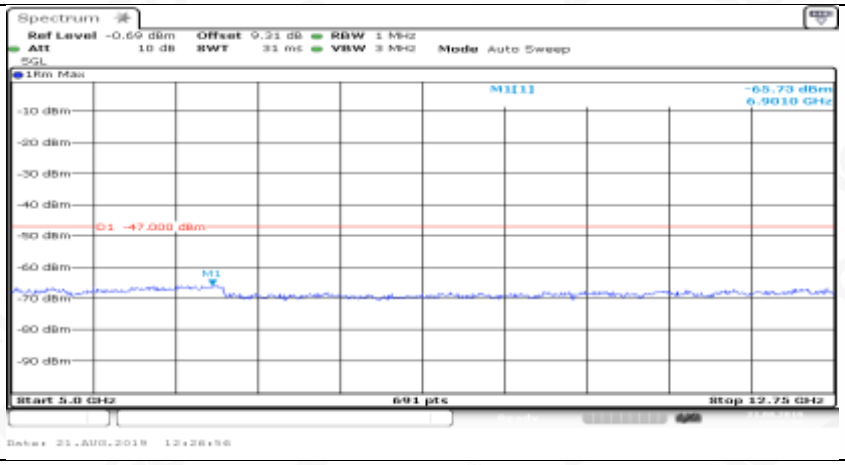
Channel Bandwidth=Highest (20 MHz)_QPSK_LCH_0RB#0	
LCH	
LCH	

LCH	

Channel Bandwidth=Highest (20 MHz)_QPSK_MCH_0RB#0	
MCH	
MCH	

MCH	

Channel Bandwidth=Highest (20 MHz)_QPSK_HCH_0RB#0	
HCH	
HCH	

HCH	 Spectrum Ref Level -0.69 dBm Offset 9.21 dB RBW 1 MHz Att 10 dB SWT 31 ms VBW 3 MHz Mode Auto Sweep SGL 1Rm Max M1[1] -65.73 dBm 6.9010 GHz -10 dBm -20 dBm -30 dBm -40 dBm D1 -47.000 dBm -50 dBm -60 dBm M1 -70 dBm -80 dBm -90 dBm Start 5.0 GHz 691 pts Stop 12.75 GHz Date: 21.AUG.2019 12:28:56

7. Receiver Adjacent Channel Selectivity (ACS)

Test Results

The equipment **passed** the requirement of this clause.

Test Environment	NC				
Test Frequencies	Mid range				
Test Channel Bandwidths	Lowest, 5MHz, Highest, 20MHz				
Test Parameters for Channel Bandwidths					
	Downlink Configuration		**Uplink Configuration**		
Ch BW	Mod' n	RB allocation	Mod' n	RB allocation	CASE 1
		FDD		FDD	Throughput Limit
5MHz	QPSK	Full	QPSK	25	≥ 95 %
10MHz	QPSK	Full	QPSK	15,20,25	≥ 95 %
20MHz	QPSK	Full	QPSK	100	≥ 95 %
Verdict	**Pass**				
Ch BW	Mod' n	RB allocation	Mod' n	RB allocation	CASE 2
		FDD		FDD	Throughput Limit
5MHz	QPSK	Full	QPSK	25	≥ 95 %
10MHz	QPSK	Full	QPSK	15,20,25	≥ 95 %
20MHz	QPSK	Full	QPSK	100	≥ 95 %
Verdict	**Pass**				

8. Receiver blocking characteristics

Test Results

The equipment **passed** the requirement of this clause.

In-Band Blocking

Test Environment			NC		
Test Frequencies			Mid range		
Test Channel Bandwidths			Lowest, 5MHz, Highest, 20MHz		
Test Parameters for Channel Bandwidths					
	Downlink Configuration		**Uplink Configuration**		CASE1
Ch BW	Mod' n	RB allocation	Mod' n	RB allocation	Throughput Limit
		FDD		FDD	
5MHz	QPSK	Full	QPSK	25	≥ 95 %
10MHz	QPSK	Full	QPSK	15,20,25	≥ 95 %
20MHz	QPSK	Full	QPSK	100	≥ 95 %
Verdict	**Pass**				

Out-of Band Blocking

Test Environment			NC		
Test Frequencies			Low range for FInterferer below FDL_low High range for FInterferer above FDL_high		
Test Channel Bandwidths			Lowest, 5MHz, Highest 20MHz		
Test Parameters for Channel Bandwidths					
	Downlink Configuration		**Uplink Configuration**		RANGE1/RANGE2/RANGE3
Ch BW	Mod' n	RB allocation	Mod' n	RB allocation	Throughput Limit
		FDD		FDD	
5MHz	QPSK	Full	QPSK	25	≥ 95 %
10MHz	QPSK	Full	QPSK	15,20,25	≥ 95 %
20MHz	QPSK	Full	QPSK	100	≥ 95 %
Verdict	**Pass**				

Narrow Band

Test Environment			NC		
Test Frequencies			Mid range		
Test Channel Bandwidths			Lowest, 5MHz, Highest 20MHz		
Test Parameters for Channel Bandwidths					
	Downlink Configuration		**Uplink Configuration**		
Ch BW	Mod' n	RB allocation	Mod' n	RB allocation	Throughput Limit
		FDD		FDD	
5MHz	QPSK	Full	QPSK	25	≥ 95 %
10MHz	QPSK	Full	QPSK	15,20,25	≥ 95 %
20MHz	QPSK	Full	QPSK	100	≥ 95 %
Verdict	**Pass**				

9. Receiver Spurious Response

Test Results

The equipment **passed** the requirement of this clause.

Test Environment					NC
Test Frequencies					Mid range
Test Channel Bandwidths					Lowest, 5MHz, Highest 20MHz
Test Parameters for Channel Bandwidths					
	Downlink Configuration		**Uplink Configuration**		
Ch BW	Mod' n	RB allocation	Mod' n	RB allocation	CASE 1
		FDD		FDD	Throughput Limit
5MHz	QPSK	Full	QPSK	25	≥ 95 %
10MHz	QPSK	Full	QPSK	15,20,25	≥ 95 %
20MHz	QPSK	Full	QPSK	100	≥ 95 %
Verdict	**Pass**				
Ch BW	Mod' n	RB allocation	Mod' n	RB allocation	CASE 2
		FDD		FDD	Throughput Limit
5MHz	QPSK	Full	QPSK	25	≥ 95 %
10MHz	QPSK	Full	QPSK	15,20,25	≥ 95 %
20MHz	QPSK	Full	QPSK	100	≥ 95 %
Verdict	**Pass**				

10. Receiver Intermodulation Characteristics

Test Results

The equipment **passed** the requirement of this clause.

Test Band	Band 7					
Test Environment	NC					
Test Frequencies	Mid range					
Test Channel Bandwidths	Lowest, 5MHz, Highest 20MHz					
Test Parameters for Channel Bandwidths						
	Downlink Configuration		**Uplink Configuration**			
Ch BW	Mod' n	RB allocation	Mod' n	RB allocation	Meas. Throughput	Throughput Limit
		FDD		FDD		
5MHz	QPSK	Full	QPSK	25	Pass	≥ 95 %
10MHz	QPSK	Full	QPSK	15,20,25	Pass	≥ 95 %
20MHz	QPSK	Full	QPSK	100	Pass	≥ 95 %
Verdict	**Pass**					

11. Receiver Reference Sensitivity Level

Test Results

Note: All test modes were carried out for all operation modes and record the worst test mode (LTE BAND 7 LTLV) of fellow

LTLV

	Test Band			Band 7			
	TestEnvironment			NC			
	Test Frequencies			Midrange			
	TestChannelBandwidths			Lowest,5MHz,Highest 20MHz			
	Test Parameters for Channel Bandwidths						
		DownlinkConfiguration		**Uplink Configuration**			
	Ch BW	Mod' n	RB allocation	Mod' n	RB allocation	Meas. Throughput	Throughput Limit
			FDD		FDD		
TL,VL	5MHz	QPSK	Full	QPSK	25	Pass	≥ 95 %
	10MHz	QPSK	Full	QPSK	15,20,25	Pass	≥ 95 %
	20MHz	QPSK	Full	QPSK	100	Pass	≥ 95 %
	Verdict	**Pass**					

12. Radiated spurious emissions - MS in idle mode

Test Result

NTNV

Channel Bandwidth=Highest= (20 MHz)

Frequency	Modulation	RBW	Max .Level (dbm)	Test Conditions=TNVN		
				Test Channel		
				LCH	MCH	HCH
30 MHz ≤f < 1 GHz	QPSK	100 kHz	-57	-71.44	-71.71	-71.66
1 GHz ≤f ≤ 5 GHz		1 MHz	-47	-68.01	-68.04	-68.13
5 GHz ≤f ≤12.75 GHz		1 MHz	-47	-71.33	-71.27	-71.25

Appendix D for Band 8

1. Transmitter Maximum Output Power

Note: All test modes were carried out for all operation modes and record the worst test mode (LTE BAND 8 TNVN) of fellow

Test Result

NTNV

Channel Bandwidth=Lowest (1.4 MHz)

Channel Bandwidth=Lowest (1.4 MHz)							
Condition	Modulation	Channel Bandwidth	Channel	RB allocation		Average Power (dBm)	Verdict
				RB Size	RB Offset		
Normal	QPSK	1.4 MHz	Low range	1	0	23.76	Pass
					max	23.69	Pass
				Partial	0	23.79	Pass
					max	23.75	Pass
			Mid range	1	0	23.79	Pass
					max	23.78	Pass
				Partial	0	23.77	Pass
					max	23.80	Pass
			High range	1	0	23.02	Pass
					max	23.11	Pass
				Partial	0	23.78	Pass
					max	23.22	Pass

Channel Bandwidth= (5 MHz)

Channel Bandwidth= (5 MHz)							
Condition	Modulation	Channel Bandwidth	Channel	RB allocation		Average Power (dBm)	Verdict
				RB Size	RB Offset		
Normal	QPSK	5MHz	Low range	1	0	23.81	Pass
					max	23.80	Pass
				Partial	0	23.70	Pass
					max	23.76	Pass
			Mid range	1	0	23.75	Pass
					max	23.87	Pass
				Partial	0	23.83	Pass
					max	23.93	Pass
			High range	1	0	24.14	Pass
					max	23.90	Pass
				Partial	0	24.12	Pass
					max	23.98	Pass

Channel Bandwidth=Highest (10 MHz)

Channel Bandwidth=Highest (10 MHz)							
Condition	Modulation	Channel Bandwidth	Channel	RB allocation		Average Power (dBm)	Verdict
				RB Size	RB Offset		
Normal	QPSK	10 MHz	Low range	1	0	23.80	Pass
					max	23.88	Pass
				Partial	0	23.76	Pass
					max	23.87	Pass
			Mid range	1	0	23.85	Pass
					max	23.85	Pass
				Partial	0	23.86	Pass
					max	23.88	Pass
			High range	1	0	24.06	Pass
					max	23.95	Pass
				Partial	0	24.12	Pass
					max	23.96	Pass

2. Transmitter Minimum Output Power

Note: All test modes were carried out for all operation modes and record the worst test mode (LTE BAND 7 TNVN) of fellow

Test Result

NTNV

Channel Bandwidth=Lowest (1.4 MHz)

Channel Bandwidth=Lowest (1.4 MHz)							
Condition	Modulation	Channel Bandwidth	Channel	RB allocation		Average Power (dBm)	Verdict
				RB Size	RB Offset		
Normal	QPSK	1.4 MHz	Low range	Full	0	-48.84	Pass
			Mid range	Full	0	-51.42	Pass
			High range	Full	0	-51.36	Pass

Channel Bandwidth= (5 MHz)

Channel Bandwidth= (5 MHz)							
Condition	Modulation	Channel Bandwidth	Channel	RB allocation		Average Power (dBm)	Verdict
				RB Size	RB Offset		
Normal	QPSK	5MHz	Low range	Full	0	-50.61	Pass
			Mid range	Full	0	-50.77	Pass
			High range	Full	0	-50.54	Pass

Channel Bandwidth=Highest (10 MHz)

Channel Bandwidth=Highest (10 MHz)							
Condition	Modulation	Channel Bandwidth	Channel	RB allocation		Average Power (dBm)	Verdict
				RB Size	RB Offset		
Normal	QPSK	10MHz	Low range	Full	0	-50.54	Pass
			Mid range	Full	0	-50.18	Pass
			High range	Full	0	-50.10	Pass

3. Transmitter Spectrum Emission Mask

Test Result

NTNV

Channel Bandwidth=Lowest (1.4 MHz)

Channel Bandwidth=Lowest (1.4MHz)							
Condition	Modulation	Channel Bandwidth	Channel	RB allocation		UE output power	Verdict
				RB Size	RB Offset		
Normal	QPSK	1.4 MHz	Low range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			Mid range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			High range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
	16QAM		Low range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			Mid range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			High range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass

Channel Bandwidth= (5 MHz)

Channel Bandwidth= (5 MHz)							
Condition	Modulation	Channel Bandwidth	Channel	RB allocation		UE output power	Verdict
				RB Size	RB Offset		
Normal	QPSK	5 MHz	Low range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			Mid range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			High range	Partial	0	PUMAX	Pass

					max	PUMAX	Pass
				Full	0	PUMAX	Pass
	16QAM		Low range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			Mid range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			High range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass

Channel Bandwidth=Highest (10 MHz)

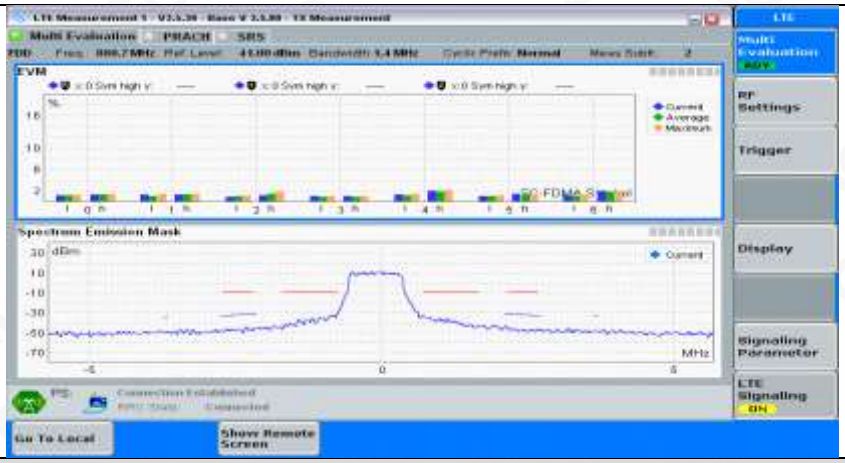
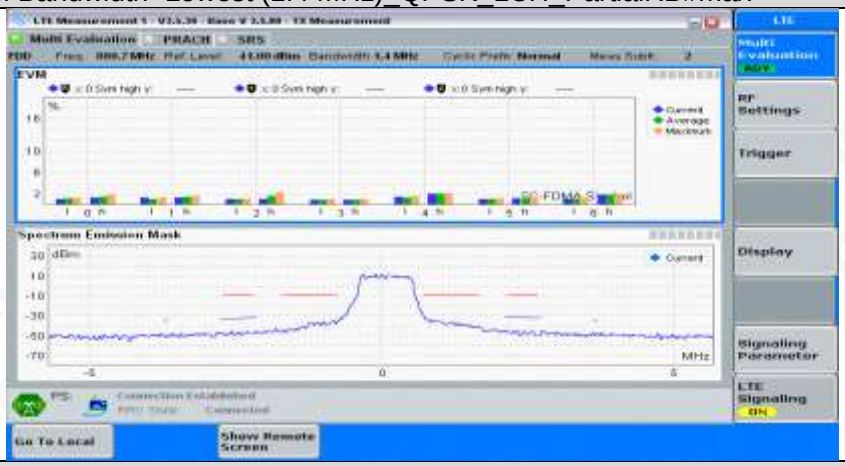
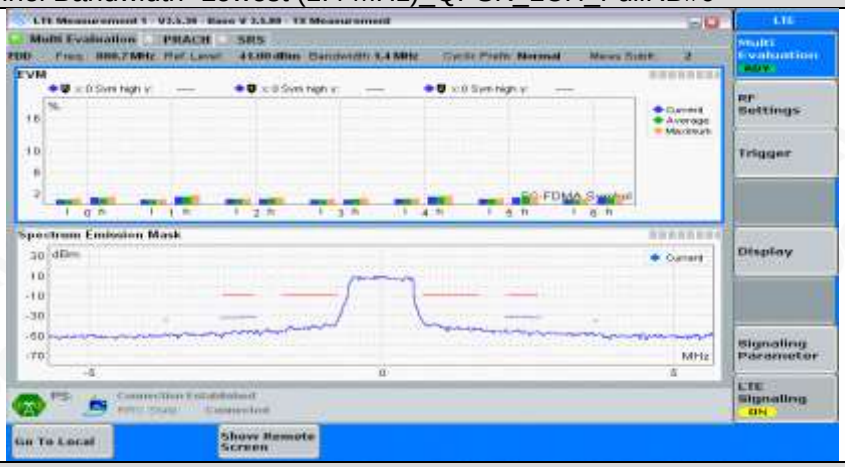
Channel Bandwidth=Highest (10 MHz)							
Condition	Modulation	Channel Bandwidth	Channel	RB allocation		UE output power	Verdict
				RB Size	RB Offset		
Normal	QPSK	10 MHz	Low range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			Mid range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			High range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
	16QAM		Low range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			Mid range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			High range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass

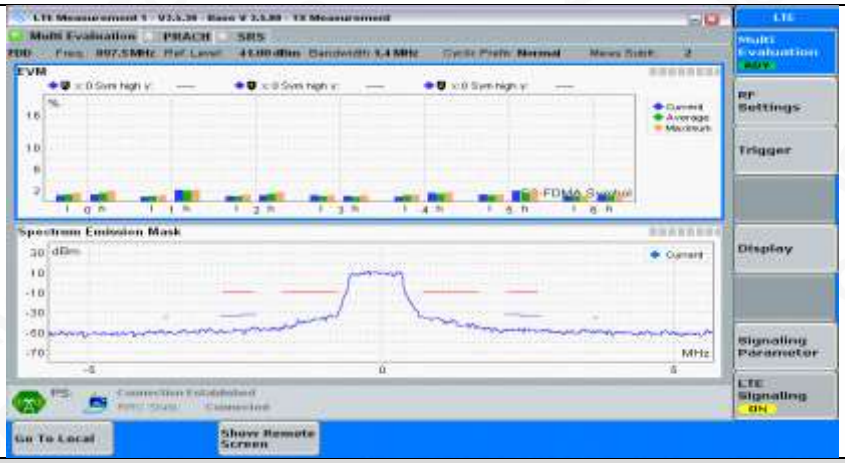
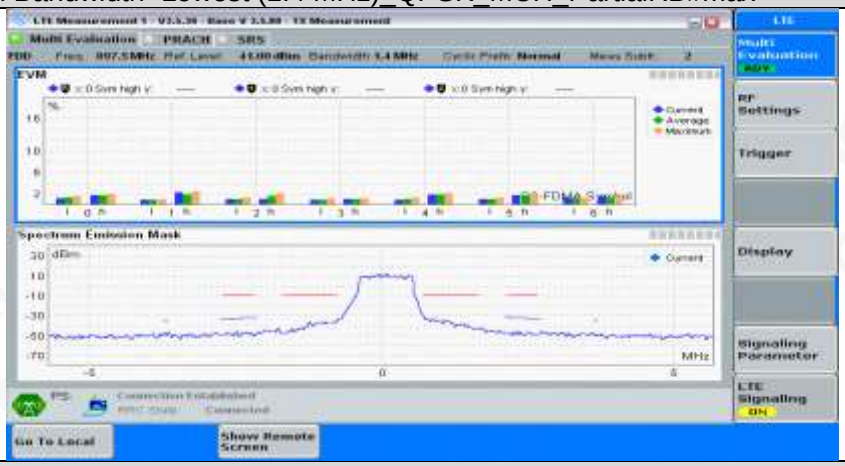
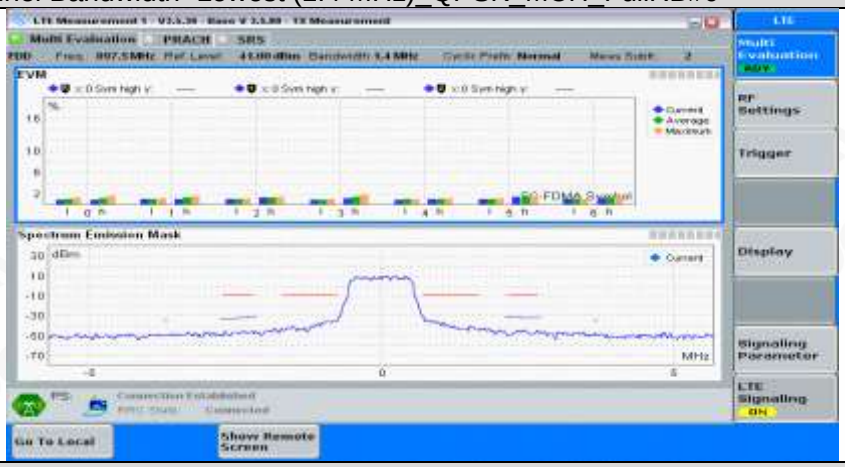
Test Graphs

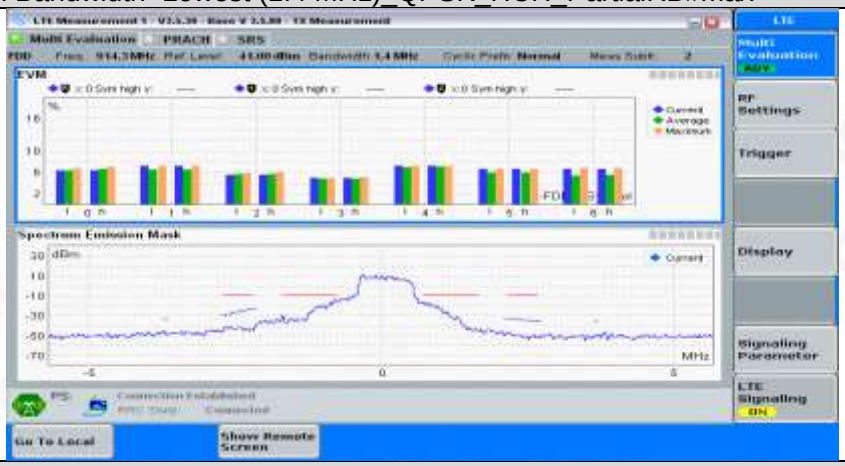
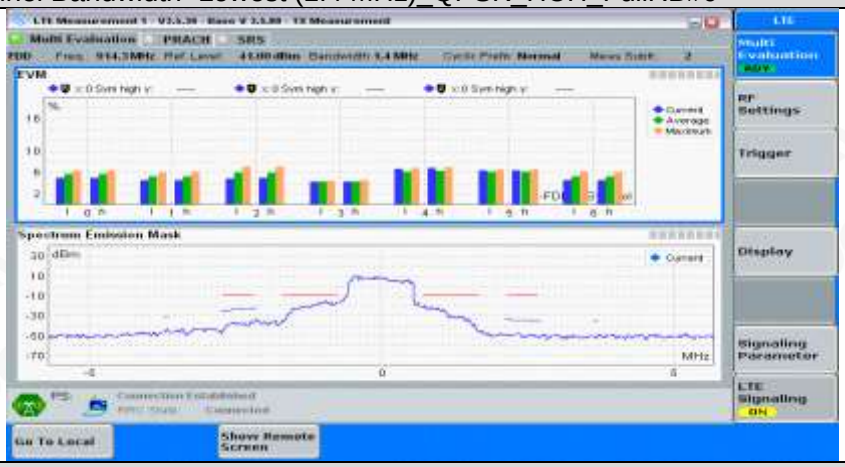
NTNV

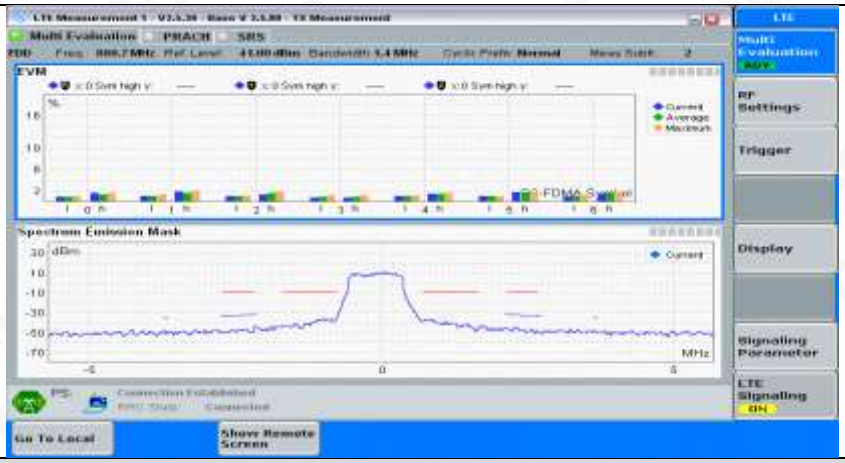
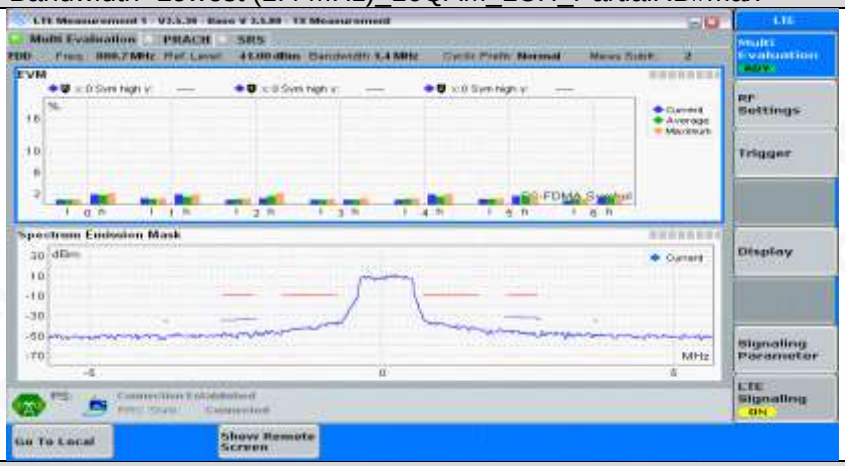
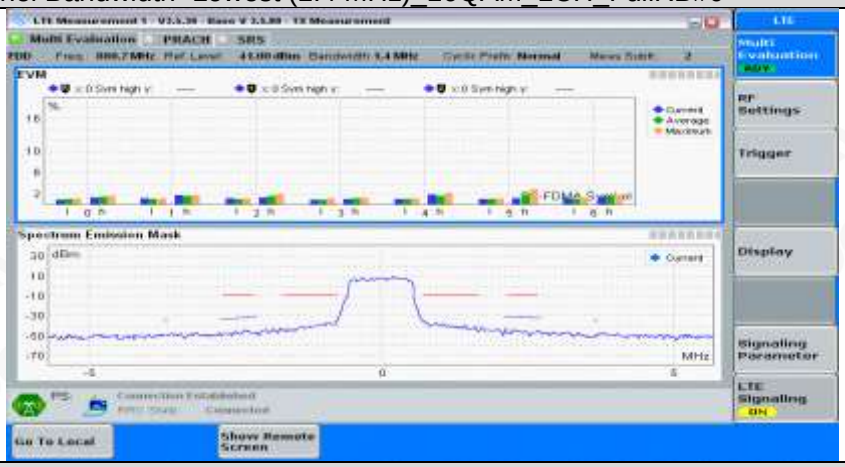
Channel Bandwidth=Lowest (1.4 MHz)

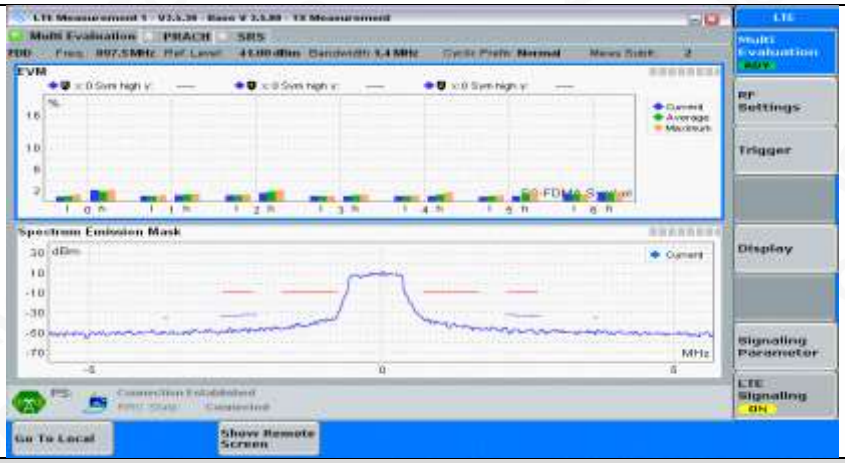
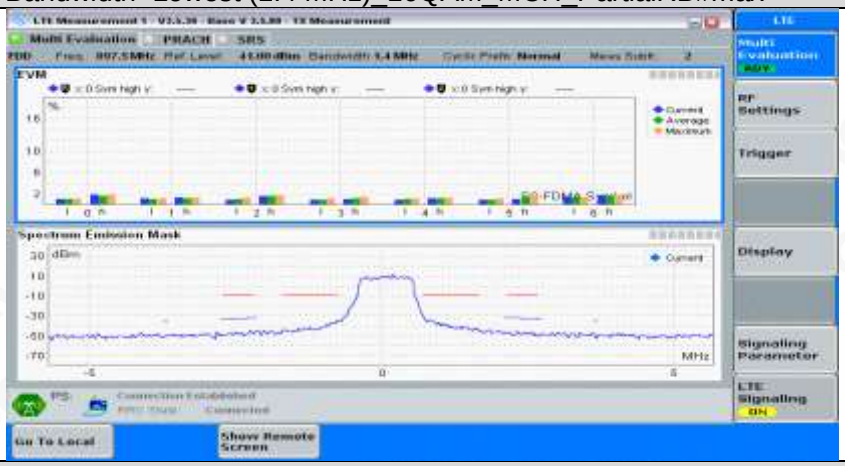
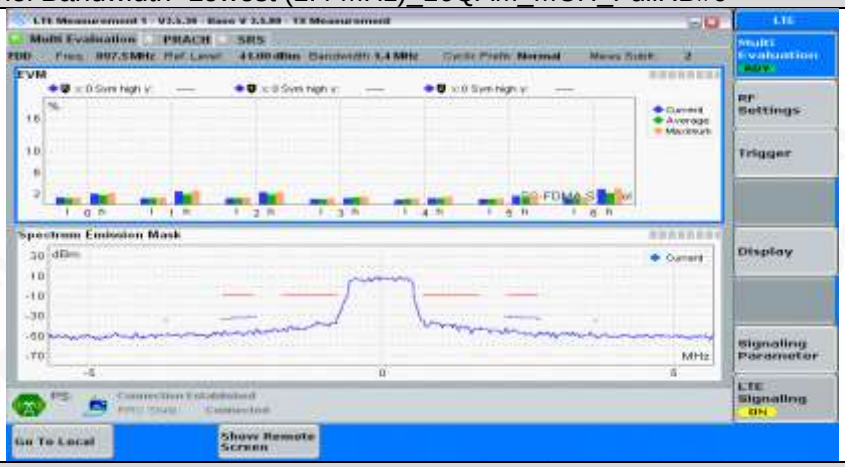
Channel Bandwidth=Lowest (1.4 MHz)_QPSK_LCH_PartialRB#0

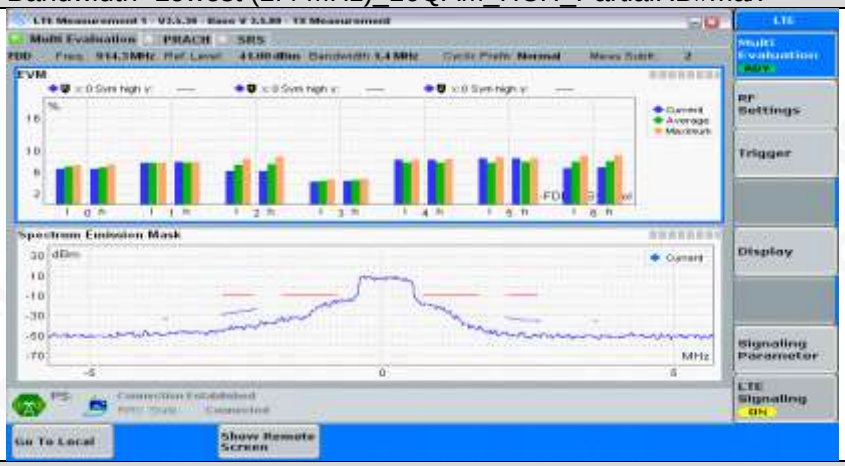
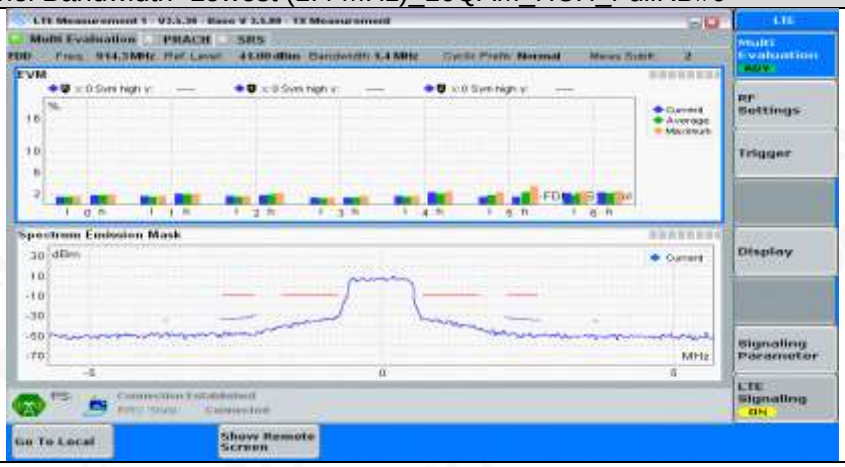
QPSK		
Channel Bandwidth=Lowest (1.4 MHz)_QPSK_LCH_PartialRB#max		
QPSK		
Channel Bandwidth=Lowest (1.4 MHz)_QPSK_LCH_FullRB#0		
QPSK		
Channel Bandwidth=Lowest (1.4 MHz)_QPSK_MCH_PartialRB#0		

QPSK	
Channel Bandwidth=Lowest (1.4 MHz)_QPSK_MCH_PartialRB#max	
QPSK	
Channel Bandwidth=Lowest (1.4 MHz)_QPSK_MCH_FullRB#0	
QPSK	
Channel Bandwidth=Lowest (1.4 MHz)_QPSK_HCH_PartialRB#0	

QPSK	
Channel Bandwidth=Lowest (1.4 MHz)_QPSK_HCH_PartialRB#max	
QPSK	
Channel Bandwidth=Lowest (1.4 MHz)_QPSK_HCH_FullRB#0	
QPSK	
Channel Bandwidth=Lowest (1.4 MHz)_16QAM_LCH_PartialRB#0	

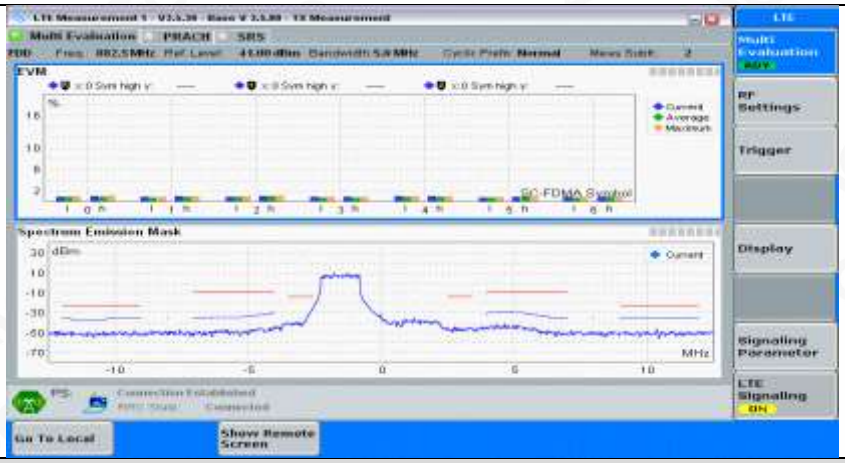
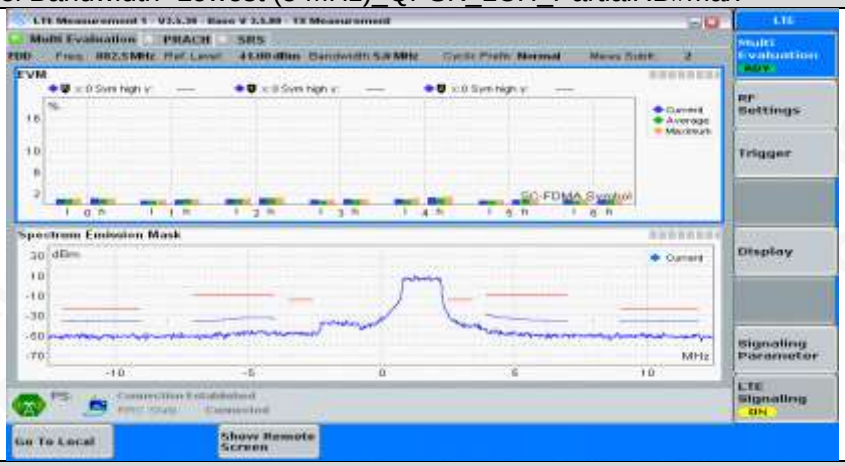
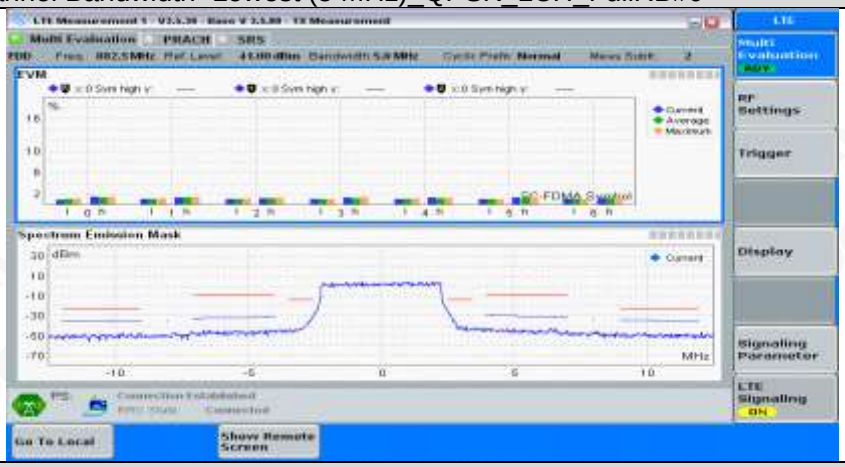
16QAM	
Channel Bandwidth=Lowest (1.4 MHz)_16QAM_LCH_PartialRB#max	
16QAM	
Channel Bandwidth=Lowest (1.4 MHz)_16QAM_LCH_FullRB#0	
16QAM	
Channel Bandwidth=Lowest (1.4 MHz)_16QAM_MCH_PartialRB#0	

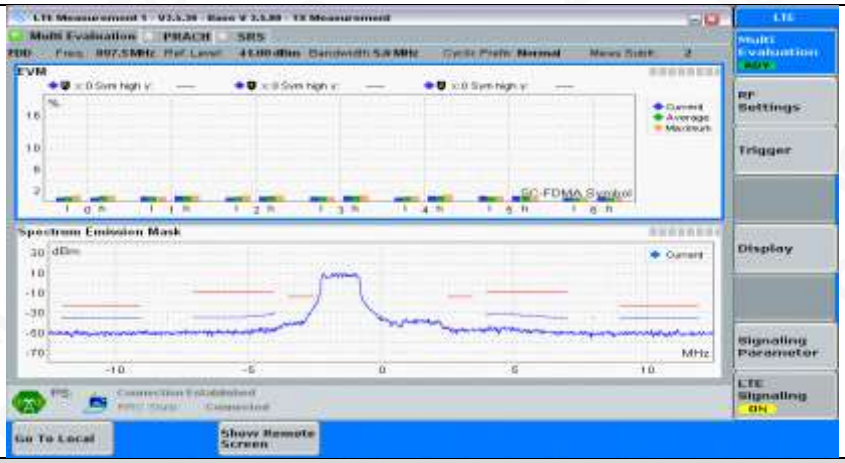
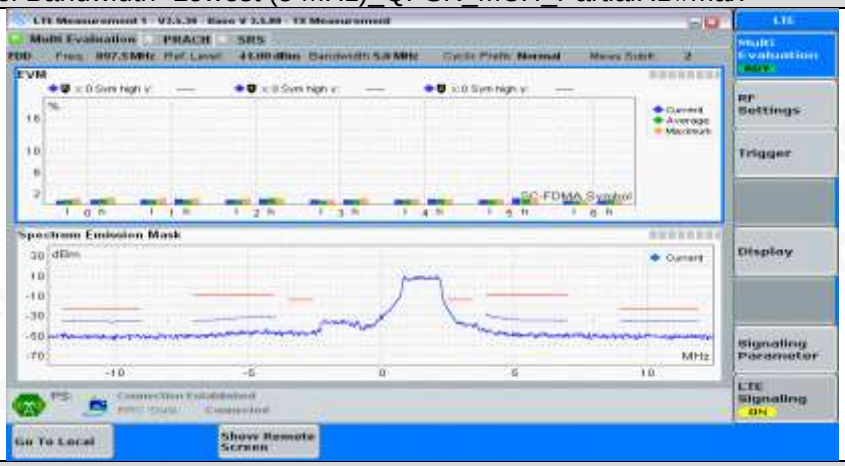
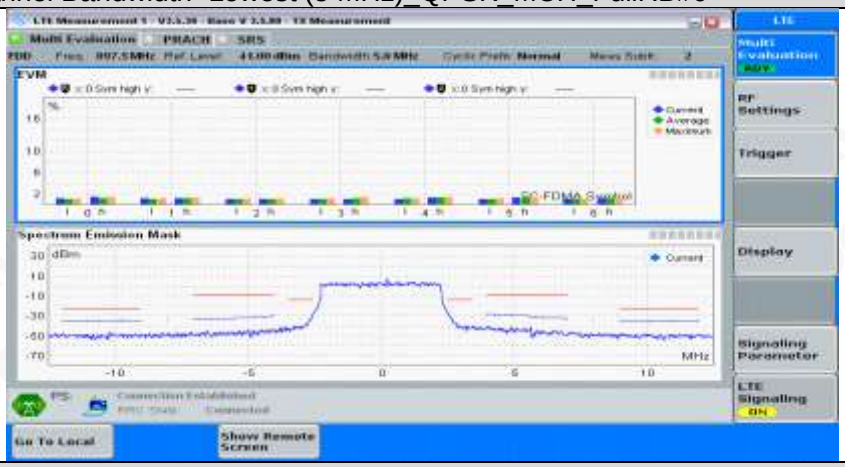
16QAM	
Channel Bandwidth=Lowest (1.4 MHz)_16QAM_MCH_PartialRB#max	
16QAM	
Channel Bandwidth=Lowest (1.4 MHz)_16QAM_MCH_FullRB#0	
16QAM	
Channel Bandwidth=Lowest (1.4 MHz)_16QAM_HCH_PartialRB#0	

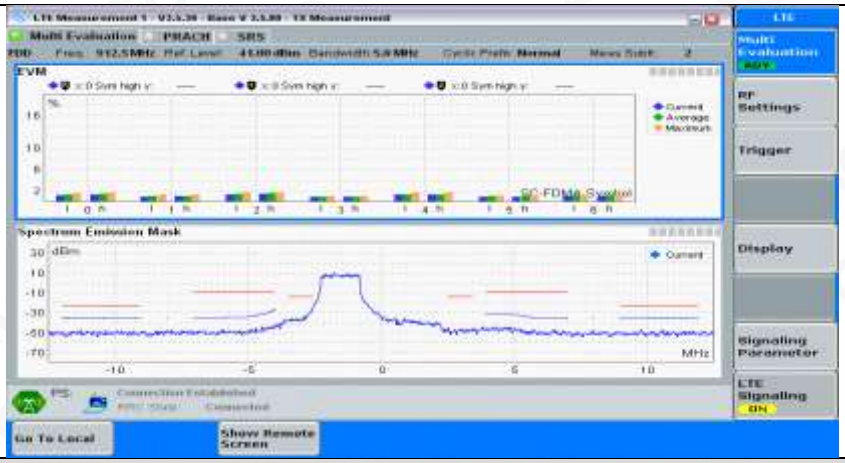
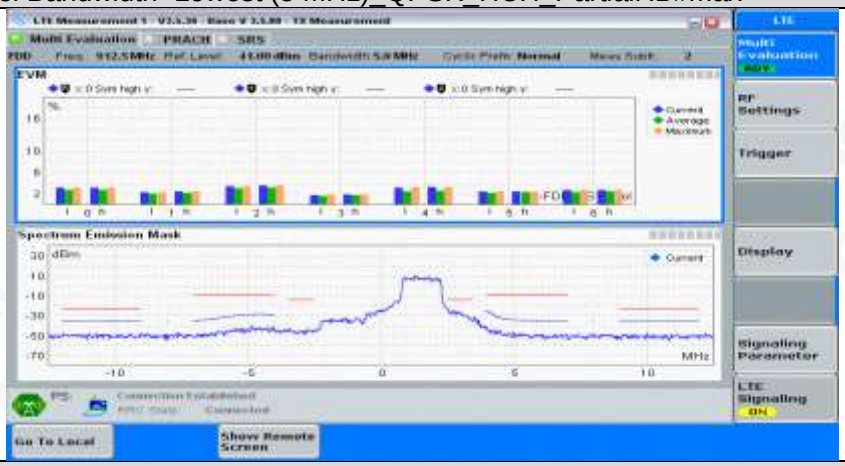
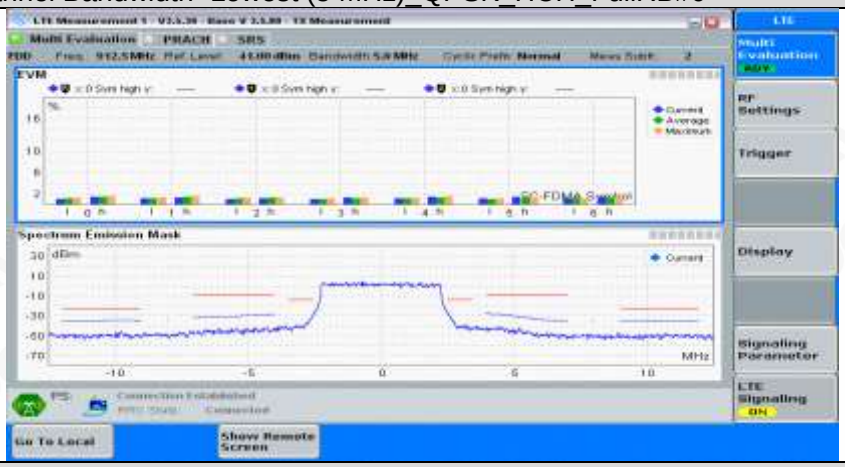
16QAM	
Channel Bandwidth=Lowest (1.4 MHz)_16QAM_HCH_PartialRB#max	
16QAM	
Channel Bandwidth=Lowest (1.4 MHz)_16QAM_HCH_FullRB#0	
16QAM	

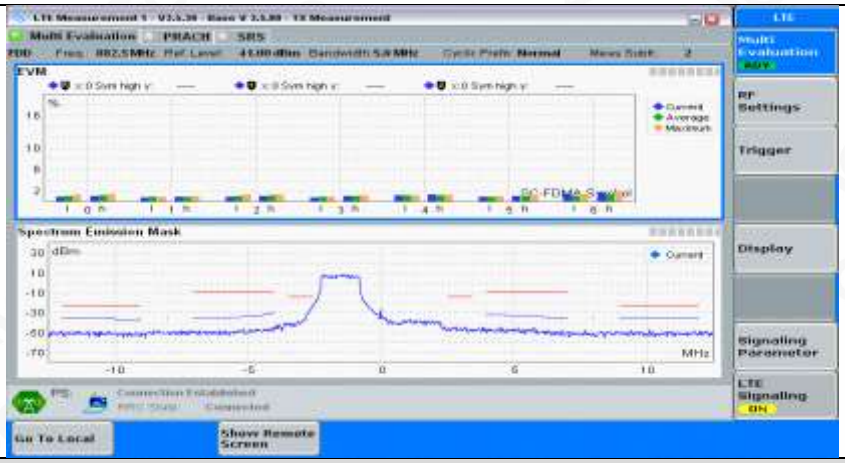
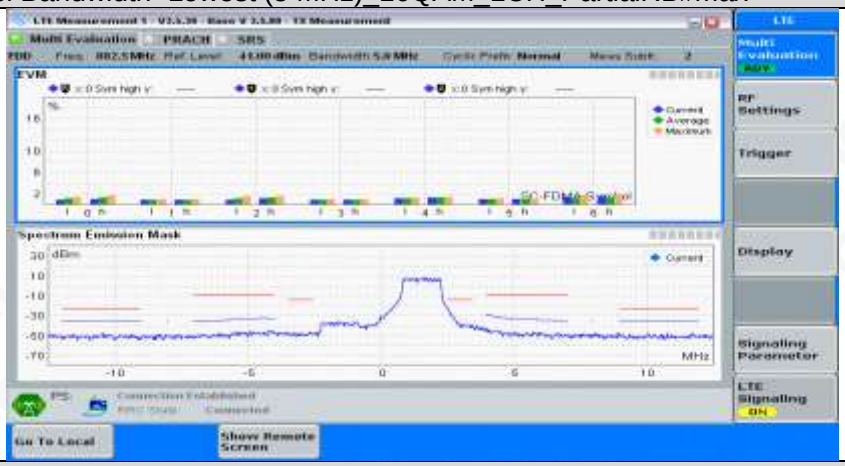
Channel Bandwidth= (5 MHz)

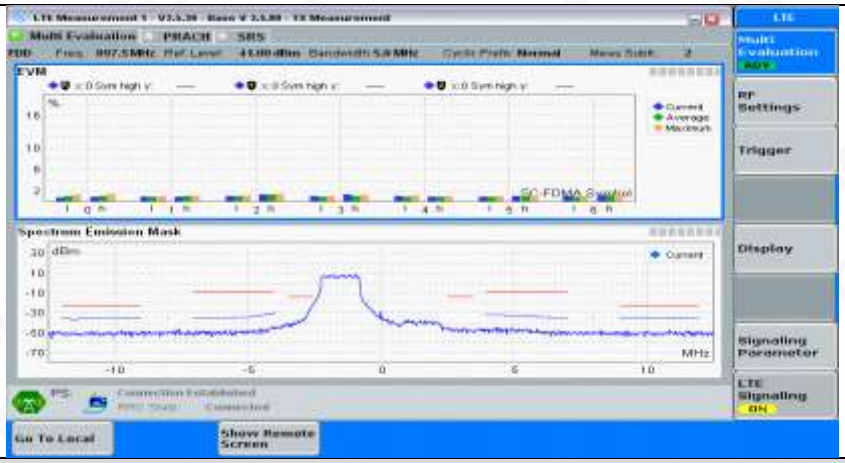
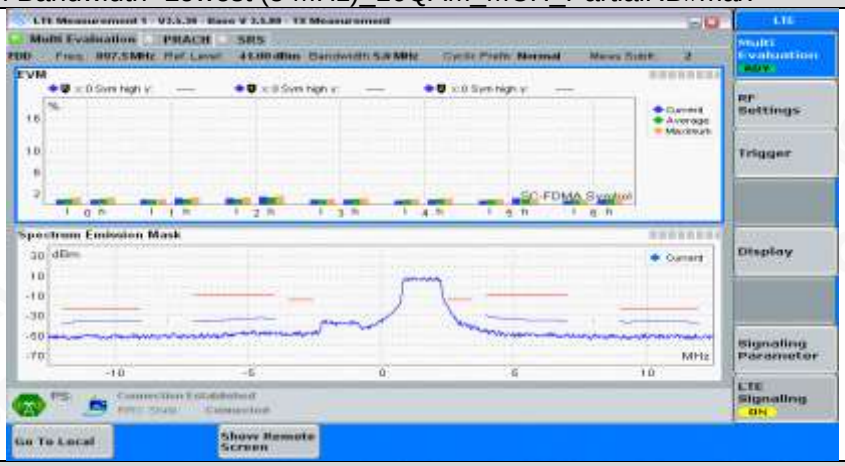
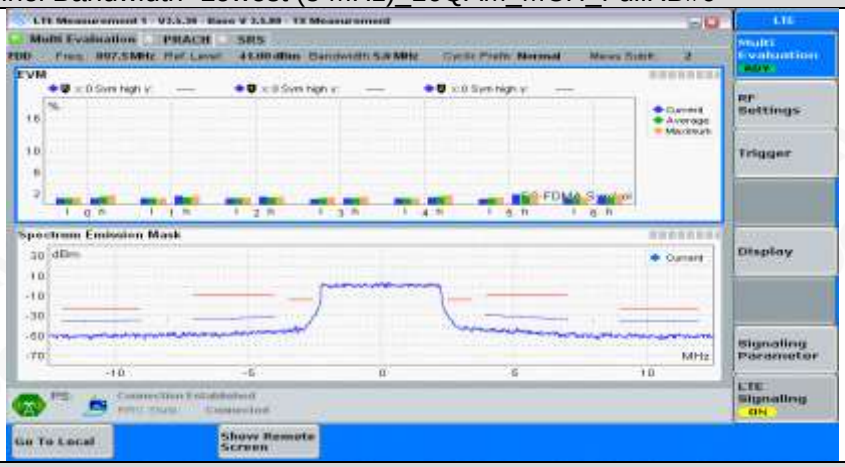
Channel Bandwidth=Lowest (5 MHz)_QPSK_LCH_PartialRB#0

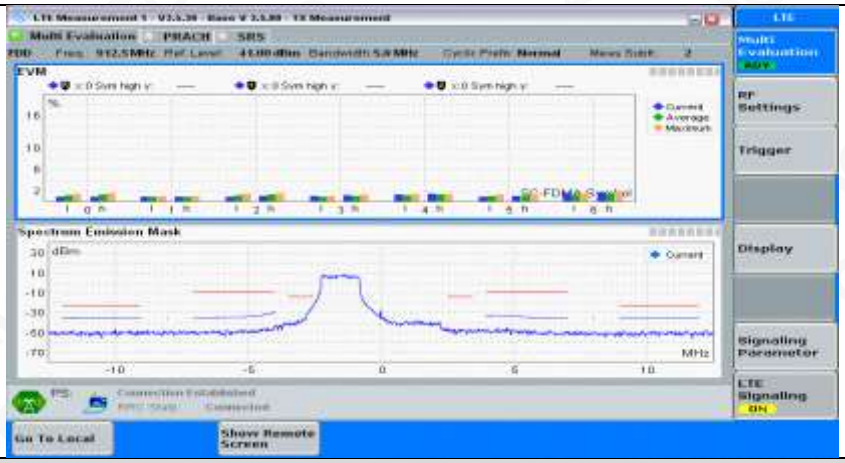
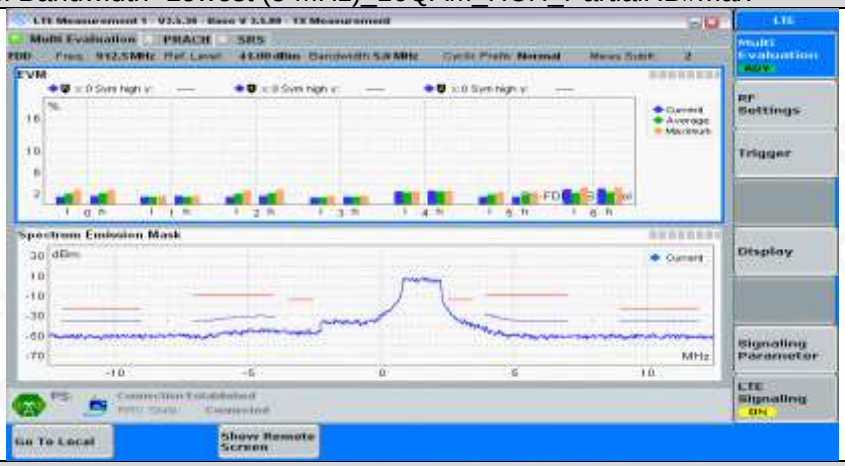
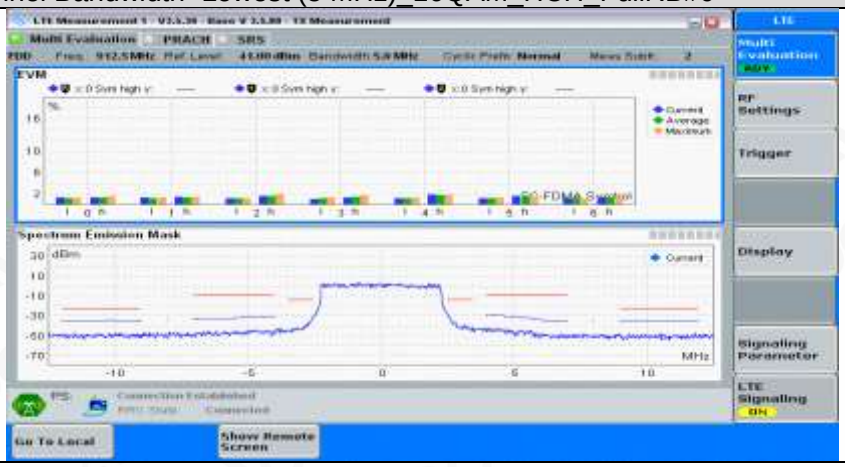
QPSK	
Channel Bandwidth=Lowest (5 MHz)_QPSK_LCH_PartialRB#max	
QPSK	
Channel Bandwidth=Lowest (5 MHz)_QPSK_LCH_FullRB#0	
QPSK	
Channel Bandwidth=Lowest (5 MHz)_QPSK_MCH_PartialRB#0	

QPSK		
Channel Bandwidth=Lowest (5 MHz)_QPSK_MCH_PartialRB#max		
QPSK		
Channel Bandwidth=Lowest (5 MHz)_QPSK_MCH_FullRB#0		
QPSK		
Channel Bandwidth=Lowest (5 MHz)_QPSK_HCH_PartialRB#0		

QPSK		
Channel Bandwidth=Lowest (5 MHz)_QPSK_HCH_PartialRB#max		
QPSK		
Channel Bandwidth=Lowest (5 MHz)_QPSK_HCH_FullRB#0		
QPSK		
Channel Bandwidth=Lowest (5 MHz)_16QAM_LCH_PartialRB#0		

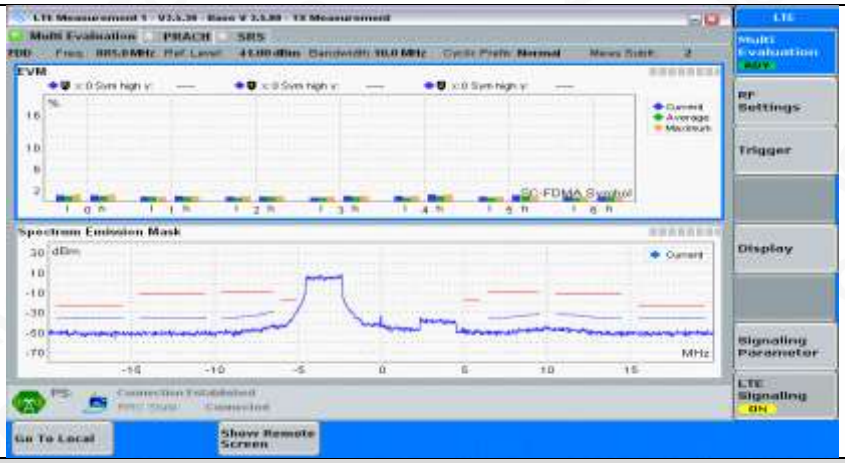
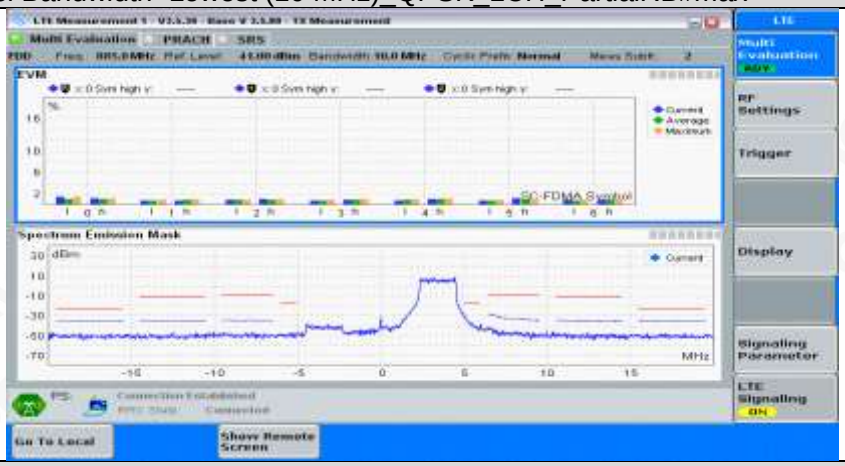
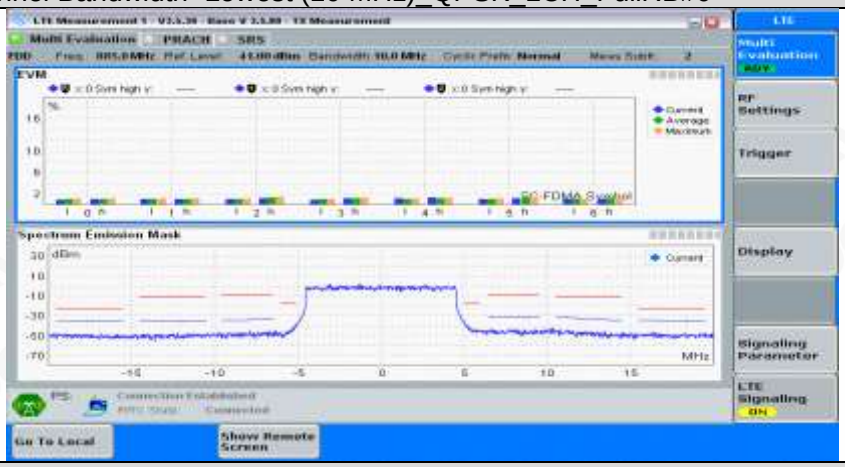
16QAM	
Channel Bandwidth=Lowest (5 MHz)_16QAM_LCH_PartialRB#max	
16QAM	
Channel Bandwidth=Lowest (5 MHz)_16QAM_LCH_FullRB#0	
16QAM	
Channel Bandwidth=Lowest (5 MHz)_16QAM_MCH_PartialRB#0	

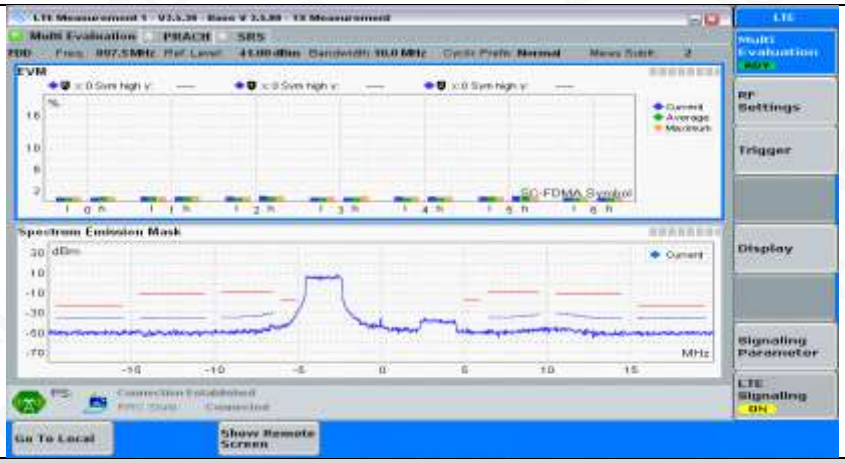
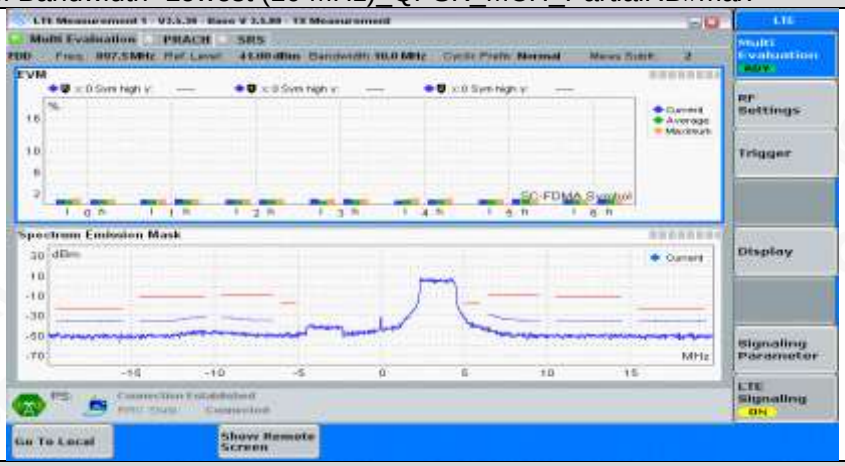
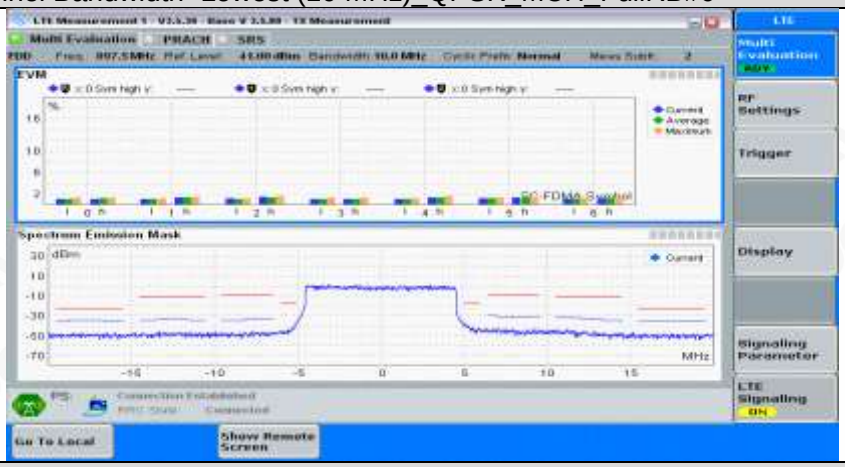
16QAM	
Channel Bandwidth=Lowest (5 MHz)_16QAM_MCH_PartialRB#max	
16QAM	
Channel Bandwidth=Lowest (5 MHz)_16QAM_MCH_FullRB#0	
16QAM	
Channel Bandwidth=Lowest (5 MHz)_16QAM_HCH_PartialRB#0	

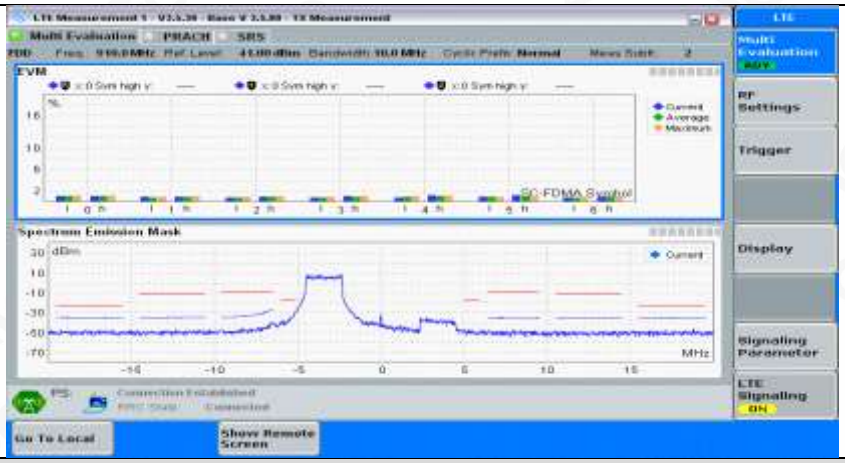
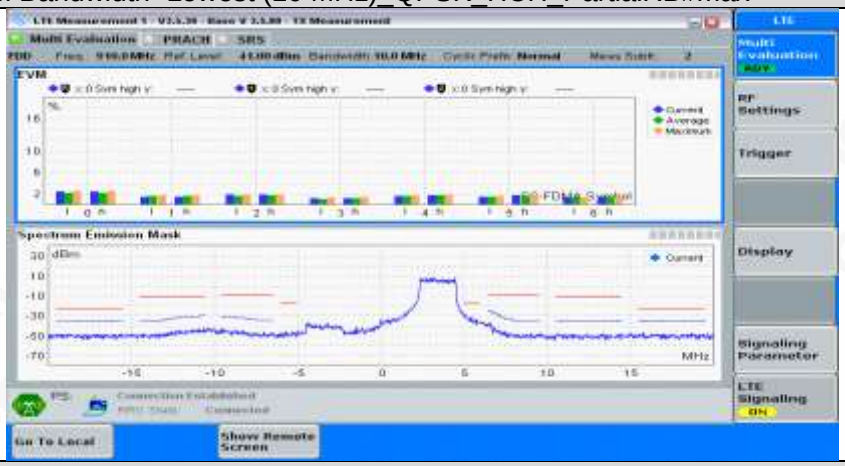
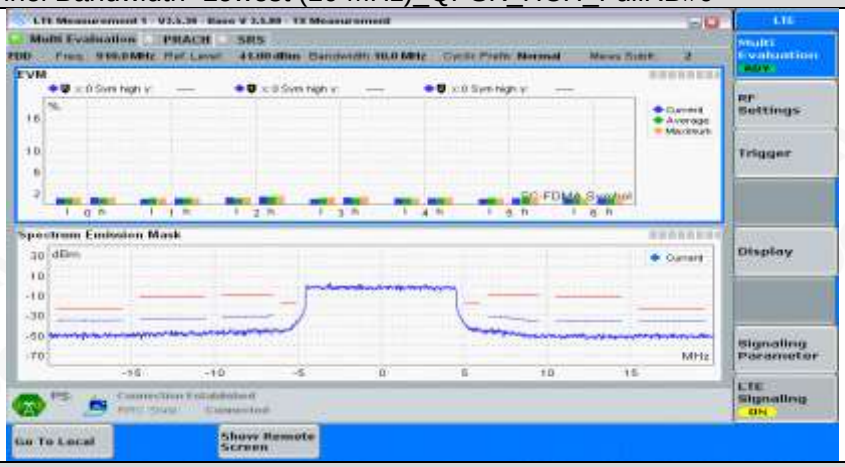
16QAM		
Channel Bandwidth=Lowest (5 MHz)_16QAM_HCH_PartialRB#max		
16QAM		
Channel Bandwidth=Lowest (5 MHz)_16QAM_HCH_FullRB#0		
16QAM		

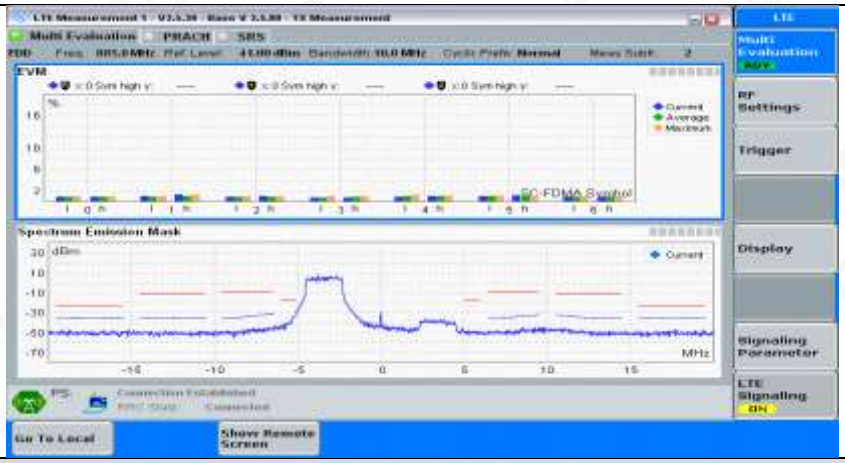
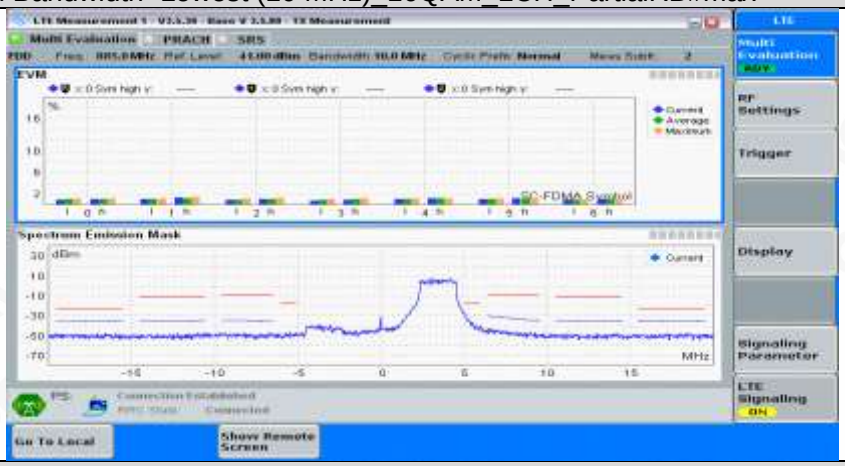
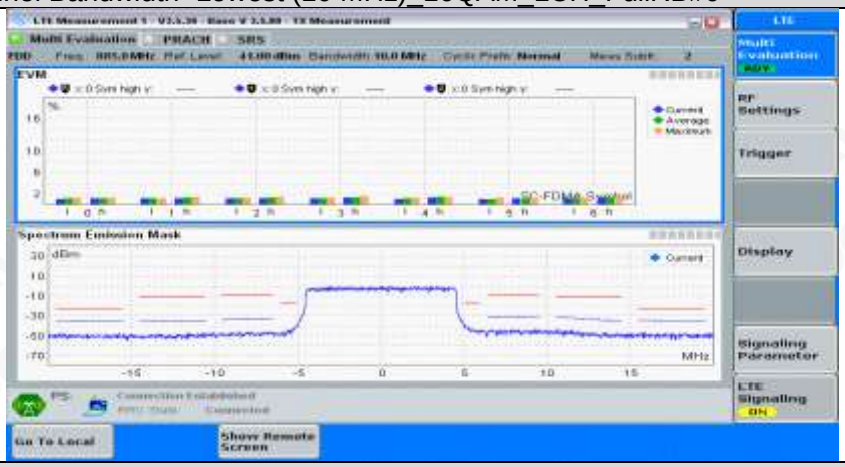
Channel Bandwidth=Highest (10 MHz)

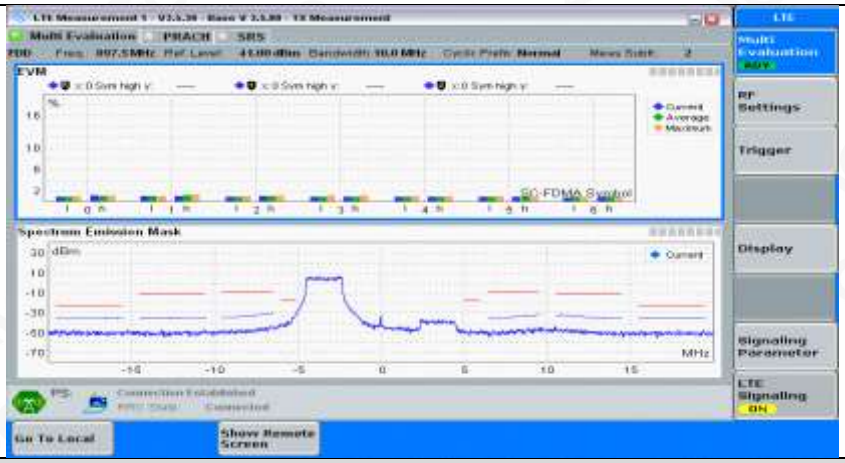
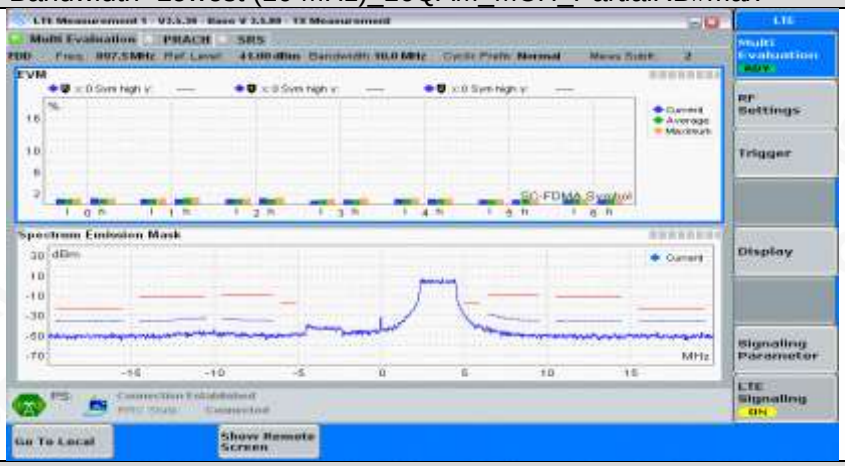
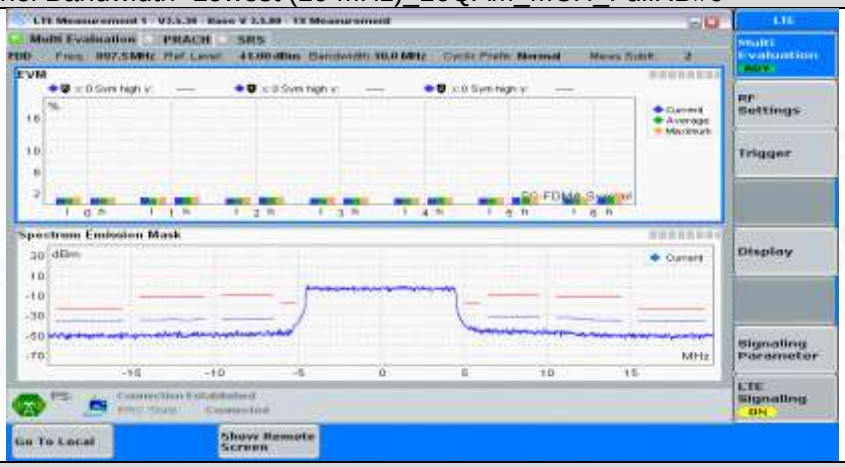
Channel Bandwidth=Lowest (10 MHz)_QPSK_LCH_PartialRB#0

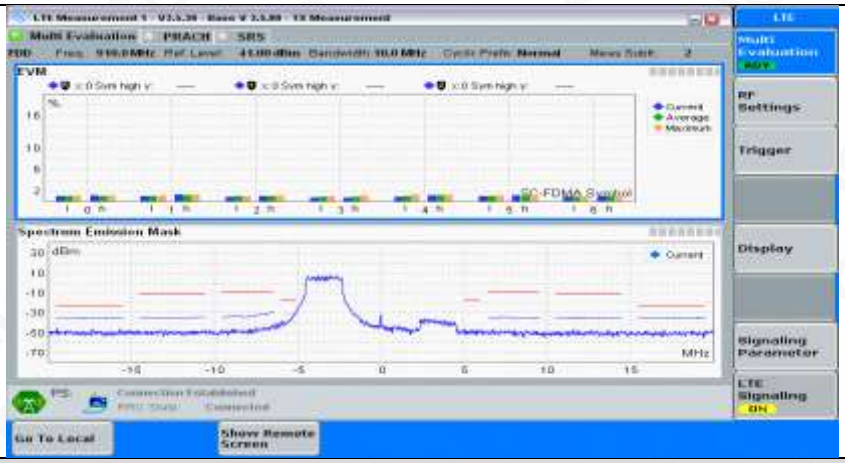
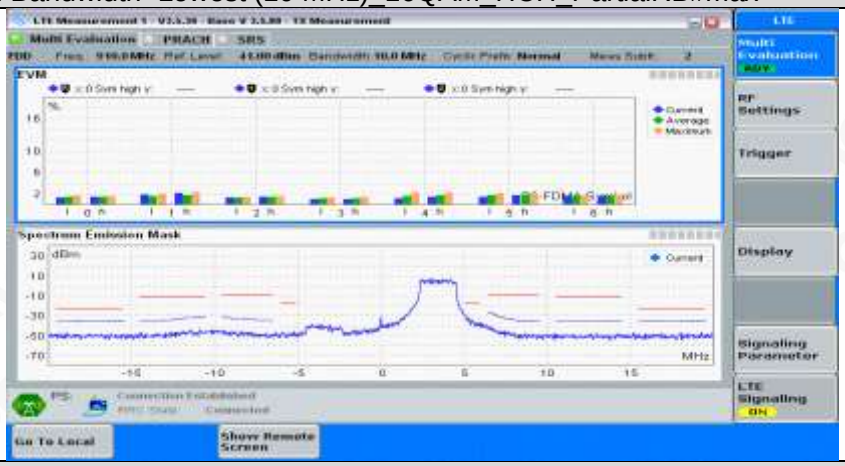
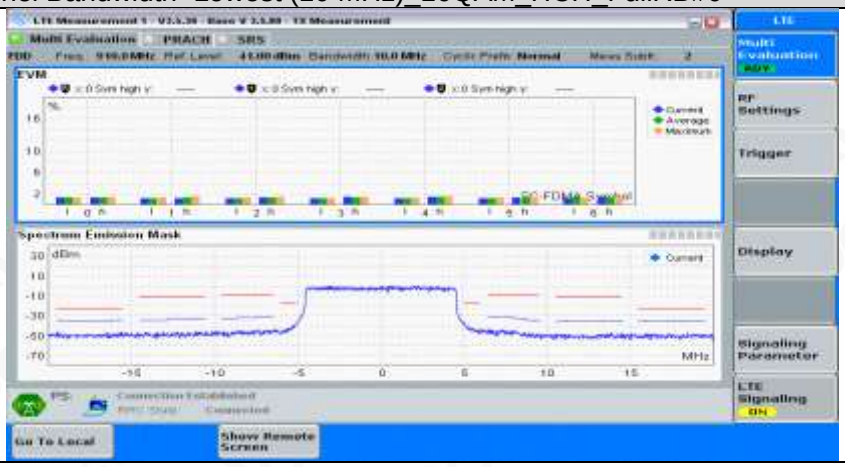
QPSK	
Channel Bandwidth=Lowest (10 MHz)_QPSK_LCH_PartialRB#max	
QPSK	
Channel Bandwidth=Lowest (10 MHz)_QPSK_LCH_FullRB#0	
QPSK	
Channel Bandwidth=Lowest (10 MHz)_QPSK_MCH_PartialRB#0	

QPSK		
Channel Bandwidth=Lowest (10 MHz)_QPSK_MCH_PartialRB#max		
QPSK		
Channel Bandwidth=Lowest (10 MHz)_QPSK_MCH_FullRB#0		
QPSK		
Channel Bandwidth=Lowest (10 MHz)_QPSK_HCH_PartialRB#0		

QPSK	
Channel Bandwidth=Lowest (10 MHz)_QPSK_HCH_PartialRB#max	
QPSK	
Channel Bandwidth=Lowest (10 MHz)_QPSK_HCH_FullRB#0	
QPSK	
Channel Bandwidth=Lowest (10 MHz)_16QAM_LCH_PartialRB#0	

16QAM	
Channel Bandwidth=Lowest (10 MHz)_16QAM_LCH_PartialRB#max	
16QAM	
Channel Bandwidth=Lowest (10 MHz)_16QAM_LCH_FullRB#0	
16QAM	
Channel Bandwidth=Lowest (10 MHz)_16QAM_MCH_PartialRB#0	

16QAM	
Channel Bandwidth=Lowest (10 MHz)_16QAM_MCH_PartialRB#max	
16QAM	
Channel Bandwidth=Lowest (10 MHz)_16QAM_MCH_FullRB#0	
16QAM	
Channel Bandwidth=Lowest (10 MHz)_16QAM_HCH_PartialRB#0	

16QAM		
Channel Bandwidth=Lowest (10 MHz)_16QAM_HCH_PartialRB#max		
16QAM		
Channel Bandwidth=Lowest (10 MHz)_16QAM_HCH_FullRB#0		
16QAM		

4. Transmitter Adjacent Channel Leakage Power Ratio(ACLR)

Test Result

NTNV

Channel Bandwidth=Lowest (1.4 MHz)

Channel Bandwidth=Lowest (1.4 MHz)							
Condition	Modulation	Channel Bandwidth	Channel	RB allocation		UE output power	Verdict
				RB Size	RB Offset		
Normal	QPSK	1.4 MHz	Low range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			Mid range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			High range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
	16QAM		Low range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			Mid range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			High range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass

Channel Bandwidth= (5 MHz)

Channel Bandwidth= (5 MHz)							
Condition	Modulation	Channel Bandwidth	Channel	RB allocation		UE output power	Verdict
				RB Size	RB Offset		
Normal	QPSK	5 MHz	Low range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			Mid range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			High range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass

	16QAM		Low range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			Mid range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			High range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass

Channel Bandwidth=Highest (10 MHz)

Channel Bandwidth=Highest (10 MHz)							
Condition	Modulation	Channel Bandwidth	Channel	RB allocation		UE output power	Verdict
				RB Size	RB Offset		
Normal	QPSK	10 MHz	Low range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			Mid range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			High range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
	16QAM		Low range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			Mid range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			High range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass

Test Graphs

NTNV

Channel Bandwidth=Lowest (1.4 MHz)

Channel Bandwidth=Lowest (1.4 MHz)_QPSK_LCH_PartialRB#0	
QPSK	
Channel Bandwidth=Lowest (1.4 MHz)_QPSK_LCH_PartialRB#max	
QPSK	
Channel Bandwidth=Lowest (1.4 MHz)_QPSK_LCH_FullRB#0	
QPSK	
Channel Bandwidth=Lowest (1.4 MHz)_QPSK_MCH_PartialRB#0	

QPSK	
Channel Bandwidth=Lowest (1.4 MHz)_QPSK_MCH_PartialRB#max	
QPSK	
Channel Bandwidth=Lowest (1.4 MHz)_QPSK_MCH_FullRB#0	
QPSK	
Channel Bandwidth=Lowest (1.4 MHz)_QPSK_HCH_PartialRB#0	
QPSK	#BWL-Img-QPSK-HCH-P-L-TNVN-Aclr
Channel Bandwidth=Lowest (1.4 MHz)_QPSK_HCH_PartialRB#max	

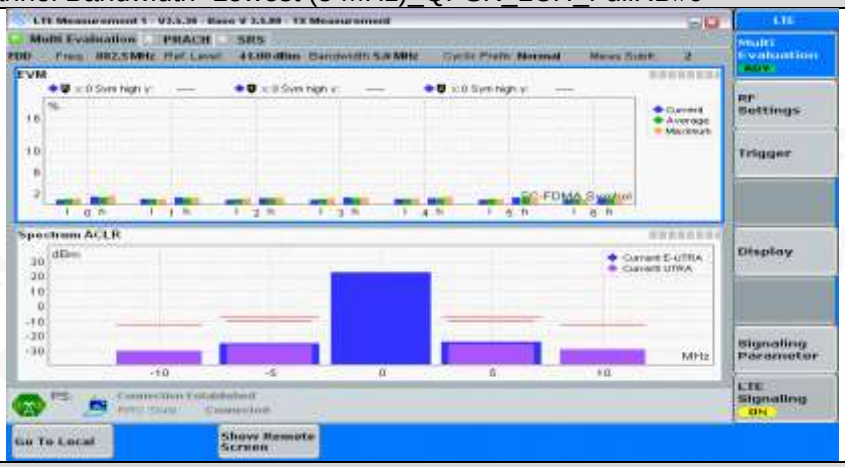
QPSK	
Channel Bandwidth=Lowest (1.4 MHz)_QPSK_HCH_FullRB#0	
QPSK	#BWL-Img-QPSK-HCH-F-L-TNVN-Aclr
Channel Bandwidth=Lowest (1.4 MHz)_16QAM_LCH_PartialRB#0	
16QAM	
Channel Bandwidth=Lowest (1.4 MHz)_16QAM_LCH_PartialRB#max	
16QAM	
Channel Bandwidth=Lowest (1.4 MHz)_16QAM_LCH_FullRB#0	

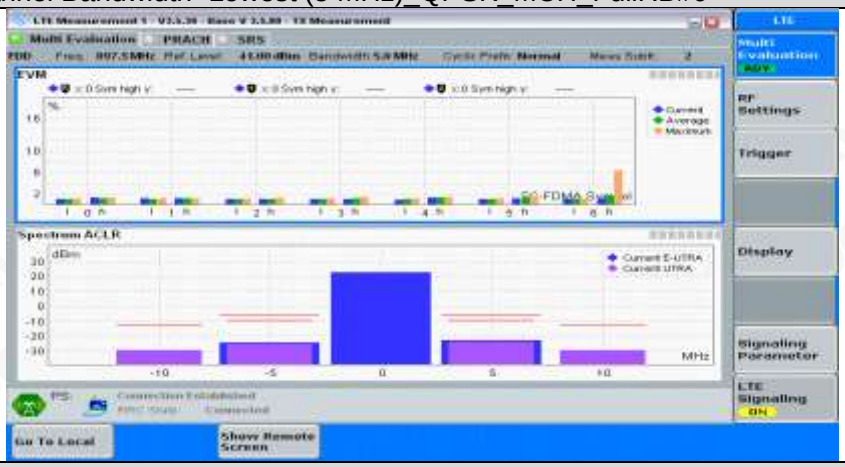
16QAM	
Channel Bandwidth=Lowest (1.4 MHz)_16QAM_MCH_PartialRB#0	
16QAM	
Channel Bandwidth=Lowest (1.4 MHz)_16QAM_MCH_PartialRB#max	
16QAM	
Channel Bandwidth=Lowest (1.4 MHz)_16QAM_MCH_FullRB#0	

16QAM	
Channel Bandwidth=Lowest (1.4 MHz)_16QAM_HCH_PartialRB#0	
16QAM	#BWL-Img-16QAM-HCH-P-L-TNVN-Aclr
Channel Bandwidth=Lowest (1.4 MHz)_16QAM_HCH_PartialRB#max	
16QAM	
Channel Bandwidth=Lowest (1.4 MHz)_16QAM_HCH_FullRB#0	
16QAM	#BWL-Img-16QAM-HCH-F-L-TNVN-Aclr

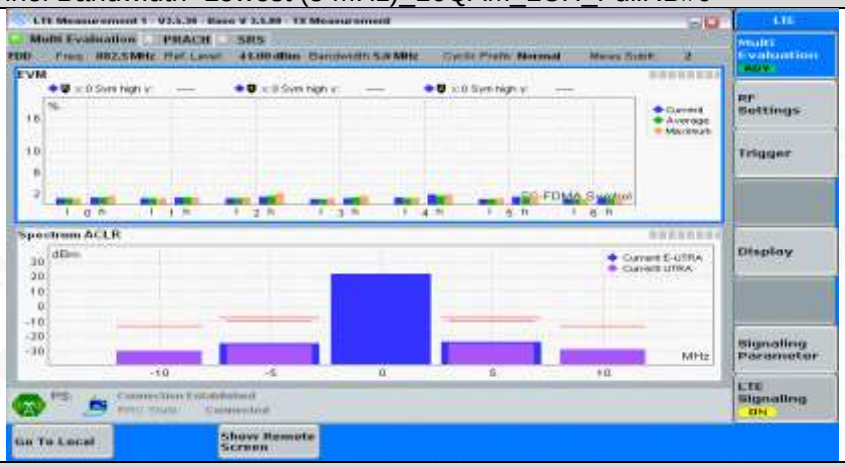
Channel Bandwidth= (5 MHz)

Channel Bandwidth=Lowest (5 MHz)_QPSK_LCH_PartialRB#0

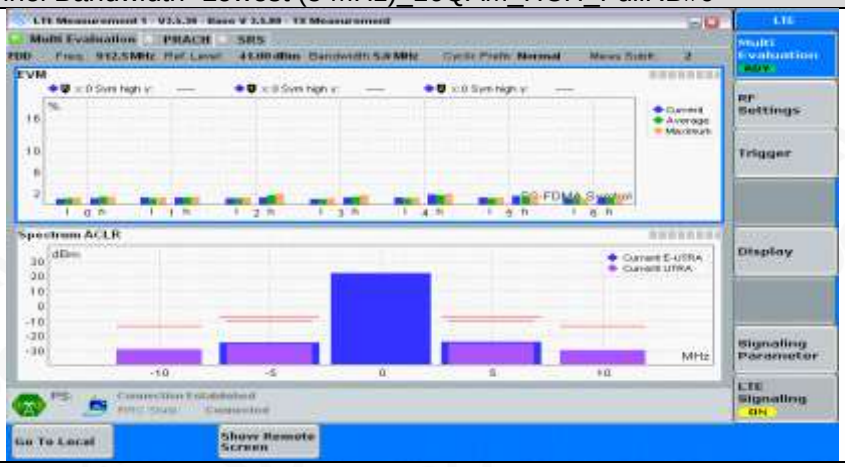
QPSK	
Channel Bandwidth=Lowest (5 MHz)_QPSK_LCH_PartialRB#max	
QPSK	
Channel Bandwidth=Lowest (5 MHz)_QPSK_LCH_FullRB#0	
QPSK	
Channel Bandwidth=Lowest (5 MHz)_QPSK_MCH_PartialRB#0	

QPSK	
Channel Bandwidth=Lowest (5 MHz)_QPSK_MCH_PartialRB#max	
QPSK	
Channel Bandwidth=Lowest (5 MHz)_QPSK_MCH_FullRB#0	
QPSK	
Channel Bandwidth=Lowest (5 MHz)_QPSK_HCH_PartialRB#0	

QPSK	
Channel Bandwidth=Lowest (5 MHz)_QPSK_HCH_PartialRB#max	
QPSK	
Channel Bandwidth=Lowest (5 MHz)_QPSK_HCH_FullRB#0	
QPSK	
Channel Bandwidth=Lowest (5 MHz)_16QAM_LCH_PartialRB#0	

16QAM	
Channel Bandwidth=Lowest (5 MHz)_16QAM_LCH_PartialRB#max	
16QAM	
Channel Bandwidth=Lowest (5 MHz)_16QAM_LCH_FullRB#0	
16QAM	
Channel Bandwidth=Lowest (5 MHz)_16QAM_MCH_PartialRB#0	

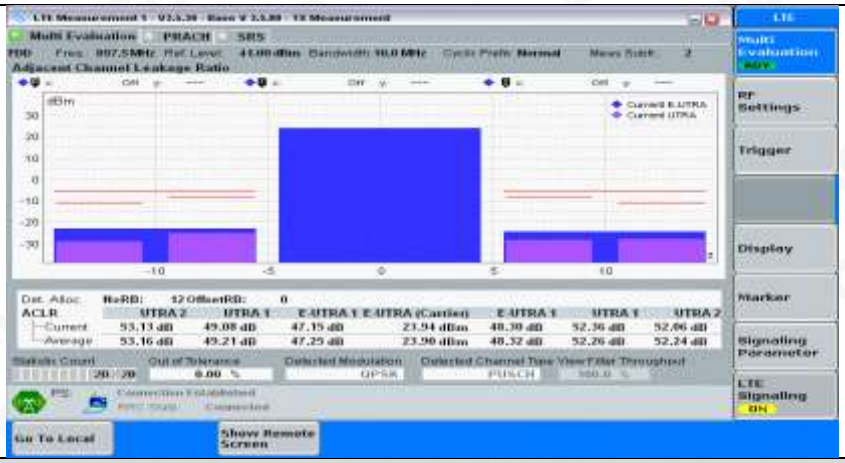
16QAM	
Channel Bandwidth=Lowest (5 MHz)_16QAM_MCH_PartialRB#max	
16QAM	
Channel Bandwidth=Lowest (5 MHz)_16QAM_MCH_FullRB#0	
16QAM	
Channel Bandwidth=Lowest (5 MHz)_16QAM_HCH_PartialRB#0	

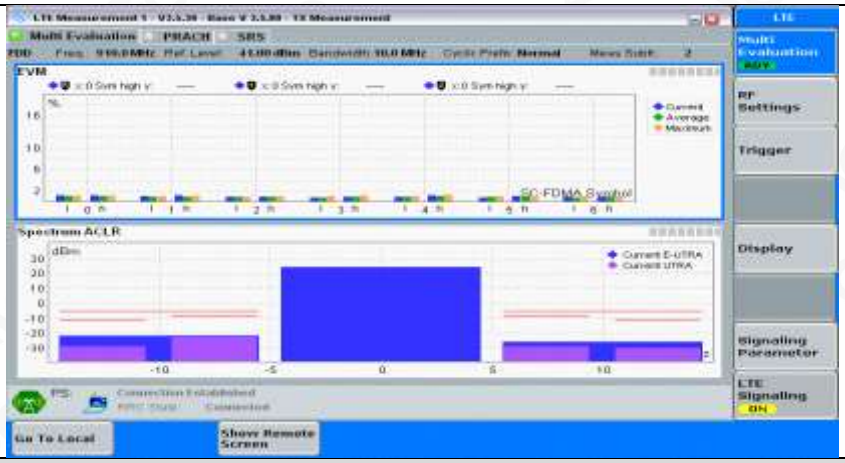
16QAM		
Channel Bandwidth=Lowest (5 MHz)_16QAM_HCH_PartialRB#max		
16QAM		
Channel Bandwidth=Lowest (5 MHz)_16QAM_HCH_FullRB#0		
16QAM		

Channel Bandwidth=Highest (10 MHz)

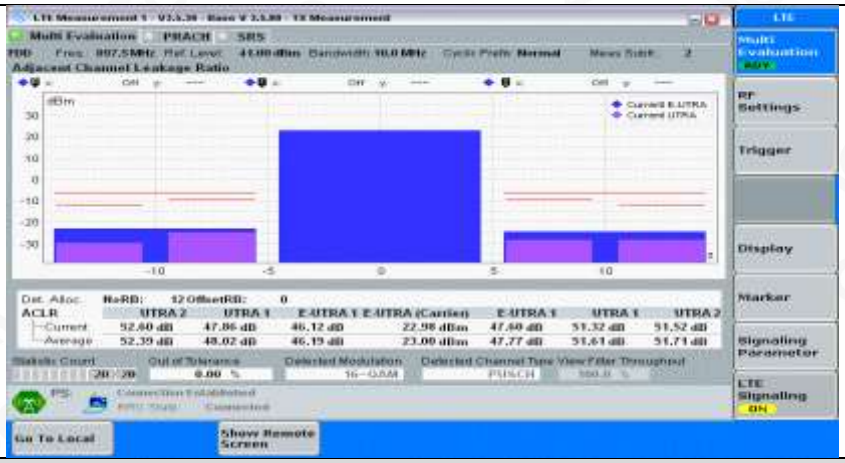
Channel Bandwidth=Lowest (10 MHz)_QPSK_LCH_PartialRB#0

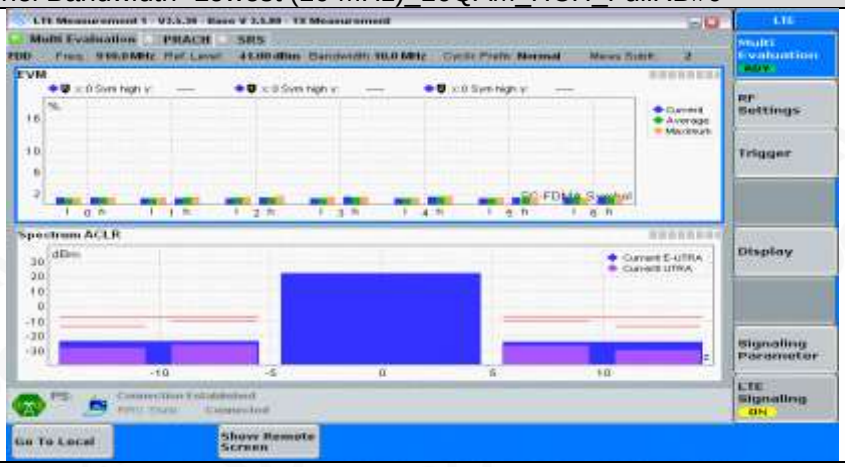
QPSK		
Channel Bandwidth=Lowest (10 MHz)_QPSK_LCH_PartialRB#max		
QPSK		
Channel Bandwidth=Lowest (10 MHz)_QPSK_LCH_FullRB#0		
QPSK		
Channel Bandwidth=Lowest (10 MHz)_QPSK_MCH_PartialRB#0		

QPSK		
Channel Bandwidth=Lowest (10 MHz)_QPSK_MCH_PartialRB#max		
QPSK		
Channel Bandwidth=Lowest (10 MHz)_QPSK_MCH_FullRB#0		
QPSK		
Channel Bandwidth=Lowest (10 MHz)_QPSK_HCH_PartialRB#0		

QPSK	
Channel Bandwidth=Lowest (10 MHz)_QPSK_HCH_PartialRB#max	
QPSK	
Channel Bandwidth=Lowest (10 MHz)_QPSK_HCH_FullRB#0	
QPSK	
Channel Bandwidth=Lowest (10 MHz)_16QAM_LCH_PartialRB#0	

16QAM		
Channel Bandwidth=Lowest (10 MHz)_16QAM_LCH_PartialRB#max		
16QAM		
Channel Bandwidth=Lowest (10 MHz)_16QAM_LCH_FullRB#0		
16QAM		
Channel Bandwidth=Lowest (10 MHz)_16QAM_MCH_PartialRB#0		

16QAM		
Channel Bandwidth=Lowest (10 MHz)_16QAM_MCH_PartialRB#max		
16QAM		
Channel Bandwidth=Lowest (10 MHz)_16QAM_MCH_FullRB#0		
16QAM		
Channel Bandwidth=Lowest (10 MHz)_16QAM_HCH_PartialRB#0		

16QAM		
Channel Bandwidth=Lowest (10 MHz)_16QAM_HCH_PartialRB#max		
16QAM		
Channel Bandwidth=Lowest (10 MHz)_16QAM_HCH_FullRB#0		
16QAM		

5. Transmitter Spurious Emissions

Test Result

NTNV

Channel Bandwidth=Lowest (1.4 MHz)

Channel Bandwidth=Lowest (1.4 MHz)							
Condition	Modulation	Channel Bandwidth	Channel	RB allocation		UE output power	Verdict
				RB Size	RB Offset		
Normal	QPSK	1.4 MHz	Low range	1	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			Mid range	1	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			High range	1	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass

Channel Bandwidth= (5 MHz)

Channel Bandwidth= (5 MHz)							
Condition	Modulation	Channel Bandwidth	Channel	RB allocation		UE output power	Verdict
				RB Size	RB Offset		
Normal	QPSK	5 MHz	Low range	1	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			Mid range	1	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			High range	1	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass

Channel Bandwidth=Highest (10 MHz)

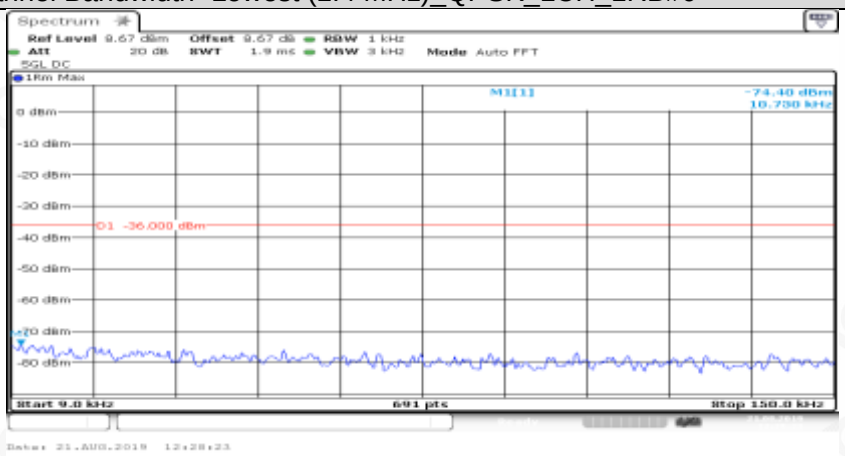
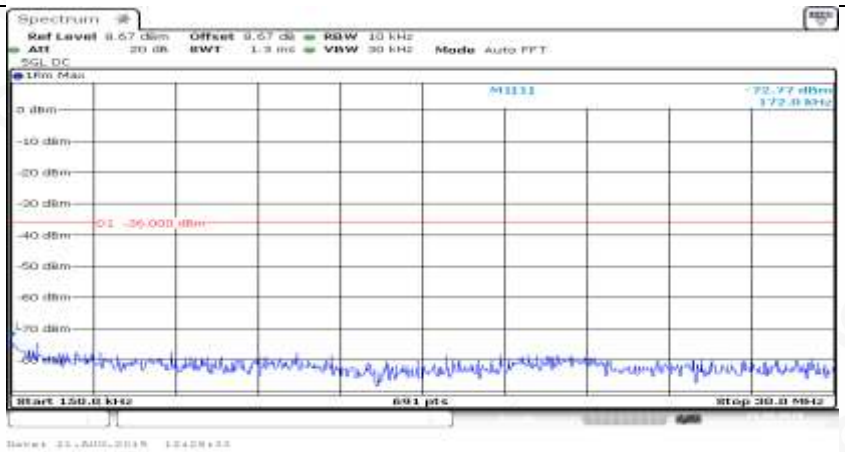
Channel Bandwidth=Highest (10 MHz)							
Condition	Modulation	Channel Bandwidth	Channel	RB allocation		UE output power	Verdict
				RB Size	RB Offset		

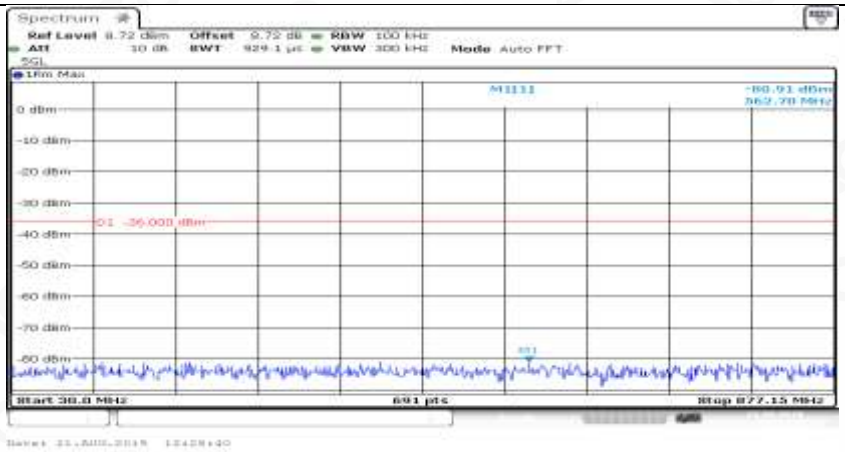
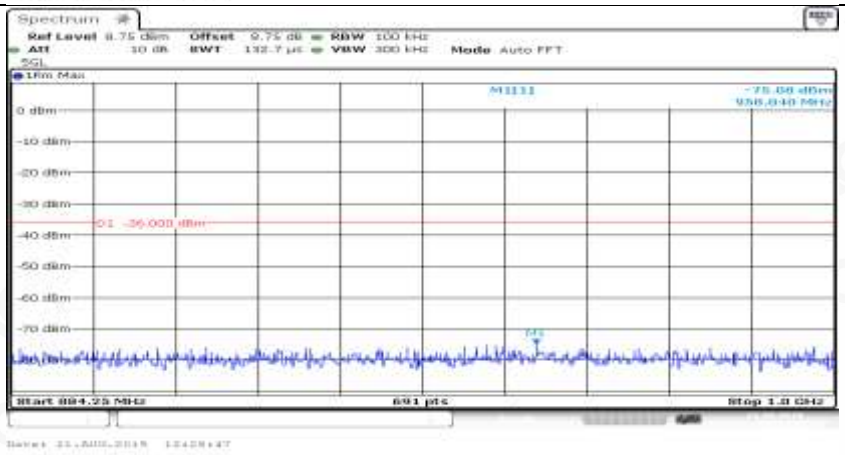
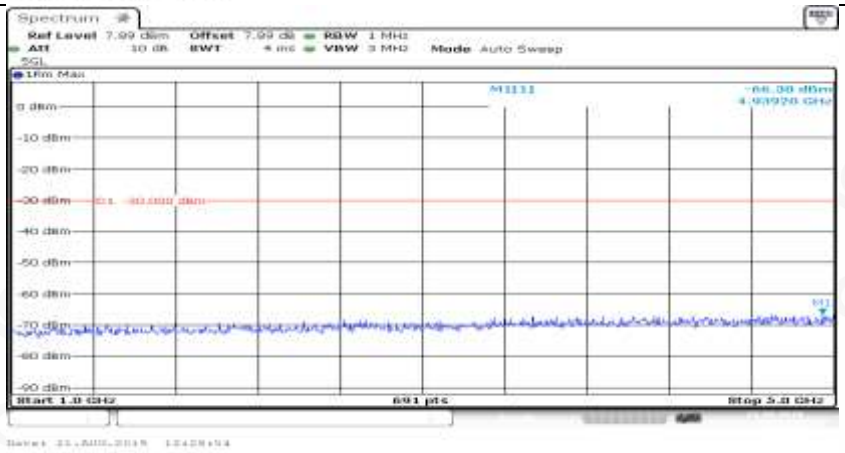
Normal	QPSK	10 MHz	Low range	1	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			Mid range	1	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			High range	1	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass

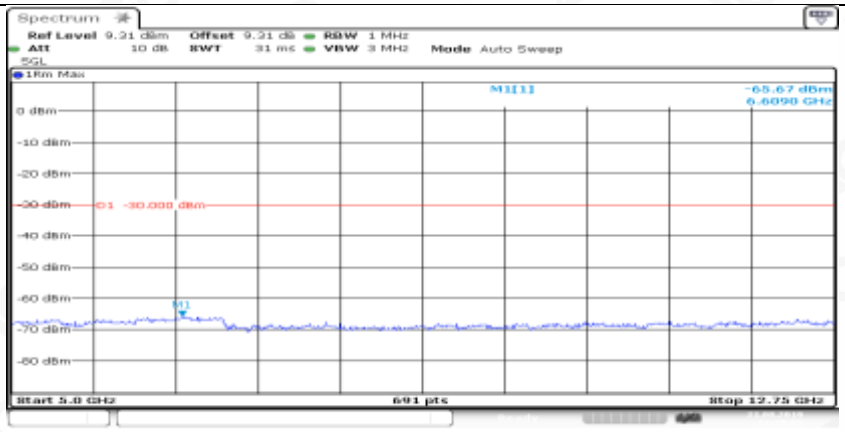
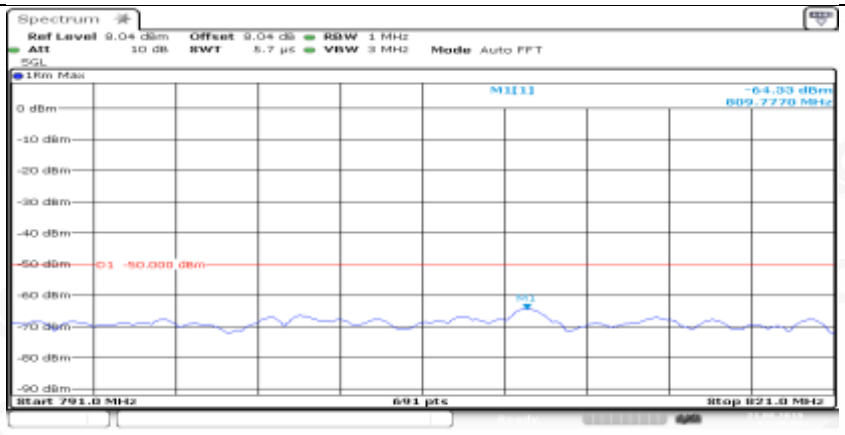
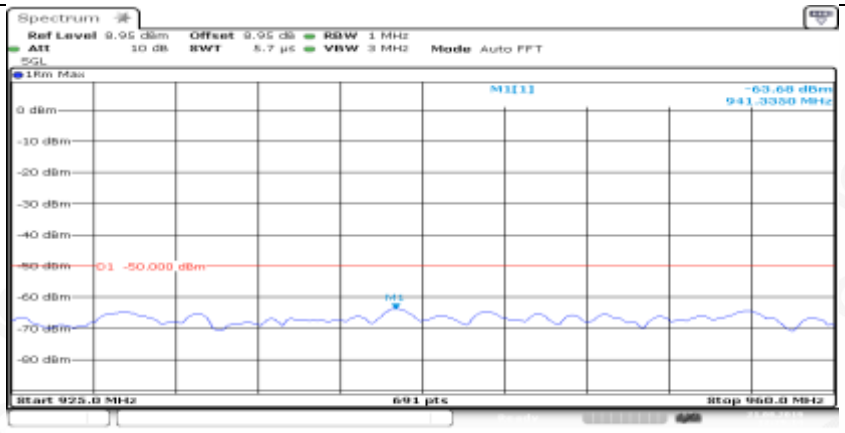
Test Graphs

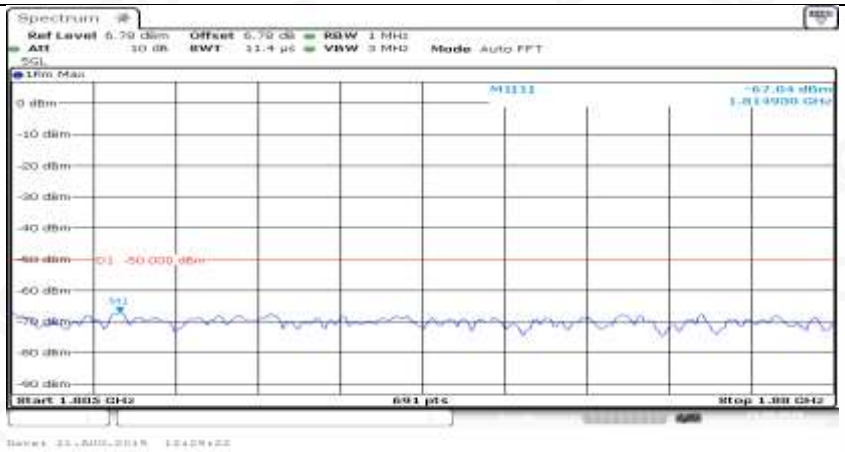
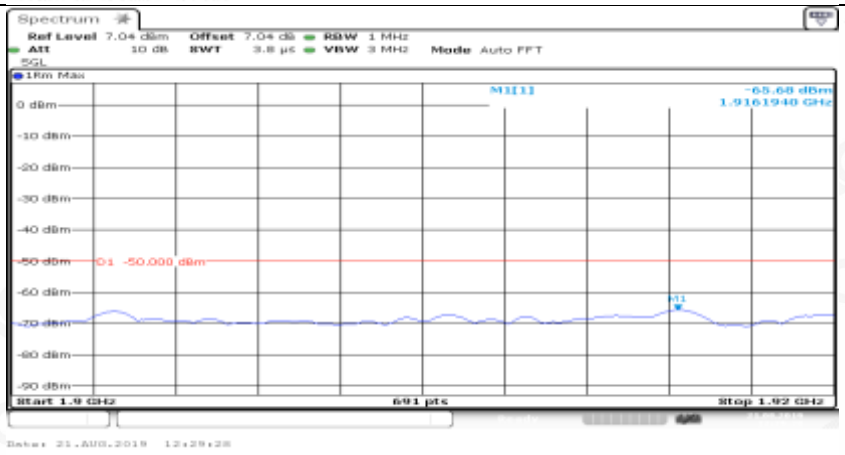
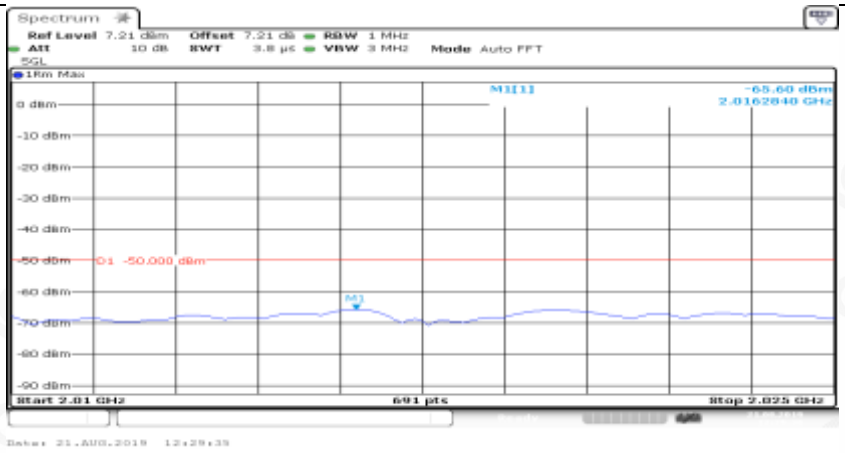
NTNV

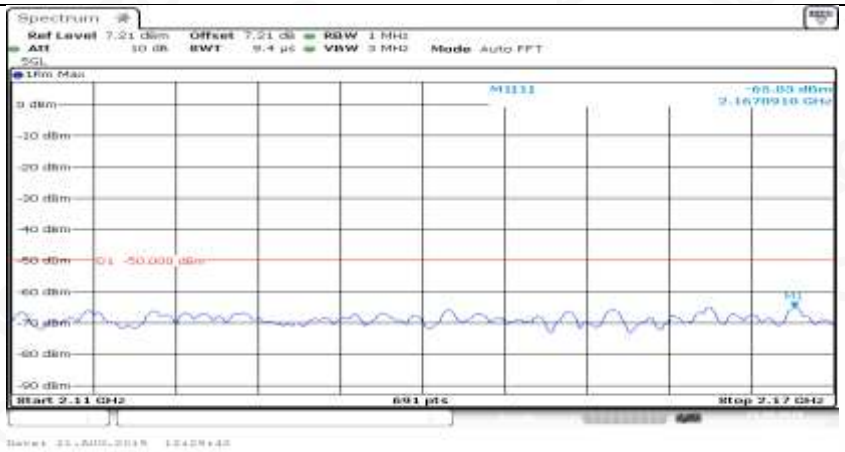
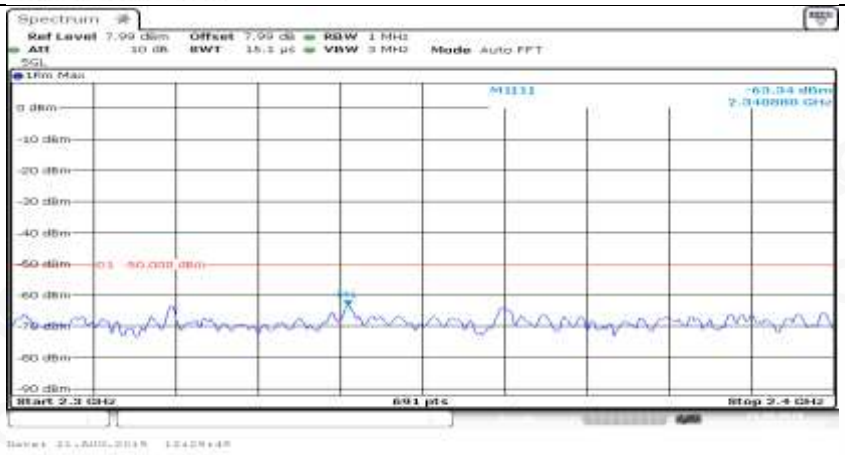
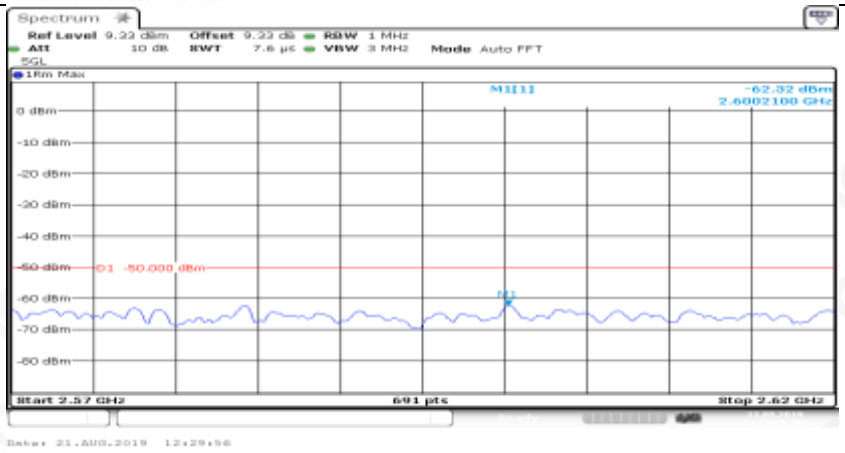
Channel Bandwidth=Lowest (1.4 MHz)

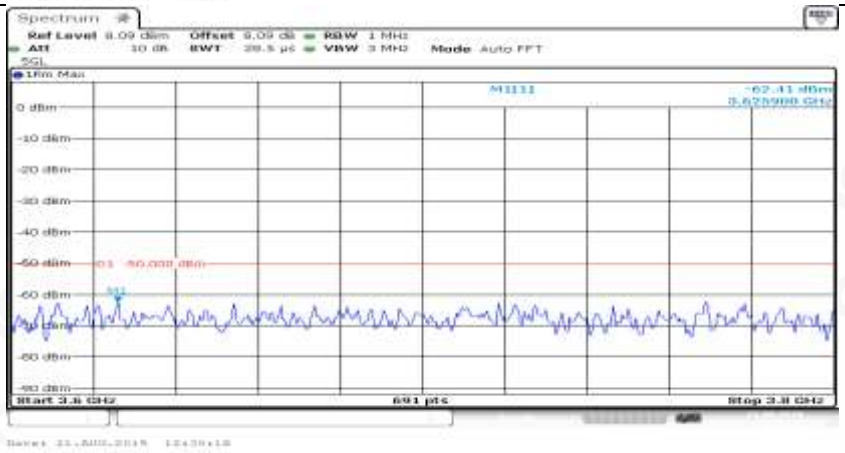
Channel Bandwidth=Lowest (1.4 MHz)_QPSK_LCH_1RB#0	
General	
General	

