FCC RF Test Report

APPLICANT	:	Motorola Mobility LLC
EQUIPMENT	:	Mobile Cellular Phone
BRAND NAME	:	Motorola
PRODUCT ID	:	10644
FCC ID	:	IHDT56WD1
STANDARD	:	FCC 47 CFR Part 2, 22(H), 24(E), 27(L)
CLASSIFICATION	:	PCS Licensed Transmitter Held to Ear (PCE)

The product was received on Mar. 27, 2017 and testing was completed on May 05, 2017. We, Sporton International (KunShan) INC., would like to declare that the tested sample has been evaluated in accordance with the test procedures given in ANSI / TIA / EIA-603-D-2010 and has been in compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of Sporton International (KunShan) INC., the test report shall not be reproduced except in full.

Prepared by: James Huang / Manager

Approved by: Jones Tsai / Manager

Sporton International (KunShan) INC.
No.3-2, Pingxiang Road, Kunshan Development Zone, Jiangsu, China

TABLE OF CONTENTS

REVISION HISTORY **3**

SUMMARY OF TEST RESULT **4**

1 GENERAL DESCRIPTION **5**

1.1 Applicant 5
1.2 Manufacturer 5
1.3 Product Feature of Equipment Under Test 5
1.4 Product Specification of Equipment Under Test 6
1.5 Specification of Accessory 7
1.6 Modification of EUT 7
1.7 Maximum ERP/EIRP Power, Frequency Tolerance, and Emission Designator 8
1.8 Testing Location 9
1.9 Applicable Standards 9

2 TEST CONFIGURATION OF EQUIPMENT UNDER TEST **10**

2.1 Test Mode 10
2.2 Connection Diagram of Test System 11
2.3 Support Unit used in test configuration 12
2.4 Measurement Results Explanation Example 12

3 CONDUCTED TEST RESULT **13**

3.1 Measuring Instruments 13
3.2 Test Setup 13
3.3 Test Result of Conducted Test 13
3.4 Conducted Output Power and ERP/EIRP 14
3.5 Peak-to-Average Ratio 15
3.6 99% Occupied Bandwidth and 26dB Bandwidth Measurement 16
3.7 Conducted Band Edge 17
3.8 Conducted Spurious Emission 18
3.9 Frequency Stability 19

4 RADIATED TEST ITEMS **20**

4.1 Measuring Instruments 20
4.2 Test Setup 20
4.3 Test Result of Radiated Test 20
4.4 Field Strength of Spurious Radiation Measurement 21

5 LIST OF MEASURING EQUIPMENT **22**

6 UNCERTAINTY OF EVALUATION **23**

APPENDIX A. TEST RESULTS OF CONDUCTED TEST

APPENDIX B. TEST RESULTS OF RADIATED TEST

APPENDIX C. TEST SETUP PHOTOGRAPHS

REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FG732707A	Rev. 01	Initial issue of report	May 24, 2017
FG732707A	Rev. 02	Update the report for revising HW version	May 27, 2017

SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.4	§2.1046	Conducted Output Power	Reporting Only	PASS	-
	§22.913(a)(2)	Effective Radiated Power	< 7 Watts	PASS	-
	§24.232(c)	Equivalent Isotropic Radiated Power	< 2 Watts	PASS	-
	§27.50(d)(4)	Equivalent Isotropic Radiated Power	< 1 Watts	PASS	-
3.5	§24.232(d)	Peak-to-Average Ratio	< 13 dB	PASS	-
3.6	§2.1049 §22.917(b) §24.238(b) §27.53(g)	Occupied Bandwidth	Reporting Only	PASS	-
3.7	§2.1051 §22.917(a) §24.238(a) §27.53(h)	Band Edge Measurement	< 43+10log10(P[Watts])	PASS	-
3.8	§2.1051 §22.917(a) §24.238(a) §27.53(h)	Conducted Emission	< 43+10log10(P[Watts])	PASS	-
3.9	§2.1055 §22.355	Frequency Stability for Temperature & Voltage	< 2.5 ppm for Part 22H	PASS	-
	§2.1055 §24.235 §27.54		Within Authorized Band		
4.4	§2.1053 §22.917(a) §24.238(a) §27.53(h)	Field Strength of Spurious Radiation	< 43+10log10(P[Watts])	PASS	Under limit 24.18 dB at 1672.000 MHz

1 General Description

1.1 Applicant

Motorola Mobility LLC
222 W, Merchandise Mart Plaza, Chicago IL 60654 USA

1.2 Manufacturer

Motorola Mobility LLC
222 W, Merchandise Mart Plaza, Chicago IL 60654 USA

1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	Mobile Cellular Phone
Brand Name	Motorola
Product ID	10644
FCC ID	IHDT56WD1
EUT supports Radios application	CDMA/EV-DO/GSM/GPRS/EGPRS/ WCDMA/HSPA/DC-HSDPA/ HSPA+(16QAM uplink is not supported)/LTE WLAN 2.4GHz 802.11b/g/n HT20 WLAN 5GHz 802.11a/n HT20/HT40 Bluetooth v3.0+EDR/ Bluetooth v4.0 LE/ Bluetooth v4.1 LE/ Bluetooth v4.2 LE
IMEI/MEID Code	Conducted: 99000781000514 for CDMA 355668080019974 for GSM/WCDMA Radiation: 355668080019594 for CDMA/WCDMA/GSM1900 355668080019602 for GSM850
HW Version	DVT1
SW Version	NPR26.7
EUT Stage	Identical Prototype

Remark: The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.

1.4 Product Specification of Equipment Under Test

Standards-related Product Specification	
Tx Frequency	**GSM/GPRS/EDGE:** 850: 824.2 MHz ~ 848.8 MHz 1900: 1850.2 MHz ~ 1909.8MHz **WCDMA:** Band V: 826.4 MHz ~ 846.6 MHz Band II: 1852.4 MHz ~ 1907.6 MHz Band IV: 1712.4 MHz ~ 1752.6 MHz **CDMA2000:** BC0: 824.70 MHz ~ 848.31 MHz BC1: 1851.25 MHz ~ 1908.75 MHz
Rx Frequency	**GSM/GPRS/EDGE:** 850: 869.2 MHz ~ 893.8 MHz 1900: 1930.2 MHz ~ 1989.8 MHz **WCDMA:** Band V: 871.4 MHz ~ 891.6 MHz Band II: 1932.4 MHz ~ 1987.6 MHz Band IV: 2112.4 MHz ~ 2152.6 MHz **CDMA2000:** BC0: 869.70 MHz ~ 893.31 MHz BC1: 1931.25 MHz ~ 1988.75 MHz
Maximum Output Power to Antenna	**GSM/GPRS/EDGE:** 850: 32.70 dBm 1900: 30.51 dBm **WCDMA:** Band V: 22.99 dBm Band II: 23.53 dBm Band IV: 22.65 dBm **CDMA2000:** BC0: 23.92 dBm BC1: 23.82 dBm
Antenna Type	Fixed Internal Antenna
Antenna Gain	Cellular Band: 0.37 dBi PCS Band: -0.23 dBi AWS Band: 1.80 dBi
Type of Modulation	GSM: GMSK GPRS: GMSK EDGE: GMSK / 8PSK WCDMA: BPSK (Uplink) HSDPA/DC-HSDPA: QPSK (Uplink) HSUPA: QPSK (Uplink) HSPA+ : 16QAM (uplink is not supported) DC-HSDPA : 64QAM CDMA2000 1xRTT: QPSK CDMA2000 1xEV-DO: QPSK/8PSK

1.5 Specification of Accessory

Specification of Accessory				
AC Adapter 1	**Brand Name**	Motorola (Acbel)	**Model Name**	C-P35 SPN5945A
	Power Rating	I/P: 100 - 240 Vac, 300 mA, O/P: 5.2 Vdc, 2000 mA		
AC Adapter 2	**Brand Name**	Motorola (Salom)	**Model Name**	SSW-2919UMTJ C-P35 SPN5945A
	Power Rating	I/P: 100 - 240 Vac, 300 mA, O/P: 5.2 Vdc, 2000 mA		
Battery	**Brand Name**	Motorola (Amperex)	**Model Name**	HE50
	Power Rating	3.8Vdc, 5000mAh	**Type**	Li-ion
USB Cable	**Brand Name**	Motorola	**Model Name**	SKN6462A
	Signal Line Type	1.00 meter, shielded cable, without ferrite core		

1.6 Modification of EUT

No modifications are made to the EUT during all test items.

1.7 Maximum ERP/EIRP Power, Frequency Tolerance, and Emission Designator

FCC Rule	System	Type of Modulation	Maximum ERP/EIRP (W)	Frequency Tolerance (ppm)	Emission Designator
Part 22H	GSM850 GSM	GMSK	1.2359	0.0155 ppm	242KGXW
Part 22H	GSM850 EDGE class 8	8PSK	0.3690	0.0120 ppm	246KG7W
Part 22H	WCDMA Band V RMC 12.2Kbps	BPSK	0.1321	0.0191 ppm	4M12F9W
Part 22H	CDMA2000 BC0 1xRTT	QPSK	0.1637	0.0394 ppm	1M28F9W
Part 24E	GSM1900 GSM	GMSK	1.0666	0.0080 ppm	243KGXW
Part 24E	GSM1900 EDGE class 8	8PSK	0.4656	0.0037 ppm	246KG7W
Part 24E	WCDMA Band II RMC 12.2Kbps	BPSK	0.2138	0.0080 ppm	4M13F9W
Part 24E	CDMA2000 BC1 1xRTT	QPSK	0.2286	0.0202 ppm	1M28F9W
Part 27L	WCDMA Band IV RMC 12.2Kbps	BPSK	0.2786	0.0087 ppm	4M12F9W

1.8 Testing Location

Test Site	Sporton International (KunShan) INC.		
Test Site Location	No.3-2, Pingxiang Road, Kunshan Development Zone, Jiangsu, China TEL: +86-0512-5790-0158 FAX: +86-0512-5790-0958		
Test Site No.	Sporton Site No.		FCC Registration No.
	TH01-KS	03CH03-KS	306251

Note: The test site complies with ANSI C63.4 2014 requirement.

1.9 Applicable Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- 47 CFR Part 2, 22(H), 24(E), 27(L)
- ANSI / TIA / EIA-603-D-2010
- FCC KDB 971168 D01 Power Meas. License Digital Systems v02r02
- FCC KDB 412172 D01 Determining ERP and EIRP v01r01

Remark:

1. All test items were verified and recorded according to the standards and without any deviation during the test.
2. This EUT has also been tested and complied with the requirements of FCC Part 15, Subpart B, recorded in a separate test report.

2 Test Configuration of Equipment Under Test

2.1 Test Mode

Antenna port conducted and radiated test items were performed according to KDB 971168 D01 Power Meas. License Digital Systems v02r02 with maximum output power.

Radiated measurements were performed with rotating EUT in different three orthogonal test planes to find the maximum emission.

Radiated emissions were investigated as following frequency range:

1. 30 MHz to 10th harmonic for GSM850 and WCDMA Band V and CDMA BC0.
2. 30 MHz to 10th harmonic for WCDMA Band IV.
3. 30 MHz to 10th harmonic for GSM1900 and WCDMA Band II and CDMA BC1.

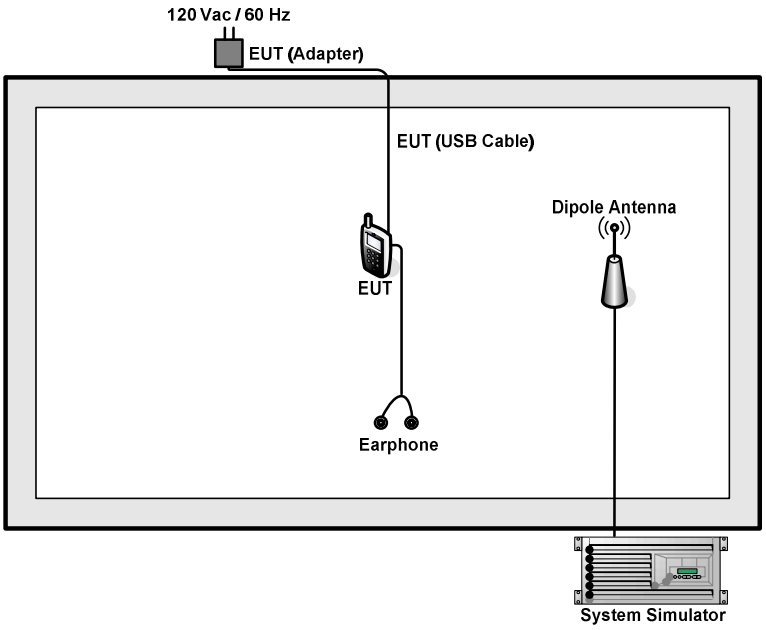
All modes and data rates and positions were investigated.

Test modes are chosen to be reported as the worst case configuration below:

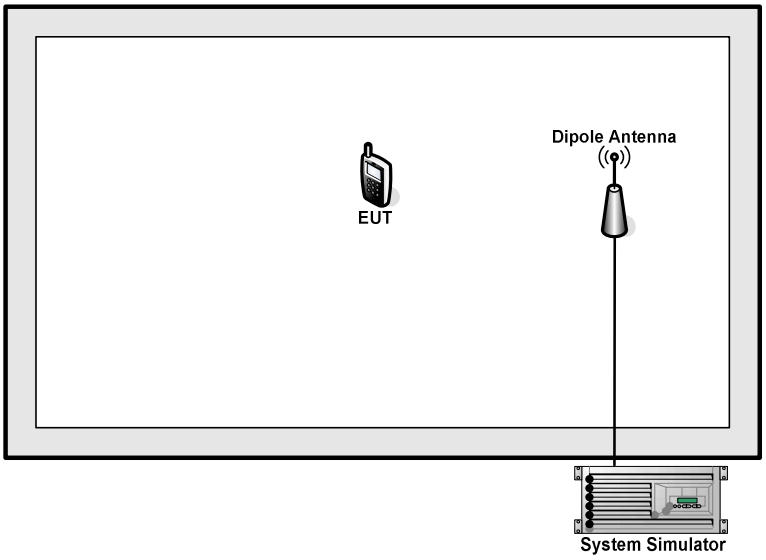
Test Modes		
Band	**Radiated TCs**	**Conducted TCs**
GSM 850	■ GSM Link ■ EDGE class 8 Link	■ GSM Link ■ EDGE class 8 Link
GSM 1900	■ GSM Link ■ EDGE class 8 Link	■ GSM Link ■ EDGE class 8 Link
WCDMA Band V	■ RMC 12.2Kbps Link	■ RMC 12.2Kbps Link
WCDMA Band II	■ RMC 12.2Kbps Link	■ RMC 12.2Kbps Link
WCDMA Band IV	■ RMC 12.2Kbps Link	■ RMC 12.2Kbps Link
CDMA BC0	■ 1xRTT Link	■ 1xRTT Link
CDMA BC1	■ 1xRTT Link	■ 1xRTT Link

2.2 Connection Diagram of Test System

For Part 22H (CDMA), 24E, 27L



For Part 24H (CDMA)



2.3 Support Unit used in test configuration

Item	Equipment	Trade Name	Model No.	FCC ID	Data Cable	Power Cord
1.	System Simulator	R&S	CMU 200	N/A	N/A	Unshielded, 1.8 m
2.	System Simulator	Anritsu	MT8820C	N/A	N/A	Unshielded, 1.8 m
3.	DC Power Supply	GW INSTEK	GPS-3030D	N/A	N/A	Unshielded, 1.8 m
4.	Earphone	Lenovo	LH102	N/A	Unshielded,1.2m	N/A

2.4 Measurement Results Explanation Example

For all conducted test items:

The offset level is set in the spectrum analyzer to compensate the RF cable loss and attenuator factor between RF conducted output port and spectrum analyzer. With the offset compensation, the spectrum analyzer reading level will be exactly the RF output level.

The spectrum analyzer offset is derived from RF cable loss and attenuator factor.

Offset = RF cable loss + attenuator factor.

The following shows an offset computation example with RF cable loss 4.5 dB and a 10dB attenuator.

Example :

Offset(dB) = RF cable loss(dB) + attenuator factor(dB).

= 4.5 + 10 = 14.5 (dB)

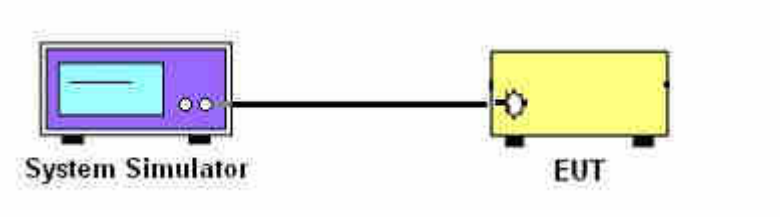
3 Conducted Test Result

3.1 Measuring Instruments

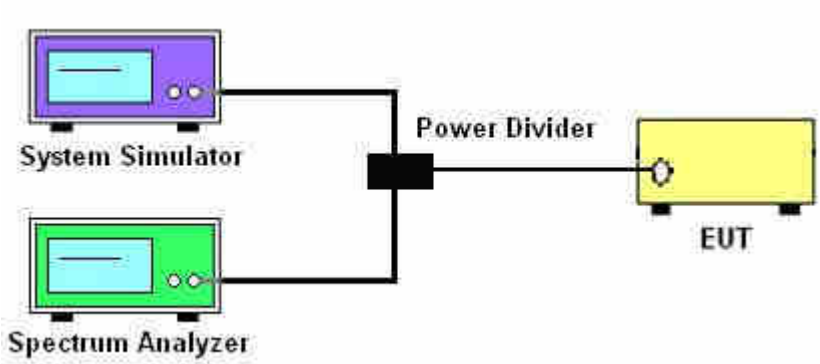
See list of measuring instruments of this test report.

3.2 Test Setup

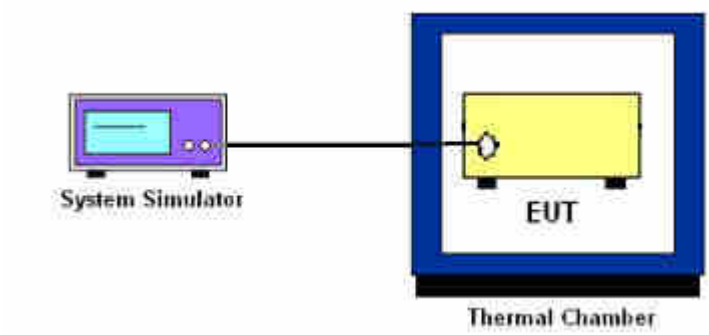
3.2.1 Conducted Output Power



3.2.2 Peak-to-Average Ratio, Occupied Bandwidth, Conducted Band-Edge and Conducted Spurious Emission



3.2.3 Frequency Stability



3.3 Test Result of Conducted Test

Please refer to Appendix A.

3.4 Conducted Output Power and ERP/EIRP

3.4.1 Description of the Conducted Output Power and ERP/EIRP

A system simulator was used to establish communication with the EUT. Its parameters were set to enforce EUT transmitting at the maximum power. The measured power in the radio frequency on the transmitter output terminals shall be reported.

The ERP of mobile transmitters must not exceed 7 Watts for GSM850, CDMA BC0 and WCDMA Band V.

The EIRP of mobile transmitters must not exceed 2 Watts for GSM1900, CDMA BC1 and WCDMA Band II.

The EIRP of mobile transmitters must not exceed 1 Watts for WCDMA Band IV.

According to KDB 412172 D01 Power Approach,

EIRP = $P_T + G_T – L_C$, ERP = EIRP -2.15, where

P_T = transmitter output power in dBm

G_T = gain of the transmitting antenna in dBi

L_C = signal attenuation in the connecting cable between the transmitter and antenna in dB

3.4.2 Test Procedures

1. The transmitter output port was connected to the system simulator.
2. Set EUT at maximum power through system simulator.
3. Select lowest, middle, and highest channels for each band and different modulation.
4. Measure the maximum burst average power for GSM and maximum average power for other modulation signal.

3.5 Peak-to-Average Ratio

3.5.1 Description of the PAR Measurement

The peak-to-average ratio (PAR) of the transmission may not exceed 13 dB.

3.5.2 Test Procedures

1. The testing follows FCC KDB 971168 D01 v02r02 Section 5.7.1.
2. The EUT was connected to spectrum analyzer and system simulator via a power divider.
3. Set EUT to transmit at maximum output power.
4. When the duty cycle is less than 98%, then signal gating will be implemented on the spectrum analyzer by triggering from the system simulator.
5. Set the CCDF (Complementary Cumulative Distribution Function) option of the spectrum analyzer.

Record the maximum PAPR level associated with a probability of 0.1%.

3.6 99% Occupied Bandwidth and 26dB Bandwidth Measurement

3.6.1 Description of 99% Occupied Bandwidth and 26dB Bandwidth Measurement

The occupied bandwidth is the width of a frequency band such that, below the lower and above the upper frequency limits, the mean powers emitted are each equal to a specified percentage 0.5% of the total mean transmitted power.

The 26 dB emission bandwidth is defined as the frequency range between two points, one above and one below the carrier frequency, at which the spectral density of the emission is attenuated 26 dB below the maximum in-band spectral density of the modulated signal. Spectral density (power per unit bandwidth) is to be measured with a detector of resolution bandwidth equal to approximately 1.0% of the emission bandwidth.

3.6.2 Test Procedures

1. The testing follows FCC KDB 971168 v02r02 Section 4.2.
2. The EUT was connected to spectrum analyzer and system simulator via a power divider.
3. The spectrum analyzer center frequency is set to the nominal EUT channel center frequency. The span range for the spectrum analyzer shall be between two and five times the anticipated OBW.
4. The nominal resolution bandwidth (RBW) shall be in the range of 1 to 5 % of the anticipated OBW, and the VBW shall be at least 3 times the RBW.
5. Set the detection mode to peak, and the trace mode to max hold.
6. Determine the reference value: Set the EUT to transmit a modulated signal. Allow the trace to stabilize. Set the spectrum analyzer marker to the highest level of the displayed trace. (this is the reference value)
7. Determine the “-26 dB down amplitude” as equal to (Reference Value – X).
8. Place two markers, one at the lowest and the other at the highest frequency of the envelope of the spectral display such that each marker is at or slightly below the “–X dB down amplitude” determined in step 6. If a marker is below this “-X dB down amplitude” value it shall be placed as close as possible to this value. The OBW is the positive frequency difference between the two markers.
9. Use the 99 % power bandwidth function of the spectrum analyzer and report the measured bandwidth.

3.7 Conducted Band Edge

3.7.1 Description of Conducted Band Edge Measurement

The power of any emission outside of the authorized operating frequency ranges must be lower than the transmitter power (P) by a factor of at least 43 + 10 log (P) dB.

3.7.2 Test Procedures

1. The testing follows FCC KDB 971168 D01 v02r02 Section 6.0.
2. The EUT was connected to the spectrum analyzer and system simulator via a power divider.
3. The RF output of EUT was connected to the spectrum analyzer by an RF cable and attenuator. The path loss was compensated to the results for each measurement.
4. The band edges of low and high channels for the highest RF powers were measured.
5. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
6. The limit line is derived from 43 + 10log(P) dB below the transmitter power P(Watts)
   =P(W) - [43 + 10log(P)] (dB)
   = [30 + 10log(P)] (dBm) - [43 + 10log(P)] (dB)
   = -13dBm.

3.8 Conducted Spurious Emission

3.8.1 Description of Conducted Spurious Emission Measurement

The power of any emission outside of the authorized operating frequency ranges must be lower than the transmitter power (P) by a factor of at least 43 + 10 log (P) dB.

It is measured by means of a calibrated spectrum analyzer and scanned from 30 MHz up to a frequency including its 10th harmonic.

3.8.2 Test Procedures

1. The testing follows FCC KDB 971168 D01 v02r02 Section 6.0.
2. The EUT was connected to the spectrum analyzer and system simulator via a power divider.
3. The RF output of EUT was connected to the spectrum analyzer by an RF cable and attenuator. The path loss was compensated to the results for each measurement.
4. The middle channel for the highest RF power within the transmitting frequency was measured.
5. The conducted spurious emission for the whole frequency range was taken.
6. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
7. The limit line is derived from 43 + 10log(P) dB below the transmitter power P(Watts)

= P(W) - [43 + 10log(P)] (dB)

= [30 + 10log(P)] (dBm) - [43 + 10log(P)] (dB)

= -13dBm.

3.9 Frequency Stability

3.9.1 Description of Frequency Stability Measurement

The frequency stability shall be measured by variation of ambient temperature and variation of primary supply voltage to ensure that the fundamental emission stays within the authorized frequency block. The frequency stability of the transmitter shall be maintained within ±0.00025% (±2.5ppm) of the center frequency.

3.9.2 Test Procedures for Temperature Variation

1. The testing follows FCC KDB 971168 D01 v02r02 Section 9.0.
2. The EUT was set up in the thermal chamber and connected with the system simulator.
3. With power OFF, the temperature was decreased to -30°C and the EUT was stabilized before testing. Power was applied and the maximum change in frequency was recorded within one minute.
4. With power OFF, the temperature was raised in 10°C steps up to 50°C. The EUT was stabilized at each step for at least half an hour. Power was applied and the maximum frequency change was recorded within one minute.

3.9.3 Test Procedures for Voltage Variation

1. The testing follows FCC KDB 971168 D01 v02r02 Section 9.0.
2. The EUT was placed in a temperature chamber at 20±5° C and connected with the system simulator.
3. The power supply voltage to the EUT was varied from 85% to 115% of the nominal value measured at the input to the EUT.
4. The variation in frequency was measured for the worst case.

