



FCC RADIO TEST REPORT

FCC ID : IHDT56YJ1
Equipment : Mobile Cellular Phone
Brand Name : Motorola
Model Name : XT2061-1
Applicant : Motorola Mobility, LLC
222 W Merchandise Mart Plaza, Suite 1800,
Chicago, IL 60654, United States
Manufacturer : Motorola Mobility, LLC
222 W Merchandise Mart Plaza, Suite 1800,
Chicago, IL 60654, United States
Standard : 47 CFR Part 2, 22(H), 24(E)

The product was received on Dec. 06, 2019 and testing was started from Jan. 08, 2020 and completed on Jan. 18, 2020. 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.

Louis Wu

Approved by: Louis Wu

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	6
1.3 Modification of EUT	6
1.4 Maximum ERP/EIRP Power, Frequency Tolerance, and Emission Designator	7
1.5 Testing Location	8
1.6 Applicable Standards	8
2 Test Configuration of Equipment Under Test	9
2.1 Test Mode.....	9
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	



History of this test report

Report No.	Version	Description	Issued Date
FG9D0635A	01	Initial issue of report	Feb. 05, 2020
FG9D0635A	02	Revised EUT information	Feb. 12, 2020

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 (GSM850) (WCDMA Band V) (CDMA BC0)		
	§24.232 (c)	Equivalent Isotropic Radiated Power (GSM1900) (WCDMA Band II) (CDMA BC1)		
3.3	§24.232 (d)	Peak-to-Average Ratio	Pass	
3.4	§2.1049	Occupied Bandwidth	Pass	-
	§22.917 (b)	(GSM850) (WCDMA Band V) (CDMA BC0)		
	§24.238 (b)	(GSM1900) (WCDMA Band II) (CDMA BC1)		
3.5	§2.1051	Band Edge Measurement	Pass	-
	§22.917 (a)	(GSM850) (WCDMA Band V) (CDMA BC0)		
	§24.238 (a)	(GSM1900) (WCDMA Band II) (CDMA BC1)		
3.6	§2.1051	Conducted Emission	Pass	-
	§22.917 (a)	(GSM850) (WCDMA Band V) (CDMA BC0)		
	§24.238 (a)	(GSM1900) (WCDMA Band II) (CDMA BC1)		
3.7	§2.1055	Frequency Stability	Pass	-
	§22.355	Temperature & Voltage		
	§24.235			
4.4	§2.1053	Field Strength of Spurious Radiation	Pass	Under limit 22.91 dB at 5730.000 MHz
	§22.917 (a)	(GSM850) (WCDMA Band V) (CDMA BC0)		
	§24.238 (a)	(GSM1900) (WCDMA Band II) (CDMA BC1)		

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: Fiona Wu

1 General Description

1.1 Product Feature of Equipment Under Test

Product Feature	
Equipment	Mobile Cellular Phone
Brand Name	Motorola
Model Name	XT2061-1
FCC ID	IHDT56YJ1
IMEI Code	Conducted: IMEI : 359120100017105 Radiation: IMEI : 359120100016339
EUT supports Radios application	CDMA/EV-DO/GSM/EGPRS/WCDMA/HSPA/LTE/5G NR/ GNSS/NFC/WPC WLAN 11b/g/n HT20 WLAN 11a/n HT20/HT40 WLAN 11ac VHT20/VHT40/VHT80 WLAN 11ax HE20/HE40/HE80 Bluetooth BR/EDR/LE
HW Version	DVT2
EUT Stage	Identical Prototype

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

Accessory List	
AC Adapter 1	Brand Name : Motorola
	Model Name : SC-51 (SA18C30116)
	Manufacturer : Chenyang
AC Adapter 2	Brand Name : Motorola
	Model Name : SC-51 (SA18C62985)
	Manufacturer : Acbel
Battery	Brand Name : ATL
	Model Name : LW50
USB Cable 1	Brand Name : Motorola
	Model Name : SC18C24367
	Manufacturer : Saibao
USB Cable 2	Brand Name : Motorola
	Model Name : SC18C24368
	Manufacturer : Luxshare

1.2 Product Specification of Equipment Under Test

Standards-related Product Specification	
Tx Frequency	GSM: GSM850: 824.2 MHz ~ 848.8 MHz GSM1900: 1850.2 MHz ~ 1909.8 MHz WCDMA: Band V: 1852.4 MHz ~ 1907.6 MHz Band II: 1852.4 MHz ~ 1907.6 MHz CDMA: CDMA2000 BC0: 824.70 MHz ~ 848.31 MHz CDMA2000 BC1: 1851.25 MHz ~ 1908.75 MHz
Rx Frequency	GSM: GSM850: 869.2 MHz ~ 893.8 MHz GSM1900: 1930.2 MHz ~ 1989.8 MHz WCDMA: Band V: 1932.4 MHz ~ 1987.6 MHz Band II: 871.4 MHz ~ 891.6 MHz CDMA: CDMA2000 BC0: 869.70 MHz ~ 893.31 MHz CDMA2000 BC1: 1931.25 MHz ~ 1988.75 MHz
Maximum Output Power to Antenna	GSM: GSM850: 32.73 dBm GSM1900: 29.91 dBm WCDMA: Band V: 23.31 dBm Band II: 23.36 dBm CDMA: CDMA2000 BC0: 23.59 dBm CDMA2000 BC1: 23.22 dBm
Antenna Type	Fixed Internal Antenna
Antenna Gain	Cellular Band: -3.4 dBi PCS Band: -0.9 dBi
Type of Modulation	GSM / GPRS: GMSK EGPRS: GMSK for MCS 0 ~ 4 & 8PSK for MCS5 ~9 WCDMA: QPSK (Uplink) HSDPA: 64QAM (Downlink) / HSUPA : QPSK (Uplink) CDMA2000 : QPSK

1.3 Modification of EUT

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



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

FCC Rule	Frequency Range (MHz)	System	Type of Modulation	Maximum ERP/EIRP (W)	Frequency Tolerance (ppm)	Emission Designator
Part 22	824.2 ~848.8	GSM850 GPRS class 8	GMSK	0.5224	0.0096 ppm	249KGXW
Part 22	824.2 ~848.8	GSM850 EDGE class 8	8PSK	0.1524	0.0108 ppm	250KG7W
Part 22	826.4 ~846.6	WCDMA Band V RMC 12.2Kbps	QPSK	0.0597	0.0132 ppm	4M16F9W
Part 22	826.4 ~846.6	CDMA BC0 1xRTT	QPSK	0.0637	0.0622 ppm	1M28F9W
Part 22	826.4 ~846.6	CDMA BC0 1xEV-DO Rev. 0	QPSK	0.0628	0.0394 ppm	1M28F9W
Part 24	1850.2 ~1909.8	GSM1900 GPRS class 8	GMSK	0.7962	0.0032 ppm	246KGXW
Part 24	1850.2 ~1909.8	GSM1900 EDGE class 8	8PSK	0.3097	0.0261 ppm	242KG7W
Part 24	1850.2 ~1909.8	WCDMA Band II RMC 12.2Kbps	QPSK	0.1762	0.0011 ppm	4M15F9W
Part 24	1850.2 ~1909.8	CDMA BC1 1xRTT	QPSK	0.1706	0.0085 ppm	1M28F9W
Part 24	1850.2 ~1909.8	CDMA BC1 1xEV-DO Rev. 0	QPSK	0.1702	0.0037 ppm	1M28F9W



1.5 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	Louis Chung
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	22.3~25.3°C
Relative Humidity	55.7~61.9%

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

FCC Designation No.: TW1190 and TW0007

1.6 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)
- ♦ 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. The worst cases (Y plane) were recorded in this report.

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 19100 MHz for GSM1900 and WCDMA Band II and CDMA BC1

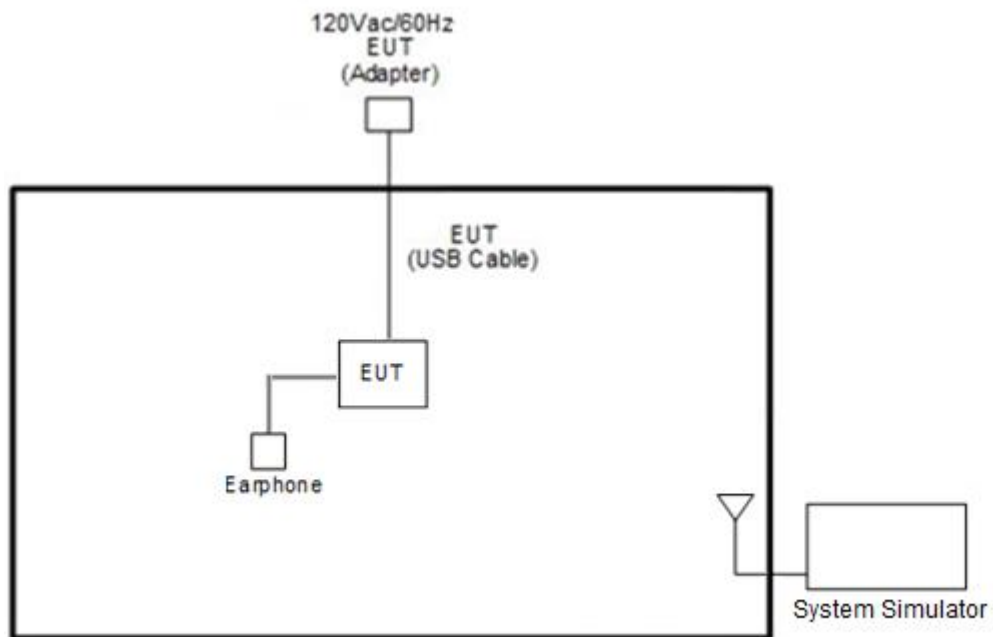
All modes and data rates and positions were investigated.

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

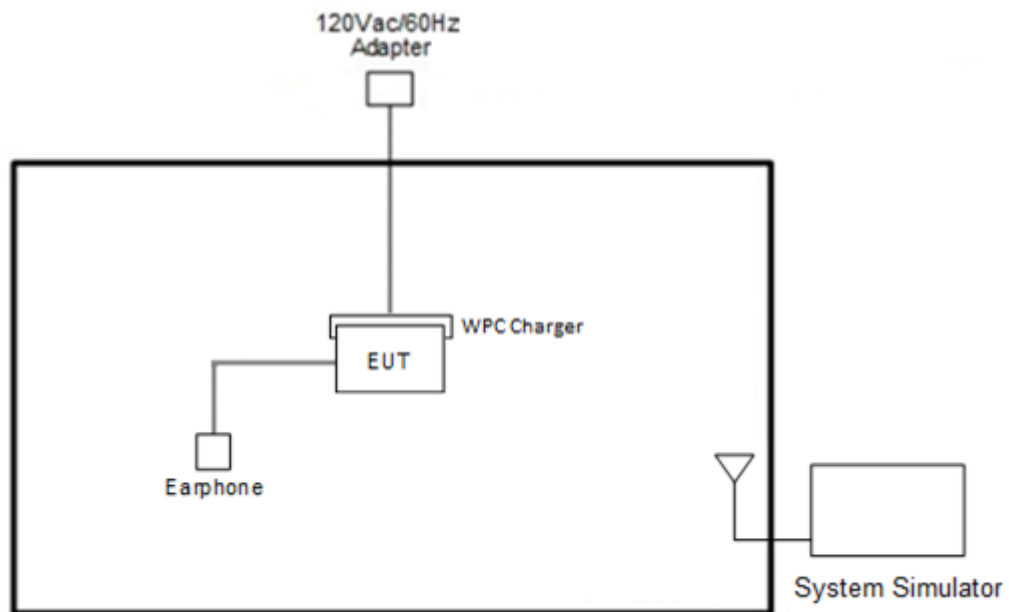
Test Modes		
Band	Radiated TCs	Conducted TCs
GSM850	■ GPRS Class 8 Link ■ EDGE Class 8 Link	■ GPRS Class 8 Link ■ EDGE Class 8 Link
GSM1900	■ GPRS Class 8 Link ■ EDGE Class 8 Link	■ GPRS Class 8 Link ■ EDGE Class 8 Link
WCDMA Band V	■ RMC 12.2Kbps Link	■ RMC 12.2Kbps Link
WCDMA Band II	■ RMC 12.2Kbps Link	■ RMC 12.2Kbps Link
CDMA BC0	■ 1xRTT Link ■ 1xEV-DO Rev. 0 Link	■ 1xRTT Link ■ 1xEV-DO Rev. 0 Link
CDMA BC1	■ 1xRTT Link ■ 1xEV-DO Rev. 0 Link	■ 1xRTT Link ■ 1xEV-DO Rev. 0 Link

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

2.2 Connection Diagram of Test System



<WPC 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.	iPod Earphone	Apple	N/A	Verification	Unshielded, 1.0 m	N/A
3.	Wireless Charger Stand	Samsung	EP-NG930	N/A	N/A	N/A
4.	Adapter	N/A	N/A	N/A	N/A	N/A
5.	USB Cable	N/A	N/A	N/A	N/A	N/A

2.4 Measurement Results Explanation Example

For all conducted test items:

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

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

Offset = RF cable loss + attenuator factor.

The following shows an offset computation example with RF cable loss 4.2 dB and a 10dB attenuator.

Example:

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



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
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

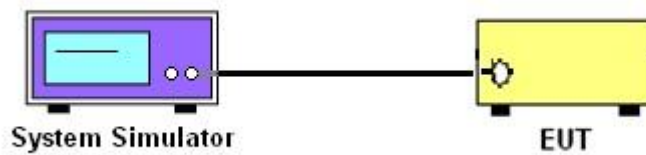
3 Conducted Test Result

3.1 Measuring Instruments

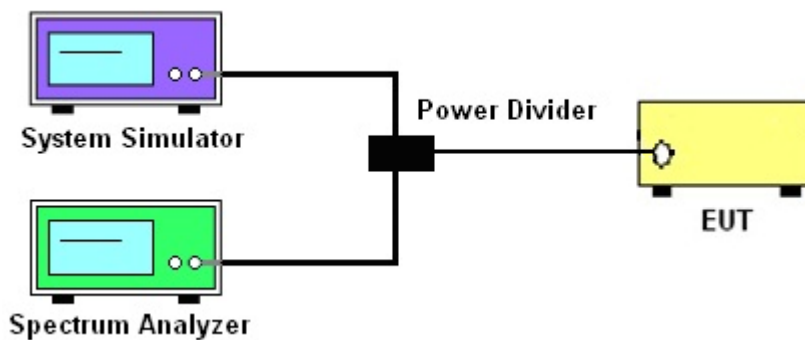
See list of measuring instruments of this test report.

3.1.1 Test Setup

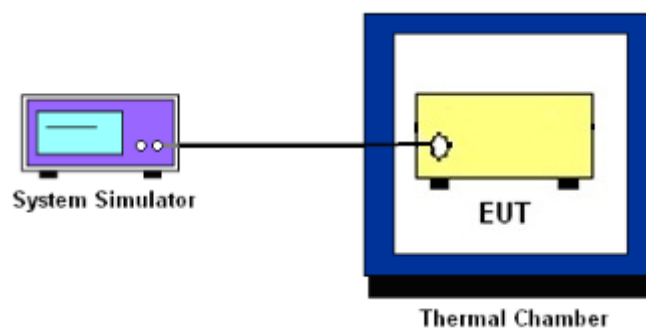
3.1.2 Conducted Output Power



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 and CDMA BC0

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

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

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.

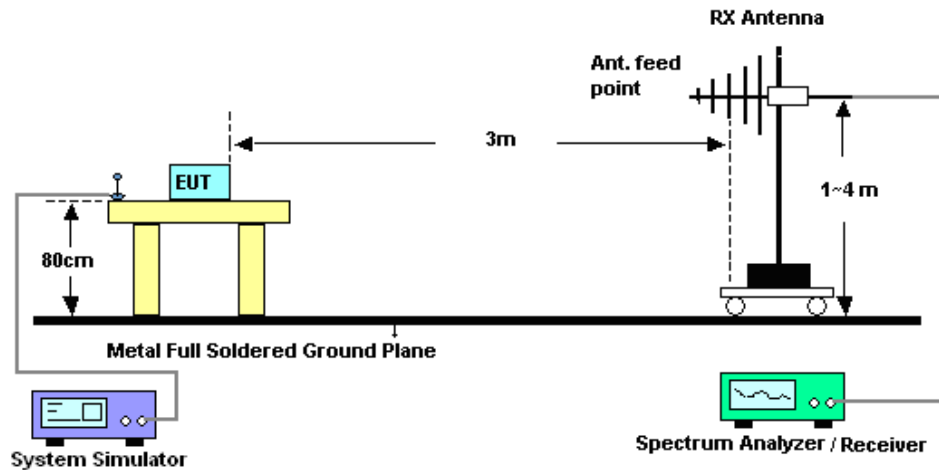
4 Radiated Test Items

4.1 Measuring Instruments

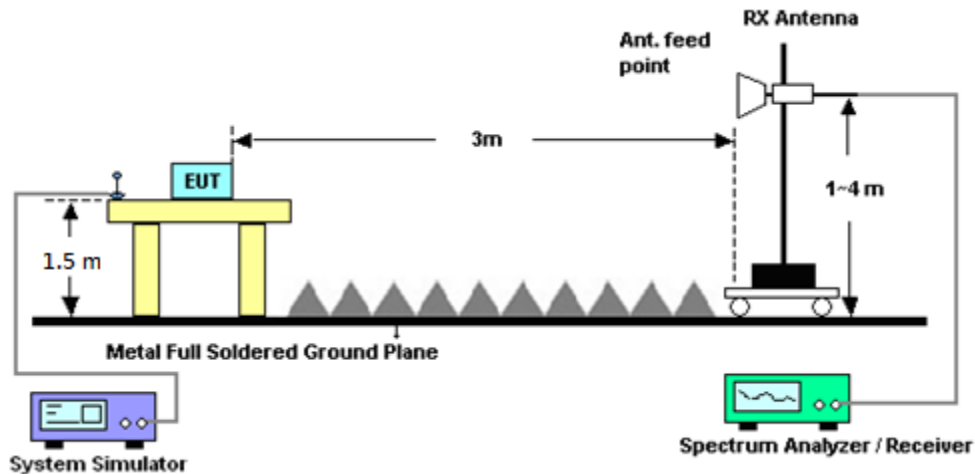
See list of measuring instruments of this test report.