General	
General	
General	

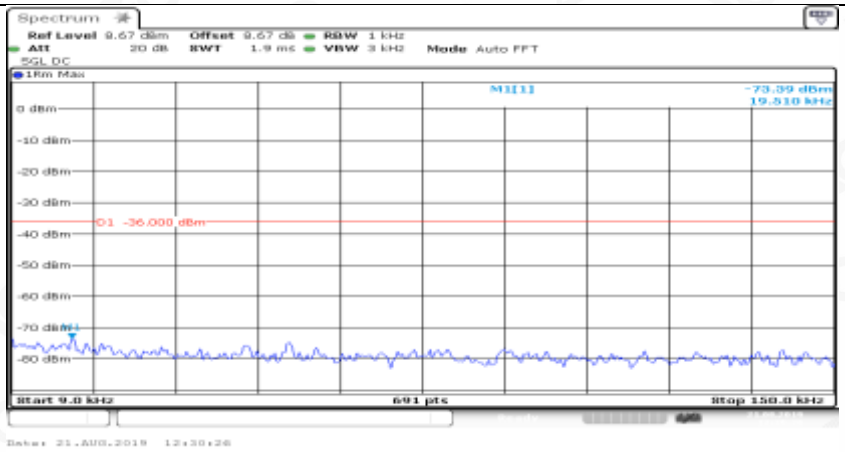
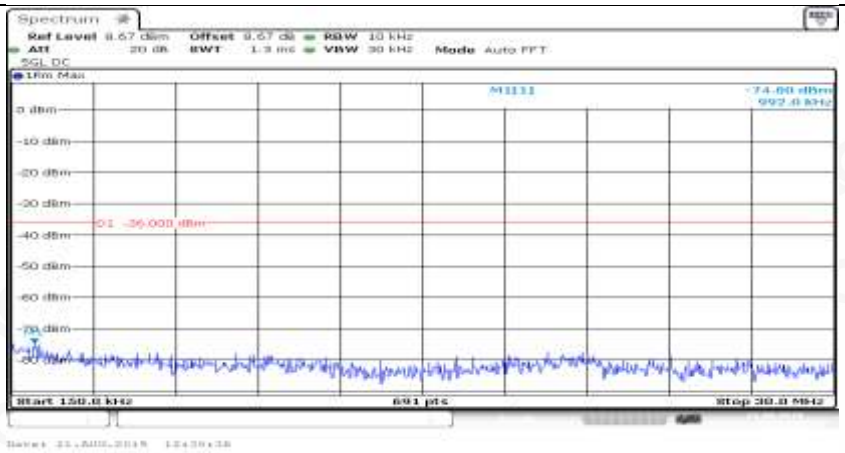
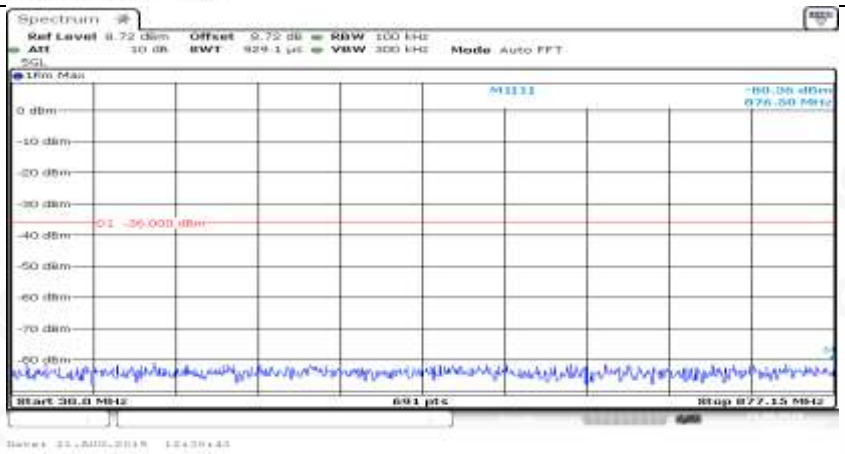
General	
Co-existence	
Co-existence	

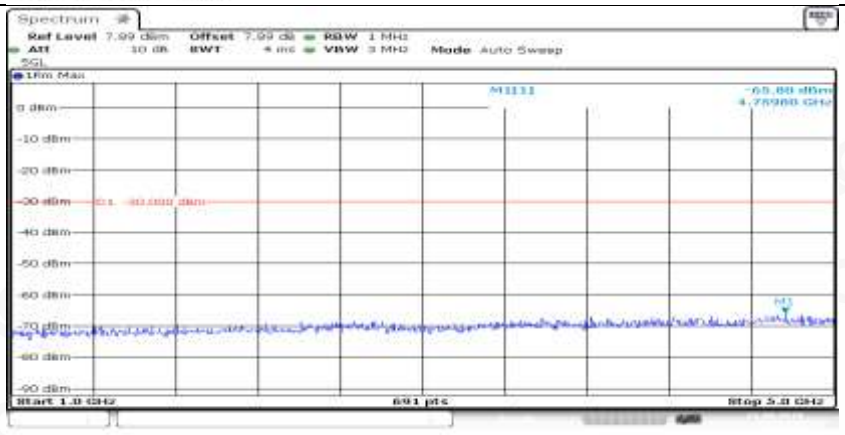
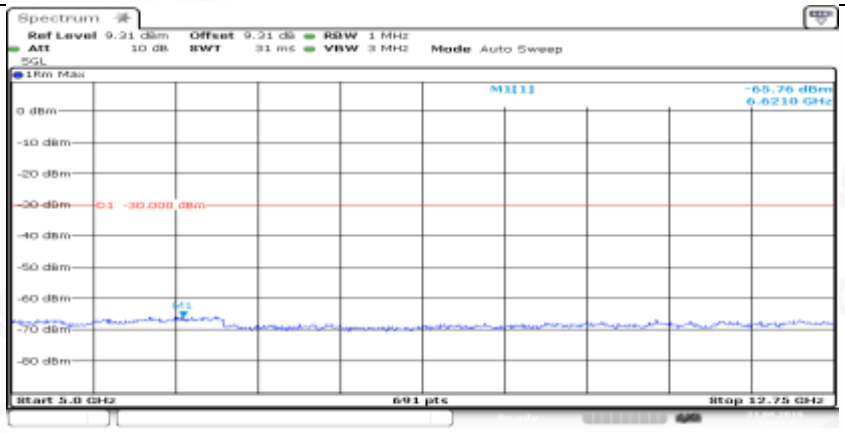
Co-existence	
Co-existence	
Co-existence	

Co-existence	
Co-existence	
Co-existence	

Co-existence	
Co-existence	
Co-existence	
Additional	NA

Channel Bandwidth=Lowest (1.4 MHz)_QPSK_LCH_1RB#max

General	
General	
General	

General	
General	
General	

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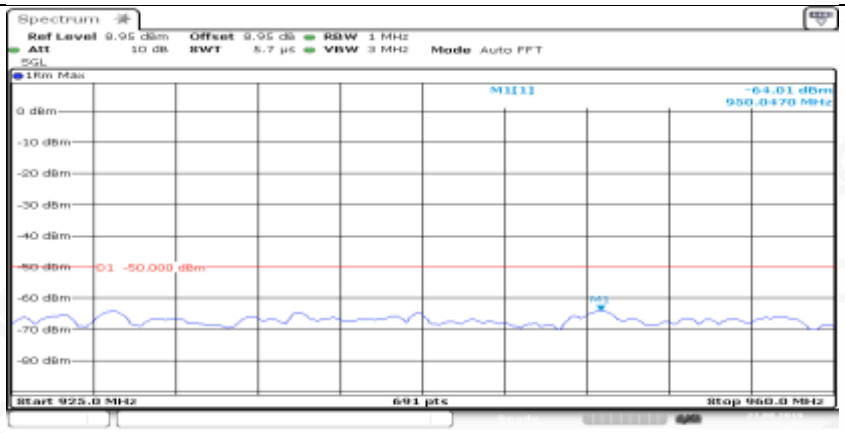
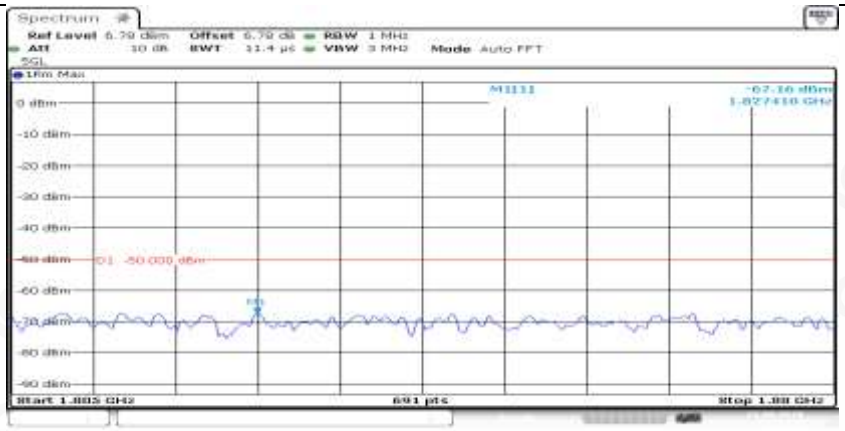
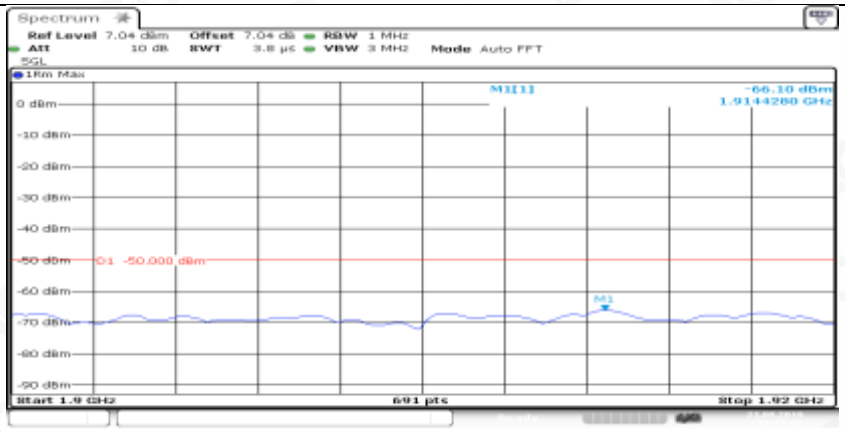
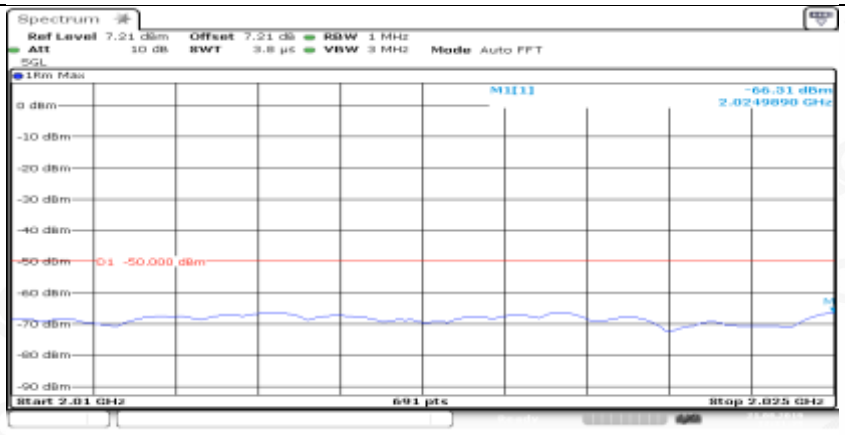
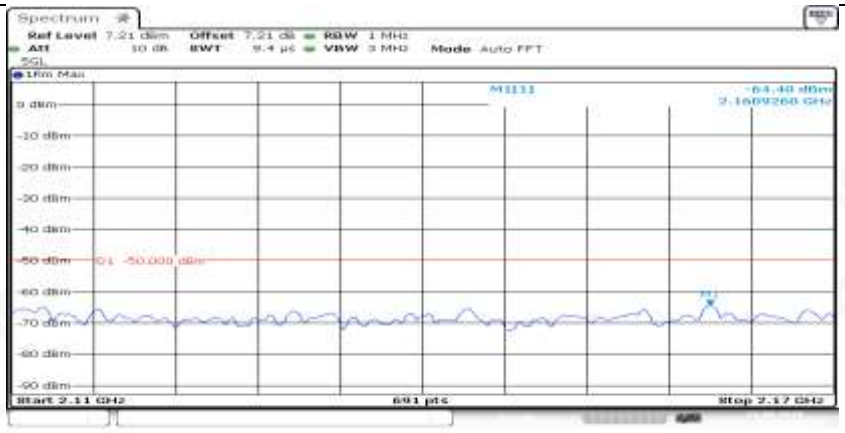
Co-existence	
Co-existence	

Co-existence	
Co-existence	
Co-existence	

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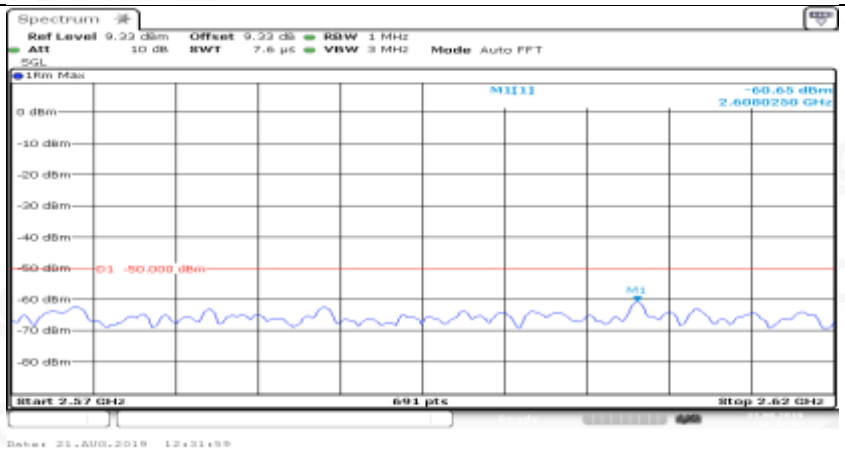
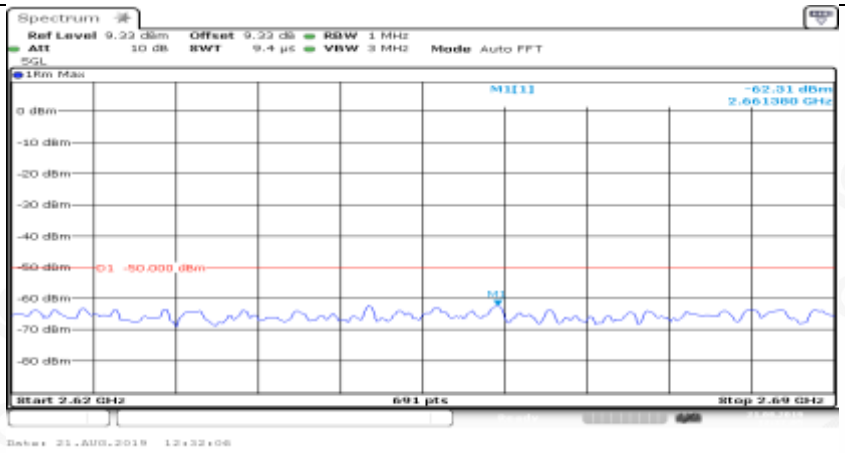
Co-existence	
Co-existence	

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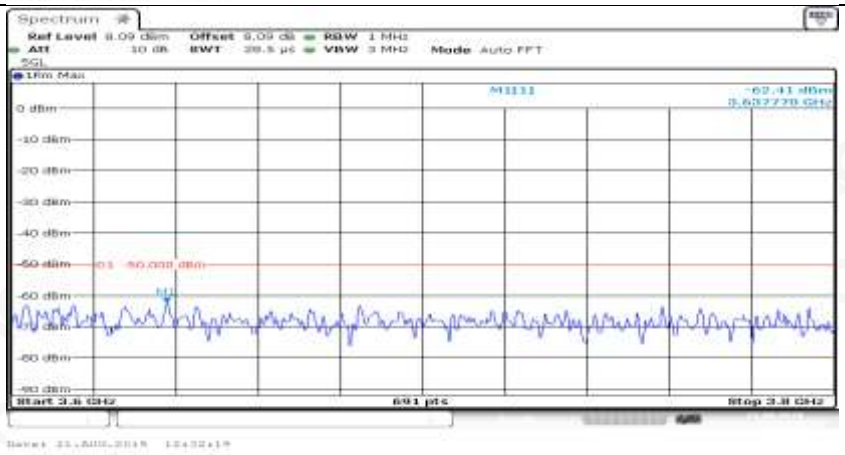
Co-existence	
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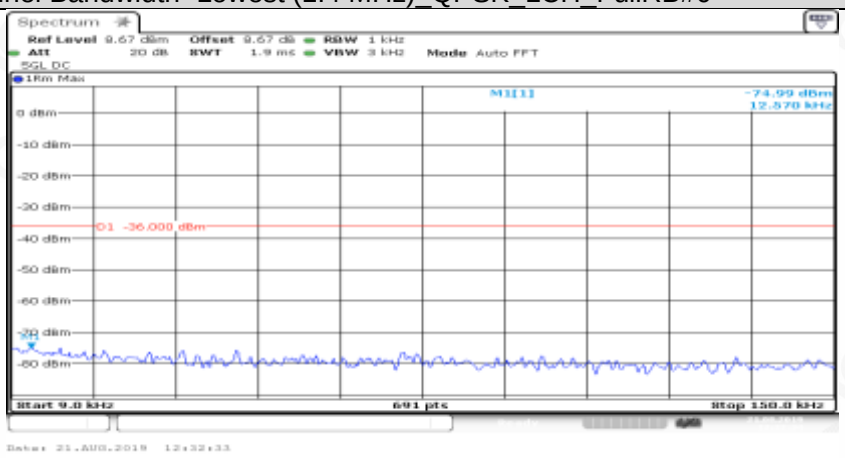
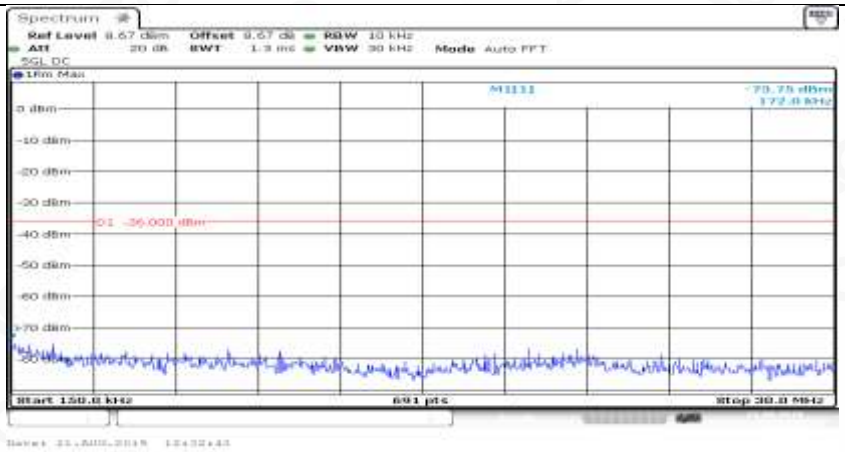
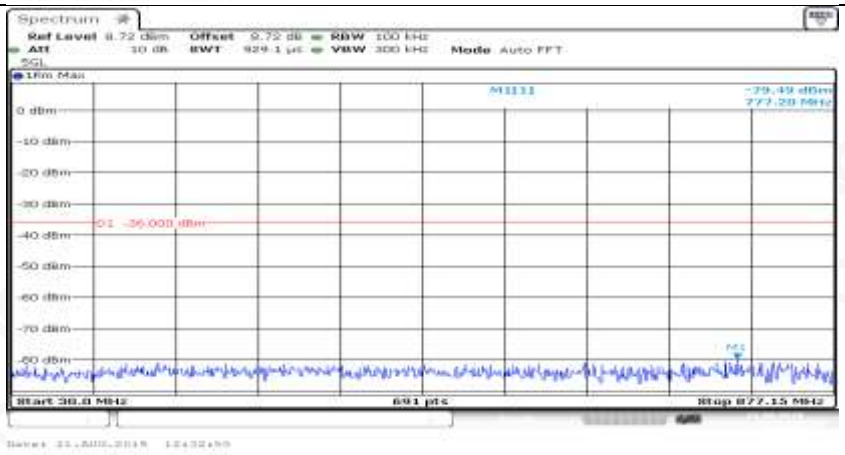
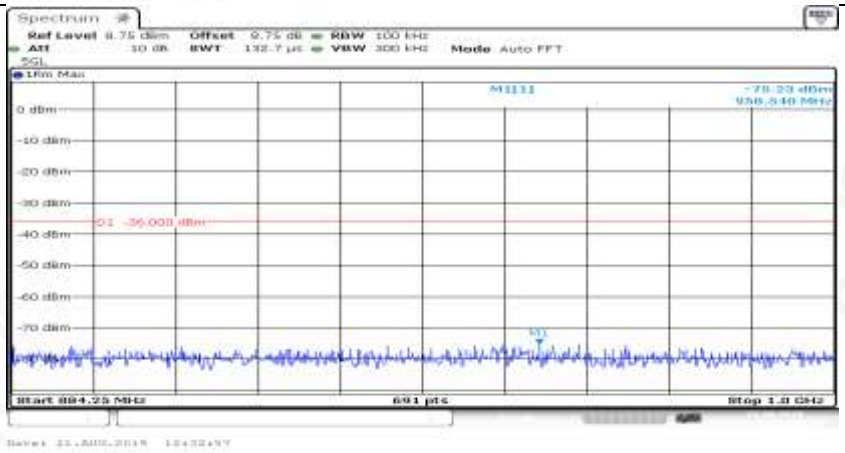
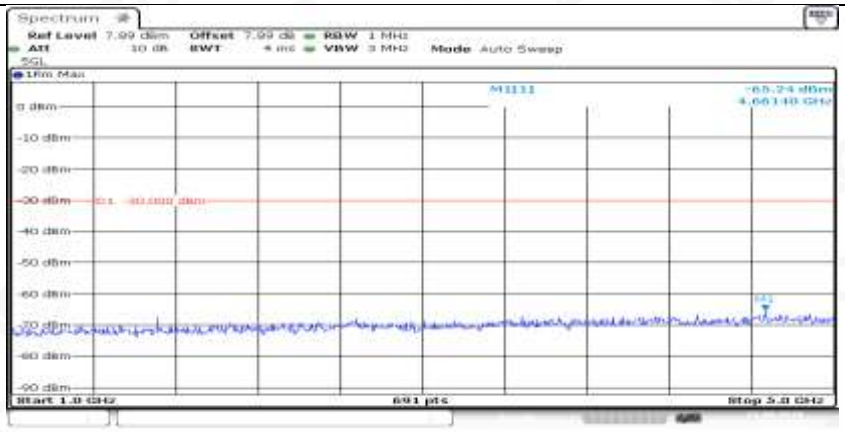
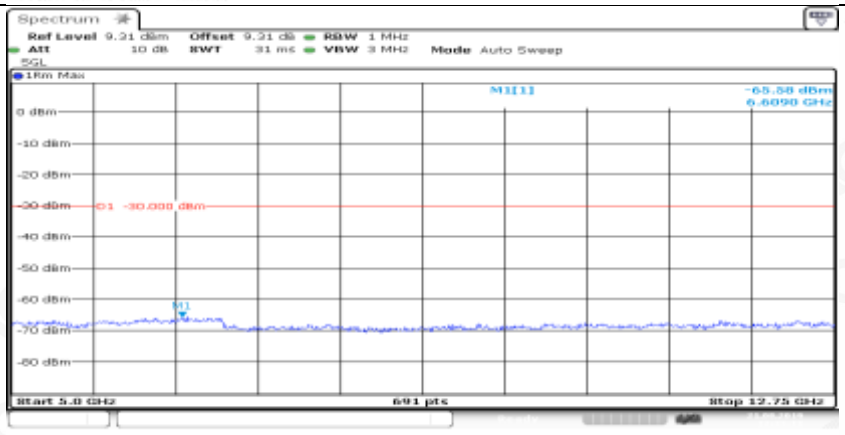
General	

General	
General	
General	

General	
General	
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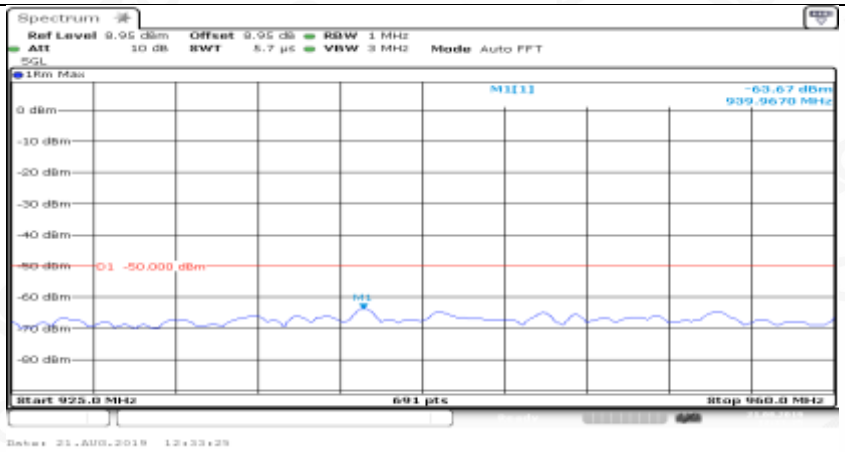
Co-existence	
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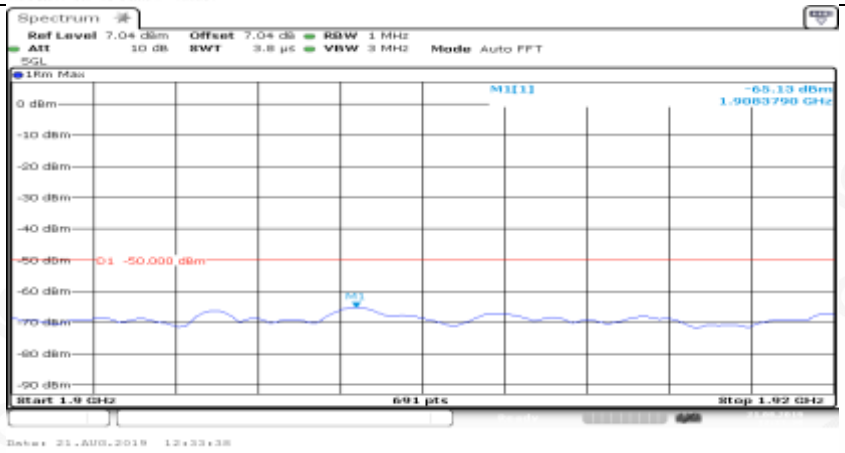
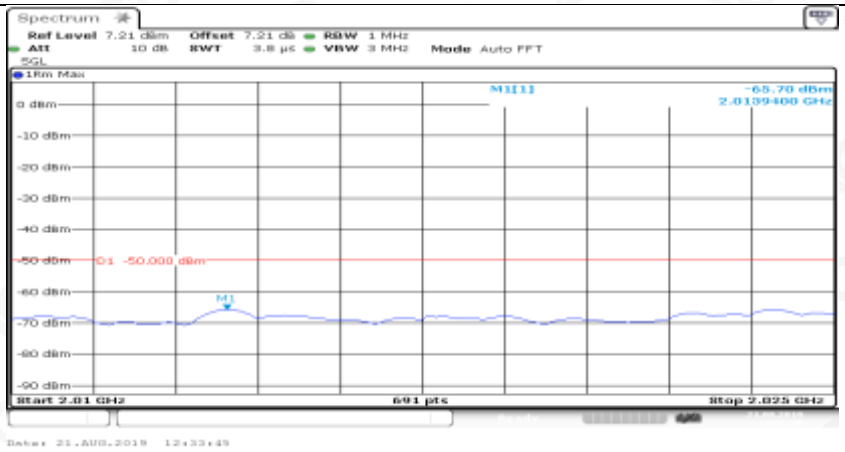
Co-existence	

Co-existence	
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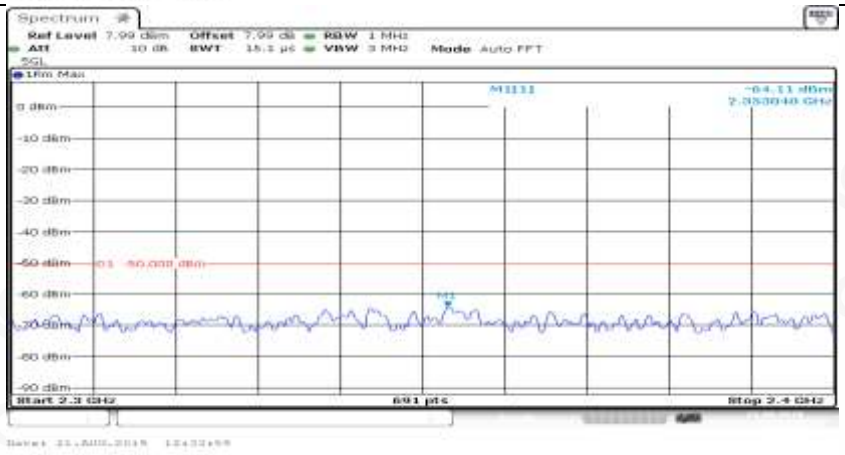
Co-existence	

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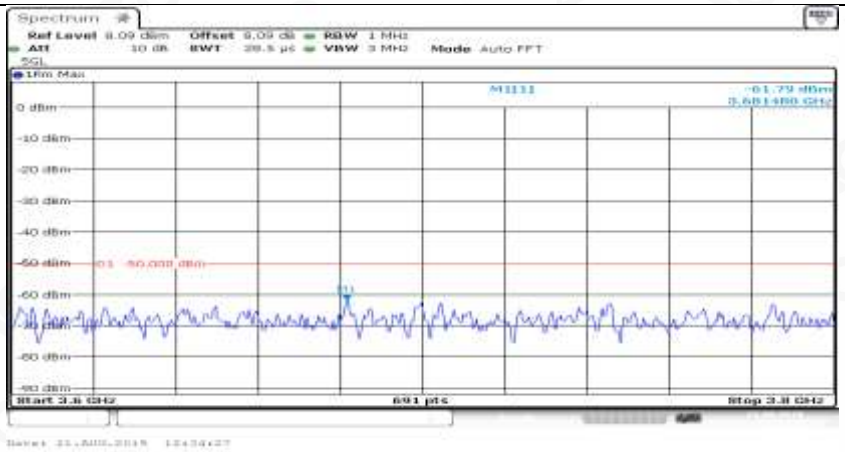
Co-existence	
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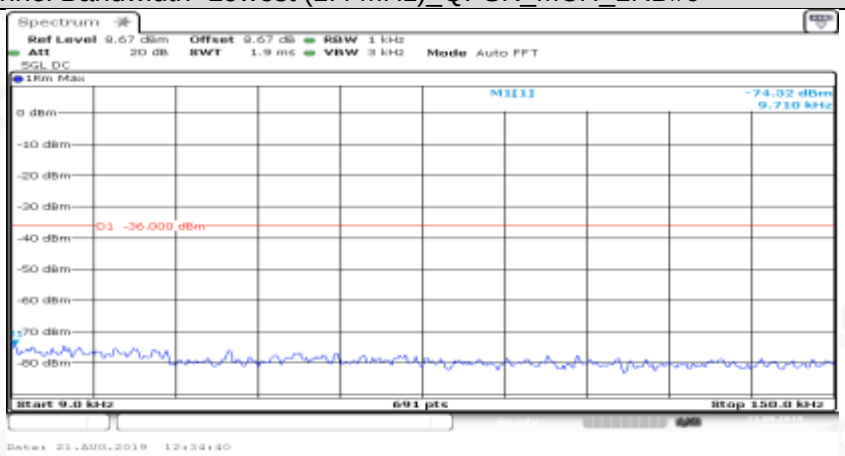
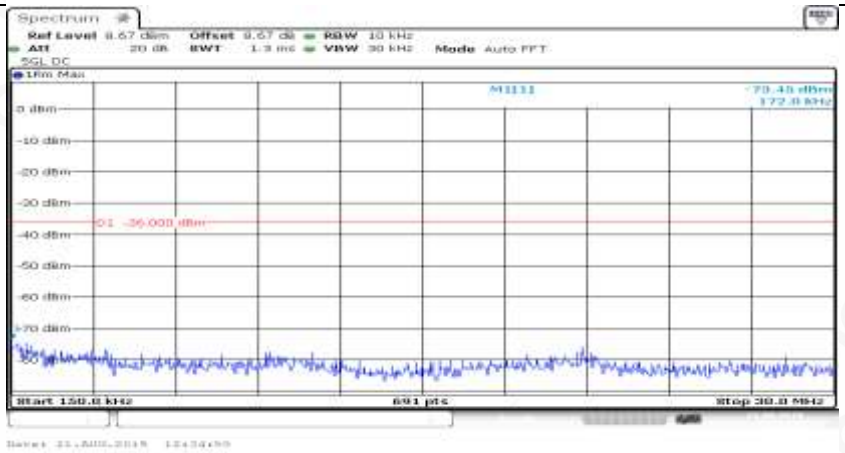
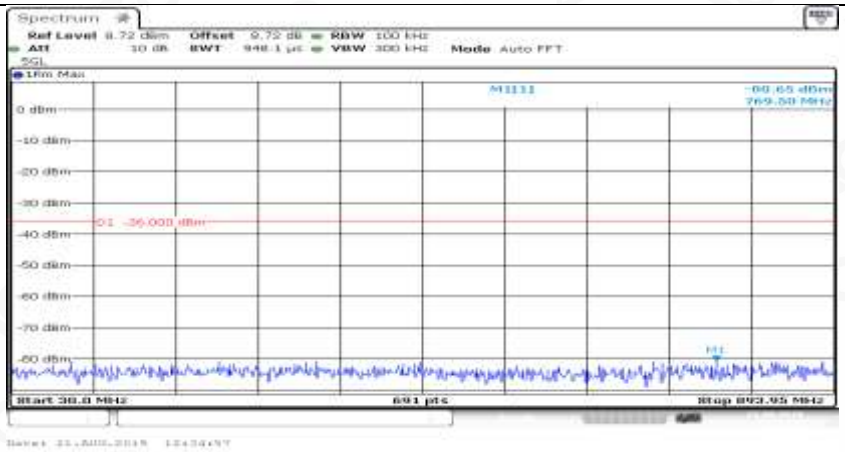
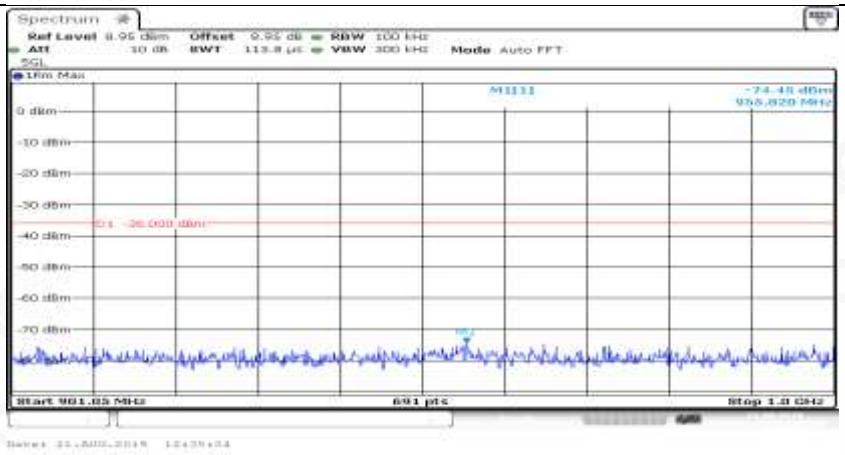
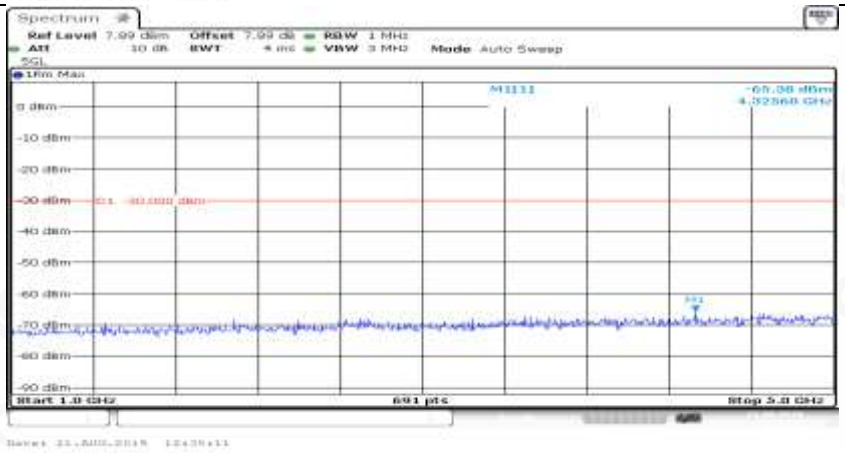
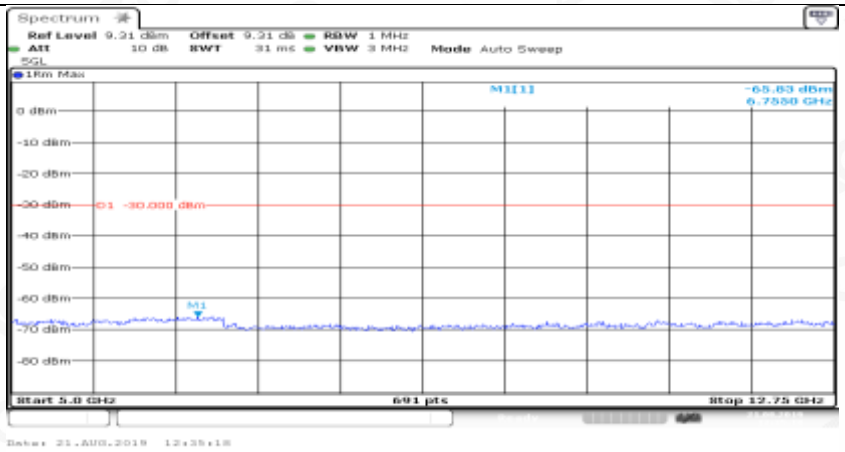
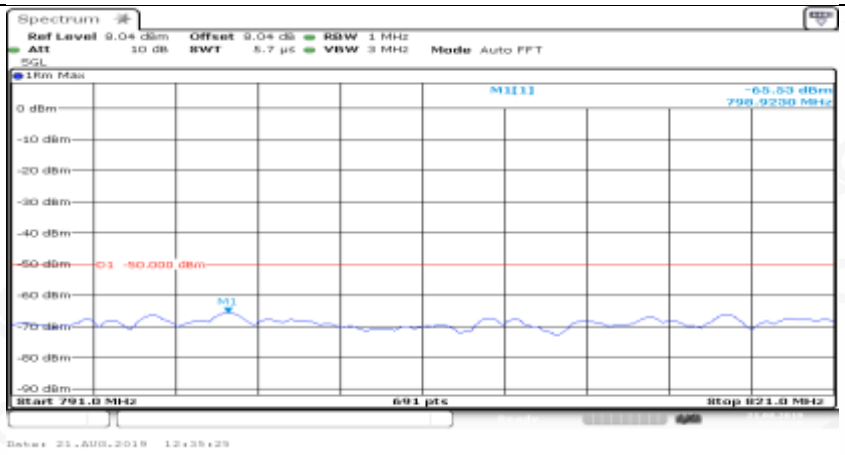
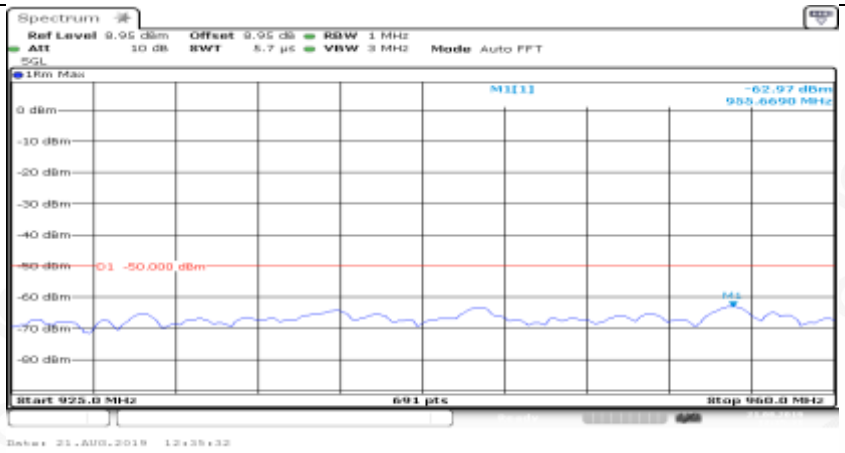
General	
General	

General	
General	
General	

General	
Co-existence	
Co-existence	

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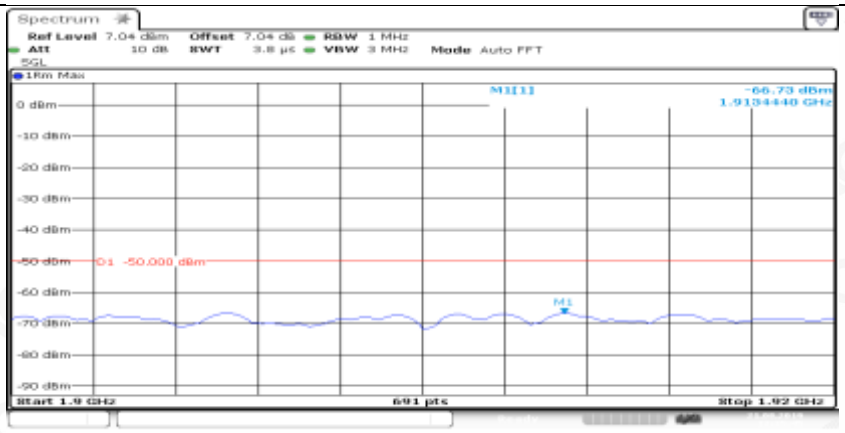
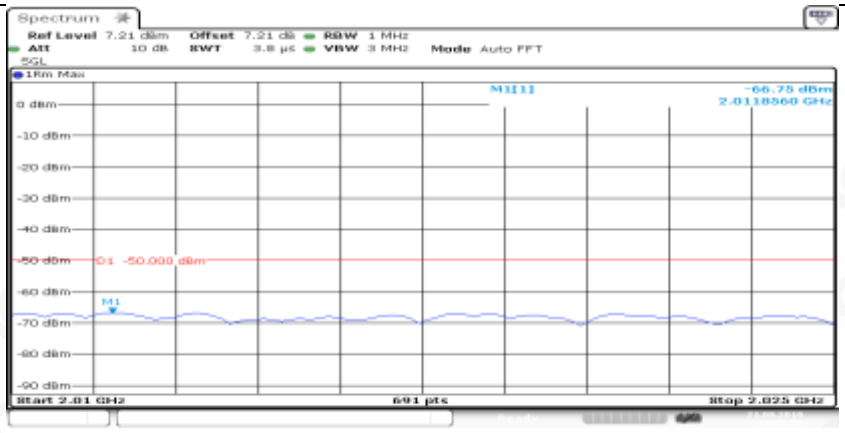
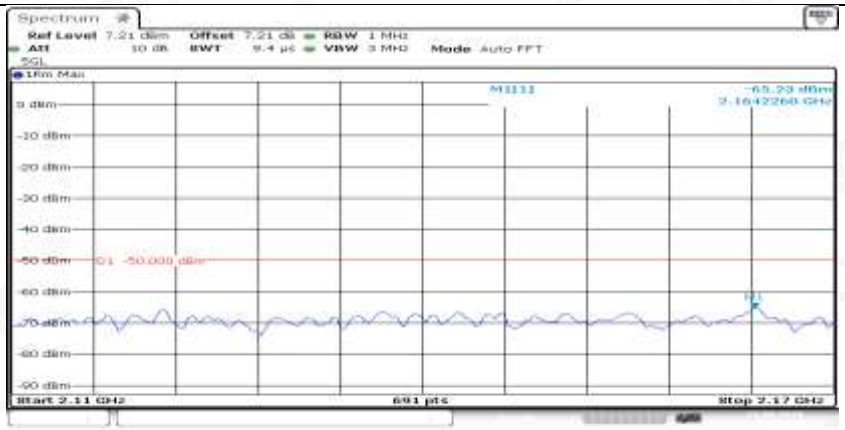
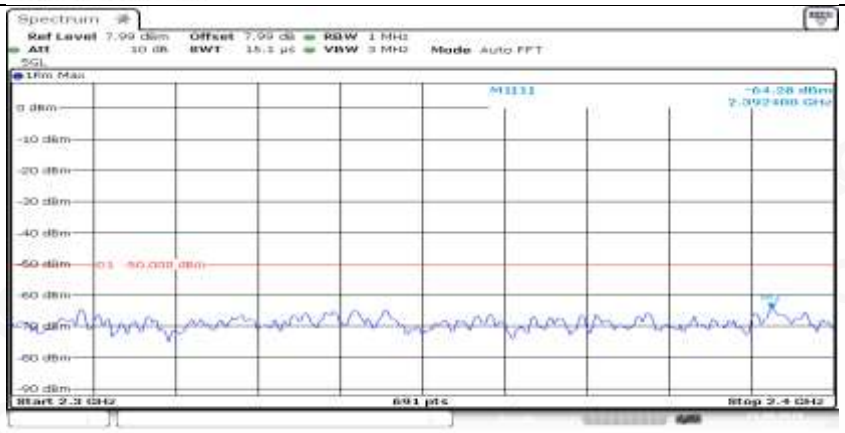
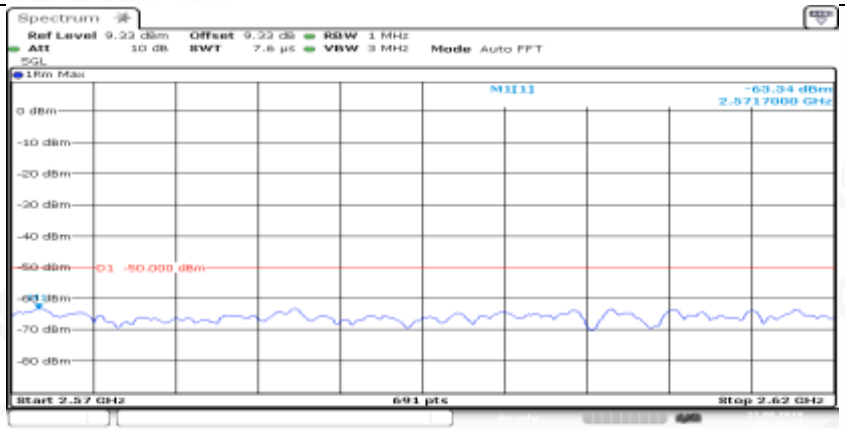
Co-existence	
Co-existence	

Co-existence	
Co-existence	
Co-existence	

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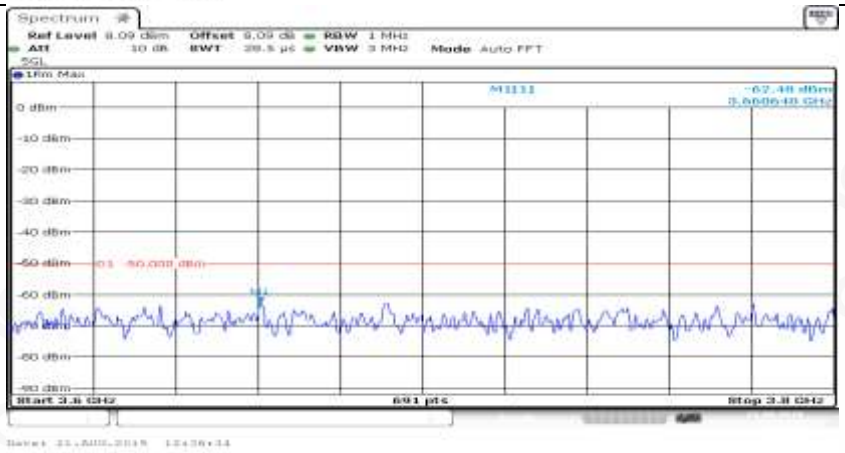
Co-existence	
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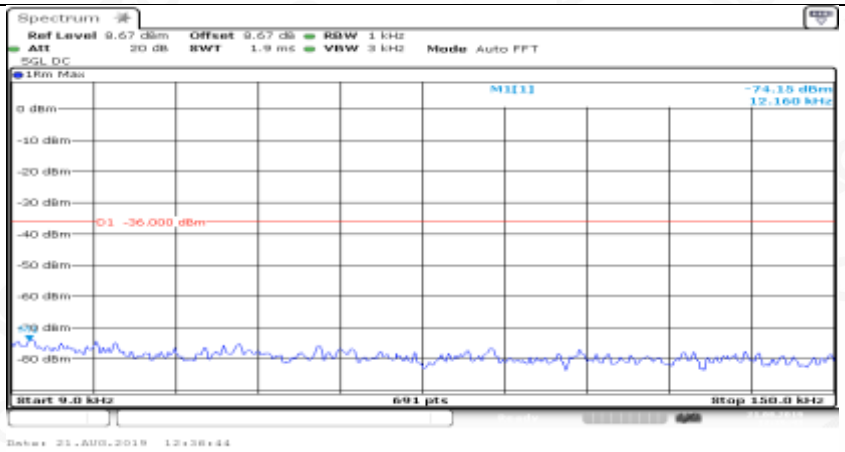
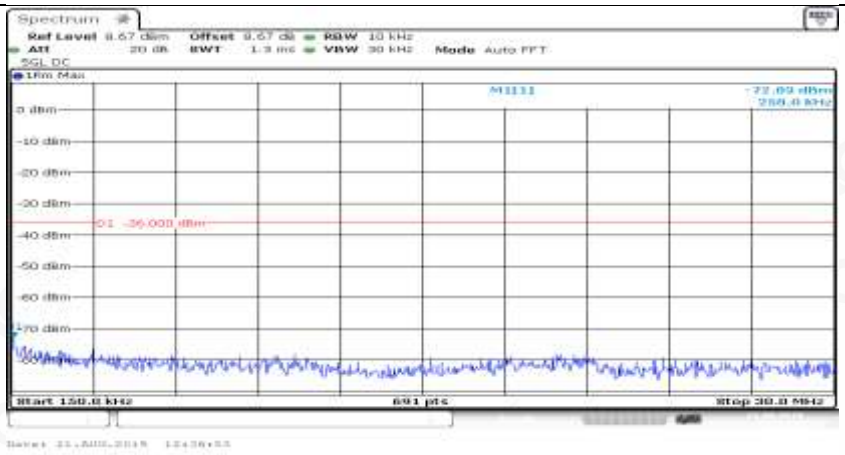
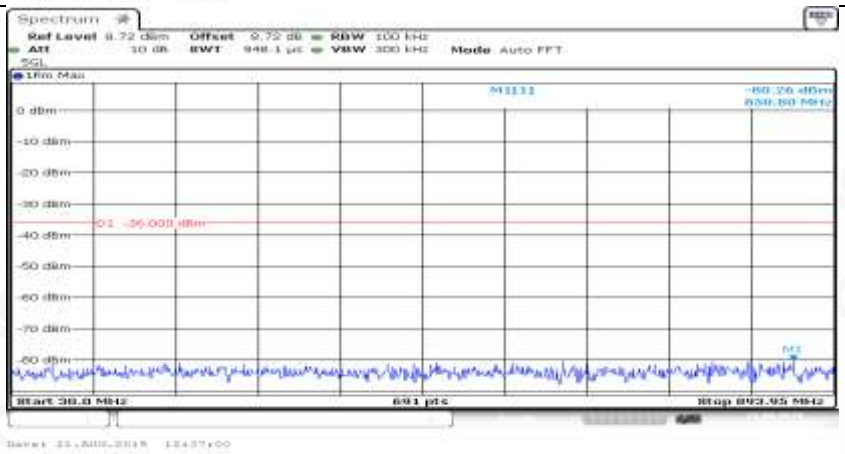
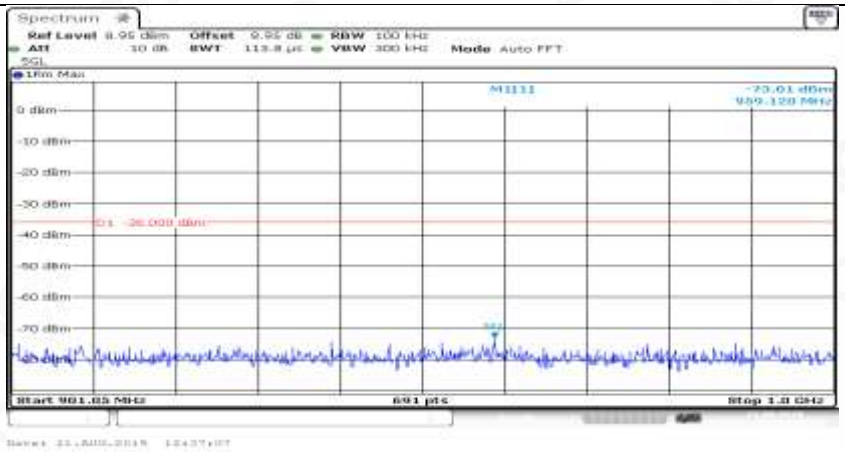
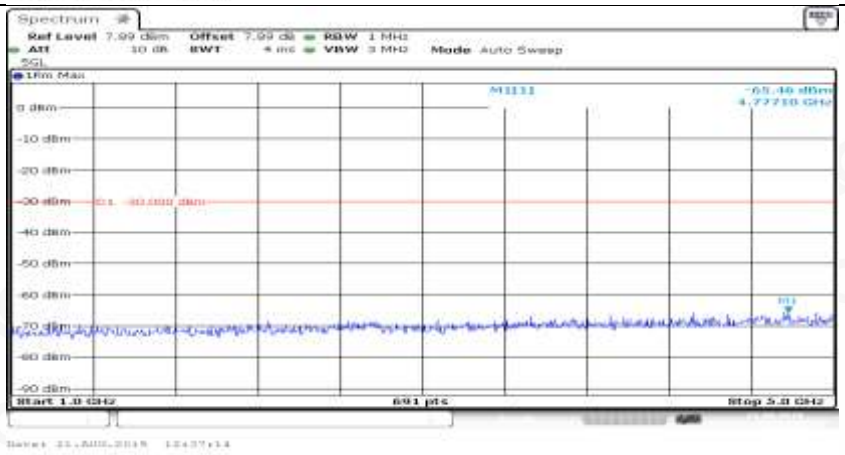
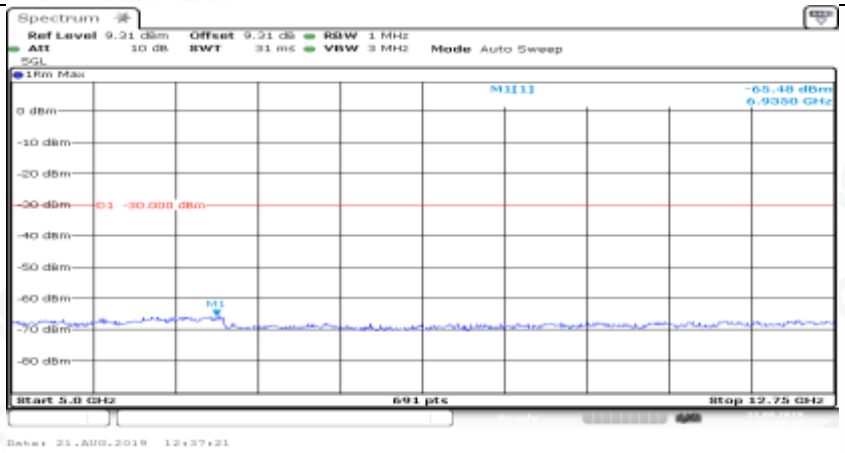
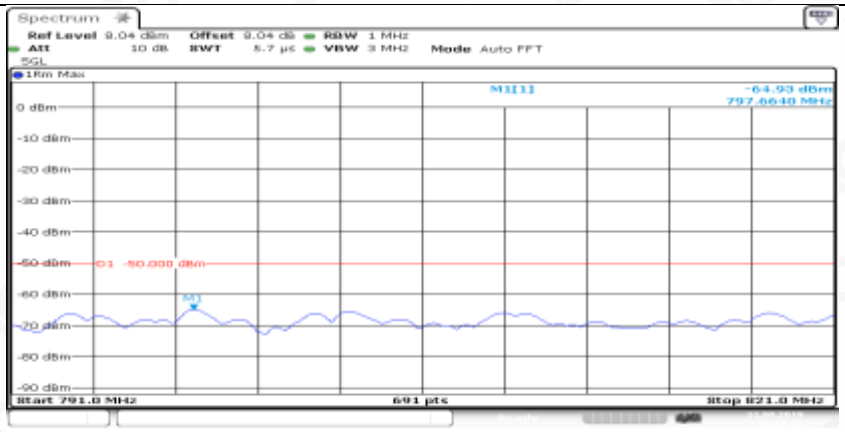
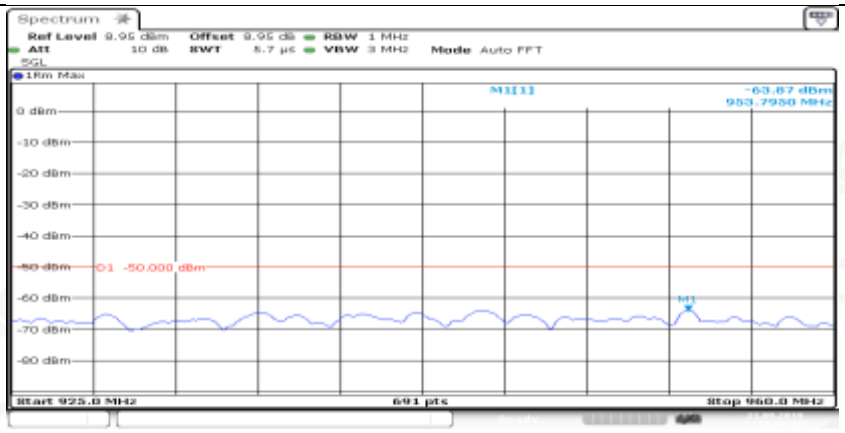
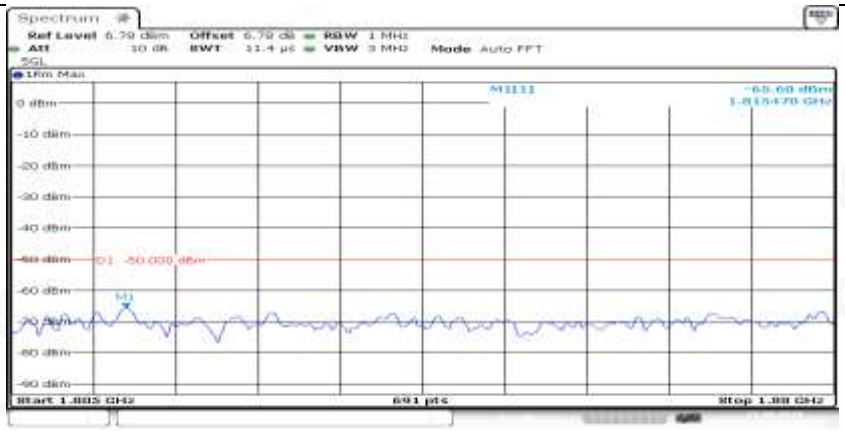
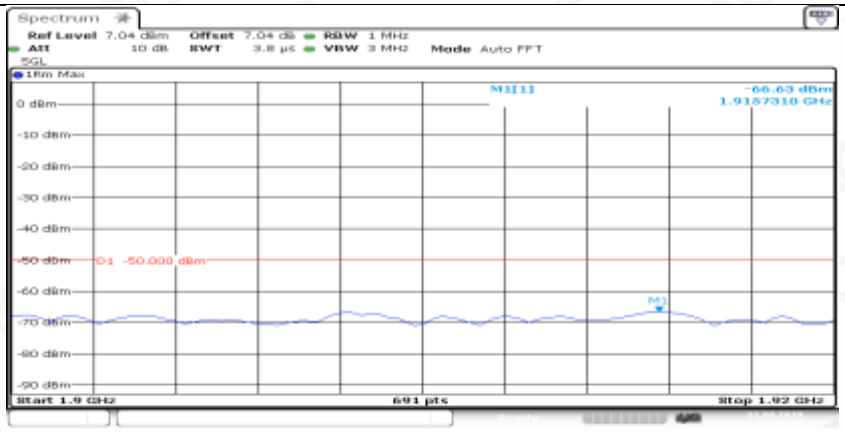
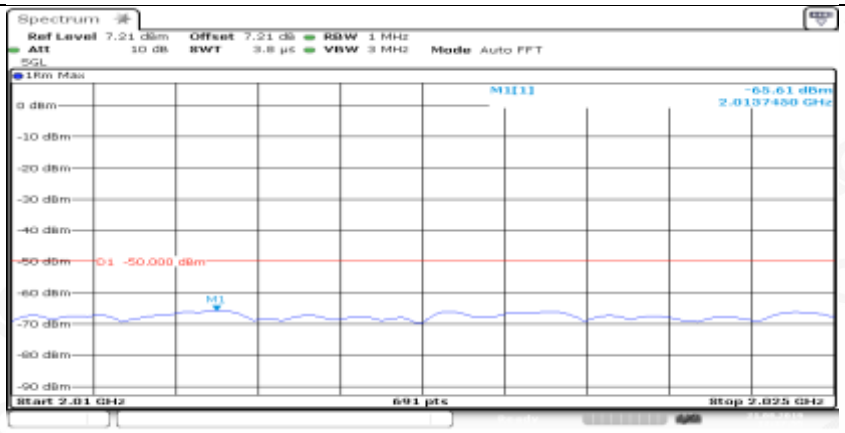
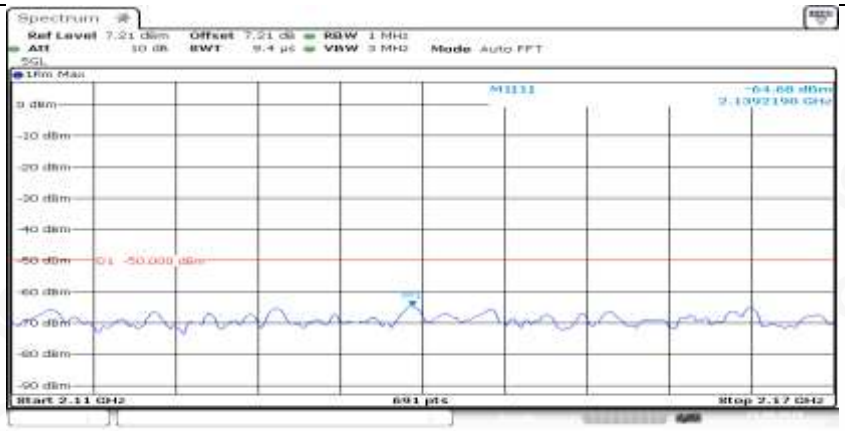
General	
General	
General	

General	
General	
General	

Co-existence	
Co-existence	
Co-existence	

Co-existence	
Co-existence	
Co-existence	

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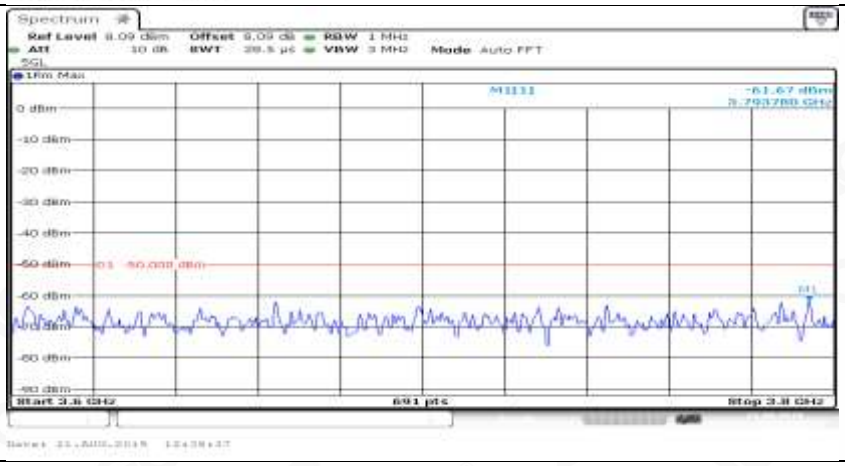
Co-existence	
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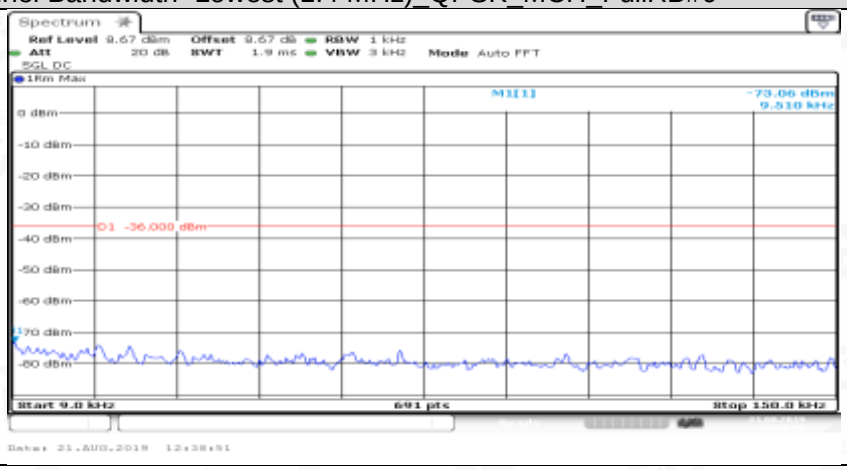
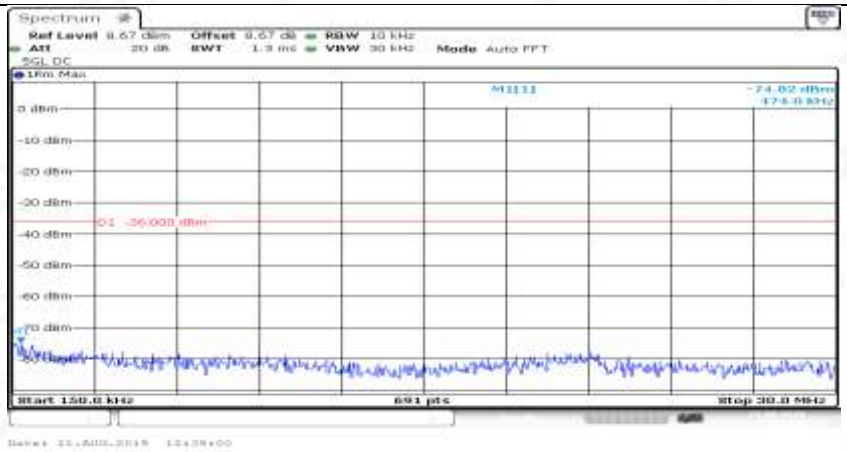
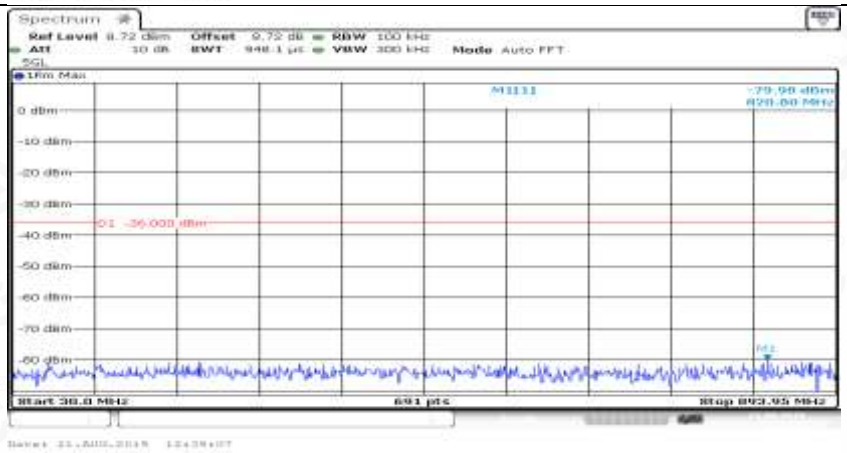
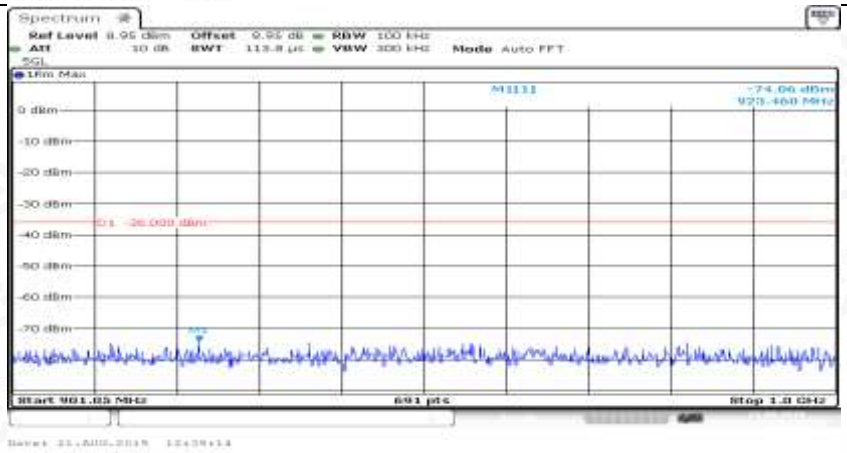
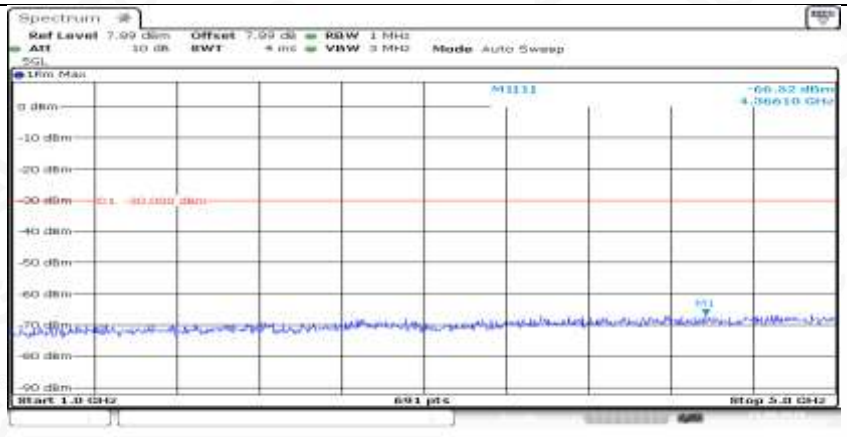
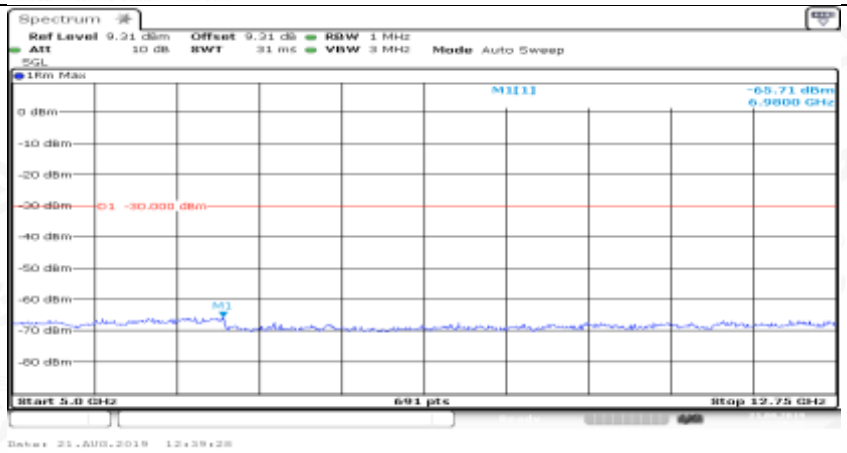
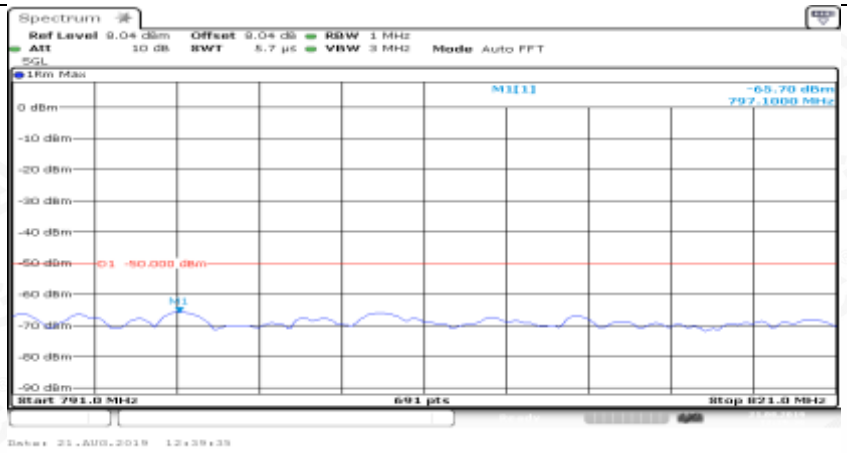
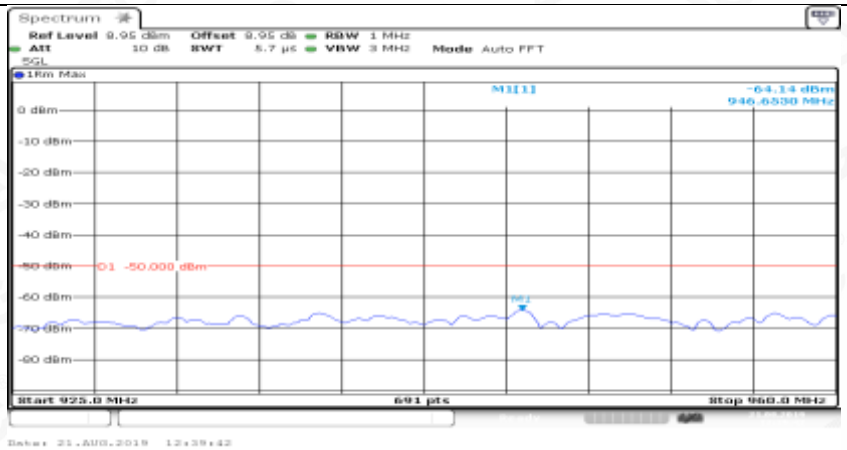
General	

General		
General		
General		

General		
General		
Co-existence		

Co-existence		
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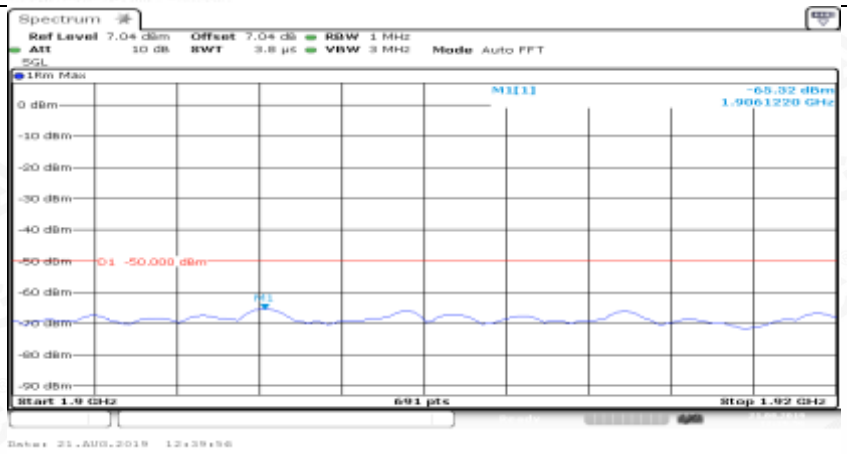
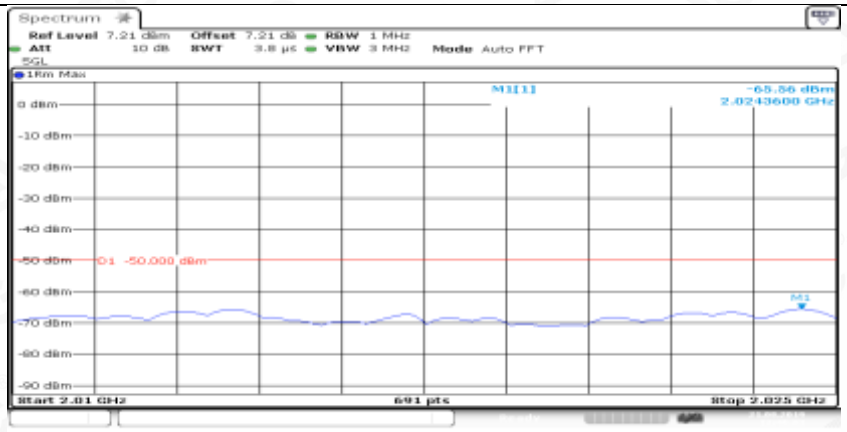
Co-existence		

Co-existence		
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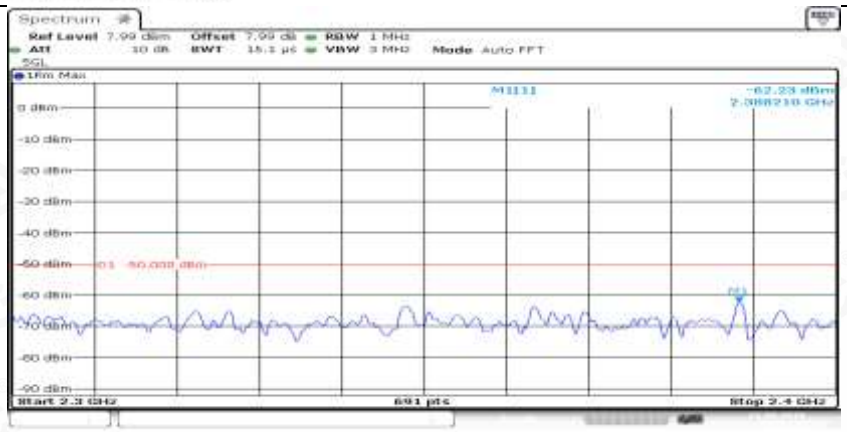
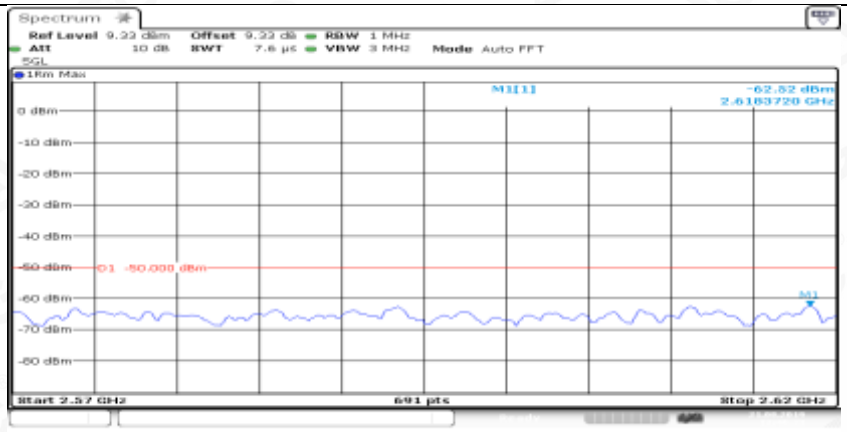
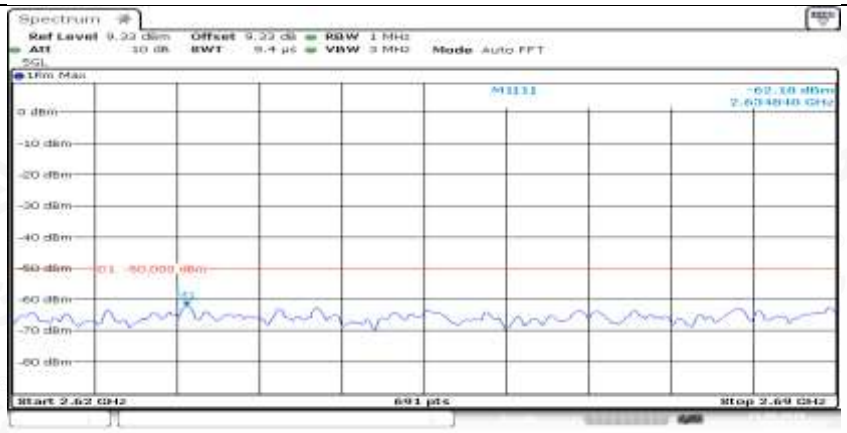
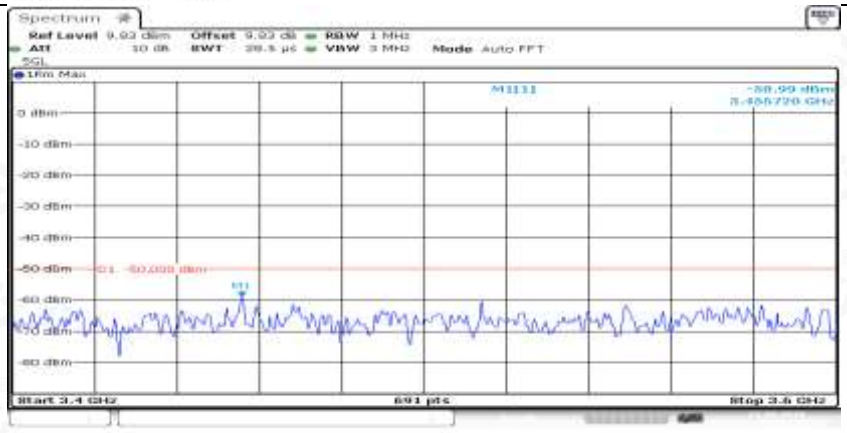
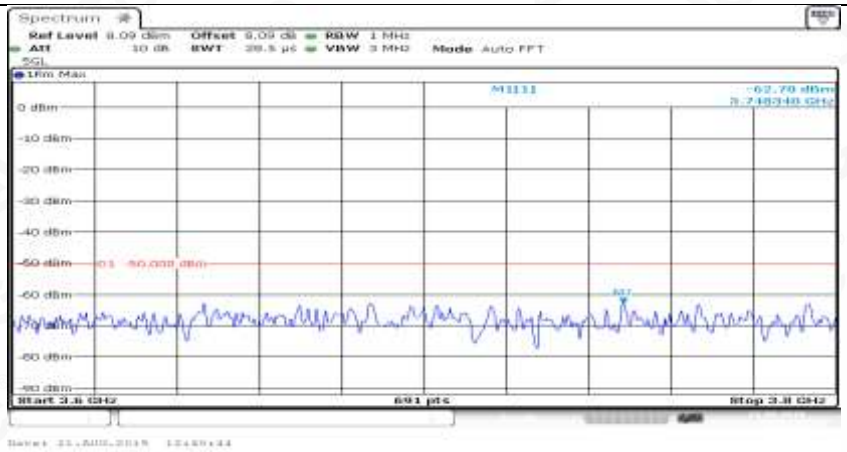
Co-existence		

Co-existence		
Co-existence		
Co-existence		

Co-existence	
Additional	NA

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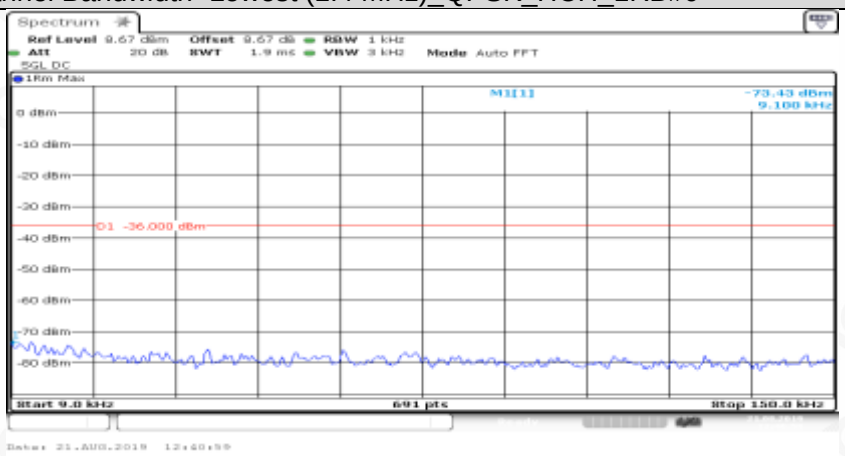
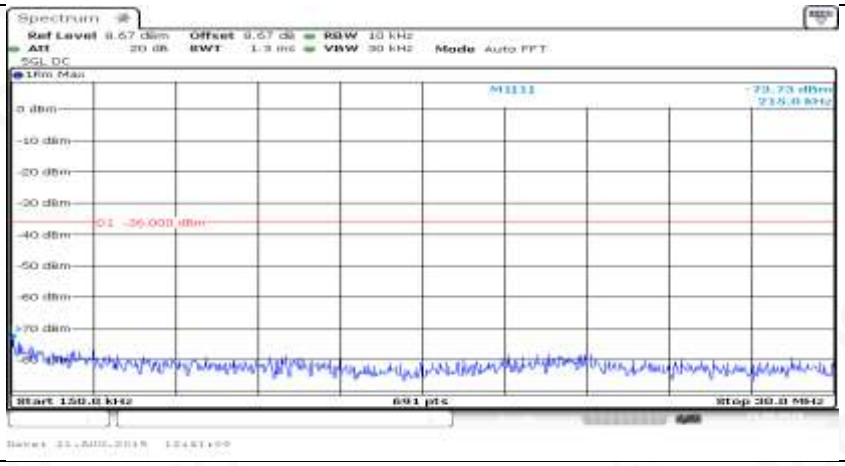
General	
General	

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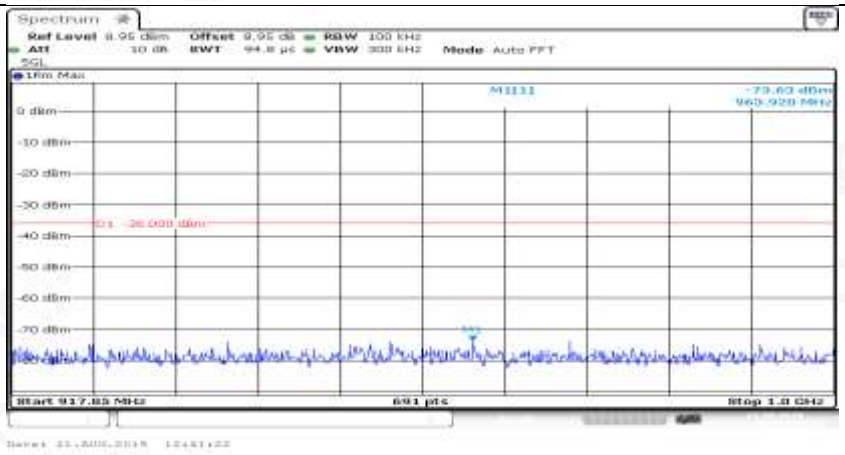
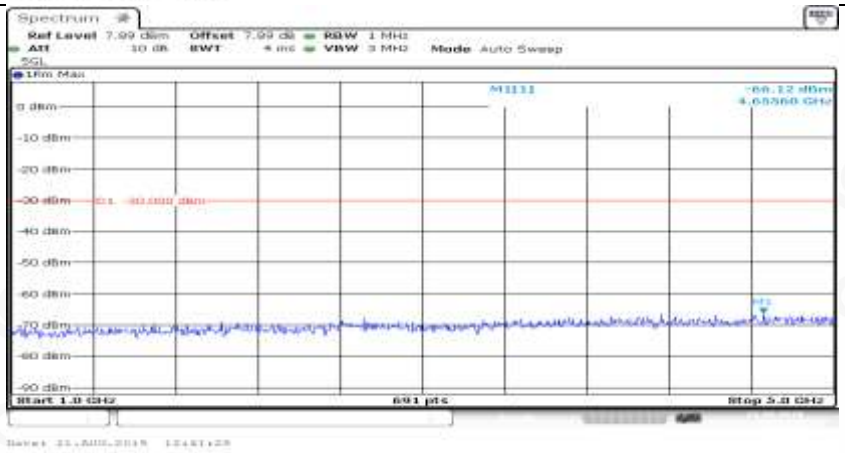
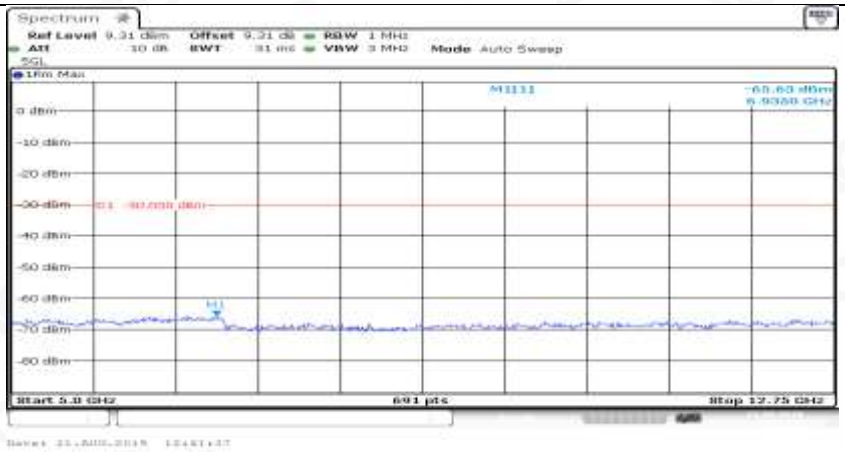
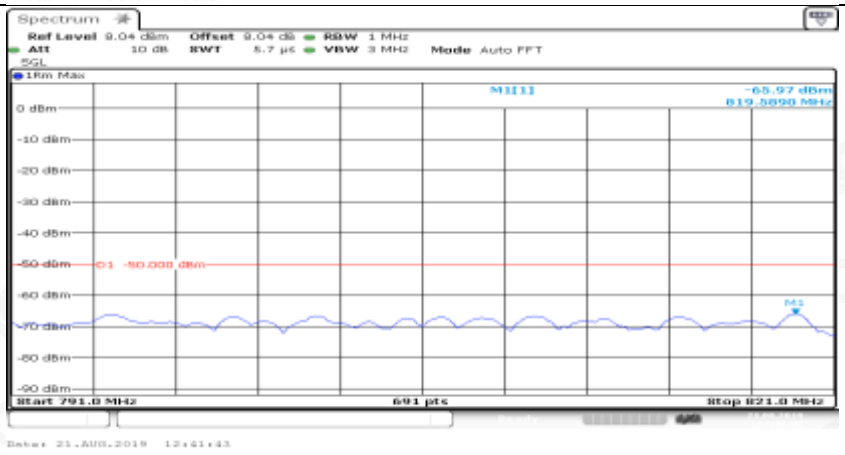
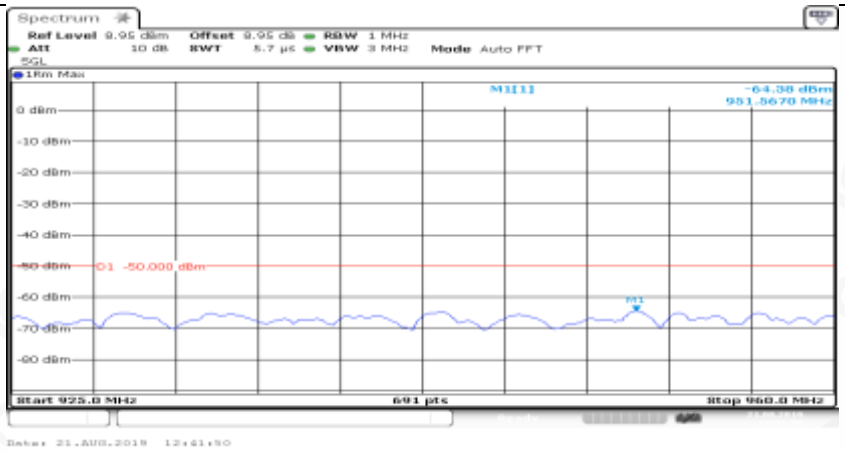
General	
General	

General	
Co-existence	
Co-existence	

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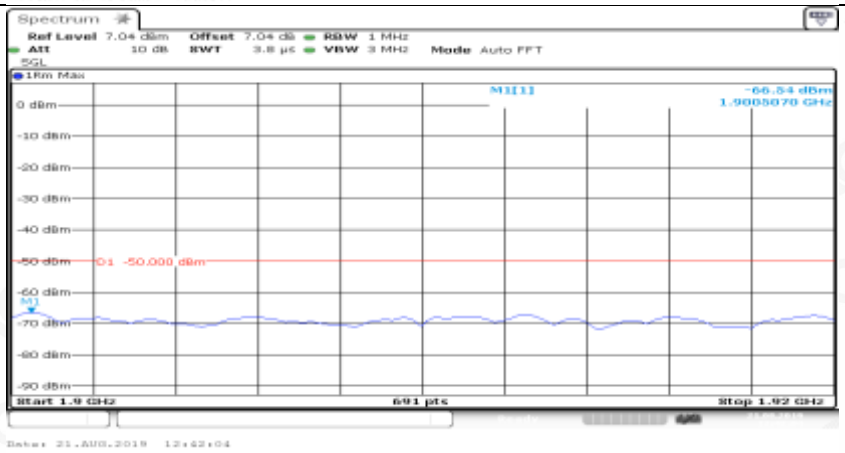
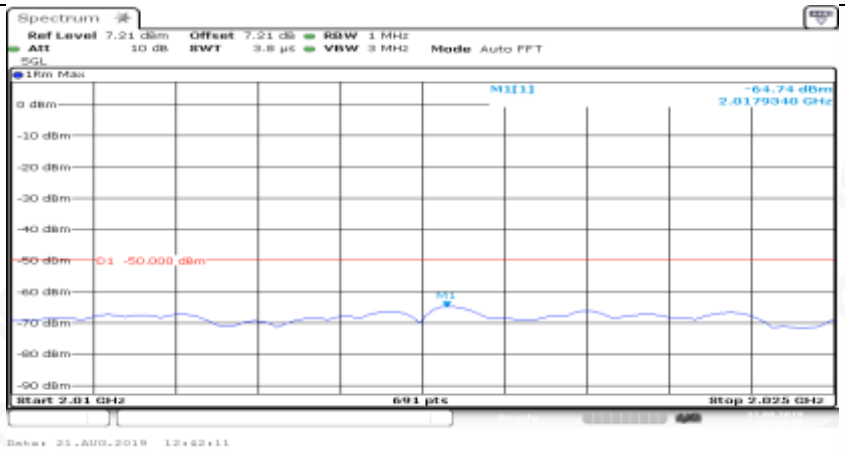
Co-existence	
Co-existence	

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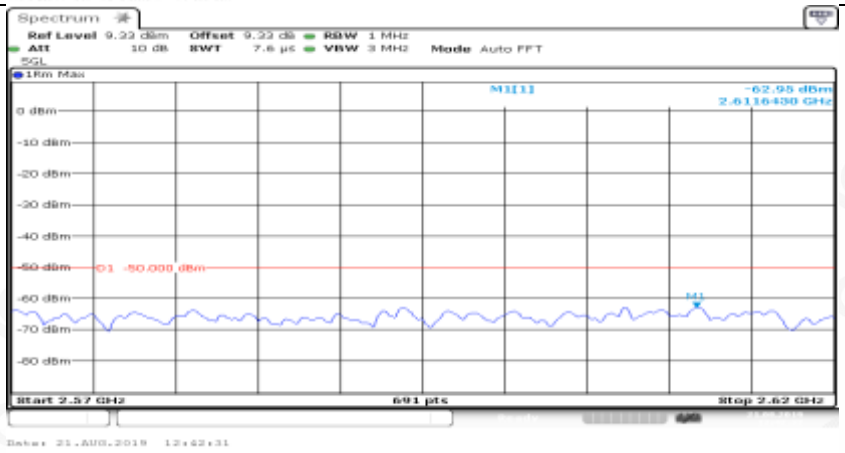
Co-existence	

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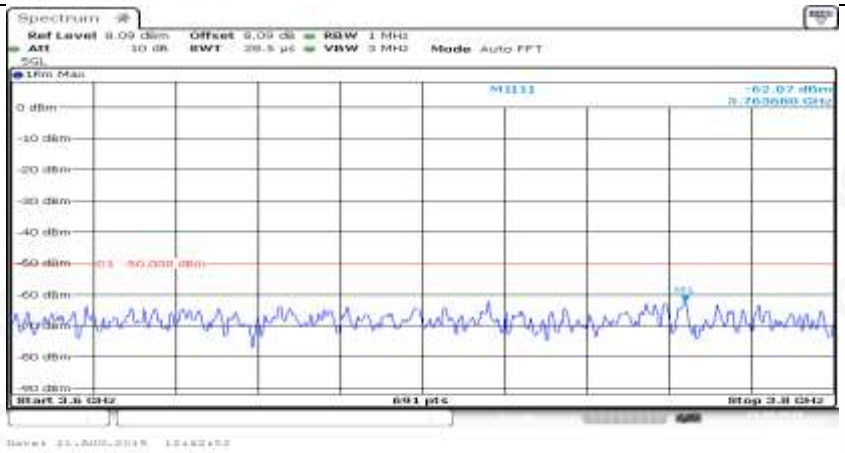
Co-existence	
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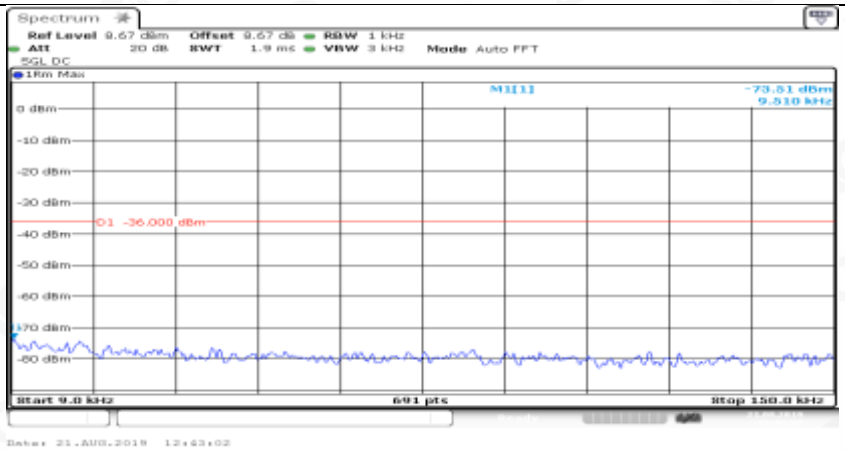
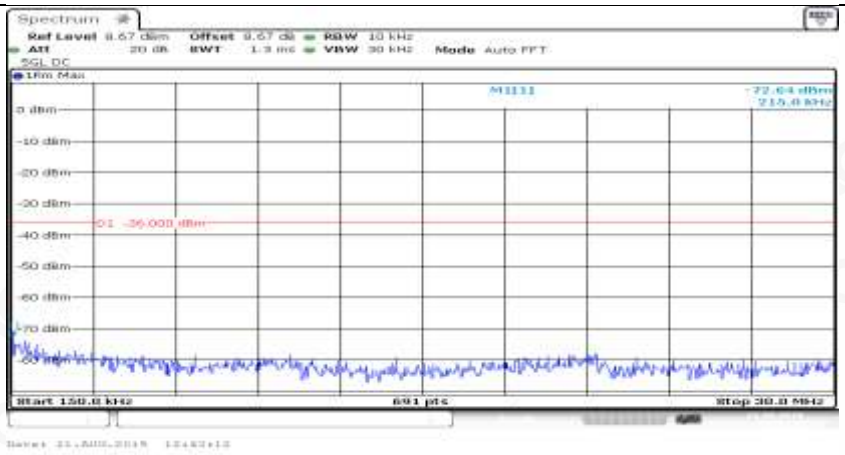
Channel Bandwidth=Lowest (1.4 MHz)_QPSK_HCH_1RB#max

General	
General	
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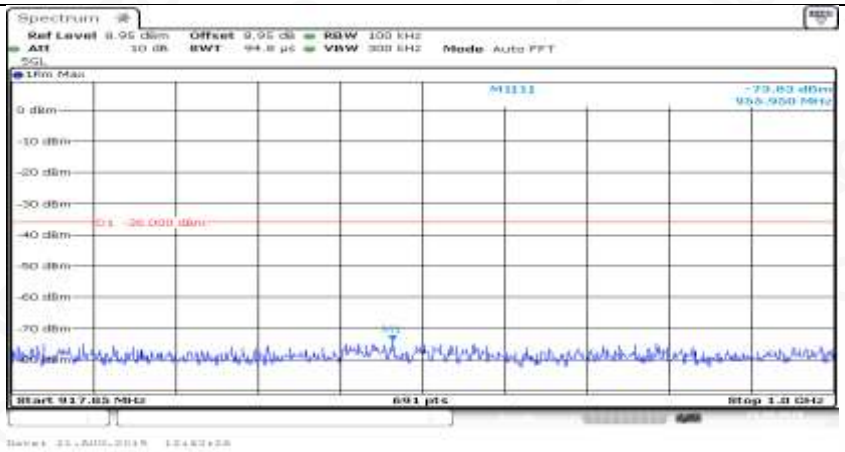
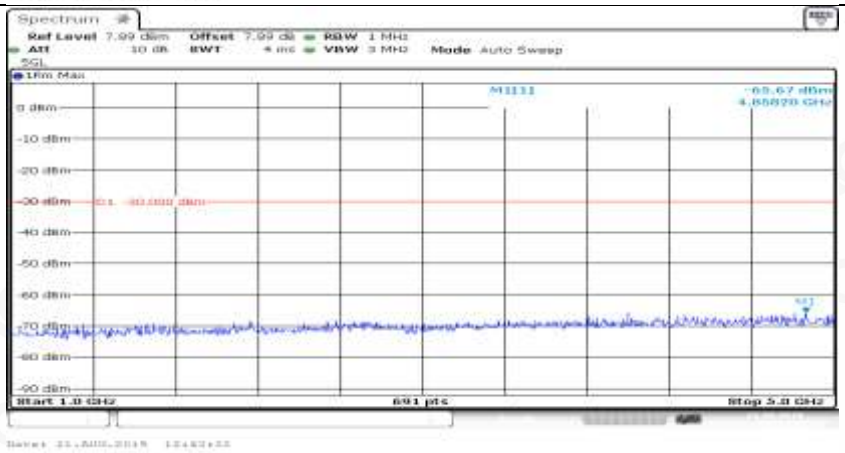
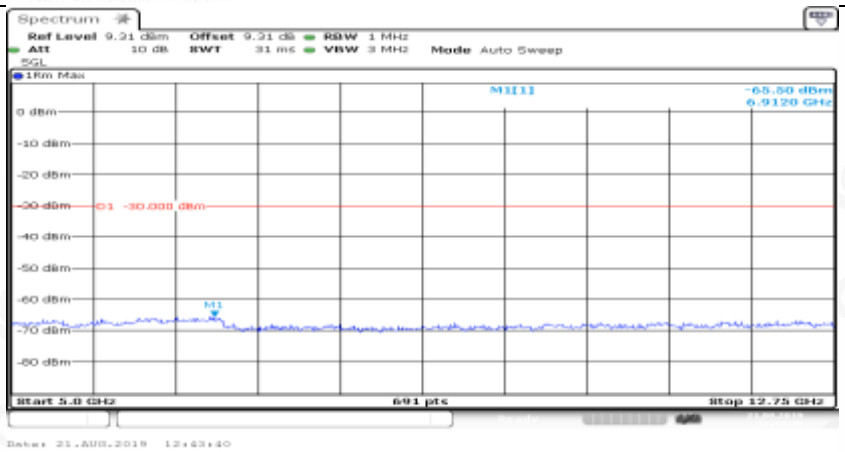
General	
General	
General	

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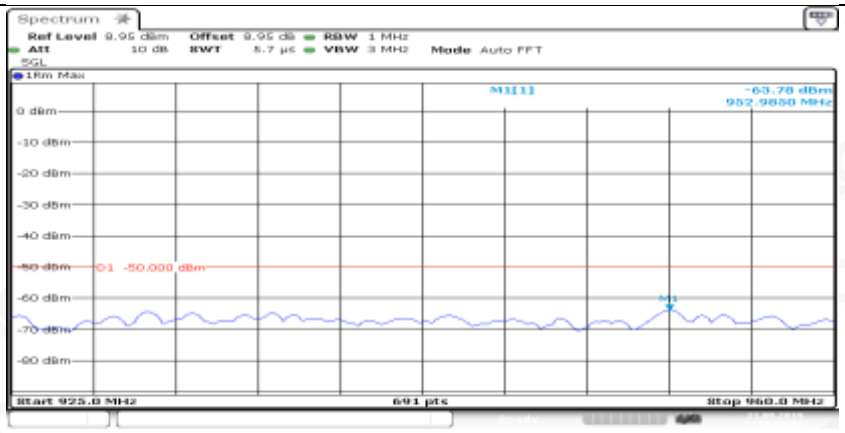
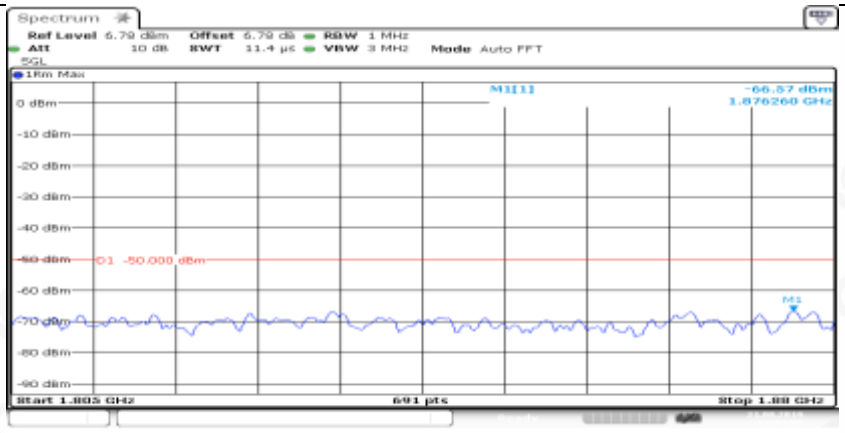
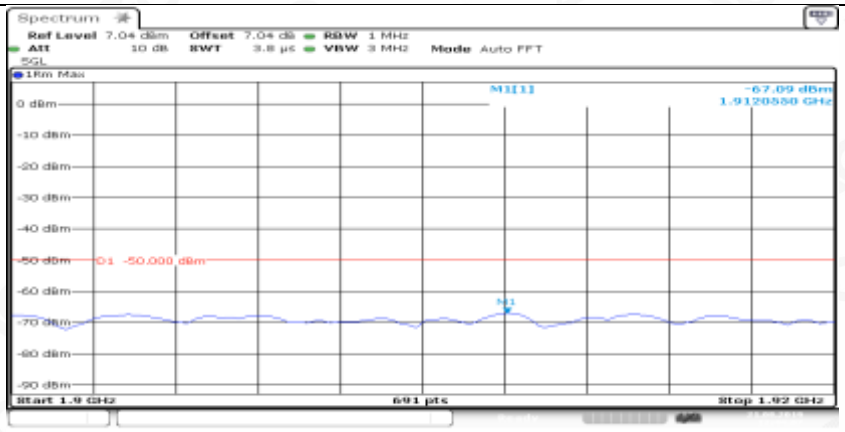
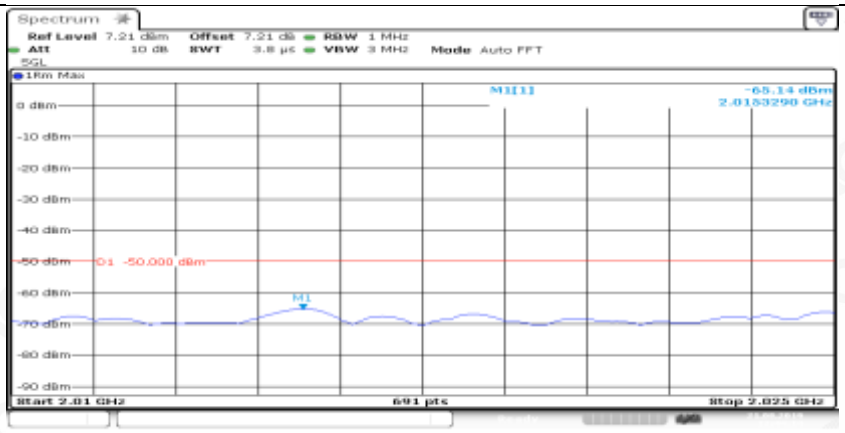
Co-existence	
Co-existence	

Co-existence	
Co-existence	
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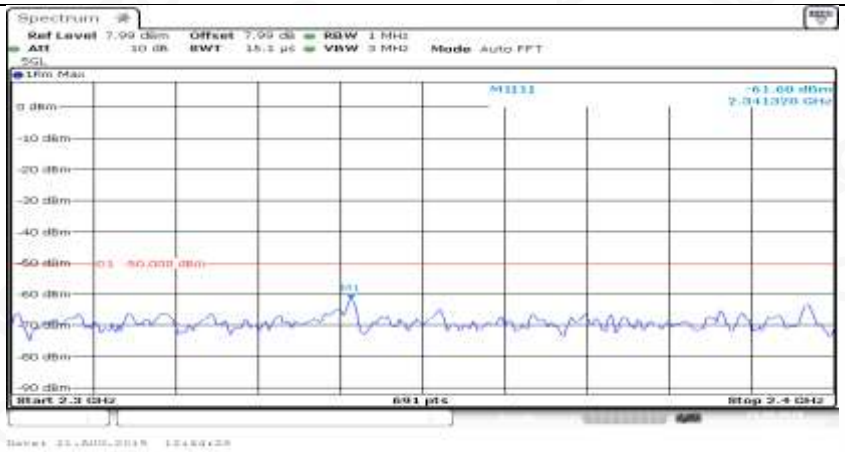
Co-existence	
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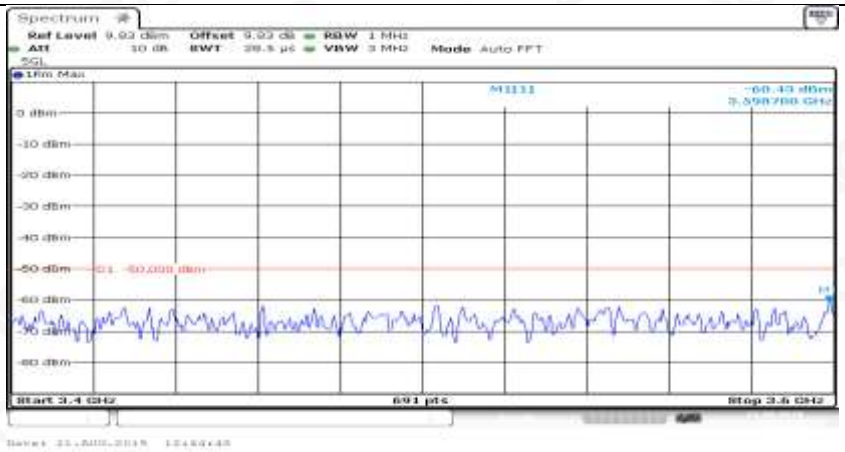
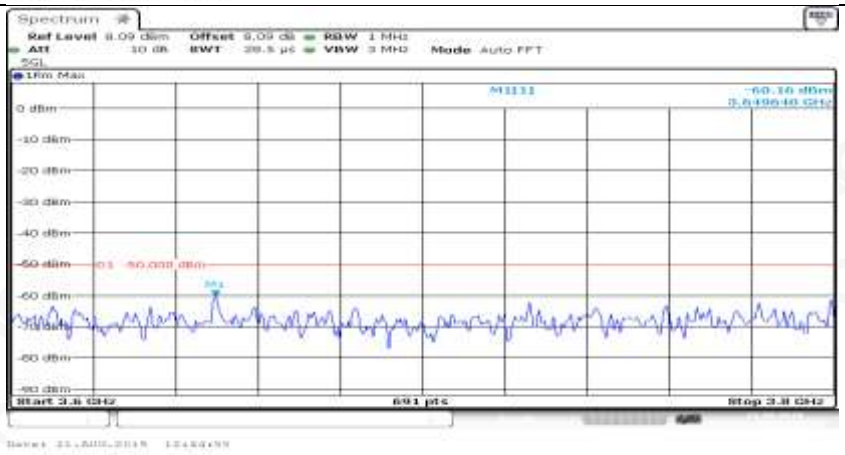
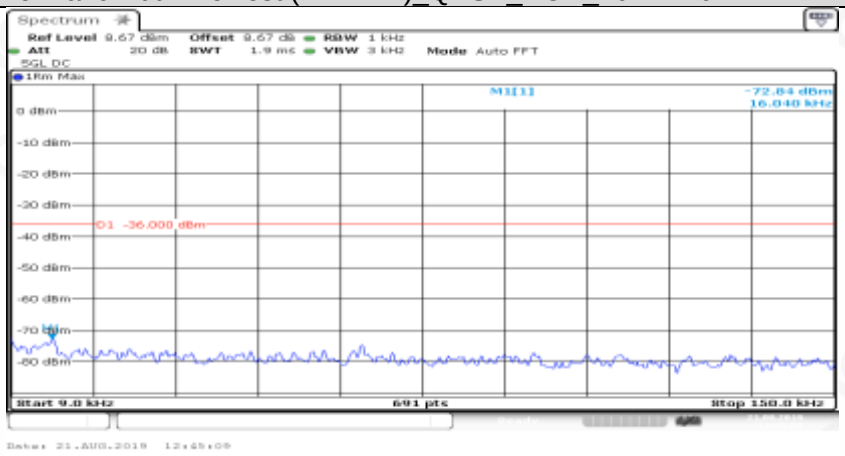
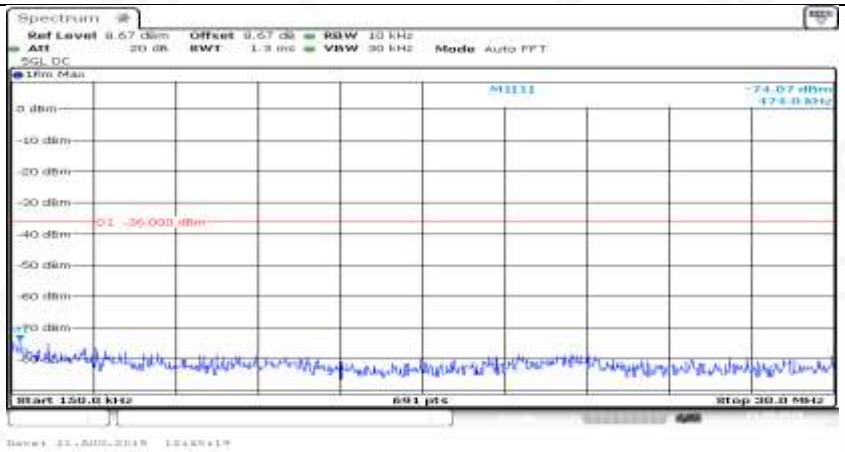
Co-existence	
Co-existence	
Additional	NA

Channel Bandwidth=Lowest (1.4 MHz)_QPSK_HCH_FullRB#0	
General	

General	
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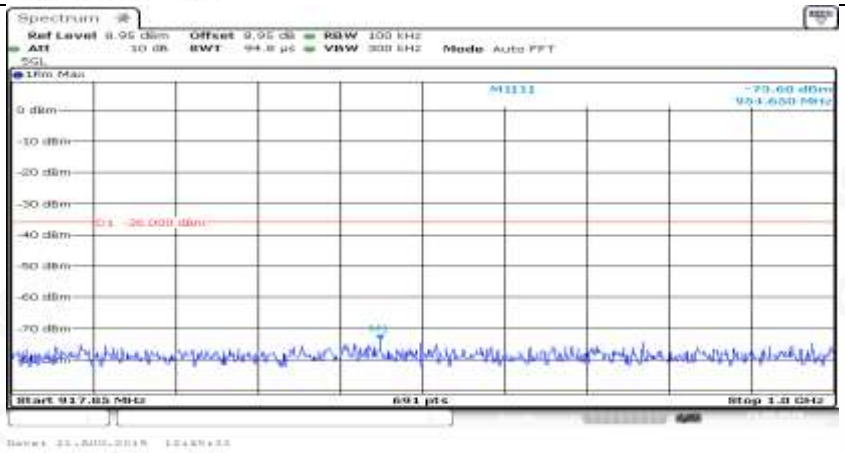
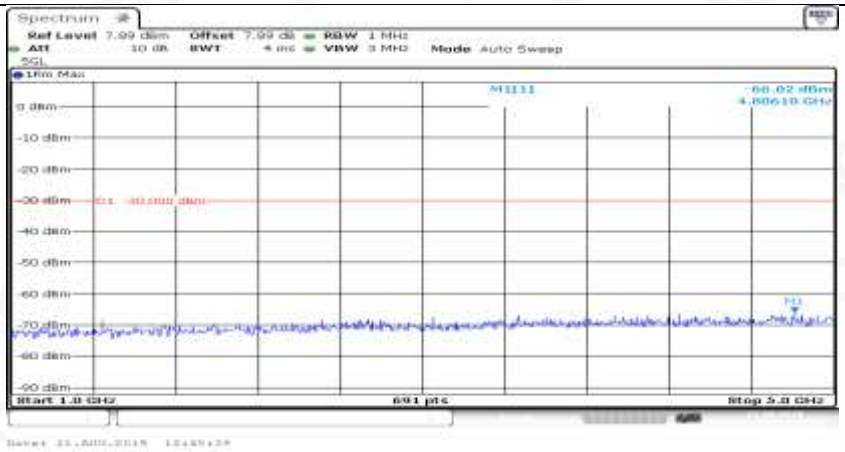
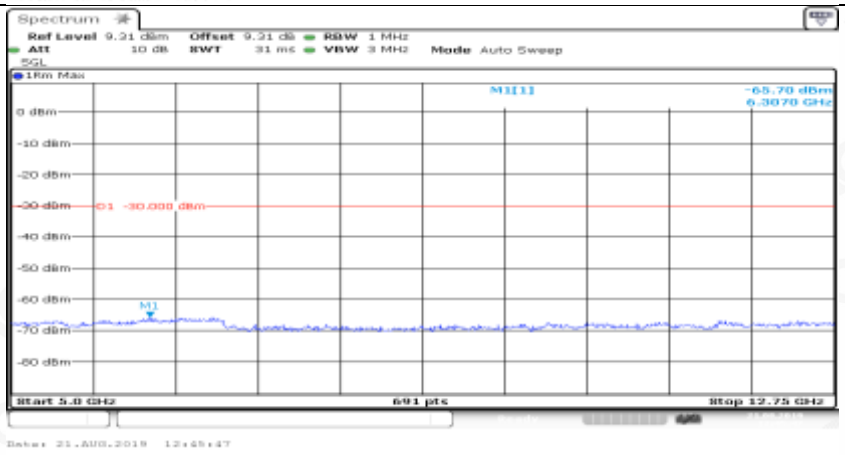
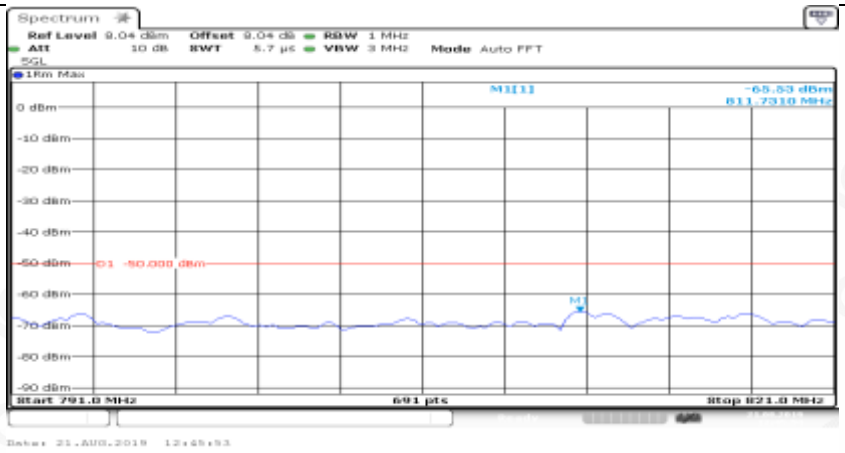
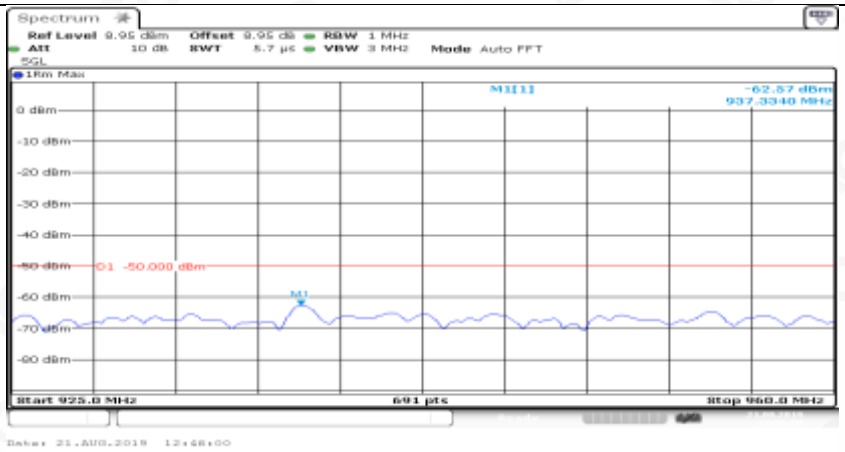
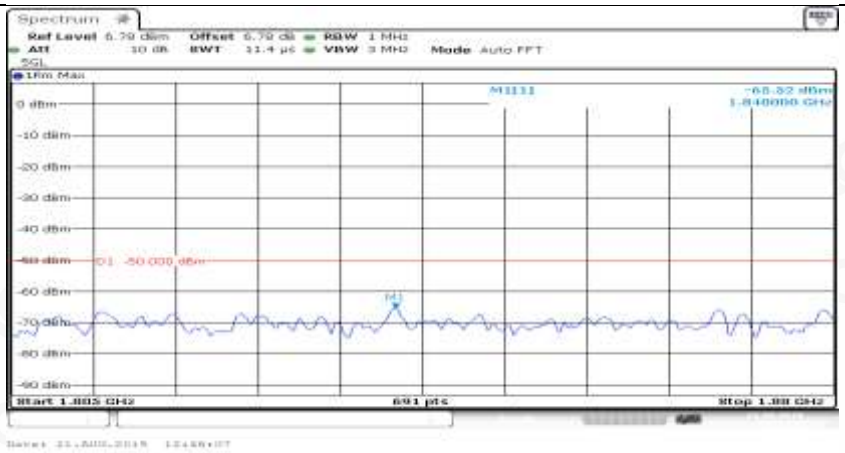
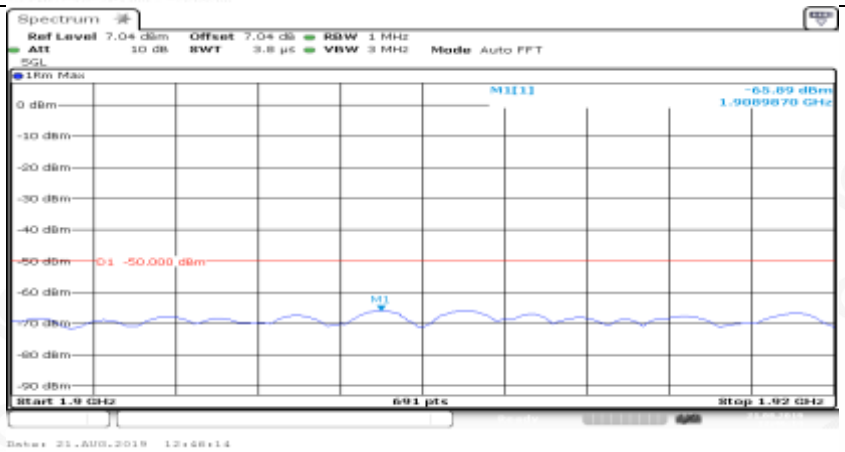
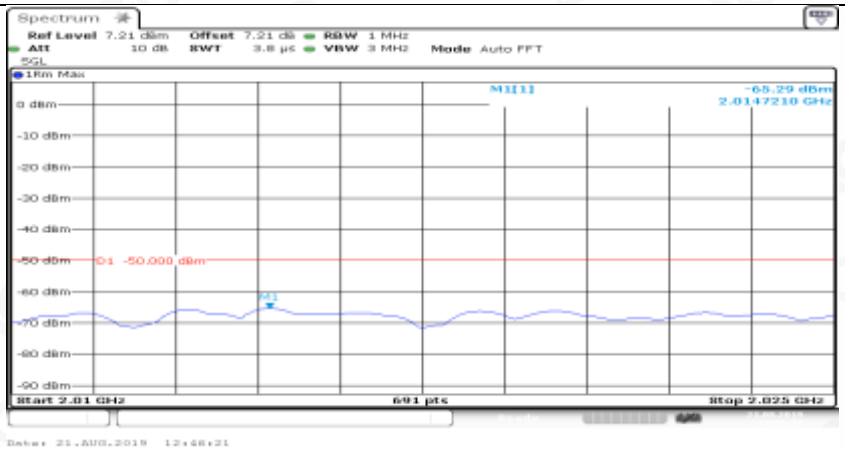
General	

