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

TEST REPORT

For

GPS Controller (GPS Receiver)

Model: Forge series

Trade Name: BAP

Issued to

BAP Precision Ltd.
1F., No. 5, Ln. 147, Chengzhang 1st St., Zhongli City,
Taoyuan County 320, Taiwan, R.O.C.

Issued by

Compliance Certification Services Inc.
No.11, Wu-Gong 6th Rd., Wugu Industrial Park,
New Taipei City 248, Taiwan (R.O.C.)
http://www.ccsrf.com
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Issued Date: August 21, 2012

Testing Laboratory
1309

Revision History

Rev.		Issue Date		Revisions	Effect Page	Revised By
00		August 21, 2012		Initial Issue	ALL	Angel Cheng

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1. TEST RESULT CERTIFICATION

Applicant:	BAP Precision Ltd. 1F., No. 5, Ln. 147, Chengzhang 1st St., Zhongli City, Taoyuan County 320, Taiwan, R.O.C.
Equipment Under Test:	GPS Controller (GPS Receiver)
Trade Name:	BAP
Model Number:	Forge series
Date of Test:	August 7 ~ 14, 2012

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
Section Manager
Compliance Certification Services Inc.

Reviewed by:

Gina Lo
Section Manager
Compliance Certification Services Inc.

2. EUT DESCRIPTION

Product	GPS Controller (GPS Receiver)
Trade Name	BAP
Model Number	Forge series
Model Discrepancy	N/A
Received Date	July 23, 2012
Power Supply	1. Powered from Adapter Brand: ENG Model: 3A-182WP05 I/P: 100-240V, 50-60Hz, 0.6A O/P: 5.0V, 3.0A 2. Battery: Brand: BAP Model: Series Batt Rating: 3.7V 400mAh
Frequency Range	GPRS / EDGE: 850: 824.2 ~ 848.8 MHz GPRS / EDGE: 1900: 1850.2 ~ 1909.8 MHz WCDMA / HSDPA / HSUPA / HSPA+ Band II: 1852.4 ~ 1907.6 MHz WCDMA / HSDPA / HSUPA / HSPA+ Band V: 826.4 ~ 846.6MHz
Transmit Power (ERP & EIRP Power)	GPRS 850: 26.76 dBm GPRS 1900: 32.03 dBm EDGE 850: 21.43 dBm EDGE 1900: 28.57 dBm WCDMA Band II: 27.04 dBm WCDMA Band V: 19.97 dBm HSDPA Band II: 26.67 dBm HSDPA Band V: 20.6 dBm HSUPA Band II: 27.24 dBm HSUPA Band V: 20.62 dBm HSDP+ Band II: 24.58 dBm HSPA+ Band V: 17.68 dBm
Cellular Phone Protocol	GSM: GMSK GPRS: GMSK EDGE: 8PSK WCDMA: Quadrature Phase Shift Keying (QPSK) with Root-raised cosine pulse shaping filters (roll off = 0.22)
Type of Emission	GPRS 850: 245KGXW--- GPRS 1900: 247KGXW--- EDGE 850: 248KG7W--- EDGE 1900: 246KG7W--- WCDMA Band II: 4M14F9W--- WCDMA Band V: 4M14F9W--- WCDMA HSDPA Band II: 4M16F9W--- WCDMA HSDPA Band V: 4M16F9W--- WCDMA HSUPA Band II: 4M17F9W--- WCDMA HSUPA Band V: 4M14F9W--- WCDMA HSPA+ Band II: 4M15F9W--- WCDMA HSPA+ Band V: 4M14F9W---

Antenna Gain	GPRS / EDGE 850: -0.43 dBi GPRS / EDGE 1900: 1.74 dBi WCDMA band II: 1.74 dBi WCDMA band V: -0.43 dBi
Antenna Type	Penta-Band 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: **ZK7FORGESERIES** 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 C63.4: 2003, TIA/EIA-603-C: 2004 and FCC CFR 47, Part 2, PART 22 SUBPART H AND PART 24 SUBPART E

3.1EUT 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.

3.2EUT EXERCISE

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

3.3GENERAL TEST PROCEDURES

Conducted Emissions

The EUT is placed on the turntable, which is 0.8 m above ground plane. According to the requirements in Section 13.1.4.1 of ANSI C63.4: 2003.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 0.8 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 in Section 13.1.4.1 of ANSI C63.4: 2003.

3.4DESCRIPTION OF TEST MODES

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

EUT staying in continuous transmitting mode was programmed.

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

GPRS / EDGE 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.

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

WCDMA HSPA+ 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

in lie-down (Y axis) for GPRS 850 / EGPRS850 / GPRS 1900 / EGPRS 1900 / WCDMA Band II / HSDPA Band II / HSUPA Band II / HSPA+ Band II slide mode

and in lie-down (X axis) for WCDMA Band V / HSDPA Band V / HSUPA Band V / HSPA+ Band V slide mode.

4. INSTRUMENT CALIBRATION

4.1MEASURING 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.

4.2MEASUREMENT 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	MY43360131	03/16/2013
Power Meter	Anritsu	ML2495A	1012009	04/26/2013
Power Sensor	Anritsu	MA2411A	0917072	04/26/2013

Wugu 966 Chamber A				
Name of Equipment	**Manufacturer**	**Model**	**Serial Number**	**Calibration Due**
Spectrum Analyzer	Agilent	E4446A	US42510252	11/02/2012
EMI Test Receiver	R&S	ESCI	100064	02/16/2013
Pre-Amplifier	Mini-Circults	ZFL-1000LN	SF350700823	01/12/2013
Pre-Amplifier	MITEQ	AFS44-00102650-42-10P-44	1415367	11/19/2012
Bilog Antenna	Sunol Sciences	JB3	A030105	10/03/2012
Bilog Antenna	Sunol Sciences	JB3	A030205	10/03/2012
Horn Antenna	EMCO	3117	00055165	01/11/2013
Horn Antenna	EMCO	3117	00055167	12/05/2012
Horn Antenna	EMCO	3116	00026370	10/12/2012
Loop Antenna	EMCO	6502	8905/2356	06/10/2013
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
Site NSA	CCS	N/A	N/A	12/25/2012
Site NSA	CCS	N/A	N/A	12/25/2012
Test S/W	EZ-EMC (CCS-3A1RE)			

Conducted Emission room # A				
Name of Equipment	**Manufacturer**	**Model**	**Serial Number**	**Calibration Due**
EMI Test Receiver	R&S	ESHS10	843743/015	04/30/2013
LISN	SCHWARZBECK	NSLK 8127	8127-541	12/17/2012
LISN	SCHAFFNER	NNB 41	03/10013	N.C.R.
Test S/W	CCS-3A1-CE			

4.3 MEASUREMENT UNCERTAINTY

PARAMETER	UNCERTAINTY
Powerline Conducted Emission	+/- 1.2159
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, Wu-Gong 6th Rd., Wugu Industrial Park, New Taipei City 248, 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 C63.4 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, biconical, 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.”

5.3TABLE 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	Series No.	FCC ID	Data Cable	Power Cord
1.	LCD Monitor	DELL	2407WFPb	CN-0YY528-46633-76I-1CDS	FCC DoC	Shielded, 1.8m with 2 cores	Unshielded, 1.8m
2.	USB Mouse	HP	M-UAL-96	570580-001	FCC DoC	Shielded, 1.8m	N/A
3.	Notebook PC	HP	dv6-1332TX	CNF9491GPS	PD9112BNHU	N/A	AC I/P: Unshielded, 1.8m DC O/P: Unshielded, 1.8m with a core
4.	SIM Card	N/A	N/A	N/A	N/A	N/A	N/A
5.	SD Card	Transcend.	N/A	N/A	N/A	N/A	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.*

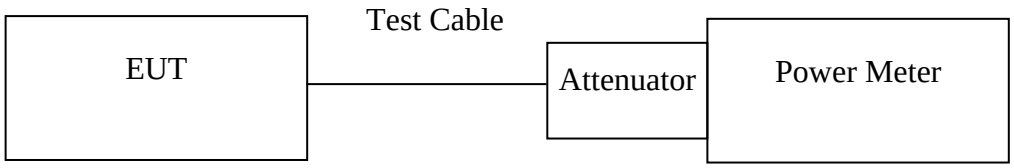
7. FCC PART 22 & 24 REQUIREMENTS

7.1PEAK 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
GPRS 850	128	824.20	32.34	1.71396
	190	836.60	32.45	1.75792
	251	848.80	32.59	1.81552
EDGE 850	128	824.20	26.78	0.47643
	190	836.60	26.79	0.47753
	251	848.80	26.55	0.45186

Test Mode	CH	Frequency (MHz)	Peak Power (dBm)	Output Power W
GPRS 1900	512	1850.20	28.73	0.74645
	661	1880.00	28.81	0.76033
	810	1909.80	28.67	0.73621
EDGE 1900	512	1850.20	24.72	0.29648
	661	1880.00	24.46	0.27925
	810	1909.80	24.43	0.27733

Test Mode	CH	Frequency (MHz)	Peak Power (dBm)	Output Power W
WCDMA (BAND II)	9262	1852.40	25.84	0.38371
	9400	1880.00	25.44	0.34995
	9538	1907.60	25.31	0.33963
WCDMA (BAND V)	4132	826.40	26.46	0.44259
	4182	836.40	26.66	0.46345
	4233	846.60	26.74	0.47206

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 / HSDPA (BAND II)	9262	1852.40	25.80	0.38019
	9400	1880.00	25.37	0.34435
	9538	1907.60	25.28	0.33729
WCDMA / HSDPA (BAND V)	4132	826.40	26.36	0.43251
	4182	836.40	26.65	0.46238
	4233	846.60	26.58	0.45499

Test Mode	CH	Frequency (MHz)	Peak Power (dBm)	Output Power W
WCDMA / HSUPA (BAND II)	9262	1852.40	25.68	0.36983
	9400	1880.00	25.23	0.33343
	9538	1907.60	25.19	0.33037
WCDMA / HSUPA (BAND V)	4132	826.40	26.28	0.42462
	4182	836.40	26.51	0.44771
	4233	846.60	26.54	0.45082

Test Mode	CH	Frequency (MHz)	Peak Power (dBm)	Output Power W
WCDMA / HSPA+ (BAND II)	9262	1852.40	25.61	0.36392
	9400	1880.00	25.22	0.33266
	9538	1907.60	25.17	0.32885
WCDMA / HSPA+ (BAND V)	4132	826.40	26.23	0.41976
	4182	836.40	26.47	0.44361
	4233	846.60	26.51	0.44771

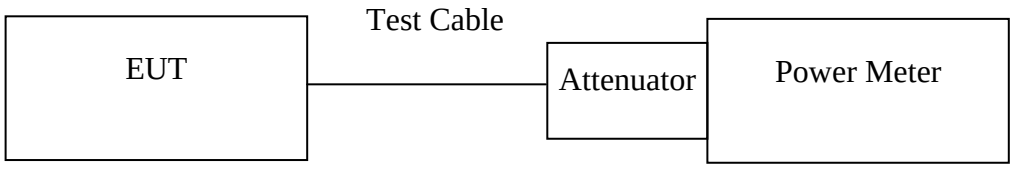
Remark: *The value of factor includes both the loss of cable and external attenuator*

7.2AVERAGE 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
GPRS 850	128	824.20	29.33	0.85698
	190	836.60	29.44	0.87896
	251	848.80	29.58	0.90776
EDGE 850	128	824.20	23.77	0.23822
	190	836.60	23.78	0.23876
	251	848.80	23.54	0.22593

Test Mode	CH	Frequency (MHz)	AVG Power (dBm)	Output Power W
GPRS 1900	512	1850.20	25.72	0.37322
	661	1880.00	25.80	0.38016
	810	1909.80	25.66	0.36810
EDGE 1900	512	1850.20	21.71	0.14824
	661	1880.00	21.45	0.13963
	810	1909.80	21.42	0.13867

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	22.65	0.18408
	9400	1880.00	22.28	0.16904
	9538	1907.60	22.48	0.17701
WCDMA (BAND V)	4132	826.40	22.94	0.19679
	4182	836.40	23.11	0.20464
	4233	846.60	22.91	0.19543

Test Mode	CH	Frequency (MHz)	AVG Power (dBm)	Output Power W
WCDMA / HSDPA (BAND II)	9262	1852.40	22.33	0.17100
	9400	1880.00	22.19	0.16558
	9538	1907.60	22.39	0.17338
WCDMA / HSDPA (BAND V)	4132	826.40	22.41	0.17418
	4182	836.40	22.41	0.17418
	4233	846.60	22.54	0.17947

Test Mode	CH	Frequency (MHz)	Peak Power (dBm)	Output Power W
WCDMA / HSUPA (BAND II)	9262	1852.40	22.29	0.16943
	9400	1880.00	22.16	0.16444
	9538	1907.60	22.19	0.16558
WCDMA / HSUPA (BAND V)	4132	826.40	22.40	0.17378
	4182	836.40	22.39	0.17338
	4233	846.60	22.43	0.17498

Test Mode	CH	Frequency (MHz)	Peak Power (dBm)	Output Power W
WCDMA / HSPA+ (BAND II)	9262	1852.40	22.28	0.16904
	9400	1880.00	22.03	0.15959
	9538	1907.60	22.28	0.16904
WCDMA / HSPA+ (BAND V)	4132	826.40	22.39	0.17338
	4182	836.40	22.37	0.17258
	4233	846.60	22.38	0.17298

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

7.3ERP & EIRP MEASUREMENT

LIMIT

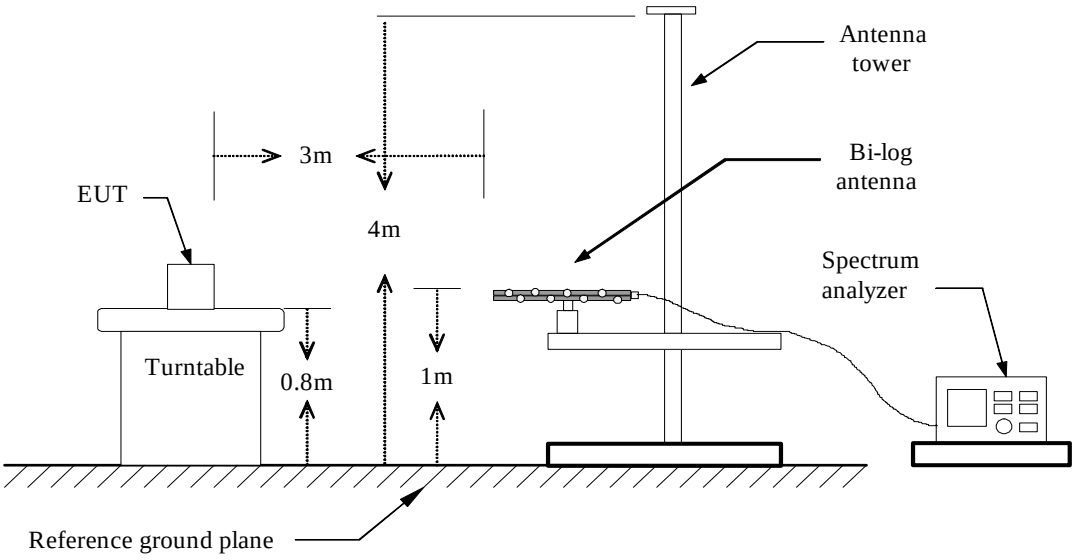
According to FCC §2.1046

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

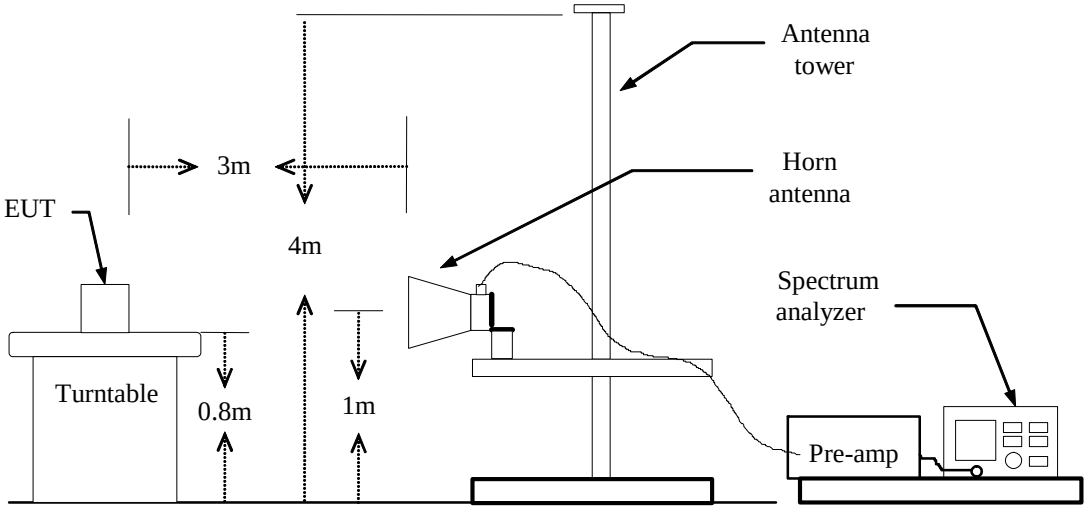
FCC 24.232(b): The equivalent Isotropic Radiated Power (EIRP) must not exceed 2 Watts.

Test Configuration

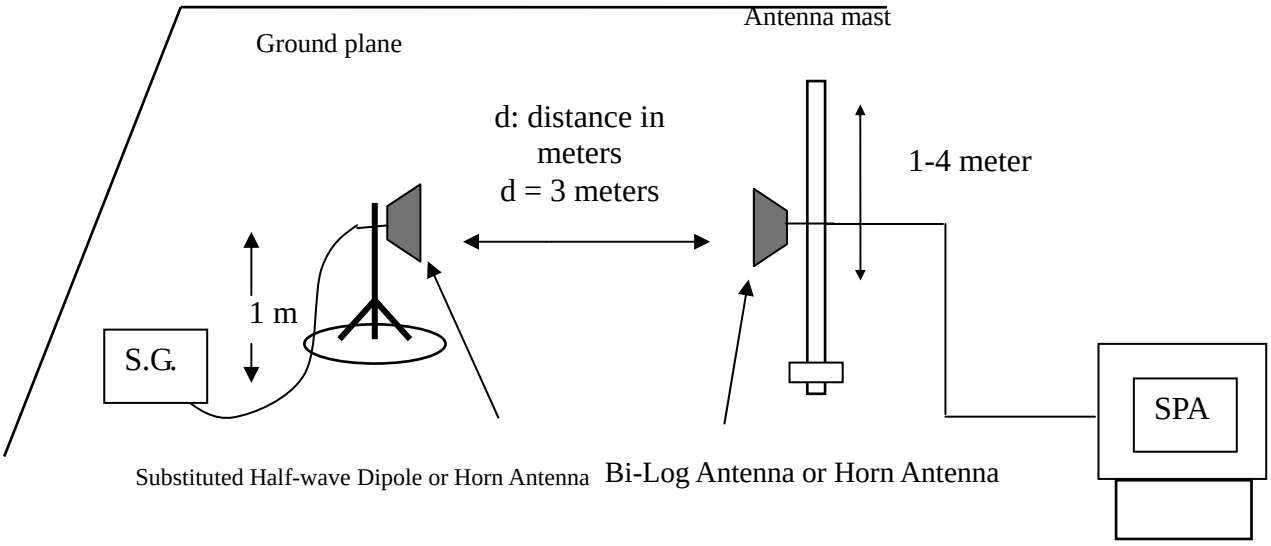
Below 1 GHz



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 3MHz and the average bandwidth was set to 3MHz. 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 (dBd) – Cable (dB)
EIRP = S.G. output (dBm) + Antenna Gain (dBi) – Cable (dB)

TEST RESULTS

No non-compliance noted.

GPRS 850 TEST DATA

Channel	Frequency (MHz)	Antenna Pol.	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)
128	824.20	V	23.68	3.39	6.24	26.53	38.45	-11.92
	824.20	H	22.14	3.39	6.24	24.99	38.45	-13.46
190	836.60	V	22.12	3.4	6.36	25.08	38.45	-13.37
	836.60	H	21.73	3.4	6.36	24.69	38.45	-13.76
251	848.80	V	23.76	3.4	6.4	***26.76**	38.45	-11.69
	848.80	H	22.56	3.4	6.4	25.56	38.45	-12.89

GPRS 1900 TEST DATA

Channel	Frequency (MHz)	Antenna Pol.	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)
512	1850.20	V	31.73	5.37	5.67	***32.03**	33.00	-0.97
	1850.20	H	28.19	5.37	5.67	28.49	33.00	-4.51
661	1880.00	V	31.62	5.42	5.62	31.82	33.00	-1.18
	1880.00	H	28.71	5.42	5.62	28.91	33.00	-4.09
810	1909.80	V	31.13	5.48	5.56	31.21	33.00	-1.79
	1909.80	H	28.7	5.48	5.56	28.78	33.00	-4.22

EDGE 850 Test Data

Channel	Frequency (MHz)	Antenna Pol.	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)
128	824.20	V	18.58	3.39	6.24	***21.43**	38.45	-17.02
	824.20	H	17.15	3.39	6.24	20.00	38.45	-18.45
190	836.60	V	16.56	3.4	6.37	19.53	38.45	-18.92
	836.60	H	16.03	3.4	6.36	18.99	38.45	-19.46
251	848.80	V	17.75	3.4	6.4	20.75	38.45	-17.70
	848.80	H	16.73	3.4	6.4	19.73	38.45	-18.72

EDGE 1900 Test Data

Channel	Frequency (MHz)	Antenna Pol.	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)
512	1850.20	V	28.27	5.37	5.67	***28.57**	33.00	-4.43
	1850.20	H	24.7	5.37	5.67	25.00	33.00	-8.00
661	1880.00	V	27.23	5.42	5.62	27.43	33.00	-5.57
	1880.00	H	24.17	5.42	5.62	24.37	33.00	-8.63
810	1909.80	V	26.95	5.48	5.56	27.03	33.00	-5.97
	1909.80	H	24.58	5.48	5.56	24.66	33.00	-8.34

WCDMA Test Data (BAND II)

Channel	Frequency (MHz)	Antenna Pol.	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)
9262	1852.40	V	26.72	5.38	5.66	27.00	33.00	-6.00
	1852.40	H	22.95	5.38	5.66	23.23	33.00	-9.77
9400	1880.00	V	26.84	5.42	5.62	***27.04**	33.00	-5.96
	1880.00	H	23.6	5.42	5.62	23.80	33.00	-9.20
9538	1907.60	V	26.89	5.47	5.57	26.99	33.00	-6.01
	1907.60	H	24.26	5.47	5.57	24.36	33.00	-8.64

WCDMA Test Data (BAND V)

Channel	Frequency (MHz)	Antenna Pol.	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)
4132	826.40	V	10.17	3.39	6.26	13.04	38.45	-25.41
	826.40	H	16.72	3.39	6.26	19.59	38.45	-18.86
4182	836.40	V	11.29	3.4	6.37	14.26	38.45	-24.19
	836.40	H	17	3.4	6.37	***19.97**	38.45	-18.48
4233	846.60	V	16.71	3.4	6.4	19.71	38.45	-18.74
	846.60	H	12.23	3.4	6.4	15.23	38.45	-23.22

WCDMA / HSDPA BAND II Test Data

Channel	Frequency (MHz)	Antenna Pol.	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)
9262	1852.40	V	26.39	5.38	5.66	***26.67**	33.00	-6.33
	1852.40	H	23.38	5.38	5.66	23.66	33.00	-9.34
9400	1880.00	V	26.97	5.42	5.62	27.17	33.00	-5.83
	1880.00	H	23.48	5.42	5.62	23.68	33.00	-9.32
9538	1907.60	V	26.42	5.47	5.57	26.52	33.00	-6.48
	1907.60	H	23.71	5.47	5.57	23.81	33.00	-9.19

WCDMA / HSDPA BAND V Test Data

Channel	Frequency (MHz)	Antenna Pol.	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)
4132	826.40	V	10.15	3.39	6.26	13.02	38.45	-25.43
	826.40	H	16.31	3.39	6.26	19.18	38.45	-19.27
4182	836.40	V	11.67	3.4	6.37	14.64	38.45	-23.81
	836.40	H	17.63	3.4	6.37	***20.60**	38.45	-17.85
4233	846.60	V	11.85	3.4	6.4	14.85	38.45	-23.60
	846.60	H	17.41	3.4	6.4	20.41	38.45	-18.04

WCDMA / HSUPA BAND II Test Data

Channel	Frequency (MHz)	Antenna Pol.	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)
9262	1852.40	V	26.34	5.37	5.66	26.63	33.00	-6.37
	1852.40	H	23.33	5.38	5.66	23.61	33.00	-9.39
9400	1880.00	V	27.04	5.42	5.62	***27.24**	33.00	-5.76
	1880.00	H	23.36	5.42	5.62	23.56	33.00	-9.44
9538	1907.60	V	26.45	5.47	5.57	26.55	33.00	-6.45
	1907.60	H	23.49	5.47	5.57	23.59	33.00	-9.41

WCDMA / HSUPA BAND V Test Data

Channel	Frequency (MHz)	Antenna Pol.	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)
4132	826.40	V	10.31	3.39	6.26	13.18	38.45	-25.27
	826.40	H	15.97	3.39	6.26	18.84	38.45	-19.61
4182	836.40	V	11.62	3.4	6.37	14.59	38.45	-23.86
	836.40	H	17.65	3.4	6.37	***20.62**	38.45	-17.83
4233	846.60	V	11.87	3.4	6.4	14.87	38.45	-23.58
	846.60	H	17.61	3.4	6.4	20.61	38.45	-17.84

WCDMA / HSPA+ BAND II Test Data

Channel	Frequency (MHz)	Antenna Pol.	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)
9262	1852.40	V	24.3	5.38	5.66	***24.58**	33.00	-8.42
	1852.40	H	21.06	5.38	5.66	21.34	33.00	-11.66
9400	1880.00	V	24.32	5.42	5.61	24.51	33.00	-8.49
	1880.00	H	21.41	5.42	5.61	21.60	33.00	-11.40
9538	1907.60	V	23.95	5.47	5.57	24.05	33.00	-8.95
	1907.60	H	21.62	5.47	5.57	21.72	33.00	-11.28

WCDMA / HSPA+ BAND V Test Data

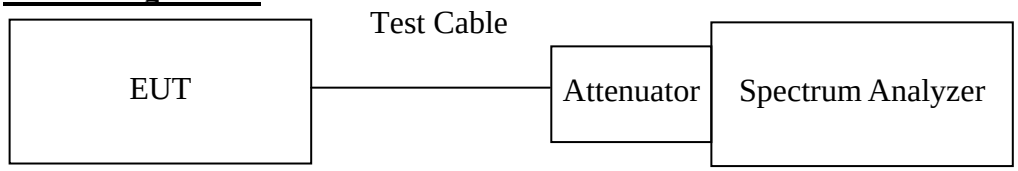
Channel	Frequency (MHz)	Antenna Pol.	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)
4132	826.40	V	9.96	3.39	6.25	12.82	38.45	-25.63
	826.40	H	14.18	3.39	6.25	17.04	38.45	-21.41
4182	836.40	V	13.9	3.4	6.37	16.87	38.45	-21.58
	836.40	H	12.89	3.4	6.37	15.86	38.45	-22.59
4233	846.60	V	14.68	3.4	6.4	***17.68**	38.45	-20.77
	846.60	H	13.04	3.4	6.4	16.04	38.45	-22.41

7.4OCCUPIED 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

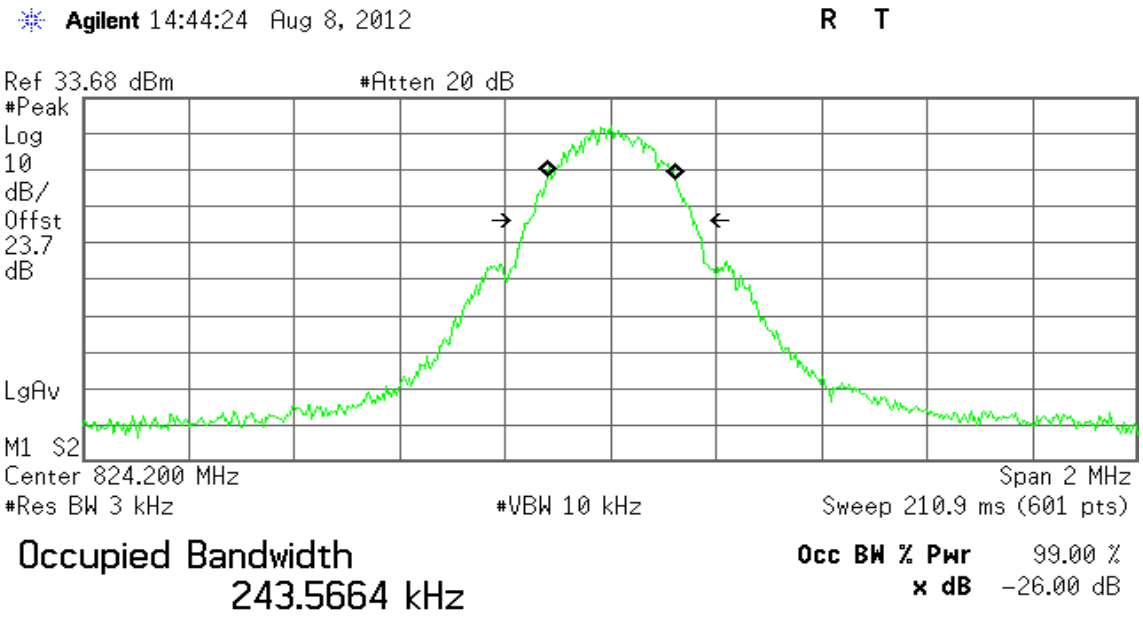
Test Mode	CH	Frequency (MHz)	99% Bandwidth (kHz)
GPRS 850	128	824.20	243.5664
	190	836.60	241.1573
	251	848.80	245.8939
EDGE 850	128	824.20	243.7168
	190	836.60	248.4695
	251	848.80	244.9536

Test Mode	CH	Frequency (MHz)	99% Bandwidth (kHz)
GPRS 1900	512	1850.20	247.3137
	661	1880.00	243.0093
	810	1909.80	242.0181
EDGE 1900	512	1850.20	243.8294
	661	1880.00	237.6425
	810	1909.80	246.6068

Test Mode	CH	Frequency (MHz)	99% Bandwidth (MHz)
WCDMA (Band II)	9262	1852.40	4.1496
	9400	1880.00	4.1383
	9538	1907.60	4.1410
WCDMA (Band V)	4132	826.40	4.1296
	4182	836.40	4.1406
	4233	846.60	4.1401
WCDMA / HSDPA (BAND II)	9262	1852.40	4.1662
	9400	1880.00	4.1405
	9538	1907.60	4.1604
WCDMA / HSDPA (BAND V)	4132	826.40	4.1373
	4182	836.40	4.1637
	4233	846.60	4.1443
WCDMA / HSUPA (BAND II)	9262	1852.40	4.1523
	9400	1880.00	4.1421
	9538	1907.60	4.1707
WCDMA / HSUPA (BAND V)	4132	826.40	4.1345
	4182	836.40	4.1458
	4233	846.60	4.1355
WCDMA / HSPA+ (BAND V)	9262	1852.40	4.1597
	9400	1880.00	4.1464
	9538	1907.60	4.1508
WCDMA / HSPA+ (BAND II)	4132	826.40	4.1485
	4182	836.40	4.1440
	4233	846.60	4.1367

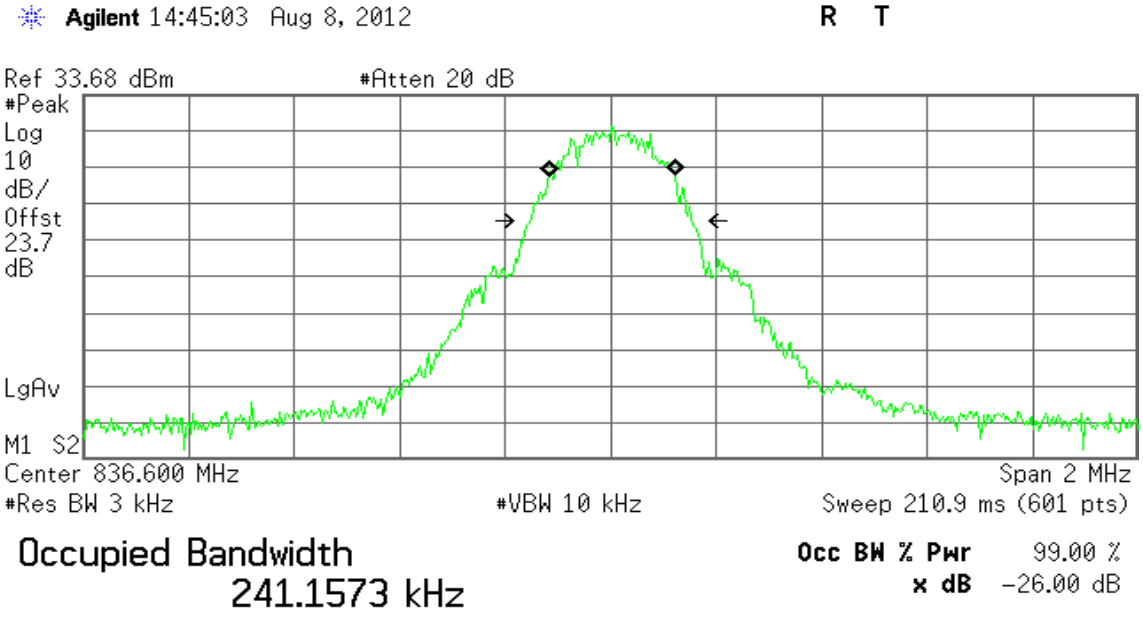
Test Plot

GPRS 850 (CH Low)



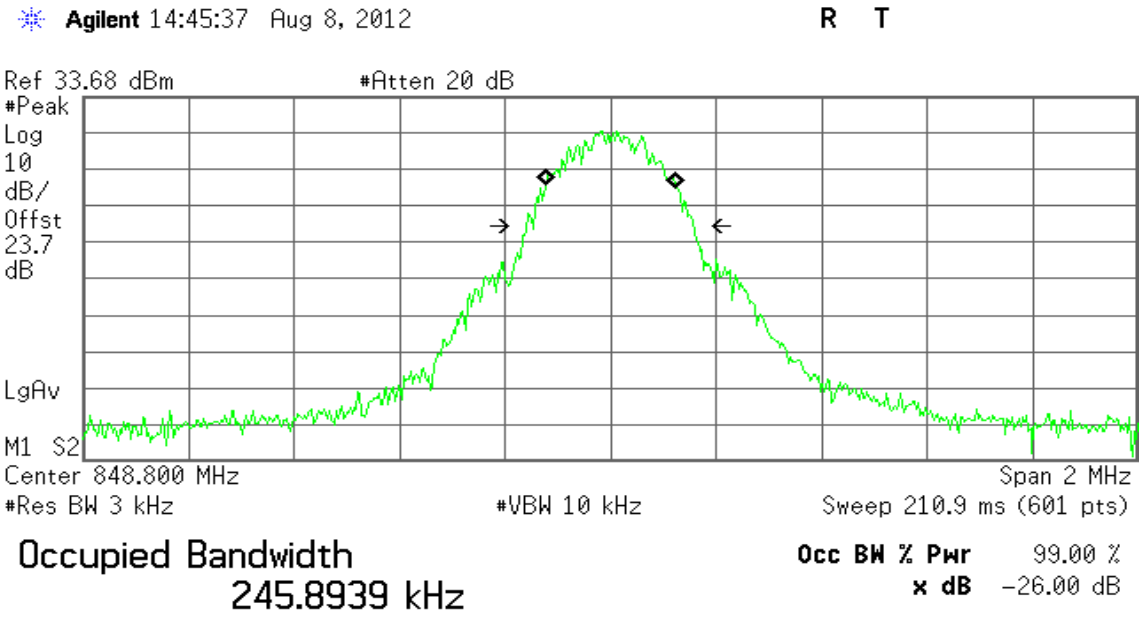
Transmit Freq Error	928.487 Hz
x dB Bandwidth	311.072 kHz

GPRS 850 (CH Mid)



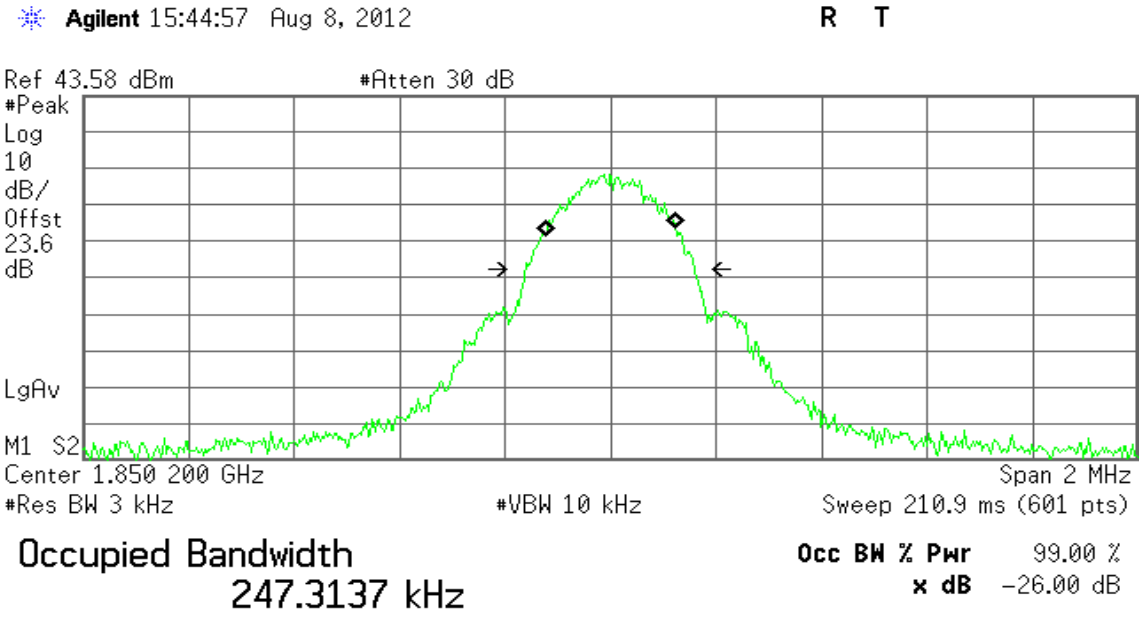
Transmit Freq Error	2.552 kHz
x dB Bandwidth	305.211 kHz

GPRS 850(CH High)



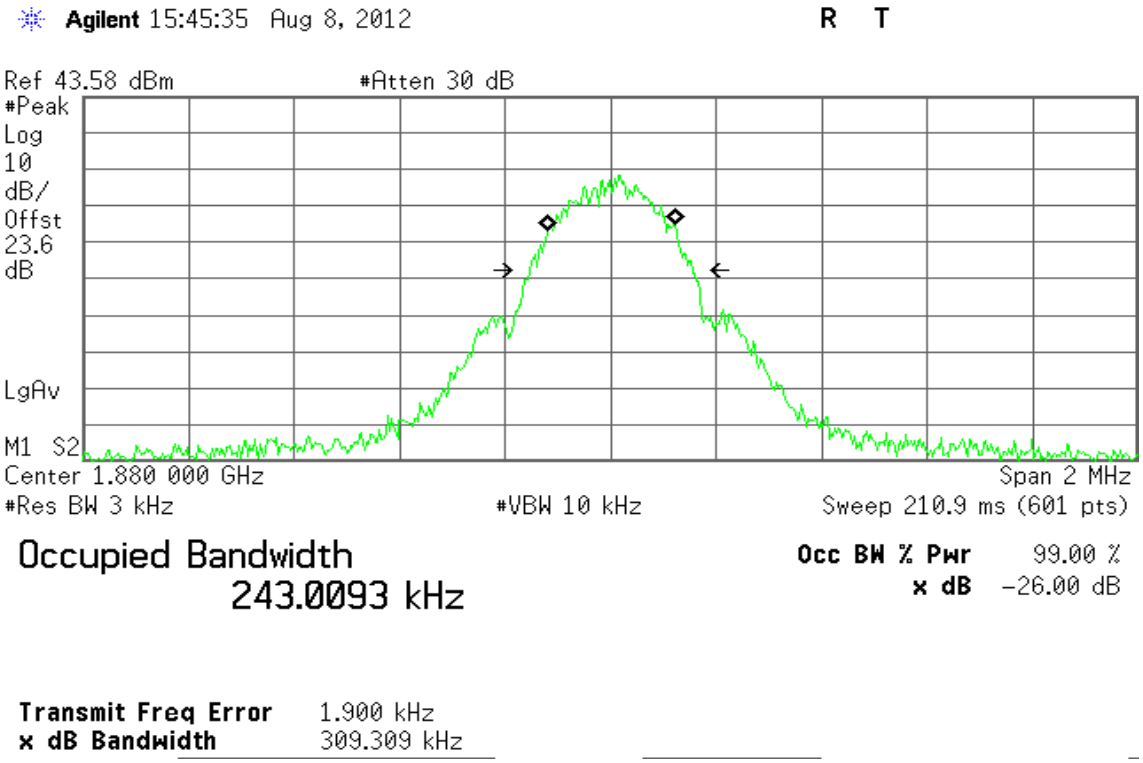
Transmit Freq Error	390.217 Hz
x dB Bandwidth	318.103 kHz

GPRS 1900 (CH Low)

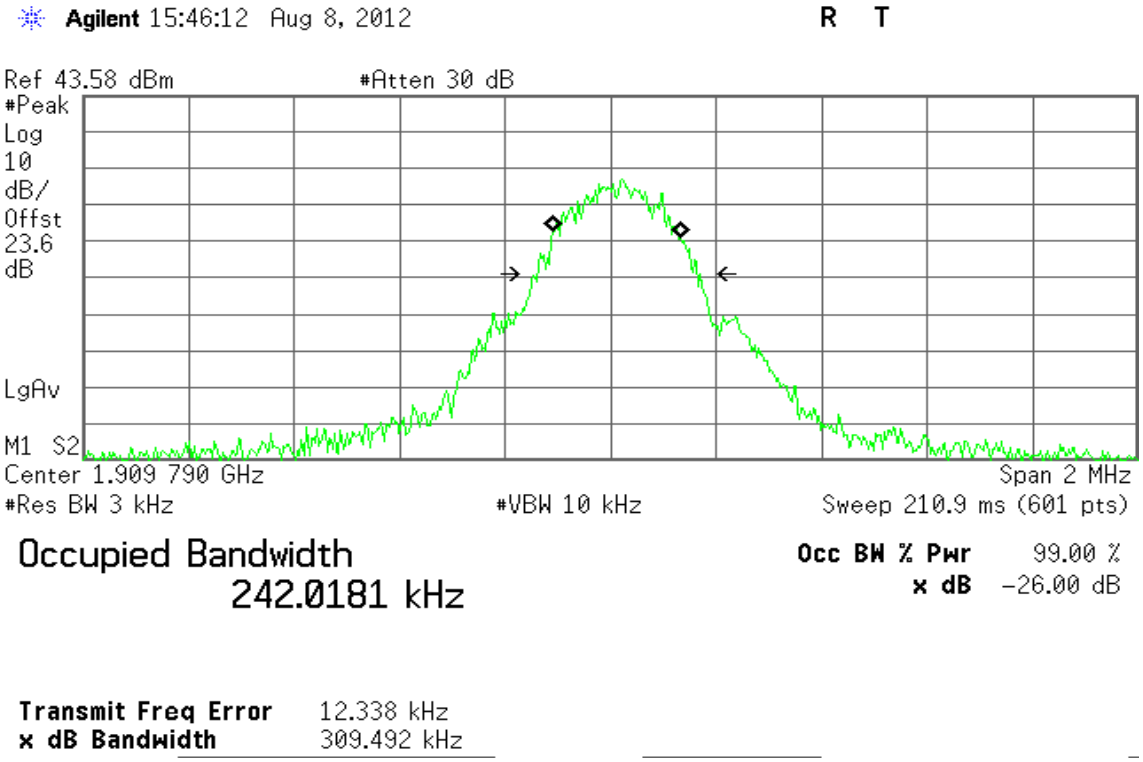


Transmit Freq Error	710.442 Hz
x dB Bandwidth	321.322 kHz

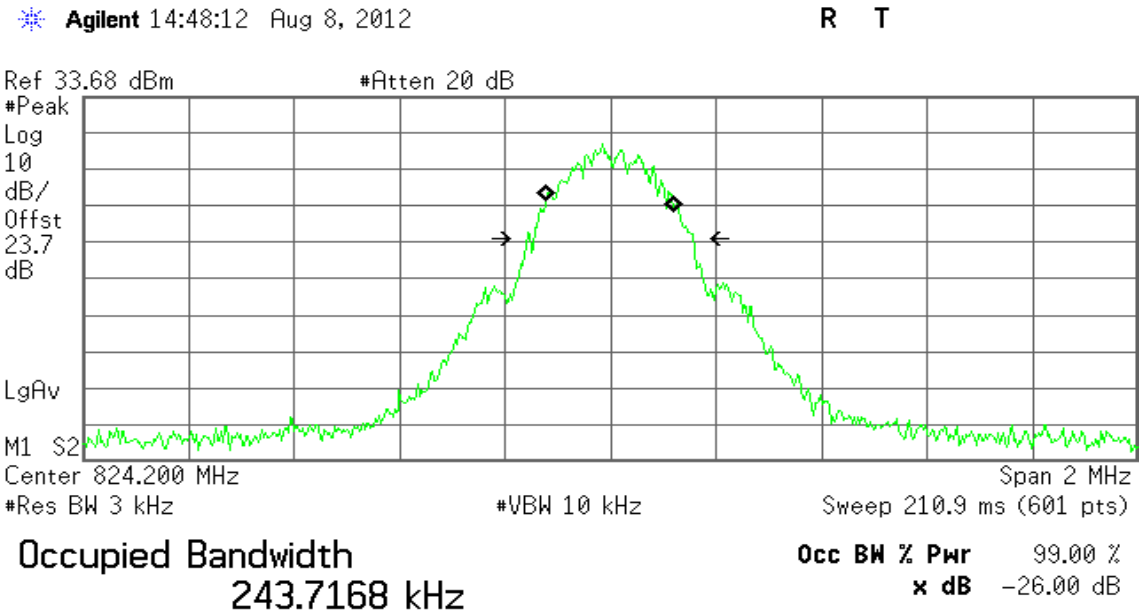
GPRS 1900 (CH Mid)



GPRS 1900 (CH High)