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
Hygrometer	Testo	608-H1	34893241	N/A	Mar. 06, 2019	Jan. 08, 2020	Mar. 05, 2020	Conducted (TH03-HY)
Spectrum Analyzer	Rohde & Schwarz	FSP30	101329	9kHz~30GHz	Sep. 04, 2019	Jan. 08, 2020	Sep. 03, 2020	Conducted (TH03-HY)
Temperature Chamber	ESPEC	SU-641	92013721	-30℃ ~70℃	Nov. 26, 2019	Jan. 08, 2020	Nov. 25, 2020	Conducted (TH03-HY)
Programmable Power Supply	GW Instek	PSS-2005	EL890001	1V~20V 0.5A~4A	Oct. 09, 2019	Jan. 08, 2020	Oct. 08, 2020	Conducted (TH03-HY)
Base Station(Measure)	Rohde & Schwarz	CMU200	117995	GSM / GPRS / WCDMA / CDMA	Aug. 23, 2019	Jan. 08, 2020	Aug. 22, 2020	Conducted (TH03-HY)
Power Divider	Warison	WCOU-0.4-26 .5S-20	#A	N/A	Nov. 06, 2019	Jan. 08, 2020	Nov. 05, 2020	Conducted (TH03-HY)
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100488	9 kHz~30 MHz	Jan. 07, 2019	Jan. 08, 2020	Jan. 06, 2020	Radiation (03CH12-HY)
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100488	9 kHz~30 MHz	Jan. 09, 2020	Jan. 09, 2020~ Jan. 18, 2020	Jan. 08, 2021	Radiation (03CH12-HY)
Bilog Antenna	TESEQ	CBL 6111D & 00800N1D01 N-06	41912 & 05	30MHz~1GHz	Feb. 12, 2019	Jan. 08, 2020~ Jan. 18, 2020	Feb. 11, 2020	Radiation (03CH12-HY)
Horn Antenna	SCHWARZBE CK	BBHA 9120D	9120D-132 8	1GHz ~ 18GHz	Nov. 14, 2019	Jan. 08, 2020~ Jan. 18, 2020	Nov. 13, 2020	Radiation (03CH12-HY)
Horn Antenna	SCHWARZBE CK	BBHA 9120D	9120D-152 2	1GHz ~ 18GHz	Sep. 19, 2019	Jan. 08, 2020~ Jan. 18, 2020	Sep. 18, 2020	Radiation (03CH12-HY)
SHF-EHF Horn Antenna	SCHWARZBE CK	BBHA 9170	BBHA9170 584	18GHz ~ 40GHz	Dec. 10, 2019	Jan. 08, 2020~ Jan. 18, 2020	Dec. 09, 2020	Radiation (03CH12-HY)
Preamplifier	COM-POWER	PA-103	161075	10MHz~1GHz	Mar. 25, 2019	Jan. 08, 2020~ Jan. 18, 2020	Mar. 24, 2020	Radiation (03CH12-HY)
Preamplifier	Jet-Power	JPA00101800 -30-10P	160118000 2	1GHz~18GHz	Aug. 01, 2019	Jan. 08, 2020~ Jan. 18, 2020	Jul. 01, 2020	Radiation (03CH12-HY)
Preamplifier	EMEC	EM18G40G	060715	18GHz ~ 40GHz	Dec. 13, 2019	Jan. 08, 2020~ Jan. 18, 2020	Dec. 12, 2020	Radiation (03CH12-HY)
Preamplifier	Agilent	8449B	3008A023 75	1GHz~26.5GHz	May 27, 2019	Jan. 08, 2020~ Jan. 18, 2020	May 26, 2020	Radiation (03CH12-HY)
EMI Test Receiver	Agilent	N9038A (MXE)	MY532900 45	20MHz~8.4GHz	Jan. 19, 2019	Jan. 08, 2020~ Jan. 17, 2020	Jan. 18, 2020	Radiation (03CH12-HY)
EMI Test Receiver	Agilent	N9038A (MXE)	MY532900 45	20MHz~8.4GHz	Jan. 18, 2020	Jan. 18, 2020	Jan. 17, 2021	Radiation (03CH12-HY)
Spectrum Analyzer	Keysight	N9010A	MY553705 26	10Hz~44GHz	Mar. 19, 2019	Jan. 08, 2020~ Jan. 18, 2020	Mar. 18, 2020	Radiation (03CH12-HY)
Signal Generator	Rohde & Schwarz	SMB100A	101107	100kHz~40GHz	Aug. 27, 2019	Jan. 08, 2020~ Jan. 18, 2020	Aug. 26, 2020	Radiation (03CH12-HY)
Hygrometer	TECPEL	DTM-303B	TP161243	N/A	May 11, 2019	Jan. 08, 2020~ Jan. 18, 2020	May 10, 2020	Radiation (03CH12-HY)



Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Notch Filter	Wainwright	WRCG1710/1 755-1690/177 5-45/7SS	SN2	AWS Band	Nov. 05, 2019	Jan. 08, 2020~ Jan. 18, 2020	Nov. 04, 2020	Radiation (03CH12-HY)
Notch Filter	Wainwright	WRCT2500/2 570-10/40-10 SSK	SN1 R	LTE Band 7	Aug. 22, 2019	Jan. 08, 2020~ Jan. 18, 2020	Aug. 21, 2020	Radiation (03CH12-HY)
Filter	Wainwright	WLKS1200-1 2SS	SN2	1.2GHz Low Pass	Mar. 22, 2019	Jan. 08, 2020~ Jan. 18, 2020	Mar. 21, 2020	Radiation (03CH12-HY)
Filter	Wainwright	WHKX12-108 0-1200-1500- 60ST	SN1	1.2G High Pass	Mar. 19, 2019	Jan. 08, 2020~ Jan. 18, 2020	Mar. 18, 2020	Radiation (03CH12-HY)
Filter	Wainwright	WHKX12-270 0-3000-18000 -60ST	SN2	3G High Pass	Jul. 15, 2019	Jan. 08, 2020~ Jan. 18, 2020	Jul. 14, 2020	Radiation (03CH12-HY)
Filter	Wainwright	WHKX12-270 0-3000-18000 -60ST	SN2	3G High Pass	Jul. 15, 2019	Jan. 08, 2020~ Jan. 18, 2020	Jul. 14, 2020	Radiation (03CH12-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 126E	0058/126E	30M-18G	Mar. 13, 2019	Jan. 08, 2020~ Jan. 18, 2020	Mar. 12, 2020	Radiation (03CH12-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	505134/2	30M~40GHz	Feb. 26, 2019	Jan. 08, 2020~ Jan. 18, 2020	Feb. 25, 2020	Radiation (03CH12-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	800740/2	30M~40GHz	Feb. 26, 2019	Jan. 08, 2020~ Jan. 18, 2020	Feb. 25, 2020	Radiation (03CH12-HY)
Controller	EMEC	EM1000	N/A	Control Turn table & Ant Mast	N/A	Jan. 08, 2020~ Jan. 18, 2020	N/A	Radiation (03CH12-HY)
Antenna Mast	EMEC	AM-BS-4500- B	N/A	1m~4m	N/A	Jan. 08, 2020~ Jan. 18, 2020	N/A	Radiation (03CH12-HY)
Turn Table	EMEC	TT2000	N/A	0~360 Degree	N/A	Jan. 08, 2020~ Jan. 18, 2020	N/A	Radiation (03CH12-HY)
Software	Audix	E3 6.2009-8-24	RK-00098 9	N/A	N/A	Jan. 08, 2020~ Jan. 18, 2020	N/A	Radiation (03CH12-HY)

6 Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	3.24
---	------

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

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	3.62
---	------

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

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	4.06
---	------



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	32.60	32.71	32.61	29.83	29.85	29.51
GPRS class 8	32.66	32.73	32.55	29.91	29.86	29.63
GPRS class 10	31.72	31.39	31.27	29.02	29.08	28.94
GPRS class 11	30.44	29.89	29.67	27.47	27.61	27.54
GPRS class 12	28.75	28.13	27.50	25.89	26.05	26.00
EGPRS class 8	27.17	27.26	27.38	25.65	25.62	25.81
EGPRS class 10	26.01	26.11	26.28	25.08	25.06	25.25
EGPRS class 11	24.40	24.51	24.66	23.54	23.54	23.72
EGPRS class 12	22.83	22.92	23.08	22.00	21.95	22.17

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	23.23	23.31	23.27	23.22	23.36	23.16
HSDPA Subtest-1	22.25	22.34	22.32	22.24	22.40	22.16
HSDPA Subtest-2	22.29	22.33	22.33	22.25	22.37	22.16
HSDPA Subtest-3	21.74	21.82	21.82	21.77	21.87	21.72
HSDPA Subtest-4	21.77	21.84	21.80	21.76	21.90	21.72
HSUPA Subtest-1	22.25	22.30	22.29	22.27	22.40	22.15
HSUPA Subtest-2	20.17	20.22	20.15	20.27	20.41	20.25
HSUPA Subtest-3	21.13	21.18	21.17	21.25	21.39	21.21
HSUPA Subtest-4	20.16	20.21	20.16	20.32	20.43	20.16
HSUPA Subtest-5	22.20	22.20	22.20	22.30	22.40	22.20

Conducted Power (*Unit: dBm)						
Band	CDMA 2000 BC0			CDMA 2000 BC1		
Channel	1013	384	777	25	600	1175
Frequency	824.7	836.52	848.31	1851.25	1880	1908.75
1xRTT RC1 SO55	23.56	23.43	23.52	23.21	23.22	23.02
1xRTT RC3 SO55	23.51	23.38	23.47	23.21	23.20	23.03
1xRTT RC3 SO32 (+ F-SCH)	23.53	23.59	23.58	23.20	23.17	23.02
1xRTT RC3 SO32 (+SCH)	23.52	23.51	23.53	23.19	23.18	23.03
1xEVDO RTAP 153.6Kbps	23.52	23.53	23.51	23.20	23.21	23.01
1xEVDO RETAP 4096Bits	23.51	23.33	23.52	23.21	23.21	23.02



A2. GSM

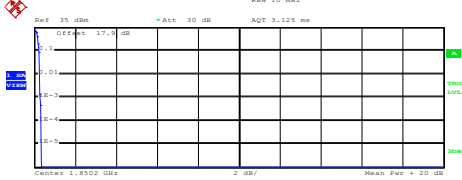
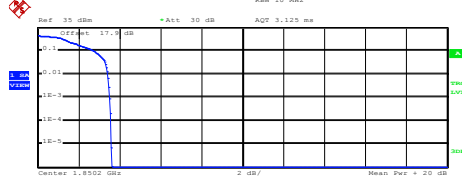
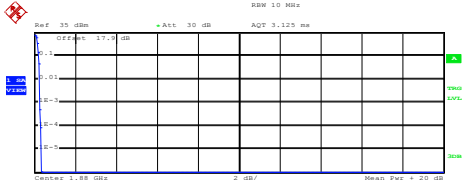
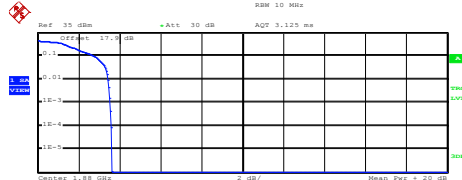
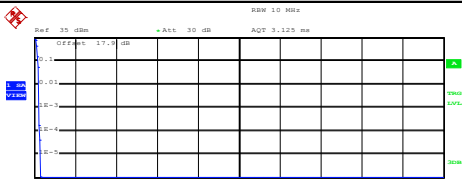
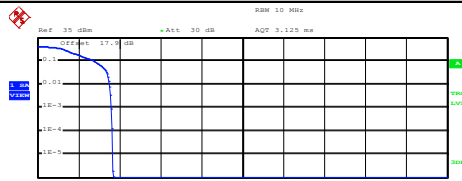
Peak-to-Average Ratio

Mode	GSM850		Limit: 13dB
Mod.	GPRS class 8	EDGE class 8	Result
Lowest CH	0.24	3.40	PASS
Middle CH	0.28	3.28	
Highest CH	0.28	3.28	
Mode	GSM1900		Limit: 13dB
Mod.	GPRS class 8	EDGE class 8	Result
Lowest CH	0.28	3.52	PASS
Middle CH	0.28	3.56	
Highest CH	0.24	3.60	



GSM850 (GPRS class 8)		GSM850 (EDGE class 8)	
Lowest Channel		Lowest Channel	
</			



GSM1900 (GPRS class 8)		GSM1900 (EDGE class 8)	
Lowest Channel		Lowest Channel	
 Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean 29.69 dBm Peak 30.03 dBm Crest 0.34 dB 10 % 0.24 dB 1 % 0.28 dB .1 % 0.28 dB .01 % 0.36 dB Date: 8.JAN.2020 09:47:15		 Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean 25.31 dBm Peak 28.90 dBm Crest 3.59 dB 10 % 2.76 dB 1 % 3.40 dB .1 % 3.52 dB .01 % 3.60 dB Date: 8.JAN.2020 10:21:20	
Middle Channel		Middle Channel	
 Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean 29.70 dBm Peak 30.03 dBm Crest 0.33 dB 10 % 0.20 dB 1 % 0.28 dB .1 % 0.28 dB .01 % 0.32 dB Date: 8.JAN.2020 09:47:31		 Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean 25.27 dBm Peak 28.90 dBm Crest 3.63 dB 10 % 2.80 dB 1 % 3.44 dB .1 % 3.56 dB .01 % 3.60 dB Date: 8.JAN.2020 10:21:34	
Highest Channel		Highest Channel	
 Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean 29.53 dBm Peak 29.82 dBm Crest 0.29 dB 10 % 0.20 dB 1 % 0.24 dB .1 % 0.24 dB .01 % 0.28 dB Date: 8.JAN.2020 09:47:47		 Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean 25.37 dBm Peak 29.04 dBm Crest 3.67 dB 10 % 2.80 dB 1 % 3.52 dB .1 % 3.60 dB .01 % 3.64 dB Date: 8.JAN.2020 10:21:48	

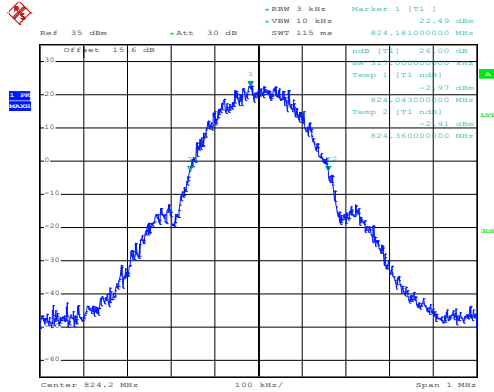
**26dB Bandwidth**

Mode	GSM850: 26dB BW(MHz)	
Mod.	GPRS class 8	EDGE class 8
Lowest CH	0.317	0.308
Middle CH	0.317	0.292
Highest CH	0.311	0.294
Mode	GSM1900 26dB BW(MHz)	
Mod.	GPRS class 8	EDGE class 8
Lowest CH	0.311	0.310
Middle CH	0.299	0.308
Highest CH	0.311	0.299



GSM850 (GPRS class 8)

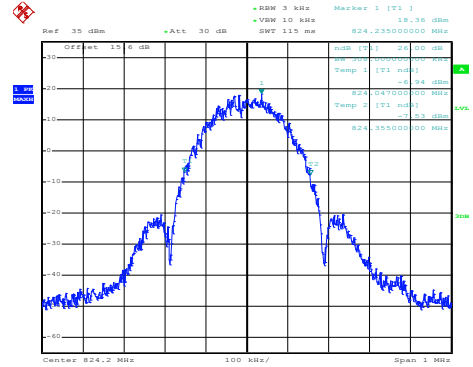
Lowest Channel



Date: 8.JAN.2020 09:56:15

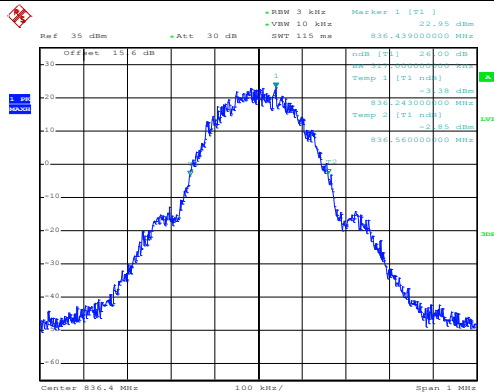
GSM850 (EDGE class 8)

Lowest Channel



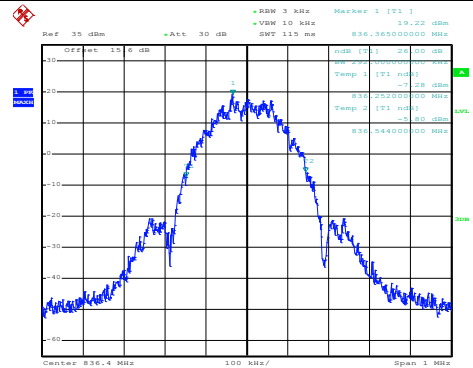
Date: 8.JAN.2020 10:23:29

Middle Channel



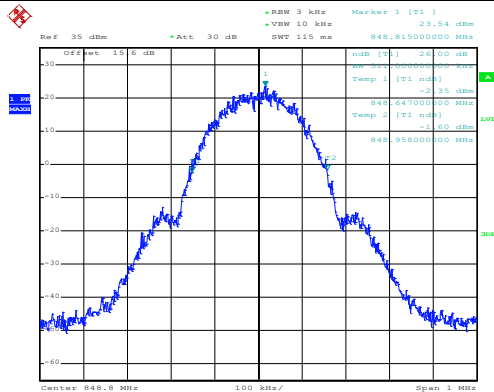
Date: 8.JAN.2020 09:56:55

Middle Channel



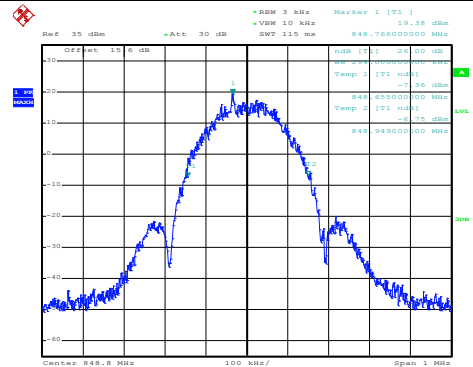
Date: 8.JAN.2020 10:24:01

Highest Channel



Date: 8.JAN.2020 09:57:31

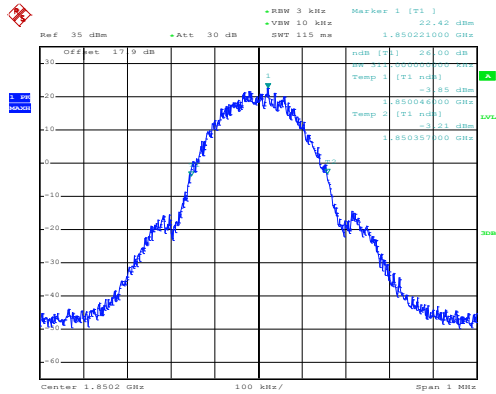
Highest Channel



Date: 8.JAN.2020 10:24:34

GSM1900 (GPRS class 8)

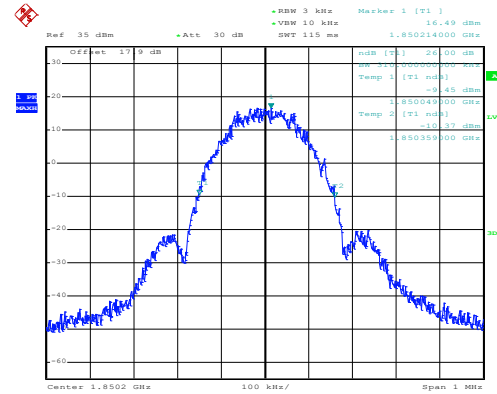
Lowest Channel



Date: 8.JAN.2020 09:43:04

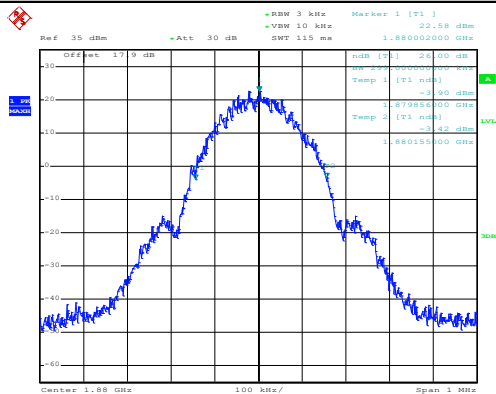
GSM1900 (EDGE class 8)