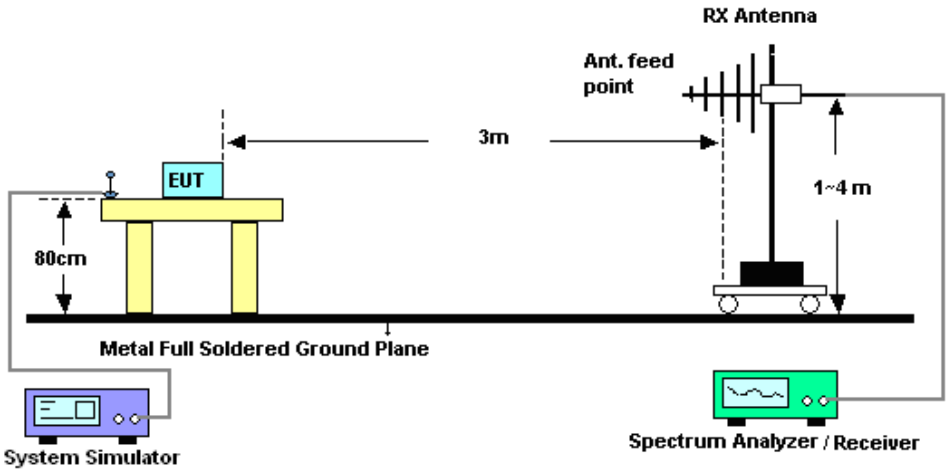
4 Radiated Test Items

4.1 Measuring Instruments

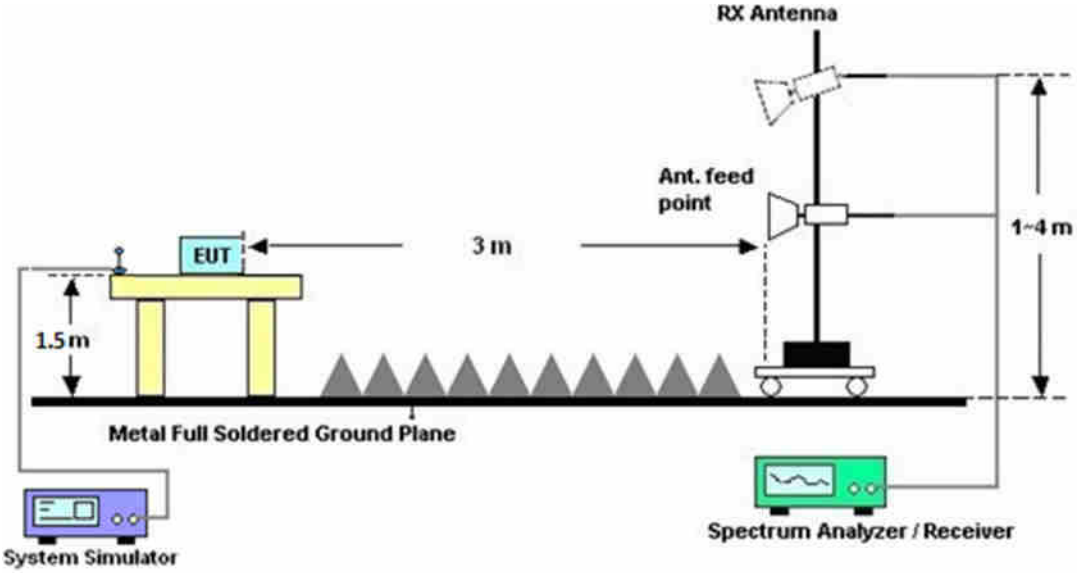
See list of measuring instruments of this test report.

4.2 Test Setup

4.2.1 For radiated test from 30MHz to 1GHz



4.2.2 For radiated test above 1GHz



4.3 Test Result of Radiated Test

Please refer to Appendix B.

4.4 Field Strength of Spurious Radiation Measurement

4.4.1 Description of Field Strength of Spurious Radiated Measurement

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitter power (P) by a factor of at least 43 + 10 log (P) dB. The spectrum is scanned from 30 MHz up to a frequency including its 10th harmonic.

4.4.2 Test Procedures

1. The testing follows FCC KDB 971168 D01 v02r02 Section 5.8 and ANSI / TIA-603-D-2010 Section 2.2.12.
2. The EUT was placed on a rotatable wooden table 0.8 meters for frequency below 1GHz and 1.5 meter for frequency above 1GHz above the ground.
3. The EUT was set 3 meters from the receiving antenna, which was mounted on the antenna tower.
4. The table was rotated 360 degrees to determine the position of the highest spurious emission.
5. The height of the receiving antenna is varied between one meter and four meters to search for the maximum spurious emission for both horizontal and vertical polarizations.
6. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz, taking record of maximum spurious emission.
7. A horn antenna was substituted in place of the EUT and was driven by a signal generator.
8. Tune the output power of signal generator to the same emission level with EUT maximum spurious emission.
9. Taking the record of output power at antenna port.
10. Repeat step 7 to step 8 for another polarization.
11. EIRP (dBm) = S.G. Power – Tx Cable Loss + Tx Antenna Gain
12. ERP (dBm) = EIRP - 2.15
13. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
14. The limit line is derived from 43 + 10log(P) dB below the transmitter power P(Watts)

    = P(W) - [43 + 10log(P)] (dB)

    = [30 + 10log(P)] (dBm) - [43 + 10log(P)] (dB)

    = -13dBm.

5 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	R&S	FSV40	101040	10Hz~40GHz	Aug. 09, 2016	Apr. 29, 2017~ May 05, 2017	Aug. 08, 2017	Conducted (TH01-KS)
Thermal Chamber	Ten Billion	TTC-B3S	TBN-960502	-40~+150°C	Oct. 13, 2016	Apr. 29, 2017~ May 05, 2017	Oct. 12, 2017	Conducted (TH01-KS)
Radio communication	Anritsu	MT8820C	6201300652	2G/3G/LTE Band	Aug. 08, 2016	Apr. 29, 2017~ May 05, 2017	Aug. 07, 2017	Conducted (TH01-KS)
EXA Spectrum Analyzer	Keysight	N9010A	MY55150244	10Hz-44GHz	Apr. 18, 2017	Apr. 27, 2017	Apr. 17, 2018	Radiation (03CH03-KS)
Bilog Antenna	TeseQ	CBL6112D	35406	25MHz-2GHz	Apr. 22, 2017	Apr. 27, 2017	Apr. 21, 2018	Radiation (03CH03-KS)
Horn Antenna	Schwarzbeck	BBHA9120D	9120D-1356	1GHz~18GHz	Apr. 22, 2017	Apr. 27, 2017	Apr. 21, 2018	Radiation (03CH03-KS)
SHF-EHF Horn	Schwarzbeck	BBHA 9170	BBHA170249	15GHz~40GHz	Feb. 15, 2017	Apr. 27, 2017	Feb. 14, 2018	Radiation (03CH03-KS)
Amplifier	SONOMA	310N	187289	9kHz~1GHz	Aug. 09, 2016	Apr. 27, 2017	Aug. 08, 2017	Radiation (03CH03-KS)
High Gain Amplifier	MITEQ	AMF-7D-00 101800-30-1 0P	1943529	1GHz~18GHz	Jan. 19, 2017	Apr. 27, 2017	Jan. 18, 2018	Radiation (03CH03-KS)
Amplifier	Agilent	8449B	3008A02370	1GHz~26.5GHz	Oct. 13, 2016	Apr. 27, 2017	Oct. 12, 2017	Radiation (03CH03-KS)
AC Power Source	Chroma	61601	F104090004	N/A	NCR	Apr. 27, 2017	NCR	Radiation (03CH03-KS)
Turn Table	ChamPro	EM 1000-T	060762-T	0~360 degree	NCR	Apr. 27, 2017	NCR	Radiation (03CH03-KS)
Antenna Mast	ChamPro	EM 1000-A	060762-A	1 m~4 m	NCR	Apr. 27, 2017	NCR	Radiation (03CH03-KS)

NCR: No Calibration Required

6 Uncertainty of Evaluation

Uncertainty of Radiated Emission Measurement (25 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	2.8dB

Uncertainty of Radiated Emission Measurement (1 GHz ~ 40 GHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	3.3dB

Appendix A. Test Results of Conducted Test

Conducted Output Power(Average power)

Conducted Power (*Unit: dBm)						
Band	GSM850			GSM1900		
Channel	128	189	251	512	661	810
Frequency	824.2	836.4	848.8	1850.2	1880.0	1909.8
GSM	32.61	32.68	32.70	30.42	30.51	30.46
GPRS class 8	32.60	32.67	32.69	30.41	30.49	30.44
GPRS class 10	29.75	29.84	29.65	27.31	27.61	27.68
GPRS class 11	27.72	27.74	27.68	25.80	25.86	26.09
GPRS class 12	26.34	26.31	26.21	24.83	24.43	24.71
EGPRS class 8	27.45	27.41	27.37	26.74	26.91	26.87
EGPRS class 10	27.37	27.31	27.26	26.63	26.81	26.81
EGPRS class 11	25.49	25.47	25.32	24.84	25.02	24.96
EGPRS class 12	24.18	24.18	24.06	23.48	23.62	23.63

Conducted Power (*Unit: dBm)									
Band	WCDMA Band V			WCDMA Band II			WCDMA Band IV		
Channel	4132	4182	4233	9262	9400	9538	1312	1413	1513
Frequency	826.4	836.4	846.6	1852.4	1880	1907.6	1712.4	1732.6	1752.6
AMR 12.2Kbps	22.48	22.87	22.98	22.89	23.49	23.50	22.54	22.64	22.45
RMC 12.2Kbps	22.50	22.89	22.99	23.19	23.50	23.53	22.56	22.65	22.58
HSDPA Subtest-1	22.03	22.07	21.94	22.14	22.43	22.45	22.04	22.31	22.20
HSDPA Subtest-2	22.05	22.05	22.04	22.26	22.58	22.56	22.24	22.26	22.30
HSDPA Subtest-3	21.59	21.78	21.59	21.78	22.11	22.10	21.74	21.79	21.83
HSDPA Subtest-4	21.59	21.77	21.60	21.79	22.12	22.11	21.73	21.79	21.84
DC-HSDPA Subtest-1	22.01	22.05	21.92	22.13	22.48	22.42	22.01	22.18	22.16
DC-HSDPA Subtest-2	22.04	22.01	22.01	22.18	22.51	22.51	22.21	22.23	22.19
DC-HSDPA Subtest-3	21.56	21.75	21.54	21.75	22.12	22.12	21.71	21.75	21.78
DC-HSDPA Subtest-4	21.51	21.74	21.68	21.76	22.01	22.08	21.70	21.68	21.73
HSUPA Subtest-1	22.02	22.15	22.05	22.21	22.48	22.56	22.25	22.30	22.30
HSUPA Subtest-2	20.05	20.20	20.00	20.27	20.52	20.62	20.34	20.25	20.38
HSUPA Subtest-3	20.97	21.15	21.05	21.27	21.55	21.55	21.37	21.37	21.38
HSUPA Subtest-4	20.12	20.17	20.07	20.37	20.60	20.71	20.37	20.44	20.38
HSUPA Subtest-5	21.90	22.10	22.00	22.20	22.60	22.50	22.30	22.30	22.20

Conducted Power (*Unit: dBm)						
Band	CDMA 2000 BC0			CDMA 2000 BC1		
Channel	1013	384	777	25	600	1175
Frequency	824.7	836.52	848.31	1851.25	1880	1908.75
1xRTT RC1 SO55	23.70	23.75	23.51	23.57	23.82	23.78
1xRTT RC3 SO55	23.88	23.92	23.68	23.25	23.57	23.55
1xRTT RC3 SO32 (+ F-SCH)	23.83	23.91	23.64	23.28	23.64	23.57
1xRTT RC3 SO32 (+SCH)	23.86	23.91	23.74	23.30	23.69	23.59
1xEVDO RTAP 153.6Kbps	23.82	23.88	23.66	23.23	23.53	23.51
1xEVDO RETAP 4096Bits	23.68	23.81	23.61	23.21	23.51	23.43

ERP/EIRP

GSM850 (G_T - L_C= 0.37dB)			
Channel	128	189	251
	(Low)	(Mid)	(High)
Frequency (MHz)	824.2	836.4	848.8
Conducted Power (dBm)	32.61	32.68	32.70
Conducted Power (Watts)	1.8239	1.8535	1.8621
ERP(dBm)	30.83	30.90	30.92
ERP(Watts)	1.2106	1.2303	1.2359

EDGE850 (G_T - L_C= 0.37dB)			
Channel	128	189	251
	(Low)	(Mid)	(High)
Frequency (MHz)	824.2	836.4	848.8
Conducted Power (dBm)	27.45	27.41	27.37
Conducted Power (Watts)	0.5559	0.5508	0.5458
ERP(dBm)	25.67	25.63	25.59
ERP(Watts)	0.3690	0.3656	0.3622

GSM1900 (G_T - L_C= -0.23dB)			
Channel	512	661	810
	(Low)	(Mid)	(High)
Frequency (MHz)	1850.2	1880	1909.8
Conducted Power (dBm)	30.42	30.51	30.46
Conducted Power (Watts)	1.1015	1.1246	1.1117
EIRP(dBm)	30.19	30.28	30.23
EIRP(Watts)	1.0447	1.0666	1.0544

EDGE1900 (G_T - L_C= -0.23dB)			
Channel	512	661	810
	(Low)	(Mid)	(High)
Frequency (MHz)	1850.2	1880	1909.8
Conducted Power (dBm)	26.74	26.91	26.87
Conducted Power (Watts)	0.4721	0.4909	0.4864
EIRP(dBm)	26.51	26.68	26.64
EIRP(Watts)	0.4477	0.4656	0.4613

WCDMA Band V (G_T - $L_{C=}$ 0.37dB)			
Channel	4132	4182	4233
	(Low)	(Mid)	(High)
Frequency (MHz)	826.4	836.4	846.6
Conducted Power (dBm)	22.50	22.89	22.99
Conducted Power (Watts)	0.1778	0.1945	0.1991
ERP(dBm)	20.72	21.11	21.21
ERP(Watts)	0.1180	0.1291	0.1321

WCDMA Band II (G_T - $L_{C=}$ -0.23dB)			
Channel	9262	9400	9538
	(Low)	(Mid)	(High)
Frequency (MHz)	1852.4	1880	1907.6
Conducted Power (dBm)	23.19	23.50	23.53
Conducted Power (Watts)	0.2084	0.2239	0.2254
EIRP(dBm)	22.96	23.27	23.30
EIRP(Watts)	0.1977	0.2123	0.2138

WCDMA Band IV (G_T - $L_{C=}$ 1.80dB)			
Channel	1312	1413	1513
	(Low)	(Mid)	(High)
Frequency (MHz)	1712.4	1732.6	1752.6
Conducted Power (dBm)	22.56	22.65	22.58
Conducted Power (Watts)	0.1803	0.1841	0.1811
EIRP(dBm)	24.36	24.45	24.38
EIRP(Watts)	0.2729	0.2786	0.2742

CDMA 2000 BC0 (G_T - $L_{C=}$ 0.37dB)			
Channel	1013	384	777
	(Low)	(Mid)	(High)
Frequency (MHz)	824.7	836.52	848.31
Conducted Power (dBm)	23.88	23.92	23.68
Conducted Power (Watts)	0.2443	0.2466	0.2333
ERP(dBm)	22.10	22.14	21.90
ERP(Watts)	0.1622	0.1637	0.1549

CDMA 2000 BC1 (G_T - $L_{C=}$ -0.23dB)			
Channel	25	600	1175
	(Low)	(Mid)	(High)
Frequency (MHz)	1851.25	1880	1908.75
Conducted Power (dBm)	23.57	23.82	23.78
Conducted Power (Watts)	0.23	0.24	0.24
EIRP(dBm)	23.34	23.59	23.55
EIRP(Watts)	0.2158	0.2286	0.2265

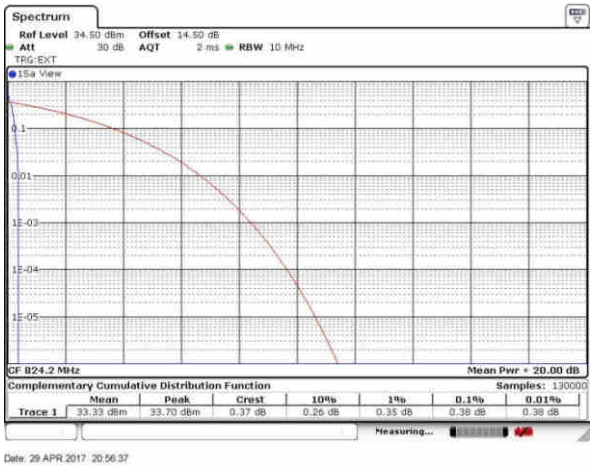
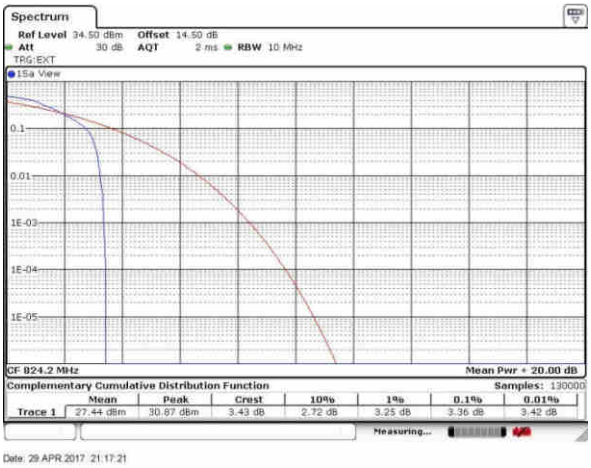
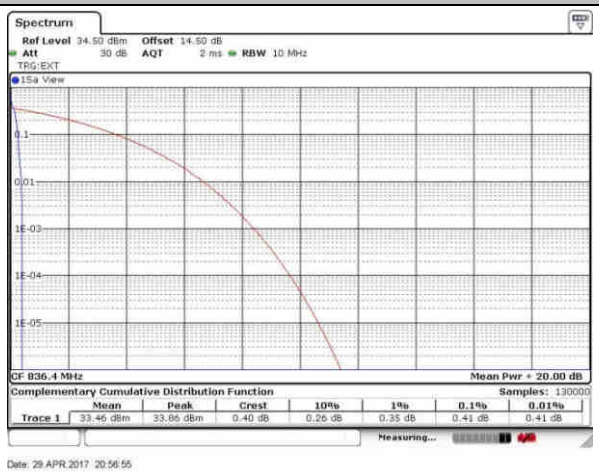
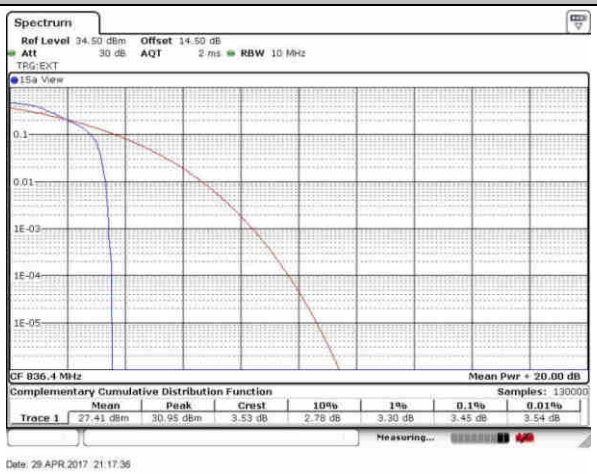
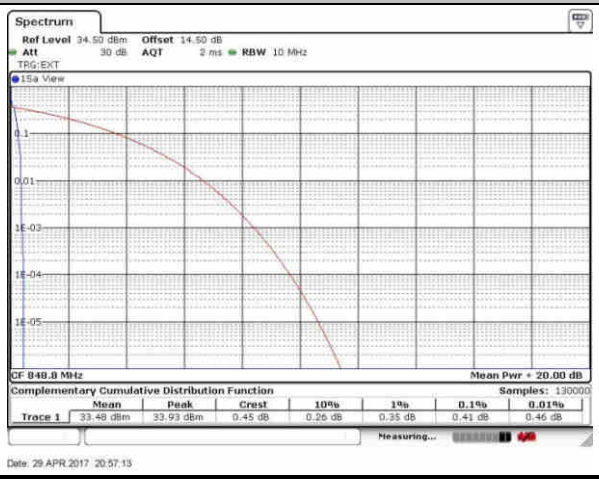
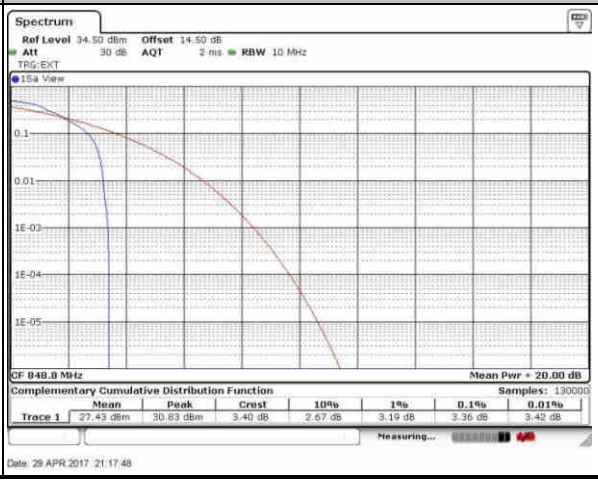
Peak-to-Average Ratio

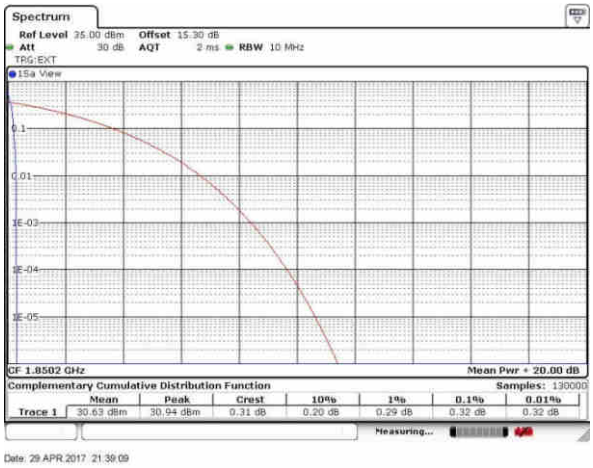
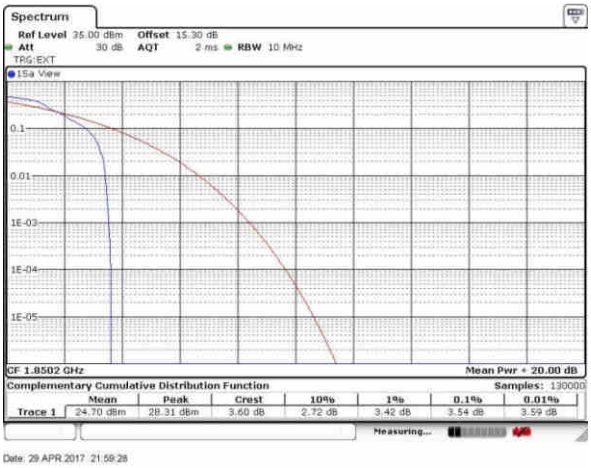
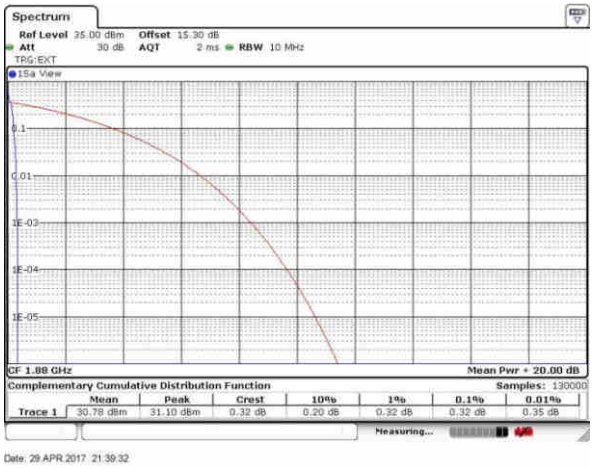
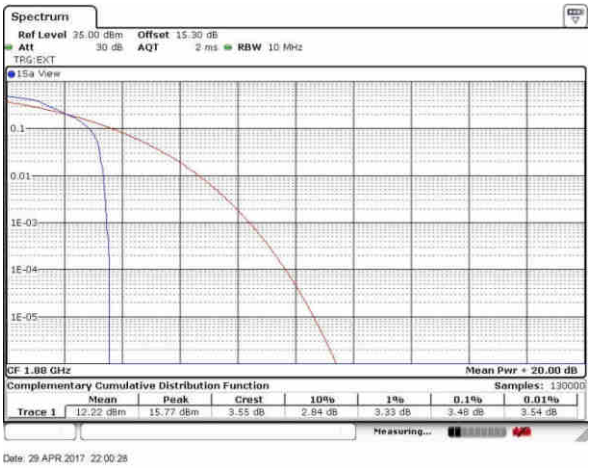
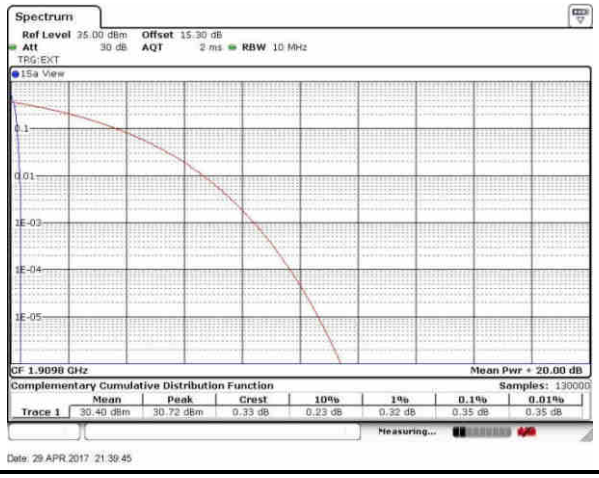
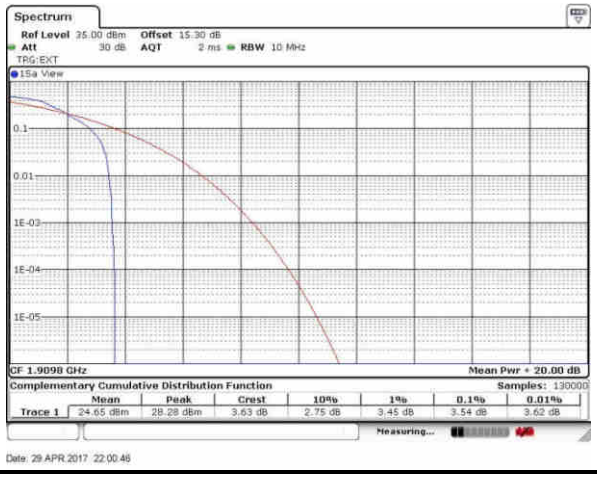
Mode	GSM850(dB)		Limit: 13dB
Mod.	GSM	EDGE class 8	Result
Lowest CH	0.38	3.36	PASS
Middle CH	0.41	3.45	
Highest CH	0.41	3.36	

