# FCC RF Test Report

| | | |
|---|---|---|
| APPLICANT | : | Motorola Mobility, LLC |
| EQUIPMENT | : | Mobile Cellular Phone |
| BRAND NAME | : | Motorola |
| MODEL NAME | : | 5892 |
| FCC ID | : | IHDT56VC1 |
| STANDARD | : | FCC 47 CFR Part 2, 22(H), 24(E) |
| CLASSIFICATION | : | PCS Licensed Transmitter Held to Ear (PCE) |

**The product was received on May 16, 2016 and testing was completed on Jun. 19, 2016. 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-D-2010 and has been in compliance with the applicable technical standards.**

**The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC., the test report shall not be reproduced except in full.**

**Reviewed by: Joseph Lin / Supervisor**

**Approved by: Jones Tsai / Manager**

Testing Laboratory
1190

***SPORTON INTERNATIONAL INC.***
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# REVISION HISTORY

| REPORT NO. | VERSION | DESCRIPTION | ISSUED DATE |
|---|---|---|---|
| FG651612A | Rev. 01 | Initial issue of report | Jun. 28, 2016 |
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# SUMMARY OF TEST RESULT

| Report Section | FCC Rule | Description | Limit | Result | Remark |
|---|---|---|---|---|---|
| 3.4 | §2.1046 | Conducted Output Power | Reporting Only | PASS | - |
| 3.5 | §24.232(d) | Peak-to-Average Ratio | < 13 dB | PASS | - |
| 3.6 | §2.1049<br>§22.917(b)<br>§24.238(b) | Occupied Bandwidth | Reporting Only | PASS | - |
| 3.7 | §2.1051<br>§22.917(a)<br>§24.238(a) | Band Edge Measurement | < 43+10log10(P[Watts]) | PASS | - |
| 3.8 | §2.1051<br>§22.917(a)<br>§24.238(a) | Conducted Emission | < 43+10log10(P[Watts]) | PASS | - |
| 3.9 | §2.1055<br>§22.355 | Frequency Stability for Temperature & Voltage | < 2.5 ppm for Part 22 | PASS | - |
| | §2.1055<br>§24.235 | | Within Authorized Band | | |
| 4.4 | §22.913(a)(2) | Effective Radiated Power | < 7 Watts | PASS | - |
| | §24.232(c) | Equivalent Isotropic Radiated Power | < 2 Watts | PASS | - |
| 4.5 | §2.1053<br>§22.917(a)<br>§24.238(a) | Field Strength of Spurious Radiation | < 43+10log10(P[Watts]) | PASS | Under limit 22.93 dB at 3762.000 MHz |

# 1 General Description

## 1.1 Applicant

**Motorola Mobility, LLC**
222 W Merchandise Mart Plaza, Suite 1800, Chicago, IL 60654, United States

## 1.2 Manufacturer

**Motorola Mobility, LLC**
222 W Merchandise Mart Plaza, Suite 1800, Chicago, IL 60654, United States

## 1.3 Product Feature of Equipment Under Test

| Product Feature | |
|---|---|
| **Equipment** | Mobile Cellular Phone |
| **Brand Name** | Motorola |
| **Model Name** | 5892 |
| **FCC ID** | IHDT56VC1 |
| **EUT supports Radios application** | CDMA/EV-DO/GSM/EGPRS/WCDMA/HSPA/LTE/NFC<br>WLAN 11b/g/n HT20<br>WLAN 11a/n HT20/HT40<br>Bluetooth v3.0 EDR<br>Bluetooth v4.0 LE |
| **HW Version** | DVT2 |
| **EUT Stage** | Identical Prototype |

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

| Accessory List | |
|---|---|
| **AC Adapter** | Brand Name : Motorola |
| | Model Name : SPN5913A |
| **Earphone** | Brand Name : Motorola |
| | Model Name : SJYN1181B |
| **Battery 1** | Brand Name : Motorola |
| | Model Name : SNN5974A |
| **Battery 2** | Brand Name : Motorola |
| | Model Name : SNN5975A |
| **USB Cable** | Brand Name : Motorola |
| | Model Name : SKN6473A |

## 1.4 Product Specification of Equipment Under Test

| Standards-related Product Specification | |
|---|---|
| **Tx Frequency** | **GSM/GPRS/EDGE:**<br>850: 824.2 MHz ~ 848.8 MHz<br>1900: 1850.2 MHz ~ 1909.8MHz<br>**WCDMA:**<br>Band V: 826.4 MHz ~ 846.6 MHz<br>Band II: 1852.4 MHz ~ 1907.6 MHz<br>**CDMA2000:**<br>BC0: 824.70 MHz ~ 848.31 MHz<br>BC1: 1851.25 MHz ~ 1908.75 MHz |
| **Rx Frequency** | **GSM/GPRS/EDGE:**<br>850: 869.2 MHz ~ 893.8 MHz<br>1900: 1930.2 MHz ~ 1989.8 MHz<br>**WCDMA:**<br>Band V: 871.4 MHz ~ 891.6 MHz<br>Band II: 1932.4 MHz ~ 1987.6 MHz<br>**CDMA2000:**<br>BC0: 869.70 MHz ~ 893.31 MHz<br>BC1: 1931.25 MHz ~ 1988.75 MHz |
| **Antenna Type** | Coupling type (LDS) Antenna<br>(The antenna peak gain of EUT is less than 6 dBi) |
| **Type of Modulation** | GSM: GMSK<br>GPRS: GMSK<br>EDGE: GMSK / 8PSK<br>WCDMA: QPSK (Uplink)<br>HSDPA: 16QAM (Downlink)<br>HSUPA: QPSK (Uplink)<br>CDMA2000 1xRTT: QPSK<br>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 | System | Type of Modulation | Maximum ERP/EIRP (W) | Frequency Tolerance (ppm) | Emission Designator |
|---|---|---|---|---|---|
| Part 22 | GSM850 GSM | GMSK | 1.1722 | 0.0574 ppm | 242KGXW |
| Part 22 | GSM850 EDGE class 8 | 8PSK | 0.1435 | 0.0060 ppm | 248KG7W |
| Part 22 | WCDMA Band V RMC 12.2Kbps | QPSK | 0.1138 | 0.0155 ppm | 4M14F9W |
| Part 22 | CDMA2000 BC0 1xRTT | QPSK | 0.1169 | 0.0167 ppm | 1M28F9W |
| Part 22 | CDMA2000 BC0 1xEV-DO Rev. 0 | QPSK | 0.1014 | 0.0108 ppm | 1M27F9W |
| Part 24 | GSM1900 GPRS class 8 | GMSK | 1.3183 | 0.0016 ppm | 246KGXW |
| Part 24 | GSM1900 EDGE class 8 | 8PSK | 0.4055 | 0.0149 ppm | 246KG7W |
| Part 24 | WCDMA Band II RMC 12.2Kbps | QPSK | 0.2360 | 0.0016 ppm | 4M11F9W |
| Part 24 | CDMA2000 BC1 1xRTT | QPSK | 0.2655 | 0.0101 ppm | 1M28F9W |
| Part 24 | CDMA2000 BC1 1xEV-DO Rev. A | QPSK | 0.2239 | 0.0011 ppm | 1M27F9W |

## 1.7 Testing Location

Sporton Lab is accredited to ISO 17025 by Taiwan Accreditation Foundation (TAF code : 1190) and the FCC designation No. TW1022 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,<br>Kwei-Shan District, Tao Yuan City, Taiwan, R.O.C.<br>TEL: +886-3-327-3456<br>FAX: +886-3-328-4978 | |
| **Test Site No.** | **Sporton Site No.** | |
| | TH03-HY | 03CH07-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)
- ANSI / TIA / EIA-603-D-2010
- FCC KDB 971168 D01 Power Meas. License Digital Systems v02r02

**Remark:**

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

# 2 Test Configuration of Equipment Under Test

## 2.1 Test Mode

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

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

Radiated emissions were investigated as following frequency range:

1. 30 MHz to 9000 MHz for GSM850 and WCDMA Band V and CDMA BC0.
2. 30 MHz to 19000 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** | ■ GSM Link<br>■ EDGE class 8 Link | ■ GSM Link<br>■ EDGE class 8 Link |
| **GSM 1900** | ■ GPRS class 8 Link<br>■ EDGE class 8 Link | ■ GPRS class 8 Link<br>■ 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 |
| **CDMA BC0** | ■ 1xRTT Link<br>■ 1xEV-DO Rev. 0 Link | ■ 1xRTT Link<br>■ 1xEV-DO Rev. 0 Link |
| **CDMA BC1** | ■ 1xRTT Link<br>■ 1xEV-DO Rev. A Link | ■ 1xRTT Link<br>■ 1xEV-DO Rev. A Link |

**Note:** The maximum power levels are chosen to test as the worst case configuration as follows:

GSM or GPRS multi-slot class 8 mode for GMSK modulation,

EDGE multi-slot class 8 mode for 8PSK modulation,

RMC 12.2Kbps mode for WCDMA band V,

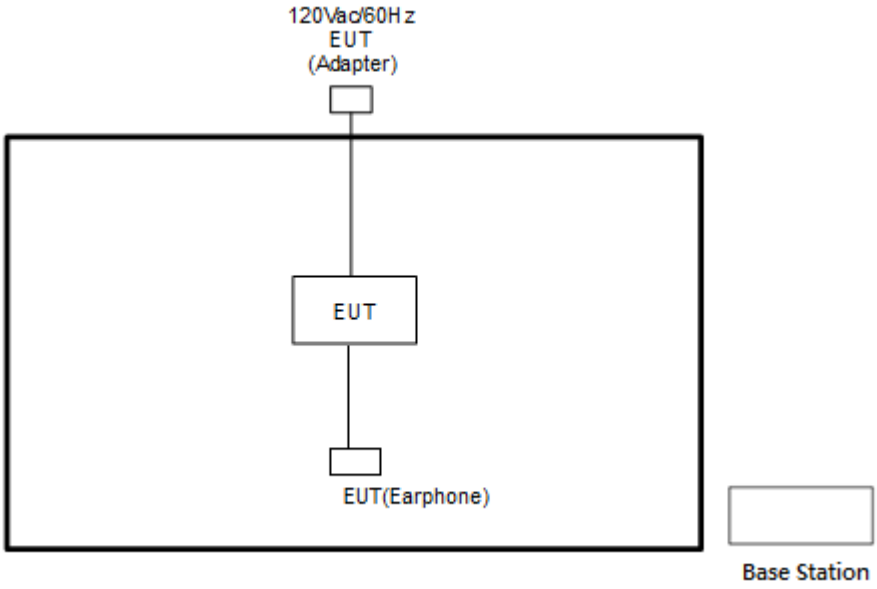
RMC 12.2Kbps mode for WCDMA band II,

1xRTT and 1xEV-DO Rev. 0 mode for CDMA BC0,

1xRTT and 1xEV-DO Rev. A mode for CDMA BC1,

only these modes were used for all tests. In addition to above worst-case test, below investigating on all data rates, and all modes are compliance with each FCC test case which has specific test limits. For spurious emissions at antenna port, the EUT was invistigated the band edges on low and high channels, and the unwanted spourious emissions on middle channel for all modes, the results are pass, then only the worst-results were reported in the test report. The Radiated Spurioues emissions for CDMA/EV-DO/GSM/GPRS/EGPRS/WCDMA/HSDPA modes were investigated on the middle channel and the passed reuslts were were not worst than those data tested from the highest power channels.

## 2.2 Connection Diagram of Test System




## 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 |

## 2.4 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)

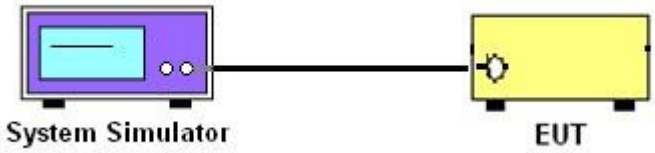
# 3 Conducted Test Result

## 3.1 Measuring Instruments

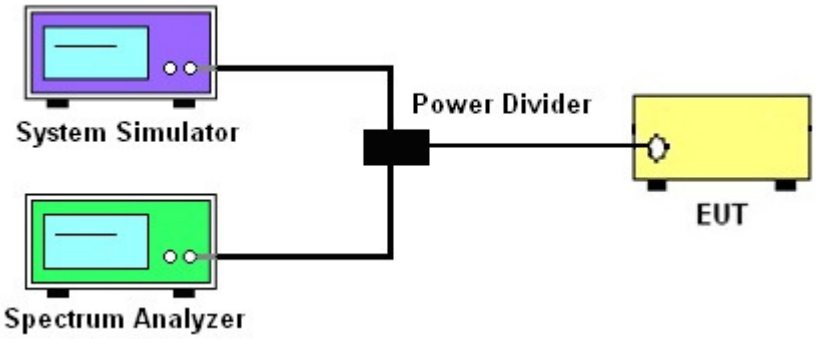
See list of measuring instruments of this test report.

## 3.2 Test Setup

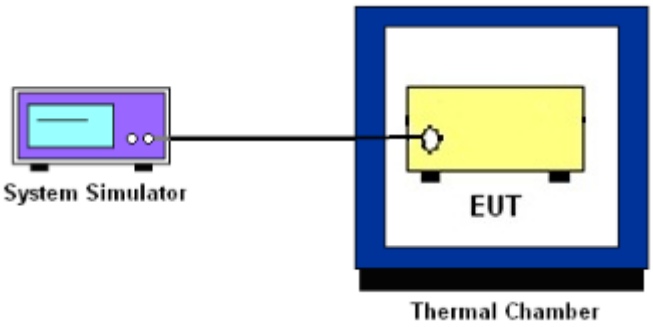
### 3.2.1 Conducted Output Power




### 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

### 3.4.1 Description of the Conducted Output Power

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.

### 3.4.2 Test Procedures

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

## 3.5 Peak-to-Average Ratio

### 3.5.1 Description of the PAR Measurement

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

### 3.5.2 Test Procedures

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

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

## 3.6 99% Occupied Bandwidth and 26dB Bandwidth Measurement

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

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

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

### 3.6.2 Test Procedures

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

# 3.7 Conducted Band Edge

## 3.7.1 Description of Conducted Band Edge Measurement

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

## 3.7.2 Test Procedures

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

# 3.8 Conducted Spurious Emission

## 3.8.1 Description of Conducted Spurious Emission Measurement

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

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

## 3.8.2 Test Procedures

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

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

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

= -13dBm.

## 3.9 Frequency Stability

### 3.9.1 Description of Frequency Stability Measurement

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

### 3.9.2 Test Procedures for Temperature Variation

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

### 3.9.3 Test Procedures for Voltage Variation

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

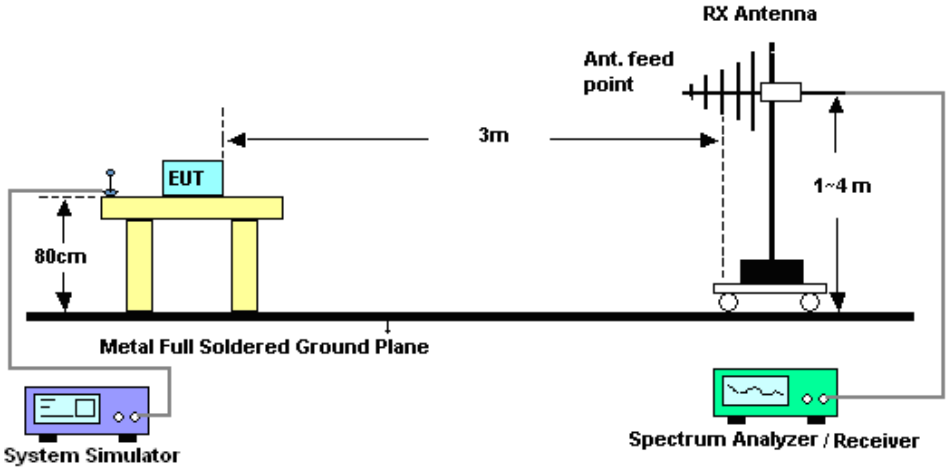
# 4 Radiated Test Items

## 4.1 Measuring Instruments

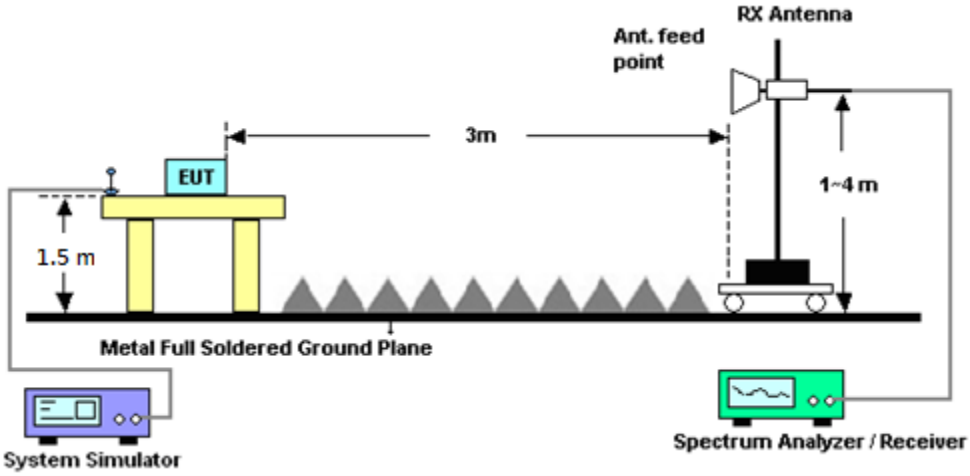
See list of measuring instruments of this test report.

## 4.2 Test Setup

### 4.2.1 For radiated test from 30MHz to 1GHz




### 4.2.2 For radiated test above 1GHz




## 4.3 Test Result of Radiated Test

Please refer to Appendix B.

## 4.4 Effective Radiated Power and Effective Isotropic Radiated Power Measurement

### 4.4.1 Description of the ERP/EIRP Measurement

The substitution method, in ANSI / TIA / EIA-603-D-2010, was used for ERP/EIRP measurement, and the spectrum analyzer configuration follows KDB 971168 D01 Power Meas. License Digital Systems v02r02. The ERP of mobile transmitters must not exceed 7 Watts (Cellular Band) and the EIRP of mobile transmitters are limited to 2 Watts (PCS Band).

### 4.4.2 Test Procedures

1. The testing follows FCC KDB 971168 D01 v02r02 Section 5.2.1. (for CDMA/WCDMA), Section 5.2.2.2 (for GSM/GPRS/EDGE) and ANSI / TIA-603-D-2010 Section 2.2.17.
2. The EUT was placed on a non-conductive rotating platform (0.8 meters for frequency below 1GHz and 1.5 meter for frequency above 1GHz) in a semi-anechoic chamber. The radiated emission at the fundamental frequency was measured at 3 m with a test antenna and a spectrum analyzer with RMS detector per section 5. of KDB 971168 D01.
3. During the measurement, the system simulator parameters were set to force the EUT transmitting at maximum output power. The maximum emission was recorded from analyzer power level (LVL) from the 360 degrees rotation of the turntable and the test antenna raised and lowered over a range from 1 to 4 meters in both horizontally and vertically polarized orientations.
4. Effective Isotropic Radiated Power (EIRP) was measured by substitution method according to TIA/EIA-603-D. The EUT was replaced by the substitution antenna at same location, and then a known power from S.G. was applied into the dipole antenna through a Tx cable, and then recorded the maximum Analyzer reading through raised and lowered the test antenna. The correction factor (in dB) = S.G. - Tx Cable loss + Substitution antenna gain - Analyzer reading. Then the EUT's EIRP was calculated with the correction factor, EIRP = LVL + Correction factor and ERP = EIRP - 2.15. Take the record of the output power at substitution antenna.

| | GSM/GPRS/EDGE | WCDMA/HSPA |
|---|---|---|
| SPAN | 500kHz | 10MHz |
| RBW | 10kHz | 100kHz |
| VBW | 30kHz | 300kHz |
| Detector | RMS | RMS |
| Trace | Average | Average |
| Average Type | Power | Power |
| Sweep Count | 100 | 100 |

# 4.5 Field Strength of Spurious Radiation Measurement

## 4.5.1 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.

## 4.5.2 Test Procedures

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

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

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

    = -13dBm.

# 5 List of Measuring Equipment

| Instrument | Manufacturer | Model No. | Serial No. | Characteristics | Calibration Date | Test Date | Due Date | Remark |
|---|---|---|---|---|---|---|---|---|
| Spectrum Analyzer | Rohde & Schwarz | FSP30 | 101329 | 9kHz~30GHz | Jun. 24, 2015 | May 29, 2016 ~ Jun. 07, 2016 | Jun. 23, 2016 | Conducted (TH03-HY) |
| Temperature Chamber | ESPEC | SU-641 | 92013721 | -30℃ ~70℃ | Nov. 20, 2015 | May 29, 2016 ~ Jun. 07, 2016 | Nov. 19, 2016 | Conducted (TH03-HY) |
| Programmable Power Supply | GW Instek | PSS-2005 | EL883644 | Voltage:0~20V;Current:0~5A | Nov. 26, 2015 | May 29, 2016 ~ Jun. 07, 2016 | Nov. 25, 2016 | Conducted (TH03-HY) |
| Base Station (Measure) | Rohde & Schwarz | CMU200 | 117995 | GSM / GPRS / WCDMA / CDMA | Jul. 26, 2015 | May 29, 2016 ~ Jun. 07, 2016 | Jul. 25, 2016 | Conducted (TH03-HY) |
| Bilog Antenna | TESEQ | CBL 6111D | 35419 | 30MHz to 1GHz | Jan. 13, 2016 | Jun. 15, 2016~ Jun. 19, 2016 | Jan. 12, 2017 | Radiation (03CH07-HY |
| Double Ridge Horn Antenna | ESCO | 3117 | 00075962 | 1GHz ~ 18GHz | Aug. 21, 2015 | Jun. 15, 2016~ Jun. 19, 2016 | Aug. 20, 2016 | Radiation (03CH07-HY |
| EMI Test Receiver | Keysight | N9038A (MXE) | MY54130085 | 20Hz ~ 8.4GHz | Nov. 04, 2015 | Jun. 15, 2016~ Jun. 19, 2016 | Nov. 03, 2016 | Radiation (03CH07-HY |
| Preamplifier | MITEQ | AMF-7D-00101800-30-10P | 1590075 | 1GHz ~ 18GHz | Apr. 15, 2016 | Jun. 15, 2016~ Jun. 19, 2016 | Apr. 14, 2017 | Radiation (03CH07-HY |
| Preamplifier | COM-POWER | PA-103A | 161241 | 10MHz-1GHz | Mar. 18, 2016 | Jun. 15, 2016~ Jun. 19, 2016 | Mar. 17, 2017 | Radiation (03CH07-HY |
| Spectrum Analyzer | Agilent | N9010A | MY53470118 | 10Hz~44GHz | Feb. 27, 2016 | Jun. 15, 2016~ Jun. 19, 2016 | Feb. 26, 2017 | Radiation (03CH07-HY |
| Antenna Mast | Max-Full | MFA520BS | N/A | 1m~4m | N/A | Jun. 15, 2016~ Jun. 19, 2016 | N/A | Radiation (03CH07-HY |
| Turn Table | ChainTek | Chaintek 3000 | N/A | 0~360 Degree | N/A | Jun. 15, 2016~ Jun. 19, 2016 | N/A | Radiation (03CH07-HY |
| Horn Antenna | SCHWARZBECK | BBHA 9120D | 9120D-1328 | 1GHz ~ 18GHz | Nov. 02, 2015 | Jun. 15, 2016~ Jun. 19, 2016 | Nov. 01, 2016 | Radiation (03CH07-HY |
| Preamplifier | MITEQ | JS44-18004000-33-8P | 1840917 | 18GHz ~ 40GHz | Jun. 14, 2016 | Jun. 15, 2016~ Jun. 19, 2016 | Jun. 13, 2017 | Radiation (03CH07-HY |
| SHF-EHF Horn Antenna | SCHWARZBECK | BBHA 9170 | BBHA9170584 | 18GHz- 40GHz | Nov. 02, 2015 | Jun. 15, 2016~ Jun. 19, 2016 | Nov. 01, 2016 | Radiation (03CH07-HY |
| Signal Generator | Rohde & Schwarz | SMF100A | 101107 | 100kHz~40GHz | May 19, 2016 | Jun. 15, 2016~ Jun. 19, 2016 | May 18, 2017 | Radiation (03CH07-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))** | **5.60** |

