



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

TEST REPORT

For

POLA100

Trade Name: HTC

Model: POLA100

Issued to

**High Tech Computer Corp.
23 Xinghua Rd., Taoyuan,
Taiwan, R.O.C.**

Issued by

**Compliance Certification Services Inc.
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1. TEST RESULT CERTIFICATION

Applicant: High Tech Computer Corp.
23 Xinghua Rd., Taoyuan,
Taiwan, R.O.C.

Equipment Under Test: POLA100

Trade Name: HTC

Model Number: POLA100

Date of Test: April 21 ~ May 17, 2008

APPLICABLE STANDARDS	
STANDARD	TEST RESULT
FCC 47 CFR PART 22 SUBPART H AND 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 ANSI/TIA/EIA-603-A-2001 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:

Reviewed by:

Rex Lai
Section Manager
Compliance Certification Services Inc.

Amanda Wu
Section Manager
Compliance Certification Services Inc.



2. EUT DESCRIPTION

Product	POLA100
Trade Name	HTC
Model Number	POLA100
Model Discrepancy	N/A
Power Supply	<ol style="list-style-type: none"> 1. Power Adapter: DELTA ELECTRONICS, INC. / ADP-5FH B I/P: AC 100-240V, 50-60Hz, 0.2A O/P: DC 5V, 1A HTC / PSAA05A-050 I/P: AC 100-240V, 50-60Hz, 200mA O/P: DC 5V, 1A PHIHONG / PSAA05A-050 I/P: AC 100-240V, 50-60Hz, 200mA O/P: DC 5V, 1A 2. Rechargeable Lithium Battery: POLA160 Rating: 3.7VDC, 1350mAh 3. Car Charger: HTC / CLM10D-050 I/P: 10-30V O/P: DC 5.0V, 2A HTC / G12PCL-587 I/P: 10-30V, 700mA O/P: DC 5V, 1A 4. Powered from PC via USB cable.
Accessories	<ol style="list-style-type: none"> 1. Headset: COTRON (model name: CHM-311STV08001-1), Unshielded, 1.75 m 2. USB cable: MEC (model name: 60-4251-100), Unshielded, 1.3m 3. GPS Antenna: model name: 36H00587-00M, Unshielded, 4.95m
Frequency Range	GSM / GPRS / EGPRS: 850: 824 ~ 849 MHz GSM / GPRS / EGPRS: 1900: 1850 ~ 1910 MHz WCDMA Band V & WCDMA HSDPA Band V: 826.4 ~ 846.6 MHz WCDMA Band II & WCDMA HSDPA Band II: 1852.4 ~ 1907.6 MHz
Modulation Technique	GSM: GMSK GPRS: GMSK EGPRS: 8PSK WCDMA: Quadrature Phase Shift Keying (QPSK) with Root-raised cosine pulse shaping filters (roll off = 0.22)



Transmit Power (ERP & EIRP Power)	GSM 850: 31.59 dBm GPRS 850: 28.90 dBm GSM 1900: 31.79 dBm GPRS 1900: 31.67 dBm EGPRS 850: 22.76 dBm EGPRS 1900: 24.71 dBm WCDMA Band II: 22.54 dBm WCDMA HSDPA Band II: 23.54 dBm WCDMA Band V: 18.35 dBm WCDMA HSDPA Band V: 18.11 dBm
Type of Emission	GSM 850 MHz: 244KGXW--- GPRS 850 MHz: 242KGXW--- GSM 1900 MHz: 247KGXW--- GPRS 1900 MHz: 249KGXW--- EGPRS 850 MHz: 244KG7W--- EGPRS 1900 MHz: 245KG7W--- WCDMA Band II: 4M17F9W--- WCDMA HSDPA Band II: 4M18F9W--- WCDMA Band V: 4M18F9W--- WCDMA HSDPA Band V: 4M21F9W---
Antenna Gain	GSM / GPRS / EGPRS 850 MHz: -2.5 dBi GSM / GPRS / EGPRS 1900 MHz: 1.0 dBi WCDMA band II: 1.0 dBi WCDMA band V: -2.5 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: NM8PL filing to comply with Part 22 and Part 24 of the FCC 47 CFR Rules.*



3. TEST METHODOLOGY

Both conducted and radiated testing were performed according to the procedures document on chapter 13 of ANSI C63.4 and FCC CFR 47, 2.1046, 2.1047, 2.1049, 2.1051, 2.1053, 2.1055 and 2.1057.

3.1 EUT CONFIGURATION

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

3.2 EUT EXERCISE

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

3.3 GENERAL TEST PROCEDURES

Conducted Emissions

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. 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.



3.4 DESCRIPTION OF TEST MODES

The EUT (model: POLA100) comes with three types of power adapter (DELTA ELECTRONICS, INC. & HTC & PHIHONG) for sale. After the preliminary test, the adapter with trade name HTC 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 / EGPRS 850:

Channel Low (CH128), Channel Mid (CH190) and Channel High (CH251) were chosen for full testing.

GSM / GPRS / EGPRS 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 / HSDPA 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 (CH4183) and Channel High (CH4233) were chosen for full testing.

WCDMA / HSDPA Band V:

Channel Low (CH4132), Channel Mid (CH4183) and Channel High (CH4233) were chosen for full testing.

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 the worst case was recorded.

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

The worst emission was found:

in lie-down (X axis) for GSM 850 / GPRS 850 / EGPRS 850 / GPRS1900,

in lie-down (Y axis) for EGPRS 1900 / WCDMA Band II / WCDMA HSDPA Band II,

and in stand-up position (Z axis) for GSM 1900 / WCDMA Band V / WCDMA HSDPA Band V.



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	06/07/2008
Temp. / Humidity Chamber	Terchy	MHG-150LF	930619	08/08/2008
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	08/01/2008
Test Receiver	Rohde & Schwarz	ESCI	100064	11/12/2008
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	05/31/2008
Horn-Antenna	TRC	HA-0801	04	06/20/2008
Bilog- Antenna	Sunol Sciences	JB3	A030205	03/28/2009
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	N/A	FCC: 965860 IC: IC 6106	09/25/2008	09/25/2008
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	06/10/2008
Substituted Horn	EMCO	3115	00022257	12/17/2008
Test S/W	LABVIEW (V 6.1)			

Remark: The measurement uncertainty is less than $\pm 2.0065\text{dB}$ (30MHz ~ 1GHz), $\pm 3.0958\text{dB}$ (Above 1GHz) which is evaluated as per the NAMAS NIS 81 and CISPR/A/291/CDV.



Powerline Conducted Emissions Test Site				
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due
EMI Test Receiver 9kHz-30MHz	Rohde & Schwarz	ESHS30	828144/003	10/30/2008
Two-Line V-Network 9kHz-30MHz	Schaffner	NNB41	03/10013	06/12/2008
LISN 10kHz-100MHz	EMCO	3825/2	9106-1809	04/09/2009
Test S/W	LABVIEW (V 6.1)			

Remark: The measurement uncertainty is less than +/- 2.81dB, which is evaluated as per the NAMAS NIS 81 and CISPR/A/291/CDV.



5. FACILITIES AND ACCREDITATIONS

5.1 FACILITIES

No.199, Chunghsen Road, Hsintien City, Taipei Hsien, Taiwan, R.O.C.

Tel: 886-2-2217-0894 / Fax: 886-2-2217-1029

No.11, Wugong 6th Rd., Wugu 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 and CISPR Publication 22.

5.2 EQUIPMENT






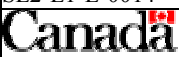
Radiated emissions are measured with one or more of the following types of linearly polarized antennas: tuned dipole, biconical, log periodic, bi-log, and/or ridged waveguide, horn. Spectrum analyzers with pre-selectors and quasi-peak detectors are used to perform radiated measurements.

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."

5.3 TABLE OF ACCREDITATIONS AND LISTINGS

Country	Agency	Scope of Accreditation	Logo
USA	A2LA	EN 55011, EN 55014-1/2, CISPR 11, CISPR 14-1/2, EN 55022, EN 55015, CISPR 22, CISPR 15, AS/NZS 3548, VCCI V3 (2001), CFR 47, FCC Part 15/18, CNS 13783-1, CNS 13439, CNS 13438, CNS 13803, CNS 14115, EN 55024, IEC 801-2, IEC 801-3, IEC 801-4, IEC/EN 61000-3-2, IEC/EN 61000-3-3, IEC/EN 61000-4-2/3/4/5/6/8/11, EN 50081-1/ EN 61000-6-3, EN 50081-2/EN 61000-6-4, EN 50081-2/EN 61000-6-1: 2001	 ACCREDITED TESTING CERT #0824.01
USA	FCC	3/10 meter Open Area Test Sites (93105, 90471) / 3M Semi Anechoic Chamber (965860) to perform FCC Part 15/18 measurements	 93105, 90471 965860
Japan	VCCI	3/10 meter Open Area Test Sites to perform conducted/radiated measurements	VCCI R-393/1066/725/879 C-402/747/912
Norway	NEMKO	EN 50081-1/2, EN 50082-1/2, IEC 61000-6-1/2, EN 50091-2, EN 50130-4, EN 55011, EN 55013, EN 55014-1/2, EN 55015, EN 55022, EN 55024, EN 61000-3-2/3, EN 61326-1, IEC 61000-4-2/3/4/5/6/8/11, EN 60601-1-2, EN 300 328, EN 300 422-2, EN 301 419-1, EN 301 489-01/03/07/08/09/17, EN 301 419-2/3, EN 300 454-2, EN 301 357-2	 ELA 124a ELA 124b ELA 124c
Taiwan	TAF	EN 300 328, EN 300 220-1, EN 300 220-2, EN 300 220-3, 47 CFR FCC Part 15 Subpart C, EN 61000-3-2, EN 61000-3-3, CNS 13439, CNS 13783-1, CNS 14115, CNS 13438, AS/NZS CISPR 22, CNS 13022-1, IEC 61000-4-2/3/4/5/6/8/11, CNS 13022-2/3	 TAF Testing Laboratory 0363
Taiwan	BSMI	CNS 13438, CNS 13783-1, CNS 13439, CNS 14115	 SL2-IS-E-0014 SL2-IN-E-0014 SL2-A1-E-0014 SL2-R1-E-0014 SL2-R2-E-0014 SL2-L1-E-0014
Canada	Industry Canada	3/10 meter Open Area Test Sites (IC 2324C-3, IC 2324C-5) / 3M Semi Anechoic Chamber (IC 6106)	 Canada IC 2324C-3 IC 2324C-5 IC 6106

* 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 1 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	DELL	PP05L	7T390 A03	E2K5HCKT	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:

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



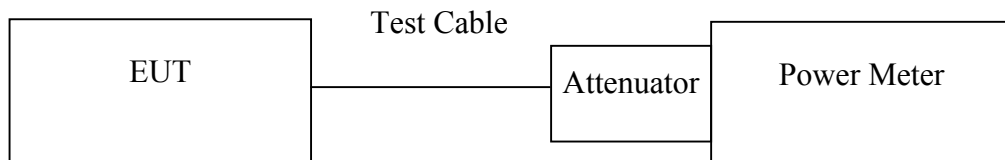
7. FCC PART 22 & 24 REQUIREMENTS

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	12.78	22.0	34.75
	190	836.60	12.56		34.53
	251	848.80	12.24		34.21
GPRS 850 (Class 12)	128	824.20	12.64		34.61
	190	836.60	12.48		34.45
	251	848.80	12.11		34.08
EGPRS 850 (Class 12)	128	824.20	7.36		29.33
	190	836.60	7.06		29.03
	251	848.80	6.72		28.69

Test Mode	CH	Frequency (MHz)	Power Meter Reading (dBm)	Attenuator (dB)	Average Power (dBm)
GSM 1900 (Class B)	512	1850.20	4.68	25.43	30.11
	661	1880.00	5.27		30.70
	810	1910.00	6.13		31.56
GPRS 1900 (Class 12)	512	1850.20	4.51		29.94
	661	1880.00	5.16		30.59
	810	1910.00	6.10		31.53
EGPRS 1900 (Class 12)	512	1850.20	0.01		25.44
	661	1880.00	0.38		25.81
	810	1910.00	1.32		26.75

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	-0.25	25.43	25.18
	9400	1880.00	0.34		25.77
	9538	1907.60	0.95		26.38
WCDMA (BAND V)	4132	826.40	3.78	22.00	25.75
	4183	836.60	3.68		25.65
	4233	846.60	3.82		25.79
Test Mode	CH	Frequency (MHz)	Power Meter Reading (dBm)	Attenuator (dB)	Average Power (dBm)
WCDMA / HSDPA (BAND II)	9262	1852.40	0.44	25.43	25.87
	9400	1880.00	0.65		26.08
	9538	1907.60	1.31		26.74
WCDMA / HSDPA (BAND V)	4132	826.40	4.39	22.00	26.36
	4183	836.60	4.06		26.03
	4233	846.60	4.30		26.27

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

7.2 ERP & EIRP MEASUREMENT

LIMIT

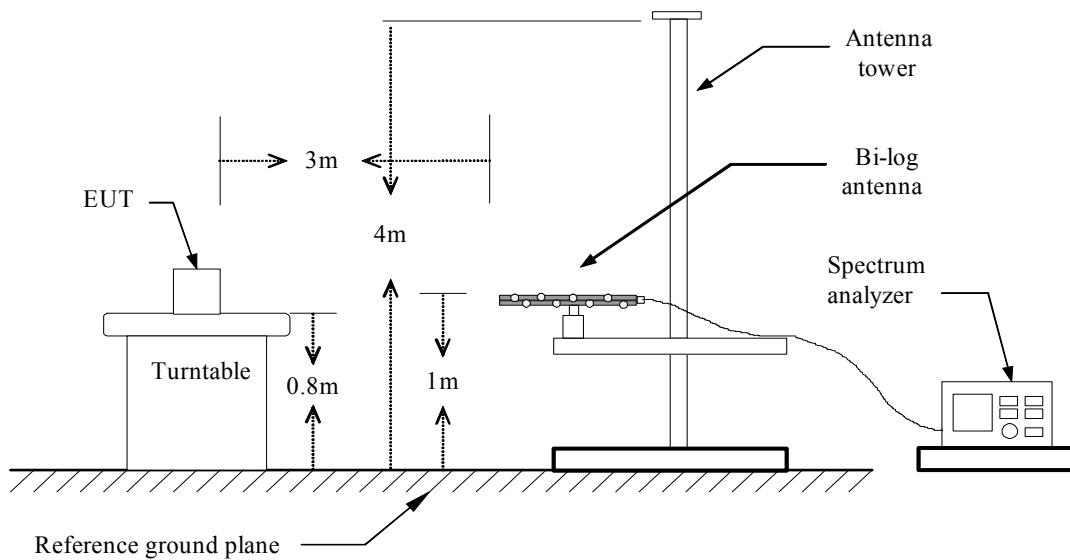
According to FCC §2.1046

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

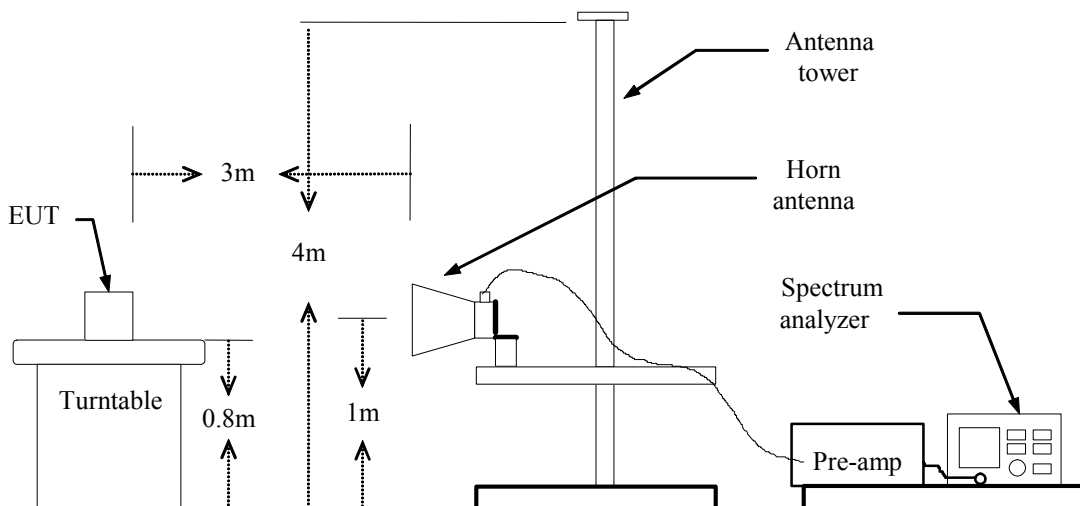
FCC 24.232(b): The equivalent Isotropic Radiated Power (EIRP) must not exceed 2 Watts.

