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

TEST REPORT

For

PDA phone

Trade Name: HTC

Model: IOLI110

Issued to

HTC Corporation
No. 23, Xinghua Rd., Taoyuan City,
Taiwan County, 330 R.O.C.

Issued by

Compliance Certification Services Inc.
No. 11, Wu-Gong 6th Rd., Wugu Industrial Park,
Taipei Hsien 248, Taiwan (R.O.C.)
http://www.ccsemc.com.tw
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Testing Laboratory
1309

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1. TEST RESULT CERTIFICATION

Applicant: HTC Corporation
No. 23, Xinghua Rd., Taoyuan City,
Taiwan County, 330 R.O.C.

Equipment Under Test: PDA phone

Trade Name: HTC

Model Number: IOLI110

Date of Test: December 7 ~ 11, 2008

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:

Rex Lai
Section Manager
Compliance Certification Services Inc.

Reviewed by:

Amanda Wu
Section Manager
Compliance Certification Services Inc.

2. EUT DESCRIPTION

Product	PDA phone		
Trade Name	HTC		
Model Number	IOLI110		
Model Discrepancy	N/A		
Power Supply	1. VDC from Power Adapter 2. VDC from car charger 3. Battery: 3.7V, 1000mAh 4. Powered from Host device via USB cable		
Power Adapter Manufacturer	PHIHONG	**Model**	PSAI05R-050Q
Power Adapter Power Rating	I/P: 100-240VAC, 50-60Hz, 0.3A O/P: 5V, 1.0A		
Car charger Manufacturer	PHIHONG	**Model**	CC C100
Car charger Power Rating	I/P: 10-24VDC, 0.65A O/P: 5.0V, 1A		
Battery Pack Manufacturer	TWS	**Model**	JADE160 (3.7V, 1100mAh)
	WELLDONE	**Model**	JADE160 (3.7V, 1100mAh)
Accessories	1. Earphone: ◆ MEC (model name: HS S200, Unshielded, 1.2m) ◆ MEC (model name: G-EP-A404, 1.2m) ◆ COTRON (model name: HS S200, Unshielded, 1.2m) 2. USB Cable: ◆ MEC (Model: DC U200, 1m) 3. Pouch: ◆ NEWTECH (model name: PO S340) 4. Car holder ◆ ARKON (model name: CH S200)		
Frequency Range	GSM / GPRS / EDGE 850MHz: 824 ~ 849 MHz GSM / GPRS / EDGE: 1900MHz: 1850 ~ 1910 MHz WCDMA Band II: 1852.4 ~ 1907.6 MHz WCDMA Band V: 826.4 ~ 846.6 MHz		
Modulation Technique	GSM: GMSK GPRS: GMSK EDGE: 8PSK WCDMA: Quadrature Phase Shift Keying (QPSK) with Root-raised cosine pulse shaping filters (roll off = 0.22)		
Antenna Gain	GSM / GPRS / EDGE 850 MHz: -2.0 dBi GSM / GPRS / EDGE 1900 MHz: 1.0 dBi WCDMA band II: 1.0 dBi WCDMA band V: -2.0 dBi		
Antenna Type	PIFA Antenna		

Remark:

1. *The sample selected for test was engineering sample that approximated to production product and was provided by manufacturer.*
2. *This submittal(s) (test report) is intended for FCC ID: **NM8ILBP** filing to comply with Part 22 Subpart H and Part 24 Subpart E of the FCC 47 CFR Rules.*

Mode	ERP Power (dBm)	Type of Emission
GSM 850MHz	28.91	246KGXW
GPRS 850MHz	27.24	249KGXW
EDGE 850MHz	24.06	248KG7W
WCDMA Band V	23.88	4M17F9W
WCDMA HSDPA Band V	22.41	4M18F9W

Mode	EIRP Power (dBm)	Type of Emission
GSM 1900MHz	30.17	246KGXW
GPRS 1900MHz	30.07	247KGXW
EDGE 1900MHz	25.39	245KG7W
WCDMA Band II	27.81	4M16F9W
WCDMA HSDPA Band II	24.92	4M16F9W

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 and Part 22 Subpart H & 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: IOLI110) comes with two batteries, for sale. After the preliminary test, the EUT with battery (TWS) was found to emit the worst emissions and therefore had been tested under operating condition.

EUT staying in continuous transmitting mode was programmed.

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.

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

GSM / 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.

Based on the above results from the different modulations, GSM850 / GSM1900 / GPRS 850 / GPRS1900 / EDGE 850 / EDGE 1900 / WCDMA Band II / WCDMA Band V / HSDPA Band II / HSDPA Band V were determined to be the worst-case scenario for all tests.

The field strength of spurious emission was measured in the following position: EUT stand-up position (Z axis), lie-down position (X, Y axis). The worst emission was found in lie-down position (X axis) for power line conducted emission testing and other worst cases were recorded as below.

in lie-down (X axis) for GSM1900 / GPRS 1900 / EDGE 1900 / HSDPA Band II
and
in lie-down (Y axis) for GSM 850 / EDGE 850 / WCDMA Band II / WCDMA Band V / HSDPA Band V
and
in stand-up position (Z axis) for GPRS 850.

4. INSTRUMENT CALIBRATION

4.1 MEASURING INSTRUMENT CALIBRATION

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

4.2 MEASUREMENT EQUIPMENT USED

Equipment Used for Emissions Measurement

Remark: *Each piece of equipment is scheduled for calibration once a year.*

Conducted Emissions Test Site				
Name of Equipment	**Manufacturer**	**Model**	**Serial Number**	**Calibration Due**
Spectrum Analyzer	Agilent	E4446A	MY43360131	02/24/2009
Power Meter	Agilent	E4416A	GB41291611	04/06/2009
Power Sensor	Agilent	E9327A	US40441097	06/19/2009
Temp. / Humidity Chamber	Terchy	MHG-150LF	930619	08/06/2009
DC Power Source	Agilent	E3640A	MY40001774	01/10/2009

3M Semi Anechoic Chamber				
Name of Equipment	**Manufacturer**	**Model**	**Serial Number**	**Calibration Due**
Spectrum Analyzer	Agilent	E4446A	US42510252	09/10/2009
Test Receiver	Rohde & Schwarz	ESCI	100064	11/30/2009
Switch Controller	TRC	Switch Controller	SC94050010	05/03/2009
4 Port Switch	TRC	4 Port Switch	SC94050020	05/03/2009
Horn-Antenna	TRC	HA-0502	06	06/04/2009
Horn-Antenna	TRC	HA-0801	04	06/19/2009
Bilog- Antenna	Sunol Sciences	JB3	A030205	03/28/2009
Loop Antenna	EMCO	6502	8905/2356	05/29/2009
Turn Table	Max-Full	MFT-120S	T120S940302	N.C.R.
Antenna Tower	Max-Full	MFA-430	A440940302	N.C.R.
Controller	Max-Full	MF-CM886	CC-C-1F-13	N.C.R.
Site NSA	CCS	N/A	FCC MRA: TW1039 IC: IC 2324G-1/-2	10/17/2010 11/04/2010
Reject Filter	Micro-Tronics	HPM13194	003	04/24/2009
S.G.	HP	83630B	3844A01022	04/17/2009
Substituted Dipole	Schwazbeck	VHAP/UHAP	998 +999/ 981+982	06/09/2009
Substituted Horn	EMCO	3115	00022257	12/16/2009
Test S/W	LABVIEW (V 6.1)			

Powerline Conducted Emissions Test Site				
Name of Equipment	**Manufacturer**	**Model**	**Serial Number**	**Calibration Due**
EMI Test Receiver 9kHz-30MHz	Rohde & Schwarz	ESHS30	828144/003	11/18/2009
Two-Line V-Network 9kHz-30MHz	Schaffner	NNB41	03/10013	06/11/2009
LISN 10kHz-100MHz	EMCO	3825/2	9106-1809	04/09/2009
Test S/W	LABVIEW (V 6.1)			

4.3 MEASUREMENT UNCERTAINTY

PARAMETER	UNCERTAINTY
Powerline Conducted Emission	+/- 2.81
3M Semi Anechoic Chamber / 30MHz ~ 1GHz	+/-3.7046
3M Semi Anechoic Chamber / 1GHz 以上	+/-3.0958

***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

All measurement facilities used to collect the measurement data are located at

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

☒ No.11, Wugong 6th Rd., Wugu Industrial Park, Taipei Hsien 248, Taiwan
Tel: 886-2-2299-9720 / Fax: 886-2-2298-4045

☐ No.81-1, Lane 210, Bade 2nd Rd., Luchu Hsiang, Taoyuan Hsien 338, Taiwan
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: 2003 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.	Notebook PC	IBM	2672 (X31)	9985H9M	WLAN: ANO20030400LEG Bluetooth: ANO20020100MTN	N/A	AC I/P: Unshielded, 1.8m DC O/P: Unshielded, 1.8m with a core
2.	Universal Radio Communication tester (Remote)	R&S	CMU 200	1100.000.8.02	N/A	N/A	Unshielded, 1.8m

Remark:

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

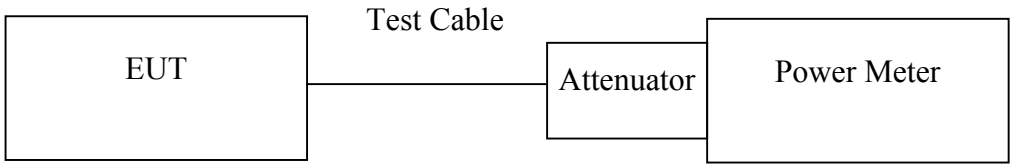
7. FCC PART 22 & 24 REQUIREMENTS

7.1 AVERAGE 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)	Power Meter Reading (dBm)	Attenuator (dB)	Average Power (dBm)
GSM 850 (Class B)	128	824.20	1.67	31.40	33.04
	190	836.60	1.77		33.14
	251	848.80	1.68		33.05
GPRS 850 (Class 12)	128	824.20	1.71		33.08
	190	836.60	1.76		33.13
	251	848.80	1.82		33.19
EDGE 850 (Class 12)	128	824.20	-4.27		27.10
	190	836.60	-3.96		27.41
	251	848.80	-3.84		27.53

Test Mode	CH	Frequency (MHz)	Power Meter Reading (dBm)	Attenuator (dB)	Average Power (dBm)
GSM 1900 (Class B)	512	1850.20	-1.58	31.67	30.09
	661	1880.00	-1.66		30.01
	810	1909.80	-1.54		30.13
GPRS 1900 (Class 12)	512	1850.20	-0.21		31.46
	661	1880.00	-0.11		31.56
	810	1909.80	-0.01		31.66
EDGE 1900 (Class 12)	512	1850.20	-4.86		26.81
	661	1880.00	-4.94		26.73
	810	1909.80	-4.84		26.83

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

Test Mode	CH	Frequency (MHz)	Power Meter Reading (dBm)	Attenuator (dB)	Average Power (dBm)
WCDMA (BAND II)	9262	1852.40	22.35	0	22.35
	9400	1880.00	22.51		22.51
	9538	1907.60	22.41		22.41
WCDMA (BAND V)	4132	826.40	22.33		22.33
	4183	836.60	22.46		22.46
	4233	846.60	22.52		22.52

Test Mode	CH	Frequency (MHz)	Power Meter Reading (dBm)	Attenuator (dB)	Average Power (dBm)
WCDMA / HSDPA (BAND II)	9262	1852.40	22.15	0	22.15
	9400	1880.00	22.33		22.33
	9538	1907.60	22.53		22.53
WCDMA / HSDPA (BAND V)	4132	826.40	22.17		22.17
	4183	836.60	22.34		22.34
	4233	846.60	22.24		22.24

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

7.2 ERP & EIRP MEASUREMENT

LIMIT

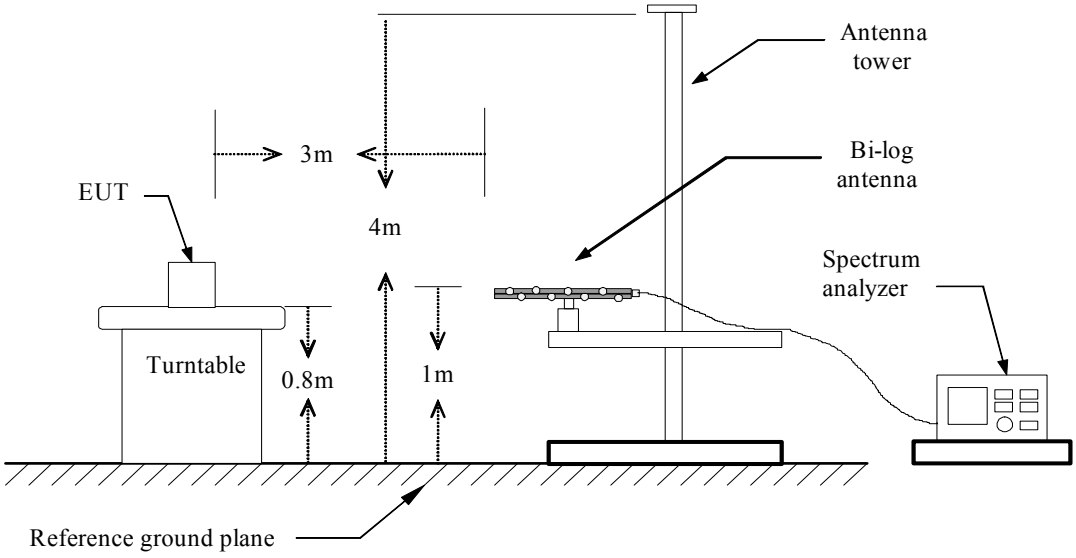
According to FCC §2.1046

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

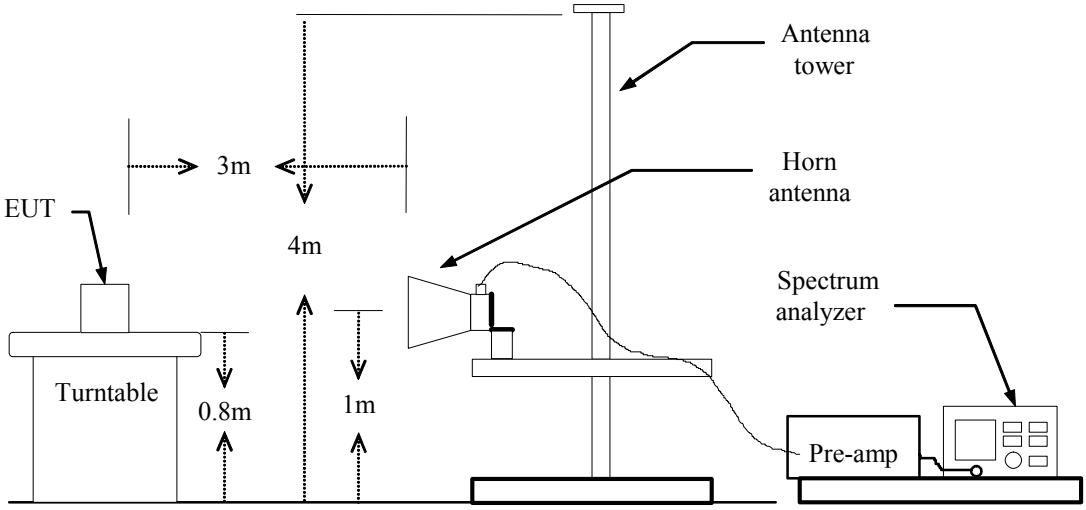
FCC 24.232(b): The equivalent Isotropic Radiated Power (EIRP) must not exceed 2 Watts.

Test Configuration

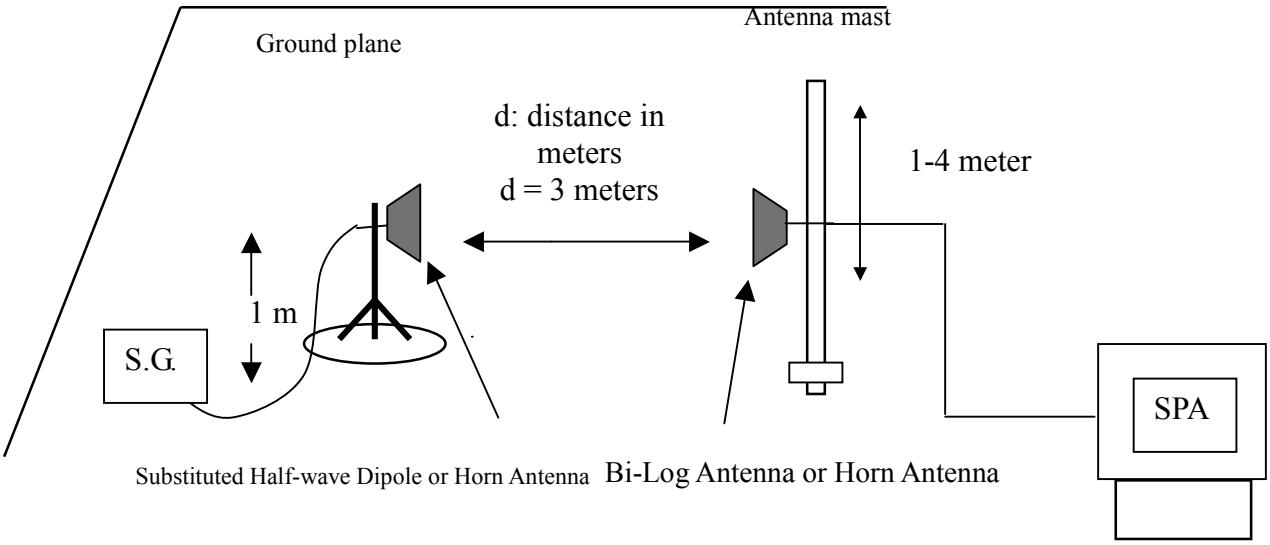
Below 1 GHz



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.

GSM 850 Test Data

EUT Pol.	Channel	Frequency (MHz)	Antenna Pol.	Reading level (dBuV)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
X	128	824.20	V	-12.28	36.22	23.94	38.50	-14.56
		824.20	H	-9.63	36.08	26.45	38.50	-12.05
	190	836.60	V	-11.89	36.31	24.43	38.50	-14.07
		836.60	H	-9.23	36.20	26.97	38.50	-11.53
	251	848.80	V	-12.22	36.37	24.15	38.50	-14.35
		848.80	H	-9.58	36.34	26.76	38.50	-11.74
Y	128	824.20	V	-14.47	36.22	21.75	38.50	-16.75
		824.20	H	-7.63	36.08	28.45	38.50	-10.05
	190	836.60	V	-13.70	36.31	22.61	38.50	-15.89
		836.60	H	-7.29	36.19	***28.91**	38.50	-9.59
	251	848.80	V	-13.10	36.37	23.27	38.50	-15.23
		848.80	H	-8.08	36.35	28.26	38.50	-10.24
Z	128	824.20	V	-8.39	36.22	27.83	38.50	-10.67
		824.20	H	-12.97	36.08	23.10	38.50	-15.40
	190	836.60	V	-8.15	36.31	28.16	38.50	-10.34
		836.60	H	-12.90	36.19	23.30	38.50	-15.20
	251	848.80	V	-7.89	36.37	28.48	38.50	-10.02
		848.80	H	-12.08	36.34	24.26	38.50	-14.24

GPRS 850 Test Data

EUT Pol.	Channel	Frequency (MHz)	Antenna Pol.	Reading level (dBuV)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
X	128	824.20	V	-21.95	36.28	14.33	38.50	-24.17
		824.20	H	-9.60	36.22	26.62	38.50	-11.88
	190	836.60	V	-21.75	36.36	14.61	38.50	-23.89
		836.60	H	-9.63	36.38	26.75	38.50	-11.75
	251	848.80	V	-20.64	36.45	15.81	38.50	-22.69
		848.80	H	-9.84	36.53	26.69	38.50	-11.81
Y	128	824.20	V	-29.61	36.28	6.68	38.50	-31.82
		824.20	H	-10.09	36.22	26.13	38.50	-12.37
	190	836.60	V	-26.50	36.36	9.85	38.50	-28.65
		836.60	H	-10.16	36.38	26.22	38.50	-12.28
	251	848.80	V	-25.49	36.45	10.96	38.50	-27.54
		848.80	H	-10.08	36.53	26.45	38.50	-12.05
Z	128	824.20	V	-10.23	36.28	26.05	38.50	-12.45
		824.20	H	-20.92	36.22	15.30	38.50	-23.20
	190	836.60	V	-9.78	36.36	26.58	38.50	-11.92
		836.60	H	-23.56	36.38	12.82	38.50	-25.68
	251	848.80	V	-9.21	36.45	***27.24**	38.50	-11.26
		848.80	H	-21.10	36.53	15.43	38.50	-23.07

GSM 1900 Test Data

EUT Pol.	Channel	Frequency (MHz)	Antenna Pol.	Reading level (dBuV)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
X	512	1850.20	V	-21.86	42.49	20.63	33.00	-12.37
		1850.20	H	-12.34	42.51	***30.17**	33.00	-2.83
	661	1880.00	V	-24.05	42.49	18.44	33.00	-14.56
		1880.00	H	-12.80	42.53	29.73	33.00	-3.27
	810	1909.80	V	-23.35	42.49	19.14	33.00	-13.86
		1909.80	H	-13.23	42.55	29.32	33.00	-3.68
Y	512	1850.20	V	-12.72	42.49	29.77	33.00	-3.23
		1850.20	H	-17.87	42.51	24.64	33.00	-8.36
	661	1880.00	V	-12.60	42.49	29.89	33.00	-3.11
		1880.00	H	-18.41	42.53	24.11	33.00	-8.89
	810	1909.80	V	-12.95	42.49	29.54	33.00	-3.46
		1909.80	H	-18.32	42.55	24.23	33.00	-8.77
Z	512	1850.20	V	-16.53	42.49	25.96	33.00	-7.04
		1850.20	H	-16.12	42.51	26.39	33.00	-6.61
	661	1880.00	V	-17.26	42.49	25.23	33.00	-7.77
		1880.00	H	-17.60	42.53	24.93	33.00	-8.07
	810	1909.80	V	-17.11	42.49	25.38	33.00	-7.62
		1909.80	H	-17.10	42.55	25.45	33.00	-7.55

GPRS 1900 Test Data

EUT Pol.	Channel	Frequency (MHz)	Antenna Pol.	Reading level (dBuV)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
X	512	1850.20	V	-23.50	42.49	18.99	33.00	-14.01
		1850.20	H	-12.44	42.51	***30.07**	33.00	-2.93
	661	1880.00	V	-23.95	42.49	18.54	33.00	-14.46
		1880.00	H	-12.87	42.53	29.66	33.00	-3.34
	810	1909.80	V	-23.69	42.49	18.81	33.00	-14.19
		1909.80	H	-12.90	42.55	29.65	33.00	-3.35
Y	512	1850.20	V	-14.32	42.49	28.17	33.00	-4.83
		1850.20	H	-20.46	42.51	22.05	33.00	-10.95
	661	1880.00	V	-14.49	42.49	28.01	33.00	-4.99
		1880.00	H	-21.54	42.53	20.99	33.00	-12.01
	810	1909.80	V	-17.59	42.49	24.90	33.00	-8.10
		1909.80	H	-21.49	42.55	21.06	33.00	-11.94
Z	512	1850.20	V	-18.30	42.49	24.19	33.00	-8.81
		1850.20	H	-17.82	42.51	24.69	33.00	-8.31
	661	1880.00	V	-18.85	42.49	23.64	33.00	-9.36
		1880.00	H	-19.04	42.53	23.49	33.00	-9.51
	810	1909.80	V	-18.81	42.49	23.68	33.00	-9.32
		1909.80	H	-18.59	42.55	23.96	33.00	-9.04

EDGE 850 Test Data

EUT Pol.	Channel	Frequency (MHz)	Antenna Pol.	Reading level (dBuV)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
X	128	824.20	V	-17.55	36.22	18.67	38.50	-19.83
		824.20	H	-14.04	36.08	22.04	38.50	-16.46
	190	836.60	V	-16.76	36.31	19.56	38.50	-18.94
		836.60	H	-14.31	36.19	21.88	38.50	-16.62
	251	848.80	V	-16.97	36.37	19.40	38.50	-19.10
		848.80	H	-14.94	36.34	21.40	38.50	-17.10
Y	128	824.20	V	-20.05	36.22	16.17	38.50	-22.33
		824.20	H	-12.66	36.08	23.42	38.50	-15.08
	190	836.60	V	-19.22	36.31	17.09	38.50	-21.41
		836.60	H	-12.13	36.19	***24.06**	38.50	-14.44
	251	848.80	V	-18.52	36.37	17.85	38.50	-20.65
		848.80	H	-12.64	36.34	23.70	38.50	-14.80
Z	128	824.20	V	-13.88	36.22	22.34	38.50	-16.16
		824.20	H	-18.25	36.08	17.83	38.50	-20.67
	190	836.60	V	-13.44	36.31	22.87	38.50	-15.63
		836.60	H	-18.04	36.20	18.16	38.50	-20.34
	251	848.80	V	-14.93	36.37	21.45	38.50	-17.05
		848.80	H	-17.23	36.34	19.11	38.50	-19.39

EDGE 1900 Test Data

EUT Pol.	Channel	Frequency (MHz)	Antenna Pol.	Reading level (dBuV)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
X	512	1850.20	V	-28.21	42.49	14.28	33.00	-18.72
		1850.20	H	-17.12	42.51	***25.39**	33.00	-7.61
	661	1880.00	V	-28.71	42.49	13.78	33.00	-19.22
		1880.00	H	-17.79	42.53	24.74	33.00	-8.26
	810	1909.80	V	-28.39	42.49	14.11	33.00	-18.89
		1909.80	H	-17.64	42.55	24.91	33.00	-8.09
Y	512	1850.20	V	-17.48	42.49	25.01	33.00	-7.99
		1850.20	H	-23.57	42.51	18.94	33.00	-14.06
	661	1880.00	V	-17.85	42.49	24.64	33.00	-8.36
		1880.00	H	-25.13	42.53	17.40	33.00	-15.60
	810	1909.80	V	-18.08	42.49	24.42	33.00	-8.58
		1909.80	H	-25.18	42.55	17.37	33.00	-15.63
Z	512	1850.20	V	-21.04	42.49	21.45	33.00	-11.55
		1850.20	H	-21.42	42.51	21.09	33.00	-11.91
	661	1880.00	V	-21.56	42.49	20.94	33.00	-12.06
		1880.00	H	-22.73	42.53	19.80	33.00	-13.20
	810	1909.80	V	-21.35	42.49	21.15	33.00	-11.85
		1909.80	H	-22.23	42.55	20.32	33.00	-12.68

WCDMA BAND II Test Data

EUT Pol.	Channel	Frequency (MHz)	Antenna Pol.	Reading level (dBuV)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
X	9262	1852.40	V	-26.49	42.49	16.00	33.00	-17.00
		1852.40	H	-15.88	42.51	26.63	33.00	-6.37
	9400	1880.00	V	-27.91	42.49	14.58	33.00	-18.42
		1880.00	H	-17.04	42.53	25.49	33.00	-7.51
	9538	1907.60	V	-29.23	42.49	13.26	33.00	-19.74
		1907.60	H	-18.24	42.55	24.31	33.00	-8.69
Y	9262	1852.40	V	-14.68	42.49	***27.81**	33.00	-5.19
		1852.40	H	-22.49	42.51	20.02	33.00	-12.98
	9400	1880.00	V	-15.74	42.49	26.75	33.00	-6.25
		1880.00	H	-22.67	42.53	19.85	33.00	-13.15
	9538	1907.60	V	-17.76	42.49	24.73	33.00	-8.27
		1907.60	H	-24.00	42.55	18.54	33.00	-14.46
Z	9262	1852.40	V	-20.03	42.49	22.46	33.00	-10.54
		1852.40	H	-19.11	42.51	23.40	33.00	-9.60
	9400	1880.00	V	-20.65	42.49	21.84	33.00	-11.16
		1880.00	H	-19.96	42.53	22.57	33.00	-10.43
	9538	1907.60	V	-22.53	42.49	19.97	33.00	-13.03
		1907.60	H	-21.47	42.55	21.08	33.00	-11.92

WCDMA BAND V Test Data

EUT Pol.	Channel	Frequency (MHz)	Antenna Pol.	Reading level (dBuV)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
X	4132	826.40	V	-22.13	36.29	14.16	38.50	-24.34
		826.40	H	-14.97	36.25	21.29	38.50	-17.21
	4183	836.60	V	-21.82	36.36	14.54	38.50	-23.96
		836.60	H	-14.85	36.39	21.54	38.50	-16.96
	4233	846.60	V	-20.99	36.42	15.43	38.50	-23.07
		846.60	H	-14.66	36.49	21.83	38.50	-16.67
Y	4132	826.40	V	-26.48	36.29	9.82	38.50	-28.68
		826.40	H	-13.76	36.25	22.50	38.50	-16.00
	4183	836.60	V	-25.73	36.36	10.63	38.50	-27.87
		836.60	H	-13.04	36.39	23.35	38.50	-15.15
	4233	846.60	V	-24.74	36.42	11.68	38.50	-26.82
		846.60	H	-12.61	36.49	***23.88**	38.50	-14.62
Z	4132	826.40	V	-14.39	36.29	21.91	38.50	-16.59
		826.40	H	-23.54	36.25	12.71	38.50	-25.79
	4183	836.60	V	-14.44	36.36	21.91	38.50	-16.59
		836.60	H	-23.58	36.38	12.80	38.50	-25.70
	4233	846.60	V	-13.95	36.42	22.47	38.50	-16.03
		846.60	H	-22.45	36.49	14.04	38.50	-24.46

HSDPA BAND II Test Data

EUT Pol.	Channel	Frequency (MHz)	Antenna Pol.	Reading level (dBuV)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
X	9262	1852.40	V	-29.36	42.49	13.13	33.00	-19.87
		1852.40	H	-17.59	42.51	***24.92**	33.00	-8.08
	9400	1880.00	V	-23.68	42.49	18.81	33.00	-14.19
		1880.00	H	-18.01	42.53	24.52	33.00	-8.48
	9538	1907.60	V	-24.53	42.49	17.97	33.00	-15.03
		1907.60	H	-19.81	42.55	22.74	33.00	-10.26
Y	9262	1852.40	V	-18.14	42.49	24.36	33.00	-8.64
		1852.40	H	-21.96	42.51	20.55	33.00	-12.45
	9400	1880.00	V	-18.68	42.49	23.81	33.00	-9.19
		1880.00	H	-23.20	42.53	19.33	33.00	-13.67
	9538	1907.60	V	-19.67	42.49	22.82	33.00	-10.18
		1907.60	H	-25.19	42.55	17.36	33.00	-15.64
Z	9262	1852.40	V	-23.09	42.49	19.41	33.00	-13.59
		1852.40	H	-21.43	42.51	21.08	33.00	-11.92
	9400	1880.00	V	-23.35	42.49	19.14	33.00	-13.86
		1880.00	H	-23.70	42.53	18.83	33.00	-14.17
	9538	1907.60	V	-25.08	42.49	17.42	33.00	-15.58
		1907.60	H	-24.48	42.55	18.07	33.00	-14.93

HSDPA BAND V Test Data

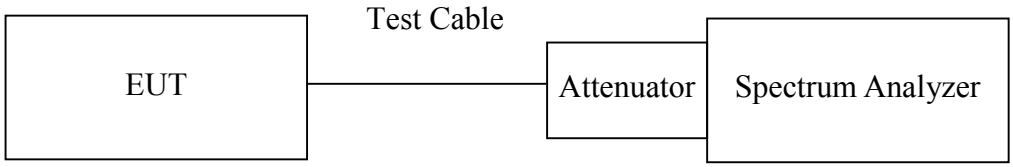
EUT Pol.	Channel	Frequency (MHz)	Antenna Pol.	Reading level (dBuV)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
X	4132	826.40	V	-18.50	36.30	17.80	38.50	-20.70
		826.40	H	-15.03	36.26	21.23	38.50	-17.27
	4183	836.60	V	-18.84	36.37	17.53	38.50	-20.97
		836.60	H	-15.50	36.41	20.92	38.50	-17.58
	4233	846.60	V	-19.44	36.42	16.98	38.50	-21.52
		846.60	H	-15.22	36.49	21.27	38.50	-17.23
Y	4132	826.40	V	-22.17	36.30	14.13	38.50	-24.37
		826.40	H	-14.61	36.26	21.65	38.50	-16.85
	4183	836.60	V	-23.91	36.37	12.46	38.50	-26.04
		836.60	H	-14.01	36.41	***22.41**	38.50	-16.09
	4233	846.60	V	-21.10	36.43	15.33	38.50	-23.17
		846.60	H	-14.34	36.49	22.15	38.50	-16.35
Z	4132	826.40	V	-16.90	36.29	19.39	38.50	-19.11
		826.40	H	-20.50	36.25	15.75	38.50	-22.75
	4183	836.60	V	-16.74	36.37	19.63	38.50	-18.87
		836.60	H	-19.99	36.42	16.43	38.50	-22.07
	4233	846.60	V	-16.16	36.42	20.26	38.50	-18.24
		846.60	H	-19.11	36.49	17.38	38.50	-21.12

7.3 OCCUPIED BANDWIDTH MEASUREMENT

LIMIT

According to §FCC 2.1049.

Test Configuration



Remark: *Measurement setup for testing on Antenna connector*

TEST PROCEDURE

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

TEST RESULTS

No non-compliance noted.

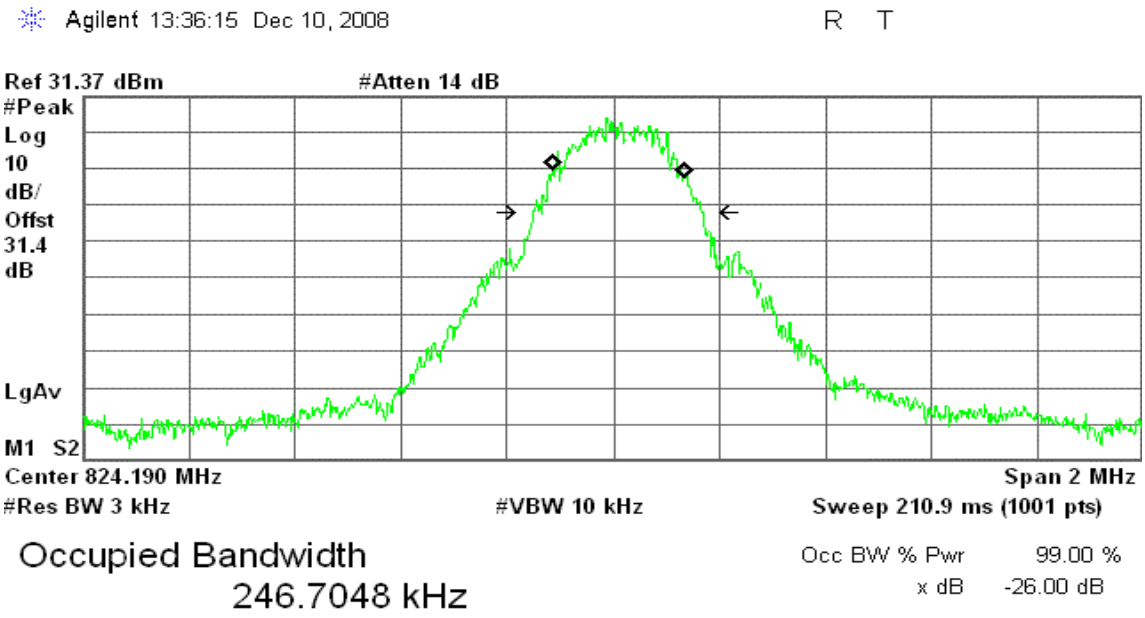
Test Data

Test Mode	CH	Frequency (MHz)	99% Bandwidth (kHz)
GSM 850 (Class B)	128	824.200	246.7048
	190	836.600	246.5744
	251	848.800	245.2067
GPRS 850 (Class 12)	128	824.200	249.8952
	190	836.600	245.0311
	251	848.800	245.6109
EDGE 850 (Class B)	128	824.200	248.4081
	190	836.570	247.7146
	251	848.800	243.7119
GSM 1900 (Class B)	512	1850.210	243.2513
	661	1880.000	246.1142
	810	1909.823	245.8631
GPRS 1900 (Class 12)	512	1850.210	246.3946
	661	1880.000	247.0587
	810	1909.823	242.8927
EDGE 1900 (Class 12)	512	1850.173	241.8706
	661	1880.000	243.4034
	810	1909.800	245.3924

Test Mode	CH	Frequency (MHz)	99% Bandwidth (MHz)
WCDMA (Band II)	9262	1852.40	4.1451
	9400	1880.00	4.1436
	9538	1907.60	4.1674
WCDMA (Band V)	4132	826.40	4.1502
	4183	836.60	4.1519
	4233	846.60	4.1746
WCDMA / HSDPA (BAND II)	9262	1852.40	4.1498
	9400	1880.00	4.1584
	9538	1907.60	4.1626
WCDMA / HSDPA (BAND V)	4132	826.40	4.1664
	4183	836.60	4.1663
	4233	846.60	4.1853

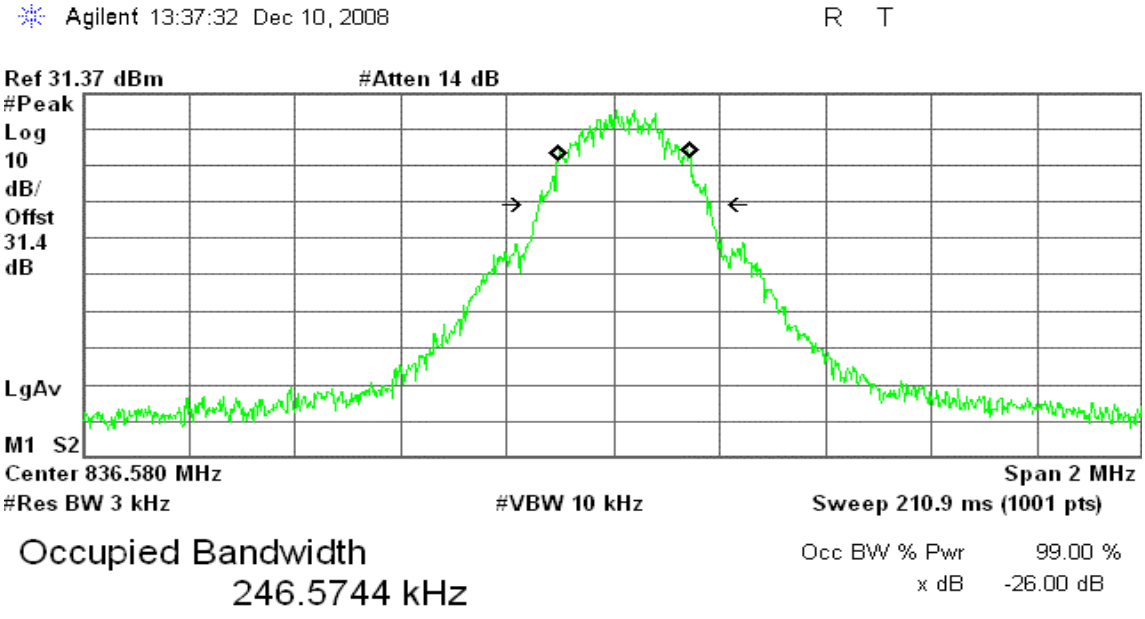
Test Plot

GSM 850 (CH Low)



