FCC 47 CFR PART 22 SUBPART H AND PART 24 SUBPART E

TEST REPORT

For

TITAN 10

Model: GT1000 2D

Trade Name: AMobile Intelligent Corp.

Issued to

AMobile Intelligent Corp.
18F,-1, No.150, Jian 1st Rd., Zhong He Dist., New Taipei City 235, Taiwan

Issued by

Compliance Certification Services Inc.
No.11, Wugong 6th Rd., Wugu Dist.,
New Taipei City 24891, Taiwan. (R.O.C.)
http://www.ccsrf.com
service@ccsrf.com
Issued Date: September 1, 2015

Testing Laboratory
1309

Revision History

Rev.		Issue Date		Revisions	Effect Page	Revised By
00		September 1, 2015		Initial Issue	ALL	Becca Chen

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1. TEST RESULT CERTIFICATION

Applicant: AMobile Intelligent Corp.
18F,-1, No.150, Jian 1st Rd., Zhong He Dist., New Taipei City 235, Taiwan

Equipment Under Test: TITAN 10

Trade Name: AMobile

Model: GT1000 2D

Date of Test: August 23, 2015

APPLICABLE STANDARDS	
STANDARD	**TEST RESULT**
FCC 47 CFR Part 22 Subpart H & Part 24 Subpart E	No non-compliance noted

We hereby certify that:

The above equipment was tested by Compliance Certification Services Inc. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in TIA/EIA-603-C: 2004 and the energy emitted by the sample EUT tested as described in this report is in compliance with conducted and radiated emission limits of FCC Rule FCC PART 22 Subpart H and PART 24 Subpart E.

The test results of this report relate only to the tested sample identified in this report.

Approved by:

Miller Lee
Manager
Compliance Certification Services Inc.

Reviewed by:

Angel Cheng
Section Manager
Compliance Certification Services Inc.

2. EUT DESCRIPTION

Product	TITAN 10
Trade Name	AMobile Intelligent Corp.
Model Number	GT1000 2D
Model Discrepancy	N/A
Received Date	July 22, 2015
Power Ratting	1. Powered from Adapter Zzu / ZZU1001-200050U I/P: 100-240Vac, 50/60Hz, Max: 0.5A O/P: 5Vdc, 2.0A 2. Powered from Rechargeable Li-ion Battery ARBOR / GT1000 Rating: 3.8Vdc, 9300mAh, 35.34Wh
Frequency Range	GSM / GPRS: 850: 824.2 ~ 848.8 MHz GSM / GPRS: 1900: 1850.2 ~ 1909.8 MHz WCDMA / HSDPA / HSUPA Band II: 1852.4 ~ 1907.6 MHz WCDMA / HSDPA / HSUPA Band V: 826.4 ~ 846.6MHz
Transmit Power (ERP & EIRP Power)	GSM 850: 32.90 dBm GSM 1900: 29.70 dBm GPRS 850: 32.40 dBm GPRS 1900: 28.90 dBm WCDMA Band II: 26.14 dBm WCDMA Band V: 26.21 dBm HSDPA Band II: 26.40 dBm HSDPA Band V: 26.93 dBm HSUPA Band II: 26.42 dBm HSUPA Band V: 27.01 dBm
Cellular Phone Protocol	GSM: GMSK GPRS: GMSK WCDMA: Quadrature Phase Shift Keying (QPSK) with Root-raised cosine pulse shaping filters (roll off = 0.22)
Type of Emission	GSM 850: 246KGXW--- GSM 1900: 247KGXW--- GPRS 850: 248KGXW--- GPRS 1900: 248KGXW--- WCDMA Band II: 4M15F9W--- WCDMA Band V: 4M15F9W--- WCDMA HSDPA Band II: 4M16F9W--- WCDMA HSDPA Band V: 4M15F9W--- WCDMA HSUPA Band II: 4M17F9W--- WCDMA HSUPA Band V: 4M16F9W---
Antenna Gain	GSM / GPRS 850: -0.61 dBi GSM / GPRS 1900: 2.23 dBi WCDMA band II: 2.23 dBi WCDMA band V: -2.94 dBi
Antenna Type	PIFA Antenna

Remark:

1. *The sample selected for test was engineering sample that approximated to production product and was provided by manufacturer.*
2. *This submittal(s) (test report) is intended for **FCC ID: 2ACC5-GT10** filing to comply with Part 22 and Part 24 of the FCC 47 CFR Rules.*

3. TEST METHODOLOGY

Both conducted and radiated testing were performed according to the procedures document on chapter 13 of ANSI C63.10: 2010, TIA/EIA-603-C: 2004 and FCC CFR 47, Part 2, PART 22 SUBPART H AND PART 24 SUBPART E

3.1 EUT CONFIGURATION

The EUT configuration for testing is installed on RF field strength measurement to meet the Commissions requirement and operating in a manner that intends to maximize its emission characteristics in a continuous normal application.

3.2 EUT EXERCISE

The EUT was operated in the engineering mode to fix the TX frequency that was for the purpose of the measurements.

3.3 GENERAL TEST PROCEDURES

Conducted Emissions

According to the requirements ANSI C63.10: 2013.Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30MHz using CISPR Quasi-peak and average detector modes.

Radiated Emissions

The EUT is placed on a turn table, which is 1.5 m above ground plane. The turntable shall rotate 360 degrees to determine the position of maximum emission level. EUT is set 3m away from the receiving antenna, which varied from 1m to 4m to find out the highest emission. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical. In order to find out the maximum emissions, exploratory radiated emission measurements were made according to the requirements ANSI C63.10: 2013.

3.4 DESCRIPTION OF TEST MODES

The EUT (model: GT1000) had been tested under operating condition.

EUT staying in continuous transmitting mode was programmed.

GSM / GPRS 850:
Channel Low (CH128), Channel Mid (CH190) and Channel High (CH251) were chosen for full testing.

GSM / GPRS 1900:
Channel Low (CH512), Channel Mid (CH661) and Channel High (CH810) were chosen for full testing.

WCDMA Band II:
Channel Low (CH9262), Channel Mid (CH9400) and Channel High (CH9538) were chosen for full testing.

WCDMA Band V:
Channel Low (CH4132), Channel Mid (CH4182) and Channel High (CH4233) were chosen for full testing.

WCDMA / HSDPA Band II:
Channel Low (CH9262), Channel Mid (CH9400) and Channel High (CH9538) were chosen for full testing.

WCDMA / HSDPA Band V:
Channel Low (CH4132), Channel Mid (CH4182) and Channel High (CH4233) were chosen for full testing.

WCDMA / HSUPA Band II:
Channel Low (CH9262), Channel Mid (CH9400) and Channel High (CH9538) were chosen for full testing.

WCDMA / HSDPA Band V:
Channel Low (CH4132), Channel Mid (CH4182) and Channel High (CH4233) were chosen for full testing.

After verification, all tests were carried out with the worst case test modes as shown below except radiated spurious emission below 1GHz and power line conducted emissions below 30MHz, which worst case was in normal link mode only.

The worst emission was found: slide mode

The field strength of spurious emission was measured in the following position: EUT stand-up position (Z axis), lie-down position (X, Y axis). The worst emission was found in lie-down position (Y axis) and the worst case was recorded.

Based on the above results from the different modulations, GSM850 / GSM1900 / GPRS 850 / GPRS1900 / WCDMA Band II / WCDMA Band V / HSDPA Band II / HSDPA Band V / HSUPA Band II / HSUPA Band V were determined to be the worst-case scenario for all tests.

4. INSTRUMENT CALIBRATION

4.1 MEASURING INSTRUMENT CALIBRATION

The measuring equipment, which was utilized in performing the tests documented herein, has been calibrated in accordance with the manufacturer's recommendations for utilizing calibration equipment, which is traceable to recognized national standards.

4.2 MEASUREMENT EQUIPMENT USED

Equipment Used for Emissions Measurement

Remark: *Each piece of equipment is scheduled for calibration once a year and Loop Antenna is scheduled for calibration once three years.*

Conducted Emissions Test Site				
Name of Equipment	**Manufacturer**	**Model**	**Serial Number**	**Calibration Due**
Spectrum Analyzer	Agilent	E4446A	US42510252	11/23/2015
Thermostatic/Humidity Chamber	TAICHY	MHG-150LF	930619	10/07/2015
AC Power Source	EXTECH	6205	1140845	N.C.R
DC Power Supply	ABM	8301HD	D011531	N.C.R
Power Meter	Anritsu	ML2495A	1012009	07/07/2016
Power Sensor	Anritsu	MA2411A	0917072	07/07/2016
Spectrum Analyzer	ROHDE&SCHWARZ	FSV40	101073	07/19/2016

Wugu 966 Chamber A				
Name of Equipment	**Manufacturer**	**Model**	**Serial Number**	**Calibration Due**
Harmonic Mixer	ROHDE&SCHWARZ	FS-Z60	100142	04/16/2016
Horn Antenna	A-INFOMW	LB-19-20-A	J202020872	04/16/2016
Harmonic Mixer	ROHDE&SCHWARZ	FS-Z75	100162	04/21/2016
Horn Antenna	ROHDE&SCHWARZ	FH-PP-75	10001	04/21/2016
Harmonic Mixer	ROHDE&SCHWARZ	FS-Z110	100096	04/23/2016
Horn Antenna	ROHDE&SCHWARZ	FH-PP-110	10003	04/23/2016
Harmonic Mixer	Radiometer Physics Gmbn	SAM-170	20011	04/27/2016
Horn Antenna	Radiometer Physics Gmbn	FH-PP-170	10003	04/27/2016
Harmonic Mixer	Radiometer Physics Gmbn	SAM-220	20013	04/29/2016
Horn Antenna	Radiometer Physics Gmbn	FH-PP-220	10003	04/29/2016
Harmonic Mixer	Radiometer Physics Gmbn	SAM-325	20048	05/04/2016
Horn Antenna	Radiometer Physics Gmbn	FH-PP-325	10007	05/04/2016
Spectrum Analyzer	Agilent	E4446A	US42510268	01/25/2016
EMI Test Receiver	R&S	ESCI	100064	06/03/2016
Bilog Antenna	Sunol Sciences	JB3	A030105	08/05/2016
Horn Antenna	EMCO	3117	00055165	01/26/2016
Horn Antenna	EMCO	3116	26370	12/25/2015
Pre-Amplifier	MITEQ	AMF-6F-260400-40-8P	985646	12/25/2015
Turn Table	CCS	CC-T-1F	N/A	N.C.R
Antenna Tower	CCS	CC-A-1F	N/A	N.C.R
Controller	CCS	CC-C-1F	N/A	N.C.R
Test S/W	EZ-EMC (CCS-3A1RE)			

4.3 MEASUREMENT UNCERTAINTY

PARAMETER	UNCERTAINTY
3M Semi Anechoic Chamber / 30M~200M	+/- 4.0138
3M Semi Anechoic Chamber / 200M~1000M	+/- 3.9483
3M Semi Anechoic Chamber / 1G~8G	+/- 2.5975
3M Semi Anechoic Chamber / 8G~18G	+/- 2.6112
3M Semi Anechoic Chamber / 18G~26G	+/- 2.7389
3M Semi Anechoic Chamber / 26G~40G	+/- 2.9683

***Remark**: This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.*

5. FACILITIES AND ACCREDITATIONS

5.1 FACILITIES

☐ No.199, Chunghsen Road, Hsintien City, Taipei Hsien, Taiwan, R.O.C.
Tel: 886-2-2217-0894 / Fax: 886-2-2217-1029

☒ No.11, Wugong 6th Rd., Wugu Dist., New Taipei City 24891, Taiwan. (R.O.C.)
Tel: 886-2-2299-9720 / Fax: 886-2-2298-4045

☐ No.81-1, Lane 210, Bade 2nd Rd., Lujhu Township, Taoyuan County 33841, TAIWAN, R.O.C.
Tel: 886-3-324-0332 / Fax: 886-3-324-5235

The sites are constructed in conformance with the requirements of ANSI C63.7, ANSI C63.10: 2013 and CISPR Publication 22.

5.2 EQUIPMENT

Radiated emissions are measured with one or more of the following types of linearly polarized antennas: tuned dipole, bucolical, log periodic, bi-log, and/or ridged waveguide, horn. Spectrum analyzers with pre-selectors and quasi-peak detectors are used to perform radiated measurements.

Conducted emissions are measured with Line Impedance Stabilization Networks and EMI Test Receivers.

Calibrated wideband preamplifiers, coaxial cables, and coaxial attenuators are also used for making measurements.

All receiving equipment conforms to CISPR Publication 16-1, “Radio Interference Measuring Apparatus and Measurement Methods.”

5.3 TABLE OF ACCREDITATIONS AND LISTINGS

Country	Agency	Scope of Accreditation	Logo
USA	FCC	3M Semi Anechoic Chamber (FCC MRA: TW1039) to perform FCC Part 15 measurements	FCC MRA: TW1039
Taiwan	TAF	LP0002, RTTE01, FCC Method-47 CFR Part 15 Subpart C, D, E, RSS-210, RSS-310 IDA TS SRD, AS/NZS 4268, AS/NZS 4771, TS 12.1 & 12,2, ETSI EN 300 440-1, ETSI EN 300 440-2, ETSI EN 300 328, ETSI EN 300 220-1, ETSI EN 300 220-2, ETSI EN 301 893, ETSI EN 301 489-1/3/7/17 FCC OET Bulletin 65 + Supplement C, EN 50360, EN 50361, EN 50371, RSS 102, EN 50383, EN 50385, EN 50392, IEC 62209, CNS 14958-1, CNS 14959 FCC Method –47 CFR Part 15 Subpart B IEC / EN 61000-3-2, IEC / EN 61000-3-3, IEC / EN 61000-4-2/3/4/5/6/8/11	TAF Testing Laboratory 1309
Canada	Industry Canada	3M Semi Anechoic Chamber (IC 2324G-1 / IC 2324G-2) to perform	Canada IC 2324G-1 IC 2324G-2

** No part of this report may be used to claim or imply product endorsement by A2LA or any agency of the US Government.*

6. SETUP OF EQUIPMENT UNDER TEST

6.1 SETUP CONFIGURATION OF EUT

See test photographs attached in Appendix I for the actual connections between EUT and support equipment.

6.2 SUPPORT EQUIPMENT

No.	Device Type	Brand	Model	FCC ID	Series No.	Data Cable	Power Cord
	N/A						

Remark:

1. *All the equipment/cables were placed in the worst-case configuration to maximize the emission during the test.*
2. *Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use.*

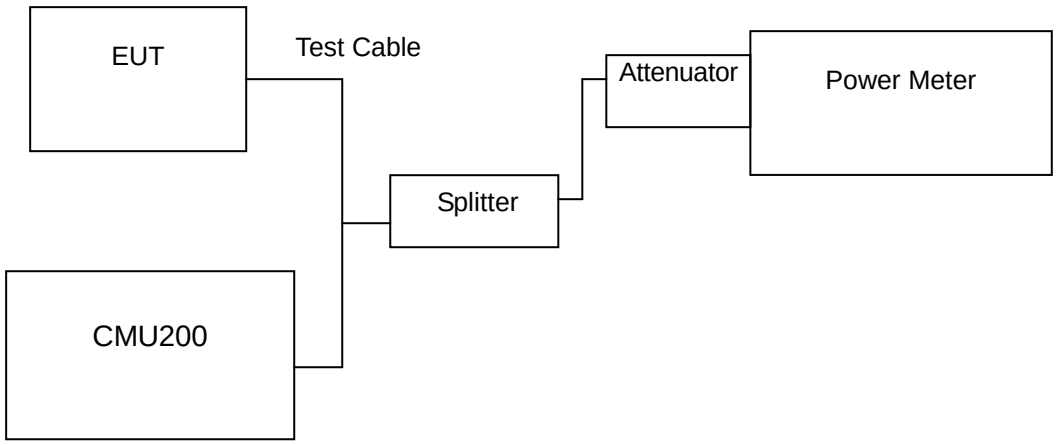
7. FCC PART 22 & 24 REQUIREMENTS

7.1 PEAK POWER

LIMIT

According to FCC §2.1046.

Test Configuration



Remark: *Measurement setup for testing on Antenna connector*

TEST PROCEDURE

The transmitter output was connected to a calibrated attenuator, the other end of which was connected to a power meter. Transmitter output was read off the power meter in dBm. The power output at the transmitter antenna port was determined by adding the value of the attenuator to the power meter reading.

TEST RESULTS

No non-compliance noted.

Test Data

Test Mode	CH	Frequency (MHz)	Peak Power (dBm)	Output Power W
GSM 850	128	824.20	32.90	1.94984
	190	836.60	32.80	1.90546
	251	848.80	***32.90**	1.94984
GPRS 850	128	824.20	32.40	1.73780
	190	836.60	32.30	1.69824
	251	848.80	***32.40**	1.73780

Test Mode	CH	Frequency (MHz)	Peak Power (dBm)	Output Power W
GSM 1900	512	1850.20	29.60	0.91201
	661	1880.00	29.70	0.93325
	810	1909.80	***29.70**	0.93325
GPRS 1900	512	1850.20	28.70	0.74131
	661	1880.00	28.90	0.77625
	810	1909.80	***28.90**	0.77625

Remark: *The value of factor includes both the loss of cable and external attenuator*

Test Mode	CH	Frequency (MHz)	Peak Power (dBm)	Output Power W
WCDMA (BAND II)	9262	1852.40	25.87	0.38637
	9400	1880.00	***26.14**	0.41115
	9538	1907.60	25.83	0.38282
WCDMA (BAND V)	4132	826.40	26.18	0.41495
	4182	836.40	25.76	0.37670
	4233	846.60	***26.21**	0.41783

Test Mode	CH	Frequency (MHz)	Peak Power (dBm)	Output Power W
WCDMA / HSDPA (BAND II)	9262	1852.40	26.01	0.39902
	9400	1880.00	***26.40**	0.43652
	9538	1907.60	26.22	0.41879
WCDMA / HSDPA (BAND V)	4132	826.40	26.80	0.47863
	4182	836.40	26.31	0.42756
	4233	846.60	***26.93**	0.49317

Test Mode	CH	Frequency (MHz)	Peak Power (dBm)	Output Power W
WCDMA / HSUPA (BAND II)	9262	1852.40	26.01	0.39902
	9400	1880.00	***26.42**	0.43853
	9538	1907.60	25.87	0.38637
WCDMA / HSUPA (BAND V)	4132	826.40	26.91	0.49091
	4182	836.40	26.33	0.42954
	4233	846.60	***27.01**	0.50234

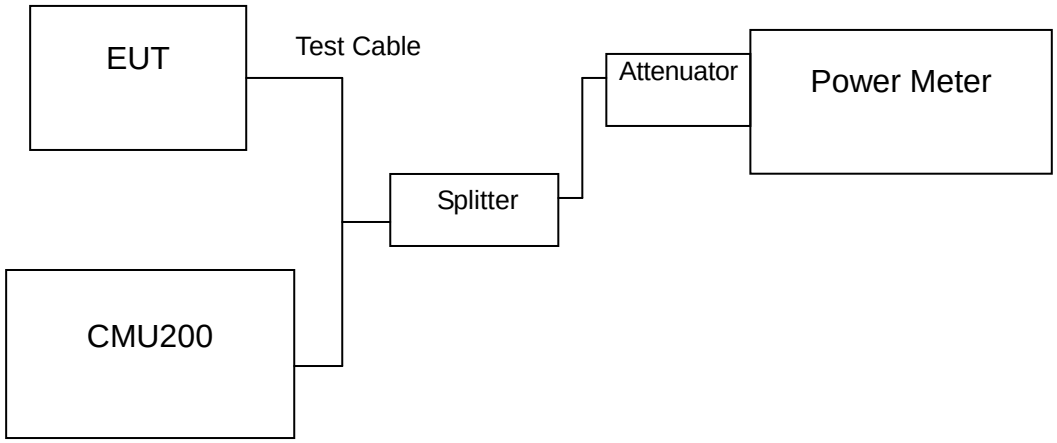
Remark: *The value of factor includes both the loss of cable and external attenuator*

7.2 AVERAGE POWER

LIMIT

For reporting purposes only.

Test Configuration



Remark: *Measurement setup for testing on Antenna connector*

TEST PROCEDURE

The transmitter output was connected to a calibrated attenuator, the other end of which was connected to a power meter. Transmitter output was read off the power meter in dBm. The power output at the transmitter antenna port was determined by adding the value of the attenuator to the power meter reading.

TEST RESULTS

No non-compliance noted.

Test Data

Test Mode	CH	Frequency (MHz)	AVG Power (dBm)	Output Power W
GSM 850	128	824.20	32.80	1.90546
	190	836.60	32.70	1.86209
	251	848.80	32.80	***1.90546**
GPRS 850	128	824.20	32.20	1.65959
	190	836.60	32.50	1.77828
	251	848.80	32.60	***1.81970**

Test Mode	CH	Frequency (MHz)	AVG Power (dBm)	Output Power W
GSM 1900	512	1850.20	29.50	0.89125
	661	1880.00	29.60	0.91201
	810	1909.80	29.60	***0.91201**
GPRS 1900	512	1850.20	28.60	0.72444
	661	1880.00	28.80	0.75858
	810	1909.80	28.80	***0.75858**

Remark: The value of factor includes both the loss of cable and external attenuator

Test Mode	CH	Frequency (MHz)	AVG Power (dBm)	Output Power W
WCDMA (BAND II)	9262	1852.40	22.34	0.17140
	9400	1880.00	22.63	0.18323
	9538	1907.60	22.93	***0.19634**
WCDMA (BAND V)	4132	826.40	22.95	0.19724
	4182	836.40	22.97	0.19815
	4233	846.60	23.96	***0.24889**

Test Mode	CH	Frequency (MHz)	AVG Power (dBm)	Output Power W
WCDMA / HSDPA (BAND II)	9262	1852.40	21.27	0.13397
	9400	1880.00	22.01	***0.15885**
	9538	1907.60	21.96	0.15704
WCDMA / HSDPA (BAND V)	4132	826.40	22.52	0.17865
	4182	836.40	22.55	0.17989
	4233	846.60	22.71	***0.18664**

Test Mode	CH	Frequency (MHz)	Peak Power (dBm)	Output Power W
WCDMA / HSUPA (BAND II)	9262	1852.40	21.36	0.13677
	9400	1880.00	21.60	0.14454
	9538	1907.60	21.90	***0.15488**
WCDMA / HSUPA (BAND V)	4132	826.40	22.53	0.17906
	4182	836.40	22.68	0.18535
	4233	846.60	22.74	***0.18793**

Remark: The value of factor includes both the loss of cable and external attenuator

7.3 ERP & EIRP MEASUREMENT

LIMIT

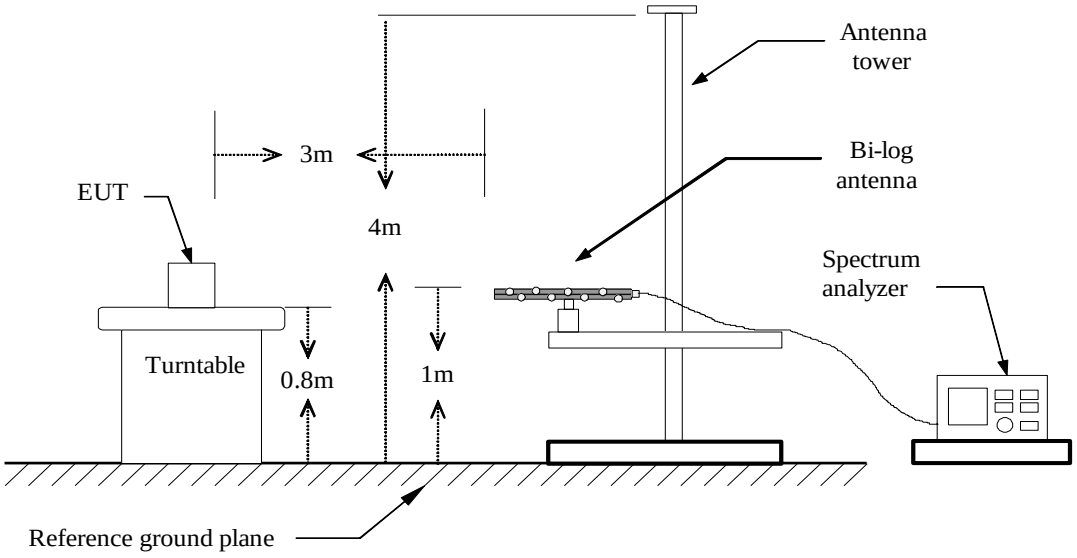
According to FCC §2.1046

FCC 22.913(a): The Effective Radiated Power (ERP) of mobile transmitters must not exceed 7 Watts.

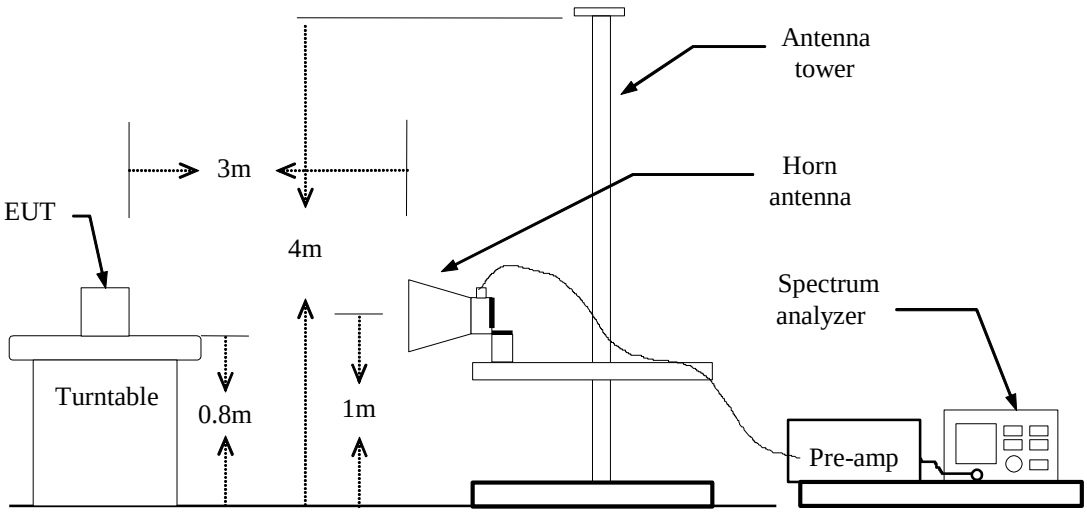
FCC 24.232(b): The equivalent Isotropic Radiated Power (EIRP) must not exceed 2 Watts.

Test Configuration

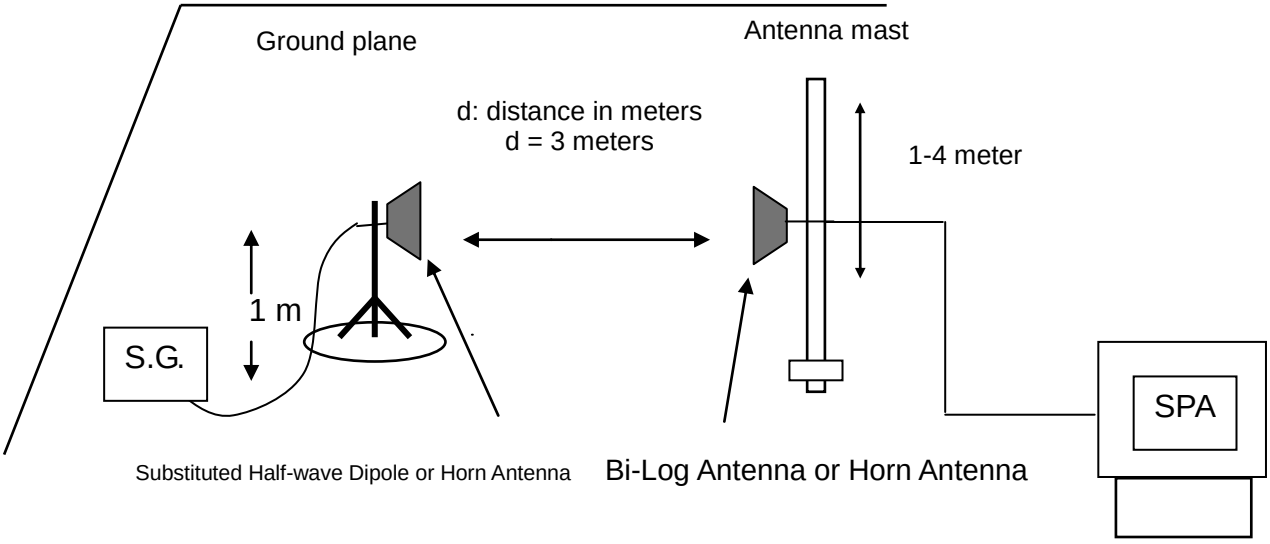
Below 1 GHz



Above 1 GHz



For Substituted Method Test Set-UP



TEST PROCEDURE

The EUT was placed on an non-conductive turntable using a non-conductive support. The radiated emission at the fundamental frequency was measured at 3 m with a test antenna and EMI spectrum analyzer.

During the measurement of the EUT, the resolution bandwidth was set to 5MHz and the average bandwidth was set to 50MHz. The highest emission was recorded with the rotation of the turntable and the lowering of the test antenna. The reading was recorded and the field strength (E in dBuV/m) was calculated.

ERP in frequency band 824-849MHz, and EIRP in frequency band 1851.25 –1910MHz were measured using a substitution method. The EUT was replaced by half-wave dipole (824-849MHz) or horn antenna (1851.25-1910MHz) connected to a signal generator. The spectrum analyzer reading was recorded and ERP/EIRP was calculated as follows:

ERP = S.G. output (dBm) + Antenna Gain (dBi) – Cable (dB)-2.15
EIRP = S.G. output (dBm) + Antenna Gain (dBi) – Cable (dB)

TEST RESULTS

No non-compliance noted.

GSM 850 TEST DATA

EUT Pol.	Channel	Frequency (MHz)	Antenna Pol.	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)
X	128	824.1200	V	14.31	3.39	6.24	17.16	38.45	-21.29
		824.1200	H	24.09	3.39	6.24	26.94	38.45	-11.51
	190	836.4800	V	14.88	3.4	6.36	17.84	38.45	-20.61
		836.6000	H	24.78	3.4	6.37	27.75	38.45	-10.70
	251	848.7200	V	16.76	3.4	6.4	19.76	38.45	-18.69
		848.8400	H	26.15	3.4	6.4	29.15	38.45	-9.30

GPRS 850 TEST DATA

EUT Pol.	Channel	Frequency (MHz)	Antenna Pol.	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)
X	128	824.3000	V	10.98	3.39	6.24	13.83	38.45	-24.62
		824.0600	H	20.62	3.39	6.24	23.47	38.45	-14.98
	190	836.8400	V	11.51	3.4	6.37	14.48	38.45	-23.97
		836.4800	H	21.54	3.4	6.36	24.50	38.45	-13.95
	251	848.8400	V	12.95	3.4	6.4	15.95	38.45	-22.50
		849.0200	H	22.73	3.4	6.4	25.73	38.45	-12.72

GSM 1900 TEST DATA

EUT Pol.	Channel	Frequency (MHz)	Antenna Pol.	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)
X	512	1850.160	V	17.71	5.37	5.67	18.01	33.00	-14.99
		1850.280	H	29.13	5.37	5.67	29.43	33.00	-3.57
	661	1879.920	V	18.62	5.42	5.62	18.82	33.00	-14.18
		1879.920	H	29.25	5.42	5.62	29.45	33.00	-3.55
	810	1909.800	V	18.46	5.48	5.56	18.54	33.00	-14.46
		1909.800	H	29.64	5.48	5.56	29.72	33.00	-3.28

GPRS 1900 TEST DATA

EUT Pol.	Channel	Frequency (MHz)	Antenna Pol.	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)
X	512	1850.040	V	14.32	5.37	5.67	14.62	33.00	-18.38
		1850.040	H	25.54	5.37	5.67	25.84	33.00	-7.16
	661	1879.920	V	15.2	5.42	5.62	15.40	33.00	-17.60
		1879.920	H	26.12	5.42	5.62	26.32	33.00	-6.68
	810	1909.800	V	15.13	5.48	5.56	15.21	33.00	-17.79
		1909.680	H	26.22	5.48	5.56	26.30	33.00	-6.70

WCDMA Test Data (BAND II)

EUT Pol.	Channel	Frequency (MHz)	Antenna Pol.	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)
X	9262	1853.160	V	13.64	5.38	5.66	13.92	33.00	-19.08
		1851.960	H	23.67	5.37	5.67	23.97	33.00	-9.03
	9400	1878.960	V	12.92	5.42	5.62	13.12	33.00	-19.88
		1880.640	H	22.83	5.42	5.61	23.02	33.00	-9.98
	9538	1908.240	V	13.5	5.47	5.57	13.60	33.00	-19.40
		1908.240	H	23.72	5.47	5.57	23.82	33.00	-9.18
Y	9400	1879.200	V	19.6	5.42	5.62	19.80	33.00	-13.20
	9400	1878.960	H	22.29	5.42	5.62	22.49	33.00	-10.51
Z	9400	1880.640	V	18.76	5.42	5.61	18.95	33.00	-14.05
	9400	1881.240	H	15.57	5.42	5.61	15.76	33.00	-17.24

WCDMA Test Data (BAND V)

EUT Pol.	Channel	Frequency (MHz)	Antenna Pol.	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)
X	4182	837.7400	V	3.13	3.41	6.38	6.10	38.45	-32.35
		837.5600	H	15.81	3.41	6.38	18.78	38.45	-19.67
Y	4182	837.7400	V	15.18	3.41	6.38	18.15	38.45	-20.30
		837.3200	H	15.42	3.4	6.37	18.39	38.45	-20.06
Z	4132	827.5400	V	16.63	3.39	6.27	19.51	38.45	-18.94
		827.1200	H	16.35	3.39	6.27	19.23	38.45	-19.22
	4182	837.6200	V	16.15	3.41	6.38	19.12	38.45	-19.33
		837.0200	H	14.89	3.4	6.37	17.86	38.45	-20.59
	4233	846.8600	V	17.54	3.4	6.4	20.54	38.45	-17.91
		845.5400	H	16.28	3.4	6.4	19.28	38.45	-19.17

WCDMA / HSDPA BAND II Test Data

EUT Pol.	Channel	Frequency (MHz)	Antenna Pol.	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)
X	9262	1851.480	V	12.75	5.37	5.67	13.05	33.00	-19.95
		1852.920	H	22.9	5.37	5.66	23.19	33.00	-9.81
	9400	1880.640	V	13.08	5.42	5.61	13.27	33.00	-19.73
		1880.760	H	23.04	5.42	5.61	23.23	33.00	-9.77
	9538	1908.240	V	12.97	5.47	5.57	13.07	33.00	-19.93
		1908.840	H	23.04	5.47	5.56	23.13	33.00	-9.87

WCDMA / HSDPA BAND V Test Data

EUT Pol.	Channel	Frequency (MHz)	Antenna Pol.	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)
X	4132	827.1800	V	15.65	3.39	6.27	18.53	38.45	-19.92
		827.4800	H	15.35	3.39	6.27	18.23	38.45	-20.22
	4182	836.9600	V	15.12	3.4	6.37	18.09	38.45	-20.36
		837.6800	H	13.86	3.41	6.38	16.83	38.45	-21.62
	4233	845.4200	V	14.47	3.4	6.4	17.47	38.45	-20.98
		845.3600	H	**15.26**	**3.4**	**6.4**	**18.26**	**38.45**	**-20.19**

WCDMA / HSUPA BAND II Test Data

EUT Pol.	Channel	Frequency (MHz)	Antenna Pol.	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)
X	9262	1851.960	V	12.82	5.37	5.67	13.12	33.00	-19.88
		1851.840	H	22.93	5.37	5.67	23.23	33.00	-9.77
	9400	1880.640	V	13.16	5.42	5.61	13.35	33.00	-19.65
		1879.320	H	23.06	5.42	5.62	23.26	33.00	-9.74
	9538	1906.440	V	13.06	5.47	5.57	13.16	33.00	-19.84
		1908.360	H	23.06	5.47	5.56	23.15	33.00	-9.85

WCDMA / HSUPA BAND V Test Data

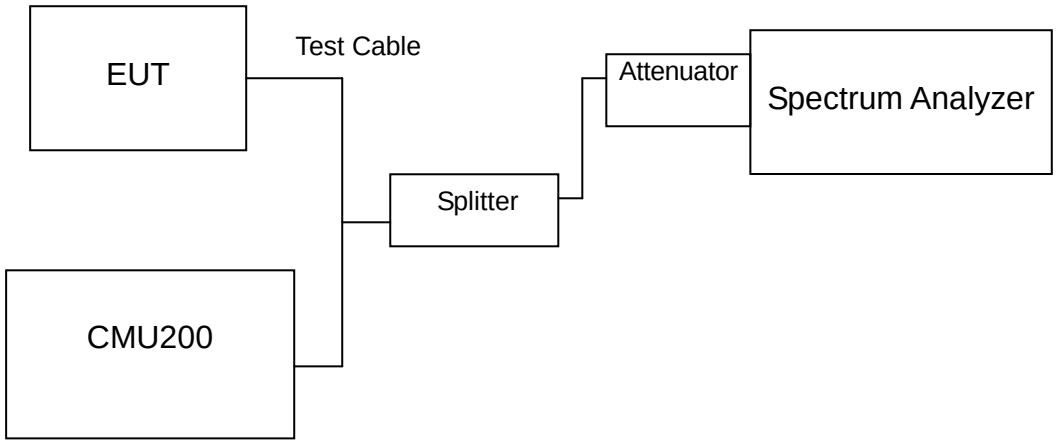
EUT Pol.	Channel	Frequency (MHz)	Antenna Pol.	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)
X	4132	827.0000	V	15.64	3.39	6.27	18.52	38.45	-19.93
		827.1800	H	15.44	3.39	6.27	18.32	38.45	-20.13
	4182	837.5600	V	15.12	3.41	6.38	18.09	38.45	-20.36
		837.2000	H	14	3.4	6.37	16.97	38.45	-21.48
	4233	847.4000	V	17.21	3.4	6.4	20.21	38.45	-18.24
		847.5800	H	**15.27**	**3.4**	**6.4**	**18.27**	**38.45**	**-20.18**

7.4 OCCUPIED BANDWIDTH MEASUREMENT

LIMIT

According to §FCC 2.1049.

Test Configuration



Remark: *Measurement setup for testing on Antenna connector*

TEST PROCEDURE

The EUT's output RF connector was connected with a short cable to the spectrum analyzer, RBW was set to about 1% of emission BW, VBW is set to 3 times the RBW, -26dBc display line was placed on the screen (or 99% bandwidth), the occupied bandwidth is the delta frequency between the two points where the display line intersects the signal trace.