TEST CONFIGURATION

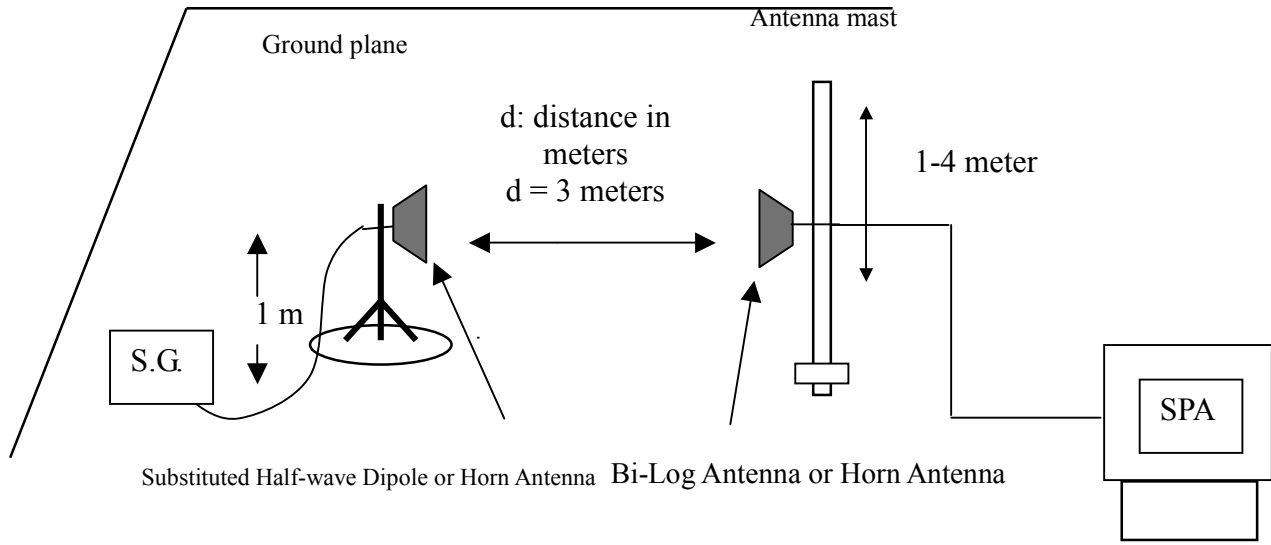
Below 1 GHz



Above 1 GHz



For Substituted Method Test Set-UP



TEST PROCEDURE

The EUT was placed on a 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:

$$ERP = \text{S.G. output (dBm)} + \text{Antenna Gain (dBd)} - \text{Cable (dB)}$$

$$EIRP = \text{S.G. output (dBm)} + \text{Antenna Gain (dBi)} - \text{Cable (dB)}$$

**TEST RESULTS***No non-compliance noted.***GSM 850 Test Data (Class B)**

EUT Pol.	Channel	Frequency (MHz)	Antenna Pol.	Reading level (dBuV)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
X	128	824.12	V	-14.66	36.28	21.62	38.50	-16.88
		824.20	H	-6.82	36.22	29.40	38.50	-9.10
	190	837.28	V	-12.79	36.35	23.57	38.50	-14.93
		837.08	H	-4.79	36.38	*31.59	38.50	-6.91
	251	848.72	V	-13.49	36.45	22.96	38.50	-15.54
		848.76	H	-6.39	36.53	30.14	38.50	-8.36
Y	128	824.12	V	-12.38	36.28	23.89	38.50	-14.61
		824.32	H	-9.89	36.22	26.32	38.50	-12.18
	190	836.64	V	-11.44	36.35	24.92	38.50	-13.58
		836.48	H	-5.87	36.38	30.51	38.50	-7.99
	251	848.84	V	-13.97	36.45	22.48	38.50	-16.02
		848.88	H	-6.52	36.53	30.01	38.50	-8.49
Z	128	824.12	V	-10.86	36.28	25.42	38.50	-13.08
		824.12	H	-13.19	36.21	23.02	38.50	-15.48
	190	836.56	V	-9.62	36.35	26.73	38.50	-11.77
		836.60	H	-12.21	36.38	24.17	38.50	-14.33
	251	848.80	V	-10.35	36.45	26.10	38.50	-12.40
		848.68	H	-13.60	36.53	22.93	38.50	-15.57

GPRS 850 Test Data (Class 12)

EUT Pol.	Channel	Frequency (MHz)	Antenna Pol.	Reading level (dBuV)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
X	128	824.07	V	-13.60	36.28	22.68	38.50	-15.82
		824.25	H	-7.32	36.22	*28.90	38.50	-9.60
	190	836.47	V	-14.68	36.35	21.68	38.50	-16.82
		836.56	H	-8.38	36.38	28.00	38.50	-10.50
	251	848.78	V	-13.78	36.45	22.67	38.50	-15.83
		848.78	H	-9.31	36.53	27.21	38.50	-11.29
Y	128	824.04	V	-10.76	36.28	25.51	38.50	-12.99
		824.13	H	-11.36	36.22	24.86	38.50	-13.64
	190	836.56	V	-11.63	36.35	24.72	38.50	-13.78
		836.68	H	-8.90	36.38	27.48	38.50	-11.02
	251	848.78	V	-12.41	36.45	24.04	38.50	-14.46
		848.75	H	-8.27	36.53	28.25	38.50	-10.25
Z	128	824.13	V	-11.88	36.28	24.39	38.50	-14.11
		823.98	H	-13.70	36.21	22.51	38.50	-15.99
	190	836.56	V	-12.34	36.36	24.02	38.50	-14.48
		836.56	H	-14.05	36.38	22.34	38.50	-16.16
	251	848.93	V	-9.87	36.45	26.58	38.50	-11.92
		848.81	H	-13.83	36.53	22.70	38.50	-15.80

**GSM 1900 Test Data (Class B)**

EUT Pol.	Channel	Frequency (MHz)	Antenna Pol.	Reading level (dBuV)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
X	512	1850.08	V	-17.32	42.49	25.17	33.00	-7.83
		1850.29	H	-14.31	42.51	28.19	33.00	-4.81
	661	1879.93	V	-17.20	42.49	25.29	33.00	-7.71
		1880.02	H	-12.89	42.53	29.64	33.00	-3.36
	810	1909.99	V	-17.12	42.49	25.37	33.00	-7.63
		1909.87	H	-11.96	42.55	30.59	33.00	-2.41
Y	512	1850.11	V	-16.32	42.49	26.17	33.00	-6.83
		1850.14	H	-13.39	42.51	29.12	33.00	-3.88
	661	1880.02	V	-13.52	42.49	28.97	33.00	-4.03
		1879.87	H	-12.63	42.53	29.90	33.00	-3.10
	810	1909.81	V	-11.79	42.49	30.70	33.00	-2.30
		1909.78	H	-12.60	42.55	29.95	33.00	-3.05
Z	512	1849.99	V	-16.07	42.49	26.43	33.00	-6.57
		1850.14	H	-12.00	42.51	30.51	33.00	-2.49
	661	1879.93	V	-14.97	42.49	27.52	33.00	-5.48
		1880.02	H	-10.74	42.53	*31.79	33.00	-1.21
	810	1909.99	V	-14.08	42.49	28.41	33.00	-4.59
		1909.75	H	-12.07	42.55	30.48	33.00	-2.52

GPRS 1900 Test Data (Class 12)

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	-17.13	42.49	25.36	33.00	-7.64
		1850.08	H	-13.34	42.51	29.16	33.00	-3.84
	661	1879.99	V	-16.01	42.49	26.49	33.00	-6.51
		1879.90	H	-12.23	42.53	30.30	33.00	-2.70
	810	1909.69	V	-16.05	42.49	26.45	33.00	-6.55
		1909.69	H	-11.35	42.55	31.19	33.00	-1.81
Y	512	1850.17	V	23.11	2.82	25.93	33.00	-7.07
		1850.11	H	22.85	2.88	25.73	33.00	-7.27
	661	1879.93	V	22.31	2.84	25.14	33.00	-7.86
		1879.87	H	22.21	2.89	25.10	33.00	-7.90
	810	1909.84	V	23.52	2.85	26.37	33.00	-6.63
		1909.81	H	23.55	2.91	26.46	33.00	-6.54
Z	512	1849.99	V	-16.35	42.49	26.14	33.00	-6.86
		1850.23	H	-14.24	42.51	28.27	33.00	-4.73
	661	1879.93	V	-15.80	42.49	26.69	33.00	-6.31
		1879.99	H	-12.34	42.53	30.19	33.00	-2.81
	810	1909.90	V	-14.74	42.49	27.75	33.00	-5.25
		1909.69	H	-10.88	42.55	*31.67	33.00	-1.33

**EGPRS 850 Test Data (Class 12)**

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	27.08	-5.55	21.53	38.50	-16.97
		824.30	H	28.15	-5.89	22.26	38.50	-16.24
	190	836.75	V	27.17	-5.45	21.72	38.50	-16.78
		836.75	H	28.02	-5.45	22.57	38.50	-15.93
	251	848.85	V	26.74	-5.15	21.59	38.50	-16.91
		848.85	H	28.06	-5.30	*22.76	38.50	-15.74
Y	128	824.30	V	26.93	-5.55	21.38	38.50	-17.12
		824.30	H	27.45	-5.90	21.55	38.50	-16.95
	190	836.65	V	26.96	-5.45	21.51	38.50	-16.99
		836.65	H	27.67	-5.45	22.21	38.50	-16.29
	251	848.85	V	27.12	-5.15	21.97	38.50	-16.53
		848.85	H	27.91	-5.30	22.62	38.50	-15.88
Z	128	824.30	V	27.62	-5.55	22.06	38.50	-16.44
		824.30	H	24.16	-5.90	18.27	38.50	-20.23
	190	836.65	V	27.66	-5.45	22.21	38.50	-16.29
		836.65	H	23.59	-5.44	18.15	38.50	-20.35
	251	848.95	V	27.87	-5.15	22.72	38.50	-15.78
		848.72	H	24.88	-5.30	19.59	38.50	-18.91

EGPRS 1900 Test Data (Class 12)

EUT Pol.	Channel	Frequency (MHz)	Antenna Pol.	Reading level (dBuV)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
X	512	1850.43	V	19.27	2.82	22.09	33.00	-10.91
		1850.16	H	20.89	2.88	23.77	33.00	-9.23
	661	1880.31	V	18.65	2.83	21.48	33.00	-11.52
		1880.31	H	20.39	2.89	23.28	33.00	-9.72
	810	1910.19	V	19.36	2.85	22.21	33.00	-10.79
		1910.19	H	21.41	2.91	24.31	33.00	-8.69
Y	512	1849.98	V	19.59	2.82	22.42	33.00	-10.58
		1850.61	H	19.60	2.88	22.48	33.00	-10.52
	661	1880.31	V	20.96	2.84	23.80	33.00	-9.20
		1880.31	H	20.18	2.89	23.08	33.00	-9.92
	810	1910.19	V	21.86	2.85	*24.71	33.00	-8.29
		1910.19	H	20.80	2.91	23.71	33.00	-9.29
Z	512	1849.98	V	17.03	2.82	19.85	33.00	-13.15
		1850.16	H	20.06	2.88	22.94	33.00	-10.06
	661	1880.13	V	18.92	2.83	21.76	33.00	-11.24
		1880.49	H	21.26	2.89	24.16	33.00	-8.84
	810	1910.19	V	19.12	2.85	21.97	33.00	-11.03
		1910.19	H	22.46	2.91	25.37	33.00	-7.63



WCDMA Test Data (BAND II)

EUT Pol.	Channel	Frequency (MHz)	Antenna Pol.	Reading level (dBuV)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
X	9262	1853.49	V	16.51	2.82	19.34	33.00	-13.66
		1853.22	H	18.22	2.88	21.10	33.00	-11.90
	9400	1879.41	V	15.88	2.84	18.72	33.00	-14.28
		1880.94	H	18.60	2.89	21.49	33.00	-11.51
	9538	1906.68	V	15.60	2.85	18.45	33.00	-14.55
		1906.86	H	17.72	2.91	20.63	33.00	-12.37
Y	9262	1853.40	V	18.21	2.82	21.03	33.00	-11.97
		1853.76	H	18.37	2.88	21.25	33.00	-11.75
	9400	1881.03	V	18.91	2.83	21.75	33.00	-11.25
		1880.76	H	18.93	2.89	21.82	33.00	-11.18
	9538	1906.68	V	18.48	2.85	21.32	33.00	-11.68
		1906.68	H	17.72	2.91	20.63	33.00	-12.37
Z	9262	1852.32	V	16.67	2.82	19.50	33.00	-13.50
		1853.58	H	19.25	2.88	22.13	33.00	-10.87
	9400	1880.76	V	17.41	2.83	20.24	33.00	-12.76
		1880.49	H	19.65	2.89	*22.54	33.00	-10.46
	9538	1906.68	V	16.30	2.85	19.15	33.00	-13.85
		1907.04	H	19.35	2.91	22.26	33.00	-10.74