General	
General	
Co-existence	

Co-existence	
Co-existence	
Co-existence	

Co-existence	
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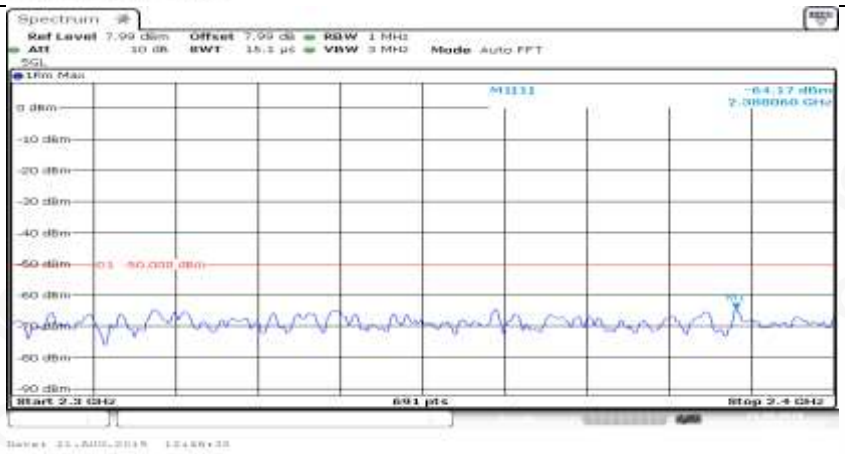
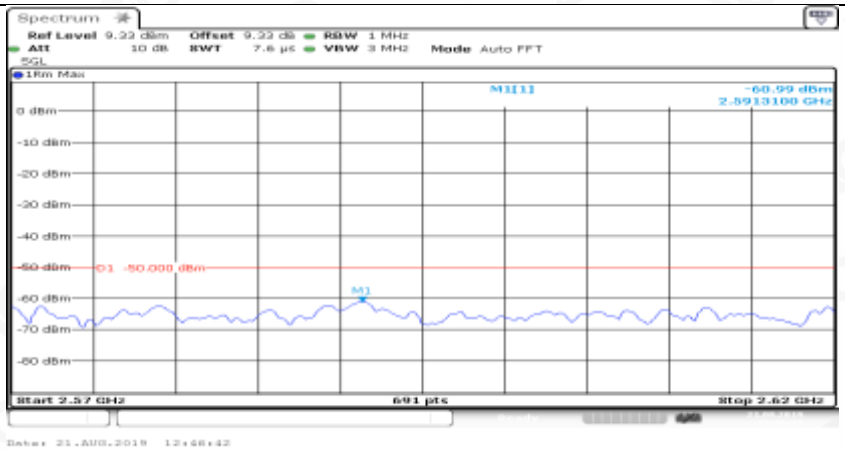
Co-existence	

Co-existence	
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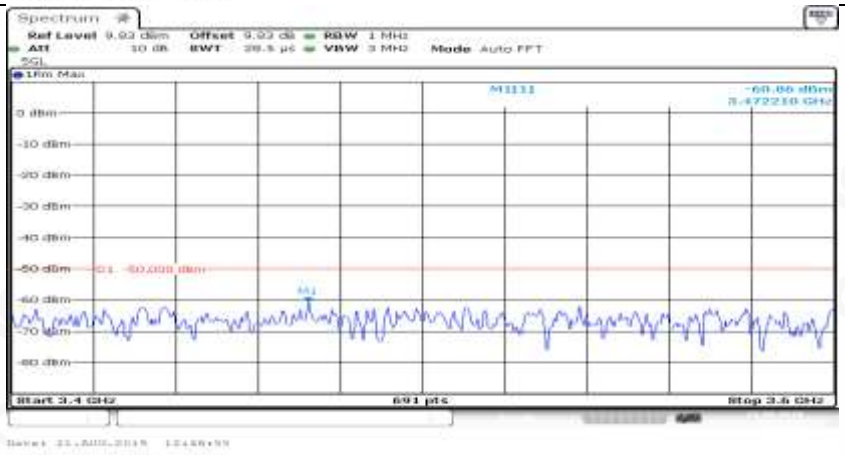
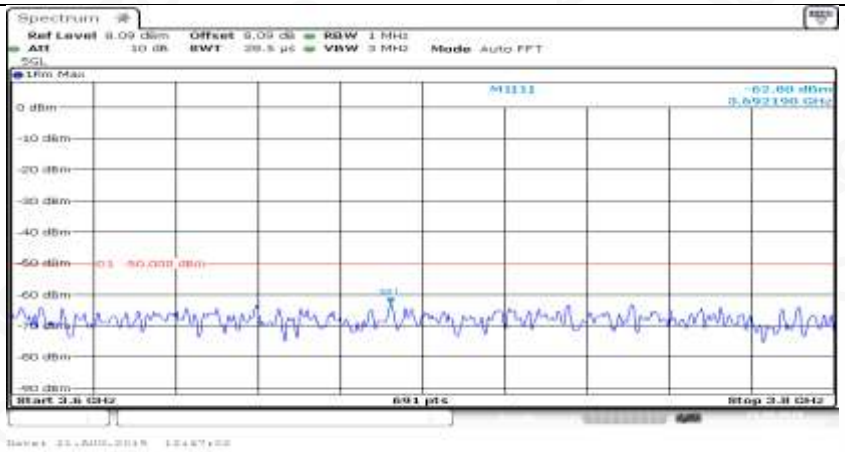
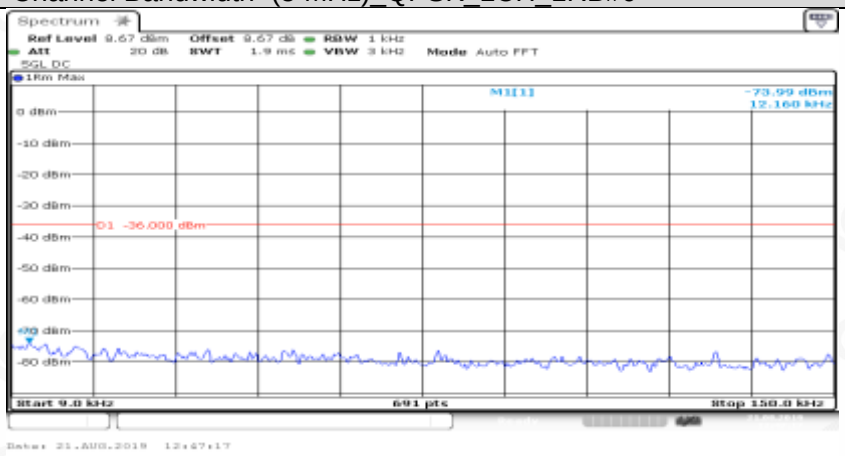
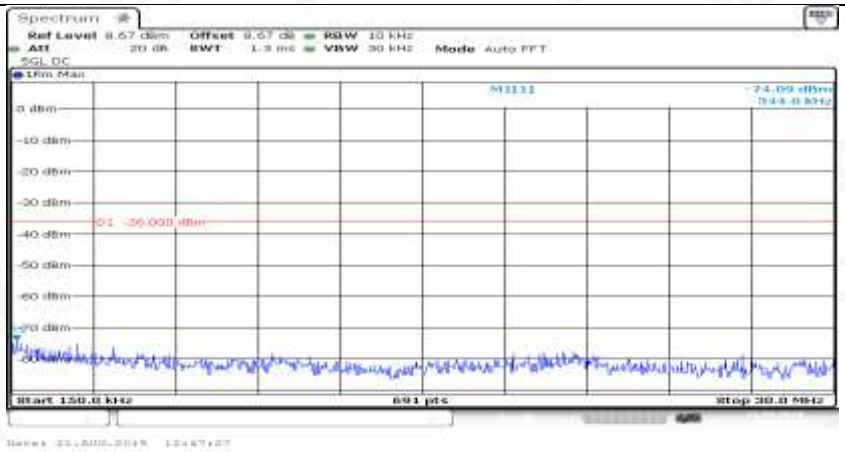
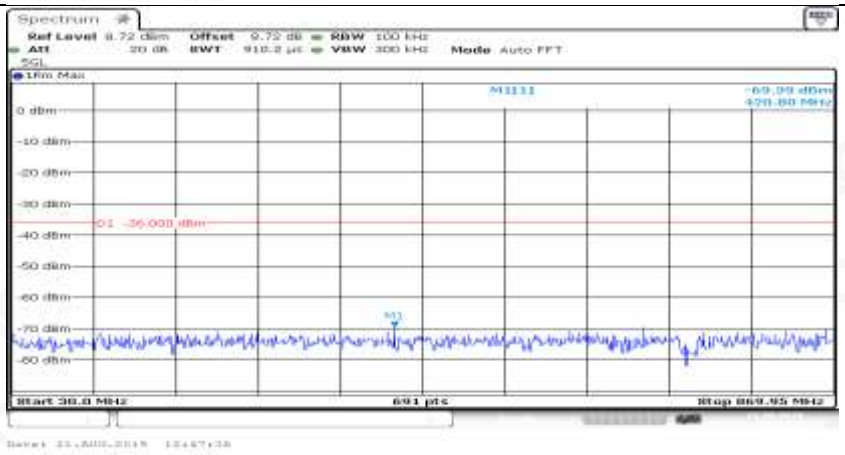
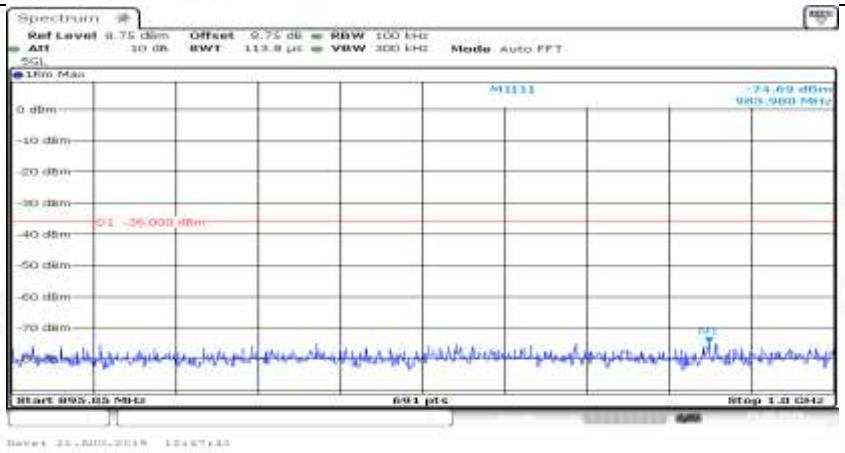
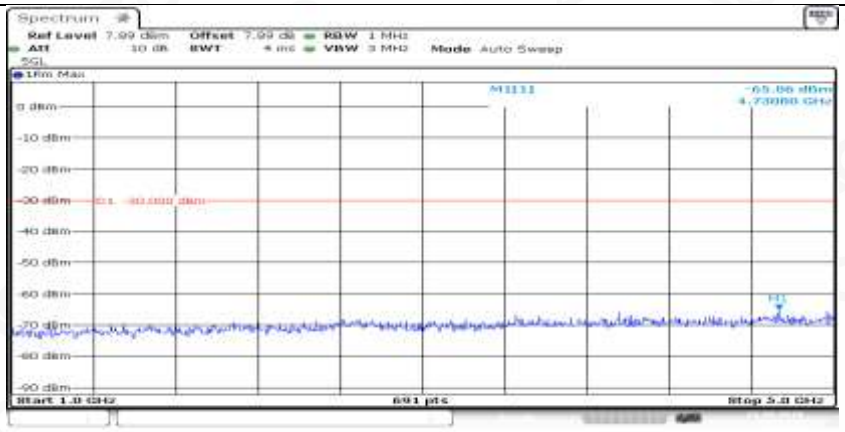
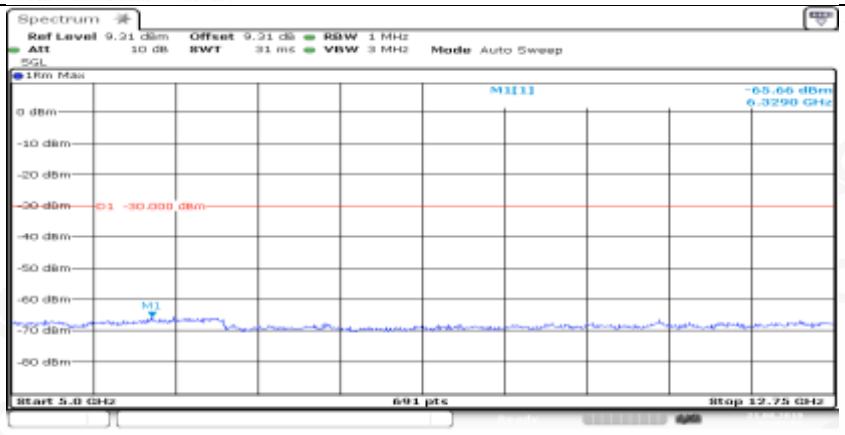
Co-existence	

Co-existence	
Additional	NA

Channel Bandwidth= (5 MHz)

Channel Bandwidth=(5 MHz)_QPSK_LCH_1RB#0	
General	

General	
General	
General	

General	
General	
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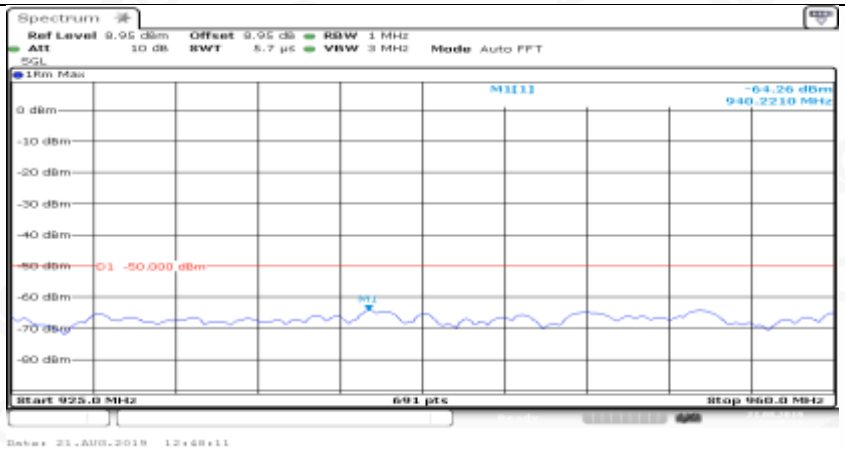
Co-existence	
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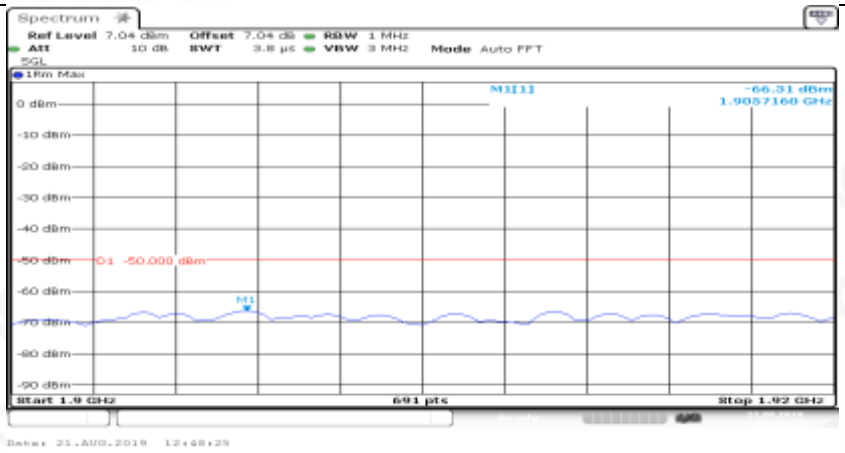
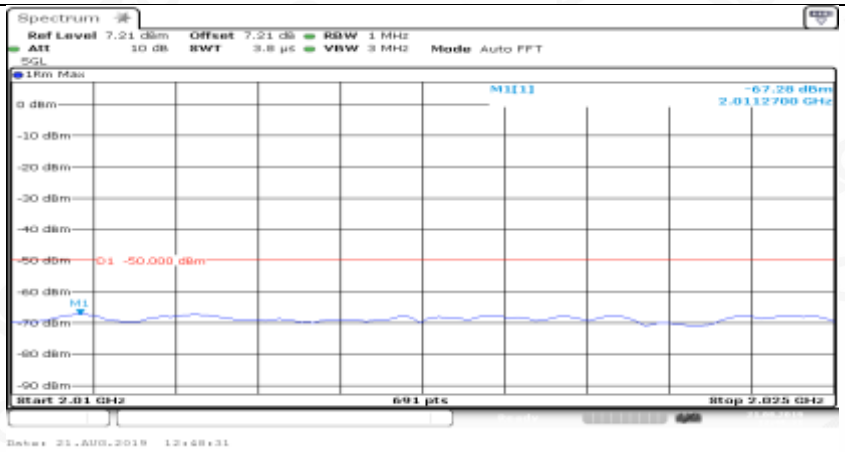
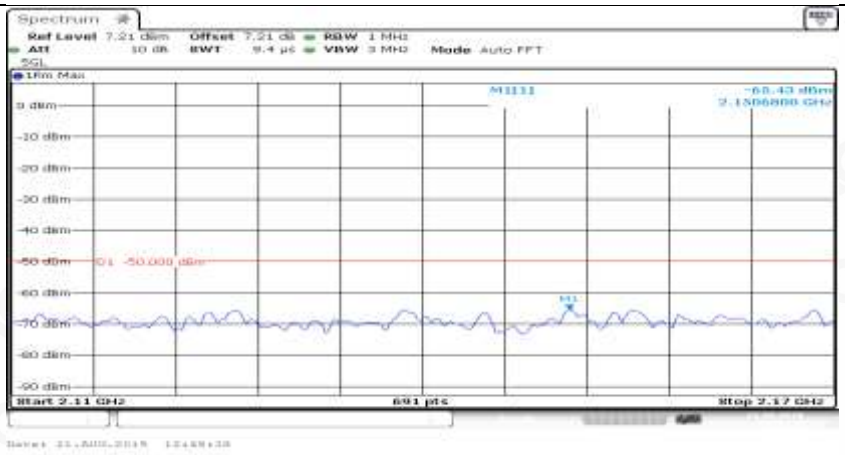
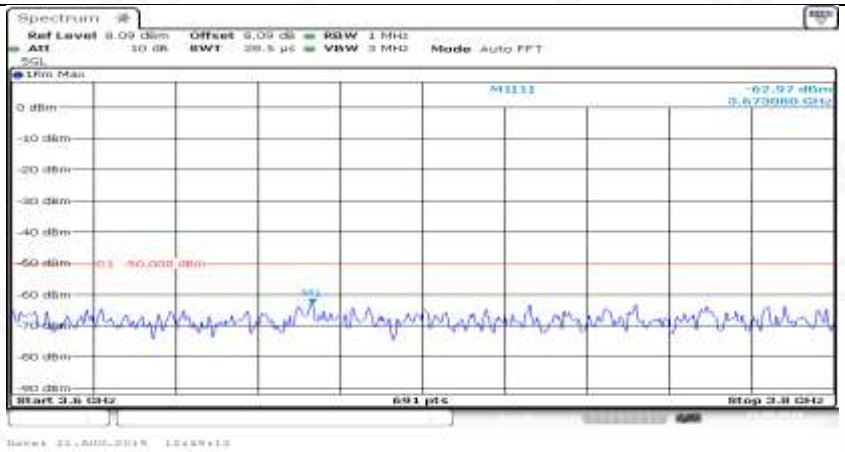
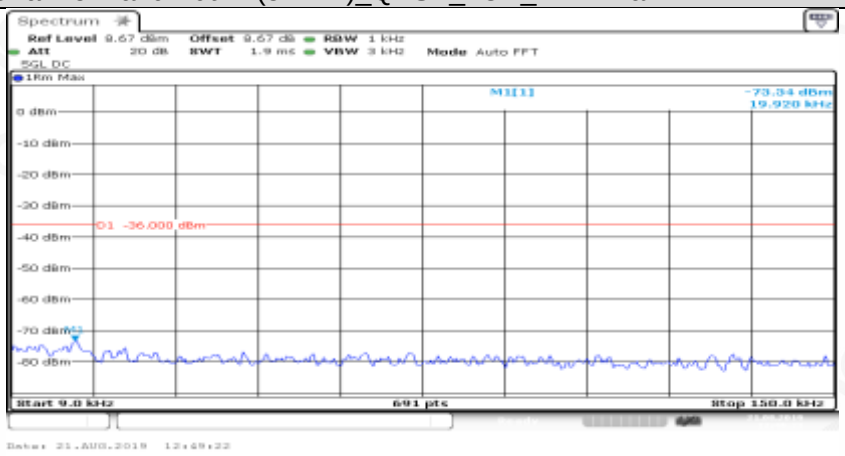
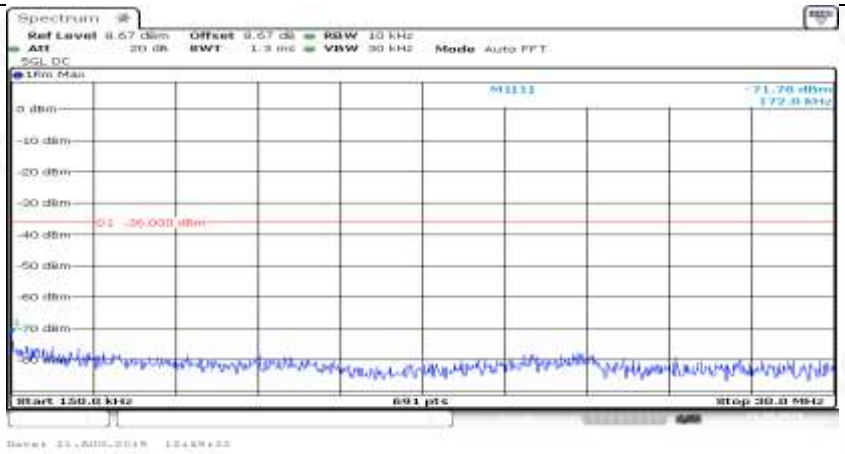
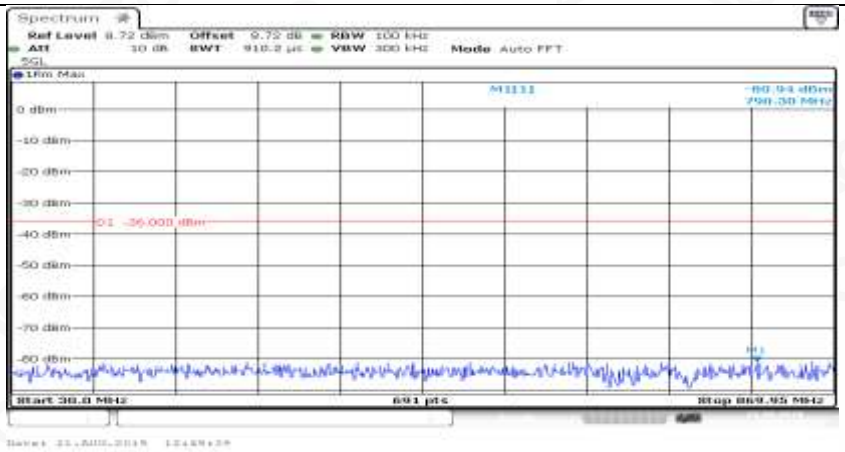
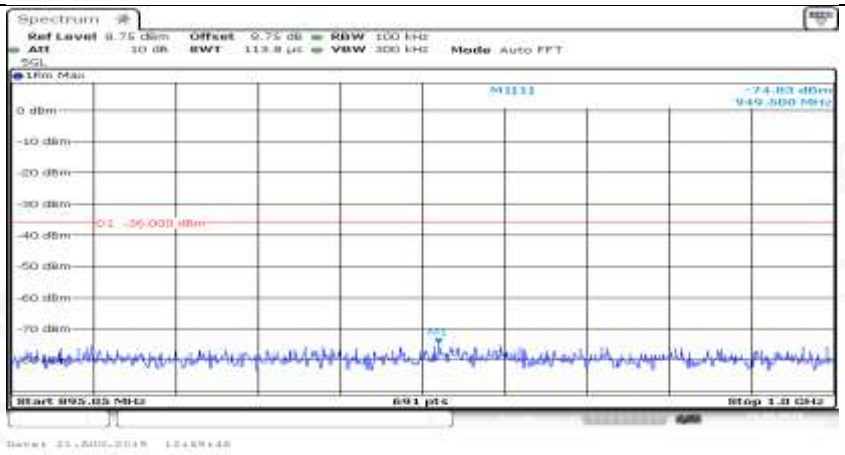
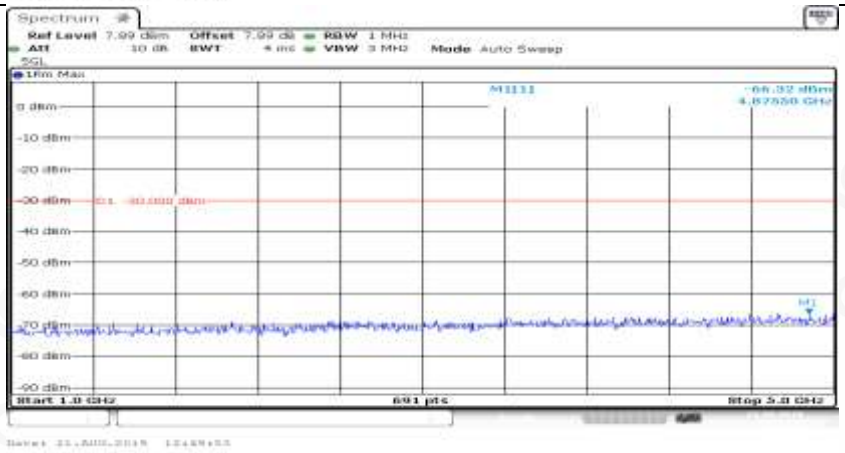
Co-existence	

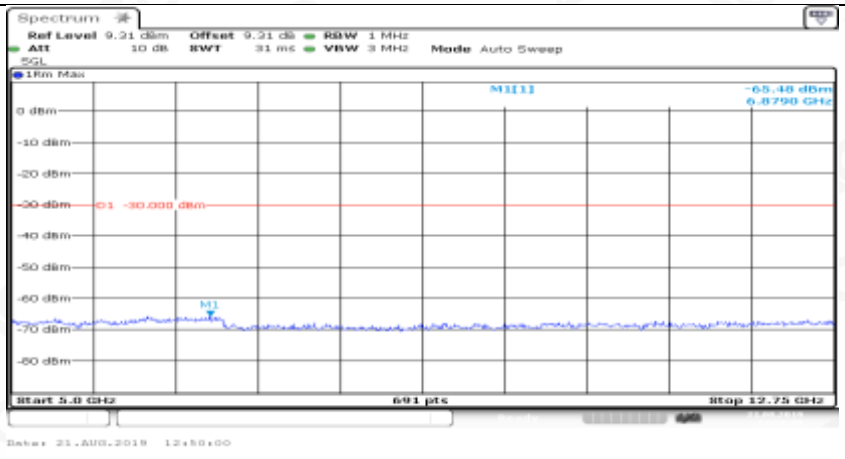
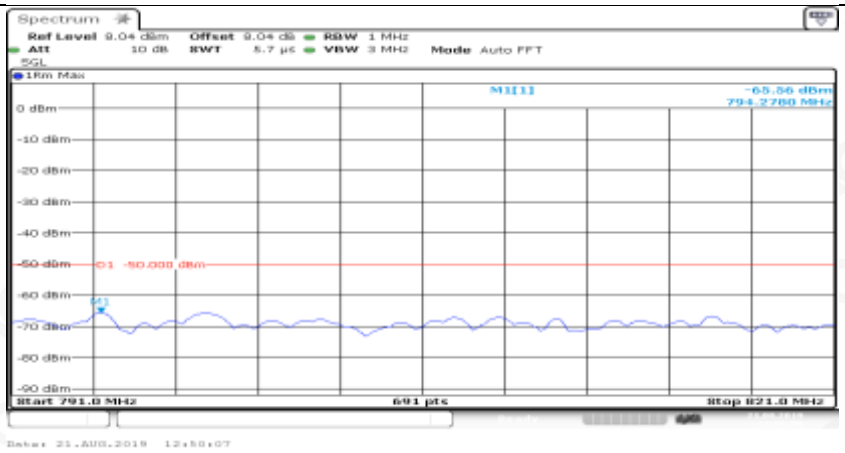
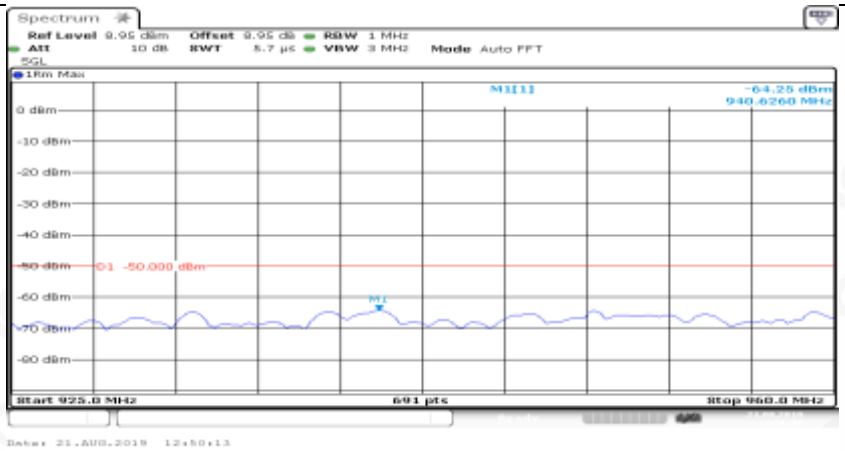
Co-existence	
Co-existence	
Co-existence	

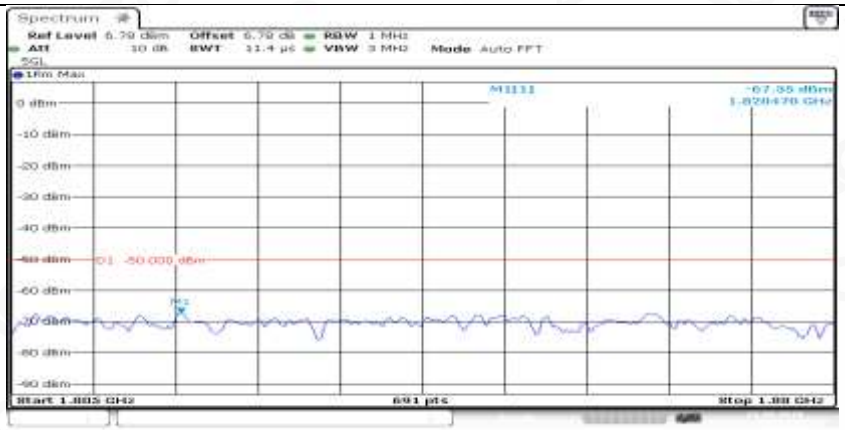
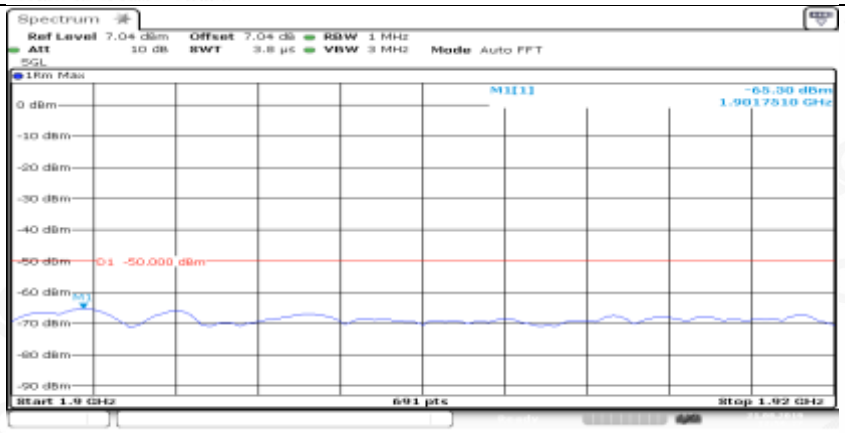
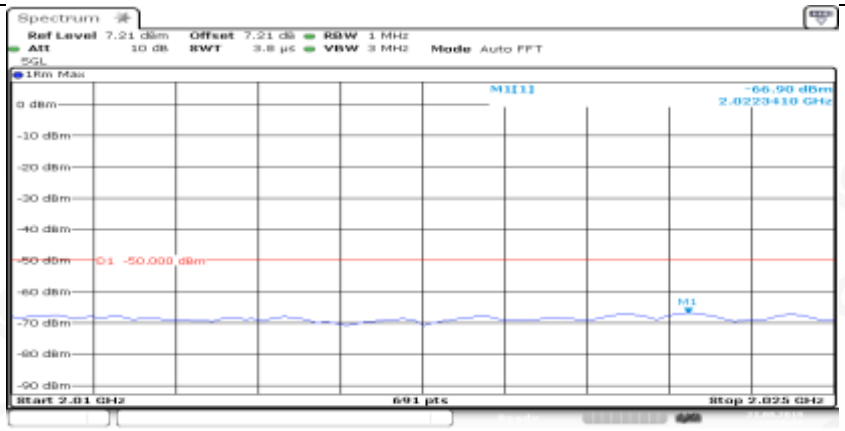
Co-existence	
Co-existence	
Co-existence	

Co-existence	
Additional	NA

Channel Bandwidth= (5 MHz)_QPSK_LCH_1RB#max	
General	
General	

General	
General	
General	

General	
Co-existence	
Co-existence	

Co-existence	
Co-existence	
Co-existence	

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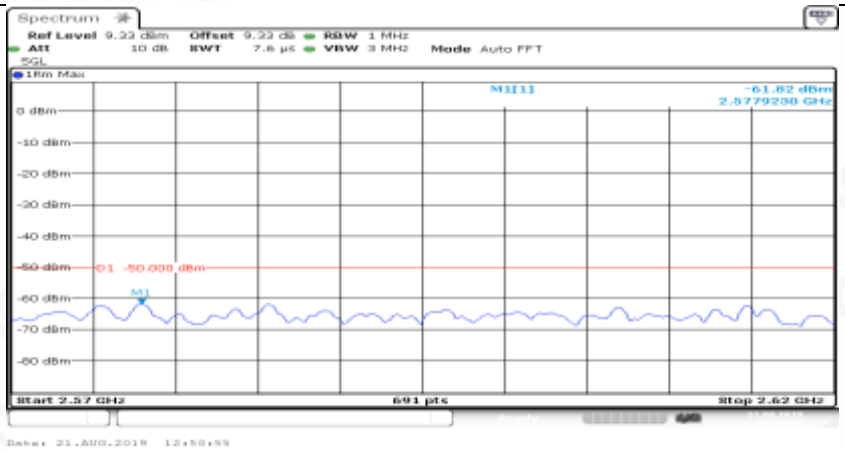
Co-existence	

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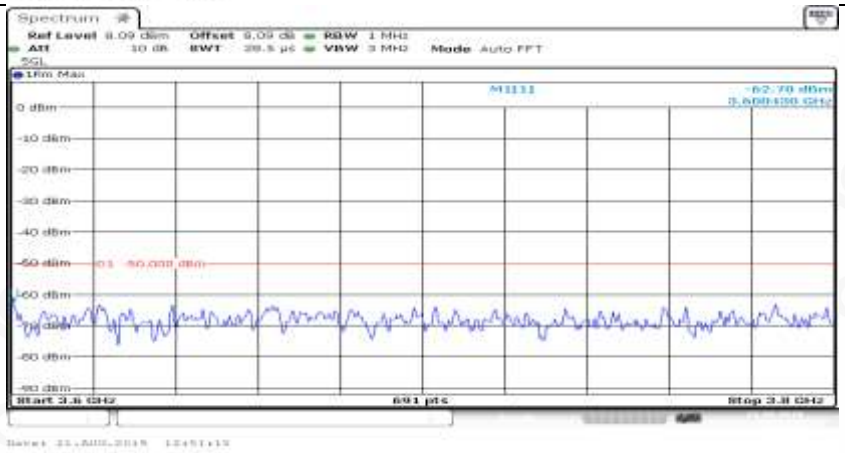
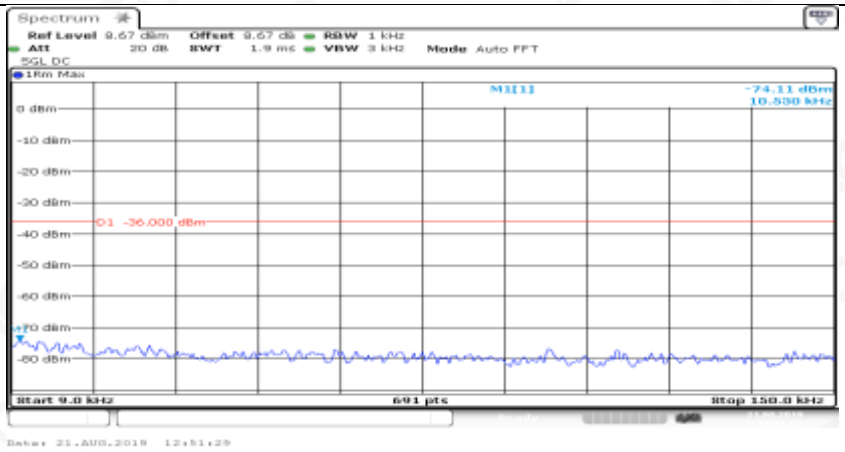
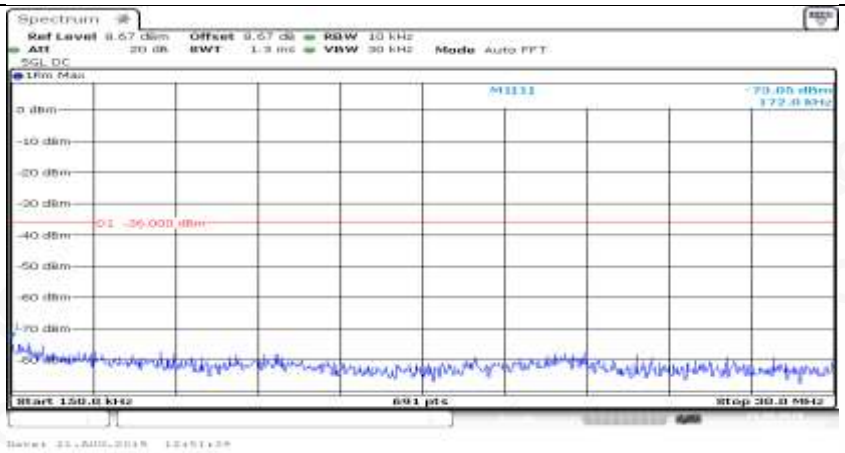
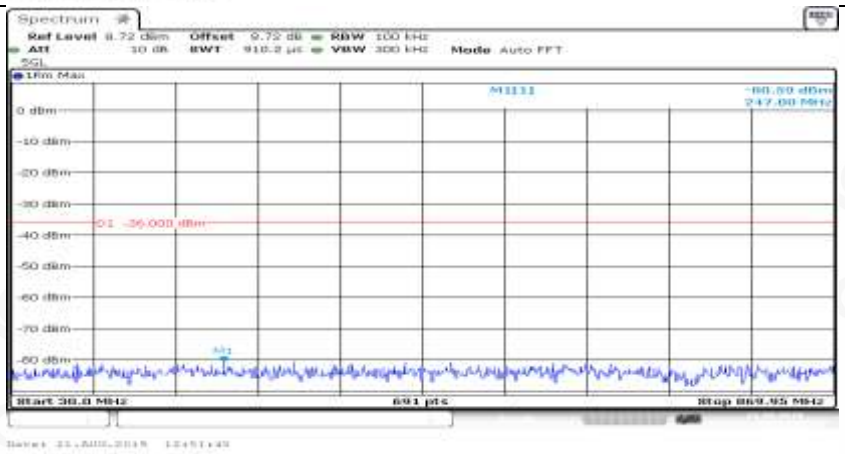
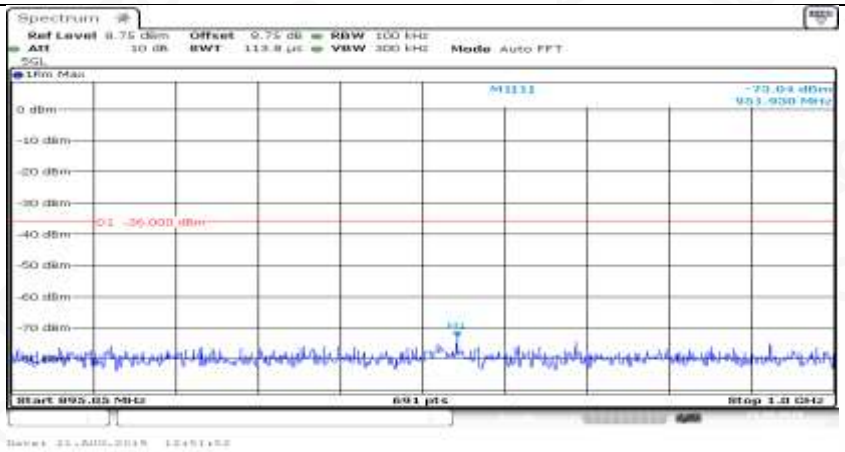
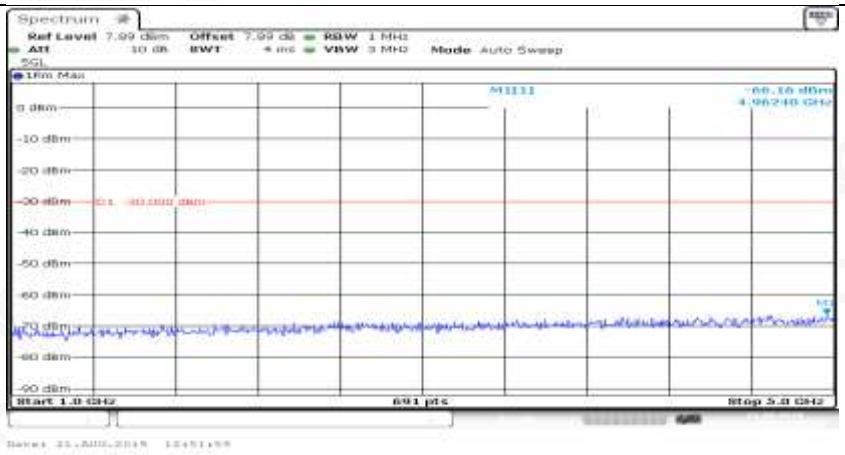
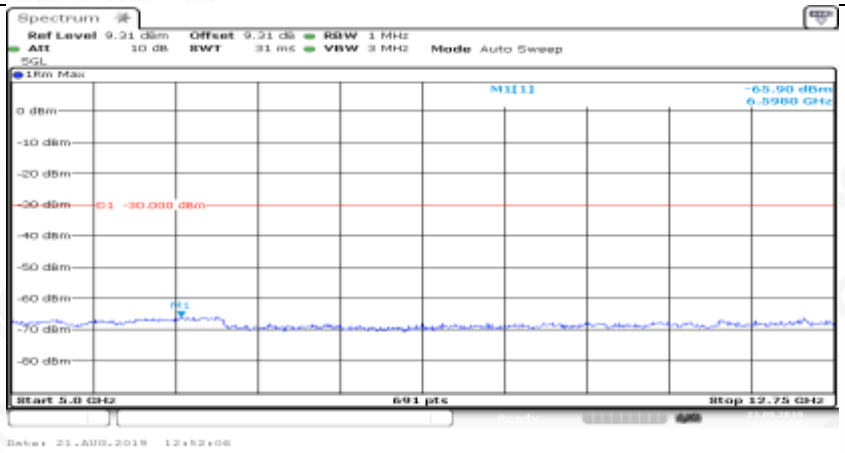
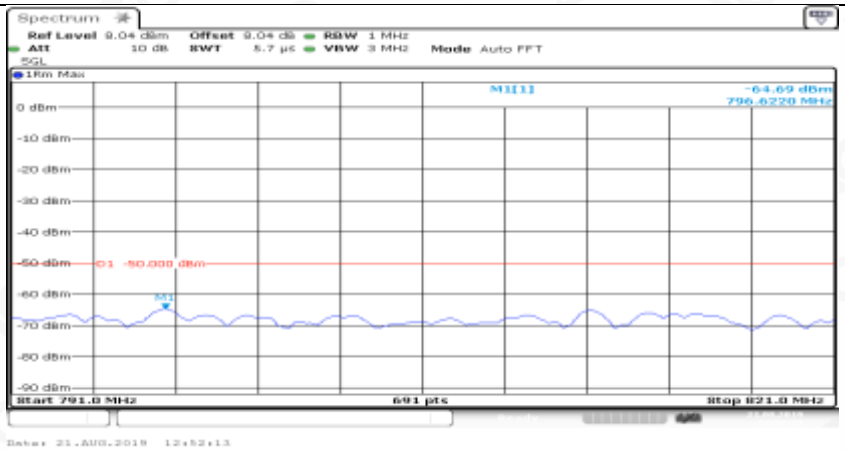
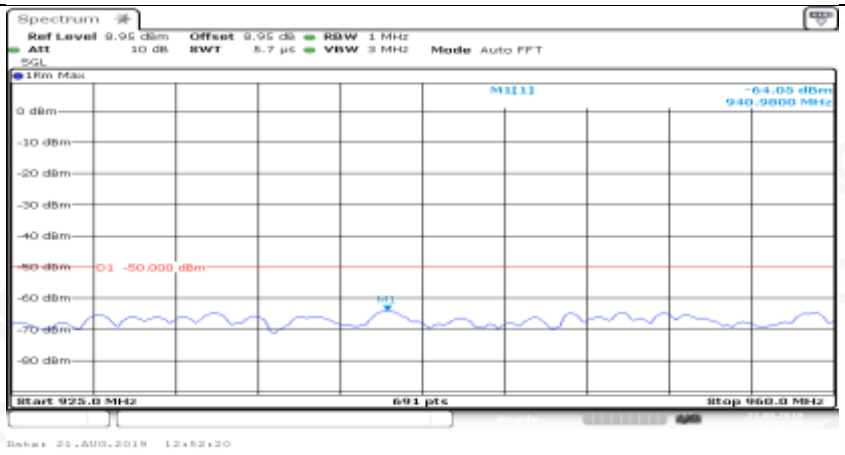
Co-existence	
Additional	NA

Channel Bandwidth= (5 MHz)_QPSK_LCH_FullRB#0

General	
General	
General	

General	
General	
General	

Co-existence	
Co-existence	
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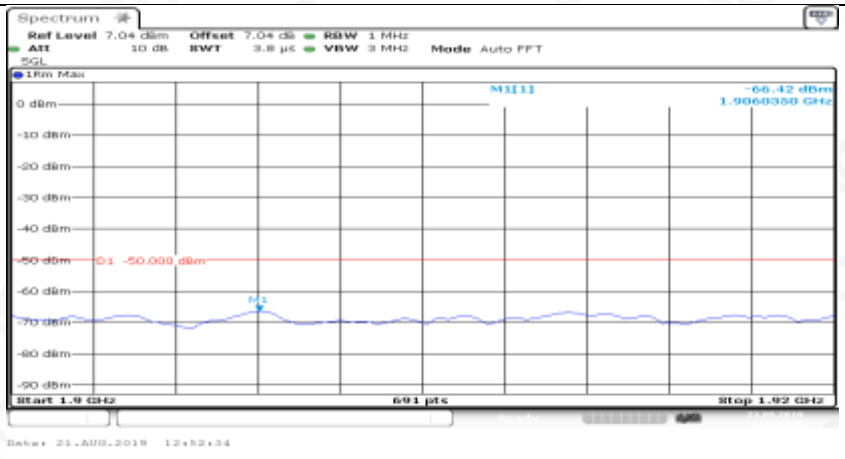
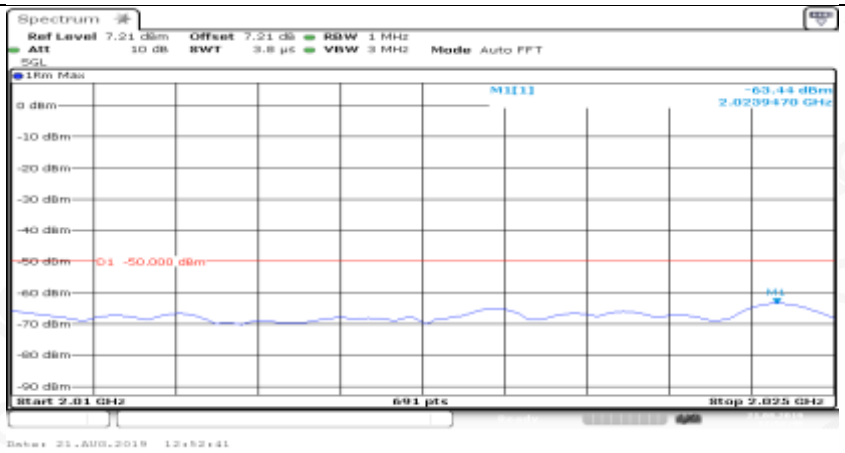
Co-existence	
Co-existence	
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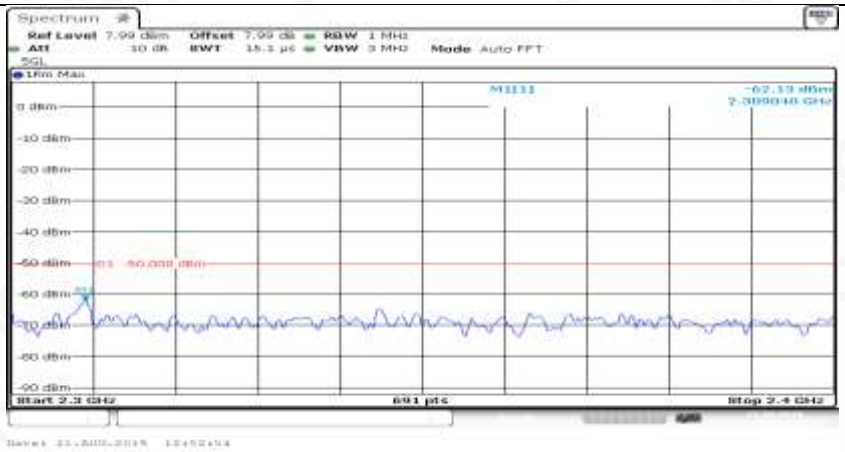
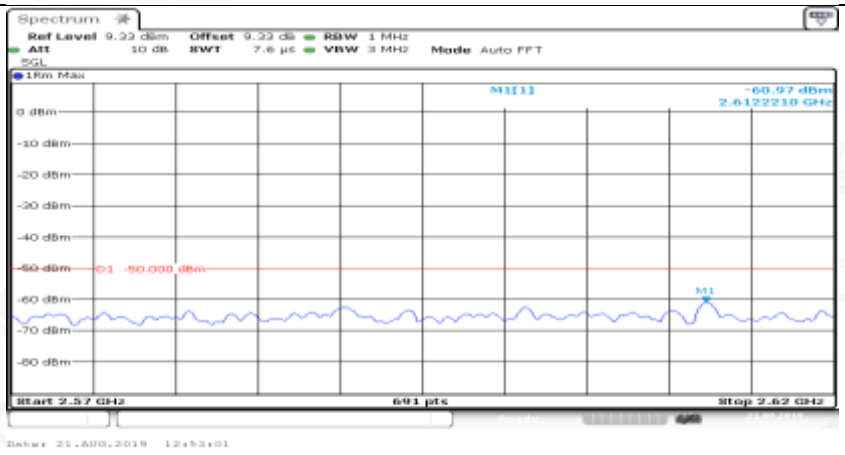
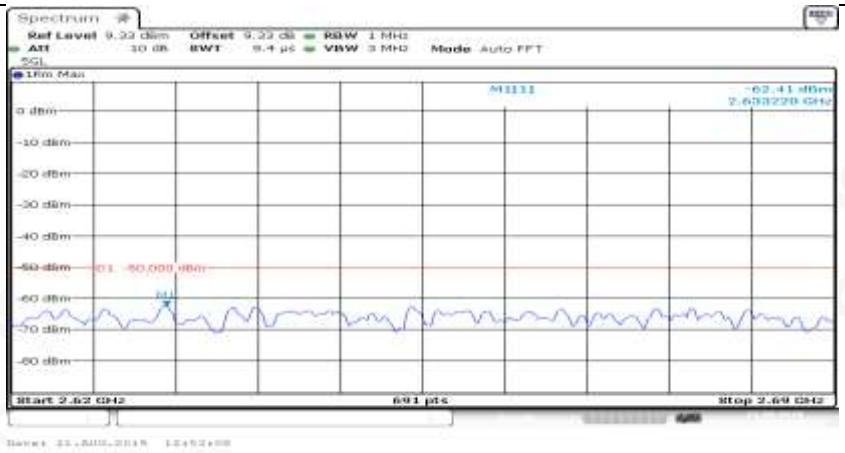
Co-existence	
Co-existence	
Co-existence	

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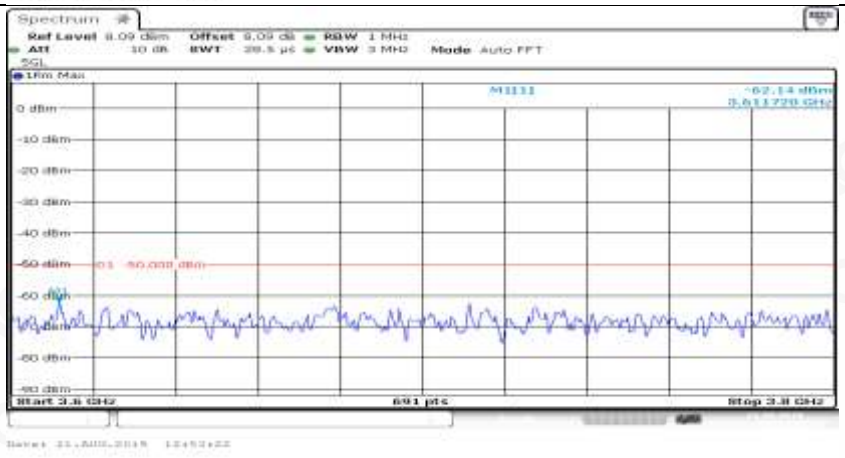
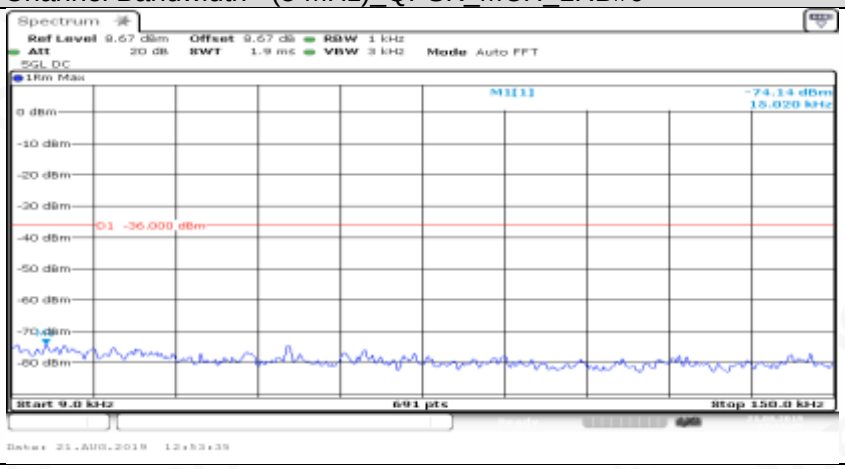
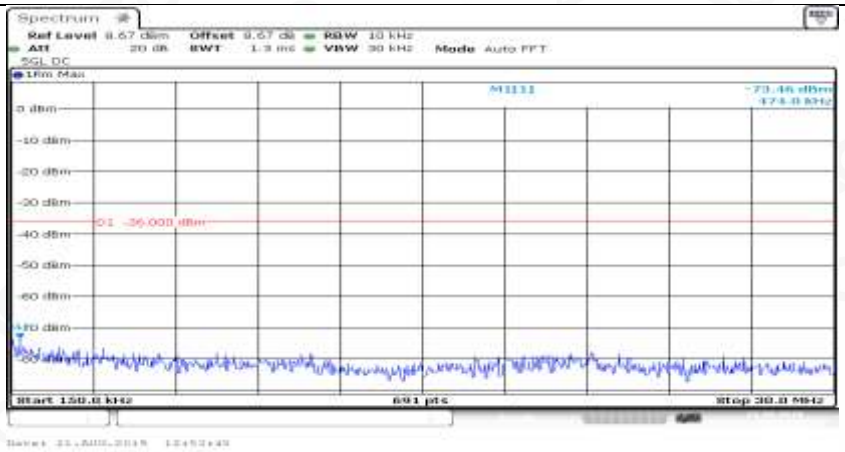
Co-existence	
Additional	NA

Channel Bandwidth= (5 MHz)_QPSK_MCH_1RB#0	
General	

General	
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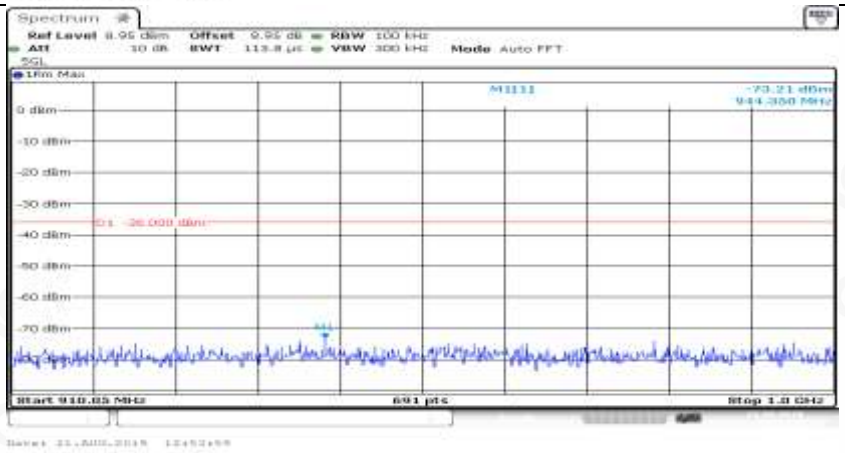
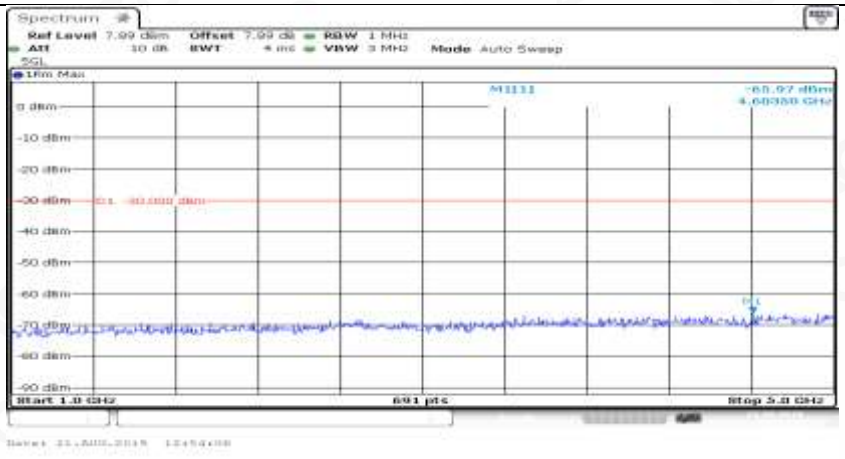
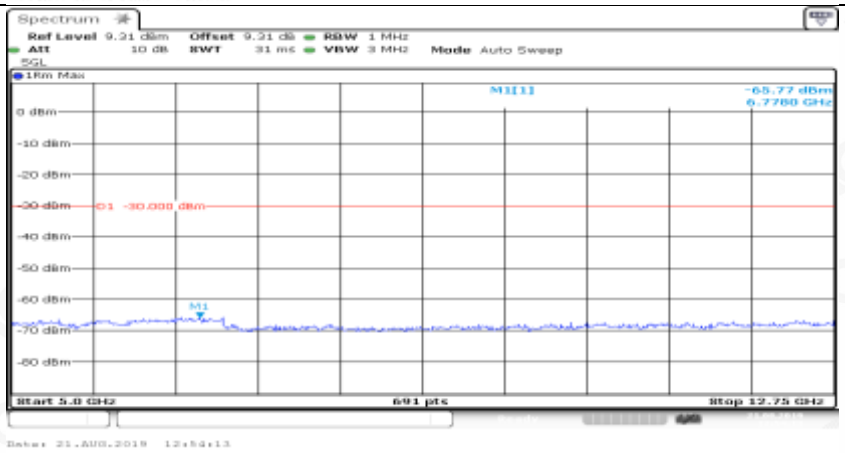
General	

General	
General	
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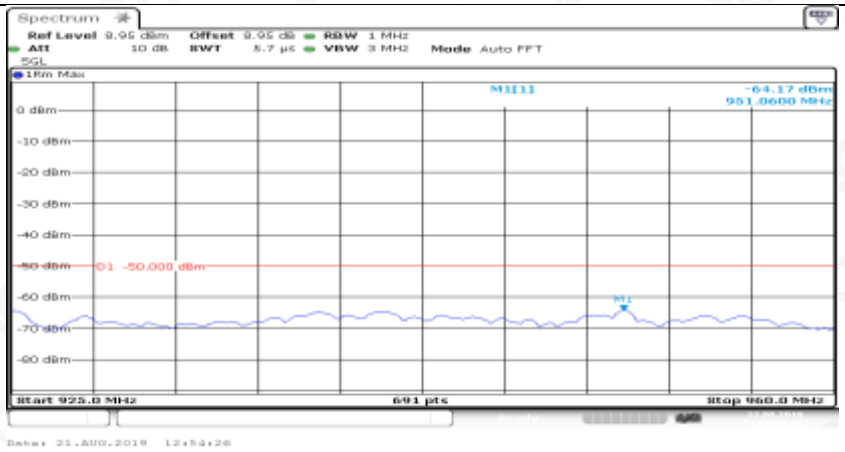
Co-existence	
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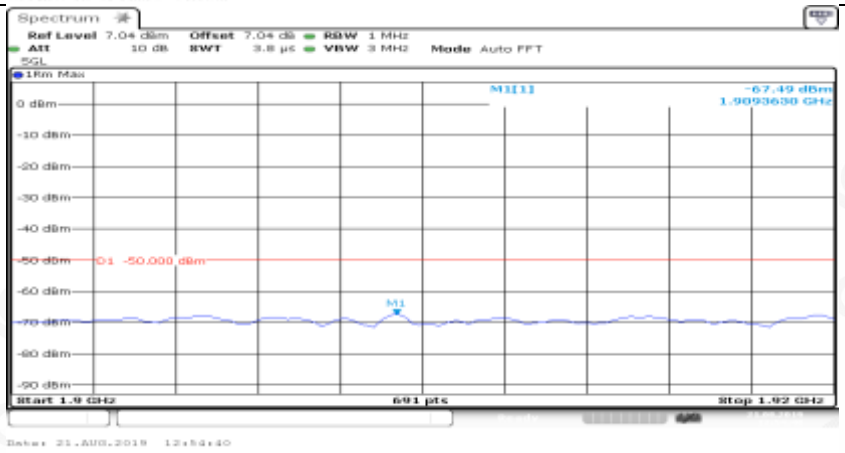
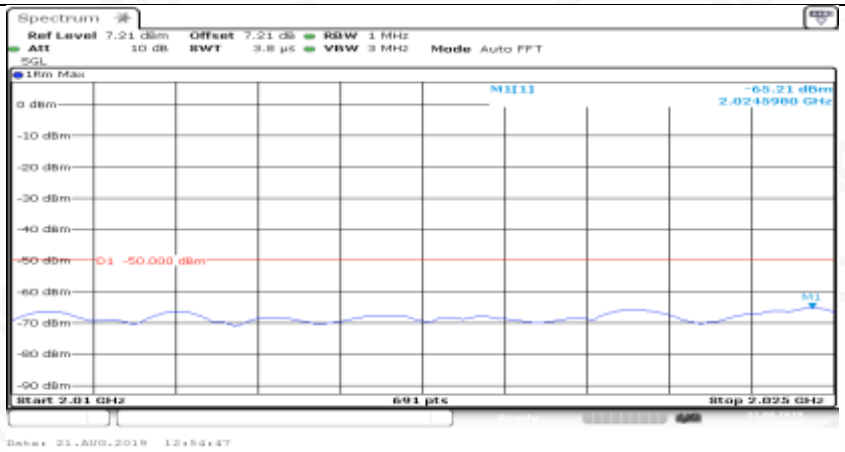
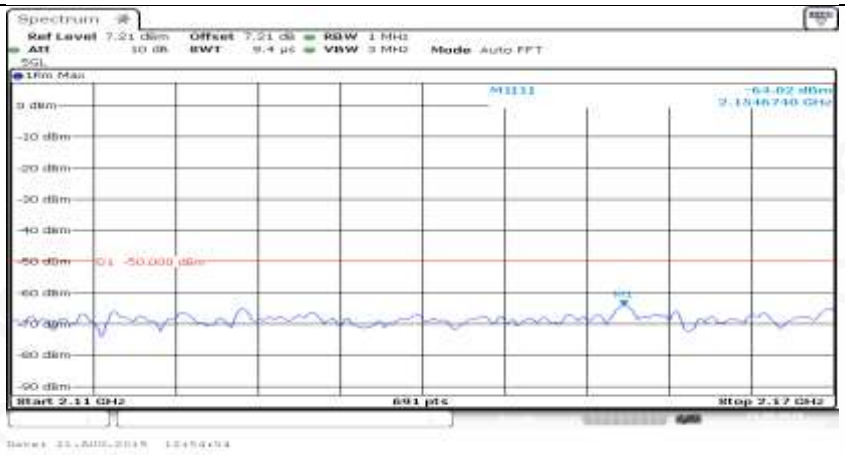
Co-existence	

Co-existence	
Co-existence	
Co-existence	

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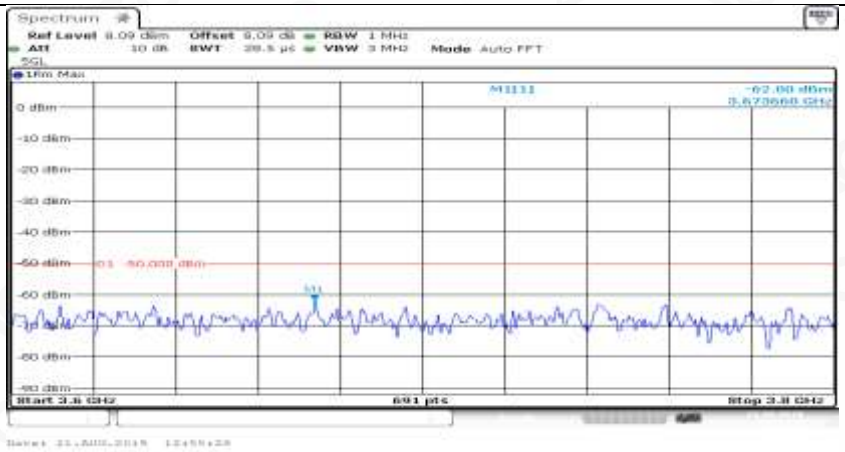
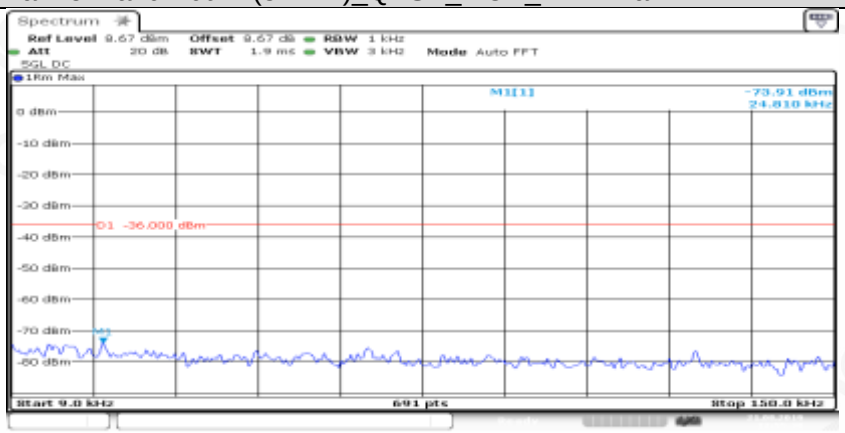
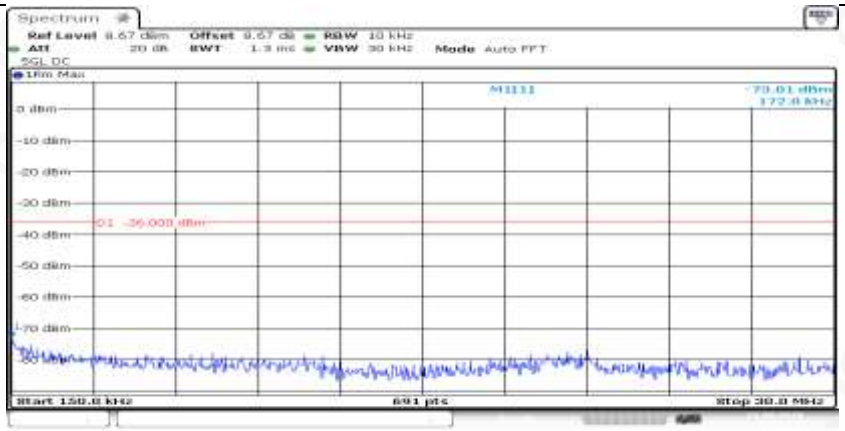
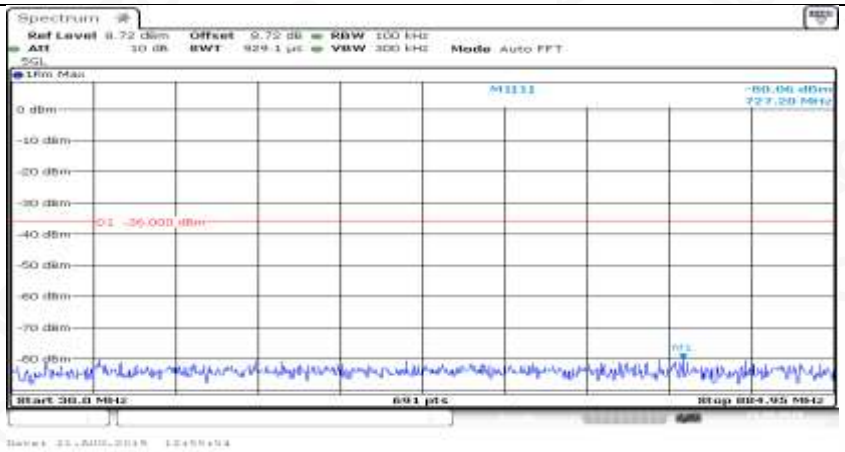
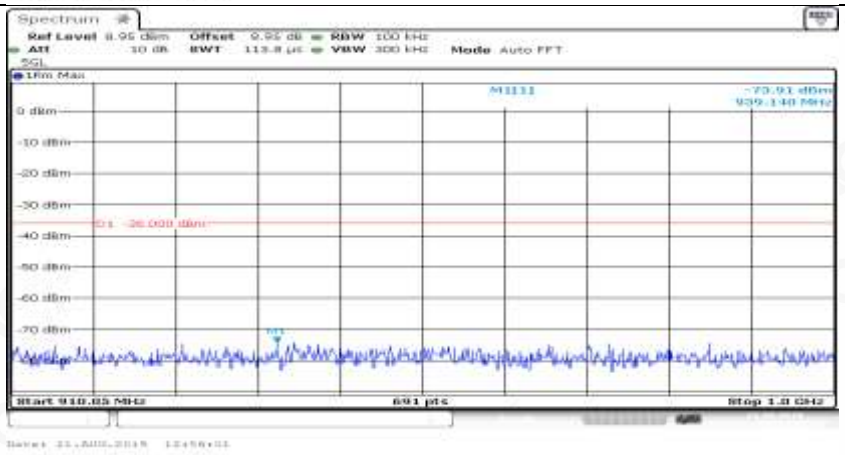
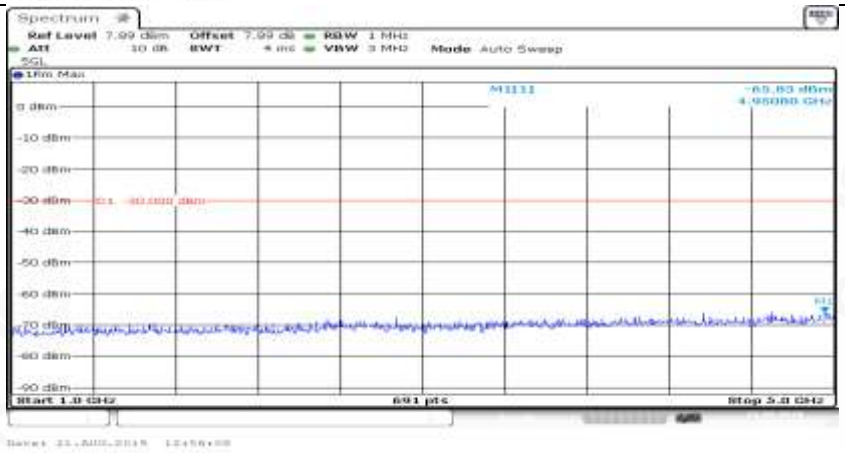
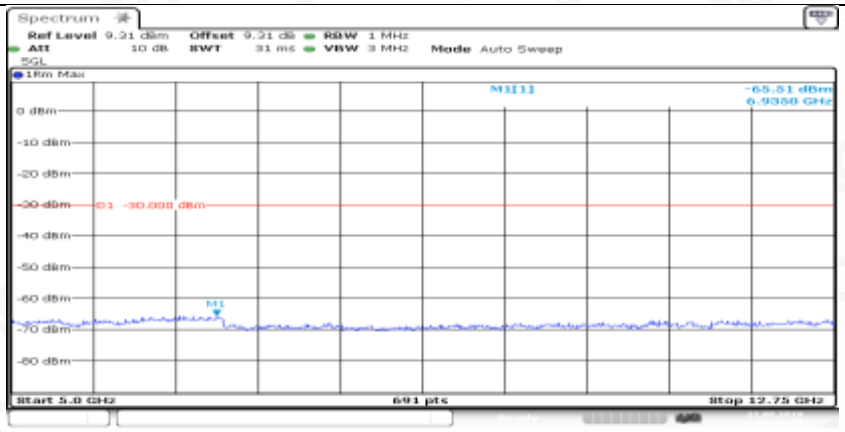
Co-existence	
Co-existence	

Co-existence	
Additional	NA

Channel Bandwidth= (5 MHz)_QPSK_MCH_1RB#max	
General	
General	

General	
General	
General	

General	
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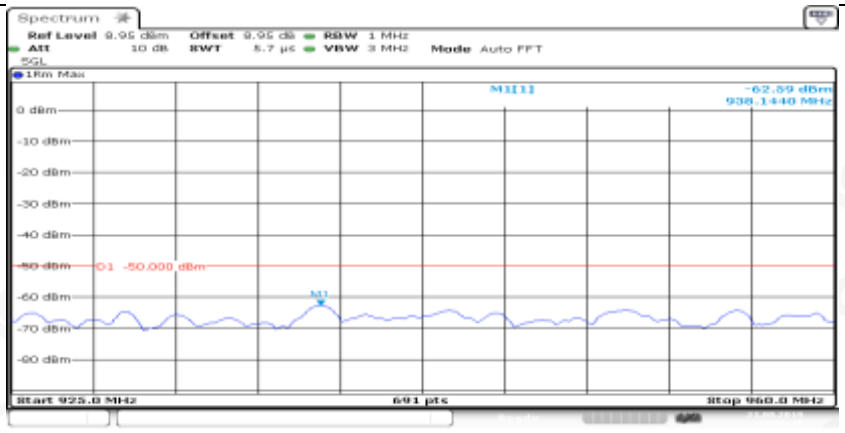
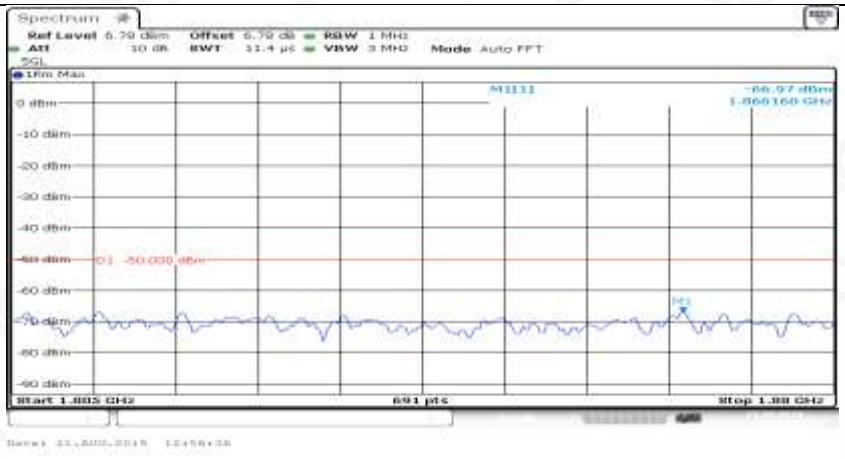
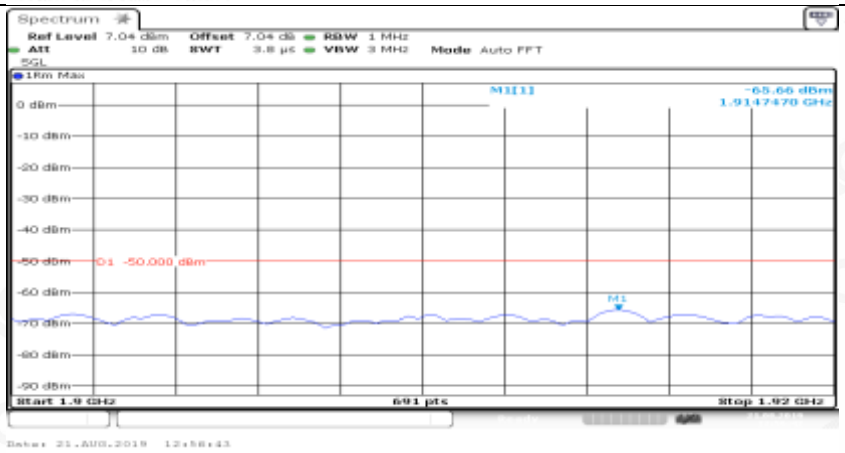
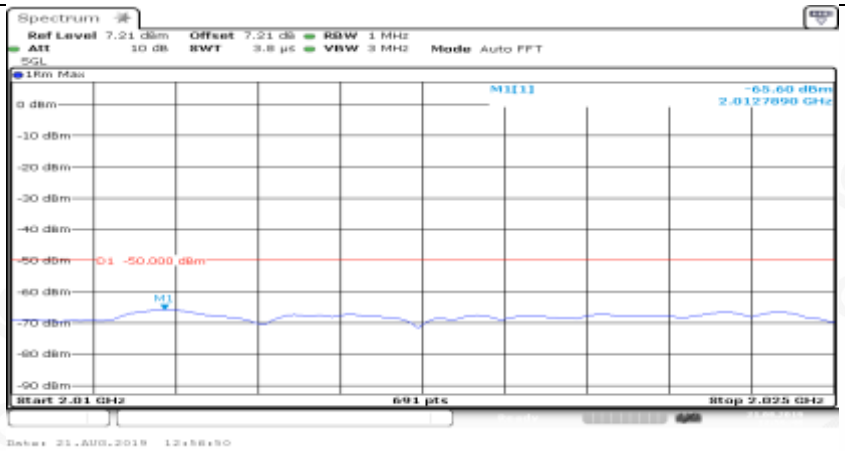
Co-existence	

Co-existence	
Co-existence	
Co-existence	

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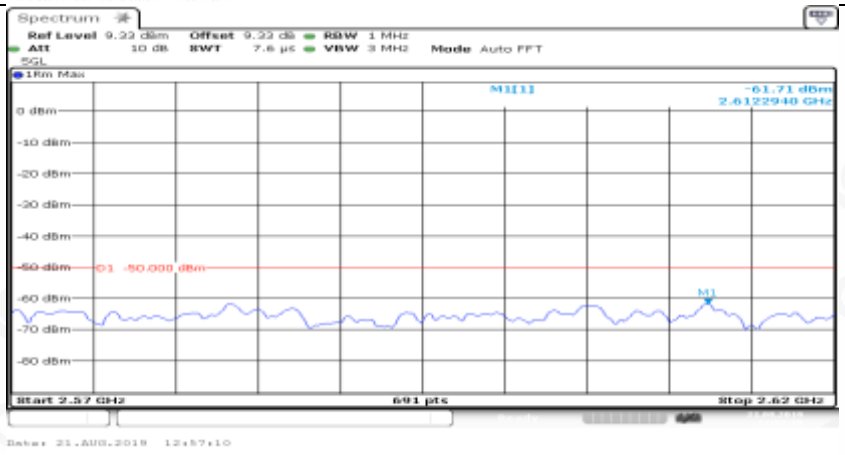
Co-existence	

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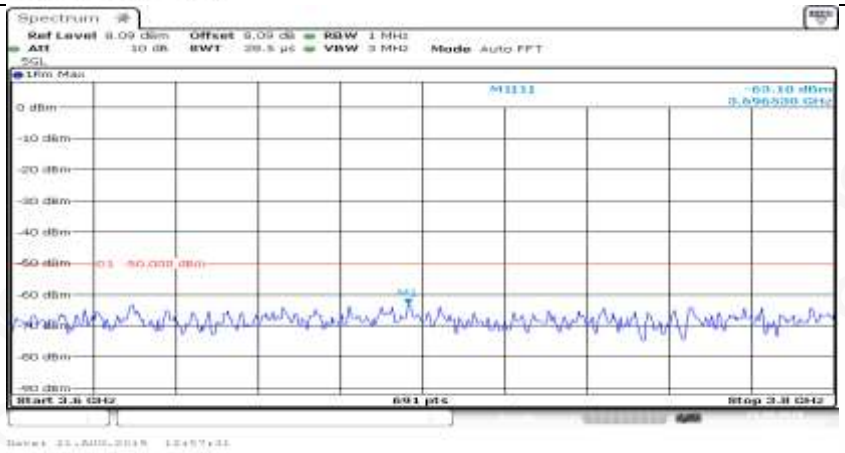
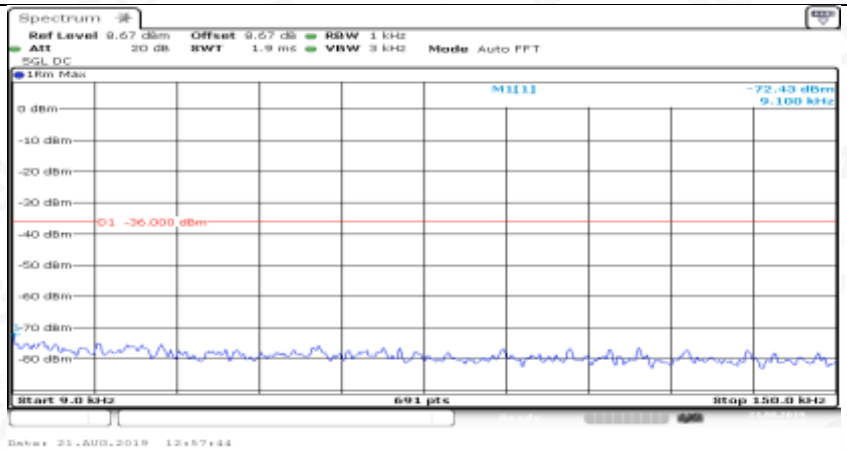
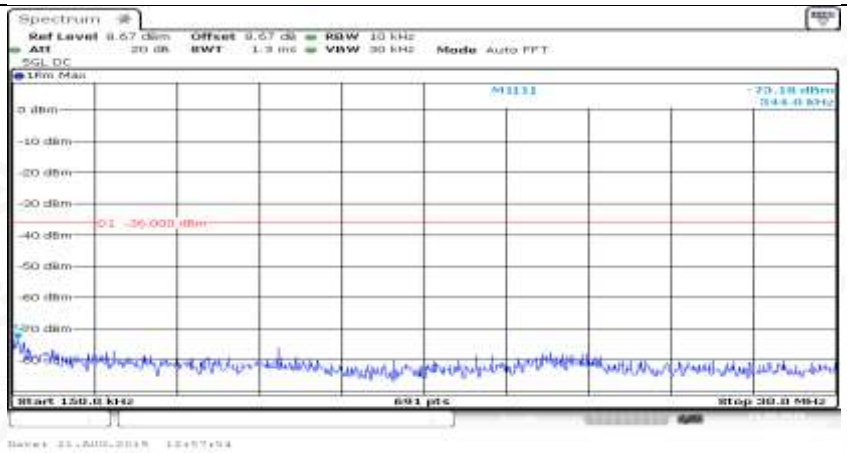
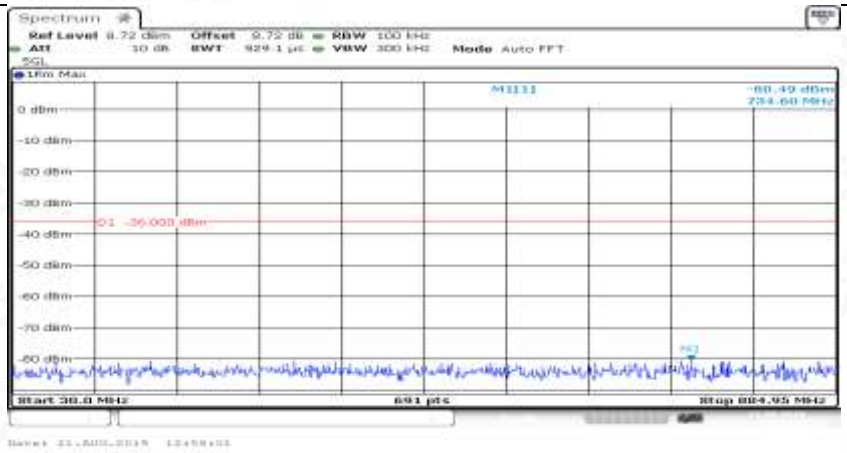
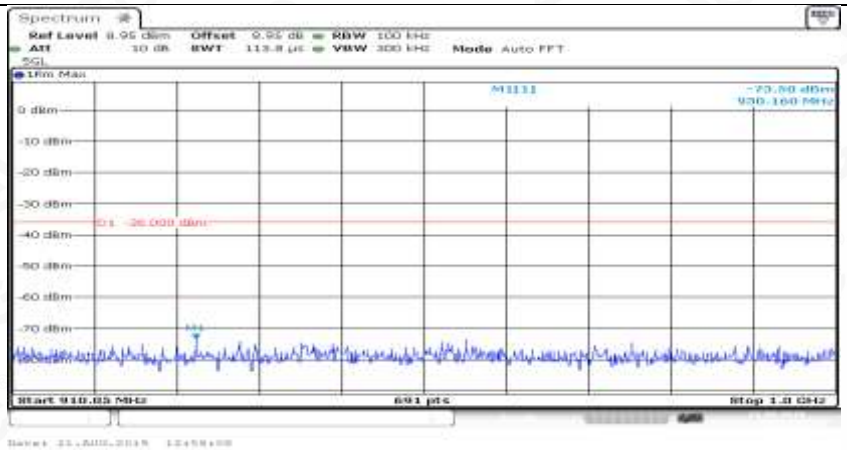
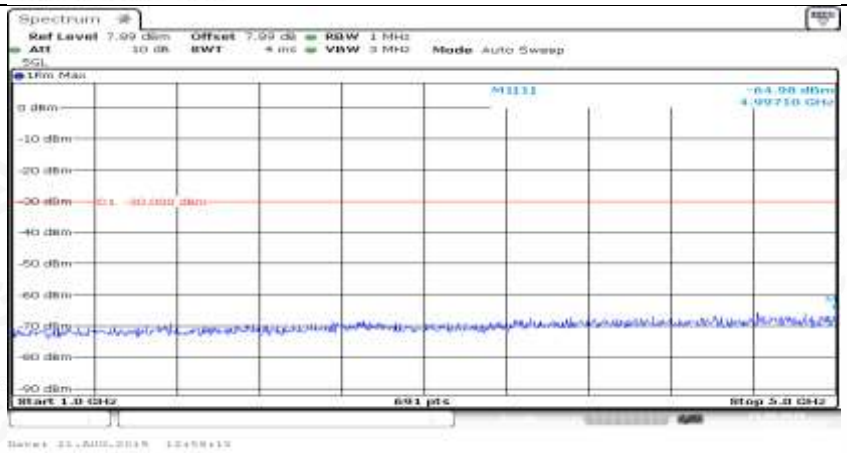
Co-existence	
Additional	NA

Channel Bandwidth= (5 MHz)_QPSK_MCH_FullRB#0

General		
General		
General		

General		
General		
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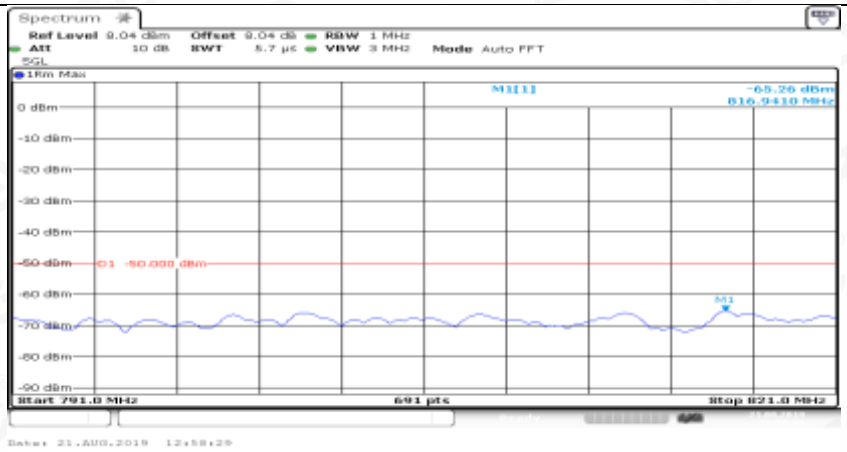
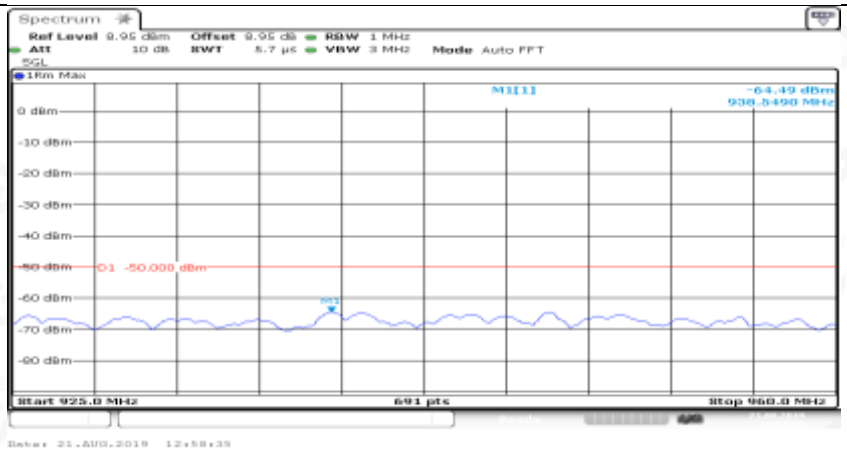
Co-existence		
Co-existence		
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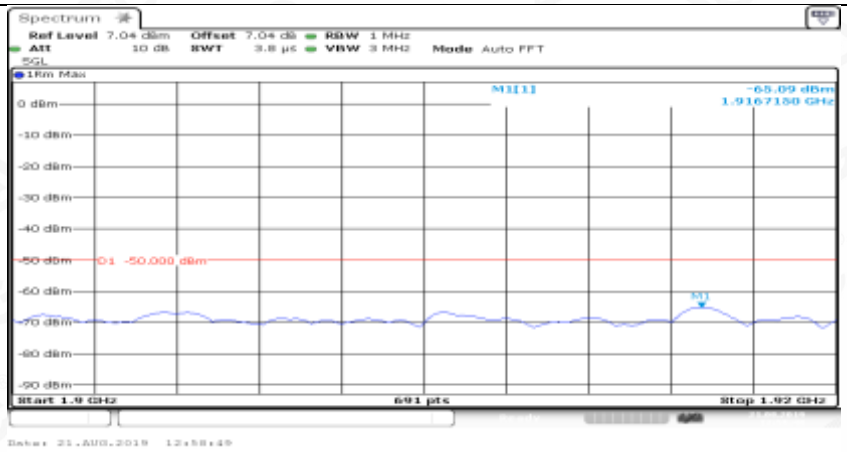
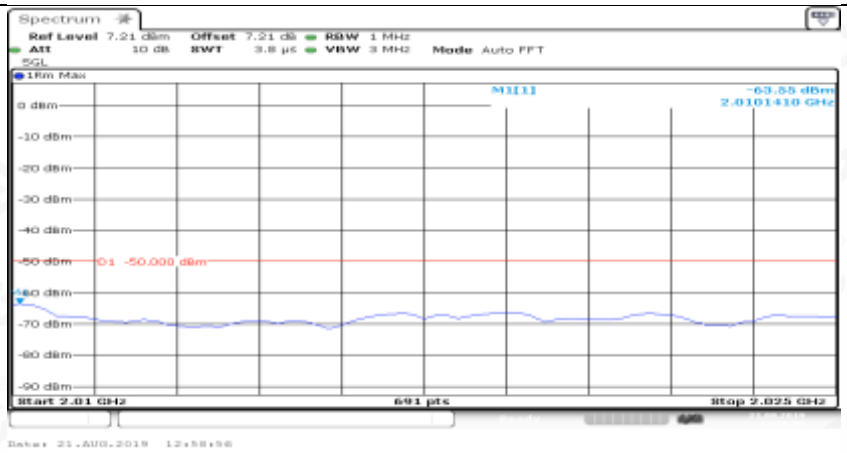
Co-existence		
Co-existence		
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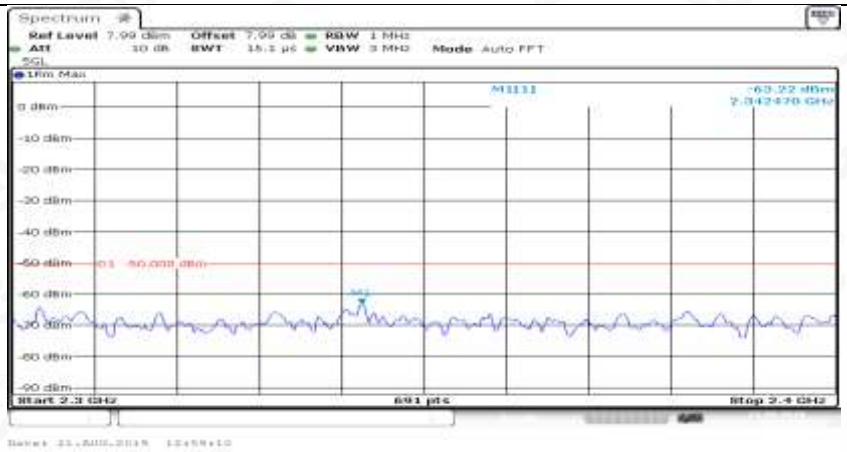
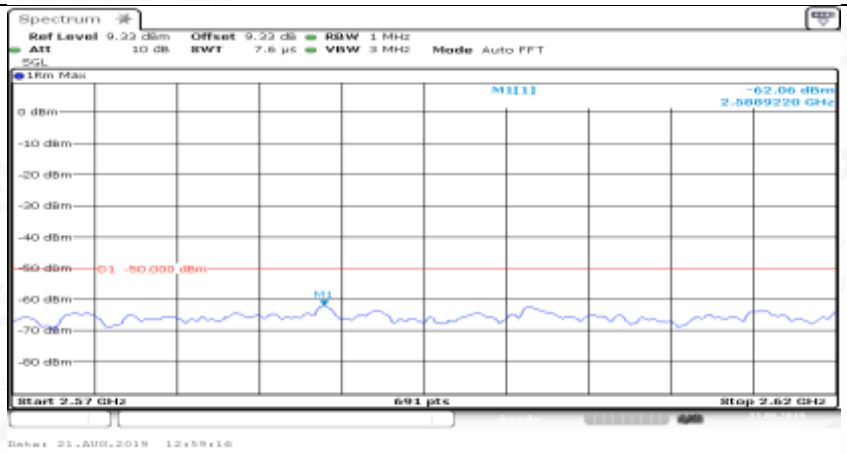
Co-existence	
Co-existence	
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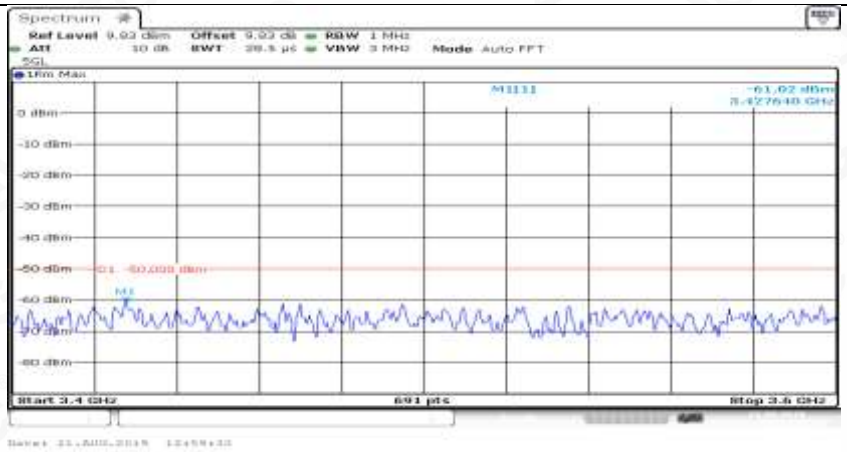
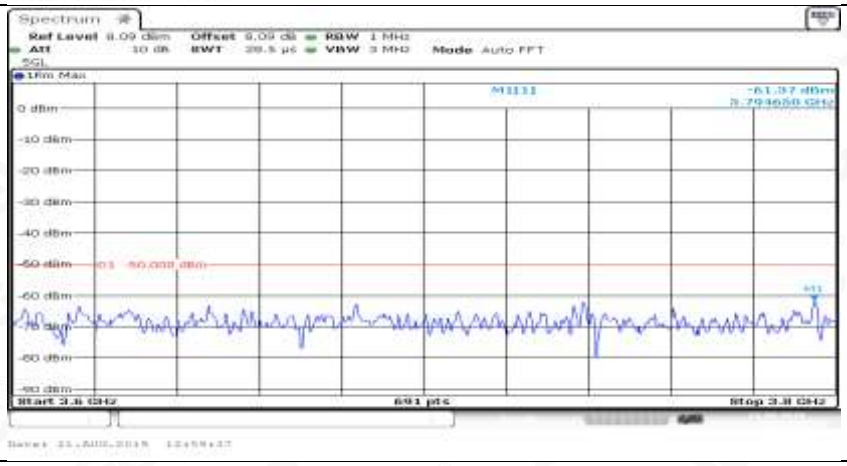
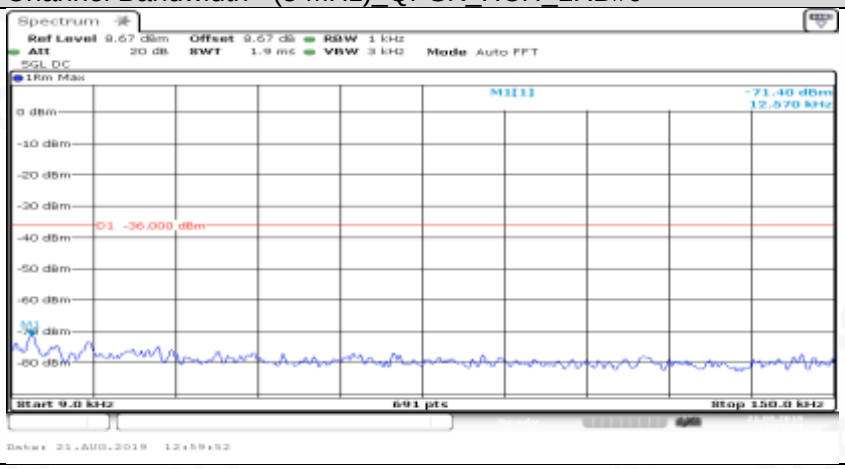
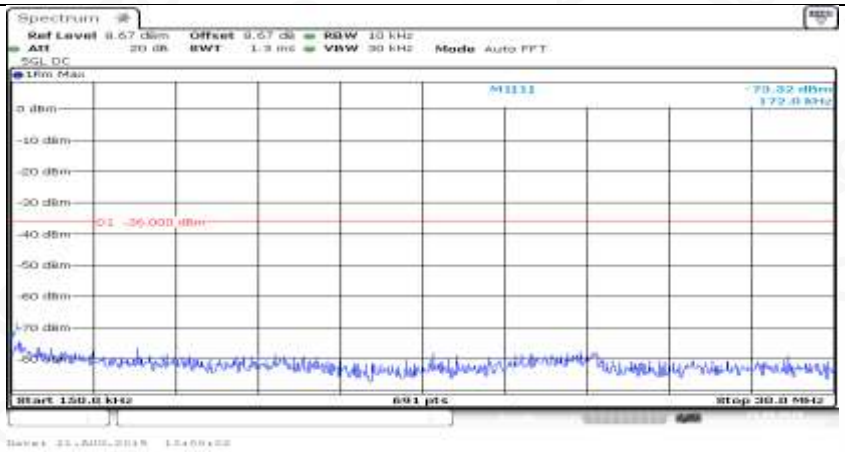
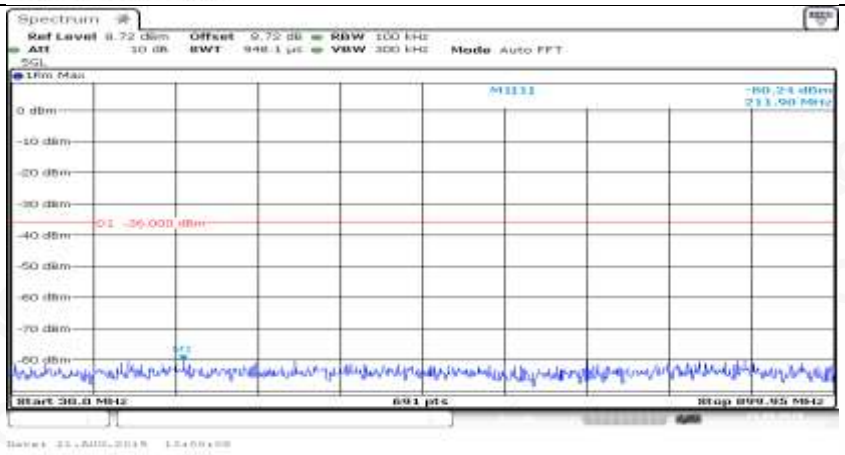
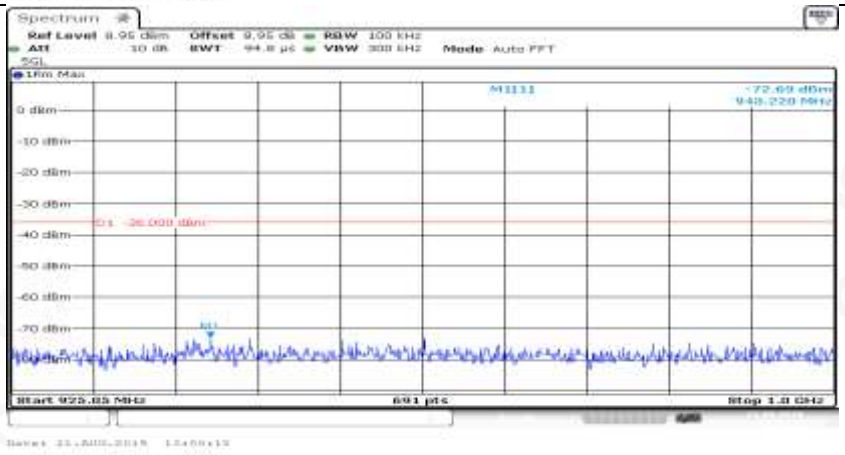
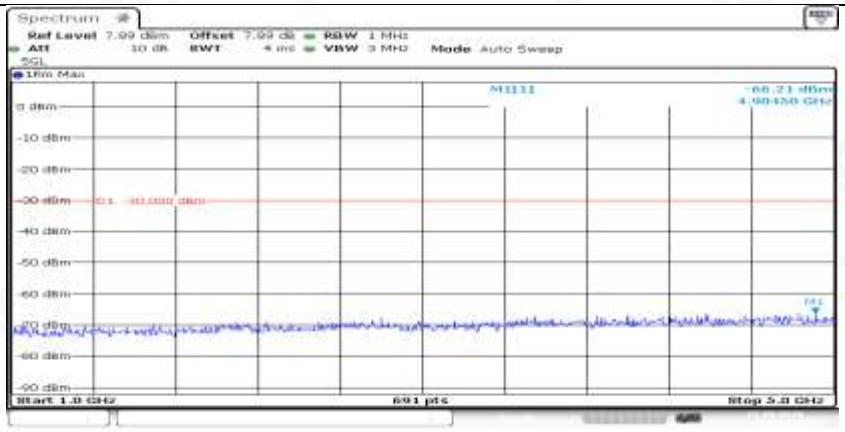
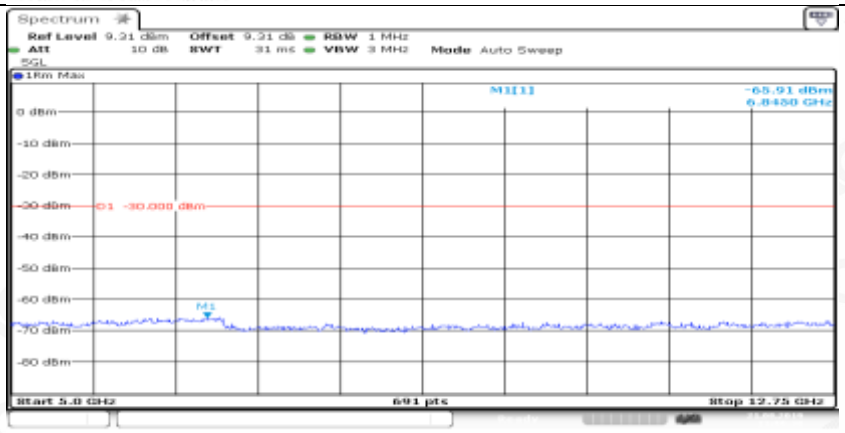
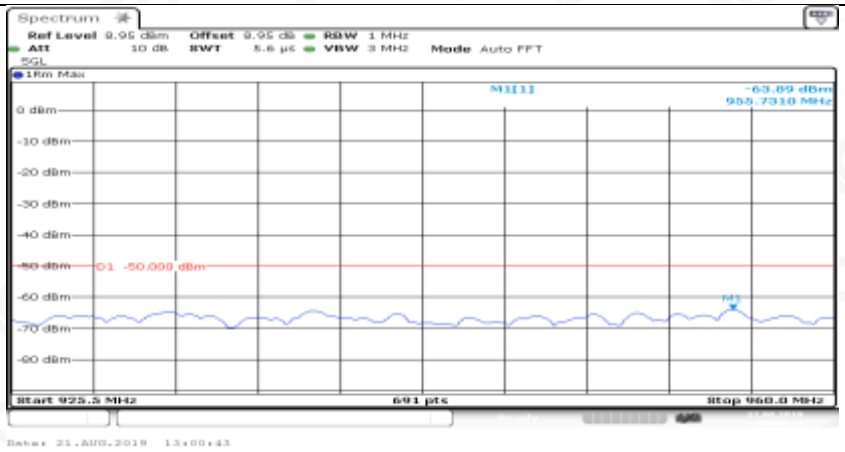
Co-existence	
Co-existence	
Additional	NA

Channel Bandwidth= (5 MHz)_QPSK_HCH_1RB#0	
General	

General		
General		
General		

General	
General	
Co-existence	

Co-existence	
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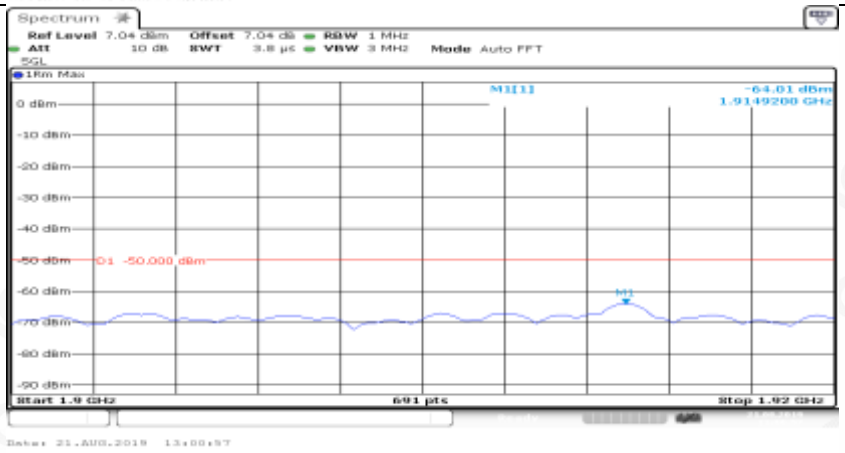
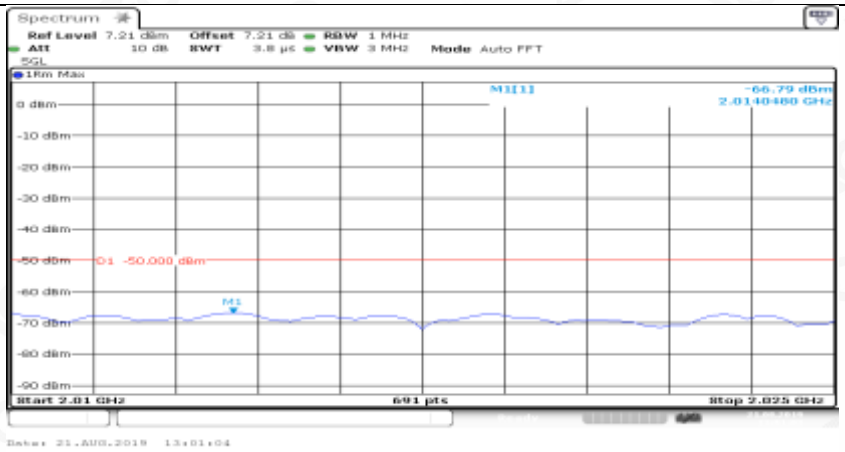
Co-existence	

Co-existence	
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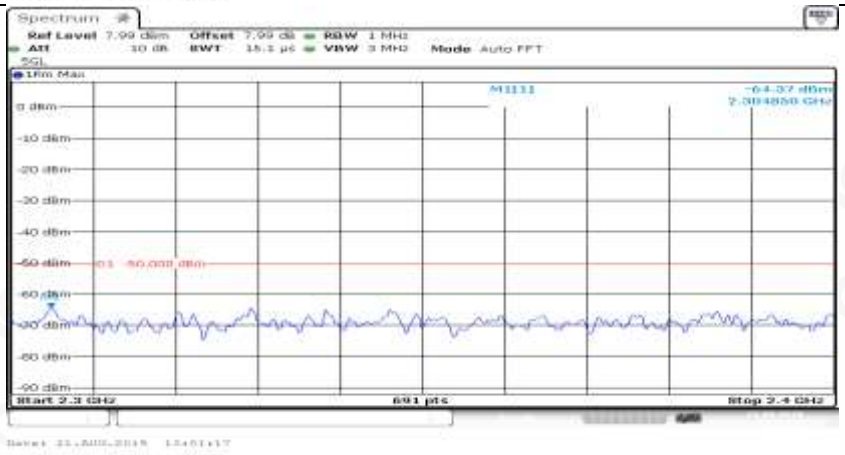
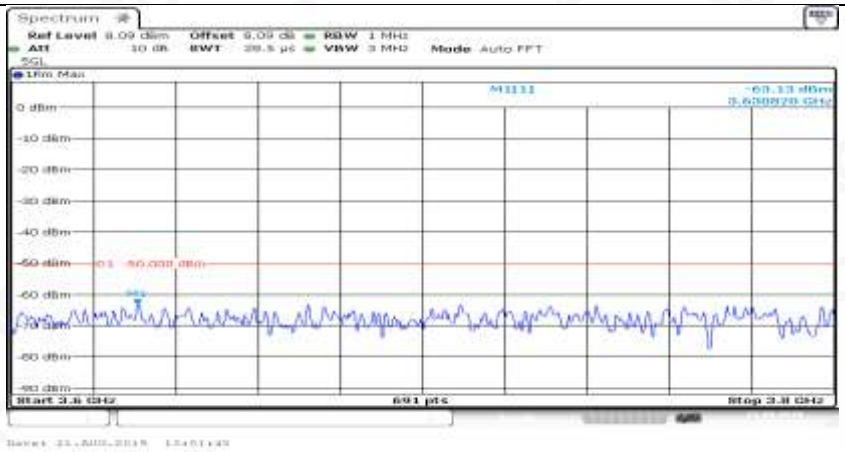
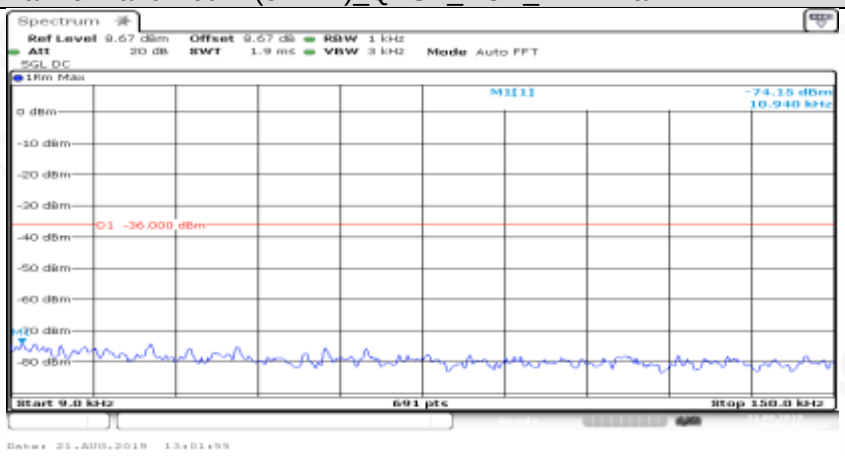
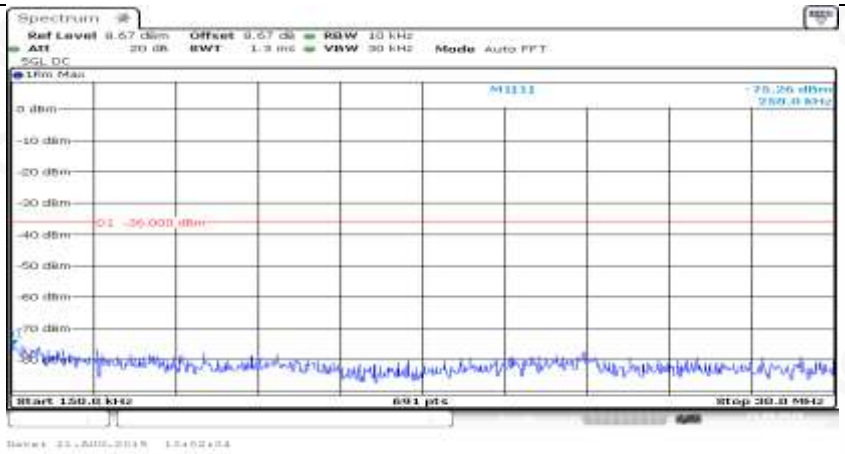
Co-existence	