Lowest Channel



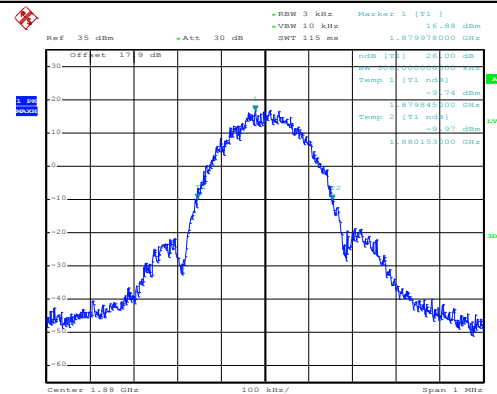
Date: 8.JAN.2020 10:10:22

Middle Channel



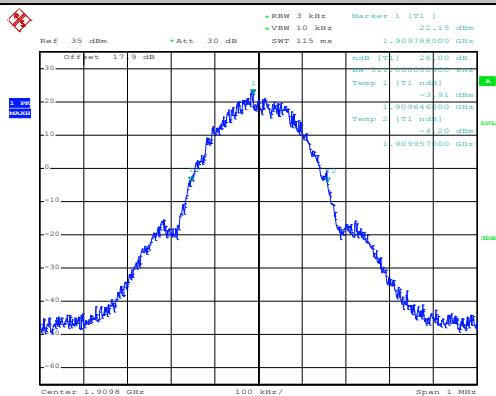
Date: 8.JAN.2020 09:43:38

Middle Channel



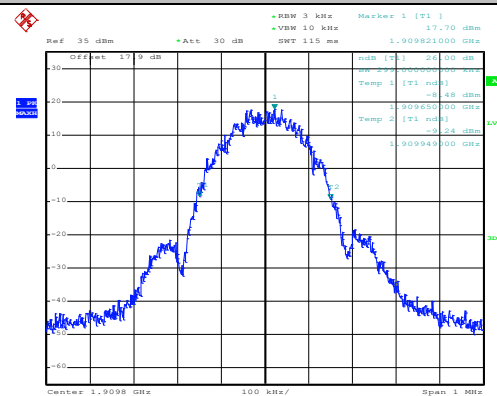
Date: 8.JAN.2020 10:10:58

Highest Channel



Date: 8.JAN.2020 09:44:10

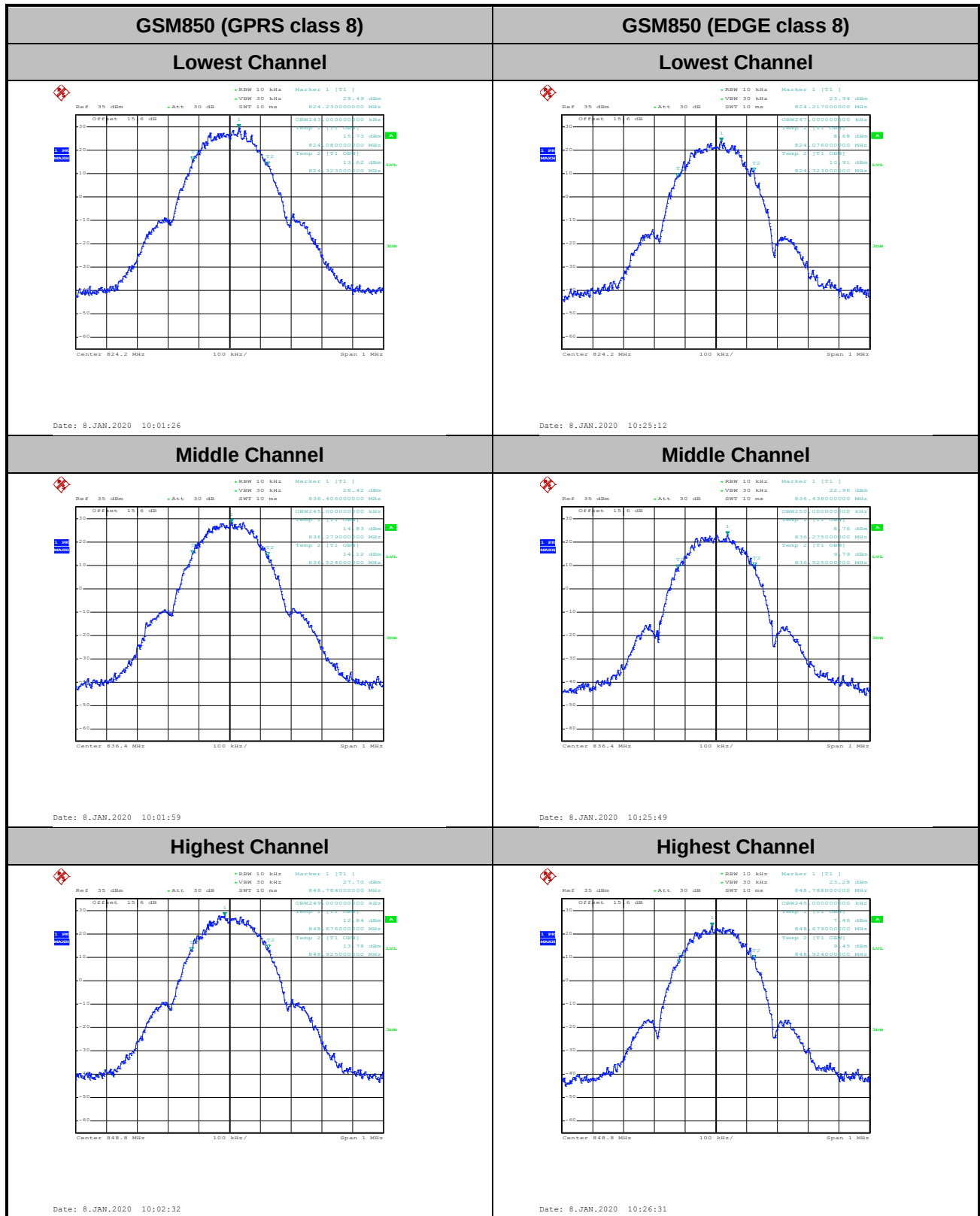
Highest Channel

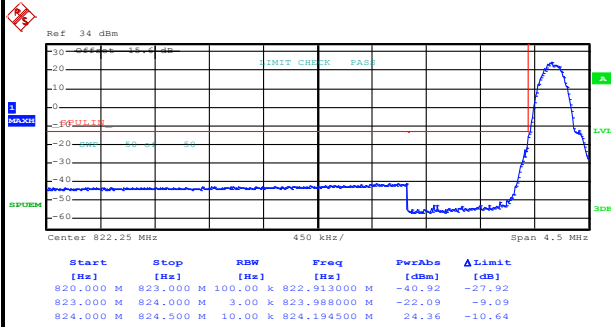


Date: 8.JAN.2020 10:11:38

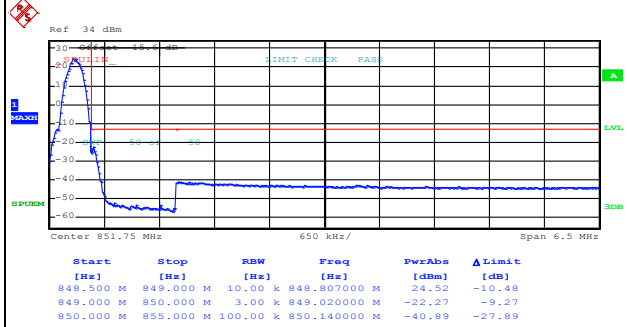
**Occupied Bandwidth**

Mode	GSM850: 99% OBW (MHz)	
Mod.	GPRS class 8	EDGE class 8
Lowest CH	0.243	0.247
Middle CH	0.245	0.250
Highest CH	0.249	0.245
Mode	GSM1900: 99% OBW (MHz)	
Mod.	GPRS class 8	EDGE class 8
Lowest CH	0.246	0.242
Middle CH	0.246	0.239
Highest CH	0.244	0.240

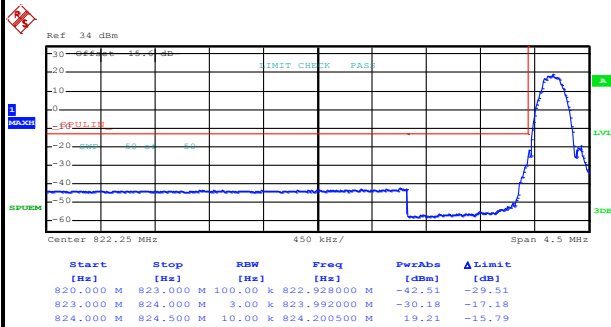


**Conducted Band Edge****GSM850 (GPRS class 8)****Lowest Band Edge**

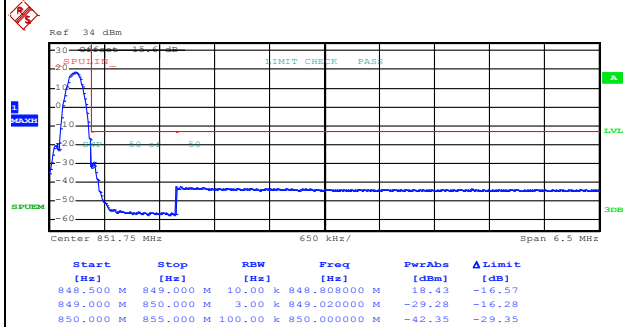
Date: 8.JAN.2020 10:04:08

Highest Band Edge

Date: 8.JAN.2020 10:05:45

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

Date: 8.JAN.2020 10:28:04

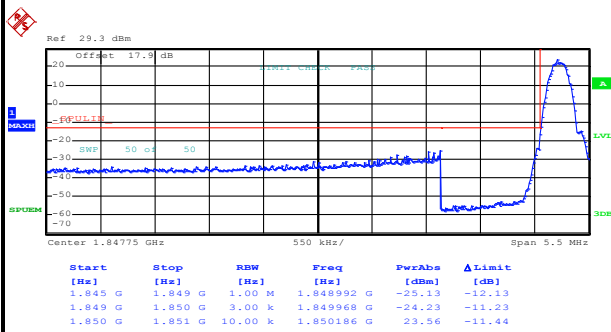
Highest Band Edge

Date: 8.JAN.2020 10:29:36



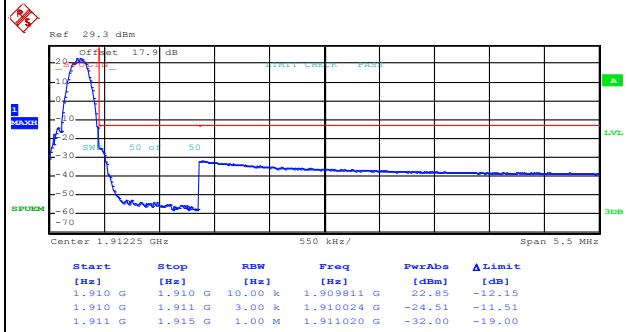
GSM1900 (GPRS class 8)

Lowest Band Edge



Date: 8.JAN.2020 09:51:13

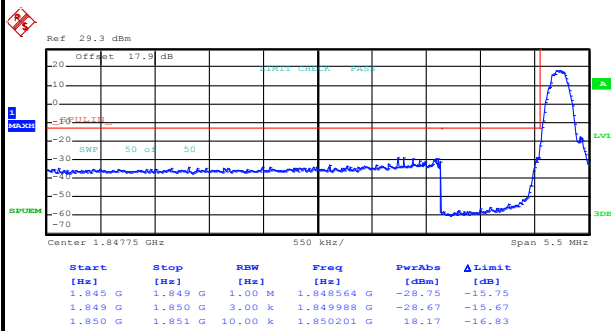
Highest Band Edge



Date: 8.JAN.2020 09:52:50

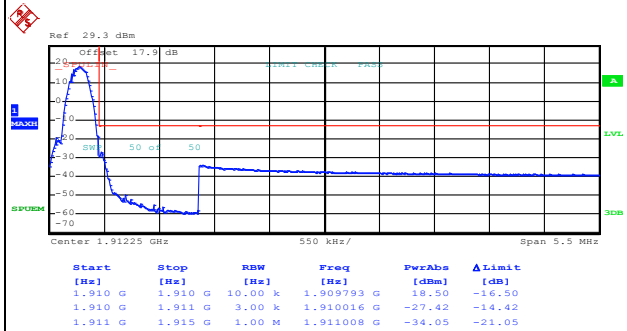
GSM1900 (EDGE class 8)

Lowest Band Edge



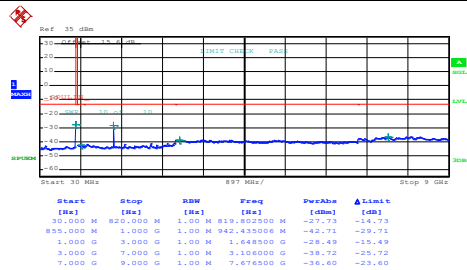
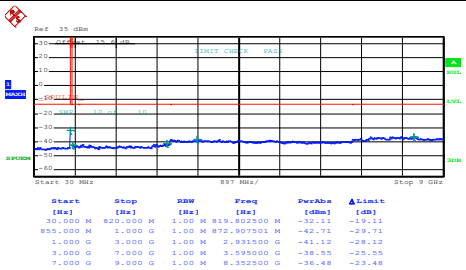
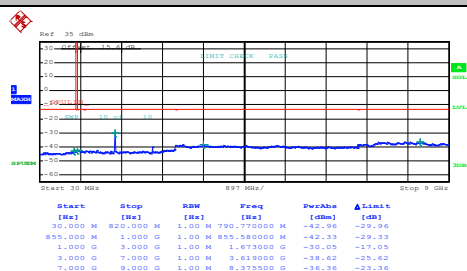
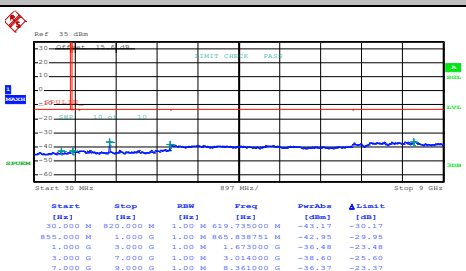
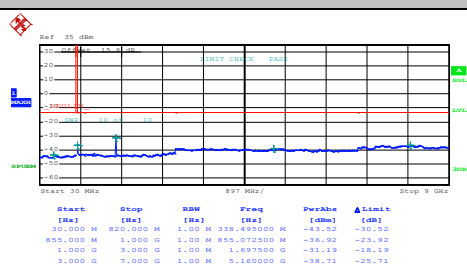
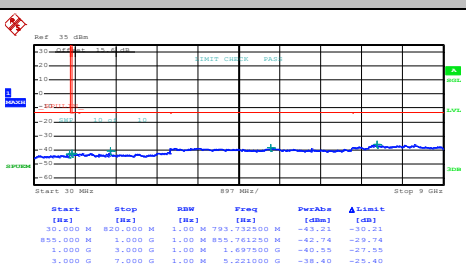
Date: 8.JAN.2020 10:16:44