WCDMA Test Data (BAND V)

EUT Pol.	Channel	Frequency (MHz)	Antenna Pol.	Reading level (dBuV)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
X	4132	827.15	V	18.50	-5.53	12.97	38.50	-25.53
		827.15	H	20.82	-5.79	15.03	38.50	-23.47
	4183	836.51	V	17.89	-5.46	12.43	38.50	-26.07
		836.51	H	20.32	-5.42	14.90	38.50	-23.60
	4233	846.90	V	20.29	-5.25	15.04	38.50	-23.46
		846.90	H	22.35	-5.31	17.04	38.50	-21.46
Y	4132	827.24	V	13.20	-5.53	7.67	38.50	-30.83
		826.70	H	21.18	-5.78	15.39	38.50	-23.11
	4183	836.69	V	13.45	-5.45	7.99	38.50	-30.51
		836.69	H	20.14	-5.50	14.64	38.50	-23.86
	4233	846.72	V	16.67	-5.25	11.42	38.50	-27.08
		846.72	H	22.62	-5.31	17.31	38.50	-21.19
Z	4132	826.65	V	21.31	-5.53	15.78	38.50	-22.72
		826.65	H	17.61	-5.79	11.82	38.50	-26.68
	4183	836.51	V	21.36	-5.46	15.90	38.50	-22.60
		836.51	H	16.90	-5.49	11.41	38.50	-27.09
	4233	847.26	V	23.60	-5.25	*18.35	38.50	-20.15
		846.59	H	19.12	-5.31	13.81	38.50	-24.69



WCDMA / 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	1853.76	V	18.24	2.82	21.06	33.00	-11.94
		1853.76	H	20.30	2.88	23.18	33.00	-9.82
	9400	1881.12	V	15.38	2.84	18.22	33.00	-14.78
		1881.39	H	20.17	2.89	23.06	33.00	-9.94
	9538	1906.59	V	14.61	2.85	17.46	33.00	-15.54
		1906.95	H	19.50	2.91	22.41	33.00	-10.59
Y	9262	1853.76	V	19.71	2.82	22.53	33.00	-10.47
		1853.76	H	20.67	2.88	*23.54	33.00	-9.46
	9400	1881.03	V	19.25	2.84	22.08	33.00	-10.92
		1881.12	H	19.27	2.89	22.16	33.00	-10.84
	9538	1906.41	V	18.68	2.85	21.52	33.00	-11.48
		1906.41	H	18.02	2.91	20.93	33.00	-12.07
Z	9262	1851.69	V	17.40	2.82	20.22	33.00	-12.78
		1853.67	H	19.35	2.88	22.23	33.00	-10.77
	9400	1881.30	V	17.47	2.83	20.31	33.00	-12.69
		1881.66	H	19.24	2.89	22.13	33.00	-10.87
	9538	1906.68	V	17.00	2.85	19.84	33.00	-13.16
		1906.77	H	19.46	2.91	22.37	33.00	-10.63

WCDMA / HSDPA BAND V Test Data

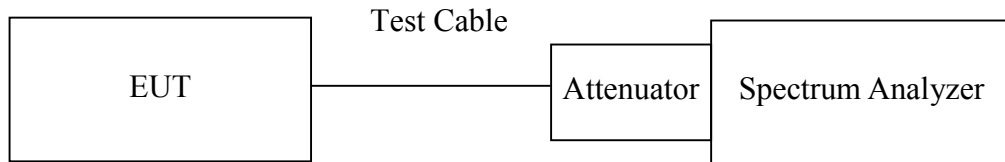
EUT Pol.	Channel	Frequency (MHz)	Antenna Pol.	Reading level (dBuV)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
X	4132	827.60	V	18.58	-5.52	13.05	38.50	-25.45
		827.60	H	20.89	-5.78	15.11	38.50	-23.39
	4183	837.72	V	18.30	-5.46	12.85	38.50	-25.65
		837.72	H	20.19	-5.49	14.69	38.50	-23.81
	4233	845.60	V	20.27	-5.25	15.02	38.50	-23.48
		845.73	H	22.31	-5.31	17.00	38.50	-21.50
Y	4132	827.42	V	14.53	-5.52	9.00	38.50	-29.50
		827.69	H	21.20	-5.78	15.42	38.50	-23.08
	4183	837.90	V	14.42	-5.44	8.98	38.50	-29.52
		837.63	H	19.67	-5.41	14.26	38.50	-24.24
	4233	845.64	V	16.96	-5.20	11.76	38.50	-26.74
		847.62	H	21.88	-5.30	16.58	38.50	-21.92
Z	4132	827.42	V	21.39	-5.53	15.86	38.50	-22.64
		827.64	H	17.85	-5.78	12.07	38.50	-26.43
	4183	837.77	V	21.30	-5.44	15.86	38.50	-22.64
		837.90	H	16.96	-5.42	11.54	38.50	-26.96
	4233	845.46	V	23.30	-5.20	*18.11	38.50	-20.39
		845.64	H	19.10	-5.30	13.80	38.50	-24.70

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	824.23	242.4595
	190	836.59	244.3534
	251	848.78	244.1697
GPRS 850 (Class 12)	128	824.18	240.8674
	190	836.58	236.9707
	251	848.78	242.8406
EGPRS 850 (Class B)	128	824.22	244.2306
	190	836.56	244.0652
	251	848.80	244.9797
GSM 1900 (Class B)	512	1850.20	245.2254
	661	1879.98	243.6909
	810	1909.78	247.2888
GPRS 1900 (Class 12)	512	1850.19	244.7548
	661	1879.97	240.8441
	810	1909.82	249.2334
EGPRS 1900 (Class 12)	512	1850.22	244.6970
	661	1879.98	245.3016
	810	1909.81	245.7969



Test Mode	CH	Frequency (MHz)	99% Bandwidth (MHz)
WCDMA (Band II)	9262	1852.40	4.1668
	9400	1880.00	4.1718
	9538	1907.60	4.1690
WCDMA (Band V)	4132	826.40	4.1573
	4183	836.60	4.1857
	4233	846.60	4.1782
WCDMA / HSDPA (Band II)	9262	1852.40	4.1689
	9400	1880.00	4.1821
	9538	1907.60	4.1817
WCDMA / HSDPA (Band V)	4132	826.40	4.1734
	4183	836.60	4.2136
	4233	846.60	4.1534

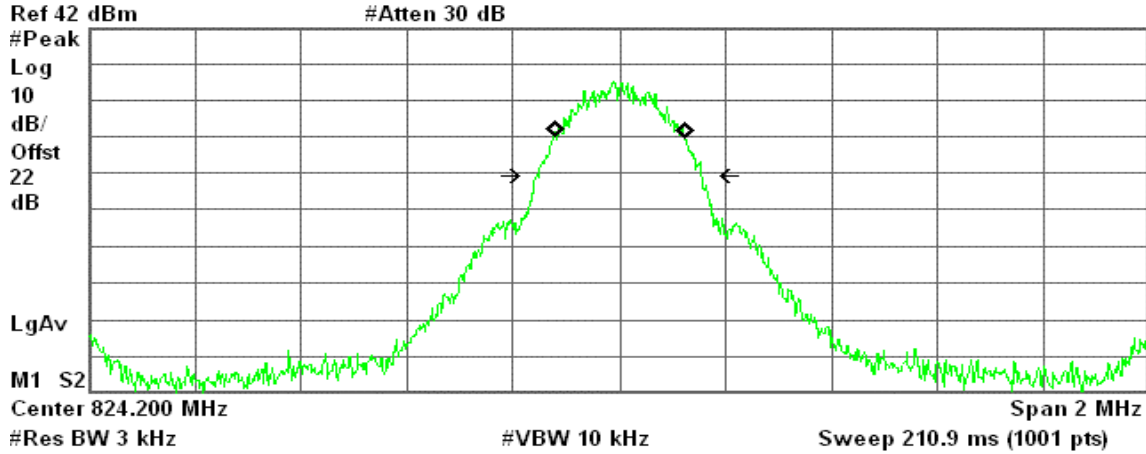


Test Plot

GSM 850 (CH Low)

Agilent 22:24:46 May 6, 2008

R T



Occupied Bandwidth
242.4595 kHz

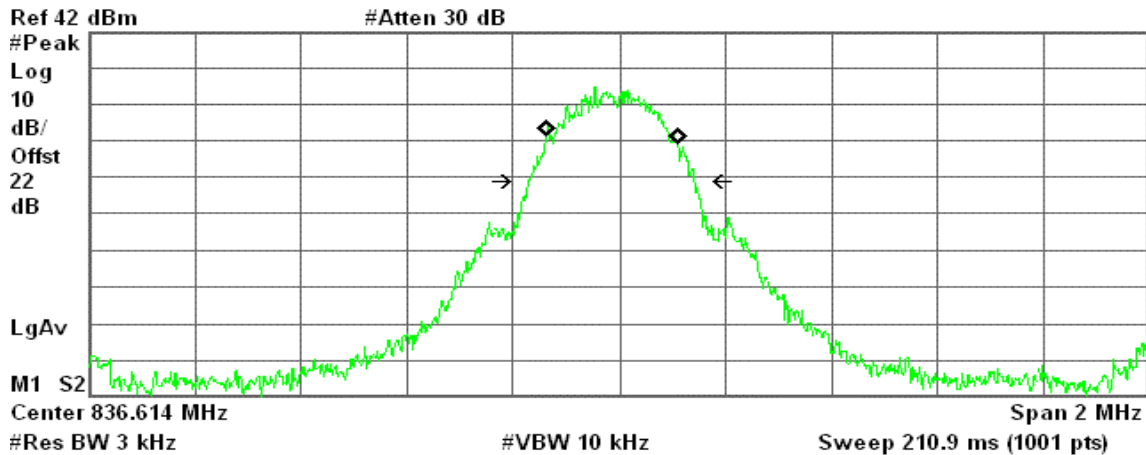
Occ BW % Pwr 99.00 %
x dB -26.00 dB

Transmit Freq Error 915.717 Hz
x dB Bandwidth 309.672 kHz

GSM 850 (CH Mid)

Agilent 22:32:06 May 6, 2008

R T



Occupied Bandwidth
244.3534 kHz

Occ BW % Pwr 99.00 %
x dB -26.00 dB

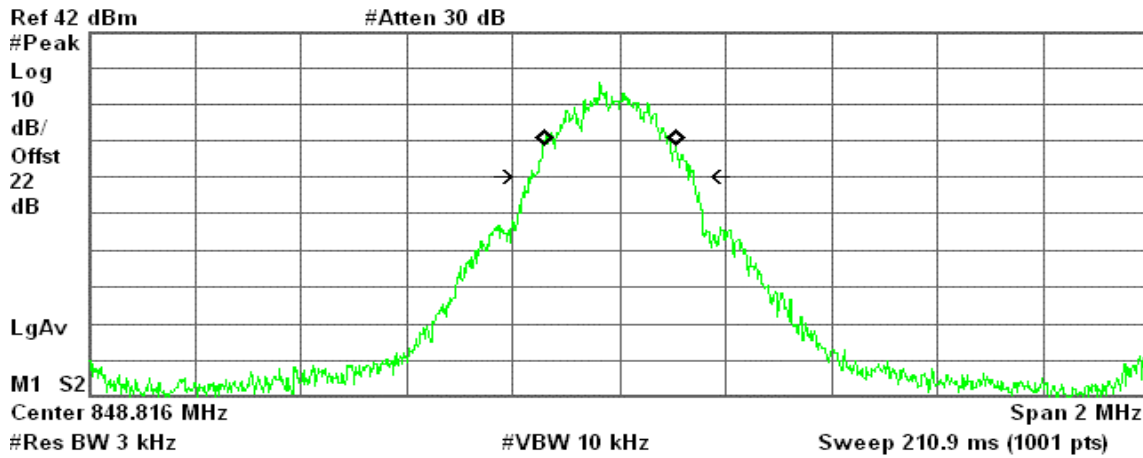
Transmit Freq Error -13.022 kHz
x dB Bandwidth 311.279 kHz



GSM 850 (CH High)

Agilent 22:33:07 May 6, 2008

R T



Occupied Bandwidth
244.1697 kHz

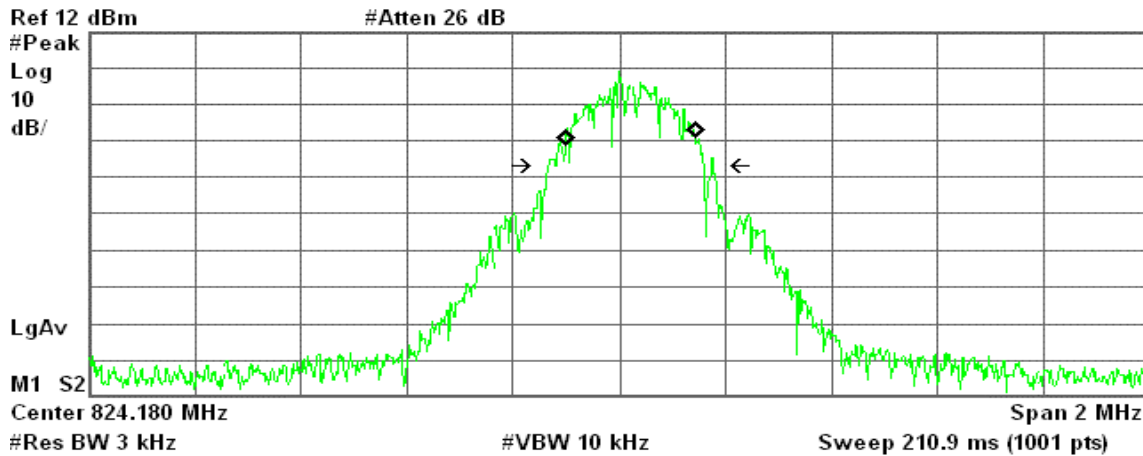
Occ BW % Pwr 99.00 %
x dB -26.00 dB

Transmit Freq Error -15.946 kHz
x dB Bandwidth 308.214 kHz

GPRS 850 (CH Low)