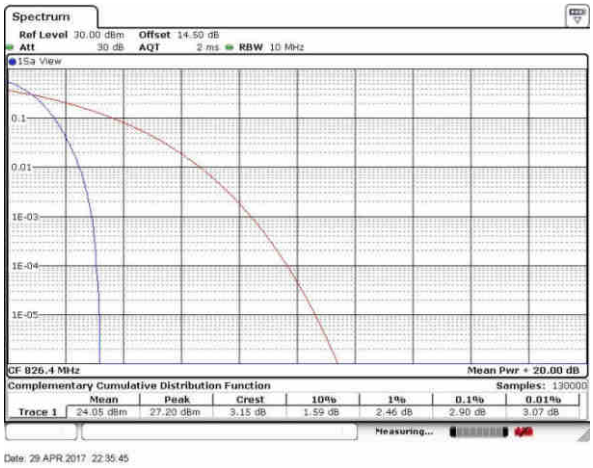
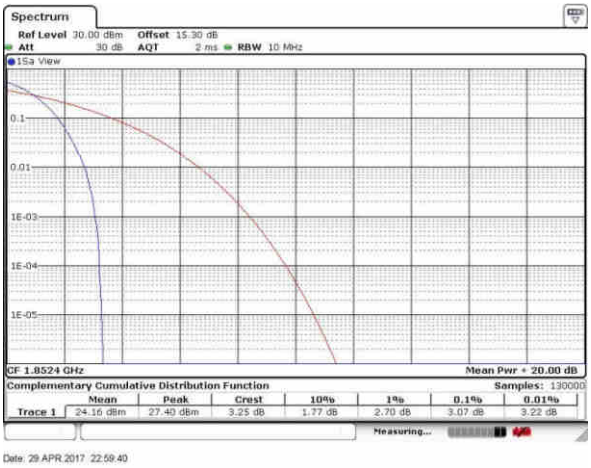
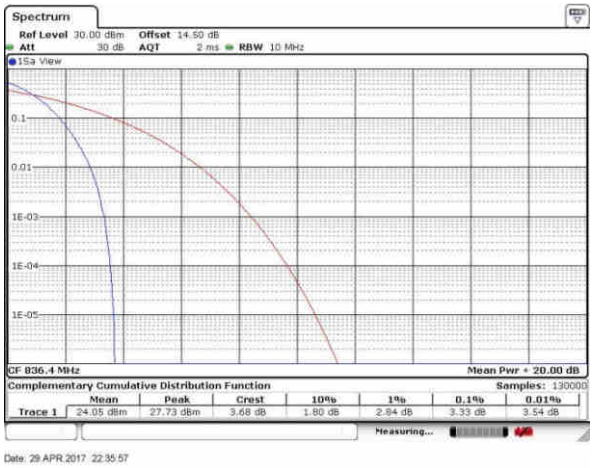
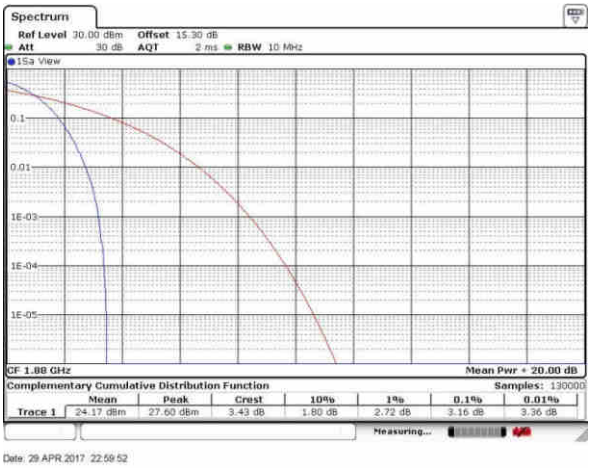
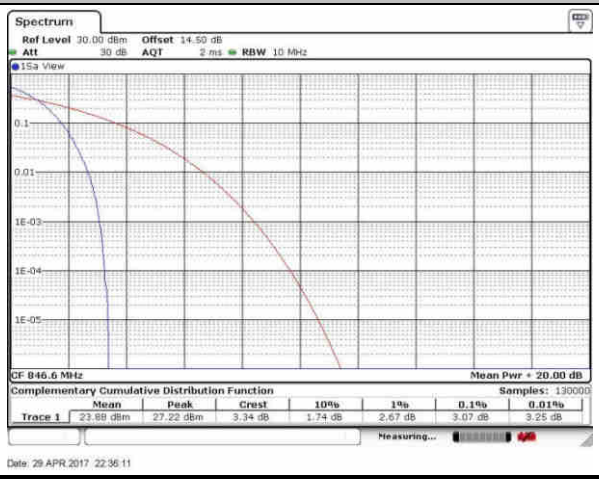
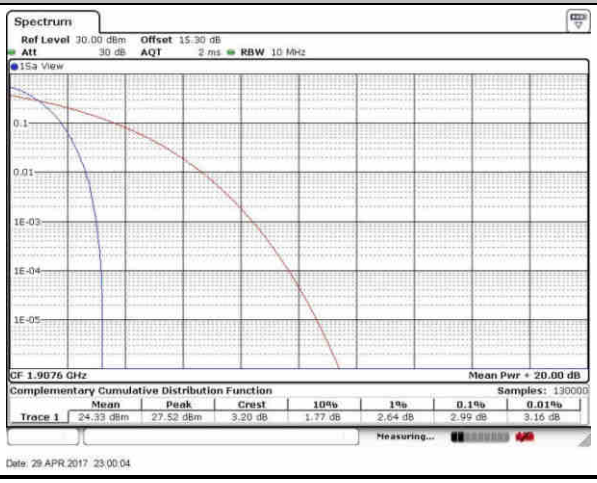
Mode	GSM1900(dB)		Limit: 13dB
Mod.	GSM	EDGE class 8	Result
Lowest CH	0.32	3.54	PASS
Middle CH	0.32	3.48	
Highest CH	0.35	3.54	

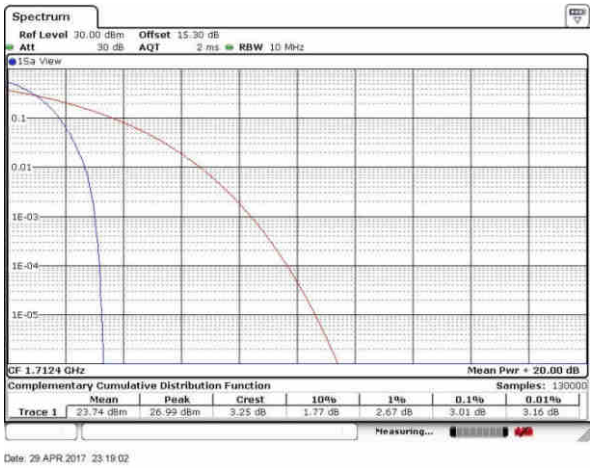
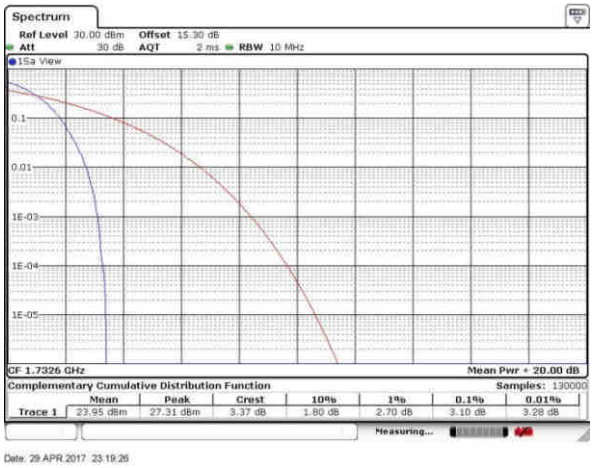
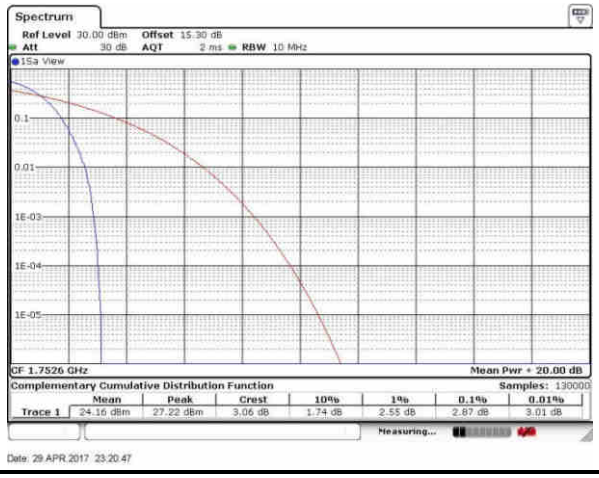
Mode	WCDMA Band V(dB)	WCDMA Band II(dB)	WCDMA Band IV(dB)	Limit: 13dB
Mod.	RMC 12.2Kbps	RMC 12.2Kbps	RMC 12.2Kbps	Result
Lowest CH	2.90	3.07	3.01	PASS
Middle CH	3.33	3.16	3.10	
Highest CH	3.07	2.99	2.87	

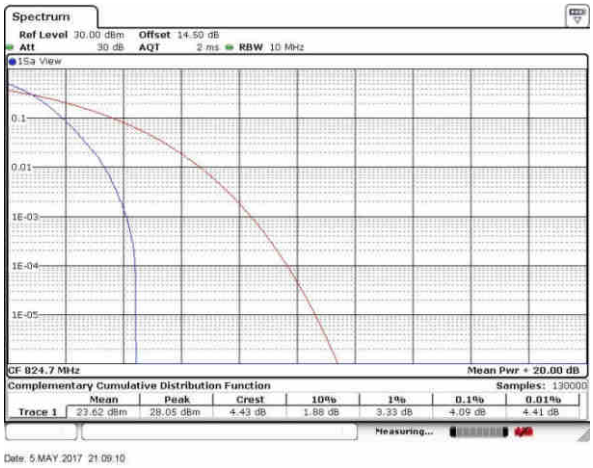
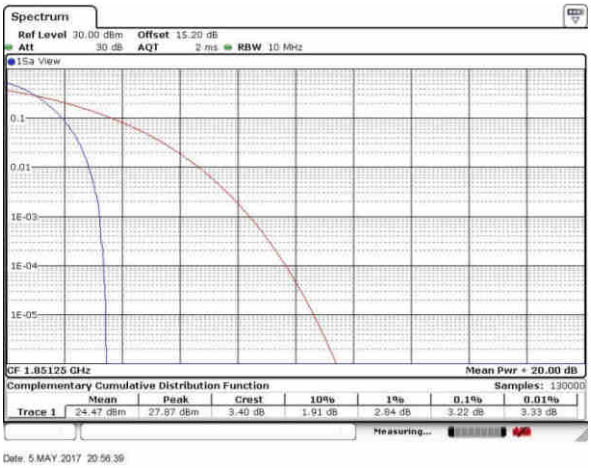
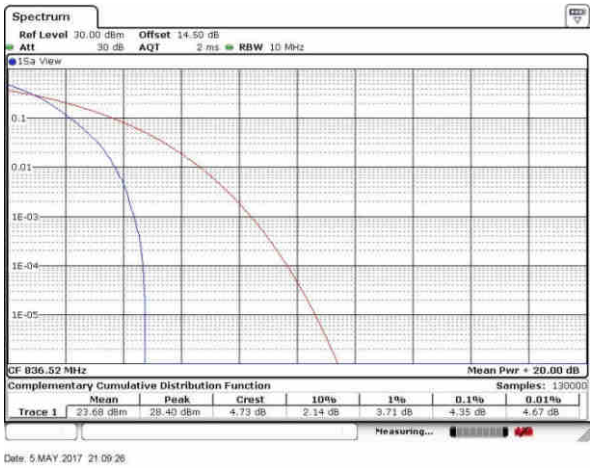
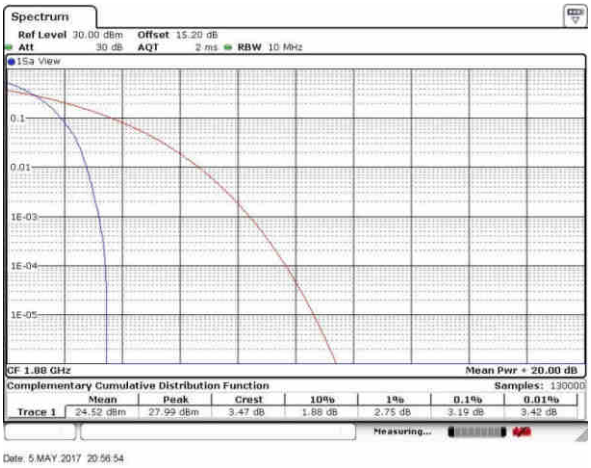
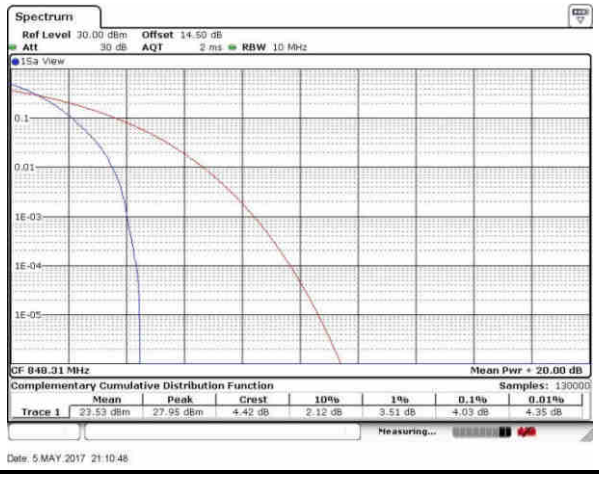
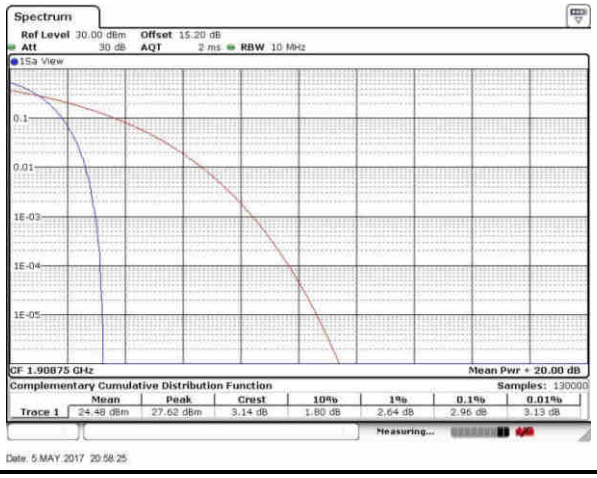
Mode	CDMA BC0(dB)	CDMA BC1(dB)	Limit: 13dB
Mod.	1xRTT	1xRTT	Result
Lowest CH	4.09	3.22	PASS
Middle CH	4.35	3.19	
Highest CH	4.03	2.96	

GSM850 (GSM)	GSM850 (EDGE class 8)
Lowest Channel	**Lowest Channel**
	
Middle Channel	**Middle Channel**
	
Highest Channel	**Highest Channel**
	

GSM1900 (GSM)	GSM1900 (EDGE class 8)
Lowest Channel	**Lowest Channel**
	
Middle Channel	**Middle Channel**
	
Highest Channel	**Highest Channel**
	

WCDMA Band V (RMC 12.2Kbps)	WCDMA Band II (RMC 12.2Kbps)
Lowest Channel	**Lowest Channel**
	
Middle Channel	**Middle Channel**
	
Highest Channel	**Highest Channel**
	

WCDMA Band IV (RMC 12.2Kbps)	
Lowest Channel	
	
Middle Channel	
	
Highest Channel	
	

CDMA BC0 (1xRTT)	CDMA BC1 (1xRTT)
Lowest Channel	**Lowest Channel**
	
Middle Channel	**Middle Channel**
	
Highest Channel	**Highest Channel**
	

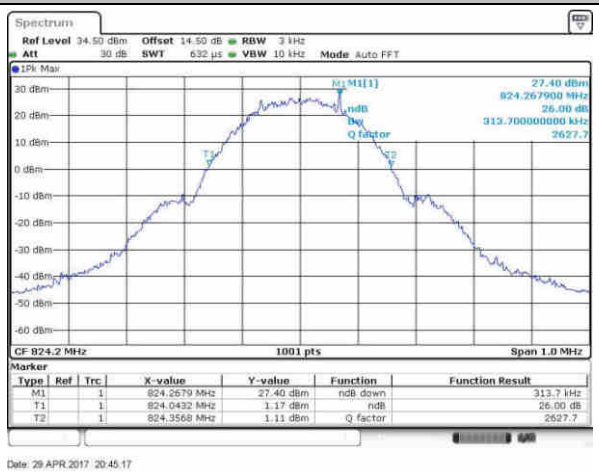
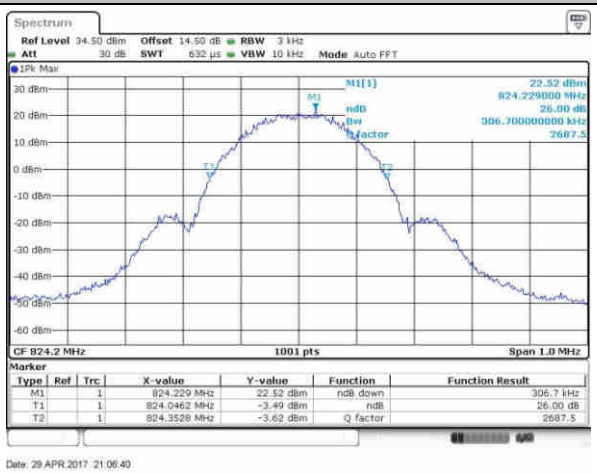
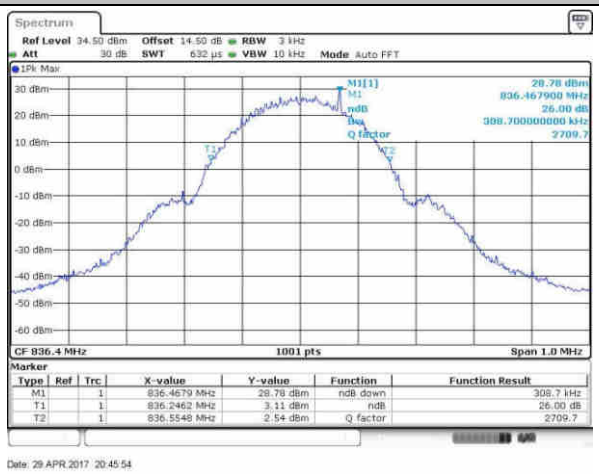
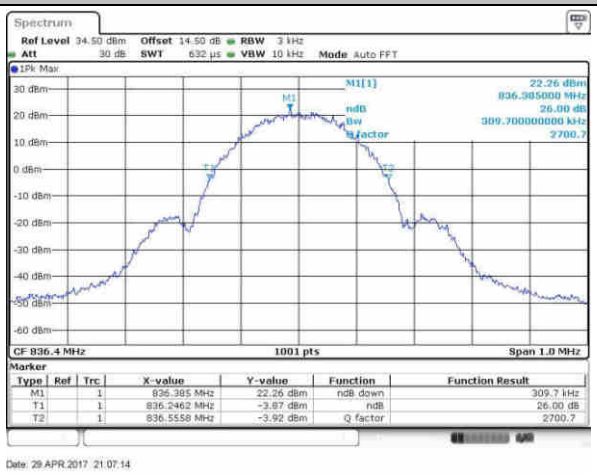
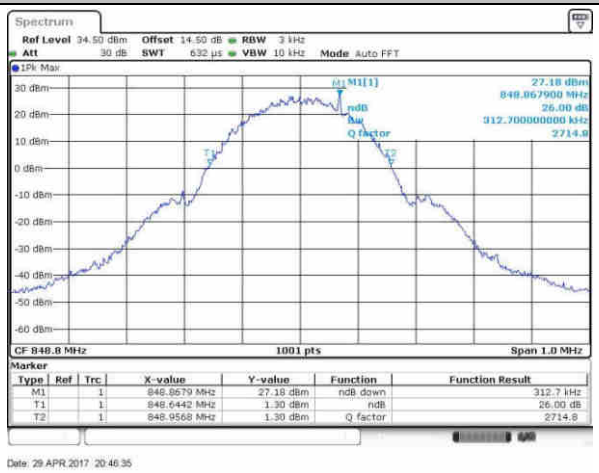
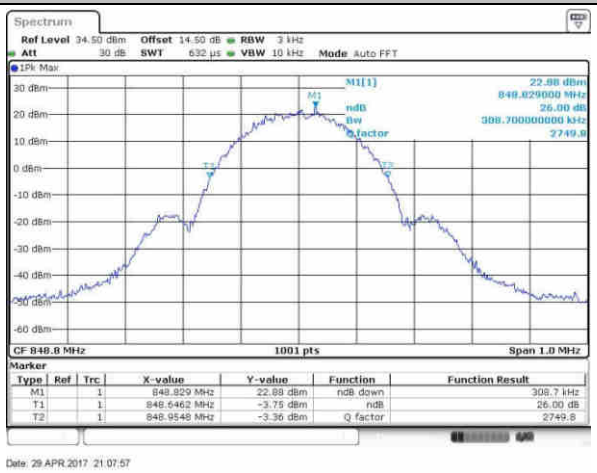
26dB Bandwidth

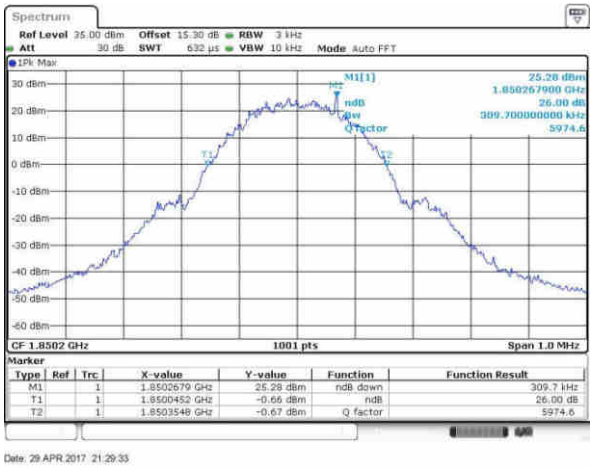
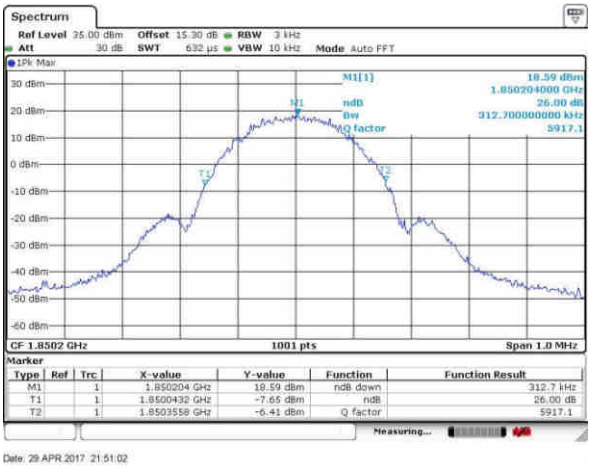
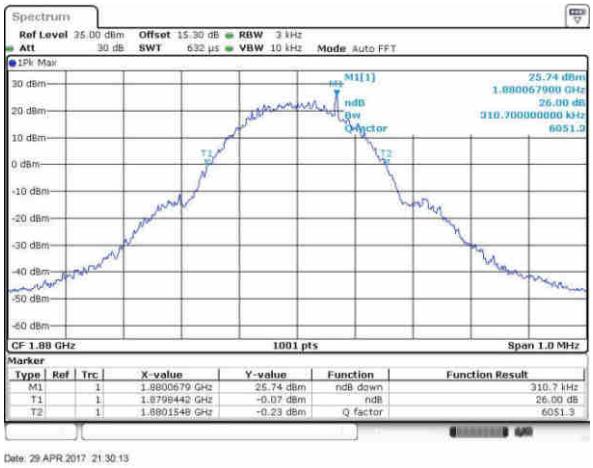
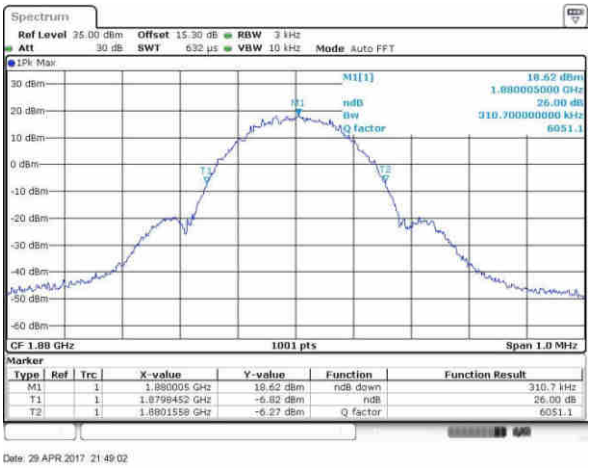
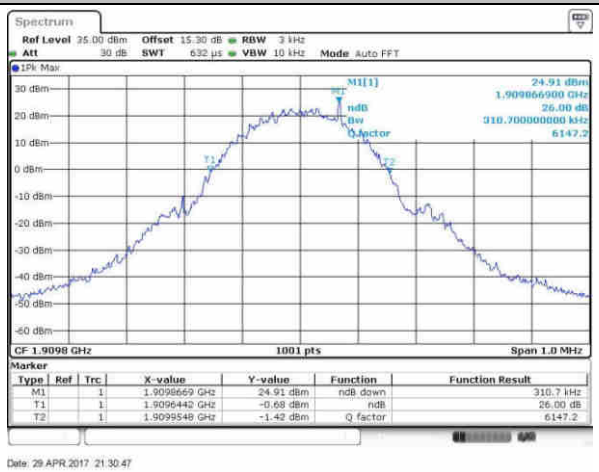
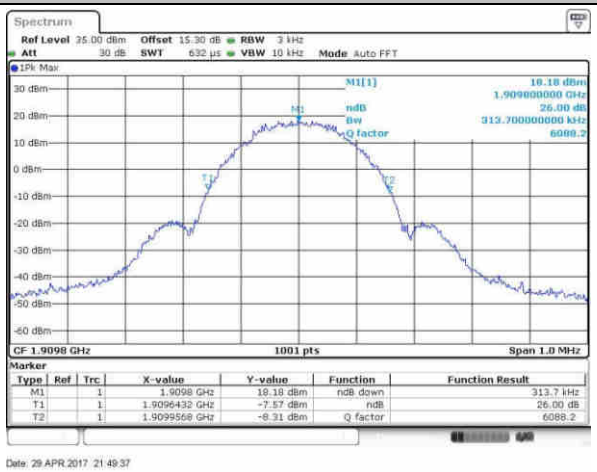
Mode	GSM850(MHz)	
Mod.	GSM	EDGE class 8
Lowest CH	0.314	0.307
Middle CH	0.309	0.310
Highest CH	0.313	0.309