TEST RESULTS

No non-compliance noted

Test Data

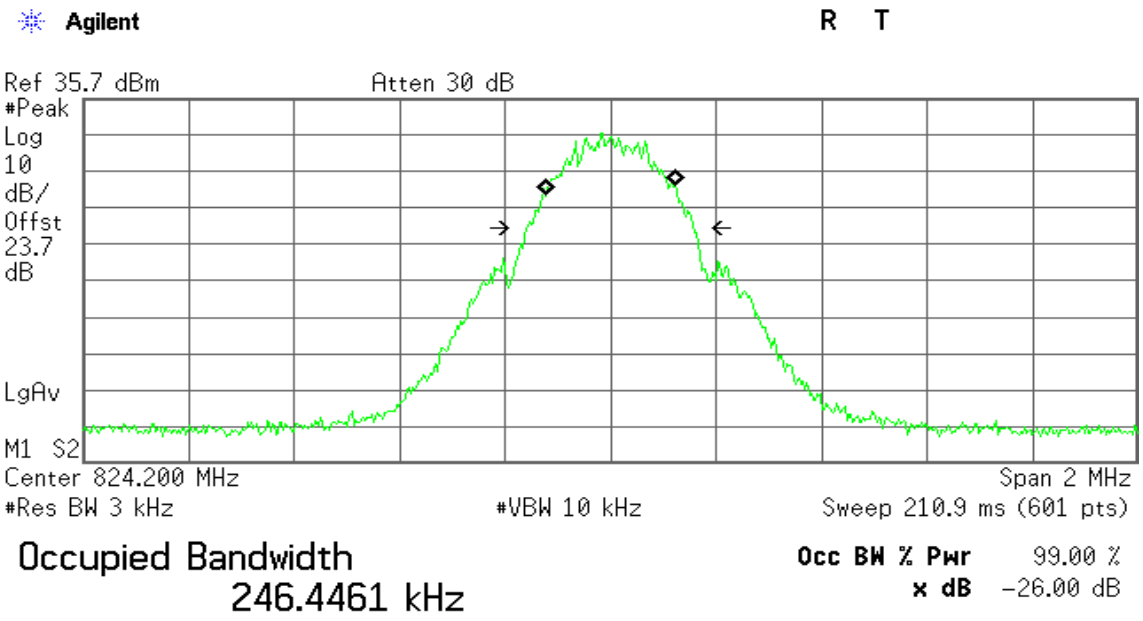
Test Mode	CH	Frequency (MHz)	99% Bandwidth (kHz)
GSM 850	128	824.20	246.4461
	190	836.60	244.9503
	251	848.80	243.5021
GPRS 850	128	824.20	241.5128
	190	836.60	248.2361
	251	848.80	243.2113

Test Mode	CH	Frequency (MHz)	99% Bandwidth (kHz)
GSM 1900	512	1850.20	246.4812
	661	1880.00	246.7057
	810	1909.80	246.3243
GPRS 1900	512	1850.20	246.6650
	661	1880.00	247.6720
	810	1909.80	244.9420

Test Mode	CH	Frequency (MHz)	99% Bandwidth (MHz)
WCDMA (Band II)	9262	1852.40	4.1395
	9400	1880.00	4.1396
	9538	1907.60	4.1526
WCDMA (Band V)	4132	826.40	4.1438
	4182	836.40	4.1521
	4233	846.60	4.1424
WCDMA / HSDPA (BAND II)	9262	1852.40	4.1490
	9400	1880.00	4.1569
	9538	1907.60	4.1459
WCDMA / HSDPA (BAND V)	4132	826.40	4.1386
	4182	836.40	4.1464
	4233	846.60	4.1536
WCDMA / HSUPA (BAND II)	9262	1852.40	4.1478
	9400	1880.00	4.1415
	9538	1907.60	4.1741
WCDMA / HSUPA (BAND V)	4132	826.40	4.1426
	4182	836.40	4.1614
	4233	846.60	4.1359

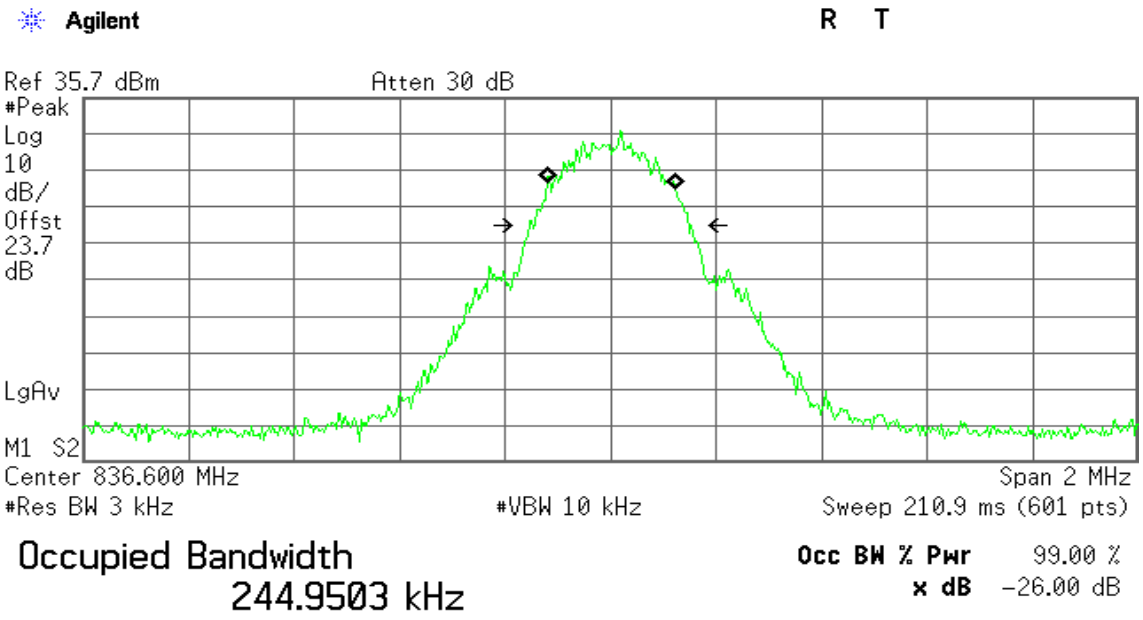
Test Plot

GSM 850 (CH Low)



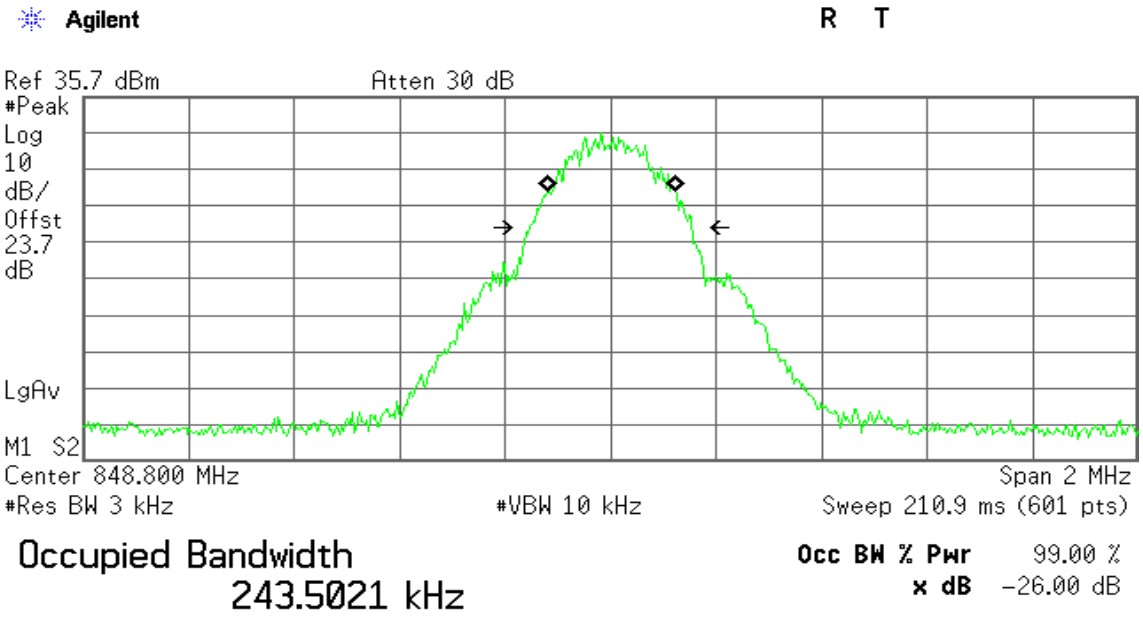
Transmit Freq Error	560.492 Hz
x dB Bandwidth	318.754 kHz

GSM 850 (CH Mid)



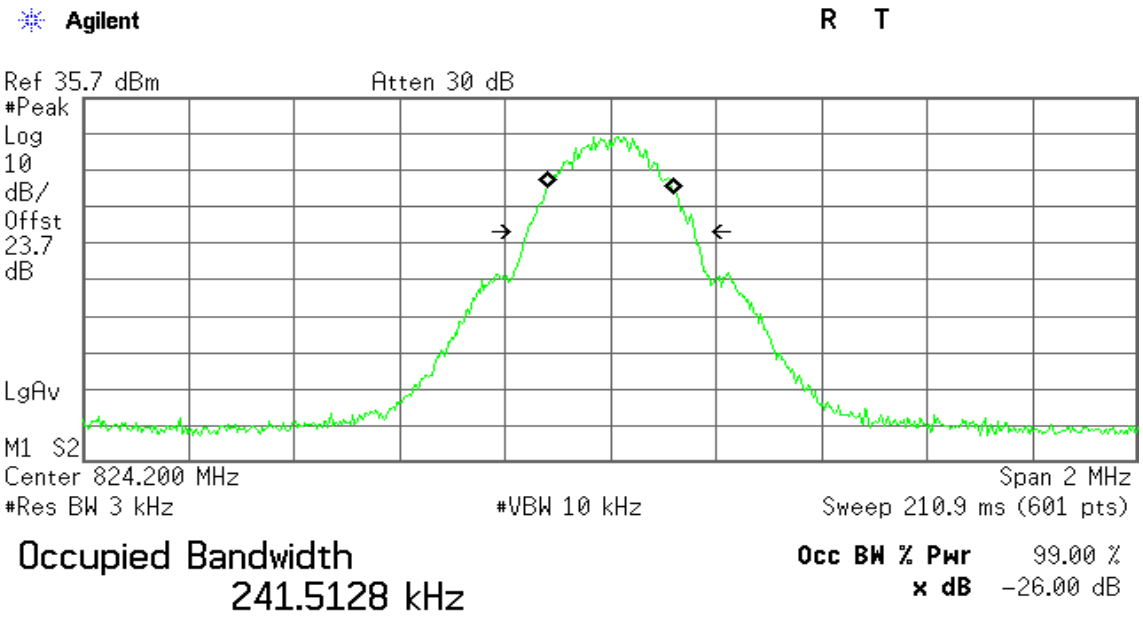
Transmit Freq Error	1.687 kHz
x dB Bandwidth	308.488 kHz

GSM 850 (CH High)



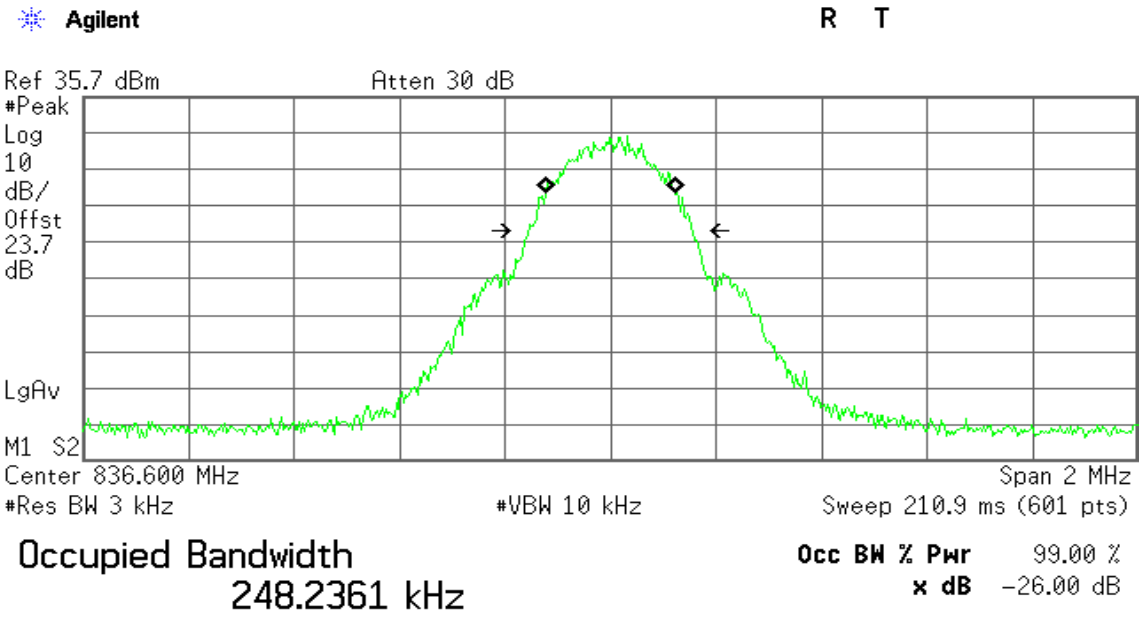
Transmit Freq Error	867.363 Hz
x dB Bandwidth	309.917 kHz

GPRS 850 (CH Low)



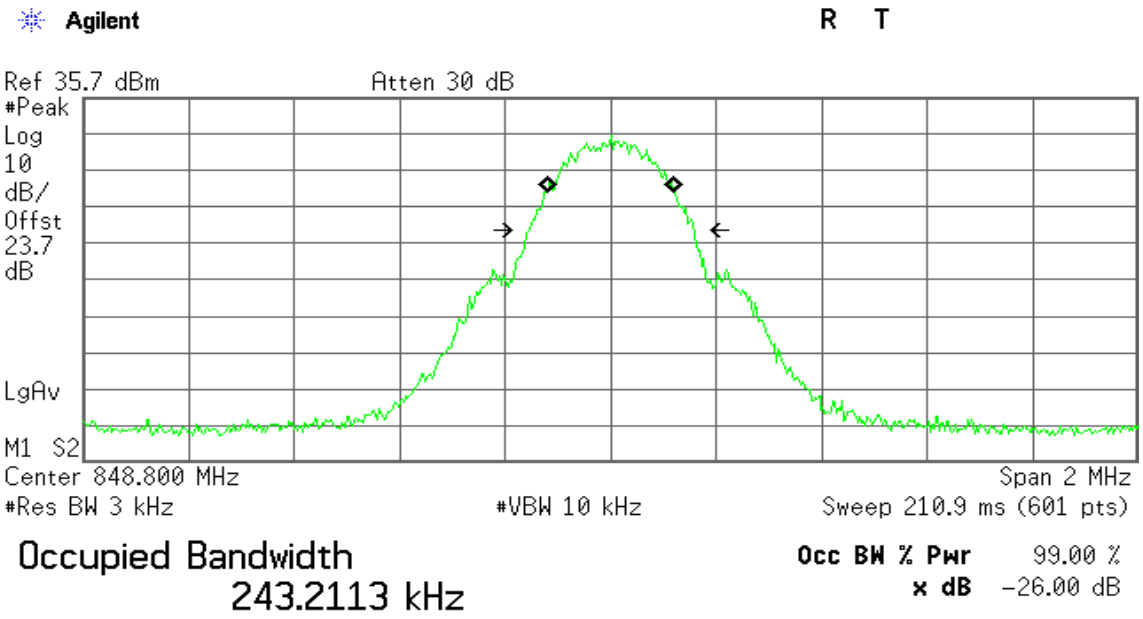
Transmit Freq Error -485.194 Hz
x dB Bandwidth 317.545 kHz

GPRS 850 (CH Mid)

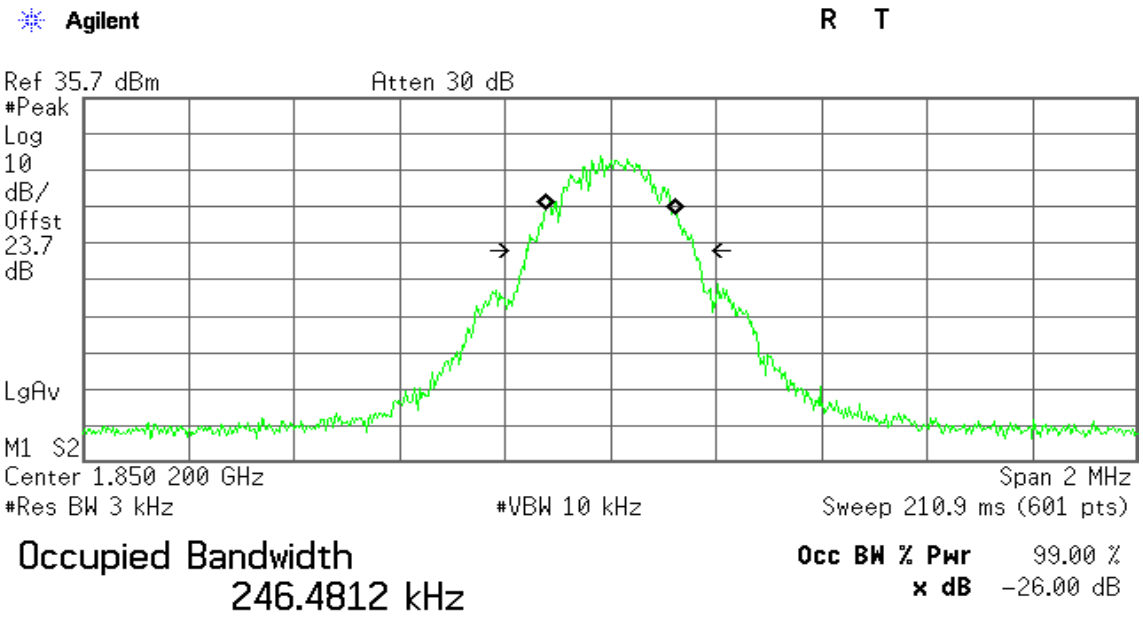


Transmit Freq Error 498.660 Hz
x dB Bandwidth 312.292 kHz

GPRS 850(CH High)

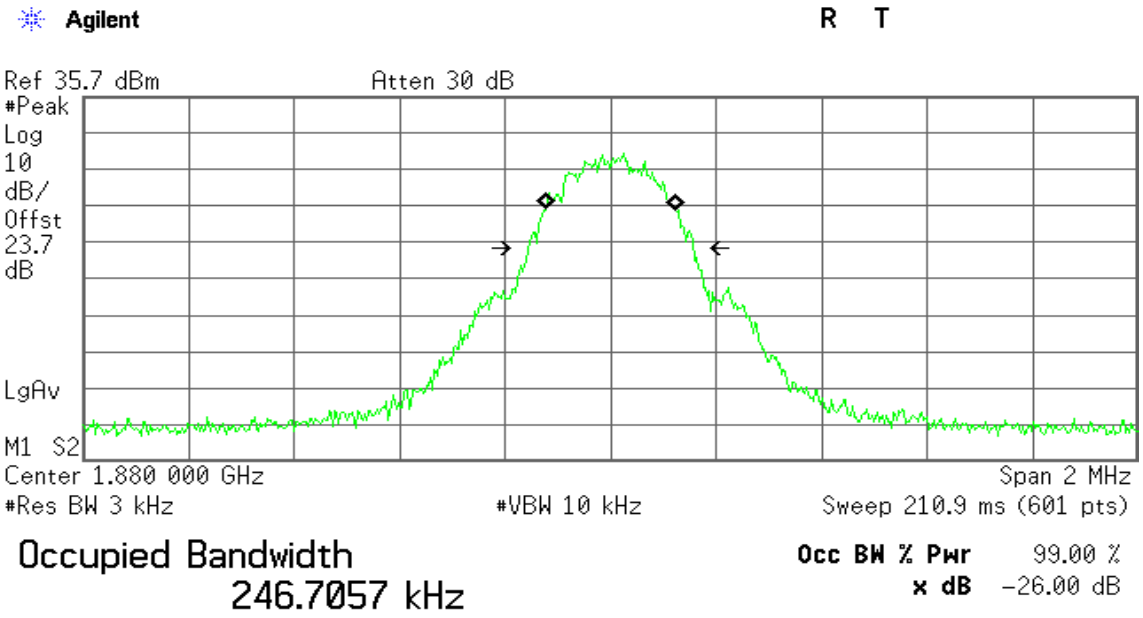


GSM 1900 (CH Low)



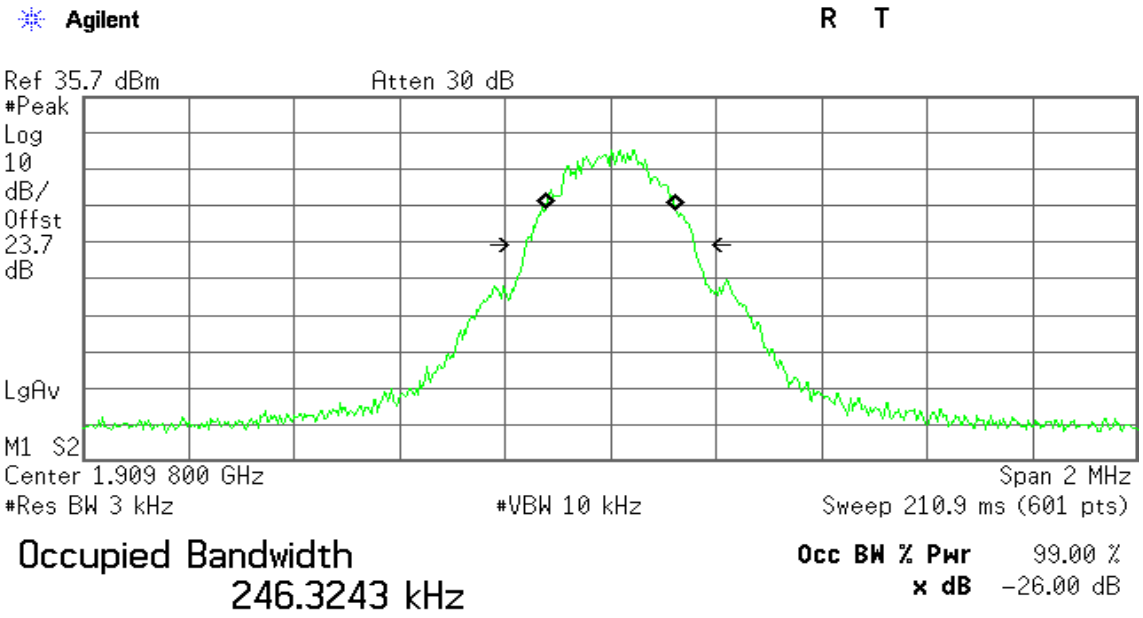
Transmit Freq Error	248.463 Hz
x dB Bandwidth	320.253 kHz

GSM 1900 (CH Mid)



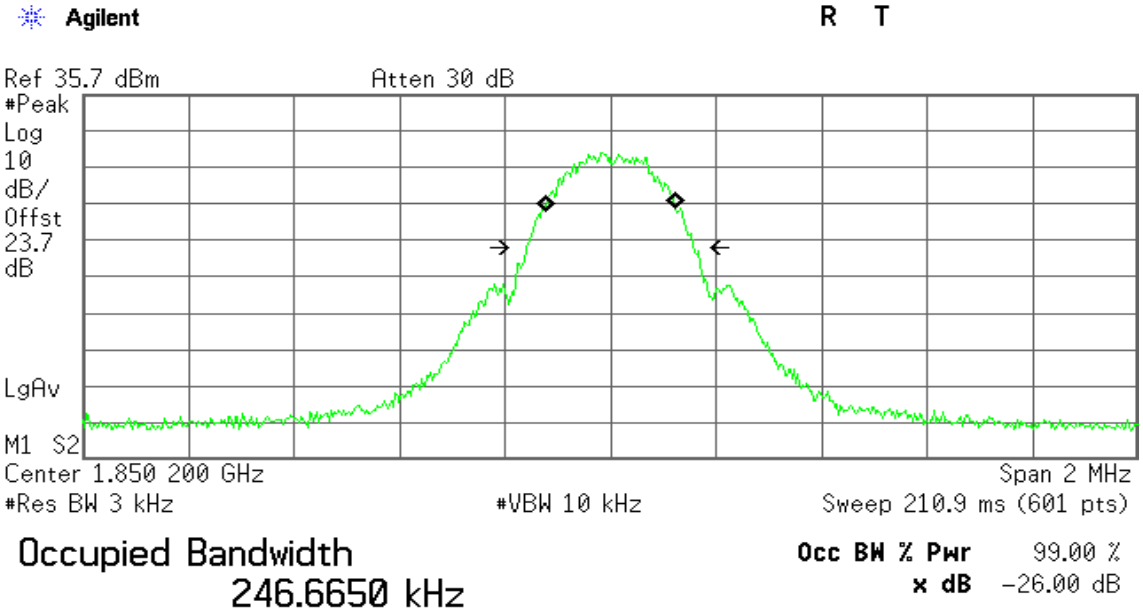
Transmit Freq Error	247.167 Hz
x dB Bandwidth	314.565 kHz

GSM 1900 (CH High)



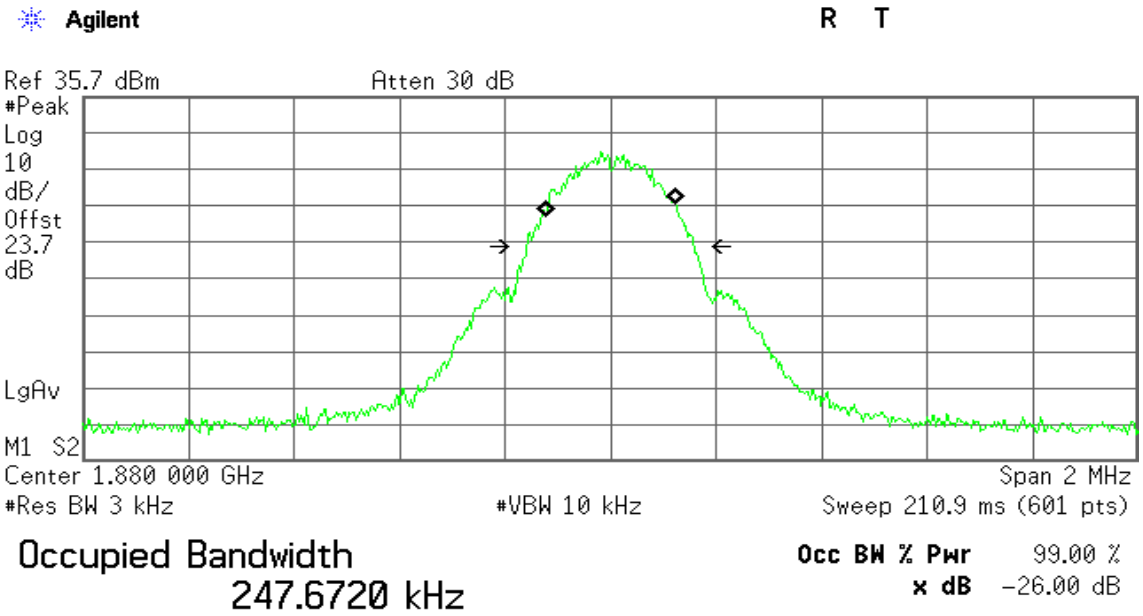
Transmit Freq Error	-164.192 Hz
x dB Bandwidth	320.456 kHz

GPRS 1900 (CH Low)



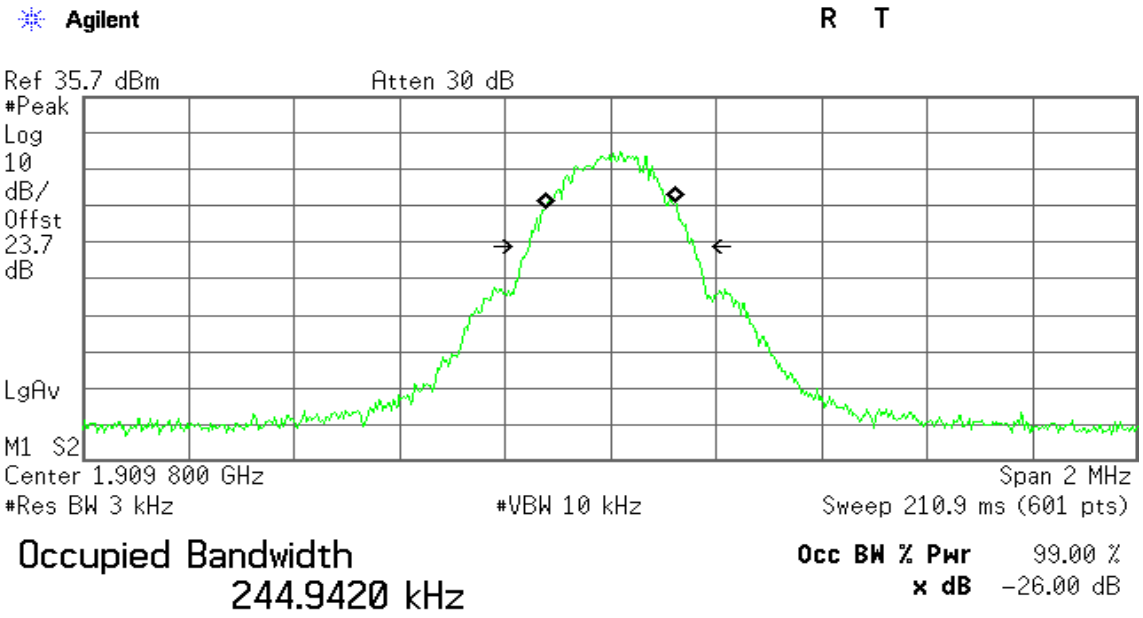
Transmit Freq Error	-561.099 Hz
x dB Bandwidth	318.334 kHz

GPRS 1900 (CH Mid)



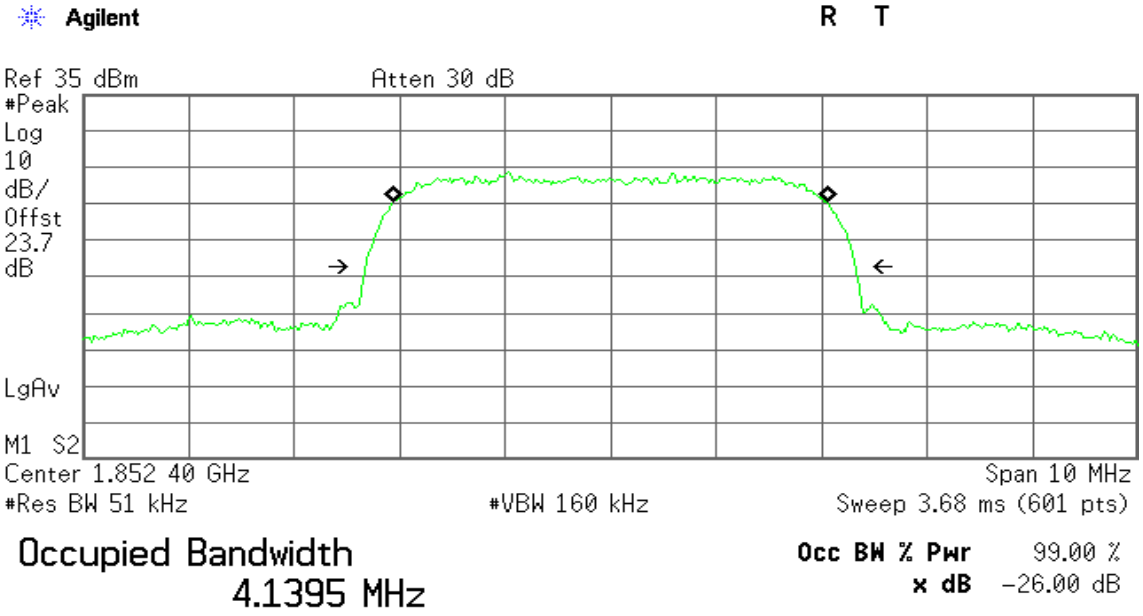
Transmit Freq Error	587.778 Hz
x dB Bandwidth	317.776 kHz

GPRS 1900 (CH High)



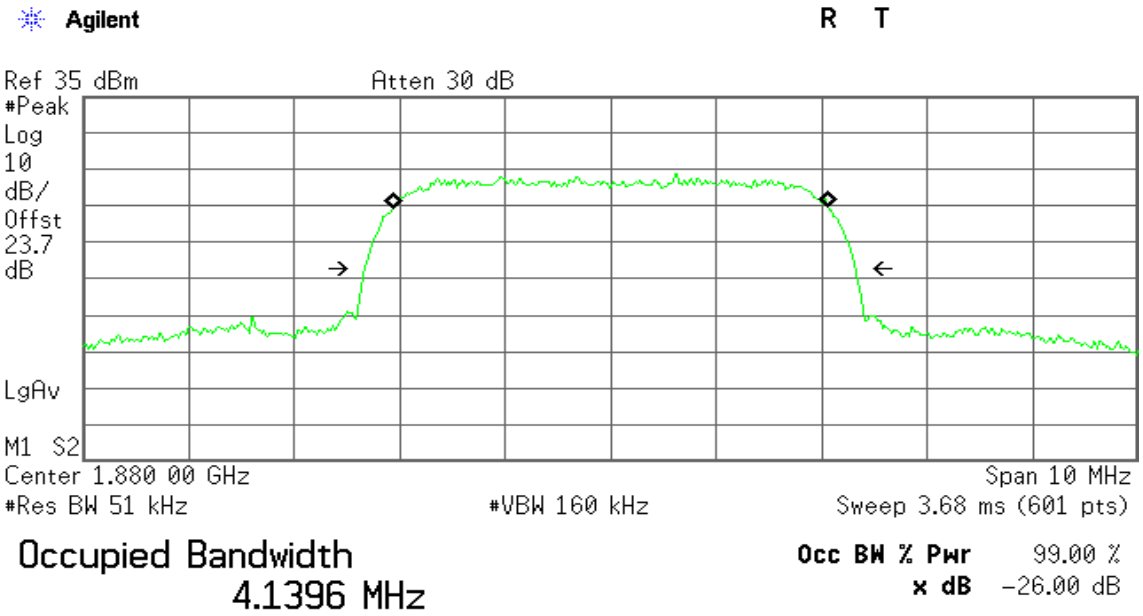
Transmit Freq Error	67.293 Hz
x dB Bandwidth	312.465 kHz

WCDMA Band II (CH Low)



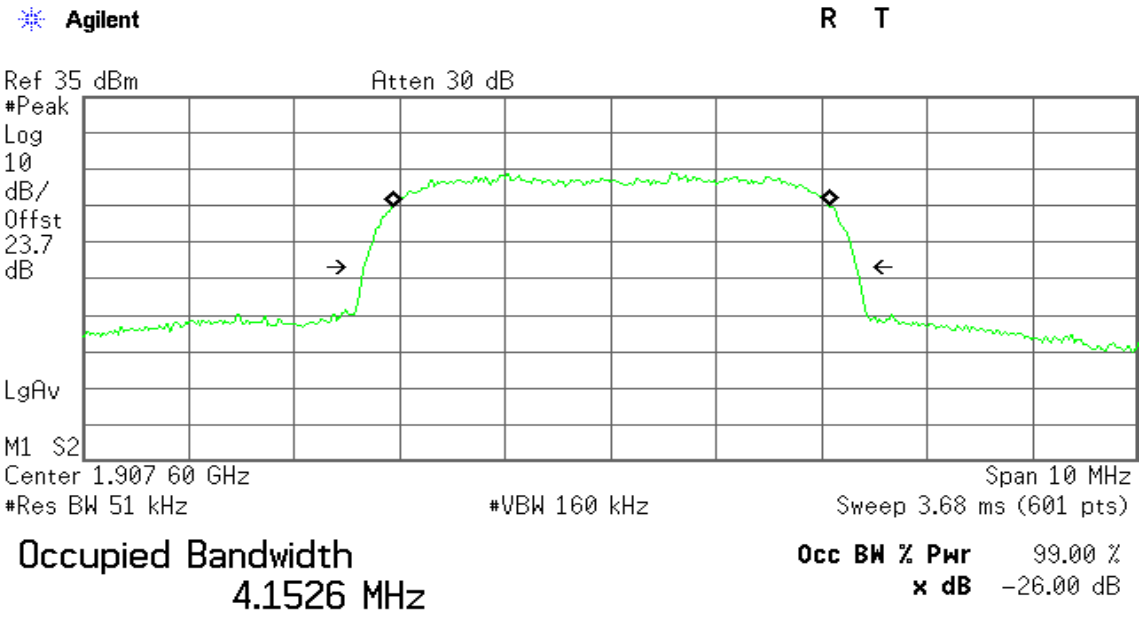
Transmit Freq Error −2.845 kHz
x dB Bandwidth 4.656 MHz

WCDMA Band II (CH Mid)

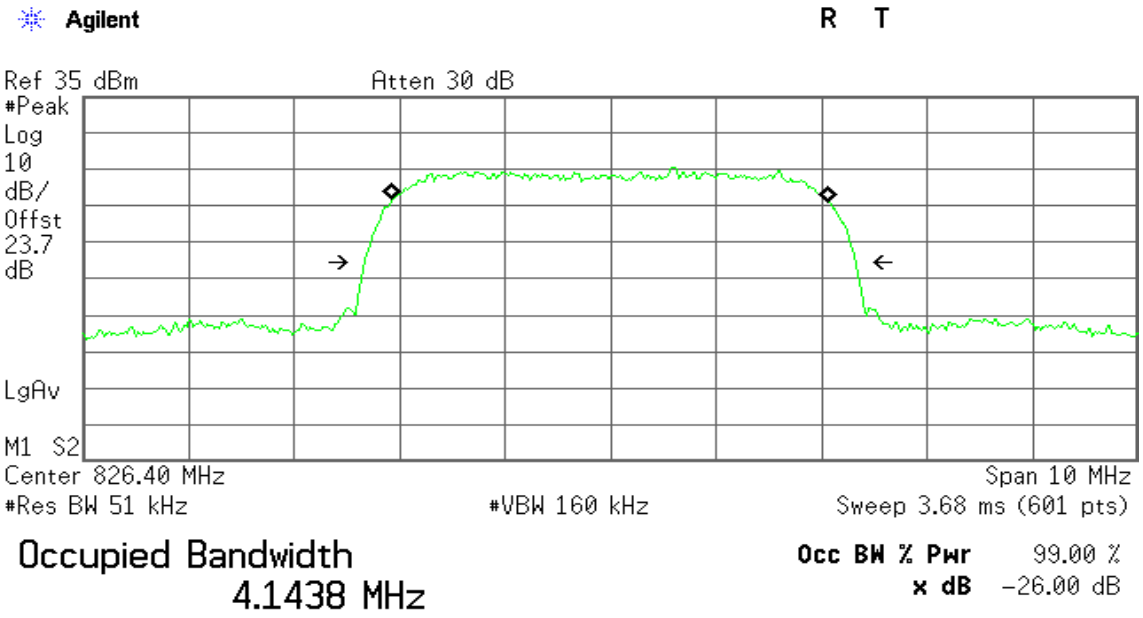


Transmit Freq Error −3.772 kHz
x dB Bandwidth 4.666 MHz

WCDMA Band II (CH High)

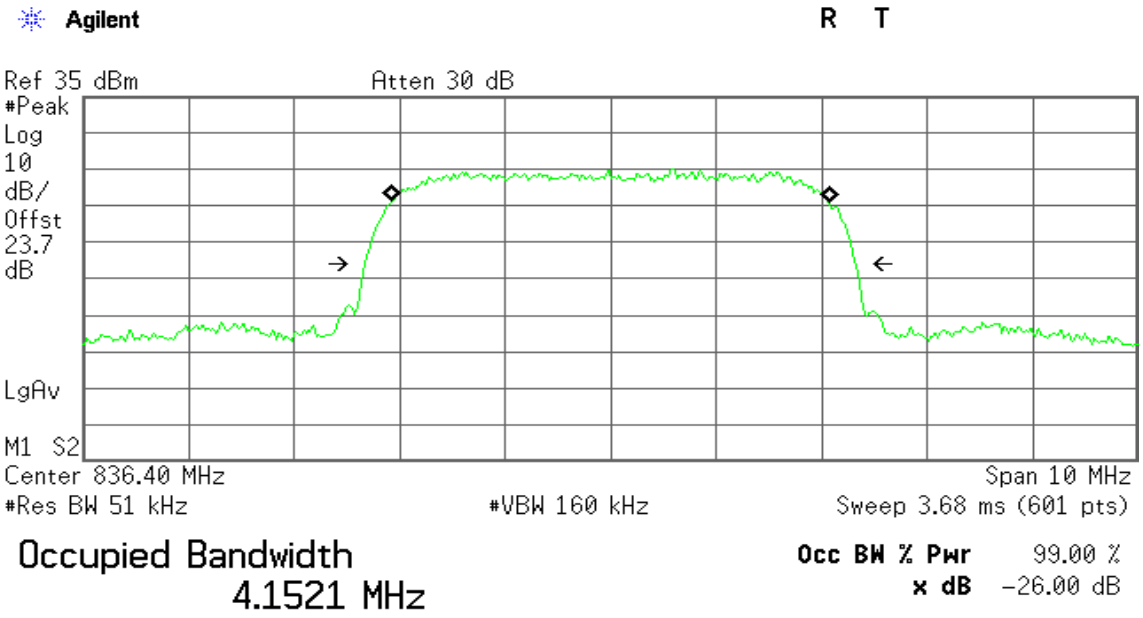


WCDMA Band V (CH Low)



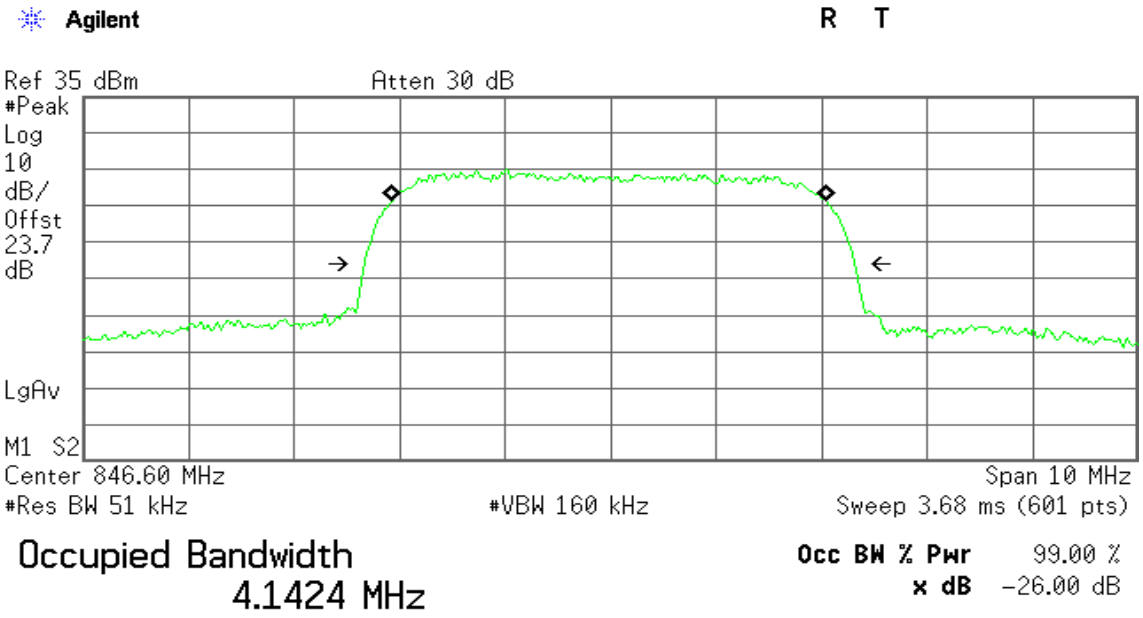
Transmit Freq Error -5.555 kHz
x dB Bandwidth 4.668 MHz

WCDMA Band V (CH Mid)



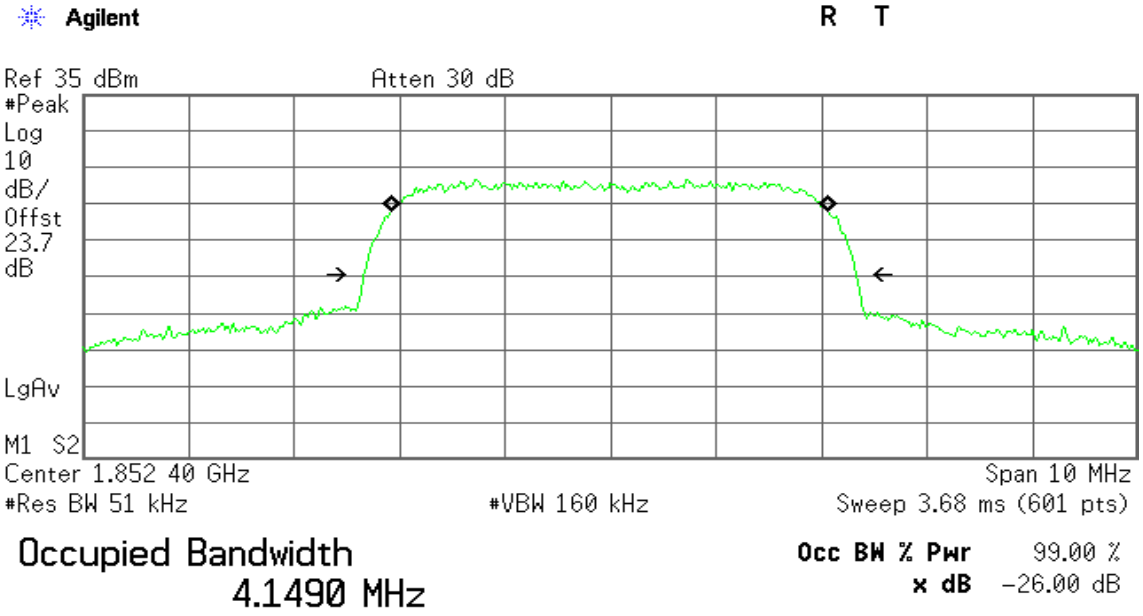
Transmit Freq Error -18.691 Hz
x dB Bandwidth 4.661 MHz