Agilent 23:28:28 May 6, 2008

R T



Occupied Bandwidth
240.8674 kHz

Occ BW % Pwr 99.00 %
x dB -26.00 dB

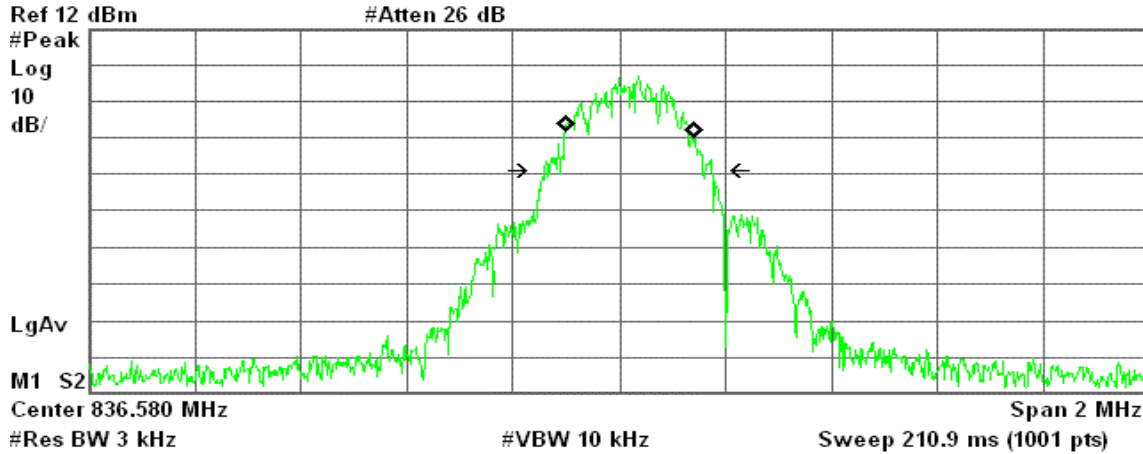
Transmit Freq Error 21.084 kHz
x dB Bandwidth 308.555 kHz



GPRS 850 (CH Mid)

Agilent 23:28:01 May 6, 2008

R T



Occupied Bandwidth
236.9707 kHz

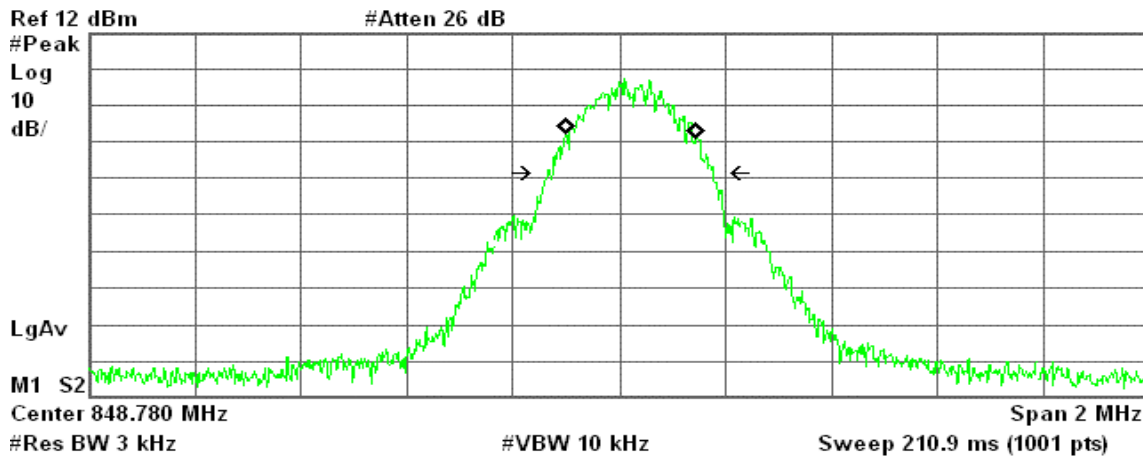
Occ BW % Pwr 99.00 %
x dB -26.00 dB

Transmit Freq Error 19.071 kHz
x dB Bandwidth 313.808 kHz

GPRS 850(CH High)

Agilent 23:27:19 May 6, 2008

R T



Occupied Bandwidth
242.8406 kHz

Occ BW % Pwr 99.00 %
x dB -26.00 dB

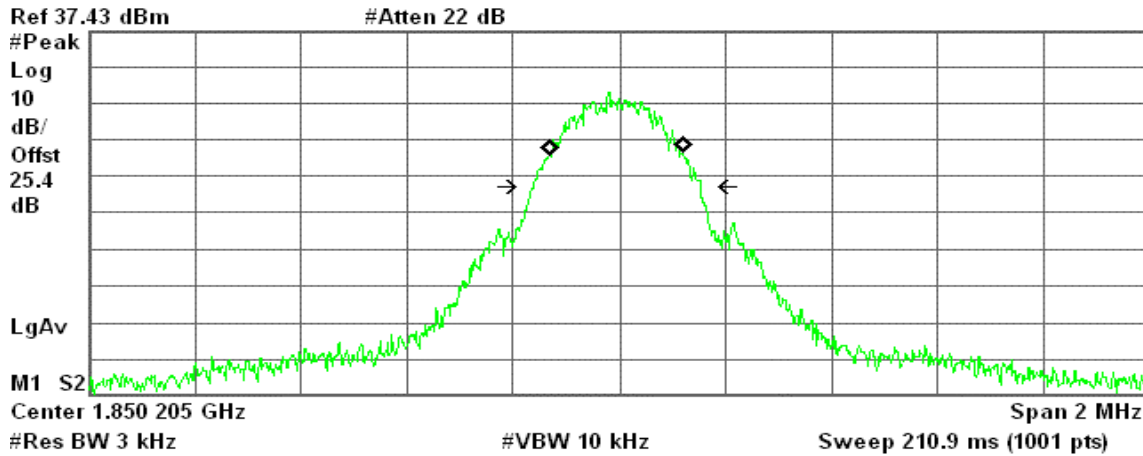
Transmit Freq Error 22.804 kHz
x dB Bandwidth 310.758 kHz



GSM 1900 (CH Low)

Agilent 23:16:22 May 6, 2008

R T



Occupied Bandwidth
245.2254 kHz

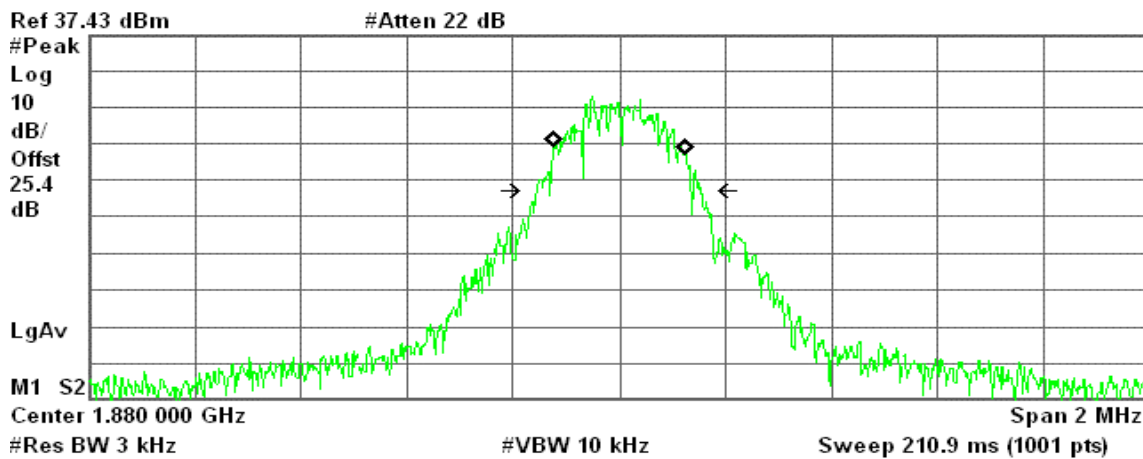
Occ BW % Pwr 99.00 %
x dB -26.00 dB

Transmit Freq Error -5.271 kHz
x dB Bandwidth 311.509 kHz

GSM 1900 (CH Mid)

Agilent 23:16:45 May 6, 2008

R T



Occupied Bandwidth
243.6909 kHz

Occ BW % Pwr 99.00 %
x dB -26.00 dB

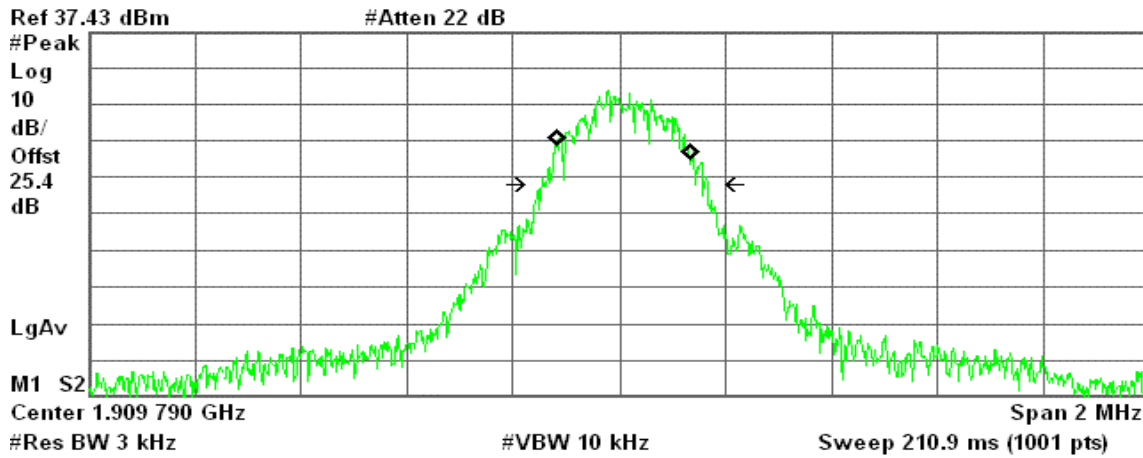
Transmit Freq Error 196.131 Hz
x dB Bandwidth 306.674 kHz



GSM 1900 (CH High)

Agilent 23:17:24 May 6, 2008

R T



Occupied Bandwidth
247.2888 kHz

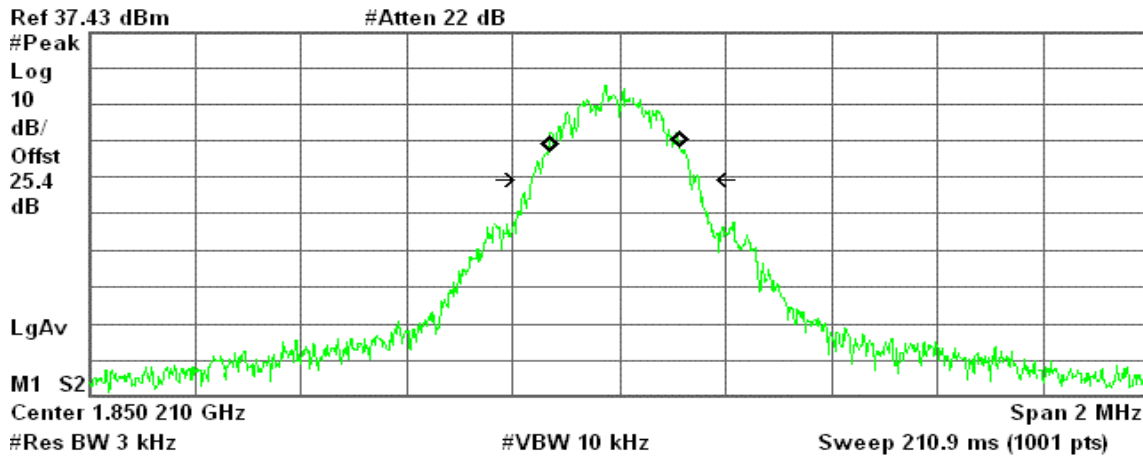
Occ BW % Pwr 99.00 %
x dB -26.00 dB

Transmit Freq Error 7.946 kHz
x dB Bandwidth 311.328 kHz

GPRS 1900 (CH Low)

Agilent 23:38:13 May 6, 2008

R T



Occupied Bandwidth
244.7548 kHz

Occ BW % Pwr 99.00 %
x dB -26.00 dB

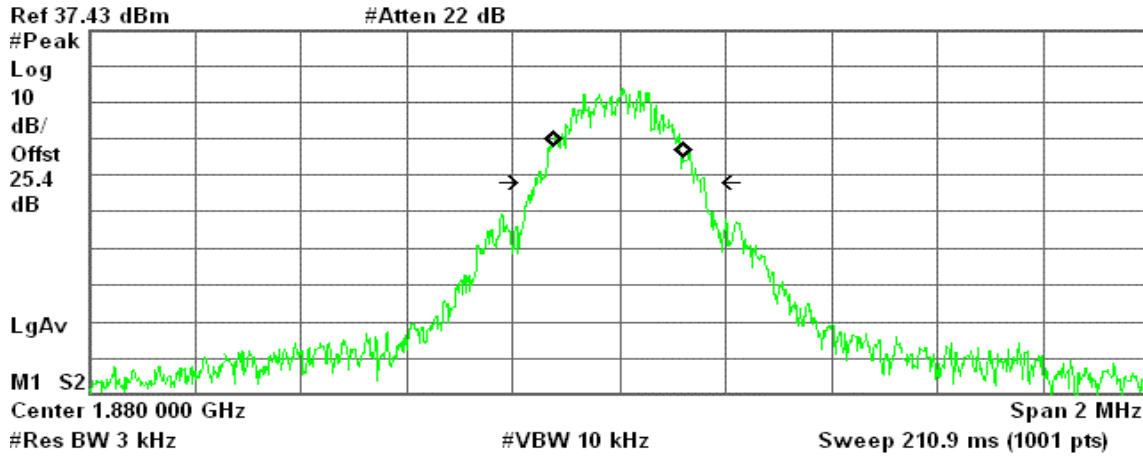
Transmit Freq Error -8.270 kHz
x dB Bandwidth 309.919 kHz



GPRS 1900 (CH Mid)

Agilent 23:38:39 May 6, 2008

R T



Occupied Bandwidth
240.8441 kHz

Occ BW % Pwr 99.00 %
x dB -26.00 dB

Transmit Freq Error -2.178 kHz
x dB Bandwidth 316.054 kHz

GPRS 1900 (CH High)