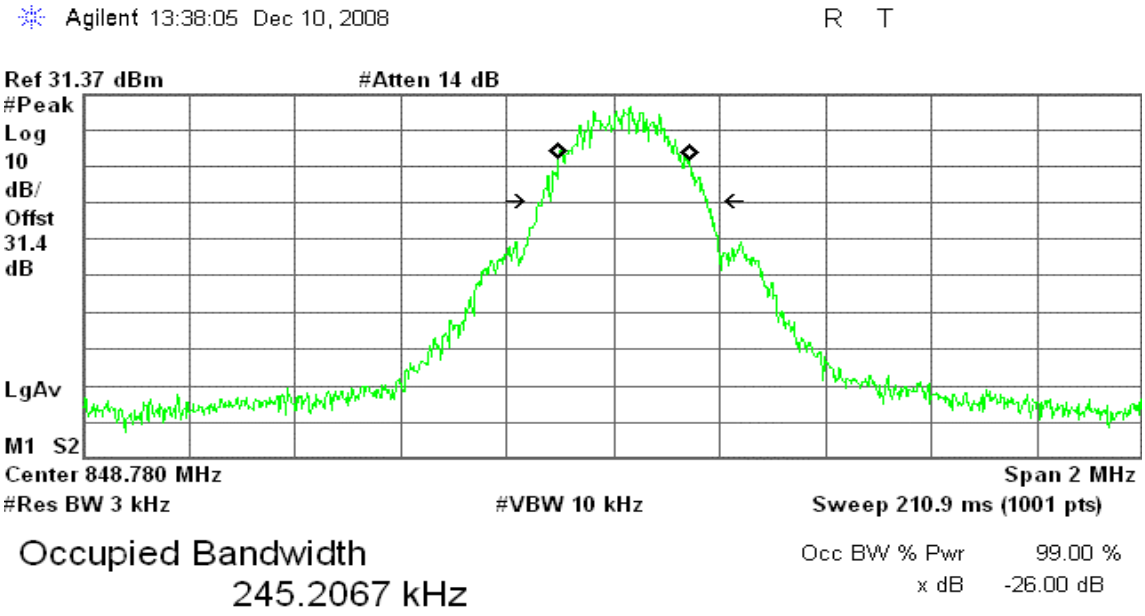
Transmit Freq Error	9.788 kHz
x dB Bandwidth	314.106 kHz

GSM 850 (CH Mid)



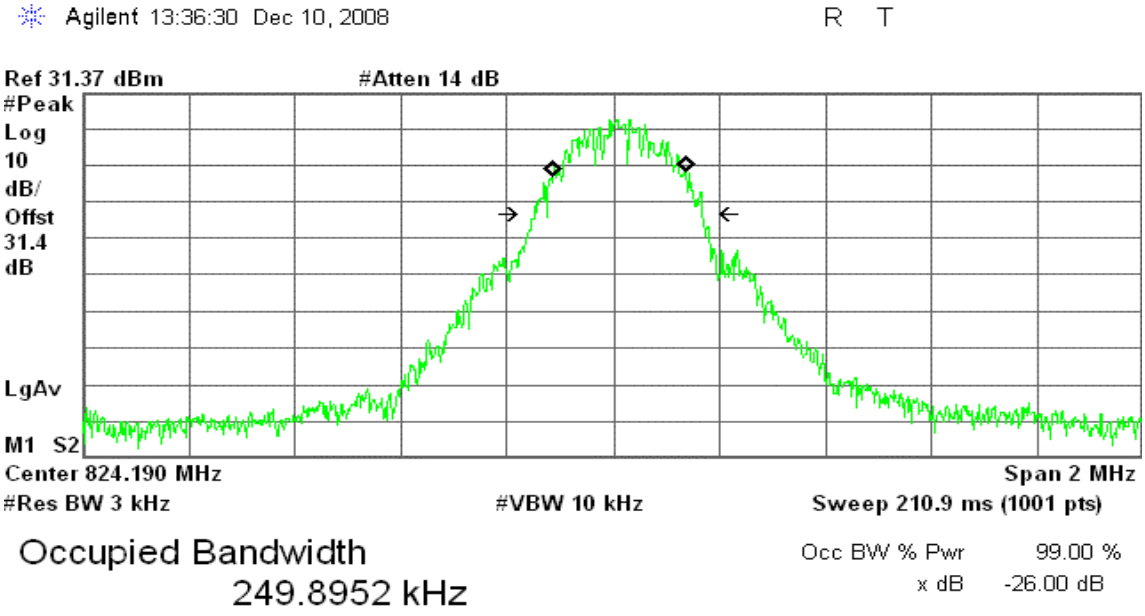
Transmit Freq Error	20.430 kHz
x dB Bandwidth	319.601 kHz

GSM 850 (CH High)



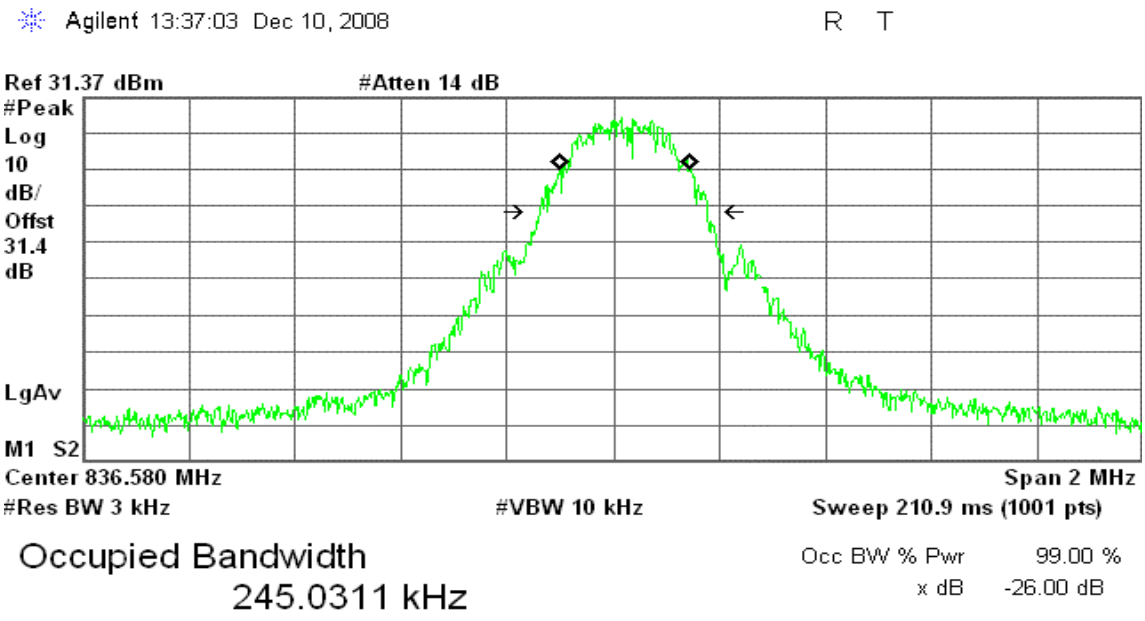
Transmit Freq Error	20.642 kHz
x dB Bandwidth	308.873 kHz

GPRS 850 (CH Low)



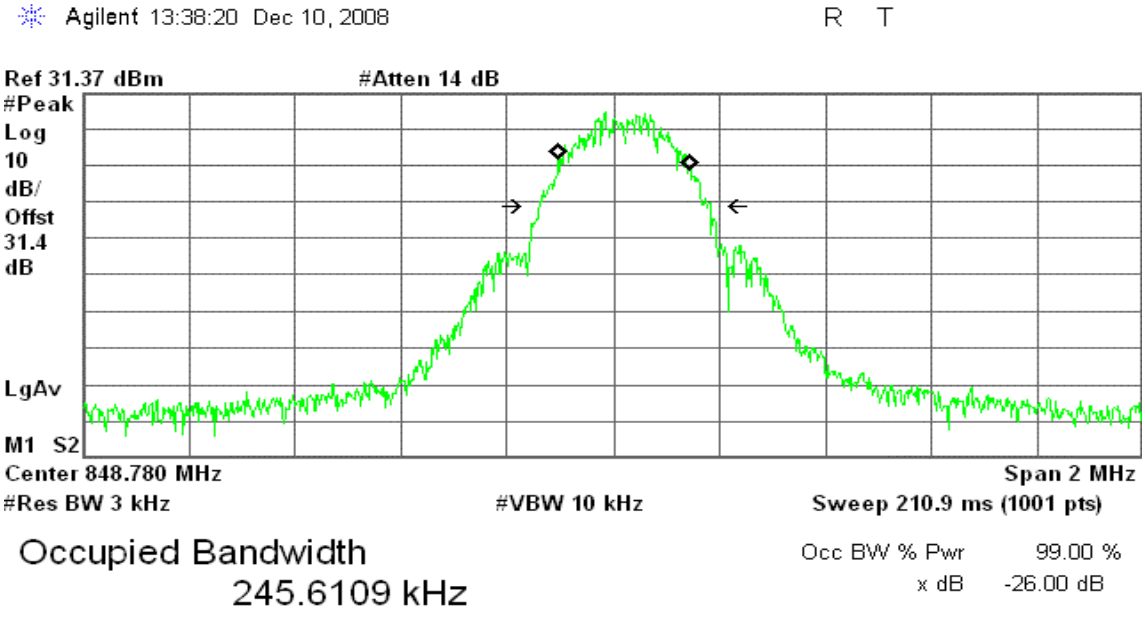
Transmit Freq Error	10.681 kHz
x dB Bandwidth	313.614 kHz

GPRS 850 (CH Mid)



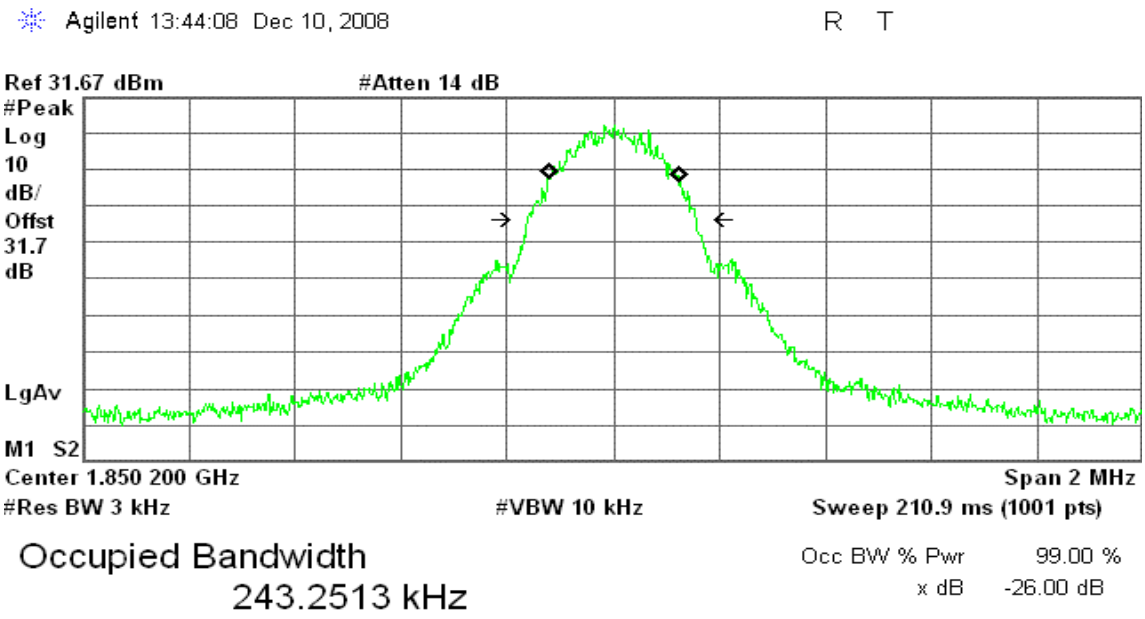
Transmit Freq Error	21.673 kHz
x dB Bandwidth	314.384 kHz

GPRS 850(CH High)



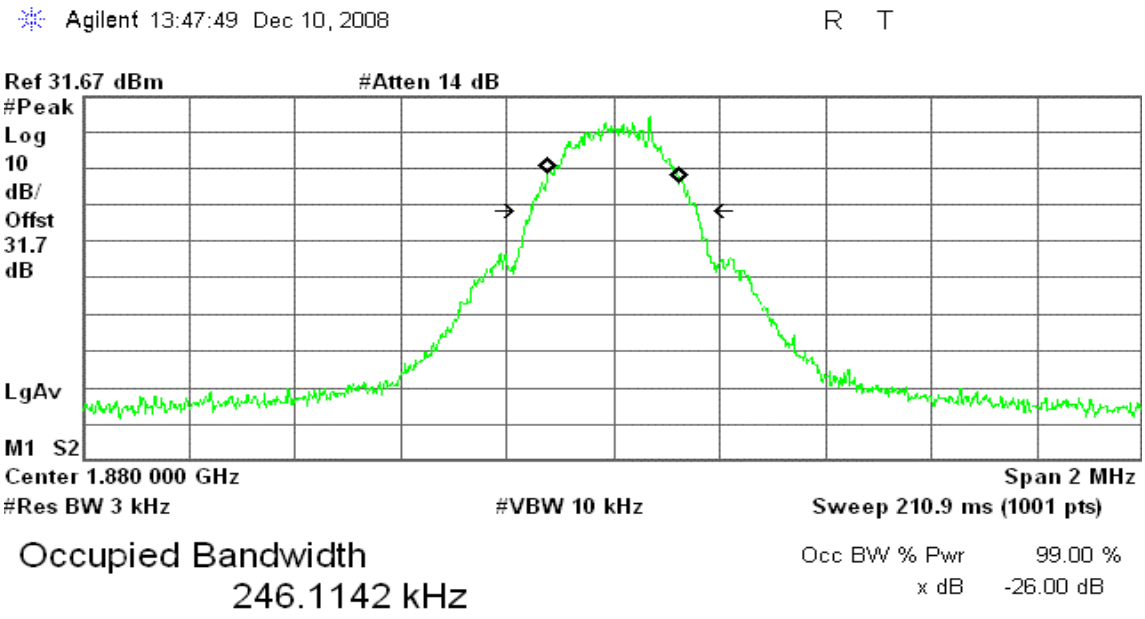
Transmit Freq Error	21.051 kHz
x dB Bandwidth	319.553 kHz

GSM 1900 (CH Low)



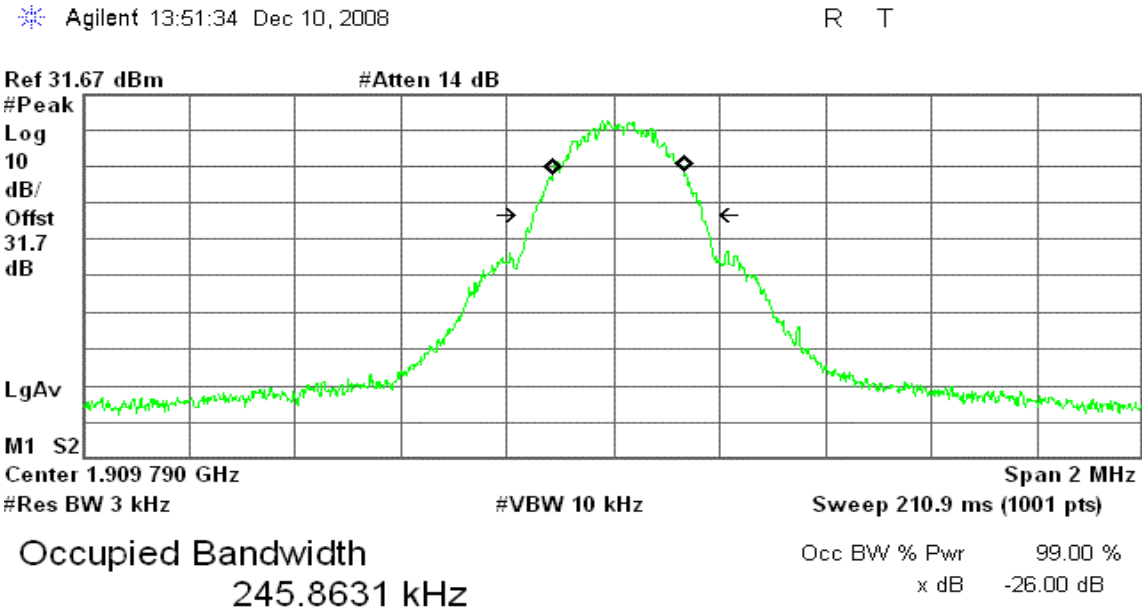
Transmit Freq Error	764.598 Hz
x dB Bandwidth	313.567 kHz

GSM 1900 (CH Mid)



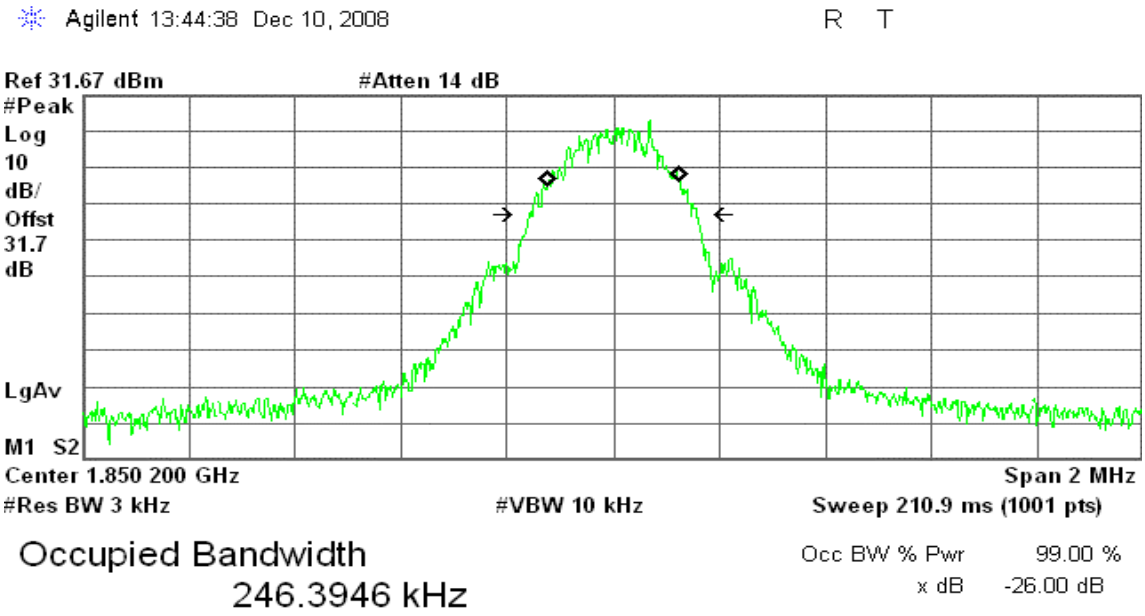
Transmit Freq Error	908.510 Hz
x dB Bandwidth	310.315 kHz

GSM 1900 (CH High)



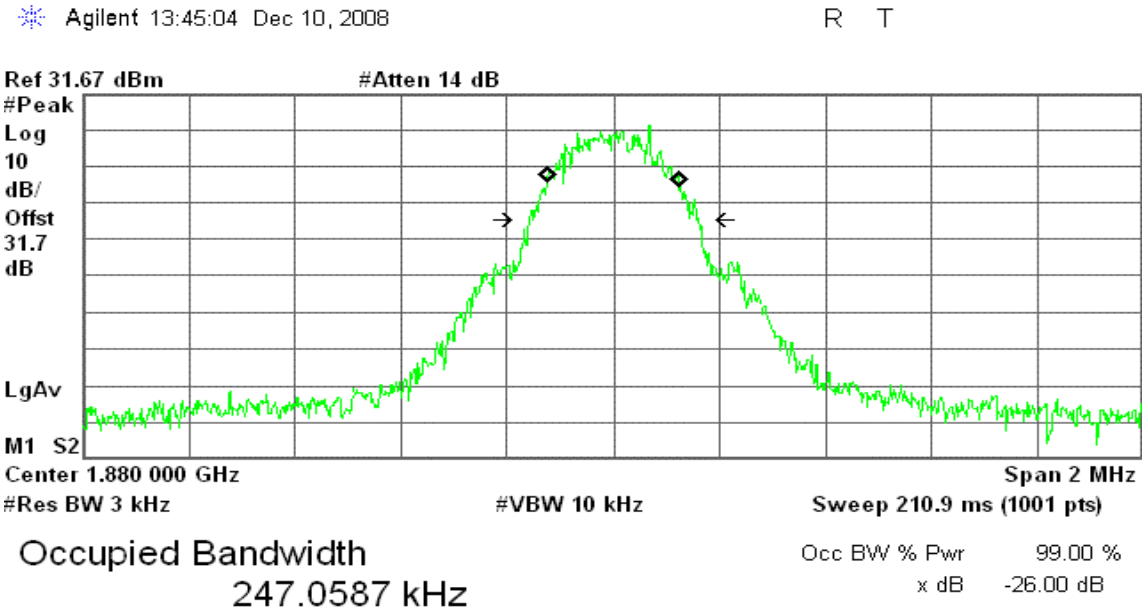
Transmit Freq Error	10.183 kHz
x dB Bandwidth	315.459 kHz

GPRS 1900 (CH Low)



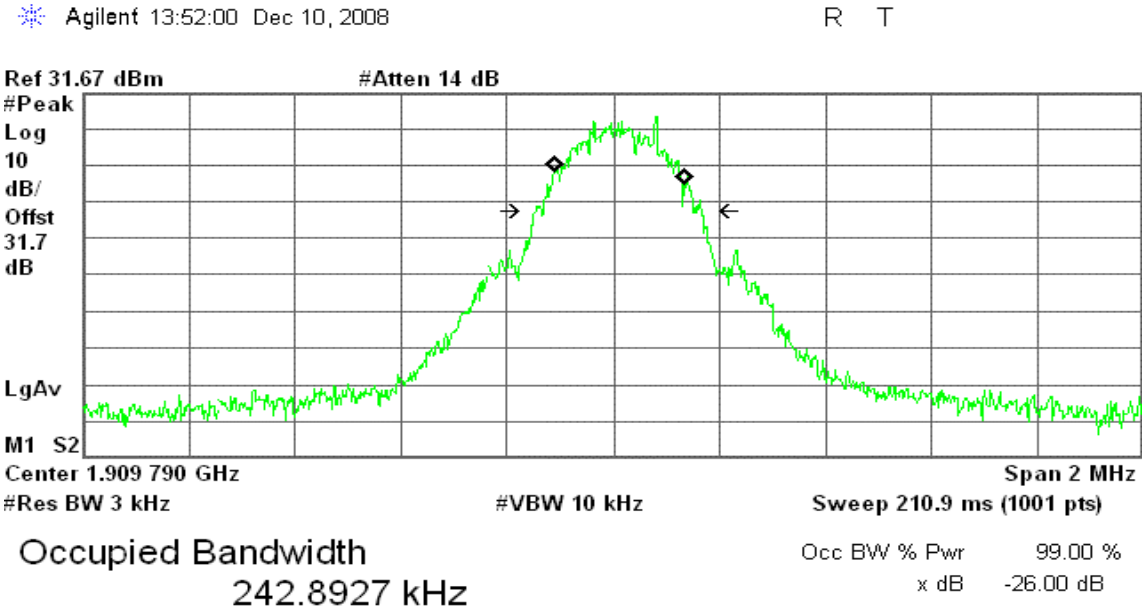
Transmit Freq Error	595.692 Hz
x dB Bandwidth	311.887 kHz

GPRS 1900 (CH Mid)



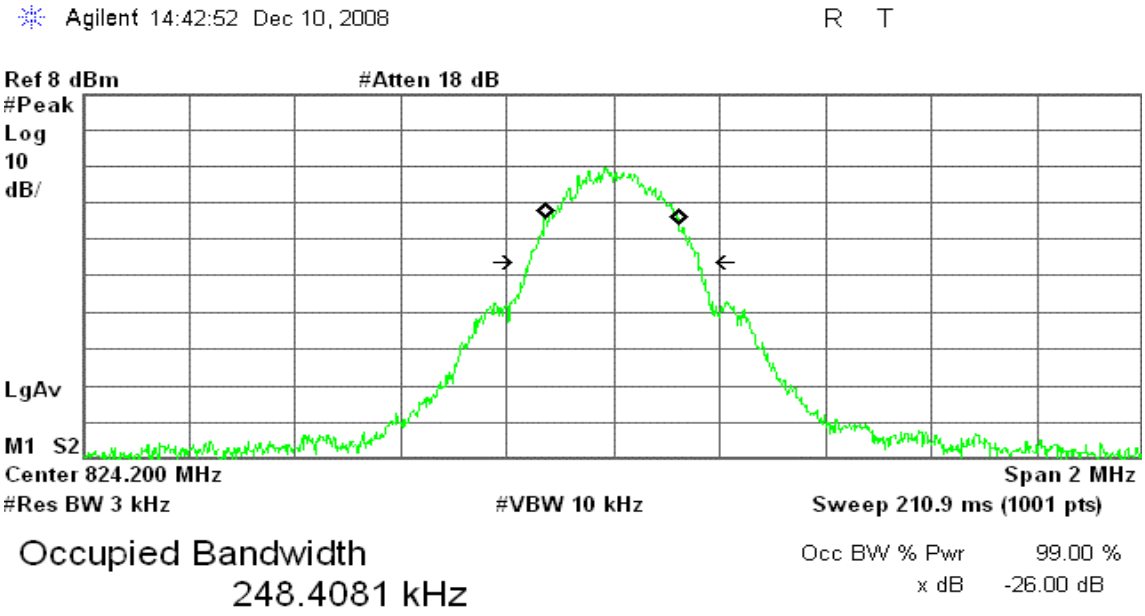
Transmit Freq Error	226.422 Hz
x dB Bandwidth	316.220 kHz

GPRS 1900 (CH High)



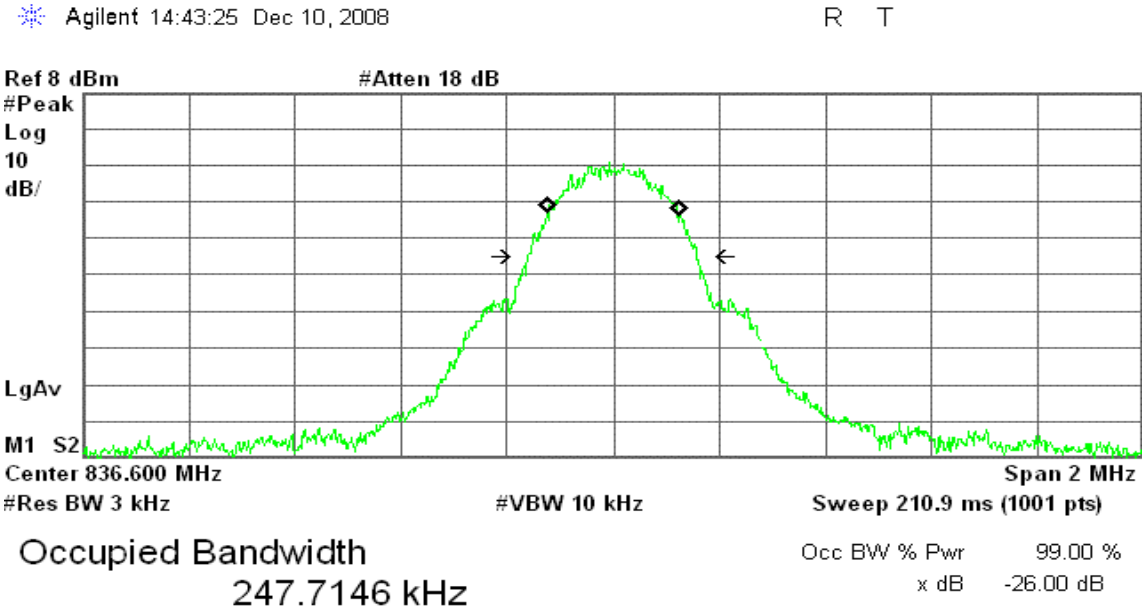
Transmit Freq Error	11.577 kHz
x dB Bandwidth	309.469 kHz

EDGE 850 (CH Low)



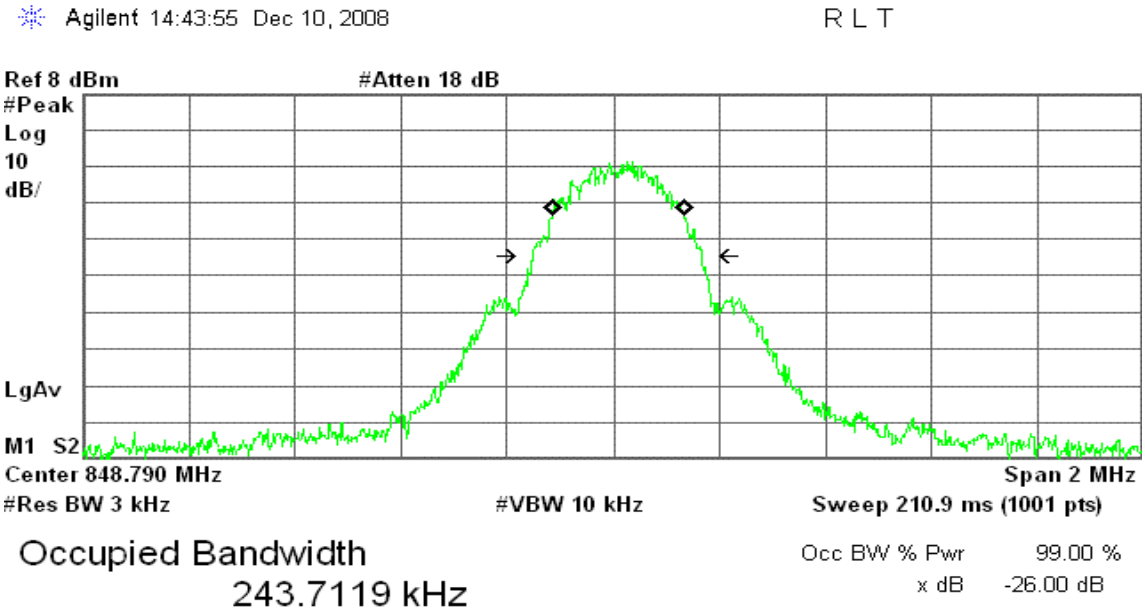
Transmit Freq Error	-1.173 kHz
x dB Bandwidth	315.533 kHz

EDGE 850 (CH Mid)



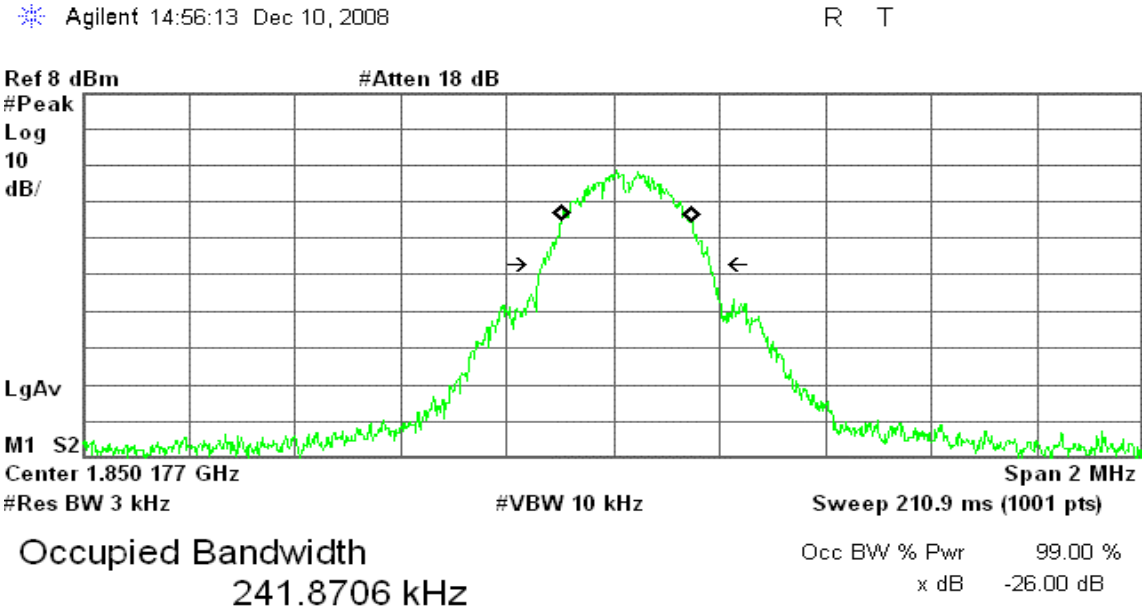
Transmit Freq Error	1.094 kHz
x dB Bandwidth	315.565 kHz

EDGE 850 (CH High)



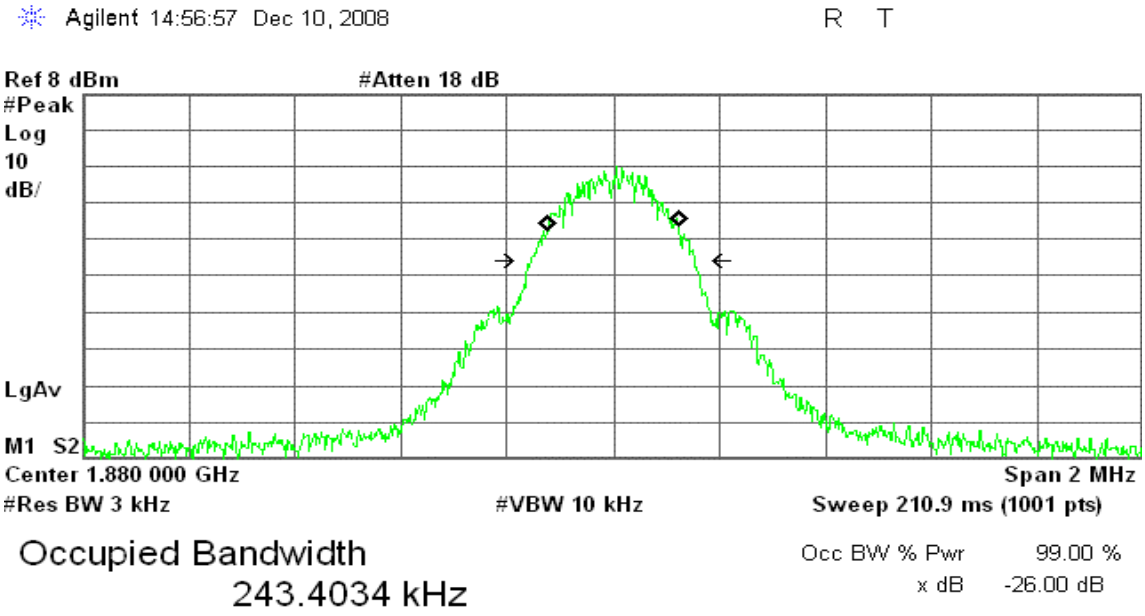
Transmit Freq Error	10.235 kHz
x dB Bandwidth	316.295 kHz

EDGE 1900 (CH Low)



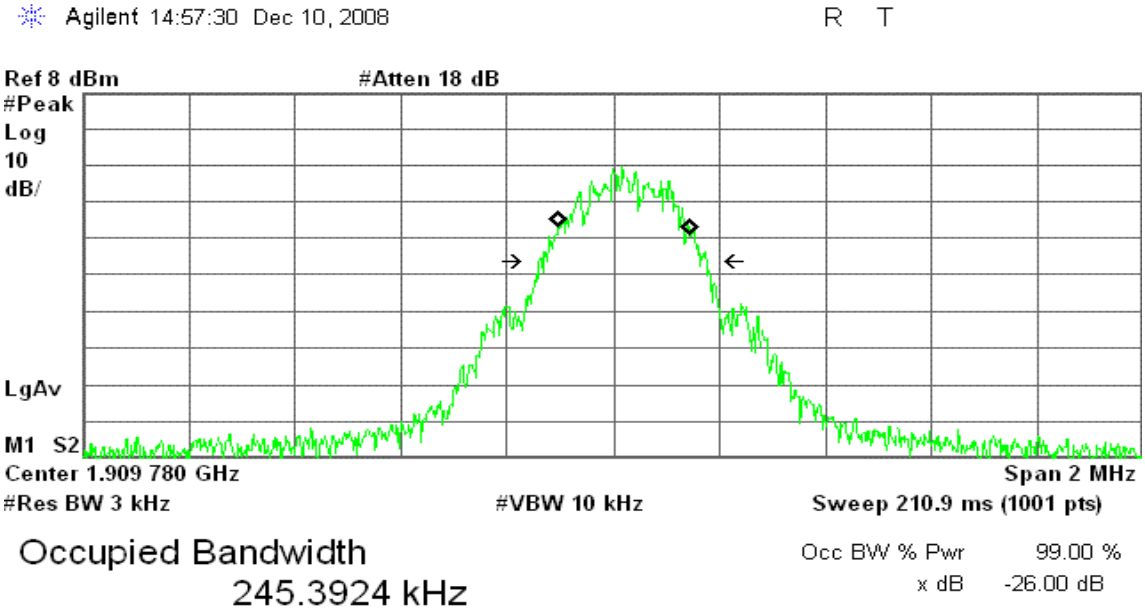
Transmit Freq Error	25.870 kHz
x dB Bandwidth	311.956 kHz

EDGE 1900 (CH Mid)



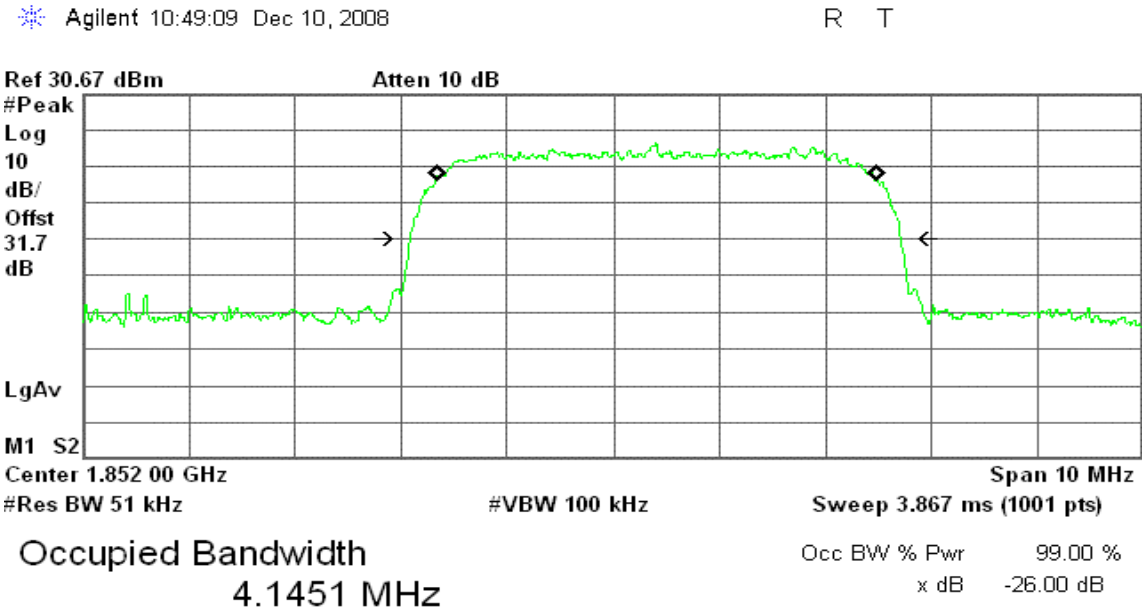
Transmit Freq Error	400.128 Hz
x dB Bandwidth	307.352 kHz

EDGE 1900 (CH High)



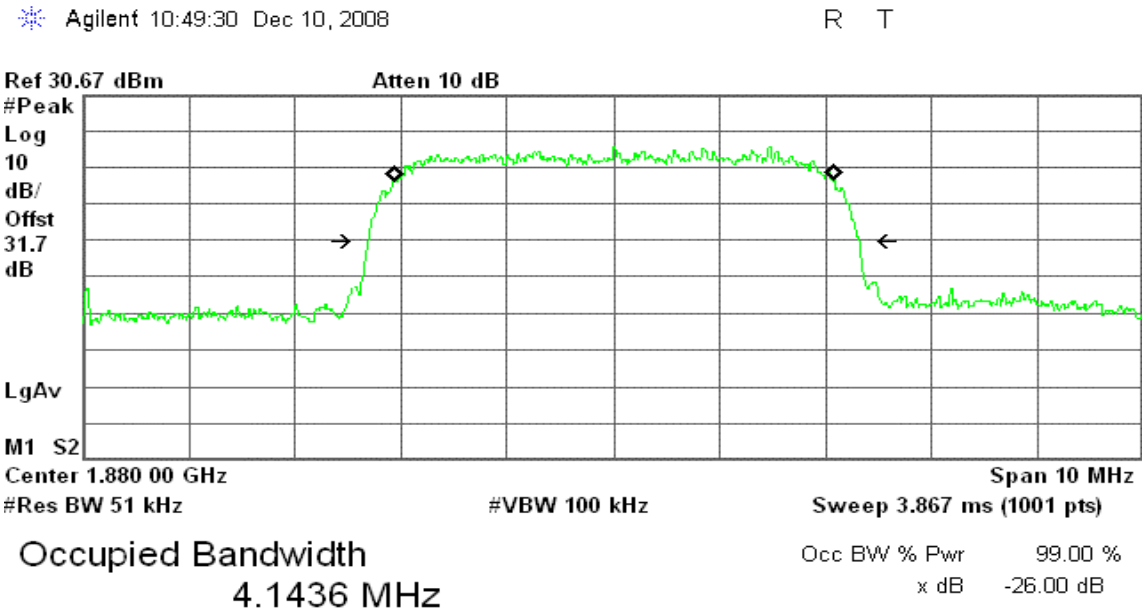
Transmit Freq Error	20.884 kHz
x dB Bandwidth	312.600 kHz

