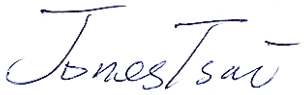
FCC RF Test Report

APPLICANT	:	Motorola Mobility LLC
EQUIPMENT	:	Mobile Cellular Phone
BRAND NAME	:	Motorola
MODEL NAME	:	XT1921-6, XT1921-1
FCC ID	:	IHDT56XC1
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 Dec. 20, 2017 and testing was completed on Jan. 22, 2018. We, SPORTON INTERNATIONAL INC., would like to declare that the tested sample has been evaluated in accordance with the test procedures given in ANSI / TIA / EIA-603-E 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 INC., the test report shall not be reproduced except in full.

Reviewed by: Joseph Lin / Supervisor



Approved by: Jones Tsai / Manager

SPORTON INTERNATIONAL INC.
No. 52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan District, Tao Yuan City, Taiwan, R.O.C.

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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FG7D2018-03A	Rev. 01	Initial issue of report	Feb. 22, 2018

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 22	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 18.16 dB at 1648.000 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
Model Name	XT1921-6, XT1921-1
FCC ID	IHDT56XC1
IMEI Code	351838090014992 (for Radiation) 351838090015965 (for Conducted)
EUT supports Radios application	CDMA/EV-DO/GSM/EGPRS/WCDMA/HSPA/LTE/FM/GNSS WLAN 11b/g/n HT20 WLAN 11a/n HT20/HT40 Bluetooth BR/EDR/LE
HW Version	DVT1B
EUT Stage	Identical Prototype

Accessory List	
AC Adapter 1	Brand Name : Motorola
	Model Name : C-P35
AC Adapter 2	Brand Name : Motorola
	Model Name : SSW-2919UMTJ C-P35 SPN5945A
AC Adapter 3	Brand Name : Motorola
	Model Name : C-P56
AC Adapter 4	Brand Name : Motorola
	Model Name : C-P56
Battery	Brand Name : Motorola
	Model Name : GK40
USB Cable	Brand Name : Saibao
	Model Name : SWT-A083A

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: 33.49 dBm 1900: 30.65 dBm **WCDMA:** Band V: 22.87 dBm Band II: 22.87 dBm Band IV: 23.17 dBm **CDMA2000:** BC0: 24.38 dBm BC1: 24.27 dBm
Antenna Type	PIFA Antenna and Coupling Type (LDS) Antenna
Antenna Gain	Cellular Band: -0.105 dBi PCS Band: 0.982 dBi AWS Band: 0.122 dBi
Type of Modulation	GSM: GMSK GPRS: GMSK EDGE: GMSK / 8PSK WCDMA: BPSK (Uplink) HSDPA: 64QAM (Downlink) HSUPA: QPSK (Uplink) CDMA2000 1xRTT: QPSK CDMA2000 1xEV-DO: QPSK/8PSK

1.5 Modification of EUT

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

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

FCC Rule	Frequency Range (MHz)	System	Type of Modulation	Maximum ERP/EIRP (W)	Frequency Tolerance (ppm)	Emission Designator
Part 22	824.2 ~ 848.8	GSM850 GPRS class 8	GMSK	1.3289	0.0227 ppm	246KGXW
Part 22	824.2 ~ 848.8	GSM850 EDGE class 8	8PSK	0.2848	0.0120 ppm	249KG7W
Part 22	826.4 ~ 846.6	WCDMA Band V RMC 12.2Kbps	BPSK	0.1152	0.0251 ppm	4M13F9W
Part 22	824.70 ~ 848.31	CDMA2000 BC0 1xRTT	QPSK	0.1631	0.0347 ppm	1M27F9W
Part 22	824.70 ~ 848.31	CDMA2000 BC0 1xEV-DO Rev. 0	QPSK	0.1627	0.0347 ppm	1M27F9W
Part 24	1850.2 ~1909.8	GSM1900 GPRS class 8	GMSK	1.4561	0.0213 ppm	245KGXW
Part 24	1850.2 ~1909.8	GSM1900 EDGE class 8	8PSK	0.4991	0.0154 ppm	245KG7W
Part 24	1852.4 ~ 1907.6	WCDMA Band II RMC 12.2Kbps	BPSK	0.2428	0.0090 ppm	4M13F9W
Part 24	1851.25 ~ 1908.75	CDMA2000 BC1 1xRTT	QPSK	0.3351	0.0064 ppm	1M27F9W
Part 24	1851.25 ~ 1908.75	CDMA2000 BC1 1xEV-DO Rev. 0	QPSK	0.3343	0.0101 ppm	1M27F9W
Part 27	1712.4 ~ 1752.6	WCDMA Band IV RMC 12.2Kbps	BPSK	0.2134	0.0190 ppm	4M13F9W

1.7 Testing Location

Sporton Lab is accredited to ISO 17025 by Taiwan Accreditation Foundation (TAF code : 1190) and the FCC designation No. TW1190 and TW0007 under the FCC 2.948(e) by Mutual Recognition Agreement (MRA) in FCC Test.

Test Site	SPORTON INTERNATIONAL INC.
Test Site Location	No. 52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan District, Tao Yuan City, Taiwan, R.O.C. TEL: +886-3-327-3456 FAX: +886-3-328-4978
Test Site No.	**Sporton Site No.**
	TH03-HY

Test Site	SPORTON INTERNATIONAL INC.
Test Site Location	No.58, Aly. 75, Ln. 564, Wenhua 3rd Rd. Guishan Dist, Taoyuan City, Taiwan (R.O.C.) TEL: +886-3-327-0868 FAX: +886-3-327-0855
Test Site No.	**Sporton Site No.**
	03CH13-HY

1.8 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-E
- FCC KDB 971168 D01 Power Meas. License Digital Systems v03
- 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 v03 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 9000 MHz for GSM850 and WCDMA Band V and CDMA BC0.
2. 30 MHz to 18000 MHz for WCDMA Band IV.
3. 30 MHz to 19100 MHz for GSM1900 and WCDMA Band II and CDMA BC1.

All modes and data rates and positions were investigated.

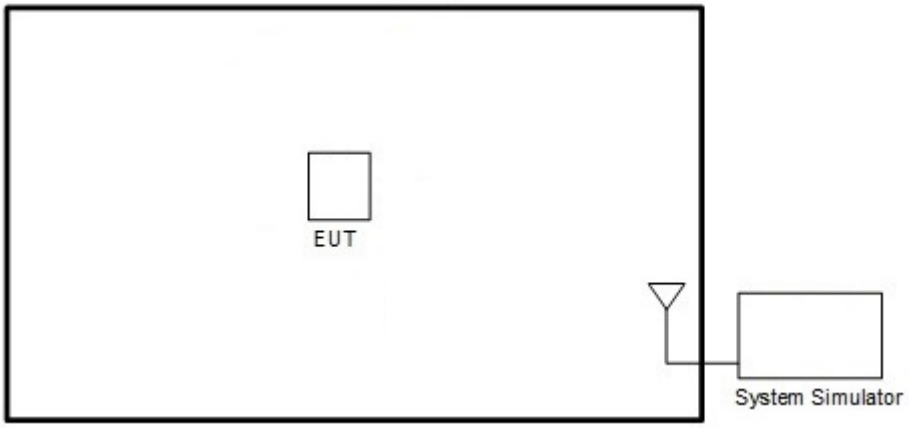
Test modes are chosen to be reported as the worst case configuration below:

Test Modes		
Band	**Radiated TCs**	**Conducted TCs**
GSM 850	■ GPRS class 8 Link ■ EDGE class 8 Link	■ GPRS class 8 Link ■ EDGE class 8 Link
GSM 1900	■ GPRS class 8 Link ■ EDGE class 8 Link	■ GPRS class 8 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 ■ 1xEV-DO Rev. 0 Link	■ 1xRTT Link ■ 1xEV-DO Rev. 0 Link
CDMA BC1	■ 1xRTTLink ■ 1xEV-DO Rev. 0 Link	■ 1xRTT Link ■ 1xEV-DO Rev. 0 Link

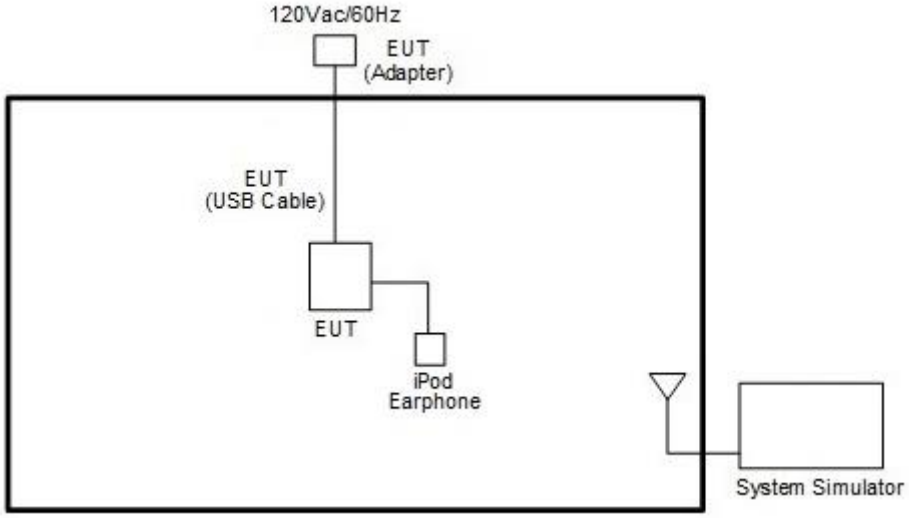
Remark: All the radiated test cases were performance with Adapter 1.

2.2 Connection Diagram of Test System

<EUT Standalone>



<EUT with Accessories>



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.	iPod Earphone	Apple	N/A	Verification	Unshielded, 1.0 m	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 4.2 dB and a 10dB attenuator.

Example :

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

= 4.2 + 10 = 14.2 (dB)

2.5 Frequency List of Low/Middle/High Channels

Frequency List				
Band	**Channel/Frequency(MHz)**	**Lowest**	**Middle**	**Highest**
GSM850	Channel	128	189	251
	Frequency	824.2	836.4	848.8
WCDMA Band V	Channel	4132	4182	4233
	Frequency	826.4	836.4	846.6
GSM1900	Channel	512	661	810
	Frequency	1850.2	1880.0	1909.8
WCDMA Band II	Channel	9262	9400	9538
	Frequency	1852.4	1880.0	1907.6
WCDMA Band IV	Channel	1312	1413	1513
	Frequency	1712.4	1732.6	1752.6
CDMA2000 BC0	Channel	1013	384	777
	Frequency	824.7	836.52	848.31
CDMA2000 BC1	Channel	25	600	1175
	Frequency	1851.25	1880.0	1908.75

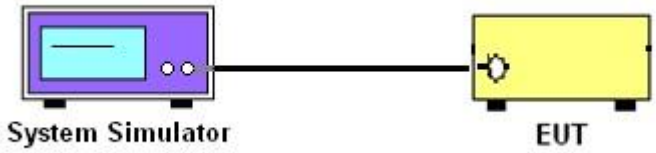
3 Conducted Test Result

3.1 Measuring Instruments

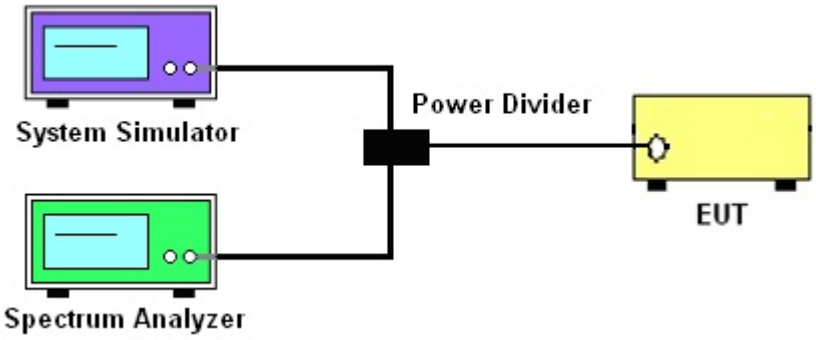
See list of measuring instruments of this test report.

3.2 Test Setup

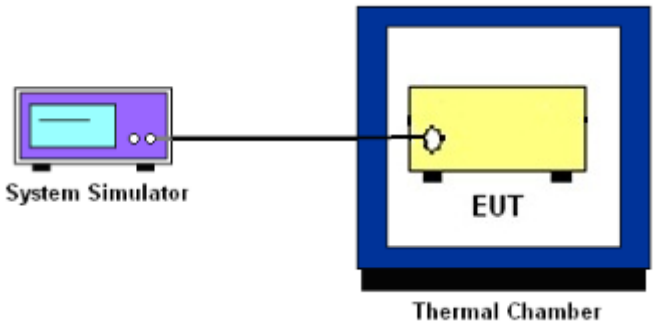
3.2.1 Conducted Output Power



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, WCDMA Band V and CDMA BC0.

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

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 v03 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 v03 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 v03 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)

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 10^{th} harmonic.

3.8.2 Test Procedures

1. The testing follows FCC KDB 971168 D01 v03 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)

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 v03 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 v03 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.

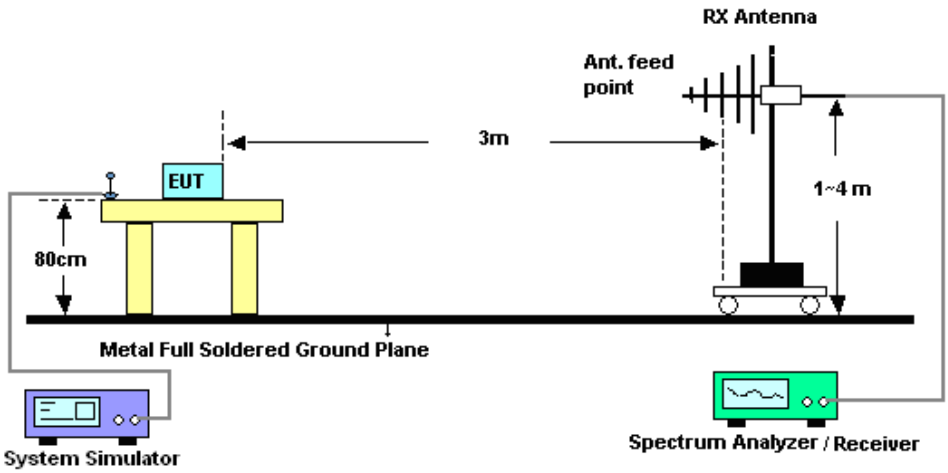
4 Radiated Test Items

4.1 Measuring Instruments

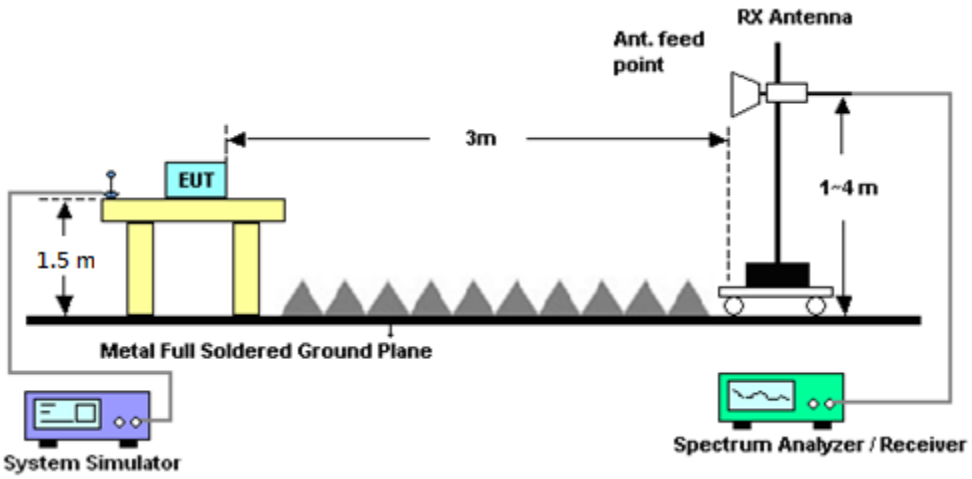
See list of measuring instruments of this test report.

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 v03 Section 5.8 and ANSI / TIA-603-E 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)

5 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	Rohde & Schwarz	FSP30	101329	9kHz~30GHz	Jun. 26, 2017	Jan. 09, 2018~ Jan. 12, 2018	Jun. 25, 2018	Conducted (TH03-HY)
Temperature Chamber	ESPEC	SU-641	92013721	-30℃ ~70℃	Nov. 16, 2016	Jan. 09, 2018~ Jan. 12, 2018	Nov. 15, 2018	Conducted (TH03-HY)
Programmable Power Supply	GW Instek	PSS-2005	EL883644	Voltage:0~20V;Current:0~5A	Nov. 22, 2016	Jan. 09, 2018~ Jan. 12, 2018	Nov. 21, 2018	Conducted (TH03-HY)
Base Station (Measure)	Rohde & Schwarz	CMU200	117995	GSM / GPRS / WCDMA / CDMA	Aug. 09, 2017	Jan. 09, 2018~ Jan. 12, 2018	Aug. 08, 2018	Conducted (TH03-HY)
Amplifier	MITEQ	TTA1840-35-HG	1871923	18GHz~40GHz,VSWR : 2.5:1 max	Jul. 18, 2017	Jan. 17, 2018~ Jan. 22, 2018	Jul. 17, 2018	Radiation (03CH13-HY)
Bilog Antenna	TESEQ	CBL 6111D&N-6-	35414&AT-N0602	30MHz~1GHz	Oct. 14, 2017	Jan. 17, 2018~ Jan. 22, 2018	Oct. 13, 2018	Radiation (03CH13-HY)
Amplifier	Sonoma-Instrument	310 N	187282	9KHz~1GHz	Dec. 21, 2016	Jan. 17, 2018~ Jan. 22, 2018	Dec. 20, 2018	Radiation (03CH13-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-1241	1GHz ~ 18GHz	Jun. 15, 2017	Jan. 17, 2018~ Jan. 22, 2018	Jun. 14, 2018	Radiation (03CH13-HY)
Preamplifier	MITEQ	AMF-7D-00101800-30-1	1590074	1GHz~18GHz	May 22, 2017	Jan. 17, 2018~ Jan. 22, 2018	May 21, 2018	Radiation (03CH13-HY)
Spectrum Analyzer	Keysight	N9010A	MY55370526	10Hz~44GHz	Mar. 15, 2017	Jan. 17, 2018~ Jan. 22, 2018	Mar. 14, 2018	Radiation (03CH13-HY)
Antenna Mast	EMEC	AM-BS-4500-B	N/A	1m~4m	N/A	Jan. 17, 2018~ Jan. 22, 2018	N/A	Radiation (03CH13-HY)
Turn Table	EMEC	TT2000	N/A	0~360 Degree	N/A	Jan. 17, 2018~ Jan. 22, 2018	N/A	Radiation (03CH13-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170251	18GHz- 40GHz	Nov. 10, 2017	Jan. 17, 2018~ Jan. 22, 2018	Nov. 09, 2018	Radiation (03CH13-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170584	18GHz- 40GHz	Nov. 27, 2017	Jan. 17, 2018~ Jan. 22, 2018	Nov. 26, 2018	Radiation (03CH13-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-1522	1G~18GHz	Mar. 17, 2017	Jan. 17, 2018~ Jan. 22, 2018	Mar. 16, 2018	Radiation (03CH13-HY)
Signal Generator	Rohde & Schwarz	SMF100A	101107	100kHz~40GHz	May 22, 2017	Jan. 17, 2018~ Jan. 22, 2018	May 21, 2018	Radiation (03CH13-HY)
Preamplifier	Keysight	83017A	MY53270264	1GHz ~ 26.5GHz	Dec. 05, 2017	Jan. 17, 2018~ Jan. 22, 2018	Dec. 04, 2018	Radiation (03CH13-HY)

6 Uncertainty of Evaluation

Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**3.07**

Uncertainty of Radiated Emission Measurement (1 GHz ~ 18 GHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**3.48**

Uncertainty of Radiated Emission Measurement (18 GHz ~ 40 GHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**3.92**

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	1909.8
GSM	33.48	33.42	33.38	30.20	30.64	30.44
GPRS class 8	33.49	33.44	33.40	30.23	30.65	30.47
GPRS class 10	30.23	30.28	30.14	27.09	27.26	26.97
GPRS class 11	28.32	28.37	28.26	25.28	25.57	25.26
GPRS class 12	27.00	26.99	26.78	23.69	24.06	23.81
EGPRS class 8	26.78	26.80	26.73	25.70	26.00	25.76
EGPRS class 10	26.67	26.70	26.66	25.59	25.95	25.60
EGPRS class 11	25.35	25.37	25.30	24.16	24.49	24.15
EGPRS class 12	23.99	24.00	23.98	22.77	23.00	22.72