Agilent 23:39:02 May 6, 2008

R T



Occupied Bandwidth
249.2334 kHz

Occ BW % Pwr 99.00 %
x dB -26.00 dB

Transmit Freq Error -18.099 kHz
x dB Bandwidth 311.326 kHz

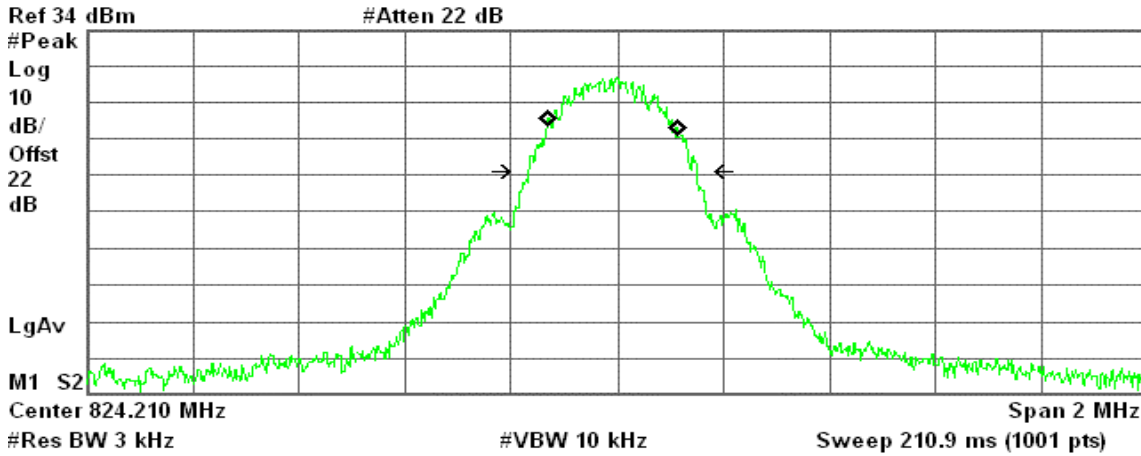


EGPRS

EGPRS 850 (CH Low)

Agilent 00:57:47 May 7, 2008

R T



Occupied Bandwidth
244.2306 kHz

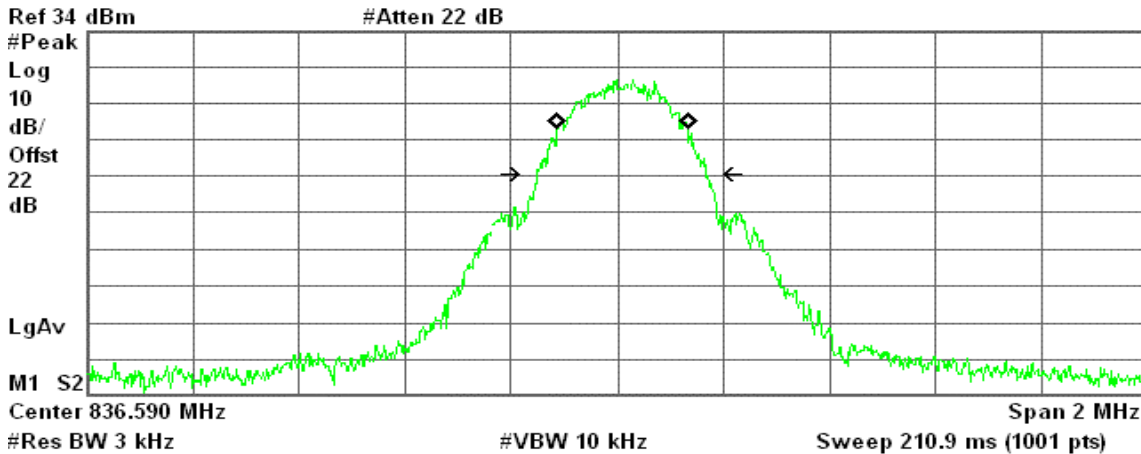
Occ BW % Pwr 99.00 %
x dB -26.00 dB

Transmit Freq Error -8.480 kHz
x dB Bandwidth 315.322 kHz

EGPRS 850 (CH Mid)

Agilent 00:58:52 May 7, 2008

R T



Occupied Bandwidth
244.0652 kHz

Occ BW % Pwr 99.00 %
x dB -26.00 dB

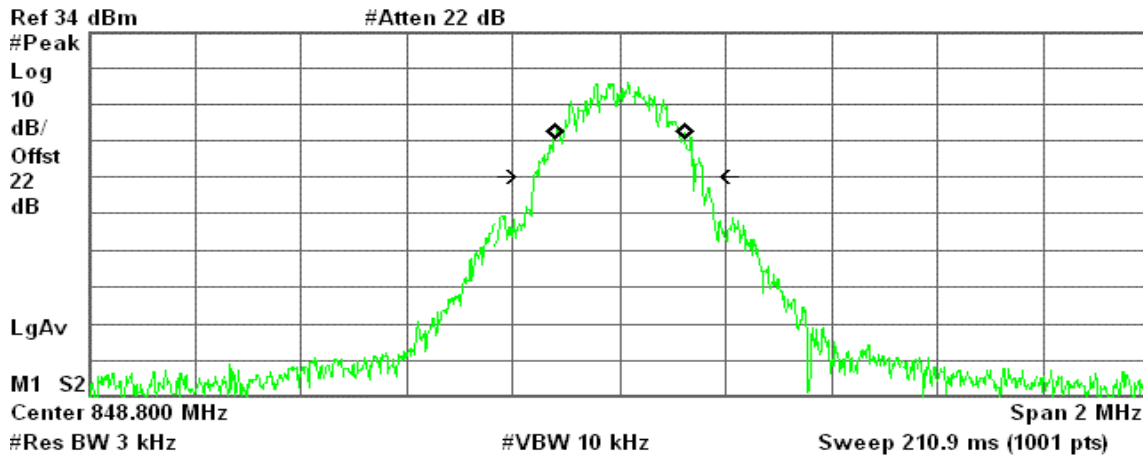
Transmit Freq Error 10.017 kHz
x dB Bandwidth 318.625 kHz



EGPRS 850 (CH High)

Agilent 01:00:47 May 7, 2008

R T



Occupied Bandwidth
244.9797 kHz

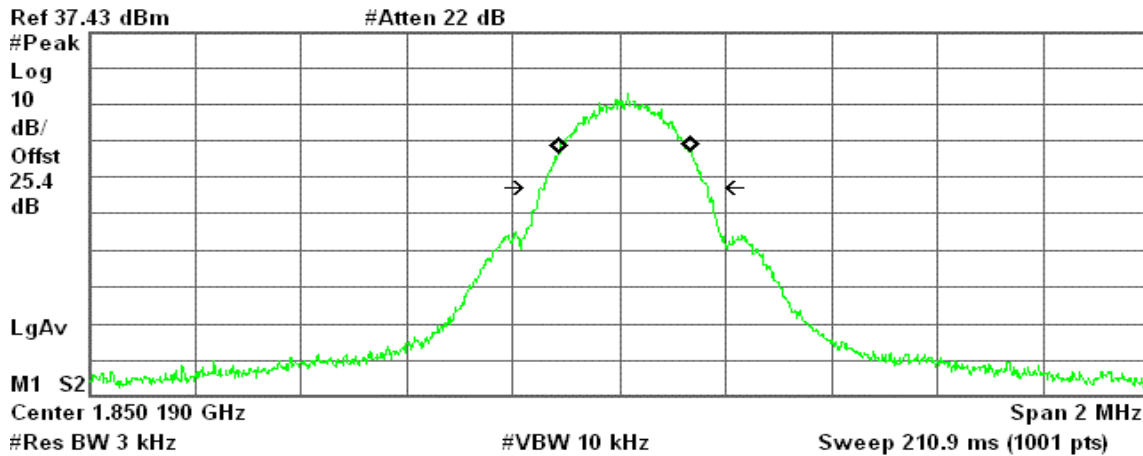
Occ BW % Pwr 99.00 %
x dB -26.00 dB

Transmit Freq Error 1.639 kHz
x dB Bandwidth 314.150 kHz

EGPRS 1900 (CH Low)

Agilent 00:40:54 May 7, 2008

R T



Occupied Bandwidth
244.6970 kHz

Occ BW % Pwr 99.00 %
x dB -26.00 dB

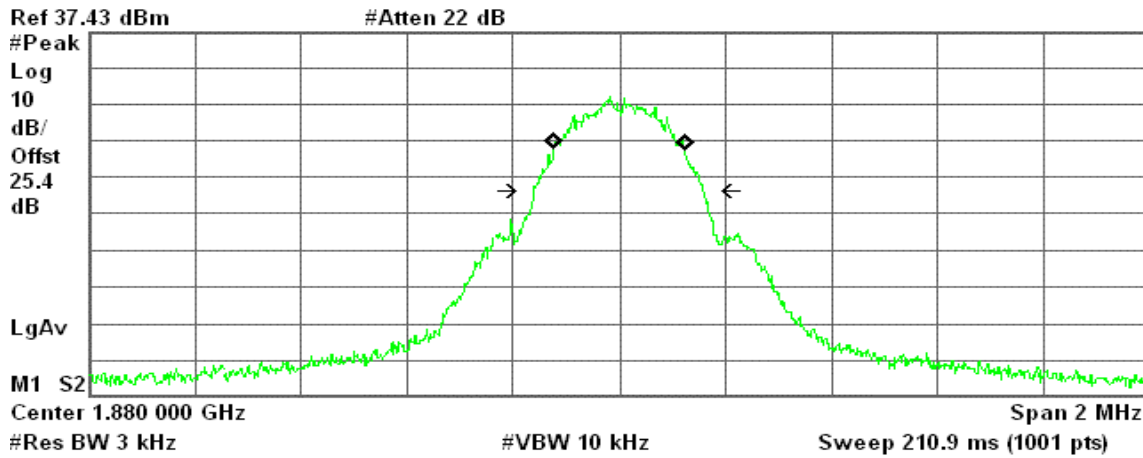
Transmit Freq Error 10.083 kHz
x dB Bandwidth 312.841 kHz



EGPRS 1900 (CH Mid)

Agilent 00:42:00 May 7, 2008

R T



Occupied Bandwidth
245.3016 kHz

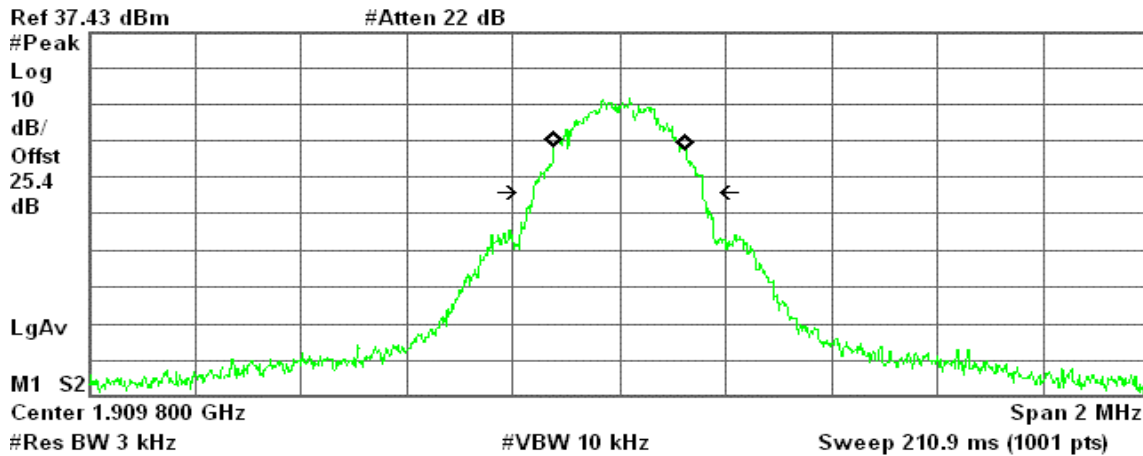
Occ BW % Pwr 99.00 %
x dB -26.00 dB

Transmit Freq Error 569.404 Hz
x dB Bandwidth 318.098 kHz

EGPRS 1900 (CH High)

Agilent 00:42:40 May 7, 2008

R T



Occupied Bandwidth
245.7969 kHz

Occ BW % Pwr 99.00 %
x dB -26.00 dB

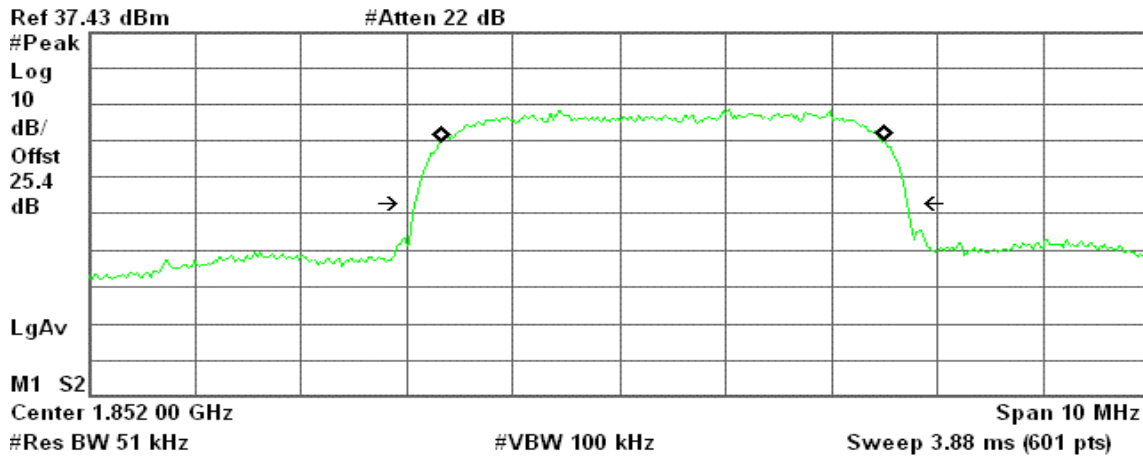
Transmit Freq Error 1.617 kHz
x dB Bandwidth 316.056 kHz



WCDMA Band II (CH Low)

