



FCC RADIO TEST REPORT

FCC ID : A4RG020J
Equipment : Phone
Model Name : G020J
Applicant : Google LLC
1600 Amphitheatre Parkway,
Mountain View, California, 94043 USA
Standard : 47 CFR Part 2, 22(H), 24(E), 27(L)

The product was received on Nov. 07, 2018 and testing was started from Apr. 13, 2019 and completed on Jun. 20, 2019. We, SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, would like to declare that the tested sample has been evaluated in accordance with the test procedures given in ANSI / TIA-603-E and has been in compliance with the applicable technical standards.

The report must not be used by the client to claim product certification, approval, or endorsement by TAF or any agency of government.

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

Approved by: Jones Tsai

SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory
No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)



Table of Contents

History of this test report.....	3
Summary of Test Result.....	4
1 General Description	5
1.1 Product Feature of Equipment Under Test	5
1.2 Product Specification of Equipment Under Test	5
1.3 Modification of EUT	6
1.4 Testing Location	7
1.5 Applicable Standards	7
2 Test Configuration of Equipment Under Test	8
2.1 Test Mode.....	8
2.2 Connection Diagram of Test System	10
2.3 Support Unit used in test configuration	11
2.4 Measurement Results Explanation Example	11
2.5 Frequency List of Low/Middle/High Channels.....	12
3 Conducted Test Result	13
3.1 Measuring Instruments.....	13
3.2 Conducted Output Power and ERP/EIRP	14
3.3 Peak-to-Average Ratio	15
3.4 99% Occupied Bandwidth and 26dB Bandwidth Measurement.....	16
3.5 Conducted Band Edge	17
3.6 Conducted Spurious Emission	18
3.7 Frequency Stability.....	19
4 Radiated Test Items	20
4.1 Measuring Instruments.....	20
4.2 Test Setup	20
4.3 Test Result of Radiated Test.....	20
4.4 Field Strength of Spurious Radiation Measurement	21
5 List of Measuring Equipment.....	22
6 Uncertainty of Evaluation.....	24
Appendix A. Test Results of Conducted Test	
Appendix B. Test Results of ERP/EIRP and Radiated Test	
Appendix C. Test Setup Photographs	



History of this test report

Report No.	Version	Description	Issued Date
FG8N0620-05A	01	Initial issue of report	Jun. 28, 2019

Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
3.2	§2.1046	Conducted Output Power	Pass	-
	§22.913 (a)(2)	Effective Radiated Power		
	§24.232 (c)	Equivalent Isotropic Radiated Power		
	§27.50 (d)(4)	Equivalent Isotropic Radiated Power		
3.3	§24.232 (d)	Peak-to-Average Ratio	Pass	-
3.4	§2.1049 §22.917 (b) §24.238 (b) §27.53 (g)	Occupied Bandwidth	Pass	-
3.5	§2.1051 §22.917 (a) §24.238 (a) §27.53 (g)	Band Edge Measurement	Pass	-
3.6	§2.1051 §22.917 (a) §24.238 (a) §27.53 (g)	Conducted Emission	Pass	-
3.7	§2.1055 §22.355	Frequency Stability Temperature & Voltage	Pass	-
	§2.1055 §24.235 §27.54			-
4.4	§2.1053 §22.917 (a) §24.238 (a) §27.53 (h)	Field Strength of Spurious Radiation	Pass	Under limit 9.00 dB at 2544.000 MHz

Declaration of Conformity:

The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.

Comments and Explanations:

The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

Reviewed by: Wii Chang

Report Producer: Aileen Huang

1 General Description

1.1 Product Feature of Equipment Under Test

Product Feature	
Equipment	Phone
Model Name	G020J
FCC ID	A4RG020J
EUT supports Radios application	CDMA/EV-DO/GSM/EGPRS/WCDMA/HSPA/LTE/NFC/ GNSS/WPC WLAN 11b/g/n HT20 WLAN 11a/n HT20/HT40 WLAN 11ac VHT20/VHT40/VHT80 Bluetooth BR/EDR/LE 60 GHz Low Power Transmitter
EUT Stage	Identical Prototype

Remark: The above EUT's information was declared by manufacturer.

EUT Information List	
No.	S/N
#1	92UBA06699
#2	958BA00AJH

1.2 Product Specification of Equipment Under Test

Standards-related Product Specification	
Tx Frequency	GSM/GPRS/EDGE: 850: 824.2 MHz ~ 848.8 MHz 1900: 1850.2 MHz ~ 1909.8 MHz CDMA/EV-DO BC0 824.70 MHz ~ 848.31 MHz BC1: 1851.25 MHz ~ 1908.75 MHz WCDMA: Band V: 826.4 MHz ~ 846.6 MHz Band II: 1852.4 MHz ~ 1907.6 MHz Band IV: 1712.4 MHz ~ 1752.6 MHz
Rx Frequency	GSM/GPRS/EDGE: 850: 869.2 MHz ~ 893.8 MHz 1900: 1930.2 MHz ~ 1989.8 MHz CDMA/EV-DO BC0 869.70 MHz ~ 893.31 MHz BC1: 1931.25 MHz ~ 1988.75 MHz WCDMA: Band V: 871.4 MHz ~ 891.6 MHz Band II: 1932.4 MHz ~ 1987.6 MHz Band IV: 2112.4 MHz ~ 2152.6 MHz

Standards-related Product Specification	
Maximum Output Power to Antenna	GSM/GPRS/EDGE: 850: 32.80 dBm 1900: 30.08 dBm CDMA/EV-DO BC0 24.39 dBm BC1: 24.99 dBm WCDMA: Band V: 24.25 dBm Band II: 24.45 dBm Band IV: 24.45 dBm
Antenna Type / Gain	<Ant. 0_B> PCS Band : ILA Antenna type with gain 0.7 dBi AWS Band : ILA Antenna type with gain 0.5 dBi <Ant. 0_C> Cellular Band : IFA Antenna type with gain 1.4 dBi PCS Band : IFA Antenna type with gain 1.5 dBi AWS Band : IFA Antenna type with gain 0.7 dBi <Ant. 1> Cellular Band : IFA Antenna type with gain -3.1 dBi PCS Band : IFA Antenna type with gain 1.2 dBi AWS Band : IFA Antenna type with gain 0.2 dBi
Type of Modulation	GSM: GMSK GPRS: GMSK EDGE: GMSK / 8PSK WCDMA: BPSK (Uplink) HSDPA: 64QAM (Downlink) HSUPA: QPSK (Uplink) CDMA2000 1xRTT: QPSK CDMA2000 1xEV-DO: QPSK/8PSK

1.3 Modification of EUT

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

1.4 Testing Location

Test Site	SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory
Test Site Location	No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.) TEL: +886-3-327-3456 FAX: +886-3-328-4978
Test Site No.	Sporton Site No. TH03-HY
Test Engineer	George Chen and Benjamin Lin
Temperature	21~24°C
Relative Humidity	51~55%

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

Test Site	SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory
Test Site Location	No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.) TEL: +886-3-327-0868 FAX: +886-3-327-0855
Test Site No.	Sporton Site No. 03CH12-HY
Test Engineer	Jack Cheng , Lance Chiang and Chuan Chu
Temperature	22~26°C
Relative Humidity	54~60%

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

FCC Designation No.: TW1190 and TW0007

1.5 Applicable Standards

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

- ♦ ANSI C63.26-2015
- ♦ ANSI / TIA-603-E
- ♦ 47 CFR Part 2, 22(H), 24(E), 27(L)
- ♦ FCC KDB 971168 D01 Power Meas. License Digital Systems v03r01
- ♦ FCC KDB 412172 D01 Determining ERP and EIRP v01r01

Remark:

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



2 Test Configuration of Equipment Under Test

2.1 Test Mode

Antenna port conducted and radiated test items were performed according to KDB 971168 D01 Power Meas. License Digital Systems v03r01 with maximum output power.

For radiated measurement, pre-scanned in three orthogonal panels, X, Y, Z with Accessory (Earphone or Adapter).

<Standalone Mode>

Cellular Band
X plane for Ant. 0_C
X plane for Ant. 1

<Adapter Mode>

Cellular Band	PCS Band	AWS Band
-	Y plane for Ant. 0_B	Y plane for Ant. 0_B
-	X plane for Ant. 0_C	Y plane for Ant. 0_C
-	Y plane for Ant. 1	Z plane for Ant. 1
Z plane with WPC Charging Mode for Ant. 0_C	-	-



Radiated emissions were investigated as following frequency range:

1. 30 MHz to 9000 MHz for GSM850 and WCDMA Band V and CDMA BC0.
2. 30 MHz to 18000 MHz for WCDMA Band IV.
3. 30 MHz to 19100 MHz for GSM1900 and WCDMA Band II and CDMA BC1.

All modes and data rates and positions were investigated.

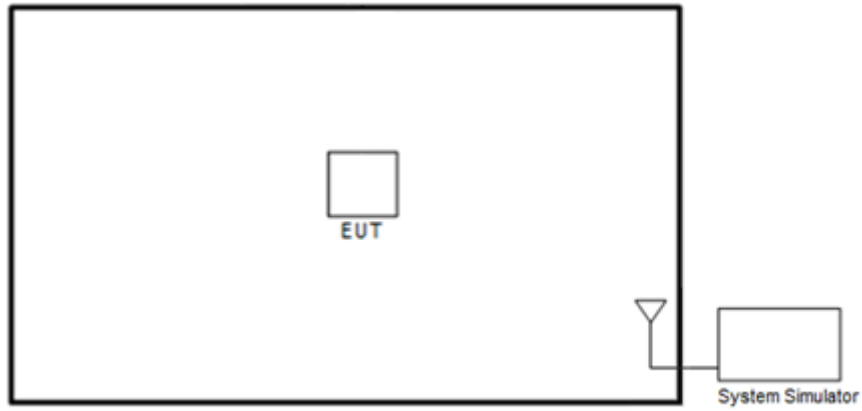
Test modes are chosen to be reported as the worst case configuration below:

Test Modes		
Band	Radiated TCs	Conducted TCs
GSM 850	■ GSM Link ■ EDGE Class 8 Link	■ GSM Link ■ EDGE Class 8 Link
GSM 1900	■ GPRS Class 8 Link ■ EDGE Class 8 Link	■ GPRS Class 8 Link ■ EDGE Class 8 Link
WCDMA Band V	■ RMC 12.2Kbps Link	■ RMC 12.2Kbps Link
WCDMA Band II	■ RMC 12.2Kbps Link	■ RMC 12.2Kbps Link
WCDMA Band IV	■ RMC 12.2Kbps Link	■ RMC 12.2Kbps Link
CDMA BC0	■ 1xRTT Link	■ 1xRTT Link ■ 1xEV-DO Link
CDMA BC1	■ 1xRTT Link	■ 1xRTT Link ■ 1xEV-DO Link

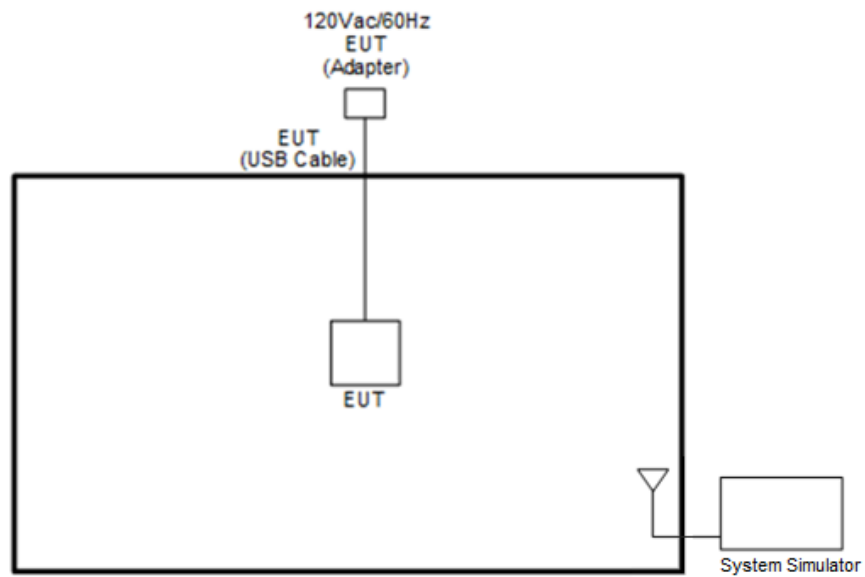
Remark: All the radiated test cases were performed with Adapter 1.

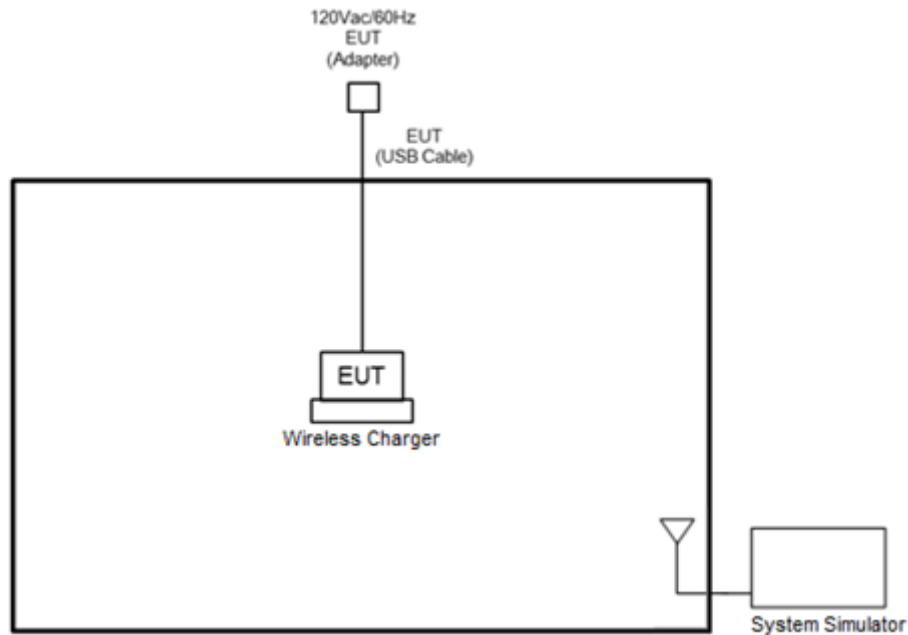
2.2 Connection Diagram of Test System

<For Standalone Mode>



<For Adapter Mode>



<For WPC Charging Mode>


2.3 Support Unit used in test configuration

Item	Equipment	Trade Name	Model No.	FCC ID	Data Cable	Power Cord
1.	System Simulator	R&S	CMU 200	N/A	N/A	Unshielded, 1.8 m
2.	System Simulator	Anritsu	MT8821C	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:

$$\begin{aligned}
 \text{Offset(dB)} &= \text{RF cable loss(dB)} + \text{attenuator factor(dB)} \\
 &= 4.2 + 10 = 14.2 \text{ (dB)}
 \end{aligned}$$



2.5 Frequency List of Low/Middle/High Channels

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

3 Conducted Test Result

3.1 Measuring Instruments

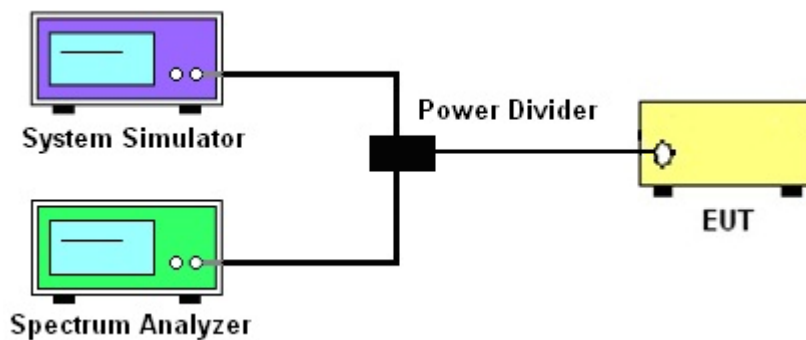
See list of measuring instruments of this test report.

3.1.1 Test Setup

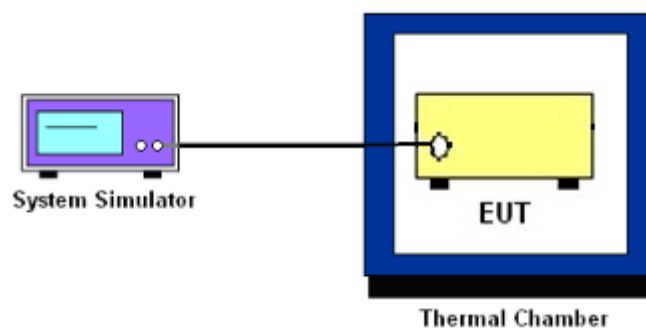
3.1.2 Conducted Output Power



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



3.1.4 Frequency Stability



3.1.5 Test Result of Conducted Test

Please refer to Appendix A.

3.2 Conducted Output Power and ERP/EIRP

3.2.1 Description of the Conducted Output Power and ERP/EIRP

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

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

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

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

According to KDB 412172 D01 Power Approach,

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

P_T = transmitter output power in dBm

G_T = gain of the transmitting antenna in dBi

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

3.2.2 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.



3.3 Peak-to-Average Ratio

3.3.1 Description of the PAR Measurement

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

3.3.2 Test Procedures

The testing follows ANSI C63.26-2015 Section 5.2.6

1. The EUT was connected to spectrum analyzer and system simulator via a power divider.
2. Set EUT to transmit at maximum output power.
3. When the duty cycle is less than 98%, then signal gating will be implemented on the spectrum analyzer by triggering from the system simulator.
4. Set the CCDF (Complementary Cumulative Distribution Function) option of the spectrum analyzer.
5. Record the maximum PAPR level associated with a probability of 0.1%.

3.4 99% Occupied Bandwidth and 26dB Bandwidth Measurement

3.4.1 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.

3.4.2 Test Procedures

The testing follows ANSI C63.26-2015 Section 5.4.3 (26dB) and Section 5.4.4 (99OB)

1. The EUT was connected to spectrum analyzer and system simulator via a power divider.
2. 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.
3. 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.
4. Set the detection mode to peak, and the trace mode to max hold.
5. 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)
6. Determine the “-26 dB down amplitude” as equal to (Reference Value – X).
7. 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.
8. Use the 99 % power bandwidth function of the spectrum analyzer and report the measured bandwidth.



3.5 Conducted Band Edge

3.5.1 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.

3.5.2 Test Procedures

The testing follows FCC KDB 971168 D01 v03r01 Section 6.1.

1. The EUT was connected to the spectrum analyzer and system simulator via a power divider.
2. 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.
3. The band edges of low and high channels for the highest RF powers were measured.
4. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
5. The limit line is derived from $43 + 10\log(P)$ dB below the transmitter power P(Watts)



3.6 Conducted Spurious Emission

3.6.1 Description of Conducted Spurious Emission Measurement

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

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

3.6.2 Test Procedures

The testing follows FCC KDB 971168 D01 v03r01 Section 6.1.

1. The EUT was connected to the spectrum analyzer and system simulator via a power divider.
2. 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.
3. The middle channel for the highest RF power within the transmitting frequency was measured.
4. The conducted spurious emission for the whole frequency range was taken.
5. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
6. The limit line is derived from $43 + 10\log(P)$ dB below the transmitter power P(Watts)

3.7 Frequency Stability

3.7.1 Description of Frequency Stability Measurement

22.355

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 $\pm 0.00025\%$ ($\pm 2.5\text{ppm}$) of the center frequency.

24.235 & 27.54

The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

3.7.2 Test Procedures for Temperature Variation

The testing follows FCC KDB 971168 D01 v03r01 Section 9.0.

1. The EUT was set up in the thermal chamber and connected with the system simulator.
2. 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.
3. 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.

3.7.3 Test Procedures for Voltage Variation

The testing follows FCC KDB 971168 D01 v03r01 Section 9.0.

1. The EUT was placed in a temperature chamber at $20\pm 5^{\circ}\text{C}$ and connected with the system simulator.
2. The power supply voltage to the EUT was varied from 85% to 115% of the nominal value measured at the input to the EUT.
3. The variation in frequency was measured for the worst case.

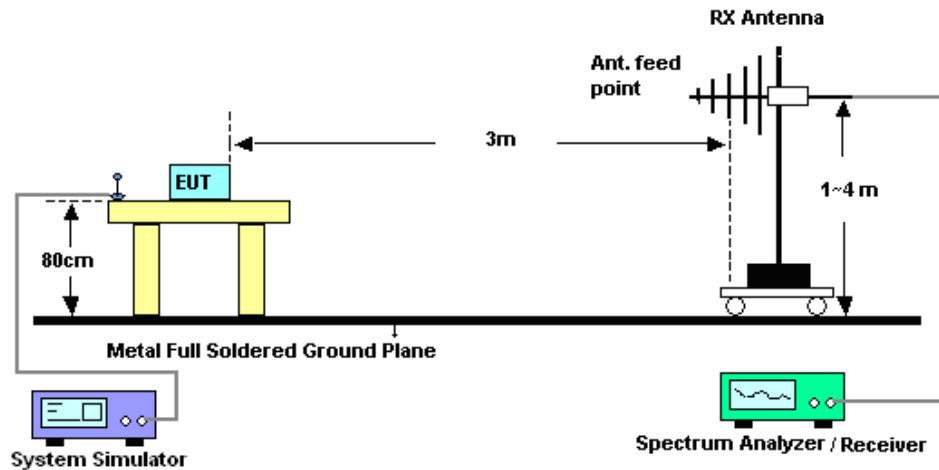
4 Radiated Test Items

4.1 Measuring Instruments

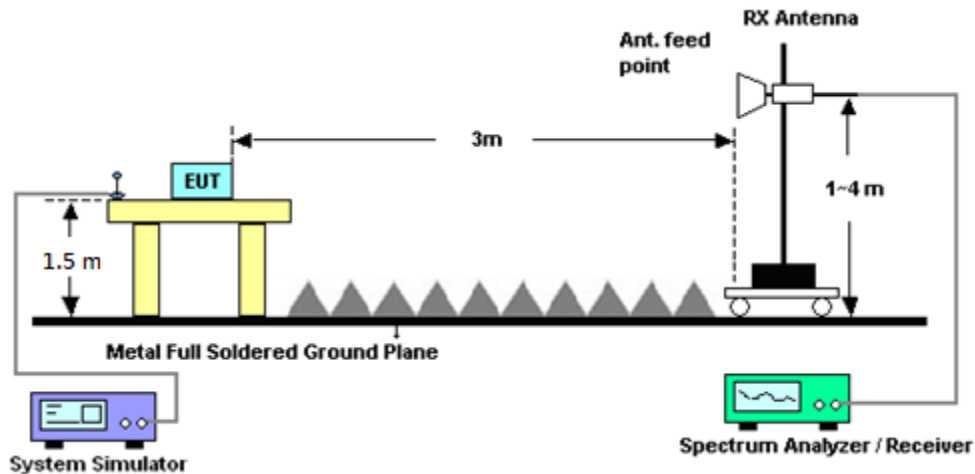
See list of measuring instruments of this test report.

4.2 Test Setup

For radiated test from 30MHz to 1GHz



For radiated test above 1GHz



4.3 Test Result of Radiated Test

Please refer to Appendix B.



4.4 Field Strength of Spurious Radiation Measurement

4.4.1 Description of Field Strength of Spurious Radiated Measurement

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

4.4.2 Test Procedures

The testing follows FCC KDB 971168 D01 v03r01 Section 7 and ANSI / TIA-603-E Section 2.2.12.