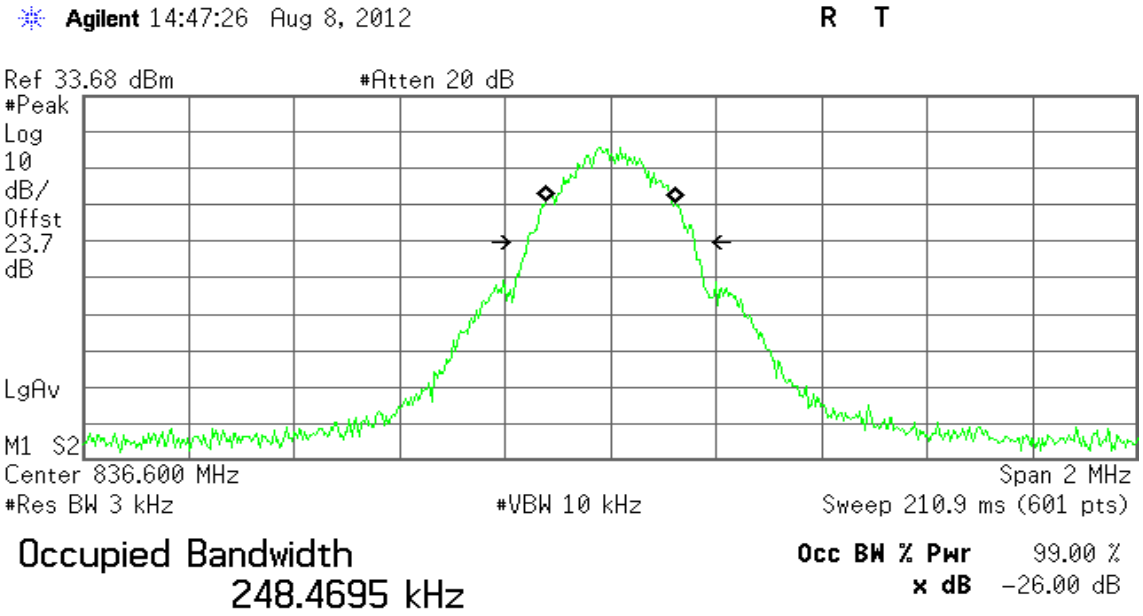


EDGE 850 (CH Low)



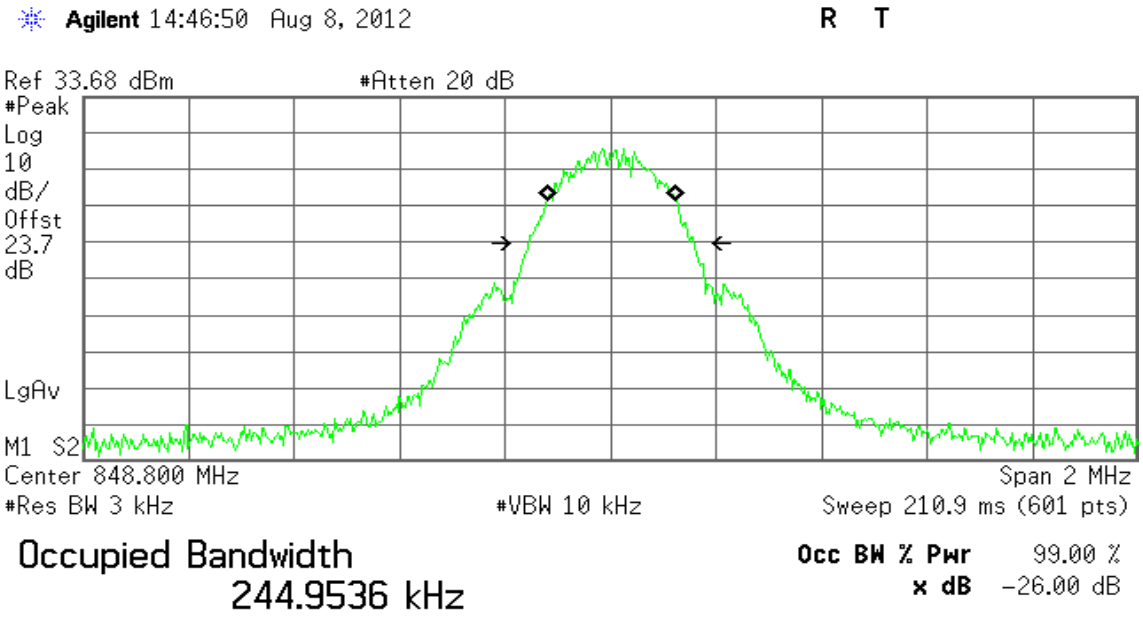
Transmit Freq Error	-329.607 Hz
x dB Bandwidth	316.007 kHz

EDGE 850 (CH Mid)



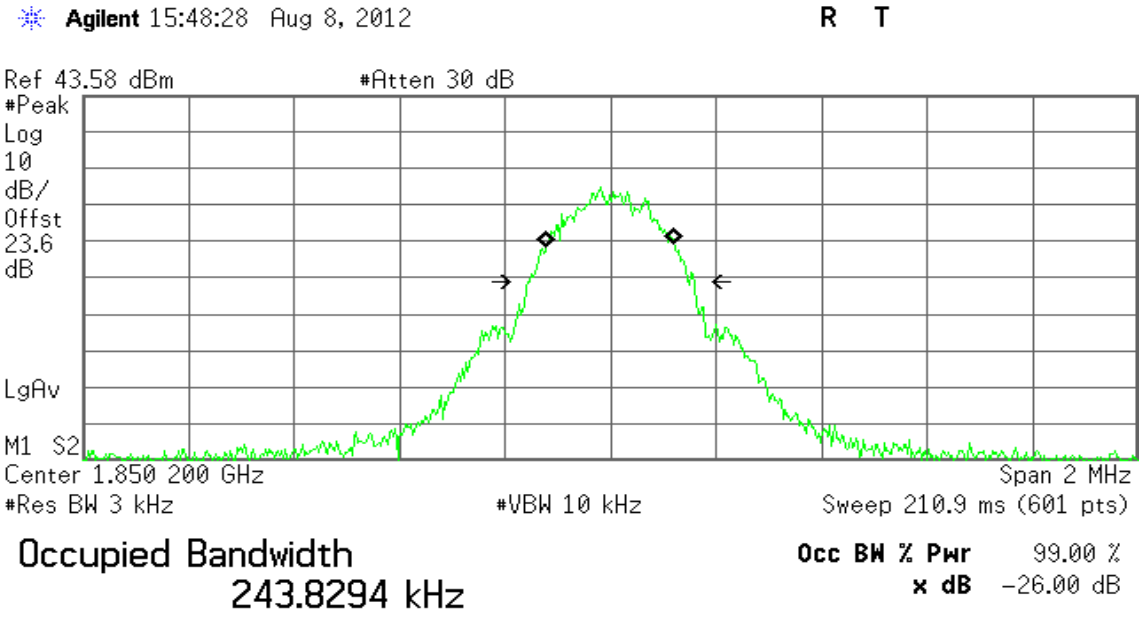
Transmit Freq Error	510.048 Hz
x dB Bandwidth	317.582 kHz

EDGE 850 (CH High)



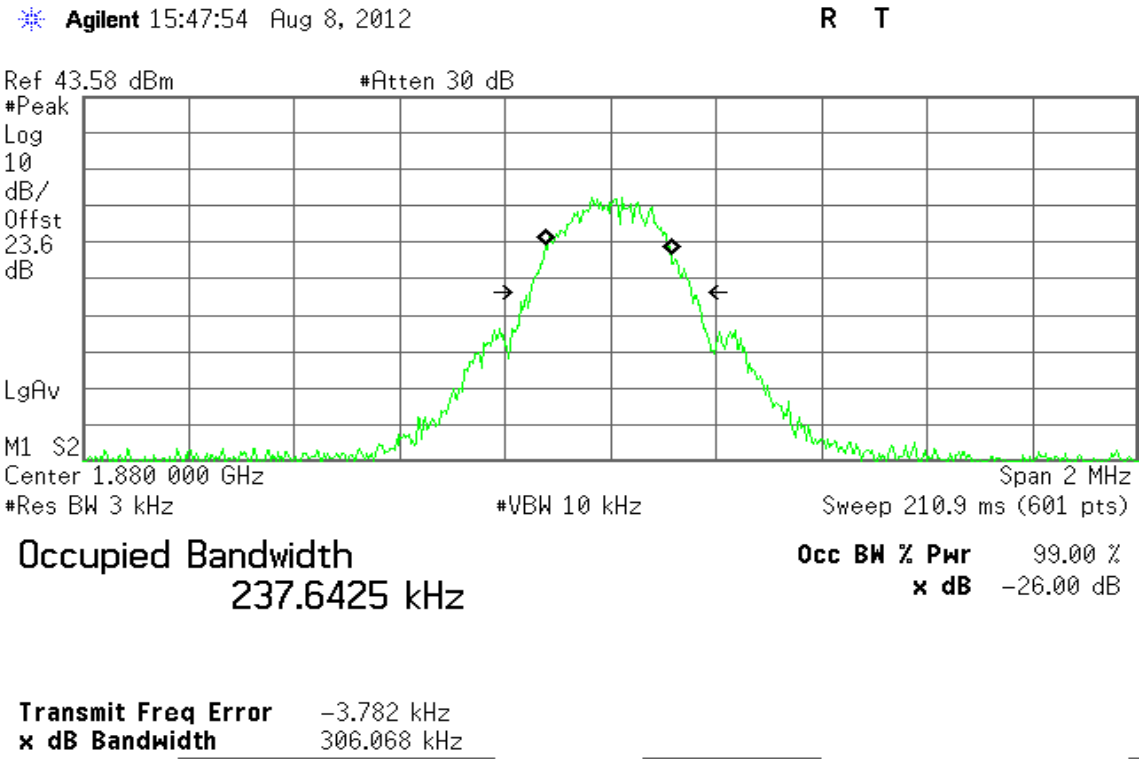
Transmit Freq Error	1.674 kHz
x dB Bandwidth	314.175 kHz

EDGE 1900 (CH Low)

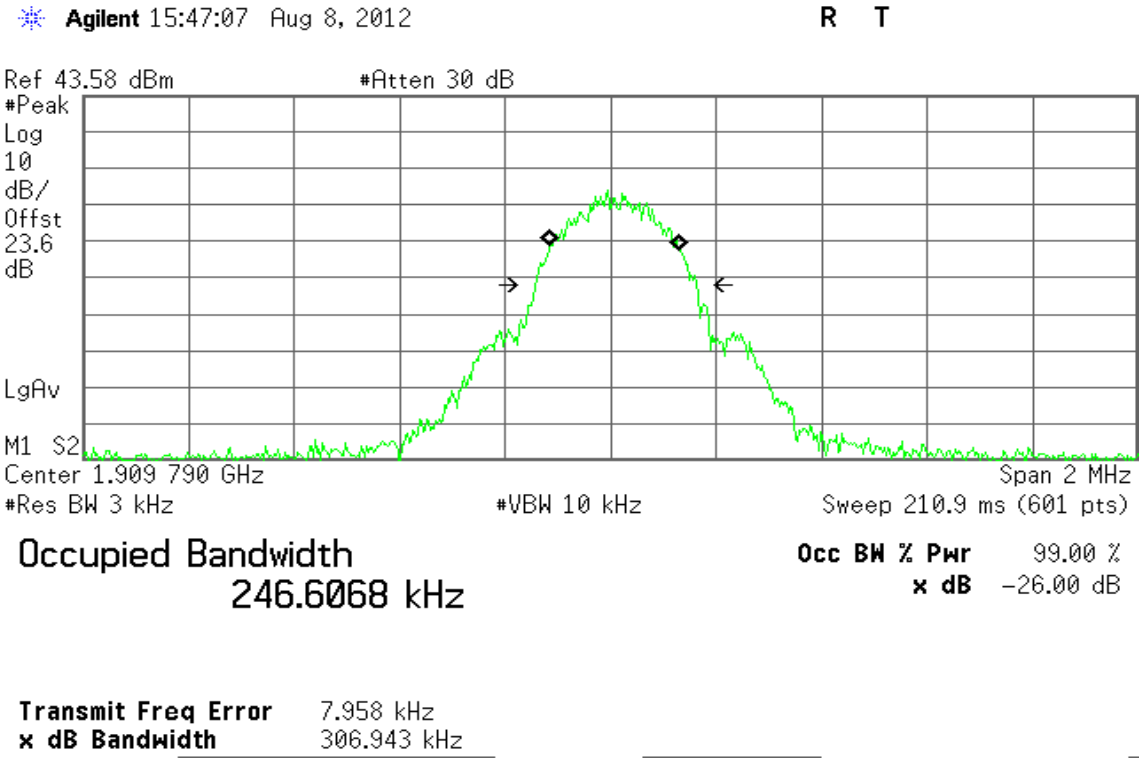


Transmit Freq Error	-487.666 Hz
x dB Bandwidth	316.362 kHz

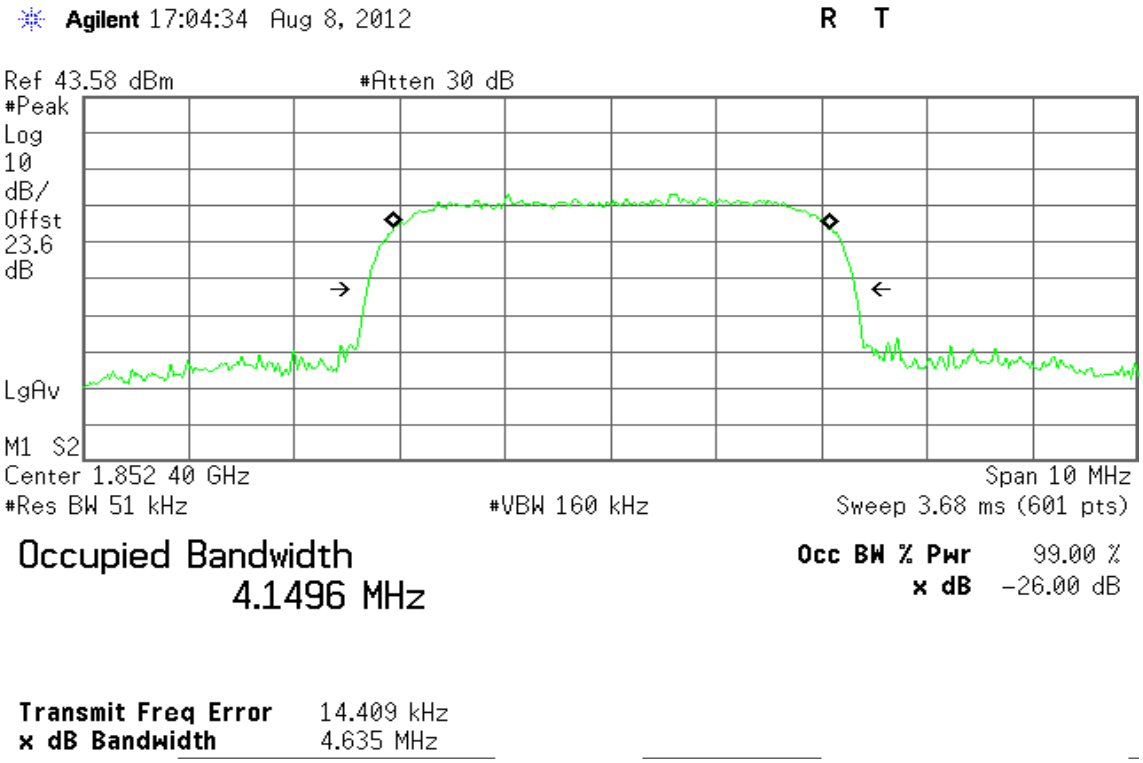
EDGE 1900 (CH Mid)



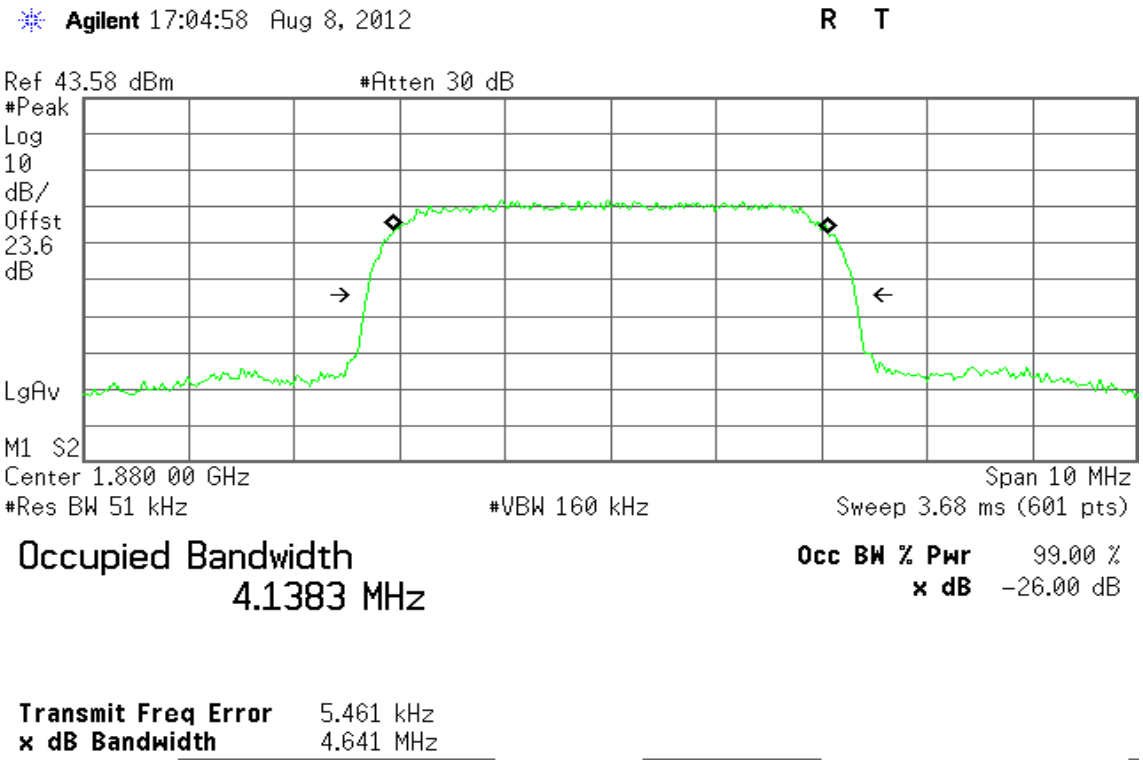
EDGE 1900 (CH High)



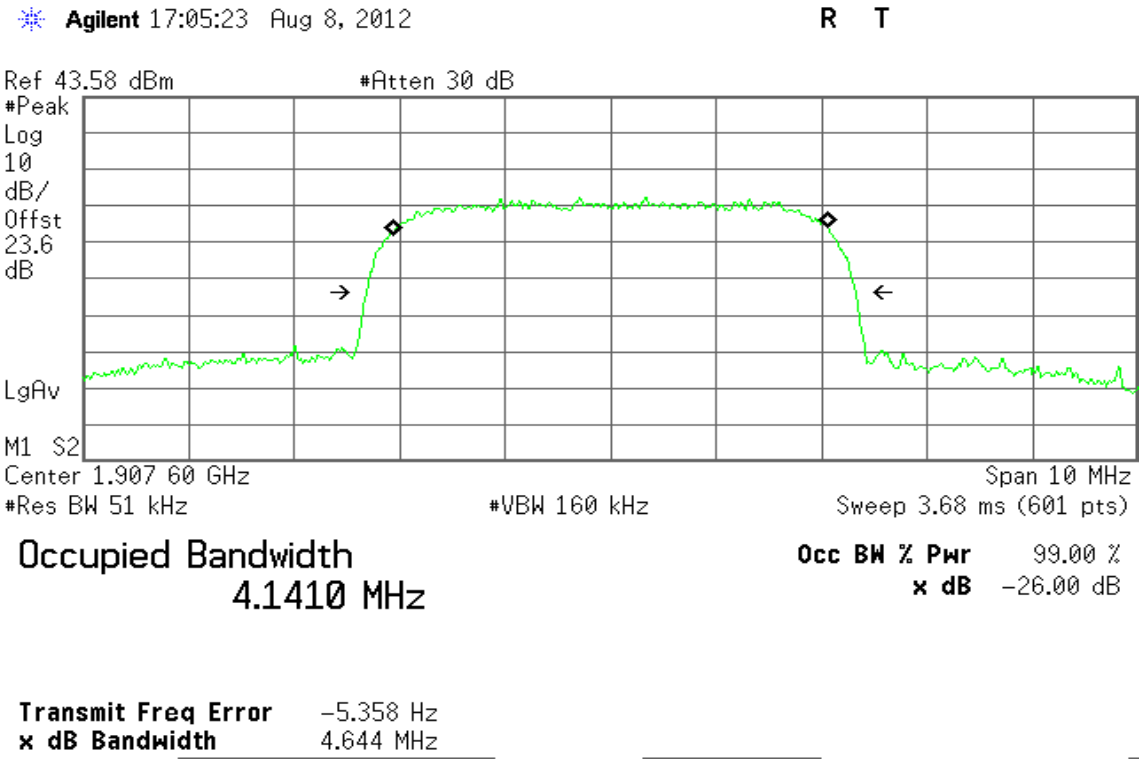
WCDMA Band II (CH Low)



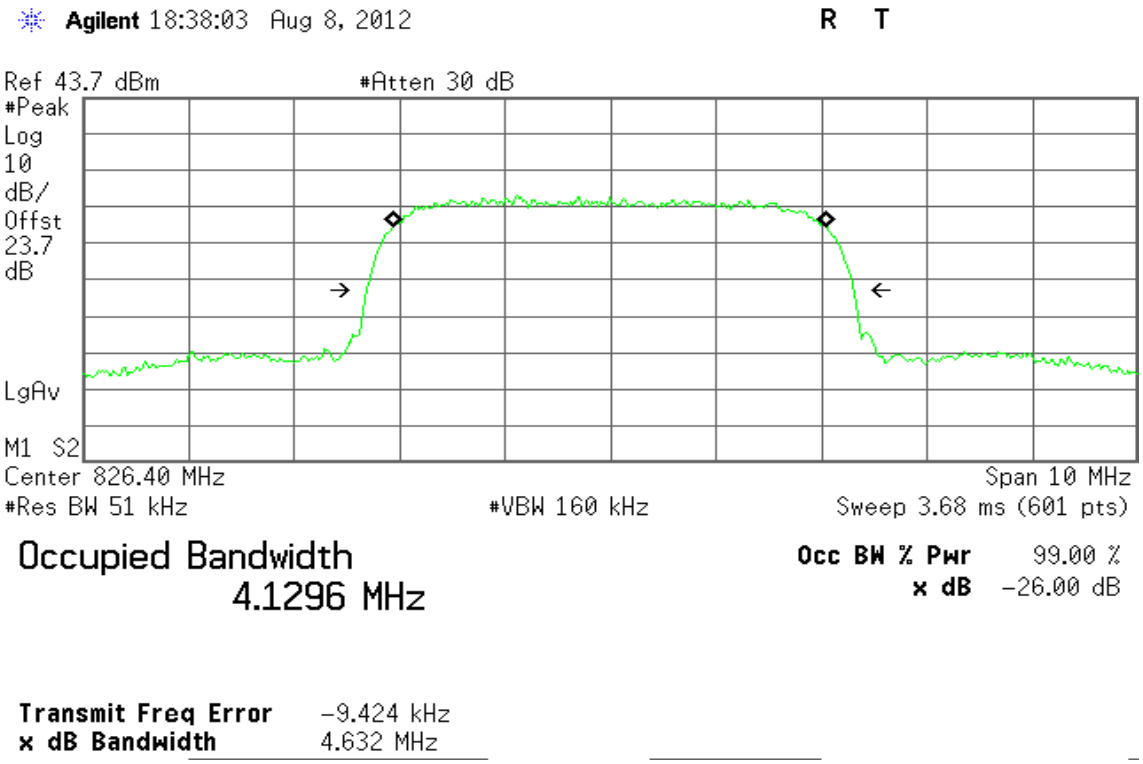
WCDMA Band II (CH Mid)



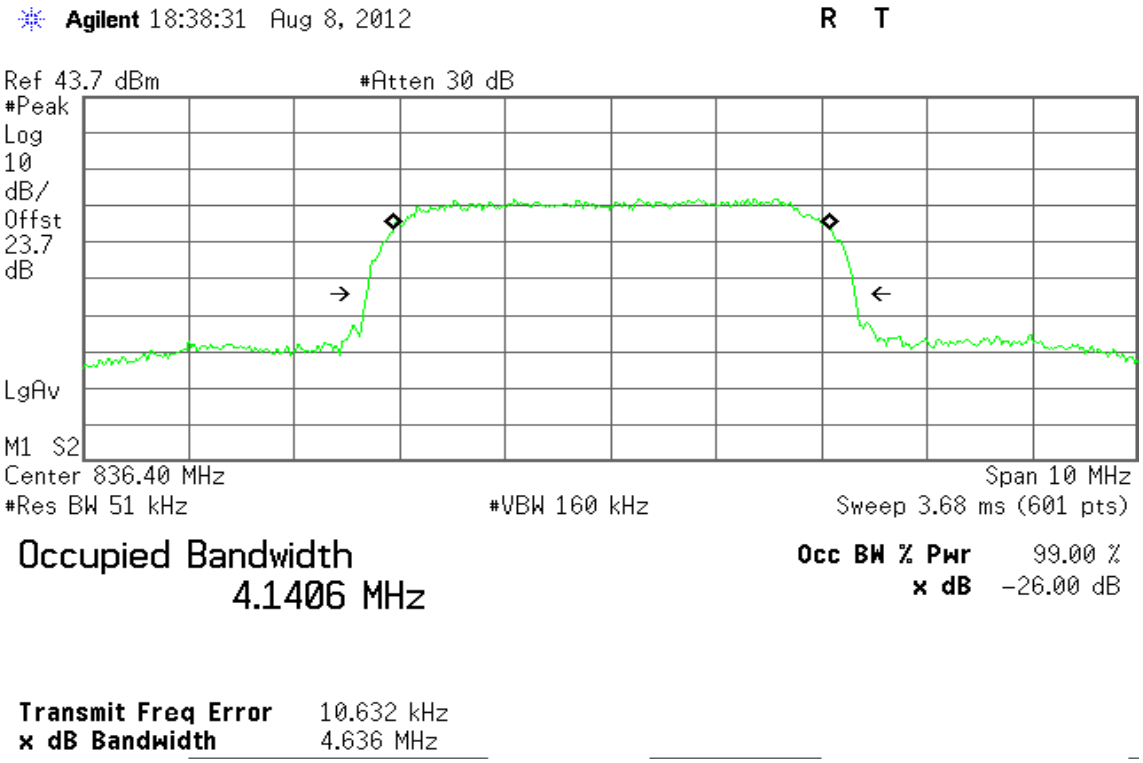
WCDMA Band II (CH High)



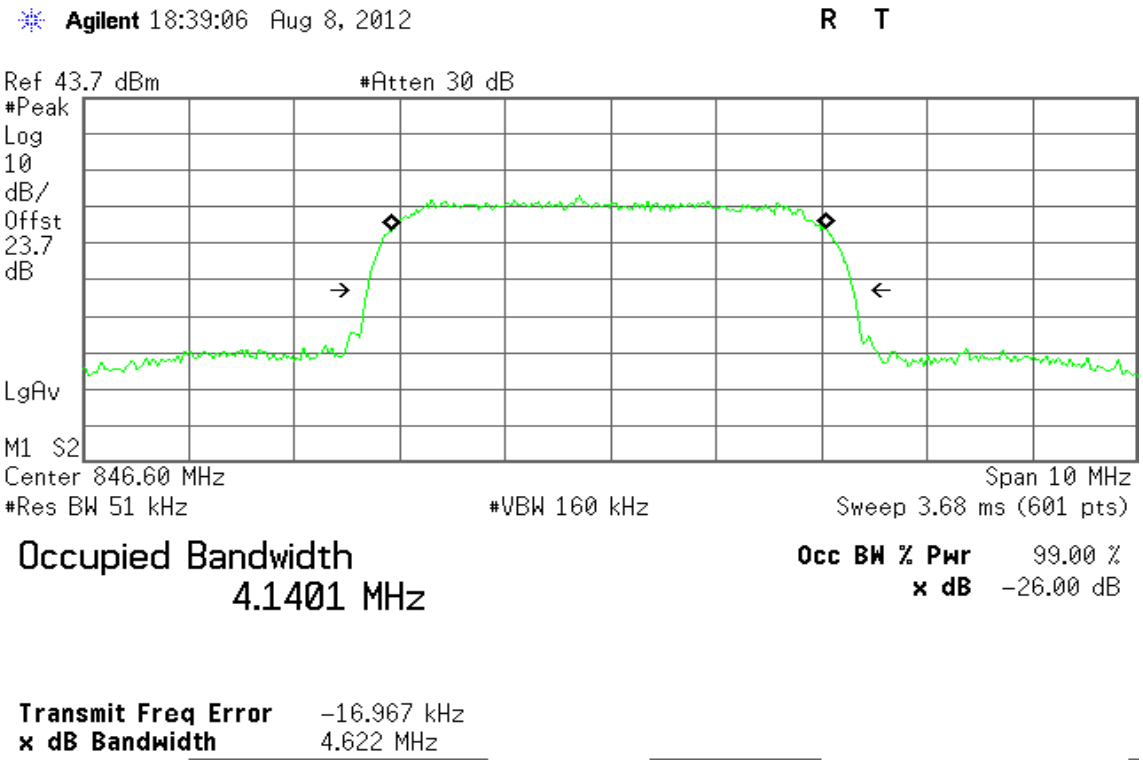
WCDMA Band V (CH Low)



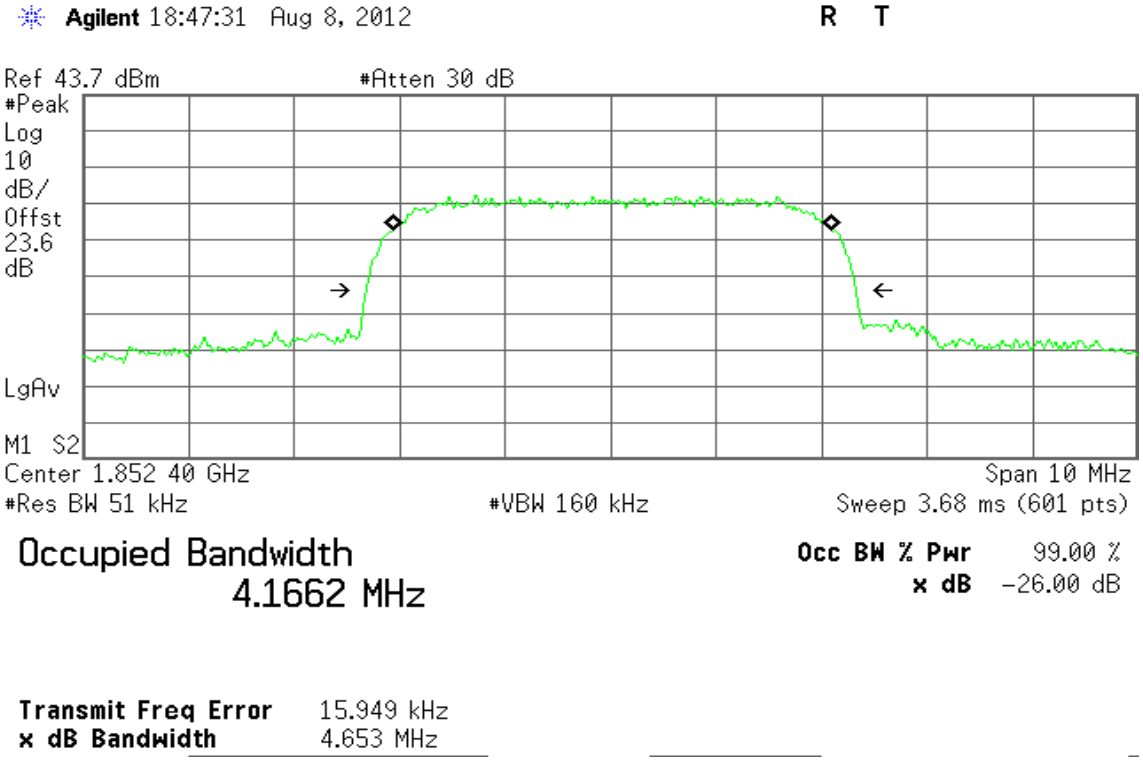
WCDMA Band V (CH Mid)



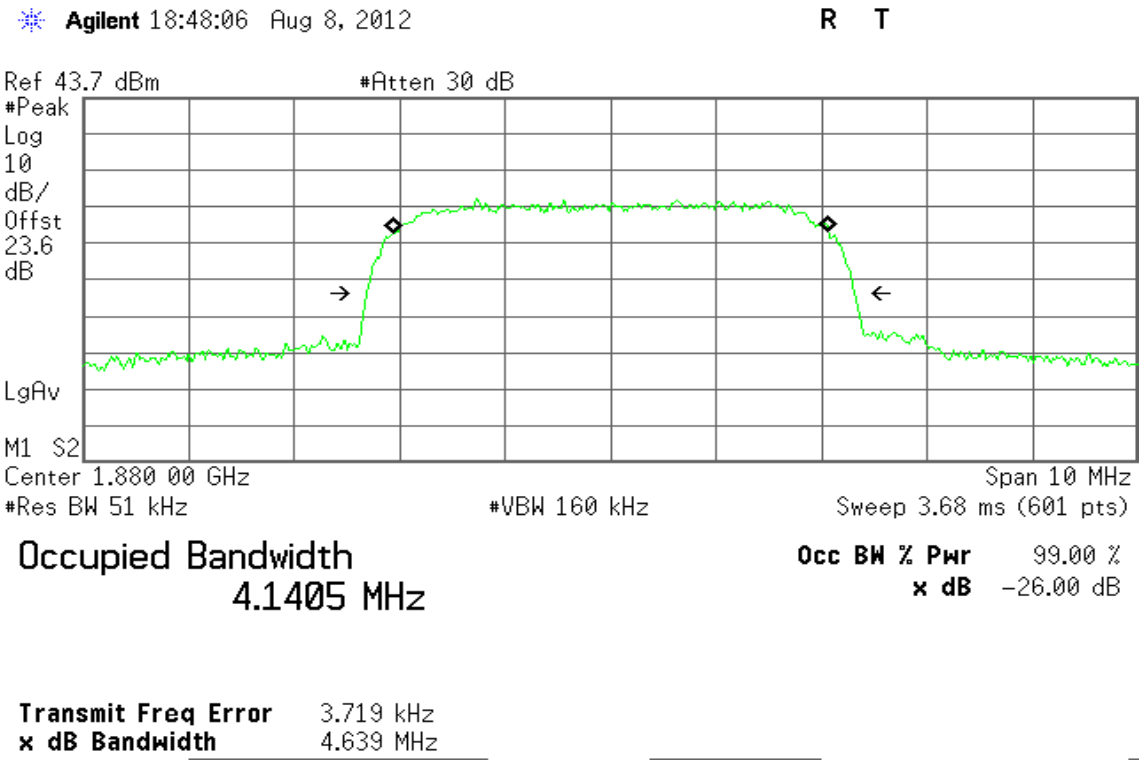
WCDMA Band V (CH High)



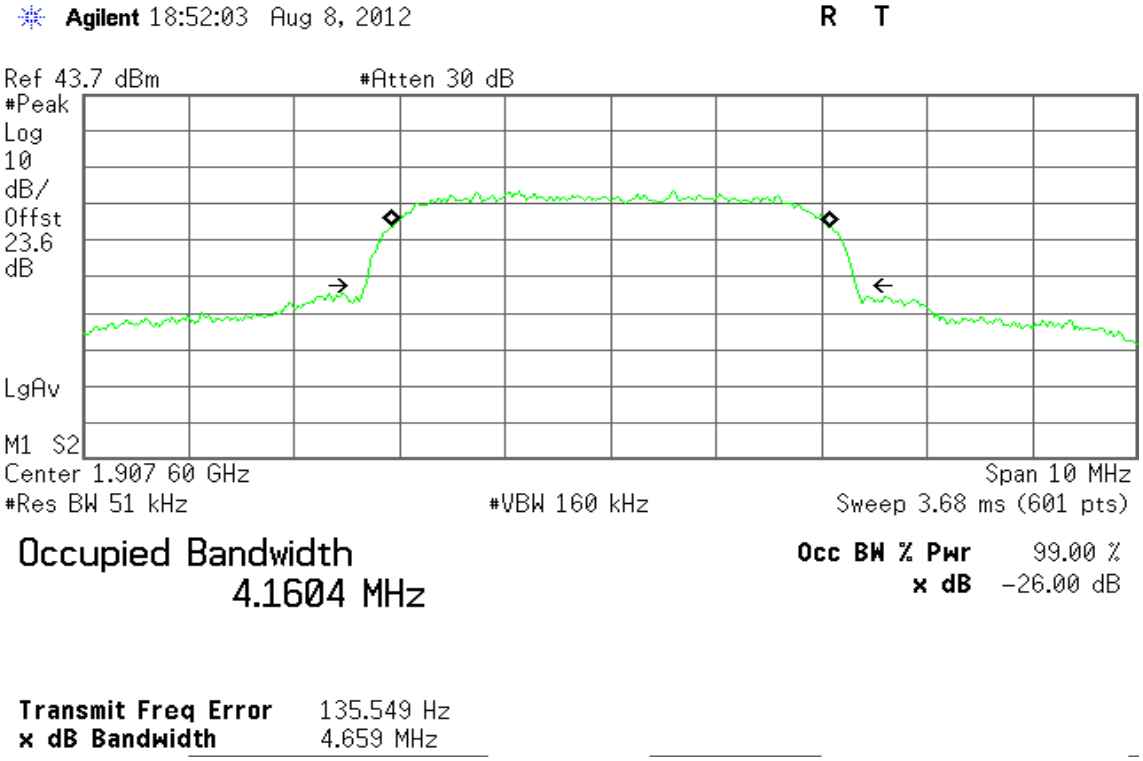
WCDMA / HSDPA Band II (CH Low)



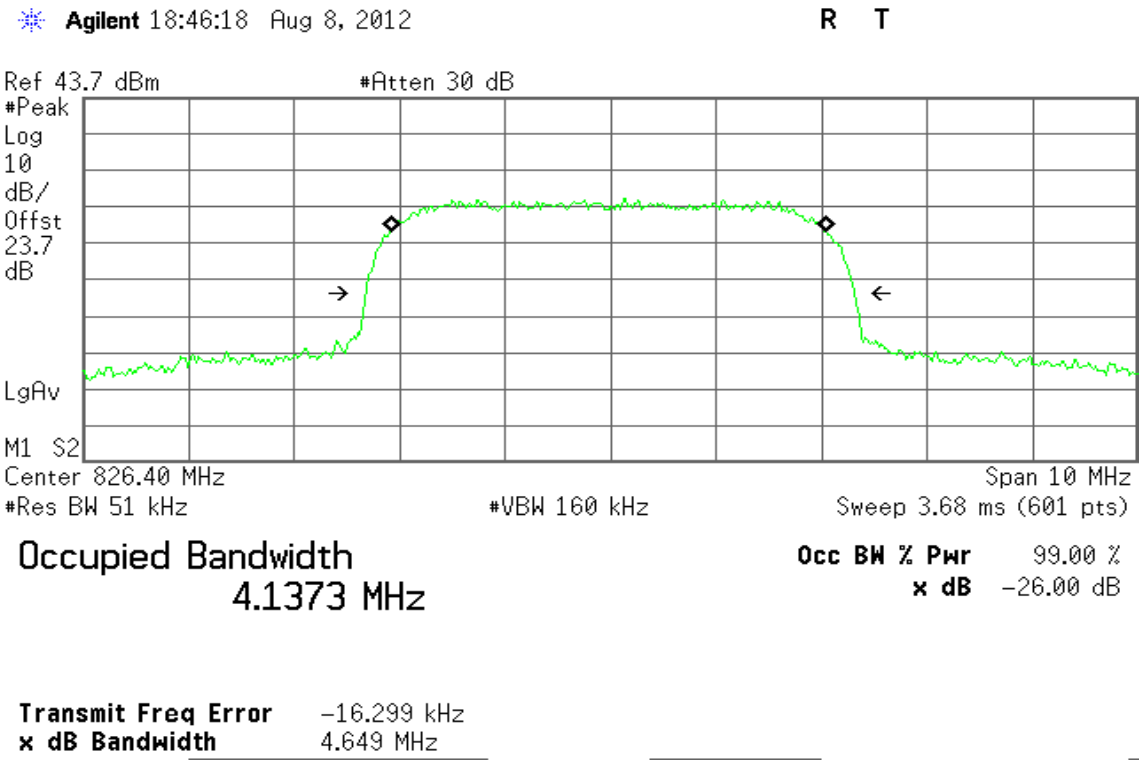
WCDMA / HSDPA Band II (CH Mid)



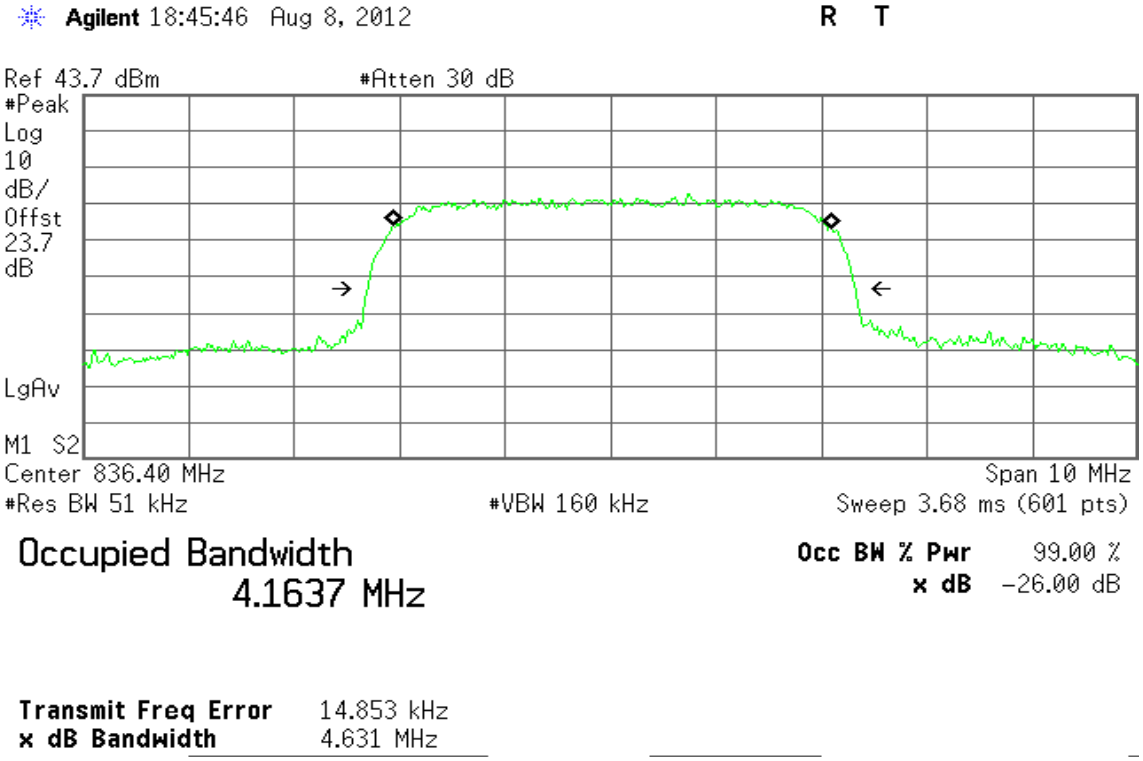
WCDMA / HSDPA Band II (CH High)



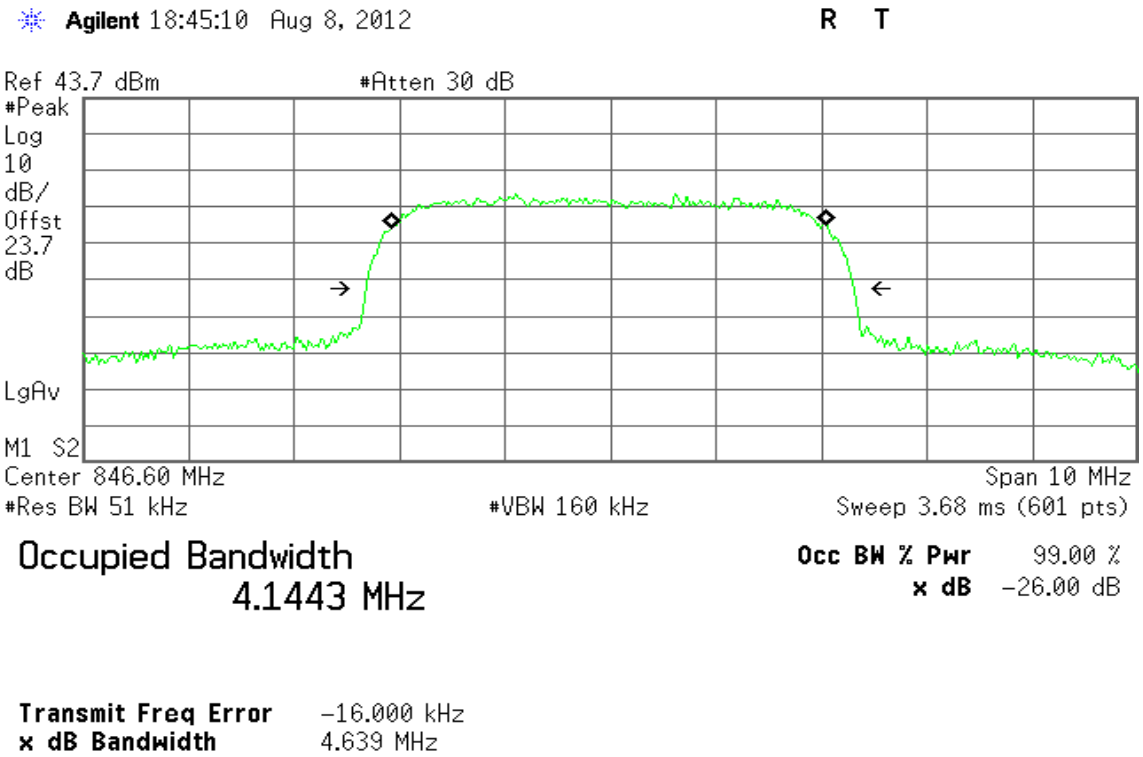
WCDMA / HSDPA Band V (CH Low)