WCDMA Band V (CH High)



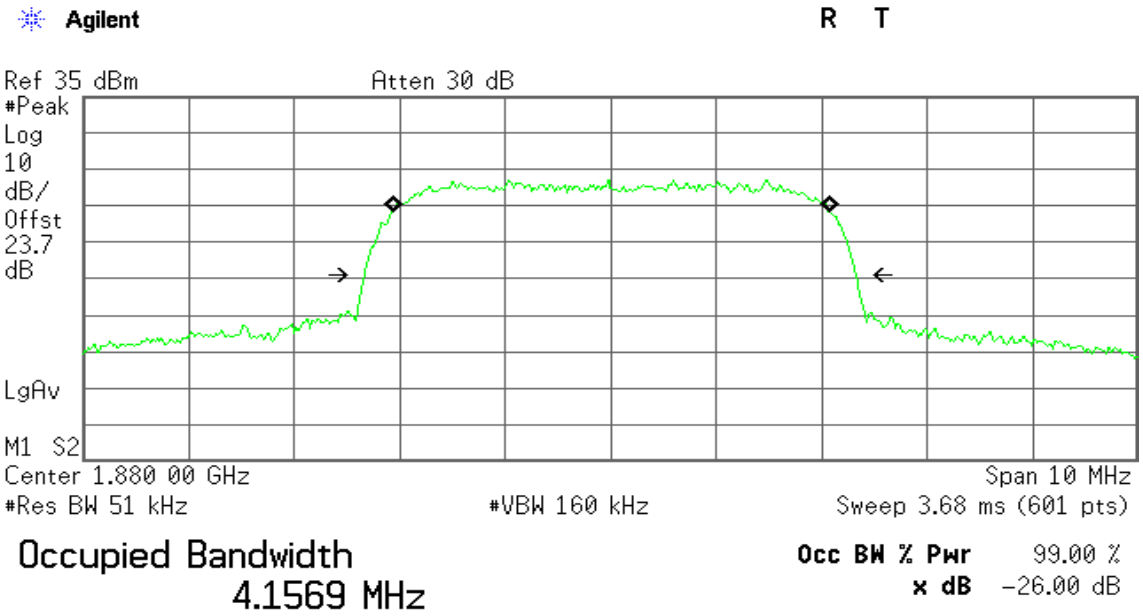
Transmit Freq Error	-16.985 kHz
x dB Bandwidth	4.661 MHz

WCDMA / HSDPA Band II (CH Low)



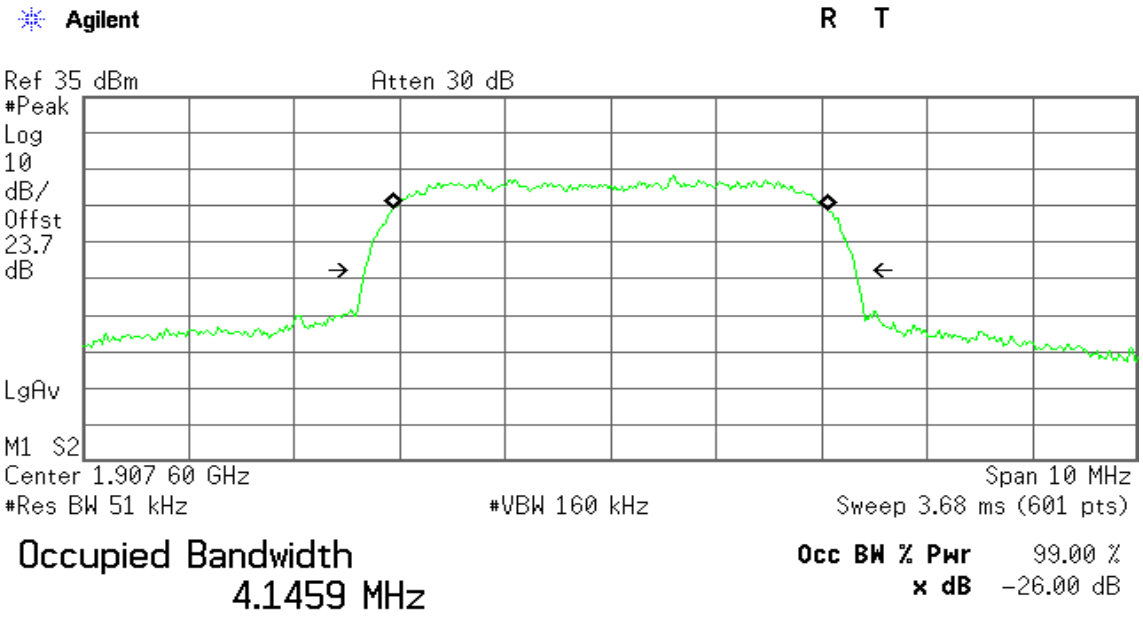
Transmit Freq Error	-4.518 kHz
x dB Bandwidth	4.676 MHz

WCDMA / HSDPA Band II (CH Mid)

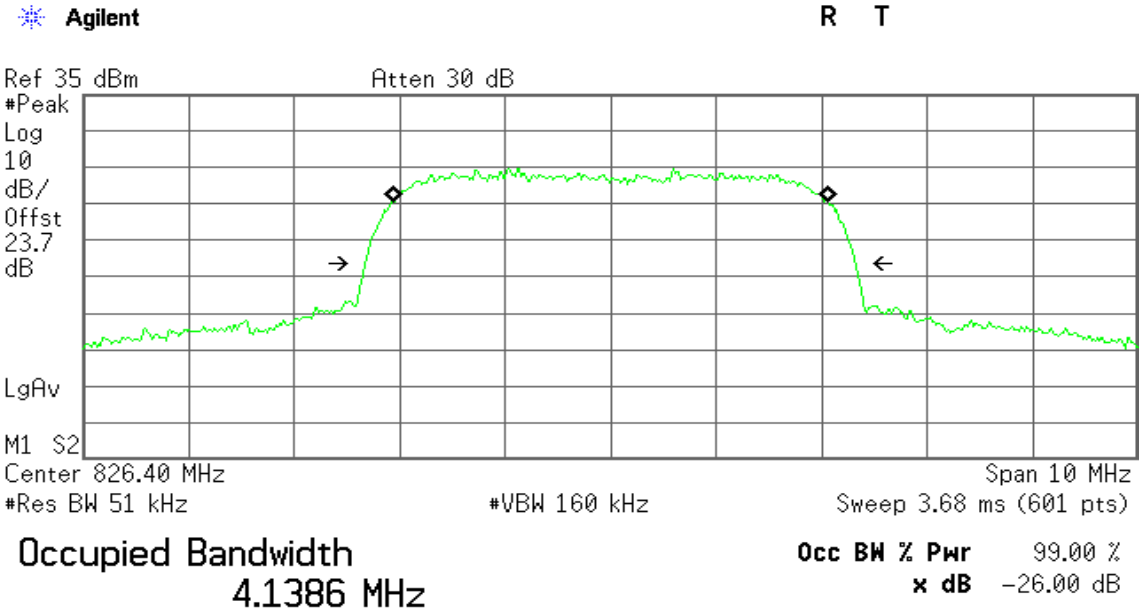


Transmit Freq Error	9.267 kHz
x dB Bandwidth	4.668 MHz

WCDMA / HSDPA Band II (CH High)

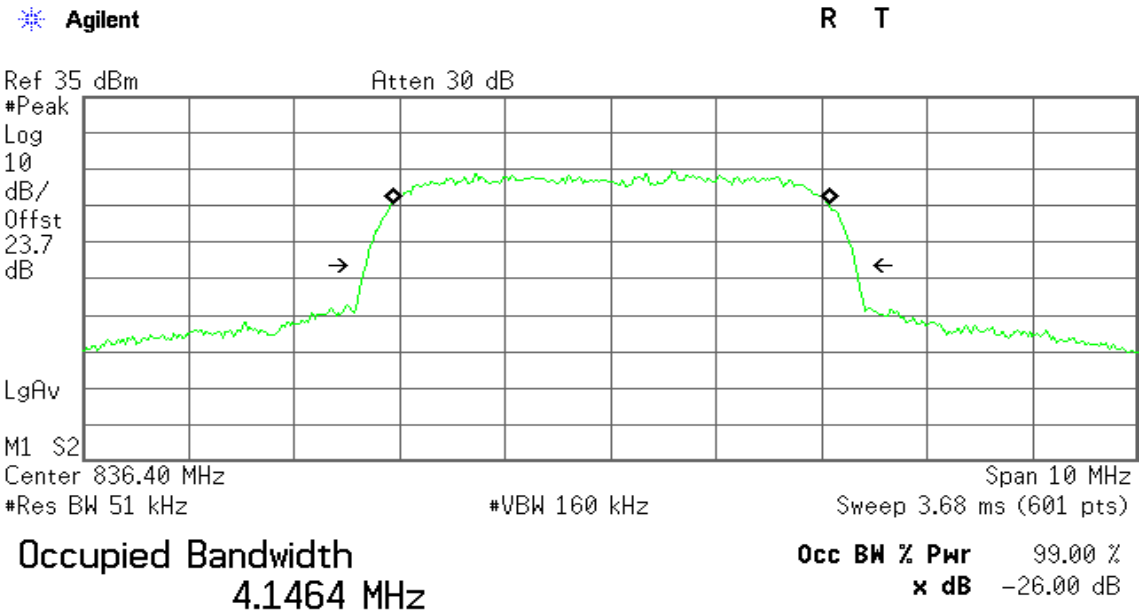


WCDMA / HSDPA Band V (CH Low)



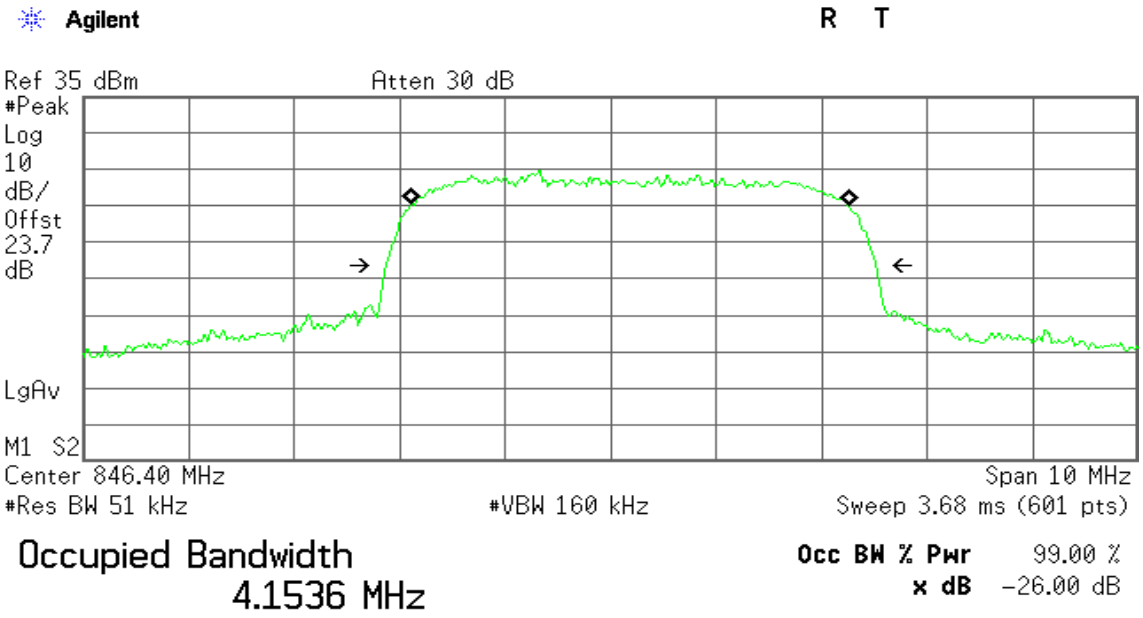
Transmit Freq Error	-560.405 Hz
x dB Bandwidth	4.659 MHz

WCDMA / HSDPA Band V (CH Mid)



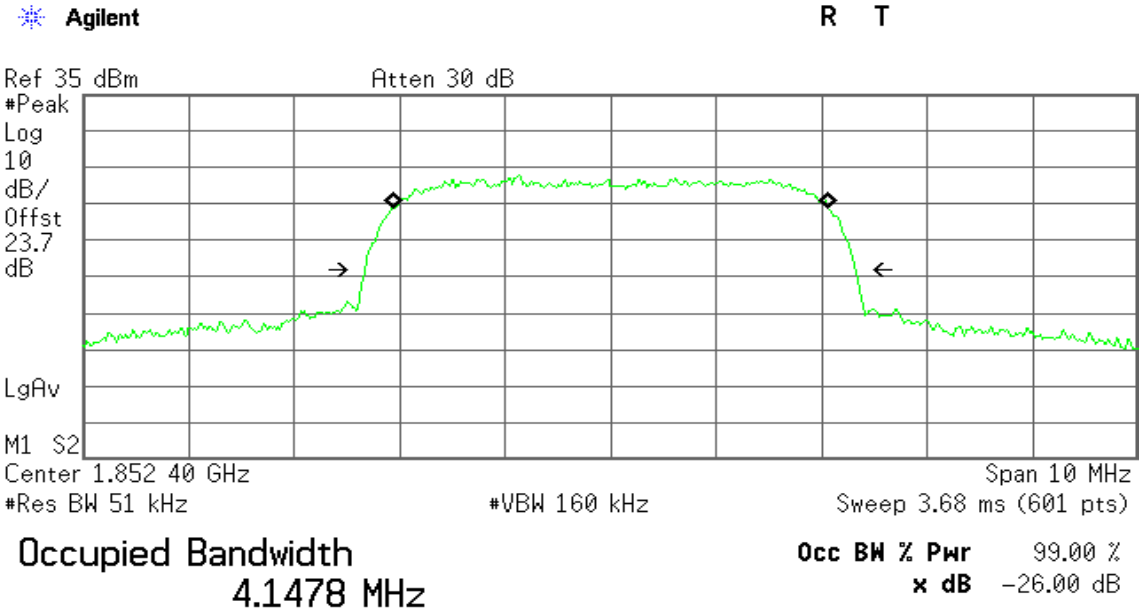
Transmit Freq Error	1.949 kHz
x dB Bandwidth	4.657 MHz

WCDMA / HSDPA Band V (CH High)



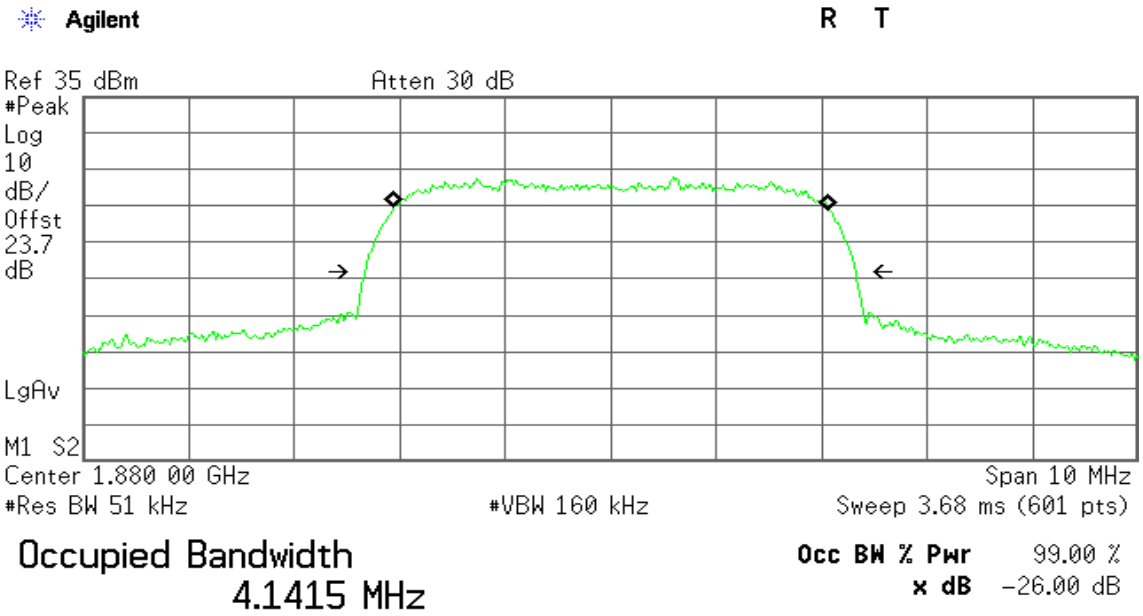
Transmit Freq Error	188.164 kHz
x dB Bandwidth	4.656 MHz

WCDMA / HSUPA Band II (CH Low)



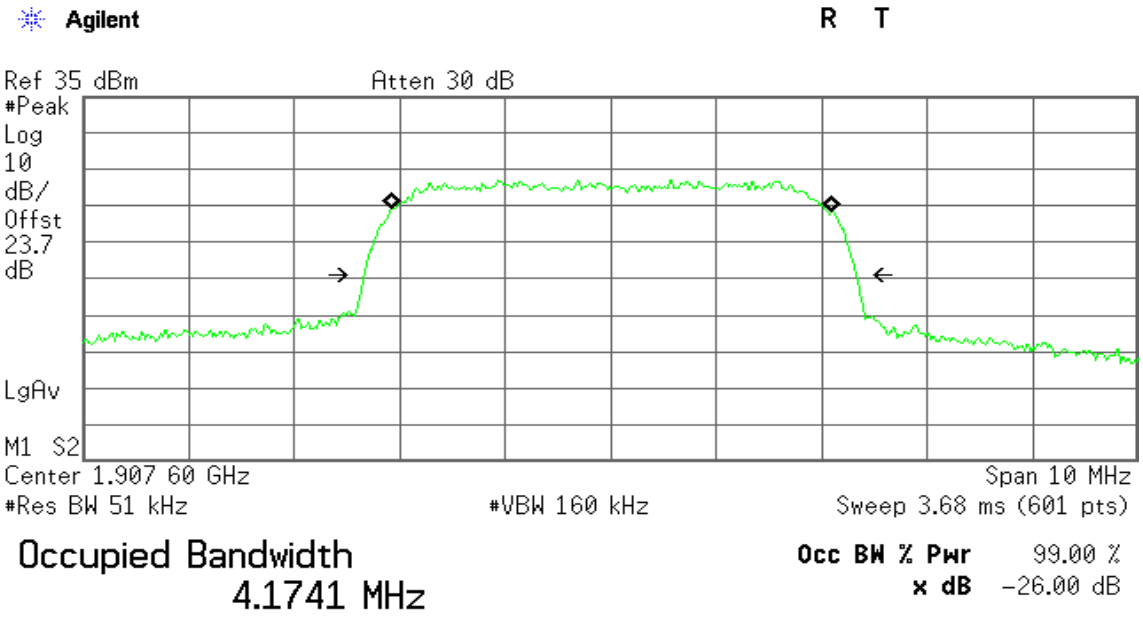
Transmit Freq Error	-413.559 Hz
x dB Bandwidth	4.662 MHz

WCDMA / HSUPA Band II (CH Mid)



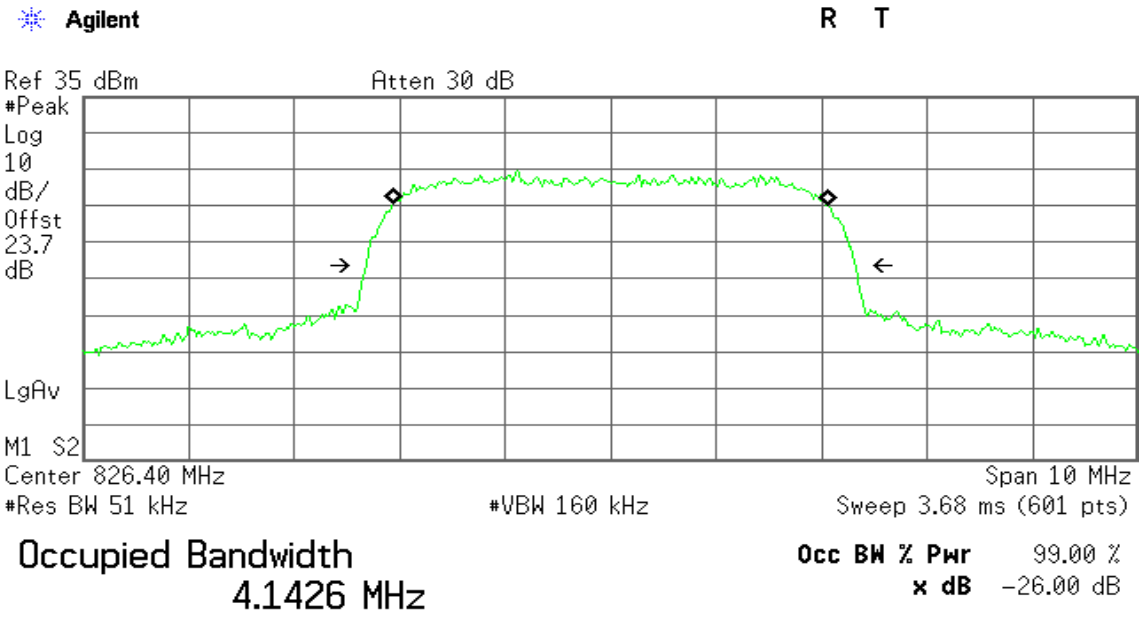
Transmit Freq Error	1.546 kHz
x dB Bandwidth	4.659 MHz

WCDMA / HSUPA Band II (CH High)



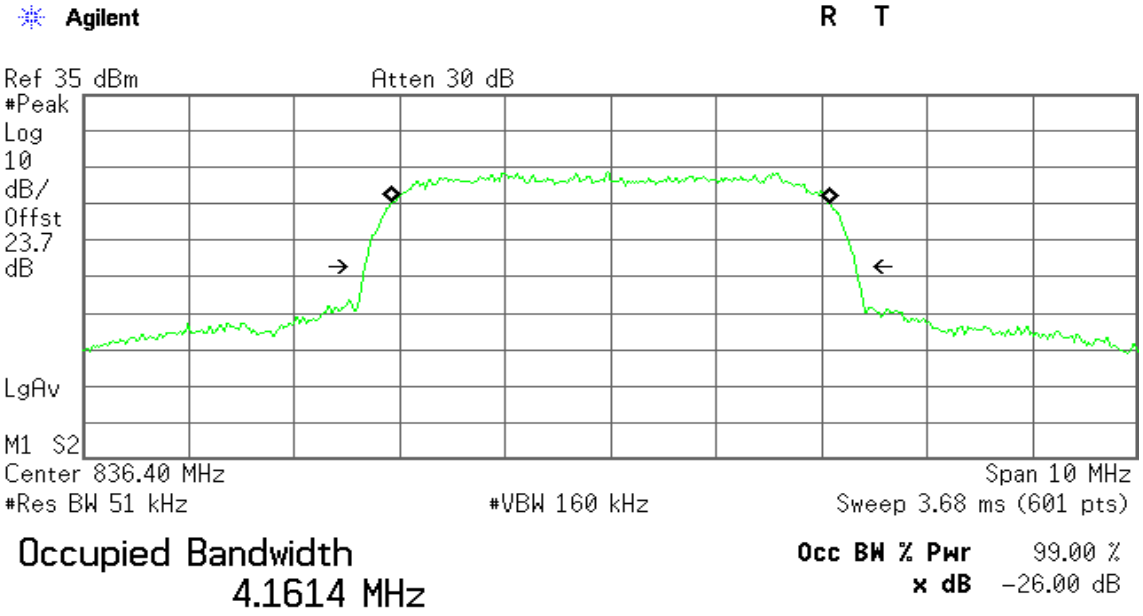
Transmit Freq Error	5.826 kHz
x dB Bandwidth	4.671 MHz

WCDMA / HSUPA Band V (CH Low).



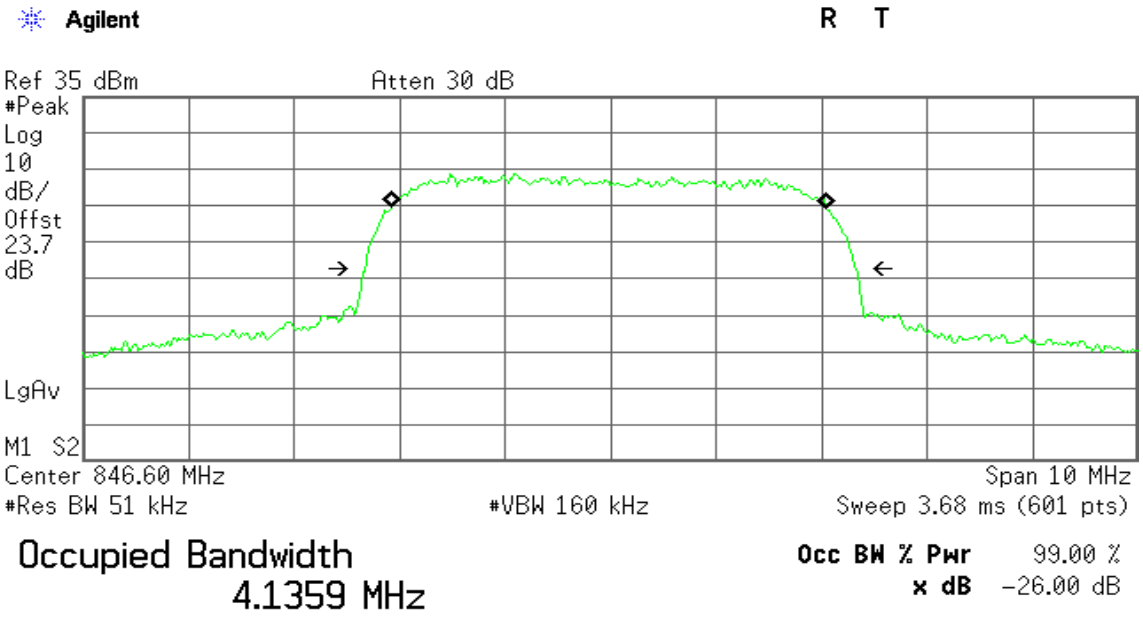
Transmit Freq Error -2.556 kHz
x dB Bandwidth 4.653 MHz

WCDMA / HSUPA Band V (CH Mid)



Transmit Freq Error -2.070 kHz
x dB Bandwidth 4.668 MHz

WCDMA / HSUPA Band V (CH Mid)



Transmit Freq Error	-18.114 kHz
x dB Bandwidth	4.657 MHz

7.5 OUT OF BAND EMISSION AT ANTENNA TERMINALS

LIMIT

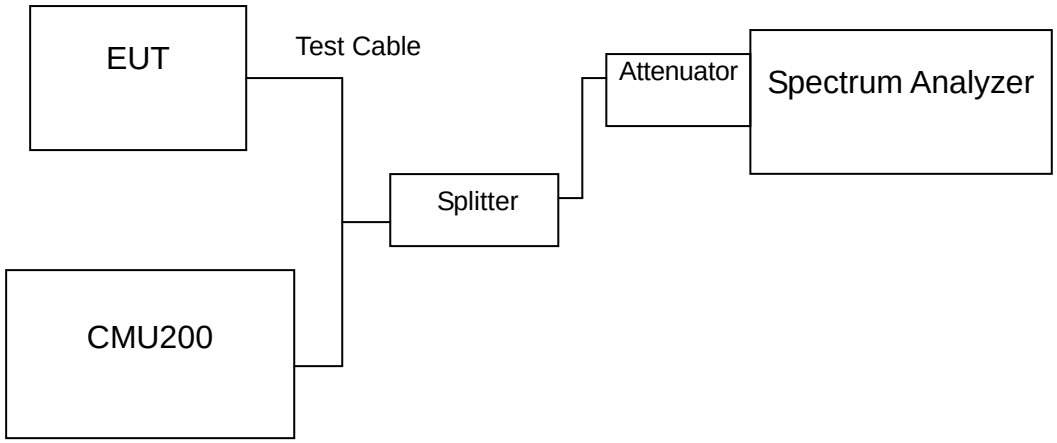
According to FCC §2.1051, FCC §22.917, FCC §24.238(a).

Out of Band Emissions: The mean power of emission must be attenuated below the mean power of the non-modulated carrier (P) on any frequency twice or more than twice the fundamental frequency by at lease 43 + 10 log P dB.

Mobile Emissions in Base Frequency Range: The mean power of any emissions appearing in the base station frequency range from cellular mobile transmitters operated must be attenuated to a level not exceed –80 dBm at the transmit antenna connector.
Band Edge Requirements: In the 1MHz bands immediately outside and adjacent to the frequency block, a resolution bandwidth of at lease 1% of the emission bandwidth of the fundamental emission of the transmitter may be employed to measure the Out of band Emission

Test Configuration

Out of band emission at antenna terminals:



TEST PROCEDURE

The RF output of the transceiver was connected to a spectrum analyzer through appropriate attenuation. The resolution bandwidth of the spectrum analyzer was set at 1MHz, sufficient scans were taken to show the out of band Emissions if any up to 10th harmonic.

For the out of band: Set the RBW, VBW = 1MHz, Start=30MHz, Stop= 10 th harmonic. Limit = -13dBm

Band Edge Requirements (824 MHz and 849 MHz /1850MHz and 1910MHz): In the 1 MHz bands immediately outside and adjacent to the frequency block, a resolution bandwidth of at least 1 percent of the emission bandwidth of the fundamental emission of the transmitter may be employed to measure the out of band Emissions. Limit, -13dBm.

TEST RESULTS

No non-compliance noted.

Test Data

Mode	CH	Location	Description
GSM 850	128	Figure 7-1	Conducted spurious emissions, 30MHz - 20GHz
	190	Figure 7-2	Conducted spurious emissions, 30MHz - 20GHz
	251	Figure 7-3	Conducted spurious emissions, 30MHz - 20GHz
GPRS 850	128	Figure 8-1	Conducted spurious emissions, 30MHz - 20GHz
	190	Figure 8-2	Conducted spurious emissions, 30MHz - 20GHz
	251	Figure 8-3	Conducted spurious emissions, 30MHz - 20GHz

Mode	CH	Location	Description
GSM 1900	512	Figure 9-1	Conducted spurious emissions, 30MHz - 20GHz
	661	Figure 9-2	Conducted spurious emissions, 30MHz - 20GHz
	810	Figure 9-3	Conducted spurious emissions, 30MHz - 20GHz
GPRS 1900	512	Figure 10-1	Conducted spurious emissions, 30MHz - 20GHz
	661	Figure 10-2	Conducted spurious emissions, 30MHz - 20GHz
	810	Figure 10-3	Conducted spurious emissions, 30MHz - 20GHz

Mode	CH	Location	Description
GSM 850	128	Figure 11-1	Band Edge emissions
	251	Figure 11-2	Band Edge emissions
GPRS 850	128	Figure 12-1	Band Edge emissions
	251	Figure 12-2	Band Edge emissions

Mode	CH	Location	Description
GSM 1900	512	Figure 13-1	Band Edge emissions
	810	Figure 13-2	Band Edge emissions
GPRS 1900	512	Figure 14-1	Band Edge emissions
	810	Figure 14-2	Band Edge emissions

Mode	CH	Location	Description
WCDMA (Band II)	9262	Figure 19-1	Conducted spurious emissions, 30MHz - 20GHz
	9400	Figure 19-2	Conducted spurious emissions, 30MHz - 20GHz
	9538	Figure 19-3	Conducted spurious emissions, 30MHz - 20GHz
WCDMA (Band V)	4132	Figure 20-1	Conducted spurious emissions, 30MHz - 20GHz
	4182	Figure 20-2	Conducted spurious emissions, 30MHz - 20GHz
	4233	Figure 20-3	Conducted spurious emissions, 30MHz - 20GHz

Mode	CH	Location	Description
WCDMA (Band II)	9262	Figure 21-1	Band Edge emissions
	9538	Figure 21-2	Band Edge emissions
WCDMA (Band V)	4132	Figure 22-1	Band Edge emissions
	4233	Figure 22-2	Band Edge emissions

Mode	CH	Location	Description
HSDPA WCDMA (Band II)	9262	Figure 23-1	Conducted spurious emissions, 30MHz - 20GHz
	9400	Figure 23-2	Conducted spurious emissions, 30MHz - 20GHz
	9538	Figure 23-3	Conducted spurious emissions, 30MHz - 20GHz
HSDPA WCDMA (Band V)	4132	Figure 24-1	Conducted spurious emissions, 30MHz - 20GHz
	4182	Figure 24-2	Conducted spurious emissions, 30MHz - 20GHz
	4233	Figure 24-3	Conducted spurious emissions, 30MHz - 20GHz

Mode	CH	Location	Description
HSDPA WCDMA (Band II)	9262	Figure 25-1	Band Edge emissions
	9538	Figure 25-2	Band Edge emissions
HSDPA WCDMA (Band V)	4132	Figure 26-1	Band Edge emissions
	4233	Figure 26-2	Band Edge emissions

Mode	CH	Location	Description
HSUPA WCDMA (Band II)	9262	Figure 27-1	Conducted spurious emissions, 30MHz - 20GHz
	9400	Figure 27-2	Conducted spurious emissions, 30MHz - 20GHz
	9538	Figure 27-3	Conducted spurious emissions, 30MHz - 20GHz
HSUPA WCDMA (Band V)	4132	Figure 28-1	Conducted spurious emissions, 30MHz - 20GHz
	4182	Figure 28-2	Conducted spurious emissions, 30MHz - 20GHz
	4233	Figure 28-3	Conducted spurious emissions, 30MHz - 20GHz

Mode	CH	Location	Description
HSUPA WCDMA (Band II)	9262	Figure 29-1	Band Edge emissions
	9538	Figure 29-2	Band Edge emissions
HSUPA WCDMA (Band V)	4132	Figure 30-1	Band Edge emissions
	4233	Figure 30-2	Band Edge emissions

Test Plot

GSM 850

Figure 7-1: Out of Band emission at antenna terminals – GSM CH Low

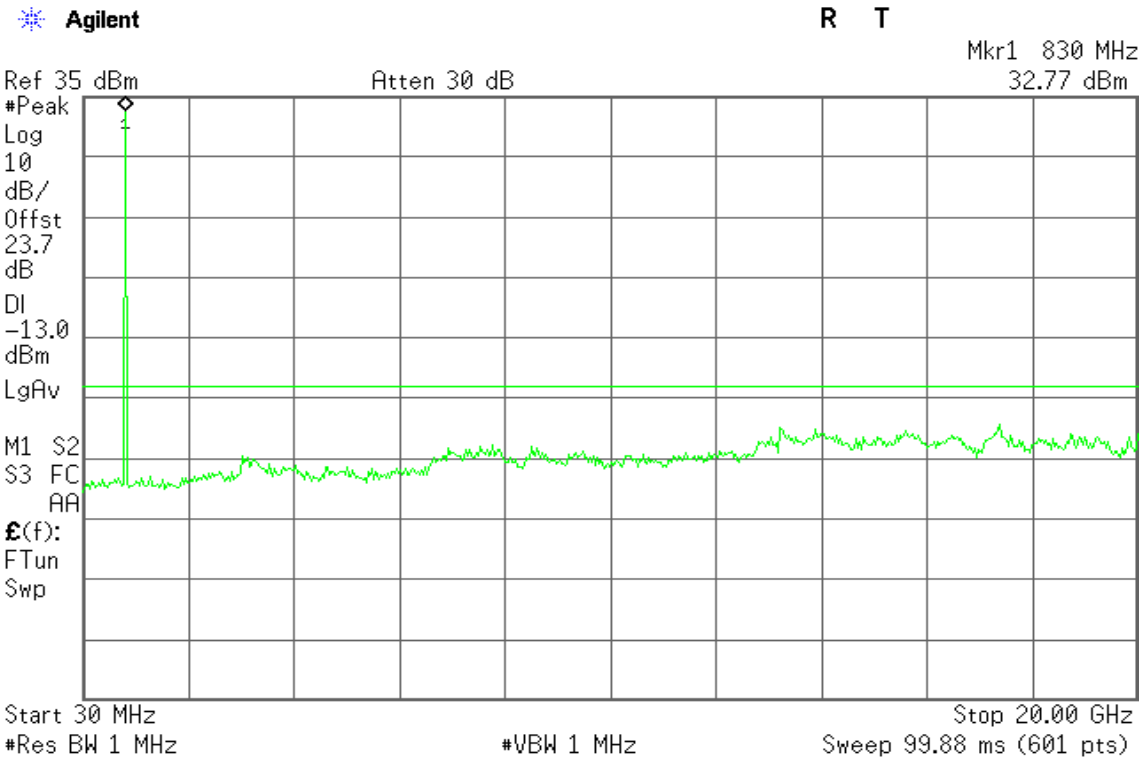


Figure 7-2: Out of Band emission at antenna terminals – GSM CH Mid

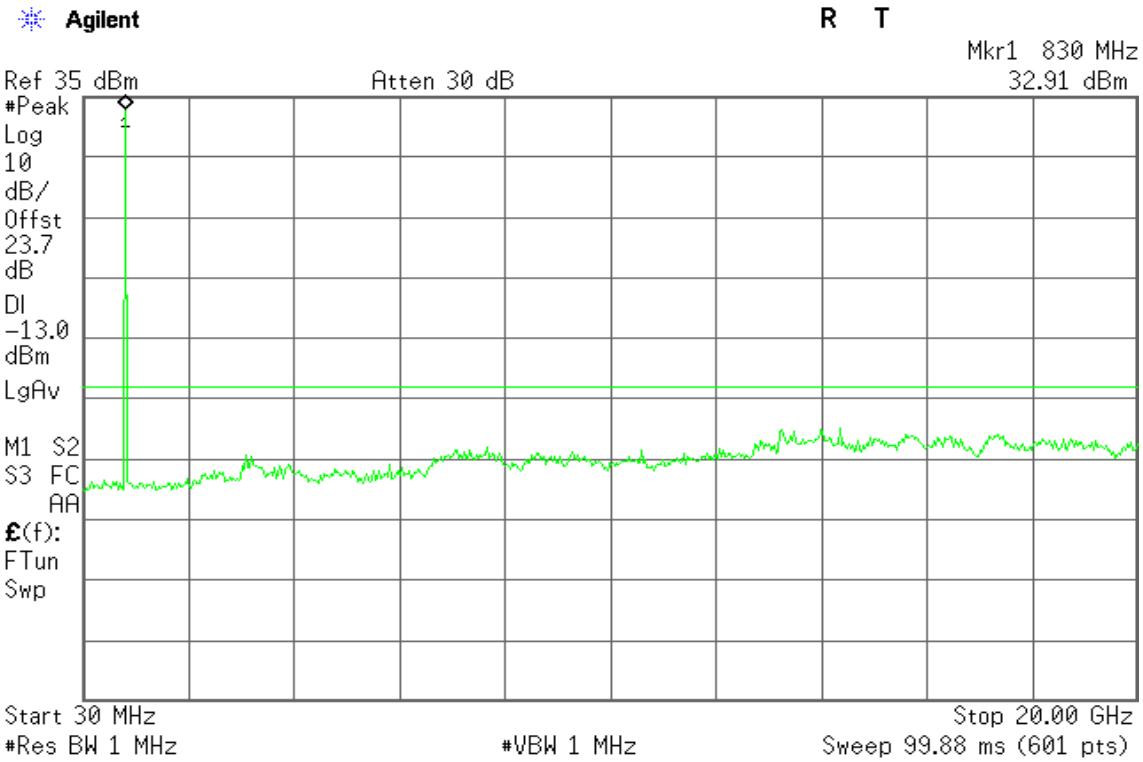
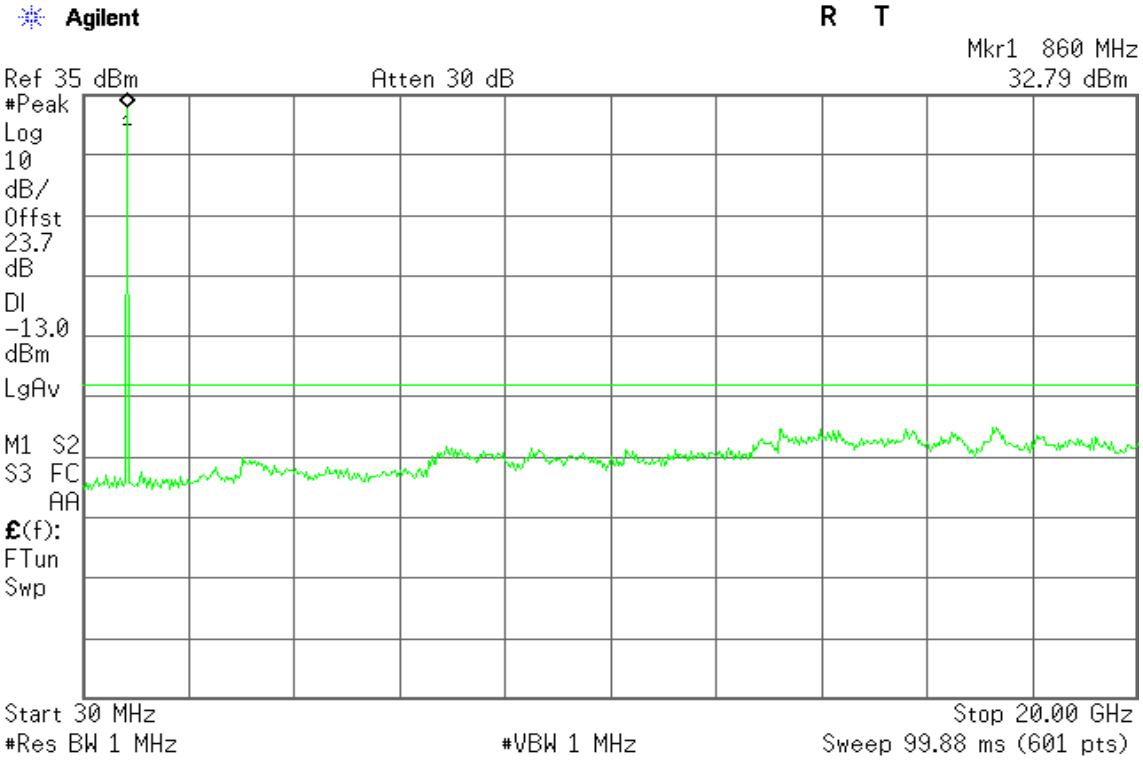