1. 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.
2. The EUT was set 3 meters from the receiving antenna, which was mounted on the antenna tower.
3. The table was rotated 360 degrees to determine the position of the highest spurious emission.
4. 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.
5. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz, taking record of maximum spurious emission.
6. A horn antenna was substituted in place of the EUT and was driven by a signal generator.
7. Tune the output power of signal generator to the same emission level with EUT maximum spurious emission.
8. Taking the record of output power at antenna port.
9. Repeat step 7 to step 8 for another polarization.
10. $EIRP \text{ (dBm)} = S.G. \text{ Power} - Tx \text{ Cable Loss} + Tx \text{ Antenna Gain}$
11. $ERP \text{ (dBm)} = EIRP - 2.15$
12. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
13. The limit line is derived from $43 + 10\log(P)$ dB below the transmitter power P(Watts)

5 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100488	9 kHz~30 MHz	Jan. 07, 2019	May 28, 2019~ Jun. 20, 2019	Jan. 06, 2020	Radiation (03CH12-HY)
Bilog Antenna	TESEQ	CBL 6111D&00802 N1D01N-06	47020&06	30MHz to 1GHz	Oct. 13, 2018	May 28, 2019~ Jun. 20, 2019	Oct. 12, 2019	Radiation (03CH12-HY)
Horn Antenna	SCHWARZBE CK	BBHA 9120D	9120D-121 2	1GHz ~ 18GHz	Oct. 19, 2018	May 28, 2019~ Jun. 20, 2019	Oct. 18, 2019	Radiation (03CH12-HY)
Horn Antenna	SCHWARZBE CK	BBHA 9120D	9120D-132 6	1GHz ~ 18GHz	Oct. 30, 2018	May 28, 2019~ Jun. 20, 2019	Oct. 29, 2019	Radiation (03CH12-HY)
SHF-EHF Horn Antenna	SCHWARZBE CK	BBHA 9170	BBHA9170 584	18GHz ~ 40GHz	Dec. 05, 2018	May 28, 2019~ Jun. 20, 2019	Dec. 04, 2019	Radiation (03CH12-HY)
Preamplifier	COM-POWER	PA-103	161075	10MHz~1GHz	Mar. 25, 2019	May 28, 2019~ Jun. 20, 2019	Mar. 24, 2020	Radiation (03CH12-HY)
Preamplifier	Agilent	8449B	3008A023 75	1GHz~26.5GHz	May 27, 2019	May 28, 2019~ Jun. 20, 2019	May 26, 2020	Radiation (03CH12-HY)
Preamplifier	Jet-Power	JPA0118-55-3 03	171000180 0055007	1GHz~18GHz	Apr. 01, 2019	May 28, 2019~ Jun. 20, 2019	Mar. 31, 2020	Radiation (03CH12-HY)
Preamplifier	EMEC	EM18G40G	060715	18GHz ~ 40GHz	Dec. 06, 2018	May 28, 2019~ Jun. 20, 2019	Dec. 05, 2019	Radiation (03CH12-HY)
EMI Test Receiver	Rohde & Schwarz	ESU26	100390	20Hz~26.5GHz	Dec. 26, 2018	May 28, 2019~ Jun. 20, 2019	Dec. 25, 2019	Radiation (03CH12-HY)
Spectrum Analyzer	Keysight	N9010A	MY542004 86	10Hz~44GHz	Dec. 19, 2018	May 28, 2019~ Jun. 20, 2019	Dec. 18, 2019	Radiation (03CH12-HY)
Signal Generator	Rohde & Schwarz	SMB100A	175727	100kHz~40GHz	Dec. 23, 2018	May 28, 2019~ Jun. 20, 2019	Dec. 23, 2019	Radiation (03CH12-HY)
Filter	Wainwright	WLK4-1000-1 530-6000-40S S	SN11	1 GHz Lowpass	Sep. 16, 2018	May 28, 2019~ Jun. 20, 2019	Sep. 15, 2019	Radiation (03CH12-HY)
Filter	Wainwright	WHKX12-108 0-1200-1500- 60SS	SN2	1.2G High Pass	Sep. 16, 2018	May 28, 2019~ Jun. 20, 2019	Sep. 15, 2019	Radiation (03CH12-HY)
Filter	Wainwright	WHKX12-270 0-3000-18000 -60ST	SN2	3GHz High Pass	Mar. 20, 2019	May 28, 2019~ Jun. 20, 2019	Mar. 19, 2020	Radiation (03CH12-HY)
Notch Filter	EWT	EWT-14-0041	D1	DCS 1800	Nov. 01, 2018	May 28, 2019~ Jun. 20, 2019	Oct. 31, 2019	Radiation (03CH12-HY)
Notch Filter	Wainwright	WRCT698/79 8-10/40 8SSK	SN1	AWS Band	Nov. 01, 2018	May 28, 2019~ Jun. 20, 2019	Oct. 31, 2019	Radiation (03CH12-HY)
Notch Filter	Wainwright	WRCG824/84 9-40/8SS	SN35	CDMA 850	Nov. 07, 2018	May 28, 2019~ Jun. 20, 2019	Nov. 06, 2019	Radiation (03CH12-HY)



Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
RF Cable	HUBER + SUHNER	SUCOFLEX 126E	0058/126E	30M-18G	Mar. 13, 2019	May 28, 2019~ Jun. 20, 2019	Mar. 12, 2020	Radiation (03CH12-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	505134/2	30M~40GHz	Oct. 16, 2018	May 28, 2019~ Jun. 20, 2019	Oct. 15, 2019	Radiation (03CH12-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	800740/2	30M~40GHz	Oct. 16, 2018	May 28, 2019~ Jun. 20, 2019	Oct. 15, 2019	Radiation (03CH12-HY)
Antenna Mast	EMEC	AM-BS-4500-B	N/A	1m~4m	N/A	May 28, 2019~ Jun. 20, 2019	N/A	Radiation (03CH12-HY)
Turn Table	EMEC	TT2000	N/A	0~360 Degree	N/A	May 28, 2019~ Jun. 20, 2019	N/A	Radiation (03CH12-HY)
Software	Audix	E3 6.2009-8-24	RK-00098 9	N/A	N/A	May 28, 2019~ Jun. 20, 2019	N/A	Radiation (03CH12-HY)
Spectrum Analyzer	Rohde & Schwarz	FSP30	101329	9kHz~30GHz	Jun. 29, 2018	Apr. 13, 2019~ May 23, 2019	Jun. 28, 2019	Conducted (TH03-HY)
Temperature Chamber	ESPEC	SU-641	92013721	-30℃ ~70℃	Dec. 06, 2017	Apr. 13, 2019~ May 23, 2019	Dec. 05, 2019	Conducted (TH03-HY)
Programmable Power Supply	GW Instek	PSS-2005	EL883644	Voltage:0~20V; Current:0~5A	Dec. 06, 2017	Apr. 13, 2019~ May 23, 2019	Dec. 05, 2019	Conducted (TH03-HY)
Base Station(Measure)	Rohde & Schwarz	CMU200	117995	GSM / GPRS / WCDMA / CDMA	Aug. 10, 2018	Apr. 13, 2019~ May 23, 2019	Aug. 09, 2019	Conducted (TH03-HY)



6 Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	3.36
--	------

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

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	3.70
--	------

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

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	3.98
--	------



Appendix A. Test Results of Conducted Test

Conducted Output Power(Average power)

Conducted Power (*Unit: dBm)						
Band	GSM850			GSM1900		
Channel	128	189	251	512	661	810
Frequency	824.2	836.4	848.8	1850.2	1880	1909.8
GSM	32.80	32.59	32.61	29.96	30.01	30.00
GPRS class 8	32.71	32.60	32.64	30.03	29.75	30.08
GPRS class 10	31.18	31.39	31.17	27.98	27.96	28.01
GPRS class 11	29.41	29.55	29.24	26.06	26.03	26.17
GPRS class 12	28.44	28.42	28.27	25.53	25.28	25.51
EGPRS class 8	26.50	26.50	26.53	25.38	25.06	25.05
EGPRS class 10	25.90	26.08	26.02	25.11	24.90	24.90
EGPRS class 11	24.70	24.90	24.88	24.03	23.84	23.81
EGPRS class 12	22.12	22.11	22.17	23.15	22.83	22.77

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	24.17	24.25	24.15	24.41	24.45	24.36
HSDPA Subtest-1	23.32	23.29	23.19	23.38	23.47	23.41
HSDPA Subtest-2	23.30	23.25	23.17	23.36	23.45	23.41
HSDPA Subtest-3	22.80	22.73	22.68	22.87	22.93	22.89
HSDPA Subtest-4	22.79	22.72	22.63	22.86	22.93	22.86
HSUPA Subtest-1	23.28	23.18	23.15	23.36	23.47	23.48
HSUPA Subtest-2	21.30	21.23	21.20	21.40	21.52	21.41
HSUPA Subtest-3	22.28	22.25	22.10	22.39	22.40	22.39
HSUPA Subtest-4	21.24	21.29	21.22	21.41	21.49	21.46
HSUPA Subtest-5	23.30	23.20	23.20	23.40	23.50	23.40



Conducted Power (*Unit: dBm)			
Band	WCDMA Band IV		
Channel	1312	1413	1513
Frequency	1712.4	1732.6	1752.6
RMC 12.2K	23.95	24.45	24.35
HSDPA Subtest-1	23.10	23.43	23.38
HSDPA Subtest-2	23.06	23.44	23.38
HSDPA Subtest-3	22.59	22.96	22.86
HSDPA Subtest-4	22.52	22.89	22.89
HSUPA Subtest-1	23.08	23.41	23.35
HSUPA Subtest-2	21.01	21.40	21.40
HSUPA Subtest-3	22.07	22.47	22.43
HSUPA Subtest-4	21.05	21.43	21.32
HSUPA Subtest-5	23.10	23.50	23.40

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	24.36	24.38	24.28	24.62	24.63	24.62
1xRTT RC3 SO55	24.32	24.33	24.23	24.68	24.65	24.58
1xRTT RC3 SO32 (+ F-SCH)	24.32	24.06	24.24	24.67	24.63	24.58
1xRTT RC3 SO32 (+SCH)	24.30	24.08	24.22	24.70	24.66	24.40
1xEVDO RTAP 153.6Kbps	24.35	24.39	24.29	24.99	24.97	24.82
1xEVDO RETAP 4096Bits	24.35	24.35	24.23	24.74	24.61	24.54



A2. GSM

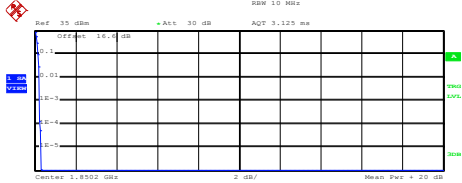
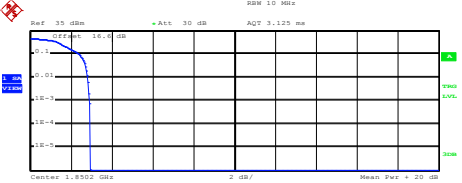
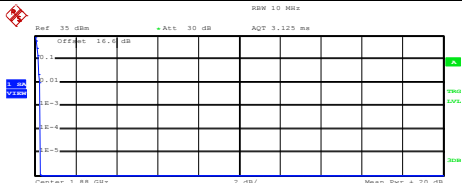
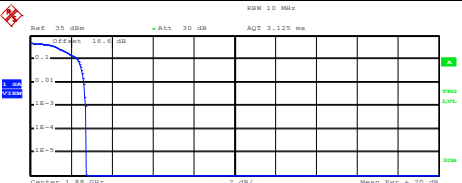
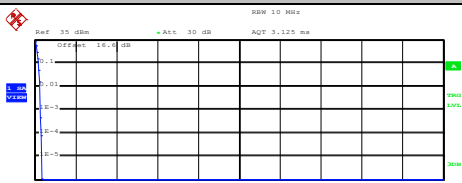
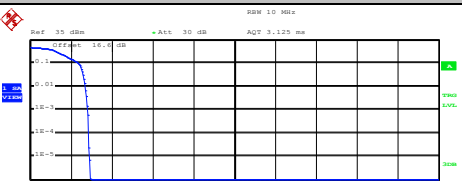
Peak-to-Average Ratio

Mode	GSM850		Limit: 13dB
Mod.	GSM class 8	EDGE class 8	Result
Lowest CH	0.2	3.08	PASS
Middle CH	0.24	3.04	
Highest CH	0.24	2.96	

Mode	GSM1900		Limit: 13dB
Mod.	GSM class 8	EDGE class 8	Result
Lowest CH	0.24	2.92	PASS
Middle CH	0.28	2.72	
Highest CH	0.28	2.84	



GSM850 (GSM class 8)		GSM850 (EDGE class 8)	
Lowest Channel		Lowest Channel	
<			

GSM1900 (GSM class 8)	GSM1900 (EDGE class 8)
Lowest Channel	Lowest Channel
 Ref: 35 dBm Att: 30 dB AGT: 3.125 ms Center: 1.8502 GHz 2 dB/ Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean 28.24 dBm Peak 28.55 dBm Crest 0.31 dB 10 % 0.16 dB 1 % 0.24 dB .1 % 0.24 dB .01 % 0.24 dB Date: 13.APR.2019 10:16:49	 Ref: 35 dBm Att: 30 dB AGT: 3.125 ms Center: 1.8502 GHz 2 dB/ Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean 23.77 dBm Peak 26.71 dBm Crest 2.94 dB 10 % 2.40 dB 1 % 2.80 dB .1 % 2.92 dB .01 % 2.96 dB Date: 13.APR.2019 10:34:04
Middle Channel	Middle Channel
 Ref: 35 dBm Att: 30 dB AGT: 3.125 ms Center: 1.88 GHz 2 dB/ Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean 28.21 dBm Peak 28.48 dBm Crest 0.27 dB 10 % 0.16 dB 1 % 0.24 dB .1 % 0.28 dB .01 % 0.28 dB Date: 13.APR.2019 10:17:07	 Ref: 35 dBm Att: 30 dB AGT: 3.125 ms Center: 1.88 GHz 2 dB/ Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean 24.04 dBm Peak 26.78 dBm Crest 2.74 dB 10 % 2.32 dB 1 % 2.64 dB .1 % 2.72 dB .01 % 2.76 dB Date: 13.APR.2019 10:34:25
Highest Channel	Highest Channel
 Ref: 35 dBm Att: 30 dB AGT: 3.125 ms Center: 1.9098 GHz 2 dB/ Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean 28.08 dBm Peak 28.40 dBm Crest 0.33 dB 10 % 0.20 dB 1 % 0.24 dB .1 % 0.28 dB .01 % 0.32 dB Date: 13.APR.2019 10:17:23	 Ref: 35 dBm Att: 30 dB AGT: 3.125 ms Center: 1.9098 GHz 2 dB/ Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean 24.13 dBm Peak 27.06 dBm Crest 2.93 dB 10 % 2.36 dB 1 % 2.72 dB .1 % 2.84 dB .01 % 2.88 dB Date: 13.APR.2019 10:34:42

**26dB Bandwidth**

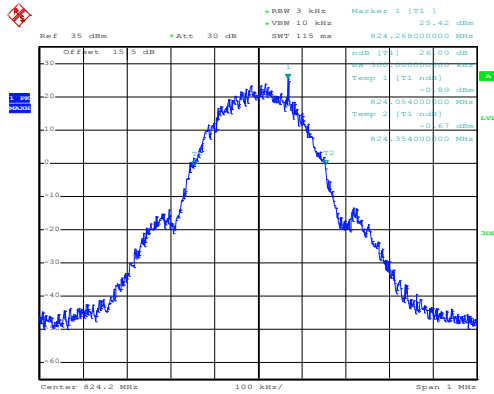
Mode	GSM850 : 26dB BW(kHz)	
Mod.	GSM class 8	EDGE class 8
Lowest CH	300	284
Middle CH	304	298
Highest CH	300	291

Mode	GSM1900 : 26dB BW(kHz)	
Mod.	GSM class 8	EDGE class 8
Lowest CH	304	284
Middle CH	299	300
Highest CH	310	277



GSM850 (GSM class 8)

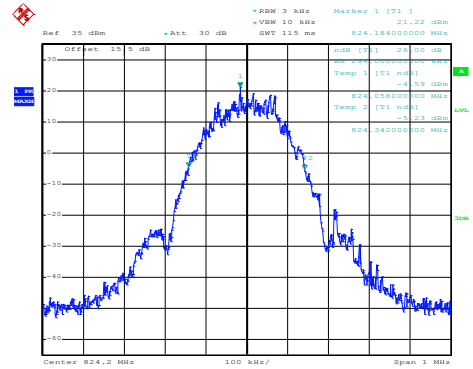
Lowest Channel



Date: 5.APR.2019 11:22:53

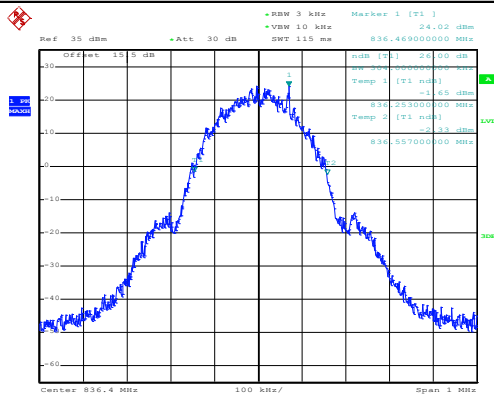
GSM850 (EDGE class 8)