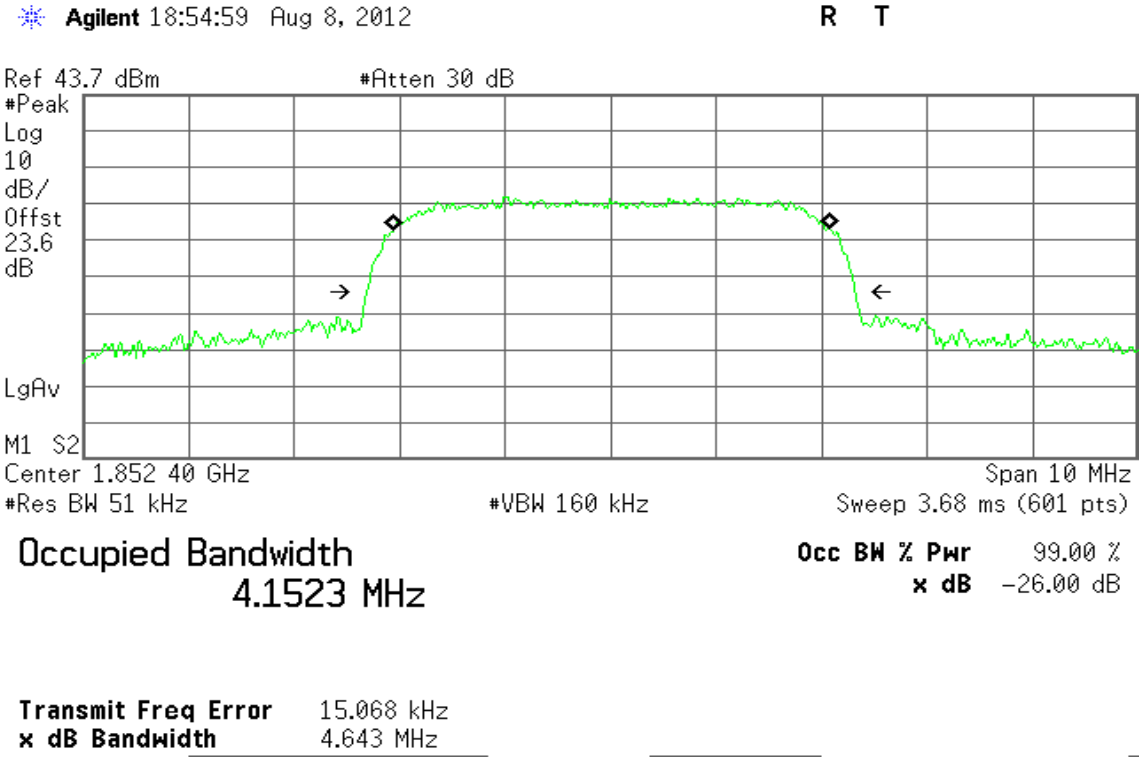
WCDMA / HSDPA Band V (CH Mid)



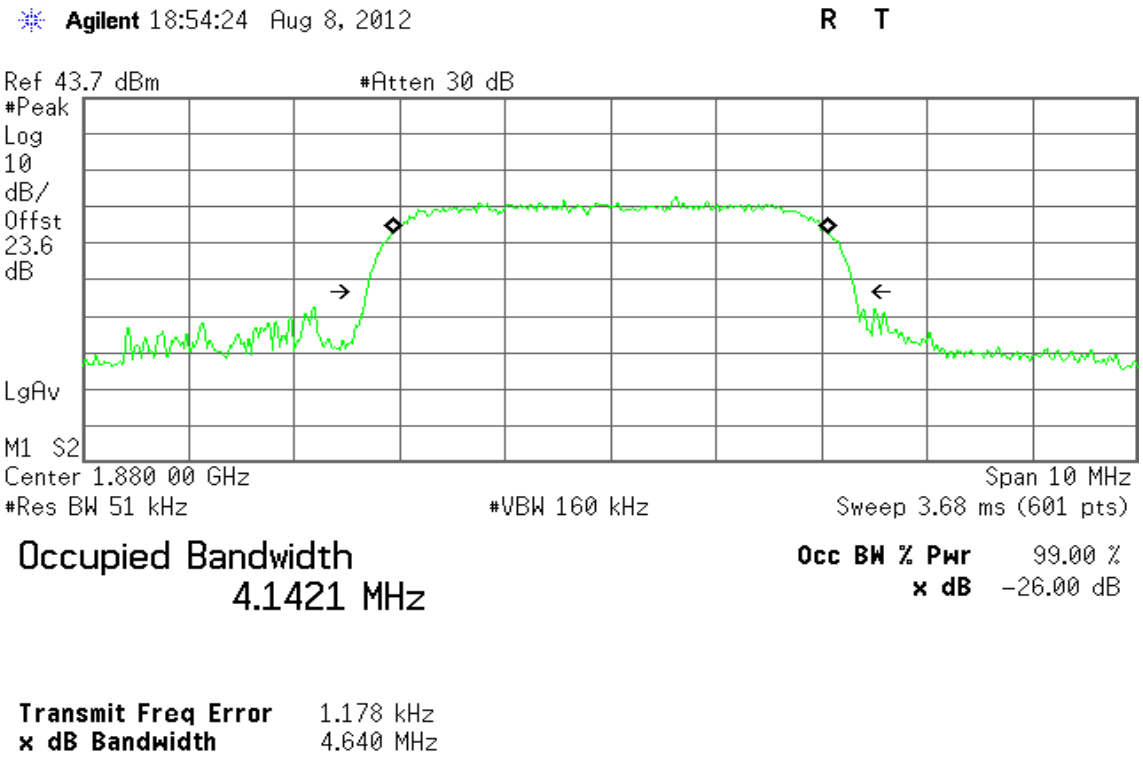
WCDMA / HSDPA Band V (CH High)



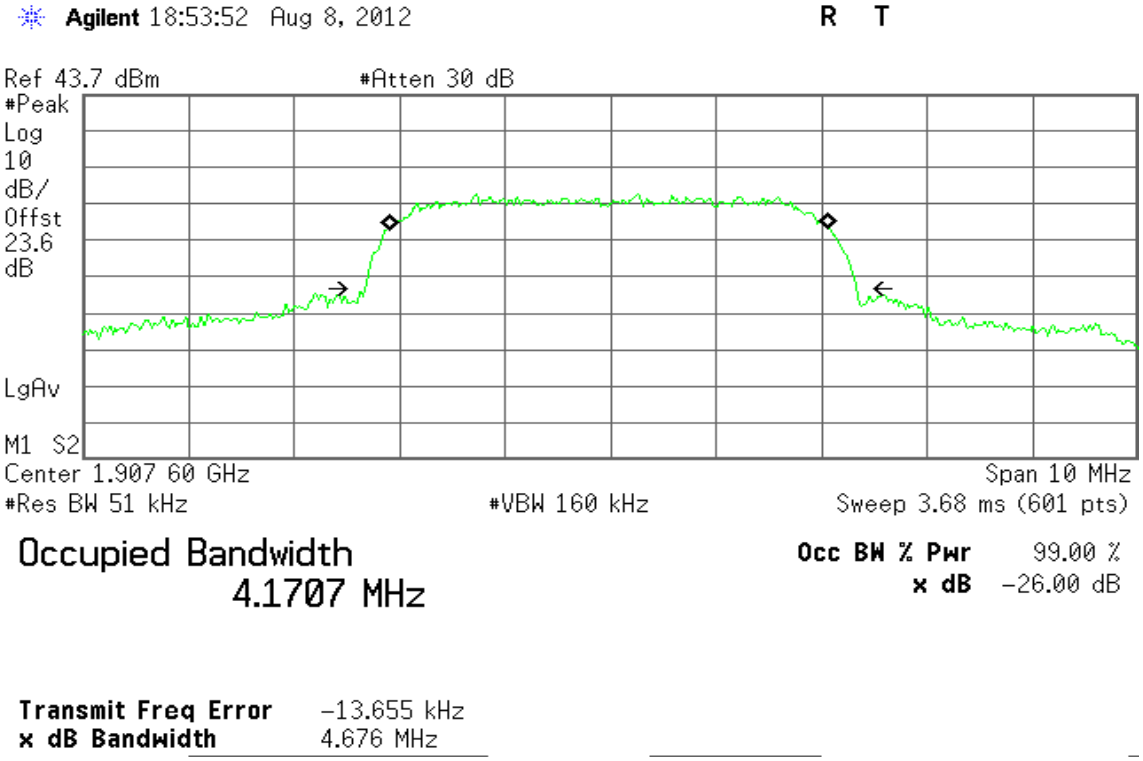
WCDMA / HSUPA Band II (CH Low)



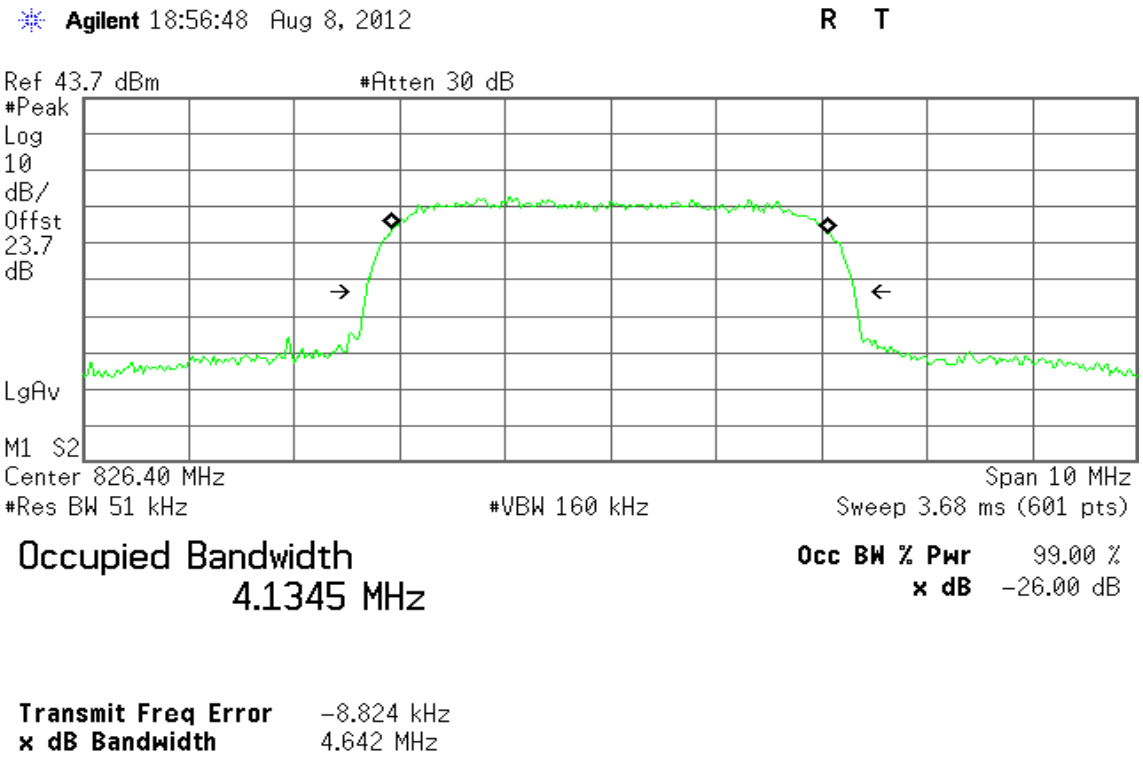
WCDMA / HSUPA Band II (CH Mid)



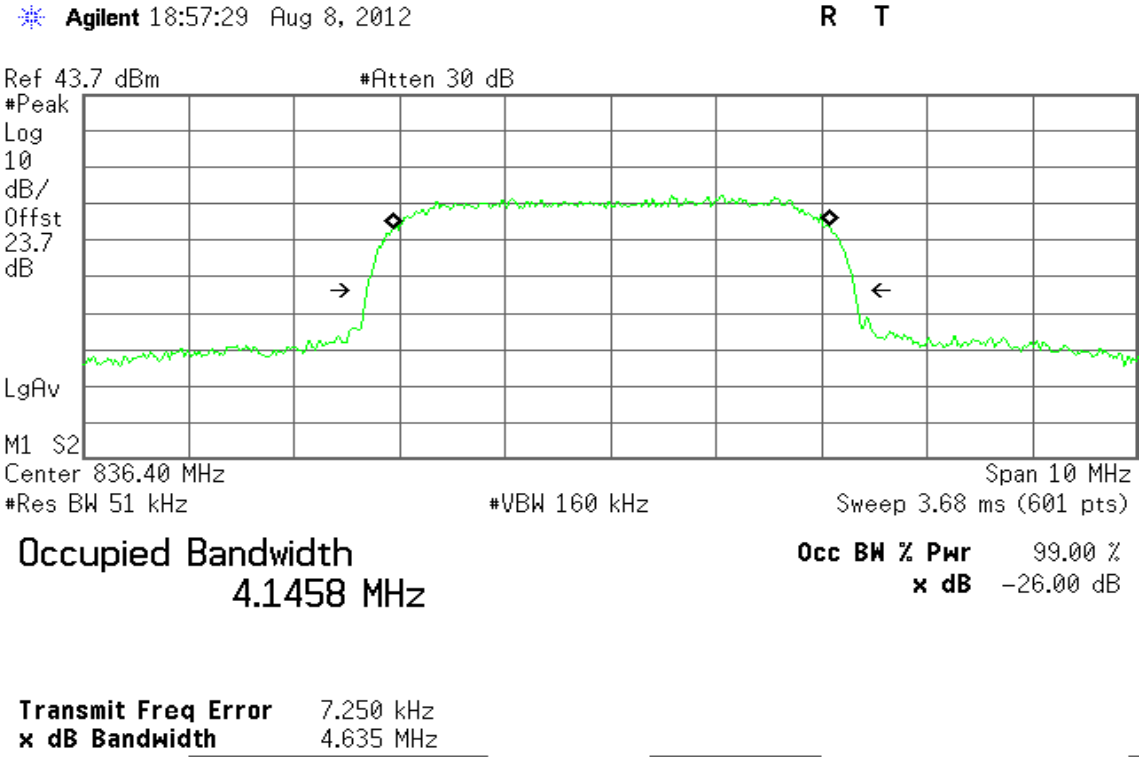
WCDMA / HSUPA Band II (CH High)



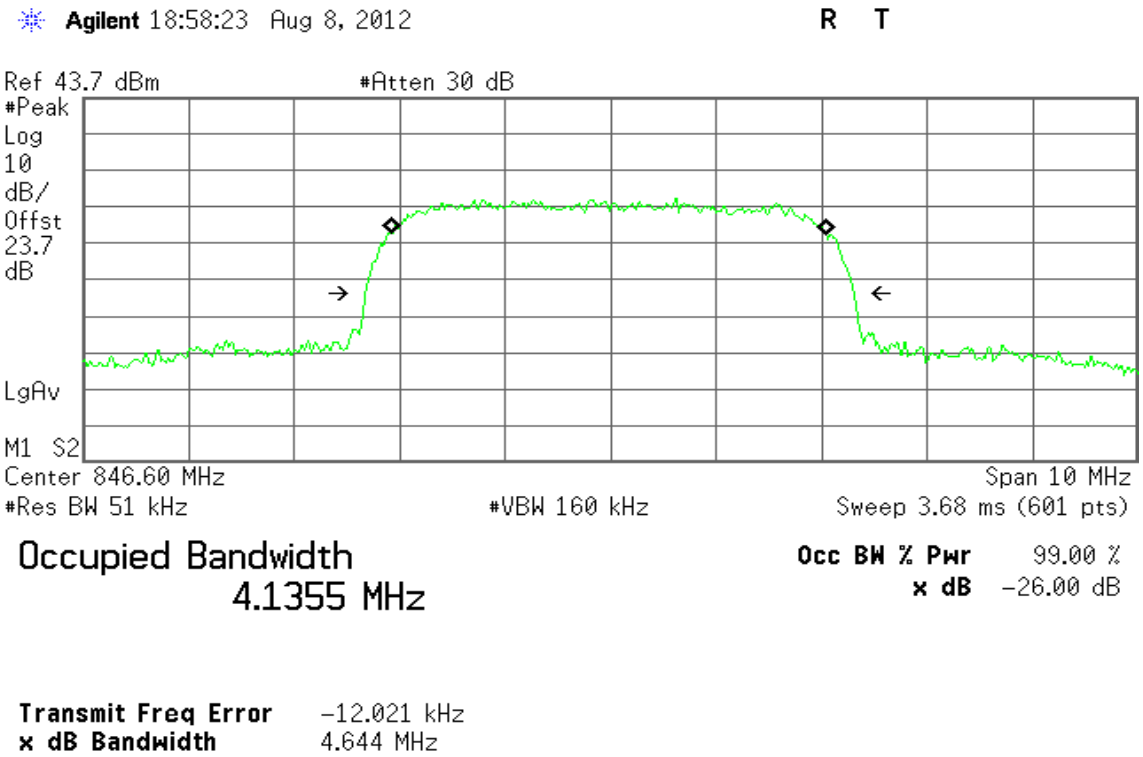
WCDMA / HSUPA Band V (CH Low).



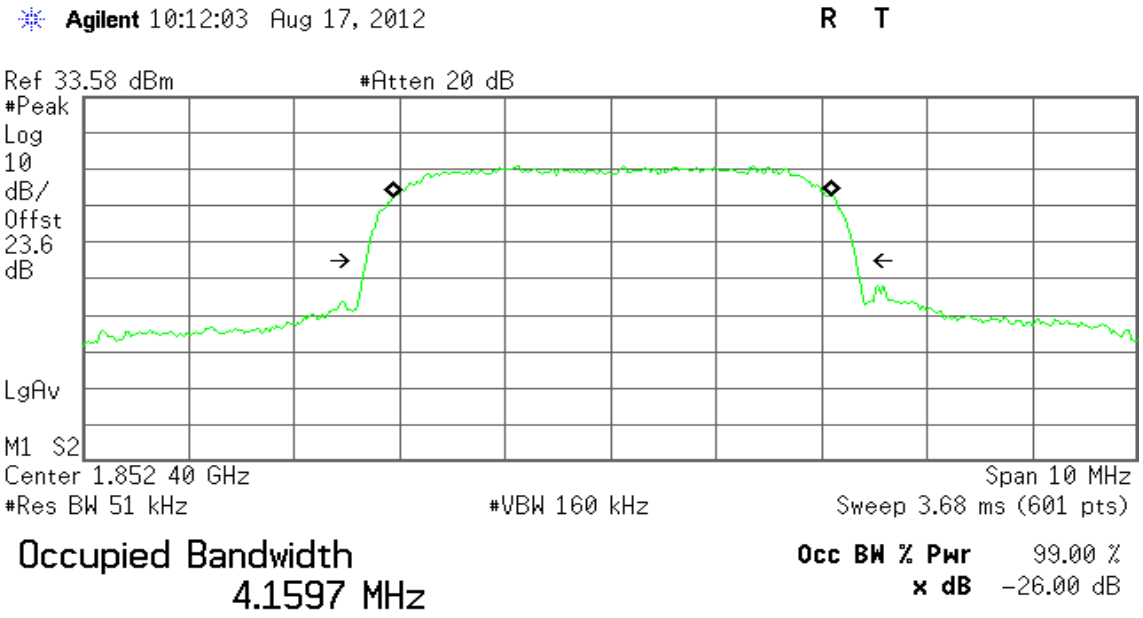
WCDMA / HSUPA Band V (CH Mid)



WCDMA / HSUPA Band V (CH High)

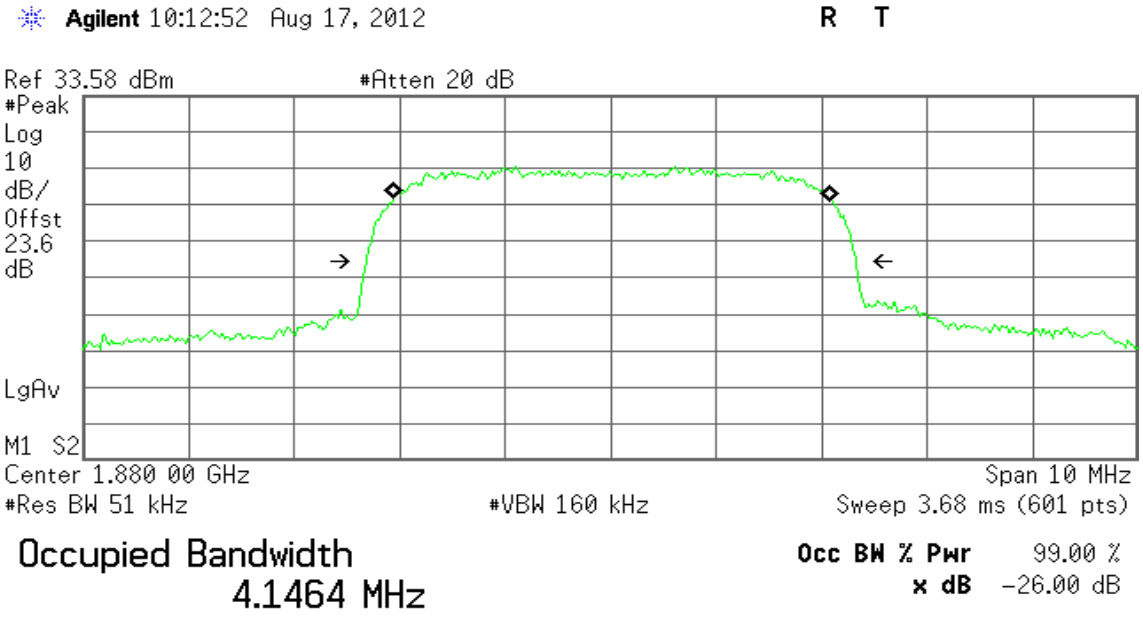


WCDMA / HSPA+ Band II (CH Low)



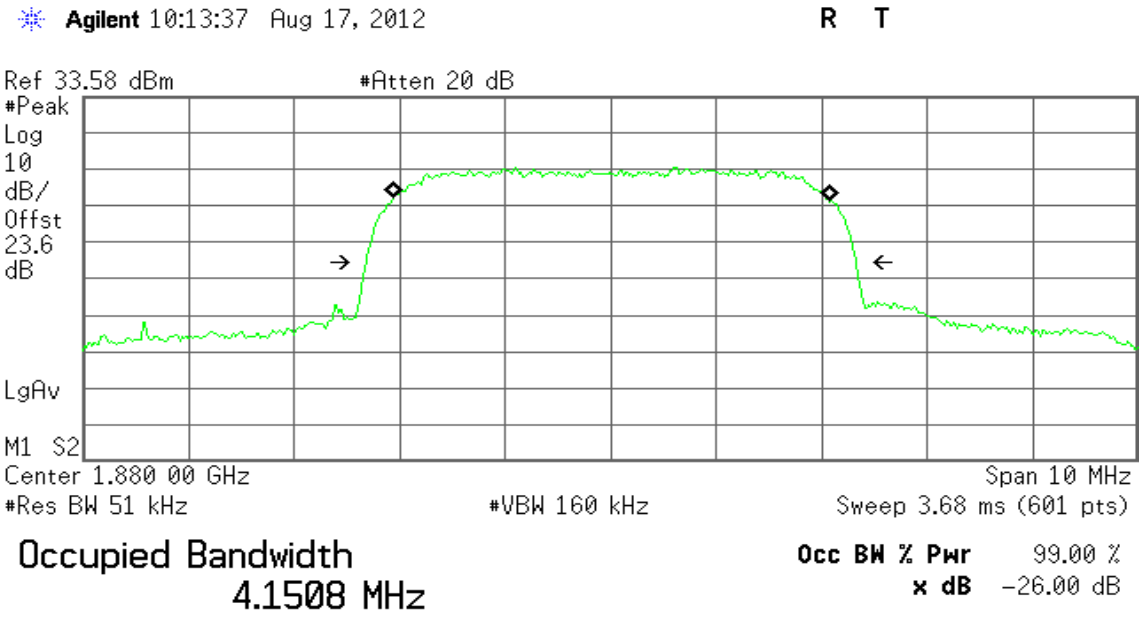
Transmit Freq Error 14.167 kHz
x dB Bandwidth 4.654 MHz

WCDMA / HSPA+ Band II (CH Mid)



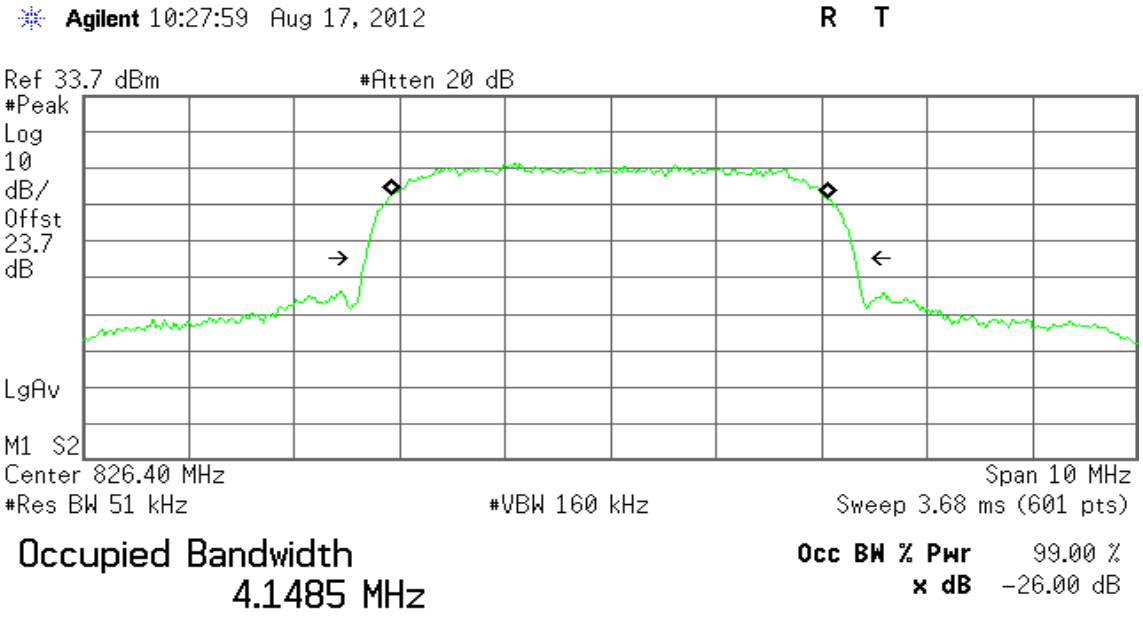
Transmit Freq Error 10.181 kHz
x dB Bandwidth 4.652 MHz

WCDMA / HSPA+ Band II (CH High)



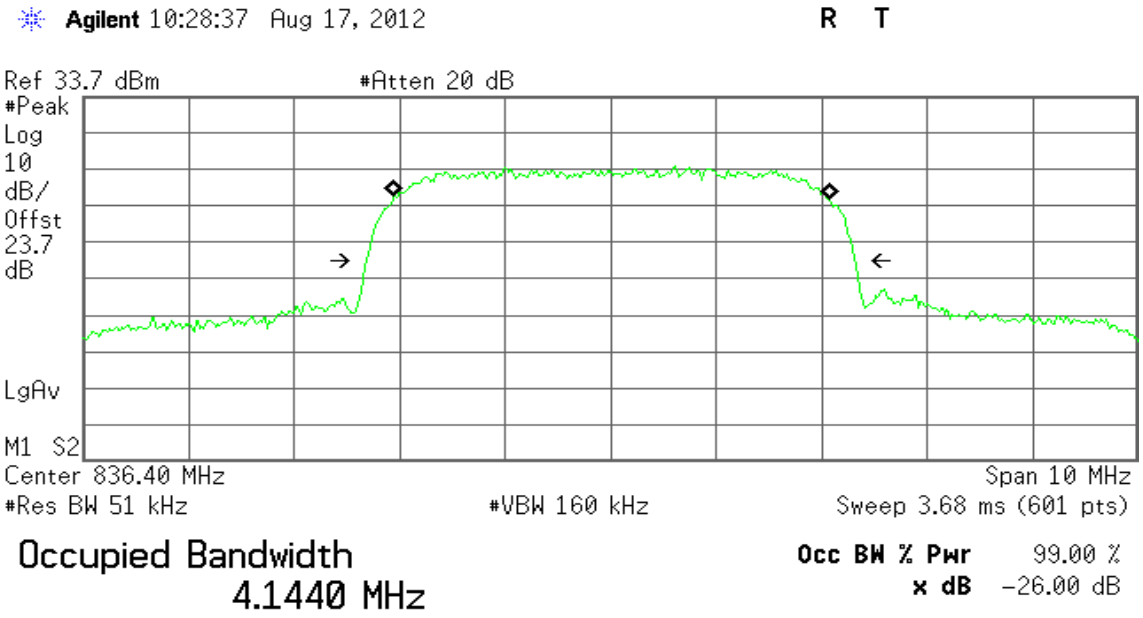
Transmit Freq Error 8.190 kHz
x dB Bandwidth 4.657 MHz

WCDMA / HSPA+ Band V (CH Low).



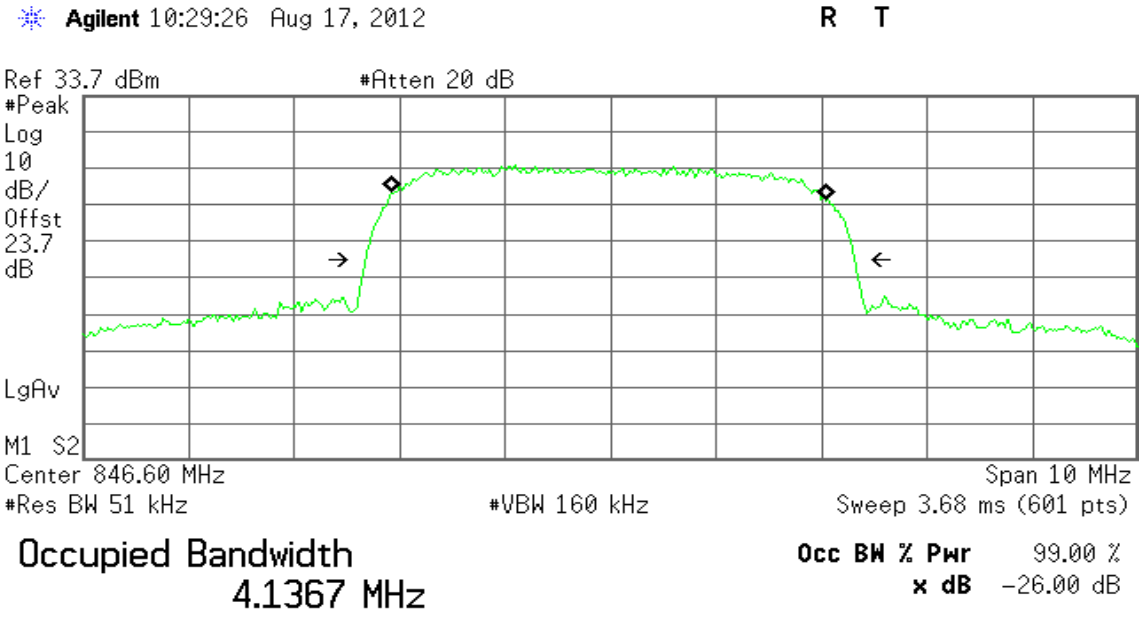
Transmit Freq Error -14.868 kHz
x dB Bandwidth 4.643 MHz

WCDMA / HSPA+ Band V (CH Mid)



Transmit Freq Error	8.155 kHz
x dB Bandwidth	4.641 MHz

WCDMA / HSPA+ Band V (CH High)



Transmit Freq Error	-14.279 kHz
x dB Bandwidth	4.651 MHz

7.5OUT OF BAND EMISSION AT ANTENNA TERMINALS

LIMIT

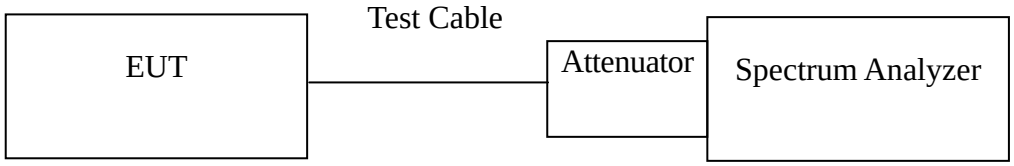
According to FCC §2.1051, FCC §22.917, FCC §24.238(a).

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
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
GPRS 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

Mode	CH	Location	Description
GPRS 850	128	Figure 10-1	Band Edge emissions
	251	Figure 10-2	Band Edge emissions

Mode	CH	Location	Description
GPRS 1900	512	Figure 11-1	Band Edge emissions
	810	Figure 11-2	Band Edge emissions

Mode	CH	Location	Description
EDGE 850	128	Figure 12-1	Conducted spurious emissions, 30MHz - 20GHz
	190	Figure 12-2	Conducted spurious emissions, 30MHz - 20GHz
	251	Figure 12-3	Conducted spurious emissions, 30MHz - 20GHz
EDGE 1900	512	Figure 13-1	Conducted spurious emissions, 30MHz - 20GHz
	661	Figure 13-2	Conducted spurious emissions, 30MHz - 20GHz
	810	Figure 13-3	Conducted spurious emissions, 30MHz - 20GHz

Mode	CH	Location	Description
EDGE 850	128	Figure 14-1	Band Edge emissions
	251	Figure 14-2	Band Edge emissions
EDGE 1900	512	Figure 15-1	Band Edge emissions
	810	Figure 15-2	Band Edge emissions

Mode	CH	Location	Description
WCDMA (Band II)	9262	Figure 16-1	Conducted spurious emissions, 30MHz - 20GHz
	9400	Figure 16-2	Conducted spurious emissions, 30MHz - 20GHz
	9538	Figure 16-3	Conducted spurious emissions, 30MHz - 20GHz
WCDMA (Band V)	4132	Figure 17-1	Conducted spurious emissions, 30MHz - 20GHz
	4182	Figure 17-2	Conducted spurious emissions, 30MHz - 20GHz
	4233	Figure 17-3	Conducted spurious emissions, 30MHz - 20GHz

Mode	CH	Location	Description
WCDMA (Band II)	9262	Figure 18-1	Band Edge emissions
	9538	Figure 18-2	Band Edge emissions
WCDMA (Band V)	4132	Figure 19-1	Band Edge emissions
	4233	Figure 19-2	Band Edge emissions

Mode	CH	Location	Description
HSDPA WCDMA (Band II)	9262	Figure 20-1	Conducted spurious emissions, 30MHz - 20GHz
	9400	Figure 20-2	Conducted spurious emissions, 30MHz - 20GHz
	9538	Figure 20-3	Conducted spurious emissions, 30MHz - 20GHz
HSDPA WCDMA (Band V)	4132	Figure 21-1	Conducted spurious emissions, 30MHz - 20GHz
	4182	Figure 21-2	Conducted spurious emissions, 30MHz - 20GHz
	4233	Figure 21-3	Conducted spurious emissions, 30MHz - 20GHz

Mode	CH	Location	Description
HSDPA WCDMA (Band II)	9262	Figure 22-1	Band Edge emissions
	9538	Figure 22-2	Band Edge emissions
HSDPA WCDMA (Band V)	4132	Figure 23-1	Band Edge emissions
	4233	Figure 23-2	Band Edge emissions

Mode	CH	Location	Description
HSUPA WCDMA (Band II)	9262	Figure 24-1	Conducted spurious emissions, 30MHz - 20GHz
	9400	Figure 24-2	Conducted spurious emissions, 30MHz - 20GHz
	9538	Figure 24-3	Conducted spurious emissions, 30MHz - 20GHz
HSUPA WCDMA (Band V)	4132	Figure 25-1	Conducted spurious emissions, 30MHz - 20GHz
	4182	Figure 25-2	Conducted spurious emissions, 30MHz - 20GHz
	4233	Figure 25-3	Conducted spurious emissions, 30MHz - 20GHz

Mode	CH	Location	Description
HSUPA WCDMA (Band II)	9262	Figure 26-1	Band Edge emissions
	9538	Figure 26-2	Band Edge emissions
HSUPA WCDMA (Band V)	4132	Figure 27-1	Band Edge emissions
	4233	Figure 27-2	Band Edge emissions

Mode	CH	Location	Description
HSPA+ WCDM (Band II)	9262	Figure 28-1	Conducted spurious emissions, 30MHz - 20GHz
	9400	Figure 28-2	Conducted spurious emissions, 30MHz - 20GHz
	9538	Figure 28-3	Conducted spurious emissions, 30MHz - 20GHz
HSPA+ WCDM (Band V)	4132	Figure 29-1	Conducted spurious emissions, 30MHz - 20GHz
	4182	Figure 29-2	Conducted spurious emissions, 30MHz - 20GHz
	4233	Figure 29-3	Conducted spurious emissions, 30MHz - 20GHz

Mode	CH	Location	Description
HSPA+ WCDM (Band II)	9262	Figure 30-1	Band Edge emissions
	9538	Figure 30-2	Band Edge emissions
HSPA+ WCDMA (Band V)	4132	Figure 31-1	Band Edge emissions
	4233	Figure 31-2	Band Edge emissions

Test Plot

GPRS 850

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

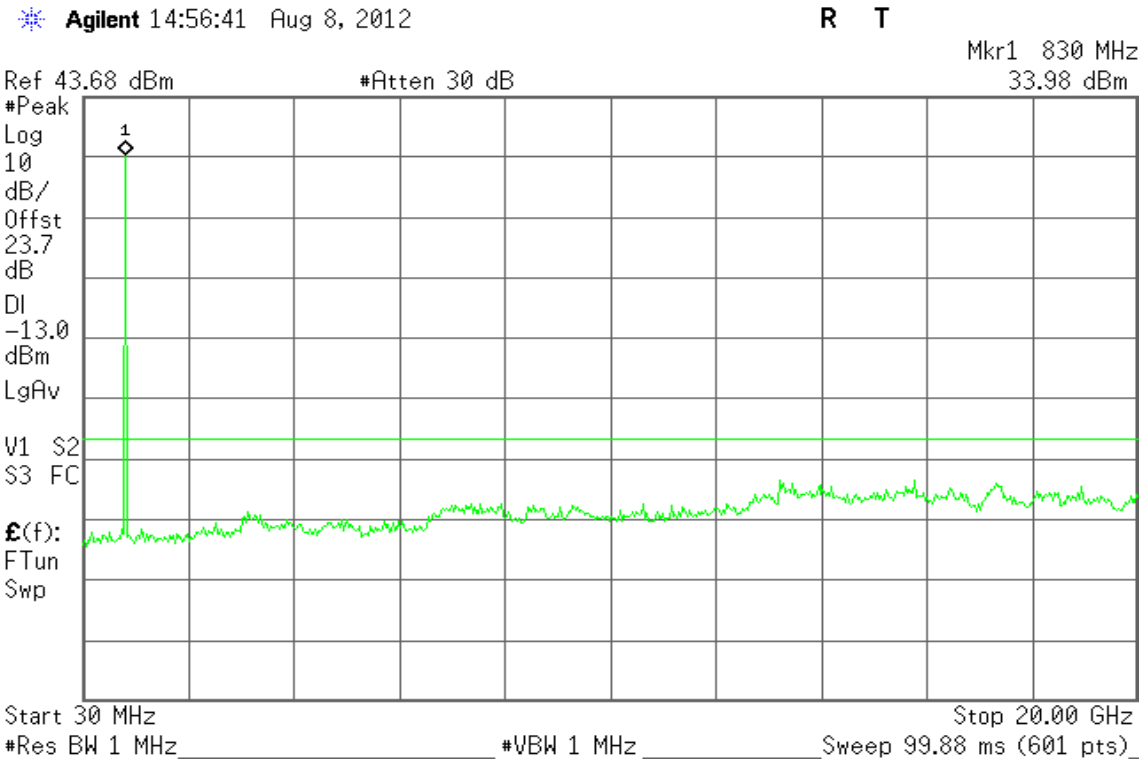


Figure 8-2: Out of Band emission at antenna terminals – GPRS CH Mid

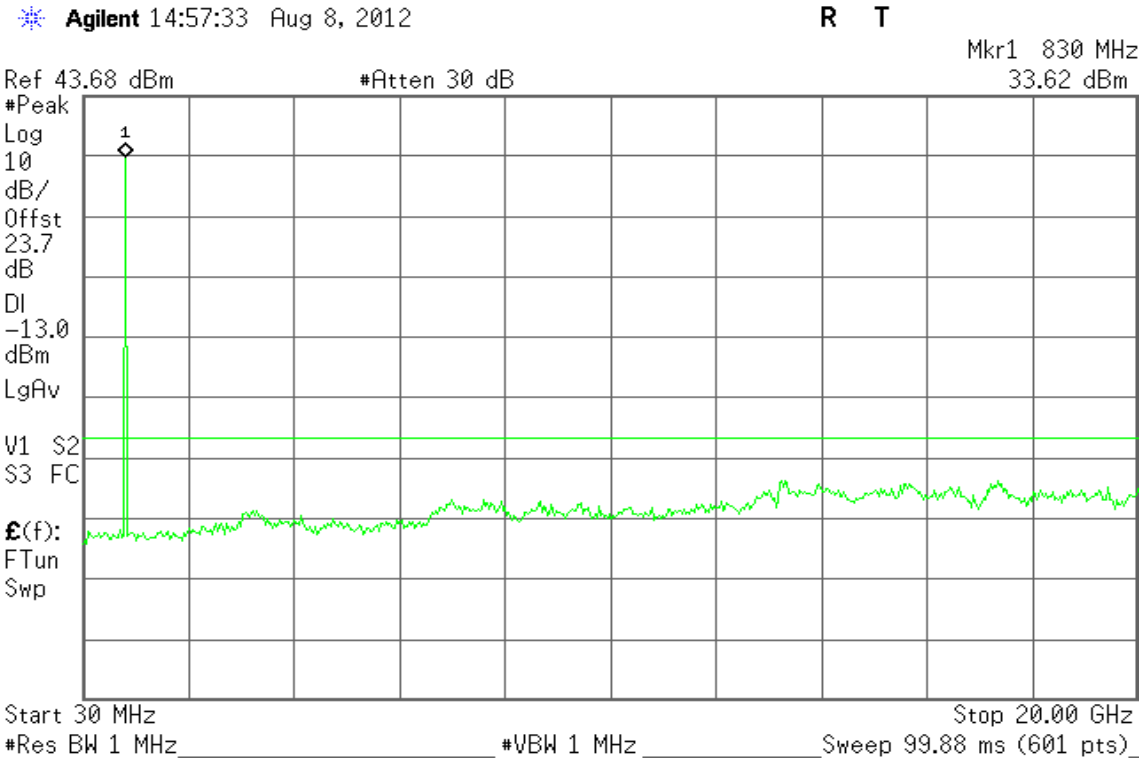
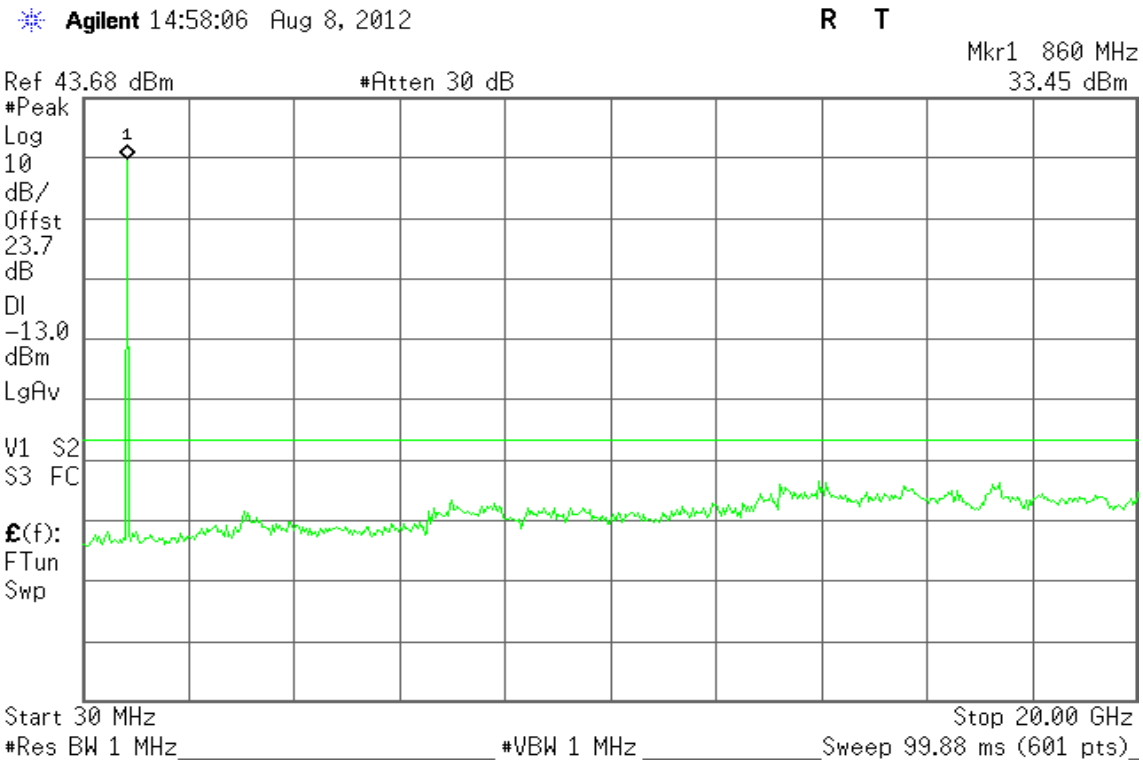