WCDMA Band II (CH Low)



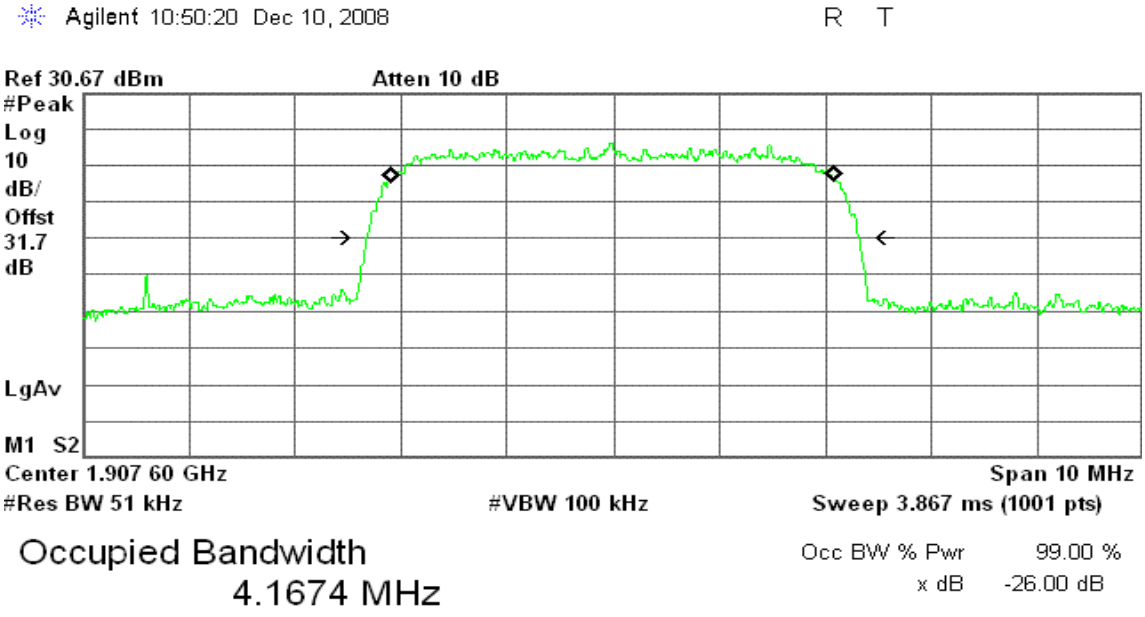
Transmit Freq Error	411.990 kHz
x dB Bandwidth	4.618 MHz

WCDMA Band II (CH Mid)



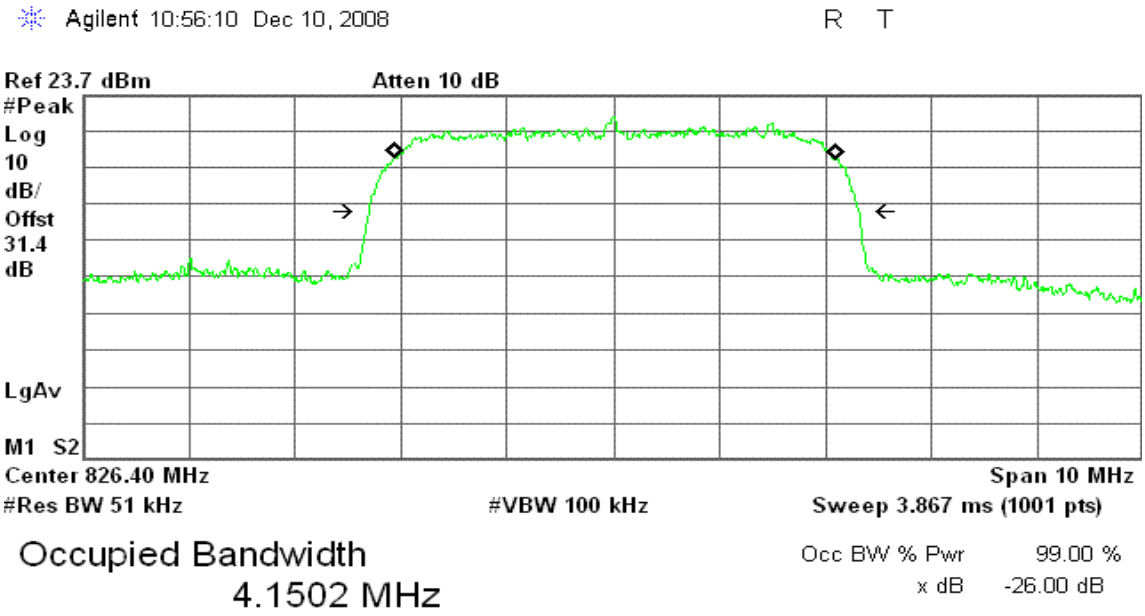
Transmit Freq Error	7.429 kHz
x dB Bandwidth	4.622 MHz

WCDMA Band II (CH High)



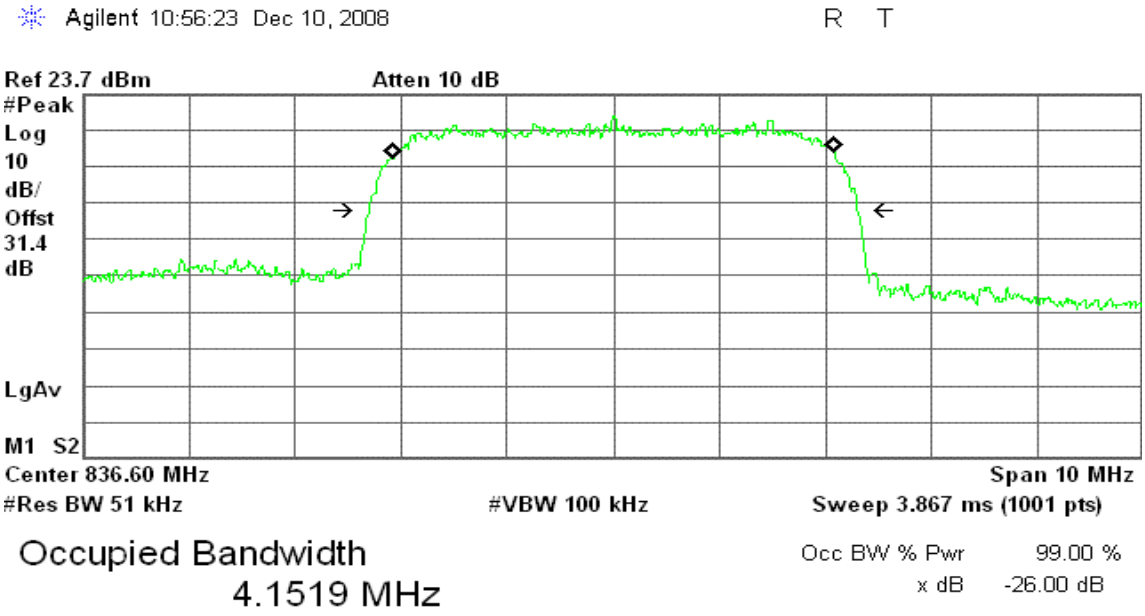
Transmit Freq Error	-3.742 kHz
x dB Bandwidth	4.627 MHz

WCDMA Band V (CH Low)



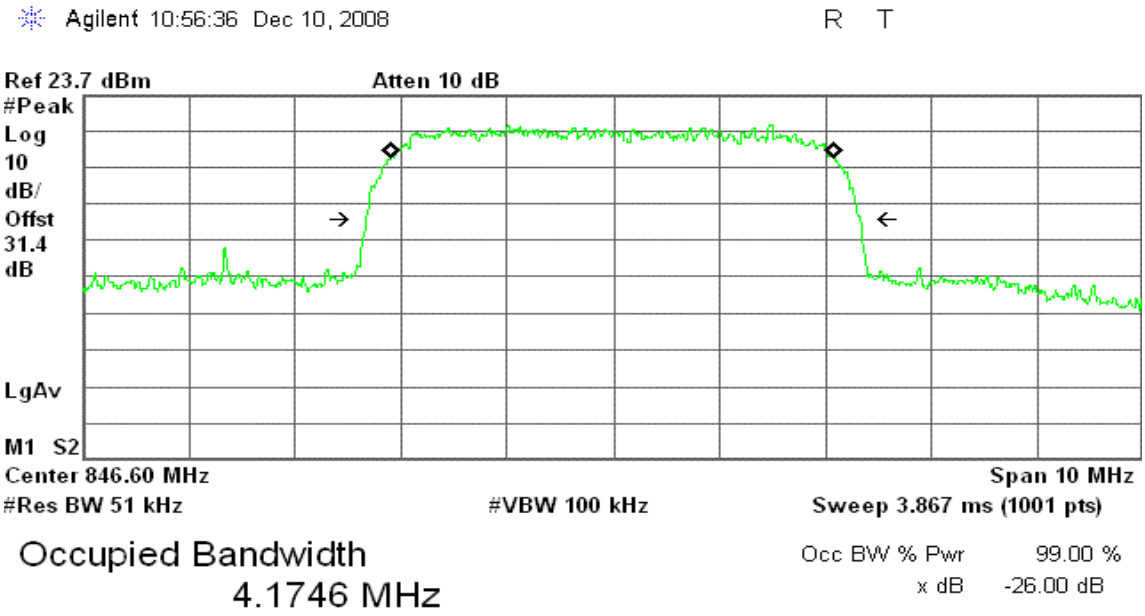
Transmit Freq Error	12.510 kHz
x dB Bandwidth	4.614 MHz

WCDMA Band V (CH Mid)



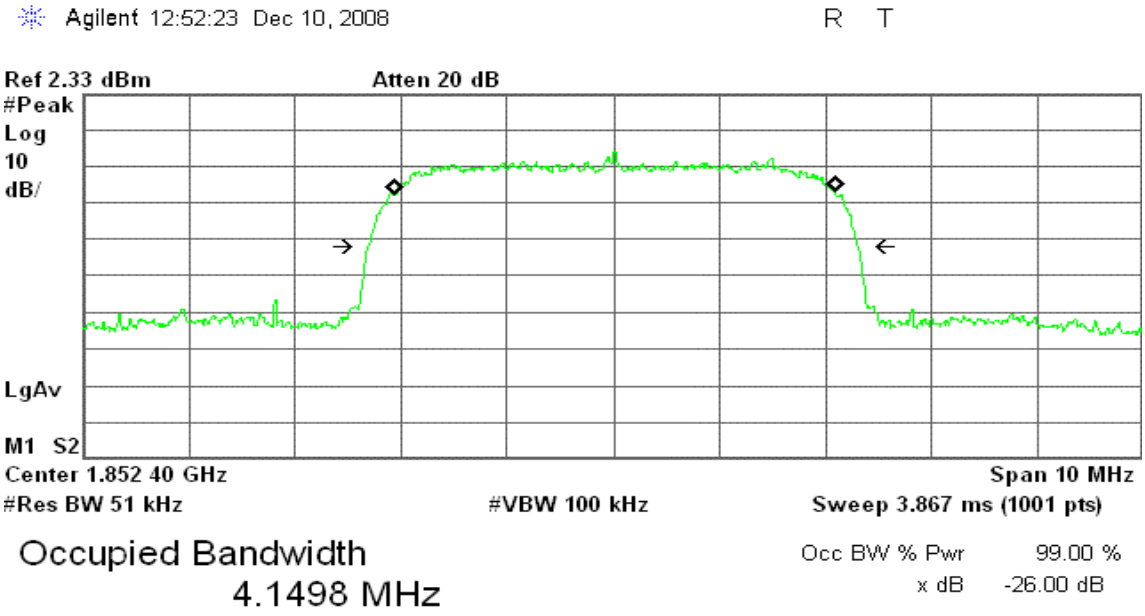
Transmit Freq Error	4.338 kHz
x dB Bandwidth	4.598 MHz

WCDMA Band V (CH High)



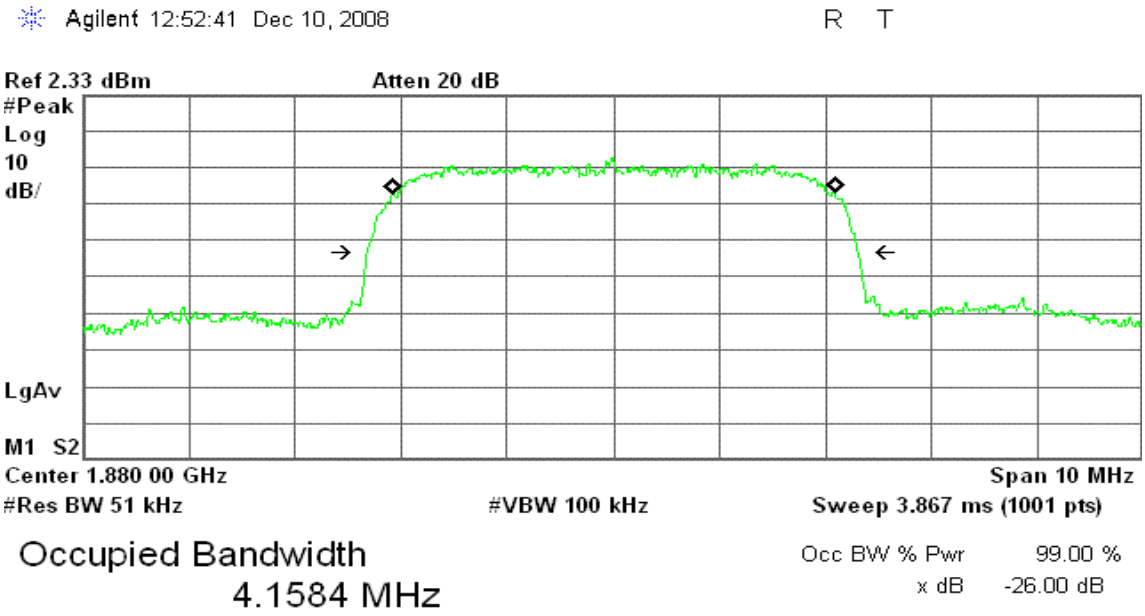
Transmit Freq Error	-6.583 kHz
x dB Bandwidth	4.653 MHz

WCDMA / HSDPA Band II (CH Low)



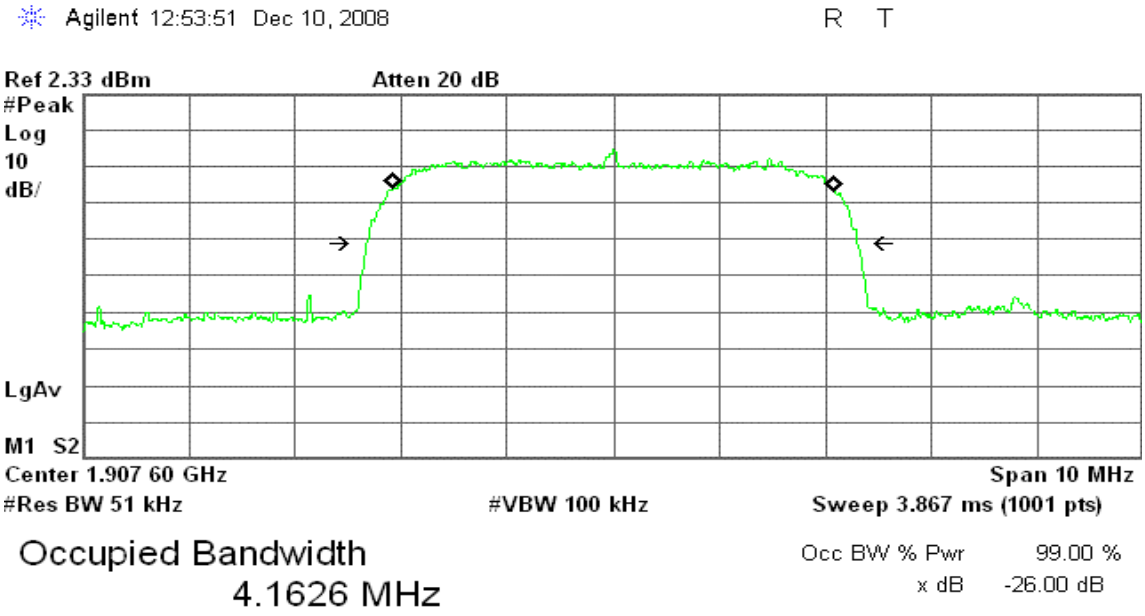
Transmit Freq Error	13.320 kHz
x dB Bandwidth	4.612 MHz

WCDMA / HSDPA Band II (CH Mid)



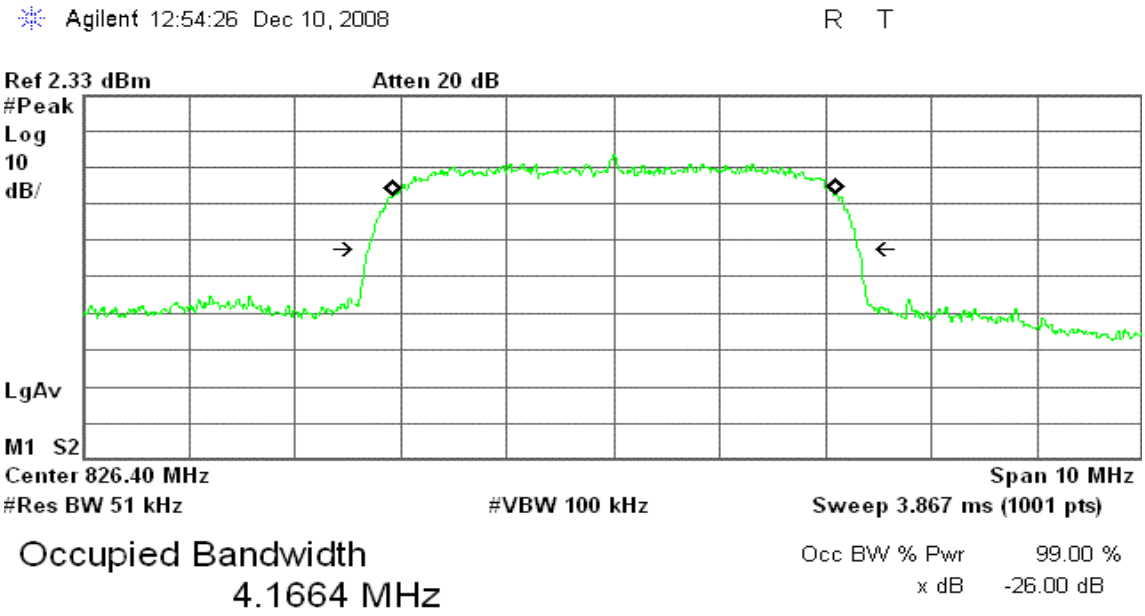
Transmit Freq Error	11.390 kHz
x dB Bandwidth	4.623 MHz

WCDMA / HSDPA Band II (CH High)



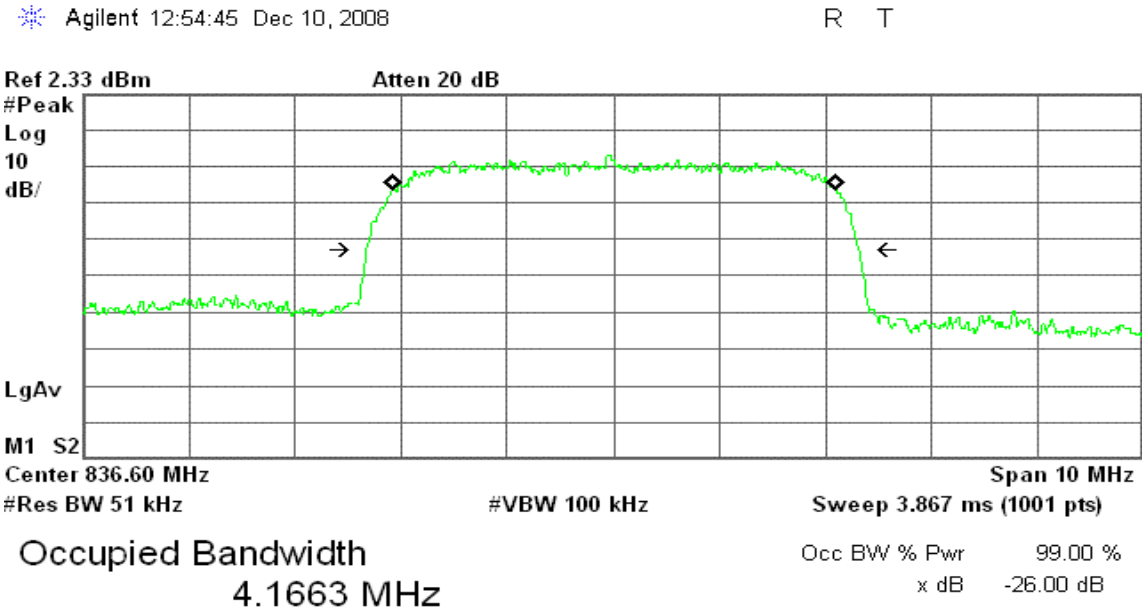
Transmit Freq Error	-197.922 Hz
x dB Bandwidth	4.622 MHz

WCDMA / HSDPA Band V (CH Low)



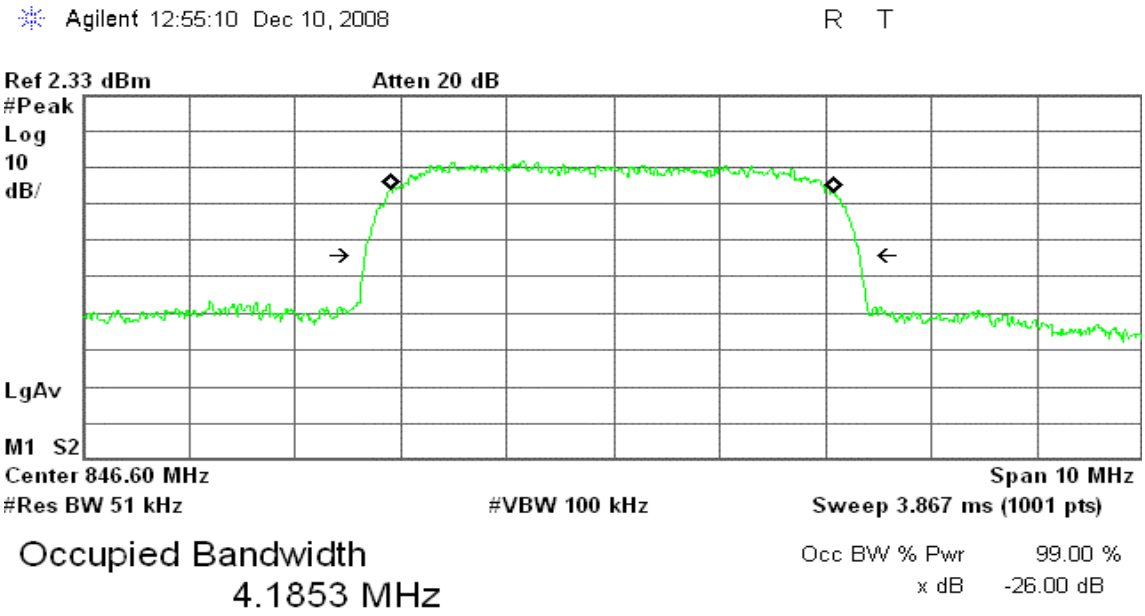
Transmit Freq Error	12.993 kHz
x dB Bandwidth	4.605 MHz

WCDMA / HSDPA Band V (CH Mid)



Transmit Freq Error	11.882 kHz
x dB Bandwidth	4.633 MHz

WCDMA / HSDPA Band V (CH High)



Transmit Freq Error	-8.786 kHz
x dB Bandwidth	4.651 MHz

7.4 OUT OF BAND EMISSION AT ANTENNA TERMINALS

LIMIT

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

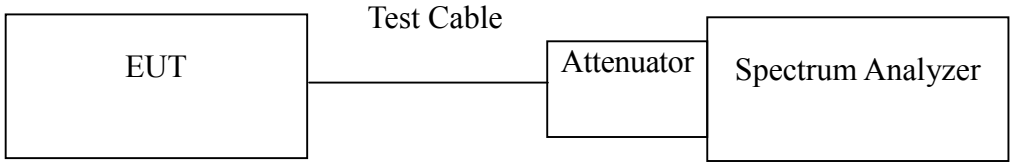
Out of Band Emissions: The mean power of emission must be attenuated below the mean power of the non-modulated carrier (P) on any frequency twice or more than twice the fundamental frequency by at lease 43 + 10 log P dB.

Mobile Emissions in Base Frequency Range: The mean power of any emissions appearing in the base station frequency range from cellular mobile transmitters operated must be attenuated to a level not exceed –80 dBm at the transmit antenna connector.

Band Edge Requirements: In the 1MHz bands immediately outside and adjacent to the frequency block, a resolution bandwidth of at lease 1% of the emission bandwidth of the fundamental emission of the transmitter may be employed to measure the Out of band Emission

Test Configuration

Out of band emission at antenna terminals:



TEST PROCEDURE

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

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

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

TEST RESULTS

No non-compliance noted.

Test Data

Mode	CH	Location	Description
GSM 850 (Class B)	128	Figure 7-1	Conducted spurious emissions, 30MHz - 20GHz
	190	Figure 7-2	Conducted spurious emissions, 30MHz - 20GHz
	251	Figure 7-3	Conducted spurious emissions, 30MHz - 20GHz
GPRS 850 (Class 12)	128	Figure 7-4	Conducted spurious emissions, 30MHz - 20GHz
	190	Figure 7-5	Conducted spurious emissions, 30MHz - 20GHz
	251	Figure 7-6	Conducted spurious emissions, 30MHz - 20GHz

Mode	CH	Location	Description
GSM 1900 (Class B)	512	Figure 8-1	Conducted spurious emissions, 30MHz - 20GHz
	661	Figure 8-2	Conducted spurious emissions, 30MHz - 20GHz
	810	Figure 8-3	Conducted spurious emissions, 30MHz - 20GHz
GPRS 1900 (Class 12)	512	Figure 8-4	Conducted spurious emissions, 30MHz - 20GHz
	661	Figure 8-5	Conducted spurious emissions, 30MHz - 20GHz
	810	Figure 8-6	Conducted spurious emissions, 30MHz - 20GHz

Mode	CH	Location	Description
GSM 850 (Class B)	128	Figure 9-1	Band Edge emissions
	251	Figure 9-2	Band Edge emissions
GPRS 850 (Class 12)	128	Figure 9-3	Band Edge emissions
	251	Figure 9-4	Band Edge emissions

Mode	CH	Location	Description
GSM 1900 (Class B)	512	Figure 10-1	Band Edge emissions
	810	Figure 10-2	Band Edge emissions
GPRS 1900 (Class 12)	512	Figure 10-3	Band Edge emissions
	810	Figure 10-4	Band Edge emissions

Mode	CH	Location	Description
EDGE 850 (Class 12)	128	Figure 11-1	Conducted spurious emissions, 30MHz - 20GHz
	190	Figure 11-2	Conducted spurious emissions, 30MHz - 20GHz
	251	Figure 11-3	Conducted spurious emissions, 30MHz - 20GHz
EDGE 1900 (Class 12)	512	Figure 11-4	Conducted spurious emissions, 30MHz - 20GHz
	661	Figure 11-5	Conducted spurious emissions, 30MHz - 20GHz
	810	Figure 11-6	Conducted spurious emissions, 30MHz - 20GHz

Mode	CH	Location	Description
EDGE 850 (Class 12)	128	Figure 12-1	Band Edge emissions
	251	Figure 12-2	Band Edge emissions
EDGE 1900 (Class 12)	512	Figure 12-3	Band Edge emissions
	810	Figure 12-4	Band Edge emissions

Test Plot

GSM 850

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

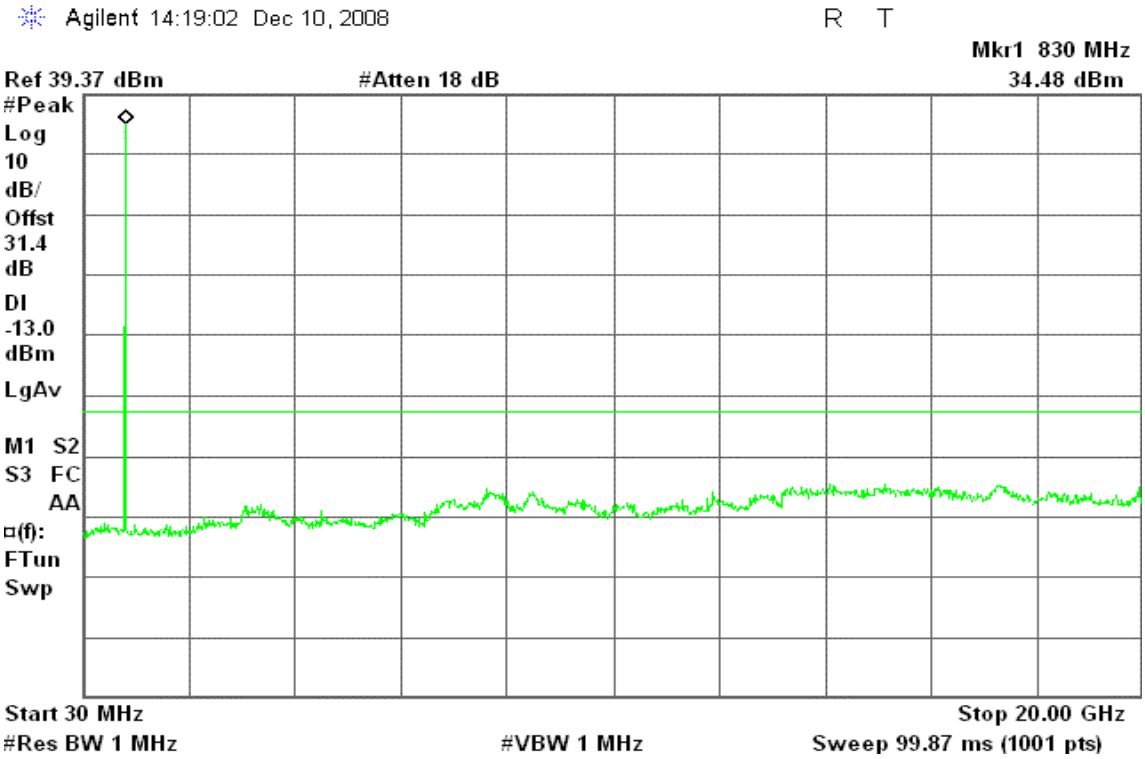


Figure 7-2: Out of Band emission at antenna terminals – GSM CH Mid

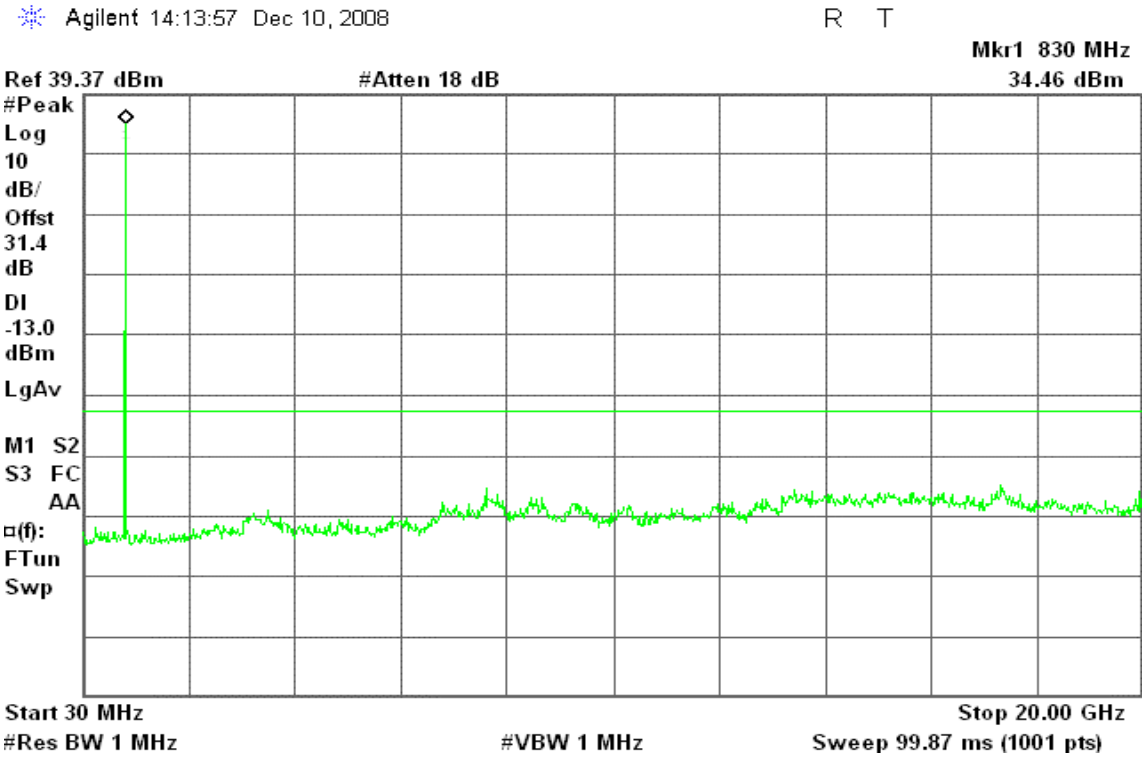
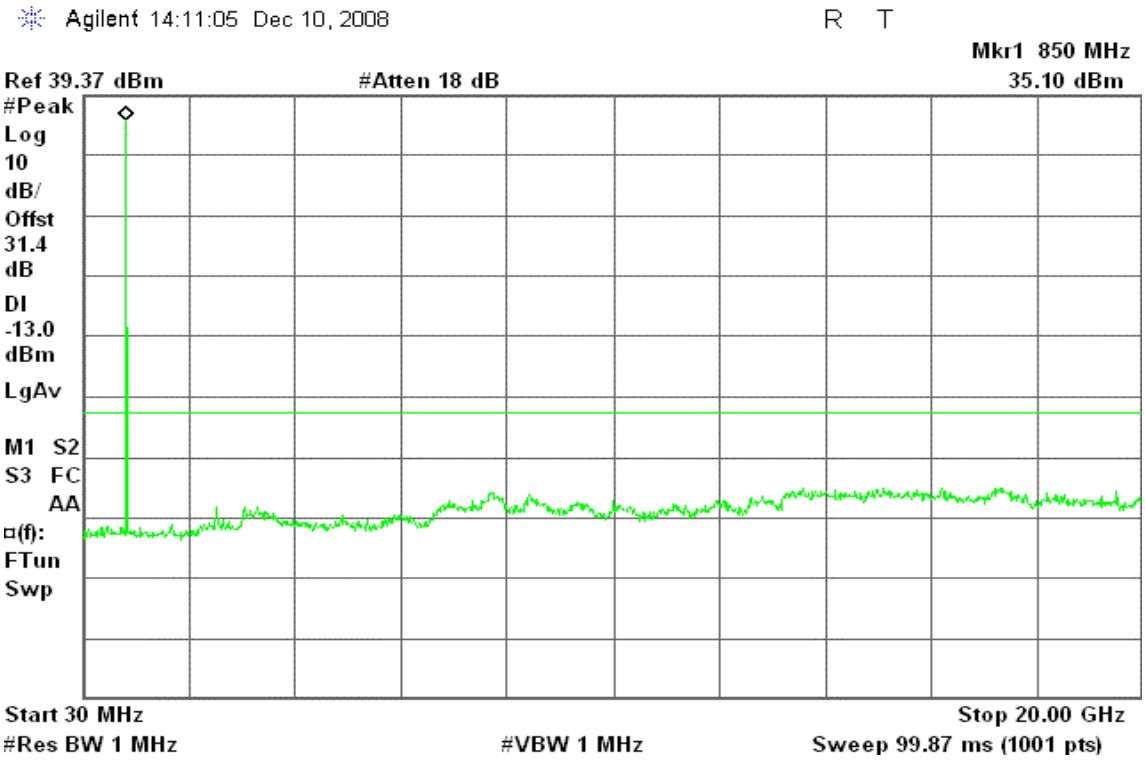