# Appendix A. Test Results of Conducted Test

## Conducted Output Power(Average power)

| Conducted Power (*Unit: dBm) | | | | | | |
|---|---|---|---|---|---|---|
| Band | GSM850 | | | GSM1900 | | |
| Channel | 128 | 189 | 251 | 512 | 661 | 810 |
| Frequency | 824.2 | 836.4 | 848.8 | 1850.2 | 1880.0 | 1909.8 |
| GSM | 32.71 | 32.21 | 32.07 | 29.62 | 29.43 | 29.41 |
| GPRS class 8 | 32.67 | 32.22 | 32.03 | 29.63 | 29.44 | 29.42 |
| GPRS class 10 | 29.54 | 29.25 | 29.06 | 26.45 | 26.23 | 26.50 |
| GPRS class 11 | 27.63 | 27.36 | 27.15 | 24.50 | 24.27 | 24.52 |
| GPRS class 12 | 26.60 | 26.07 | 25.78 | 23.06 | 22.91 | 23.14 |
| EGPRS class 8 | 26.77 | 26.43 | 26.21 | 25.31 | 25.13 | 25.26 |
| EGPRS class 10 | 26.64 | 26.35 | 26.20 | 25.09 | 25.01 | 25.10 |
| EGPRS class 11 | 25.23 | 24.94 | 24.74 | 23.72 | 23.55 | 23.68 |
| EGPRS class 12 | 23.85 | 23.58 | 23.31 | 22.35 | 22.20 | 22.31 |

| 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 | 22.98 | 22.96 | 22.59 | 22.92 | 22.61 | 22.90 |
| HSDPA Subtest-1 | 22.09 | 22.03 | 21.62 | 21.40 | 21.14 | 21.44 |
| HSDPA Subtest-2 | 22.05 | 22.02 | 21.61 | 21.38 | 21.22 | 21.52 |
| HSDPA Subtest-3 | 21.59 | 21.57 | 21.10 | 21.41 | 21.11 | 21.44 |
| HSDPA Subtest-4 | 22.08 | 21.53 | 21.15 | 21.39 | 21.21 | 21.55 |
| HSUPA Subtest-1 | 22.06 | 22.00 | 21.59 | 21.83 | 21.70 | 21.98 |
| HSUPA Subtest-2 | 20.02 | 20.00 | 19.51 | 20.00 | 19.79 | 19.97 |
| HSUPA Subtest-3 | 21.03 | 21.03 | 20.65 | 20.88 | 20.75 | 20.98 |
| HSUPA Subtest-4 | 20.08 | 20.05 | 19.50 | 20.00 | 19.72 | 20.04 |
| HSUPA Subtest-5 | 22.13 | 22.10 | 21.66 | 21.45 | 21.16 | 21.44 |

| 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 | 24.25 | 24.03 | 23.88 | 23.66 | 23.27 | 23.80 |
| 1xRTT RC3 SO55 | 24.29 | 24.14 | 23.92 | 23.57 | 23.27 | 23.73 |
| 1xRTT RC3 SO32 (+ F-SCH) | 24.31 | 24.13 | 23.97 | 23.67 | 23.28 | 23.70 |
| 1xRTT RC3 SO32 (+SCH) | 24.31 | 24.12 | 23.98 | 23.68 | 23.28 | 23.73 |
| 1xEVDO RTAP 153.6Kbps | 24.29 | 24.05 | 23.94 | 23.63 | 23.26 | 23.70 |
| 1xEVDO RETAP 4096Bits | 24.28 | 24.18 | 23.98 | 23.66 | 23.29 | 23.73 |

# A1. GSM

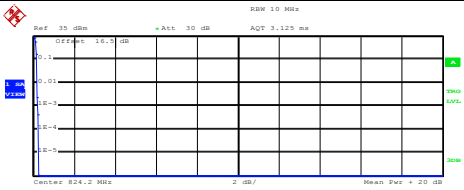
## Peak-to-Average Ratio

| Mode | GSM850 | | Limit: 13dB |
|---|---|---|---|
| Mod. | GSM | EDGE class 8 | Result |
| Lowest CH | 0.24 | 3.28 | PASS |
| Middle CH | 0.24 | 3.16 | |
| Highest CH | 0.24 | 3.24 | |

| Mode | GSM1900 | | Limit: 13dB |
|---|---|---|---|
| Mod. | GPRS class 8 | EDGE class 8 | Result |
| Lowest CH | 0.24 | 3.20 | PASS |
| Middle CH | 0.32 | 3.36 | |
| Highest CH | 0.28 | 3.28 | |

## GSM

### Lowest Channel

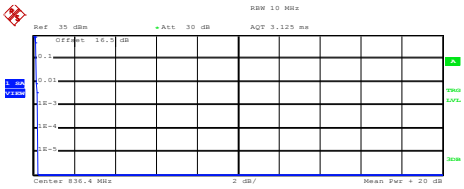



Complementary Cumulative Distribution Function (100000 samples)

| | Trace 1 |
|---|---|
| Mean | 32.61 dBm |
| Peak | 32.85 dBm |
| Crest | 0.25 dB |
| 10 % | 0.16 dB |
| 1 % | 0.20 dB |
| .1 % | 0.24 dB |
| .01 % | 0.28 dB |

Date: 29.MAY.2016 09:23:54

### Middle Channel

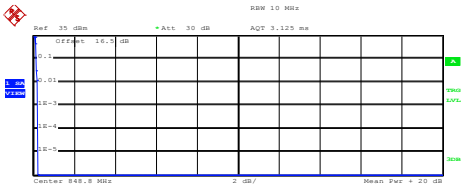



Complementary Cumulative Distribution Function (100000 samples)

| | Trace 1 |
|---|---|
| Mean | 31.78 dBm |
| Peak | 32.01 dBm |
| Crest | 0.23 dB |
| 10 % | 0.16 dB |
| 1 % | 0.16 dB |
| .1 % | 0.24 dB |
| .01 % | 0.24 dB |

Date: 29.MAY.2016 09:24:09

### Highest Channel



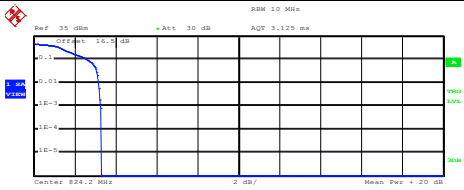

Complementary Cumulative Distribution Function (100000 samples)

| | Trace 1 |
|---|---|
| Mean | 31.78 dBm |
| Peak | 32.01 dBm |
| Crest | 0.22 dB |
| 10 % | 0.16 dB |
| 1 % | 0.20 dB |
| .1 % | 0.24 dB |
| .01 % | 0.24 dB |

Date: 29.MAY.2016 09:24:24

## GSM850 (EDGE class 8)

### Lowest Channel

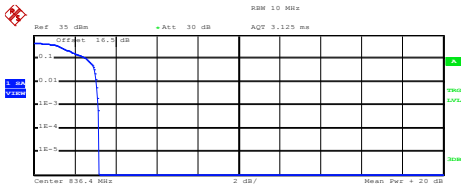



Complementary Cumulative Distribution Function (100000 samples)

| | Trace 1 |
|---|---|
| Mean | 26.59 dBm |
| Peak | 29.89 dBm |
| Crest | 3.30 dB |
| 10 % | 2.64 dB |
| 1 % | 3.16 dB |
| .1 % | 3.28 dB |
| .01 % | 3.32 dB |

Date: 29.MAY.2016 09:52:57

### Middle Channel

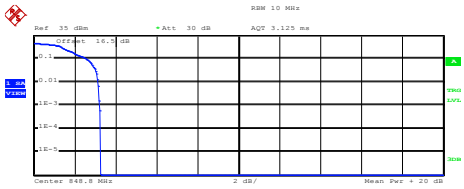



Complementary Cumulative Distribution Function (100000 samples)

| | Trace 1 |
|---|---|
| Mean | 26.49 dBm |
| Peak | 29.68 dBm |
| Crest | 3.19 dB |
| 10 % | 2.56 dB |
| 1 % | 3.04 dB |
| .1 % | 3.16 dB |
| .01 % | 3.20 dB |

Date: 29.MAY.2016 09:53:20

### Highest Channel



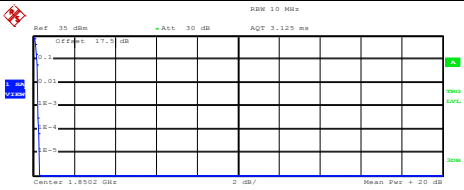

Complementary Cumulative Distribution Function (100000 samples)

| | Trace 1 |
|---|---|
| Mean | 26.27 dBm |
| Peak | 29.54 dBm |
| Crest | 3.27 dB |
| 10 % | 2.60 dB |
| 1 % | 3.12 dB |
| .1 % | 3.24 dB |
| .01 % | 3.28 dB |

Date: 29.MAY.2016 09:53:39

## GSM1900 (GPRS class 8)

### Lowest Channel

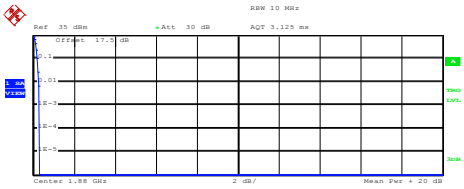



Complementary Cumulative Distribution Function (100000 samples)

| | Trace 1 |
|---|---|
| Mean | 29.46 dBm |
| Peak | 29.75 dBm |
| Crest | 0.29 dB |
| 10 % | 0.20 dB |
| 1 % | 0.24 dB |
| .1 % | 0.24 dB |
| .01 % | 0.28 dB |

Date: 29.MAY.2016 10:22:15

### Middle Channel

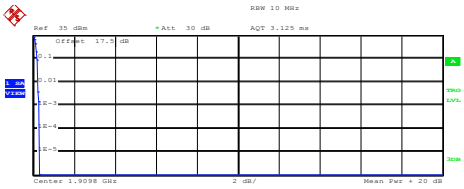



Complementary Cumulative Distribution Function (100000 samples)

| | Trace 1 |
|---|---|
| Mean | 28.89 dBm |
| Peak | 29.19 dBm |
| Crest | 0.29 dB |
| 10 % | 0.20 dB |
| 1 % | 0.28 dB |
| .1 % | 0.32 dB |
| .01 % | 0.32 dB |

Date: 29.MAY.2016 10:23:14

### Highest Channel



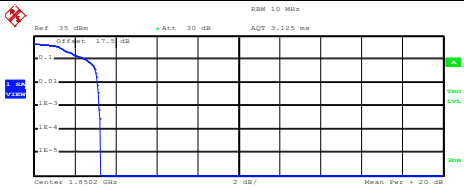

Complementary Cumulative Distribution Function (100000 samples)

| | Trace 1 |
|---|---|
| Mean | 28.81 dBm |
| Peak | 29.12 dBm |
| Crest | 0.30 dB |
| 10 % | 0.20 dB |
| 1 % | 0.24 dB |
| .1 % | 0.28 dB |
| .01 % | 0.32 dB |

Date: 29.MAY.2016 10:23:36

## GSM1900 (EDGE class 8)

### Lowest Channel

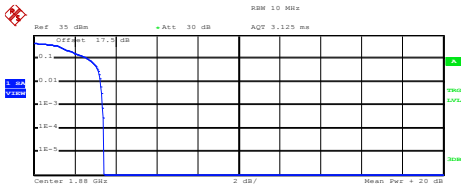



Complementary Cumulative Distribution Function (100000 samples)

| | Trace 1 |
|---|---|
| Mean | 25.01 dBm |
| Peak | 28.27 dBm |
| Crest | 3.26 dB |
| 10 % | 2.56 dB |
| 1 % | 3.12 dB |
| .1 % | 3.20 dB |
| .01 % | 3.28 dB |

Date: 29.MAY.2016 10:50:24

### Middle Channel

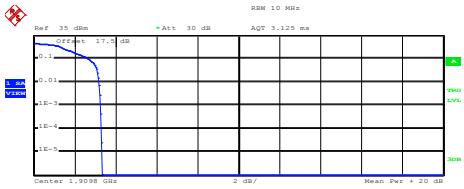



Complementary Cumulative Distribution Function (100000 samples)

| | Trace 1 |
|---|---|
| Mean | 24.36 dBm |
| Peak | 27.77 dBm |
| Crest | 3.42 dB |
| 10 % | 2.64 dB |
| 1 % | 3.28 dB |
| .1 % | 3.36 dB |
| .01 % | 3.44 dB |

Date: 29.MAY.2016 10:50:45

### Highest Channel




Complementary Cumulative Distribution Function (100000 samples)

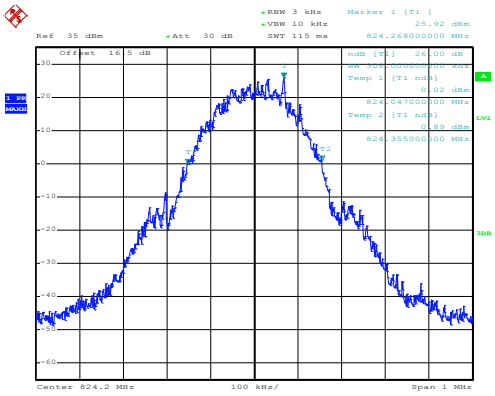
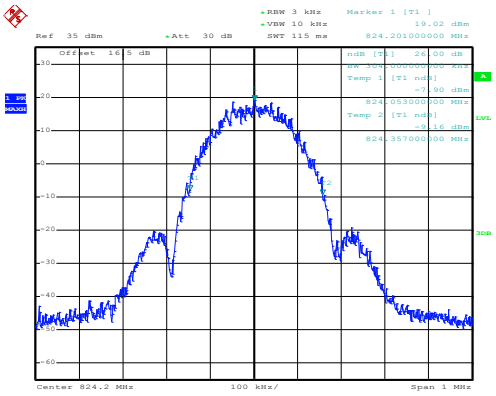
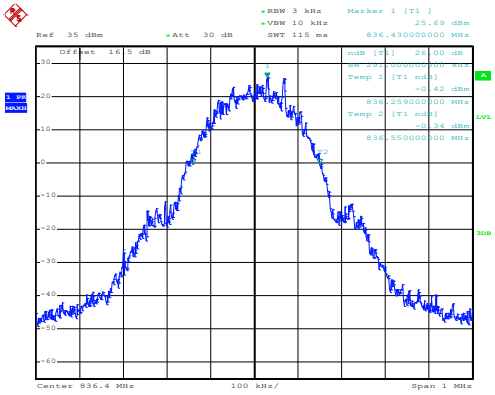
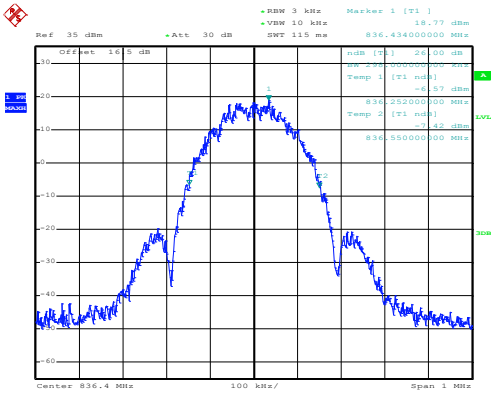
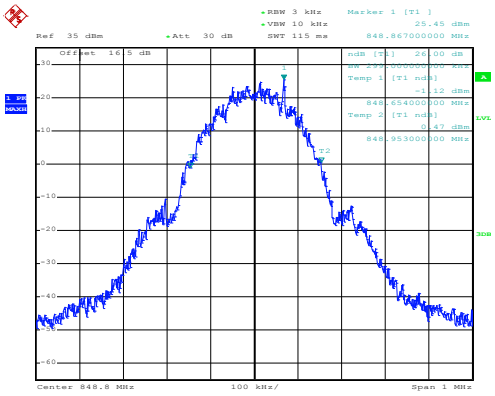
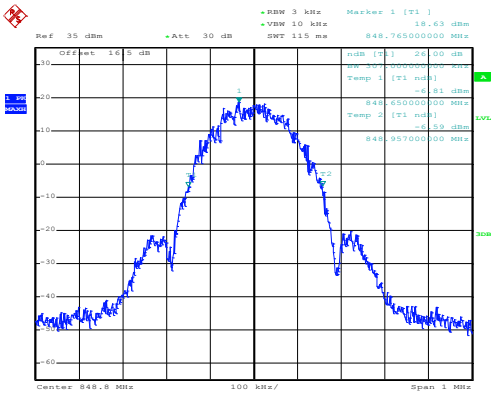
| | Trace 1 |
|---|---|
| Mean | 24.57 dBm |
| Peak | 27.92 dBm |
| Crest | 3.35 dB |
| 10 % | 2.68 dB |
| 1 % | 3.20 dB |
| .1 % | 3.28 dB |
| .01 % | 3.32 dB |

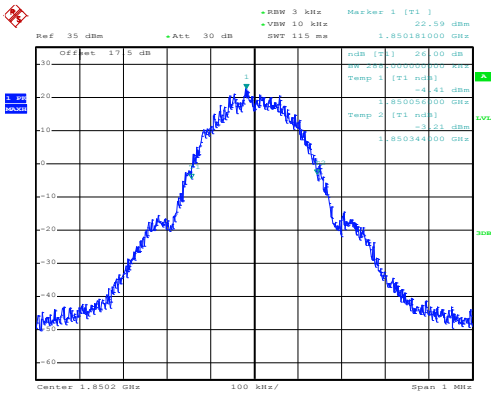
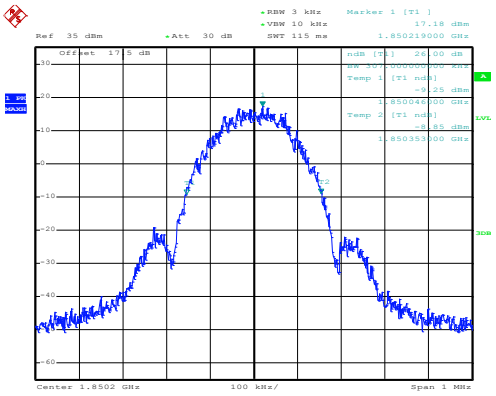
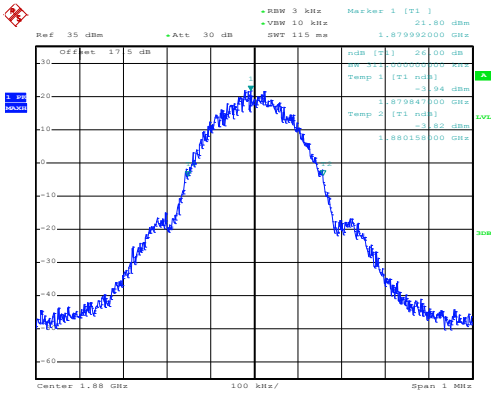
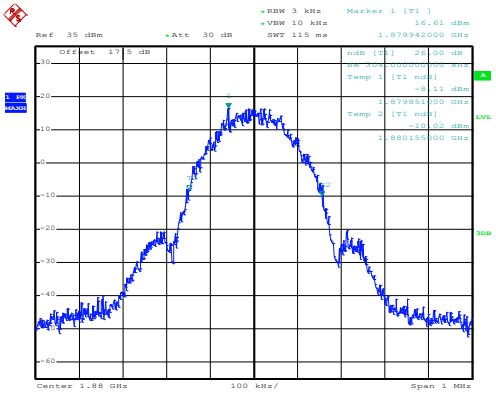
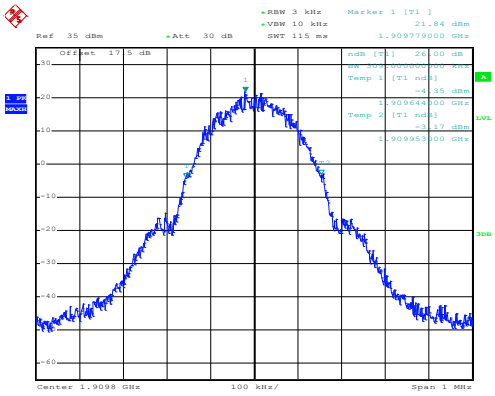
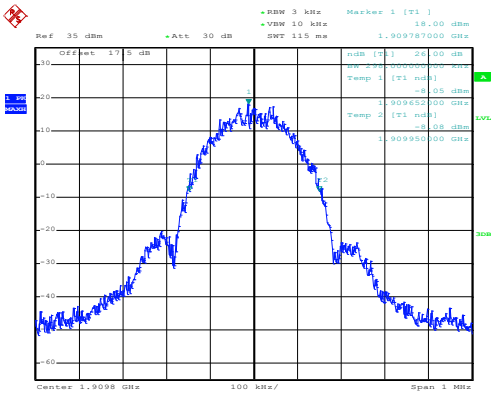
Date: 29.MAY.2016 10:51:12

# 26dB Bandwidth

| Mode | GSM850 | |
|---|---|---|
| Mod. | GSM | EDGE class 8 |
| Lowest CH | 0.308 | 0.304 |
| Middle CH | 0.291 | 0.298 |
| Highest CH | 0.299 | 0.307 |

| Mode | GSM1900 | |
|---|---|---|
| Mod. | GPRS class 8 | EDGE class 8 |
| Lowest CH | 0.288 | 0.307 |
| Middle CH | 0.311 | 0.304 |
| Highest CH | 0.309 | 0.298 |

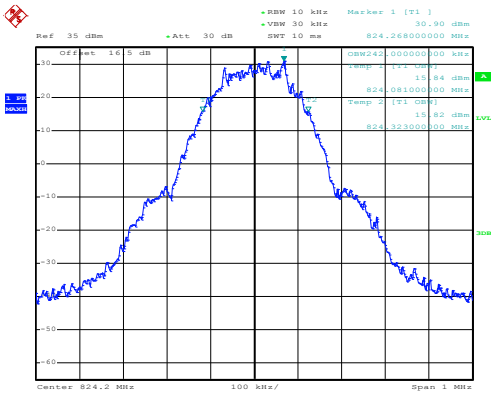
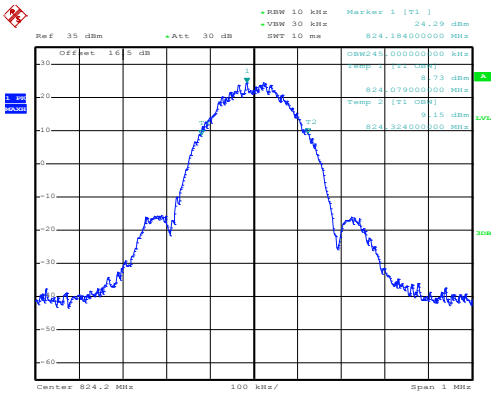
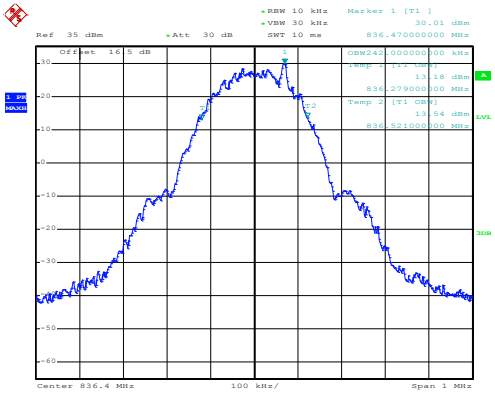
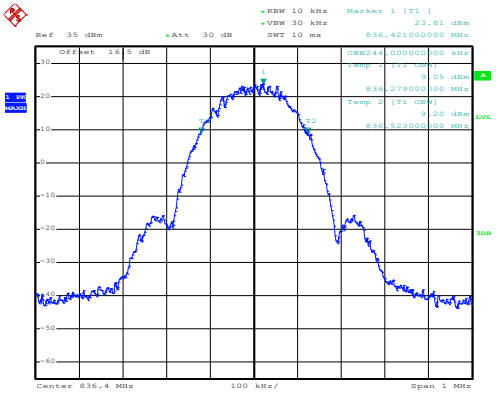
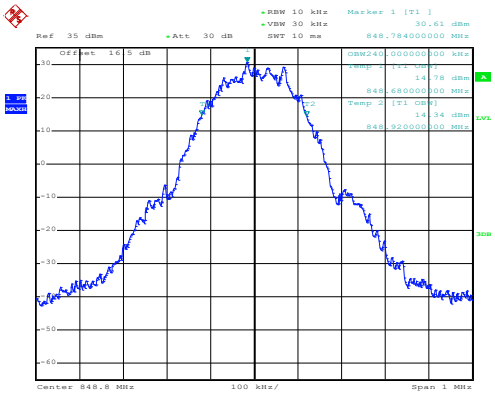
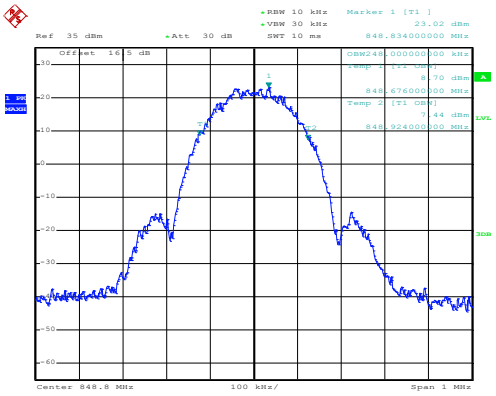
| GSM | GSM850 (EDGE class 8) |
|---|---|
| **Lowest Channel** | **Lowest Channel** |
|  Date: 29.MAY.2016 09:16:59 |  Date: 29.MAY.2016 09:45:51 |
| **Middle Channel** | **Middle Channel** |
|  Date: 29.MAY.2016 09:17:35 |  Date: 29.MAY.2016 09:46:28 |
| **Highest Channel** | **Highest Channel** |
|  Date: 29.MAY.2016 09:18:12 |  Date: 29.MAY.2016 09:48:11 |