Figure 8-3: Out of Band emission at antenna terminals – GPRS CH High



GPRS 1900

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

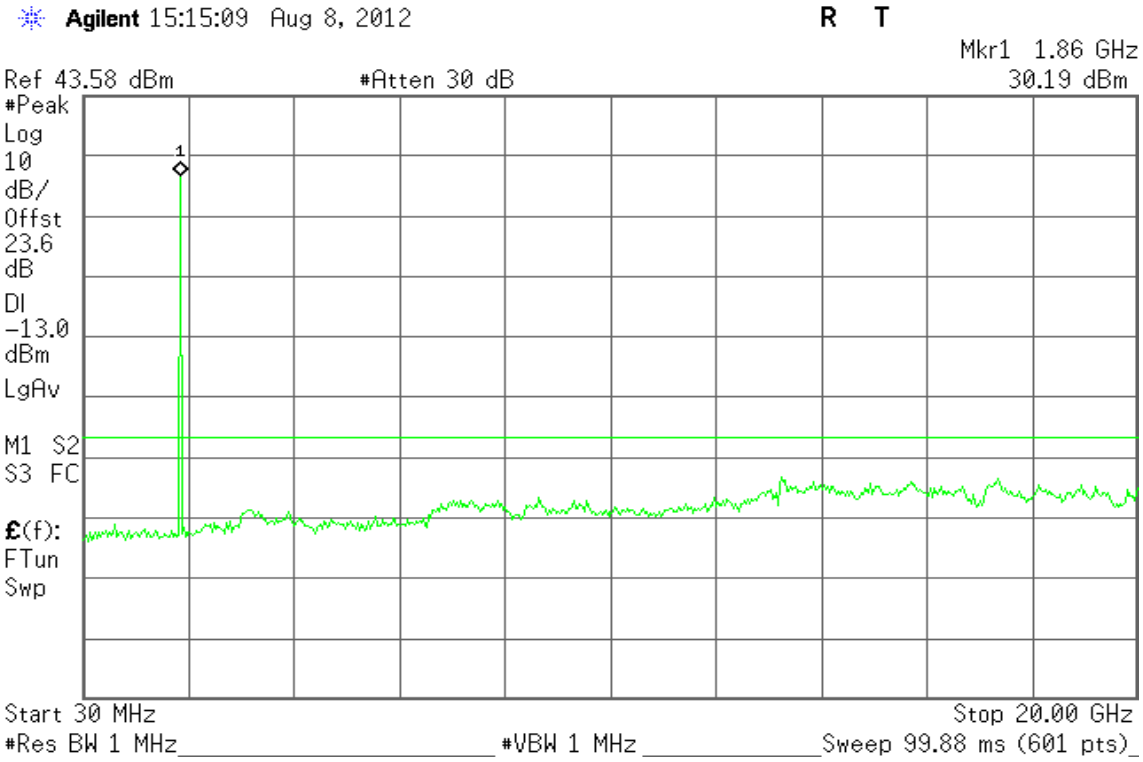


Figure 9-2: Out of Band emission at antenna terminals –GPRS CH Mid

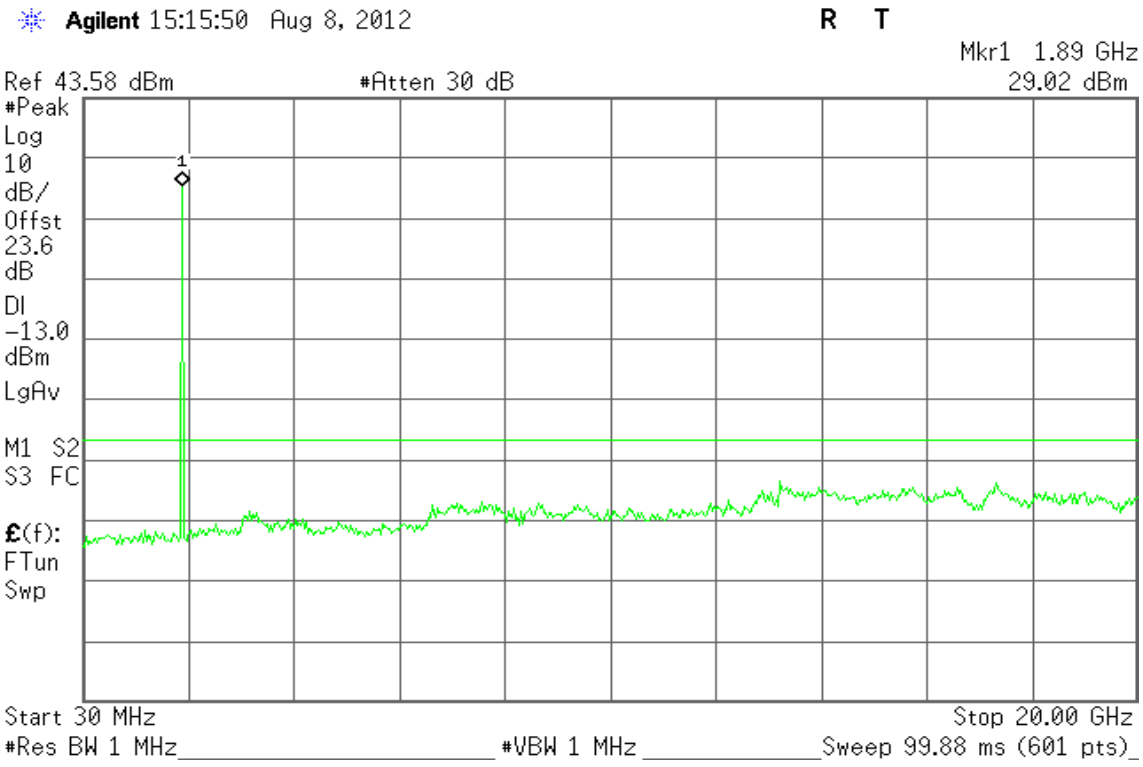
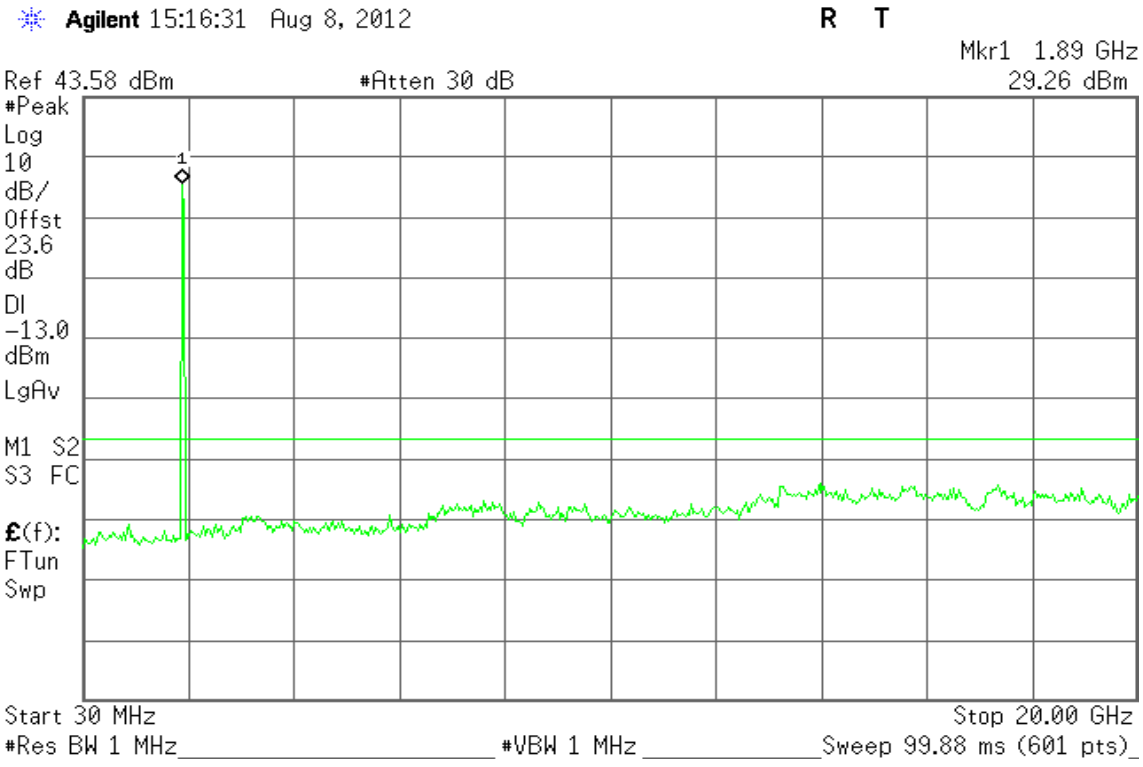


Figure 9-3: Out of Band emission at antenna terminals –GPRS CH High



GPRS 850

Figure 10-1: Band Edge emissions – GPRS CH Low

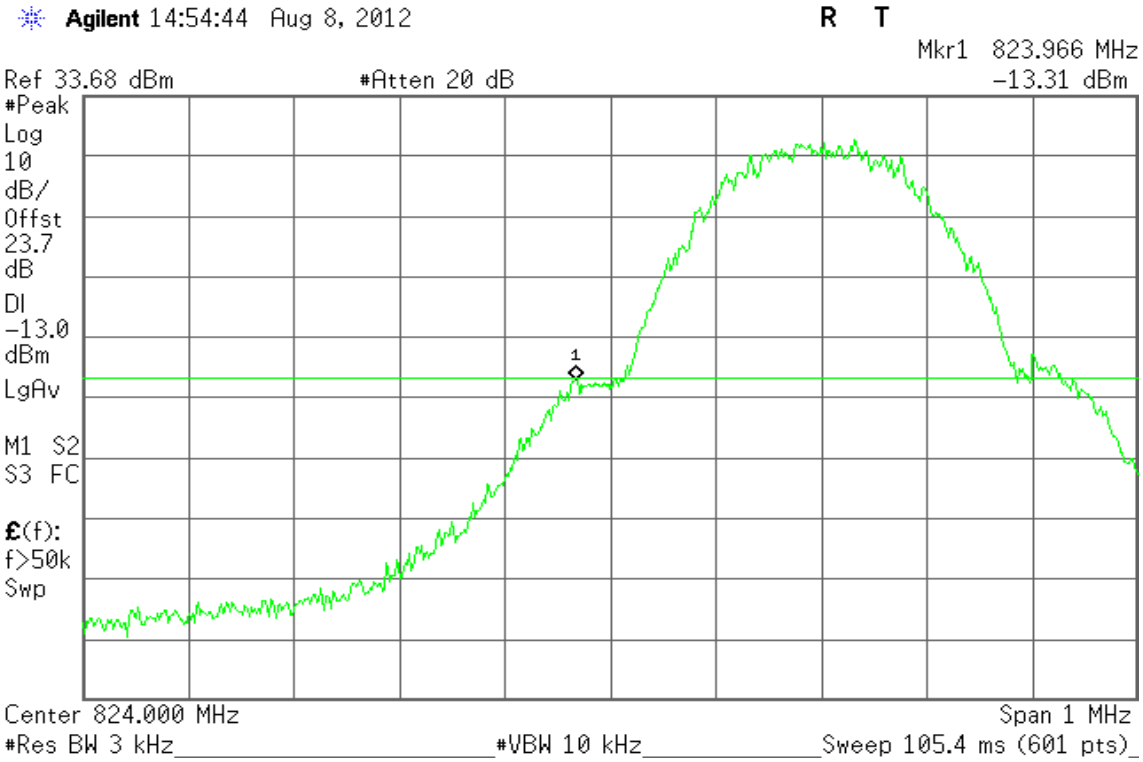
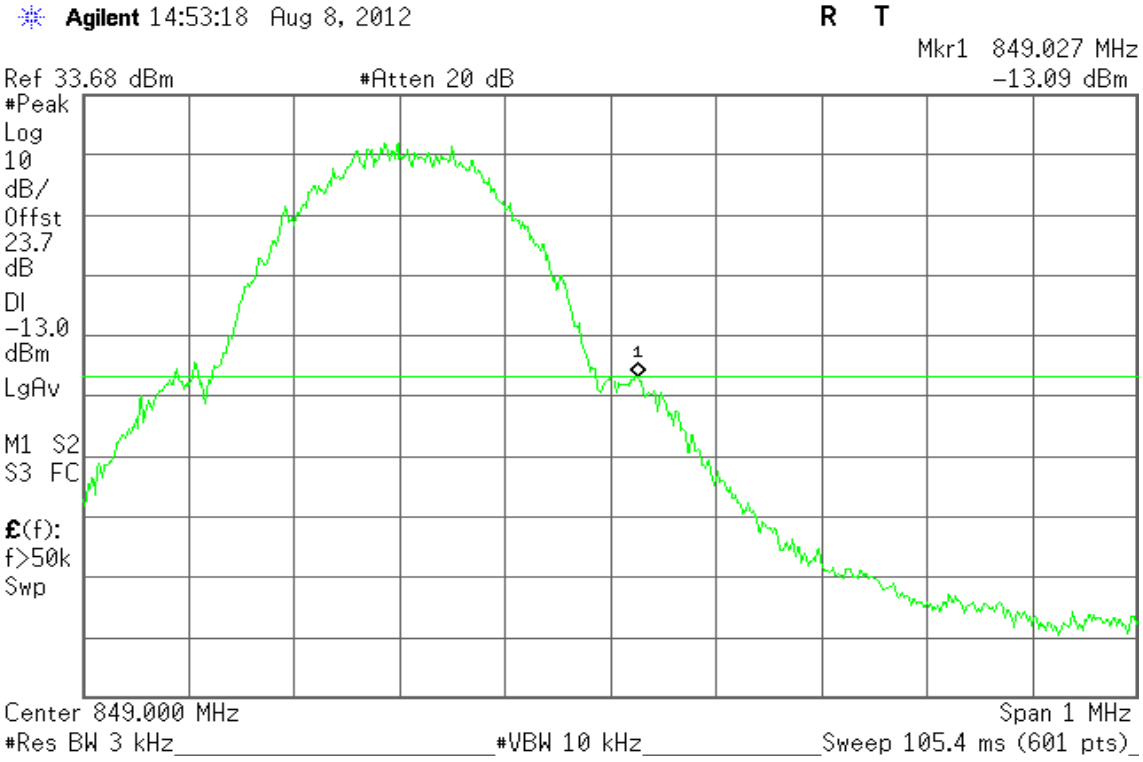


Figure 10-2: Band Edge emissions –GPRS CH High



GPRS 1900

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

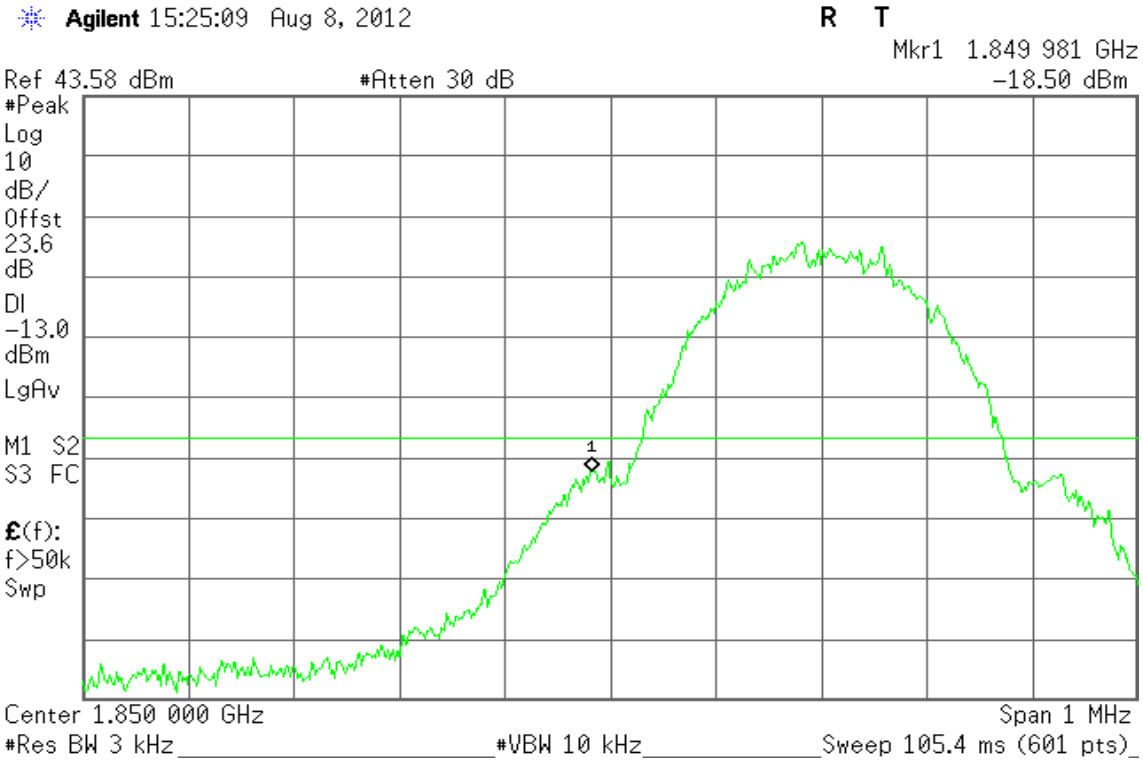
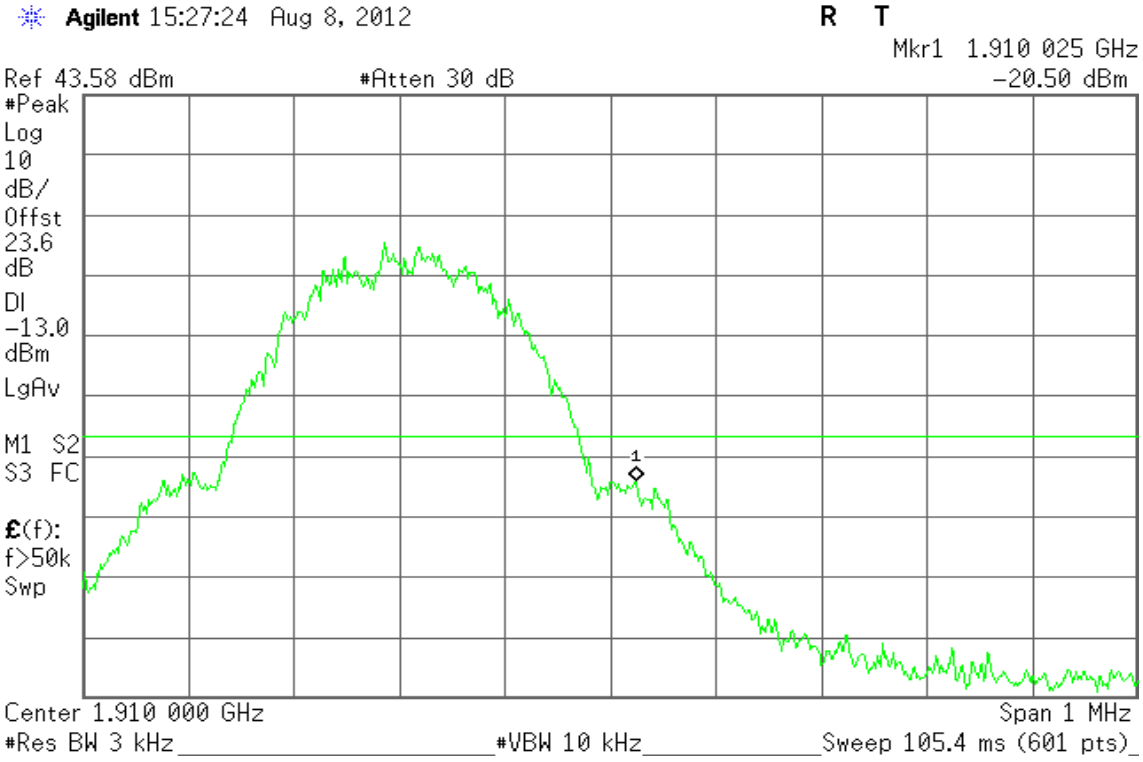


Figure 11-2: Band Edge emissions – GPRS CH High



EDGE 850

Figure 12-1: Out of Band emission at antenna terminals –EDGE CH Low

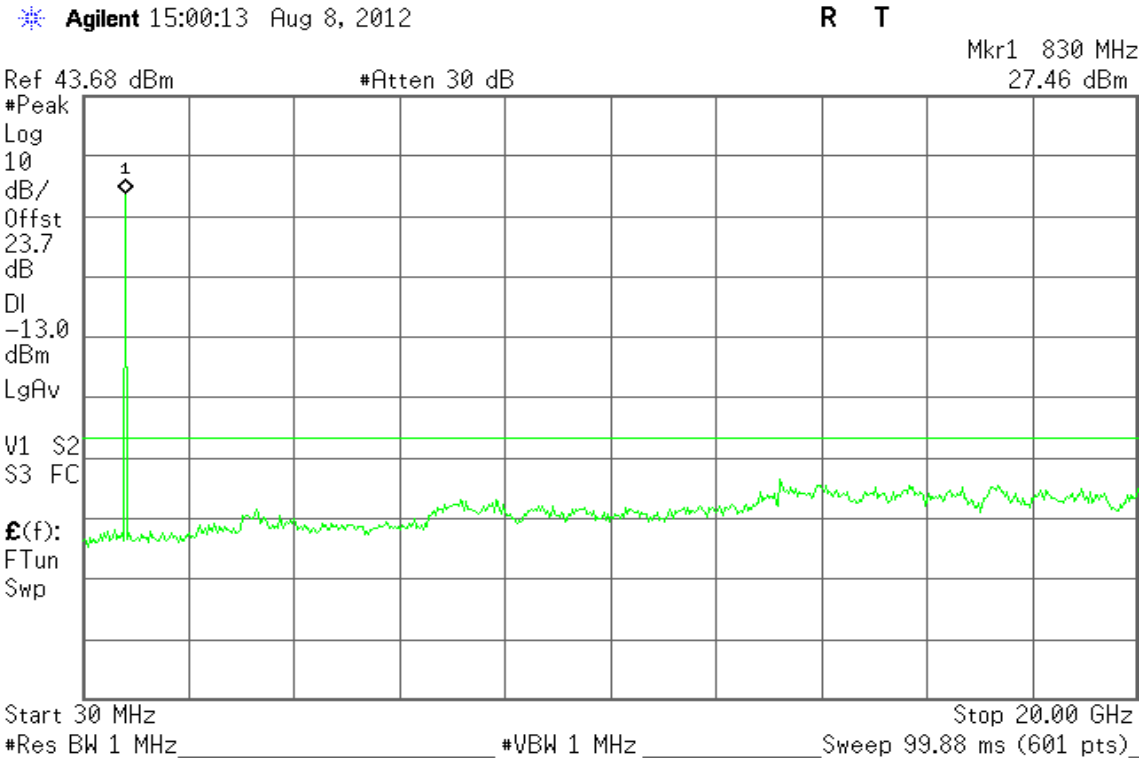


Figure 12-2: Out of Band emission at antenna terminals –EDGE CH Mid

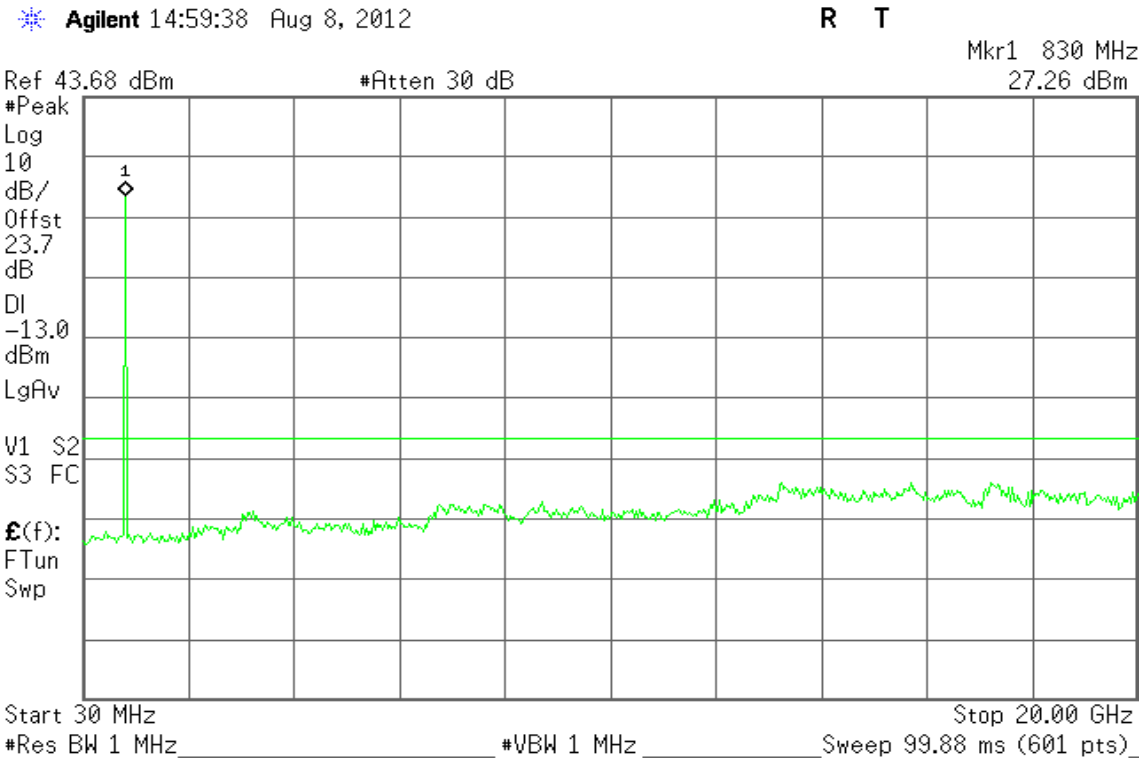
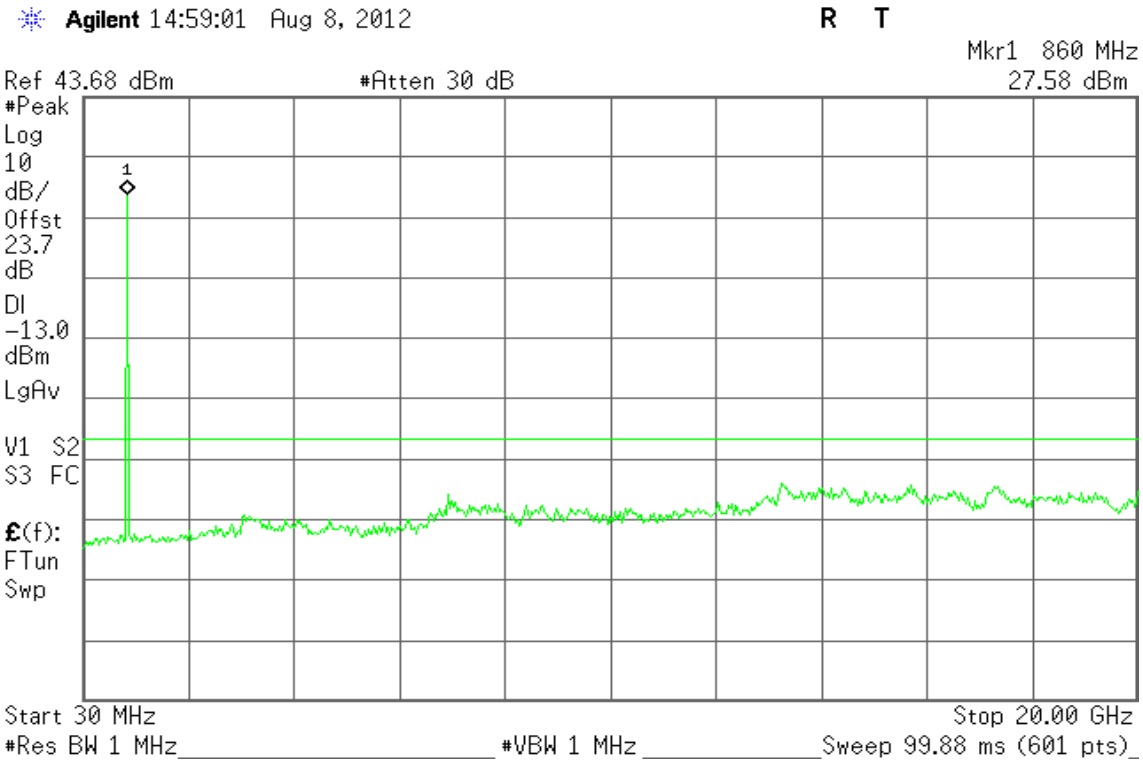


Figure 12-3: Out of Band emission at antenna terminals –EDGE CH High



EDGE 1900

Figure 13-1: Out of Band emission at antenna terminals –EDGE CH Low

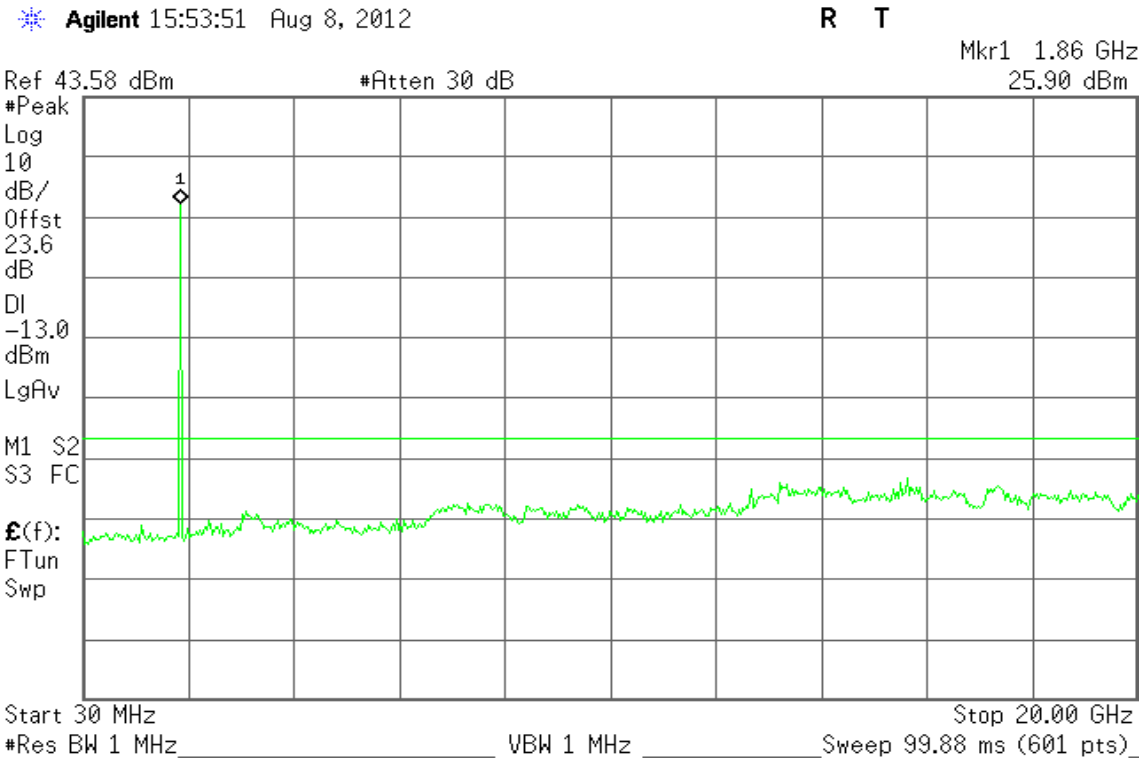


Figure 13-2: Out of Band emission at antenna terminals –EDGE CH Mid

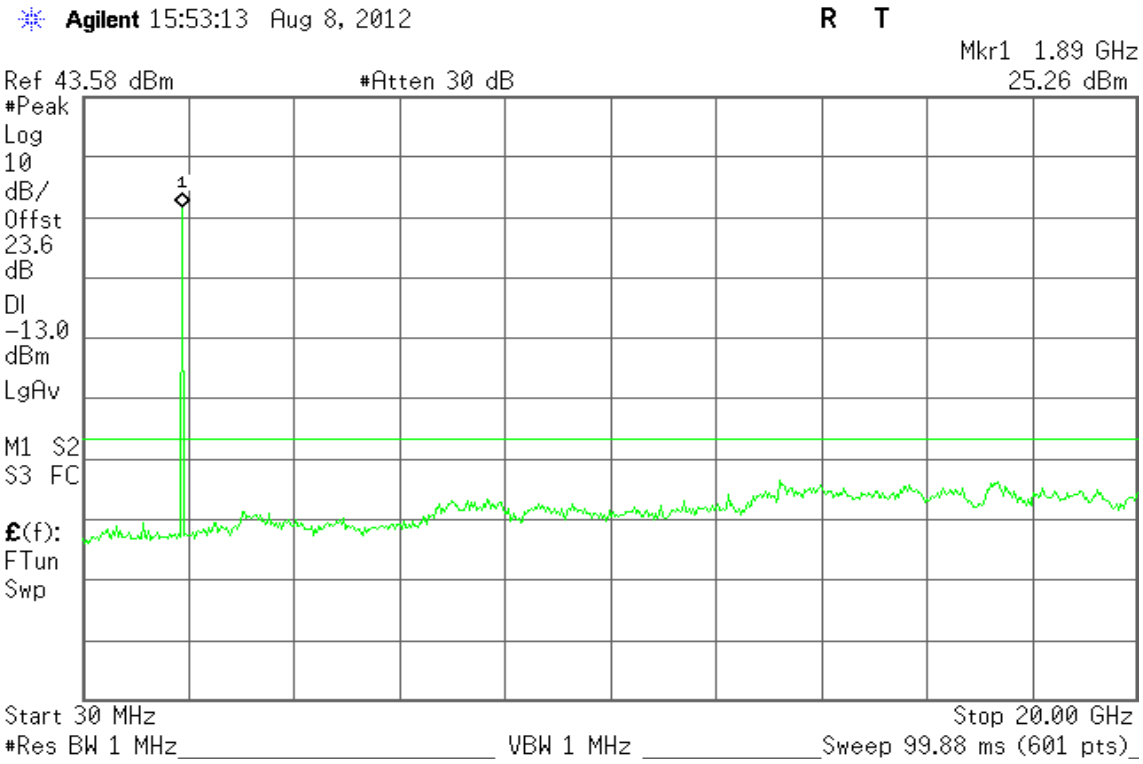
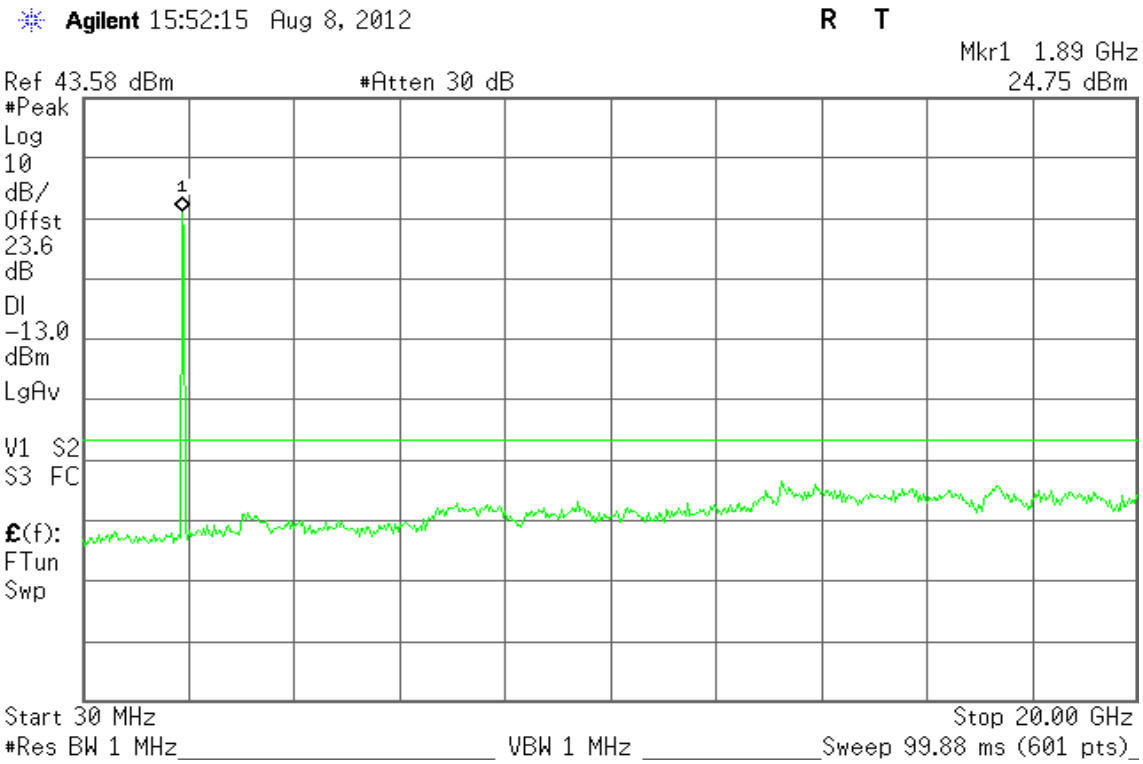


Figure 13-3: Out of Band emission at antenna terminals –EDGE CH High



EDGE 850

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

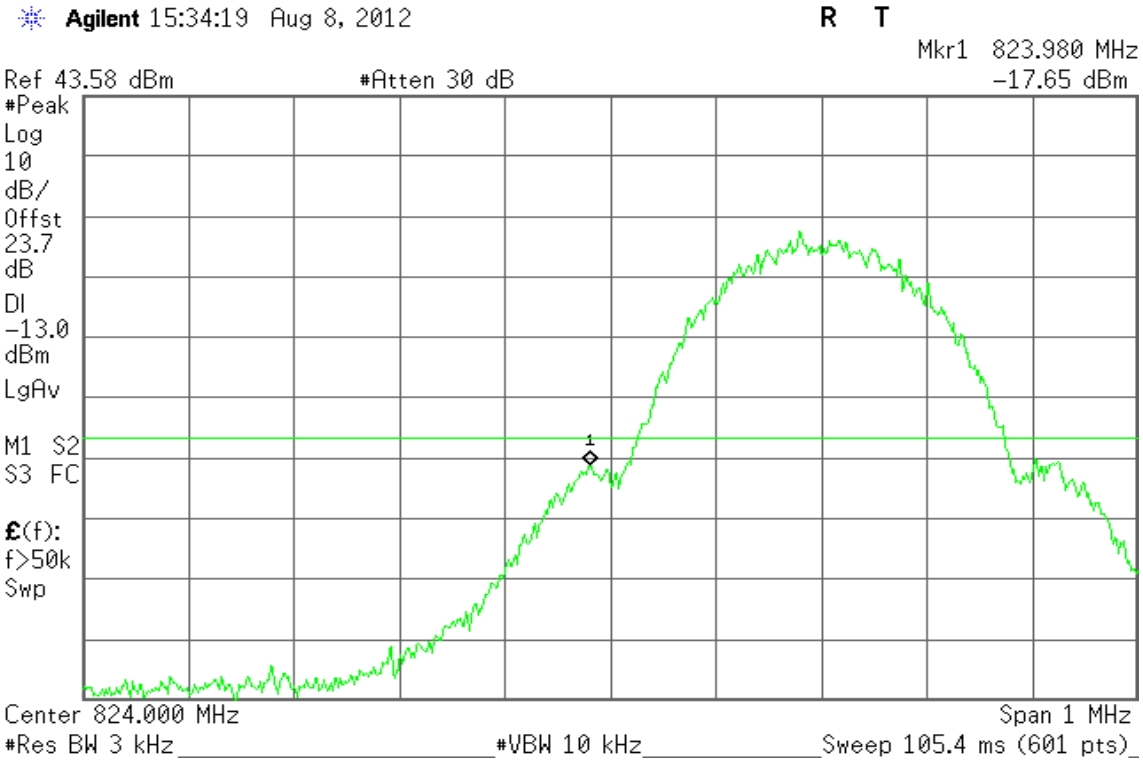
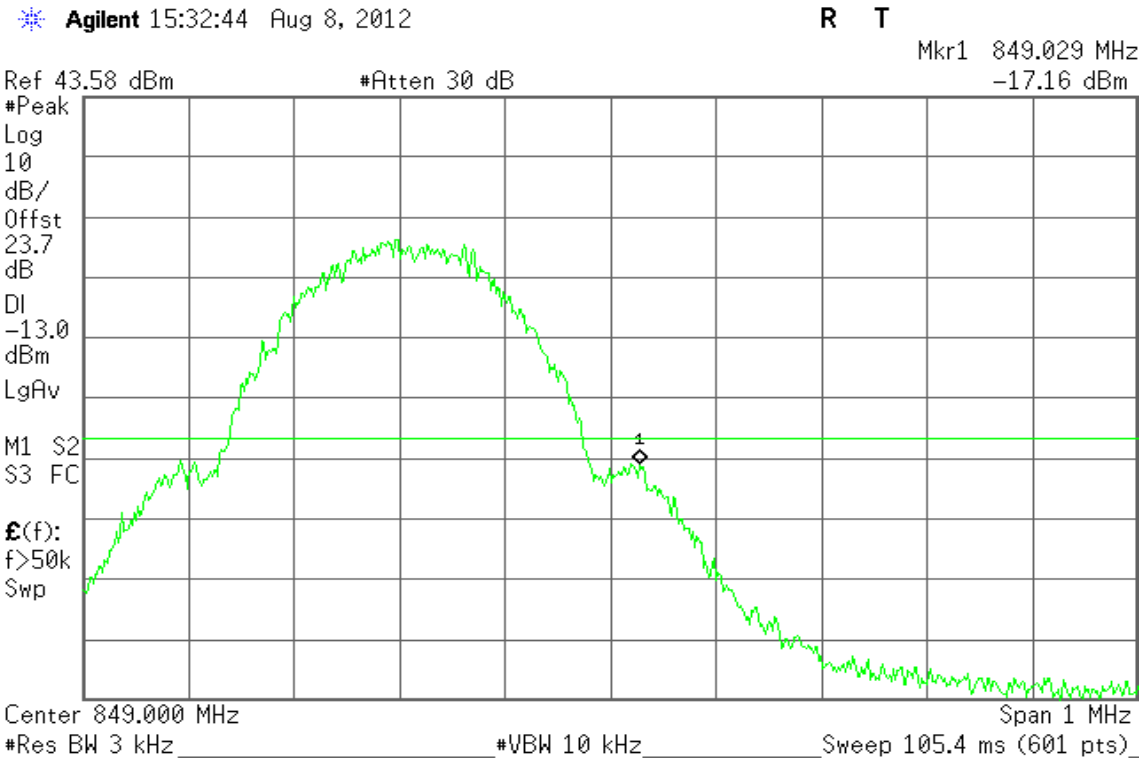


Figure 14-2: Band Edge emissions – EDGE CH High



EDGE 1900

Figure 15-1: Band Edge emissions – EDGE CH Low

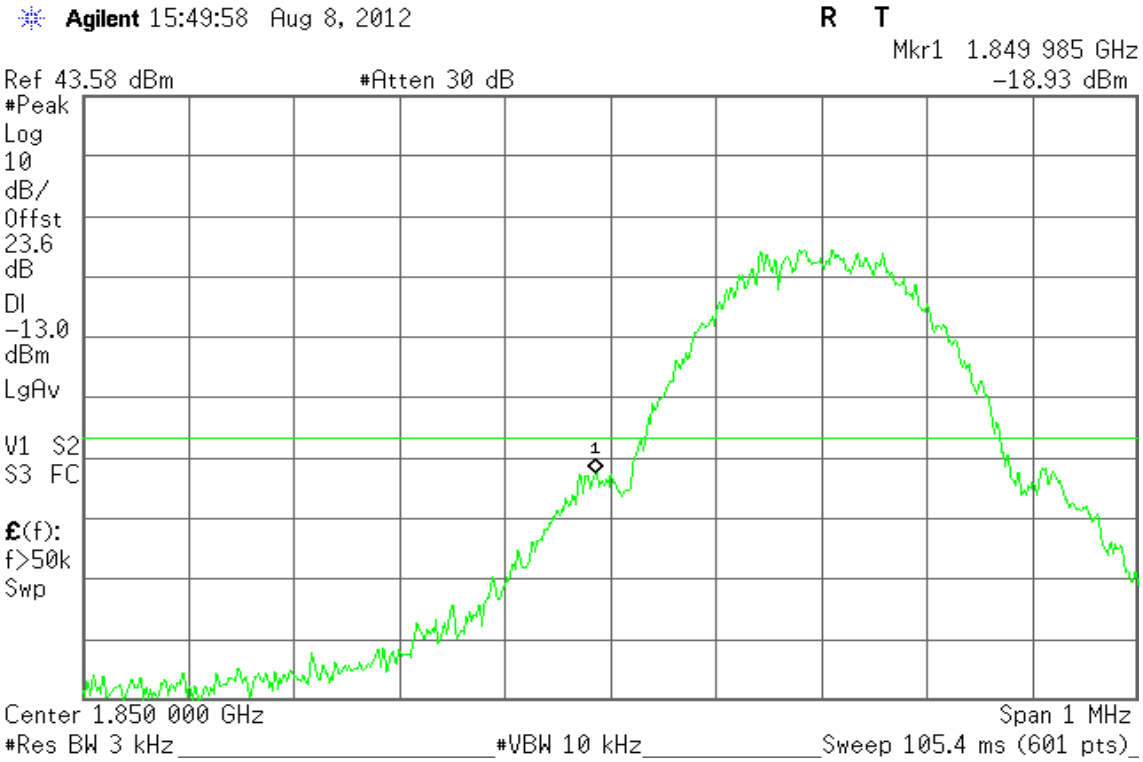
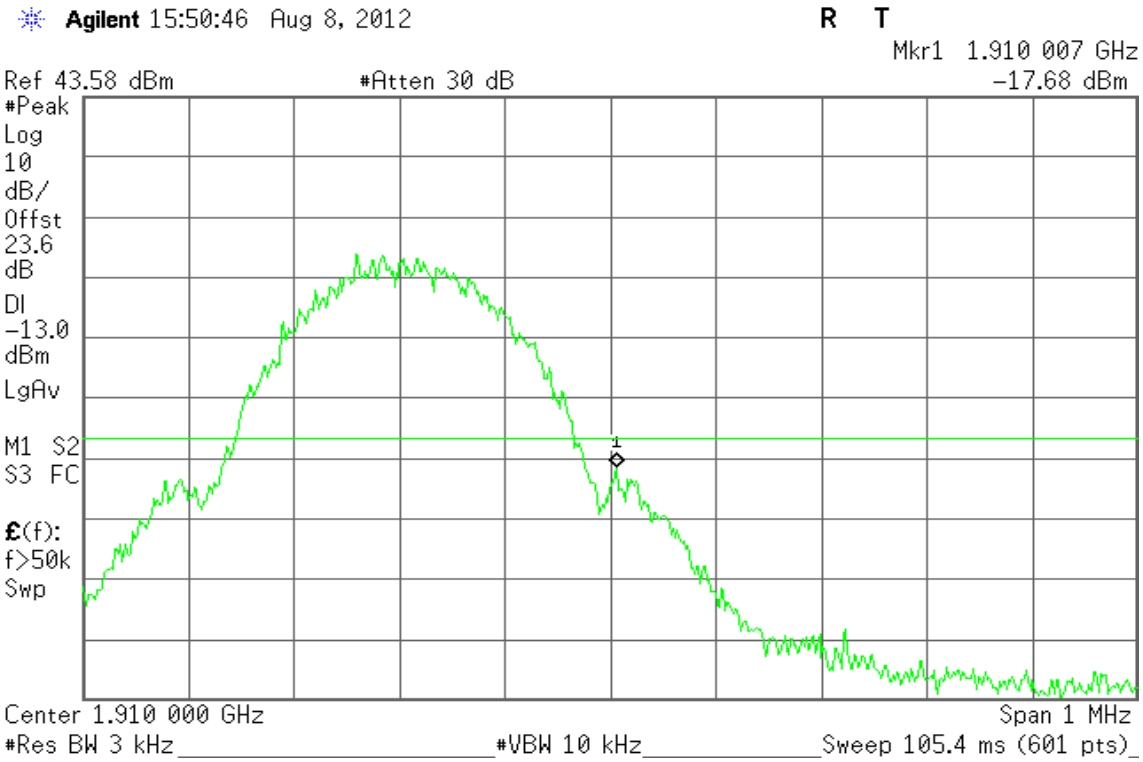