Co-existence	
Co-existence	
Co-existence	

Co-existence	
Additional	NA

Channel Bandwidth= (5 MHz)_QPSK_HCH_1RB#max	
General	
General	

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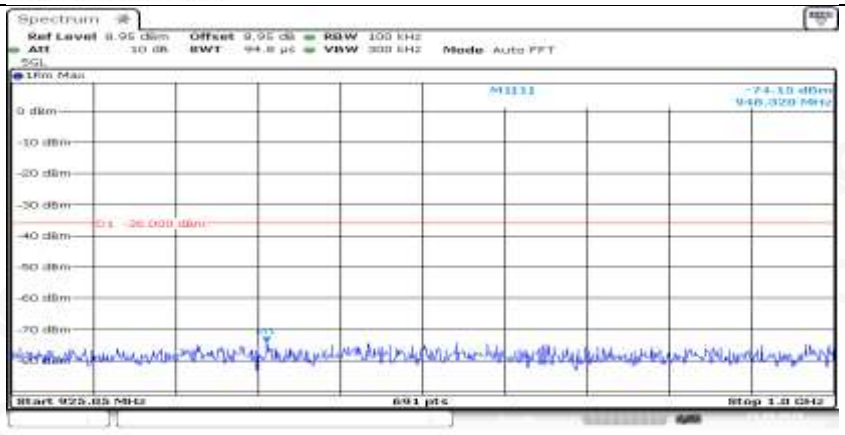
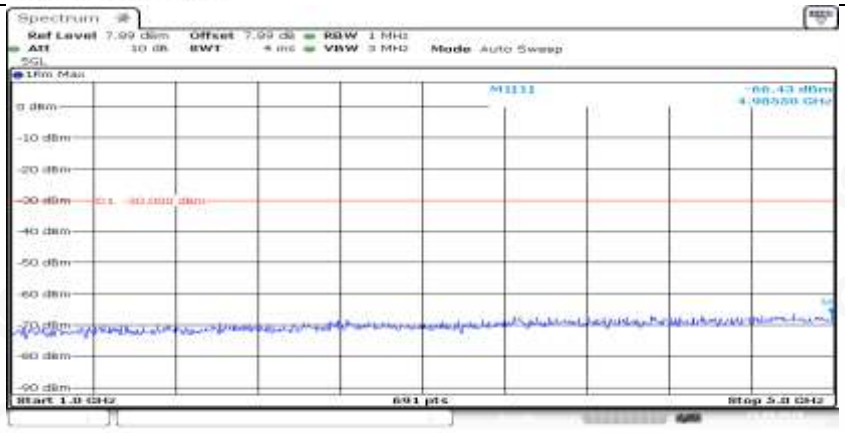
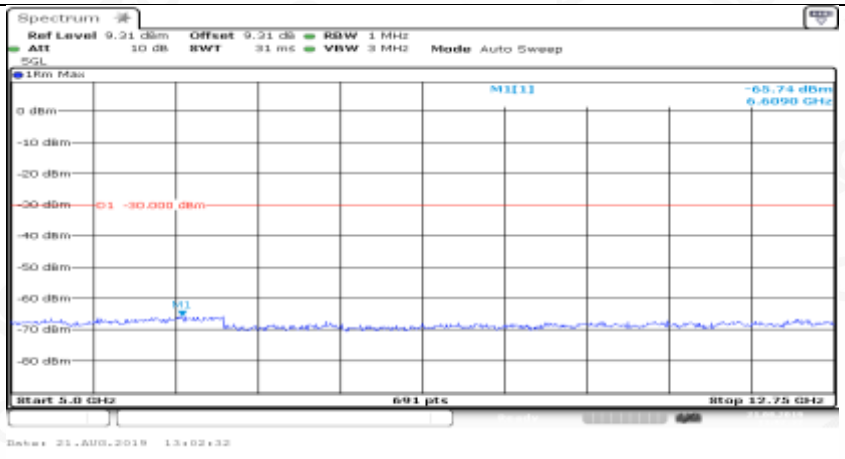
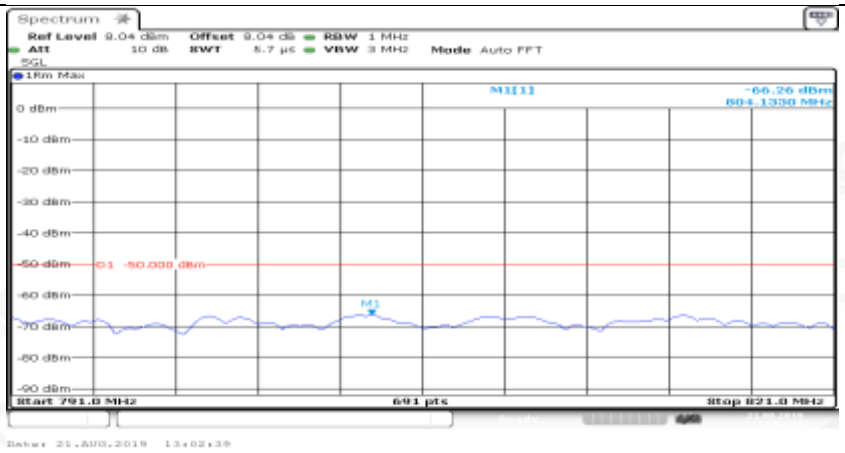
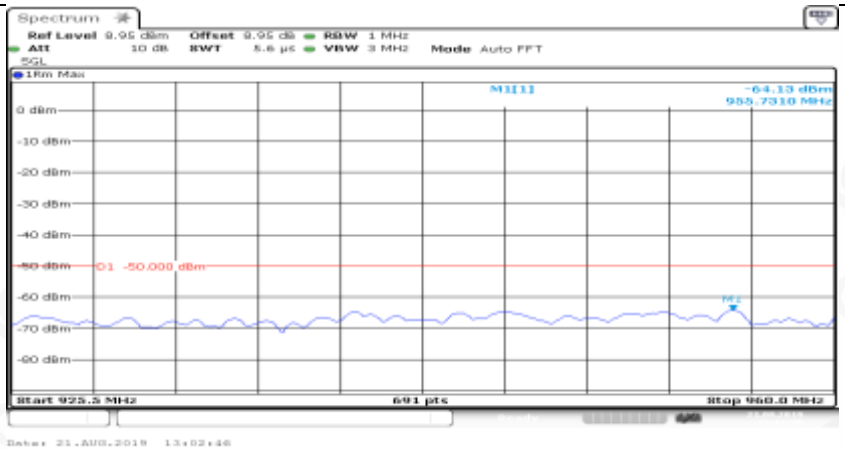
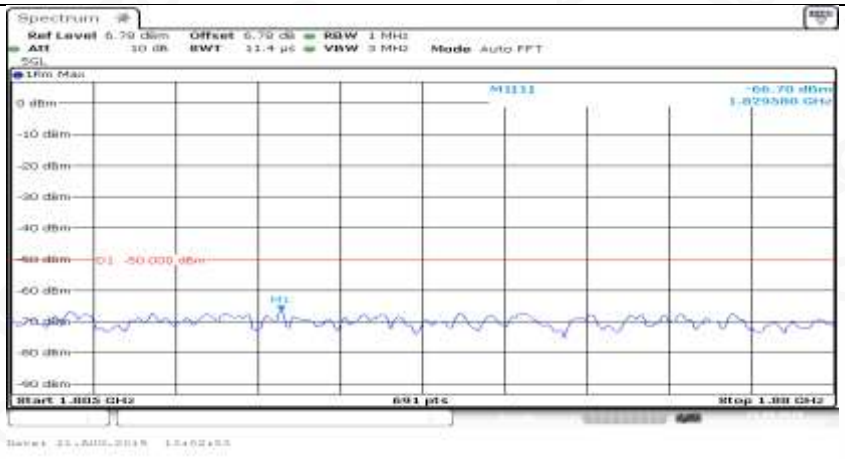
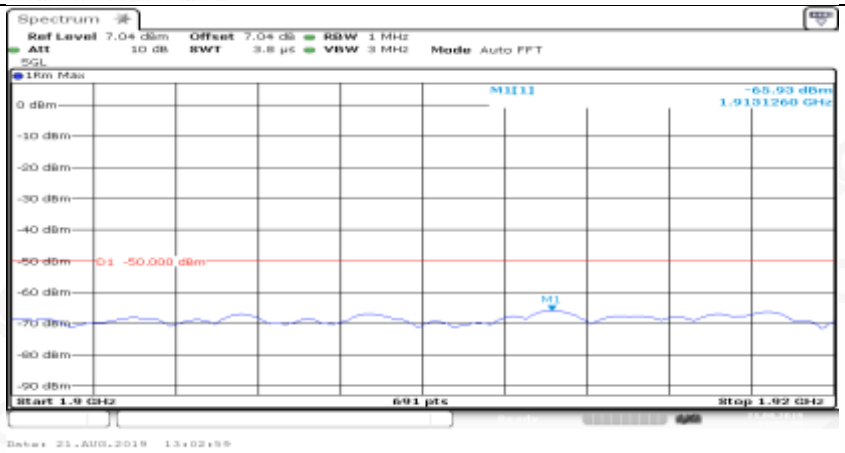
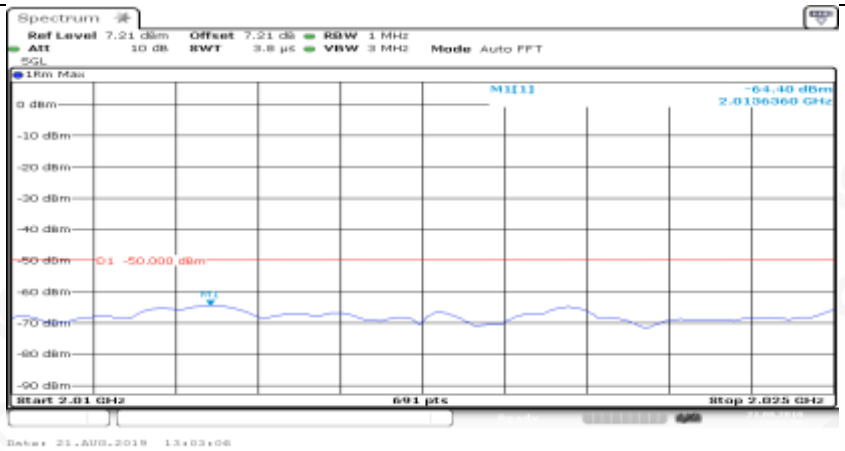
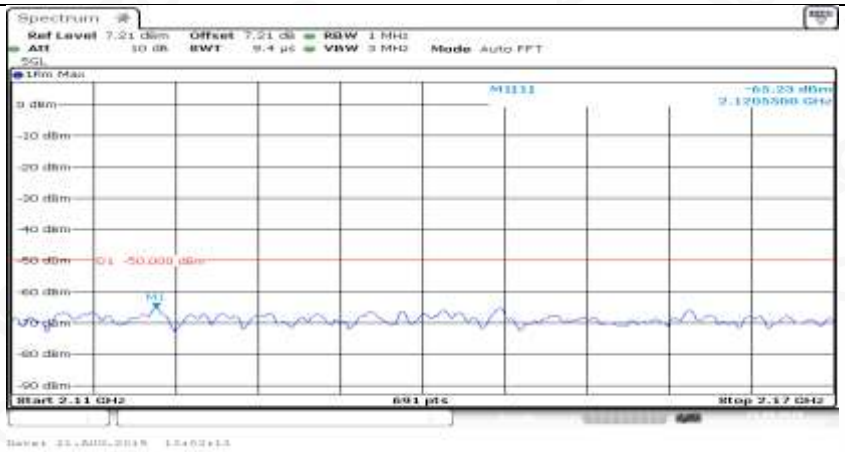
General	
General	

General	
Co-existence	
Co-existence	

Co-existence	
Co-existence	
Co-existence	

Co-existence	
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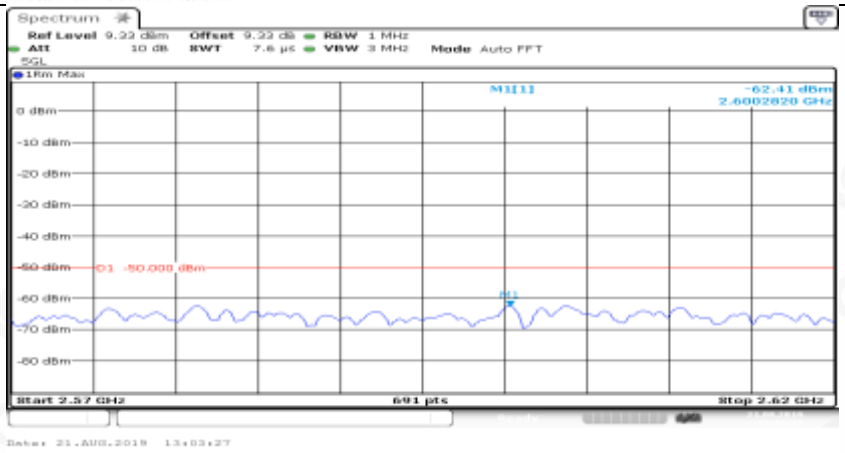
Co-existence	

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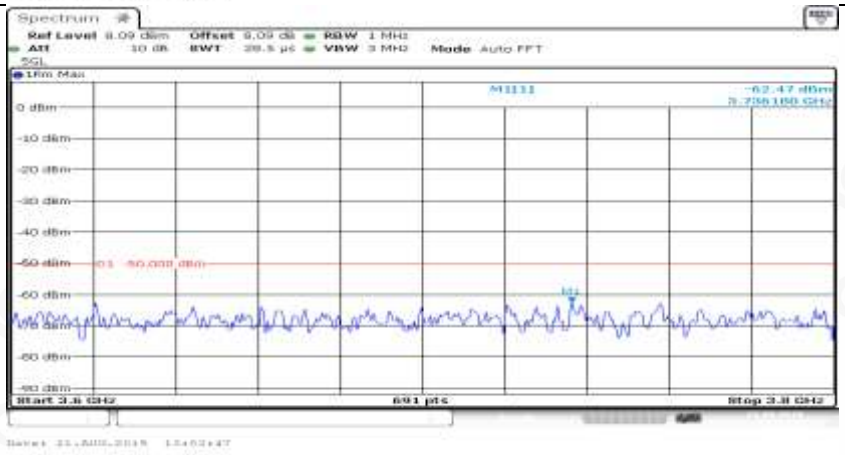
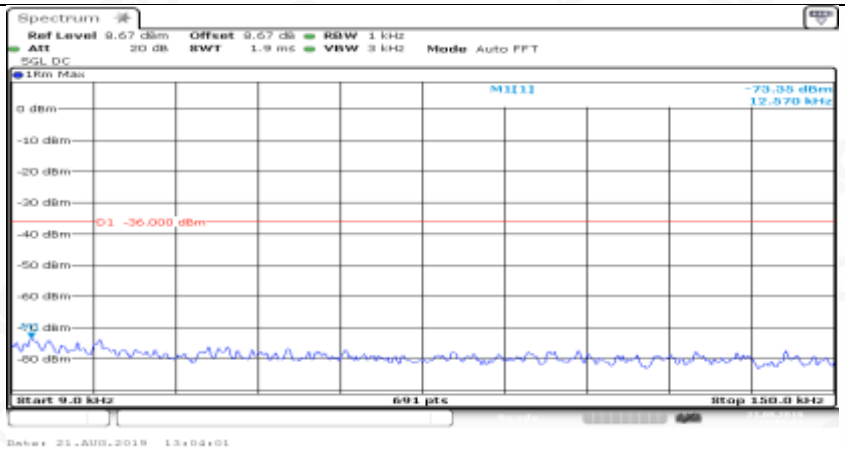
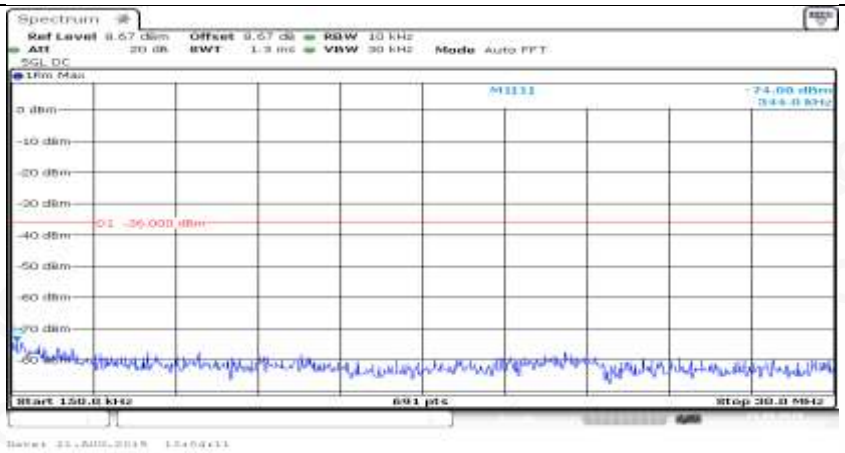
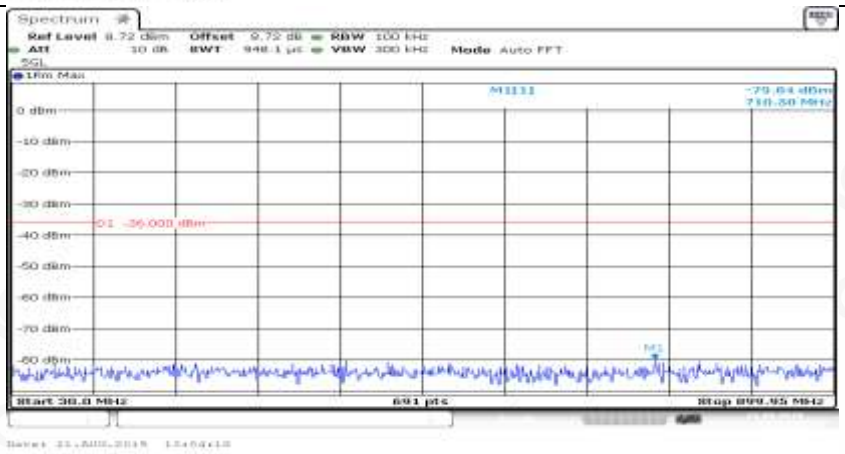
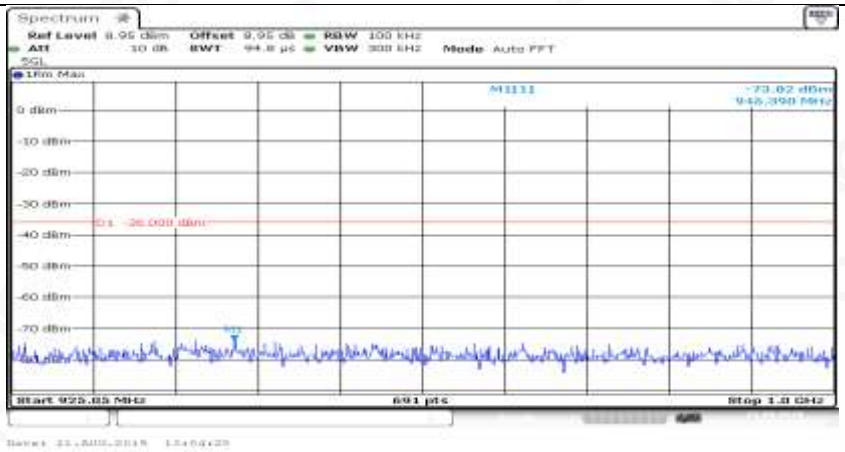
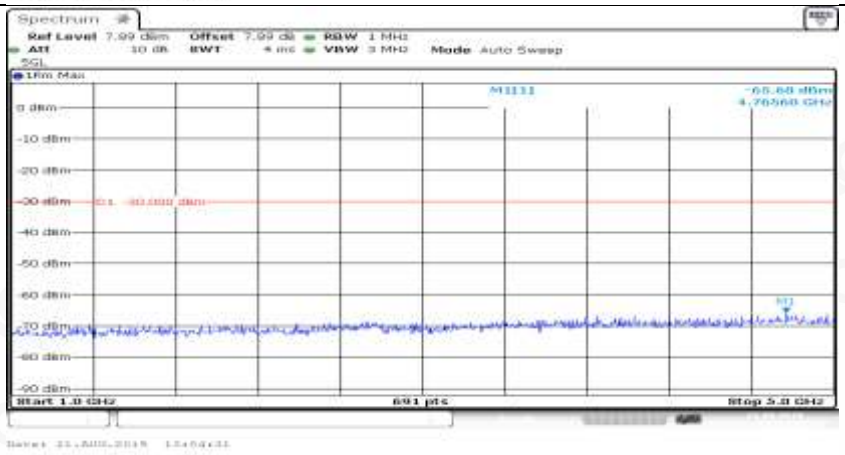
Co-existence	
Co-existence	
Additional	NA

Channel Bandwidth= (5 MHz)_QPSK_HCH_FullRB#0

General	
General	
General	

General	
General	
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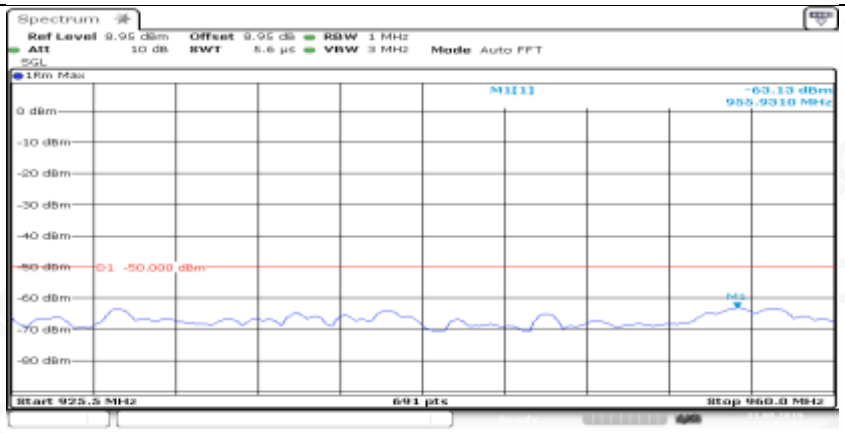
Co-existence	
Co-existence	
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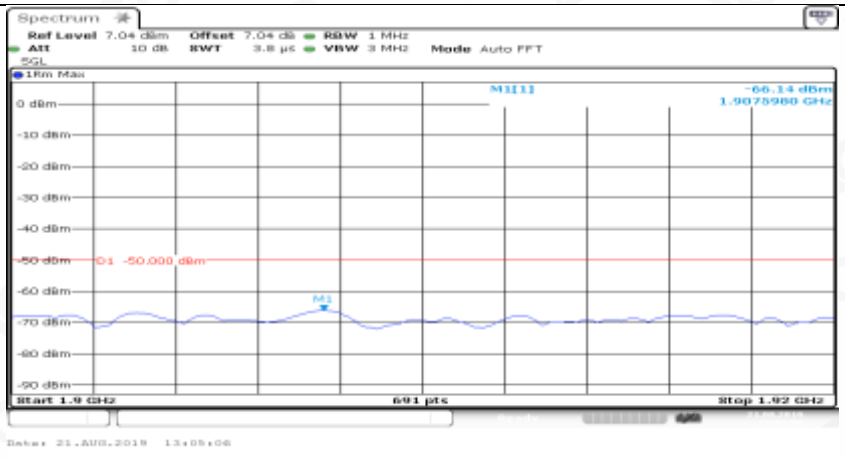
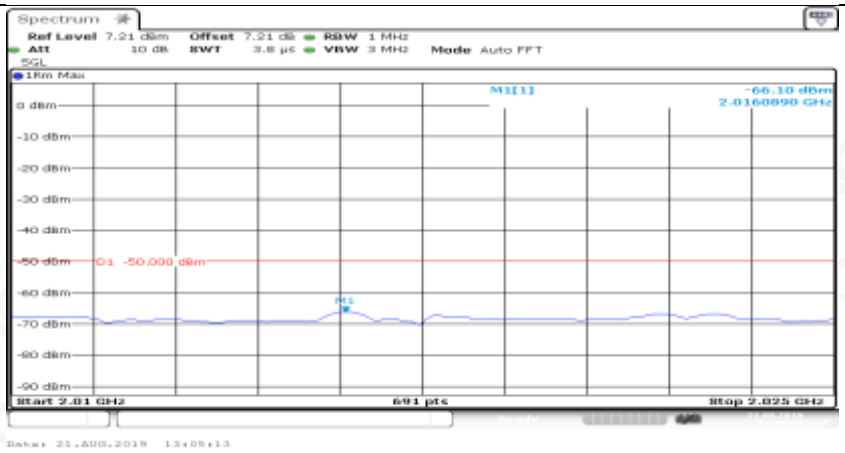
Co-existence	
Co-existence	
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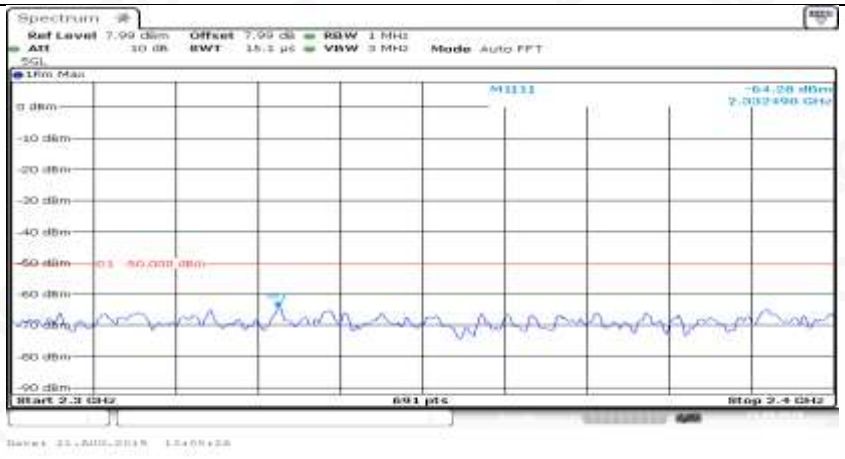
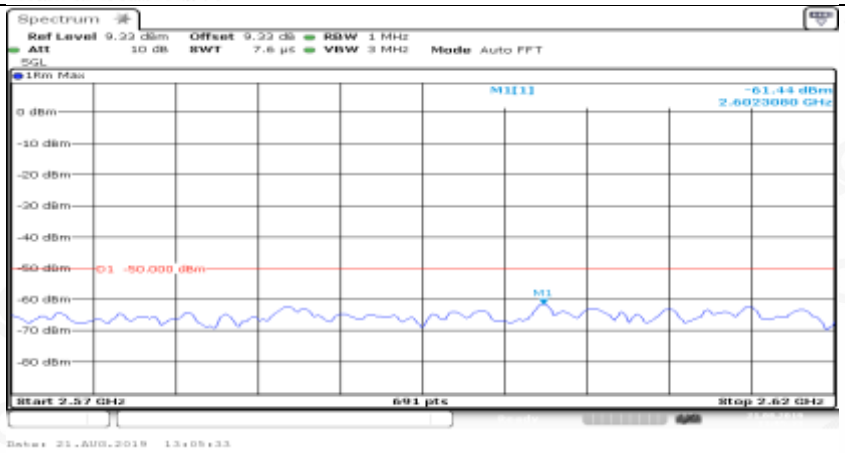
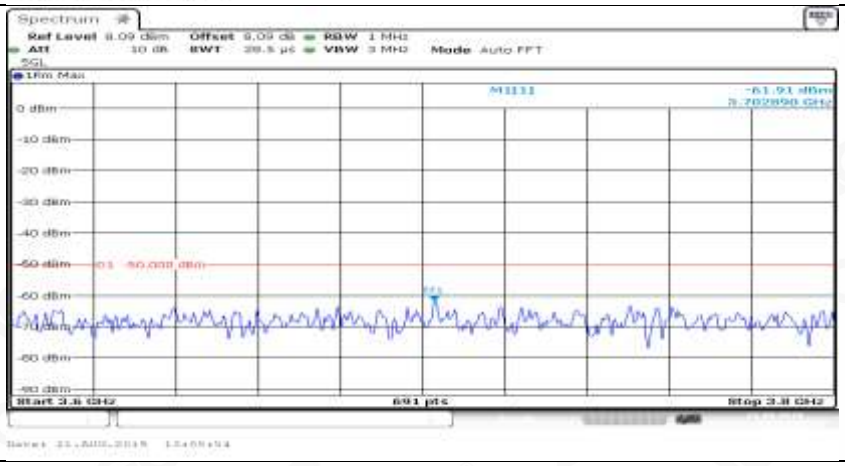
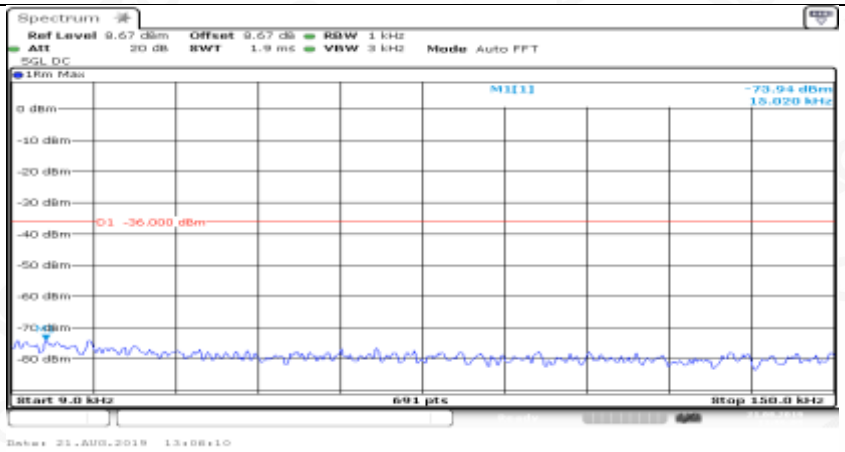
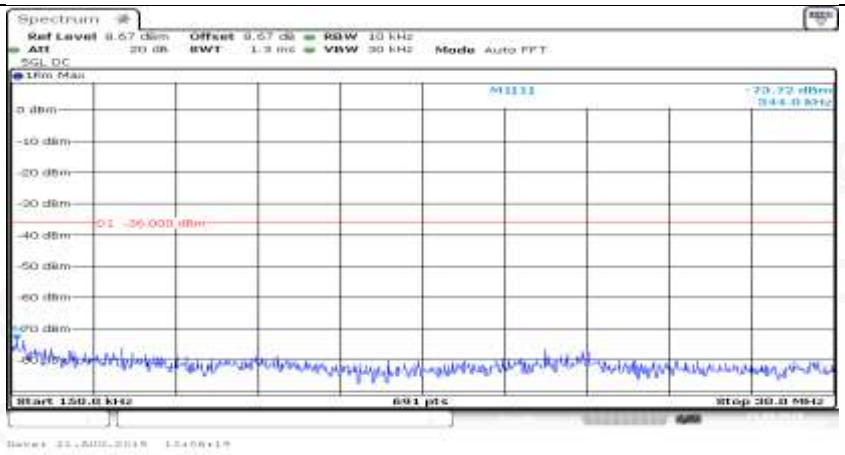
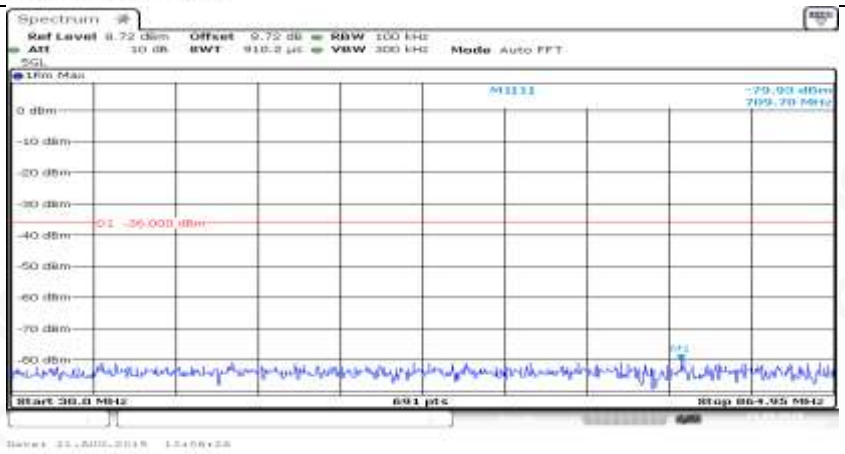
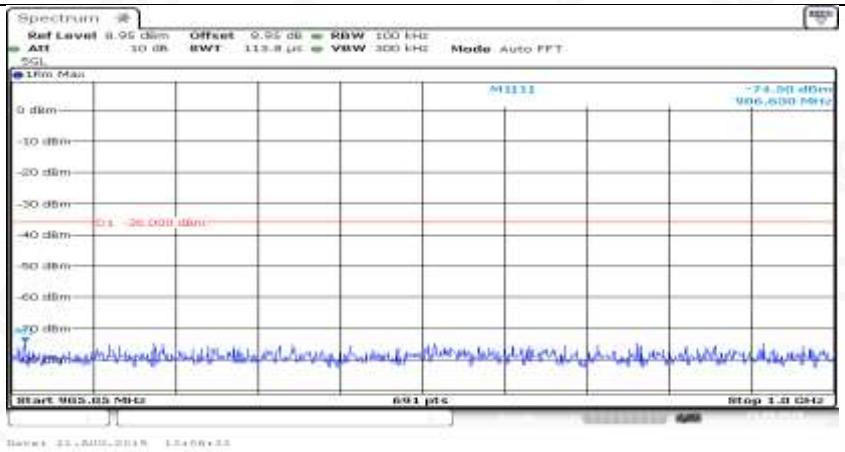
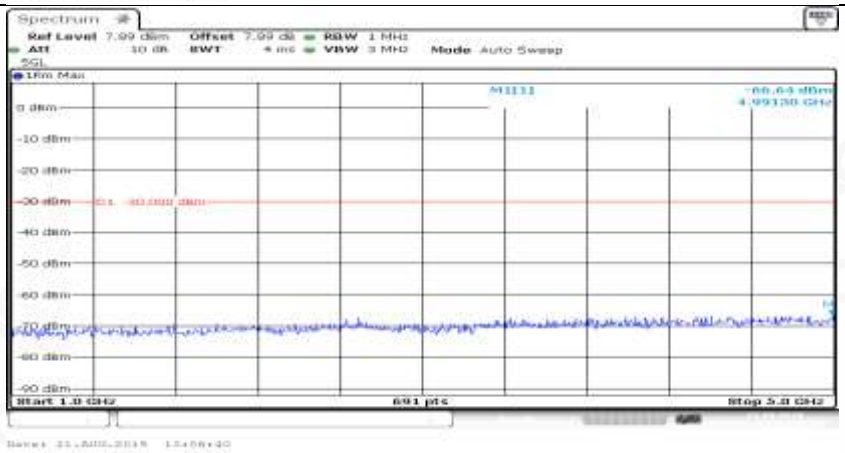
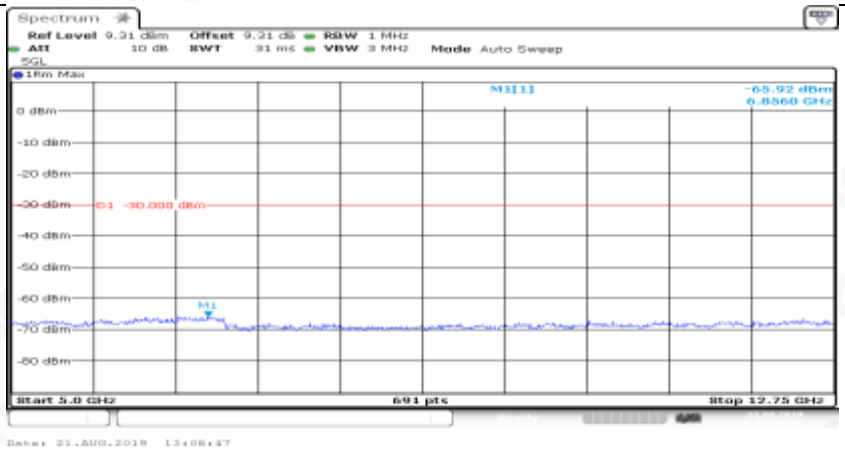
Co-existence	
Co-existence	
Co-existence	

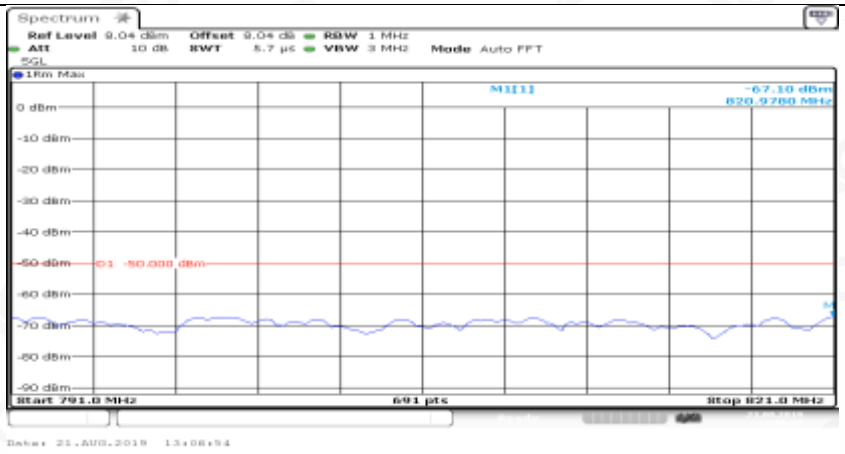
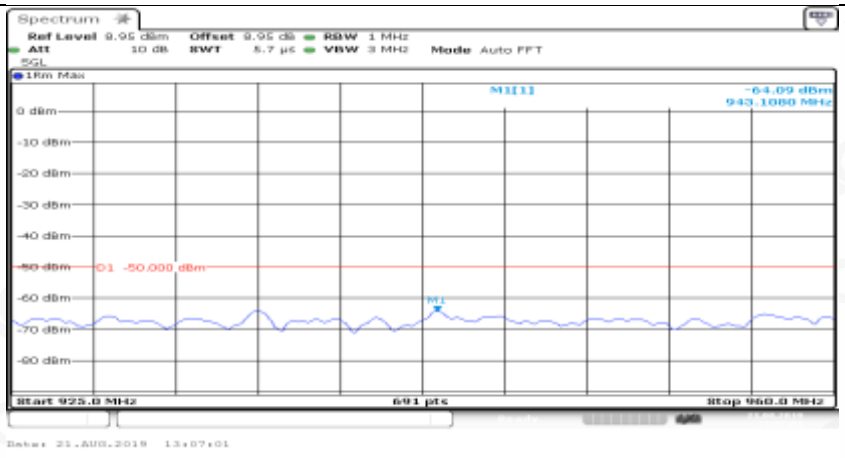
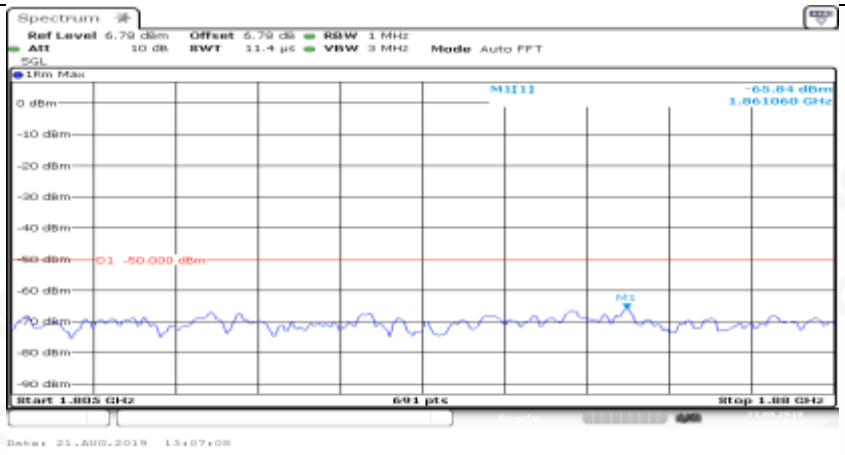
Co-existence	
Co-existence	
Additional	NA

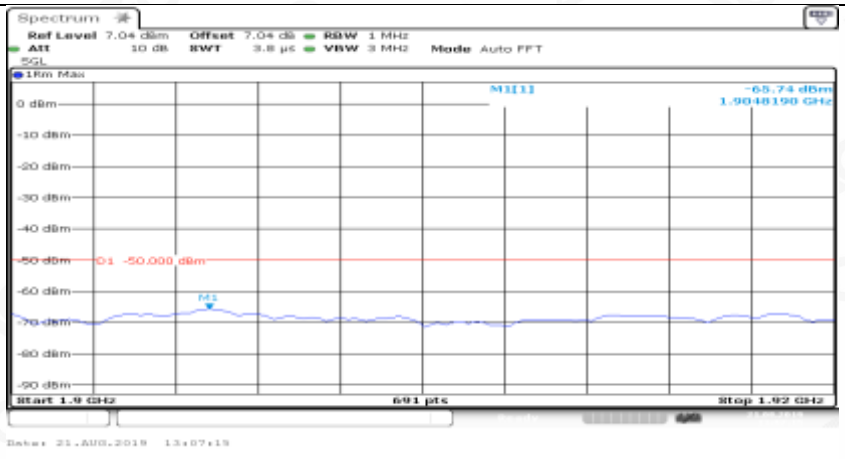
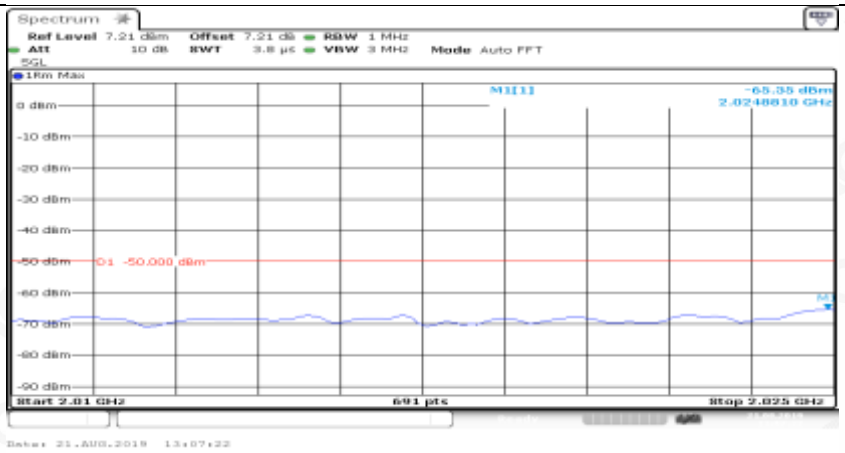
Channel Bandwidth= (10 MHz)

Channel Bandwidth=Highest (10 MHz)_QPSK_LCH_1RB#0

General	
General	
General	

General	
General	
General	

Co-existence	
Co-existence	
Co-existence	

Co-existence	
Co-existence	
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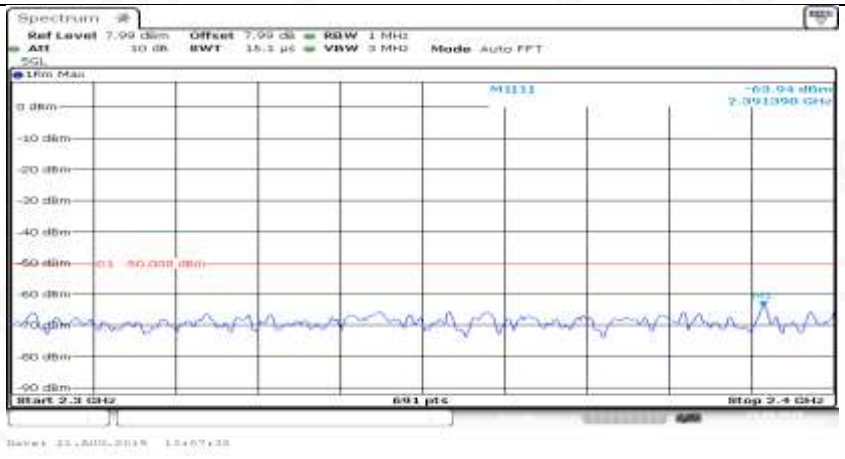
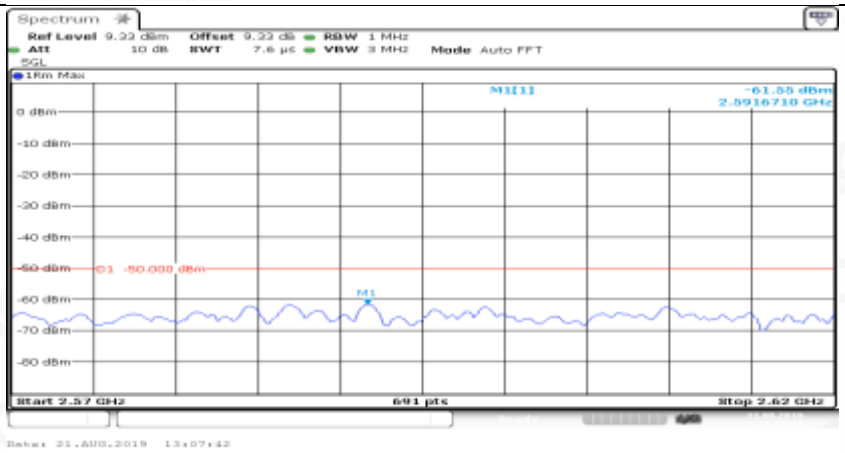
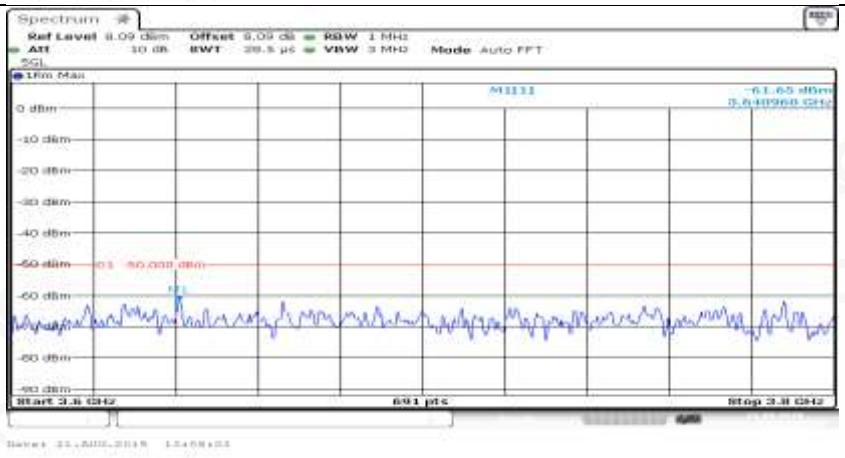
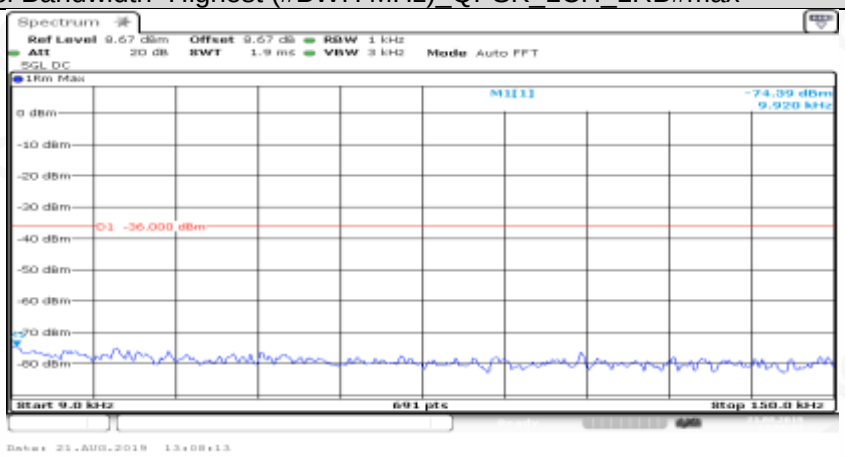
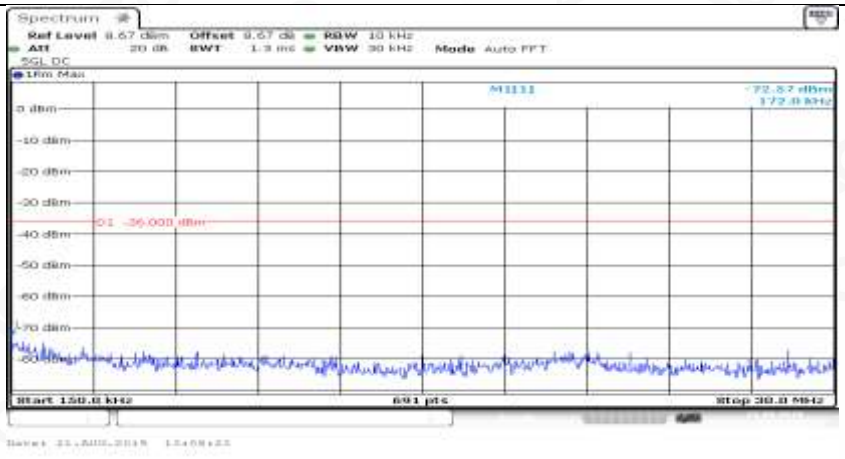
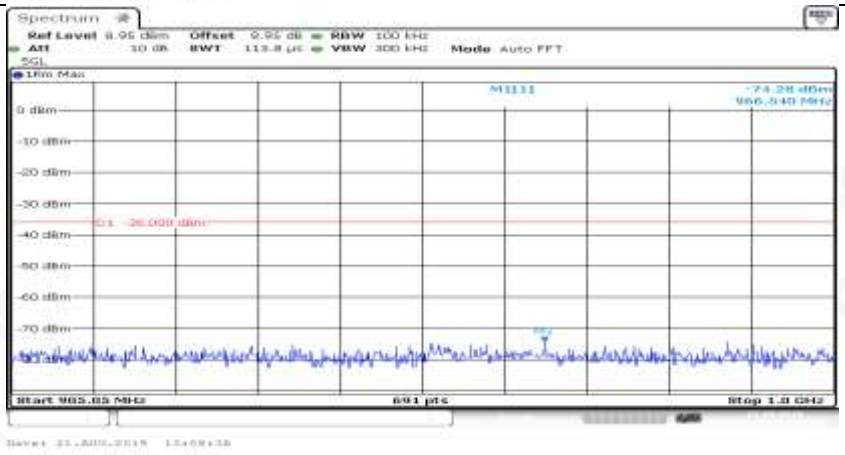
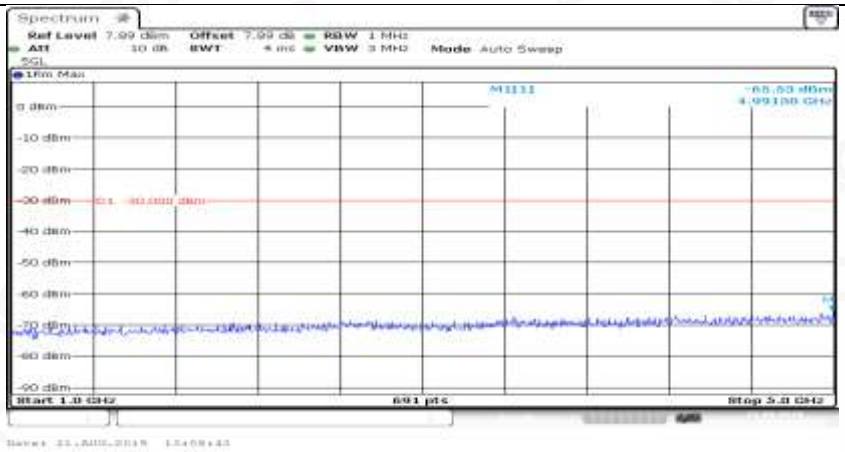
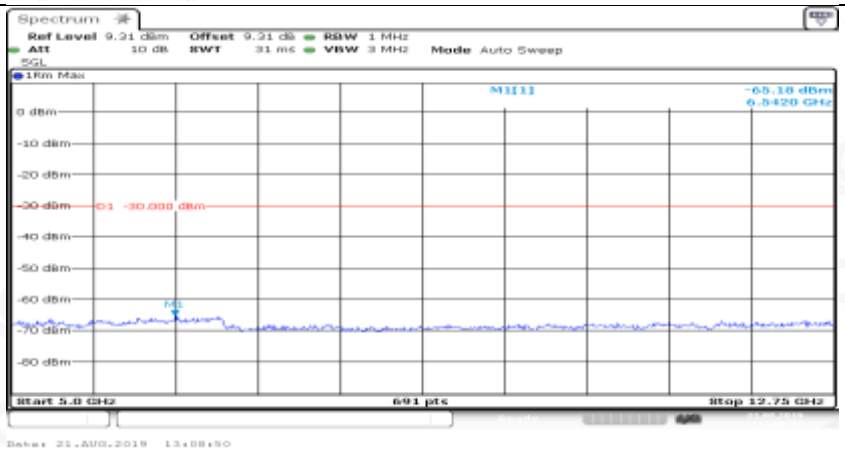
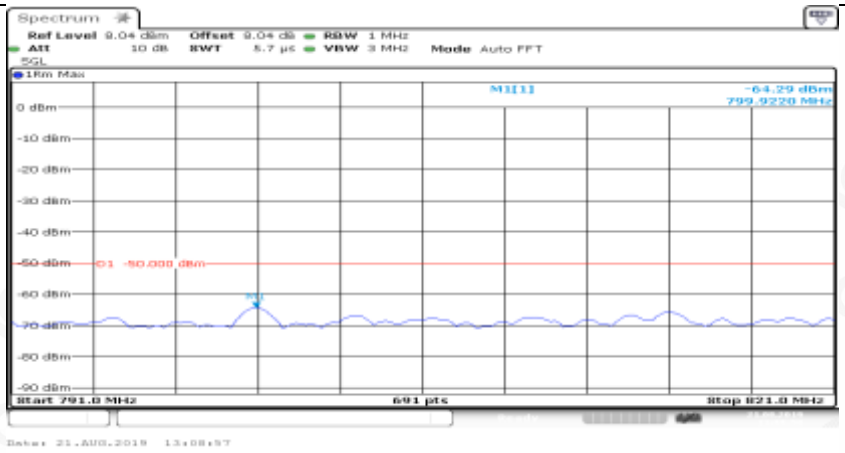
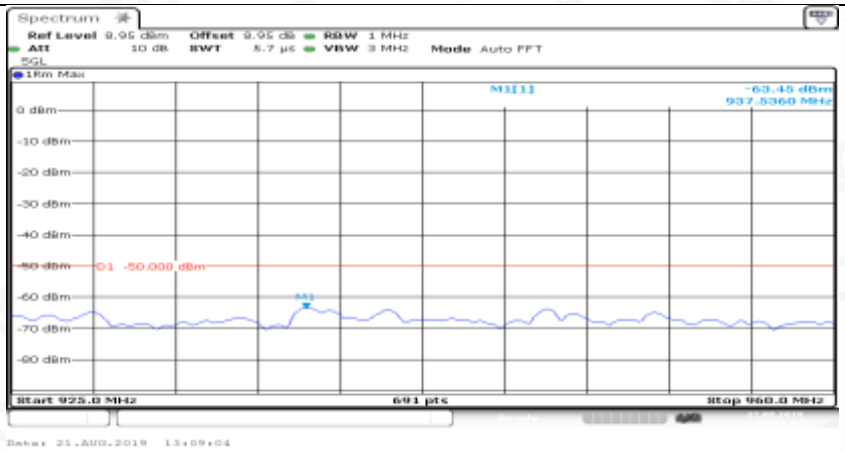
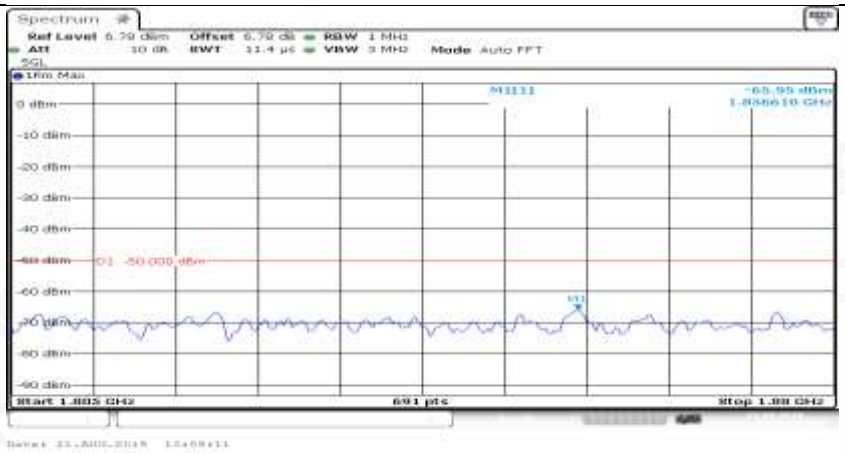
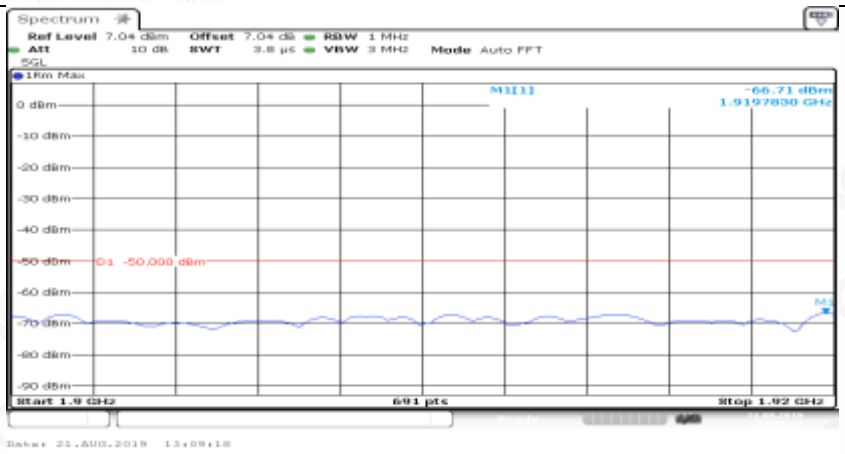
Co-existence	
Co-existence	
Co-existence	

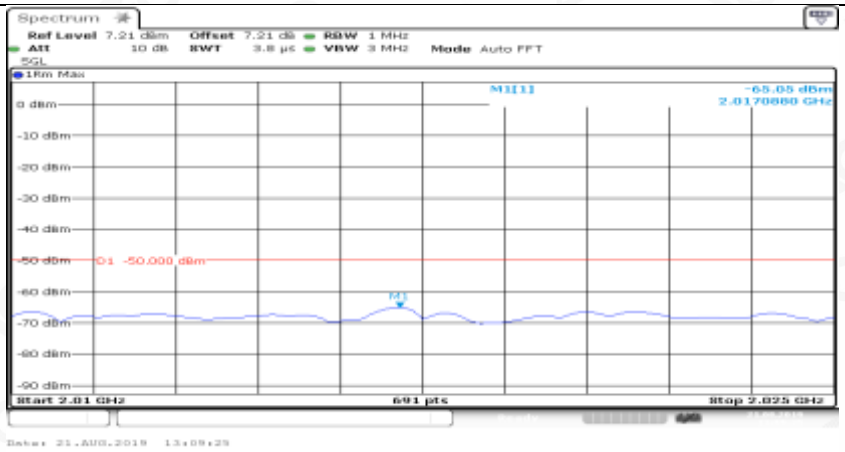
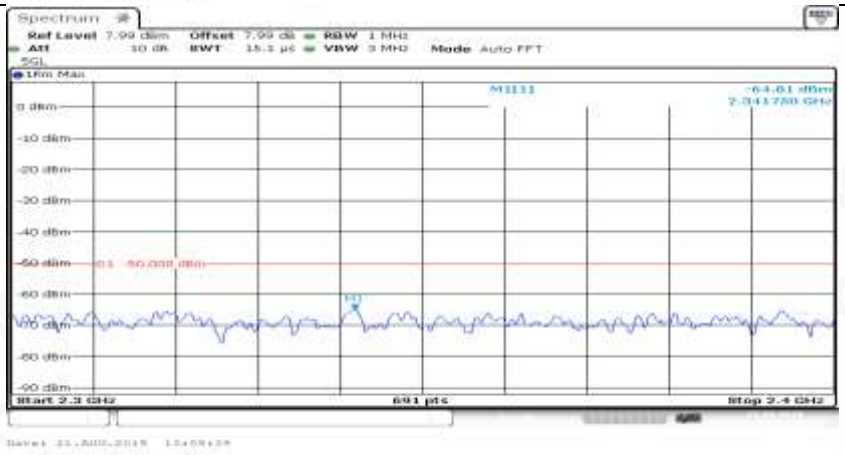
Co-existence	
Co-existence	
Additional	NA

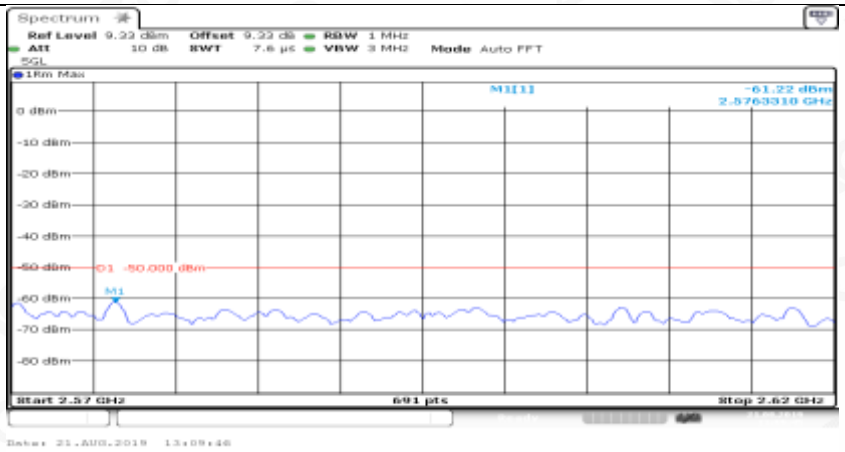
Channel Bandwidth=Highest (#BWH MHz)_QPSK_LCH_1RB#max	
General	

General	
General	
General	

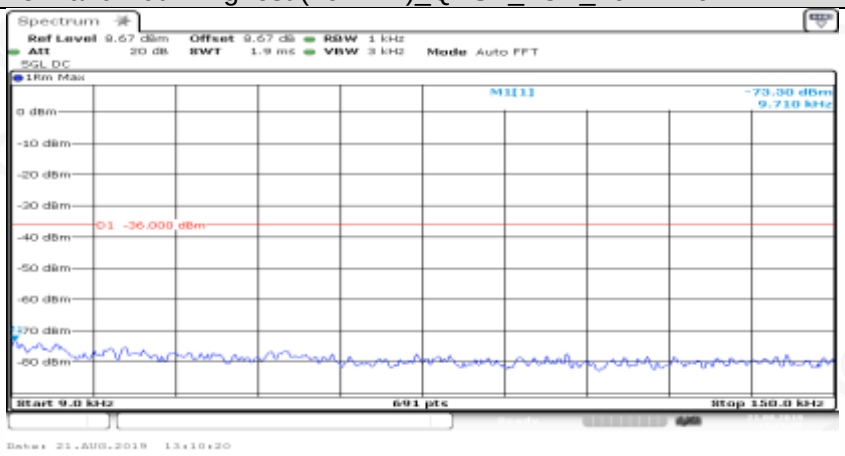
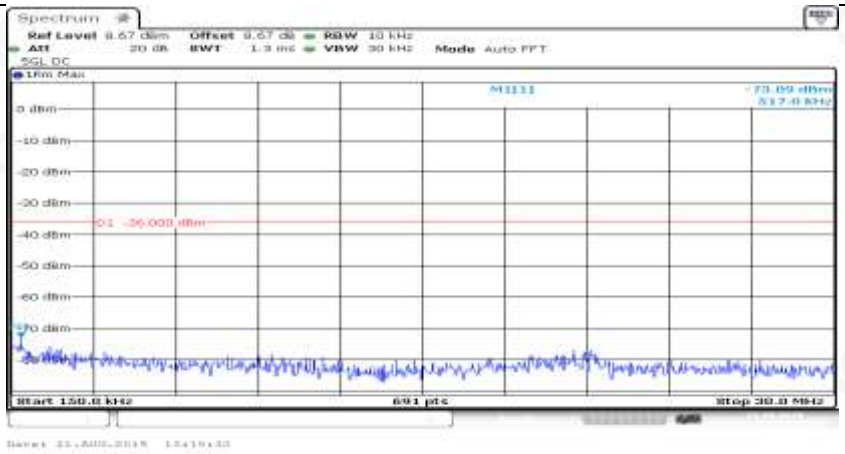
General	
General	
Co-existence	

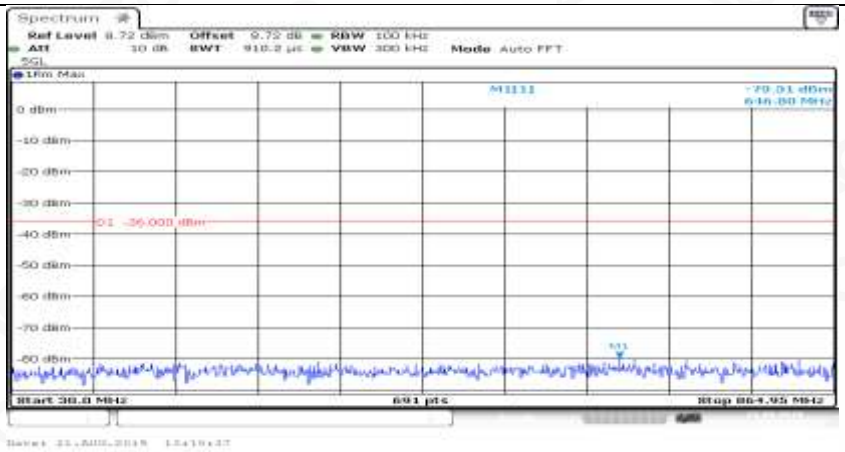
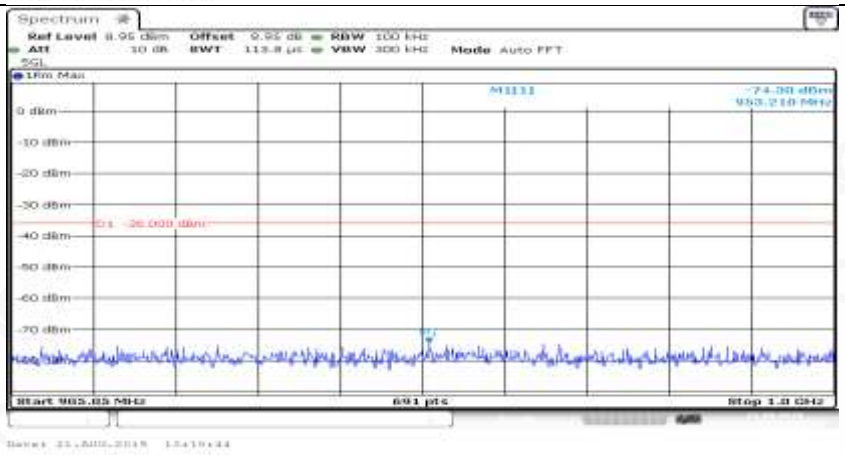
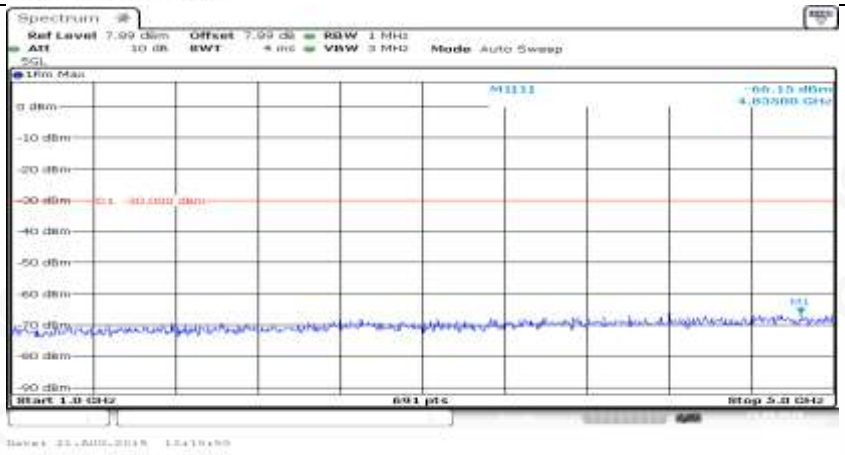
Co-existence	
Co-existence	
Co-existence	

Co-existence	
Co-existence	
Co-existence	

Co-existence	
Co-existence	
Co-existence	

Co-existence	
Additional	NA

Channel Bandwidth=Highest (10 MHz)_QPSK_LCH_FullRB#0	
General	
General	

General	
General	
General	

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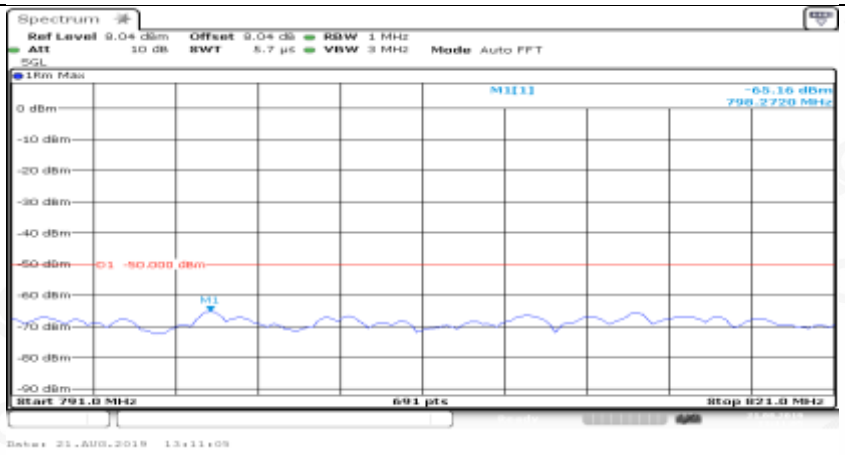
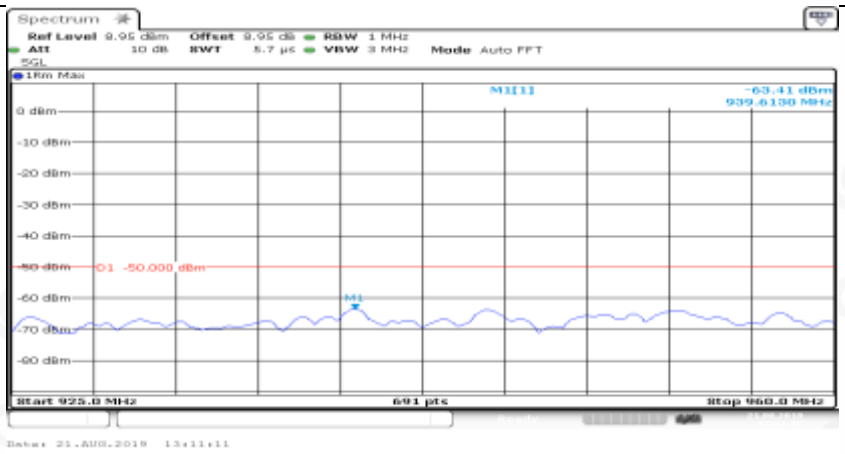
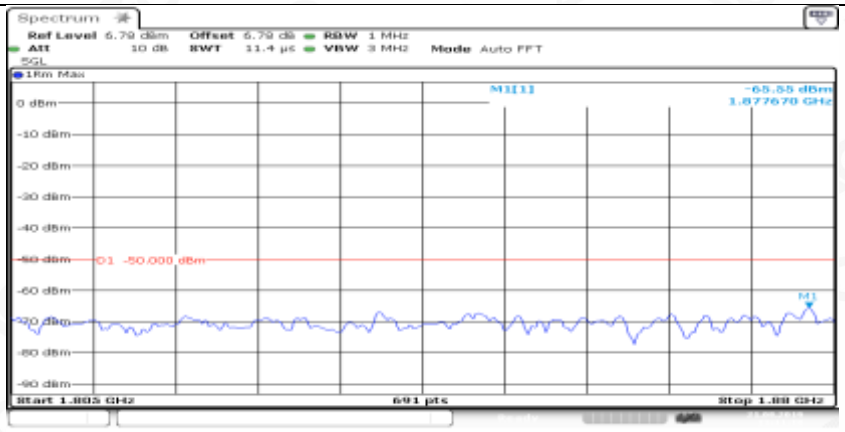
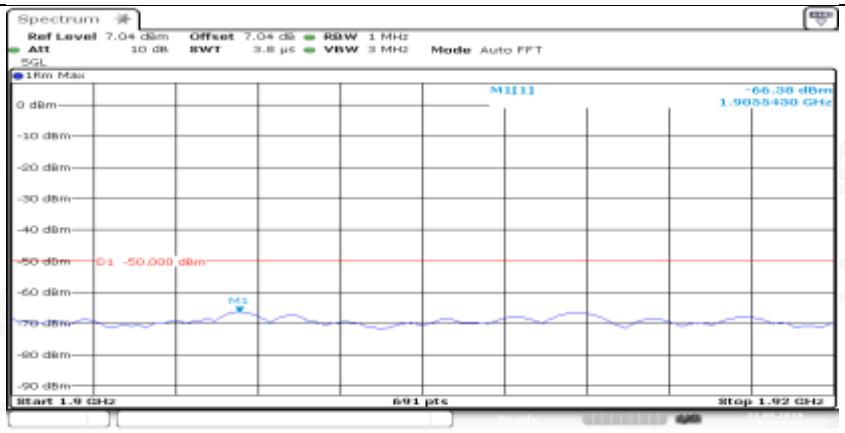
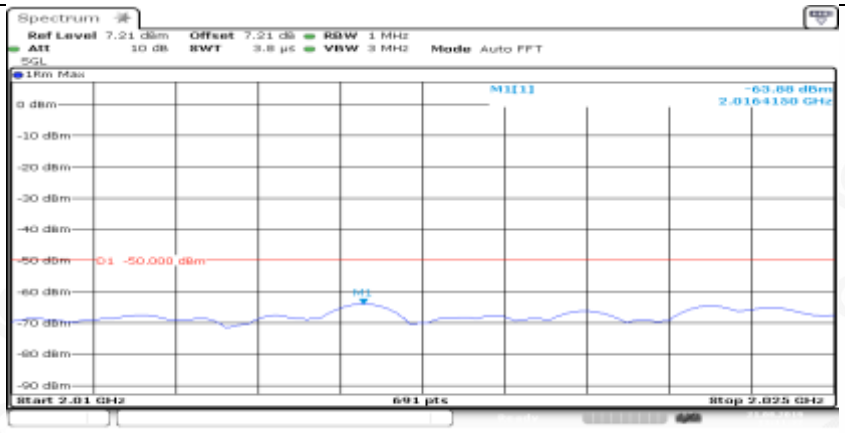
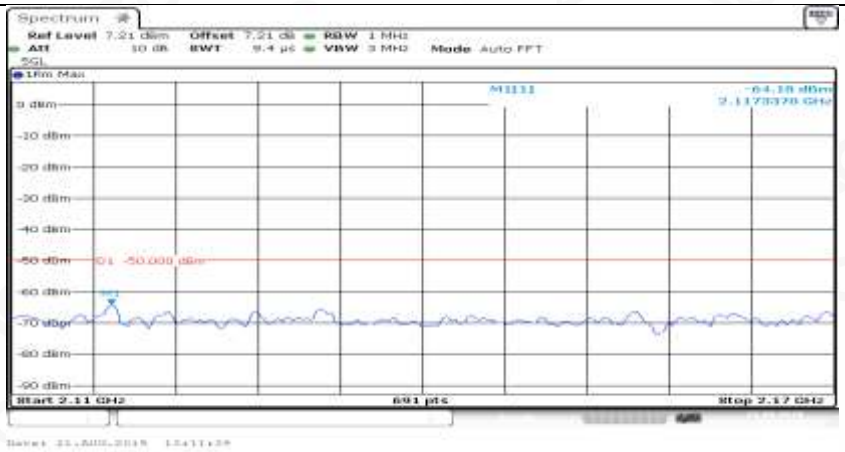
Co-existence	
Co-existence	

Co-existence	
Co-existence	
Co-existence	

Co-existence	
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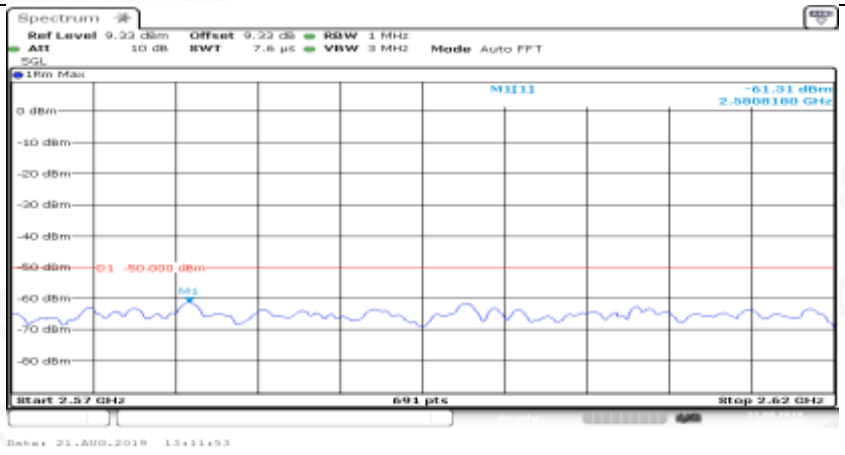
Co-existence	

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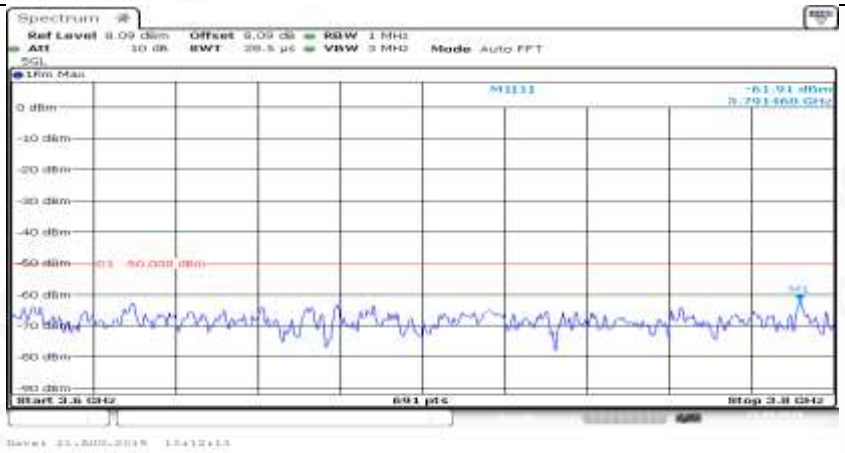
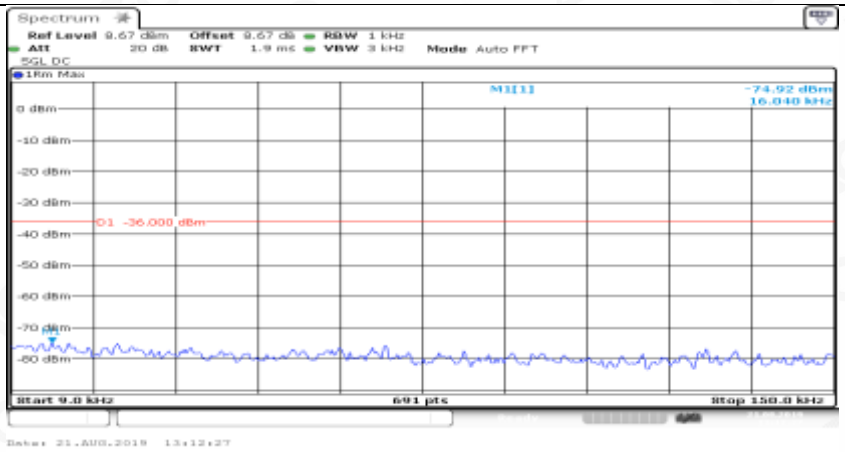
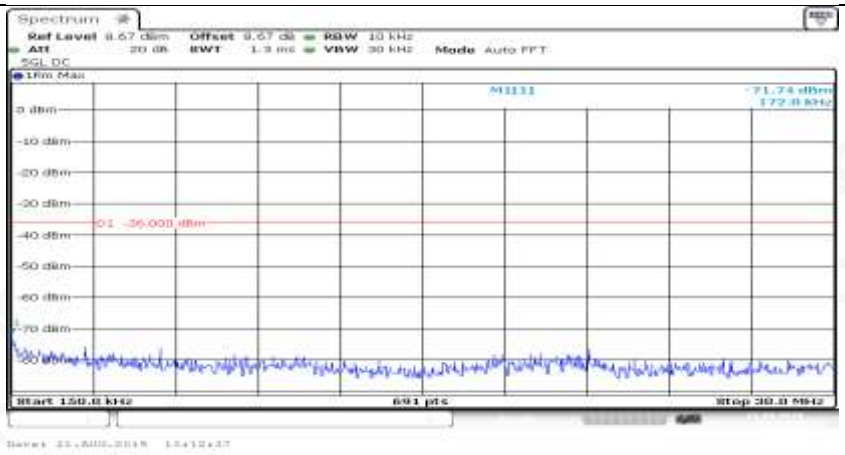
Co-existence	
Additional	NA

Channel Bandwidth=Highest (10 MHz)_QPSK_MCH_1RB#0

General	
General	
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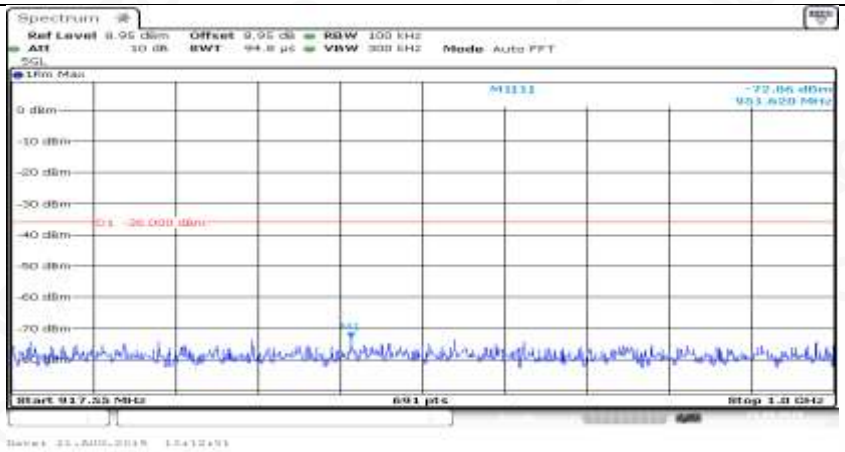
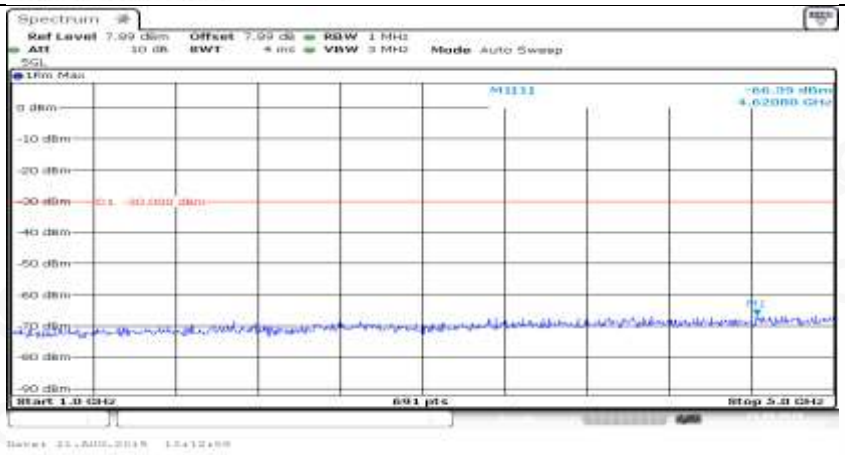
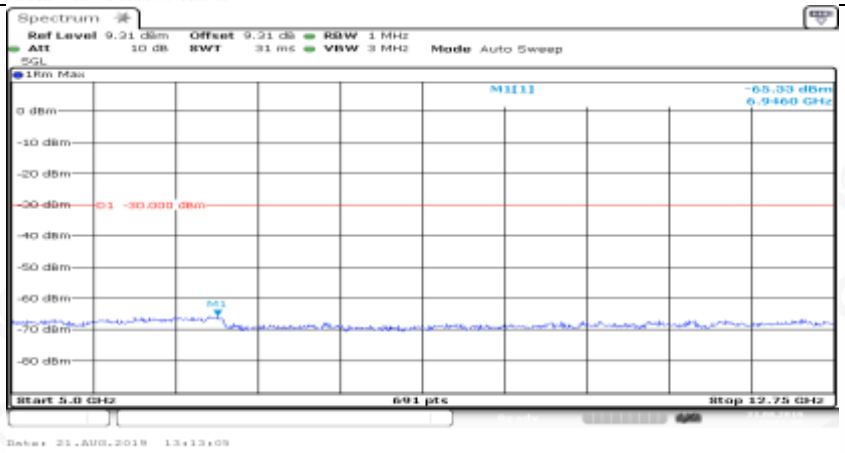
General	
General	
General	

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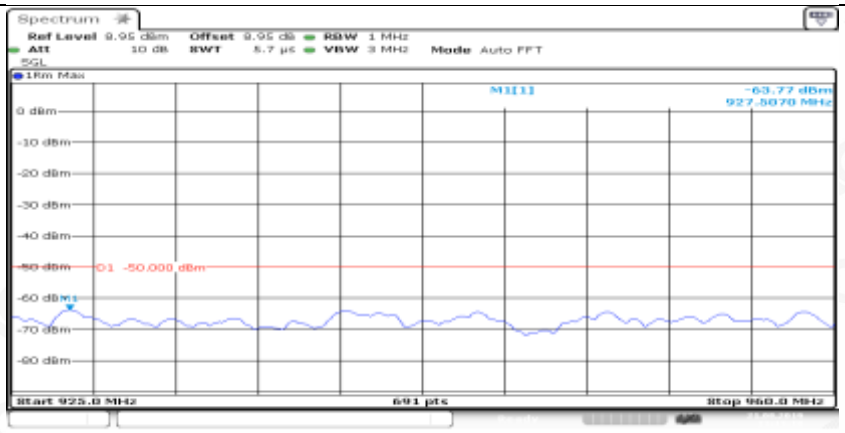
Co-existence	
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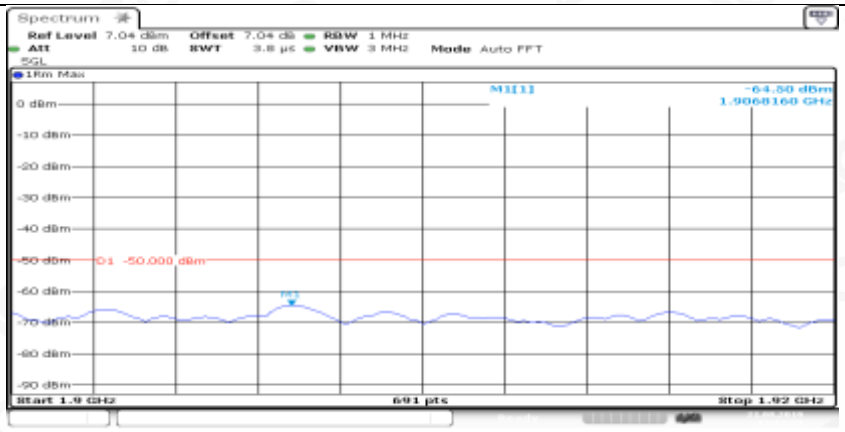
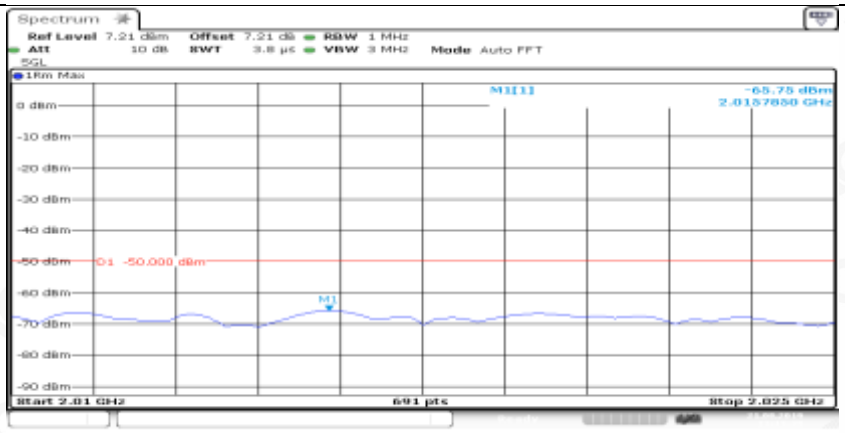
Co-existence	
Co-existence	
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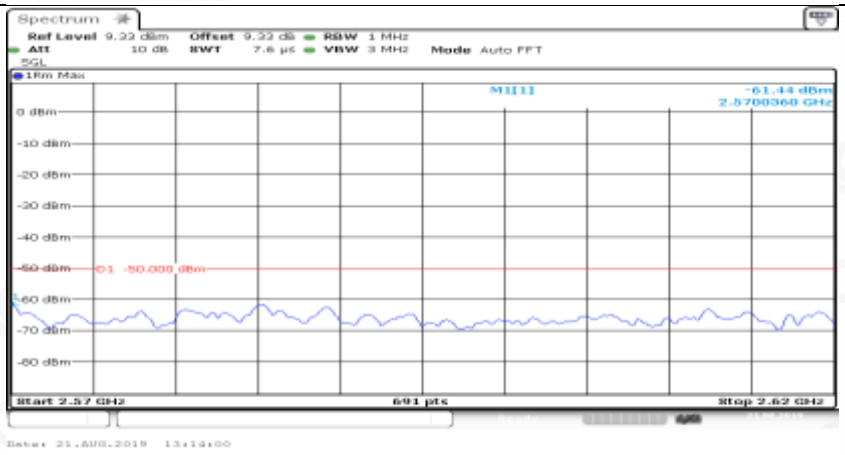
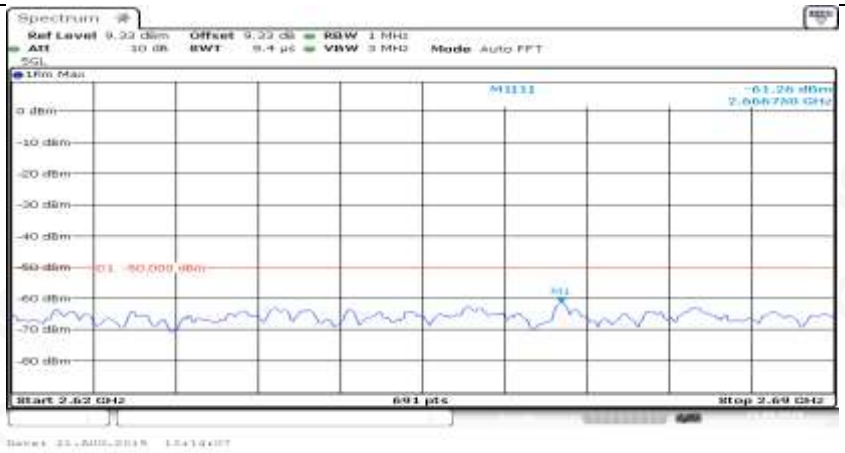
Co-existence	
Co-existence	
Co-existence	

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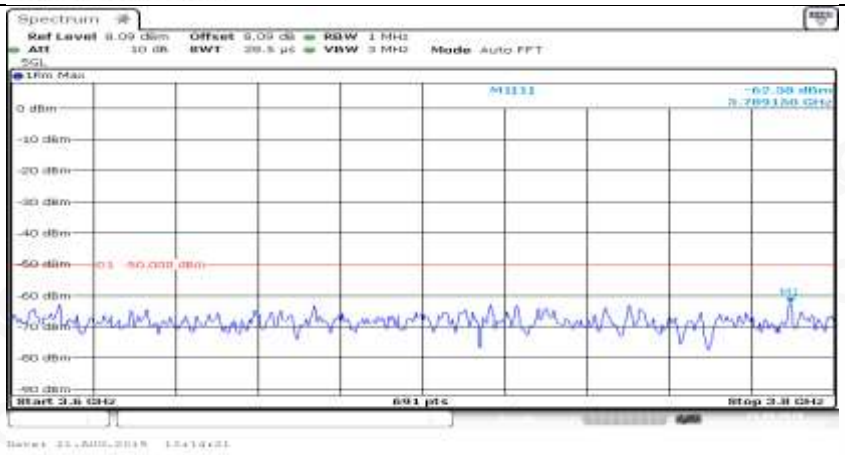
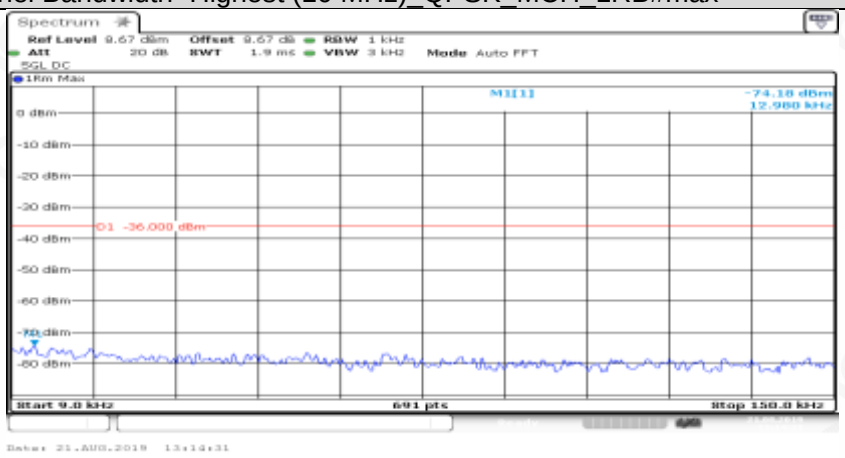
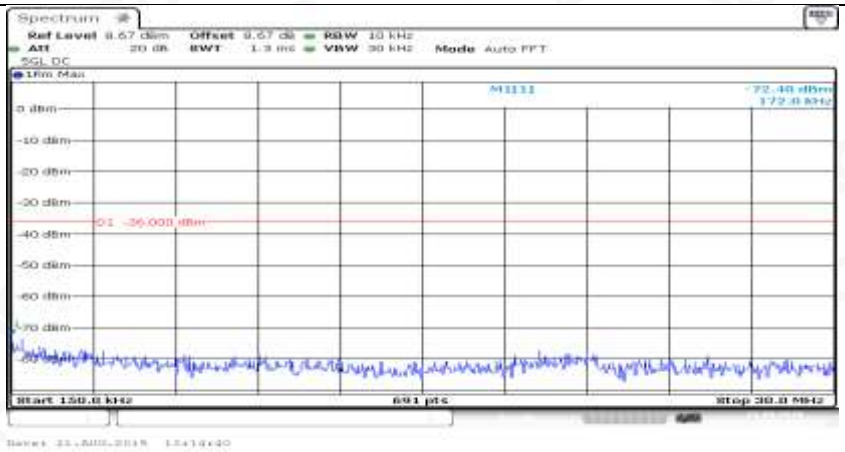
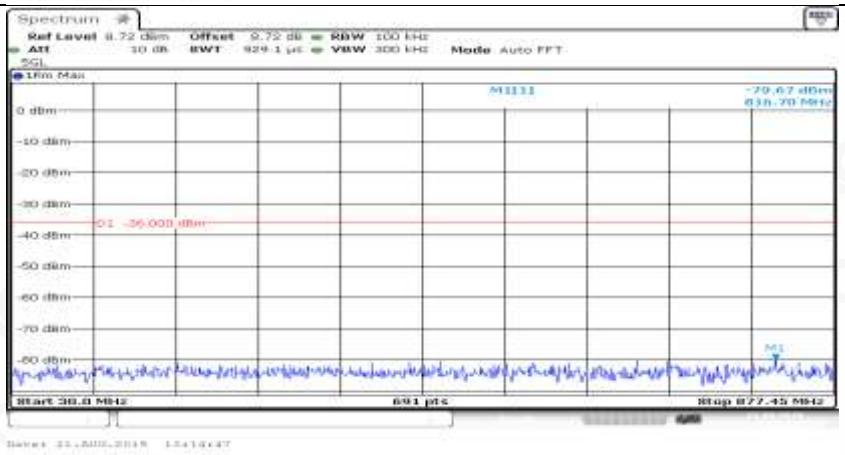
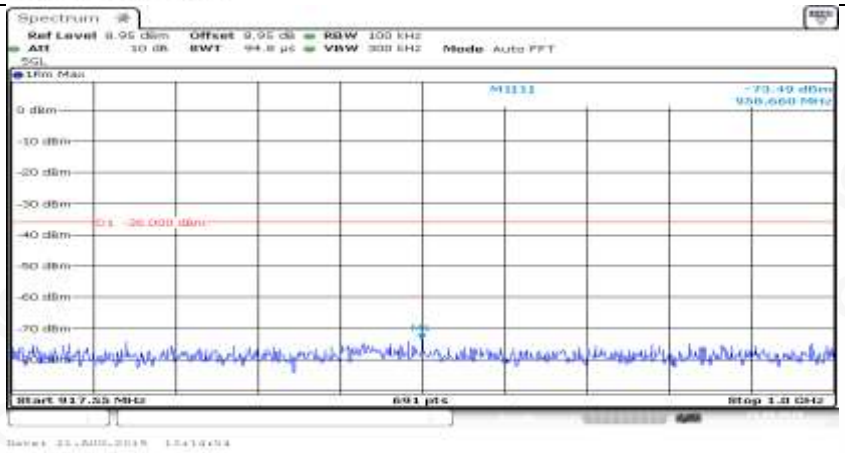
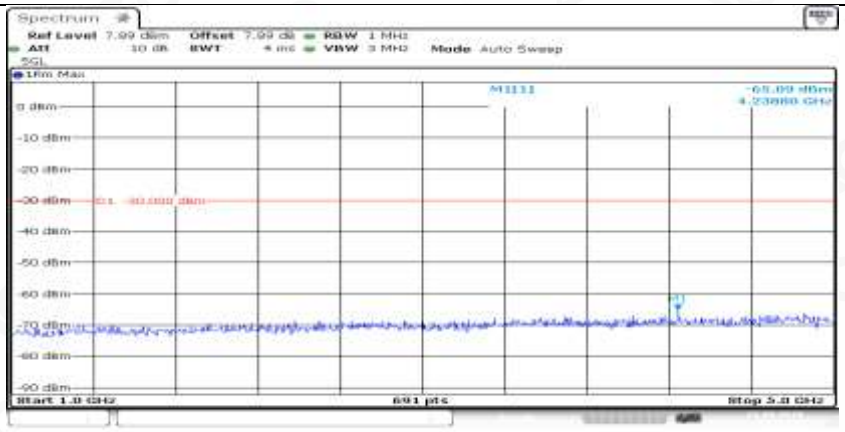
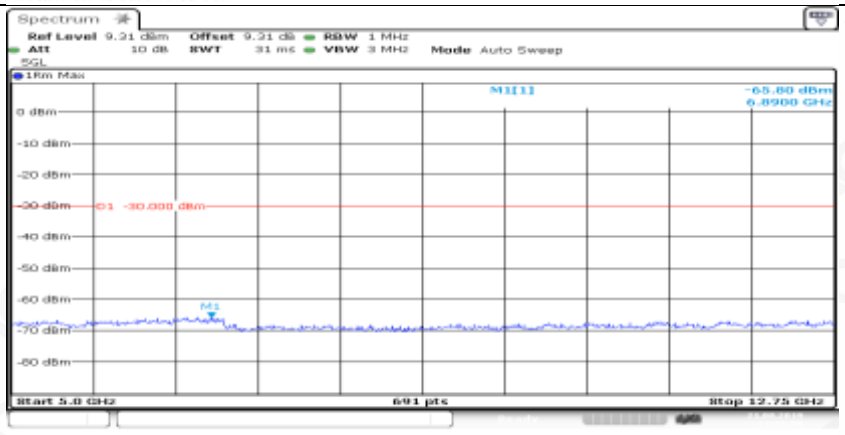
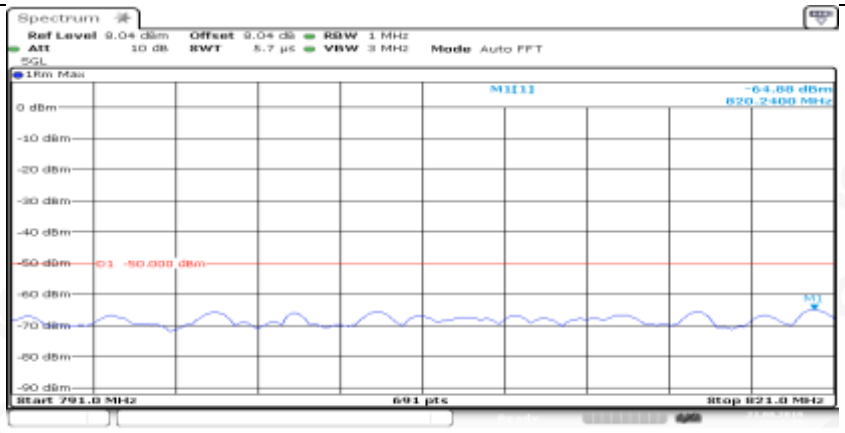
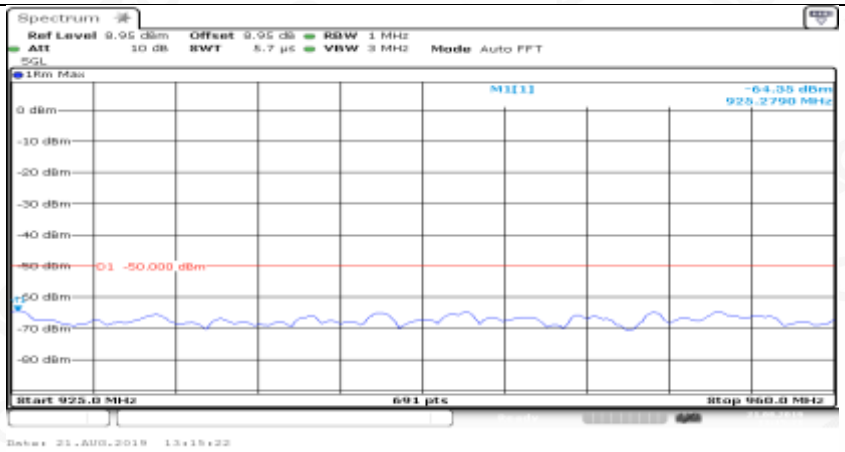
Co-existence	
Additional	NA

Channel Bandwidth=Highest (10 MHz)_QPSK_MCH_1RB#max	
General	

General	
General	
General	

General	
General	
Co-existence	

Co-existence	
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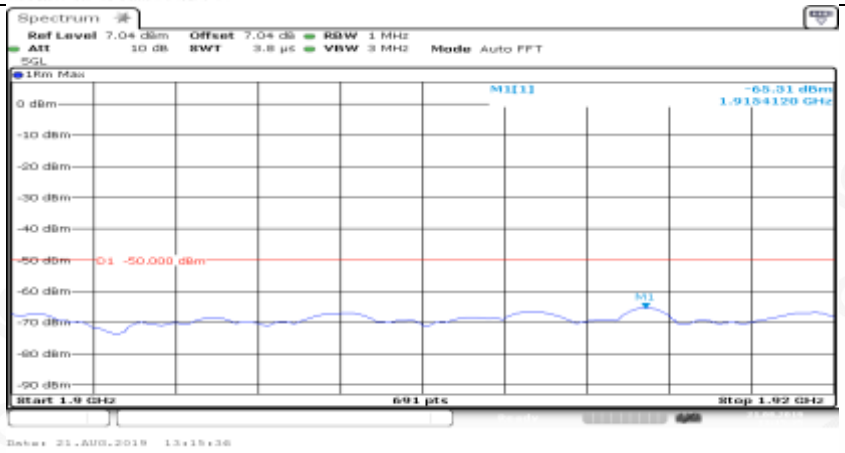
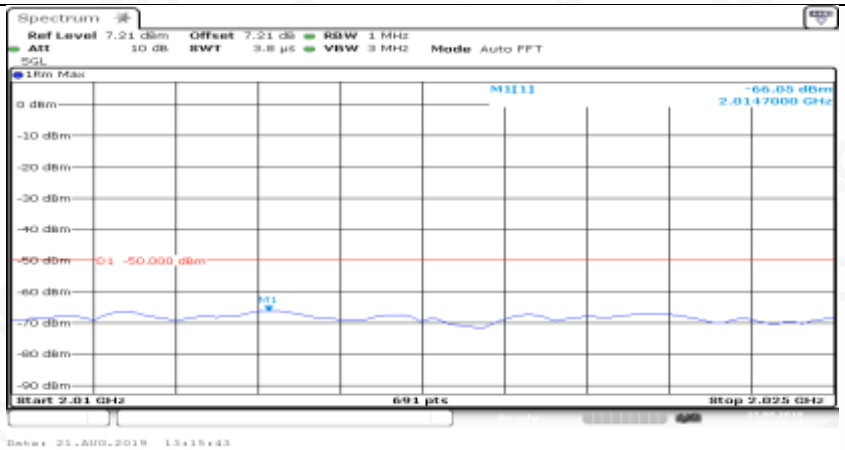
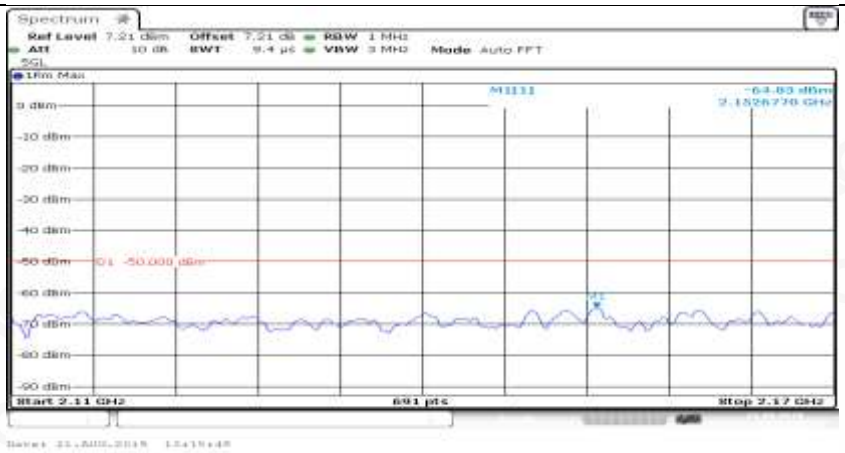
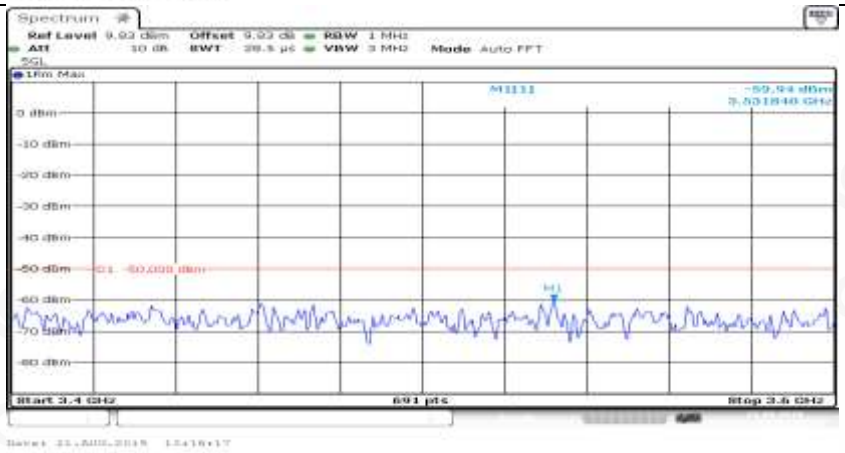
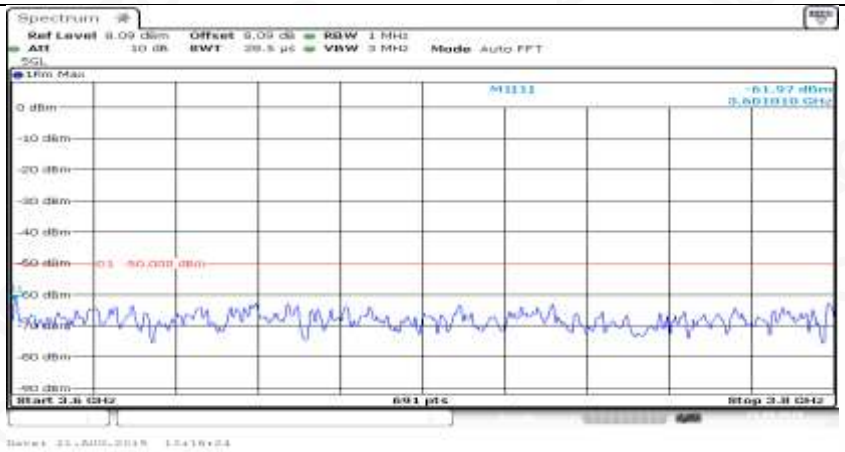
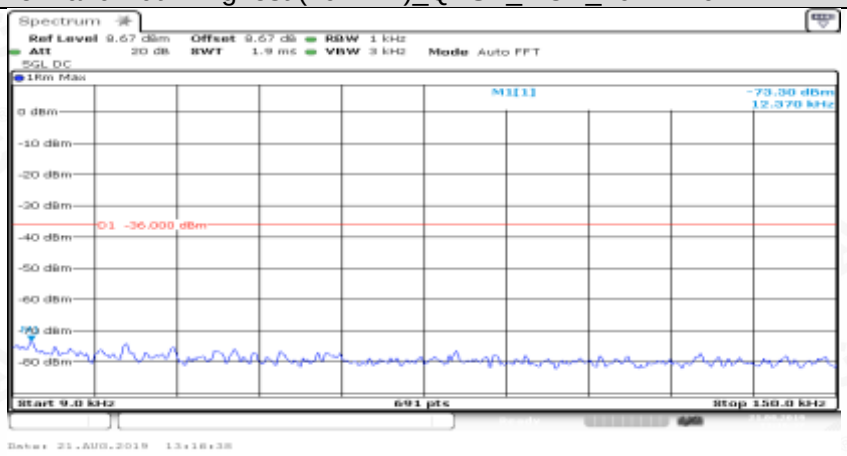
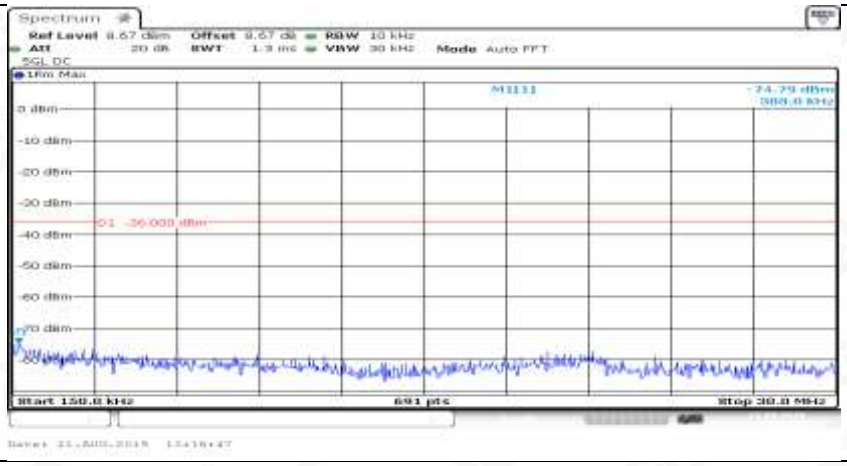
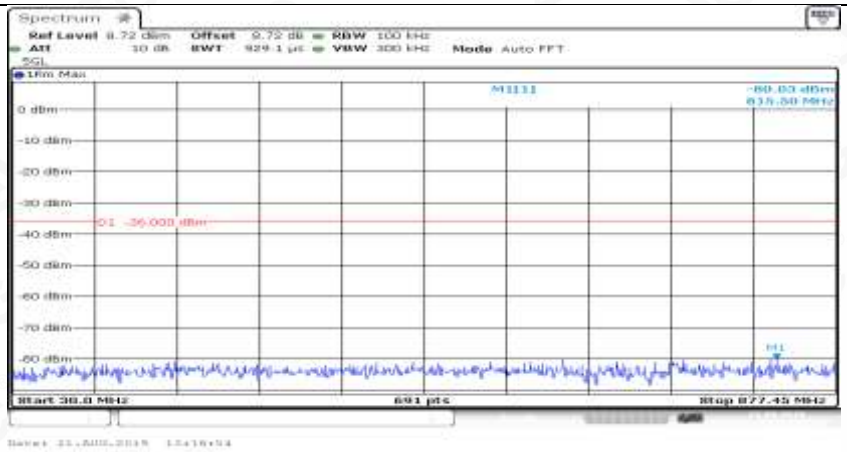
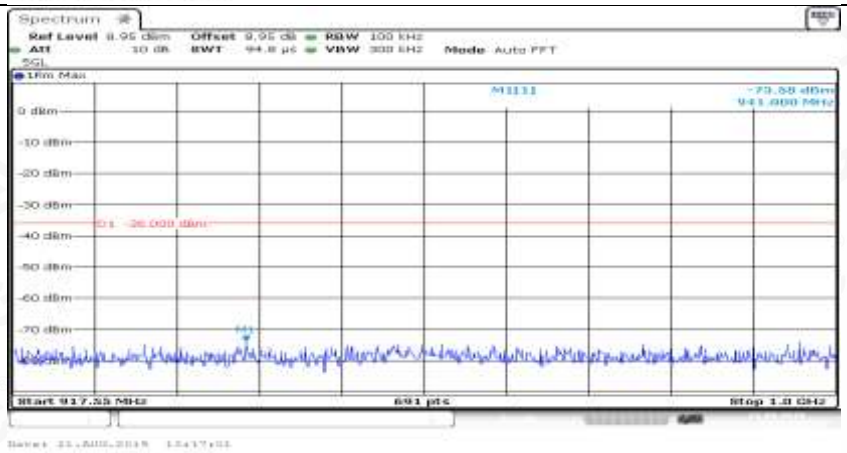
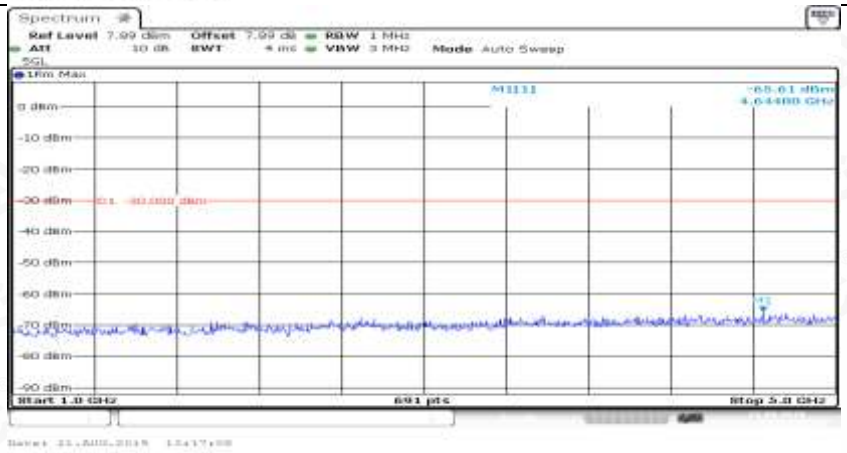
Co-existence	

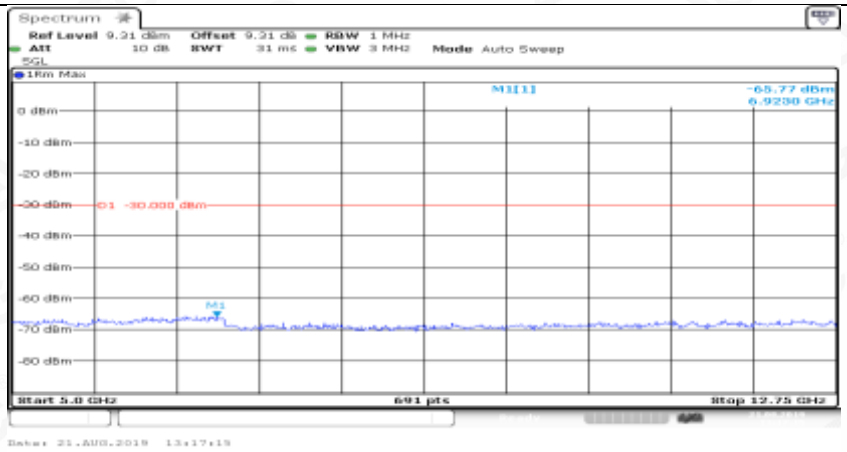
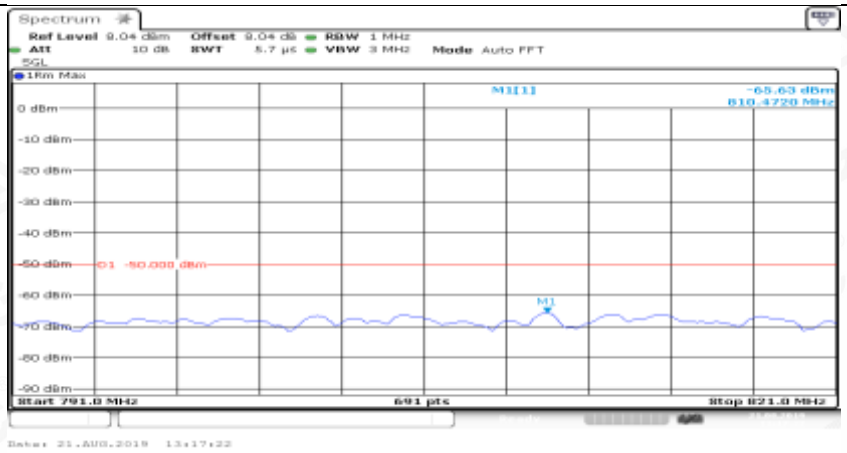
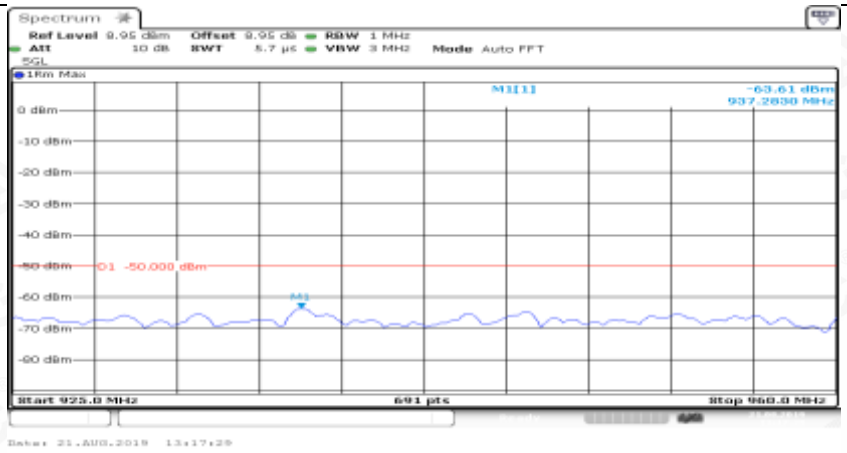
Co-existence	
Co-existence	
Co-existence	

Co-existence	
Co-existence	
Co-existence	

Co-existence	
Additional	NA

Channel Bandwidth=Highest (10 MHz)_QPSK_MCH_FullRB#0	
General	
General	

General		
General		
General		

General		
Co-existence		
Co-existence		

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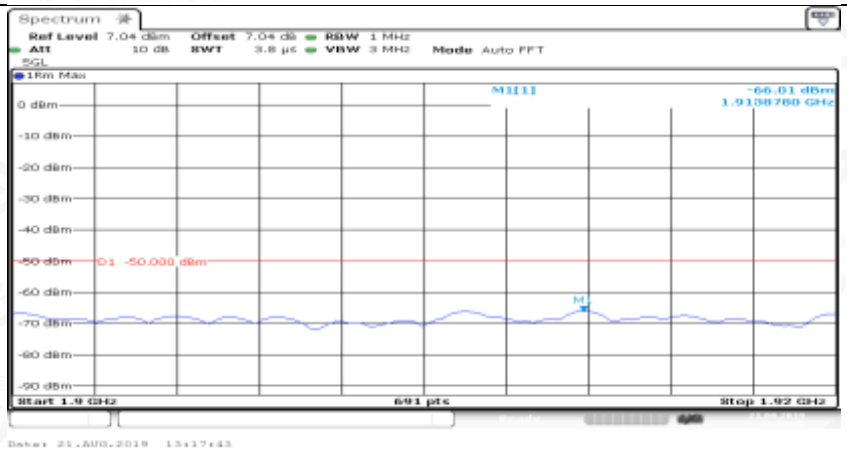
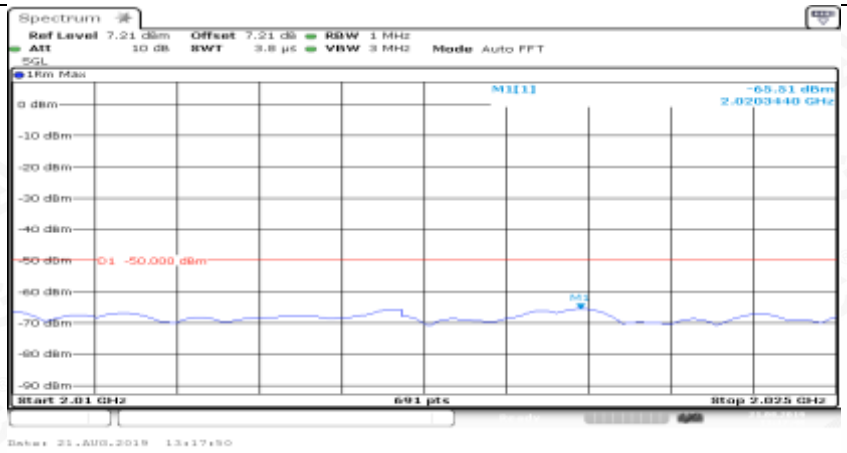
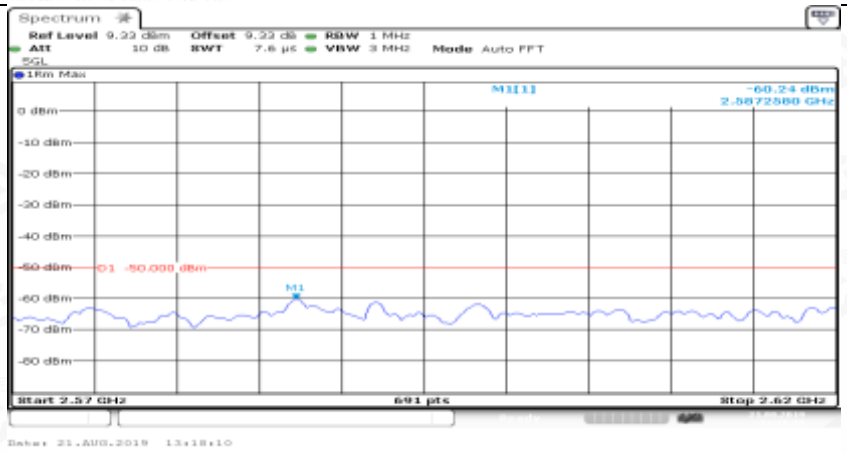
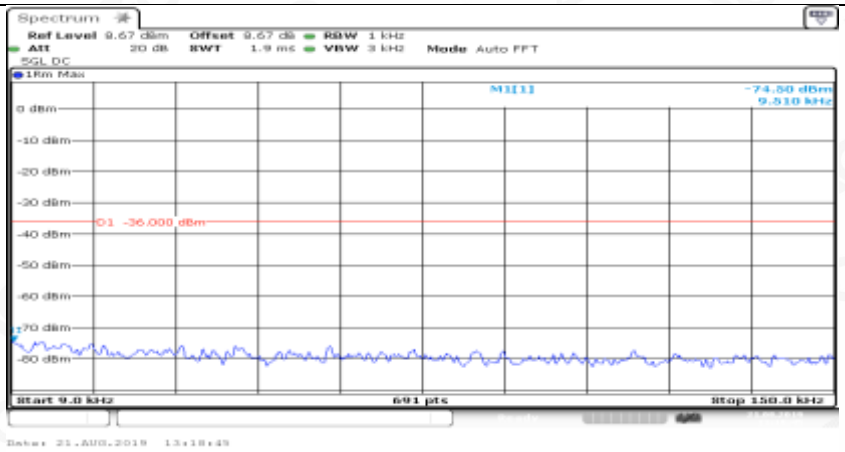
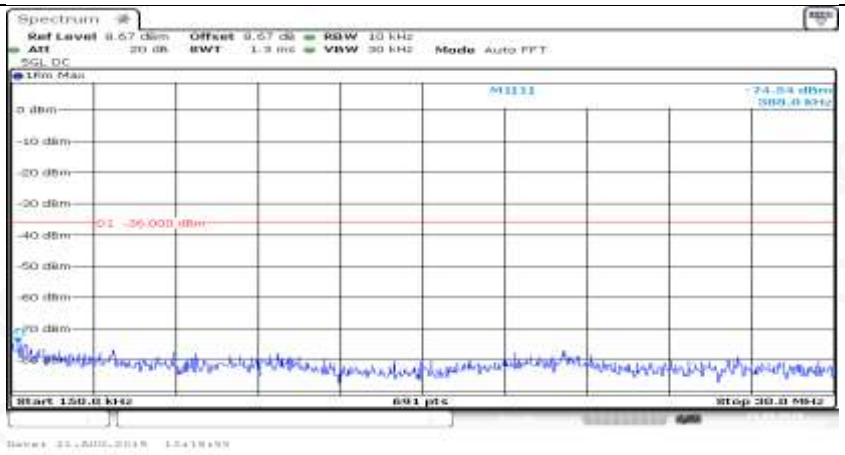
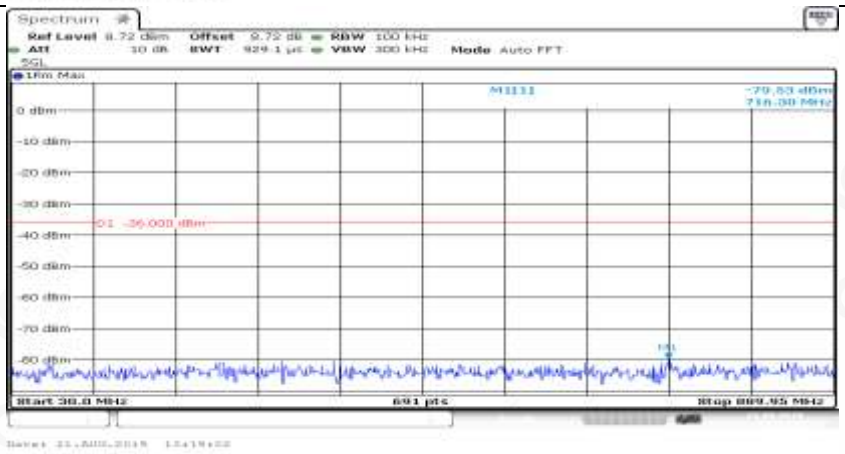
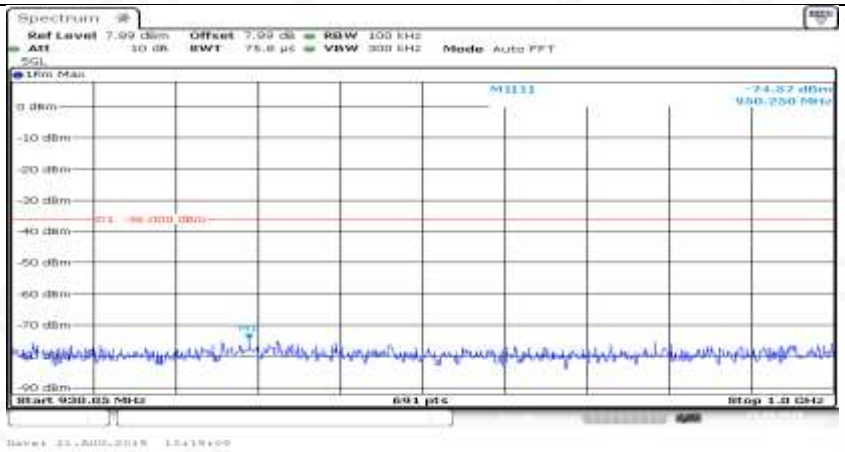
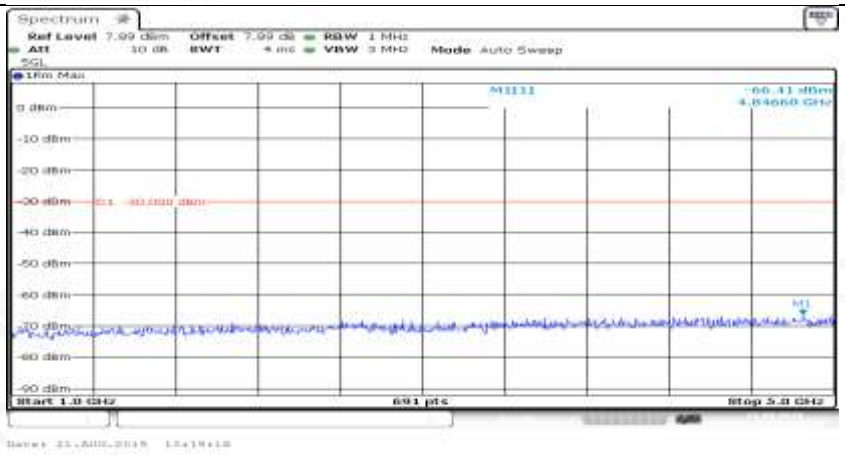
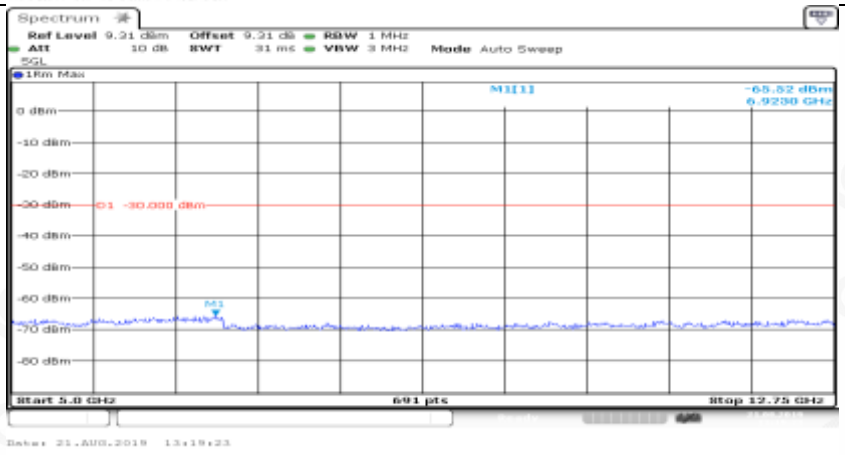
Co-existence		
Co-existence		