Lowest Channel



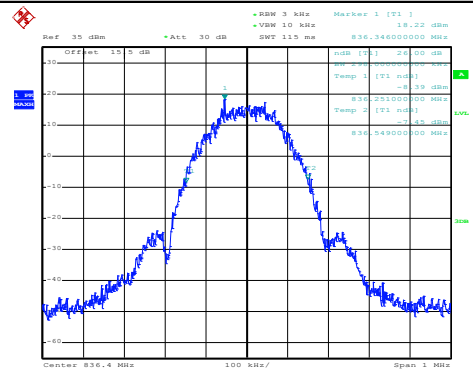
Date: 5.APR.2019 11:35:43

Middle Channel



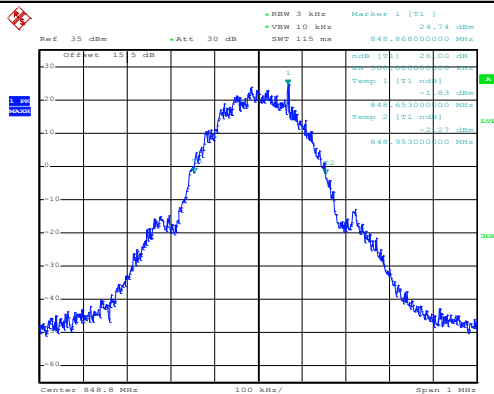
Date: 5.APR.2019 11:23:45

Middle Channel



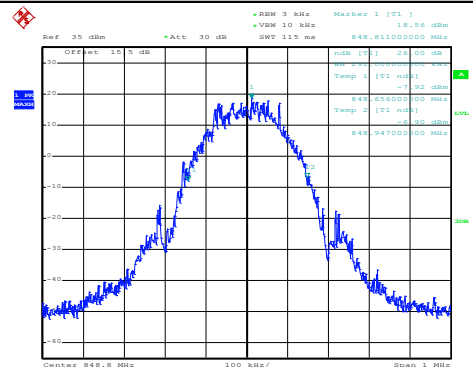
Date: 5.APR.2019 11:36:26

Highest Channel

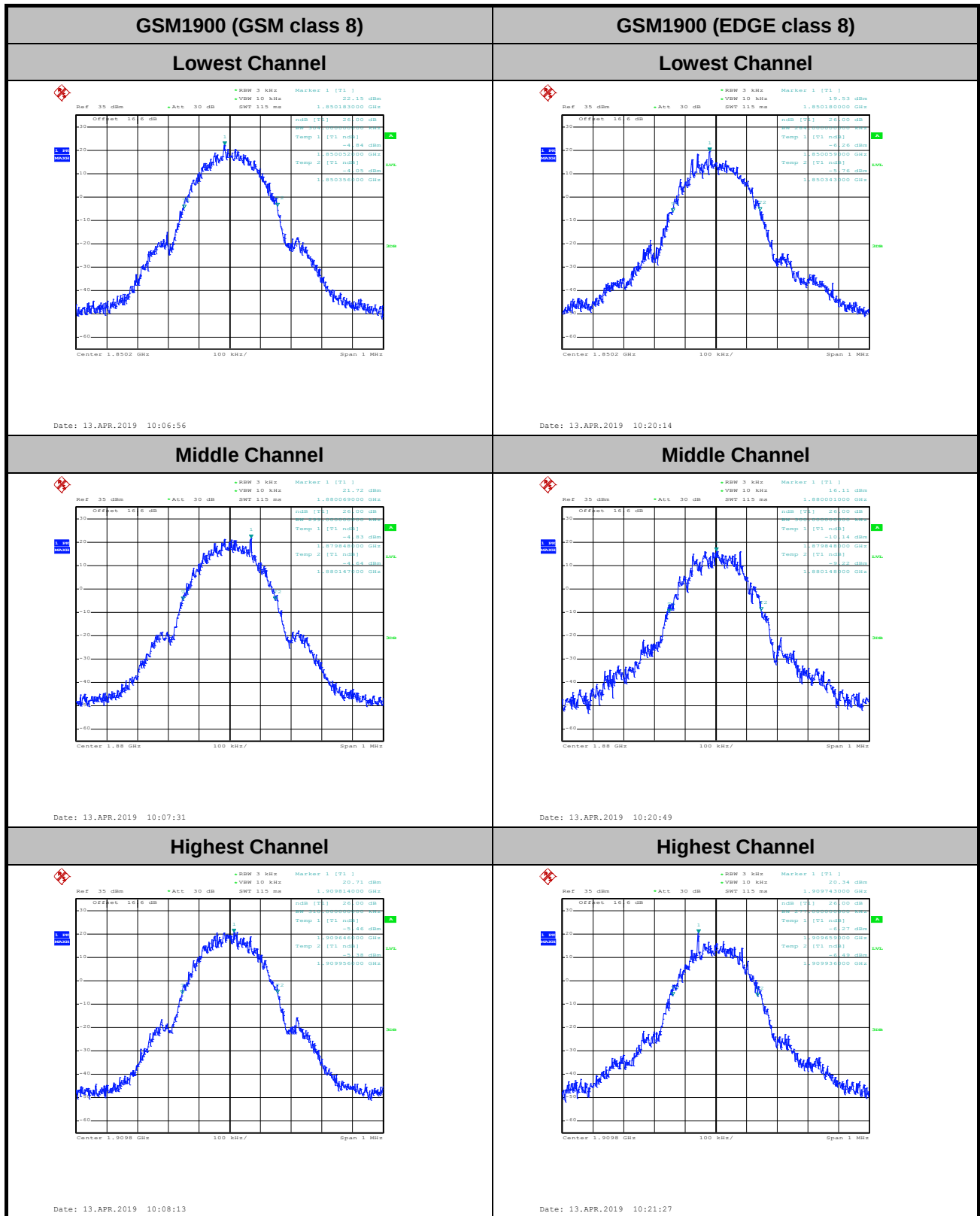


Date: 5.APR.2019 11:24:19

Highest Channel



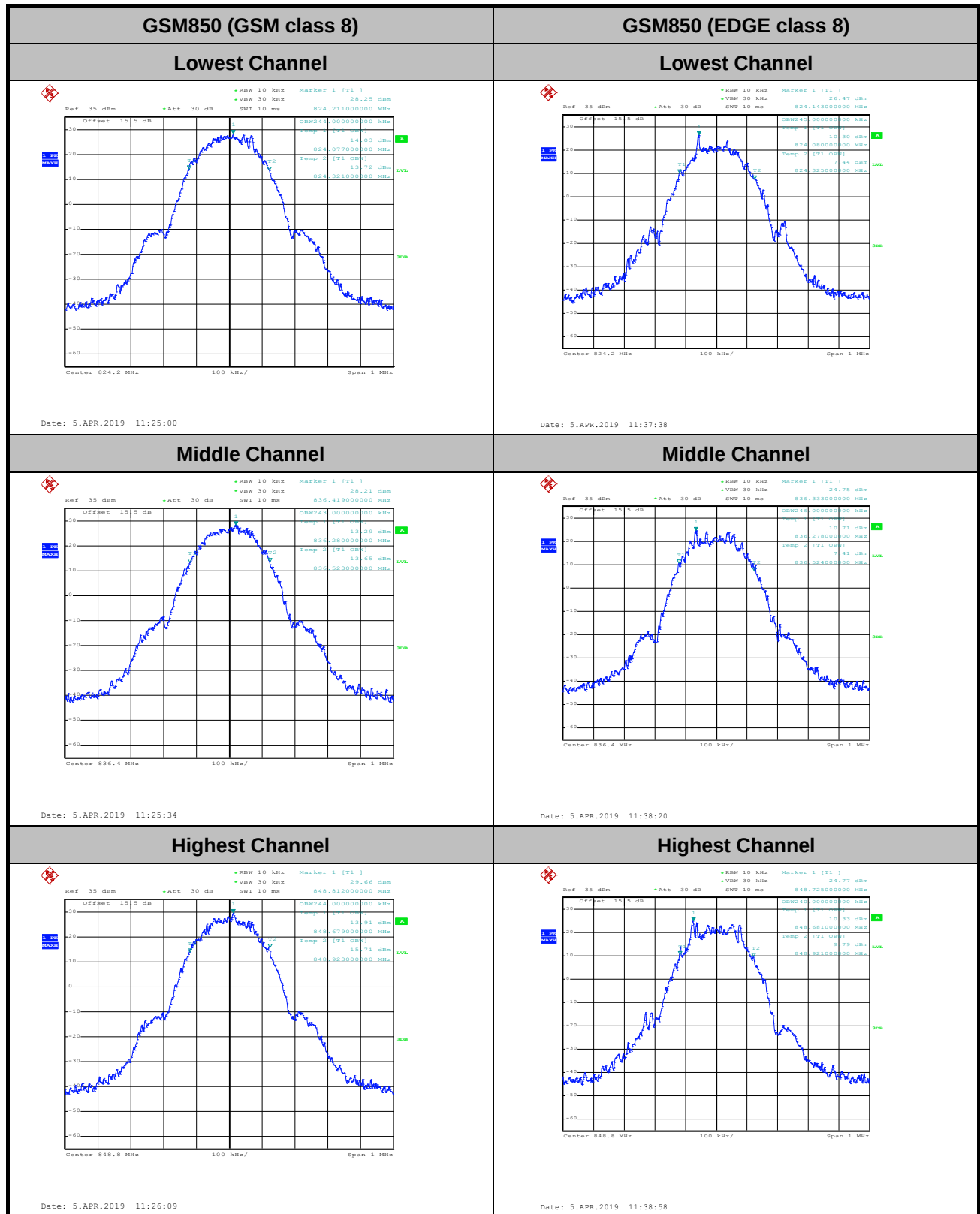
Date: 5.APR.2019 11:37:02

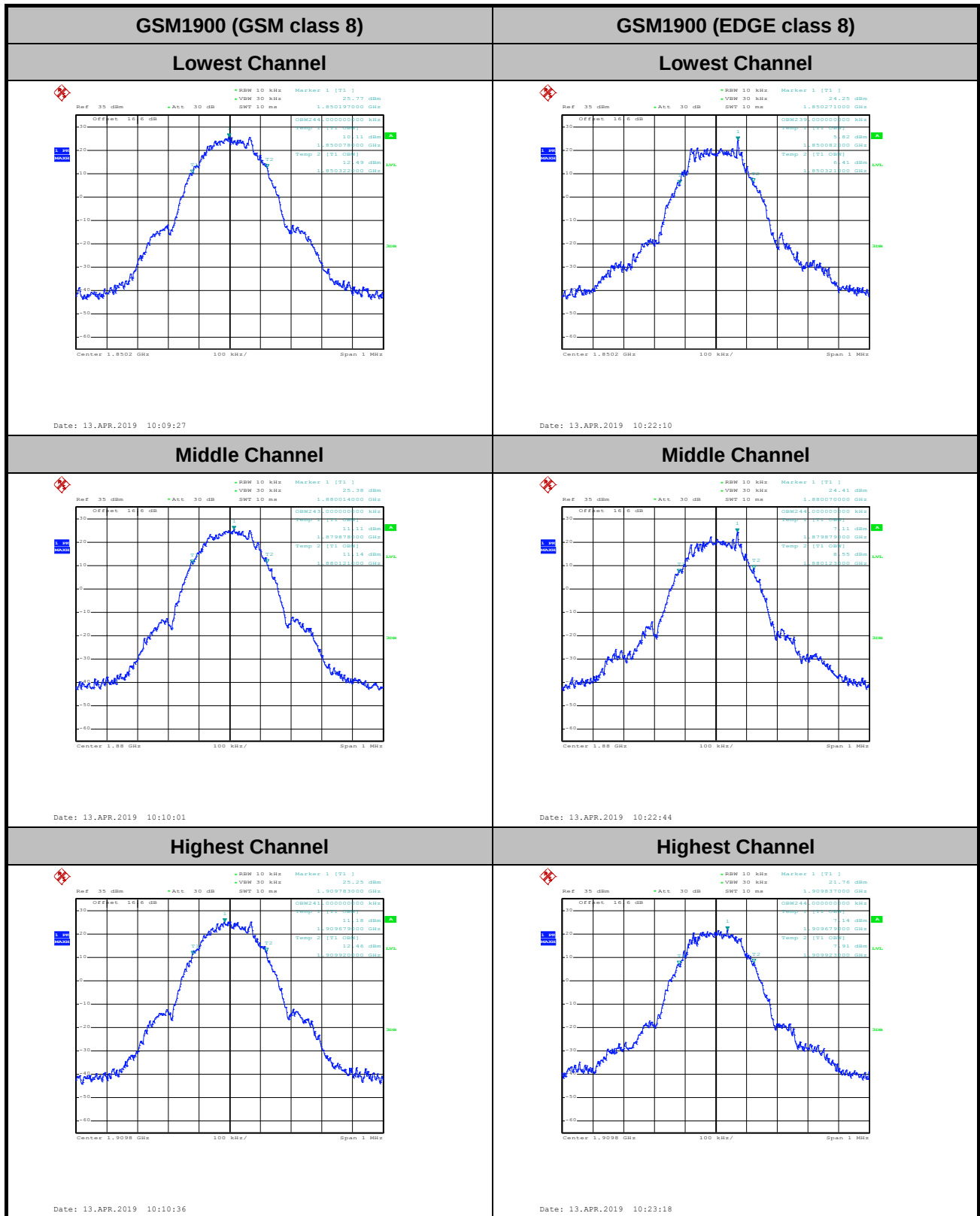


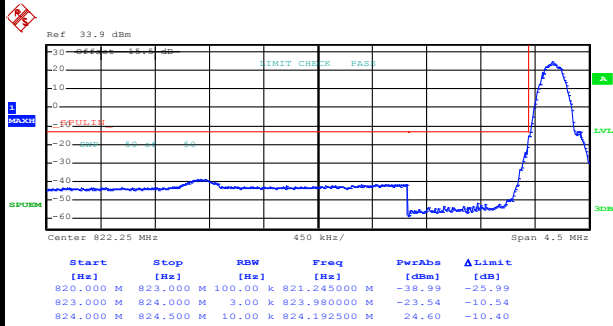
**Occupied Bandwidth**

Mode	GSM850 : 99% OBW(kHz)	
Mod.	GSM class 8	EDGE class 8
Lowest CH	244	245
Middle CH	243	246
Highest CH	244	240

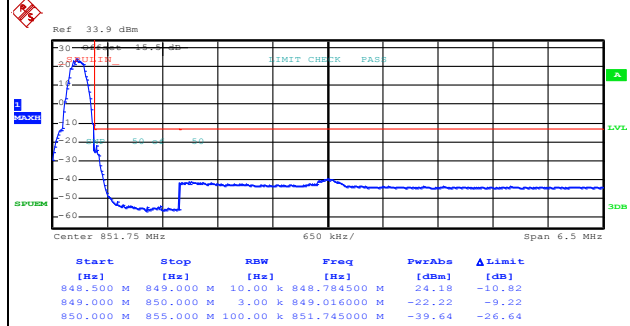
Mode	GSM1900 : 99% OBW(kHz)	
Mod.	GSM class 8	EDGE class 8
Lowest CH	244	239
Middle CH	243	244
Highest CH	241	244



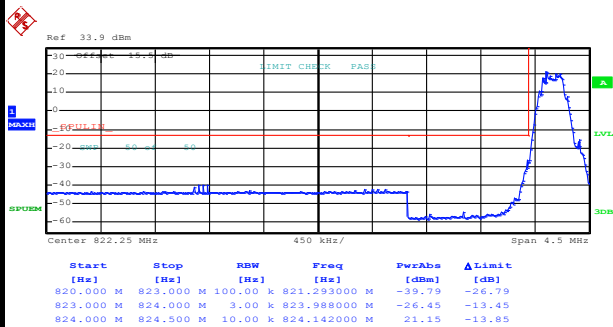


**Conducted Band Edge****GSM850 (GSM class 8)****Lowest Band Edge**

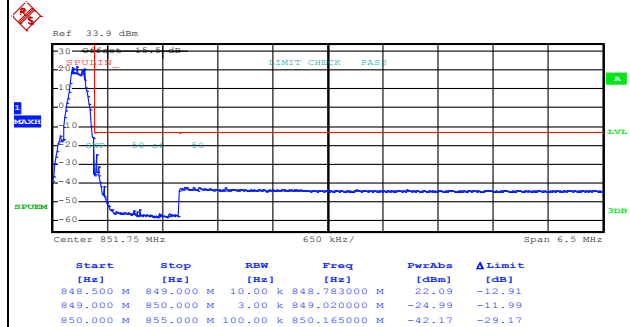
Date: 5.APR.2019 11:28:04

Highest Band Edge

Date: 5.APR.2019 11:29:40

GSM850 (EDGE class 8)**Lowest Band Edge**

Date: 5.APR.2019 11:40:59

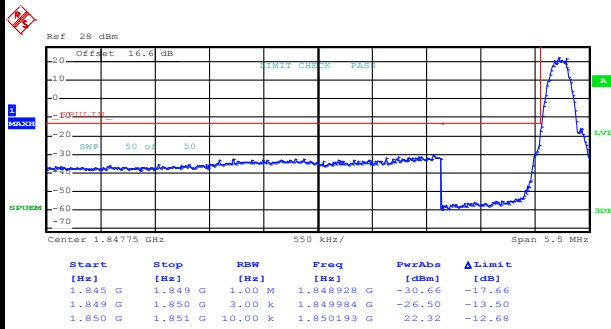
Highest Band Edge

Date: 5.APR.2019 11:42:43



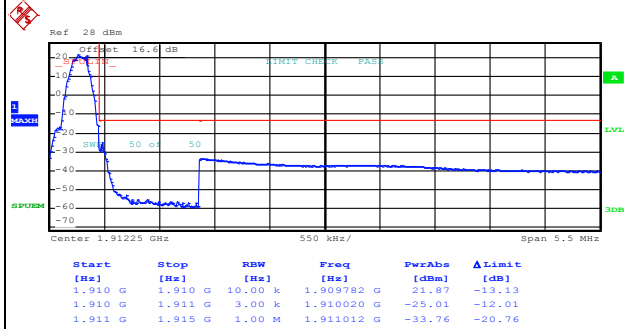
GSM1900 (GSM class 8)

Lowest Band Edge



Date: 13.APR.2019 10:12:15

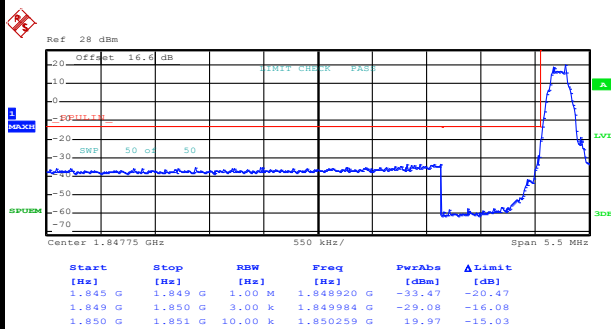
Highest Band Edge



Date: 13.APR.2019 10:13:48

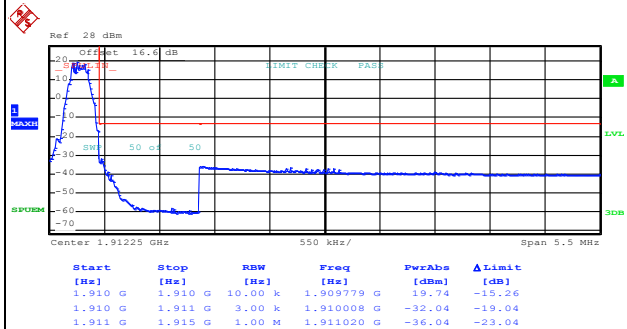
GSM1900 (EDGE class 8)

Lowest Band Edge



Date: 13.APR.2019 10:25:03

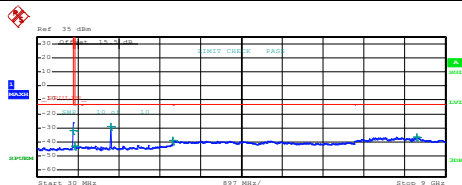
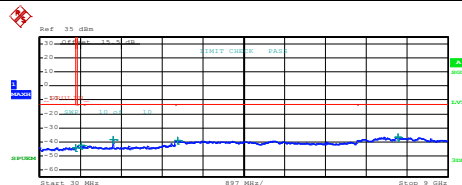
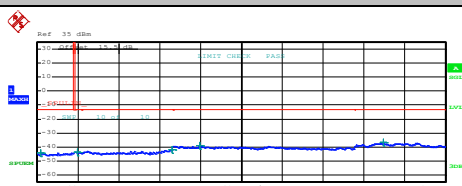
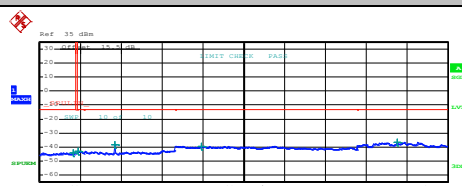
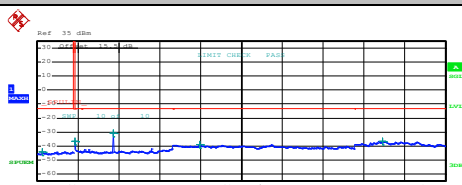
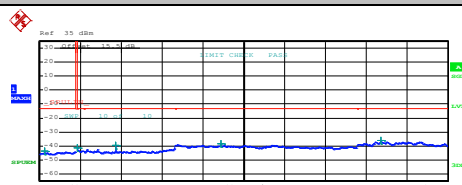
Highest Band Edge

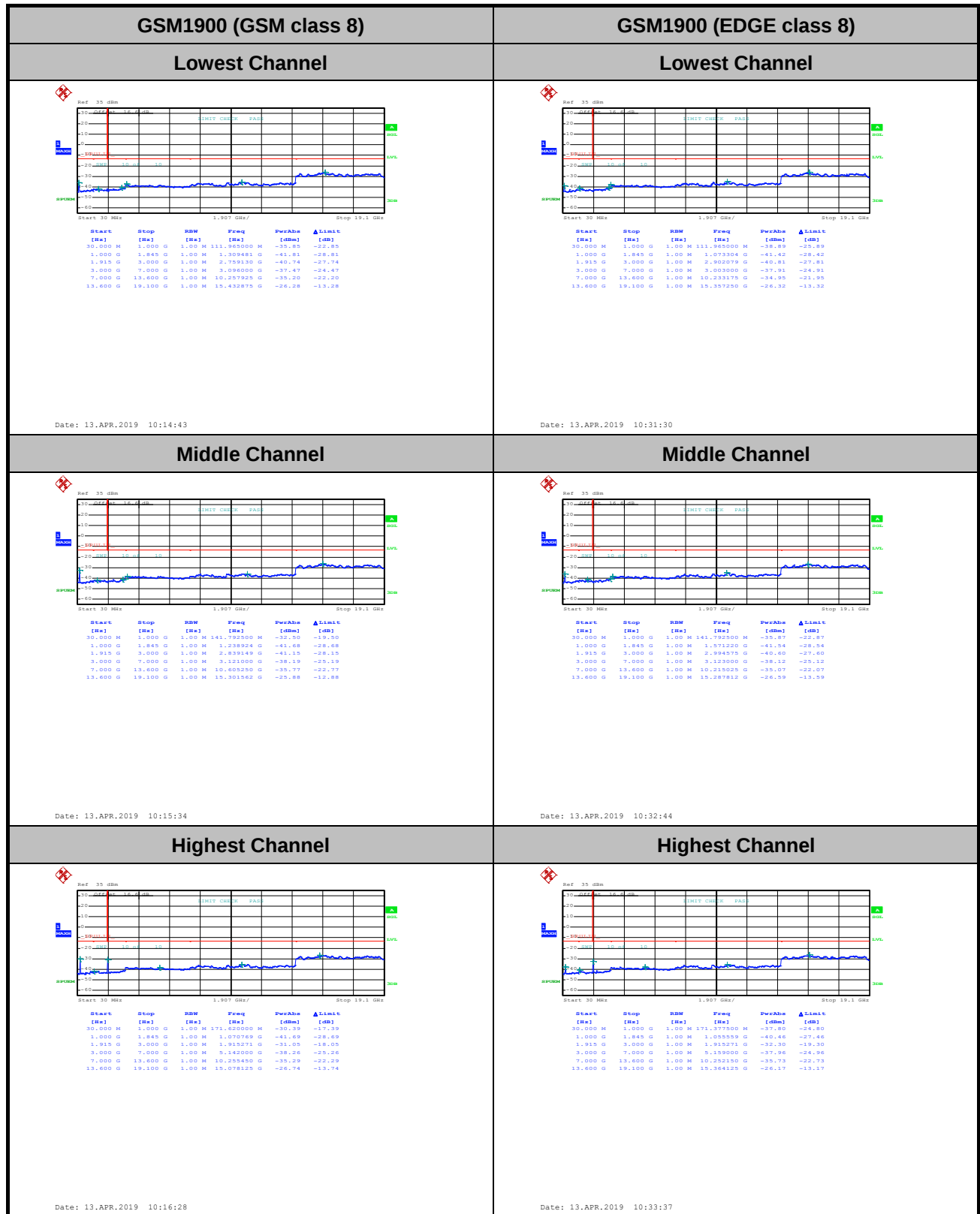


Date: 13.APR.2019 10:27:48



Conducted Spurious Emission

GSM850 (GSM class 8)		GSM850 (EDGE class 8)																																																																																					
Lowest Channel		Lowest Channel																																																																																					
<table><tr><th>Start</th><th>Stop</th><th>RBW</th><th>Freq</th><th>PerAbn</th><th>ΔLimit</th></tr><tr><th>[Hz]</th><th>[Hz]</th><th>[Hz]</th><th>[Hz]</th><th>[dBm]</th><th>[dB]</th></tr><tr><td>30.000 M</td><td>820.000 M</td><td>1.00 M</td><td>819.802500 M</td><td>-31.76</td><td>-31.76</td></tr><tr><td>850.000 M</td><td>1.000 G</td><td>1.00 M</td><td>862.721251 M</td><td>-42.90</td><td>-29.90</td></tr><tr><td>1.000 G</td><td>3.000 G</td><td>1.00 M</td><td>1.648500 G</td><td>-28.92</td><td>-25.92</td></tr><tr><td>3.000 G</td><td>7.000 G</td><td>1.00 M</td><td>3.015000 G</td><td>-39.02</td><td>-26.02</td></tr><tr><td>7.000 G</td><td>9.000 G</td><td>1.00 M</td><td>8.369000 G</td><td>-36.60</td><td>-23.60</td></tr></table> Date: 5.APR.2019 11:30:44		Start	Stop	RBW	Freq	PerAbn	ΔLimit	[Hz]	[Hz]	[Hz]	[Hz]	[dBm]	[dB]	30.000 M	820.000 M	1.00 M	819.802500 M	-31.76	-31.76	850.000 M	1.000 G	1.00 M	862.721251 M	-42.90	-29.90	1.000 G	3.000 G	1.00 M	1.648500 G	-28.92	-25.92	3.000 G	7.000 G	1.00 M	3.015000 G	-39.02	-26.02	7.000 G	9.000 G	1.00 M	8.369000 G	-36.60	-23.60	<table><tr><th>Start</th><th>Stop</th><th>RBW</th><th>Freq</th><th>PerAbn</th><th>ΔLimit</th></tr><tr><th>[Hz]</th><th>[Hz]</th><th>[Hz]</th><th>[Hz]</th><th>[dBm]</th><th>[dB]</th></tr><tr><td>30.000 M</td><td>820.000 M</td><td>1.00 M</td><td>818.025000 M</td><td>-44.23</td><td>-31.23</td></tr><tr><td>850.000 M</td><td>1.000 G</td><td>1.00 M</td><td>937.142506 M</td><td>-42.75</td><td>-29.75</td></tr><tr><td>1.000 G</td><td>3.000 G</td><td>1.00 M</td><td>1.648500 G</td><td>-38.45</td><td>-25.45</td></tr><tr><td>3.000 G</td><td>7.000 G</td><td>1.00 M</td><td>3.070000 G</td><td>-39.10</td><td>-26.10</td></tr><tr><td>7.000 G</td><td>9.000 G</td><td>1.00 M</td><td>7.898500 G</td><td>-36.84</td><td>-23.84</td></tr></table> Date: 5.APR.2019 11:52:23		Start	Stop	RBW	Freq	PerAbn	ΔLimit	[Hz]	[Hz]	[Hz]	[Hz]	[dBm]	[dB]	30.000 M	820.000 M	1.00 M	818.025000 M	-44.23	-31.23	850.000 M	1.000 G	1.00 M	937.142506 M	-42.75	-29.75	1.000 G	3.000 G	1.00 M	1.648500 G	-38.45	-25.45	3.000 G	7.000 G	1.00 M	3.070000 G	-39.10	-26.10	7.000 G	9.000 G	1.00 M	7.898500 G	-36.84	-23.84
Start	Stop	RBW	Freq	PerAbn	ΔLimit																																																																																		
[Hz]	[Hz]	[Hz]	[Hz]	[dBm]	[dB]																																																																																		
30.000 M	820.000 M	1.00 M	819.802500 M	-31.76	-31.76																																																																																		
850.000 M	1.000 G	1.00 M	862.721251 M	-42.90	-29.90																																																																																		
1.000 G	3.000 G	1.00 M	1.648500 G	-28.92	-25.92																																																																																		
3.000 G	7.000 G	1.00 M	3.015000 G	-39.02	-26.02																																																																																		
7.000 G	9.000 G	1.00 M	8.369000 G	-36.60	-23.60																																																																																		
Start	Stop	RBW	Freq	PerAbn	ΔLimit																																																																																		
[Hz]	[Hz]	[Hz]	[Hz]	[dBm]	[dB]																																																																																		
30.000 M	820.000 M	1.00 M	818.025000 M	-44.23	-31.23																																																																																		
850.000 M	1.000 G	1.00 M	937.142506 M	-42.75	-29.75																																																																																		
1.000 G	3.000 G	1.00 M	1.648500 G	-38.45	-25.45																																																																																		
3.000 G	7.000 G	1.00 M	3.070000 G	-39.10	-26.10																																																																																		
7.000 G	9.000 G	1.00 M	7.898500 G	-36.84	-23.84																																																																																		
Middle Channel		Middle Channel																																																																																					
<table><tr><th>Start</th><th>Stop</th><th>RBW</th><th>Freq</th><th>PerAbn</th><th>ΔLimit</th></tr><tr><th>[Hz]</th><th>[Hz]</th><th>[Hz]</th><th>[Hz]</th><th>[dBm]</th><th>[dB]</th></tr><tr><td>30.000 M</td><td>820.000 M</td><td>1.00 M</td><td>102.680000 M</td><td>-44.23</td><td>-31.23</td></tr><tr><td>850.000 M</td><td>1.000 G</td><td>1.00 M</td><td>907.997004 M</td><td>-43.68</td><td>-30.68</td></tr><tr><td>1.000 G</td><td>3.000 G</td><td>1.00 M</td><td>2.999000 G</td><td>-41.89</td><td>-28.89</td></tr><tr><td>3.000 G</td><td>7.000 G</td><td>1.00 M</td><td>3.592000 G</td><td>-39.09</td><td>-26.09</td></tr><tr><td>7.000 G</td><td>9.000 G</td><td>1.00 M</td><td>7.631000 G</td><td>-36.84</td><td>-23.84</td></tr></table> Date: 5.APR.2019 11:31:38		Start	Stop	RBW	Freq	PerAbn	ΔLimit	[Hz]	[Hz]	[Hz]	[Hz]	[dBm]	[dB]	30.000 M	820.000 M	1.00 M	102.680000 M	-44.23	-31.23	850.000 M	1.000 G	1.00 M	907.997004 M	-43.68	-30.68	1.000 G	3.000 G	1.00 M	2.999000 G	-41.89	-28.89	3.000 G	7.000 G	1.00 M	3.592000 G	-39.09	-26.09	7.000 G	9.000 G	1.00 M	7.631000 G	-36.84	-23.84	<table><tr><th>Start</th><th>Stop</th><th>RBW</th><th>Freq</th><th>PerAbn</th><th>ΔLimit</th></tr><tr><th>[Hz]</th><th>[Hz]</th><th>[Hz]</th><th>[Hz]</th><th>[dBm]</th><th>[dB]</th></tr><tr><td>30.000 M</td><td>820.000 M</td><td>1.00 M</td><td>767.860000 M</td><td>-44.09</td><td>-31.09</td></tr><tr><td>850.000 M</td><td>1.000 G</td><td>1.00 M</td><td>868.630001 M</td><td>-43.01</td><td>-30.01</td></tr><tr><td>1.000 G</td><td>3.000 G</td><td>1.00 M</td><td>1.673000 G</td><td>-38.55</td><td>-25.55</td></tr><tr><td>3.000 G</td><td>7.000 G</td><td>1.00 M</td><td>3.577000 G</td><td>-39.44</td><td>-26.44</td></tr><tr><td>7.000 G</td><td>9.000 G</td><td>1.00 M</td><td>7.898500 G</td><td>-36.82</td><td>-23.82</td></tr></table> Date: 5.APR.2019 11:53:18		Start	Stop	RBW	Freq	PerAbn	ΔLimit	[Hz]	[Hz]	[Hz]	[Hz]	[dBm]	[dB]	30.000 M	820.000 M	1.00 M	767.860000 M	-44.09	-31.09	850.000 M	1.000 G	1.00 M	868.630001 M	-43.01	-30.01	1.000 G	3.000 G	1.00 M	1.673000 G	-38.55	-25.55	3.000 G	7.000 G	1.00 M	3.577000 G	-39.44	-26.44	7.000 G	9.000 G	1.00 M	7.898500 G	-36.82	-23.82
Start	Stop	RBW	Freq	PerAbn	ΔLimit																																																																																		
[Hz]	[Hz]	[Hz]	[Hz]	[dBm]	[dB]																																																																																		
30.000 M	820.000 M	1.00 M	102.680000 M	-44.23	-31.23																																																																																		
850.000 M	1.000 G	1.00 M	907.997004 M	-43.68	-30.68																																																																																		
1.000 G	3.000 G	1.00 M	2.999000 G	-41.89	-28.89																																																																																		
3.000 G	7.000 G	1.00 M	3.592000 G	-39.09	-26.09																																																																																		
7.000 G	9.000 G	1.00 M	7.631000 G	-36.84	-23.84																																																																																		
Start	Stop	RBW	Freq	PerAbn	ΔLimit																																																																																		
[Hz]	[Hz]	[Hz]	[Hz]	[dBm]	[dB]																																																																																		
30.000 M	820.000 M	1.00 M	767.860000 M	-44.09	-31.09																																																																																		
850.000 M	1.000 G	1.00 M	868.630001 M	-43.01	-30.01																																																																																		
1.000 G	3.000 G	1.00 M	1.673000 G	-38.55	-25.55																																																																																		
3.000 G	7.000 G	1.00 M	3.577000 G	-39.44	-26.44																																																																																		
7.000 G	9.000 G	1.00 M	7.898500 G	-36.82	-23.82																																																																																		
Highest Channel		Highest Channel																																																																																					
<table><tr><th>Start</th><th>Stop</th><th>RBW</th><th>Freq</th><th>PerAbn</th><th>ΔLimit</th></tr><tr><th>[Hz]</th><th>[Hz]</th><th>[Hz]</th><th>[Hz]</th><th>[dBm]</th><th>[dB]</th></tr><tr><td>30.000 M</td><td>820.000 M</td><td>1.00 M</td><td>136.037000 M</td><td>-44.19</td><td>-31.19</td></tr><tr><td>850.000 M</td><td>1.000 G</td><td>1.00 M</td><td>855.036250 M</td><td>-36.71</td><td>-23.71</td></tr><tr><td>1.000 G</td><td>3.000 G</td><td>1.00 M</td><td>1.697500 G</td><td>-30.62</td><td>-17.62</td></tr><tr><td>3.000 G</td><td>7.000 G</td><td>1.00 M</td><td>3.599000 G</td><td>-39.07</td><td>-26.07</td></tr><tr><td>7.000 G</td><td>9.000 G</td><td>1.00 M</td><td>7.620000 G</td><td>-36.67</td><td>-23.67</td></tr></table> Date: 5.APR.2019 11:32:30		Start	Stop	RBW	Freq	PerAbn	ΔLimit	[Hz]	[Hz]	[Hz]	[Hz]	[dBm]	[dB]	30.000 M	820.000 M	1.00 M	136.037000 M	-44.19	-31.19	850.000 M	1.000 G	1.00 M	855.036250 M	-36.71	-23.71	1.000 G	3.000 G	1.00 M	1.697500 G	-30.62	-17.62	3.000 G	7.000 G	1.00 M	3.599000 G	-39.07	-26.07	7.000 G	9.000 G	1.00 M	7.620000 G	-36.67	-23.67	<table><tr><th>Start</th><th>Stop</th><th>RBW</th><th>Freq</th><th>PerAbn</th><th>ΔLimit</th></tr><tr><th>[Hz]</th><th>[Hz]</th><th>[Hz]</th><th>[Hz]</th><th>[dBm]</th><th>[dB]</th></tr><tr><td>30.000 M</td><td>820.000 M</td><td>1.00 M</td><td>136.032500 M</td><td>-43.90</td><td>-30.90</td></tr><tr><td>850.000 M</td><td>1.000 G</td><td>1.00 M</td><td>855.036250 M</td><td>-41.22</td><td>-28.22</td></tr><tr><td>1.000 G</td><td>3.000 G</td><td>1.00 M</td><td>1.698000 G</td><td>-39.34</td><td>-26.34</td></tr><tr><td>3.000 G</td><td>7.000 G</td><td>1.00 M</td><td>4.019000 G</td><td>-38.66</td><td>-25.66</td></tr><tr><td>7.000 G</td><td>9.000 G</td><td>1.00 M</td><td>7.521500 G</td><td>-36.24</td><td>-23.24</td></tr></table> Date: 5.APR.2019 11:54:10		Start	Stop	RBW	Freq	PerAbn	ΔLimit	[Hz]	[Hz]	[Hz]	[Hz]	[dBm]	[dB]	30.000 M	820.000 M	1.00 M	136.032500 M	-43.90	-30.90	850.000 M	1.000 G	1.00 M	855.036250 M	-41.22	-28.22	1.000 G	3.000 G	1.00 M	1.698000 G	-39.34	-26.34	3.000 G	7.000 G	1.00 M	4.019000 G	-38.66	-25.66	7.000 G	9.000 G	1.00 M	7.521500 G	-36.24	-23.24
Start	Stop	RBW	Freq	PerAbn	ΔLimit																																																																																		
[Hz]	[Hz]	[Hz]	[Hz]	[dBm]	[dB]																																																																																		
30.000 M	820.000 M	1.00 M	136.037000 M	-44.19	-31.19																																																																																		
850.000 M	1.000 G	1.00 M	855.036250 M	-36.71	-23.71																																																																																		
1.000 G	3.000 G	1.00 M	1.697500 G	-30.62	-17.62																																																																																		
3.000 G	7.000 G	1.00 M	3.599000 G	-39.07	-26.07																																																																																		
7.000 G	9.000 G	1.00 M	7.620000 G	-36.67	-23.67																																																																																		
Start	Stop	RBW	Freq	PerAbn	ΔLimit																																																																																		
[Hz]	[Hz]	[Hz]	[Hz]	[dBm]	[dB]																																																																																		
30.000 M	820.000 M	1.00 M	136.032500 M	-43.90	-30.90																																																																																		
850.000 M	1.000 G	1.00 M	855.036250 M	-41.22	-28.22																																																																																		
1.000 G	3.000 G	1.00 M	1.698000 G	-39.34	-26.34																																																																																		
3.000 G	7.000 G	1.00 M	4.019000 G	-38.66	-25.66																																																																																		
7.000 G	9.000 G	1.00 M	7.521500 G	-36.24	-23.24																																																																																		