Figure 15-2: Band Edge emissions – EDGE CH High



WCDMA Band II

Figure 16-1: Out of Band emission at antenna terminals – WCDMA CH Low

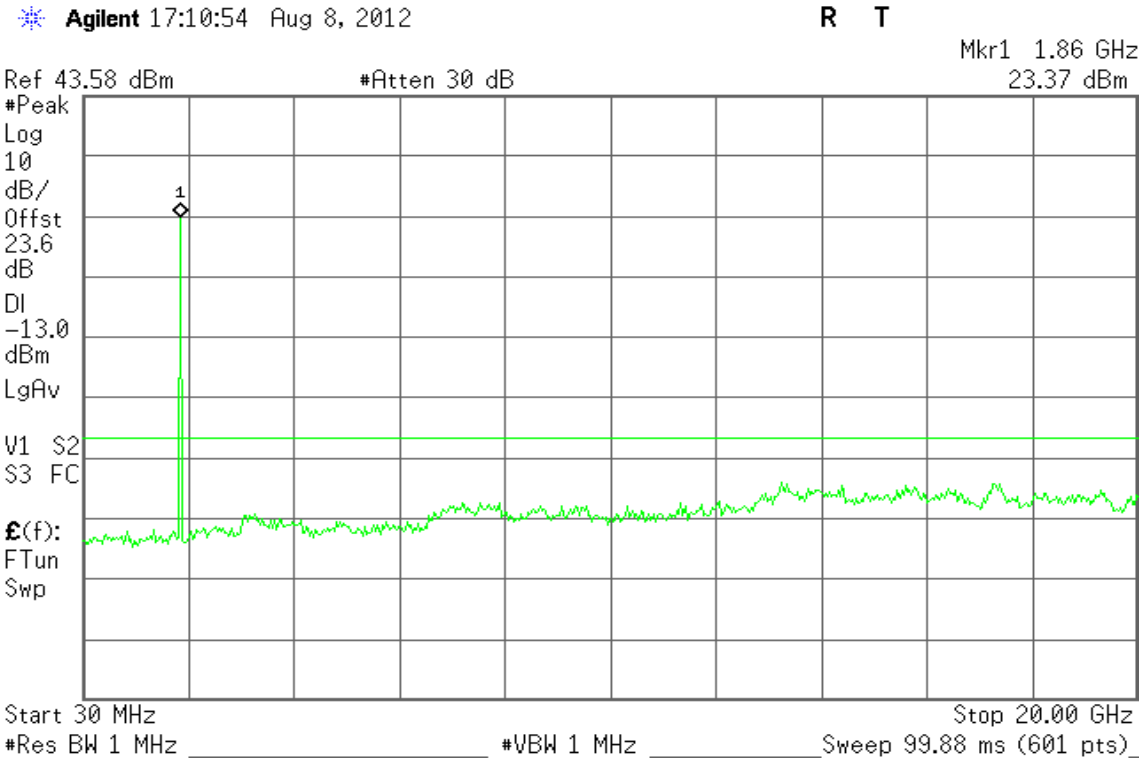


Figure 16-2: Out of Band emission at antenna terminals – WCDMA CH Mid

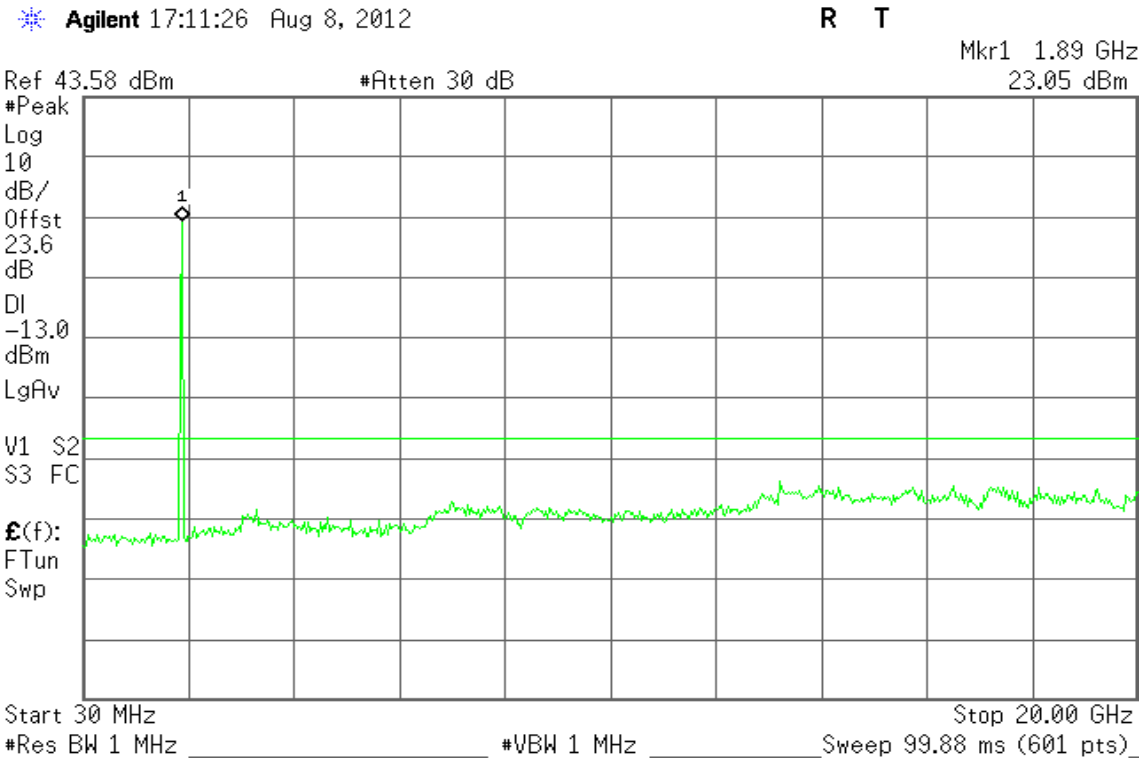
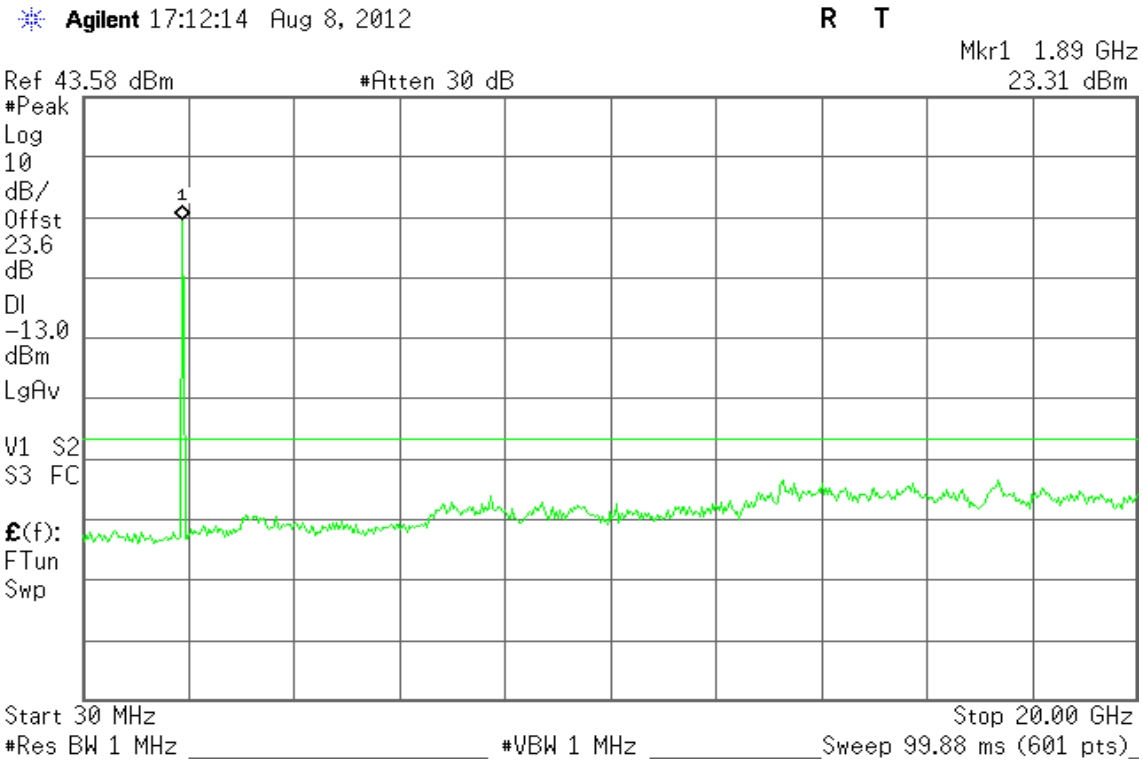


Figure 16-3: Out of Band emission at antenna terminals – WCDMA CH High



WCDMA Band V

Figure 17-1: Out of Band emission at antenna terminals – WCDMA CH Low

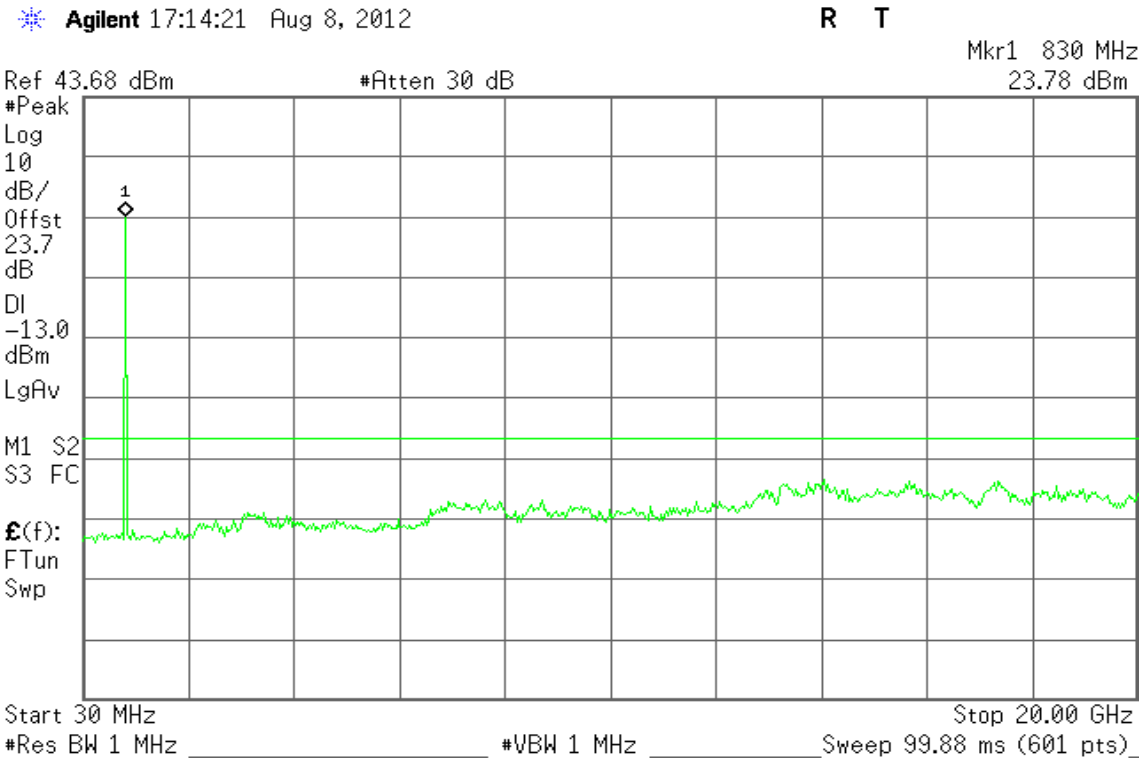


Figure 17-2: Out of Band emission at antenna terminals – WCDMA CH Mid

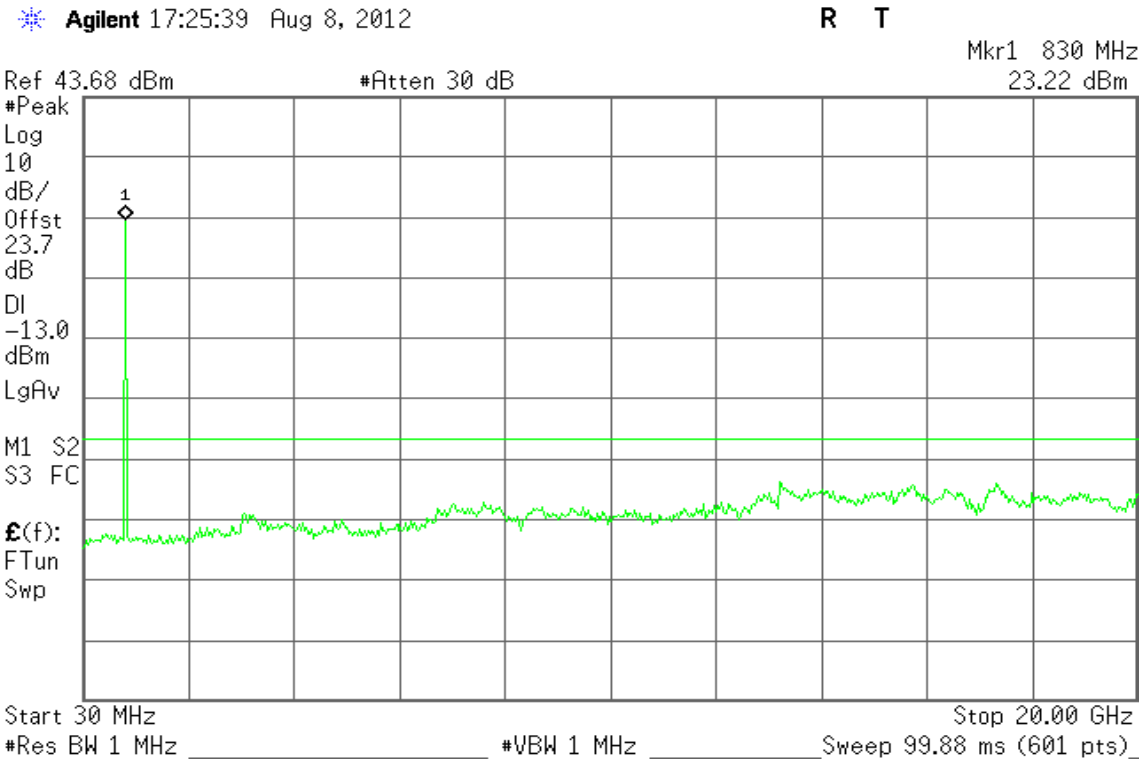
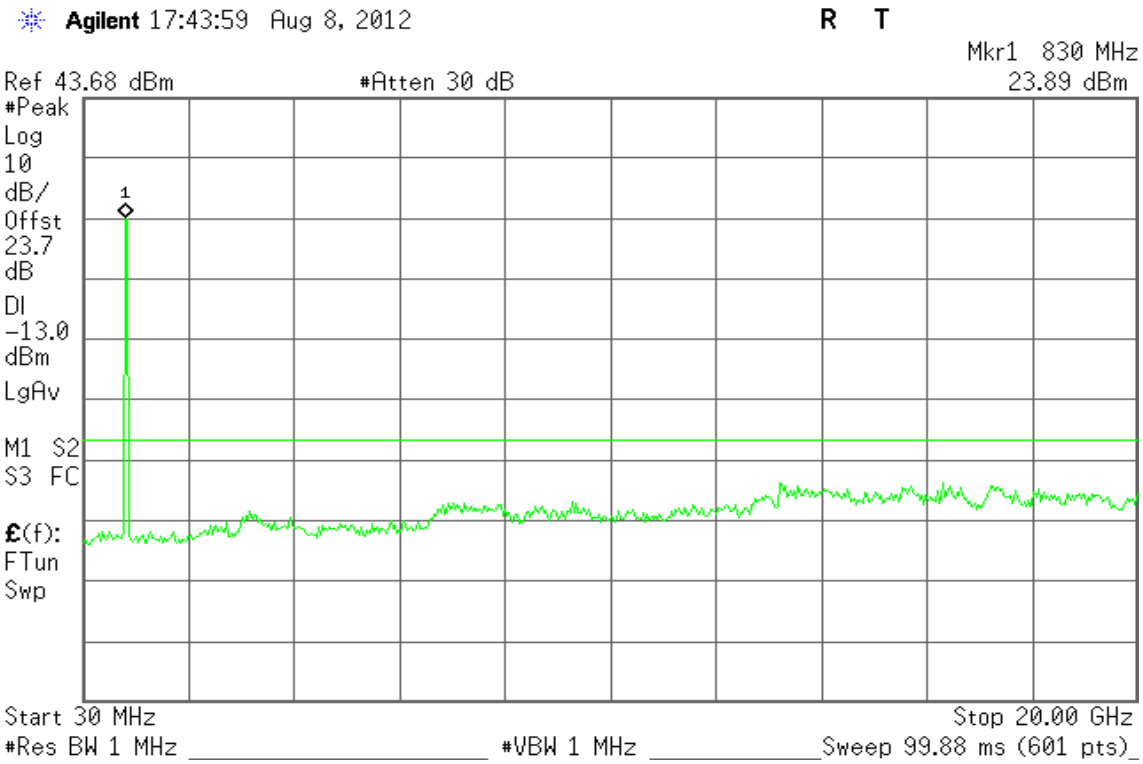


Figure 17-3: Out of Band emission at antenna terminals – WCDMA CH High



WCDMA Band II

Figure 18-1: Band Edge emissions – WCDMA CH Low

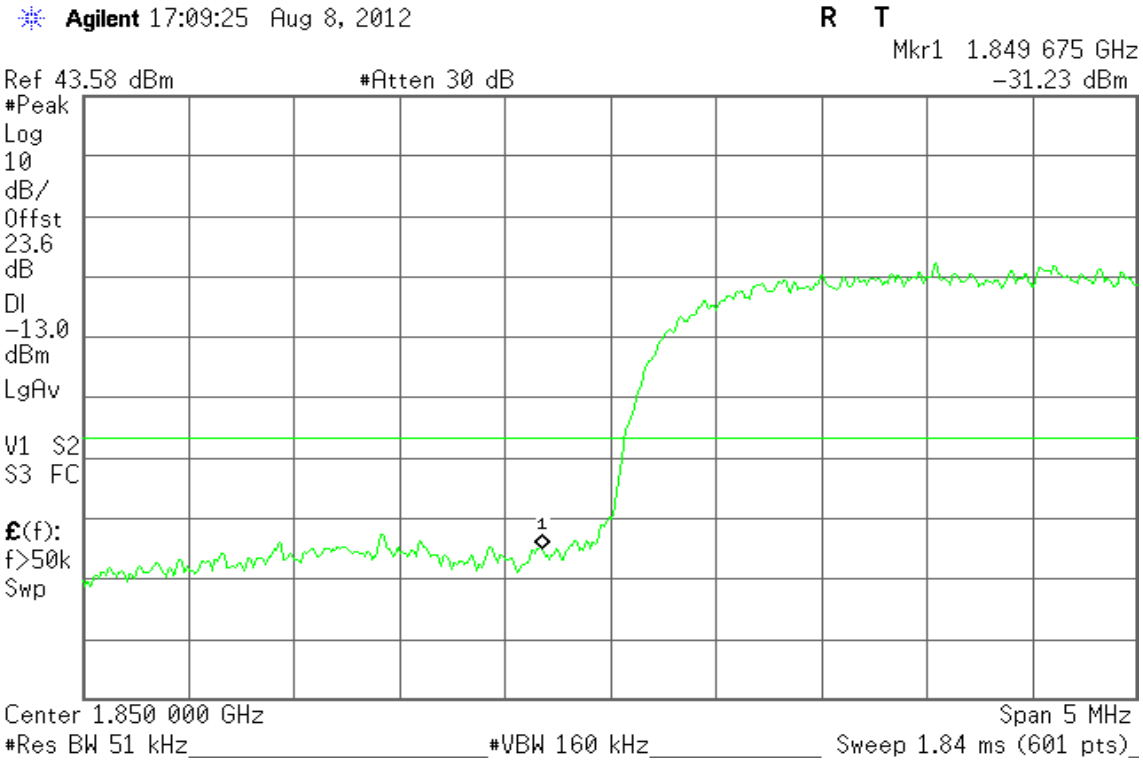
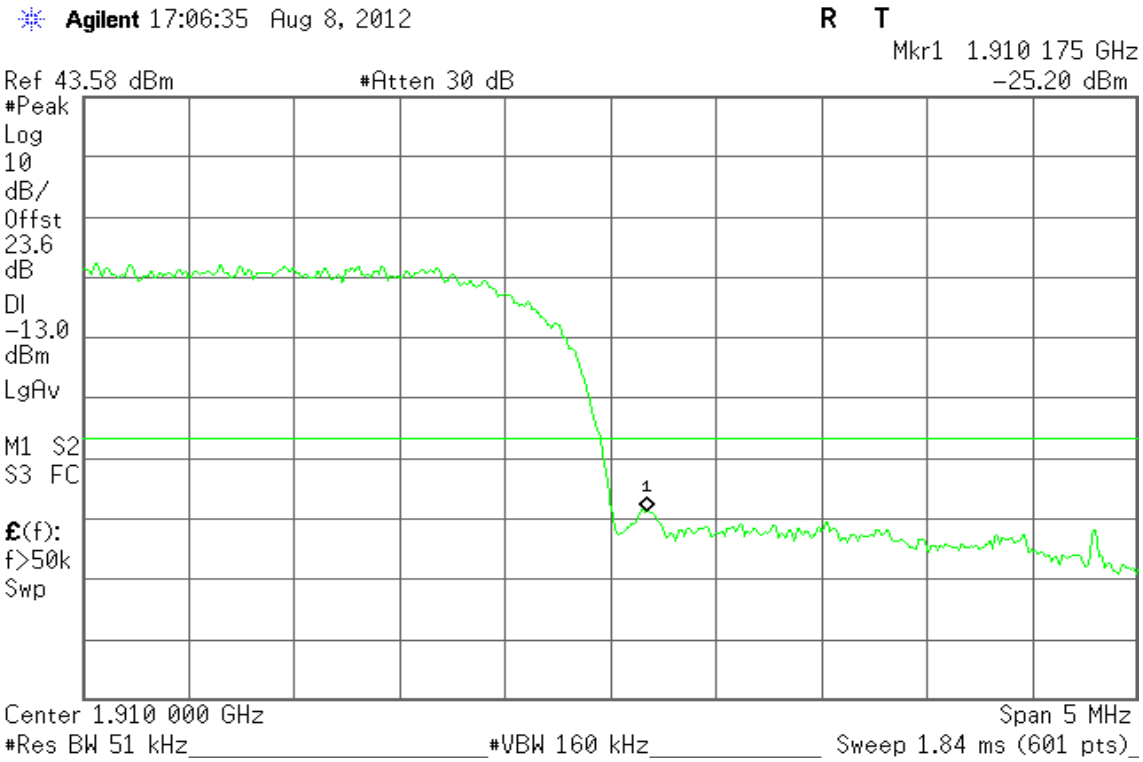


Figure 18-2: Band Edge emissions –WCDMA CH High



WCDMA Band V

Figure 19-1: Band Edge emissions –WCDMA CH Low

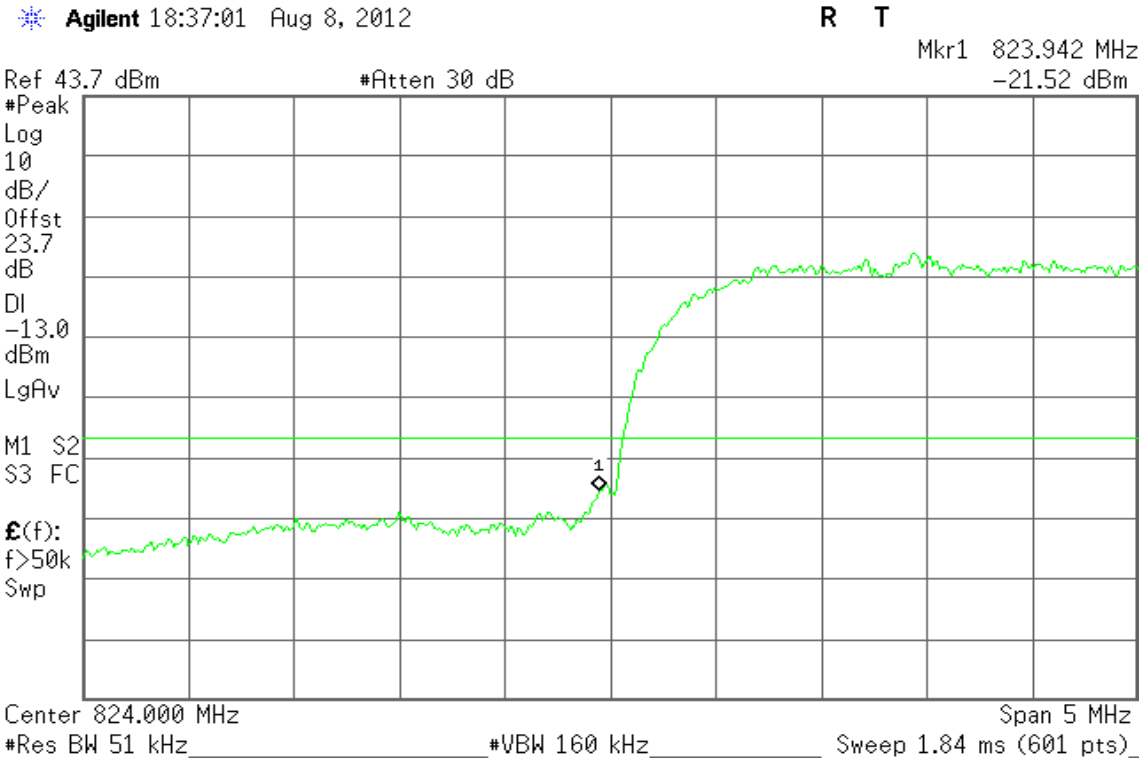
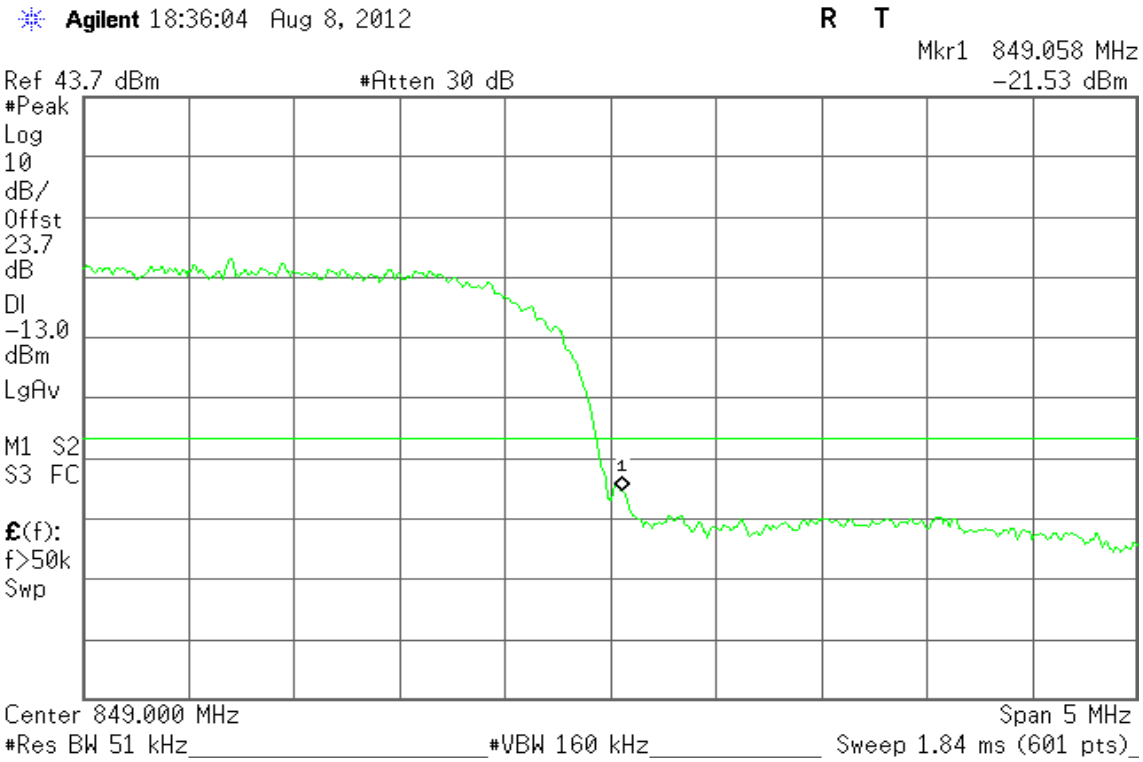


Figure 19-2: Band Edge emissions –WCDMA CH High



WCDMA / HSDPA Band II

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

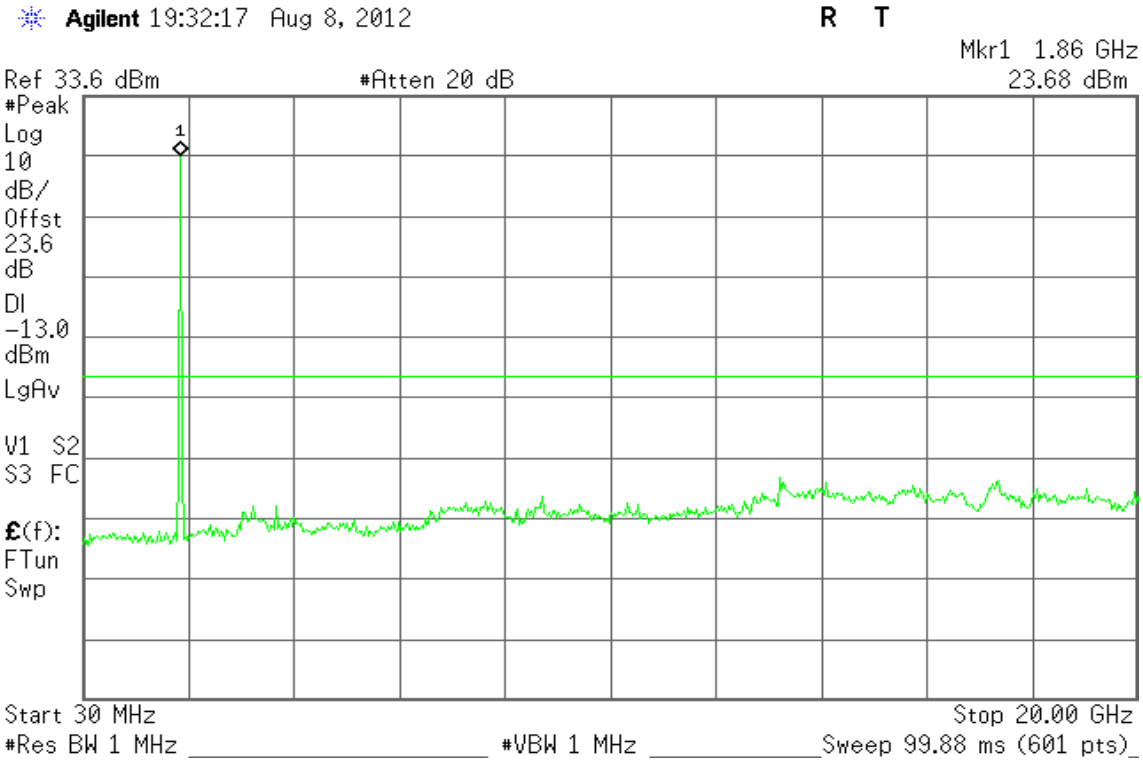


Figure 20-2: Out of Band emission at antenna terminals – HSDPA CH Mid

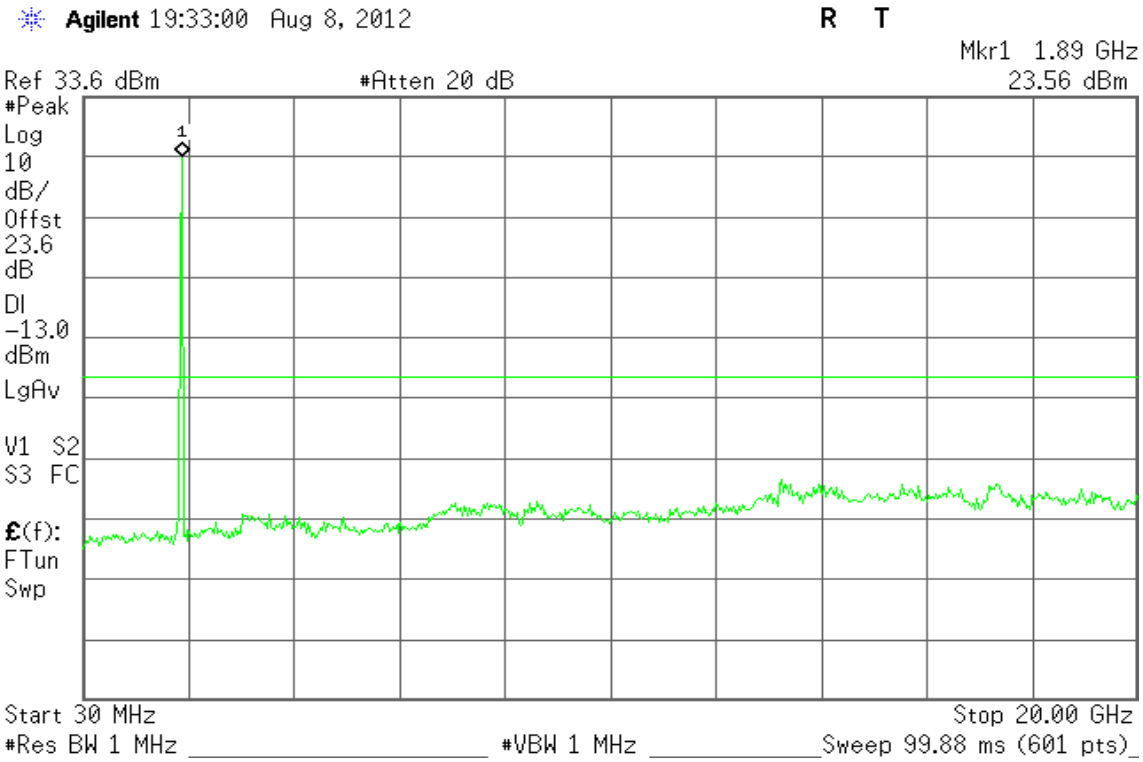
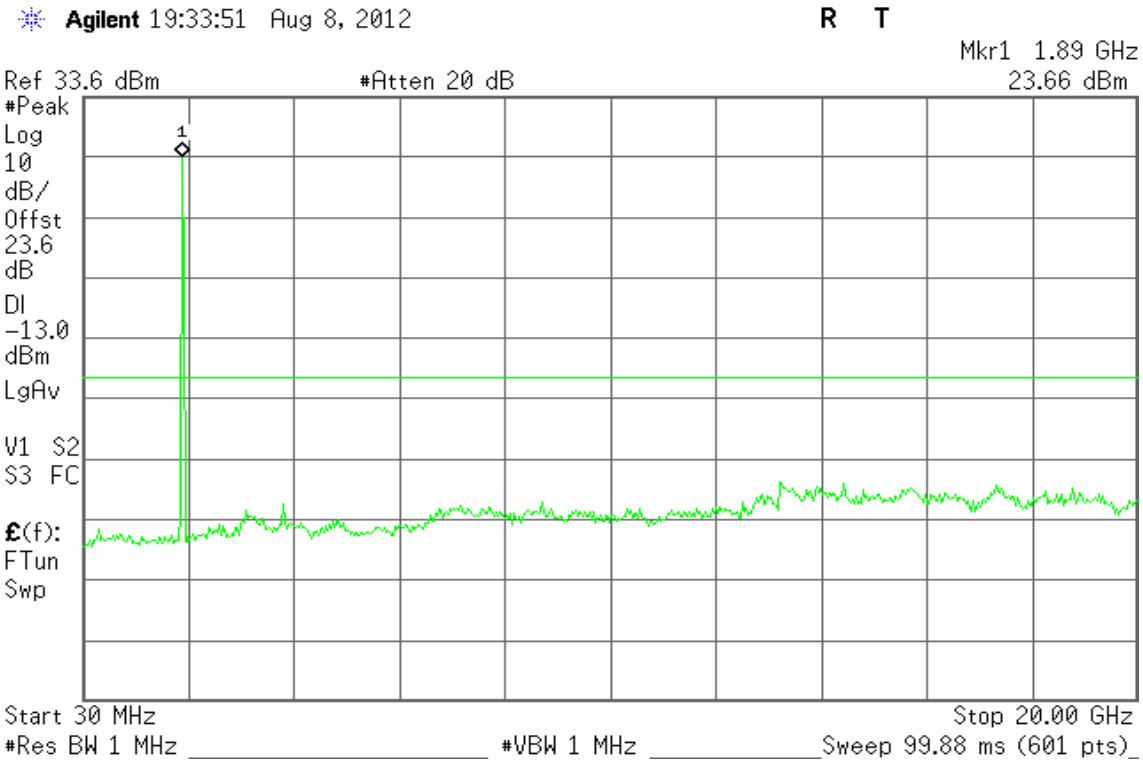


Figure 20-3: Out of Band emission at antenna terminals – HSDPA CH High



WCDMA / HSDPA Band V

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

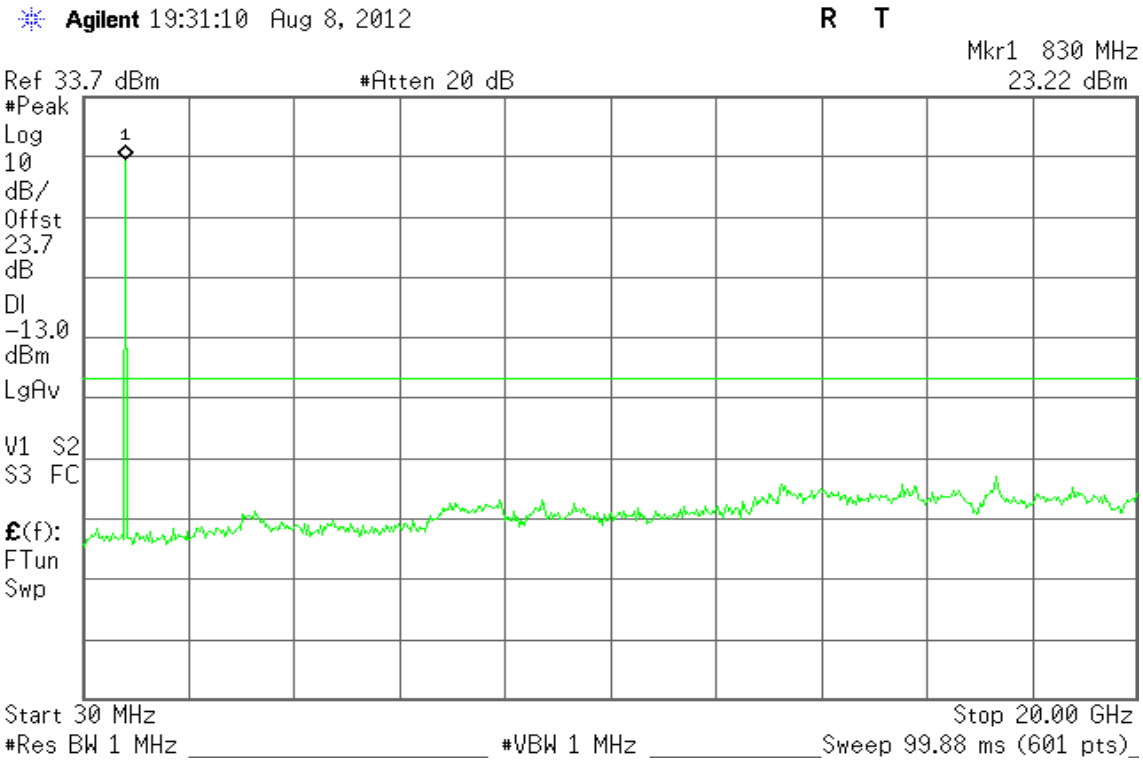


Figure 21-2: Out of Band emission at antenna terminals – HSDPA CH Mid

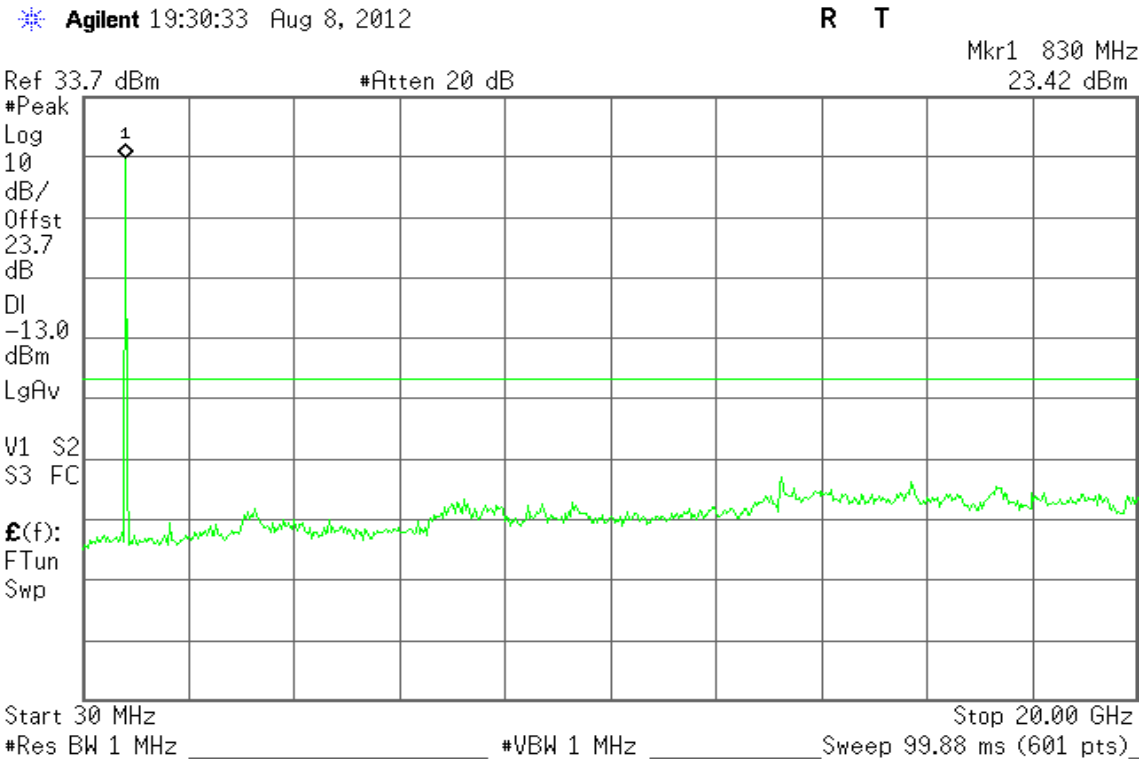
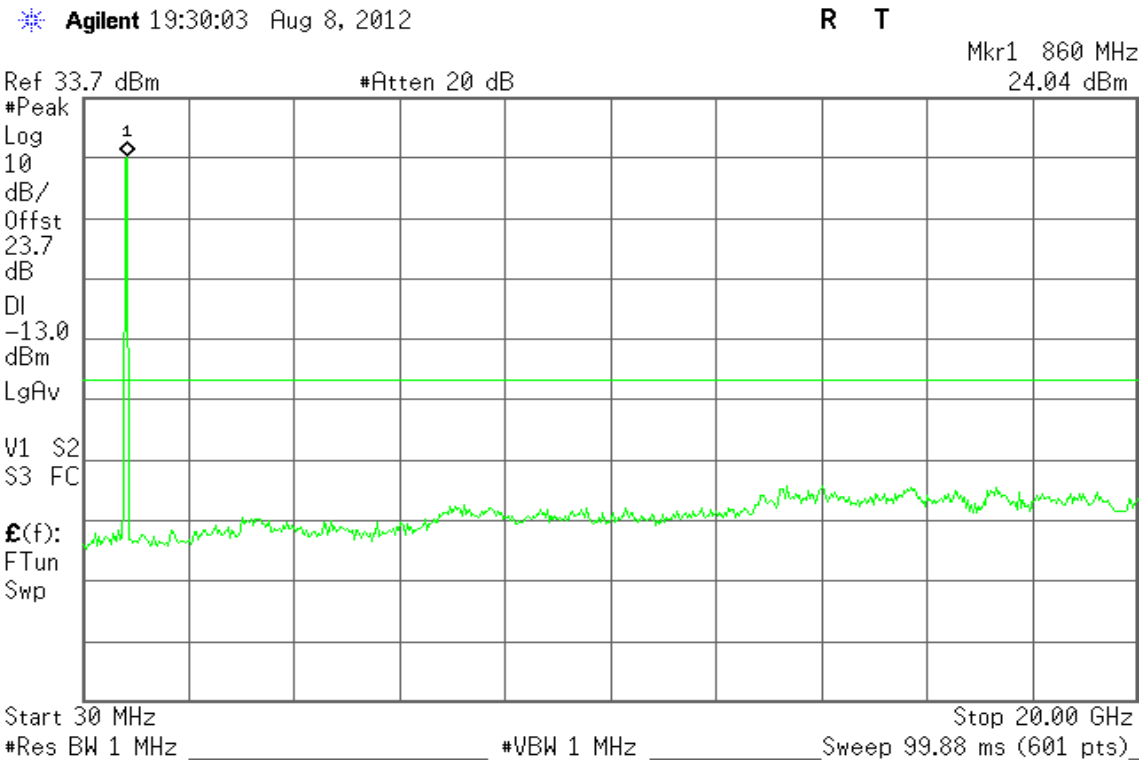


Figure 21-3: Out of Band emission at antenna terminals – HSDPA CH High



WCDMA / HSDPA Band II

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

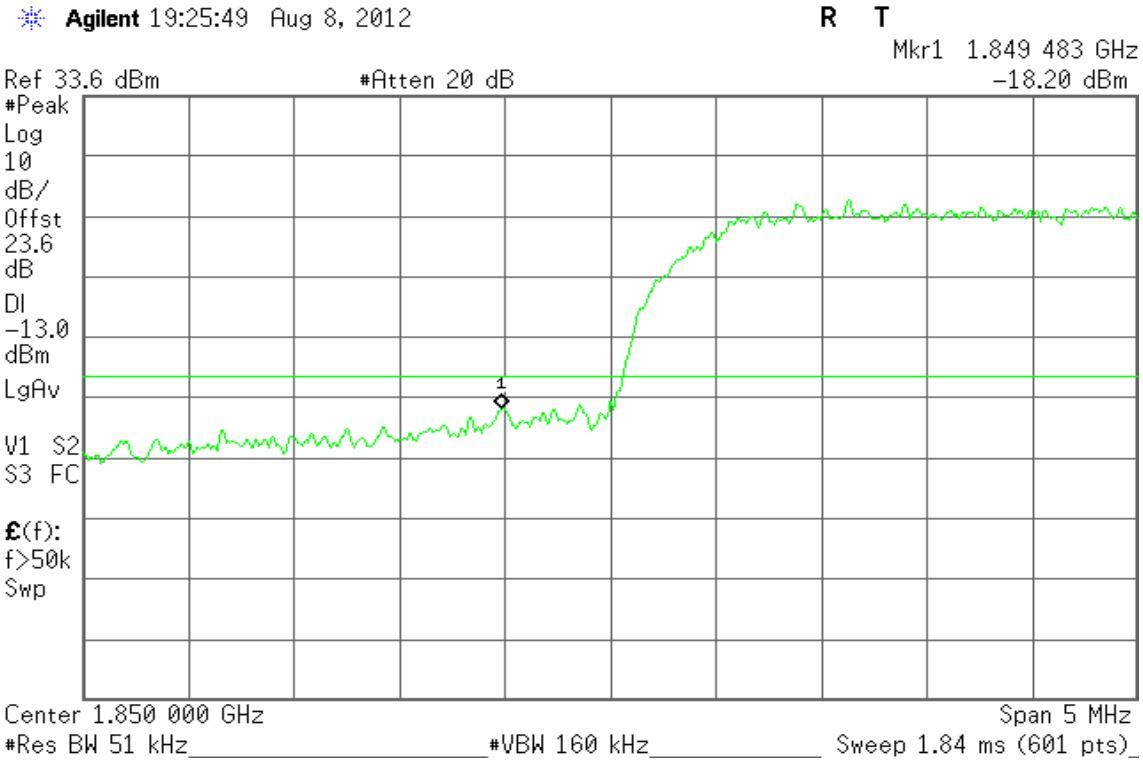
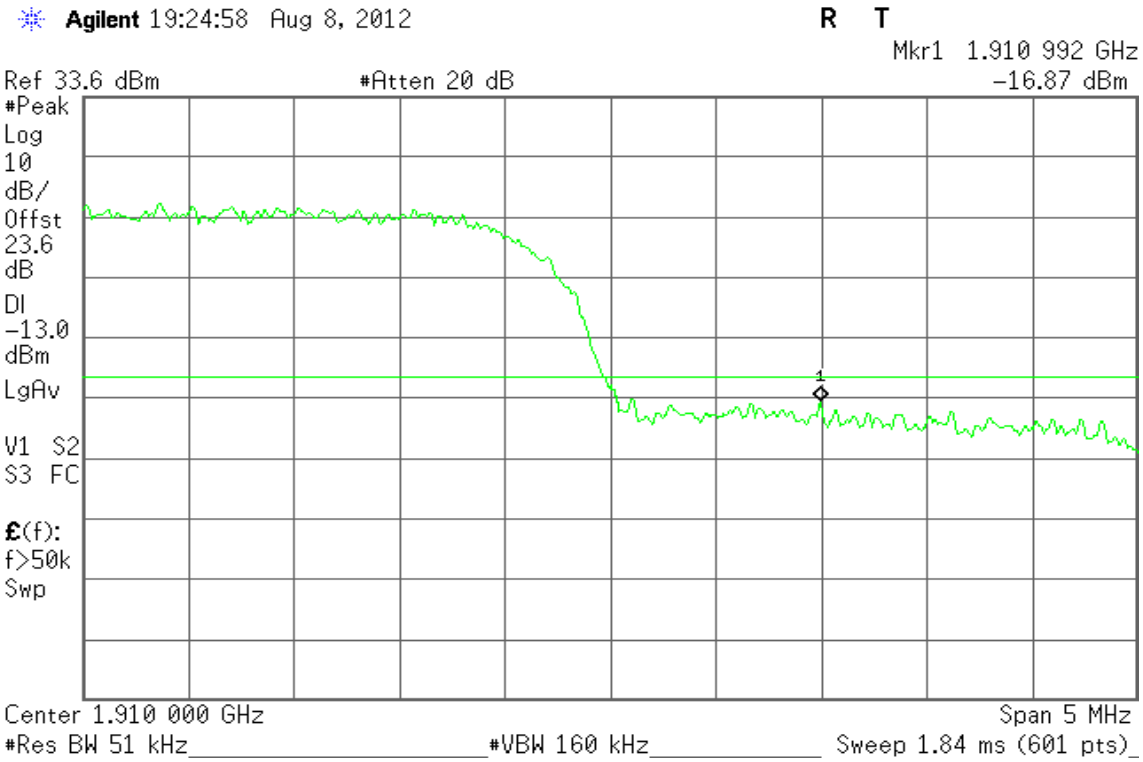