Mode	GSM1900(MHz)	
Mod.	GSM	EDGE class 8
Lowest CH	0.310	0.313
Middle CH	0.311	0.311
Highest CH	0.311	0.314

Mode	WCDMA Band V(MHz)	WCDMA Band II(MHz)	WCDMA Band IV(MHz)
Mod.	RMC 12.2Kbps	RMC 12.2Kbps	RMC 12.2Kbps
Lowest CH	4.70	4.69	4.68
Middle CH	4.69	4.69	4.69
Highest CH	4.69	4.71	4.67

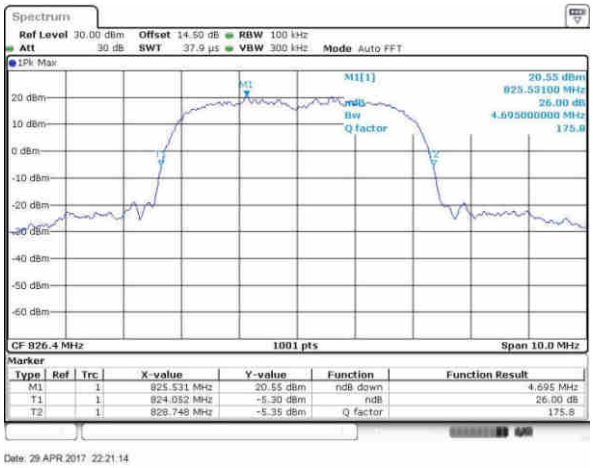
Mode	CDMA BC0(MHz)	CDMA BC1(MHz)
Mod.	1xRTT	1xRTT
Lowest CH	1.43	1.45
Middle CH	1.42	1.44
Highest CH	1.42	1.44

GSM850 (GSM)	GSM850 (EDGE class 8)
Lowest Channel	**Lowest Channel**
	
Middle Channel	**Middle Channel**
	
Highest Channel	**Highest Channel**
	

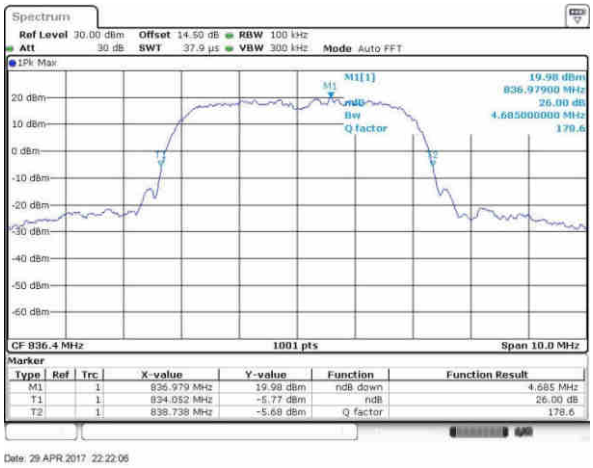
GSM1900 (GSM)	GSM1900 (EDGE class 8)
Lowest Channel	**Lowest Channel**
	
Middle Channel	**Middle Channel**
	
Highest Channel	**Highest Channel**
	

WCDMA Band V (RMC 12.2Kbps)

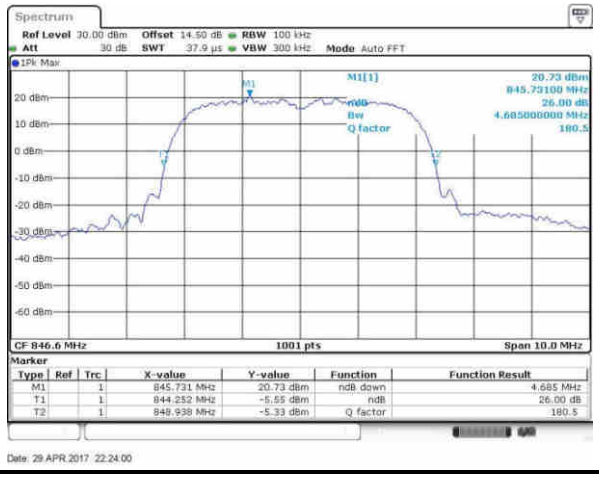
Lowest Channel



Middle Channel

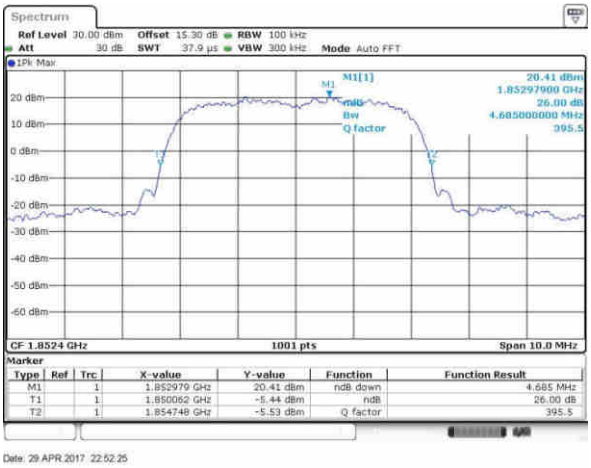


Highest Channel

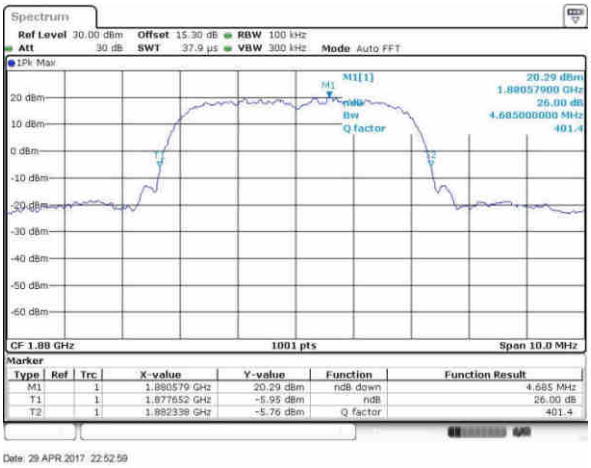


WCDMA Band II (RMC 12.2Kbps)

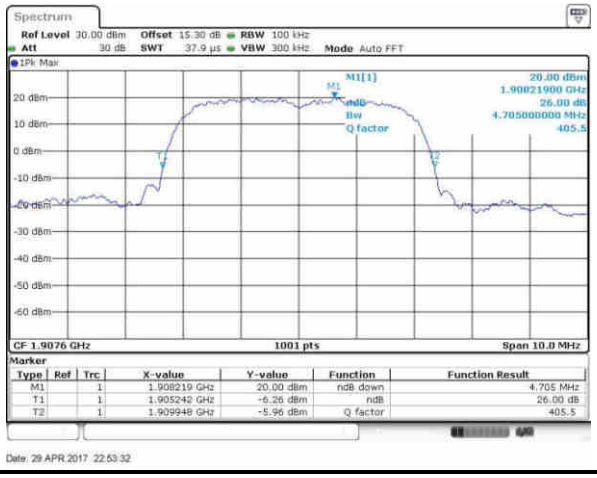
Lowest Channel



Middle Channel

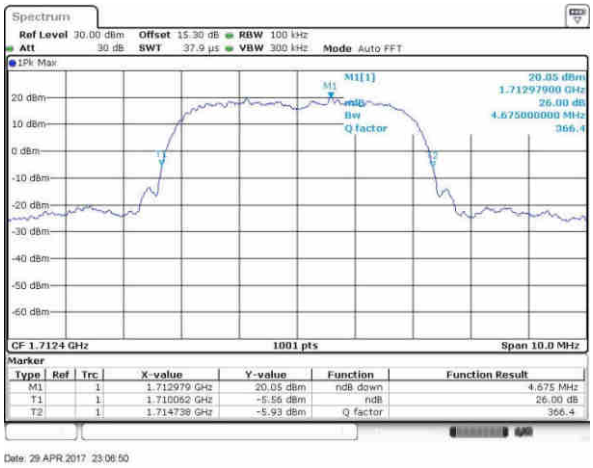


Highest Channel

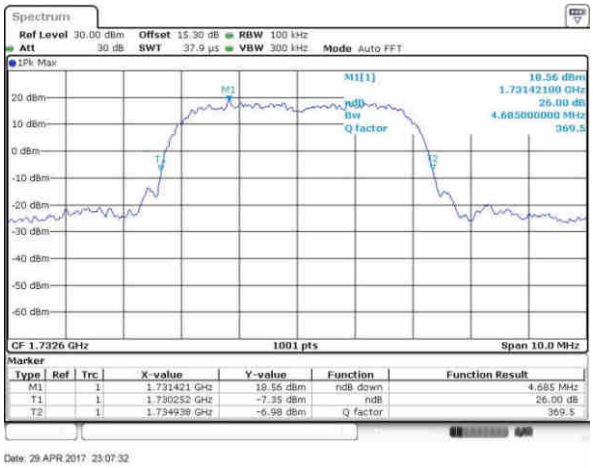


WCDMA Band IV (RMC 12.2Kbps)

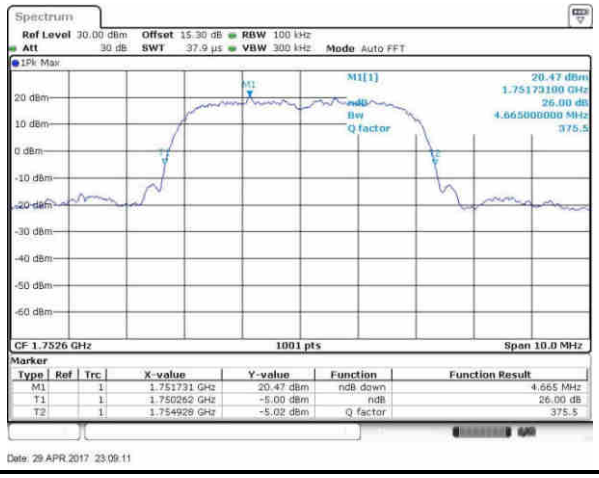
Lowest Channel

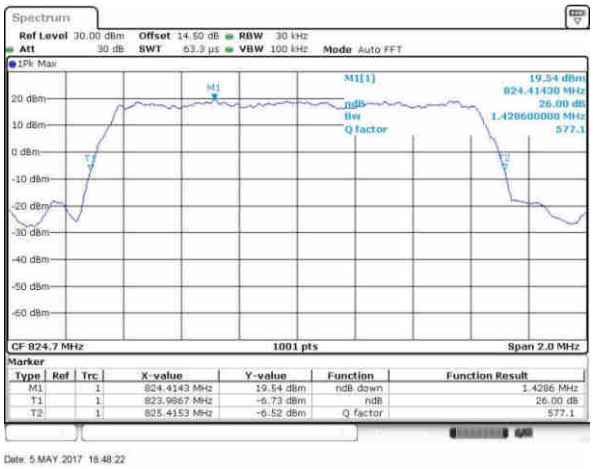
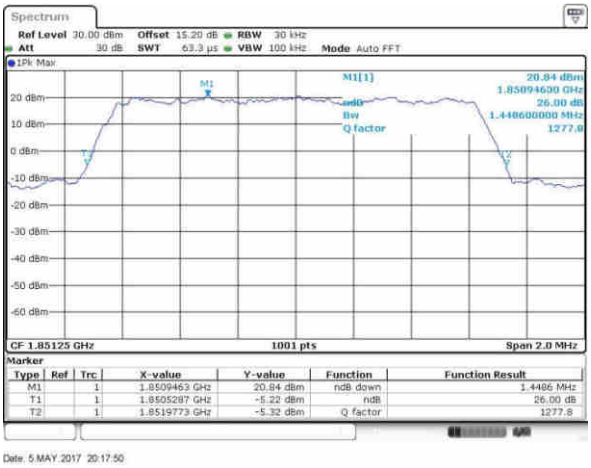
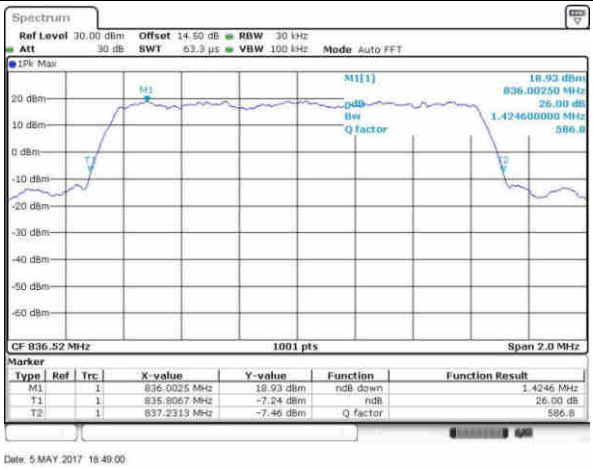
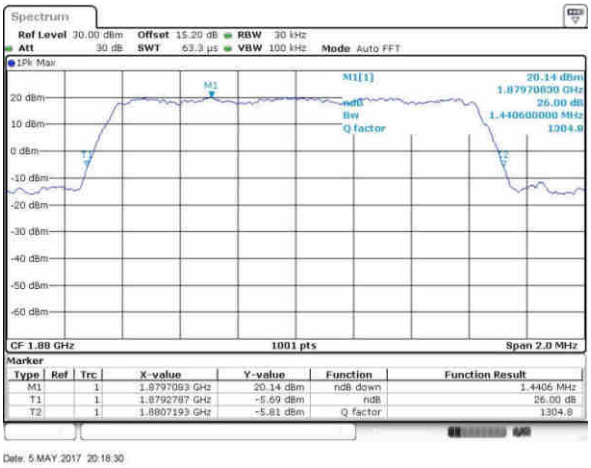
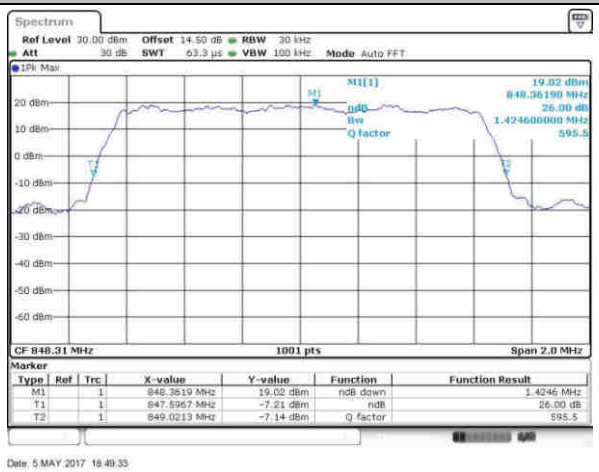
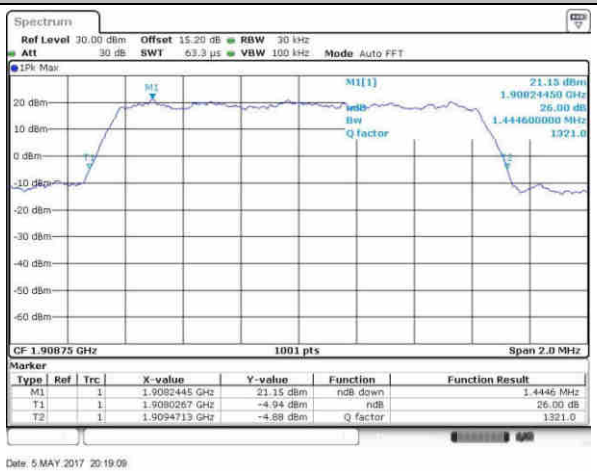


Middle Channel



Highest Channel



CDMA BC0 (1xRTT)	CDMA BC1 (1xRTT)
Lowest Channel	**Lowest Channel**
	
Middle Channel	**Middle Channel**
	
Highest Channel	**Highest Channel**
	

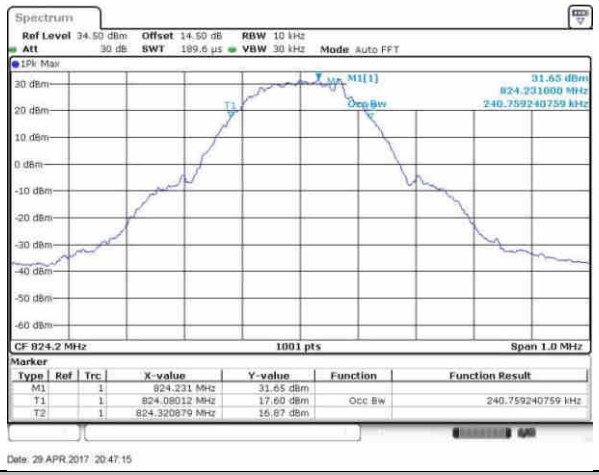
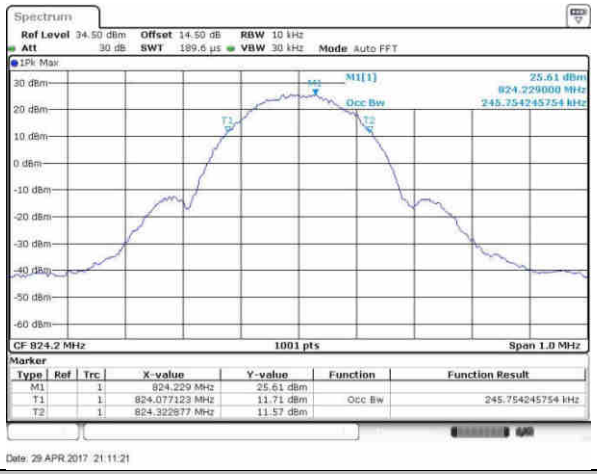
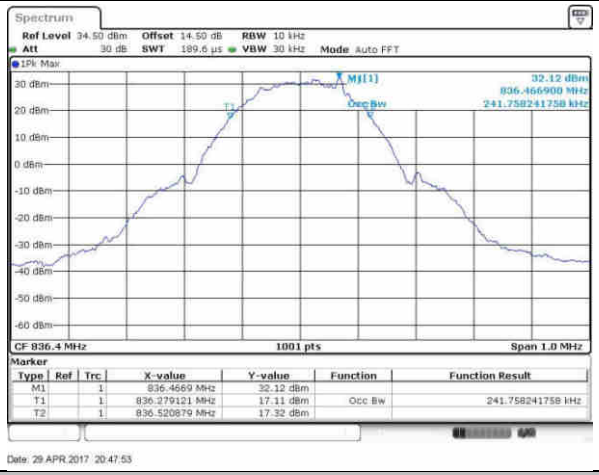
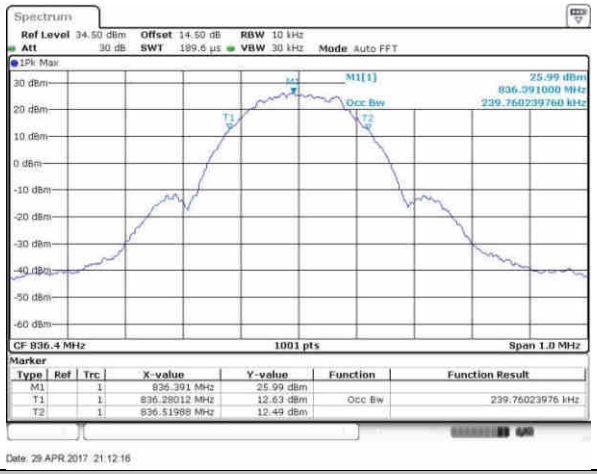
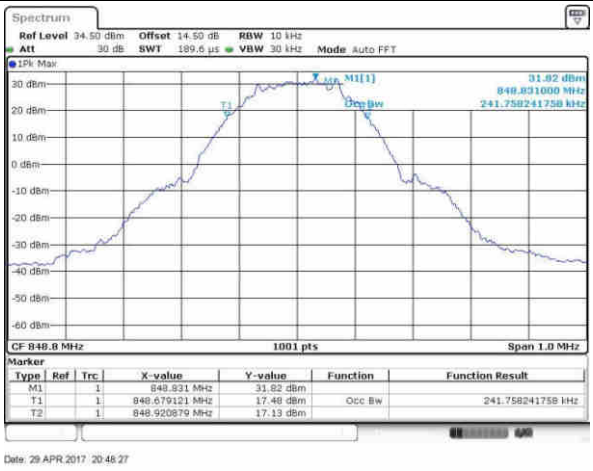
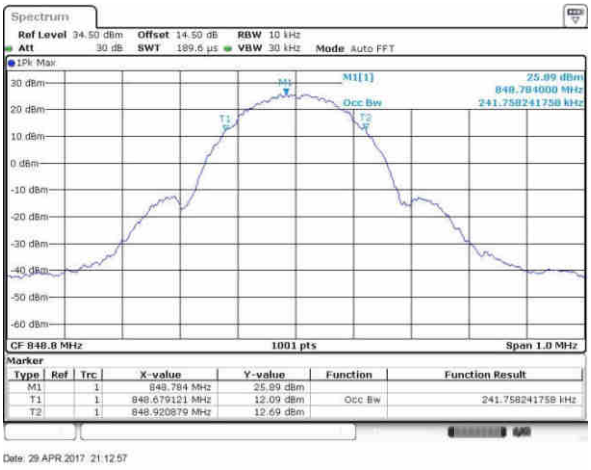
Occupied Bandwidth

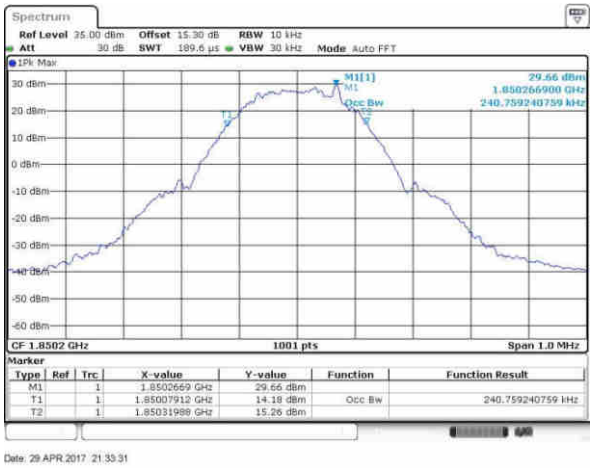
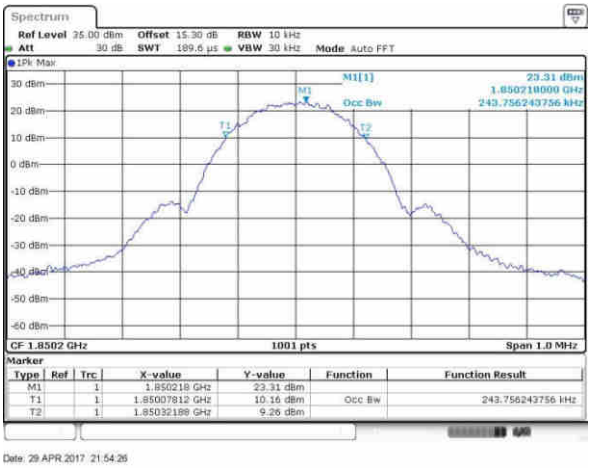
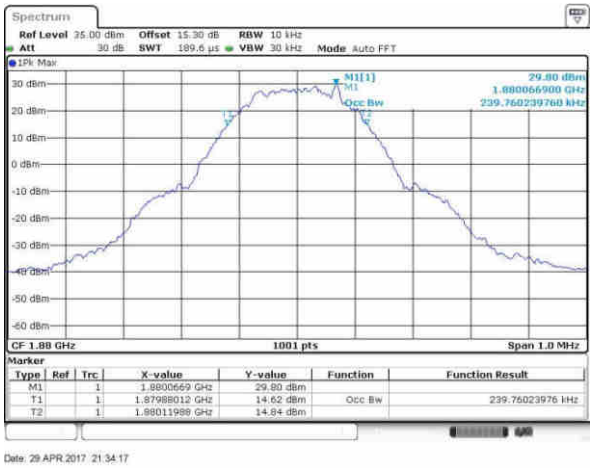
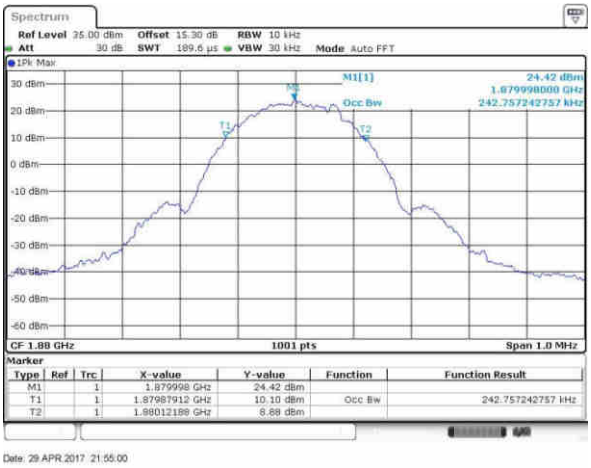
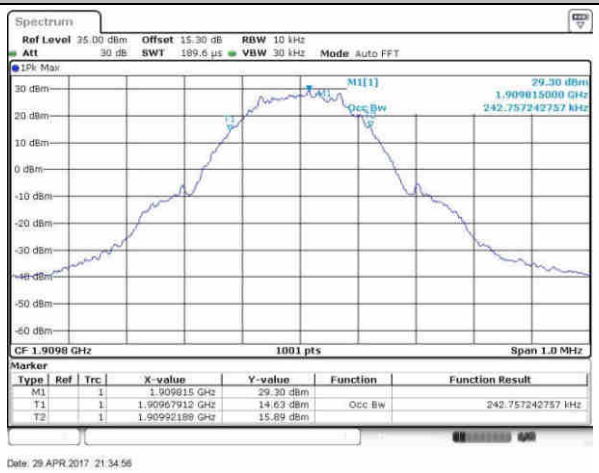
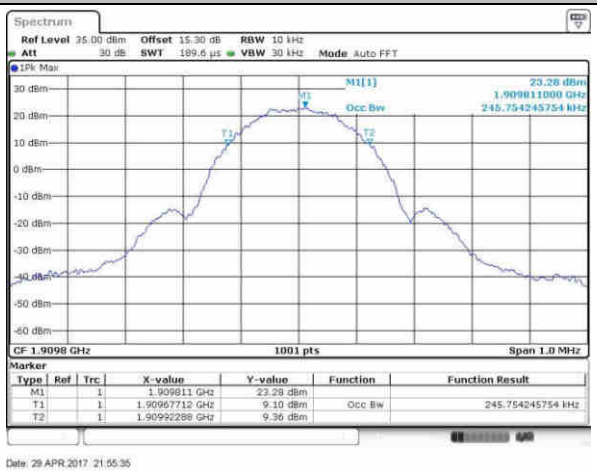
Mode	GSM850(MHz)	
Mod.	GSM	EDGE class 8
Lowest CH	0.241	0.246
Middle CH	0.242	0.240
Highest CH	0.242	0.242

