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# RF Test Report

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Report No.: AGC00552200101EE03

**PRODUCT DESIGNATION** : Smart Phone  
**BRAND NAME** : CUBOT  
**MODEL NAME** : KINGKONG CS  
**APPLICANT** : Shenzhen Huafurui Technology Co., Ltd.  
**DATE OF ISSUE** : Feb. 27, 2020  
**STANDARD(S)** : EN 301 511 V12.5.1: 2017-03  
**REPORT VERSION** : V1.0

## Attestation of Global Compliance (Shenzhen) Co., Ltd

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### Report Revise Record

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V1.0	/	Feb. 27, 2020	Valid	Initial release



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## 1. TEST REPORT CERTIFICATION

<b>Applicant</b>	Shenzhen Huafului Technology Co., Ltd.
<b>Address</b>	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
<b>Manufacturer</b>	Shenzhen Huafului Technology Co., Ltd.
<b>Address</b>	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
<b>Factory Name</b>	Shenzhen Huafului Technology Co., Ltd.
<b>Address</b>	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
<b>Product Designation</b>	Smart Phone
<b>Brand Name</b>	CUBOT
<b>Test Model</b>	KINGKONG CS
<b>Date of test</b>	Jan. 15, 2020~Feb. 24, 2020
<b>Deviation</b>	None
<b>Condition of Test Sample</b>	Normal
<b>Report Template</b>	AGCRT-EC-2.5G2/RF

We, Attestation of Global Compliance (Shenzhen) Co., Ltd., for compliance with the requirements set forth in the European Standard ETSI EN 301 511 V12.5.1. 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.

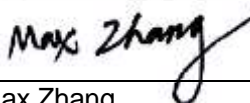
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Feb. 24, 2020


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Feb. 28, 2020

## 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	KINGKONG CS
Product Type	GSM
Hardware Version	X511 MAIN PCB V1.2
Software Version	King Kong_7081C_V08_20170905
Frequency Bands	<input checked="" type="checkbox"/> GSM 900 <input checked="" type="checkbox"/> DCS 1800 (EU Frequency) <input checked="" type="checkbox"/> GSM 850 <input checked="" type="checkbox"/> PCS1900 (none EU Frequency)
Modulation Mode	GMSK, 8PSK
Antenna Type	PIFA Antenna
Antenna Gain	1.0dBi
Power Class	GSM900: 4, DCS1800: 1
GSM Release Version	N/A
GPRS Class	Class 12
SIM Card Description	There are dual-SIM cards for GSM, just one for GSM/WCDMA and the other only for GSM.

#### 2.1.2. PHOTOGRAPHS OF THE EUT

Please see 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 Huafului Technology Co., Ltd.
Test Model	KINGKONG CS
Product Type	GSM
Frequency Bands	GSM 900: 880 -915 MHz (TX);      925 - 960 MHz (RX) DCS1800: 1710 -1785 MHz (TX);    1805-1880 MHz (RX)

## 2.2. TYPE OF MOBILE STATION AND ADDITIONAL INFORMATION

Table A.2: Type of Mobile Station (Re. ETSI EN 301 511 Annex A)

Item	Type of Mobile Station	Support	Mnemonic
1	HSCSD Multislot MS	NO	Type_HSCSD_Multislot
2	R-GSM MS	NO	Type_R-GSM
3	Support of GPRS Multislot class on the uplink	YES	Type_GPRS_Multislot_uplink
4	EGPRS	YES	Type_EGPRS
5	EGPRS capable of 8PSK in Uplink, of all Multislot classes	YES	Type_EGPRS_8PSK_uplink
6	ER-GSM MS	NO	Type-GSM
7	DLMC MS	NO	Type DLMC

Type A.3: Additional information (Re. ETSI EN 301 511 Annex A)

Item	Additional Information	Support	Mnemonic
1	Telephony	YES	TSPC_Serv_TS11
2	Permanent Antenna Connector	YES	TSPC_AddInfo_PermAntenna

**Note:** Telephony means make a phone call.



### 3. IDENTIFICATION OF THE RESPONSIBLE TESTING LOCATION

<b>Test Site-1</b>	Attestation of Global Compliance (Shenzhen) Co., Ltd
<b>Location</b>	1-2/F, Building 19, Junfeng Industrial Park, Chongqing Road, Heping Community, Fuhai Street, Bao 'an District, Shenzhen, Guangdong, China

Note: Blocking and spurious response test within the scope of TAF approval.

#### LIST OF EQUIPMENTS USED OF AGC

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	CMU200	R&S	120237	Feb. 27, 2019	Feb. 26, 2020
3	Wireless communication test set 8960	Agilent	GB46200384	July 11, 2019	July 10, 2020
4	Power Splitter 11636A	Agilent	34	Sep.18, 2019	Sep.17, 2020
5	Attenuator	JFW	50FHC-006-50	June 12, 2019	June 11, 2020
6	Vector Signal Generator SMU200A	R&S	104332	Sep.18, 2019	Sep.17, 2020
7	VECTOR ANALYZER E4440A	Agilent	MY44303916	June 12, 2019	June 11, 2020
8	MXG Vector Signal Generator N5182A	AGILENT	MY50140530	Sep.18, 2019	Sep.17, 2020
9	PSG Analog Signal Generator E8257D	AGILENT	MY45141029	Sep.18, 2019	Sep.17, 2020
10	MXA Signal Analyzer N9020A	AGILENT	W1312-60196	Oct. 08, 2019	Oct. 07, 2020
11	Universal Switch Control Unit	JS TONSCEND	N/A	---	---
12	Programmable Power Supply PPT-1830	GW INSTEK	EM907629	Aug.16, 2019	Aug.15, 2020
13	DC Power Source	N/A	GBD-60V30A	Feb. 27, 2019	Feb. 26, 2020
14	Attenuator	JFW	50FHC-006-50	June 12, 2019	June 11, 2020
15	EMI Test Receiver ESCI	R&S	100694	June 12, 2019	June 11, 2020
16	Double-Ridged Waveguide Horn Antenna 3117	ETS LINDGREN	00034609	Mar. 01, 2018	Feb. 28, 2020
17	Trilog Broadband Antenna VULB 9168	SCHWARZBECK	494	Mar. 01, 2018	Feb. 28, 2020
18	LOOP ANTENNA SAS-562B	A.H	/	Mar. 01, 2018	Feb. 28, 2020
19	Artificial Mains Network ENV4200	R&S	101116	July 11, 2019	July 11, 2020

No.	Type	Manufacturer	S/N	Cal. Date	Cal. Due
20	Artificial Mains Network ENV216	R&S	101242	July 11, 2019	July 11, 2020
21	Filter Bank Notch 1(880-915MHz)	MICRO-TRONIC S	010	Feb. 27, 2019	Feb. 26, 2020
22	Filter Bank Notch 2(1710-1785MHz)	MICRO-TRONIC S	009	Feb. 27, 2019	Feb. 26, 2020
23	Filter Bank Notch 3(1920-1980MHz)	MICRO-TRONIC S	008	Feb. 27, 2019	Feb. 26, 2020



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#### 4. MEASUREMENT UNCERTAINTY

The uncertainty is calculated using the methods suggested in the “Guide to the Expression of Uncertainty in Measurement” (GUM) published by ISO.

- Uncertainty of Radio Frequency,  $U_c = \pm 1 \times 10^{-5}$
- Uncertainty of total RF power, conducted,  $U_c = \pm 1.5\text{dB}$
- Uncertainty of RF power density, conducted,  $U_c = \pm 3\text{dB}$
- Uncertainty of spurious emissions, conducted,  $U_c = \pm 3\text{dB}$
- Uncertainty of spurious emissions, radiated,  $U_c = \pm 6\text{dB}$
- Uncertainty of Temperature:  $\pm 1^\circ\text{C}$
- Uncertainty of Humidity:  $\pm 5\%$
- Uncertainty of DC and low frequency voltages:  $\pm 3\%$



## 5. TEST RESULT

### 5.1. APPLIED REFERENCE DOCUMENTS

Leading reference documents for testing:

No.	Identity	Document Title
1	ETSI EN 301 511	Global System for Mobile communications (GSM); Mobile Stations (MS) equipment; Harmonised Standard covering the essential requirements of article 3.2 of Directive 2014/53/EU

Specific reference documents for testing:

No.	Identity	Document Title
2	ETSI TS 151 010-1	3 <sup>rd</sup> Generation Partnership Project; Technical Specification Group GSM/EDGE Radio Access Network Digital cellular telecommunications system (Phase 2+); Mobile Station (MS) conformance specification; Part 1: Conformance specification

### 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-05010003B3-EU
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

Verdict	Description
N/A	Test case not applicable for the EUT, see the column "Note" for detailed



#### 5.4. TEST RESULTS LIST

**Table A.1: The EN Requirements Table (EN-RT) (Re. ETSI EN 301 511 Annex A) for SIM Card 1**

Test Case (ETSI TS 151010-1)	Test Case (EN 301 511)	Parameter	GSM 900		GSM 1800		Note
			Sample	Result	Sample	Result	
12.1.1	4.2.12	Conducted spurious emissions - MS allocated a channel					
		NT / NV	A01	PASS	A01	PASS	
		NT / LV	A01	PASS	A01	PASS	
		NT / HV	A01	PASS	A01	PASS	
12.1.2	4.2.13	Conducted spurious emissions - MS in idle mode					
		NT / NV	A01	PASS	A01	PASS	
		NT / LV	A01	PASS	A01	PASS	
		NT / HV	A01	PASS	A01	PASS	
12.2.1	4.2.16	Radiated spurious emissions - MS allocated a channel					
		NT / NV	A01	PASS	A01	PASS	
		NT / LV	A01	PASS	A01	PASS	
		NT / HV	A01	PASS	A01	PASS	
12.2.2	4.2.17	Radiated spurious emissions - MS in idle mode					
		NT / NV	A01	PASS	A01	PASS	
		NT / LV	A01	PASS	A01	PASS	
		NT / HV	A01	PASS	A01	PASS	
13.1	4.2.1	Transmitter - Frequency error and phase error					
		NT / NV	A01	PASS	A01	PASS	
		LT / LV	A01	PASS	A01	PASS	
		LT / HV	A01	PASS	A01	PASS	
		HT / LV	A01	PASS	A01	PASS	
		HT / HV	A01	PASS	A01	PASS	
		Vibration X-axis	A01	PASS	A01	PASS	
		Vibration Y-axis	A01	PASS	A01	PASS	
Vibration Z-axis	A01	PASS	A01	PASS			
13.2	4.2.2	Transmitter - Frequency error under multipath and interference conditions					
		NT / NV	A01	PASS	A01	PASS	
		LT / LV	A01	PASS	A01	PASS	
		LT / HV	A01	PASS	A01	PASS	
		HT / LV	A01	PASS	A01	PASS	
		HT / HV	A01	PASS	A01	PASS	



13.3	4.2.5	Transmitter output power and burst timing				
		NT / NV	A01	PASS	A01	PASS
		LT / LV	A01	PASS	A01	PASS
		LT / HV	A01	PASS	A01	PASS
		HT / LV	A01	PASS	A01	PASS
		HT / HV	A01	PASS	A01	PASS
13.4	4.2.6	Transmitter - Output RF spectrum				
		NT / NV	A01	PASS	A01	PASS
		LT / LV	A01	PASS	A01	PASS
		LT / HV	A01	PASS	A01	PASS
		HT / LV	A01	PASS	A01	PASS
		HT / HV	A01	PASS	A01	PASS
13.16.1	4.2.4	Frequency error and phase error in GPRS multislot configuration				
		NT / NV	A01	PASS	A01	PASS
		LT / LV	A01	PASS	A01	PASS
		LT / HV	A01	PASS	A01	PASS
		HT / LV	A01	PASS	A01	PASS
		HT / HV	A01	PASS	A01	PASS
		Vibration X-axis	A01	PASS	A01	PASS
		Vibration Y-axis	A01	PASS	A01	PASS
13.16.2	4.2.10	Transmitter output power in GPRS multislot configuration				
		NT / NV	A01	PASS	A01	PASS
		LT / LV	A01	PASS	A01	PASS
		LT / HV	A01	PASS	A01	PASS
		HT / LV	A01	PASS	A01	PASS
		HT/HV	A01	PASS	A01	PASS
13.16.3	4.2.11	Output RF spectrum in GPRS multislot configuration				
		NT / NV	A01	PASS	A01	PASS
		LT / LV	A01	PASS	A01	PASS
		LT / HV	A01	PASS	A01	PASS
		HT / LV	A01	PASS	A01	PASS
		HT/HV	A01	PASS	A01	PASS
14.2.1	4.2.42	Reference sensitivity - TCH/FS				
		NT / NV	A01	PASS	A01	PASS

		NT / LV	A01	PASS	A01	PASS	
		NT / HV	A01	PASS	A01	PASS	
14.2.3	4.2.43	Reference sensitivity - FACCH/F					
		NT / NV	A01	PASS	A01	PASS	
14.16.1	4.2.44	Minimum Input level for Reference Performance - GPRS					
		NT / NV	A01	PASS	A01	PASS	
		NT / LV	A01	PASS	A01	PASS	
		NT / HV	A01	PASS	A01	PASS	
14.6.1	4.2.32	Intermodulation rejection-speech channels					
		NT / NV	A01	PASS	A01	PASS	
		NT / LV	A01	PASS	A01	PASS	
		NT / HV	A01	PASS	A01	PASS	
14.8.1	4.2.35	AM suppression-speech channels					
		NT / NV	A01	PASS	A01	PASS	
		NT / LV	A01	PASS	A01	PASS	
		NT / HV	A01	PASS	A01	PASS	
14.5.1	4.2.38	Adjacent channel rejection-speech channels (TCH/FS)					
		NT / NV	A01	PASS	A01	PASS	
		NT / LV	A01	PASS	A01	PASS	
		NT / HV	A01	PASS	A01	PASS	
14.7.1	4.2.20	Blocking and spurious response – speech channels					
		NT / NV	A01	PASS	A01	PASS	
		NT / LV	A01	PASS	A01	PASS	
		NT / HV	A01	PASS	A01	PASS	
14.18.3	4.2.40	Adjacent channel rejection - EGPRS					
		NT / NV	A01	PASS	A01	PASS	
		NT / LV	A01	PASS	A01	PASS	
		NT / HV	A01	PASS	A01	PASS	
14.18.4	4.2.34	Intermodulation rejection - EGPRS					
		NT / NV	A01	PASS	A01	PASS	
		NT / LV	A01	PASS	A01	PASS	
		NT / HV	A01	PASS	A01	PASS	
13.17.1	4.2.26	Frequency error and Modulation accuracy in EGPRS Configuration					
		NT / NV	A01	PASS	A01	PASS	
		NT / LV	A01	PASS	A01	PASS	

		NT / HV	A01	PASS	A01	PASS	
13.17.2	4.2.27	Frequency error under multipath and interference conditions in EGPRS Configuration					
		NT / NV	A01	PASS	A01	PASS	
		NT / LV	A01	PASS	A01	PASS	
		NT / HV	A01	PASS	A01	PASS	
13.17.3	4.2.28	EGPRS Transmitter output power					
		NT / NV	A01	PASS	A01	PASS	
		NT / LV	A01	PASS	A01	PASS	
		NT / HV	A01	PASS	A01	PASS	
13.17.4	4.2.29	Output RF spectrum in EGPRS configuration					
		NT / NV	A01	PASS	A01	PASS	
		NT / LV	A01	PASS	A01	PASS	
		NT / HV	A01	PASS	A01	PASS	
14.18.1	4.2.45	Minimum Input level for Reference Performance - EGPRS					
		NT / NV	A01	PASS	A01	PASS	
		NT / LV	A01	PASS	A01	PASS	
		NT / HV	A01	PASS	A01	PASS	
14.18.5	4.2.30	Blocking and spurious response in EGPRS configuration					
		NT / NV	A01	PASS	A01	PASS	
		NT / LV	A01	PASS	A01	PASS	
		NT / HV	A01	PASS	A01	PASS	



**Table A.2: The EN Requirements Table (EN-RT) (Re. ETSI EN 301 511 Annex A) for SIM Card 2**

Test Case (ETSI TS 151010-1)	Test Case (EN 301 511)	Parameter	GSM 900		GSM 1800		Note
			Sample	Result	Sample	Result	
12.1.1	4.2.12	Conducted spurious emissions - MS allocated a channel					
		NT / NV	A01	PASS	A01	PASS	
		NT / LV	A01	PASS	A01	PASS	
		NT / HV	A01	PASS	A01	PASS	
12.1.2	4.2.13	Conducted spurious emissions - MS in idle mode					
		NT / NV	A01	PASS	A01	PASS	
		NT / LV	A01	PASS	A01	PASS	
		NT / HV	A01	PASS	A01	PASS	
12.2.1	4.2.16	Radiated spurious emissions - MS allocated a channel					
		NT / NV	A01	PASS	A01	PASS	
		NT / LV	A01	PASS	A01	PASS	
		NT / HV	A01	PASS	A01	PASS	
12.2.2	4.2.17	Radiated spurious emissions - MS in idle mode					
		NT / NV	A01	PASS	A01	PASS	
		NT / LV	A01	PASS	A01	PASS	
		NT / HV	A01	PASS	A01	PASS	
13.1	4.2.1	Transmitter - Frequency error and phase error					
		NT / NV	A01	PASS	A01	PASS	
		LT / LV	A01	PASS	A01	PASS	
		LT / HV	A01	PASS	A01	PASS	
		HT / LV	A01	PASS	A01	PASS	
		HT / HV	A01	PASS	A01	PASS	
		Vibration X-axis	A01	PASS	A01	PASS	
		Vibration Y-axis	A01	PASS	A01	PASS	
		Vibration Z-axis	A01	PASS	A01	PASS	
13.2	4.2.2	Transmitter - Frequency error under multipath and interference conditions					
		NT / NV	A01	PASS	A01	PASS	
		LT / LV	A01	PASS	A01	PASS	
		LT / HV	A01	PASS	A01	PASS	
		HT / LV	A01	PASS	A01	PASS	
		HT / HV	A01	PASS	A01	PASS	
13.3	4.2.5	Transmitter output power and burst timing					

		NT / NV	A01	PASS	A01	PASS	
		LT / LV	A01	PASS	A01	PASS	
		LT / HV	A01	PASS	A01	PASS	
		HT / LV	A01	PASS	A01	PASS	
		HT / HV	A01	PASS	A01	PASS	
13.4	4.2.6	Transmitter - Output RF spectrum					
		NT / NV	A01	PASS	A01	PASS	
		LT / LV	A01	PASS	A01	PASS	
		LT / HV	A01	PASS	A01	PASS	
		HT / LV	A01	PASS	A01	PASS	
		HT / HV	A01	PASS	A01	PASS	
13.16.1	4.2.4	Frequency error and phase error in GPRS multislot configuration					
		NT / NV	A01	PASS	A01	PASS	
		LT / LV	A01	PASS	A01	PASS	
		LT / HV	A01	PASS	A01	PASS	
		HT / LV	A01	PASS	A01	PASS	
		HT / HV	A01	PASS	A01	PASS	
		Vibration X-axis	A01	PASS	A01	PASS	
		Vibration Y-axis	A01	PASS	A01	PASS	
		Vibration Z-axis	A01	PASS	A01	PASS	
13.16.2	4.2.10	Transmitter output power in GPRS multislot configuration					
		NT / NV	A01	PASS	A01	PASS	
		LT / LV	A01	PASS	A01	PASS	
		LT / HV	A01	PASS	A01	PASS	
		HT / LV	A01	PASS	A01	PASS	
		HT/HV	A01	PASS	A01	PASS	
13.16.3	4.2.11	Output RF spectrum in GPRS multislot configuration					
		NT / NV	A01	PASS	A01	PASS	
		LT / LV	A01	PASS	A01	PASS	
		LT / HV	A01	PASS	A01	PASS	
		HT / LV	A01	PASS	A01	PASS	
		HT/HV	A01	PASS	A01	PASS	
14.2.1	4.2.42	Reference sensitivity - TCH/FS					
		NT / NV	A01	PASS	A01	PASS	
		NT / LV	A01	PASS	A01	PASS	



		NT / HV	A01	PASS	A01	PASS	
14.2.3	4.2.43	Reference sensitivity - FACCH/F					
		NT / NV	A01	PASS	A01	PASS	
14.16.1	4.2.44	Minimum Input level for Reference Performance - GPRS					
		NT / NV	A01	PASS	A01	PASS	
		NT / LV	A01	PASS	A01	PASS	
		NT / HV	A01	PASS	A01	PASS	
14.6.1	4.2.32	Intermodulation rejection-speech channels					
		NT / NV	A01	PASS	A01	PASS	
		NT / LV	A01	PASS	A01	PASS	
		NT / HV	A01	PASS	A01	PASS	
14.8.1	4.2.35	AM suppression-speech channels					
		NT / NV	A01	PASS	A01	PASS	
		NT / LV	A01	PASS	A01	PASS	
		NT / HV	A01	PASS	A01	PASS	
14.5.1	4.2.38	Adjacent channel rejection-speech channels (TCH/FS)					
		NT / NV	A01	PASS	A01	PASS	
		NT / LV	A01	PASS	A01	PASS	
		NT / HV	A01	PASS	A01	PASS	
14.7.1	4.2.20	Blocking and spurious response – speech channels					
		NT / NV	A01	PASS	A01	PASS	
		NT / LV	A01	PASS	A01	PASS	
		NT / HV	A01	PASS	A01	PASS	
14.18.3	4.2.40	Adjacent channel rejection - EGPRS					
		NT / NV	A01	PASS	A01	PASS	
		NT / LV	A01	PASS	A01	PASS	
		NT / HV	A01	PASS	A01	PASS	
14.18.4	4.2.34	Intermodulation rejection - EGPRS					
		NT / NV	A01	PASS	A01	PASS	
		NT / LV	A01	PASS	A01	PASS	
		NT / HV	A01	PASS	A01	PASS	
		NT / HV	A01	PASS	A01	PASS	
13.17.1	4.2.26	Frequency error and Modulation accuracy in EGPRS Configuration					
		NT / NV	A01	PASS	A01	PASS	
		NT / LV	A01	PASS	A01	PASS	

		NT / HV	A01	PASS	A01	PASS	
13.17.2	4.2.27	Frequency error under multipath and interference conditions in EGPRS Configuration					
		NT / NV	A01	PASS	A01	PASS	
		NT / LV	A01	PASS	A01	PASS	
		NT / HV	A01	PASS	A01	PASS	
13.17.3	4.2.28	EGPRS Transmitter output power					
		NT / NV	A01	PASS	A01	PASS	
		NT / LV	A01	PASS	A01	PASS	
		NT / HV	A01	PASS	A01	PASS	
13.17.4	4.2.29	Output RF spectrum in EGPRS configuration					
		NT / NV	A01	PASS	A01	PASS	
		NT / LV	A01	PASS	A01	PASS	
		NT / HV	A01	PASS	A01	PASS	
14.18.1	4.2.45	Minimum Input level for Reference Performance - EGPRS					
		NT / NV	A01	PASS	A01	PASS	
		NT / LV	A01	PASS	A01	PASS	
		NT / HV	A01	PASS	A01	PASS	
14.18.5	4.2.30	Blocking and spurious response in EGPRS configuration					
		NT / NV	A01	PASS	A01	PASS	
		NT / LV	A01	PASS	A01	PASS	
		NT / HV	A01	PASS	A01	PASS	

**Note:** The worst test case is SIM Card 1.

## Appendix A. Transmitter - Frequency error and phase error

Note: All test modes were carried out for all operation modes and record the worst test mode (GSM 900/1800 TN/VN) of fellow:

### GSM900

RMS phase error(degree)	Power control LEVEL	Result			
		GSM900			
		ARFCN			
		LCH	MCH	HCH	Result
TN VN	5	0.3	0.4	0.4	PASS
	19	0.4	0.4	0.4	PASS
When the MS is being vibrated	5	0.3	0.4	0.4	PASS
	19	0.4	0.4	0.4	PASS

Peak phase error(degree)	Power control LEVEL	Result			
		GSM900			
		ARFCN			
		LCH	MCH	HCH	Result
TN VN	5	1.0	1.4	1.8	PASS
	19	1.3	1.7	1.6	PASS
When the MS is being vibrated	5	1.0	1.3	1.7	PASS
	19	1.4	1.6	1.6	PASS

frequency error(Hz)	Power control LEVEL	Result			
		GSM900			
		ARFCN			
		LCH	MCH	HCH	Result
TN VN	5	9	7	9	PASS
	19	8	10	7	PASS
When the MS is being vibrated	5	6	6	9	PASS
	19	7	7	10	PASS



### DCS1800

RMS phase error(degree)	Power control LEVEL	Result			
		DCS1800			
		ARFCN			
		LCH	MCH	HCH	Result
TN VN	0	0.5	0.5	0.5	PASS
	15	0.5	0.5	0.6	PASS
When the MS is being vibrated	0	0.5	0.5	0.5	PASS
	15	0.5	0.5	0.6	PASS

Peak phase error(degree)	Power control LEVEL	Result			
		DCS1800			
		ARFCN			
		LCH	MCH	HCH	Result
TN VN	0	1.5	1.5	1.6	PASS
	15	1.5	2.0	3.3	PASS
When the MS is being vibrated	0	1.4	1.5	1.6	PASS
	15	1.5	2.0	3.4	PASS

frequency error(Hz)	Power control LEVEL	Result			
		DCS1800			
		ARFCN			
		LCH	MCH	HCH	Result
TN VN	0	-3	0	-2	PASS
	15	-1	7	8	PASS
When the MS is being vibrated	0	1	0	-1	PASS
	15	3	2	7	PASS

## Appendix B.Frequency error under multipath and interference conditions

Note: All test modes were carried out for all operation modes and record the worst test mode (GSM 900/1800 TN/VN) of fellow:

### GSM900

Fading set	Test conditions	Power control LEVEL	Result			
			GSM900			
			ARFCN			
			LCH	MCH	HCH	Result
RA250	TNVN	5	9	7	10	PASS
		19	13	8	8	PASS
HT100	TNVN	5	9	8	10	PASS
		19	9	7	10	PASS
TU50	TNVN	5	13	8	9	PASS
		19	10	6	12	PASS
TU3	TNVN	5	7	7	13	PASS
		19	10	10	12	PASS

### DCS1800

Fading set	Test conditions	Power control LEVEL	Result			
			DCS1800			
			ARFCN			
			LCH	MCH	HCH	Result
RA130	TNVN	0	-1	-4	-1	PASS
		15	1	2	6	PASS
HT100	TNVN	0	0	2	-1	PASS
		15	1	0	3	PASS
TU50	TNVN	0	1	3	0	PASS
		15	0	3	4	PASS
TU1.5	TNVN	0	2	-2	-3	PASS
		15	0	5	4	PASS

## Appendix C.Frequency error and phase error in GPRS multislot configuration

Note: All test modes were carried out for all operation modes and record the worst test mode (GSM 900/1800 TN/VN) of fellow:

### GSM900

RMS phase error(degree)	Power control LEVEL	Result			
		GSM900			
		ARFCN			
		LCH	MCH	HCH	Result
TN VN	5	0.3	0.4	0.4	PASS
	19	0.3	0.4	0.4	PASS
When the MS is being vibrated	5	0.3	0.4	0.4	PASS
	19	0.3	0.4	0.4	PASS

Peak phase error(degree)	Power control LEVEL	Result			
		GSM900			
		ARFCN			
		LCH	MCH	HCH	Result
TN VN	5	1.0	1.1	1.2	PASS
	19	1.2	1.2	1.1	PASS
When the MS is being vibrated	5	1.0	1.1	1.1	PASS
	19	1.1	1.2	1.1	PASS

frequency error(Hz)	Power control LEVEL	Result			
		GSM900			
		ARFCN			
		LCH	MCH	HCH	Result
TN VN	5	3	3	4	PASS
	19	8	9	8	PASS
When the MS is being vibrated	5	8	3	6	PASS
	19	7	9	11	PASS

### DCS1800

RMS phase error(degree)	Power control LEVEL	Result			
		DCS1800			
		ARFCN			
		LCH	MCH	HCH	Result
TN VN	0	0.5	0.5	0.5	PASS
	15	0.5	0.5	0.5	PASS
When the MS is being vibrated	0	0.5	0.5	0.5	PASS
	15	0.5	0.5	0.5	PASS

Peak phase error(degree)	Power control LEVEL	Result			
		DCS1800			
		ARFCN			
		LCH	MCH	HCH	Result
TN VN	0	1.4	1.5	1.5	PASS
	15	1.5	1.7	2.4	PASS
When the MS is being vibrated	0	1.4	1.5	1.5	PASS
	15	1.5	1.8	2.4	PASS

frequency error(Hz)	Power control LEVEL	Result			
		DCS1800			
		ARFCN			
		LCH	MCH	HCH	Result
TN VN	0	-10	-5	-5	PASS
	15	-5	1	3	PASS
When the MS is being vibrated	0	-7	-5	-5	PASS
	15	-5	-1	2	PASS

## Appendix D. Transmitter output power and burst timing

Note: All test modes were carried out for all operation modes and record the worst test mode (GSM 900/1800 TN/VN) of fellow:

### A. output power

Transmitter Output power(dBm)	Power level	Result			
		Traffic Channels			
GSM900		LCH	MCH	HCH	Result
TN,VN	5	33.22	33.22	33.22	PASS
	12	19.43	19.69	19.78	PASS
	19	5.57	5.69	5.72	PASS

Transmitter Output power(dBm)	Power level	Result			
		Traffic Channels			
DCS1800		LCH	MCH	HCH	Result
TN,VN	0	30.19	29.93	29.70	PASS
	8	15.13	14.75	14.57	PASS
	15	2.55	2.05	1.53	PASS

### B. Power VS Time

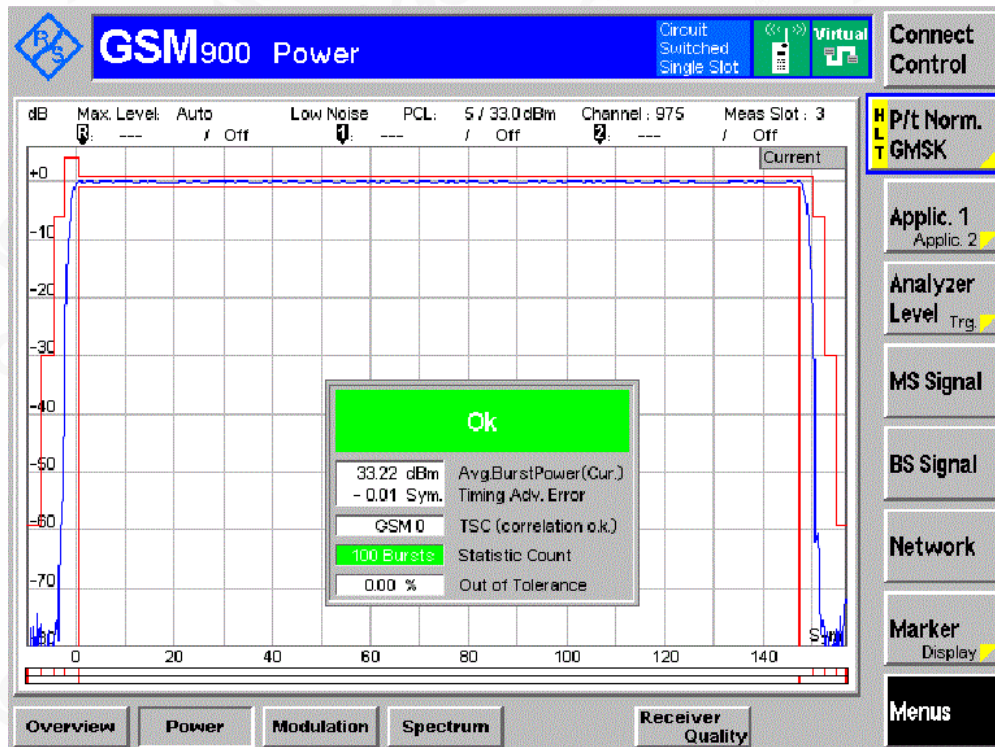
Power VS Time Graph	ACCESS BURST	Result		
		Traffic Channels		
GSM900	Power level	LCH	MCH	HCH
TN,VN	5	PASS	PASS	PASS
	12	PASS	PASS	PASS
	19	PASS	PASS	PASS

Power VS Time Graph	ACCESS BURST	Result		
		Traffic Channels		
DCS1800	Power level	LCH	MCH	HCH
TN,VN	0	PASS	PASS	PASS
	8	PASS	PASS	PASS
	15	PASS	PASS	PASS

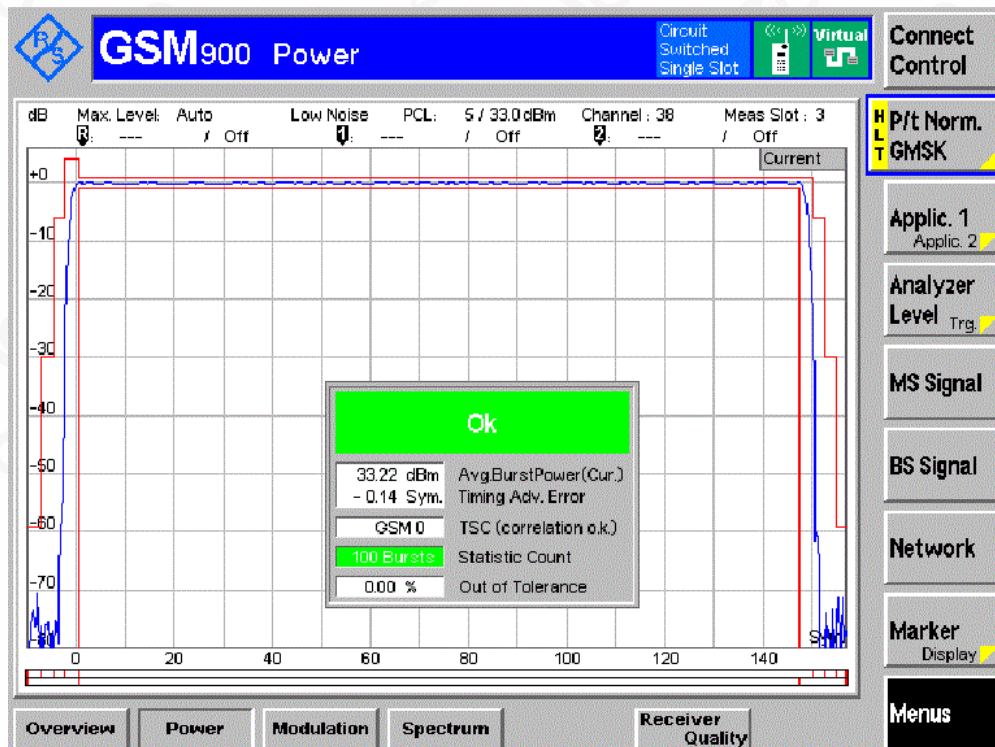
## Graphs of output power and burst timing

### GSM 900 TN,VN

Channel LCH PCL 5



Channel MCH PCL 5



Attestation of Global Compliance

Attestation of Global Compliance(Shenzhen)Co.,Ltd.

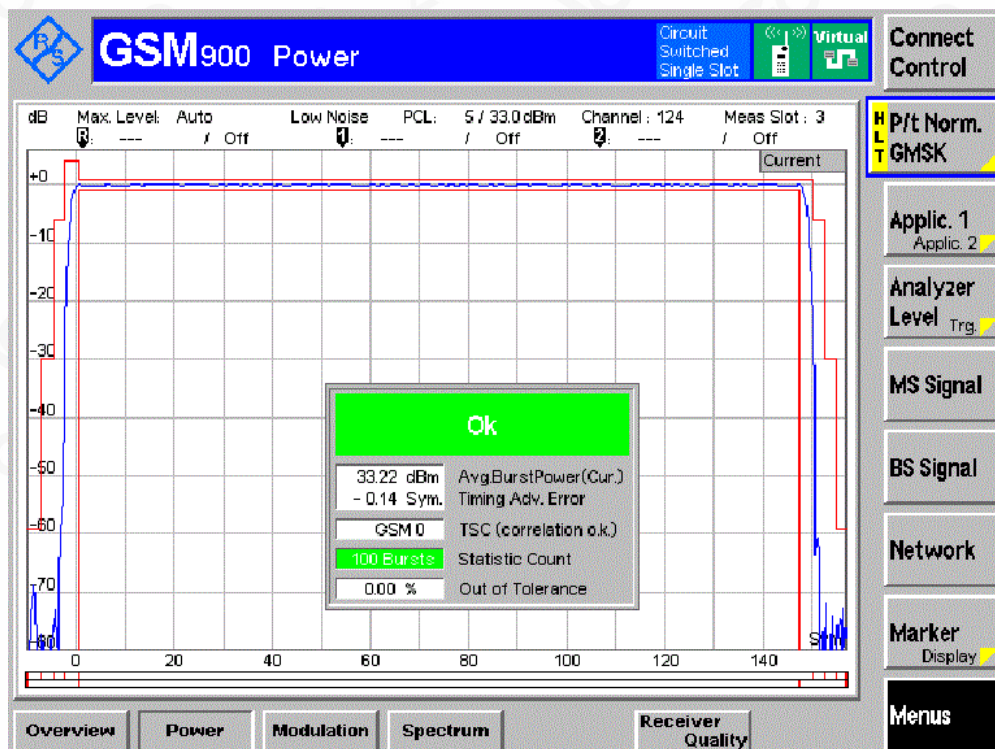
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Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

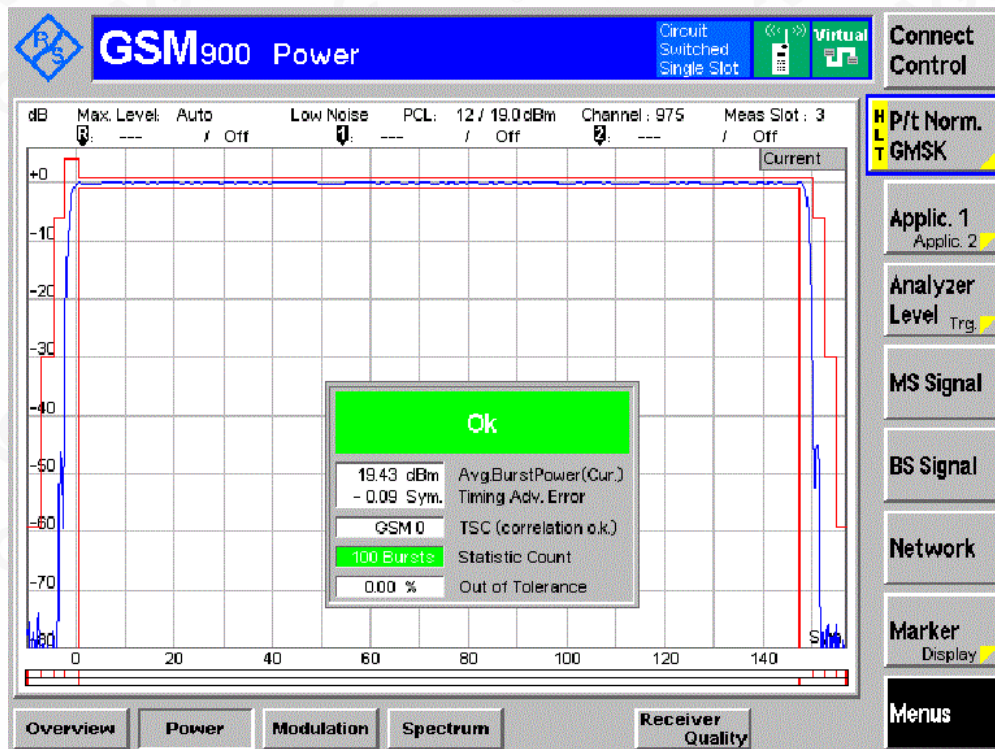
E-mail: agc@agc-cert.com

Service Hotline: 400 089 2118

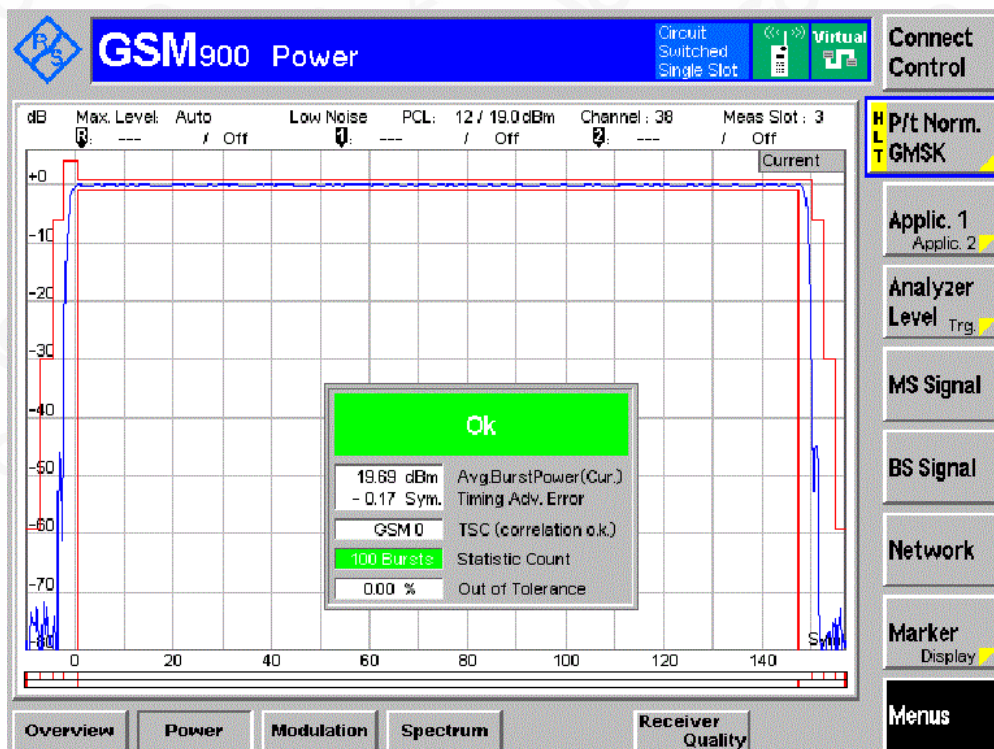
Channel HCH PCL 5



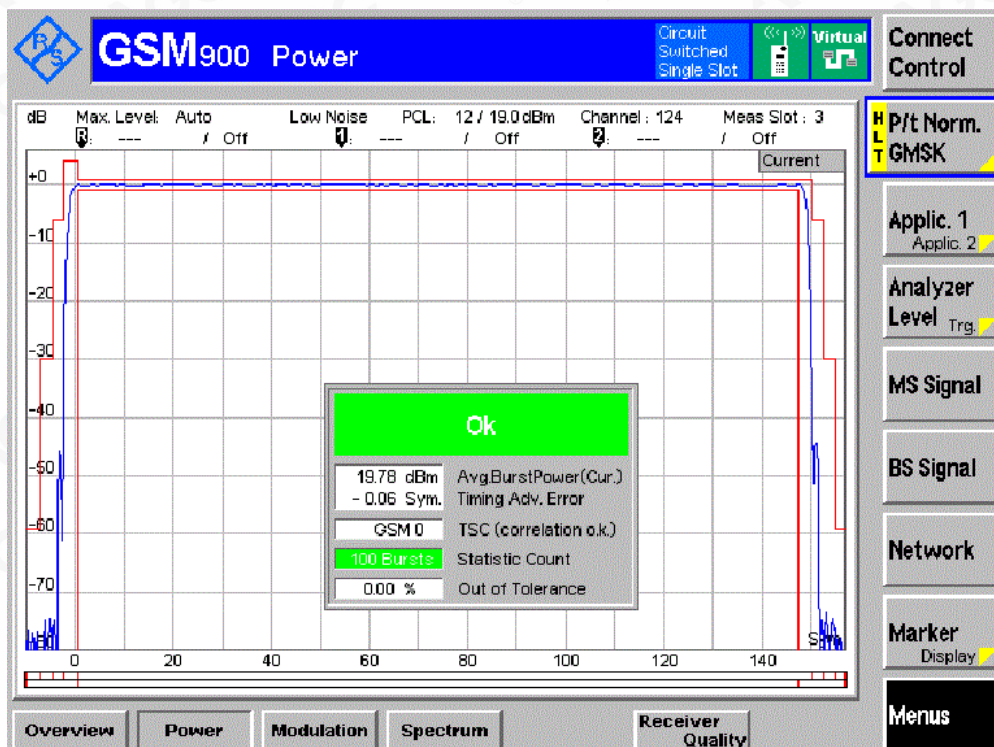
Channel LCH PCL 12



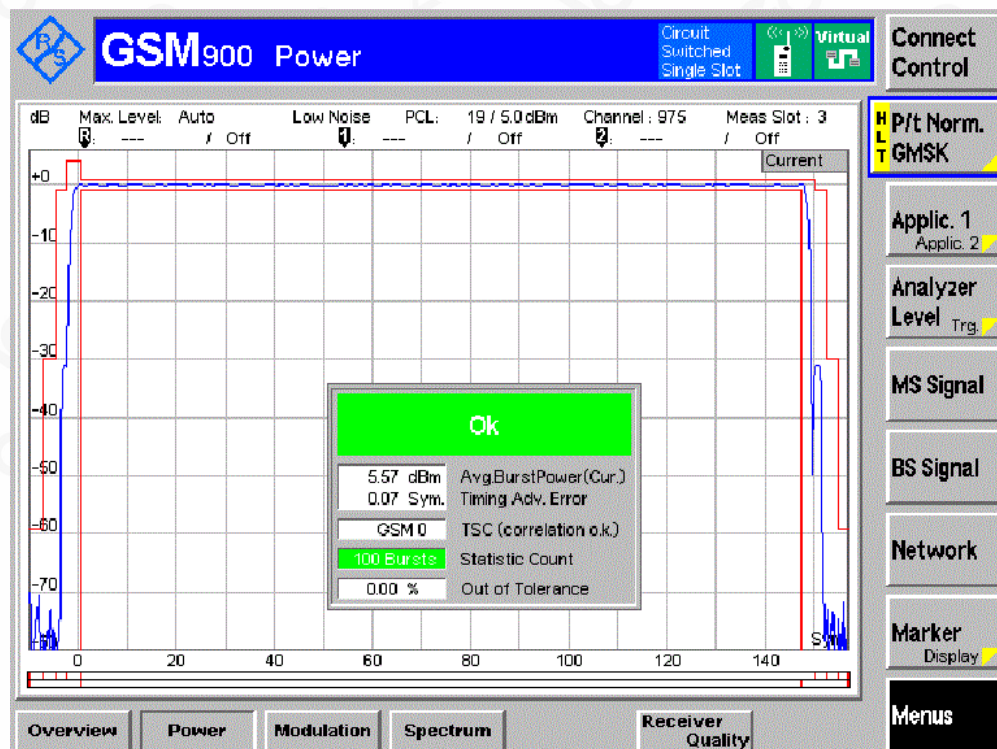
### Channel MCH PCL 12



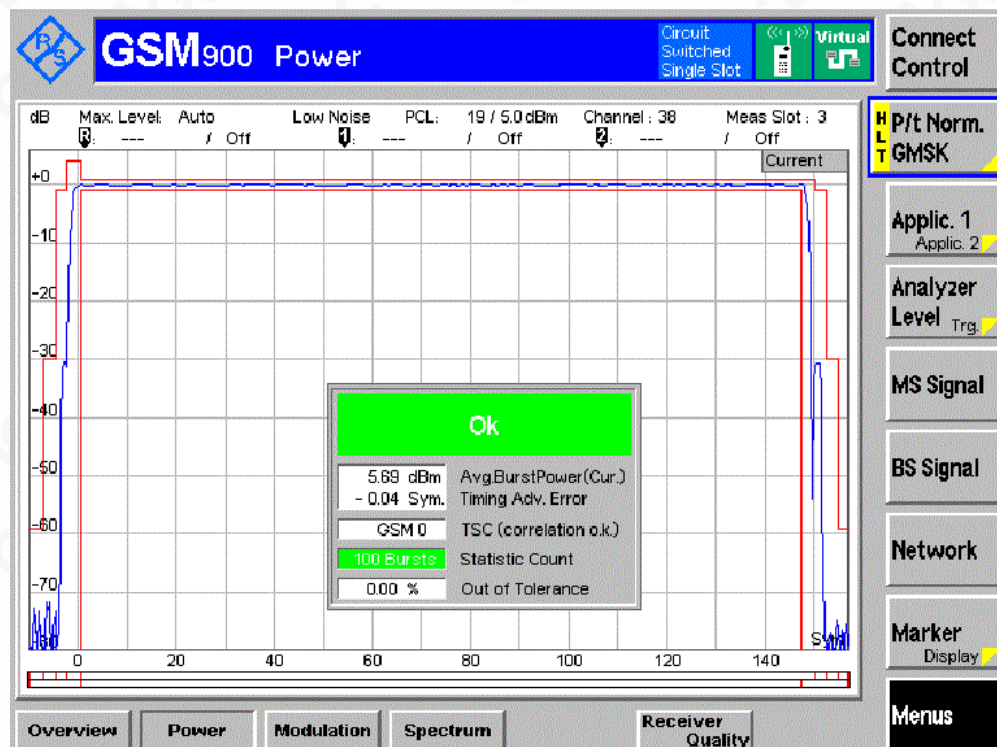
### Channel HCH PCL 12



Channel LCH PCL 19



Channel MCH PCL 19



**GSM900 Power**

Circuit Switched Single Slot

Connect Control

Max. Level: Auto / Off

Low Noise: / Off

PCL: 19 / 5.0 dBm

Channel: 124

Meas Slot: 3

dB

Current

0

-10

-20

-30

-40

-50

-60

-70

-80

0

20

40

60

80

100

120

140

160

180

200

220

240

260

280

300

320

340

360

380

400

420

440

460

480

500

520

540

560

580

600

620

640

660

680

700

720

740

760

780

800

820

840

860

880

900

920

940

960

980

1000

1020

1040

1060

1080

1100

1120

1140

1160

1180

1200

1220

1240

1260

1280

1300

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1380

1400

1420

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1500

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1920

1940

1960

1980

2000

2020

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2100

2120

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3140

3160

3180

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6980

7000

7020

7040

7060

7080

7100

7120

7140

7160

7180

7200

7220

7240

7260

7280

7300

7320

7340

7360

7380

7400

7420

7440

7460

**GSM 1800 Power**

Circuit Switched Single Slot

Connect Control

Max. Level: Auto / Off

Low Noise: Off

PCL: 0 / 30.0 dBm

Channel: 512

Meas Slot: 3

dB

Current

Ok

30.19 dBm AvgBurstPower(Cur.)