Figure 22-2: Band Edge emissions – HSDPA CH High



WCDMA / HSDPA Band V

Figure 23-1: Band Edge emissions – HSDPA CH Low

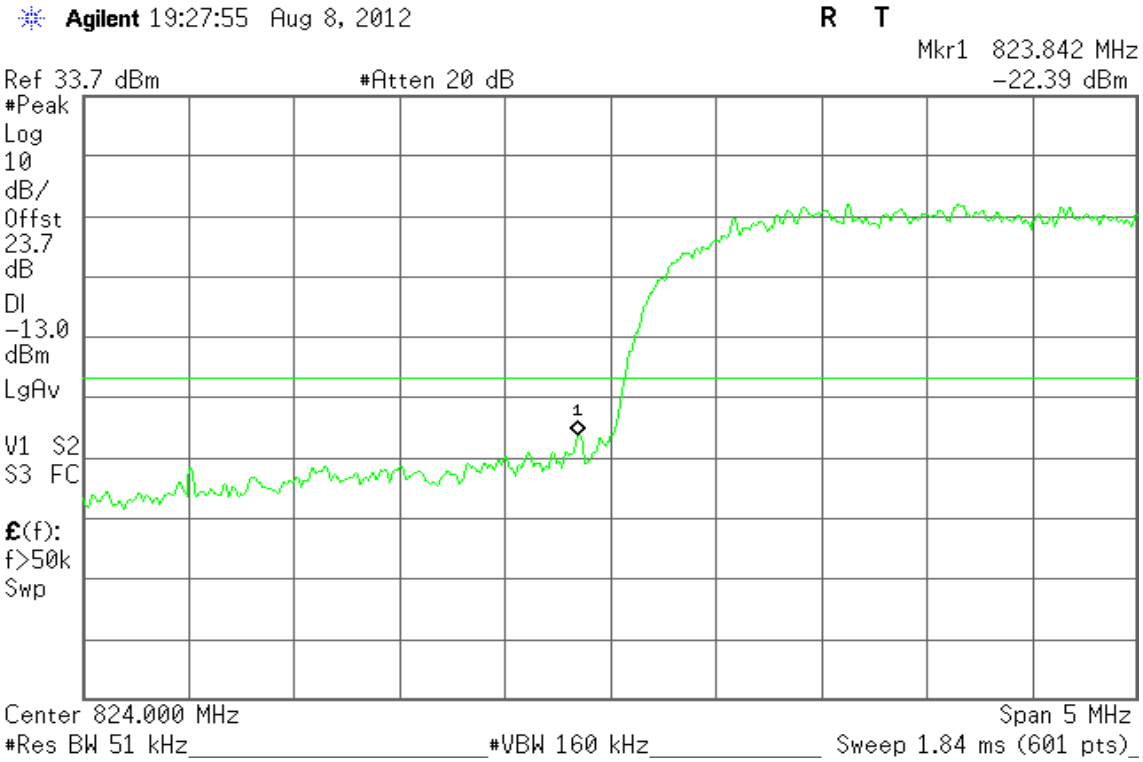
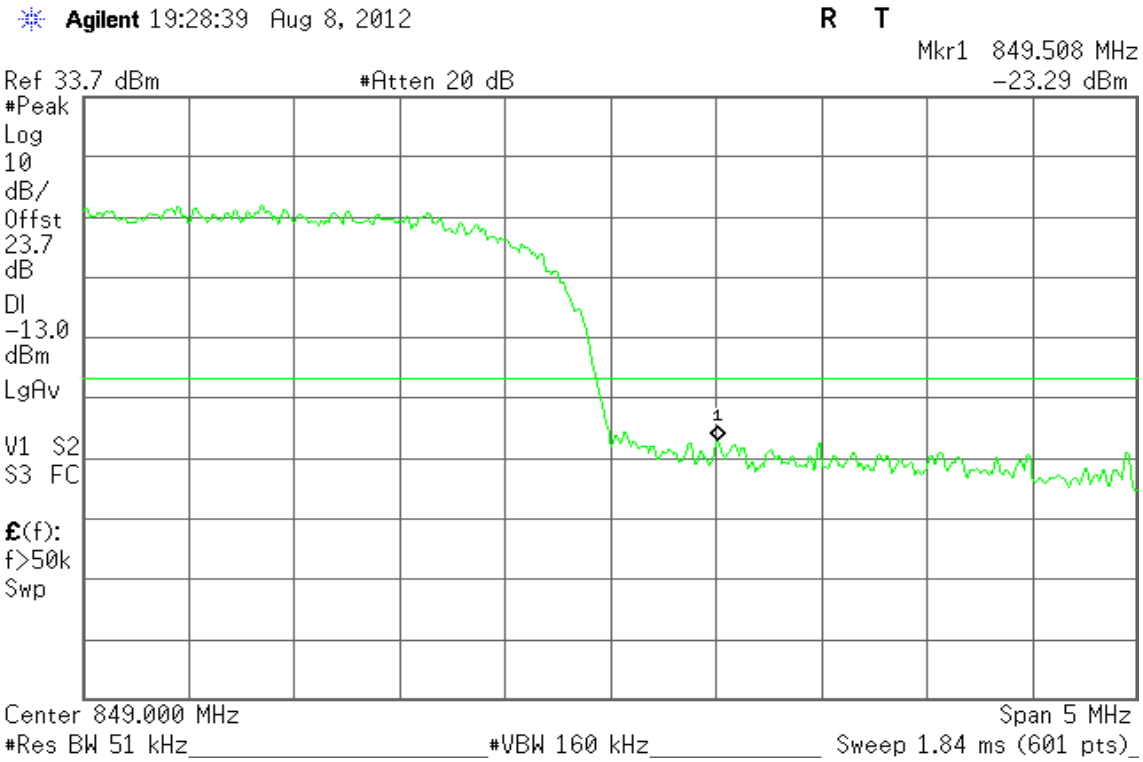


Figure 23-2: Band Edge emissions – HSDPA CH High



WCDMA / HSUPA Band II

Figure 24-1: Out of Band emission at antenna terminals – HSUPA CH Low

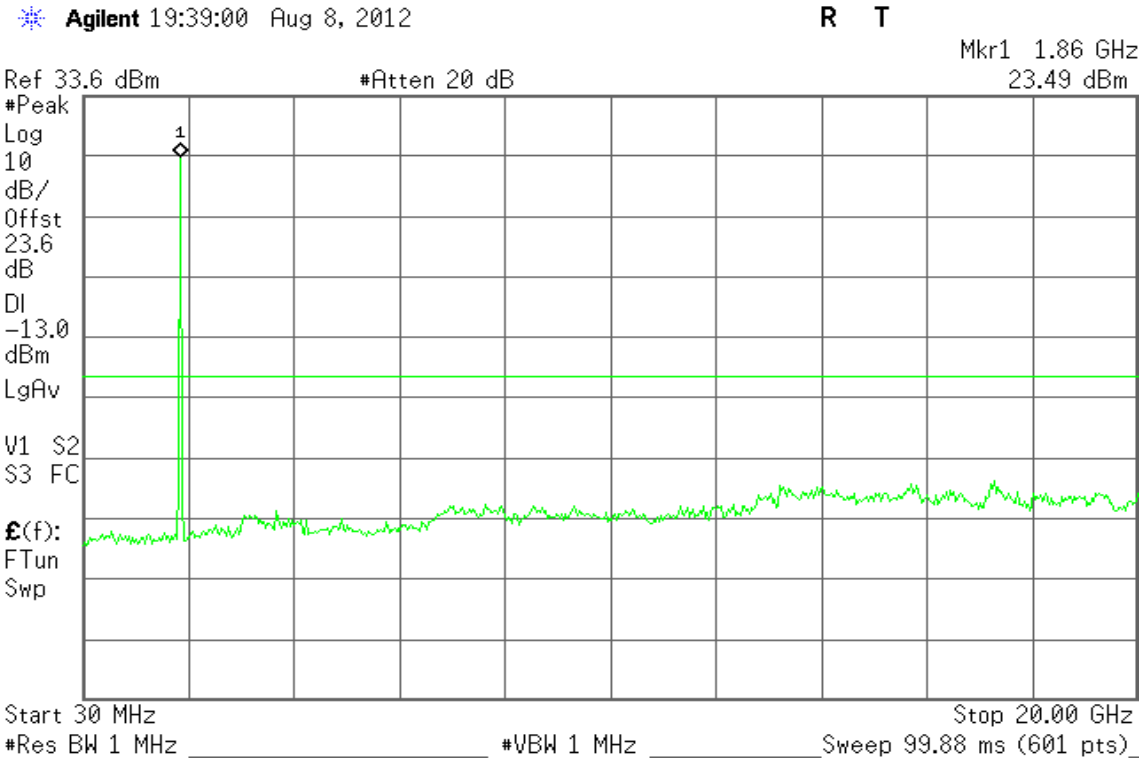


Figure 24-2: Out of Band emission at antenna terminals – HSUPA CH Mid

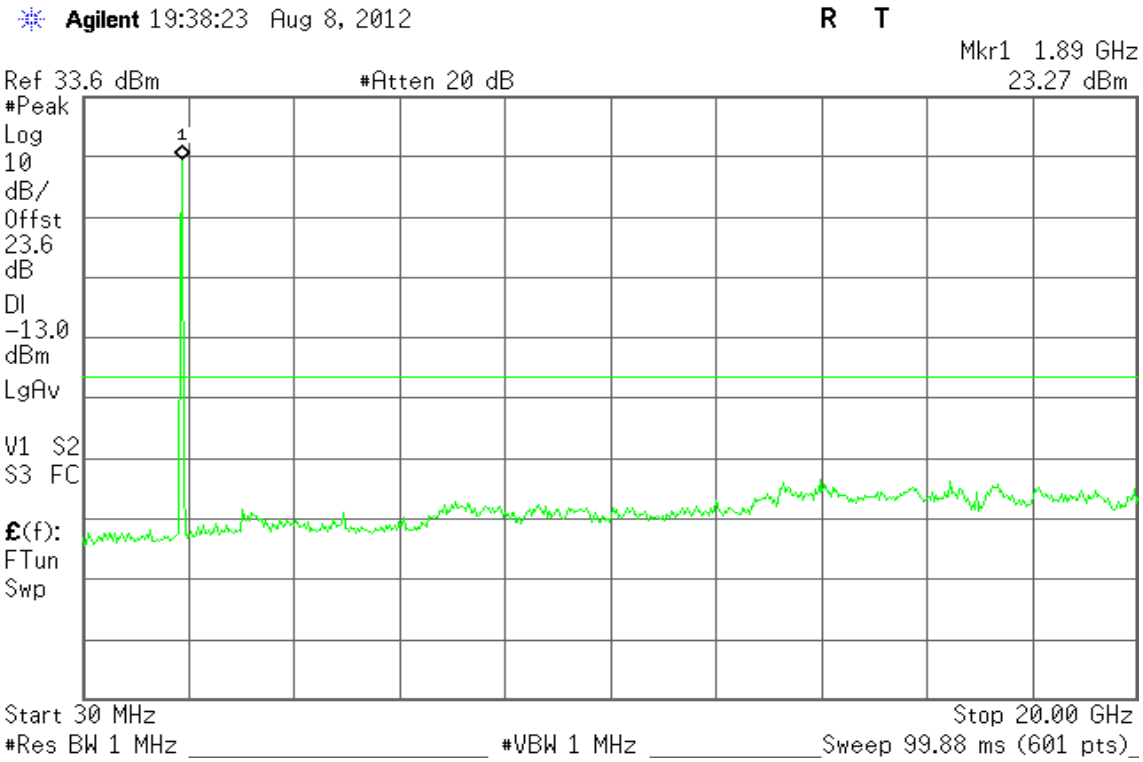
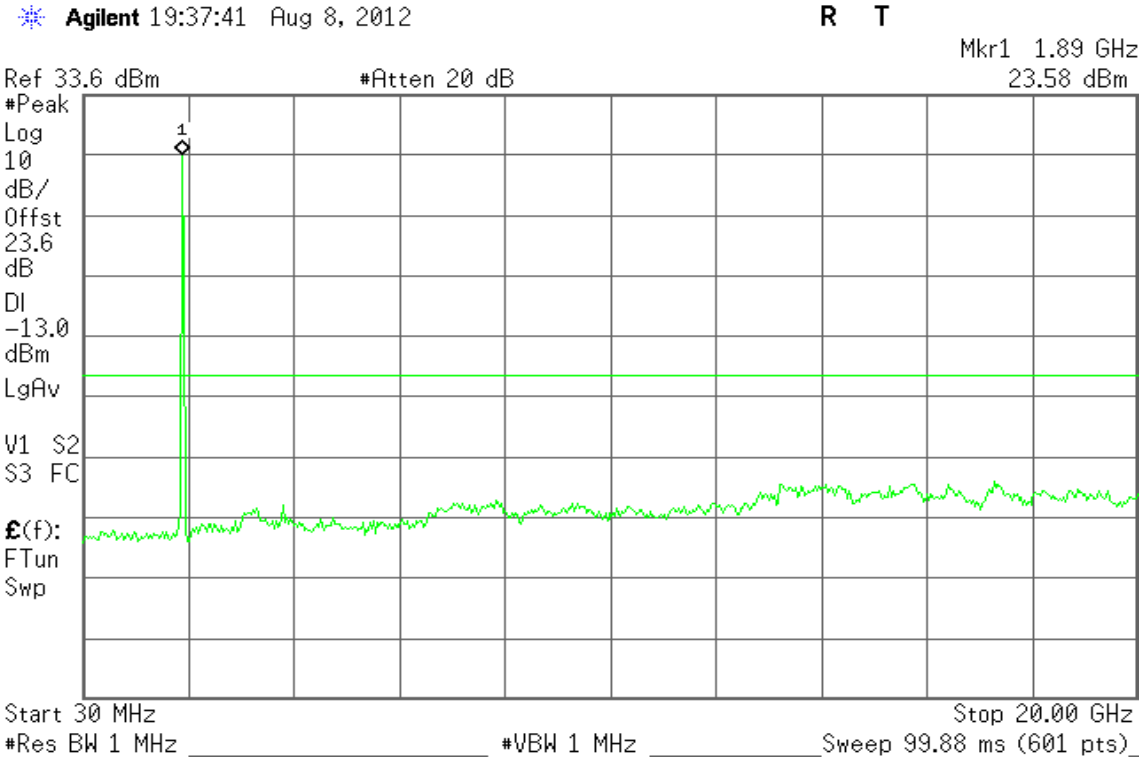


Figure 24-3: Out of Band emission at antenna terminals – HSUPA CH High



HSUPA / WCDMA Band V

Figure 25-1: Out of Band emission at antenna terminals – HSUPA CH Low

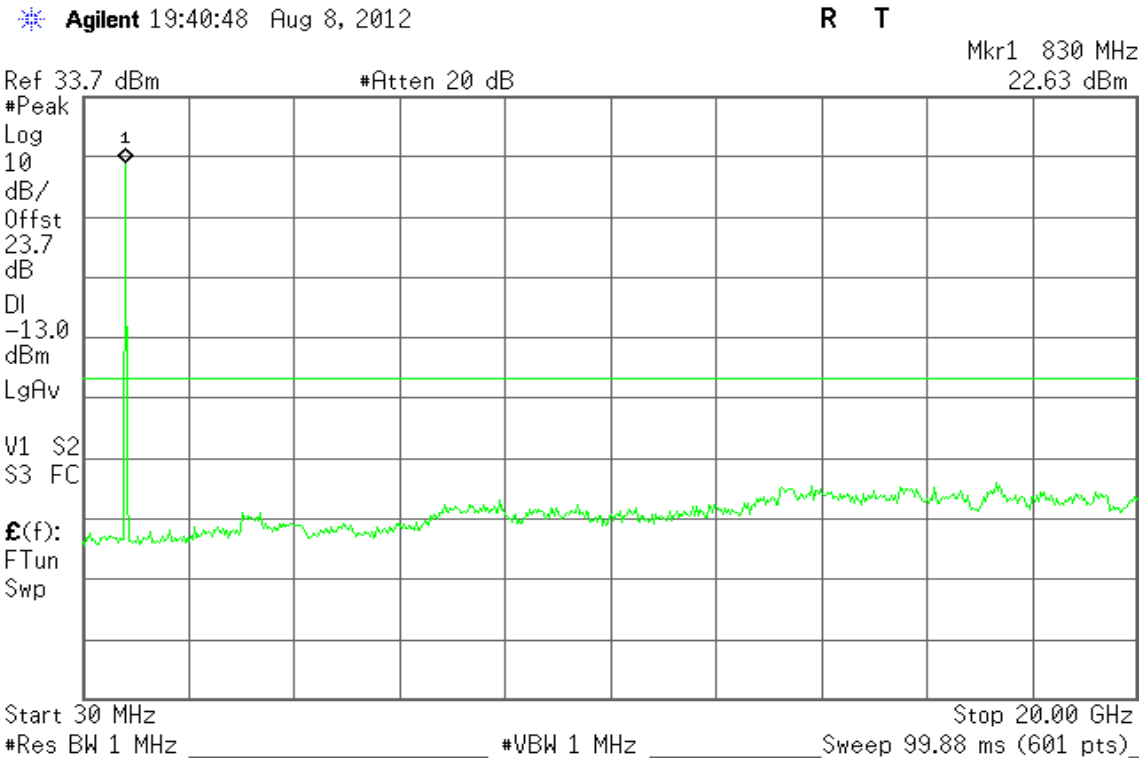


Figure 25-2: Out of Band emission at antenna terminals – HSUPA CH Mid

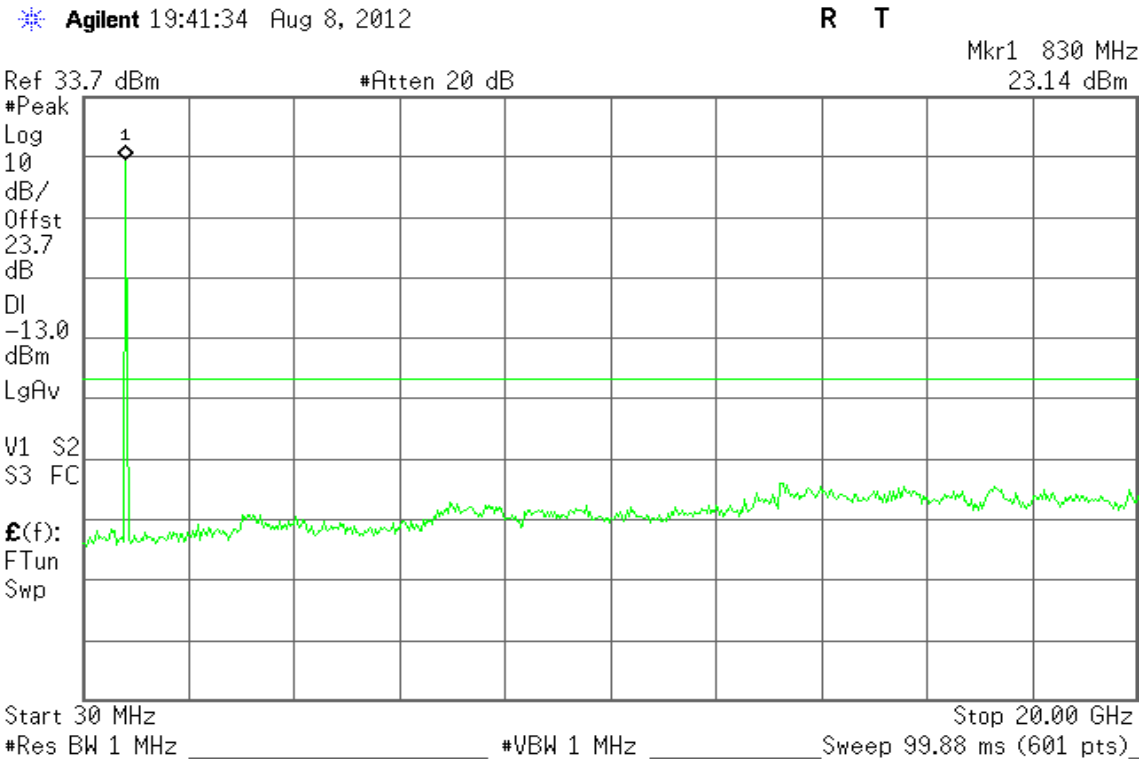
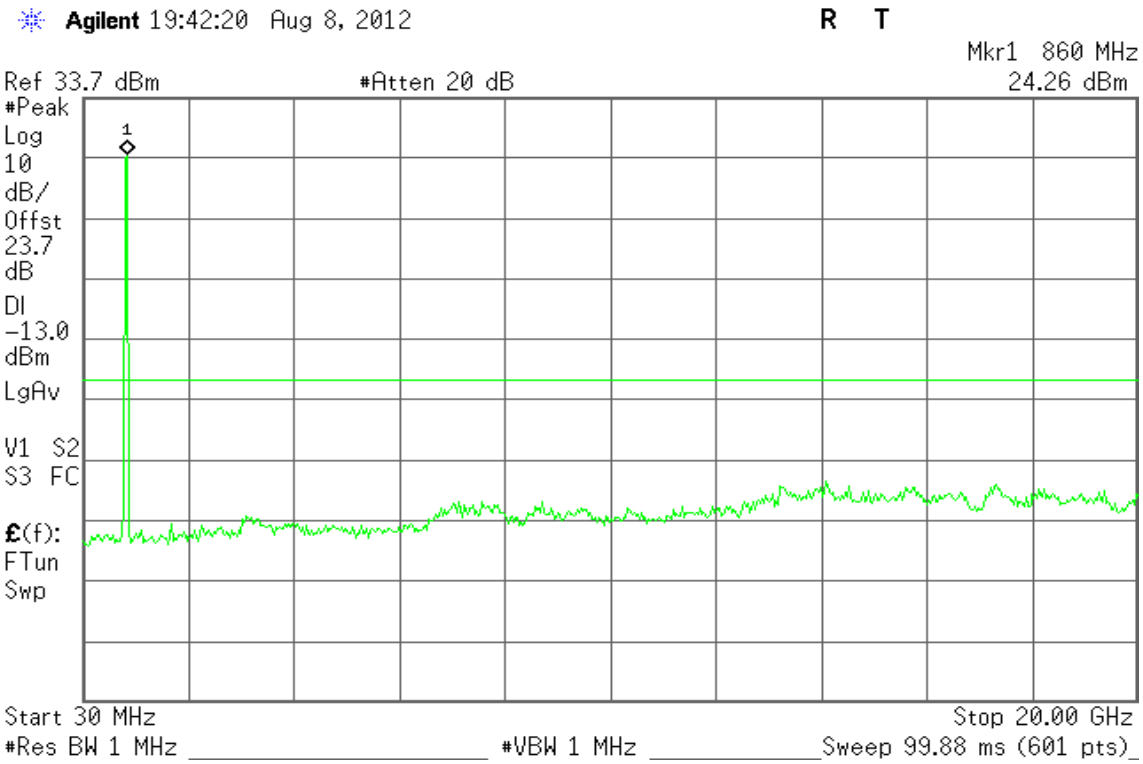


Figure 25-3: Out of Band emission at antenna terminals – HSUPA CH High



WCDMA / HSUPA Band II

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

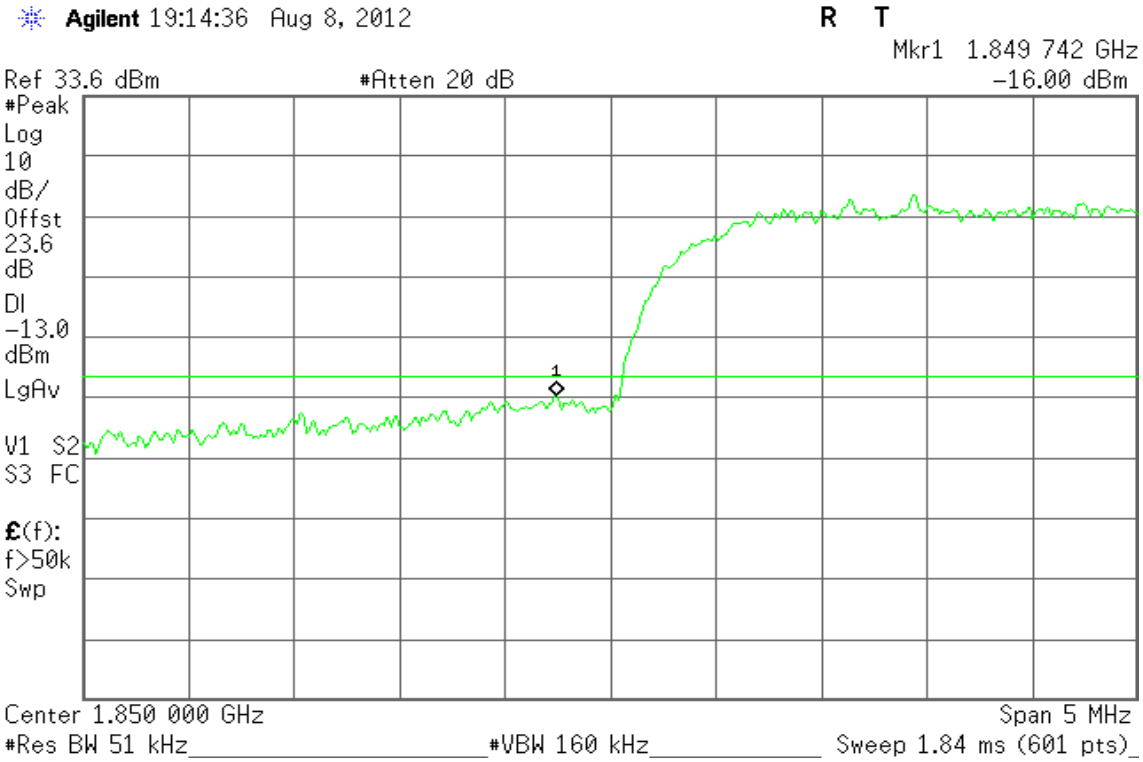
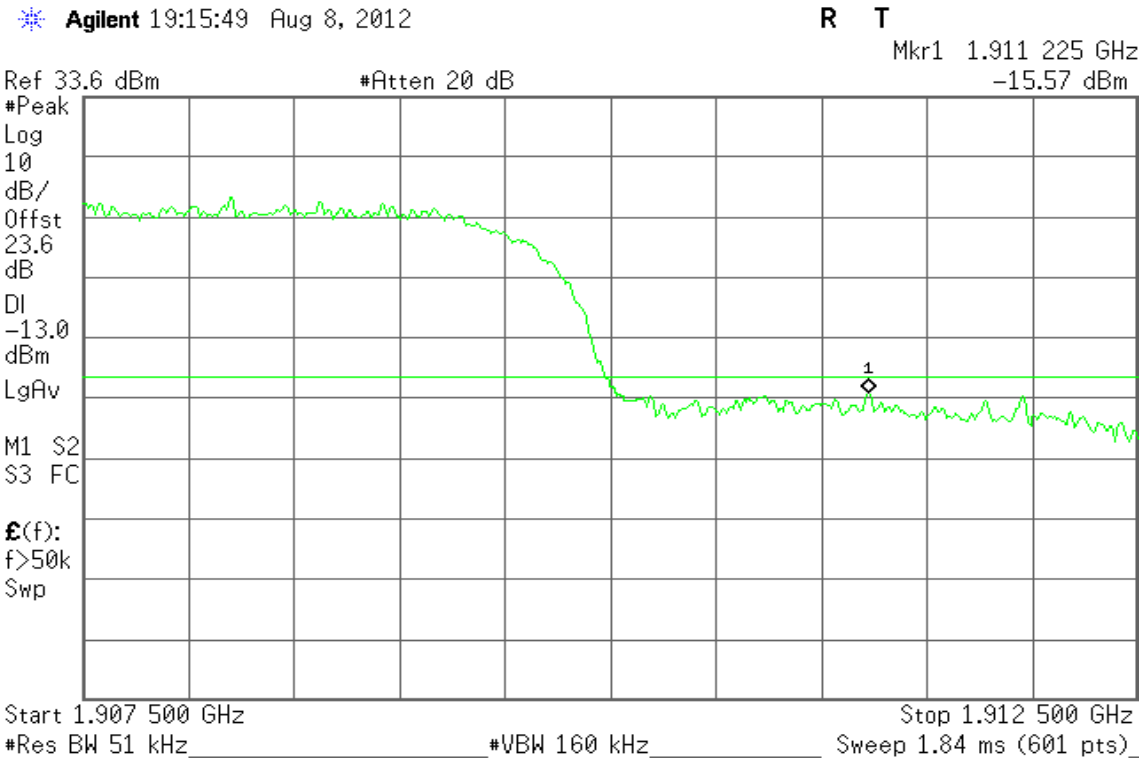


Figure 26-2: Band Edge emissions – HSUPA CH High



WCDMA / HSUPA Band V

Figure 27-1: Band Edge emissions – HSUPA CH Low

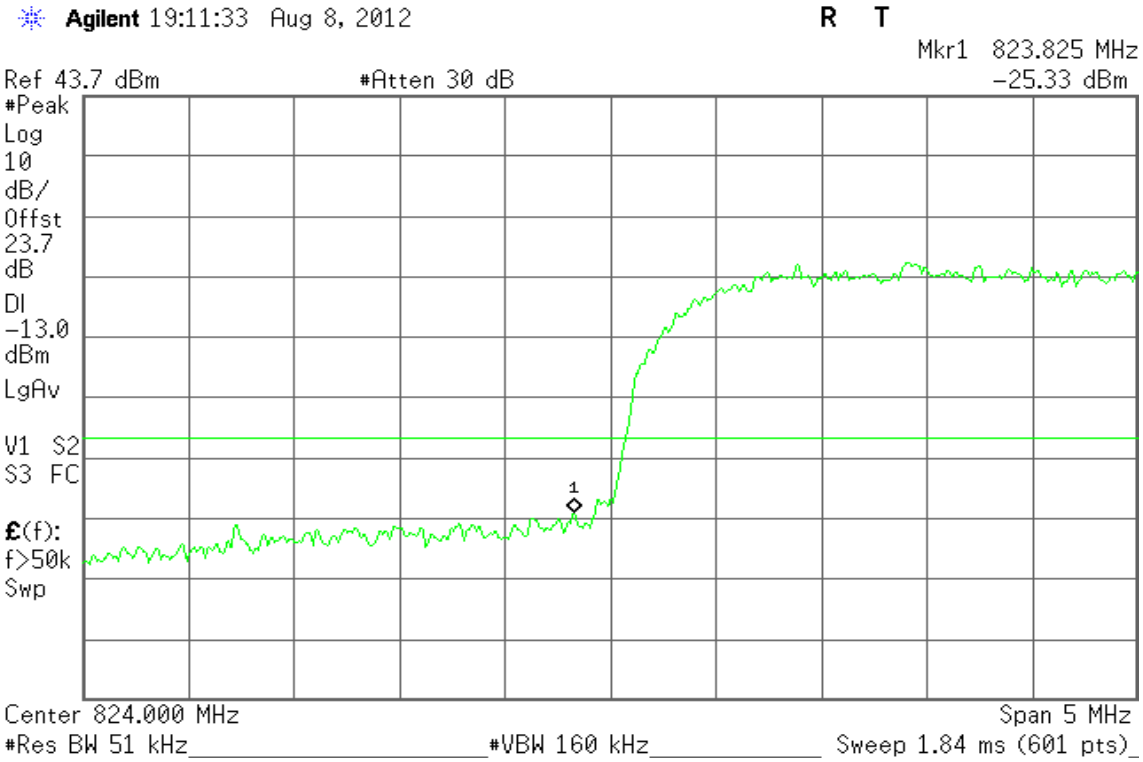
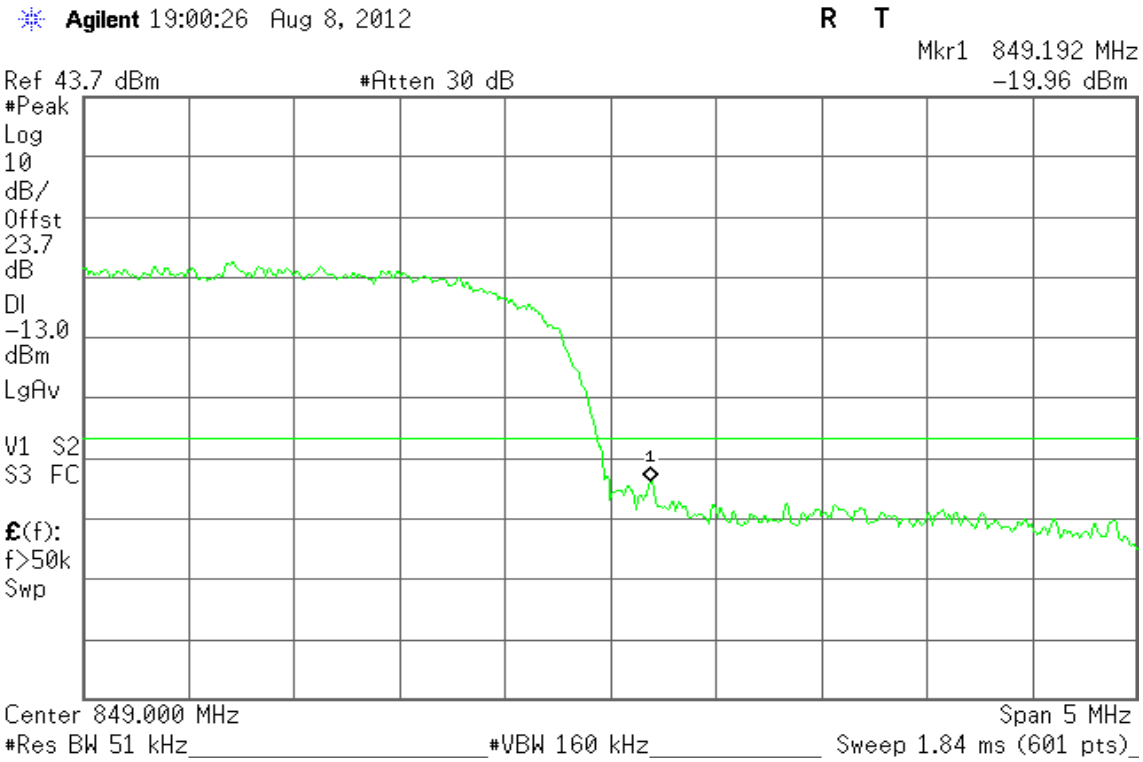


Figure 27-2: Band Edge emissions – HSUPA CH High



WCDMA / HSPA+ Band II

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

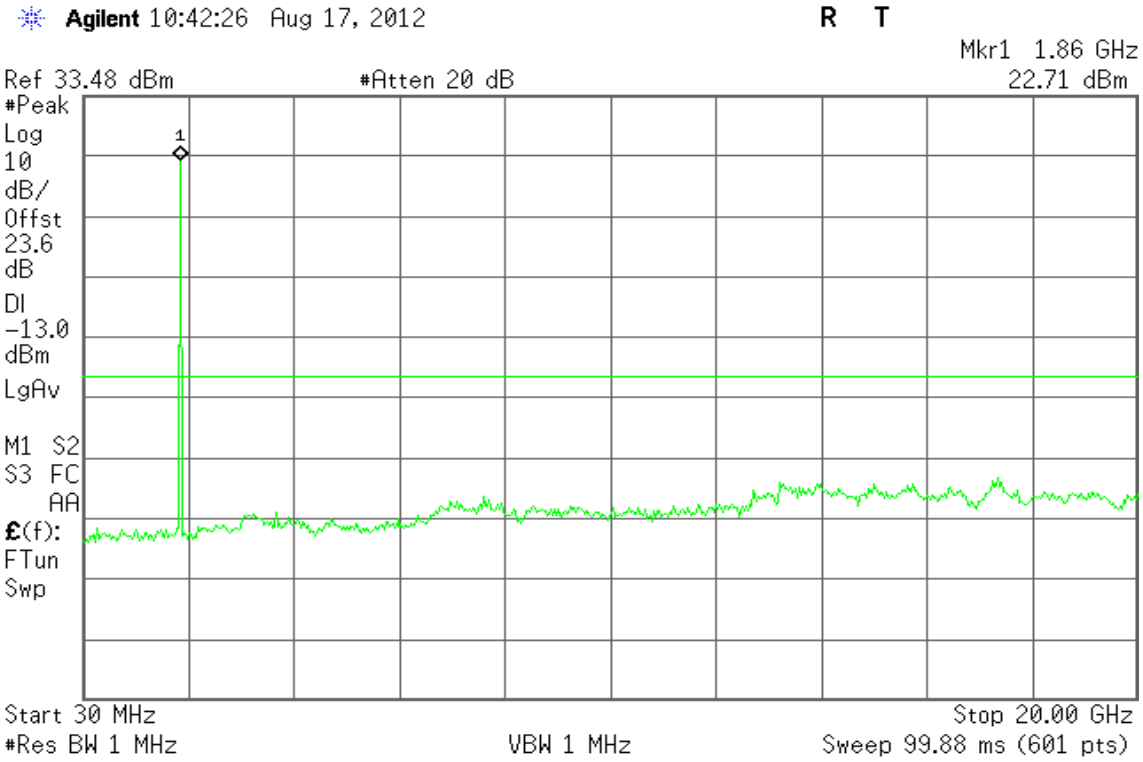


Figure 28-2: Out of Band emission at antenna terminals – HSPA+ CH Mid

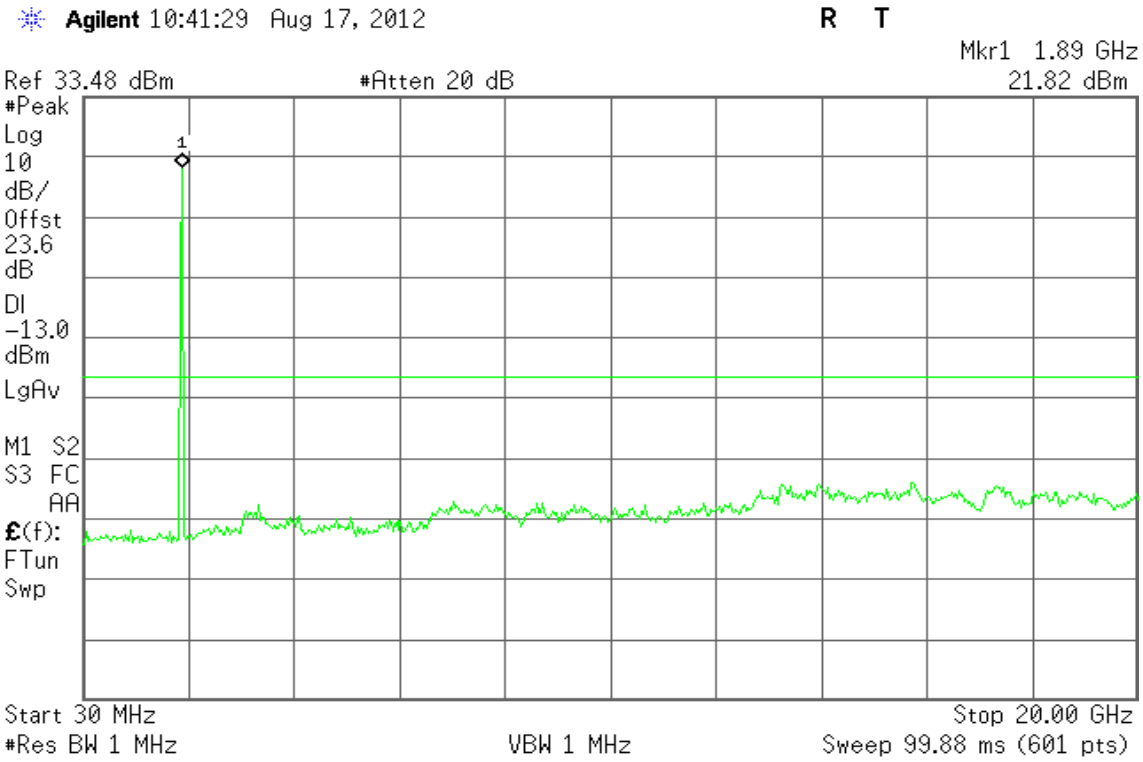
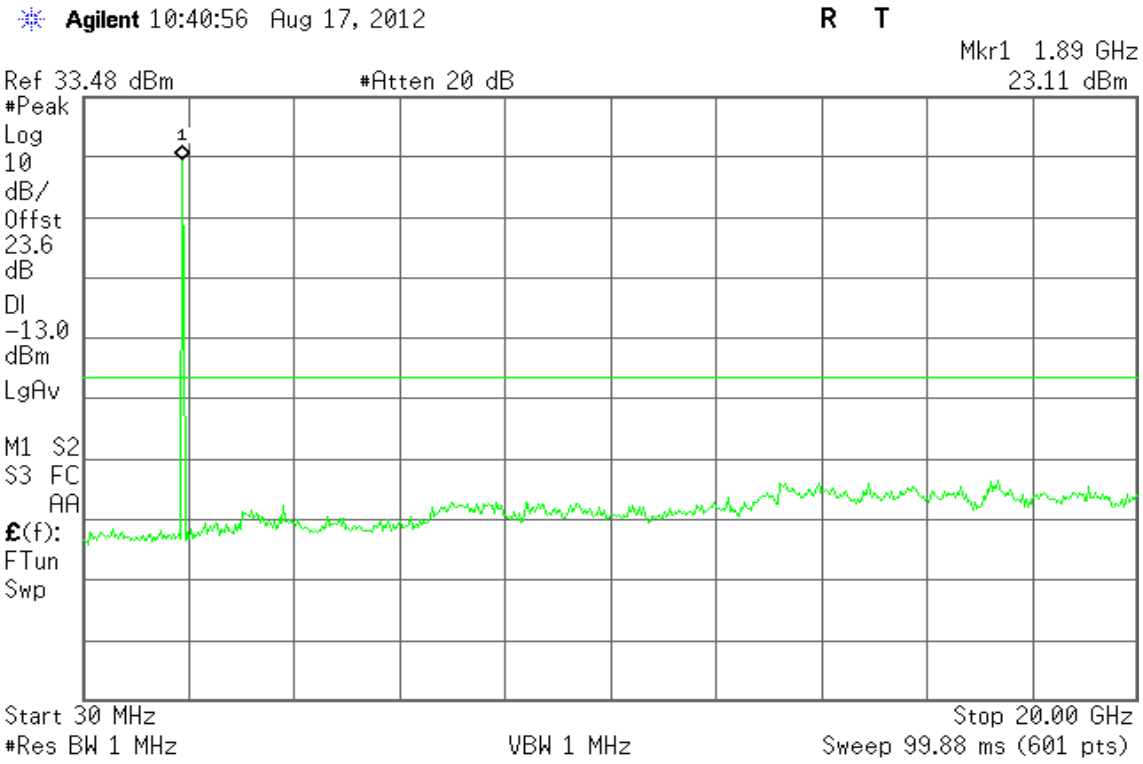