Highest Band Edge



Date: 8.JAN.2020 10:18:18

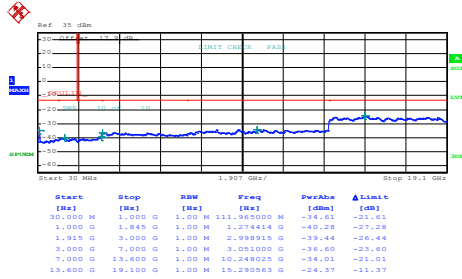
**Conducted Spurious Emission**

GSM850 (GPRS 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>-27.73</td><td>-14.73</td></tr><tr><td>850,000 M</td><td>1,000 G</td><td>1,00 M</td><td>942,435000 M</td><td>-42.71</td><td>-29.71</td></tr><tr><td>1,000 G</td><td>3,000 G</td><td>1,00 M</td><td>1,648000 G</td><td>-28.49</td><td>-25.49</td></tr><tr><td>3,000 G</td><td>7,000 G</td><td>1,00 M</td><td>3,106000 G</td><td>-38.72</td><td>-25.72</td></tr><tr><td>7,000 G</td><td>9,000 G</td><td>1,00 M</td><td>7,676500 G</td><td>-36.60</td><td>-23.60</td></tr></table> Date: 8.JAN.2020 09:58:27		Start	Stop	RBW	Freq	PerAbn	ΔLimit	[Hz]	[Hz]	[Hz]	[Hz]	[dBm]	[dB]	30,000 M	820,000 M	1,00 M	819,802500 M	-27.73	-14.73	850,000 M	1,000 G	1,00 M	942,435000 M	-42.71	-29.71	1,000 G	3,000 G	1,00 M	1,648000 G	-28.49	-25.49	3,000 G	7,000 G	1,00 M	3,106000 G	-38.72	-25.72	7,000 G	9,000 G	1,00 M	7,676500 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>819,802500 M</td><td>-32.11</td><td>-19.11</td></tr><tr><td>850,000 M</td><td>1,000 G</td><td>1,00 M</td><td>872,907501 M</td><td>-42.71</td><td>-29.71</td></tr><tr><td>1,000 G</td><td>3,000 G</td><td>1,00 M</td><td>2,931500 G</td><td>-41.52</td><td>-28.52</td></tr><tr><td>3,000 G</td><td>7,000 G</td><td>1,00 M</td><td>3,595000 G</td><td>-38.55</td><td>-25.55</td></tr><tr><td>7,000 G</td><td>9,000 G</td><td>1,00 M</td><td>8,352500 G</td><td>-36.48</td><td>-23.48</td></tr></table> Date: 8.JAN.2020 10:30:28		Start	Stop	RBW	Freq	PerAbn	ΔLimit	[Hz]	[Hz]	[Hz]	[Hz]	[dBm]	[dB]	30,000 M	820,000 M	1,00 M	819,802500 M	-32.11	-19.11	850,000 M	1,000 G	1,00 M	872,907501 M	-42.71	-29.71	1,000 G	3,000 G	1,00 M	2,931500 G	-41.52	-28.52	3,000 G	7,000 G	1,00 M	3,595000 G	-38.55	-25.55	7,000 G	9,000 G	1,00 M	8,352500 G	-36.48	-23.48
Start	Stop	RBW	Freq	PerAbn	ΔLimit																																																																																		
[Hz]	[Hz]	[Hz]	[Hz]	[dBm]	[dB]																																																																																		
30,000 M	820,000 M	1,00 M	819,802500 M	-27.73	-14.73																																																																																		
850,000 M	1,000 G	1,00 M	942,435000 M	-42.71	-29.71																																																																																		
1,000 G	3,000 G	1,00 M	1,648000 G	-28.49	-25.49																																																																																		
3,000 G	7,000 G	1,00 M	3,106000 G	-38.72	-25.72																																																																																		
7,000 G	9,000 G	1,00 M	7,676500 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	819,802500 M	-32.11	-19.11																																																																																		
850,000 M	1,000 G	1,00 M	872,907501 M	-42.71	-29.71																																																																																		
1,000 G	3,000 G	1,00 M	2,931500 G	-41.52	-28.52																																																																																		
3,000 G	7,000 G	1,00 M	3,595000 G	-38.55	-25.55																																																																																		
7,000 G	9,000 G	1,00 M	8,352500 G	-36.48	-23.48																																																																																		
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>790,770000 M</td><td>-42.96</td><td>-29.96</td></tr><tr><td>850,000 M</td><td>1,000 G</td><td>1,00 M</td><td>850,380000 M</td><td>-42.33</td><td>-29.33</td></tr><tr><td>1,000 G</td><td>3,000 G</td><td>1,00 M</td><td>1,673000 G</td><td>-30.05</td><td>-17.05</td></tr><tr><td>3,000 G</td><td>7,000 G</td><td>1,00 M</td><td>3,619000 G</td><td>-38.62</td><td>-25.62</td></tr><tr><td>7,000 G</td><td>9,000 G</td><td>1,00 M</td><td>8,373500 G</td><td>-36.36</td><td>-23.36</td></tr></table> Date: 8.JAN.2020 09:59:16		Start	Stop	RBW	Freq	PerAbn	ΔLimit	[Hz]	[Hz]	[Hz]	[Hz]	[dBm]	[dB]	30,000 M	820,000 M	1,00 M	790,770000 M	-42.96	-29.96	850,000 M	1,000 G	1,00 M	850,380000 M	-42.33	-29.33	1,000 G	3,000 G	1,00 M	1,673000 G	-30.05	-17.05	3,000 G	7,000 G	1,00 M	3,619000 G	-38.62	-25.62	7,000 G	9,000 G	1,00 M	8,373500 G	-36.36	-23.36	<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>619,735000 M</td><td>-43.17</td><td>-30.17</td></tr><tr><td>850,000 M</td><td>1,000 G</td><td>1,00 M</td><td>860,838751 M</td><td>-42.85</td><td>-29.85</td></tr><tr><td>1,000 G</td><td>3,000 G</td><td>1,00 M</td><td>1,673000 G</td><td>-36.48</td><td>-23.48</td></tr><tr><td>3,000 G</td><td>7,000 G</td><td>1,00 M</td><td>3,014000 G</td><td>-38.60</td><td>-25.60</td></tr><tr><td>7,000 G</td><td>9,000 G</td><td>1,00 M</td><td>8,361500 G</td><td>-36.37</td><td>-23.37</td></tr></table> Date: 8.JAN.2020 10:31:18		Start	Stop	RBW	Freq	PerAbn	ΔLimit	[Hz]	[Hz]	[Hz]	[Hz]	[dBm]	[dB]	30,000 M	820,000 M	1,00 M	619,735000 M	-43.17	-30.17	850,000 M	1,000 G	1,00 M	860,838751 M	-42.85	-29.85	1,000 G	3,000 G	1,00 M	1,673000 G	-36.48	-23.48	3,000 G	7,000 G	1,00 M	3,014000 G	-38.60	-25.60	7,000 G	9,000 G	1,00 M	8,361500 G	-36.37	-23.37
Start	Stop	RBW	Freq	PerAbn	ΔLimit																																																																																		
[Hz]	[Hz]	[Hz]	[Hz]	[dBm]	[dB]																																																																																		
30,000 M	820,000 M	1,00 M	790,770000 M	-42.96	-29.96																																																																																		
850,000 M	1,000 G	1,00 M	850,380000 M	-42.33	-29.33																																																																																		
1,000 G	3,000 G	1,00 M	1,673000 G	-30.05	-17.05																																																																																		
3,000 G	7,000 G	1,00 M	3,619000 G	-38.62	-25.62																																																																																		
7,000 G	9,000 G	1,00 M	8,373500 G	-36.36	-23.36																																																																																		
Start	Stop	RBW	Freq	PerAbn	ΔLimit																																																																																		
[Hz]	[Hz]	[Hz]	[Hz]	[dBm]	[dB]																																																																																		
30,000 M	820,000 M	1,00 M	619,735000 M	-43.17	-30.17																																																																																		
850,000 M	1,000 G	1,00 M	860,838751 M	-42.85	-29.85																																																																																		
1,000 G	3,000 G	1,00 M	1,673000 G	-36.48	-23.48																																																																																		
3,000 G	7,000 G	1,00 M	3,014000 G	-38.60	-25.60																																																																																		
7,000 G	9,000 G	1,00 M	8,361500 G	-36.37	-23.37																																																																																		
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>338,435000 M</td><td>-43.92</td><td>-30.92</td></tr><tr><td>850,000 M</td><td>1,000 G</td><td>1,00 M</td><td>850,072500 M</td><td>-36.92</td><td>-23.92</td></tr><tr><td>1,000 G</td><td>3,000 G</td><td>1,00 M</td><td>1,697500 G</td><td>-31.19</td><td>-18.19</td></tr><tr><td>3,000 G</td><td>7,000 G</td><td>1,00 M</td><td>5,160000 G</td><td>-38.71</td><td>-25.71</td></tr><tr><td>7,000 G</td><td>9,000 G</td><td>1,00 M</td><td>8,156500 G</td><td>-36.61</td><td>-23.61</td></tr></table> Date: 8.JAN.2020 10:00:07		Start	Stop	RBW	Freq	PerAbn	ΔLimit	[Hz]	[Hz]	[Hz]	[Hz]	[dBm]	[dB]	30,000 M	820,000 M	1,00 M	338,435000 M	-43.92	-30.92	850,000 M	1,000 G	1,00 M	850,072500 M	-36.92	-23.92	1,000 G	3,000 G	1,00 M	1,697500 G	-31.19	-18.19	3,000 G	7,000 G	1,00 M	5,160000 G	-38.71	-25.71	7,000 G	9,000 G	1,00 M	8,156500 G	-36.61	-23.61	<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>793,732500 M</td><td>-43.21</td><td>-30.21</td></tr><tr><td>850,000 M</td><td>1,000 G</td><td>1,00 M</td><td>850,761250 M</td><td>-42.74</td><td>-29.74</td></tr><tr><td>1,000 G</td><td>3,000 G</td><td>1,00 M</td><td>1,697500 G</td><td>-40.55</td><td>-27.55</td></tr><tr><td>3,000 G</td><td>7,000 G</td><td>1,00 M</td><td>5,221000 G</td><td>-38.40</td><td>-25.40</td></tr><tr><td>7,000 G</td><td>9,000 G</td><td>1,00 M</td><td>7,546500 G</td><td>-36.03</td><td>-23.03</td></tr></table> Date: 8.JAN.2020 10:32:09		Start	Stop	RBW	Freq	PerAbn	ΔLimit	[Hz]	[Hz]	[Hz]	[Hz]	[dBm]	[dB]	30,000 M	820,000 M	1,00 M	793,732500 M	-43.21	-30.21	850,000 M	1,000 G	1,00 M	850,761250 M	-42.74	-29.74	1,000 G	3,000 G	1,00 M	1,697500 G	-40.55	-27.55	3,000 G	7,000 G	1,00 M	5,221000 G	-38.40	-25.40	7,000 G	9,000 G	1,00 M	7,546500 G	-36.03	-23.03
Start	Stop	RBW	Freq	PerAbn	ΔLimit																																																																																		
[Hz]	[Hz]	[Hz]	[Hz]	[dBm]	[dB]																																																																																		
30,000 M	820,000 M	1,00 M	338,435000 M	-43.92	-30.92																																																																																		
850,000 M	1,000 G	1,00 M	850,072500 M	-36.92	-23.92																																																																																		
1,000 G	3,000 G	1,00 M	1,697500 G	-31.19	-18.19																																																																																		
3,000 G	7,000 G	1,00 M	5,160000 G	-38.71	-25.71																																																																																		
7,000 G	9,000 G	1,00 M	8,156500 G	-36.61	-23.61																																																																																		
Start	Stop	RBW	Freq	PerAbn	ΔLimit																																																																																		
[Hz]	[Hz]	[Hz]	[Hz]	[dBm]	[dB]																																																																																		
30,000 M	820,000 M	1,00 M	793,732500 M	-43.21	-30.21																																																																																		
850,000 M	1,000 G	1,00 M	850,761250 M	-42.74	-29.74																																																																																		
1,000 G	3,000 G	1,00 M	1,697500 G	-40.55	-27.55																																																																																		
3,000 G	7,000 G	1,00 M	5,221000 G	-38.40	-25.40																																																																																		
7,000 G	9,000 G	1,00 M	7,546500 G	-36.03	-23.03																																																																																		



GSM1900 (GPRS class 8)

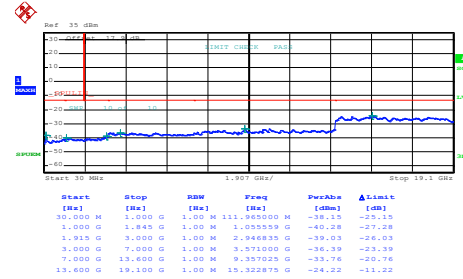
Lowest Channel



Date: 8.JAN.2020 09:45:11

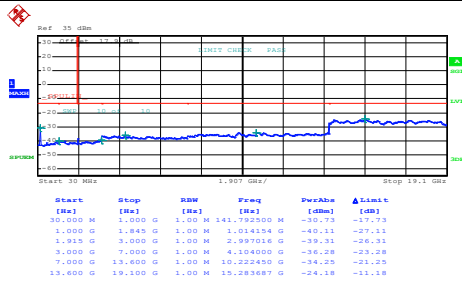
GSM1900 (EDGE class 8)

Lowest Channel



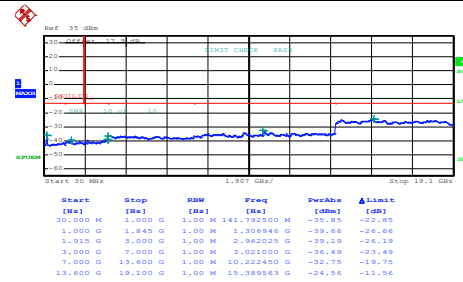
Date: 8.JAN.2020 10:19:10

Middle Channel



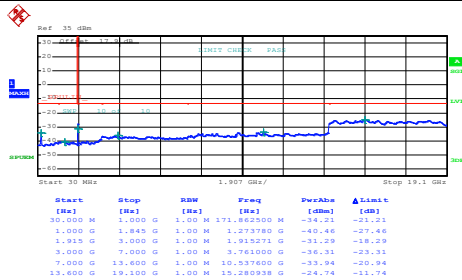
Date: 8.JAN.2020 09:46:01

Middle Channel



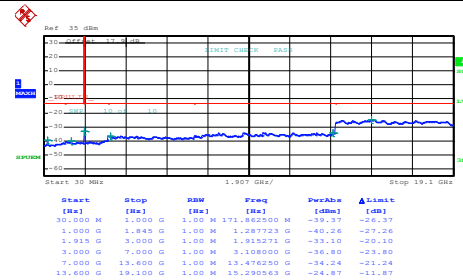
Date: 8.JAN.2020 10:20:04

Highest Channel



Date: 8.JAN.2020 09:46:53

Highest Channel



Date: 8.JAN.2020 10:20:55

**Frequency Stability**

Test Conditions	Middle Channel	GSM850 (GPRS class 8)	GSM850 (EDGE class 8)	Limit 2.5ppm
Temperature (°C)	Voltage (Volt)	Deviation (ppm)		Result
50	Normal Voltage	0.0036	0.0024	PASS
40	Normal Voltage	0.0072	0.0000	
30	Normal Voltage	0.0000	0.0000	
20(Ref.)	Normal Voltage	0.0000	0.0000	
10	Normal Voltage	0.0024	0.0012	
0	Normal Voltage	0.0024	0.0012	
-10	Normal Voltage	0.0012	0.0108	
-20	Normal Voltage	0.0000	0.0060	
-30	Normal Voltage	0.0012	0.0108	
20	Maximum Voltage	0.0084	0.0000	
20	Normal Voltage	0.0000	0.0000	
20	Battery End Point	0.0096	0.0012	



Test Conditions	Middle Channel	GSM1900 (GPRS class 8)	GSM1900 (EDGE class 8)	Limit Note 2.
Temperature (°C)	Voltage (Volt)	Deviation (ppm)		Result
50	Normal Voltage	0.0000	0.0011	PASS
40	Normal Voltage	0.0000	0.0005	
30	Normal Voltage	0.0000	0.0000	
20(Ref.)	Normal Voltage	0.0000	0.0000	
10	Normal Voltage	0.0000	0.0011	
0	Normal Voltage	0.0005	0.0016	
-10	Normal Voltage	0.0011	0.0255	
-20	Normal Voltage	0.0011	0.0261	
-30	Normal Voltage	0.0011	0.0021	
20	Maximum Voltage	0.0005	0.0011	
20	Normal Voltage	0.0000	0.0000	
20	Battery End Point	0.0032	0.0021	

Note:

1. Normal Voltage = 3.9V. ; Battery End Point (BEP) = 3.4 V. ; Maximum Voltage =4.35 V
2. The frequency fundamental emissions stay within the authorized frequency block..



A3. WCDMA

Peak-to-Average Ratio

Mode	WCDMA Band V	WCDMA Band II	Limit: 13dB
Mod.	RMC 12.2Kbps	RMC 12.2Kbps	Result
Lowest CH	3.36	3.40	PASS
Middle CH	3.40	3.40	
Highest CH	3.52	3.36	



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: Per + 20 dB Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean: 22.86 dBm Peak: 26.44 dBm Crest: 3.58 dB 10 %: 1.84 dB 1 %: 2.88 dB .1 %: 3.36 dB .01 %: 3.48 dB Date: 8.JAN.2020 11:03:50		Ref: 30 dBm RSM: 10 MHz AQT: 3.125 ms Center: 1.8524 GHz 2 dB/ Mean: Per + 20 dB Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean: 23.12 dBm Peak: 26.79 dBm Crest: 3.67 dB 10 %: 1.88 dB 1 %: 2.92 dB .1 %: 3.40 dB .01 %: 3.56 dB Date: 8.JAN.2020 10:49:07	
Middle Channel		Middle Channel	
Ref: 30 dBm RSM: 10 MHz AQT: 3.125 ms Center: 830.4 MHz 2 dB/ Mean: Per + 20 dB Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean: 22.85 dBm Peak: 26.51 dBm Crest: 3.66 dB 10 %: 1.84 dB 1 %: 2.92 dB .1 %: 3.40 dB .01 %: 3.56 dB Date: 8.JAN.2020 11:04:03		Ref: 30 dBm RSM: 10 MHz AQT: 3.125 ms Center: 1.85 GHz 2 dB/ Mean: Per + 20 dB Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean: 23.05 dBm Peak: 26.79 dBm Crest: 3.74 dB 10 %: 1.88 dB 1 %: 2.92 dB .1 %: 3.40 dB .01 %: 3.56 dB Date: 8.JAN.2020 10:49:22	
Highest Channel		Highest Channel	
Ref: 30 dBm RSM: 10 MHz AQT: 3.125 ms Center: 846.6 MHz 2 dB/ Mean: Per + 20 dB Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean: 22.85 dBm Peak: 26.65 dBm Crest: 3.80 dB 10 %: 1.88 dB 1 %: 3.00 dB .1 %: 3.52 dB .01 %: 3.72 dB Date: 8.JAN.2020 11:04:17		Ref: 30 dBm RSM: 10 MHz AQT: 3.125 ms Center: 1.9076 GHz 2 dB/ Mean: Per + 20 dB Complementary Cumulative Distribution Function (100000 samples) Trace 1 Mean: 23.10 dBm Peak: 26.72 dBm Crest: 3.62 dB 10 %: 1.88 dB 1 %: 2.92 dB .1 %: 3.36 dB .01 %: 3.52 dB Date: 8.JAN.2020 10:49:37	



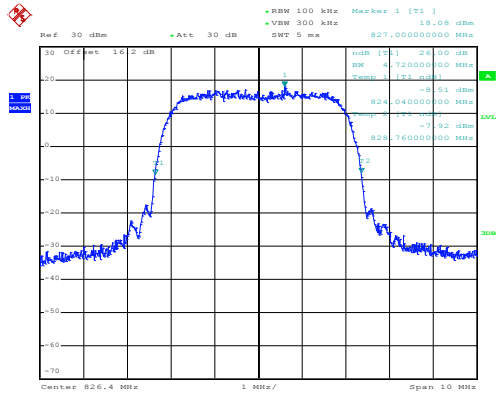
26dB Bandwidth

Mode	WCDMA Band V 26dB BW(MHz)	WCDMA Band II 26dB BW(MHz)
Mod.	RMC 12.2Kbps	RMC 12.2Kbps
Lowest CH	4.72	4.70
Middle CH	4.71	4.71
Highest CH	4.73	4.72



WCDMA Band V (RMC 12.2Kbps)

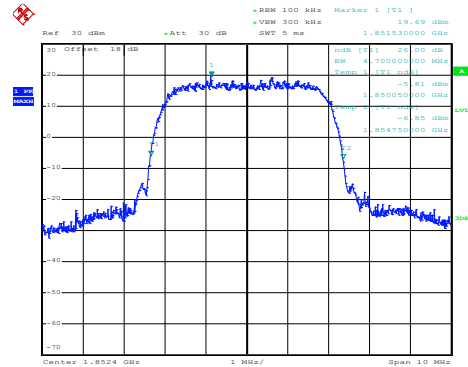
Lowest Channel



Date: 8.JAN.2020 10:58:54

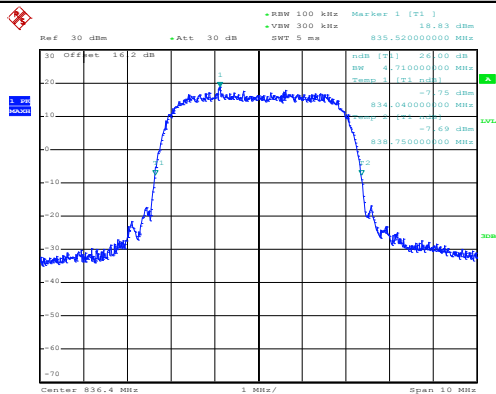
WCDMA Band II (RMC 12.2Kbps)

Lowest Channel



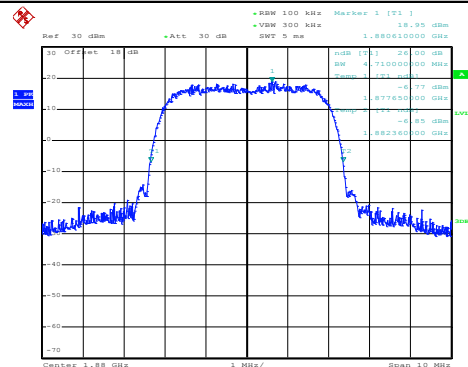
Date: 8.JAN.2020 10:45:06

Middle Channel



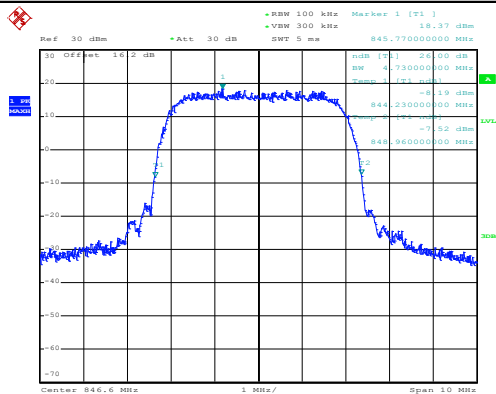
Date: 8.JAN.2020 11:00:04

Middle Channel



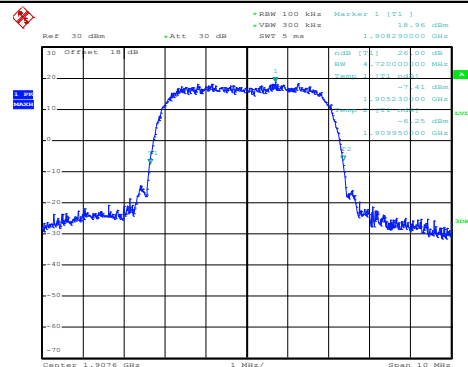
Date: 8.JAN.2020 10:45:41

Highest Channel



Date: 8.JAN.2020 11:00:42

Highest Channel



Date: 8.JAN.2020 10:46:14



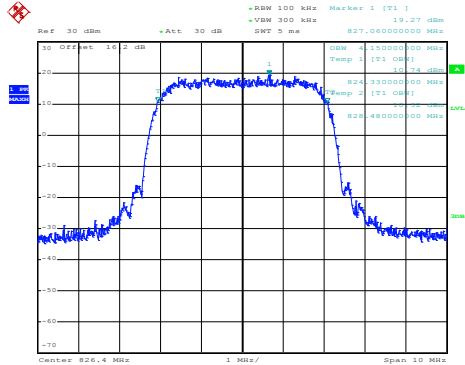
Occupied Bandwidth

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



WCDMA Band V (RMC 12.2Kbps)

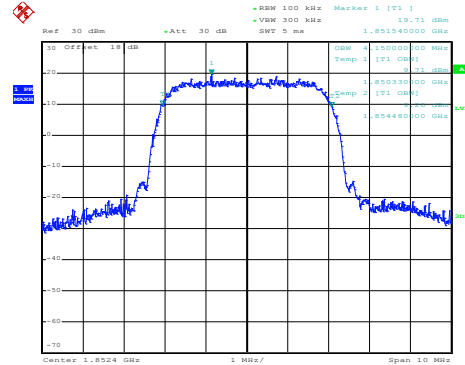
Lowest Channel



Date: 8.JAN.2020 11:05:02

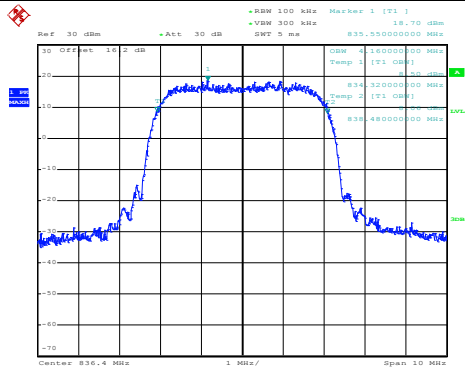
WCDMA Band II (RMC 12.2Kbps)