Figure 7-3: Out of Band emission at antenna terminals – GSM CH High



GPRS 850

Figure 7-4: Out of Band emission at antenna terminals – GPRS CH Low

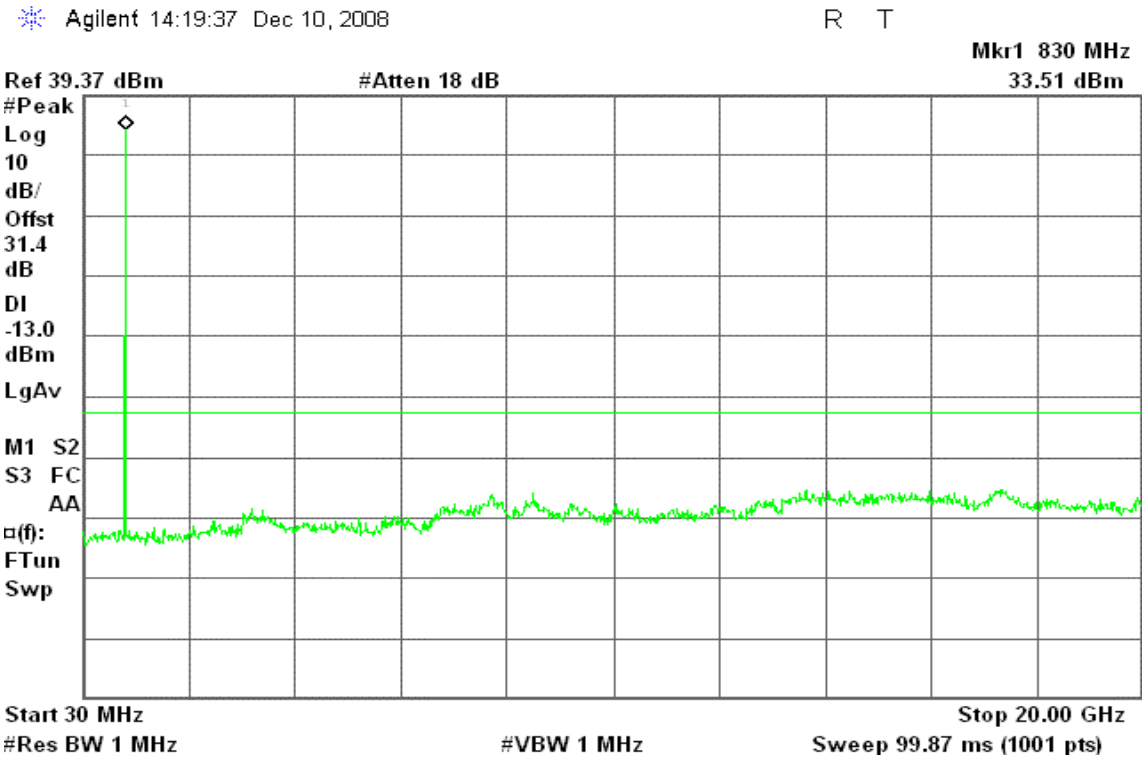


Figure 7-5: Out of Band emission at antenna terminals – GPRS CH Mid

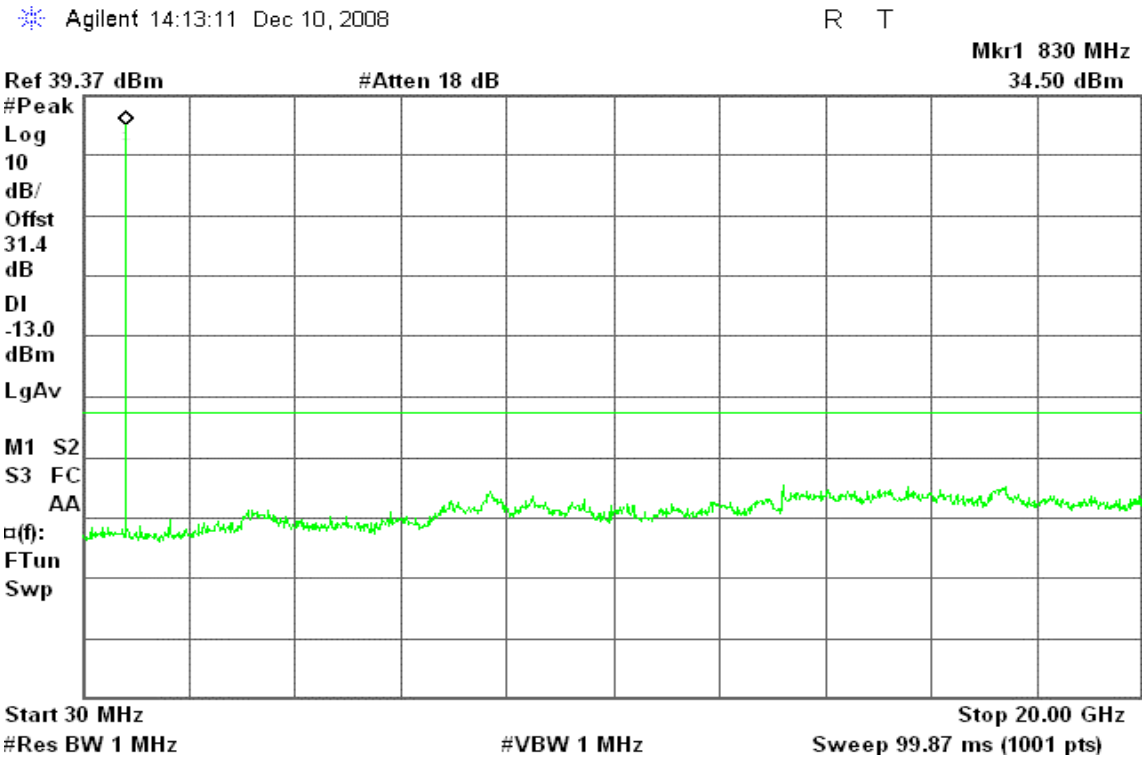
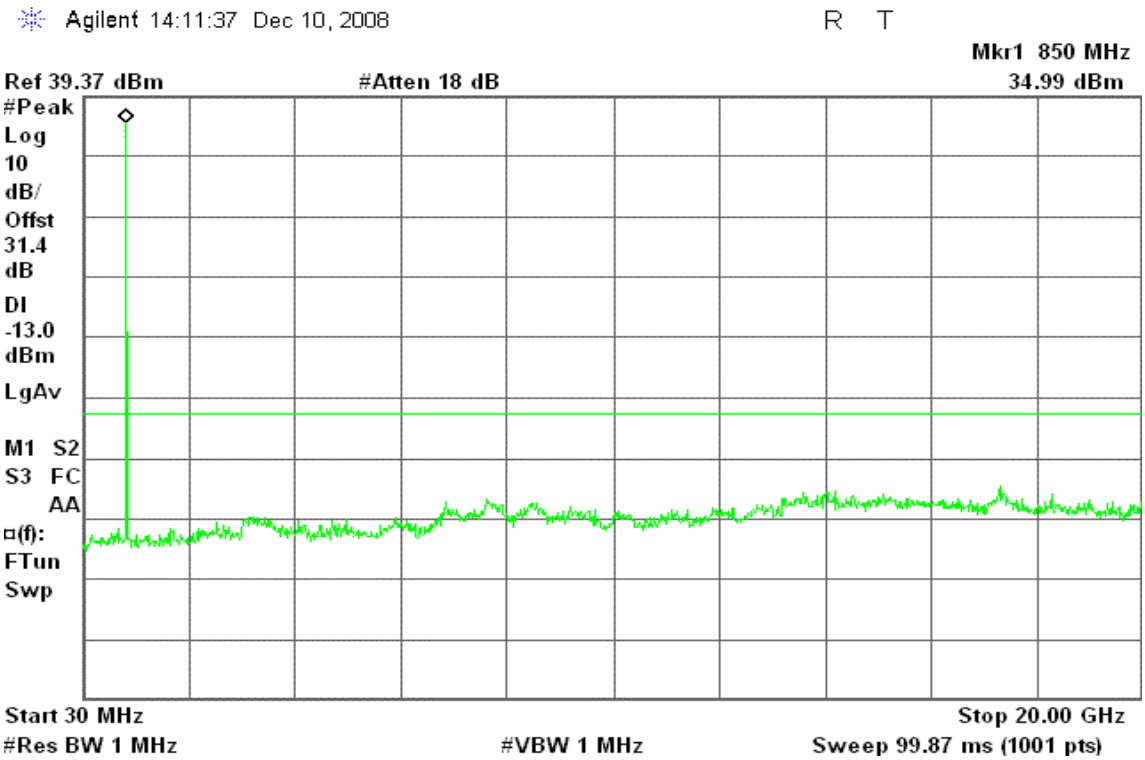


Figure 7-6: Out of Band emission at antenna terminals – GPRS CH High



GSM 1900

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

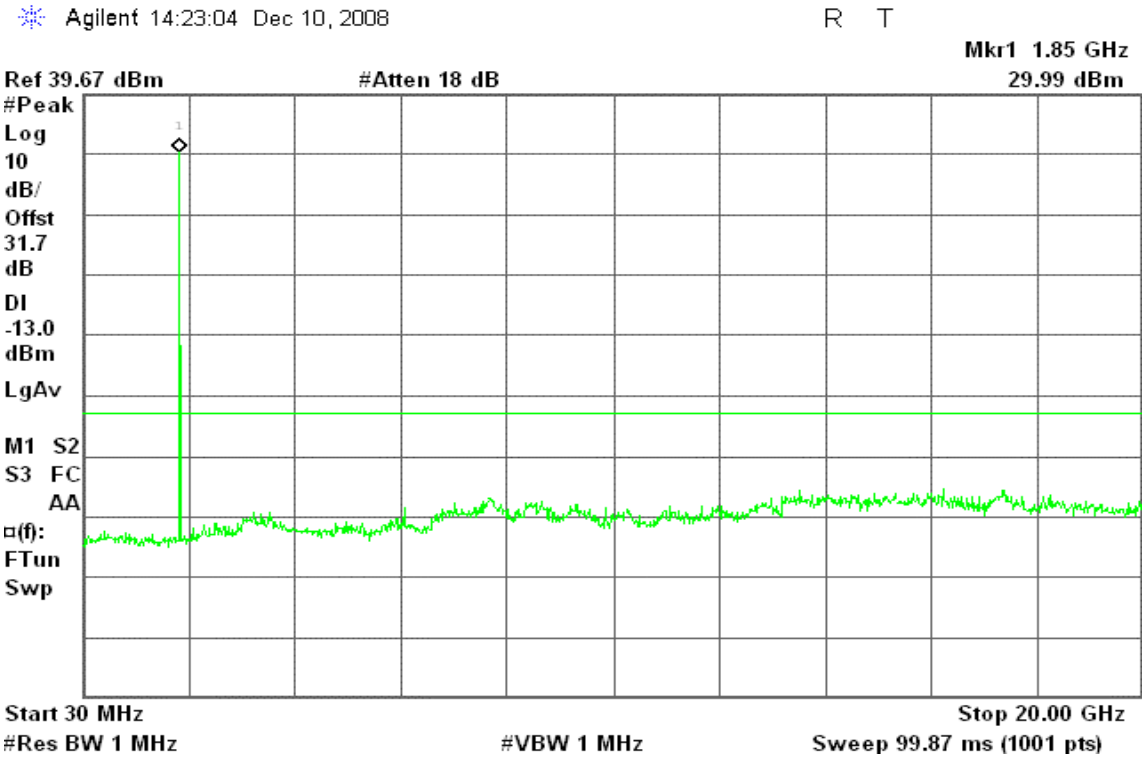


Figure 8-2: Out of Band emission at antenna terminals – GSM CH Mid

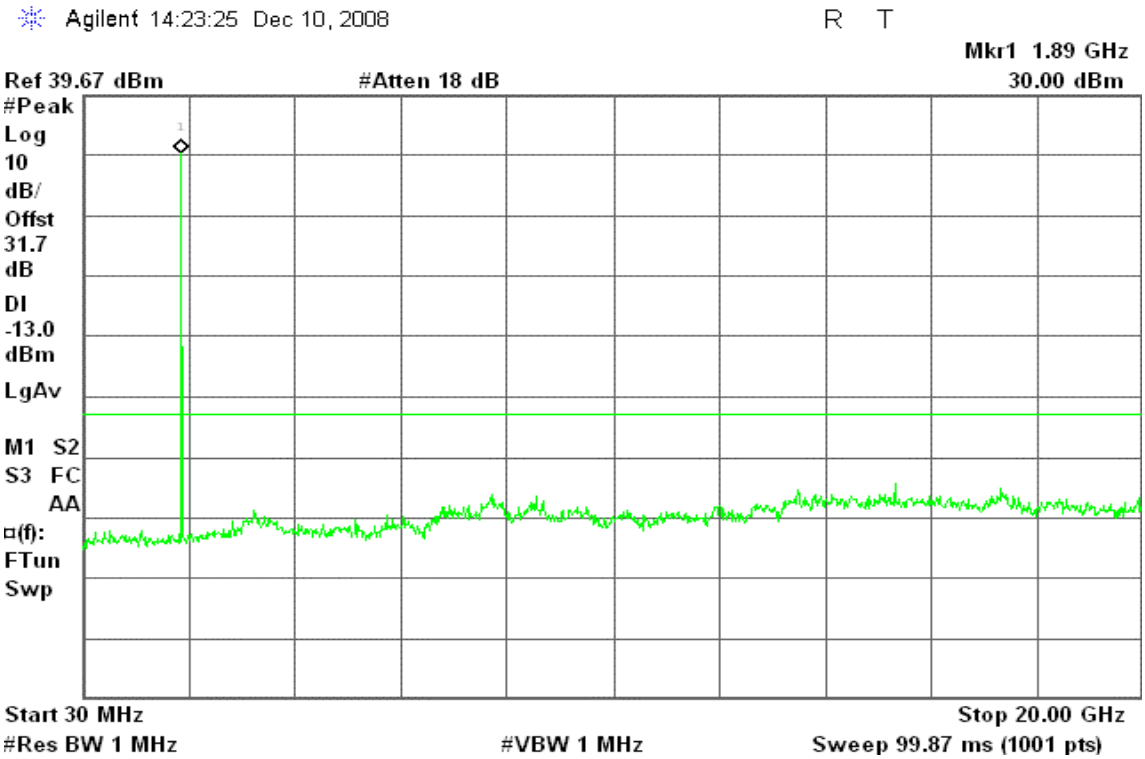
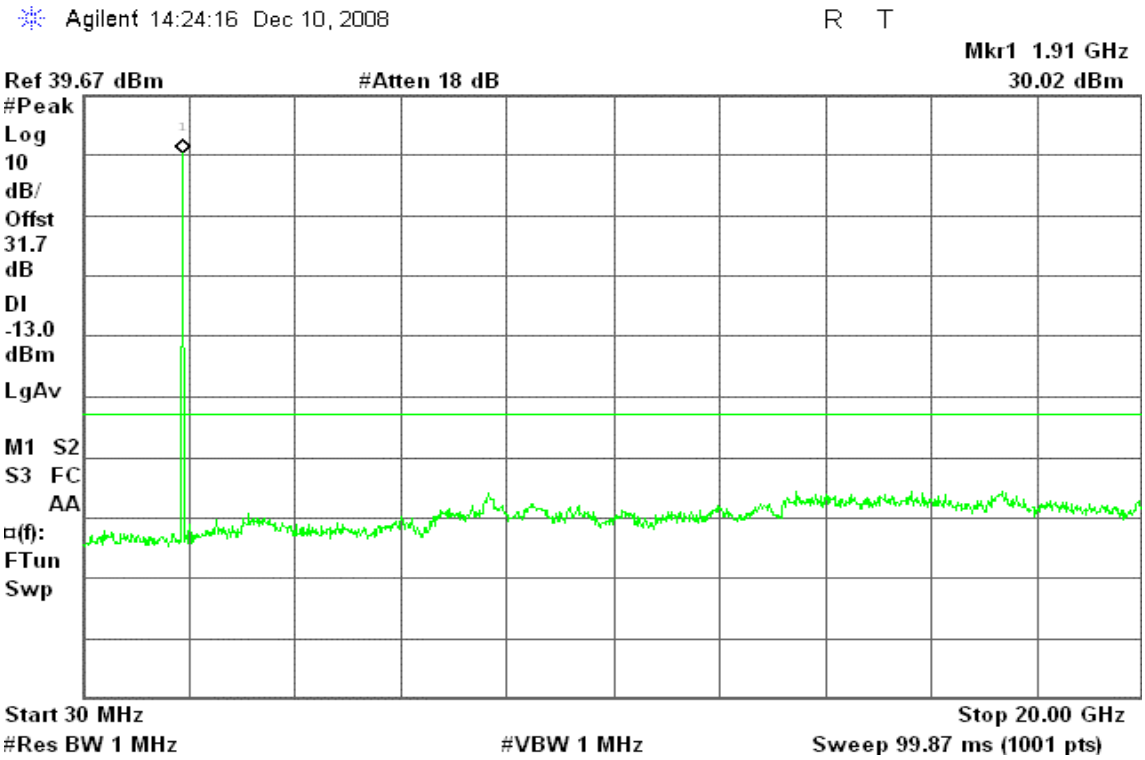


Figure 8-3: Out of Band emission at antenna terminals – GSM CH High



GPRS 1900

Figure 8-4: Out of Band emission at antenna terminals – GPRS CH Low

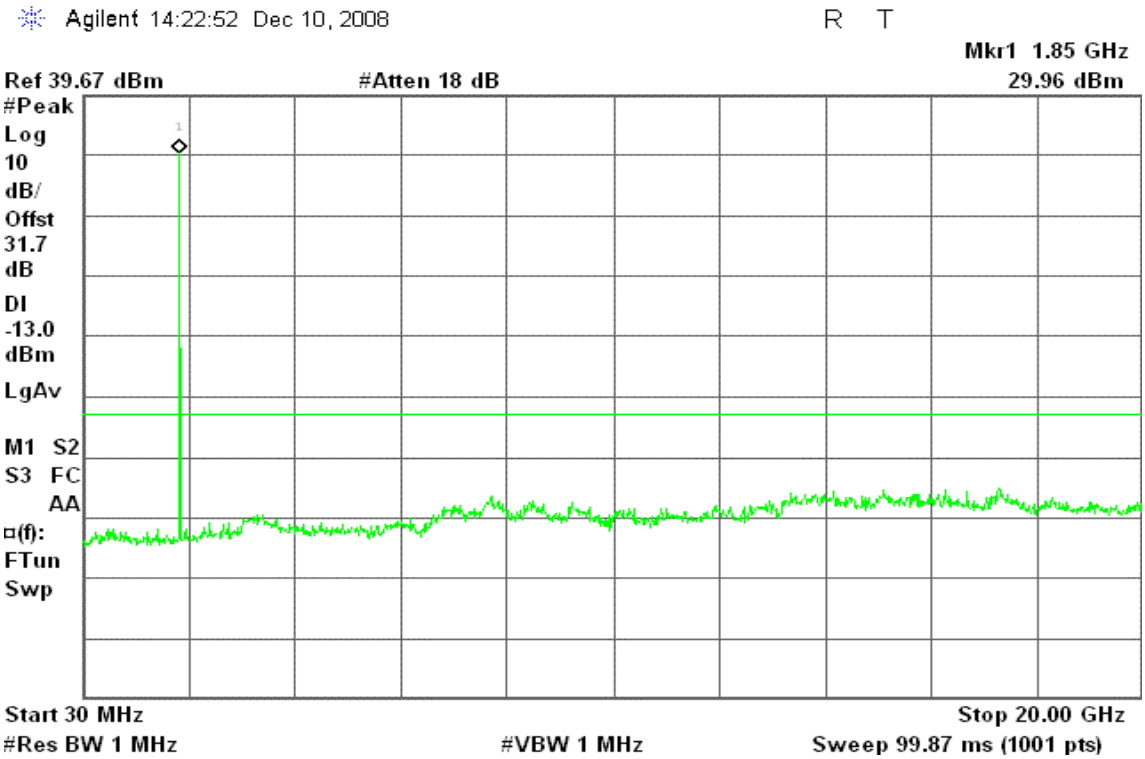


Figure 8-5: Out of Band emission at antenna terminals – GPRS CH Mid

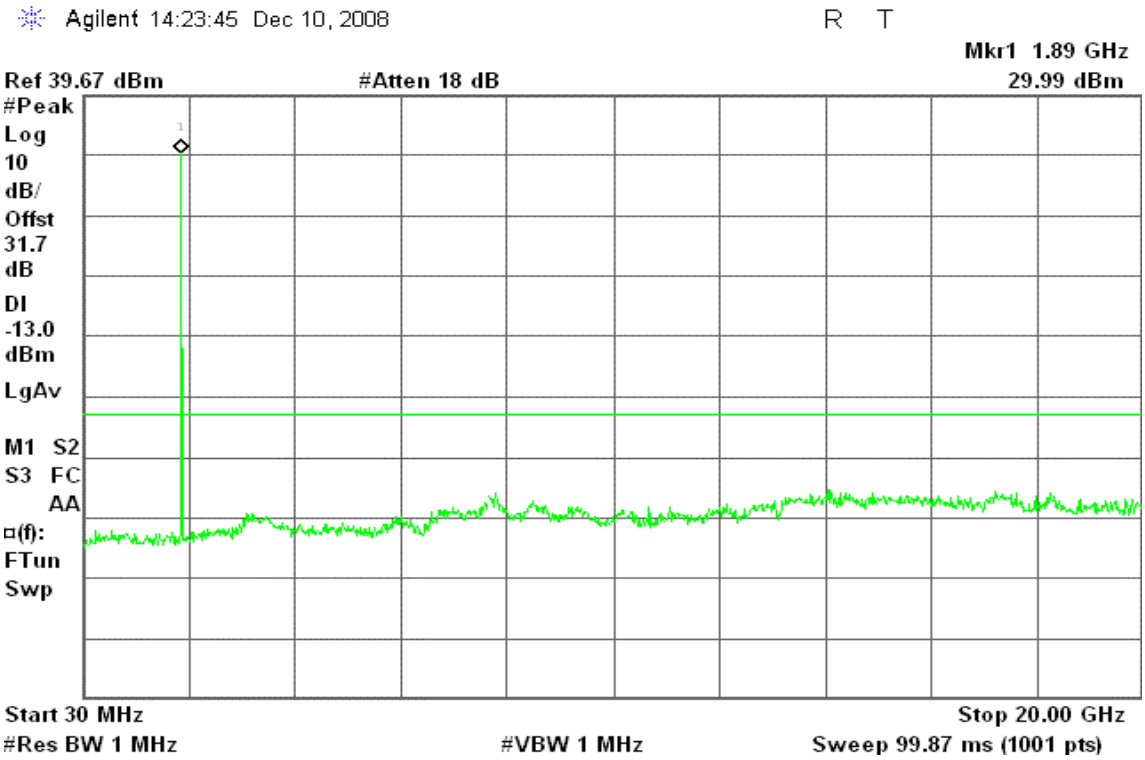
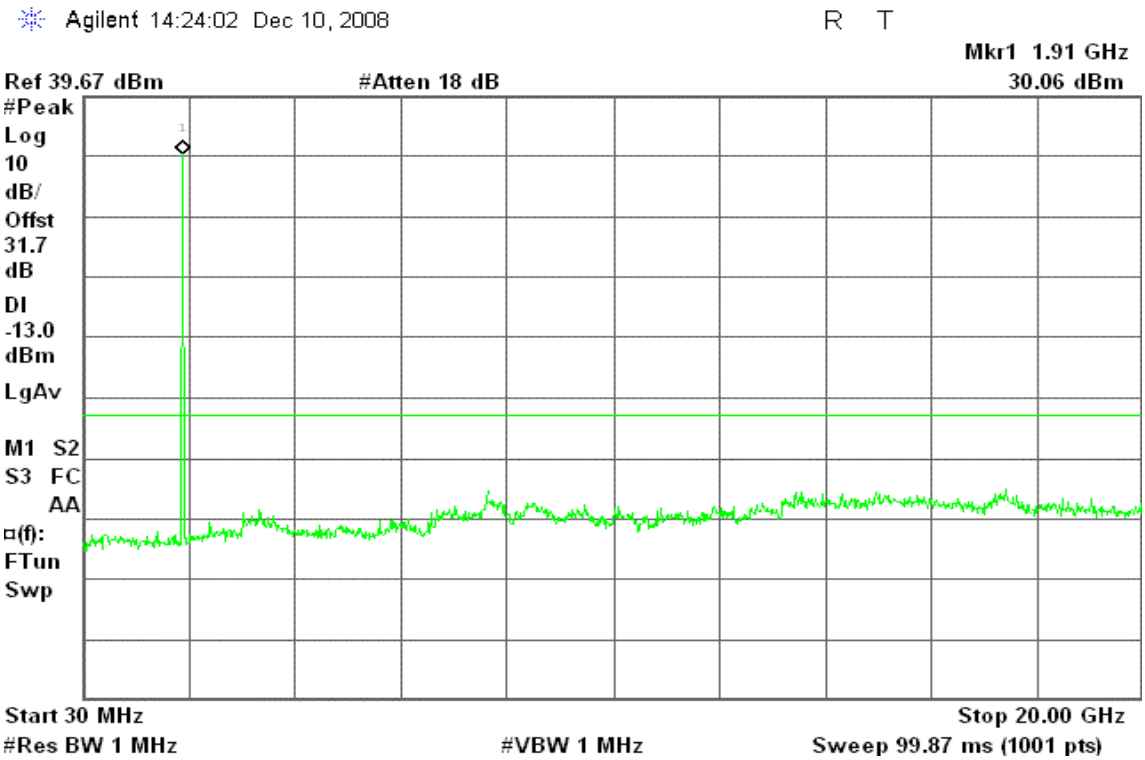


Figure 8-6: Out of Band emission at antenna terminals – GPRS CH High



GSM 850

Figure 9-1: Band Edge emissions – GSM CH Low

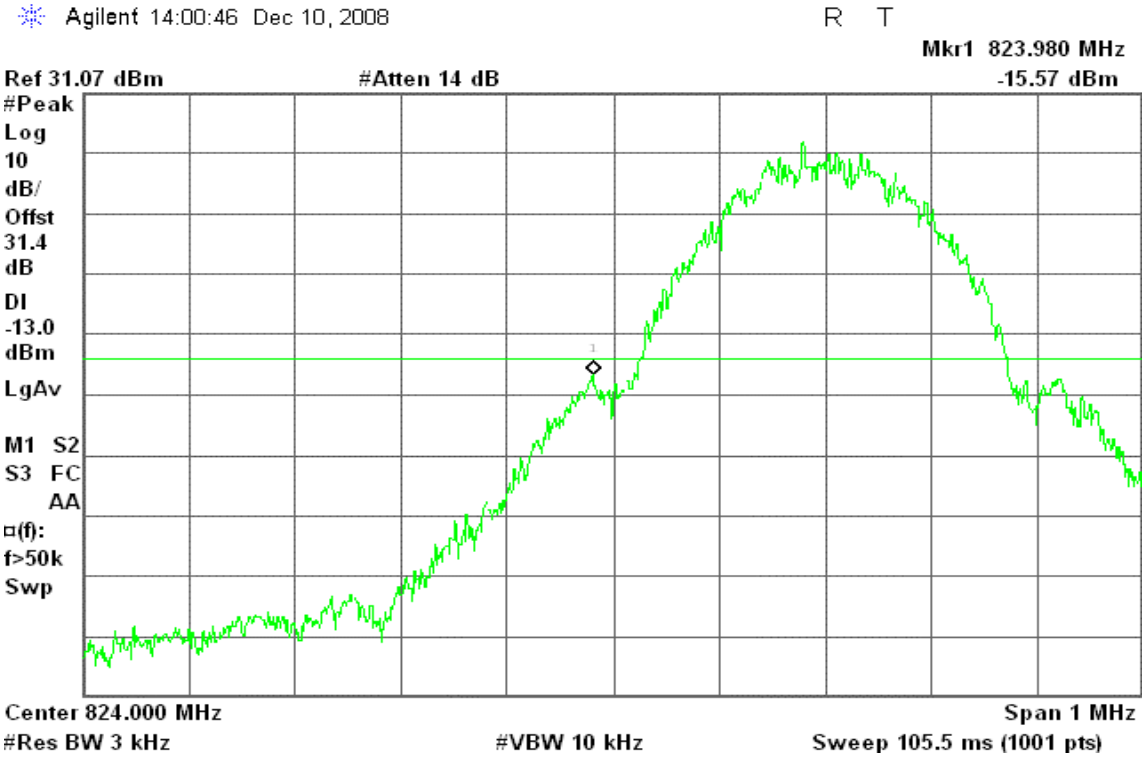
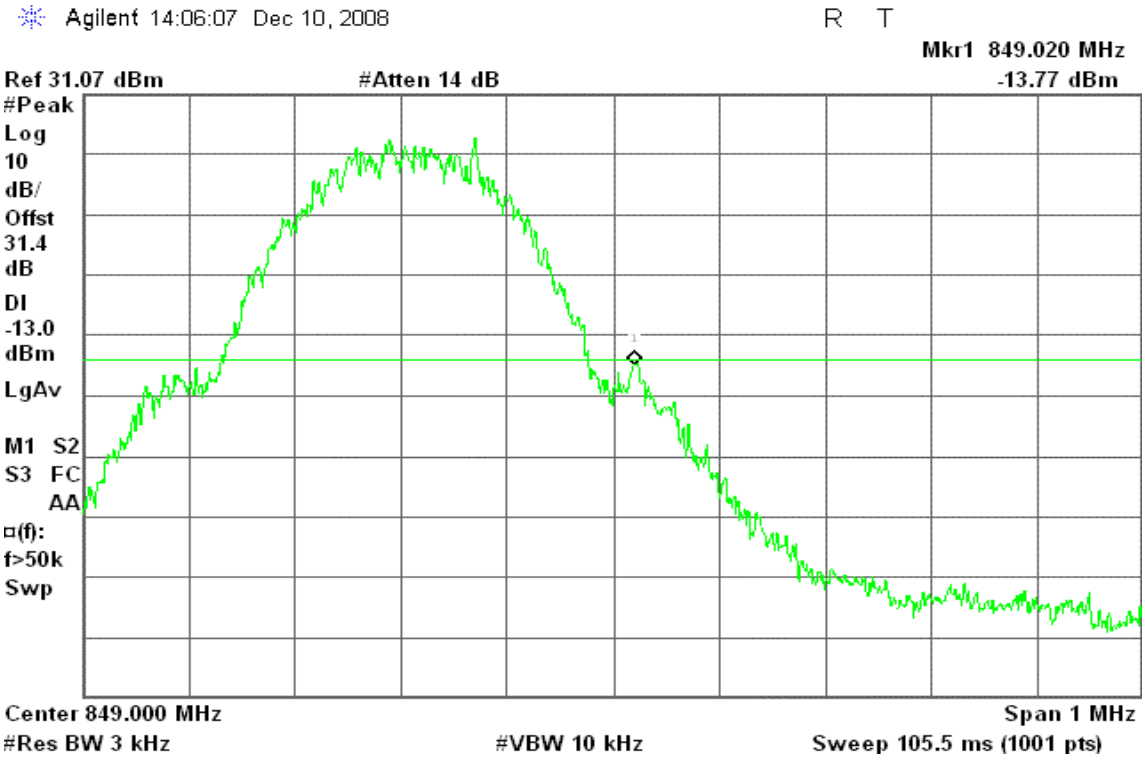


Figure 9-2: Band Edge emissions – GSM CH High



GPRS 850

Figure 9-3: Band Edge emissions – GPRS CH Low

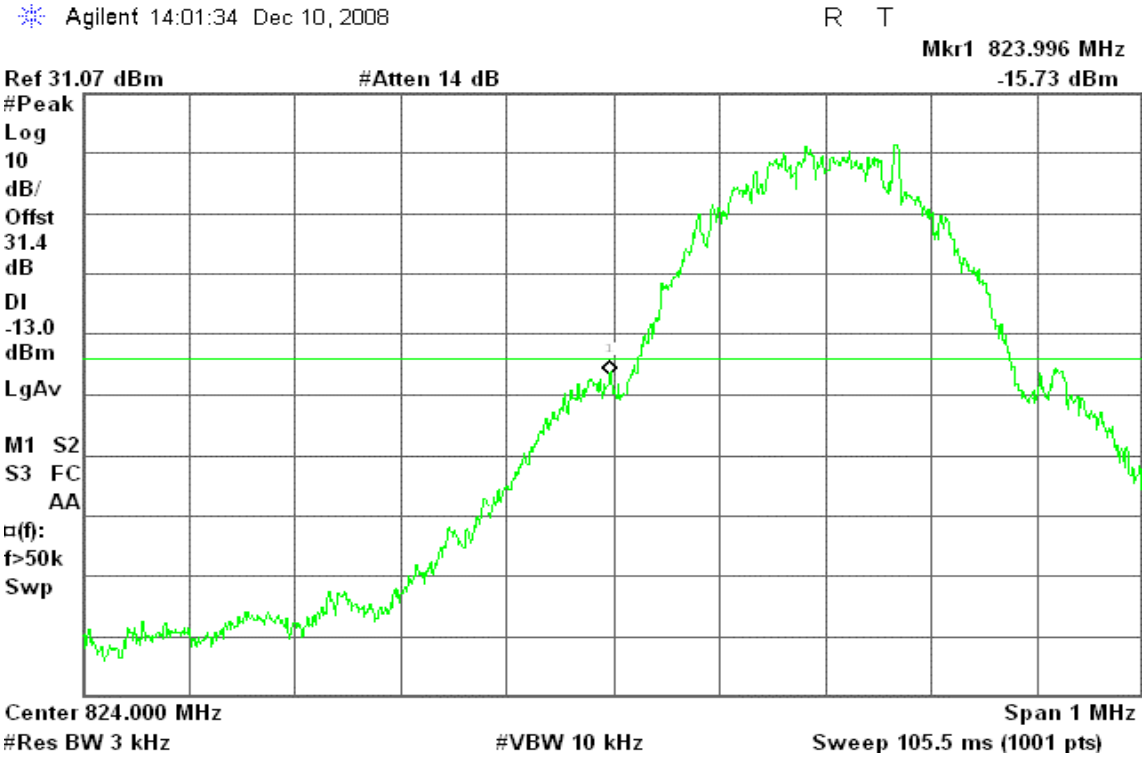
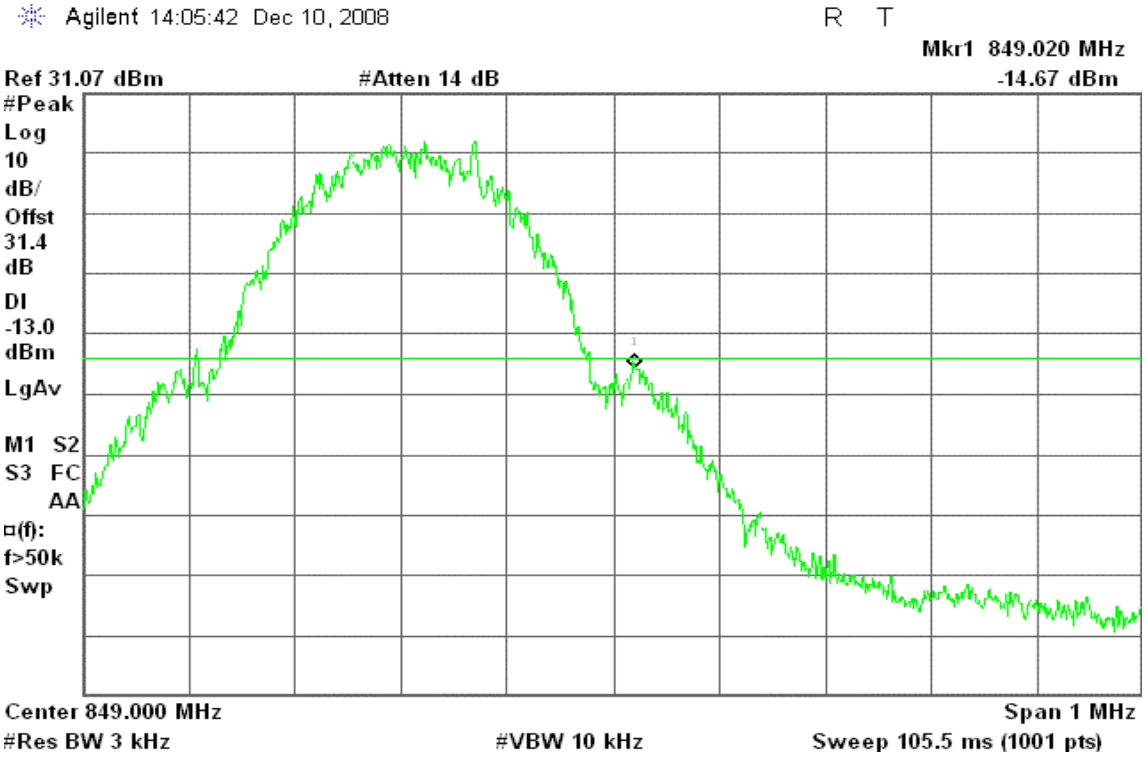


Figure 9-4: Band Edge emissions –GPRS CH High



GSM 1900

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

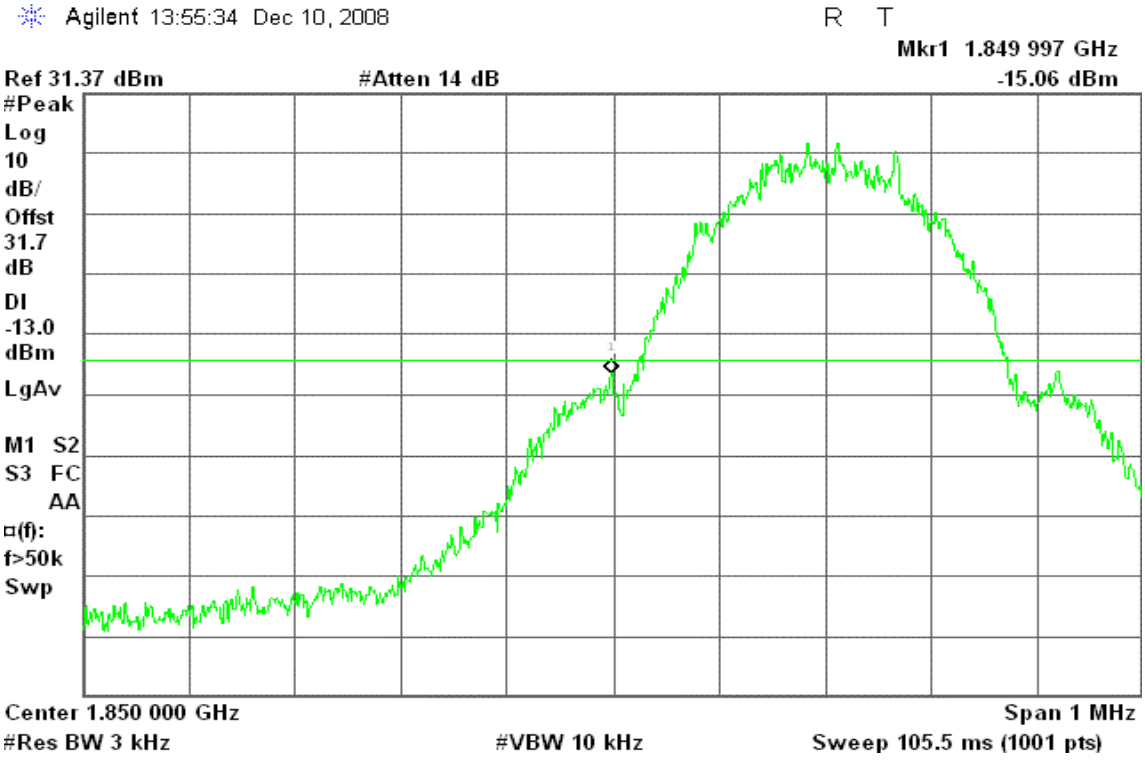
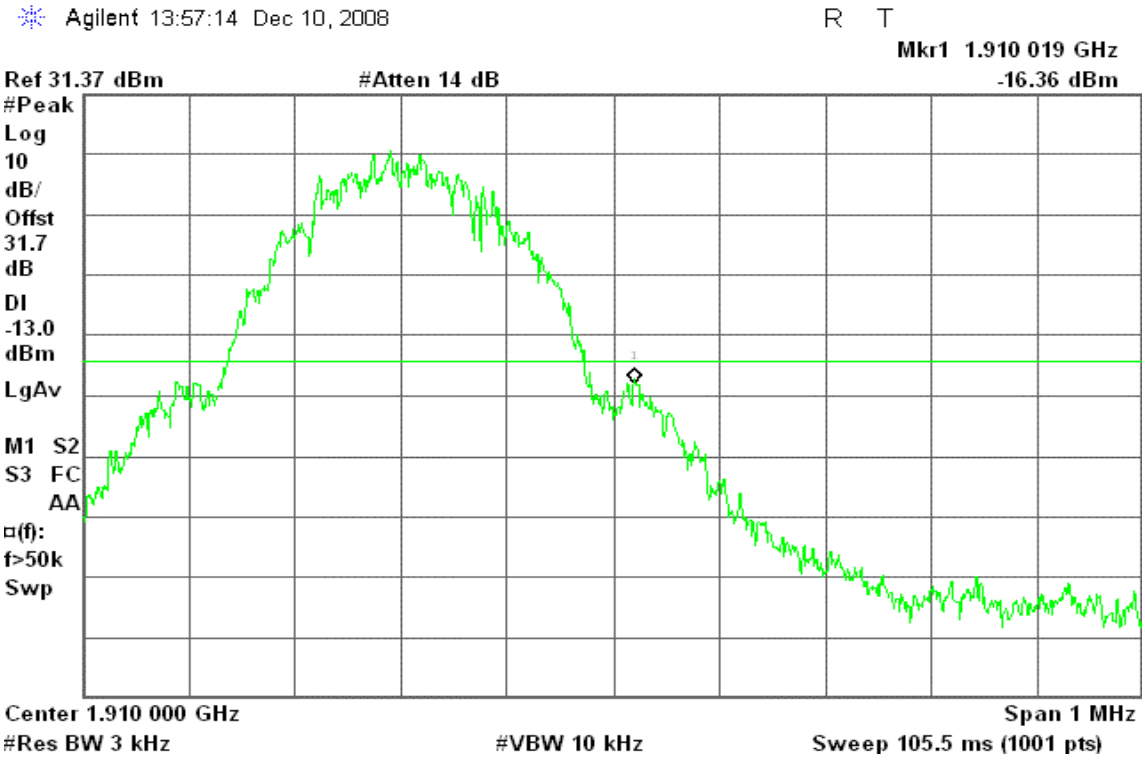