Conducted Power (*Unit: dBm)						
Band	WCDMA Band V			WCDMA Band II		
Channel	4132	4182	4233	9262	9400	9538
Frequency	826.4	836.4	846.6	1852.4	1880	1907.6
RMC 12.2K	22.87	22.83	22.76	22.74	22.83	22.87
HSDPA Subtest-1	21.95	21.88	21.92	21.78	21.81	21.92
HSDPA Subtest-2	21.99	22.03	21.91	21.90	21.88	22.00
HSDPA Subtest-3	21.53	21.45	21.45	21.42	21.40	21.41
HSDPA Subtest-4	21.54	21.46	21.44	21.42	21.41	21.42
HSUPA Subtest-1	21.90	21.58	21.74	21.44	21.56	21.91
HSUPA Subtest-2	20.66	21.00	20.50	20.50	20.92	20.75
HSUPA Subtest-3	20.79	21.02	20.62	20.64	20.43	20.75
HSUPA Subtest-4	20.91	20.81	20.59	20.87	20.98	20.99
HSUPA Subtest-5	22.00	21.90	21.90	22.00	21.90	21.90

Conducted Power (*Unit: dBm)			
Band	WCDMA Band IV		
Channel	1312	1413	1513
Frequency	1712.4	1732.6	1752.6
RMC 12.2K	22.71	23.03	**23.17**
HSDPA Subtest-1	21.77	22.09	22.20
HSDPA Subtest-2	21.86	22.13	22.30
HSDPA Subtest-3	21.37	21.73	21.82
HSDPA Subtest-4	21.38	21.73	21.82
HSUPA Subtest-1	21.24	21.55	21.62
HSUPA Subtest-2	20.81	20.89	20.99
HSUPA Subtest-3	20.98	21.21	21.31
HSUPA Subtest-4	20.77	20.88	20.97
HSUPA Subtest-5	21.90	22.10	21.80

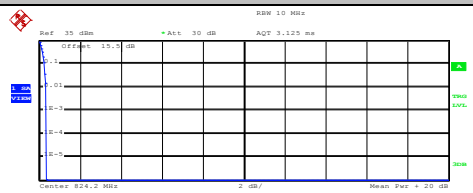
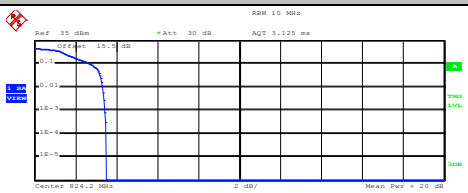
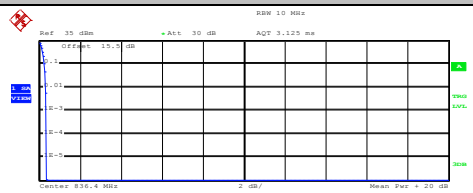
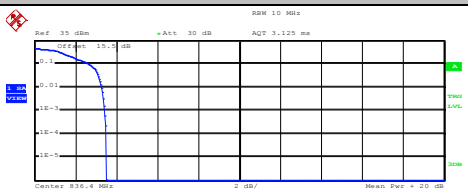
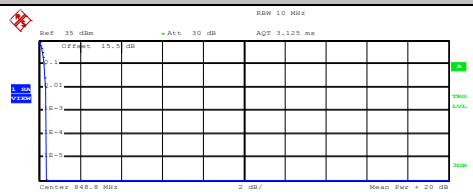
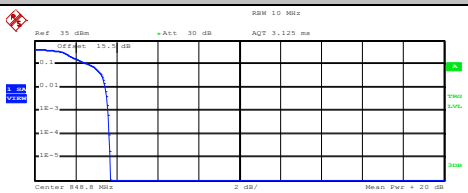
Conducted Power (*Unit: dBm)						
Band	CDMA 2000 BC0			CDMA 2000 BC1		
Channel	1013	384	777	25	600	1175
Frequency	824.7	836.52	848.31	1851.25	1880	1908.75
1xRTT RC1 SO55	24.28	24.25	24.33	24.23	24.05	24.03
1xRTT RC3 SO55	24.31	24.29	**24.38**	**24.27**	24.07	24.04
1xRTT RC3 SO32 (+ F-SCH)	24.27	24.22	24.31	24.24	24.03	24.02
1xRTT RC3 SO32 (+SCH)	24.26	24.23	24.29	24.21	24.01	23.97
1xEVDO RTAP 153.6Kbps	24.25	24.20	**24.37**	**24.26**	23.95	23.82
1xEVDO RETAP 4096Bits	24.26	24.21	24.32	24.20	23.99	23.83

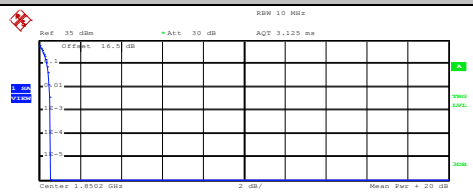
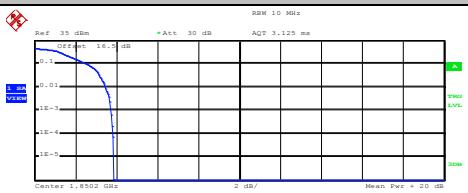
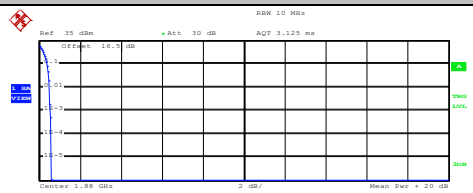
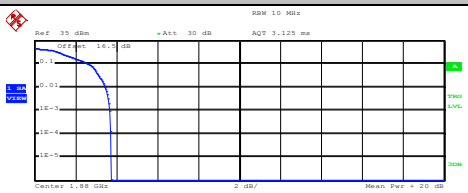
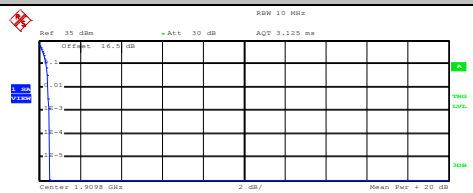
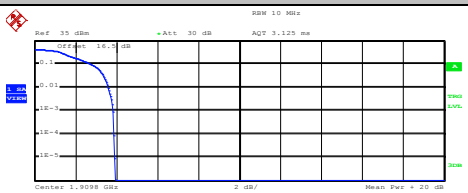
A2. GSM

Peak-to-Average Ratio

Mode	GSM850		Limit: 13dB
Mod.	GPRS class 8	EDGE class 8	Result
Lowest CH	0.36	3.44	PASS
Middle CH	0.36	3.44	
Highest CH	0.36	3.60	

Mode	GSM1900		Limit: 13dB
Mod.	GPRS class 8	EDGE class 8	Result
Lowest CH	0.56	3.72	PASS
Middle CH	0.56	3.68	
Highest CH	0.48	3.84	

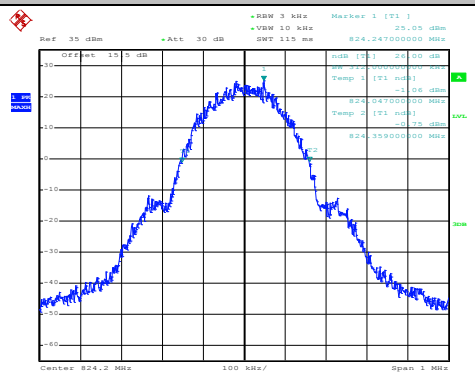
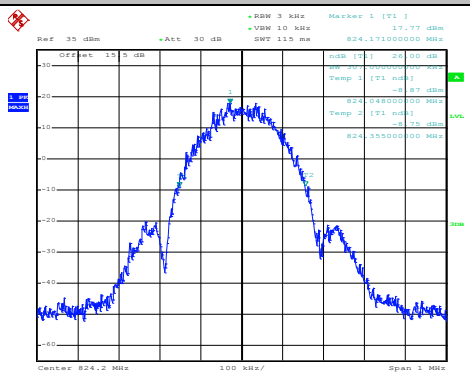
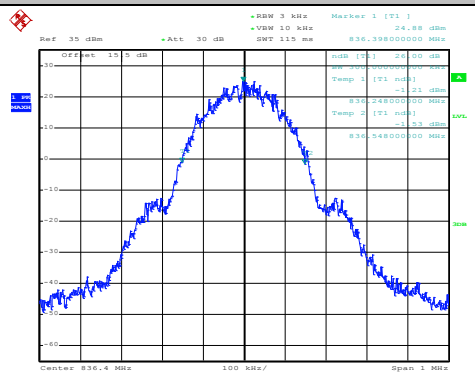
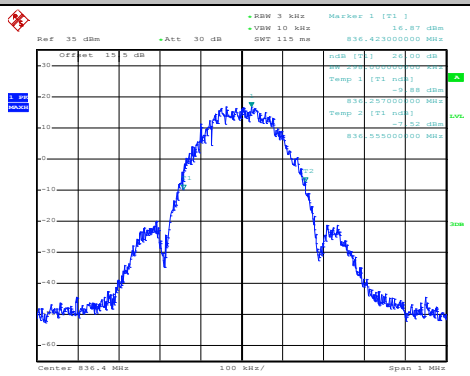
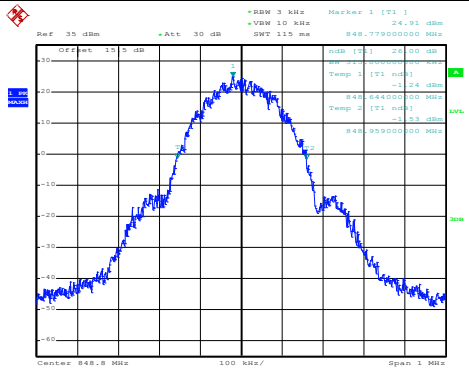
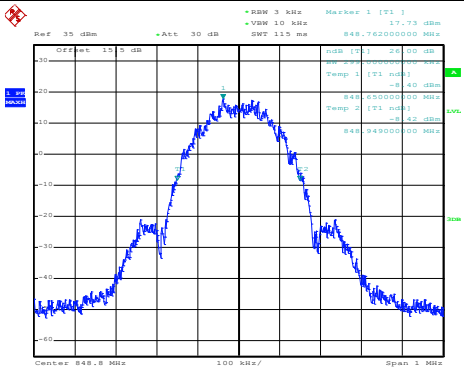
GSM850 (GPRS class 8)	GSM850 (EDGE class 8)
Lowest Channel	**Lowest Channel**
	
Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean 32.48 dBm Peak 32.83 dBm Crest 0.35 dB 10 % 0.24 dB 1 % 0.32 dB .1 % 0.36 dB .01 % 0.36 dB	Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean 25.37 dBm Peak 28.87 dBm Crest 3.51 dB 10 % 2.72 dB 1 % 3.32 dB .1 % 3.44 dB .01 % 3.52 dB
Date: 9.JAN.2018 14:28:24	Date: 9.JAN.2018 15:40:28
Middle Channel	**Middle Channel**
	
Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean 32.36 dBm Peak 32.68 dBm Crest 0.32 dB 10 % 0.24 dB 1 % 0.32 dB .1 % 0.36 dB .01 % 0.36 dB	Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean 25.36 dBm Peak 28.87 dBm Crest 3.51 dB 10 % 2.64 dB 1 % 3.28 dB .1 % 3.44 dB .01 % 3.52 dB
Date: 9.JAN.2018 14:28:44	Date: 9.JAN.2018 15:40:47
Highest Channel	**Highest Channel**
	
Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean 32.34 dBm Peak 32.68 dBm Crest 0.34 dB 10 % 0.24 dB 1 % 0.32 dB .1 % 0.36 dB .01 % 0.36 dB	Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean 25.05 dBm Peak 28.73 dBm Crest 3.68 dB 10 % 2.68 dB 1 % 3.44 dB .1 % 3.60 dB .01 % 3.64 dB
Date: 9.JAN.2018 14:29:08	Date: 9.JAN.2018 15:41:08

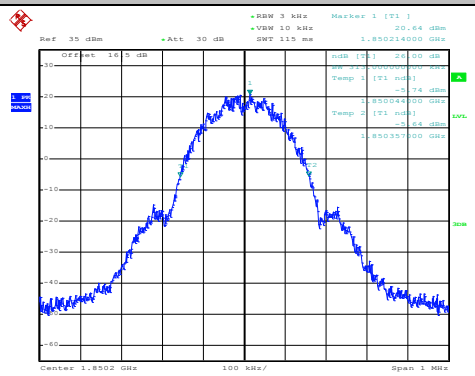
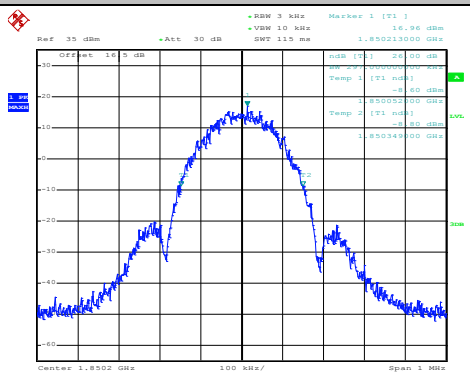
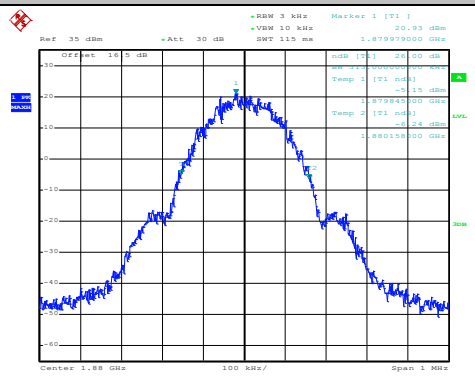
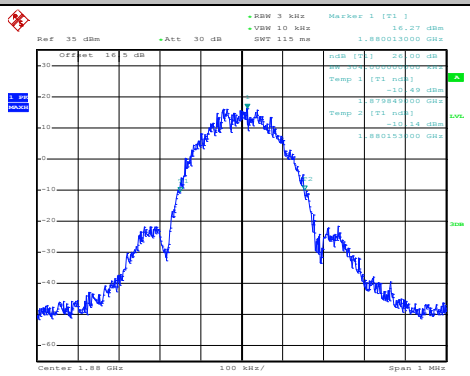
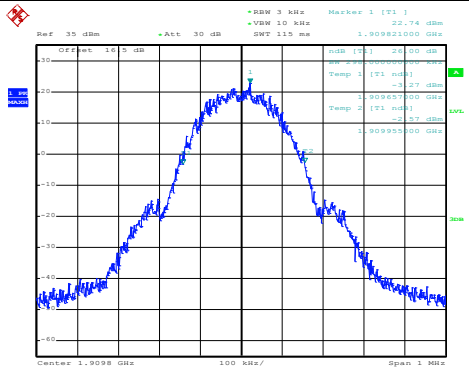
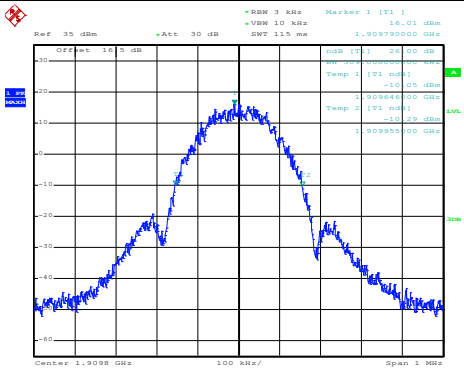
GSM1900 (GPRS class 8)	GSM1900 (EDGE class 8)
Lowest Channel	**Lowest Channel**
	
Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean 28.81 dBm Peak 29.37 dBm Crest 0.56 dB 10 % 0.36 dB 1 % 0.48 dB .1 % 0.56 dB .01 % 0.56 dB	Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean 24.03 dBm Peak 27.89 dBm Crest 3.85 dB 10 % 2.56 dB 1 % 3.44 dB .1 % 3.72 dB .01 % 3.84 dB
Date: 9.JAN.2018 14:48:29	Date: 9.JAN.2018 16:12:37
Middle Channel	**Middle Channel**
	
Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean 28.72 dBm Peak 29.30 dBm Crest 0.57 dB 10 % 0.40 dB 1 % 0.52 dB .1 % 0.56 dB .01 % 0.60 dB	Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean 24.03 dBm Peak 27.75 dBm Crest 3.72 dB 10 % 2.68 dB 1 % 3.44 dB .1 % 3.68 dB .01 % 3.72 dB
Date: 9.JAN.2018 14:48:48	Date: 9.JAN.2018 16:12:59
Highest Channel	**Highest Channel**
	
Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean 29.15 dBm Peak 29.65 dBm Crest 0.50 dB 10 % 0.32 dB 1 % 0.44 dB .1 % 0.48 dB .01 % 0.52 dB	Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean 23.87 dBm Peak 27.82 dBm Crest 3.95 dB 10 % 2.80 dB 1 % 3.60 dB .1 % 3.84 dB .01 % 3.88 dB
Date: 9.JAN.2018 14:49:07	Date: 9.JAN.2018 16:13:18

26dB Bandwidth

Mode	GSM850	
Mod.	GPRS class 8	EDGE class 8
Lowest CH	0.312	0.307
Middle CH	0.300	0.298
Highest CH	0.315	0.299

Mode	GSM1900	
Mod.	GPRS class 8	EDGE class 8
Lowest CH	0.313	0.297
Middle CH	0.313	0.304
Highest CH	0.298	0.309

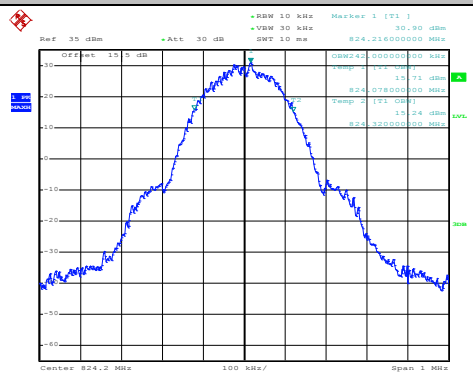
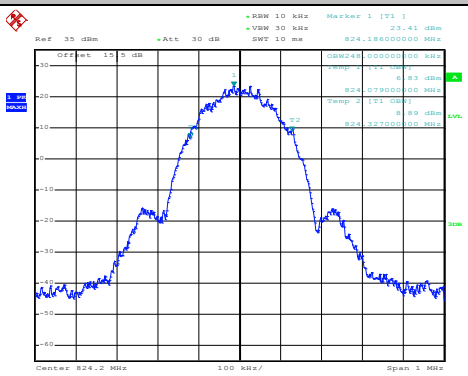
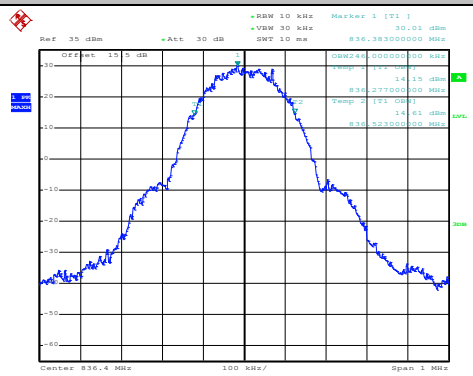
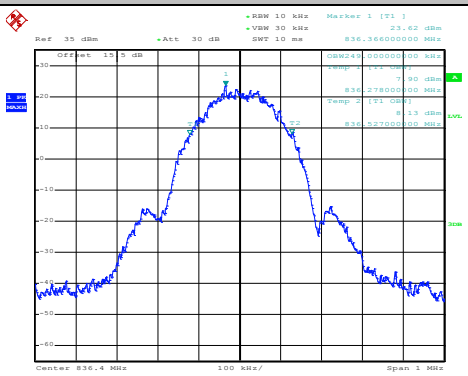
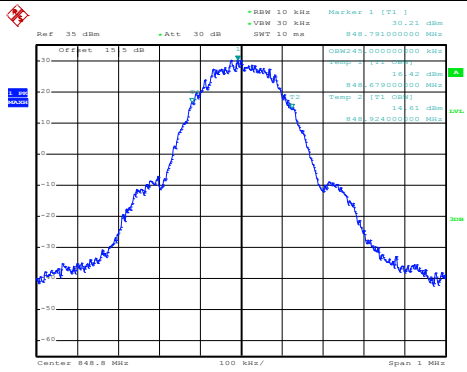
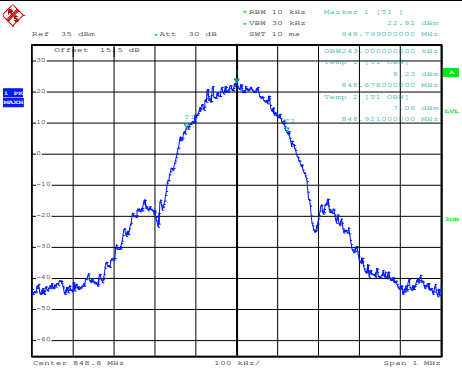
GSM850 (GPRS class 8)	GSM850 (EDGE class 8)
Lowest Channel	**Lowest Channel**
	