Mode	GSM1900(MHz)	
Mod.	GSM	EDGE class 8
Lowest CH	0.241	0.244
Middle CH	0.240	0.243
Highest CH	0.243	0.246

Mode	WCDMA Band V(MHz)	WCDMA Band II(MHz)	WCDMA Band IV(MHz)
Mod.	RMC 12.2Kbps	RMC 12.2Kbps	RMC 12.2Kbps
Lowest CH	4.12	4.12	4.12
Middle CH	4.11	4.13	4.11
Highest CH	4.11	4.11	4.12

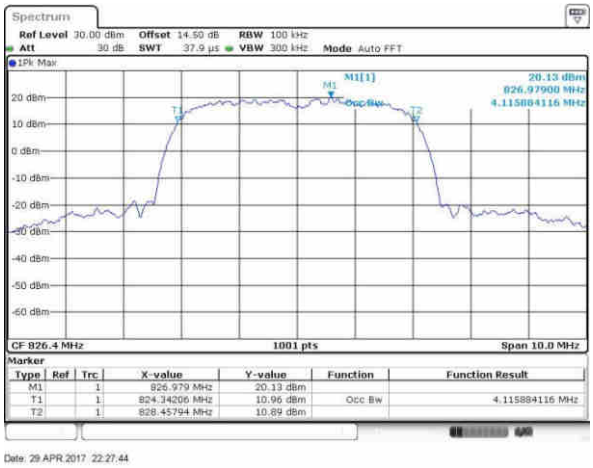
Mode	CDMA BC0(MHz)	CDMA BC1(MHz)
Mod.	1xRTT	1xRTT
Lowest CH	1.28	1.28
Middle CH	1.27	1.28
Highest CH	1.27	1.28

GSM850 (GSM)	GSM850 (EDGE class 8)
Lowest Channel	**Lowest Channel**
	
Middle Channel	**Middle Channel**
	
Highest Channel	**Highest Channel**
	

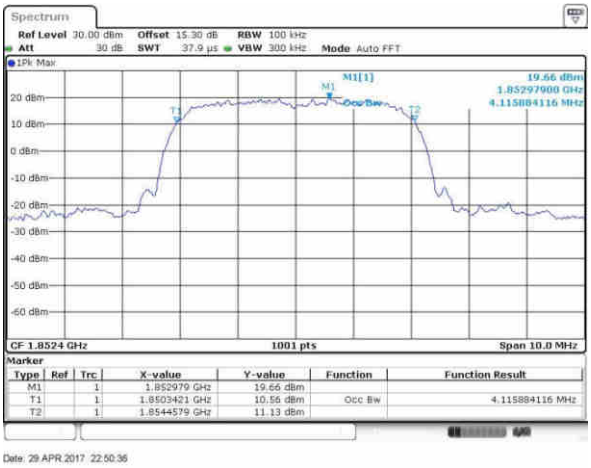
GSM1900 (GSM)	GSM1900 (EDGE class 8)
Lowest Channel	**Lowest Channel**
	
Middle Channel	**Middle Channel**
	
Highest Channel	**Highest Channel**
	

WCDMA Band V (RMC 12.2Kbps)

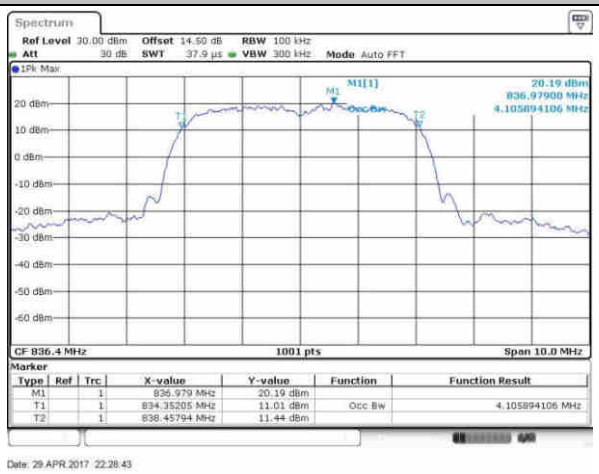
Lowest Channel



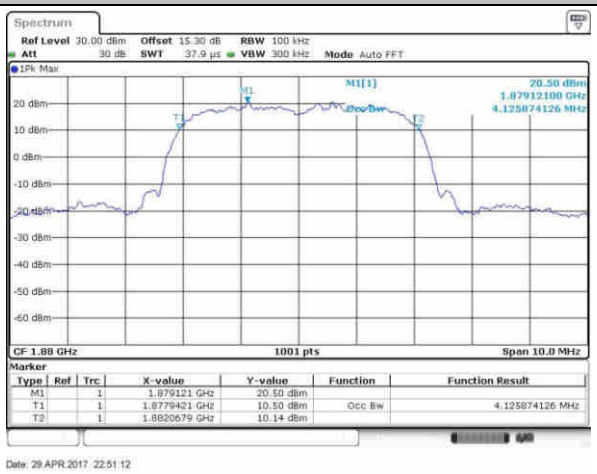
Lowest Channel



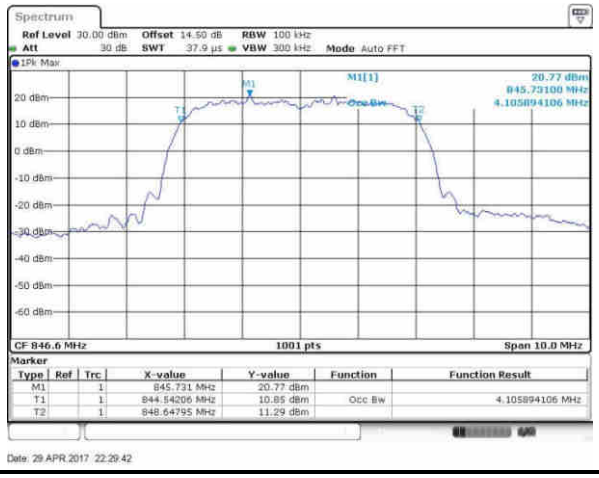
Middle Channel



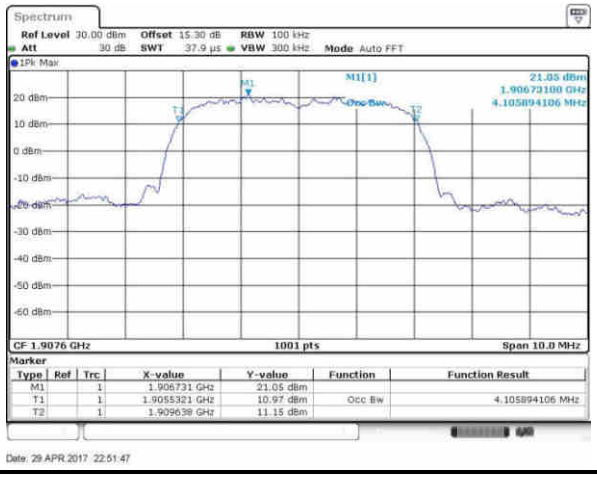
Middle Channel

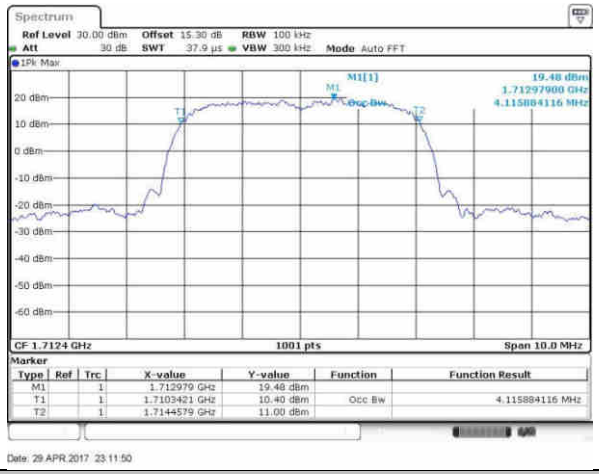
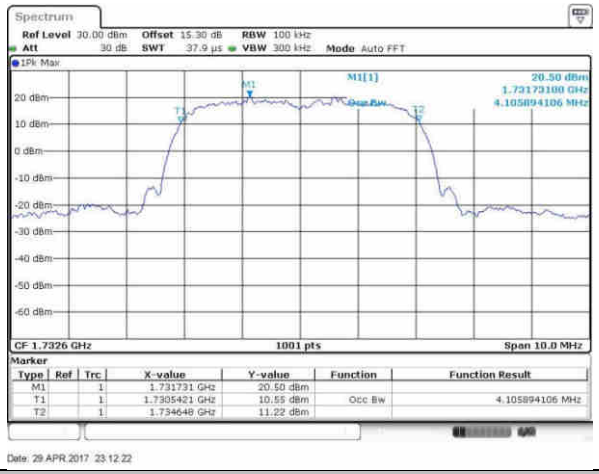
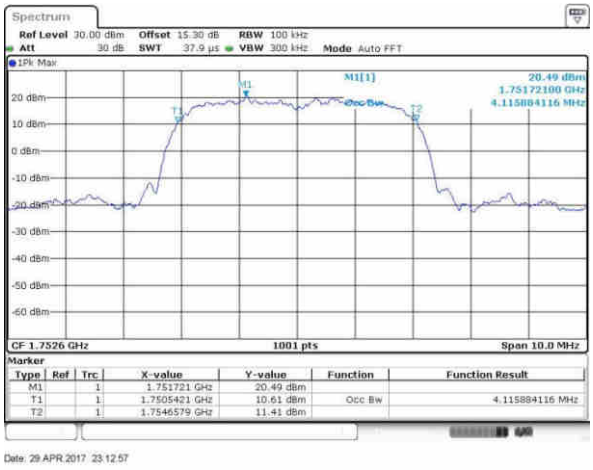


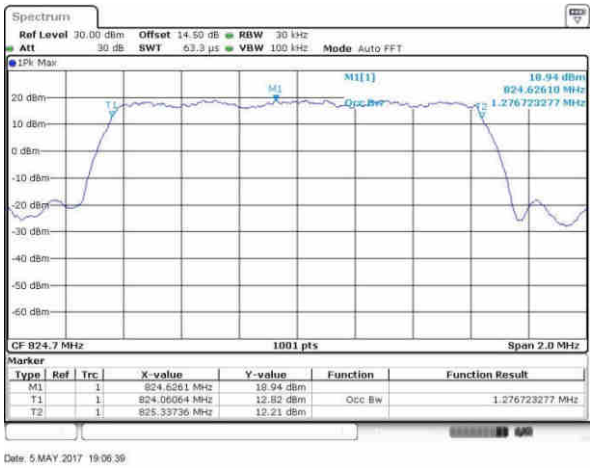
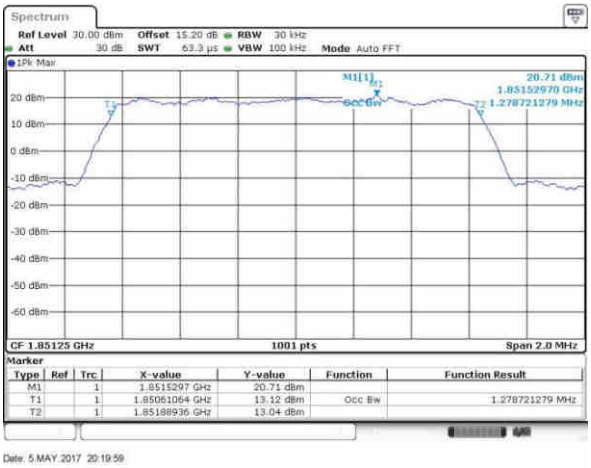
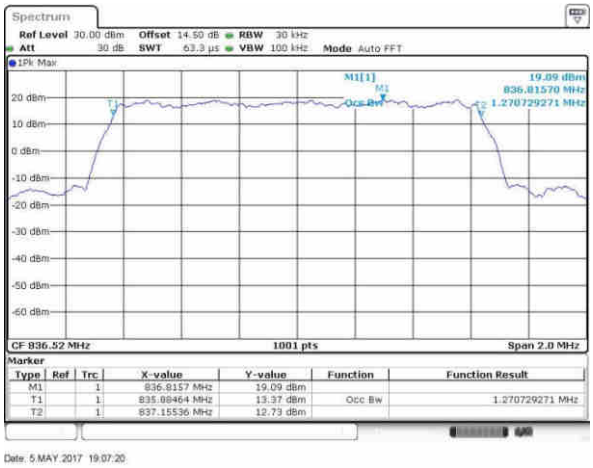
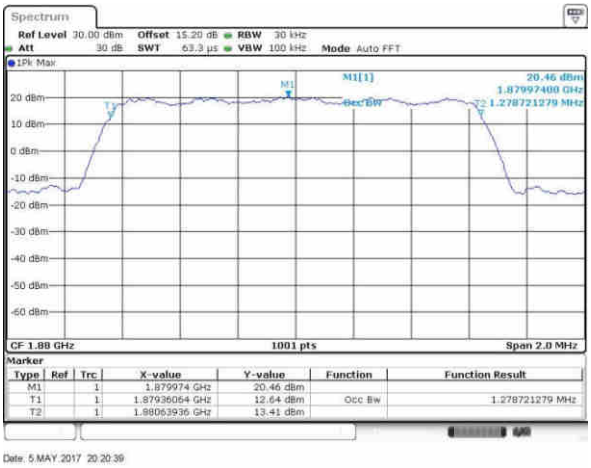
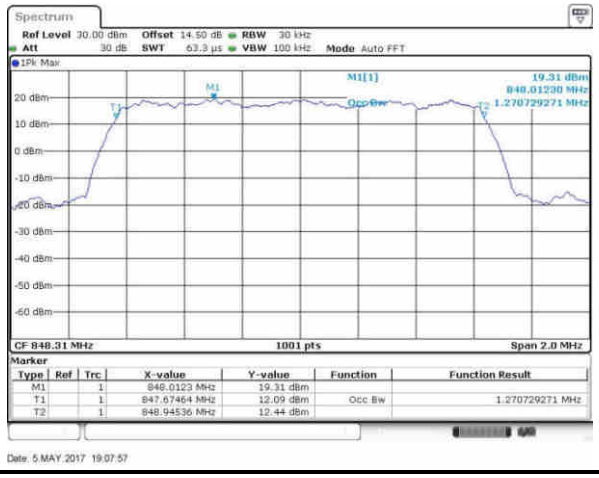
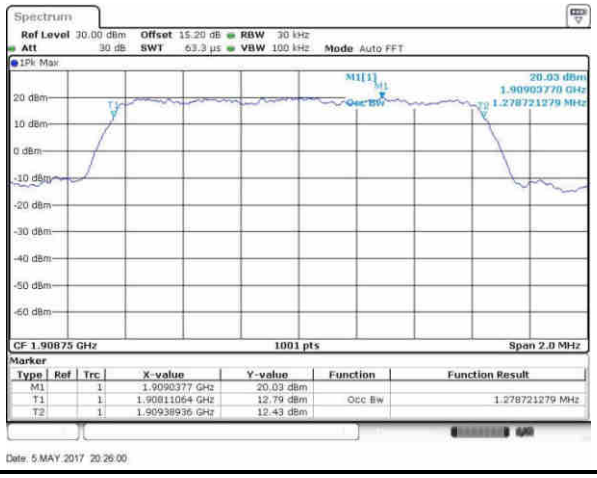
Highest Channel



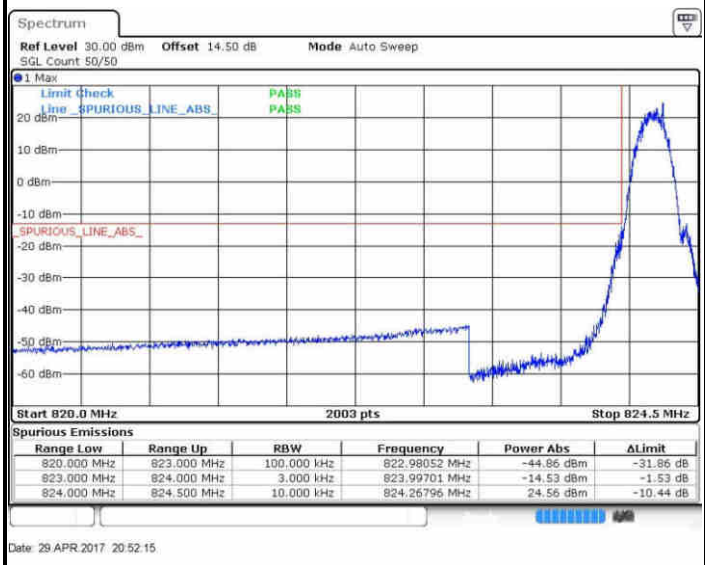
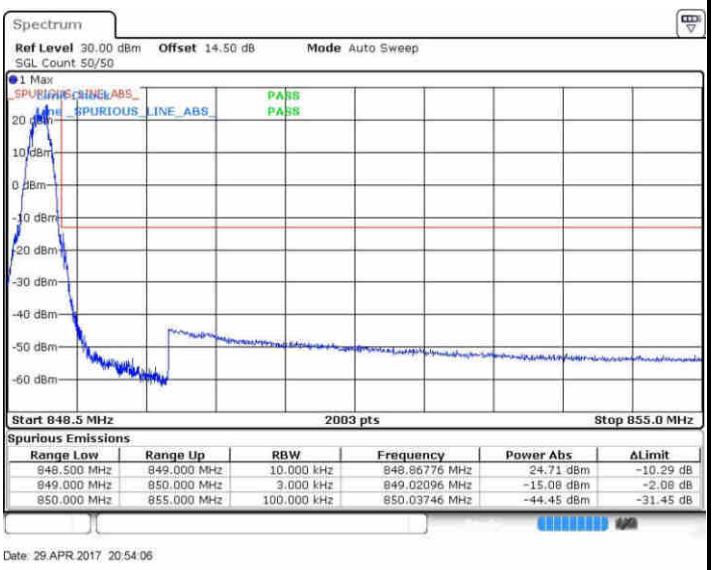
Highest Channel



WCDMA Band IV (RMC 12.2Kbps)	
Lowest Channel	
	
Middle Channel	
	
Highest Channel	
	

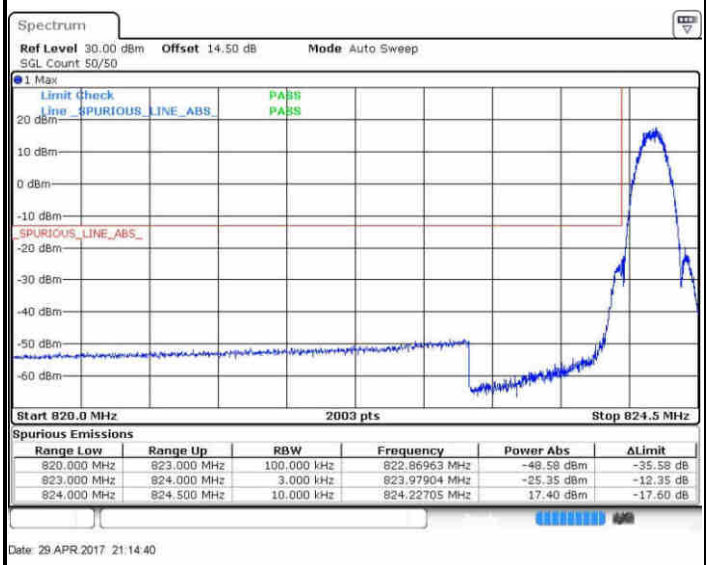
CDMA BC0 (1xRTT)	CDMA BC1 (1xRTT)
Lowest Channel	**Lowest Channel**
	
Middle Channel	**Middle Channel**
	
Highest Channel	**Highest Channel**
	

Conducted Band Edge

GSM850 (GSM)	
Lowest Band Edge	**Highest Band Edge**
	

GSM850 (EDGE class 8)

Lowest Band Edge

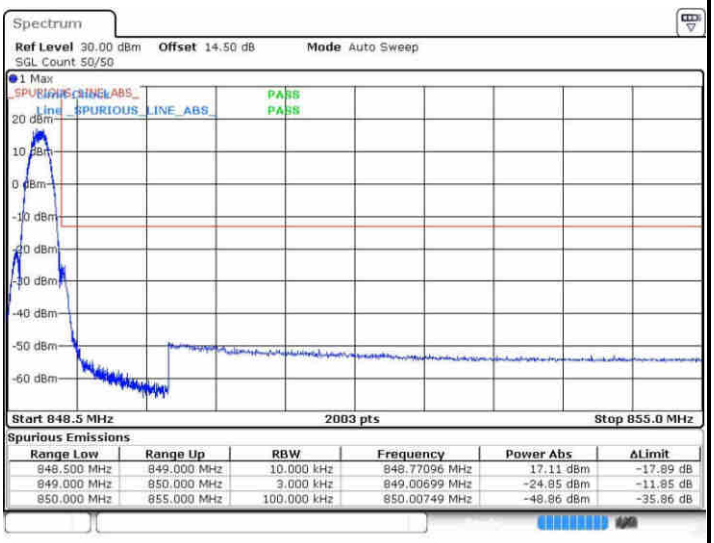


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
820.000 MHz	823.000 MHz	100.000 kHz	822.86963 MHz	-48.58 dBm	-35.58 dB
823.000 MHz	824.000 MHz	3.000 kHz	823.97904 MHz	-25.35 dBm	-12.35 dB
824.000 MHz	824.500 MHz	10.000 kHz	824.22705 MHz	17.40 dBm	-17.60 dB

Date: 29.APR.2017 21:14:40

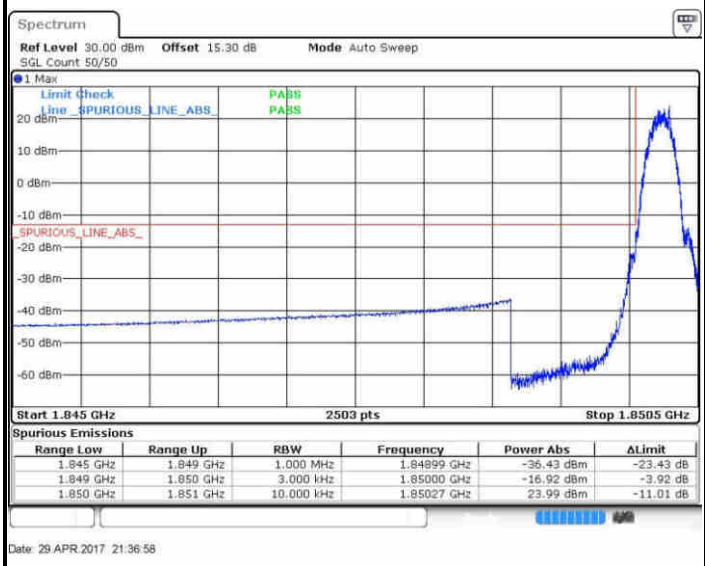
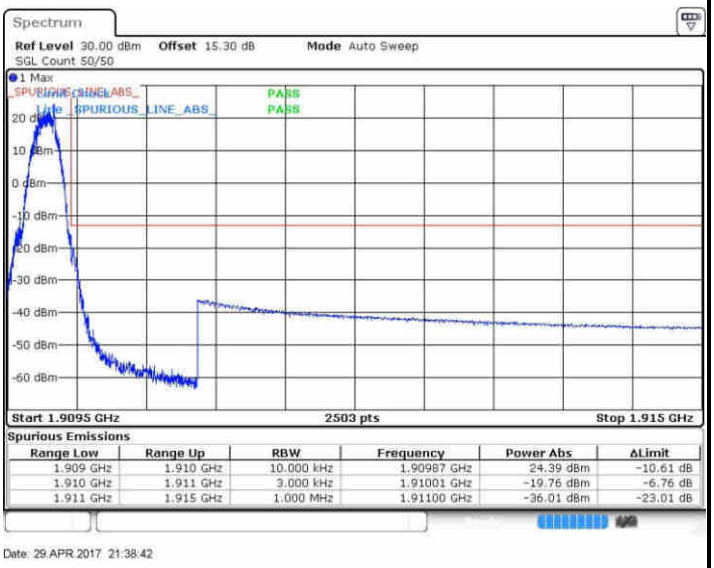
Highest Band Edge