Figure 10-2: Band Edge emissions – GSM CH High



GPRS 1900

Figure 10-3: Band Edge emissions – GPRS CH Low

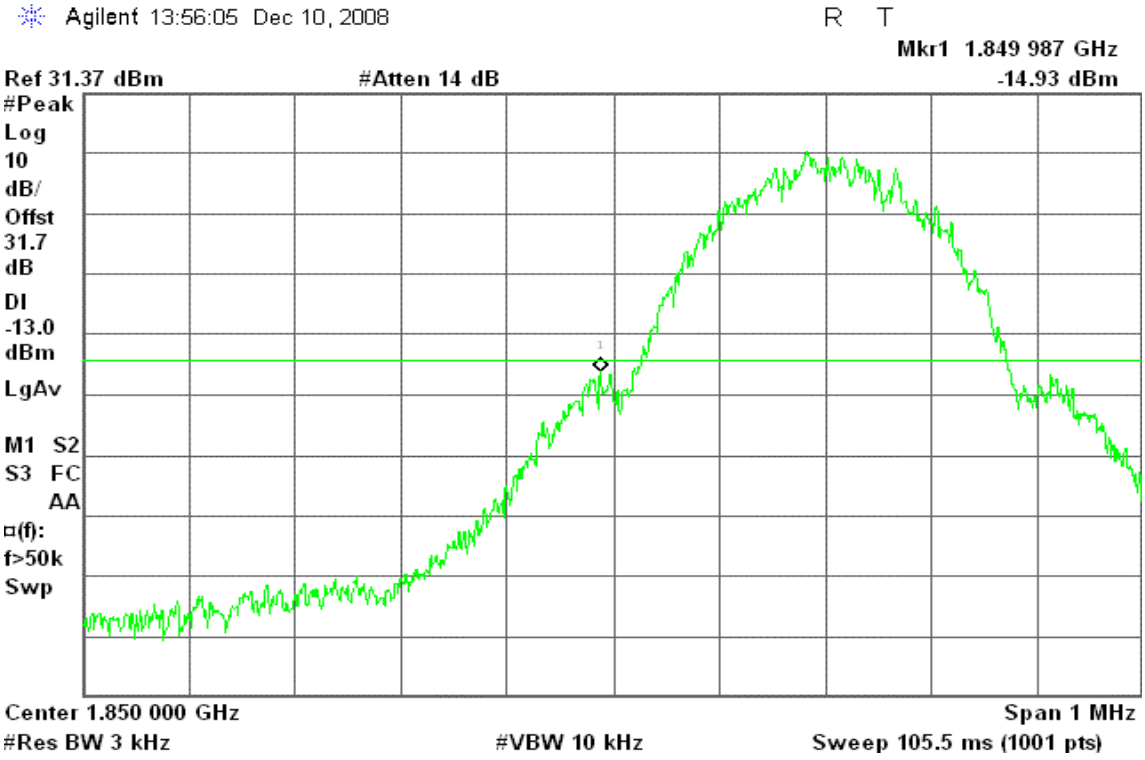
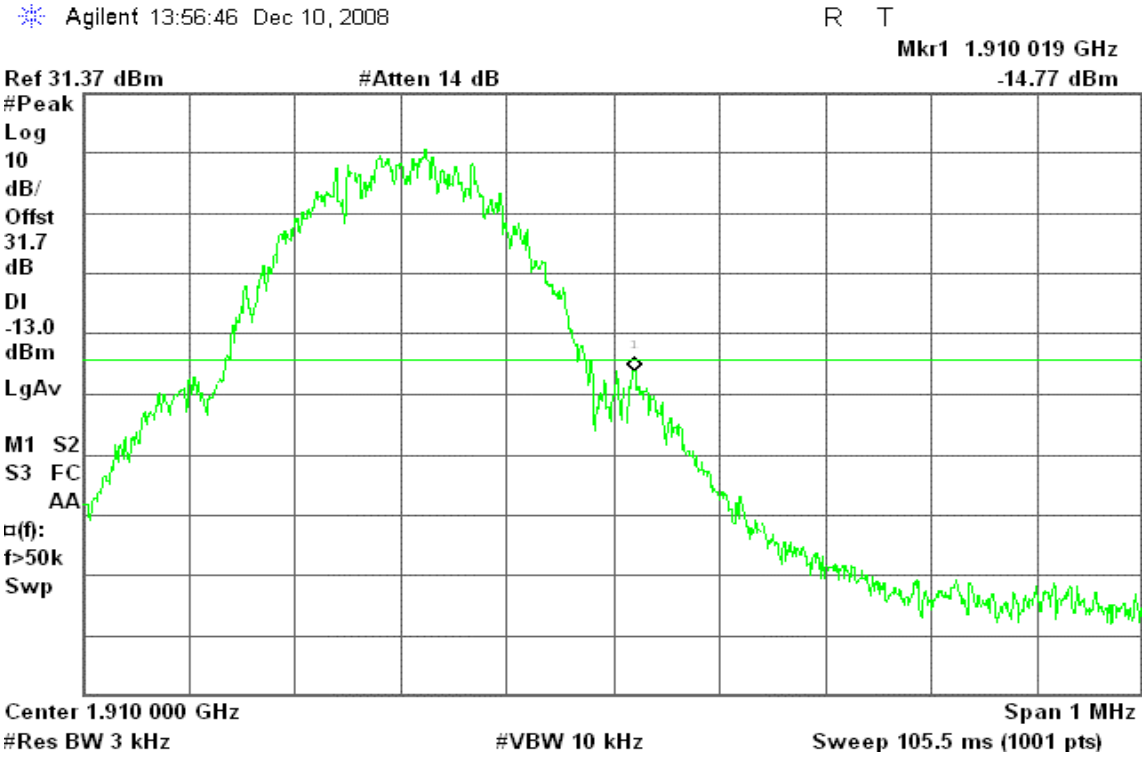


Figure 10-4: Band Edge emissions – GPRS CH High



EDGE 850

Figure 11-1: Out of Band emission at antenna terminals –EDGE CH Low

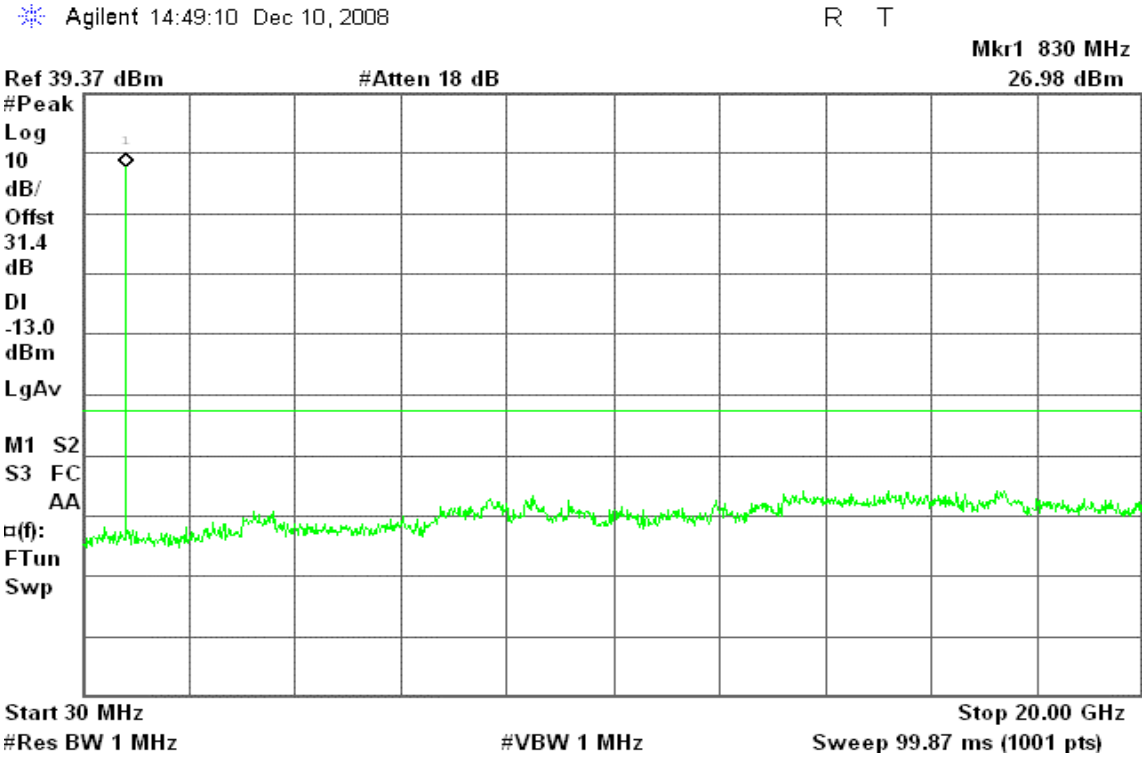


Figure 11-2: Out of Band emission at antenna terminals –EDGE CH Mid

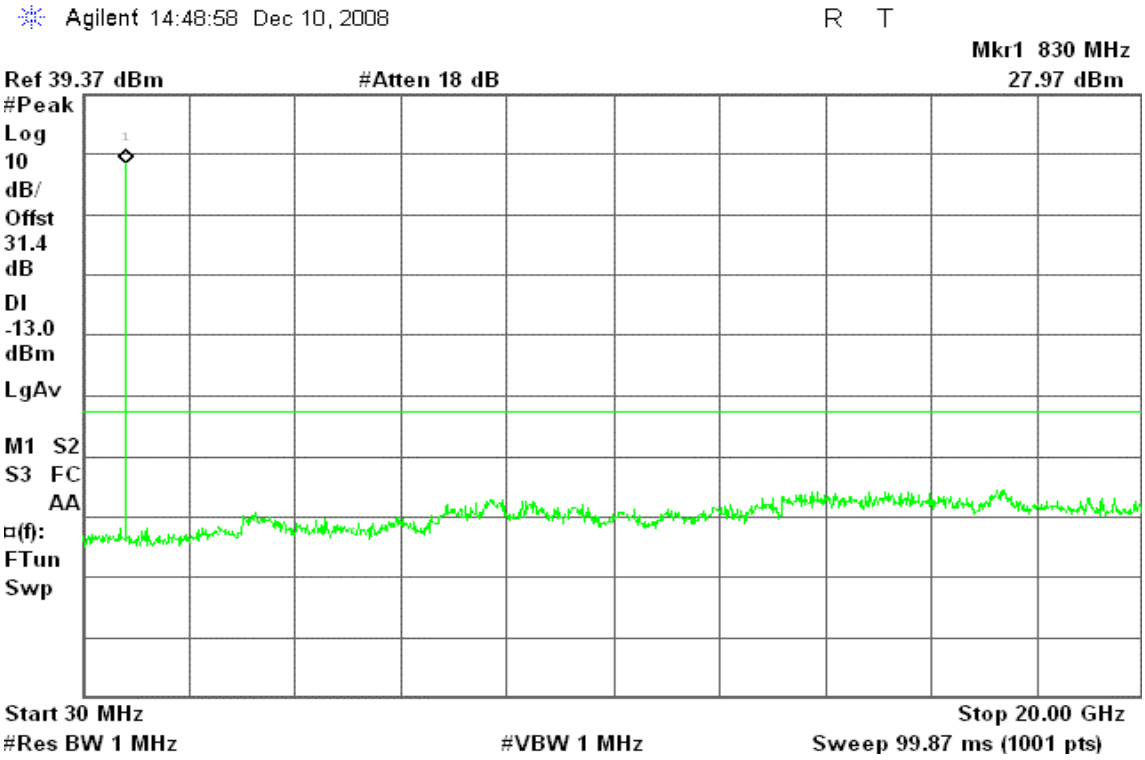
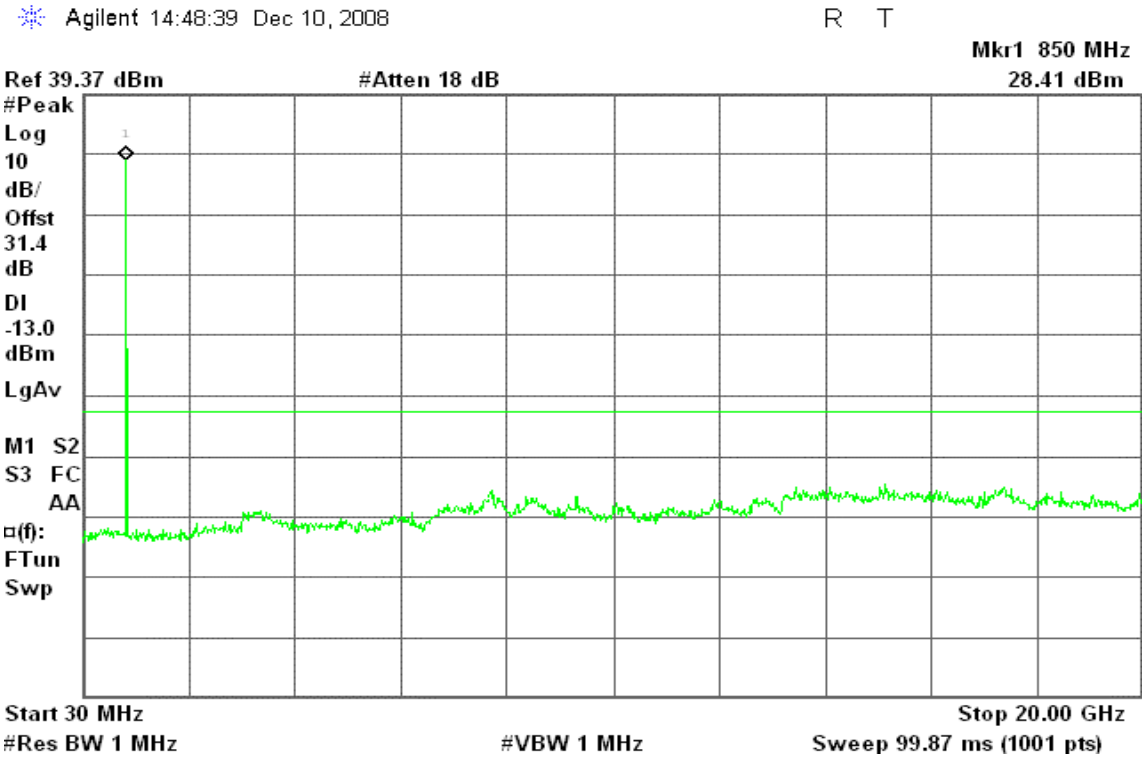


Figure 11-3: Out of Band emission at antenna terminals –EDGE CH High



EDGE 1900

Figure 11-4: Out of Band emission at antenna terminals –EDGE CH Low

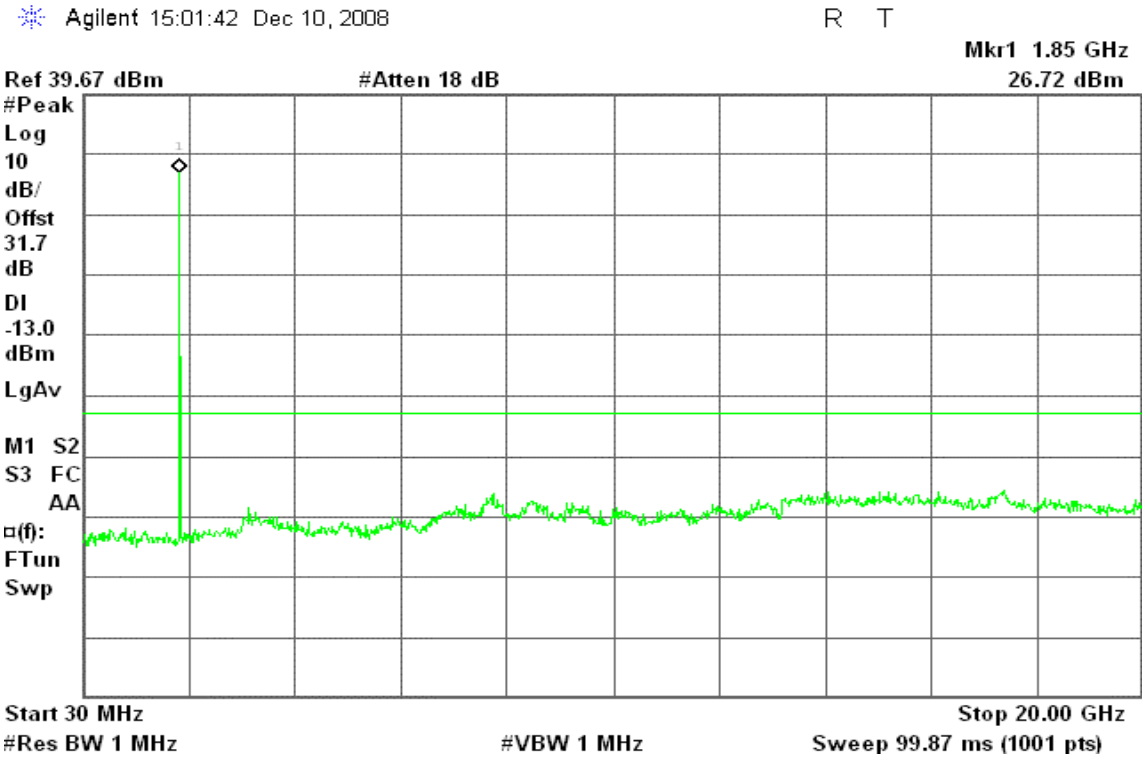


Figure 11-5: Out of Band emission at antenna terminals –EDGE CH Mid

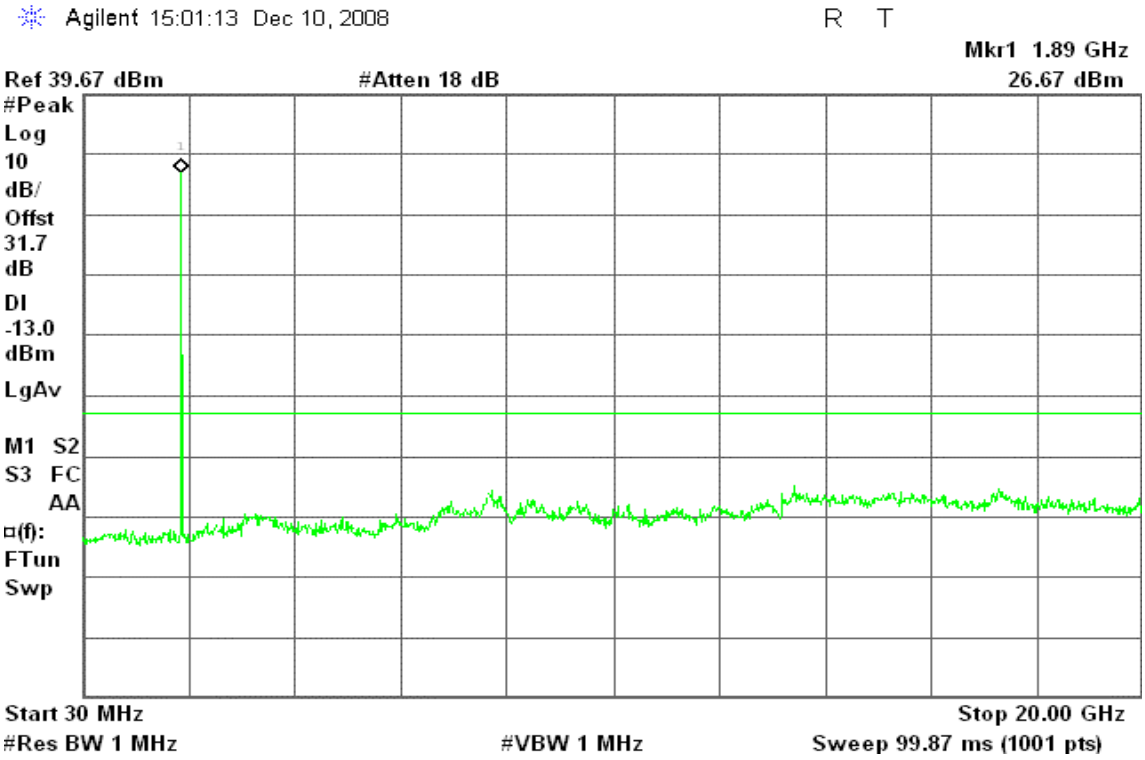
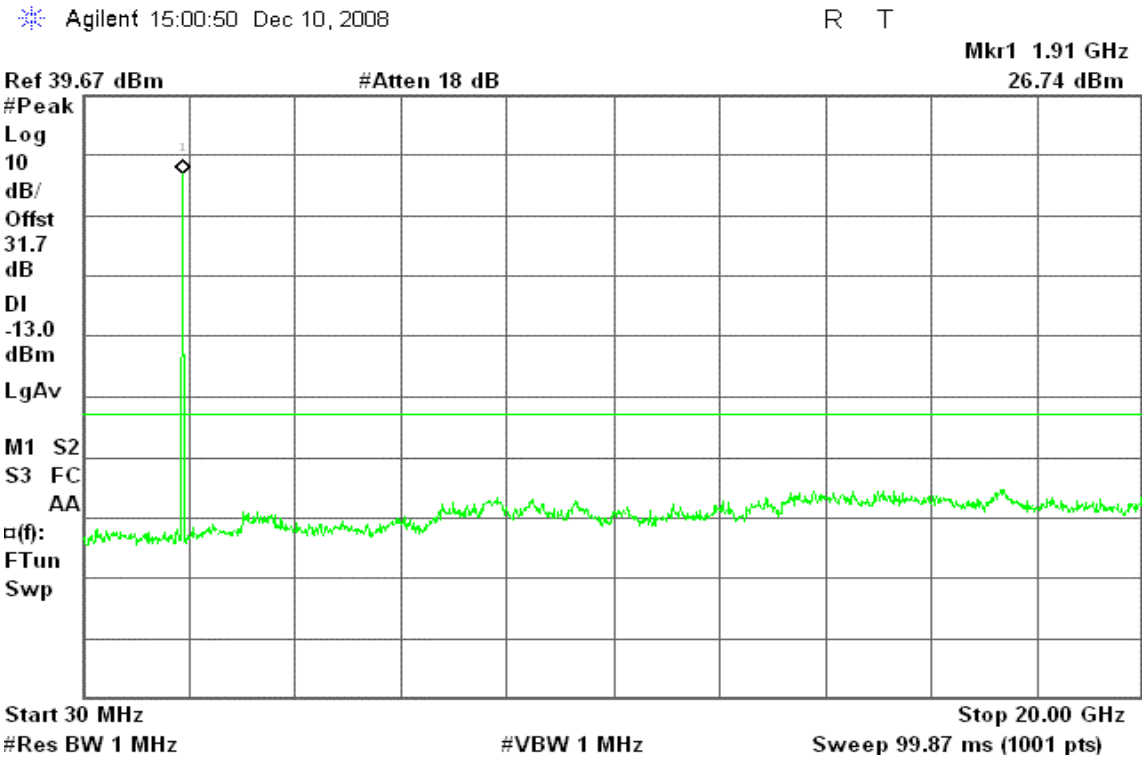


Figure 11-6: Out of Band emission at antenna terminals –EDGE CH High



EDGE 850

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

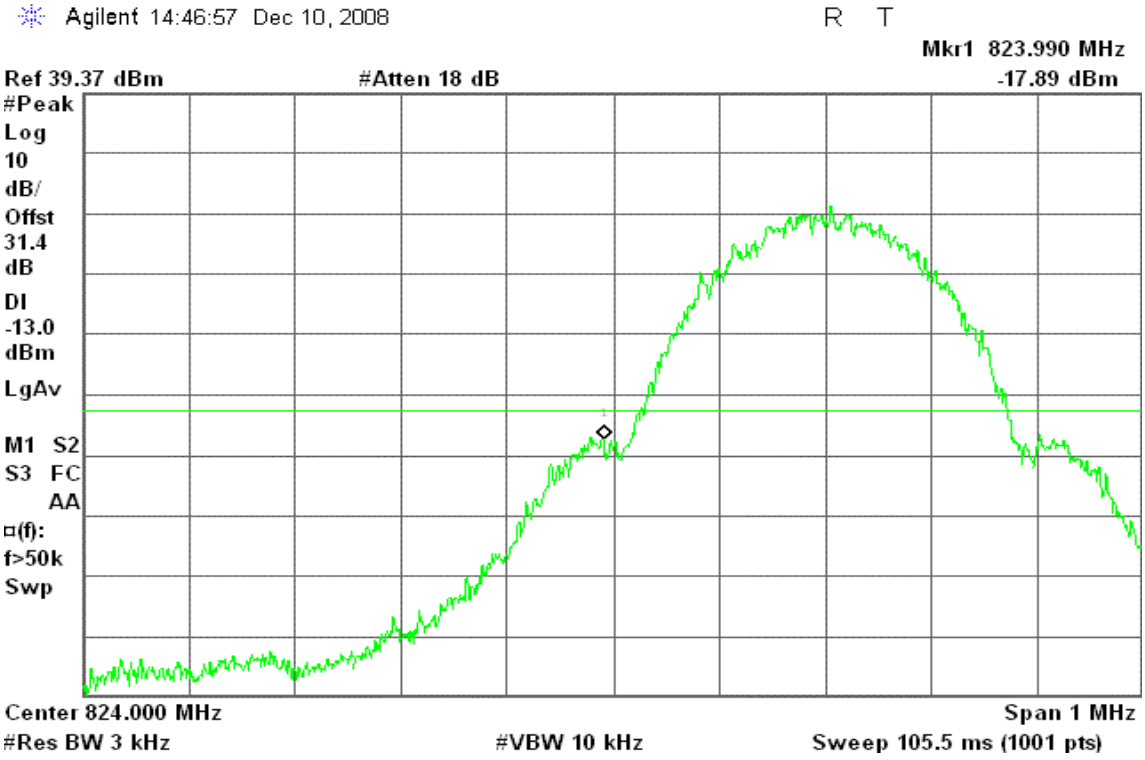
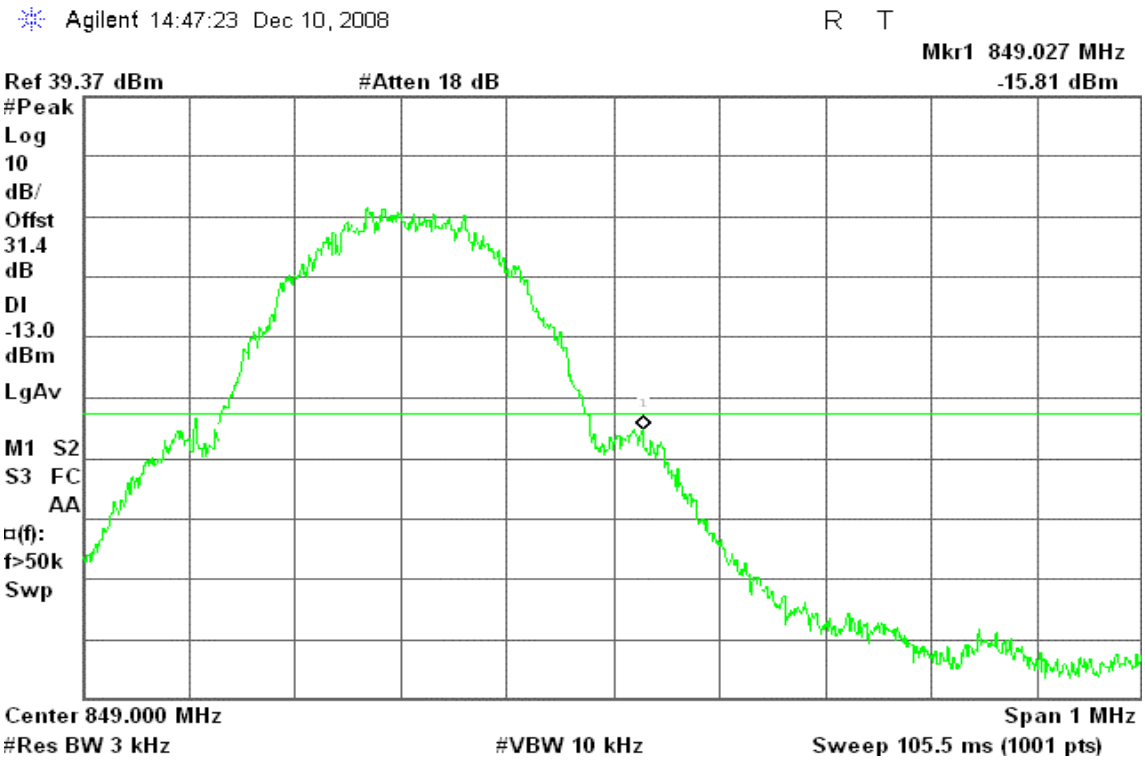


Figure 12-2: Band Edge emissions – EDGE CH High



EDGE 1900

Figure 12-3: Band Edge emissions – EDGE CH Low

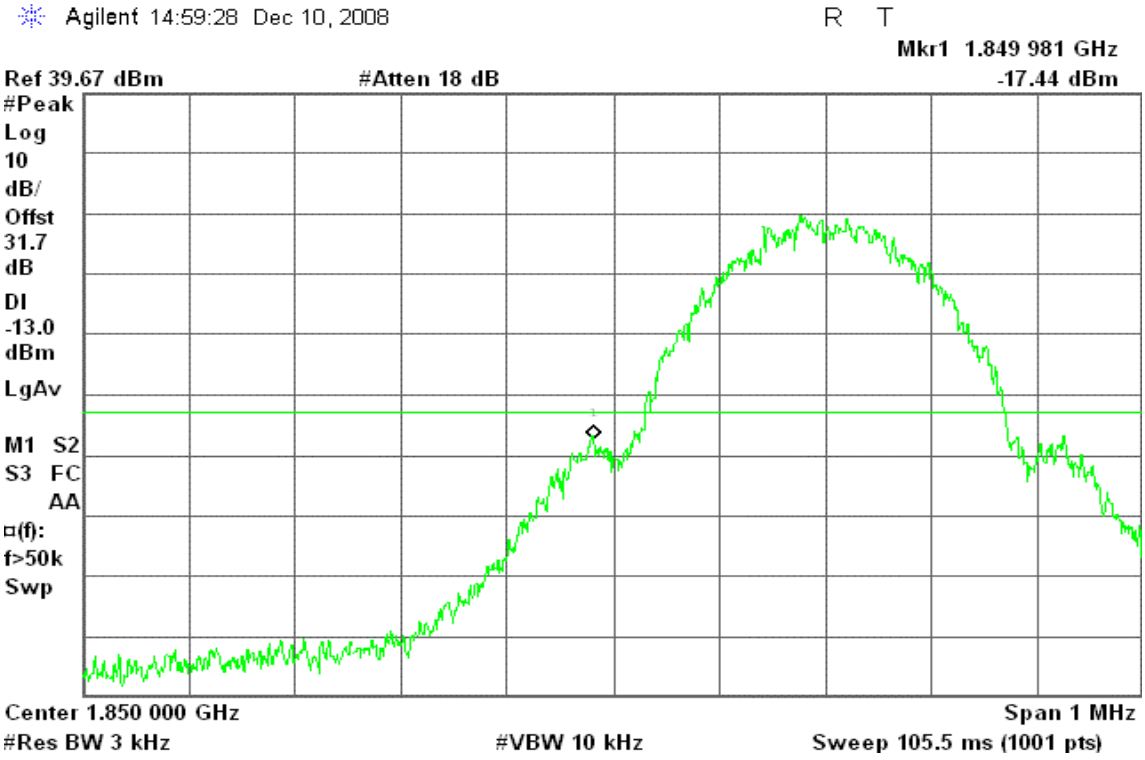
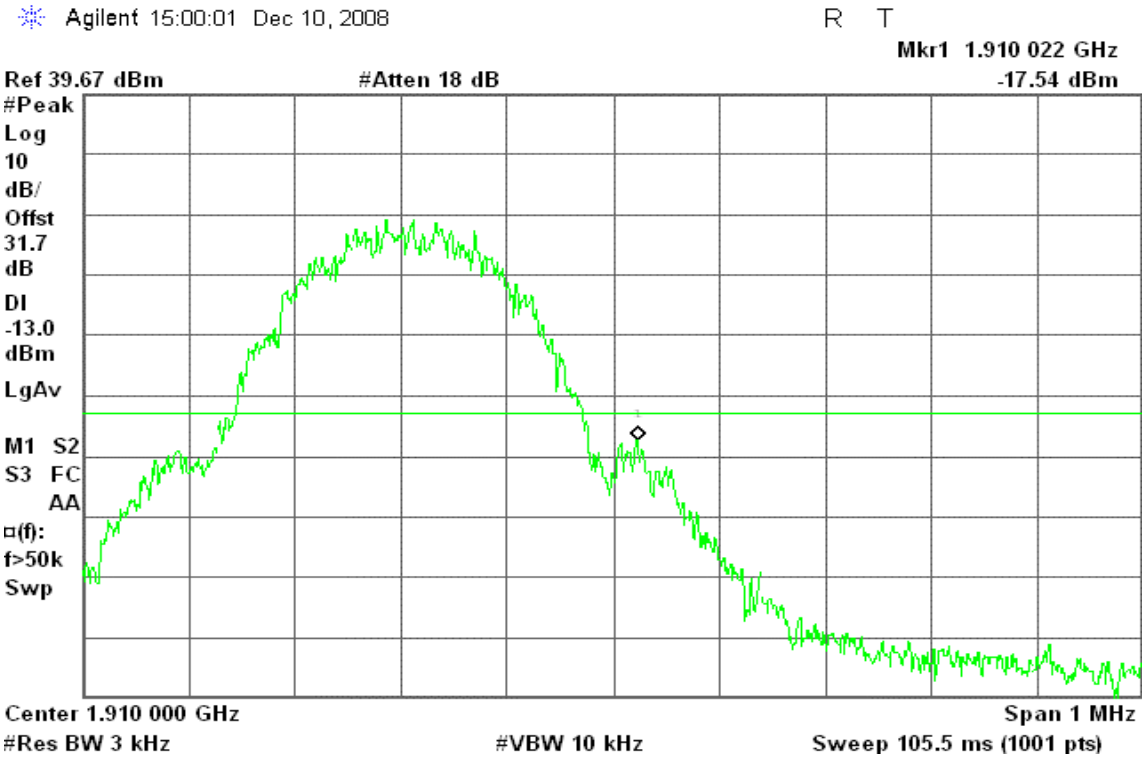


Figure 12-4: Band Edge emissions – EDGE CH High



WCDMA Band II

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

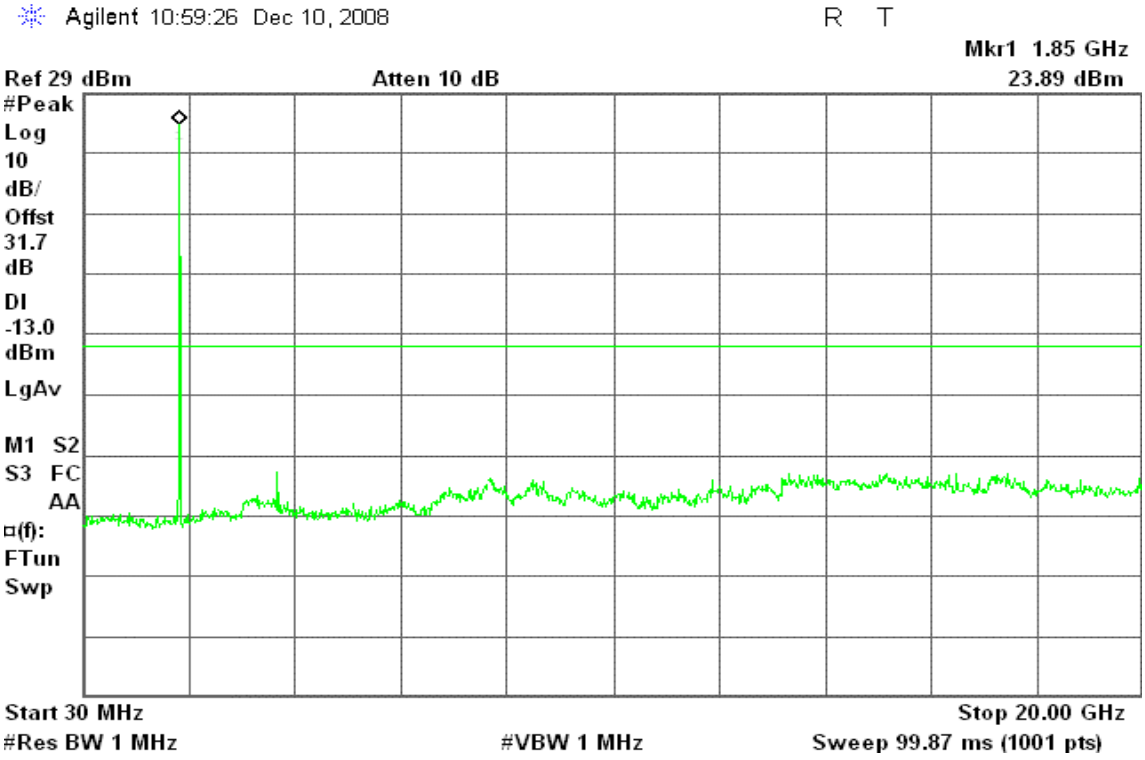


Figure 13-2: Out of Band emission at antenna terminals – WCDMA CH Mid

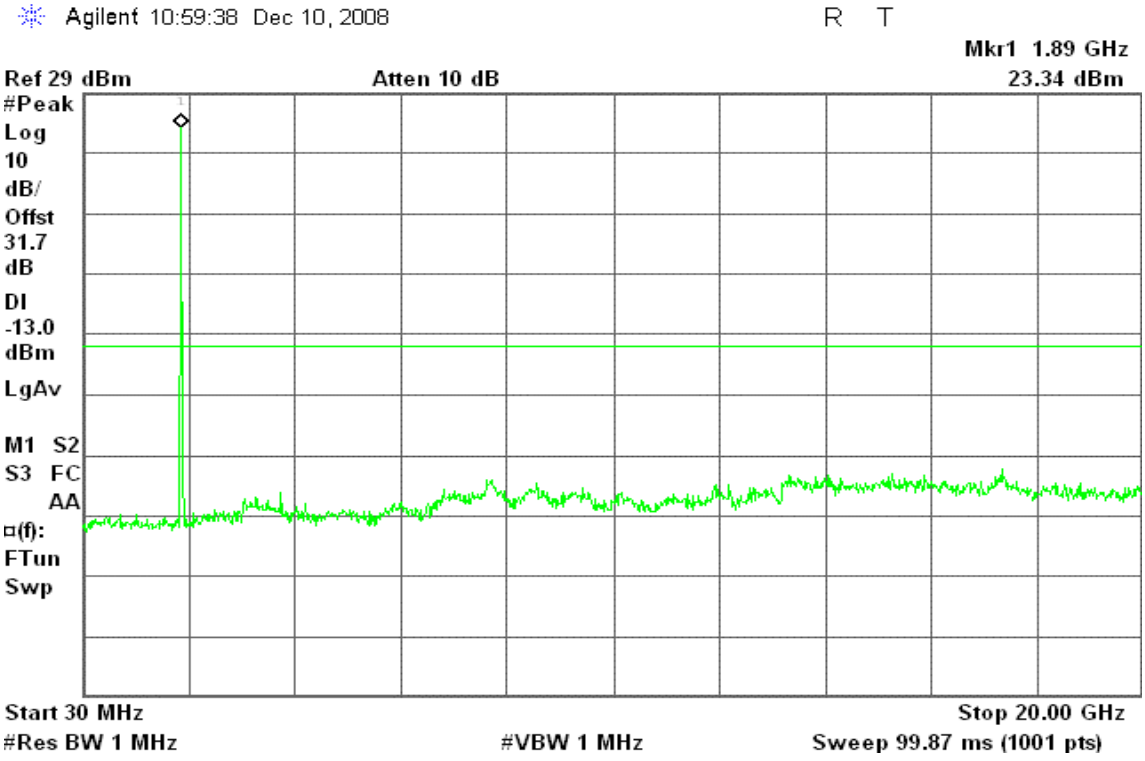
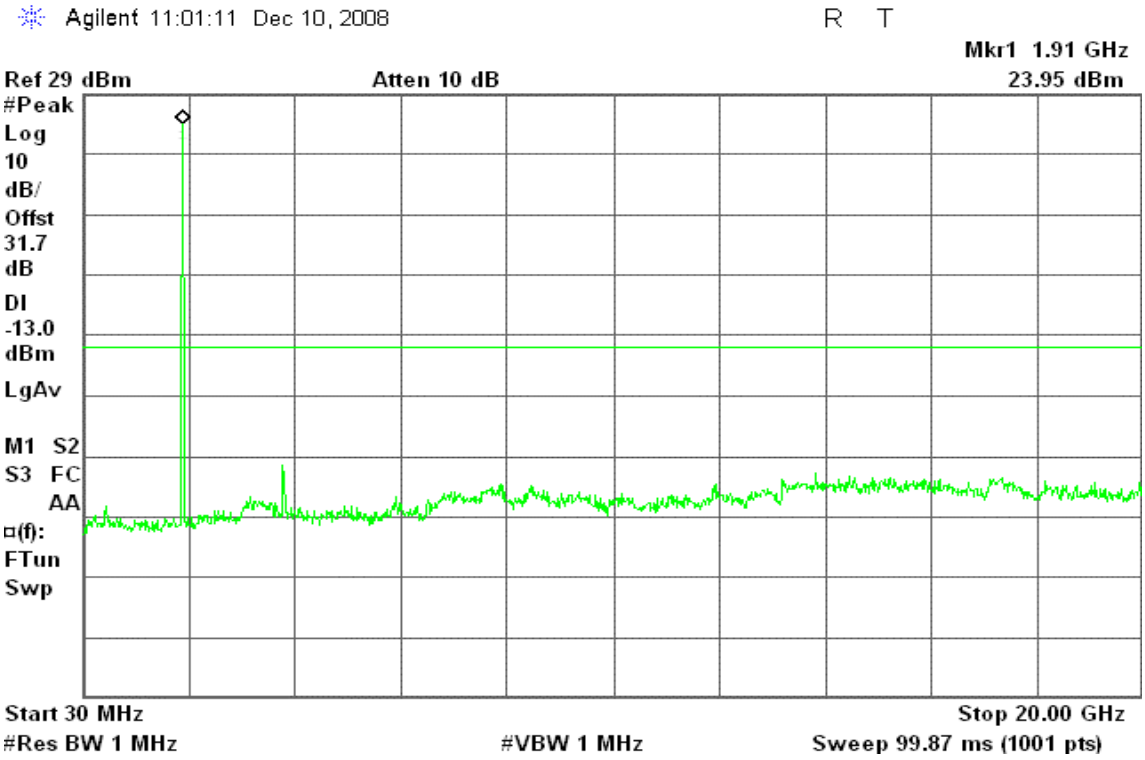