Figure 28-3: Out of Band emission at antenna terminals – HSPA+ CH High



WCDMA / HSPA+ Band V

Figure 29-1: Out of Band emission at antenna terminals – HSPA+ CH Low

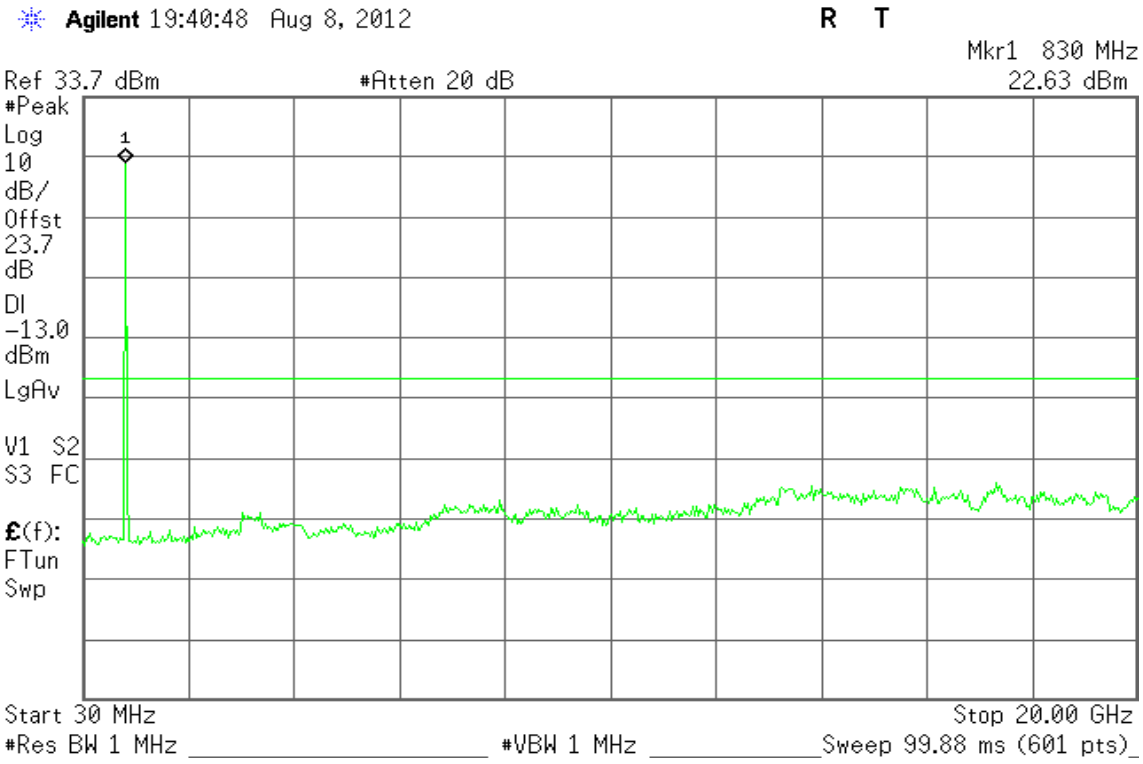


Figure 29-2: Out of Band emission at antenna terminals – HSPA+ CH Mid

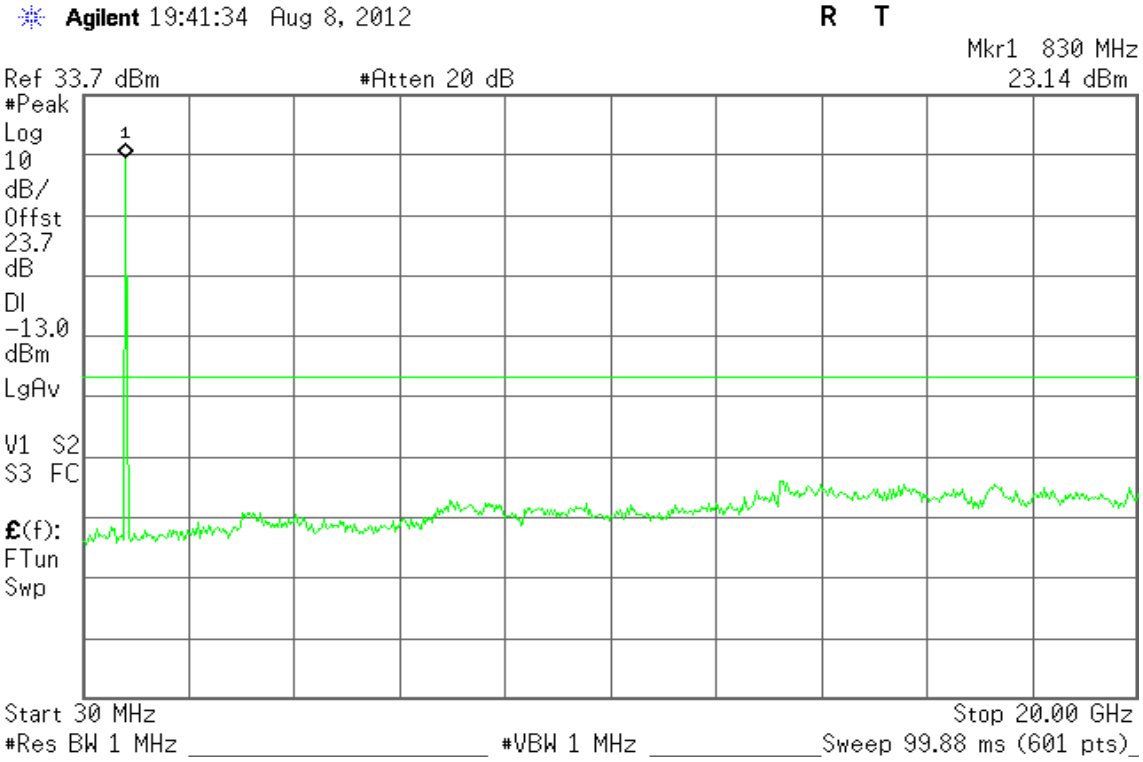
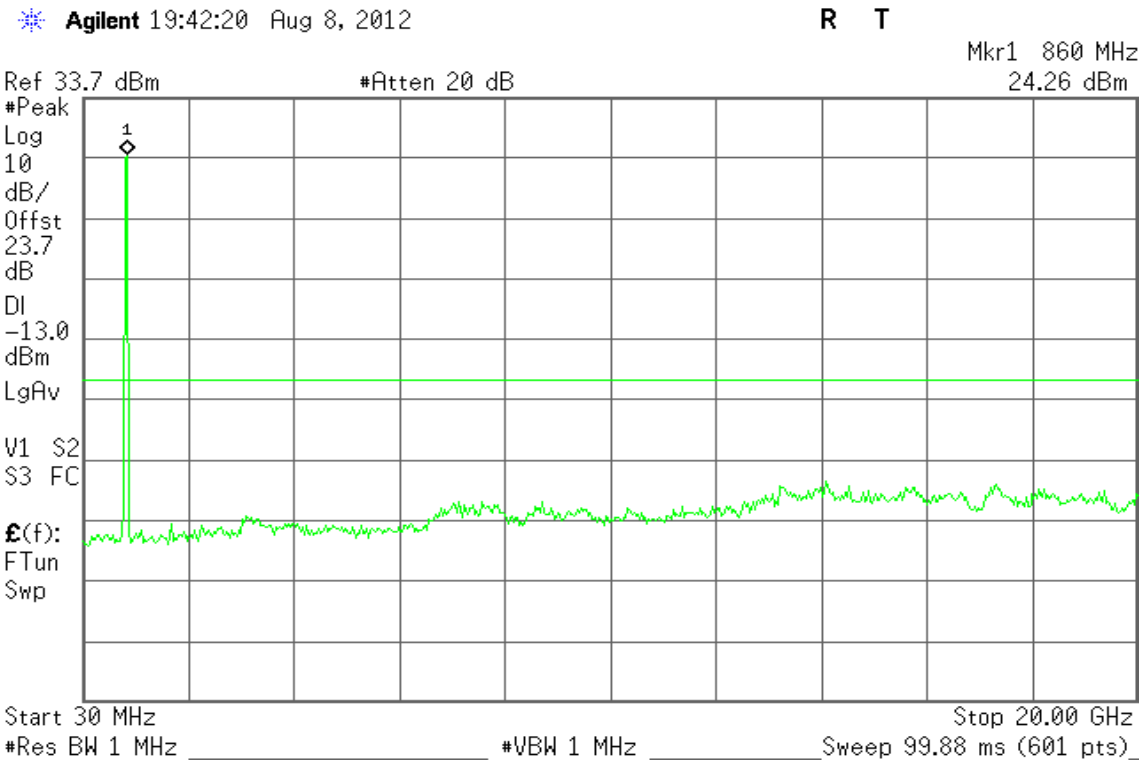


Figure 29-3: Out of Band emission at antenna terminals – HSPA+ CH High



WCDMA / HSPA+ Band II

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

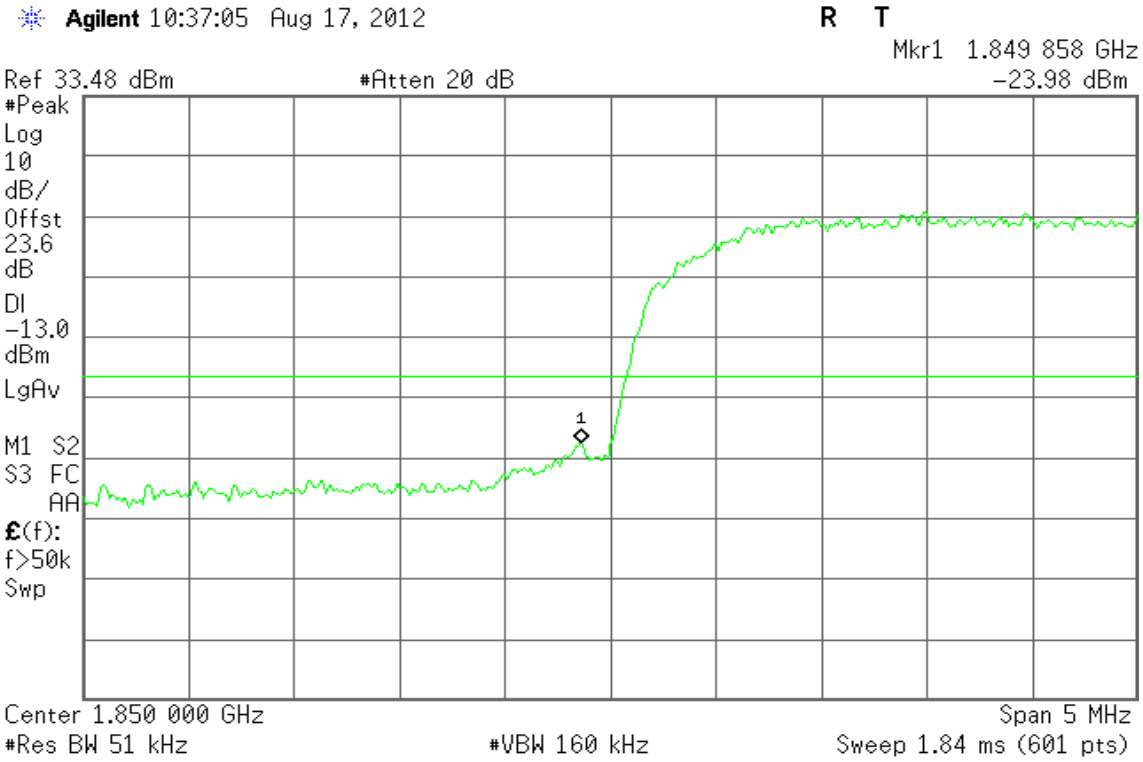
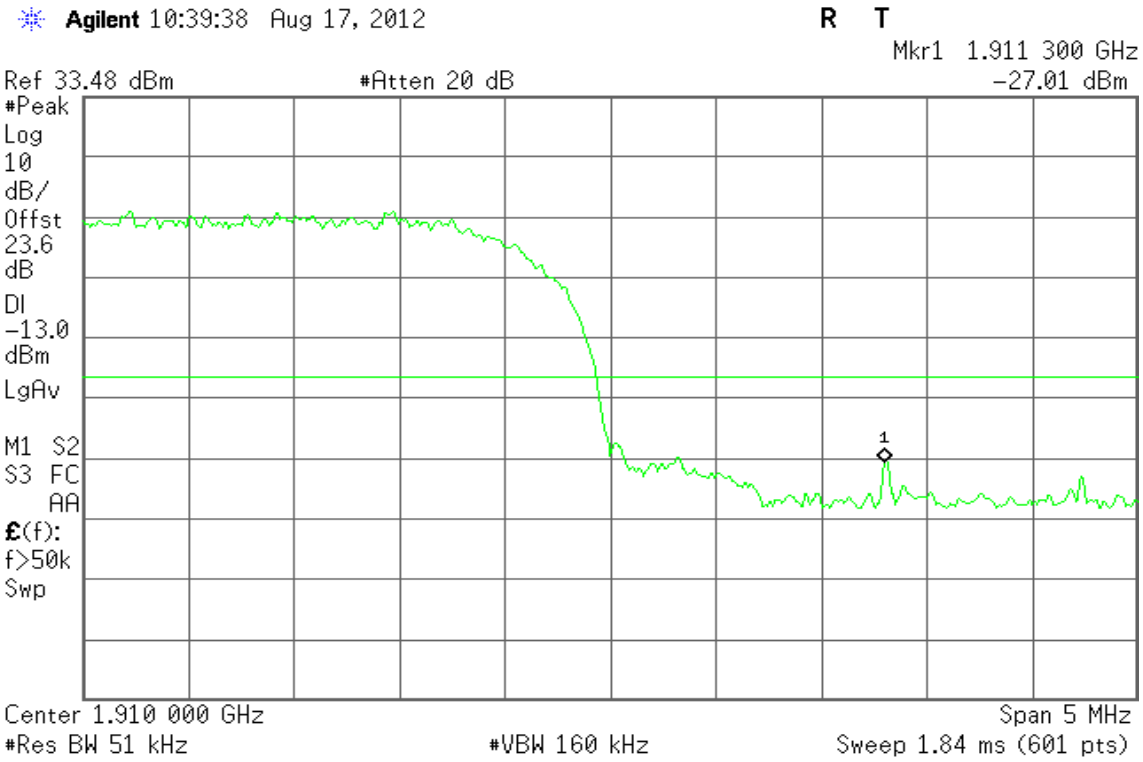


Figure 30-2: Band Edge emissions – HSUPA+ CH High



WCDMA / HSPA+ Band V

Figure 31-1: Band Edge emissions – HSUPA+ CH Low

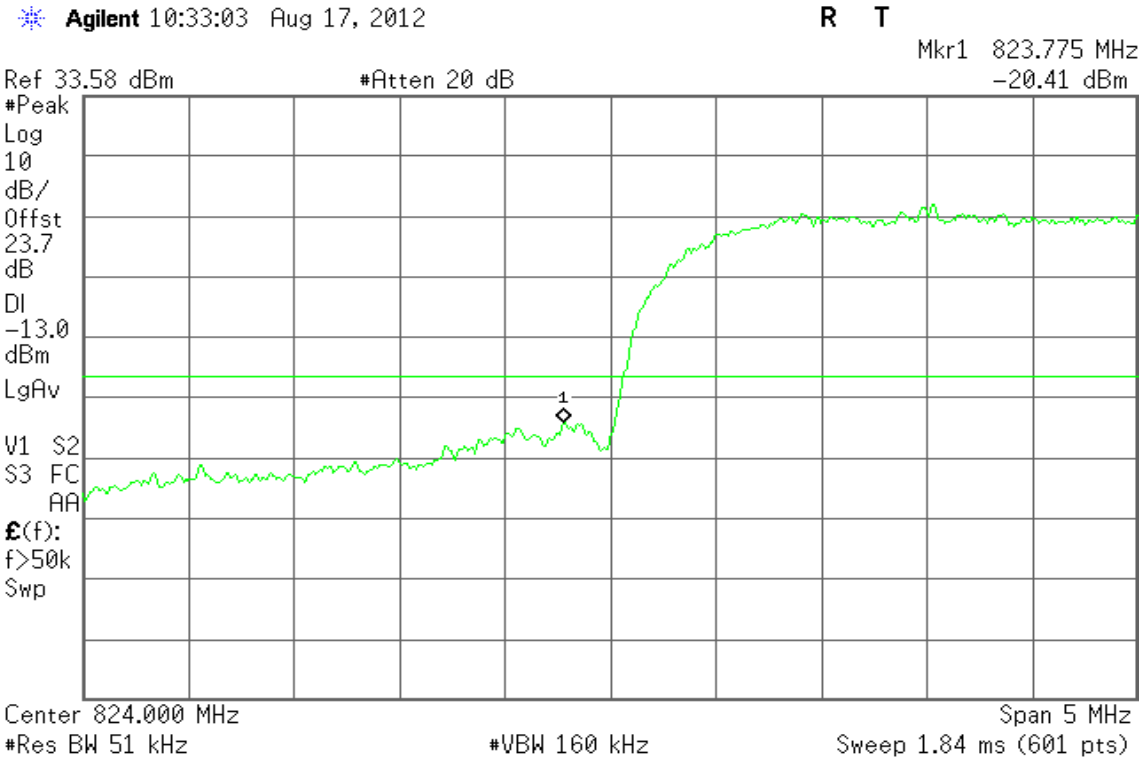
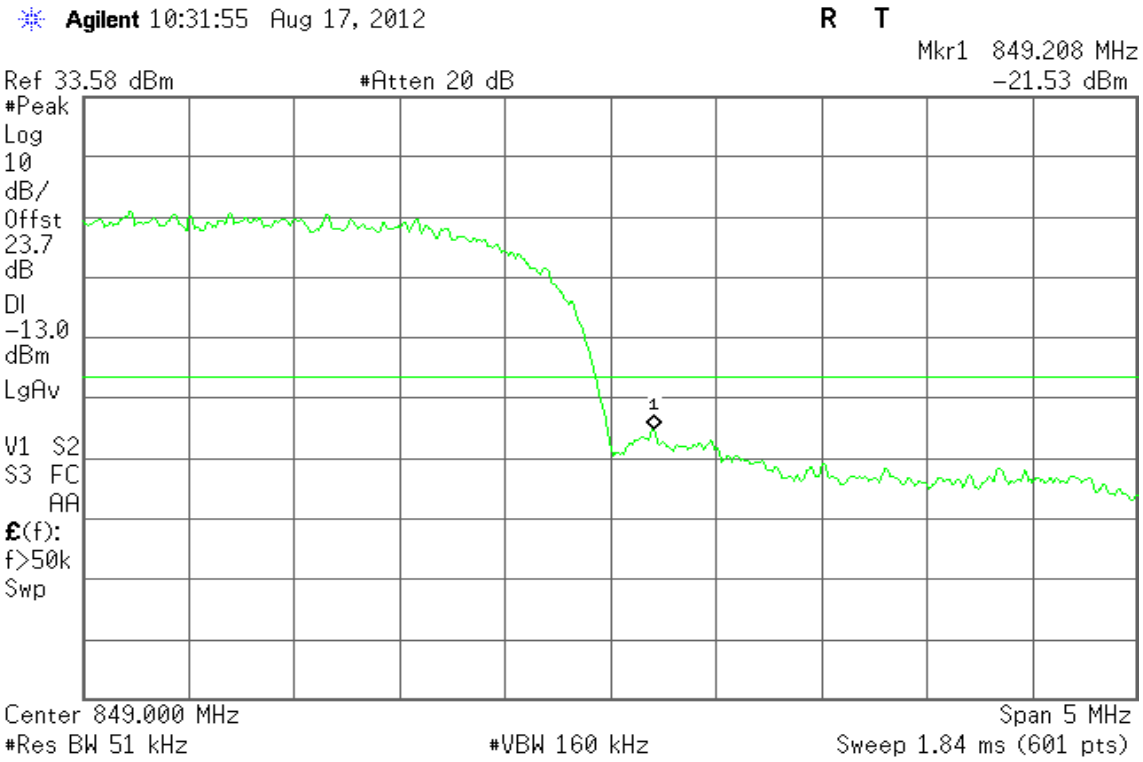


Figure 31-2: Band Edge emissions – HSUPA+ CH High



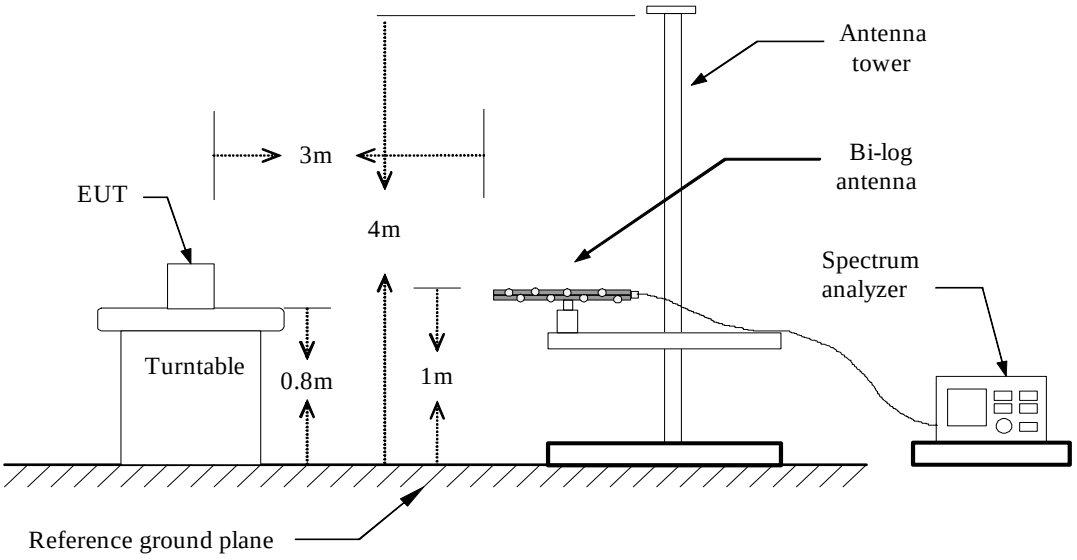
7.6FIELD STRENGTH OF SPURIOUS RADIATION MEASUREMENT

LIMIT

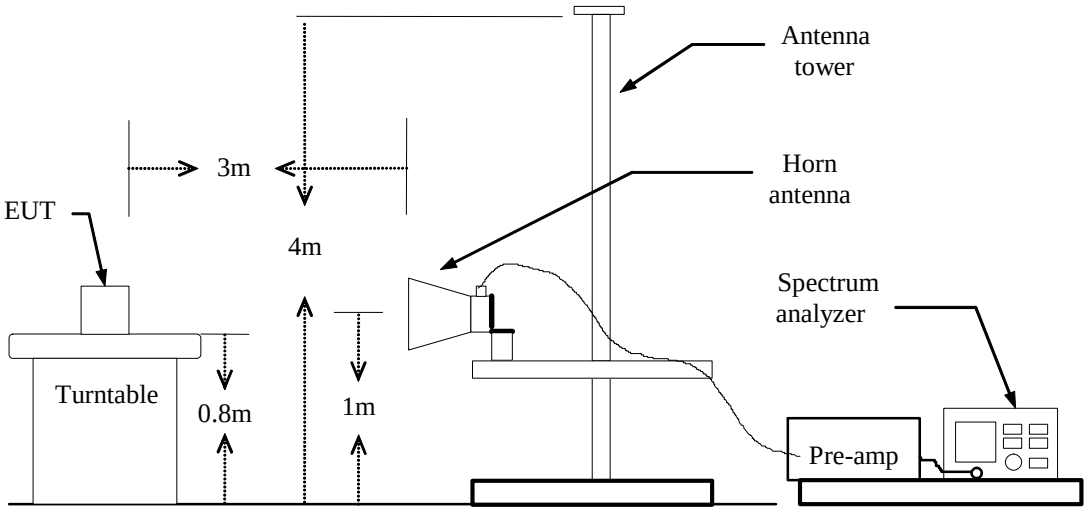
According to FCC §2.1053

Test Configuration

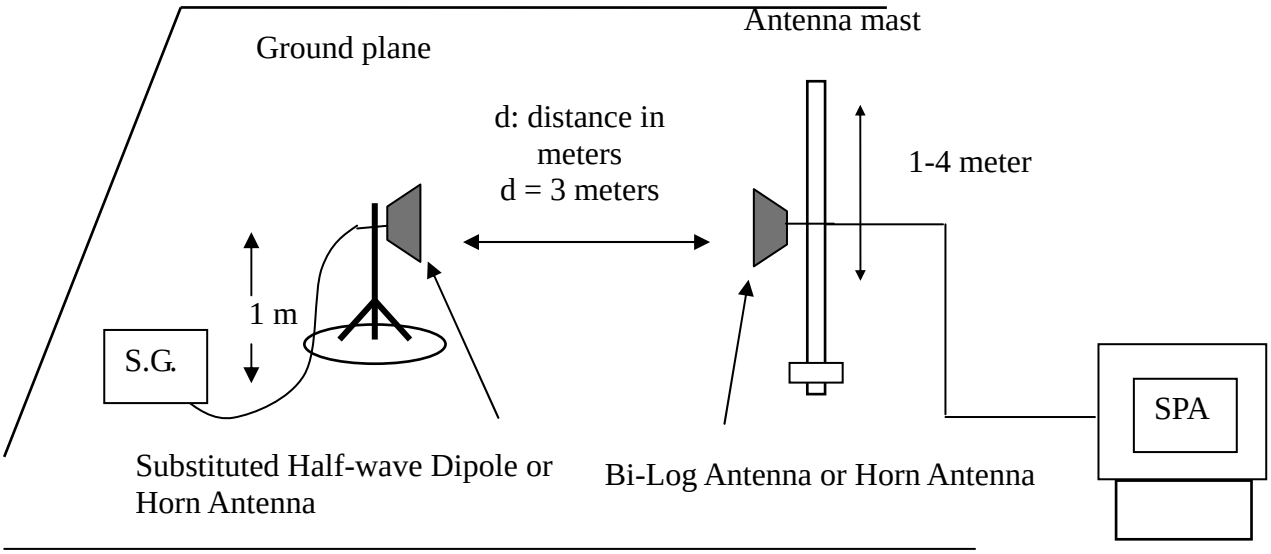
Below 1 GHz



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: GPRS 850 / TX / CH 128 **Test Date:** August 7, 2012

Temperature: 26°C **Tested by:** David Lee

Humidity: 45 % 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)
66.3750	-66.52	0.93	-1.91	-69.36	-13.00	-56.36	V
112.4500	-65.88	1.22	-1.8	-68.90	-13.00	-55.90	V
187.6250	-68.62	1.62	3.9	-66.34	-13.00	-53.34	V
359.8000	-72.1	2.27	5.7	-68.67	-13.00	-55.67	V
398.6000	-74.08	2.38	5.98	-70.48	-13.00	-57.48	V
481.0500	-77.13	2.64	5.52	-74.25	-13.00	-61.25	V
114.8750	-55.73	1.24	-1.9	-58.87	-13.00	-45.87	H
187.6250	-68.32	1.62	3.9	-66.04	-13.00	-53.04	H
359.8000	-63.81	2.27	5.7	-60.38	-13.00	-47.38	H
401.0250	-63.06	2.4	5.98	-59.48	-13.00	-46.48	H
481.0500	-69.3	2.64	5.52	-66.42	-13.00	-53.42	H
531.9750	-73.72	2.76	6.07	-70.41	-13.00	-57.41	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 7, 2012

Temperature: 26°C **Tested by:** David Lee

Humidity: 45 % 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	-68.4	0.95	-1.81	-71.16	-13.00	-58.16	V
114.8750	-67.84	1.24	-1.9	-70.98	-13.00	-57.98	V
187.6250	-70.29	1.62	3.9	-68.01	-13.00	-55.01	V
359.8000	-74.45	2.27	5.7	-71.02	-13.00	-58.02	V
401.0250	-77.89	2.4	5.98	-74.31	-13.00	-61.31	V
481.0500	-77.91	2.64	5.52	-75.03	-13.00	-62.03	V
112.4500	-56.99	1.22	-1.8	-60.01	-13.00	-47.01	H
194.9000	-69.62	1.63	3.47	-67.78	-13.00	-54.78	H
359.8000	-65.04	2.27	5.7	-61.61	-13.00	-48.61	H
401.0250	-68.81	2.4	5.98	-65.23	-13.00	-52.23	H
481.0500	-70.56	2.64	5.52	-67.68	-13.00	-54.68	H
531.9750	-73.89	2.76	6.07	-70.58	-13.00	-57.58	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 7, 2012

Temperature: 26°C **Tested by:** David Lee

Humidity: 45 % 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)
42.1250	-61.53	0.74	-10.72	-72.99	-13.00	-59.99	V
68.8000	-68.05	0.95	-1.81	-70.81	-13.00	-57.81	V
114.8750	-67.57	1.24	-1.9	-70.71	-13.00	-57.71	V
185.2000	-70.55	1.61	3.81	-68.35	-13.00	-55.35	V
359.8000	-74.2	2.27	5.7	-70.77	-13.00	-57.77	V
401.0250	-79.39	2.4	5.98	-75.81	-13.00	-62.81	V
66.3750	-63.69	0.93	-1.91	-66.53	-13.00	-53.53	H
114.8750	-57.1	1.24	-1.9	-60.24	-13.00	-47.24	H
194.9000	-69.23	1.63	3.47	-67.39	-13.00	-54.39	H
359.8000	-65.2	2.27	5.7	-61.77	-13.00	-48.77	H
401.0250	-65.08	2.4	5.98	-61.50	-13.00	-48.50	H
481.0500	-71.58	2.64	5.52	-68.70	-13.00	-55.70	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 1900 / TX / CH 512 **Test Date:** August 7, 2012

Temperature: 26°C **Tested by:** David Lee

Humidity: 45 % 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	-69.02	0.95	-1.81	-71.78	-13.00	-58.78	V
112.4500	-66	1.22	-1.8	-69.02	-13.00	-56.02	V
156.1000	-70.96	1.46	1.15	-71.27	-13.00	-58.27	V
187.6250	-69.42	1.62	3.9	-67.14	-13.00	-54.14	V
468.9250	-78.06	2.62	5.8	-74.88	-13.00	-61.88	V
655.6500	-78.91	3.04	6.3	-75.65	-13.00	-62.65	V
112.4500	-52.66	1.22	-1.8	-55.68	-13.00	-42.68	H
192.4750	-66.49	1.62	3.74	-64.37	-13.00	-51.37	H
296.7500	-73.89	2.07	5.53	-70.43	-13.00	-57.43	H
413.1500	-70.6	2.45	5.88	-67.17	-13.00	-54.17	H
461.6500	-67.89	2.6	5.86	-64.63	-13.00	-51.63	H
684.7500	-74.37	3.11	6.5	-70.98	-13.00	-57.98	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 7, 2012

Temperature: 26°C **Tested by:** David Lee

Humidity: 45 % 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	-70.38	0.95	-1.81	-73.14	-13.00	-60.14	V
110.0250	-66.62	1.21	-1.7	-69.53	-13.00	-56.53	V
124.5750	-68.72	1.31	-1.78	-71.81	-13.00	-58.81	V
192.4750	-69.92	1.62	3.74	-67.80	-13.00	-54.80	V
461.6500	-78.24	2.6	5.86	-74.98	-13.00	-61.98	V
561.0750	-81.19	2.85	6	-78.04	-13.00	-65.04	V
51.8250	-58.93	0.82	-4.37	-64.12	-13.00	-51.12	H
110.0250	-55.61	1.21	-1.7	-58.52	-13.00	-45.52	H
192.4750	-69.23	1.62	3.74	-67.11	-13.00	-54.11	H
427.7000	-72.7	2.48	5.8	-69.38	-13.00	-56.38	H
451.9500	-71.59	2.59	5.75	-68.43	-13.00	-55.43	H
723.5500	-75.3	3.17	6.47	-72.00	-13.00	-59.00	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 7, 2012

Temperature: 26°C **Tested by:** David Lee

Humidity: 45 % 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)
42.1250	-61.86	0.74	-10.72	-73.32	-13.00	-60.32	V
66.3750	-70.61	0.93	-1.91	-73.45	-13.00	-60.45	V
110.0250	-67.4	1.21	-1.7	-70.31	-13.00	-57.31	V
194.9000	-69.62	1.63	3.47	-67.78	-13.00	-54.78	V
459.2250	-79.27	2.6	5.88	-75.99	-13.00	-62.99	V
723.5500	-80.49	3.17	6.47	-77.19	-13.00	-64.19	V
66.3750	-66.25	0.93	-1.91	-69.09	-13.00	-56.09	H
112.4500	-55.87	1.22	-1.8	-58.89	-13.00	-45.89	H
192.4750	-69.56	1.62	3.74	-67.44	-13.00	-54.44	H
294.3250	-77.57	2.05	5.49	-74.13	-13.00	-61.13	H
405.8750	-75.93	2.42	5.94	-72.41	-13.00	-59.41	H
451.9500	-71.31	2.59	5.75	-68.15	-13.00	-55.15	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: EDGE 850 / TX / CH 128 **Test Date:** August 7, 2012

Temperature: 26°C **Tested by:** David Lee

Humidity: 45 % 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	-65.46	0.95	-1.81	-68.22	-13.00	-55.22	V
112.4500	-64.81	1.22	-1.8	-67.83	-13.00	-54.83	V
185.2000	-67.79	1.61	3.81	-65.59	-13.00	-52.59	V
284.6250	-80.18	2.01	5.35	-76.84	-13.00	-63.84	V
359.8000	-71.15	2.27	5.7	-67.72	-13.00	-54.72	V
398.6000	-72.65	2.38	5.98	-69.05	-13.00	-56.05	V
68.8000	-63.46	0.95	-1.81	-66.22	-13.00	-53.22	H
114.8750	-55.58	1.24	-1.9	-58.72	-13.00	-45.72	H
197.3250	-67.78	1.63	3.21	-66.20	-13.00	-53.20	H
240.9750	-73.6	1.81	5.34	-70.07	-13.00	-57.07	H
359.8000	-64.13	2.27	5.7	-60.70	-13.00	-47.70	H
481.0500	-70.54	2.64	5.52	-67.66	-13.00	-54.66	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: EDGE 850 / TX / CH 190 **Test Date:** August 7, 2012

Temperature: 26°C **Tested by:** David Lee

Humidity: 45 % 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	-68.14	0.95	-1.81	-70.90	-13.00	-57.90	V
114.8750	-67.11	1.24	-1.89	-70.24	-13.00	-57.24	V
187.6250	-70.49	1.62	3.9	-68.21	-13.00	-55.21	V
359.8000	-74.29	2.27	5.7	-70.86	-13.00	-57.86	V
401.0250	-74.86	2.4	5.98	-71.28	-13.00	-58.28	V
481.0500	-78.06	2.64	5.52	-75.18	-13.00	-62.18	V
112.4500	-56.32	1.22	-1.8	-59.34	-13.00	-46.34	H
185.2000	-69.23	1.61	3.81	-67.03	-13.00	-54.03	H
240.9750	-74.25	1.81	5.34	-70.72	-13.00	-57.72	H
359.8000	-64.9	2.27	5.7	-61.47	-13.00	-48.47	H
398.6000	-67.99	2.38	5.98	-64.39	-13.00	-51.39	H
481.0500	-70.82	2.64	5.52	-67.94	-13.00	-54.94	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: EDGE 850 / TX / CH 251 **Test Date:** August 7, 2012

Temperature: 26°C **Tested by:** David Lee

Humidity: 45 % 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	-68.64	0.95	-1.81	-71.40	-13.00	-58.40	V
114.8750	-66.98	1.24	-1.9	-70.12	-13.00	-57.12	V
185.2000	-70.87	1.61	3.81	-68.67	-13.00	-55.67	V
359.8000	-73.73	2.27	5.7	-70.30	-13.00	-57.30	V
401.0250	-76.56	2.4	5.98	-72.98	-13.00	-59.98	V
481.0500	-78.54	2.64	5.52	-75.66	-13.00	-62.66	V
66.3750	-63.44	0.93	-1.91	-66.28	-13.00	-53.28	H
114.8750	-57.21	1.24	-1.89	-60.34	-13.00	-47.34	H
194.9000	-69.67	1.63	3.47	-67.83	-13.00	-54.83	H
359.8000	-65.46	2.27	5.7	-62.03	-13.00	-49.03	H
401.0250	-67.3	2.4	5.98	-63.72	-13.00	-50.72	H
481.0500	-71.43	2.64	5.52	-68.55	-13.00	-55.55	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: EDGE 1900 / TX / CH 512 **Test Date:** August 7, 2012

Temperature: 26°C **Tested by:** David Lee

Humidity: 45 % 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	-69.68	0.95	-1.81	-72.44	-13.00	-59.44	V
110.0250	-65.35	1.21	-1.7	-68.26	-13.00	-55.26	V
192.4750	-68.85	1.62	3.74	-66.73	-13.00	-53.73	V
367.0750	-83.16	2.29	5.77	-79.68	-13.00	-66.68	V
456.8000	-78.21	2.6	5.84	-74.97	-13.00	-61.97	V
645.9500	-79.43	3.02	6.21	-76.24	-13.00	-63.24	V
63.9500	-64.08	0.91	-2.02	-67.01	-13.00	-54.01	H
114.8750	-53.67	1.24	-1.9	-56.81	-13.00	-43.81	H
192.4750	-67.41	1.62	3.74	-65.29	-13.00	-52.29	H
221.5750	-67.91	1.77	5.34	-64.34	-13.00	-51.34	H
294.3250	-75.62	2.05	5.49	-72.18	-13.00	-59.18	H
454.3750	-69.36	2.59	5.79	-66.16	-13.00	-53.16	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: EDGE 1900 / TX / CH 661 **Test Date:** August 7, 2012

Temperature: 25°C **Tested by:** David Lee

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)
42.1250	-62.48	0.74	-10.72	-73.94	-13.00	-60.94	V
66.3750	-69.71	0.93	-1.91	-72.55	-13.00	-59.55	V
107.6000	-67.24	1.19	-1.39	-69.82	-13.00	-56.82	V
187.6250	-70.09	1.62	3.9	-67.81	-13.00	-54.81	V
461.6500	-77.77	2.6	5.86	-74.51	-13.00	-61.51	V
706.5750	-80.15	3.13	6.32	-76.96	-13.00	-63.96	V
66.3750	-64.86	0.93	-1.91	-67.70	-13.00	-54.70	H
112.4500	-55.36	1.22	-1.8	-58.38	-13.00	-45.38	H
194.9000	-69.6	1.63	3.47	-67.76	-13.00	-54.76	H
296.7500	-76.84	2.07	5.53	-73.38	-13.00	-60.38	H
381.6250	-75.41	2.31	5.99	-71.73	-13.00	-58.73	H
461.6500	-70.97	2.6	5.86	-67.71	-13.00	-54.71	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: EDGE 1900 / TX / CH 810 **Test Date:** August 7, 2012

Temperature: 25°C **Tested by:** David Lee

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)
61.5250	-70.58	0.89	-2.12	-73.59	-13.00	-60.59	V
112.4500	-66.76	1.22	-1.8	-69.78	-13.00	-56.78	V
194.9000	-69.33	1.63	3.47	-67.49	-13.00	-54.49	V
464.0750	-78.69	2.61	5.84	-75.46	-13.00	-62.46	V
723.5500	-80.05	3.17	6.47	-76.75	-13.00	-63.75	V
876.3250	-78.34	3.46	6.62	-75.18	-13.00	-62.18	V
63.9500	-65.74	0.91	-2.02	-68.67	-13.00	-55.67	H
112.4500	-56.16	1.22	-1.8	-59.18	-13.00	-46.18	H
192.4750	-69.45	1.62	3.74	-67.33	-13.00	-54.33	H
296.7500	-77.5	2.07	5.53	-74.04	-13.00	-61.04	H
391.3250	-76.79	2.32	6	-73.11	-13.00	-60.11	H
454.3750	-70.38	2.59	5.79	-67.18	-13.00	-54.18	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 Band II / TX / CH 9262 **Test Date:** August 7, 2012

Temperature: 25°C **Tested by:** David Lee

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)
39.7000	-58.2	0.72	-12.6	-71.52	-13.00	-58.52	V
66.3750	-67.01	0.93	-1.91	-69.85	-13.00	-56.85	V
112.4500	-65.39	1.22	-1.8	-68.41	-13.00	-55.41	V
190.0500	-73.99	1.62	4	-71.61	-13.00	-58.61	V
265.2250	-76.81	1.95	5.34	-73.42	-13.00	-60.42	V
359.8000	-72.81	2.27	5.7	-69.38	-13.00	-56.38	V
63.9500	-63.66	0.91	-2.02	-66.59	-13.00	-53.59	H
112.4500	-57.57	1.22	-1.8	-60.59	-13.00	-47.59	H
187.6250	-73.95	1.62	3.9	-71.67	-13.00	-58.67	H
240.9750	-73.81	1.81	5.34	-70.28	-13.00	-57.28	H
359.8000	-67.92	2.27	5.7	-64.49	-13.00	-51.49	H
401.0250	-67.8	2.4	5.98	-64.22	-13.00	-51.22	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 7, 2012

Temperature: 25°C **Tested by:** David Lee

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)
42.1250	-61.98	0.74	-10.72	-73.44	-13.00	-60.44	V
66.3750	-67.72	0.93	-1.91	-70.56	-13.00	-57.56	V
107.6000	-68.2	1.19	-1.39	-70.78	-13.00	-57.78	V
190.0500	-76.09	1.62	4	-73.71	-13.00	-60.71	V
240.9750	-79.58	1.81	5.34	-76.05	-13.00	-63.05	V
359.8000	-73.86	2.27	5.7	-70.43	-13.00	-57.43	V
66.3750	-63.56	0.93	-1.91	-66.40	-13.00	-53.40	H
114.8750	-58.04	1.24	-1.9	-61.18	-13.00	-48.18	H
240.9750	-74.7	1.81	5.34	-71.17	-13.00	-58.17	H
359.8000	-67.94	2.27	5.7	-64.51	-13.00	-51.51	H
398.6000	-66.84	2.38	5.98	-63.24	-13.00	-50.24	H
481.0500	-68.23	2.64	5.52	-65.35	-13.00	-52.35	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 7, 2012

Temperature: 25°C **Tested by:** David Lee

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)
66.3750	-68.2	0.93	-1.91	-71.04	-13.00	-58.04	V
112.4500	-68.13	1.22	-1.8	-71.15	-13.00	-58.15	V
190.0500	-76.29	1.62	4	-73.91	-13.00	-60.91	V
240.9750	-80.26	1.81	5.34	-76.73	-13.00	-63.73	V
359.8000	-74.28	2.27	5.7	-70.85	-13.00	-57.85	V
398.6000	-76.35	2.38	5.98	-72.75	-13.00	-59.75	V
66.3750	-63.6	0.93	-1.91	-66.44	-13.00	-53.44	H
114.8750	-58.44	1.24	-1.9	-61.58	-13.00	-48.58	H
240.9750	-74.38	1.81	5.34	-70.85	-13.00	-57.85	H
359.8000	-68.37	2.27	5.7	-64.94	-13.00	-51.94	H
398.6000	-68.42	2.38	5.98	-64.82	-13.00	-51.82	H
481.0500	-69.18	2.64	5.52	-66.30	-13.00	-53.30	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 7, 2012

Temperature: 25°C **Tested by:** David Lee

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)
66.3750	-67.21	0.93	-1.91	-70.05	-13.00	-57.05	V
114.8750	-66.5	1.24	-1.9	-69.64	-13.00	-56.64	V
131.8500	-66.33	1.35	-1.18	-68.86	-13.00	-55.86	V
192.4750	-74.28	1.62	3.74	-72.16	-13.00	-59.16	V
240.9750	-79.27	1.81	5.34	-75.74	-13.00	-62.74	V
359.8000	-78.73	2.27	5.7	-75.30	-13.00	-62.30	V
63.9500	-65.56	0.91	-2.02	-68.49	-13.00	-55.49	H
114.8750	-63.86	1.24	-1.9	-67.00	-13.00	-54.00	H
134.2750	-64.84	1.36	-0.9	-67.10	-13.00	-54.10	H
194.9000	-73.29	1.63	3.47	-71.45	-13.00	-58.45	H
240.9750	-76.63	1.81	5.34	-73.10	-13.00	-60.10	H
359.8000	-72.35	2.27	5.7	-68.92	-13.00	-55.92	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 7, 2012

Temperature: 25°C **Tested by:** David Lee

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)
39.7000	-62.59	0.72	-12.6	-75.91	-13.00	-62.91	V
66.3750	-68.79	0.93	-1.91	-71.63	-13.00	-58.63	V
131.8500	-70.29	1.35	-1.18	-72.82	-13.00	-59.82	V
240.9750	-81.73	1.81	5.34	-78.20	-13.00	-65.20	V
328.2750	-76.41	2.17	5.71	-72.87	-13.00	-59.87	V
359.8000	-80.41	2.27	5.7	-76.98	-13.00	-63.98	V
66.3750	-65.75	0.93	-1.91	-68.59	-13.00	-55.59	H
114.8750	-64.33	1.24	-1.89	-67.46	-13.00	-54.46	H
134.2750	-65.37	1.36	-0.9	-67.63	-13.00	-54.63	H
240.9750	-76.78	1.81	5.34	-73.25	-13.00	-60.25	H
359.8000	-72.44	2.27	5.7	-69.01	-13.00	-56.01	H
481.0500	-72.42	2.64	5.52	-69.54	-13.00	-56.54	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 7, 2012