-0.05 Sym. Timing Adv. Error

GSM 0 TSC (correlation o.k.)

100 Bursts Statistic Count

0.00 % Out of Tolerance

P/t Norm.

GMSK

Applic. 1

Applic. 2

Analyzer Level

MS Signal

BS Signal

Network

Marker Display

Menus

Overview

Power

Modulation

Spectrum

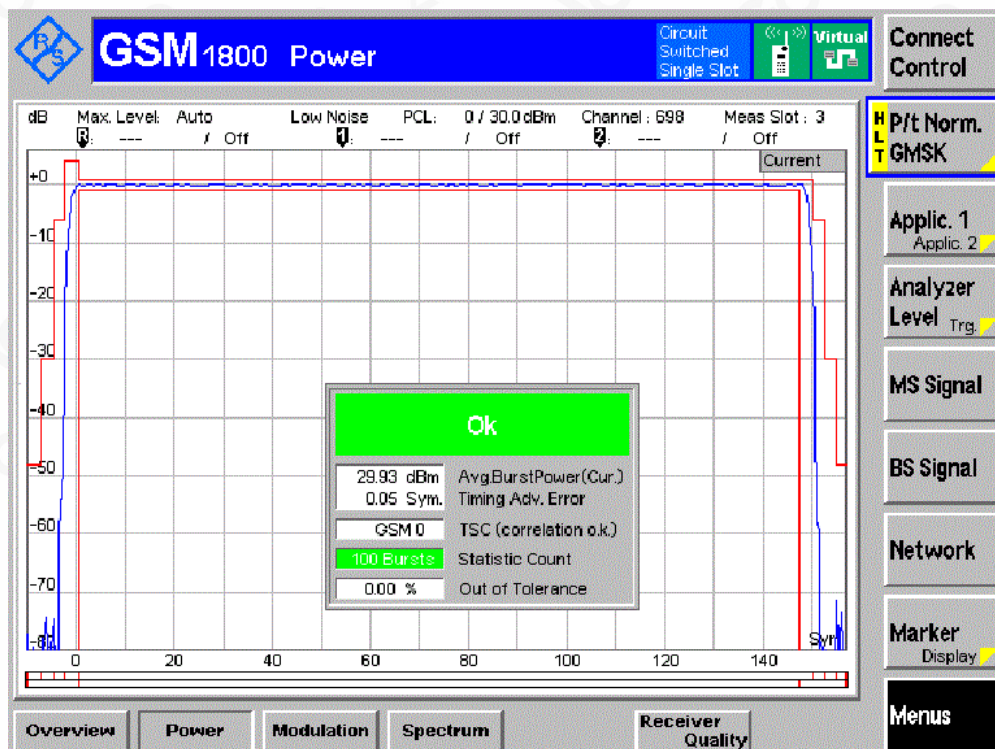
Receiver Quality



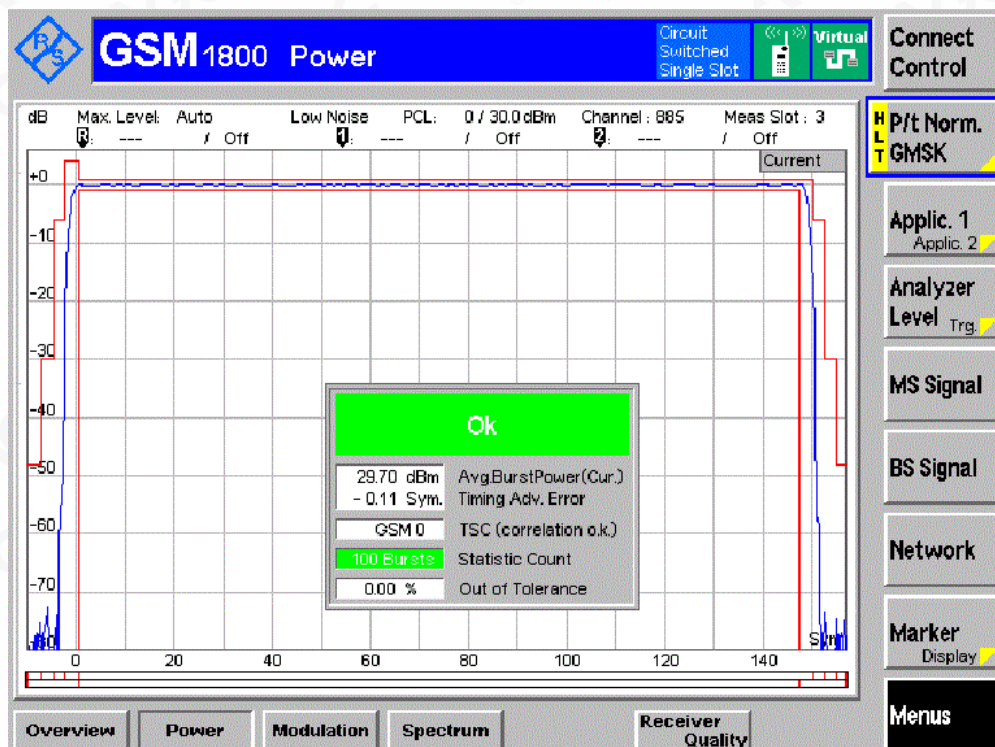
Add: 2/F., Building 2, Sanwei Chaxi Industrial Park, Sanwei Community,  
Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088      E-mail: agc@agc-cert.com      Service Hotline: 400 089 2118

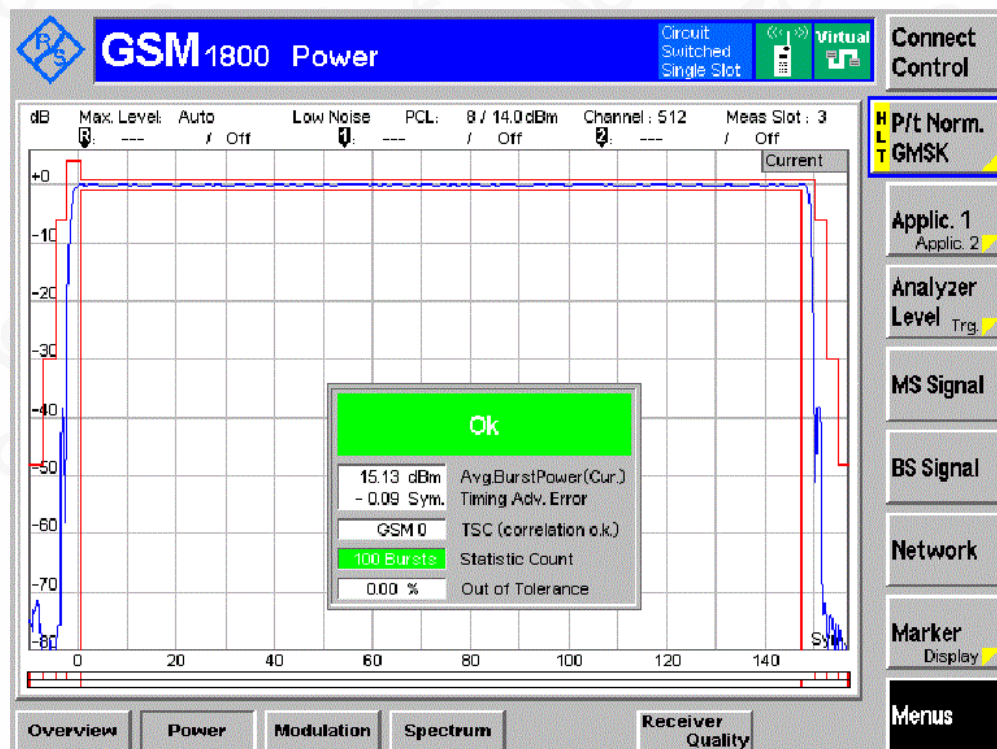
Channel MCH PCL 0



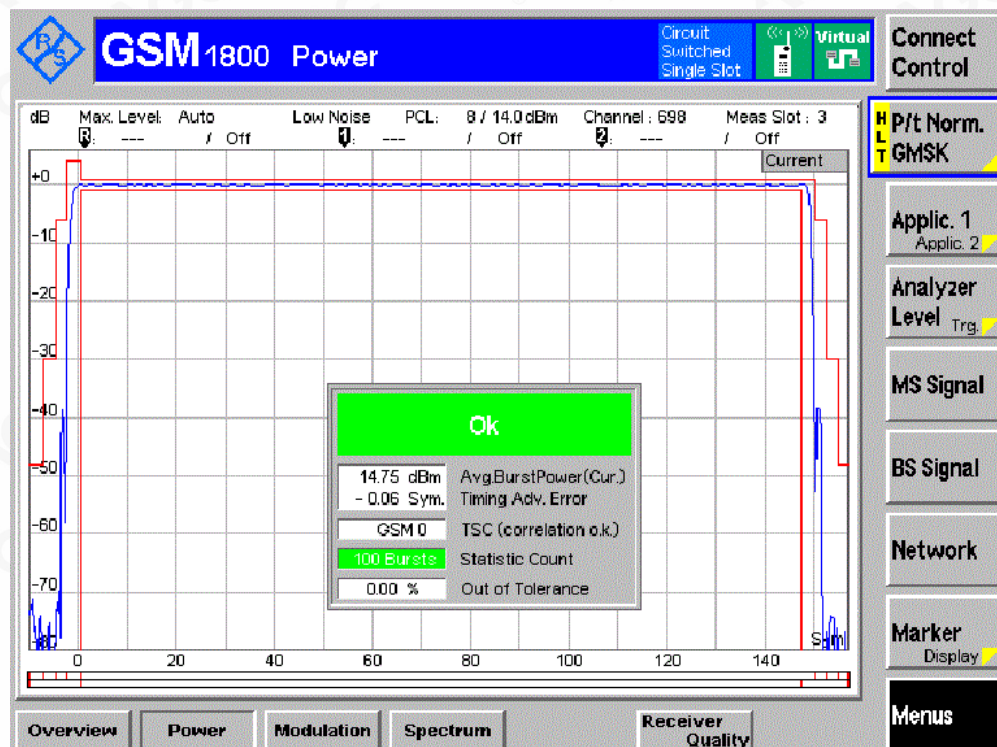
Channel HCH PCL 0



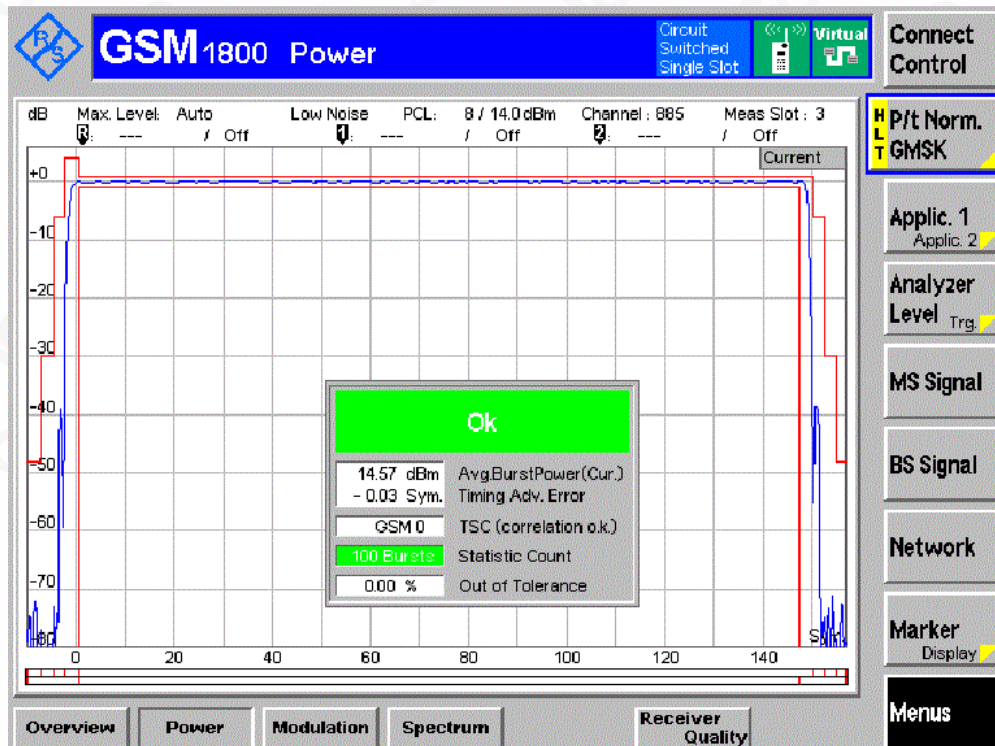
Channel LCH PCL 8



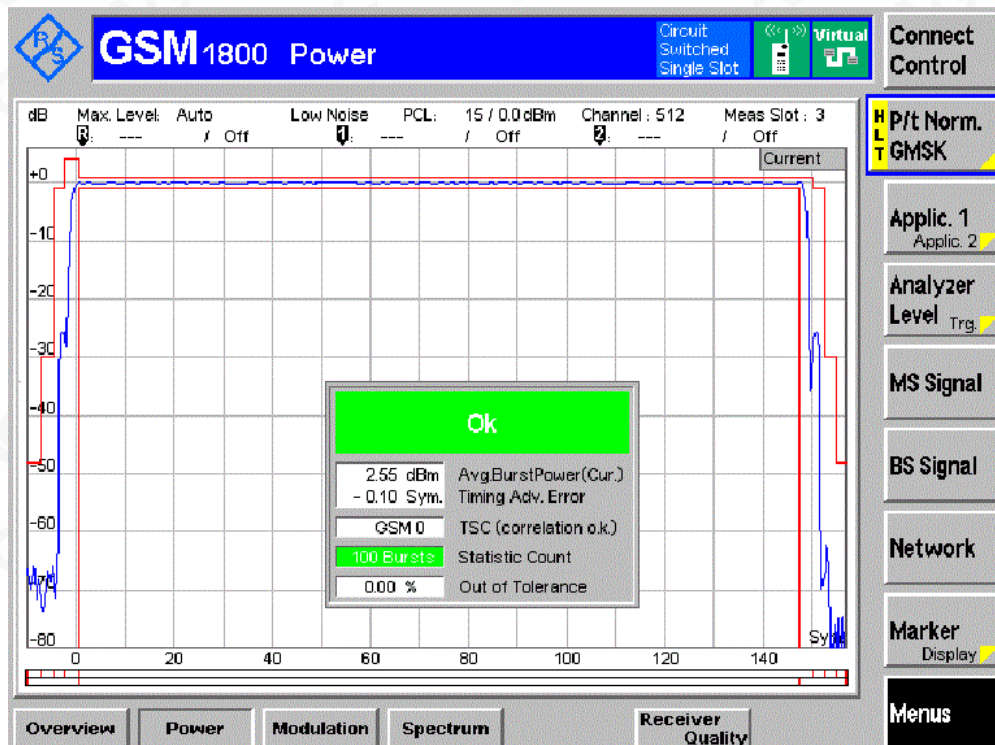
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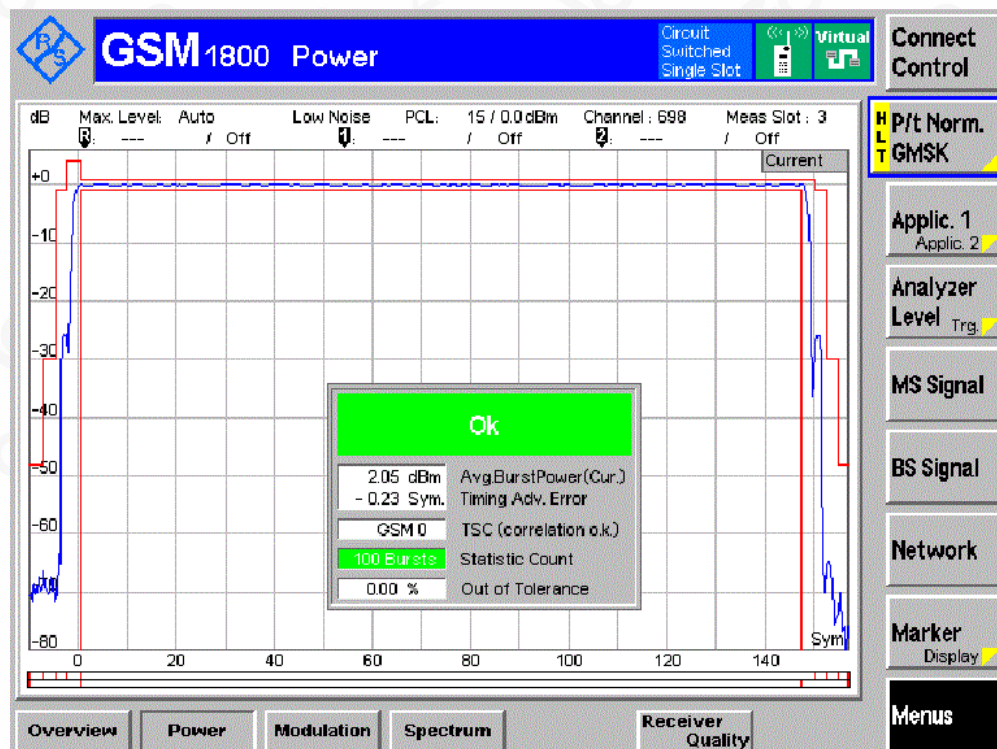
Channel HCH PCL 8



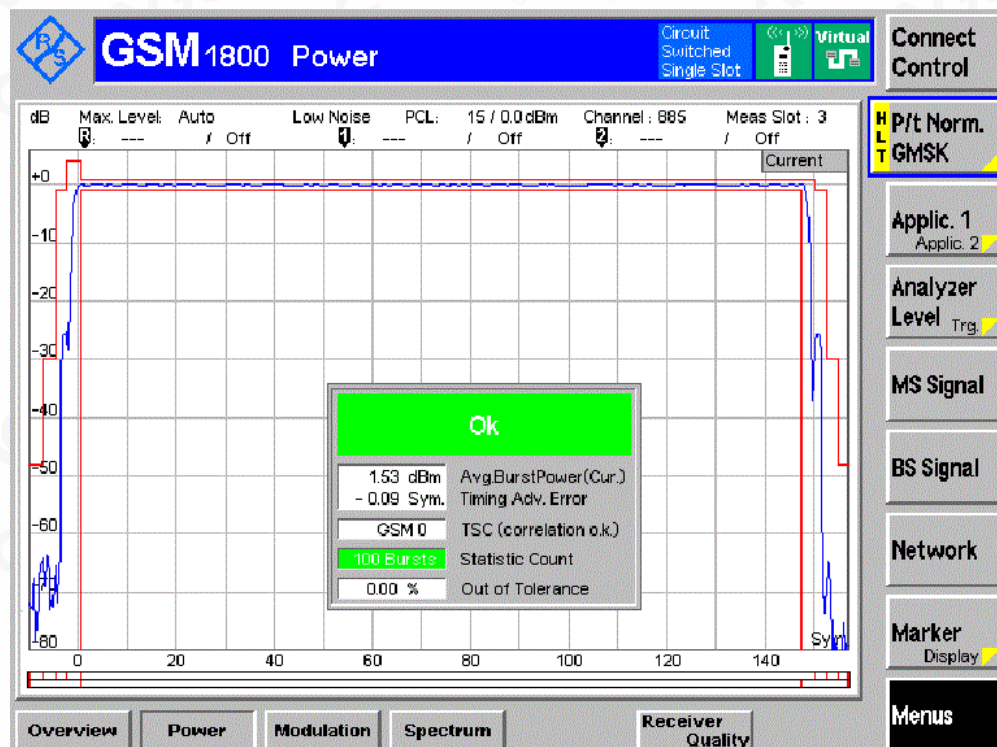
Channel LCH PCL 8



Channel MCH PCL 15



Channel HCH PCL 15



## Appendix E. Transmitter – Output RF spectrum

Note: All test modes were carried out for all operation modes and record the worst test mode (GSM 900/1800 TN/VN) of fellow:

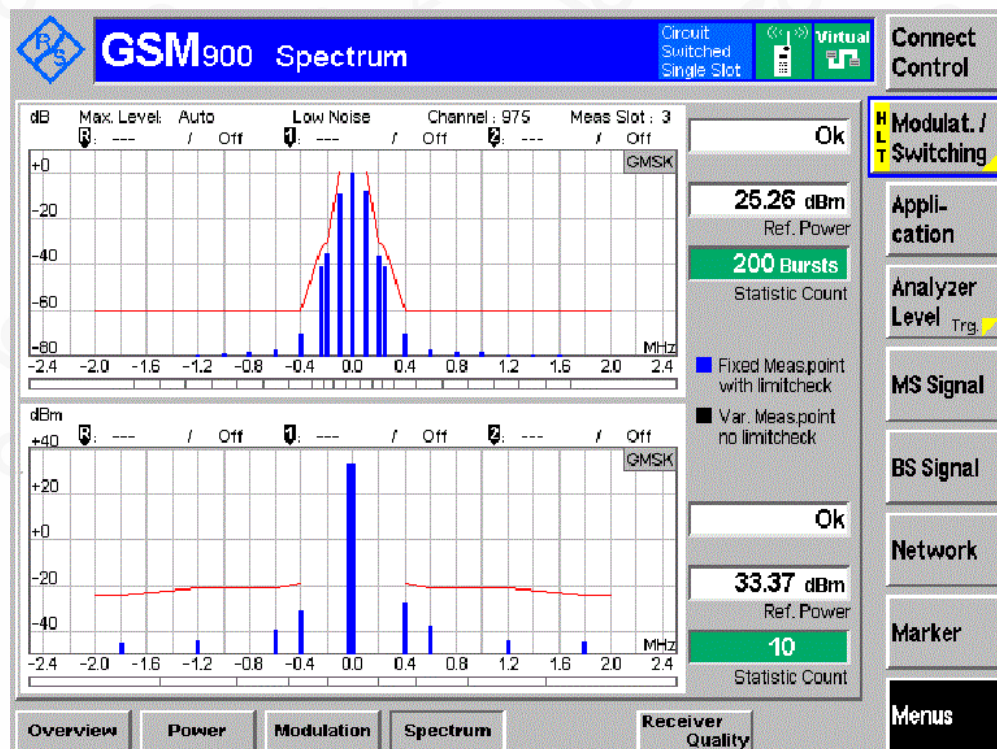
Modulation& switch Spectrum	Power level	Result		
		Traffic Channels		
GSM900		LCH	MCH	HCH
TN,VN	5	PASS	PASS	PASS
	12	PASS	PASS	PASS
	19	PASS	PASS	PASS

Modulation& switch Spectrum	Power level	Result		
		Traffic Channels		
DCS1800		LCH	MCH	HCH
TN,VN	0	PASS	PASS	PASS
	8	PASS	PASS	PASS
	15	PASS	PASS	PASS

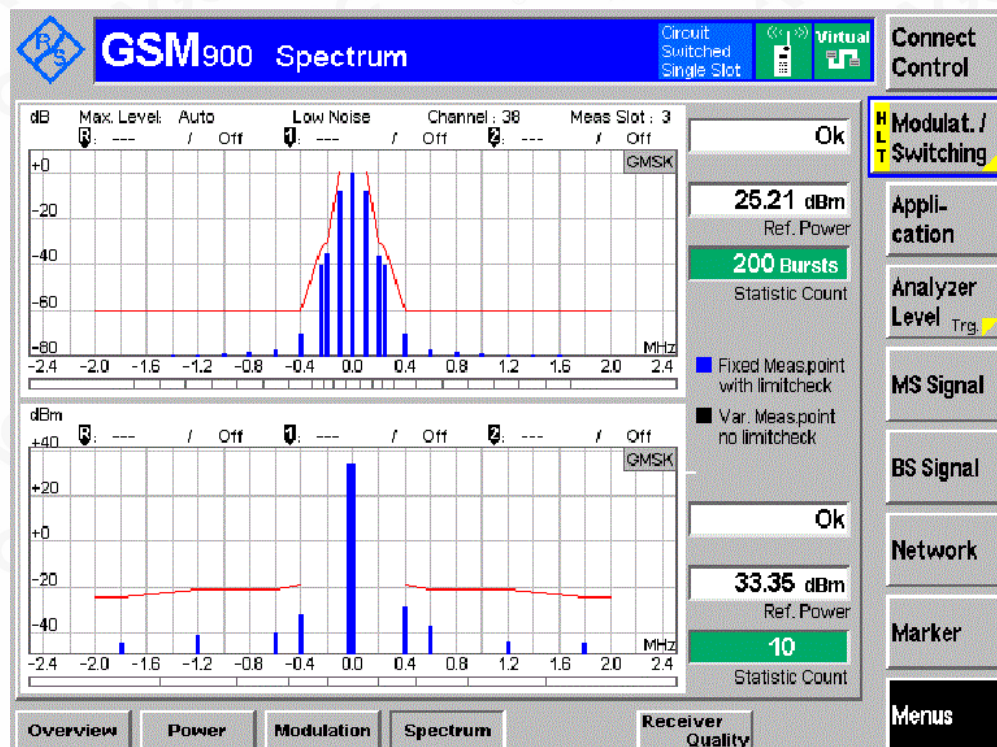
### Graphs of output RF spectrum

#### GSM 900 TN,VN

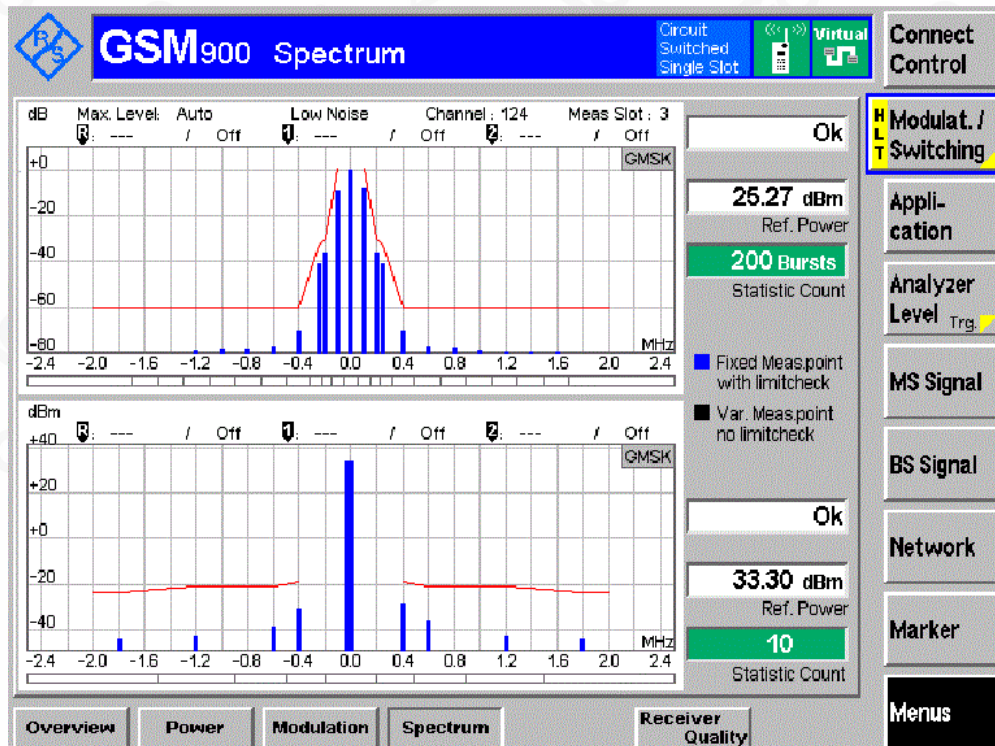
Channel LCH PCL 5



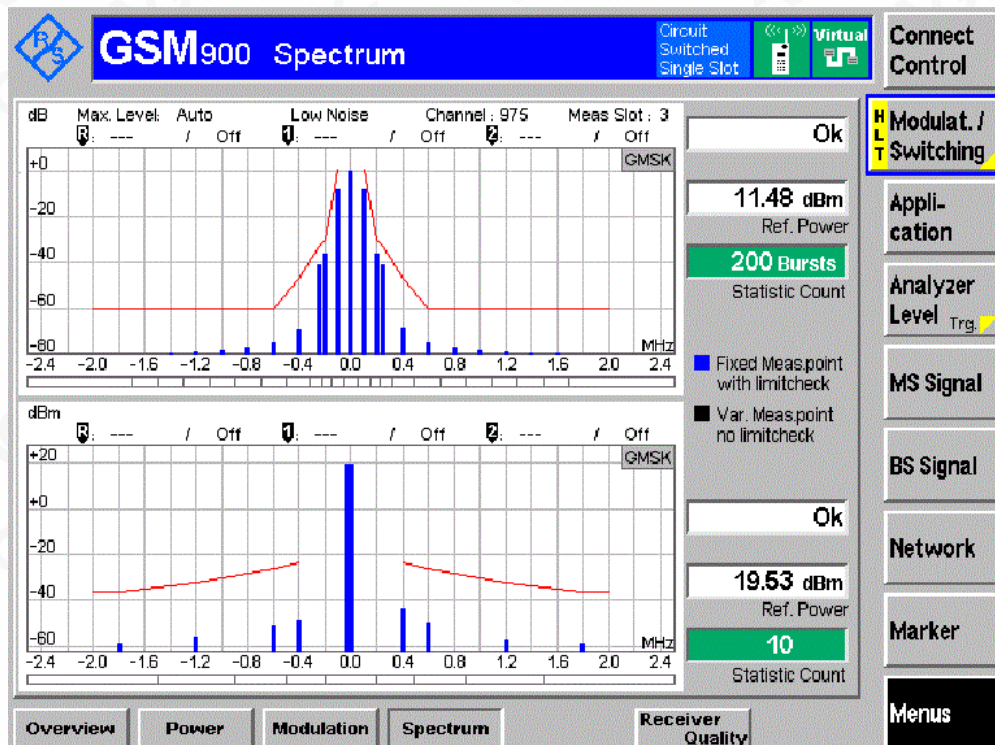
Channel MCH PCL 5



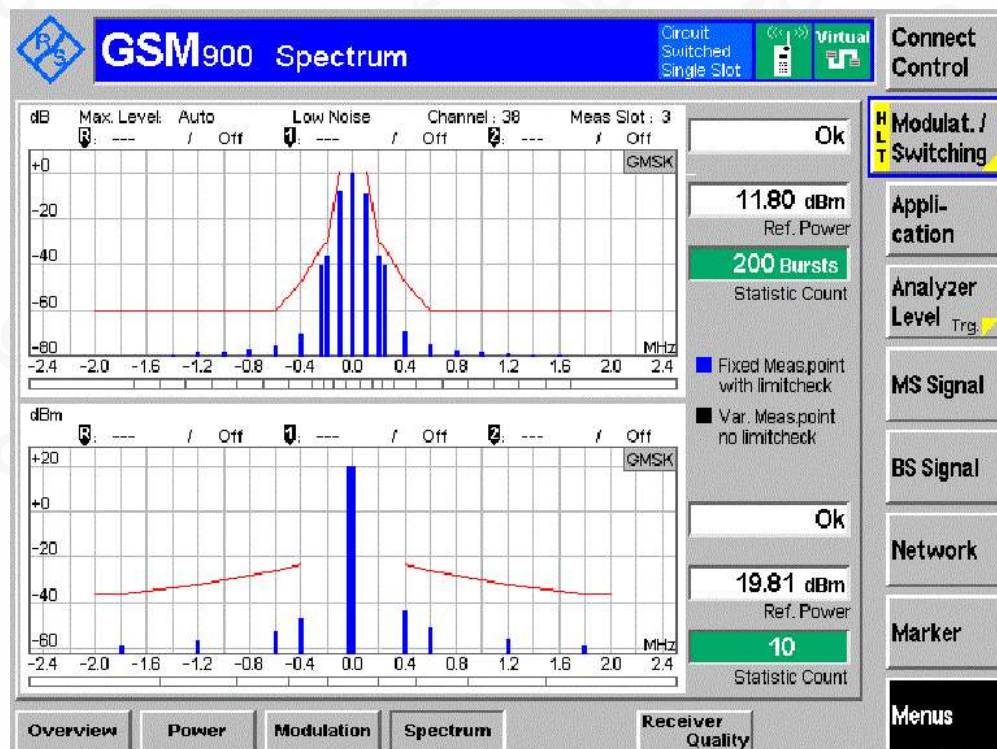
Channel HCH PCL 5



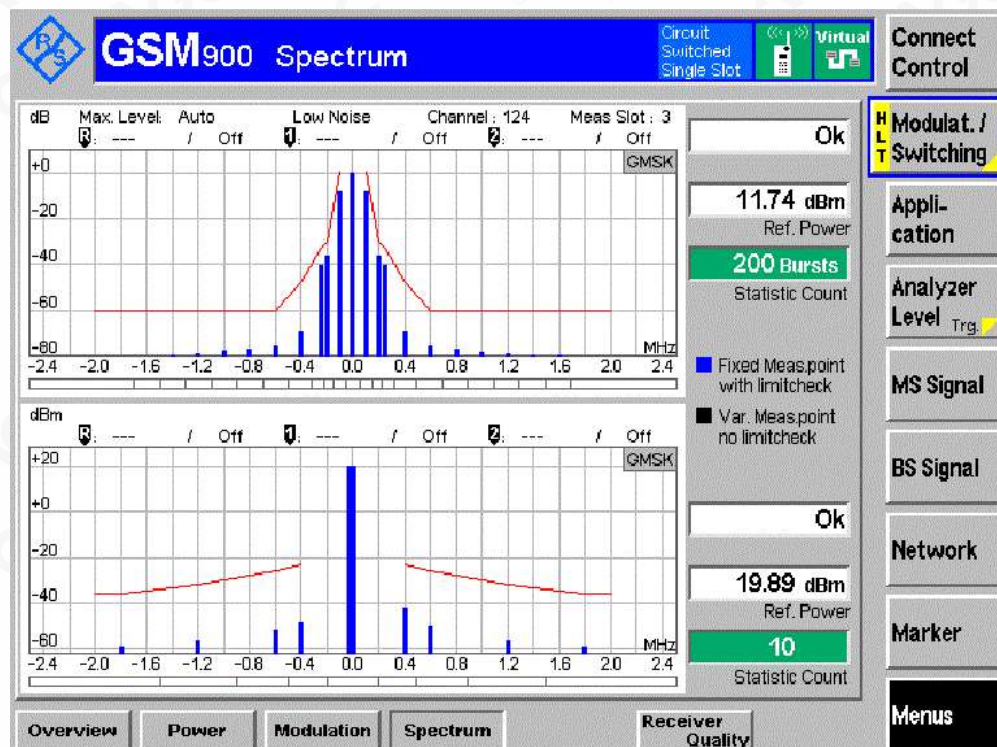
Channel LCH PCL 12



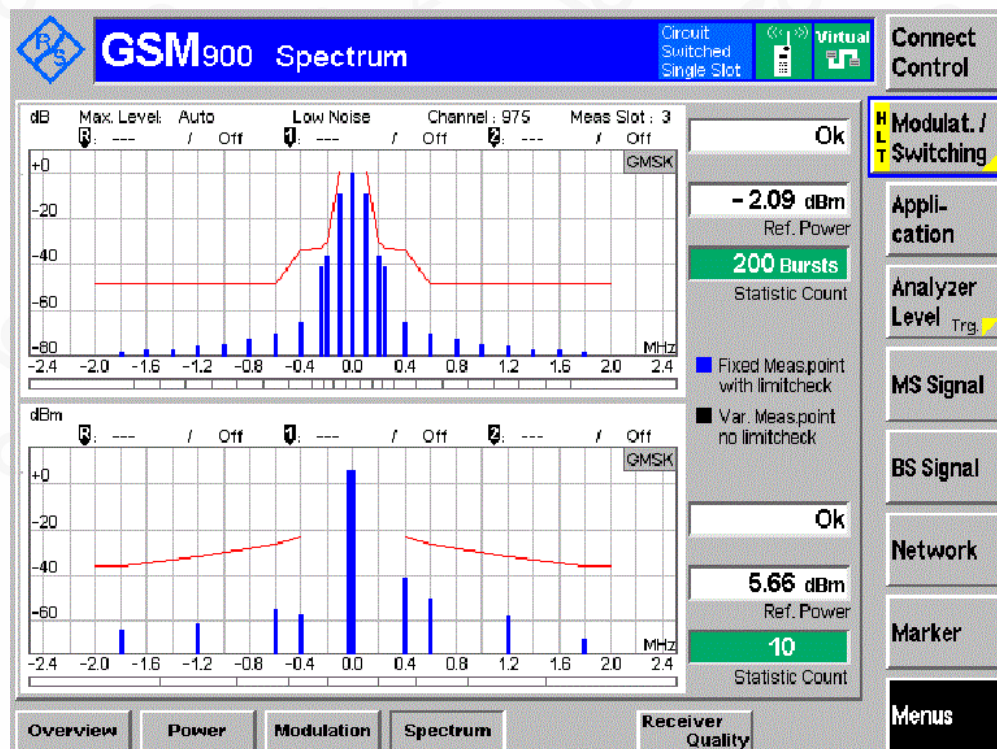
### Channel MCH PCL 12



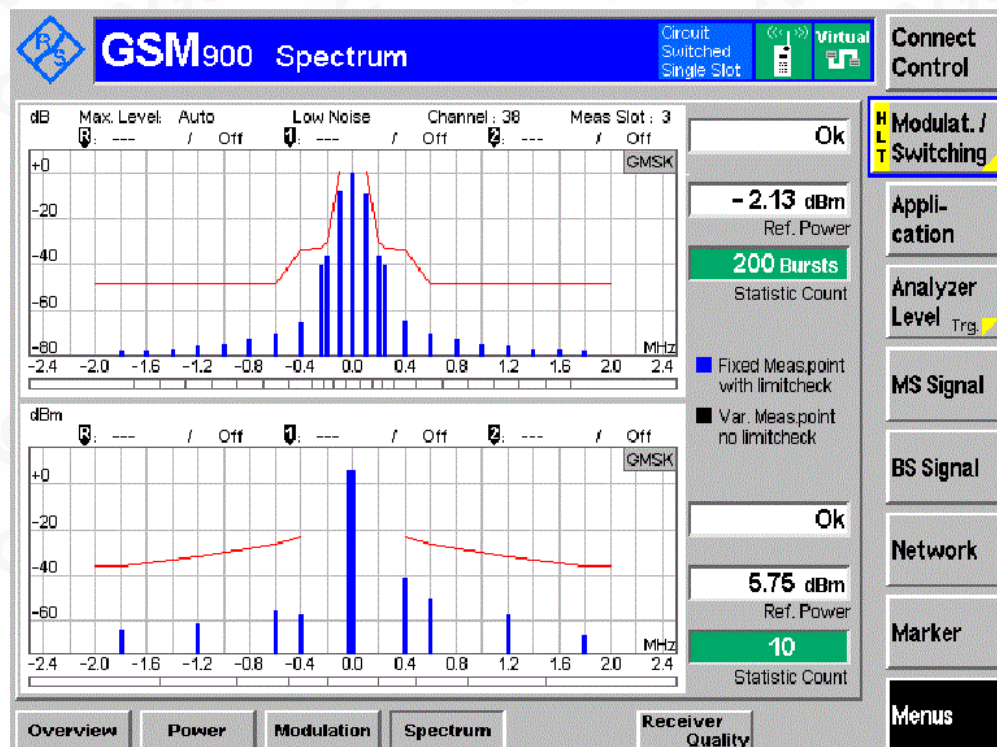
### Channel HCH PCL 12



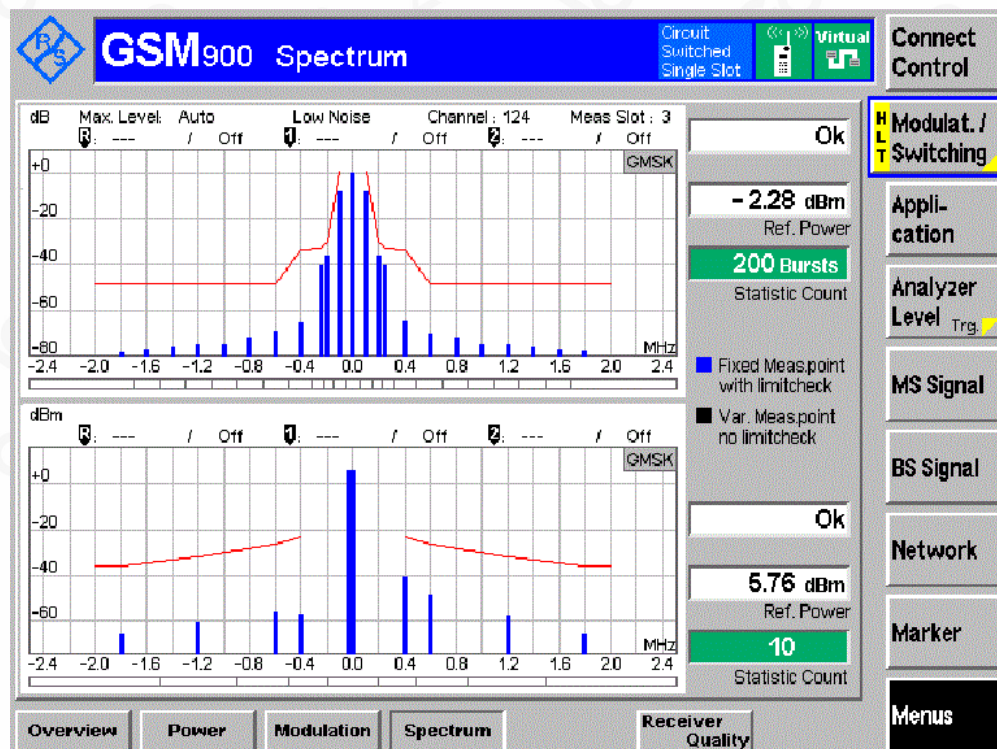
Channel LCH PCL 19



Channel MCH PCL 19

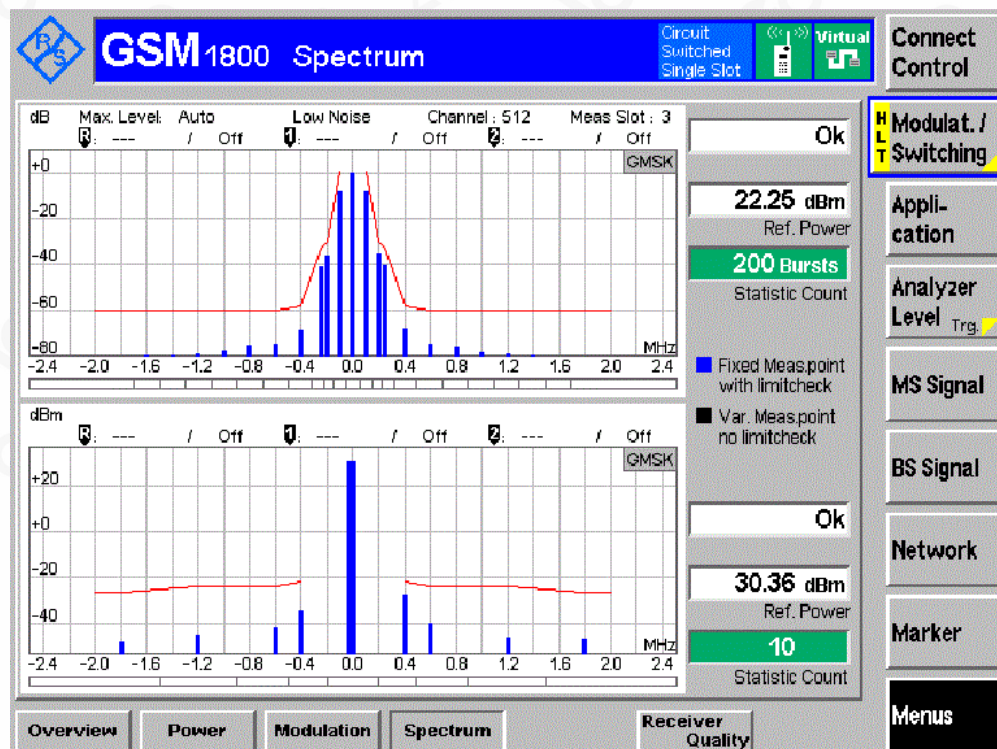


### Channel HCH PCL 19

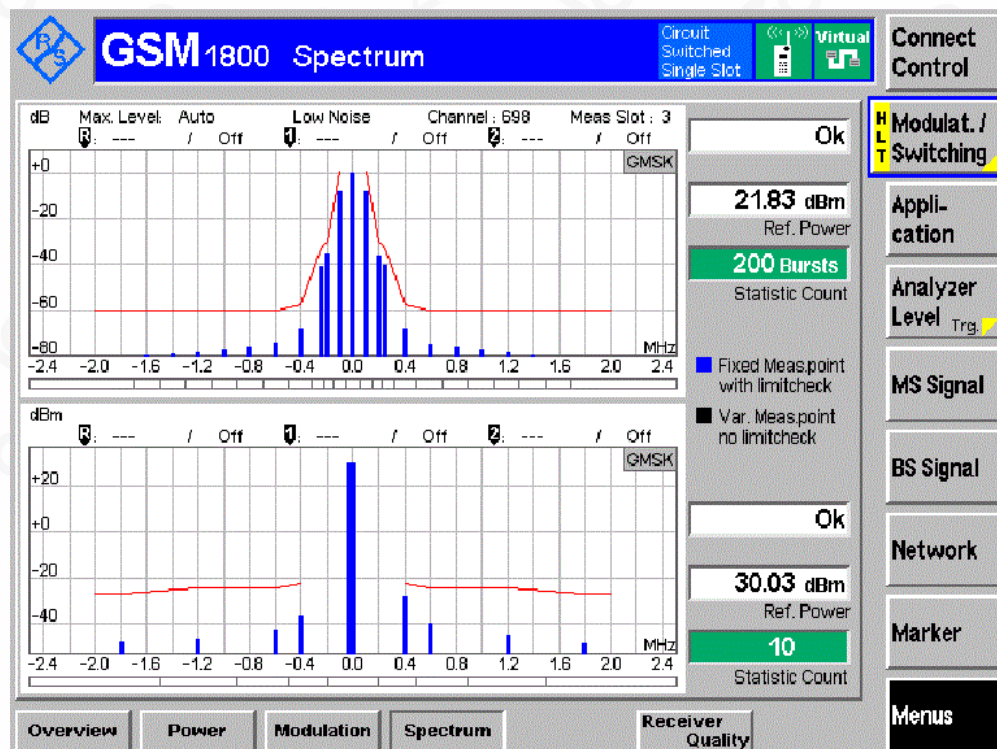


### DCS1800 TN,VN

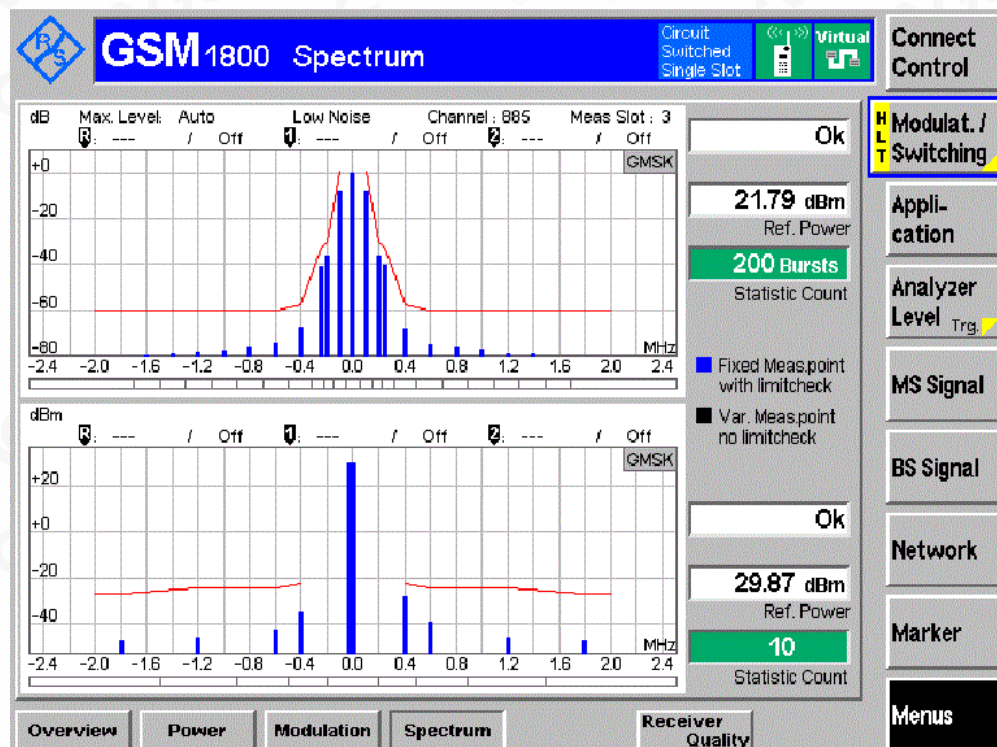
#### Channel LCH PCL 0



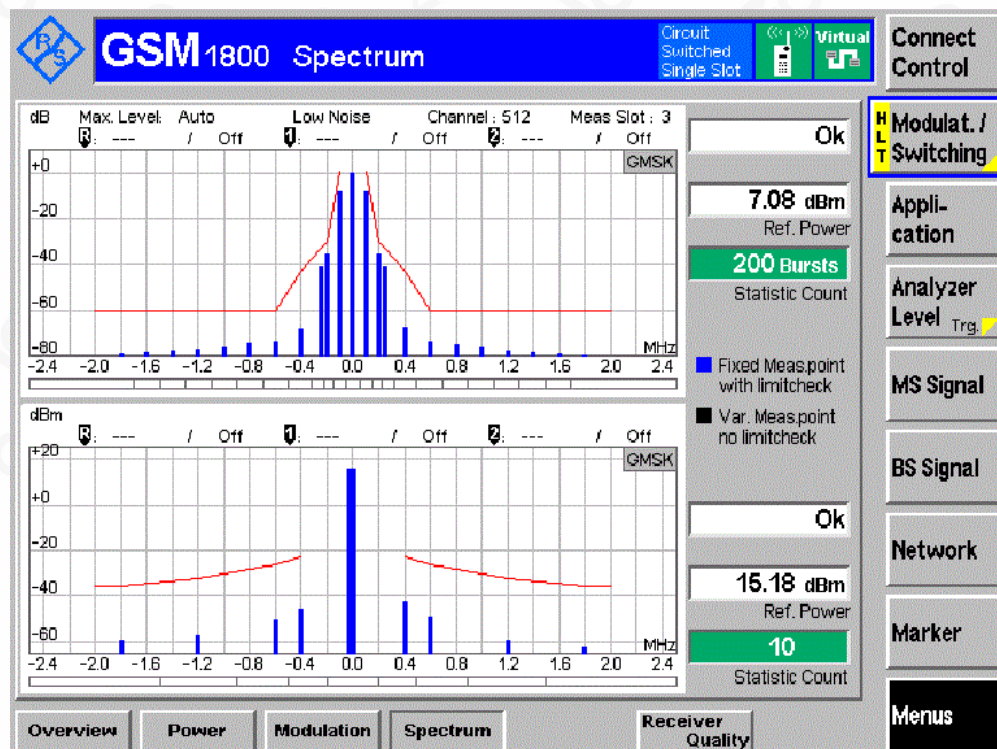
Channel MCH PCL 0



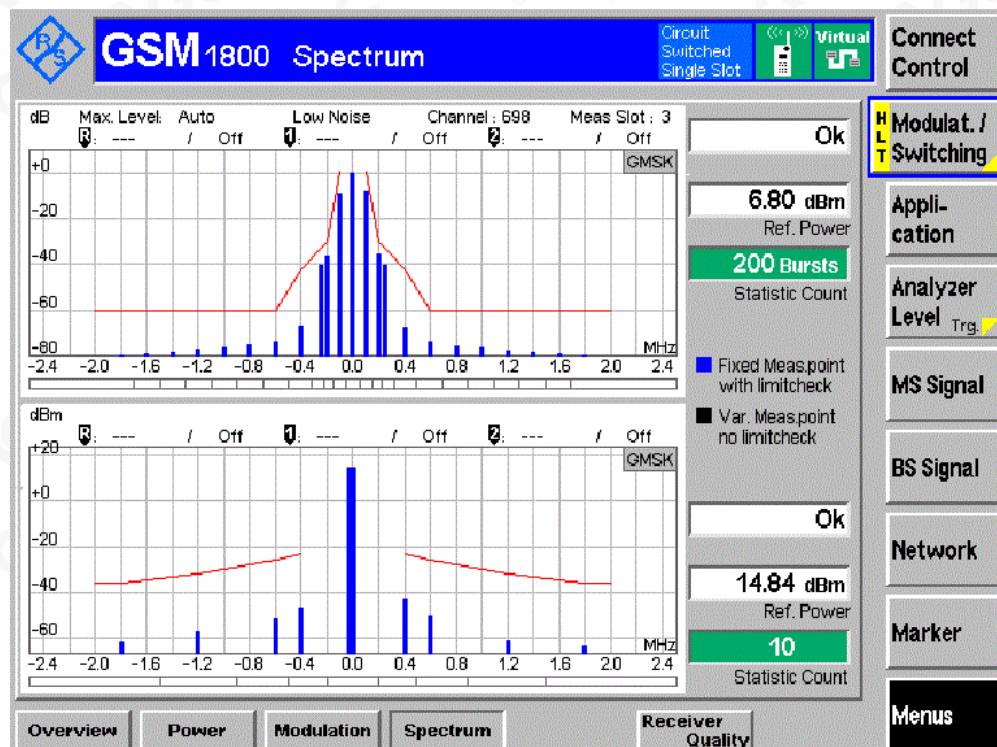
Channel HCH PCL 0



### Channel LCH PCL 8



### Channel MCH PCL 8



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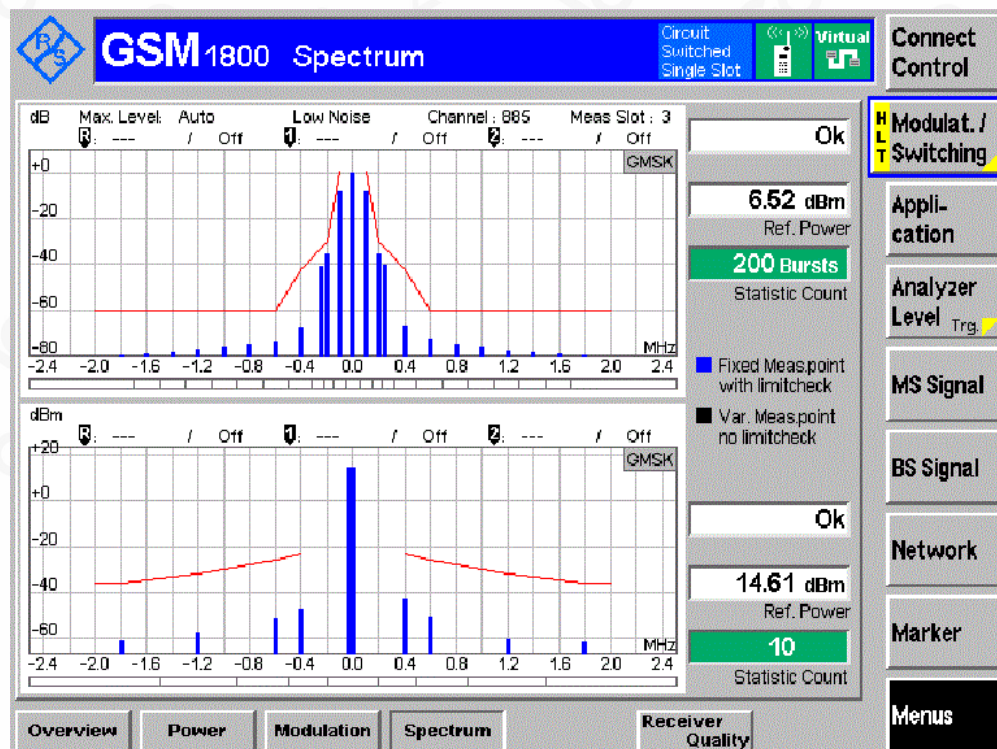
Add: 2/F., Building 2, Sanwei Chaxi Industrial Park, Sanwei Community,  
Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