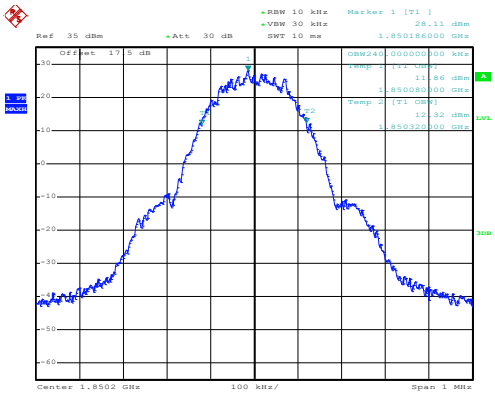
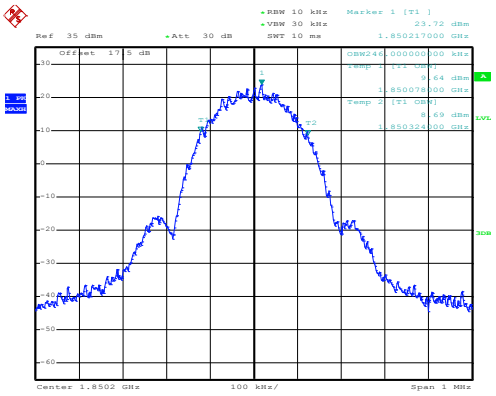
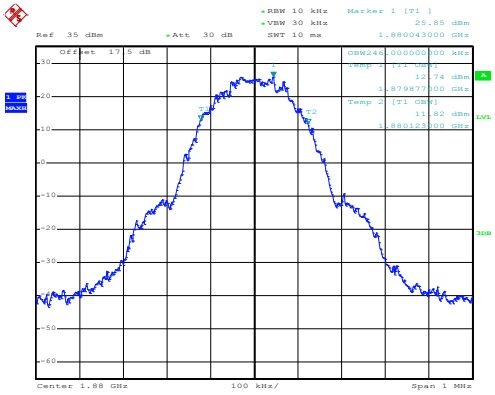
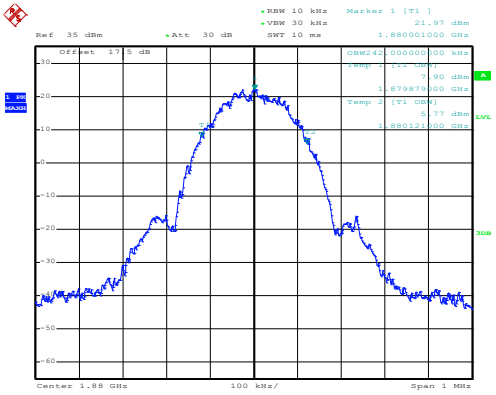
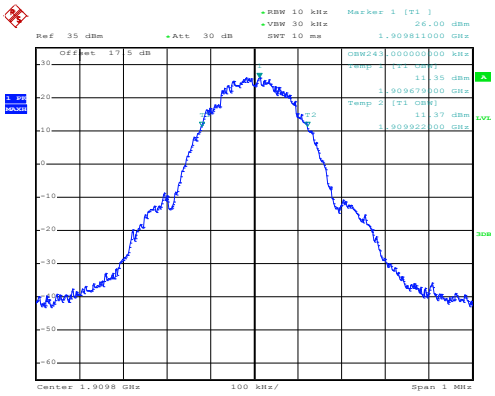
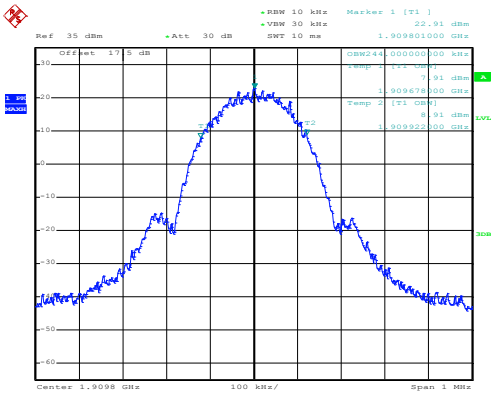
| GSM1900 (GPRS class 8) | GSM1900 (EDGE class 8) |
|---|---|
| **Lowest Channel** | **Lowest Channel** |
|  Date: 29.MAY.2016 10:10:23 |  Date: 29.MAY.2016 10:42:07 |
| **Middle Channel** | **Middle Channel** |
|  Date: 29.MAY.2016 10:11:03 |  Date: 29.MAY.2016 10:43:04 |
| **Highest Channel** | **Highest Channel** |
|  Date: 29.MAY.2016 10:11:39 |  Date: 29.MAY.2016 10:44:53 |

# Occupied Bandwidth

| Mode | GSM850 | |
|---|---|---|
| Mod. | GSM | EDGE class 8 |
| Lowest CH | 0.242 | 0.245 |
| Middle CH | 0.242 | 0.244 |
| Highest CH | 0.240 | 0.248 |

| Mode | GSM1900 | |
|---|---|---|
| Mod. | GPRS class 8 | EDGE class 8 |
| Lowest CH | 0.240 | 0.246 |
| Middle CH | 0.246 | 0.242 |
| Highest CH | 0.243 | 0.244 |

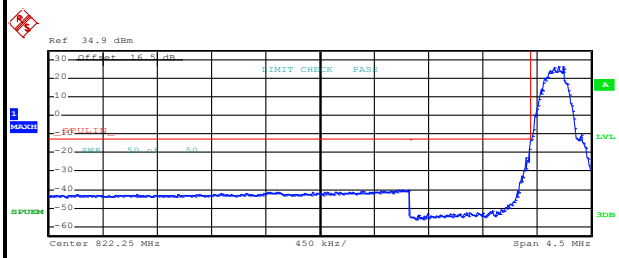
| GSM | GSM850 (EDGE class 8) |
|---|---|
| **Lowest Channel** | **Lowest Channel** |
|  Date: 29.MAY.2016 09:19:26 |  Date: 29.MAY.2016 09:43:31 |
| **Middle Channel** | **Middle Channel** |
|  Date: 29.MAY.2016 09:20:00 |  Date: 29.MAY.2016 09:44:08 |
| **Highest Channel** | **Highest Channel** |
|  Date: 29.MAY.2016 09:20:33 |  Date: 29.MAY.2016 09:44:46 |

| GSM1900 (GPRS class 8) | GSM1900 (EDGE class 8) |
|---|---|
| **Lowest Channel** | **Lowest Channel** |
|  Date: 29.MAY.2016 10:12:42 |  Date: 29.MAY.2016 10:45:42 |
| **Middle Channel** | **Middle Channel** |
|  Date: 29.MAY.2016 10:13:15 |  Date: 29.MAY.2016 10:46:26 |
| **Highest Channel** | **Highest Channel** |
|  Date: 29.MAY.2016 10:13:48 |  Date: 29.MAY.2016 10:47:00 |

# Conducted Band Edge

## GSM

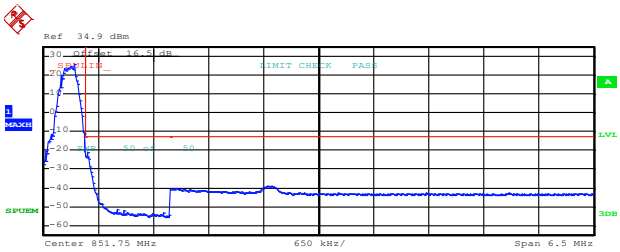
### Lowest Band Edge




| Start [Hz] | Stop [Hz] | RBW [Hz] | Freq [Hz] | PwrAbs [dBm] | ΔLimit [dB] |
|---|---|---|---|---|---|
| 820.000 M | 823.000 M | 100.00 k | 822.994000 M | -40.24 | -27.24 |
| 823.000 M | 824.000 M | 3.00 k | 823.996000 M | -21.21 | -8.21 |
| 824.000 M | 824.500 M | 10.00 k | 824.268000 M | 26.65 | -8.35 |

Date: 29.MAY.2016 09:26:20

### Highest Band Edge

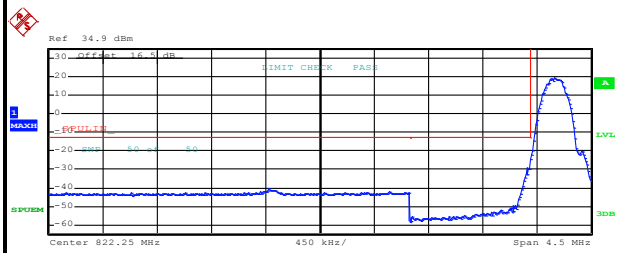



| Start [Hz] | Stop [Hz] | RBW [Hz] | Freq [Hz] | PwrAbs [dBm] | ΔLimit [dB] |
|---|---|---|---|---|---|
| 848.500 M | 849.000 M | 10.00 k | 848.867000 M | 25.86 | -9.14 |
| 849.000 M | 850.000 M | 3.00 k | 849.016000 M | -20.66 | -7.66 |
| 850.000 M | 855.000 M | 100.00 k | 851.150000 M | -38.96 | -25.96 |

Date: 29.MAY.2016 09:30:10

## GSM850 (EDGE class 8)

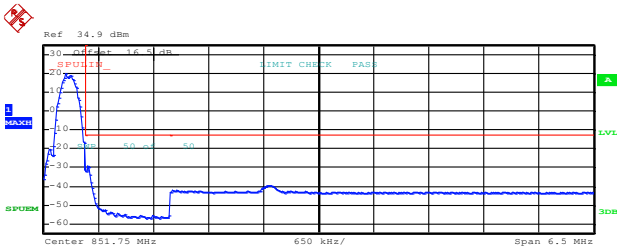
### Lowest Band Edge




| Start [Hz] | Stop [Hz] | RBW [Hz] | Freq [Hz] | PwrAbs [dBm] | ΔLimit [dB] |
|---|---|---|---|---|---|
| 820.000 M | 823.000 M | 100.00 k | 821.824000 M | -40.53 | -27.53 |
| 823.000 M | 824.000 M | 3.00 k | 823.968000 M | -28.86 | -15.86 |
| 824.000 M | 824.500 M | 10.00 k | 824.198000 M | 19.58 | -15.42 |

Date: 29.MAY.2016 09:55:25

### Highest Band Edge

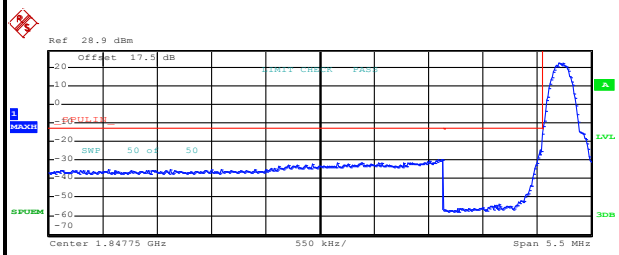



| Start [Hz] | Stop [Hz] | RBW [Hz] | Freq [Hz] | PwrAbs [dBm] | ΔLimit [dB] |
|---|---|---|---|---|---|
| 848.500 M | 849.000 M | 10.00 k | 848.761000 M | 19.75 | -15.25 |
| 849.000 M | 850.000 M | 3.00 k | 849.020000 M | -29.26 | -16.26 |
| 850.000 M | 855.000 M | 100.00 k | 851.160000 M | -39.42 | -26.42 |

Date: 29.MAY.2016 09:57:05

## GSM1900 (GPRS class 8)

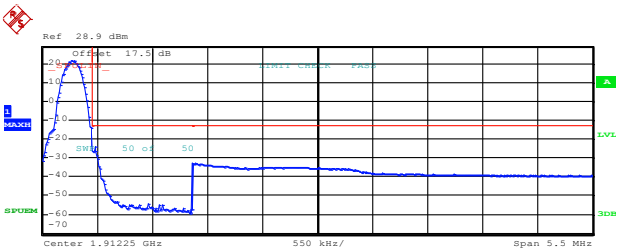
### Lowest Band Edge




| Start [Hz] | Stop [Hz] | RBW [Hz] | Freq [Hz] | PwrAbs [dBm] | ΔLimit [dB] |
|---|---|---|---|---|---|
| 1.845 G | 1.849 G | 1.00 M | 1.848992 G | -29.69 | -16.69 |
| 1.849 G | 1.850 G | 3.00 k | 1.849984 G | -24.84 | -11.84 |
| 1.850 G | 1.851 G | 10.00 k | 1.850184 G | 22.23 | -12.77 |

Date: 29.MAY.2016 10:27:55

### Highest Band Edge

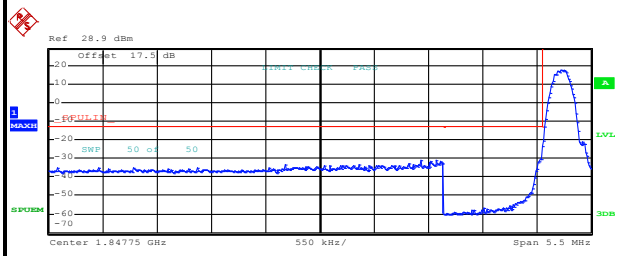



| Start [Hz] | Stop [Hz] | RBW [Hz] | Freq [Hz] | PwrAbs [dBm] | ΔLimit [dB] |
|---|---|---|---|---|---|
| 1.910 G | 1.910 G | 10.00 k | 1.909801 G | 21.74 | -13.26 |
| 1.910 G | 1.911 G | 3.00 k | 1.910020 G | -24.30 | -11.30 |
| 1.911 G | 1.915 G | 1.00 M | 1.911024 G | -33.05 | -20.05 |

Date: 29.MAY.2016 10:29:28

## GSM1900 (EDGE class 8)

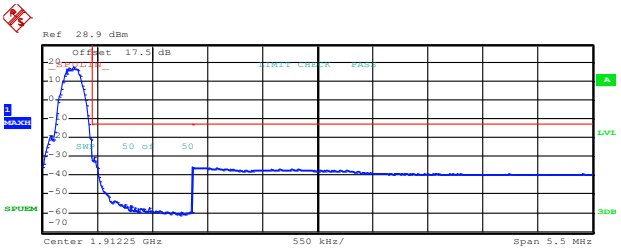
### Lowest Band Edge




| Start [Hz] | Stop [Hz] | RBW [Hz] | Freq [Hz] | PwrAbs [dBm] | ΔLimit [dB] |
|---|---|---|---|---|---|
| 1.845 G | 1.849 G | 1.00 M | 1.848764 G | -30.79 | -17.79 |
| 1.849 G | 1.850 G | 3.00 k | 1.849988 G | -30.33 | -17.33 |
| 1.850 G | 1.851 G | 10.00 k | 1.850200 G | 17.74 | -17.26 |

Date: 29.MAY.2016 10:53:24

### Highest Band Edge



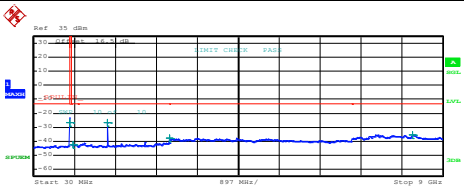

| Start [Hz] | Stop [Hz] | RBW [Hz] | Freq [Hz] | PwrAbs [dBm] | ΔLimit [dB] |
|---|---|---|---|---|---|
| 1.910 G | 1.910 G | 10.00 k | 1.909804 G | 17.51 | -17.49 |
| 1.910 G | 1.911 G | 3.00 k | 1.910016 G | -30.38 | -17.38 |
| 1.911 G | 1.915 G | 1.00 M | 1.911000 G | -35.89 | -22.89 |

Date: 29.MAY.2016 10:55:15

# Conducted Spurious Emission

## GSM

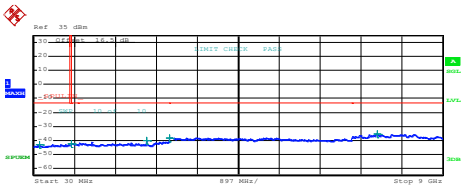
### Lowest Channel




| Start [Hz] | Stop [Hz] | RBW [Hz] | Freq [Hz] | PwrAbs [dBm] | ΔLimit [dB] |
|---|---|---|---|---|---|
| 30.000 M | 820.000 M | 1.00 M | 819.802500 M | -26.76 | -13.76 |
| 855.000 M | 1.000 G | 1.00 M | 887.262502 M | -42.50 | -29.50 |
| 1.000 G | 3.000 G | 1.00 M | 1.648500 G | -26.68 | -13.68 |
| 3.000 G | 7.000 G | 1.00 M | 3.002000 G | -37.82 | -24.82 |
| 7.000 G | 9.000 G | 1.00 M | 8.331500 G | -35.57 | -22.57 |

Date: 29.MAY.2016 09:21:36

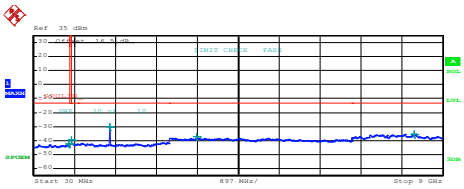
### Middle Channel




| Start [Hz] | Stop [Hz] | RBW [Hz] | Freq [Hz] | PwrAbs [dBm] | ΔLimit [dB] |
|---|---|---|---|---|---|
| 30.000 M | 820.000 M | 1.00 M | 147.512500 M | -42.79 | -29.79 |
| 855.000 M | 1.000 G | 1.00 M | 857.900000 M | -42.21 | -29.21 |
| 1.000 G | 3.000 G | 1.00 M | 2.509500 G | -40.20 | -27.20 |
| 3.000 G | 7.000 G | 1.00 M | 3.008000 G | -38.13 | -25.13 |
| 7.000 G | 9.000 G | 1.00 M | 7.557500 G | -35.51 | -22.51 |

Date: 29.MAY.2016 09:22:29

### Highest Channel

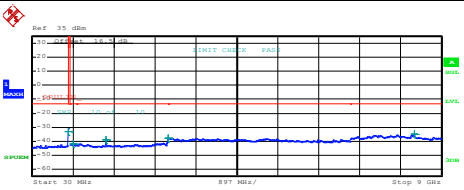



| Start [Hz] | Stop [Hz] | RBW [Hz] | Freq [Hz] | PwrAbs [dBm] | ΔLimit [dB] |
|---|---|---|---|---|---|
| 30.000 M | 820.000 M | 1.00 M | 805.780000 M | -42.60 | -29.60 |
| 855.000 M | 1.000 G | 1.00 M | 855.398750 M | -39.33 | -26.33 |
| 1.000 G | 3.000 G | 1.00 M | 1.698000 G | -30.37 | -17.37 |
| 3.000 G | 7.000 G | 1.00 M | 3.598000 G | -37.51 | -24.51 |
| 7.000 G | 9.000 G | 1.00 M | 8.365000 G | -35.27 | -22.27 |

Date: 29.MAY.2016 09:23:21

## GSM850 (EDGE class 8)

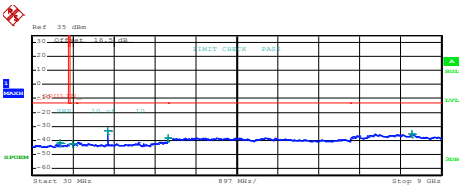
### Lowest Channel




| Start [Hz] | Stop [Hz] | RBW [Hz] | Freq [Hz] | PwrAbs [dBm] | ΔLimit [dB] |
|---|---|---|---|---|---|
| 30.000 M | 820.000 M | 1.00 M | 819.802500 M | -33.17 | -20.17 |
| 855.000 M | 1.000 G | 1.00 M | 933.481255 M | -42.07 | -29.07 |
| 1.000 G | 3.000 G | 1.00 M | 1.648500 G | -38.77 | -25.77 |
| 3.000 G | 7.000 G | 1.00 M | 3.003000 G | -37.84 | -24.84 |
| 7.000 G | 9.000 G | 1.00 M | 8.404000 G | -34.92 | -21.92 |

Date: 29.MAY.2016 09:50:17

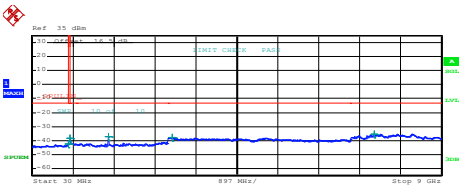
### Middle Channel




| Start [Hz] | Stop [Hz] | RBW [Hz] | Freq [Hz] | PwrAbs [dBm] | ΔLimit [dB] |
|---|---|---|---|---|---|
| 30.000 M | 820.000 M | 1.00 M | 641.657500 M | -42.05 | -29.05 |
| 855.000 M | 1.000 G | 1.00 M | 912.528754 M | -42.22 | -29.22 |
| 1.000 G | 3.000 G | 1.00 M | 1.673000 G | -33.24 | -20.24 |
| 3.000 G | 7.000 G | 1.00 M | 3.017000 G | -38.11 | -25.11 |
| 7.000 G | 9.000 G | 1.00 M | 8.359000 G | -35.52 | -22.52 |

Date: 29.MAY.2016 09:51:14

### Highest Channel

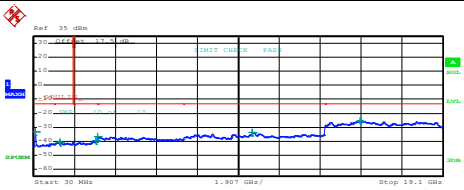



| Start [Hz] | Stop [Hz] | RBW [Hz] | Freq [Hz] | PwrAbs [dBm] | ΔLimit [dB] |
|---|---|---|---|---|---|
| 30.000 M | 820.000 M | 1.00 M | 815.655000 M | -42.73 | -29.73 |
| 855.000 M | 1.000 G | 1.00 M | 855.036250 M | -38.24 | -25.24 |
| 1.000 G | 3.000 G | 1.00 M | 1.698000 G | -36.97 | -23.97 |
| 3.000 G | 7.000 G | 1.00 M | 3.100000 G | -37.92 | -24.92 |
| 7.000 G | 9.000 G | 1.00 M | 7.530500 G | -35.37 | -22.37 |