Co-existence		
Co-existence		
Co-existence		

Co-existence	
Co-existence	
Co-existence	
Additional	NA

Channel Bandwidth=Highest (10 MHz)_QPSK_HCH_1RB#0

General	
General	
General	

General	
General	
General	

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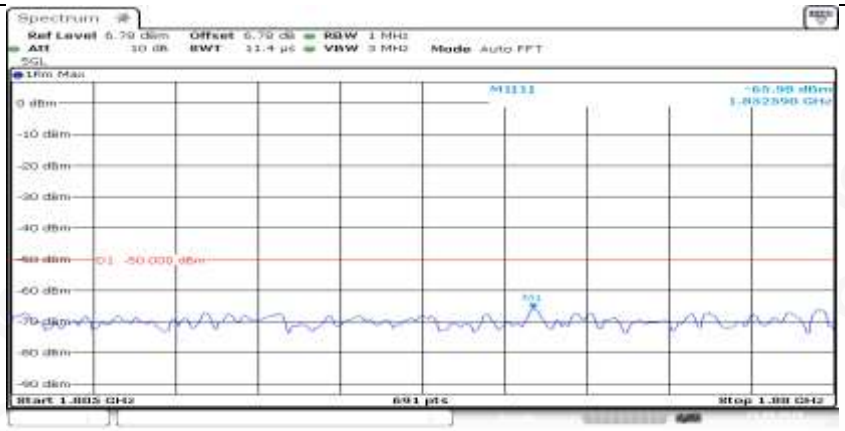
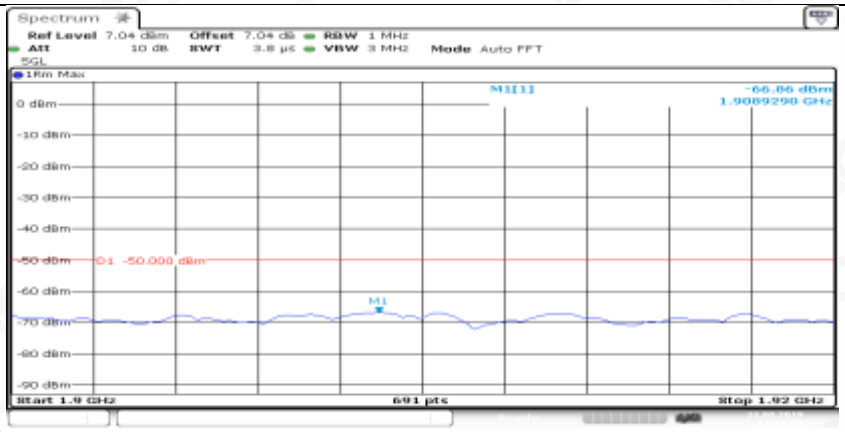
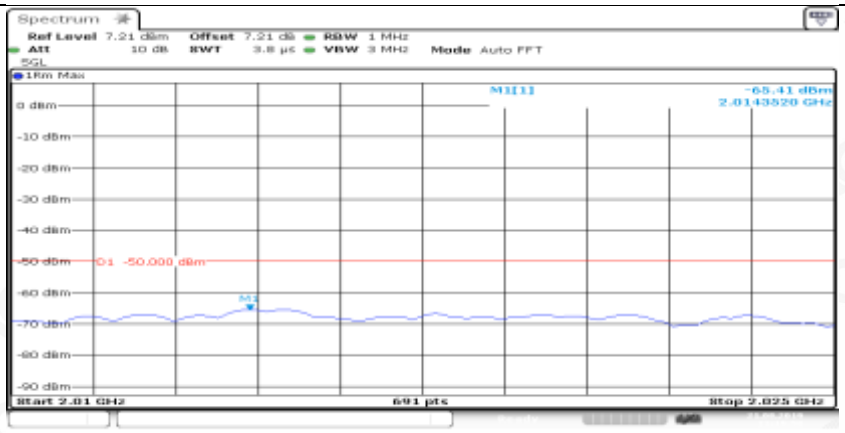
Co-existence	

Co-existence	
Co-existence	
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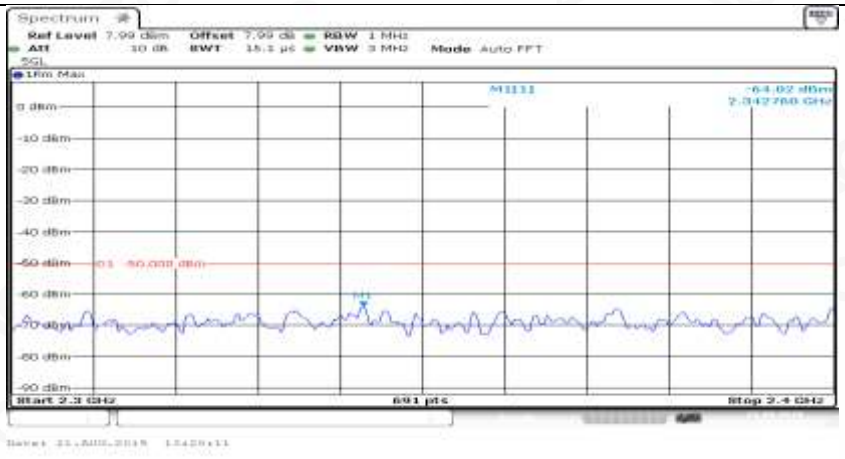
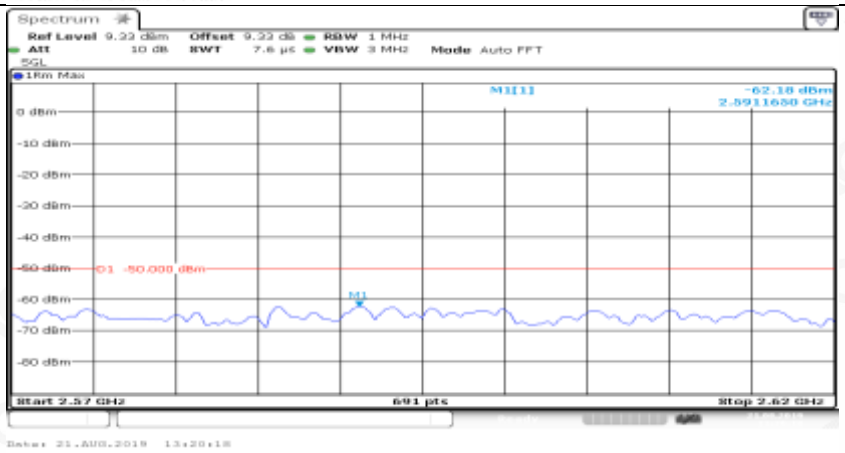
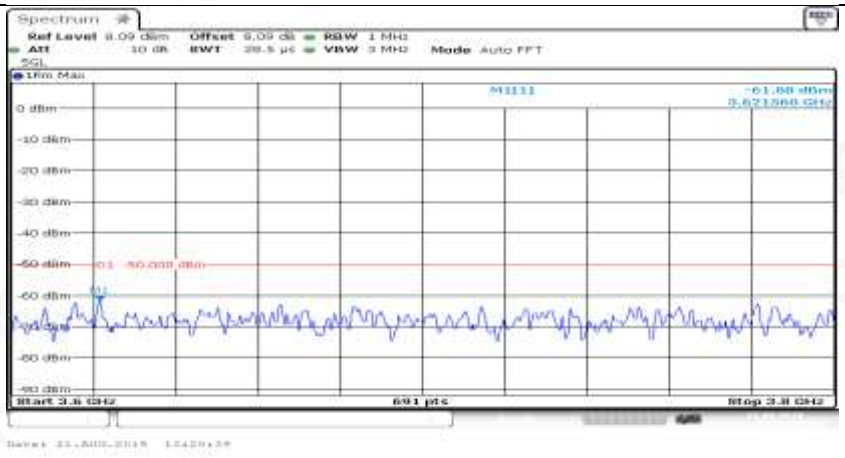
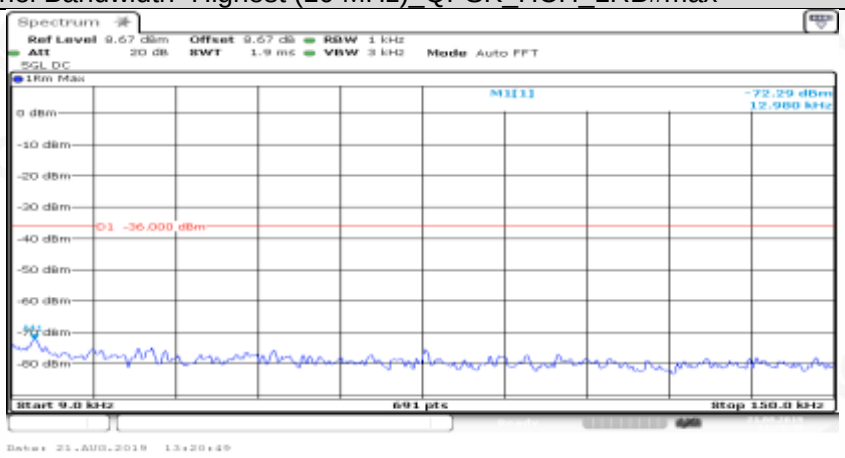
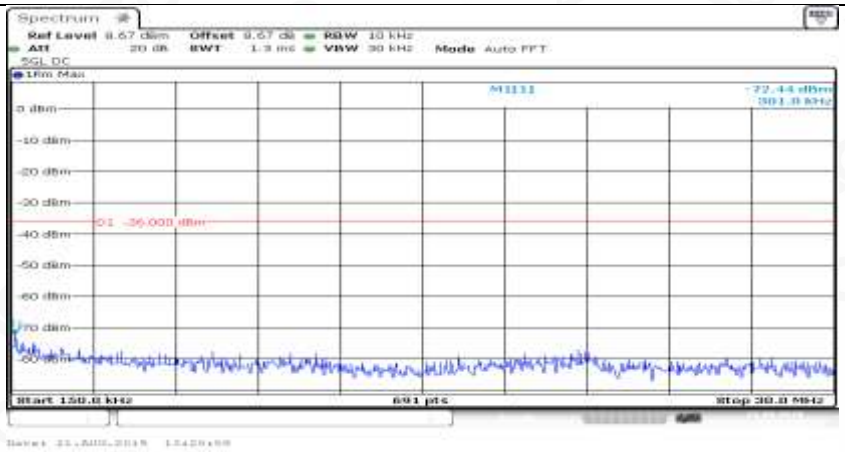
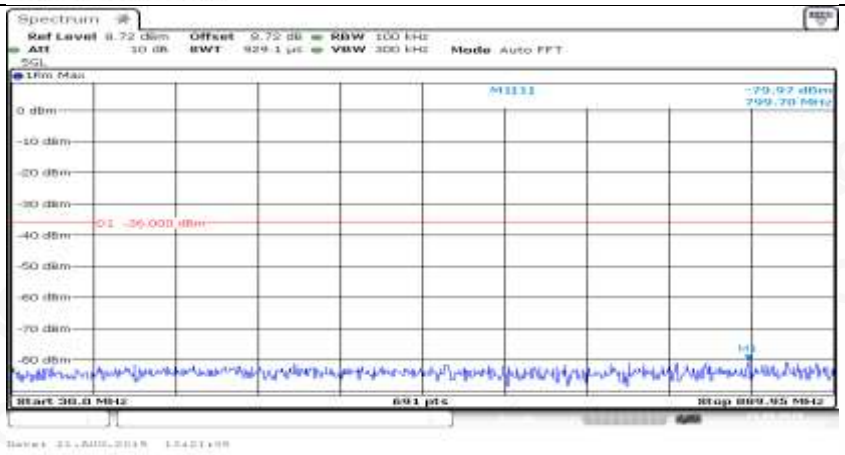
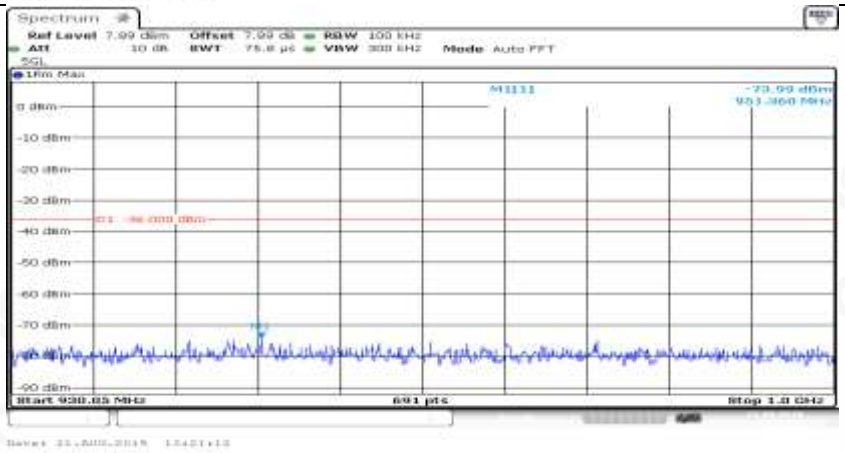
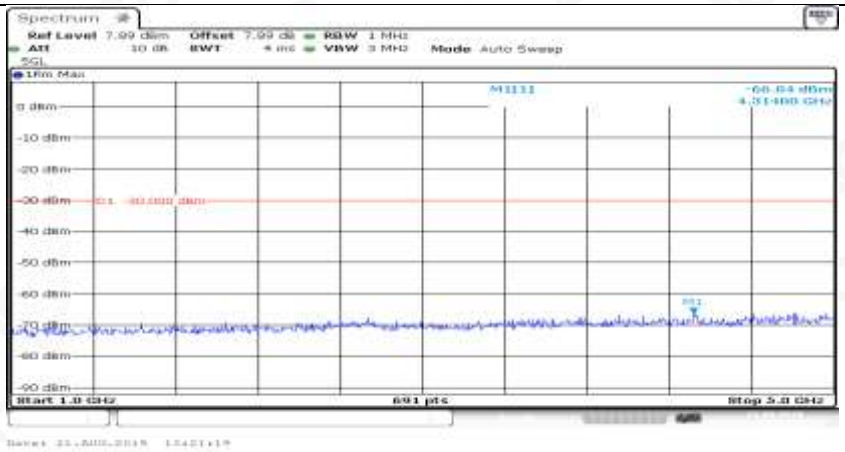
Co-existence	
Co-existence	
Co-existence	

Co-existence	
Co-existence	
Additional	NA

Channel Bandwidth=Highest (10 MHz)_QPSK_HCH_1RB#max	
General	

General	
General	
General	

General	
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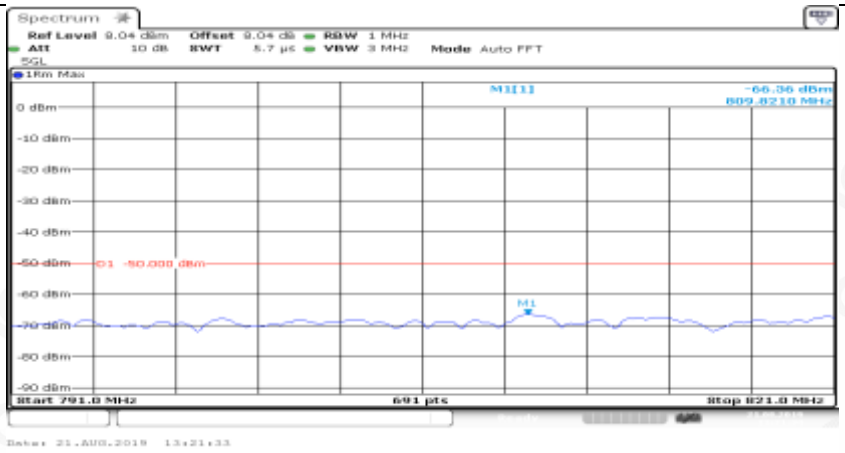
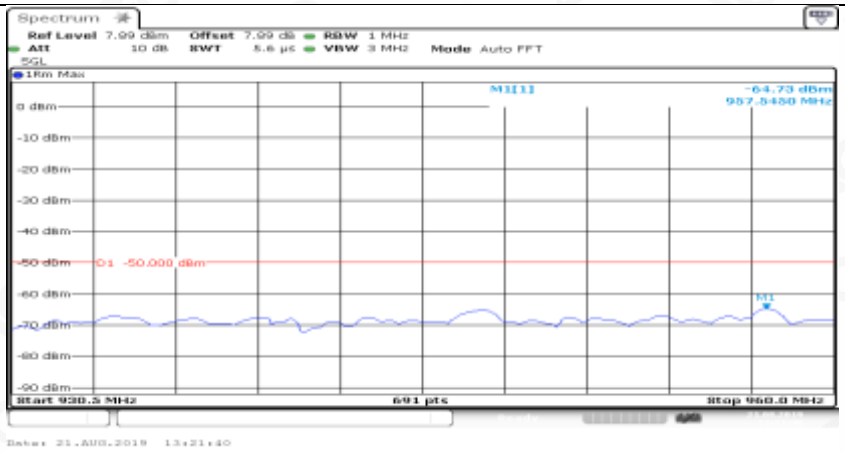
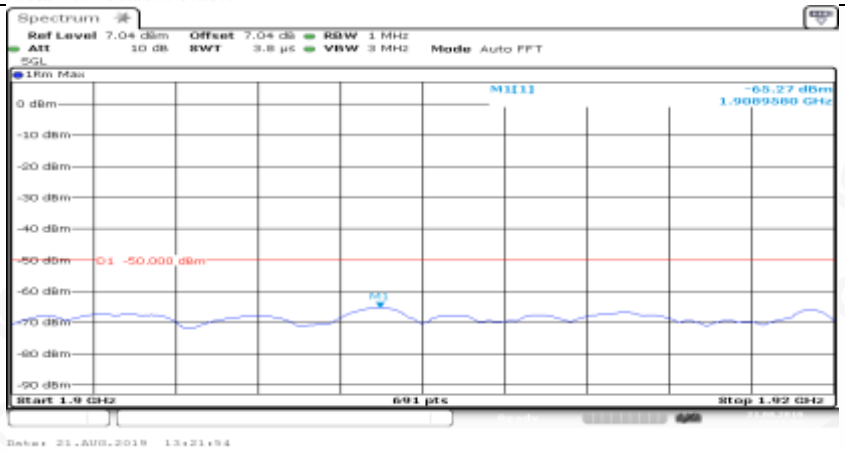
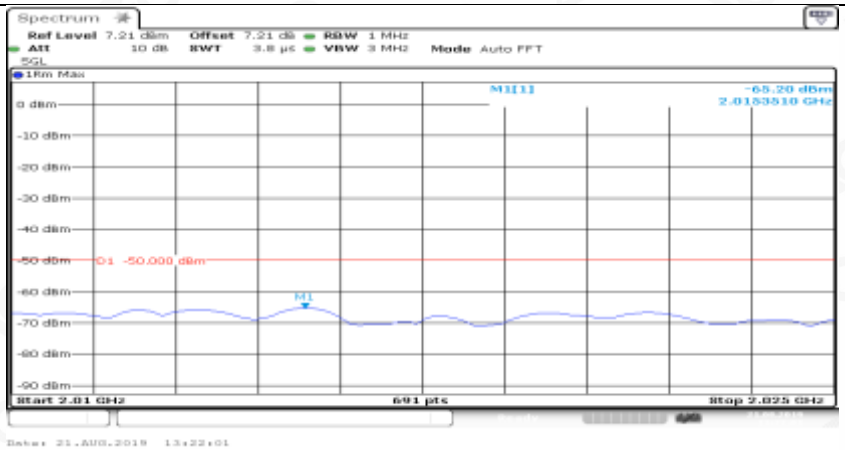
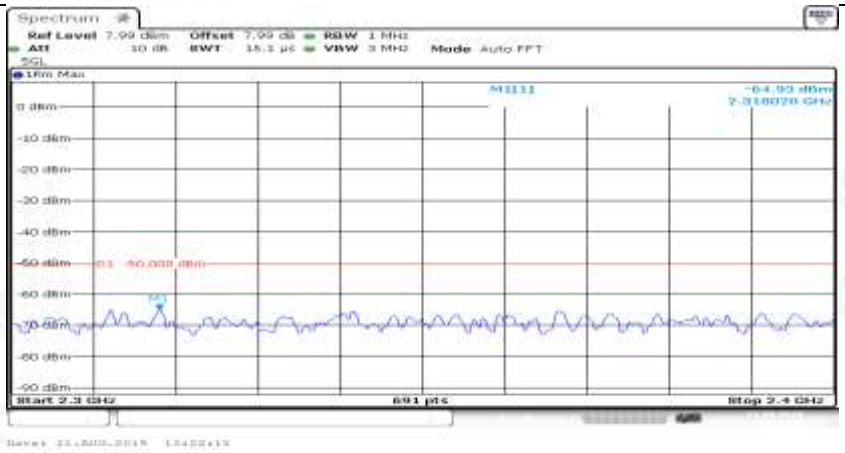
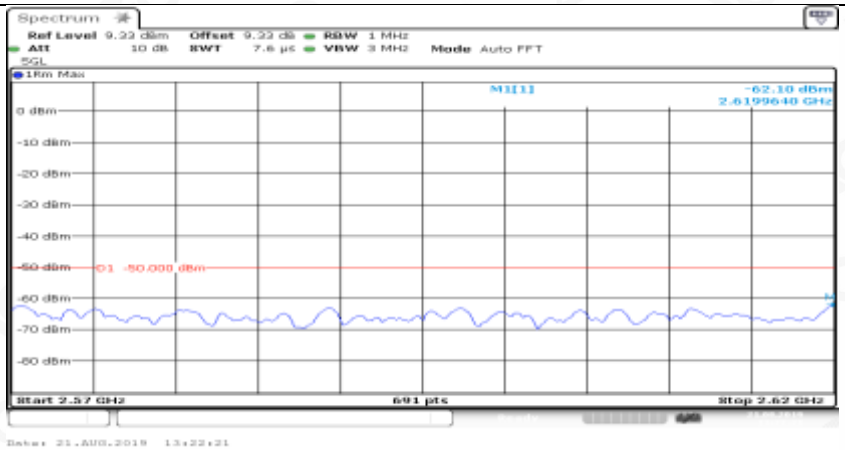
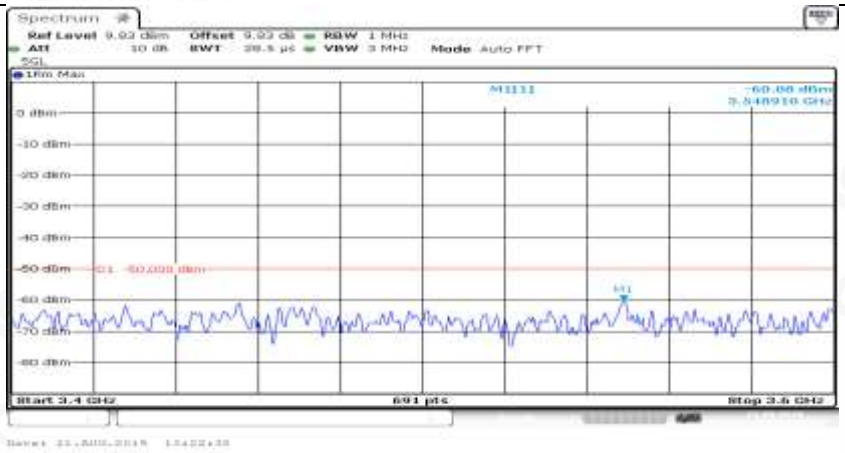
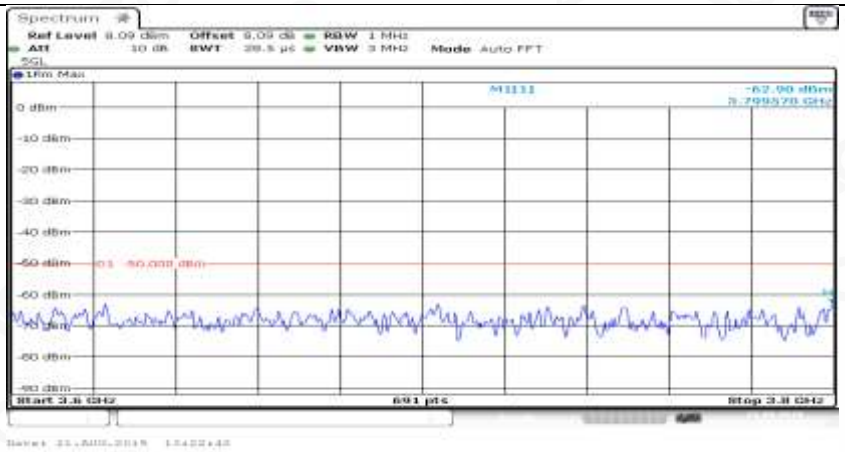
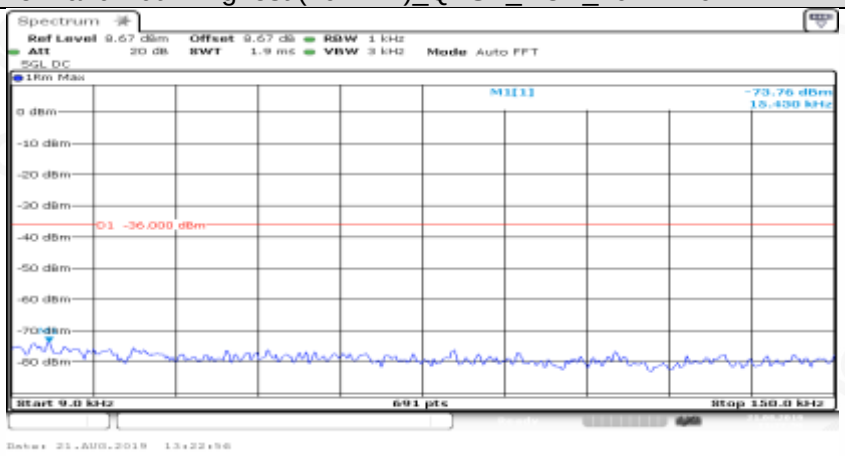
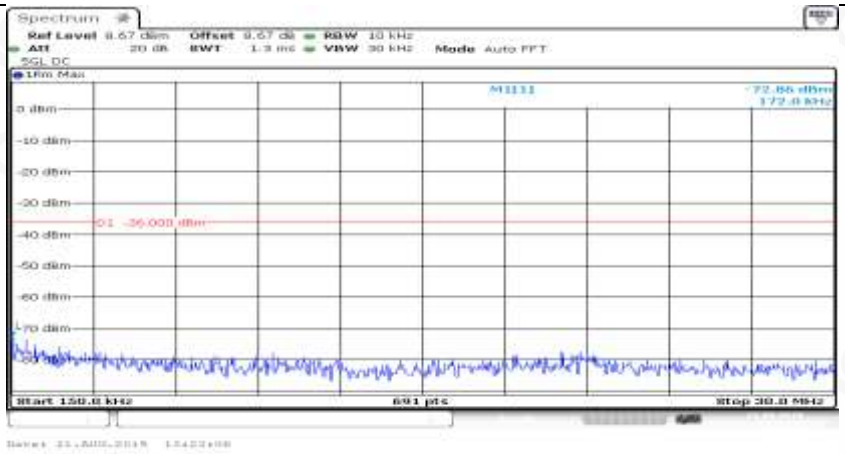
Co-existence	

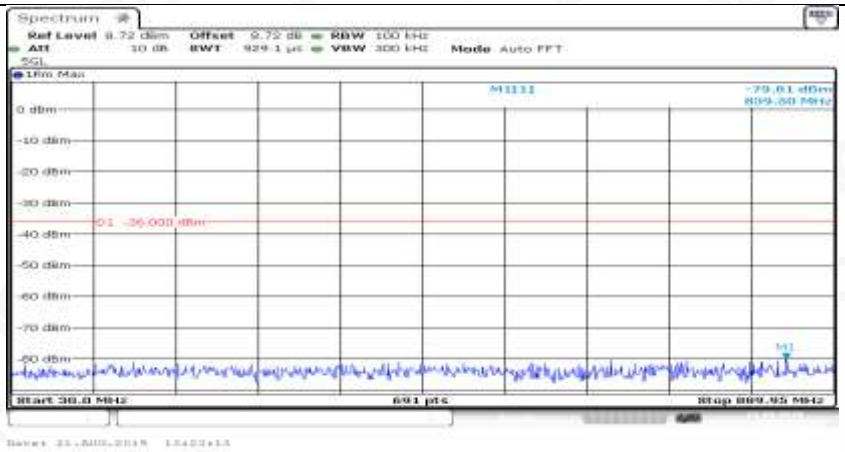
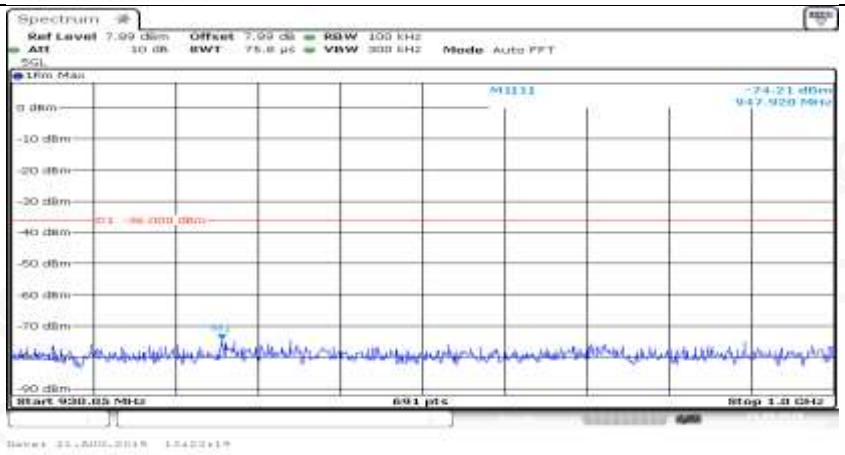
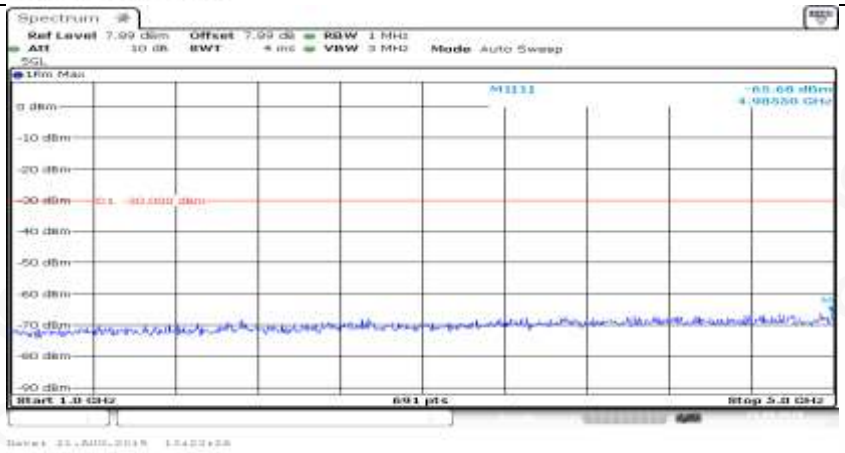
Co-existence	
Co-existence	
Co-existence	

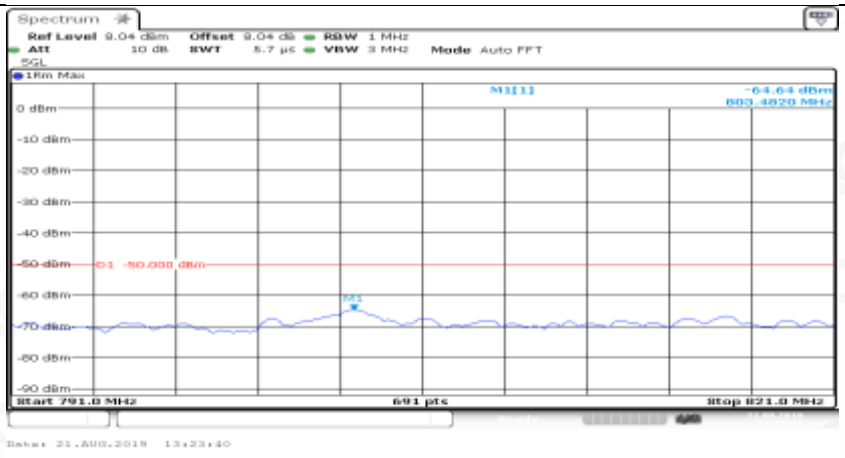
Co-existence	
Co-existence	
Co-existence	

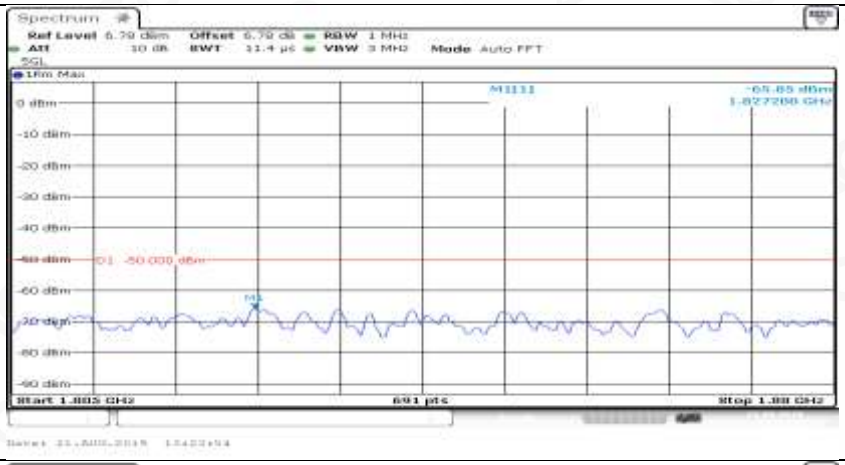
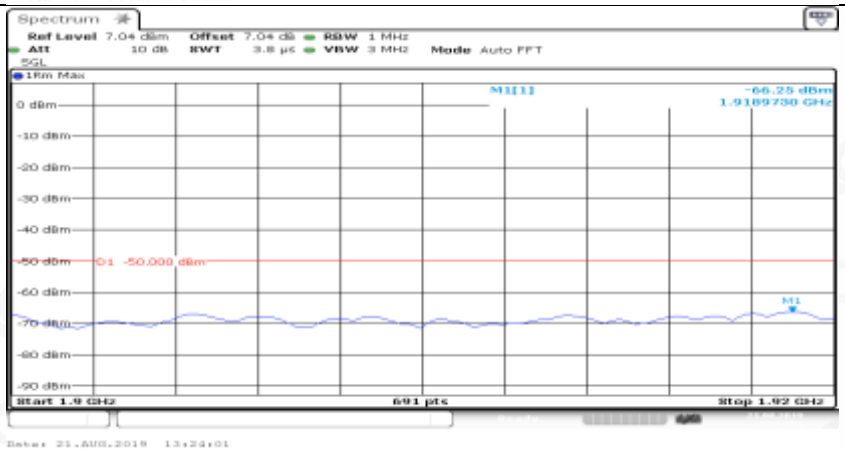
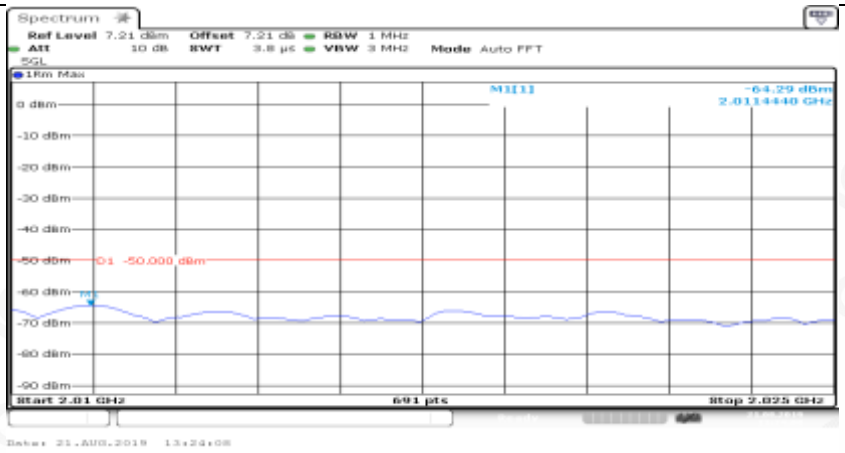
Co-existence	
Co-existence	
Co-existence	

Co-existence	
Additional	NA

Channel Bandwidth=Highest (10 MHz)_QPSK_HCH_FullRB#0	
General	
General	

General	
General	
General	

General	
Co-existence	
Co-existence	

Co-existence	
Co-existence	
Co-existence	

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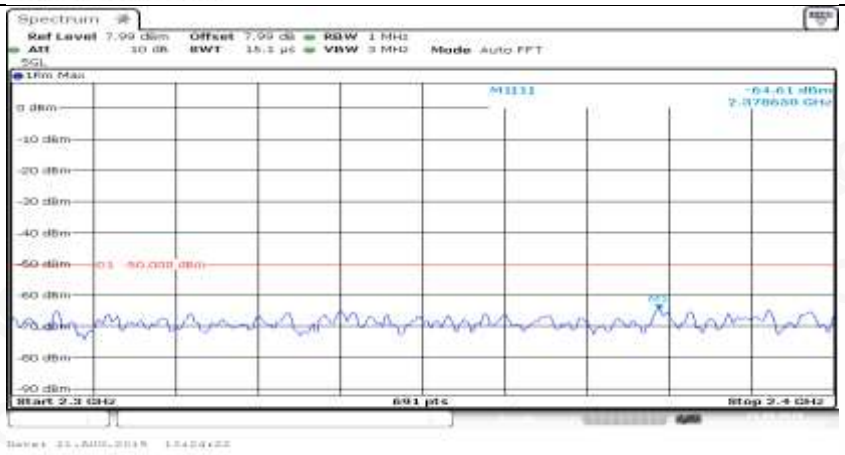
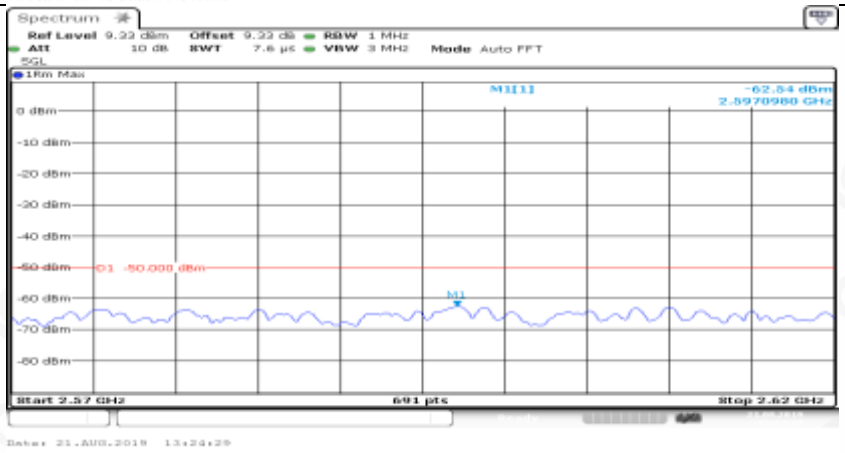
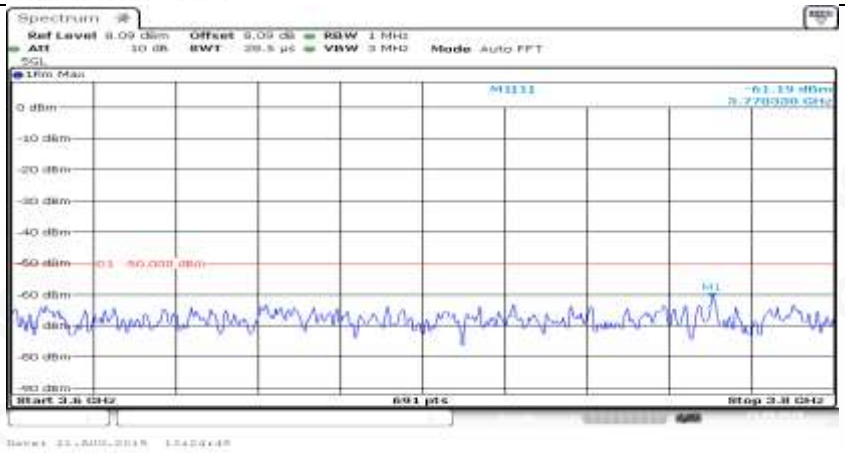
Co-existence	
Co-existence	

Co-existence	
Co-existence	
Co-existence	
Additional	NA

6. Receiver Spurious Emissions

Test Result

NTNV

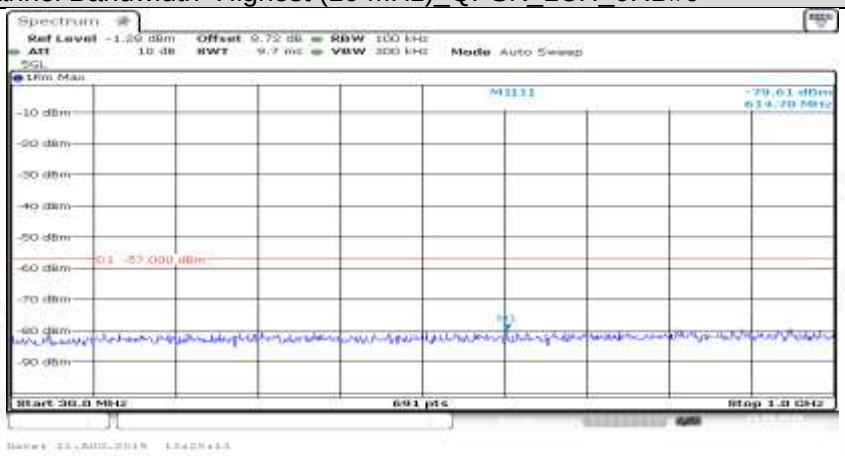
Channel Bandwidth=Highest

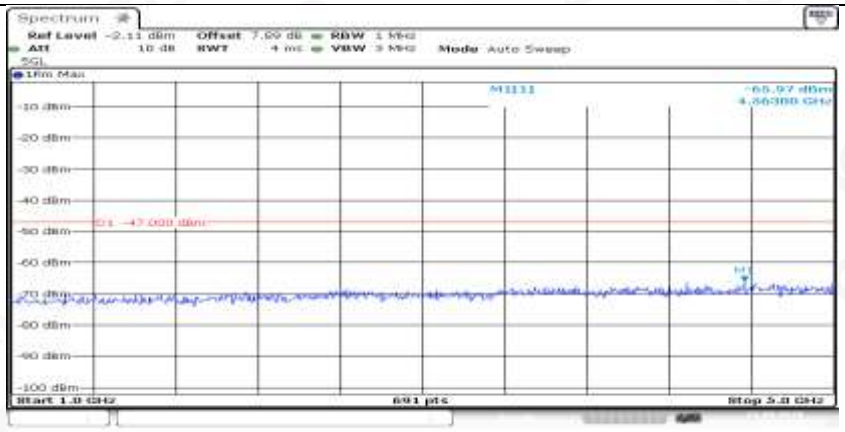
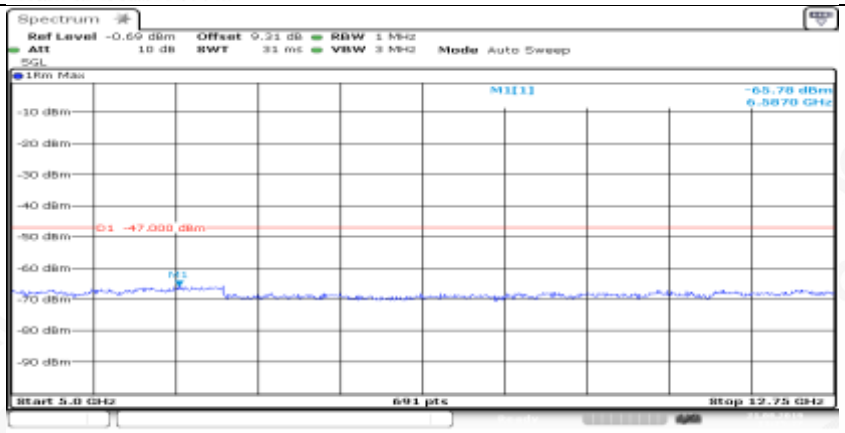
Condition	Modulation	Channel Bandwidth	Channel	RB allocation		Verdict
				RB Size	RB Offset	
Normal	QPSK	10 MHz	Low range	0	0	Pass
			Mid range	0	0	Pass
			High range	0	0	Pass

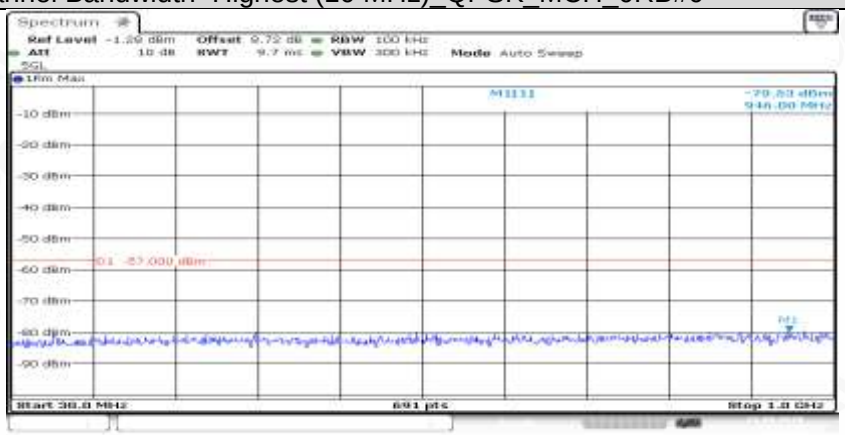
Test Graphs

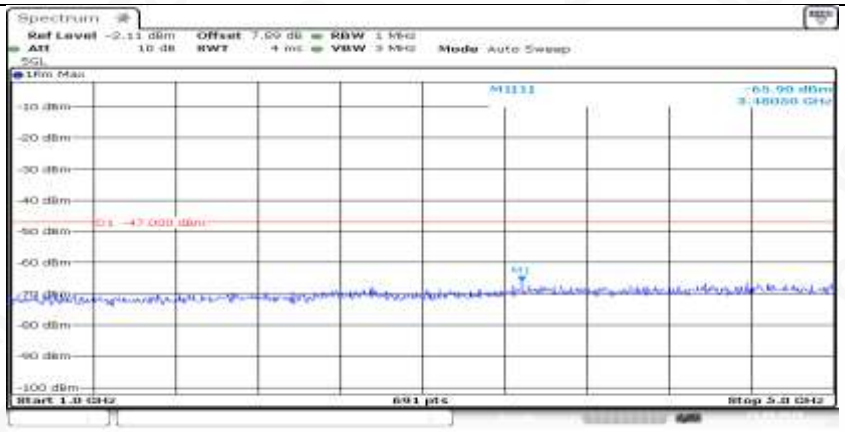
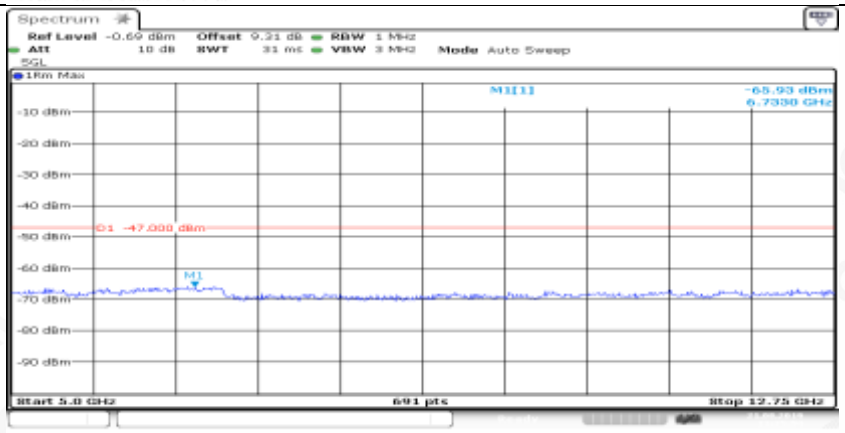
NTNV

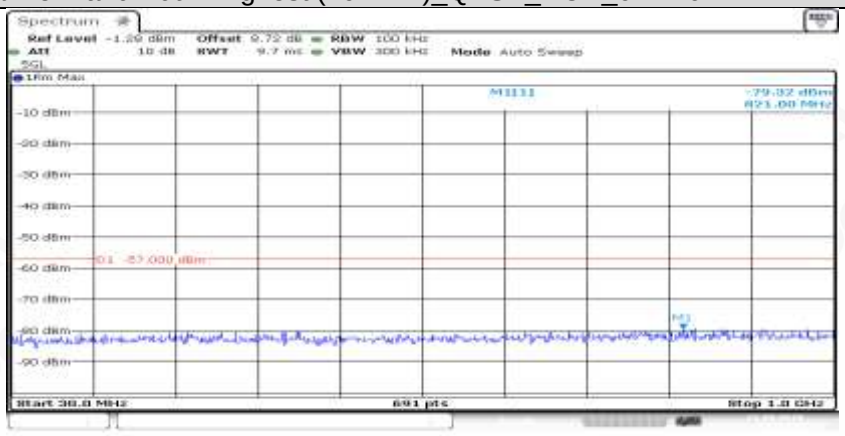
Channel Bandwidth=Highest

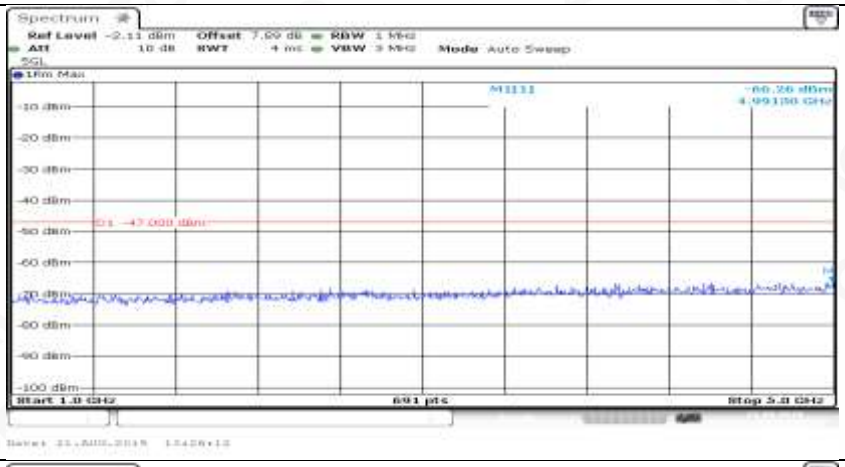
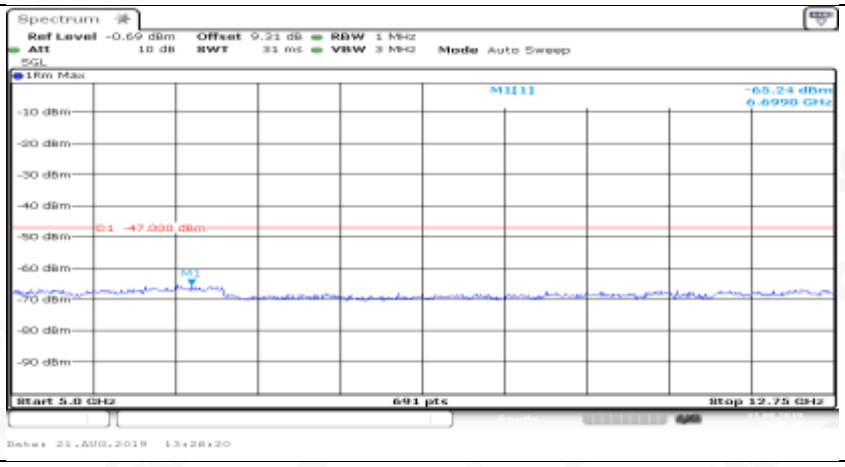
Channel Bandwidth=Highest (10 MHz)_QPSK_LCH_0RB#0	
LCH	

LCH	
LCH	
LCH	#BWH-Img-QPSK-LCH-Rxcse-4#

Channel Bandwidth=Highest (10 MHz)_QPSK_MCH_0RB#0	
MCH	

MCH	
MCH	

Channel Bandwidth=Highest (10 MHz)_QPSK_HCH_0RB#0	
HCH	

HCH	 Spectrum Ref Level -2.11 dBm Offset 7.59 dB RBW 1 MHz Att 10 dB SWT 4 ms VBW 3 MHz Mode Auto Sweep SGL 1Rm Max M1[1] -66.26 dBm 4.99150 GHz D1 -47.000 dBm Start 1.0 GHz 691 pts Stop 5.0 GHz
HCH	 Spectrum Ref Level -0.69 dBm Offset 9.21 dB RBW 1 MHz Att 10 dB SWT 31 ms VBW 3 MHz Mode Auto Sweep SGL 1Rm Max M1[1] -65.24 dBm 6.6990 GHz D1 -47.000 dBm Start 5.0 GHz 691 pts Stop 12.75 GHz

7. Receiver Adjacent Channel Selectivity (ACS)

Test Results

The equipment **passed** the requirement of this clause.

Test Environment	NC				
Test Frequencies	Mid range				
Test Channel Bandwidths	Lowest, 1.4MHz, Highest 10MHz				
Test Parameters for Channel Bandwidths					
	Downlink Configuration		**Uplink Configuration**		
Ch BW	Mod' n	RB allocation	Mod' n	RB allocation	CASE 1
		FDD		FDD	Throughput Limit
1.4MHz	QPSK	Full	QPSK	6	≥ 95 %
5MHz	QPSK	Full	QPSK	15,20,25	≥ 95 %
10MHz	QPSK	Full	QPSK	50	≥ 95 %
Verdict	**PASS**				
Ch BW	Mod' n	RB allocation	Mod' n	RB allocation	CASE 2
		FDD		FDD	Throughput Limit
1.4MHz	QPSK	Full	QPSK	6	≥ 95 %
5MHz	QPSK	Full	QPSK	15,20,25	≥ 95 %
10MHz	QPSK	Full	QPSK	50	≥ 95 %
Verdict	**PASS**				

8. Receiver blocking characteristics

Test Results

The equipment **passed** the requirement of this clause.

In-Band Blocking

Test Environment			NC		
Test Frequencies			Mid range		
Test Channel Bandwidths			Lowest, 5MHz, Highest 10MHz		
Test Parameters for Channel Bandwidths					
	Downlink Configuration		**Uplink Configuration**		CASE1
Ch BW	Mod' n	RB allocation	Mod' n	RB allocation	Throughput Limit
		FDD		FDD	
1.4MHz	QPSK	Full	QPSK	6	≥ 95 %
5MHz	QPSK	Full	QPSK	15,20,25	≥ 95 %
10MHz	QPSK	Full	QPSK	50	≥ 95 %
Verdict	**PASS**				

In-Band Blocking

	Downlink Configuration		**Uplink Configuration**		CASE2
Ch BW	Mod' n	RB allocation	Mod' n	RB allocation	Throughput Limit
		FDD		FDD	
1.4MHz	QPSK	Full	QPSK	6	≥ 95 %
5MHz	QPSK	Full	QPSK	15,20,25	≥ 95 %
10MHz	QPSK	Full	QPSK	50	≥ 95 %
Verdict	**PASS**				

Out-of Band Blocking

Test Environment			NC		
Test Frequencies			Low range for FInterferer below FDL_low High range for FInterferer above FDL_high		
Test Channel Bandwidths			Lowest, 1.4MHz, Highest 10MHz		
Test Parameters for Channel Bandwidths					
	Downlink Configuration		**Uplink Configuration**		RANGE1/RANGE2/RANGE3
Ch BW	Mod' n	RB allocation	Mod' n	RB allocation	Throughput Limit
		FDD		FDD	
1.4MHz	QPSK	Full	QPSK	6	≥ 95 %
5MHz	QPSK	Full	QPSK	15,20,25	≥ 95 %
10MHz	QPSK	Full	QPSK	50	≥ 95 %

Verdict	PASS

Narrow Band

Test Environment	NC				
Test Frequencies	Mid range				
Test Channel Bandwidths	Lowest, 1.4MHz, Highest 10MHz				
Test Parameters for Channel Bandwidths					
	Downlink Configuration		**Uplink Configuration**		
Ch BW	Mod' n	RB allocation	Mod' n	RB allocation	Throughput Limit
		FDD		FDD	
1.4MHz	QPSK	Full	QPSK	NA-L-RB	≥ 95 %
5MHz	QPSK	Full	QPSK	15,20,25	≥ 95 %
10MHz	QPSK	Full	QPSK	NA-H-RB	≥ 95 %
Verdict	**PASS**				

9. Receiver Spurious Response

Test Environment			NC		
Test Frequencies			Mid range		
Test Channel Bandwidths			Lowest, 1.4MHz, Highest 10MHz		
Test Parameters for Channel Bandwidths					
	Downlink Configuration		**Uplink Configuration**		
Ch BW	Mod' n	RB allocation	Mod' n	RB allocation	CASE 1
		FDD		FDD	Throughput Limit
1.4MHz	QPSK	Full	QPSK	6	≥ 95 %
5MHz	QPSK	Full	QPSK	15,20,25	≥ 95 %
10MHz	QPSK	Full	QPSK	50	≥ 95 %
Verdict	**Pass**				
Ch BW	Mod' n	RB allocation	Mod' n	RB allocation	CASE 2
		FDD		FDD	Throughput Limit
1.4MHz	QPSK	Full	QPSK	6	≥ 95 %
5MHz	QPSK	Full	QPSK	15,20,25	≥ 95 %
10MHz	QPSK	Full	QPSK	50	≥ 95 %
Verdict	**Pass**				

10. Receiver Intermodulation Characteristics

Test Results

The equipment **passed** the requirement of this clause.

Test Band						
Test Environment	NC					
Test Frequencies	Mid range					
Test Channel Bandwidths	Lowest, 5MHz, Highest 10MHz					
Test Parameters for Channel Bandwidths						
	Downlink Configuration		**Uplink Configuration**			
Ch BW	Mod' n	RB allocation	Mod' n	RB allocation	Meas. Throughput	Throughput Limit
		FDD		FDD		
1.4MHz	QPSK	Full	QPSK	6	PASS	≥ 95 %
5MHz	QPSK	Full	QPSK	15,20,25	PASS	≥ 95 %
10MHz	QPSK	Full	QPSK	50	PASS	≥ 95 %
Verdict	**PASS**					

11. Receiver Reference Sensitivity Level

Note: All test modes were carried out for all operation modes and record the worst test mode (LTE BAND 8 TNVH) of fellow:

Test Results

TNVH

	Test Band			Band 8			
	TestEnvironment			NC			
	Test Frequencies			Midrange			
	TestChannelBandwidths			Lowest,1.4MHz,Highest 10MHz			
	Test Parameters for Channel Bandwidths						
		DownlinkConfiguration		**Uplink Configuration**			
	Ch BW	Mod' n	RB allocation	Mod' n	RB allocation	Meas. Throughput	Throughput Limit
			FDD		FDD		
TNVH	1.4MHz	QPSK	Full	QPSK	6	Pass	≥ 95 %
	5MHz	QPSK	Full	QPSK	15,20,25	Pass	≥ 95 %
	10MHz	QPSK	Full	QPSK	50	Pass	≥ 95 %

12. Radiated spurious emissions - MS in idle mode

Note: All test modes were carried out for all operation modes and record the worst test mode (LTE BAND 8 TNVN) of fellow

Test Result

TNVN

Channel Bandwidth=Highest= (10 MHz)

Frequency	Modulation	RBW	Max .Level (dbm)	Test Conditions=TNVN		
				Test Channel		
				LCH	MCH	HCH
30 MHz ≤f < 1 GHz	QPSK	100 kHz	-57	-63.85	-63.57	-63.74
1 GHz ≤f ≤ 5 GHz		1 MHz	-47	-60.32	-60.24	-60.47
5 GHz ≤f ≤12.75 GHz		1 MHz	-47	-52.11	-52.06	-52.17

Appendix E for Band 20

1. Transmitter Maximum Output Power

Note: All test modes were carried out for all operation modes and record the worst test mode (LTE BAND 20 TNVN) of fellow

Test Result

NTNV

Channel Bandwidth=Lowest (5 MHz)

Channel Bandwidth=Lowest (5 MHz)							
Condition	Modulation	Channel Bandwidth	Channel	RB allocation		Average Power (dBm)	Verdict
				RB Size	RB Offset		
Normal	QPSK	5 MHz	Low range	1	0	23.72	Pass
					max	23.64	Pass
				Partial	0	23.70	Pass
					max	23.73	Pass
			Mid range	1	0	23.68	Pass
					max	23.71	Pass
				Partial	0	23.75	Pass
					max	23.69	Pass
			High range	1	0	23.74	Pass
					max	23.82	Pass
				Partial	0	23.75	Pass
					max	23.77	Pass

Channel Bandwidth=Highest (20 MHz)

Channel Bandwidth=Highest (20 MHz)							
Condition	Modulation	Channel Bandwidth	Channel	RB allocation		Average Power (dBm)	Verdict
				RB Size	RB Offset		
Normal	QPSK	20 MHz	Low range	1	0	23.54	Pass
					max	23.60	Pass
				Partial	0	23.56	Pass
					max	23.63	Pass
			Mid range	1	0	23.53	Pass
					max	23.55	Pass
				Partial	0	23.64	Pass
					max	23.53	Pass
			High	1	0	23.38	Pass

			range		max	23.48	Pass
				Partial	0	23.58	Pass
					max	23.60	Pass

2. Transmitter Minimum Output Power

Note: All test modes were carried out for all operation modes and record the worst test mode (LTE BAND 20 TNVN) of fellow

Test Result

NTNV

Channel Bandwidth=Lowest (5 MHz)

Channel Bandwidth=Lowest (5 MHz)							
Condition	Modulation	Channel Bandwidth	Channel	RB allocation		Average Power (dBm)	Verdict
				RB Size	RB Offset		
Normal	QPSK	5 MHz	Low range	Full	0	-48.62	Pass
			Mid range	Full	0	-50.92	Pass
			High range	Full	0	-50.73	Pass

Channel Bandwidth=Highest (20 MHz)

Channel Bandwidth=Highest (20 MHz)							
Condition	Modulation	Channel Bandwidth	Channel	RB allocation		Average Power (dBm)	Verdict
				RB Size	RB Offset		
Normal	QPSK	20MHz	Low range	Full	0	-50.33	Pass
			Mid range	Full	0	-50.26	Pass
			High range	Full	0	-50.19	Pass

3. Transmitter Spectrum Emission Mask

Test Result

NTNV

Channel Bandwidth=Lowest (5 MHz)

Channel Bandwidth=Lowest (5MHz)							
Condition	Modulation	Channel Bandwidth	Channel	RB allocation		UE output power	Verdict
				RB Size	RB Offset		
Normal	QPSK	5 MHz	Low range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			Mid range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			High range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
	16QAM		Low range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			Mid range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			High range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass

Channel Bandwidth= (10 MHz)

Channel Bandwidth= (10 MHz)							
Condition	Modulation	Channel Bandwidth	Channel	RB allocation		UE output power	Verdict
				RB Size	RB Offset		
Normal	QPSK	10 MHz	Low range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			Mid range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			High range	Partial	0	PUMAX	Pass

					max	PUMAX	Pass
				Full	0	PUMAX	Pass
	16QAM		Low range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			Mid range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			High range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass

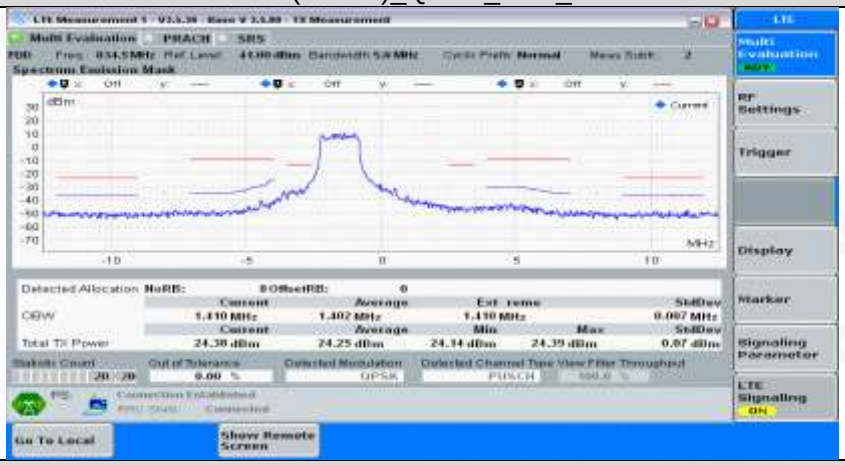
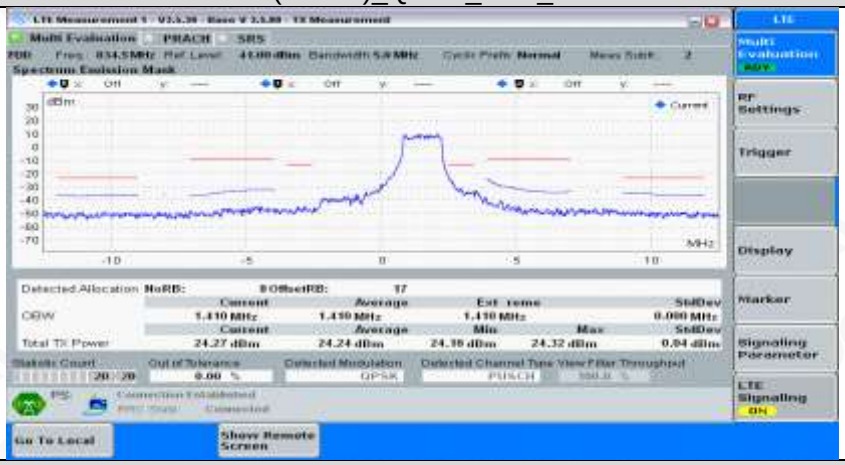
Channel Bandwidth=Highest (20 MHz)

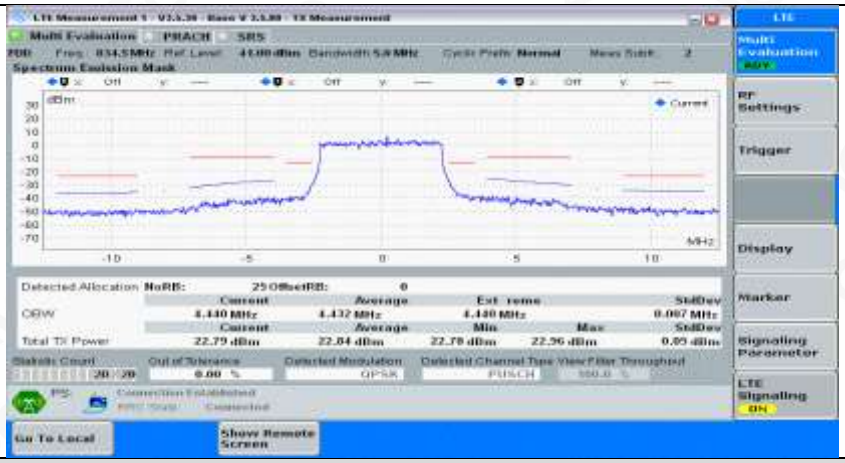
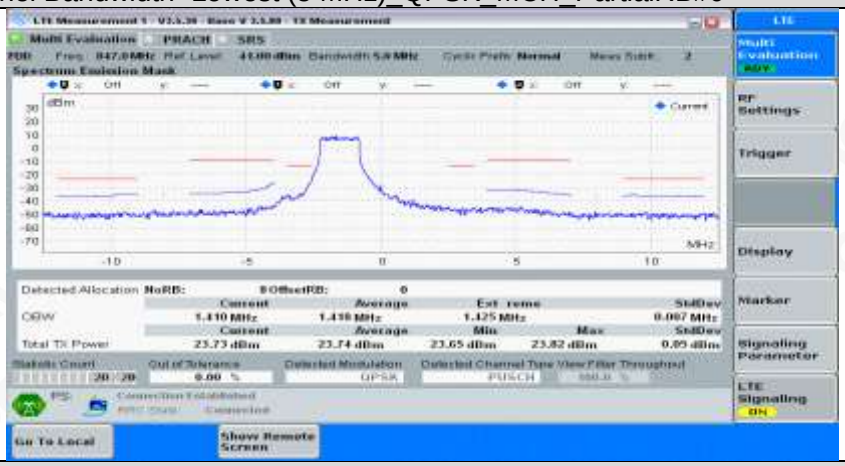
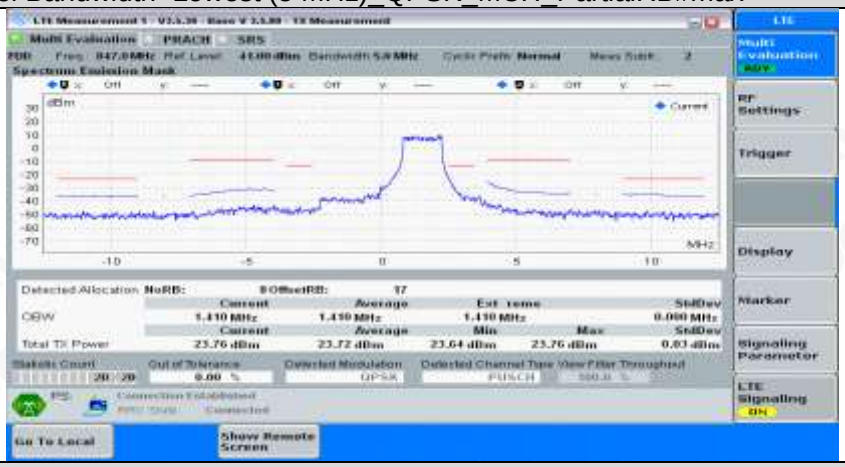
Channel Bandwidth=Highest (20 MHz)							
Condition	Modulation	Channel Bandwidth	Channel	RB allocation		UE output power	Verdict
				RB Size	RB Offset		
Normal	QPSK	20 MHz	Low range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			Mid range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			High range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
	16QAM		Low range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			Mid range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			High range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass

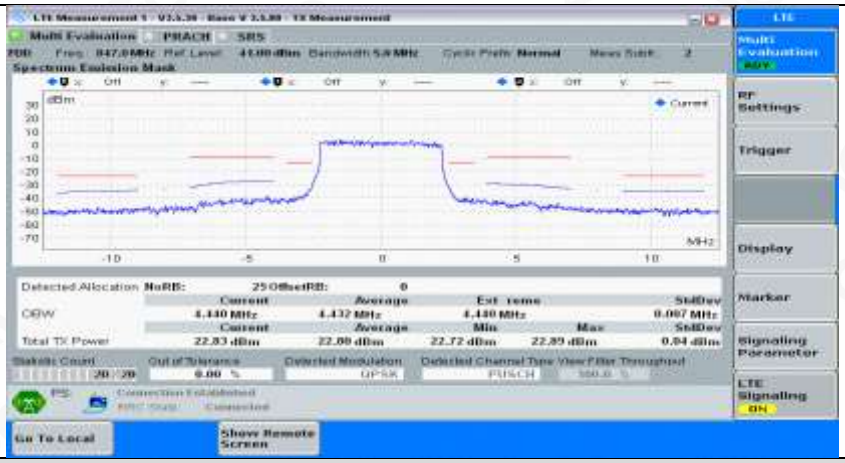
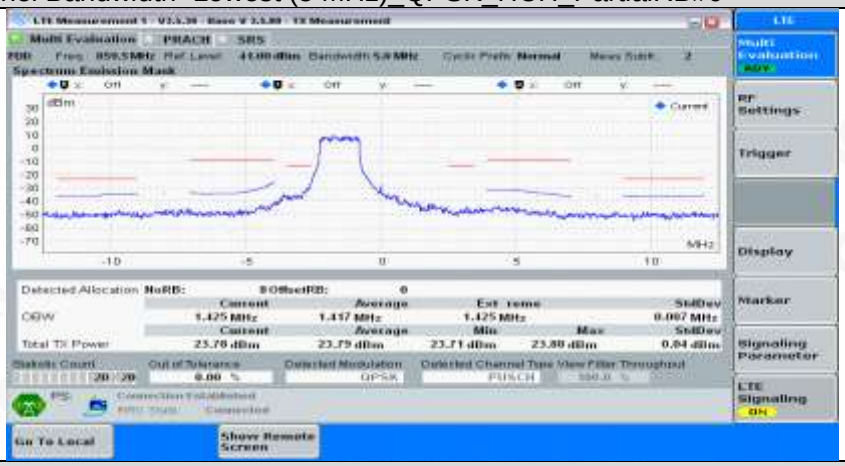
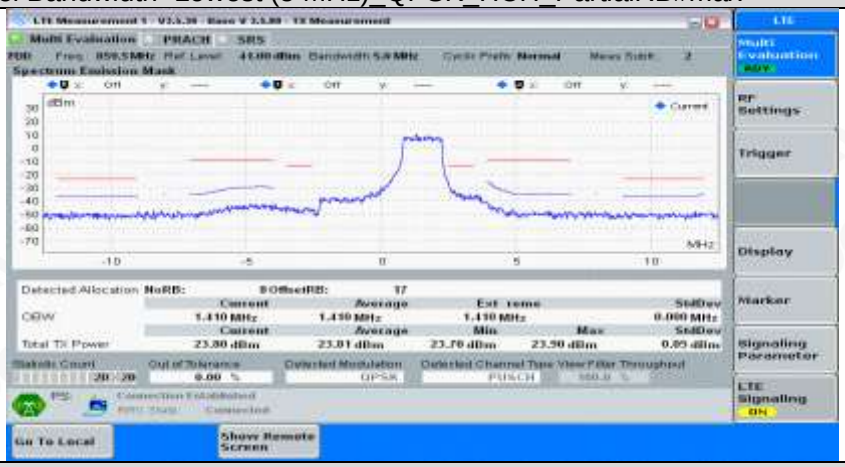
Test Graphs

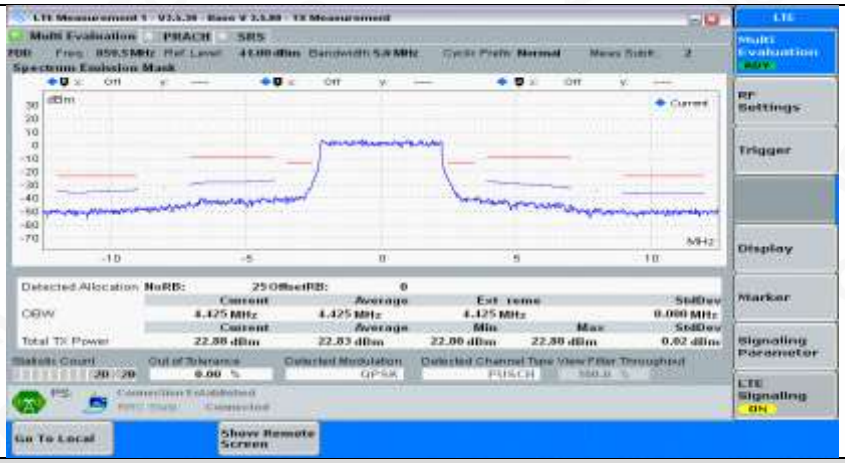
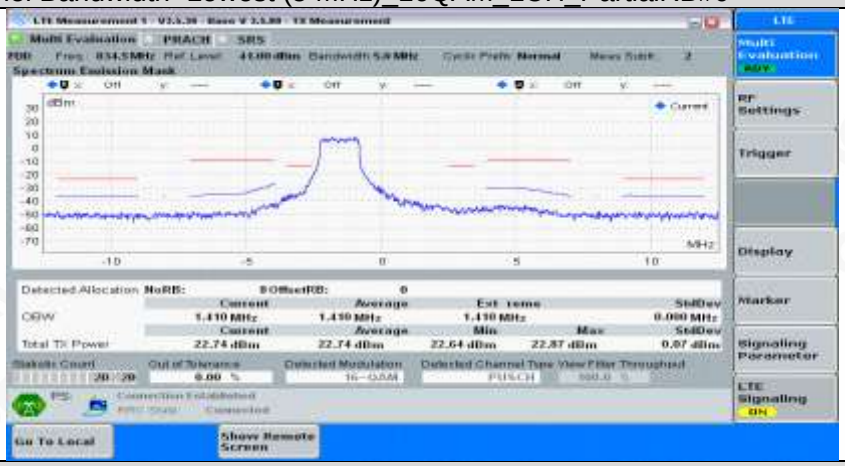
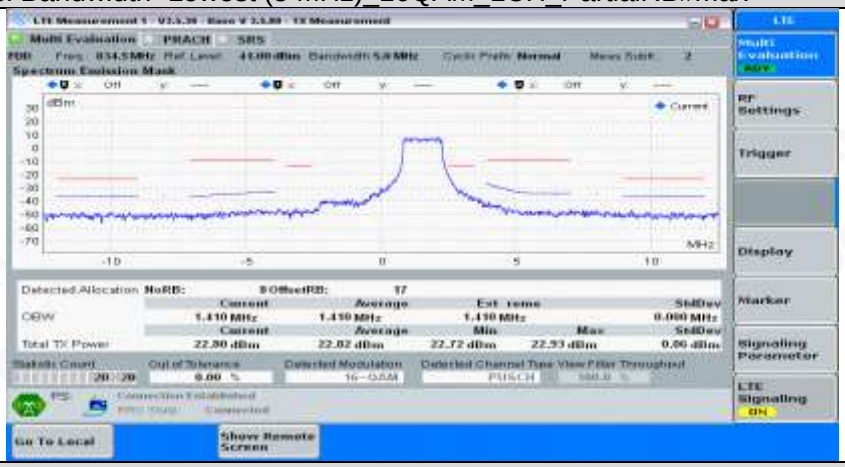
NTNV

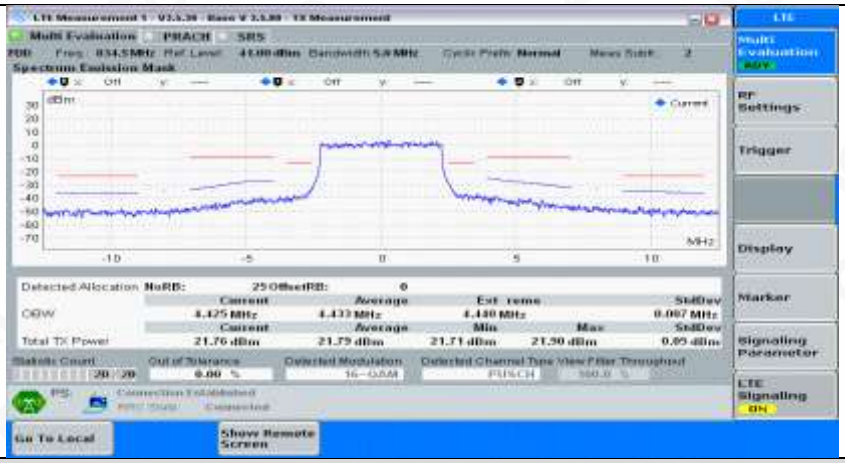
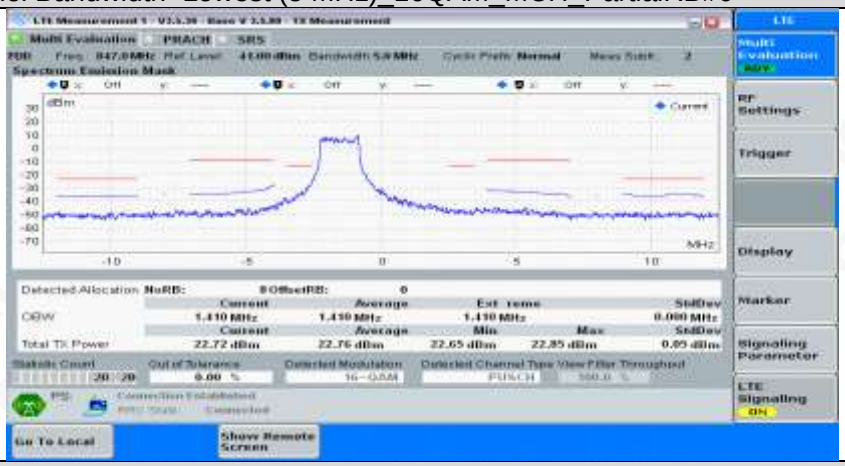
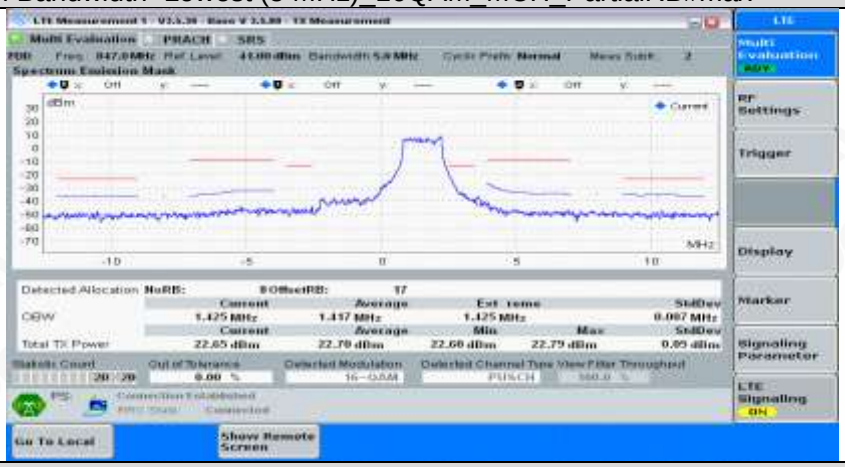
Channel Bandwidth=Lowest (5 MHz)

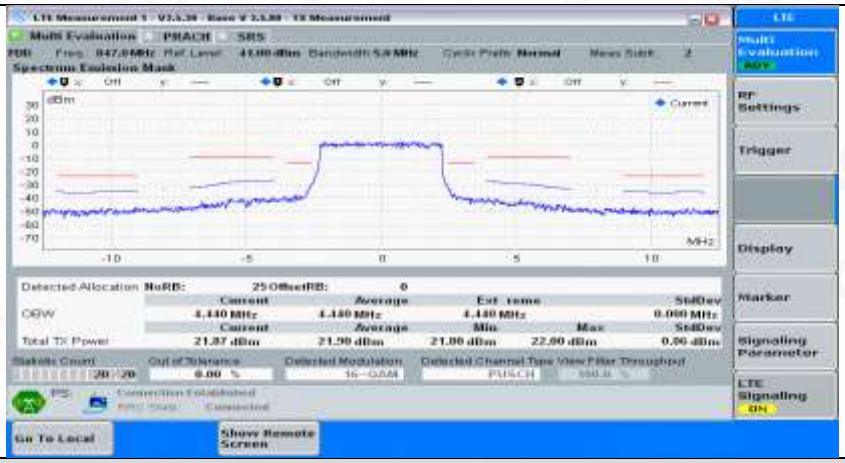
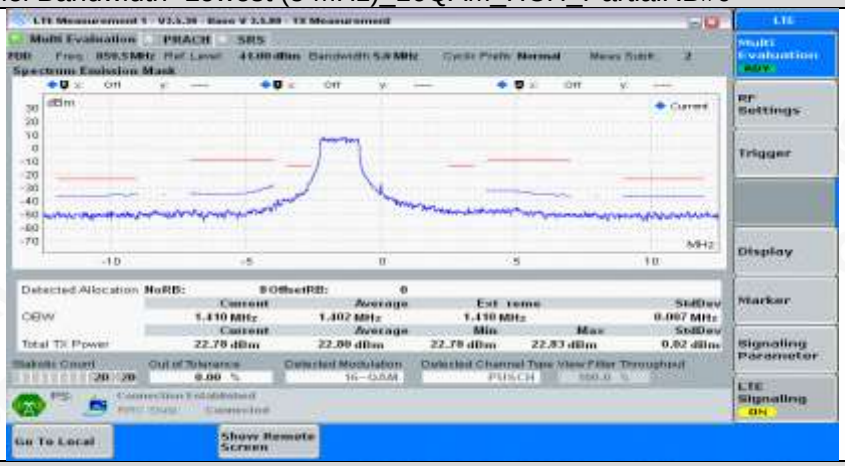
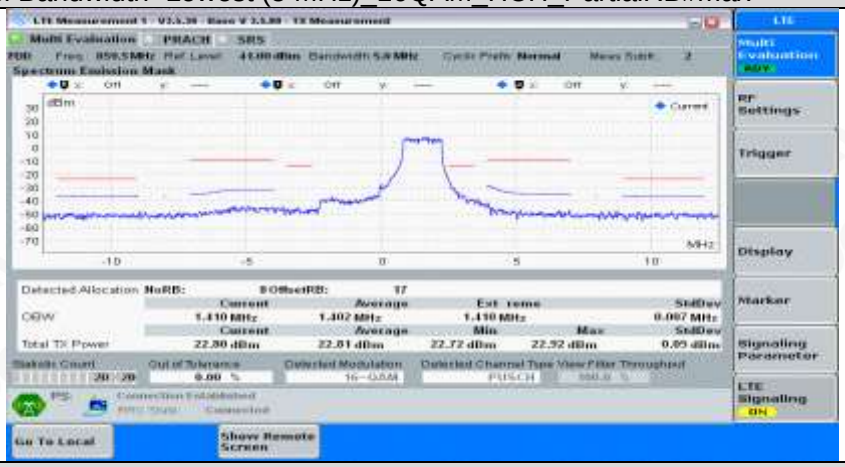
Channel Bandwidth=Lowest (5 MHz)_QPSK_LCH_PartialRB#0	
QPSK	
Channel Bandwidth=Lowest (5 MHz)_QPSK_LCH_PartialRB#max	
QPSK	
Channel Bandwidth=Lowest (5 MHz)_QPSK_LCH_FullRB#0	

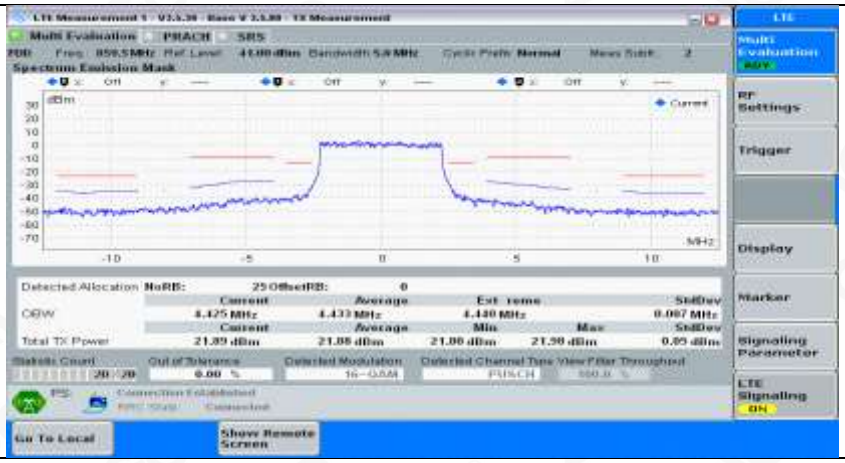
QPSK	
Channel Bandwidth=Lowest (5 MHz)_QPSK_MCH_PartialRB#0	
QPSK	
Channel Bandwidth=Lowest (5 MHz)_QPSK_MCH_PartialRB#max	
QPSK	
Channel Bandwidth=Lowest (5 MHz)_QPSK_MCH_FullRB#0	

QPSK	
Channel Bandwidth=Lowest (5 MHz)_QPSK_HCH_PartialRB#0	
QPSK	
Channel Bandwidth=Lowest (5 MHz)_QPSK_HCH_PartialRB#max	
QPSK	
Channel Bandwidth=Lowest (5 MHz)_QPSK_HCH_FullRB#0	

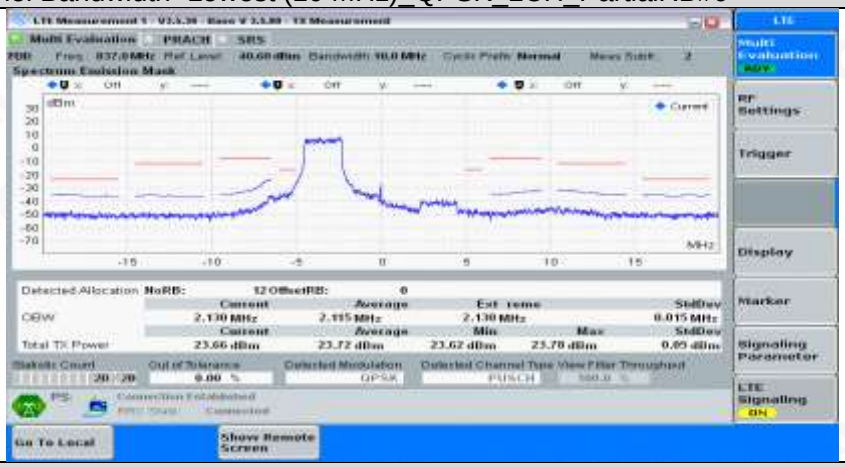
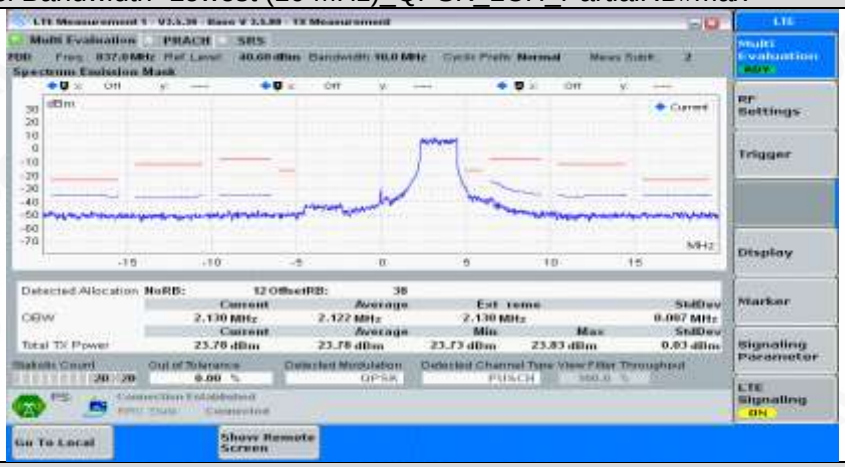
QPSK	
Channel Bandwidth=Lowest (5 MHz)_16QAM_LCH_PartialRB#0	
16QAM	
Channel Bandwidth=Lowest (5 MHz)_16QAM_LCH_PartialRB#max	
16QAM	
Channel Bandwidth=Lowest (5 MHz)_16QAM_LCH_FullRB#0	

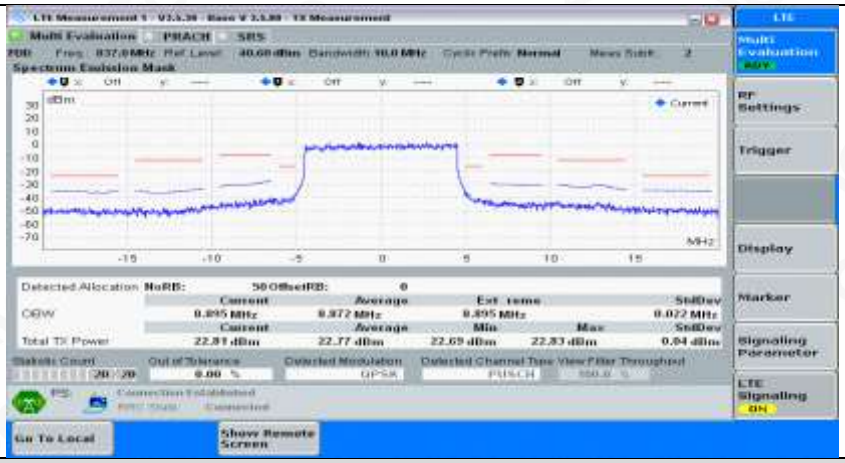
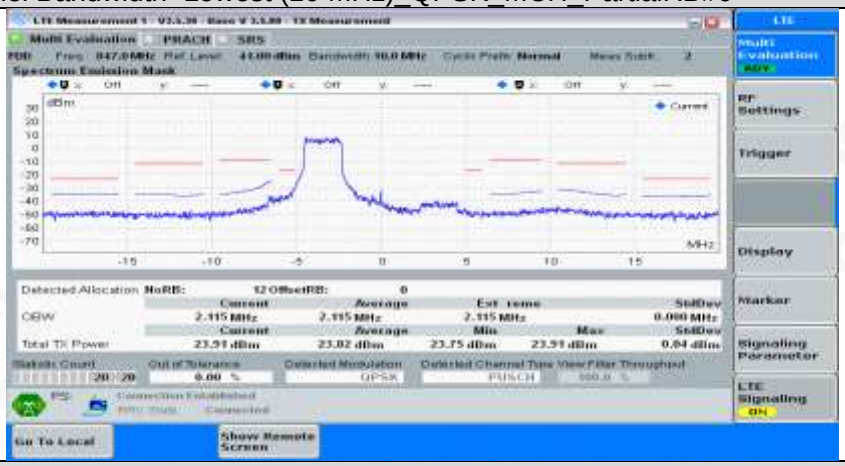
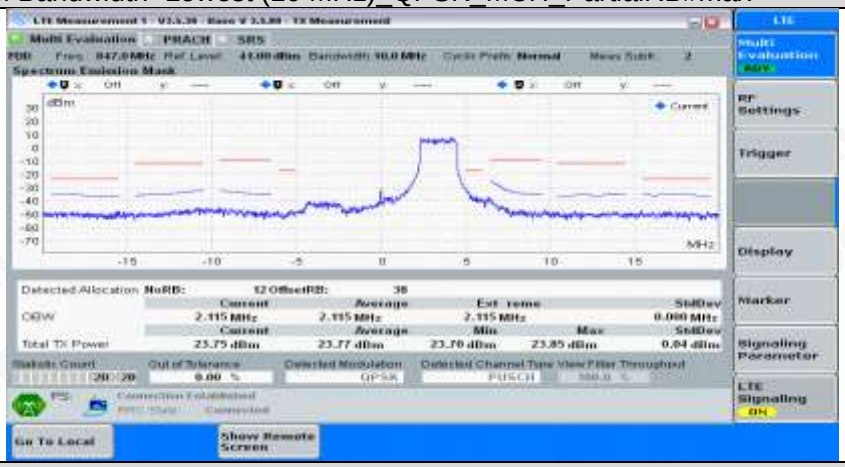
16QAM	
Channel Bandwidth=Lowest (5 MHz)_16QAM_MCH_PartialRB#0	
16QAM	
Channel Bandwidth=Lowest (5 MHz)_16QAM_MCH_PartialRB#max	
16QAM	
Channel Bandwidth=Lowest (5 MHz)_16QAM_MCH_FullRB#0	

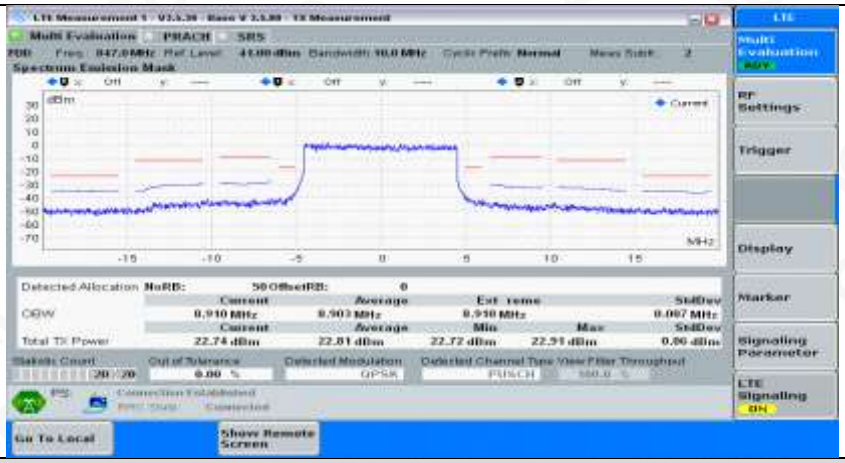
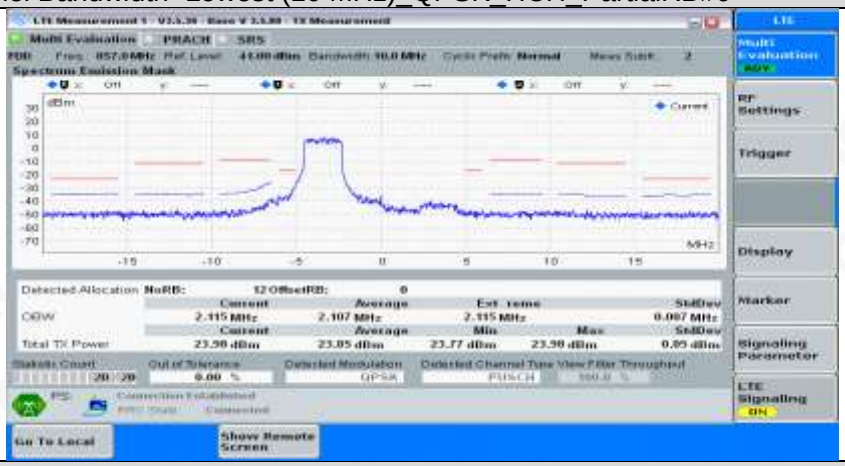
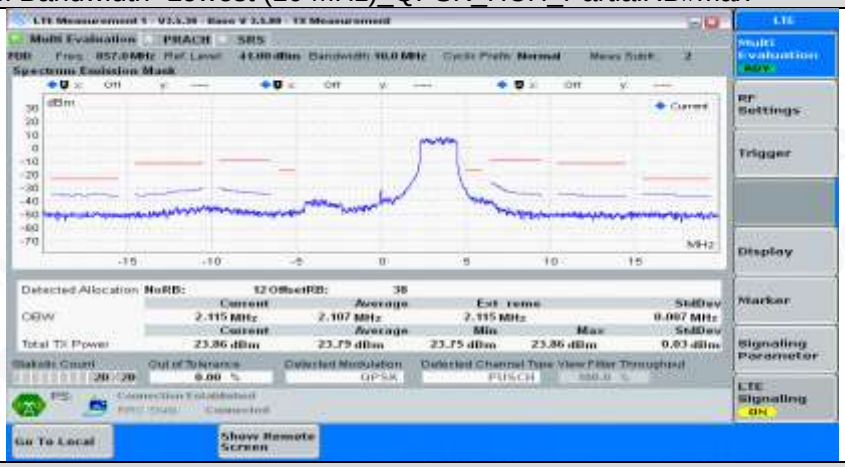
16QAM	
Channel Bandwidth=Lowest (5 MHz)_16QAM_HCH_PartialRB#0	
16QAM	
Channel Bandwidth=Lowest (5 MHz)_16QAM_HCH_PartialRB#max	
16QAM	
Channel Bandwidth=Lowest (5 MHz)_16QAM_HCH_FullRB#0	

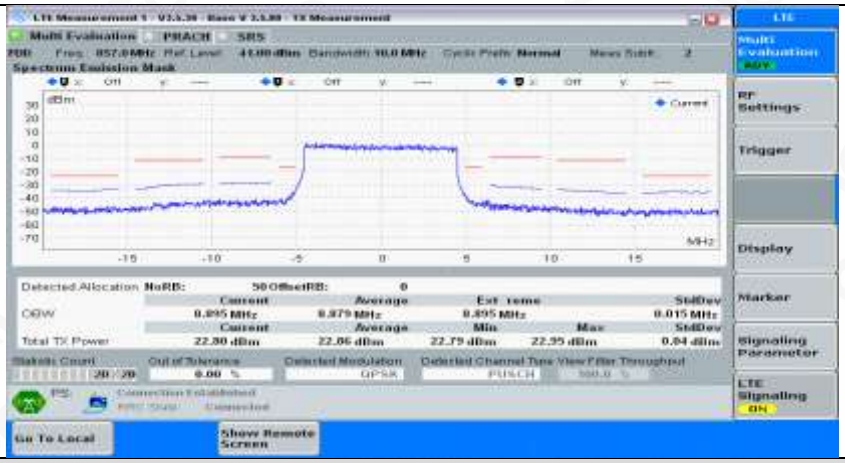
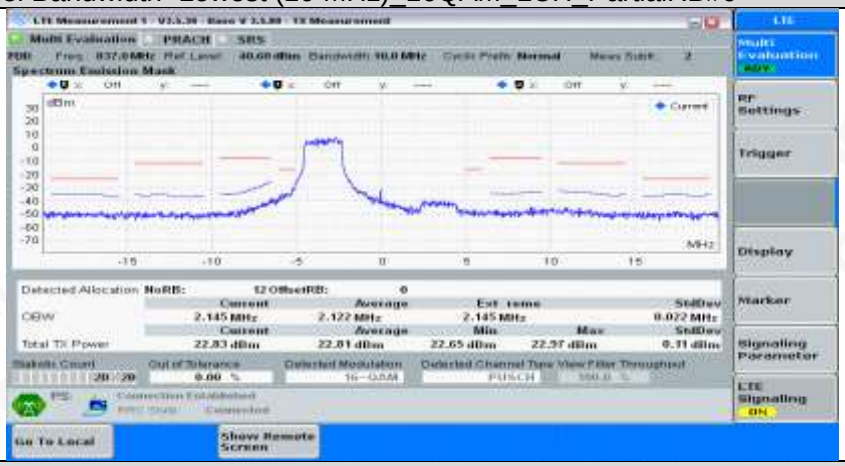
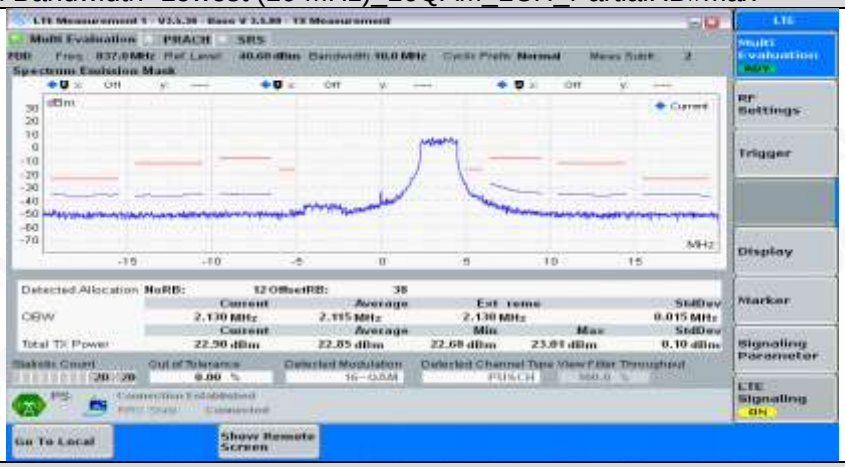
16QAM	

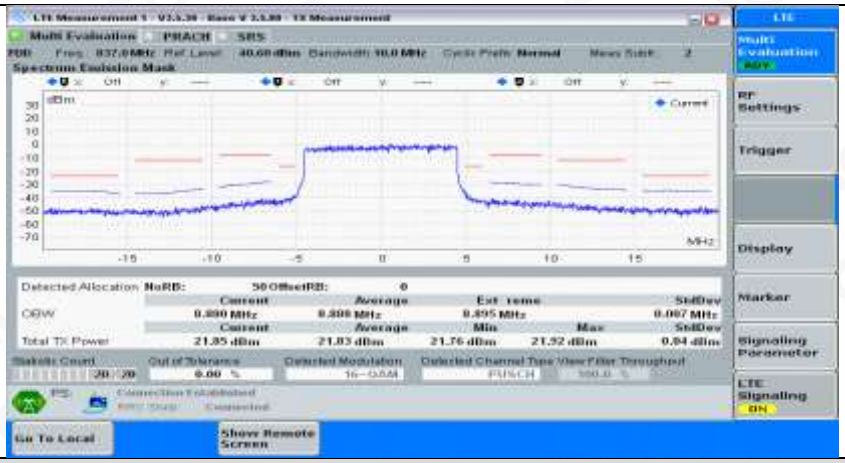
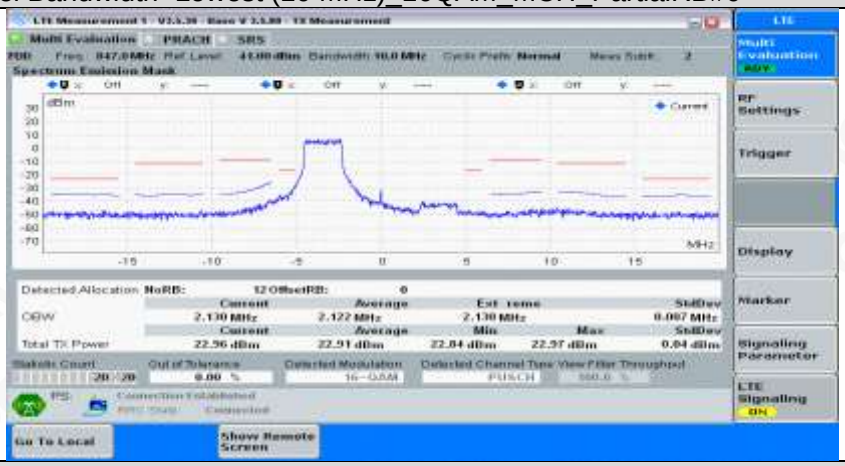
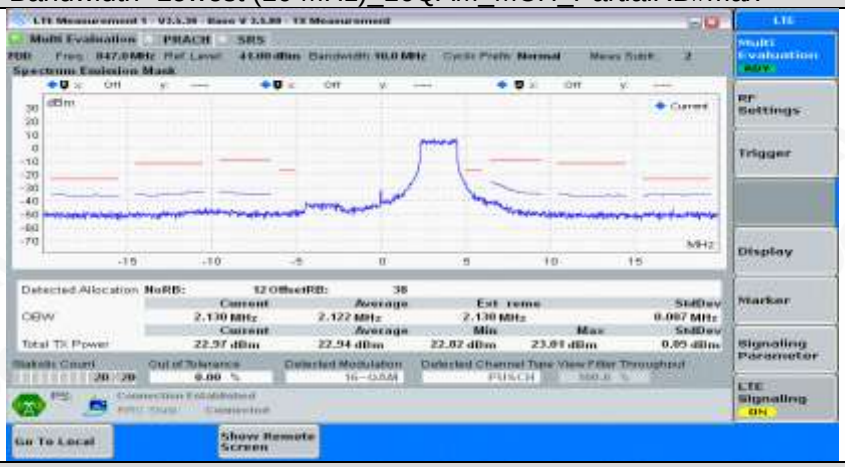
Channel Bandwidth= (10 MHz)

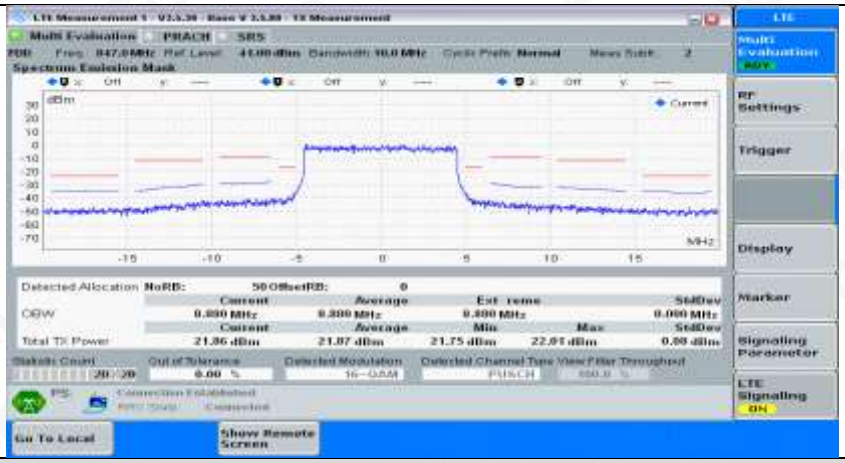
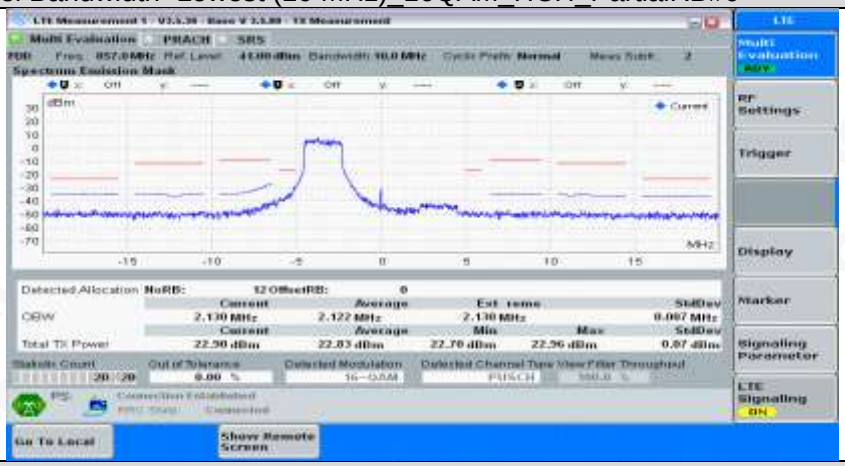
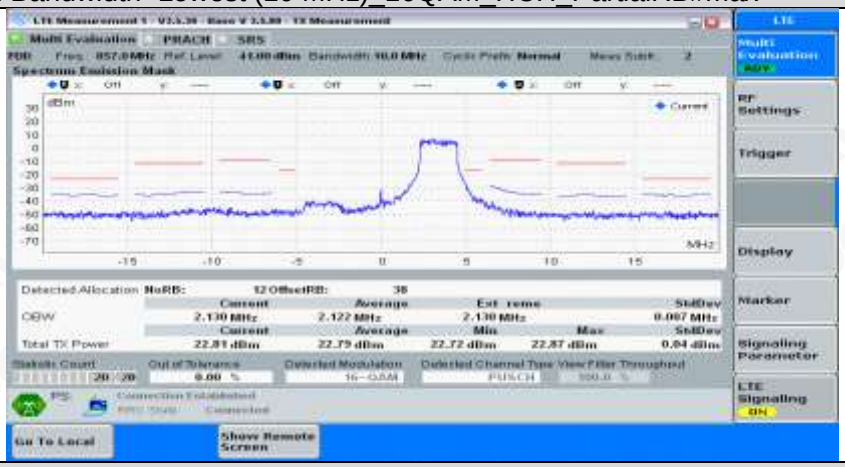
Channel Bandwidth=Lowest (10 MHz)_QPSK_LCH_PartialRB#0	
QPSK	
Channel Bandwidth=Lowest (10 MHz)_QPSK_LCH_PartialRB#max	
QPSK	
Channel Bandwidth=Lowest (10 MHz)_QPSK_LCH_FullRB#0	

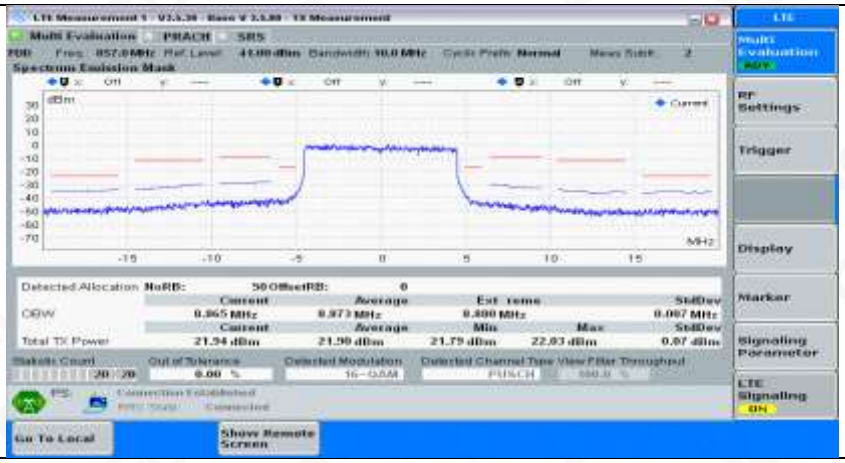
QPSK		
Channel Bandwidth=Lowest (10 MHz)_QPSK_MCH_PartialRB#0		
QPSK		
Channel Bandwidth=Lowest (10 MHz)_QPSK_MCH_PartialRB#max		
QPSK		
Channel Bandwidth=Lowest (10 MHz)_QPSK_MCH_FullRB#0		

QPSK		
Channel Bandwidth=Lowest (10 MHz)_QPSK_HCH_PartialRB#0		
QPSK		
Channel Bandwidth=Lowest (10 MHz)_QPSK_HCH_PartialRB#max		
QPSK		
Channel Bandwidth=Lowest (10 MHz)_QPSK_HCH_FullRB#0		

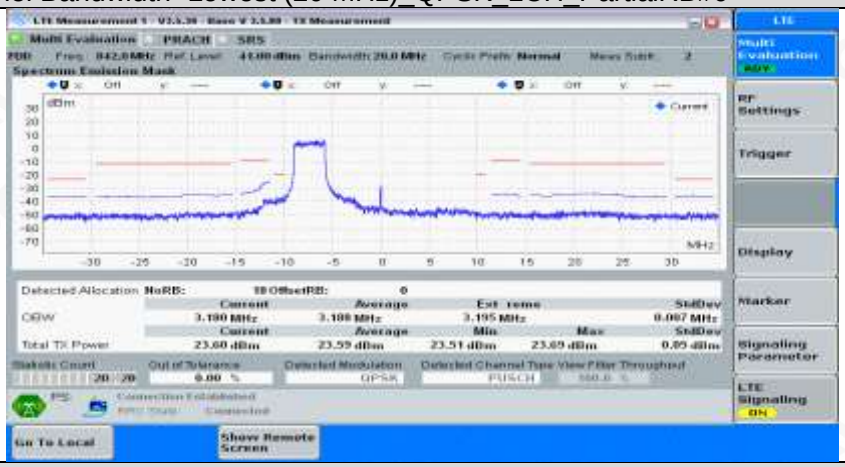
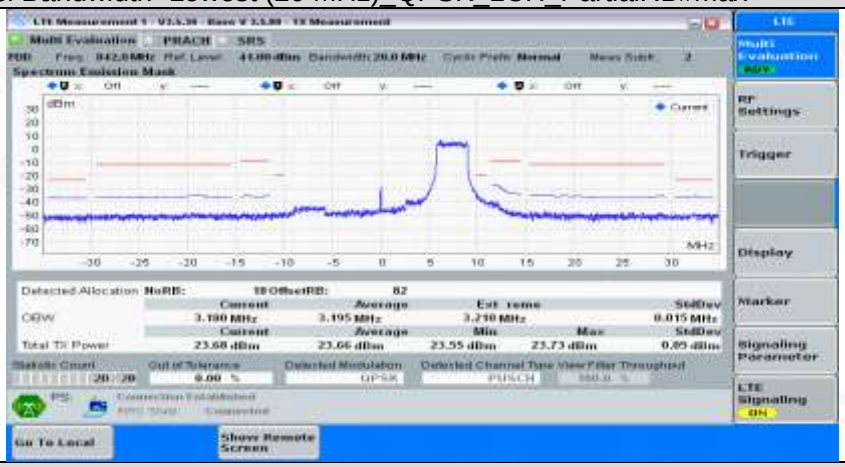
QPSK		
Channel Bandwidth=Lowest (10 MHz)_16QAM_LCH_PartialRB#0		
16QAM		
Channel Bandwidth=Lowest (10 MHz)_16QAM_LCH_PartialRB#max		
16QAM		
Channel Bandwidth=Lowest (10 MHz)_16QAM_LCH_FullRB#0		