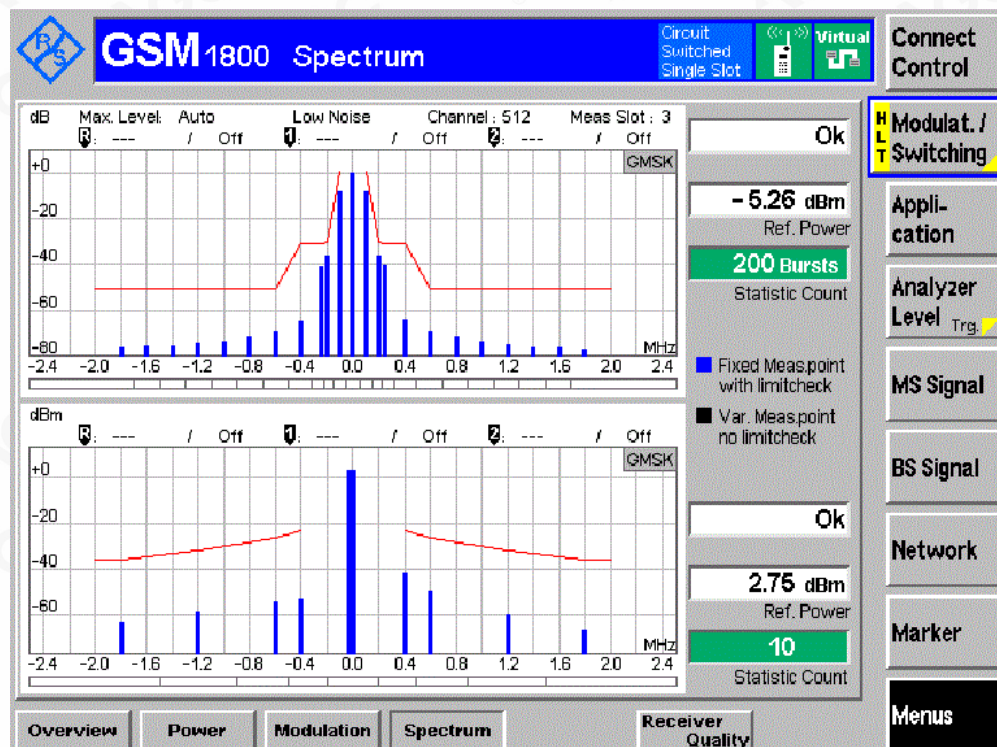
E-mail: agc@agc-cert.com

Service Hotline: 400 089 2118

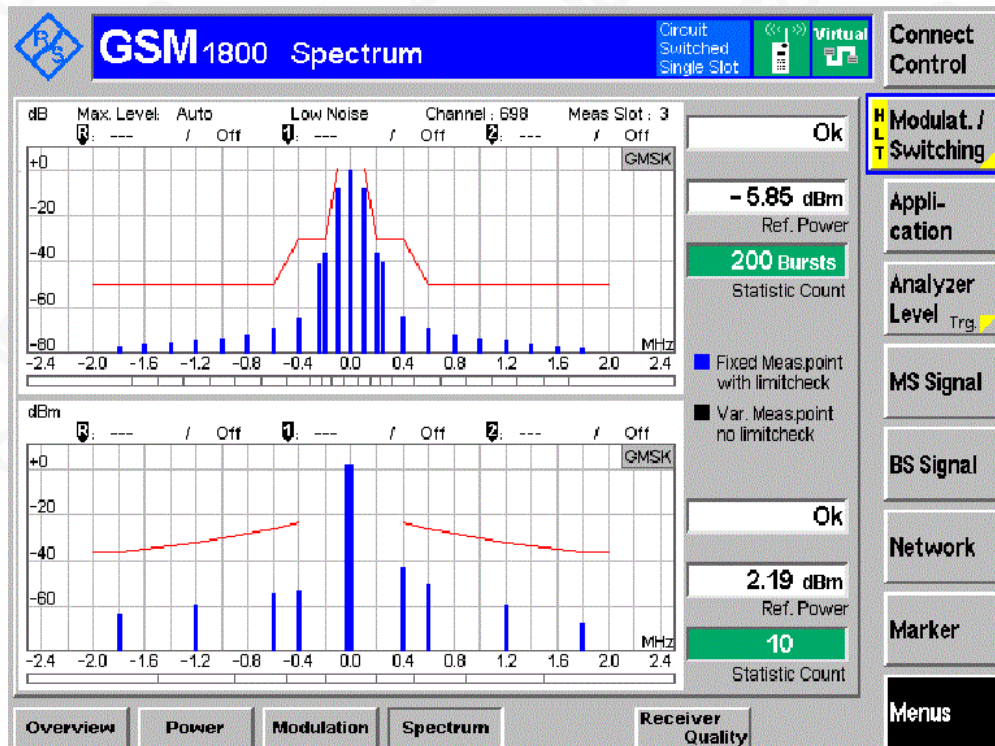
### Channel HCH PCL 8



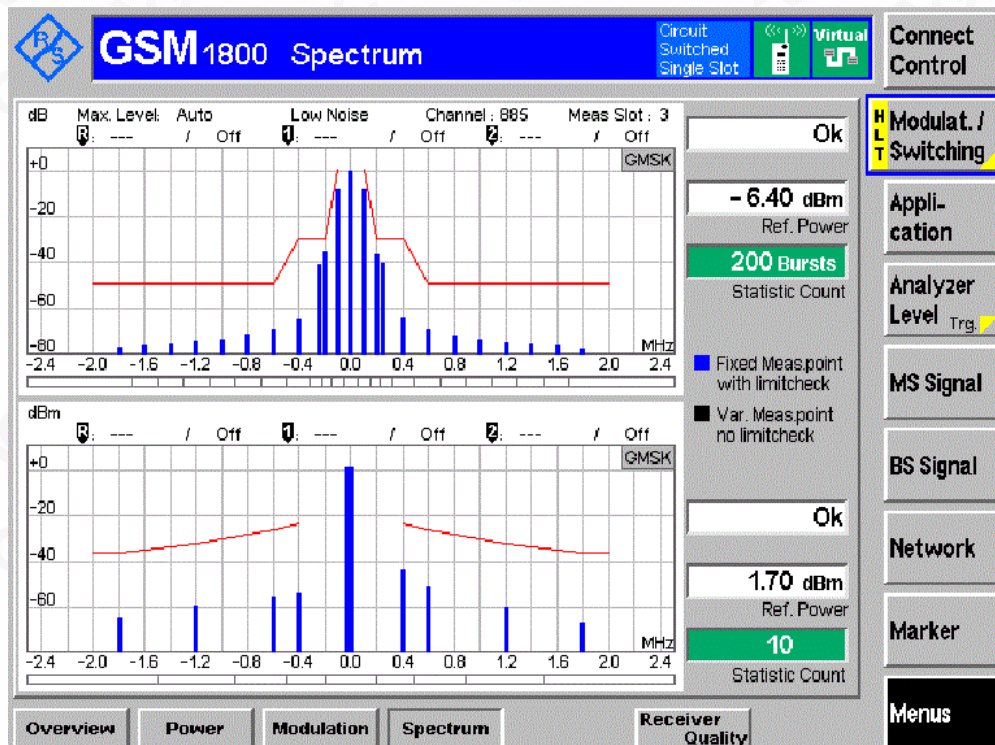
### Channel LCH PCL 8



Channel MCH PCL 15



Channel HCH PCL 15



## Appendix F. Transmitter output power in GPRS multislot configuration

Note: All test modes were carried out for all operation modes and record the worst test mode (GSM 900/1800 TN/VN) of fellow:

### A. output power

Transmitter Output power(dBm)	Power level	Result			
		Traffic Channels			
GSM900		LCH	MCH	HCH	Result
TN,VN	5	29.99	29.23	29.35	PASS
	12	18.86	19.19	19.27	PASS
	19	5.07	5.22	5.22	PASS

Transmitter Output power(dBm)	Power level	Result			
		Traffic Channels			
DCS1800		LCH	MCH	HCH	Result
TN,VN	0	26.45	26.12	25.97	PASS
	8	14.79	14.39	14.09	PASS
	15	2.21	1.73	1.08	PASS

### B. Power VS Time

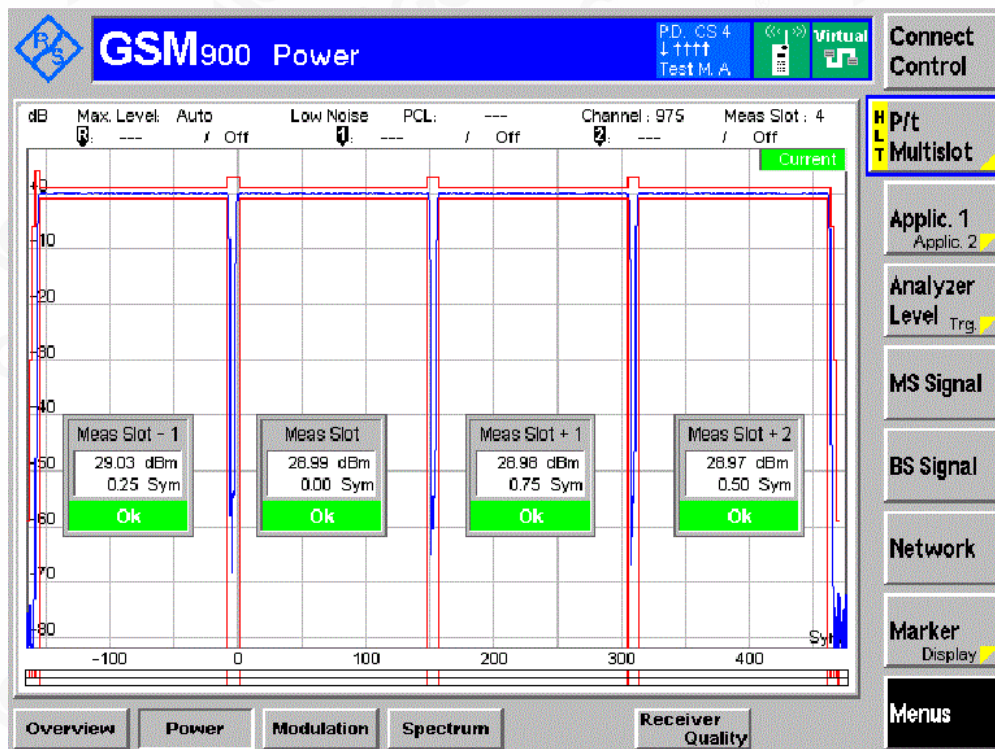
Power VS Time Graph	ACCESS BURST	Result		
		Traffic Channels		
GSM900	Power level	LCH	MCH	HCH
TN,VN	5	PASS	PASS	PASS
	12	PASS	PASS	PASS
	19	PASS	PASS	PASS

Power VS Time Graph	ACCESS BURST	Result		
		Traffic Channels		
DCS1800	Power level	LCH	MCH	HCH
TN,VN	0	PASS	PASS	PASS
	8	PASS	PASS	PASS
	15	PASS	PASS	PASS

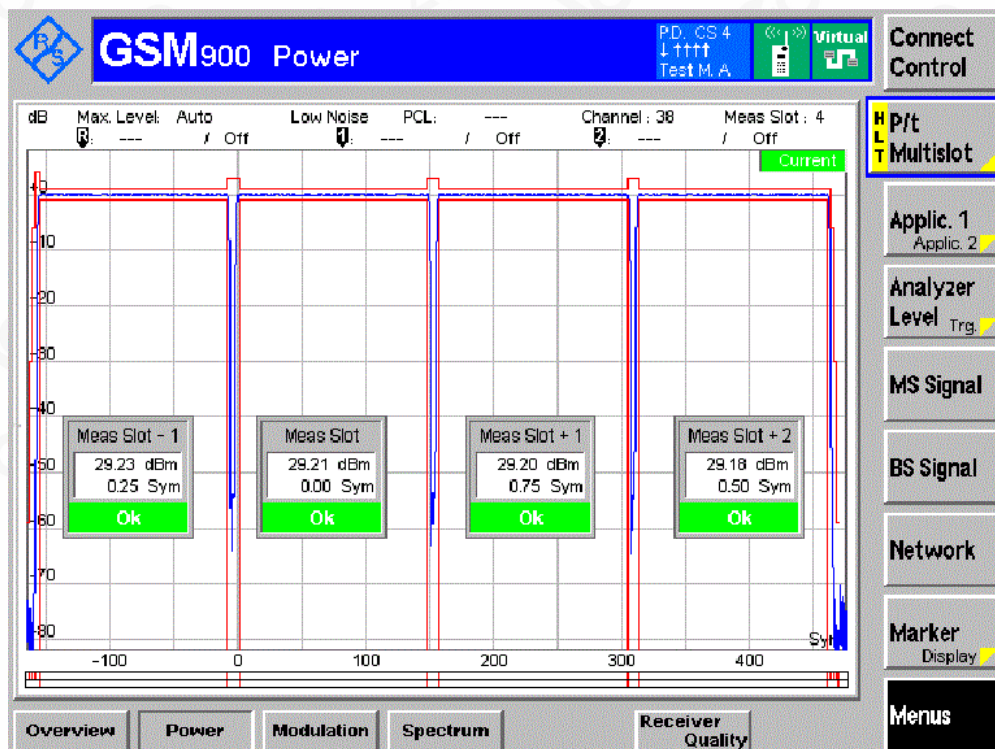
## Graphs of output power in GPRS multislot configuration

### GSM 900 TN,VN

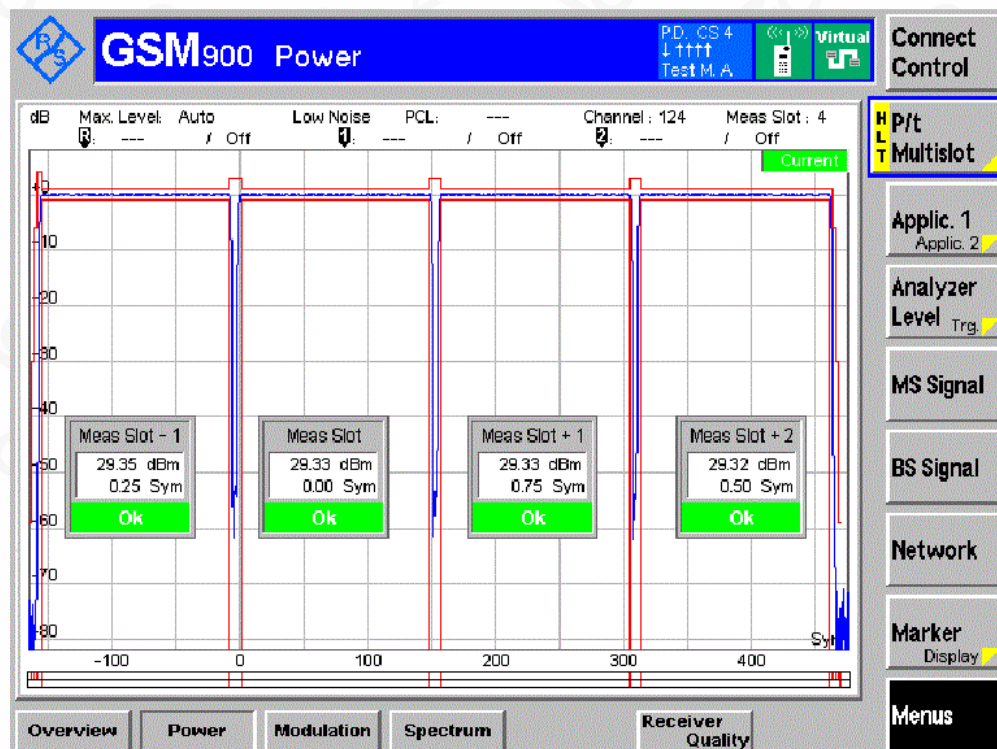
Channel LCH PCL 5



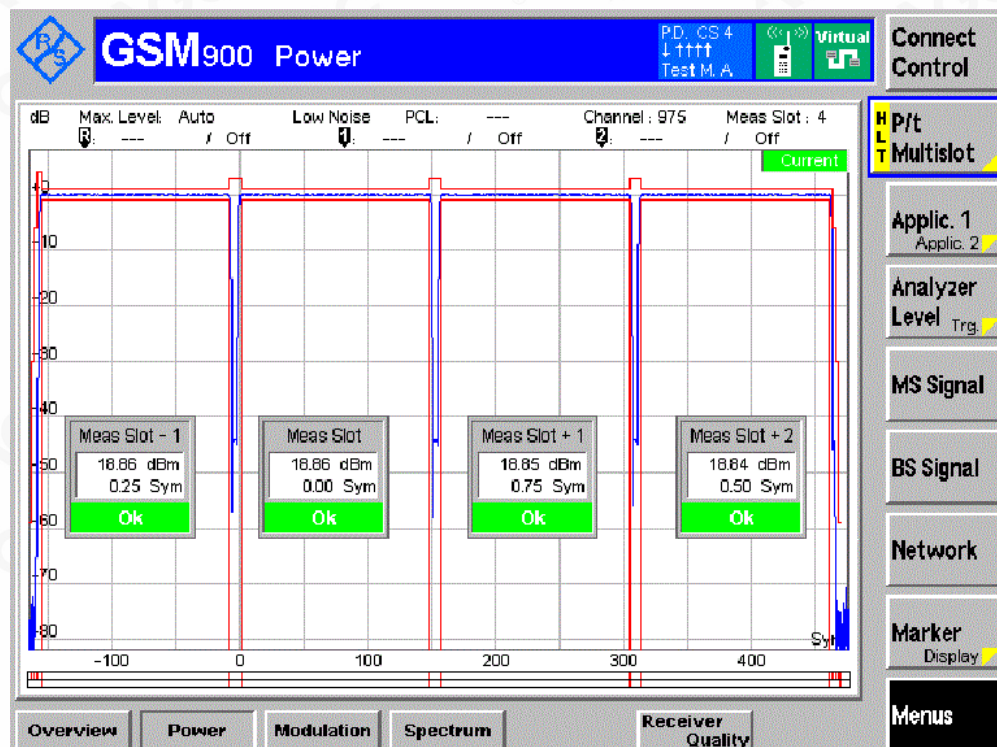
Channel MCH PCL 5



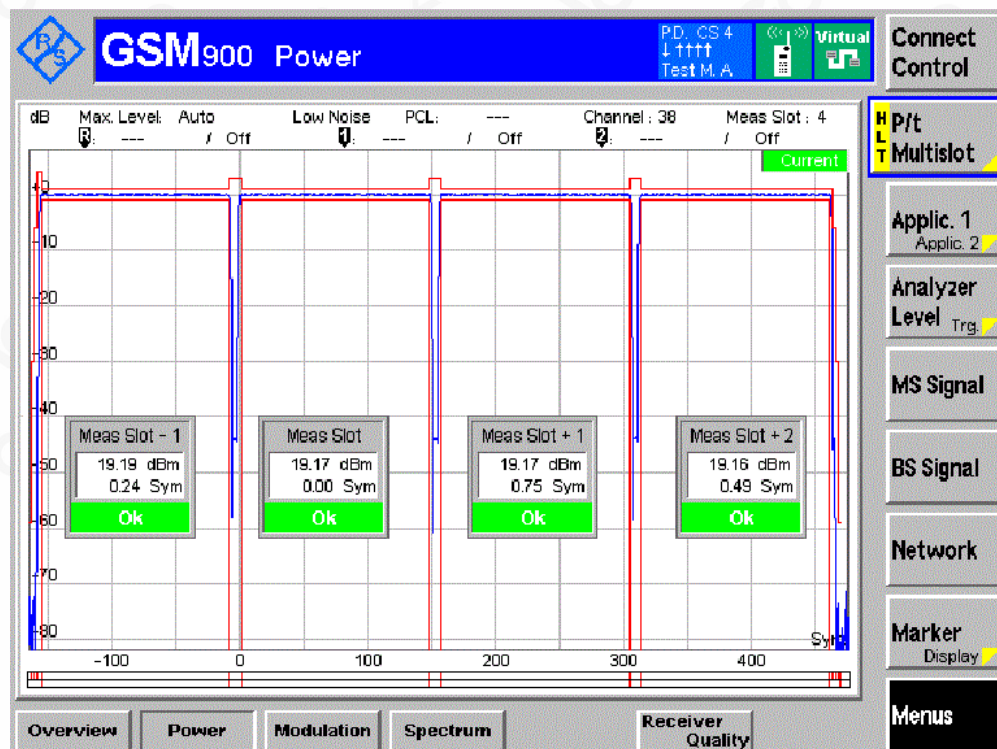
Channel HCH PCL 5



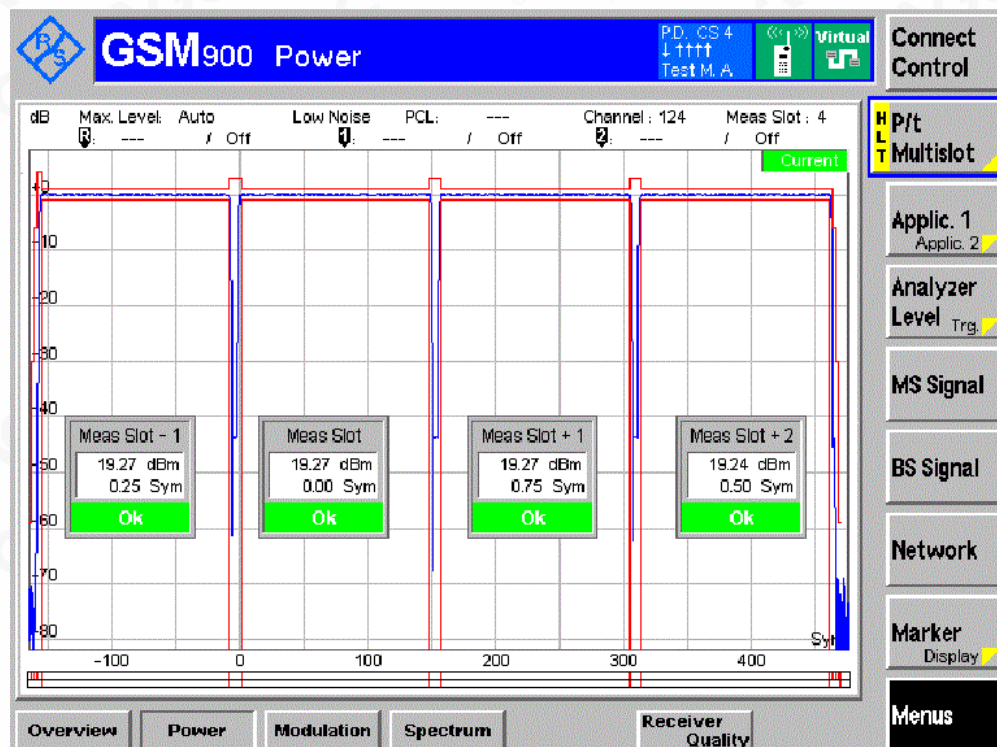
Channel LCH PCL 12



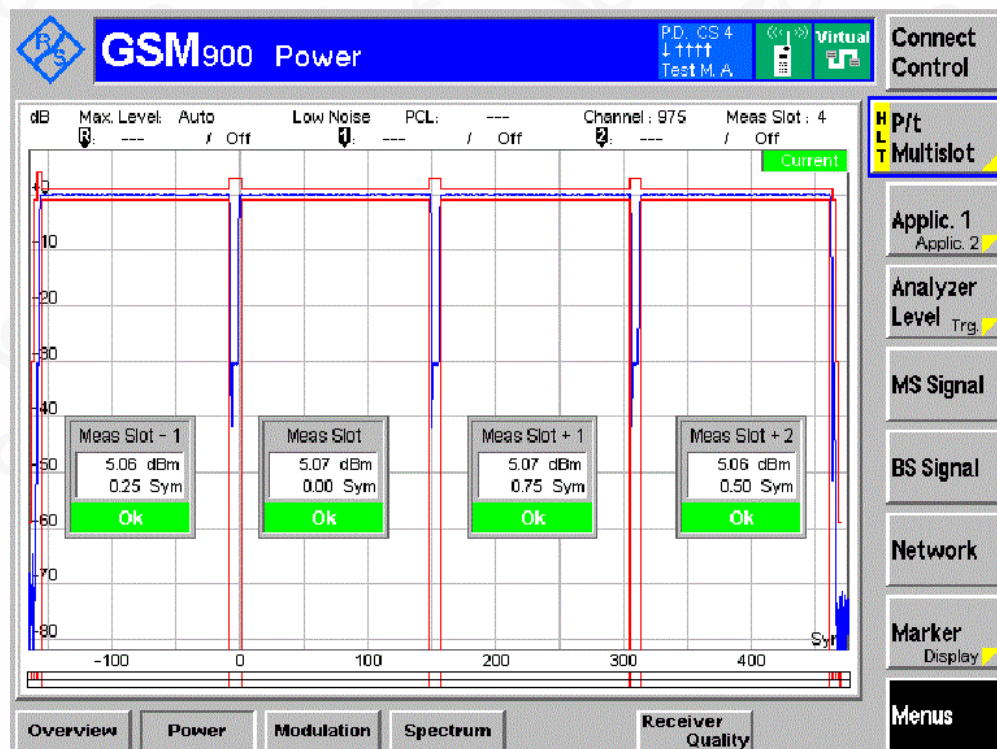
Channel MCH PCL 12



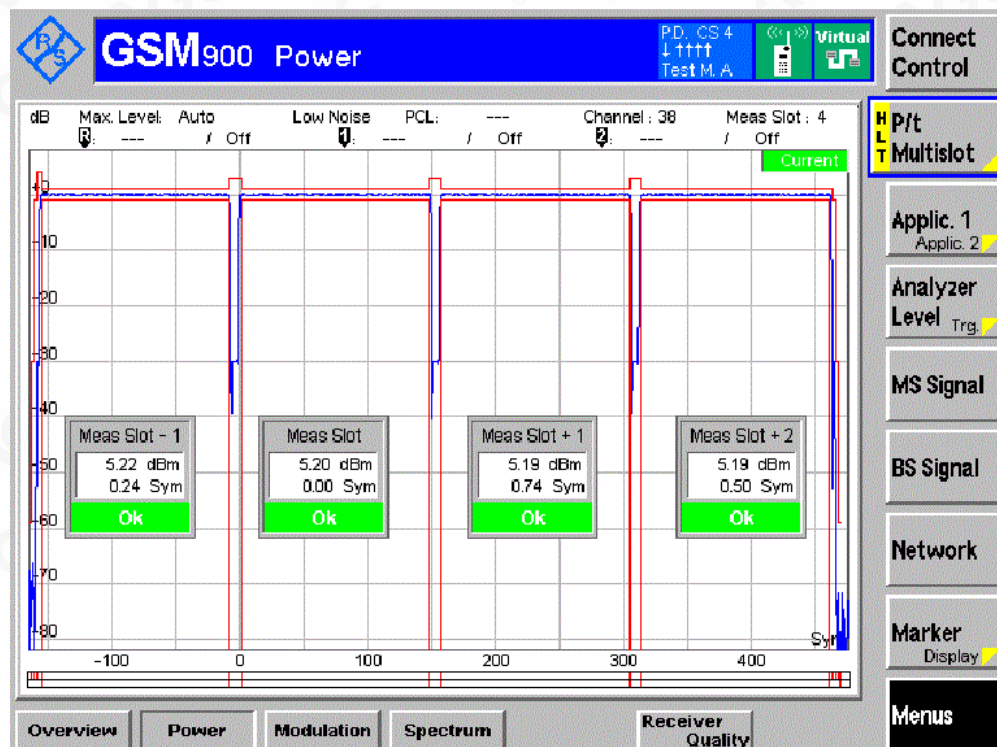
Channel HCH PCL 12



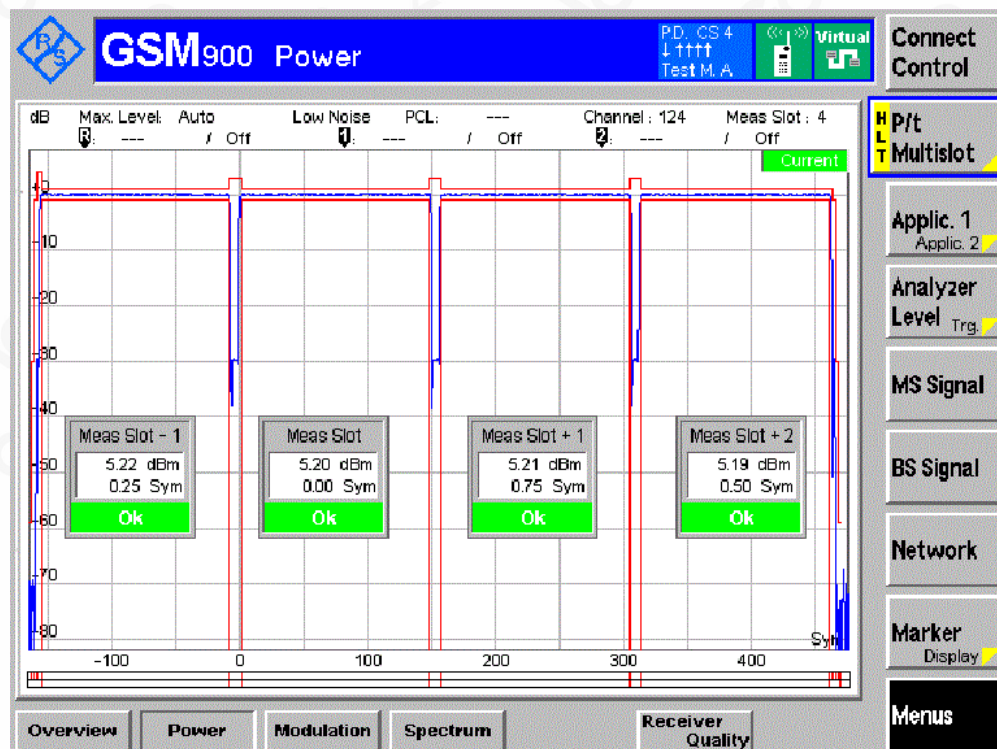
Channel LCH PCL 19



Channel MCH PCL 19

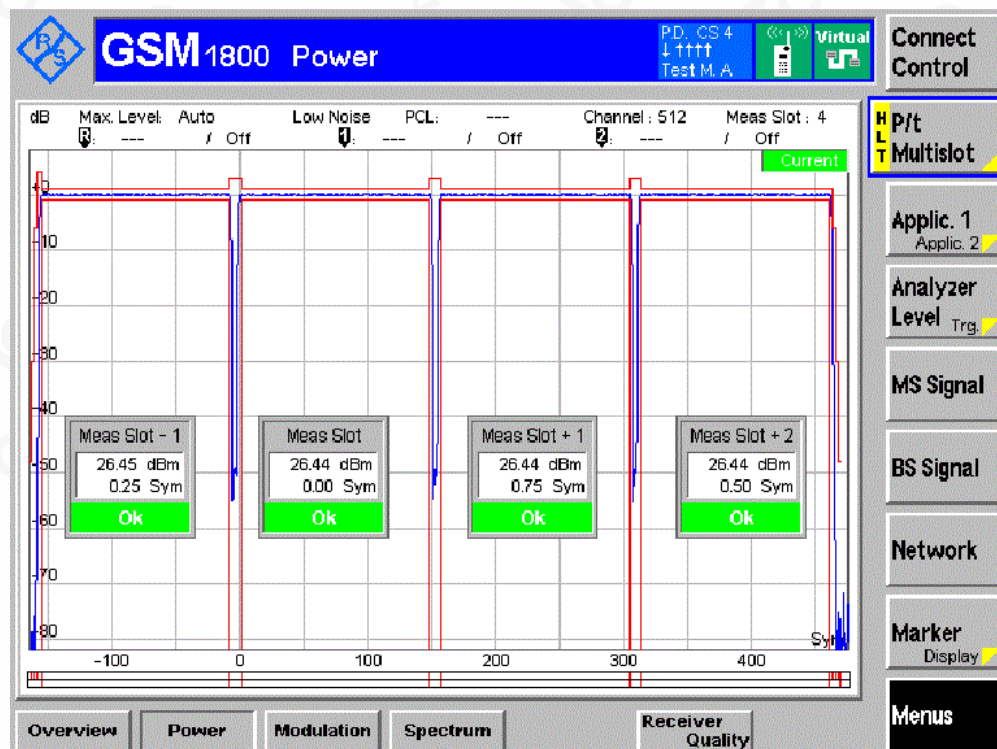


### Channel HCH PCL 19

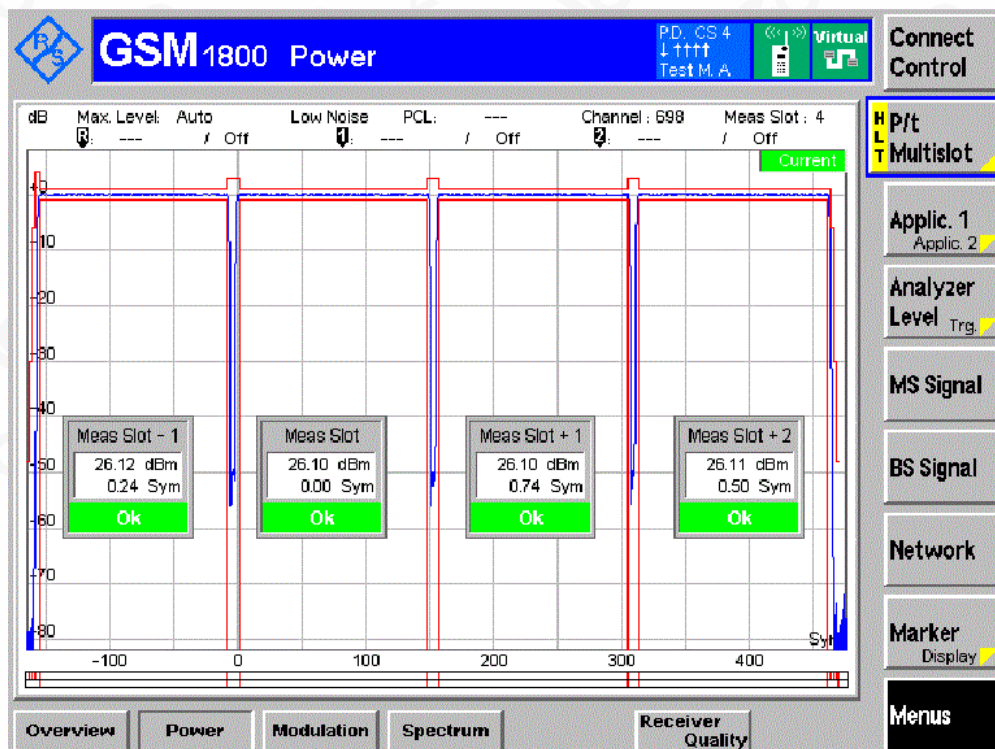


### DCS1800 TN,VN

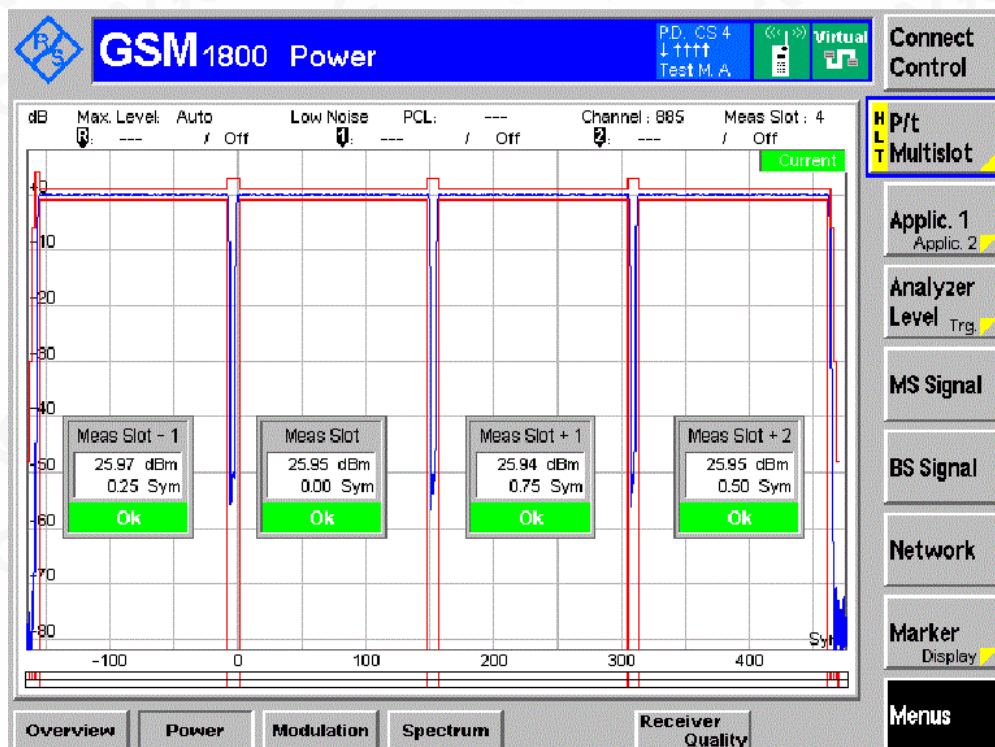
#### Channel LCH PCL 0



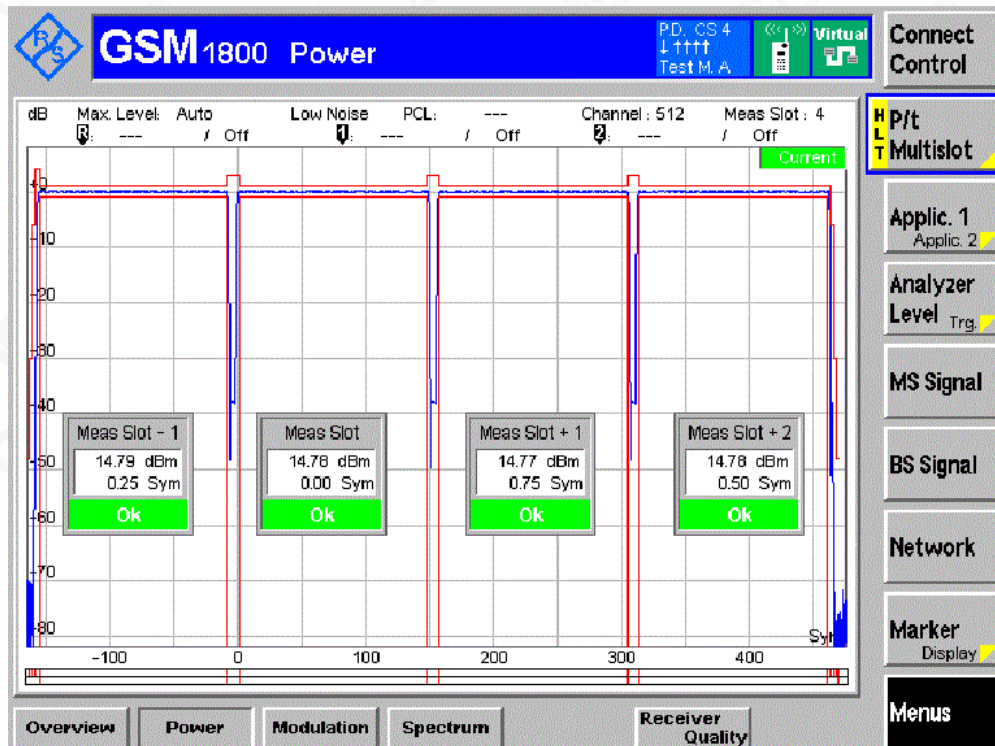
### Channel MCH PCL 0



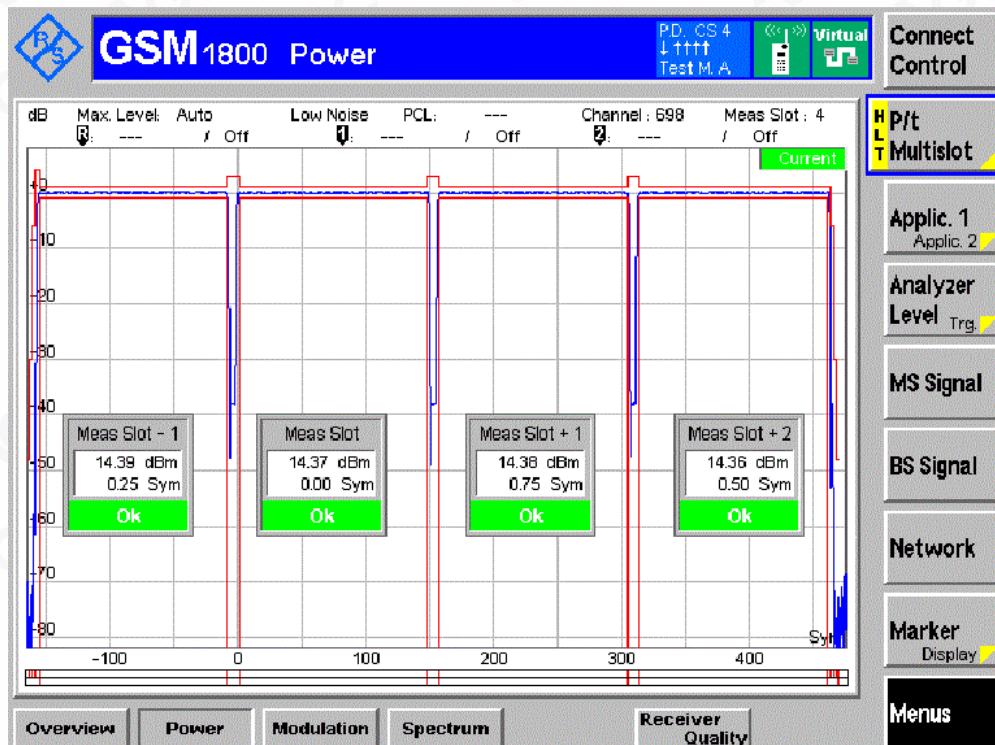
### Channel HCH PCL 0



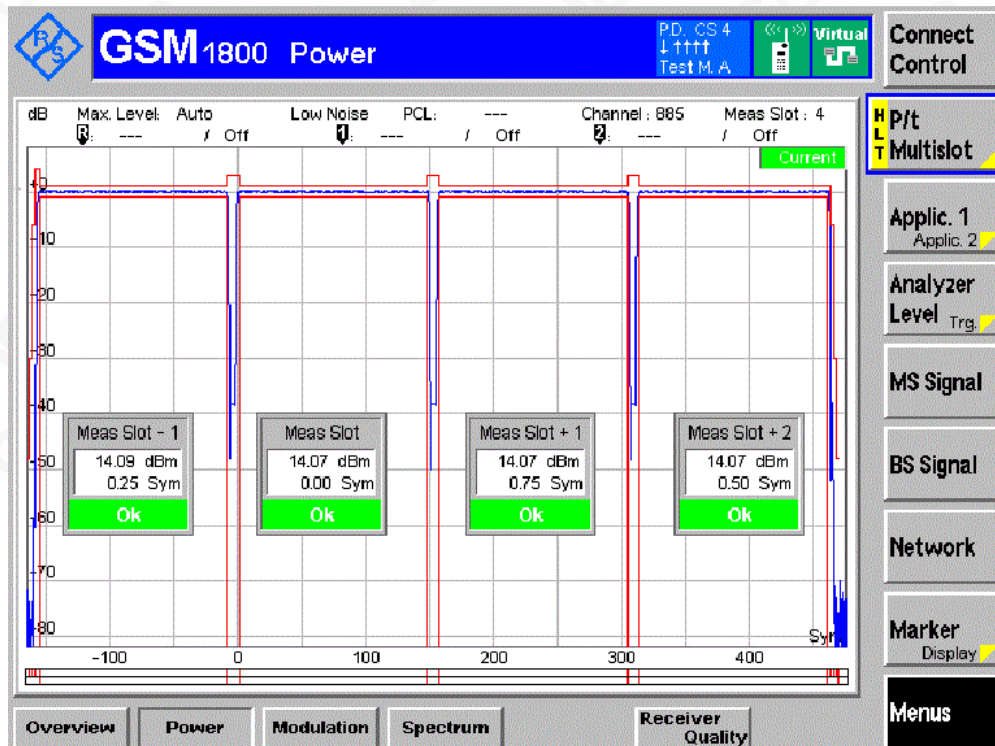
Channel LCH PCL 8



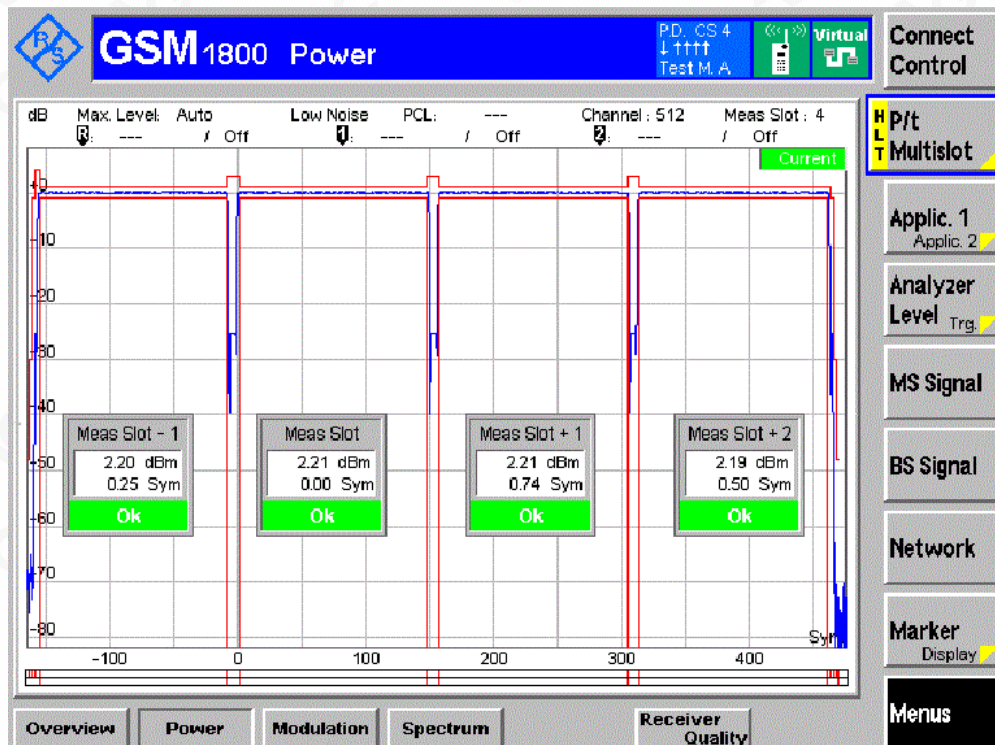
Channel MCH PCL 8



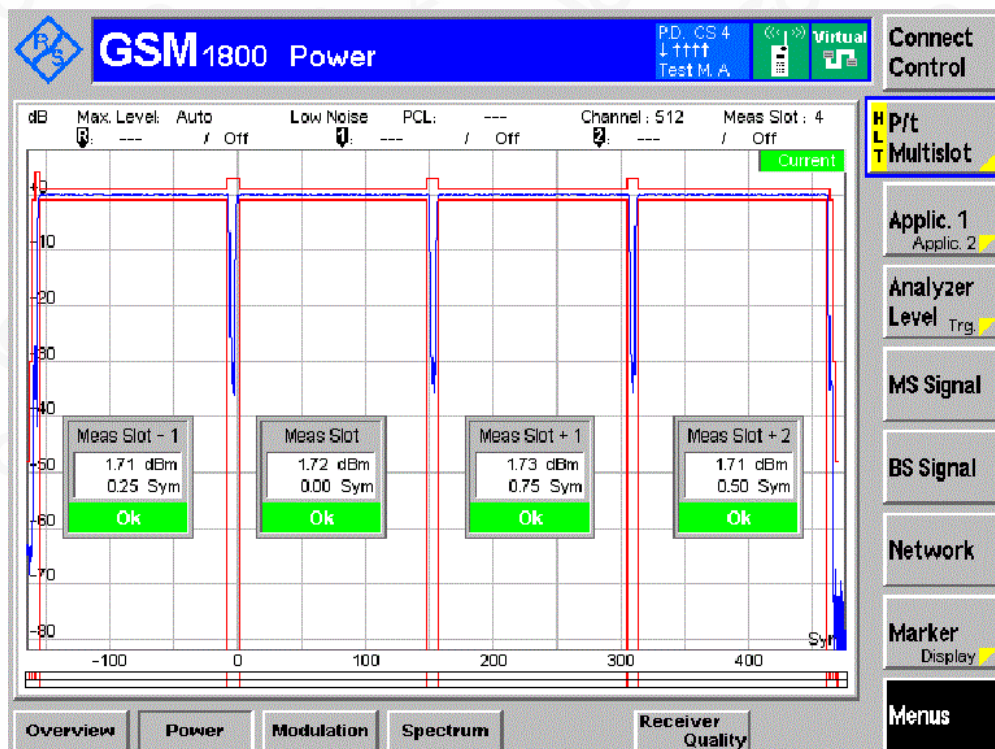
Channel HCH PCL 8



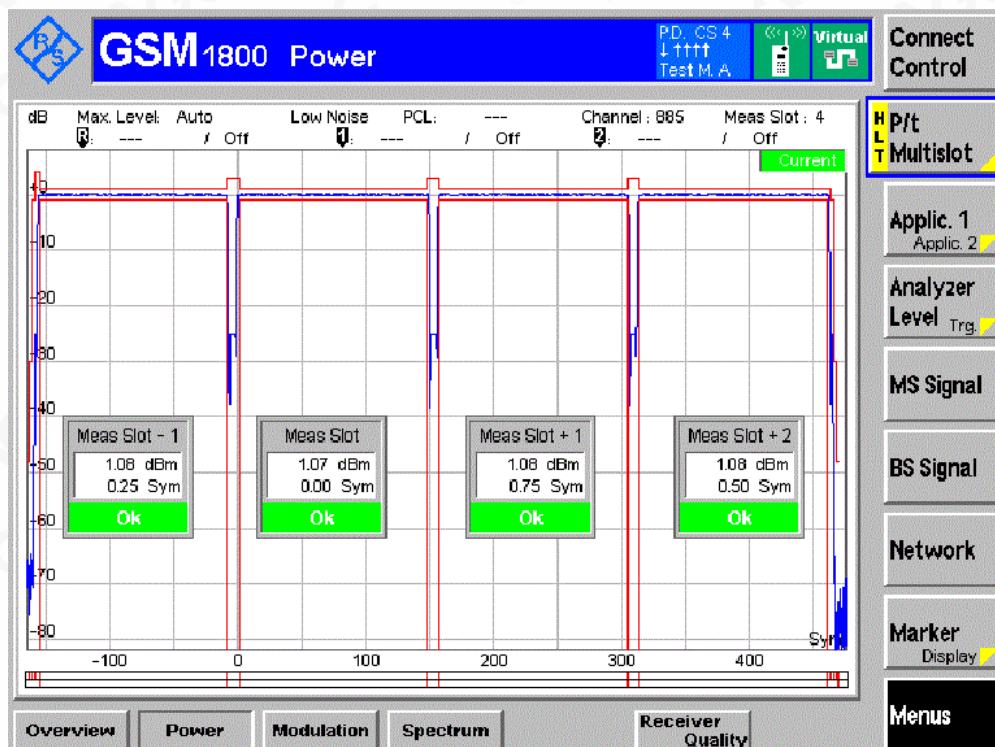
Channel LCH PCL 15



Channel MCH PCL 15



Channel HCH PCL 15



## Appendix G. Output RF spectrum in GPRS multislot configuration

Note: All test modes were carried out for all operation modes and record the worst test mode (GSM 900/1800 TN/VN) of fellow:

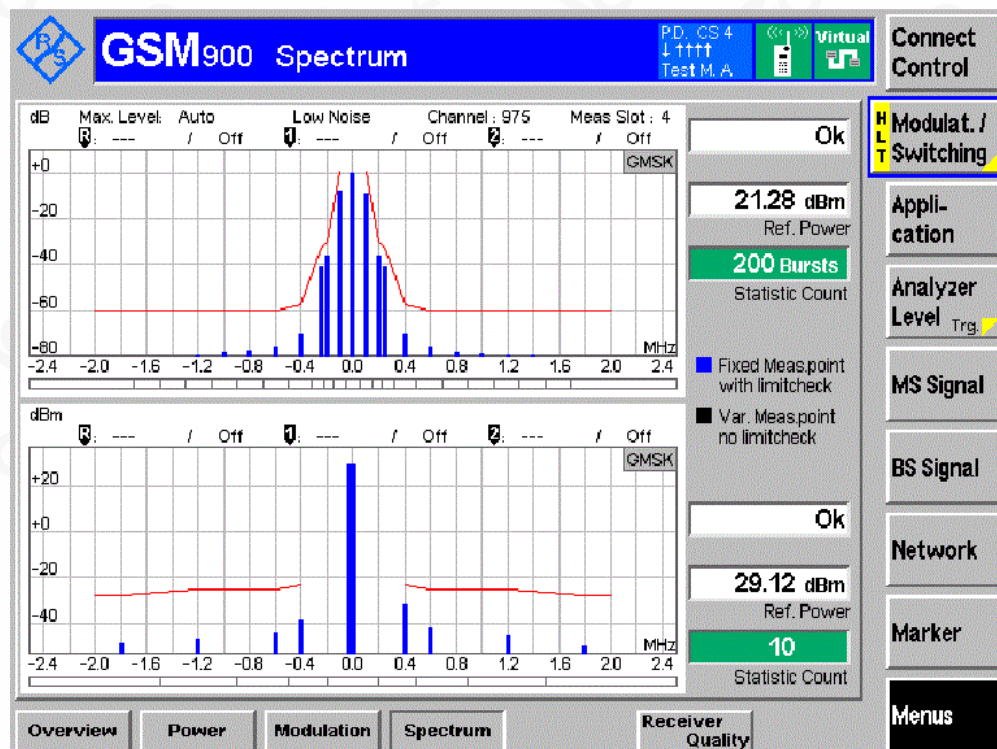
Modulation& switch Spectrum	Power level	Result		
		Traffic Channels		
GSM900		LCH	MCH	HCH
TN,VN	5	PASS	PASS	PASS
	12	PASS	PASS	PASS
	19	PASS	PASS	PASS

Modulation& switch Spectrum	Power level	Result		
		Traffic Channels		
DCS1800		LCH	MCH	HCH
TN,VN	0	PASS	PASS	PASS
	8	PASS	PASS	PASS
	15	PASS	PASS	PASS

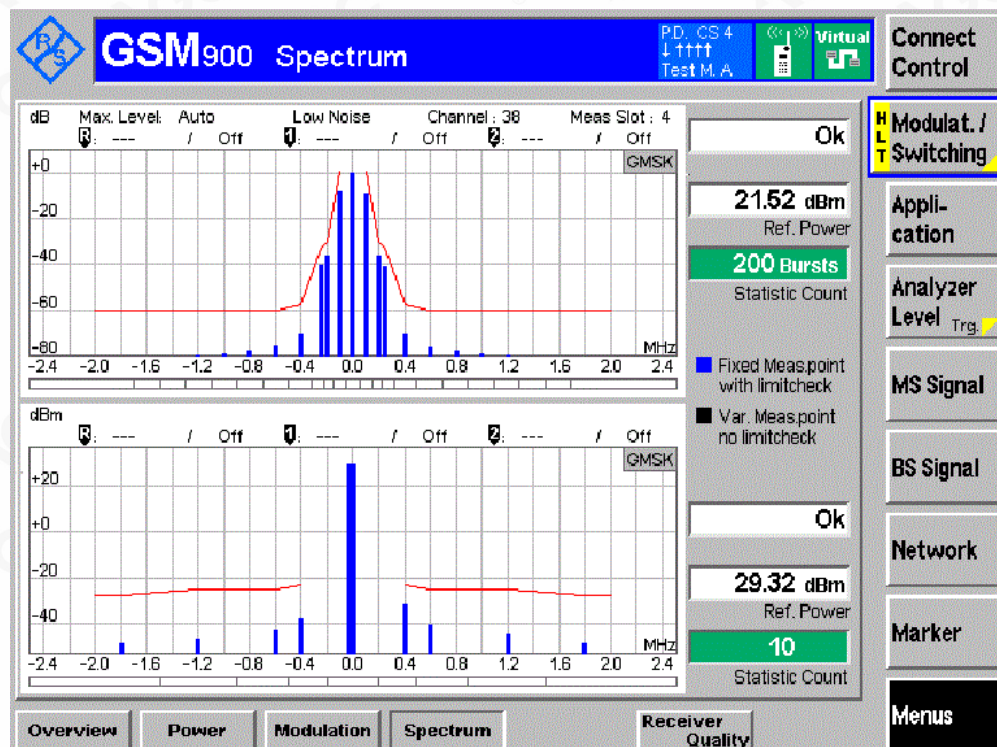
## Graphs of output RF spectrum in GPRS multislot configuration

### GSM 900 TN,VN

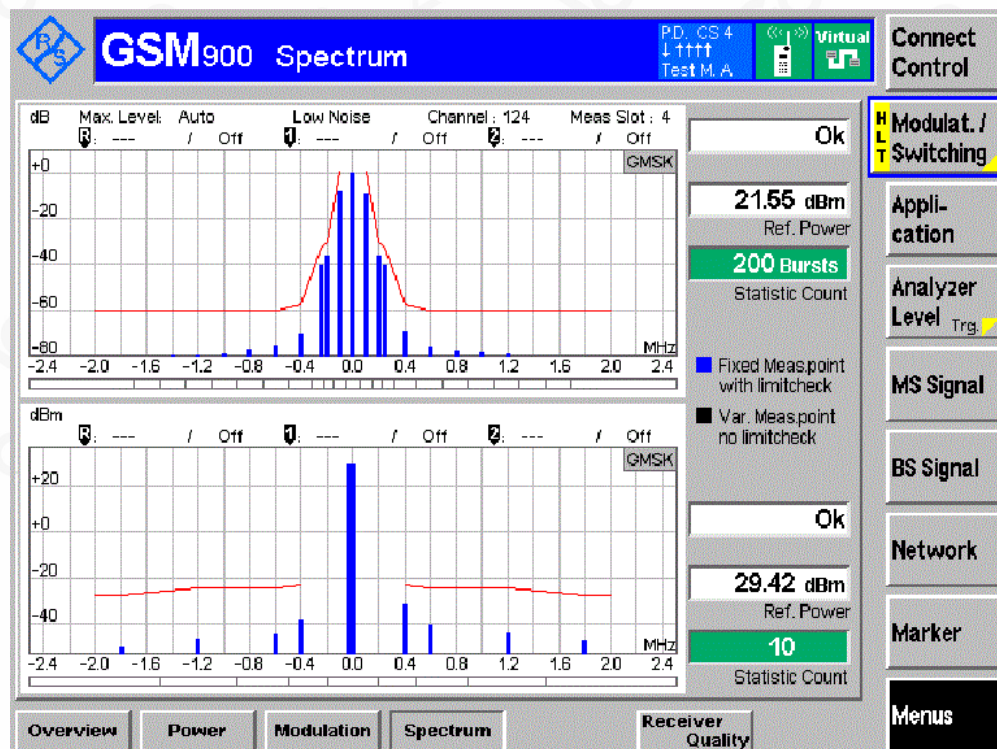
### Channel LCH PCL 5



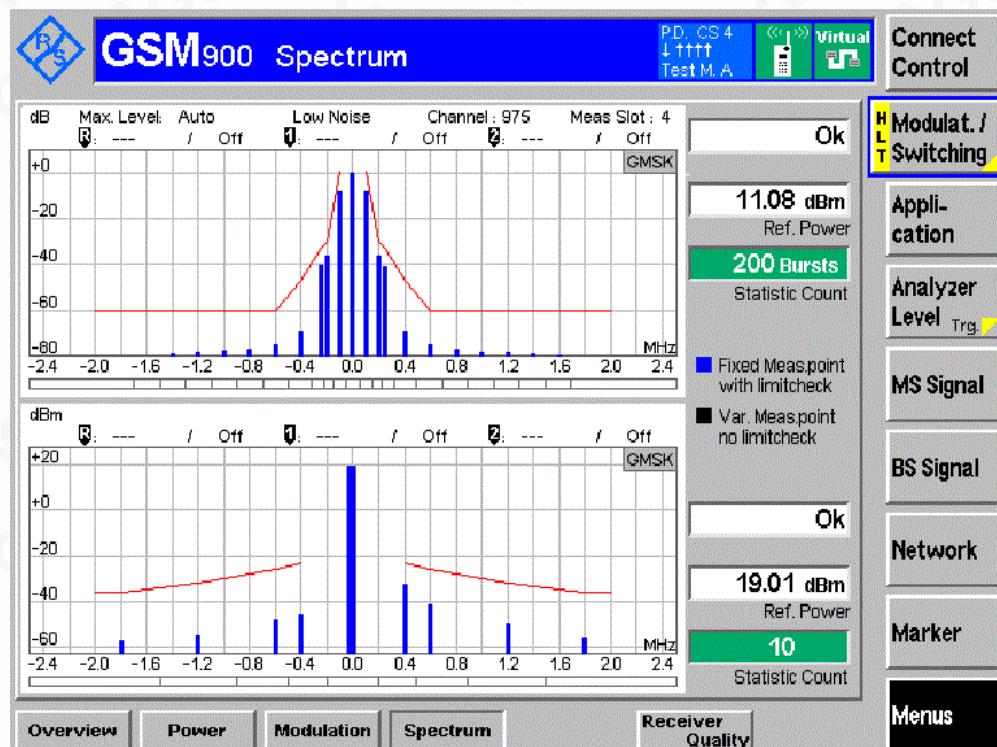
### Channel MCH PCL 5



### Channel HCH PCL 5



### Channel LCH PCL 12



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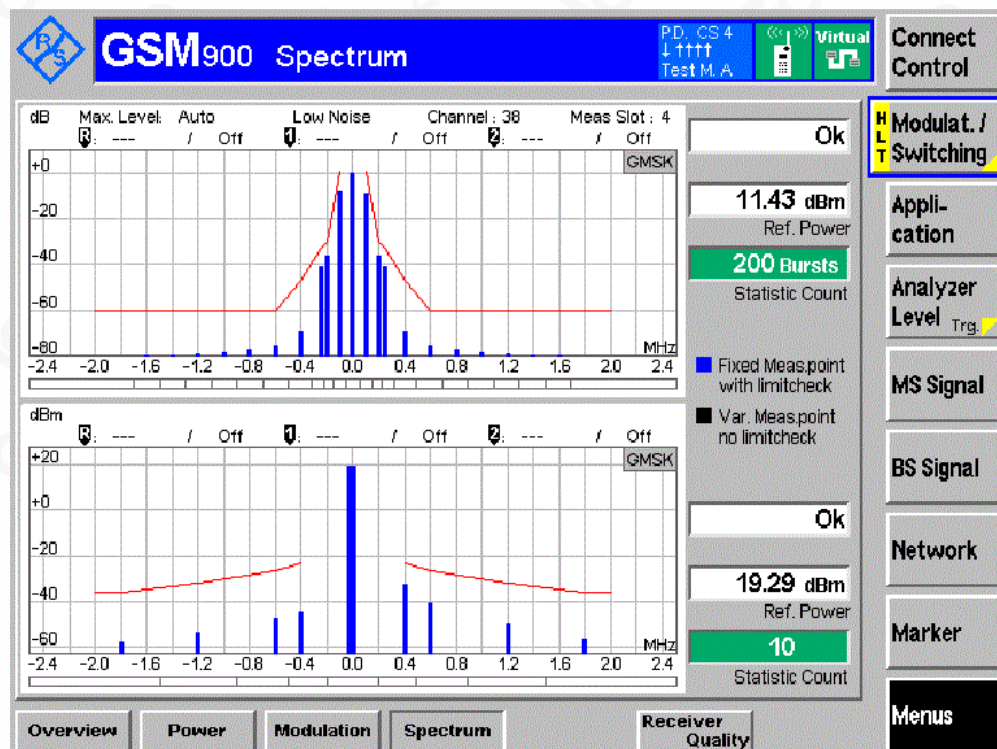
Add: 2/F., Building 2, Sanwei Chaxi Industrial Park, Sanwei Community,  
Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

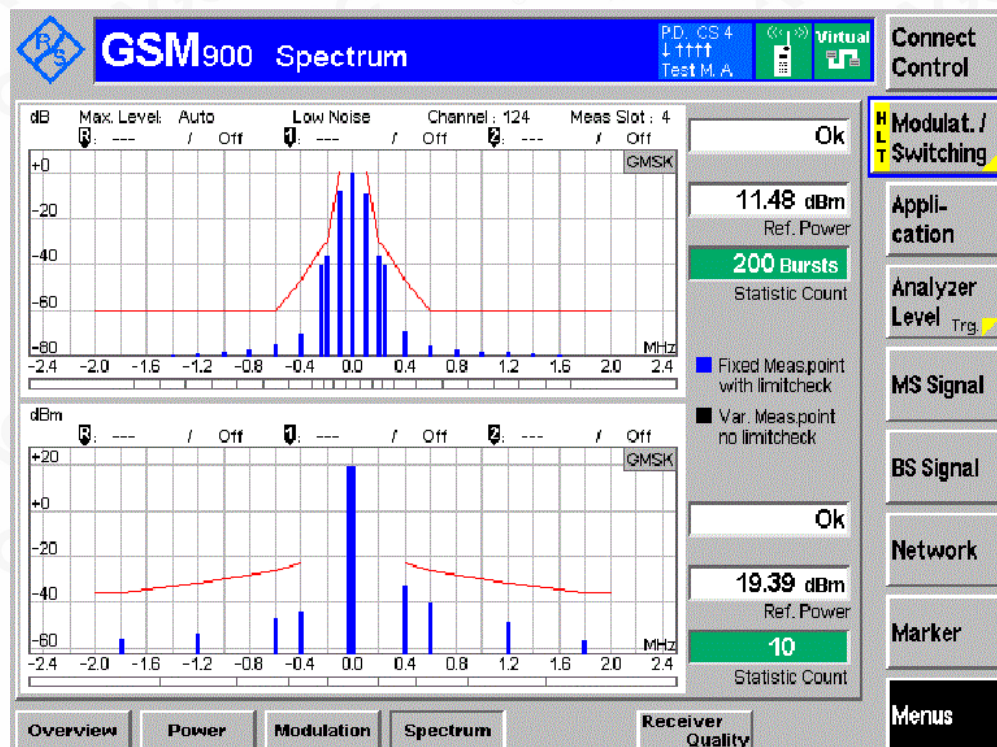
E-mail: agc@agc-cert.com

Service Hotline: 400 089 2118

### Channel MCH PCL 12



### Channel HCH PCL 12



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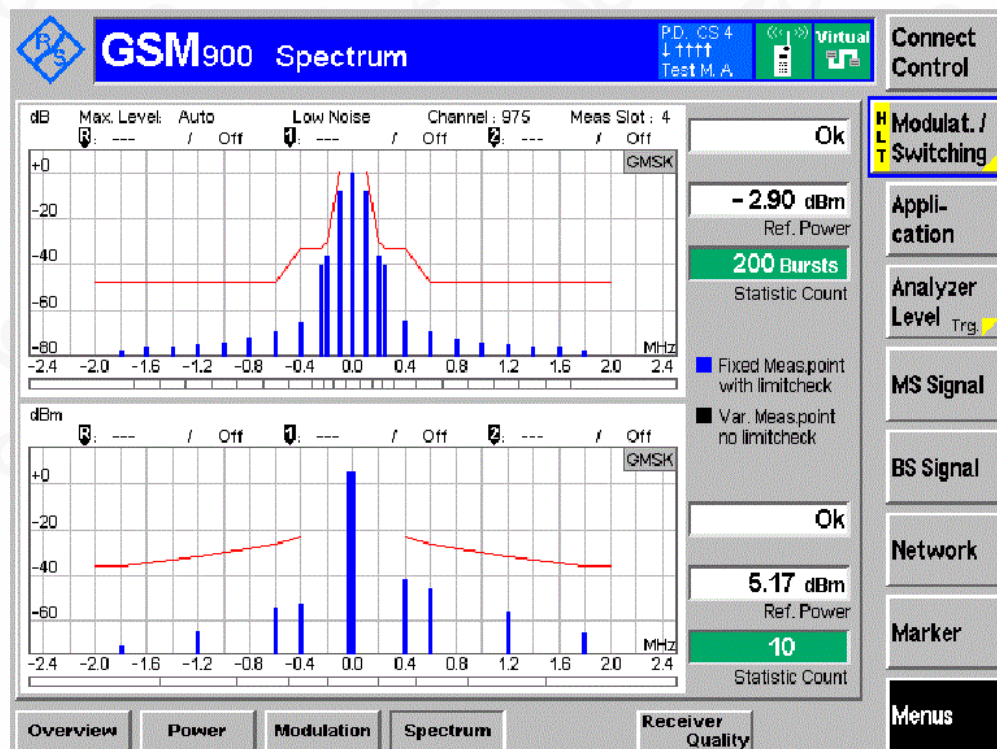
Add: 2/F., Building 2, Sanwei Chaxi Industrial Park, Sanwei Community,  
Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

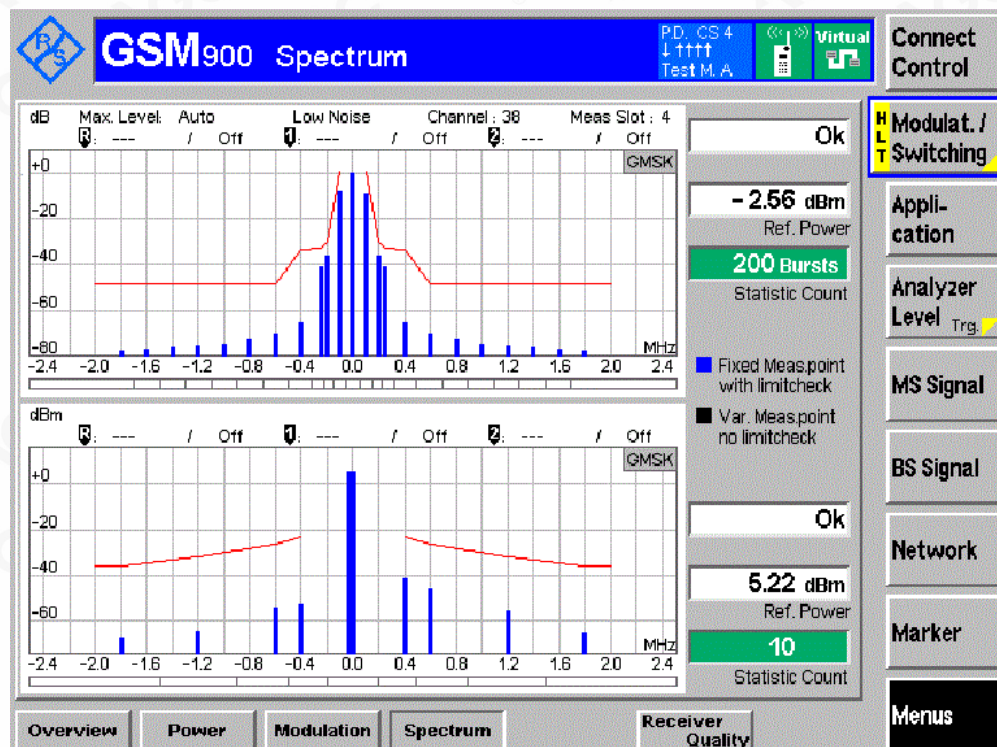
E-mail: agc@agc-cert.com

Service Hotline: 400 089 2118

Channel LCH PCL 19



Channel MCH PCL 19



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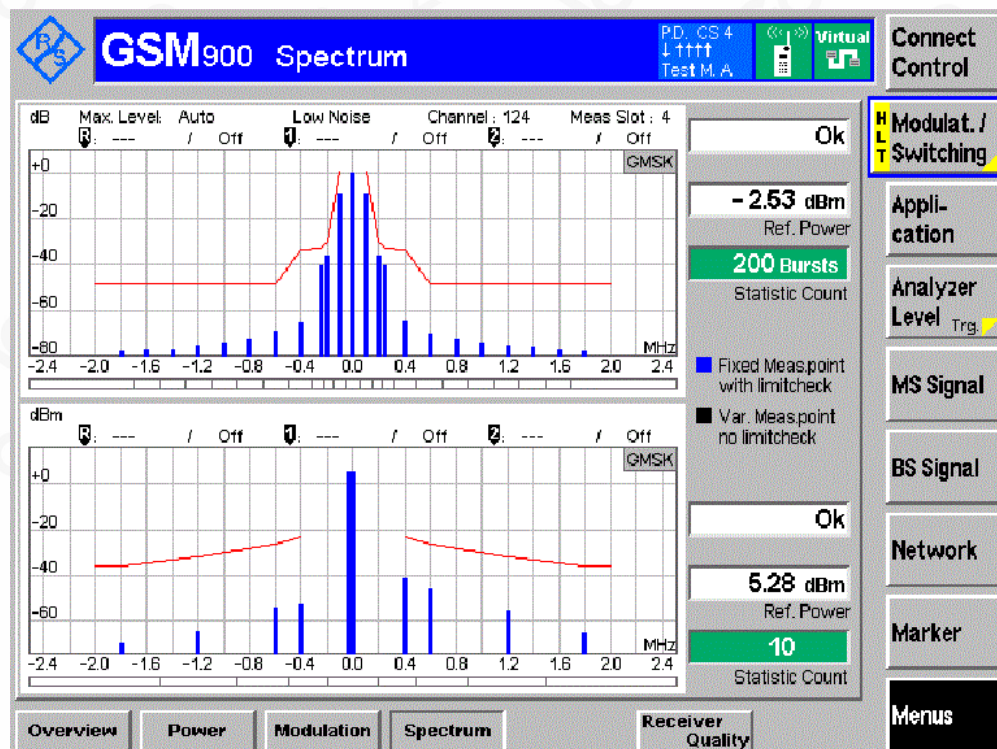
Add: 2/F., Building 2, Sanwei Chaxi Industrial Park, Sanwei Community,  
Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

E-mail: agc@agc-cert.com

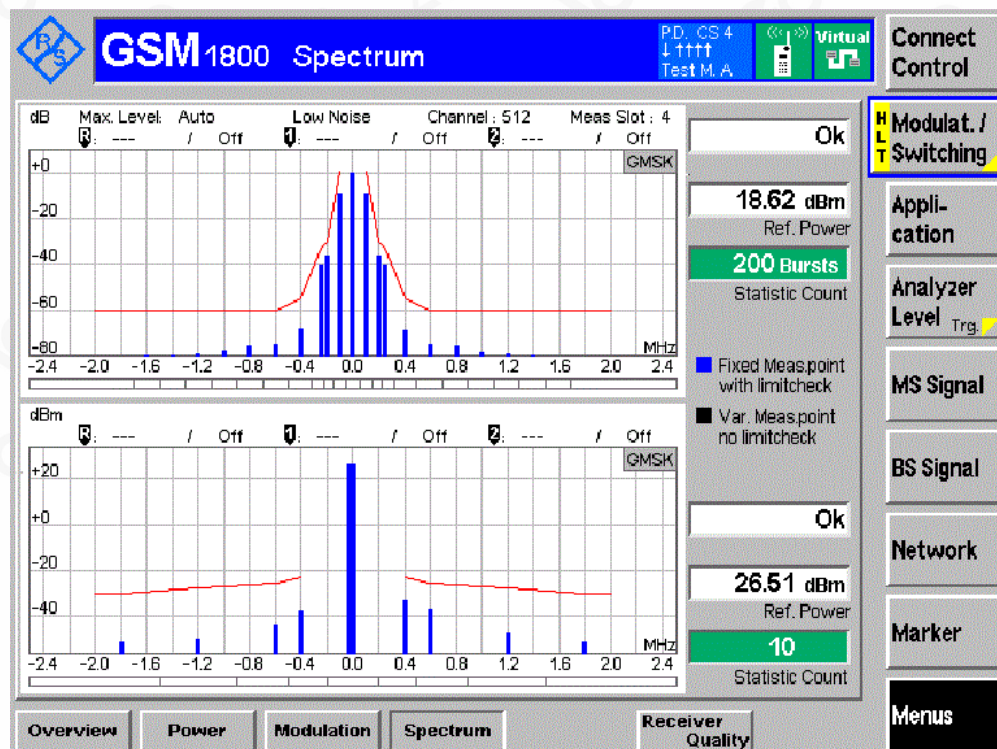
Service Hotline: 400 089 2118

Channel HCH PCL 19

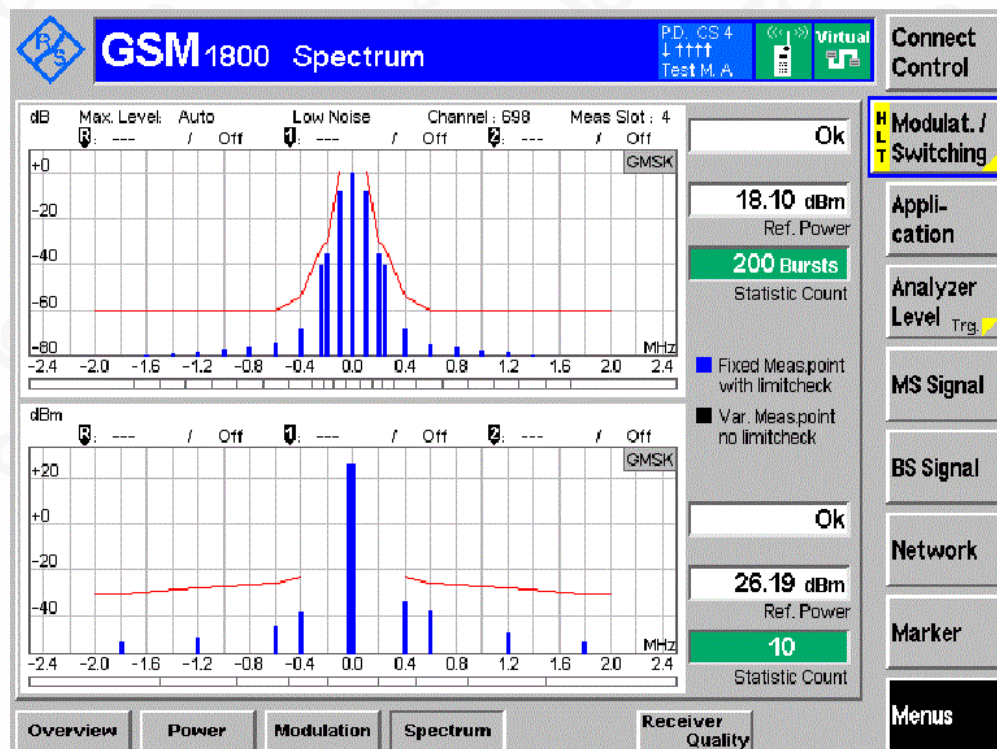


DCS1800 TN,VN

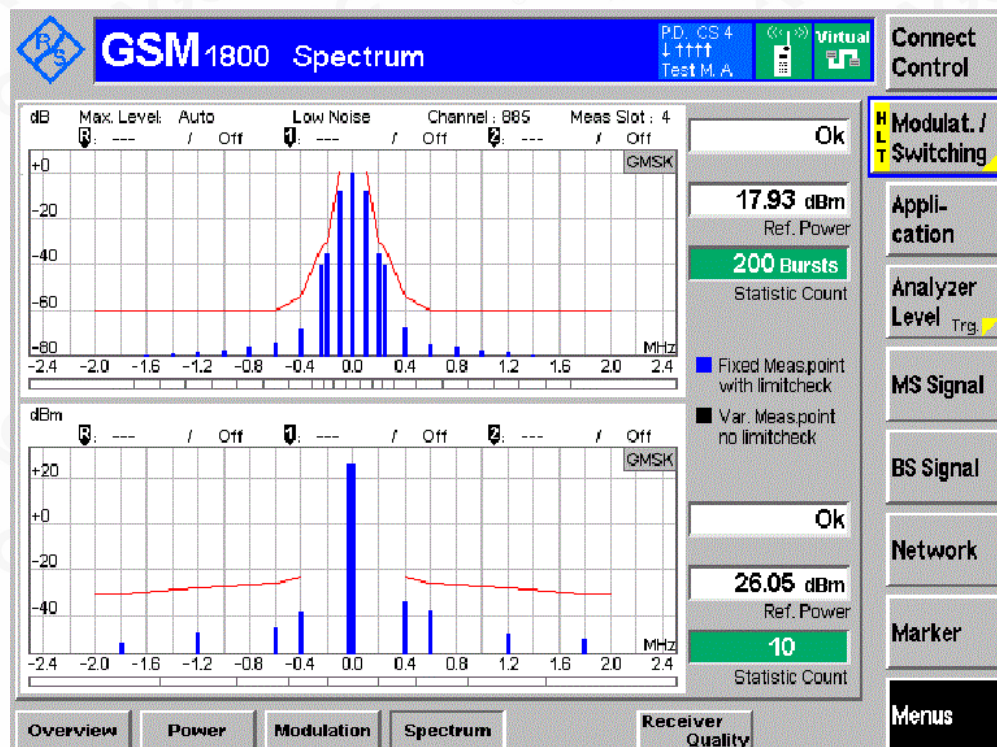
Channel LCH PCL 0



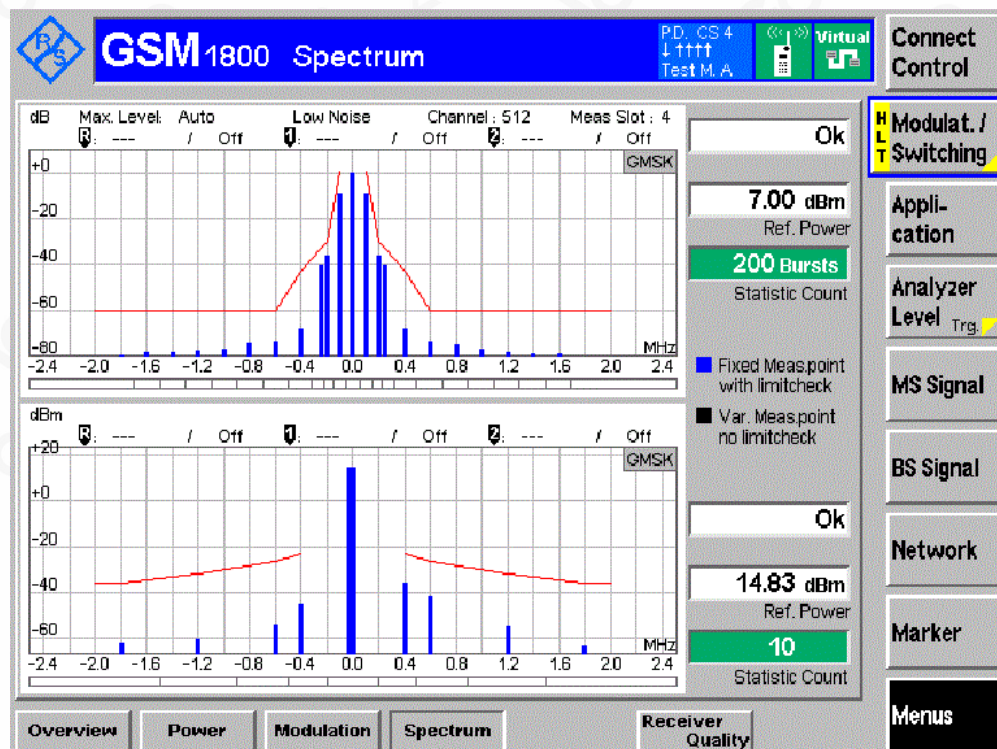
### Channel MCH PCL 0



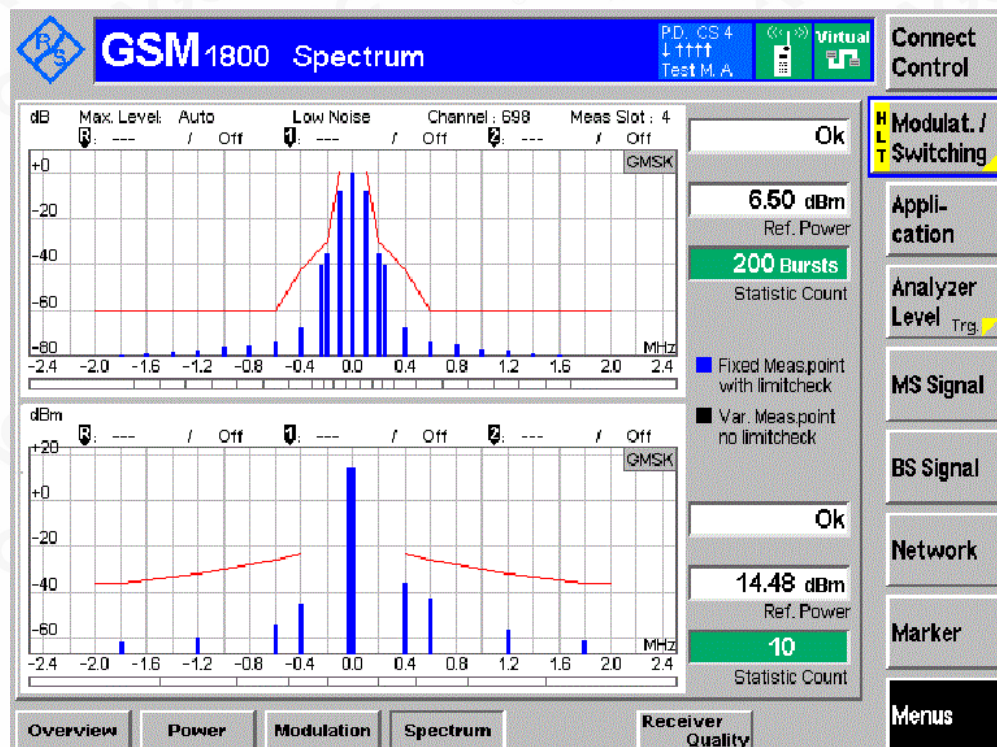
### Channel HCH PCL 0



### Channel LCH PCL 8



### Channel MCH PCL 8



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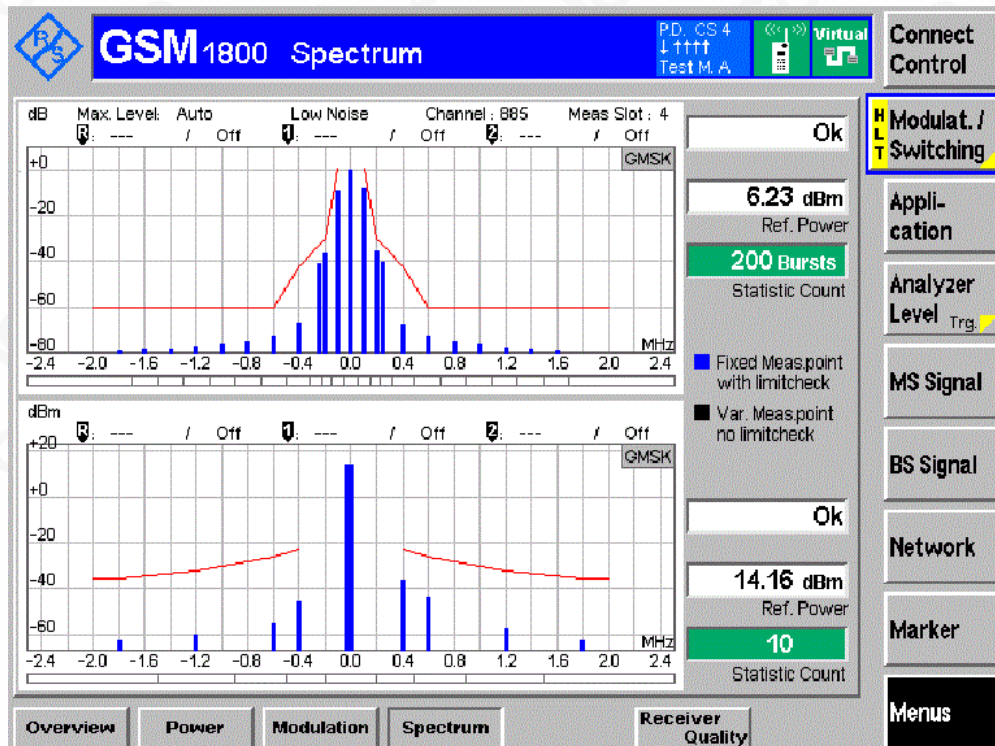
Add: 2/F., Building 2, Sanwei Chaxi Industrial Park, Sanwei Community,  
Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

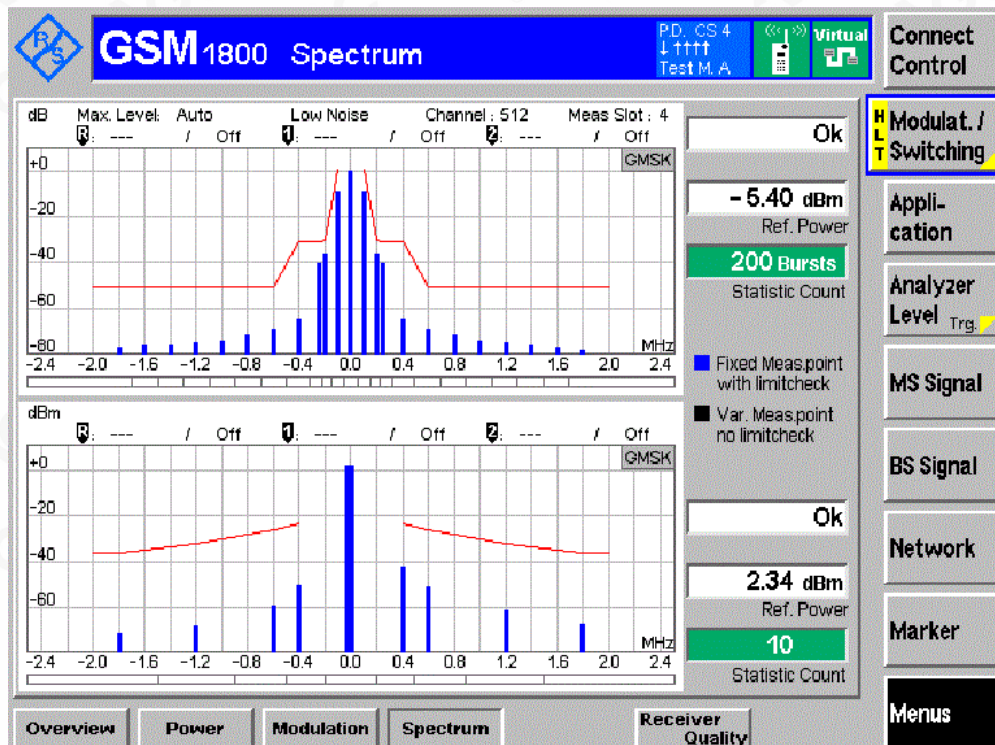
E-mail: agc@agc-cert.com

Service Hotline: 400 089 2118

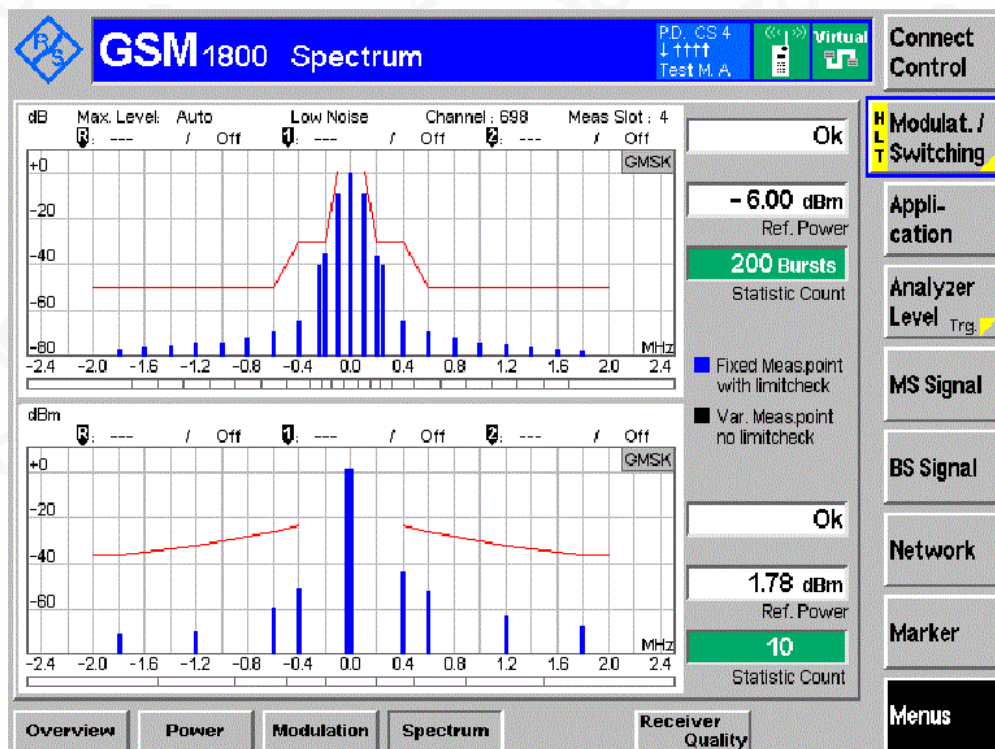
Channel HCH PCL 8



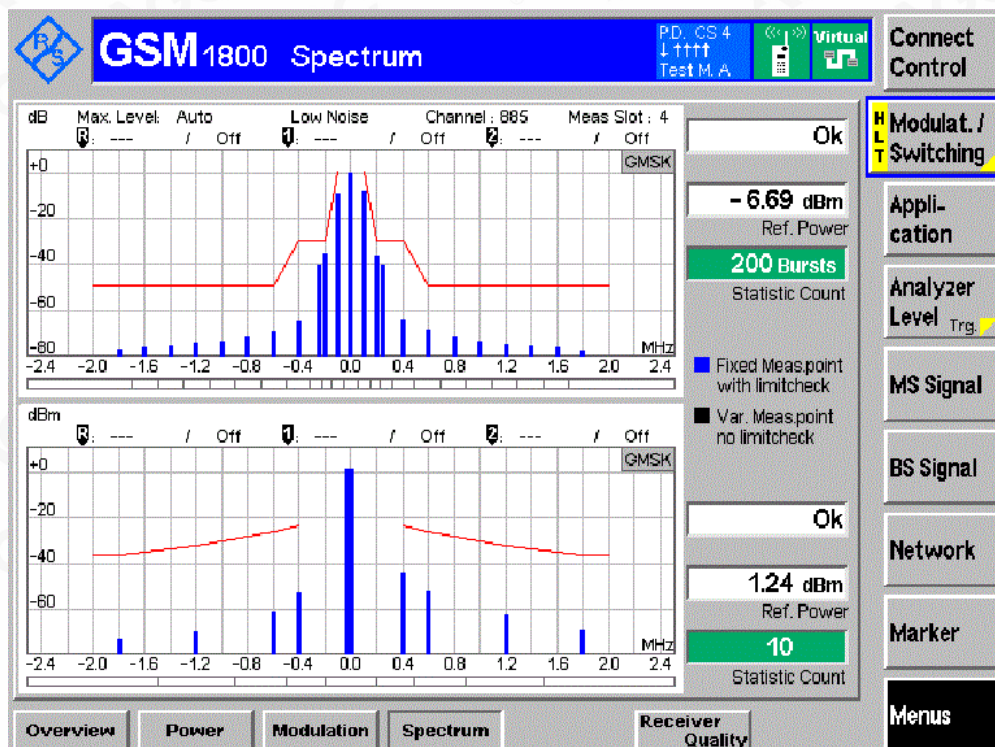
Channel LCH PCL 15



### Channel MCH PCL 15



### Channel HCH PCL 15



## Appendix H. Conducted spurious emissions - MS allocated a channel

Note: All test modes were carried out for all operation modes and record the worst test mode (GSM 900/1800 MCH VN) of fellow:

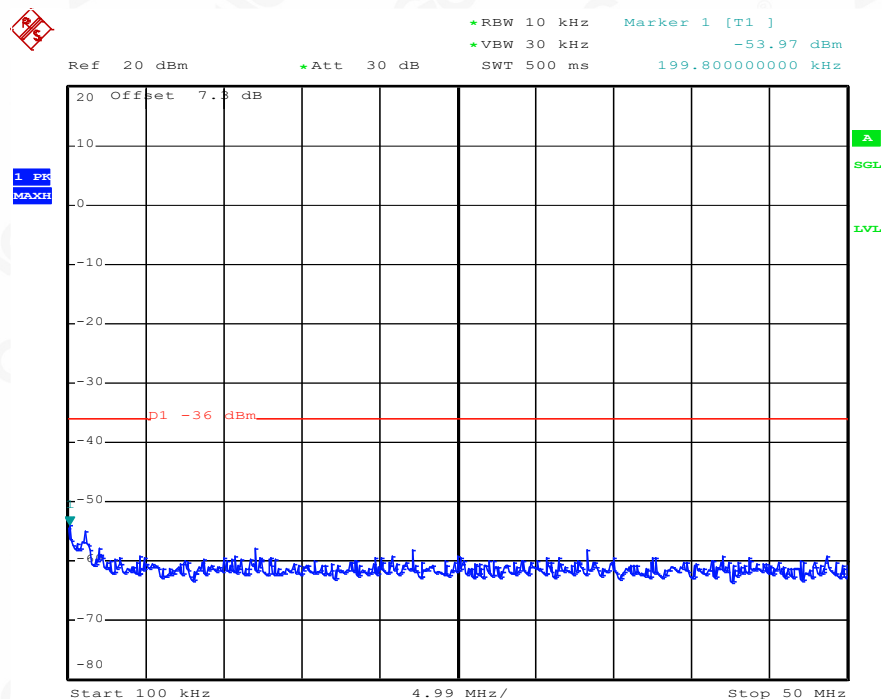
Conducted spurious emissions	GSM900;VN			
Frequency range	RBW(Hz)	Max.Limit(dBm)	MCH(dBm)	Result
100kHz~50MHz	10k	-36	-53.97	PASS
50MHz~500MHz	100k	-36	-44.00	PASS
500MHz~850MHz	3M	-36	-41.54	PASS
850MHz~860MHz	1M	-36	-44.47	PASS
860MHz~870MHz	300k	-36	-46.16	PASS
870MHz~880MHz	100k	-36	-46.14	PASS
915MHz~925MHz	100k	-36	-47.61	PASS
960MHz~1GHz	3M	-36	-44.54	PASS
1GHz~1805MHz	3M	-30	-34.93	PASS
1880MHz~12.75GHz	3M	-30	-31.86	PASS
896.6MHz~900.8MHz	30K	-36	-50.08	PASS
904.4MHz~908.6MHz	30K	-36	-51.59	PASS
880MHz~896.6MHz	100K	-36	-46.22	PASS
908.6MHz~915MHz	100K	-36	-48.67	PASS

Conducted spurious emissions	DCS1800;VN			
Frequency range	RBW(Hz)	Max.Limit(dBm)	MCH(dBm)	Result
100kHz~50MHz	10k	-36	-54.54	PASS
50MHz~500MHz	100k	-36	-43.69	PASS
500MHz~925MHz	3M	-36	-39.86	PASS
960MHz~1GHz	3M	-36	-39.47	PASS
1GHz~1680MHz	3M	-30	-38.44	PASS
1680MHz~1690MHz	1M	-30	-41.93	PASS
1690MHz~1700MHz	300k	-30	-46.99	PASS
1700MHz~1710MHz	100k	-30	-44.53	PASS
1785MHz~1795MHz	100K	-30	-41.64	PASS
1795MHz~1805MHz	300k	-30	-44.24	PASS
1880MHz~12.75GHz	3M	-30	-31.93	PASS
1741.4MHz~1745.6MHz	30K	-36	-48.76	PASS
1749.2MHz~1753.4MHz	30K	-36	-49.14	PASS
1710MHz~1741.4MHz	100K	-36	-44.03	PASS
1753.4MHz~1785MHz	100K	-36	-43.56	PASS

# Graphs of conducted spurious emission-MS allocated a channel

GSM900: channel MCH VN

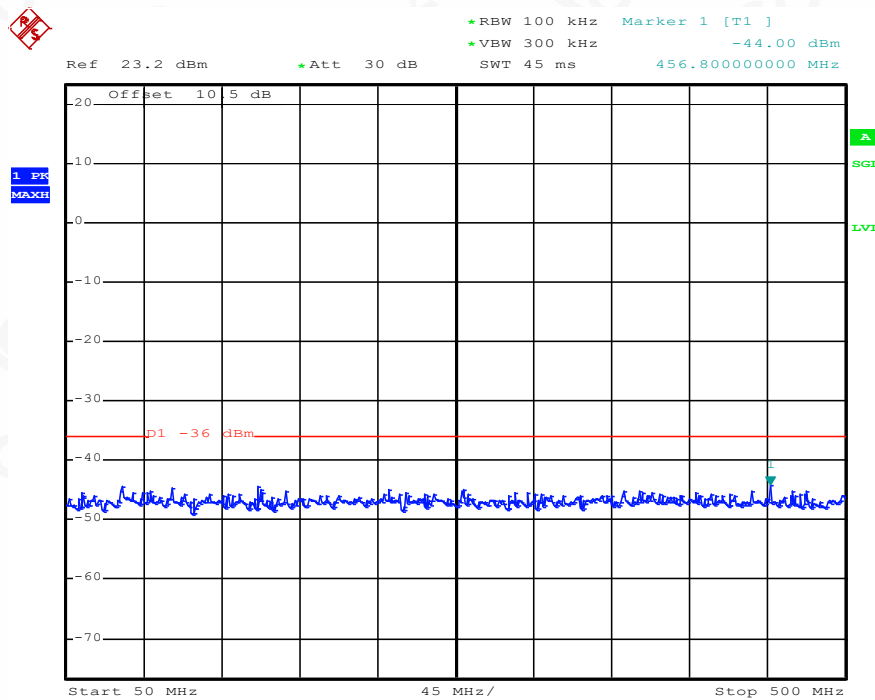
100kHz~50MHz



AAA

Date: 16.JAN.2020 13:11:31

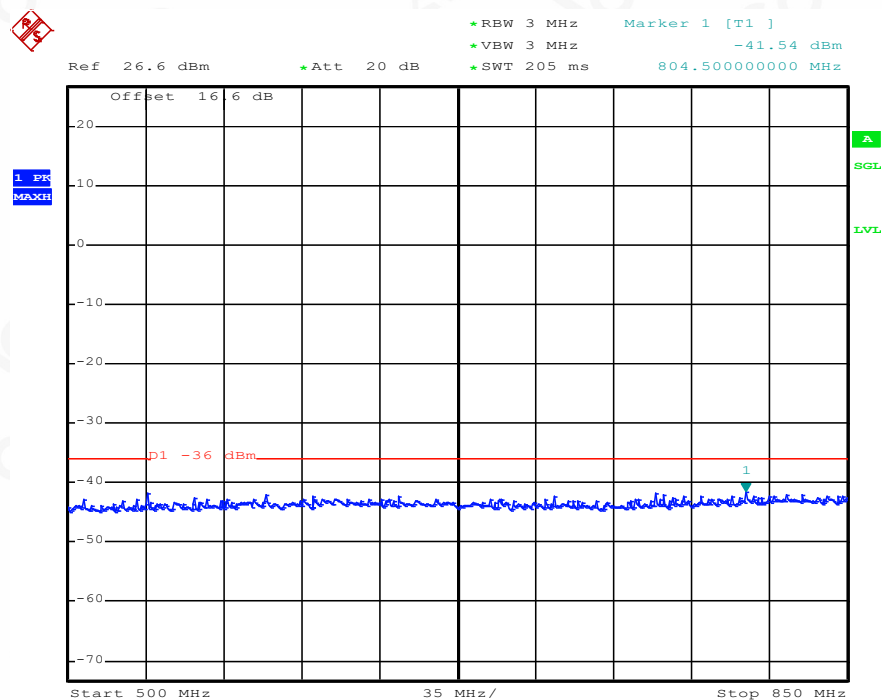
50MHz~500MHz



AAA

Date: 16.JAN.2020 13:11:42

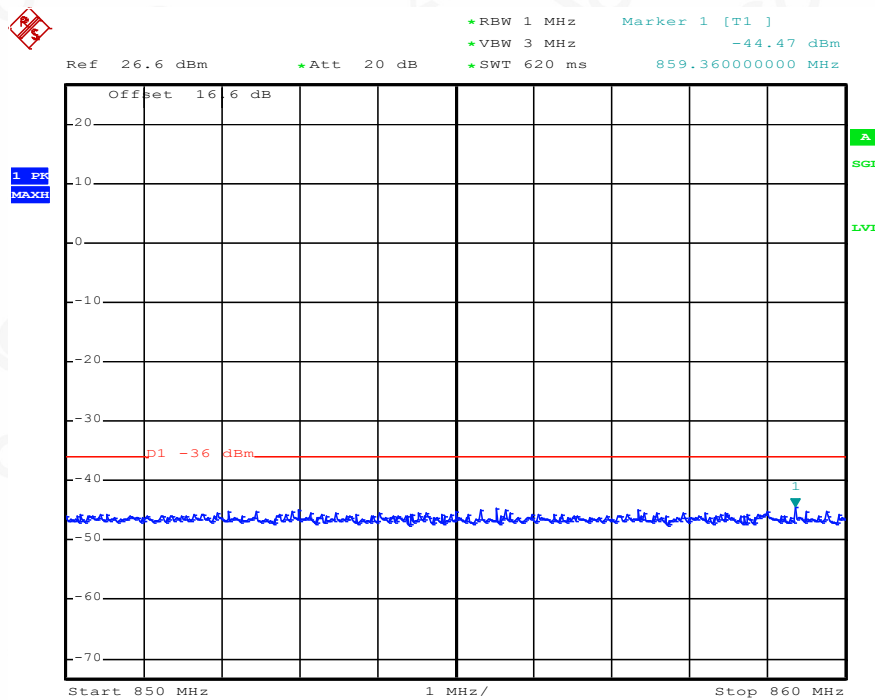
500MHz~850MHz



AAA

Date: 16.JAN.2020 13:12:03

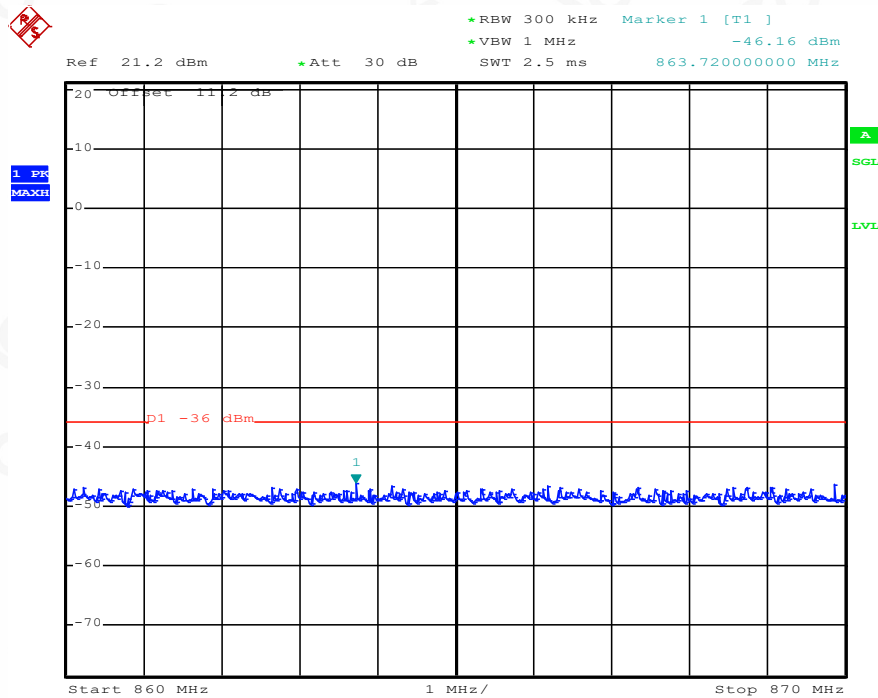
850MHz~860MHz



AAA

Date: 16.JAN.2020 13:12:44

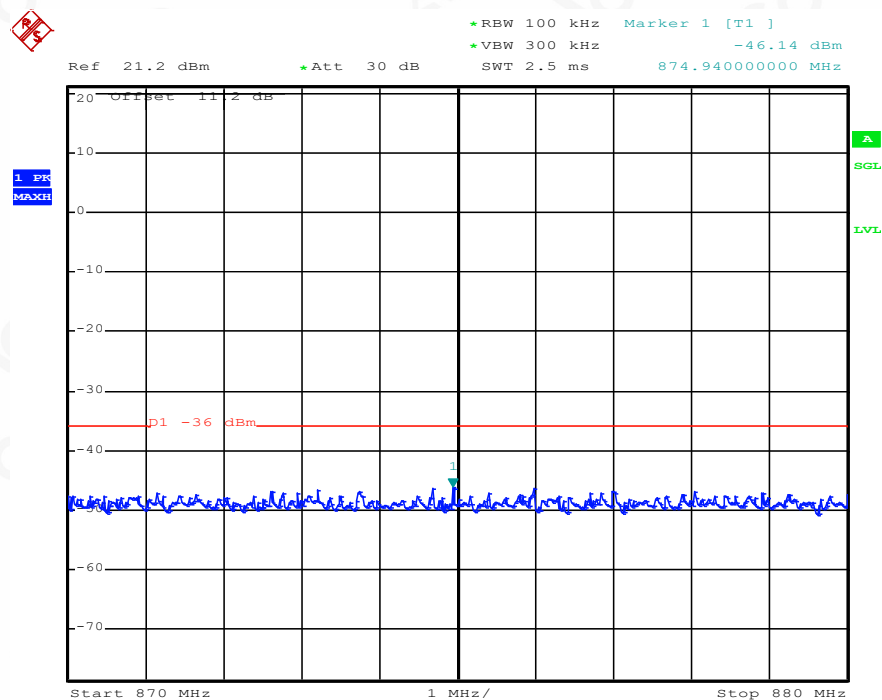
860MHz~870MHz



AAA

Date: 16.JAN.2020 13:12:54

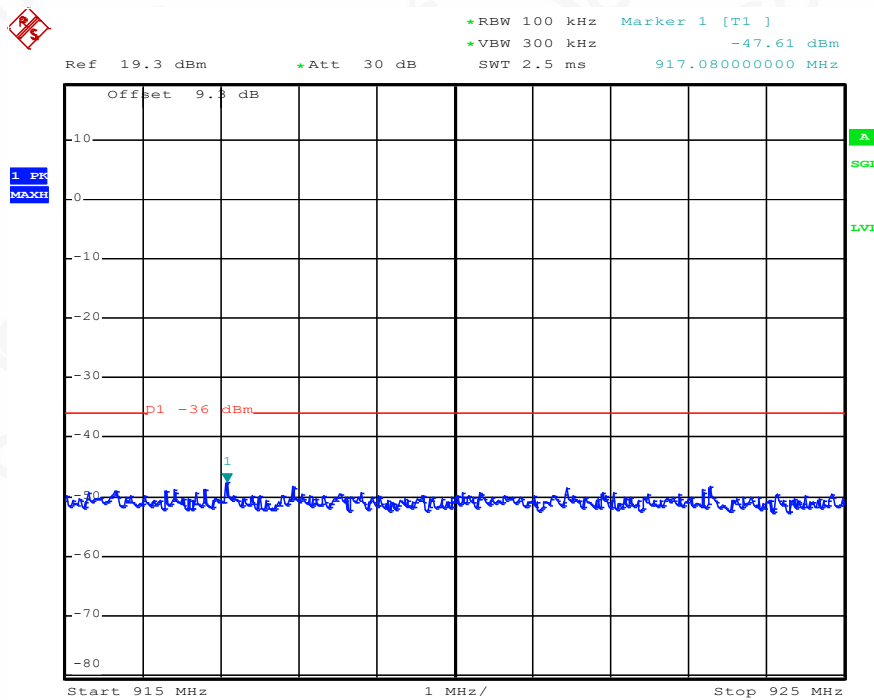
870MHz~880MHz



AAA

Date: 16.JAN.2020 13:13:05

915MHz~925MHz



AAA

Date: 16.JAN.2020 13:13:15



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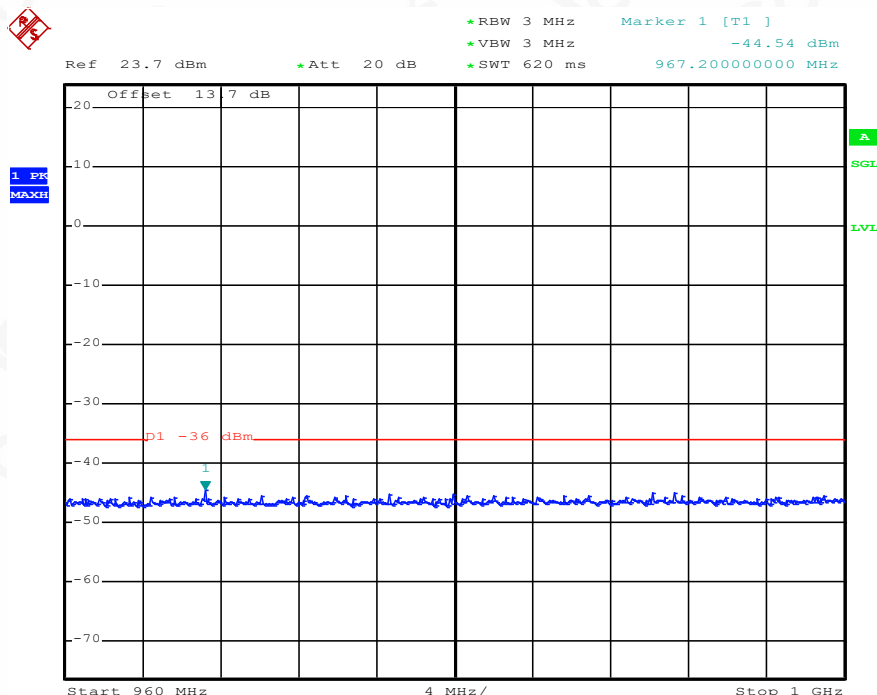
Add: 2/F., Building 2, Sanwei Chaxi Industrial Park, Sanwei Community,  
Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

E-mail: agc@agc-cert.com

Service Hotline: 400 089 2118

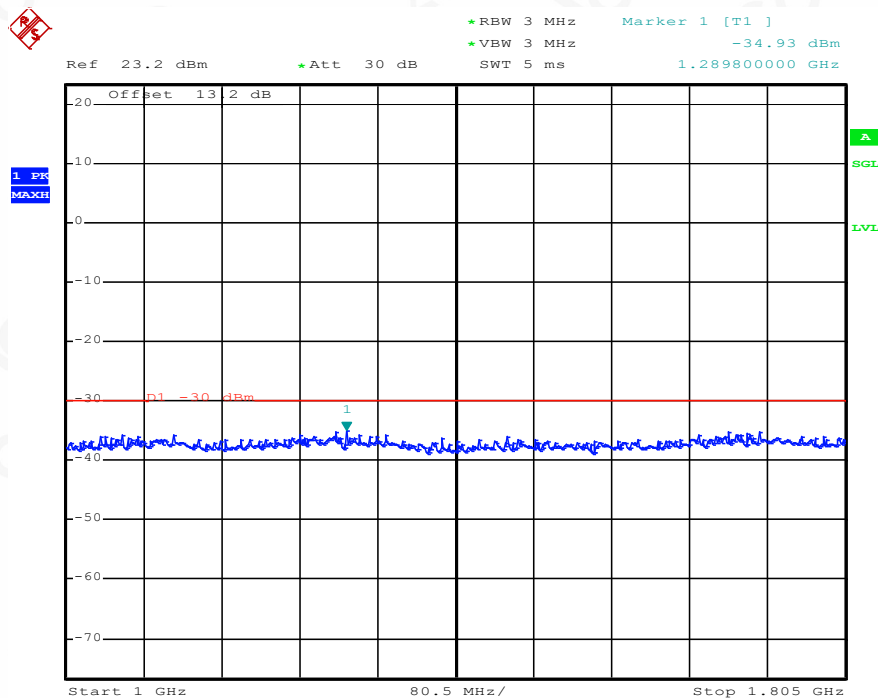
960MHz~1GHz



AAA

Date: 16.JAN.2020 13:14:08

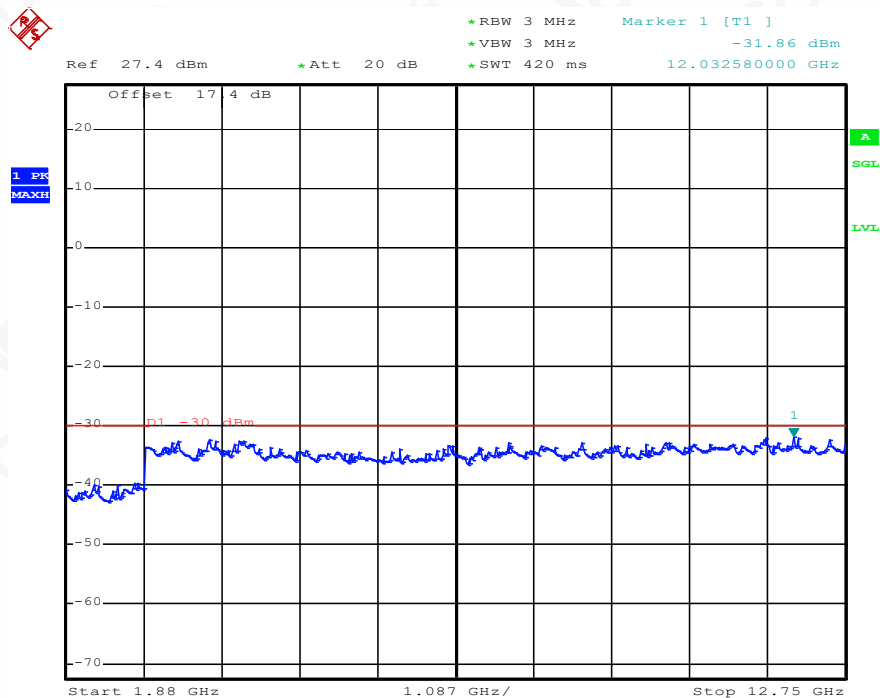
1GHz~1805MHz



AAA

Date: 16.JAN.2020 13:14:24

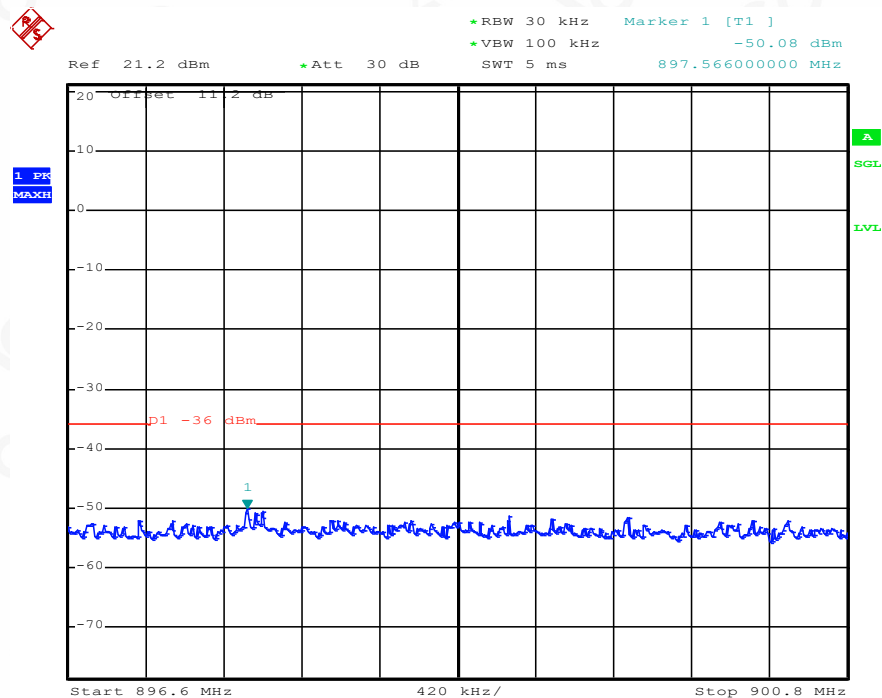
1880MHz~12.75GHz



AAA

Date: 16.JAN.2020 13:14:48

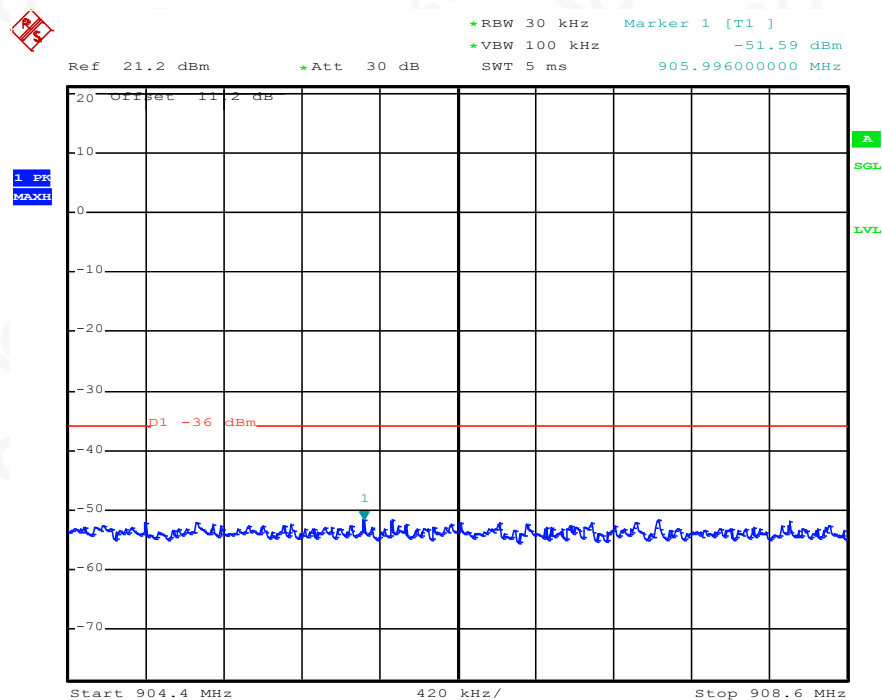
896.6MHz~900.8MHz



AAA

Date: 16.JAN.2020 13:15:05

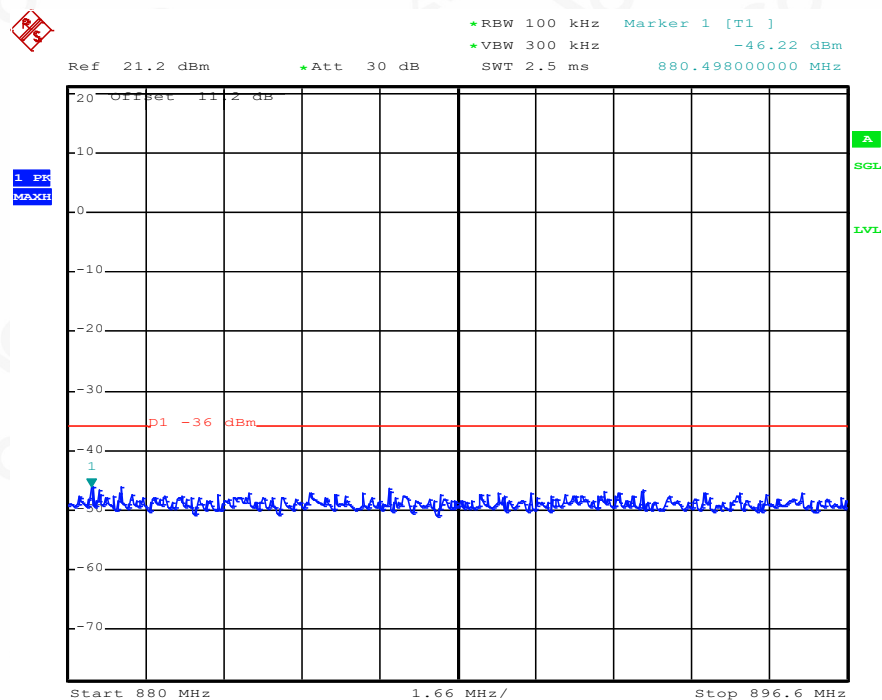
904.4MHz~908.6MHz



AAA

Date: 16.JAN.2020 13:15:21

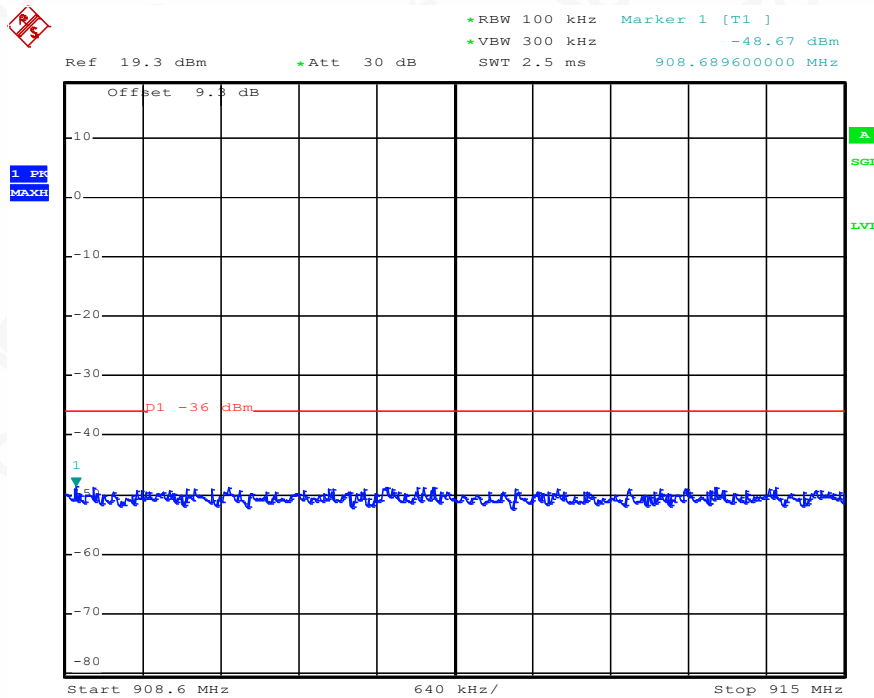
880MHz~896.6MHz



AAA

Date: 16.JAN.2020 13:15:34

908.6MHz~915MHz

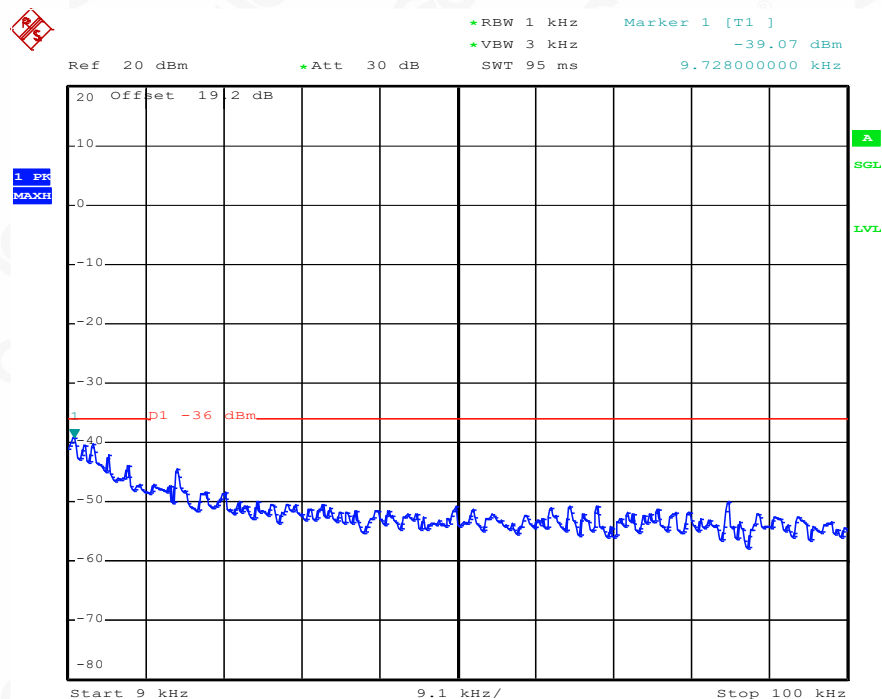


AAA

Date: 16.JAN.2020 13:15:48

# DCS1800: channel MCH VN

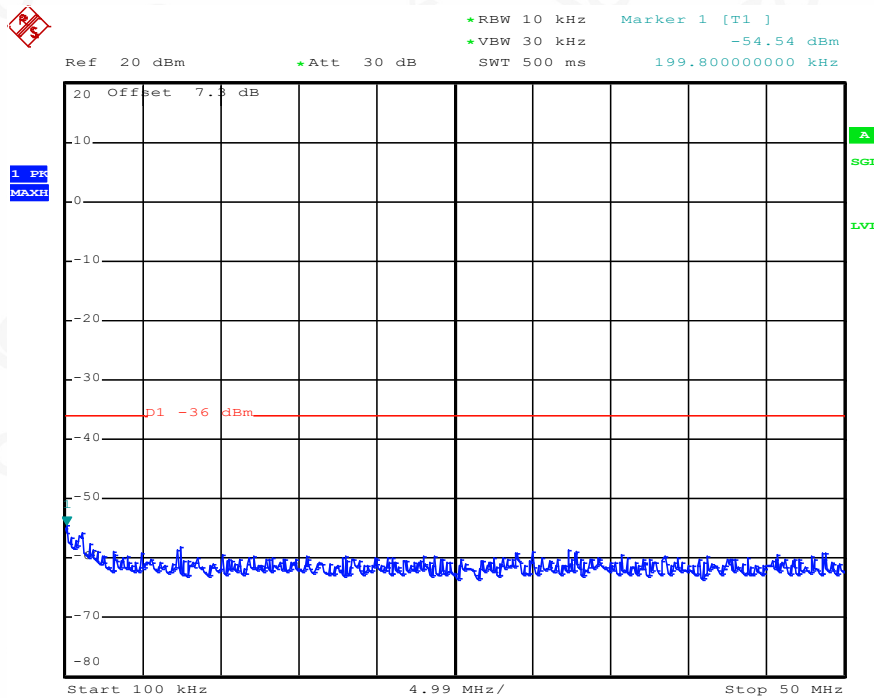
9kHz~100kHz



AAA

Date: 16.JAN.2020 13:23:13

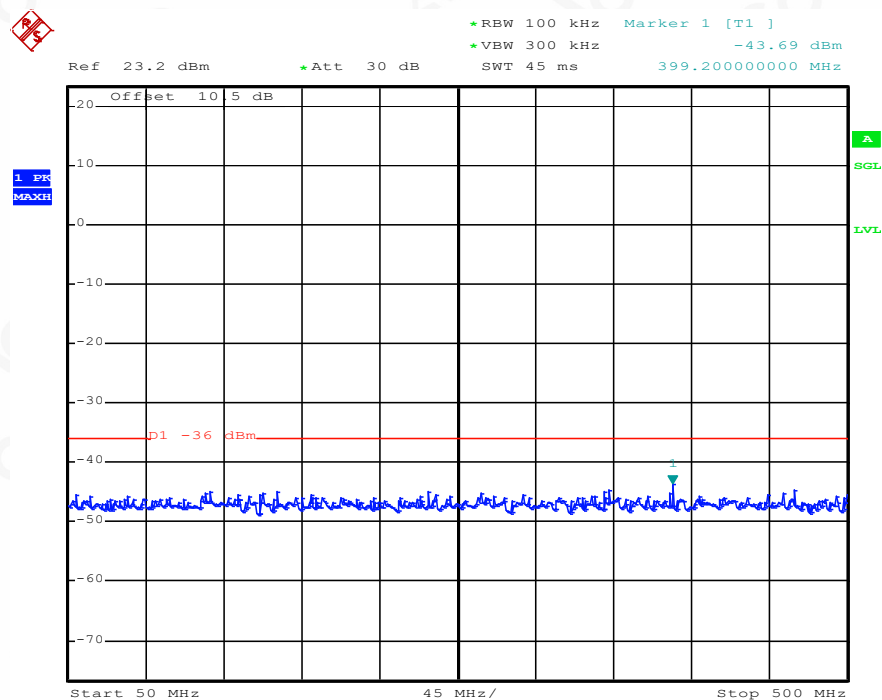
100kHz~50MHz



AAA

Date: 16.JAN.2020 13:23:21

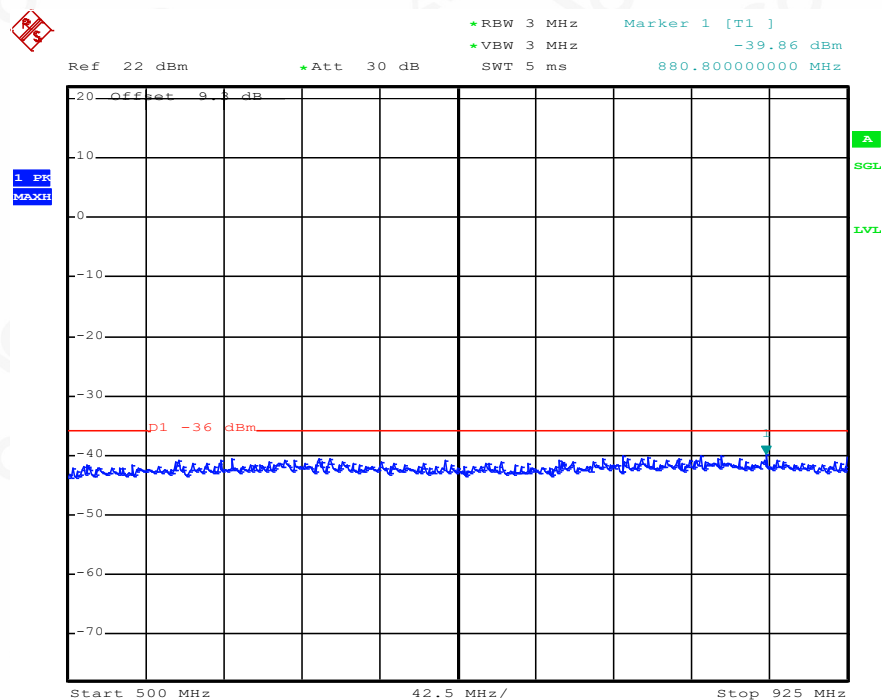
50MHz~500MHz



AAA

Date: 16.JAN.2020 13:23:29

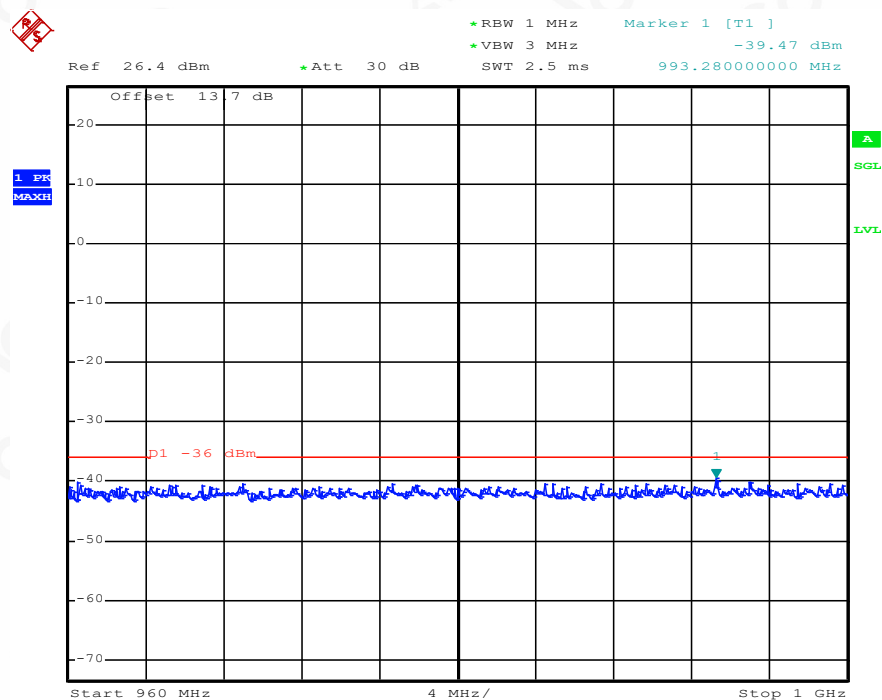
500MHz~925MHz



AAA

Date: 16.JAN.2020 13:23:37

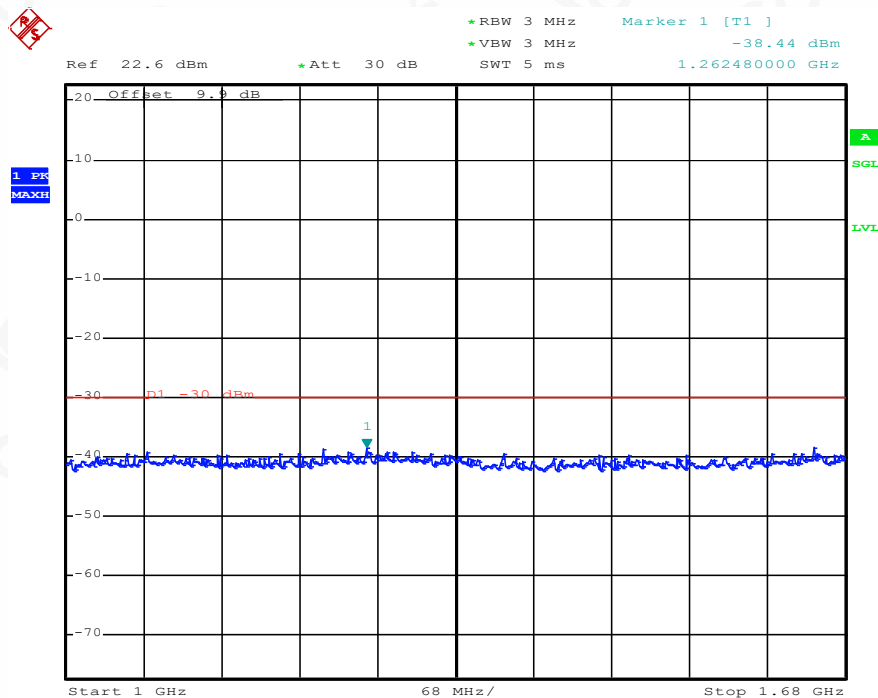
960MHz~1GHz



AAA

Date: 16.JAN.2020 13:23:45

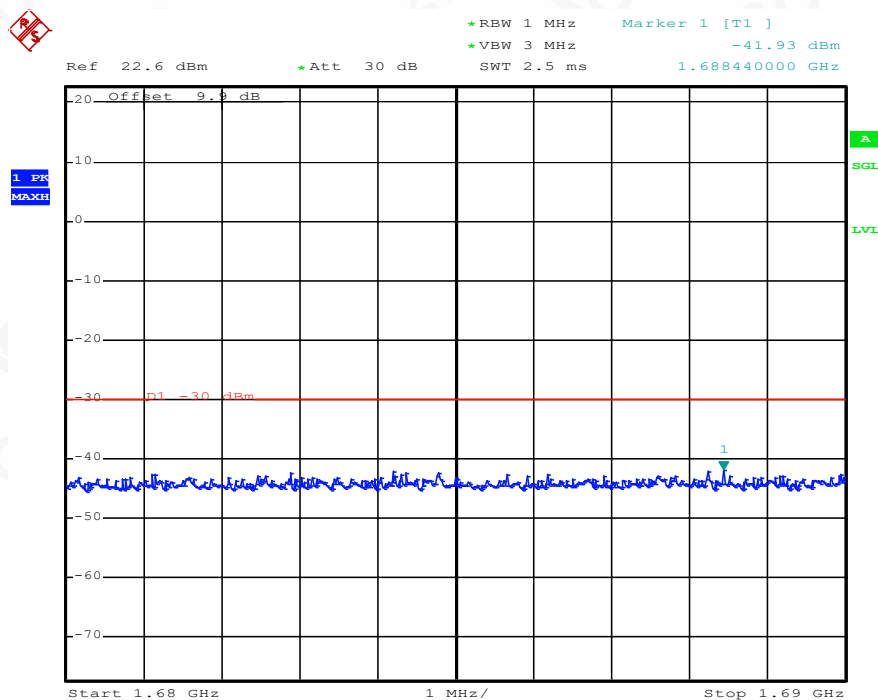
1GHz~1680MHz



AAA

Date: 16.JAN.2020 13:23:53

1680MHz~1690MHz



AAA

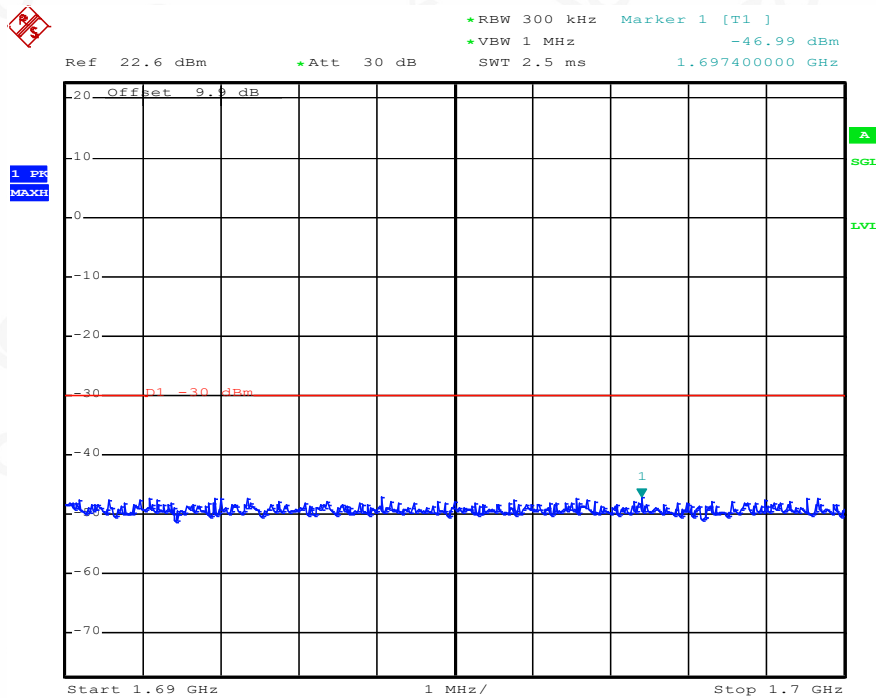
Date: 16.JAN.2020 13:24:00



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Tel: +86-755 2523 4088 E-mail: agc@agc-cert.com Service Hotline: 400 089 2118