Date: 9.JAN.2018 14:17:18	Date: 9.JAN.2018 15:29:26
Middle Channel	**Middle Channel**
	
Date: 9.JAN.2018 14:17:50	Date: 9.JAN.2018 15:30:38
Highest Channel	**Highest Channel**
	
Date: 9.JAN.2018 14:18:23	Date: 9.JAN.2018 15:31:12

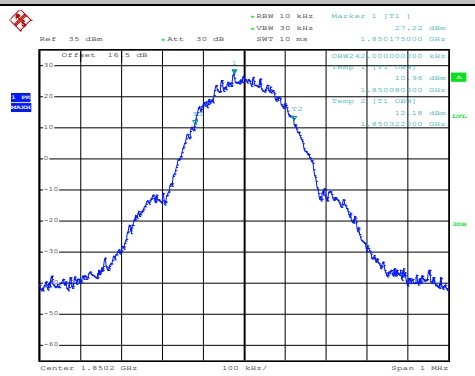
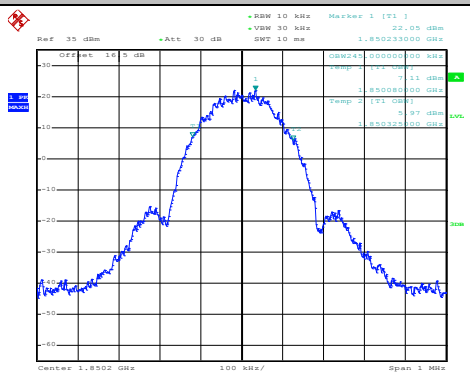
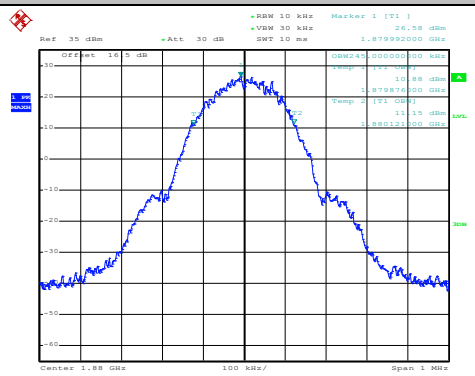
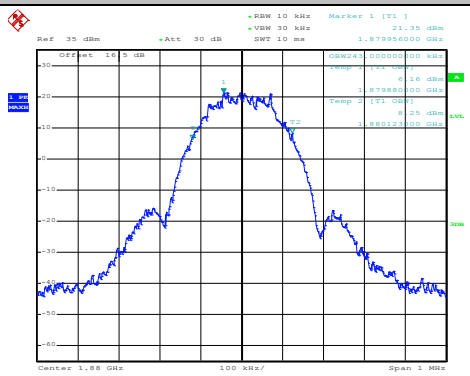
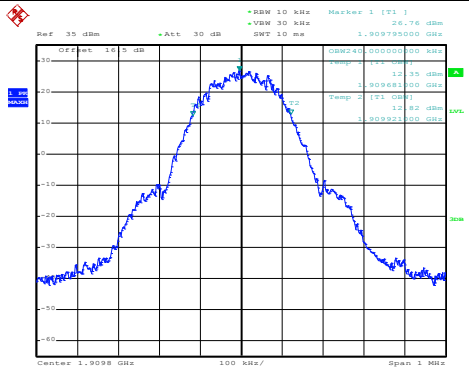
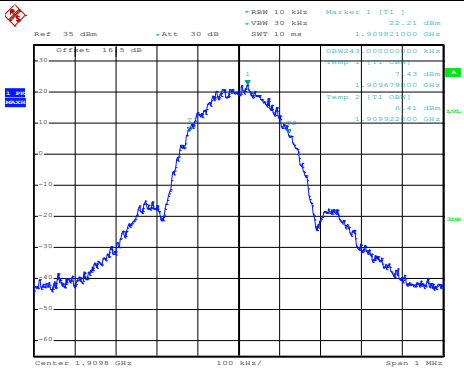
GSM1900 (GPRS class 8)	GSM1900 (EDGE class 8)
Lowest Channel	**Lowest Channel**
	
Date: 9.JAN.2018 14:37:06	Date: 9.JAN.2018 16:02:01
Middle Channel	**Middle Channel**
	
Date: 9.JAN.2018 14:37:41	Date: 9.JAN.2018 16:02:36
Highest Channel	**Highest Channel**
	
Date: 9.JAN.2018 14:38:14	Date: 9.JAN.2018 16:03:10

Occupied Bandwidth

Mode	GSM850	
Mod.	GPRS class 8	EDGE class 8
Lowest CH	0.242	0.248
Middle CH	0.246	0.249
Highest CH	0.245	0.243

Mode	GSM1900	
Mod.	GPRS class 8	EDGE class 8
Lowest CH	0.242	0.245
Middle CH	0.245	0.243
Highest CH	0.240	0.243

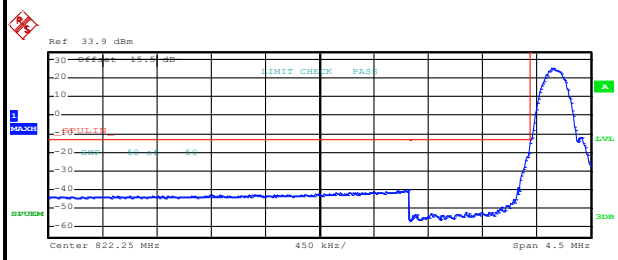
GSM850 (GPRS class 8)	GSM850 (EDGE class 8)
Lowest Channel	**Lowest Channel**
	
Date: 9.JAN.2018 14:19:06	Date: 9.JAN.2018 15:32:29
Middle Channel	**Middle Channel**
	
Date: 9.JAN.2018 14:19:40	Date: 9.JAN.2018 15:33:08
Highest Channel	**Highest Channel**
	
Date: 9.JAN.2018 14:20:13	Date: 9.JAN.2018 15:33:47

GSM1900 (GPRS class 8)	GSM1900 (EDGE class 8)
Lowest Channel	**Lowest Channel**
	
Date: 9.JAN.2018 14:39:10	Date: 9.JAN.2018 16:04:33
Middle Channel	**Middle Channel**
	
Date: 9.JAN.2018 14:39:55	Date: 9.JAN.2018 16:05:06
Highest Channel	**Highest Channel**
	
Date: 9.JAN.2018 14:40:27	Date: 9.JAN.2018 16:05:42

Conducted Band Edge

GSM850 (GPRS class 8)

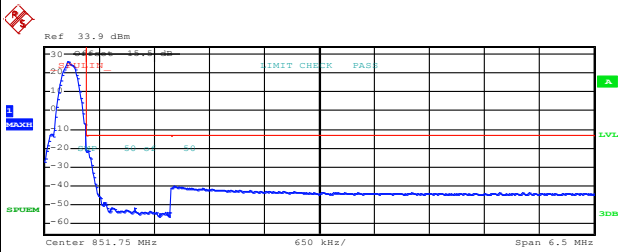
Lowest Band Edge



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
820.000 M	823.000 M	100.00 k	822.985000 M	-40.33	-27.33
823.000 M	824.000 M	3.00 k	823.984000 M	-19.95	-6.95
824.000 M	824.500 M	10.00 k	824.179500 M	25.60	-9.40

Date: 9.JAN.2018 14:21:49

Highest Band Edge

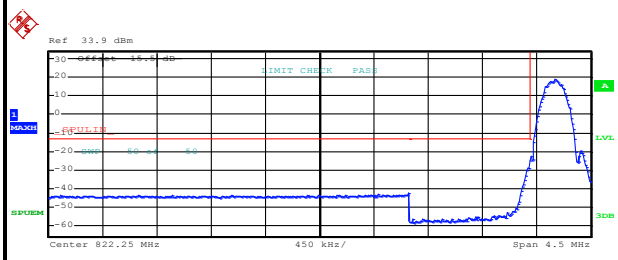


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
848.500 M	849.000 M	10.00 k	848.779500 M	25.94	-9.06
849.000 M	850.000 M	3.00 k	849.020000 M	-20.87	-7.87
850.000 M	855.000 M	100.00 k	850.025000 M	-40.30	-27.30

Date: 9.JAN.2018 14:23:21

GSM850 (EDGE class 8)

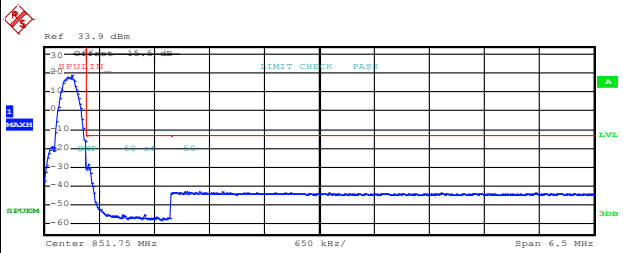
Lowest Band Edge



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
820.000 M	823.000 M	100.00 k	822.991000 M	-42.65	-29.65
823.000 M	824.000 M	3.00 k	823.984000 M	-28.87	-15.87
824.000 M	824.500 M	10.00 k	824.198500 M	19.08	-15.92

Date: 9.JAN.2018 15:35:35

Highest Band Edge

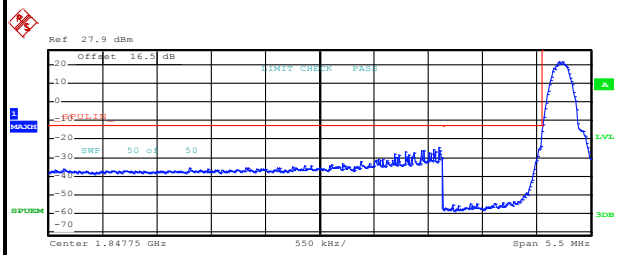


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
848.500 M	849.000 M	10.00 k	848.822000 M	18.92	-16.08
849.000 M	850.000 M	3.00 k	849.016000 M	-28.10	-15.10
850.000 M	855.000 M	100.00 k	850.330000 M	-43.09	-30.09

Date: 9.JAN.2018 15:37:09

GSM1900 (GPRS class 8)

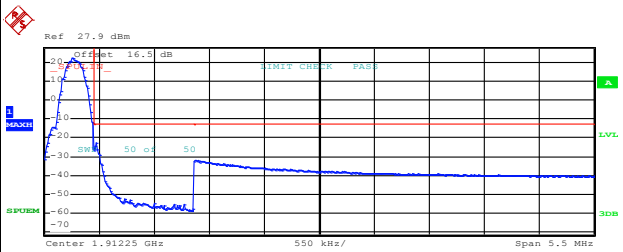
Lowest Band Edge



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.845 G	1.849 G	1.00 M	1.848952 G	-24.17	-11.17
1.849 G	1.850 G	3.00 k	1.849988 G	-24.94	-11.94
1.850 G	1.851 G	10.00 k	1.850183 G	21.94	-13.06

Date: 9.JAN.2018 14:42:05

Highest Band Edge

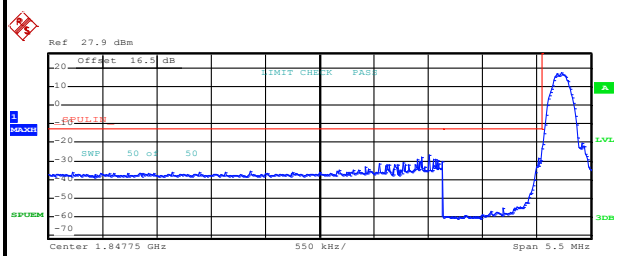


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.910 G	1.910 G	10.00 k	1.909775 G	22.51	-12.49
1.910 G	1.911 G	3.00 k	1.910016 G	-22.66	-9.66
1.911 G	1.915 G	1.00 M	1.911004 G	-32.11	-19.11

Date: 9.JAN.2018 14:44:06

GSM1900 (EDGE class 8)

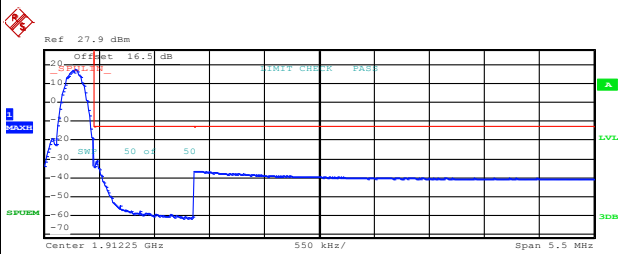
Lowest Band Edge



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.845 G	1.849 G	1.00 M	1.848852 G	-26.91	-13.91
1.849 G	1.850 G	3.00 k	1.849964 G	-28.40	-15.40
1.850 G	1.851 G	10.00 k	1.850208 G	17.40	-17.60

Date: 9.JAN.2018 16:07:28

Highest Band Edge



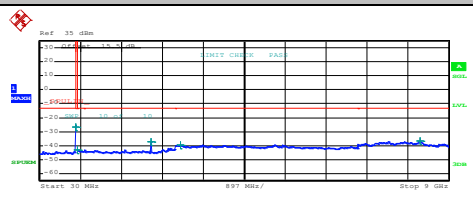
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.910 G	1.910 G	10.00 k	1.909812 G	17.59	-17.41
1.910 G	1.911 G	3.00 k	1.910020 G	-30.91	-17.91
1.911 G	1.915 G	1.00 M	1.911024 G	-36.47	-23.47

Date: 9.JAN.2018 16:09:01

Conducted Spurious Emission

GSM850 (GPRS class 8)

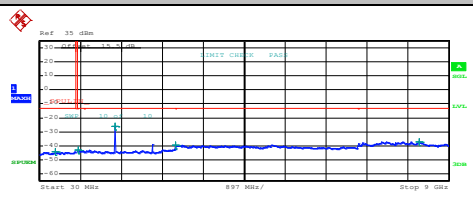
Lowest Channel



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
30.000 M	820.000 M	1.00 M	819.802500 M	-26.83	-13.83
855.000 M	1.000 G	1.00 M	864.171251 M	-43.15	-30.15
1.000 G	3.000 G	1.00 M	2.473000 G	-37.34	-24.34
3.000 G	7.000 G	1.00 M	3.108000 G	-39.49	-26.49
7.000 G	9.000 G	1.00 M	8.364000 G	-36.69	-23.69

Date: 9.JAN.2018 14:24:20

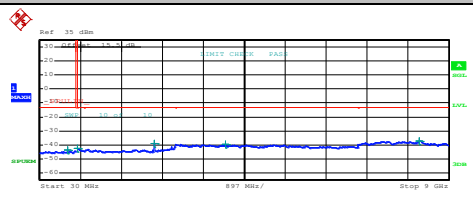
Middle Channel



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
30.000 M	820.000 M	1.00 M	374.045000 M	-44.36	-31.36
855.000 M	1.000 G	1.00 M	865.766251 M	-43.14	-30.14
1.000 G	3.000 G	1.00 M	1.673000 G	-26.06	-13.06
3.000 G	7.000 G	1.00 M	3.005000 G	-39.31	-26.31
7.000 G	9.000 G	1.00 M	8.349500 G	-37.02	-24.02

Date: 9.JAN.2018 14:25:13

Highest Channel

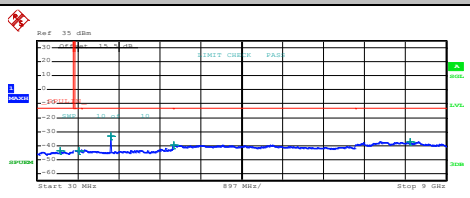


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
30.000 M	820.000 M	1.00 M	633.560000 M	-43.73	-30.73
855.000 M	1.000 G	1.00 M	855.652500 M	-42.19	-29.19
1.000 G	3.000 G	1.00 M	2.546500 G	-38.76	-25.76
3.000 G	7.000 G	1.00 M	4.101000 G	-39.57	-26.57
7.000 G	9.000 G	1.00 M	8.350000 G	-37.17	-24.17

Date: 9.JAN.2018 14:27:07

GSM850 (EDGE class 8)

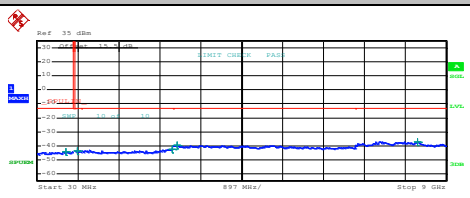
Lowest Channel



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
30.000 M	820.000 M	1.00 M	538.345000 M	-43.74	-30.74
855.000 M	1.000 G	1.00 M	941.963756 M	-43.68	-30.68
1.000 G	3.000 G	1.00 M	1.648500 G	-33.13	-20.13
3.000 G	7.000 G	1.00 M	3.029000 G	-39.55	-26.55
7.000 G	9.000 G	1.00 M	8.219000 G	-37.41	-24.41

Date: 9.JAN.2018 15:38:24

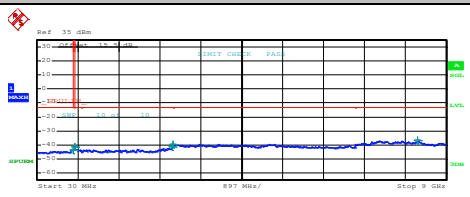
Middle Channel



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
30.000 M	820.000 M	1.00 M	655.087500 M	-44.38	-31.38
855.000 M	1.000 G	1.00 M	910.861254 M	-43.52	-30.52
1.000 G	3.000 G	1.00 M	2.999000 G	-42.29	-29.29
3.000 G	7.000 G	1.00 M	3.100000 G	-39.37	-26.37
7.000 G	9.000 G	1.00 M	8.372500 G	-37.08	-24.08

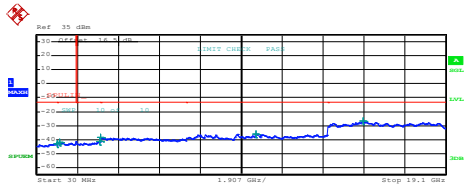
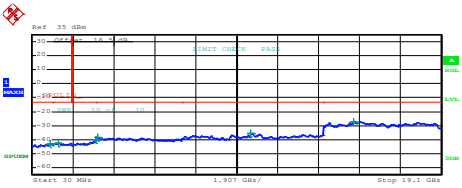
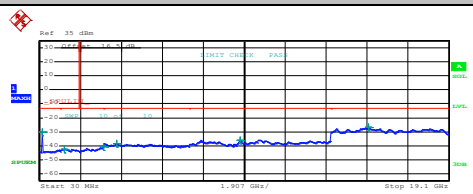
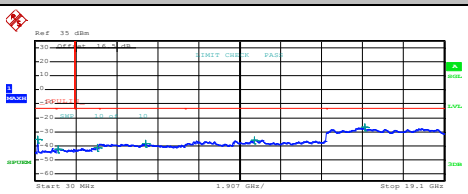
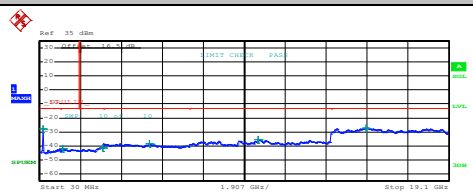
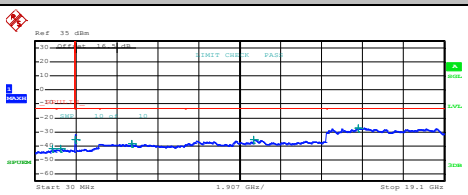
Date: 9.JAN.2018 15:39:14

Highest Channel



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
30.000 M	820.000 M	1.00 M	813.482500 M	-43.67	-30.67
855.000 M	1.000 G	1.00 M	855.036250 M	-41.07	-28.07
1.000 G	3.000 G	1.00 M	2.986500 G	-41.28	-28.28
3.000 G	7.000 G	1.00 M	3.017000 G	-39.40	-26.40
7.000 G	9.000 G	1.00 M	8.381000 G	-36.41	-23.41

Date: 9.JAN.2018 15:40:04

GSM1900 (GPRS class 8)	GSM1900 (EDGE class 8)
Lowest Channel	**Lowest Channel**
	
Start [Hz] / Stop [Hz] / RBW [Hz] / Freq [Hz] / PwrAbs [dBm] / ΔLimit [dB] 30.000 M / 1.000 G / 1.00 M / 976.720000 M / -43.21 / -30.21 1.000 G / 1.845 G / 1.00 M / 1.103301 G / -41.75 / -28.75 1.915 G / 3.000 G / 1.00 M / 2.980470 G / -41.25 / -28.25 3.000 G / 7.000 G / 1.00 M / 3.005000 G / -38.39 / -25.39 7.000 G / 13.600 G / 1.00 M / 10.254625 G / -35.87 / -22.87 13.600 G / 19.100 G / 1.00 M / 15.234875 G / -26.53 / -13.53	Start [Hz] / Stop [Hz] / RBW [Hz] / Freq [Hz] / PwrAbs [dBm] / ΔLimit [dB] 30.000 M / 1.000 G / 1.00 M / 879.962500 M / -43.01 / -30.01 1.000 G / 1.845 G / 1.00 M / 1.255401 G / -42.27 / -29.27 1.915 G / 3.000 G / 1.00 M / 2.995660 G / -40.03 / -27.03 3.000 G / 7.000 G / 1.00 M / 3.075000 G / -38.51 / -25.51 7.000 G / 13.600 G / 1.00 M / 10.224100 G / -35.41 / -22.41 13.600 G / 19.100 G / 1.00 M / 15.035500 G / -27.16 / -14.16
Date: 9.JAN.2018 14:45:29	Date: 9.JAN.2018 16:10:02
Middle Channel	**Middle Channel**
	