Figure 7-3: Out of Band emission at antenna terminals – GSM CH High



GPRS 850

Figure 8-1: Out of Band emission at antenna terminals – GPRS CH Low

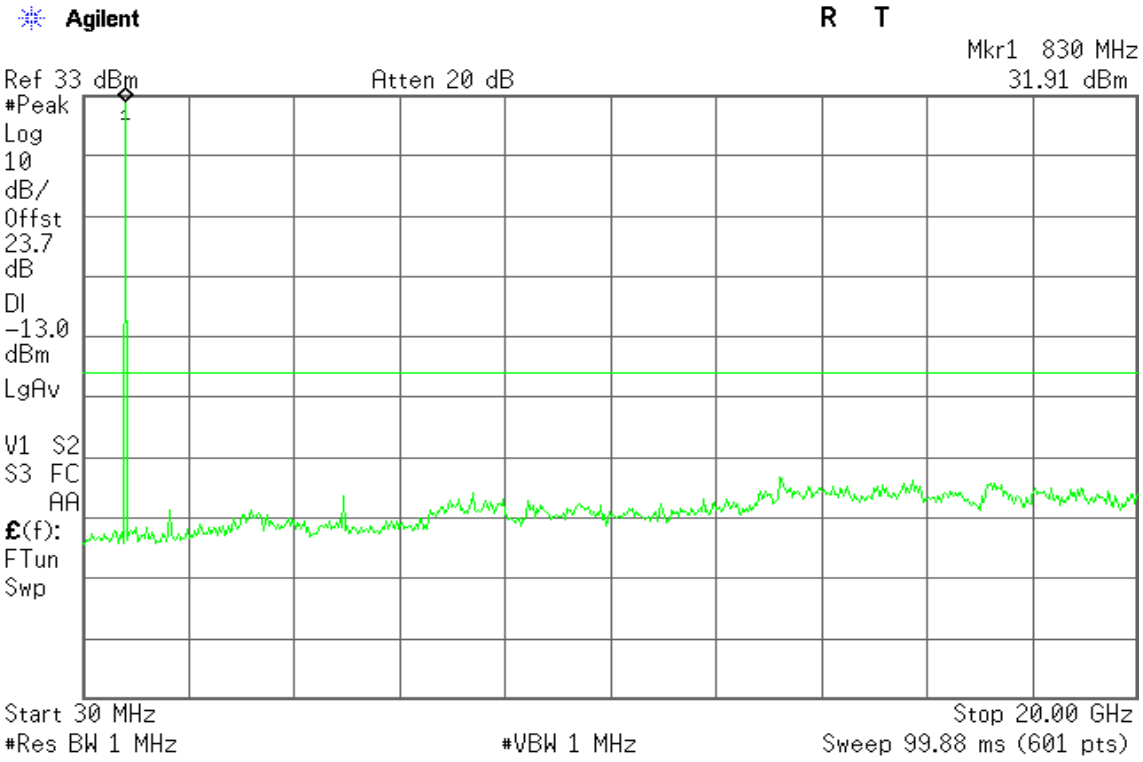


Figure 8-2: Out of Band emission at antenna terminals – GPRS CH Mid

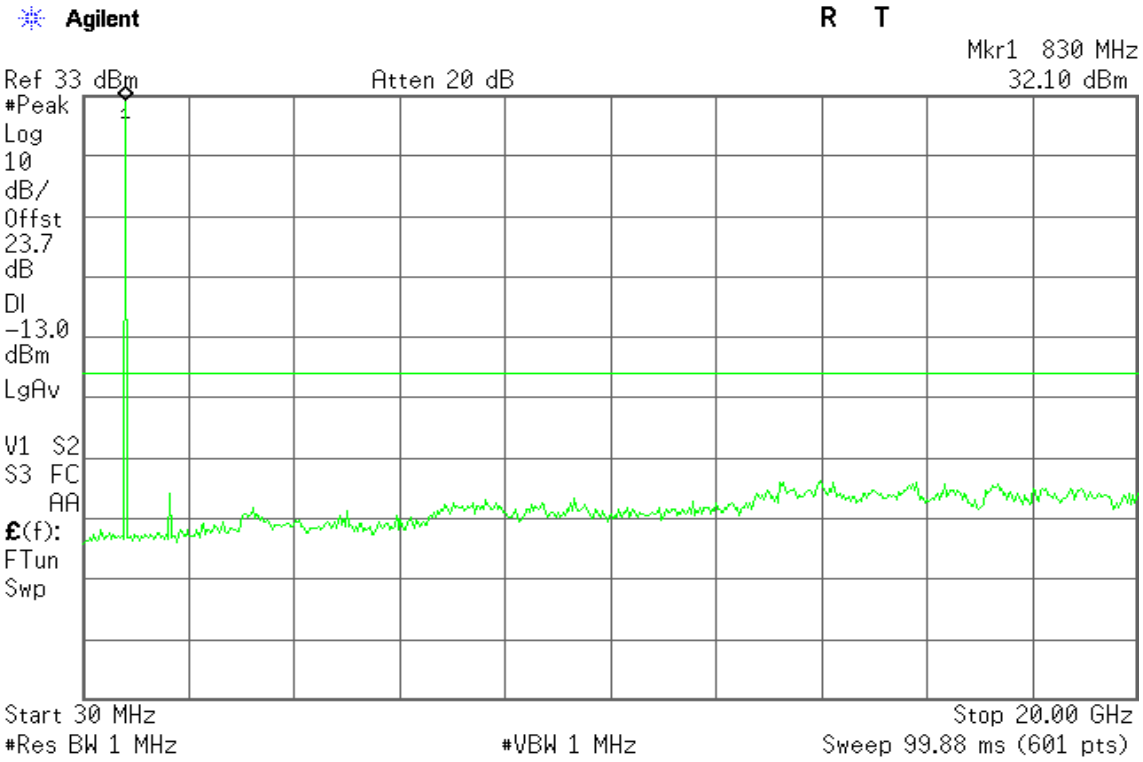
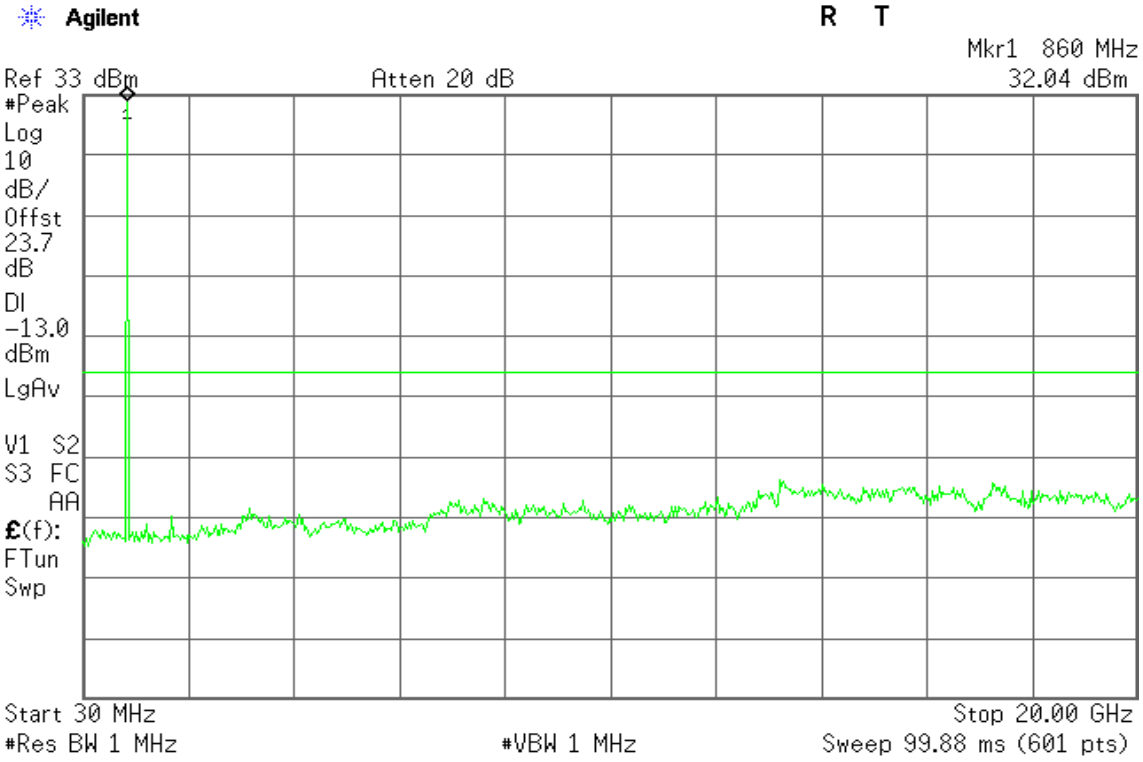


Figure 8-3: Out of Band emission at antenna terminals – GPRS CH High



GSM 1900

Figure 9-1: Out of Band emission at antenna terminals – GSM CH Low

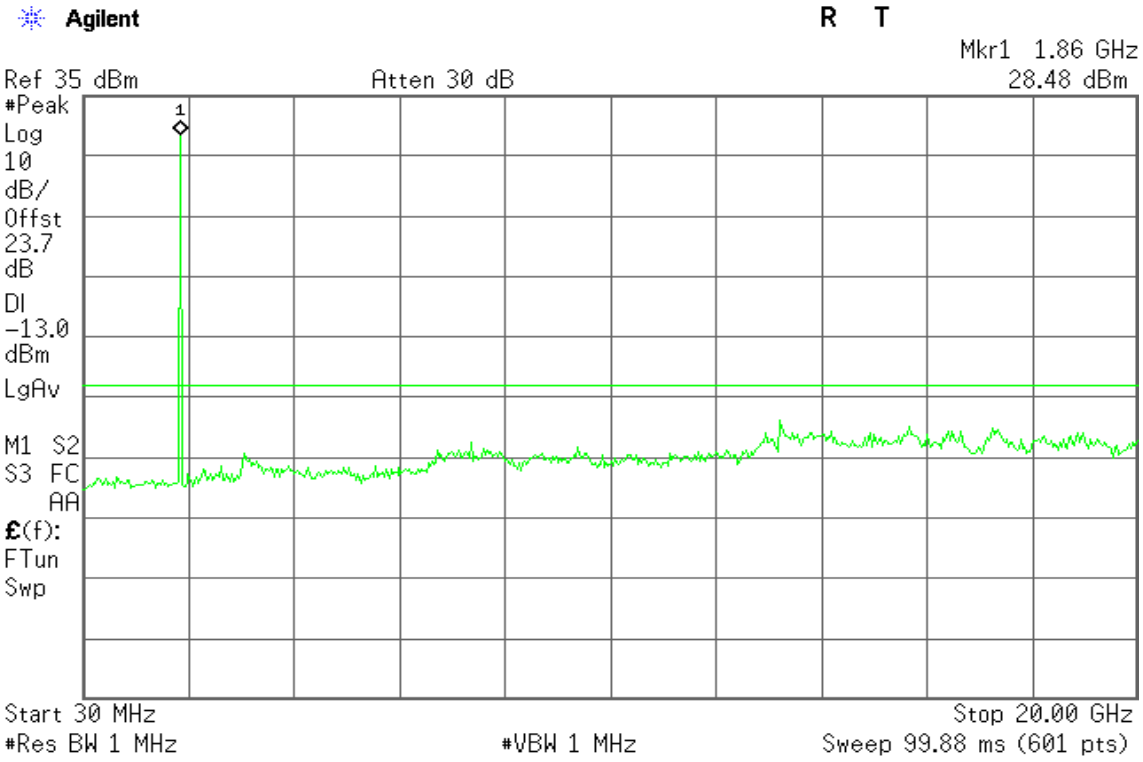


Figure 9-2: Out of Band emission at antenna terminals – GSM CH Mid

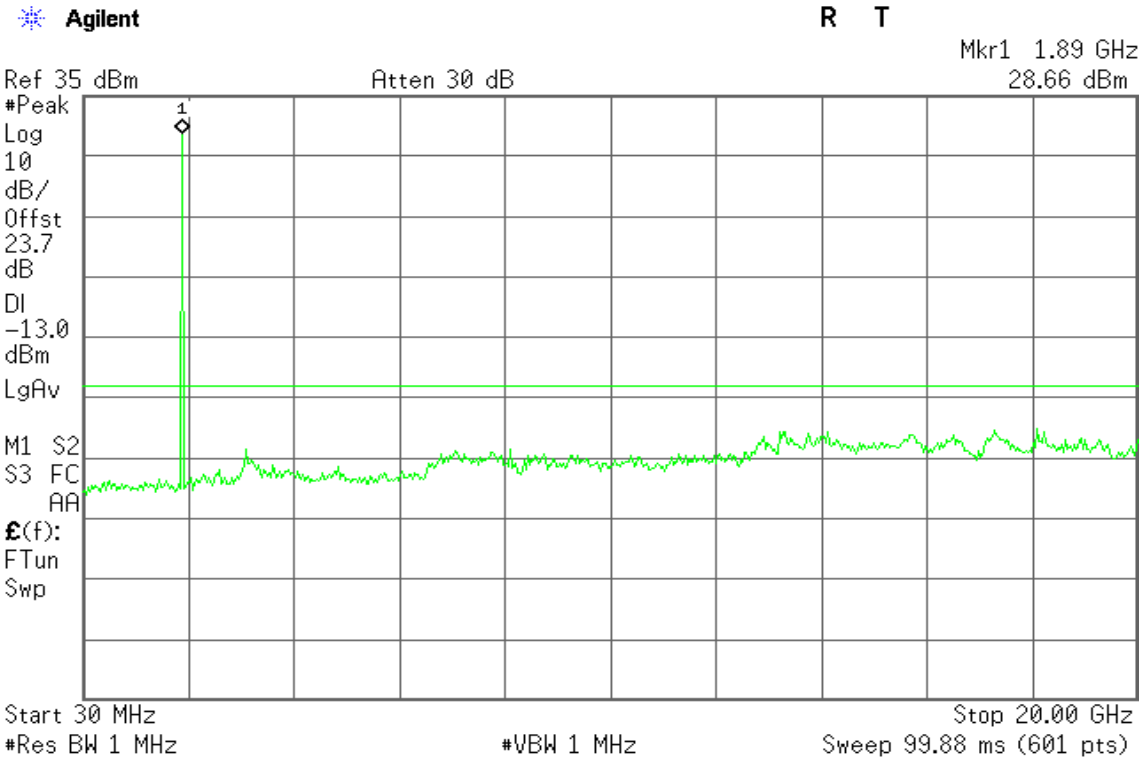
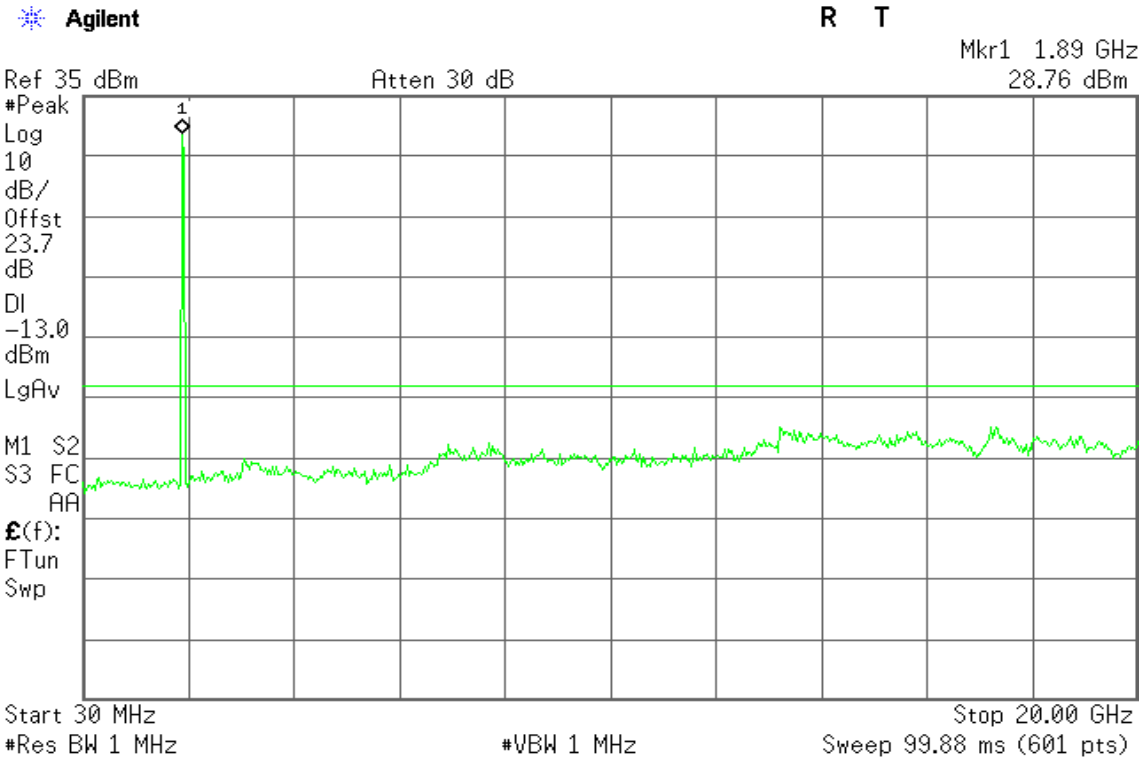


Figure 9-3: Out of Band emission at antenna terminals – GSM CH High



GPRS 1900

Figure 10-1: Out of Band emission at antenna terminals – GSM CH Low

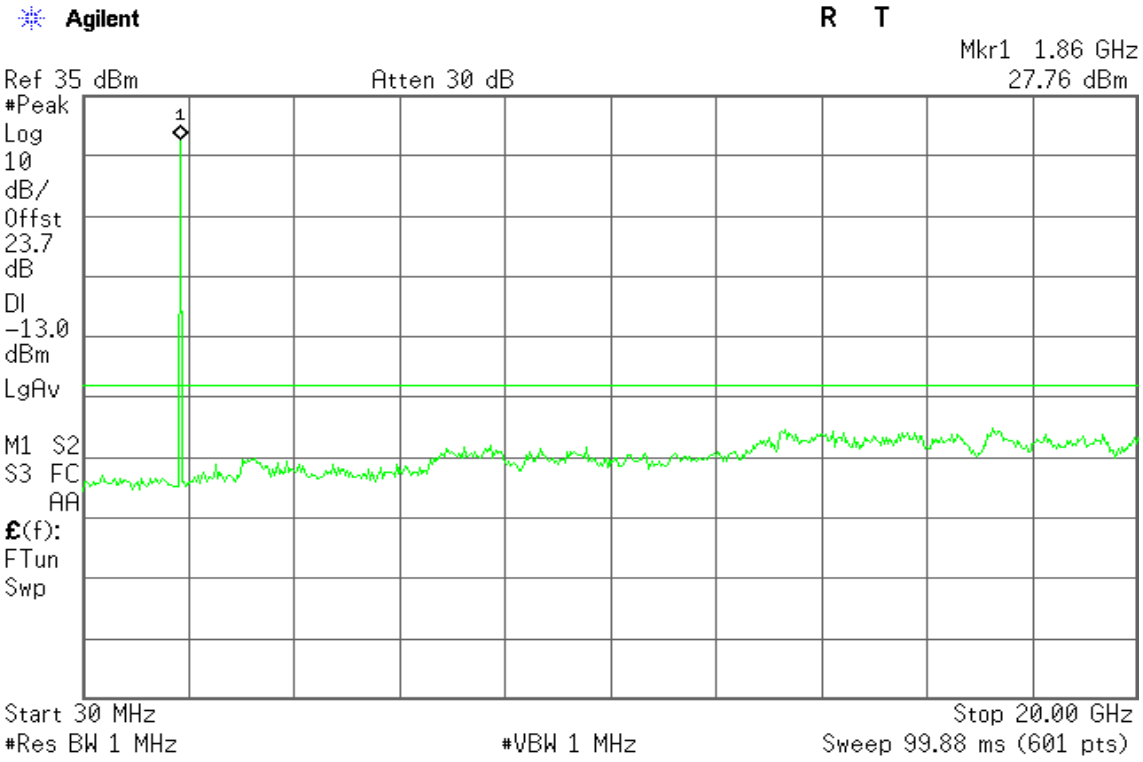


Figure 10-2: Out of Band emission at antenna terminals – GSM CH Mid

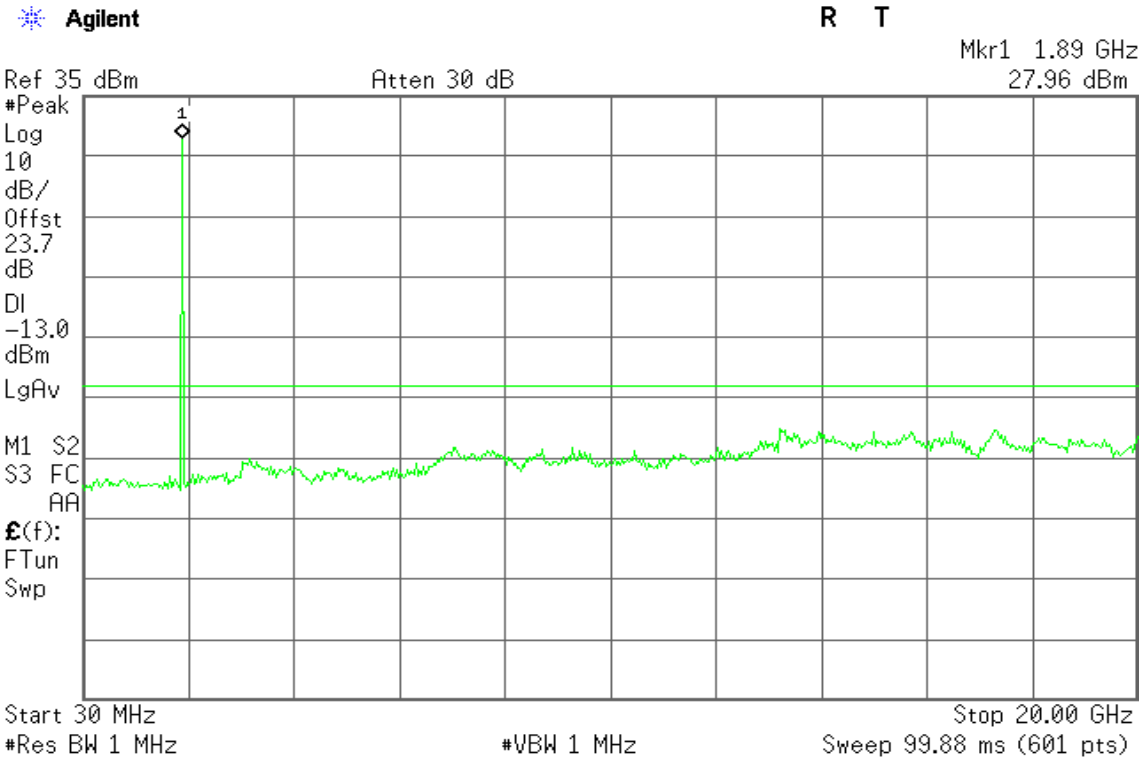
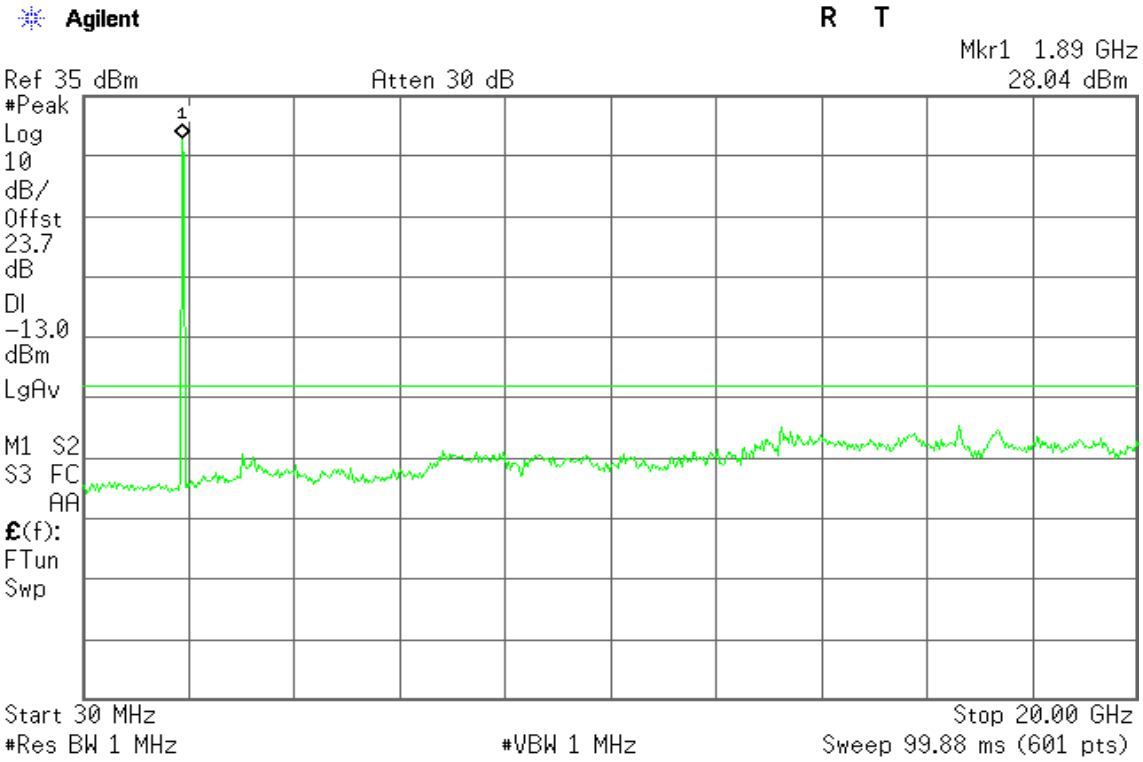


Figure 10-3: Out of Band emission at antenna terminals – GSM CH High



GSM 850

Figure 11-1: Band Edge emissions – GSM CH Low

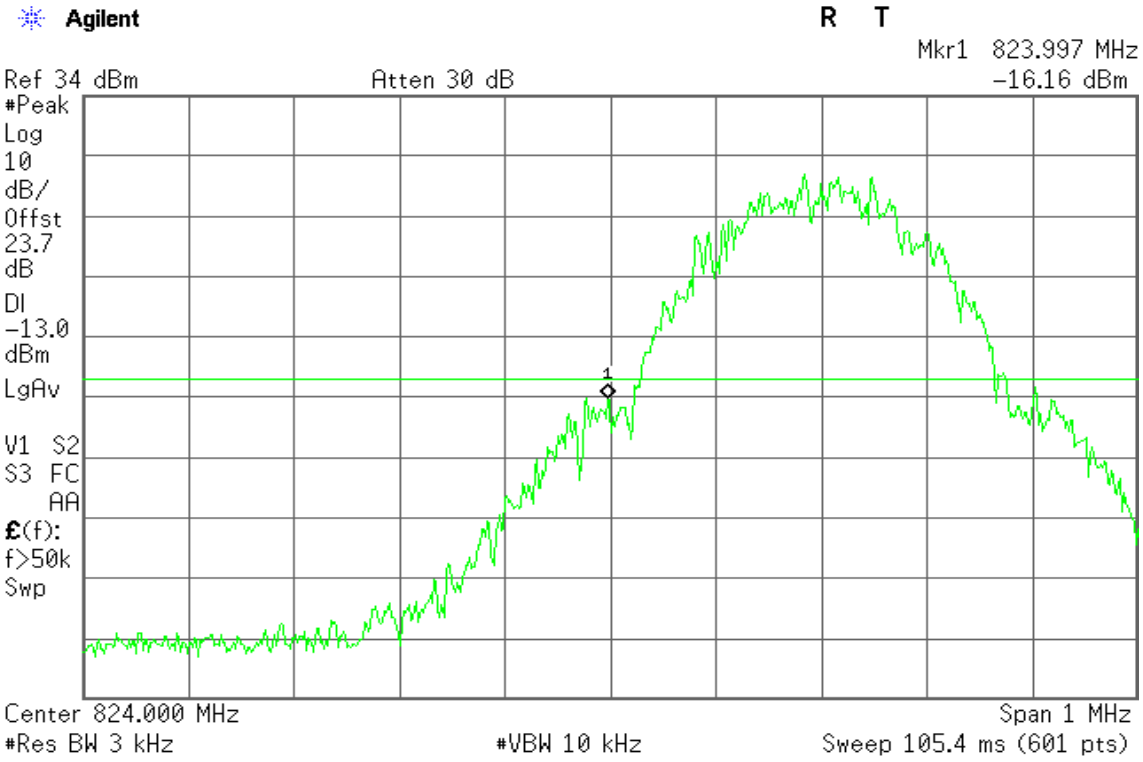
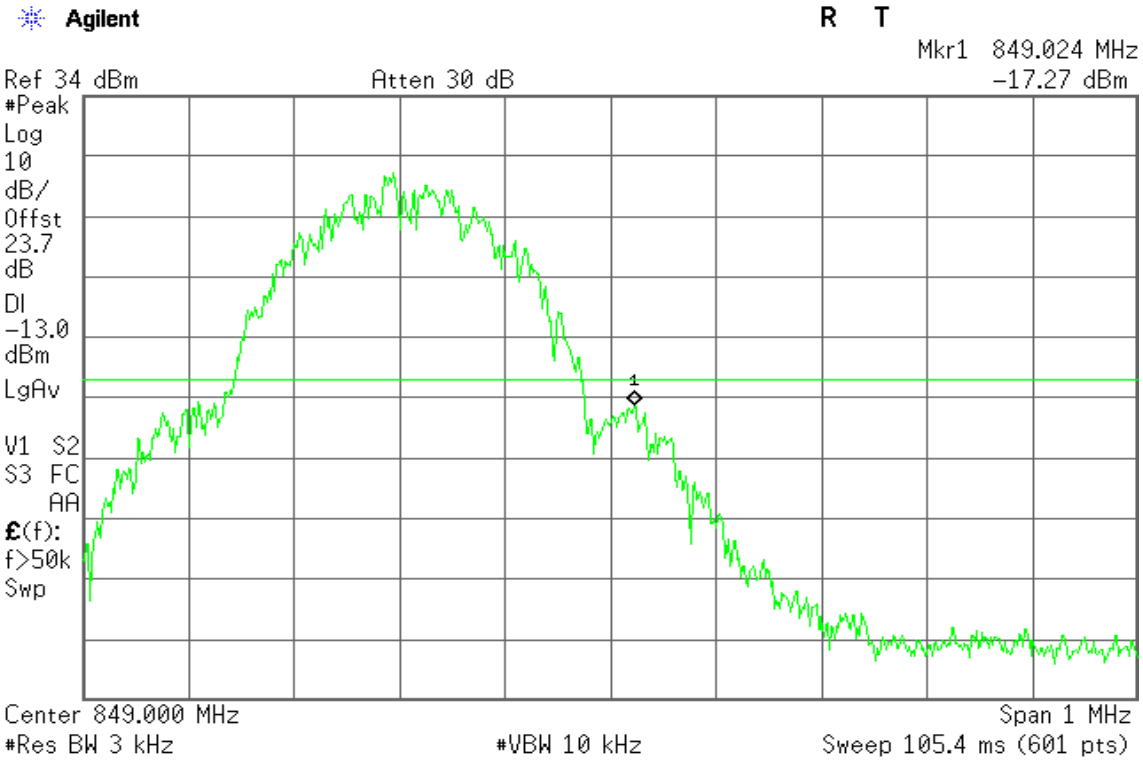


Figure 11-2: Band Edge emissions – GSM CH High



GPRS 850

Figure 12-1: Band Edge emissions – GPRS CH Low

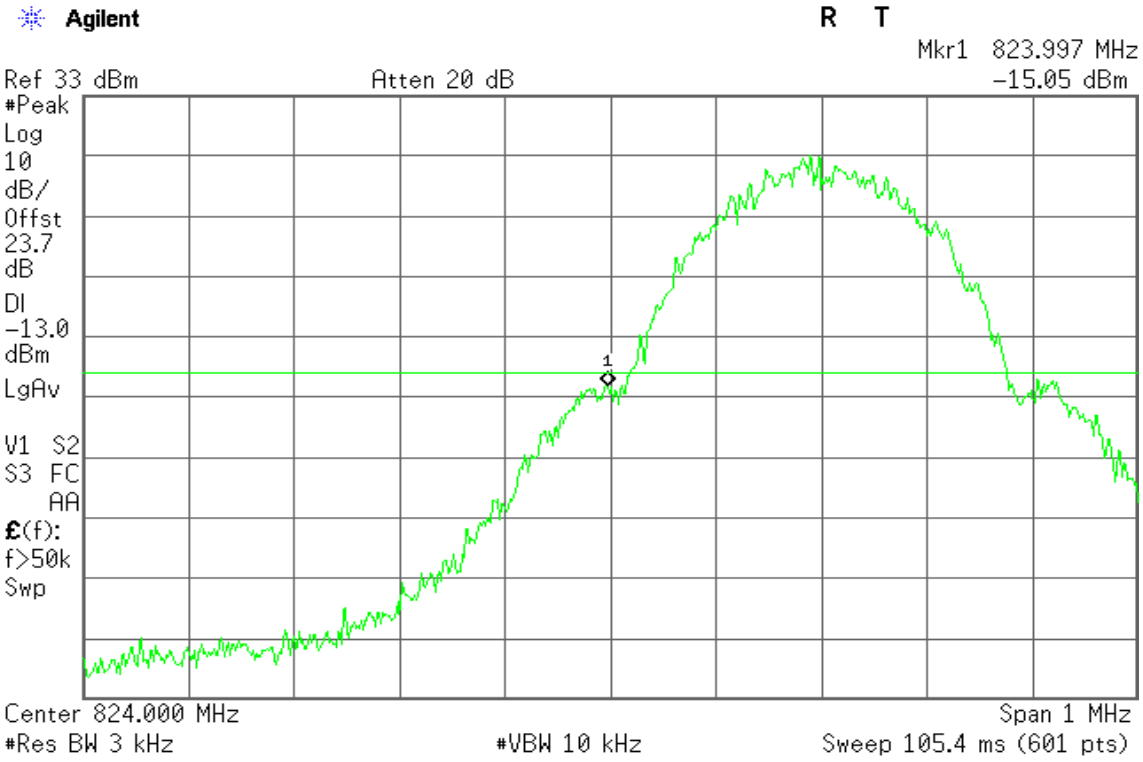
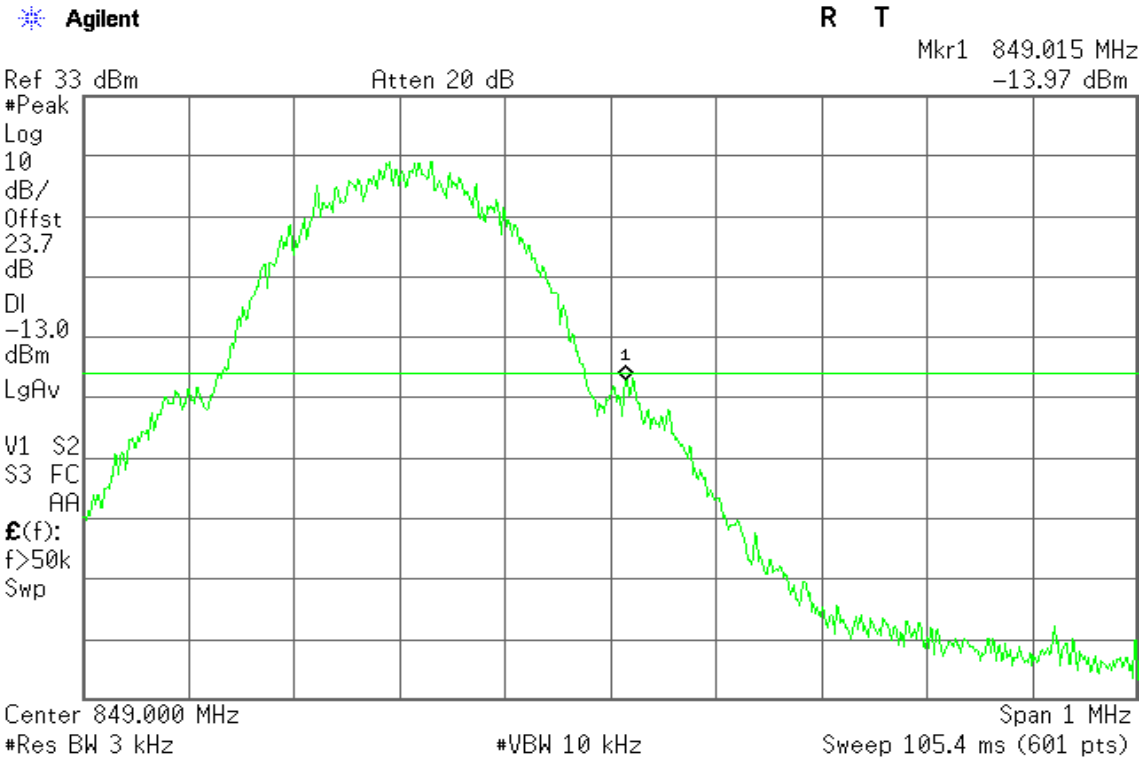


Figure 12-2: Band Edge emissions –GPRS CH High



GSM 1900

Figure 13-1: Band Edge emissions – GSM CH Low

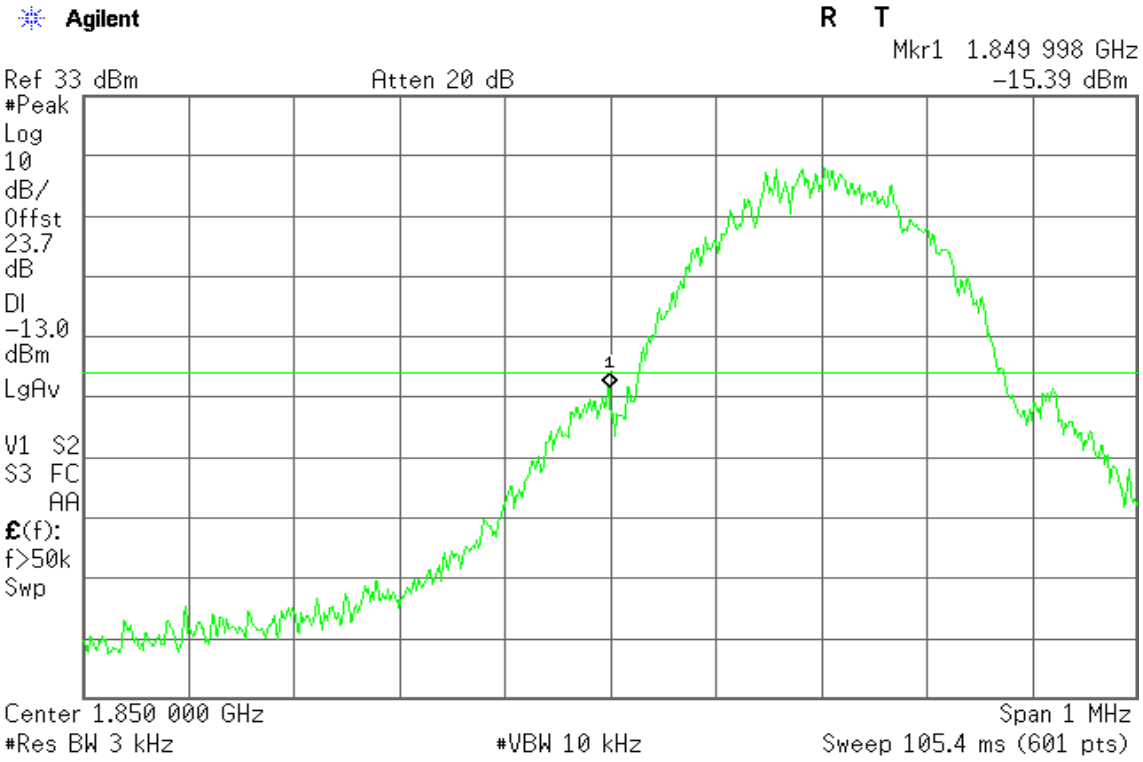
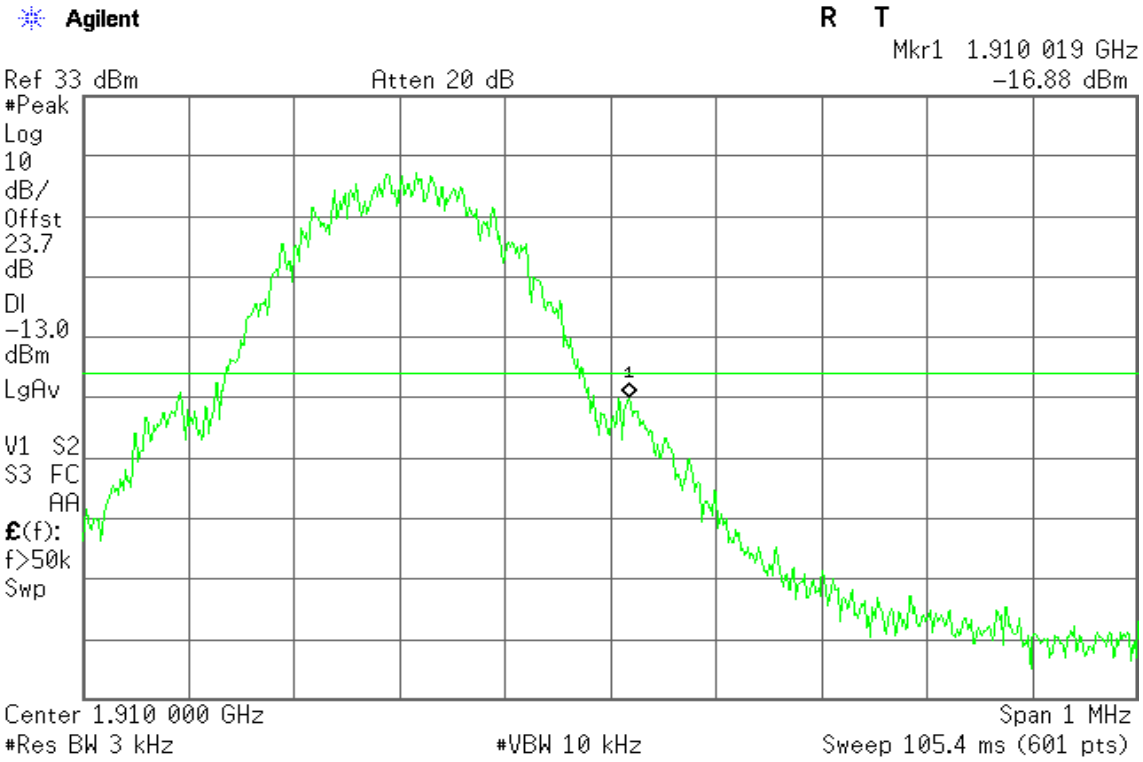