**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	0.0120	0.0036	PASS
40	Normal Voltage	0.0024	0.0024	
30	Normal Voltage	0.0012	0.0084	
20(Ref.)	Normal Voltage	0.0000	0.0000	
10	Normal Voltage	0.0096	0.0179	
0	Normal Voltage	0.0179	0.0132	
-10	Normal Voltage	0.0227	0.0167	
-20	Normal Voltage	0.0275	0.0191	
-30	Normal Voltage	0.0251	0.0227	
20	Maximum Voltage	0.0024	0.0024	
20	Normal Voltage	0.0000	0.0000	
20	Battery End Point	0.0012	0.0024	

Test Conditions	Middle Channel	GSM1900 (GSM)	GSM1900 (EDGE class 8)	Limit Note 2.
Temperature (°C)	Voltage (Volt)	Deviation (ppm)		Result
50	Normal Voltage	0.0005	0.0032	PASS
40	Normal Voltage	0.0011	0.0011	
30	Normal Voltage	0.0011	0.0048	
20(Ref.)	Normal Voltage	0.0000	0.0000	
10	Normal Voltage	0.0032	0.0059	
0	Normal Voltage	0.0043	0.0069	
-10	Normal Voltage	0.0090	0.0074	
-20	Normal Voltage	0.0032	0.0085	
-30	Normal Voltage	0.0064	0.0112	
20	Maximum Voltage	0.0021	0.0016	
20	Normal Voltage	0.0000	0.0000	
20	Battery End Point	0.0005	0.0005	

Note:

1. Normal Voltage = 3.85V. ; Battery End Point (BEP) = 3.65 V. ; Maximum Voltage =4.35V
2. The frequency fundamental emissions stay within the authorized frequency block.

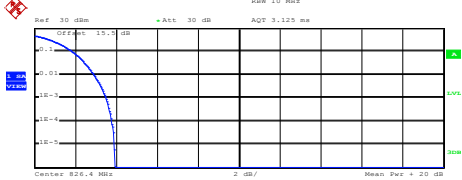
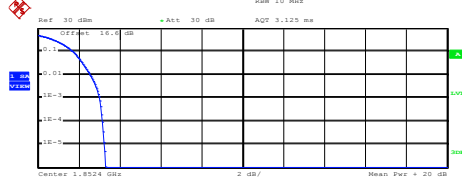
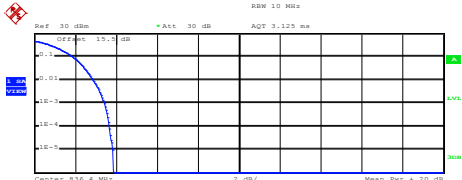
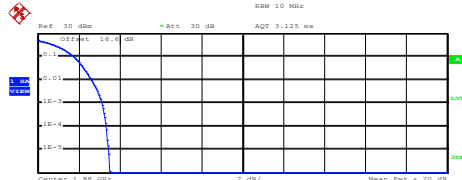
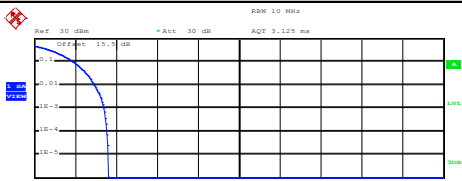
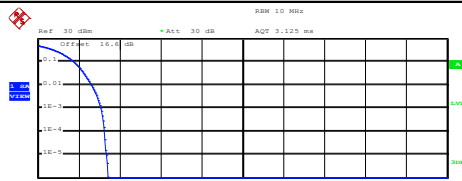


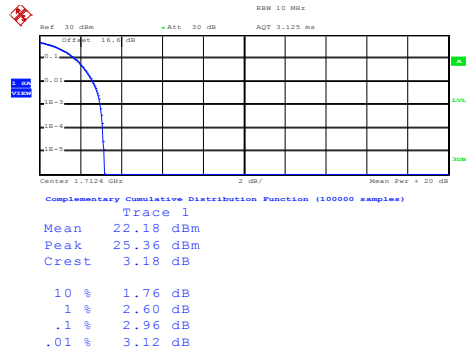
A3. WCDMA

Peak-to-Average Ratio

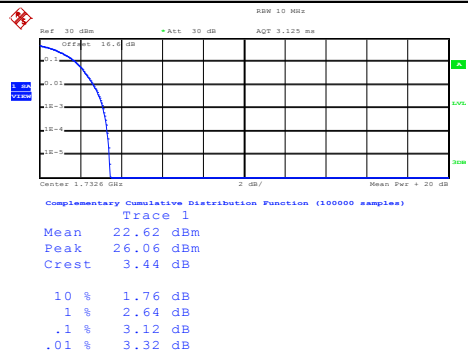
Mode	WCDMA Band V	WCDMA Band II	WCDMA Band IV	Limit: 13dB
Mod.	RMC 12.2Kbps	RMC 12.2Kbps	RMC 12.2Kbps	Result
Lowest CH	3.52	3	2.96	PASS
Middle CH	3.44	3.12	3.12	
Highest CH	3.40	3.08	3.16	



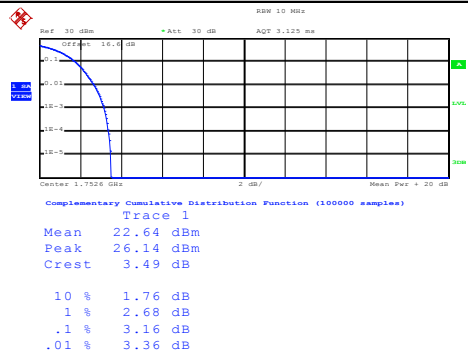
WCDMA Band V (RMC 12.2Kbps)	WCDMA Band II (RMC 12.2Kbps)																
Lowest Channel	Lowest Channel																
 Ref 30 dBm RSM 10 MHz AQT 3.125 ms Center 826.4 MHz 2 dB/ Mean Pwr + 20 dB Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean 22.35 dBm Peak 26.28 dBm Crest 3.92 dB <table><tr><td>10 %</td><td>1.88 dB</td></tr><tr><td>1 %</td><td>2.92 dB</td></tr><tr><td>.1 %</td><td>3.52 dB</td></tr><tr><td>.01 %</td><td>3.80 dB</td></tr></table>	10 %	1.88 dB	1 %	2.92 dB	.1 %	3.52 dB	.01 %	3.80 dB	 Ref 30 dBm RSM 10 MHz AQT 3.125 ms Center 1.8524 GHz 2 dB/ Mean Pwr + 20 dB Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean 22.61 dBm Peak 25.92 dBm Crest 3.31 dB <table><tr><td>10 %</td><td>1.72 dB</td></tr><tr><td>1 %</td><td>2.56 dB</td></tr><tr><td>.1 %</td><td>3.00 dB</td></tr><tr><td>.01 %</td><td>3.16 dB</td></tr></table>	10 %	1.72 dB	1 %	2.56 dB	.1 %	3.00 dB	.01 %	3.16 dB
10 %	1.88 dB																
1 %	2.92 dB																
.1 %	3.52 dB																
.01 %	3.80 dB																
10 %	1.72 dB																
1 %	2.56 dB																
.1 %	3.00 dB																
.01 %	3.16 dB																
Middle Channel	Middle Channel																
 Ref 30 dBm RSM 10 MHz AQT 3.125 ms Center 836.4 MHz 2 dB/ Mean Pwr + 20 dB Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean 22.34 dBm Peak 26.21 dBm Crest 3.87 dB <table><tr><td>10 %</td><td>1.88 dB</td></tr><tr><td>1 %</td><td>2.88 dB</td></tr><tr><td>.1 %</td><td>3.44 dB</td></tr><tr><td>.01 %</td><td>3.68 dB</td></tr></table>	10 %	1.88 dB	1 %	2.88 dB	.1 %	3.44 dB	.01 %	3.68 dB	 Ref 30 dBm RSM 10 MHz AQT 3.125 ms Center 1.85 GHz 2 dB/ Mean Pwr + 20 dB Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean 22.61 dBm Peak 26.14 dBm Crest 3.52 dB <table><tr><td>10 %</td><td>1.76 dB</td></tr><tr><td>1 %</td><td>2.60 dB</td></tr><tr><td>.1 %</td><td>3.12 dB</td></tr><tr><td>.01 %</td><td>3.36 dB</td></tr></table>	10 %	1.76 dB	1 %	2.60 dB	.1 %	3.12 dB	.01 %	3.36 dB
10 %	1.88 dB																
1 %	2.88 dB																
.1 %	3.44 dB																
.01 %	3.68 dB																
10 %	1.76 dB																
1 %	2.60 dB																
.1 %	3.12 dB																
.01 %	3.36 dB																
Highest Channel	Highest Channel																
 Ref 30 dBm RSM 10 MHz AQT 3.125 ms Center 846.6 MHz 2 dB/ Mean Pwr + 20 dB Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean 22.24 dBm Peak 25.85 dBm Crest 3.61 dB <table><tr><td>10 %</td><td>1.92 dB</td></tr><tr><td>1 %</td><td>2.96 dB</td></tr><tr><td>.1 %</td><td>3.40 dB</td></tr><tr><td>.01 %</td><td>3.56 dB</td></tr></table>	10 %	1.92 dB	1 %	2.96 dB	.1 %	3.40 dB	.01 %	3.56 dB	 Ref 30 dBm RSM 10 MHz AQT 3.125 ms Center 1.9076 GHz 2 dB/ Mean Pwr + 20 dB Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean 22.50 dBm Peak 25.92 dBm Crest 3.42 dB <table><tr><td>10 %</td><td>1.76 dB</td></tr><tr><td>1 %</td><td>2.64 dB</td></tr><tr><td>.1 %</td><td>3.08 dB</td></tr><tr><td>.01 %</td><td>3.24 dB</td></tr></table>	10 %	1.76 dB	1 %	2.64 dB	.1 %	3.08 dB	.01 %	3.24 dB
10 %	1.92 dB																
1 %	2.96 dB																
.1 %	3.40 dB																
.01 %	3.56 dB																
10 %	1.76 dB																
1 %	2.64 dB																
.1 %	3.08 dB																
.01 %	3.24 dB																

WCDMA Band IV (RMC 12.2Kbps)
Lowest Channel


Date: 8.APR.2019 14:55:59

Middle Channel


Date: 8.APR.2019 14:56:24

Highest Channel


Date: 8.APR.2019 14:57:23

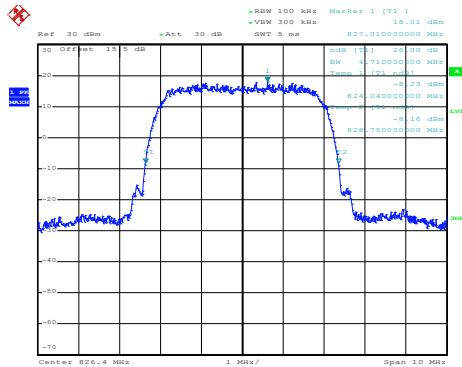
**26dB Bandwidth**

Mode	WCDMA Band V 26dB BW(MHz)	WCDMA Band II 26dB BW(MHz)	WCDMA Band IV 26dB BW(MHz)
Mod.	RMC 12.2Kbps	RMC 12.2Kbps	RMC 12.2Kbps
Lowest CH	4.71	4.71	4.73
Middle CH	4.72	4.72	4.72
Highest CH	4.72	4.72	4.72



WCDMA Band V (RMC 12.2Kbps)

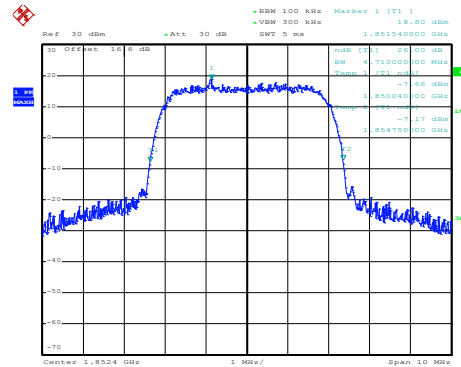
Lowest Channel



Date: 5.APR.2019 12:12:24

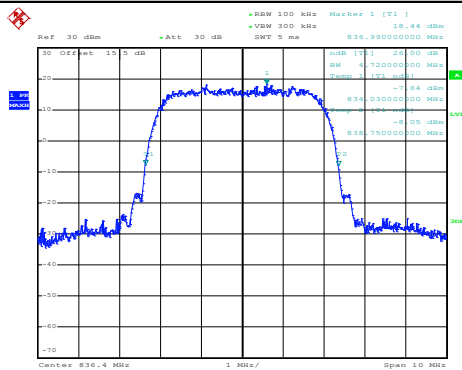
WCDMA Band II (RMC 12.2Kbps)

Lowest Channel



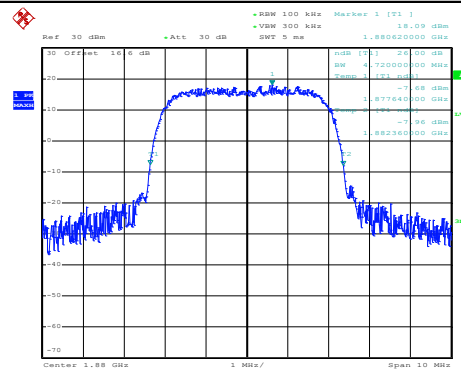
Date: 8.APR.2019 14:14:59

Middle Channel



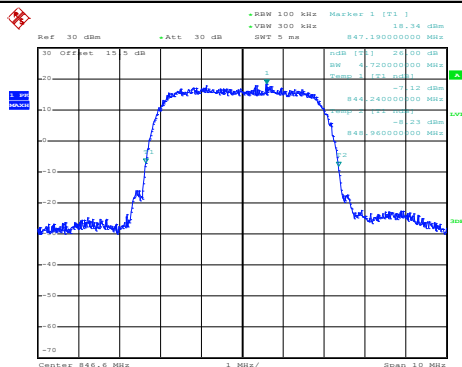
Date: 5.APR.2019 12:14:28

Middle Channel



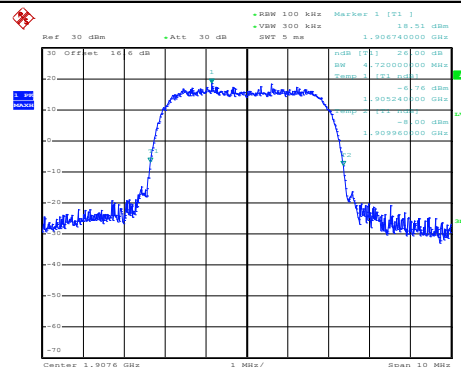
Date: 8.APR.2019 14:16:00

Highest Channel

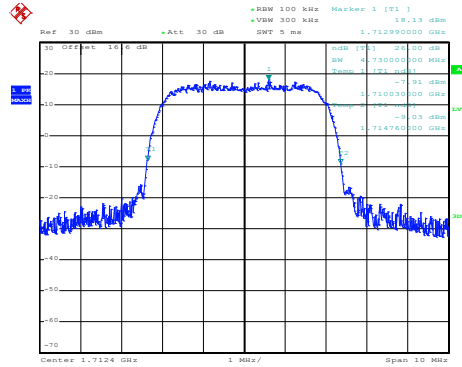


Date: 5.APR.2019 12:15:03

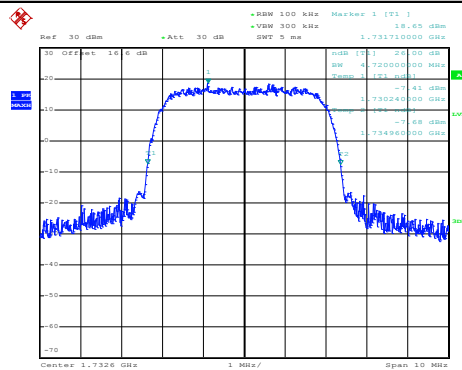
Highest Channel



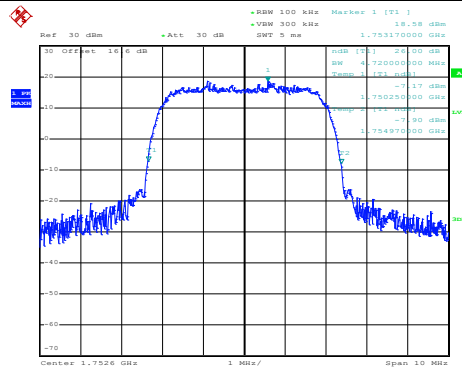
Date: 8.APR.2019 14:16:36

WCDMA Band IV (RMC 12.2Kbps)
Lowest Channel


Date: 8.APR.2019 14:33:11

Middle Channel


Date: 8.APR.2019 14:33:44

Highest Channel


Date: 8.APR.2019 14:38:01

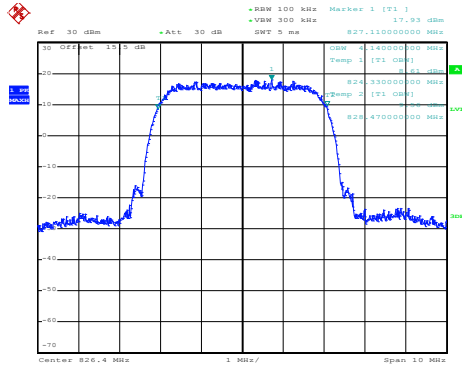
**Occupied Bandwidth**

Mode	WCDMA Band V 99% OBW(MHz)	WCDMA Band II 99% OBW(MHz)	WCDMA Band IV 99% OBW(MHz)
Mod.	RMC 12.2Kbps	RMC 12.2Kbps	RMC 12.2Kbps
Lowest CH	4.14	4.15	4.15
Middle CH	4.14	4.15	4.16
Highest CH	4.14	4.06	4.16



WCDMA Band V (RMC 12.2Kbps)