Lowest Channel



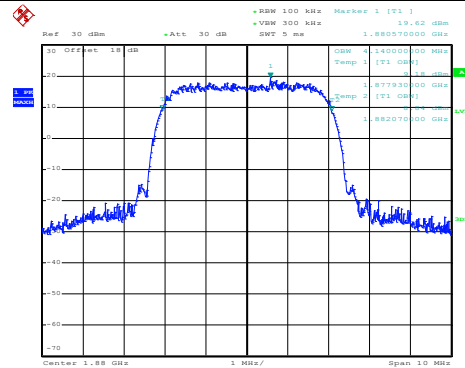
Date: 8.JAN.2020 10:50:16

Middle Channel



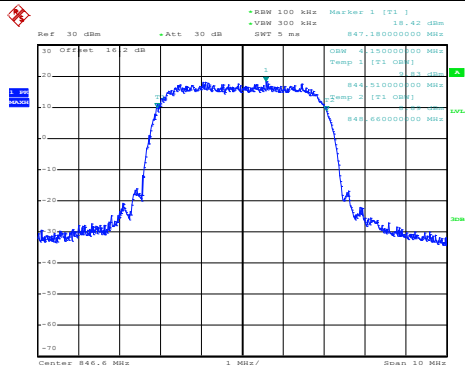
Date: 8.JAN.2020 11:05:37

Middle Channel



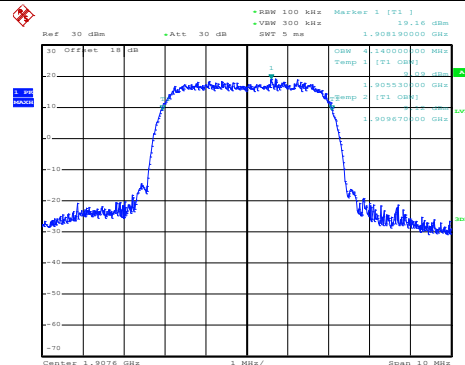
Date: 8.JAN.2020 10:50:49

Highest Channel

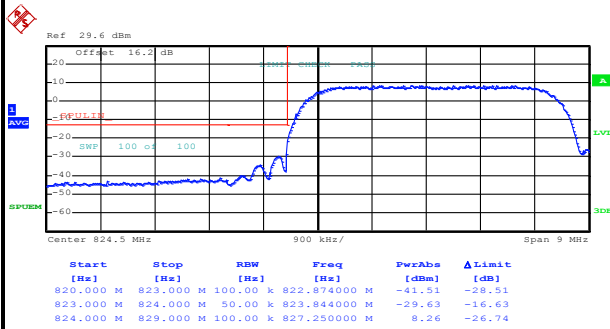


Date: 8.JAN.2020 11:06:09

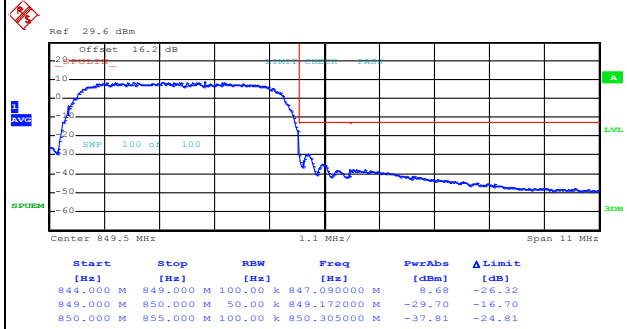
Highest Channel



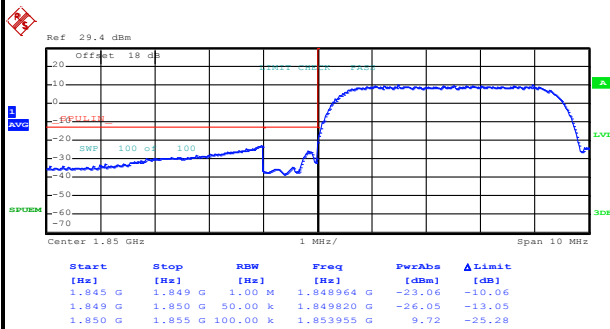
Date: 8.JAN.2020 10:51:22

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

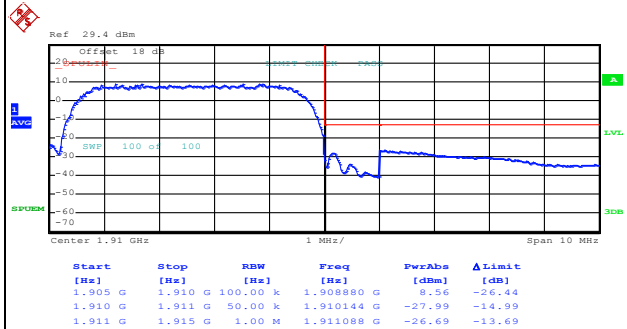
Date: 8.JAN.2020 11:08:58

Highest Band Edge

Date: 8.JAN.2020 11:11:47

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

Date: 8.JAN.2020 10:54:15

Highest Band Edge

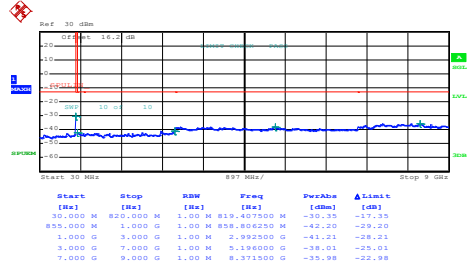
Date: 8.JAN.2020 10:57:02



Conducted Spurious Emission

WCDMA Band V (RMC 12.2Kbps)

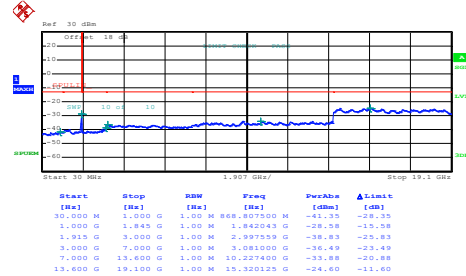
Lowest Channel



Date: 8.JAN.2020 11:01:46

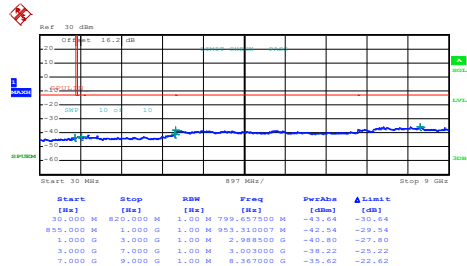
WCDMA Band II (RMC 12.2Kbps)

Lowest Channel



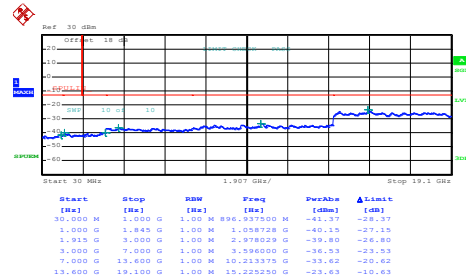
Date: 8.JAN.2020 10:47:07

Middle Channel



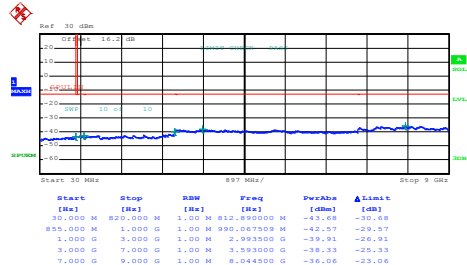
Date: 8.JAN.2020 11:02:39

Middle Channel



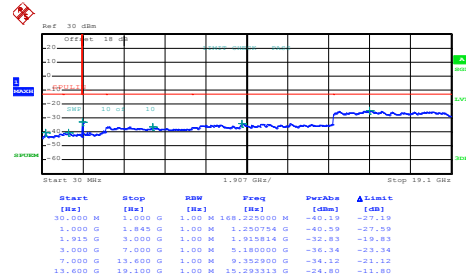
Date: 8.JAN.2020 10:47:57

Highest Channel



Date: 8.JAN.2020 11:03:30

Highest Channel



Date: 8.JAN.2020 10:48:49

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

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

Note:

1. Normal Voltage = 3.9V. ; Battery End Point (BEP) = 3.4 V. ; Maximum Voltage =4.35V
2. The frequency fundamental emissions stay within the authorized frequency block.

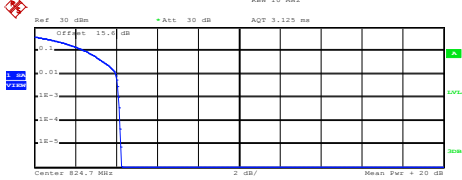
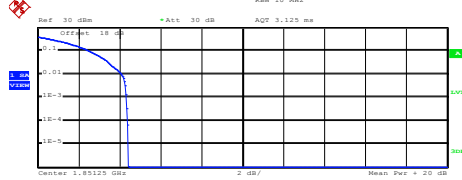
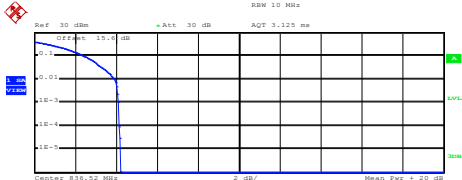
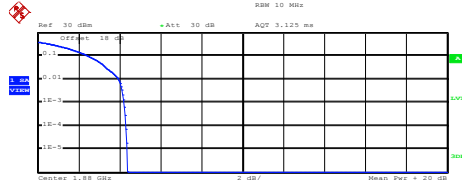
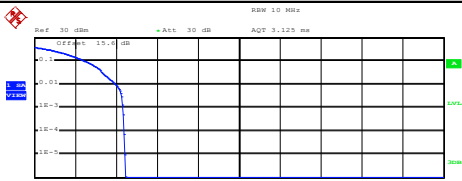
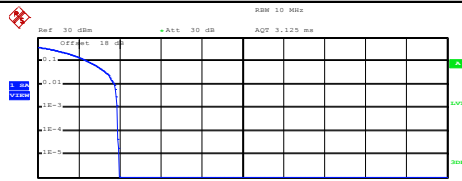


A4. CDMA

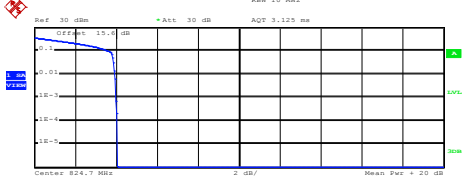
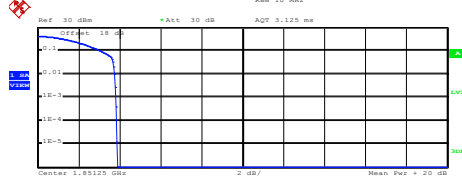
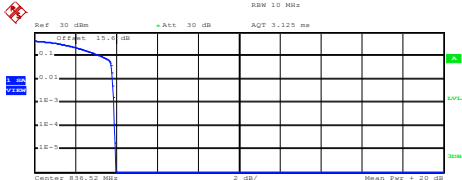
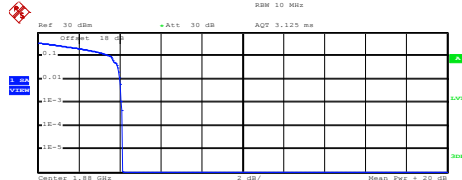
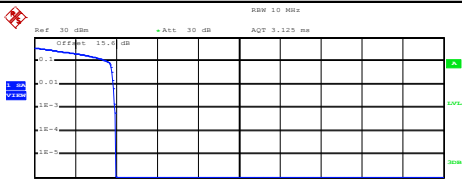
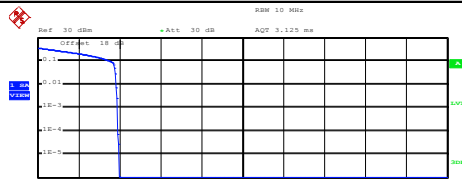
Peak-to-Average Ratio

Mode	CDMA BC0	CDMA BC1	Limit: 13dB
Mod.	1xRTT	1xRTT	Result
Lowest CH	4.12	4.32	PASS
Middle CH	4.12	4.24	
Highest CH	4.32	3.88	
Mode	CDMA BC0	CDMA BC1	Limit: 13dB
Mod.	1xEV-DO Rev. 0	1xEV-DO Rev. 0	Result
Lowest CH	4.00	3.84	PASS
Middle CH	3.88	4.08	
Highest CH	3.96	3.92	



CDMA BC0 (1xRTT)	CDMA BC1 (1xRTT)																												
Lowest Channel	Lowest Channel																												
 Ref: 30 dBm, Att: 30 dB, AQT: 3.125 ms, RBW: 10 MHz, Center: 824.7 MHz, Mean: 22.06 dBm, Peak: 26.30 dBm, Crest: 4.24 dB Complementary Cumulative Distribution Function (100000 samples) Trace 1 <table><tr><td>Mean</td><td>22.06 dBm</td></tr><tr><td>Peak</td><td>26.30 dBm</td></tr><tr><td>Crest</td><td>4.24 dB</td></tr></table> <table><tr><td>10 %</td><td>2.52 dB</td></tr><tr><td>1 %</td><td>4.00 dB</td></tr><tr><td>.1 %</td><td>4.12 dB</td></tr><tr><td>.01 %</td><td>4.20 dB</td></tr></table>	Mean	22.06 dBm	Peak	26.30 dBm	Crest	4.24 dB	10 %	2.52 dB	1 %	4.00 dB	.1 %	4.12 dB	.01 %	4.20 dB	 Ref: 30 dBm, Att: 30 dB, AQT: 3.125 ms, RBW: 10 MHz, Center: 1.85125 GHz, Mean: 22.39 dBm, Peak: 26.79 dBm, Crest: 4.40 dB Complementary Cumulative Distribution Function (100000 samples) Trace 1 <table><tr><td>Mean</td><td>22.39 dBm</td></tr><tr><td>Peak</td><td>26.79 dBm</td></tr><tr><td>Crest</td><td>4.40 dB</td></tr></table> <table><tr><td>10 %</td><td>2.56 dB</td></tr><tr><td>1 %</td><td>4.08 dB</td></tr><tr><td>.1 %</td><td>4.32 dB</td></tr><tr><td>.01 %</td><td>4.40 dB</td></tr></table>	Mean	22.39 dBm	Peak	26.79 dBm	Crest	4.40 dB	10 %	2.56 dB	1 %	4.08 dB	.1 %	4.32 dB	.01 %	4.40 dB
Mean	22.06 dBm																												
Peak	26.30 dBm																												
Crest	4.24 dB																												
10 %	2.52 dB																												
1 %	4.00 dB																												
.1 %	4.12 dB																												
.01 %	4.20 dB																												
Mean	22.39 dBm																												
Peak	26.79 dBm																												
Crest	4.40 dB																												
10 %	2.56 dB																												
1 %	4.08 dB																												
.1 %	4.32 dB																												
.01 %	4.40 dB																												
Middle Channel	Middle Channel																												
 Ref: 30 dBm, Att: 30 dB, AQT: 3.125 ms, RBW: 10 MHz, Center: 835.52 MHz, Mean: 21.10 dBm, Peak: 25.31 dBm, Crest: 4.21 dB Complementary Cumulative Distribution Function (100000 samples) Trace 1 <table><tr><td>Mean</td><td>21.10 dBm</td></tr><tr><td>Peak</td><td>25.31 dBm</td></tr><tr><td>Crest</td><td>4.21 dB</td></tr></table> <table><tr><td>10 %</td><td>2.48 dB</td></tr><tr><td>1 %</td><td>3.92 dB</td></tr><tr><td>.1 %</td><td>4.12 dB</td></tr><tr><td>.01 %</td><td>4.16 dB</td></tr></table>	Mean	21.10 dBm	Peak	25.31 dBm	Crest	4.21 dB	10 %	2.48 dB	1 %	3.92 dB	.1 %	4.12 dB	.01 %	4.16 dB	 Ref: 30 dBm, Att: 30 dB, AQT: 3.125 ms, RBW: 10 MHz, Center: 1.85 GHz, Mean: 21.58 dBm, Peak: 25.95 dBm, Crest: 4.37 dB Complementary Cumulative Distribution Function (100000 samples) Trace 1 <table><tr><td>Mean</td><td>21.58 dBm</td></tr><tr><td>Peak</td><td>25.95 dBm</td></tr><tr><td>Crest</td><td>4.37 dB</td></tr></table> <table><tr><td>10 %</td><td>2.52 dB</td></tr><tr><td>1 %</td><td>3.96 dB</td></tr><tr><td>.1 %</td><td>4.24 dB</td></tr><tr><td>.01 %</td><td>4.32 dB</td></tr></table>	Mean	21.58 dBm	Peak	25.95 dBm	Crest	4.37 dB	10 %	2.52 dB	1 %	3.96 dB	.1 %	4.24 dB	.01 %	4.32 dB
Mean	21.10 dBm																												
Peak	25.31 dBm																												
Crest	4.21 dB																												
10 %	2.48 dB																												
1 %	3.92 dB																												
.1 %	4.12 dB																												
.01 %	4.16 dB																												
Mean	21.58 dBm																												
Peak	25.95 dBm																												
Crest	4.37 dB																												
10 %	2.52 dB																												
1 %	3.96 dB																												
.1 %	4.24 dB																												
.01 %	4.32 dB																												
Highest Channel	Highest Channel																												
 Ref: 30 dBm, Att: 30 dB, AQT: 3.125 ms, RBW: 10 MHz, Center: 848.31 MHz, Mean: 21.06 dBm, Peak: 25.52 dBm, Crest: 4.47 dB Complementary Cumulative Distribution Function (100000 samples) Trace 1 <table><tr><td>Mean</td><td>21.06 dBm</td></tr><tr><td>Peak</td><td>25.52 dBm</td></tr><tr><td>Crest</td><td>4.47 dB</td></tr></table> <table><tr><td>10 %</td><td>2.52 dB</td></tr><tr><td>1 %</td><td>3.96 dB</td></tr><tr><td>.1 %</td><td>4.32 dB</td></tr><tr><td>.01 %</td><td>4.40 dB</td></tr></table>	Mean	21.06 dBm	Peak	25.52 dBm	Crest	4.47 dB	10 %	2.52 dB	1 %	3.96 dB	.1 %	4.32 dB	.01 %	4.40 dB	 Ref: 30 dBm, Att: 30 dB, AQT: 3.125 ms, RBW: 10 MHz, Center: 1.90875 GHz, Mean: 22.53 dBm, Peak: 26.51 dBm, Crest: 3.98 dB Complementary Cumulative Distribution Function (100000 samples) Trace 1 <table><tr><td>Mean</td><td>22.53 dBm</td></tr><tr><td>Peak</td><td>26.51 dBm</td></tr><tr><td>Crest</td><td>3.98 dB</td></tr></table> <table><tr><td>10 %</td><td>2.48 dB</td></tr><tr><td>1 %</td><td>3.76 dB</td></tr><tr><td>.1 %</td><td>3.88 dB</td></tr><tr><td>.01 %</td><td>3.92 dB</td></tr></table>	Mean	22.53 dBm	Peak	26.51 dBm	Crest	3.98 dB	10 %	2.48 dB	1 %	3.76 dB	.1 %	3.88 dB	.01 %	3.92 dB
Mean	21.06 dBm																												
Peak	25.52 dBm																												
Crest	4.47 dB																												
10 %	2.52 dB																												
1 %	3.96 dB																												
.1 %	4.32 dB																												
.01 %	4.40 dB																												
Mean	22.53 dBm																												
Peak	26.51 dBm																												
Crest	3.98 dB																												
10 %	2.48 dB																												
1 %	3.76 dB																												
.1 %	3.88 dB																												
.01 %	3.92 dB																												