Start [Hz] / Stop [Hz] / RBW [Hz] / Freq [Hz] / PwrAbs [dBm] / ΔLimit [dB] 30.000 M / 1.000 G / 1.00 M / 141.792500 M / -30.20 / -17.20 1.000 G / 1.845 G / 1.00 M / 1.173014 G / -42.37 / -29.37 1.915 G / 3.000 G / 1.00 M / 2.995660 G / -40.92 / -27.92 3.000 G / 7.000 G / 1.00 M / 3.607000 G / -38.48 / -25.48 7.000 G / 13.600 G / 1.00 M / 9.359500 G / -35.84 / -22.84 13.600 G / 19.100 G / 1.00 M / 15.344875 G / -26.86 / -13.86	Start [Hz] / Stop [Hz] / RBW [Hz] / Freq [Hz] / PwrAbs [dBm] / ΔLimit [dB] 30.000 M / 1.000 G / 1.00 M / 141.550000 M / -35.61 / -22.61 1.000 G / 1.845 G / 1.00 M / 1.100555 G / -42.47 / -29.47 1.915 G / 3.000 G / 1.00 M / 2.911844 G / -41.20 / -28.20 3.000 G / 7.000 G / 1.00 M / 5.167000 G / -38.65 / -25.65 7.000 G / 13.600 G / 1.00 M / 10.241425 G / -36.04 / -23.04 13.600 G / 19.100 G / 1.00 M / 15.397813 G / -26.72 / -13.72
Date: 9.JAN.2018 14:46:19	Date: 9.JAN.2018 16:10:54
Highest Channel	**Highest Channel**
	
Start [Hz] / Stop [Hz] / RBW [Hz] / Freq [Hz] / PwrAbs [dBm] / ΔLimit [dB] 30.000 M / 1.000 G / 1.00 M / 171.620000 M / -27.92 / -14.92 1.000 G / 1.845 G / 1.00 M / 1.084500 G / -41.88 / -28.88 1.915 G / 3.000 G / 1.00 M / 2.975859 G / -41.25 / -28.25 3.000 G / 7.000 G / 1.00 M / 5.143000 G / -38.29 / -25.29 7.000 G / 13.600 G / 1.00 M / 10.219150 G / -35.74 / -22.74 13.600 G / 19.100 G / 1.00 M / 15.232125 G / -27.02 / -14.02	Start [Hz] / Stop [Hz] / RBW [Hz] / Freq [Hz] / PwrAbs [dBm] / ΔLimit [dB] 30.000 M / 1.000 G / 1.00 M / 838.980000 M / -41.96 / -28.96 1.000 G / 1.845 G / 1.00 M / 1.209983 G / -42.13 / -29.13 1.915 G / 3.000 G / 1.00 M / 1.915271 G / -35.70 / -22.70 3.000 G / 7.000 G / 1.00 M / 4.546000 G / -38.67 / -25.67 7.000 G / 13.600 G / 1.00 M / 10.209250 G / -35.72 / -22.72 13.600 G / 19.100 G / 1.00 M / 15.099438 G / -27.33 / -14.33
Date: 9.JAN.2018 14:47:09	Date: 9.JAN.2018 16:12:12

Frequency Stability

Test Conditions	Middle Channel	GSM850 (GPRS class 8)	GSM850 (EDGE class 8)	Limit 2.5ppm
Temperature (°C)	Voltage (Volt)	Deviation (ppm)		Result
50	Normal Voltage	0.0132	0.0048	PASS
40	Normal Voltage	0.0108	0.0120	
30	Normal Voltage	0.0036	0.0024	
20(Ref.)	Normal Voltage	0.0000	0.0000	
10	Normal Voltage	0.0227	0.0036	
0	Normal Voltage	0.0036	0.0012	
-10	Normal Voltage	0.0012	0.0072	
-20	Normal Voltage	0.0072	0.0036	
-30	Normal Voltage	0.0096	0.0048	
20	Maximum Voltage	0.0060	0.0096	
20	Normal Voltage	0.0000	0.0000	
20	Battery End Point	0.0060	0.0108	

Test Conditions	Middle Channel	GSM1900 (GPRS class 8)	GSM1900 (EDGE class 8)	Limit Note 2.
Temperature (°C)	Voltage (Volt)	Deviation (ppm)		Result
50	Normal Voltage	0.0197	0.0133	PASS
40	Normal Voltage	0.0165	0.0154	
30	Normal Voltage	0.0037	0.0005	
20(Ref.)	Normal Voltage	0.0000	0.0000	
10	Normal Voltage	0.0207	0.0016	
0	Normal Voltage	0.0005	0.0011	
-10	Normal Voltage	0.0043	0.0037	
-20	Normal Voltage	0.0170	0.0027	
-30	Normal Voltage	0.0213	0.0154	
20	Maximum Voltage	0.0059	0.0005	
20	Normal Voltage	0.0000	0.0000	
20	Battery End Point	0.0011	0.0027	

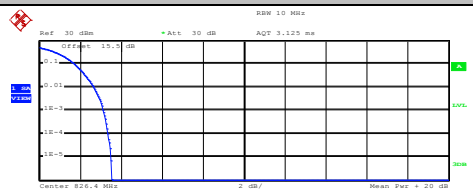
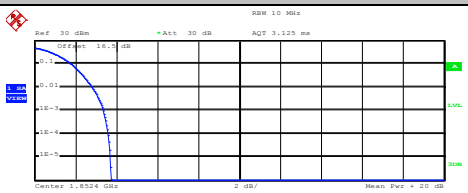
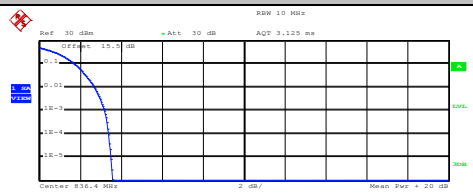
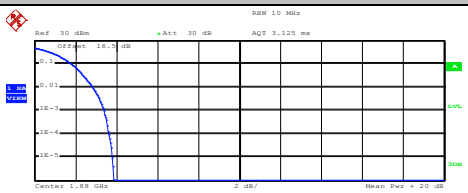
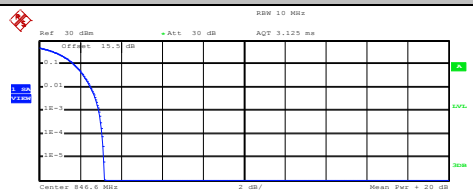
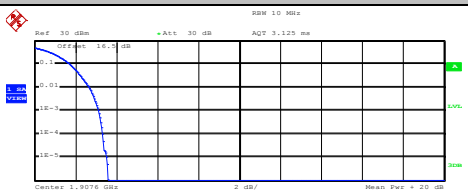
Note:

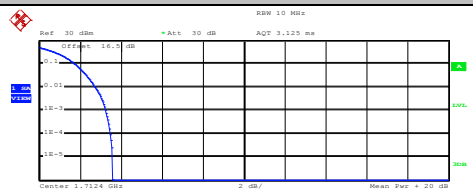
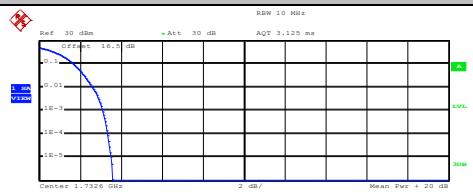
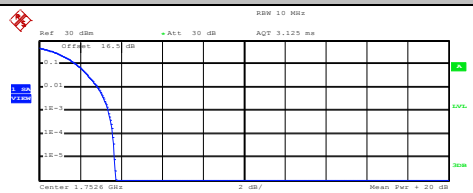
1. Normal Voltage = 3.8V. ；Battery End Point (BEP) = 3.5 V.；Maximum Voltage =4.4 V
2. The frequency fundamental emissions stay within the authorized frequency block.

A3. WCDMA

Peak-to-Average Ratio

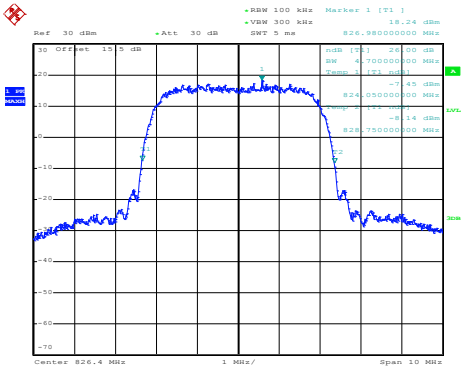
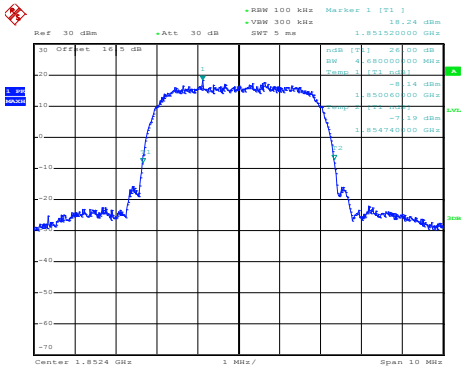
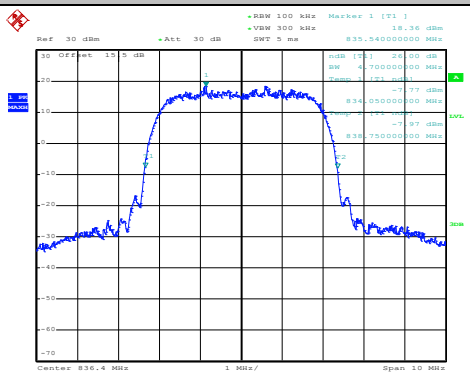
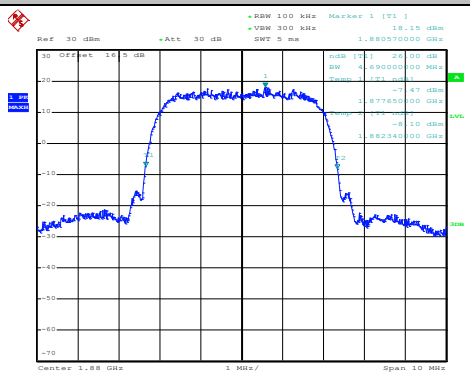
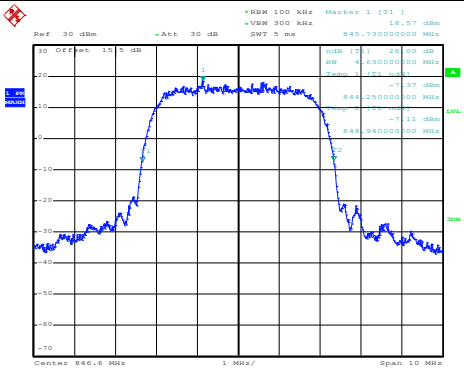
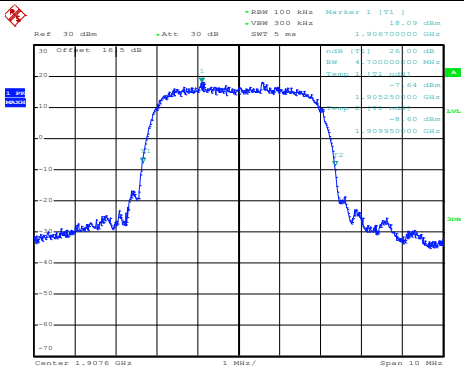
Mode	WCDMA Band V	WCDMA Band II	WCDMA Band IV	Limit: 13dB
Mod.	RMC 12.2Kbps	RMC 12.2Kbps	RMC 12.2Kbps	Result
Lowest CH	3.12	3.36	3.24	PASS
Middle CH	3.20	3.40	3.12	
Highest CH	2.92	3.12	3.36	

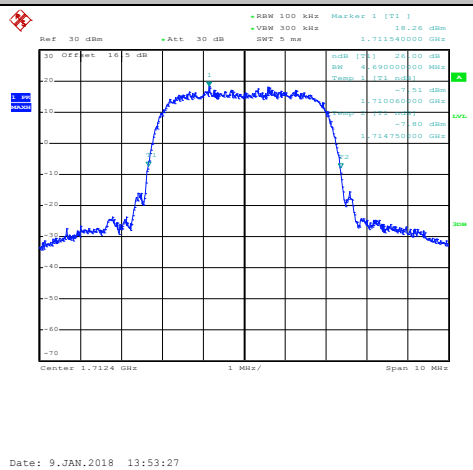
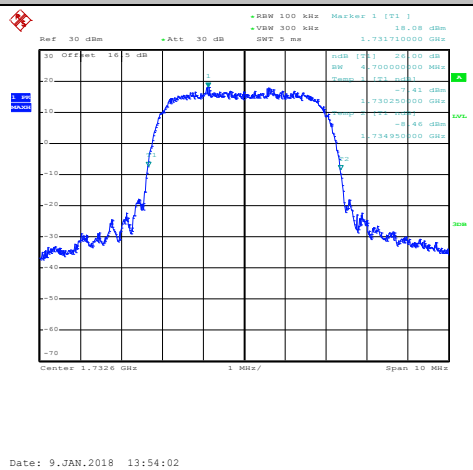
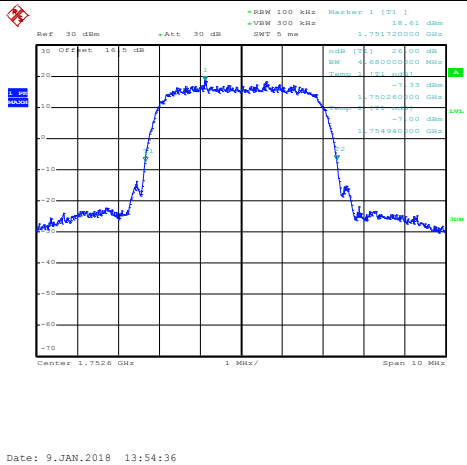
WCDMA Band V (RMC 12.2Kbps)	WCDMA Band II (RMC 12.2Kbps)
Lowest Channel	**Lowest Channel**
 Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean 22.18 dBm Peak 25.71 dBm Crest 3.53 dB 10 % 1.72 dB 1 % 2.68 dB .1 % 3.12 dB .01 % 3.36 dB Date: 9.JAN.2018 13:34:22	 Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean 21.99 dBm Peak 25.71 dBm Crest 3.72 dB 10 % 1.80 dB 1 % 2.80 dB .1 % 3.36 dB .01 % 3.60 dB Date: 9.JAN.2018 13:51:40
Middle Channel	**Middle Channel**
 Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean 22.28 dBm Peak 25.85 dBm Crest 3.57 dB 10 % 1.72 dB 1 % 2.72 dB .1 % 3.20 dB .01 % 3.40 dB Date: 9.JAN.2018 13:34:36	 Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean 22.06 dBm Peak 25.92 dBm Crest 3.86 dB 10 % 1.80 dB 1 % 2.84 dB .1 % 3.40 dB .01 % 3.64 dB Date: 9.JAN.2018 13:51:54
Highest Channel	**Highest Channel**
 Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean 22.16 dBm Peak 25.36 dBm Crest 3.20 dB 10 % 1.68 dB 1 % 2.52 dB .1 % 2.92 dB .01 % 3.08 dB Date: 9.JAN.2018 13:34:52	 Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean 21.98 dBm Peak 25.57 dBm Crest 3.59 dB 10 % 1.72 dB 1 % 2.68 dB .1 % 3.12 dB .01 % 3.32 dB Date: 9.JAN.2018 13:52:11

WCDMA Band IV (RMC 12.2Kbps)	
Lowest Channel	
 Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean 22.12 dBm Peak 25.71 dBm Crest 3.59 dB 10 % 1.76 dB 1 % 2.72 dB .1 % 3.24 dB .01 % 3.48 dB Date: 9.JAN.2018 14:06:08	
Middle Channel	
 Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean 21.98 dBm Peak 25.57 dBm Crest 3.59 dB 10 % 1.68 dB 1 % 2.60 dB .1 % 3.12 dB .01 % 3.36 dB Date: 9.JAN.2018 14:06:26	
Highest Channel	
 Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean 22.33 dBm Peak 26.06 dBm Crest 3.73 dB 10 % 1.80 dB 1 % 2.88 dB .1 % 3.36 dB .01 % 3.60 dB Date: 9.JAN.2018 14:06:44	

26dB Bandwidth

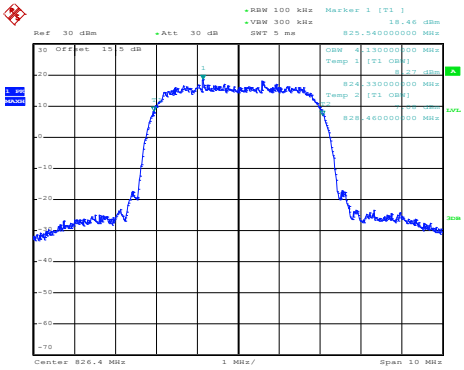
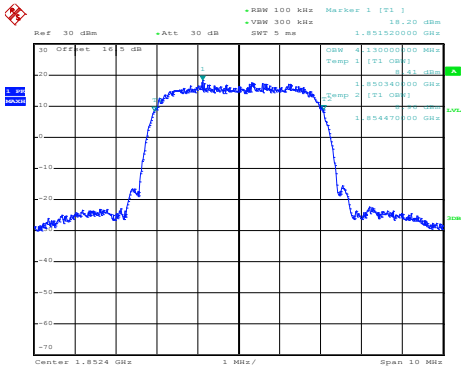
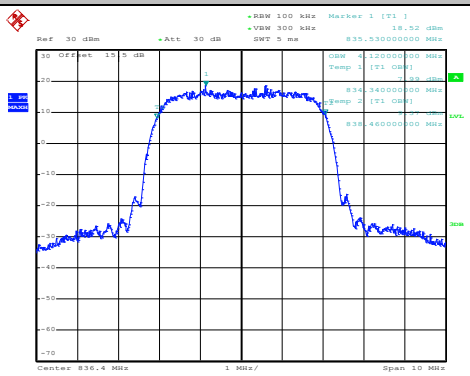
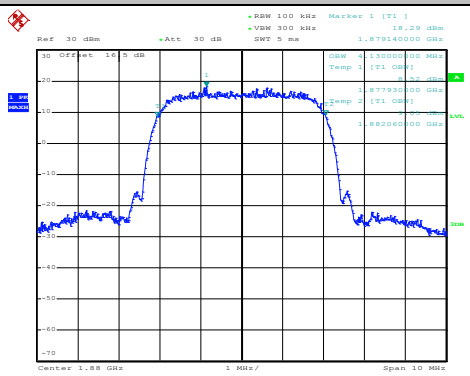
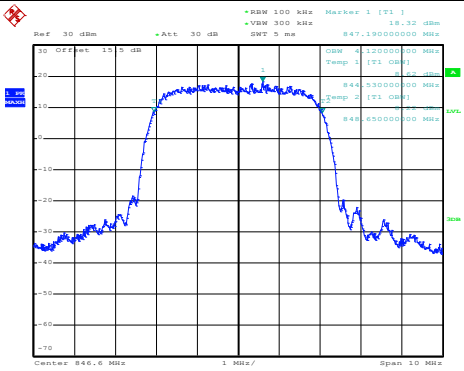
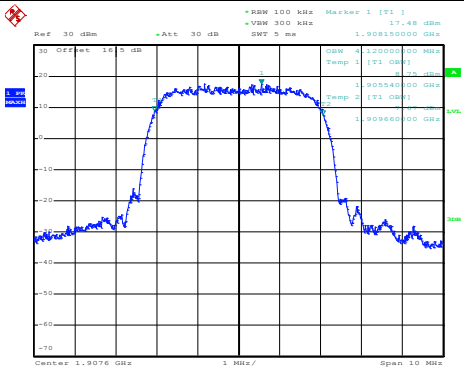
Mode	WCDMA Band V	WCDMA Band II	WCDMA Band IV
Mod.	RMC 12.2Kbps	RMC 12.2Kbps	RMC 12.2Kbps
Lowest CH	4.70	4.68	4.69
Middle CH	4.70	4.69	4.70
Highest CH	4.69	4.70	4.68