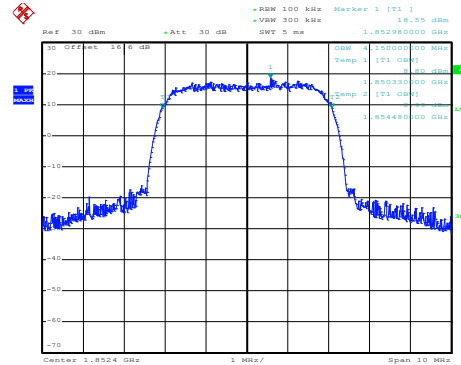
Lowest Channel



Date: 5.APR.2019 12:15:49

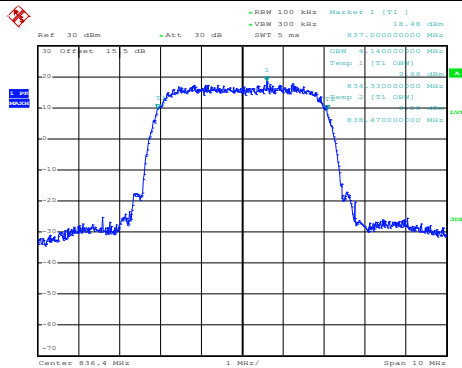
WCDMA Band II (RMC 12.2Kbps)

Lowest Channel



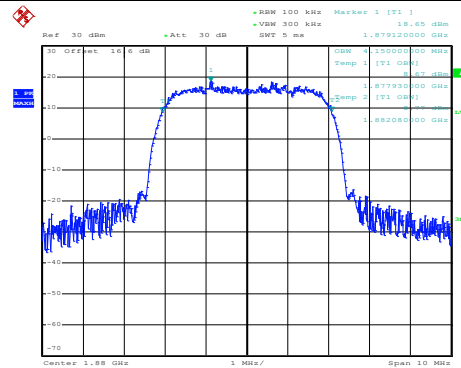
Date: 8.APR.2019 14:17:18

Middle Channel



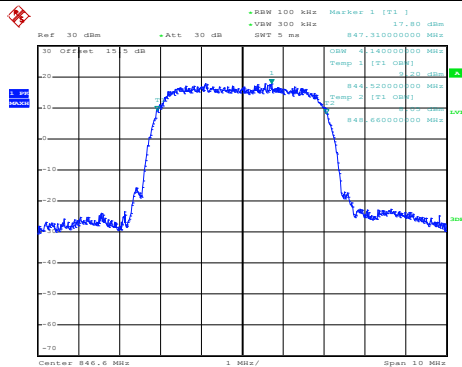
Date: 5.APR.2019 12:16:25

Middle Channel



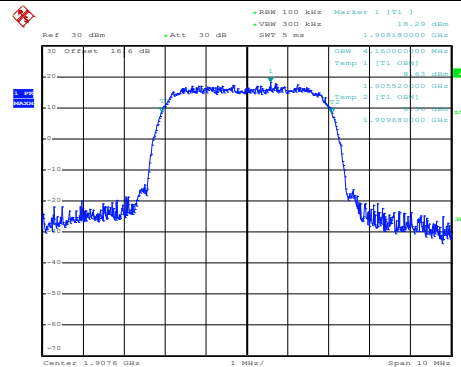
Date: 8.APR.2019 14:19:52

Highest Channel



Date: 5.APR.2019 12:17:02

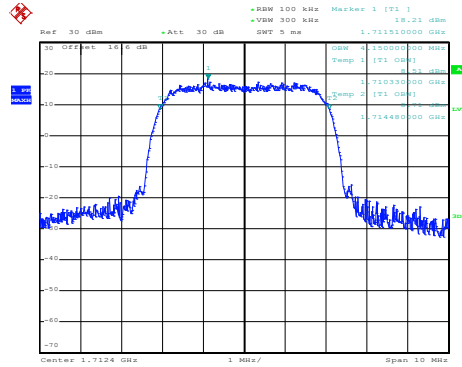
Highest Channel



Date: 8.APR.2019 14:20:30

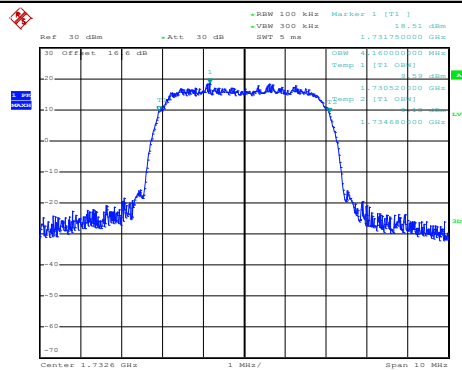
WCDMA Band IV (RMC 12.2Kbps)

Lowest Channel



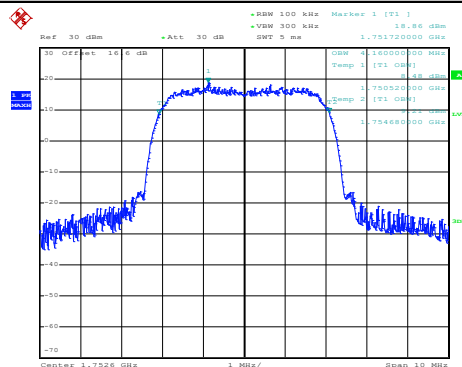
Date: 8.APR.2019 14:43:28

Middle Channel



Date: 8.APR.2019 14:44:20

Highest Channel



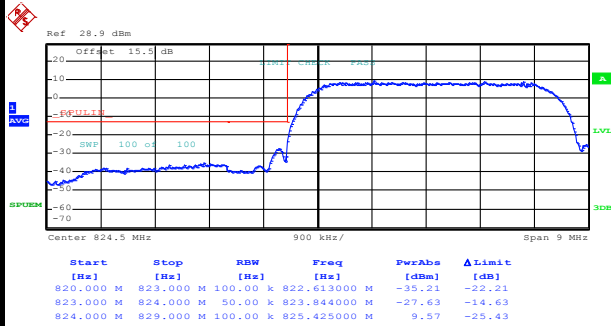
Date: 8.APR.2019 14:45:42



Conducted Band Edge

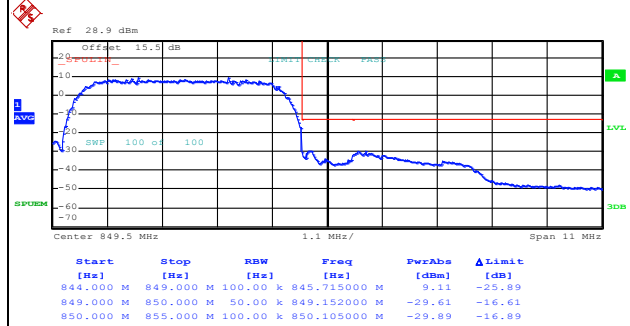
WCDMA Band V (RMC 12.2Kbps)

Lowest Band Edge



Date: 5.APR.2019 12:19:58

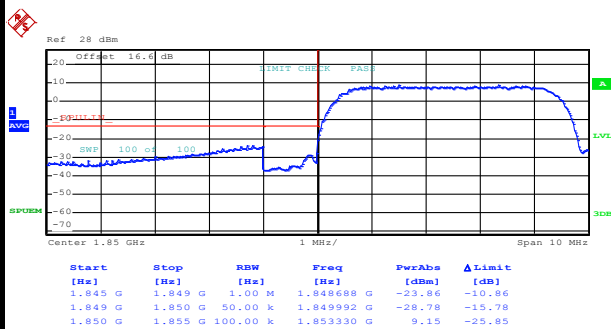
Highest Band Edge



Date: 5.APR.2019 12:22:51

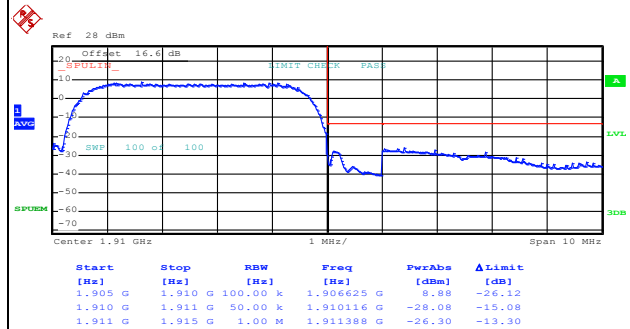
WCDMA Band II (RMC 12.2Kbps)

Lowest Band Edge



Date: 8.APR.2019 14:23:26

Highest Band Edge

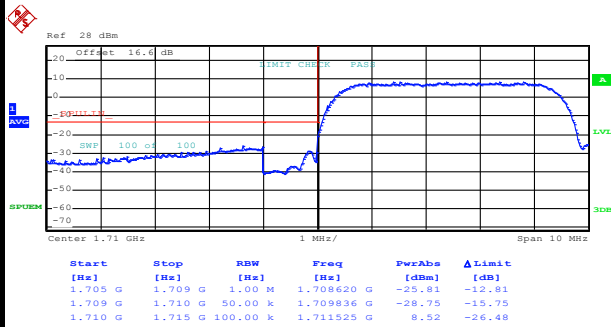


Date: 8.APR.2019 14:26:15



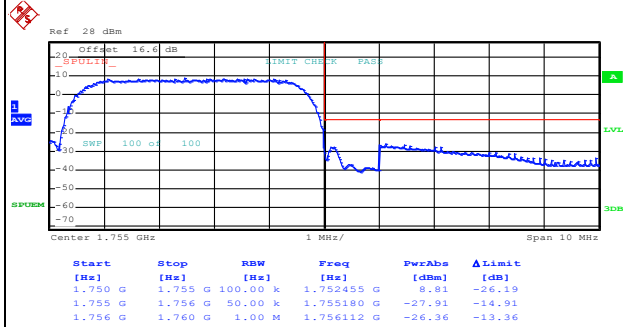
WCDMA Band IV (RMC 12.2Kbps)

Lowest Band Edge



Date: 8.APR.2019 14:48:52

Highest Band Edge



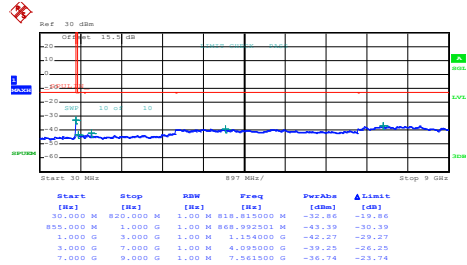
Date: 8.APR.2019 14:52:17



Conducted Spurious Emission

WCDMA Band V (RMC 12.2Kbps)

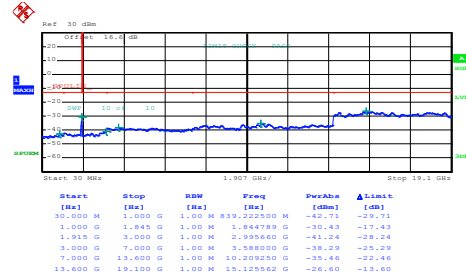
Lowest Channel



Date: 5.APR.2019 12:24:01

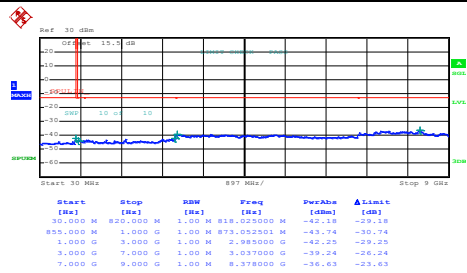
WCDMA Band II (RMC 12.2Kbps)

Lowest Channel



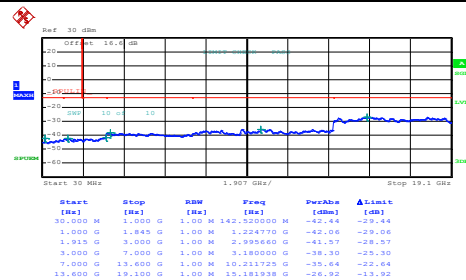
Date: 8.APR.2019 14:28:12

Middle Channel



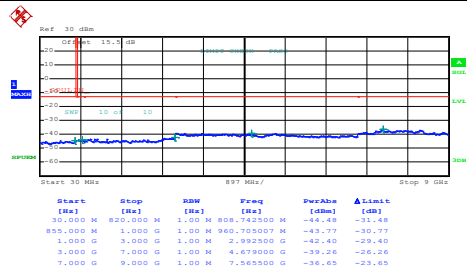
Date: 5.APR.2019 12:24:57

Middle Channel



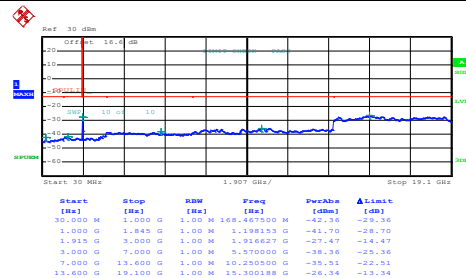
Date: 8.APR.2019 14:30:07

Highest Channel



Date: 5.APR.2019 12:25:50

Highest Channel

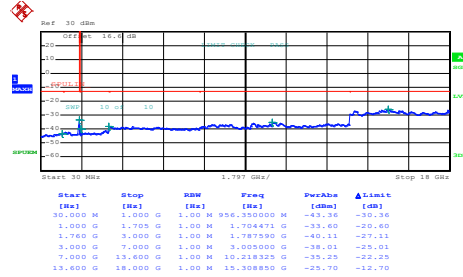


Date: 8.APR.2019 14:31:05



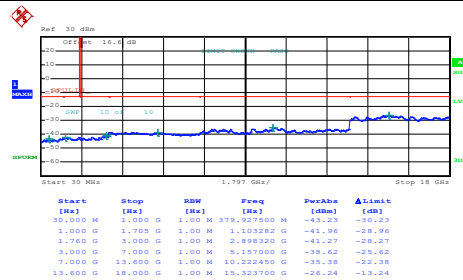
WCDMA Band IV (RMC 12.2Kbps)

Lowest Channel



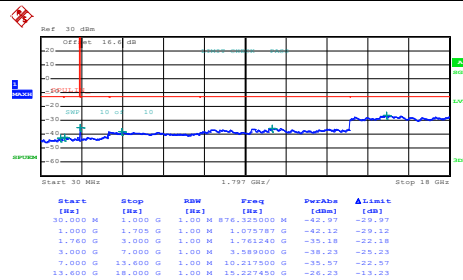
Date: 8.APR.2019 14:53:19

Middle Channel



Date: 8.APR.2019 14:54:12

Highest Channel



Date: 8.APR.2019 14:55:36

**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	0.0155	PASS
40	Normal Voltage	0.0132	
30	Normal Voltage	0.0072	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0072	
0	Normal Voltage	0.0012	
-10	Normal Voltage	0.0012	
-20	Normal Voltage	0.0084	
-30	Normal Voltage	0.0132	
20	Maximum Voltage	0.0024	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0012	



Test Conditions	Middle Channel	WCDMA Band II (RMC 12.2Kbps)	Limit Note 2.
Temperature (°C)	Voltage (Volt)	Deviation (ppm)	Result
50	Normal Voltage	0.0043	PASS
40	Normal Voltage	0.0005	
30	Normal Voltage	0.0016	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0027	
0	Normal Voltage	0.0053	
-10	Normal Voltage	0.0043	
-20	Normal Voltage	0.0032	
-30	Normal Voltage	0.0059	
20	Maximum Voltage	0.0021	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0005	

Test Conditions	Middle Channel	WCDMA Band IV (RMC 12.2Kbps)	Limit Note 2.
Temperature (°C)	Voltage (Volt)	Deviation (ppm)	Result
50	Normal Voltage	0.0040	PASS
40	Normal Voltage	0.0029	
30	Normal Voltage	0.0006	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0035	
0	Normal Voltage	0.0040	
-10	Normal Voltage	0.0063	
-20	Normal Voltage	0.0081	
-30	Normal Voltage	0.0046	
20	Maximum Voltage	0.0012	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0006	

Note:

1. Normal Voltage = 3.85V. ; Battery End Point (BEP) = 3.5 V. ; Maximum Voltage =4.4 V
2. The frequency fundamental emissions stay within the authorized frequency block.

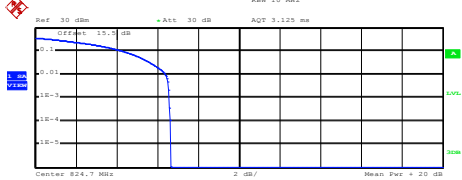
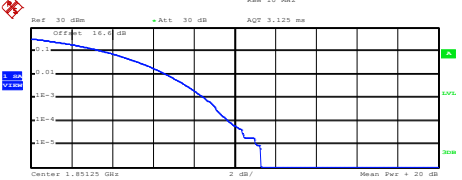
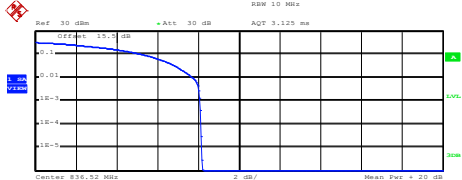
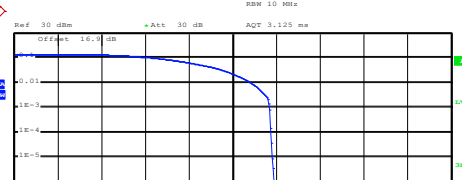
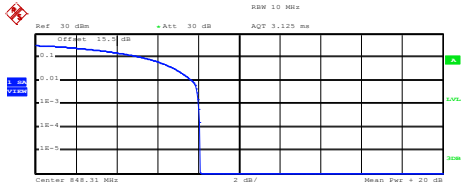
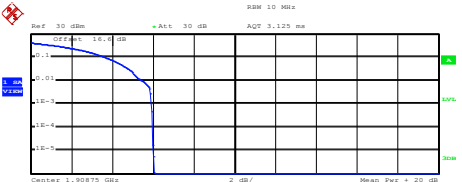


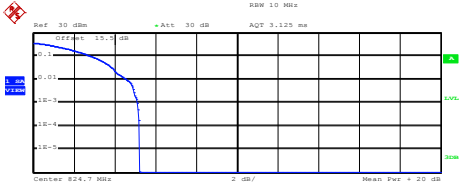
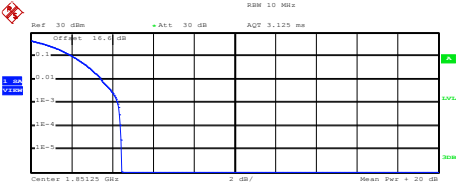
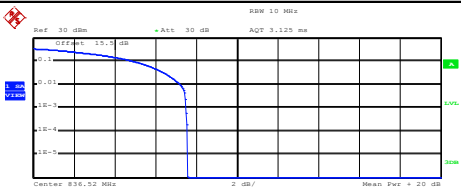
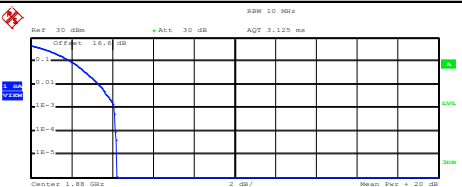
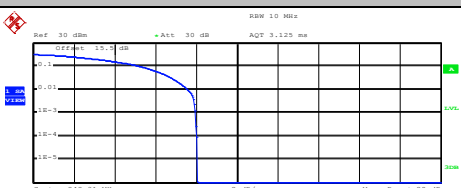
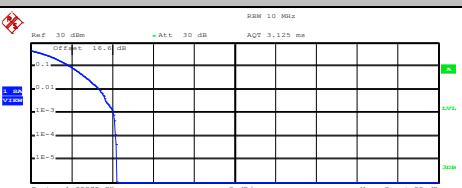
A4. CDMA

Peak-to-Average Ratio

Mode	CDMA BC0	CDMA BC1	Limit: 13dB
Mod.	1xRTT	1xRTT	Result
Lowest CH	6.6	8.52	PASS
Middle CH	8.08	11.72	
Highest CH	8.04	5.92	

Mode	CDMA BC0	CDMA BC1	Limit: 13dB
Mod.	1xEV-DO Rev. A	1xEV-DO Rev. A	Result
Lowest CH	5.12	4.28	PASS
Middle CH	7.52	4.08	
Highest CH	7.96	4.08	

CDMA BC0 (1xRTT)	CDMA BC1 (1xRTT)																
Lowest Channel	Lowest Channel																
 Center 824.7 MHz Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean 18.29 dBm Peak 24.94 dBm Crest 6.65 dB <table border="1"> <tr><td>10 %</td><td>4.40 dB</td></tr> <tr><td>1 %</td><td>6.40 dB</td></tr> <tr><td>.1 %</td><td>6.60 dB</td></tr> <tr><td>.01 %</td><td>6.64 dB</td></tr> </table> Date: 4.MAY.2019 15:09:30	10 %	4.40 dB	1 %	6.40 dB	.1 %	6.60 dB	.01 %	6.64 dB	 Center 1.85125 GHz Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean -29.55 dBm Peak -18.24 dBm Crest 11.30 dB <table border="1"> <tr><td>10 %</td><td>3.64 dB</td></tr> <tr><td>1 %</td><td>6.68 dB</td></tr> <tr><td>.1 %</td><td>8.52 dB</td></tr> <tr><td>.01 %</td><td>9.76 dB</td></tr> </table> Date: 5.MAY.2019 11:43:34	10 %	3.64 dB	1 %	6.68 dB	.1 %	8.52 dB	.01 %	9.76 dB
10 %	4.40 dB																
1 %	6.40 dB																
.1 %	6.60 dB																
.01 %	6.64 dB																
10 %	3.64 dB																
1 %	6.68 dB																
.1 %	8.52 dB																
.01 %	9.76 dB																
Middle Channel	Middle Channel																
 Center 836.32 MHz Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean 17.17 dBm Peak 25.36 dBm Crest 8.19 dB <table border="1"> <tr><td>10 %</td><td>5.40 dB</td></tr> <tr><td>1 %</td><td>7.72 dB</td></tr> <tr><td>.1 %</td><td>8.08 dB</td></tr> <tr><td>.01 %</td><td>8.16 dB</td></tr> </table> Date: 4.MAY.2019 15:10:37	10 %	5.40 dB	1 %	7.72 dB	.1 %	8.08 dB	.01 %	8.16 dB	 Center 1.88 GHz Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean 9.69 dBm Peak 21.57 dBm Crest 11.88 dB <table border="1"> <tr><td>10 %</td><td>6.72 dB</td></tr> <tr><td>1 %</td><td>10.88 dB</td></tr> <tr><td>.1 %</td><td>11.72 dB</td></tr> <tr><td>.01 %</td><td>11.76 dB</td></tr> </table> Date: 27.JUN.2019 18:41:20	10 %	6.72 dB	1 %	10.88 dB	.1 %	11.72 dB	.01 %	11.76 dB
10 %	5.40 dB																
1 %	7.72 dB																
.1 %	8.08 dB																
.01 %	8.16 dB																
10 %	6.72 dB																
1 %	10.88 dB																
.1 %	11.72 dB																
.01 %	11.76 dB																
Highest Channel	Highest Channel																
 Center 848.31 MHz Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean 17.63 dBm Peak 25.71 dBm Crest 8.08 dB <table border="1"> <tr><td>10 %</td><td>5.40 dB</td></tr> <tr><td>1 %</td><td>7.72 dB</td></tr> <tr><td>.1 %</td><td>8.04 dB</td></tr> <tr><td>.01 %</td><td>8.08 dB</td></tr> </table> Date: 4.MAY.2019 15:11:08	10 %	5.40 dB	1 %	7.72 dB	.1 %	8.04 dB	.01 %	8.08 dB	 Center 1.90875 GHz Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean 19.80 dBm Peak 25.85 dBm Crest 6.05 dB <table border="1"> <tr><td>10 %</td><td>3.72 dB</td></tr> <tr><td>1 %</td><td>5.48 dB</td></tr> <tr><td>.1 %</td><td>5.92 dB</td></tr> <tr><td>.01 %</td><td>6.00 dB</td></tr> </table> Date: 5.MAY.2019 11:45:18	10 %	3.72 dB	1 %	5.48 dB	.1 %	5.92 dB	.01 %	6.00 dB
10 %	5.40 dB																
1 %	7.72 dB																
.1 %	8.04 dB																
.01 %	8.08 dB																
10 %	3.72 dB																
1 %	5.48 dB																
.1 %	5.92 dB																
.01 %	6.00 dB																