Date: 29.MAY.2016 09:52:07

## GSM1900 (GPRS class 8)

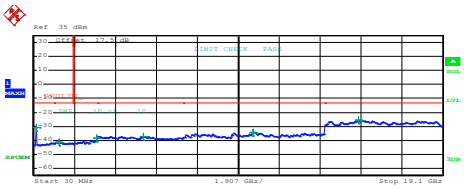
### Lowest Channel




| Start [Hz] | Stop [Hz] | RBW [Hz] | Freq [Hz] | PwrAbs [dBm] | ΔLimit [dB] |
|---|---|---|---|---|---|
| 30.000 M | 1.000 G | 1.00 M | 111.965000 M | -33.38 | -20.38 |
| 1.000 G | 1.845 G | 1.00 M | 1.242515 G | -40.73 | -27.73 |
| 1.915 G | 3.000 G | 1.00 M | 2.918625 G | -39.82 | -26.82 |
| 3.000 G | 7.000 G | 1.00 M | 3.022000 G | -36.79 | -23.79 |
| 7.000 G | 13.600 G | 1.00 M | 10.224925 G | -33.90 | -20.90 |
| 13.600 G | 19.100 G | 1.00 M | 15.253438 G | -25.56 | -12.56 |

Date: 29.MAY.2016 10:16:49

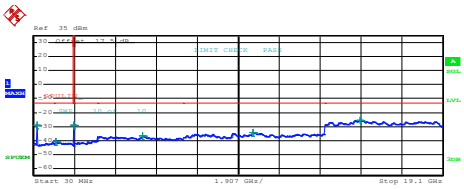
### Middle Channel




| Start [Hz] | Stop [Hz] | RBW [Hz] | Freq [Hz] | PwrAbs [dBm] | ΔLimit [dB] |
|---|---|---|---|---|---|
| 30.000 M | 1.000 G | 1.00 M | 141.792500 M | -31.00 | -18.00 |
| 1.000 G | 1.845 G | 1.00 M | 1.216109 G | -41.14 | -28.14 |
| 1.915 G | 3.000 G | 1.00 M | 2.974774 G | -38.51 | -25.51 |
| 3.000 G | 7.000 G | 1.00 M | 5.133000 G | -36.97 | -23.97 |
| 7.000 G | 13.600 G | 1.00 M | 10.239775 G | -34.12 | -21.12 |
| 13.600 G | 19.100 G | 1.00 M | 15.155813 G | -25.48 | -12.48 |

Date: 29.MAY.2016 10:17:40

### Highest Channel

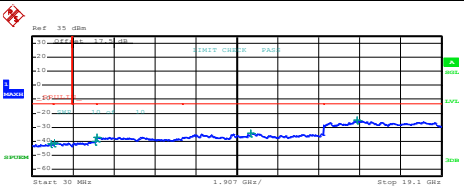



| Start [Hz] | Stop [Hz] | RBW [Hz] | Freq [Hz] | PwrAbs [dBm] | ΔLimit [dB] |
|---|---|---|---|---|---|
| 30.000 M | 1.000 G | 1.00 M | 171.620000 M | -29.19 | -16.19 |
| 1.000 G | 1.845 G | 1.00 M | 1.053235 G | -40.96 | -27.96 |
| 1.915 G | 3.000 G | 1.00 M | 1.915271 G | -28.84 | -15.84 |
| 3.000 G | 7.000 G | 1.00 M | 5.120000 G | -36.92 | -23.92 |
| 7.000 G | 13.600 G | 1.00 M | 10.262875 G | -34.53 | -21.53 |
| 13.600 G | 19.100 G | 1.00 M | 15.257563 G | -25.25 | -12.25 |

Date: 29.MAY.2016 10:19:07

## GSM1900 (EDGE class 8)

### Lowest Channel




| Start [Hz] | Stop [Hz] | RBW [Hz] | Freq [Hz] | PwrAbs [dBm] | ΔLimit [dB] |
|---|---|---|---|---|---|
| 30.000 M | 1.000 G | 1.00 M | 892.330000 M | -41.92 | -28.92 |
| 1.000 G | 1.845 G | 1.00 M | 1.070135 G | -41.06 | -28.06 |
| 1.915 G | 3.000 G | 1.00 M | 2.977215 G | -39.96 | -26.96 |
| 3.000 G | 7.000 G | 1.00 M | 3.024000 G | -36.97 | -23.97 |
| 7.000 G | 13.600 G | 1.00 M | 10.226575 G | -34.12 | -21.12 |
| 13.600 G | 19.100 G | 1.00 M | 15.159250 G | -25.06 | -12.06 |

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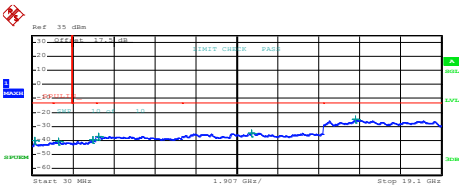
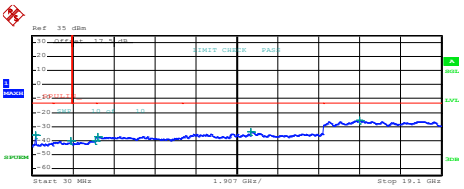
### Middle Channel




| Start [Hz] | Stop [Hz] | RBW [Hz] | Freq [Hz] | PwrAbs [dBm] | ΔLimit [dB] |
|---|---|---|---|---|---|
| 30.000 M | 1.000 G | 1.00 M | 141.550000 M | -40.10 | -27.10 |
| 1.000 G | 1.845 G | 1.00 M | 1.266809 G | -40.95 | -27.95 |
| 1.915 G | 3.000 G | 1.00 M | 2.839691 G | -39.47 | -26.47 |
| 3.000 G | 7.000 G | 1.00 M | 3.110000 G | -37.12 | -24.12 |
| 7.000 G | 13.600 G | 1.00 M | 10.243900 G | -34.67 | -21.67 |
| 13.600 G | 19.100 G | 1.00 M | 15.093250 G | -24.95 | -11.95 |

Date: 29.MAY.2016 10:49:05

### Highest Channel




| Start [Hz] | Stop [Hz] | RBW [Hz] | Freq [Hz] | PwrAbs [dBm] | ΔLimit [dB] |
|---|---|---|---|---|---|
| 30.000 M | 1.000 G | 1.00 M | 171.862500 M | -36.04 | -23.04 |
| 1.000 G | 1.845 G | 1.00 M | 1.813524 G | -40.30 | -27.30 |
| 1.915 G | 3.000 G | 1.00 M | 2.981826 G | -40.20 | -27.20 |
| 3.000 G | 7.000 G | 1.00 M | 3.079000 G | -37.05 | -24.05 |
| 7.000 G | 13.600 G | 1.00 M | 10.213375 G | -33.95 | -20.95 |
| 13.600 G | 19.100 G | 1.00 M | 15.288500 G | -25.44 | -12.44 |

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# Frequency Stability

| Test Conditions | Middle Channel | GSM850 (GSM) | GSM850 (EDGE class 8) | Limit 2.5ppm |
|---|---|---|---|---|
| Temperature (°C) | Voltage (Volt) | Deviation (ppm) | | Result |
| 50 | Normal Voltage | 0.0012 | 0.0036 | PASS |
| 40 | Normal Voltage | 0.0060 | 0.0048 | |
| 30 | Normal Voltage | 0.0574 | 0.0024 | |
| 20(Ref.) | Normal Voltage | 0.0000 | 0.0000 | |
| 10 | Normal Voltage | 0.0036 | 0.0012 | |
| 0 | Normal Voltage | 0.0012 | 0.0036 | |
| -10 | Normal Voltage | 0.0466 | 0.0024 | |
| -20 | Normal Voltage | 0.0502 | 0.0060 | |
| -30 | Normal Voltage | 0.0024 | 0.0012 | |
| 20 | Maximum Voltage | 0.0430 | 0.0000 | |
| 20 | Normal Voltage | 0.0407 | 0.0024 | |
| 20 | Battery End Point | 0.0454 | 0.0036 | |

**Note:**

**1.** Normal Voltage = 3.9V. ；Battery End Point (BEP) = 3.4 V.；Maximum Voltage =4.35 V

**2.** The frequency fundamental emissions stay within the authorized frequency block.

| 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 | 0.0005 | 0.0149 | PASS |
| 40 | Normal Voltage | 0.0011 | 0.0016 | |
| 30 | Normal Voltage | 0.0005 | 0.0005 | |
| 20(Ref.) | Normal Voltage | 0.0000 | 0.0000 | |
| 10 | Normal Voltage | 0.0011 | 0.0011 | |
| 0 | Normal Voltage | 0.0016 | 0.0005 | |
| -10 | Normal Voltage | 0.0005 | 0.0016 | |
| -20 | Normal Voltage | 0.0005 | 0.0149 | |
| -30 | Normal Voltage | 0.0011 | 0.0027 | |
| 20 | Maximum Voltage | 0.0016 | 0.0000 | |
| 20 | Normal Voltage | 0.0005 | 0.0005 | |
| 20 | Battery End Point | 0.0005 | 0.0011 | |

**Note:**

**3.** Normal Voltage = 3.9V. ；Battery End Point (BEP) = 3.4 V.；Maximum Voltage =4.35 V

**4.** The frequency fundamental emissions stay within the authorized frequency block.

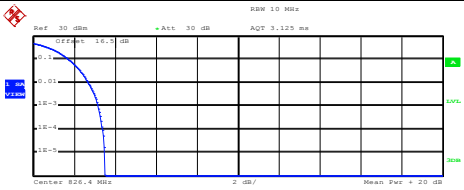
# A2. WCDMA

## Peak-to-Average Ratio

| Mode | WCDMA Band V | WCDMA Band II | Limit: 13dB |
|---|---|---|---|
| Mod. | RMC 12.2Kbps | RMC 12.2Kbps | Result |
| Lowest CH | 3.16 | 3.36 | PASS |
| Middle CH | 3.12 | 3.40 | |
| Highest CH | 3.04 | 3.36 | |

## WCDMA Band V (RMC 12.2Kbps)

### Lowest Channel




Complementary Cumulative Distribution Function (100000 samples)

| | Trace 1 |
|---|---|
| Mean | 20.20 dBm |
| Peak | 23.69 dBm |
| Crest | 3.49 dB |
| 10 % | 1.76 dB |
| 1 % | 2.68 dB |
| .1 % | 3.16 dB |
| .01 % | 3.40 dB |

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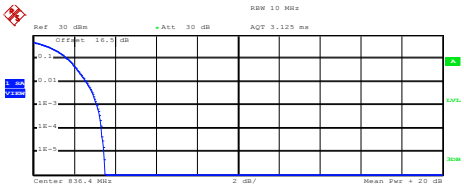
### Middle Channel




Complementary Cumulative Distribution Function (100000 samples)

| | Trace 1 |
|---|---|
| Mean | 19.85 dBm |
| Peak | 23.34 dBm |
| Crest | 3.49 dB |
| 10 % | 1.68 dB |
| 1 % | 2.60 dB |
| .1 % | 3.12 dB |
| .01 % | 3.32 dB |

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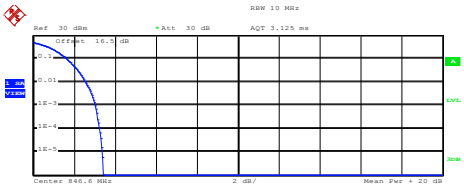
### Highest Channel



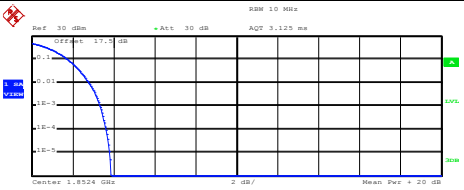

Complementary Cumulative Distribution Function (100000 samples)

| | Trace 1 |
|---|---|
| Mean | 20.61 dBm |
| Peak | 24.04 dBm |
| Crest | 3.44 dB |
| 10 % | 1.64 dB |
| 1 % | 2.56 dB |
| .1 % | 3.04 dB |
| .01 % | 3.24 dB |

Date: 29.MAY.2016 11:48:36

## WCDMA Band II (RMC 12.2Kbps)

### Lowest Channel

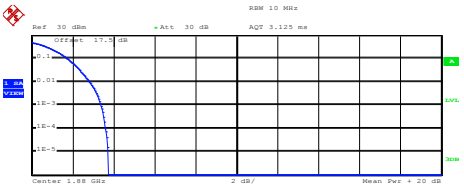



Complementary Cumulative Distribution Function (100000 samples)

| | Trace 1 |
|---|---|
| Mean | 19.40 dBm |
| Peak | 23.27 dBm |
| Crest | 3.87 dB |
| 10 % | 1.76 dB |
| 1 % | 2.80 dB |
| .1 % | 3.36 dB |
| .01 % | 3.64 dB |

Date: 29.MAY.2016 11:30:42

### Middle Channel

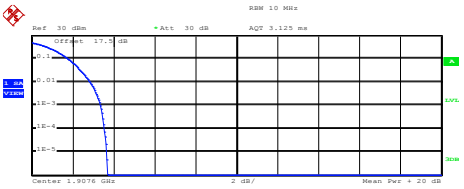



Complementary Cumulative Distribution Function (100000 samples)

| | Trace 1 |
|---|---|
| Mean | 20.03 dBm |
| Peak | 23.76 dBm |
| Crest | 3.73 dB |
| 10 % | 1.76 dB |
| 1 % | 2.84 dB |
| .1 % | 3.40 dB |
| .01 % | 3.60 dB |

Date: 29.MAY.2016 11:30:52

### Highest Channel



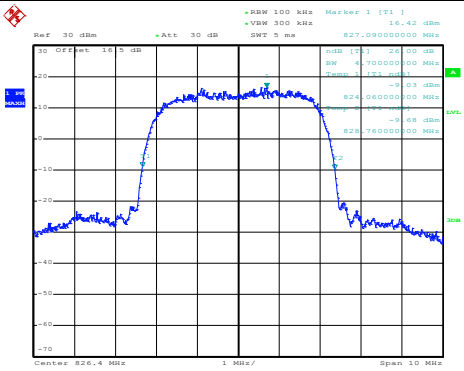
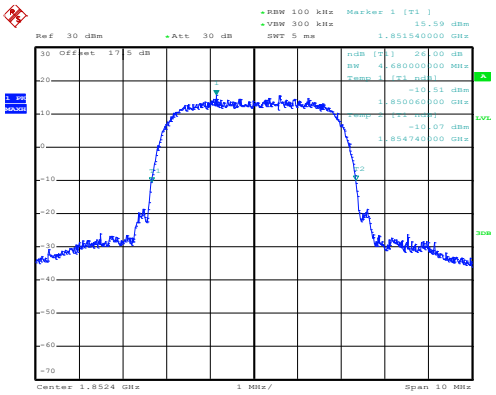
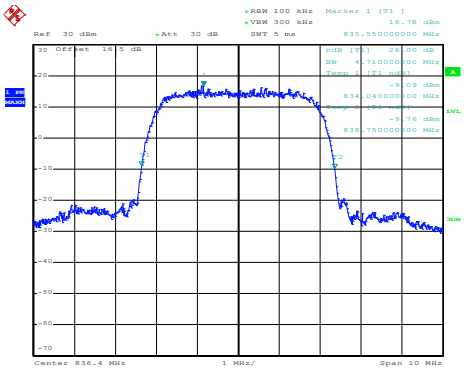
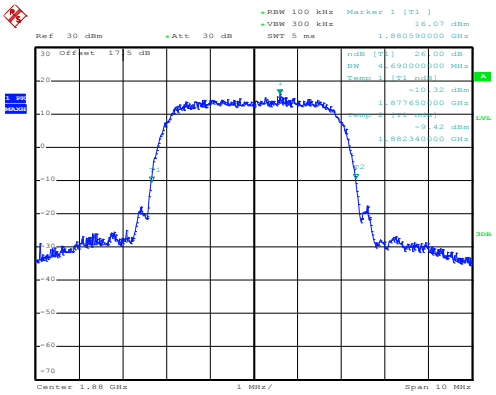
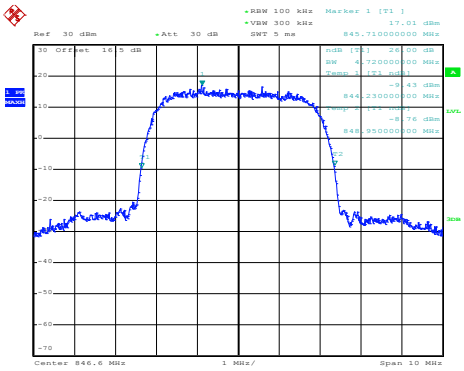
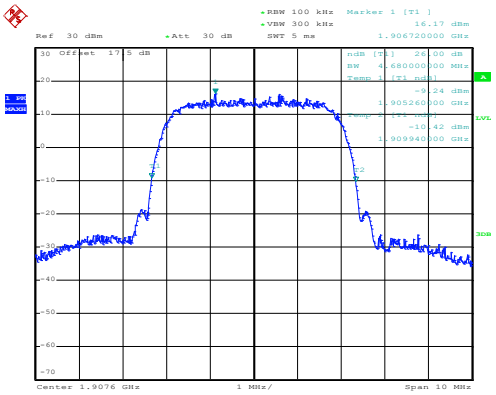

Complementary Cumulative Distribution Function (100000 samples)

| | Trace 1 |
|---|---|
| Mean | 19.94 dBm |
| Peak | 23.62 dBm |
| Crest | 3.68 dB |
| 10 % | 1.80 dB |
| 1 % | 2.84 dB |
| .1 % | 3.36 dB |
| .01 % | 3.56 dB |

Date: 29.MAY.2016 11:31:01

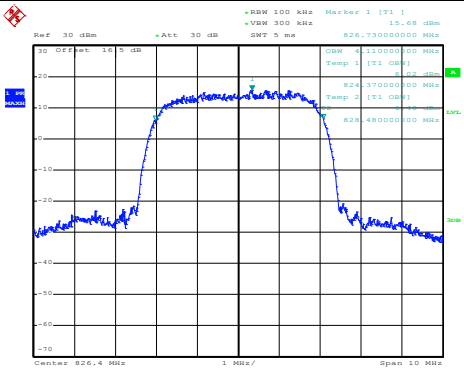
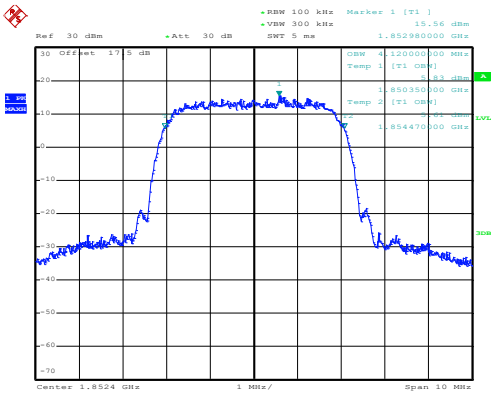
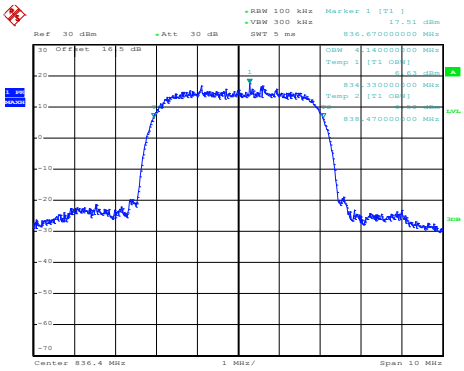
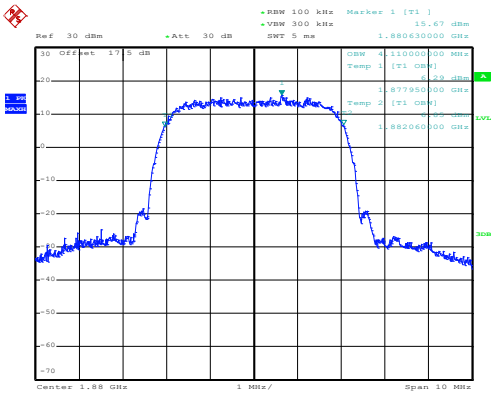
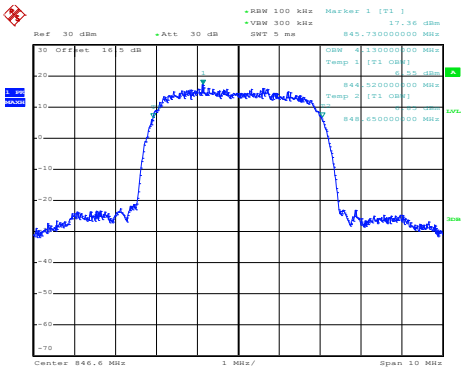
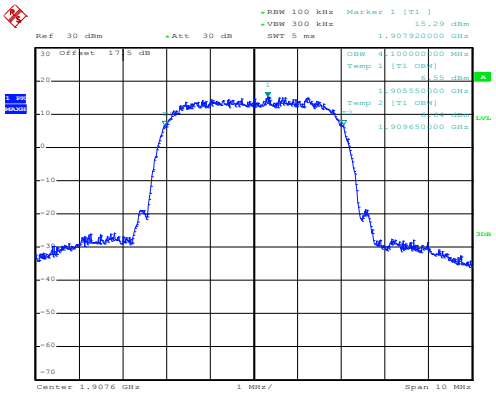
# 26dB Bandwidth

| Mode | WCDMA Band V | WCDMA Band II |
|---|---|---|
| Mod. | RMC 12.2Kbps | RMC 12.2Kbps |
| Lowest CH | 4.70 | 4.68 |
| Middle CH | 4.71 | 4.69 |
| Highest CH | 4.72 | 4.68 |

| WCDMA Band V (RMC 12.2Kbps) | WCDMA Band II (RMC 12.2Kbps) |
|---|---|
| **Lowest Channel** | **Lowest Channel** |
|  Date: 29.MAY.2016 11:34:17 |  Date: 29.MAY.2016 11:17:11 |
| **Middle Channel** | **Middle Channel** |
|  Date: 29.MAY.2016 11:34:45 |  Date: 29.MAY.2016 11:17:39 |
| **Highest Channel** | **Highest Channel** |
|  Date: 29.MAY.2016 11:35:13 |  Date: 29.MAY.2016 11:18:07 |

# Occupied Bandwidth

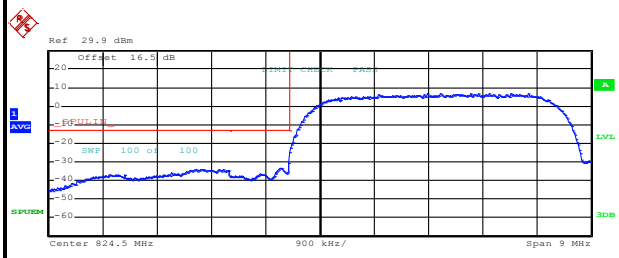
| Mode | WCDMA Band V | WCDMA Band II |
|---|---|---|
| Mod. | RMC 12.2Kbps | RMC 12.2Kbps |
| Lowest CH | 4.11 | 4.12 |
| Middle CH | 4.14 | 4.11 |
| Highest CH | 4.13 | 4.10 |

| WCDMA Band V (RMC 12.2Kbps) | WCDMA Band II (RMC 12.2Kbps) |
|---|---|
| **Lowest Channel** | **Lowest Channel** |
|  Date: 29.MAY.2016 11:43:14 |  Date: 29.MAY.2016 11:18:51 |
| **Middle Channel** | **Middle Channel** |
|  Date: 29.MAY.2016 11:43:42 |  Date: 29.MAY.2016 11:19:19 |
| **Highest Channel** | **Highest Channel** |
|  Date: 29.MAY.2016 11:44:10 |  Date: 29.MAY.2016 11:19:47 |

# Conducted Band Edge

## WCDMA Band V (RMC 12.2Kbps)

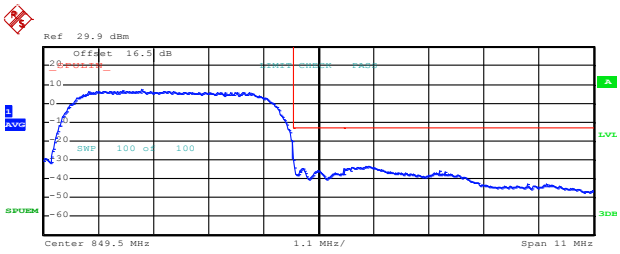
### Lowest Band Edge




| Start [Hz] | Stop [Hz] | RBW [Hz] | Freq [Hz] | PwrAbs [dBm] | ΔLimit [dB] |
|---|---|---|---|---|---|
| 820.000 M | 823.000 M | 100.00 k | 822.529000 M | -34.03 | -21.03 |
| 823.000 M | 824.000 M | 50.00 k | 823.992000 M | -31.43 | -18.43 |
| 824.000 M | 829.000 M | 100.00 k | 826.275000 M | 6.87 | -28.13 |