CDMA BC0 (1xEV-DO Rev. 0)	CDMA BC1 (1xEV-DO Rev. 0)																												
Lowest Channel	Lowest Channel																												
 Ref: 30 dBm, Att: 30 dB, AGT: 3.125 ms, RBW: 10 MHz, Center: 824.7 MHz, Mean: 22.88 dBm, Peak: 26.93 dBm, Crest: 4.05 dB Complementary Cumulative Distribution Function (100000 samples) Trace 1 <table><tr><td>Mean</td><td>22.88 dBm</td></tr><tr><td>Peak</td><td>26.93 dBm</td></tr><tr><td>Crest</td><td>4.05 dB</td></tr></table> <table><tr><td>10 %</td><td>3.64 dB</td></tr><tr><td>1 %</td><td>3.96 dB</td></tr><tr><td>.1 %</td><td>4.00 dB</td></tr><tr><td>.01 %</td><td>4.08 dB</td></tr></table>	Mean	22.88 dBm	Peak	26.93 dBm	Crest	4.05 dB	10 %	3.64 dB	1 %	3.96 dB	.1 %	4.00 dB	.01 %	4.08 dB	 Ref: 30 dBm, Att: 30 dB, AGT: 3.125 ms, RBW: 10 MHz, Center: 1.85125 GHz, Mean: 23.27 dBm, Peak: 27.15 dBm, Crest: 3.87 dB Complementary Cumulative Distribution Function (100000 samples) Trace 1 <table><tr><td>Mean</td><td>23.27 dBm</td></tr><tr><td>Peak</td><td>27.15 dBm</td></tr><tr><td>Crest</td><td>3.87 dB</td></tr></table> <table><tr><td>10 %</td><td>3.12 dB</td></tr><tr><td>1 %</td><td>3.76 dB</td></tr><tr><td>.1 %</td><td>3.84 dB</td></tr><tr><td>.01 %</td><td>3.88 dB</td></tr></table>	Mean	23.27 dBm	Peak	27.15 dBm	Crest	3.87 dB	10 %	3.12 dB	1 %	3.76 dB	.1 %	3.84 dB	.01 %	3.88 dB
Mean	22.88 dBm																												
Peak	26.93 dBm																												
Crest	4.05 dB																												
10 %	3.64 dB																												
1 %	3.96 dB																												
.1 %	4.00 dB																												
.01 %	4.08 dB																												
Mean	23.27 dBm																												
Peak	27.15 dBm																												
Crest	3.87 dB																												
10 %	3.12 dB																												
1 %	3.76 dB																												
.1 %	3.84 dB																												
.01 %	3.88 dB																												
Middle Channel	Middle Channel																												
 Ref: 30 dBm, Att: 30 dB, AGT: 3.125 ms, RBW: 10 MHz, Center: 835.52 MHz, Mean: 22.98 dBm, Peak: 26.93 dBm, Crest: 3.96 dB Complementary Cumulative Distribution Function (100000 samples) Trace 1 <table><tr><td>Mean</td><td>22.98 dBm</td></tr><tr><td>Peak</td><td>26.93 dBm</td></tr><tr><td>Crest</td><td>3.96 dB</td></tr></table> <table><tr><td>10 %</td><td>3.32 dB</td></tr><tr><td>1 %</td><td>3.84 dB</td></tr><tr><td>.1 %</td><td>3.88 dB</td></tr><tr><td>.01 %</td><td>3.92 dB</td></tr></table>	Mean	22.98 dBm	Peak	26.93 dBm	Crest	3.96 dB	10 %	3.32 dB	1 %	3.84 dB	.1 %	3.88 dB	.01 %	3.92 dB	 Ref: 30 dBm, Att: 30 dB, AGT: 3.125 ms, RBW: 10 MHz, Center: 1.85 GHz, Mean: 23.00 dBm, Peak: 27.15 dBm, Crest: 4.14 dB Complementary Cumulative Distribution Function (100000 samples) Trace 1 <table><tr><td>Mean</td><td>23.00 dBm</td></tr><tr><td>Peak</td><td>27.15 dBm</td></tr><tr><td>Crest</td><td>4.14 dB</td></tr></table> <table><tr><td>10 %</td><td>3.56 dB</td></tr><tr><td>1 %</td><td>4.00 dB</td></tr><tr><td>.1 %</td><td>4.08 dB</td></tr><tr><td>.01 %</td><td>4.16 dB</td></tr></table>	Mean	23.00 dBm	Peak	27.15 dBm	Crest	4.14 dB	10 %	3.56 dB	1 %	4.00 dB	.1 %	4.08 dB	.01 %	4.16 dB
Mean	22.98 dBm																												
Peak	26.93 dBm																												
Crest	3.96 dB																												
10 %	3.32 dB																												
1 %	3.84 dB																												
.1 %	3.88 dB																												
.01 %	3.92 dB																												
Mean	23.00 dBm																												
Peak	27.15 dBm																												
Crest	4.14 dB																												
10 %	3.56 dB																												
1 %	4.00 dB																												
.1 %	4.08 dB																												
.01 %	4.16 dB																												
Highest Channel	Highest Channel																												
 Ref: 30 dBm, Att: 30 dB, AGT: 3.125 ms, RBW: 10 MHz, Center: 848.31 MHz, Mean: 23.02 dBm, Peak: 27.01 dBm, Crest: 3.98 dB Complementary Cumulative Distribution Function (100000 samples) Trace 1 <table><tr><td>Mean</td><td>23.02 dBm</td></tr><tr><td>Peak</td><td>27.01 dBm</td></tr><tr><td>Crest</td><td>3.98 dB</td></tr></table> <table><tr><td>10 %</td><td>3.56 dB</td></tr><tr><td>1 %</td><td>3.88 dB</td></tr><tr><td>.1 %</td><td>3.96 dB</td></tr><tr><td>.01 %</td><td>4.00 dB</td></tr></table>	Mean	23.02 dBm	Peak	27.01 dBm	Crest	3.98 dB	10 %	3.56 dB	1 %	3.88 dB	.1 %	3.96 dB	.01 %	4.00 dB	 Ref: 30 dBm, Att: 30 dB, AGT: 3.125 ms, RBW: 10 MHz, Center: 1.90875 GHz, Mean: 22.75 dBm, Peak: 26.72 dBm, Crest: 3.98 dB Complementary Cumulative Distribution Function (100000 samples) Trace 1 <table><tr><td>Mean</td><td>22.75 dBm</td></tr><tr><td>Peak</td><td>26.72 dBm</td></tr><tr><td>Crest</td><td>3.98 dB</td></tr></table> <table><tr><td>10 %</td><td>3.56 dB</td></tr><tr><td>1 %</td><td>3.84 dB</td></tr><tr><td>.1 %</td><td>3.92 dB</td></tr><tr><td>.01 %</td><td>3.92 dB</td></tr></table>	Mean	22.75 dBm	Peak	26.72 dBm	Crest	3.98 dB	10 %	3.56 dB	1 %	3.84 dB	.1 %	3.92 dB	.01 %	3.92 dB
Mean	23.02 dBm																												
Peak	27.01 dBm																												
Crest	3.98 dB																												
10 %	3.56 dB																												
1 %	3.88 dB																												
.1 %	3.96 dB																												
.01 %	4.00 dB																												
Mean	22.75 dBm																												
Peak	26.72 dBm																												
Crest	3.98 dB																												
10 %	3.56 dB																												
1 %	3.84 dB																												
.1 %	3.92 dB																												
.01 %	3.92 dB																												

**26dB Bandwidth**

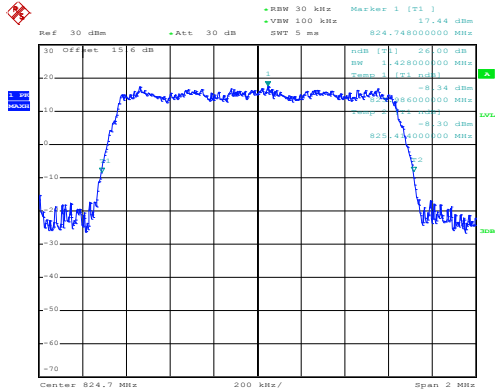
Mode	CDMA BC0 26dB BW(MHz)	CDMA BC1 26dB BW(MHz)
Mod.	1xRTT	1xRTT
Lowest CH	1.43	1.43
Middle CH	1.43	1.43
Highest CH	1.43	1.43

Mode	CDMA BC0 26dB BW(MHz)	CDMA BC1 26dB BW(MHz)
Mod.	1xEV-DO Rev. 0	1xEV-DO Rev. 0
Lowest CH	1.43	1.43
Middle CH	1.44	1.43
Highest CH	1.45	1.44



CDMA BC0 (1xRTT)

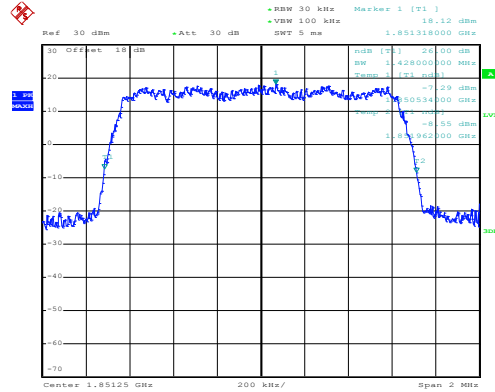
Lowest Channel



Date: 8.JAN.2020 15:13:28

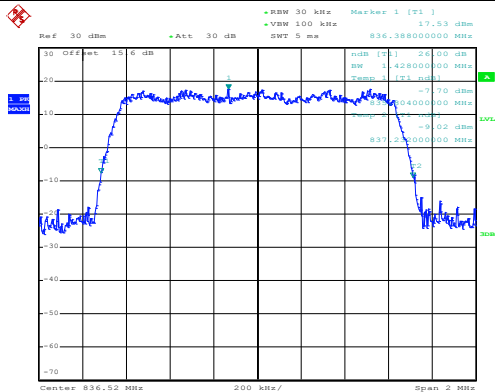
CDMA BC1 (1xRTT)

Lowest Channel



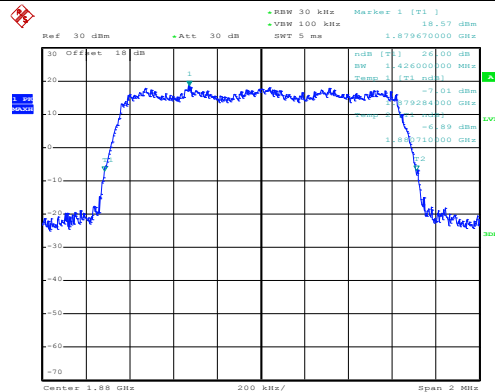
Date: 8.JAN.2020 15:47:09

Middle Channel



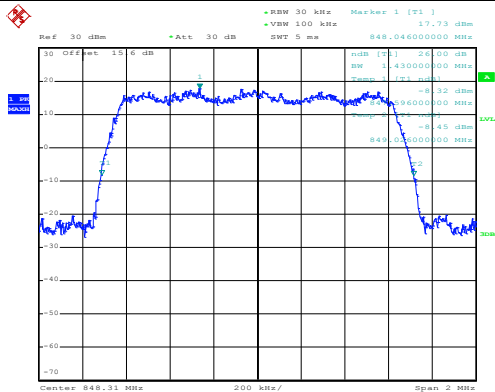
Date: 8.JAN.2020 15:14:04

Middle Channel



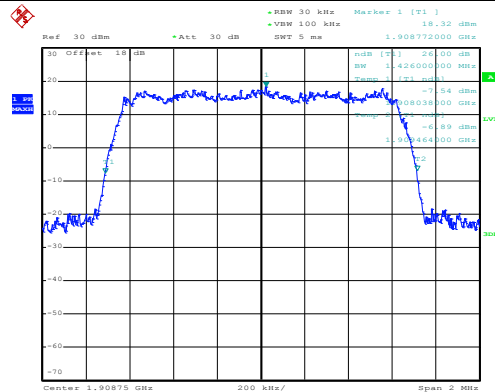
Date: 8.JAN.2020 15:48:05

Highest Channel



Date: 8.JAN.2020 15:14:41

Highest Channel

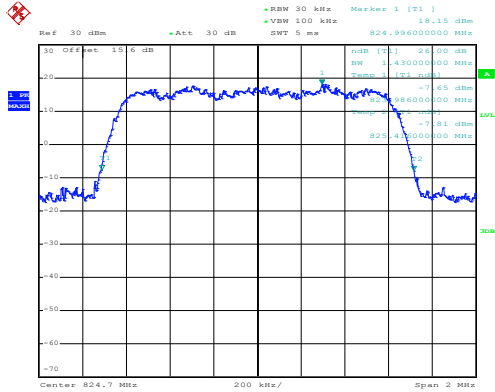


Date: 8.JAN.2020 15:48:44



CDMA BC0 (1xEV-DO Rev. 0)

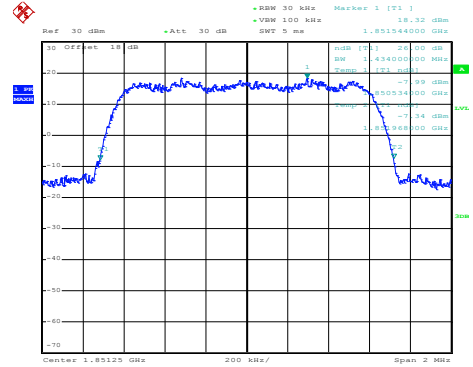
Lowest Channel



Date: 8.JAN.2020 14:07:21

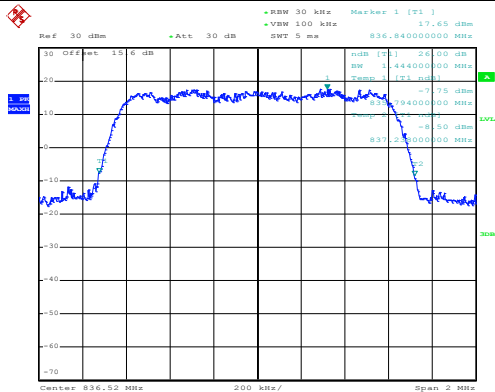
CDMA BC1 (1xEV-DO Rev. 0)