Figure 13-3: Out of Band emission at antenna terminals – WCDMA CH High



WCDMA Band V

Figure 13-4: Out of Band emission at antenna terminals – WCDMA CH Low

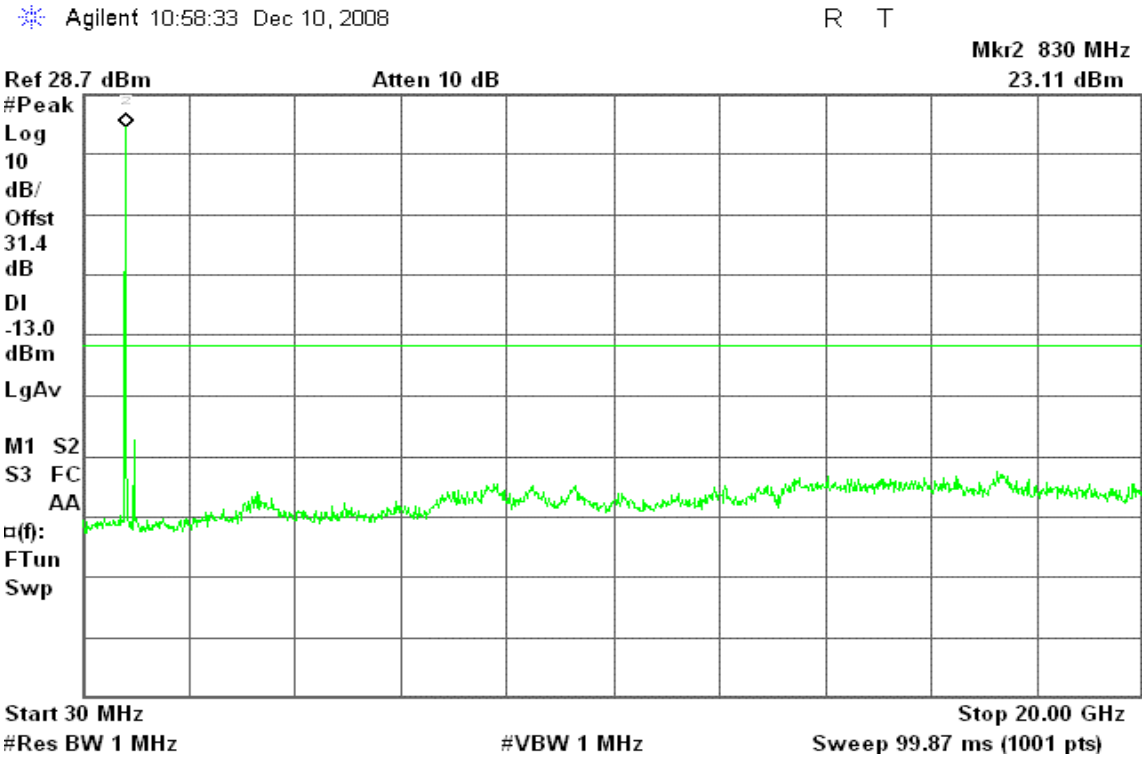


Figure 13-5: Out of Band emission at antenna terminals – WCDMA CH Mid

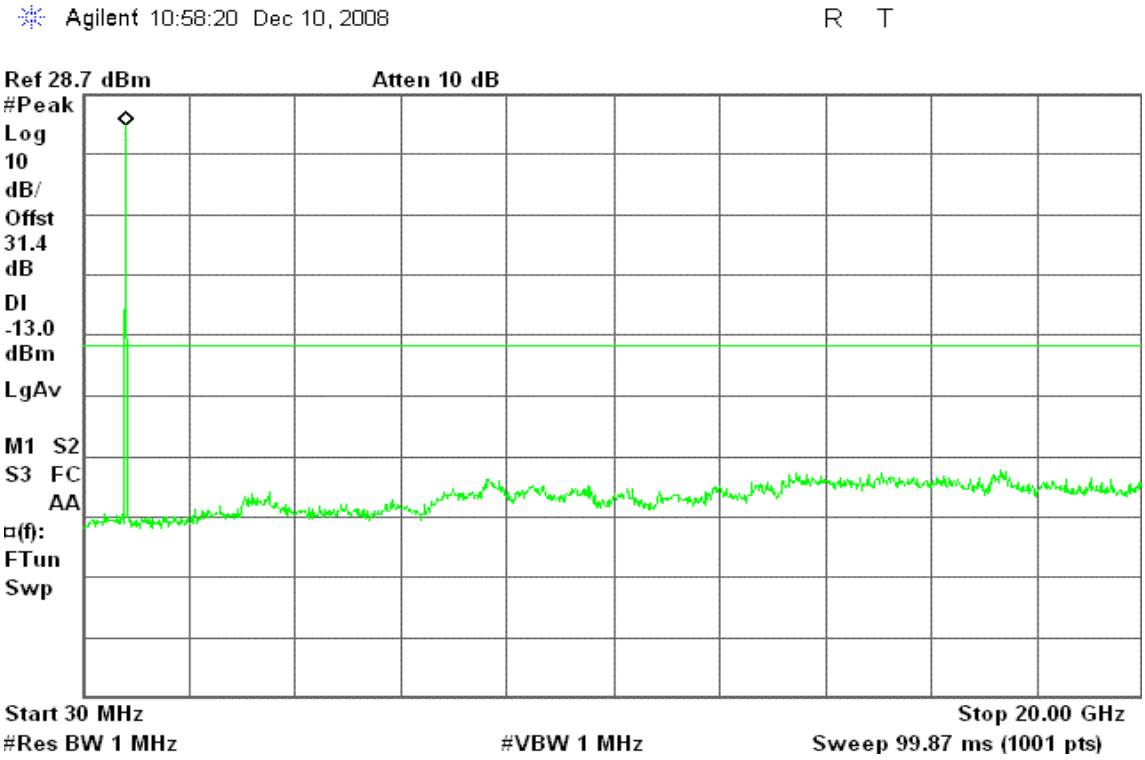
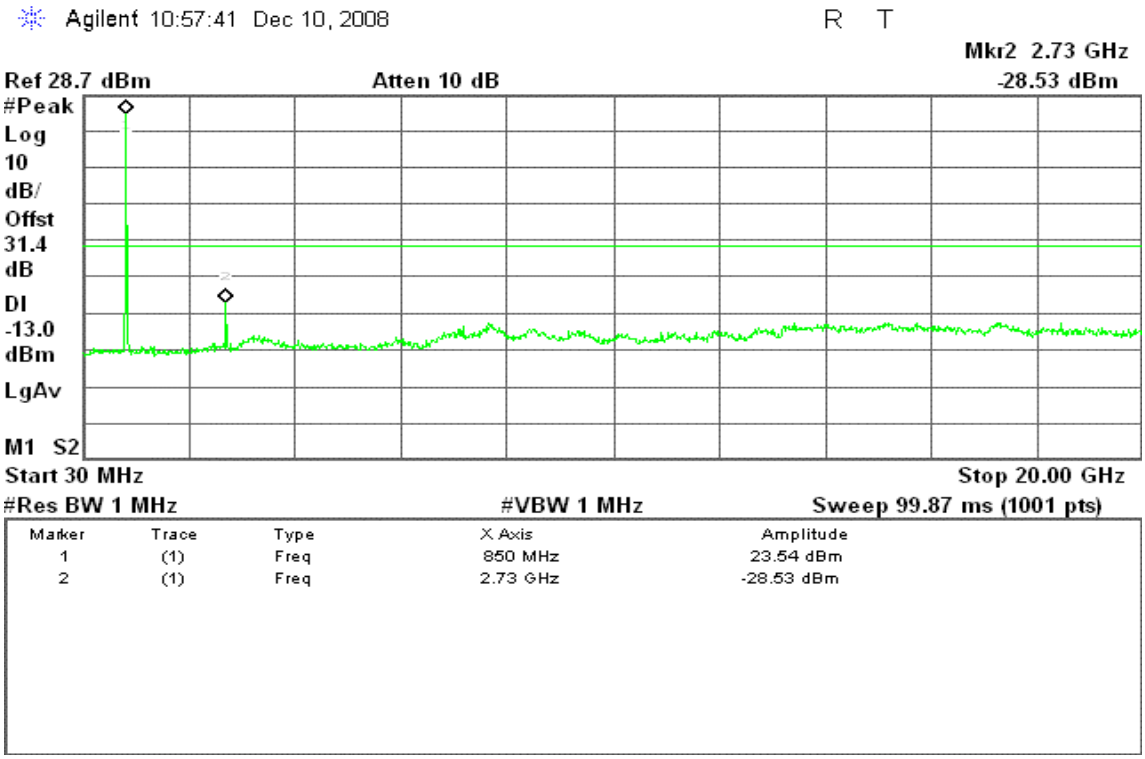


Figure 13-6: Out of Band emission at antenna terminals – WCDMA CH High



WCDMA Band II

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

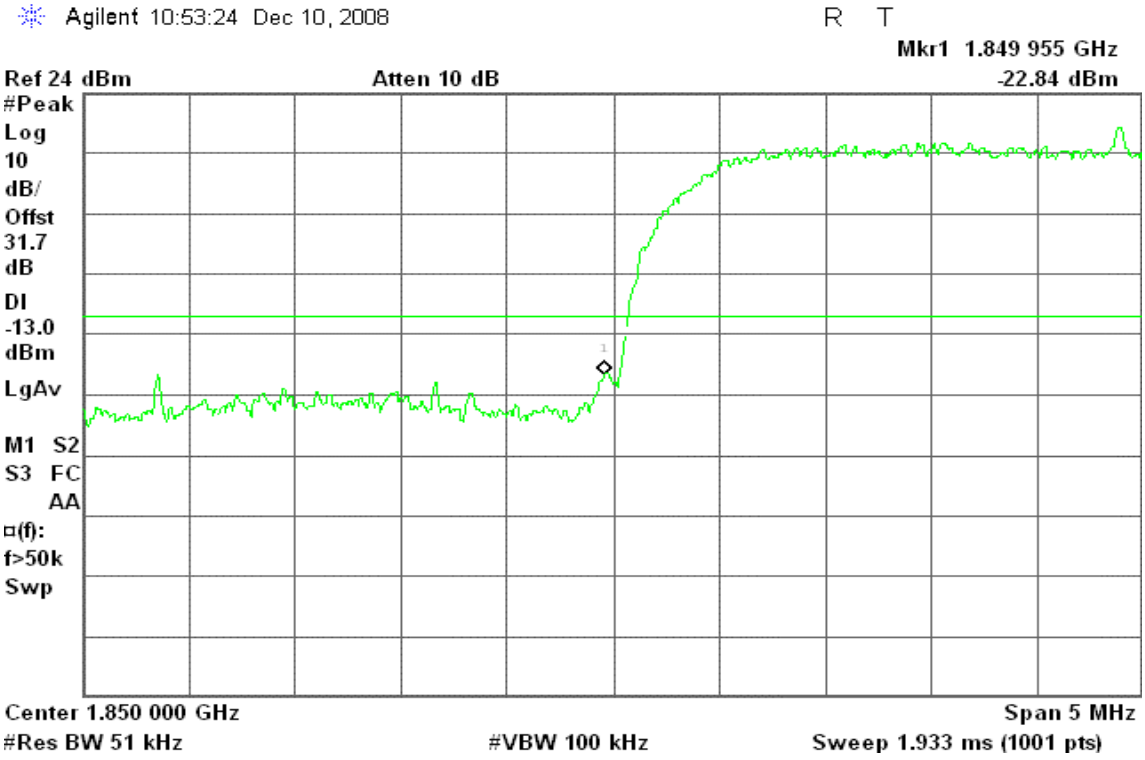
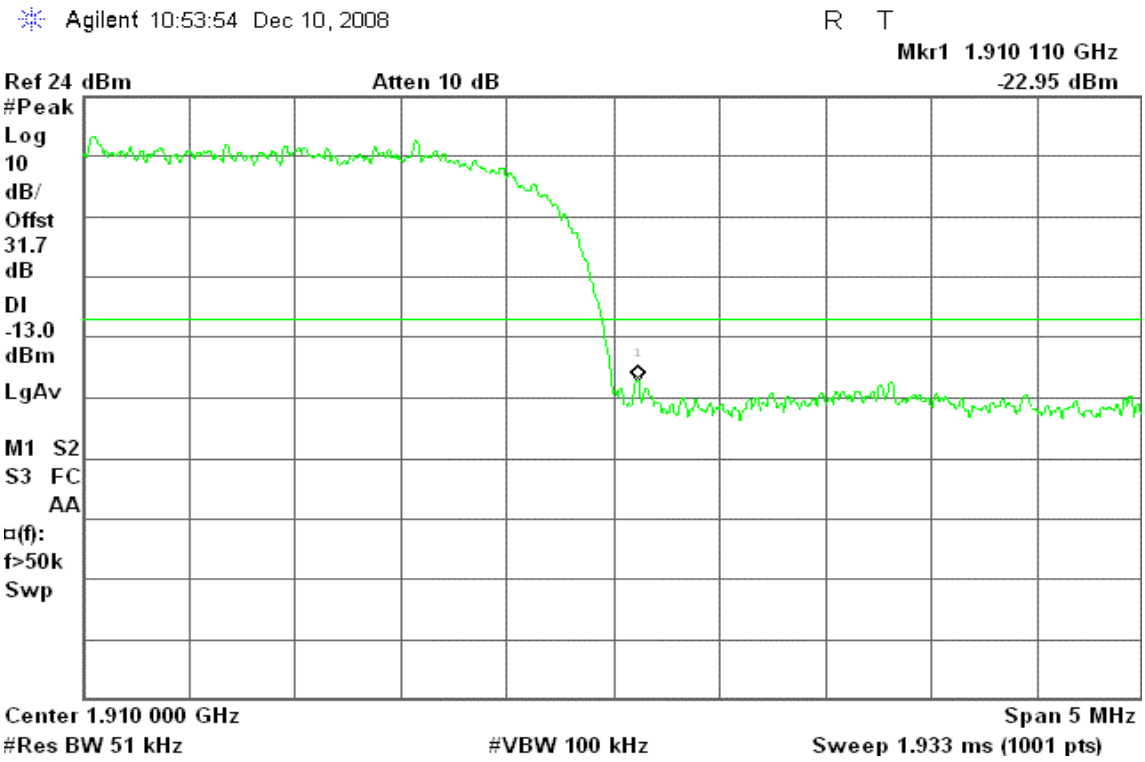


Figure 14-2: Band Edge emissions –WCDMA CH High



WCDMA Band V

Figure 14-3: Band Edge emissions –WCDMA CH Low

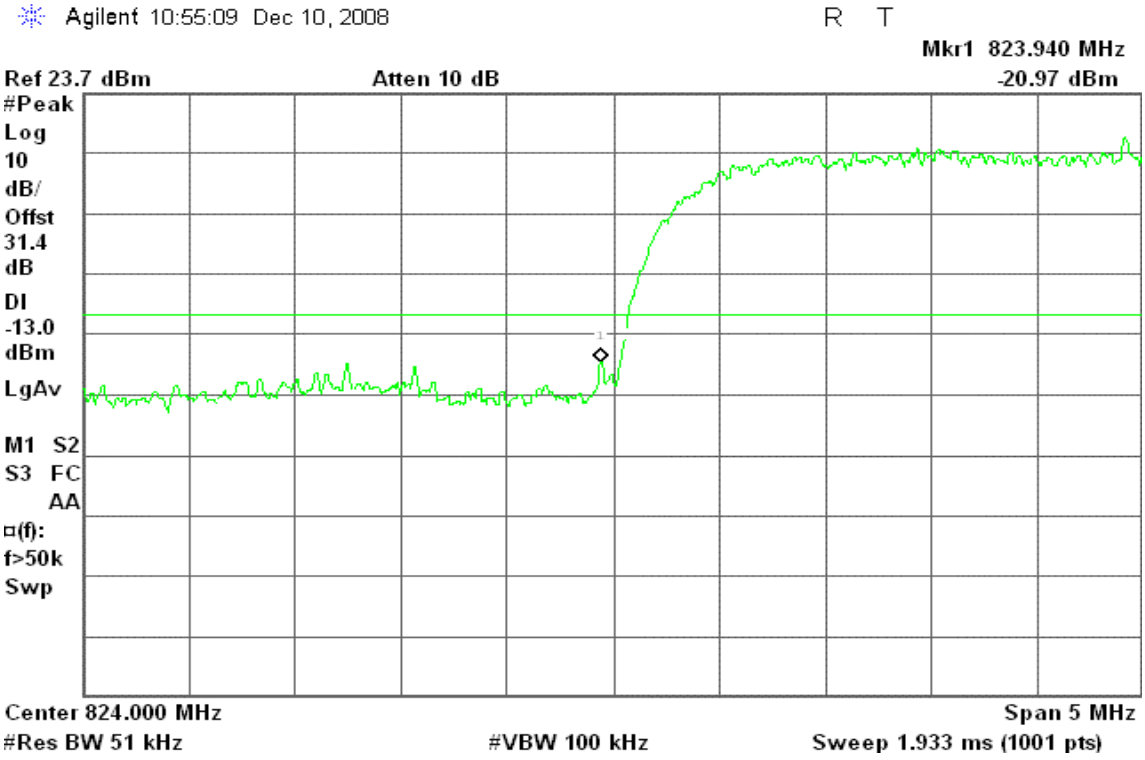
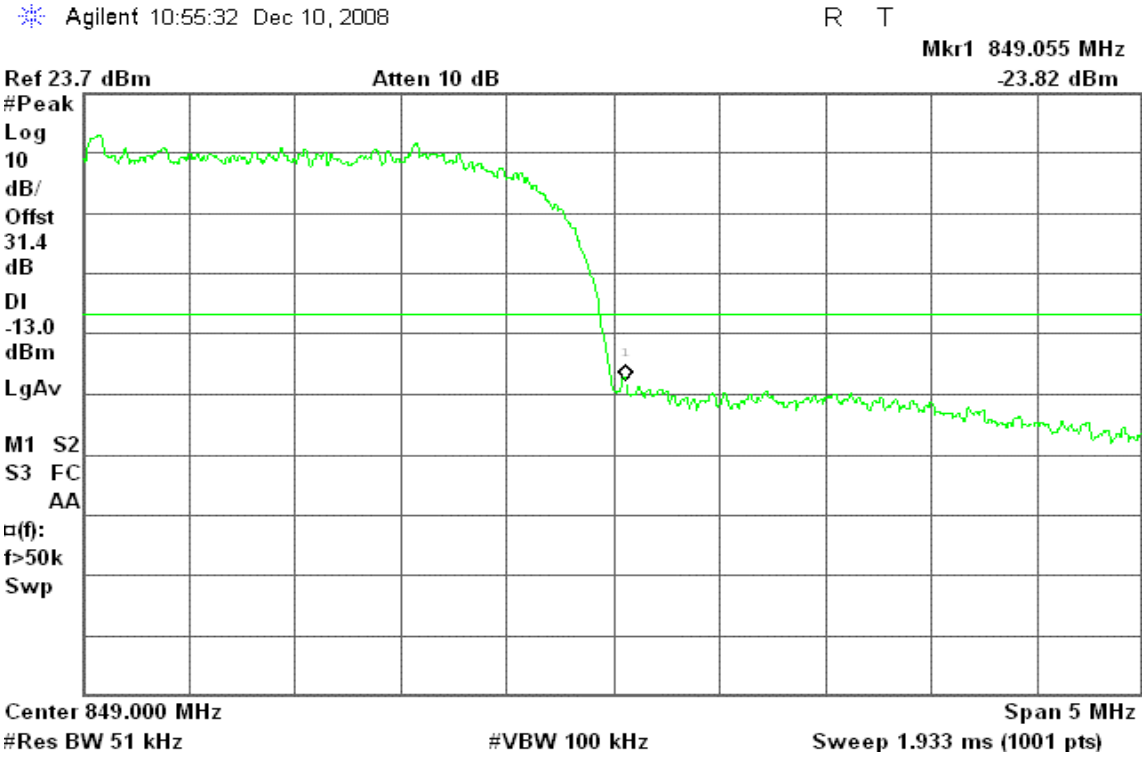


Figure 14-4: Band Edge emissions –WCDMA CH High



WCDMA / HSDPA Band II

Figure 15-1: Out of Band emission at antenna terminals –HSDPA CH Low

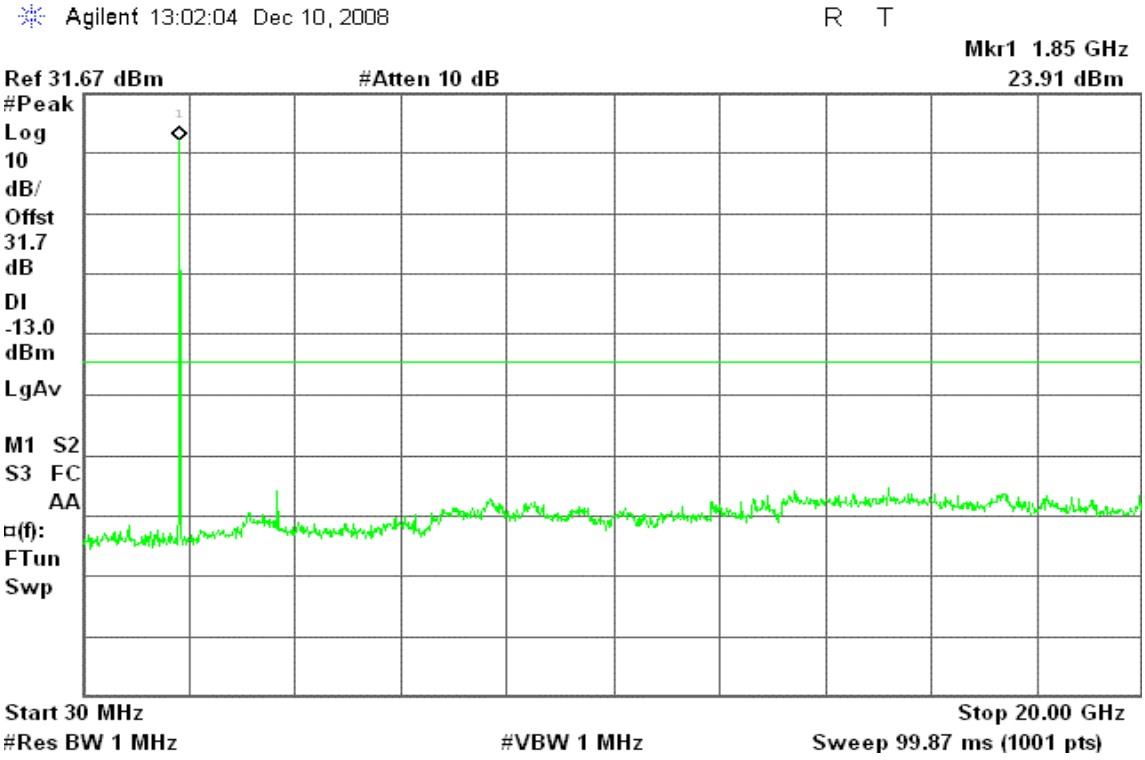


Figure 15-2: Out of Band emission at antenna terminals –HSDPA CH Mid

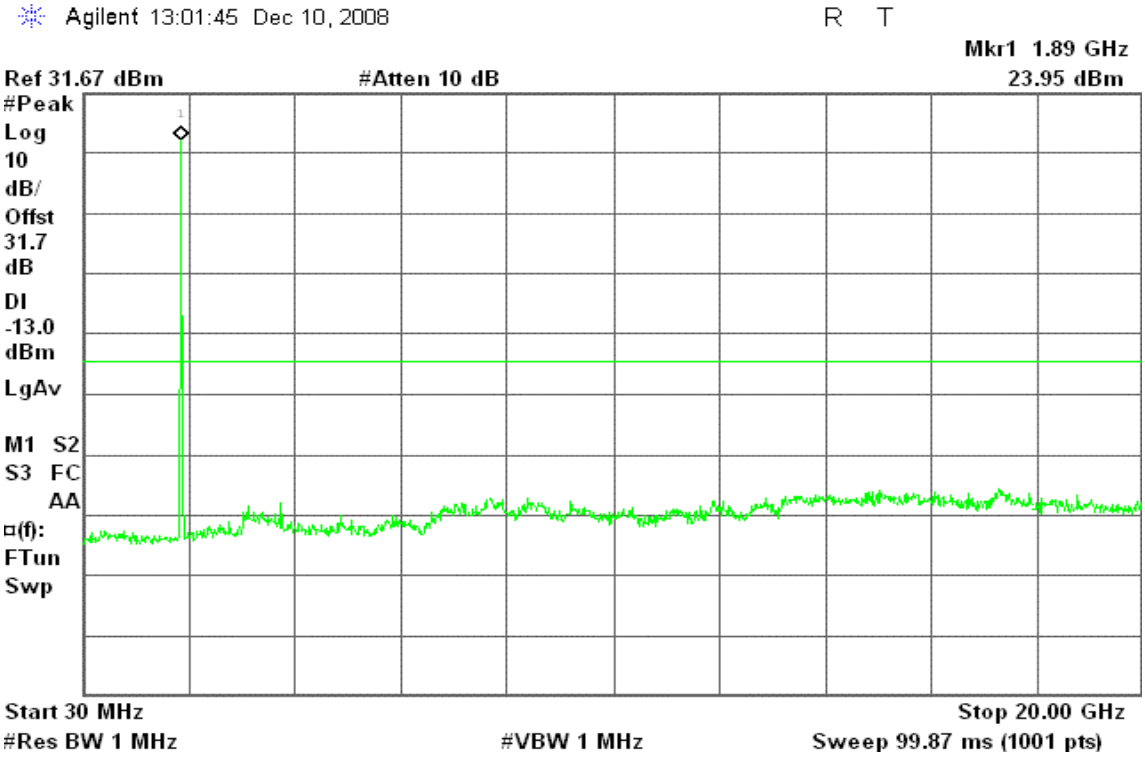
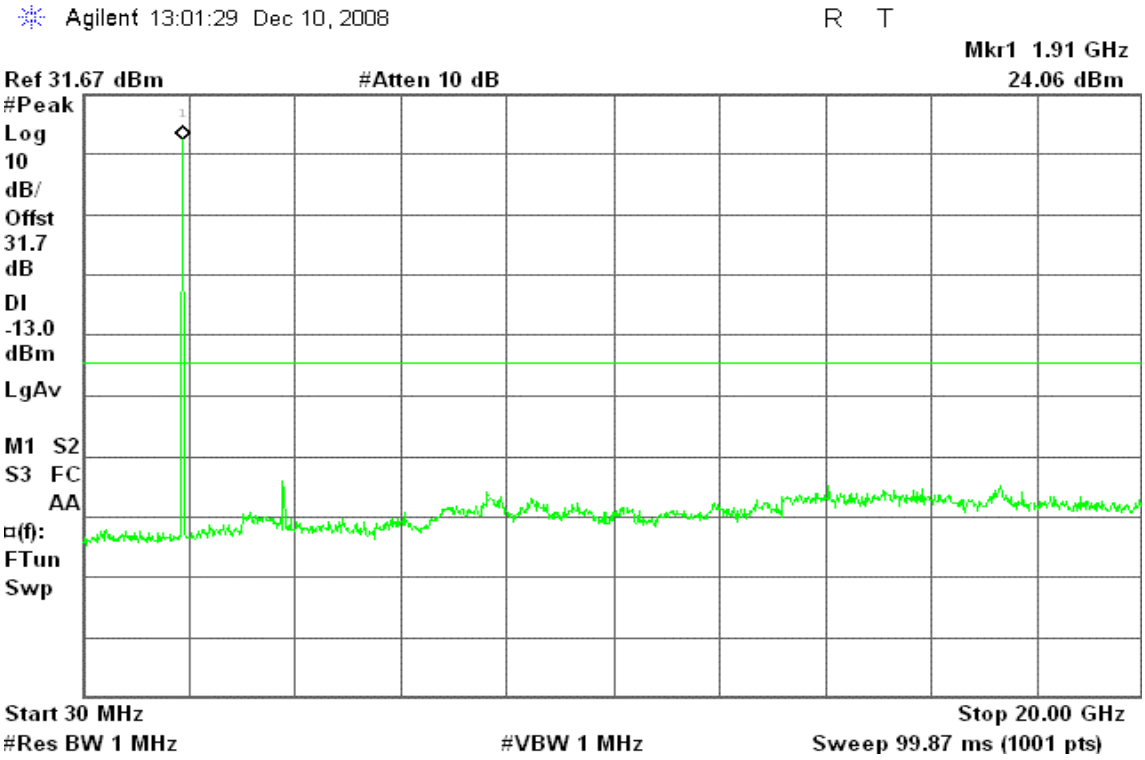


Figure 15-3: Out of Band emission at antenna terminals –HSDPA CH High



WCDMA / HSDPA Band V

Figure 15-4: Out of Band emission at antenna terminals –HSDPA CH Low

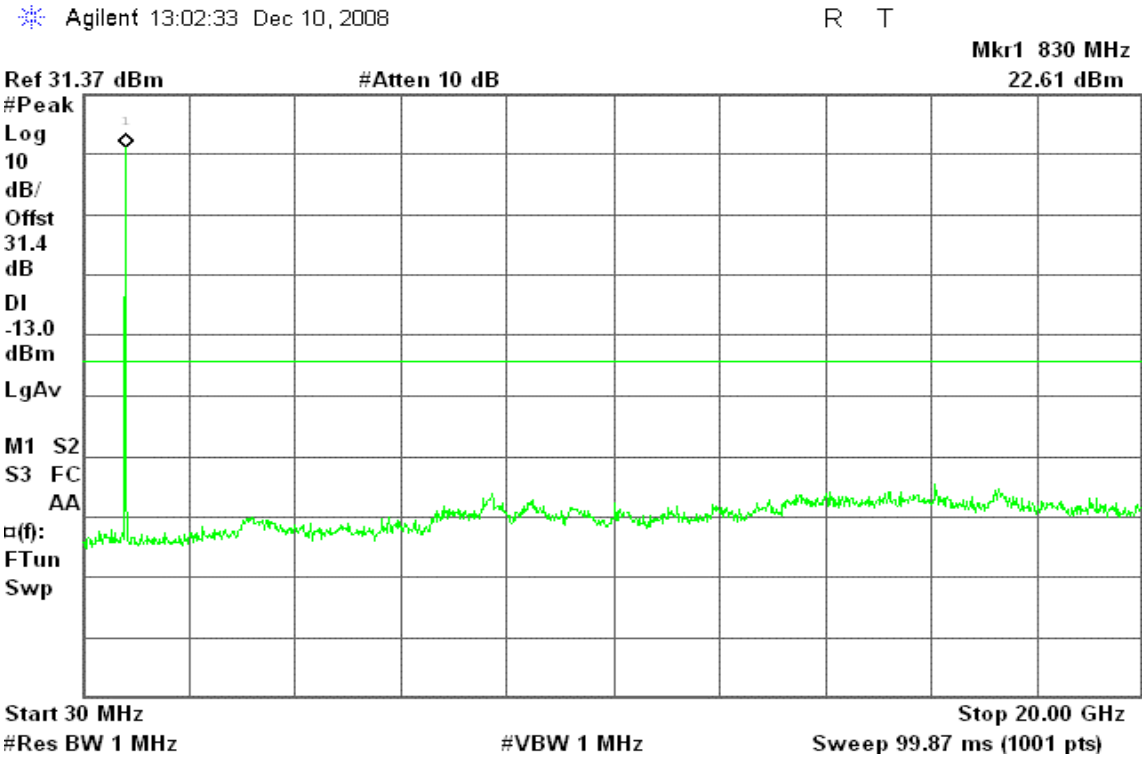


Figure 15-5: Out of Band emission at antenna terminals –HSDPA CH Mid

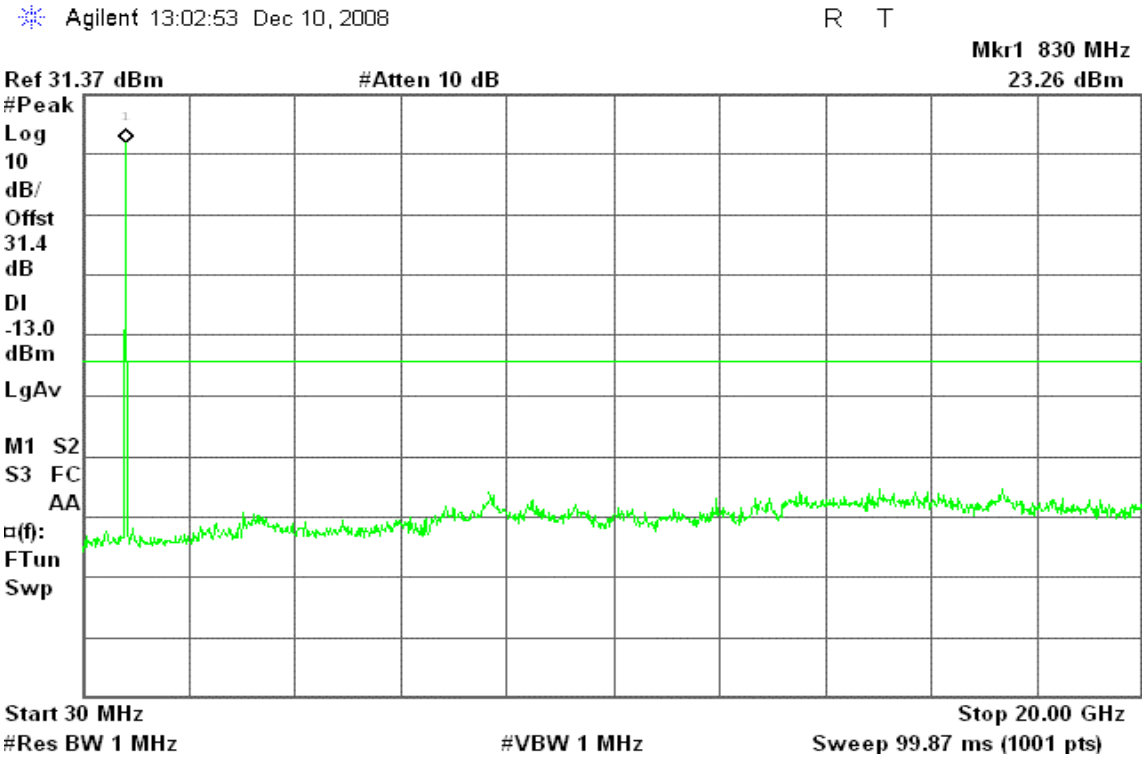
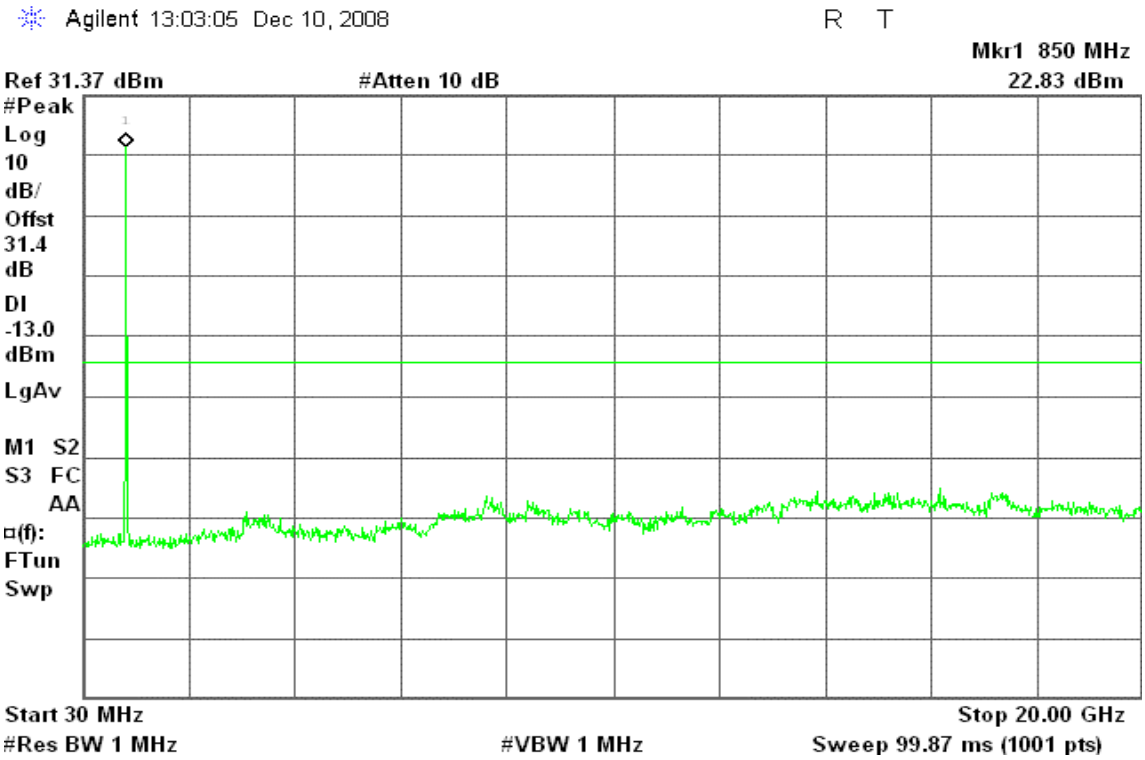