Date: 29.MAY.2016 11:52:05

### Highest Band Edge

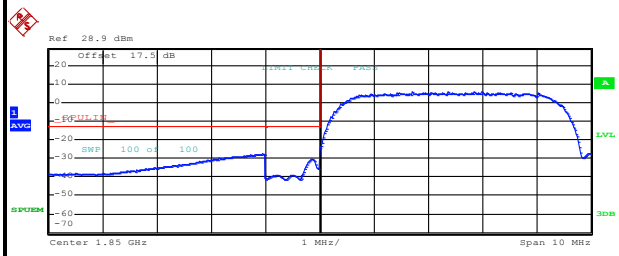



| Start [Hz] | Stop [Hz] | RBW [Hz] | Freq [Hz] | PwrAbs [dBm] | ΔLimit [dB] |
|---|---|---|---|---|---|
| 844.000 M | 849.000 M | 100.00 k | 845.960000 M | 7.19 | -27.81 |
| 849.000 M | 850.000 M | 50.00 k | 849.004000 M | -30.68 | -17.68 |
| 850.000 M | 855.000 M | 100.00 k | 850.500000 M | -33.33 | -20.33 |

Date: 29.MAY.2016 11:54:48

## WCDMA Band II (RMC 12.2Kbps)

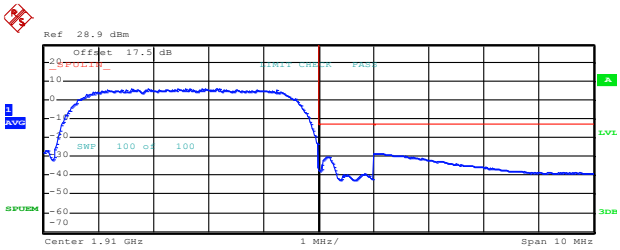
### Lowest Band Edge




| Start [Hz] | Stop [Hz] | RBW [Hz] | Freq [Hz] | PwrAbs [dBm] | ΔLimit [dB] |
|---|---|---|---|---|---|
| 1.845 G | 1.849 G | 1.00 M | 1.848940 G | -27.76 | -14.76 |
| 1.849 G | 1.850 G | 50.00 k | 1.849844 G | -30.62 | -17.62 |
| 1.850 G | 1.855 G | 100.00 k | 1.851700 G | 5.92 | -29.08 |

Date: 29.MAY.2016 11:22:58

### Highest Band Edge



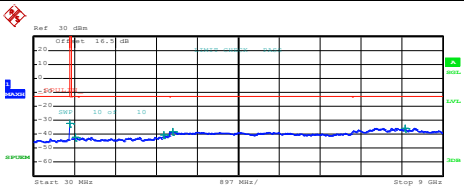

| Start [Hz] | Stop [Hz] | RBW [Hz] | Freq [Hz] | PwrAbs [dBm] | ΔLimit [dB] |
|---|---|---|---|---|---|
| 1.905 G | 1.910 G | 100.00 k | 1.908190 G | 6.09 | -28.91 |
| 1.910 G | 1.911 G | 50.00 k | 1.910144 G | -30.47 | -17.47 |
| 1.911 G | 1.915 G | 1.00 M | 1.911028 G | -28.57 | -15.57 |

Date: 29.MAY.2016 11:25:41

# Conducted Spurious Emission

## WCDMA Band V (RMC 12.2Kbps)

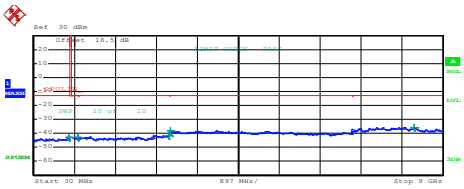
### Lowest Channel




| Start [Hz] | Stop [Hz] | RBW [Hz] | Freq [Hz] | PwrAbs [dBm] | ΔLimit [dB] |
|---|---|---|---|---|---|
| 30.000 M | 820.000 M | 1.00 M | 819.407500 M | -32.53 | -19.53 |
| 855.000 M | 1.000 G | 1.00 M | 940.767506 M | -42.46 | -29.46 |
| 1.000 G | 3.000 G | 1.00 M | 2.879000 G | -40.72 | -27.72 |
| 3.000 G | 7.000 G | 1.00 M | 3.081000 G | -38.11 | -25.11 |
| 7.000 G | 9.000 G | 1.00 M | 8.181000 G | -35.66 | -22.66 |

Date: 29.MAY.2016 11:45:47

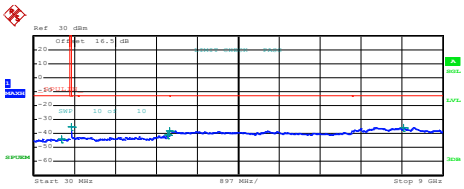
### Middle Channel




| Start [Hz] | Stop [Hz] | RBW [Hz] | Freq [Hz] | PwrAbs [dBm] | ΔLimit [dB] |
|---|---|---|---|---|---|
| 30.000 M | 820.000 M | 1.00 M | 801.040000 M | -42.91 | -29.91 |
| 855.000 M | 1.000 G | 1.00 M | 995.577510 M | -42.79 | -29.79 |
| 1.000 G | 3.000 G | 1.00 M | 2.984000 G | -41.55 | -28.55 |
| 3.000 G | 7.000 G | 1.00 M | 3.024000 G | -38.32 | -25.32 |
| 7.000 G | 9.000 G | 1.00 M | 8.372000 G | -35.81 | -22.81 |

Date: 29.MAY.2016 11:46:33

### Highest Channel

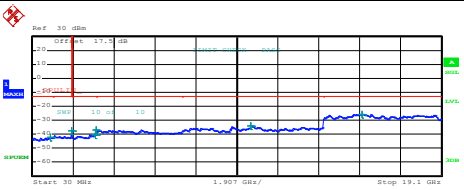



| Start [Hz] | Stop [Hz] | RBW [Hz] | Freq [Hz] | PwrAbs [dBm] | ΔLimit [dB] |
|---|---|---|---|---|---|
| 30.000 M | 820.000 M | 1.00 M | 639.287500 M | -43.72 | -30.72 |
| 855.000 M | 1.000 G | 1.00 M | 855.942500 M | -35.43 | -22.43 |
| 1.000 G | 3.000 G | 1.00 M | 2.975000 G | -40.90 | -27.90 |
| 3.000 G | 7.000 G | 1.00 M | 3.011000 G | -38.13 | -25.13 |
| 7.000 G | 9.000 G | 1.00 M | 8.135500 G | -35.57 | -22.57 |

Date: 29.MAY.2016 11:47:19

## WCDMA Band II (RMC 12.2Kbps)

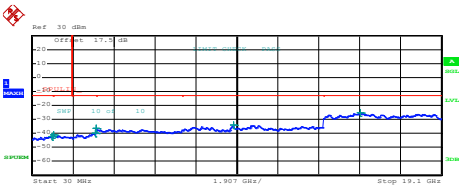
### Lowest Channel




| Start [Hz] | Stop [Hz] | RBW [Hz] | Freq [Hz] | PwrAbs [dBm] | ΔLimit [dB] |
|---|---|---|---|---|---|
| 30.000 M | 1.000 G | 1.00 M | 876.325000 M | -41.95 | -28.95 |
| 1.000 G | 1.845 G | 1.00 M | 1.844578 G | -37.61 | -24.61 |
| 1.915 G | 3.000 G | 1.00 M | 2.971519 G | -40.43 | -27.43 |
| 3.000 G | 7.000 G | 1.00 M | 3.011000 G | -37.17 | -24.17 |
| 7.000 G | 13.600 G | 1.00 M | 10.218325 G | -34.17 | -21.17 |
| 13.600 G | 19.100 G | 1.00 M | 15.405375 G | -25.62 | -12.62 |

Date: 29.MAY.2016 11:28:43

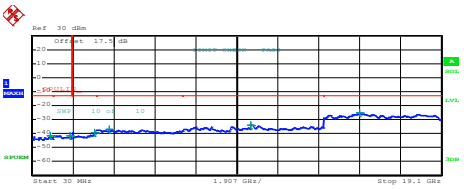
### Middle Channel




| Start [Hz] | Stop [Hz] | RBW [Hz] | Freq [Hz] | PwrAbs [dBm] | ΔLimit [dB] |
|---|---|---|---|---|---|
| 30.000 M | 1.000 G | 1.00 M | 960.230000 M | -42.26 | -29.26 |
| 1.000 G | 1.845 G | 1.00 M | 1.028307 G | -41.26 | -28.26 |
| 1.915 G | 3.000 G | 1.00 M | 2.980199 G | -39.99 | -26.99 |
| 3.000 G | 7.000 G | 1.00 M | 3.010000 G | -36.67 | -23.67 |
| 7.000 G | 13.600 G | 1.00 M | 9.414775 G | -34.15 | -21.15 |
| 13.600 G | 19.100 G | 1.00 M | 15.315312 G | -25.40 | -12.40 |

Date: 29.MAY.2016 11:29:29

### Highest Channel




| Start [Hz] | Stop [Hz] | RBW [Hz] | Freq [Hz] | PwrAbs [dBm] | ΔLimit [dB] |
|---|---|---|---|---|---|
| 30.000 M | 1.000 G | 1.00 M | 867.595000 M | -41.93 | -28.93 |
| 1.000 G | 1.845 G | 1.00 M | 1.781836 G | -41.54 | -28.54 |
| 1.915 G | 3.000 G | 1.00 M | 2.947106 G | -39.10 | -26.10 |
| 3.000 G | 7.000 G | 1.00 M | 3.614000 G | -37.21 | -24.21 |
| 7.000 G | 13.600 G | 1.00 M | 10.213375 G | -34.22 | -21.22 |
| 13.600 G | 19.100 G | 1.00 M | 15.294000 G | -25.44 | -12.44 |

Date: 29.MAY.2016 11:30:14

# 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 | 0.0132 | PASS |
| 40 | Normal Voltage | 0.0012 | |
| 30 | Normal Voltage | 0.0143 | |
| 20(Ref.) | Normal Voltage | 0.0000 | |
| 10 | Normal Voltage | 0.0012 | |
| 0 | Normal Voltage | 0.0108 | |
| -10 | Normal Voltage | 0.0120 | |
| -20 | Normal Voltage | 0.0012 | |
| -30 | Normal Voltage | 0.0155 | |
| 20 | Maximum Voltage | 0.0108 | |
| 20 | Normal Voltage | 0.0120 | |
| 20 | Battery End Point | 0.0012 | |

**Note:**

**1.** Normal Voltage = 3.9V. ；Battery End Point (BEP) = 3.4 V.；Maximum Voltage =4.35 V

**2.** The frequency fundamental emissions stay within the authorized frequency block.

| Test Conditions | Middle Channel | WCDMA Band II (RMC 12.2Kbps) | Limit Note 2. |
|---|---|---|---|
| Temperature (°C) | Voltage (Volt) | Deviation (ppm) | Result |
| 50 | Normal Voltage | 0.0000 | PASS |
| 40 | Normal Voltage | 0.0011 | |
| 30 | Normal Voltage | 0.0005 | |
| 20(Ref.) | Normal Voltage | 0.0000 | |
| 10 | Normal Voltage | 0.0016 | |
| 0 | Normal Voltage | 0.0005 | |
| -10 | Normal Voltage | 0.0000 | |
| -20 | Normal Voltage | 0.0005 | |
| -30 | Normal Voltage | 0.0005 | |
| 20 | Maximum Voltage | 0.0005 | |
| 20 | Normal Voltage | 0.0011 | |
| 20 | Battery End Point | 0.0000 | |

**Note:**

**3.** Normal Voltage = 3.9V. ；Battery End Point (BEP) = 3.4 V.；Maximum Voltage =4.35 V

**4.** The frequency fundamental emissions stay within the authorized frequency block.

# A3. CDMA

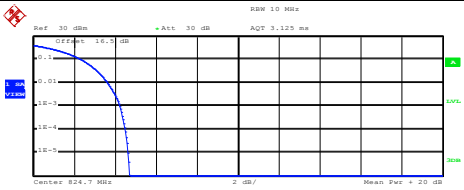
## Peak-to-Average Ratio

| Mode | CDMA BC0 | CDMA BC1 | Limit: 13dB |
|---|---|---|---|
| Mod. | 1xRTT | 1xRTT | Result |
| Lowest CH | 4.24 | 3.92 | PASS |
| Middle CH | 4.24 | 3.88 | |
| Highest CH | 4.04 | 3.04 | |

| Mode | CDMA BC0 | CDMA BC1 | Limit: 13dB |
|---|---|---|---|
| Mod. | 1xEV-DO Rev. 0 | 1xEV-DO Rev. A | Result |
| Lowest CH | 4.08 | 4.96 | PASS |
| Middle CH | 4.08 | 4.60 | |
| Highest CH | 3.96 | 3.60 | |

## CDMA BC0 (1xRTT)

### Lowest Channel




Complementary Cumulative Distribution Function (100000 samples)

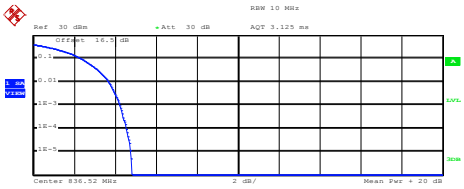
Trace 1

Mean 24.92 dBm
Peak 29.62 dBm
Crest 4.70 dB

10 % 2.36 dB
1 % 3.64 dB
.1 % 4.24 dB
.01 % 4.52 dB

Date: 29.MAY.2016 14:29:28

### Middle Channel




Complementary Cumulative Distribution Function (100000 samples)

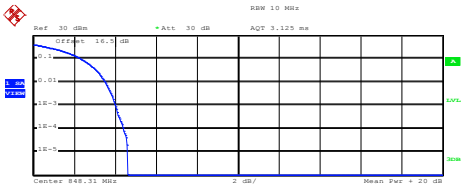
Trace 1

Mean 24.65 dBm
Peak 29.48 dBm
Crest 4.83 dB

10 % 2.36 dB
1 % 3.68 dB
.1 % 4.24 dB
.01 % 4.56 dB

Date: 29.MAY.2016 14:29:40

### Highest Channel




Complementary Cumulative Distribution Function (100000 samples)

Trace 1

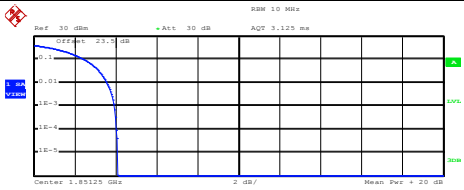
Mean 24.57 dBm
Peak 29.19 dBm
Crest 4.63 dB

10 % 2.36 dB
1 % 3.52 dB
.1 % 4.04 dB
.01 % 4.40 dB

Date: 29.MAY.2016 14:29:52

## CDMA BC1 (1xRTT)

### Lowest Channel




Complementary Cumulative Distribution Function (100000 samples)

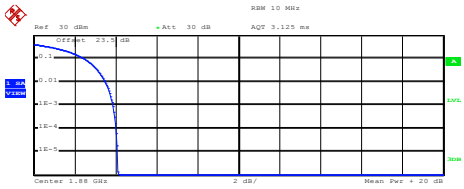
Trace 1

Mean 23.77 dBm
Peak 27.87 dBm
Crest 4.10 dB

10 % 2.48 dB
1 % 3.56 dB
.1 % 3.92 dB
.01 % 4.04 dB

Date: 29.MAY.2016 18:08:22

### Middle Channel




Complementary Cumulative Distribution Function (100000 samples)

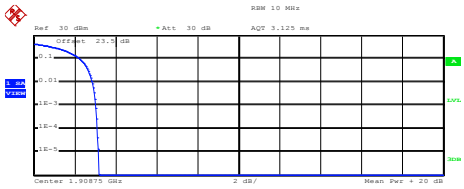
Trace 1

Mean 24.11 dBm
Peak 28.23 dBm
Crest 4.12 dB

10 % 2.48 dB
1 % 3.48 dB
.1 % 3.88 dB
.01 % 4.04 dB

Date: 29.MAY.2016 18:08:33

### Highest Channel




Complementary Cumulative Distribution Function (100000 samples)

Trace 1

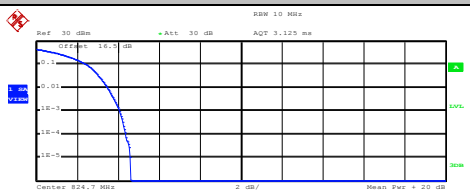
Mean 23.77 dBm
Peak 26.96 dBm
Crest 3.19 dB

10 % 2.24 dB
1 % 2.88 dB
.1 % 3.04 dB
.01 % 3.12 dB

Date: 29.MAY.2016 18:08:47

## CDMA BC0 (1xEV-DO Rev. 0)

### Lowest Channel



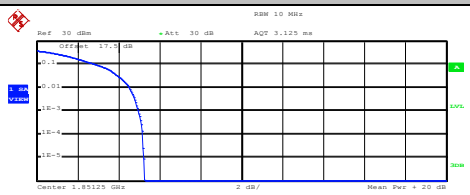

Complementary Cumulative Distribution Function (100000 samples)

Trace 1

| | |
|---|---|
| Mean | 24.93 dBm |
| Peak | 29.55 dBm |
| Crest | 4.62 dB |
| 10 % | 2.48 dB |
| 1 % | 3.48 dB |
| .1 % | 4.08 dB |
| .01 % | 4.36 dB |

Date: 29.MAY.2016 15:45:26

### Lowest Channel



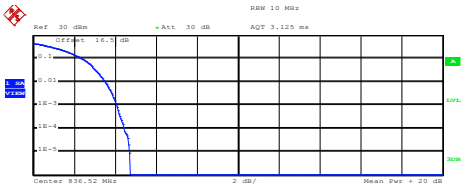

Complementary Cumulative Distribution Function (100000 samples)

Trace 1

| | |
|---|---|
| Mean | 22.80 dBm |
| Peak | 28.07 dBm |
| Crest | 5.26 dB |
| 10 % | 2.96 dB |
| 1 % | 4.52 dB |
| .1 % | 4.96 dB |
| .01 % | 5.16 dB |

Date: 29.MAY.2016 17:09:13

### Middle Channel



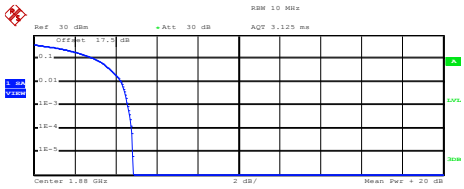

Complementary Cumulative Distribution Function (100000 samples)

Trace 1

| | |
|---|---|
| Mean | 24.87 dBm |
| Peak | 29.62 dBm |
| Crest | 4.74 dB |
| 10 % | 2.44 dB |
| 1 % | 3.52 dB |
| .1 % | 4.08 dB |
| .01 % | 4.44 dB |

Date: 29.MAY.2016 15:45:39

### Middle Channel



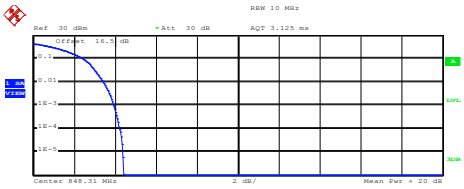

Complementary Cumulative Distribution Function (100000 samples)

Trace 1

| | |
|---|---|
| Mean | 22.74 dBm |
| Peak | 27.57 dBm |
| Crest | 4.83 dB |
| 10 % | 3.00 dB |
| 1 % | 4.28 dB |
| .1 % | 4.60 dB |
| .01 % | 4.80 dB |

Date: 29.MAY.2016 17:09:24

### Highest Channel



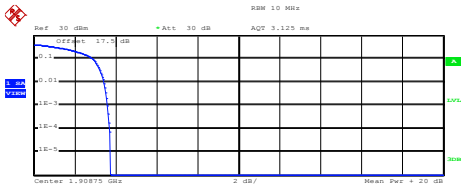

Complementary Cumulative Distribution Function (100000 samples)

Trace 1

| | |
|---|---|
| Mean | 24.72 dBm |
| Peak | 29.12 dBm |
| Crest | 4.41 dB |
| 10 % | 2.48 dB |
| 1 % | 3.44 dB |
| .1 % | 3.96 dB |
| .01 % | 4.24 dB |

Date: 29.MAY.2016 15:45:52

### Highest Channel




Complementary Cumulative Distribution Function (100000 samples)

Trace 1

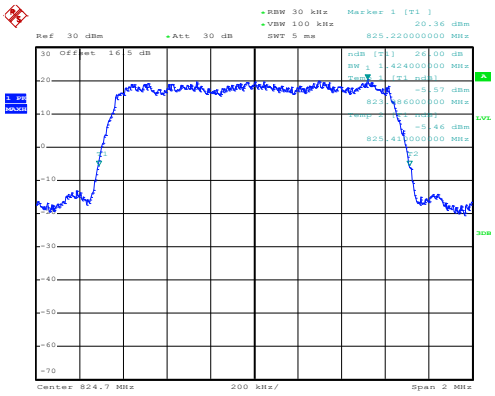
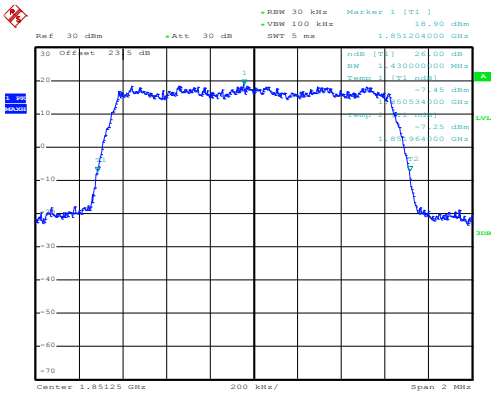
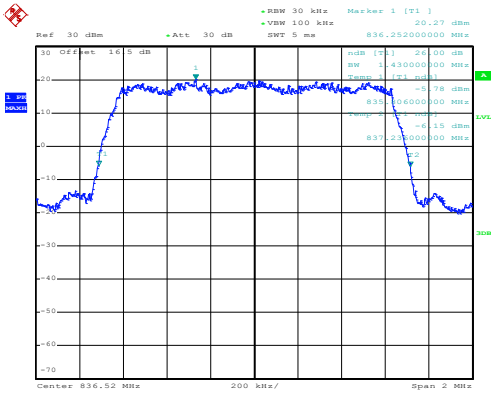
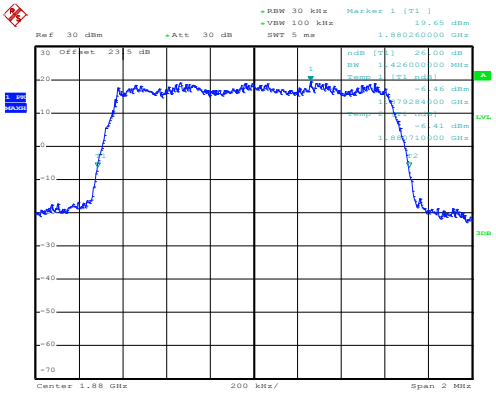
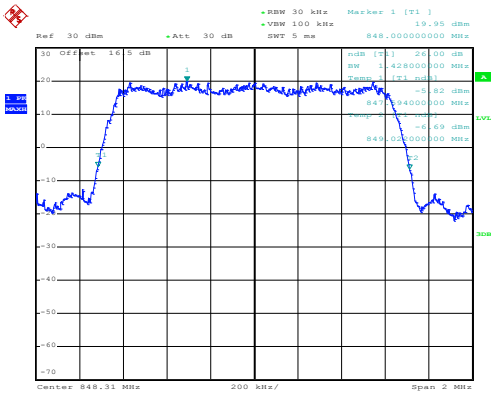
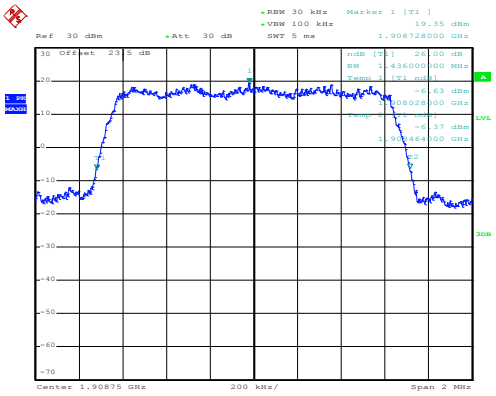
| | |
|---|---|
| Mean | 22.48 dBm |
| Peak | 26.23 dBm |
| Crest | 3.75 dB |
| 10 % | 2.88 dB |
| 1 % | 3.44 dB |
| .1 % | 3.60 dB |
| .01 % | 3.72 dB |