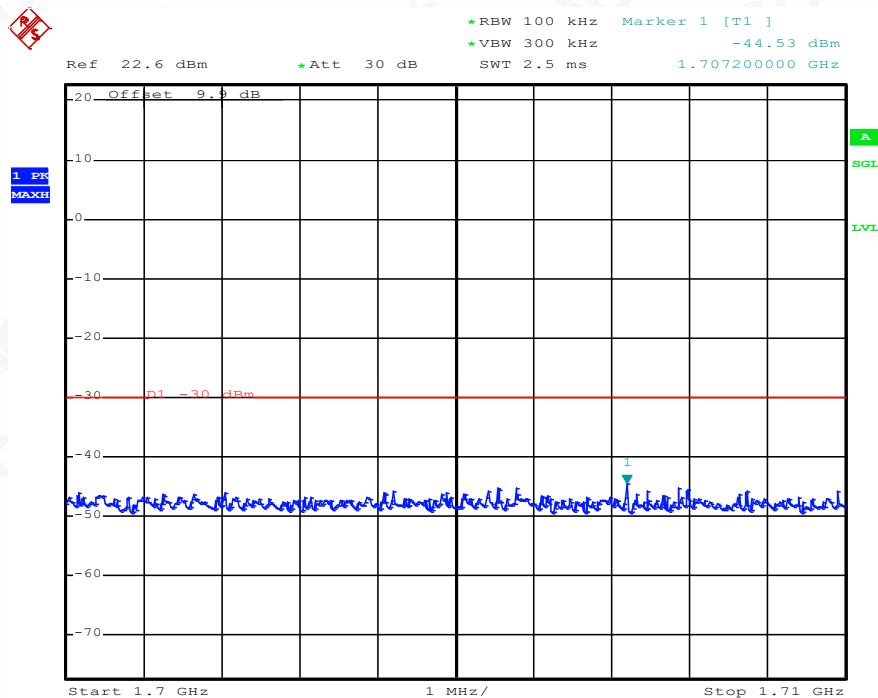
1690MHz~1700MHz



AAA

Date: 16.JAN.2020 13:24:08

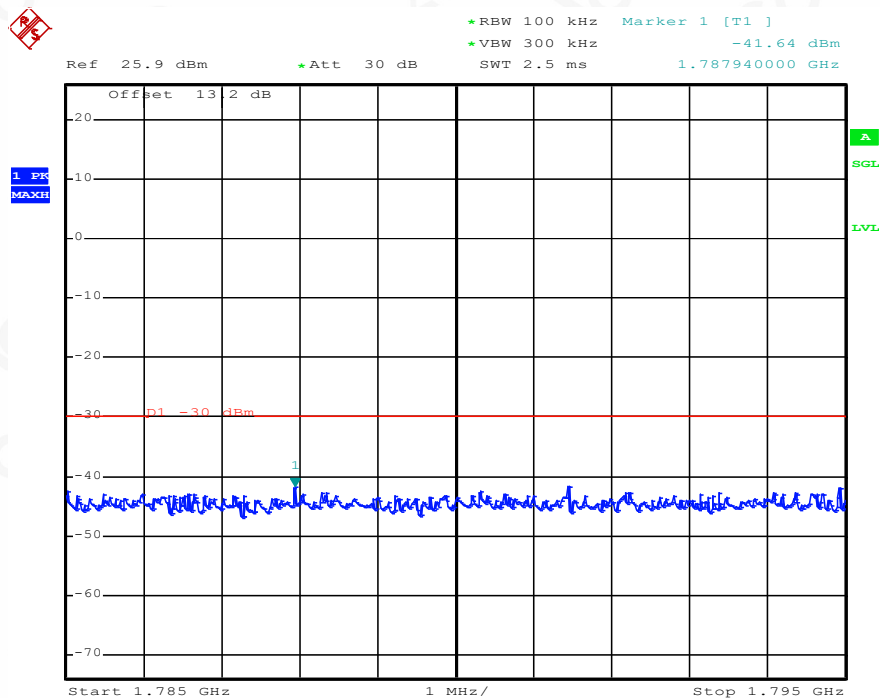
1700MHz~1710MHz



AAA

Date: 16.JAN.2020 13:24:16

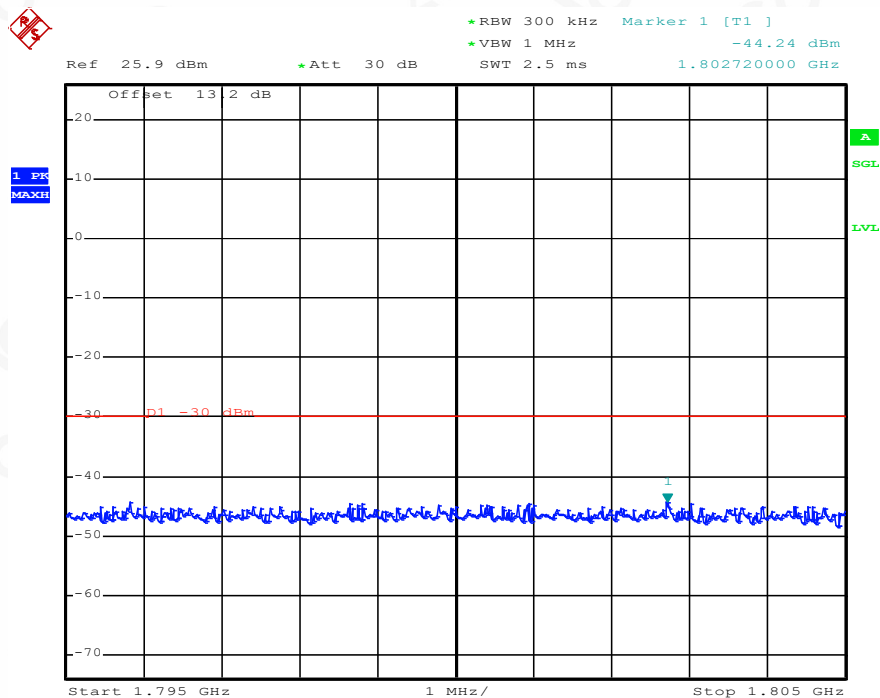
1785MHz~1795MHz



AAA

Date: 16.JAN.2020 13:24:24

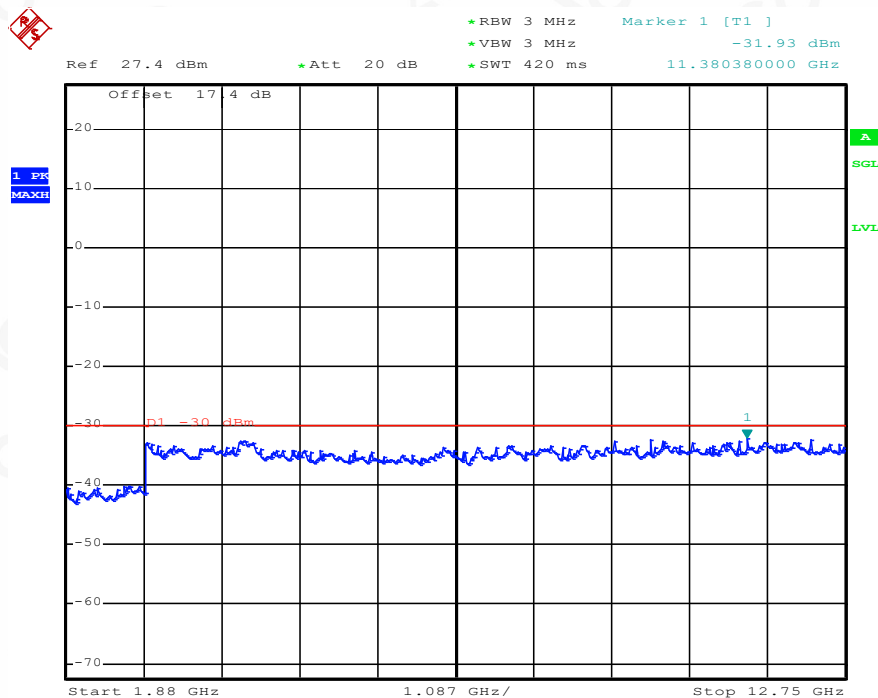
1795MHz~1805MHz



AAA

Date: 16.JAN.2020 13:24:32

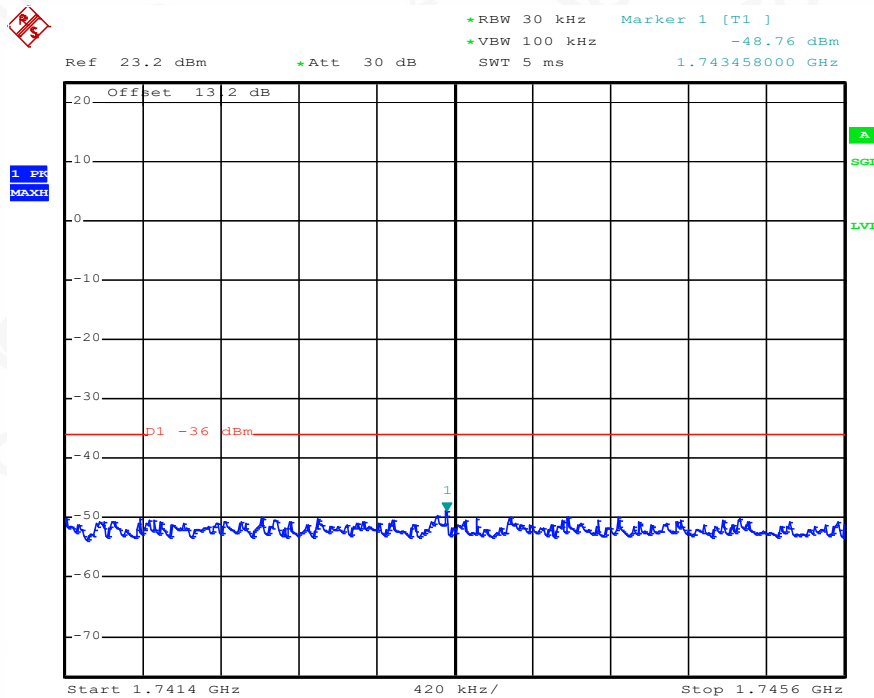
1880MHz~12.75GHz



AAA

Date: 16.JAN.2020 13:24:47

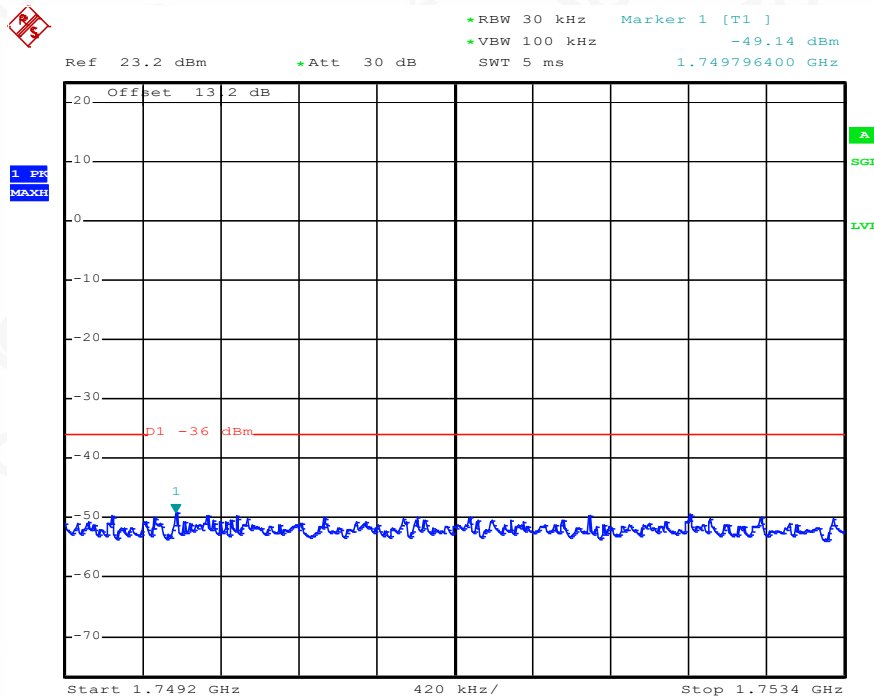
1741.4MHz~1745.6MHz



AAA

Date: 16.JAN.2020 13:24:55

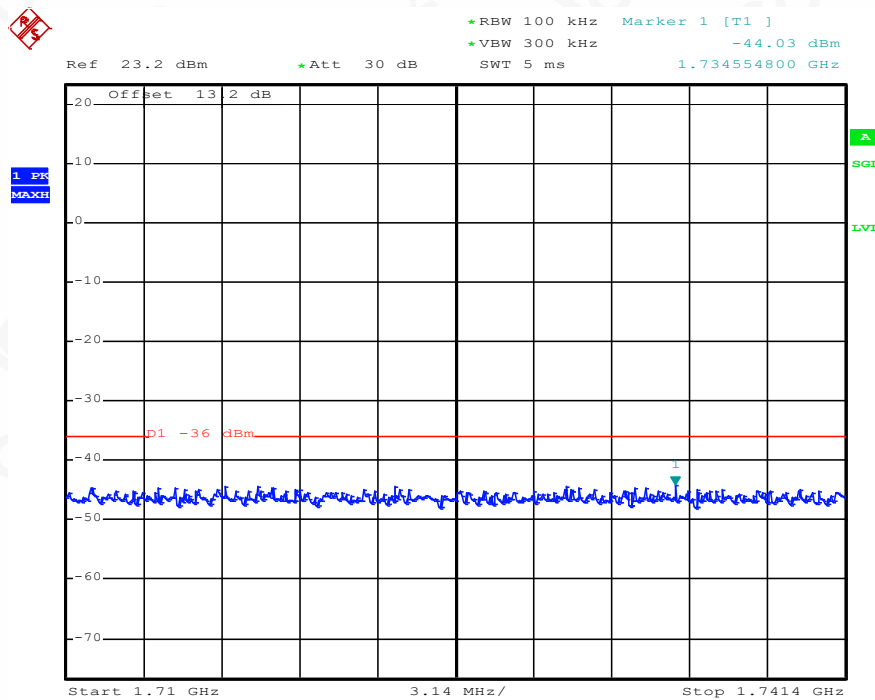
1749.2MHz~1753.4MHz



AAA

Date: 16.JAN.2020 13:25:02

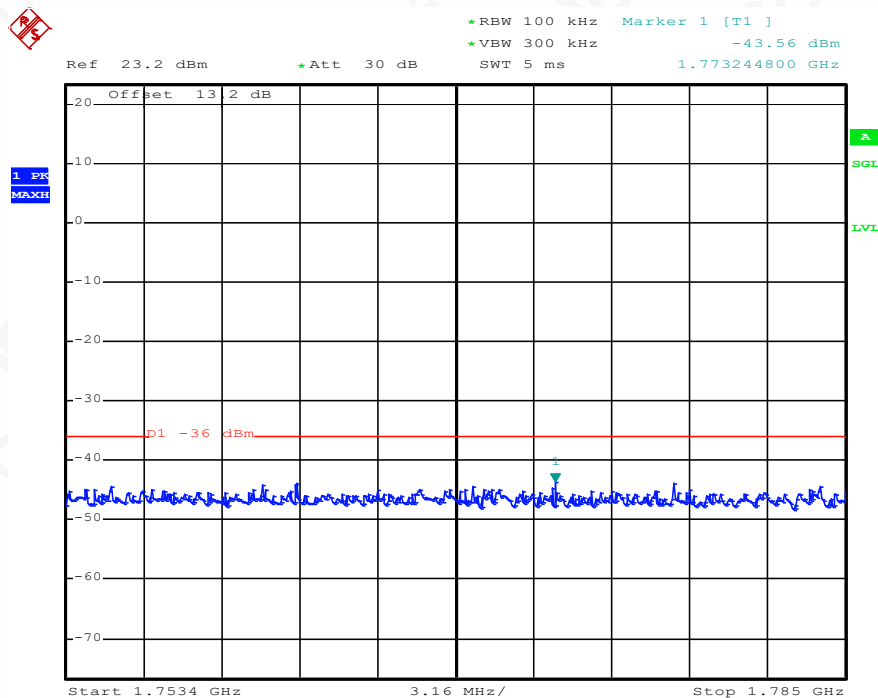
1710MHz~1741.4MHz



AAA

Date: 16.JAN.2020 13:25:10

1753.4MHz~1785MHz



AAA

Date: 16.JAN.2020 13:25:18

## Appendix I. Conducted spurious emissions- MS in idle mode

Note: All test modes were carried out for all operation modes and record the worst test mode (GSM 900/1800 TN/VN) of fellow:

Conducted spurious emissions	GSM900;VN			
Frequency range	RBW(Hz)	Max.Limit(dBm)	MCH(dBm)	Result
100kHz~50MHz	10k	-57	-64.15	PASS
50MHz~880MHz	100k	-57	-66.55	PASS
880MHz~915MHz	100k	-59	-62.45	PASS
915MHz~1000MHz	100k	-57	-61.84	PASS
1GHz~1710MHz	100k	-47	-52.31	PASS
1710MHz~1785MHz	100k	-53	-57.35	PASS
1785MHz~12.75GHz	100k	-47	-50.06	PASS

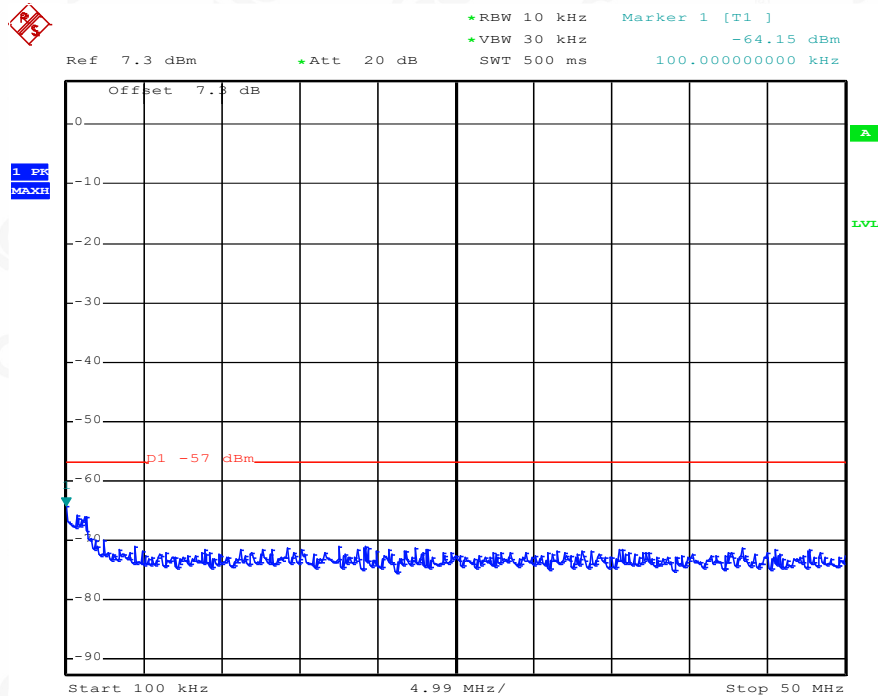
Conducted spurious emissions	DCS1800;VN			
Frequency range	RBW(Hz)	Max.Limit(dBm)	MCH(dBm)	Result
100kHz~50MHz	10k	-57	-64.68	PASS
50MHz~880MHz	100k	-57	-67.31	PASS
880MHz~915MHz	100k	-59	-62.29	PASS
915MHz~1000MHz	100k	-57	-63.53	PASS
1GHz~1710MHz	100k	-47	-52.74	PASS
1710MHz~1785MHz	100k	-53	-57.82	PASS
1785MHz~12.75GHz	100k	-47	-49.14	PASS



## Graphs of conducted spurious emission-MS in idle mode

GSM900: channel MCH VN

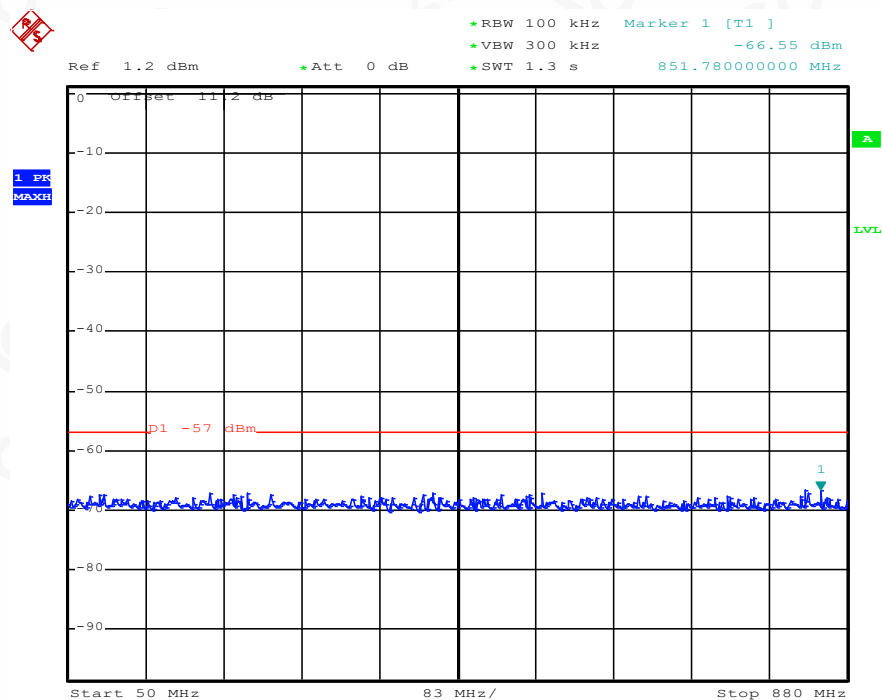
100kHz~50MHz



AAA

Date: 16.JAN.2020 13:17:18

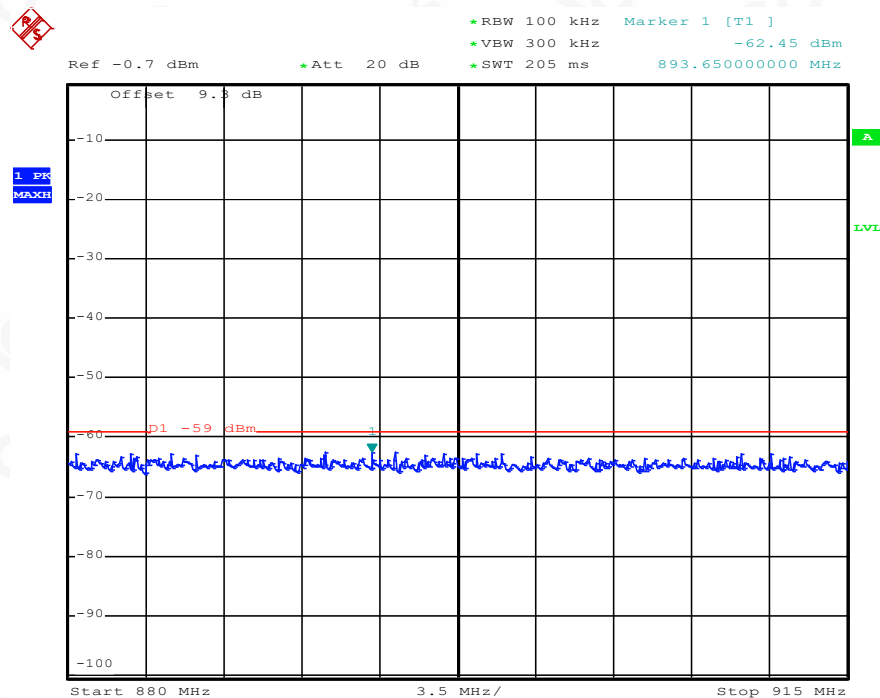
50MHz~880MHz



AAA

Date: 16.JAN.2020 13:18:12

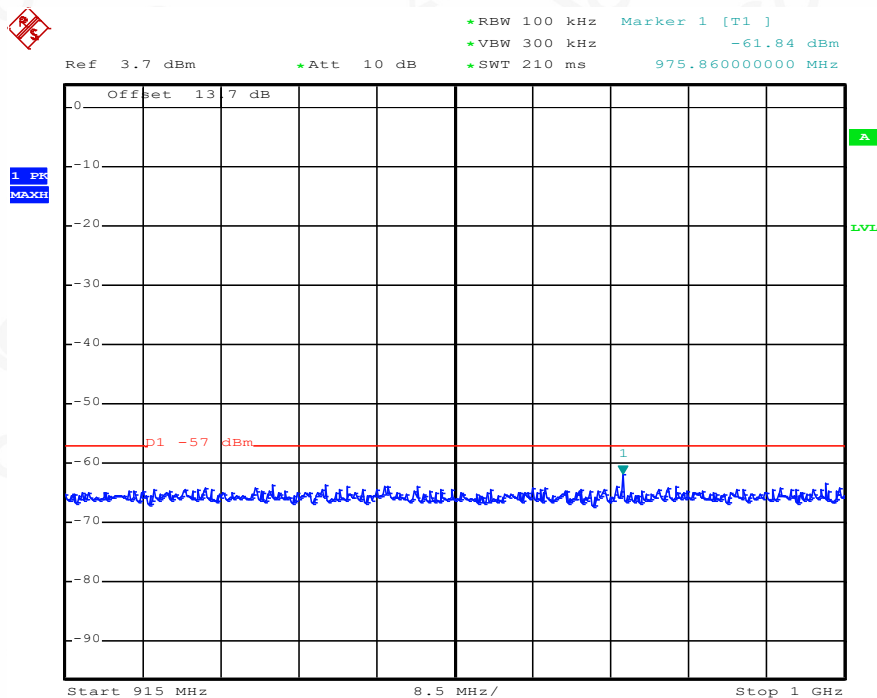
880MHz~915MHz



AAA

Date: 16.JAN.2020 13:18:24

915MHz~1000MHz



AAA

Date: 16.JAN.2020 13:18:55



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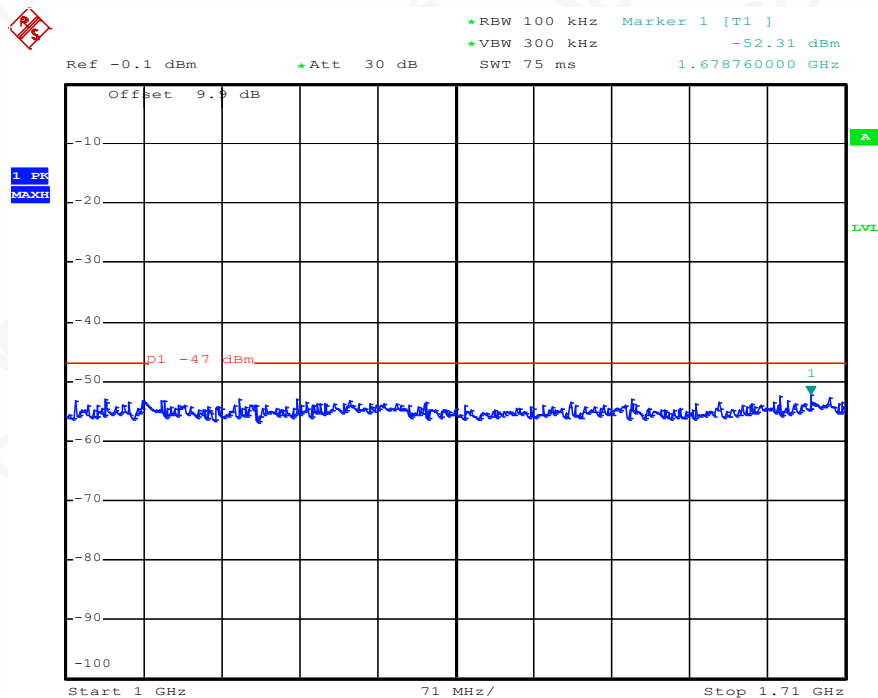
Add: 2/F., Building 2, Sanwei Chaxi Industrial Park, Sanwei Community,  
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1GHz~1710MHz



AAA

Date: 16.JAN.2020 13:19:02



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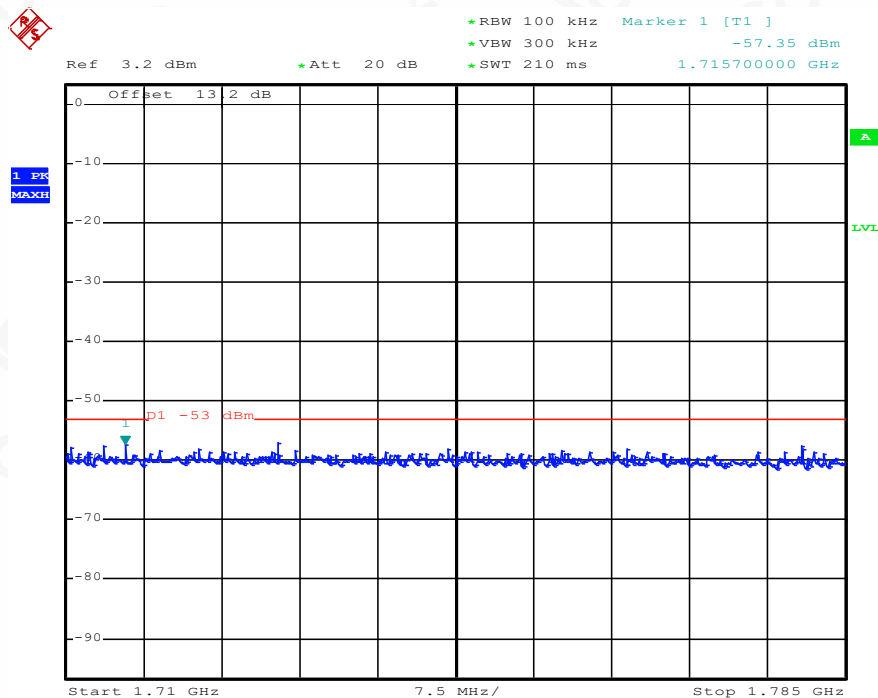
Add: 2/F., Building 2, Sanwei Chaxi Industrial Park, Sanwei Community,  
Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

E-mail: agc@agc-cert.com

Service Hotline: 400 089 2118

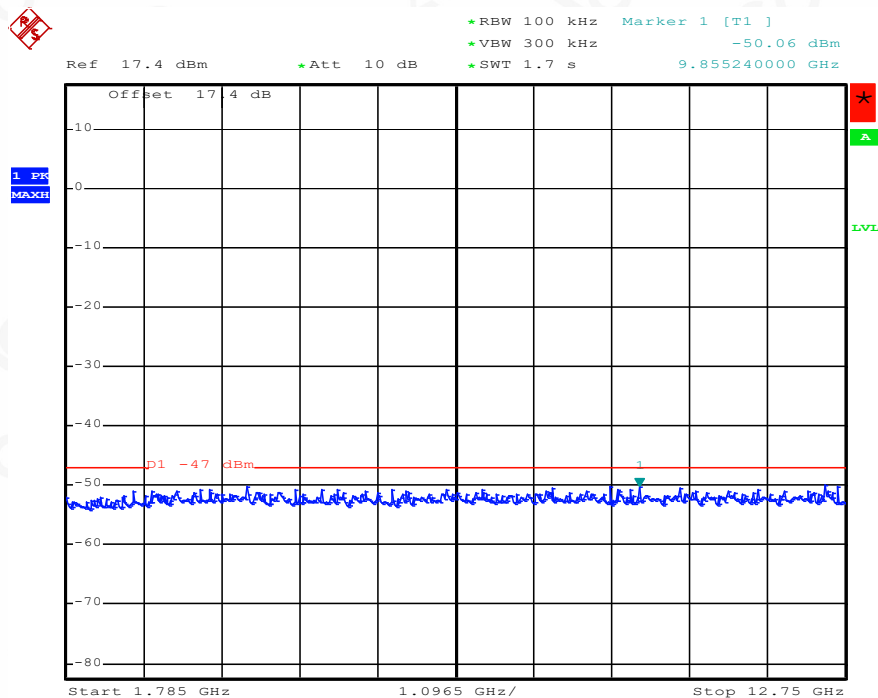
1710MHz~1785MHz



AAA

Date: 16.JAN.2020 13:19:15

1785MHz~12.75GHz

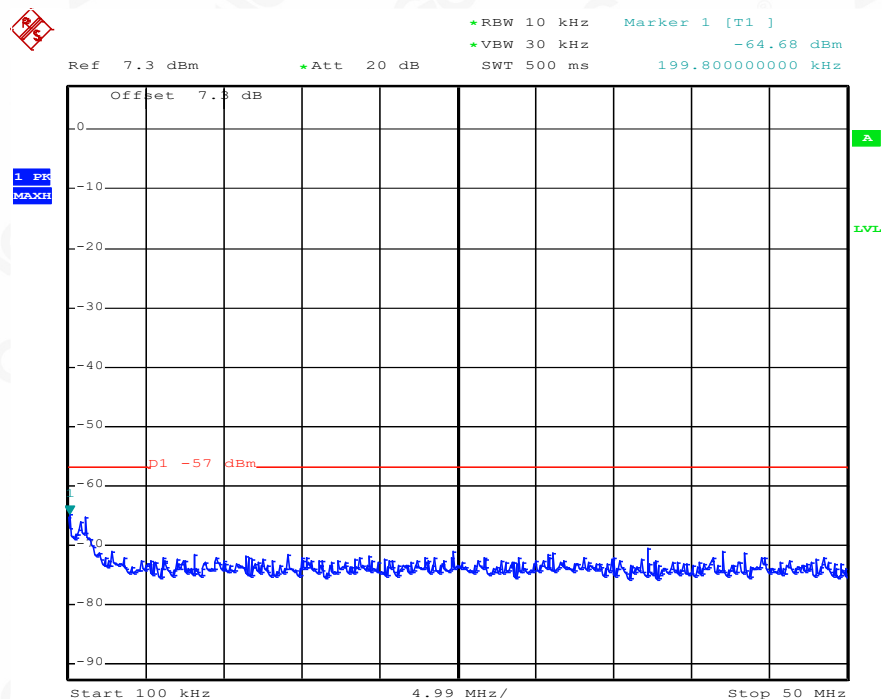


AAA

Date: 16.JAN.2020 13:19:39

# DCS1800: channel MCH VN

100kHz~50MHz



AAA

Date: 16.JAN.2020 13:39:02



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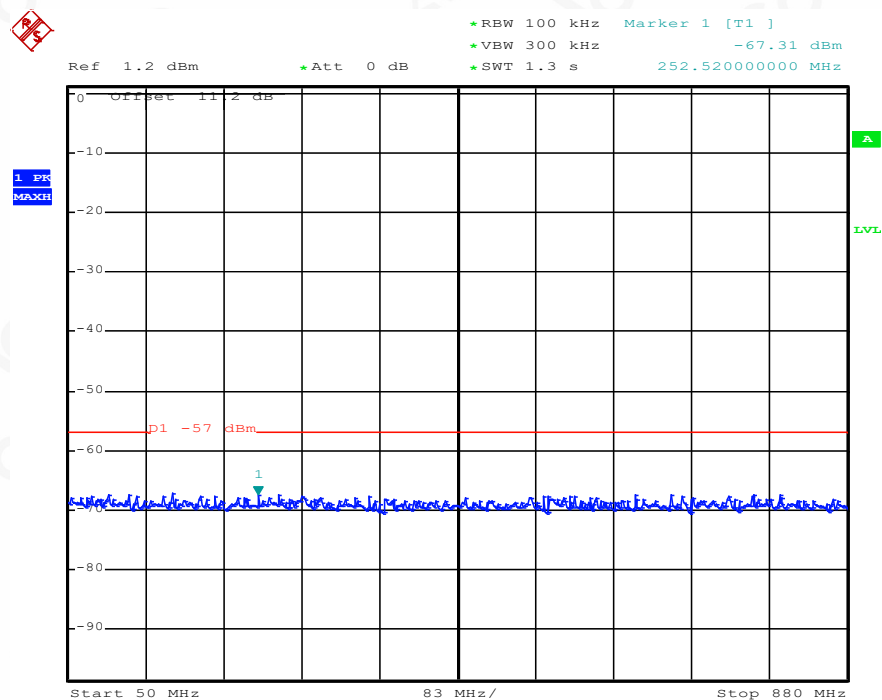
Add: 2/F., Building 2, Sanwei Chaxi Industrial Park, Sanwei Community,  
Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

E-mail: agc@agc-cert.com

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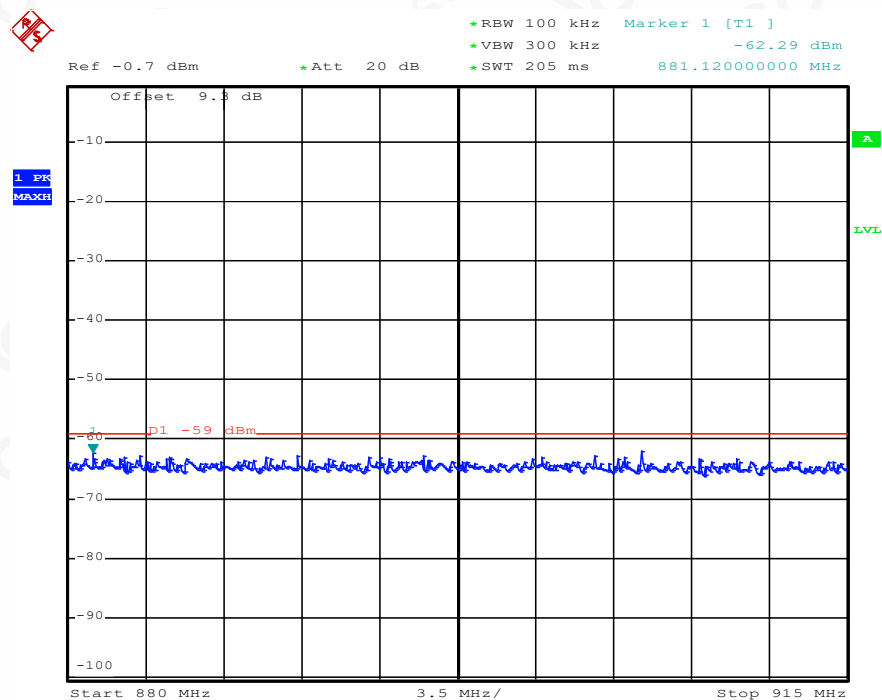
50MHz~880MHz



AAA

Date: 16.JAN.2020 13:39:52

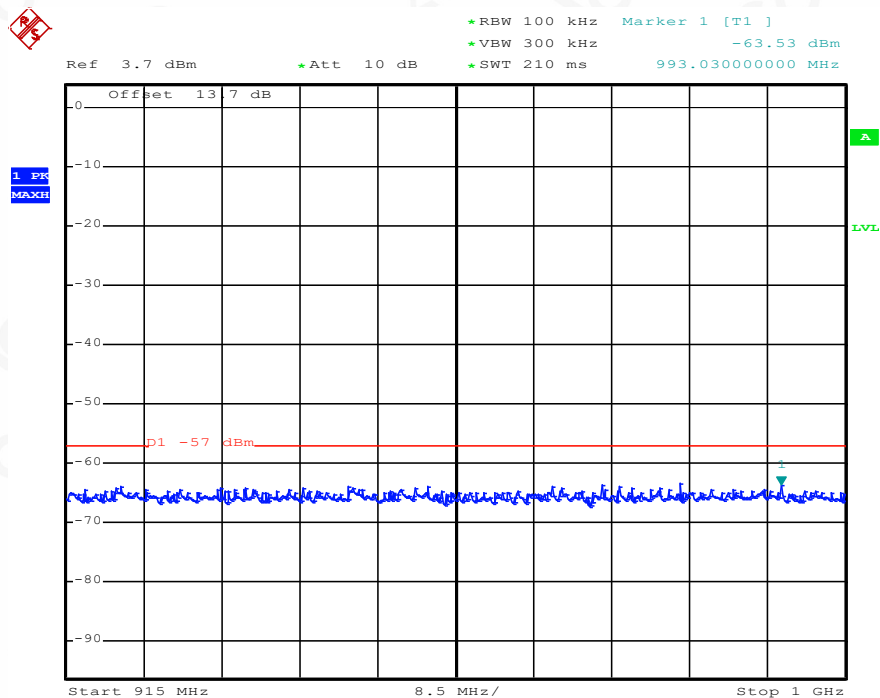
880MHz~915MHz



AAA

Date: 16.JAN.2020 13:40:07

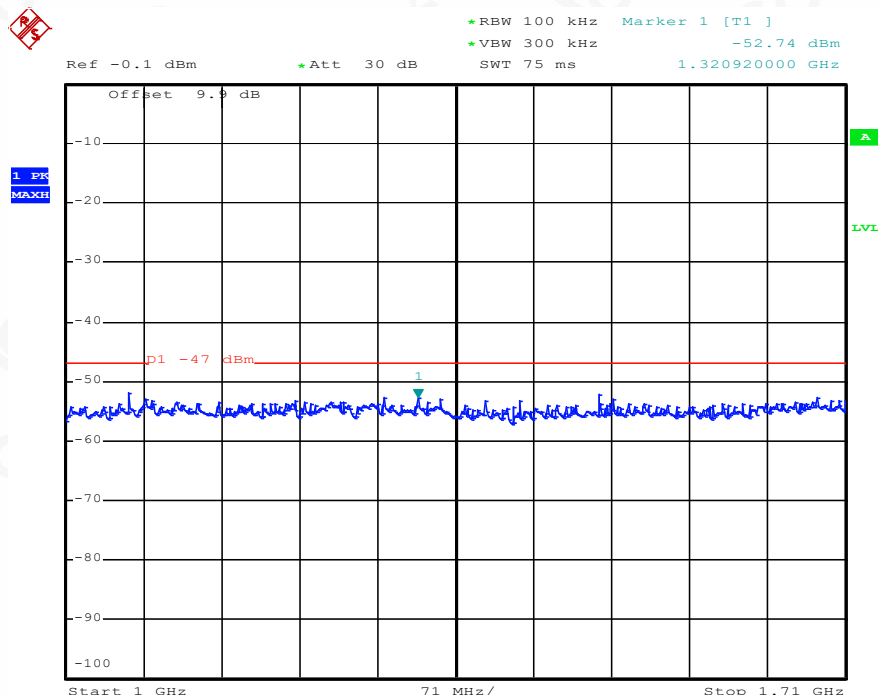
915MHz~1000MHz



AAA

Date: 16.JAN.2020 13:40:46

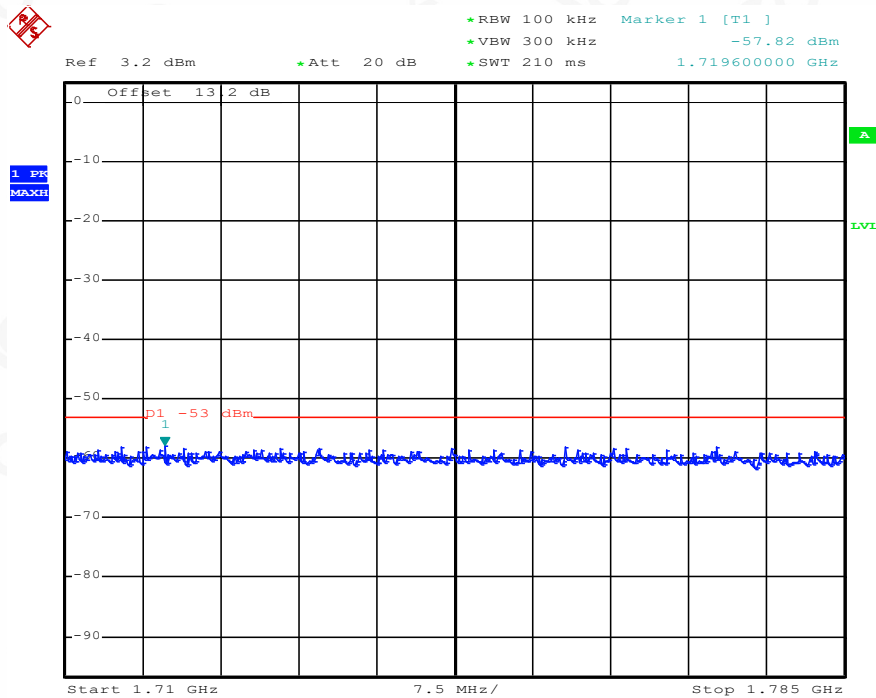
1GHz~1710MHz



AAA

Date: 16.JAN.2020 13:40:56

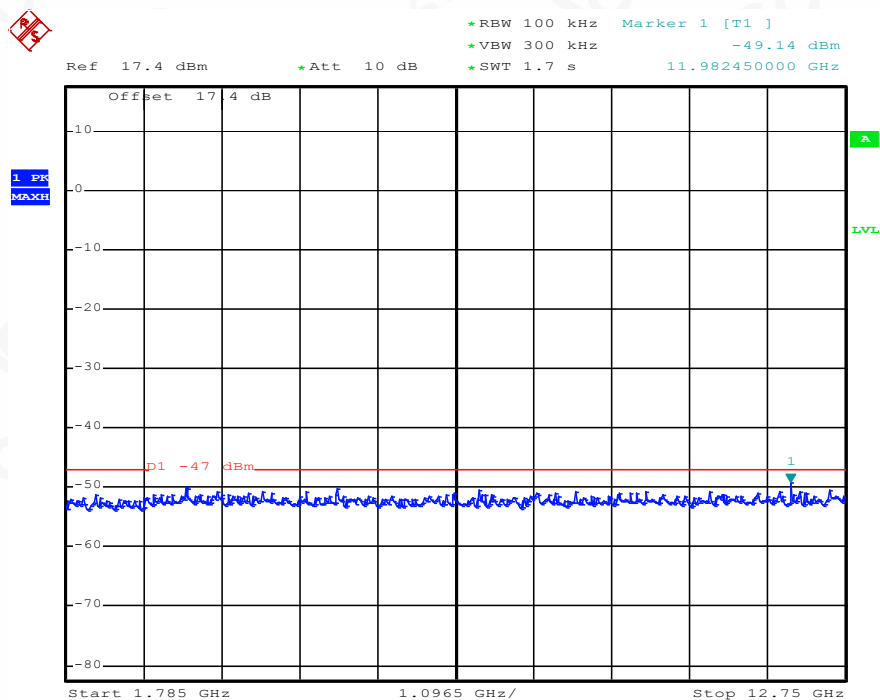
1710MHz~1785MHz



AAA

Date: 16.JAN.2020 13:41:12

1785MHz~12.75GHz



AAA

Date: 16.JAN.2020 13:41:43



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## AppendixJ. Intermodulation rejection - speech channels

Note: All test modes were carried out for all operation modes and record the worst test mode (GSM 900/1800 TNVN) of fellow:

### GSM900

	Intermodulation Test Signal Levels		Result
TNVN	Wanted Signal dBuVemf()	15	Pass
	First Interferer dBuVemf()	64	Pass
	Second Interferer dBuVemf()	63	Pass

### GSM1800

	Intermodulation Test Signal Levels		Result
TNVN	Wanted Signal dBuVemf()	15	Pass
	First Interferer dBuVemf()	68	Pass
	Second Interferer dBuVemf()	68	Pass



## Appendix K. Receiver Blocking and spurious response – speech channel

### GSM900

FREQUENCY	Measurement Result	
	GSM900	
	Small MS	
	Interference Level in dBμVemf()	Result
FR +/- 600 kHz to FR +/- 800 kHz	70	PASS
FR +/- 800 kHz to FR +/- 1.6 MHz	70	PASS
FR +/- 1.6 MHz to FR +/- 3 MHz	80	PASS
915 MHz to FR - 3 MHz	90	PASS
FR + 3 MHz to 980 MHz	90	PASS
835 MHz to <915 MHz	113	PASS
>980 MHz to 1000 MHz	113	PASS
100 kHz to <835 MHz	90	PASS
>1000 MHz to 12.75 GHz	90	PASS

### DCS1800

FREQUENCY	Measurement Result	
	DCS1800	
	Small MS	
	Interference Level in dBμVemf()	Result
FR +/- 600 kHz to FR +/- 800 kHz	70	PASS
FR +/- 800 kHz to FR +/- 1.6 MHz	70	PASS
FR +/- 1.6 MHz to FR +/- 3 MHz	80	PASS
1785 MHz to FR - 3 MHz	87	PASS
FR + 3 MHz to 1920 MHz	87	PASS
100 kHz to 1705 MHz	113	PASS
>1705 MHz to <1785 MHz	101	PASS
>1920 MHz to 1980 MHz	101	PASS
>1980 MHz to 12.75 GHz	90	PASS



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## Appendix L. Frequency error and Modulation accuracy in EGPRS Configuration

Note: the worst test data (GSM 900/1800 TN VN) is record the report:

### GSM900

TN,VN			≤9%	≤15%	≤30%	≤10E-7	Result
BAND	ARFCN	PCL	RMS EVM	the 95% EVM	Peak EVM	Frequency error	
GSM900	LCH	8	0.7	1.3	1.9	3	PASS
		19	0.7	1.3	1.8	3	PASS
	MCH	8	0.8	1.4	2.1	4	PASS
		19	0.7	1.4	2.1	4	PASS
	HCH	8	0.8	1.5	2.0	6	PASS
		19	0.7	1.4	2.0	6	PASS

### DCS1800

TN,VN			≤9%	≤15%	≤30%	≤10E-7	Result
BAND	ARFCN	PCL	RMS EVM	the 95% EVM	Peak EVM	Frequency error	
DCS1800	LCH	2	1.8	3.2	4.6	-8	PASS
		15	0.8	1.6	2.3	-7	PASS
	MCH	2	1.8	3.1	4.4	-8	PASS
		15	0.8	1.6	2.4	-4	PASS
	HCH	2	1.8	3.2	4.5	0	PASS
		15	0.9	1.7	2.5	0	PASS



## Appendix M. Frequency error under multipath and interference conditions in EGPRS Configuration

Note: All test modes were carried out for all operation modes and record the worst test mode (GSM 900/1800 TN/VN) of fellow:

### GSM900

Fading set	Test conditions	Result			
		GSM900			
		ARFCN			
		LCH	MCH	HCH	Result
RA250	TNVN	2	7	8	PASS
HT100	TNVN	3	6	9	PASS
TU50	TNVN	6	9	8	PASS
TU3	TNVN	6	9	11	PASS

### DCS1800

Fading set	Test conditions	Result			
		DCS1800			
		ARFCN			
		LCH	MCH	HCH	Result
RA130	TNVN	-4	-6	-2	PASS
HT100	TNVN	-3	-3	-1	PASS
TU50	TNVN	-3	-4	-2	PASS
TU1.5	TNVN	-2	-3	-3	PASS

## Appendix N. EGPRS Transmitter output power

Note: All test modes were carried out for all operation modes and record the worst test mode (GSM 900/1800 TN/VN) of fellow:

### A. output power

Transmitter Output power(dBm)	Power level	Result			
		Traffic Channels			
		LCH	MCH	HCH	Result
GSM900					
TN,VN	8	27.41	27.13	27.28	PASS
	12	19.46	19.25	19.42	PASS
	19	4.88	4.70	4.95	PASS

Transmitter Output power(dBm)	Power level	Result			
		Traffic Channels			
		LCH	MCH	HCH	Result
DCS1800					
TN,VN	2	27.22	27.17	26.78	PASS
	8	15.23	15.23	15.06	PASS
	15	0.72	0.70	0.39	PASS

### B. Power VS Time

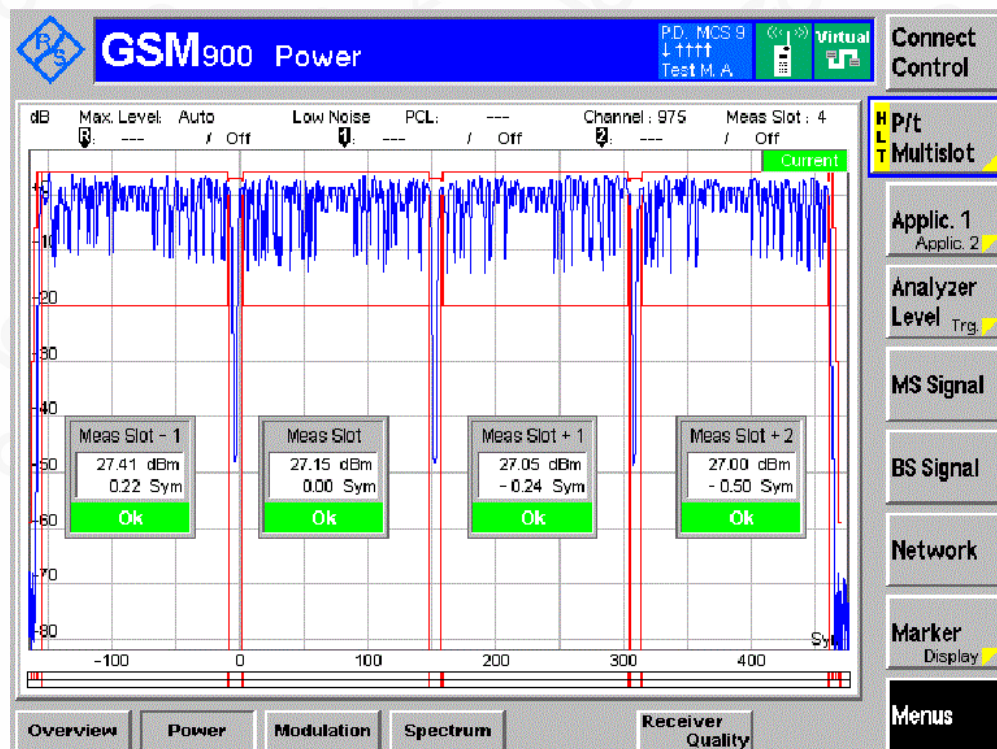
Power VS Time Graph	ACCESS BURST	Result		
		Traffic Channels		
		LCH	MCH	HCH
GSM900	Power level			
TN,VN	8	PASS	PASS	PASS
	12	PASS	PASS	PASS
	19	PASS	PASS	PASS