Spurious Emissions

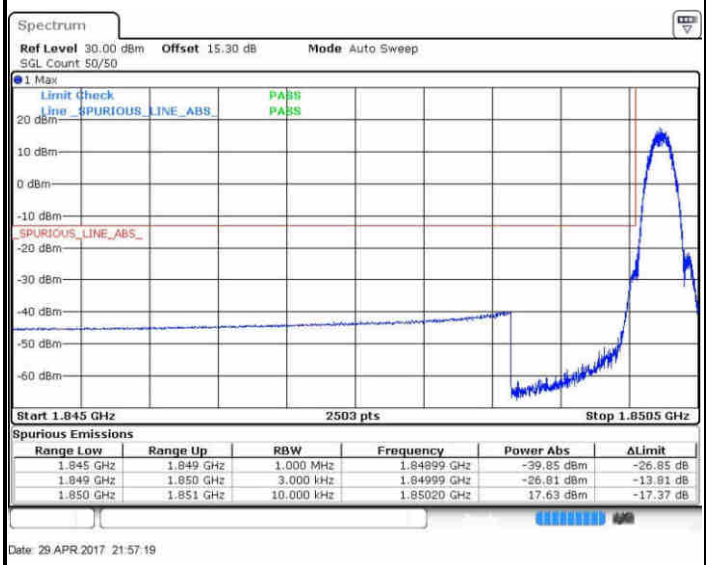
Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
848.500 MHz	849.000 MHz	10.000 kHz	848.77096 MHz	17.11 dBm	-17.89 dB
849.000 MHz	850.000 MHz	3.000 kHz	849.00699 MHz	-24.85 dBm	-11.85 dB
850.000 MHz	855.000 MHz	100.000 kHz	850.00749 MHz	-48.86 dBm	-35.86 dB

Date: 29.APR.2017 21:16:43

GSM1900 (GSM)	
Lowest Band Edge	**Highest Band Edge**
	

GSM1900 (EDGE class 8)

Lowest Band Edge

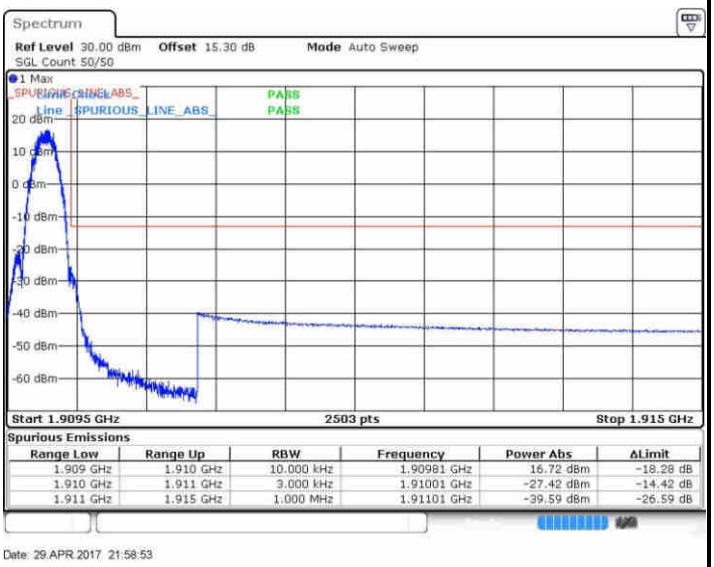


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1.845 GHz	1.849 GHz	1.000 MHz	1.84899 GHz	-39.85 dBm	-26.85 dB
1.849 GHz	1.850 GHz	3.000 kHz	1.84999 GHz	-26.81 dBm	-13.81 dB
1.850 GHz	1.851 GHz	10.000 kHz	1.85020 GHz	17.63 dBm	-17.37 dB

Date: 29.APR.2017 21:57:19

Highest Band Edge



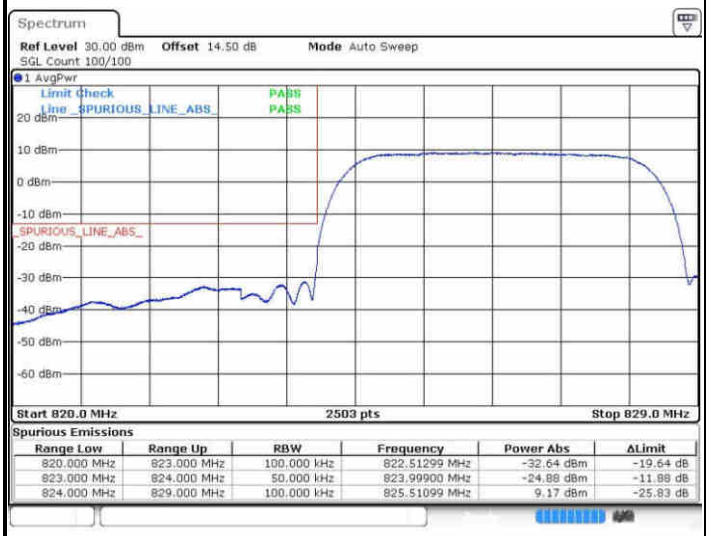
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1.909 GHz	1.910 GHz	10.000 kHz	1.90981 GHz	16.72 dBm	-18.28 dB
1.910 GHz	1.911 GHz	3.000 kHz	1.91001 GHz	-27.42 dBm	-14.42 dB
1.911 GHz	1.915 GHz	1.000 MHz	1.91101 GHz	-39.59 dBm	-26.59 dB

Date: 29.APR.2017 21:58:53

WCDMA Band V (RMC 12.2Kbps)

Lowest Band Edge



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
820.000 MHz	823.000 MHz	100.000 kHz	822.51299 MHz	-32.64 dBm	-19.64 dB
823.000 MHz	824.000 MHz	50.000 kHz	823.99900 MHz	-24.88 dBm	-11.88 dB
824.000 MHz	829.000 MHz	100.000 kHz	825.51099 MHz	9.17 dBm	-25.83 dB

Date: 29.APR.2017 22:32:35

Highest Band Edge

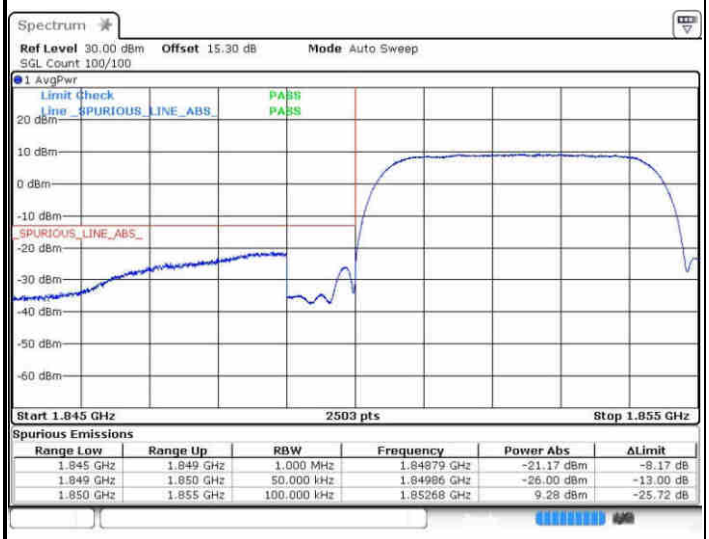
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
844.000 MHz	849.000 MHz	100.000 kHz	845.73576 MHz	9.14 dBm	-25.86 dB
849.000 MHz	850.000 MHz	50.000 kHz	849.15269 MHz	-26.75 dBm	-13.75 dB
850.000 MHz	855.000 MHz	100.000 kHz	850.14236 MHz	-32.89 dBm	-19.89 dB

Date: 29.APR.2017 22:35:24

WCDMA Band II (RMC 12.2Kbps)

Lowest Band Edge

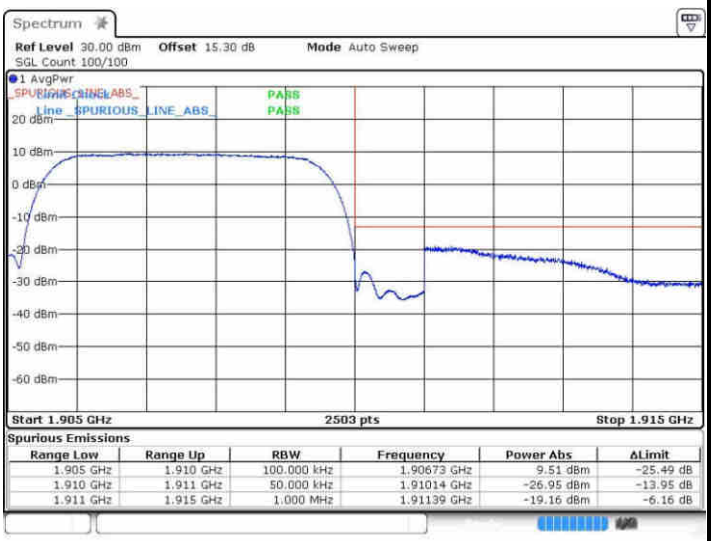


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1.845 GHz	1.849 GHz	1.000 MHz	1.84879 GHz	-21.17 dBm	-8.17 dB
1.849 GHz	1.850 GHz	50.000 kHz	1.84986 GHz	-26.00 dBm	-13.00 dB
1.850 GHz	1.855 GHz	100.000 kHz	1.85268 GHz	9.28 dBm	-25.72 dB

Date: 29.APR.2017 22:56:23

Highest Band Edge

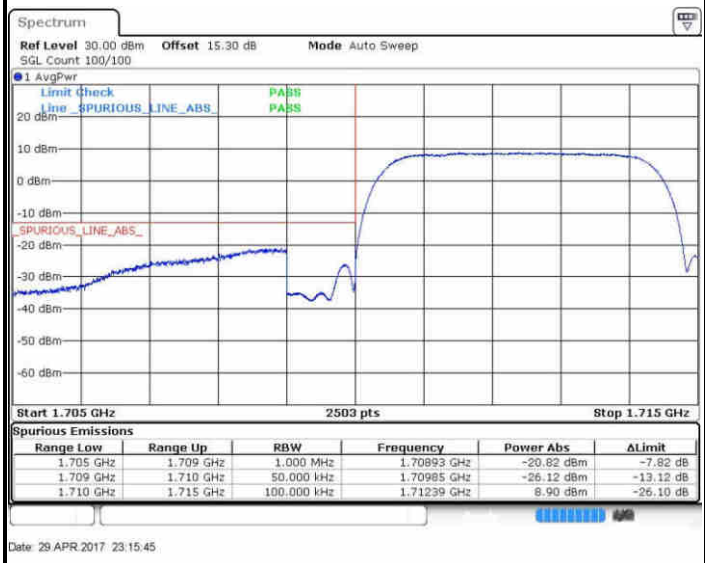


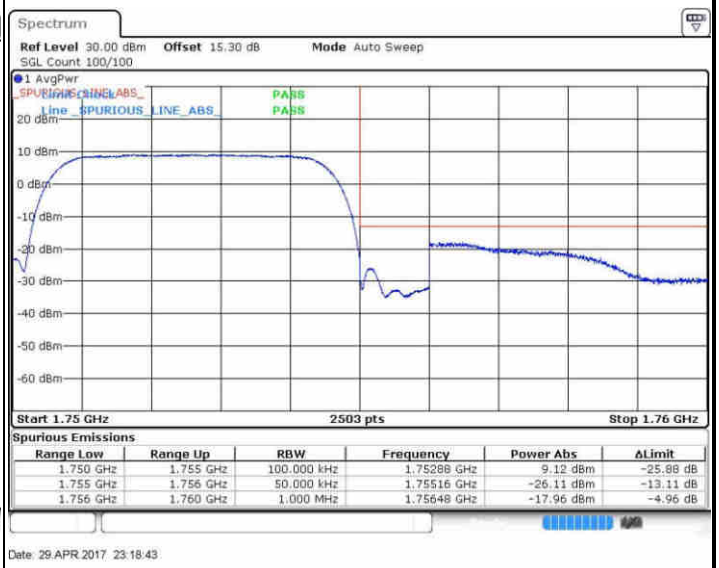
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1.905 GHz	1.910 GHz	100.000 kHz	1.90673 GHz	9.51 dBm	-25.49 dB
1.910 GHz	1.911 GHz	50.000 kHz	1.91014 GHz	-26.95 dBm	-13.95 dB
1.911 GHz	1.915 GHz	1.000 MHz	1.91139 GHz	-19.16 dBm	-6.16 dB

Date: 29.APR.2017 22:59:15

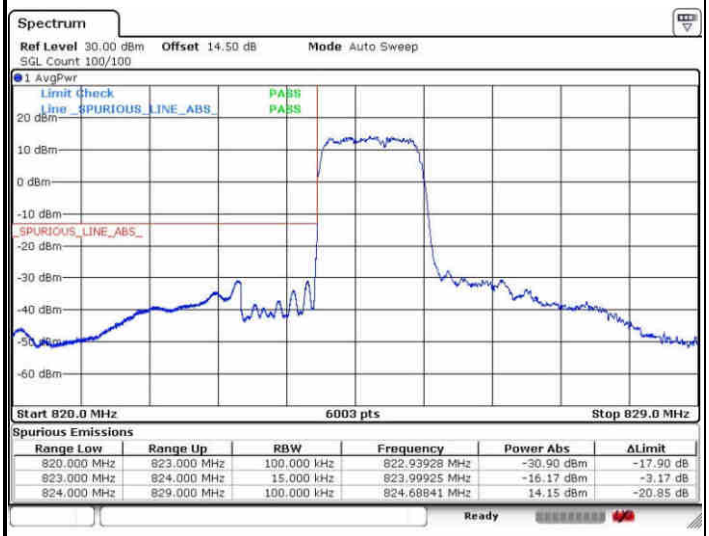
WCDMA Band IV (RMC 12.2Kbps)	
Lowest Band Edge	**Highest Band Edge**





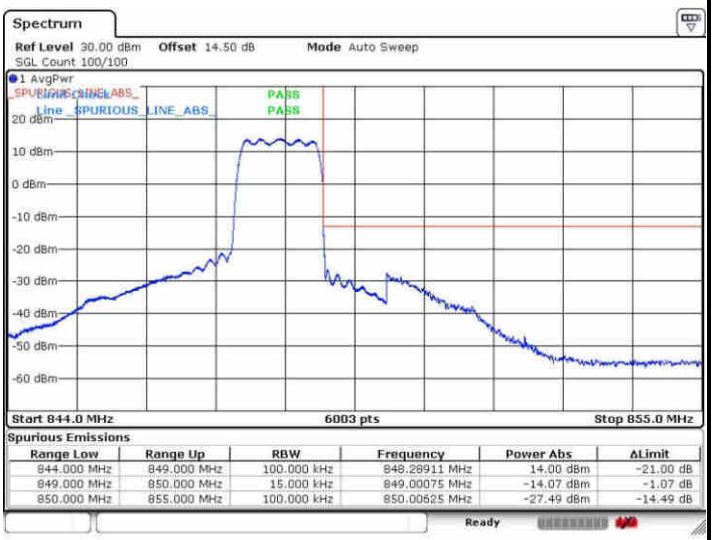
CDMA BC0 (RC1-SO55)

Lowest Band Edge



Date: 5.MAY.2017 18:58:38

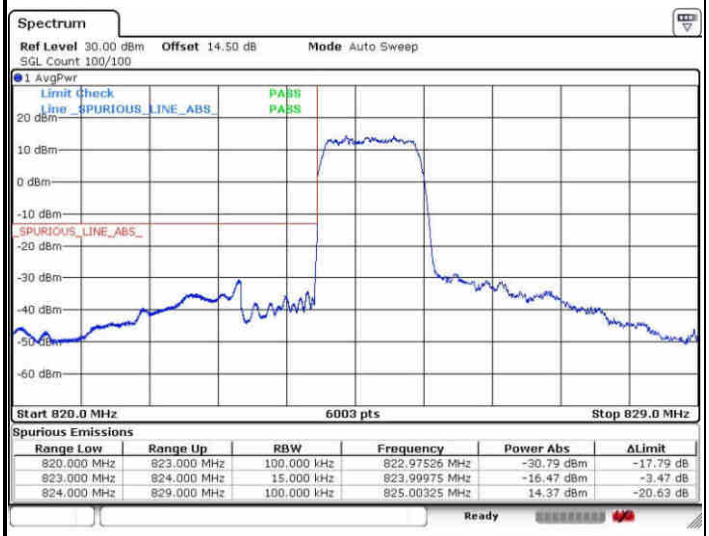
Highest Band Edge



Date: 5.MAY.2017 21:27:35

CDMA BC0 (RC3-SO32)

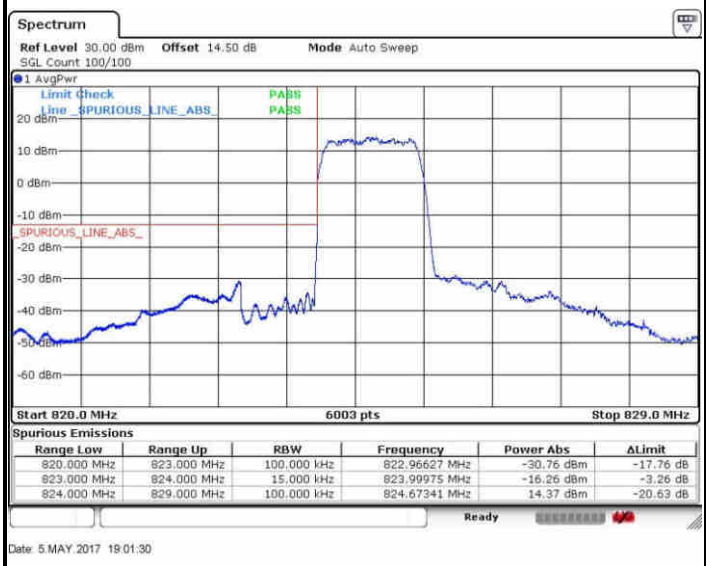
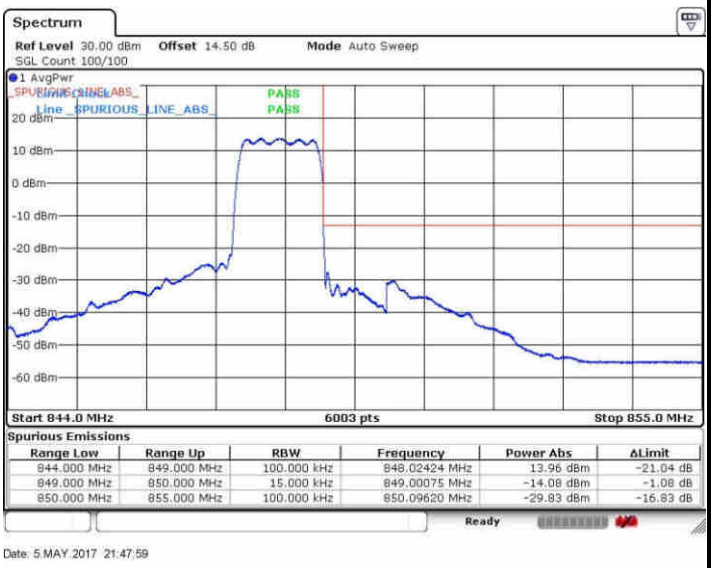
Lowest Band Edge



Date: 5.MAY.2017 19:03:59

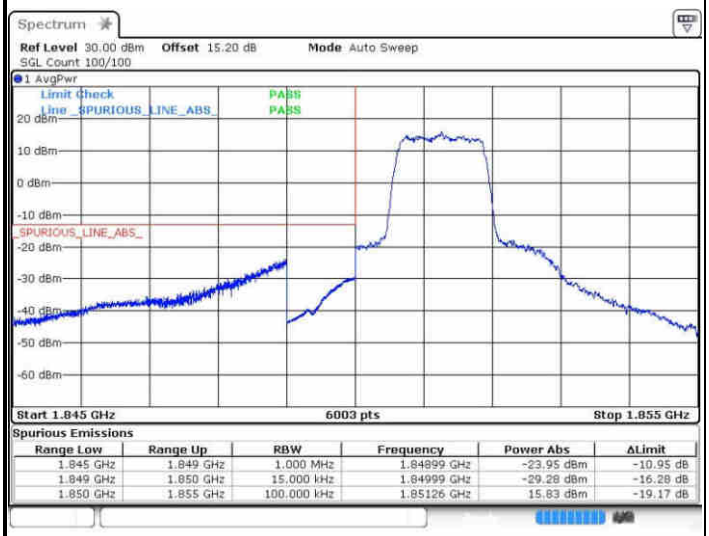
Highest Band Edge

Date: 5.MAY.2017 21:50:42

CDMA BC0 (RC3-SO55)	
Lowest Band Edge	**Highest Band Edge**
	

CDMA BC1 (RC1-SO55)

Lowest Band Edge

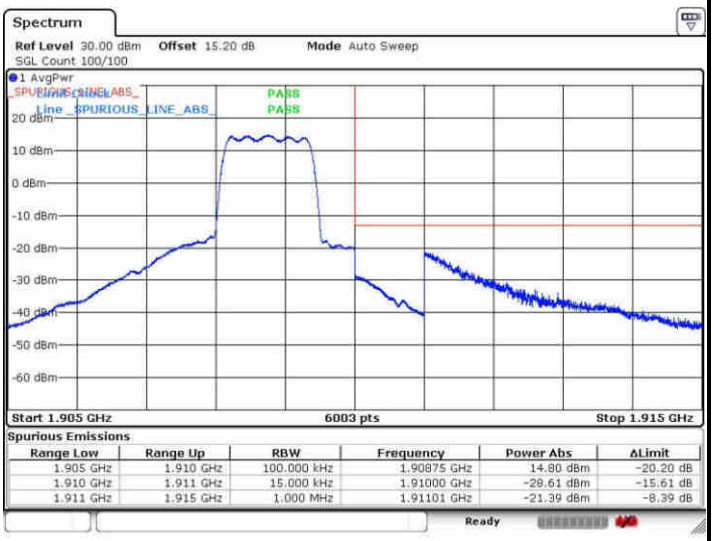


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1.845 GHz	1.849 GHz	1.000 MHz	1.84899 GHz	-23.95 dBm	-10.95 dB
1.849 GHz	1.850 GHz	15.000 kHz	1.84999 GHz	-29.28 dBm	-16.28 dB
1.850 GHz	1.855 GHz	100.000 kHz	1.85126 GHz	15.83 dBm	-19.17 dB

Date: 5.MAY.2017 20:32:53

Highest Band Edge



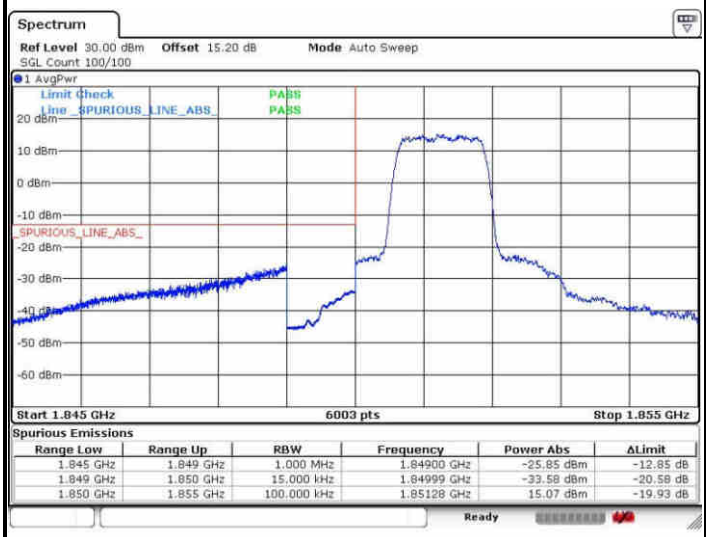
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1.905 GHz	1.910 GHz	100.000 kHz	1.90875 GHz	14.80 dBm	-20.20 dB
1.910 GHz	1.911 GHz	15.000 kHz	1.91000 GHz	-28.61 dBm	-15.61 dB
1.911 GHz	1.915 GHz	1.000 MHz	1.91101 GHz	-21.39 dBm	-8.39 dB

Date: 5.MAY.2017 20:50:18

CDMA BC1 (RC3-SO32)

Lowest Band Edge

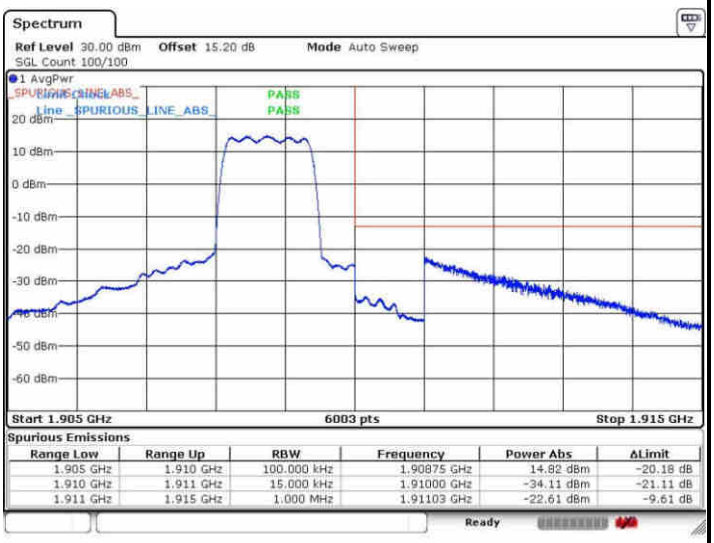


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1.845 GHz	1.849 GHz	1.000 MHz	1.84900 GHz	-25.85 dBm	-12.85 dB
1.849 GHz	1.850 GHz	15.000 kHz	1.84999 GHz	-33.58 dBm	-20.58 dB
1.850 GHz	1.855 GHz	100.000 kHz	1.85128 GHz	15.07 dBm	-19.93 dB