Agilent 01:50:27 May 7, 2008

R T



Occupied Bandwidth
4.1668 MHz

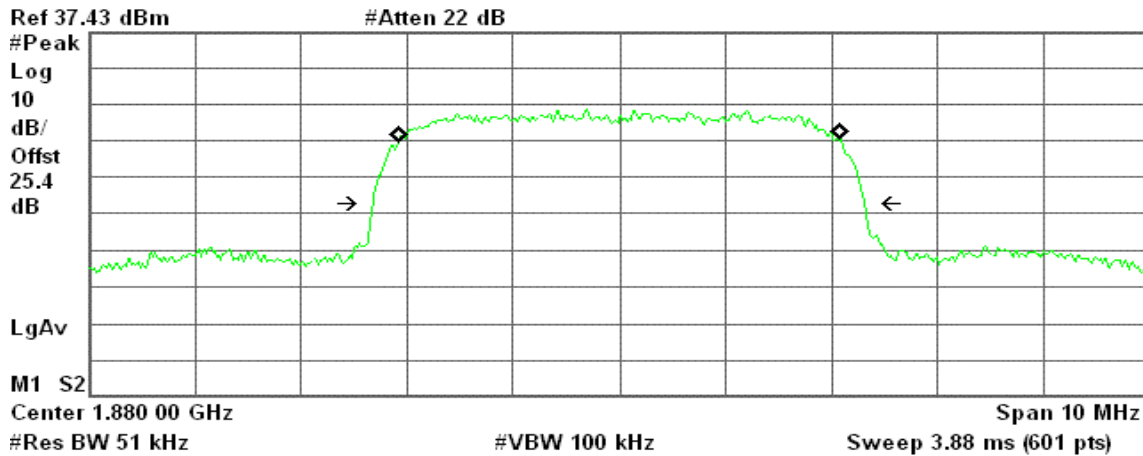
Occ BW % Pwr 99.00 %
x dB -26.00 dB

Transmit Freq Error 418.628 kHz
x dB Bandwidth 4.637 MHz

WCDMA Band II (CH Mid)

Agilent 01:53:00 May 7, 2008

R T



Occupied Bandwidth
4.1718 MHz

Occ BW % Pwr 99.00 %
x dB -26.00 dB

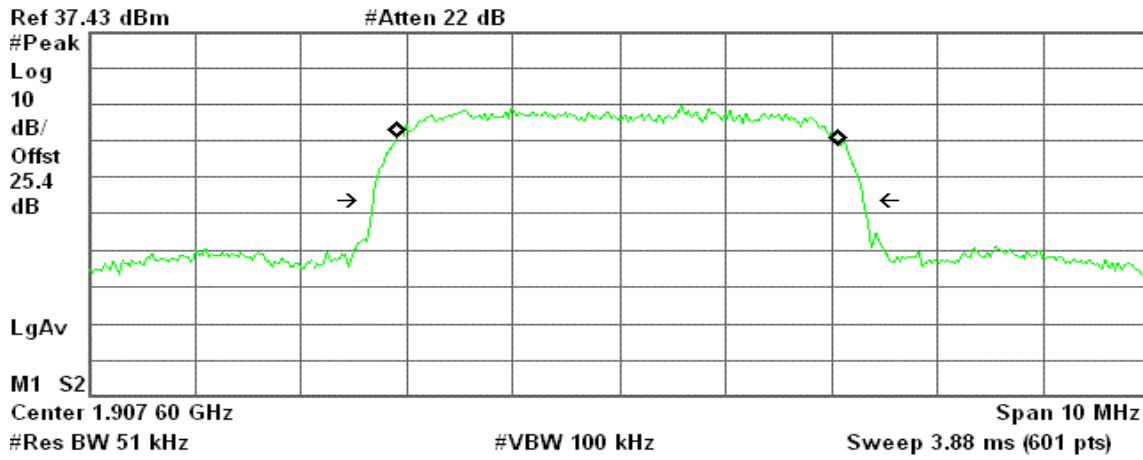
Transmit Freq Error -26.353 Hz
x dB Bandwidth 4.647 MHz



WCDMA Band II (CH High)

Agilent 01:53:19 May 7, 2008

R T



Occupied Bandwidth
4.1690 MHz

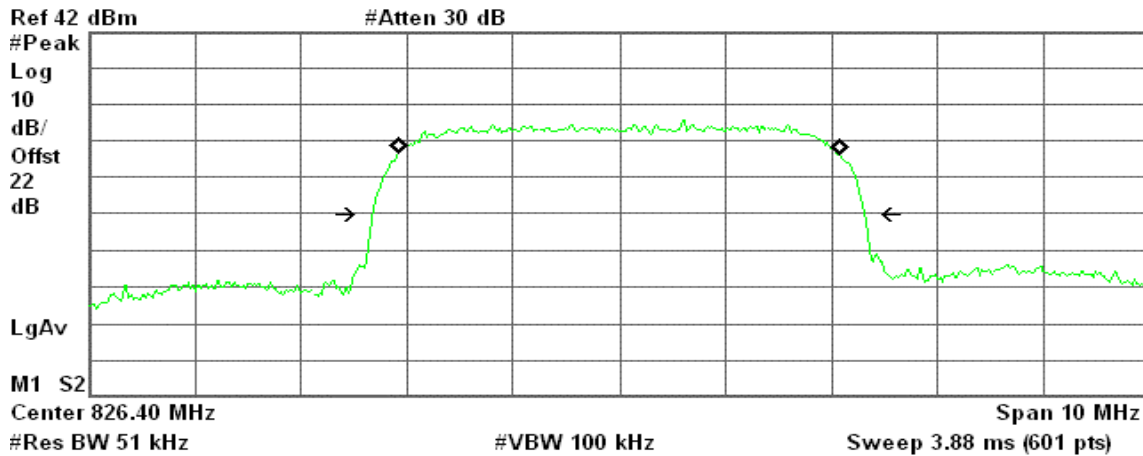
Occ BW % Pwr 99.00 %
x dB -26.00 dB

Transmit Freq Error -9.717 kHz
x dB Bandwidth 4.631 MHz

WCDMA Band V (CH Low)

Agilent 01:41:08 May 7, 2008

R T



Occupied Bandwidth
4.1573 MHz

Occ BW % Pwr 99.00 %
x dB -26.00 dB

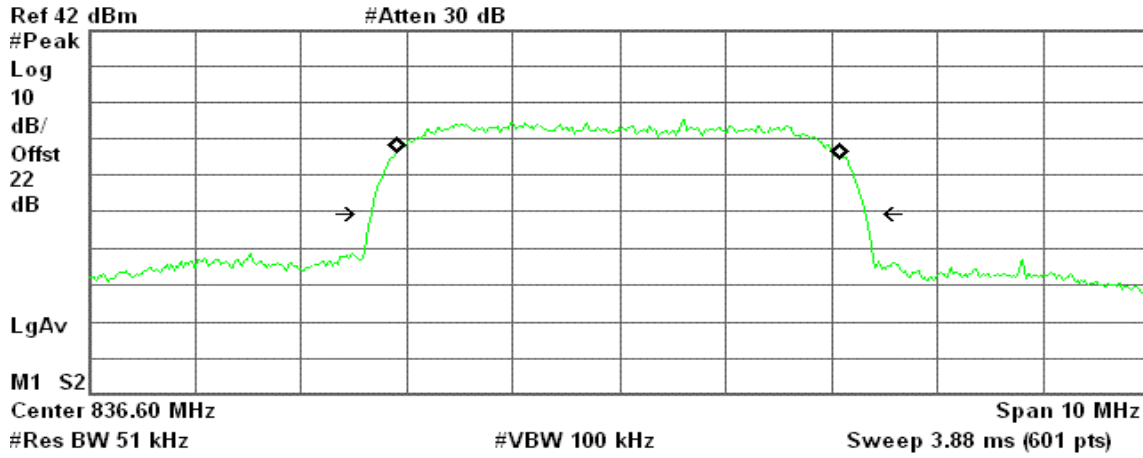
Transmit Freq Error 3.621 kHz
x dB Bandwidth 4.650 MHz



WCDMA Band V (CH Mid)

Agilent 01:41:46 May 7, 2008

R T



Occupied Bandwidth
4.1857 MHz

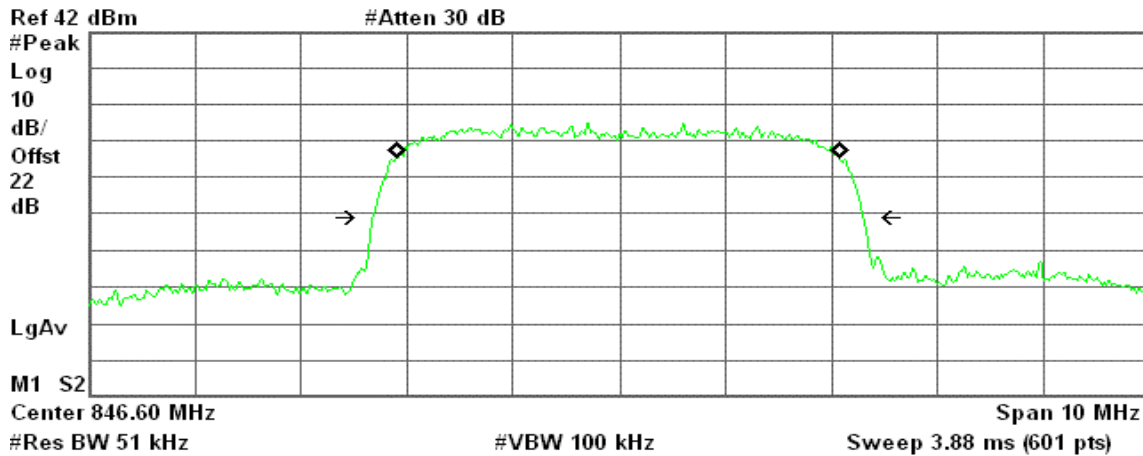
Occ BW % Pwr 99.00 %
x dB -26.00 dB

Transmit Freq Error -8.495 kHz
x dB Bandwidth 4.661 MHz

WCDMA Band V (CH High)

Agilent 01:42:02 May 7, 2008

R T



Occupied Bandwidth
4.1782 MHz

Occ BW % Pwr 99.00 %
x dB -26.00 dB

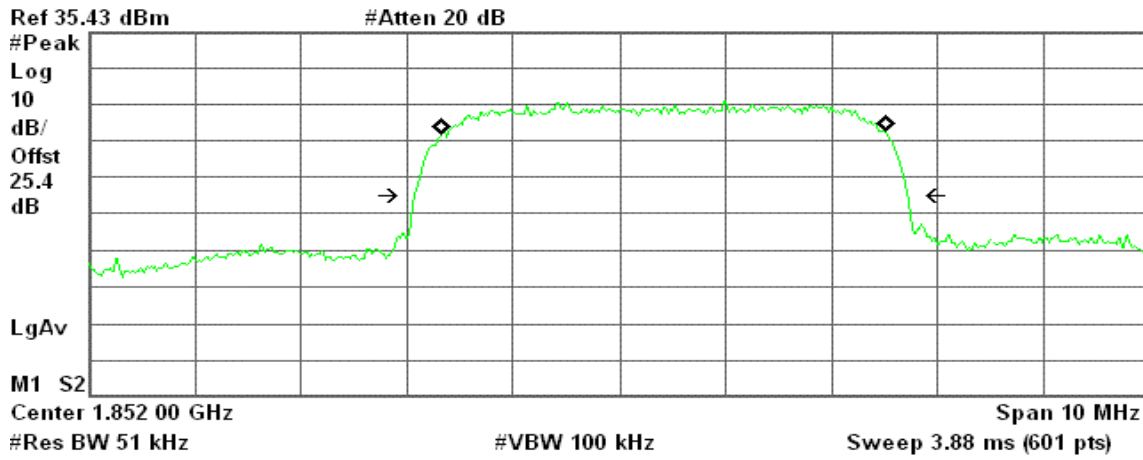
Transmit Freq Error -5.342 kHz
x dB Bandwidth 4.636 MHz



WCDMA / HSDPA Band II (CH Low)

Agilent 21:36:46 May 7, 2008

R T



Occupied Bandwidth
4.1689 MHz

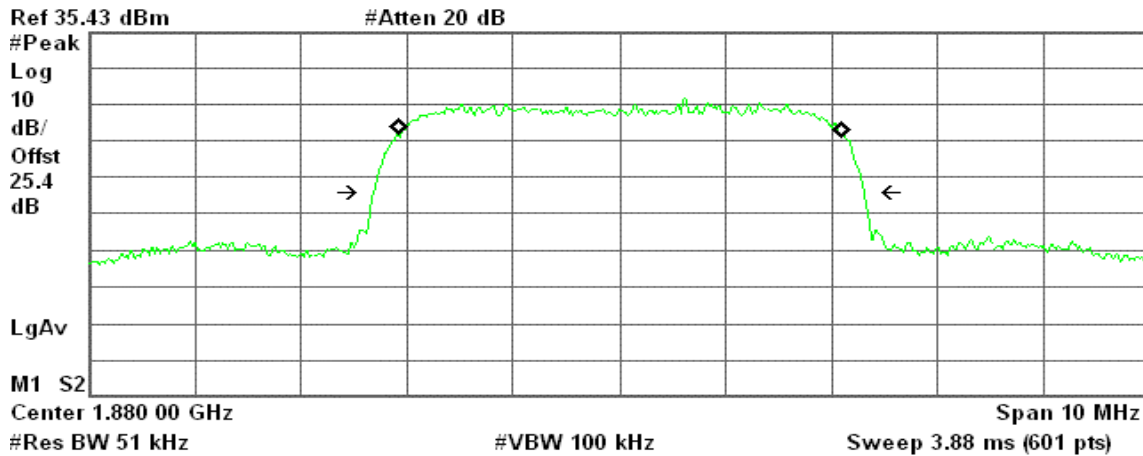
Occ BW % Pwr 99.00 %
x dB -26.00 dB

Transmit Freq Error 424.148 kHz
x dB Bandwidth 4.644 MHz

WCDMA / HSDPA Band II (CH Mid)

Agilent 21:37:05 May 7, 2008

R T



Occupied Bandwidth
4.1821 MHz

Occ BW % Pwr 99.00 %
x dB -26.00 dB

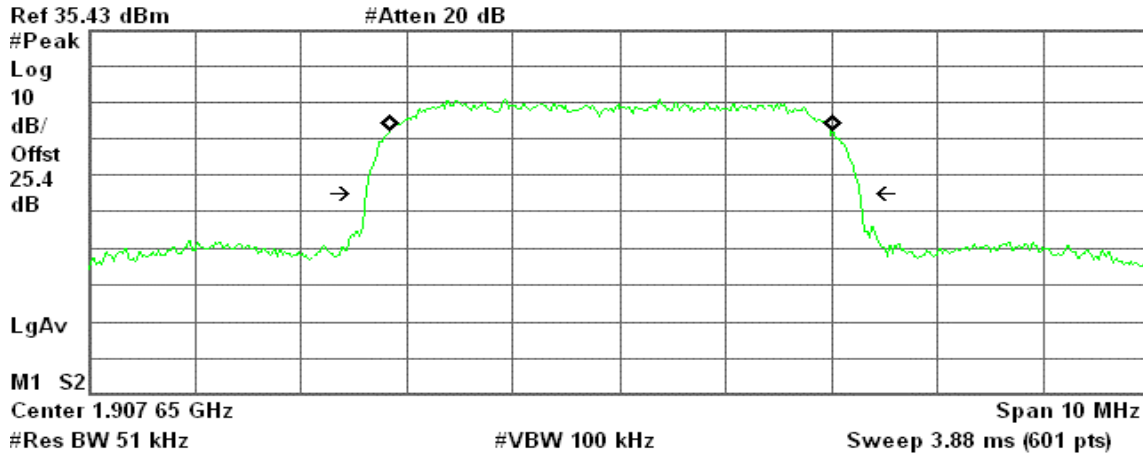
Transmit Freq Error 9.608 kHz
x dB Bandwidth 4.632 MHz