Figure 13-2: Band Edge emissions – GSM CH High



GPRS 1900

Figure 14-1: Band Edge emissions – GPRS CH Low

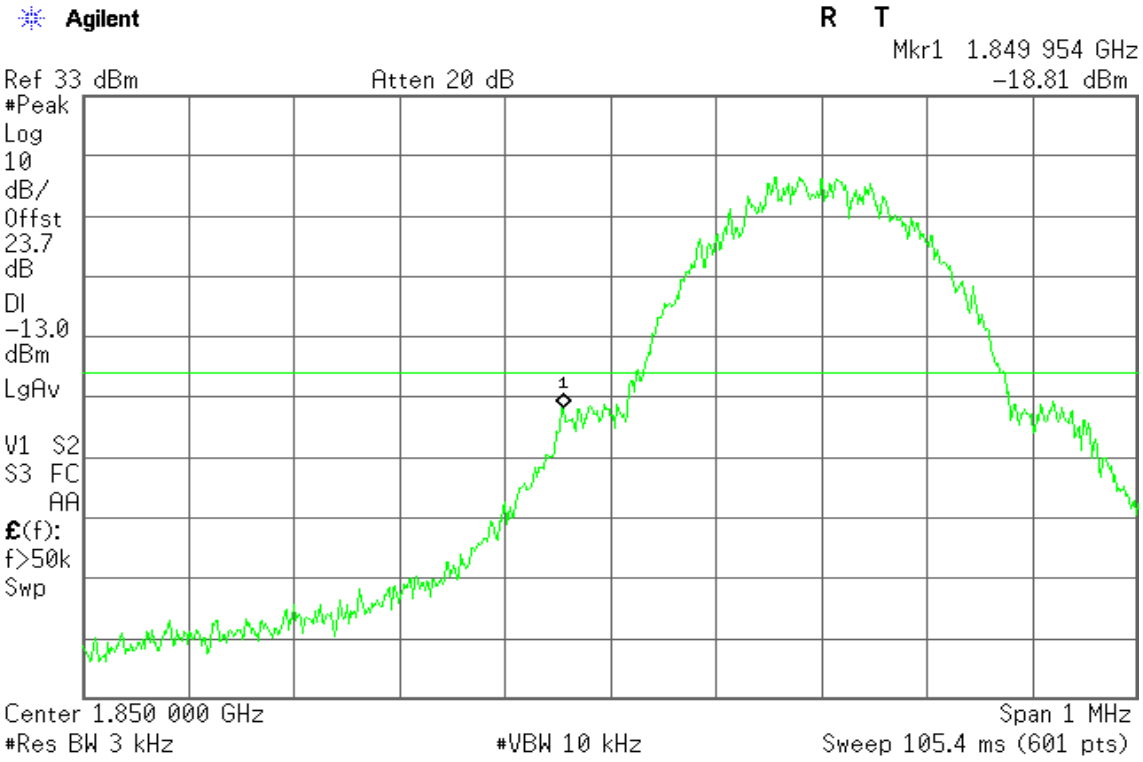
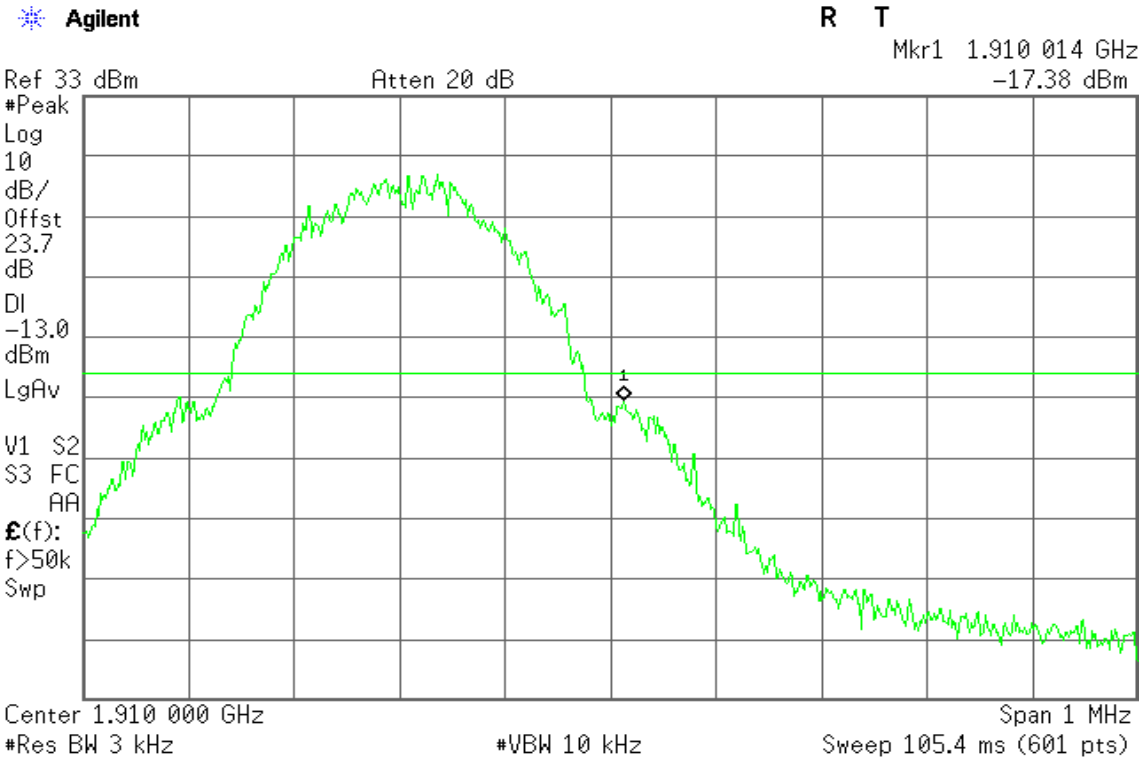


Figure 14-2: Band Edge emissions – GPRS CH High



WCDMA Band II

Figure 19-1: Out of Band emission at antenna terminals – WCDMA CH Low

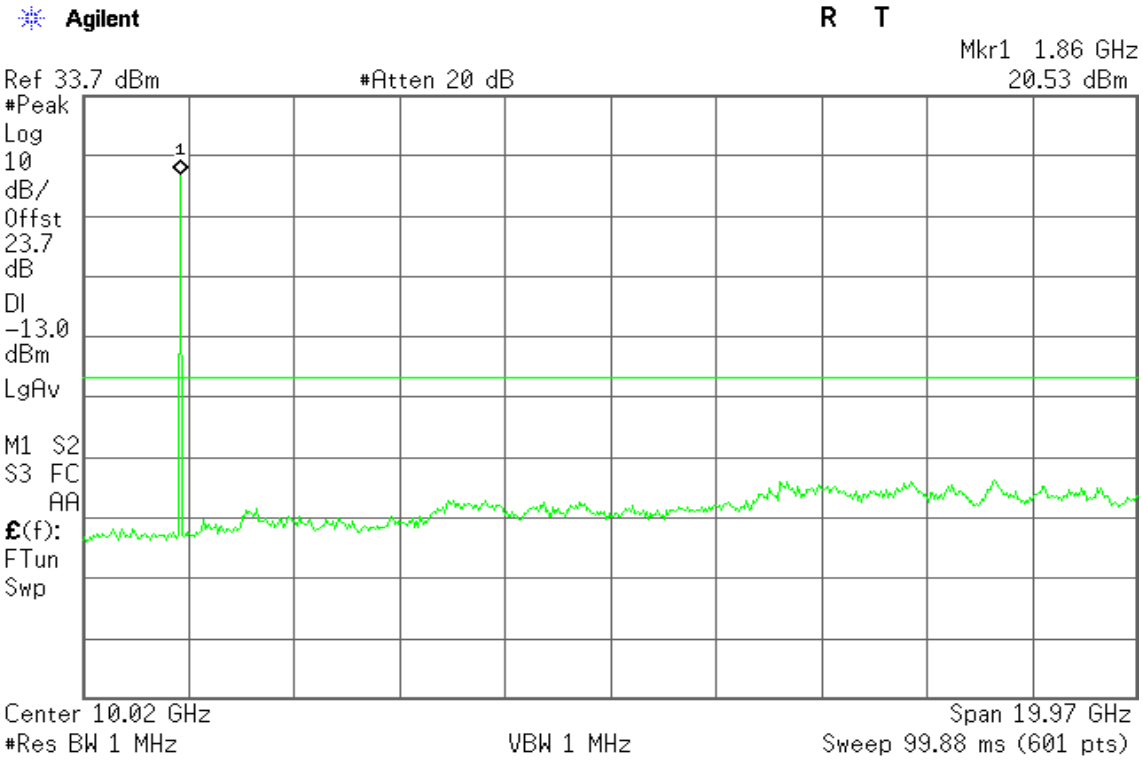


Figure 19-2: Out of Band emission at antenna terminals – WCDMA CH Mid

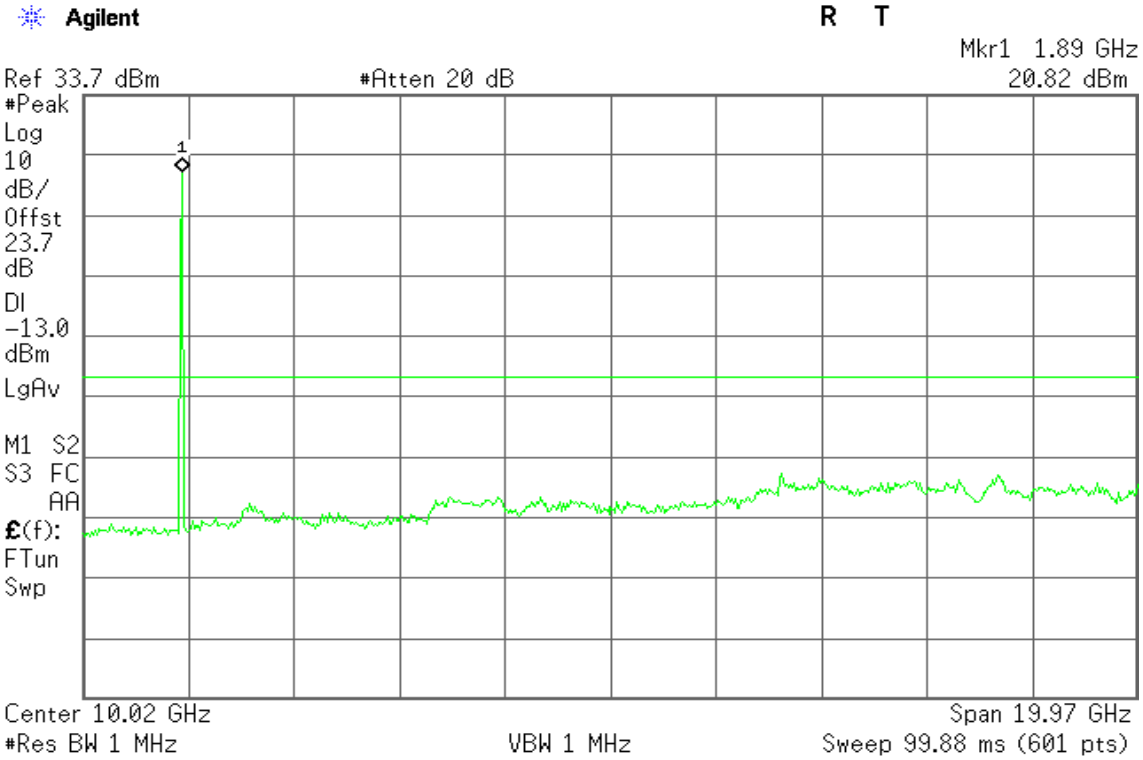
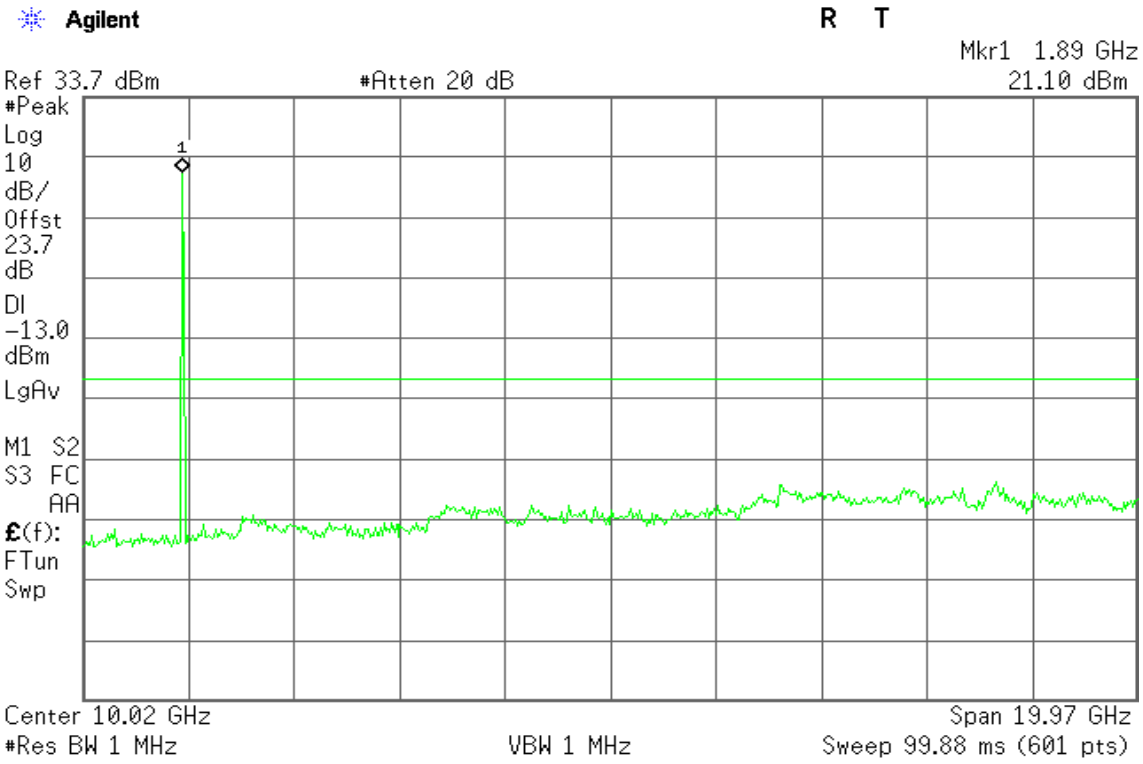


Figure 19-3: Out of Band emission at antenna terminals – WCDMA CH High



WCDMA Band V

Figure 20-1: Out of Band emission at antenna terminals – WCDMA CH Low

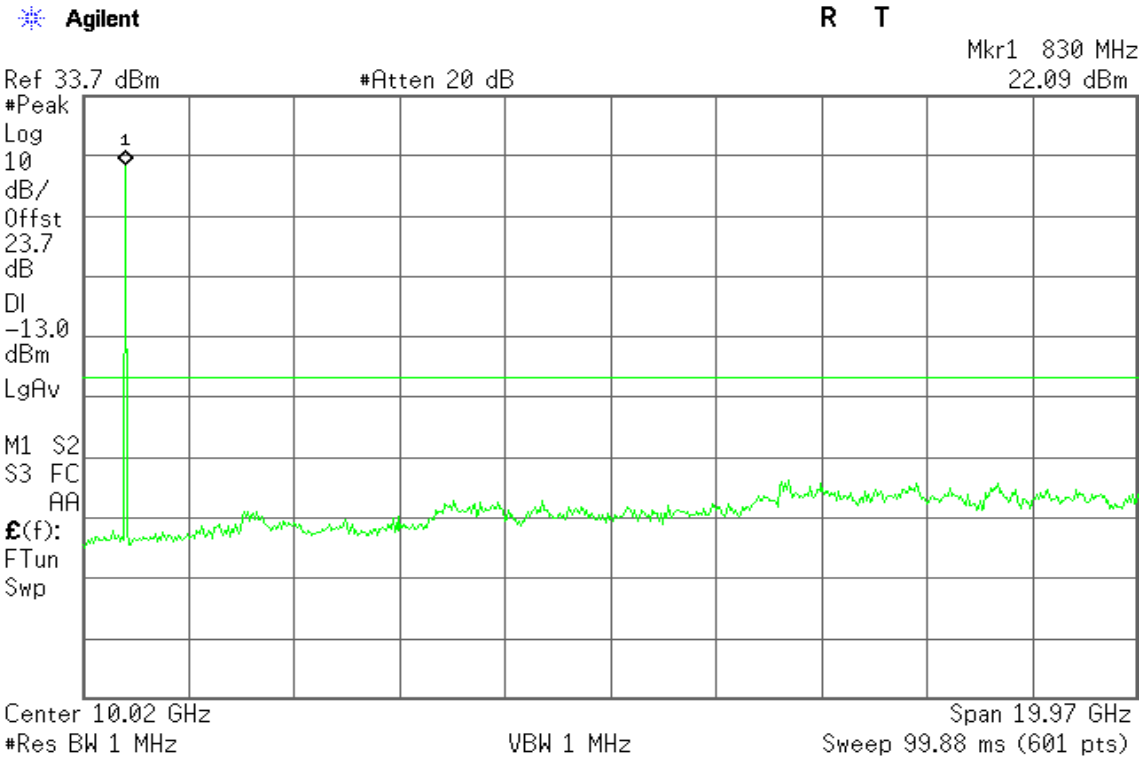


Figure 20-2: Out of Band emission at antenna terminals – WCDMA CH Mid

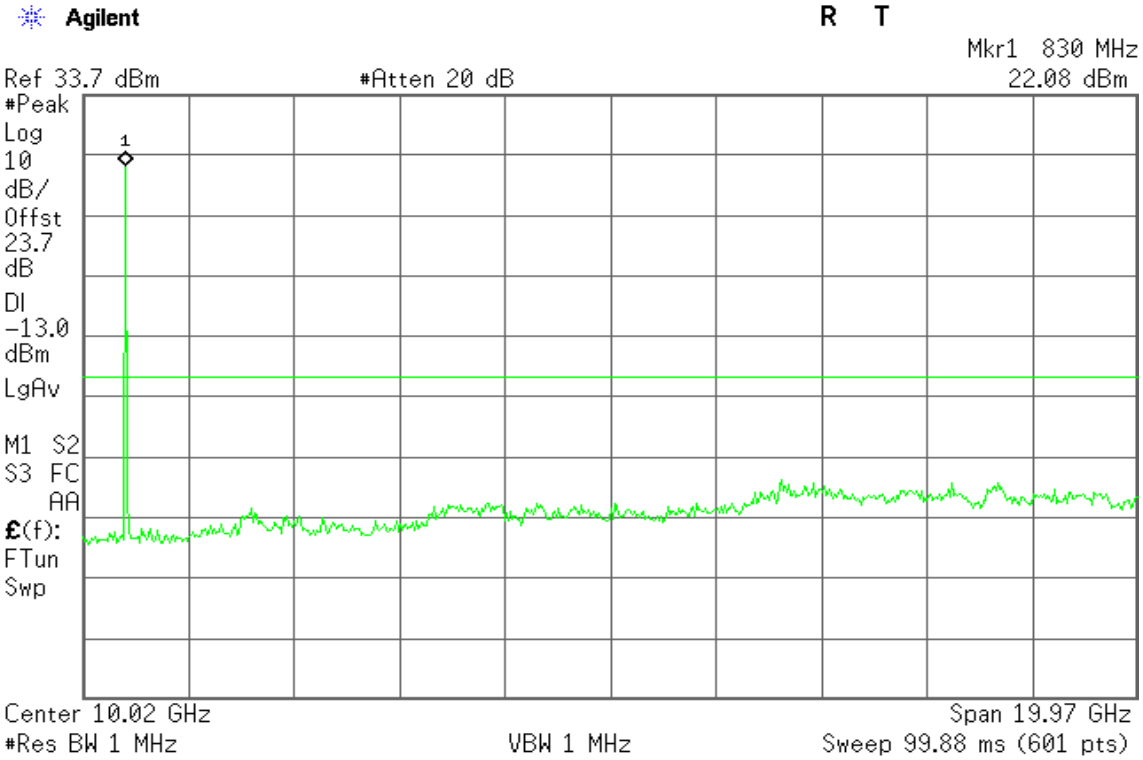
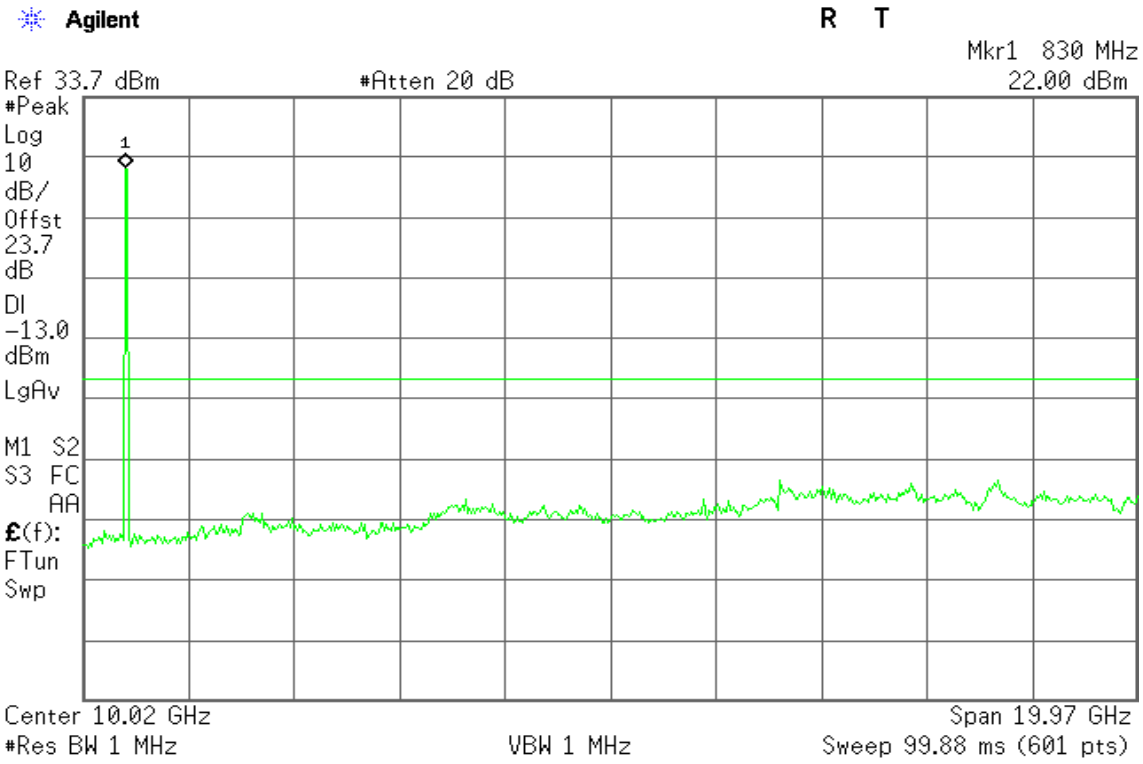


Figure 20-3: Out of Band emission at antenna terminals – WCDMA CH High



WCDMA Band II

Figure 21-1: Band Edge emissions – WCDMA CH Low

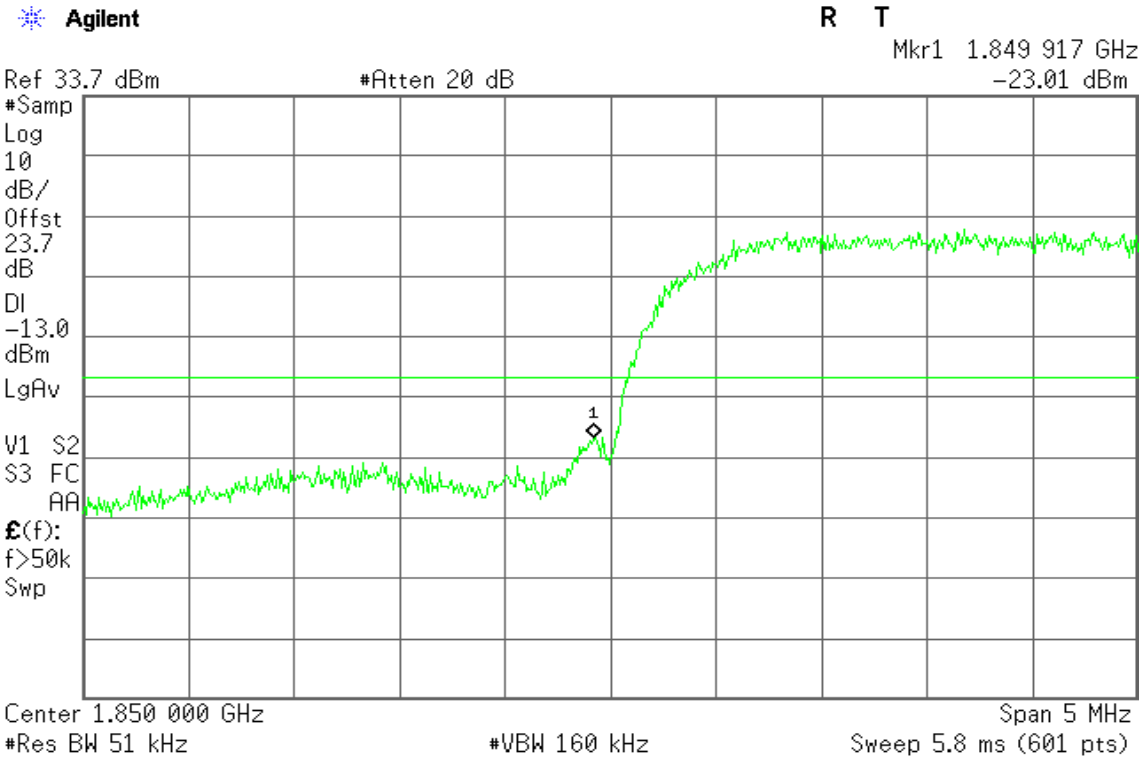
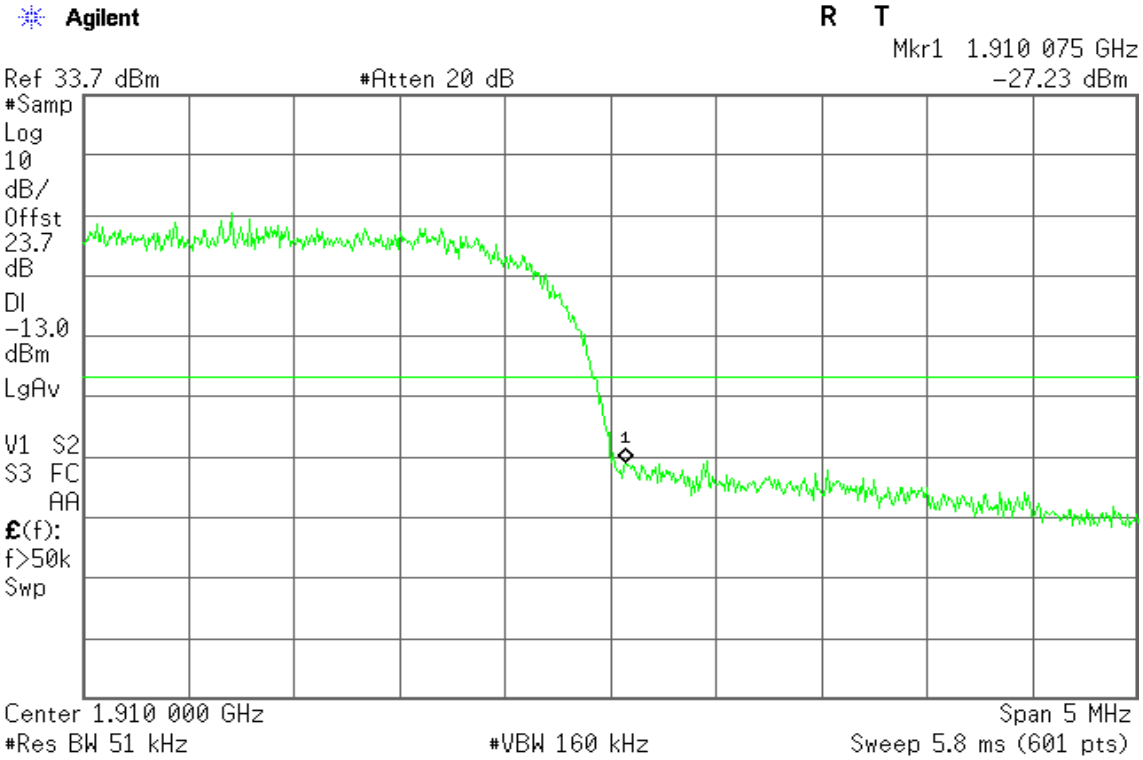


Figure 21-2: Band Edge emissions –WCDMA CH High



WCDMA Band V

Figure 22-1: Band Edge emissions –WCDMA CH Low

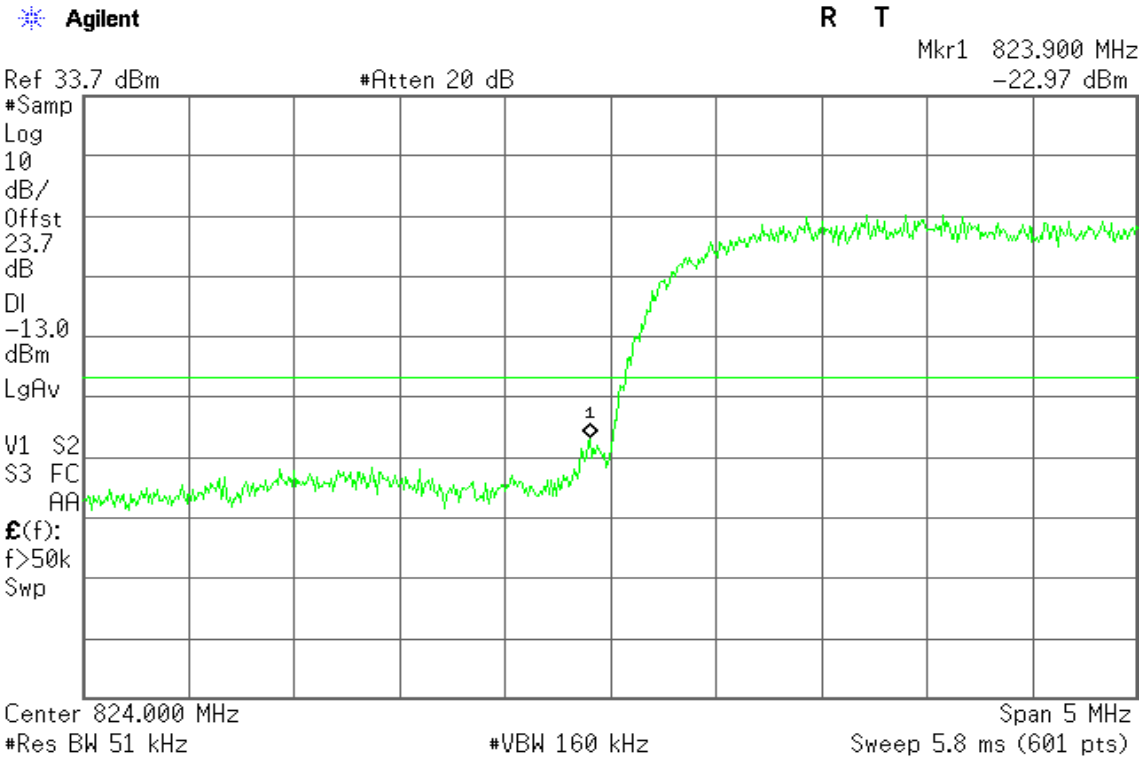
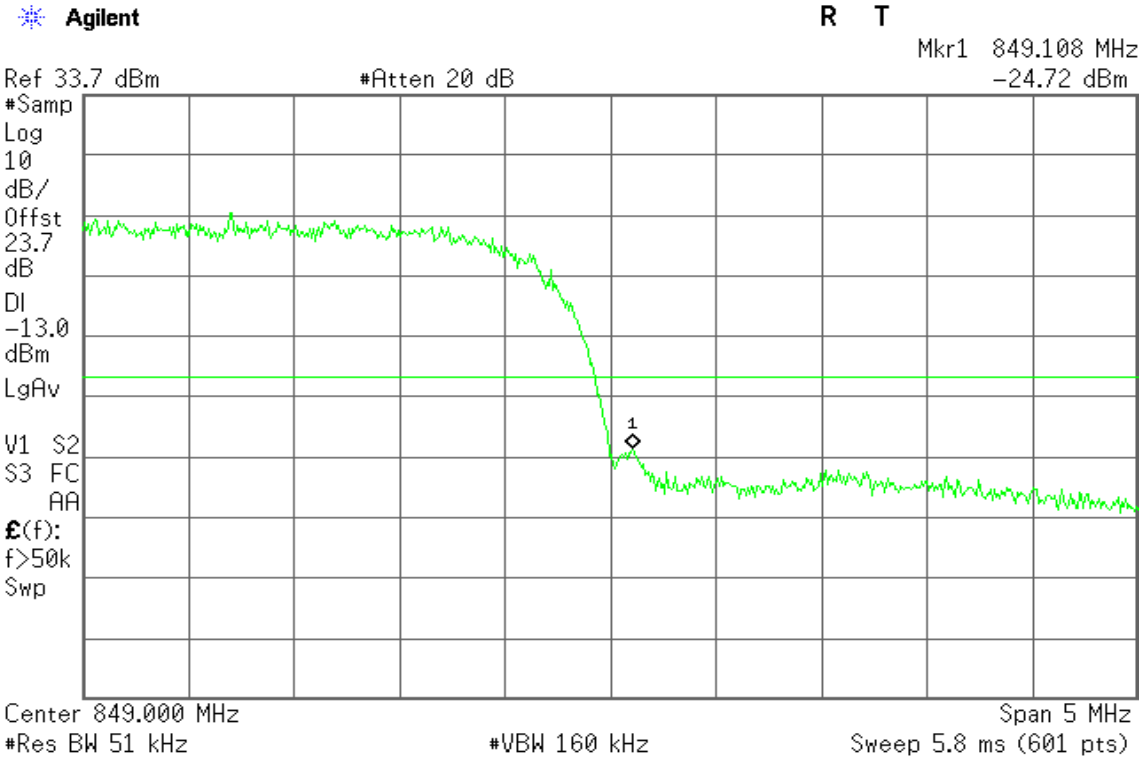


Figure 22-2: Band Edge emissions –WCDMA CH High



WCDMA / HSDPA Band II

Figure 23-1: Out of Band emission at antenna terminals – HSDPA CH Low

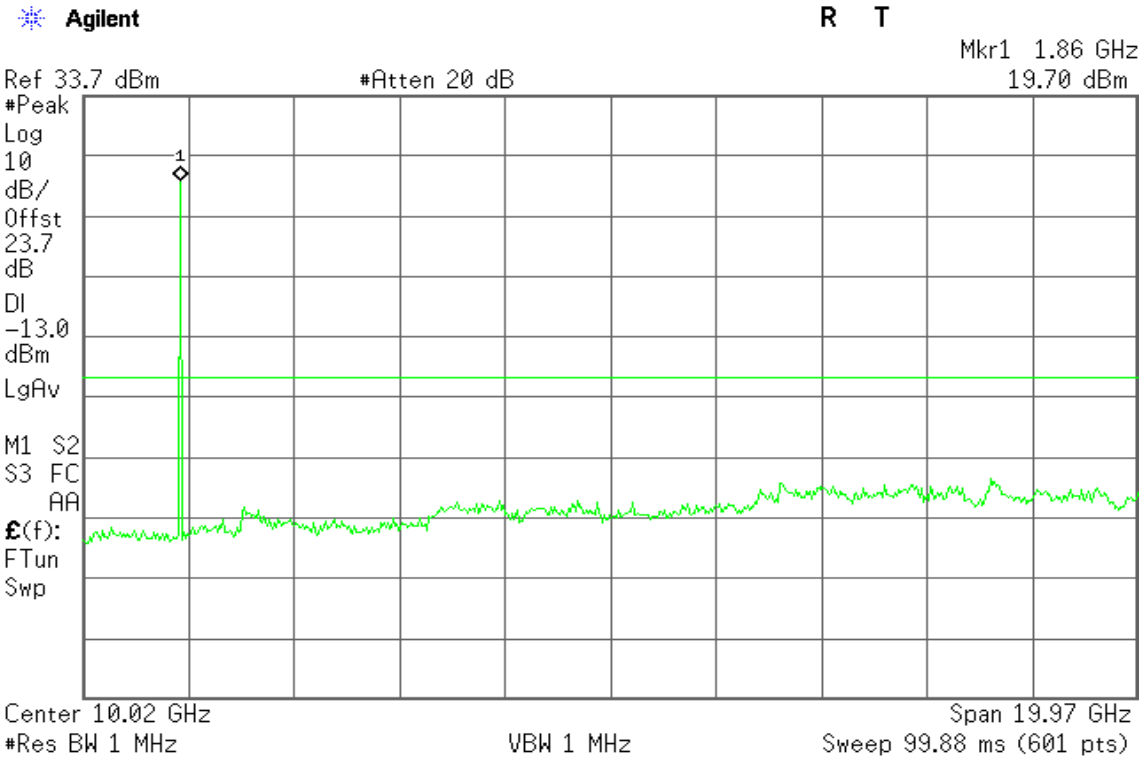


Figure 23-2: Out of Band emission at antenna terminals – HSDPA CH Mid

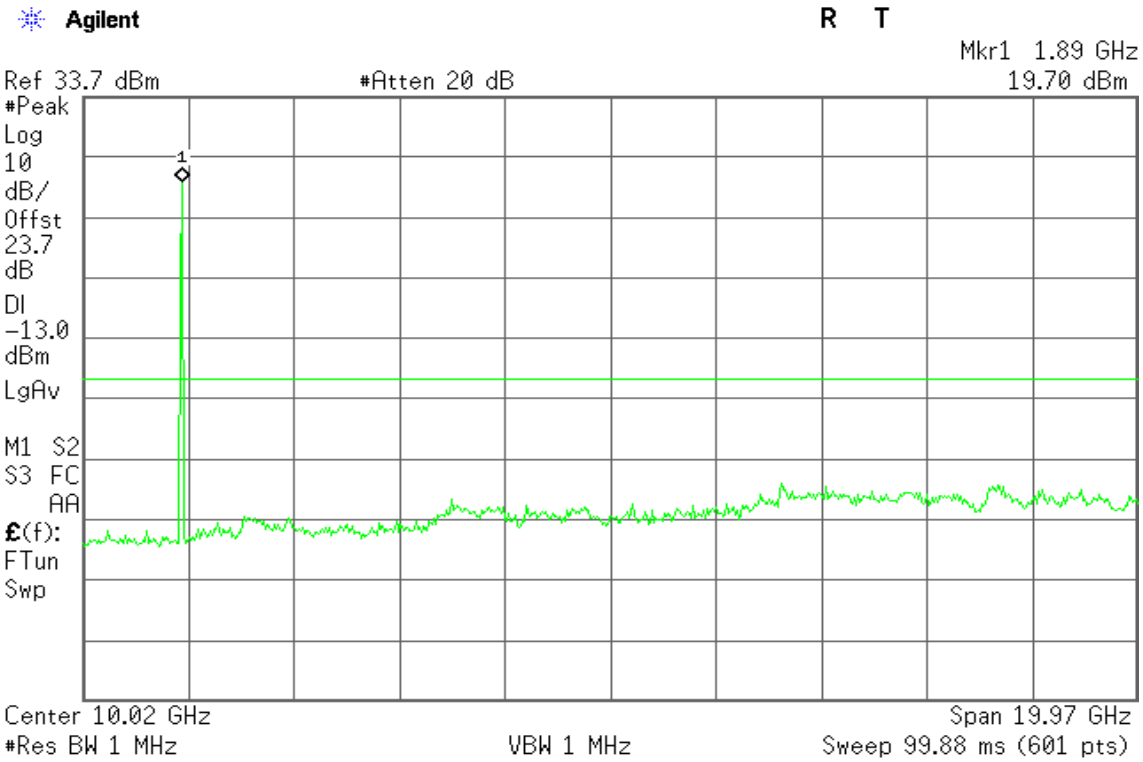
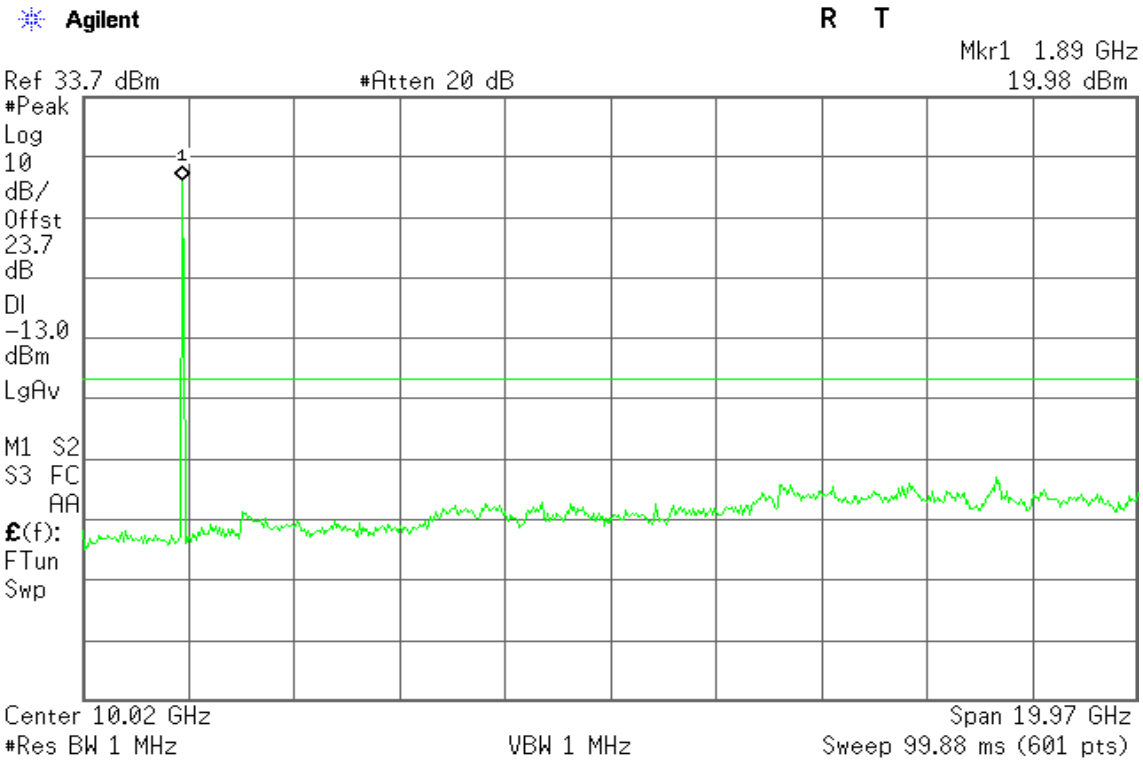