Date: 5.MAY.2017 20:41:03

Highest Band Edge

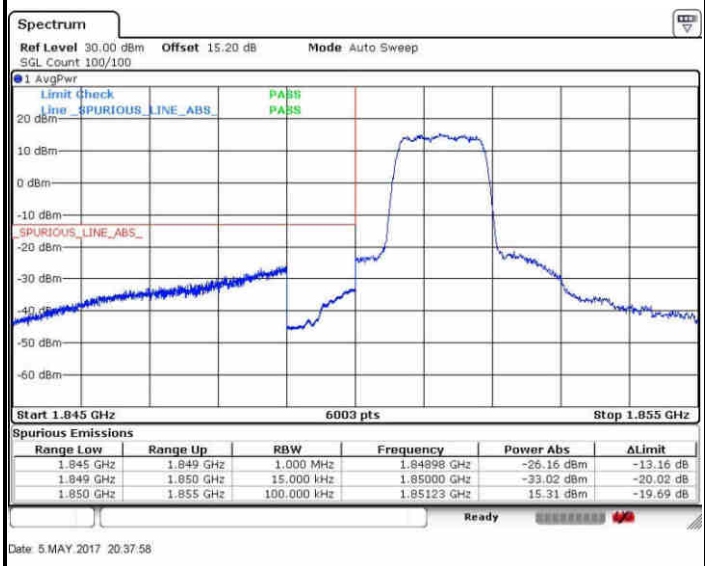


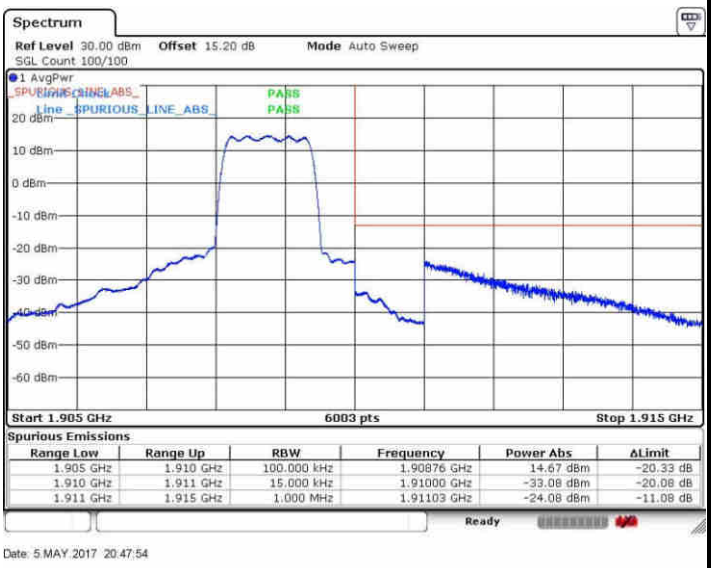
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1.905 GHz	1.910 GHz	100.000 kHz	1.90875 GHz	14.82 dBm	-20.18 dB
1.910 GHz	1.911 GHz	15.000 kHz	1.91000 GHz	-34.11 dBm	-21.11 dB
1.911 GHz	1.915 GHz	1.000 MHz	1.91103 GHz	-22.61 dBm	-9.61 dB

Date: 5.MAY.2017 20:55:14

CDMA BC1 (RC3-SO55)	
Lowest Band Edge	**Highest Band Edge**

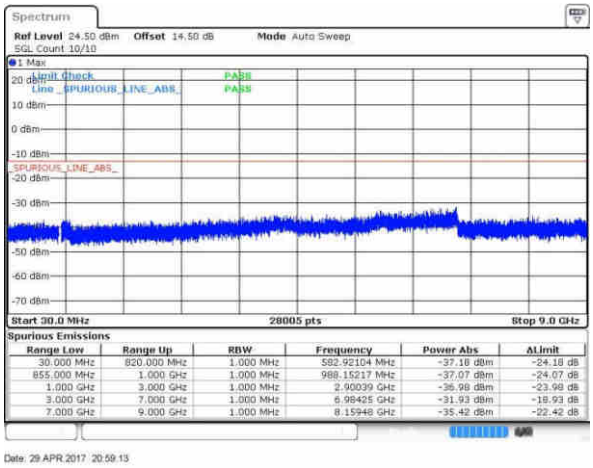




Conducted Spurious Emission

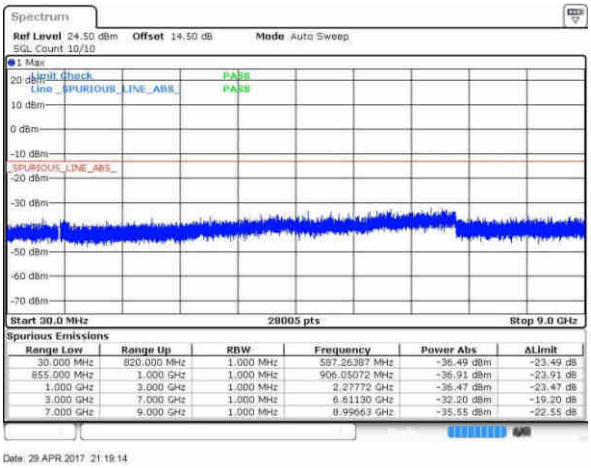
GSM850 (GSM)

Lowest Channel

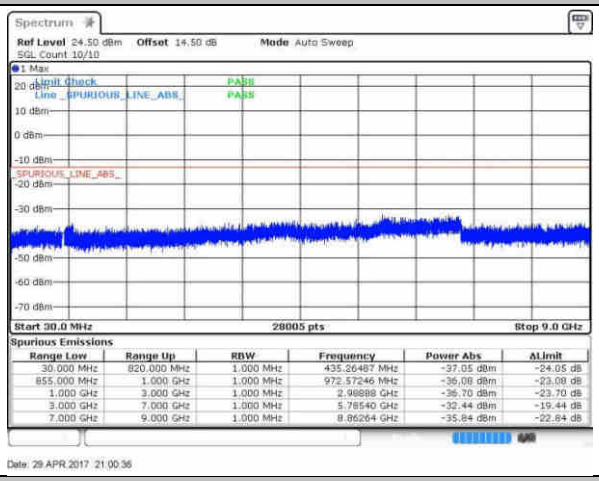


GSM850 (EDGE class 8)

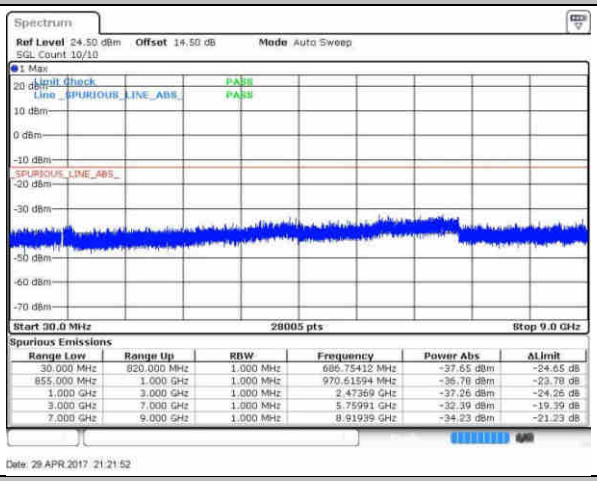
Lowest Channel



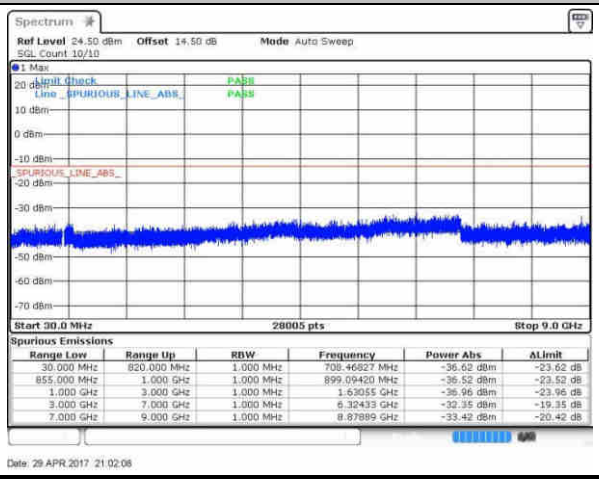
Middle Channel



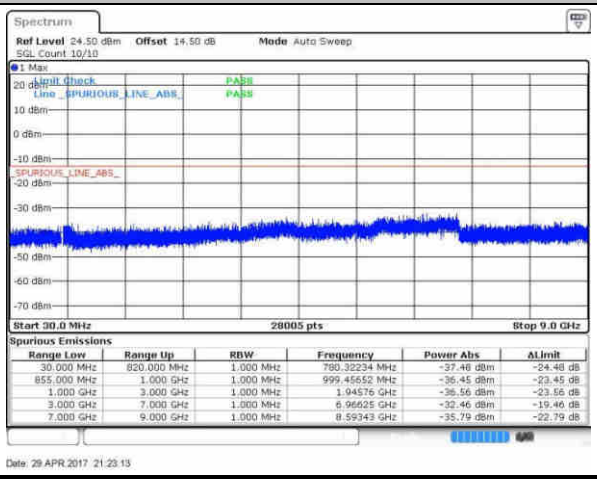
Middle Channel



Highest Channel

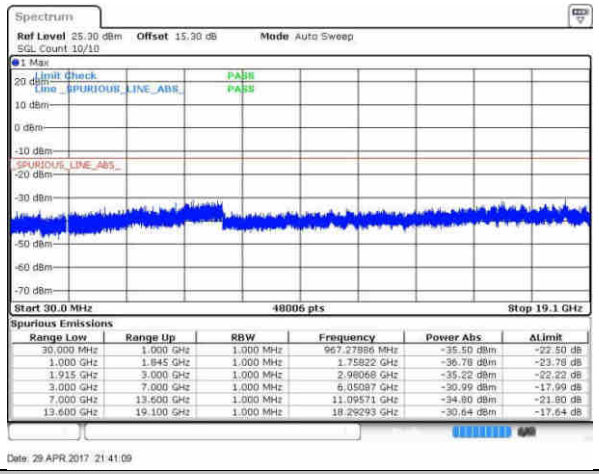


Highest Channel



GSM1900 (GSM)

Lowest Channel

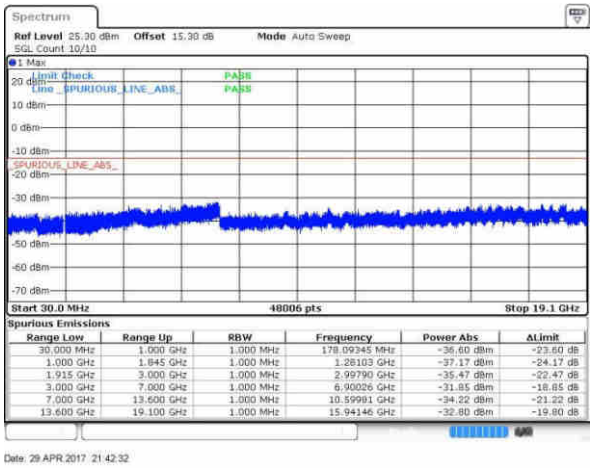


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	967.27886 MHz	-35.50 dBm	-22.50 dB
1.000 GHz	1.845 GHz	1.000 MHz	1.75822 GHz	-36.78 dBm	-23.78 dB
1.915 GHz	3.000 GHz	1.000 MHz	2.98068 GHz	-35.22 dBm	-22.22 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.05087 GHz	-30.99 dBm	-17.99 dB
7.000 GHz	13.600 GHz	1.000 MHz	11.09571 GHz	-34.80 dBm	-21.80 dB
13.600 GHz	19.100 GHz	1.000 MHz	18.29293 GHz	-30.64 dBm	-17.64 dB

Date: 29 APR 2017 21:41:09

Middle Channel

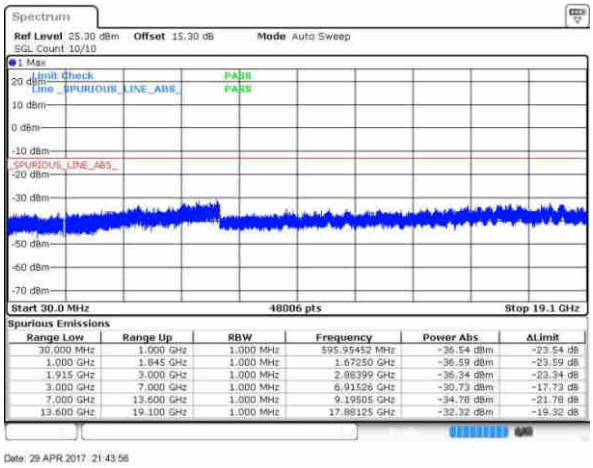


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	178.09345 MHz	-36.60 dBm	-23.60 dB
1.000 GHz	1.845 GHz	1.000 MHz	1.28103 GHz	-37.17 dBm	-24.17 dB
1.915 GHz	3.000 GHz	1.000 MHz	2.99790 GHz	-35.47 dBm	-22.47 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.90026 GHz	-31.85 dBm	-18.85 dB
7.000 GHz	13.600 GHz	1.000 MHz	10.59991 GHz	-34.22 dBm	-21.22 dB
13.600 GHz	19.100 GHz	1.000 MHz	15.94146 GHz	-32.80 dBm	-19.80 dB

Date: 29 APR 2017 21:42:32

Highest Channel



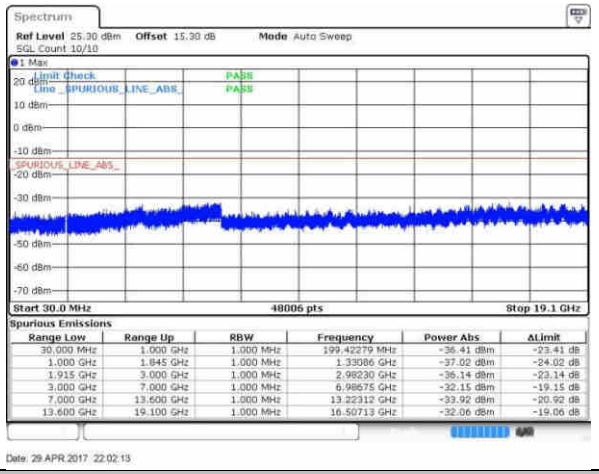
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	595.95452 MHz	-36.54 dBm	-23.54 dB
1.000 GHz	1.845 GHz	1.000 MHz	1.67250 GHz	-36.59 dBm	-23.59 dB
1.915 GHz	3.000 GHz	1.000 MHz	2.98399 GHz	-36.34 dBm	-23.34 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.91526 GHz	-30.73 dBm	-17.73 dB
7.000 GHz	13.600 GHz	1.000 MHz	9.19505 GHz	-34.78 dBm	-21.78 dB
13.600 GHz	19.100 GHz	1.000 MHz	17.88125 GHz	-32.32 dBm	-19.32 dB

Date: 29 APR 2017 21:43:56

GSM1900 (EDGE class 8)

Lowest Channel

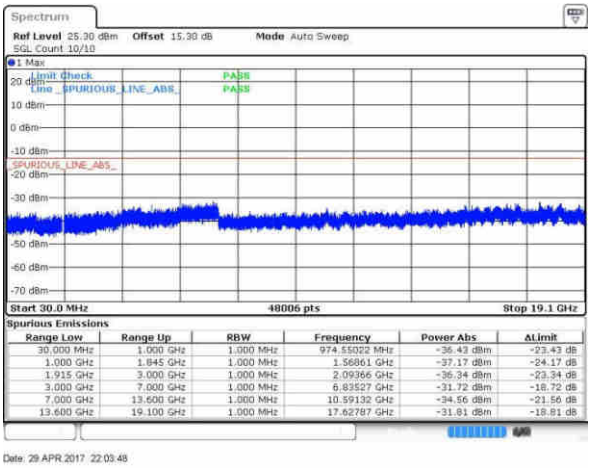


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	199.42279 MHz	-36.41 dBm	-23.41 dB
1.000 GHz	1.845 GHz	1.000 MHz	1.33086 GHz	-37.02 dBm	-24.02 dB
1.915 GHz	3.000 GHz	1.000 MHz	2.98230 GHz	-36.14 dBm	-23.14 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.98675 GHz	-32.15 dBm	-19.15 dB
7.000 GHz	13.600 GHz	1.000 MHz	13.22312 GHz	-33.92 dBm	-20.92 dB
13.600 GHz	19.100 GHz	1.000 MHz	16.50713 GHz	-32.06 dBm	-19.06 dB

Date: 29 APR 2017 22:02:13

Middle Channel

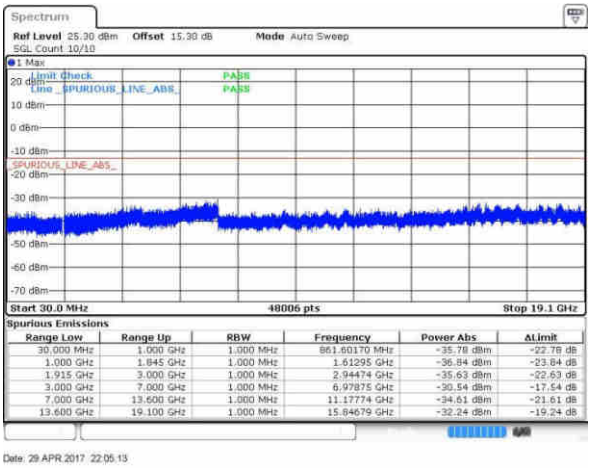


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	974.55022 MHz	-36.43 dBm	-23.43 dB
1.000 GHz	1.845 GHz	1.000 MHz	1.56861 GHz	-37.17 dBm	-24.17 dB
1.915 GHz	3.000 GHz	1.000 MHz	2.09366 GHz	-36.34 dBm	-23.34 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.83527 GHz	-31.72 dBm	-18.72 dB
7.000 GHz	13.600 GHz	1.000 MHz	10.59132 GHz	-34.56 dBm	-21.56 dB
13.600 GHz	19.100 GHz	1.000 MHz	17.62787 GHz	-31.81 dBm	-18.81 dB

Date: 29 APR 2017 22:03:48

Highest Channel



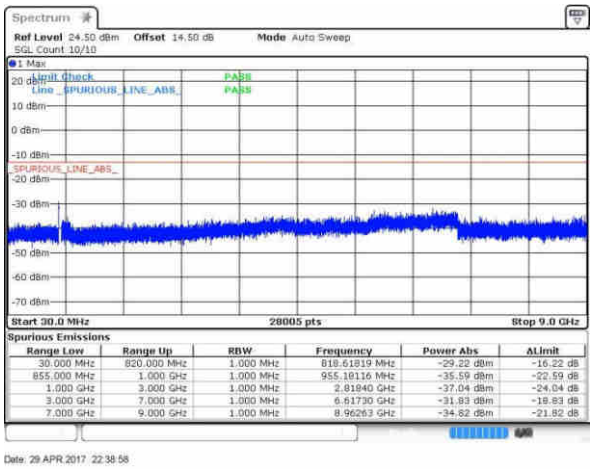
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	861.60170 MHz	-35.78 dBm	-22.78 dB
1.000 GHz	1.845 GHz	1.000 MHz	1.61295 GHz	-36.84 dBm	-23.84 dB
1.915 GHz	3.000 GHz	1.000 MHz	2.94474 GHz	-35.63 dBm	-22.63 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.97875 GHz	-30.54 dBm	-17.54 dB
7.000 GHz	13.600 GHz	1.000 MHz	11.17774 GHz	-34.61 dBm	-21.61 dB
13.600 GHz	19.100 GHz	1.000 MHz	15.84679 GHz	-32.24 dBm	-19.24 dB

Date: 29 APR 2017 22:05:13

WCDMA Band V (RMC 12.2Kbps)

Lowest Channel

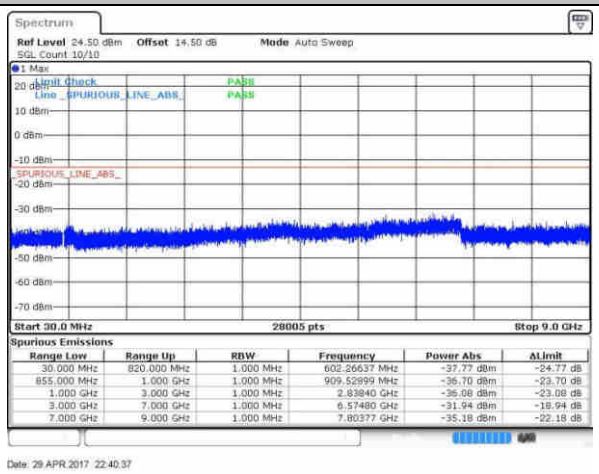


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	820.000 MHz	1.000 MHz	818.61819 MHz	-29.22 dBm	-16.22 dB
855.000 MHz	1.000 GHz	1.000 MHz	955.18116 MHz	-35.59 dBm	-22.59 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.81840 GHz	-37.04 dBm	-24.04 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.61730 GHz	-31.83 dBm	-18.83 dB
7.000 GHz	9.000 GHz	1.000 MHz	8.96263 GHz	-34.82 dBm	-21.82 dB

Date: 29 APR 2017 22:38:58

Middle Channel

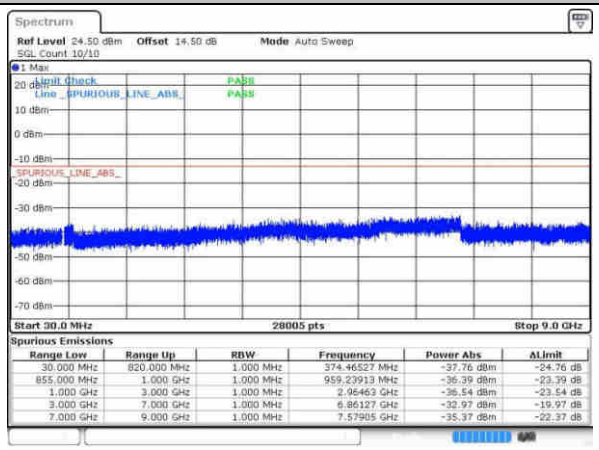


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	820.000 MHz	1.000 MHz	602.26637 MHz	-37.77 dBm	-24.77 dB
855.000 MHz	1.000 GHz	1.000 MHz	909.52999 MHz	-36.70 dBm	-23.70 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.83840 GHz	-36.08 dBm	-23.08 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.57480 GHz	-31.94 dBm	-18.94 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.80377 GHz	-35.18 dBm	-22.18 dB

Date: 29 APR 2017 22:40:37

Highest Channel



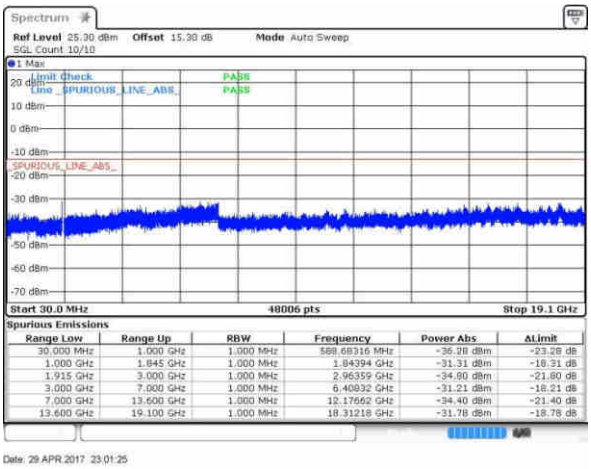
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	820.000 MHz	1.000 MHz	374.46527 MHz	-37.76 dBm	-24.76 dB
855.000 MHz	1.000 GHz	1.000 MHz	959.23913 MHz	-36.39 dBm	-23.39 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.96463 GHz	-36.54 dBm	-23.54 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.86127 GHz	-32.97 dBm	-19.97 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.57905 GHz	-35.37 dBm	-22.37 dB

Date: 29 APR 2017 22:41:57

WCDMA Band II (RMC 12.2Kbps)

Lowest Channel

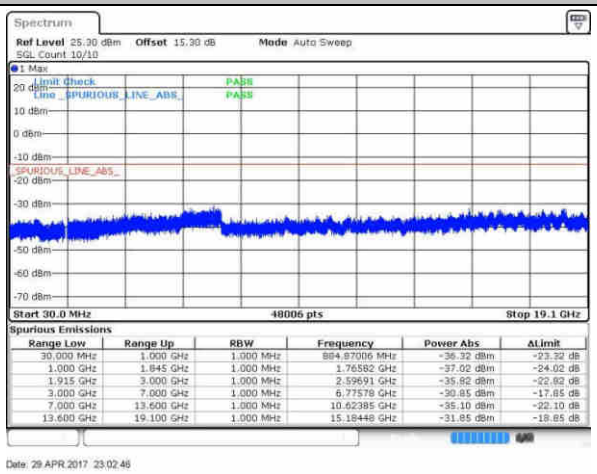


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	588.68316 MHz	-36.28 dBm	-23.28 dB
1.000 GHz	1.845 GHz	1.000 MHz	1.84394 GHz	-31.31 dBm	-18.31 dB
1.915 GHz	3.000 GHz	1.000 MHz	2.96359 GHz	-34.80 dBm	-21.80 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.40832 GHz	-31.21 dBm	-18.21 dB
7.000 GHz	13.600 GHz	1.000 MHz	12.17662 GHz	-34.40 dBm	-21.40 dB
13.600 GHz	19.100 GHz	1.000 MHz	18.31218 GHz	-31.78 dBm	-18.78 dB