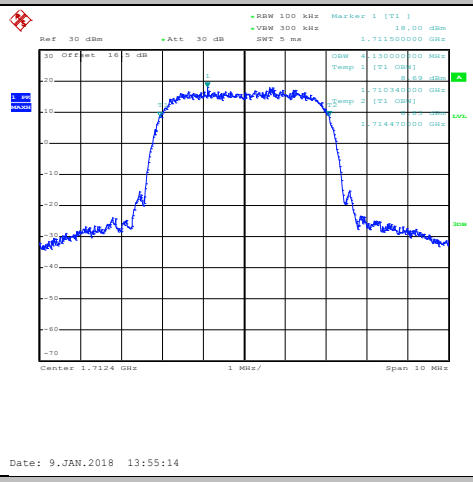
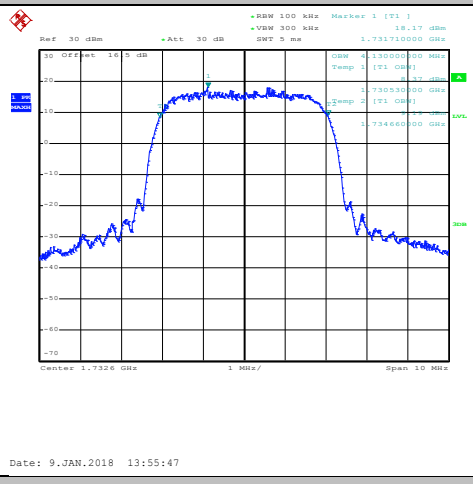
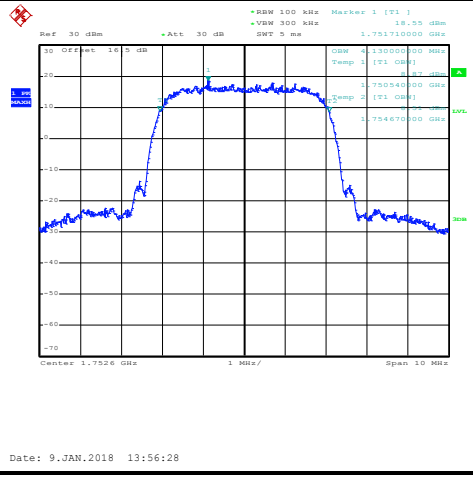
WCDMA Band V (RMC 12.2Kbps)	WCDMA Band II (RMC 12.2Kbps)
Lowest Channel	**Lowest Channel**
	
Date: 9.JAN.2018 13:21:52	Date: 9.JAN.2018 13:37:33
Middle Channel	**Middle Channel**
	
Date: 9.JAN.2018 13:22:29	Date: 9.JAN.2018 13:38:15
Highest Channel	**Highest Channel**
	
Date: 9.JAN.2018 13:23:04	Date: 9.JAN.2018 13:38:54

WCDMA Band IV (RMC 12.2Kbps)	
Lowest Channel	
 Date: 9.JAN.2018 13:53:27	
Middle Channel	
 Date: 9.JAN.2018 13:54:02	
Highest Channel	
 Date: 9.JAN.2018 13:54:36	

Occupied Bandwidth

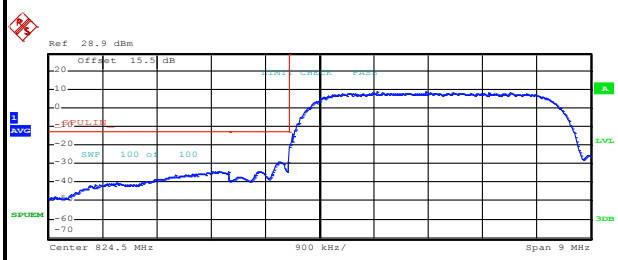
Mode	WCDMA Band V	WCDMA Band II	WCDMA Band IV
Mod.	RMC 12.2Kbps	RMC 12.2Kbps	RMC 12.2Kbps
Lowest CH	4.13	4.13	4.13
Middle CH	4.12	4.13	4.13
Highest CH	4.12	4.12	4.13

WCDMA Band V (RMC 12.2Kbps)	WCDMA Band II (RMC 12.2Kbps)
Lowest Channel	**Lowest Channel**
	
Date: 9.JAN.2018 13:23:53	Date: 9.JAN.2018 13:39:33
Middle Channel	**Middle Channel**
	
Date: 9.JAN.2018 13:24:29	Date: 9.JAN.2018 13:40:06
Highest Channel	**Highest Channel**
	
Date: 9.JAN.2018 13:25:03	Date: 9.JAN.2018 13:40:39

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

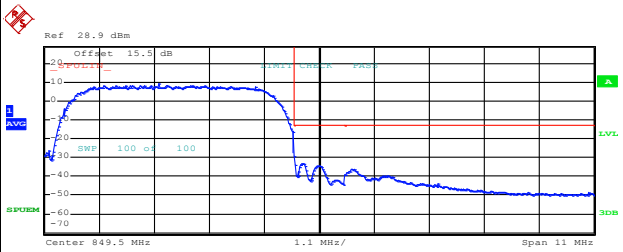
Conducted Band Edge

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



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
820.000 M	823.000 M	100.00 k	822.724000 M	-34.34	-21.34
823.000 M	824.000 M	50.00 k	823.996000 M	-29.00	-16.00
824.000 M	829.000 M	100.00 k	825.455000 M	8.91	-26.09

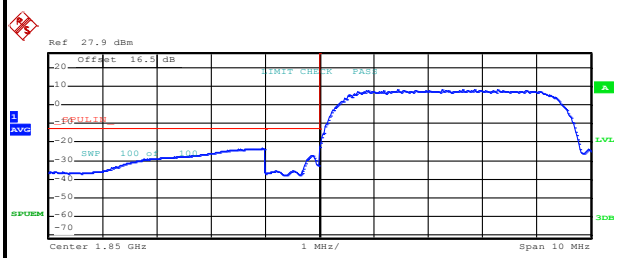
Date: 9.JAN.2018 13:28:14



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
844.000 M	849.000 M	100.00 k	846.285000 M	9.07	-25.93
849.000 M	850.000 M	50.00 k	849.004000 M	-29.75	-16.75
850.000 M	855.000 M	100.00 k	850.165000 M	-36.26	-23.26

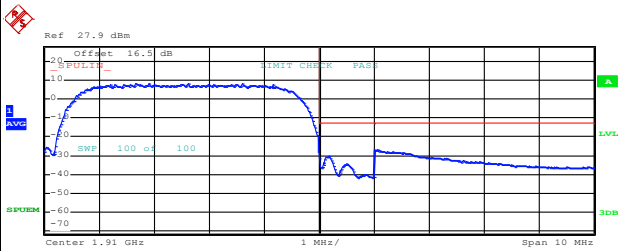
Date: 9.JAN.2018 13:31:06

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



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.845 G	1.849 G	1.00 M	1.848940 G	-23.55	-10.55
1.849 G	1.850 G	50.00 k	1.849848 G	-27.31	-14.31
1.850 G	1.855 G	100.00 k	1.851445 G	8.58	-26.42

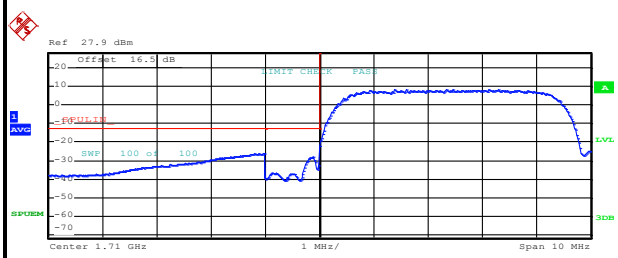
Date: 9.JAN.2018 13:43:33



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.905 G	1.910 G	100.00 k	1.906660 G	8.57	-26.43
1.910 G	1.911 G	50.00 k	1.910176 G	-30.45	-17.45
1.911 G	1.915 G	1.00 M	1.911052 G	-26.96	-13.96

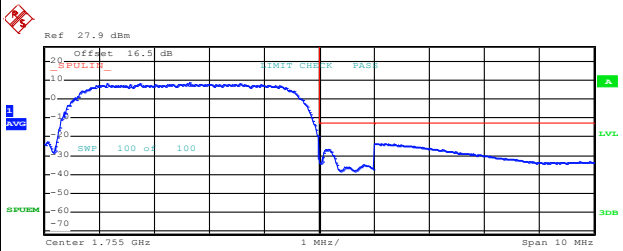
Date: 9.JAN.2018 13:46:52

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



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.705 G	1.709 G	1.00 M	1.708788 G	-26.36	-13.36
1.709 G	1.710 G	50.00 k	1.709880 G	-28.00	-15.00
1.710 G	1.715 G	100.00 k	1.711600 G	8.22	-26.78

Date: 9.JAN.2018 13:59:47



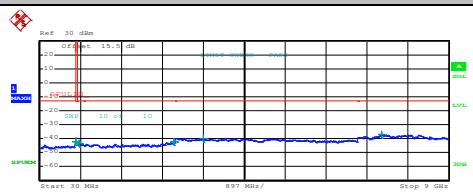
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.750 G	1.755 G	100.00 k	1.752635 G	8.72	-26.28
1.755 G	1.756 G	50.00 k	1.755172 G	-26.70	-13.70
1.756 G	1.760 G	1.00 M	1.756044 G	-23.94	-10.94

Date: 9.JAN.2018 14:03:01

Conducted Spurious Emission

WCDMA Band V (RMC 12.2Kbps)

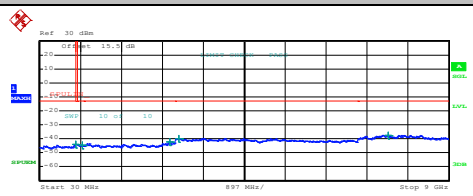
Lowest Channel



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
30.000 M	820.000 M	1.00 M	817.827500 M	-41.96	-28.96
855.000 M	1.000 G	1.00 M	897.050003 M	-43.40	-30.40
1.000 G	3.000 G	1.00 M	2.973000 G	-42.34	-29.34
3.000 G	7.000 G	1.00 M	3.612000 G	-39.68	-26.68
7.000 G	9.000 G	1.00 M	7.534500 G	-37.21	-24.21

Date: 9.JAN.2018 13:32:03

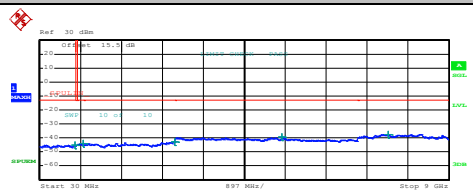
Middle Channel



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
30.000 M	820.000 M	1.00 M	819.802500 M	-43.95	-30.95
855.000 M	1.000 G	1.00 M	963.025007 M	-44.50	-31.50
1.000 G	3.000 G	1.00 M	2.877500 G	-41.95	-28.95
3.000 G	7.000 G	1.00 M	3.087000 G	-39.70	-26.70
7.000 G	9.000 G	1.00 M	7.679500 G	-37.27	-24.27

Date: 9.JAN.2018 13:32:54

Highest Channel

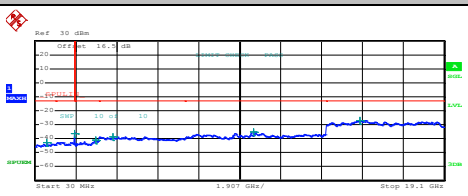


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
30.000 M	820.000 M	1.00 M	799.855000 M	-44.92	-31.92
855.000 M	1.000 G	1.00 M	972.776258 M	-44.09	-31.09
1.000 G	3.000 G	1.00 M	2.999000 G	-42.55	-29.55
3.000 G	7.000 G	1.00 M	5.348000 G	-39.50	-26.50
7.000 G	9.000 G	1.00 M	7.672000 G	-37.31	-24.31

Date: 9.JAN.2018 13:33:56

WCDMA Band II (RMC 12.2Kbps)

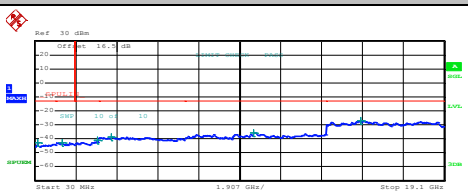
Lowest Channel



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
30.000 M	1.000 G	1.00 M	567.622500 M	-42.94	-29.94
1.000 G	1.845 G	1.00 M	1.844789 G	-36.42	-23.42
1.915 G	3.000 G	1.00 M	2.844303 G	-41.34	-28.34
3.000 G	7.000 G	1.00 M	3.657000 G	-38.48	-25.48
7.000 G	13.600 G	1.00 M	10.222450 G	-35.42	-22.42
13.600 G	19.100 G	1.00 M	15.168188 G	-26.86	-13.86

Date: 9.JAN.2018 13:47:49

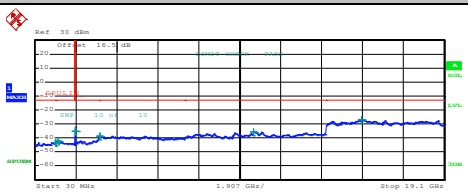
Middle Channel



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
30.000 M	1.000 G	1.00 M	142.520000 M	-42.75	-29.75
1.000 G	1.845 G	1.00 M	1.282441 G	-42.59	-29.59
1.915 G	3.000 G	1.00 M	2.947106 G	-40.92	-27.92
3.000 G	7.000 G	1.00 M	3.588000 G	-38.78	-25.78
7.000 G	13.600 G	1.00 M	10.213375 G	-35.93	-22.93
13.600 G	19.100 G	1.00 M	15.213563 G	-26.80	-13.80

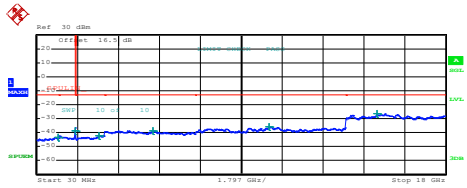
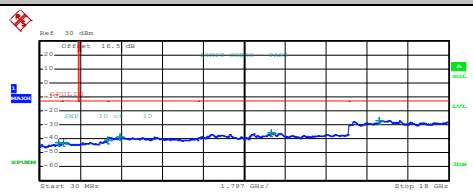
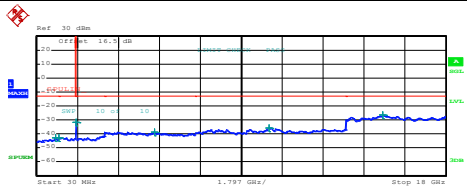
Date: 9.JAN.2018 13:49:03

Highest Channel



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
30.000 M	1.000 G	1.00 M	998.302500 M	-43.32	-30.32
1.000 G	1.845 G	1.00 M	1.101400 G	-42.44	-29.44
1.915 G	3.000 G	1.00 M	1.915271 G	-34.95	-21.95
3.000 G	7.000 G	1.00 M	3.037000 G	-38.54	-25.54
7.000 G	13.600 G	1.00 M	10.224100 G	-35.80	-22.80
13.600 G	19.100 G	1.00 M	15.229375 G	-26.79	-13.79

Date: 9.JAN.2018 13:49:55

WCDMA Band IV (RMC 12.2Kbps)	
Lowest Channel	
 Start 30 MHz 1.797 GHz/ Stop 18 GHz Start [Hz] / Stop [Hz] / RBW [Hz] / Freq [Hz] / PwrAbs [dBm] / ΔLimit [dB] 30.000 M – 1.000 G / 1.00 M / 967.262500 M / -43.28 / -30.28 1.000 G – 1.705 G / 1.00 M / 1.704648 G / -38.65 / -25.65 1.760 G – 3.000 G / 1.00 M / 2.765950 G / -42.13 / -29.13 3.000 G – 7.000 G / 1.00 M / 5.131000 G / -38.78 / -25.78 7.000 G – 13.600 G / 1.00 M / 10.224100 G / -35.84 / -22.84 13.600 G – 18.000 G / 1.00 M / 14.970600 G / -26.49 / -13.49 Date: 9.JAN.2018 14:04:05	
Middle Channel	
 Start 30 MHz 1.797 GHz/ Stop 18 GHz Start [Hz] / Stop [Hz] / RBW [Hz] / Freq [Hz] / PwrAbs [dBm] / ΔLimit [dB] 30.000 M – 1.000 G / 1.00 M / 864.442500 M / -42.69 / -29.69 1.000 G – 1.705 G / 1.00 M / 1.071381 G / -42.81 / -29.81 1.760 G – 3.000 G / 1.00 M / 2.996900 G / -41.30 / -28.30 3.000 G – 7.000 G / 1.00 M / 3.570000 G / -38.69 / -25.69 7.000 G – 13.600 G / 1.00 M / 10.212550 G / -35.66 / -22.66 13.600 G – 18.000 G / 1.00 M / 14.962900 G / -26.84 / -13.84 Date: 9.JAN.2018 14:04:59	
Highest Channel	
 Start 30 MHz 1.797 GHz/ Stop 18 GHz Start [Hz] / Stop [Hz] / RBW [Hz] / Freq [Hz] / PwrAbs [dBm] / ΔLimit [dB] 30.000 M – 1.000 G / 1.00 M / 841.647500 M / -42.65 / -29.65 1.000 G – 1.705 G / 1.00 M / 1.011809 G / -42.89 / -29.89 1.760 G – 3.000 G / 1.00 M / 1.760310 G / -31.89 / -18.89 3.000 G – 7.000 G / 1.00 M / 5.208000 G / -38.75 / -25.75 7.000 G – 13.600 G / 1.00 M / 10.233175 G / -36.00 / -23.00 13.600 G – 18.000 G / 1.00 M / 15.217000 G / -26.72 / -13.72 Date: 9.JAN.2018 14:05:52	

Frequency Stability

Test Conditions	Middle Channel	WCDMA Band V (RMC 12.2Kbps)	Limit 2.5ppm
Temperature (°C)	**Voltage (Volt)**	**Deviation (ppm)**	**Result**
50	Normal Voltage	0.0251	PASS
40	Normal Voltage	0.0215	
30	Normal Voltage	0.0203	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0024	
0	Normal Voltage	0.0048	
-10	Normal Voltage	0.0143	
-20	Normal Voltage	0.0120	
-30	Normal Voltage	0.0143	
20	Maximum Voltage	0.0012	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0048	

Test Conditions	Middle Channel	WCDMA Band II (RMC 12.2Kbps)	Limit Note 2.
Temperature (°C)	Voltage (Volt)	Deviation (ppm)	Result
50	Normal Voltage	0.0085	PASS
40	Normal Voltage	0.0021	
30	Normal Voltage	0.0069	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0090	
0	Normal Voltage	0.0080	
-10	Normal Voltage	0.0074	
-20	Normal Voltage	0.0064	
-30	Normal Voltage	0.0069	
20	Maximum Voltage	0.0005	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0016	

Test Conditions	Middle Channel	WCDMA Band IV (RMC 12.2Kbps)	Limit Note 2.
Temperature (°C)	Voltage (Volt)	Deviation (ppm)	Result
50	Normal Voltage	0.0173	PASS
40	Normal Voltage	0.0156	
30	Normal Voltage	0.0173	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0006	
0	Normal Voltage	0.0017	
-10	Normal Voltage	0.0127	
-20	Normal Voltage	0.0162	
-30	Normal Voltage	0.0190	
20	Maximum Voltage	0.0000	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0029	

Note:

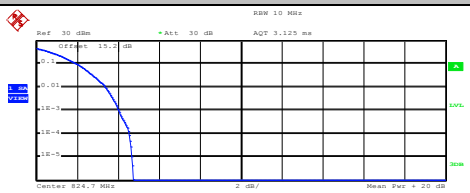
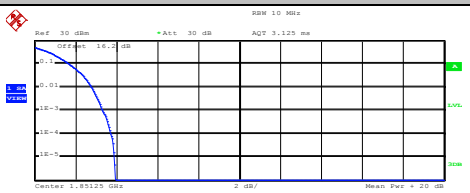
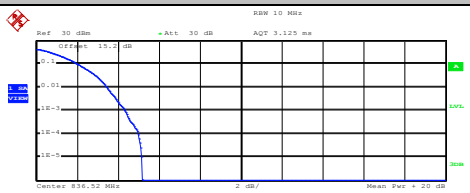
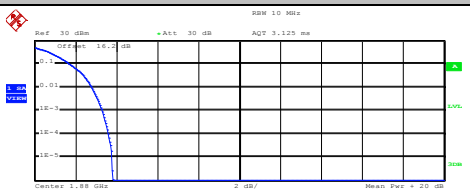
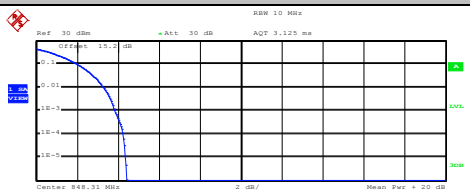
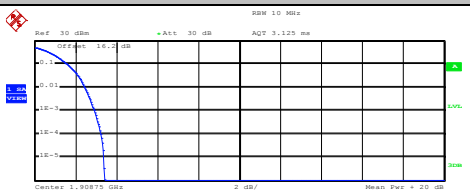
1. Normal Voltage = 3.8V. ；Battery End Point (BEP) = 3.5 V.；Maximum Voltage =4.4 V
2. The frequency fundamental emissions stay within the authorized frequency block.