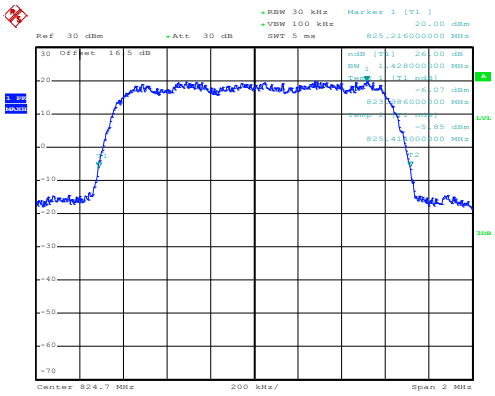
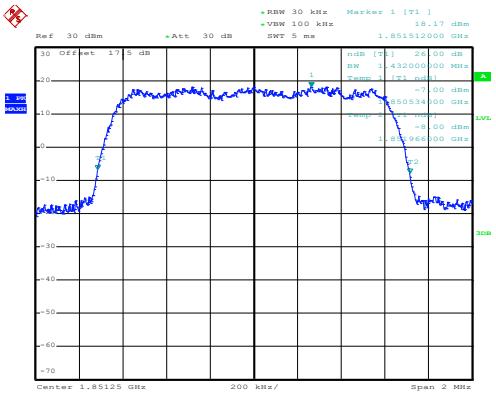
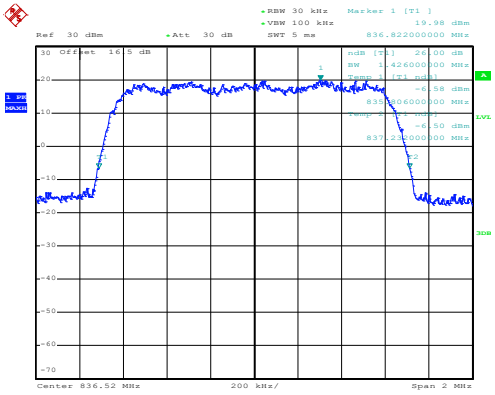
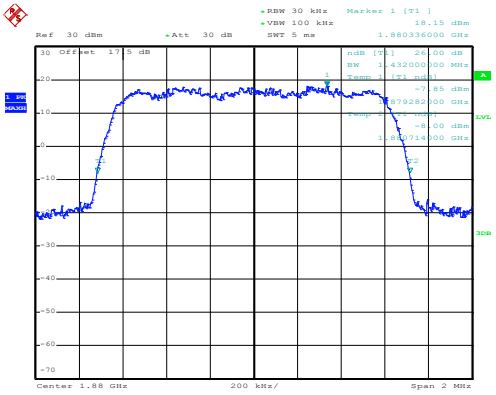
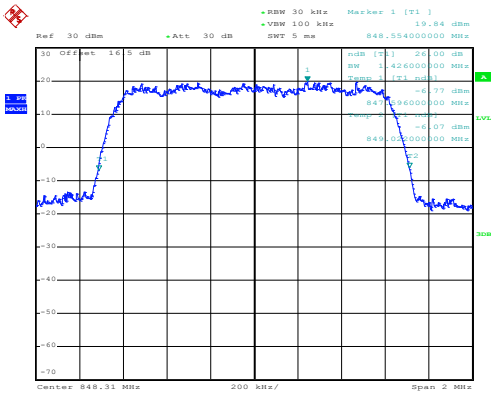
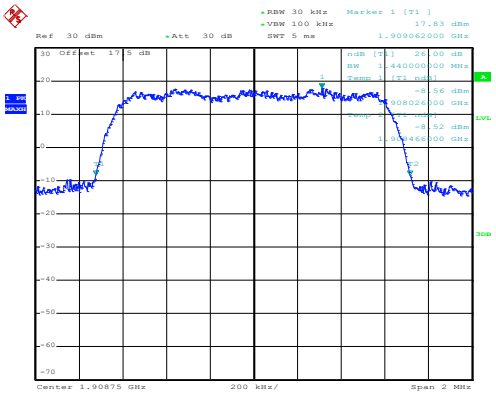
Date: 29.MAY.2016 17:09:39

# 26dB Bandwidth

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

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

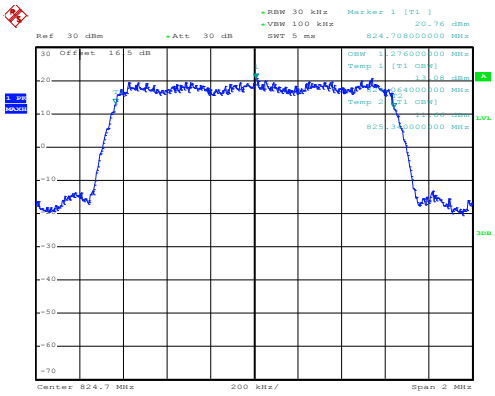
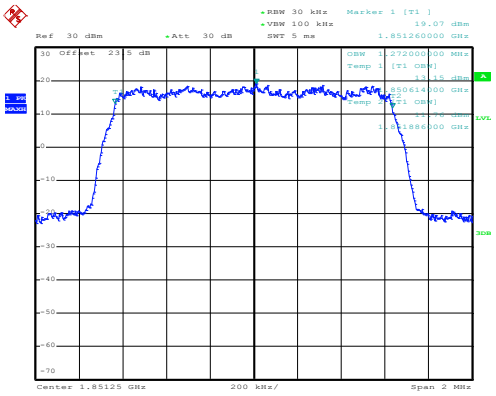
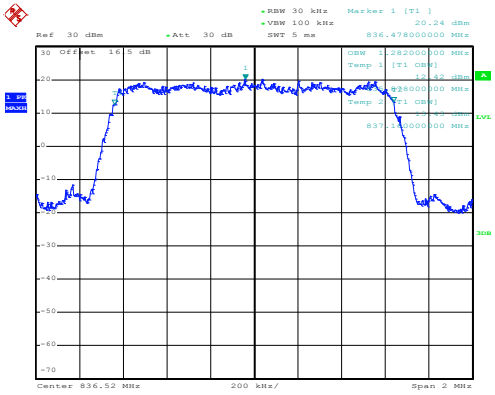
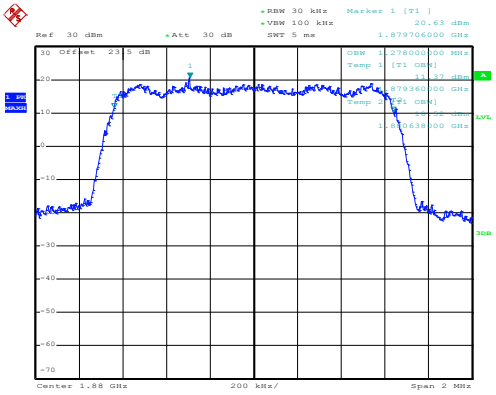
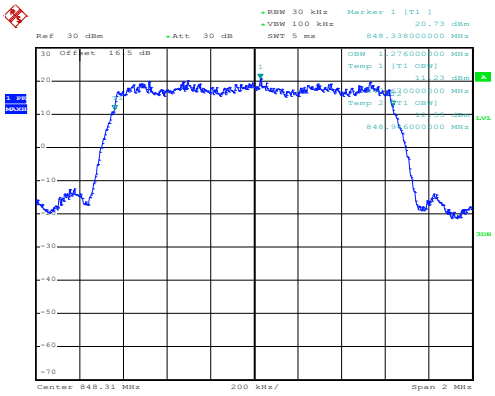
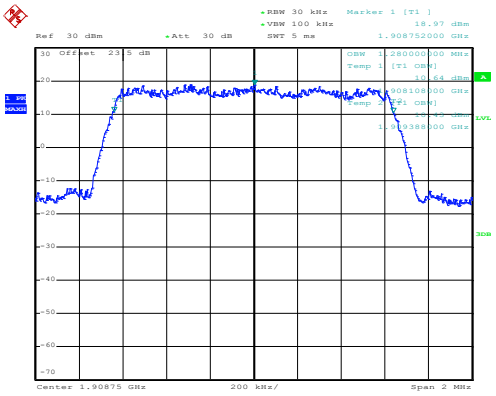
| CDMA BC0 (1xRTT) | CDMA BC1 (1xRTT) |
|---|---|
| **Lowest Channel** | **Lowest Channel** |
|  Date: 29.MAY.2016 14:23:12 |  Date: 29.MAY.2016 17:59:28 |
| **Middle Channel** | **Middle Channel** |
|  Date: 29.MAY.2016 14:23:46 |  Date: 29.MAY.2016 18:00:03 |
| **Highest Channel** | **Highest Channel** |
|  Date: 29.MAY.2016 14:24:23 |  Date: 29.MAY.2016 18:00:40 |

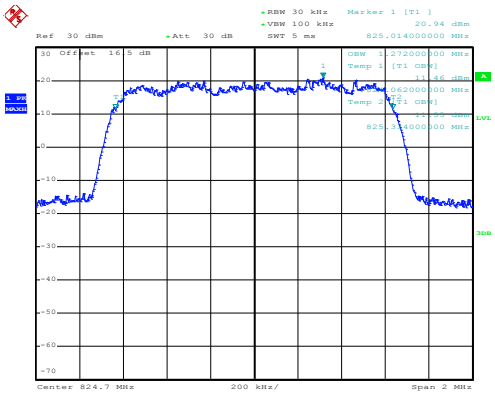
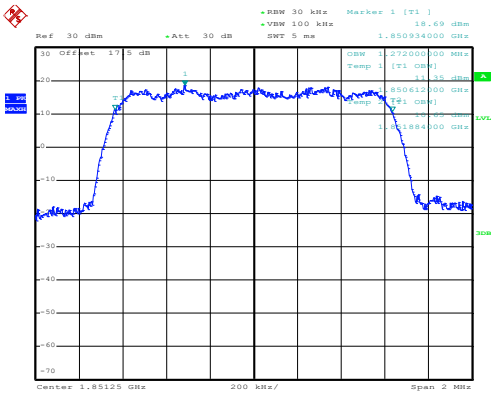
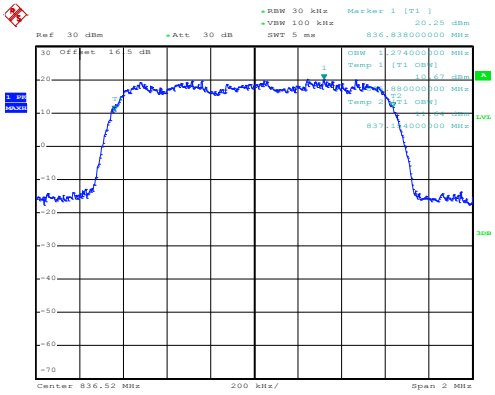
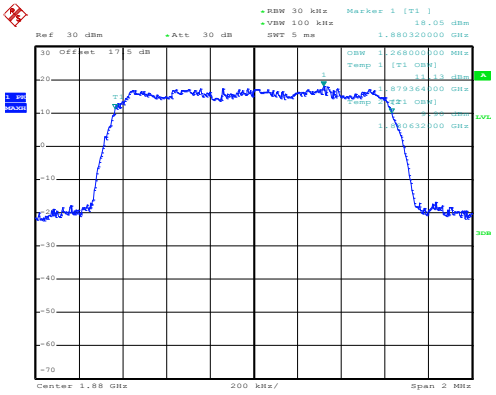
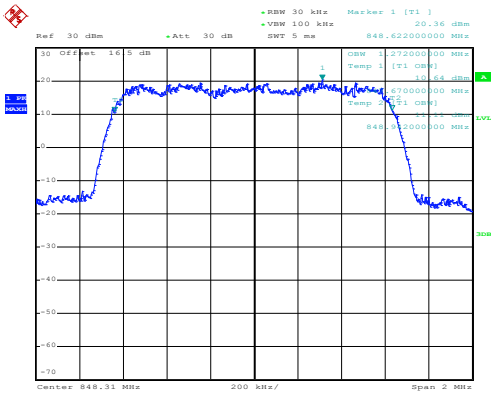
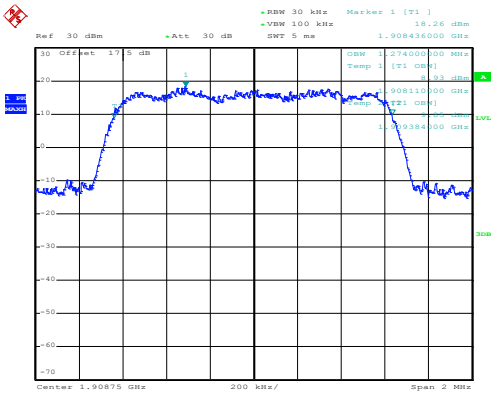
| CDMA BC0 (1xEV-DO Rev. 0) | CDMA BC1 (1xEV-DO Rev. A) |
|---|---|
| **Lowest Channel** | **Lowest Channel** |
|  Date: 29.MAY.2016 15:37:37 |  Date: 29.MAY.2016 17:02:05 |
| **Middle Channel** | **Middle Channel** |
|  Date: 29.MAY.2016 15:38:12 |  Date: 29.MAY.2016 17:02:41 |
| **Highest Channel** | **Highest Channel** |
|  Date: 29.MAY.2016 15:38:46 |  Date: 29.MAY.2016 17:03:39 |

# Occupied Bandwidth

| Mode | CDMA BC0 | CDMA BC1 |
|---|---|---|
| Mod. | 1xRTT | 1xRTT |
| Lowest CH | 1.28 | 1.27 |
| Middle CH | 1.28 | 1.28 |
| Highest CH | 1.28 | 1.28 |

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

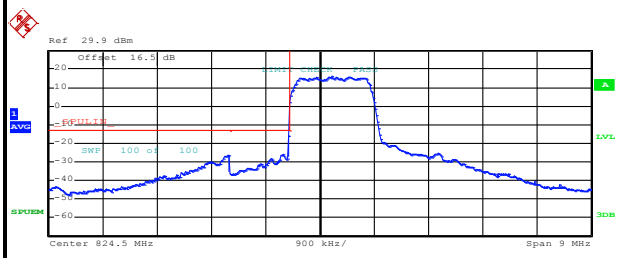
| CDMA BC0 (1xRTT) | CDMA BC1 (1xRTT) |
|---|---|
| **Lowest Channel** | **Lowest Channel** |
|  Date: 29.MAY.2016 14:25:02 |  Date: 29.MAY.2016 18:02:00 |
| **Middle Channel** | **Middle Channel** |
|  Date: 29.MAY.2016 14:25:37 |  Date: 29.MAY.2016 18:03:08 |
| **Highest Channel** | **Highest Channel** |
|  Date: 29.MAY.2016 14:26:10 |  Date: 29.MAY.2016 18:03:41 |

| CDMA BC0 (1xEV-DO Rev. 0) | CDMA BC1 (1xEV-DO Rev. A) |
|---|---|
| **Lowest Channel** | **Lowest Channel** |
|  Date: 29.MAY.2016 15:39:44 |  Date: 29.MAY.2016 17:04:41 |
| **Middle Channel** | **Middle Channel** |
|  Date: 29.MAY.2016 15:40:19 |  Date: 29.MAY.2016 17:05:14 |
| **Highest Channel** | **Highest Channel** |
|  Date: 29.MAY.2016 15:40:56 |  Date: 29.MAY.2016 17:05:49 |

# Conducted Band Edge

## CDMA BC0 (1xRTT)

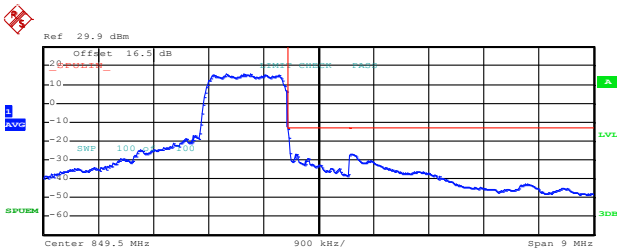
### Lowest Band Edge




| Start [Hz] | Stop [Hz] | RBW [Hz] | Freq [Hz] | PwrAbs [dBm] | ΔLimit [dB] |
|---|---|---|---|---|---|
| 820.000 M | 823.000 M | 100.00 k | 822.970000 M | -26.24 | -13.24 |
| 823.000 M | 824.000 M | 14.00 k | 823.996000 M | -18.22 | -5.22 |
| 824.000 M | 829.000 M | 100.00 k | 824.690000 M | 16.13 | -18.87 |

Date: 29.MAY.2016 14:32:47

### Highest Band Edge

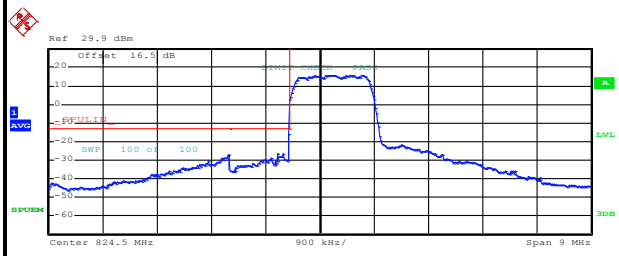



| Start [Hz] | Stop [Hz] | RBW [Hz] | Freq [Hz] | PwrAbs [dBm] | ΔLimit [dB] |
|---|---|---|---|---|---|
| 845.000 M | 849.000 M | 100.00 k | 848.280000 M | 15.47 | -19.53 |
| 849.000 M | 850.000 M | 14.00 k | 849.004000 M | -14.24 | -1.24 |
| 850.000 M | 854.000 M | 100.00 k | 850.032000 M | -27.06 | -14.06 |

Date: 29.MAY.2016 14:37:01

## CDMA BC0 (1xEV-DO Rev. 0)

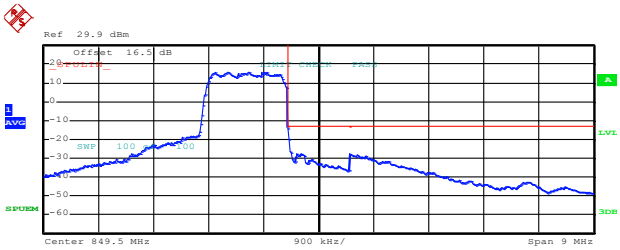
### Lowest Band Edge




| Start [Hz] | Stop [Hz] | RBW [Hz] | Freq [Hz] | PwrAbs [dBm] | ΔLimit [dB] |
|---|---|---|---|---|---|
| 820.000 M | 823.000 M | 100.00 k | 823.000000 M | -27.32 | -14.32 |
| 823.000 M | 824.000 M | 14.00 k | 823.996000 M | -17.49 | -4.49 |
| 824.000 M | 829.000 M | 100.00 k | 824.735000 M | 15.80 | -19.20 |

Date: 29.MAY.2016 15:48:43

### Highest Band Edge

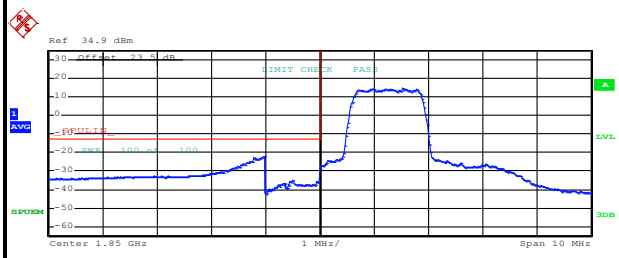



| Start [Hz] | Stop [Hz] | RBW [Hz] | Freq [Hz] | PwrAbs [dBm] | ΔLimit [dB] |
|---|---|---|---|---|---|
| 845.000 M | 849.000 M | 100.00 k | 848.008000 M | 15.71 | -19.29 |
| 849.000 M | 850.000 M | 14.00 k | 849.004000 M | -14.53 | -1.53 |
| 850.000 M | 854.000 M | 100.00 k | 850.000000 M | -27.99 | -14.99 |

Date: 29.MAY.2016 15:51:30

## CDMA BC1 (1xRTT)

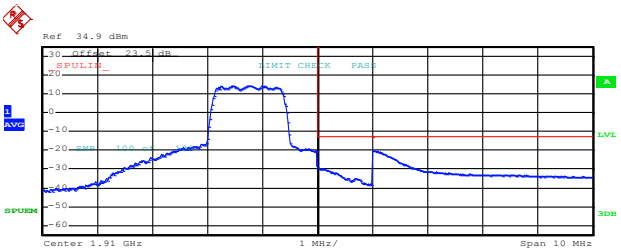
### Lowest Band Edge




| Start [Hz] | Stop [Hz] | RBW [Hz] | Freq [Hz] | PwrAbs [dBm] | ΔLimit [dB] |
|---|---|---|---|---|---|
| 1.845 G | 1.849 G | 1.00 M | 1.848956 G | -21.88 | -8.88 |
| 1.849 G | 1.850 G | 14.00 k | 1.849492 G | -35.27 | -22.27 |
| 1.850 G | 1.855 G | 100.00 k | 1.851510 G | 14.48 | -20.52 |

Date: 29.MAY.2016 18:11:47

### Highest Band Edge

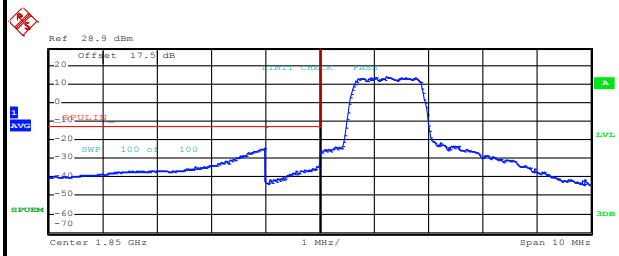



| Start [Hz] | Stop [Hz] | RBW [Hz] | Freq [Hz] | PwrAbs [dBm] | ΔLimit [dB] |
|---|---|---|---|---|---|
| 1.905 G | 1.910 G | 100.00 k | 1.908230 G | 14.25 | -20.75 |
| 1.910 G | 1.911 G | 14.00 k | 1.910020 G | -29.05 | -16.05 |
| 1.911 G | 1.915 G | 1.00 M | 1.911016 G | -20.41 | -7.41 |

Date: 29.MAY.2016 18:14:39

## CDMA BC1 (1xEV-DO Rev. A)

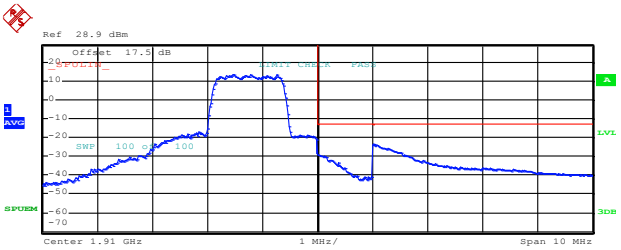
### Lowest Band Edge




| Start [Hz] | Stop [Hz] | RBW [Hz] | Freq [Hz] | PwrAbs [dBm] | ΔLimit [dB] |
|---|---|---|---|---|---|
| 1.845 G | 1.849 G | 1.00 M | 1.848976 G | -24.41 | -11.41 |
| 1.849 G | 1.850 G | 14.00 k | 1.849944 G | -34.39 | -21.39 |
| 1.850 G | 1.855 G | 100.00 k | 1.851225 G | 14.00 | -21.00 |