Temperature: 25°C **Tested by:** David Lee

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)
42.1250	-64.6	0.74	-10.72	-76.06	-13.00	-63.06	V
68.8000	-68.93	0.95	-1.81	-71.69	-13.00	-58.69	V
110.0250	-70.14	1.21	-1.7	-73.05	-13.00	-60.05	V
131.8500	-69.15	1.35	-1.18	-71.68	-13.00	-58.68	V
267.6500	-78.8	1.96	5.22	-75.54	-13.00	-62.54	V
359.8000	-80.21	2.27	5.7	-76.78	-13.00	-63.78	V
66.3750	-65.34	0.93	-1.91	-68.18	-13.00	-55.18	H
112.4500	-65.18	1.22	-1.8	-68.20	-13.00	-55.20	H
134.2750	-65.76	1.36	-0.9	-68.02	-13.00	-55.02	H
194.9000	-77.29	1.63	3.47	-75.45	-13.00	-62.45	H
240.9750	-77.94	1.81	5.34	-74.41	-13.00	-61.41	H
359.8000	-73.01	2.27	5.7	-69.58	-13.00	-56.58	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 7, 2012
Temperature:	25°C	**Tested by:**	David Lee
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)
39.7000	-58.59	0.72	-12.6	-71.91	-13.00	-58.91	V
66.3750	-67.36	0.93	-1.91	-70.20	-13.00	-57.20	V
112.4500	-66.14	1.22	-1.8	-69.16	-13.00	-56.16	V
190.0500	-74.93	1.62	4	-72.55	-13.00	-59.55	V
359.8000	-73.35	2.27	5.7	-69.92	-13.00	-56.92	V
401.0250	-76.12	2.4	5.98	-72.54	-13.00	-59.54	V
63.9500	-63.19	0.91	-2.02	-66.12	-13.00	-53.12	H
114.8750	-57.05	1.24	-1.9	-60.19	-13.00	-47.19	H
240.9750	-73.78	1.81	5.34	-70.25	-13.00	-57.25	H
359.8000	-67.18	2.27	5.7	-63.75	-13.00	-50.75	H
401.0250	-66.48	2.4	5.98	-62.90	-13.00	-49.90	H
481.0500	-68.85	2.64	5.52	-65.97	-13.00	-52.97	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 7, 2012
Temperature:	25°C	**Tested by:**	David Lee
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)
39.7000	-60.43	0.72	-12.6	-73.75	-13.00	-60.75	V
66.3750	-68.35	0.93	-1.91	-71.19	-13.00	-58.19	V
107.6000	-68.07	1.19	-1.39	-70.65	-13.00	-57.65	V
190.0500	-75.97	1.62	4	-73.59	-13.00	-60.59	V
240.9750	-80.19	1.81	5.34	-76.66	-13.00	-63.66	V
359.8000	-73.79	2.27	5.7	-70.36	-13.00	-57.36	V
63.9500	-62.98	0.91	-2.02	-65.91	-13.00	-52.91	H
112.4500	-57.82	1.22	-1.8	-60.84	-13.00	-47.84	H
131.8500	-64.16	1.35	-1.18	-66.69	-13.00	-53.69	H
359.8000	-68.51	2.27	5.7	-65.08	-13.00	-52.08	H
401.0250	-68.32	2.4	5.98	-64.74	-13.00	-51.74	H
481.0500	-68.72	2.64	5.52	-65.84	-13.00	-52.84	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 7, 2012
Temperature:	25°C	**Tested by:**	David Lee
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)
39.7000	-60.82	0.72	-12.6	-74.14	-13.00	-61.14	V
66.3750	-68.42	0.93	-1.91	-71.26	-13.00	-58.26	V
110.0250	-67.81	1.21	-1.7	-70.72	-13.00	-57.72	V
187.6250	-75.91	1.62	3.9	-73.63	-13.00	-60.63	V
240.9750	-80.1	1.81	5.34	-76.57	-13.00	-63.57	V
359.8000	-74.27	2.27	5.7	-70.84	-13.00	-57.84	V
66.3750	-62.91	0.93	-1.91	-65.75	-13.00	-52.75	H
114.8750	-58.82	1.24	-1.9	-61.96	-13.00	-48.96	H
240.9750	-74.46	1.81	5.34	-70.93	-13.00	-57.93	H
359.8000	-68.52	2.27	5.7	-65.09	-13.00	-52.09	H
401.0250	-66.68	2.4	5.98	-63.10	-13.00	-50.10	H
481.0500	-68.9	2.64	5.52	-66.02	-13.00	-53.02	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 7, 2012
Temperature:	25°C	**Tested by:**	David Lee
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)
66.3750	-68.21	0.93	-1.91	-71.05	-13.00	-58.05	V
114.8750	-67.44	1.24	-1.9	-70.58	-13.00	-57.58	V
131.8500	-67.97	1.35	-1.18	-70.50	-13.00	-57.50	V
194.9000	-76.26	1.63	3.47	-74.42	-13.00	-61.42	V
240.9750	-79.96	1.81	5.34	-76.43	-13.00	-63.43	V
359.8000	-79.82	2.27	5.7	-76.39	-13.00	-63.39	V
66.3750	-65.28	0.93	-1.91	-68.12	-13.00	-55.12	H
112.4500	-64	1.22	-1.8	-67.02	-13.00	-54.02	H
129.4250	-65.08	1.34	-1.47	-67.89	-13.00	-54.89	H
194.9000	-74.31	1.63	3.47	-72.47	-13.00	-59.47	H
240.9750	-76.46	1.81	5.34	-72.93	-13.00	-59.93	H
359.8000	-72.25	2.27	5.7	-68.82	-13.00	-55.82	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:	WCDMA / HSDPA Band V / TX / CH 4182	**Test Date:**	August 7, 2012
Temperature:	25°C	**Tested by:**	David Lee
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)
42.1250	-64.6	0.74	-10.72	-76.06	-13.00	-63.06	V
66.3750	-70.61	0.93	-1.91	-73.45	-13.00	-60.45	V
134.2750	-70.6	1.36	-0.9	-72.86	-13.00	-59.86	V
240.9750	-81.45	1.81	5.34	-77.92	-13.00	-64.92	V
359.8000	-80.91	2.27	5.7	-77.48	-13.00	-64.48	V
481.0500	-78.96	2.64	5.52	-76.08	-13.00	-63.08	V
63.9500	-66.23	0.91	-2.02	-69.16	-13.00	-56.16	H
119.7250	-63.68	1.27	-2.09	-67.04	-13.00	-54.04	H
134.2750	-65.37	1.36	-0.9	-67.63	-13.00	-54.63	H
240.9750	-77.57	1.81	5.34	-74.04	-13.00	-61.04	H
359.8000	-72.74	2.27	5.7	-69.31	-13.00	-56.31	H
481.0500	-73.95	2.64	5.52	-71.07	-13.00	-58.07	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 7, 2012
Temperature:	25°C	**Tested by:**	David Lee
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)
66.3750	-69.83	0.93	-1.91	-72.67	-13.00	-59.67	V
112.4500	-70.35	1.22	-1.8	-73.37	-13.00	-60.37	V
136.7000	-70.05	1.38	-0.61	-72.04	-13.00	-59.04	V
194.9000	-80.2	1.63	3.47	-78.36	-13.00	-65.36	V
240.9750	-81.76	1.81	5.34	-78.23	-13.00	-65.23	V
359.8000	-80.1	2.27	5.7	-76.67	-13.00	-63.67	V
63.9500	-66.25	0.91	-2.02	-69.18	-13.00	-56.18	H
112.4500	-64.92	1.22	-1.8	-67.94	-13.00	-54.94	H
134.2750	-65.63	1.36	-0.9	-67.89	-13.00	-54.89	H
240.9750	-77.93	1.81	5.34	-74.40	-13.00	-61.40	H
299.1750	-76.26	2.09	5.58	-72.77	-13.00	-59.77	H
359.8000	-73.3	2.27	5.7	-69.87	-13.00	-56.87	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:**	August 7, 2012
Temperature:	25°C	**Tested by:**	David Lee
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)
39.7000	-59.31	0.72	-12.6	-72.63	-13.00	-59.63	V
66.3750	-67.34	0.93	-1.91	-70.18	-13.00	-57.18	V
112.4500	-66.49	1.22	-1.8	-69.51	-13.00	-56.51	V
190.0500	-74.07	1.62	4	-71.69	-13.00	-58.69	V
240.9750	-78.9	1.81	5.34	-75.37	-13.00	-62.37	V
359.8000	-73.57	2.27	5.7	-70.14	-13.00	-57.14	V
63.9500	-62.98	0.91	-2.02	-65.91	-13.00	-52.91	H
112.4500	-57.45	1.22	-1.8	-60.47	-13.00	-47.47	H
190.0500	-72.47	1.62	4	-70.09	-13.00	-57.09	H
240.9750	-73.33	1.81	5.34	-69.80	-13.00	-56.80	H
359.8000	-67.67	2.27	5.7	-64.24	-13.00	-51.24	H
481.0500	-68.25	2.64	5.52	-65.37	-13.00	-52.37	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 / HSUPA Band II / TX / CH 9400	**Test Date:**	August 7, 2012
Temperature:	25°C	**Tested by:**	David Lee
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)
39.7000	-60.6	0.72	-12.6	-73.92	-13.00	-60.92	V
66.3750	-68.66	0.93	-1.91	-71.50	-13.00	-58.50	V
114.8750	-67.49	1.24	-1.9	-70.63	-13.00	-57.63	V
192.4750	-76.46	1.62	3.74	-74.34	-13.00	-61.34	V
240.9750	-79.78	1.81	5.34	-76.25	-13.00	-63.25	V
359.8000	-74.32	2.27	5.7	-70.89	-13.00	-57.89	V
63.9500	-62.91	0.91	-2.02	-65.84	-13.00	-52.84	H
112.4500	-58.09	1.22	-1.8	-61.11	-13.00	-48.11	H
240.9750	-73.86	1.81	5.34	-70.33	-13.00	-57.33	H
359.8000	-68.1	2.27	5.7	-64.67	-13.00	-51.67	H
398.6000	-69.33	2.38	5.98	-65.73	-13.00	-52.73	H
481.0500	-68.91	2.64	5.52	-66.03	-13.00	-53.03	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 7, 2012
Temperature:	25°C	**Tested by:**	David Lee
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)
66.3750	-68.6	0.93	-1.91	-71.44	-13.00	-58.44	V
105.1750	-68.29	1.18	-1.07	-70.54	-13.00	-57.54	V
187.6250	-74.47	1.62	3.9	-72.19	-13.00	-59.19	V
240.9750	-80.05	1.81	5.34	-76.52	-13.00	-63.52	V
359.8000	-74.12	2.27	5.7	-70.69	-13.00	-57.69	V
401.0250	-75.69	2.4	5.98	-72.11	-13.00	-59.11	V
66.3750	-63.59	0.93	-1.91	-66.43	-13.00	-53.43	H
114.8750	-58.63	1.24	-1.9	-61.77	-13.00	-48.77	H
240.9750	-74.5	1.81	5.34	-70.97	-13.00	-57.97	H
359.8000	-68.15	2.27	5.7	-64.72	-13.00	-51.72	H
398.6000	-67.51	2.38	5.98	-63.91	-13.00	-50.91	H
481.0500	-69.4	2.64	5.52	-66.52	-13.00	-53.52	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 7, 2012
Temperature:	25°C	**Tested by:**	David Lee
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)
66.3750	-69.03	0.93	-1.91	-71.87	-13.00	-58.87	V
114.8750	-69.01	1.24	-1.9	-72.15	-13.00	-59.15	V
136.7000	-68.59	1.38	-0.61	-70.58	-13.00	-57.58	V
204.6000	-75.68	1.65	4.2	-73.13	-13.00	-60.13	V
240.9750	-80.51	1.81	5.34	-76.98	-13.00	-63.98	V
359.8000	-79.77	2.27	5.7	-76.34	-13.00	-63.34	V
63.9500	-65.63	0.91	-2.02	-68.56	-13.00	-55.56	H
114.8750	-63.42	1.24	-1.9	-66.56	-13.00	-53.56	H
134.2750	-65.72	1.36	-0.9	-67.98	-13.00	-54.98	H
194.9000	-75.22	1.63	3.47	-73.38	-13.00	-60.38	H
240.9750	-76.42	1.81	5.34	-72.89	-13.00	-59.89	H
359.8000	-72.82	2.27	5.7	-69.39	-13.00	-56.39	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 7, 2012
Temperature:	25°C	**Tested by:**	David Lee
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)
66.3750	-70.32	0.93	-1.91	-73.16	-13.00	-60.16	V
110.0250	-71.53	1.21	-1.7	-74.44	-13.00	-61.44	V
134.2750	-70.95	1.36	-0.9	-73.21	-13.00	-60.21	V
192.4750	-80.7	1.62	3.74	-78.58	-13.00	-65.58	V
240.9750	-82.3	1.81	5.34	-78.77	-13.00	-65.77	V
359.8000	-80.03	2.27	5.7	-76.60	-13.00	-63.60	V
66.3750	-64.91	0.93	-1.91	-67.75	-13.00	-54.75	H
114.8750	-64.2	1.24	-1.9	-67.34	-13.00	-54.34	H
134.2750	-65.87	1.36	-0.9	-68.13	-13.00	-55.13	H
194.9000	-75.67	1.63	3.47	-73.83	-13.00	-60.83	H
240.9750	-76.94	1.81	5.34	-73.41	-13.00	-60.41	H
359.8000	-72.7	2.27	5.7	-69.27	-13.00	-56.27	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 7, 2012
Temperature:	25°C	**Tested by:**	David Lee
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)
42.1250	-64.66	0.74	-10.72	-76.12	-13.00	-63.12	V
66.3750	-69.41	0.93	-1.91	-72.25	-13.00	-59.25	V
112.4500	-70.47	1.22	-1.8	-73.49	-13.00	-60.49	V
136.7000	-69.73	1.38	-0.61	-71.72	-13.00	-58.72	V
240.9750	-81.62	1.81	5.34	-78.09	-13.00	-65.09	V
359.8000	-81.12	2.27	5.7	-77.69	-13.00	-64.69	V
66.3750	-65.78	0.93	-1.91	-68.62	-13.00	-55.62	H
114.8750	-64.93	1.24	-1.9	-68.07	-13.00	-55.07	H
134.2750	-65.69	1.36	-0.9	-67.95	-13.00	-54.95	H
240.9750	-77.6	1.81	5.34	-74.07	-13.00	-61.07	H
359.8000	-72.66	2.27	5.7	-69.23	-13.00	-56.23	H
444.6750	-75.56	2.56	5.8	-72.32	-13.00	-59.32	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 / HSPA+ Band II / TX / CH 9262	**Test Date:**	August 7, 2012
Temperature:	25°C	**Tested by:**	David Lee
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)
63.9500	-70.72	0.91	-2.02	-73.65	-13.00	-60.65	V
107.6000	-71.01	1.19	-1.39	-73.59	-13.00	-60.59	V
134.2750	-70.03	1.36	-0.9	-72.29	-13.00	-59.29	V
240.9750	-82.52	1.81	5.34	-78.99	-13.00	-65.99	V
267.6500	-81.61	1.96	5.22	-78.35	-13.00	-65.35	V
359.8000	-79.63	2.27	5.7	-76.20	-13.00	-63.20	V
63.9500	-65.79	0.91	-2.02	-68.72	-13.00	-55.72	H
119.7250	-65.03	1.27	-2.09	-68.39	-13.00	-55.39	H
136.7000	-66.42	1.38	-0.61	-68.41	-13.00	-55.41	H
240.9750	-76.9	1.81	5.34	-73.37	-13.00	-60.37	H
359.8000	-72.55	2.27	5.7	-69.12	-13.00	-56.12	H
451.9500	-74.14	2.59	5.75	-70.98	-13.00	-57.98	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 / HSPA+ Band II / TX / CH 9400	**Test Date:**	August 7, 2012
Temperature:	25°C	**Tested by:**	David Lee
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)
66.3750	-70.61	0.93	-1.91	-73.45	-13.00	-60.45	V
110.0250	-71.04	1.21	-1.7	-73.95	-13.00	-60.95	V
139.1250	-70.95	1.39	-0.32	-72.66	-13.00	-59.66	V
240.9750	-82.21	1.81	5.34	-78.68	-13.00	-65.68	V
267.6500	-82.82	1.96	5.22	-79.56	-13.00	-66.56	V
359.8000	-79.81	2.27	5.7	-76.38	-13.00	-63.38	V
66.3750	-66.1	0.93	-1.91	-68.94	-13.00	-55.94	H
112.4500	-65.06	1.22	-1.8	-68.08	-13.00	-55.08	H
119.7250	-63.96	1.27	-2.09	-67.32	-13.00	-54.32	H
134.2750	-66.2	1.36	-0.9	-68.46	-13.00	-55.46	H
240.9750	-77.23	1.81	5.34	-73.70	-13.00	-60.70	H
359.8000	-72.35	2.27	5.7	-68.92	-13.00	-55.92	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 / HSPA+ Band II / TX / CH 9538	**Test Date:**	August 7, 2012
Temperature:	25°C	**Tested by:**	David Lee
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)
66.3750	-71.02	0.93	-1.91	-73.86	-13.00	-60.86	V
107.6000	-71.37	1.19	-1.39	-73.95	-13.00	-60.95	V
134.2750	-69.94	1.36	-0.9	-72.20	-13.00	-59.20	V
187.6250	-74.36	1.62	3.9	-72.08	-13.00	-59.08	V
240.9750	-81.56	1.81	5.34	-78.03	-13.00	-65.03	V
359.8000	-80.75	2.27	5.7	-77.32	-13.00	-64.32	V
63.9500	-66.13	0.91	-2.02	-69.06	-13.00	-56.06	H
107.6000	-65.02	1.19	-1.39	-67.60	-13.00	-54.60	H
134.2750	-66.46	1.36	-0.9	-68.72	-13.00	-55.72	H
240.9750	-76.66	1.81	5.34	-73.13	-13.00	-60.13	H
359.8000	-72.28	2.27	5.7	-68.85	-13.00	-55.85	H
401.0250	-73.85	2.4	5.98	-70.27	-13.00	-57.27	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 / HSPA+ Band V / TX / CH 4132	**Test Date:**	August 7, 2012
Temperature:	25°C	**Tested by:**	David Lee
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)
44.5500	-65.59	0.76	-8.84	-75.19	-13.00	-62.19	V
68.8000	-69.2	0.95	-1.81	-71.96	-13.00	-58.96	V
112.4500	-69.84	1.22	-1.8	-72.86	-13.00	-59.86	V
136.7000	-68.72	1.38	-0.61	-70.71	-13.00	-57.71	V
240.9750	-81.16	1.81	5.34	-77.63	-13.00	-64.63	V
359.8000	-81.09	2.27	5.7	-77.66	-13.00	-64.66	V
66.3750	-65.71	0.93	-1.91	-68.55	-13.00	-55.55	H
114.8750	-63.81	1.24	-1.9	-66.95	-13.00	-53.95	H
134.2750	-65.35	1.36	-0.9	-67.61	-13.00	-54.61	H
199.7500	-73.84	1.63	2.94	-72.53	-13.00	-59.53	H
240.9750	-77.66	1.81	5.34	-74.13	-13.00	-61.13	H
359.8000	-72.93	2.27	5.7	-69.50	-13.00	-56.50	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 / HSPA+ Band V / TX / CH 4182	**Test Date:**	August 7, 2012
Temperature:	25°C	**Tested by:**	David Lee
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)
42.1250	-64.23	0.74	-10.72	-75.69	-13.00	-62.69	V
68.8000	-69.52	0.95	-1.81	-72.28	-13.00	-59.28	V
112.4500	-71.3	1.22	-1.8	-74.32	-13.00	-61.32	V
134.2750	-70.03	1.36	-0.9	-72.29	-13.00	-59.29	V
199.7500	-72.4	1.63	2.94	-71.09	-13.00	-58.09	V
359.8000	-81.29	2.27	5.7	-77.86	-13.00	-64.86	V
66.3750	-66.37	0.93	-1.91	-69.21	-13.00	-56.21	H
112.4500	-64.92	1.22	-1.8	-67.94	-13.00	-54.94	H
136.7000	-67.19	1.38	-0.61	-69.18	-13.00	-56.18	H
240.9750	-77.47	1.81	5.34	-73.94	-13.00	-60.94	H
359.8000	-73.07	2.27	5.7	-69.64	-13.00	-56.64	H
481.0500	-73.28	2.64	5.52	-70.40	-13.00	-57.40	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 / HSPA+ Band V / TX / CH 4233	**Test Date:**	August 7, 2012
Temperature:	25°C	**Tested by:**	David Lee
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)
39.7000	-63.34	0.72	-12.6	-76.66	-13.00	-63.66	V
66.3750	-68.49	0.93	-1.91	-71.33	-13.00	-58.33	V
112.4500	-70.26	1.22	-1.8	-73.28	-13.00	-60.28	V
134.2750	-69.52	1.36	-0.9	-71.78	-13.00	-58.78	V
228.8500	-73.04	1.79	5.38	-69.45	-13.00	-56.45	V
359.8000	-80.97	2.27	5.7	-77.54	-13.00	-64.54	V
66.3750	-65.72	0.93	-1.91	-68.56	-13.00	-55.56	H
112.4500	-64.8	1.22	-1.8	-67.82	-13.00	-54.82	H
134.2750	-65.97	1.36	-0.9	-68.23	-13.00	-55.23	H
197.3250	-76.27	1.63	3.21	-74.69	-13.00	-61.69	H
240.9750	-77.46	1.81	5.34	-73.93	-13.00	-60.93	H
359.8000	-72.97	2.27	5.7	-69.54	-13.00	-56.54	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: GPRS 850 / TX / CH 128 **Test Date:** August 7, 2012

Temperature: 25°C **Tested by:** David Lee

Humidity: 55 % 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)
1647.500	-52.73	5.04	6.03	-51.74	-13.00	-38.74	V
2470.000	-48.81	6.3	6.06	-49.05	-13.00	-36.05	V
N/A							
1647.500	-46.75	5.04	6.03	-45.76	-13.00	-32.76	H
2470.000	-39.05	6.3	6.06	-39.29	-13.00	-26.29	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 7, 2012

Temperature: 25°C **Tested by:** David Lee

Humidity: 55 % 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)
1682.500	-50.93	5.09	5.97	-50.05	-13.00	-37.05	V
2522.500	-48.15	6.38	6.16	-48.37	-13.00	-35.37	V
N/A							
1682.500	-42.98	5.09	5.97	-42.10	-13.00	-29.10	H
2522.500	-39.92	6.38	6.16	-40.14	-13.00	-27.14	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 7, 2012

Temperature: 25°C **Tested by:** David Lee

Humidity: 55 % 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	-50	5.11	5.94	-49.17	-13.00	-36.17	V
2557.500	-46.22	6.43	6.25	-46.40	-13.00	-33.40	V
N/A							
1700.000	-43.68	5.11	5.94	-42.85	-13.00	-29.85	H
2557.500	-41.2	6.43	6.25	-41.38	-13.00	-28.38	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 1900 / TX / CH 512 **Test Date:** August 7, 2012

Temperature: 25°C **Tested by:** David Lee

Humidity: 55 % 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)
5550.000	-44.02	10.06	10.81	-43.27	-13.00	-30.27	V
N/A							
5550.000	-43	10.06	10.81	-42.25	-13.00	-29.25	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 7, 2012

Temperature: 25°C **Tested by:** David Lee

Humidity: 55 % 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)
5637.500	-46.48	10.18	10.83	-45.83	-13.00	-32.83	V
N/A							
5637.500	-46.46	10.18	10.83	-45.81	-13.00	-32.81	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 7, 2012

Temperature: 25°C **Tested by:** David Lee

Humidity: 55 % 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)
5742.500	-48.51	10.27	10.85	-47.93	-13.00	-34.93	V
N/A							
5742.500	-45	10.27	10.85	-44.42	-13.00	-31.42	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: EDGE 850 / TX / CH 128 **Test Date:** August 7, 2012

Temperature: 25°C **Tested by:** David Lee

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)
2470.000	-54.07	6.3	6.06	-54.31	-13.00	-41.31	V
6670.000	-48.23	11.28	11.5	-48.01	-13.00	-35.01	V
N/A							
1647.500	-55.97	5.04	6.03	-54.98	-13.00	-41.98	H
2470.000	-45.71	6.3	6.06	-45.95	-13.00	-32.95	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: EDGE 850 / TX / CH 190 **Test Date:** August 7, 2012

Temperature: 25°C **Tested by:** David Lee

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)
1682.500	-58.05	5.09	5.97	-57.17	-13.00	-44.17	V
2522.500	-52.01	6.38	6.16	-52.23	-13.00	-39.23	V
N/A							
1682.500	-55.31	5.09	5.97	-54.43	-13.00	-41.43	H
2522.500	-44.82	6.38	6.16	-45.04	-13.00	-32.04	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: EDGE 850 / TX / CH 251 **Test Date:** August 7, 2012

Temperature: 25°C **Tested by:** David Lee

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)
1700.000	-57.48	5.11	5.94	-56.65	-13.00	-43.65	V
2557.500	-54.47	6.43	6.25	-54.65	-13.00	-41.65	V
N/A							
1700.000	-55.71	5.11	5.94	-54.88	-13.00	-41.88	H
2557.500	-49.04	6.43	6.25	-49.22	-13.00	-36.22	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: EDGE 1900 / TX / CH 512 **Test Date:** August 7, 2012

Temperature: 25°C **Tested by:** David Lee

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)
5550.000	-50.94	10.06	10.81	-50.19	-13.00	-37.19	V
N/A							
5550.000	-50.34	10.06	10.81	-49.59	-13.00	-36.59	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: EDGE 1900 / TX / CH 661 **Test Date:** August 7, 2012

Temperature: 25°C **Tested by:** David Lee

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)
4430.000	-53.09	8.72	9.74	-52.07	-13.00	-39.07	V
5637.500	-51.78	10.18	10.83	-51.13	-13.00	-38.13	V
N/A							
2960.000	-52.7	7.07	7.3	-52.47	-13.00	-39.47	H
5637.500	-51.3	10.18	10.83	-50.65	-13.00	-37.65	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: EDGE 1900 / TX / CH 810 **Test Date:** August 7, 2012

Temperature: 25°C **Tested by:** David Lee

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)
2977.500	-54.7	7.04	7.34	-54.40	-13.00	-41.40	V
5077.500	-54.25	9.44	10.63	-53.06	-13.00	-40.06	V
N/A							
4360.000	-52.83	8.62	9.69	-51.76	-13.00	-38.76	H
5497.500	-52.88	9.94	10.8	-52.02	-13.00	-39.02	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 7, 2012

Temperature: 25°C **Tested by:** David Lee

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)
3712.500	-50.98	8.21	9.11	-50.08	-13.00	-37.08	V
N/A							
3712.500	-50.51	8.21	9.11	-49.61	-13.00	-36.61	H
5760.000	-50.1	10.32	10.85	-49.57	-13.00	-36.57	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 7, 2012

Temperature: 25°C **Tested by:** David Lee

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)
7457.500	-43.33	12.19	12.63	-42.89	-13.00	-29.89	V
N/A							
2977.500	-53.39	7.04	7.34	-53.09	-13.00	-40.09	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 Band II / TX / CH 9538 **Test Date:** August 7, 2012

Temperature: 25°C **Tested by:** David Lee

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)
3817.500	-51.5	8.28	9.22	-50.56	-13.00	-37.56	V
N/A							
3817.500	-50.39	8.28	9.22	-49.45	-13.00	-36.45	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 7, 2012

Temperature: 25°C **Tested by:** David Lee

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)
1665.000	-42.18	5.06	6	-41.24	-13.00	-28.24	V
2487.500	-49.26	6.33	6.08	-49.51	-13.00	-36.51	V
N/A							
1665.000	-44.99	5.06	6	-44.05	-13.00	-31.05	H
2487.500	-43.88	6.33	6.08	-44.13	-13.00	-31.13	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 7, 2012

Temperature: 25°C **Tested by:** David Lee

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)
1682.500	-46.63	5.09	5.97	-45.75	-13.00	-32.75	V
2522.500	-44.29	6.38	6.16	-44.51	-13.00	-31.51	V
N/A							
1682.500	-50.59	5.09	5.97	-49.71	-13.00	-36.71	H
2505.000	-41.44	6.36	6.11	-41.69	-13.00	-28.69	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 Band V / TX / CH 4233 **Test Date:** August 7, 2012

Temperature: 25°C **Tested by:** David Lee

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)
1700.000	-41.81	5.11	5.94	-40.98	-13.00	-27.98	V
2540.000	-51.64	6.41	6.2	-51.85	-13.00	-38.85	V
N/A							
1700.000	-45.9	5.11	5.94	-45.07	-13.00	-32.07	H
2540.000	-46.72	6.41	6.2	-46.93	-13.00	-33.93	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 7, 2012
Temperature:	25°C	**Tested by:**	David Lee
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)
3712.500	-51.81	8.21	9.11	-50.91	-13.00	-37.91	V
N/A							
3712.500	-47.78	8.21	9.11	-46.88	-13.00	-33.88	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 7, 2012
Temperature:	25°C	**Tested by:**	David Lee
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)
2977.500	-53.99	7.04	7.34	-53.69	-13.00	-40.69	V
7580.000	-44.22	12.15	12.78	-43.59	-13.00	-30.59	V
N/A							
2977.500	-54.05	7.04	7.34	-53.75	-13.00	-40.75	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 7, 2012
Temperature:	25°C	**Tested by:**	David Lee
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)
3817.500	-51.69	8.28	9.22	-50.75	-13.00	-37.75	V
7580.000	-44.02	12.15	12.78	-43.39	-13.00	-30.39	V
N/A							
3817.500	-51.69	8.28	9.22	-50.75	-13.00	-37.75	H
5497.500	-52.7	9.94	10.8	-51.84	-13.00	-38.84	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:	WCDMA / HSDPA Band V / TX / CH 4132	**Test Date:**	August 7, 2012
Temperature:	25°C	**Tested by:**	David Lee
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)
1665.000	-41.75	5.06	6	-40.81	-13.00	-27.81	V
2487.500	-49.48	6.33	6.08	-49.73	-13.00	-36.73	V
N/A							
1665.000	-44.88	5.06	6	-43.94	-13.00	-30.94	H
2487.500	-43.45	6.33	6.08	-43.70	-13.00	-30.70	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:	WCDMA / HSDPA Band V / TX / CH 4182	**Test Date:**	August 7, 2012
Temperature:	25°C	**Tested by:**	David Lee
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)
1682.500	-46.87	5.09	5.97	-45.99	-13.00	-32.99	V
2505.000	-48.21	6.36	6.11	-48.46	-13.00	-35.46	V
N/A							
1682.500	-50.55	5.09	5.97	-49.67	-13.00	-36.67	H
2522.500	-40.75	6.38	6.16	-40.97	-13.00	-27.97	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 / HSDPA Band V / TX / CH 4233	**Test Date:**	August 7, 2012
Temperature:	25°C	**Tested by:**	David Lee
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)
1700.000	-41.64	5.11	5.94	-40.81	-13.00	-27.81	V
2540.000	-50.62	6.41	6.2	-50.83	-13.00	-37.83	V
N/A							
1700.000	-44.8	5.11	5.94	-43.97	-13.00	-30.97	H
2557.500	-47.2	6.43	6.25	-47.38	-13.00	-34.38	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 7, 2012
Temperature:	25°C	**Tested by:**	David Lee
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)
3712.500	-51.27	8.21	9.11	-50.37	-13.00	-37.37	V
N/A							
3712.500	-48.19	8.21	9.11	-47.29	-13.00	-34.29	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 7, 2012
Temperature:	25°C	**Tested by:**	David Lee
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)
4045.000	-52.76	8.4	9.44	-51.72	-13.00	-38.72	V
6337.500	-49.35	10.93	11.17	-49.11	-13.00	-36.11	V
N/A							
4447.500	-50.76	8.77	9.76	-49.77	-13.00	-36.77	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 7, 2012
Temperature:	25°C	**Tested by:**	David Lee
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)
2960.000	-53.51	7.07	7.3	-53.28	-13.00	-40.28	V
3817.500	-51.18	8.28	9.22	-50.24	-13.00	-37.24	V
5112.500	-52.96	9.46	10.64	-51.78	-13.00	-38.78	V
N/A							
3817.500	-50.84	8.28	9.22	-49.90	-13.00	-36.90	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 V / TX / CH 4132	**Test Date:**	August 7, 2012
Temperature:	25°C	**Tested by:**	David Lee
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)
1665.000	-42.51	5.06	6	-41.57	-13.00	-28.57	V
2487.500	-48.8	6.33	6.08	-49.05	-13.00	-36.05	V
N/A							
1665.000	-45.2	5.06	6	-44.26	-13.00	-31.26	H
2487.500	-43.53	6.33	6.08	-43.78	-13.00	-30.78	H
4797.500	-51.62	9.32	10.28	-50.66	-13.00	-37.66	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 / HSUPA Band V / TX / CH 4182	**Test Date:**	August 7, 2012
Temperature:	25°C	**Tested by:**	David Lee
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)
1682.500	-46.97	5.09	5.97	-46.09	-13.00	-33.09	V
2505.000	-47.1	6.36	6.11	-47.35	-13.00	-34.35	V
N/A							
1682.500	-50.74	5.09	5.97	-49.86	-13.00	-36.86	H
2522.500	-42.65	6.38	6.16	-42.87	-13.00	-29.87	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.*

Operation Mode:	WCDMA / HSUPA Band V / TX / CH 4233	**Test Date:**	August 7, 2012
Temperature:	25°C	**Tested by:**	David Lee
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)
1700.000	-44.02	5.11	5.94	-43.19	-13.00	-30.19	V
2540.000	-45.44	6.41	6.2	-45.65	-13.00	-32.65	V
N/A							
1700.000	-41.3	5.11	5.94	-40.47	-13.00	-27.47	H
2540.000	-49.94	6.41	6.2	-50.15	-13.00	-37.15	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 / HSPA+ Band II / TX / CH 9262	**Test Date:**	August 7, 2012
Temperature:	25°C	**Tested by:**	David Lee
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)
3712.500	-53.88	8.21	9.11	-52.98	-13.00	-39.98	V
N/A							
3712.500	-51.74	8.21	9.11	-50.84	-13.00	-37.84	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:	WCDMA / HSPA+ Band II / TX / CH 9400	**Test Date:**	August 7, 2012
Temperature:	25°C	**Tested by:**	David Lee
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)
6460.000	-49.95	11.11	11.27	-49.79	-13.00	-36.79	V
N/A							
4850.000	-52.67	9.29	10.36	-51.60	-13.00	-38.60	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 / HSPA+ Band II / TX / CH 9538	**Test Date:**	August 7, 2012
Temperature:	25°C	**Tested by:**	David Lee
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)
3817.500	-52.2	8.28	9.22	-51.26	-13.00	-38.26	V
N/A							
3817.500	-52.24	8.28	9.22	-51.30	-13.00	-38.30	H
4920.000	-52.11	9.29	10.47	-50.93	-13.00	-37.93	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 / HSPA+ Band V / TX / CH 4132	**Test Date:**	August 7, 2012
Temperature:	25°C	**Tested by:**	David Lee
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)
1665.000	-44.8	5.06	6	-43.86	-13.00	-30.86	V
N/A							
1665.000	-46.68	5.06	6	-45.74	-13.00	-32.74	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 / HSPA+ Band V / TX / CH 4182	**Test Date:**	August 7, 2012
Temperature:	25°C	**Tested by:**	David Lee
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)
1682.500	-49.03	5.09	5.97	-48.15	-13.00	-35.15	V
N/A							
1682.500	-51.26	5.09	5.97	-50.38	-13.00	-37.38	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 / HSPA+ Band V / TX / CH 4233	**Test Date:**	August 7, 2012
Temperature:	25°C	**Tested by:**	David Lee
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)
1700.000	-44.81	5.11	5.94	-43.98	-13.00	-30.98	V
N/A							
1700.000	-47.46	5.11	5.94	-46.63	-13.00	-33.63	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.*

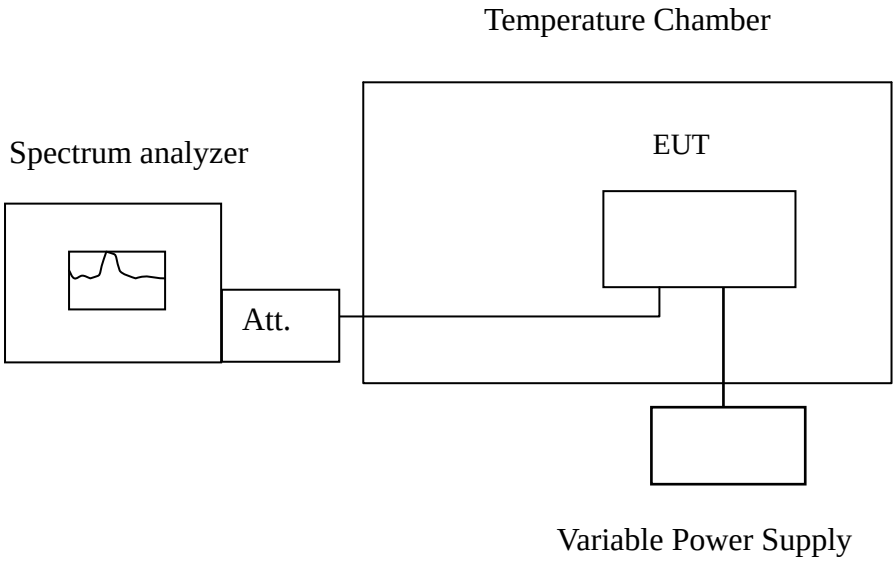
7.7FREQUENCY STABILITY V.S. TEMPERATURE MEASUREMENT

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: 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)
3.7	50	836600054	115	2090
	40	836600064	125	
	30	836600060	121	
	20	836599939	0	
	10	836600049	110	
	0	836600048	109	
	-10	836600057	118	
	-20	836600055	116	
	-30	836600059	120	

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)
3.7	50	1880000055	104	4700
	40	1880000049	98	
	30	1880000053	102	
	20	1879999951	0	
	10	1880000060	109	
	0	1880000061	110	
	-10	1880000065	114	
	-20	1880000053	102	
	-30	1880000047	96	

Reference Frequency: EDGE 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)
3.7	50	836600027	-5	2090
	40	836599975	-57	
	30	836599974	-58	
	20	836600032	0	
	10	836599965	-67	
	0	836599966	-66	
	-10	836599976	-56	
	-20	836599978	-54	
	-30	836599966	-66	

Reference Frequency: EDGE 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	1879999982	-39	4700
	40	1879999976	-45	
	30	1879999981	-40	
	20	1880000021	0	
	10	1879999986	-35	
	0	1879999975	-46	
	-10	1879999983	-38	
	-20	1879999980	-41	
	-30	1879999978	-43	

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	1880000001	-2	4700
	40	1879999998	-5	
	30	1880000000	-3	
	20	1880000003	0	
	10	1879999997	-6	
	0	1879999995	-8	
	-10	1880000001	-2	
	-20	1880000000	-3	
	-30	1879999998	-5	

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	836399997	-8	2090
	40	836399995	-10	
	30	836399999	-6	
	20	836400005	0	
	10	836399996	-9	
	0	836399998	-7	
	-10	836399999	-6	
	-20	836399997	-8	
	-30	836399998	-7	

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	1879999999	-4	4700
	40	1879999998	-5	
	30	1879999995	-8	
	20	1880000003	0	
	10	1879999997	-6	
	0	1879999989	-14	
	-10	1879999998	-5	
	-20	1879999997	-6	
	-30	1879999992	-11	

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	836399999	4	2090
	40	836399997	2	
	30	836399999	4	
	20	836399995	0	
	10	836399998	3	
	0	836399994	-1	
	-10	836399999	4	
	-20	836399998	3	
	-30	836399996	1	

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	1879999993	-3	4700
	40	1879999997	1	
	30	1879999998	2	
	20	1879999996	0	
	10	1879999995	-1	
	0	1879999998	2	
	-10	1879999999	3	
	-20	1879999993	-3	
	-30	1879999998	2	

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	836399998	2	2090
	40	836399999	3	
	30	836399996	0	
	20	836399996	0	
	10	836399999	3	
	0	836400001	5	
	-10	836399997	1	
	-20	836399996	0	
	-30	836400000	4	

Reference Frequency: WCDMA / HSPA+ 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	1879999994	-9	4700
	40	1879999999	-4	
	30	1879999998	-5	
	20	1880000003	0	
	10	1879999998	-5	
	0	1880000000	-3	
	-10	1879999999	-4	
	-20	1879999998	-5	
	-30	1879999993	-10	

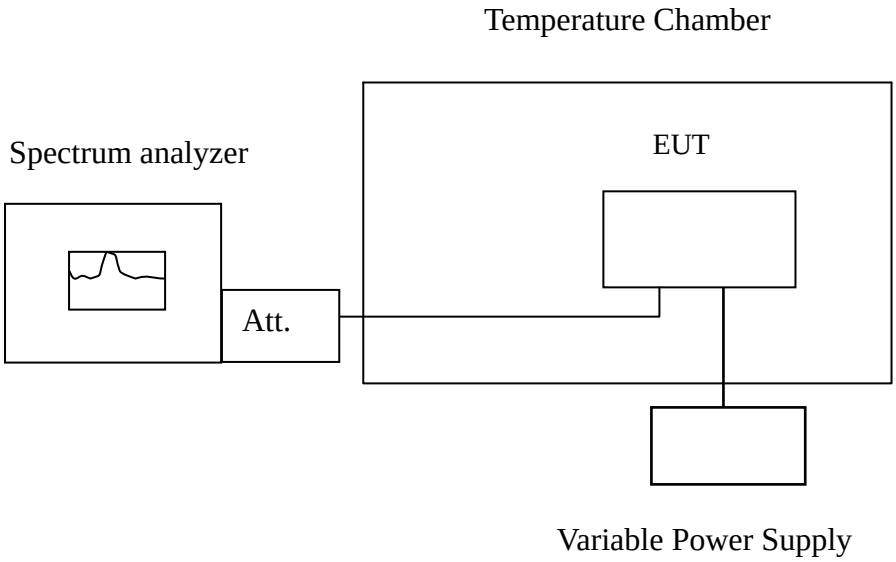
Reference Frequency: WCDMA / HSPA+ Band V Mid Channel 836.4 MHz @ 20°C				
Limit: +/- 2.5 ppm = 2090 Hz				
Power Supply Vdc	Environment Temperature (°C)	Frequency (Hz)	Delta (Hz)	Limit (Hz)
3.7	50	836399995	-6	2090
	40	836399997	-4	
	30	836399999	-2	
	20	836400001	0	
	10	836399993	-8	
	0	836399989	-12	
	-10	836399999	-2	
	-20	836399994	-7	
	-30	836399991	-10	

7.8FREQUENCY 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 (± 15%) and endpoint, record the maximum frequency change.

TEST RESULTS

No non-compliance noted.

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)
4.07	20	836599947	8	2090
3.7		836599939	0	
3.33		836599942	3	
3.1END		836599939	0	

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)
4.07	20	1879999952	1	4700
3.7		1879999951	0	
3.33		1879999939	-12	
2.9		1879999903	-48	

Reference Frequency: EDGE Mid Channel 836.6 MHz @ 20°C				
Limit: ± 2.5 ppm = 2090Hz				
Power Supply Vdc	Environment Temperature (°C)	Frequency (Hz)	Delta (Hz)	Limit (Hz)
4.07	20	836600033	1	2090
3.7		836600032	0	
3.33		836600029	-3	
3		836600076	44	

Reference Frequency: EDGE Mid Channel 1880 MHz @ 20°C				
Limit: ± 2.5 ppm = 4700 Hz				
Power Supply Vdc	Environment Temperature (°C)	Frequency (Hz)	Delta (Hz)	Limit (Hz)
4.07	20	1880000015	-6	4700
3.7		1880000021	0	
3.33		1880000024	3	
3.1		1880000084	63	

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	20	1880000001	-2	4700
3.7		1880000003	0	
3.3		1880000004	1	
3.1		1880000034	31	

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	20	836399999	-6	2090
3.7		836400005	0	
3.3		836400002	-3	
3.1		836400016	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	20	1880000001	-2	4700
3.7		1880000003	0	
3.3		1880000004	1	
3		1880000084	81	

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	20	836399999	4	2090
3.7		836399995	0	
3.3		836400002	7	
3.1		836400043	48	

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	20	1879999994	-2	4700
3.7		1879999996	0	
3.3		1880000001	5	
3		1879999949	-47	

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	20	836400002	6	2090
3.7		836399996	0	
3.3		836399998	2	
3		836400065	69	

Reference Frequency: WCDMA HSPA+ 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	20	1879999993	-10	4700
3.7		1880000003	0	
3.3		1879999998	-5	
3		1879999991	-12	

Reference Frequency: WCDMA HSPA+ 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	20	836400006	5	2090
3.7		836400001	0	
3.3		836399998	-3	
3		836400006	5	

7.9 POWERLINE CONDUCTED EMISSIONS

LIMIT

For an intentional radiator which is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed 250 microvolts (The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz). The limits at specific frequency range is listed as follows:

Frequency Range (MHz)	Limits (dBμV)	
	Quasi-peak	Average
0.15 to 0.50	66 to 56	56 to 46
0.50 to 5	56	46
5 to 30	60	50

Compliance with this provision shall be based on the measurement of the radio frequency voltage between each power line (LINE and NEUTRAL) and ground at the power terminals.

Test Configuration

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

TEST PROCEDURE

1. The EUT was placed on a table, which is 0.8m above ground plane.
2. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
3. Repeat above procedures until all frequency measured were complete.

TEST RESULTS

The initial step in collecting conducted data is a spectrum analyzer peak scan of the measurement range. Significant peaks are then marked as shown on the following data page, and these signals are then quasi-peaked.

Operation Mode:	Normal Link	**Test Date:**	August 14, 2012
Temperature:	26°C	**Tested by:**	Chester Tsai
Humidity:	60% RH		

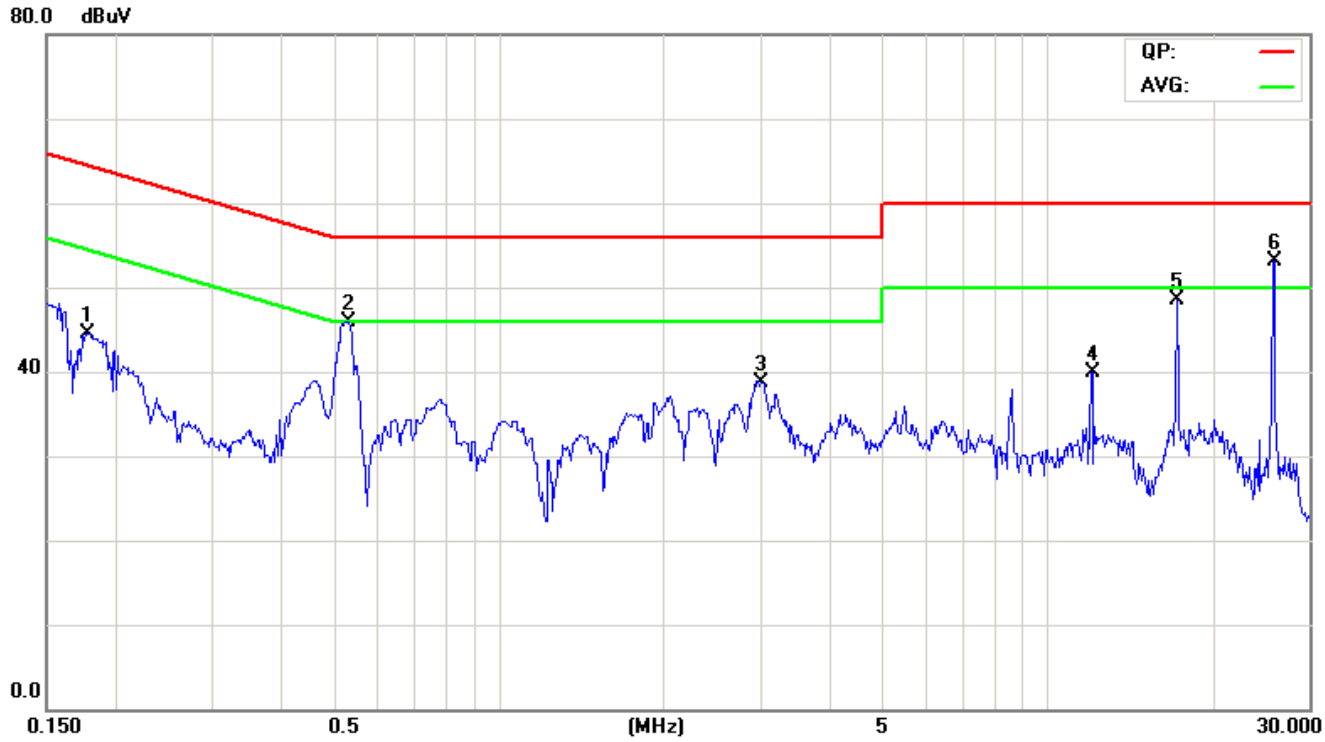
Frequency (MHz)	QP Reading (dBuV)	AV Reading (dBuV)	Corr. factor (dB)	QP Result (dBuV)	AV Result (dBuV)	QP Limit (dBuV)	AV Limit (dBuV)	QP Margin (dB)	AV Margin (dB)	Note
0.1796	41.62	31.30	0.09	41.71	31.39	64.50	54.50	-22.79	-23.11	L1
0.5312	44.92	37.18	0.10	45.02	37.28	56.00	46.00	-10.98	-8.72	L1
3.0044	33.93	23.29	0.17	34.10	23.46	56.00	46.00	-21.90	-22.54	L1
12.0024	36.12	33.31	0.50	36.62	33.81	60.00	50.00	-23.38	-16.19	L1
17.1567	45.47	38.14	0.73	46.20	38.87	60.00	50.00	-13.80	-11.13	L1
25.7390	52.84	45.46	0.96	53.80	46.42	60.00	50.00	-6.20	-3.58	L1
0.1807	41.46	31.62	0.09	41.55	31.71	64.45	54.45	-22.90	-22.74	L2
0.5277	44.68	36.16	0.09	44.77	36.25	56.00	46.00	-11.23	-9.75	L2
3.0151	33.50	24.65	0.15	33.65	24.80	56.00	46.00	-22.35	-21.20	L2
8.5808	34.04	27.60	0.28	34.32	27.88	60.00	50.00	-25.68	-22.12	L2
17.1600	46.57	39.50	0.53	47.10	40.03	60.00	50.00	-12.90	-9.97	L2
25.7383	52.91	45.60	0.67	53.58	46.27	60.00	50.00	-6.42	-3.73	L2

Remark:

1. *Measuring frequencies from 0.15 MHz to 30MHz.*
2. *The emissions measured in frequency range from 0.15 MHz to 30MHz were made with an instrument using Quasi-peak detector and average detector.*
3. *The IF bandwidth of SPA between 0.15MHz to 30MHz was 10kHz; the IF bandwidth of Test Receiver between 0.15MHz to 30MHz was 9kHz;*
4. *L1 = Line One (Live Line) / L2 = Line Two (Neutral Line)*
5. *"-" means Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.*

Test Plots

Conducted emissions (Line 1)



Conducted emissions (Line 2)