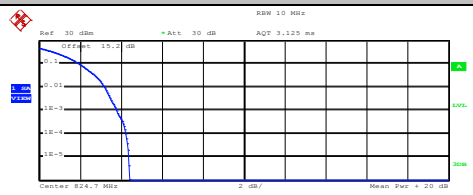
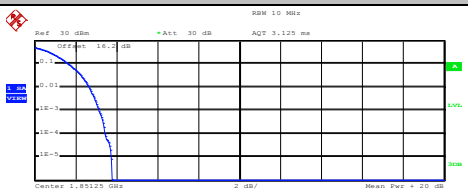
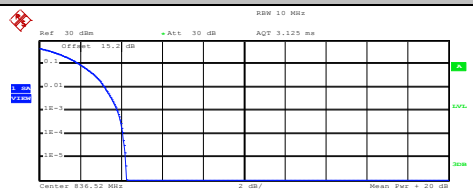
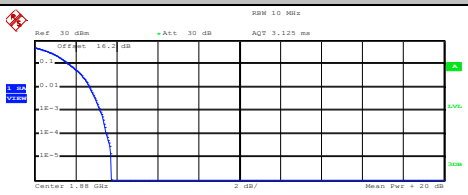
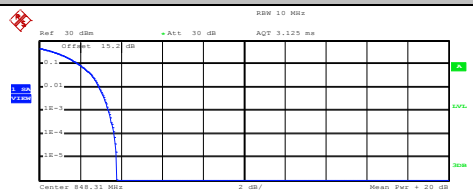
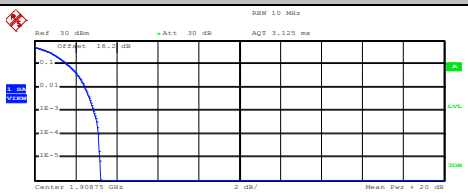
A4. CDMA

Peak-to-Average Ratio

Mode	CDMA BC0	CDMA BC1	Limit: 13dB
Mod.	1xRTT	1xRTT	Result
Lowest CH	4.04	3.32	PASS
Middle CH	4.32	3.32	
Highest CH	3.84	2.92	

Mode	CDMA BC0	CDMA BC1	Limit: 13dB
Mod.	1xEV-DO Rev. 0	1xEV-DO Rev. 0	Result
Lowest CH	3.80	3.16	PASS
Middle CH	3.84	3.20	
Highest CH	3.40	2.88	

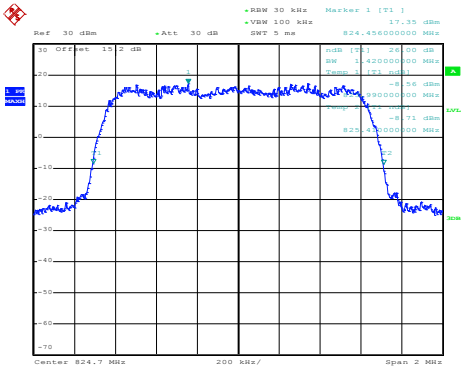
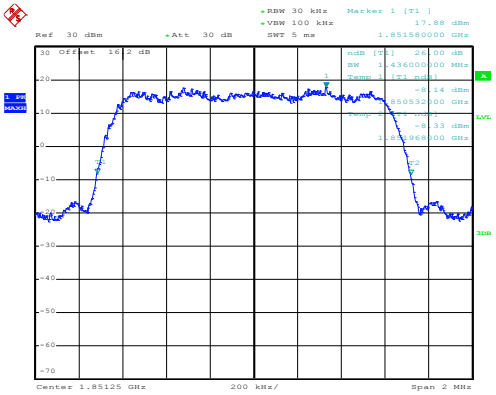
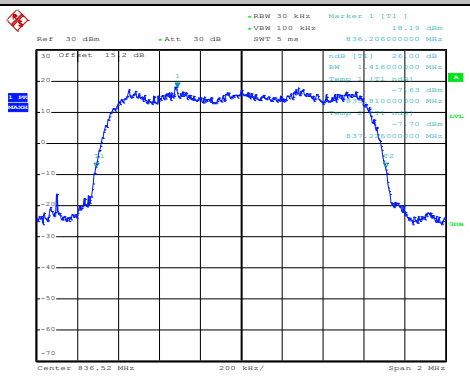
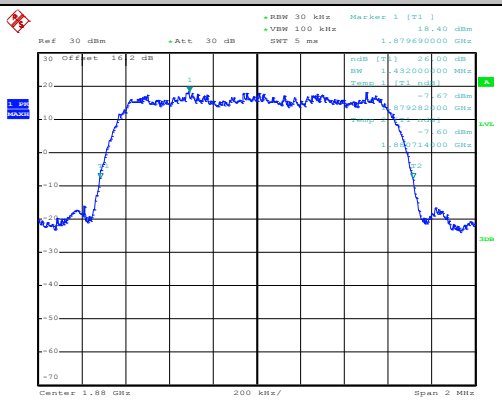
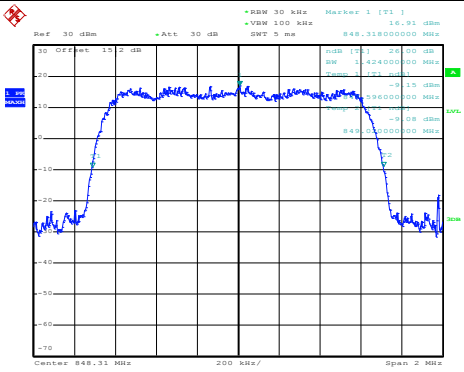
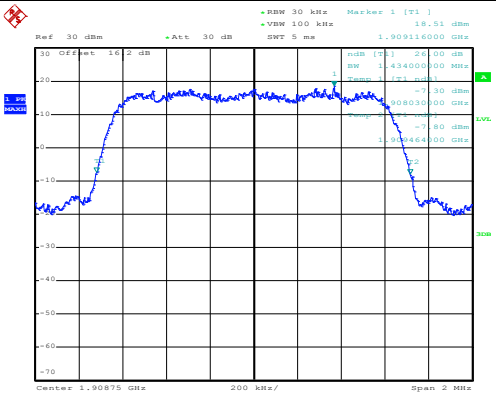
CDMA BC0 (1xRTT)	CDMA BC1 (1xRTT)
Lowest Channel	**Lowest Channel**
	
Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean 21.18 dBm Peak 25.92 dBm Crest 4.74 dB 10 % 2.00 dB 1 % 3.40 dB .1 % 4.04 dB .01 % 4.56 dB	Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean 22.34 dBm Peak 26.27 dBm Crest 3.93 dB 10 % 1.68 dB 1 % 2.76 dB .1 % 3.32 dB .01 % 3.72 dB
Date: 10.JAN.2018 16:17:54	Date: 10.JAN.2018 17:52:55
Middle Channel	**Middle Channel**
	
Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean 21.38 dBm Peak 26.55 dBm Crest 5.17 dB 10 % 2.04 dB 1 % 3.44 dB .1 % 4.32 dB .01 % 5.00 dB	Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean 22.69 dBm Peak 26.48 dBm Crest 3.80 dB 10 % 1.72 dB 1 % 2.80 dB .1 % 3.32 dB .01 % 3.60 dB
Date: 10.JAN.2018 16:18:22	Date: 10.JAN.2018 17:53:08
Highest Channel	**Highest Channel**
	
Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean 21.21 dBm Peak 25.64 dBm Crest 4.43 dB 10 % 2.04 dB 1 % 3.28 dB .1 % 3.84 dB .01 % 4.24 dB	Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean 22.52 dBm Peak 25.92 dBm Crest 3.40 dB 10 % 1.60 dB 1 % 2.44 dB .1 % 2.92 dB .01 % 3.24 dB
Date: 10.JAN.2018 16:19:39	Date: 10.JAN.2018 17:53:24

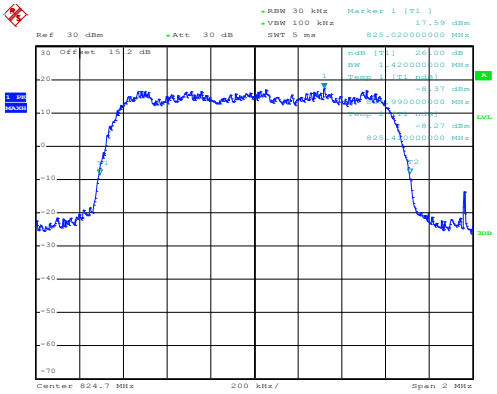
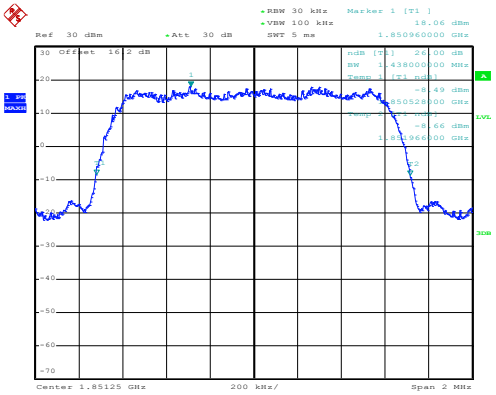
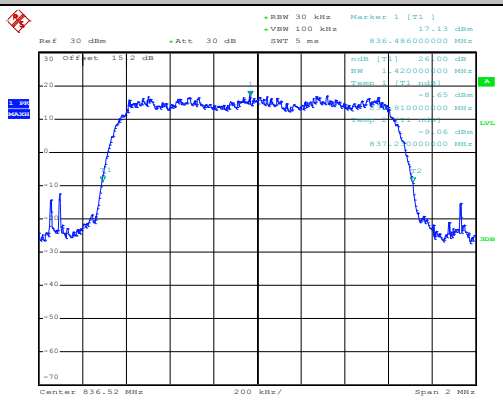
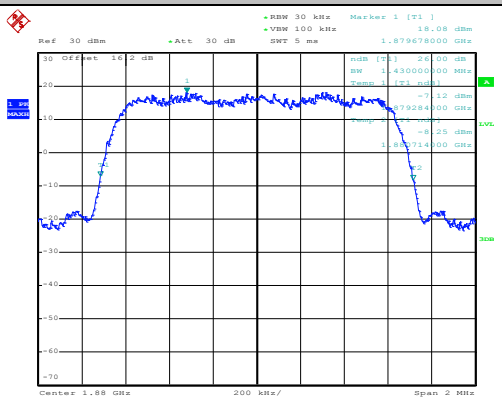
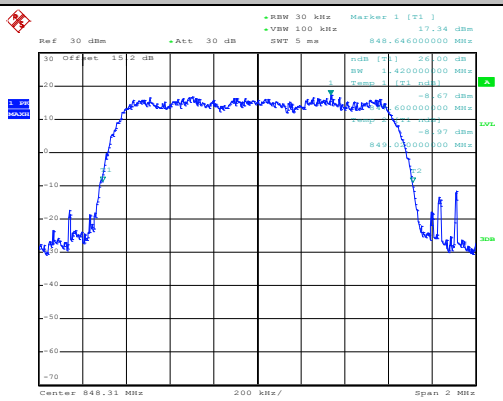
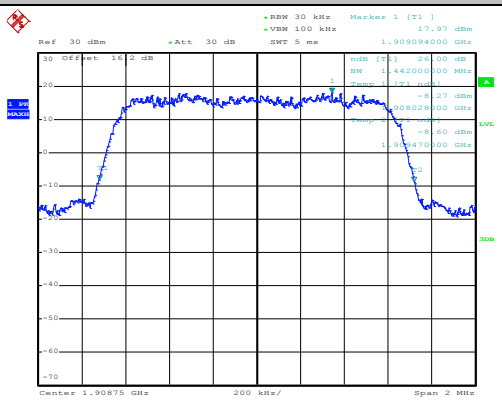
CDMA BC0 (1xEV-DO Rev. 0)	CDMA BC1 (1xEV-DO Rev. 0)
Lowest Channel	**Lowest Channel**
	
Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean 22.81 dBm Peak 27.22 dBm Crest 4.40 dB 10 % 2.00 dB 1 % 3.20 dB .1 % 3.80 dB .01 % 4.24 dB	Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean 22.52 dBm Peak 26.30 dBm Crest 3.78 dB 10 % 1.64 dB 1 % 2.68 dB .1 % 3.16 dB .01 % 3.44 dB
Date: 11.JAN.2018 13:33:53	Date: 11.JAN.2018 15:53:51
Middle Channel	**Middle Channel**
	
Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean 22.90 dBm Peak 27.15 dBm Crest 4.25 dB 10 % 2.00 dB 1 % 3.20 dB .1 % 3.84 dB .01 % 4.08 dB	Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean 22.76 dBm Peak 26.51 dBm Crest 3.75 dB 10 % 1.68 dB 1 % 2.68 dB .1 % 3.20 dB .01 % 3.52 dB
Date: 11.JAN.2018 13:34:13	Date: 11.JAN.2018 15:54:03
Highest Channel	**Highest Channel**
	
Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean 22.86 dBm Peak 26.65 dBm Crest 3.79 dB 10 % 1.92 dB 1 % 2.92 dB .1 % 3.40 dB .01 % 3.68 dB	Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean 22.59 dBm Peak 25.81 dBm Crest 3.22 dB 10 % 1.60 dB 1 % 2.44 dB .1 % 2.88 dB .01 % 3.12 dB
Date: 11.JAN.2018 13:34:28	Date: 11.JAN.2018 15:54:16

26dB Bandwidth

Mode	CDMA BC0	CDMA BC1
Mod.	1xRTT	1xRTT
Lowest CH	1.42	1.43
Middle CH	1.41	1.43
Highest CH	1.42	1.44

Mode	CDMA BC0	CDMA BC1
Mod.	1xEV-DO Rev. 0	1xEV-DO Rev. 0
Lowest CH	1.42	1.43
Middle CH	1.42	1.43
Highest CH	1.42	1.44

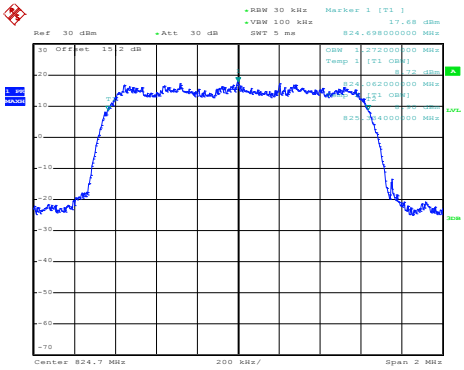
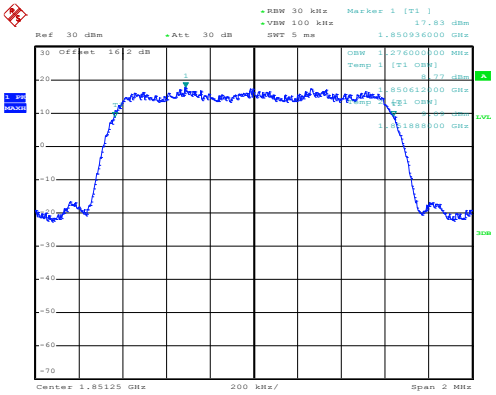
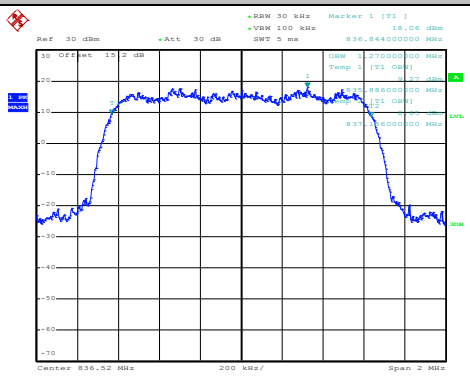
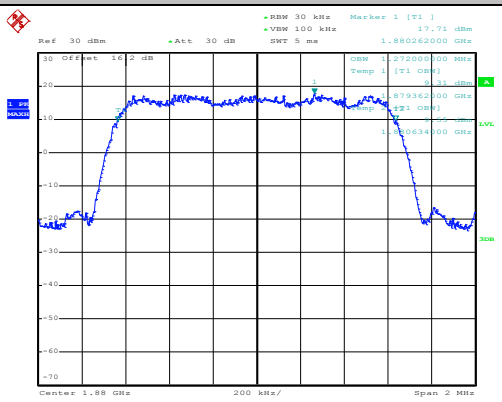
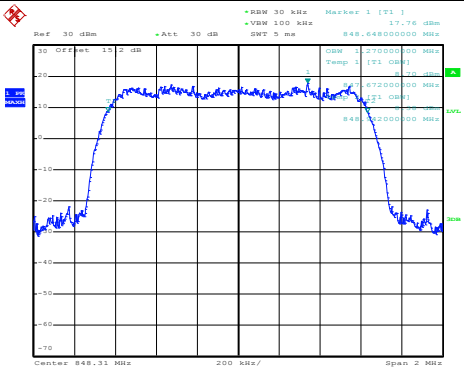
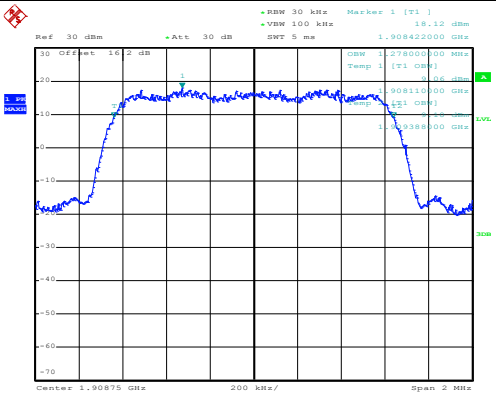
CDMA BC0 (1xRTT)	CDMA BC1 (1xRTT)
Lowest Channel	**Lowest Channel**
	
Date: 10.JAN.2018 16:02:03	Date: 10.JAN.2018 17:31:25
Middle Channel	**Middle Channel**
	
Date: 10.JAN.2018 16:03:27	Date: 10.JAN.2018 17:33:21
Highest Channel	**Highest Channel**
	
Date: 10.JAN.2018 16:04:26	Date: 10.JAN.2018 17:33:55

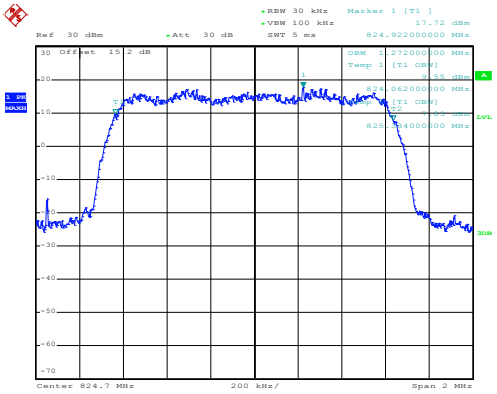
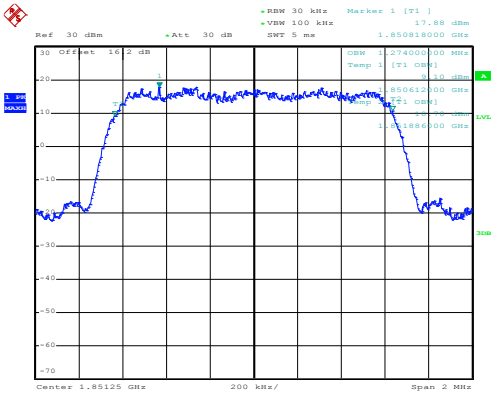
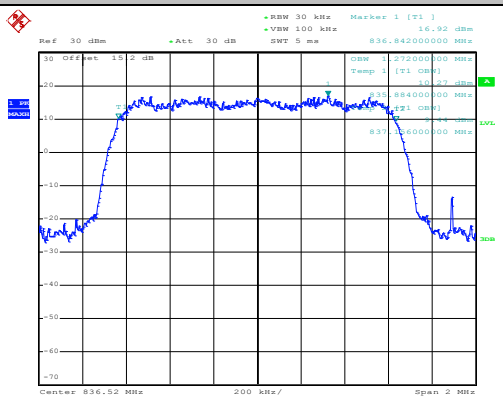
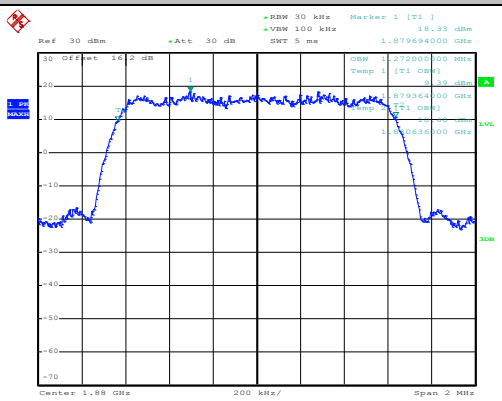
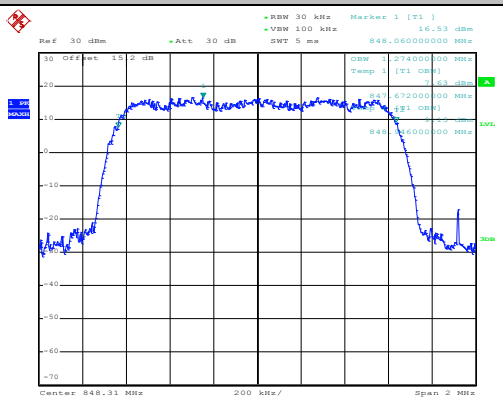
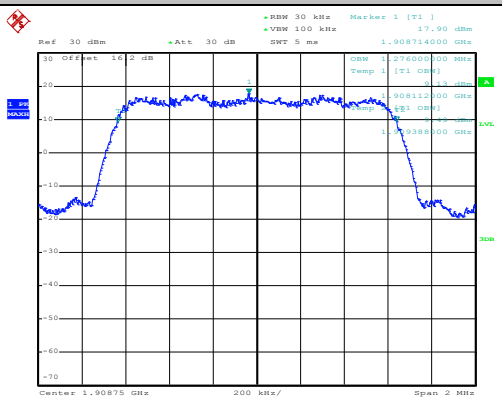
CDMA BC0 (1xEV-DO Rev. 0)	CDMA BC1 (1xEV-DO Rev. 0)
Lowest Channel	**Lowest Channel**
	