Figure 15-6: Out of Band emission at antenna terminals –HSDPA CH High



WCDMA / HSDPA Band II

Figure 16-1: Band Edge emissions –HSDPA CH Low

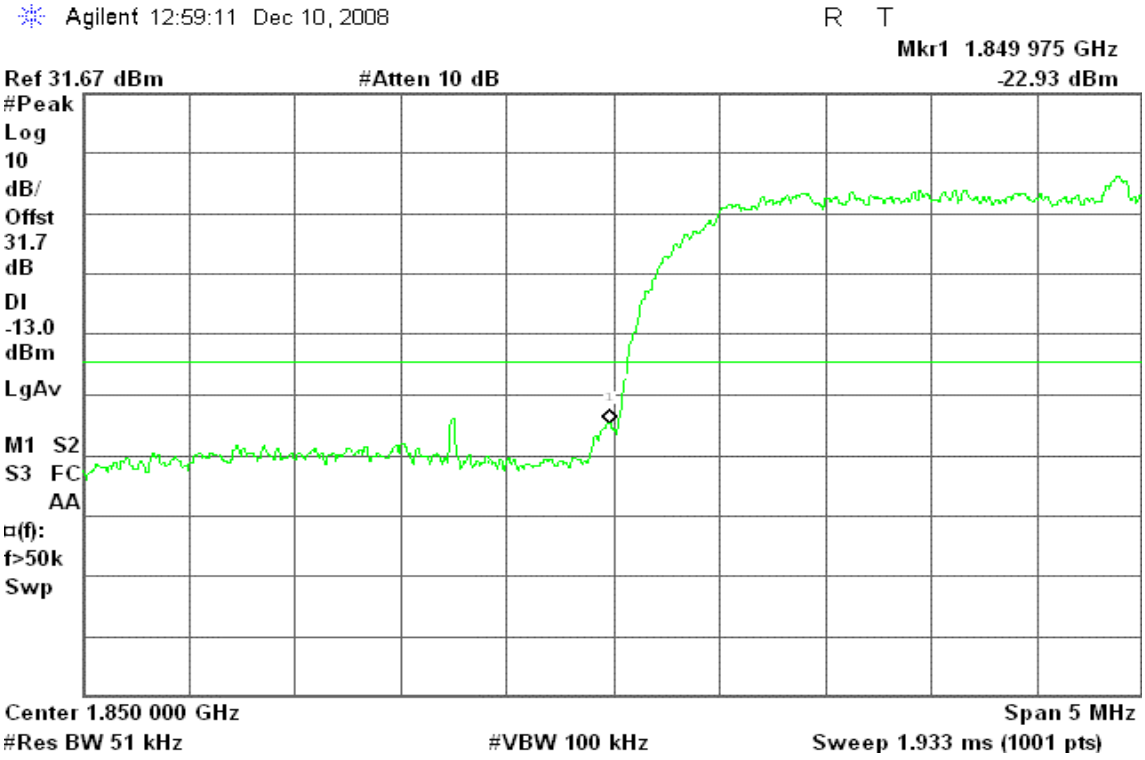
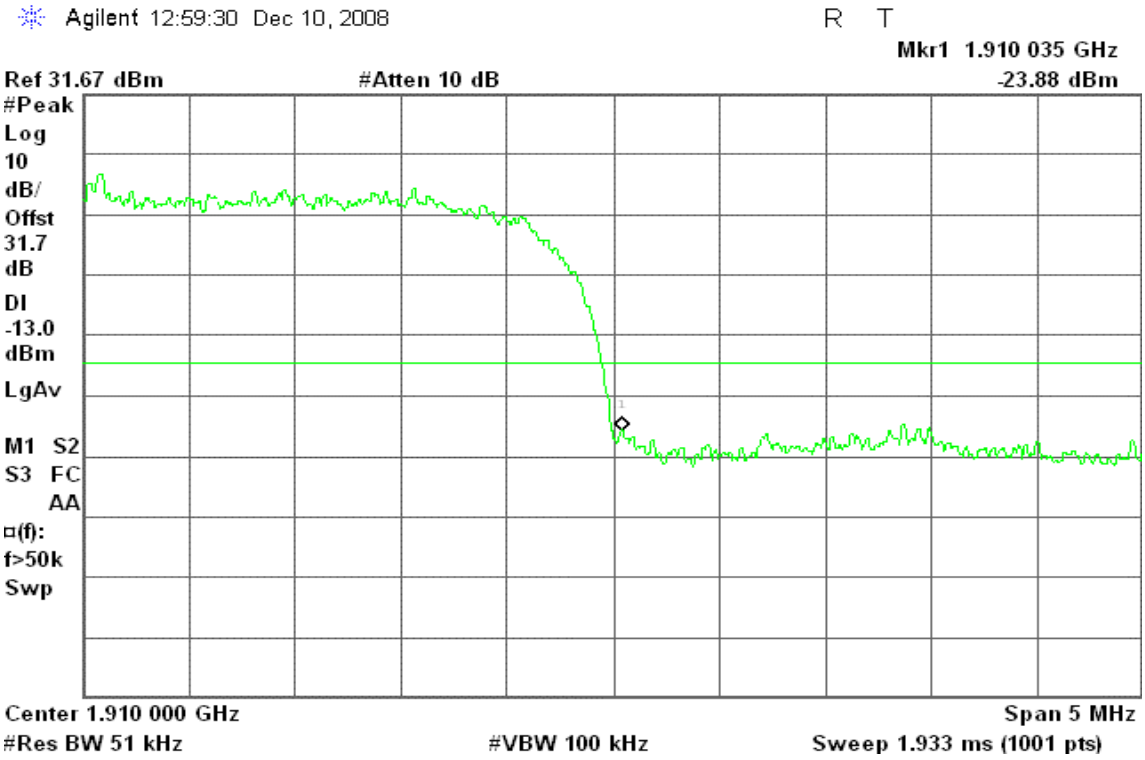


Figure 16-2: Band Edge emissions –HSDPA CH High



WCDMA / HSDPA Band V

Figure 16-3: Band Edge emissions –HSDPA CH Low

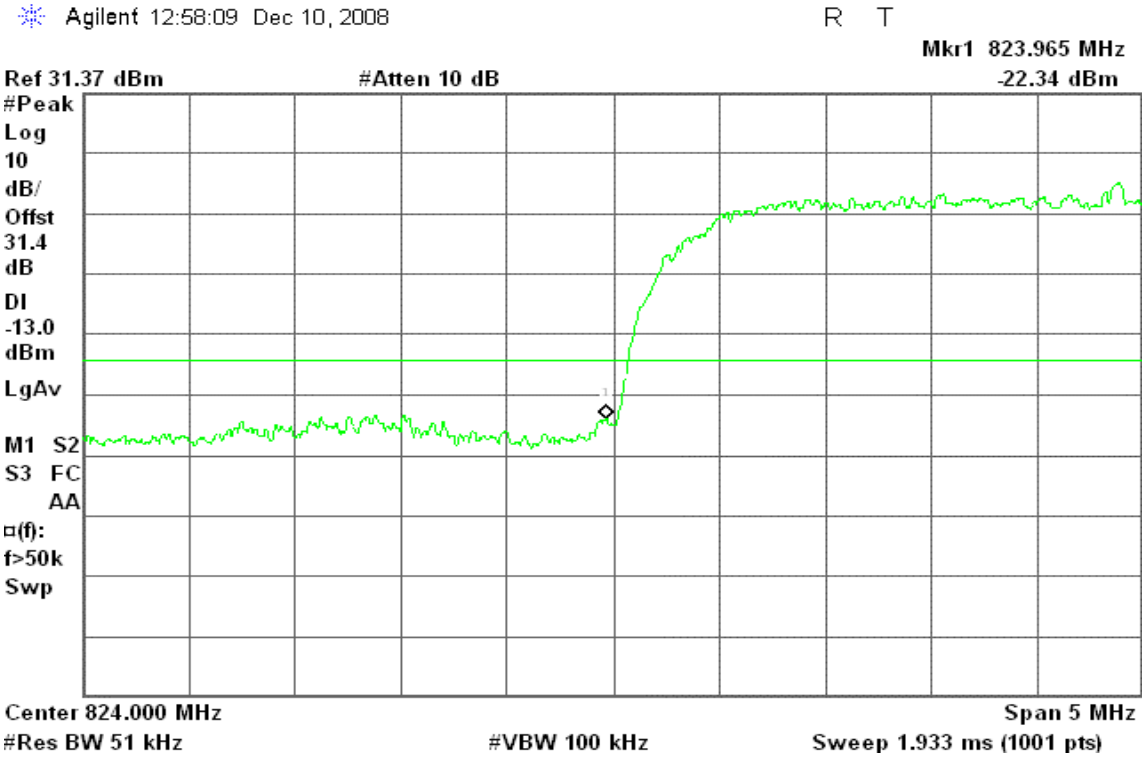
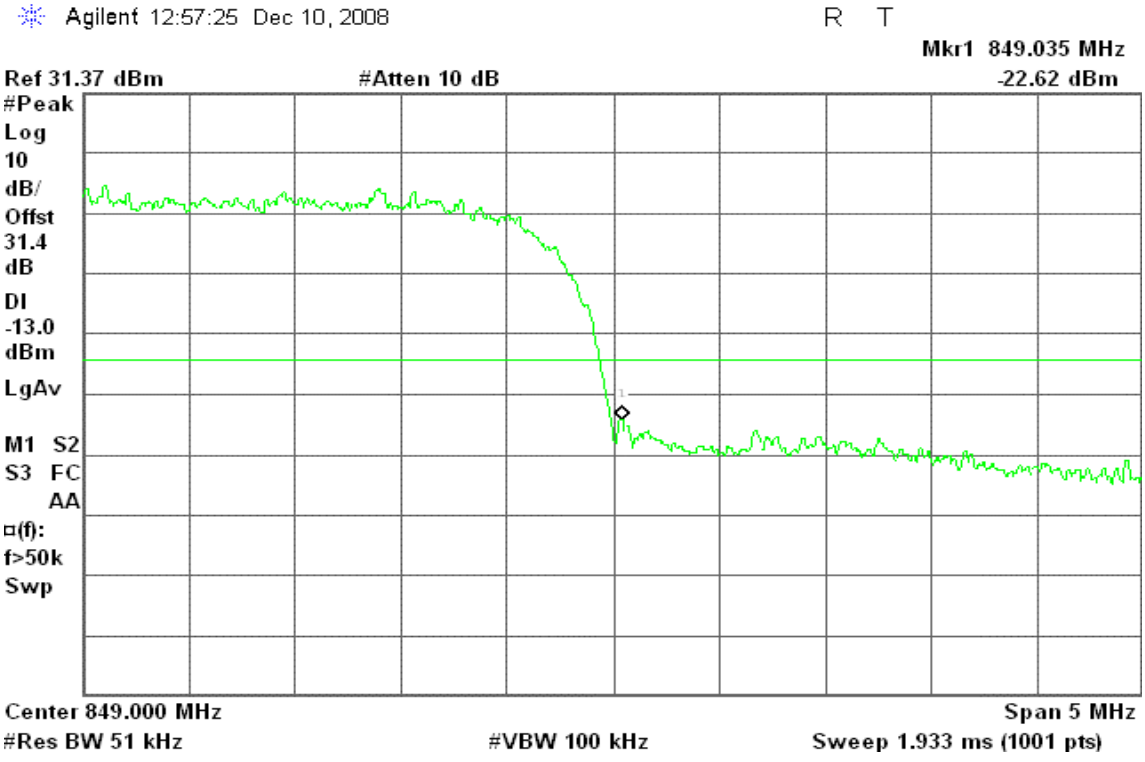


Figure 16-4: Band Edge emissions –HSDPA CH High



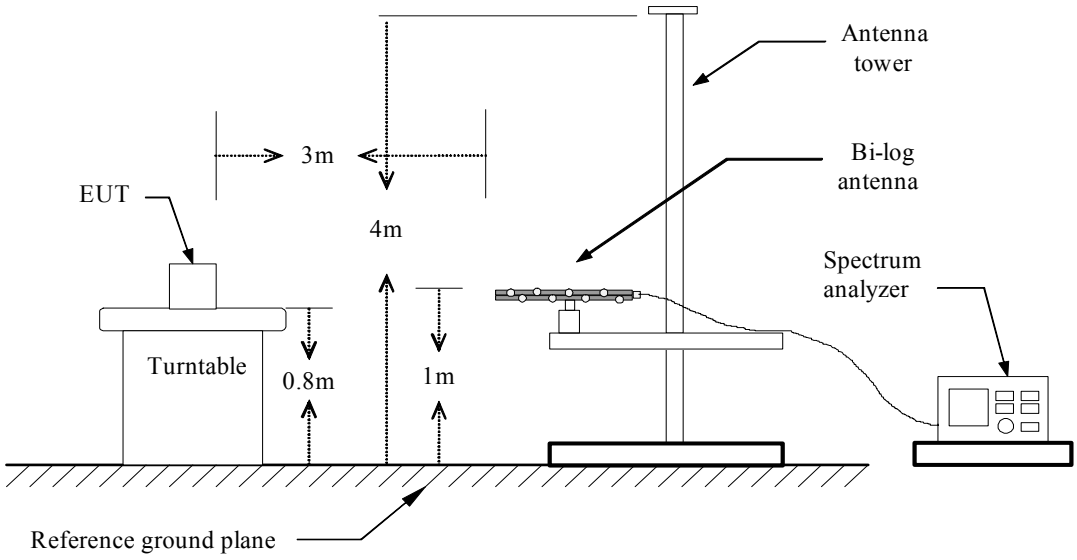
7.5 FIELD STRENGTH OF SPURIOUS RADIATION MEASUREMENT

LIMIT

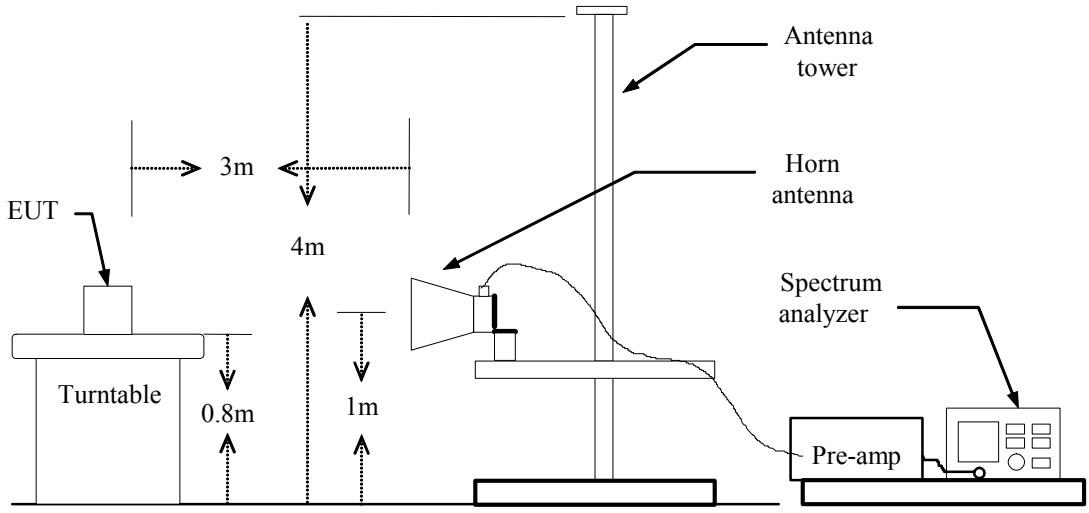
According to FCC §2.1053

Test Configuration

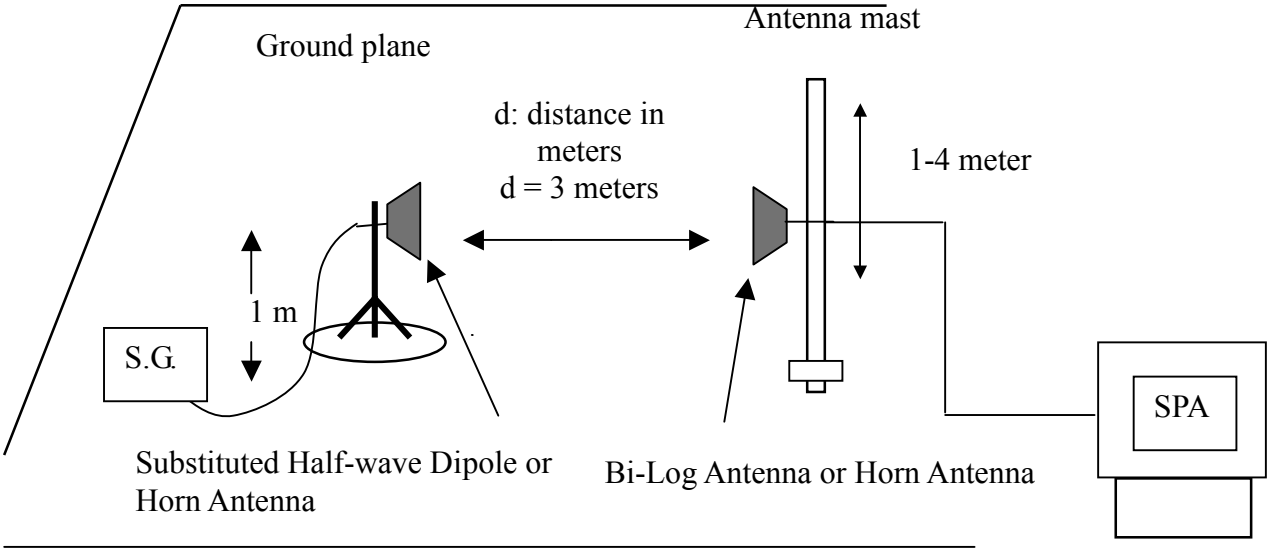
Below 1 GHz



Above 1 GHz



Substituted Method Test Set-up



TEST PROCEDURE

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

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

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

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

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

TEST RESULTS

Refer to the attached tabular data sheets.

Radiated Spurious Emission Measurement Result / Below 1GHz

Operation Mode: GSM 850 / TX / CH 128 **Test Date:** December 8, 2008

Temperature: 25°C **Tested by:** Mark Yang

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

Frequency (MHz)	Antenna Polarization (V/H)	Reading (dBm)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
31.94	V	-44.44	-17.67	-62.11	-13.00	-49.11
99.84	V	-46.29	-18.42	-64.71	-13.00	-51.71
132.82	V	-58.90	-12.65	-71.55	-13.00	-58.55
408.30	V	-53.56	-10.19	-63.76	-13.00	-50.76
512.09	V	-61.16	-7.71	-68.88	-13.00	-55.88
681.84	V	-59.80	-5.88	-65.68	-13.00	-52.68
31.94	H	-42.51	-18.25	-60.76	-13.00	-47.76
86.26	H	-50.55	-21.33	-71.88	-13.00	-58.88
99.84	H	-46.50	-18.73	-65.23	-13.00	-52.23
408.30	H	-52.90	-10.16	-63.06	-13.00	-50.06
512.09	H	-60.74	-7.78	-68.51	-13.00	-55.51
682.81	H	-59.90	-6.01	-65.91	-13.00	-52.91

Remark:

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

Operation Mode: GSM 850 / TX / CH 190 **Test Date:** December 8, 2008

Temperature: 25°C **Tested by:** Mark Yang

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

Frequency (MHz)	Antenna Polarization (V/H)	Reading (dBm)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
31.94	V	-45.75	-17.67	-63.41	-13.00	-50.41
73.65	V	-58.38	-16.51	-74.89	-13.00	-61.89
130.88	V	-47.67	-12.84	-60.52	-13.00	-47.52
453.89	V	-58.47	-9.02	-67.49	-13.00	-54.49
523.73	V	-60.51	-7.65	-68.16	-13.00	-55.16
548.95	V	-64.77	-7.36	-72.14	-13.00	-59.14
32.91	H	-36.88	-17.31	-54.19	-13.00	-41.19
86.26	H	-48.68	-21.33	-70.00	-13.00	-57.00
130.88	H	-47.15	-14.44	-61.59	-13.00	-48.59
452.92	H	-56.40	-9.00	-65.40	-13.00	-52.40
523.73	H	-59.18	-7.80	-66.98	-13.00	-53.98
548.95	H	-64.41	-7.55	-71.96	-13.00	-58.96

Remark:

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

Operation Mode: GSM 850 / TX / CH 251 **Test Date:** December 8, 2008

Temperature: 25°C **Tested by:** Mark Yang

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

Frequency (MHz)	Antenna Polarization (V/H)	Reading (dBm)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
30.97	V	-40.47	-18.26	-58.72	-13.00	-45.72
57.16	V	-59.57	-15.80	-75.37	-13.00	-62.37
72.68	V	-59.10	-16.10	-75.20	-13.00	-62.20
86.26	V	-53.73	-20.28	-74.01	-13.00	-61.01
150.28	V	-65.69	-11.94	-77.63	-13.00	-64.63
418.00	V	-65.54	-9.73	-75.27	-13.00	-62.27
30.97	H	-34.82	-19.20	-54.02	-13.00	-41.02
86.26	H	-49.21	-21.33	-70.53	-13.00	-57.53
147.37	H	-61.61	-13.25	-74.86	-13.00	-61.86
179.38	H	-64.91	-12.63	-77.53	-13.00	-64.53
289.96	H	-65.45	-11.69	-77.14	-13.00	-64.14
450.01	H	-66.36	-9.05	-75.41	-13.00	-62.41

Remark:

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

Operation Mode: GPRS 850 / TX / CH 128 **Test Date:** December 8, 2008

Temperature: 25°C **Tested by:** Mark Yang

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

Frequency (MHz)	Antenna Polarization (V/H)	Reading (dBm)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
31.94	V	-44.17	-17.67	-61.83	-13.00	-48.83
99.84	V	-45.86	-18.42	-64.28	-13.00	-51.28
132.82	V	-58.89	-12.65	-71.54	-13.00	-58.54
408.30	V	-53.21	-10.19	-63.41	-13.00	-50.41
512.09	V	-59.80	-7.71	-67.52	-13.00	-54.52
681.84	V	-59.72	-5.88	-65.61	-13.00	-52.61
31.94	H	-34.52	-18.25	-52.77	-13.00	-39.77
99.84	H	-45.84	-18.73	-64.57	-13.00	-51.57
398.60	H	-54.17	-10.51	-64.68	-13.00	-51.68
407.33	H	-52.78	-10.19	-62.98	-13.00	-49.98
512.09	H	-60.07	-7.78	-67.85	-13.00	-54.85
681.84	H	-59.33	-6.02	-65.34	-13.00	-52.34

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:** December 8, 2008

Temperature: 25°C **Tested by:** Mark Yang

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

Frequency (MHz)	Antenna Polarization (V/H)	Reading (dBm)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
30.97	V	-39.46	-18.26	-57.72	-13.00	-44.72
57.16	V	-57.34	-15.80	-73.14	-13.00	-60.14
86.26	V	-53.78	-20.28	-74.06	-13.00	-61.06
130.88	V	-55.54	-12.84	-68.38	-13.00	-55.38
548.95	V	-64.97	-7.36	-72.33	-13.00	-59.33
967.99	V	-62.08	-2.47	-64.55	-13.00	-51.55
31.94	H	-36.00	-18.25	-54.25	-13.00	-41.25
86.26	H	-49.06	-21.33	-70.38	-13.00	-57.38
130.88	H	-46.61	-14.44	-61.05	-13.00	-48.05
453.89	H	-58.02	-8.99	-67.01	-13.00	-54.01
522.76	H	-59.55	-7.80	-67.36	-13.00	-54.36
548.95	H	-64.07	-7.55	-71.62	-13.00	-58.62

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:** December 8, 2008

Temperature: 25°C **Tested by:** Mark Yang

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

Frequency (MHz)	Antenna Polarization (V/H)	Reading (dBm)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
30.97	V	-40.64	-18.26	-58.90	-13.00	-45.90
57.16	V	-57.72	-15.80	-73.52	-13.00	-60.52
86.26	V	-53.28	-20.28	-73.56	-13.00	-60.56
136.70	V	-65.00	-12.26	-77.27	-13.00	-64.27
196.84	V	-63.97	-13.64	-77.61	-13.00	-64.61
299.66	V	-64.48	-12.32	-76.80	-13.00	-63.80
31.94	H	-35.19	-18.25	-53.44	-13.00	-40.44
57.16	H	-55.20	-15.33	-70.53	-13.00	-57.53
86.26	H	-48.70	-21.33	-70.03	-13.00	-57.03
149.31	H	-62.24	-13.01	-75.25	-13.00	-62.25
200.72	H	-65.62	-12.05	-77.67	-13.00	-64.67
450.98	H	-66.12	-9.03	-75.16	-13.00	-62.16

Remark:

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

Operation Mode: GSM 1900 / TX / CH 512 **Test Date:** December 8, 2008

Temperature: 25°C **Tested by:** Mark Yang

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

Frequency (MHz)	Antenna Polarization (V/H)	Reading (dBm)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
31.94	V	-42.72	-17.67	-60.38	-13.00	-47.38
42.61	V	-53.58	-12.94	-66.52	-13.00	-53.52
72.68	V	-57.82	-16.10	-73.91	-13.00	-60.91
86.26	V	-55.31	-20.28	-75.59	-13.00	-62.59
141.55	V	-65.41	-11.93	-77.34	-13.00	-64.34
195.87	V	-64.17	-13.79	-77.96	-13.00	-64.96
30.97	H	-36.24	-19.20	-55.44	-13.00	-42.44
57.16	H	-57.52	-15.33	-72.85	-13.00	-59.85
86.26	H	-49.69	-21.33	-71.02	-13.00	-58.02
147.37	H	-58.77	-13.25	-72.02	-13.00	-59.02
181.32	H	-62.75	-12.76	-75.51	-13.00	-62.51
199.75	H	-65.59	-11.92	-77.52	-13.00	-64.52

Remark:

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

Operation Mode: GSM 1900 / TX / CH 661 **Test Date:** December 8, 2008

Temperature: 25°C **Tested by:** Mark Yang

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

Frequency (MHz)	Antenna Polarization (V/H)	Reading (dBm)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
30.97	V	-38.63	-18.26	-56.88	-13.00	-43.88
71.71	V	-57.91	-15.69	-73.59	-13.00	-60.59
86.26	V	-54.51	-20.28	-74.79	-13.00	-61.79
148.34	V	-63.81	-11.90	-75.72	-13.00	-62.72
195.87	V	-63.37	-13.79	-77.15	-13.00	-64.15
289.96	V	-65.89	-11.28	-77.17	-13.00	-64.17
31.94	H	-36.59	-18.25	-54.84	-13.00	-41.84
57.16	H	-57.17	-15.33	-72.50	-13.00	-59.50
86.26	H	-49.56	-21.33	-70.89	-13.00	-57.89
148.34	H	-58.45	-13.13	-71.58	-13.00	-58.58
175.50	H	-62.48	-12.61	-75.09	-13.00	-62.09
309.36	H	-64.74	-13.10	-77.84	-13.00	-64.84

Remark:

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

Operation Mode: GSM 1900 / TX / CH 810 **Test Date:** December 8, 2008

Temperature: 25°C **Tested by:** Mark Yang

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

Frequency (MHz)	Antenna Polarization (V/H)	Reading (dBm)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
31.94	V	-48.62	-17.67	-66.29	-13.00	-53.29
43.58	V	-53.20	-12.78	-65.99	-13.00	-52.99
72.68	V	-55.43	-16.10	-71.53	-13.00	-58.53
86.26	V	-53.61	-20.28	-73.89	-13.00	-60.89
117.30	V	-61.95	-14.43	-76.38	-13.00	-63.38
146.40	V	-64.18	-11.91	-76.09	-13.00	-63.09
31.94	H	-36.15	-18.25	-54.40	-13.00	-41.40
57.16	H	-56.49	-15.33	-71.82	-13.00	-58.82
86.26	H	-48.77	-21.33	-70.09	-13.00	-57.09
141.55	H	-45.34	-13.99	-59.34	-13.00	-46.34
179.38	H	-61.90	-12.63	-74.52	-13.00	-61.52
289.96	H	-64.90	-11.69	-76.60	-13.00	-63.60

Remark:

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

Operation Mode: GPRS 1900 / TX / CH 512 **Test Date:** December 8, 2008

Temperature: 25°C **Tested by:** Mark Yang

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

Frequency (MHz)	Antenna Polarization (V/H)	Reading (dBm)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
31.94	V	-40.73	-17.67	-58.39	-13.00	-45.39
71.71	V	-58.22	-15.69	-73.90	-13.00	-60.90
86.26	V	-56.08	-20.28	-76.36	-13.00	-63.36
136.70	V	-63.71	-12.26	-75.97	-13.00	-62.97
198.78	V	-64.21	-13.35	-77.56	-13.00	-64.56
287.05	V	-64.87	-11.63	-76.50	-13.00	-63.50
32.91	H	-37.29	-17.31	-54.60	-13.00	-41.60
57.16	H	-58.24	-15.33	-73.57	-13.00	-60.57
86.26	H	-49.19	-21.33	-70.52	-13.00	-57.52
149.31	H	-59.79	-13.01	-72.80	-13.00	-59.80
178.41	H	-62.61	-12.62	-75.23	-13.00	-62.23
290.93	H	-65.51	-11.82	-77.33	-13.00	-64.33

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:** December 8, 2008

Temperature: 25°C **Tested by:** Mark Yang

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

Frequency (MHz)	Antenna Polarization (V/H)	Reading (dBm)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
30.97	V	-40.31	-18.26	-58.57	-13.00	-45.57
57.16	V	-58.74	-15.80	-74.54	-13.00	-61.54
72.68	V	-57.60	-16.10	-73.69	-13.00	-60.69
86.26	V	-55.73	-20.28	-76.01	-13.00	-63.01
192.96	V	-64.26	-14.23	-78.49	-13.00	-65.49
288.02	V	-65.94	-11.51	-77.45	-13.00	-64.45
32.91	H	-38.09	-17.31	-55.39	-13.00	-42.39
86.26	H	-50.06	-21.33	-71.39	-13.00	-58.39
149.31	H	-59.20	-13.01	-72.21	-13.00	-59.21
179.38	H	-63.52	-12.63	-76.15	-13.00	-63.15
195.87	H	-65.49	-12.59	-78.08	-13.00	-65.08
289.96	H	-65.99	-11.69	-77.68	-13.00	-64.68

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:** December 8, 2008

Temperature: 25°C **Tested by:** Mark Yang

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

Frequency (MHz)	Antenna Polarization (V/H)	Reading (dBm)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
31.94	V	-41.33	-17.67	-59.00	-13.00	-46.00
86.26	V	-54.31	-20.28	-74.59	-13.00	-61.59
138.64	V	-65.00	-12.07	-77.07	-13.00	-64.07
198.78	V	-64.58	-13.35	-77.94	-13.00	-64.94
255.04	V	-64.22	-13.89	-78.11	-13.00	-65.11
290.93	V	-65.39	-11.38	-76.77	-13.00	-63.77
31.94	H	-36.52	-18.25	-54.77	-13.00	-41.77
57.16	H	-57.02	-15.33	-72.34	-13.00	-59.34
86.26	H	-49.80	-21.33	-71.13	-13.00	-58.13
149.31	H	-58.93	-13.01	-71.94	-13.00	-58.94
178.41	H	-62.97	-12.62	-75.59	-13.00	-62.59
568.35	H	-67.27	-7.12	-74.39	-13.00	-61.39

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:** December 8, 2008

Temperature: 25°C **Tested by:** Mark Yang

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

Frequency (MHz)	Antenna Polarization (V/H)	Reading (dBm)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
31.94	V	-43.41	-17.67	-61.07	-13.00	-48.07
99.84	V	-46.44	-18.42	-64.86	-13.00	-51.86
398.60	V	-55.25	-10.68	-65.92	-13.00	-52.92
408.30	V	-55.84	-10.19	-66.03	-13.00	-53.03
512.09	V	-59.48	-7.71	-67.19	-13.00	-54.19
681.84	V	-62.06	-5.88	-67.95	-13.00	-54.95
32.91	H	-35.85	-17.31	-53.16	-13.00	-40.16
99.84	H	-46.05	-18.73	-64.78	-13.00	-51.78
398.60	H	-53.99	-10.51	-64.49	-13.00	-51.49
408.30	H	-53.13	-10.16	-63.29	-13.00	-50.29
512.09	H	-59.11	-7.78	-66.89	-13.00	-53.89
682.81	H	-58.80	-6.01	-64.81	-13.00	-51.81

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:** December 8, 2008

Temperature: 25°C **Tested by:** Mark Yang

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

Frequency (MHz)	Antenna Polarization (V/H)	Reading (dBm)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
31.94	V	-39.18	-17.67	-56.85	-13.00	-43.85
57.16	V	-55.53	-15.80	-71.33	-13.00	-58.33
66.86	V	-58.11	-15.18	-73.29	-13.00	-60.29
84.32	V	-54.45	-19.95	-74.40	-13.00	-61.40
116.33	V	-61.01	-14.60	-75.61	-13.00	-62.61
195.87	V	-62.24	-13.79	-76.03	-13.00	-63.03
31.94	H	-33.11	-18.25	-51.36	-13.00	-38.36
57.16	H	-54.23	-15.33	-69.56	-13.00	-56.56
86.26	H	-47.33	-21.33	-68.65	-13.00	-55.65
130.88	H	-53.76	-14.44	-68.20	-13.00	-55.20
199.75	H	-64.94	-11.92	-76.86	-13.00	-63.86
548.95	H	-64.52	-7.55	-72.06	-13.00	-59.06

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:** December 8, 2008

Temperature: 25°C **Tested by:** Mark Yang

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

Frequency (MHz)	Antenna Polarization (V/H)	Reading (dBm)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
30.97	V	-36.27	-18.26	-54.53	-13.00	-41.53
57.16	V	-54.53	-15.80	-70.34	-13.00	-57.34
66.86	V	-56.02	-15.18	-71.20	-13.00	-58.20
86.26	V	-50.61	-20.28	-70.89	-13.00	-57.89
116.33	V	-61.57	-14.60	-76.17	-13.00	-63.17
194.90	V	-61.09	-13.94	-75.02	-13.00	-62.02
57.16	H	-54.94	-15.33	-70.27	-13.00	-57.27
65.89	H	-54.76	-16.84	-71.60	-13.00	-58.60
86.26	H	-44.93	-21.33	-66.26	-13.00	-53.26
114.39	H	-60.88	-15.15	-76.04	-13.00	-63.04
149.31	H	-57.76	-13.01	-70.76	-13.00	-57.76
178.41	H	-59.66	-12.62	-72.28	-13.00	-59.28

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:** December 8, 2008

Temperature: 25°C **Tested by:** Jerry Lin

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

Frequency (MHz)	Antenna Polarization (V/H)	Reading (dBm)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
31.94	V	-44.96	-17.67	-62.63	-13.00	-49.63
42.61	V	-52.84	-12.94	-65.77	-13.00	-52.77
57.16	V	-59.16	-15.80	-74.96	-13.00	-61.96
72.68	V	-56.95	-16.10	-73.05	-13.00	-60.05
86.26	V	-53.38	-20.28	-73.66	-13.00	-60.66
197.81	V	-64.29	-13.50	-77.79	-13.00	-64.79
32.91	H	-39.13	-17.31	-56.44	-13.00	-43.44
57.16	H	-58.87	-15.33	-74.20	-13.00	-61.20
86.26	H	-52.59	-21.33	-73.92	-13.00	-60.92
148.34	H	-59.69	-13.13	-72.82	-13.00	-59.82
178.41	H	-62.95	-12.62	-75.57	-13.00	-62.57
288.99	H	-65.93	-11.81	-77.74	-13.00	-64.74

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:** December 8, 2008

Temperature: 25°C **Tested by:** Mark Yang

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

Frequency (MHz)	Antenna Polarization (V/H)	Reading (dBm)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
31.94	V	-41.50	-17.67	-59.16	-13.00	-46.16
71.71	V	-57.80	-15.69	-73.49	-13.00	-60.49
86.26	V	-56.03	-20.28	-76.31	-13.00	-63.31
198.78	V	-64.31	-13.35	-77.66	-13.00	-64.66
255.04	V	-63.15	-13.89	-77.05	-13.00	-64.05
331.67	V	-65.69	-12.74	-78.43	-13.00	-65.43
31.94	H	-37.68	-18.25	-55.93	-13.00	-42.93
57.16	H	-57.77	-15.33	-73.10	-13.00	-60.10
86.26	H	-47.65	-21.33	-68.98	-13.00	-55.98
149.31	H	-59.06	-13.01	-72.06	-13.00	-59.06
175.50	H	-63.91	-12.61	-76.51	-13.00	-63.51
287.05	H	-66.00	-12.05	-78.06	-13.00	-65.06

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:** December 8, 2008

Temperature: 25°C **Tested by:** Mark Yang

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

Frequency (MHz)	Antenna Polarization (V/H)	Reading (dBm)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
32.91	V	-42.53	-17.07	-59.61	-13.00	-46.61
72.68	V	-57.43	-16.10	-73.52	-13.00	-60.52
86.26	V	-55.75	-20.28	-76.03	-13.00	-63.03
118.27	V	-63.69	-14.25	-77.94	-13.00	-64.94
138.64	V	-65.00	-12.07	-77.07	-13.00	-64.07
195.87	V	-63.37	-13.79	-77.15	-13.00	-64.15
31.94	H	-37.14	-18.25	-55.39	-13.00	-42.39
57.16	H	-59.37	-15.33	-74.70	-13.00	-61.70
86.26	H	-49.68	-21.33	-71.00	-13.00	-58.00
148.34	H	-57.94	-13.13	-71.07	-13.00	-58.07
178.41	H	-63.32	-12.62	-75.94	-13.00	-62.94
200.72	H	-66.34	-12.05	-78.39	-13.00	-65.39

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:** December 8, 2008

Temperature: 25°C **Tested by:** Mark Yang

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

Frequency (MHz)	Antenna Polarization (V/H)	Reading (dBm)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
57.16	V	-47.67	-15.80	-63.47	-13.00	-50.47
132.82	V	-60.42	-12.65	-73.07	-13.00	-60.07
166.77	V	-58.63	-13.48	-72.12	-13.00	-59.12
326.82	V	-59.73	-12.77	-72.50	-13.00	-59.50
427.70	V	-59.51	-9.51	-69.02	-13.00	-56.02
452.92	V	-59.43	-9.04	-68.47	-13.00	-55.47
57.16	H	-49.19	-15.33	-64.52	-13.00	-51.52
66.86	H	-47.46	-17.04	-64.50	-13.00	-51.50
132.82	H	-57.97	-14.38	-72.35	-13.00	-59.35
186.17	H	-57.10	-13.22	-70.32	-13.00	-57.32
427.70	H	-61.09	-9.55	-70.64	-13.00	-57.64
452.92	H	-61.50	-9.00	-70.50	-13.00	-57.50

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:** December 8, 2008

Temperature: 25°C **Tested by:** Mark Yang

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

Frequency (MHz)	Antenna Polarization (V/H)	Reading (dBm)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
57.16	V	-47.99	-15.80	-63.79	-13.00	-50.79
128.94	V	-58.78	-13.04	-71.82	-13.00	-58.82
166.77	V	-58.32	-13.48	-71.81	-13.00	-58.81
326.82	V	-57.21	-12.77	-69.98	-13.00	-56.98
427.70	V	-61.33	-9.51	-70.84	-13.00	-57.84
452.92	V	-58.50	-9.04	-67.54	-13.00	-54.54
57.16	H	-47.02	-15.33	-62.35	-13.00	-49.35
66.86	H	-44.88	-17.04	-61.92	-13.00	-48.92
132.82	H	-56.95	-14.38	-71.34	-13.00	-58.34
186.17	H	-56.31	-13.22	-69.53	-13.00	-56.53
427.70	H	-64.19	-9.55	-73.74	-13.00	-60.74
452.92	H	-61.95	-9.00	-70.95	-13.00	-57.95

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:** December 7, 2008

Temperature: 25°C **Tested by:** Mark Yang

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

Frequency (MHz)	Antenna Polarization (V/H)	Reading (dBm)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
57.16	V	-47.82	-15.80	-63.62	-13.00	-50.62
132.82	V	-60.39	-12.65	-73.04	-13.00	-60.04
166.77	V	-57.77	-13.48	-71.25	-13.00	-58.25
326.82	V	-57.91	-12.77	-70.67	-13.00	-57.67
427.70	V	-60.78	-9.51	-70.29	-13.00	-57.29
452.92	V	-59.63	-9.04	-68.67	-13.00	-55.67
57.16	H	-47.89	-15.33	-63.22	-13.00	-50.22
66.86	H	-47.10	-17.04	-64.13	-13.00	-51.13
132.82	H	-57.40	-14.38	-71.78	-13.00	-58.78
186.17	H	-57.06	-13.22	-70.28	-13.00	-57.28
427.70	H	-64.27	-9.55	-73.82	-13.00	-60.82
452.92	H	-60.95	-9.00	-69.95	-13.00	-56.95

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:** December 7, 2008

Temperature: 25°C **Tested by:** Mark Yang

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

Frequency (MHz)	Antenna Polarization (V/H)	Reading (dBm)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
57.16	V	-49.06	-15.80	-64.87	-13.00	-51.87
128.94	V	-60.15	-13.04	-73.19	-13.00	-60.19
326.82	V	-57.12	-12.77	-69.88	-13.00	-56.88
427.70	V	-60.86	-9.51	-70.37	-13.00	-57.37
452.92	V	-58.06	-9.04	-67.11	-13.00	-54.11
503.36	V	-64.98	-7.73	-72.70	-13.00	-59.70
41.64	H	-59.84	-11.54	-71.37	-13.00	-58.37
57.16	H	-49.99	-15.33	-65.32	-13.00	-52.32
66.86	H	-50.02	-17.04	-67.05	-13.00	-54.05
186.17	H	-58.04	-13.22	-71.26	-13.00	-58.26
239.52	H	-62.31	-14.04	-76.35	-13.00	-63.35
452.92	H	-63.07	-9.00	-72.07	-13.00	-59.07

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 4183 **Test Date:** December 7, 2008

Temperature: 25°C **Tested by:** Mark Yang

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

Frequency (MHz)	Antenna Polarization (V/H)	Reading (dBm)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
57.16	V	-49.13	-15.80	-64.94	-13.00	-51.94
128.94	V	-59.02	-13.04	-72.06	-13.00	-59.06
186.17	V	-56.34	-14.43	-70.77	-13.00	-57.77
228.85	V	-60.50	-14.14	-74.64	-13.00	-61.64
326.82	V	-59.47	-12.77	-72.23	-13.00	-59.23
427.70	V	-58.64	-9.51	-68.15	-13.00	-55.15
57.16	H	-50.35	-15.33	-65.68	-13.00	-52.68
66.86	H	-49.38	-17.04	-66.41	-13.00	-53.41
186.17	H	-59.79	-13.22	-73.01	-13.00	-60.01
214.30	H	-59.95	-14.23	-74.18	-13.00	-61.18
427.70	H	-62.47	-9.55	-72.02	-13.00	-59.02
452.92	H	-61.84	-9.00	-70.85	-13.00	-57.85

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:** December 7, 2008

Temperature: 25°C **Tested by:** Mark Yang

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

Frequency (MHz)	Antenna Polarization (V/H)	Reading (dBm)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
57.16	V	-48.01	-15.80	-63.81	-13.00	-50.81
75.59	V	-53.85	-17.33	-71.18	-13.00	-58.18
166.77	V	-59.53	-13.48	-73.02	-13.00	-60.02
327.79	V	-61.70	-12.76	-74.46	-13.00	-61.46
402.48	V	-63.31	-10.47	-73.78	-13.00	-60.78
452.92	V	-59.30	-9.04	-68.34	-13.00	-55.34
57.16	H	-48.39	-15.33	-63.72	-13.00	-50.72
65.89	H	-46.49	-16.84	-63.33	-13.00	-50.33
186.17	H	-57.95	-13.22	-71.17	-13.00	-58.17
277.35	H	-62.98	-12.91	-75.89	-13.00	-62.89
427.70	H	-62.36	-9.55	-71.91	-13.00	-58.91
452.92	H	-63.41	-9.00	-72.41	-13.00	-59.41

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:**	December 11, 2008
Temperature:	24°C	**Tested by:**	Mark Yang
Humidity:	50 % RH	**Polarity:**	Ver. / Hor.