Figure 23-3: Out of Band emission at antenna terminals – HSDPA CH High



WCDMA / HSDPA Band V

Figure 21-1: Out of Band emission at antenna terminals – HSDPA CH Low

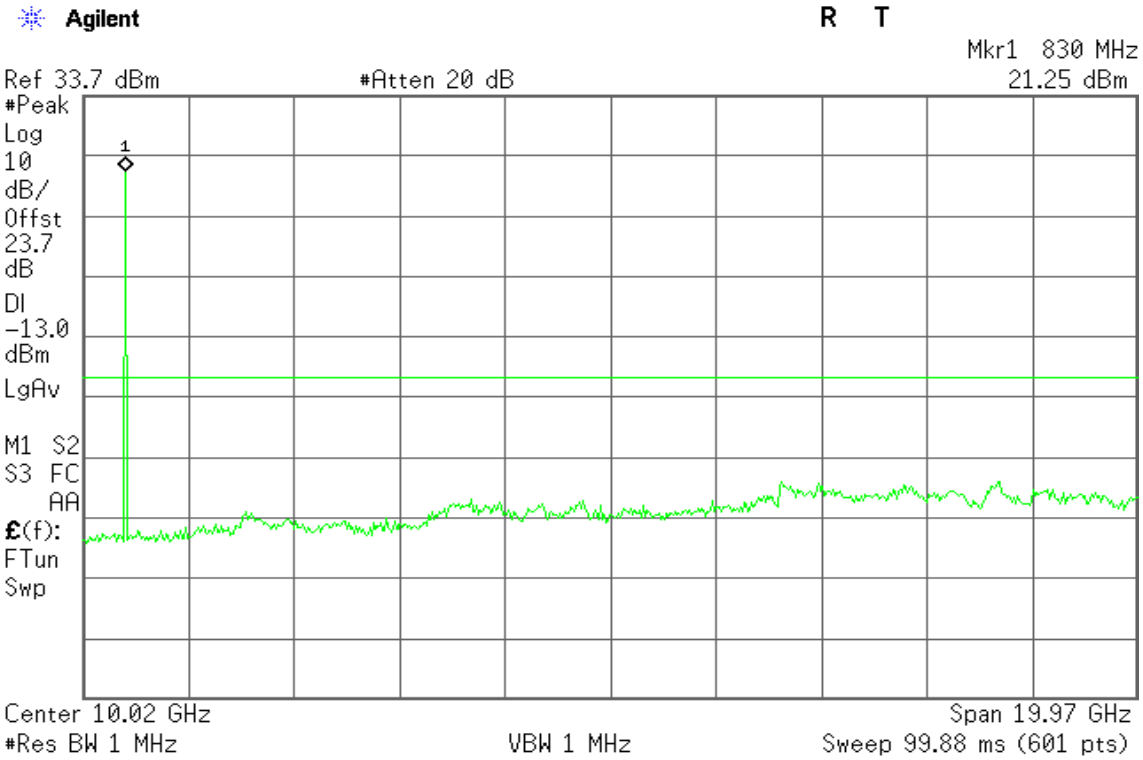


Figure 24-2: Out of Band emission at antenna terminals – HSDPA CH Mid

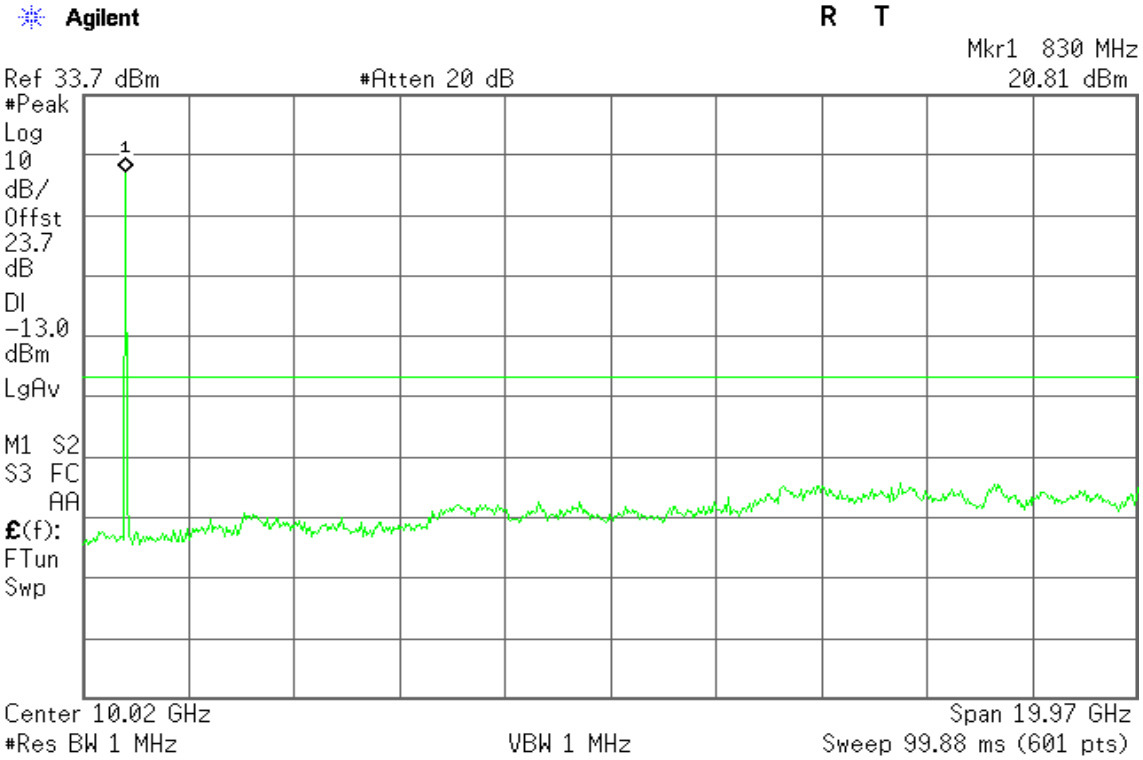
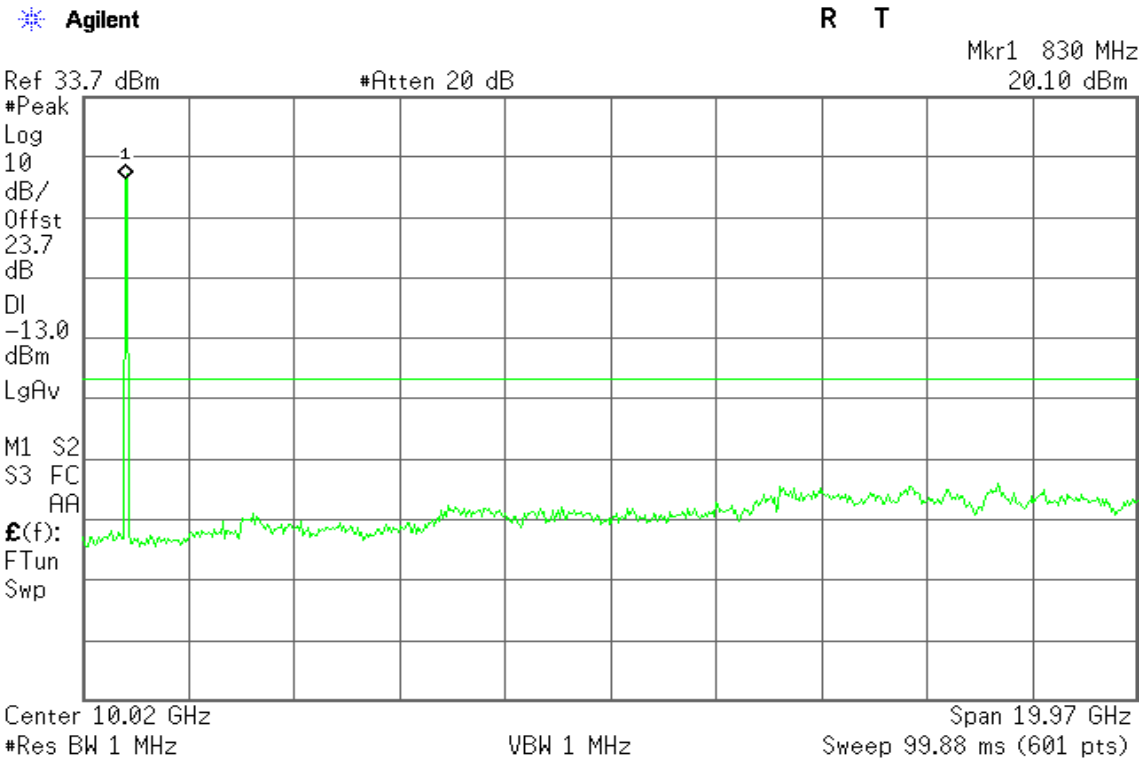


Figure 24-3: Out of Band emission at antenna terminals – HSDPA CH High



WCDMA / HSDPA Band II

Figure 25-1: Band Edge emissions – HSDPA CH Low

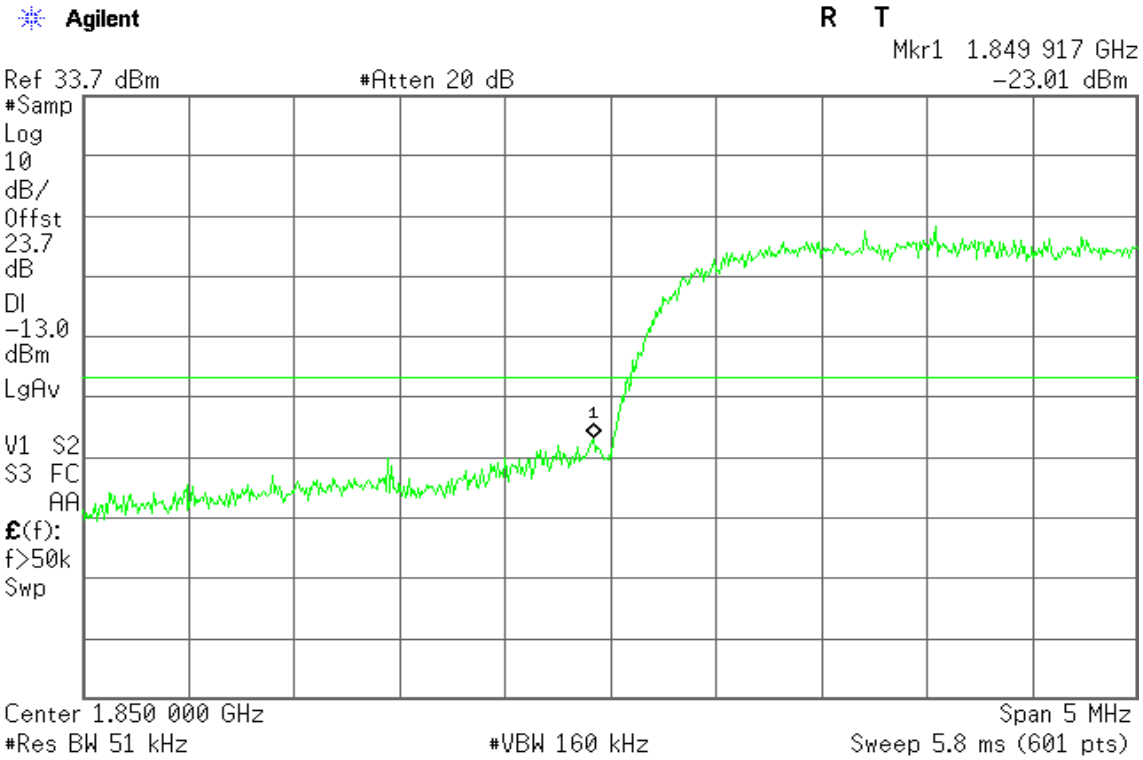
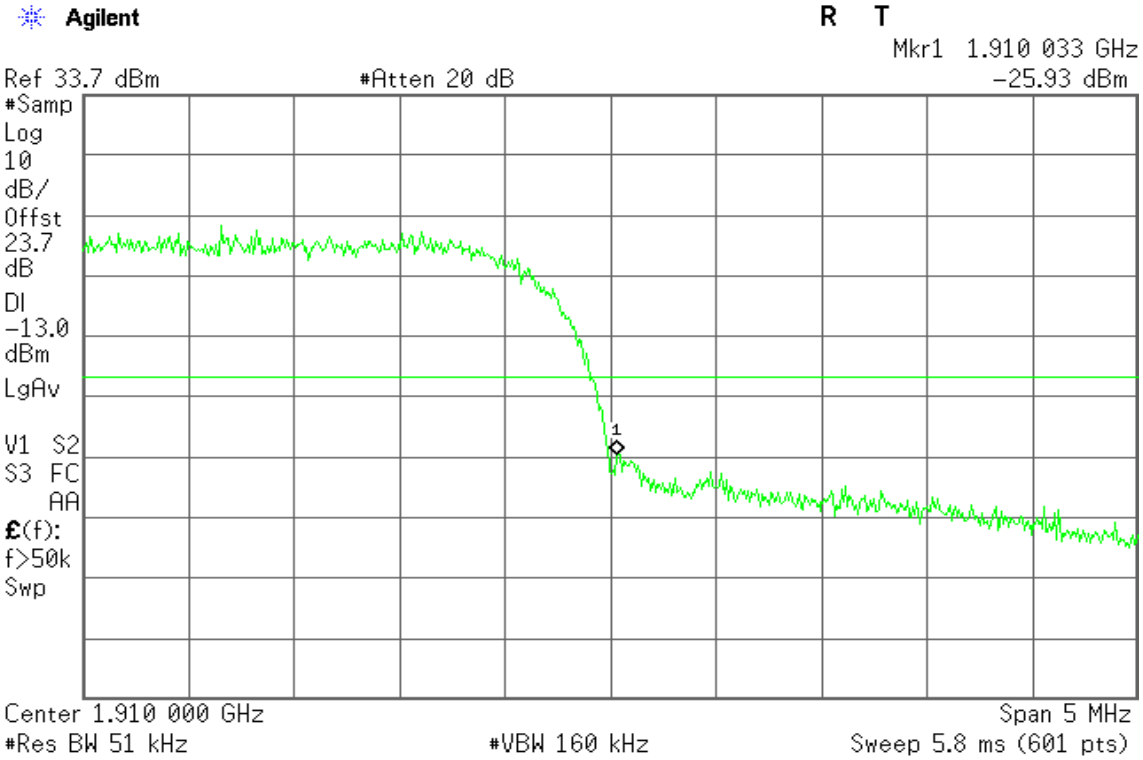


Figure 25-2: Band Edge emissions – HSDPA CH High



WCDMA / HSDPA Band V

Figure 26-1: Band Edge emissions – HSDPA CH Low

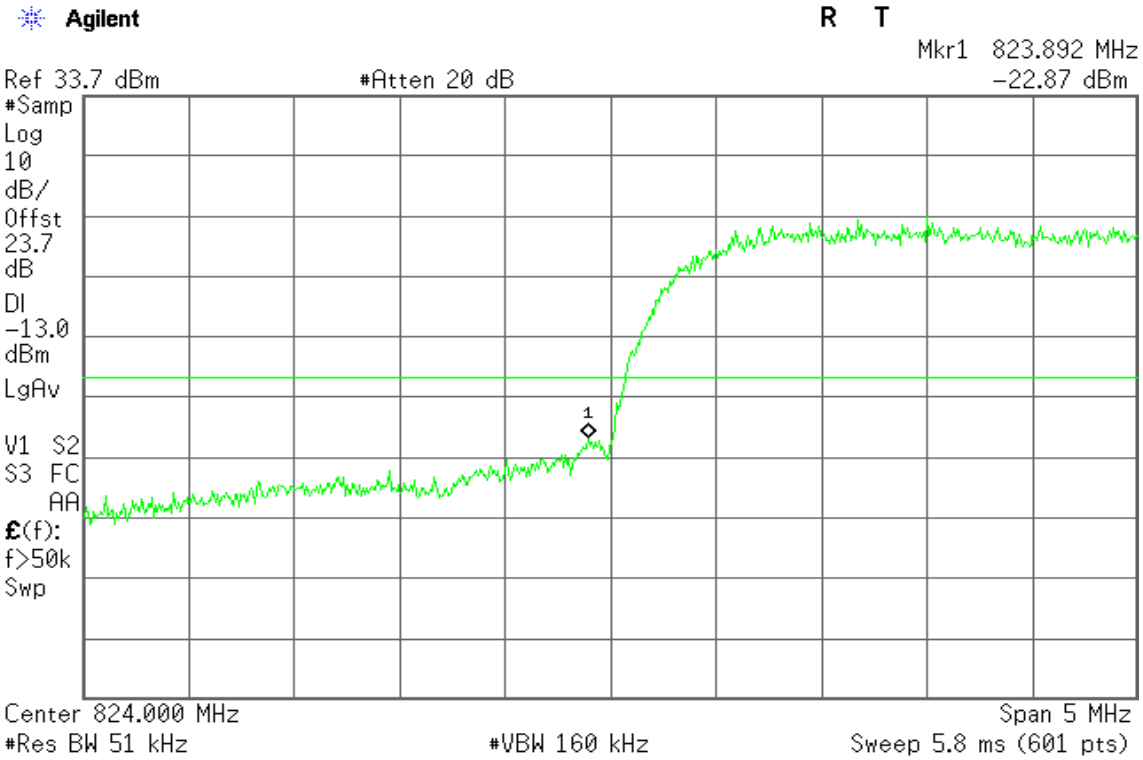
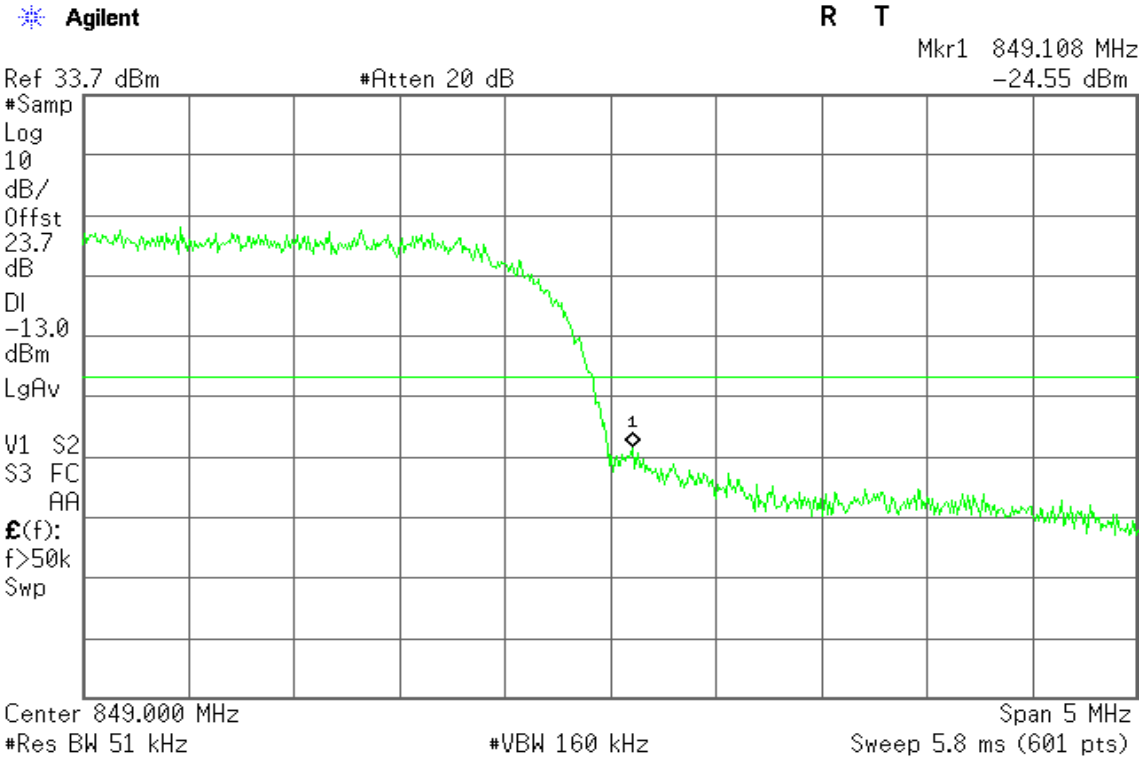


Figure 26-2: Band Edge emissions – HSDPA CH High



WCDMA / HSUPA Band II

Figure 27-1: Out of Band emission at antenna terminals – HSUPA CH Low

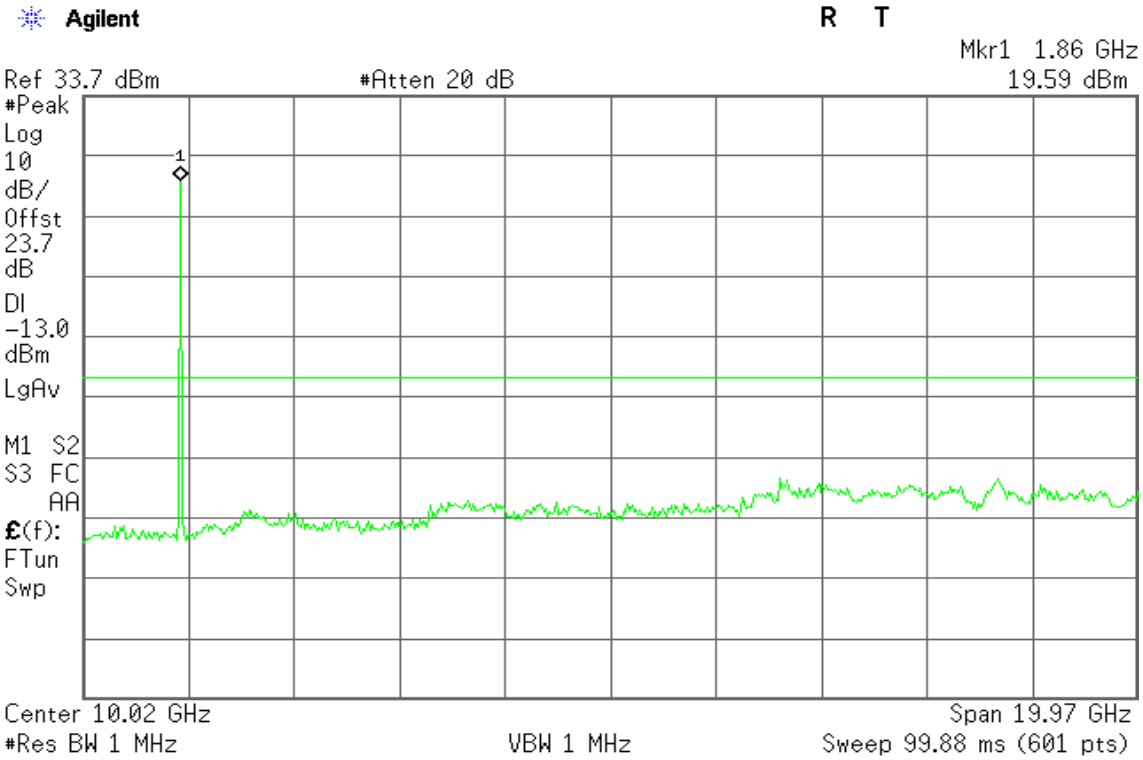


Figure 27-2: Out of Band emission at antenna terminals – HSUPA CH Mid

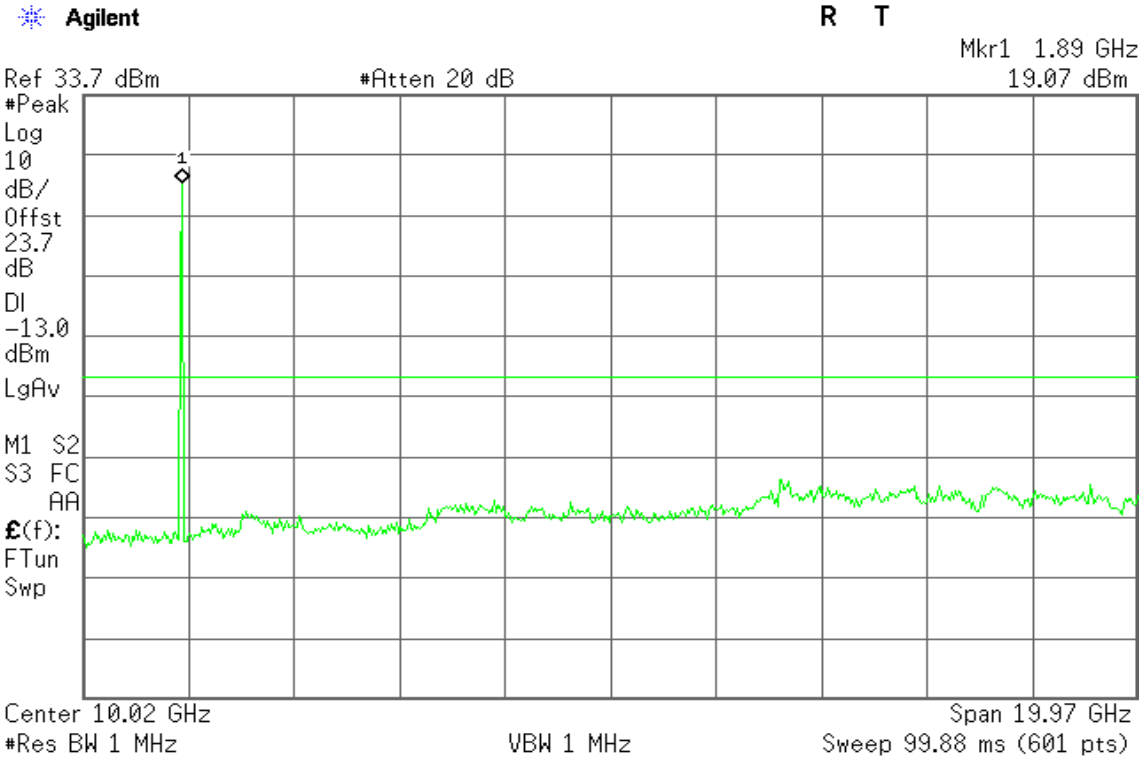
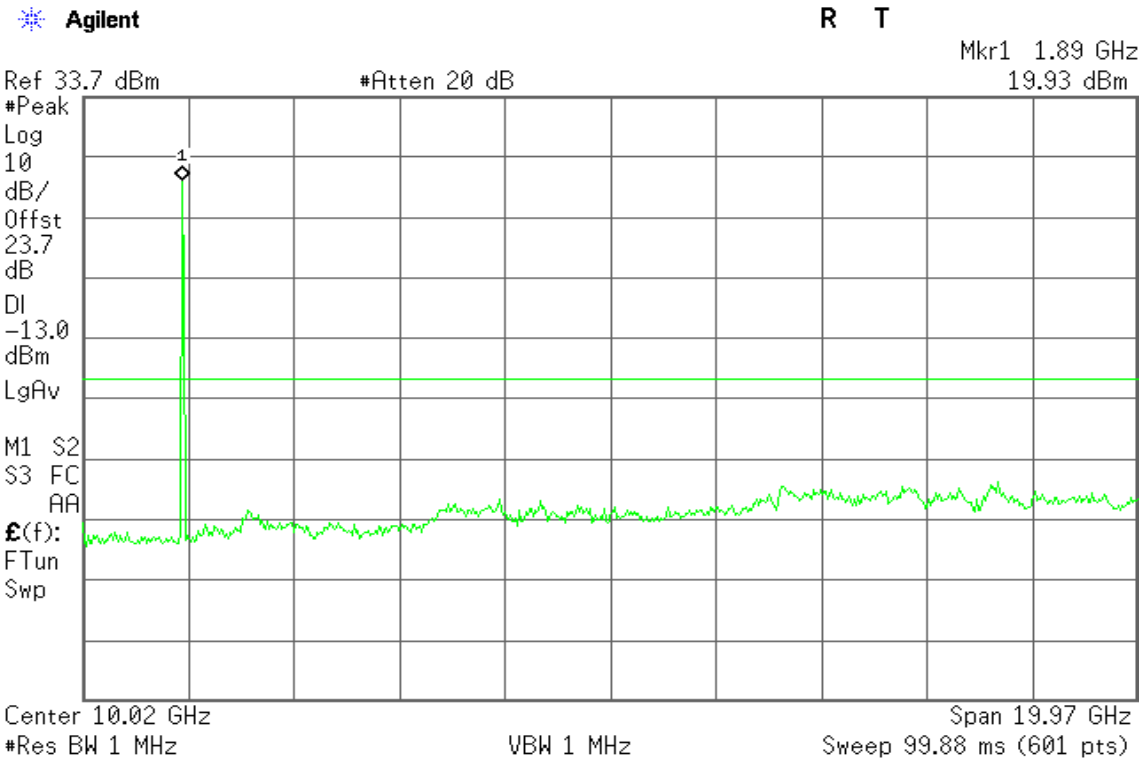


Figure 27-3: Out of Band emission at antenna terminals – HSUPA CH High



HSUPA / WCDMA Band V

Figure 28-1: Out of Band emission at antenna terminals – HSUPA CH Low

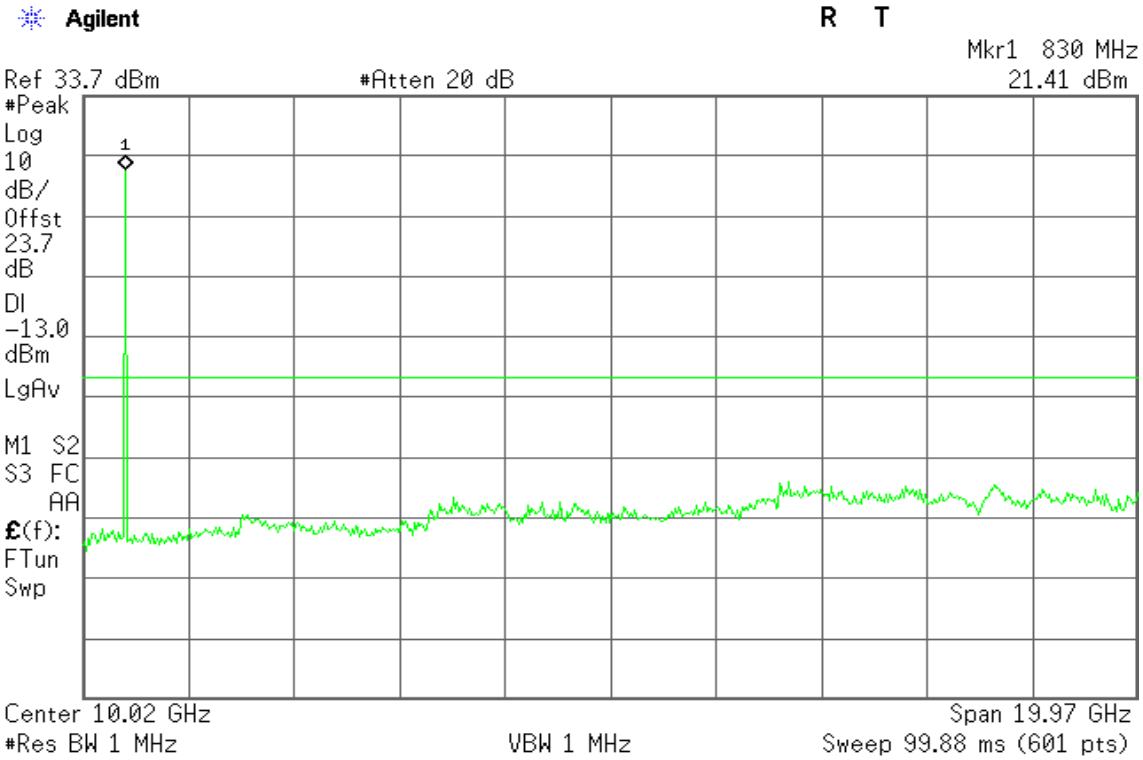


Figure 28-2: Out of Band emission at antenna terminals – HSUPA CH Mid

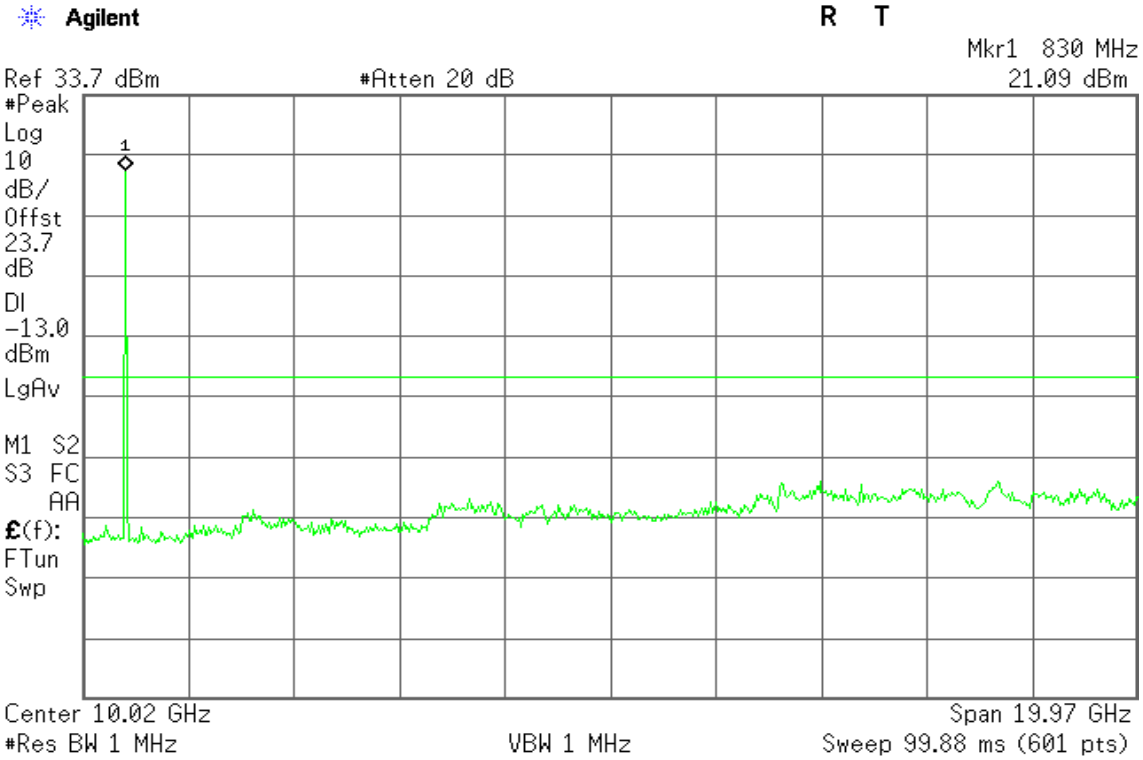
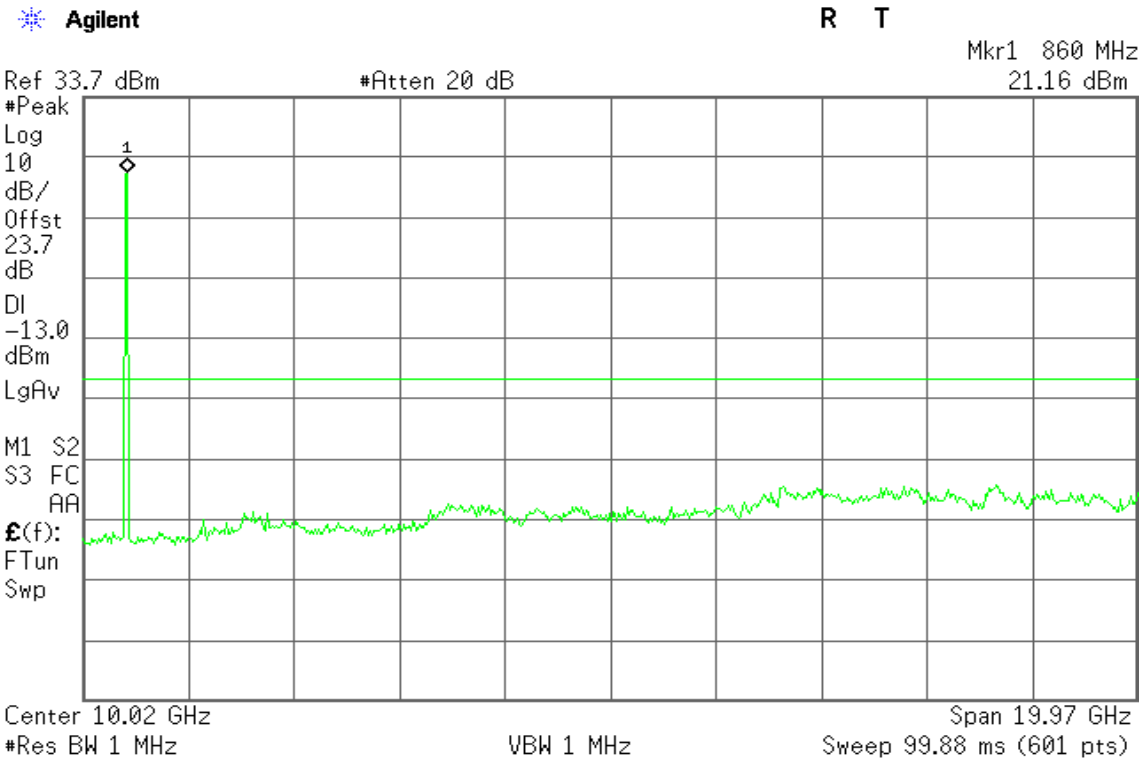