Date: 11.JAN.2018 16:46:28	Date: 11.JAN.2018 15:40:50
Middle Channel	**Middle Channel**
	
Date: 11.JAN.2018 16:47:00	Date: 11.JAN.2018 15:41:22
Highest Channel	**Highest Channel**
	
Date: 11.JAN.2018 16:47:32	Date: 11.JAN.2018 15:42:04

Occupied Bandwidth

Mode	CDMA BC0	CDMA BC1
Mod.	1xRTT	1xRTT
Lowest CH	1.27	1.27
Middle CH	1.27	1.27
Highest CH	1.27	1.27

Mode	CDMA BC0	CDMA BC1
Mod.	1xEV-DO Rev. 0	1xEV-DO Rev. 0
Lowest CH	1.27	1.27
Middle CH	1.27	1.27
Highest CH	1.27	1.27

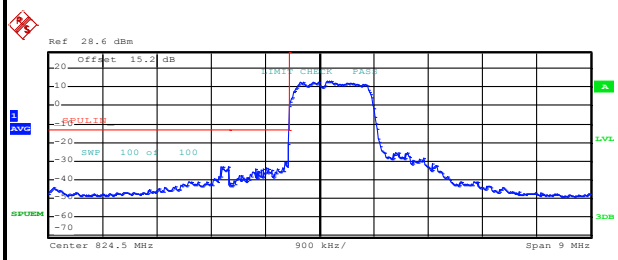
CDMA BC0 (1xRTT)	CDMA BC1 (1xRTT)
Lowest Channel	**Lowest Channel**
	
Date: 10.JAN.2018 16:05:34	Date: 10.JAN.2018 17:34:34
Middle Channel	**Middle Channel**
	
Date: 10.JAN.2018 16:06:34	Date: 10.JAN.2018 17:35:32
Highest Channel	**Highest Channel**
	
Date: 10.JAN.2018 16:07:07	Date: 10.JAN.2018 17:36:05

CDMA BC0 (1xEV-DO Rev. 0)	CDMA BC1 (1xEV-DO Rev. 0)
Lowest Channel	**Lowest Channel**
	
Date: 11.JAN.2018 16:52:46	Date: 11.JAN.2018 15:42:45
Middle Channel	**Middle Channel**
	
Date: 11.JAN.2018 16:53:51	Date: 11.JAN.2018 15:43:18
Highest Channel	**Highest Channel**
	
Date: 11.JAN.2018 16:54:22	Date: 11.JAN.2018 15:43:50

Conducted Band Edge

CDMA BC0 (1xRTT)

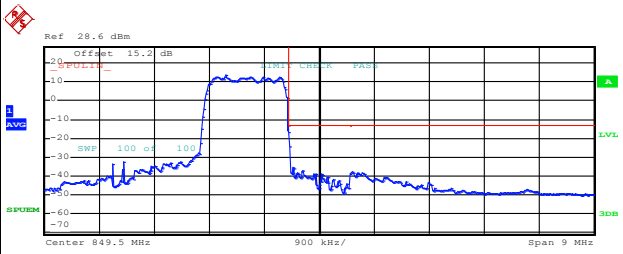
Lowest Band Edge



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
820.000 M	823.000 M	100.00 k	822.865000 M	-32.96	-19.96
823.000 M	824.000 M	14.00 k	823.996000 M	-22.51	-9.51
824.000 M	829.000 M	100.00 k	824.665000 M	13.26	-21.74

Date: 10.JAN.2018 16:10:57

Highest Band Edge

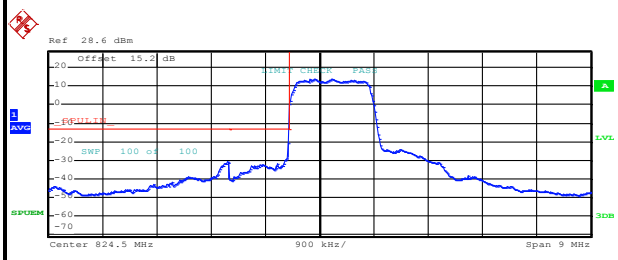


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
845.000 M	849.000 M	100.00 k	847.964000 M	13.72	-21.28
849.000 M	850.000 M	14.00 k	849.004000 M	-17.15	-4.15
850.000 M	854.000 M	100.00 k	850.036000 M	-37.86	-24.86

Date: 10.JAN.2018 16:13:44

CDMA BC0 (1xEV-DO Rev. 0)

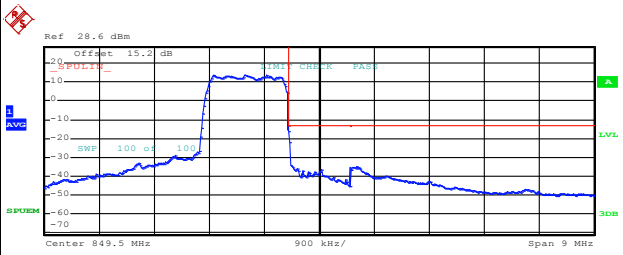
Lowest Band Edge



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
820.000 M	823.000 M	100.00 k	822.976000 M	-30.67	-17.67
823.000 M	824.000 M	14.00 k	823.996000 M	-21.42	-8.42
824.000 M	829.000 M	100.00 k	824.420000 M	13.62	-21.38

Date: 11.JAN.2018 13:37:18

Highest Band Edge

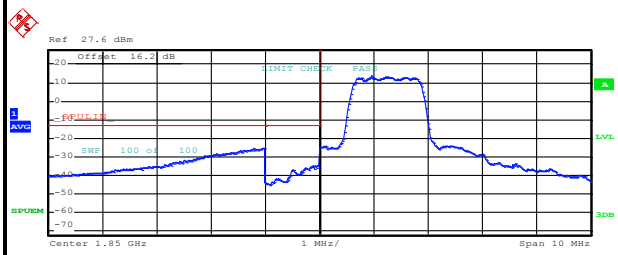


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
845.000 M	849.000 M	100.00 k	848.624000 M	13.53	-21.47
849.000 M	850.000 M	14.00 k	849.004000 M	-15.42	-2.42
850.000 M	854.000 M	100.00 k	850.104000 M	-34.58	-21.58

Date: 11.JAN.2018 13:45:17

CDMA BC1 (1xRTT)

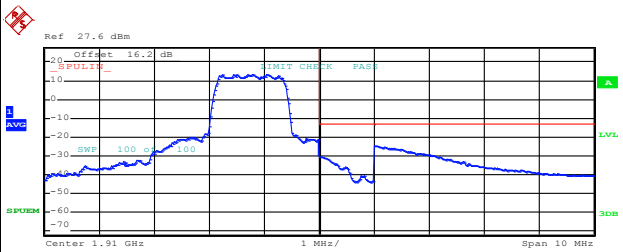
Lowest Band Edge



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.845 G	1.849 G	1.00 M	1.848960 G	-25.19	-12.19
1.849 G	1.850 G	14.00 k	1.849912 G	-34.41	-21.41
1.850 G	1.855 G	100.00 k	1.850950 G	13.62	-21.38

Date: 10.JAN.2018 17:39:11

Highest Band Edge

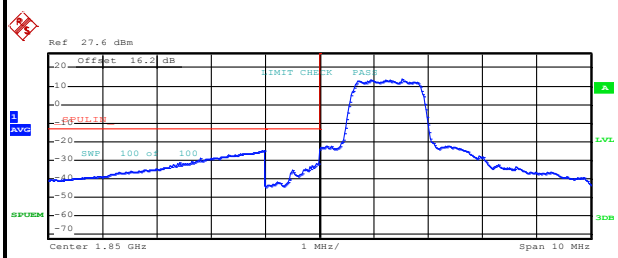


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.905 G	1.910 G	100.00 k	1.908435 G	13.47	-21.53
1.910 G	1.911 G	14.00 k	1.910060 G	-29.28	-16.28
1.911 G	1.915 G	1.00 M	1.911024 G	-24.68	-11.68

Date: 10.JAN.2018 17:42:07

CDMA BC1 (1xEV-DO Rev. 0)

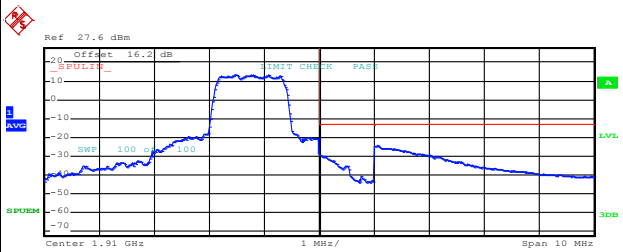
Lowest Band Edge



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.845 G	1.849 G	1.00 M	1.848992 G	-24.72	-11.72
1.849 G	1.850 G	14.00 k	1.849972 G	-32.02	-19.02
1.850 G	1.855 G	100.00 k	1.851520 G	13.60	-21.40

Date: 11.JAN.2018 15:46:38

Highest Band Edge



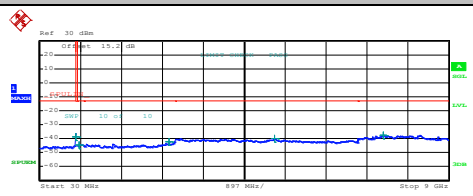
Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
1.905 G	1.910 G	100.00 k	1.908450 G	13.43	-21.57
1.910 G	1.911 G	14.00 k	1.910008 G	-29.39	-16.39
1.911 G	1.915 G	1.00 M	1.911052 G	-24.43	-11.43

Date: 11.JAN.2018 15:50:02

Conducted Spurious Emission

CDMA BC0 (1xRTT)

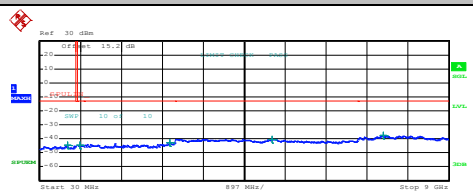
Lowest Channel



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
30.000 M	820.000 M	1.00 M	819.802504 M	-38.55	-25.55
855.000 M	1.000 G	1.00 M	882.550002 M	-44.35	-31.35
1.000 G	3.000 G	1.00 M	2.859000 G	-42.27	-29.27
3.000 G	7.000 G	1.00 M	5.184000 G	-39.94	-26.94
7.000 G	9.000 G	1.00 M	7.560000 G	-37.59	-24.59

Date: 10.JAN.2018 16:15:13

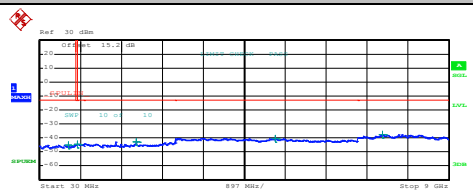
Middle Channel



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
30.000 M	820.000 M	1.00 M	636.720000 M	-44.60	-31.60
855.000 M	1.000 G	1.00 M	917.567504 M	-44.44	-31.44
1.000 G	3.000 G	1.00 M	2.888000 G	-42.91	-29.91
3.000 G	7.000 G	1.00 M	5.126000 G	-40.26	-27.26
7.000 G	9.000 G	1.00 M	7.556000 G	-37.71	-24.71

Date: 10.JAN.2018 16:16:18

Highest Channel

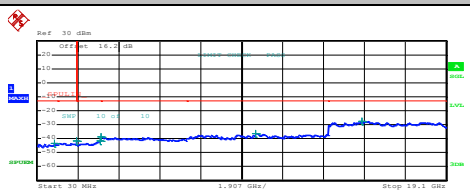


Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
30.000 M	820.000 M	1.00 M	649.952500 M	-44.86	-31.86
855.000 M	1.000 G	1.00 M	855.652500 M	-44.33	-31.33
1.000 G	3.000 G	1.00 M	2.146000 G	-42.76	-29.76
3.000 G	7.000 G	1.00 M	5.195000 G	-40.24	-27.24
7.000 G	9.000 G	1.00 M	7.553500 G	-37.61	-24.61

Date: 10.JAN.2018 16:17:08

CDMA BC1 (1xRTT)

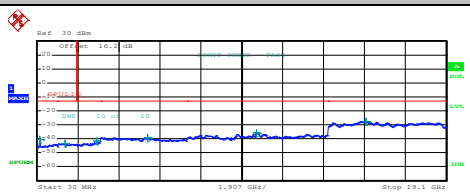
Lowest Channel



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
30.000 M	1.000 G	1.00 M	849.892500 M	-43.14	-30.14
1.000 G	1.845 G	1.00 M	1.844789 G	-41.36	-28.36
1.915 G	3.000 G	1.00 M	2.977215 G	-41.80	-28.80
3.000 G	7.000 G	1.00 M	3.014000 G	-38.55	-25.55
7.000 G	13.600 G	1.00 M	10.215850 G	-36.15	-23.15
13.600 G	19.100 G	1.00 M	15.185375 G	-27.79	-14.79

Date: 10.JAN.2018 17:43:21

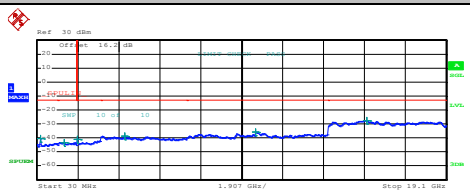
Middle Channel



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
30.000 M	1.000 G	1.00 M	141.550000 M	-40.56	-27.56
1.000 G	1.845 G	1.00 M	1.317931 G	-43.49	-30.49
1.915 G	3.000 G	1.00 M	2.811752 G	-41.63	-28.63
3.000 G	7.000 G	1.00 M	5.194000 G	-39.28	-26.28
7.000 G	13.600 G	1.00 M	10.239775 G	-36.00	-23.00
13.600 G	19.100 G	1.00 M	15.358625 G	-27.60	-14.60

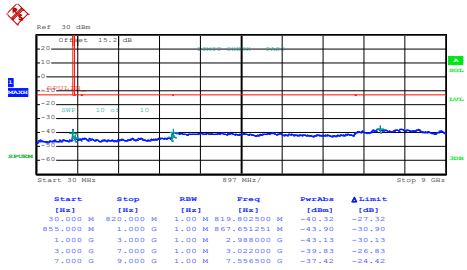
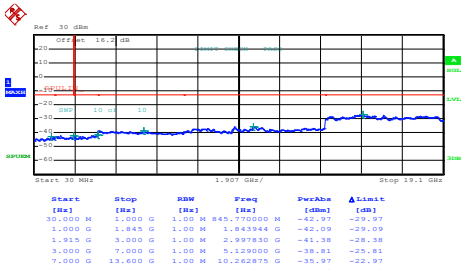
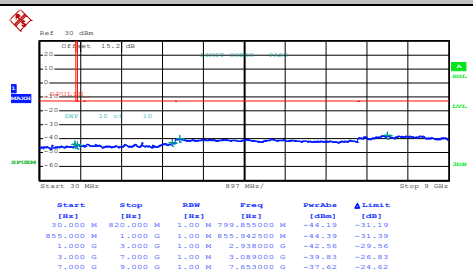
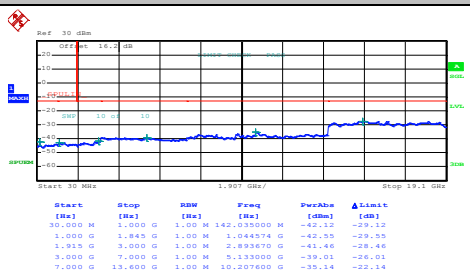
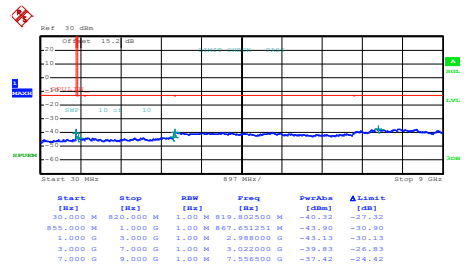
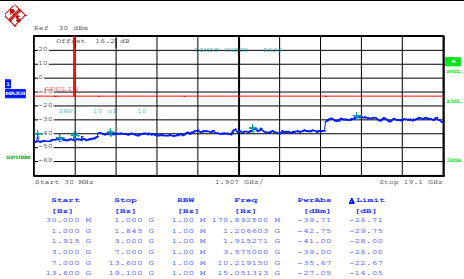
Date: 10.JAN.2018 17:44:11

Highest Channel



Start [Hz]	Stop [Hz]	RBW [Hz]	Freq [Hz]	PwrAbs [dBm]	ΔLimit [dB]
30.000 M	1.000 G	1.00 M	170.650000 M	-40.72	-27.72
1.000 G	1.845 G	1.00 M	1.295750 G	-43.11	-30.11
1.915 G	3.000 G	1.00 M	1.915271 G	-40.93	-27.93
3.000 G	7.000 G	1.00 M	4.092000 G	-38.63	-25.63
7.000 G	13.600 G	1.00 M	10.223275 G	-36.05	-23.05
13.600 G	19.100 G	1.00 M	15.397125 G	-27.65	-14.65

Date: 10.JAN.2018 17:45:01

CDMA BC0 (1xEV-DO Rev. 0)	CDMA BC1 (1xEV-DO Rev. 0)
Lowest Channel	**Lowest Channel**
	
Date: 11.JAN.2018 13:31:24	Date: 11.JAN.2018 15:51:19
Middle Channel	**Middle Channel**
	
Date: 11.JAN.2018 13:32:54	Date: 11.JAN.2018 15:52:09
Highest Channel	**Highest Channel**
	
Date: 11.JAN.2018 13:31:24	Date: 11.JAN.2018 15:53:29

Frequency Stability

Test Conditions	Middle Channel	CDMA BC0 (1xRTT)	Limit 2.5ppm
Temperature (°C)	Voltage (Volt)	Deviation (ppm)	Result
50	Normal Voltage	0.0048	PASS
40	Normal Voltage	0.0024	
30	Normal Voltage	0.0048	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0299	
0	Normal Voltage	0.0215	
-10	Normal Voltage	0.0299	
-20	Normal Voltage	0.0347	
-30	Normal Voltage	0.0263	
20	Maximum Voltage	0.0155	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0060	

Test Conditions	Middle Channel	CDMA BC1 (1xRTT)	Limit Note 2.
Temperature (°C)	Voltage (Volt)	Deviation (ppm)	Result
50	Normal Voltage	0.0053	PASS
40	Normal Voltage	0.0064	
30	Normal Voltage	0.0043	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0021	
0	Normal Voltage	0.0011	
-10	Normal Voltage	0.0005	
-20	Normal Voltage	0.0000	
-30	Normal Voltage	0.0005	
20	Maximum Voltage	0.0005	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0011	

Test Conditions	Middle Channel	CDMA BC0 (1xEV-DO Rev. 0)	Limit 2.5ppm
Temperature (°C)	Voltage (Volt)	Deviation (ppm)	Result
50	Normal Voltage	0.0000	PASS
40	Normal Voltage	0.0024	
30	Normal Voltage	0.0012	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0120	
0	Normal Voltage	0.0287	
-10	Normal Voltage	0.0191	
-20	Normal Voltage	0.0347	
-30	Normal Voltage	0.0311	
20	Maximum Voltage	0.0191	
20	Normal Voltage	0.0167	
20	Battery End Point	0.0203	

Test Conditions	Middle Channel	CDMA BC1 (1xEV-DO Rev. 0)	Limit Note 2.
Temperature (°C)	Voltage (Volt)	Deviation (ppm)	Result
50	Normal Voltage	0.0069	PASS
40	Normal Voltage	0.0101	
30	Normal Voltage	0.0080	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0074	
0	Normal Voltage	0.0011	
-10	Normal Voltage	0.0016	
-20	Normal Voltage	0.0037	
-30	Normal Voltage	0.0032	
20	Maximum Voltage	0.0000	
20	Normal Voltage	0.0011	
20	Battery End Point	0.0011	

Note:

1. Normal Voltage = 3.8V. ；Battery End Point (BEP) = 3.5 V.；Maximum Voltage =4.4 V
2. The frequency fundamental emissions stay within the authorized frequency block.