CDMA BC0 (1xEV-DO Rev. A)	CDMA BC1 (1xEV-DO Rev. A)
Lowest Channel	Lowest Channel
 Center 824.7 MHz Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean 21.84 dBm Peak 27.05 dBm Crest 5.21 dB 10 % 2.92 dB 1 % 4.60 dB .1 % 5.12 dB .01 % 5.20 dB Date: 4.MAY.2019 16:24:33	 Center 1.85125 GHz Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean 21.62 dBm Peak 26.06 dBm Crest 4.44 dB 10 % 2.08 dB 1 % 3.48 dB .1 % 4.28 dB .01 % 4.40 dB Date: 6.MAY.2019 08:58:18
Middle Channel	Middle Channel
 Center 836.32 MHz Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean 18.43 dBm Peak 25.99 dBm Crest 7.57 dB 10 % 5.04 dB 1 % 7.20 dB .1 % 7.52 dB .01 % 7.60 dB Date: 4.MAY.2019 16:25:18	 Center 1.88 GHz Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean 21.91 dBm Peak 26.13 dBm Crest 4.22 dB 10 % 2.00 dB 1 % 3.36 dB .1 % 4.08 dB .01 % 4.16 dB Date: 6.MAY.2019 08:58:48
Highest Channel	Highest Channel
 Center 848.31 MHz Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean 18.78 dBm Peak 26.84 dBm Crest 8.06 dB 10 % 5.40 dB 1 % 7.60 dB .1 % 7.96 dB .01 % 8.04 dB Date: 4.MAY.2019 16:26:10	 Center 1.90875 GHz Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean 21.71 dBm Peak 25.92 dBm Crest 4.22 dB 10 % 1.96 dB 1 % 3.36 dB .1 % 4.08 dB .01 % 4.16 dB Date: 6.MAY.2019 08:59:15

**26dB Bandwidth**

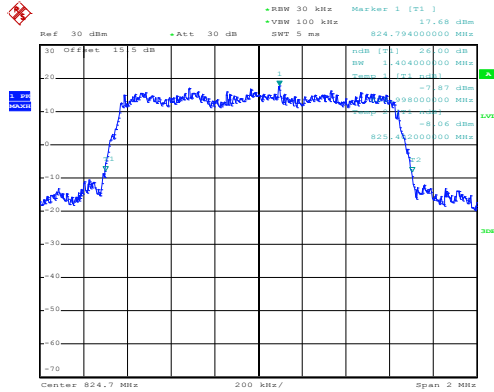
Mode	CDMA BC0 26dB BW(MHz)	CDMA BC1 26dB BW(MHz)
Mod.	1xRTT	1xRTT
Lowest CH	1.404	1.428
Middle CH	1.422	1.430
Highest CH	1.418	1.434

Mode	CDMA BC0 26dB BW(MHz)	CDMA BC1 26dB BW(MHz)
Mod.	1xEV-DO Rev. A	1xEV-DO Rev. A
Lowest CH	1.412	1.418
Middle CH	1.414	1.424
Highest CH	1.416	1.424



CDMA BC0 (1xRTT)

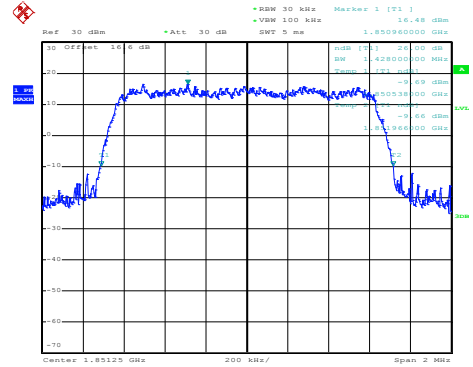
Lowest Channel



Date: 4.MAY.2019 14:37:14

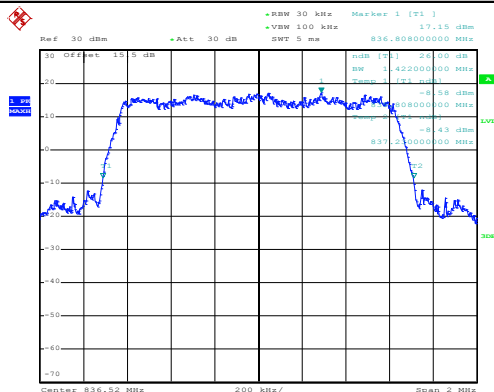
CDMA BC1 (1xRTT)

Lowest Channel



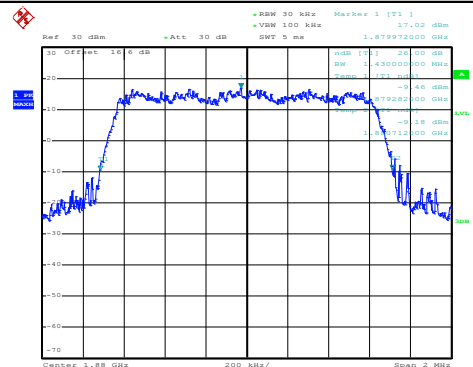
Date: 5.MAY.2019 11:31:49

Middle Channel



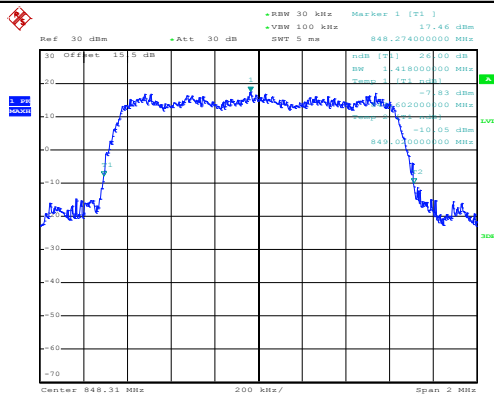
Date: 4.MAY.2019 14:38:05

Middle Channel



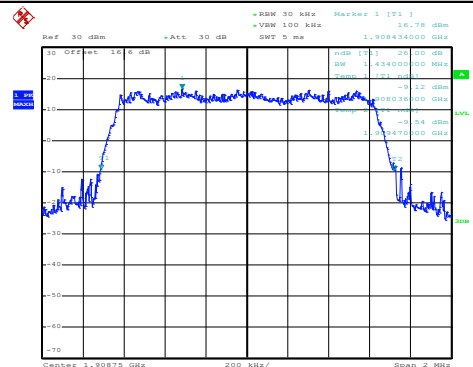
Date: 5.MAY.2019 11:32:43

Highest Channel



Date: 4.MAY.2019 14:39:14

Highest Channel



Date: 5.MAY.2019 11:33:42



**Occupied Bandwidth**

Mode	CDMA BC0 99% OBW(MHz)	CDMA BC1 99% OBW(MHz)
Mod.	1xRTT	1xRTT
Lowest CH	1.276	1.276
Middle CH	1.282	1.272
Highest CH	1.276	1.278

Mode	CDMA BC0 99% OBW(MHz)	CDMA BC1 99% OBW(MHz)
Mod.	1xEV-DO Rev. A	1xEV-DO Rev. A
Lowest CH	1.274	1.272
Middle CH	1.270	1.274
Highest CH	1.276	1.276



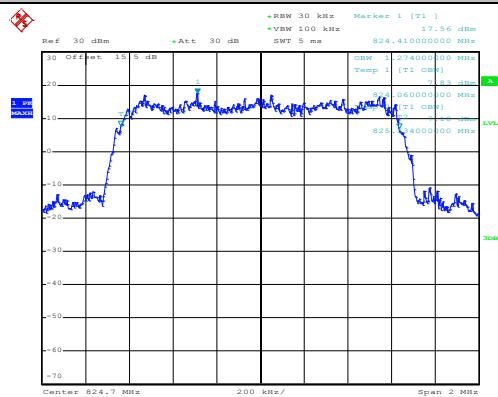
CDMA BC0 (1xRTT)

Lowest Channel



CDMA BC0 (1xEV-DO Rev. A)

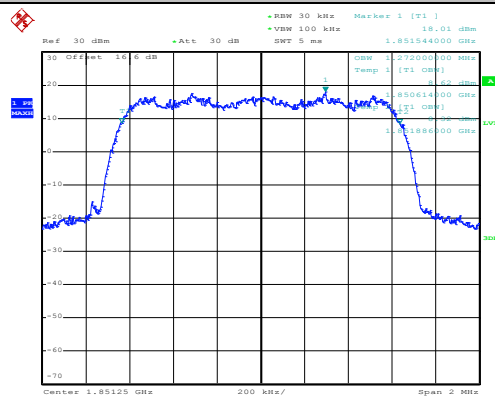
Lowest Channel



Date: 4.MAY.2019 16:04:54

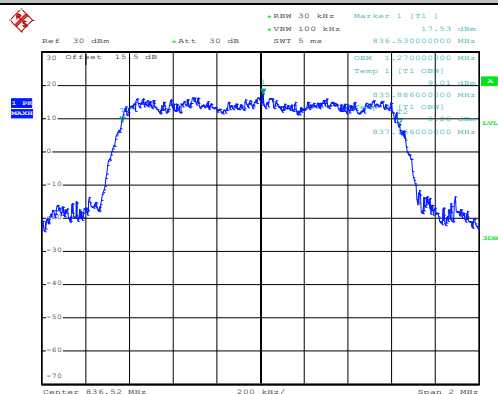
CDMA BC1 (1xEV-DO Rev. A)

Lowest Channel



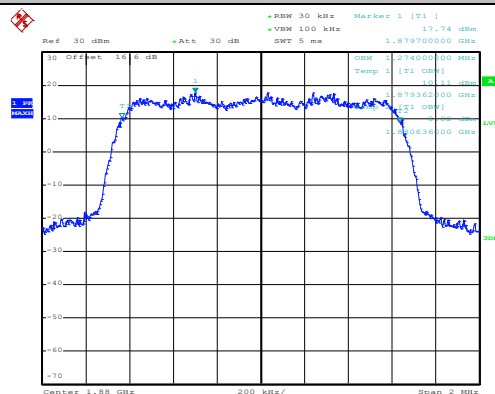
Date: 6.MAY.2019 08:51:47

Middle Channel



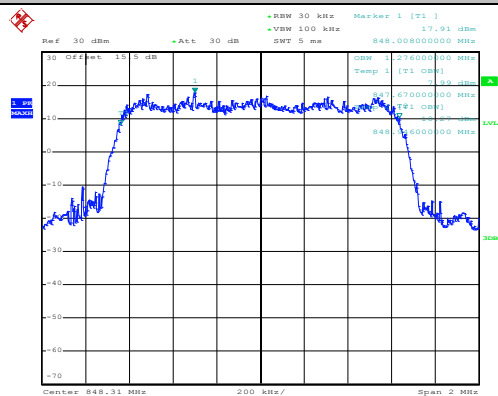
Date: 4.MAY.2019 16:05:42

Middle Channel



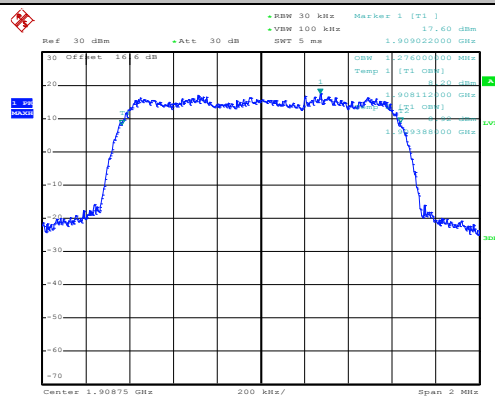
Date: 6.MAY.2019 08:52:38

Highest Channel

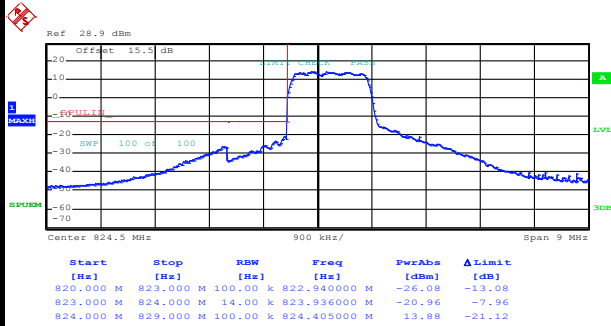


Date: 4.MAY.2019 16:06:31

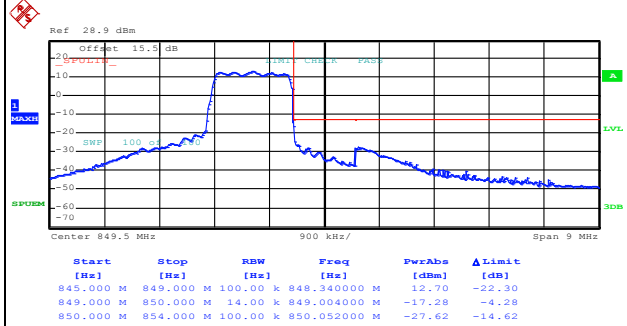
Highest Channel



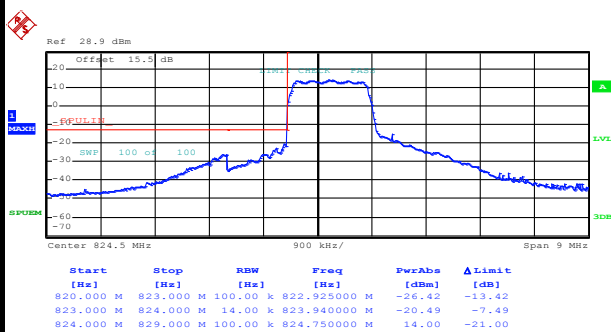
Date: 6.MAY.2019 08:53:23

**Conducted Band Edge****CDMA BC0 (1xRTT)****Lowest Band Edge**

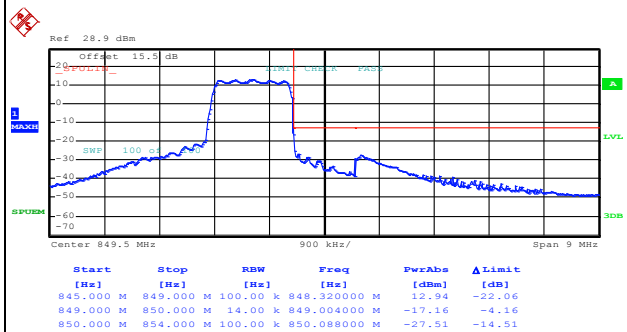
Date: 4.MAY.2019 14:58:52

Highest Band Edge

Date: 4.MAY.2019 15:03:25

CDMA BC0 (1xEV-DO Rev. A)**Lowest Band Edge**

Date: 4.MAY.2019 16:20:32

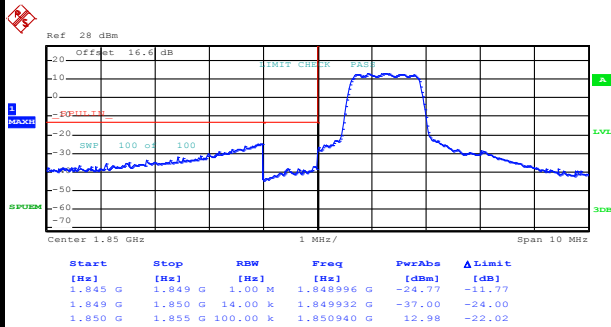
Highest Band Edge

Date: 4.MAY.2019 16:16:48



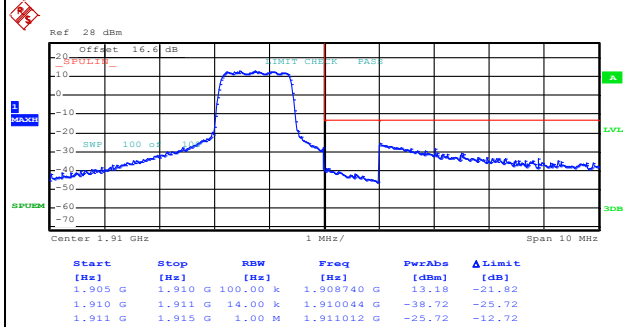
CDMA BC1 (1xRTT)

Lowest Band Edge



Date: 5.MAY.2019 12:13:31

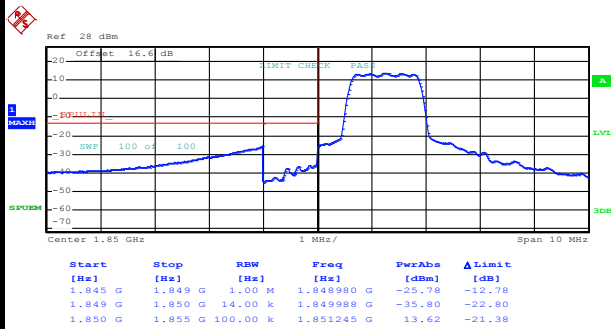
Highest Band Edge



Date: 5.MAY.2019 12:23:15

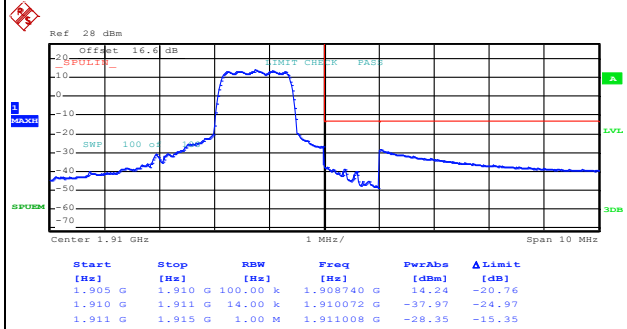
CDMA BC1 (1xEV-DO Rev. A)

Lowest Band Edge

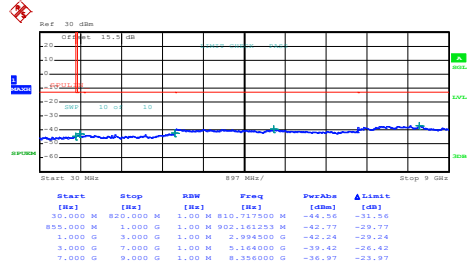


Date: 6.MAY.2019 09:10:49

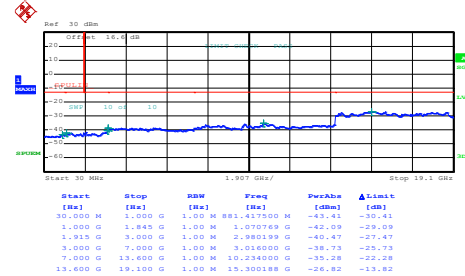
Highest Band Edge



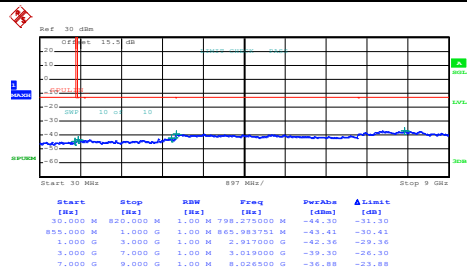
Date: 6.MAY.2019 09:18:24

**Conducted Spurious Emission****CDMA BC0 (1xRTT)****Lowest Channel**

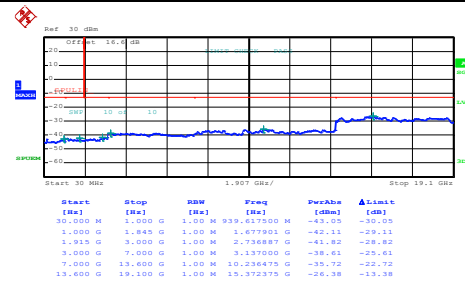
Date: 4.MAY.2019 15:07:13

CDMA BC1 (1xRTT)**Lowest Channel**

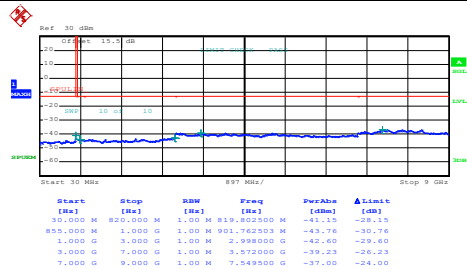
Date: 5.MAY.2019 11:39:01

Middle Channel

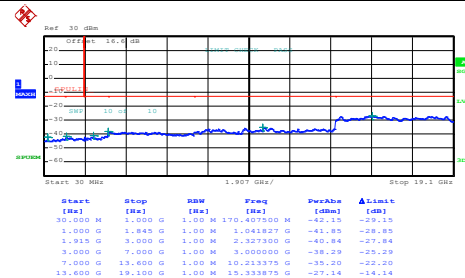
Date: 4.MAY.2019 15:08:13

Middle Channel

Date: 5.MAY.2019 11:40:12

Highest Channel

Date: 4.MAY.2019 15:06:07

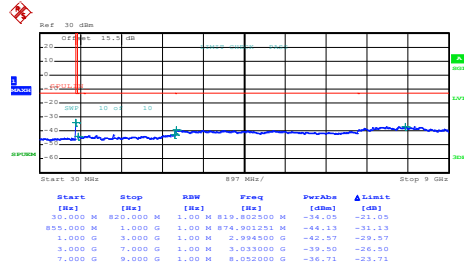
Highest Channel

Date: 5.MAY.2019 11:41:15



CDMA BC0 (1xEV-DO Rev. A)

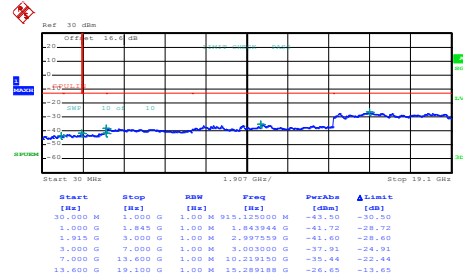
Lowest Channel



Date: 4.MAY.2019 16:21:29

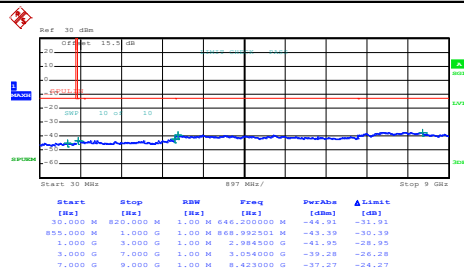
CDMA BC1 (1xEV-DO Rev. A)

Lowest Channel



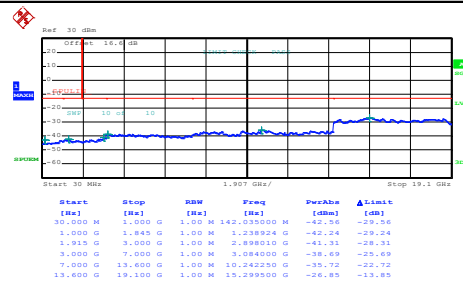
Date: 6.MAY.2019 08:54:37

Middle Channel



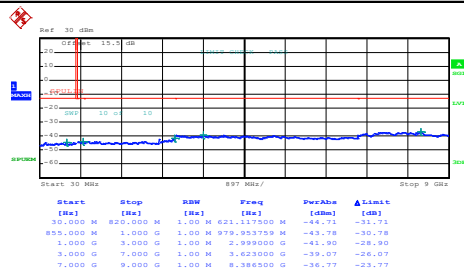
Date: 4.MAY.2019 16:22:43

Middle Channel



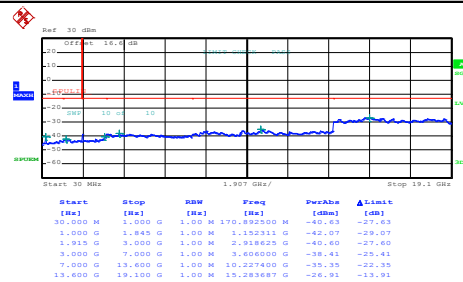
Date: 6.MAY.2019 08:55:40

Highest Channel



Date: 4.MAY.2019 16:24:01

Highest Channel



Date: 6.MAY.2019 08:56:46

**Frequency Stability**

Test Conditions	Middle Channel	CDMA BC0 (1xRTT)	Limit 2.5ppm
Temperature (°C)	Voltage (Volt)	Deviation (ppm)	Result
50	Normal Voltage	0.0072	PASS
40	Normal Voltage	0.0060	
30	Normal Voltage	0.0060	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0072	
0	Normal Voltage	0.0060	
-10	Normal Voltage	0.0084	
-20	Normal Voltage	0.0084	
-30	Normal Voltage	0.0096	
20	Maximum Voltage	0.0012	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0060	

Test Conditions	Middle Channel	CDMA BC1 (1xRTT)	Limit Note 2.
Temperature (°C)	Voltage (Volt)	Deviation (ppm)	Result
50	Normal Voltage	0.0106	PASS
40	Normal Voltage	0.0112	
30	Normal Voltage	0.0133	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0027	
0	Normal Voltage	0.0021	
-10	Normal Voltage	0.0032	
-20	Normal Voltage	0.0043	
-30	Normal Voltage	0.0037	
20	Maximum Voltage	0.0005	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0000	

Note:

1. Normal Voltage = 3.85V. ; Battery End Point (BEP) = 3.5 V. ; Maximum Voltage =4.4 V
2. The frequency fundamental emissions stay within the authorized frequency block.