Figure 28-3: Out of Band emission at antenna terminals – HSUPA CH High



WCDMA / HSUPA Band II

Figure 29-1: Band Edge emissions – HSUPA CH Low

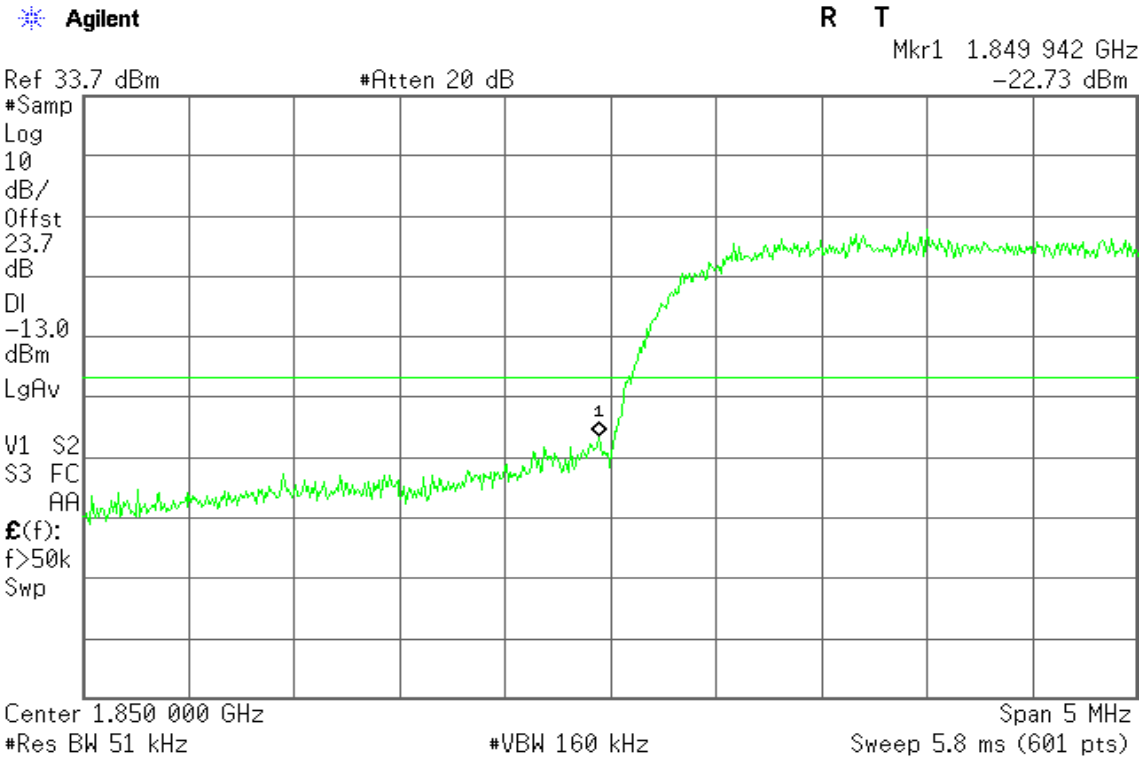
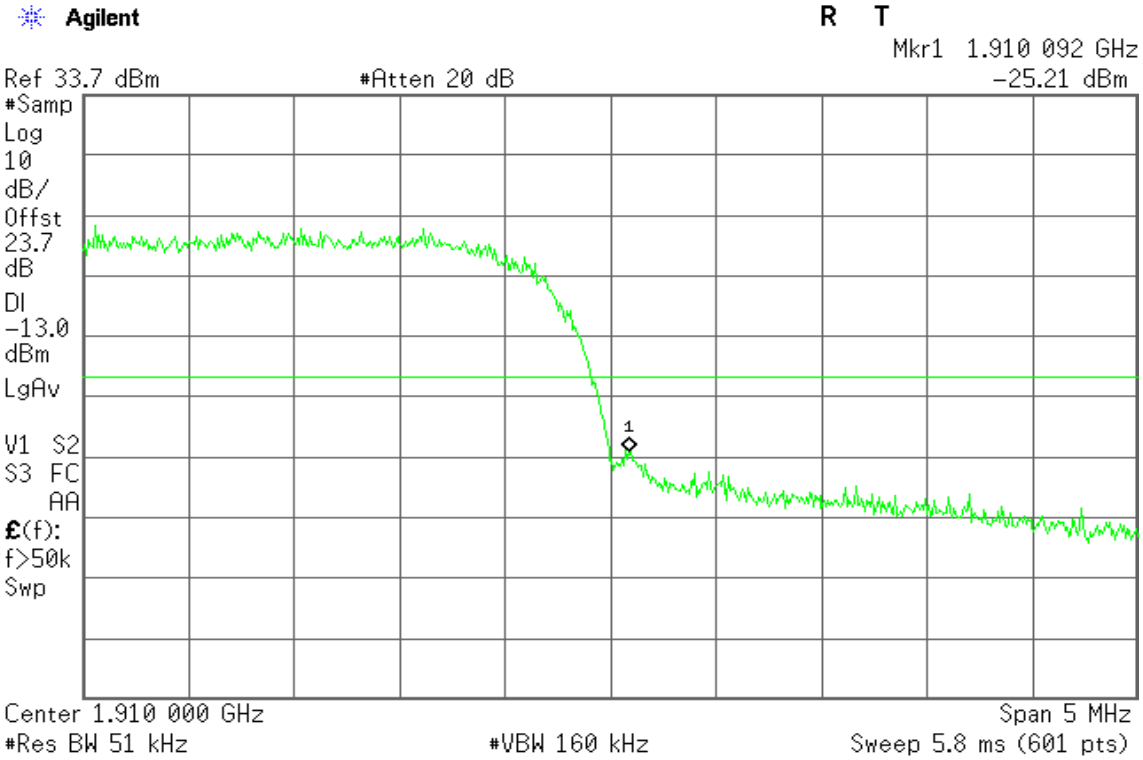


Figure 29-2: Band Edge emissions – HSUPA CH High



WCDMA / HSUPA Band V

Figure 30-1: Band Edge emissions – HSUPA CH Low

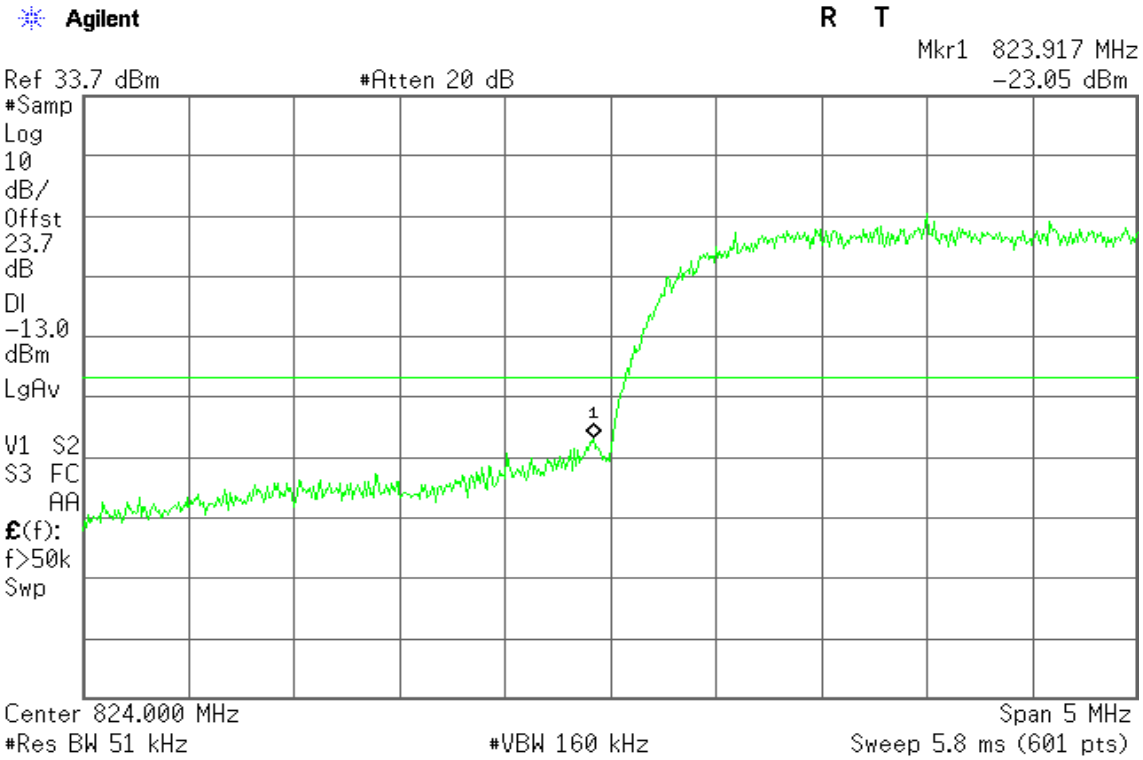
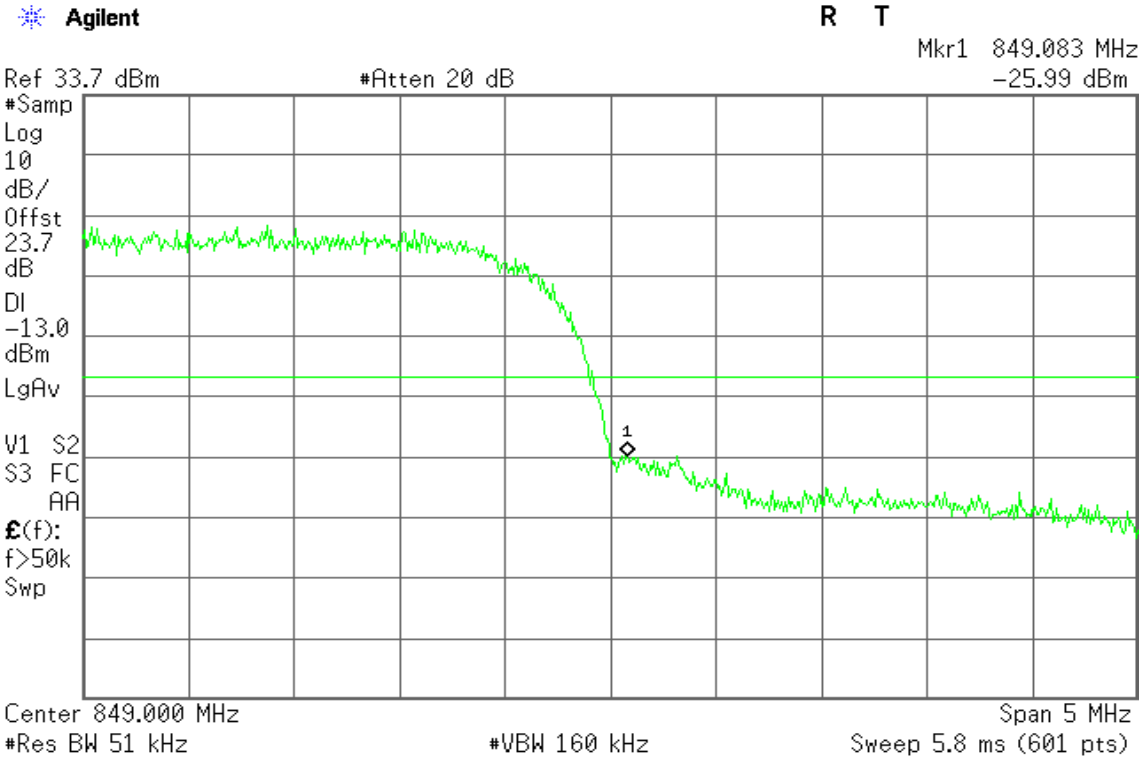


Figure 30-2: Band Edge emissions – HSUPA CH High



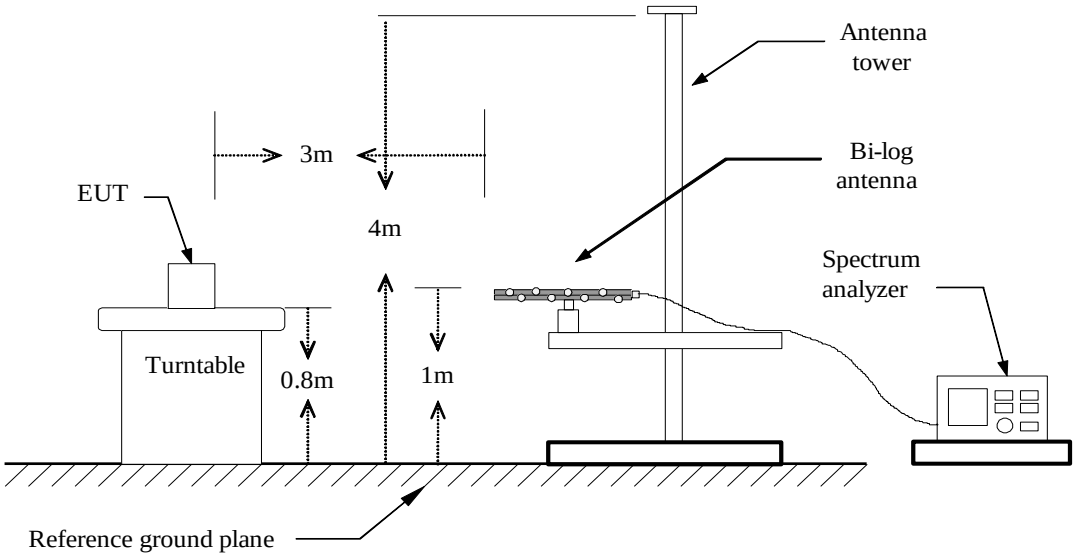
7.6 FIELD STRENGTH OF SPURIOUS RADIATION MEASUREMENT

LIMIT

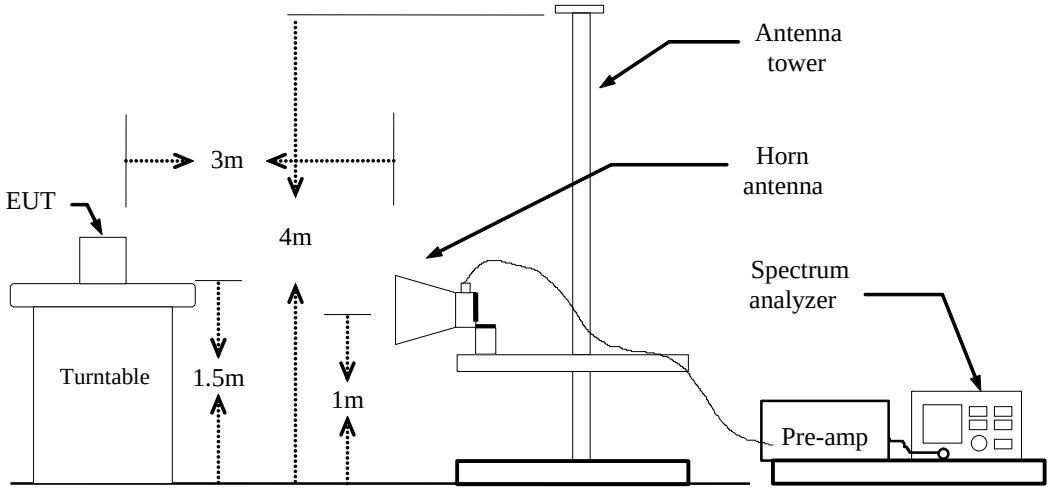
According to FCC §2.1053

Test Configuration

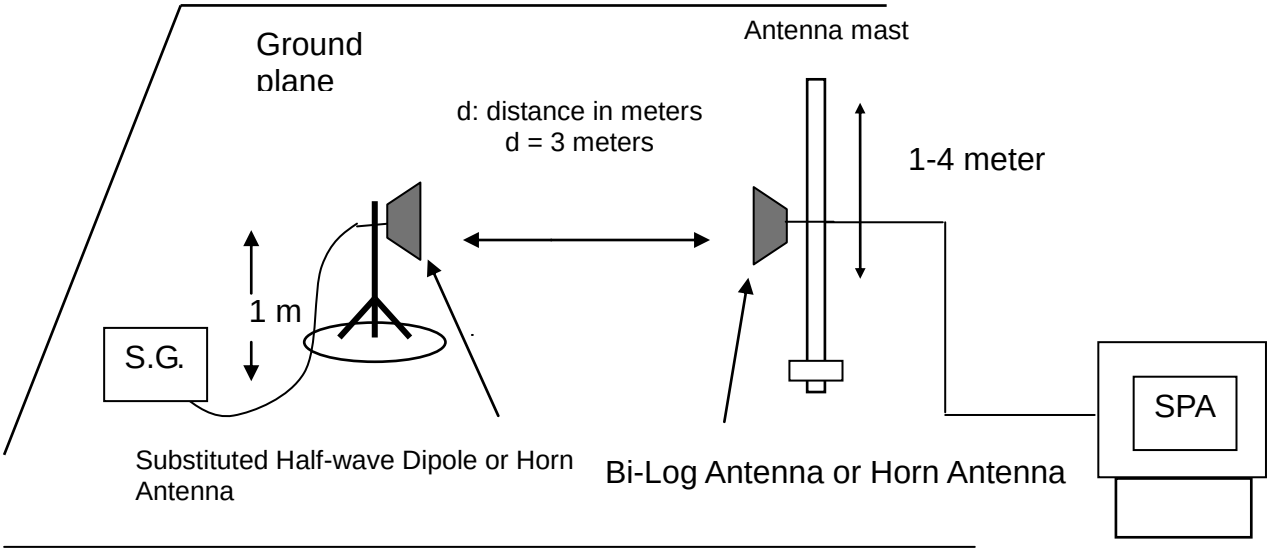
Below 1 GHz



Above 1 GHz



Substituted Method Test Set-up



TEST PROCEDURE

The EUT was placed on a non-conductive, the measurement antenna was placed at a distance of 3 meters from the EUT. During the tests, the antenna height and the EUT azimuth were varied in order to identify the maximum level of emissions from the EUT. This maximization process was repeated with the EUT positioned in each of its three orthogonal orientations.

The frequency range up to tenth harmonic was investigated for each of three fundamental frequency (low, middle and high channels). Once spurious emission were identified, the power of the emission was determined using the substitution method.

The spurious emissions attenuation was calculated as the difference between radiated power at the fundamental frequency and the spurious emissions frequency.

ERP = S.G. output (dBm) + Antenna Gain (dBd) – Cable (dB)

EIRP = S.G. output (dBm) + Antenna Gain (dBi) – Cable (dB)

TEST RESULTS

Refer to the attached tabular data sheets.

Radiated Spurious Emission Measurement Result / Below 1GHz

Operation Mode: GSM 850 / TX / CH 128 **Test Date:** August 23, 2015

Temperature: 21°C **Tested by:** Jason Lu

Humidity: 56 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
57.1600	-68.79	0.86	-2.8	-72.45	-13.00	-59.45	V
157.0700	-79.37	1.47	1.22	-79.62	-13.00	-66.62	V
283.1700	-84.23	2.01	5.34	-80.90	-13.00	-67.90	V
378.2300	-84.31	2.31	5.96	-80.66	-13.00	-67.66	V
630.4300	-81.32	2.98	6.19	-78.11	-13.00	-65.11	V
730.3400	-80.26	3.18	6.39	-77.05	-13.00	-64.05	V
66.8600	-60.76	0.93	-1.89	-63.58	-13.00	-50.58	H
143.4900	-61.49	1.4	0.08	-62.81	-13.00	-49.81	H
235.6400	-74.33	1.8	5.37	-70.76	-13.00	-57.76	H
390.8400	-77.06	2.32	6	-73.38	-13.00	-60.38	H
515.9700	-77.46	2.7	6.06	-74.10	-13.00	-61.10	H
647.8900	-74.87	3.02	6.25	-71.64	-13.00	-58.64	H

Remark:

1. *The emission behaviour belongs to narrowband spurious emission.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

Operation Mode: GSM 850 / TX / CH 190 **Test Date:** August 23, 2015

Temperature: 21°C **Tested by:** Jason Lu

Humidity: 56 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
57.1600	-69.08	0.86	-2.8	-72.74	-13.00	-59.74	V
226.9100	-83.43	1.79	5.37	-79.85	-13.00	-66.85	V
326.8200	-83.52	2.17	5.71	-79.98	-13.00	-66.98	V
424.7900	-81.85	2.47	5.8	-78.52	-13.00	-65.52	V
770.1100	-78.7	3.27	6.38	-75.59	-13.00	-62.59	V
937.9200	-79.23	3.6	6.4	-76.43	-13.00	-63.43	V
66.8600	-61.99	0.93	-1.89	-64.81	-13.00	-51.81	H
180.3500	-75.03	1.61	3.62	-73.02	-13.00	-60.02	H
307.4200	-79.76	2.12	5.75	-76.13	-13.00	-63.13	H
404.4200	-80.41	2.42	5.95	-76.88	-13.00	-63.88	H
658.5600	-76.27	3.05	6.3	-73.02	-13.00	-60.02	H
732.2800	-75.81	3.18	6.34	-72.65	-13.00	-59.65	H

Remark:

1. *The emission behaviour belongs to narrowband spurious emission.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

Operation Mode: GSM 850 / TX / CH 251 **Test Date:** August 23, 2015

Temperature: 21°C **Tested by:** Jason Lu

Humidity: 56 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
57.1600	-63.43	0.86	-2.8	-67.09	-13.00	-54.09	V
108.5700	-65	1.2	-1.51	-67.71	-13.00	-54.71	V
191.0200	-79	1.62	3.89	-76.73	-13.00	-63.73	V
315.1800	-81.54	2.16	5.74	-77.96	-13.00	-64.96	V
420.9100	-80.31	2.46	5.8	-76.97	-13.00	-63.97	V
612.9700	-80.7	2.94	6.23	-77.41	-13.00	-64.41	V
66.8600	-65	0.93	-1.89	-67.82	-13.00	-54.82	H
159.9800	-70.81	1.48	1.43	-70.86	-13.00	-57.86	H
227.8800	-77.35	1.79	5.38	-73.76	-13.00	-60.76	H
413.1500	-79.61	2.45	5.88	-76.18	-13.00	-63.18	H
496.5700	-78.64	2.69	5.86	-75.47	-13.00	-62.47	H
637.2200	-77.12	3	6.15	-73.97	-13.00	-60.97	H

Remark:

1. *The emission behaviour belongs to narrowband spurious emission.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

Operation Mode: GPRS 850 / TX / CH 128 **Test Date:** August 23, 2015

Temperature: 21°C **Tested by:** Jason Lu

Humidity: 56 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
66.8600	-60.31	0.93	-1.89	-63.13	-13.00	-50.13	V
242.4300	-82.25	1.81	5.39	-78.67	-13.00	-65.67	V
374.3500	-81.72	2.31	5.89	-78.14	-13.00	-65.14	V
471.3500	-81.62	2.62	5.74	-78.50	-13.00	-65.50	V
632.3700	-79.12	2.98	6.19	-75.91	-13.00	-62.91	V
768.1700	-78.67	3.26	6.38	-75.55	-13.00	-62.55	V
66.8600	-66.22	0.93	-1.89	-69.04	-13.00	-56.04	H
176.4700	-75.74	1.59	3.21	-74.12	-13.00	-61.12	H
302.5700	-79.29	2.1	5.65	-75.74	-13.00	-62.74	H
464.5600	-79.37	2.61	5.84	-76.14	-13.00	-63.14	H
576.1100	-77.98	2.88	6.05	-74.81	-13.00	-61.81	H
646.9200	-76.88	3.02	6.23	-73.67	-13.00	-60.67	H

Remark:

1. *The emission behaviour belongs to narrowband spurious emission.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

Operation Mode: GPRS 850 / TX / CH 190 **Test Date:** August 23, 2015

Temperature: 21°C **Tested by:** Jason Lu

Humidity: 56 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
57.1600	-66.58	0.86	-2.8	-70.24	-13.00	-57.24	V
157.0700	-78.83	1.47	1.22	-79.08	-13.00	-66.08	V
228.8500	-83.12	1.79	5.38	-79.53	-13.00	-66.53	V
327.7900	-84.6	2.17	5.71	-81.06	-13.00	-68.06	V
539.2500	-83.26	2.78	6.27	-79.77	-13.00	-66.77	V
715.7900	-80.95	3.16	6.41	-77.70	-13.00	-64.70	V
66.8600	-65.08	0.93	-1.89	-67.90	-13.00	-54.90	H
210.4200	-76.63	1.69	5.44	-72.88	-13.00	-59.88	H
310.3300	-79.23	2.14	5.77	-75.60	-13.00	-62.60	H
463.5900	-78.61	2.61	5.84	-75.38	-13.00	-62.38	H
631.4000	-77.1	2.98	6.2	-73.88	-13.00	-60.88	H
773.0200	-75.55	3.28	6.29	-72.54	-13.00	-59.54	H

Remark:

1. *The emission behaviour belongs to narrowband spurious emission.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

Operation Mode: GPRS 850 / TX / CH 251 **Test Date:** August 23, 2015

Temperature: 21°C **Tested by:** Jason Lu

Humidity: 56 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
66.8600	-69.78	0.93	-1.89	-72.60	-13.00	-59.60	V
128.9400	-72.67	1.34	-1.5	-75.51	-13.00	-62.51	V
250.1900	-84.33	1.84	5.68	-80.49	-13.00	-67.49	V
428.6700	-82.69	2.49	5.8	-79.38	-13.00	-66.38	V
543.1300	-82.27	2.79	6.24	-78.82	-13.00	-65.82	V
712.8800	-80.79	3.15	6.36	-77.58	-13.00	-64.58	V
66.8600	-62.89	0.93	-1.89	-65.71	-13.00	-52.71	H
128.9400	-63.11	1.34	-1.5	-65.95	-13.00	-52.95	H
250.1900	-64.73	1.84	5.68	-60.89	-13.00	-47.89	H
404.4200	-78.07	2.42	5.95	-74.54	-13.00	-61.54	H
572.2300	-75.61	2.87	6.09	-72.39	-13.00	-59.39	H
692.5100	-75.55	3.12	6.47	-72.20	-13.00	-59.20	H

Remark:

1. *The emission behaviour belongs to narrowband spurious emission.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

Operation Mode: GSM 1900 / TX / CH 512 **Test Date:** August 23, 2015

Temperature: 21°C **Tested by:** Jason Lu

Humidity: 56 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
86.2600	-74.01	1.08	0.62	-74.47	-13.00	-61.47	V
185.2000	-81.45	1.61	3.81	-79.25	-13.00	-66.25	V
302.5700	-84.98	2.1	5.65	-81.43	-13.00	-68.43	V
572.2300	-82.57	2.87	6.09	-79.35	-13.00	-66.35	V
655.6500	-81.91	3.04	6.3	-78.65	-13.00	-65.65	V
998.0600	-78.45	3.73	6.2	-75.98	-13.00	-62.98	V
66.8600	-61	0.93	-1.89	-63.82	-13.00	-50.82	H
227.8800	-63.83	1.79	5.38	-60.24	-13.00	-47.24	H
550.8900	-77.99	2.81	6.17	-74.63	-13.00	-61.63	H
777.8700	-73.38	3.3	6.15	-70.53	-13.00	-57.53	H
861.2900	-74.08	3.43	6.42	-71.09	-13.00	-58.09	H
941.8000	-69.02	3.61	6.38	-66.25	-13.00	-53.25	H

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

Operation Mode: GSM 1900 / TX / CH 661 **Test Date:** August 23, 2015

Temperature: 21°C **Tested by:** Jason Lu

Humidity: 56 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
86.2600	-71.1	1.08	0.62	-71.56	-13.00	-58.56	V
230.7900	-84.49	1.8	5.4	-80.89	-13.00	-67.89	V
279.2900	-84.41	2	5.29	-81.12	-13.00	-68.12	V
634.3100	-80.96	2.99	6.18	-77.77	-13.00	-64.77	V
771.0800	-80.29	3.27	6.35	-77.21	-13.00	-64.21	V
887.4800	-78.91	3.49	6.7	-75.70	-13.00	-62.70	V
66.8600	-65.44	0.93	-1.89	-68.26	-13.00	-55.26	H
308.3900	-80.08	2.13	5.77	-76.44	-13.00	-63.44	H
414.1200	-79.5	2.45	5.87	-76.08	-13.00	-63.08	H
510.1500	-78.76	2.69	6	-75.45	-13.00	-62.45	H
771.0800	-76.44	3.27	6.35	-73.36	-13.00	-60.36	H
941.8000	-75.59	3.61	6.38	-72.82	-13.00	-59.82	H

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

Operation Mode: GSM 1900 / TX / CH 810 **Test Date:** August 23, 2015

Temperature: 21°C **Tested by:** Jason Lu

Humidity: 56 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
86.2600	-71.57	1.08	0.62	-72.03	-13.00	-59.03	V
194.9000	-83.46	1.63	3.47	-81.62	-13.00	-68.62	V
462.6200	-83.08	2.61	5.85	-79.84	-13.00	-66.84	V
539.2500	-83.06	2.78	6.27	-79.57	-13.00	-66.57	V
838.0100	-80.64	3.41	6.38	-77.67	-13.00	-64.67	V
975.7500	-79.4	3.68	6.29	-76.79	-13.00	-63.79	V
126.0300	-66.98	1.32	-1.69	-69.99	-13.00	-56.99	H
215.2700	-76.22	1.73	5.37	-72.58	-13.00	-59.58	H
423.8200	-79.13	2.47	5.8	-75.80	-13.00	-62.80	H
571.2600	-79.4	2.87	6.1	-76.17	-13.00	-63.17	H
782.7200	-74.98	3.31	6.14	-72.15	-13.00	-59.15	H
890.3900	-76.53	3.5	6.7	-73.33	-13.00	-60.33	H

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

Operation Mode: GPRS 1900 / TX / CH 512 **Test Date:** August 23, 2015

Temperature: 21°C **Tested by:** Jason Lu

Humidity: 56 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
57.1600	-68.01	0.86	-2.8	-71.67	-13.00	-58.67	V
244.3700	-86.38	1.82	5.47	-82.73	-13.00	-69.73	V
311.3000	-86.01	2.14	5.76	-82.39	-13.00	-69.39	V
539.2500	-82.29	2.78	6.27	-78.80	-13.00	-65.80	V
802.1200	-79.92	3.33	6.51	-76.74	-13.00	-63.74	V
988.3600	-79.95	3.71	6.22	-77.44	-13.00	-64.44	V
65.8900	-60.65	0.93	-1.93	-63.51	-13.00	-50.51	H
369.5000	-78	2.3	5.8	-74.50	-13.00	-61.50	H
462.6200	-77.73	2.61	5.85	-74.49	-13.00	-61.49	H
617.8200	-76.13	2.94	6.14	-72.93	-13.00	-59.93	H
747.8000	-74.48	3.2	6.1	-71.58	-13.00	-58.58	H
875.8400	-74.39	3.46	6.61	-71.24	-13.00	-58.24	H

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

Operation Mode: GPRS 1900 / TX / CH 661 **Test Date:** August 23, 2015

Temperature: 21°C **Tested by:** Jason Lu

Humidity: 56 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
66.8600	-69.05	0.93	-1.89	-71.87	-13.00	-58.87	V
153.1900	-80.49	1.44	0.94	-80.99	-13.00	-67.99	V
248.2500	-85.88	1.83	5.61	-82.10	-13.00	-69.10	V
413.1500	-85.63	2.45	5.88	-82.20	-13.00	-69.20	V
515.0000	-83.92	2.7	6.05	-80.57	-13.00	-67.57	V
732.2800	-81.83	3.18	6.34	-78.67	-13.00	-65.67	V
66.8600	-66.21	0.93	-1.89	-69.03	-13.00	-56.03	H
159.9800	-70.74	1.48	1.43	-70.79	-13.00	-57.79	H
378.2300	-80.57	2.31	5.96	-76.92	-13.00	-63.92	H
457.7700	-79.41	2.6	5.85	-76.16	-13.00	-63.16	H
699.3000	-77.32	3.11	6.4	-74.03	-13.00	-61.03	H
804.0600	-74.84	3.33	6.45	-71.72	-13.00	-58.72	H

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

Operation Mode: GPRS 1900 / TX / CH 810 **Test Date:** August 23, 2015

Temperature: 21°C **Tested by:** Jason Lu

Humidity: 56 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
86.2600	-73.12	1.08	0.62	-73.58	-13.00	-60.58	V
244.3700	-87.46	1.82	5.47	-83.81	-13.00	-70.81	V
325.8500	-86.81	2.17	5.71	-83.27	-13.00	-70.27	V
544.1000	-84.86	2.79	6.23	-81.42	-13.00	-68.42	V
598.4200	-84.89	2.9	6.37	-81.42	-13.00	-68.42	V
885.5400	-80.81	3.48	6.7	-77.59	-13.00	-64.59	V
86.2600	-69.67	1.08	0.62	-70.13	-13.00	-57.13	H
161.9200	-72.13	1.5	1.61	-72.02	-13.00	-59.02	H
353.9800	-81.87	2.25	5.76	-78.36	-13.00	-65.36	H
544.1000	-79.37	2.79	6.23	-75.93	-13.00	-62.93	H
779.8100	-75.95	3.3	6.11	-73.14	-13.00	-60.14	H
953.4400	-75.15	3.64	6.34	-72.45	-13.00	-59.45	H

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

Operation Mode: WCDMA Band II / TX / CH 9262 **Test Date:** August 23, 2015

Temperature: 21°C **Tested by:** Jason Lu

Humidity: 56 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
86.2600	-77.18	1.08	0.62	-77.64	-13.00	-64.64	V
218.1800	-85.33	1.75	5.33	-81.75	-13.00	-68.75	V
302.5700	-84.12	2.1	5.65	-80.57	-13.00	-67.57	V
483.9600	-82.4	2.65	5.6	-79.45	-13.00	-66.45	V
631.4000	-80.68	2.98	6.2	-77.46	-13.00	-64.46	V
851.5900	-78.78	3.41	6.4	-75.79	-13.00	-62.79	V
126.0300	-70.42	1.32	-1.69	-73.43	-13.00	-60.43	H
201.6900	-80.31	1.64	3.44	-78.51	-13.00	-65.51	H
281.2300	-83.21	2	5.32	-79.89	-13.00	-66.89	H
483.9600	-80.62	2.65	5.6	-77.67	-13.00	-64.67	H
645.9500	-78.57	3.02	6.21	-75.38	-13.00	-62.38	H
937.9200	-76.17	3.6	6.4	-73.37	-13.00	-60.37	H

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

Operation Mode: WCDMA Band II / TX / CH 9400 **Test Date:** August 23, 2015

Temperature: 21°C **Tested by:** Jason Lu

Humidity: 56 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
57.1600	-74.65	0.86	-2.8	-78.31	-13.00	-65.31	V
234.6700	-85.81	1.8	5.38	-82.23	-13.00	-69.23	V
521.7900	-83.5	2.71	6.08	-80.13	-13.00	-67.13	V
724.5200	-81.45	3.17	6.46	-78.16	-13.00	-65.16	V
773.0200	-79.11	3.28	6.29	-76.10	-13.00	-63.10	V
941.8000	-78.93	3.61	6.38	-76.16	-13.00	-63.16	V
57.1600	-66.77	0.86	-2.8	-70.43	-13.00	-57.43	H
128.9400	-69.45	1.34	-1.5	-72.29	-13.00	-59.29	H
268.6200	-81.64	1.97	5.17	-78.44	-13.00	-65.44	H
425.7600	-79.64	2.48	5.8	-76.32	-13.00	-63.32	H
572.2300	-77.57	2.87	6.09	-74.35	-13.00	-61.35	H
794.3600	-75.28	3.33	6.35	-72.26	-13.00	-59.26	H

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

Operation Mode: WCDMA Band II / TX / CH 9538 **Test Date:** August 23, 2015

Temperature: 21°C **Tested by:** Jason Lu

Humidity: 56 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
86.2600	-77.71	1.08	0.62	-78.17	-13.00	-65.17	V
246.3100	-85.03	1.83	5.54	-81.32	-13.00	-68.32	V
354.9500	-85.48	2.25	5.75	-81.98	-13.00	-68.98	V
472.3200	-83.38	2.62	5.72	-80.28	-13.00	-67.28	V
678.9300	-80.55	3.09	6.48	-77.16	-13.00	-64.16	V
879.7200	-79.68	3.47	6.68	-76.47	-13.00	-63.47	V
57.1600	-66.47	0.86	-2.8	-70.13	-13.00	-57.13	H
161.9200	-78.03	1.5	1.61	-77.92	-13.00	-64.92	H
317.1200	-82.29	2.16	5.73	-78.72	-13.00	-65.72	H
459.7100	-80.14	2.6	5.88	-76.86	-13.00	-63.86	H
621.7000	-76.95	2.95	6.13	-73.77	-13.00	-60.77	H
903.0000	-76.08	3.53	6.6	-73.01	-13.00	-60.01	H

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

Operation Mode: WCDMA Band V / TX / CH 4132 **Test Date:** August 23, 2015

Temperature: 21°C **Tested by:** Jason Lu

Humidity: 56 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
68.8000	-70.17	0.95	-1.81	-72.93	-13.00	-59.93	V
186.1700	-79.01	1.62	3.85	-76.78	-13.00	-63.78	V
310.3300	-83.51	2.14	5.77	-79.88	-13.00	-66.88	V
349.1300	-80.94	2.22	5.8	-77.36	-13.00	-64.36	V
526.6400	-81.73	2.74	6.03	-78.44	-13.00	-65.44	V
735.1900	-79.05	3.19	6.25	-75.99	-13.00	-62.99	V
57.1600	-64.93	0.86	-2.8	-68.59	-13.00	-55.59	H
232.7300	-76.92	1.8	5.39	-73.33	-13.00	-60.33	H
367.5600	-78.59	2.29	5.78	-75.10	-13.00	-62.10	H
470.3800	-78.07	2.62	5.77	-74.92	-13.00	-61.92	H
645.9500	-76.49	3.02	6.21	-73.30	-13.00	-60.30	H
769.1400	-74.5	3.27	6.39	-71.38	-13.00	-58.38	H

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

Operation Mode: WCDMA Band V / TX / CH 4182 **Test Date:** August 23, 2015

Temperature: 21°C **Tested by:** Jason Lu

Humidity: 56 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
72.6800	-60.58	0.98	-1.45	-63.01	-13.00	-50.01	V
154.1600	-68.9	1.45	1.01	-69.34	-13.00	-56.34	V
288.0200	-80.99	2.02	5.38	-77.63	-13.00	-64.63	V
412.1800	-82.16	2.45	5.89	-78.72	-13.00	-65.72	V
473.2900	-81.71	2.62	5.7	-78.63	-13.00	-65.63	V
562.5300	-80.68	2.85	6.01	-77.52	-13.00	-64.52	V
79.4700	-63.86	1.04	-0.26	-65.16	-13.00	-52.16	H
239.5200	-72.53	1.81	5.35	-68.99	-13.00	-55.99	H
324.8800	-78.08	2.17	5.7	-74.55	-13.00	-61.55	H
510.1500	-72.2	2.69	6	-68.89	-13.00	-55.89	H
573.2000	-72.46	2.88	6.08	-69.26	-13.00	-56.26	H
673.1100	-74.72	3.08	6.36	-71.44	-13.00	-58.44	H

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

Operation Mode: WCDMA Band V / TX / CH 4233 **Test Date:** August 23, 2015

Temperature: 21°C **Tested by:** Jason Lu

Humidity: 56 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
71.7100	-63.89	0.97	-1.61	-66.47	-13.00	-53.47	V
109.5400	-61.4	1.21	-1.64	-64.25	-13.00	-51.25	V
267.6500	-76.27	1.96	5.22	-73.01	-13.00	-60.01	V
325.8500	-82.38	2.17	5.71	-78.84	-13.00	-65.84	V
563.5000	-80.12	2.85	6.02	-76.95	-13.00	-63.95	V
772.0500	-78.12	3.28	6.32	-75.08	-13.00	-62.08	V
57.1600	-63.77	0.86	-2.8	-67.43	-13.00	-54.43	H
138.6400	-62.44	1.39	-0.38	-64.21	-13.00	-51.21	H
269.5900	-72.18	1.98	5.12	-69.04	-13.00	-56.04	H
420.9100	-77.6	2.46	5.8	-74.26	-13.00	-61.26	H
559.6200	-76.98	2.84	6.03	-73.79	-13.00	-60.79	H
781.7500	-74.03	3.31	6.13	-71.21	-13.00	-58.21	H

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

Operation Mode: WCDMA / HSDPA Band II / TX / CH 9262 **Test Date:** August 23, 2015

Temperature: 21°C **Tested by:** Jason Lu

Humidity: 56 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
57.1600	-67.35	0.86	-2.8	-71.01	-13.00	-58.01	V
217.2100	-83.19	1.74	5.35	-79.58	-13.00	-66.58	V
355.9200	-83.42	2.25	5.74	-79.93	-13.00	-66.93	V
490.7500	-81.51	2.67	5.8	-78.38	-13.00	-65.38	V
549.9200	-80.65	2.81	6.18	-77.28	-13.00	-64.28	V
777.8700	-76.76	3.3	6.15	-73.91	-13.00	-60.91	V
66.8600	-68.48	0.93	-1.89	-71.30	-13.00	-58.30	H
277.3500	-69.64	2	5.25	-66.39	-13.00	-53.39	H
413.1500	-78.87	2.45	5.88	-75.44	-13.00	-62.44	H
621.7000	-76.94	2.95	6.13	-73.76	-13.00	-60.76	H
771.0800	-73.86	3.27	6.35	-70.78	-13.00	-57.78	H
909.7900	-73.49	3.57	6.6	-70.46	-13.00	-57.46	H

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

Operation Mode: WCDMA / HSDPA Band II / TX / CH 9400 **Test Date:** August 23, 2015

Temperature: 21°C **Tested by:** Jason Lu

Humidity: 56 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
57.1600	-67.17	0.86	-2.8	-70.83	-13.00	-57.83	V
126.0300	-75.19	1.32	-1.69	-78.20	-13.00	-65.20	V
268.6200	-84.3	1.97	5.17	-81.10	-13.00	-68.10	V
411.2100	-82.37	2.45	5.9	-78.92	-13.00	-65.92	V
541.1900	-81.44	2.78	6.25	-77.97	-13.00	-64.97	V
855.4700	-78.55	3.42	6.4	-75.57	-13.00	-62.57	V
57.1600	-63.95	0.86	-2.8	-67.61	-13.00	-54.61	H
261.8300	-66.95	1.92	5.51	-63.36	-13.00	-50.36	H
404.4200	-77.76	2.42	5.95	-74.23	-13.00	-61.23	H
619.7600	-76.23	2.94	6.11	-73.06	-13.00	-60.06	H
711.9100	-76.74	3.15	6.35	-73.54	-13.00	-60.54	H
917.5500	-74.27	3.58	6.6	-71.25	-13.00	-58.25	H

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

Operation Mode: WCDMA / HSDPA Band II / TX / CH 9538 **Test Date:** August 23, 2015

Temperature: 21°C **Tested by:** Jason Lu

Humidity: 56 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
57.1600	-73.15	0.86	-2.8	-76.81	-13.00	-63.81	V
166.7700	-81.29	1.54	2.15	-80.68	-13.00	-67.68	V
247.2800	-85.36	1.83	5.57	-81.62	-13.00	-68.62	V
388.9000	-84.73	2.32	6	-81.05	-13.00	-68.05	V
481.0500	-82	2.64	5.52	-79.12	-13.00	-66.12	V
710.9400	-80.37	3.14	6.33	-77.18	-13.00	-64.18	V
57.1600	-66.18	0.86	-2.8	-69.84	-13.00	-56.84	H
287.0500	-81.67	2.01	5.37	-78.31	-13.00	-65.31	H
483.9600	-78	2.65	5.6	-75.05	-13.00	-62.05	H
723.5500	-77.83	3.17	6.47	-74.53	-13.00	-61.53	H
773.9900	-76.21	3.28	6.26	-73.23	-13.00	-60.23	H
992.2400	-74.66	3.72	6.2	-72.18	-13.00	-59.18	H

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

Operation Mode: WCDMA / HSDPA Band V / TX / CH 4132 **Test Date:** August 23, 2015