Power VS Time Graph	ACCESS BURST	Result		
		Traffic Channels		
		LCH	MCH	HCH
DCS1800	Power level			
TN,VN	2	PASS	PASS	PASS
	8	PASS	PASS	PASS
	15	PASS	PASS	PASS

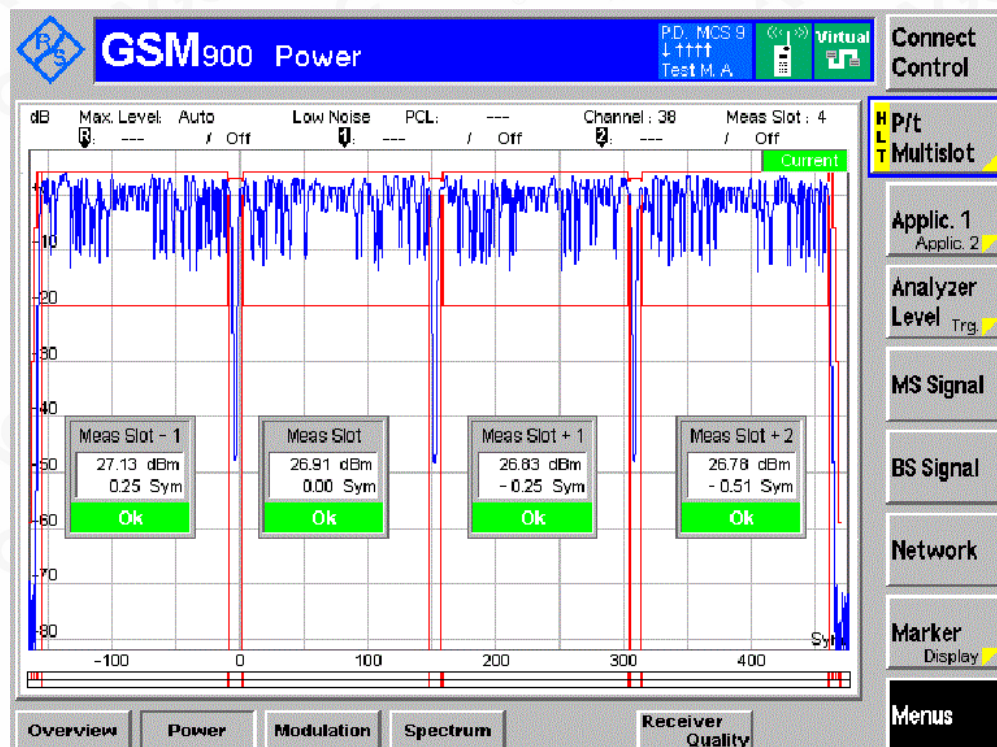
## Graphs of EGPRS Transmitter output power

### GSM 900 TN,VN

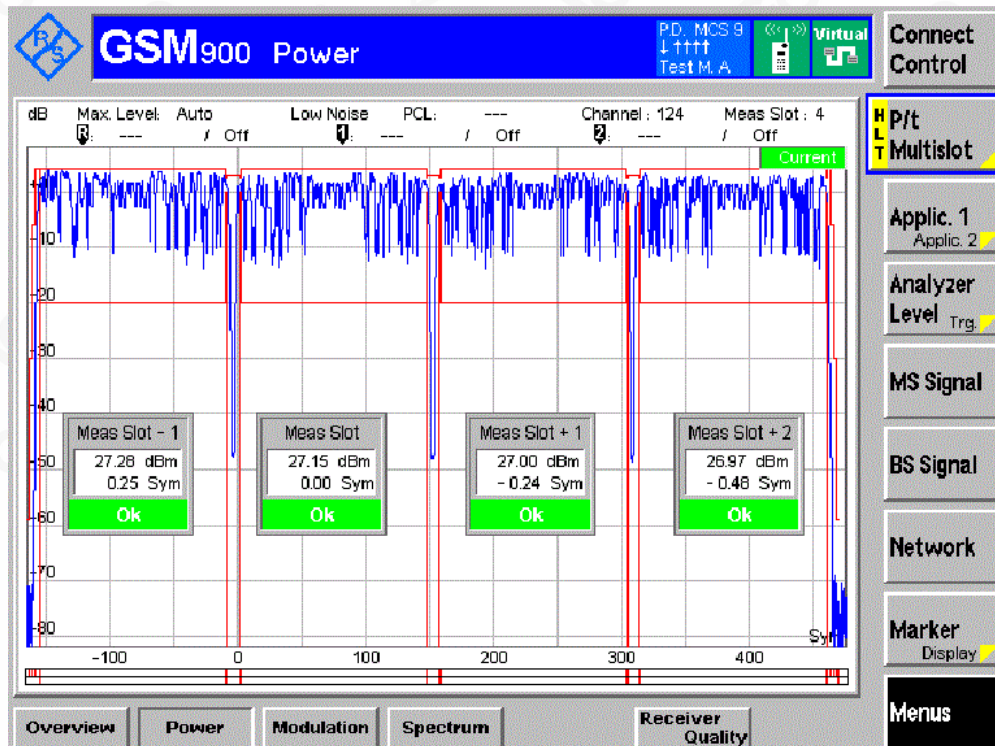
Channel LCH PCL 8



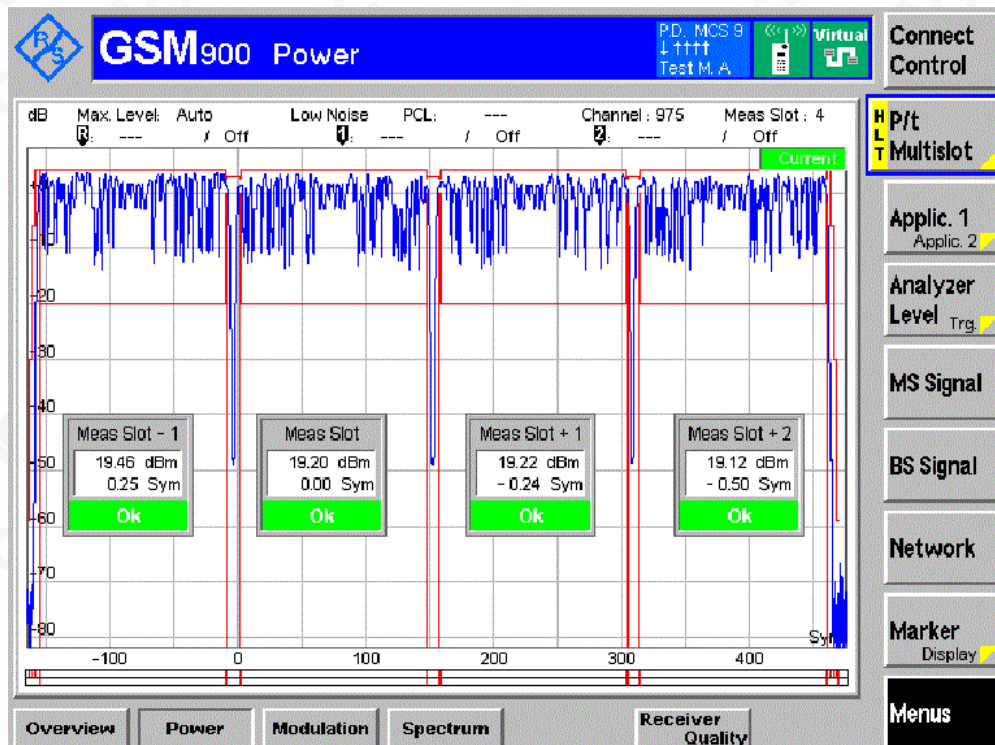
Channel MCH PCL 8



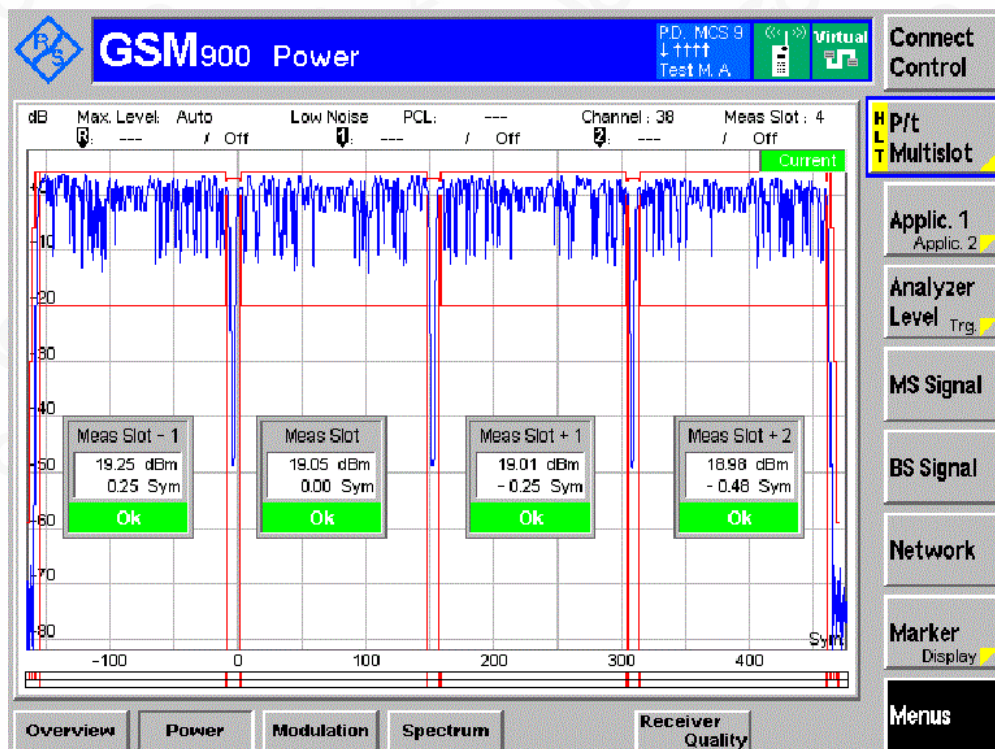
Channel HCH PCL 8



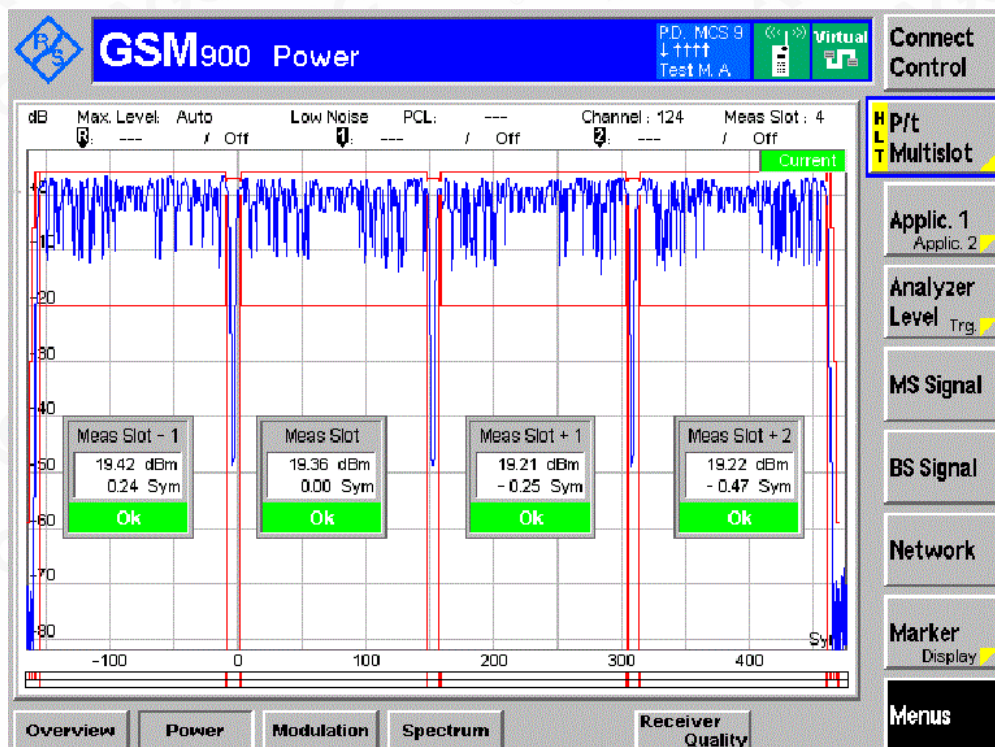
Channel LCH PCL 12



Channel MCH PCL 12



Channel HCH PCL 12



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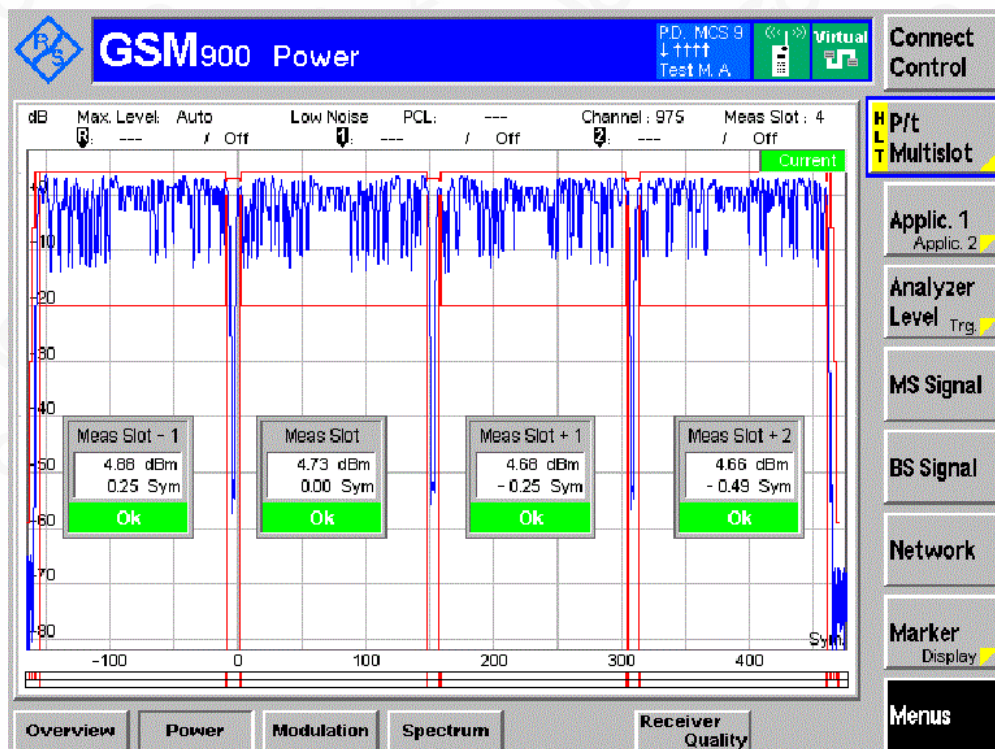
Add: 2/F., Building 2, Sanwei Chaxi Industrial Park, Sanwei Community,  
Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

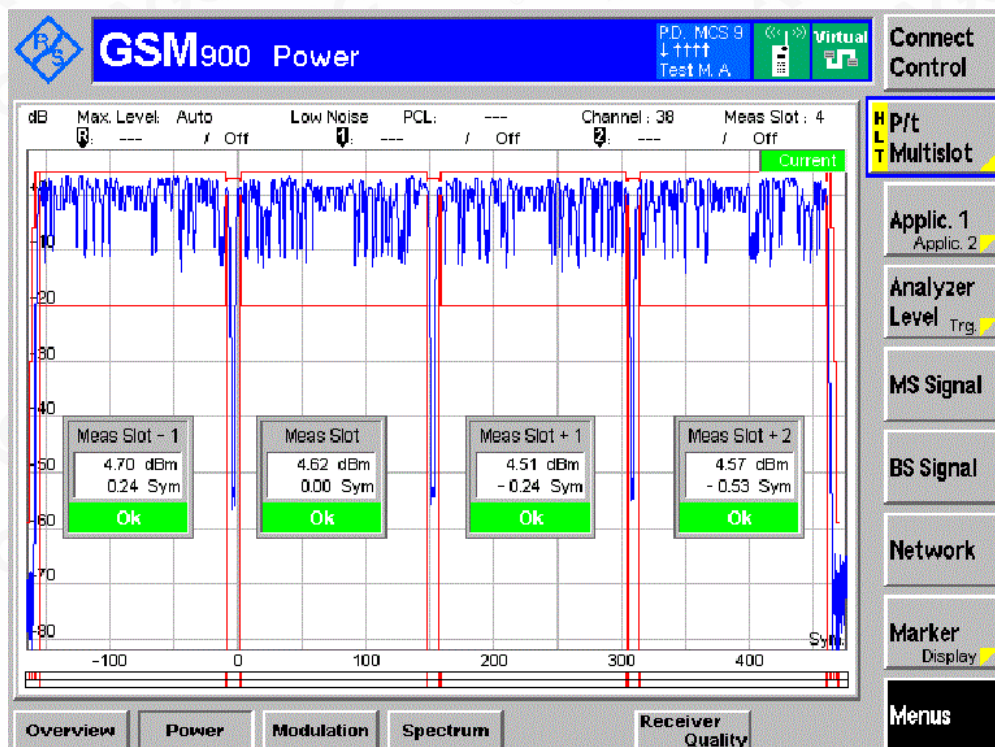
E-mail: agc@agc-cert.com

Service Hotline: 400 089 2118

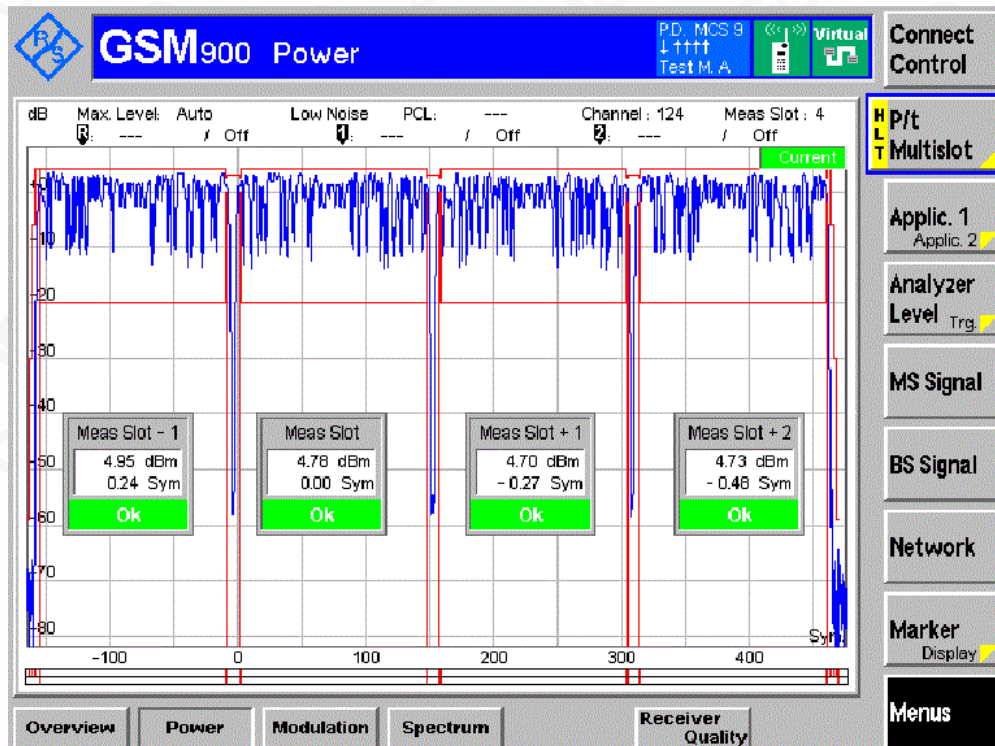
Channel LCH PCL 19



Channel MCH PCL 19



### Channel HCH PCL 19

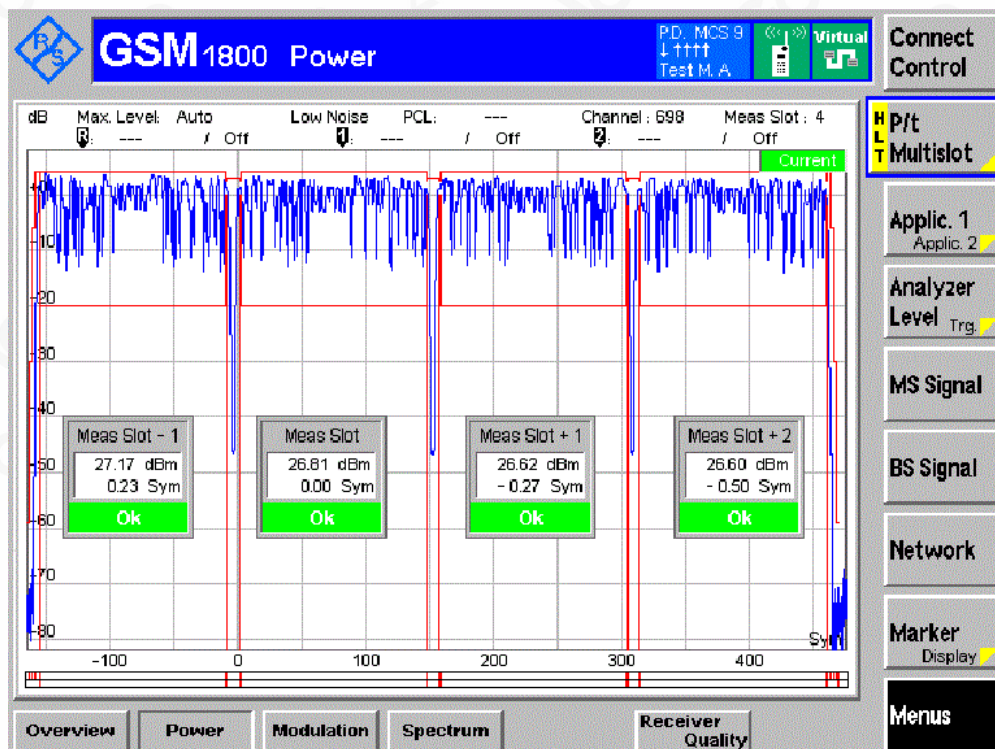


### DCS1800 TN,VN

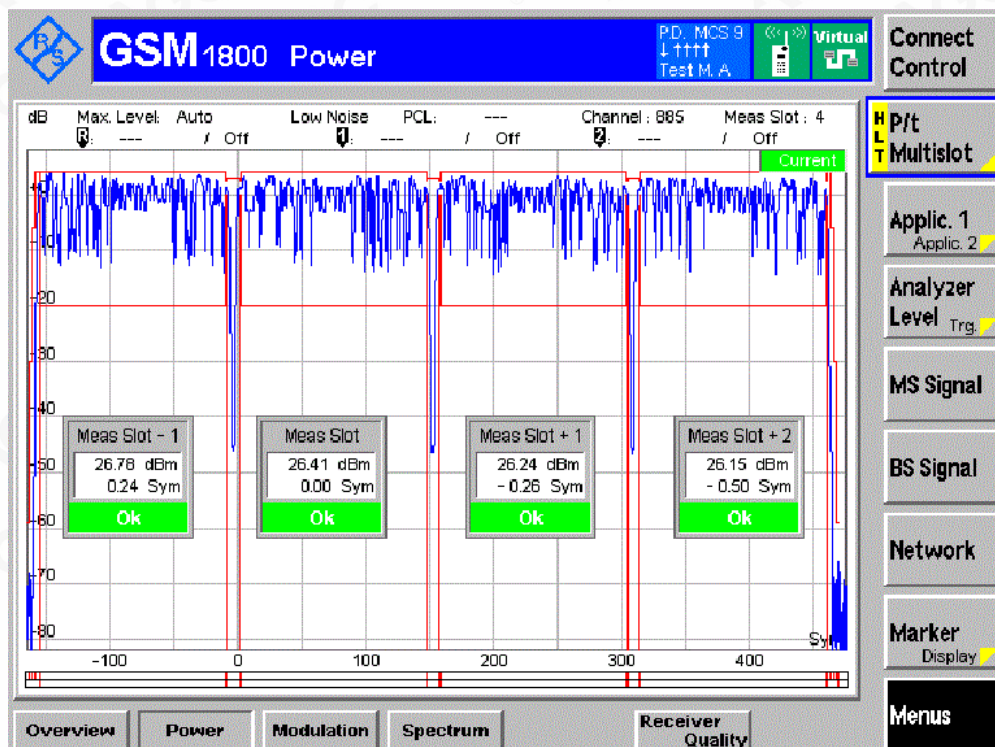
### Channel LCH PCL 2



Channel MCH PCL 2



Channel HCH PCL 2



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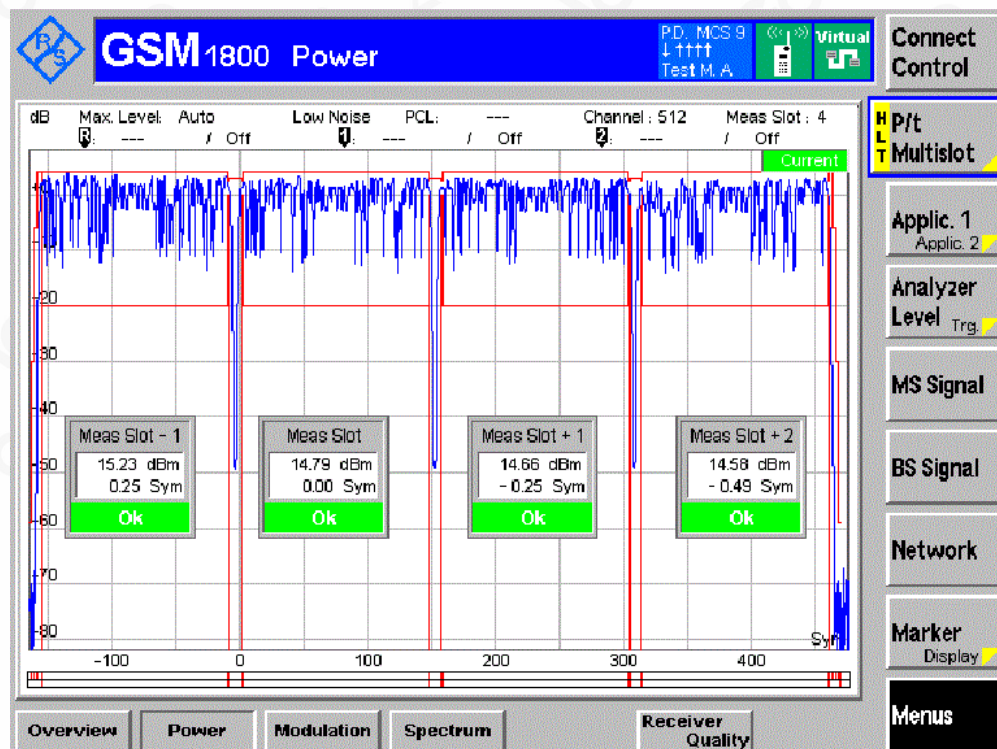
Add: 2/F., Building 2, Sanwei Chaxi Industrial Park, Sanwei Community,  
Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

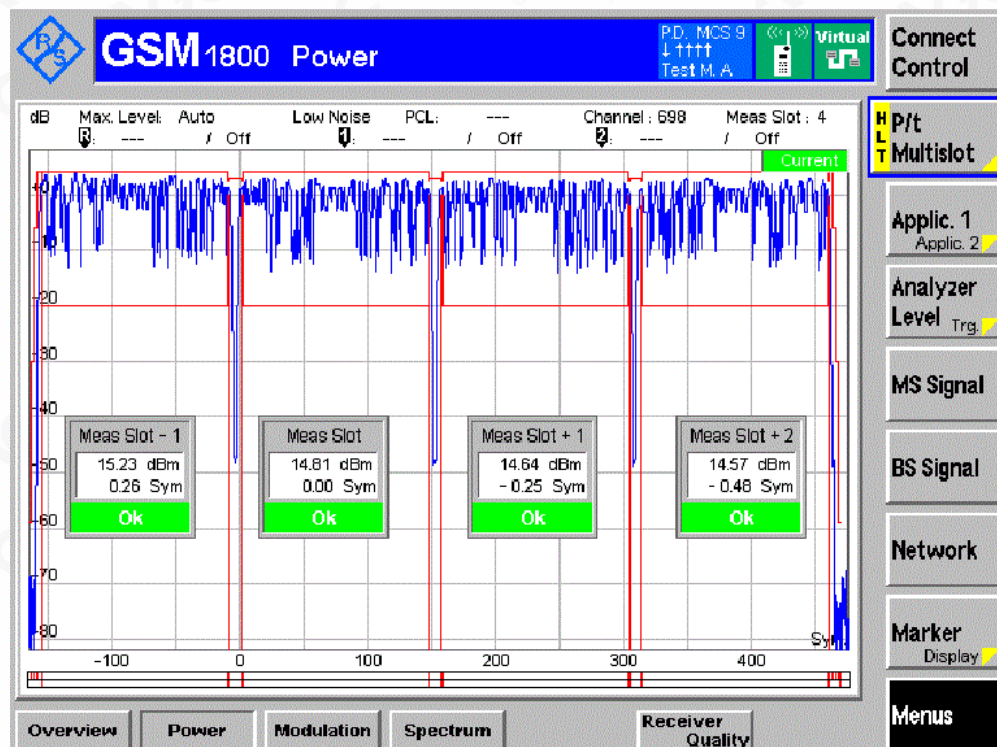
E-mail: agc@agc-cert.com

Service Hotline: 400 089 2118

Channel LCH PCL 8



Channel MCH PCL 8



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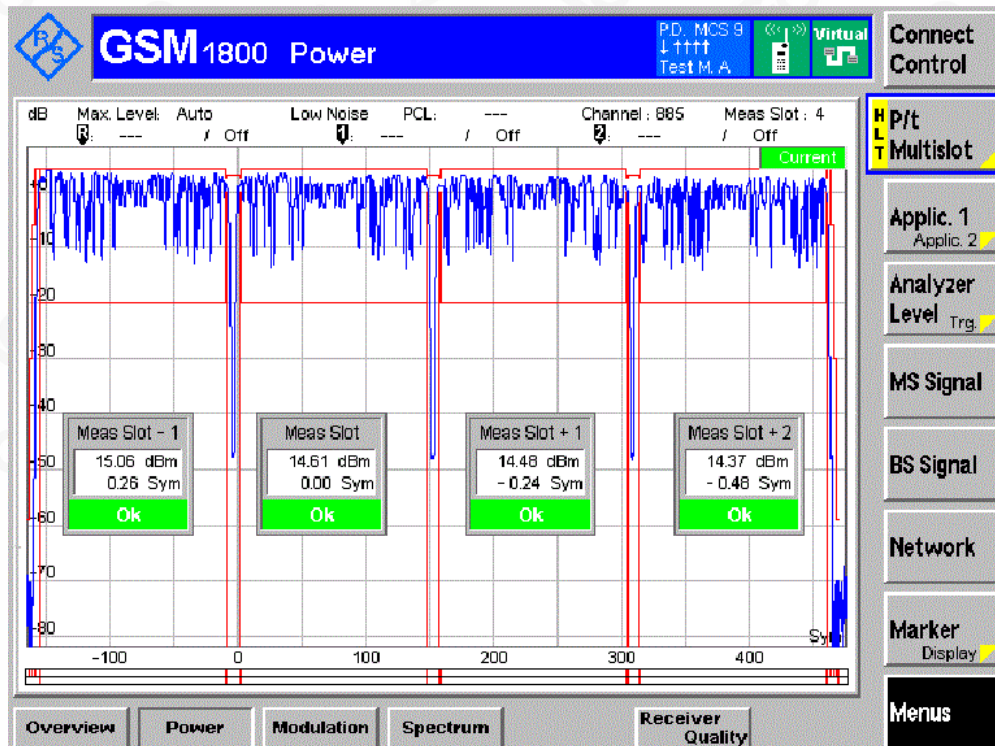
Add: 2/F., Building 2, Sanwei Chaxi Industrial Park, Sanwei Community,  
Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

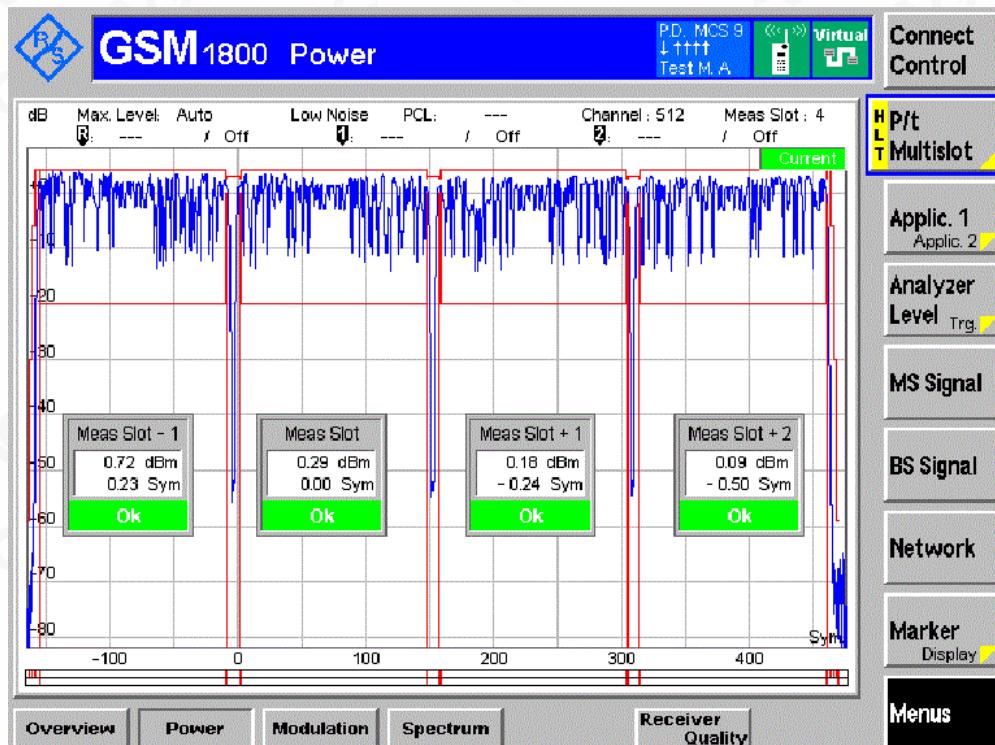
E-mail: agc@agc-cert.com

Service Hotline: 400 089 2118

Channel HCH PCL 8



Channel LCH PCL 8



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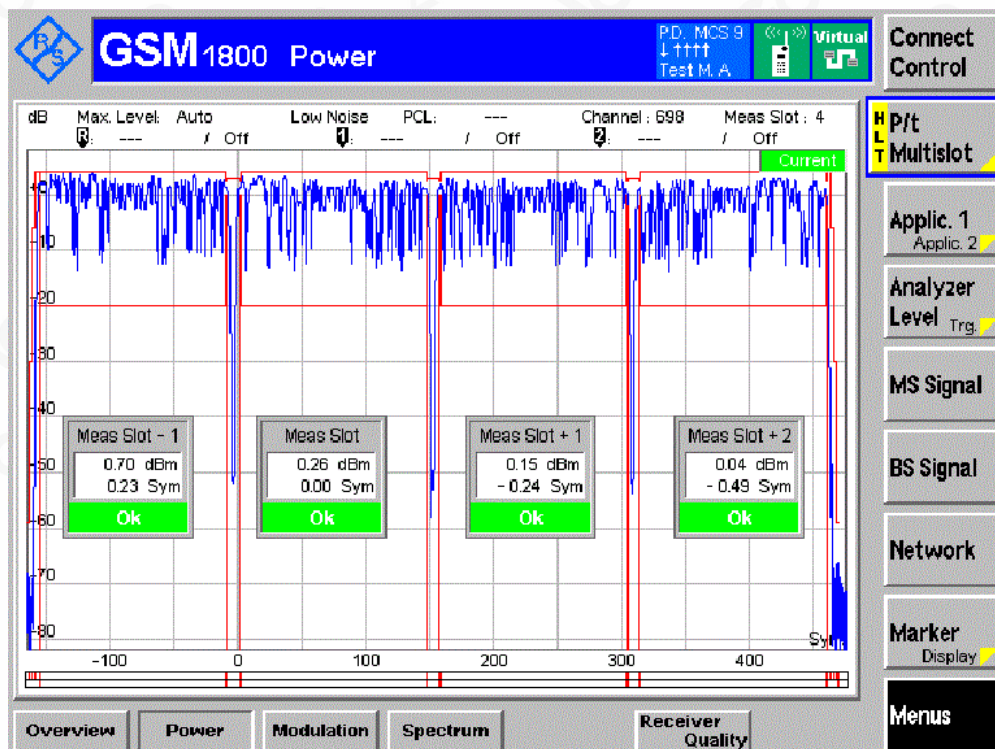
Add: 2/F., Building 2, Sanwei Chaxi Industrial Park, Sanwei Community,  
Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

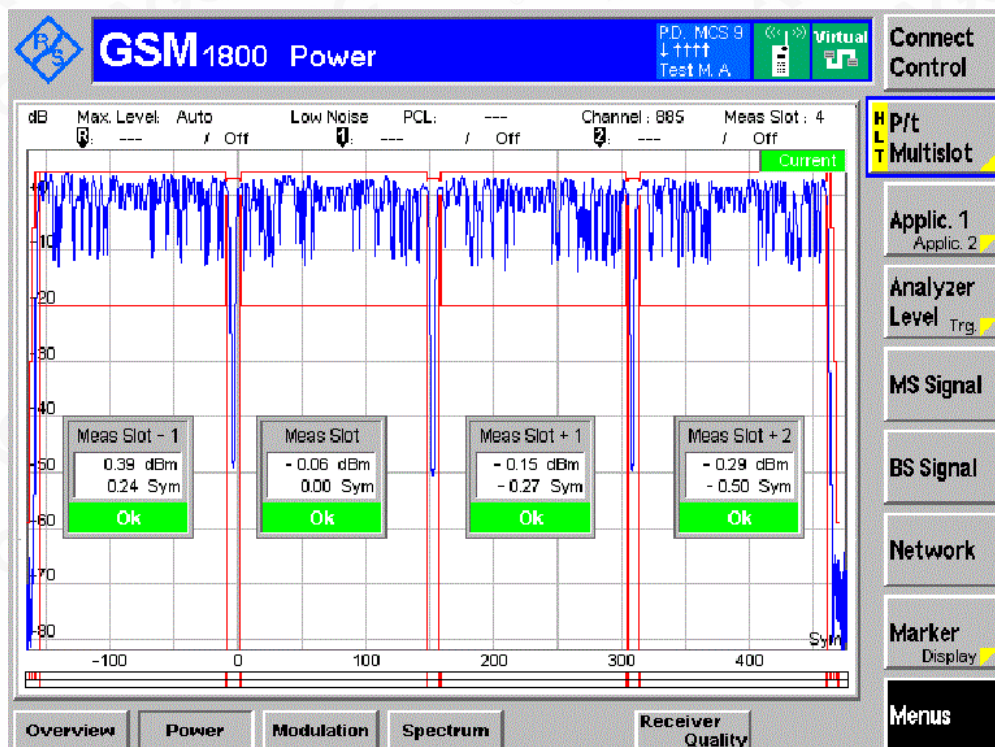
E-mail: agc@agc-cert.com

Service Hotline: 400 089 2118

Channel MCH PCL 15



Channel HCH PCL 15



## Appendix N. Output RF spectrum in EGPRS configuration

Note: All test modes were carried out for all operation modes and record the worst test mode (GSM 900/1800 TN/VN) of fellow:

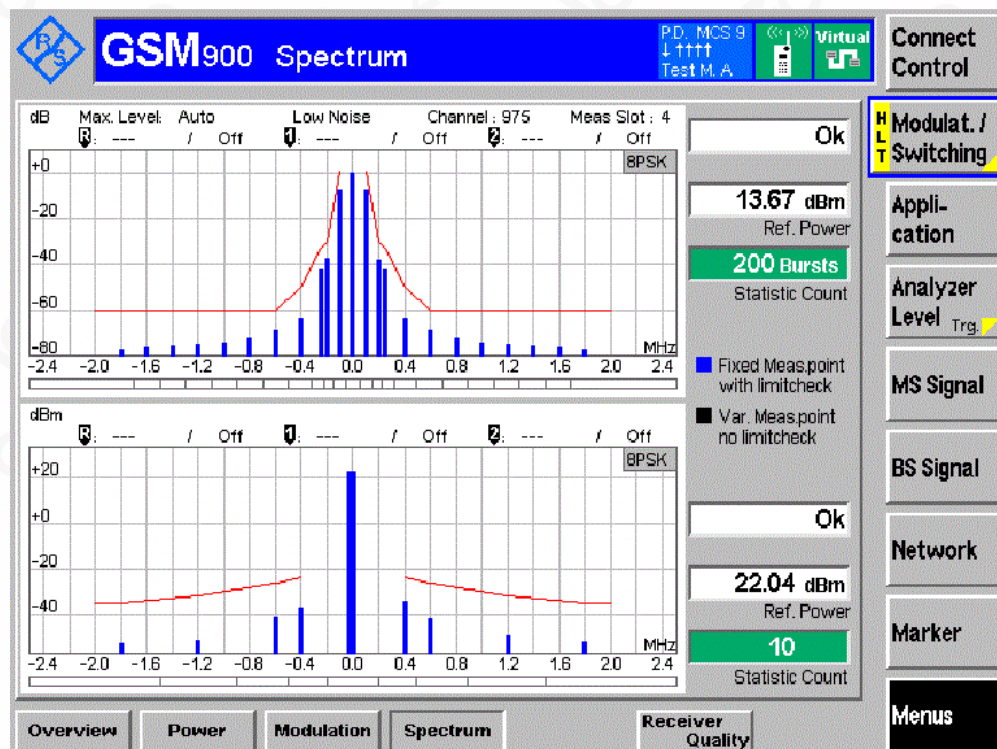
Modulation& switch Spectrum	Power level	Result		
		Traffic Channels		
GSM900		LCH	MCH	HCH
TN,VN	8	PASS	PASS	PASS
	12	PASS	PASS	PASS
	19	PASS	PASS	PASS

Modulation& switch Spectrum	Power level	Result		
		Traffic Channels		
DCS1800		LCH	MCH	HCH
TN,VN	2	PASS	PASS	PASS
	8	PASS	PASS	PASS
	15	PASS	PASS	PASS

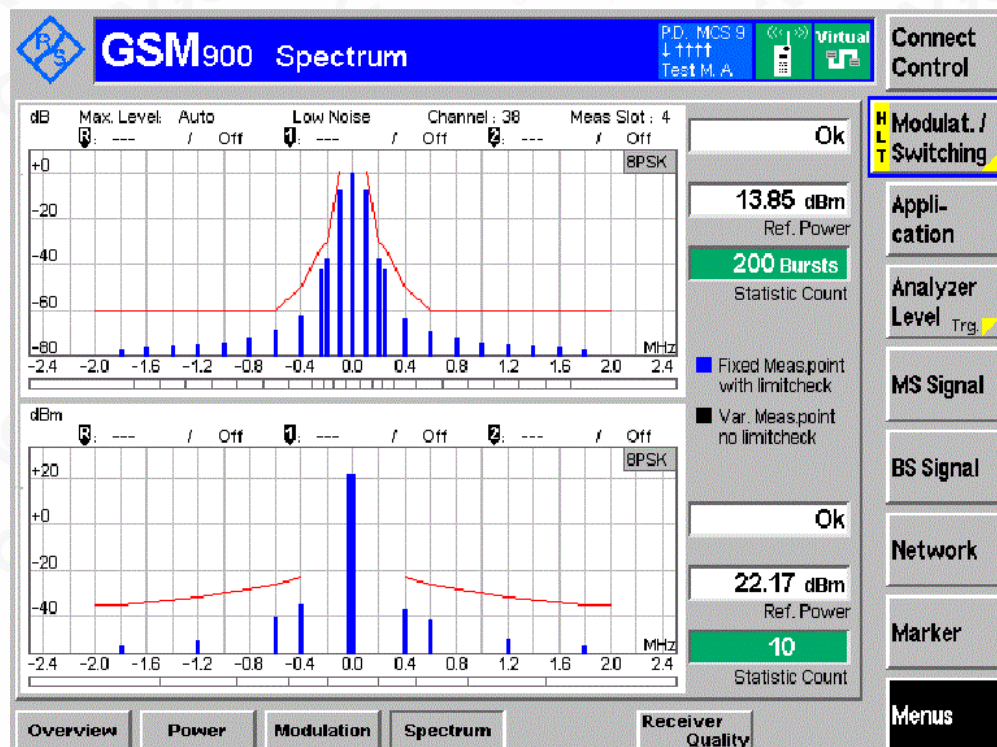
## Graphs of output RF spectrum in EGPRS multislot configuration

### GSM 900 TN,VN

### Channel LCH PCL 8



### Channel MCH PCL 8



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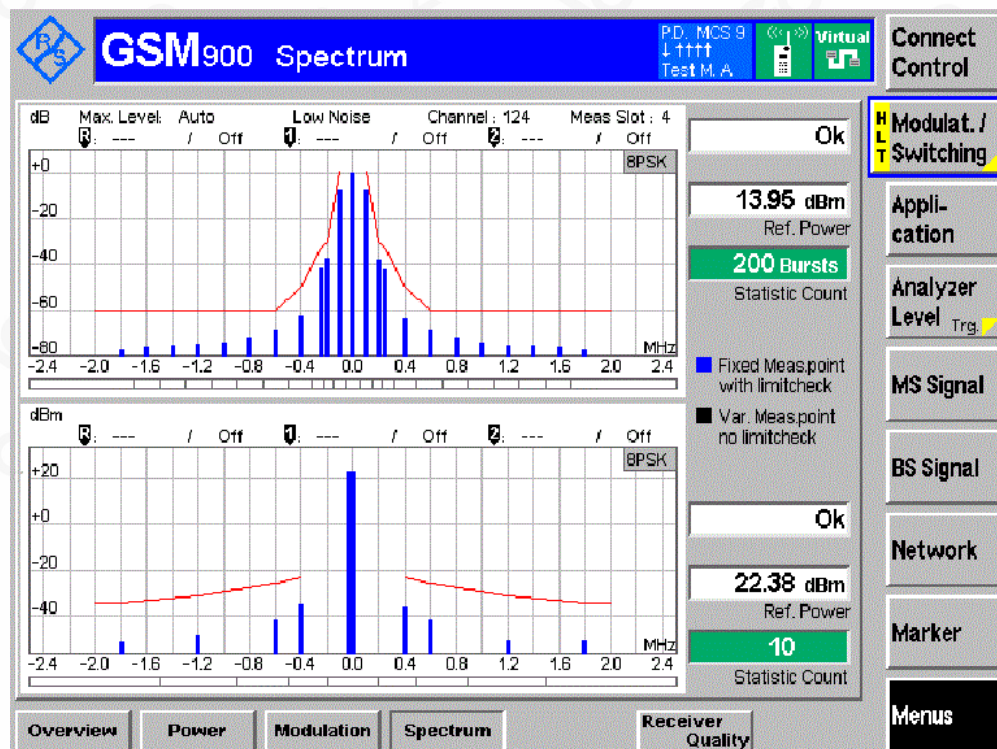
Add: 2/F., Building 2, Sanwei Chaxi Industrial Park, Sanwei Community,  
Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