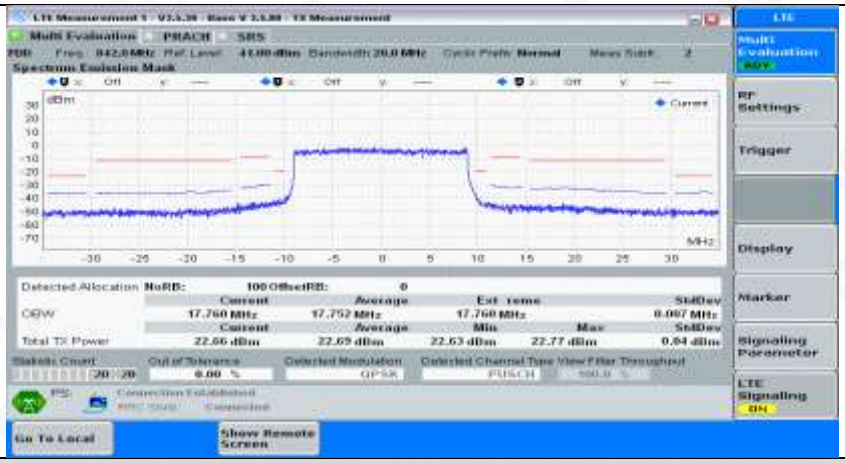
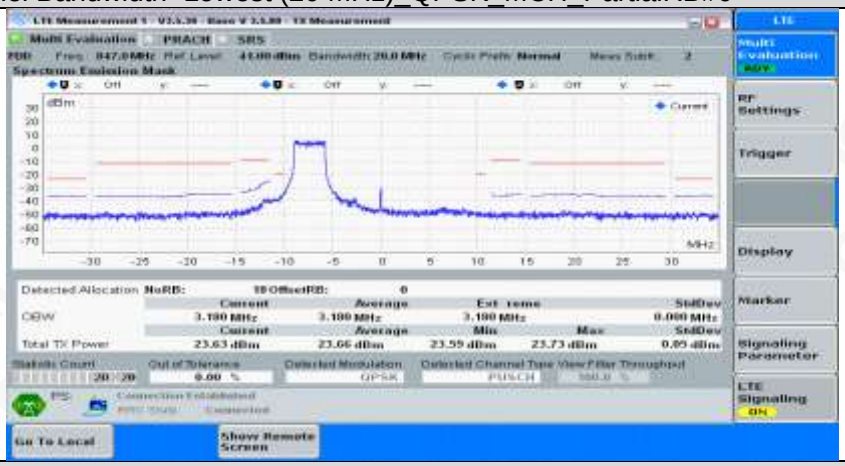
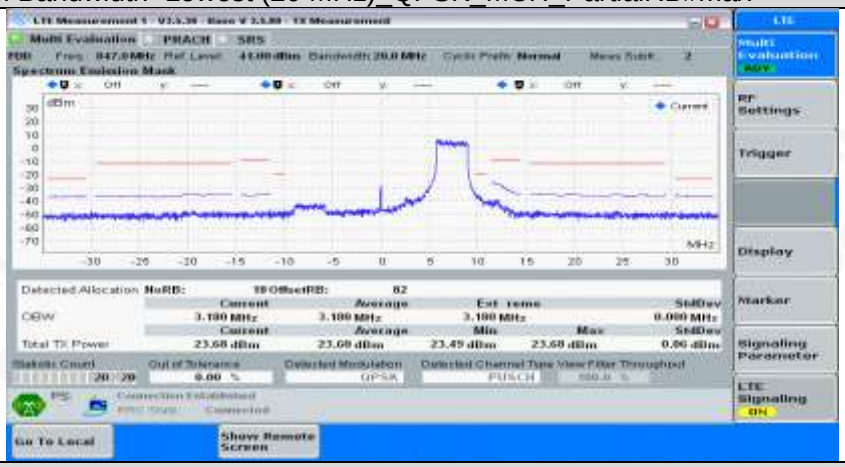
16QAM	
Channel Bandwidth=Lowest (10 MHz)_16QAM_MCH_PartialRB#0	
16QAM	
Channel Bandwidth=Lowest (10 MHz)_16QAM_MCH_PartialRB#max	
16QAM	
Channel Bandwidth=Lowest (10 MHz)_16QAM_MCH_FullRB#0	

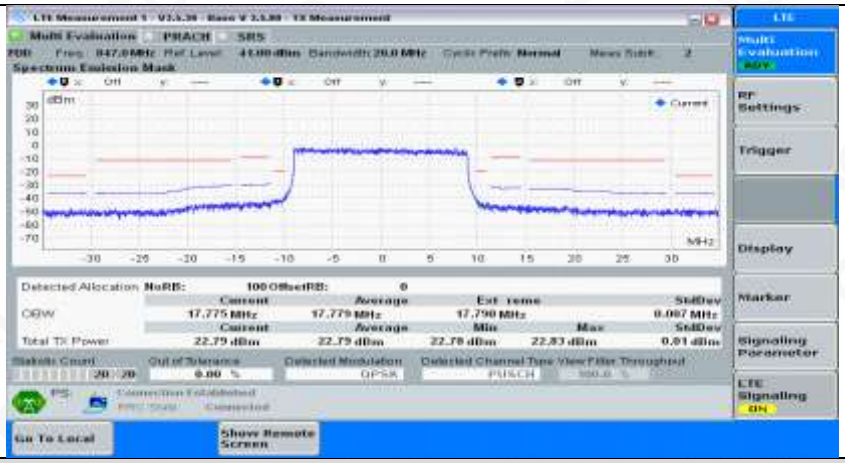
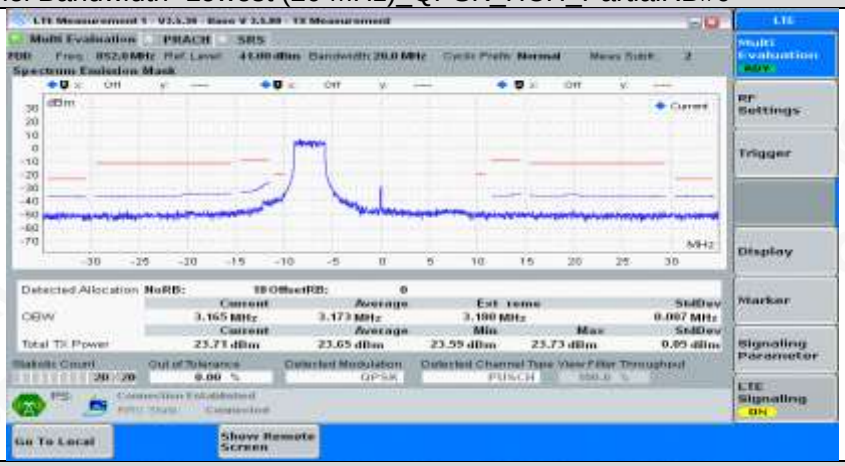
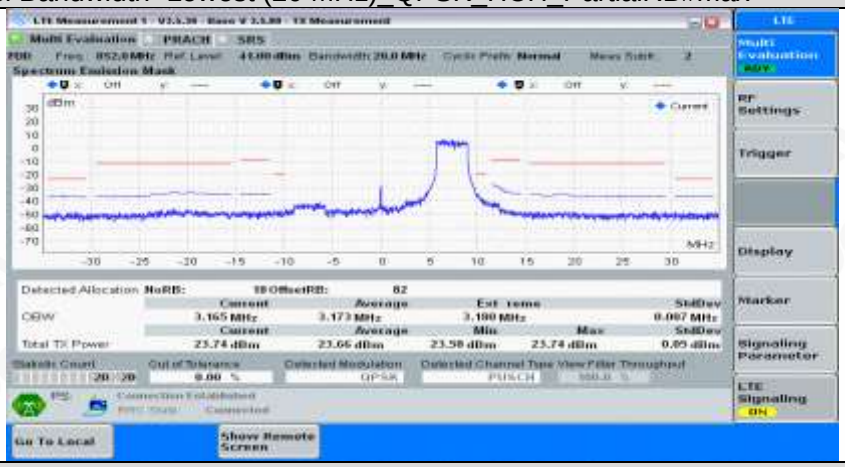
16QAM	
Channel Bandwidth=Lowest (10 MHz)_16QAM_HCH_PartialRB#0	
16QAM	
Channel Bandwidth=Lowest (10 MHz)_16QAM_HCH_PartialRB#max	
16QAM	
Channel Bandwidth=Lowest (10 MHz)_16QAM_HCH_FullRB#0	

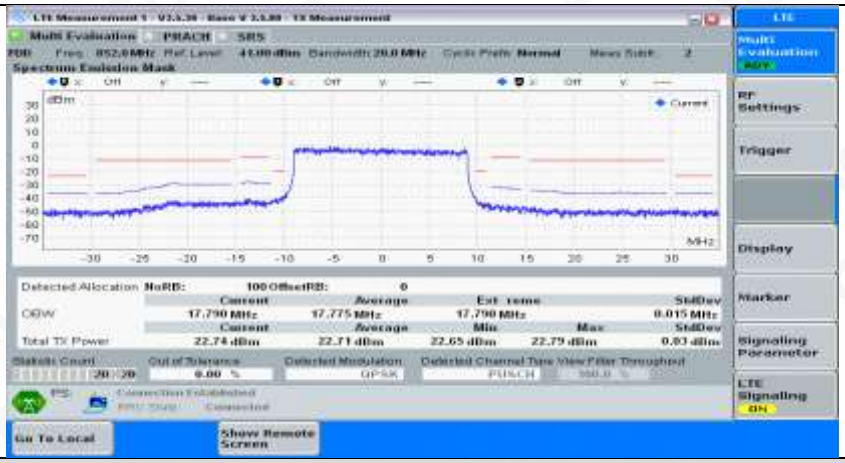
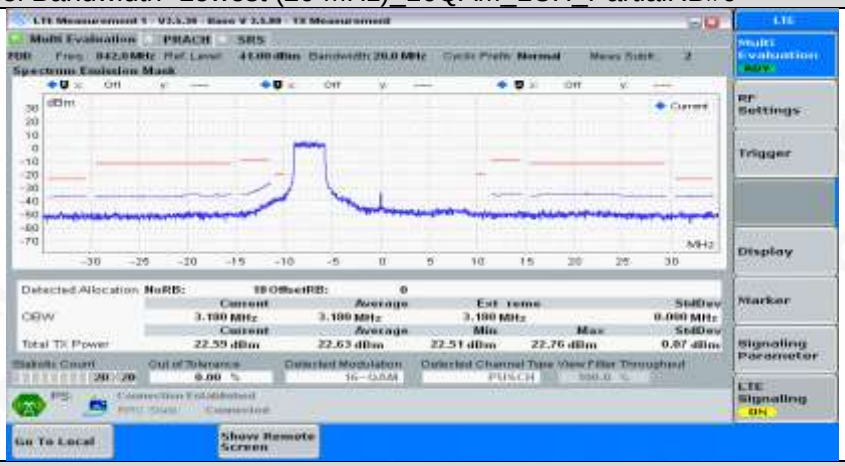
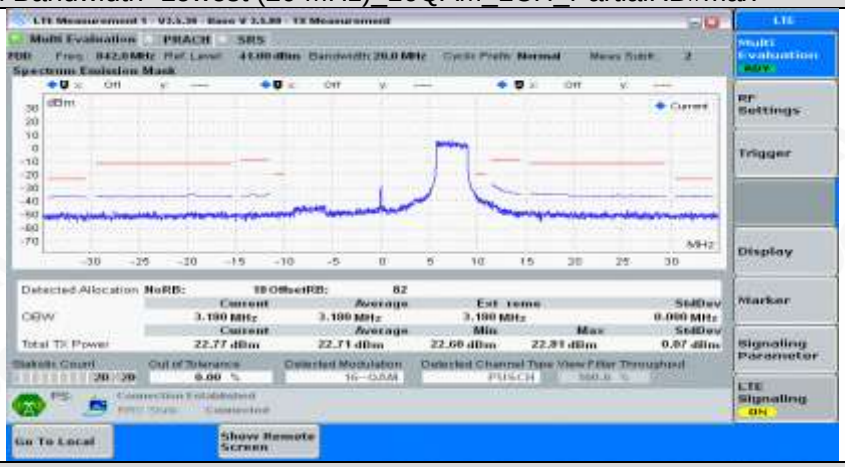
16QAM	

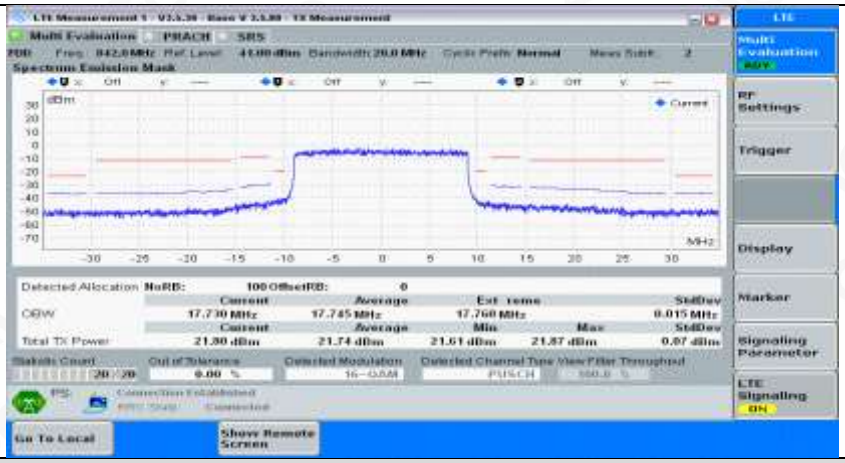
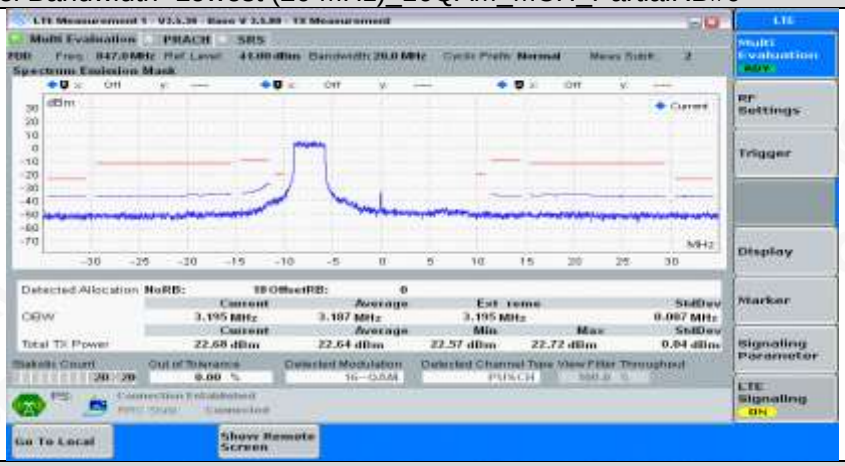
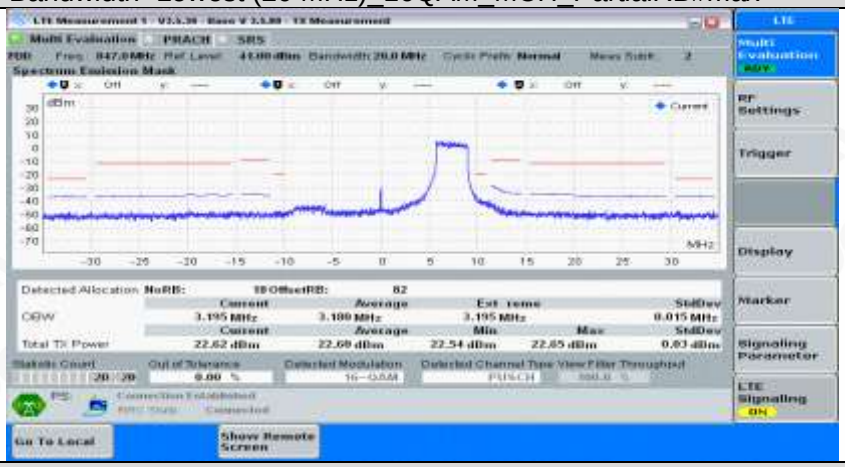
Channel Bandwidth=Highest (20 MHz)

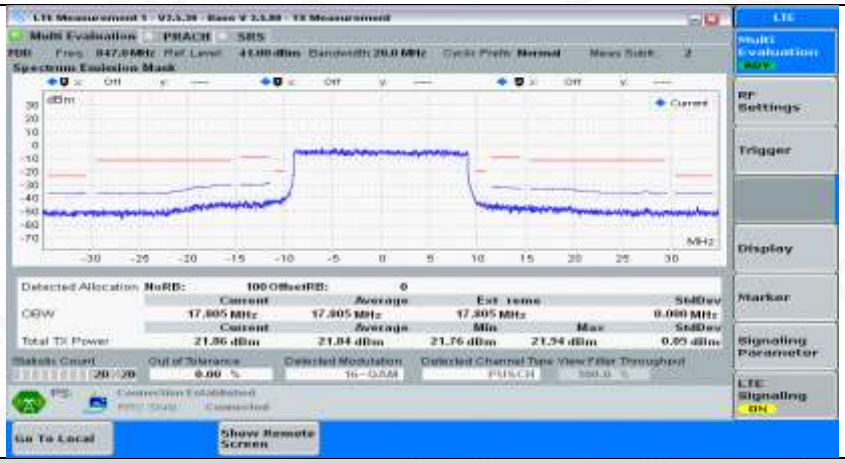
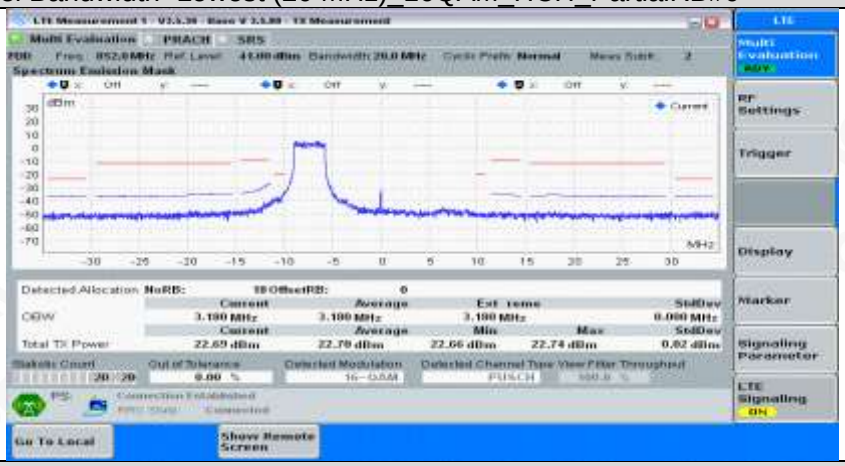
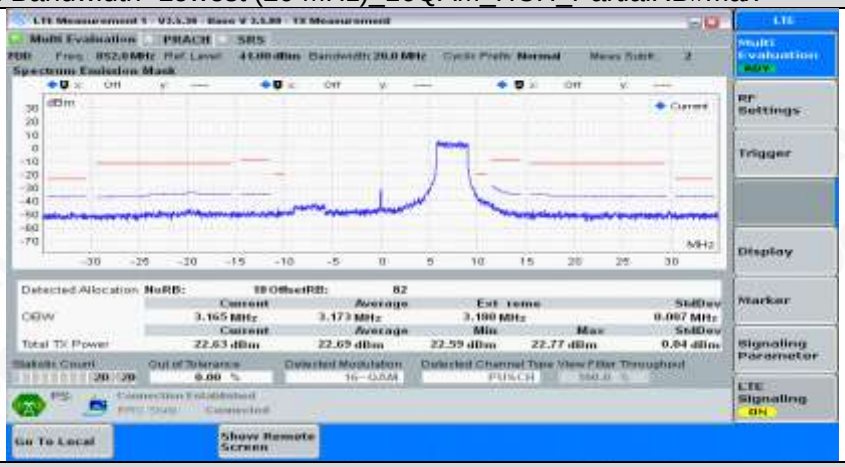
Channel Bandwidth=Lowest (20 MHz)_QPSK_LCH_PartialRB#0	
QPSK	
Channel Bandwidth=Lowest (20 MHz)_QPSK_LCH_PartialRB#max	
QPSK	
Channel Bandwidth=Lowest (20 MHz)_QPSK_LCH_FullRB#0	

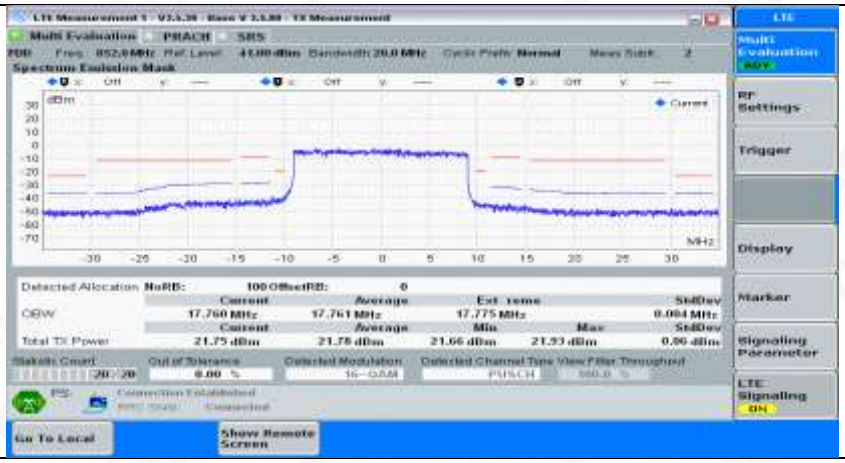
QPSK	
Channel Bandwidth=Lowest (20 MHz)_QPSK_MCH_PartialRB#0	
QPSK	
Channel Bandwidth=Lowest (20 MHz)_QPSK_MCH_PartialRB#max	
QPSK	
Channel Bandwidth=Lowest (20 MHz)_QPSK_MCH_FullRB#0	

QPSK	
Channel Bandwidth=Lowest (20 MHz)_QPSK_HCH_PartialRB#0	
QPSK	
Channel Bandwidth=Lowest (20 MHz)_QPSK_HCH_PartialRB#max	
QPSK	
Channel Bandwidth=Lowest (20 MHz)_QPSK_HCH_FullRB#0	

QPSK	
Channel Bandwidth=Lowest (20 MHz)_16QAM_LCH_PartialRB#0	
16QAM	
Channel Bandwidth=Lowest (20 MHz)_16QAM_LCH_PartialRB#max	
16QAM	
Channel Bandwidth=Lowest (20 MHz)_16QAM_LCH_FullRB#0	

16QAM	
Channel Bandwidth=Lowest (20 MHz)_16QAM_MCH_PartialRB#0	
16QAM	
Channel Bandwidth=Lowest (20 MHz)_16QAM_MCH_PartialRB#max	
16QAM	
Channel Bandwidth=Lowest (20 MHz)_16QAM_MCH_FullRB#0	

16QAM	
Channel Bandwidth=Lowest (20 MHz)_16QAM_HCH_PartialRB#0	
16QAM	
Channel Bandwidth=Lowest (20 MHz)_16QAM_HCH_PartialRB#max	
16QAM	
Channel Bandwidth=Lowest (20 MHz)_16QAM_HCH_FullRB#0	

16QAM		

4. Transmitter Adjacent Channel Leakage Power Ratio(ACLR)

Test Result

NTNV

Channel Bandwidth=Lowest (5 MHz)

Channel Bandwidth=Lowest (5 MHz)							
Condition	Modulation	Channel Bandwidth	Channel	RB allocation		UE output power	Verdict
				RB Size	RB Offset		
Normal	QPSK	5 MHz	Low range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			Mid range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			High range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
	16QAM		Low range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			Mid range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			High range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass

Channel Bandwidth= (10 MHz)

Channel Bandwidth= (10 MHz)							
Condition	Modulation	Channel Bandwidth	Channel	RB allocation		UE output power	Verdict
				RB Size	RB Offset		
Normal	QPSK	10 MHz	Low range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			Mid range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			High range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
	16QAM		Low range	Partial	0	PUMAX	Pass

					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			Mid range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			High range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass

Channel Bandwidth=Highest (20 MHz)

Channel Bandwidth=Highest (20 MHz)							
Condition	Modulation	Channel Bandwidth	Channel	RB allocation		UE output power	Verdict
				RB Size	RB Offset		
Normal	QPSK	20 MHz	Low range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			Mid range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			High range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
	16QAM		Low range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			Mid range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			High range	Partial	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass

Test Graphs

NTNV

Channel Bandwidth=Lowest (5 MHz)

Channel Bandwidth=Lowest (5 MHz)_QPSK_LCH_PartialRB#0

QPSK	
Channel Bandwidth=Lowest (5 MHz)_QPSK_LCH_PartialRB#max	
QPSK	
Channel Bandwidth=Lowest (5 MHz)_QPSK_LCH_FullRB#0	
QPSK	
Channel Bandwidth=Lowest (5 MHz)_QPSK_MCH_PartialRB#0	

QPSK		
Channel Bandwidth=Lowest (5 MHz)_QPSK_MCH_PartialRB#max		
QPSK		
Channel Bandwidth=Lowest (5 MHz)_QPSK_MCH_FullRB#0		
QPSK		
Channel Bandwidth=Lowest (5 MHz)_QPSK_HCH_PartialRB#0		

QPSK		
Channel Bandwidth=Lowest (5 MHz)_QPSK_HCH_PartialRB#max		
QPSK		
Channel Bandwidth=Lowest (5 MHz)_QPSK_HCH_FullRB#0		
QPSK		
Channel Bandwidth=Lowest (5 MHz)_16QAM_LCH_PartialRB#0		

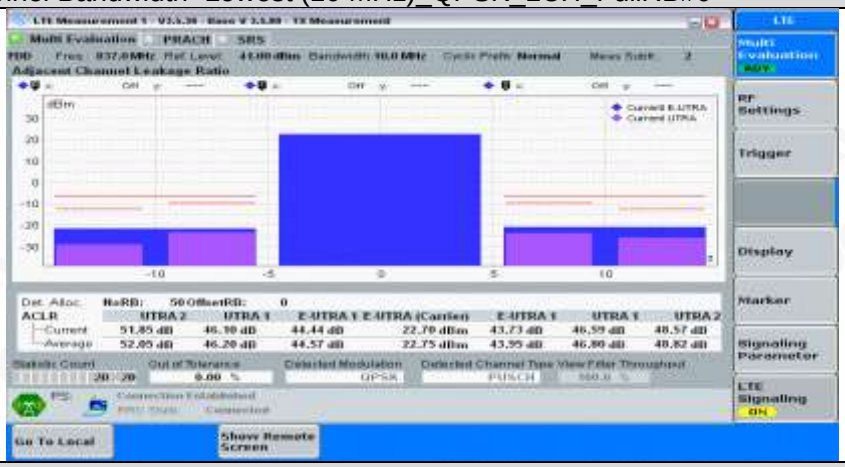
16QAM	
Channel Bandwidth=Lowest (5 MHz)_16QAM_LCH_PartialRB#max	
16QAM	
Channel Bandwidth=Lowest (5 MHz)_16QAM_LCH_FullRB#0	
16QAM	
Channel Bandwidth=Lowest (5 MHz)_16QAM_MCH_PartialRB#0	

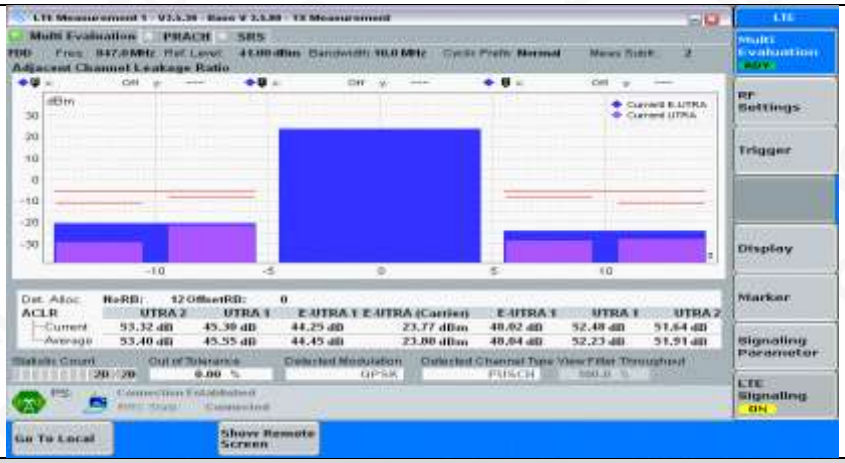
16QAM	
Channel Bandwidth=Lowest (5 MHz)_16QAM_MCH_PartialRB#max	
16QAM	
Channel Bandwidth=Lowest (5 MHz)_16QAM_MCH_FullRB#0	
16QAM	
Channel Bandwidth=Lowest (5 MHz)_16QAM_HCH_PartialRB#0	

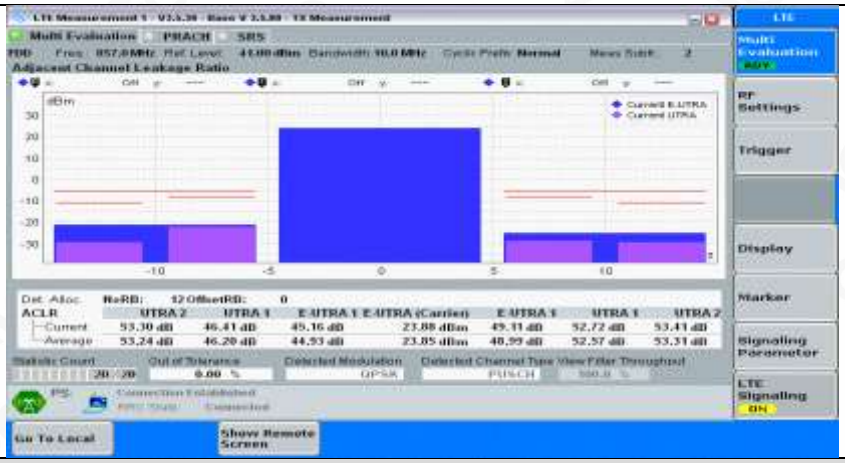
16QAM		
Channel Bandwidth=Lowest (5 MHz)_16QAM_HCH_PartialRB#max		
16QAM		
Channel Bandwidth=Lowest (5 MHz)_16QAM_HCH_FullRB#0		
16QAM		

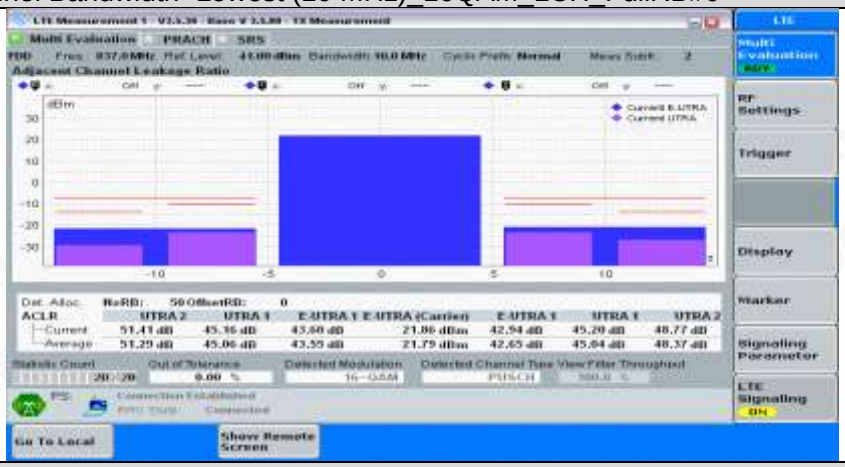
Channel Bandwidth= (10 MHz)

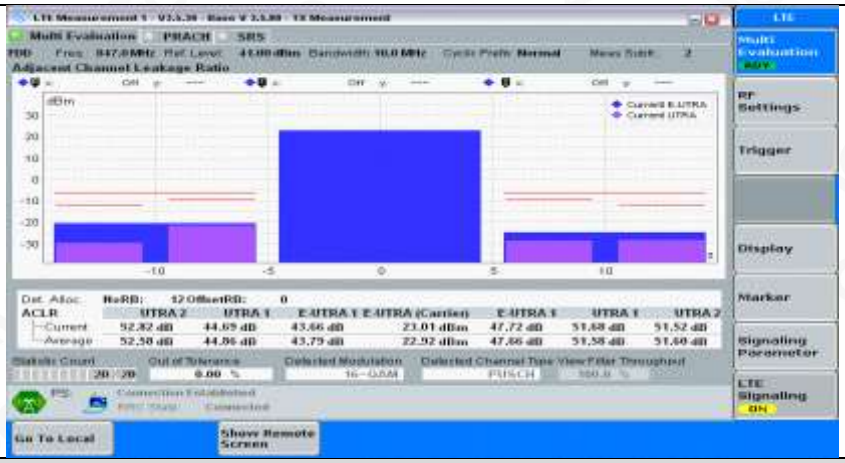
Channel Bandwidth=Lowest (10 MHz)_QPSK_LCH_PartialRB#0

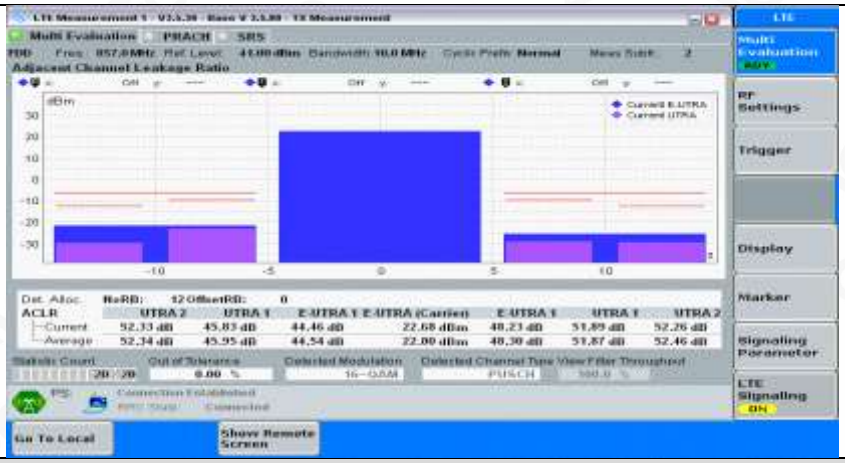
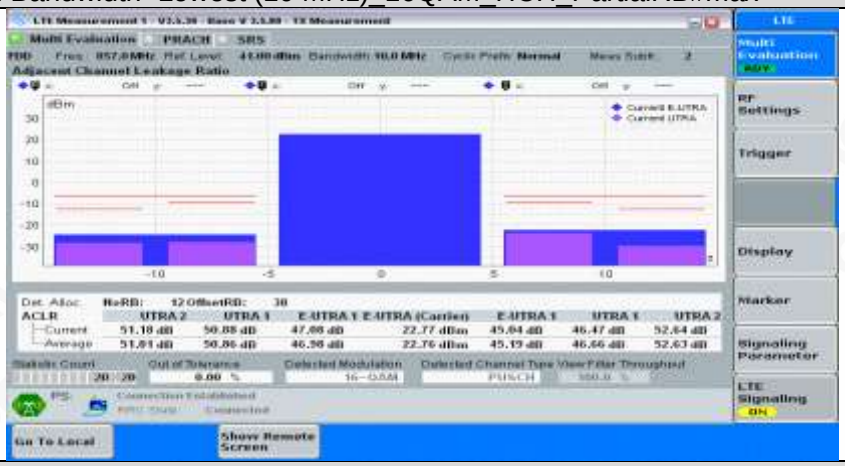
QPSK	
Channel Bandwidth=Lowest (10 MHz)_QPSK_LCH_PartialRB#max	
QPSK	
Channel Bandwidth=Lowest (10 MHz)_QPSK_LCH_FullRB#0	
QPSK	
Channel Bandwidth=Lowest (10 MHz)_QPSK_MCH_PartialRB#0	

QPSK	
Channel Bandwidth=Lowest (10 MHz)_QPSK_MCH_PartialRB#max	
QPSK	
Channel Bandwidth=Lowest (10 MHz)_QPSK_MCH_FullRB#0	
QPSK	
Channel Bandwidth=Lowest (10 MHz)_QPSK_HCH_PartialRB#0	

QPSK	
Channel Bandwidth=Lowest (10 MHz)_QPSK_HCH_PartialRB#max	
QPSK	
Channel Bandwidth=Lowest (10 MHz)_QPSK_HCH_FullRB#0	
QPSK	
Channel Bandwidth=Lowest (10 MHz)_16QAM_LCH_PartialRB#0	

16QAM		
Channel Bandwidth=Lowest (10 MHz)_16QAM_LCH_PartialRB#max		
16QAM		
Channel Bandwidth=Lowest (10 MHz)_16QAM_LCH_FullRB#0		
16QAM		
Channel Bandwidth=Lowest (10 MHz)_16QAM_MCH_PartialRB#0		

16QAM	
Channel Bandwidth=Lowest (10 MHz)_16QAM_MCH_PartialRB#max	
16QAM	
Channel Bandwidth=Lowest (10 MHz)_16QAM_MCH_FullRB#0	
16QAM	
Channel Bandwidth=Lowest (10 MHz)_16QAM_HCH_PartialRB#0	

16QAM		
Channel Bandwidth=Lowest (10 MHz)_16QAM_HCH_PartialRB#max		
16QAM		
Channel Bandwidth=Lowest (10 MHz)_16QAM_HCH_FullRB#0		
16QAM		

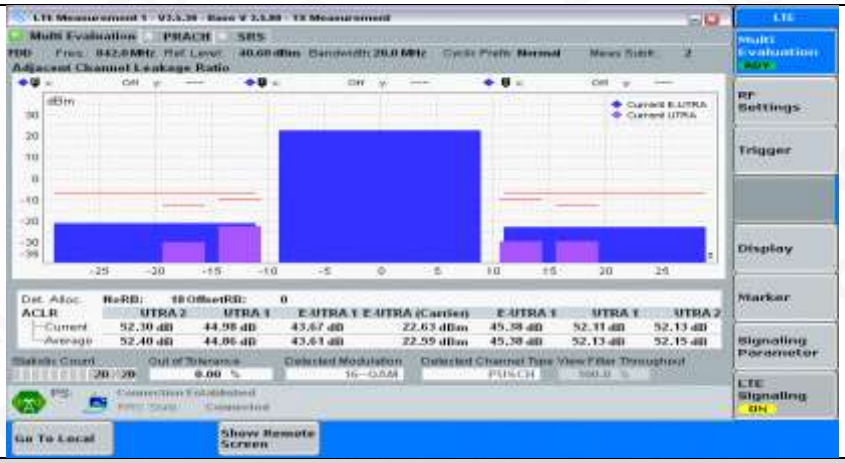
Channel Bandwidth=Highest (20 MHz)

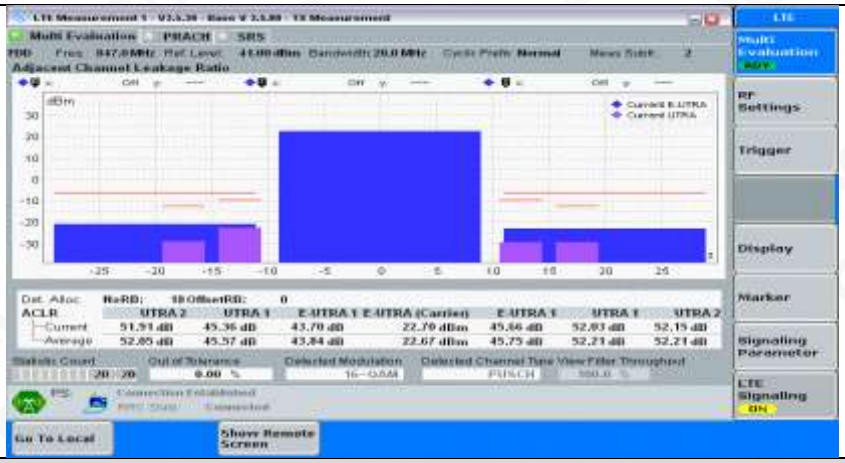
Channel Bandwidth=Lowest (20 MHz)_QPSK_LCH_PartialRB#0

QPSK		
Channel Bandwidth=Lowest (20 MHz)_QPSK_LCH_PartialRB#max		
QPSK		
Channel Bandwidth=Lowest (20 MHz)_QPSK_LCH_FullRB#0		
QPSK		
Channel Bandwidth=Lowest (20 MHz)_QPSK_MCH_PartialRB#0		

QPSK		
Channel Bandwidth=Lowest (20 MHz)_QPSK_MCH_PartialRB#max		
QPSK		
Channel Bandwidth=Lowest (20 MHz)_QPSK_MCH_FullRB#0		
QPSK		
Channel Bandwidth=Lowest (20 MHz)_QPSK_HCH_PartialRB#0		

QPSK	
Channel Bandwidth=Lowest (20 MHz)_QPSK_HCH_PartialRB#max	
QPSK	
Channel Bandwidth=Lowest (20 MHz)_QPSK_HCH_FullRB#0	
QPSK	
Channel Bandwidth=Lowest (20 MHz)_16QAM_LCH_PartialRB#0	

16QAM		
Channel Bandwidth=Lowest (20 MHz)_16QAM_LCH_PartialRB#max		
16QAM		
Channel Bandwidth=Lowest (20 MHz)_16QAM_LCH_FullRB#0		
16QAM		
Channel Bandwidth=Lowest (20 MHz)_16QAM_MCH_PartialRB#0		

16QAM	
Channel Bandwidth=Lowest (20 MHz)_16QAM_MCH_PartialRB#max	
16QAM	
Channel Bandwidth=Lowest (20 MHz)_16QAM_MCH_FullRB#0	
16QAM	
Channel Bandwidth=Lowest (20 MHz)_16QAM_HCH_PartialRB#0	

16QAM		
Channel Bandwidth=Lowest (20 MHz)_16QAM_HCH_PartialRB#max		
16QAM		
Channel Bandwidth=Lowest (20 MHz)_16QAM_HCH_FullRB#0		
16QAM		

5. Transmitter Spurious Emissions

Test Result

NTNV

Channel Bandwidth=Lowest (5 MHz)

Channel Bandwidth=Lowest (5 MHz)							
Condition	Modulation	Channel Bandwidth	Channel	RB allocation		UE output power	Verdict
				RB Size	RB Offset		
Normal	QPSK	5 MHz	Low range	1	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			Mid range	1	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			High range	1	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass

Channel Bandwidth=Highest (20 MHz)

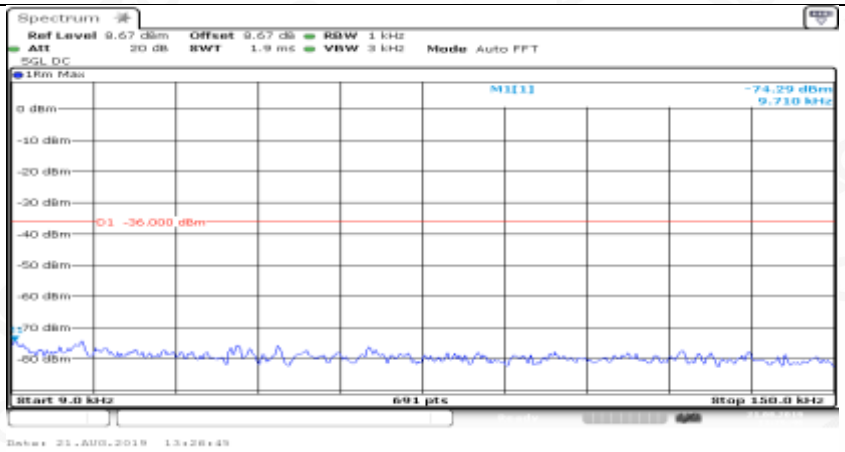
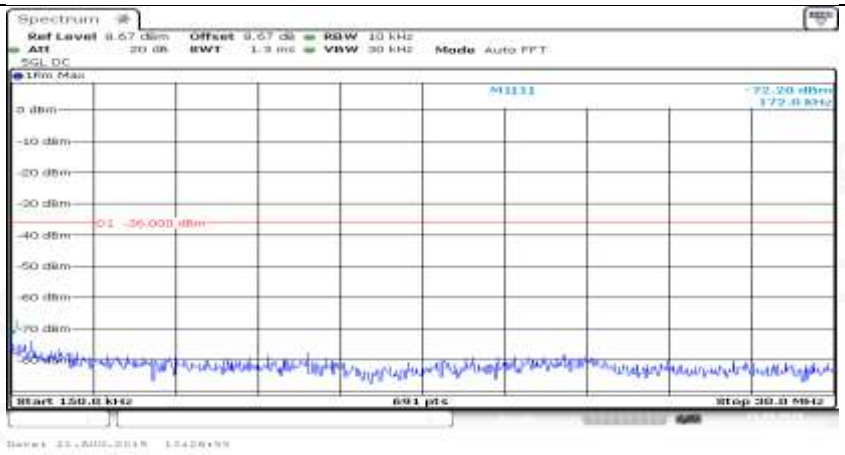
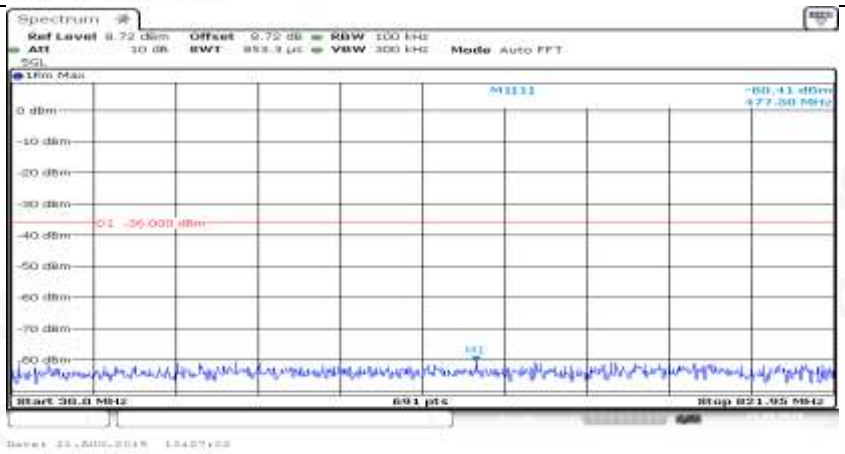
Channel Bandwidth=Highest (20 MHz)							
Condition	Modulation	Channel Bandwidth	Channel	RB allocation		UE output power	Verdict
				RB Size	RB Offset		
Normal	QPSK	20 MHz	Low range	1	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			Mid range	1	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass
			High range	1	0	PUMAX	Pass
					max	PUMAX	Pass
				Full	0	PUMAX	Pass

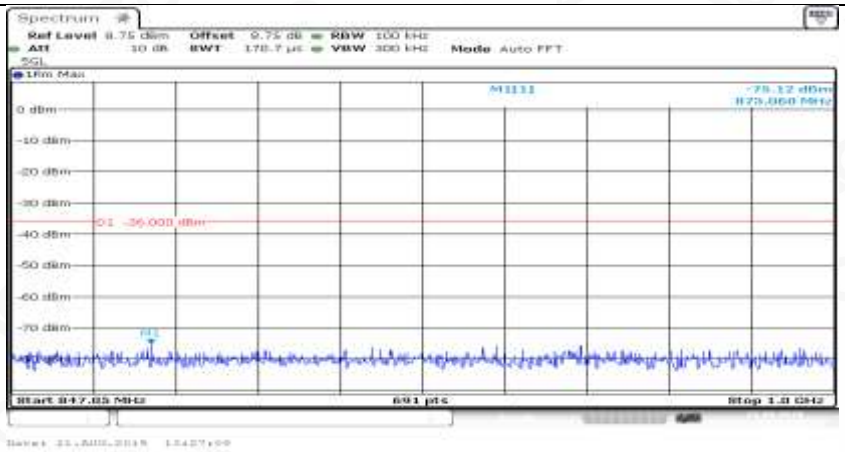
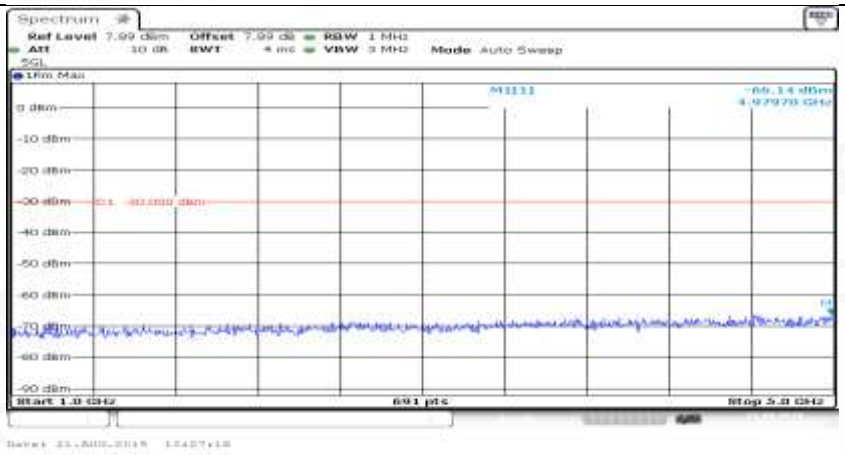
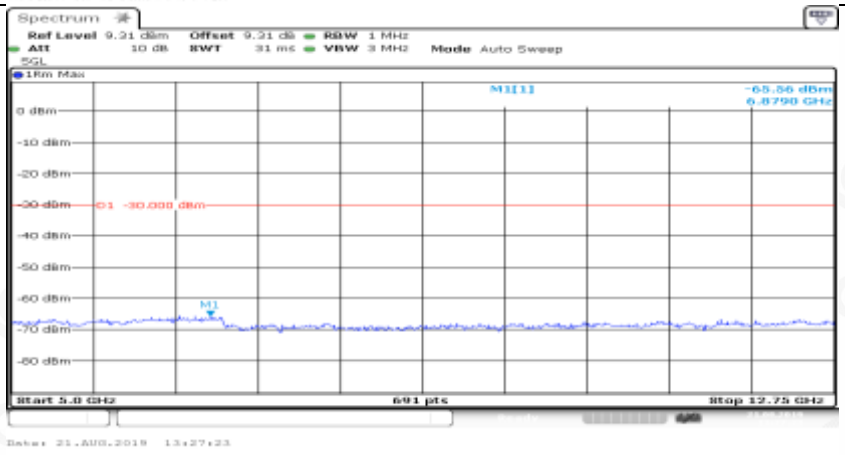
Test Graphs

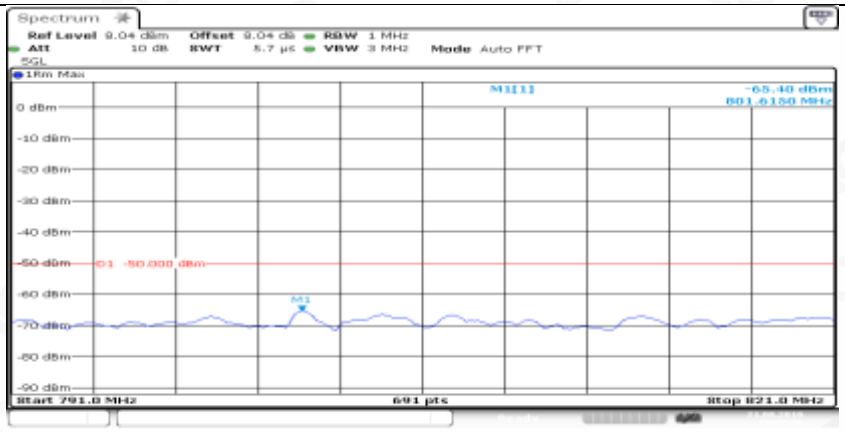
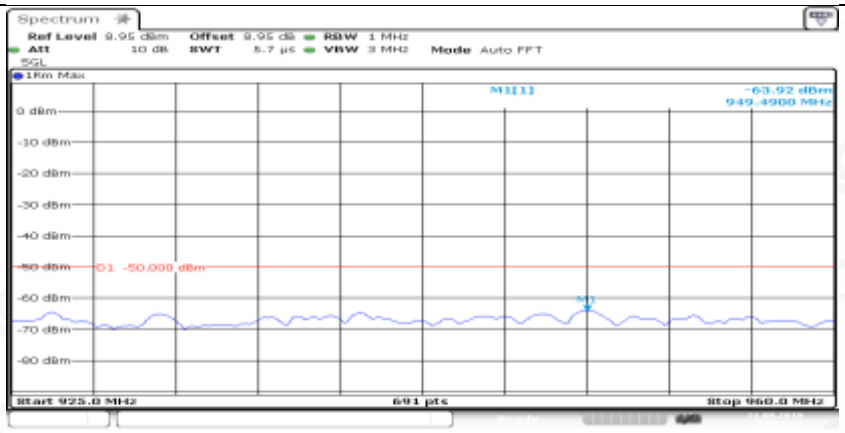
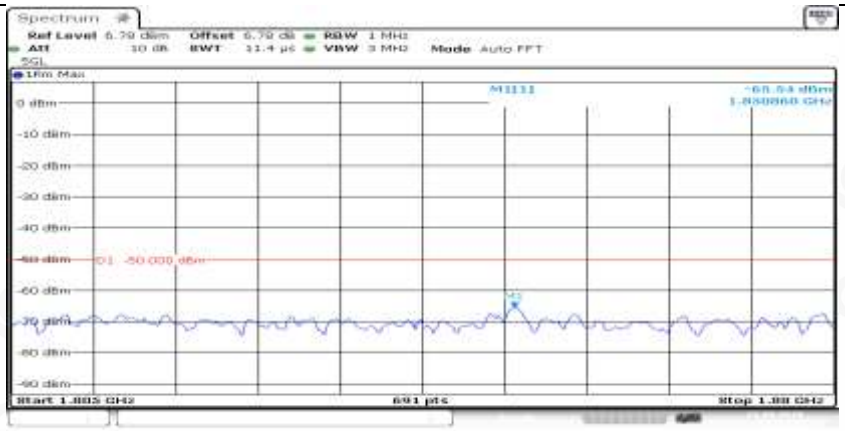
NTNV

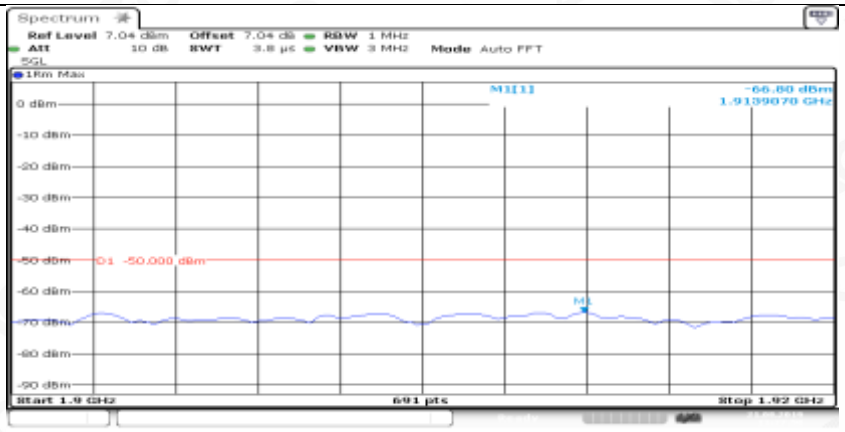
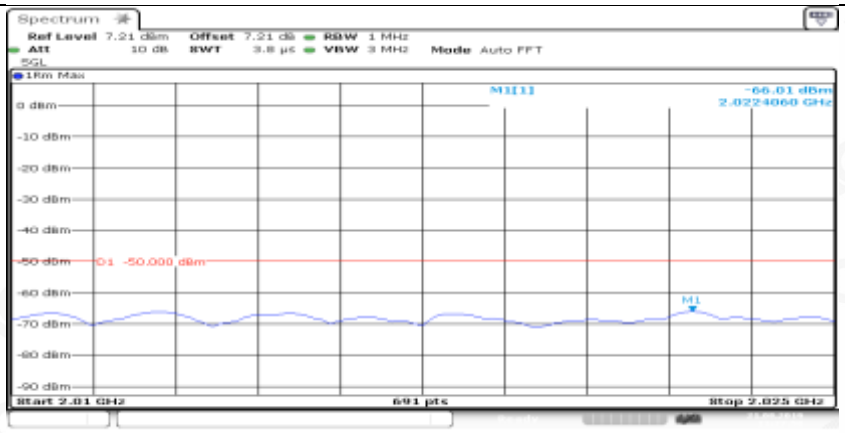
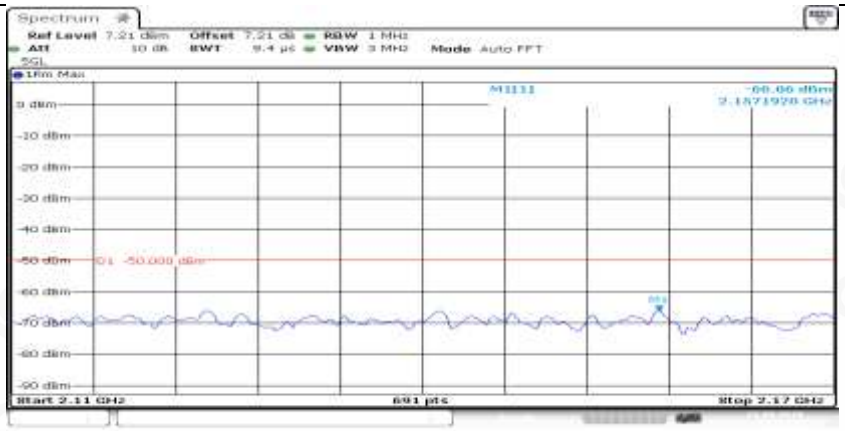
Channel Bandwidth=Lowest (5 MHz)

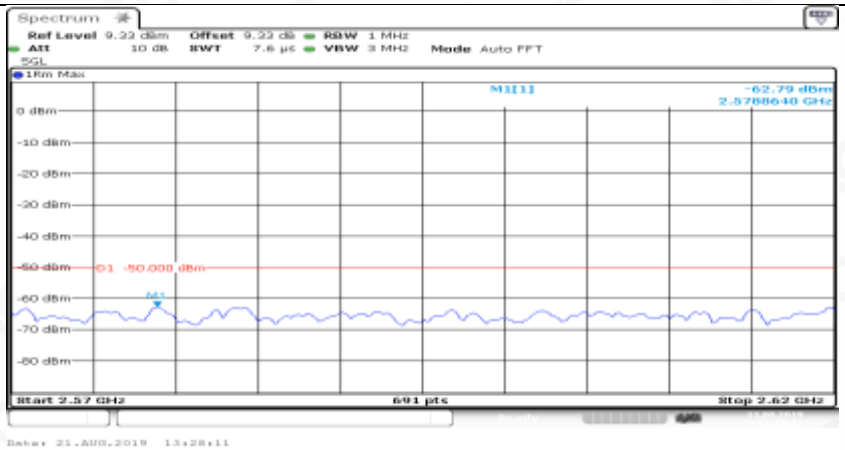
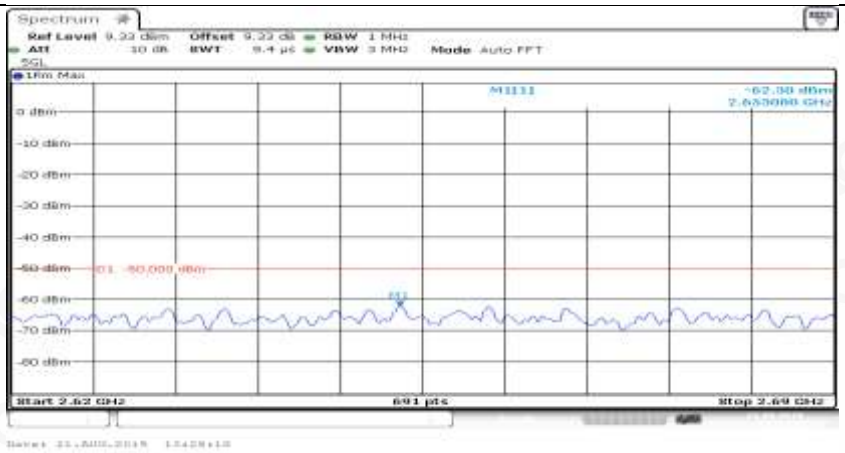
Channel Bandwidth=Lowest (5 MHz)_QPSK_LCH_1RB#0

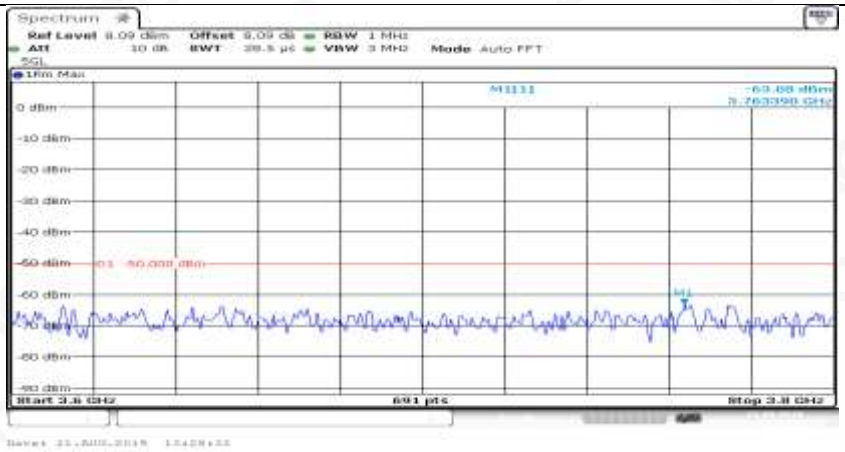
General	
General	
General	

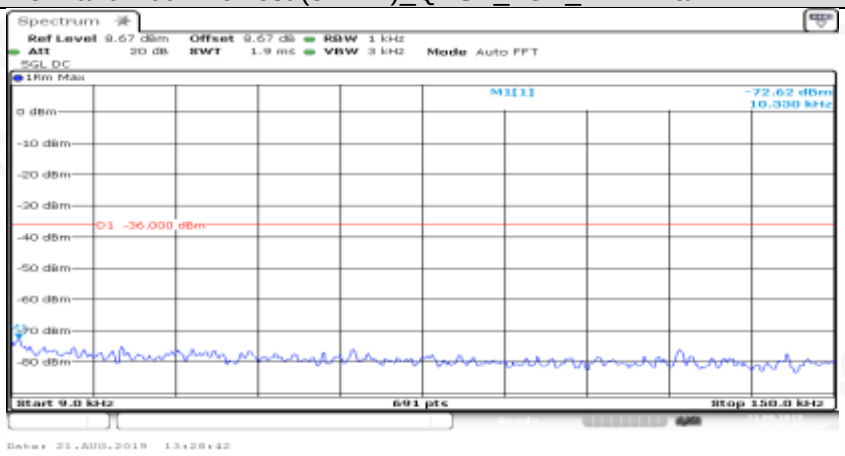
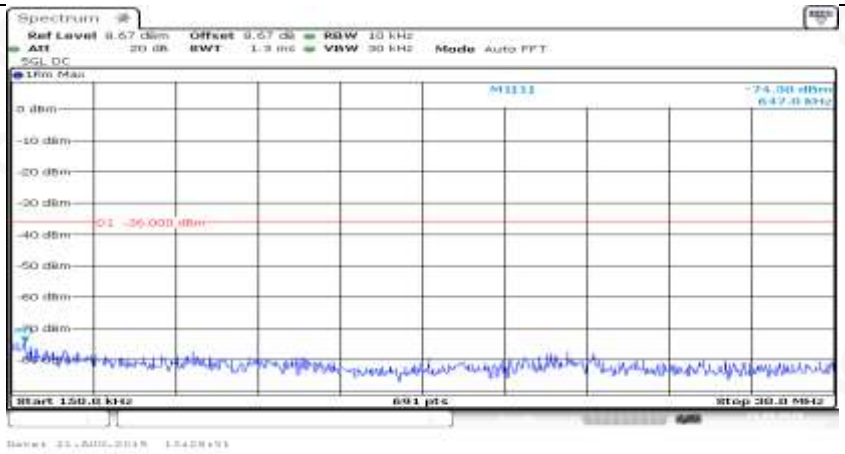
General	
General	
General	

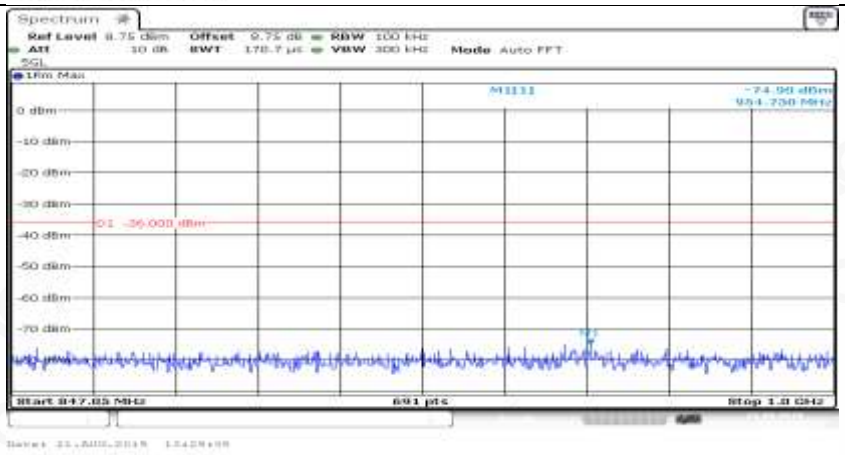
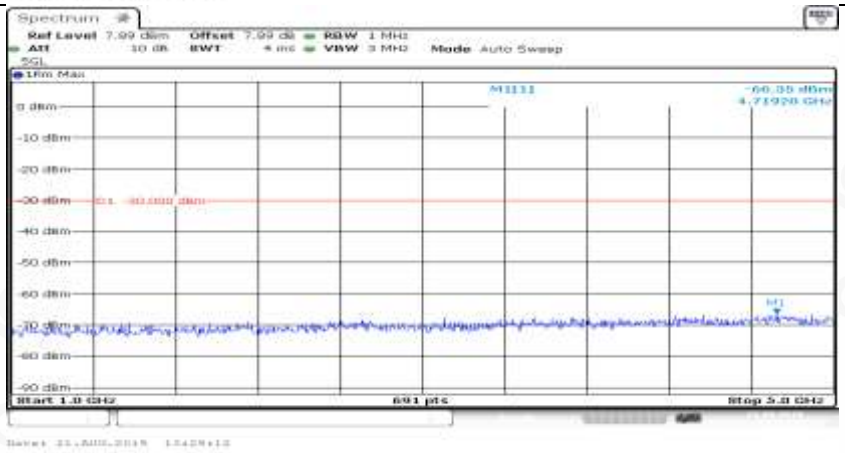
Co-existence	
Co-existence	
Co-existence	

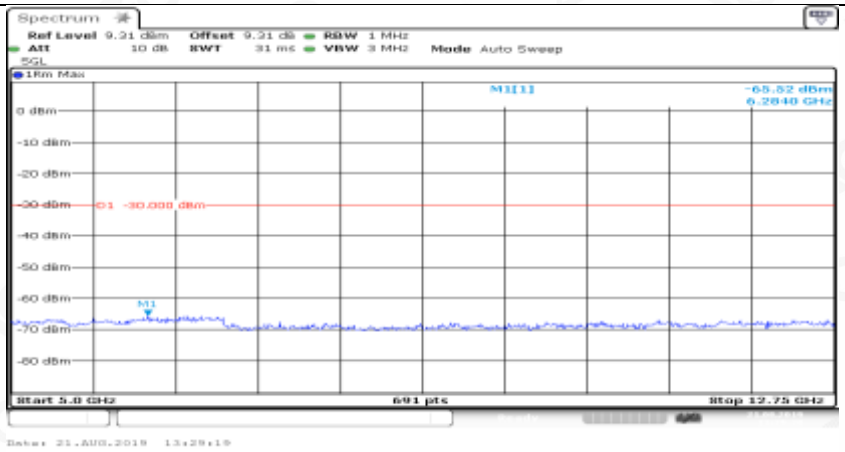
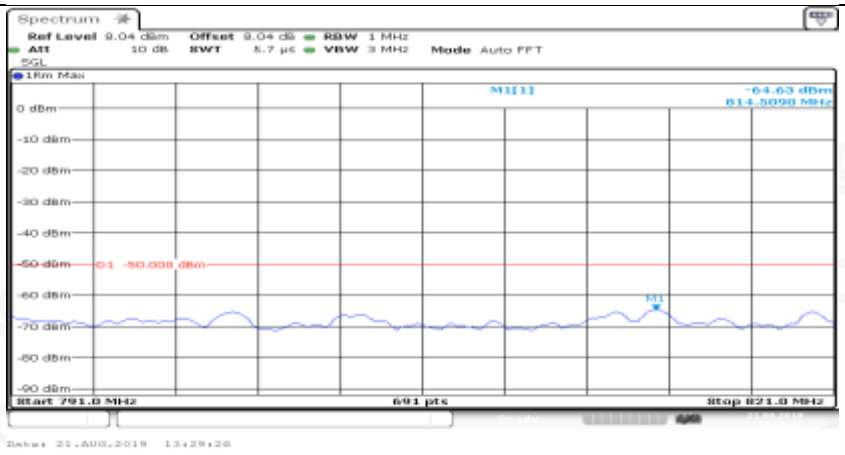
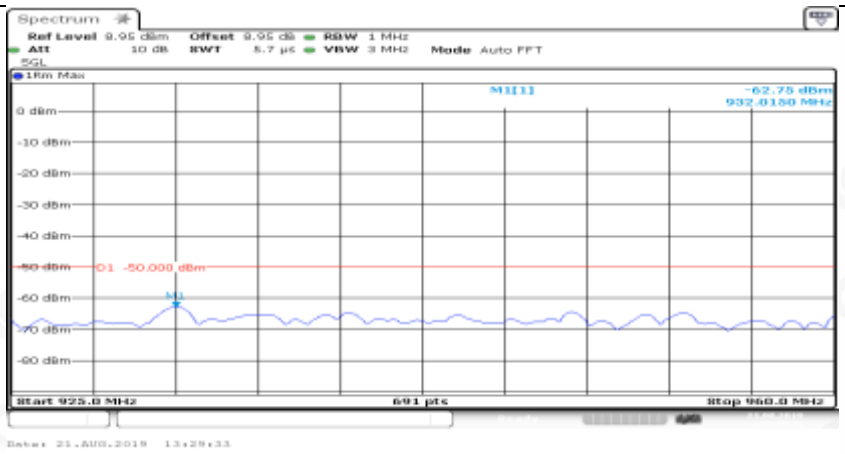
Co-existence	
Co-existence	
Co-existence	

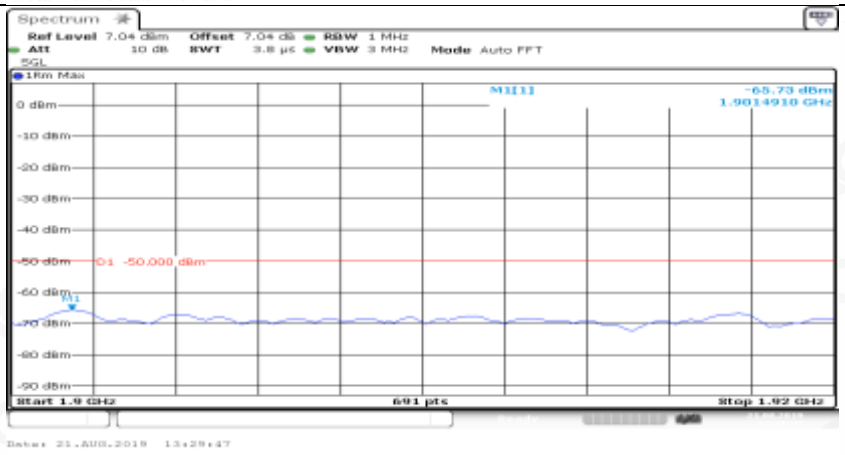
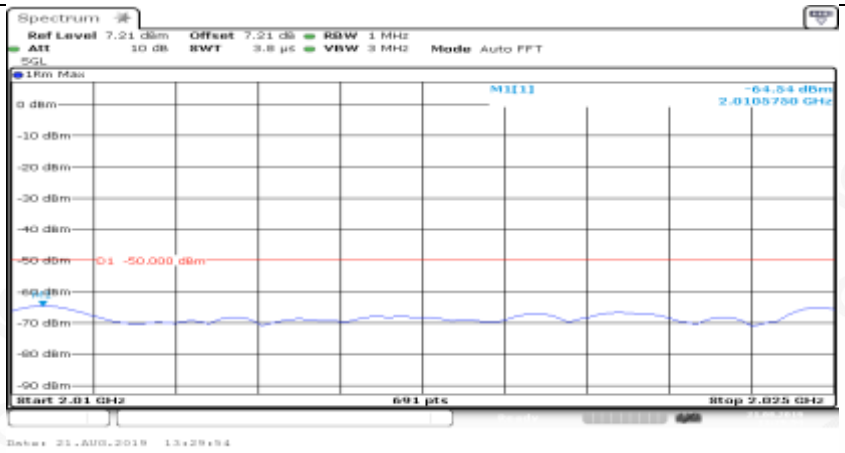
Co-existence	
Co-existence	
Co-existence	

Co-existence	
Additional	NA

Channel Bandwidth=Lowest (5 MHz)_QPSK_LCH_1RB#max	
General	
General	

General	
General	
General	

General	
Co-existence	
Co-existence	

Co-existence	
Co-existence	
Co-existence	

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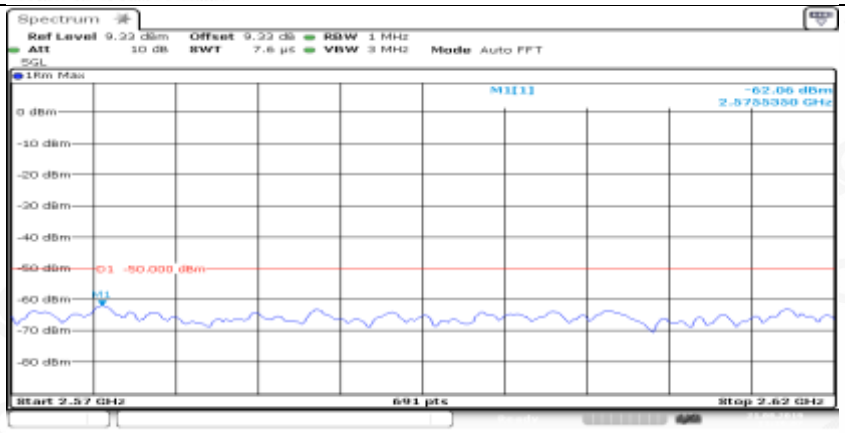
Co-existence	
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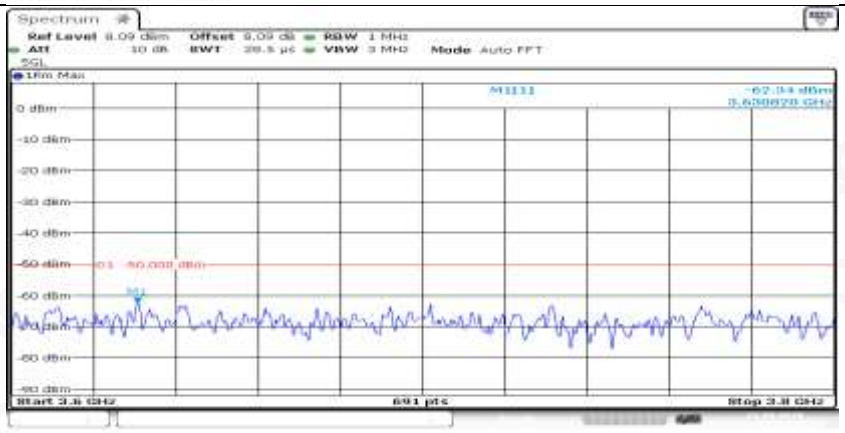
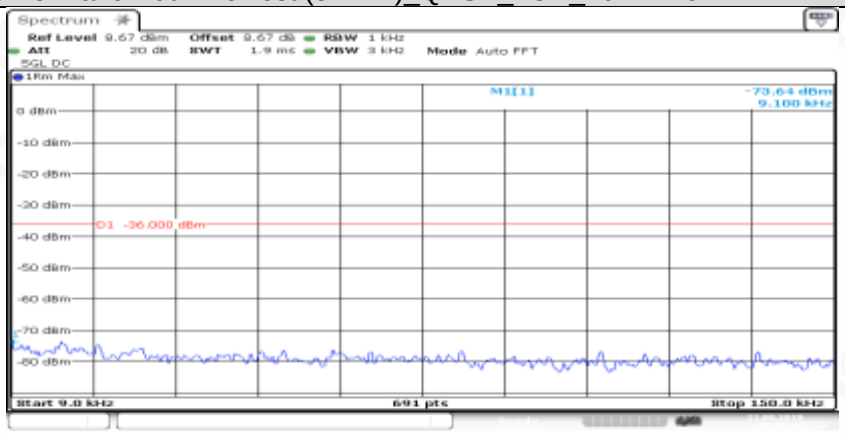
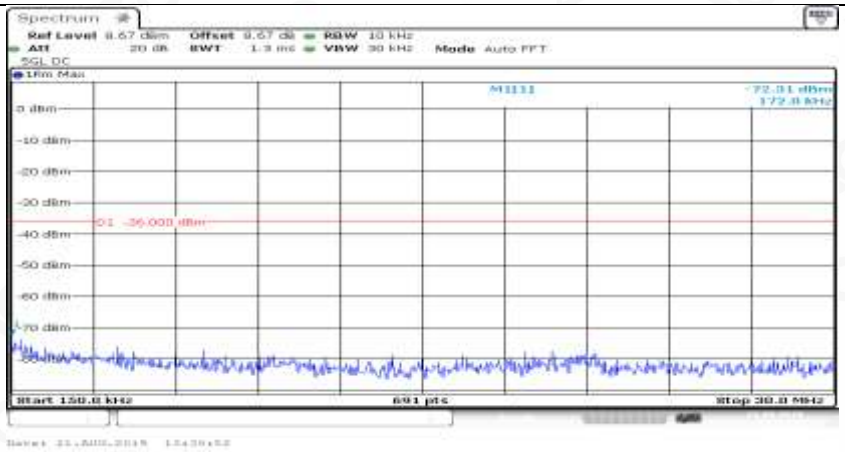
Co-existence	
Additional	NA

Channel Bandwidth=Lowest (5 MHz)_QPSK_LCH_FullRB#0	
General	

General	
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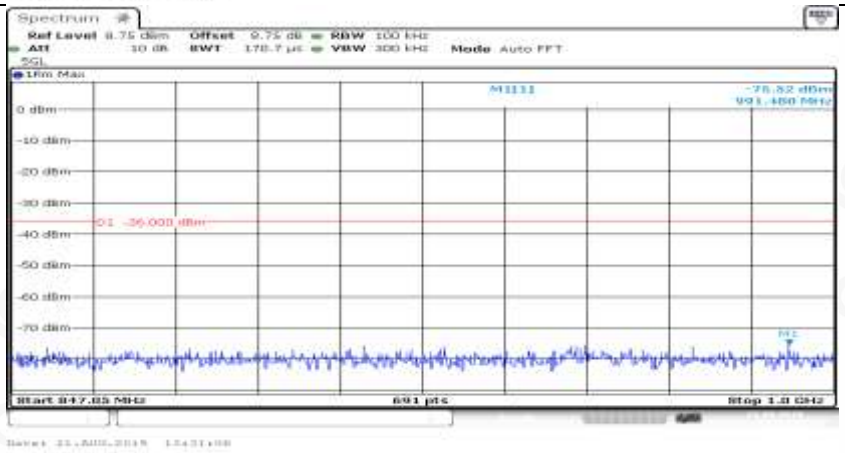
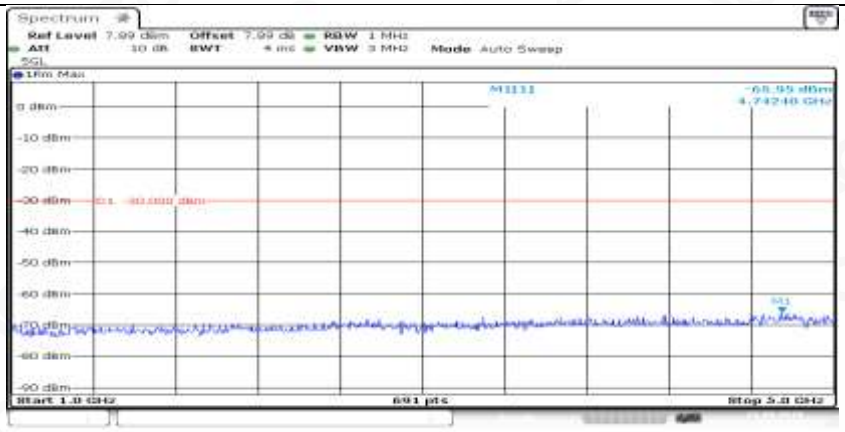
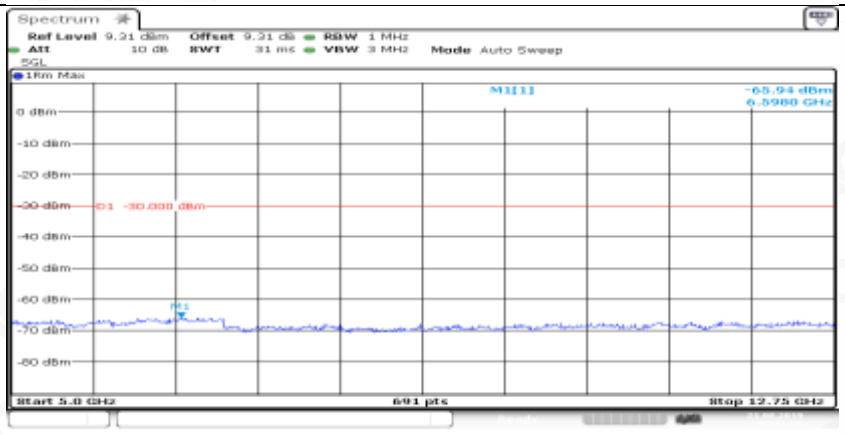
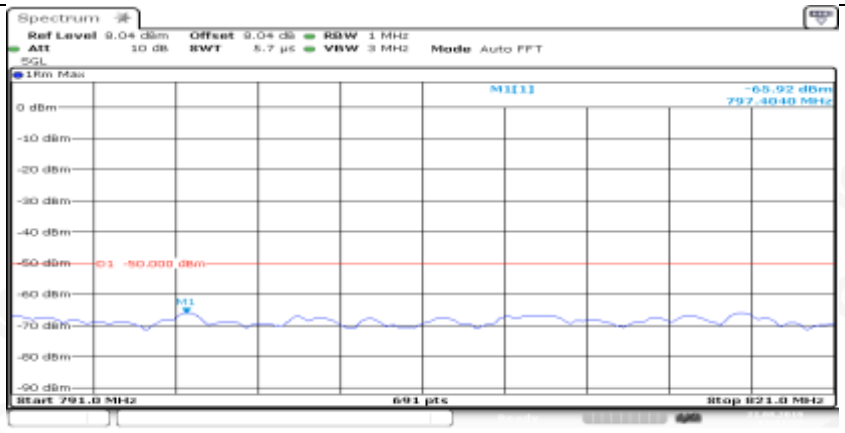
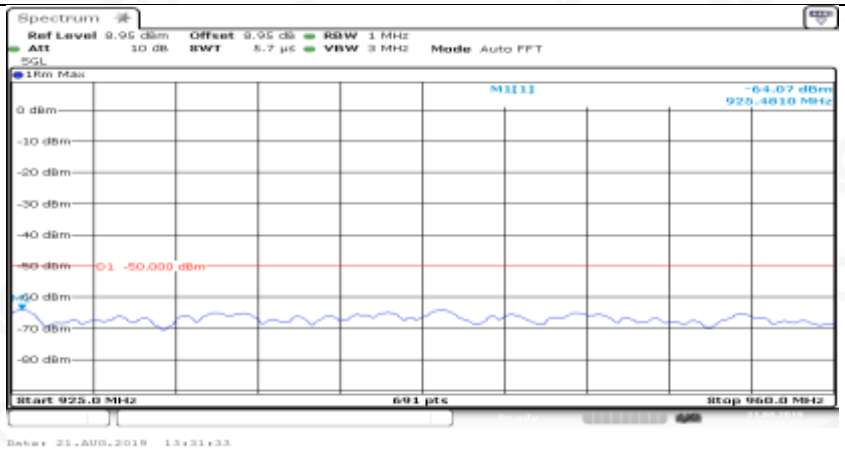
General	

General	
General	
Co-existence	

Co-existence	
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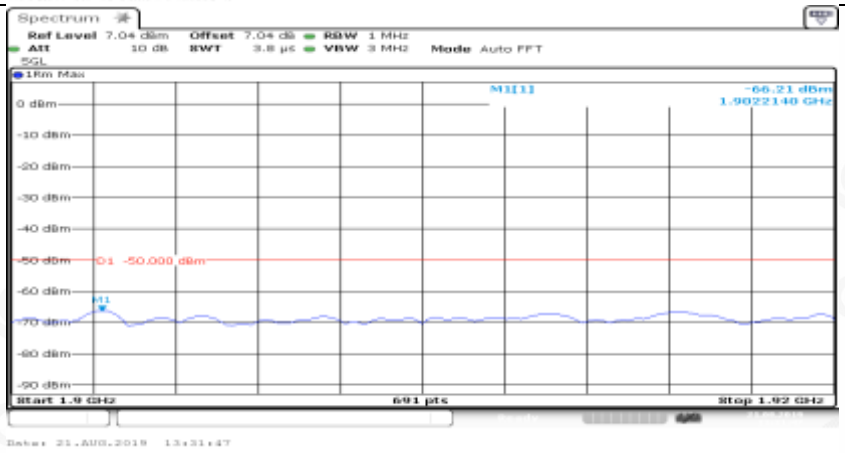
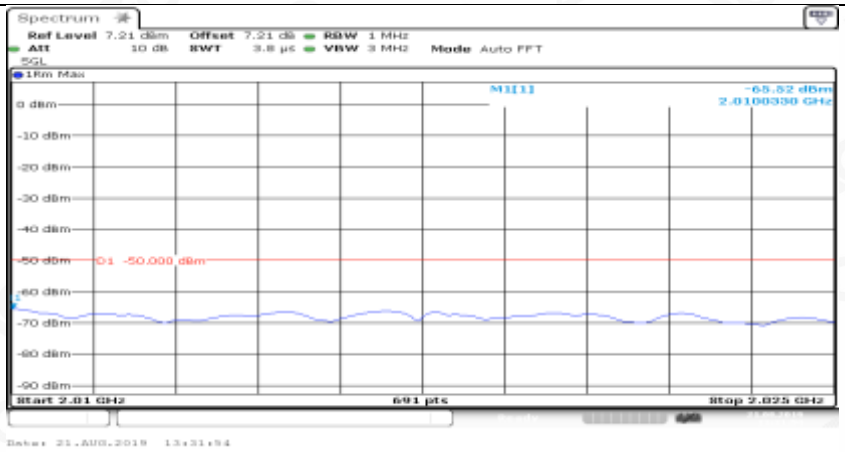
Co-existence	

Co-existence	
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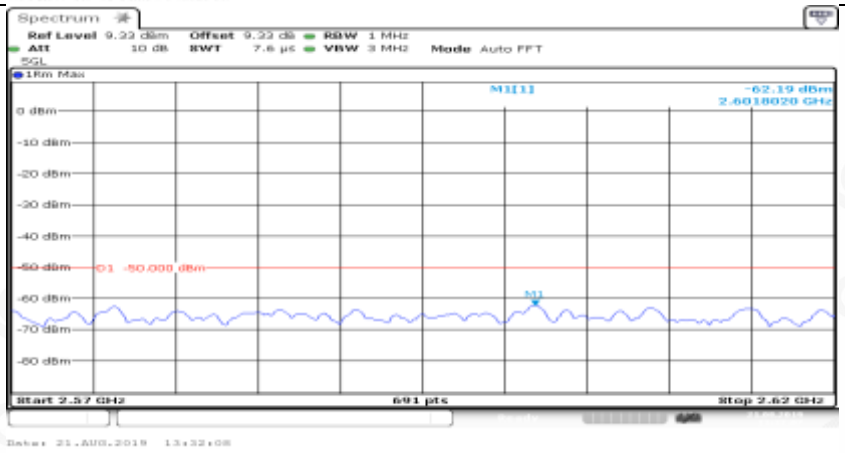
Co-existence	

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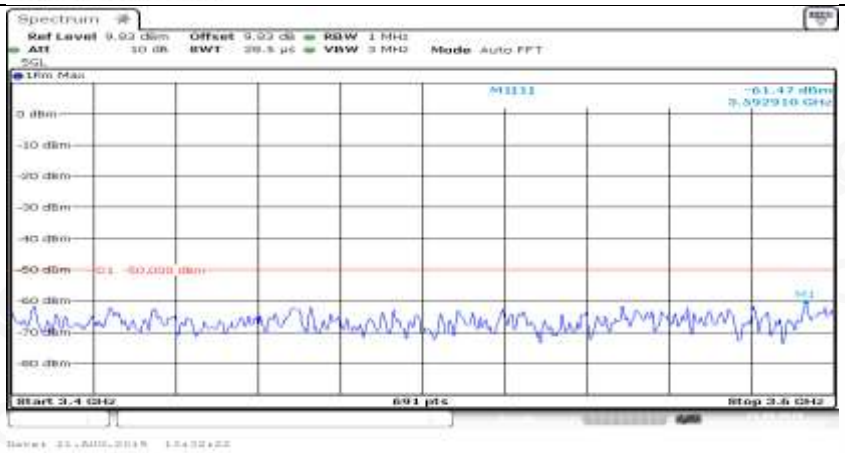
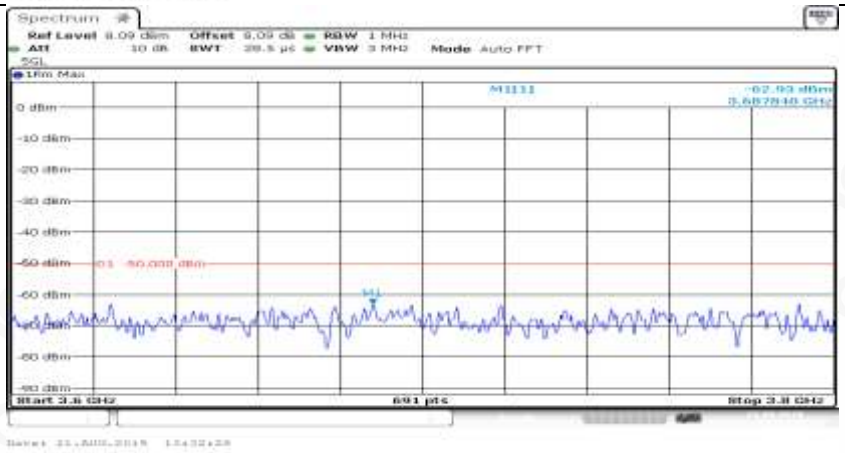
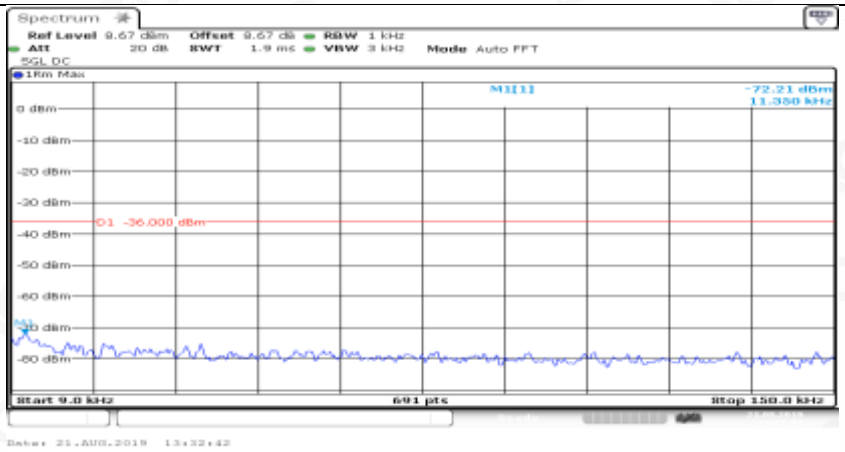
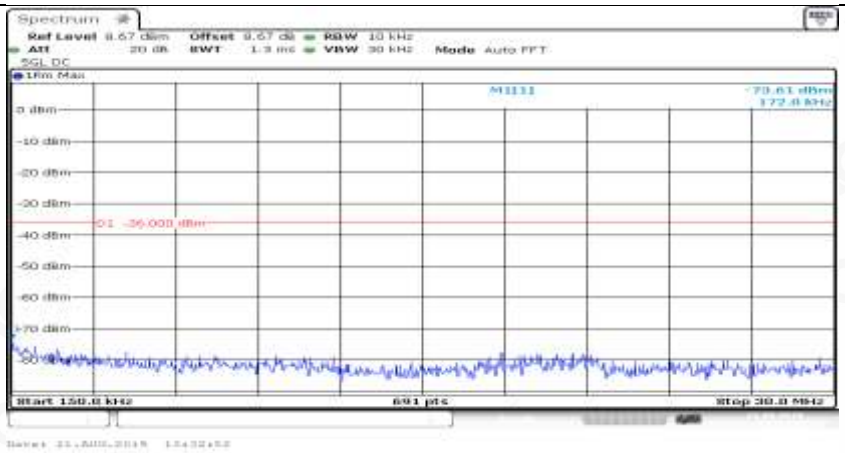
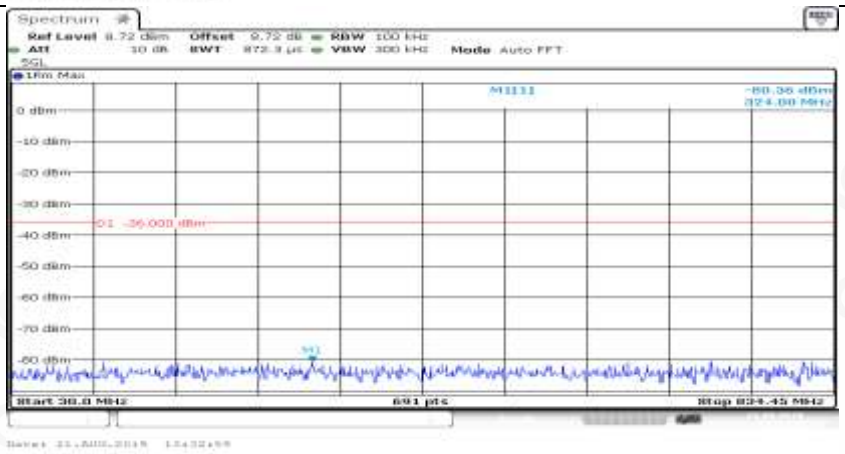
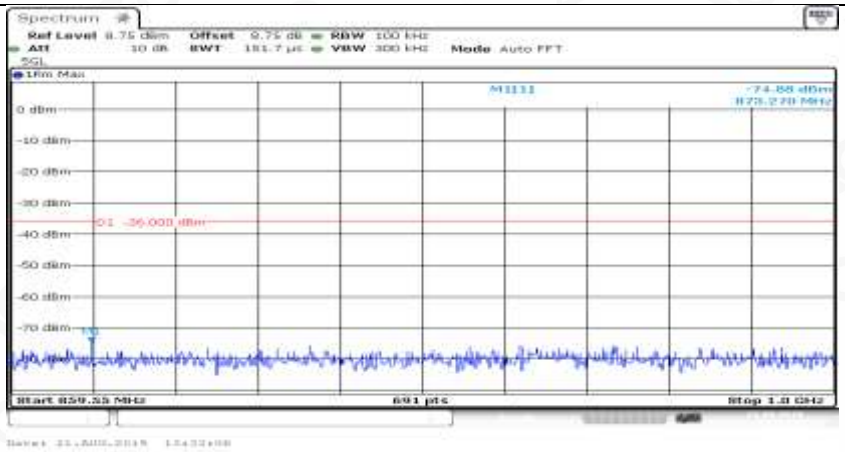
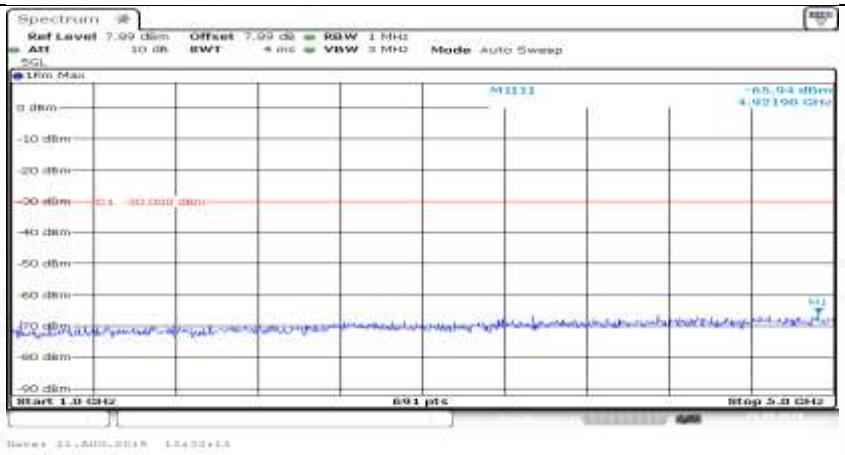
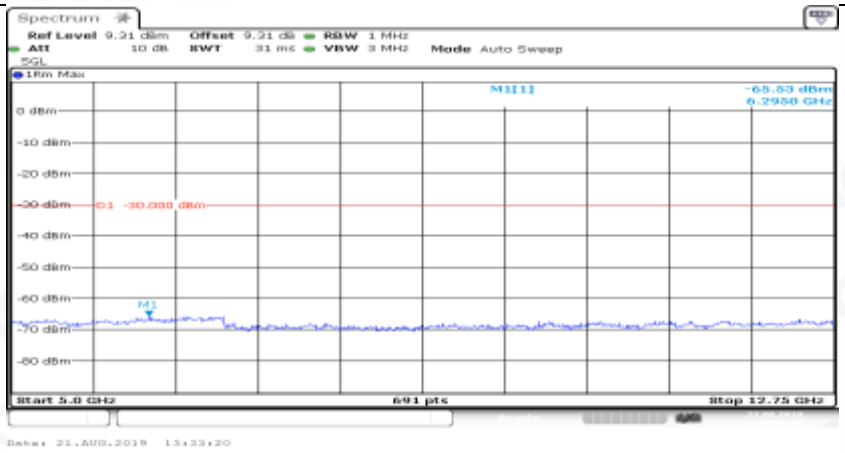
Co-existence	
Co-existence	
Additional	NA

Channel Bandwidth=Lowest (5 MHz)_QPSK_MCH_1RB#0

General	
General	
General	

General	
General	
General	

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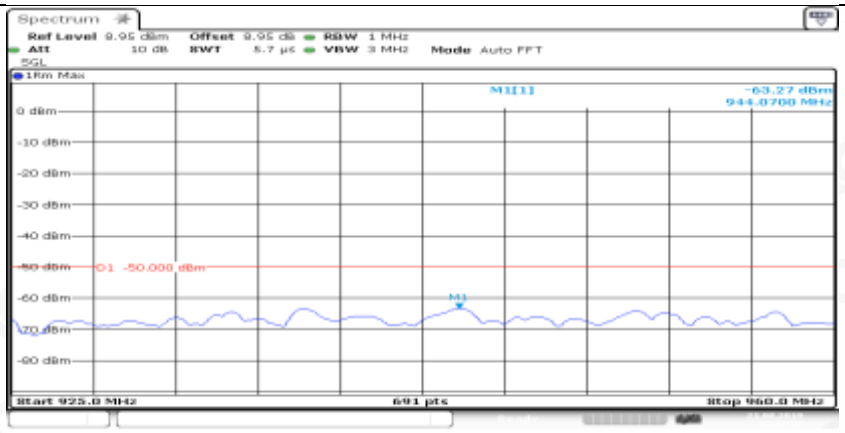
Co-existence	
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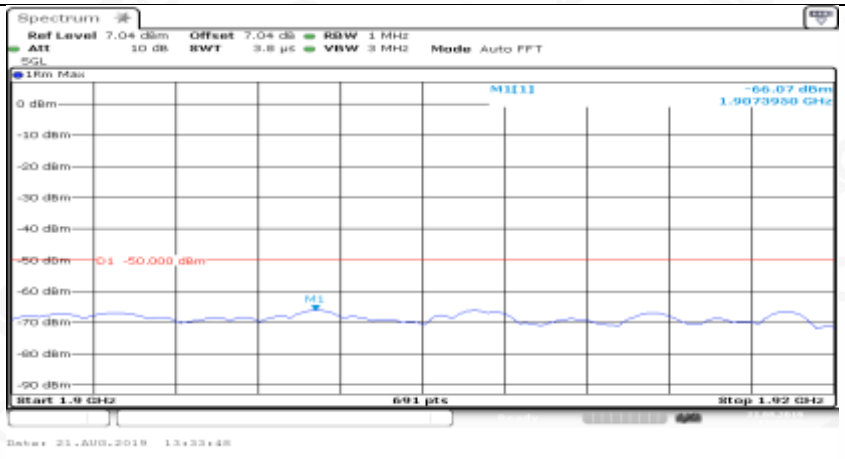
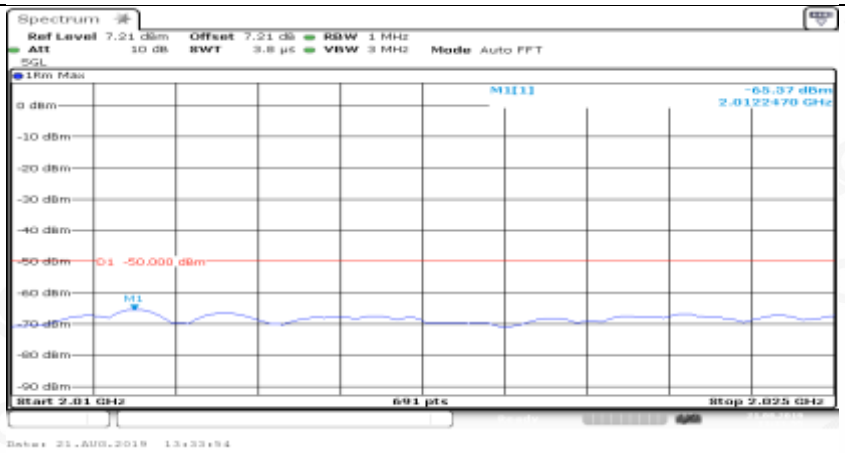
Co-existence	
Co-existence	
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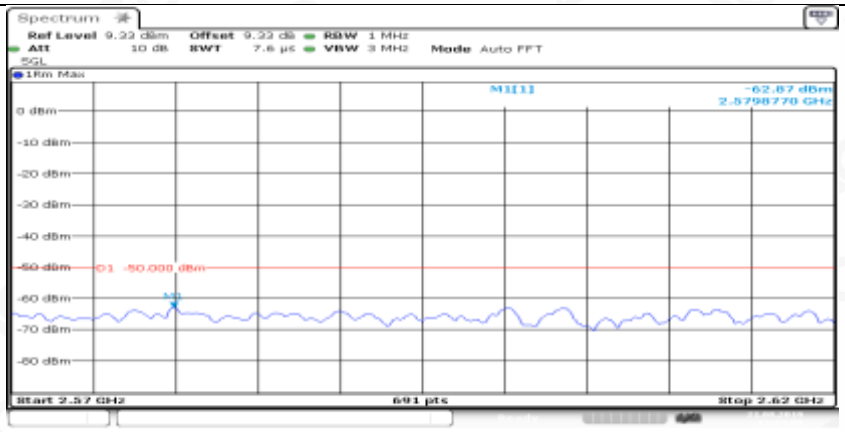
Co-existence	
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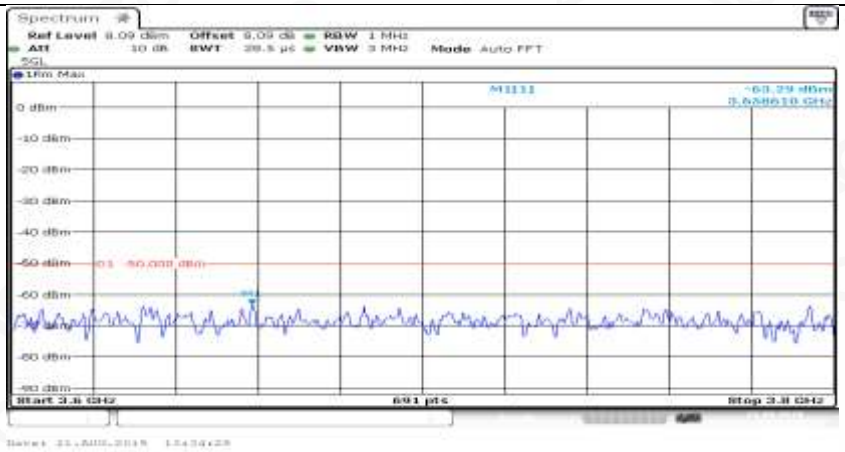
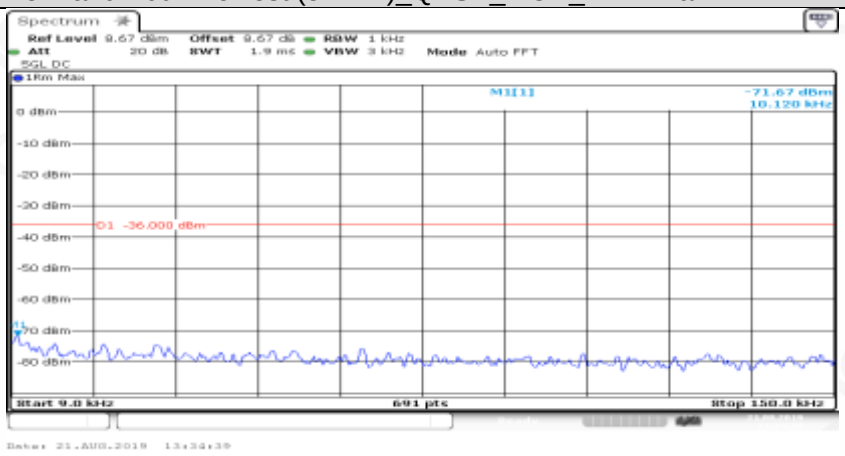
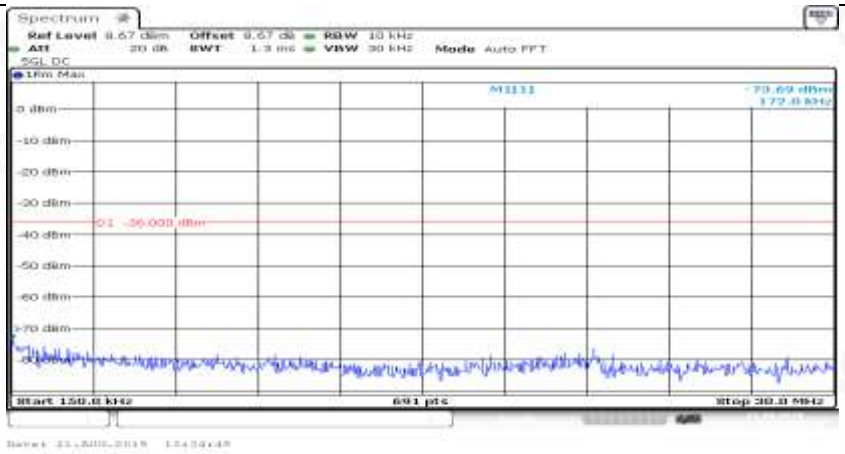
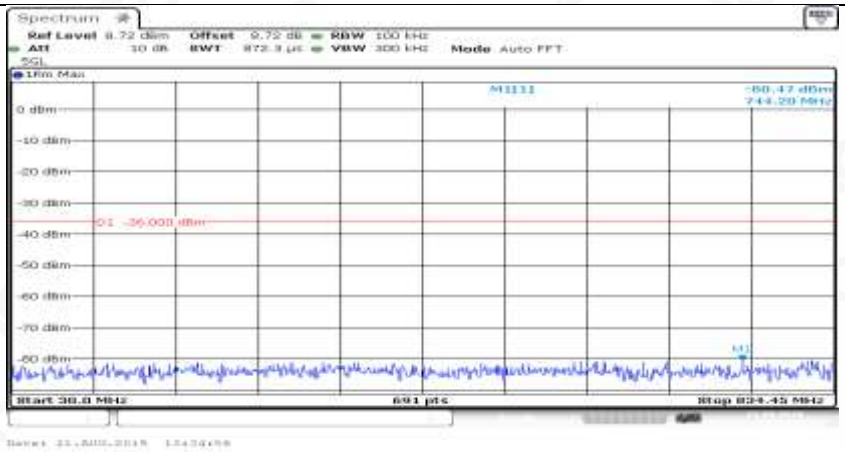
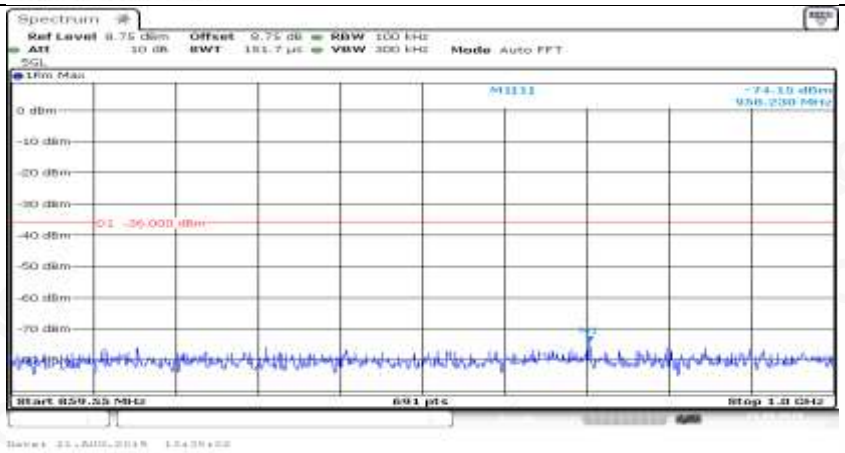
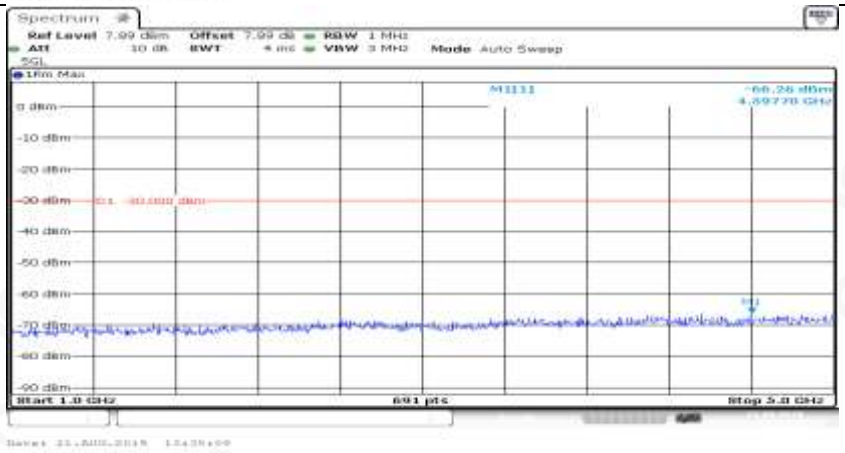
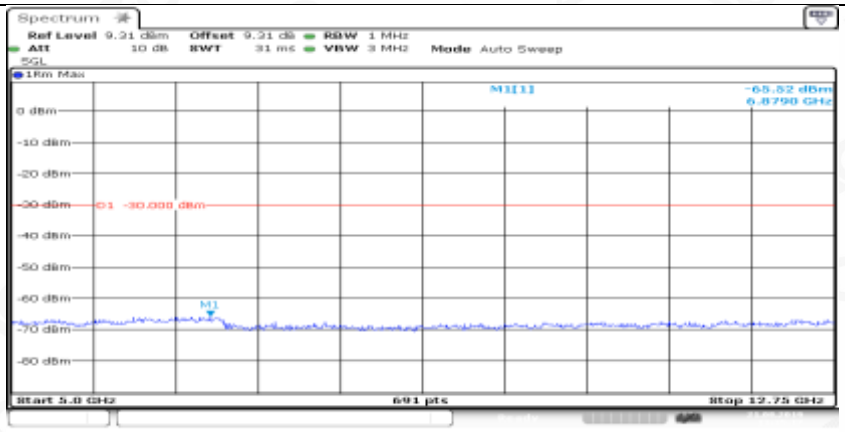
Co-existence	

Co-existence	
Additional	NA

Channel Bandwidth=Lowest (5 MHz)_QPSK_MCH_1RB#max	
General	
General	

General	
General	
General	

General	
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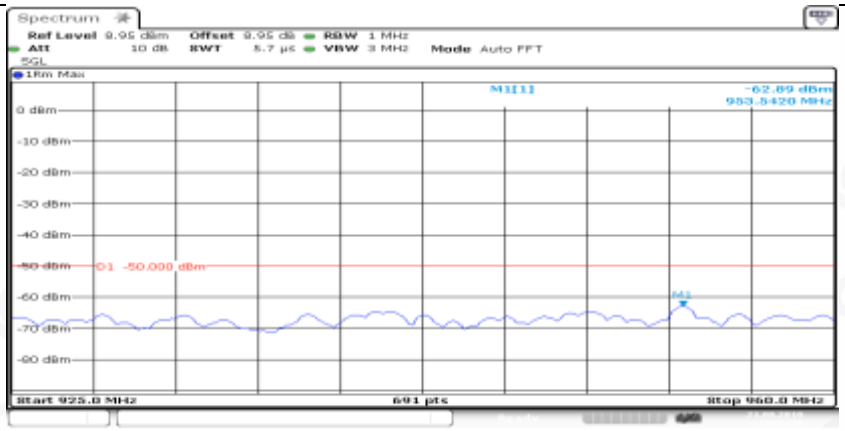
Co-existence	

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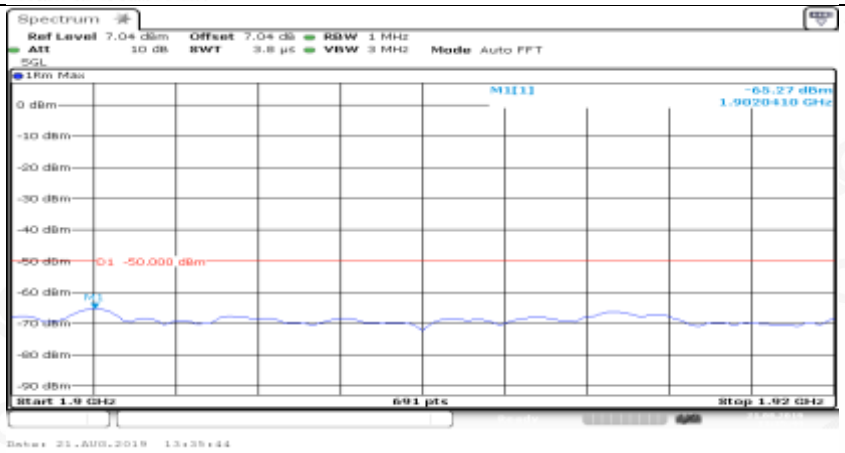
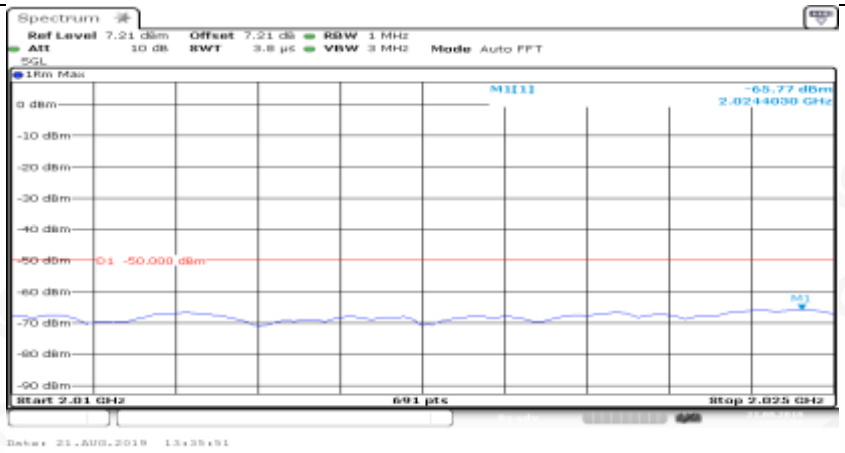
Co-existence	
Co-existence	

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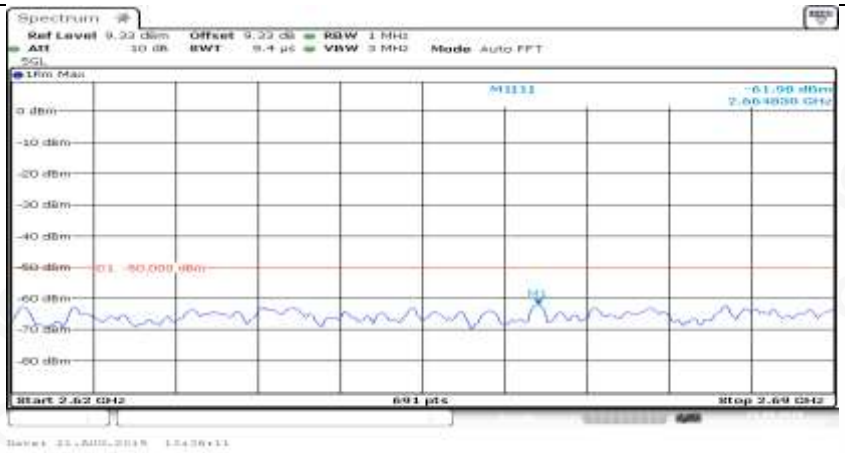
Co-existence	

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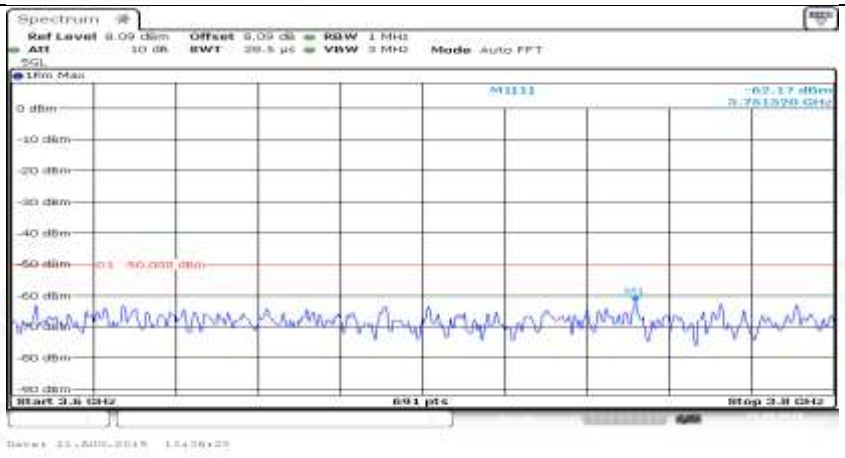
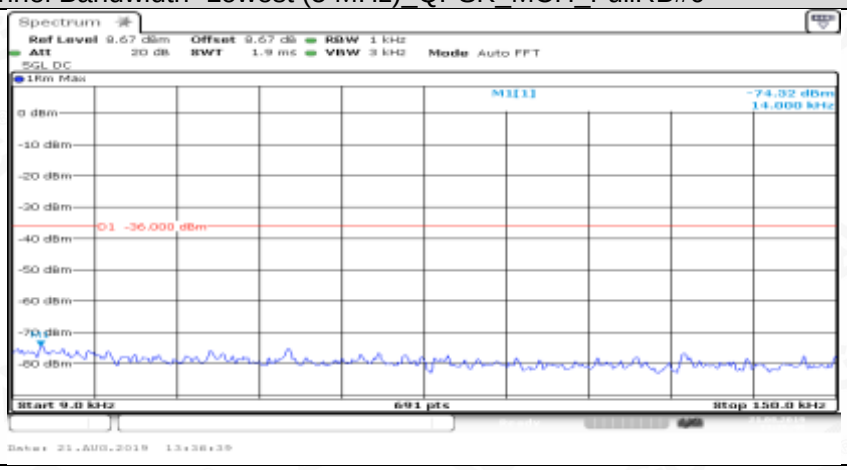
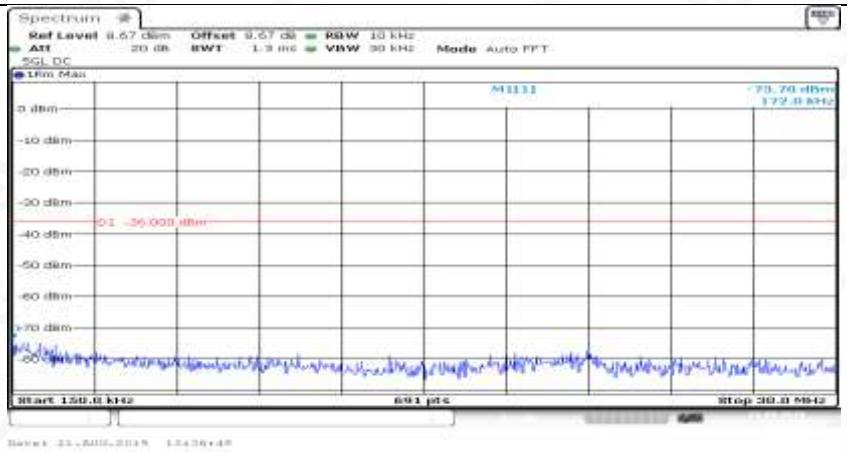
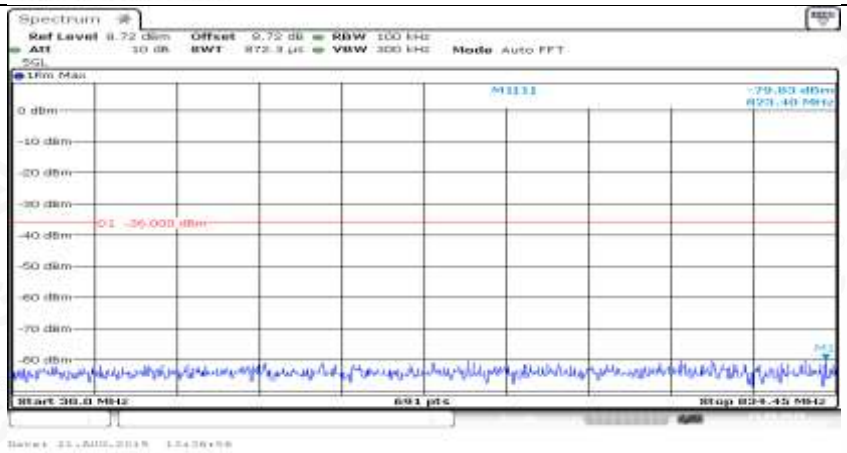
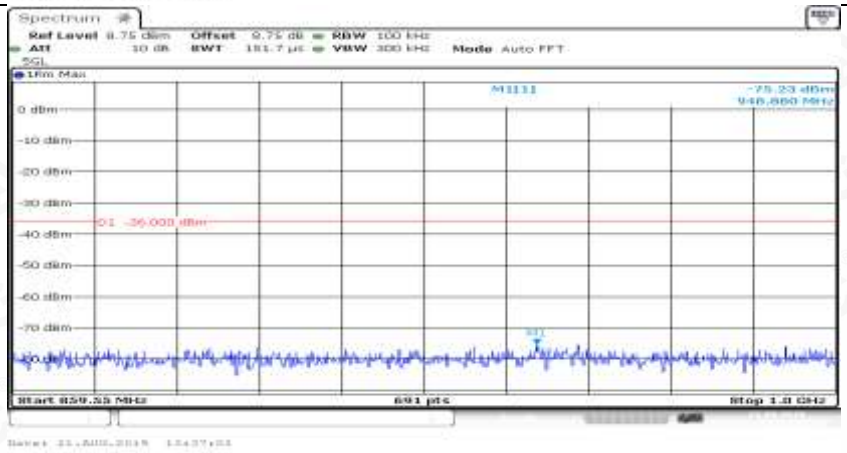
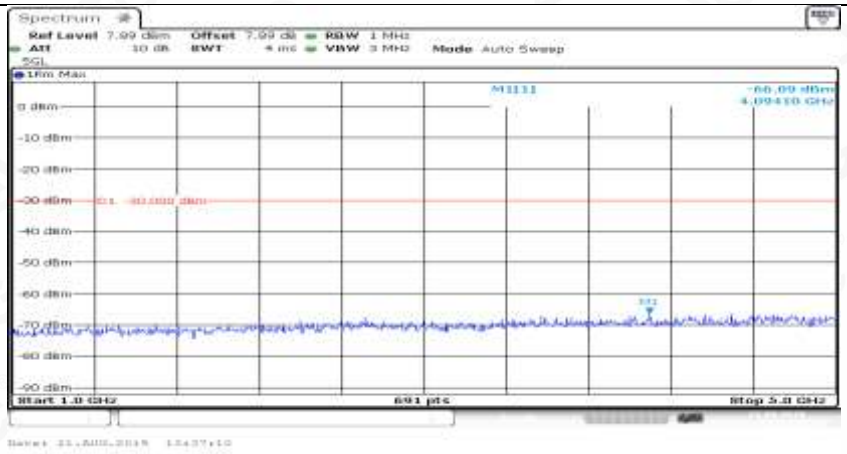
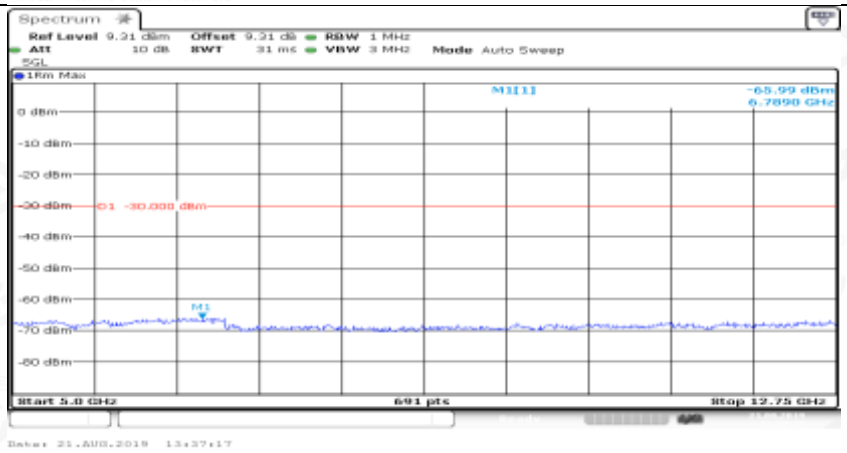
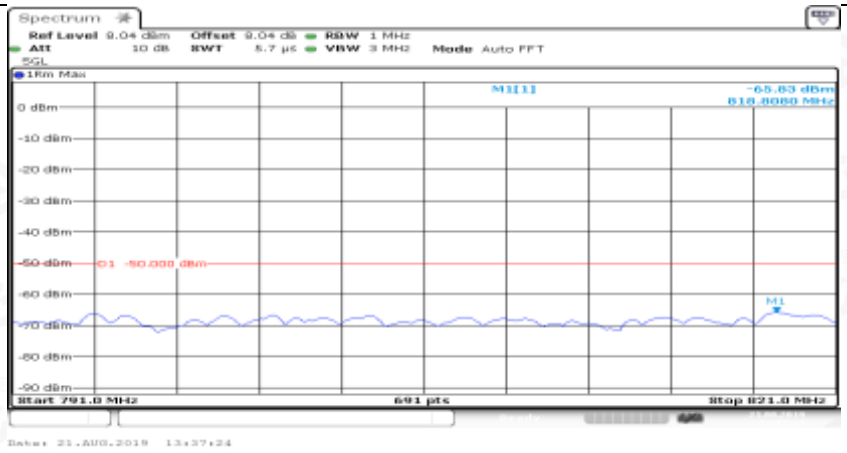
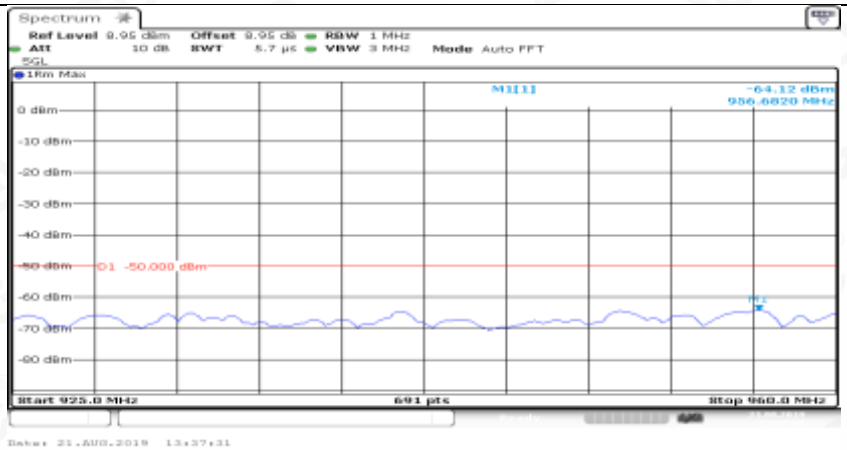
Co-existence	
Additional	NA