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

<Ant. 0 C>

Channel	Mode	Conducted		ERP	
		Power (dBm)	Power (Watts)	ERP(dBm)	ERP(W)
Lowest	GSM850 GSM (GT - LC = 1.4 dB)	32.80	1.9055	32.05	1.6032
Middle		32.59	1.8155	31.84	1.5276
Highest		32.61	1.8239	31.86	1.5346
Lowest	GSM850 EDGE class 8 (GT - LC = 1.4 dB)	26.50	0.4467	25.75	0.3758
Middle		26.50	0.4467	25.75	0.3758
Highest		26.53	0.4498	25.78	0.3784
Lowest	WCDMA Band V RMC 12.2Kbps (GT - LC = 1.4 dB)	24.17	0.2612	23.42	0.2198
Middle		24.25	0.2661	23.50	0.2239
Highest		24.15	0.2600	23.40	0.2188
Lowest	CDMA BC0 1xRTT (GT - LC = 1.4 dB)	24.36	0.2729	23.61	0.2296
Middle		24.38	0.2742	23.63	0.2307
Highest		24.28	0.2679	23.53	0.2254
Lowest	CDMA BC0 1xEV-DO (GT - LC = 1.4 dB)	24.35	0.2723	23.60	0.2291
Middle		24.39	0.2748	23.64	0.2312
Highest		24.29	0.2685	23.54	0.2259
Limit	ERP < 7W	Result		PASS	


<Ant. 0 B>

Channel	Mode	Conducted		EIRP	
		Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	GSM1900	30.03	1.0069	30.73	1.1830
Middle	GPRS class 8	29.75	0.9441	30.45	1.1092
Highest	(GT - LC = 0.7 dB)	30.08	1.0186	30.78	1.1967
Lowest	GSM1900	25.38	0.3451	26.08	0.4055
Middle	EDGE class 8	25.06	0.3206	25.76	0.3767
Highest	(GT - LC = 0.7 dB)	25.05	0.3199	25.75	0.3758
Lowest	WCDMA Band II	24.41	0.2761	25.11	0.3243
Middle	RMC 12.2Kbps	24.45	0.2786	25.15	0.3273
Highest	(GT - LC = 0.7 dB)	24.36	0.2729	25.06	0.3206
Lowest	CDMA BC1	24.70	0.2951	25.40	0.3467
Middle	1xRTT	24.66	0.2924	25.36	0.3436
Highest	(GT - LC = 0.7 dB)	24.40	0.2754	25.10	0.3236
Lowest	CDMA BC1	24.99	0.3155	25.69	0.3707
Middle	1xEV-DO	24.97	0.3141	25.67	0.3690
Highest	(GT - LC = 0.7 dB)	24.82	0.3034	25.52	0.3565
Limit	EIRP < 2W	Result		PASS	

<Ant. 0 B>

Channel	Mode	Conducted		EIRP	
		Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	WCDMA Band IV	23.95	0.2483	24.45	0.2786
Middle	RMC 12.2Kbps	24.45	0.2786	24.95	0.3126
Highest	(GT - LC = 0.5 dB)	24.35	0.2723	24.85	0.3055
Limit	EIRP < 1W	Result		PASS	



<Ant. 0 C>

Channel	Mode	Conducted		EIRP	
		Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	GSM1900	30.03	1.0069	31.53	1.4223
Middle	GPRS class 8	29.75	0.9441	31.25	1.3335
Highest	(GT - LC = 1.5 dB)	30.08	1.0186	31.58	1.4388
Lowest	GSM1900	25.38	0.3451	26.88	0.4875
Middle	EDGE class 8	25.06	0.3206	26.56	0.4529
Highest	(GT - LC = 1.5 dB)	25.05	0.3199	26.55	0.4519
Lowest	WCDMA Band II	24.41	0.2761	25.91	0.3899
Middle	RMC 12.2Kbps	24.45	0.2786	25.95	0.3936
Highest	(GT - LC = 1.5 dB)	24.36	0.2729	25.86	0.3855
Lowest	CDMA BC1	24.70	0.2951	26.20	0.4169
Middle	1xRTT	24.66	0.2924	26.16	0.4130
Highest	(GT - LC = 1.5 dB)	24.40	0.2754	25.90	0.3890
Lowest	CDMA BC1	24.99	0.3155	26.49	0.4457
Middle	1xEV-DO	24.97	0.3141	26.47	0.4436
Highest	(GT - LC = 1.5 dB)	24.82	0.3034	26.32	0.4285
Limit	EIRP < 2W	Result		PASS	

<Ant. 0 C>

Channel	Mode	Conducted		EIRP	
		Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	WCDMA Band IV	23.95	0.2483	24.65	0.2917
Middle	RMC 12.2Kbps	24.45	0.2786	25.15	0.3273
Highest	(GT - LC = 0.7 dB)	24.35	0.2723	25.05	0.3199
Limit	EIRP < 1W	Result		PASS	


<Ant. 1>

Channel	Mode	Conducted		ERP	
		Power (dBm)	Power (Watts)	ERP(dBm)	ERP(W)
Lowest	GSM850	32.80	1.9055	27.55	0.5689
Middle	GSM	32.59	1.8155	27.34	0.5420
Highest	(GT - LC = -3.1 dB)	32.61	1.8239	27.36	0.5445
Lowest	GSM850	26.50	0.4467	21.25	0.1334
Middle	EDGE class 8	26.50	0.4467	21.25	0.1334
Highest	(GT - LC = -3.1 dB)	26.53	0.4498	21.28	0.1343
Lowest	WCDMA Band V	24.17	0.2612	18.92	0.0780
Middle	RMC 12.2Kbps	24.25	0.2661	19.00	0.0794
Highest	(GT - LC = -3.1 dB)	24.15	0.2600	18.90	0.0776
Lowest	CDMA BC0	24.36	0.2729	19.11	0.0815
Middle	1xRTT	24.38	0.2742	19.13	0.0818
Highest	(GT - LC = -3.1 dB)	24.28	0.2679	19.03	0.0800
Lowest	CDMA BC0	24.35	0.2723	19.10	0.0813
Middle	1xEV-DO	24.39	0.2748	19.14	0.0820
Highest	(GT - LC = -3.1 dB)	24.29	0.2685	19.04	0.0802
Limit	ERP < 7W	Result		PASS	

Channel	Mode	Conducted		EIRP	
		Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	GSM1900	30.03	1.0069	31.23	1.3274
Middle	GPRS class 8	29.75	0.9441	30.95	1.2445
Highest	(GT - LC = 1.2 dB)	30.08	1.0186	31.28	1.3428
Lowest	GSM1900	25.38	0.3451	26.58	0.4550
Middle	EDGE class 8	25.06	0.3206	26.26	0.4227
Highest	(GT - LC = 1.2 dB)	25.05	0.3199	26.25	0.4217
Lowest	WCDMA Band II	24.41	0.2761	25.61	0.3639
Middle	RMC 12.2Kbps	24.45	0.2786	25.65	0.3673
Highest	(GT - LC = 1.2 dB)	24.36	0.2729	25.56	0.3597
Lowest	CDMA BC1	24.70	0.2951	25.90	0.3890
Middle	1xRTT	24.66	0.2924	25.86	0.3855
Highest	(GT - LC = 1.2 dB)	24.40	0.2754	25.60	0.3631
Lowest	CDMA BC1	24.99	0.3155	26.19	0.4159
Middle	1xEV-DO	24.97	0.3141	26.17	0.4140
Highest	(GT - LC = 1.2 dB)	24.82	0.3034	26.02	0.3999
Limit	EIRP < 2W	Result		PASS	

**<Ant. 1>**

Channel	Mode	Conducted		EIRP	
		Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	WCDMA Band IV	23.95	0.2483	24.15	0.2600
Middle	RMC 12.2Kbps	24.45	0.2786	24.65	0.2917
Highest	(GT - LC = 0.2 dB)	24.35	0.2723	24.55	0.2851
Limit	EIRP < 1W	Result		PASS	

**Radiated Spurious Emission**

<For Adapter Mode>

<Ant. 0_C>

GSM850

GSM 850									
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	1648	-56.60	-13	-43.60	-66.7	-62.19	0.92	8.66	H
	2472	-32.23	-13	-19.23	-46.55	-39.60	1.14	10.66	H
	3296	-54.75	-13	-41.75	-70.42	-63.29	1.32	12.01	H
	4120	-51.92	-13	-38.92	-70.66	-61.08	1.47	12.78	H
	1648	-58.74	-13	-45.74	-68.3	-64.33	0.92	8.66	V
	2472	-33.25	-13	-20.25	-47.75	-40.62	1.14	10.66	V
	3296	-53.85	-13	-40.85	-69.98	-62.39	1.32	12.01	V
	4120	-48.90	-13	-35.90	-67.71	-58.06	1.47	12.78	V
Middle	1672	-56.49	-13	-43.49	-66.67	-62.17	0.93	8.75	H
	2509	-33.40	-13	-20.40	-47.69	-40.81	1.15	10.71	H
	3344	-54.80	-13	-41.80	-70.42	-63.44	1.33	12.13	H
	1672	-58.06	-13	-45.06	-67.58	-63.74	0.93	8.75	V
	2509	-32.82	-13	-19.82	-47.29	-40.23	1.15	10.71	V
	3344	-54.74	-13	-41.74	-70.73	-63.38	1.33	12.13	V
Highest	1696	-52.47	-13	-39.47	-62.72	-58.23	0.94	8.84	H
	2544	-22.00	-13	-9.00	-36.27	-29.44	1.16	10.75	H
	3392	-55.17	-13	-42.17	-70.58	-63.92	1.34	12.24	H
	4240	-40.96	-13	-27.96	-59.99	-50.11	1.45	12.75	H
	1696	-55.93	-13	-42.93	-65.44	-61.69	0.94	8.84	V
	2544	-30.07	-13	-17.07	-44.43	-37.51	1.16	10.75	V
	3392	-55.05	-13	-42.05	-70.89	-63.80	1.34	12.24	V
	4240	-45.87	-13	-32.87	-64.96	-55.02	1.45	12.75	V

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



EDGE 850

EDGE 850									
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	1648	-55.55	-13	-42.55	-65.65	-61.14	0.92	8.66	H
	2472	-47.16	-13	-34.16	-61.48	-54.53	1.14	10.66	H
	3296	-54.65	-13	-41.65	-70.32	-63.19	1.32	12.01	H
	1648	-59.76	-13	-46.76	-69.32	-65.35	0.92	8.66	V
	2472	-49.94	-13	-36.94	-64.44	-57.31	1.14	10.66	V
	3296	-54.45	-13	-41.45	-70.58	-62.99	1.32	12.01	V
Middle	1672	-54.13	-13	-41.13	-64.31	-59.81	0.93	8.75	H
	2512	-48.74	-13	-35.74	-63.03	-56.15	1.15	10.71	H
	3344	-55.14	-13	-42.14	-70.68	-63.78	1.33	12.13	H
	1672	-57.20	-13	-44.20	-66.72	-62.88	0.93	8.75	V
	2512	-49.86	-13	-36.86	-64.33	-57.27	1.15	10.71	V
	3344	-54.93	-13	-41.93	-70.92	-63.57	1.33	12.13	V
Highest	1696	-53.29	-13	-40.29	-63.54	-59.05	0.94	8.84	H
	2544	-51.96	-13	-38.96	-66.23	-59.40	1.16	10.75	H
	3392	-55.70	-13	-42.70	-71.11	-64.45	1.34	12.24	H
	1696	-55.20	-13	-42.20	-64.71	-60.96	0.94	8.84	V
	2544	-53.81	-13	-40.81	-68.17	-61.25	1.16	10.75	V
	3392	-54.80	-13	-41.80	-70.64	-63.55	1.34	12.24	V

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

**WCDMA 850**

WCDMA 850									
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	1656	-60.76	-13	-47.76	-70.89	-66.38	0.92	8.69	H
	2479	-55.24	-13	-42.24	-69.56	-62.62	1.15	10.67	H
	3304	-55.03	-13	-42.03	-70.65	-63.58	1.32	12.03	H
	1656	-60.89	-13	-47.89	-70.42	-66.51	0.92	8.69	V
	2479	-55.44	-13	-42.44	-69.94	-62.82	1.15	10.67	V
	3304	-54.38	-13	-41.38	-70.47	-62.93	1.32	12.03	V
Middle	1672	-59.95	-13	-46.95	-70.13	-65.63	0.93	8.75	H
	2509	-55.02	-13	-42.02	-69.31	-62.43	1.15	10.71	H
	3345	-55.14	-13	-42.14	-70.68	-63.79	1.33	12.13	H
	1672	-60.98	-13	-47.98	-70.5	-66.66	0.93	8.75	V
	2509	-55.93	-13	-42.93	-70.4	-63.34	1.15	10.71	V
	3345	-54.85	-13	-41.85	-70.84	-63.50	1.33	12.13	V
Highest	1693	-60.52	-13	-47.52	-70.76	-66.27	0.94	8.83	H
	2539	-55.66	-13	-42.66	-69.94	-63.10	1.16	10.75	H
	3386	-55.43	-13	-42.43	-70.88	-64.17	1.34	12.23	H
	1693	-61.14	-13	-48.14	-70.64	-66.89	0.94	8.83	V
	2539	-56.09	-13	-43.09	-70.46	-63.53	1.16	10.75	V
	3386	-54.44	-13	-41.44	-70.33	-63.18	1.34	12.23	V

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

**CDMA2000 (BC0 1xRTT)**

CDMA2000 BC0									
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	1648	-60.10	-13	-47.10	-70.2	-65.69	0.92	8.66	H
	2474	-56.06	-13	-43.06	-70.38	-63.43	1.14	10.66	H
	3296	-55.00	-13	-42.00	-70.67	-63.54	1.32	12.01	H
	1648	-60.77	-13	-47.77	-70.33	-66.36	0.92	8.66	V
	2474	-56.13	-13	-43.13	-70.63	-63.50	1.14	10.66	V
	3296	-54.32	-13	-41.32	-70.45	-62.86	1.32	12.01	V
Middle	1672	-59.48	-13	-46.48	-69.66	-65.16	0.93	8.75	H
	2510	-56.16	-13	-43.16	-70.45	-63.57	1.15	10.71	H
	3346	-55.39	-13	-42.39	-70.93	-64.04	1.33	12.13	H
	1672	-60.89	-13	-47.89	-70.41	-66.57	0.93	8.75	V
	2510	-55.85	-13	-42.85	-70.32	-63.26	1.15	10.71	V
	3346	-54.87	-13	-41.87	-70.86	-63.52	1.33	12.13	V
Highest	1696	-60.06	-13	-47.06	-70.31	-65.82	0.94	8.84	H
	2545	-56.13	-13	-43.13	-70.4	-63.57	1.16	10.75	H
	3392	-55.42	-13	-42.42	-70.83	-64.17	1.34	12.24	H
	1696	-61.06	-13	-48.06	-70.57	-66.82	0.94	8.84	V
	2545	-56.15	-13	-43.15	-70.51	-63.59	1.16	10.75	V
	3392	-55.00	-13	-42.00	-70.84	-63.75	1.34	12.24	V

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



<Ant. 0_B>

WCDMA 1700

WCDMA 1700									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	3424	-54.38	-13	-41.38	-70.72	-65.35	1.35	12.32	H
	5136	-49.48	-13	-36.48	-71.18	-60.63	1.65	12.79	H
	6848	-45.99	-13	-32.99	-71.44	-56.36	1.74	12.11	H
	3424	-54.27	-13	-41.27	-71.02	-65.24	1.35	12.32	V
	5136	-49.73	-13	-36.73	-71.18	-60.88	1.65	12.79	V
	6848	-46.72	-13	-33.72	-71.76	-57.09	1.74	12.11	V
Middle	3465	-54.61	-13	-41.61	-71.27	-65.67	1.35	12.42	H
	5198	-49.31	-13	-36.31	-71.04	-60.53	1.66	12.88	H
	6930	-45.44	-13	-32.44	-71.33	-55.71	1.73	12.00	H
	3465	-53.87	-13	-40.87	-70.91	-64.93	1.35	12.42	V
	5198	-49.98	-13	-36.98	-71.55	-61.20	1.66	12.88	V
	6930	-45.86	-13	-32.86	-71.29	-56.13	1.73	12.00	V
Highest	3504	-53.77	-13	-40.77	-70.72	-64.91	1.36	12.50	H
	5256	-49.82	-13	-36.82	-71.73	-61.10	1.68	12.96	H
	7008	-45.46	-13	-32.46	-71.69	-55.62	1.72	11.89	H
	3504	-53.16	-13	-40.16	-70.47	-64.30	1.36	12.50	V
	5256	-49.91	-13	-36.91	-71.59	-61.19	1.68	12.96	V
	7008	-46.20	-13	-33.20	-71.93	-56.36	1.72	11.89	V

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

**GPRS 1900**

GPRS 1900									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	3700	-54.67	-13	-41.67	-72.77	-65.88	1.41	12.62	H
	5550	-49.61	-13	-36.61	-72.61	-61.17	1.74	13.30	H
	7400	-45.05	-13	-32.05	-71.93	-54.37	1.94	11.26	H
	3700	-54.09	-13	-41.09	-72.33	-65.30	1.41	12.62	V
	5550	-50.00	-13	-37.00	-72.52	-61.56	1.74	13.30	V
	7400	-45.25	-13	-32.25	-71.97	-54.57	1.94	11.26	V
Middle	3760	-54.19	-13	-41.19	-72.48	-65.42	1.43	12.66	H
	5640	-49.69	-13	-36.69	-72.72	-61.26	1.73	13.30	H
	7520	-45.94	-13	-32.94	-72.3	-55.05	1.99	11.10	H
	3760	-54.23	-13	-41.23	-72.72	-65.46	1.43	12.66	V
	5640	-49.93	-13	-36.93	-72.56	-61.50	1.73	13.30	V
	7520	-45.84	-13	-32.84	-72.16	-54.95	1.99	11.10	V
Highest	3816	-53.84	-13	-40.84	-72.37	-65.09	1.44	12.69	H
	5727	-49.31	-13	-36.31	-72.77	-60.88	1.73	13.30	H
	7638	-45.73	-13	-32.73	-71.79	-54.85	2.01	11.13	H
	3816	-53.93	-13	-40.93	-72.7	-65.18	1.44	12.69	V
	5727	-49.91	-13	-36.91	-72.73	-61.48	1.73	13.30	V
	7638	-46.06	-13	-33.06	-72.03	-55.18	2.01	11.13	V

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

**EDGE1900**

EDGE 1900									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	3700	-54.65	-13	-41.65	-72.75	-65.86	1.41	12.62	H
	5550	-49.51	-13	-36.51	-72.51	-61.07	1.74	13.30	H
	7400	-44.46	-13	-31.46	-71.34	-53.78	1.94	11.26	H
	3700	-54.21	-13	-41.21	-72.45	-65.42	1.41	12.62	V
	5550	-50.24	-13	-37.24	-72.76	-61.80	1.74	13.30	V
	7400	-45.41	-13	-32.41	-72.13	-54.73	1.94	11.26	V
Middle	3760	-54.46	-13	-41.46	-72.75	-65.69	1.43	12.66	H
	5640	-49.91	-13	-36.91	-72.94	-61.48	1.73	13.30	H
	7520	-45.97	-13	-32.97	-72.33	-55.08	1.99	11.10	H
	3760	-54.28	-13	-41.28	-72.77	-65.51	1.43	12.66	V
	5640	-50.35	-13	-37.35	-72.98	-61.92	1.73	13.30	V
	7520	-46.01	-13	-33.01	-72.33	-55.12	1.99	11.10	V
Highest	3818	-54.10	-13	-41.10	-72.63	-65.35	1.44	12.69	H
	5727	-48.99	-13	-35.99	-72.45	-60.56	1.73	13.30	H
	7636	-46.17	-13	-33.17	-72.23	-55.29	2.01	11.13	H
	3818	-53.96	-13	-40.96	-72.73	-65.21	1.44	12.69	V
	5727	-49.43	-13	-36.43	-72.25	-61.00	1.73	13.30	V
	7636	-46.43	-13	-33.43	-72.4	-55.55	2.01	11.13	V

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

**WCDMA 1900**

WCDMA 1900									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	3704	-54.68	-13	-41.68	-72.78	-65.89	1.41	12.62	H
	5557	-49.46	-13	-36.46	-72.46	-61.02	1.74	13.30	H
	7410	-45.17	-13	-32.17	-71.99	-54.47	1.94	11.24	H
	3704	-54.77	-13	-41.77	-72.81	-65.98	1.41	12.62	V
	5557	-49.86	-13	-36.86	-72.38	-61.42	1.74	13.30	V
	7410	-45.30	-13	-32.30	-71.98	-54.60	1.94	11.24	V
Middle	3760	-53.93	-13	-40.93	-72.22	-65.16	1.43	12.66	H
	5640	-49.65	-13	-36.65	-72.68	-61.22	1.73	13.30	H
	7520	-45.82	-13	-32.82	-72.18	-54.93	1.99	11.10	H
	3760	-54.05	-13	-41.05	-72.54	-65.28	1.43	12.66	V
	5640	-50.06	-13	-37.06	-72.69	-61.63	1.73	13.30	V
	7520	-46.12	-13	-33.12	-72.44	-55.23	1.99	11.10	V
Highest	3816	-54.04	-13	-41.04	-72.57	-65.29	1.44	12.69	H
	5722	-49.30	-13	-36.30	-72.76	-60.87	1.73	13.30	H
	7630	-46.23	-13	-33.23	-72.29	-55.35	2.01	11.13	H
	3816	-53.91	-13	-40.91	-72.68	-65.16	1.44	12.69	V
	5722	-49.61	-13	-36.61	-72.43	-61.18	1.73	13.30	V
	7630	-46.04	-13	-33.04	-72.01	-55.16	2.01	11.13	V

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

**CDMA2000 (BC1 1xRTT)**

CDMA2000 BC1									
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	-54.06	-13	-41.06	-72.16	-65.27	1.41	12.62	H
	5553	-49.84	-13	-36.84	-72.84	-61.40	1.74	13.30	H
	7405	-45.18	-13	-32.18	-72	-54.49	1.94	11.25	H
	3702	-54.02	-13	-41.02	-72.26	-65.23	1.41	12.62	V
	5553	-49.89	-13	-36.89	-72.41	-61.45	1.74	13.30	V
	7405	-45.49	-13	-32.49	-72.17	-54.80	1.94	11.25	V
Middle	3760	-53.82	-13	-40.82	-72.11	-65.05	1.43	12.66	H
	5640	-49.44	-13	-36.44	-72.47	-61.01	1.73	13.30	H
	7520	-45.31	-13	-32.31	-71.67	-54.42	1.99	11.10	H
	3760	-53.69	-13	-40.69	-72.18	-64.92	1.43	12.66	V
	5640	-49.96	-13	-36.96	-72.59	-61.53	1.73	13.30	V
	7520	-45.94	-13	-32.94	-72.26	-55.05	1.99	11.10	V
Highest	3817	-53.80	-13	-40.80	-72.33	-65.05	1.44	12.69	H
	5726	-48.86	-13	-35.86	-72.32	-60.43	1.73	13.30	H
	7635	-46.16	-13	-33.16	-72.22	-55.28	2.01	11.13	H
	3817	-53.55	-13	-40.55	-72.32	-64.80	1.44	12.69	V
	5726	-50.07	-13	-37.07	-72.89	-61.64	1.73	13.30	V
	7635	-46.30	-13	-33.30	-72.27	-55.42	2.01	11.13	V

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



<Ant. 0_C>

WCDMA 1700

WCDMA 1700									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	3425	-54.83	-13	-41.83	-71.17	-65.80	1.35	12.32	H
	5137	-50.56	-13	-37.56	-72.26	-61.71	1.65	12.79	H
	6850	-46.63	-13	-33.63	-72.08	-57.00	1.74	12.11	H
	3425	-56.05	-13	-43.05	-72.8	-67.02	1.35	12.32	V
	5137	-52.01	-13	-39.01	-73.46	-63.16	1.65	12.79	V
	6850	-48.40	-13	-35.40	-73.44	-58.77	1.74	12.11	V
Middle	3465	-54.48	-13	-41.48	-71.14	-65.54	1.35	12.42	H
	5198	-50.00	-13	-37.00	-71.73	-61.22	1.66	12.88	H
	6930	-46.18	-13	-33.18	-72.07	-56.45	1.73	12.00	H
	3465	-55.71	-13	-42.71	-72.75	-66.77	1.35	12.42	V
	5198	-51.90	-13	-38.90	-73.47	-63.12	1.66	12.88	V
	6930	-47.99	-13	-34.99	-73.42	-58.26	1.73	12.00	V
Highest	3505	-54.35	-13	-41.35	-71.3	-65.49	1.36	12.50	H
	5258	-49.59	-13	-36.59	-71.5	-60.87	1.68	12.96	H
	7010	-45.45	-13	-32.45	-71.74	-55.61	1.73	11.88	H
	3505	-55.21	-13	-42.21	-72.52	-66.35	1.36	12.50	V
	5258	-51.59	-13	-38.59	-73.27	-62.87	1.68	12.96	V
	7010	-47.41	-13	-34.41	-73.22	-57.57	1.73	11.88	V