Frequency (MHz)	Antenna Polarization (V/H)	Reading (dBm)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
42.61	V	-52.57	-12.94	-65.51	-13.00	-52.51
57.16	V	-53.62	-15.80	-69.42	-13.00	-56.42
72.68	V	-55.68	-16.10	-71.78	-13.00	-58.78
86.26	V	-45.83	-20.28	-66.11	-13.00	-53.11
128.94	V	-57.84	-13.04	-70.88	-13.00	-57.88
147.37	V	-61.33	-11.91	-73.24	-13.00	-60.24
42.61	H	-61.51	-11.53	-73.05	-13.00	-60.05
86.26	H	-49.38	-21.33	-70.71	-13.00	-57.71
132.82	H	-58.08	-14.38	-72.47	-13.00	-59.47
149.31	H	-59.71	-13.01	-72.72	-13.00	-59.72
384.05	H	-64.59	-11.21	-75.80	-13.00	-62.80
496.57	H	-68.43	-7.83	-76.25	-13.00	-63.25

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:**	December 11, 2008
Temperature:	24°C	**Tested by:**	Mark Yang
Humidity:	50 % RH	**Polarity:**	Ver. / Hor.

Frequency (MHz)	Antenna Polarization (V/H)	Reading (dBm)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
44.55	V	-54.14	-12.63	-66.77	-13.00	-53.77
57.16	V	-55.25	-15.80	-71.05	-13.00	-58.05
71.71	V	-57.64	-15.69	-73.33	-13.00	-60.33
86.26	V	-44.69	-20.28	-64.98	-13.00	-51.98
128.94	V	-59.45	-13.04	-72.49	-13.00	-59.49
291.90	V	-67.26	-11.49	-78.75	-13.00	-65.75
44.55	H	-61.50	-11.53	-73.03	-13.00	-60.03
86.26	H	-48.52	-21.33	-69.84	-13.00	-56.84
132.82	H	-58.03	-14.38	-72.42	-13.00	-59.42
149.31	H	-59.27	-13.01	-72.28	-13.00	-59.28
288.02	H	-66.24	-11.93	-78.17	-13.00	-65.17
636.25	H	-68.44	-5.98	-74.42	-13.00	-61.42

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:**	December 11, 2008
Temperature:	24°C	**Tested by:**	Mark Yang
Humidity:	50 % RH	**Polarity:**	Ver. / Hor.

Frequency (MHz)	Antenna Polarization (V/H)	Reading (dBm)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
44.55	V	-54.35	-12.63	-66.99	-13.00	-53.99
57.16	V	-54.82	-15.80	-70.63	-13.00	-57.63
72.68	V	-56.48	-16.10	-72.58	-13.00	-59.58
86.26	V	-45.89	-20.28	-66.17	-13.00	-53.17
128.94	V	-58.99	-13.04	-72.03	-13.00	-59.03
279.29	V	-66.54	-12.44	-78.98	-13.00	-65.98
44.55	H	-61.81	-11.53	-73.35	-13.00	-60.35
86.26	H	-48.17	-21.33	-69.49	-13.00	-56.49
132.82	H	-58.97	-14.38	-73.35	-13.00	-60.35
148.34	H	-60.71	-13.13	-73.84	-13.00	-60.84
288.99	H	-66.65	-11.81	-78.46	-13.00	-65.46
384.05	H	-63.12	-11.21	-74.34	-13.00	-61.34

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:**	December 11, 2008
Temperature:	24°C	**Tested by:**	Mark Yang
Humidity:	50 % RH	**Polarity:**	Ver. / Hor.

Frequency (MHz)	Antenna Polarization (V/H)	Reading (dBm)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
43.58	V	-52.75	-12.78	-65.53	-13.00	-52.53
57.16	V	-54.76	-15.80	-70.56	-13.00	-57.56
72.68	V	-57.06	-16.10	-73.16	-13.00	-60.16
86.26	V	-45.95	-20.28	-66.23	-13.00	-53.23
128.94	V	-58.33	-13.04	-71.37	-13.00	-58.37
513.06	V	-67.83	-7.71	-75.54	-13.00	-62.54
45.52	H	-62.32	-11.85	-74.17	-13.00	-61.17
66.86	H	-58.95	-17.04	-75.98	-13.00	-62.98
86.26	H	-48.23	-21.33	-69.56	-13.00	-56.56
132.82	H	-57.59	-14.38	-71.98	-13.00	-58.98
147.37	H	-59.32	-13.25	-72.58	-13.00	-59.58
648.86	H	-68.35	-5.86	-74.21	-13.00	-61.21

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 4183	**Test Date:**	December 11, 2008
Temperature:	24°C	**Tested by:**	Mark Yang
Humidity:	50 % RH	**Polarity:**	Ver. / Hor.

Frequency (MHz)	Antenna Polarization (V/H)	Reading (dBm)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
30.97	V	-40.88	-18.26	-59.14	-13.00	-46.14
57.16	V	-54.40	-15.80	-70.20	-13.00	-57.20
72.68	V	-55.33	-16.10	-71.43	-13.00	-58.43
86.26	V	-45.85	-20.28	-66.13	-13.00	-53.13
128.94	V	-59.59	-13.04	-72.63	-13.00	-59.63
638.19	V	-68.87	-6.01	-74.88	-13.00	-61.88
43.58	H	-61.16	-11.53	-72.69	-13.00	-59.69
86.26	H	-48.31	-21.33	-69.64	-13.00	-56.64
114.39	H	-60.05	-15.15	-75.20	-13.00	-62.20
132.82	H	-58.07	-14.38	-72.46	-13.00	-59.46
149.31	H	-58.90	-13.01	-71.90	-13.00	-58.90
294.81	H	-63.80	-12.34	-76.14	-13.00	-63.14

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:**	December 11, 2008
Temperature:	24°C	**Tested by:**	Mark Yang
Humidity:	50 % RH	**Polarity:**	Ver. / Hor.

Frequency (MHz)	Antenna Polarization (V/H)	Reading (dBm)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
31.94	V	-39.55	-17.67	-57.21	-13.00	-44.21
42.61	V	-51.53	-12.94	-64.47	-13.00	-51.47
57.16	V	-52.67	-15.80	-68.48	-13.00	-55.48
86.26	V	-44.21	-20.28	-64.49	-13.00	-51.49
128.94	V	-56.52	-13.04	-69.56	-13.00	-56.56
294.81	V	-60.45	-11.80	-72.24	-13.00	-59.24
43.58	H	-58.99	-11.53	-70.52	-13.00	-57.52
86.26	H	-45.30	-21.33	-66.62	-13.00	-53.62
132.82	H	-55.32	-14.38	-69.71	-13.00	-56.71
149.31	H	-57.14	-13.01	-70.14	-13.00	-57.14
294.81	H	-61.86	-12.34	-74.20	-13.00	-61.20
768.17	H	-65.27	-4.67	-69.95	-13.00	-56.95

Remark:

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

Above 1GHz

Operation Mode: GSM 850 / TX / CH 128 **Test Date:** December 9, 2008

Temperature: 25°C **Tested by:** Mark Yang

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

Frequency (MHz)	Antenna Polarization	Reading level (dBuV)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
1651.00	V	-47.85	1.63	-46.22	-13.00	-33.22
2470.00	V	-48.77	4.75	-44.02	-13.00	-31.02
N/A						
1651.00	H	-35.35	1.63	-33.71	-13.00	-20.71
2470.00	H	-41.36	4.74	-36.62	-13.00	-23.62
N/A						

Remark:

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

Operation Mode: GSM 850 / TX / CH 190 **Test Date:** December 9, 2008

Temperature: 25°C **Tested by:** Mark Yang

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

Frequency (MHz)	Antenna Polarization	Reading level (dBuV)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
1672.00	V	-47.19	1.64	-45.55	-13.00	-32.55
2512.00	V	-47.55	4.96	-42.59	-13.00	-29.59
N/A						
1672.00	H	-36.58	1.66	-34.92	-13.00	-21.92
2512.00	H	-39.60	4.94	-34.66	-13.00	-21.66
3345.00	H	-59.13	6.09	-53.05	-13.00	-40.05
N/A						

Remark:

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

Operation Mode: GSM 850 / TX / CH 251 **Test Date:** December 9, 2008

Temperature: 25°C **Tested by:** Mark Yang

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

Frequency (MHz)	Antenna Polarization	Reading level (dBuV)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
1700.00	V	-50.39	1.65	-48.74	-13.00	-35.74
2547.00	V	-51.87	5.02	-46.85	-13.00	-33.85
N/A						
1700.00	H	-39.89	1.68	-38.21	-13.00	-25.21
2547.00	H	-46.67	4.98	-41.69	-13.00	-28.69
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 850 / TX / CH 128 **Test Date:** December 9, 2008

Temperature: 25°C **Tested by:** Mark Yang

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

Frequency (MHz)	Antenna Polarization	Reading level (dBuV)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
1651.00	V	-47.80	1.63	-46.17	-13.00	-33.17
2470.00	V	-45.64	4.75	-40.89	-13.00	-27.89
N/A						
1651.00	H	-37.52	1.63	-35.89	-13.00	-22.89
2470.00	H	-46.09	4.74	-41.35	-13.00	-28.35
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 850 / TX / CH 190 **Test Date:** December 9, 2008

Temperature: 25°C **Tested by:** Mark Yang

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

Frequency (MHz)	Antenna Polarization	Reading level (dBuV)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
1672.00	V	-47.78	1.64	-46.14	-13.00	-33.14
2512.00	V	-45.73	4.96	-40.77	-13.00	-27.77
N/A						
1672.00	H	-38.76	1.66	-37.10	-13.00	-24.10
2512.00	H	-44.52	4.94	-39.58	-13.00	-26.58
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 850 / TX / CH 251 **Test Date:** December 9, 2008

Temperature: 25°C **Tested by:** Mark Yang

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

Frequency (MHz)	Antenna Polarization	Reading level (dBuV)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
1700.00	V	-50.00	1.65	-48.36	-13.00	-35.36
2547.00	V	-52.99	5.02	-47.97	-13.00	-34.97
N/A						
1700.00	H	-42.37	1.68	-40.69	-13.00	-27.69
2547.00	H	-47.53	4.98	-42.55	-13.00	-29.55
N/A						

Remark:

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

Operation Mode: GSM 1900 / TX / CH 512 **Test Date:** December 9, 2008

Temperature: 25°C **Tested by:** Mark Yang

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

Frequency (MHz)	Antenna Polarization	Reading level (dBuV)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
3702.00	V	-56.04	7.57	-48.47	-13.00	-35.47
5550.00	V	-53.32	8.19	-45.12	-13.00	-32.12
N/A						
3702.00	H	-55.04	6.71	-48.33	-13.00	-35.33
5550.00	H	-51.56	10.21	-41.35	-13.00	-28.35
N/A						

Remark:

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

Operation Mode: GSM 1900 / TX / CH 661 **Test Date:** December 9, 2008

Temperature: 25°C **Tested by:** Mark Yang

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

Frequency (MHz)	Antenna Polarization	Reading level (dBuV)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
3758.00	V	-56.28	7.81	-48.46	-13.00	-35.46
5641.00	V	-51.09	8.23	-42.85	-13.00	-29.85
N/A						
3758.00	H	-54.56	6.83	-47.73	-13.00	-34.73
5641.00	H	-49.16	9.93	-39.24	-13.00	-26.24
N/A						

Remark:

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

Operation Mode: GSM 1900 / TX / CH 810 **Test Date:** December 9, 2008

Temperature: 25°C **Tested by:** Mark Yang

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

Frequency (MHz)	Antenna Polarization	Reading level (dBuV)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
3821.00	V	-56.19	8.09	-48.10	-13.00	-35.10
5732.00	V	-49.43	8.27	-41.16	-13.00	-28.16
N/A						
3821.00	H	-56.65	6.95	-49.70	-13.00	-36.70
5732.00	H	-48.17	9.65	-38.52	-13.00	-25.52
N/A						

Remark:

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

Operation Mode: GPRS 1900 / TX / CH 512 **Test Date:** December 8, 2008

Temperature: 25°C **Tested by:** Mark Yang

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

Frequency (MHz)	Antenna Polarization	Reading level (dBuV)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
3702.00	V	-56.04	7.57	-48.47	-13.00	-35.47
5550.00	V	-53.32	8.19	-45.12	-13.00	-32.12
N/A						
3702.00	H	-55.04	6.71	-48.33	-13.00	-35.33
5550.00	H	-51.56	10.21	-41.35	-13.00	-28.35
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:** December 9, 2008

Temperature: 25°C **Tested by:** Mark Yang

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

Frequency (MHz)	Antenna Polarization	Reading level (dBuV)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
3758.00	V	-56.28	7.81	-48.46	-13.00	-35.46
5641.00	V	-51.09	8.23	-42.85	-13.00	-29.85
N/A						
3758.00	H	-54.56	6.83	-47.73	-13.00	-34.73
5641.00	H	-49.16	9.93	-39.24	-13.00	-26.24
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:** December 9, 2008

Temperature: 25°C **Tested by:** Mark Yang

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

Frequency (MHz)	Antenna Polarization	Reading level (dBuV)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
3821.00	V	-56.19	8.09	-48.10	-13.00	-35.10
5732.00	V	-49.43	8.27	-41.16	-13.00	-28.16
N/A						
3821.00	H	-56.65	6.95	-49.70	-13.00	-36.70
5732.00	H	-48.17	9.65	-38.52	-13.00	-25.52
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:** December 9, 2008

Temperature: 25°C **Tested by:** Mark Yang

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

Frequency (MHz)	Antenna Polarization (V/H)	Reading (dBm)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
1651.00	V	-47.84	1.63	-46.21	-13.00	-33.21
2470.00	V	-51.54	4.75	-46.79	-13.00	-33.79
N/A						
1651.00	H	-37.87	1.63	-36.23	-13.00	-23.23
2470.00	H	-46.56	4.74	-41.81	-13.00	-28.81
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:** December 9, 2008

Temperature: 25°C **Tested by:** Mark Yang

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

Frequency (MHz)	Antenna Polarization (V/H)	Reading (dBm)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
1672.00	V	-48.35	1.64	-46.72	-13.00	-33.72
2512.00	V	-49.58	4.96	-44.62	-13.00	-31.62
N/A						
1672.00	H	-49.05	1.66	-47.40	-13.00	-34.40
2512.00	H	-56.09	4.94	-51.15	-13.00	-38.15
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:** December 9, 2008

Temperature: 25°C **Tested by:** Mark Yang

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

Frequency (MHz)	Antenna Polarization (V/H)	Reading (dBm)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
1700.00	V	-58.67	1.65	-57.02	-13.00	-44.02
N/A						
1700.00	H	-51.90	1.68	-50.22	-13.00	-37.22
2547.00	H	-58.30	4.98	-53.32	-13.00	-40.32
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:** December 9, 2008

Temperature: 25°C **Tested by:** Mark Yang

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

Frequency (MHz)	Antenna Polarization (V/H)	Reading (dBm)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
3702.00	V	-59.79	7.57	-52.22	-13.00	-39.22
5550.00	V	-57.70	8.19	-49.51	-13.00	-36.51
N/A						
3702.00	H	-59.32	6.71	-52.61	-13.00	-39.61
5550.00	H	-58.22	10.21	-48.01	-13.00	-35.01
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:** December 9, 2008

Temperature: 25°C **Tested by:** Mark Yang

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

Frequency (MHz)	Antenna Polarization (V/H)	Reading (dBm)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
3758.00	V	-60.30	7.81	-52.49	-13.00	-39.49
N/A						
3758.00	H	-59.41	6.83	-52.58	-13.00	-39.58
5641.00	H	-58.88	9.93	-48.95	-13.00	-35.95
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:** December 8, 2008

Temperature: 25°C **Tested by:** Mark Yang

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

Frequency (MHz)	Antenna Polarization (V/H)	Reading (dBm)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
3821.00	V	-58.45	8.09	-50.36	-13.00	-37.36
5732.00	V	-56.81	8.27	-48.53	-13.00	-35.53
N/A						
3821.00	H	-59.96	6.95	-53.01	-13.00	-40.01
5732.00	H	-59.25	9.65	-49.60	-13.00	-36.60
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:** December 7, 2008

Temperature: 25°C **Tested by:** Mark Yang

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

Frequency (MHz)	Antenna Polarization (V/H)	Reading (dBm)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
3709.00	V	-53.80	7.60	-46.20	-13.00	-33.20
N/A						
3709.00	H	-50.95	6.73	-44.23	-13.00	-31.23
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:** December 7, 2008

Temperature: 25°C **Tested by:** Mark Yang

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

Frequency (MHz)	Antenna Polarization (V/H)	Reading (dBm)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
3758.00	V	-54.56	7.81	-46.74	-13.00	-33.74
5487.00	V	-61.32	8.19	-53.13	-13.00	-40.13
N/A						
3758.00	H	-53.33	6.83	-46.50	-13.00	-33.50
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:** December 7, 2008

Temperature: 25°C **Tested by:** Mark Yang

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

Frequency (MHz)	Antenna Polarization (V/H)	Reading (dBm)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
3814.00	V	-50.69	8.06	-42.63	-13.00	-29.63
5725.00	V	-60.09	8.27	-51.82	-13.00	-38.82
N/A						
3814.00	H	-49.59	6.94	-42.65	-13.00	-29.65
5788.00	H	-61.03	9.48	-51.56	-13.00	-38.56
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:** December 7, 2008

Temperature: 25°C **Tested by:** Mark Yang

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

Frequency (MHz)	Antenna Polarization (V/H)	Reading (dBm)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
1651.00	V	-57.28	1.63	-55.66	-13.00	-42.66
2477.00	V	-55.90	4.79	-51.10	-13.00	-38.10
N/A						
2484.00	H	-52.50	4.83	-47.67	-13.00	-34.67
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 4183 **Test Date:** December 7, 2008

Temperature: 25°C **Tested by:** Mark Yang

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

Frequency (MHz)	Antenna Polarization (V/H)	Reading (dBm)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
1672.00	V	-56.42	1.64	-54.79	-13.00	-41.79
2512.00	V	-56.61	4.96	-51.65	-13.00	-38.65
N/A						
2512.00	H	-52.87	4.94	-47.94	-13.00	-34.94
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:** December 7, 2008

Temperature: 25°C **Tested by:** Mark Yang

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

Frequency (MHz)	Antenna Polarization (V/H)	Reading (dBm)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
1693.00	V	-56.39	1.64	-54.75	-13.00	-41.75
2540.00	V	-55.89	5.01	-50.89	-13.00	-37.89
N/A						
1693.00	H	-58.05	1.68	-56.38	-13.00	-43.38
2540.00	H	-51.97	4.97	-46.99	-13.00	-33.99
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:**	December 11, 2008
Temperature:	25°C	**Tested by:**	Mark Yang
Humidity:	50 % RH	**Polarity:**	Ver. / Hor.

Frequency (MHz)	Antenna Polarization (V/H)	Reading (dBm)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
3709.00	V	-53.87	7.60	-46.26	-13.00	-33.26
N/A						
3709.00	H	-51.36	6.73	-44.63	-13.00	-31.63
5102.00	H	-58.38	10.02	-48.37	-13.00	-35.37
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:**	December 11, 2008
Temperature:	25°C	**Tested by:**	Mark Yang
Humidity:	50 % RH	**Polarity:**	Ver. / Hor.

Frequency (MHz)	Antenna Polarization (V/H)	Reading (dBm)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
3765.00	V	-55.36	7.85	-47.51	-13.00	-34.51
N/A						
3758.00	H	-59.19	6.83	-52.36	-13.00	-39.36
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:**	December 11, 2008
Temperature:	25°C	**Tested by:**	Mark Yang
Humidity:	50 % RH	**Polarity:**	Ver. / Hor.

Frequency (MHz)	Antenna Polarization (V/H)	Reading (dBm)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
3814.00	V	-56.04	8.06	-47.98	-13.00	-34.98
N/A						
3814.00	H	-49.51	6.94	-42.57	-13.00	-29.57
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:**	December 11, 2008
Temperature:	25°C	**Tested by:**	Mark Yang
Humidity:	50 % RH	**Polarity:**	Ver. / Hor.

Frequency (MHz)	Antenna Polarization (V/H)	Reading (dBm)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
2477.00	V	-57.83	4.79	-53.03	-13.00	-40.03
N/A						
2477.00	H	-59.91	4.78	-55.13	-13.00	-42.13
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 4183	**Test Date:**	December 11, 2008
Temperature:	25°C	**Tested by:**	Mark Yang
Humidity:	50 % RH	**Polarity:**	Ver. / Hor.

Frequency (MHz)	Antenna Polarization (V/H)	Reading (dBm)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
2512.00	V	-59.75	4.96	-54.79	-13.00	-41.79
N/A						
1679.00	H	-55.95	1.66	-54.29	-13.00	-41.29
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:**	December 11, 2008
Temperature:	25°C	**Tested by:**	Mark Yang
Humidity:	50 % RH	**Polarity:**	Ver. / Hor.

Frequency (MHz)	Antenna Polarization (V/H)	Reading (dBm)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
1707.00	V	-60.71	1.65	-59.05	-13.00	-46.05
N/A						
1693.00	H	-59.54	1.68	-57.86	-13.00	-44.86
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.*

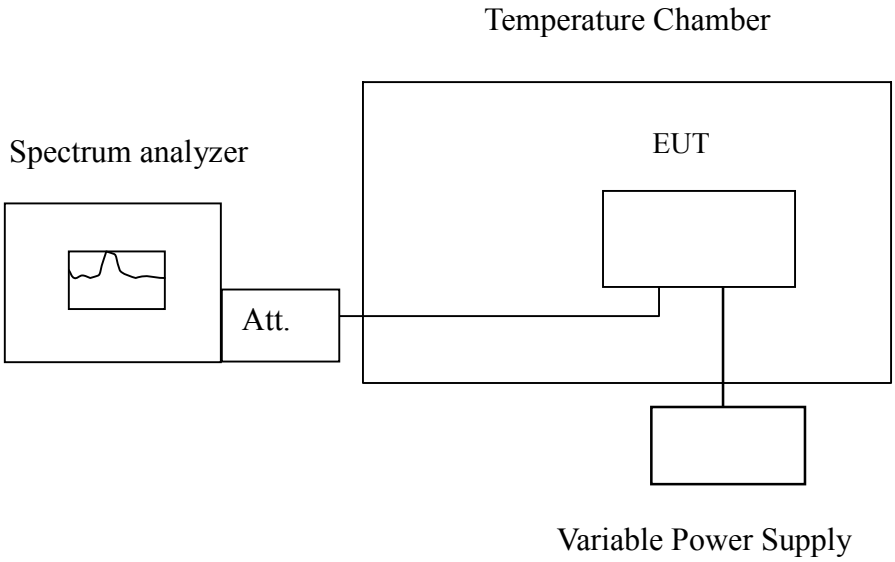
7.6 FREQUENCY STABILITY V.S. TEMPERATURE MEASUREMENT

LIMIT

According to FCC §2.1055, FCC §24.235.

Frequency Tolerance: 2.5 ppm

Test Configuration



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

TEST PROCEDURE

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

TEST RESULTS

No non-compliance noted.

Reference Frequency: GSM Mid Channel 836.6 MHz @ 20°C				
Limit: +/- 2.5 ppm = 2090 Hz				
Power Supply Vdc	Environment Temperature (°C)	Frequency (Hz)	Delta (Hz)	Limit (Hz)
3.7	50	83600001	22	2090
	40	83600016	37	
	30	83600013	34	
	20	83599979	0	
	10	83600018	39	
	0	83600019	40	
	-10	83600011	32	
	-20	83600024	45	
	-30	83600007	28	

Reference Frequency: GSM Mid Channel 1880 MHz @ 20°C				
Limit: ± 2.5 ppm = 4700Hz				
Power Supply Vdc	Environment Temperature (°C)	Frequency (Hz)	Delta (Hz)	Limit (Hz)
3.7	50	1880000005	20	4700
	40	1880000019	34	
	30	1880000007	22	
	20	1879999985	0	
	10	1880000006	21	
	0	1880000011	26	
	-10	1880000006	21	
	-20	1880000009	24	
	-30	1880000011	26	

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	83600029	52	2090
	40	83600034	57	
	30	83600029	52	
	20	83599977	0	
	10	83600011	34	
	0	83600015	38	
	-10	83600013	36	
	-20	83600019	42	
	-30	83600015	38	

Reference Frequency: GPRS Mid Channel 1880 MHz @ 20°C				
Limit: ± 2.5 ppm = 4700Hz				
Power Supply Vdc	Environment Temperature (°C)	Frequency (Hz)	Delta (Hz)	Limit (Hz)
3.7	50	1880000024	53	4700
	40	1880000031	60	
	30	1880000040	69	
	20	1879999971	0	
	10	1880000028	57	
	0	1880000021	50	
	-10	1880000034	63	
	-20	1880000037	66	
	-30	1880000035	64	

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	83600031	59	2090
	40	83600034	62	
	30	83600020	48	
	20	83599972	0	
	10	83600035	63	
	0	83600027	55	
	-10	83600030	58	
	-20	83600034	62	
	-30	83600041	69	

Reference Frequency: EDGE Mid Channel 1880 MHz @ 20°C				
Limit: ± 2.5 ppm = 4700Hz				
Power Supply Vdc	Environment Temperature (°C)	Frequency (Hz)	Delta (Hz)	Limit (Hz)
3.7	50	1879999996	26	4700
	40	1879999997	27	
	30	1880000001	31	
	20	1879999970	0	
	10	1879999993	23	
	0	1879999990	20	
	-10	1879999995	25	
	-20	1879999992	22	
	-30	1879999999	29	

Reference Frequency: WCDMA Band V 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	83600005	17	2090
	40	83600008	20	
	30	83600004	16	
	20	83599988	0	
	10	83600011	23	
	0	83600012	24	
	-10	83600015	27	
	-20	83600008	20	
	-30	83600009	21	

Reference Frequency: WCDMA Band II Mid Channel 1880 MHz @ 20°C				
Limit: ± 2.5 ppm = 4700Hz				
Power Supply Vdc	Environment Temperature (°C)	Frequency (Hz)	Delta (Hz)	Limit (Hz)
3.7	50	1880000011	15	4700
	40	1880000005	9	
	30	1880000013	17	
	20	1879999996	0	
	10	1880000005	9	
	0	1880000008	12	
	-10	1880000003	7	
	-20	1880000001	5	
	-30	1880000002	6	

Reference Frequency: WCDMA / HSDPA Band V 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	83600001	4	2090
	40	83600005	8	
	30	83600003	6	
	20	83599997	0	
	10	83600015	18	
	0	83600004	7	
	-10	83600009	12	
	-20	83600013	16	
	-30	83600011	14	

Reference Frequency: WCDMA / HSDPA Band II Mid Channel 1880 MHz @ 20°C				
Limit: ± 2.5 ppm = 4700Hz				
Power Supply Vdc	Environment Temperature (°C)	Frequency (Hz)	Delta (Hz)	Limit (Hz)
3.7	50	1880000013	29	4700
	40	1880000012	28	
	30	1880000005	21	
	20	1879999984	0	
	10	1880000010	26	
	0	1880000006	22	
	-10	1880000011	27	
	-20	1880000003	19	
	-30	1880000005	21	

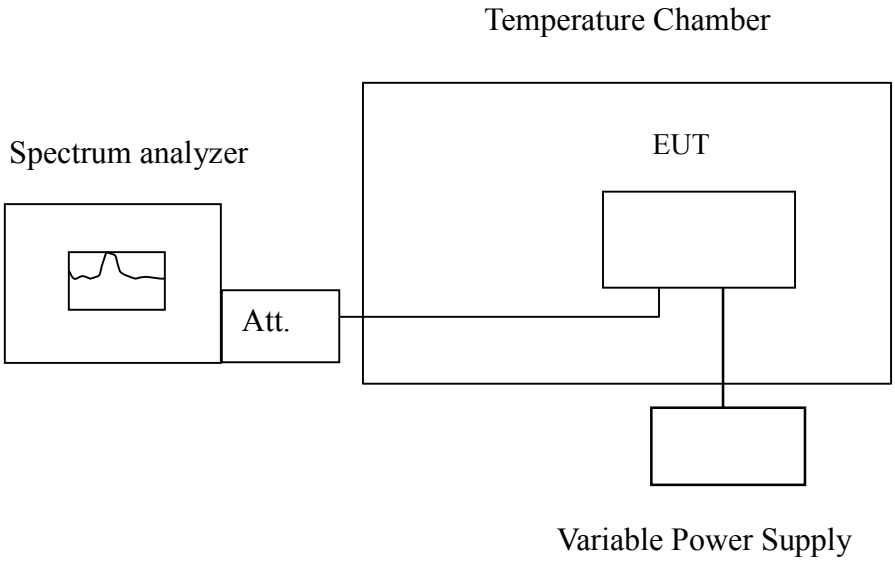
7.7 FREQUENCY STABILITY V.S. VOLTAGE MEASUREMENT

LIMIT

According to FCC §2.1055, FCC §24.235,

Frequency Tolerance: 2.5 ppm.

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: GSM Mid Channel 836.6 MHz @ 20°C				
Limit: ± 2.5 ppm = 2090Hz				
Power Supply Vdc	Environment Temperature (°C)	Frequency (Hz)	Delta (Hz)	Limit (Hz)
4.255	20	83599986	7	2090
3.7		83599979	0	
3.145		83599977	-2	
2.8END		83599562	-415	

Reference Frequency: GSM Mid Channel 1880 MHz @ 20°C				
Limit: ± 2.5 ppm = 4700Hz				
Power Supply Vdc	Environment Temperature (°C)	Frequency (Hz)	Delta (Hz)	Limit (Hz)
4.255	20	1879999982	-3	4700
3.7		1879999985	0	
3.145		1879999993	8	
2.8		1879999652	-333	

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)
4.255	20	83599976	-1	2090
3.7		83599977	0	
3.145		83599962	-15	
2.8END		83599806	-156	

Reference Frequency: GPRS Mid Channel 1880 MHz @ 20°C				
Limit: ± 2.5 ppm = 4700Hz				
Power Supply Vdc	Environment Temperature (°C)	Frequency (Hz)	Delta (Hz)	Limit (Hz)
4.255	20	1879999960	-11	4700
3.7		1879999971	0	
3.145		1879999966	-5	
2.8END		1879999754	-217	

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)
4.255	20	83599974	2	2090
3.7		83599972	0	
3.145		83599965	-7	
2.8END		83599739	-226	

Reference Frequency: EDGE Mid Channel 1880 MHz @ 20°C				
Limit: ± 2.5 ppm = 4700Hz				
Power Supply Vdc	Environment Temperature (°C)	Frequency (Hz)	Delta (Hz)	Limit (Hz)
4.255	20	1879999982	12	4700
3.7		1879999970	0	
3.145		1879999979	9	
2.8END		1879999587	-383	

Reference Frequency: WCDMA Band V Mid Channel 836.6 MHz @ 20°C				
Limit: ± 2.5 ppm = 2090Hz				
Power Supply Vdc	Environment Temperature (°C)	Frequency (Hz)	Delta (Hz)	Limit (Hz)
4.255	20	83599987	-1	2090
3.7		83599988	0	
3.145		83599989	1	
2.8		83599843	-146	

Reference Frequency: WCDMA Band II Mid Channel 1880 MHz @ 20°C				
Limit: ± 2.5 ppm = 4700Hz				
Power Supply Vdc	Environment Temperature (°C)	Frequency (Hz)	Delta (Hz)	Limit (Hz)
4.255	20	1879999985	-11	4700
3.7		1879999996	0	
3.145		1879999997	1	
2.8		1879999782	-214	

Reference Frequency: WCDMA / HSDPA Band V Mid Channel 836.6 MHz @ 20°C				
Limit: ± 2.5 ppm = 2090Hz				
Power Supply Vdc	Environment Temperature (°C)	Frequency (Hz)	Delta (Hz)	Limit (Hz)
4.255	20	83599988	-9	2090
3.7		83599997	0	
3.145		83599995	-2	
2.8		83599757	-238	

Reference Frequency: WCDMA / HSDPA Band II Mid Channel 1880 MHz @ 20°C				
Limit: ± 2.5 ppm = 4700Hz				
Power Supply Vdc	Environment Temperature (°C)	Frequency (Hz)	Delta (Hz)	Limit (Hz)
4.255	20	1879999988	4	4700
3.7		1879999984	0	
3.145		1879999997	13	
2.8		1879999875	-109	

7.8 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:**	December 11, 2008
Temperature:	22°C	**Tested by:**	Ryan Chen
Humidity:	45% RH		

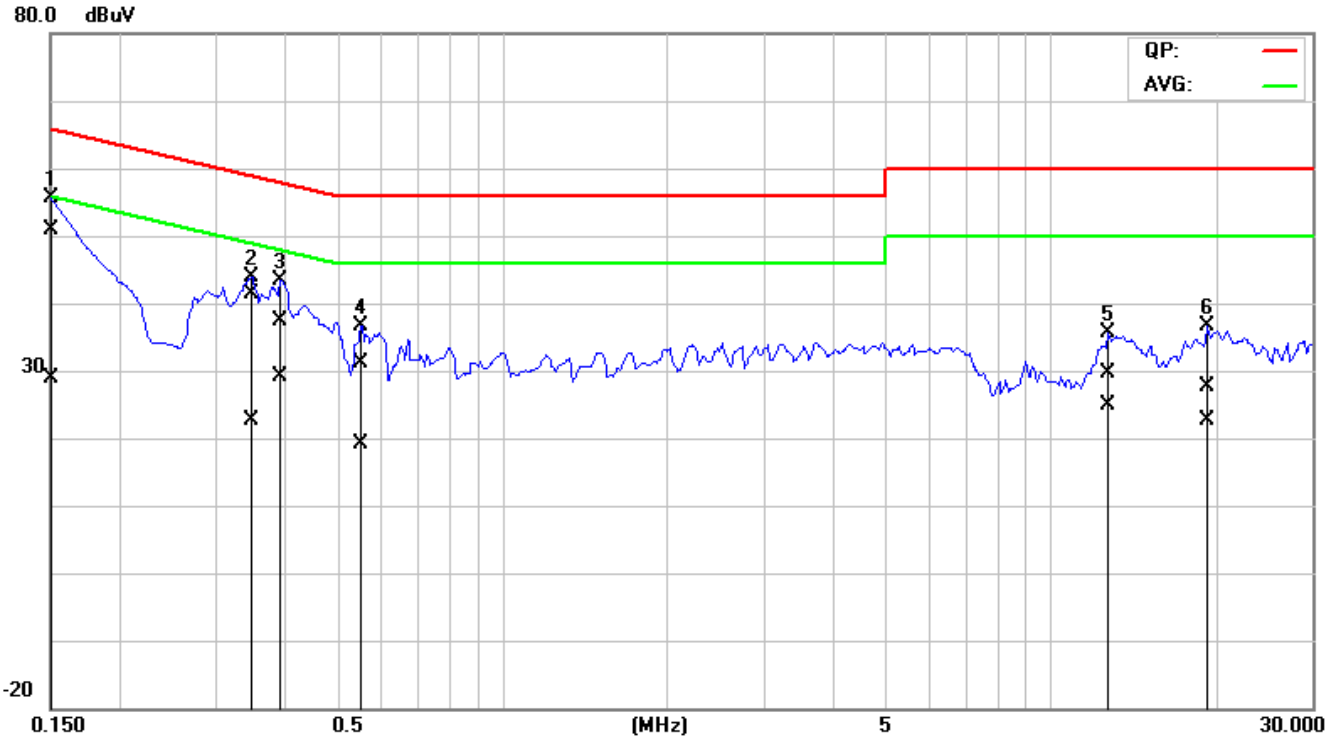
Freq. (MHz)	QP Reading (dBuV)	AV Reading (dBuV)	Corr. factor (dB)	QP Result (dBuV)	AV Result (dBuV)	QP Limit (dBuV)	AV Limit (dBuV)	QP Margin (dB)	AV Margin (dB)	Note
0.1500	50.80	28.80	0.20	51.00	29.00	66.00	56.00	-15.00	-27.00	L1
0.3500	41.20	22.60	0.10	41.30	22.70	58.96	48.96	-17.66	-26.26	L1
0.3950	37.42	29.02	0.08	37.50	29.10	57.96	47.96	-20.46	-18.86	L1
0.5550	31.17	19.17	0.03	31.20	19.20	56.00	46.00	-24.80	-26.80	L1
12.7400	28.99	24.19	0.61	29.60	24.80	60.00	50.00	-30.40	-25.20	L1
19.2650	27.00	22.00	0.70	27.70	22.70	60.00	50.00	-32.30	-27.30	L1
0.1500	49.40	29.00	0.20	49.60	29.20	66.00	56.00	-16.40	-26.80	L2
0.2850	38.78	29.28	0.12	38.90	29.40	60.67	50.67	-21.77	-21.27	L2
0.3750	40.32	28.32	0.08	40.40	28.40	58.39	48.39	-17.99	-19.99	L2
0.5650	34.07	19.87	0.03	34.10	19.90	56.00	46.00	-21.90	-26.10	L2
13.2850	26.38	20.98	0.62	27.00	21.60	60.00	50.00	-33.00	-28.40	L2
22.9500	30.08	23.88	0.82	30.90	24.70	60.00	50.00	-29.10	-25.30	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)*

Test Plots

Conducted emissions (Line 1)



Conducted emissions (Line 2)