Date: 29.MAY.2016 17:12:37

### Highest Band Edge



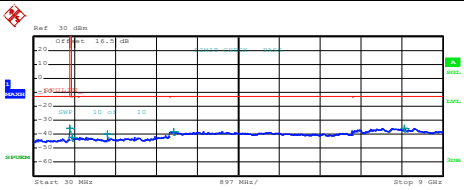

| Start [Hz] | Stop [Hz] | RBW [Hz] | Freq [Hz] | PwrAbs [dBm] | ΔLimit [dB] |
|---|---|---|---|---|---|
| 1.905 G | 1.910 G | 100.00 k | 1.908460 G | 13.34 | -21.66 |
| 1.910 G | 1.911 G | 14.00 k | 1.910016 G | -29.32 | -16.32 |
| 1.911 G | 1.915 G | 1.00 M | 1.911008 G | -23.64 | -10.64 |

Date: 29.MAY.2016 17:15:24

# Conducted Spurious Emission

## CDMA BC0 (1xRTT)

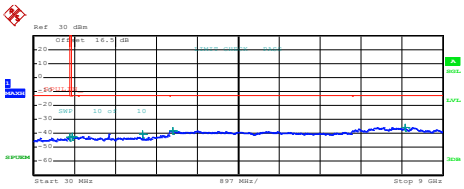
### Lowest Channel




| Start [Hz] | Stop [Hz] | RBW [Hz] | Freq [Hz] | PwrAbs [dBm] | ΔLimit [dB] |
|---|---|---|---|---|---|
| 30.000 M | 820.000 M | 1.00 M | 819.802500 M | -35.83 | -22.83 |
| 855.000 M | 1.000 G | 1.00 M | 869.318751 M | -42.18 | -29.18 |
| 1.000 G | 3.000 G | 1.00 M | 1.649500 G | -40.12 | -27.12 |
| 3.000 G | 7.000 G | 1.00 M | 3.102000 G | -38.08 | -25.08 |
| 7.000 G | 9.000 G | 1.00 M | 8.149000 G | -35.65 | -22.65 |

Date: 29.MAY.2016 14:27:09

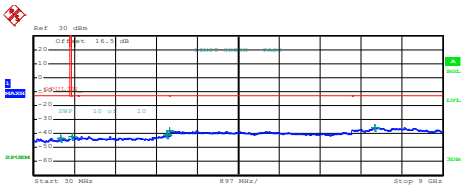
### Middle Channel




| Start [Hz] | Stop [Hz] | RBW [Hz] | Freq [Hz] | PwrAbs [dBm] | ΔLimit [dB] |
|---|---|---|---|---|---|
| 30.000 M | 820.000 M | 1.00 M | 815.260000 M | -43.07 | -30.07 |
| 855.000 M | 1.000 G | 1.00 M | 881.788752 M | -42.50 | -29.50 |
| 1.000 G | 3.000 G | 1.00 M | 2.410000 G | -40.69 | -27.69 |
| 3.000 G | 7.000 G | 1.00 M | 3.082000 G | -38.11 | -25.11 |
| 7.000 G | 9.000 G | 1.00 M | 8.169000 G | -35.84 | -22.84 |

Date: 29.MAY.2016 14:28:22

### Highest Channel

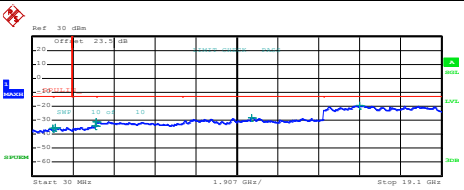



| Start [Hz] | Stop [Hz] | RBW [Hz] | Freq [Hz] | PwrAbs [dBm] | ΔLimit [dB] |
|---|---|---|---|---|---|
| 30.000 M | 820.000 M | 1.00 M | 628.622500 M | -43.59 | -30.59 |
| 855.000 M | 1.000 G | 1.00 M | 869.318751 M | -42.47 | -29.47 |
| 1.000 G | 3.000 G | 1.00 M | 2.947500 G | -41.08 | -28.08 |
| 3.000 G | 7.000 G | 1.00 M | 3.011000 G | -38.25 | -25.25 |
| 7.000 G | 9.000 G | 1.00 M | 7.507500 G | -35.93 | -22.93 |

Date: 29.MAY.2016 14:29:13

## CDMA BC1 (1xRTT)

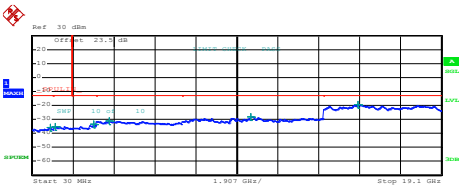
### Lowest Channel




| Start [Hz] | Stop [Hz] | RBW [Hz] | Freq [Hz] | PwrAbs [dBm] | ΔLimit [dB] |
|---|---|---|---|---|---|
| 30.000 M | 1.000 G | 1.00 M | 971.627500 M | -35.63 | -22.63 |
| 1.000 G | 1.845 G | 1.00 M | 1.108794 G | -35.12 | -22.12 |
| 1.915 G | 3.000 G | 1.00 M | 2.971248 G | -33.83 | -20.83 |
| 3.000 G | 7.000 G | 1.00 M | 3.004000 G | -31.27 | -18.27 |
| 7.000 G | 13.600 G | 1.00 M | 10.234825 G | -28.36 | -15.36 |
| 13.600 G | 19.100 G | 1.00 M | 15.278188 G | -19.43 | -6.43 |

Date: 29.MAY.2016 18:05:51

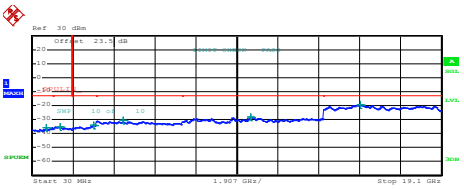
### Middle Channel




| Start [Hz] | Stop [Hz] | RBW [Hz] | Freq [Hz] | PwrAbs [dBm] | ΔLimit [dB] |
|---|---|---|---|---|---|
| 30.000 M | 1.000 G | 1.00 M | 885.297500 M | -35.74 | -22.74 |
| 1.000 G | 1.845 G | 1.00 M | 1.100977 G | -35.00 | -22.00 |
| 1.915 G | 3.000 G | 1.00 M | 2.891229 G | -33.41 | -20.41 |
| 3.000 G | 7.000 G | 1.00 M | 3.620000 G | -30.95 | -17.95 |
| 7.000 G | 13.600 G | 1.00 M | 10.212550 G | -28.19 | -15.19 |
| 13.600 G | 19.100 G | 1.00 M | 15.208063 G | -19.53 | -6.53 |

Date: 29.MAY.2016 18:06:43

### Highest Channel

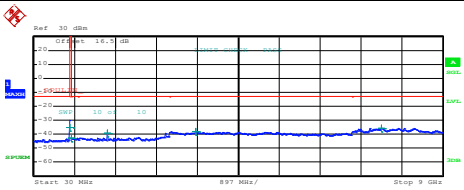



| Start [Hz] | Stop [Hz] | RBW [Hz] | Freq [Hz] | PwrAbs [dBm] | ΔLimit [dB] |
|---|---|---|---|---|---|
| 30.000 M | 1.000 G | 1.00 M | 663.895000 M | -35.54 | -22.54 |
| 1.000 G | 1.845 G | 1.00 M | 1.308214 G | -34.98 | -21.98 |
| 1.915 G | 3.000 G | 1.00 M | 2.895569 G | -34.04 | -21.04 |
| 3.000 G | 7.000 G | 1.00 M | 4.268000 G | -30.80 | -17.80 |
| 7.000 G | 13.600 G | 1.00 M | 10.224925 G | -28.42 | -15.42 |
| 13.600 G | 19.100 G | 1.00 M | 15.307750 G | -19.22 | -6.22 |

Date: 29.MAY.2016 18:07:35

## CDMA BC0 (1xEV-DO Rev. 0)

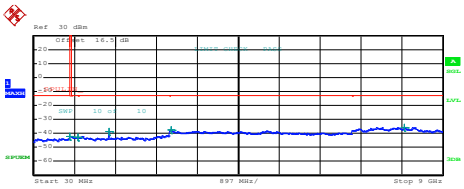
### Lowest Channel




| Start [Hz] | Stop [Hz] | RBW [Hz] | Freq [Hz] | PwrAbs [dBm] | ΔLimit [dB] |
|---|---|---|---|---|---|
| 30.000 M | 820.000 M | 1.00 M | 819.802500 M | -35.48 | -22.48 |
| 855.000 M | 1.000 G | 1.00 M | 863.917501 M | -42.52 | -29.52 |
| 1.000 G | 3.000 G | 1.00 M | 1.650500 G | -39.58 | -26.58 |
| 3.000 G | 7.000 G | 1.00 M | 3.585000 G | -38.31 | -25.31 |
| 7.000 G | 9.000 G | 1.00 M | 7.654000 G | -35.89 | -22.89 |

Date: 29.MAY.2016 15:42:38

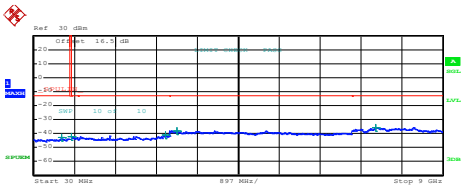
### Middle Channel




| Start [Hz] | Stop [Hz] | RBW [Hz] | Freq [Hz] | PwrAbs [dBm] | ΔLimit [dB] |
|---|---|---|---|---|---|
| 30.000 M | 820.000 M | 1.00 M | 817.432500 M | -42.22 | -29.22 |
| 855.000 M | 1.000 G | 1.00 M | 994.562510 M | -42.60 | -29.60 |
| 1.000 G | 3.000 G | 1.00 M | 1.672500 G | -38.86 | -25.86 |
| 3.000 G | 7.000 G | 1.00 M | 3.037000 G | -37.50 | -24.50 |
| 7.000 G | 9.000 G | 1.00 M | 8.149000 G | -35.56 | -22.56 |

Date: 29.MAY.2016 15:43:29

### Highest Channel




| Start [Hz] | Stop [Hz] | RBW [Hz] | Freq [Hz] | PwrAbs [dBm] | ΔLimit [dB] |
|---|---|---|---|---|---|
| 30.000 M | 820.000 M | 1.00 M | 639.485000 M | -43.07 | -30.07 |
| 855.000 M | 1.000 G | 1.00 M | 855.145000 M | -42.11 | -29.11 |
| 1.000 G | 3.000 G | 1.00 M | 2.924500 G | -41.08 | -28.08 |
| 3.000 G | 7.000 G | 1.00 M | 3.164000 G | -38.11 | -25.11 |
| 7.000 G | 9.000 G | 1.00 M | 7.531000 G | -35.62 | -22.62 |

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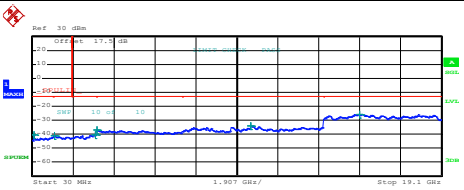
## CDMA BC1 (1xEV-DO Rev. A)

### Lowest Channel




| Start [Hz] | Stop [Hz] | RBW [Hz] | Freq [Hz] | PwrAbs [dBm] | ΔLimit [dB] |
|---|---|---|---|---|---|
| 30.000 M | 1.000 G | 1.00 M | 112.935000 M | -40.66 | -27.66 |
| 1.000 G | 1.845 G | 1.00 M | 1.077317 G | -40.84 | -27.84 |
| 1.915 G | 3.000 G | 1.00 M | 2.955515 G | -40.49 | -27.49 |
| 3.000 G | 7.000 G | 1.00 M | 3.058000 G | -36.74 | -23.74 |
| 7.000 G | 13.600 G | 1.00 M | 10.215850 G | -33.93 | -20.93 |
| 13.600 G | 19.100 G | 1.00 M | 15.291250 G | -25.87 | -12.87 |

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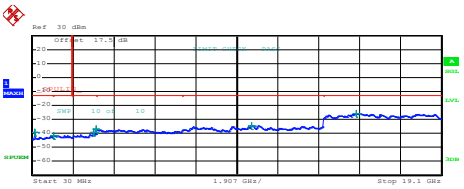
### Middle Channel




| Start [Hz] | Stop [Hz] | RBW [Hz] | Freq [Hz] | PwrAbs [dBm] | ΔLimit [dB] |
|---|---|---|---|---|---|
| 30.000 M | 1.000 G | 1.00 M | 141.792500 M | -39.13 | -26.13 |
| 1.000 G | 1.845 G | 1.00 M | 1.038448 G | -41.49 | -28.49 |
| 1.915 G | 3.000 G | 1.00 M | 2.874140 G | -39.45 | -26.45 |
| 3.000 G | 7.000 G | 1.00 M | 3.000000 G | -37.04 | -24.04 |
| 7.000 G | 13.600 G | 1.00 M | 10.233175 G | -34.60 | -21.60 |
| 13.600 G | 19.100 G | 1.00 M | 15.119375 G | -25.76 | -12.76 |

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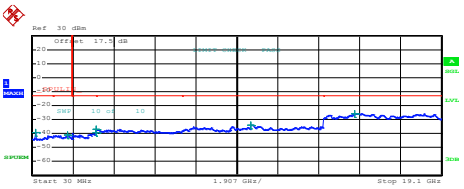
### Highest Channel




| Start [Hz] | Stop [Hz] | RBW [Hz] | Freq [Hz] | PwrAbs [dBm] | ΔLimit [dB] |
|---|---|---|---|---|---|
| 30.000 M | 1.000 G | 1.00 M | 170.165000 M | -39.24 | -26.24 |
| 1.000 G | 1.845 G | 1.00 M | 1.688886 G | -40.92 | -27.92 |
| 1.915 G | 3.000 G | 1.00 M | 2.993219 G | -39.49 | -26.49 |
| 3.000 G | 7.000 G | 1.00 M | 3.006000 G | -37.07 | -24.07 |
| 7.000 G | 13.600 G | 1.00 M | 10.222450 G | -33.95 | -20.95 |
| 13.600 G | 19.100 G | 1.00 M | 15.042375 G | -25.73 | -12.73 |

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# Frequency Stability

| Test Conditions | Middle Channel | CDMA BC0 (EVDO) | Limit 2.5ppm |
|---|---|---|---|
| Temperature (°C) | Voltage (Volt) | Deviation (ppm) | Result |
| 50 | Normal Voltage | 0.0024 | PASS |
| 40 | Normal Voltage | 0.0012 | |
| 30 | Normal Voltage | 0.0012 | |
| 20(Ref.) | Normal Voltage | 0.0000 | |
| 10 | Normal Voltage | 0.0024 | |
| 0 | Normal Voltage | 0.0012 | |
| -10 | Normal Voltage | 0.0084 | |
| -20 | Normal Voltage | 0.0096 | |
| -30 | Normal Voltage | 0.0108 | |
| 20 | Maximum Voltage | 0.0012 | |
| 20 | Normal Voltage | 0.0024 | |
| 20 | Battery End Point | 0.0000 | |

| Test Conditions | Middle Channel | CDMA BC1 (EVDO) | Limit Note 2. |
|---|---|---|---|
| Temperature (°C) | Voltage (Volt) | Deviation (ppm) | Result |
| 50 | Normal Voltage | 0.0000 | PASS |
| 40 | Normal Voltage | 0.0005 | |
| 30 | Normal Voltage | 0.0005 | |
| 20(Ref.) | Normal Voltage | 0.0000 | |
| 10 | Normal Voltage | 0.0011 | |
| 0 | Normal Voltage | 0.0000 | |
| -10 | Normal Voltage | 0.0005 | |
| -20 | Normal Voltage | 0.0011 | |
| -30 | Normal Voltage | 0.0005 | |
| 20 | Maximum Voltage | 0.0000 | |
| 20 | Normal Voltage | 0.0011 | |
| 20 | Battery End Point | 0.05 | |

| Test Conditions | Middle Channel | CDMA BC0 (1xRTT) | Limit 2.5ppm |
|---|---|---|---|
| Temperature (°C) | Voltage (Volt) | Deviation (ppm) | Result |
| 50 | Normal Voltage | 0.0012 | PASS |
| 40 | Normal Voltage | 0.0024 | |
| 30 | Normal Voltage | 0.0131 | |
| 20(Ref.) | Normal Voltage | 0.0000 | |
| 10 | Normal Voltage | 0.0155 | |
| 0 | Normal Voltage | 0.0012 | |
| -10 | Normal Voltage | 0.0143 | |
| -20 | Normal Voltage | 0.0131 | |
| -30 | Normal Voltage | 0.0167 | |
| 20 | Maximum Voltage | 0.0000 | |
| 20 | Normal Voltage | 0.0024 | |
| 20 | Battery End Point | 0.0012 | |

| Test Conditions | Middle Channel | CDMA BC1 (1xRTT) | Limit Note 2. |
|---|---|---|---|
| Temperature (°C) | Voltage (Volt) | Deviation (ppm) | Result |
| 50 | Normal Voltage | 0.0101 | PASS |
| 40 | Normal Voltage | 0.0090 | |
| 30 | Normal Voltage | 0.0096 | |
| 20(Ref.) | Normal Voltage | 0.0000 | |
| 10 | Normal Voltage | 0.0080 | |
| 0 | Normal Voltage | 0.0090 | |
| -10 | Normal Voltage | 0.0085 | |
| -20 | Normal Voltage | 0.0101 | |
| -30 | Normal Voltage | 0.0106 | |
| 20 | Maximum Voltage | 0.0096 | |
| 20 | Normal Voltage | 0.0016 | |
| 20 | Battery End Point | 0.0101 | |

**Note:**

**1.** Normal Voltage = 3.9V. ；Battery End Point (BEP) = 3.4 V.；Maximum Voltage =4.35 V

**2.** The frequency fundamental emissions stay within the authorized frequency block.

# Appendix B. Test Results of Radiated Test

## ERP/EIRP

| Channel | Mode | Horizontal | | Vertical | |
|---|---|---|---|---|---|
| | | ERP(dBm) | ERP(W) | ERP(dBm) | ERP(W) |
| Lowest | GSM850 GSM | 27.26 | 0.5321 | 29.60 | 0.9120 |
| Middle | | 27.37 | 0.5458 | 29.58 | 0.9078 |
| Highest | | 28.38 | 0.6887 | 30.69 | 1.1722 |
| Lowest | GSM850 EDGE class 8 | 18.70 | 0.0741 | 21.34 | 0.1361 |
| Middle | | 18.63 | 0.0729 | 20.91 | 0.1233 |
| Highest | | 19.10 | 0.0813 | 21.57 | 0.1435 |
| Lowest | WCDMA Band V RMC 12.2Kbps | 18.32 | 0.0679 | 20.56 | 0.1138 |
| Middle | | 18.28 | 0.0673 | 20.52 | 0.1127 |
| Highest | | 18.11 | 0.0647 | 20.34 | 0.1081 |
| Lowest | CDMA BC0 1xRTT | 17.94 | 0.0622 | 20.58 | 0.1143 |
| Middle | | 17.82 | 0.0605 | 20.29 | 0.1069 |
| Highest | | 18.03 | 0.0635 | 20.68 | 0.1169 |
| Lowest | CDMA BC0 1xEVDO | 16.71 | 0.0469 | 19.54 | 0.0899 |
| Middle | | 16.42 | 0.0439 | 19.20 | 0.0832 |
| Highest | | 16.98 | 0.0499 | 20.06 | 0.1014 |
| Limit | ERP < 7W | Result | | PASS | |

| Channel | Mode | Horizontal | | Vertical | |
|---|---|---|---|---|---|
| | | EIRP(dBm) | EIRP(W) | EIRP(dBm) | EIRP(W) |
| Lowest | GSM1900 GPRS class 8 | 28.13 | 0.6501 | 30.67 | 1.1668 |
| Middle | | 27.81 | 0.6039 | 30.90 | 1.2303 |
| Highest | | 28.01 | 0.6324 | 31.20 | 1.3183 |
| Lowest | GSM1900 EDGE class 8 | 23.12 | 0.2051 | 25.30 | 0.3388 |
| Middle | | 22.19 | 0.1656 | 26.08 | 0.4055 |
| Highest | | 22.48 | 0.1770 | 25.62 | 0.3648 |
| Lowest | WCDMA Band II RMC 12.2Kbps | 20.90 | 0.1230 | 23.48 | 0.2228 |
| Middle | | 20.49 | 0.1119 | 23.53 | 0.2254 |
| Highest | | 20.55 | 0.1135 | 23.73 | 0.2360 |
| Lowest | CDMA BC1 1xRTT | 21.47 | 0.1403 | 23.99 | 0.2506 |
| Middle | | 21.11 | 0.1291 | 23.88 | 0.2443 |
| Highest | | 21.35 | 0.1365 | 24.24 | 0.2655 |
| Lowest | CDMA BC1 1xEVDO | 20.73 | 0.1183 | 23.25 | 0.2113 |
| Middle | | 20.49 | 0.1119 | 23.15 | 0.2065 |
| Highest | | 20.61 | 0.1151 | 23.50 | 0.2239 |
| Limit | EIRP < 2W | Result | | PASS | |

# Radiated Spurious Emission

| GSM850 (GPRS class 8) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Channel | Frequency ( MHz ) | ERP ( dBm ) | Limit ( dBm ) | Over Limit ( dB ) | SPA Reading (dBm) | S.G. Power ( dBm ) | TX Cable loss ( dB ) | TX Antenna Gain (dBi) | Polarization (H/V) |
| Lowest | 1648 | -64.11 | -13 | -51.11 | -51.69 | -65.87 | 0.98 | 4.89 | H |
| | 2472 | -60.55 | -13 | -47.55 | -53.54 | -62.43 | 1.28 | 5.32 | H |
| | 3296 | -59.39 | -13 | -46.39 | -54.43 | -62.8 | 1.54 | 7.10 | H |
| | 1648 | -63.09 | -13 | -50.09 | -63.83 | -64.85 | 0.98 | 4.89 | V |
| | 2472 | -59.69 | -13 | -46.69 | -60.45 | -61.57 | 1.28 | 5.32 | V |
| | 3296 | -59.08 | -13 | -46.08 | -59.79 | -62.49 | 1.54 | 7.10 | V |
| Middle | 1672 | -67.09 | -13 | -54.09 | -54.97 | -68.77 | 0.99 | 4.82 | H |
| | 2509 | -63.29 | -13 | -50.29 | -56.43 | -65.25 | 1.29 | 5.41 | H |
| | 3345 | -62.03 | -13 | -49.03 | -57.31 | -65.64 | 1.56 | 7.32 | H |
| | 1672 | -66.24 | -13 | -53.24 | -54.56 | -67.92 | 0.99 | 4.82 | V |
| | 2509 | -61.78 | -13 | -48.78 | -55.37 | -63.74 | 1.29 | 5.41 | V |
| | 3345 | -60.74 | -13 | -47.74 | -56.19 | -64.35 | 1.56 | 7.32 | V |
| Highest | 1696 | -63.76 | -13 | -50.76 | -51.77 | -65.36 | 1.00 | 4.75 | H |
| | 2546 | -60.59 | -13 | -47.59 | -53.71 | -62.57 | 1.31 | 5.44 | H |
| | 3392 | -59.06 | -13 | -46.06 | -54.53 | -62.86 | 1.57 | 7.52 | H |
| | 1696 | -64.61 | -13 | -51.61 | -53.02 | -66.21 | 1.00 | 4.75 | V |
| | 2546 | -59.98 | -13 | -46.98 | -53.68 | -61.96 | 1.31 | 5.44 | V |
| | 3392 | -58.47 | -13 | -45.47 | -54.05 | -62.27 | 1.57 | 7.52 | V |