Date: 29 APR 2017 23:01:25

Middle Channel

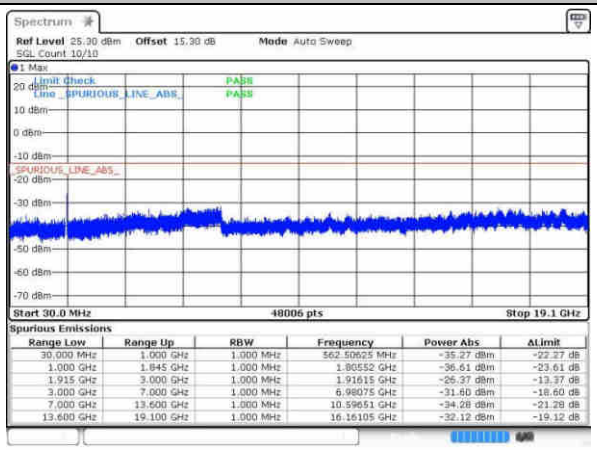


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	884.87006 MHz	-36.32 dBm	-23.32 dB
1.000 GHz	1.845 GHz	1.000 MHz	1.76582 GHz	-37.02 dBm	-24.02 dB
1.915 GHz	3.000 GHz	1.000 MHz	2.59691 GHz	-35.82 dBm	-22.82 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.77578 GHz	-30.85 dBm	-17.85 dB
7.000 GHz	13.600 GHz	1.000 MHz	10.62385 GHz	-35.10 dBm	-22.10 dB
13.600 GHz	19.100 GHz	1.000 MHz	15.18448 GHz	-31.85 dBm	-18.85 dB

Date: 29 APR 2017 23:02:46

Highest Channel



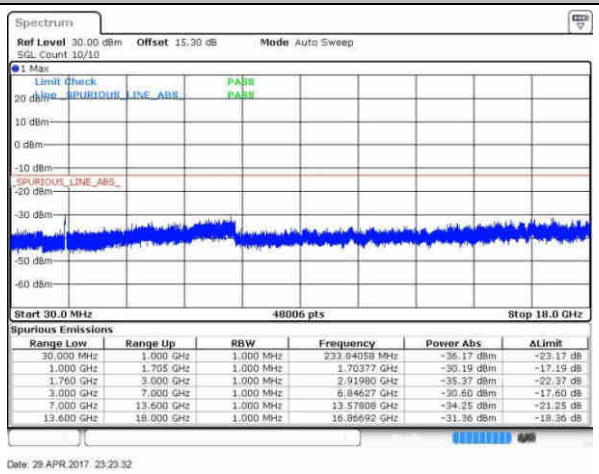
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	562.50625 MHz	-35.27 dBm	-22.27 dB
1.000 GHz	1.845 GHz	1.000 MHz	1.80552 GHz	-36.61 dBm	-23.61 dB
1.915 GHz	3.000 GHz	1.000 MHz	1.91615 GHz	-26.37 dBm	-13.37 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.98075 GHz	-31.60 dBm	-18.60 dB
7.000 GHz	13.600 GHz	1.000 MHz	10.59651 GHz	-34.28 dBm	-21.28 dB
13.600 GHz	19.100 GHz	1.000 MHz	16.16105 GHz	-32.12 dBm	-19.12 dB

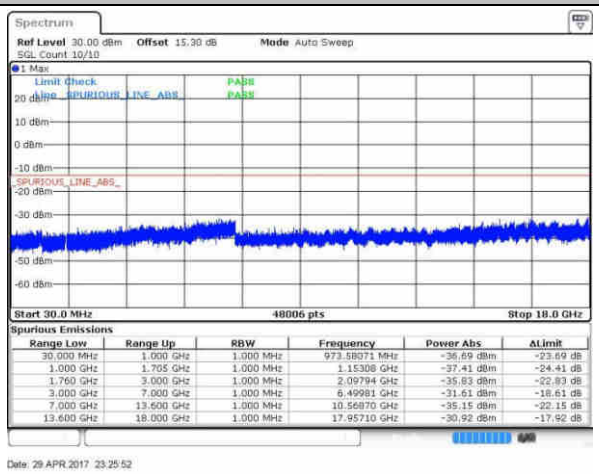
Date: 29 APR 2017 23:04:07

WCDMA Band IV (RMC 12.2Kbps)

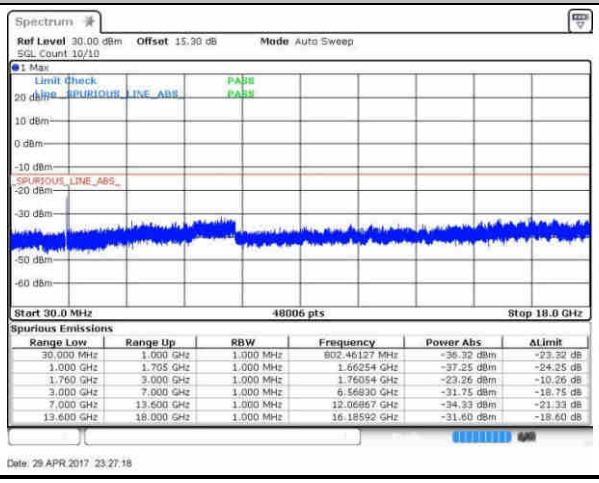
Lowest Channel



Middle Channel

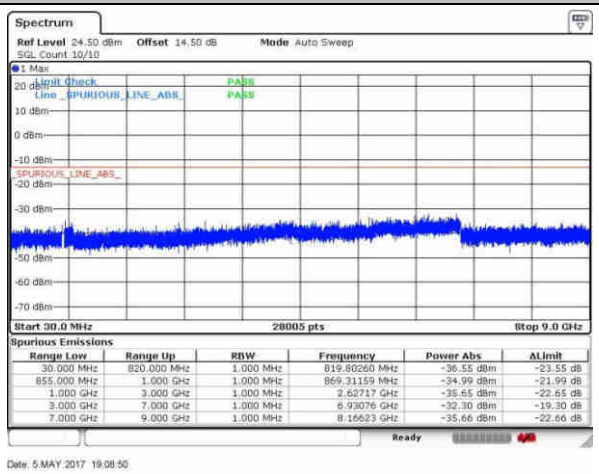


Highest Channel



CDMA BC0 (1xRTT)

Lowest Channel

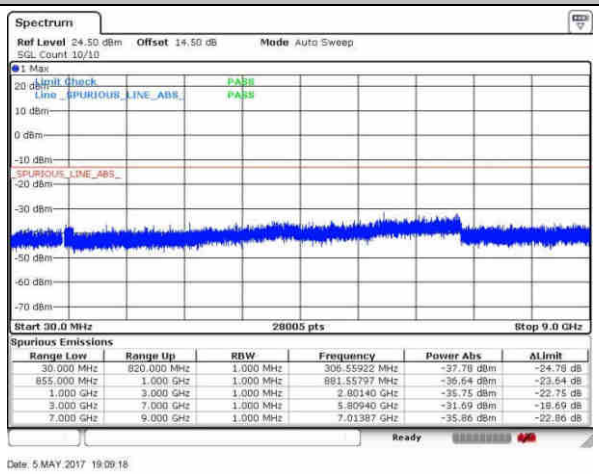


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	820.000 MHz	1.000 MHz	819.80260 MHz	-36.55 dBm	-23.55 dB
855.000 MHz	1.000 GHz	1.000 MHz	869.31159 MHz	-34.99 dBm	-21.99 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.62717 GHz	-35.65 dBm	-22.65 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.93076 GHz	-32.30 dBm	-19.30 dB
7.000 GHz	9.000 GHz	1.000 MHz	8.16623 GHz	-35.66 dBm	-22.66 dB

Date: 5.MAY.2017 19:08:50

Middle Channel

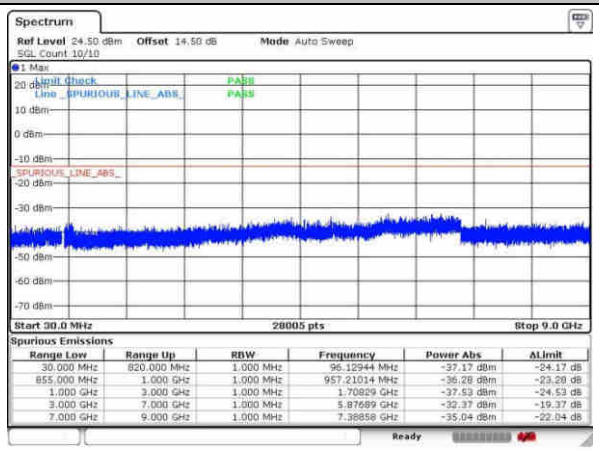


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	820.000 MHz	1.000 MHz	306.55922 MHz	-37.78 dBm	-24.78 dB
855.000 MHz	1.000 GHz	1.000 MHz	881.55797 MHz	-36.64 dBm	-23.64 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.80140 GHz	-35.75 dBm	-22.75 dB
3.000 GHz	7.000 GHz	1.000 MHz	5.80940 GHz	-31.69 dBm	-18.69 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.01387 GHz	-35.86 dBm	-22.86 dB

Date: 5.MAY.2017 19:09:18

Highest Channel



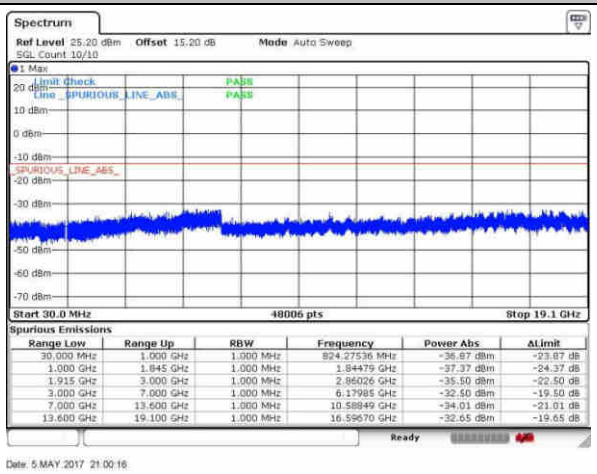
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	820.000 MHz	1.000 MHz	96.12944 MHz	-37.17 dBm	-24.17 dB
855.000 MHz	1.000 GHz	1.000 MHz	957.21014 MHz	-36.28 dBm	-23.28 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.70829 GHz	-37.53 dBm	-24.53 dB
3.000 GHz	7.000 GHz	1.000 MHz	5.87689 GHz	-32.37 dBm	-19.37 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.38858 GHz	-35.04 dBm	-22.04 dB

Date: 5.MAY.2017 19:09:38

CDMA BC1 (1xRTT)

Lowest Channel

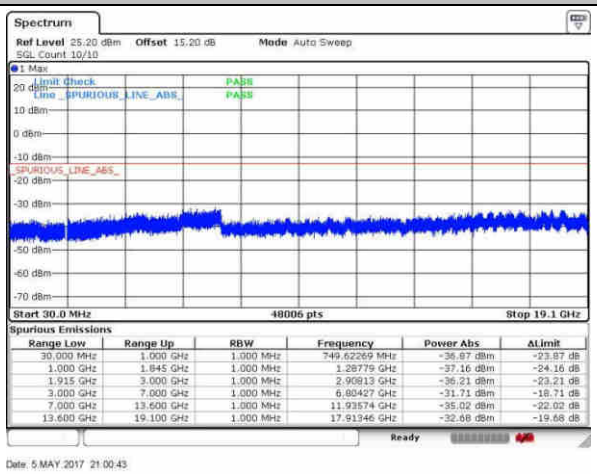


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	824.27536 MHz	-36.87 dBm	-23.87 dB
1.000 GHz	1.845 GHz	1.000 MHz	1.84479 GHz	-37.37 dBm	-24.37 dB
1.915 GHz	3.000 GHz	1.000 MHz	2.86026 GHz	-35.50 dBm	-22.50 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.17985 GHz	-32.50 dBm	-19.50 dB
7.000 GHz	13.600 GHz	1.000 MHz	10.58849 GHz	-34.01 dBm	-21.01 dB
13.600 GHz	19.100 GHz	1.000 MHz	16.59670 GHz	-32.65 dBm	-19.65 dB

Date: 5.MAY.2017 21:00:16

Middle Channel

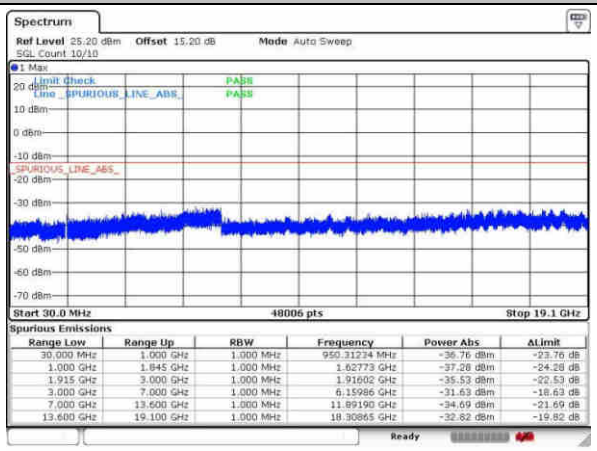


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	749.62269 MHz	-36.87 dBm	-23.87 dB
1.000 GHz	1.845 GHz	1.000 MHz	1.28779 GHz	-37.16 dBm	-24.16 dB
1.915 GHz	3.000 GHz	1.000 MHz	2.90813 GHz	-36.21 dBm	-23.21 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.80427 GHz	-31.71 dBm	-18.71 dB
7.000 GHz	13.600 GHz	1.000 MHz	11.93574 GHz	-35.02 dBm	-22.02 dB
13.600 GHz	19.100 GHz	1.000 MHz	17.91346 GHz	-32.68 dBm	-19.68 dB

Date: 5.MAY.2017 21:00:43

Highest Channel



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	950.31234 MHz	-36.76 dBm	-23.76 dB
1.000 GHz	1.845 GHz	1.000 MHz	1.62773 GHz	-37.28 dBm	-24.28 dB
1.915 GHz	3.000 GHz	1.000 MHz	1.91602 GHz	-35.53 dBm	-22.53 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.15986 GHz	-31.63 dBm	-18.63 dB
7.000 GHz	13.600 GHz	1.000 MHz	11.89190 GHz	-34.69 dBm	-21.69 dB
13.600 GHz	19.100 GHz	1.000 MHz	18.30865 GHz	-32.82 dBm	-19.82 dB

Date: 5.MAY.2017 21:01:04

Frequency Stability

Test Conditions	Middle Channel	GSM850 (GSM)	GSM850 (EDGE class 8)	Limit 2.5ppm
Temperature (°C)	Voltage (Volt)	Deviation (ppm)		Result
50	Normal Voltage	0.0012	0.0012	PASS
40	Normal Voltage	0.0012	0.0036	
30	Normal Voltage	0.0048	0.0120	
20(Ref.)	Normal Voltage	0.0000	0.0000	
10	Normal Voltage	0.0024	0.0060	
0	Normal Voltage	0.0060	0.0012	
-10	Normal Voltage	0.0024	0.0024	
-20	Normal Voltage	0.0084	0.0072	
-30	Normal Voltage	0.0048	0.0024	
20	Maximum Voltage	0.0155	0.0048	
20	Normal Voltage	0.0036	0.0096	
20	Battery End Point	0.0036	0.0036	

Note: Normal Voltage = 3.8V. ；Battery End Point (BEP) = 3.4 V.；Maximum Voltage =4.4 V

Test Conditions	Middle Channel	GSM1900 (GSM)	GSM1900 (EDGE class 8)	Limit Note 2.
Temperature (°C)	Voltage (Volt)	Deviation (ppm)		Result
50	Normal Voltage	0.0053	0.0027	PASS
40	Normal Voltage	0.0074	0.0016	
30	Normal Voltage	0.0027	0.0027	
20(Ref.)	Normal Voltage	0.0000	0.0000	
10	Normal Voltage	0.0043	0.0037	
0	Normal Voltage	0.0016	0.0021	
-10	Normal Voltage	0.0064	0.0005	
-20	Normal Voltage	0.0037	0.0011	
-30	Normal Voltage	0.0069	0.0037	
20	Maximum Voltage	0.0080	0.0016	
20	Normal Voltage	0.0059	0.0011	
20	Battery End Point	0.0032	0.0005	

Note:

1. Normal Voltage = 3.8V. ；Battery End Point (BEP) = 3.4 V.；Maximum Voltage =4.4 V
2. The frequency fundamental emissions stay within the authorized frequency block based on the frequency deviation measured is small.

Test Conditions	Middle Channel	WCDMA Band V (RMC 12.2Kbps)	Limit 2.5ppm
Temperature (°C)	Voltage (Volt)	Deviation (ppm)	Result
50	Normal Voltage	0.0024	PASS
40	Normal Voltage	0.0012	
30	Normal Voltage	0.0012	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0096	
0	Normal Voltage	0.0143	
-10	Normal Voltage	0.0084	
-20	Normal Voltage	0.0036	
-30	Normal Voltage	0.0060	
20	Maximum Voltage	0.0191	
20	Normal Voltage	0.0167	
20	Battery End Point	0.0084	

Note: Normal Voltage = 3.8V. ；Battery End Point (BEP) = 3.4 V.；Maximum Voltage =4.4 V

Test Conditions	Middle Channel	WCDMA Band II (RMC 12.2Kbps)	Limit Note 2.
Temperature (°C)	Voltage (Volt)	Deviation (ppm)	Result
50	Normal Voltage	0.0027	PASS
40	Normal Voltage	0.0016	
30	Normal Voltage	0.0053	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0011	
0	Normal Voltage	0.0064	
-10	Normal Voltage	0.0037	
-20	Normal Voltage	0.0043	
-30	Normal Voltage	0.0080	
20	Maximum Voltage	0.0069	
20	Normal Voltage	0.0080	
20	Battery End Point	0.0048	

Note:

1. Normal Voltage = 3.8V. ；Battery End Point (BEP) = 3.4V.；Maximum Voltage =4.4 V
2. The frequency fundamental emissions stay within the authorized frequency block based on the frequency deviation measured is small.

Test Conditions	Middle Channel	WCDMA Band IV (RMC 12.2Kbps)	Limit Note 2.
Temperature (°C)	Voltage (Volt)	Deviation (ppm)	Result
50	Normal Voltage	0.0012	PASS
40	Normal Voltage	0.0006	
30	Normal Voltage	0.0017	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0012	
0	Normal Voltage	0.0023	
-10	Normal Voltage	0.0040	
-20	Normal Voltage	0.0058	
-30	Normal Voltage	0.0069	
20	Maximum Voltage	0.0063	
20	Normal Voltage	0.0087	
20	Battery End Point	0.0075	

Note:

1. Normal Voltage = 3.8V. ；Battery End Point (BEP) = 3.4 V.；Maximum Voltage =4.4 V
2. The frequency fundamental emissions stay within the authorized frequency block based on the frequency deviation measured is small.

Test Conditions	Middle Channel	CDMA BC0 (1xRTT)	Limit 2.5ppm
Temperature (°C)	Voltage (Volt)	Deviation (ppm)	Result
50	Normal Voltage	0.0131	PASS
40	Normal Voltage	0.0024	
30	Normal Voltage	0.0394	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0275	
0	Normal Voltage	0.0359	
-10	Normal Voltage	0.0048	
-20	Normal Voltage	0.0096	
-30	Normal Voltage	0.0335	
20	Maximum Voltage	0.0084	
20	Normal Voltage	0.0012	
20	Battery End Point	0.0239	

Note: Normal Voltage = 3.8V. ；Battery End Point (BEP) = 3.4 V.；Maximum Voltage =4.4 V

Test Conditions	Middle Channel	CDMA BC1 (1xRTT)	Limit Note 2.
Temperature (°C)	Voltage (Volt)	Deviation (ppm)	Result
50	Normal Voltage	0.0032	PASS
40	Normal Voltage	0.0005	
30	Normal Voltage	0.0191	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0138	
0	Normal Voltage	0.0170	
-10	Normal Voltage	0.0133	
-20	Normal Voltage	0.0027	
-30	Normal Voltage	0.0202	
20	Maximum Voltage	0.0021	
20	Normal Voltage	0.0059	
20	Battery End Point	0.0160	

Note:

1. Normal Voltage = 3.8V. ；Battery End Point (BEP) = 3.4V.；Maximum Voltage =4.4 V
2. The frequency fundamental emissions stay within the authorized frequency block based on the frequency deviation measured is small.

Appendix B. Test Results of Radiated Test

Radiated Spurious Emission

GSM850 (GSM)									
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1672	-40.58	-13	-27.58	-48.16	-43.22	1.01	5.80	H
	2508	-39.33	-13	-26.33	-53.98	-42.90	1.18	6.90	H
	3345	-57.03	-13	-44.03	-66.47	-60.60	1.78	7.50	H
	1672	-37.18	-13	-24.18	-45.42	-39.82	1.01	5.80	V
	2508	-42.16	-13	-29.16	-55.15	-45.73	1.18	6.90	V
	3345	-63.16	-13	-50.16	-71.48	-66.73	1.78	7.50	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

GSM850 (EDGE class 8)									
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1672	-46.66	-13	-33.66	-53.09	-49.30	1.01	5.80	H
	2508	-56.36	-13	-43.36	-64.94	-59.93	1.18	6.90	H
	3345	-67.67	-13	-54.67	-77.11	-71.24	1.78	7.50	H
	1672	-50.49	-13	-37.49	-56.12	-53.13	1.01	5.80	V
	2508	-46.85	-13	-33.85	-58.53	-50.42	1.18	6.90	V
	3345	-69.24	-13	-56.24	-77.56	-72.81	1.78	7.50	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

GSM1900 (GSM)									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	3759	-61.94	-13	-48.94	-70.33	-67.42	1.62	7.10	H
	5640	-51.52	-13	-38.52	-64.71	-60.06	1.86	10.40	H
	7520	-58.30	-13	-45.30	-76.61	-67.85	2.40	11.94	H
	3759	-58.18	-13	-45.18	-67.77	-63.66	1.62	7.10	V
	5640	-46.07	-13	-33.07	-60.99	-54.61	1.86	10.40	V
	7520	-61.20	-13	-48.20	-77.32	-70.75	2.40	11.94	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

GSM1900 (EDGE class 8)									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	3759	-67.36	-13	-54.36	-75.75	-72.84	1.62	7.10	H
	5640	-63.50	-13	-50.50	-76.69	-72.04	1.86	10.40	H
	7520	-59.52	-13	-46.52	-77.83	-69.07	2.40	11.94	H
	3759	-64.64	-13	-51.64	-74.23	-70.12	1.62	7.10	V
	5640	-65.08	-13	-52.08	-77.16	-73.62	1.86	10.40	V
	7520	-62.23	-13	-49.23	-78.35	-71.78	2.40	11.94	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

WCDMA Band V (RMC 12.2Kbps)									
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1672	-73.18	-13	-60.18	-71.69	-75.82	1.01	5.80	H
	2509.2	-65.11	-13	-52.11	-73.69	-68.68	1.18	6.90	H
	3345	-67.72	-13	-54.72	-77.16	-71.29	1.78	7.50	H
	1672.8	-72.27	-13	-59.27	-71.39	-74.91	1.01	5.80	V
	2509.2	-65.20	-13	-52.20	-74.34	-68.77	1.18	6.90	V
	3345	-68.74	-13	-55.74	-77.06	-72.31	1.78	7.50	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

WCDMA Band II (RMC 12.2Kbps)									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	3760	-67.12	-13	-54.12	-75.51	-72.60	1.62	7.10	H
	5640	-61.65	-13	-48.65	-74.84	-70.19	1.86	10.40	H
	7520	-59.50	-13	-46.50	-77.81	-69.05	2.40	11.94	H
	3760	-63.88	-13	-50.88	-73.47	-69.36	1.62	7.10	V
	5640	-55.62	-13	-42.62	-67.7	-64.16	1.86	10.40	V
	7521	-62.23	-13	-49.23	-78.35	-71.78	2.40	11.94	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

WCDMA Band IV (RMC 12.2Kbps)									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	3465.2	-61.68	-13	-48.68	-74.11	-67.84	1.43	7.59	H
	5196	-46.33	-13	-33.33	-61.17	-53.89	1.83	9.39	H
	6930	-57.36	-13	-44.36	-75.09	-66.95	2.08	11.67	H
	3465.2	-63.55	-13	-50.55	-73.33	-69.71	1.43	7.59	V
	5196	-51.64	-13	-38.64	-66.91	-59.20	1.83	9.39	V
	6930	-59.42	-13	-46.42	-76.3	-69.01	2.08	11.67	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

CDMA BC0 (1xRTT)									
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1672	-64.49	-13	-51.49	-63.00	-67.13	1.01	5.80	H
	2510	-61.90	-13	-48.90	-70.48	-65.47	1.18	6.90	H
	3346	-65.42	-13	-52.42	-74.86	-68.99	1.78	7.50	H
	1672	-67.63	-13	-54.63	-66.75	-70.27	1.01	5.80	V
	2509.56	-62.48	-13	-49.48	-71.62	-66.05	1.18	6.90	V
	3346	-67.17	-13	-54.17	-75.49	-70.74	1.78	7.50	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

CDMA BC1 (1xRTT)									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	3759	-61.31	-13	-48.31	-69.70	-66.79	1.62	7.10	H
	5640	-58.16	-13	-45.16	-71.35	-66.70	1.86	10.40	H
	7521	-56.66	-13	-43.66	-74.97	-66.21	2.40	11.94	H
	3759	-61.96	-13	-48.96	-71.55	-67.44	1.62	7.10	V
	5640	-54.39	-13	-41.39	-66.47	-62.93	1.86	10.40	V
	7521	-59.10	-13	-46.10	-75.22	-68.65	2.40	11.94	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.