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

**GPRS 1900**

GPRS 1900									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	3700	-53.01	-13	-40.01	-71.11	-64.22	1.41	12.62	H
	5550	-48.22	-13	-35.22	-71.22	-59.78	1.74	13.30	H
	7400	-44.52	-13	-31.52	-71.4	-53.84	1.94	11.26	H
	3700	-52.96	-13	-39.96	-71.2	-64.17	1.41	12.62	V
	5550	-48.89	-13	-35.89	-71.41	-60.45	1.74	13.30	V
	7400	-44.90	-13	-31.90	-71.62	-54.22	1.94	11.26	V
Middle	3760	-52.33	-13	-39.33	-70.62	-63.56	1.43	12.66	H
	5640	-48.64	-13	-35.64	-71.67	-60.21	1.73	13.30	H
	7520	-44.69	-13	-31.69	-71.05	-53.80	1.99	11.10	H
	3760	-52.40	-13	-39.40	-70.89	-63.63	1.43	12.66	V
	5640	-49.21	-13	-36.21	-71.84	-60.78	1.73	13.30	V
	7520	-44.93	-13	-31.93	-71.25	-54.04	1.99	11.10	V
Highest	3818	-52.59	-13	-39.59	-71.12	-63.84	1.44	12.69	H
	5727	-48.06	-13	-35.06	-71.52	-59.63	1.73	13.30	H
	7636	-44.82	-13	-31.82	-70.88	-53.94	2.01	11.13	H
	3818	-52.31	-13	-39.31	-71.08	-63.56	1.44	12.69	V
	5727	-48.53	-13	-35.53	-71.35	-60.10	1.73	13.30	V
	7636	-45.24	-13	-32.24	-71.21	-54.36	2.01	11.13	V

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

**EDGE1900**

EDGE 1900									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	3700	-53.05	-13	-40.05	-71.15	-64.26	1.41	12.62	H
	5550	-48.69	-13	-35.69	-71.69	-60.25	1.74	13.30	H
	7400	-45.07	-13	-32.07	-71.95	-54.39	1.94	11.26	H
	3700	-53.03	-13	-40.03	-71.27	-64.24	1.41	12.62	V
	5550	-48.93	-13	-35.93	-71.45	-60.49	1.74	13.30	V
	7400	-45.31	-13	-32.31	-72.03	-54.63	1.94	11.26	V
Middle	3760	-52.65	-13	-39.65	-70.94	-63.88	1.43	12.66	H
	5640	-48.84	-13	-35.84	-71.87	-60.41	1.73	13.30	H
	7520	-45.22	-13	-32.22	-71.58	-54.33	1.99	11.10	H
	3760	-52.01	-13	-39.01	-70.5	-63.24	1.43	12.66	V
	5640	-49.04	-13	-36.04	-71.67	-60.61	1.73	13.30	V
	7520	-44.82	-13	-31.82	-71.14	-53.93	1.99	11.10	V
Highest	3818	-52.65	-13	-39.65	-71.18	-63.90	1.44	12.69	H
	5727	-48.43	-13	-35.43	-71.89	-60.00	1.73	13.30	H
	7636	-44.89	-13	-31.89	-70.95	-54.01	2.01	11.13	H
	3818	-52.29	-13	-39.29	-71.06	-63.54	1.44	12.69	V
	5727	-49.05	-13	-36.05	-71.87	-60.62	1.73	13.30	V
	7636	-45.27	-13	-32.27	-71.24	-54.39	2.01	11.13	V

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

**WCDMA 1900**

WCDMA 1900									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	3704	-52.77	-13	-39.77	-70.87	-63.98	1.41	12.62	H
	5556	-48.62	-13	-35.62	-71.62	-60.18	1.74	13.30	H
	7408	-45.00	-13	-32.00	-71.82	-54.31	1.94	11.25	H
	3704	-52.76	-13	-39.76	-71	-63.97	1.41	12.62	V
	5556	-49.34	-13	-36.34	-71.86	-60.90	1.74	13.30	V
	7408	-45.14	-13	-32.14	-71.82	-54.45	1.94	11.25	V
Middle	3760	-52.67	-13	-39.67	-70.96	-63.90	1.43	12.66	H
	5640	-47.47	-13	-34.47	-70.5	-59.04	1.73	13.30	H
	7520	-45.10	-13	-32.10	-71.46	-54.21	1.99	11.10	H
	3760	-52.52	-13	-39.52	-71.01	-63.75	1.43	12.66	V
	5640	-48.84	-13	-35.84	-71.47	-60.41	1.73	13.30	V
	7520	-44.80	-13	-31.80	-71.12	-53.91	1.99	11.10	V
Highest	3815	-52.65	-13	-39.65	-71.18	-63.90	1.44	12.69	H
	5722	-46.64	-13	-33.64	-70.1	-58.21	1.73	13.30	H
	7630	-45.20	-13	-32.20	-71.26	-54.32	2.01	11.13	H
	3815	-52.67	-13	-39.67	-71.44	-63.92	1.44	12.69	V
	5722	-48.90	-13	-35.90	-71.72	-60.47	1.73	13.30	V
	7630	-45.38	-13	-32.38	-71.35	-54.50	2.01	11.13	V

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

CDMA2000 (BC1 1xRTT)

CDMA2000 BC1									
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	3702	-53.03	-13	-40.03	-71.13	-64.24	1.41	12.62	H
	5553	-48.26	-13	-35.26	-71.26	-59.82	1.74	13.30	H
	7405	-45.03	-13	-32.03	-71.85	-54.34	1.94	11.25	H
	3702	-52.82	-13	-39.82	-71.06	-64.03	1.41	12.62	V
	5553	-48.84	-13	-35.84	-71.36	-60.40	1.74	13.30	V
	7405	-45.28	-13	-32.28	-71.96	-54.59	1.94	11.25	V
Middle	3760	-52.69	-13	-39.69	-70.98	-63.92	1.43	12.66	H
	5640	-48.83	-13	-35.83	-71.86	-60.40	1.73	13.30	H
	7520	-44.76	-13	-31.76	-71.12	-53.87	1.99	11.10	H
	3760	-52.31	-13	-39.31	-70.8	-63.54	1.43	12.66	V
	5640	-49.15	-13	-36.15	-71.78	-60.72	1.73	13.30	V
	7520	-44.41	-13	-31.41	-70.73	-53.52	1.99	11.10	V
Highest	3817	-52.44	-13	-39.44	-70.97	-63.69	1.44	12.69	H
	5726	-48.06	-13	-35.06	-71.52	-59.63	1.73	13.30	H
	7635	-44.90	-13	-31.90	-70.96	-54.02	2.01	11.13	H
	3817	-52.45	-13	-39.45	-71.22	-63.70	1.44	12.69	V
	5726	-48.72	-13	-35.72	-71.54	-60.29	1.73	13.30	V
	7635	-45.50	-13	-32.50	-71.47	-54.62	2.01	11.13	V

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



<Ant. 1>

GSM850

GSM 850									
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	1648	-45.04	-13	-32.04	-55.14	-50.63	0.92	8.66	H
	2472	-37.06	-13	-24.06	-51.38	-44.43	1.14	10.66	H
	3296	-55.06	-13	-42.06	-70.73	-63.60	1.32	12.01	H
	4120	-47.65	-13	-34.65	-66.39	-56.81	1.47	12.78	H
	1648	-48.38	-13	-35.38	-57.94	-53.97	0.92	8.66	V
	2472	-39.52	-13	-26.52	-54.02	-46.89	1.14	10.66	V
	3296	-54.83	-13	-41.83	-70.96	-63.37	1.32	12.01	V
	4120	-50.20	-13	-37.20	-69.01	-59.36	1.47	12.78	V
Middle	1672	-43.04	-13	-30.04	-53.22	-48.72	0.93	8.75	H
	2512	-37.10	-13	-24.10	-51.39	-44.51	1.15	10.71	H
	3347	-54.99	-13	-41.99	-70.53	-63.64	1.33	12.13	H
	4184	-41.44	-13	-28.44	-60.22	-50.59	1.46	12.76	H
	1672	-47.51	-13	-34.51	-57.03	-53.19	0.93	8.75	V
	2512	-35.18	-13	-22.18	-49.65	-42.59	1.15	10.71	V
	3347	-55.08	-13	-42.08	-71.07	-63.73	1.33	12.13	V
	4184	-47.16	-13	-34.16	-66.07	-56.31	1.46	12.76	V
Highest	1696	-46.79	-13	-33.79	-57.04	-52.55	0.94	8.84	H
	2544	-42.44	-13	-29.44	-56.71	-49.88	1.16	10.75	H
	3393	-55.53	-13	-42.53	-70.94	-64.28	1.34	12.24	H
	1696	-49.33	-13	-36.33	-58.84	-55.09	0.94	8.84	V
	2544	-42.06	-13	-29.06	-56.42	-49.50	1.16	10.75	V
	3393	-55.21	-13	-42.21	-71.05	-63.96	1.34	12.24	V

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

**EDGE 850**

EDGE 850									
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	1649	-50.21	-13	-37.21	-60.31	-55.81	0.92	8.67	H
	2474	-37.23	-13	-24.23	-51.55	-44.60	1.14	10.66	H
	3298	-54.95	-13	-41.95	-70.62	-63.49	1.32	12.02	H
	4123	-47.09	-13	-34.09	-65.83	-56.25	1.47	12.78	H
	1649	-50.82	-13	-37.82	-60.38	-56.42	0.92	8.67	V
	2474	-42.61	-13	-29.61	-57.11	-49.98	1.14	10.66	V
	3298	-54.79	-13	-41.79	-70.92	-63.33	1.32	12.02	V
	4123	-48.37	-13	-35.37	-67.18	-57.53	1.47	12.78	V
Middle	1672	-47.92	-13	-34.92	-58.1	-53.60	0.93	8.75	H
	2509	-33.95	-13	-20.95	-48.24	-41.36	1.15	10.71	H
	3345	-55.41	-13	-42.41	-70.95	-64.06	1.33	12.13	H
	4182	-41.52	-13	-28.52	-60.3	-50.67	1.46	12.76	H
	1672	-51.97	-13	-38.97	-61.49	-57.65	0.93	8.75	V
	2509	-37.20	-13	-24.20	-51.67	-44.61	1.15	10.71	V
	3345	-54.94	-13	-41.94	-70.93	-63.59	1.33	12.13	V
	4182	-47.32	-13	-34.32	-66.23	-56.47	1.46	12.76	V
Highest	1696	-45.33	-13	-32.33	-55.58	-51.09	0.94	8.84	H
	2544	-42.03	-13	-29.03	-56.3	-49.47	1.16	10.75	H
	3393	-55.65	-13	-42.65	-71.06	-64.40	1.34	12.24	H
	4241	-52.11	-13	-39.11	-71.14	-61.26	1.45	12.75	H
	1696	-50.78	-13	-37.78	-60.29	-56.54	0.94	8.84	V
	2544	-39.37	-13	-26.37	-53.73	-46.81	1.16	10.75	V
	3393	-55.35	-13	-42.35	-71.19	-64.10	1.34	12.24	V
	4241	-46.33	-13	-33.33	-65.42	-55.48	1.45	12.75	V

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

WCDMA 850

WCDMA 850									
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	1649	-60.46	-13	-47.46	-70.56	-66.06	0.92	8.67	H
	2474	-56.66	-13	-43.66	-70.98	-64.03	1.14	10.66	H
	3298	-55.00	-13	-42.00	-70.67	-63.54	1.32	12.02	H
	1649	-61.34	-13	-48.34	-70.9	-66.94	0.92	8.67	V
	2474	-56.42	-13	-43.42	-70.92	-63.79	1.14	10.66	V
	3298	-54.63	-13	-41.63	-70.76	-63.17	1.32	12.02	V
Middle	1672	-60.27	-13	-47.27	-70.45	-65.95	0.93	8.75	H
	2509	-56.21	-13	-43.21	-70.5	-63.62	1.15	10.71	H
	3345	-54.81	-13	-41.81	-70.35	-63.46	1.33	12.13	H
	1672	-61.24	-13	-48.24	-70.76	-66.92	0.93	8.75	V
	2509	-56.26	-13	-43.26	-70.73	-63.67	1.15	10.71	V
	3345	-54.62	-13	-41.62	-70.61	-63.27	1.33	12.13	V
Highest	1696	-60.48	-13	-47.48	-70.73	-66.24	0.94	8.84	H
	2544	-56.02	-13	-43.02	-70.29	-63.46	1.16	10.75	H
	3393	-55.27	-13	-42.27	-70.68	-64.02	1.34	12.24	H
	1696	-61.17	-13	-48.17	-70.68	-66.93	0.94	8.84	V
	2544	-56.01	-13	-43.01	-70.37	-63.45	1.16	10.75	V
	3393	-54.91	-13	-41.91	-70.75	-63.66	1.34	12.24	V

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

**CDMA2000 (BC0 1xRTT)**

CDMA2000 BC0									
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	1648	-60.94	-13	-47.94	-71.04	-66.53	0.92	8.66	H
	2474	-56.81	-13	-43.81	-71.13	-64.18	1.14	10.66	H
	3298	-55.54	-13	-42.54	-71.21	-64.08	1.32	12.02	H
	1648	-61.70	-13	-48.70	-71.26	-67.29	0.92	8.66	V
	2474	-56.68	-13	-43.68	-71.18	-64.05	1.14	10.66	V
	3298	-55.25	-13	-42.25	-71.38	-63.79	1.32	12.02	V
Middle	1672	-60.85	-13	-47.85	-71.03	-66.53	0.93	8.75	H
	2509	-56.63	-13	-43.63	-70.92	-64.04	1.15	10.71	H
	3344	-55.61	-13	-42.61	-71.15	-64.25	1.33	12.13	H
	1672	-58.66	-13	-45.66	-68.18	-64.34	0.93	8.75	V
	2509	-56.38	-13	-43.38	-70.85	-63.79	1.15	10.71	V
	3344	-55.23	-13	-42.23	-71.22	-63.87	1.33	12.13	V
Highest	1696	-60.69	-13	-47.69	-70.94	-66.45	0.94	8.84	H
	2544	-56.69	-13	-43.69	-70.96	-64.13	1.16	10.75	H
	3393	-55.54	-13	-42.54	-70.95	-64.29	1.34	12.24	H
	1696	-61.67	-13	-48.67	-71.18	-67.43	0.94	8.84	V
	2544	-56.65	-13	-43.65	-71.01	-64.09	1.16	10.75	V
	3393	-55.46	-13	-42.46	-71.3	-64.21	1.34	12.24	V

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

**WCDMA 1700**

WCDMA 1700									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	3425	-55.33	-13	-42.33	-71.67	-66.30	1.35	12.32	H
	5137	-50.54	-13	-37.54	-72.24	-61.69	1.65	12.79	H
	6850	-46.41	-13	-33.41	-71.86	-56.78	1.74	12.11	H
	3425	-56.15	-13	-43.15	-72.9	-67.12	1.35	12.32	V
	5137	-52.13	-13	-39.13	-73.58	-63.28	1.65	12.79	V
	6850	-48.48	-13	-35.48	-73.52	-58.85	1.74	12.11	V
Middle	3465	-55.01	-13	-42.01	-71.67	-66.07	1.35	12.42	H
	5198	-50.18	-13	-37.18	-71.91	-61.40	1.66	12.88	H
	6930	-46.33	-13	-33.33	-72.22	-56.60	1.73	12.00	H
	3465	-55.91	-13	-42.91	-72.95	-66.97	1.35	12.42	V
	5198	-51.73	-13	-38.73	-73.3	-62.95	1.66	12.88	V
	6930	-48.06	-13	-35.06	-73.49	-58.33	1.73	12.00	V
Highest	3505	-54.65	-13	-41.65	-71.6	-65.79	1.36	12.50	H
	5258	-50.17	-13	-37.17	-72.08	-61.45	1.68	12.96	H
	7010	-45.72	-13	-32.72	-72.01	-55.88	1.73	11.88	H
	3505	-55.43	-13	-42.43	-72.74	-66.57	1.36	12.50	V
	5258	-51.57	-13	-38.57	-73.25	-62.85	1.68	12.96	V
	7010	-47.46	-13	-34.46	73.27	-57.62	1.73	11.88	V

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

**GPRS 1900**

GPRS 1900									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	3700	-51.15	-13	-38.15	-69.25	-62.36	1.41	12.62	H
	5550	-38.43	-13	-25.43	-61.43	-49.99	1.74	13.30	H
	7400	-44.76	-13	-31.76	-71.64	-54.08	1.94	11.26	H
	3700	-52.08	-13	-39.08	-70.32	-63.29	1.41	12.62	V
	5550	-44.67	-13	-31.67	-67.19	-56.23	1.74	13.30	V
	7400	-44.64	-13	-31.64	-71.39	-53.96	1.94	11.26	V
Middle	3760	-51.19	-13	-38.19	-69.48	-62.42	1.43	12.66	H
	5640	-42.38	-13	-29.38	-65.41	-53.95	1.73	13.30	H
	7520	-44.73	-13	-31.73	-71.09	-53.84	1.99	11.10	H
	3760	-50.78	-13	-37.78	-69.27	-62.01	1.43	12.66	V
	5640	-46.05	-13	-33.05	-68.68	-57.62	1.73	13.30	V
	7520	-44.98	-13	-31.98	-71.3	-54.09	1.99	11.10	V
Highest	3818	-52.27	-13	-39.27	-70.8	-63.52	1.44	12.69	H
	5727	-47.57	-13	-34.57	-71.03	-59.14	1.73	13.30	H
	7636	-45.02	-13	-32.02	-71.08	-54.14	2.01	11.13	H
	3818	-52.02	-13	-39.02	-70.79	-63.27	1.44	12.69	V
	5727	-48.50	-13	-35.50	-71.32	-60.07	1.73	13.30	V
	7636	-45.30	-13	-32.30	-71.27	-54.42	2.01	11.13	V

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

**EDGE1900**

EDGE 1900									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	3702	-55.38	-13	-42.38	-73.48	-66.59	1.41	12.62	H
	5550	-42.35	-13	-29.35	-65.35	-53.91	1.74	13.30	H
	7400	-45.10	-13	-32.10	-71.91	-54.42	1.94	11.26	H
	3702	-55.29	-13	-42.29	-73.53	-66.50	1.41	12.62	V
	5550	-44.08	-13	-31.08	-66.6	-55.64	1.74	13.30	V
	7400	-45.25	-13	-32.25	-71.97	-54.57	1.94	11.26	V
Middle	3762	-54.73	-13	-41.73	-73.02	-65.96	1.43	12.66	H
	5640	-41.07	-13	-28.07	-64.1	-52.64	1.73	13.30	H
	7520	-45.66	-13	-32.66	-72.02	-54.77	1.99	11.10	H
	3762	-54.71	-13	-41.71	-73.2	-65.94	1.43	12.66	V
	5640	-45.95	-13	-32.95	-68.58	-57.52	1.73	13.30	V
	7520	-45.72	-13	-32.72	-72.04	-54.83	1.99	11.10	V
Highest	3819	-52.50	-13	-39.50	-71.03	-63.75	1.44	12.69	H
	5729	-44.08	-13	-31.08	-67.54	-55.65	1.73	13.30	H
	7639	-44.97	-13	-31.97	-71.04	-54.09	2.01	11.13	H
	3819	-52.35	-13	-39.35	-71.12	-63.60	1.44	12.69	V
	5729	-47.60	-13	-34.60	-70.42	-59.17	1.73	13.30	V
	7639	-45.02	-13	-32.02	-70.97	-54.14	2.01	11.13	V

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

**WCDMA 1900**

WCDMA 1900									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	3702	-55.63	-13	-42.63	-73.73	-66.84	1.41	12.62	H
	5557	-50.39	-13	-37.39	-73.39	-61.95	1.74	13.30	H
	7410	-45.52	-13	-32.52	-72.34	-54.82	1.94	11.24	H
	3704	-55.36	-13	-42.36	-73.6	-66.57	1.41	12.62	V
	5557	-50.18	-13	-37.18	-72.7	-61.74	1.74	13.30	V
	7410	-45.66	-13	-32.66	-72.34	-54.96	1.94	11.24	V
Middle	3762	-55.13	-13	-42.13	-73.42	-66.36	1.43	12.66	H
	5640	-49.73	-13	-36.73	-72.76	-61.30	1.73	13.30	H
	7520	-46.02	-13	-33.02	-72.38	-55.13	1.99	11.10	H
	3762	-55.20	-13	-42.20	-73.69	-66.43	1.43	12.66	V
	5640	-50.43	-13	-37.43	-73.06	-62.00	1.73	13.30	V
	7520	-45.91	-13	-32.91	-72.23	-55.02	1.99	11.10	V
Highest	3816	-54.75	-13	-41.75	-73.28	-66.00	1.44	12.69	H
	5722	-49.53	-13	-36.53	-72.99	-61.10	1.73	13.30	H
	7630	-46.17	-13	-33.17	-72.23	-55.29	2.01	11.13	H
	3816	-54.55	-13	-41.55	-73.32	-65.80	1.44	12.69	V
	5722	-48.95	-13	-35.95	-71.77	-60.52	1.73	13.30	V
	7630	-46.45	-13	-33.45	-72.42	-55.57	2.01	11.13	V

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

**CDMA2000 (BC1 1xRTT)**

CDMA2000 BC1									
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	-55.42	-13	-42.42	-73.52	-66.63	1.41	12.62	H
	5553	-49.77	-13	-36.77	-72.77	-61.33	1.74	13.30	H
	7405	-45.41	-13	-32.41	-72.23	-54.72	1.94	11.25	H
	3702	-55.55	-13	-42.55	-73.79	-66.76	1.41	12.62	V
	5553	-50.77	-13	-37.77	-73.29	-62.33	1.74	13.30	V
	7405	-45.32	-13	-32.32	-72	-54.63	1.94	11.25	V
Middle	3762	-54.96	-13	-41.96	-73.25	-66.19	1.43	12.66	H
	5640	-50.03	-13	-37.03	-73.06	-61.60	1.73	13.30	H
	7520	-46.06	-13	-33.06	-72.42	-55.17	1.99	11.10	H
	3762	-54.47	-13	-41.47	-72.96	-65.70	1.43	12.66	V
	5640	-50.57	-13	-37.57	-73.2	-62.14	1.73	13.30	V
	7520	-46.16	-13	-33.16	-72.48	-55.27	1.99	11.10	V
Highest	3816	-54.48	-13	-41.48	-73.01	-65.73	1.44	12.69	H
	5726	-49.81	-13	-36.81	-73.27	-61.38	1.73	13.30	H
	7635	-46.26	-13	-33.26	-72.32	-55.38	2.01	11.13	H
	3816	-54.87	-13	-41.87	-73.64	-66.12	1.44	12.69	V
	5726	-50.27	-13	-37.27	-73.09	-61.84	1.73	13.30	V
	7635	-46.17	-13	-33.17	-72.14	-55.29	2.01	11.13	V

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



<For WCP Charging Mode>

<Ant. 0_C>

GSM850

GSM 850									
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	1648	-60.52	-13	-47.52	-70.62	-66.11	0.92	8.66	H
	2472	-56.68	-13	-43.68	-71	-64.05	1.14	10.66	H
	3296	-55.72	-13	-42.72	-71.39	-64.26	1.32	12.01	H
	1648	-61.12	-13	-48.12	-70.68	-66.71	0.92	8.66	V
	2472	-56.18	-13	-43.18	-70.68	-63.55	1.14	10.66	V
	3296	-54.93	-13	-41.93	-71.06	-63.47	1.32	12.01	V
Middle	1672	-60.60	-13	-47.60	-70.78	-66.28	0.93	8.75	H
	2512	-56.46	-13	-43.46	-70.75	-63.87	1.15	10.71	H
	3344	-55.77	-13	-42.77	-71.31	-64.41	1.33	12.13	H
	1672	-61.11	-13	-48.11	-70.63	-66.79	0.93	8.75	V
	2509	-56.15	-13	-43.15	-70.62	-63.56	1.15	10.71	V
	3344	-55.02	-13	-42.02	-71.01	-63.66	1.33	12.13	V
Highest	1696	-60.39	-13	-47.39	-70.64	-66.15	0.94	8.84	H
	2544	-56.54	-13	-43.54	-70.81	-63.98	1.16	10.75	H
	3392	-55.71	-13	-42.71	-71.12	-64.46	1.34	12.24	H
	1696	-61.40	-13	-48.40	-70.91	-67.16	0.94	8.84	V
	2544	-56.57	-13	-43.57	-70.93	-64.01	1.16	10.75	V
	3392	-55.48	-13	-42.48	-71.32	-64.23	1.34	12.24	V

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

—————THE END—————