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

| GSM850 (EDGE class 8) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Channel | Frequency ( MHz ) | ERP ( dBm ) | Limit ( dBm ) | Over Limit ( dB ) | SPA Reading (dBm) | S.G. Power ( dBm ) | TX Cable loss ( dB ) | TX Antenna Gain (dBi) | Polarization (H/V) |
| Lowest | 1649 | -63.59 | -13 | -50.59 | -51.19 | -65.34 | 0.98 | 4.88 | H |
| | 2474 | -60.72 | -13 | -47.72 | -53.71 | -62.61 | 1.28 | 5.32 | H |
| | 3298 | -58.77 | -13 | -45.77 | -53.84 | -62.19 | 1.54 | 7.11 | H |
| | 1649 | -64.06 | -13 | -51.06 | -52.17 | -65.81 | 0.98 | 4.88 | V |
| | 2474 | -58.02 | -13 | -45.02 | -51.52 | -59.91 | 1.28 | 5.32 | V |
| | 3298 | -59.12 | -13 | -46.12 | -54.47 | -62.54 | 1.54 | 7.11 | V |
| Middle | 1672 | -64.26 | -13 | -51.26 | -52.12 | -65.94 | 0.99 | 4.82 | H |
| | 2509 | -60.85 | -13 | -47.85 | -53.99 | -62.81 | 1.29 | 5.41 | H |
| | 3345 | -59.31 | -13 | -46.31 | -54.5 | -62.92 | 1.56 | 7.32 | H |
| | 1672 | -63.61 | -13 | -50.61 | -51.92 | -65.29 | 0.99 | 4.82 | V |
| | 2509 | -59.35 | -13 | -46.35 | -52.93 | -61.31 | 1.29 | 5.41 | V |
| | 3345 | -58.69 | -13 | -45.69 | -54.16 | -62.3 | 1.56 | 7.32 | V |
| Highest | 1696 | -64.47 | -13 | -51.47 | -52.47 | -66.07 | 1.00 | 4.75 | H |
| | 2544 | -60.34 | -13 | -47.34 | -53.4 | -62.32 | 1.30 | 5.44 | H |
| | 3393 | -59.27 | -13 | -46.27 | -53.72 | -63.08 | 1.57 | 7.53 | H |
| | 1696 | -63.88 | -13 | -50.88 | -52.35 | -65.48 | 1.00 | 4.75 | V |
| | 2544 | -60.51 | -13 | -47.51 | -54.17 | -62.49 | 1.30 | 5.44 | V |
| | 3393 | -58.84 | -13 | -45.84 | -54.4 | -62.65 | 1.57 | 7.53 | V |

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

| GSM1900 (GPRS class 8) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Channel | Frequency ( MHz ) | EIRP ( dBm ) | Limit ( dBm ) | Over Limit ( dB ) | SPA Reading (dBm) | S.G. Power ( dBm ) | TX Cable loss ( dB ) | TX Antenna Gain (dBi) | Polarization (H/V) |
| Lowest | 3702 | -37.18 | -13 | -24.18 | -33.04 | -43.75 | 1.67 | 8.24 | H |
| | 5550 | -43.77 | -13 | -30.77 | -46.47 | -50.84 | 2.65 | 9.72 | H |
| | 7404 | -46.75 | -13 | -33.75 | -50.95 | -55.9 | 2.46 | 11.61 | H |
| | 9252 | -55.03 | -13 | -42.03 | -61.68 | -65.09 | 2.54 | 12.60 | H |
| | 11100 | -57.48 | -13 | -44.48 | -68.63 | -67.25 | 2.69 | 12.46 | H |
| | 12948 | -57.32 | -13 | -44.32 | -70.36 | -67.34 | 2.92 | 12.94 | H |
| | 14806.5 | -53.11 | -13 | -40.11 | -66.23 | -62.96 | 3.52 | 13.37 | H |
| | 3702 | -38.29 | -13 | -25.29 | -34.14 | -44.86 | 1.67 | 8.24 | V |
| | 5550 | -50.64 | -13 | -37.64 | -53.31 | -57.71 | 2.65 | 9.72 | V |
| | 7404 | -52.24 | -13 | -39.24 | -56.7 | -61.39 | 2.46 | 11.61 | V |
| | 9252 | -54.87 | -13 | -41.87 | -61.92 | -64.93 | 2.54 | 12.60 | V |
| | 11100 | -58.28 | -13 | -45.28 | -69.3 | -68.05 | 2.69 | 12.46 | V |
| | 12948 | -54.48 | -13 | -41.48 | -67.11 | -64.5 | 2.92 | 12.94 | V |
| | 14806.5 | -48.35 | -13 | -35.35 | -61.55 | -58.2 | 3.52 | 13.37 | V |
| Middle | 3762 | -35.93 | -13 | -22.93 | -31.71 | -42.56 | 1.69 | 8.31 | H |
| | 5640 | -43.16 | -13 | -30.16 | -46.29 | -50.21 | 2.71 | 9.76 | H |
| | 7518 | -43.15 | -13 | -30.15 | -47.35 | -52.54 | 2.42 | 11.81 | H |
| | 9399 | -55.33 | -13 | -42.33 | -62.18 | -65.3 | 2.57 | 12.54 | H |
| | 11278 | -53.71 | -13 | -40.71 | -65.54 | -63.41 | 2.68 | 12.39 | H |
| | 13158 | -56.75 | -13 | -43.75 | -69.67 | -67 | 2.97 | 13.22 | H |
| | 15037 | -47.25 | -13 | -34.25 | -60.34 | -57.29 | 3.61 | 13.65 | H |
| | 3762 | -36.58 | -13 | -23.58 | -32.39 | -43.21 | 1.69 | 8.31 | V |
| | 5640 | -45.15 | -13 | -32.15 | -48.24 | -52.2 | 2.71 | 9.76 | V |
| | 7518 | -46.03 | -13 | -33.03 | -50.47 | -55.42 | 2.42 | 11.81 | V |
| | 9399 | -53.75 | -13 | -40.75 | -61.01 | -63.72 | 2.57 | 12.54 | V |
| | 11278 | -53.93 | -13 | -40.93 | -65.66 | -63.63 | 2.68 | 12.39 | V |
| | 13158 | -56.77 | -13 | -43.77 | -69.48 | -67.02 | 2.97 | 13.22 | V |
| | 15037 | -46.80 | -13 | -33.80 | -60.1 | -56.84 | 3.61 | 13.65 | V |
| Highest | 3822 | -38.46 | -13 | -25.46 | -34.16 | -45.14 | 1.71 | 8.39 | H |
| | 5730 | -42.87 | -13 | -29.87 | -46.41 | -49.9 | 2.76 | 9.79 | H |
| | 7638 | -48.32 | -13 | -35.32 | -52.96 | -57.82 | 2.38 | 11.88 | H |
| | 9546 | -53.83 | -13 | -40.83 | -60.9 | -63.7 | 2.60 | 12.47 | H |
| | 11457 | -55.23 | -13 | -42.23 | -67.69 | -64.86 | 2.68 | 12.32 | H |
| | 13368 | -55.83 | -13 | -42.83 | -68.53 | -66.32 | 3.02 | 13.52 | H |
| | 15279 | -51.40 | -13 | -38.40 | -65.46 | -61.68 | 3.71 | 13.99 | H |
| | 3822 | -38.97 | -13 | -25.97 | -34.7 | -45.65 | 1.71 | 8.39 | V |
| | 5730 | -52.69 | -13 | -39.69 | -56.23 | -59.72 | 2.76 | 9.79 | V |
| | 7638 | -49.01 | -13 | -36.01 | -53.91 | -58.51 | 2.38 | 11.88 | V |
| | 9546 | -55.28 | -13 | -42.28 | -62.68 | -65.15 | 2.60 | 12.47 | V |
| | 11457 | -57.87 | -13 | -44.87 | -70.31 | -67.5 | 2.68 | 12.32 | V |
| | 13368 | -51.11 | -13 | -38.11 | -63.83 | -61.6 | 3.02 | 13.52 | V |
| | 15279 | -48.83 | -13 | -35.83 | -62.95 | -59.11 | 3.71 | 13.99 | V |

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

| GSM1900 (EDGE class 8) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Channel | Frequency ( MHz ) | EIRP ( dBm ) | Limit ( dBm ) | Over Limit ( dB ) | SPA Reading (dBm) | S.G. Power ( dBm ) | TX Cable loss ( dB ) | TX Antenna Gain (dBi) | Polarization (H/V) |
| Lowest | 3702 | -47.11 | -13 | -34.11 | -42.98 | -53.68 | 1.67 | 8.24 | H |
| | 5550 | -51.44 | -13 | -38.44 | -53.16 | -58.51 | 2.65 | 9.72 | H |
| | 7404 | -61.38 | -13 | -48.38 | -65.58 | -70.53 | 2.46 | 11.61 | H |
| | 3702 | -49.15 | -13 | -36.15 | -44.99 | -55.72 | 1.67 | 8.24 | V |
| | 5550 | -58.93 | -13 | -45.93 | -61.6 | -66 | 2.65 | 9.72 | V |
| | 7404 | -61.39 | -13 | -48.39 | -65.79 | -70.54 | 2.46 | 11.61 | V |
| Middle | 3762 | -42.83 | -13 | -29.83 | -38.61 | -49.46 | 1.69 | 8.31 | H |
| | 5640 | -47.86 | -13 | -34.86 | -51.01 | -54.91 | 2.71 | 9.76 | H |
| | 7518 | -55.86 | -13 | -42.86 | -60.05 | -65.25 | 2.42 | 11.81 | H |
| | 3762 | -44.45 | -13 | -31.45 | -40.23 | -51.08 | 1.69 | 8.31 | V |
| | 5640 | -50.37 | -13 | -37.37 | -53.49 | -57.42 | 2.71 | 9.76 | V |
| | 7518 | -56.33 | -13 | -43.33 | -60.77 | -65.72 | 2.42 | 11.81 | V |
| Highest | 3822 | -45.62 | -13 | -32.62 | -41.28 | -52.3 | 1.71 | 8.39 | H |
| | 5730 | -50.71 | -13 | -37.71 | -54.28 | -57.74 | 2.76 | 9.79 | H |
| | 7638 | -61.63 | -13 | -48.63 | -66.27 | -71.13 | 2.38 | 11.88 | H |
| | 3822 | -46.75 | -13 | -33.75 | -42.49 | -53.43 | 1.71 | 8.39 | V |
| | 5730 | -57.05 | -13 | -44.05 | -60.59 | -64.08 | 2.76 | 9.79 | V |
| | 7638 | -61.50 | -13 | -48.50 | -66.39 | -71 | 2.38 | 11.88 | V |

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

| WCDMA Band V(RMC 12.2Kbps) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Channel | Frequency ( MHz ) | ERP ( dBm ) | Limit ( dBm ) | Over Limit ( dB ) | SPA Reading (dBm) | S.G. Power ( dBm ) | TX Cable loss ( dB ) | TX Antenna Gain (dBi) | Polarization (H/V) |
| Lowest | 1649 | -62.94 | -13 | -49.94 | -50.55 | -64.69 | 0.98 | 4.88 | H |
| | 2474 | -60.55 | -13 | -47.55 | -53.56 | -62.44 | 1.28 | 5.32 | H |
| | 3298 | -59.27 | -13 | -46.27 | -54.36 | -62.69 | 1.54 | 7.11 | H |
| | 1649 | -62.77 | -13 | -49.77 | -50.82 | -64.52 | 0.98 | 4.88 | V |
| | 2474 | -60.28 | -13 | -47.28 | -53.68 | -62.17 | 1.28 | 5.32 | V |
| | 3298 | -58.54 | -13 | -45.54 | -53.94 | -61.96 | 1.54 | 7.11 | V |
| Middle | 1672 | -63.07 | -13 | -50.07 | -50.93 | -64.75 | 0.99 | 4.82 | H |
| | 2509 | -60.69 | -13 | -47.69 | -53.76 | -62.65 | 1.29 | 5.41 | H |
| | 3345 | -59.18 | -13 | -46.18 | -54.43 | -62.79 | 1.56 | 7.32 | H |
| | 1672 | -63.56 | -13 | -50.56 | -51.93 | -65.24 | 0.99 | 4.82 | V |
| | 2509 | -59.51 | -13 | -46.51 | -53.19 | -61.47 | 1.29 | 5.41 | V |
| | 3345 | -59.44 | -13 | -46.44 | -54.9 | -63.05 | 1.56 | 7.32 | V |
| Highest | 1696 | -63.59 | -13 | -50.59 | -51.61 | -65.19 | 1.00 | 4.75 | H |
| | 2539 | -59.94 | -13 | -46.94 | -53.13 | -61.92 | 1.30 | 5.43 | H |
| | 3386 | -58.78 | -13 | -45.78 | -54.23 | -62.56 | 1.57 | 7.50 | H |
| | 1696 | -63.66 | -13 | -50.66 | -52.13 | -65.26 | 1.00 | 4.75 | V |
| | 2539 | -60.21 | -13 | -47.21 | -53.89 | -62.19 | 1.30 | 5.43 | V |
| | 3386 | -59.06 | -13 | -46.06 | -54.61 | -62.84 | 1.57 | 7.50 | V |

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

| WCDMA Band II(RMC 12.2Kbps) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Channel | Frequency ( MHz ) | EIRP ( dBm ) | Limit ( dBm ) | Over Limit ( dB ) | SPA Reading (dBm) | S.G. Power ( dBm ) | TX Cable loss ( dB ) | TX Antenna Gain (dBi) | Polarization (H/V) |
| Lowest | 3708 | -61.62 | -13 | -48.62 | -57.48 | -68.2 | 1.67 | 8.25 | H |
| | 5556 | -62.23 | -13 | -49.23 | -64.92 | -69.3 | 2.66 | 9.72 | H |
| | 7410 | -62.36 | -13 | -49.36 | -66.58 | -71.52 | 2.46 | 11.62 | H |
| | 3708 | -61.65 | -13 | -48.65 | -57.5 | -68.23 | 1.67 | 8.25 | V |
| | 5556 | -62.20 | -13 | -49.20 | -64.86 | -69.27 | 2.66 | 9.72 | V |
| | 7410 | -62.19 | -13 | -49.19 | -66.62 | -71.35 | 2.46 | 11.62 | V |
| Middle | 3762 | -59.00 | -13 | -46.00 | -54.77 | -65.63 | 1.69 | 8.31 | H |
| | 5640 | -62.19 | -13 | -49.19 | -65.34 | -69.24 | 2.71 | 9.76 | H |
| | 7520 | -63.01 | -13 | -50.01 | -67.26 | -72.4 | 2.42 | 11.81 | H |
| | 3762 | -57.09 | -13 | -44.09 | -52.89 | -63.72 | 1.69 | 8.31 | V |
| | 5640 | -62.28 | -13 | -49.28 | -65.38 | -69.33 | 2.71 | 9.76 | V |
| | 7520 | -62.86 | -13 | -49.86 | -67.28 | -72.25 | 2.42 | 11.81 | V |
| Highest | 3816 | -61.56 | -13 | -48.56 | -57.25 | -68.24 | 1.70 | 8.38 | H |
| | 5724 | -61.69 | -13 | -48.69 | -65.22 | -68.73 | 2.75 | 9.79 | H |
| | 7632 | -62.31 | -13 | -49.31 | -66.94 | -71.8 | 2.39 | 11.88 | H |
| | 3816 | -60.23 | -13 | -47.23 | -55.97 | -66.91 | 1.70 | 8.38 | V |
| | 5724 | -61.86 | -13 | -48.86 | -65.41 | -68.9 | 2.75 | 9.79 | V |
| | 7632 | -61.91 | -13 | -48.91 | -66.82 | -71.4 | 2.39 | 11.88 | V |

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

| CDMA BC0(1xRTT Rev.A) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 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 | 1649 | -60.36 | -13 | -47.36 | -48.05 | -62.11 | 0.98 | 4.88 | H |
| | 2474 | -59.99 | -13 | -46.99 | -53.05 | -61.88 | 1.28 | 5.32 | H |
| | 3298 | -59.59 | -13 | -46.59 | -54.69 | -63.01 | 1.54 | 7.11 | H |
| | 1649 | -60.04 | -13 | -47.04 | -48.29 | -61.79 | 0.98 | 4.88 | V |
| | 2474 | -59.22 | -13 | -46.22 | -53.82 | -61.11 | 1.28 | 5.32 | V |
| | 3298 | -58.99 | -13 | -45.99 | -54.5 | -62.41 | 1.54 | 7.11 | V |
| Middle | 1672 | -63.34 | -13 | -50.34 | -51.37 | -65.02 | 0.99 | 4.82 | H |
| | 2509 | -60.48 | -13 | -47.48 | -53.75 | -62.44 | 1.29 | 5.41 | H |
| | 3344 | -59.08 | -13 | -46.08 | -54.43 | -62.69 | 1.56 | 7.31 | H |
| | 1672 | -63.43 | -13 | -50.43 | -51.98 | -65.11 | 0.99 | 4.82 | V |
| | 2509 | -59.37 | -13 | -46.37 | -53.07 | -61.33 | 1.29 | 5.41 | V |
| | 3344 | -58.51 | -13 | -45.51 | -54.23 | -62.12 | 1.56 | 7.31 | V |
| Highest | 1696 | -63.28 | -13 | -50.28 | -51.35 | -64.88 | 1.00 | 4.75 | H |
| | 2544 | -60.57 | -13 | -47.57 | -53.92 | -62.55 | 1.30 | 5.44 | H |
| | 3393 | -58.18 | -13 | -45.18 | -53.73 | -61.99 | 1.57 | 7.53 | H |
| | 1696 | -62.92 | -13 | -49.92 | -51.53 | -64.52 | 1.00 | 4.75 | V |
| | 2544 | -60.24 | -13 | -47.24 | -54.06 | -62.22 | 1.30 | 5.44 | V |
| | 3393 | -58.52 | -13 | -45.52 | -54.18 | -62.33 | 1.57 | 7.53 | V |

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

| CDMA BC0(1xEVDO Rev.A) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 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 | 1649 | -58.27 | -13 | -45.27 | -45.89 | -60.02 | 0.98 | 4.88 | H |
| | 2474 | -61.22 | -13 | -48.22 | -54.45 | -63.11 | 1.28 | 5.32 | H |
| | 3298 | -59.47 | -13 | -46.47 | -54.56 | -62.89 | 1.54 | 7.11 | H |
| | 1649 | -57.47 | -13 | -44.47 | -45.53 | -59.22 | 0.98 | 4.88 | V |
| | 2474 | -59.93 | -13 | -46.93 | -53.42 | -61.82 | 1.28 | 5.32 | V |
| | 3298 | -59.13 | -13 | -46.13 | -54.62 | -62.55 | 1.54 | 7.11 | V |
| Middle | 1672 | -62.21 | -13 | -49.21 | -50.13 | -63.89 | 0.99 | 4.82 | H |
| | 2509 | -59.92 | -13 | -46.92 | -53.17 | -61.88 | 1.29 | 5.41 | H |
| | 3345 | -59.08 | -13 | -46.08 | -54.45 | -62.69 | 1.56 | 7.32 | H |
| | 1672 | -62.34 | -13 | -49.34 | -50.88 | -64.02 | 0.99 | 4.82 | V |
| | 2509 | -60.13 | -13 | -47.13 | -53.93 | -62.09 | 1.29 | 5.41 | V |
| | 3345 | -58.41 | -13 | -45.41 | -53.94 | -62.02 | 1.56 | 7.32 | V |
| Highest | 1696 | -60.62 | -13 | -47.62 | -48.75 | -62.22 | 1.00 | 4.75 | H |
| | 2544 | -59.35 | -13 | -46.35 | -52.72 | -61.33 | 1.30 | 5.44 | H |
| | 3393 | -58.74 | -13 | -45.74 | -54.33 | -62.55 | 1.57 | 7.53 | H |
| | 1696 | -61.17 | -13 | -48.17 | -49.84 | -62.77 | 1.00 | 4.75 | V |
| | 2544 | -59.74 | -13 | -46.74 | -53.56 | -61.72 | 1.30 | 5.44 | V |
| | 3393 | -59.13 | -13 | -46.13 | -54.55 | -62.94 | 1.57 | 7.53 | V |

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

| CDMA BC1(1xRTT Rev.A) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 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 | 3702 | -53.43 | -13 | -40.43 | -49.29 | -60 | 1.67 | 8.24 | H |
| | 5556 | -60.67 | -13 | -47.67 | -63.37 | -67.74 | 2.66 | 9.72 | H |
| | 7405 | -61.95 | -13 | -48.95 | -66.14 | -71.1 | 2.46 | 11.61 | H |
| | 3702 | -54.00 | -13 | -41.00 | -49.84 | -60.57 | 1.67 | 8.24 | V |
| | 5556 | -61.87 | -13 | -48.87 | -64.58 | -68.94 | 2.66 | 9.72 | V |
| | 7405 | -61.56 | -13 | -48.56 | -65.97 | -70.71 | 2.46 | 11.61 | V |
| Middle | 3762 | -51.61 | -13 | -38.61 | -47.39 | -58.24 | 1.69 | 8.31 | H |
| | 5640 | -57.95 | -13 | -44.95 | -61.07 | -65 | 2.71 | 9.76 | H |
| | 7518 | -62.64 | -13 | -49.64 | -66.85 | -72.03 | 2.42 | 11.81 | H |
| | 3762 | -49.96 | -13 | -36.96 | -44.76 | -56.59 | 1.69 | 8.31 | V |
| | 5640 | -59.45 | -13 | -46.45 | -62.54 | -66.5 | 2.71 | 9.76 | V |
| | 7518 | -62.56 | -13 | -49.56 | -67 | -71.95 | 2.42 | 11.81 | V |
| Highest | 3816 | -52.48 | -13 | -39.48 | -48.15 | -59.16 | 1.70 | 8.38 | H |
| | 5724 | -56.89 | -13 | -43.89 | -60.43 | -63.93 | 2.75 | 9.79 | H |
| | 7632 | -61.81 | -13 | -48.81 | -66.45 | -71.3 | 2.39 | 11.88 | H |
| | 3816 | -52.32 | -13 | -39.32 | -48.06 | -59 | 1.70 | 8.38 | V |
| | 5724 | -59.08 | -13 | -46.08 | -62.64 | -66.12 | 2.75 | 9.79 | V |
| | 7632 | -61.26 | -13 | -48.26 | -66.18 | -70.75 | 2.39 | 11.88 | V |

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

| CDMA BC1(1xEVDO Rev.A) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 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 | 3702 | -53.86 | -13 | -40.86 | -49.73 | -60.43 | 1.67 | 8.24 | H |
| | 5556 | -61.53 | -13 | -48.53 | -64.23 | -68.6 | 2.66 | 9.72 | H |
| | 7404 | -62.29 | -13 | -49.29 | -66.48 | -71.44 | 2.46 | 11.61 | H |
| | 3702 | -55.34 | -13 | -42.34 | -51.21 | -61.91 | 1.67 | 8.24 | V |
| | 5556 | -61.78 | -13 | -48.78 | -64.46 | -68.85 | 2.66 | 9.72 | V |
| | 7404 | -62.09 | -13 | -49.09 | -66.51 | -71.24 | 2.46 | 11.61 | V |
| Middle | 3762 | -50.82 | -13 | -37.82 | -46.6 | -57.45 | 1.69 | 8.31 | H |
| | 5640 | -57.63 | -13 | -44.63 | -60.75 | -64.68 | 2.71 | 9.76 | H |
| | 7518 | -62.32 | -13 | -49.32 | -66.53 | -71.71 | 2.42 | 11.81 | H |
| | 3762 | -48.89 | -13 | -35.89 | -44.7 | -55.52 | 1.69 | 8.31 | V |
| | 5640 | -59.48 | -13 | -46.48 | -62.62 | -66.53 | 2.71 | 9.76 | V |
| | 7518 | -62.53 | -13 | -49.53 | -66.97 | -71.92 | 2.42 | 11.81 | V |
| Highest | 3816 | -52.22 | -13 | -39.22 | -47.89 | -58.9 | 1.70 | 8.38 | H |
| | 5724 | -57.61 | -13 | -44.61 | -61.15 | -64.65 | 2.75 | 9.79 | H |
| | 7632 | -62.15 | -13 | -49.15 | -66.8 | -71.64 | 2.39 | 11.88 | H |
| | 3816 | -52.17 | -13 | -39.17 | -47.93 | -58.85 | 1.70 | 8.38 | V |
| | 5724 | -59.63 | -13 | -46.63 | -63.17 | -66.67 | 2.75 | 9.79 | V |
| | 7632 | -61.45 | -13 | -48.45 | -66.36 | -70.94 | 2.39 | 11.88 | V |

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