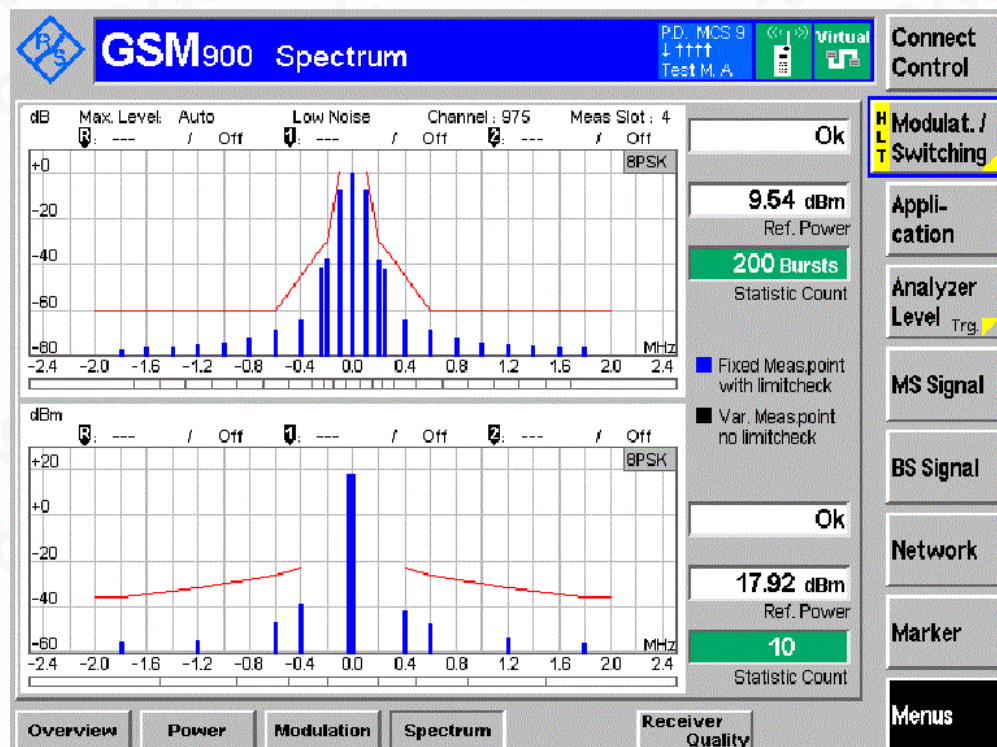
E-mail: agc@agc-cert.com

Service Hotline: 400 089 2118

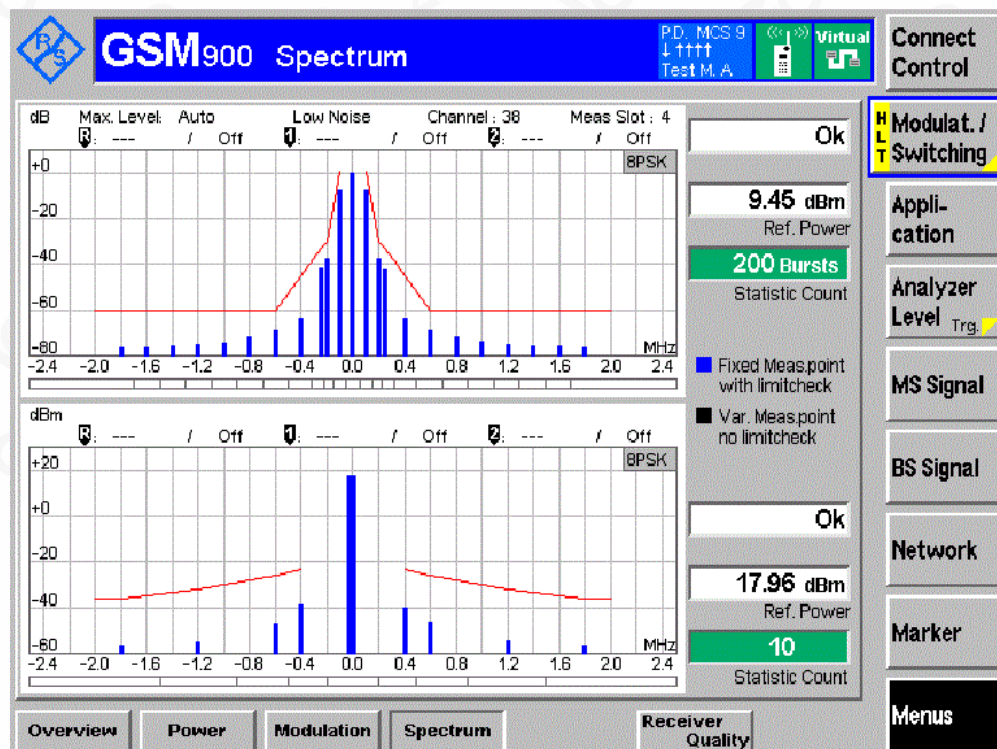
### Channel HCH PCL 8



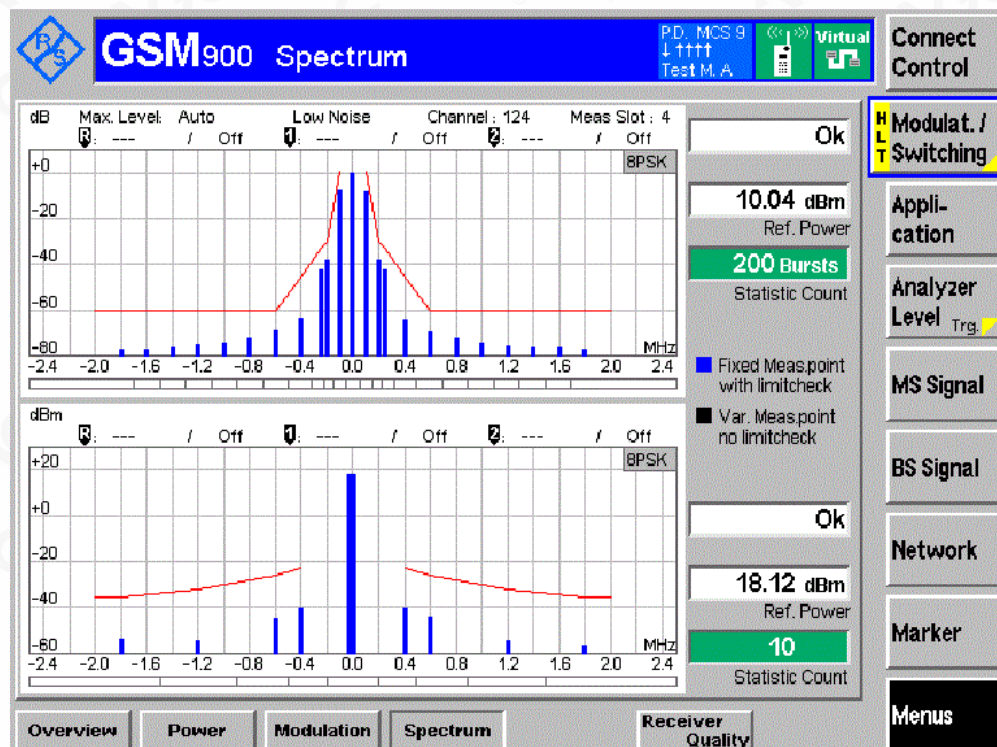
### Channel LCH PCL 12



### Channel MCH PCL 12



### Channel HCH PCL 12



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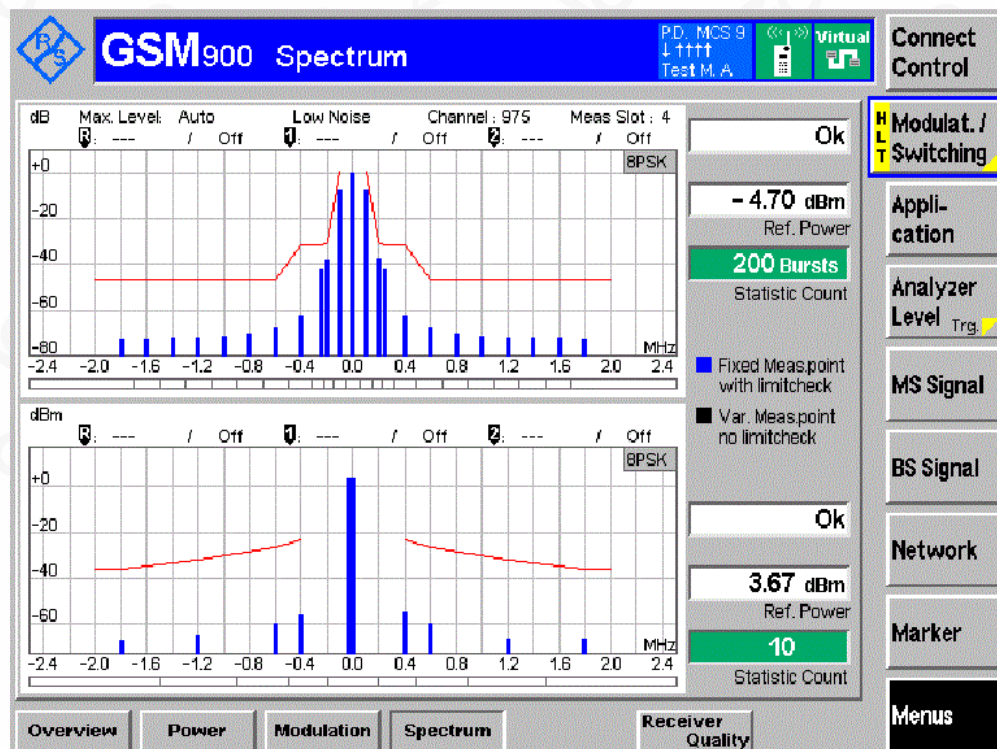
Add: 2/F., Building 2, Sanwei Chaxi Industrial Park, Sanwei Community,  
Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

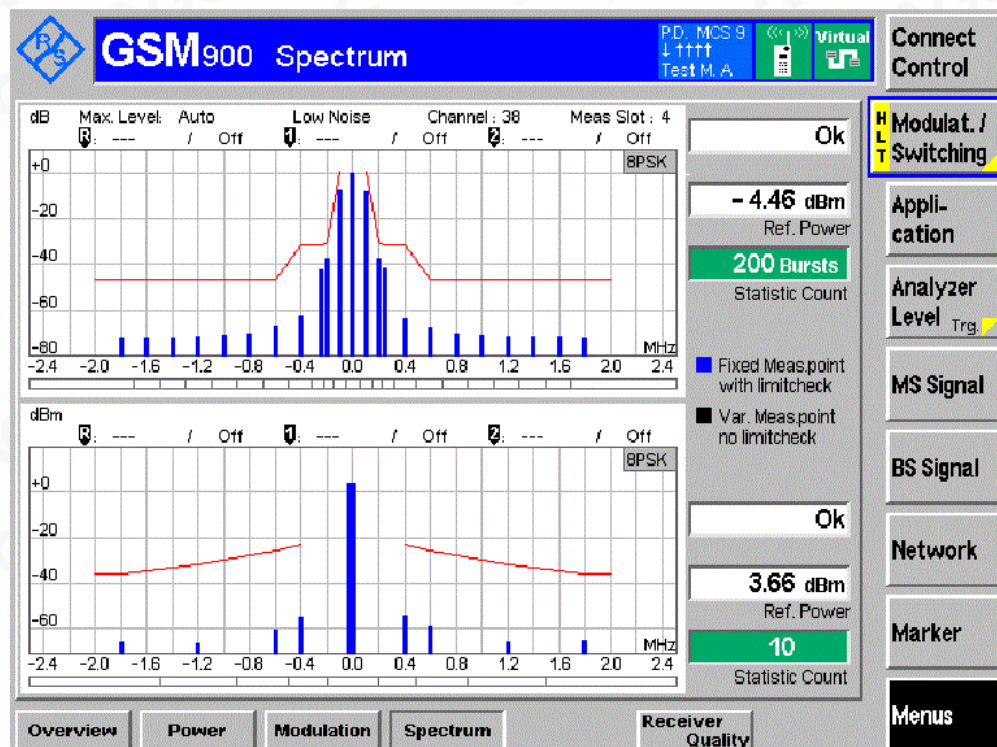
E-mail: agc@agc-cert.com

Service Hotline: 400 089 2118

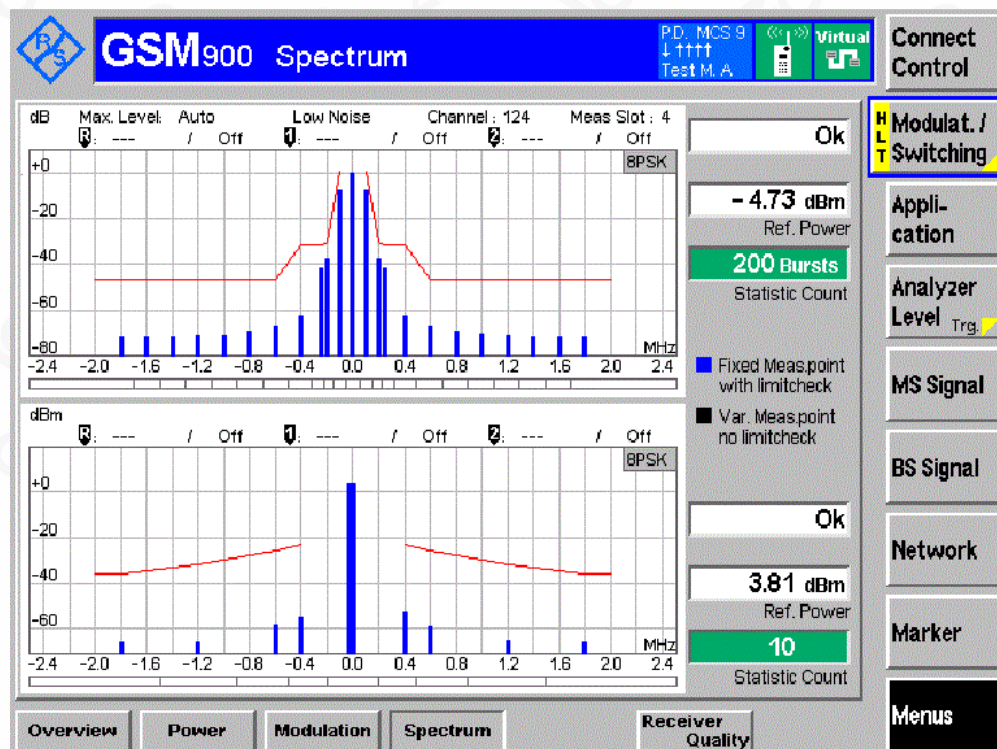
Channel LCH PCL 19



Channel MCH PCL 19

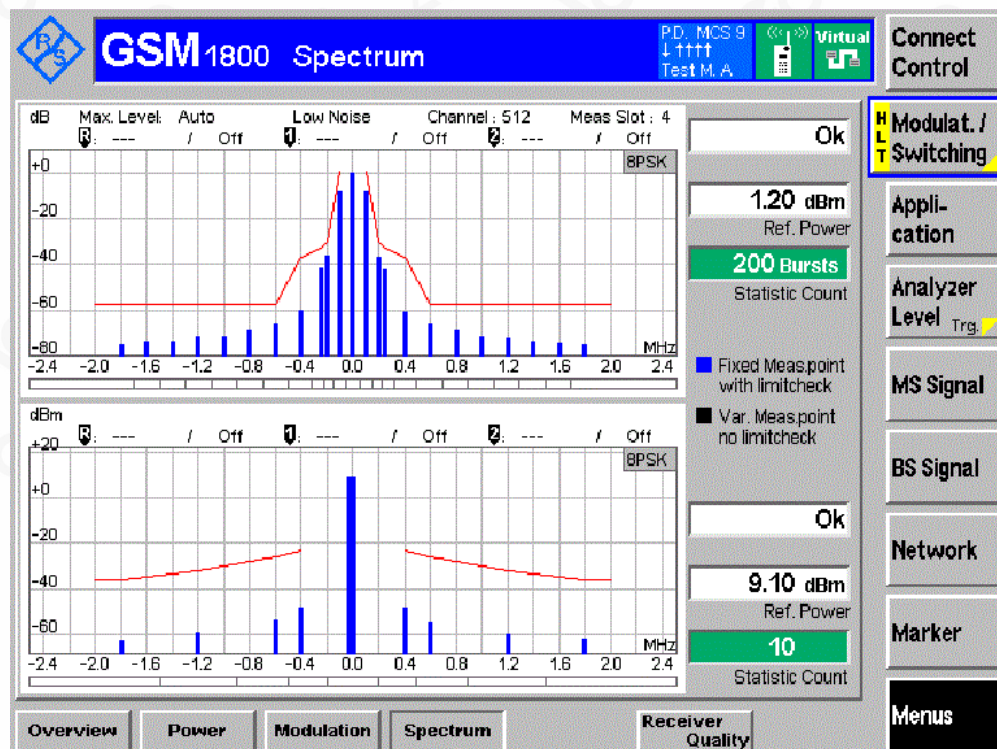


### Channel HCH PCL 19

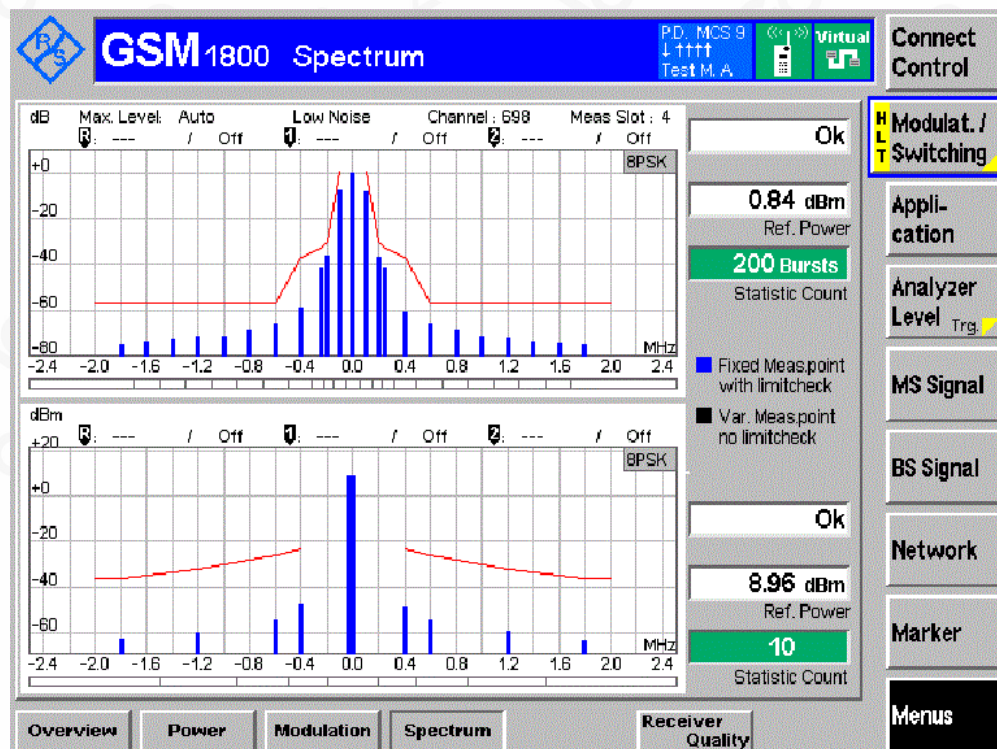


### DCS1800 TN,VN

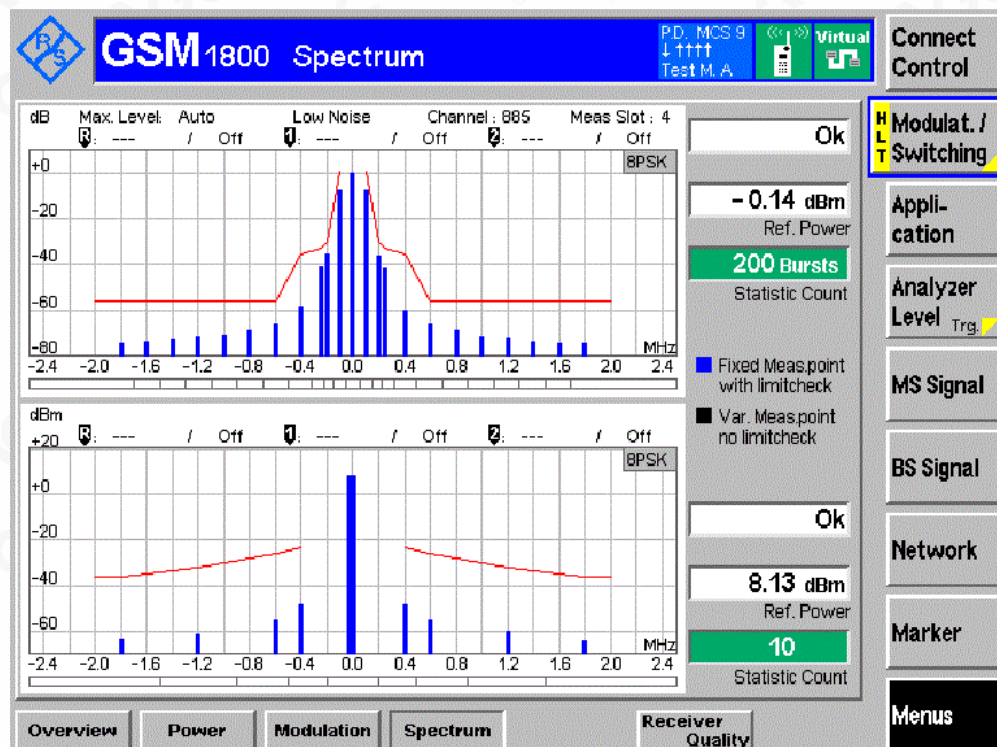
### Channel LCH PCL 2



### Channel MCH PCL 2



### Channel HCH PCL 2



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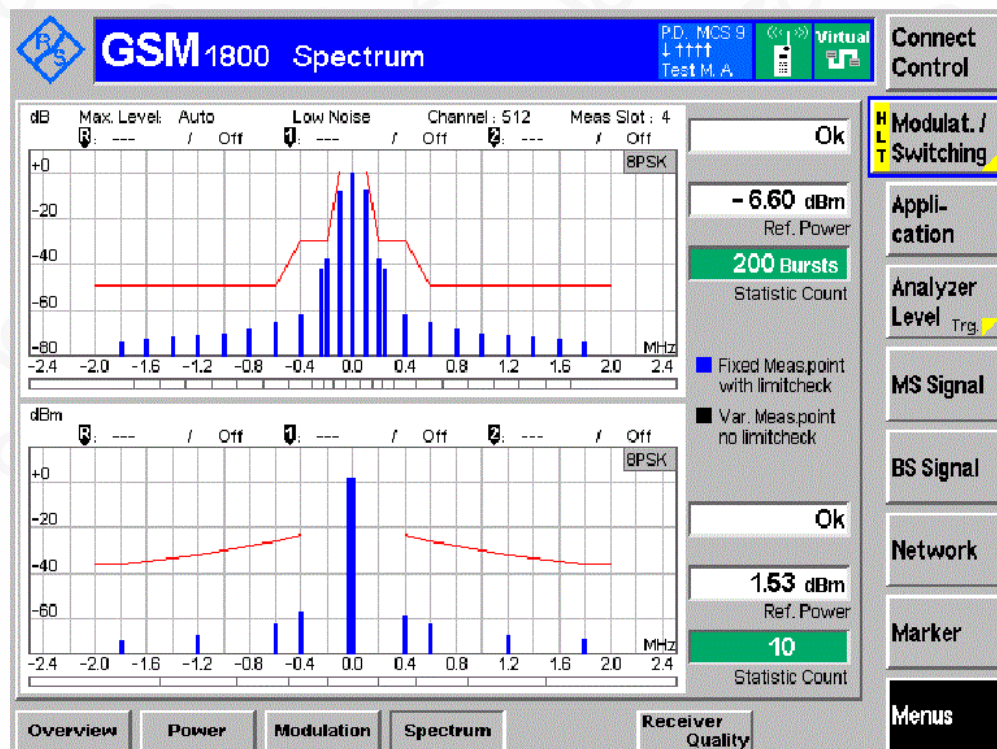
Add: 2/F., Building 2, Sanwei Chaxi Industrial Park, Sanwei Community,  
Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

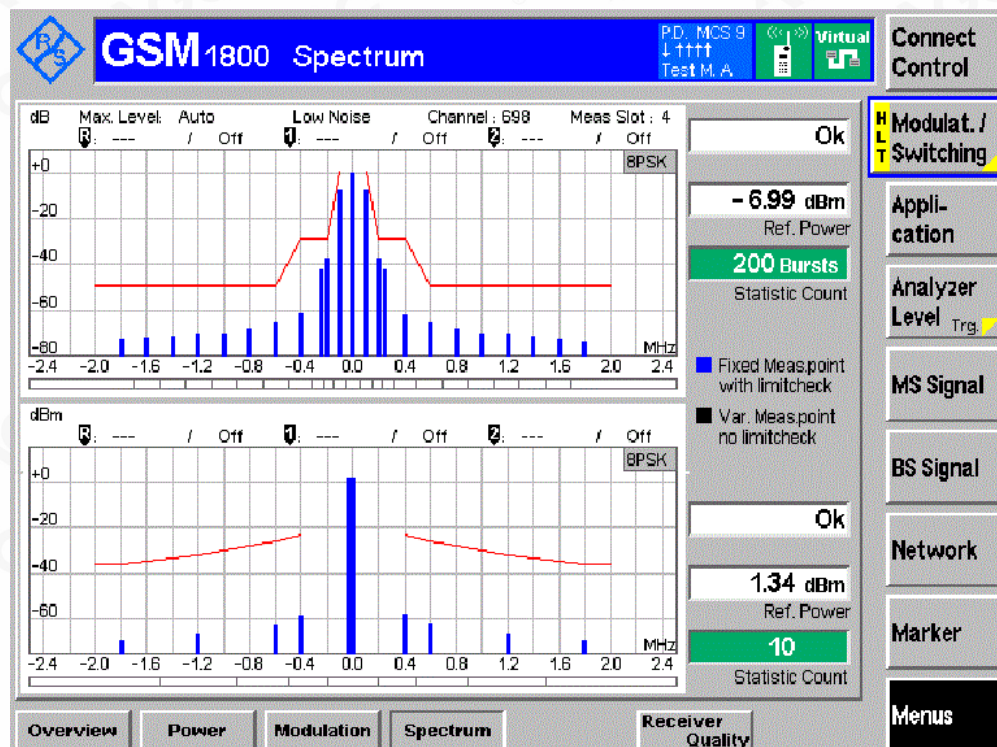
E-mail: agc@agc-cert.com

Service Hotline: 400 089 2118

### Channel LCH PCL 8



### Channel MCH PCL 8



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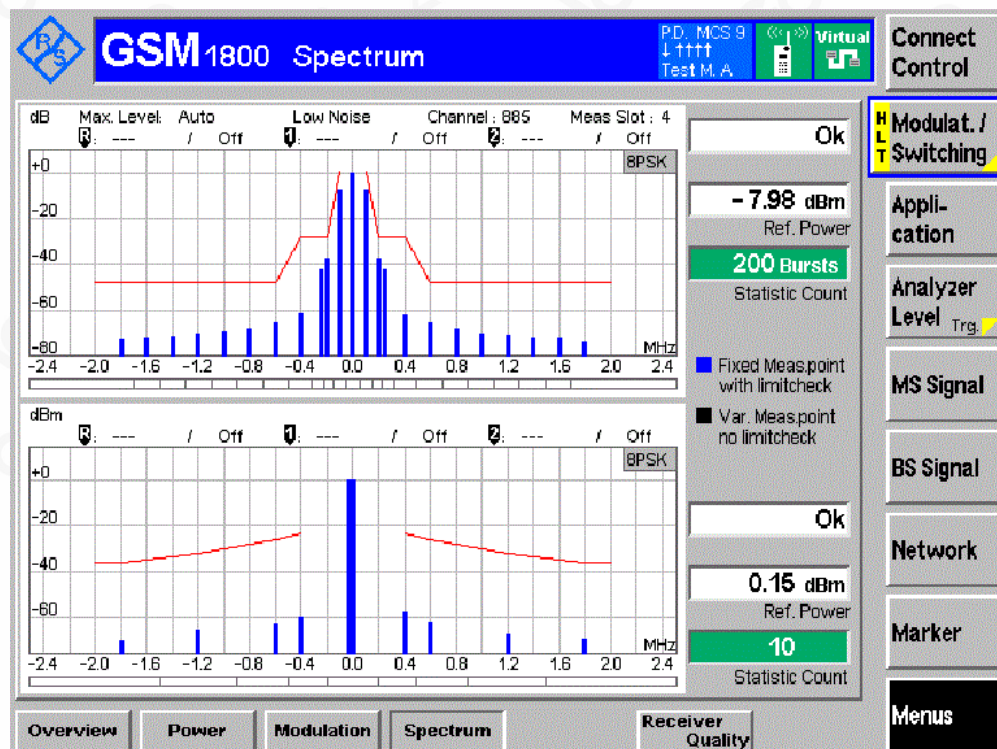
Add: 2/F., Building 2, Sanwei Chaxi Industrial Park, Sanwei Community,  
Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

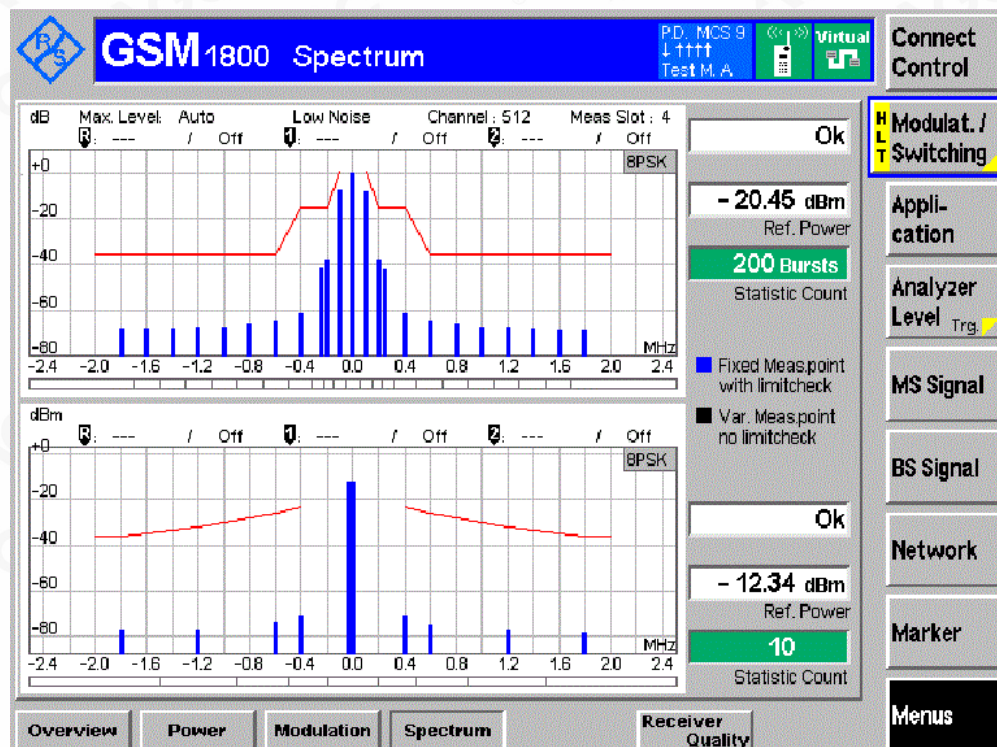
E-mail: agc@agc-cert.com

Service Hotline: 400 089 2118

### Channel HCH PCL 8



### Channel LCH PCL 15



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E-mail: agc@agc-cert.com

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The screenshot displays the R&S Spectrum Analyzer software interface. The top status bar shows the logo, 'GSM 1800 Spectrum', and system information: 'PD: MCS 9', 'Test M.A', and 'Virtual'.

The main display area contains two spectral plots:

- Top Plot:** Shows a spectrum with a central peak at 0.0 MHz. The y-axis is labeled 'dB' and ranges from -80 to +0. The x-axis is labeled 'MHz' and ranges from -2.4 to 2.4. The plot is titled 'BPSK'. The peak level is -20.98 dBm. The plot shows a red line representing the limit and blue bars representing the signal.
- Bottom Plot:** Shows a spectrum with a central peak at 0.0 MHz. The y-axis is labeled 'dBm' and ranges from -80 to +0. The x-axis is labeled 'MHz' and ranges from -2.4 to 2.4. The plot is titled 'BPSK'. The peak level is -12.82 dBm. The plot shows a red line representing the limit and blue bars representing the signal.

On the right side, there are several control panels:

- Connect Control:** Includes buttons for 'Modulat. / Switching', 'Application', 'Analyzer Level', 'MS Signal', 'BS Signal', 'Network', 'Marker', and 'Menus'.
- Measurement Data:** Displays the current measurement results: '-20.98 dBm' (Ref. Power), '200 Bursts' (Statistic Count), and '-12.82 dBm' (Ref. Power), '10' (Statistic Count).

At the bottom, there is a navigation bar with buttons for 'Overview', 'Power', 'Modulation', 'Spectrum', and 'Receiver Quality'.

# GSM 1800 Spectrum

PD: MCS 9  
↓↑↑↑↑  
Test M.A

**Connect Control**

dB
Max. Level: Auto
Low Noise
Channel: 865
Meas Slot: 4

1: --- / Off
2: --- / Off
3: --- / Off

BPSK

dBm
1: --- / Off
2: --- / Off

3: --- / Off

BPSK

Ok

**- 22.22 dBm**

Ref. Power

**200 Bursts**

Statistic Count

■ Fixed Meas.point with limitcheck

■ Var. Meas.point no limitcheck

Ok

**- 13.75 dBm**

Ref. Power

**10**

Statistic Count

**Modulat. / Switching**

**Application**

**Analyzer Level**

Trg.

**MS Signal**

**BS Signal**

**Network**

**Marker**

Overview

Power

Modulation

Spectrum

Receiver Quality

Menus



Add: 2/F., Building 2, Sanwei Chaxi Industrial Park, Sanwei Community,  
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Tel: +86-755 2523 4088      E-mail: agc@agc-cert.com      Service Hotline: 400 089 2118

## Appendix P. Blocking and spurious response in EGPRS configuration

### GSM900

FREQUENCY	Measurement Result	
	GSM900	
	Small MS	
	Interference Level in dBμVemf()	Result
FR +/- 600 kHz to FR +/- 800 kHz	70	PASS
FR +/- 800 kHz to FR +/- 1.6 MHz	70	PASS
FR +/- 1.6 MHz to FR +/- 3 MHz	80	PASS
915 MHz to FR - 3 MHz	90	PASS
FR + 3 MHz to 980 MHz	90	PASS
835 MHz to <915 MHz	113	PASS
>980 MHz to 1000 MHz	113	PASS
100 kHz to <835 MHz	113	PASS
>1000 MHz to 12.75 GHz	113	PASS

### DCS1800

FREQUENCY	Measurement Result	
	DCS1800	
	Small MS	
	Interference Level in dBμVemf()	Result
FR +/- 600 kHz to FR +/- 800 kHz	70	PASS
FR +/- 800 kHz to FR +/- 1.6 MHz	70	PASS
FR +/- 1.6 MHz to FR +/- 3 MHz	80	PASS
1785 MHz to FR - 3 MHz	87	PASS
FR + 3 MHz to 1920 MHz	87	PASS
100 kHz to 1705 MHz	113	PASS
>1705 MHz to <1785 MHz	101	PASS
>1920 MHz to 1980 MHz	101	PASS
>1980 MHz to 12.75 GHz	113	PASS



## Appendix Q .AM suppression - speech channels

### GSM900

Channel	Propagation conditions	Type of measurement	Test limit error rate %	Minimum No. of max-samples	Result	
TCH/FS Class II	Static	RBER	2.439	8200	0.632%	Pass

### GSM1800

Channel	Propagation conditions	Type of measurement	Test limit error rate %	Minimum No. of max-samples	Result	
TCH/FS Class II	Static	RBER	2.439	8200	0.812%	Pass



## Appendix R. Intermodulation rejection - EGPRS

Note: Note: All test modes were carried out for all operation modes and record the worst test mode (GSM 900/1800 TN VN) of fellow:

### GSM900

	Intermodulation Test Signal Levels	Small MS	Result
TNVN	FIRST INTERFERER dBμVemf( )	64	Pass
	SECOND INTERFERER dBμVemf( )	63	Pass

### GSM1800

	Intermodulation Test Signal Levels	Small MS	Result
TNVN	FIRST INTERFERER dBμVemf( )	68	Pass
	SECOND INTERFERER dBμVemf( )	68	Pass



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E-mail: agc@agc-cert.com

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### Adjacent S. Adjacent channel rejection – EGPRS

Note: Note: All test modes were carried out for all operation modes and record the worst test mode (GSM 900/1800 TN VN) of fellow:

#### GSM900

	Channel types	Block per s	Channel types	Derived test limit	Target number of samples	Target test time /s	Target test time /hh:mm:ss	Result
TNVN	USF/MCS-1 to 9	50	0.01	0.01234	27958	559	00:09:19	Pass

#### GSM1800

	Channel types	Block per s	Channel types	Derived test limit	Target number of samples	Target test time /s	Target test time /hh:mm:ss	Result
TNVN	USF/MCS-1 to 9	50	0.01	0.01234	27958	559	00:09:19	Pass



## Appendix T. Adjacent channel rejection - speech channels (TCH/FS)

Note: Note: All test modes were carried out for all operation modes and record the worst test mode (GSM 900/1800 TN VN) of fellow:

### GSM900

	Channel	Interference at	Type of Measurement	Test limit error rate %	Minimum No. of samples	Result
TNVN	TCH/FS class Ib class II	200 kHz	FER RBER RBER	6.742* $\alpha$ 0.420/ $\alpha$ 8.333	8 900 1 000 000 600 000	Pass
	TCH/FS class Ib class II	400 kHz	FER RBER RBER	11.461* $\alpha$ 0.756/ $\alpha$ 9.167	8 900 1 000 000 600 000	Pass

### GSM1800

	Channel	Interference at	Type of Measurement	Test limit error rate %	Minimum No. of samples	Result
TNVN	TCH/FS class Ib class II	200 kHz	FER RBER RBER	3.371* $\alpha$ 0.270/ $\alpha$ 8.333	17 800 2 000 000 1 200 000	Pass
	TCH/FS class Ib class II	400 kHz	FER RBER RBER	5.714* $\alpha$ 0.483/ $\alpha$ 9.167	10 500 1 200 000 720 000	Pass



### Appendix U. Reference sensitivity - TCH/FS

Note: Note: All test modes were carried out for all operation modes and record the worst test mode (GSM 900/1800 TN VN) of follow:

#### GSM900

	Channels	Propagation conditions TUhigh		Propagation conditions RA		Propagation conditions HT		Static conditions		Result
		Test limit Error rate %	Minimum No. of samples	Test limit error rate %	Minimum No. of samples	Test limit error rate %	Minimum No. of samples	Test limit error rate %	Minimum No. of samples	
TNVN	TCH/FS	1	8 900					1	164 000	Pass
	FER class Ib(RBER)	0.06	1 000000	6.55	24 000	5.49	60 000	0.07	20000000	
	class II(RBER)	4.1	120 000					6.58	8 200	

#### GSM1800

	Channels	Propagation conditions TUhigh		Propagation conditions RA		Propagation conditions HT		Static conditions		Result
		Test limit Error rate %	Minimum No. of samples	Test limit error rate %	Minimum No. of samples	Test limit error rate %	Minimum No. of samples	Test limit error rate %	Minimum No. of samples	
TNVN	TCH/FS	1	13 400					1	164 000	Pass
	FER class Ib(RBER)	0.06	1500000	5.75	24 000	5.64	30 000	0.07	20000000	
	class II(RBER)	5.44	60 000					6.58	8 200	



## Appendix V. Reference sensitivity - FACCH/F

### GSM900

Channel	Propagation	Type of Measurement	Test limit error rate %	Result	
FACCH/F	TUhigh	FER	7.728	3.246%	Pass

### GSM1800

Channel	Propagation	Type of Measurement	Test limit error rate %	Result	
FACCH/F	TUhigh	FER	8.064	3.128%	Pass



## AppendixW. Minimum Input level for Reference Performance - GPRS

### GSM900

	Type of channel	Propagation conditions							Result
		static	TUhigh (no FH)	TUhigh (ideal FH)	RA (no FH)	HT (no FH)	BLER		
GSM 900									
TNVN	PDTCH/CS-1 dBm	-104	-104	-104	-104	-103	10 %	0.1 %	Pass
	PDTCH/CS-2 dBm	-104	-100	-101	-101	-99	10 %	0.1 %	Pass
	PDTCH/CS-3 dBm	-104	-98	-99	-98	-96	10 %	0.1 %	Pass
	PDTCH/CS-4 dBm	-101	-90	-90	--		10 %	0.1 %	Pass
	USF/CS-1 dBm	< -104	<-101	<-103	<-103	<-101	1 %	0.1 %	Pass
	USF/CS-2to 4 dBm	< -104	<-103	<-104	<-104	<-104	1 %	0.1 %	Pass

### GSM1800

	Type of channel	Propagation conditions							Result
		static	TUhigh (no FH)	TUhigh (ideal FH)	RA (no FH)	HT (no FH)	BLER		
	GSM 1800								
TNVN	PDTCH/CS-1 dBm	-104	-104	-104	-104	-109	10 %	0.1 %	Pass
	PDTCH/CS-2 dBm	-104	-100	-100	-101	-99	10 %	0.1 %	Pass
	PDTCH/CS-3 dBm	-104	-98	-98	-98	-94	10 %	0.1 %	Pass
	PDTCH/CS-4 dBm	-101	-88	-88	--		10 %	0.1 %	Pass
	USF/CS-1 dBm	< -104	<-103	<-103	<-103	<-101	1 %	0.1 %	Pass
	USF/CS-2to 4 dBm	< -104	<-104	<-104	<-104	<-103	1 %	0.1 %	Pass



## Appendix X. Minimum Input level for Reference Performance – EGPRS

Note: All test modes were carried out for all operation modes and record the worst test mode (GSM 900/1800 TNVN) of fellow:

### GSM900

	Type of Channel	Propagation conditions					Result
		static	TUhigh (no FH)	TUhigh (ideal FH)	RA (no FH)	HT (no FH)	
TNVN	USF/MCS-5 to 9 dBm	-102	-97.5	-99	-100	-99	Pass

### GSM1800

	Type of Channel	Propagation conditions					Result
		static	TUhigh (no FH)	TUhigh (ideal FH)	RA (no FH)	HT (no FH)	
TNVN	USF/MCS-5 to 9 dBm	-102	-97.5	-99	-100	-99	Pass



## Appendix Y. Radiated spurious emissions - MS in idle mode

Note: All test modes were carried out for all operation modes and record the worst test mode (GSM 900/1800 MCH VN) of fellow

### GSM900

Radiated spurious emissions	GSM900 VN			
Frequency range	RBW(Hz)	Max.Limit(dBm)	MCH(dBm)	Result
30MHz~880MHz	10k	-57	-63.33	PASS
880MHz~915MHz	10k	-59	-65.21	PASS
915MHz~1000MHz	100k	-57	-71.00	PASS
1GHz~1710MHz	100k	-47	-69.99	PASS
1710MHz~1785MHz	100k	-53	-65.21	PASS
1785MHz~4GHz	100k	-47	-63.54	PASS

### GSM1800

Radiated spurious emissions	GSM1800 VN			
Frequency range	RBW(Hz)	Max.Limit(dBm)	MCH(dBm)	Result
30MHz~880MHz	10k	-57	-62.69	PASS
880MHz~915MHz	10k	-59	-63.47	PASS
915MHz~1000MHz	100k	-57	-61.51	PASS
1GHz~1710MHz	100k	-47	-65.28	PASS
1710MHz~1785MHz	100k	-53	-63.46	PASS
1785MHz~4GHz	100k	-47	-61.29	PASS



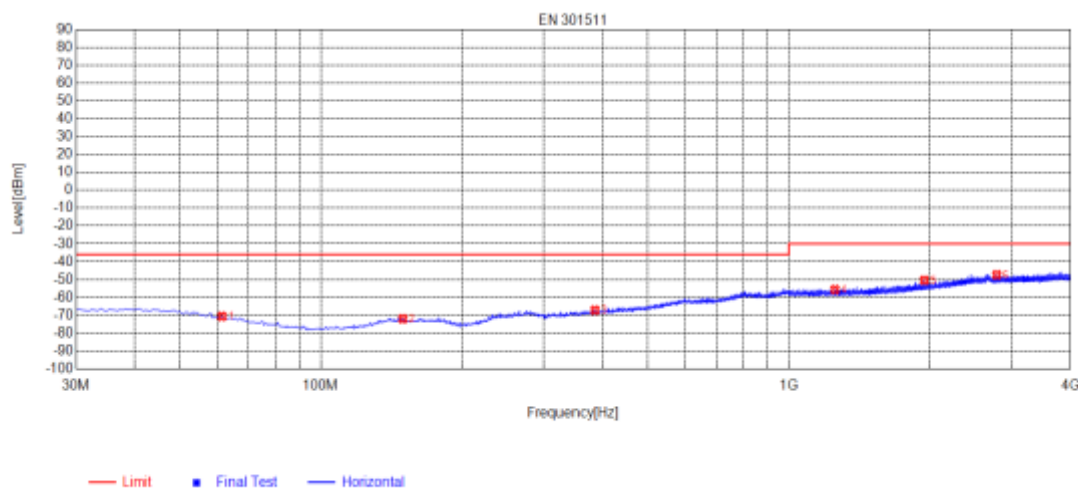
## APPENDIX Z. RADIATED SPURIOUS EMISSIONS TEST RESULT

All test modes were carried out for all operation modes

The (middle channel) was showed as the follow:

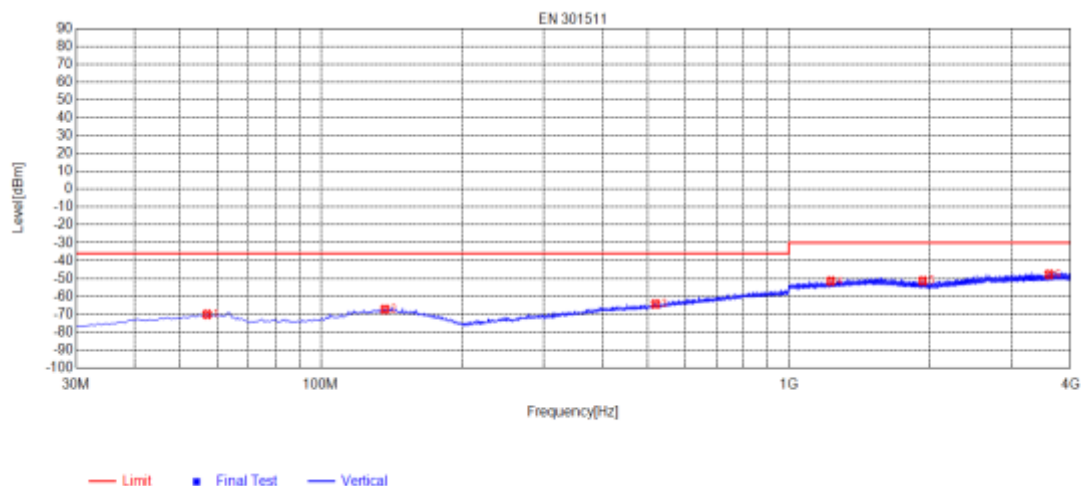
Note: The filter has been used in this test.

### RADIATED SPURIOUS EMISSIONS GSM 900– HORIZONTAL



NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Angle [°]	Polarity
1	61.5250	-101.05	-70.61	-36.00	34.61	30.44	351	Horizontal
2	149.7950	-101.35	-72.00	-36.00	36.00	29.35	237	Horizontal
3	385.5050	-101.21	-67.15	-36.00	31.15	34.06	136	Horizontal
4	1255.3255	-51.94	-55.66	-30.00	25.66	-3.72	220	Horizontal
5	1949.2949	-50.56	-50.41	-30.00	20.41	0.15	2	Horizontal
6	2783.0783	-52.31	-47.39	-30.00	17.39	4.92	18	Horizontal

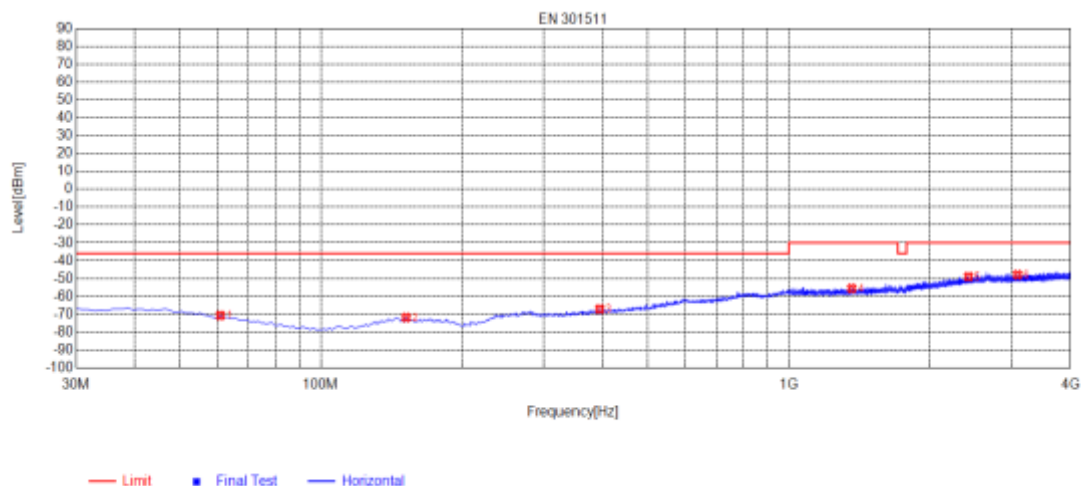
## RADIATED SPURIOUS EMISSIONS GSM 900- VERTICAL



NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Angle [°]	Polarity
1	57.1600	-100.99	-70.06	-36.00	34.06	30.93	271	Vertical
2	137.1850	-101.47	-67.27	-36.00	31.27	34.20	119	Vertical
3	519.3650	-101.13	-64.29	-36.00	28.29	36.84	69	Vertical
4	1229.8230	-51.82	-51.45	-30.00	21.45	0.37	144	Vertical
5	1933.6934	-51.97	-51.33	-30.00	21.33	0.64	110	Vertical
6	3601.8602	-53.98	-47.67	-30.00	17.67	6.31	186	Vertical



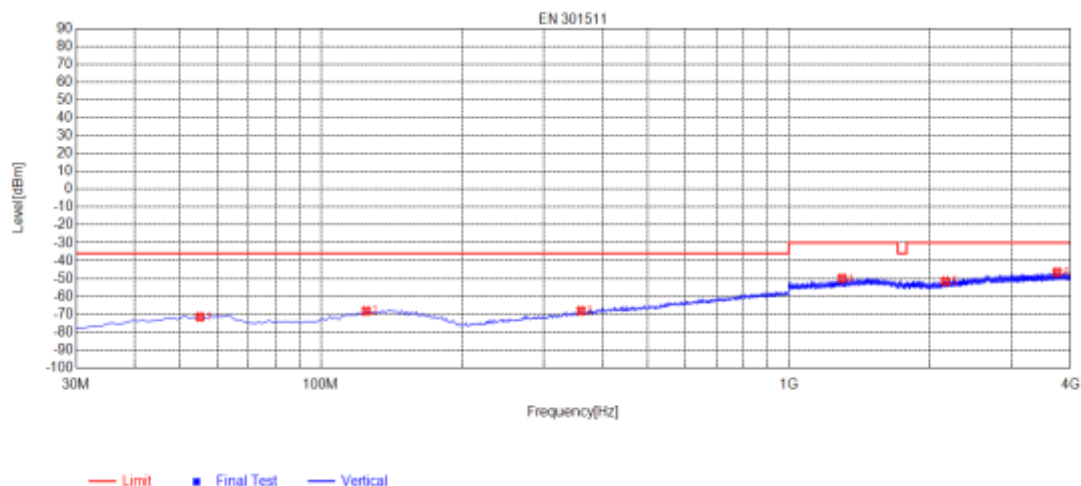
## RADIATED SPURIOUS EMISSIONS GSM 1800- HORIZONTAL



NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Angle [°]	Polarity
1	61.0400	-101.25	-70.70	-36.00	34.70	30.55	184	Horizontal
2	152.2200	-101.15	-71.81	-36.00	35.81	29.34	35	Horizontal
3	394.7200	-101.37	-67.08	-36.00	31.08	34.29	175	Horizontal
4	1363.3363	-52.07	-55.57	-30.00	25.57	-3.50	0	Horizontal
5	2422.4422	-52.79	-48.96	-30.00	18.96	3.83	110	Horizontal
6	3082.8083	-53.33	-47.89	-30.00	17.89	5.44	0	Horizontal



## RADIATED SPURIOUS EMISSIONS GSM 1800- VERTICAL



NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Angle [°]	Polarity
1	55.2200	-102.13	-71.50	-36.00	35.50	30.63	167	Vertical
2	125.0600	-101.60	-68.22	-36.00	32.22	33.38	148	Vertical
3	359.8000	-101.43	-68.07	-36.00	32.07	33.36	139	Vertical
4	1300.9301	-50.75	-49.91	-30.00	19.91	0.84	9	Vertical
5	2162.6163	-53.05	-51.61	-30.00	21.61	1.44	360	Vertical
6	3746.1746	-53.15	-46.48	-30.00	16.48	6.67	74	Vertical



**APPENDIX A1: PHOTOGRAPHS OF TEST SETUP**  
**RADIATED SPURIOUS EMISSION TEST SETUP**



**RADIATED SPURIOUS EMISSION ABOVE 1G TEST SETUP**



**----END OF REPORT----**