Lowest Channel



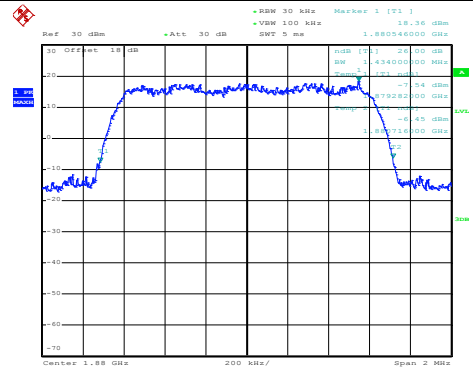
Date: 8.JAN.2020 14:24:45

Middle Channel



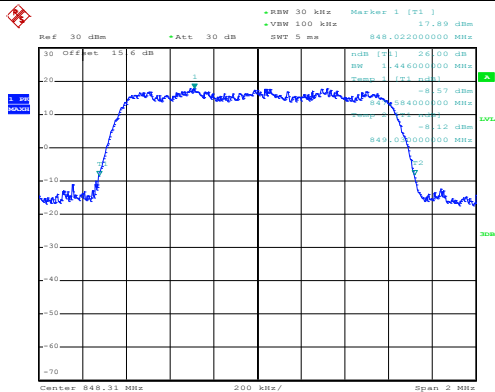
Date: 8.JAN.2020 14:07:59

Middle Channel



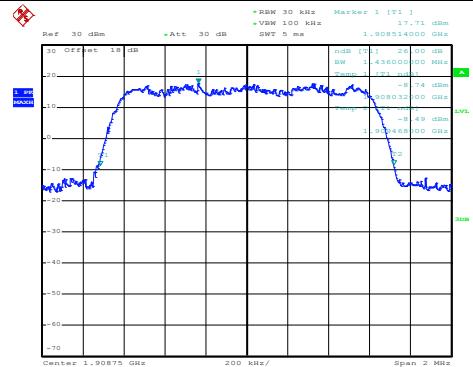
Date: 8.JAN.2020 14:25:17

Highest Channel



Date: 8.JAN.2020 14:08:35

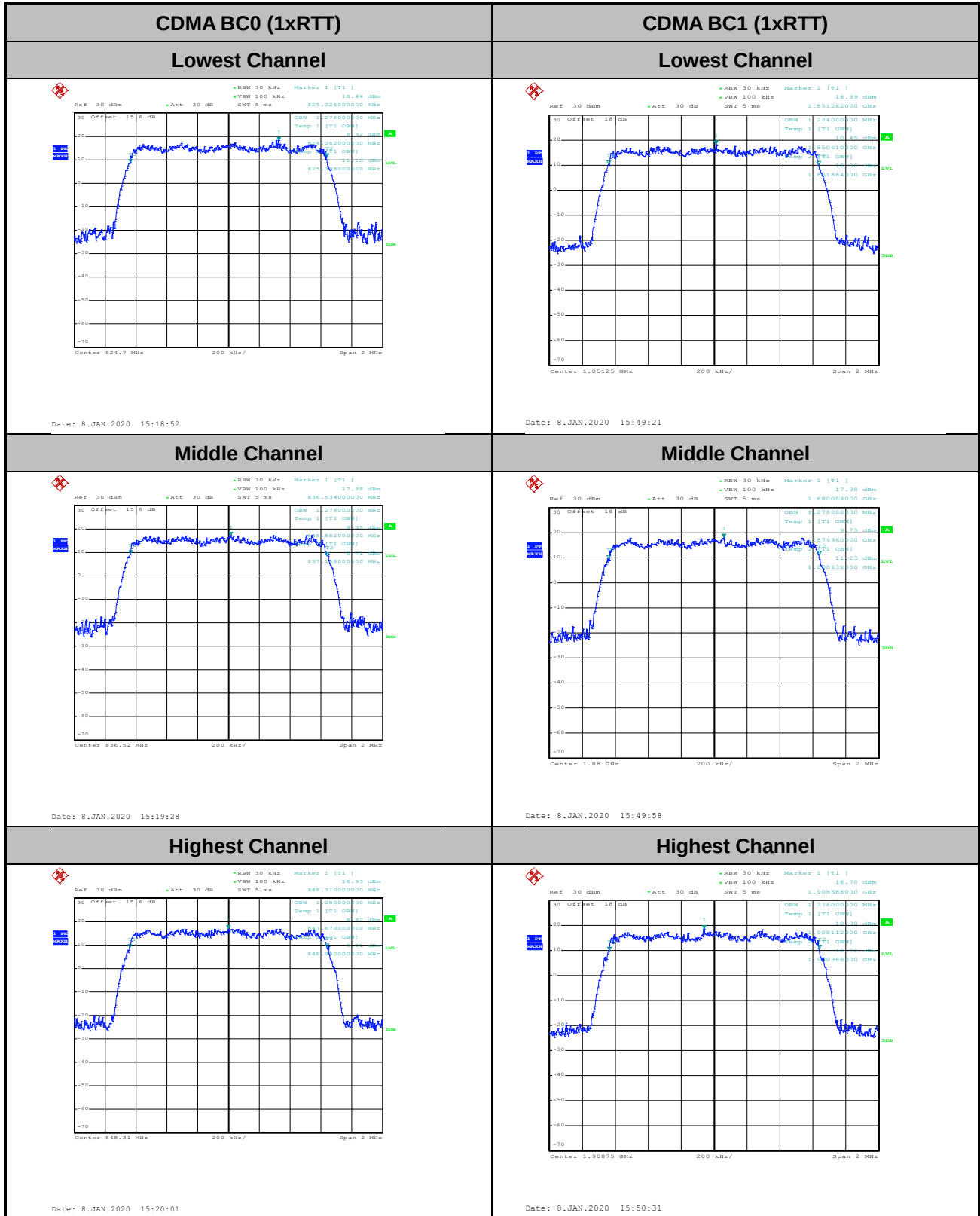
Highest Channel

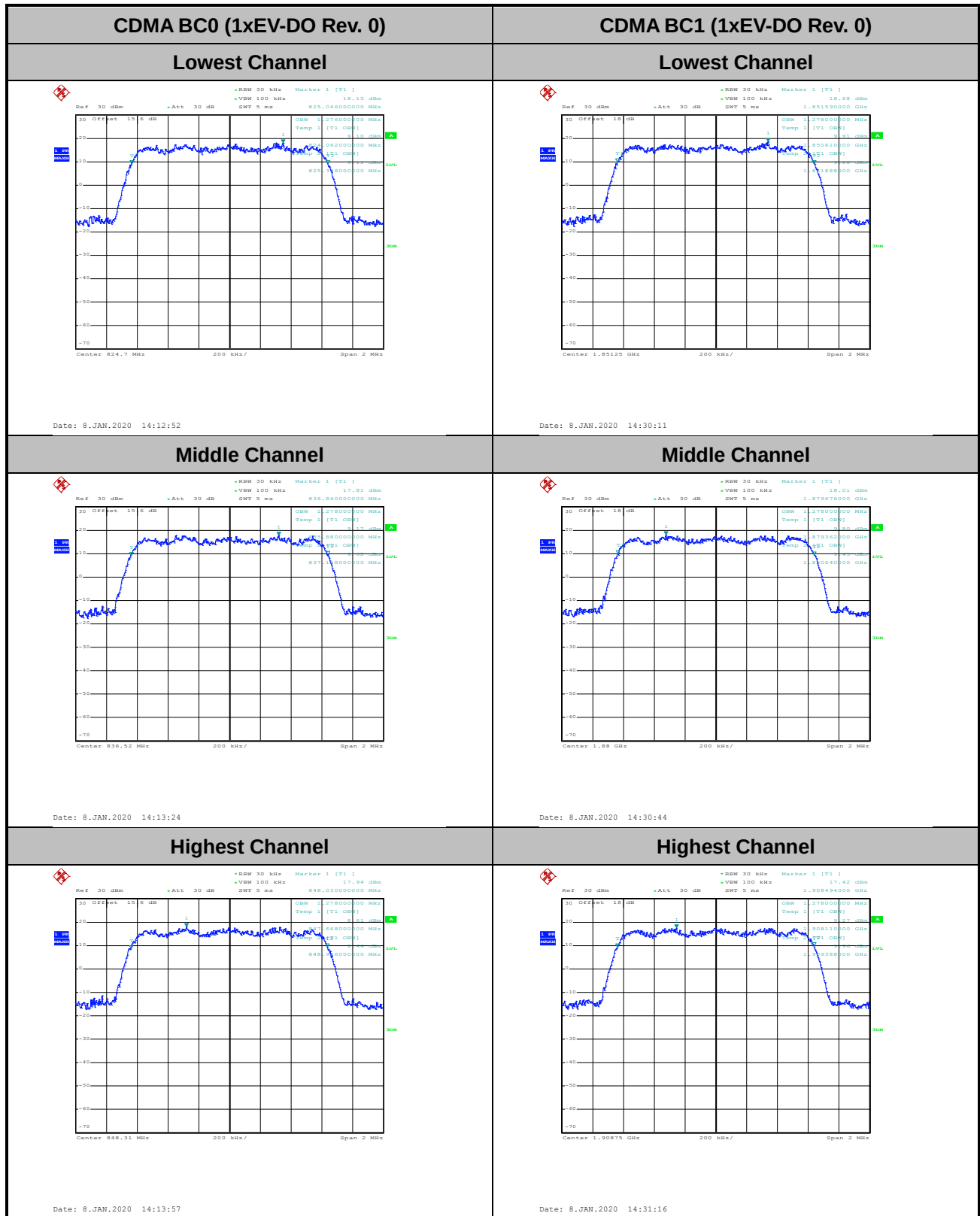


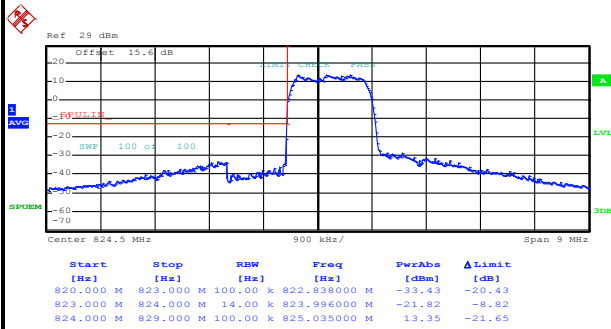
Date: 8.JAN.2020 14:25:50

**Occupied Bandwidth**

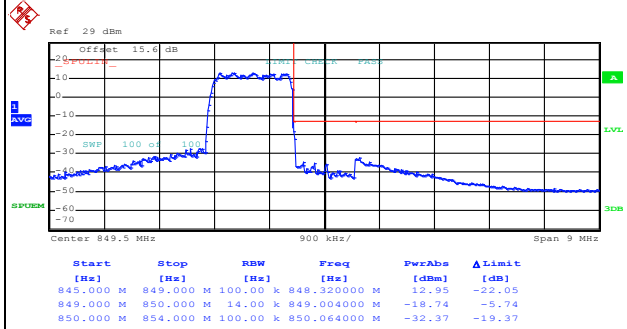
Mode	CDMA BC0 99% OBW(MHz)	CDMA BC1 99% OBW(MHz)
Mod.	1xRTT	1xRTT
Lowest CH	1.28	1.27
Middle CH	1.28	1.28
Highest CH	1.28	1.28
Mode	CDMA BC0 99% OBW(MHz)	CDMA BC1 99% OBW(MHz)
Mod.	1xEV-DO Rev. 0	1xEV-DO Rev. 0
Lowest CH	1.28	1.28
Middle CH	1.28	1.28
Highest CH	1.28	1.28



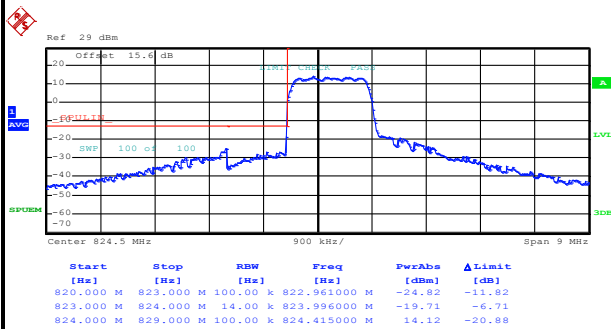


**Conducted Band Edge****CDMA BC0 (1xRTT)****Lowest Band Edge**

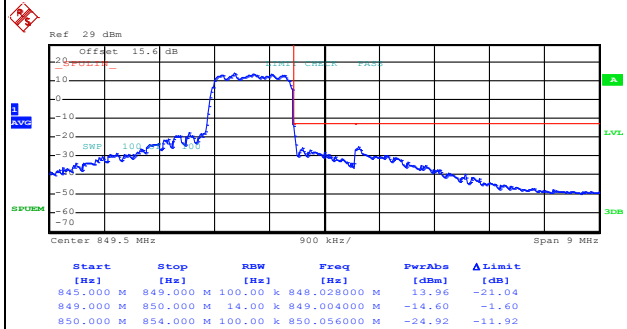
Date: 8.JAN.2020 15:23:13

Highest Band Edge

Date: 8.JAN.2020 15:26:01

CDMA BC0 (1xEV-DO Rev. 0)**Lowest Band Edge**

Date: 8.JAN.2020 14:16:58

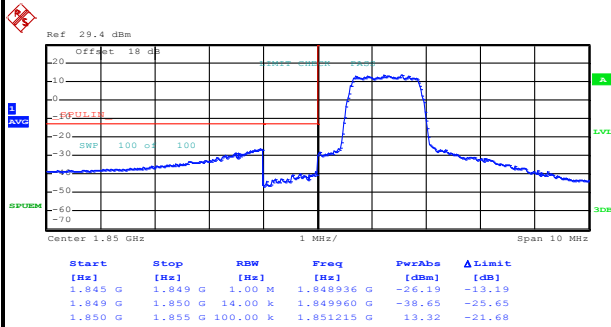
Highest Band Edge

Date: 8.JAN.2020 14:19:49



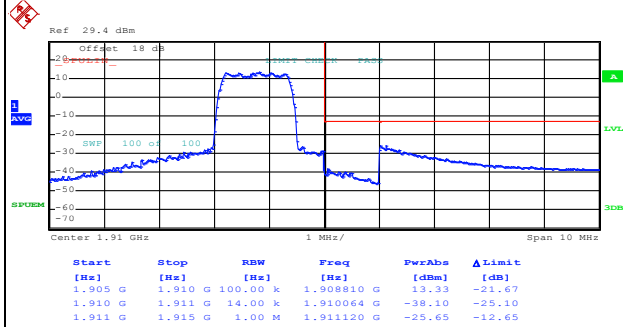
CDMA BC1 (1xRTT)

Lowest Band Edge



Date: 8.JAN.2020 15:53:19

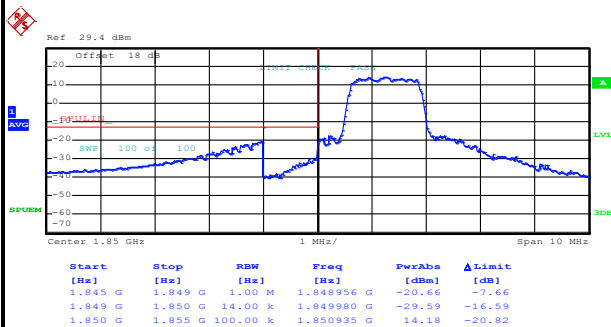
Highest Band Edge



Date: 8.JAN.2020 15:56:06

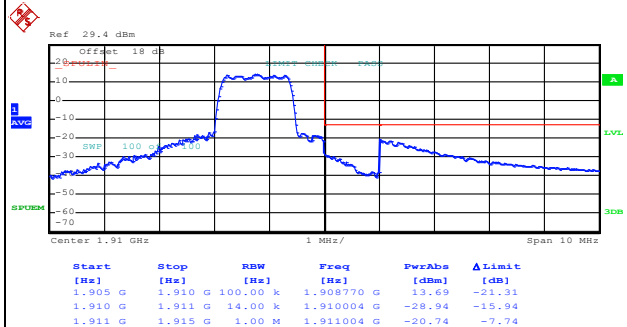
CDMA BC1 (1xEV-DO Rev. 0)

Lowest Band Edge



Date: 8.JAN.2020 14:34:21

Highest Band Edge



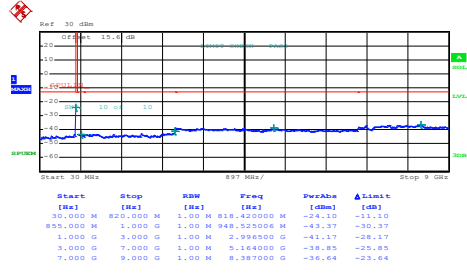
Date: 8.JAN.2020 14:37:11



Conducted Spurious Emission

CDMA BC0 (1xRTT)

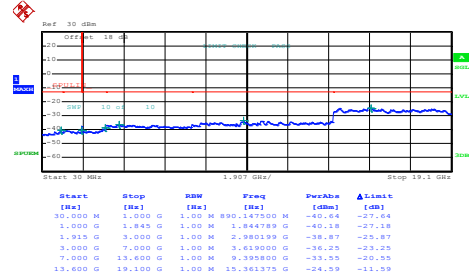
Lowest Channel



Date: 8.JAN.2020 15:15:38

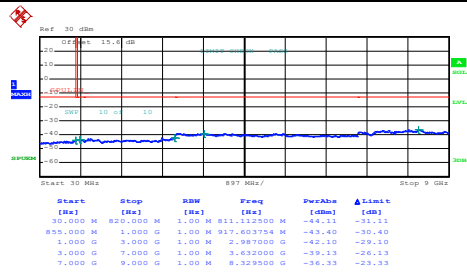
CDMA BC1 (1xRTT)

Lowest Channel



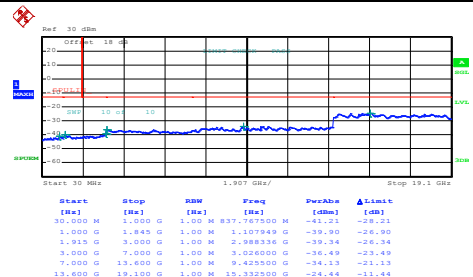
Date: 8.JAN.2020 15:56:59

Middle Channel



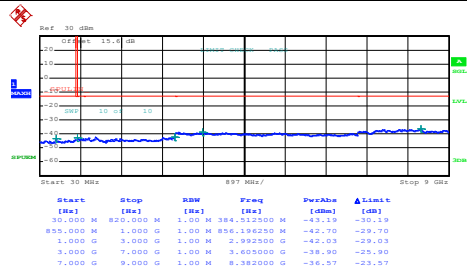
Date: 8.JAN.2020 15:16:29

Middle Channel



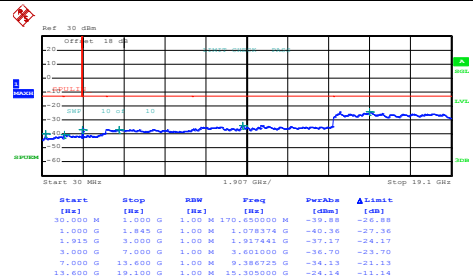
Date: 8.JAN.2020 15:57:49

Highest Channel



Date: 8.JAN.2020 15:17:19

Highest Channel

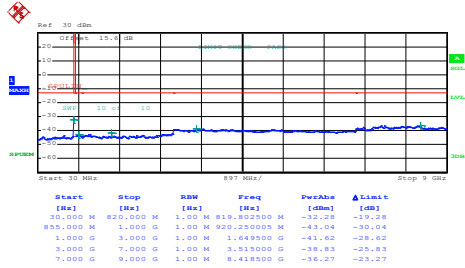


Date: 8.JAN.2020 15:58:39



CDMA BC0 (1xEV-DO Rev. 0)

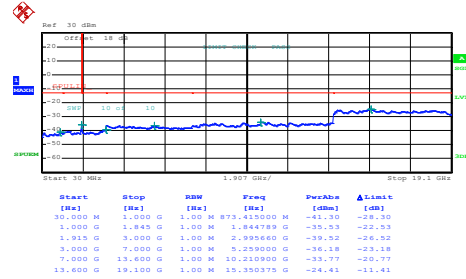
Lowest Channel



Date: 8.JAN.2020 14:09:34

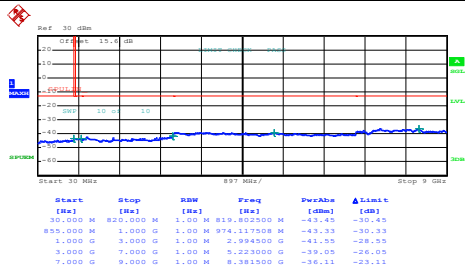
CDMA BC1 (1xEV-DO Rev. 0)

Lowest Channel



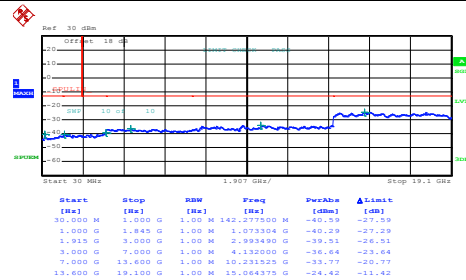
Date: 8.JAN.2020 14:26:47

Middle Channel



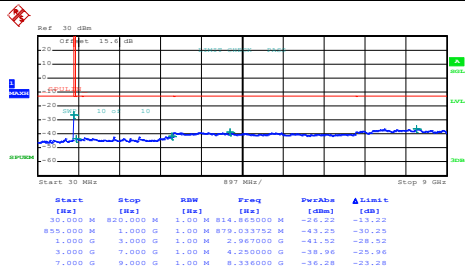
Date: 8.JAN.2020 14:10:35

Middle Channel



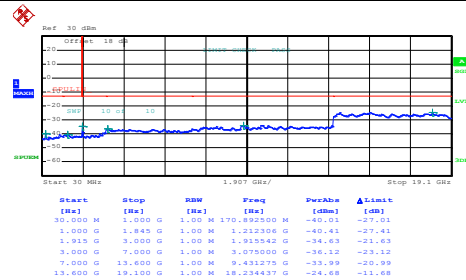
Date: 8.JAN.2020 14:27:37

Highest Channel



Date: 8.JAN.2020 14:11:27

Highest Channel



Date: 8.JAN.2020 14:28:29

**Frequency Stability**

Test Conditions	Middle Channel	CDMA BC0 (1xRTT)	Limit 2.5ppm
Temperature (°C)	Voltage (Volt)	Deviation (ppm)	Result
50	Normal Voltage	0.0574	PASS
40	Normal Voltage	0.0060	
30	Normal Voltage	0.0000	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0024	
0	Normal Voltage	0.0622	
-10	Normal Voltage	0.0143	
-20	Normal Voltage	0.0024	
-30	Normal Voltage	0.0502	
20	Maximum Voltage	0.0000	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0084	

Test Conditions	Middle Channel	CDMA BC1 (1xRTT)	Limit Note 2.
Temperature (°C)	Voltage (Volt)	Deviation (ppm)	Result
50	Normal Voltage	0.0085	PASS
40	Normal Voltage	0.0048	
30	Normal Voltage	0.0043	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0011	
0	Normal Voltage	0.0048	
-10	Normal Voltage	0.0005	
-20	Normal Voltage	0.0032	
-30	Normal Voltage	0.0021	
20	Maximum Voltage	0.0005	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0005	

Test Conditions	Middle Channel	CDMA BC0 (1xEV-DO Rev. 0)	Limit 2.5ppm
Temperature (°C)	Voltage (Volt)	Deviation (ppm)	Result
50	Normal Voltage	0.0383	PASS
40	Normal Voltage	0.0394	
30	Normal Voltage	0.0000	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0000	
0	Normal Voltage	0.0072	
-10	Normal Voltage	0.0060	
-20	Normal Voltage	0.0036	
-30	Normal Voltage	0.0060	
20	Maximum Voltage	0.0036	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0060	

Test Conditions	Middle Channel	CDMA BC1 (1xEV-DO Rev. 0)	Limit Note 2.
Temperature (°C)	Voltage (Volt)	Deviation (ppm)	Result
50	Normal Voltage	0.0037	PASS
40	Normal Voltage	0.0027	
30	Normal Voltage	0.0016	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0000	
0	Normal Voltage	0.0005	
-10	Normal Voltage	0.0027	
-20	Normal Voltage	0.0005	
-30	Normal Voltage	0.0000	
20	Maximum Voltage	0.0032	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0021	

Note:

1. Normal Voltage = 3.9V. ; Battery End Point (BEP) = 3.4 V. ; Maximum Voltage =4.35 V
2. The frequency fundamental emissions stay within the authorized frequency block.