Channel Bandwidth=Lowest (5 MHz)_QPSK_MCH_FullRB#0	
General	

General	
General	
General	

General		
General		
Co-existence		

Co-existence		
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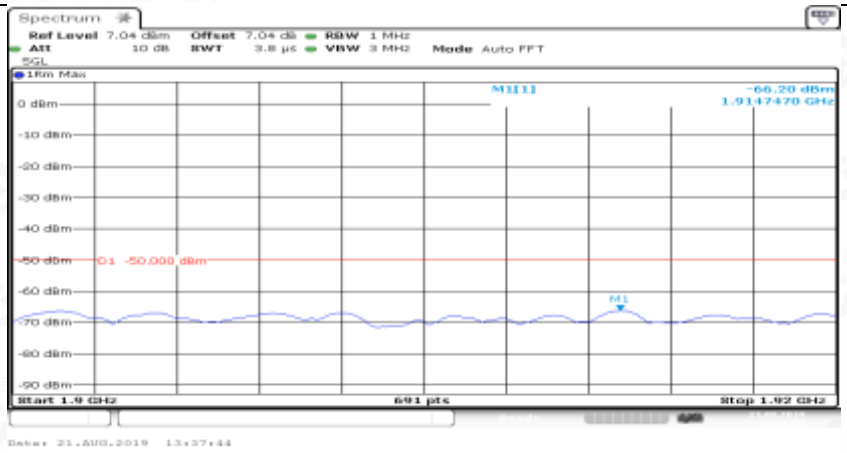
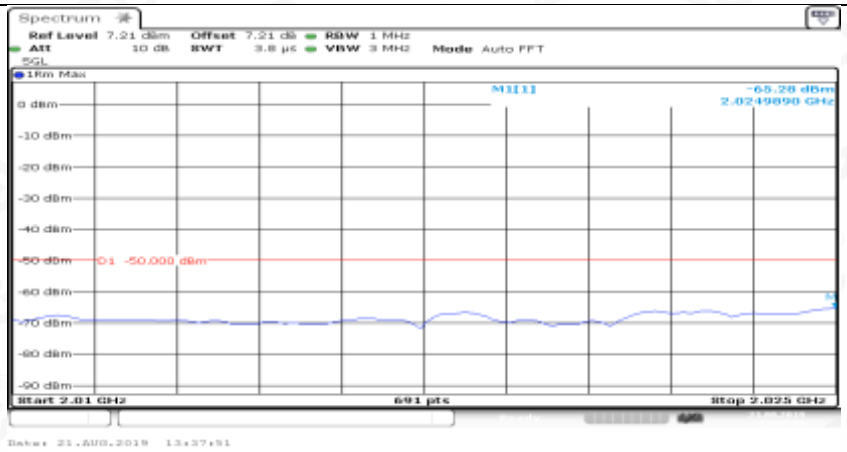
Co-existence		

Co-existence		
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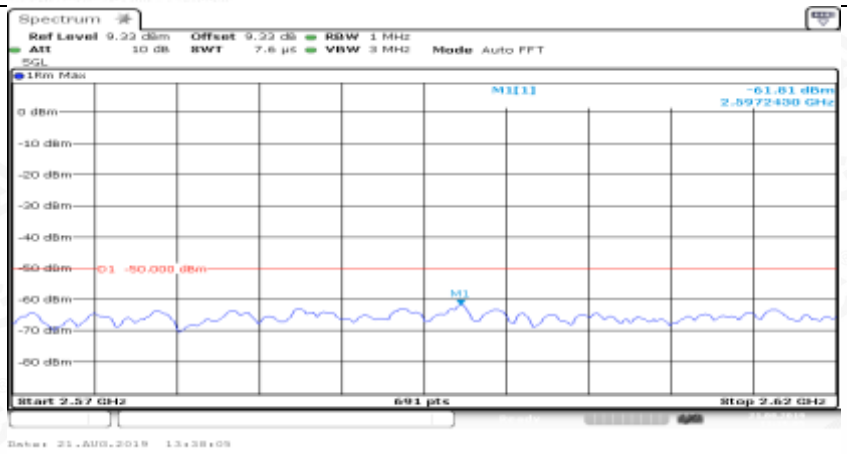
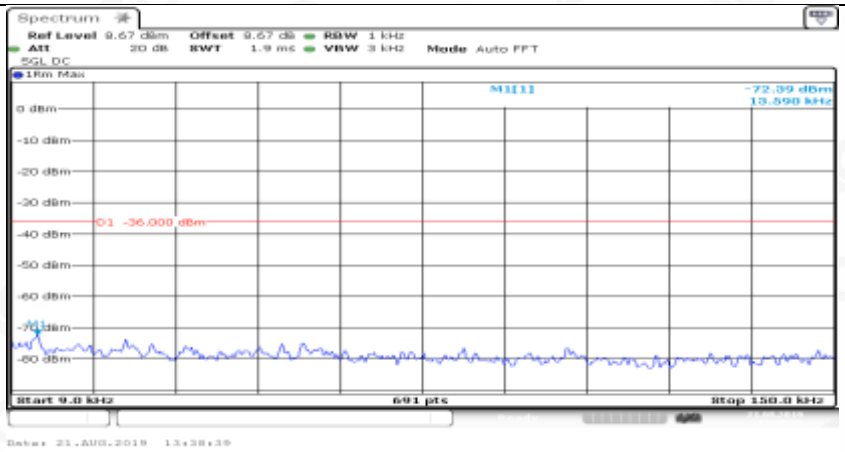
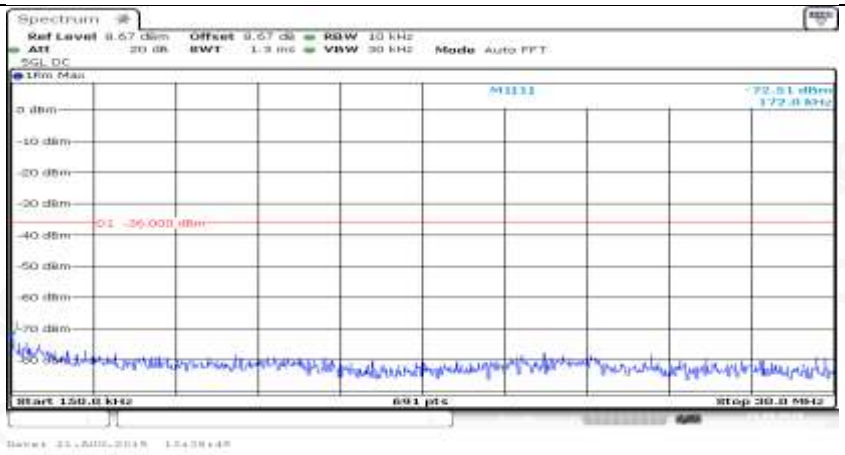
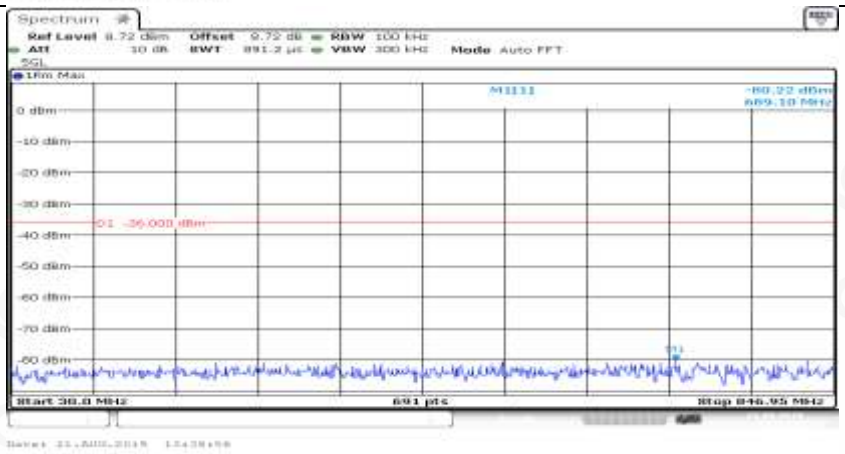
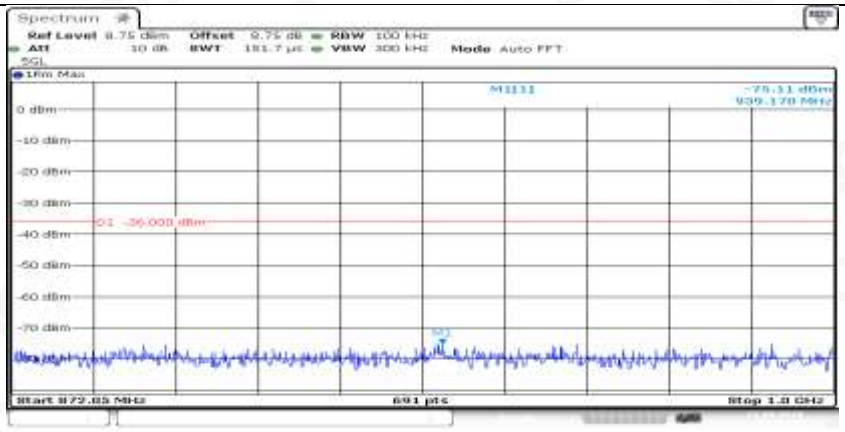
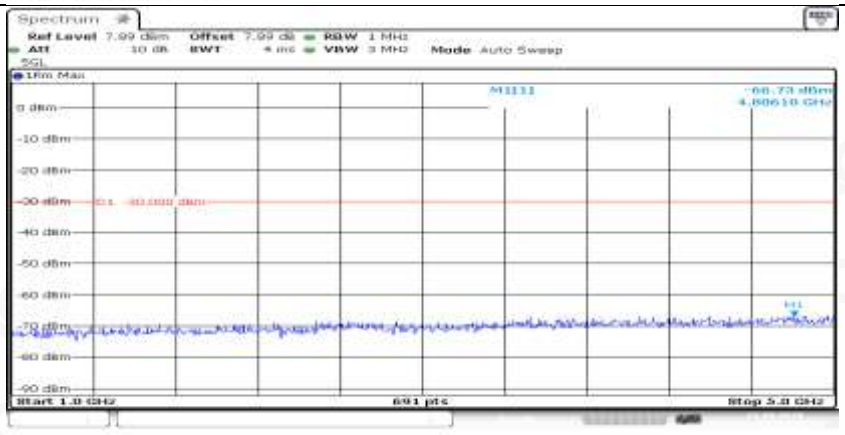
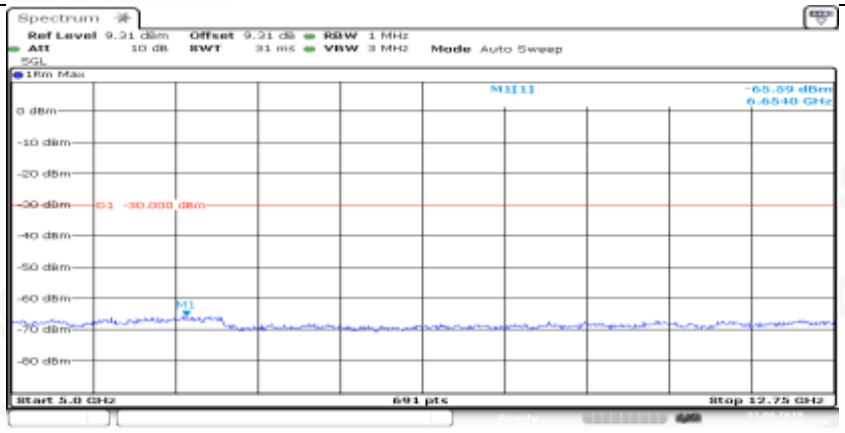
Co-existence		

Co-existence	
Co-existence	
Co-existence	
Additional	NA

Channel Bandwidth=Lowest (5 MHz)_QPSK_HCH_1RB#0

General	
General	
General	

General	
General	
General	

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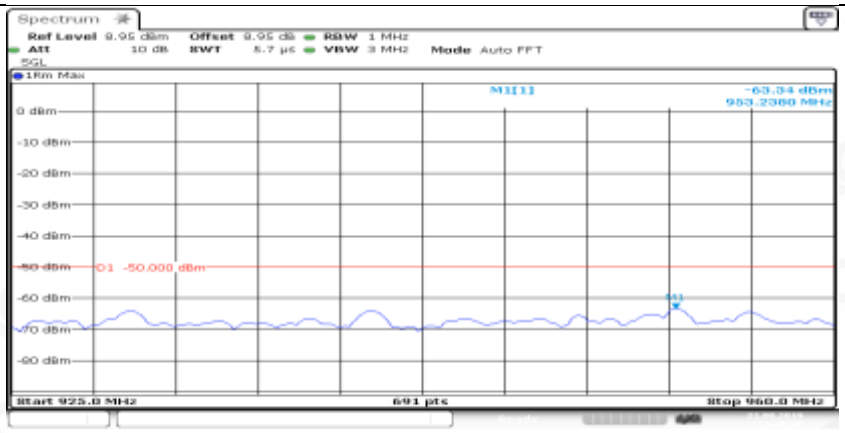
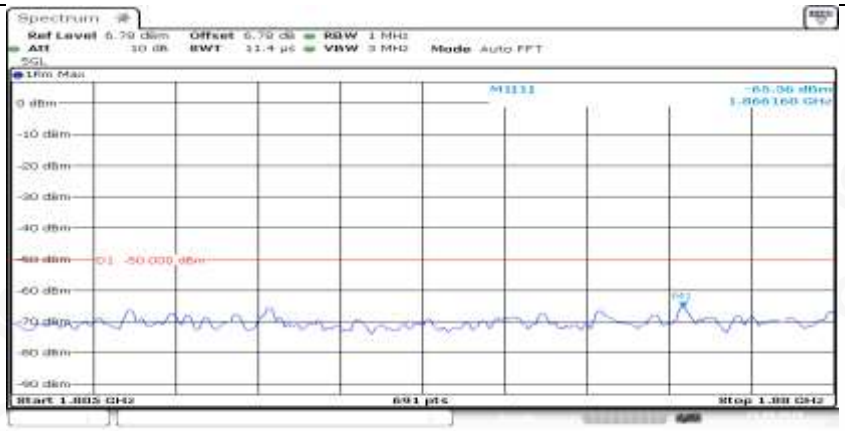
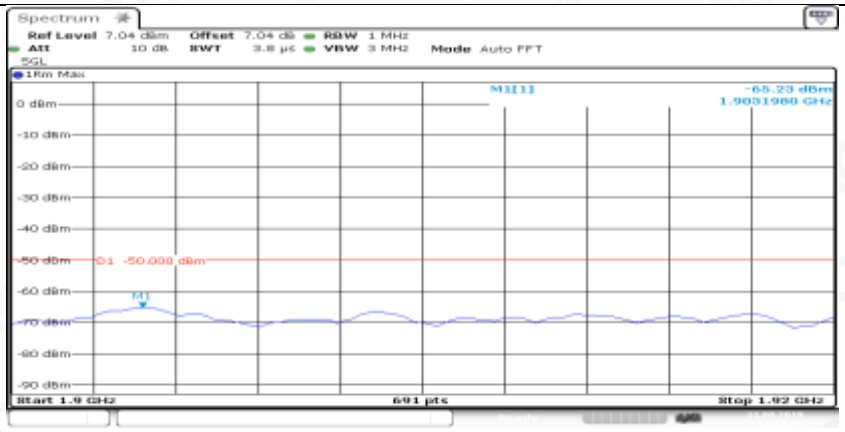
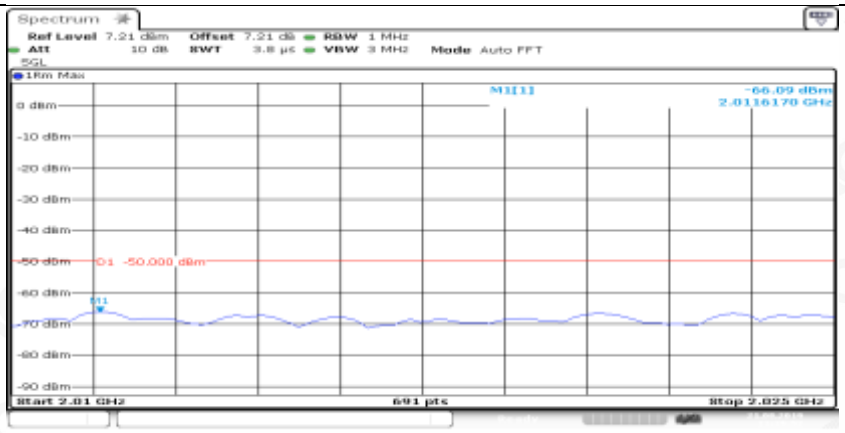
Co-existence	
Co-existence	

Co-existence	
Co-existence	
Co-existence	

Co-existence	
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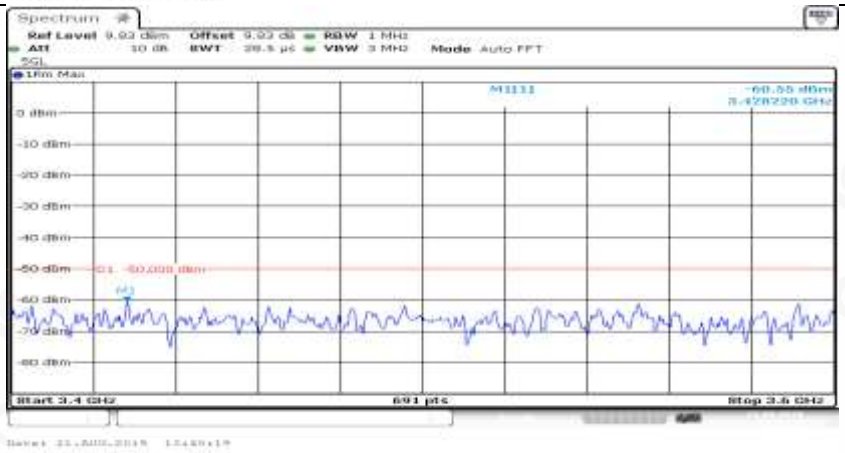
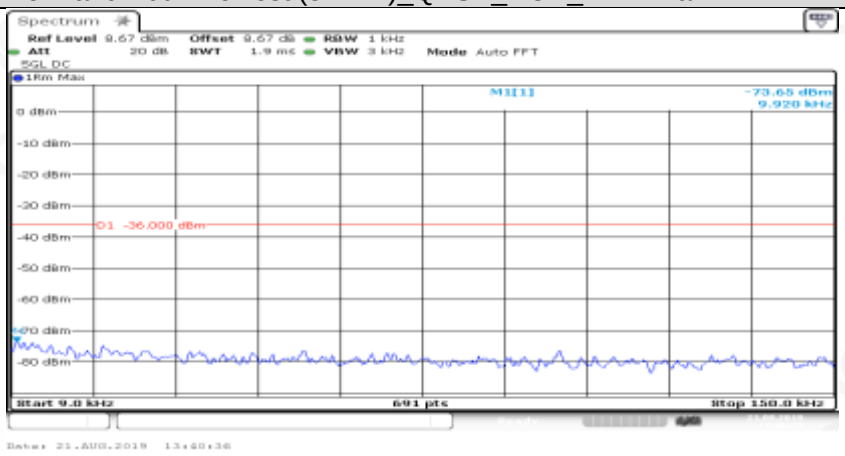
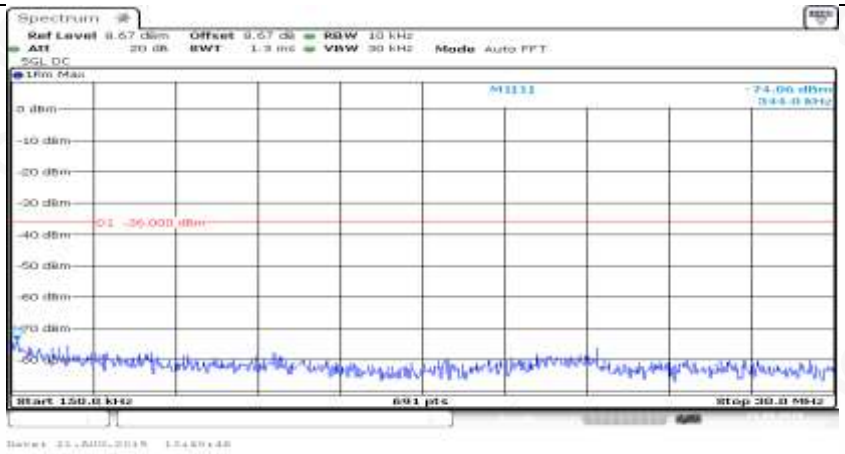
Co-existence	

Co-existence	
Additional	NA

Channel Bandwidth=Lowest (5 MHz)_QPSK_HCH_1RB#max	
General	
General	

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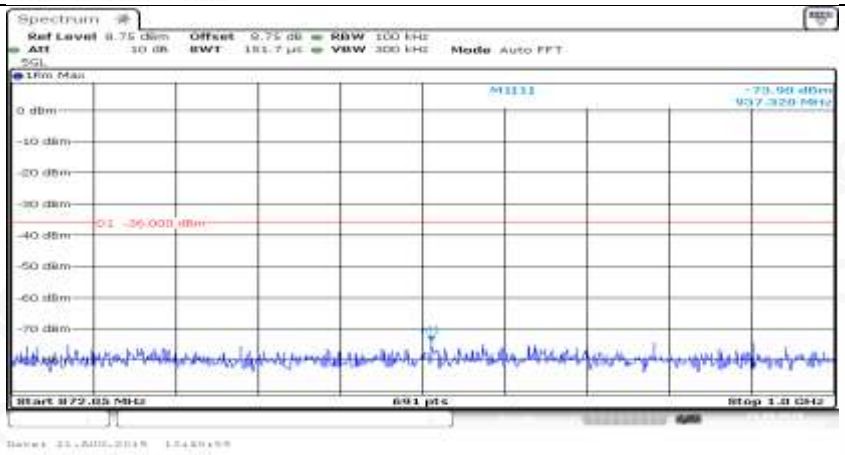
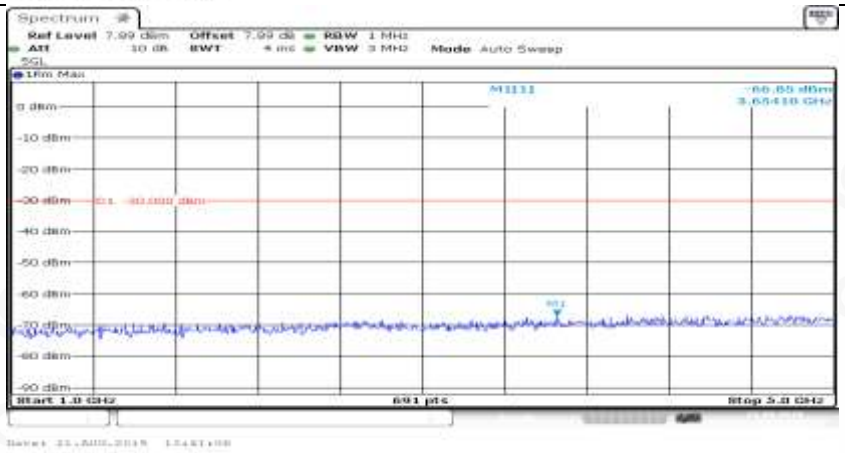
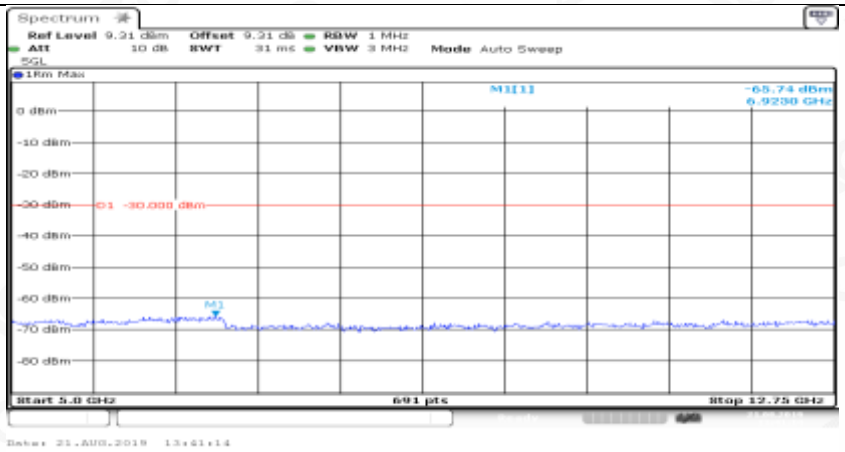
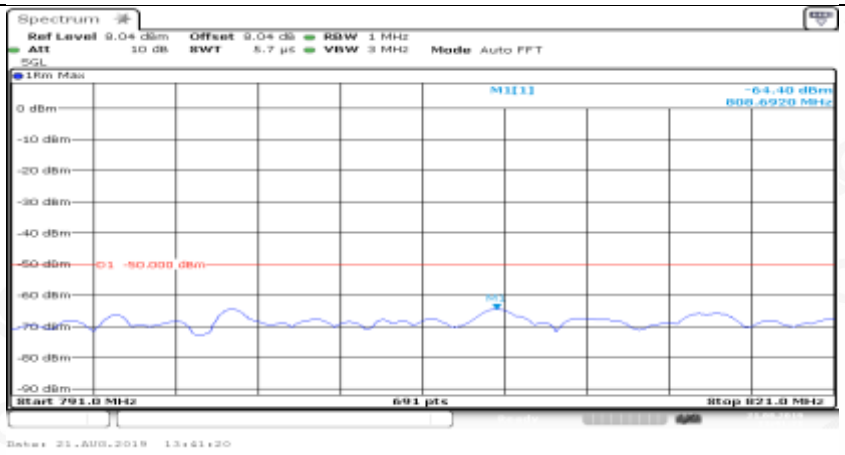
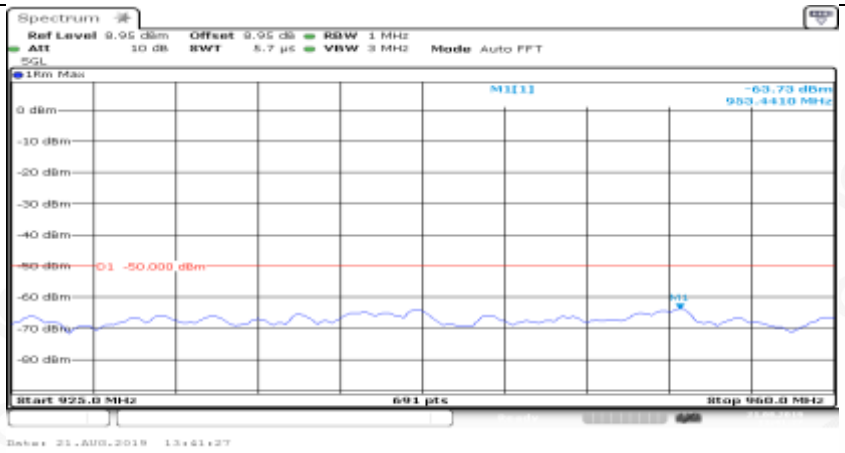
General	
General	

General	
Co-existence	
Co-existence	

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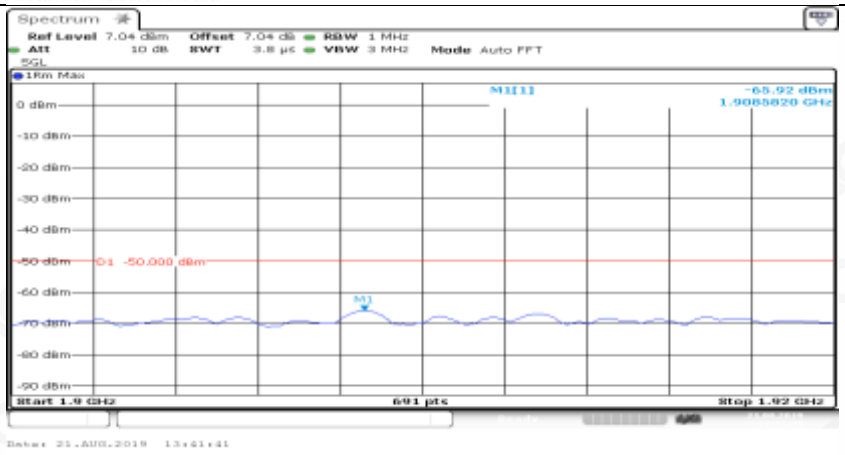
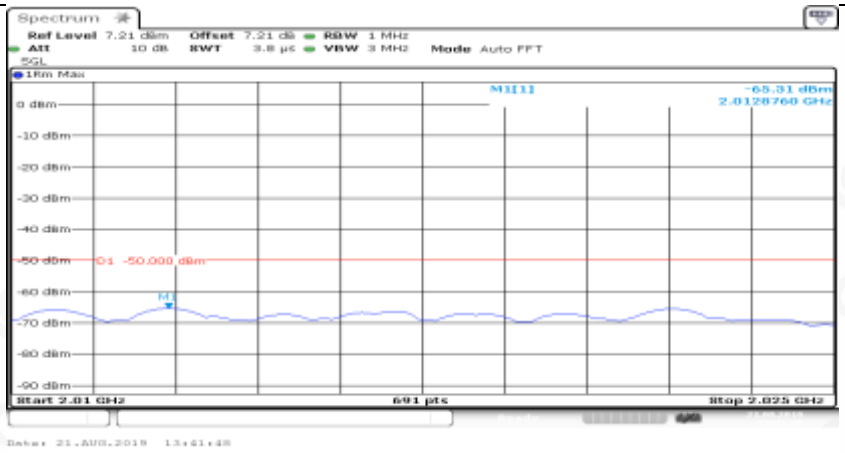
Co-existence	
Co-existence	

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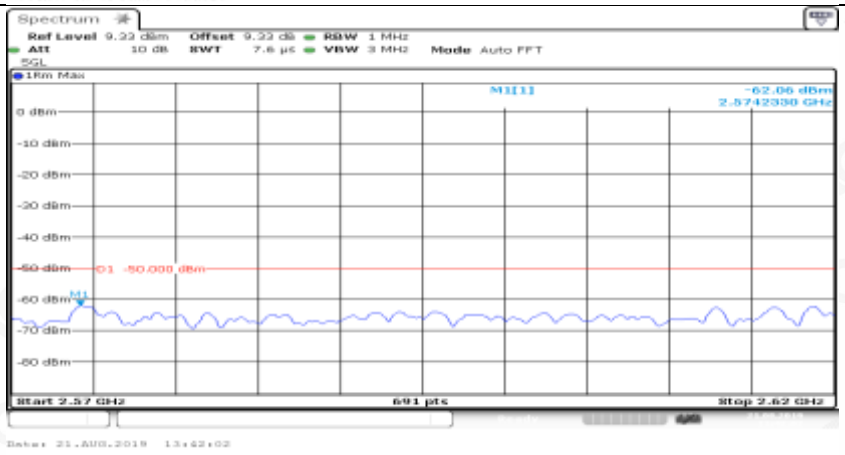
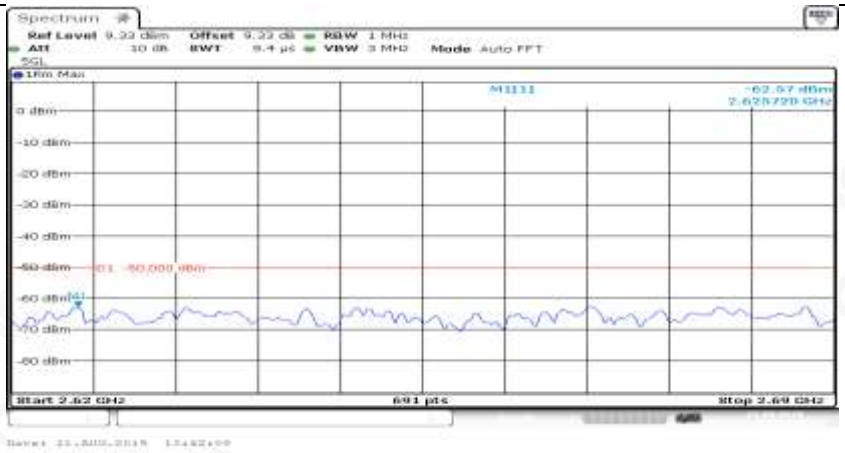
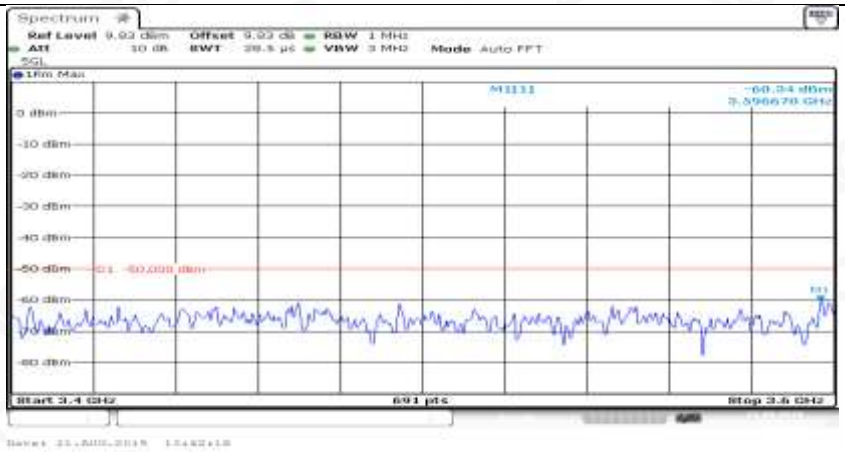
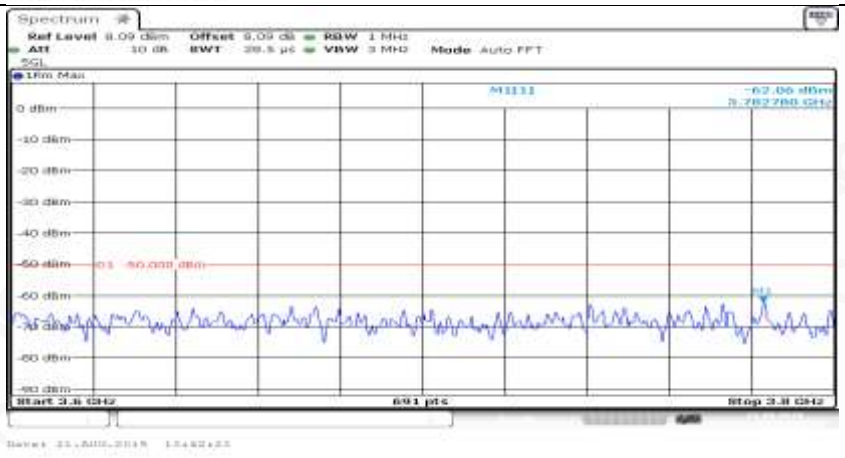
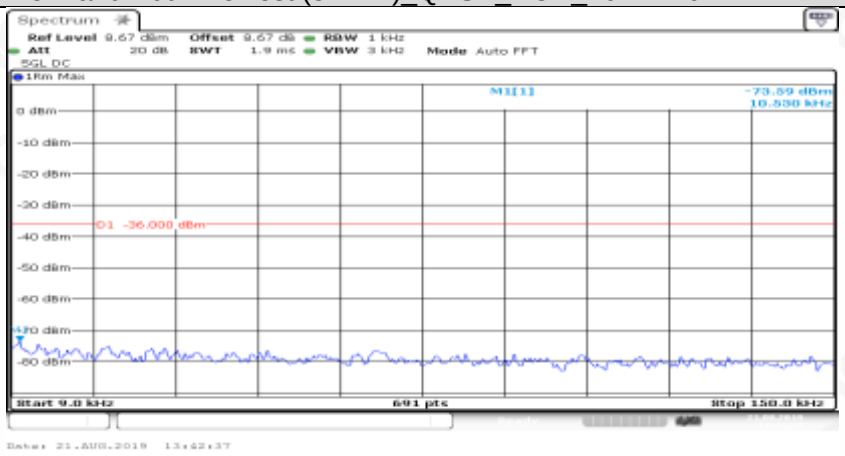
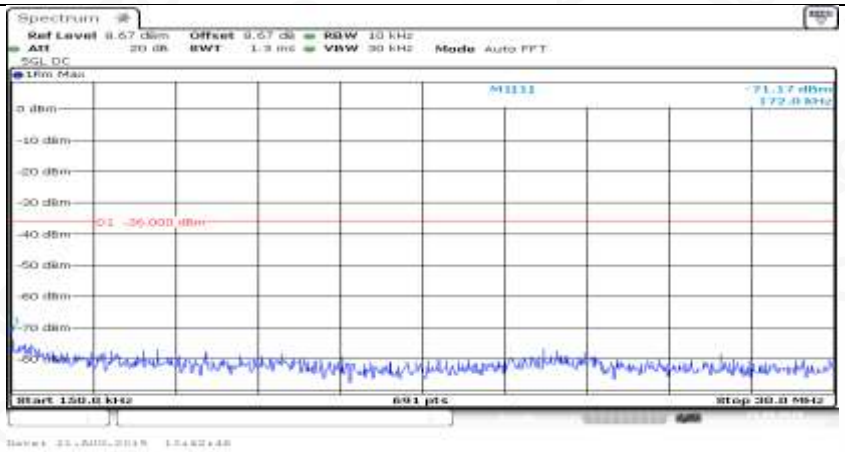
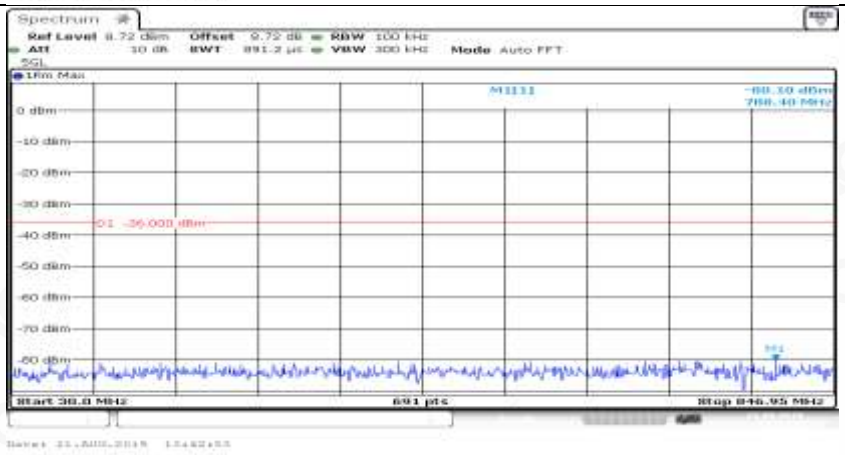
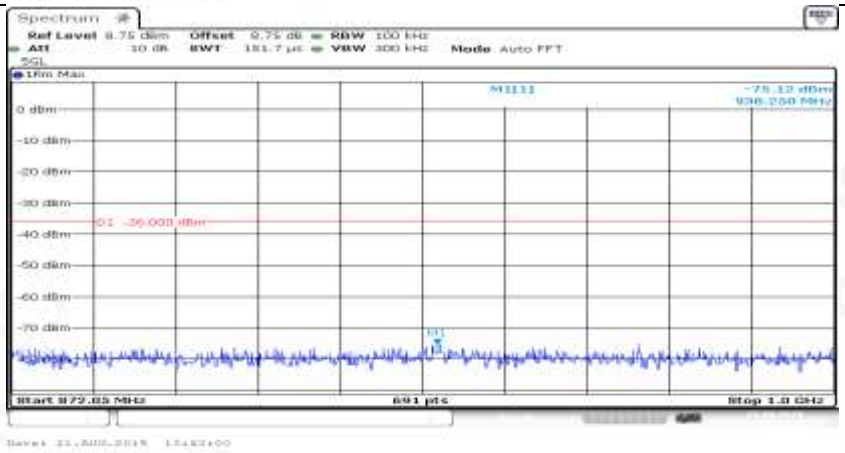
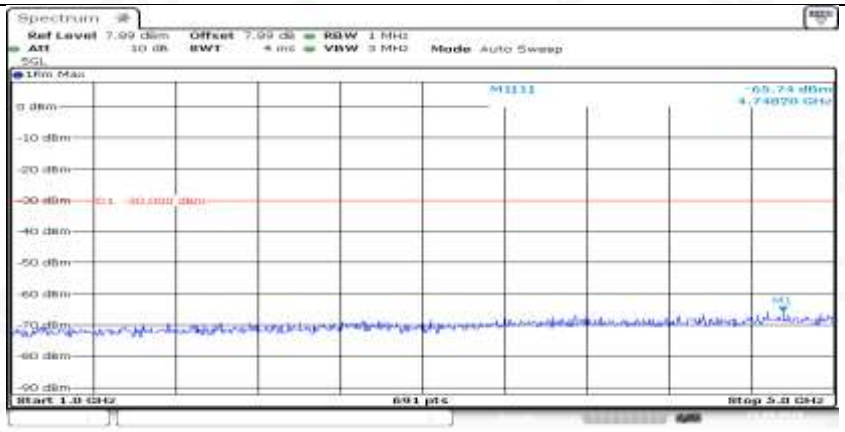
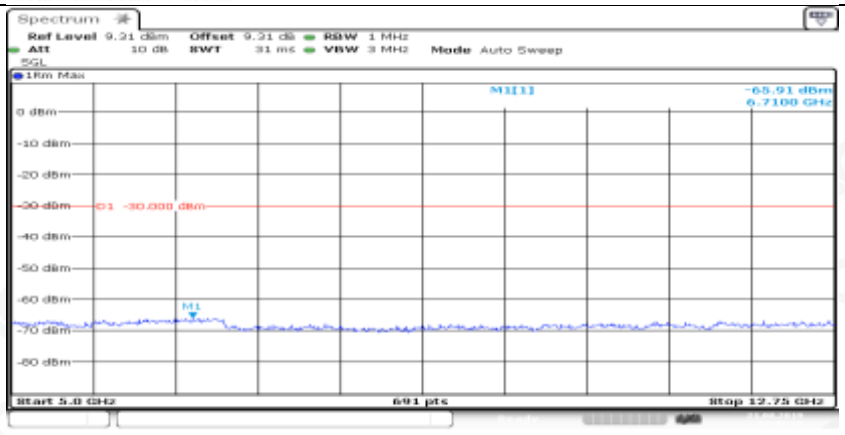
Co-existence	
Co-existence	

Co-existence	
Co-existence	
Additional	NA

Channel Bandwidth=Lowest (5 MHz)_QPSK_HCH_FullRB#0	
General	

General	
General	
General	

General	
General	
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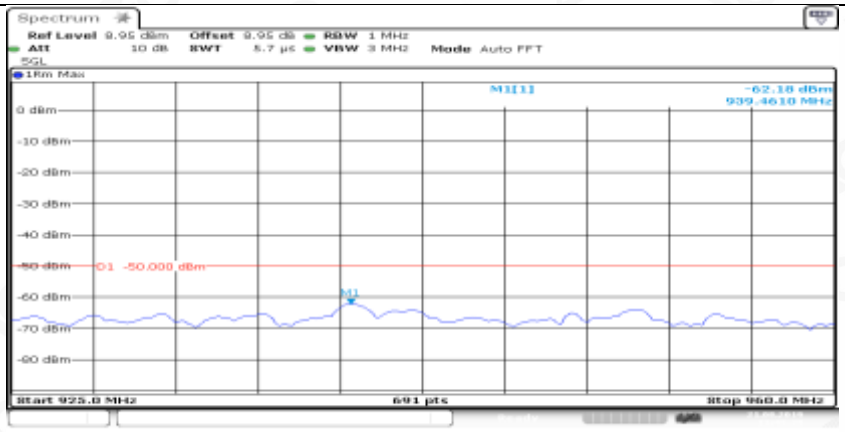
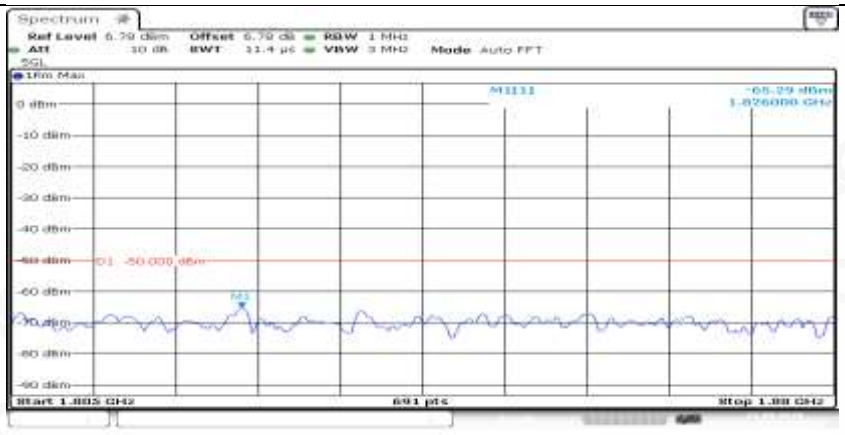
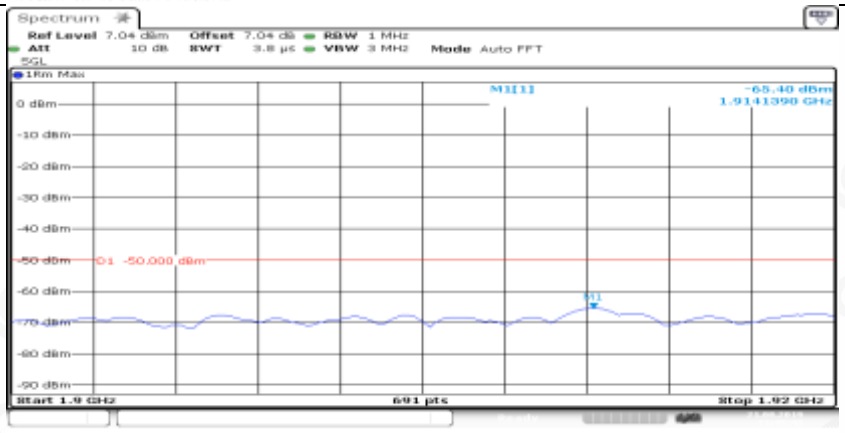
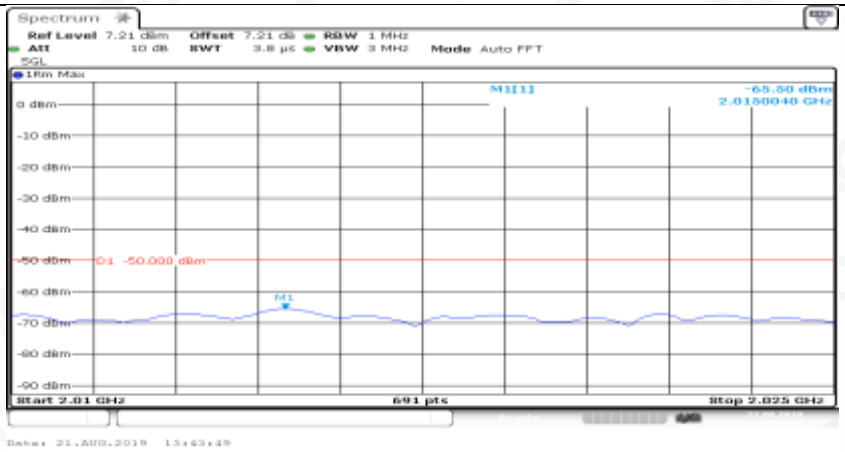
Co-existence	
Co-existence	
Co-existence	

Co-existence	
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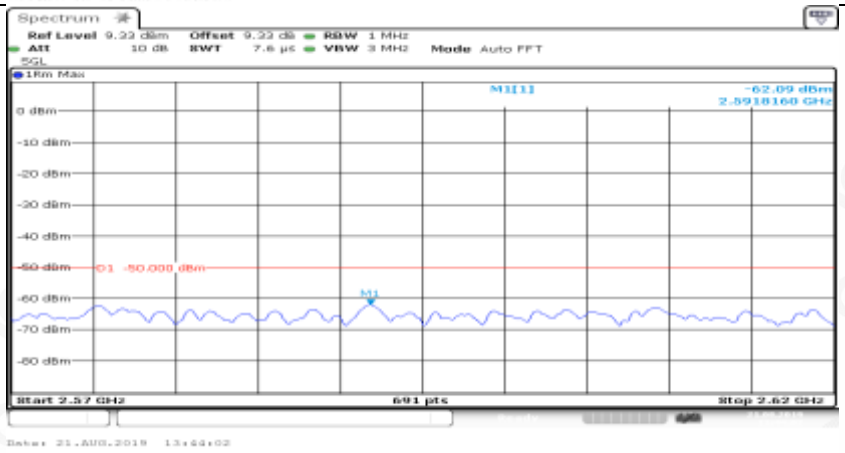
Co-existence	

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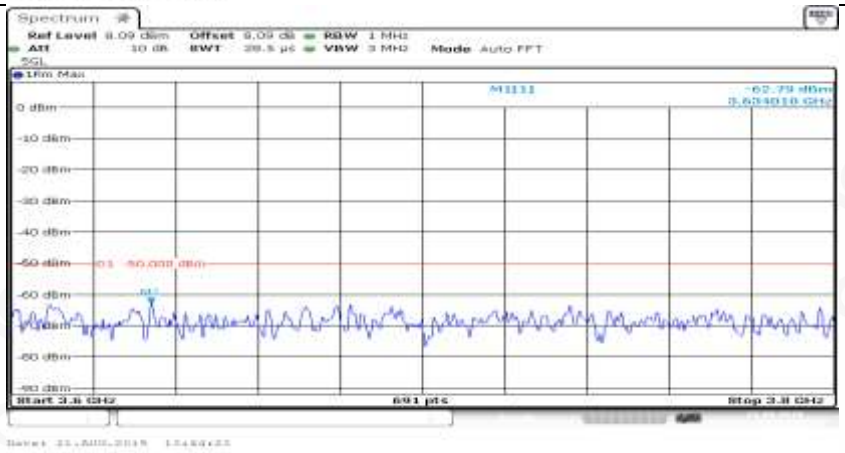
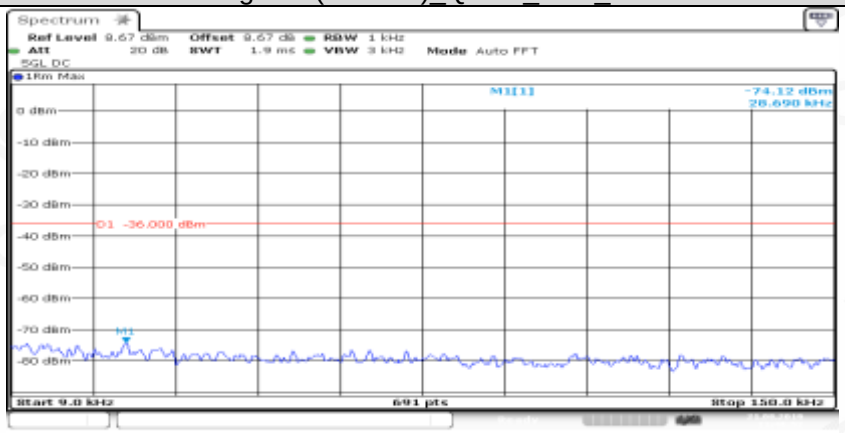
Co-existence	
Additional	NA

Channel Bandwidth= (20 MHz)

Channel Bandwidth=Highest (20 MHz)_QPSK_LCH_1RB#0	
General	
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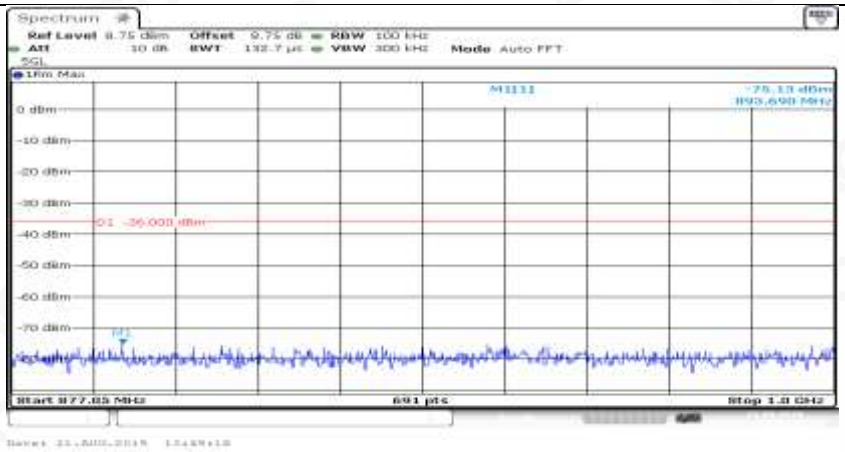
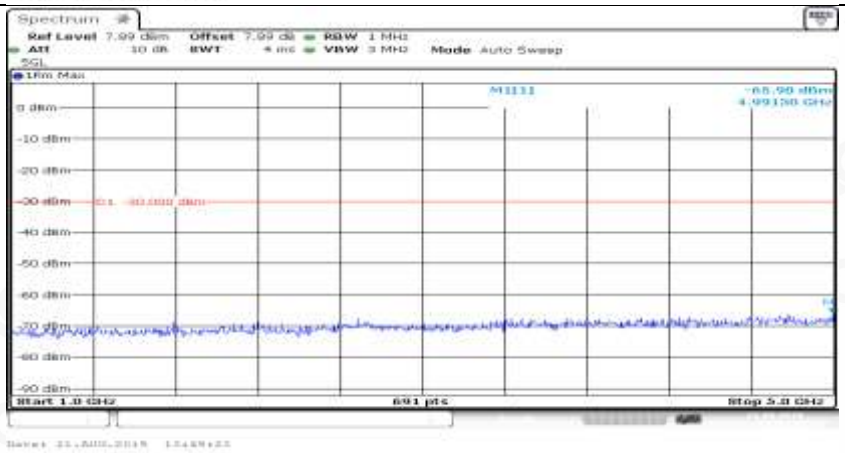
General	
General	
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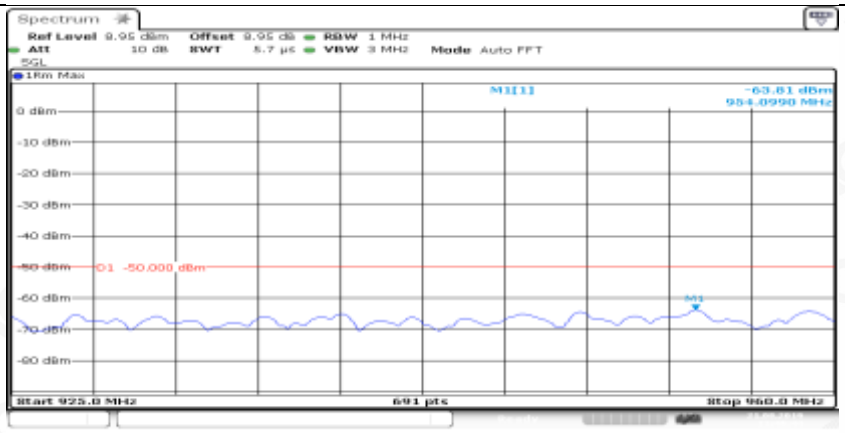
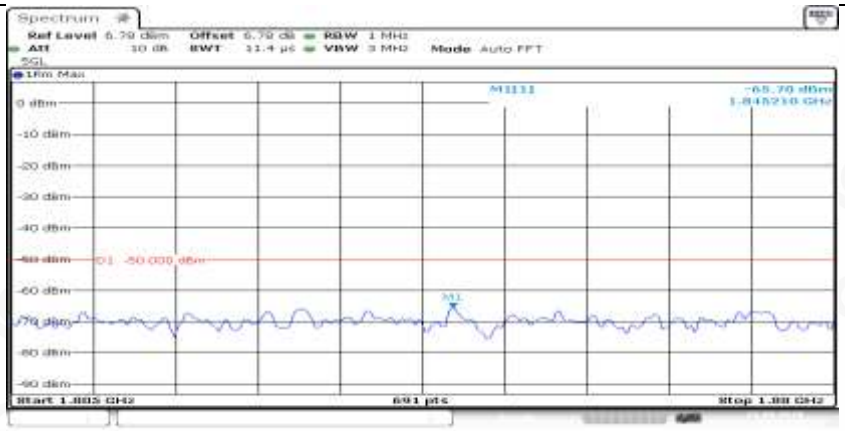
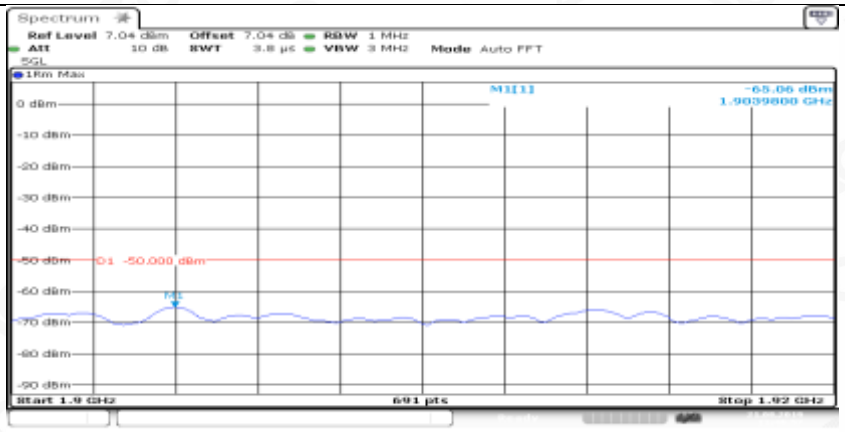
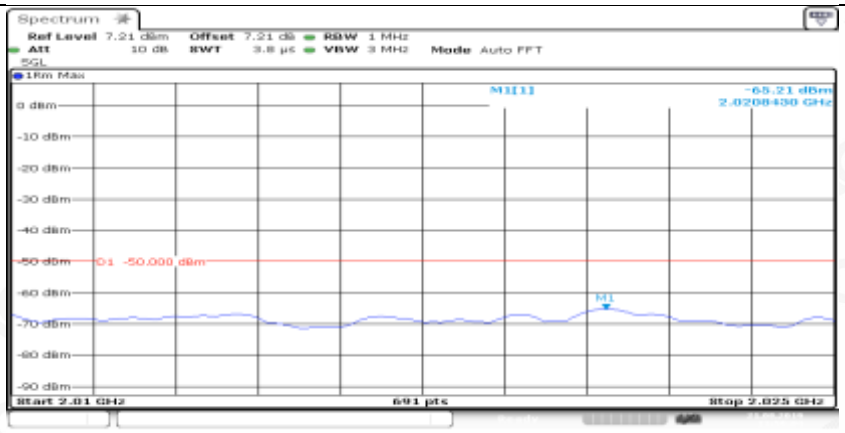
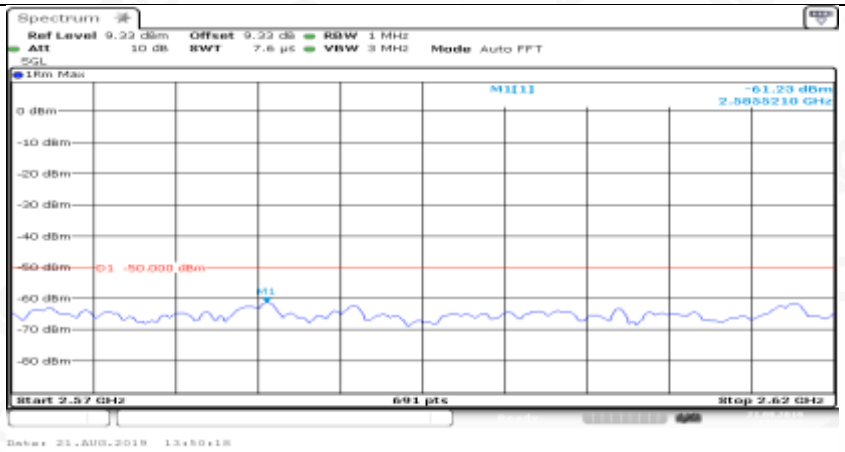
Co-existence	
Co-existence	
Co-existence	

Co-existence	
Co-existence	
Co-existence	

Co-existence	
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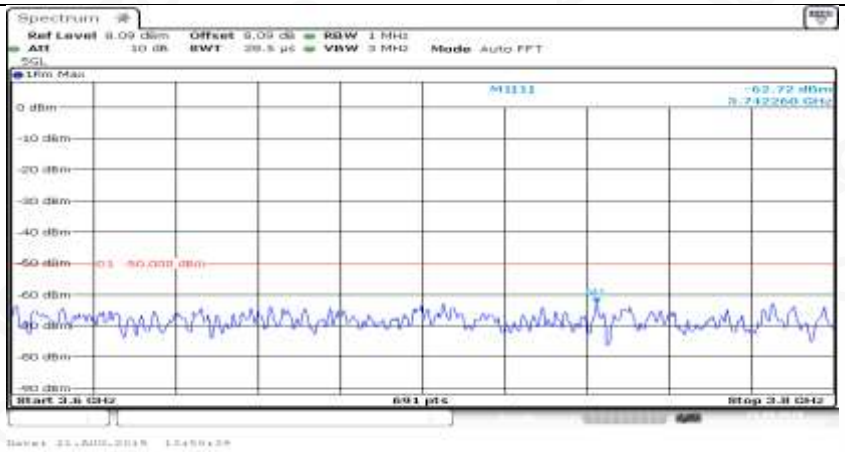
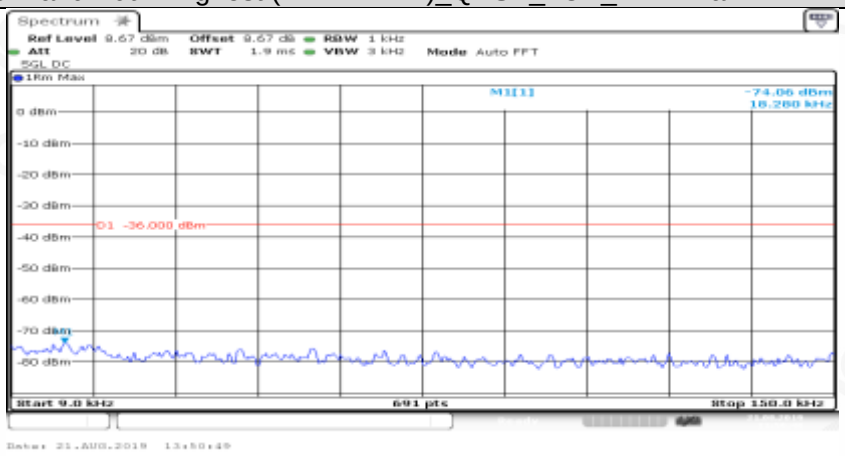
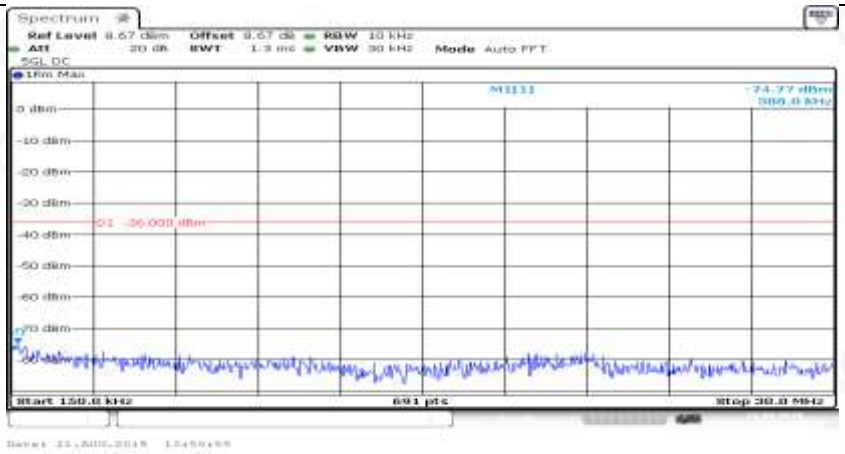
Co-existence	

Co-existence	
Additional	NA

Channel Bandwidth=Highest (#BWH MHz)_QPSK_LCH_1RB#max	
General	
General	

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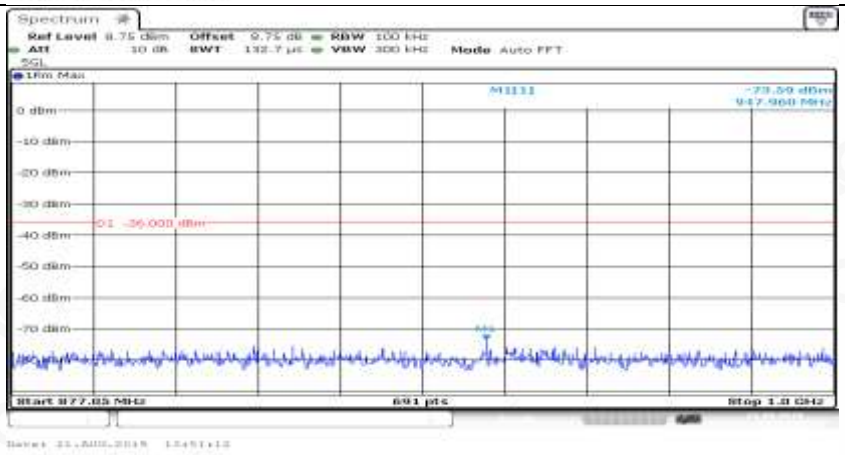
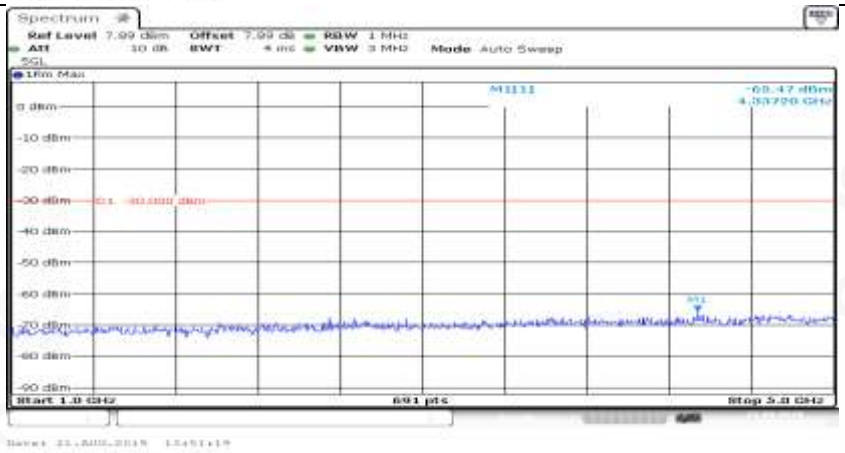
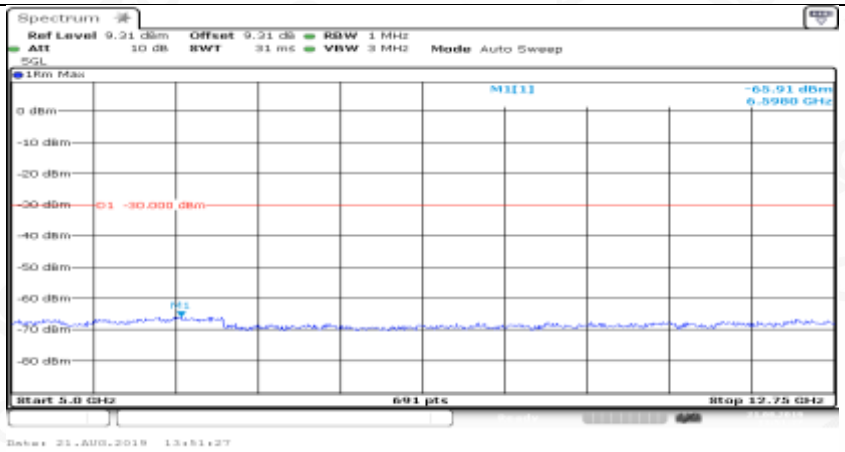
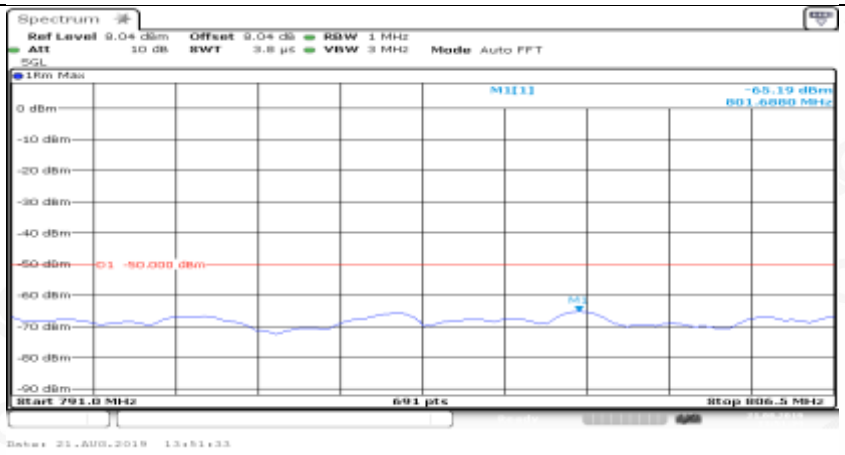
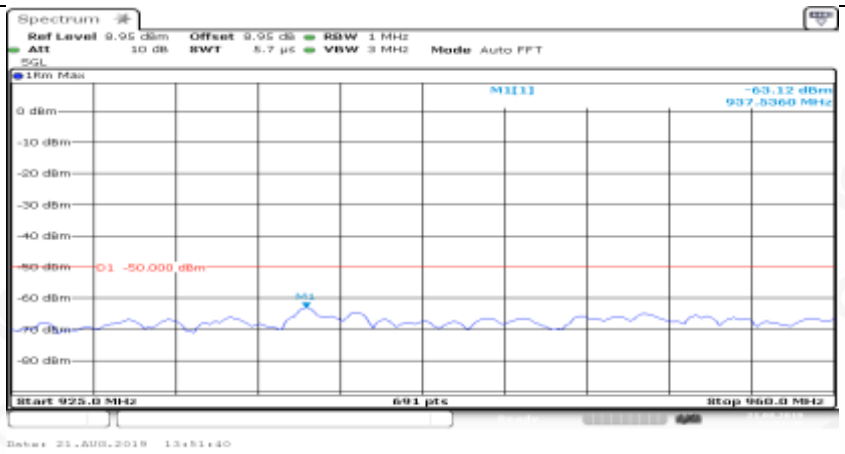
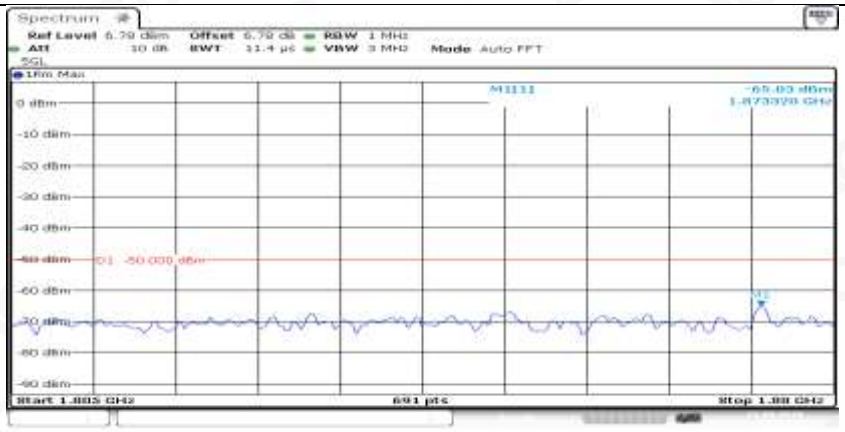
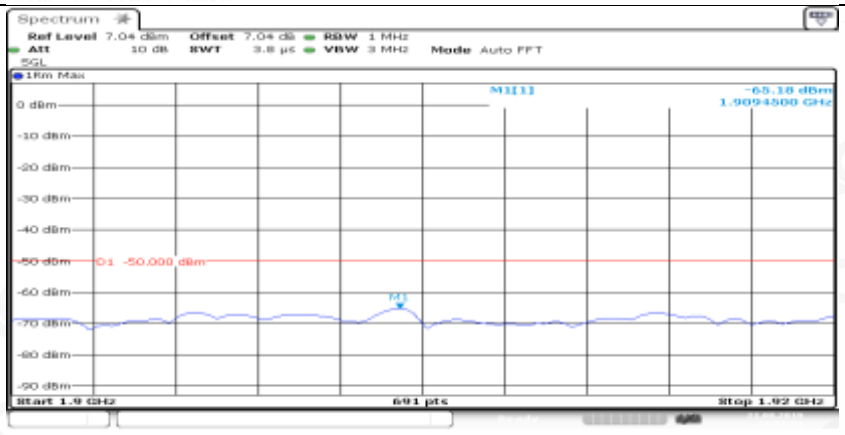
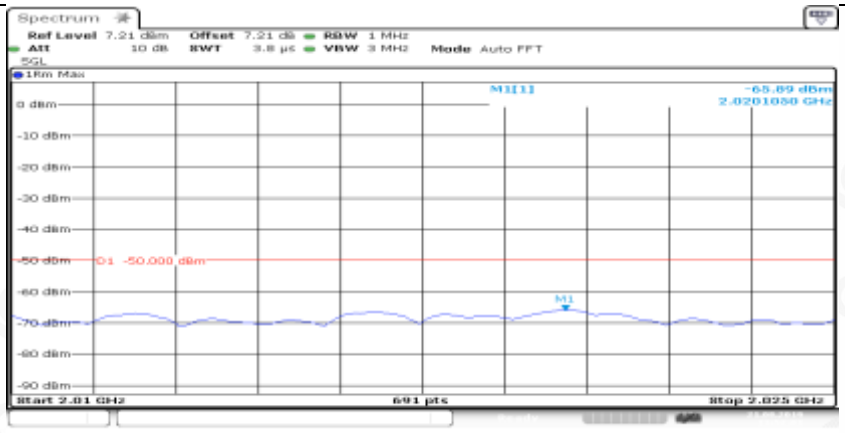
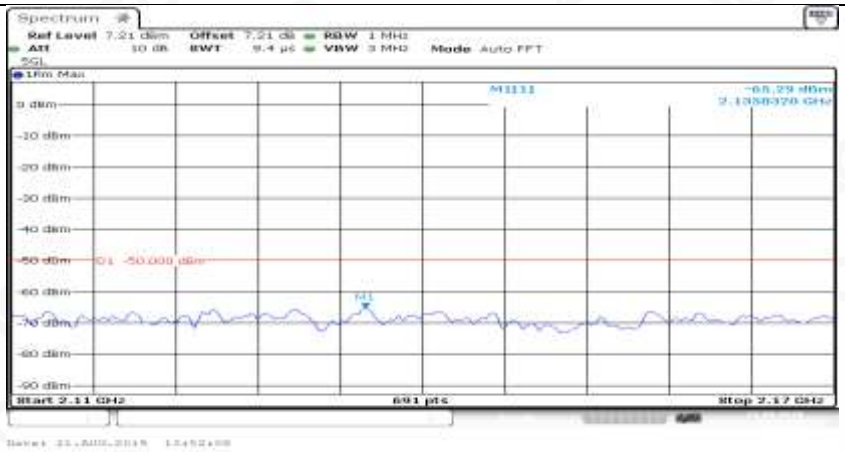
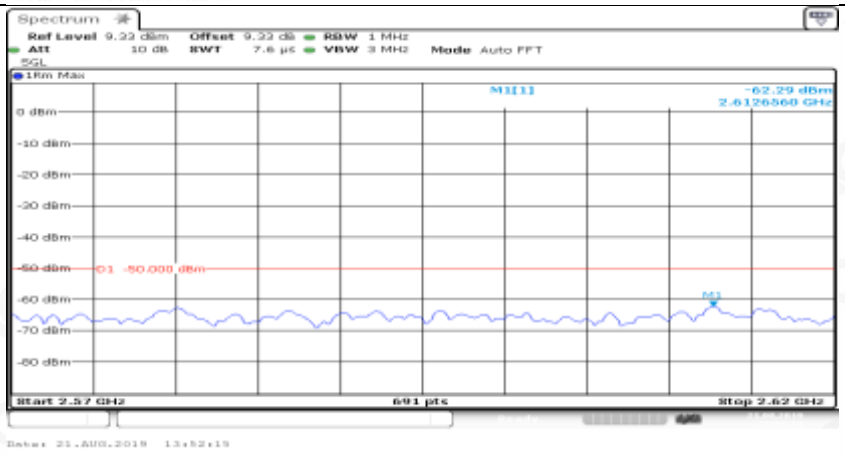
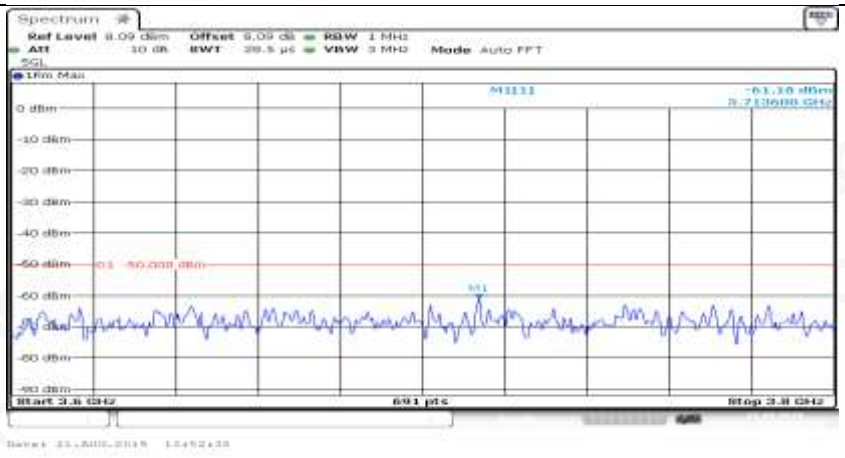
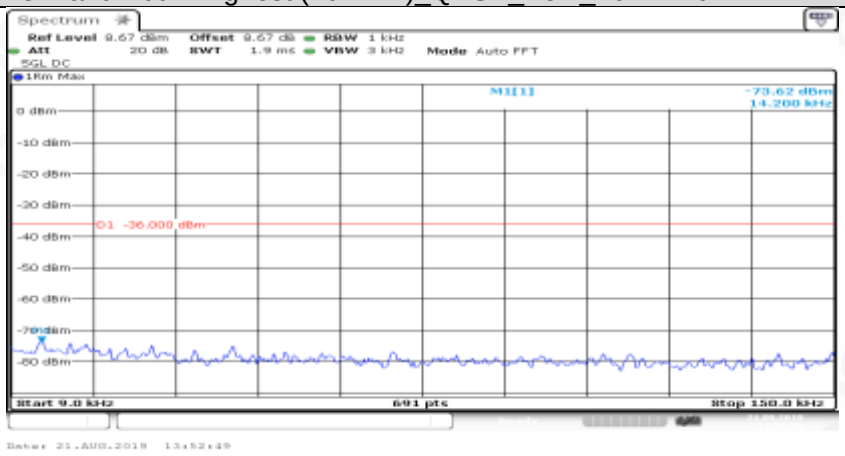
General	
General	

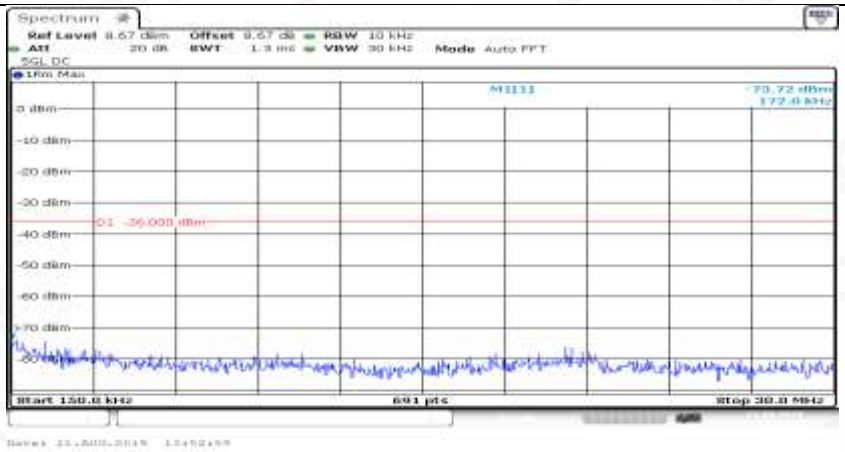
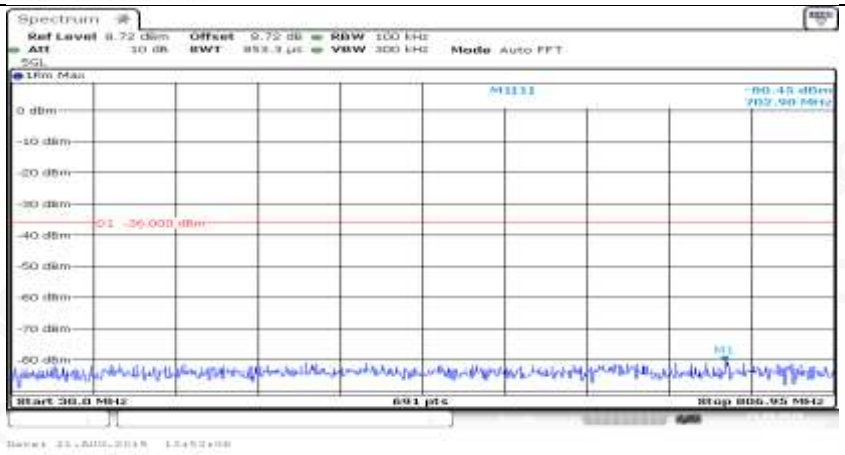
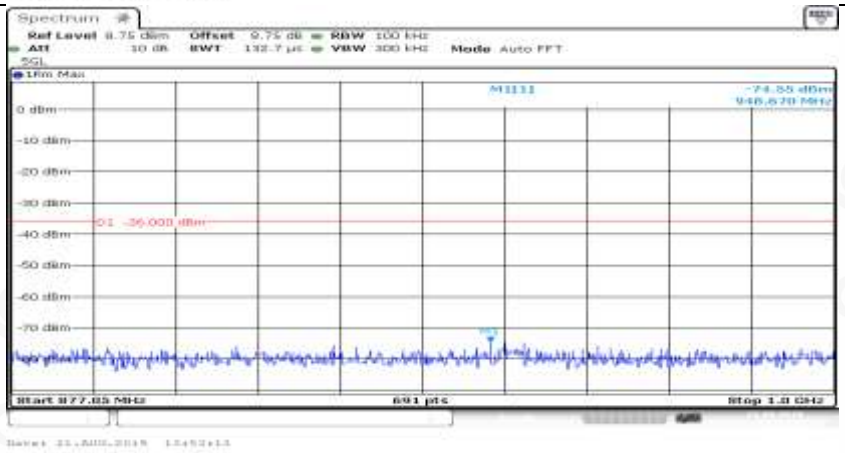
General	
Co-existence	
Co-existence	

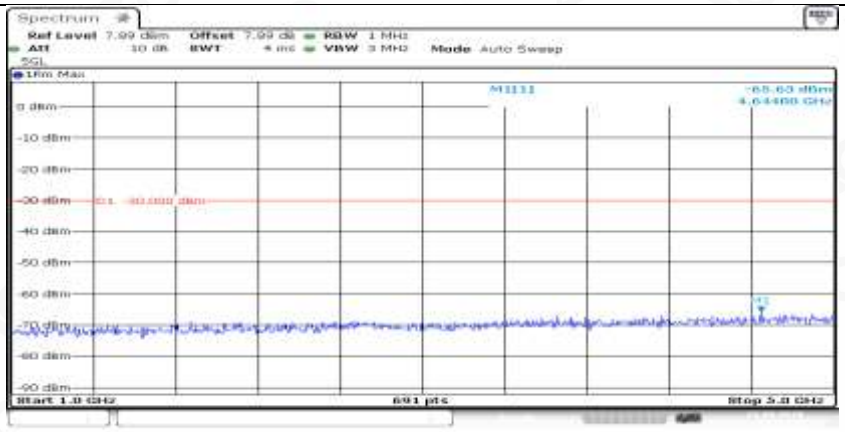
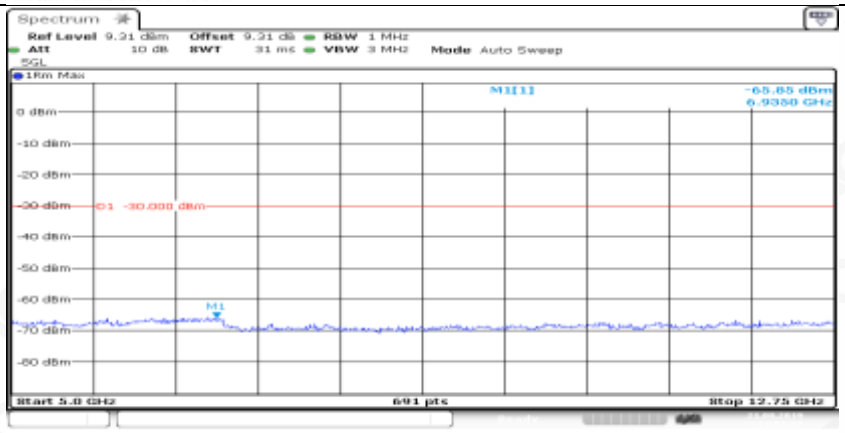
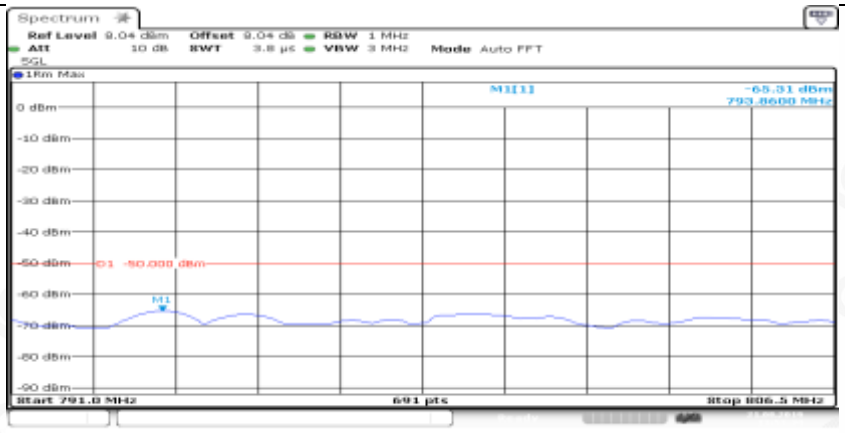
Co-existence	
Co-existence	
Co-existence	

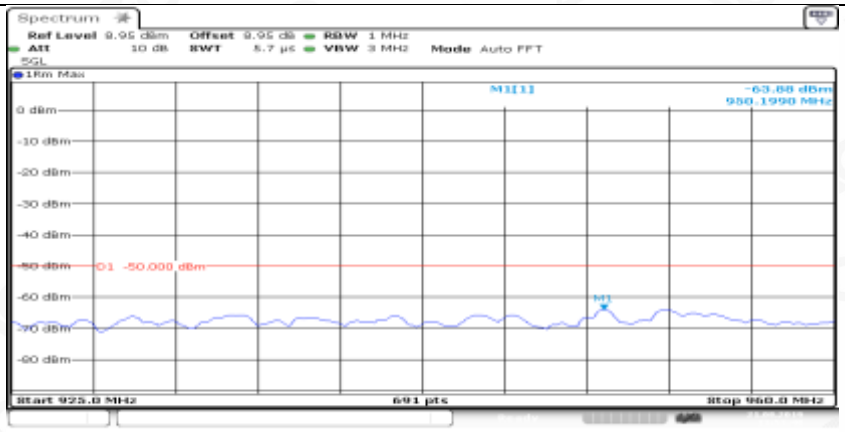
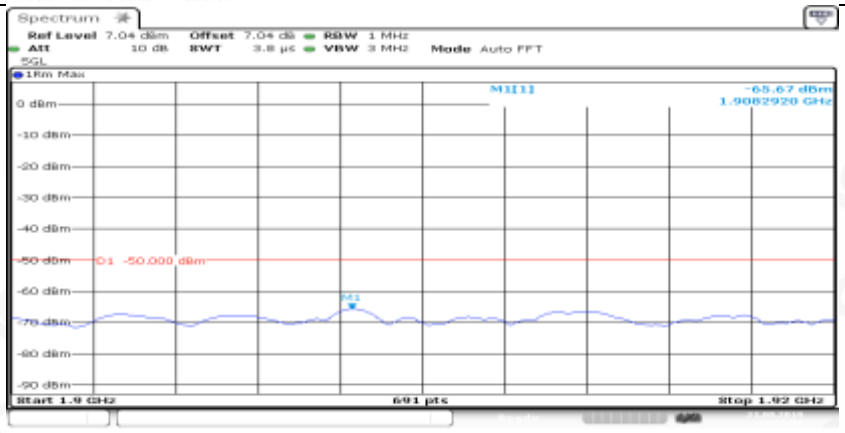
Co-existence	
Co-existence	
Co-existence	

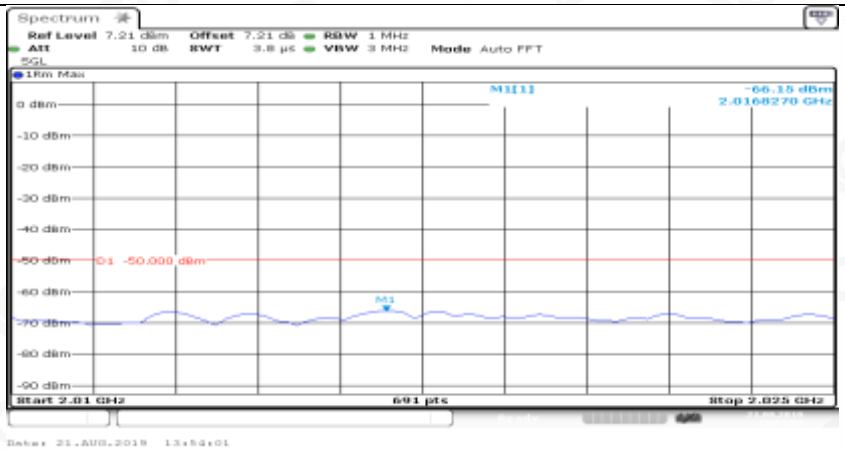
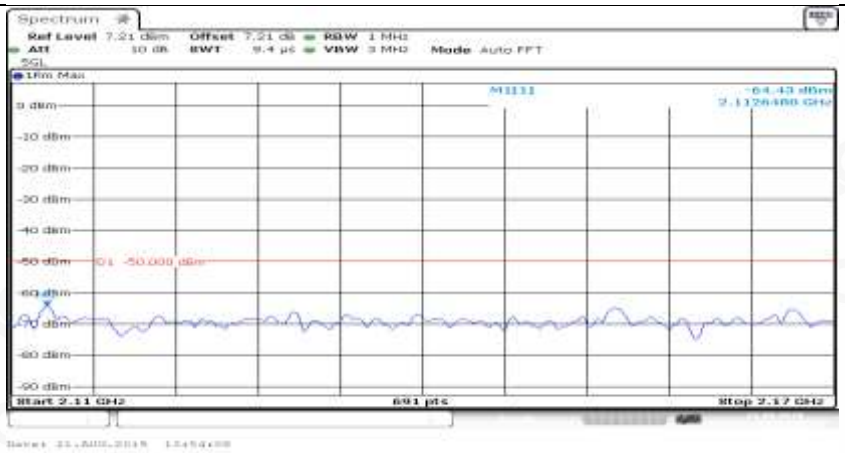
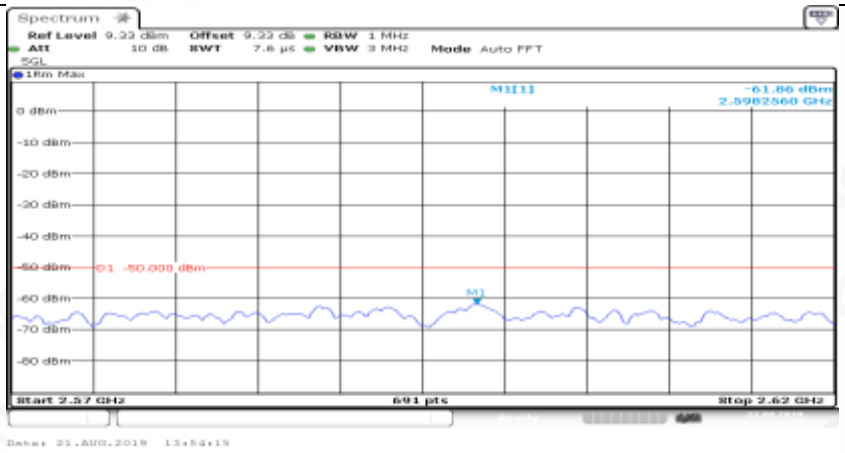
Co-existence	
Co-existence	
Additional	NA

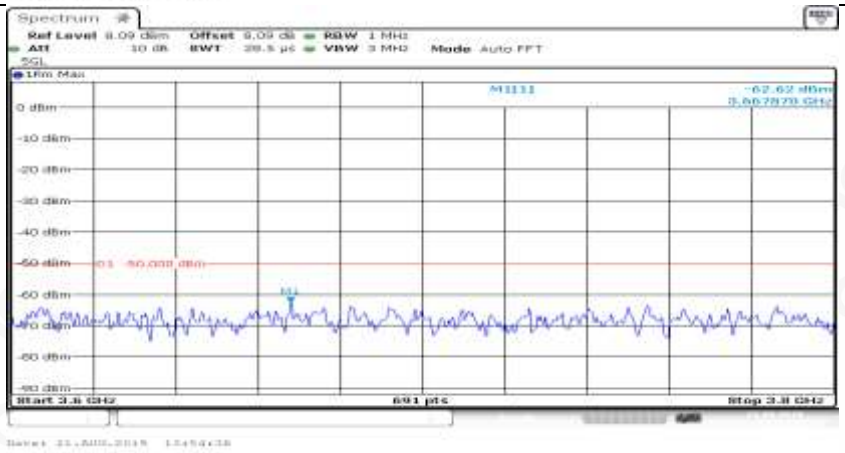
Channel Bandwidth=Highest (20 MHz)_QPSK_LCH_FullRB#0	
General	

General	
General	
General	

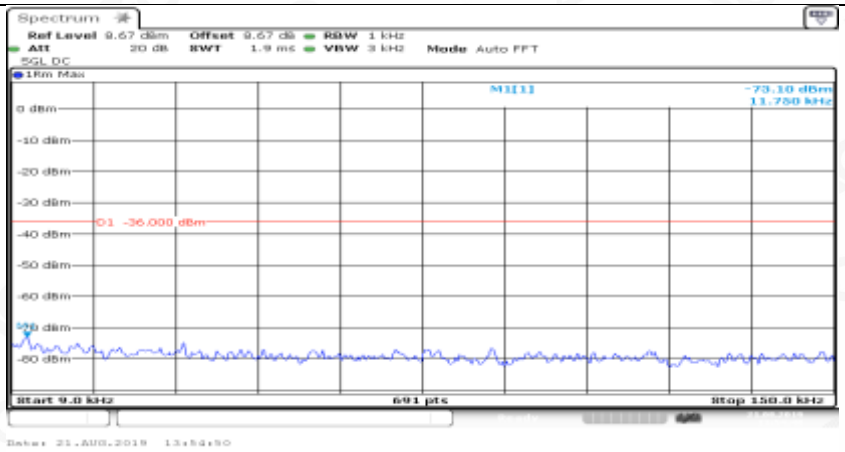
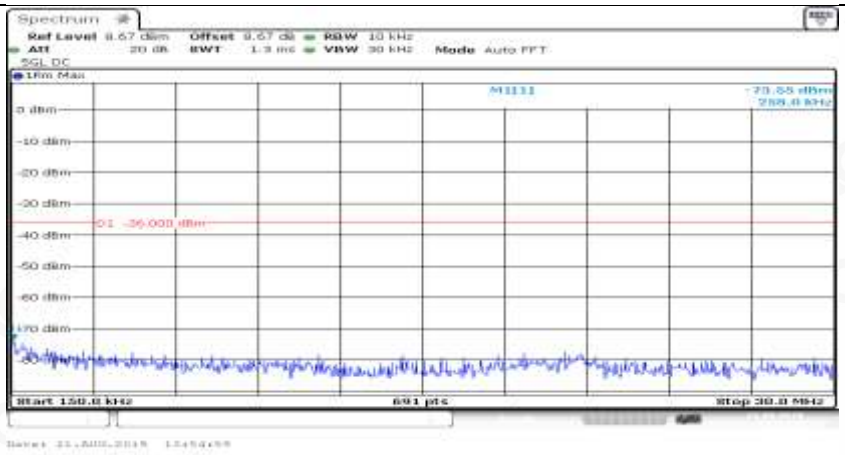
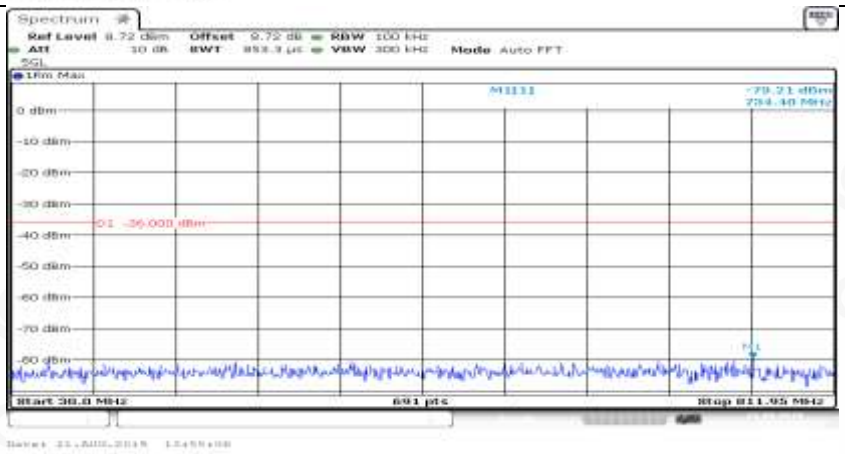
General	
General	
Co-existence	

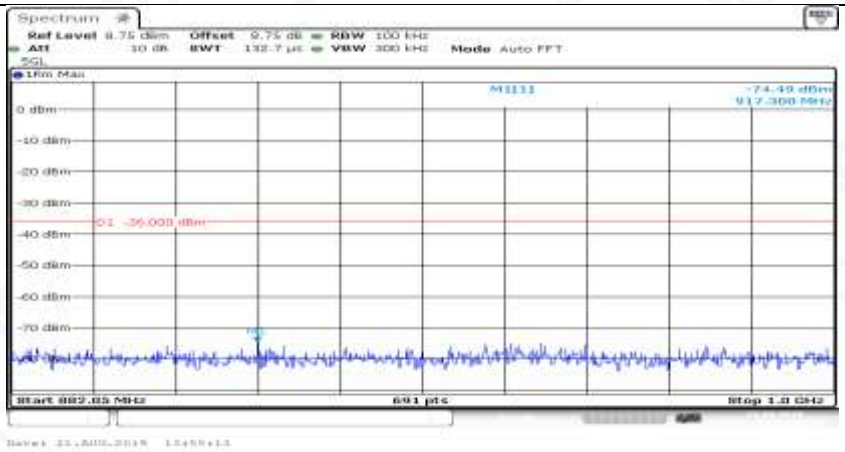
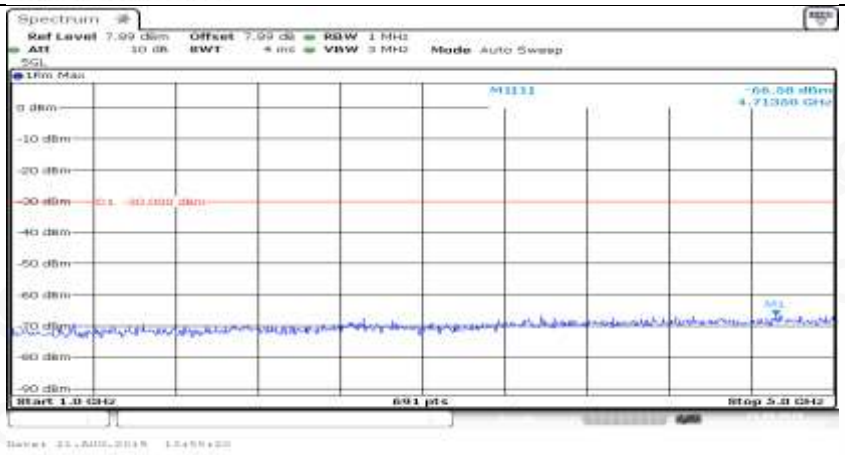
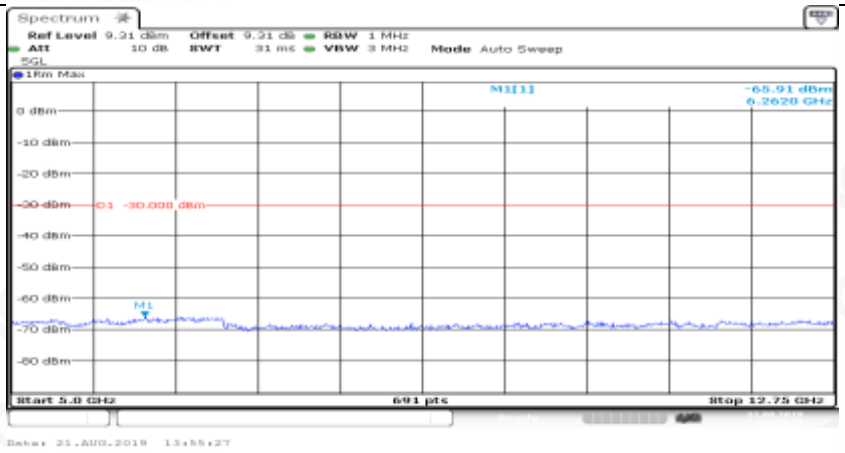
Co-existence	
Co-existence	
Co-existence	

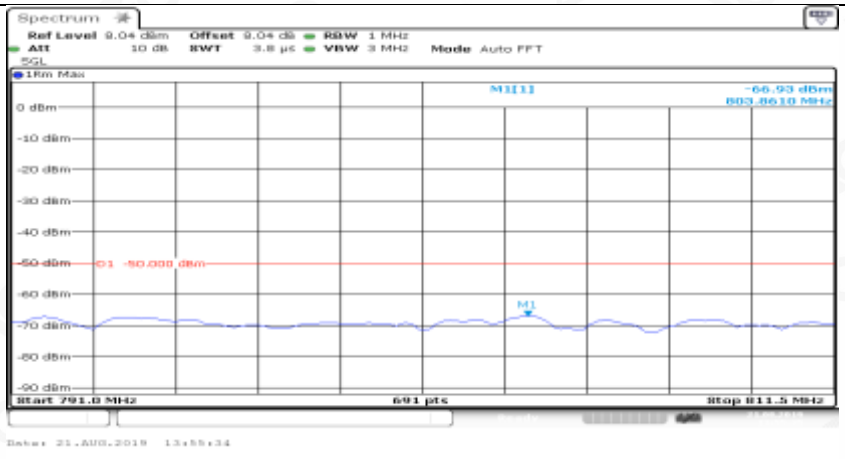
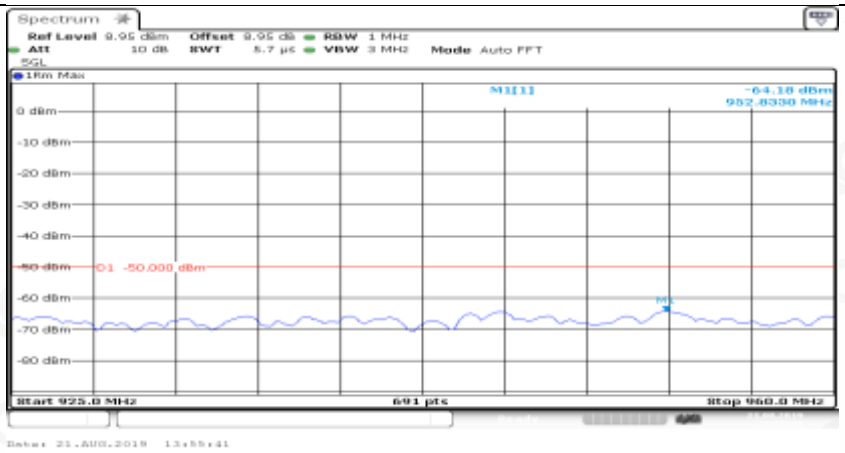
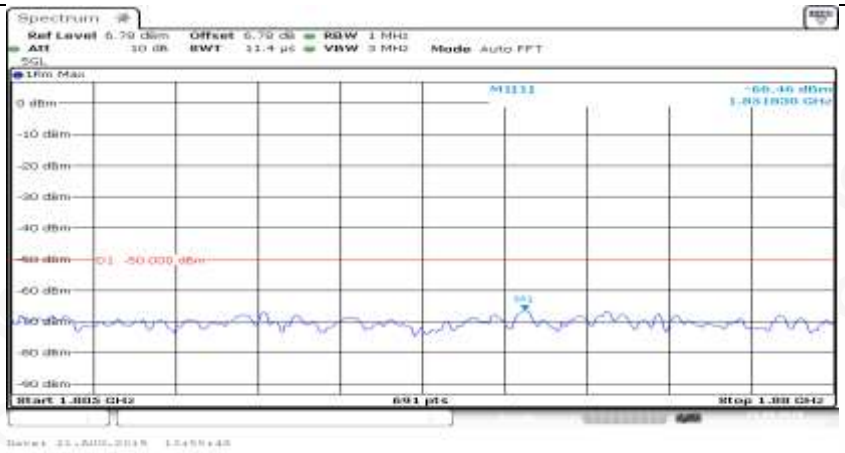
Co-existence	
Co-existence	
Co-existence	

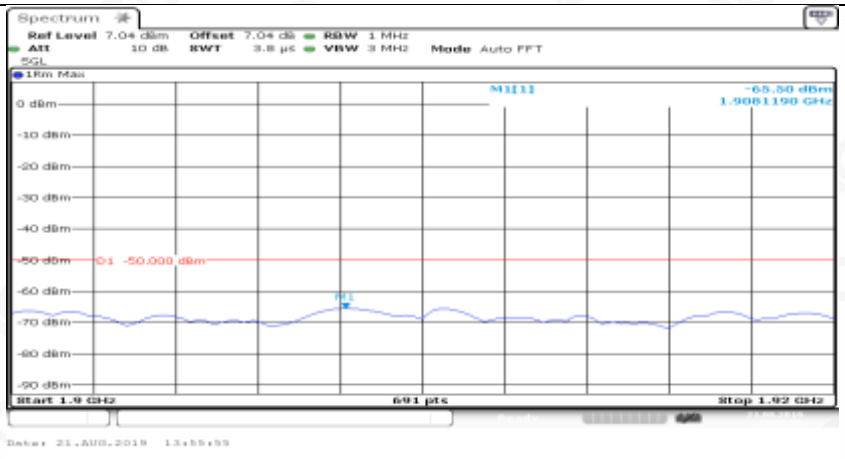
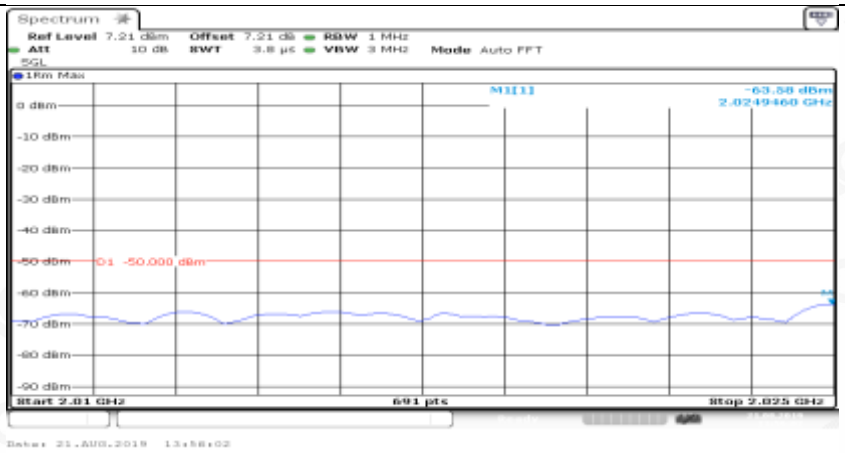
Co-existence	
Co-existence	
Co-existence	
Additional	NA

Channel Bandwidth=Highest (20 MHz)_QPSK_MCH_1RB#0

General	
General	
General	

General	
General	
General	

Co-existence	
Co-existence	
Co-existence	

Co-existence	
Co-existence	
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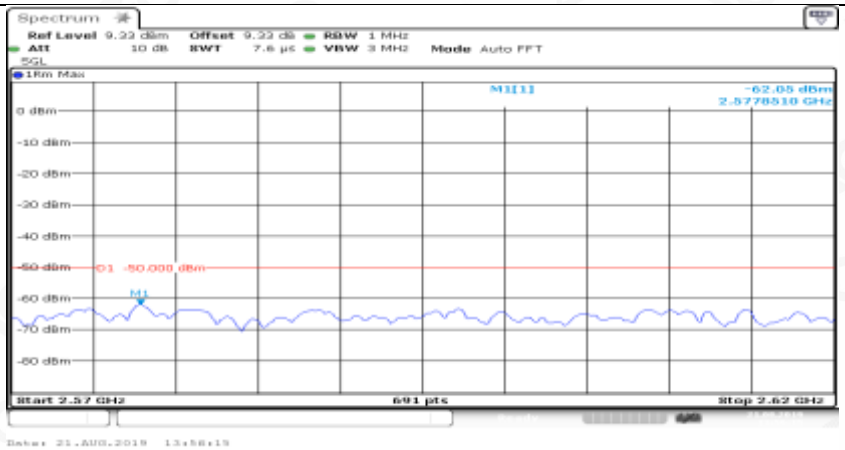
Co-existence	
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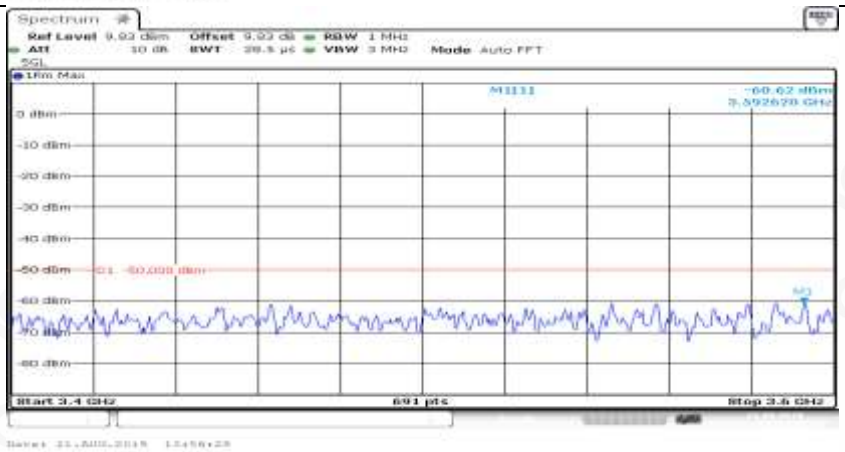
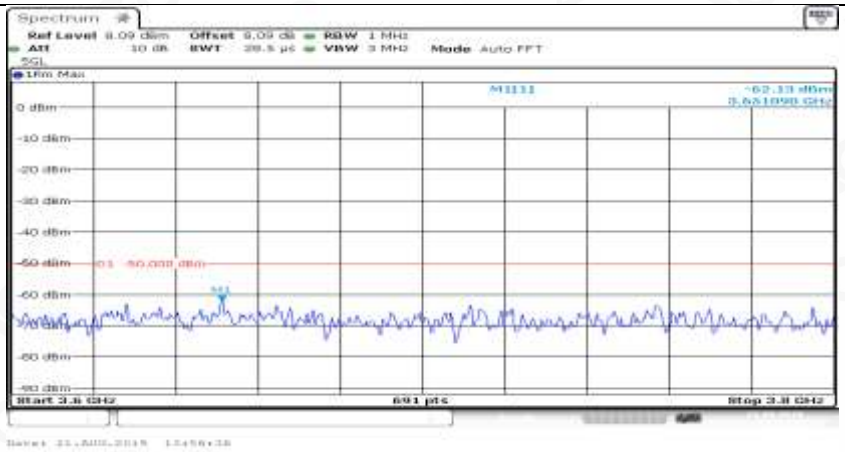
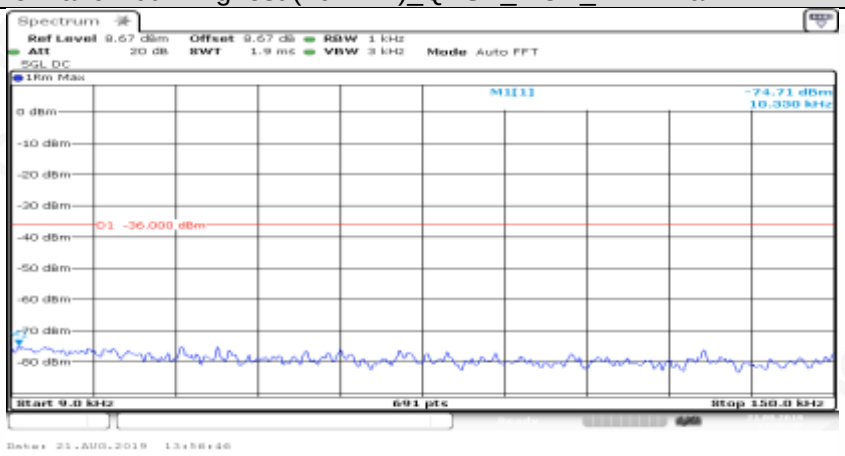
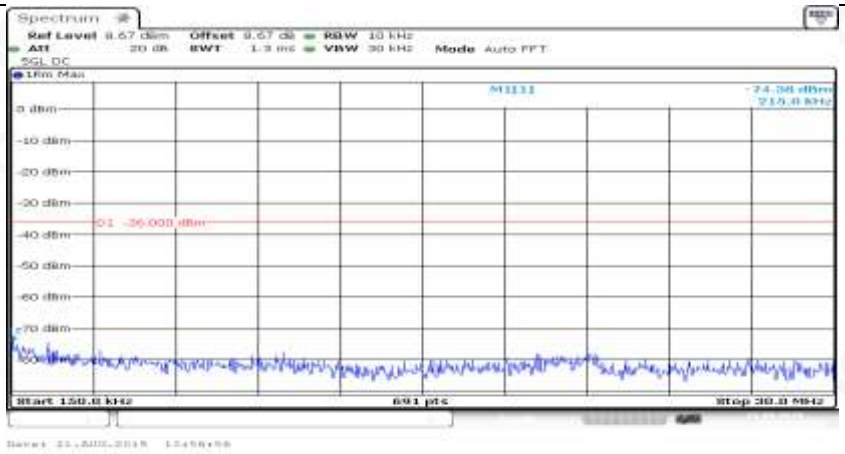
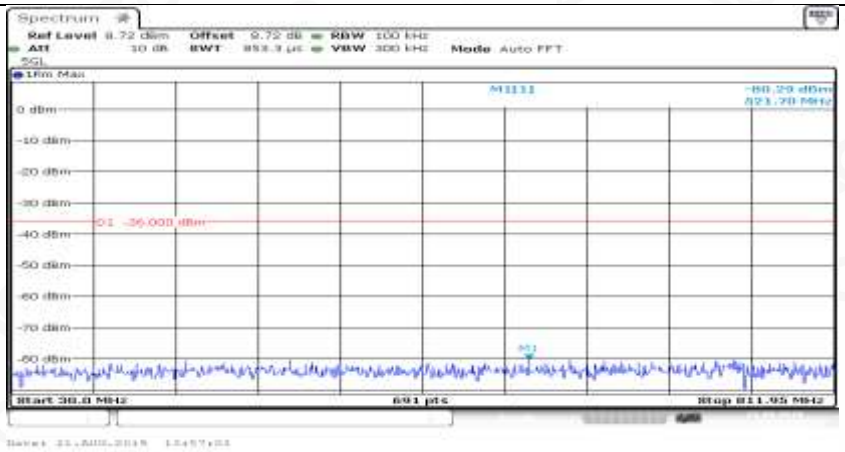
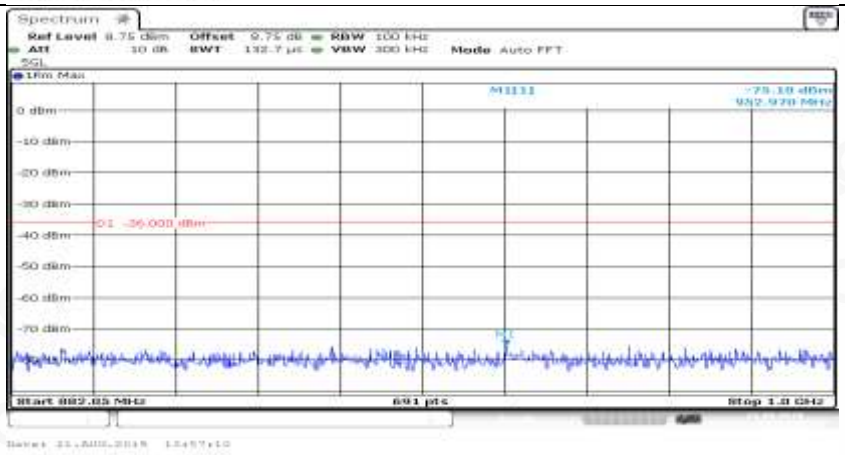
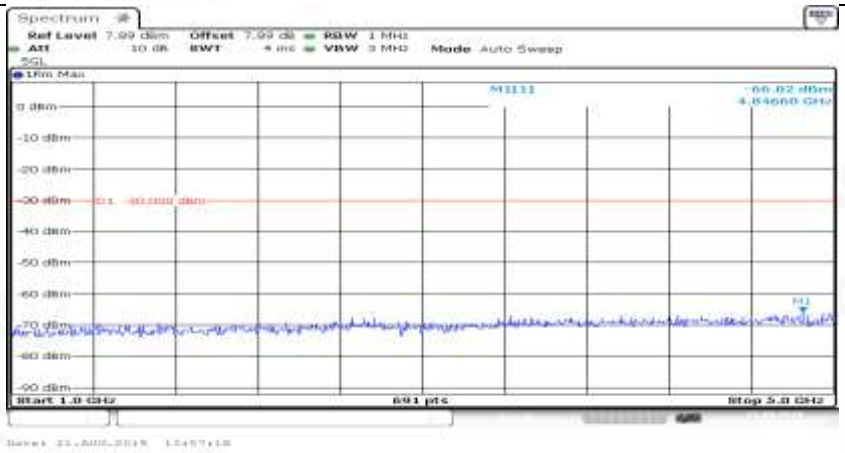
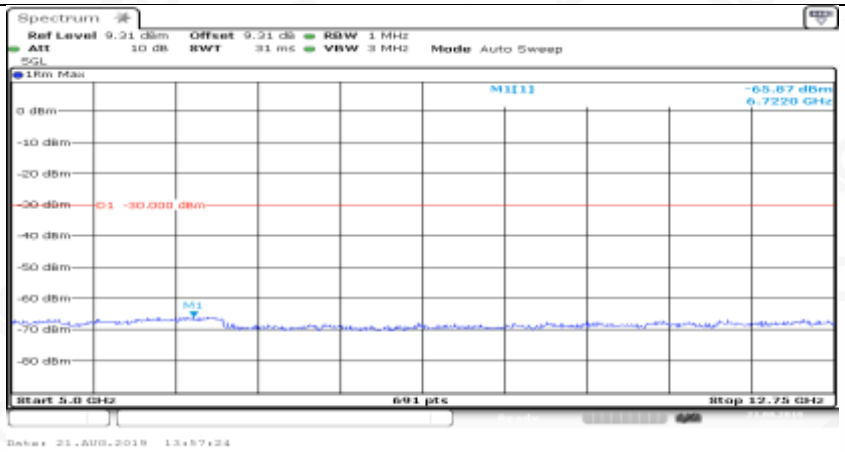
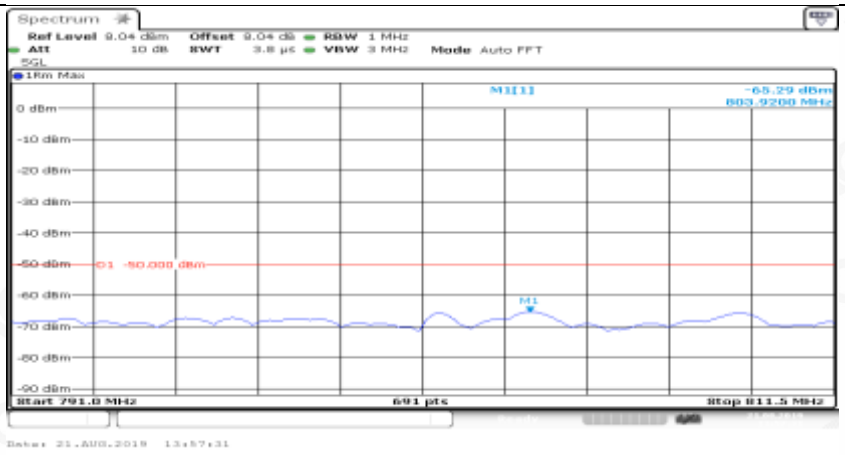
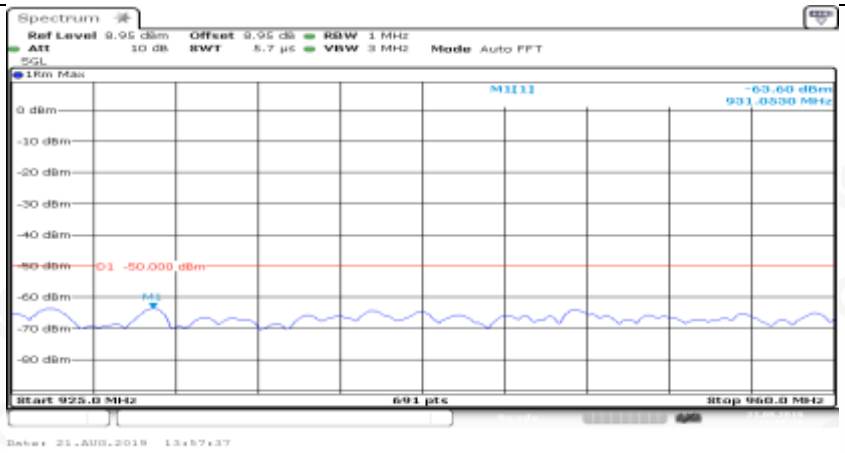
Co-existence	