Temperature: 21°C **Tested by:** Jason Lu

Humidity: 56 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
57.1600	-67.32	0.86	-2.8	-70.98	-13.00	-57.98	V
126.0300	-72.84	1.32	-1.69	-75.85	-13.00	-62.85	V
186.1700	-77.59	1.62	3.85	-75.36	-13.00	-62.36	V
264.7400	-76.81	1.94	5.36	-73.39	-13.00	-60.39	V
464.5600	-81.9	2.61	5.84	-78.67	-13.00	-65.67	V
623.6400	-80.1	2.95	6.14	-76.91	-13.00	-63.91	V
82.3800	-64.41	1.06	0.16	-65.31	-13.00	-52.31	H
181.3200	-71.86	1.61	3.66	-69.81	-13.00	-56.81	H
244.3700	-68.55	1.82	5.47	-64.90	-13.00	-51.90	H
325.8500	-75.18	2.17	5.71	-71.64	-13.00	-58.64	H
494.6300	-78.3	2.68	5.84	-75.14	-13.00	-62.14	H
644.0100	-75.84	3.02	6.17	-72.69	-13.00	-59.69	H

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

Operation Mode: WCDMA / HSDPA Band V / TX / CH 4182 **Test Date:** August 23, 2015

Temperature: 21°C **Tested by:** Jason Lu

Humidity: 56 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
92.0800	-72.04	1.12	0.89	-72.27	-13.00	-59.27	V
263.7700	-79.36	1.93	5.41	-75.88	-13.00	-62.88	V
348.1600	-83.63	2.22	5.8	-80.05	-13.00	-67.05	V
436.4300	-82.33	2.52	5.87	-78.98	-13.00	-65.98	V
571.2600	-80.77	2.87	6.1	-77.54	-13.00	-64.54	V
759.4400	-79.11	3.22	6.29	-76.04	-13.00	-63.04	V
106.6300	-56.23	1.19	-1.26	-58.68	-13.00	-45.68	H
172.5900	-68.23	1.58	2.8	-67.01	-13.00	-54.01	H
254.0700	-74.08	1.86	5.66	-70.28	-13.00	-57.28	H
371.4400	-78.81	2.3	5.84	-75.27	-13.00	-62.27	H
551.8600	-77.42	2.81	6.16	-74.07	-13.00	-61.07	H
654.6800	-76.36	3.04	6.3	-73.10	-13.00	-60.10	H

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

Operation Mode: WCDMA / HSDPA Band V / TX / CH 4233 **Test Date:** August 23, 2015

Temperature: 21°C **Tested by:** Jason Lu

Humidity: 56 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
118.2700	-66.18	1.26	-2.03	-69.47	-13.00	-56.47	V
145.4300	-68.46	1.41	0.26	-69.61	-13.00	-56.61	V
254.0700	-78.36	1.86	5.66	-74.56	-13.00	-61.56	V
447.1000	-77.45	2.58	5.76	-74.27	-13.00	-61.27	V
630.4300	-80.01	2.98	6.19	-76.80	-13.00	-63.80	V
737.1300	-79.37	3.2	6.2	-76.37	-13.00	-63.37	V
123.1200	-61.13	1.29	-1.87	-64.29	-13.00	-51.29	H
271.5300	-64.91	1.98	5.13	-61.76	-13.00	-48.76	H
284.1400	-64.55	2.01	5.35	-61.21	-13.00	-48.21	H
466.5000	-77.9	2.61	5.82	-74.69	-13.00	-61.69	H
637.2200	-76.25	3	6.15	-73.10	-13.00	-60.10	H
769.1400	-73.59	3.27	6.39	-70.47	-13.00	-57.47	H

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

Operation Mode: WCDMA / HSUPA Band II / TX / CH 9262 **Test Date:** January 15, 2008

Temperature: 25°C **Tested by:** Ryan Chen

Humidity: 50 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
86.2600	-79.24	1.08	0.62	-79.70	-13.00	-66.70	V
213.3300	-87.95	1.71	5.4	-84.26	-13.00	-71.26	V
318.0900	-85.31	2.17	5.72	-81.76	-13.00	-68.76	V
494.6300	-83.86	2.68	5.84	-80.70	-13.00	-67.70	V
744.8900	-81.07	3.21	6.1	-78.18	-13.00	-65.18	V
779.8100	-80.72	3.3	6.11	-77.91	-13.00	-64.91	V
45.5200	-64.67	0.77	-8.09	-73.53	-13.00	-60.53	H
126.0300	-68.83	1.32	-1.69	-71.84	-13.00	-58.84	H
231.7600	-80.25	1.8	5.4	-76.65	-13.00	-63.65	H
440.3100	-78.98	2.53	5.89	-75.62	-13.00	-62.62	H
626.5500	-76.34	2.96	6.16	-73.14	-13.00	-60.14	H
811.8200	-75.19	3.35	6.2	-72.34	-13.00	-59.34	H

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

Operation Mode: WCDMA / HSUPA Band II / TX / CH 9400 **Test Date:** August 23, 2015

Temperature: 21°C **Tested by:** Jason Lu

Humidity: 56 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
57.1600	-73.15	0.86	-2.8	-76.81	-13.00	-63.81	V
319.0600	-84.9	2.17	5.71	-81.36	-13.00	-68.36	V
429.6400	-83.49	2.49	5.8	-80.18	-13.00	-67.18	V
562.5300	-82.12	2.85	6.01	-78.96	-13.00	-65.96	V
710.9400	-80.37	3.14	6.33	-77.18	-13.00	-64.18	V
905.9100	-79.24	3.55	6.6	-76.19	-13.00	-63.19	V
57.1600	-68.37	0.86	-2.8	-72.03	-13.00	-59.03	H
128.9400	-70.97	1.34	-1.5	-73.81	-13.00	-60.81	H
236.6100	-81.37	1.81	5.37	-77.81	-13.00	-64.81	H
335.5500	-82.5	2.17	5.75	-78.92	-13.00	-65.92	H
553.8000	-78.12	2.82	6.13	-74.81	-13.00	-61.81	H
691.5400	-78.05	3.13	6.48	-74.70	-13.00	-61.70	H

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

Operation Mode: WCDMA / HSUPA Band II / TX / CH 9538 **Test Date:** August 23, 2015

Temperature: 21°C **Tested by:** Jason Lu

Humidity: 56 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
86.2600	-77.12	1.08	0.62	-77.58	-13.00	-64.58	V
234.6700	-85.81	1.8	5.38	-82.23	-13.00	-69.23	V
355.9200	-84.99	2.25	5.74	-81.50	-13.00	-68.50	V
658.5600	-81.64	3.05	6.3	-78.39	-13.00	-65.39	V
773.0200	-79.11	3.28	6.29	-76.10	-13.00	-63.10	V
941.8000	-78.93	3.61	6.38	-76.16	-13.00	-63.16	V
57.1600	-65.9	0.86	-2.8	-69.56	-13.00	-56.56	H
274.4400	-82.25	1.99	5.19	-79.05	-13.00	-66.05	H
464.5600	-80.8	2.61	5.84	-77.57	-13.00	-64.57	H
695.4200	-78.52	3.12	6.44	-75.20	-13.00	-62.20	H
741.9800	-78.05	3.21	6.1	-75.16	-13.00	-62.16	H
855.4700	-76.41	3.42	6.4	-73.43	-13.00	-60.43	H

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

Operation Mode: WCDMA / HSUPA Band V / TX / CH 4132 **Test Date:** August 23, 2015

Temperature: 21°C **Tested by:** Jason Lu

Humidity: 56 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
57.1600	-68.72	0.86	-2.8	-72.38	-13.00	-59.38	V
155.1300	-73.67	1.45	1.08	-74.04	-13.00	-61.04	V
261.8300	-83.49	1.92	5.51	-79.90	-13.00	-66.90	V
351.0700	-83.57	2.23	5.79	-80.01	-13.00	-67.01	V
620.7300	-80.08	2.94	6.12	-76.90	-13.00	-63.90	V
705.1200	-80.7	3.13	6.34	-77.49	-13.00	-64.49	V
57.1600	-64.95	0.86	-2.8	-68.61	-13.00	-55.61	H
126.0300	-63.82	1.32	-1.69	-66.83	-13.00	-53.83	H
235.6400	-67.23	1.8	5.37	-63.66	-13.00	-50.66	H
266.6800	-79.96	1.96	5.27	-76.65	-13.00	-63.65	H
387.9300	-78.83	2.32	6	-75.15	-13.00	-62.15	H
564.4700	-77.31	2.86	6.03	-74.14	-13.00	-61.14	H

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

Operation Mode: WCDMA / HSUPA Band V / TX / CH 4182 **Test Date:** August 23, 2015

Temperature: 21°C **Tested by:** Jason Lu

Humidity: 56 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
68.8000	-65.72	0.95	-1.81	-68.48	-13.00	-55.48	V
144.4600	-66.28	1.41	0.17	-67.52	-13.00	-54.52	V
165.8000	-75.93	1.53	2.05	-75.41	-13.00	-62.41	V
344.2800	-82.21	2.19	5.8	-78.60	-13.00	-65.60	V
458.7400	-81.07	2.6	5.87	-77.80	-13.00	-64.80	V
575.1400	-80.61	2.88	6.06	-77.43	-13.00	-64.43	V
57.1600	-65.38	0.86	-2.8	-69.04	-13.00	-56.04	H
126.0300	-64.21	1.32	-1.69	-67.22	-13.00	-54.22	H
345.2500	-79.63	2.2	5.8	-76.03	-13.00	-63.03	H
437.4000	-77.83	2.52	5.88	-74.47	-13.00	-61.47	H
573.2000	-77.54	2.88	6.08	-74.34	-13.00	-61.34	H
718.7000	-76.16	3.16	6.46	-72.86	-13.00	-59.86	H

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

Operation Mode: WCDMA / HSUPA Band V / TX / CH 4233 **Test Date:** August 23, 2015

Temperature: 21°C **Tested by:** Jason Lu

Humidity: 56 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
57.1600	-61.49	0.86	-2.8	-65.15	-13.00	-52.15	V
86.2600	-67	1.08	0.62	-67.46	-13.00	-54.46	V
186.1700	-79.32	1.62	3.85	-77.09	-13.00	-64.09	V
264.7400	-70.9	1.94	5.36	-67.48	-13.00	-54.48	V
407.3300	-82.61	2.43	5.93	-79.11	-13.00	-66.11	V
552.8300	-80.91	2.82	6.14	-77.59	-13.00	-64.59	V
57.1600	-65.42	0.86	-2.8	-69.08	-13.00	-56.08	H
126.0300	-64.39	1.32	-1.69	-67.40	-13.00	-54.40	H
253.1000	-64.82	1.86	5.67	-61.01	-13.00	-48.01	H
456.8000	-72.39	2.6	5.84	-69.15	-13.00	-56.15	H
572.2300	-76.12	2.87	6.09	-72.90	-13.00	-59.90	H
747.8000	-74.96	3.2	6.1	-72.06	-13.00	-59.06	H

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

Above 1GHz

Operation Mode: GSM 850 / TX / CH 128 **Test Date:** August 23, 2015

Temperature: 21°C **Tested by:** Jason Lu

Humidity: 56 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
2470.000	-36.21	6.3	6.06	-36.45	-13.00	-23.45	V
4122.000	-38.9	8.47	9.5	-37.87	-13.00	-24.87	V
N/A							
2470.000	-42.93	6.3	6.06	-43.17	-13.00	-30.17	H
4122.000	-38.31	8.47	9.5	-37.28	-13.00	-24.28	H
N/A							

Remark:

1. *The emission behaviour belongs to narrowband spurious emission.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

Operation Mode: GSM 850 / TX / CH 190 **Test Date:** August 23, 2015

Temperature: 21°C **Tested by:** Jason Lu

Humidity: 56 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
1756.000	-43.15	5.21	5.84	-42.52	-13.00	-29.52	V
2512.000	-40.15	6.37	6.13	-40.39	-13.00	-27.39	V
N/A							
4185.000	-40.34	8.49	9.55	-39.28	-13.00	-26.28	H
5018.000	-44.78	9.42	10.61	-43.59	-13.00	-30.59	H
N/A							

Remark:

1. *The emission behaviour belongs to narrowband spurious emission.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

Operation Mode: GSM 850 / TX / CH 251 **Test Date:** August 23, 2015

Temperature: 21°C **Tested by:** Jason Lu

Humidity: 56 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
1756.000	-35.38	5.21	5.84	-34.75	-13.00	-21.75	V
4241.000	-41.55	8.54	9.59	-40.50	-13.00	-27.50	V
N/A							
1700.000	-43.91	5.11	5.94	-43.08	-13.00	-30.08	H
4241.000	-42.58	8.54	9.59	-41.53	-13.00	-28.53	H
N/A							

Remark:

1. *The emission behaviour belongs to narrowband spurious emission.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

Operation Mode: GPRS 850 / TX / CH 128 **Test Date:** August 23, 2015

Temperature: 21°C **Tested by:** Jason Lu

Humidity: 56 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
1770.000	-47.98	5.24	5.81	-47.41	-13.00	-34.41	V
4122.000	-42.13	8.47	9.5	-41.10	-13.00	-28.10	V
N/A							
1651.000	-42.86	5.05	6.03	-41.88	-13.00	-28.88	H
4122.000	-41.58	8.47	9.5	-40.55	-13.00	-27.55	H
N/A							

Remark:

1. *The emission behaviour belongs to narrowband spurious emission.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

Operation Mode: GPRS 850 / TX / CH 190 **Test Date:** August 23, 2015

Temperature: 21°C **Tested by:** Jason Lu

Humidity: 56 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
1672.000	-49.25	5.07	5.99	-48.33	-13.00	-35.33	V
2512.000	-44.71	6.37	6.13	-44.95	-13.00	-31.95	V
N/A							
1672.000	-44.5	5.07	5.99	-43.58	-13.00	-30.58	H
4185.000	-42.23	8.49	9.55	-41.17	-13.00	-28.17	H
N/A							

Remark:

1. *The emission behaviour belongs to narrowband spurious emission.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

Operation Mode: GPRS 850 / TX / CH 251 **Test Date:** August 23, 2015

Temperature: 21°C **Tested by:** Jason Lu

Humidity: 56 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
1700.000	-47.83	5.11	5.94	-47.00	-13.00	-34.00	V
2547.000	-45.08	6.42	6.22	-45.28	-13.00	-32.28	V
N/A							
1700.000	-44.57	5.11	5.94	-43.74	-13.00	-30.74	H
4241.000	-42.79	8.54	9.59	-41.74	-13.00	-28.74	H
N/A							

Remark:

1. *The emission behaviour belongs to narrowband spurious emission.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

Operation Mode: GSM 1900 / TX / CH 512 **Test Date:** August 23, 2015

Temperature: 21°C **Tested by:** Jason Lu

Humidity: 56 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
3702.000	-51.09	8.2	9.1	-50.19	-13.00	-37.19	V
7398.000	-36.76	12.09	12.54	-36.31	-13.00	-23.31	V
N/A							
3702.000	-48.59	8.2	9.1	-47.69	-13.00	-34.69	H
5550.000	-45.14	10.06	10.81	-44.39	-13.00	-31.39	H
N/A							

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

Operation Mode: GSM 1900 / TX / CH 661 **Test Date:** August 23, 2015

Temperature: 21°C **Tested by:** Jason Lu

Humidity: 56 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
3758.000	-48.13	8.23	9.16	-47.20	-13.00	-34.20	V
7517.000	-39.01	12.24	12.72	-38.53	-13.00	-25.53	V
N/A							
3758.000	-46.65	8.23	9.16	-45.72	-13.00	-32.72	H
5641.000	-48.75	10.18	10.83	-48.10	-13.00	-35.10	H
N/A							

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

Operation Mode: GSM 1900 / TX / CH 810 **Test Date:** August 23, 2015

Temperature: 21°C **Tested by:** Jason Lu

Humidity: 56 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
3821.000	-48.38	8.29	9.22	-47.45	-13.00	-34.45	V
5732.000	-47.49	10.24	10.85	-46.88	-13.00	-33.88	V
N/A							
3821.000	-43.87	8.29	9.22	-42.94	-13.00	-29.94	H
7370.000	-43.12	12.07	12.49	-42.70	-13.00	-29.70	H
N/A							

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

Operation Mode: GPRS 1900 / TX / CH 512 **Test Date:** August 23, 2015

Temperature: 21°C **Tested by:** Jason Lu

Humidity: 56 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
4353.000	-49.88	8.62	9.68	-48.82	-13.00	-35.82	V
7398.000	-37.13	12.09	12.54	-36.68	-13.00	-23.68	V
N/A							
3702.000	-51.06	8.2	9.1	-50.16	-13.00	-37.16	H
7398.000	-41.29	12.09	12.54	-40.84	-13.00	-27.84	H
N/A							

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

Operation Mode: GPRS 1900 / TX / CH 661 **Test Date:** August 23, 2015

Temperature: 21°C **Tested by:** Jason Lu

Humidity: 56 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
4353.000	-50.72	8.62	9.68	-49.66	-13.00	-36.66	V
7517.000	-41.05	12.24	12.72	-40.57	-13.00	-27.57	V
N/A							
3758.000	-49.2	8.23	9.16	-48.27	-13.00	-35.27	H
7517.000	-43.27	12.24	12.72	-42.79	-13.00	-29.79	H
N/A							

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

Operation Mode: GPRS 1900 / TX / CH 810 **Test Date:** August 23, 2015

Temperature: 21°C **Tested by:** Jason Lu

Humidity: 56 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
3821.000	-50.16	8.29	9.22	-49.23	-13.00	-36.23	V
5732.000	-48.21	10.24	10.85	-47.60	-13.00	-34.60	V
N/A							
3821.000	-46.51	8.29	9.22	-45.58	-13.00	-32.58	H
7377.000	-42.48	12.08	12.5	-42.06	-13.00	-29.06	H
N/A							

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

Operation Mode: WCDMA Band II / TX / CH 9262 **Test Date:** August 23, 2015

Temperature: 21°C **Tested by:** Jason Lu

Humidity: 56 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
3709.000	-49.68	8.21	9.11	-48.78	-13.00	-35.78	V
6964.000	-46.76	11.54	11.86	-46.44	-13.00	-33.44	V
N/A							
3709.000	-49.28	8.21	9.11	-48.38	-13.00	-35.38	H
6446.000	-45.88	11.14	11.26	-45.76	-13.00	-32.76	H
N/A							

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

Operation Mode: WCDMA Band II / TX / CH 9400 **Test Date:** August 23, 2015

Temperature: 21°C **Tested by:** Jason Lu

Humidity: 56 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
3765.000	-48.22	8.24	9.16	-47.30	-13.00	-34.30	V
7391.000	-43.68	12.09	12.53	-43.24	-13.00	-30.24	V
N/A							
4297.000	-49.91	8.6	9.64	-48.87	-13.00	-35.87	H
7412.000	-42.8	12.11	12.56	-42.35	-13.00	-29.35	H
N/A							

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

Operation Mode: WCDMA Band II / TX / CH 9538 **Test Date:** August 23, 2015

Temperature: 21°C **Tested by:** Jason Lu

Humidity: 56 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
3814.000	-49.19	8.28	9.21	-48.26	-13.00	-35.26	V
7370.000	-43.44	12.07	12.49	-43.02	-13.00	-30.02	V
N/A							
3821.000	-49.94	8.29	9.22	-49.01	-13.00	-36.01	H
6999.000	-45.02	11.54	11.9	-44.66	-13.00	-31.66	H
N/A							

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

Operation Mode: WCDMA Band V / TX / CH 4132 **Test Date:** August 23, 2015

Temperature: 21°C **Tested by:** Jason Lu

Humidity: 56 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
4318.000	-50.63	8.61	9.65	-49.59	-13.00	-36.59	V
6817.000	-46.82	11.34	11.68	-46.48	-13.00	-33.48	V
N/A							
3303.000	-51.41	7.46	8.31	-50.56	-13.00	-37.56	H
4353.000	-48.26	8.62	9.68	-47.20	-13.00	-34.20	H
N/A							

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

Operation Mode: WCDMA Band V / TX / CH 4182 **Test Date:** August 23, 2015

Temperature: 21°C **Tested by:** Jason Lu

Humidity: 56 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
1756.000	-49.27	5.21	5.84	-48.64	-13.00	-35.64	V
4899.000	-50.26	9.26	10.44	-49.08	-13.00	-36.08	V
N/A							
4353.000	-48.55	8.62	9.68	-47.49	-13.00	-34.49	H
6992.000	-45.32	11.54	11.89	-44.97	-13.00	-31.97	H
N/A							

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

Operation Mode: WCDMA Band V / TX / CH 4233 **Test Date:** August 23, 2015

Temperature: 21°C **Tested by:** Jason Lu

Humidity: 56 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
3912.000	-52.98	8.39	9.31	-52.06	-13.00	-39.06	V
6509.000	-48.34	11.06	11.31	-48.09	-13.00	-35.09	V
N/A							
2540.000	-53.36	6.41	6.2	-53.57	-13.00	-40.57	H
4353.000	-48.15	8.62	9.68	-47.09	-13.00	-34.09	H
N/A							

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

Operation Mode: WCDMA / HSDPA Band II / TX / CH 9262 **Test Date:** August 23, 2015

Temperature: 21°C **Tested by:** Jason Lu

Humidity: 56 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
3709.000	-49.27	8.21	9.11	-48.37	-13.00	-35.37	V
7188.000	-45.36	11.85	12.2	-45.01	-13.00	-32.01	V
N/A							
3114.000	-53.34	7.18	7.74	-52.78	-13.00	-39.78	H
6250.000	-46.63	10.98	11.1	-46.51	-13.00	-33.51	H
N/A							

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

Operation Mode: WCDMA / HSDPA Band II / TX / CH 9400 **Test Date:** August 23, 2015

Temperature: 21°C **Tested by:** Jason Lu

Humidity: 56 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
3765.000	-49.28	8.24	9.16	-48.36	-13.00	-35.36	V
7489.000	-44.22	12.25	12.68	-43.79	-13.00	-30.79	V
N/A							
3758.000	-49.81	8.23	9.16	-48.88	-13.00	-35.88	H
6824.000	-45.56	11.36	11.69	-45.23	-13.00	-32.23	H
N/A							

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

Operation Mode: WCDMA / HSDPA Band II / TX / CH 9538 **Test Date:** August 23, 2015

Temperature: 21°C **Tested by:** Jason Lu

Humidity: 56 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
3814.000	-48.69	8.28	9.21	-47.76	-13.00	-34.76	V
7370.000	-44.42	12.07	12.49	-44.00	-13.00	-31.00	V
N/A							
3821.000	-50.7	8.29	9.22	-49.77	-13.00	-36.77	H
7797.000	-43.5	12.41	13	-42.91	-13.00	-29.91	H
N/A							

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

Operation Mode: WCDMA / HSDPA Band V / TX / CH 4132 **Test Date:** August 23, 2015

Temperature: 21°C **Tested by:** Jason Lu

Humidity: 56 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
4129.000	-50.06	8.47	9.5	-49.03	-13.00	-36.03	V
7272.000	-44.26	11.99	12.34	-43.91	-13.00	-30.91	V
N/A							
3303.000	-51.09	7.46	8.31	-50.24	-13.00	-37.24	H
4353.000	-49.01	8.62	9.68	-47.95	-13.00	-34.95	H
N/A							

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

Operation Mode: WCDMA / HSDPA Band V / TX / CH 4182 **Test Date:** August 23, 2015

Temperature: 21°C **Tested by:** Jason Lu

Humidity: 56 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
4185.000	-52.03	8.49	9.55	-50.97	-13.00	-37.97	V
6236.000	-49.81	11.05	11.09	-49.77	-13.00	-36.77	V
N/A							
2638.000	-49.47	6.58	6.46	-49.59	-13.00	-36.59	2638.000
4381.000	-48.46	8.63	9.7	-47.39	-13.00	-34.39	4381.000
N/A							

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

Operation Mode: WCDMA / HSDPA Band V / TX / CH 4233 **Test Date:** August 23, 2015

Temperature: 21°C **Tested by:** Jason Lu

Humidity: 56 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
2435.000	-53.13	6.24	6.01	-53.36	-13.00	-40.36	V
4227.000	-51.45	8.52	9.58	-50.39	-13.00	-37.39	V
N/A							
2673.000	-51.49	6.67	6.55	-51.61	-13.00	-38.61	H
4353.000	-48.75	8.62	9.68	-47.69	-13.00	-34.69	H
N/A							

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

Operation Mode: WCDMA / HSUPA Band II / TX / CH 9262 **Test Date:** August 23, 2015

Temperature: 21°C **Tested by:** Jason Lu

Humidity: 56 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
3702.000	-49.18	8.2	9.1	-48.28	-13.00	-35.28	V
7412.000	-43.98	12.11	12.56	-43.53	-13.00	-30.53	V
N/A							
2435.000	-53.12	6.24	6.01	-53.35	-13.00	-40.35	H
6257.000	-47.51	10.95	11.11	-47.35	-13.00	-34.35	H
N/A							

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

Operation Mode: WCDMA / HSUPA Band II / TX / CH 9400 **Test Date:** August 23, 2015

Temperature: 21°C **Tested by:** Jason Lu

Humidity: 56 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
3765.000	-48.64	8.24	9.16	-47.72	-13.00	-34.72	V
7356.000	-43.63	12.07	12.47	-43.23	-13.00	-30.23	V
N/A							
3765.000	-50.12	8.24	9.16	-49.20	-13.00	-36.20	H
6215.000	-46.82	11.15	11.07	-46.90	-13.00	-33.90	H
N/A							

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

Operation Mode: WCDMA / HSUPA Band II / TX / CH 9538 **Test Date:** August 23, 2015

Temperature: 21°C **Tested by:** Jason Lu

Humidity: 56 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
3814.000	-49.28	8.28	9.21	-48.35	-13.00	-35.35	V
6530.000	-47.77	11.1	11.34	-47.53	-13.00	-34.53	V
N/A							
3814.000	-50.06	8.28	9.21	-49.13	-13.00	-36.13	H
7279.000	-43.49	12	12.35	-43.14	-13.00	-30.14	H
N/A							

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

Operation Mode: WCDMA / HSUPA Band V / TX / CH 4132 **Test Date:** August 23, 2015

Temperature: 21°C **Tested by:** Jason Lu

Humidity: 56 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
4129.000	-49.19	8.47	9.5	-48.16	-13.00	-35.16	V
7272.000	-44.65	11.99	12.34	-44.30	-13.00	-31.30	V
N/A							
3303.000	-51.45	7.46	8.31	-50.60	-13.00	-37.60	H
4353.000	-47.61	8.62	9.68	-46.55	-13.00	-33.55	H
N/A							

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

Operation Mode: WCDMA / HSUPA Band V / TX / CH 4182 **Test Date:** August 23, 2015

Temperature: 21°C **Tested by:** Jason Lu

Humidity: 56 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
2407.000	-55.71	6.19	5.97	-55.93	-13.00	-42.93	V
7496.000	-43.11	12.26	12.69	-42.68	-13.00	-29.68	V
N/A							
1763.000	-52.33	5.22	5.83	-51.72	-13.00	-38.72	H
4381.000	-47.49	8.63	9.7	-46.42	-13.00	-33.42	H
N/A							

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

Operation Mode: WCDMA / HSUPA Band V / TX / CH 4233 **Test Date:** August 23, 2015

Temperature: 21°C **Tested by:** Jason Lu

Humidity: 56 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
3128.000	-54.5	7.2	7.78	-53.92	-13.00	-40.92	V
4227.000	-50.08	8.52	9.58	-49.02	-13.00	-36.02	V
N/A							
1770.000	-48.33	5.24	5.81	-47.76	-13.00	-34.76	H
4227.000	-48.93	8.52	9.58	-47.87	-13.00	-34.87	H
N/A							

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

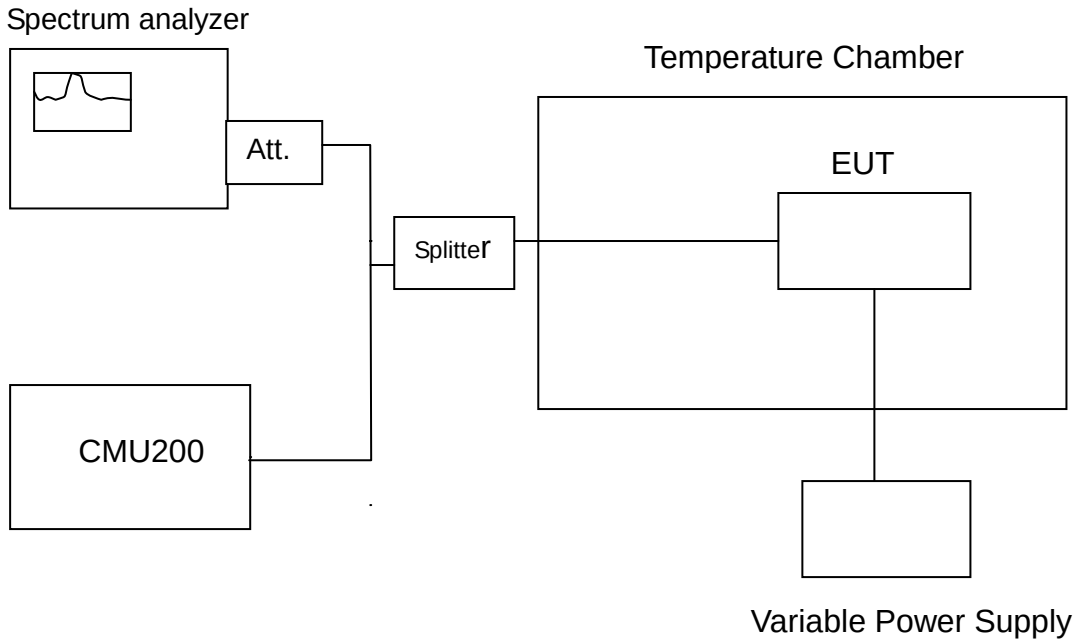
7.7 FREQUENCY STABILITY V.S. TEMPERATURE MEASUREMENT

LIMIT

According to FCC §2.1055, FCC §22.355, .FCC §24.235.

Frequency Tolerance: 2.5 ppm

Test Configuration



Remark: *Measurement setup for testing on Antenna connector*

TEST PROCEDURE

The equipment under test was connected to an external AC or DC power supply and input rated voltage. RF output was connected to a frequency counter or spectrum analyzer via feed through attenuators. The EUT was placed inside the temperature chamber. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and measure EUT 20°C operating frequency as reference frequency. Turn EUT off and set the chamber temperature to –30°C. After the temperature stabilized for approximately 30 minutes recorded the frequency. Repeat step measure with 10°C increased per stage until the highest temperature of +50°C reached.

TEST RESULTS

No non-compliance noted.

Reference Frequency: GSM Mid Channel 836.6 MHz @ 20°C				
Limit: ± 2.5 ppm = 2090 Hz				
Power Supply Vdc	Environment Temperature (°C)	Frequency (Hz)	Delta (Hz)	Limit (Hz)
3.8	50	836600001	8	2091
	40	836599986	-7	
	30	836599997	4	
	20	836599993	0	
	10	836599984	-9	
	0	836600011	18	
	-10	836600004	11	
	-20	836599976	-17	
	-30	836599997	4	

Reference Frequency: GSM Mid Channel 1880 MHz @ 20°C				
Limit: ± 2.5 ppm = 4700 Hz				
Power Supply Vdc	Environment Temperature (°C)	Frequency (Hz)	Delta (Hz)	Limit (Hz)
3.8	50	1880000016	15	4700
	40	1880000012	11	
	30	1880000017	16	
	20	1880000001	0	
	10	1879999991	-10	
	0	1879999999	-2	
	-10	1880000009	8	
	-20	1880000023	22	
	-30	1879999983	-18	

Reference Frequency: GPRS Mid Channel 836.6 MHz @ 20°C				
Limit: +/- 2.5 ppm = 2090 Hz				
Power Supply Vdc	Environment Temperature (°C)	Frequency (Hz)	Delta (Hz)	Limit (Hz)
3.8	50	836599992	-16	2091
	40	836600025	17	
	30	836599991	-17	
	20	836600008	0	
	10	836599992	-16	
	0	836600003	-5	
	-10	836599998	-10	
	-20	836600009	1	
	-30	836600007	-1	

Reference Frequency: GPRS Mid Channel 1880 MHz @ 20°C				
Limit: ± 2.5 ppm = 4700 Hz				
Power Supply Vdc	Environment Temperature (°C)	Frequency (Hz)	Delta (Hz)	Limit (Hz)
3.8	50	1879999977	-29	4700
	40	1879999982	-24	
	30	1879999994	-12	
	20	1880000006	0	
	10	1880000001	-5	
	0	1879999983	-23	
	-10	1879999991	-15	
	-20	1879999999	-7	
	-30	1879999986	-20	

Reference Frequency: WCDMA Band II Mid Channel 1880 MHz @ 20°C				
Limit: ± 2.5 ppm = 4700 Hz				
Power Supply Vdc	Environment Temperature (°C)	Frequency (Hz)	Delta (Hz)	Limit (Hz)
3.7	50	1880000004	8	4700
	40	1879999988	-8	
	30	1879999983	-13	
	20	1879999996	0	
	10	1879999997	1	
	0	1879999994	-2	
	-10	1879999981	-15	
	-20	1880000009	13	
	-30	1879999985	-11	

Reference Frequency: WCDMA Band V Mid Channel 836.4 MHz @ 20°C				
Limit: +/- 2.5 ppm = 2090 Hz				
Power Supply Vdc	Environment Temperature (°C)	Frequency (Hz)	Delta (Hz)	Limit (Hz)
3.7	50	836400017	10	2091
	40	836399977	-30	
	30	836400013	6	
	20	836400007	0	
	10	836399982	-25	
	0	836400018	11	
	-10	836400020	13	
	-20	836399994	-13	
	-30	836399982	-25	

Reference Frequency: WCDMA / HSDPA Band II Mid Channel 1880 MHz @ 20°C				
Limit: ± 2.5 ppm = 4700 Hz				
Power Supply Vdc	Environment Temperature (°C)	Frequency (Hz)	Delta (Hz)	Limit (Hz)
3.7	50	1880000015	6	4700
	40	1880000016	7	
	30	1880000015	6	
	20	1880000009	0	
	10	1880000014	5	
	0	1879999975	-34	
	-10	1880000009	0	
	-20	1879999979	-30	
	-30	1879999995	-14	

Reference Frequency: WCDMA / HSDPA Band V Mid Channel 836.4 MHz @ 20°C				
Limit: +/- 2.5 ppm = 2090 Hz				
Power Supply Vdc	Environment Temperature (°C)	Frequency (Hz)	Delta (Hz)	Limit (Hz)
3.7	50	836399992	-16	2091
	40	836399976	-32	
	30	836400006	-2	
	20	836400008	0	
	10	836400003	-5	
	0	836400006	-2	
	-10	836399993	-15	
	-20	836400004	-4	
	-30	836400008	0	

Reference Frequency: WCDMA / HSUPA Band II Mid Channel 1880 MHz @ 20°C				
Limit: ± 2.5 ppm = 4700 Hz				
Power Supply Vdc	Environment Temperature (°C)	Frequency (Hz)	Delta (Hz)	Limit (Hz)
3.7	50	1880000016	19	4700
	40	1880000024	27	
	30	1880000013	16	
	20	1879999997	0	
	10	1880000019	22	
	0	1879999985	-12	
	-10	1879999981	-16	
	-20	1880000004	7	
	-30	1880000004	7	

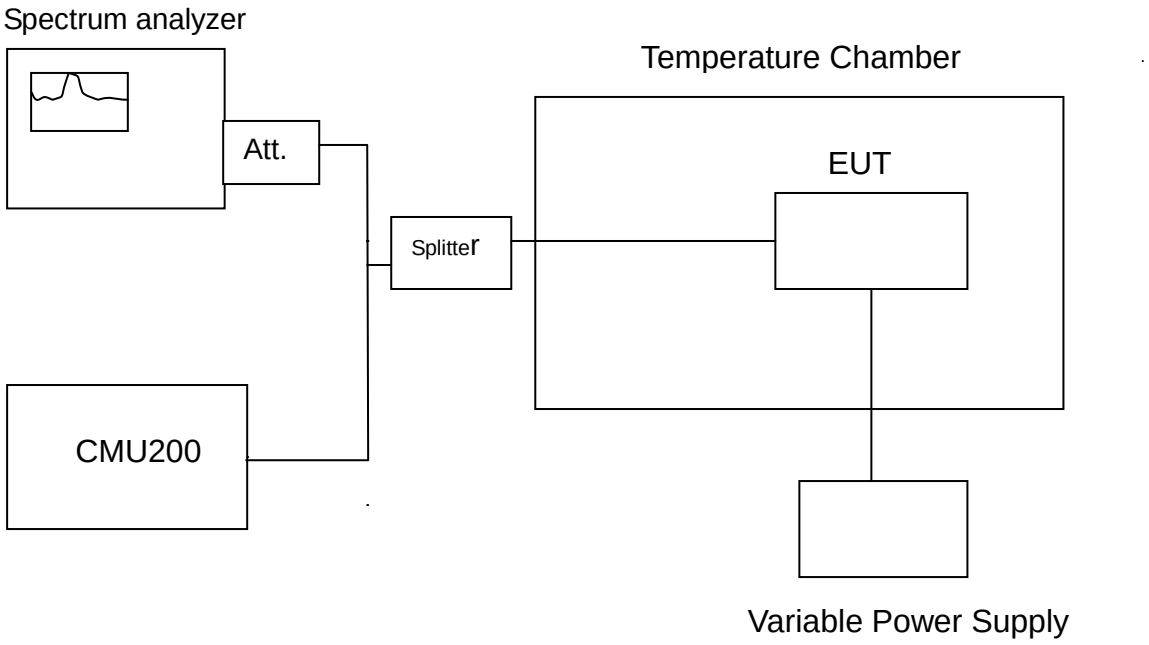
Reference Frequency: WCDMA / HSUPA Band V Mid Channel 836.4 MHz @ 20°C				
Limit: +/- 2.5 ppm = 2090 Hz				
Power Supply Vdc	Environment Temperature (°C)	Frequency (Hz)	Delta (Hz)	Limit (Hz)
3.7	50	836399980	-11	2091
	40	836400016	25	
	30	836399990	-1	
	20	836399991	0	
	10	836399994	3	
	0	836399982	-9	
	-10	836399998	7	
	-20	836400023	32	
	-30	836399980	-11	

7.8 FREQUENCY STABILITY V.S. VOLTAGE MEASUREMENT

LIMIT

According to FCC §2.1055, FCC §22.355, .FCC §24.235,

Test Configuration



Remark: *Measurement setup for testing on Antenna connector.*

TEST PROCEDURE

Set chamber temperature to 20°C. Use a variable AC power supply / DC power source to power the EUT and set the voltage to rated voltage. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and recorded the frequency.

Reduce the input voltage to specify extreme voltage variation (± 10%) and endpoint, record the maximum frequency change.

TEST RESULTS

No non-compliance noted.

Reference Frequency: GSM Mid Channel 836.6 MHz @ 20°C				
Limit: ± 2.5 ppm = 2090Hz				
Power Supply Vdc	Environment Temperature (°C)	Frequency (Hz)	Delta (Hz)	Limit (Hz)
4.37	20	836599985	-18	2091
3.8		836600003	0	
3.23 (End Point)		836600004	1	

Reference Frequency: GSM Mid Channel 1880 MHz @ 20°C				
Limit: ± 2.5 ppm = 4700 Hz				
Power Supply Vdc	Environment Temperature (°C)	Frequency (Hz)	Delta (Hz)	Limit (Hz)
4.37	20	1879999987	-6	4700
3.8		1879999993	0	
3.23 (End Point)		1880000019	26	

Reference Frequency: GPRS Mid Channel 836.6 MHz @ 20°C				
Limit: ± 2.5 ppm = 2090Hz				
Power Supply Vdc	Environment Temperature (°C)	Frequency (Hz)	Delta (Hz)	Limit (Hz)
4.37	20	836600009	10	2091
3.8		836599999	0	
3.23		836599996	-3	

Reference Frequency: GPRS Mid Channel 1880 MHz @ 20°C				
Limit: ± 2.5 ppm = 4700 Hz				
Power Supply Vdc	Environment Temperature (°C)	Frequency (Hz)	Delta (Hz)	Limit (Hz)
4.37	20	1879999980	-10	4700
3.8		1879999990	0	
3.23		1880000002	12	

Reference Frequency: WCDMA Band II Mid Channel 1880 MHz @ 20°C				
Limit: ± 2.5 ppm = 4700 Hz				
Power Supply Vdc	Environment Temperature (°C)	Frequency (Hz)	Delta (Hz)	Limit (Hz)
4.255	20	1880000003	2	4700
3.7		1880000001	0	
3.145		1880000014	13	

Reference Frequency: WCDMA Band V Mid Channel 836.4 MHz @ 20°C				
Limit: ± 2.5 ppm = 2090Hz				
Power Supply Vdc	Environment Temperature (°C)	Frequency (Hz)	Delta (Hz)	Limit (Hz)
4.255	20	836400004	1	2091
3.7		836400003	0	
3.145		836400014	11	

Reference Frequency: WCDMA HSDPA Band II Mid Channel 1880 MHz @ 20°C				
Limit: ± 2.5 ppm = 4700 Hz				
Power Supply Vdc	Environment Temperature (°C)	Frequency (Hz)	Delta (Hz)	Limit (Hz)
4.255	20	1880000010	1	4700
3.7		1880000009	0	
3.145		1880000009	0	

Reference Frequency: WCDMA HSDPA Band V Mid Channel 836.4 MHz @ 20°C				
Limit: ± 2.5 ppm = 2090Hz				
Power Supply Vdc	Environment Temperature (°C)	Frequency (Hz)	Delta (Hz)	Limit (Hz)
4.255	20	836400011	8	2091
3.7		836400003	0	
3.145		836399992	-11	

Reference Frequency: WCDMA HSUPA Band II Mid Channel 1880 MHz @ 20°C				
Limit: ± 2.5 ppm = 4700 Hz				
Power Supply Vdc	Environment Temperature (°C)	Frequency (Hz)	Delta (Hz)	Limit (Hz)
4.255	20	1879999989	-4	4700
3.7		1879999993	0	
3.145		1880000001	8	

Reference Frequency: WCDMA HSUPA Band V Mid Channel 836.4 MHz @ 20°C				
Limit: ± 2.5 ppm = 2090Hz				
Power Supply Vdc	Environment Temperature (°C)	Frequency (Hz)	Delta (Hz)	Limit (Hz)
4.255	20	836399995	-3	2091
3.7		836399998	0	
3.145		836400006	8	