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

ERP/EIRP

Channel	Mode	Conducted		ERP	
		Power (dBm)	Power (Watts)	ERP(dBm)	ERP(W)
Lowest	GSM850	32.66	1.8450	27.11	0.5140
Middle	GPRS class 8	32.73	1.8750	27.18	0.5224
Highest	(GT - LC = -3.4 dB)	32.55	1.7989	27.00	0.5012
Lowest	GSM850	27.17	0.5212	21.62	0.1452
Middle	EDGE class 8	27.26	0.5321	21.71	0.1483
Highest	(GT - LC = -3.4 dB)	27.38	0.5470	21.83	0.1524
Lowest	WCDMA Band V	23.23	0.2104	17.68	0.0586
Middle	RMC 12.2Kbps	23.31	0.2143	17.76	0.0597
Highest	(GT - LC = -3.4 dB)	23.27	0.2123	17.72	0.0592
Lowest	CDMA BC0	23.53	0.2254	17.98	0.0628
Middle	1xRTT	23.59	0.2286	18.04	0.0637
Highest	(GT - LC = -3.4 dB)	23.58	0.2280	18.03	0.0635
Lowest	CDMA BC0	23.52	0.2249	17.97	0.0627
Middle	1xEV-DO	23.53	0.2254	17.98	0.0628
Highest	(GT - LC = -3.4 dB)	23.51	0.2244	17.96	0.0625
Limit	ERP < 7W	Result		PASS	

Channel	Mode	Conducted		EIRP	
		Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	GSM1900	29.91	0.9795	29.01	0.7962
Middle	GPRS class 8	29.86	0.9683	28.96	0.7870
Highest	(GT - LC = -0.9 dB)	29.63	0.9183	28.73	0.7464
Lowest	GSM1900	25.65	0.3673	24.75	0.2985
Middle	EDGE class 8	25.62	0.3648	24.72	0.2965
Highest	(GT - LC = -0.9 dB)	25.81	0.3811	24.91	0.3097
Lowest	WCDMA Band II	23.22	0.2099	22.32	0.1706
Middle	RMC 12.2Kbps	23.36	0.2168	22.46	0.1762
Highest	(GT - LC = -0.9 dB)	23.16	0.2070	22.26	0.1683
Lowest	CDMA BC1	23.21	0.2094	22.31	0.1702
Middle	1xRTT	23.22	0.2099	22.32	0.1706
Highest	(GT - LC = -0.9 dB)	23.02	0.2004	22.12	0.1629
Lowest	CDMA BC1	23.20	0.2089	22.30	0.1698
Middle	1xEV-DO	23.21	0.2094	22.31	0.1702
Highest	(GT - LC = -0.9 dB)	23.01	0.2000	22.11	0.1626
Limit	EIRP < 2W	Result		PASS	

**Radiated Spurious Emission****GPRS850**

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	-58.65	-13	-45.65	-68.74	-64.24	0.92	8.66	H
	2473	-46.40	-13	-33.40	-60.71	-53.77	1.14	10.66	H
	3297	-55.11	-13	-42.11	-70.78	-63.65	1.32	12.01	H
									H
									H
									H
	1648	-60.36	-13	-47.36	-69.92	-65.95	0.92	8.66	V
	2473	-52.60	-13	-39.60	-67.06	-59.97	1.14	10.66	V
	3297	-54.36	-13	-41.36	-70.51	-62.90	1.32	12.01	V
									V
									V
									V
Middle	1673	-56.11	-13	-43.11	-66.28	-61.79	0.93	8.76	H
	2509	-47.44	-13	-34.44	-61.73	-54.85	1.15	10.71	H
	3346	-54.86	-13	-41.86	-70.4	-63.51	1.33	12.13	H
									H
									H
									H
	1673	-59.46	-13	-46.46	-69	-65.14	0.93	8.76	V
	2509	-48.37	-13	-35.37	-62.86	-55.78	1.15	10.71	V
	3346	-54.80	-13	-41.80	-70.79	-63.45	1.33	12.13	V
									V
									V
									V



Highest	1698	-57.14	-13	-44.14	-67.38	-62.91	0.94	8.85	H
	2546	-55.37	-13	-42.37	-69.64	-62.81	1.16	10.76	H
	3395	-55.07	-13	-42.07	-70.52	-63.83	1.34	12.25	H
									H
									H
									H
									H
	1698	-59.66	-13	-46.66	-69.18	-65.43	0.94	8.85	V
	2546	-56.88	-13	-43.88	-71.25	-64.32	1.16	10.76	V
	3395	-54.84	-13	-41.84	-70.7	-63.60	1.34	12.25	V
									V
									V
									V
									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	-59.96	-13	-46.96	-70.05	-65.55	0.92	8.66	H
	2473	-55.81	-13	-42.81	-70.12	-63.18	1.14	10.66	H
	3297	-55.23	-13	-42.23	-70.9	-63.77	1.32	12.01	H
									H
									H
									H
									H
	1648	-60.64	-13	-47.64	-70.2	-66.23	0.92	8.66	V
	2473	-55.93	-13	-42.93	-70.39	-63.30	1.14	10.66	V
	3297	-54.62	-13	-41.62	-70.77	-63.16	1.32	12.01	V
									V
									V
									V
									V
Middle	1673	-60.01	-13	-47.01	-70.17	-65.69	0.93	8.76	H
	2509	-55.98	-13	-42.98	-70.27	-63.39	1.15	10.71	H
	3346	-55.16	-13	-42.16	-70.7	-63.81	1.33	12.13	H
									H
									H
									H
									H
	1673	-60.99	-13	-47.99	-70.53	-66.67	0.93	8.76	V
	2509	-56.01	-13	-43.01	-70.5	-63.42	1.15	10.71	V
	3346	-54.59	-13	-41.59	-70.58	-63.24	1.33	12.13	V
									V
									V
									V
									V



Highest	1698	-59.99	-13	-46.99	-70.23	-65.76	0.94	8.85	H
	2546	-56.71	-13	-43.71	-70.98	-64.15	1.16	10.76	H
	3395	-55.11	-13	-42.11	-70.54	-63.87	1.34	12.25	H
									H
									H
									H
									H
	1698	-60.88	-13	-47.88	-70.4	-66.65	0.94	8.85	V
	2546	-56.65	-13	-43.65	-71.02	-64.09	1.16	10.76	V
	3395	-54.77	-13	-41.77	-70.63	-63.53	1.34	12.25	V
									V
									V
									V
									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	1653	-60.19	-13	-47.19	-70.3	-65.80	0.92	8.68	H
	2479	-56.33	-13	-43.33	-70.65	-63.71	1.15	10.67	H
	3306	-55.15	-13	-42.15	-70.8	-63.71	1.33	12.03	H
									H
									H
									H
									H
	1653	-60.67	-13	-47.67	-70.23	-66.28	0.92	8.68	V
	2479	-56.17	-13	-43.17	-70.66	-63.55	1.15	10.67	V
	3306	-54.47	-13	-41.47	-70.58	-63.03	1.33	12.03	V
									V
									V
									V
									V
Middle	1673	-60.28	-13	-47.28	-70.45	-65.96	0.93	8.76	H
	2509	-56.51	-13	-43.51	-70.8	-63.92	1.15	10.71	H
	3346	-55.14	-13	-42.14	-70.68	-63.79	1.33	12.13	H
									H
									H
									H
									H
	1673	-60.83	-13	-47.83	-70.37	-66.51	0.93	8.76	V
	2509	-55.99	-13	-42.99	-70.48	-63.40	1.15	10.71	V
	3346	-54.30	-13	-41.30	-70.29	-62.95	1.33	12.13	V
									V
									V
									V
									V



Highest	1693	-59.79	-13	-46.79	-70.01	-65.54	0.94	8.83	H
	2540	-56.04	-13	-43.04	-70.31	-63.48	1.16	10.75	H
	3386	-55.10	-13	-42.10	-70.54	-63.84	1.34	12.23	H
									H
									H
									H
									H
	1693	-60.98	-13	-47.98	-70.5	-66.73	0.94	8.83	V
	2540	-56.02	-13	-43.02	-70.41	-63.46	1.16	10.75	V
	3386	-54.88	-13	-41.88	-70.76	-63.62	1.34	12.23	V
									V
									V
									V
									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	1649	-60.17	-13	-47.17	-70.26	-65.77	0.92	8.67	H
	2474	-56.05	-13	-43.05	-70.36	-63.42	1.14	10.66	H
	3299	-55.61	-13	-42.61	-71.28	-64.15	1.32	12.02	H
									H
									H
									H
									H
	1649	-61.12	-13	-48.12	-70.68	-66.72	0.92	8.67	V
	2474	-56.58	-13	-43.58	-71.04	-63.95	1.14	10.66	V
	3299	-54.55	-13	-41.55	-70.69	-63.09	1.32	12.02	V
									V
									V
									V
									V
Middle	1673	-60.09	-13	-47.09	-70.26	-65.77	0.93	8.76	H
	2510	-56.17	-13	-43.17	-70.46	-63.58	1.15	10.71	H
	3346	-55.24	-13	-42.24	-70.78	-63.89	1.33	12.13	H
									H
									H
									H
									H
	1673	-60.77	-13	-47.77	-70.31	-66.45	0.93	8.76	V
	2510	-56.42	-13	-43.42	-70.91	-63.83	1.15	10.71	V
	3346	-55.00	-13	-42.00	-70.99	-63.65	1.33	12.13	V
									V
									V
									V
									V



Highest	1697	-59.99	-13	-46.99	-70.23	-65.75	0.94	8.85	H
	2545	-56.72	-13	-43.72	-70.99	-64.16	1.16	10.75	H
	3393	-54.86	-13	-41.86	-70.29	-63.61	1.34	12.24	H
									H
									H
									H
									H
	1697	-60.94	-13	-47.94	-70.46	-66.70	0.94	8.85	V
	2545	-56.79	-13	-43.79	-71.17	-64.23	1.16	10.75	V
	3393	-54.83	-13	-41.83	-70.69	-63.58	1.34	12.24	V
									V
									V
									V
									V

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

**CDMA2000 (BC0 EVDO)**

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	-59.77	-13	-46.77	-69.86	-65.36	0.92	8.66	H
	2472	-56.44	-13	-43.44	-70.75	-63.81	1.14	10.66	H
	3296	-55.31	-13	-42.31	-70.99	-63.85	1.32	12.01	H
									H
									H
									H
									H
	1648	-60.26	-13	-47.26	-69.82	-65.85	0.92	8.66	V
	2472	-55.81	-13	-42.81	-70.27	-63.18	1.14	10.66	V
	3296	-54.82	-13	-41.82	-70.97	-63.36	1.32	12.01	V
									V
									V
									V
									V
Middle	1672	-59.86	-13	-46.86	-70.02	-65.54	0.93	8.75	H
	2512	-56.30	-13	-43.30	-70.59	-63.71	1.15	10.71	H
	3344	-54.80	-13	-41.80	-70.35	-63.44	1.33	12.13	H
									H
									H
									H
									H
	1672	-60.25	-13	-47.25	-69.78	-65.93	0.93	8.75	V
	2512	-56.01	-13	-43.01	-70.49	-63.42	1.15	10.71	V
	3344	-54.26	-13	-41.26	-70.26	-62.90	1.33	12.13	V
									V
									V
									V
									V



Highest	1696	-60.12	-13	-47.12	-70.36	-65.88	0.94	8.84	H
	2544	-56.72	-13	-43.72	-70.98	-64.16	1.16	10.75	H
	3392	-55.32	-13	-42.32	-70.76	-64.07	1.34	12.24	H
									H
									H
									H
									H
	1696	-60.90	-13	-47.90	-70.43	-66.66	0.94	8.84	V
	2544	-56.59	-13	-43.59	-70.96	-64.03	1.16	10.75	V
	3392	-54.54	-13	-41.54	-70.41	-63.29	1.34	12.24	V
									V
									V
									V
									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	-51.46	-13	-38.46	-69.67	-62.67	1.41	12.62	H
	5548	-39.47	-13	-26.47	-62.54	-51.03	1.74	13.30	H
	7403	-42.83	-13	-29.83	-69.9	-52.15	1.94	11.26	H
									H
									H
									H
									H
	3700	-51.01	-13	-38.01	-69.36	-62.22	1.41	12.62	V
	5548	-47.11	-13	-34.11	-69.69	-58.67	1.74	13.30	V
	7403	-42.67	-13	-29.67	-69.58	-51.99	1.94	11.26	V
									V
									V
									V
									V
Middle	3763	-51.13	-13	-38.13	-69.56	-62.36	1.43	12.66	H
	5639	-41.23	-13	-28.23	-64.32	-52.80	1.73	13.30	H
	7522	-44.06	-13	-31.06	-70.56	-53.17	1.99	11.10	H
									H
									H
									H
									H
	3763	-50.73	-13	-37.73	-69.38	-61.96	1.43	12.66	V
	5639	-42.21	-13	-29.21	-64.9	-53.78	1.73	13.30	V
	7522	-43.87	-13	-30.87	-70.33	-52.98	1.99	11.10	V
									V
									V
									V
									V



Highest	3819	-49.77	-13	-36.77	-68.37	-61.02	1.44	12.69	H
	5730	-37.91	-13	-24.91	-61.44	-49.48	1.73	13.30	H
	7641	-44.21	-13	-31.21	-70.26	-53.33	2.01	11.13	H
									H
									H
									H
									H
	3819	-50.47	-13	-37.47	-69.31	-61.72	1.44	12.69	V
	5730	-43.69	-13	-30.69	-66.58	-55.26	1.73	13.30	V
	7641	-44.00	-13	-31.00	-69.95	-53.12	2.01	11.13	V
									V
									V
									V
									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	-51.56	-13	-38.56	-69.77	-62.77	1.41	12.62	H
	5550	-42.46	-13	-29.46	-65.52	-54.02	1.74	13.30	H
	7403	-42.58	-13	-29.58	-69.65	-51.90	1.94	11.26	H
									H
									H
									H
									H
	3700	-51.34	-13	-38.34	-69.7	-62.55	1.41	12.62	V
	5550	-43.59	-13	-30.59	-66.17	-55.15	1.74	13.30	V
	7403	-42.84	-13	-29.84	-69.75	-52.16	1.94	11.26	V
									V
									V
									V
									V
Middle	3763	-51.02	-13	-38.02	-69.45	-62.25	1.43	12.66	H
	5639	-42.09	-13	-29.09	-65.18	-53.66	1.73	13.30	H
	7522	-44.16	-13	-31.16	-70.66	-53.27	1.99	11.10	H
									H
									H
									H
									H
	3763	-51.11	-13	-38.11	-69.76	-62.34	1.43	12.66	V
	5639	-46.39	-13	-33.39	-69.08	-57.96	1.73	13.30	V
	7522	-44.12	-13	-31.12	-70.58	-53.23	1.99	11.10	V
									V
									V
									V
									V



Highest	3819	-51.09	-13	-38.09	-69.69	-62.34	1.44	12.69	H
	5730	-43.70	-13	-30.70	-67.23	-55.27	1.73	13.30	H
	7641	-44.21	-13	-31.21	-70.26	-53.33	2.01	11.13	H
									H
									H
									H
									H
	3819	-50.79	-13	-37.79	-69.63	-62.04	1.44	12.69	V
	5730	-46.46	-13	-33.46	-69.35	-58.03	1.73	13.30	V
	7641	-44.16	-13	-31.16	-70.11	-53.28	2.01	11.13	V
									V
									V
									V
									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	3707	-51.23	-13	-38.23	-69.46	-62.44	1.41	12.62	H
	5555	-46.55	-13	-33.55	-69.6	-58.11	1.74	13.30	H
	7410	-42.58	-13	-29.58	-69.62	-51.88	1.94	11.24	H
									H
									H
									H
									H
	3707	-51.20	-13	-38.20	-69.58	-62.41	1.41	12.62	V
	5555	-46.71	-13	-33.71	-69.29	-58.27	1.74	13.30	V
	7410	-42.85	-13	-29.85	-69.74	-52.15	1.94	11.24	V
									V
									V
									V
									V
Middle	3763	-51.16	-13	-38.16	-69.59	-62.39	1.43	12.66	H
	5639	-46.43	-13	-33.43	-69.52	-58.00	1.73	13.30	H
	7522	-43.90	-13	-30.90	-70.4	-53.01	1.99	11.10	H
									H
									H
									H
									H
	3763	-50.78	-13	-37.78	-69.43	-62.01	1.43	12.66	V
	5639	-46.82	-13	-33.82	-69.51	-58.39	1.73	13.30	V
	7522	-44.21	-13	-31.21	-70.67	-53.32	1.99	11.10	V
									V
									V
									V
									V



Highest	3815	-51.13	-13	-38.13	-69.72	-62.38	1.44	12.69	H
	5722	-45.87	-13	-32.87	-69.36	-57.44	1.73	13.30	H
	7630	-43.93	-13	-30.93	-69.98	-53.05	2.01	11.13	H
									H
									H
									H
									H
	3815	-50.93	-13	-37.93	-69.76	-62.18	1.44	12.69	V
	5722	-46.37	-13	-33.37	-69.24	-57.94	1.73	13.30	V
	7630	-44.32	-13	-31.32	-70.29	-53.44	2.01	11.13	V
									V
									V
									V
									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	3700	-51.42	-13	-38.42	-69.63	-62.63	1.41	12.62	H
	5555	-46.33	-13	-33.33	-69.38	-57.89	1.74	13.30	H
	7403	-42.32	-13	-29.32	-69.39	-51.64	1.94	11.26	H
									H
									H
									H
									H
	3700	-51.27	-13	-38.27	-69.62	-62.48	1.41	12.62	V
	5555	-46.89	-13	-33.89	-69.47	-58.45	1.74	13.30	V
	7403	-42.49	-13	-29.49	-69.4	-51.81	1.94	11.26	V
									V
									V
									V
									V
Middle	3763	-50.70	-13	-37.70	-69.13	-61.93	1.43	12.66	H
	5639	-46.22	-13	-33.22	-69.31	-57.79	1.73	13.30	H
	7522	-44.26	-13	-31.26	-70.76	-53.37	1.99	11.10	H
									H
									H
									H
									H
	3763	-50.79	-13	-37.79	-69.44	-62.02	1.43	12.66	V
	5639	-46.75	-13	-33.75	-69.44	-58.32	1.73	13.30	V
	7522	-43.90	-13	-30.90	-70.36	-53.01	1.99	11.10	V
									V
									V
									V
									V



Highest	3819	-51.27	-13	-38.27	-69.87	-62.52	1.44	12.69	H
	5723	-45.74	-13	-32.74	-69.24	-57.31	1.73	13.30	H
	7634	-44.14	-13	-31.14	-70.19	-53.26	2.01	11.13	H
									H
									H
									H
									H
	3819	-50.84	-13	-37.84	-69.68	-62.09	1.44	12.69	V
	5723	-46.10	-13	-33.10	-68.97	-57.67	1.73	13.30	V
	7634	-44.33	-13	-31.33	-70.29	-53.45	2.01	11.13	V
									V
									V
									V
									V

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

**CDMA 2000 (BC1 EVDO)**

CDMA2000 BC10									
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	3700	-51.28	-13	-38.28	-69.49	-62.49	1.41	12.62	H
	5555	-46.42	-13	-33.42	-69.47	-57.98	1.74	13.30	H
	7403	-42.49	-13	-29.49	-69.56	-51.81	1.94	11.26	H
									H
									H
									H
									H
	3700	-51.05	-13	-38.05	-69.4	-62.26	1.41	12.62	V
	5555	-47.06	-13	-34.06	-69.64	-58.62	1.74	13.30	V
	7403	-42.54	-13	-29.54	-69.45	-51.86	1.94	11.26	V
									V
									V
									V
									V
Middle	3763	-50.77	-13	-37.77	-69.2	-62.00	1.43	12.66	H
	5639	-46.46	-13	-33.46	-69.55	-58.03	1.73	13.30	H
	7522	-44.24	-13	-31.24	-70.74	-53.35	1.99	11.10	H
									H
									H
									H
									H
	3763	-50.95	-13	-37.95	-69.6	-62.18	1.43	12.66	V
	5639	-46.86	-13	-33.86	-69.55	-58.43	1.73	13.30	V
	7522	-44.18	-13	-31.18	-70.64	-53.29	1.99	11.10	V
									V
									V
									V
									V



Highest	3819	-51.34	-13	-38.34	-69.94	-62.59	1.44	12.69	H
	5723	-45.64	-13	-32.64	-69.14	-57.21	1.73	13.30	H
	7635	-44.27	-13	-31.27	-70.32	-53.39	2.01	11.13	H
									H
									H
									H
									H
	3819	-50.54	-13	-37.54	-69.38	-61.79	1.44	12.69	V
	5723	-45.67	-13	-32.67	-68.54	-57.24	1.73	13.30	V
	7635	-44.34	-13	-31.34	-70.3	-53.46	2.01	11.13	V
									V
									V
									V
									V

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



<WPC Mode>

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	3820	-51.47	-13	-38.47	-70.08	-62.72	1.44	12.69	H
	5730	-35.91	-13	-22.91	-59.44	-47.48	1.73	13.30	H
	7640	-44.20	-13	-31.20	-70.25	-53.32	2.01	11.13	H
									H
									H
									H
									H
	3820	-50.98	-13	-37.98	-69.82	-62.23	1.44	12.69	V
	5730	-37.24	-13	-24.24	-60.13	-48.81	1.73	13.30	V
	7640	-44.51	-13	-31.51	-70.46	-53.63	2.01	11.13	V
									V
									V
									V
									V

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

—————THE END—————