WCDMA / HSDPA Band II (CH High)

Agilent 21:37:27 May 7, 2008

R T



Occupied Bandwidth
4.1817 MHz

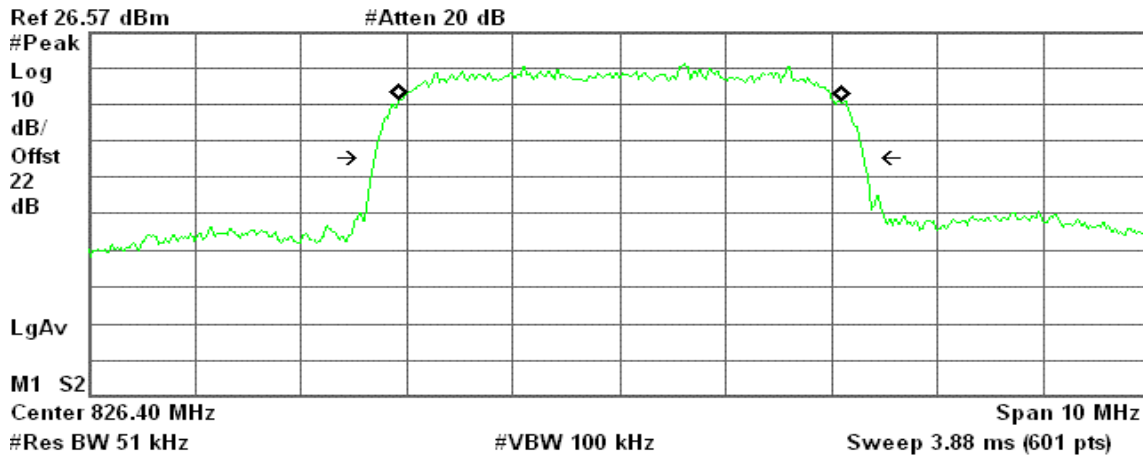
Occ BW % Pwr 99.00 %
x dB -26.00 dB

Transmit Freq Error -68.428 kHz
x dB Bandwidth 4.664 MHz

WCDMA / HSDPA Band V (CH Low)

Agilent 21:41:33 May 7, 2008

R T



Occupied Bandwidth
4.1734 MHz

Occ BW % Pwr 99.00 %
x dB -26.00 dB

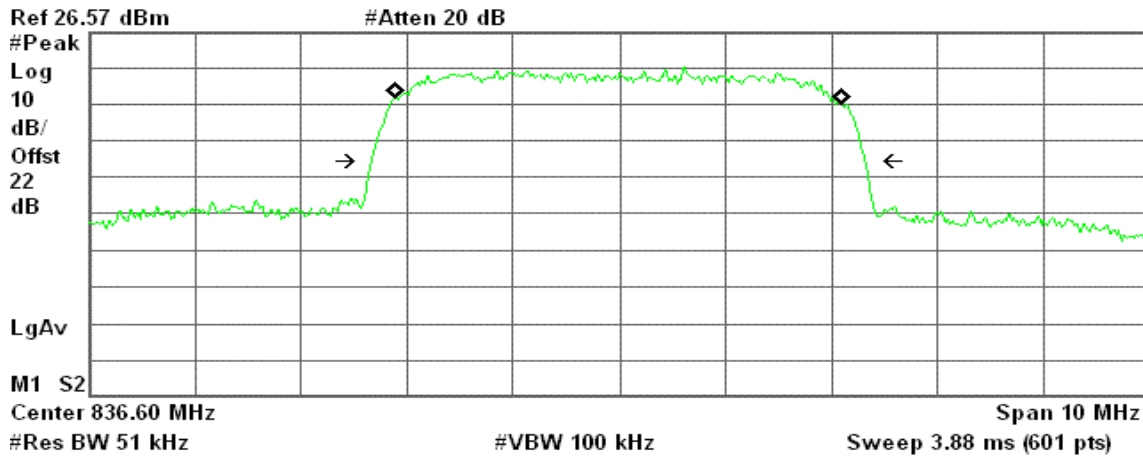
Transmit Freq Error 8.257 kHz
x dB Bandwidth 4.622 MHz



WCDMA / HSDPA Band V (CH Mid)

Agilent 21:41:17 May 7, 2008

R T



Occupied Bandwidth
4.2136 MHz

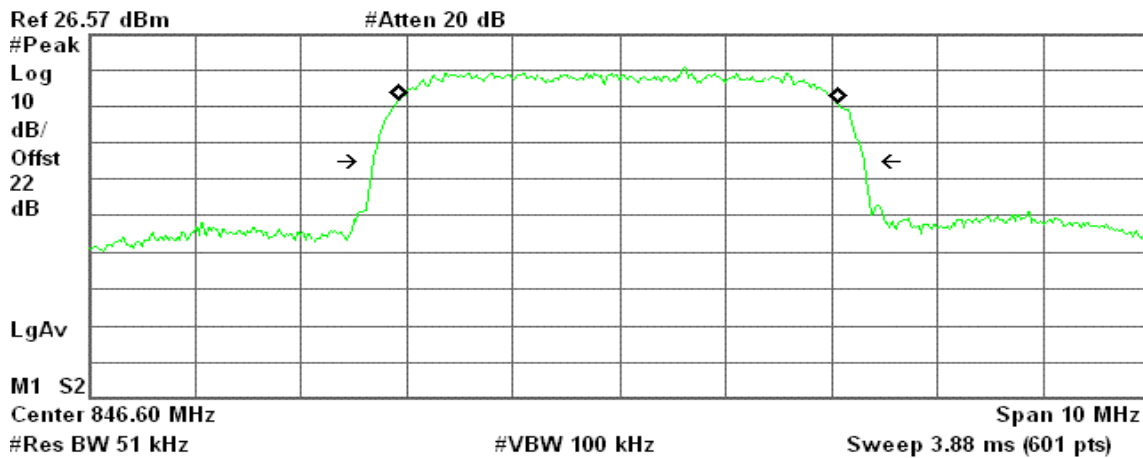
Occ BW % Pwr 99.00 %
x dB -26.00 dB

Transmit Freq Error -7.770 kHz
x dB Bandwidth 4.665 MHz

WCDMA / HSDPA Band V (CH High)

Agilent 21:41:04 May 7, 2008

R T



Occupied Bandwidth
4.1534 MHz

Occ BW % Pwr 99.00 %
x dB -26.00 dB

Transmit Freq Error -7.627 kHz
x dB Bandwidth 4.636 MHz



7.4 OUT OF BAND EMISSION AT ANTENNA TERMINALS

LIMIT

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

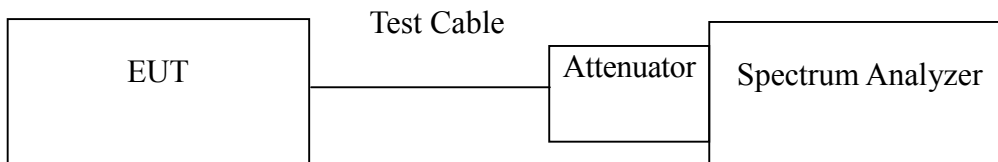
Out of Band Emissions: The mean power of emission must be attenuated below the mean power of the non-modulated carrier (P) on any frequency twice or more than twice the fundamental frequency by at least $43 + 10 \log P$ dB.

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 least 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
EGPRS 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
EGPRS 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
EGPRS 850 (Class 12)	128	Figure 12-1	Band Edge emissions
	251	Figure 12-2	Band Edge emissions
EGPRS 1900 (Class 12)	512	Figure 12-3	Band Edge emissions
	810	Figure 12-4	Band Edge emissions



Mode	CH	Location	Description
WCDMA (Band II)	9262	Figure 13-1	Conducted spurious emissions, 30MHz - 20GHz
	9400	Figure 13-2	Conducted spurious emissions, 30MHz - 20GHz
	9538	Figure 13-3	Conducted spurious emissions, 30MHz - 20GHz
WCDMA (Band V)	4132	Figure 13-4	Conducted spurious emissions, 30MHz - 20GHz
	4183	Figure 13-5	Conducted spurious emissions, 30MHz - 20GHz
	4233	Figure 13-6	Conducted spurious emissions, 30MHz - 20GHz

Mode	CH	Location	Description
WCDMA (Band II)	9262	Figure 14-1	Band Edge emissions
	9538	Figure 14-2	Band Edge emissions
WCDMA (Band V)	4132	Figure 14-3	Band Edge emissions
	4233	Figure 14-4	Band Edge emissions

Mode	CH	Location	Description
HSDPA WCDMA (Band II)	9262	Figure 15-1	Conducted spurious emissions, 30MHz - 20GHz
	9400	Figure 15-2	Conducted spurious emissions, 30MHz - 20GHz
	9538	Figure 15-3	Conducted spurious emissions, 30MHz - 20GHz
HSDPA WCDMA (Band V)	4132	Figure 15-4	Conducted spurious emissions, 30MHz - 20GHz
	4183	Figure 15-5	Conducted spurious emissions, 30MHz - 20GHz
	4233	Figure 15-6	Conducted spurious emissions, 30MHz - 20GHz

Mode	CH	Location	Description
HSDPA WCDMA (Band II)	9262	Figure 16-1	Band Edge emissions
	9538	Figure 16-2	Band Edge emissions
HSDPA WCDMA (Band V)	4132	Figure 16-3	Band Edge emissions
	4233	Figure 16-4	Band Edge emissions



Test Plot

GSM 850

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

Agilent 22:47:15 May 6, 2008

R T



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

Agilent 22:47:39 May 6, 2008

R T

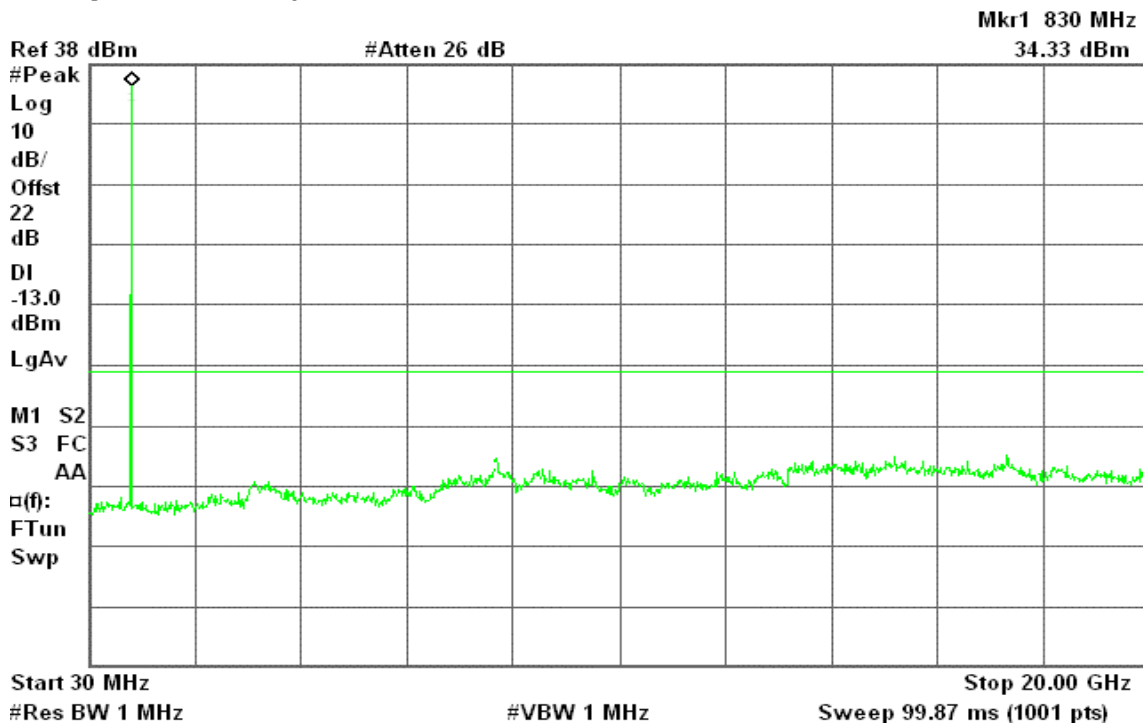
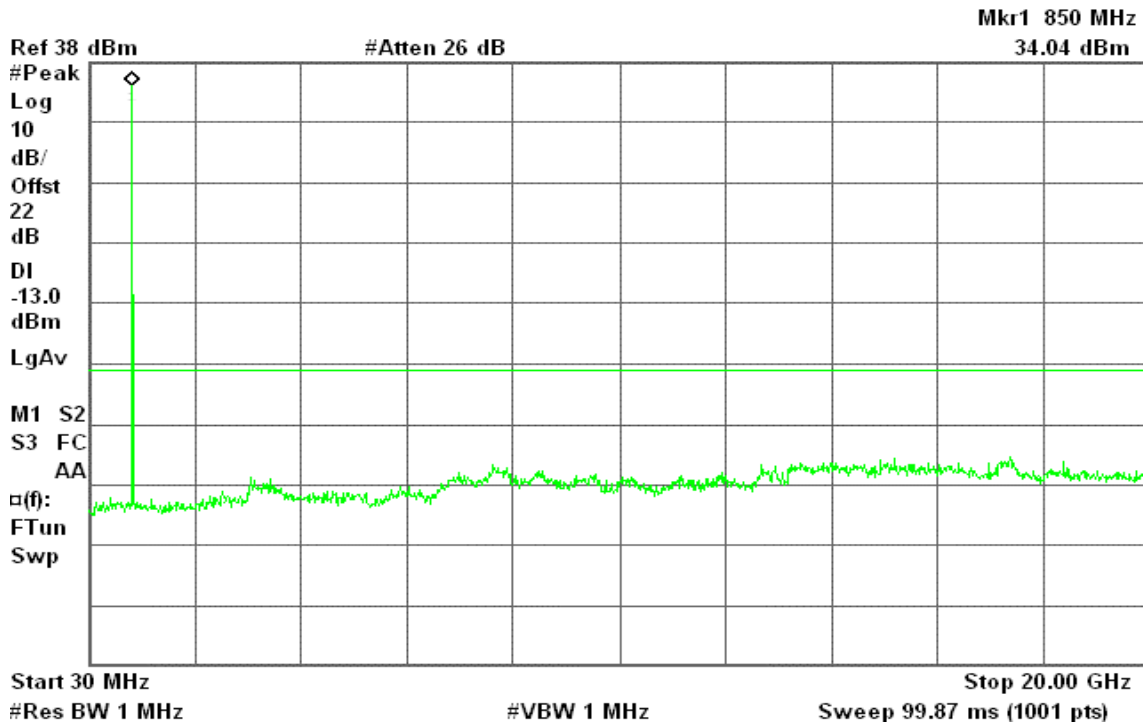