Co-existence	
Additional	NA

Channel Bandwidth=Highest (20 MHz)_QPSK_MCH_1RB#max	
General	
General	

General	
General	
General	

General	
Co-existence	
Co-existence	

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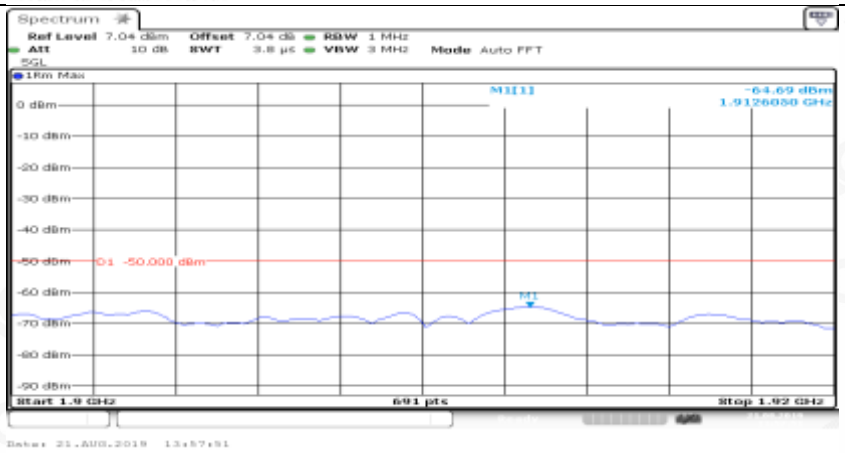
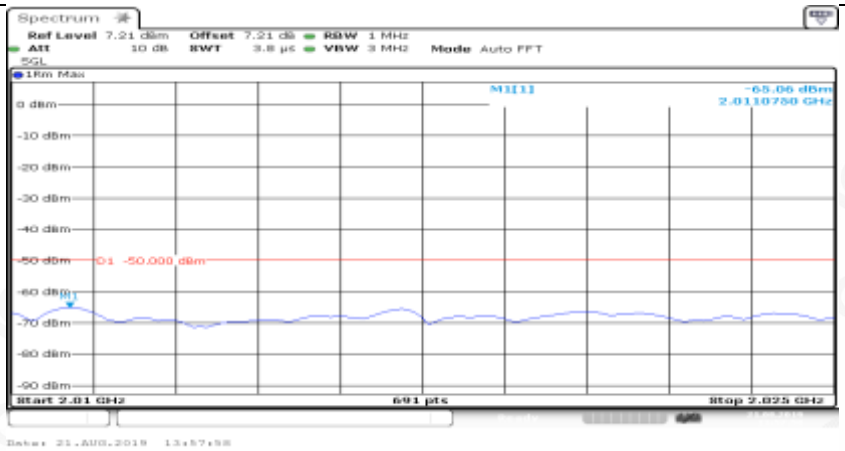
Co-existence	
Co-existence	

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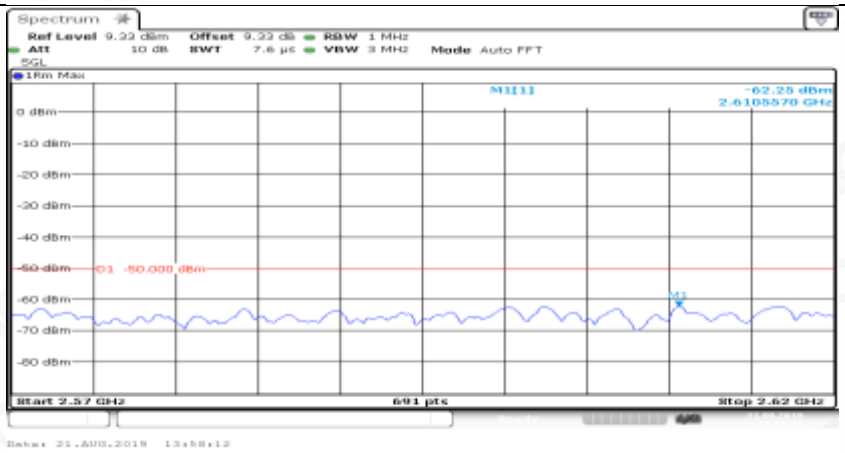
Co-existence	
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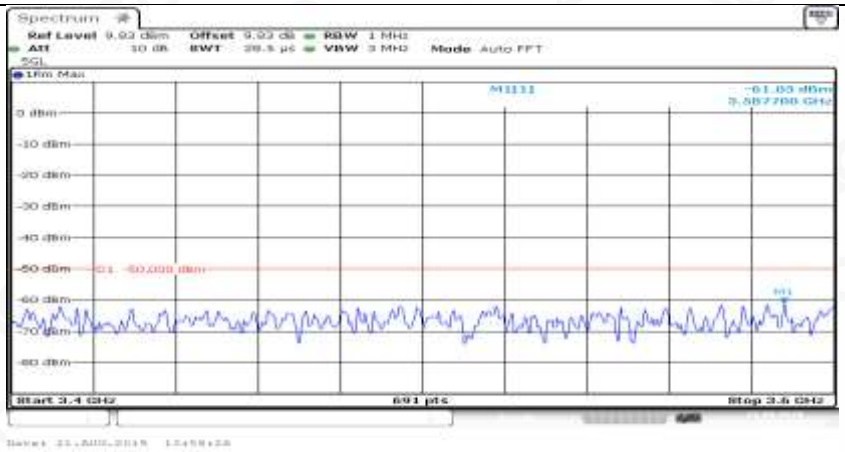
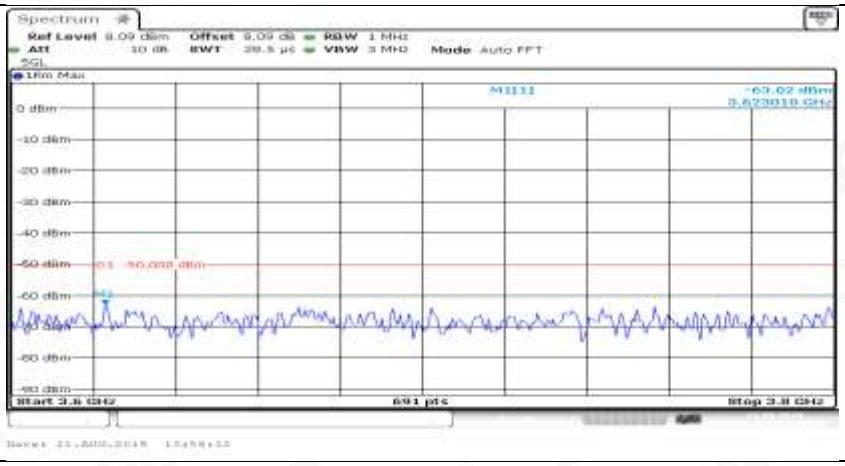
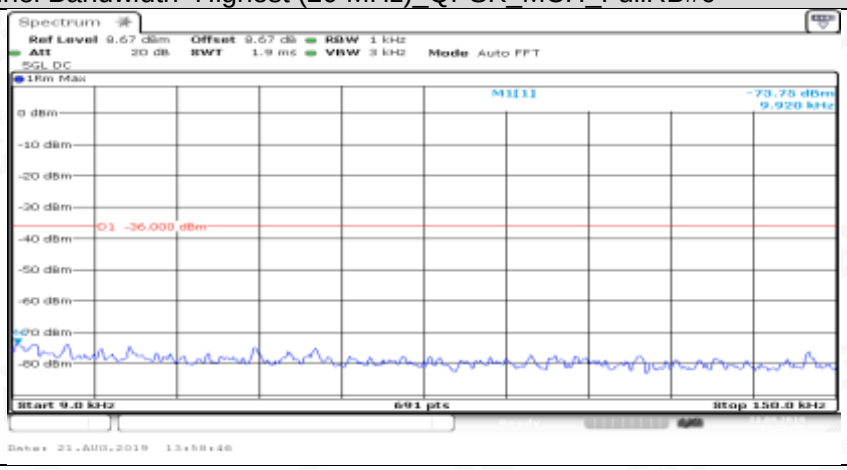
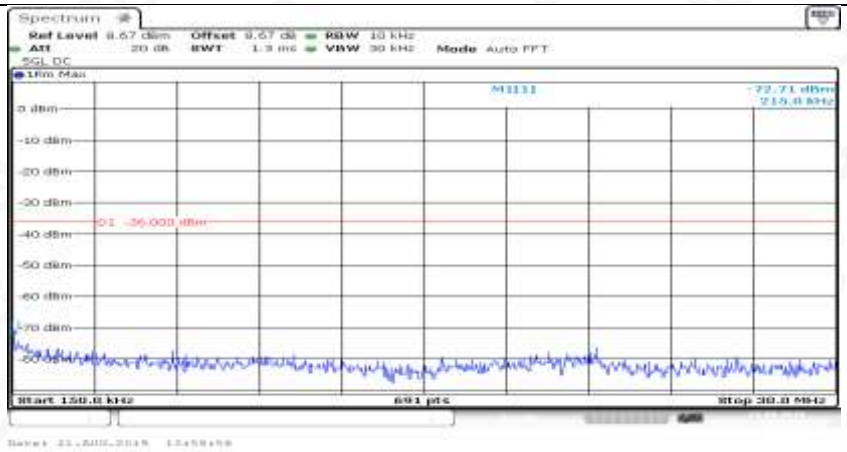
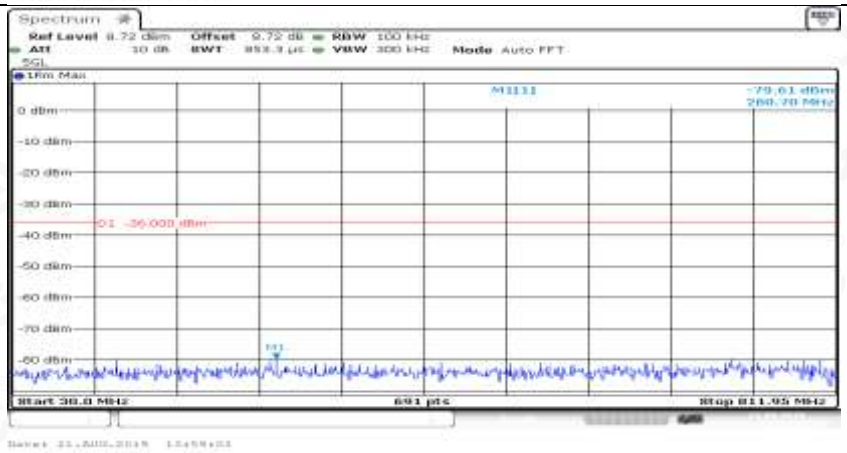
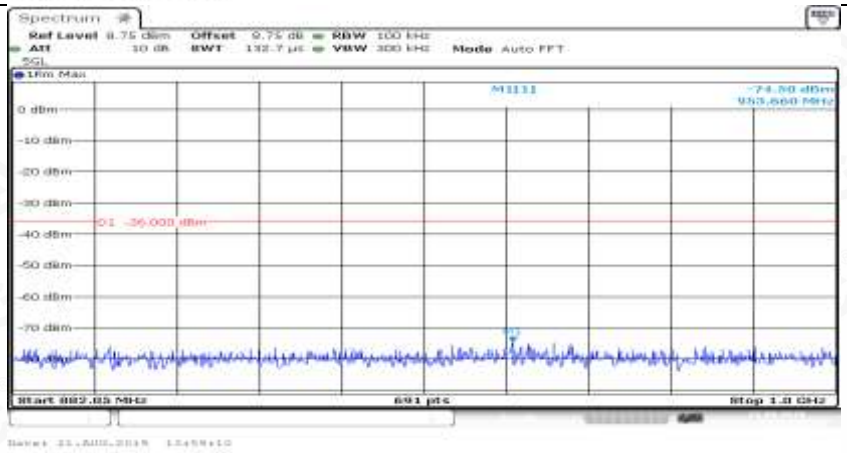
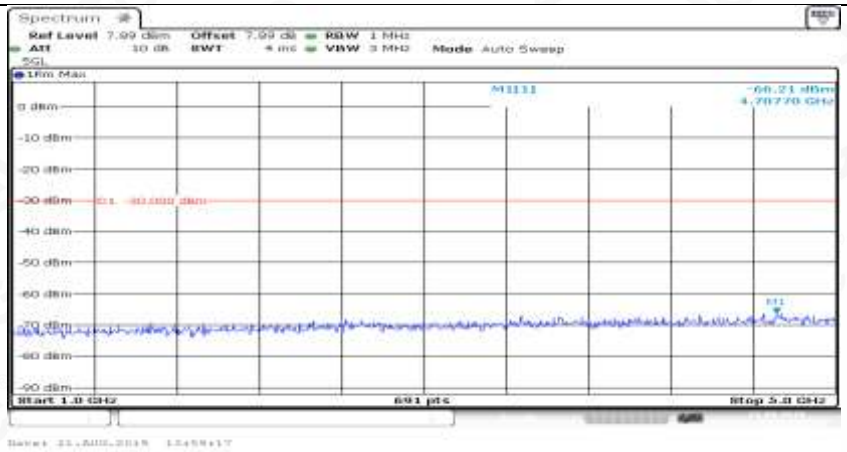
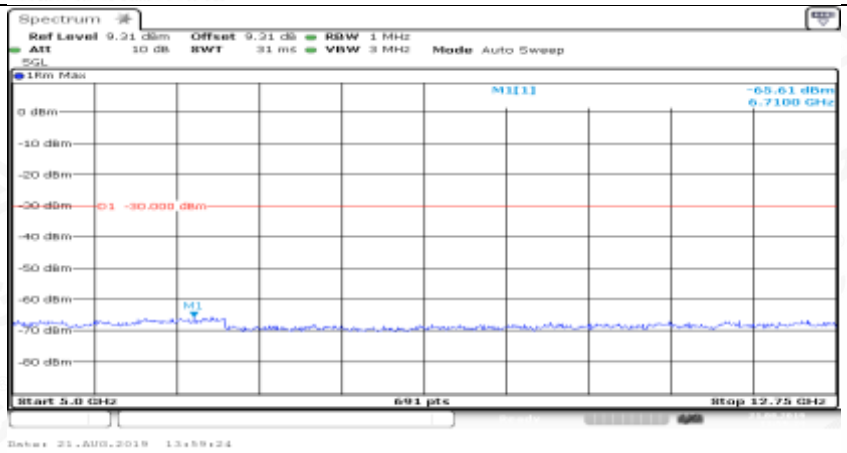
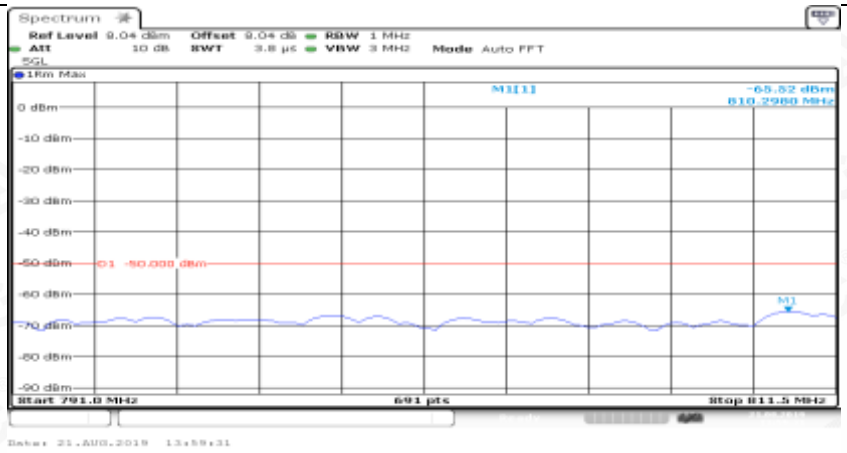
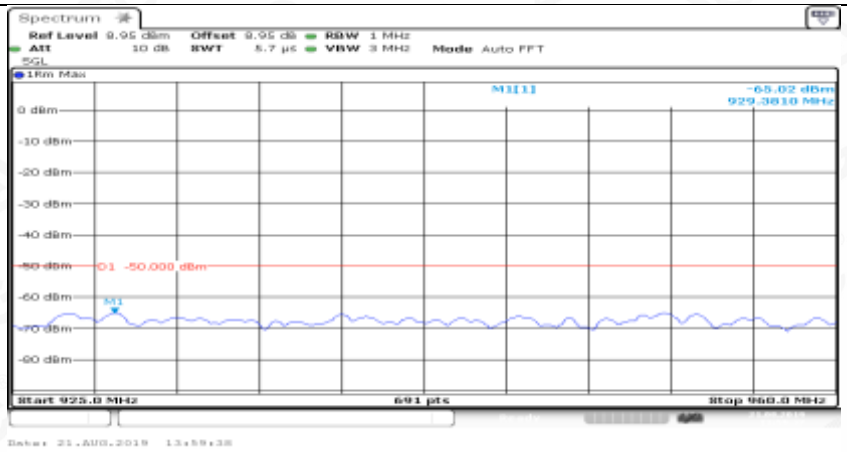
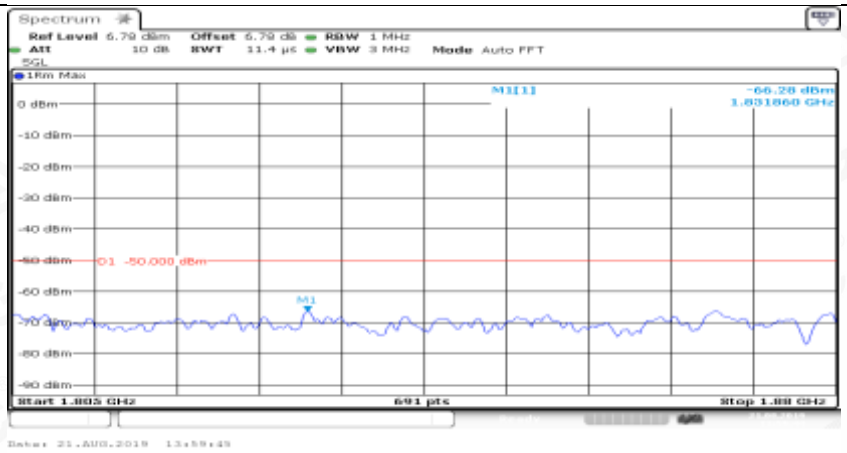
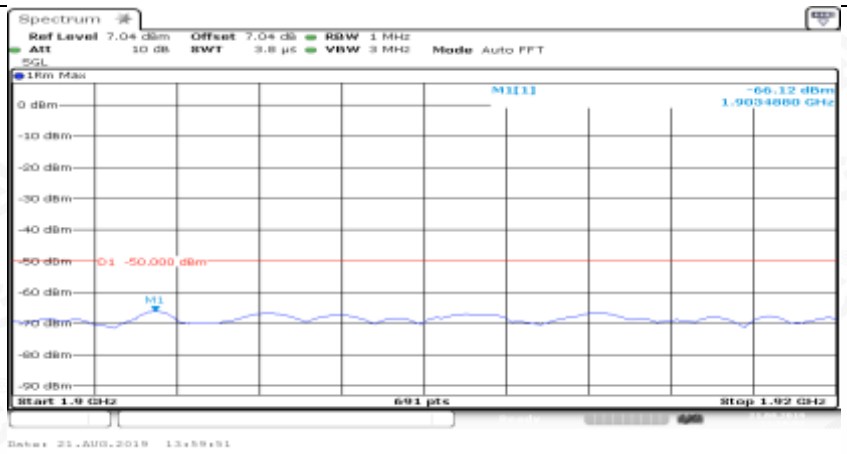
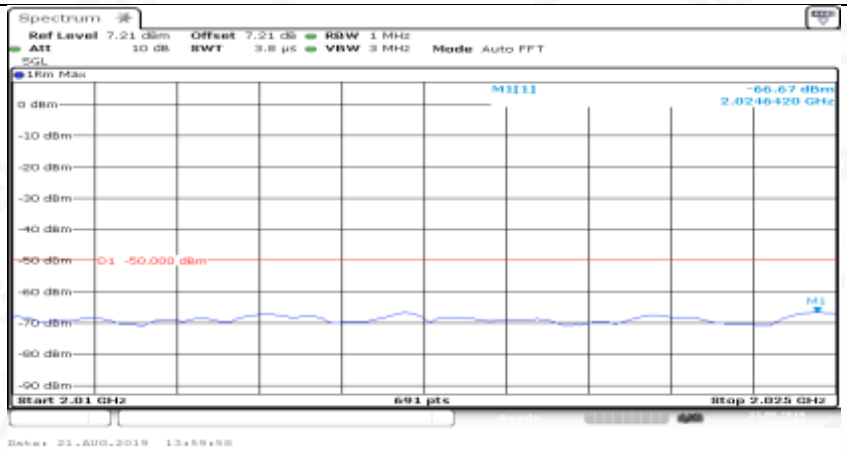
Co-existence	
Co-existence	
Additional	NA

Channel Bandwidth=Highest (20 MHz)_QPSK_MCH_FullRB#0	
General	

General		
General		
General		

General		
General		
Co-existence		

Co-existence		
Co-existence		
Co-existence		

Co-existence		
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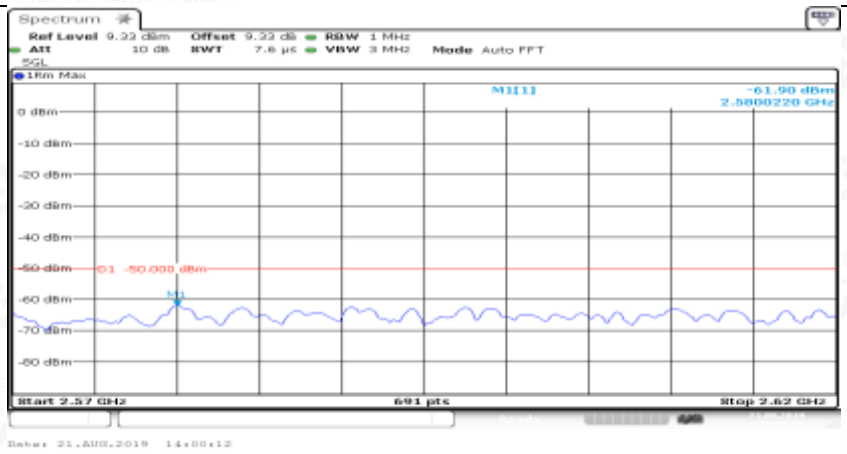
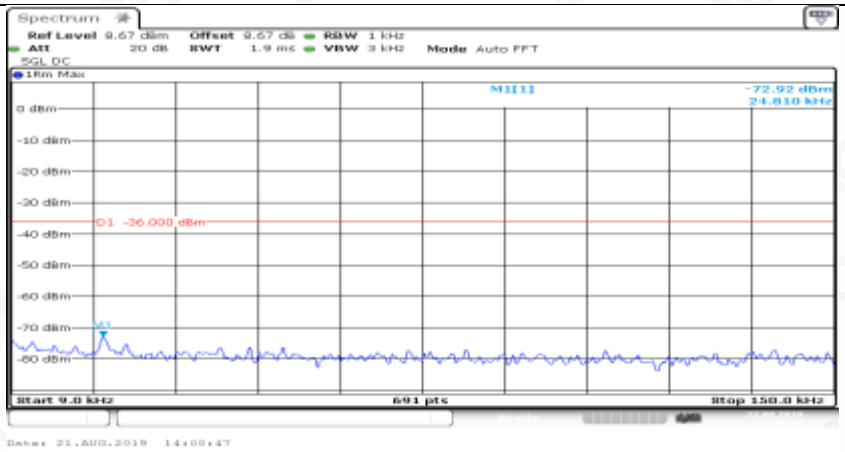
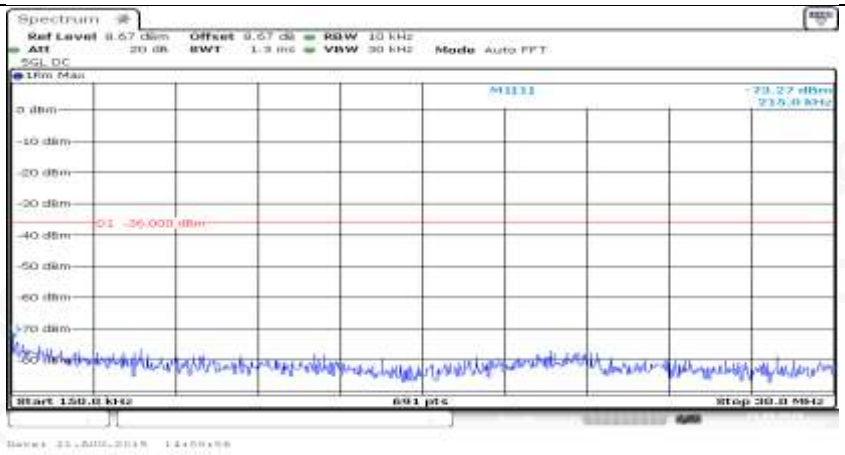
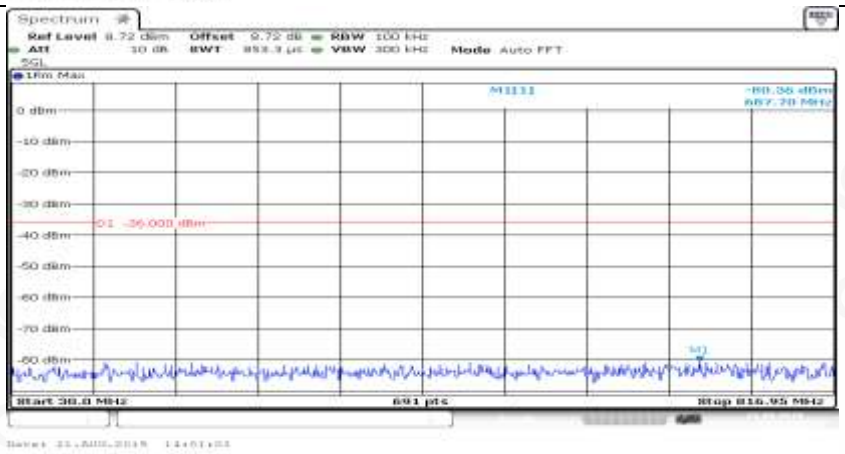
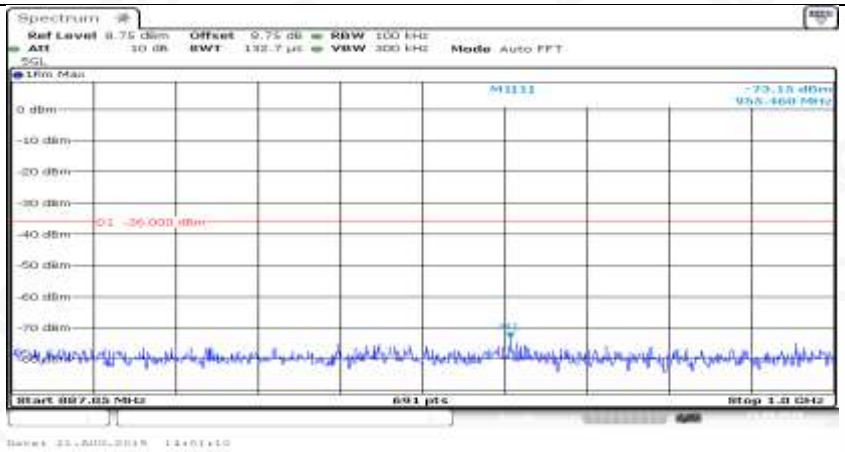
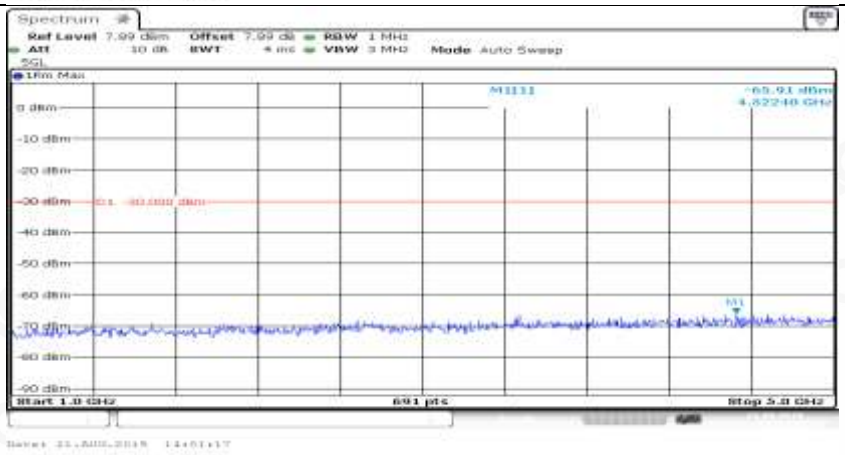
Co-existence		

Co-existence	
Co-existence	
Co-existence	
Additional	NA

Channel Bandwidth=Highest (20 MHz)_QPSK_HCH_1RB#0

General	
General	
General	

General	
General	
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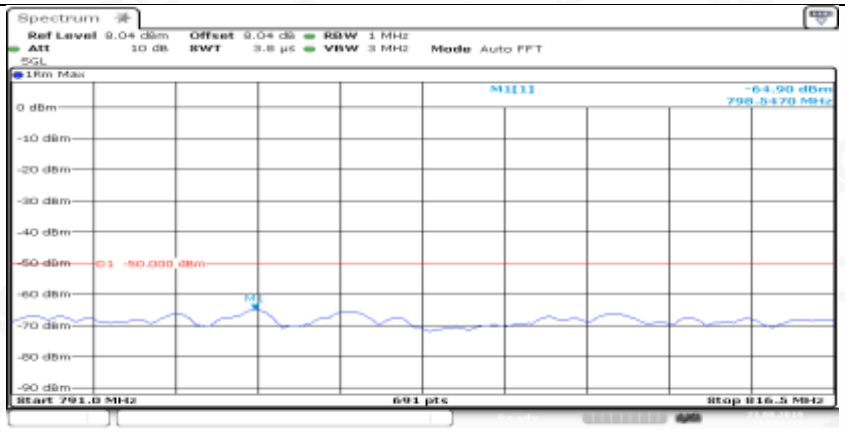
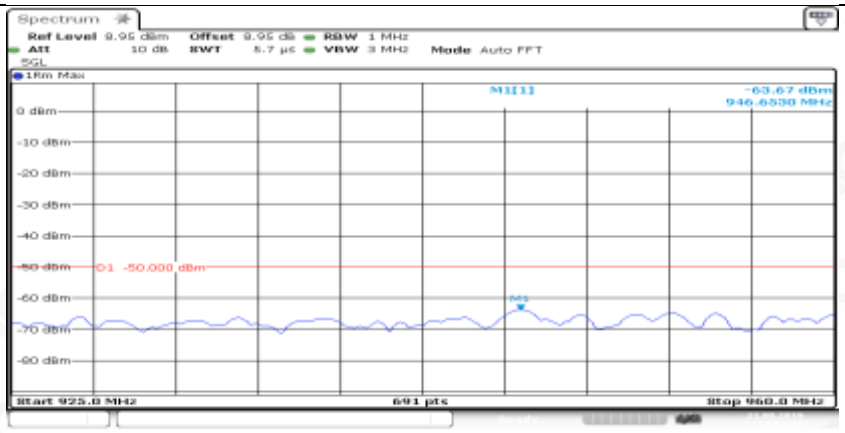
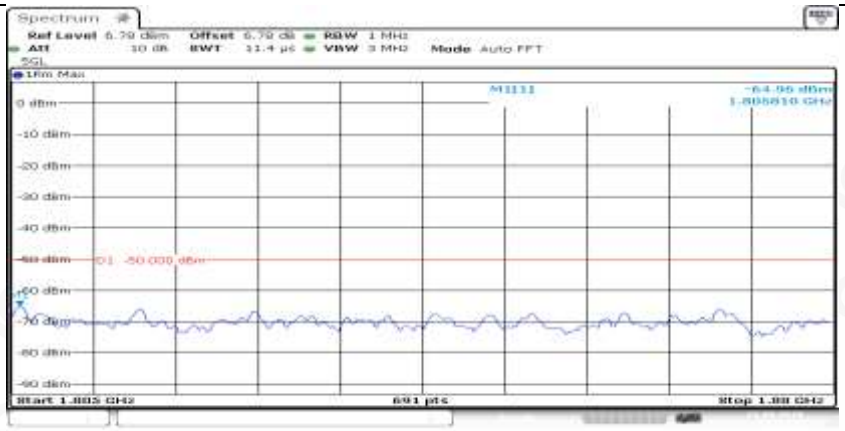
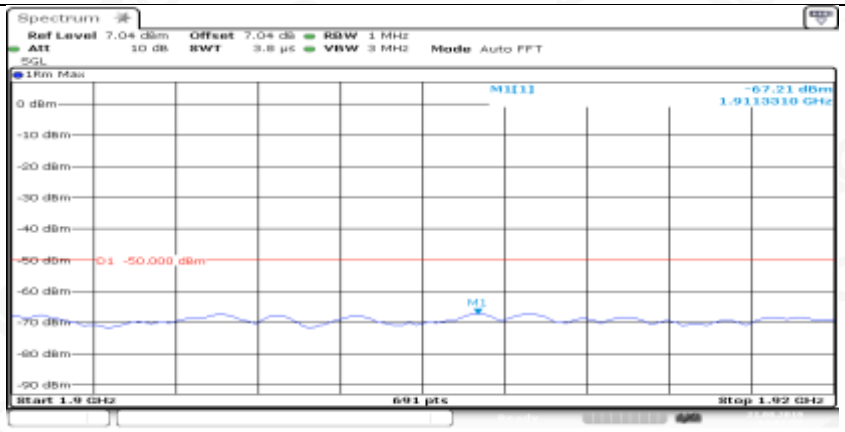
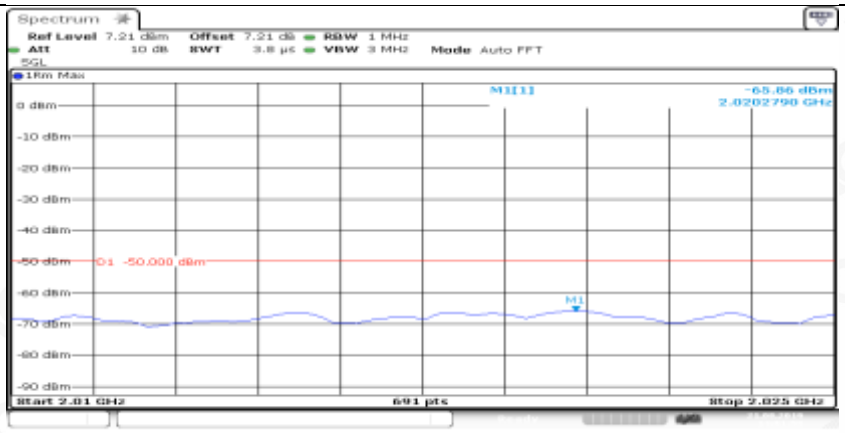
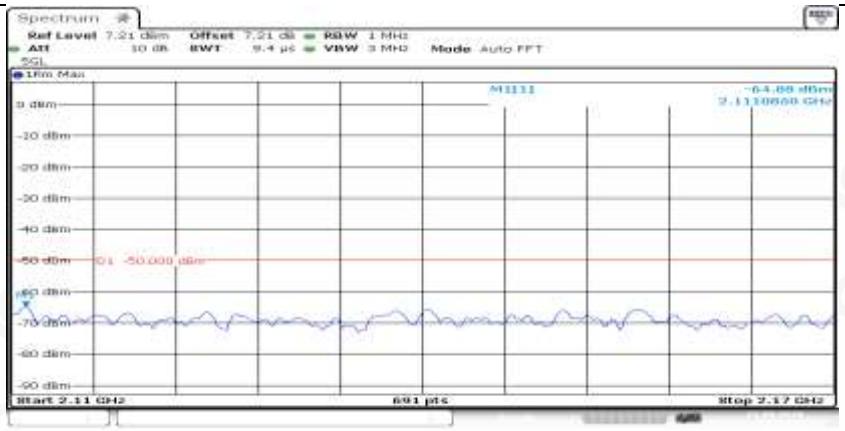
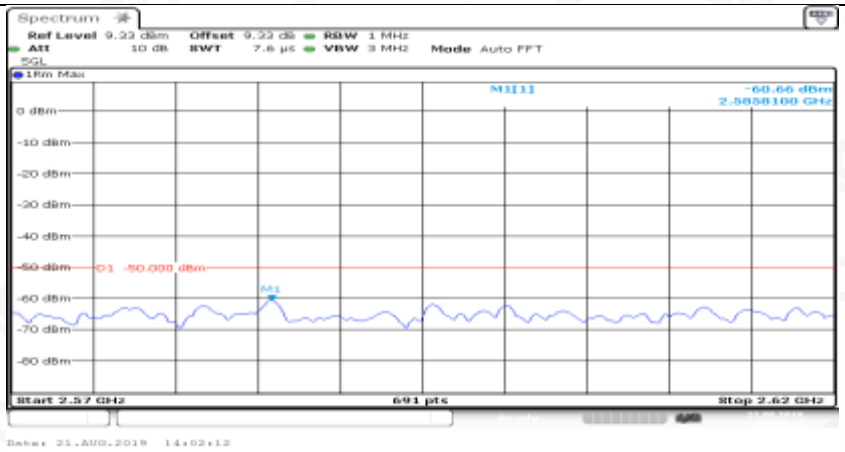
Co-existence	
Co-existence	
Co-existence	

Co-existence	
Co-existence	
Co-existence	

Co-existence	
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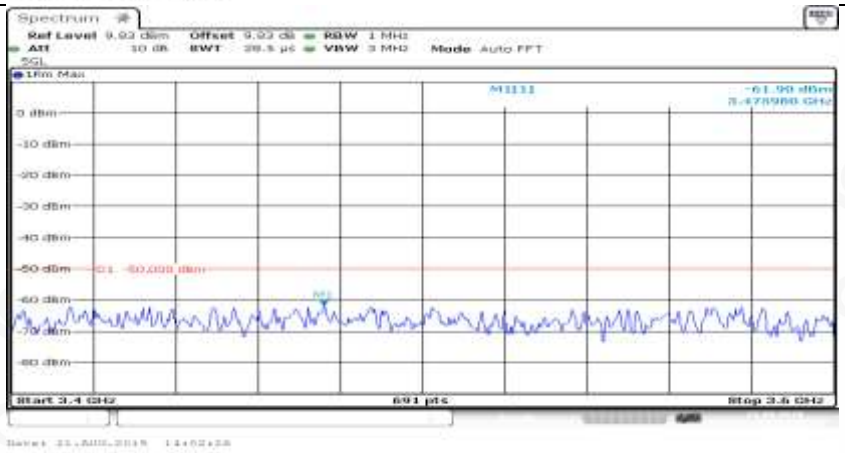
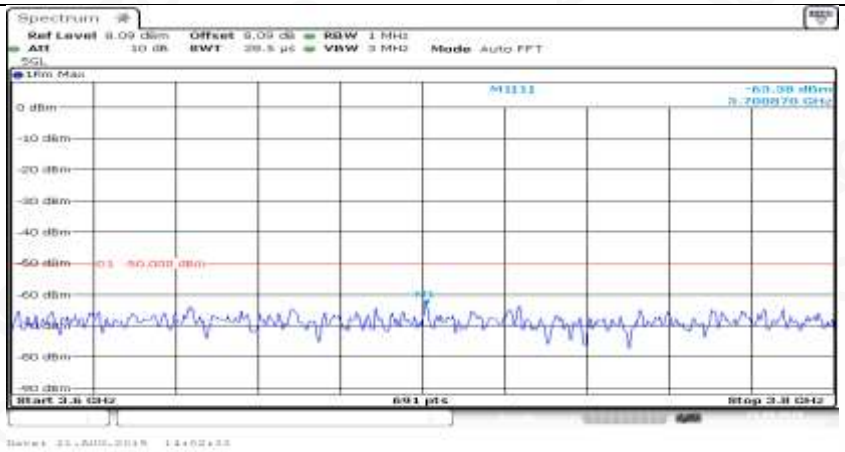
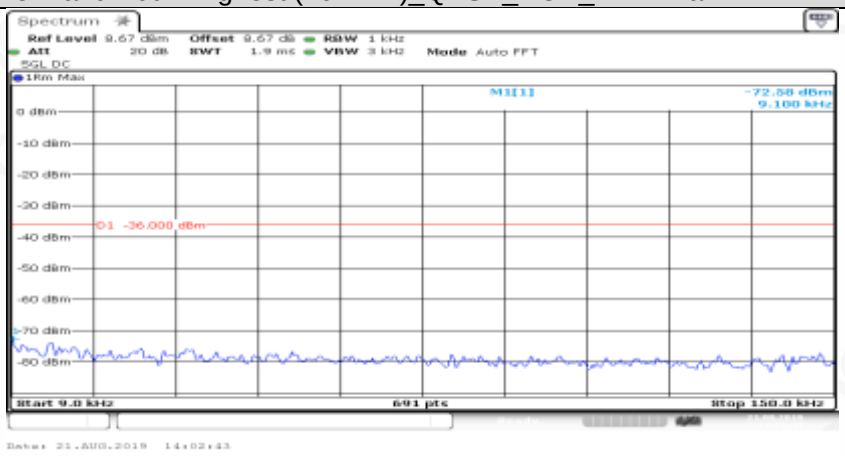
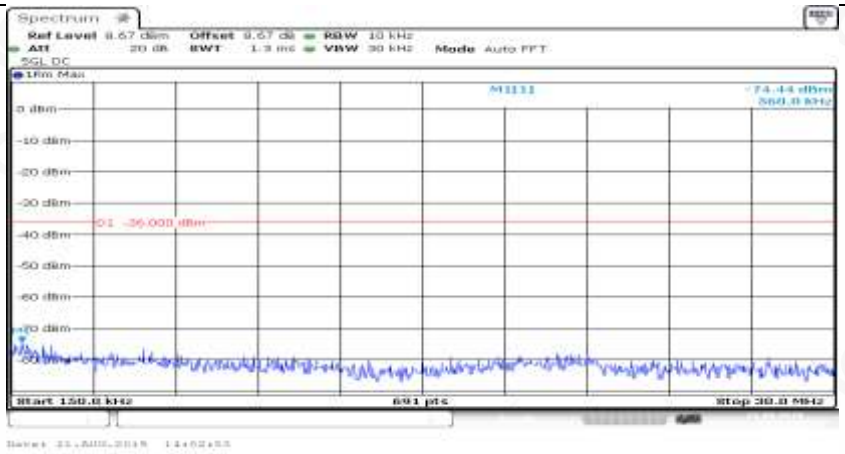
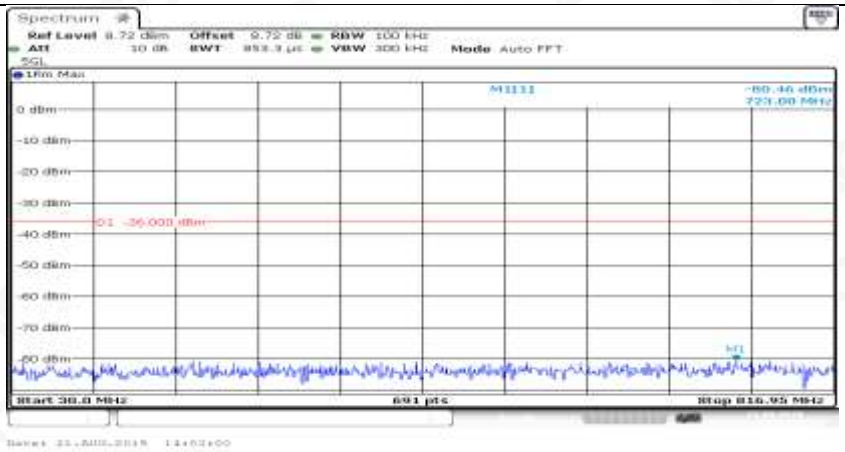
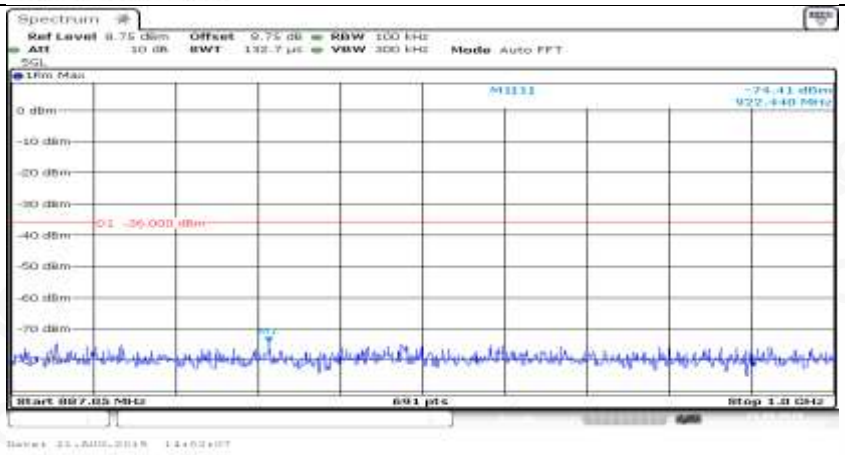
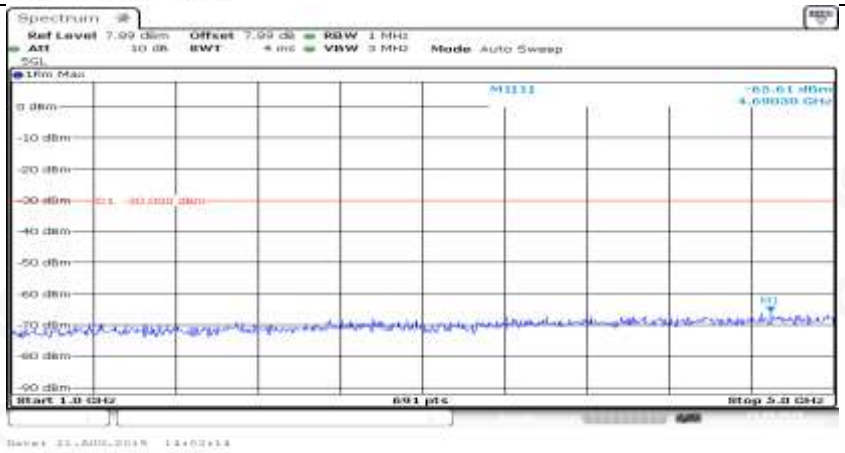
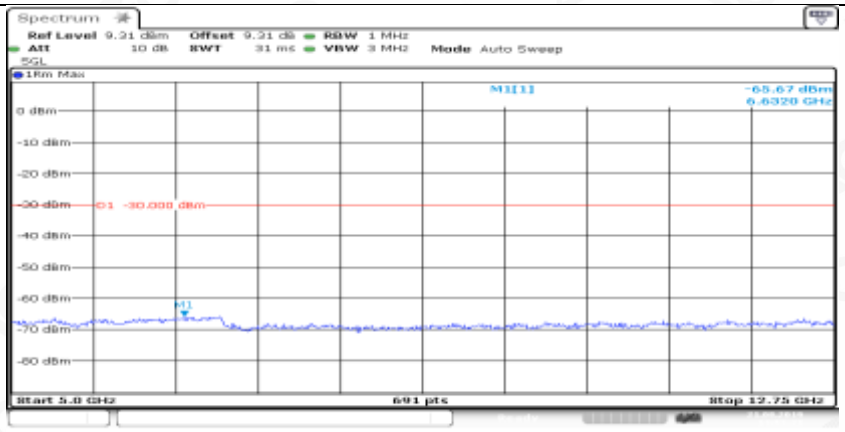
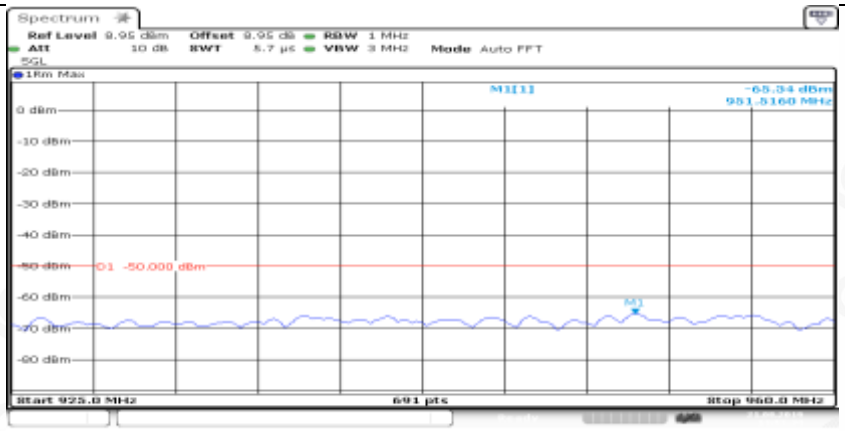
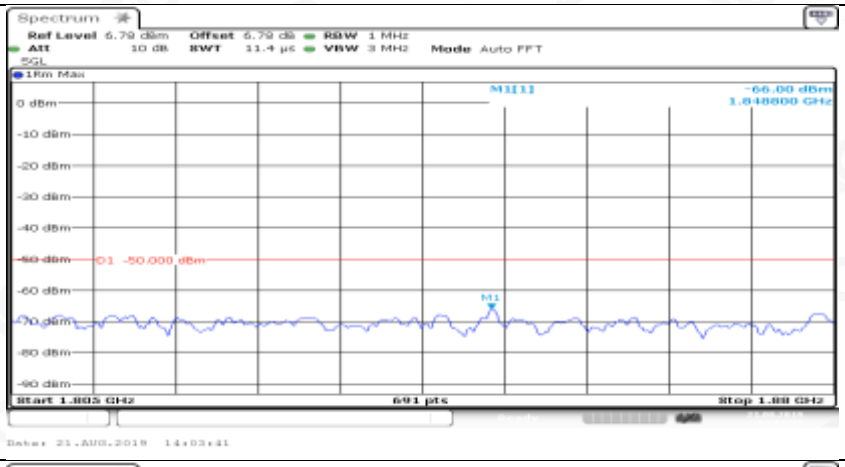
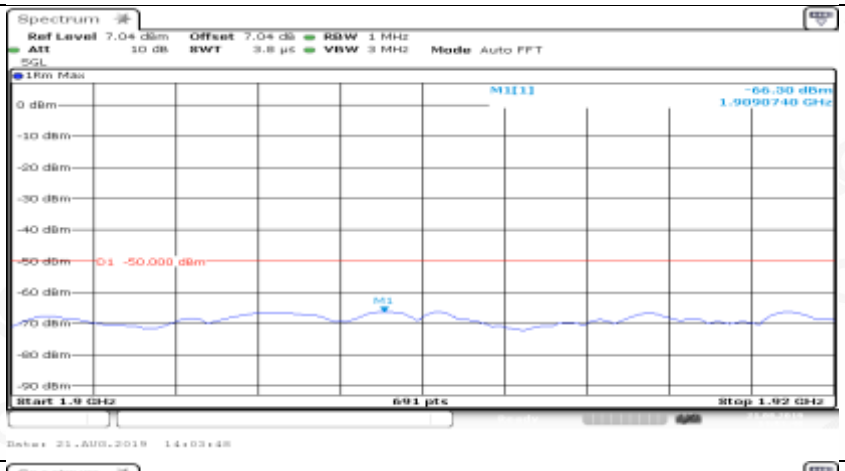
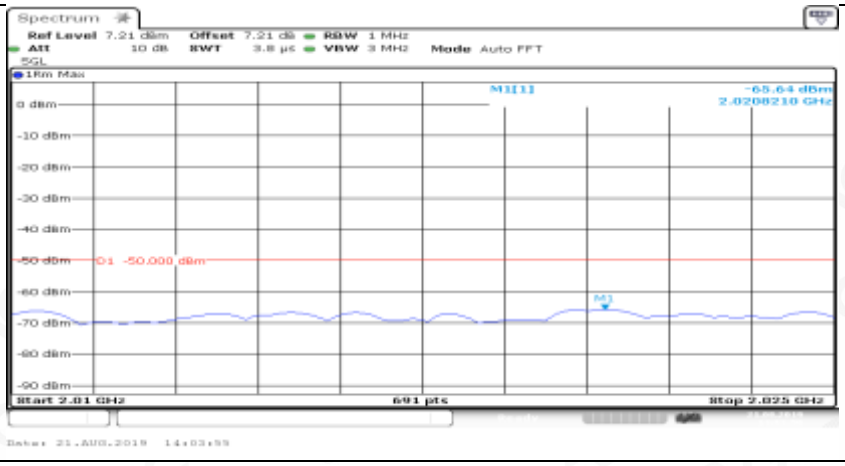
Co-existence	

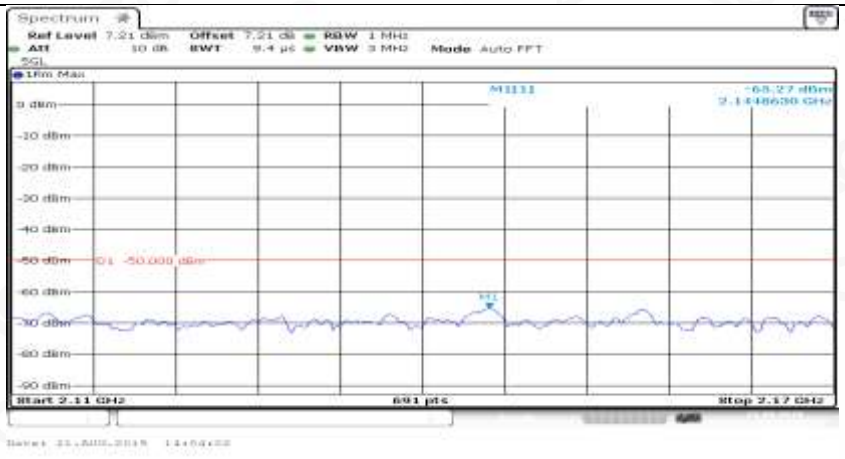
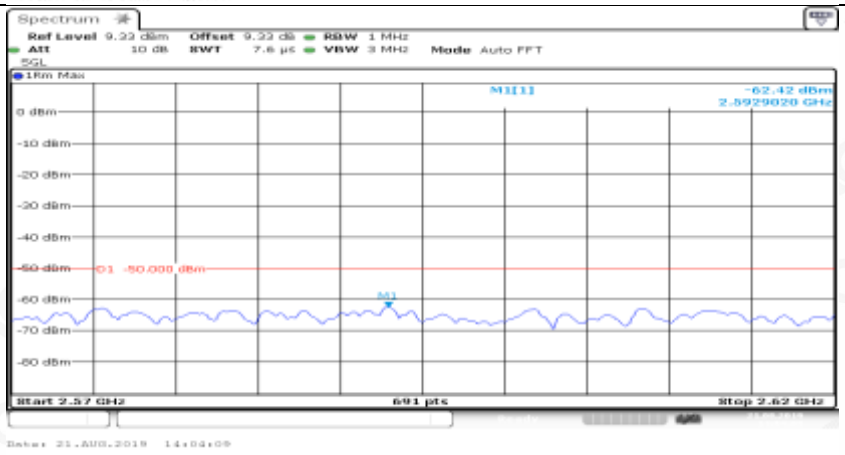
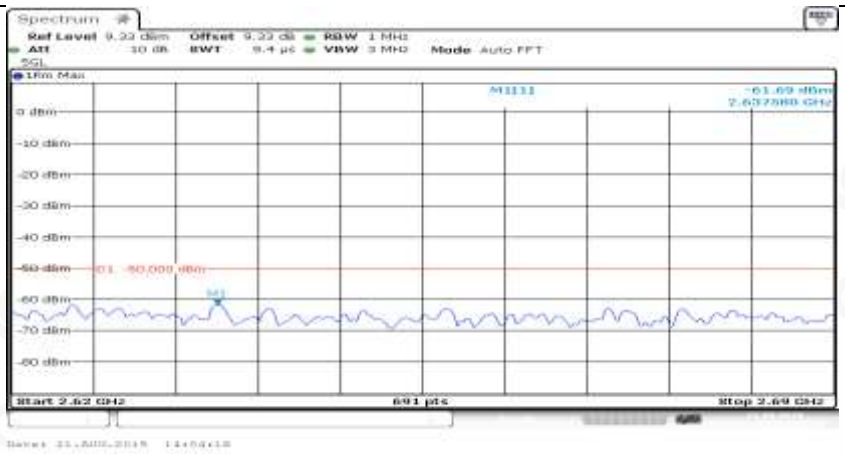
Co-existence	
Additional	NA

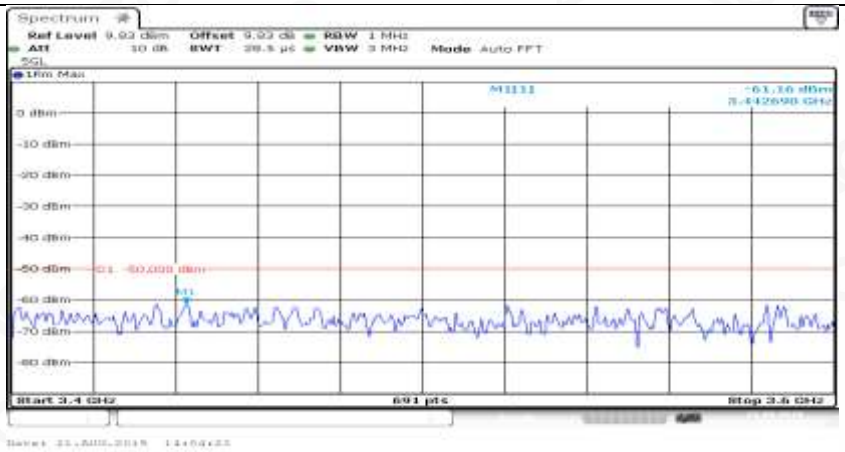
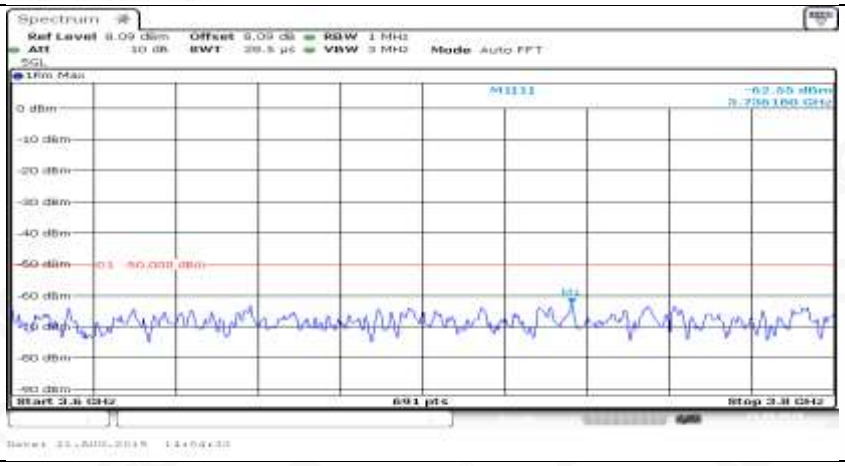
Channel Bandwidth=Highest (20 MHz)_QPSK_HCH_1RB#max	
General	
General	

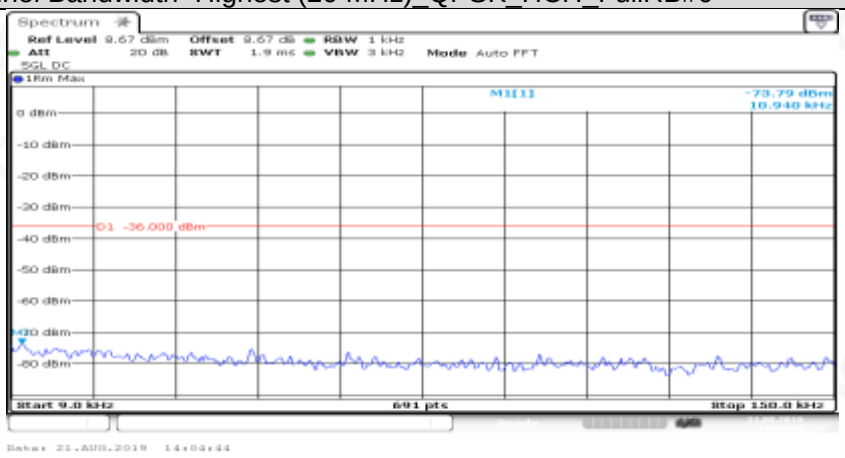
General	
General	
General	

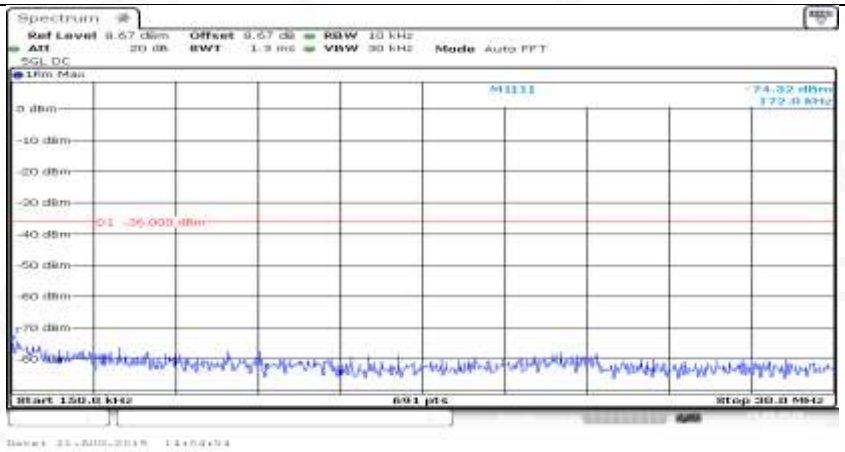
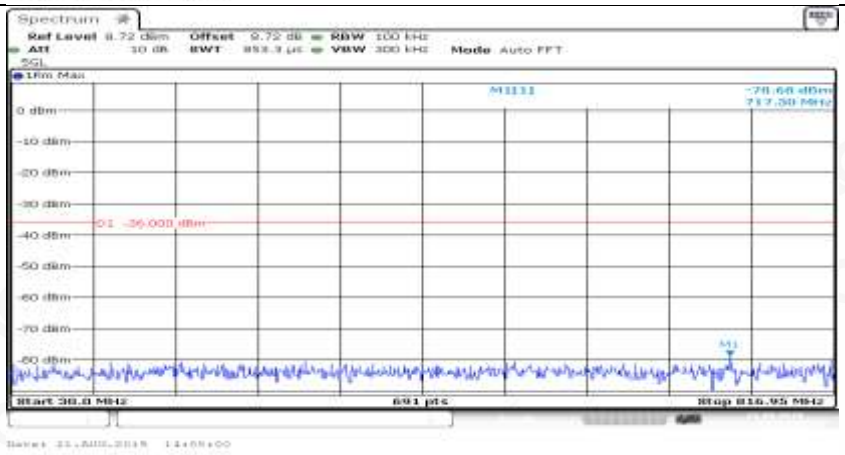
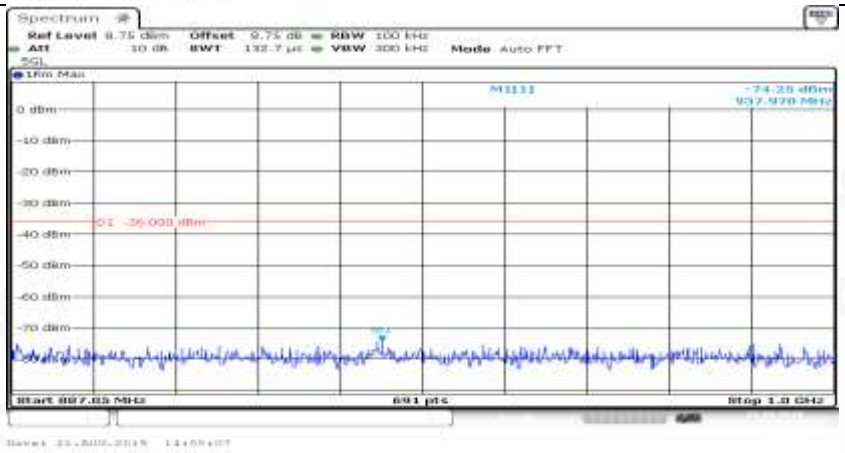
General	
Co-existence	
Co-existence	

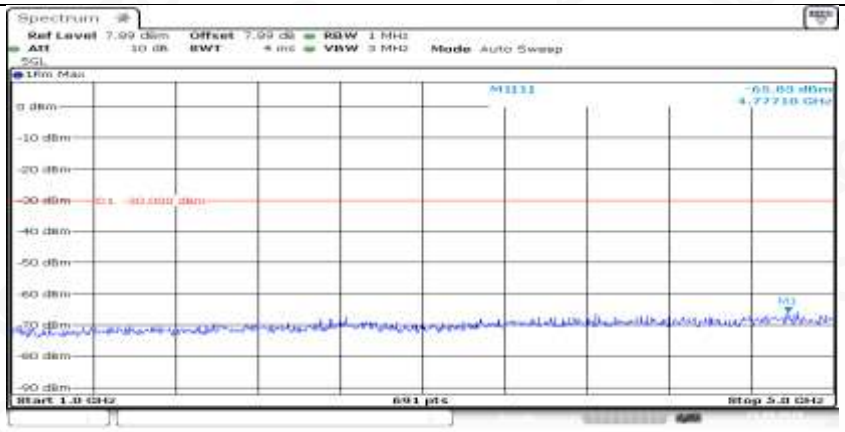
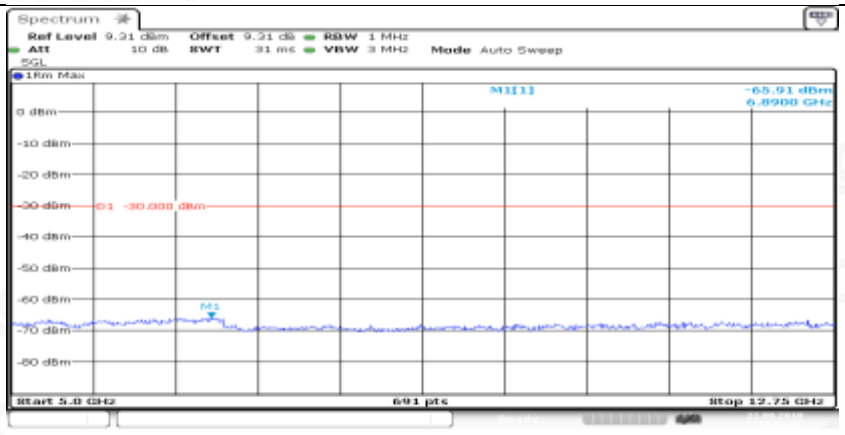
Co-existence	
Co-existence	
Co-existence	

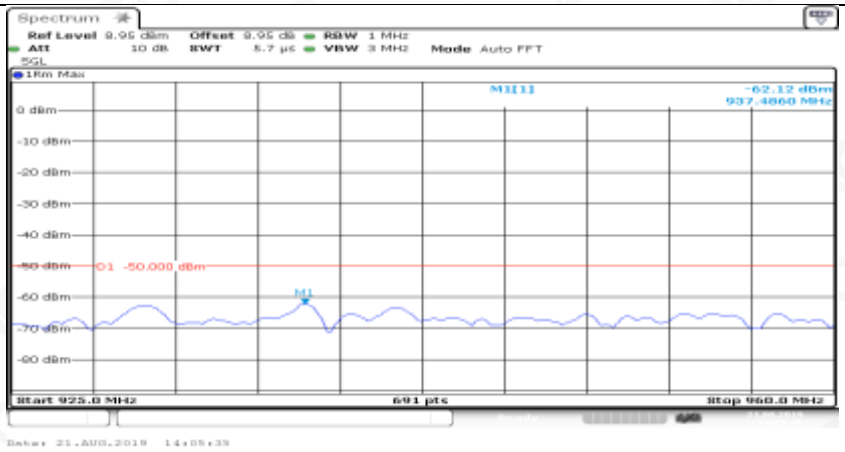
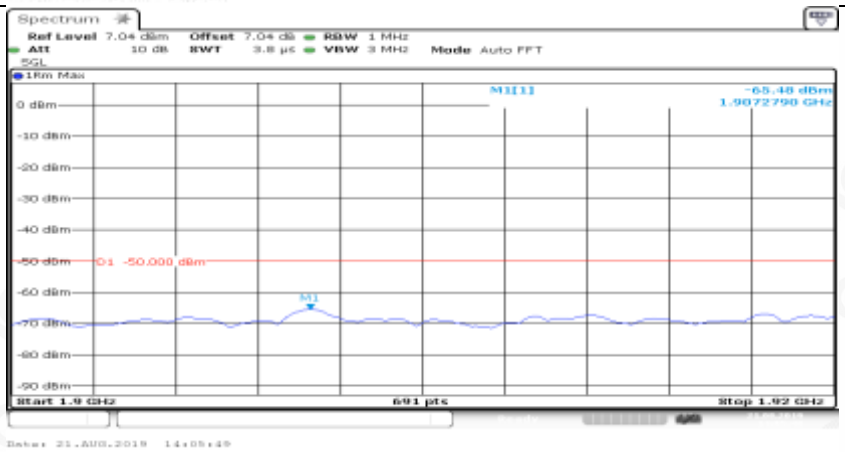
Co-existence	
Co-existence	
Co-existence	

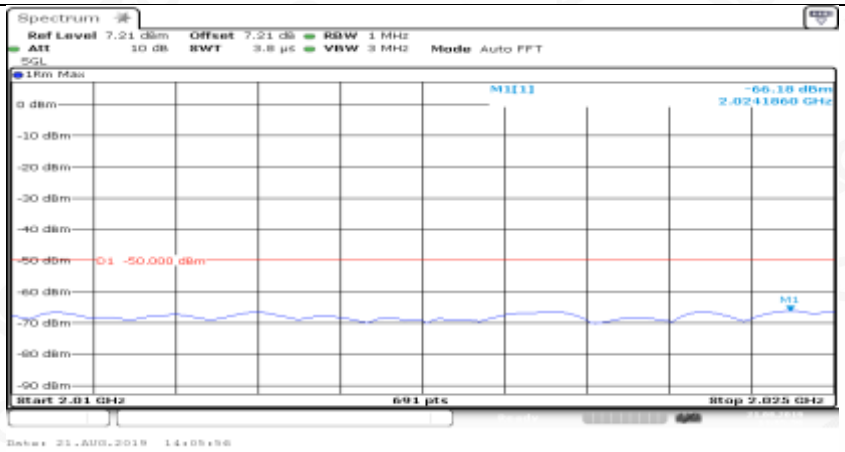
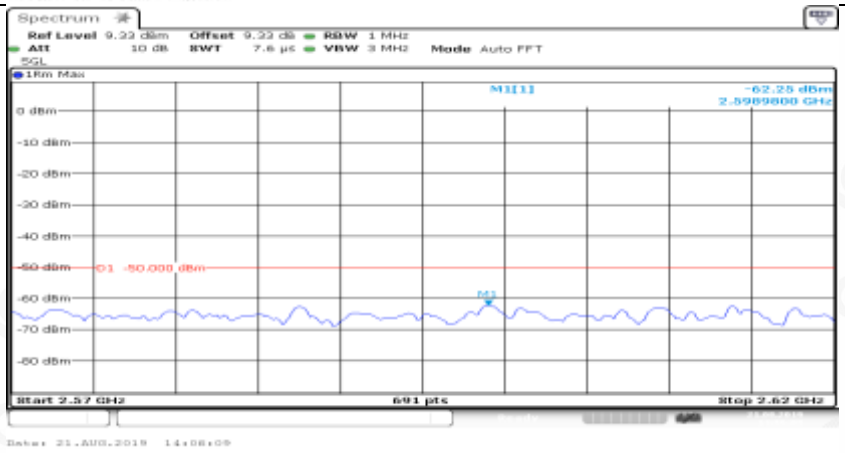
Co-existence	
Co-existence	
Additional	NA

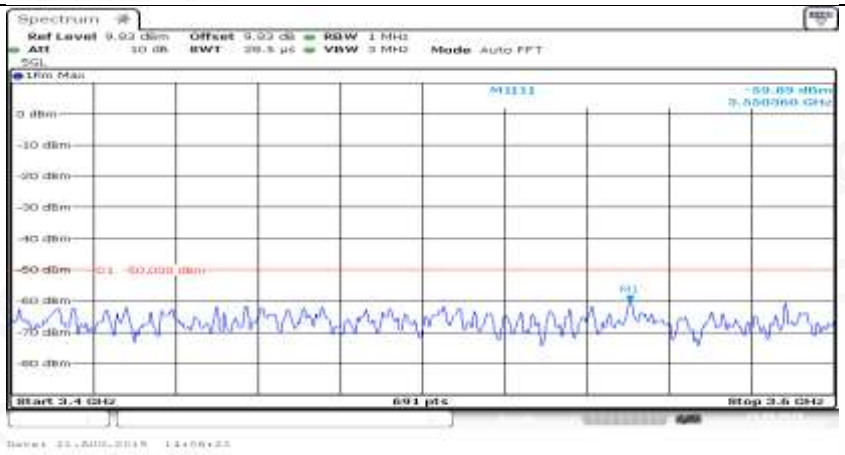
Channel Bandwidth=Highest (20 MHz)_QPSK_HCH_FullRB#0	
General	

General	
General	
General	

General	
General	
Co-existence	

Co-existence	
Co-existence	
Co-existence	

Co-existence	
Co-existence	
Co-existence	

Co-existence	
Co-existence	
Co-existence	
Additional	NA

6. Receiver Spurious Emissions

Test Result

NTNV

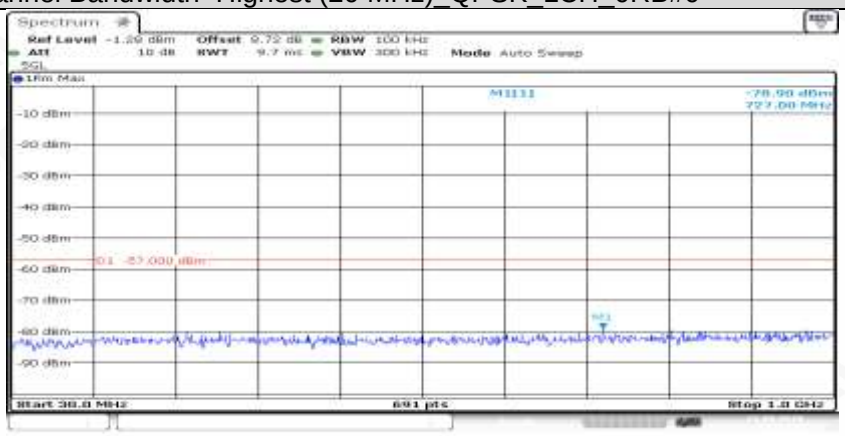
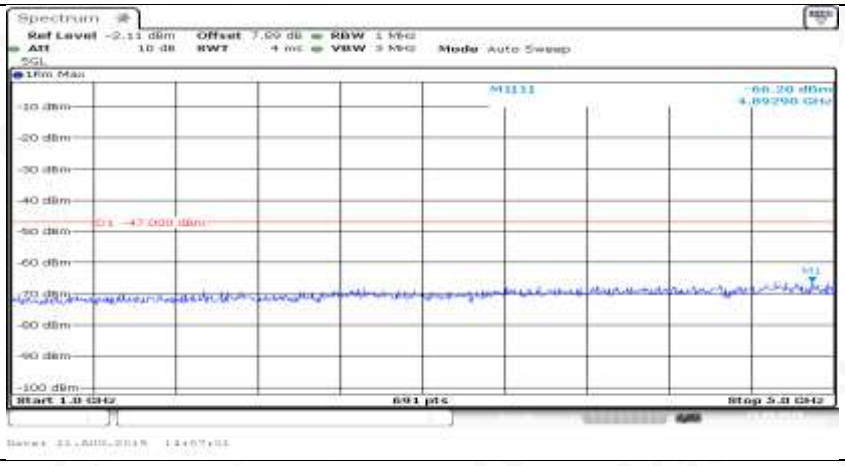
Channel Bandwidth=Highest

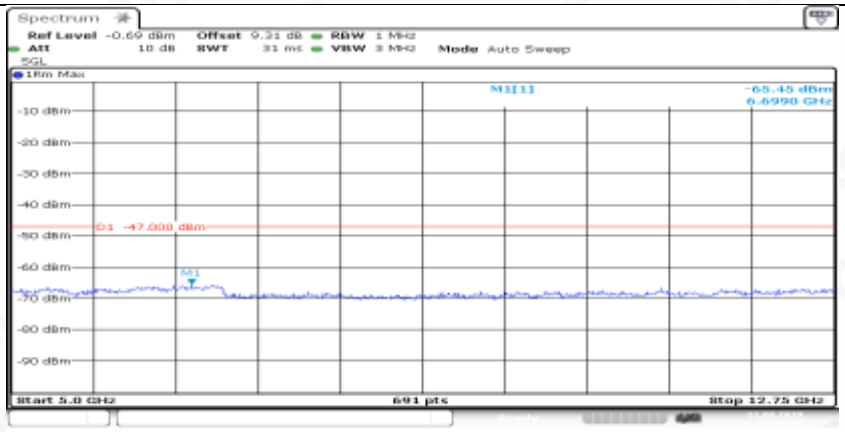
Condition	Modulation	Channel Bandwidth	Channel	RB allocation		Verdict
				RB Size	RB Offset	
Normal	QPSK	20 MHz	Low range	0	0	Pass
			Mid range	0	0	Pass
			High range	0	0	Pass

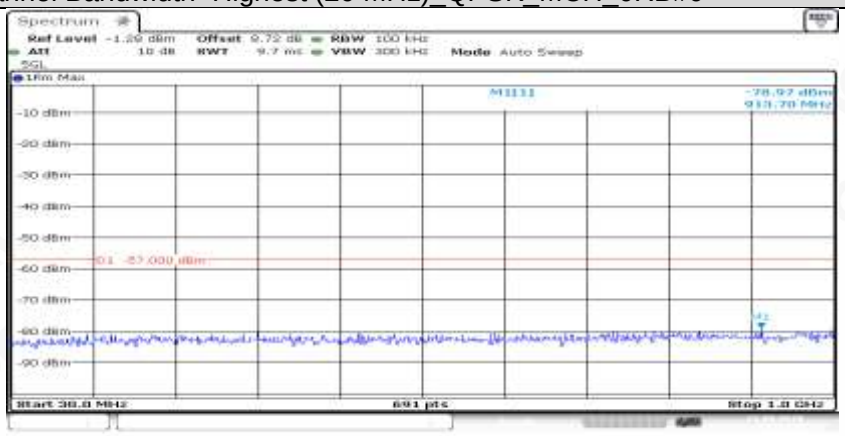
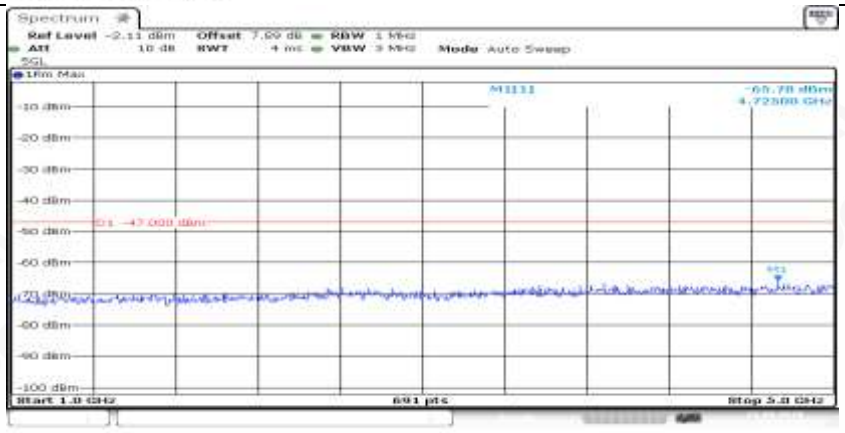
Test Graphs

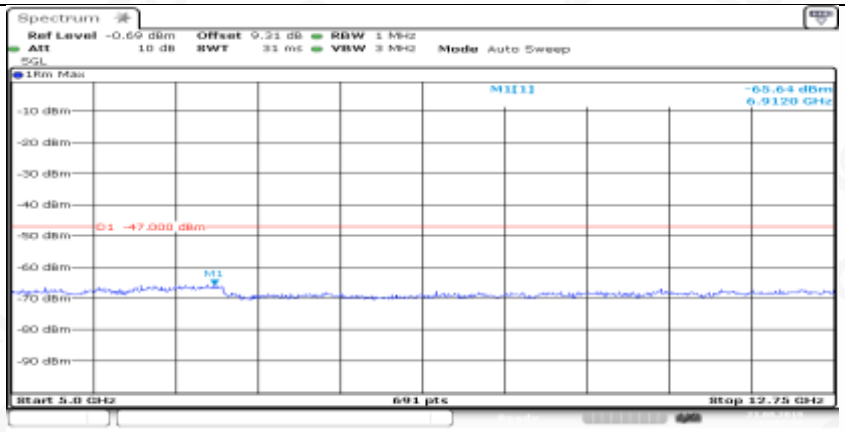
NTNV

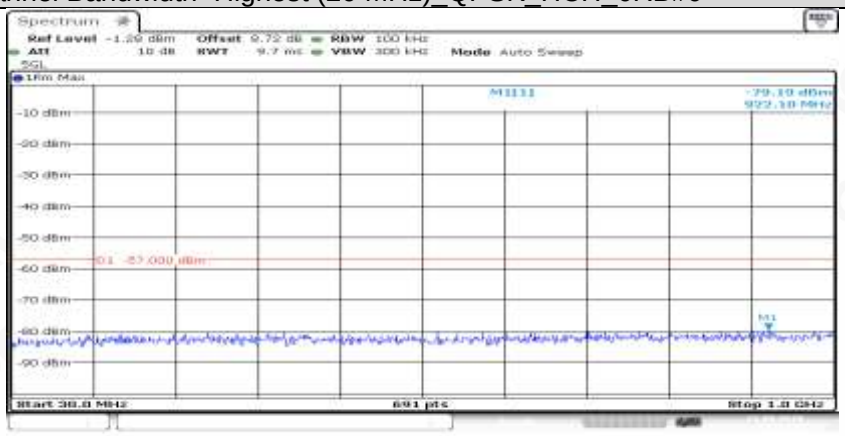
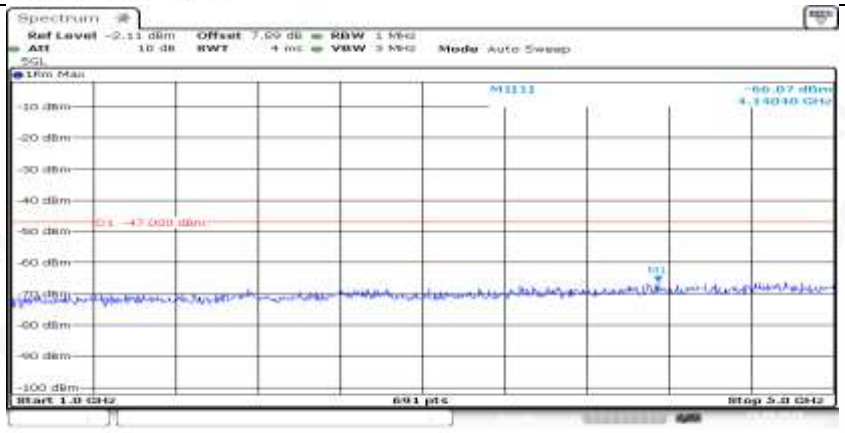
Channel Bandwidth=Highest

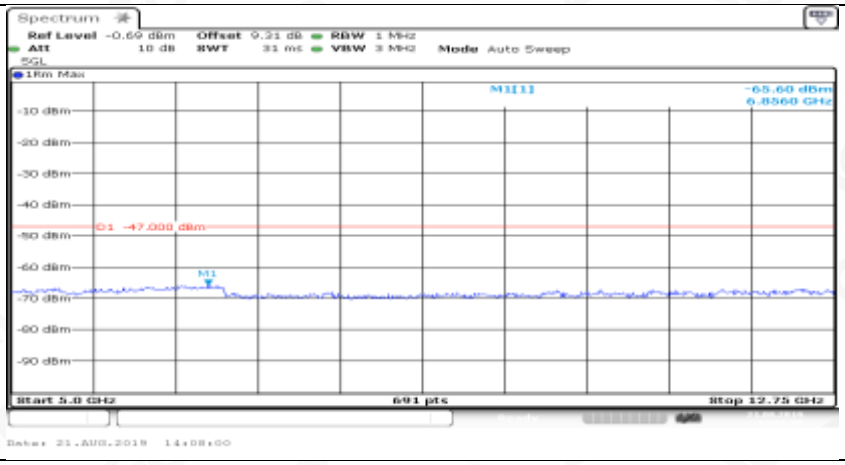
Channel Bandwidth=Highest (20 MHz)_QPSK_LCH_0RB#0	
LCH	
LCH	

LCH	

Channel Bandwidth=Highest (20 MHz)_QPSK_MCH_0RB#0	
MCH	
MCH	

MCH	

Channel Bandwidth=Highest (20 MHz)_QPSK_HCH_0RB#0	
HCH	
HCH	

HCH	 Spectrum Ref Level -0.69 dBm Offset 9.21 dB RBW 1 MHz Att 10 dB SWT 31 ms VBW 3 MHz Mode Auto Sweep SGL 1Rm Max M1[1] -65.60 dBm 6.8560 GHz -10 dBm -20 dBm -30 dBm -40 dBm D1 -47.000 dBm -50 dBm -60 dBm M1 -70 dBm -80 dBm -90 dBm Start 5.0 GHz 691 pts Stop 12.75 GHz Date: 21.AUG.2019 14:08:00

7. Receiver Adjacent Channel Selectivity (ACS)

Test Results

The equipment **passed** the requirement of this clause.

Test Environment					NC
Test Frequencies					Mid range
Test Channel Bandwidths					Lowest, 5MHz, Highest 20MHz
Test Parameters for Channel Bandwidths					
	Downlink Configuration		**Uplink Configuration**		
Ch BW	Mod' n	RB allocation	Mod' n	RB allocation	CASE 1
		FDD		FDD	Throughput Limit
5MHz	QPSK	Full	QPSK	25	≥ 95 %
10MHz	QPSK	Full	QPSK	15,20,25	≥ 95 %
20MHz	QPSK	Full	QPSK	100	≥ 95 %
Verdict	**PASS**				
Ch BW	Mod' n	RB allocation	Mod' n	RB allocation	CASE 2
		FDD		FDD	Throughput Limit
5MHz	QPSK	Full	QPSK	25	≥ 95 %
10MHz	QPSK	Full	QPSK	15,20,25	≥ 95 %
20MHz	QPSK	Full	QPSK	100	≥ 95 %
Verdict	**PASS**				

8. Receiver blocking characteristics

Test Results

The equipment **passed** the requirement of this clause.

In-Band Blocking

Test Environment			NC		
Test Frequencies			Mid range		
Test Channel Bandwidths			Lowest, 5MHz, Highest 20MHz		
Test Parameters for Channel Bandwidths					
	Downlink Configuration		**Uplink Configuration**		CASE1
Ch BW	Mod' n	RB allocation	Mod' n	RB allocation	Throughput Limit
		FDD		FDD	
5MHz	QPSK	Full	QPSK	25	≥ 95 %
10MHz	QPSK	Full	QPSK	15,20,25	≥ 95 %
20MHz	QPSK	Full	QPSK	100	≥ 95 %
Verdict	**PASS**				

In-Band Blocking

	Downlink Configuration		**Uplink Configuration**		CASE2
Ch BW	Mod' n	RB allocation	Mod' n	RB allocation	Throughput Limit
		FDD		FDD	
5MHz	QPSK	Full	QPSK	25	≥ 95 %
10MHz	QPSK	Full	QPSK	15,20,25	≥ 95 %
20MHz	QPSK	Full	QPSK	100	≥ 95 %
Verdict	**PASS**				

Out-of Band Blocking

Test Environment			NC		
Test Frequencies			Low range for FInterferer below FDL_low High range for FInterferer above FDL_high		
Test Channel Bandwidths			Lowest, 5MHz, Highest 20MHz		
Test Parameters for Channel Bandwidths					
	Downlink Configuration		**Uplink Configuration**		RANGE1/RANGE2/RANGE3
Ch BW	Mod' n	RB allocation	Mod' n	RB allocation	Throughput Limit
		FDD		FDD	
5MHz	QPSK	Full	QPSK	25	≥ 95 %
10MHz	QPSK	Full	QPSK	15,20,25	≥ 95 %
20MHz	QPSK	Full	QPSK	100	≥ 95 %

Verdict	PASS

Narrow Band

Test Environment	NC				
Test Frequencies	Mid range				
Test Channel Bandwidths	Lowest, 5MHz, Highest 20MHz				
Test Parameters for Channel Bandwidths					
	Downlink Configuration		**Uplink Configuration**		
Ch BW	Mod' n	RB allocation	Mod' n	RB allocation	Throughput Limit
		FDD		FDD	
5MHz	QPSK	Full	QPSK	25	≥ 95 %
10MHz	QPSK	Full	QPSK	15,20,25	≥ 95 %
20MHz	QPSK	Full	QPSK	100	≥ 95 %
Verdict	**PASS**				

9. Receiver Spurious Response

Test Results

The equipment **passed** the requirement of this clause.

Test Environment			NC		
Test Frequencies			Mid range		
Test Channel Bandwidths			Lowest, 5MHz, Highest 20MHz		
Test Parameters for Channel Bandwidths					
	Downlink Configuration		**Uplink Configuration**		
Ch BW	Mod' n	RB allocation	Mod' n	RB allocation	CASE 1
		FDD		FDD	Throughput Limit
5MHz	QPSK	Full	QPSK	6	≥ 95 %
10MHz	QPSK	Full	QPSK	15,20,25	≥ 95 %
20MHz	QPSK	Full	QPSK	100	≥ 95 %
Verdict	**Pass**				
Ch BW	Mod' n	RB allocation	Mod' n	RB allocation	CASE 2
		FDD		FDD	Throughput Limit
5MHz	QPSK	Full	QPSK	6	≥ 95 %
10MHz	QPSK	Full	QPSK	15,20,25	≥ 95 %
20MHz	QPSK	Full	QPSK	100	≥ 95 %
Verdict	**Pass**				

10. Receiver Intermodulation Characteristics

Test Results

The equipment **passed** the requirement of this clause.

Test Band	Band 20					
Test Environment	NC					
Test Frequencies	Mid range					
Test Channel Bandwidths	Lowest, 5MHz, Highest 20MHz					
Test Parameters for Channel Bandwidths						
	Downlink Configuration		**Uplink Configuration**			
Ch BW	Mod' n	RB allocation	Mod' n	RB allocation	Meas. Throughput	Throughput Limit
		FDD		FDD		
5MHz	QPSK	Full	QPSK	6	PASS	≥ 95 %
10MHz	QPSK	Full	QPSK	15,20,25	PASS	≥ 95 %
20MHz	QPSK	Full	QPSK	100	PASS	≥ 95 %
Verdict	**PASS**					

11. Receiver Reference Sensitivity Level

Note: All test modes were carried out for all operation modes and record the worst test mode (LTE BAND 20 TNVN) of fellow:

Test Results

NTNV

	Test Band			Band 20			
	TestEnvironment			NC			
	Test Frequencies			Midrange			
	TestChannelBandwidths			Lowest,5MHz,Highest 20MHz			
	Test Parameters for Channel Bandwidths						
		DownlinkConfiguration		**Uplink Configuration**			
	Ch BW	Mod' n	RB allocation	Mod' n	RB allocation	Meas. Throughput	Throughput Limit
			FDD		FDD		
TNVL	5MHz	QPSK	Full	QPSK	6	Pass	≥ 95 %
	10MHz	QPSK	Full	QPSK	15,20,25	Pass	≥ 95 %
	20MHz	QPSK	Full	QPSK	100	Pass	≥ 95 %
Verdict	**PASS**						

12. Radiated spurious emissions - MS in idle mode

Note: All test modes were carried out for all operation modes and record the worst test mode (LTE BAND 20 TNVN) of fellow

Test Result

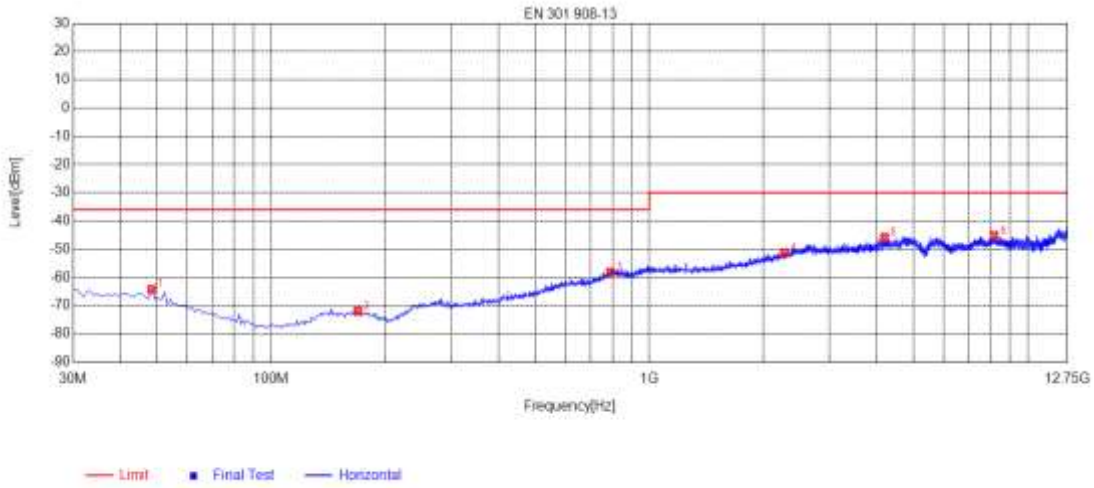
NTNV

Channel Bandwidth=Highest= (20 MHz)

Frequency	Modulation	RBW	Max .Level (dbm)	Test Conditions=TNVN		
				Test Channel		
				LCH	MCH	HCH
30 MHz ≤f < 1 GHz	QPSK	100 kHz	-57	-63.28	-63.11	-63.35
1 GHz ≤f ≤ 5 GHz		1 MHz	-47	-70.35	-70.42	-70.37
5 GHz ≤f ≤12.75 GHz		1 MHz	-47	-69.42	-69.28	-69.38

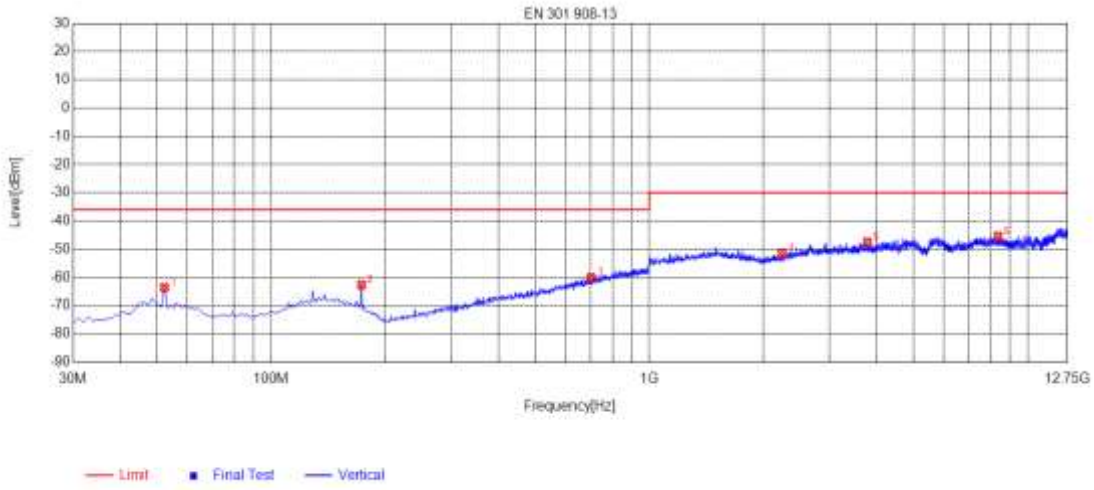
APPENDIX F . RADIATED SPURIOUS EMISSIONS TEST RESULT

RADIATED SPURIOUS EMISSIONS LTE Band 1– HORIZONTAL



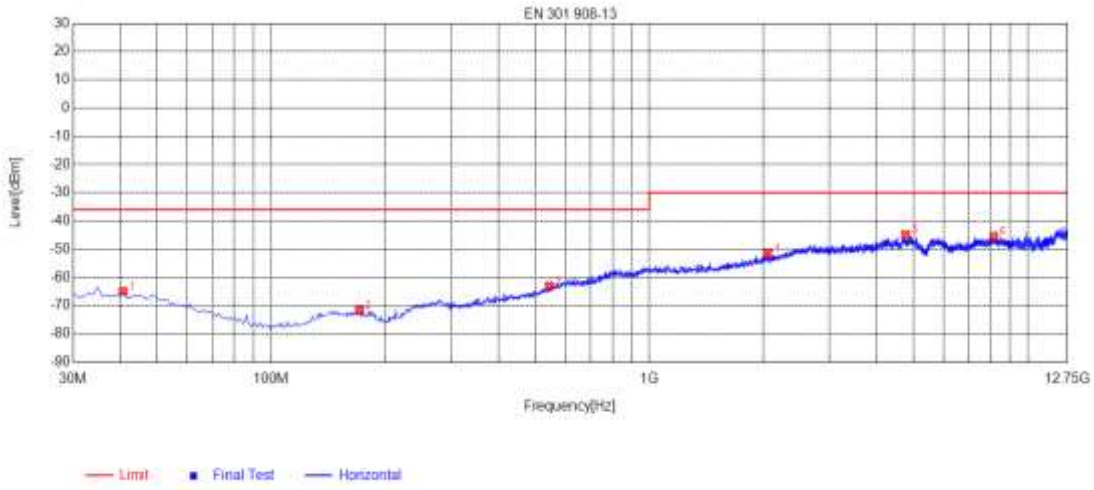
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Angle [°]	Polarity
1	48.4300	-98.09	-64.22	-36.00	28.22	33.87	231	Horizontal
2	169.6800	-101.35	-71.93	-36.00	35.93	29.42	66	Horizontal
3	788.5400	-101.23	-58.19	-36.00	22.19	43.04	8	Horizontal
4	2276.3053	-54.01	-51.32	-30.00	21.32	2.69	80	Horizontal
5	4189.5879	-54.17	-45.76	-30.00	15.76	8.41	269	Horizontal
6	8157.1814	-58.00	-45.14	-30.00	15.14	12.86	166	Horizontal

RADIATED SPURIOUS EMISSIONS LTE Band 1– VERTICAL



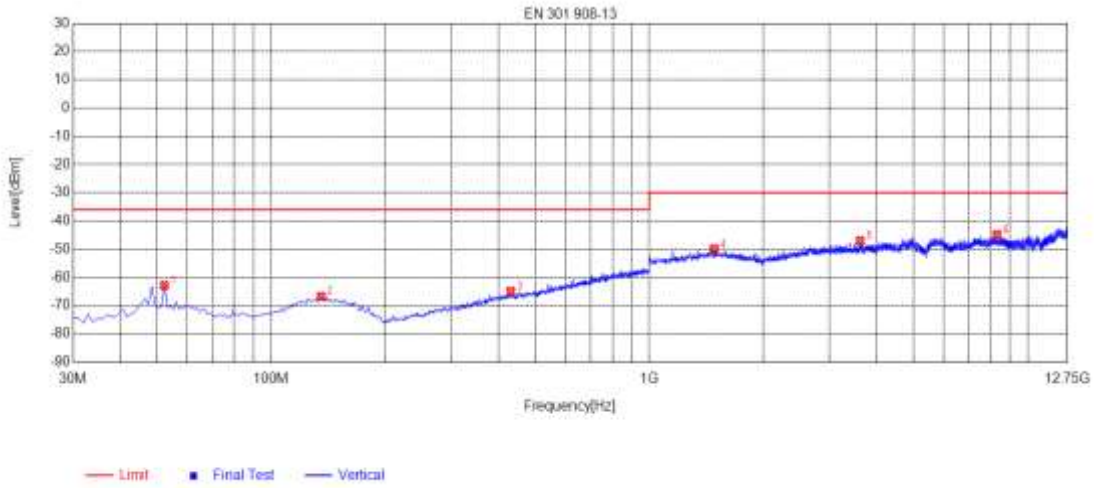
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Angle [°]	Polarity
1	52.3100	-93.74	-63.57	-36.00	27.57	30.17	273	Vertical
2	173.5600	-93.97	-62.63	-36.00	26.63	31.34	214	Vertical
3	702.2100	-100.55	-60.04	-36.00	24.04	40.51	141	Vertical
4	2243.3987	-53.33	-51.38	-30.00	21.38	1.95	112	Vertical
5	3771.2042	-54.22	-47.49	-30.00	17.49	6.73	294	Vertical
6	8359.3219	-58.35	-45.39	-30.00	15.39	12.96	258	Vertical

RADIATED SPURIOUS EMISSIONS LTE Band 3– HORIZONTAL



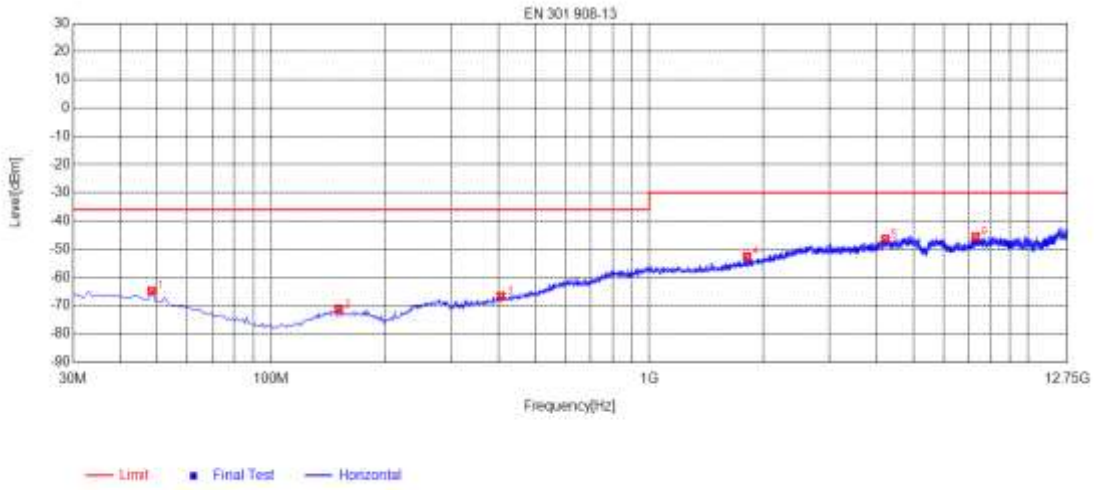
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Angle [°]	Polarity
1	40.6700	-99.88	-64.97	-36.00	28.97	34.91	213	Horizontal
2	171.6200	-101.00	-71.56	-36.00	35.56	29.44	352	Horizontal
3	544.1000	-101.03	-63.15	-36.00	27.15	37.88	316	Horizontal
4	2060.0620	-52.47	-51.47	-30.00	21.47	1.00	206	Horizontal
5	4765.4531	-54.50	-44.88	-30.00	14.88	9.62	154	Horizontal
6	8140.7281	-58.39	-45.53	-30.00	15.53	12.86	154	Horizontal

RADIATED SPURIOUS EMISSIONS LTE Band 3– VERTICAL



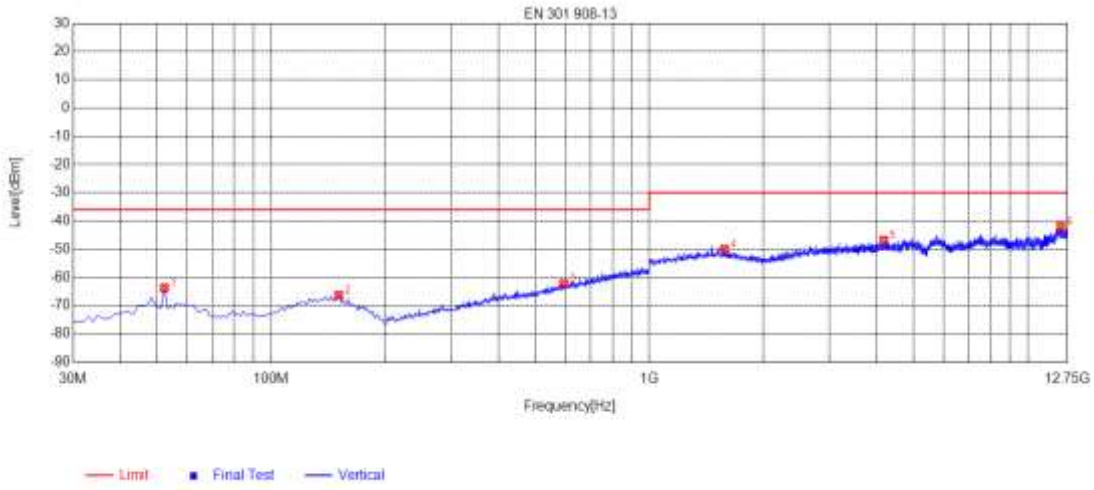
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Angle [°]	Polarity
1	52.3100	-92.97	-62.80	-36.00	26.80	30.17	360	Vertical
2	135.7300	-100.86	-66.76	-36.00	30.76	34.10	30	Vertical
3	430.6100	-100.37	-64.95	-36.00	28.95	35.42	277	Vertical
4	1484.1968	-51.93	-49.87	-30.00	19.87	2.06	132	Vertical
5	3611.3723	-53.35	-47.02	-30.00	17.02	6.33	356	Vertical
6	8300.5601	-57.75	-44.82	-30.00	14.82	12.93	356	Vertical

RADIATED SPURIOUS EMISSIONS LTE Band 7– HORIZONTAL



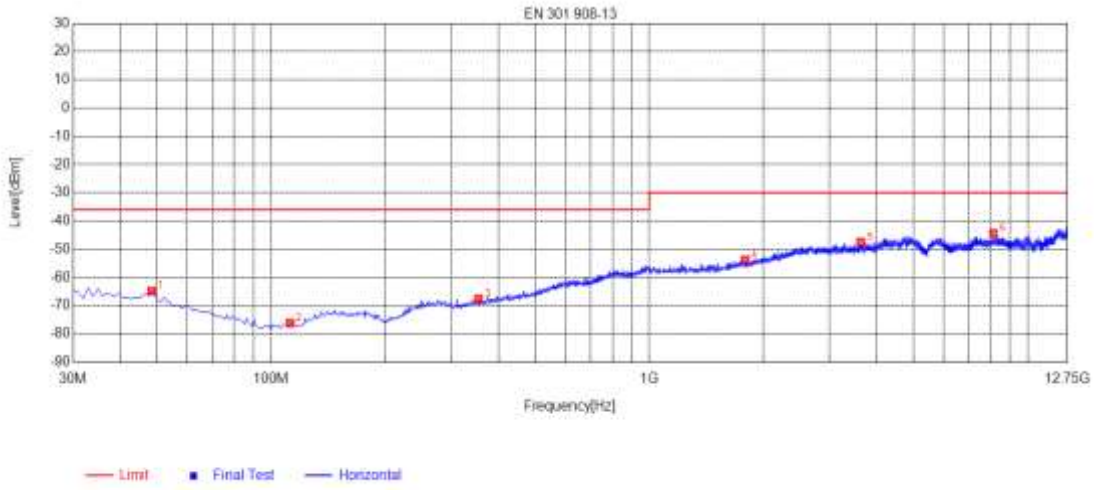
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Angle [°]	Polarity
1	48.4300	-98.72	-64.85	-36.00	28.85	33.87	1	Horizontal
2	151.2500	-100.65	-71.31	-36.00	35.31	29.34	23	Horizontal
3	405.3900	-101.13	-66.61	-36.00	30.61	34.52	227	Horizontal
4	1813.2627	-51.71	-52.58	-30.00	22.58	-0.87	257	Horizontal
5	4213.0926	-54.92	-46.43	-30.00	16.43	8.49	250	Horizontal
6	7294.5589	-58.40	-45.56	-30.00	15.56	12.84	30	Horizontal

RADIATED SPURIOUS EMISSIONS LTE Band 7– VERTICAL



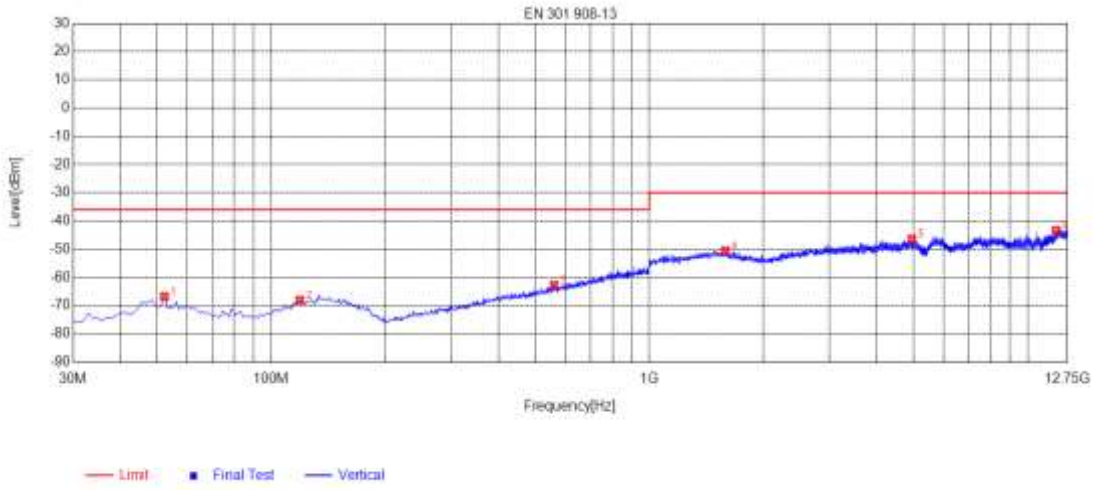
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Angle [°]	Polarity
1	52.3100	-93.88	-63.71	-36.00	27.71	30.17	200	Vertical
2	151.2500	-99.91	-66.30	-36.00	30.30	33.61	359	Vertical
3	594.5400	-100.77	-62.19	-36.00	26.19	38.58	352	Vertical
4	1580.5661	-51.88	-50.00	-30.00	20.00	1.88	359	Vertical
5	4170.7842	-54.34	-46.79	-30.00	16.79	7.55	244	Vertical
6	12242.2985	-59.89	-42.02	-30.00	12.02	17.87	12	Vertical

RADIATED SPURIOUS EMISSIONS LTE Band 8– HORIZONTAL



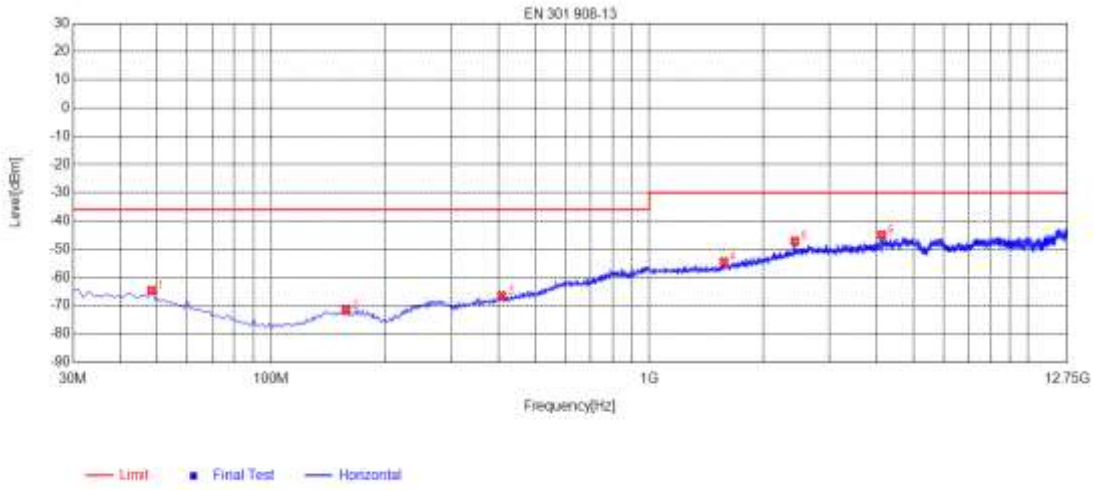
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Angle [°]	Polarity
1	48.4300	-98.75	-64.88	-36.00	28.88	33.87	178	Horizontal
2	112.4500	-101.37	-76.19	-36.00	40.19	25.18	236	Horizontal
3	353.9800	-100.88	-67.59	-36.00	31.59	33.29	200	Horizontal
4	1794.4589	-52.81	-53.82	-30.00	23.82	-1.01	112	Horizontal
5	3623.1246	-54.09	-47.52	-30.00	17.52	6.57	3	Horizontal
6	8121.9244	-57.27	-44.42	-30.00	14.42	12.85	0	Horizontal

RADIATED SPURIOUS EMISSIONS LTE Band 8– VERTICAL



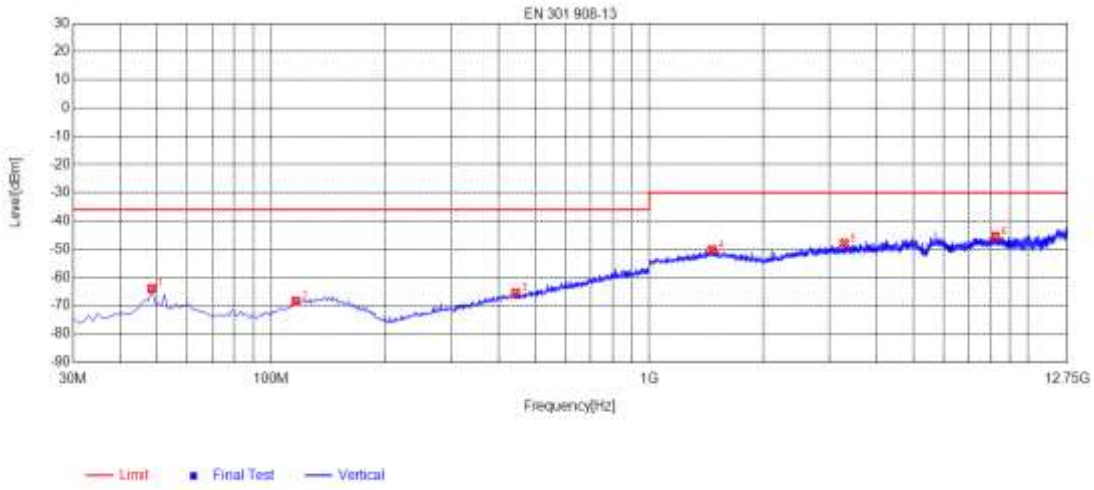
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Angle [°]	Polarity
1	52.3100	-96.96	-66.79	-36.00	30.79	30.17	355	Vertical
2	119.2400	-100.99	-68.09	-36.00	32.09	32.90	116	Vertical
3	560.5900	-100.53	-62.73	-36.00	26.73	37.80	72	Vertical
4	1587.6175	-52.42	-50.57	-30.00	20.57	1.85	167	Vertical
5	4946.4393	-55.26	-46.45	-30.00	16.45	8.81	290	Vertical
6	11896.7794	-60.81	-43.37	-30.00	13.37	17.44	29	Vertical

RADIATED SPURIOUS EMISSIONS LTE Band 20– HORIZONTAL



NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Angle [°]	Polarity
1	48.4300	-98.49	-64.62	-36.00	28.62	33.87	8	Horizontal
2	158.0400	-100.85	-71.53	-36.00	35.53	29.32	358	Horizontal
3	407.3300	-101.04	-66.48	-36.00	30.48	34.56	351	Horizontal
4	1575.8652	-51.83	-54.47	-30.00	24.47	-2.64	168	Horizontal
5	2426.7353	-51.02	-47.15	-30.00	17.15	3.87	1	Horizontal
6	4116.7233	-53.13	-44.98	-30.00	14.98	8.15	329	Horizontal

RADIATED SPURIOUS EMISSIONS LTE Band 20– VERTICAL



NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Angle [°]	Polarity
1	48.4300	-93.46	-63.91	-36.00	27.91	29.55	96	Vertical
2	116.3300	-100.71	-68.36	-36.00	32.36	32.35	184	Vertical
3	443.2200	-101.04	-65.44	-36.00	29.44	35.60	75	Vertical
4	1467.7435	-52.13	-50.18	-30.00	20.18	1.95	126	Vertical
5	3277.6055	-53.58	-47.90	-30.00	17.90	5.68	345	Vertical
6	8225.3451	-58.27	-45.38	-30.00	15.38	12.89	2	Vertical

APPENDIX G: PHOTOGRAPHS OF TEST SETUP

RADIATED SPURIOUS EMISSION TEST

RADIATED SPURIOUS EMISSION ABOVE 1G TEST

----END OF REPORT----