Appendix B. Test Results of ERP/EIRP and Radiated Test

ERP/EIRP

Channel	Mode	Conducted		ERP	
		Power (dBm)	Power (Watts)	ERP(dBm)	ERP(W)
Lowest	GSM850	33.49	2.2336	31.24	1.3289
Middle	GPRS class 8	33.44	2.2080	31.19	1.3137
Highest	GT - LC = -0.105 dB	33.40	2.1878	31.15	1.3017
Lowest	GSM850	26.78	0.4764	24.53	0.2835
Middle	EDGE class 8	26.80	0.4786	24.55	0.2848
Highest	GT - LC = -0.105 dB	26.73	0.4710	24.48	0.2802
Lowest	WCDMA Band V	22.87	0.1936	20.62	0.1152
Middle	RMC 12.2Kbps	22.83	0.1919	20.58	0.1142
Highest	GT - LC = -0.105 dB	22.76	0.1888	20.51	0.1123
Lowest	CDMA BC0	24.31	0.2698	22.06	0.1605
Middle	1xRTT	24.29	0.2685	22.04	0.1598
Highest	GT - LC = -0.105 dB	24.38	0.2742	22.13	0.1631
Lowest	CDMA BC0	24.25	0.2661	22.00	0.1583
Middle	1xEV-DO	24.20	0.2630	21.95	0.1565
Highest	GT - LC = -0.105 dB	24.37	0.2735	22.12	0.1627
Limit	ERP < 7W	Result		PASS	

Channel	Mode	Conducted		EIRP	
		Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	GSM1900	30.23	1.0544	31.21	1.3219
Middle	GPRS class 8	30.65	1.1614	31.63	1.4561
Highest	GT - LC = 0.982 dB	30.47	1.1143	31.45	1.3970
Lowest	GSM1900	25.70	0.3715	26.68	0.4658
Middle	EDGE class 8	26.00	0.3981	26.98	0.4991
Highest	GT - LC = 0.982 dB	25.76	0.3767	26.74	0.4723
Lowest	WCDMA Band II	22.74	0.1879	23.72	0.2356
Middle	RMC 12.2Kbps	22.83	0.1919	23.81	0.2405
Highest	GT - LC = 0.982 dB	22.87	0.1936	23.85	0.2428
Lowest	CDMA BC1	24.27	0.2673	25.25	0.3351
Middle	1xRTT	24.07	0.2553	25.05	0.3200
Highest	GT - LC = 0.982 dB	24.04	0.2535	25.02	0.3178
Lowest	CDMA BC1	24.26	0.2667	25.24	0.3343
Middle	1xEV-DO	23.95	0.2483	24.93	0.3113
Highest	GT - LC = 0.982 dB	23.82	0.2410	24.80	0.3021
Limit	EIRP < 2W	Result		PASS	

Channel	Mode	Conducted		EIRP	
		Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	WCDMA Band IV	22.71	0.1866	22.83	0.1920
Middle	RMC 12.2Kbps	23.03	0.2009	23.15	0.2066
Highest	GT - LC = 0.122 dB	23.17	0.2075	23.29	0.2134
Limit	EIRP < 1W	Result		PASS	

Radiated Spurious Emission

Part22H_GPRS 850

GPRS 850									
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)
Lowest	1648	-33.55	-13	-20.55	-44.52	-35.31	0.98	4.89	H
	2472	-50.07	-13	-37.07	-63.62	-51.95	1.28	5.32	H
	3296	-53.69	-13	-40.69	-70.31	-57.1	1.54	7.10	H
									H
									H
									H
									H
	1648	-31.16	-13	-18.16	-42.13	-32.92	0.98	4.89	V
	2472	-47.97	-13	-34.97	-61.52	-49.85	1.28	5.32	V
	3296	-55.23	-13	-42.23	-71.85	-58.64	1.54	7.10	V
									V
									V
									V
									V

GPRS 850									
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	-34.53	-13	-21.53	-45.57	-36.21	0.99	4.82	H
	2512	-49.51	-13	-36.51	-63.2	-51.48	1.29	5.41	H
	3344	-54.15	-13	-41.15	-79.9	-57.76	1.56	7.31	H
									H
									H
									H
									H
	1672	-35.26	-13	-22.26	-46.3	-36.94	0.99	4.82	V
	2512	-46.55	-13	-33.55	-60.24	-48.52	1.29	5.41	V
	3344	-55.33	-13	-42.33	-72.08	-58.94	1.56	7.31	V
									V
									V
									V
									V
Highest	1696	-37.03	-13	-24.03	-48.13	-38.63	1.00	4.75	H
	2544	-45.93	-13	-32.93	-59.76	-47.91	1.30	5.44	H
	3392	-56.35	-13	-43.35	-73.24	-60.15	1.57	7.52	H
									H
									H
									H
									H
	1696	-40.33	-13	-27.33	-51.43	-41.93	1.00	4.75	V
	2544	-45.11	-13	-32.11	-58.94	-47.09	1.30	5.44	V
	3392	-57.13	-13	-44.13	-74.02	-60.93	1.57	7.52	V
									V
									V
									V
									V

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

Part22H_WCDMA 850

WCDMA 850									
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)
Lowest	1656	-61.75	-13	-48.75	-72.77	-63.48	0.98	4.86	H
	2480	-52.14	-13	-39.14	-65.69	-54.05	1.28	5.34	H
	3304	-57.02	-13	-44.02	-73.68	-60.46	1.54	7.14	H
									H
									H
									H
									H
	1656	-61.29	-13	-48.29	-72.31	-63.02	0.98	4.86	V
	2480	-51.33	-13	-38.33	-64.88	-53.24	1.28	5.34	V
	3304	-56.82	-13	-43.82	-73.48	-60.26	1.54	7.14	V
									V
									V
									V
									V
Middle	1672	-61.29	-13	-48.29	-72.33	-62.97	0.99	4.82	H
	2512	-49.32	-13	-36.32	-63.01	-51.29	1.29	5.41	H
	3344	-56.43	-13	-43.43	-73.18	-60.04	1.56	7.31	H
									H
									H
									H
									H
	1672	-59.62	-13	-46.62	-70.66	-61.3	0.99	4.82	V
	2512	-49.58	-13	-36.58	-63.27	-51.55	1.29	5.41	V
	3344	-56.82	-13	-43.82	-73.57	-60.43	1.56	7.31	V
									V
									V
									V
									V

WCDMA 850									
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)
Highest	1696	-61.74	-13	-48.74	-72.84	-63.34	1.00	4.75	H
	2536	-50.50	-13	-37.50	-64.26	-52.48	1.30	5.43	H
	3384	-57.09	-13	-44.09	-73.94	-60.86	1.57	7.49	H
									H
									H
									H
									H
	1696	-59.18	-13	-46.18	-70.28	-60.78	1.00	4.75	V
	2536	-50.62	-13	-37.62	-64.38	-52.6	1.30	5.43	V
	3384	-57.26	-13	-44.26	-74.11	-61.03	1.57	7.49	V
									V
									V
									V
									V

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

Part22H_CDMA 850 1xRTT

CDMA 850 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)
Lowest	1648	-60.76	-13	-47.76	-71.73	-62.52	0.98	4.89	H
	2472	-54.32	-13	-41.32	-67.87	-56.2	1.28	5.32	H
	3296	-56.91	-13	-43.91	-73.53	-60.32	1.54	7.10	H
									H
									H
									H
									H
	1648	-61.26	-13	-48.26	-72.23	-63.02	0.98	4.89	V
	2472	-51.81	-13	-38.81	-65.36	-53.69	1.28	5.32	V
	3296	-57.22	-13	-44.22	-73.84	-60.63	1.54	7.10	V
									V
									V
									V
									V
Middle	1672	-59.72	-13	-46.72	-70.76	-61.4	0.99	4.82	H
	2512	-51.52	-13	-38.52	-65.21	-53.49	1.29	5.41	H
	3344	-56.58	-13	-43.58	-73.33	-60.19	1.56	7.31	H
									H
									H
									H
									H
	1672	-59.28	-13	-46.28	-70.32	-60.96	0.99	4.82	V
	2512	-49.54	-13	-36.54	-63.23	-51.51	1.29	5.41	V
	3344	-56.96	-13	-43.96	-73.71	-60.57	1.56	7.31	V
									V
									V
									V
									V

CDMA 850 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)
Highest	1696	-59.14	-13	-46.14	-70.24	-60.74	1.00	4.75	H
	2544	-52.27	-13	-39.27	-66.1	-54.25	1.30	5.44	H
	3392	-57.42	-13	-44.42	-74.31	-61.22	1.57	7.52	H
									H
									H
									H
									H
	1696	-56.79	-13	-43.79	-67.89	-58.39	1.00	4.75	V
	2544	-49.84	-13	-36.84	-63.67	-51.82	1.30	5.44	V
	3392	-57.43	-13	-44.43	-74.32	-61.23	1.57	7.52	V
									V
									V
									V
									V

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

Part22H_CDMA 850 1xEVDO

CDMA 850 1xEVDO									
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)
Lowest	1648	-61.65	-13	-48.65	-72.62	-63.41	0.98	4.89	H
	2472	-50.72	-13	-37.72	-64.27	-52.6	1.28	5.32	H
	3296	-57.18	-13	-44.18	-73.8	-60.59	1.54	7.10	H
									H
									H
									H
									H
	1648	-59.56	-13	-46.56	-70.53	-61.32	0.98	4.89	V
	2472	-48.62	-13	-35.62	-62.17	-50.5	1.28	5.32	V
	3296	-57.03	-13	-44.03	-73.65	-60.44	1.54	7.10	V
									V
									V
									V
									V
Middle	1672	-61.77	-13	-48.77	-72.81	-63.45	0.99	4.82	H
	2512	-47.34	-13	-34.34	-61.03	-49.31	1.29	5.41	H
	3352	-56.65	-13	-43.65	-73.4	-60.29	1.56	7.35	H
									H
									H
									H
									H
	1672	-60.28	-13	-47.28	-71.32	-61.96	0.99	4.82	V
	2512	-46.26	-13	-33.26	-59.95	-48.23	1.29	5.41	V
	3352	-57.00	-13	-44.00	-73.75	-60.64	1.56	7.35	V
									V
									V
									V
									V

CDMA 850 1xEVDO									
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)
Highest	1696	-60.79	-13	-47.79	-71.89	-62.39	1.00	4.75	H
	2544	-48.73	-13	-35.73	-62.56	-50.71	1.30	5.44	H
	3392	-57.14	-13	-44.14	-74.03	-60.94	1.57	7.52	H
									H
									H
									H
									H
	1696	-56.99	-13	-43.99	-68.09	-58.59	1.00	4.75	V
	2544	-47.99	-13	-34.99	-61.82	-49.97	1.30	5.44	V
	3392	-57.19	-13	-44.19	-74.08	-60.99	1.57	7.52	V
									V
									V
									V
									V

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

Part24E_GPRS 1900

GPRS 1900									
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)
Lowest	3700	-55.56	-13	-42.56	-73.14	-62.13	1.67	8.24	H
	5550	-52.00	-13	-39.00	-75.44	-59.07	2.65	9.72	H
	7400	-46.00	-13	-33.00	-76.57	-55.14	2.46	11.60	H
									H
									H
									H
									H
	3700	-55.91	-13	-42.91	-73.49	-62.48	1.67	8.24	V
	5550	-52.33	-13	-39.33	-75.77	-59.4	2.65	9.72	V
	7400	-46.09	-13	-33.09	-76.66	-55.23	2.46	11.60	V
									V
									V
									V
									V
Middle	3763	-55.82	-13	-42.82	-73.52	-62.45	1.69	8.32	H
	5639	-51.86	-13	-38.86	-75.56	-58.91	2.71	9.76	H
	7526	-45.99	-13	-32.99	-76.85	-55.38	2.42	11.82	H
									H
									H
									H
									H
	3763	-55.12	-13	-42.12	-72.82	-61.75	1.69	8.32	V
	5639	-50.42	-13	-37.42	-74.12	-57.47	2.71	9.76	V
	7526	-45.70	-13	-32.70	-76.56	-55.09	2.42	11.82	V
									V
									V
									V
									V

GPRS 1900									
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)
Highest	3819	-55.67	-13	-42.67	-73.48	-62.35	1.70	8.38	H
	5730	-51.33	-13	-38.33	-75.31	-58.36	2.76	9.79	H
	7638	-45.04	-13	-32.04	-76.05	-54.54	2.38	11.88	H
									H
									H
									H
									H
	3819	-54.49	-13	-41.49	-72.3	-61.17	1.70	8.38	V
	5730	-50.44	-13	-37.44	-74.42	-57.47	2.76	9.79	V
	7638	-45.45	-13	-32.45	-76.46	-54.95	2.38	11.88	V
									V
									V
									V
									V

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

Part24E_WCDMA 1900

WCDMA 1900									
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)
Lowest	3707	-56.99	-13	-43.99	-74.57	-63.57	1.67	8.25	H
	5555	-52.57	-13	-39.57	-76	-59.64	2.66	9.72	H
	7410	-45.97	-13	-32.97	-76.58	-55.13	2.46	11.62	H
									H
									H
									H
									H
	3707	-57.11	-13	-44.11	-74.69	-63.69	1.67	8.25	V
	5555	-52.66	-13	-39.66	-76.09	-59.73	2.66	9.72	V
	7410	-45.90	-13	-32.90	-76.51	-55.06	2.46	11.62	V
									V
									V
									V
									V
Middle	3763	-56.40	-13	-43.40	-74.1	-63.03	1.69	8.32	H
	5640	-51.85	-13	-38.85	-75.55	-58.9	2.71	9.76	H
	7520	-45.56	-13	-32.56	-76.42	-54.95	2.42	11.81	H
									H
									H
									H
									H
	3763	-56.70	-13	-43.70	-74.4	-63.33	1.69	8.32	V
	5640	-51.62	-13	-38.62	-75.32	-58.67	2.71	9.76	V
	7520	-45.98	-13	-32.98	-76.84	-55.37	2.42	11.81	V
									V
									V
									V
									V

WCDMA 1900									
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)
Highest	3819	-56.64	-13	-43.64	-74.45	-63.32	1.70	8.38	H
	5723	-51.64	-13	-38.64	-75.62	-58.68	2.75	9.79	H
	7632	-45.65	-13	-32.65	-76.66	-55.14	2.39	11.88	H
									H
									H
									H
									H
	3819	-56.36	-13	-43.36	-74.17	-63.04	1.70	8.38	V
	5723	-51.76	-13	-38.76	-75.74	-58.8	2.75	9.79	V
	7632	-45.41	-13	-32.41	-76.42	-54.9	2.39	11.88	V
									V
									V
									V
									V

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

Part24E_CDMA 1900 1xRTT

CDMA 1900 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)
Lowest	3703	-56.24	-13	-43.24	-73.82	-62.82	1.67	8.24	H
	5554	-52.23	-13	-39.23	-75.66	-59.3	2.66	9.72	H
	7405	-45.65	-13	-32.65	-76.26	-54.8	2.46	11.61	H
									H
									H
									H
									H
	3703	-56.84	-13	-43.84	-74.42	-63.42	1.67	8.24	V
	5554	-52.41	-13	-39.41	-75.84	-59.48	2.66	9.72	V
	7405	-45.64	-13	-32.64	-76.25	-54.79	2.46	11.61	V
									V
									V
									V
									V
Middle	3760	-56.17	-13	-43.17	-73.85	-62.8	1.69	8.31	H
	5640	-51.75	-13	-38.75	-75.45	-58.8	2.71	9.76	H
	7520	-45.92	-13	-32.92	-76.77	-55.31	2.42	11.81	H
									H
									H
									H
									H
	3760	-56.91	-13	-43.91	-74.59	-63.54	1.69	8.31	V
	5640	-51.89	-13	-38.89	-75.59	-58.94	2.71	9.76	V
	7520	-45.85	-13	-32.85	-76.71	-55.24	2.42	11.81	V
									V
									V
									V
									V

CDMA 1900 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)
Highest	3818	-56.81	-13	-43.81	-74.62	-63.49	1.70	8.38	H
	5726	-51.75	-13	-38.75	-75.73	-58.79	2.76	9.79	H
	7635	-45.57	-13	-32.57	-76.58	-55.07	2.39	11.88	H
									H
									H
									H
									H
	3818	-56.71	-13	-43.71	-74.52	-63.39	1.70	8.38	V
	5726	-52.02	-13	-39.02	-76	-59.06	2.76	9.79	V
	7635	-45.72	-13	-32.72	-76.73	-55.22	2.39	11.88	V
									V
									V
									V
									V

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

Part24E_CDMA 1900 1xEVDO

CDMA 1900 1xEVDO									
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)
Lowest	3703	-57.02	-13	-44.02	-74.6	-63.6	1.67	8.24	H
	5554	-52.72	-13	-39.72	-76.15	-59.79	2.66	9.72	H
	7405	-46.16	-13	-33.16	-76.77	-55.31	2.46	11.61	H
									H
									H
									H
									H
	3703	-57.17	-13	-44.17	-74.75	-63.75	1.67	8.24	V
	5554	-52.72	-13	-39.72	-76.15	-59.79	2.66	9.72	V
	7405	-46.29	-13	-33.29	-76.9	-55.44	2.46	11.61	V
									V
									V
									V
									V
Middle	3760	-56.77	-13	-43.77	-74.45	-63.4	1.69	8.31	H
	5640	-52.15	-13	-39.15	-75.85	-59.2	2.71	9.76	H
	7520	-46.07	-13	-33.07	-76.93	-55.46	2.42	11.81	H
									H
									H
									H
									H
	3760	-57.17	-13	-44.17	-74.78	-63.8	1.69	8.31	V
	5640	-51.89	-13	-38.89	-75.59	-58.94	2.71	9.76	V
	7520	-45.79	-13	-32.79	-76.65	-55.18	2.42	11.81	V
									V
									V
									V
									V

CDMA 1900 1xEVDO									
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)
Highest	3818	-56.81	-13	-43.81	-74.62	-63.49	1.70	8.38	H
	5727	-51.63	-13	-38.63	-75.61	-58.67	2.76	9.79	H
	7636	-45.71	-13	-32.71	-76.72	-55.21	2.39	11.88	H
									H
									H
									H
									H
	3818	-56.63	-13	-43.63	-74.44	-63.31	1.70	8.38	V
	5727	-51.62	-13	-38.62	-75.6	-58.66	2.76	9.79	V
	7636	-45.47	-13	-32.47	-76.48	-54.97	2.39	11.88	V
									V
									V
									V
									V

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

Part27L_WCDMA 1700

WCDMA 1700									
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)
Lowest	3424	-57.40	-13	-44.40	-74.38	-63.49	1.58	7.67	H
	5136	-52.82	-13	-39.82	-75.07	-60.1	2.42	9.70	H
	6848	-47.62	-13	-34.62	-76.76	-55.6	2.64	10.62	H
									H
									H
									H
									H
	3424	-57.18	-13	-44.18	-74.16	-63.27	1.58	7.67	V
	5136	-52.61	-13	-39.61	-74.86	-59.89	2.42	9.70	V
	6848	-47.41	-13	-34.41	-76.55	-55.39	2.64	10.62	V
									V
									V
									V
									V
Middle	3464	-57.45	-13	-44.45	-74.53	-63.7	1.59	7.84	H
	5196	-53.27	-13	-40.27	-75.71	-60.52	2.45	9.70	H
	6928	-46.73	-13	-33.73	-76.15	-54.83	2.61	10.71	H
									H
									H
									H
									H
	3464	-57.29	-13	-44.29	-74.37	-63.54	1.59	7.84	V
	5196	-52.88	-13	-39.88	-75.32	-60.13	2.45	9.70	V
	6928	-46.81	-13	-33.81	-76.23	-54.91	2.61	10.71	V
									V
									V
									V
									V

WCDMA 1700									
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)
Highest	3505	-56.90	-13	-43.90	-74.07	-63.3	1.61	8.01	H
	5258	-53.20	-13	-40.20	-75.77	-60.41	2.49	9.70	H
	7010	-46.24	-13	-33.24	-75.93	-54.47	2.59	10.82	H
									H
									H
									H
									H
	3505	-57.13	-13	-44.13	-74.3	-63.53	1.61	8.01	V
	5258	-53.13	-13	-40.13	-75.7	-60.34	2.49	9.70	V
	7010	-46.21	-13	-33.21	-75.9	-54.44	2.59	10.82	V
									V
									V
									V
									V

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