Figure 7-3: Out of Band emission at antenna terminals – GSM CH High

Agilent 22:49:25 May 6, 2008

R T



GPRS 850

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

Agilent 23:32:16 May 6, 2008

R T

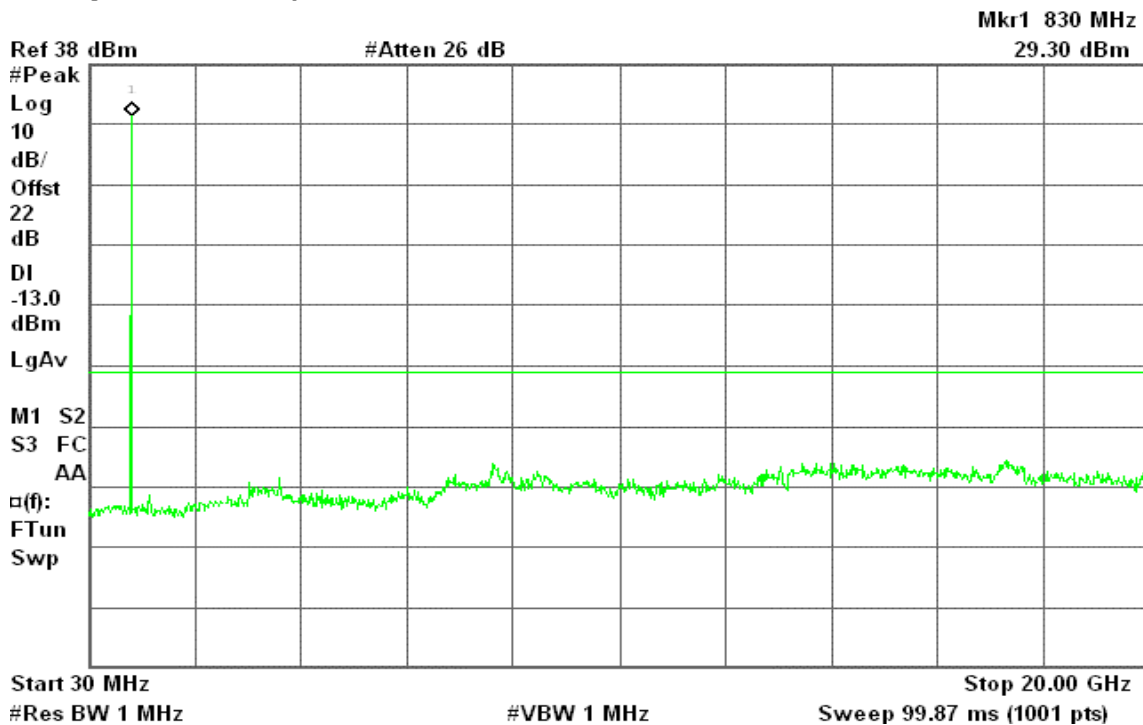




Figure 7-5: Out of Band emission at antenna terminals – GPRS CH Mid

Agilent 23:32:29 May 6, 2008

R T

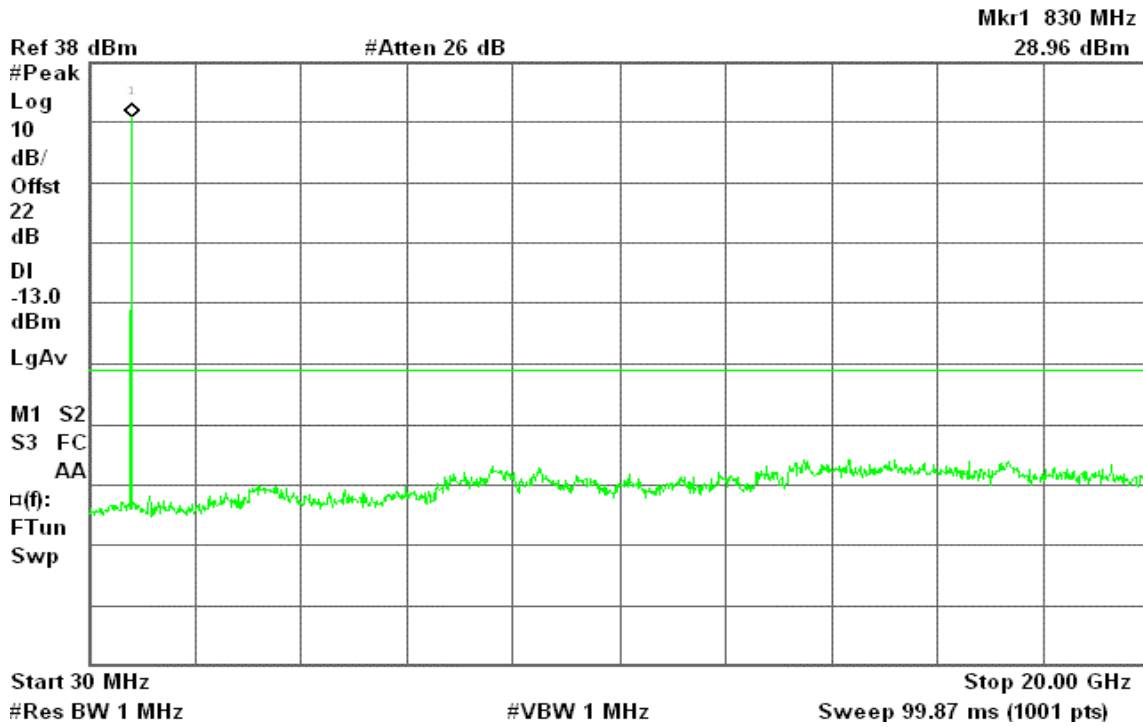
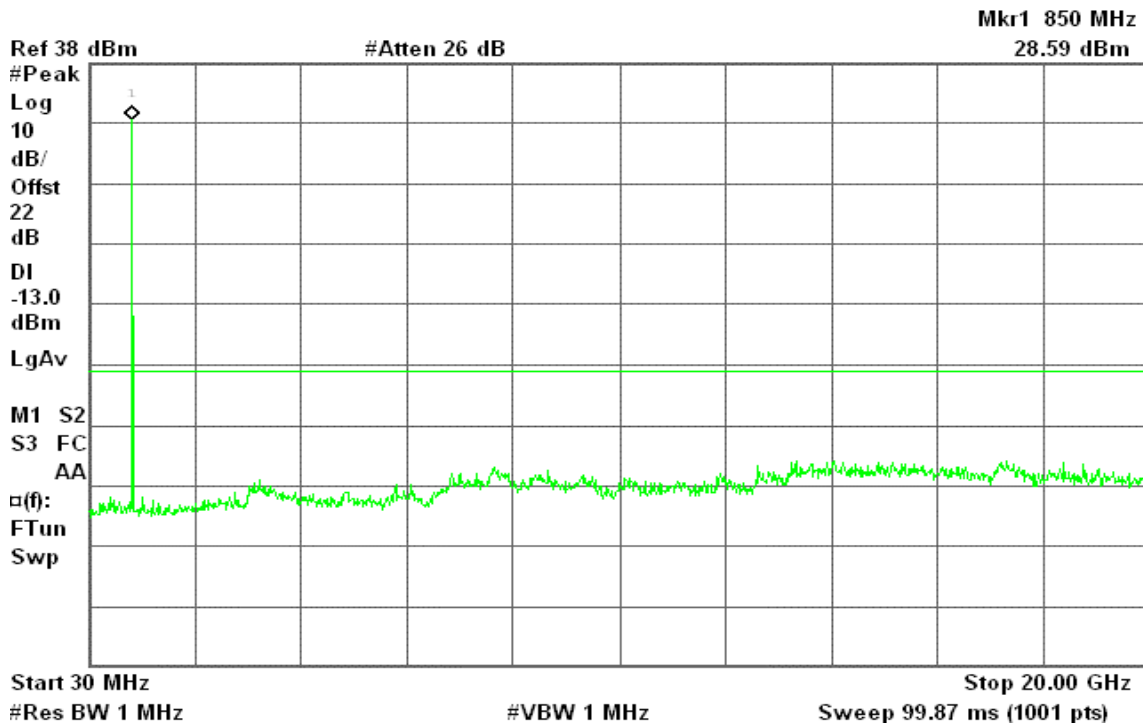


Figure 7-6: Out of Band emission at antenna terminals – GPRS CH High

Agilent 23:32:42 May 6, 2008

R T





GSM 1900

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

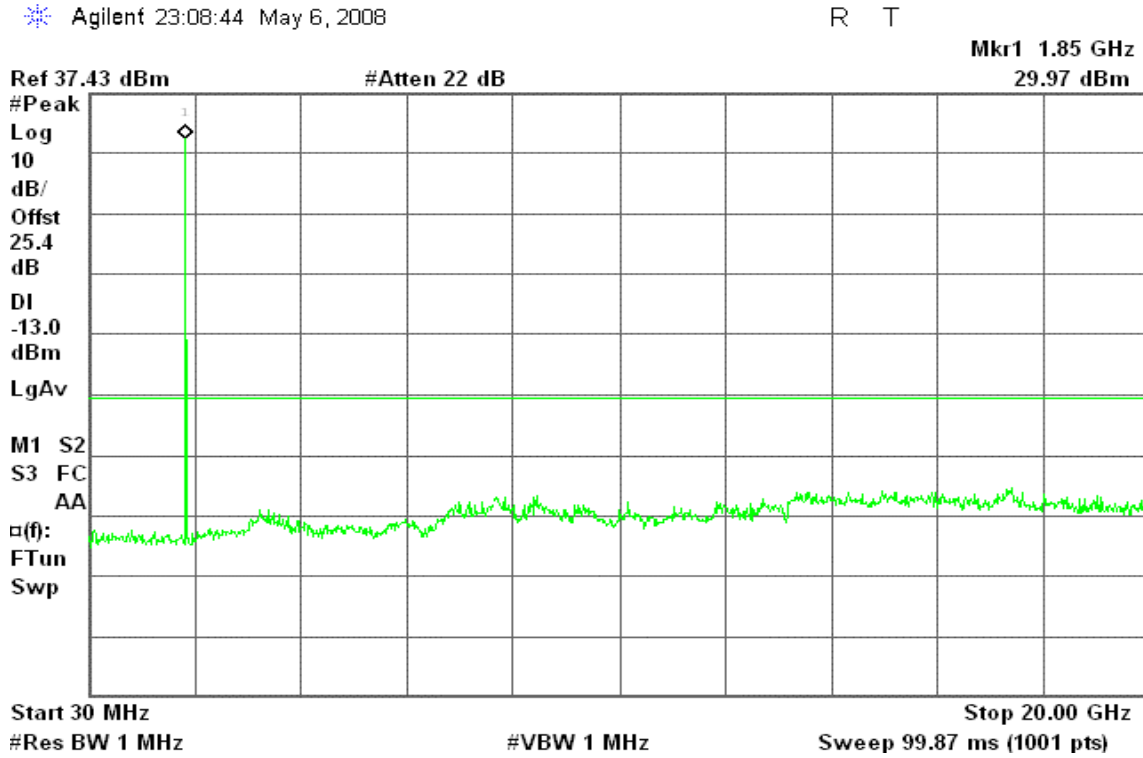


Figure 8-2: Out of Band emission at antenna terminals – GSM CH Mid

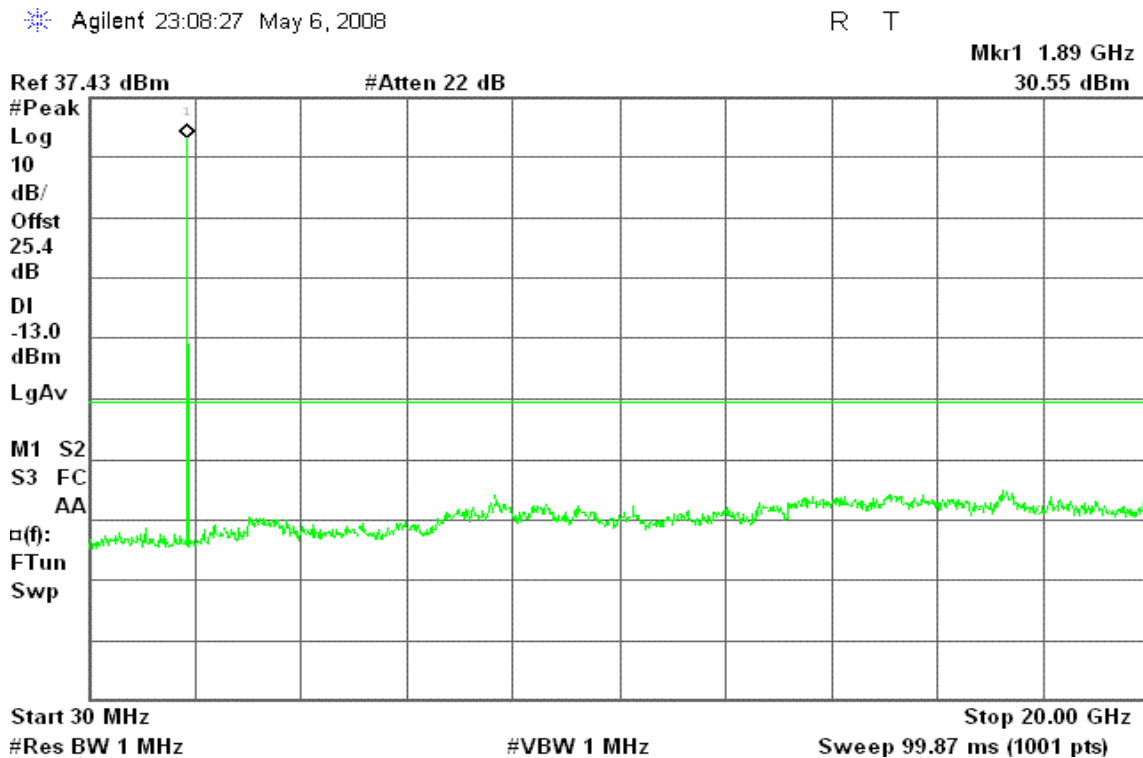
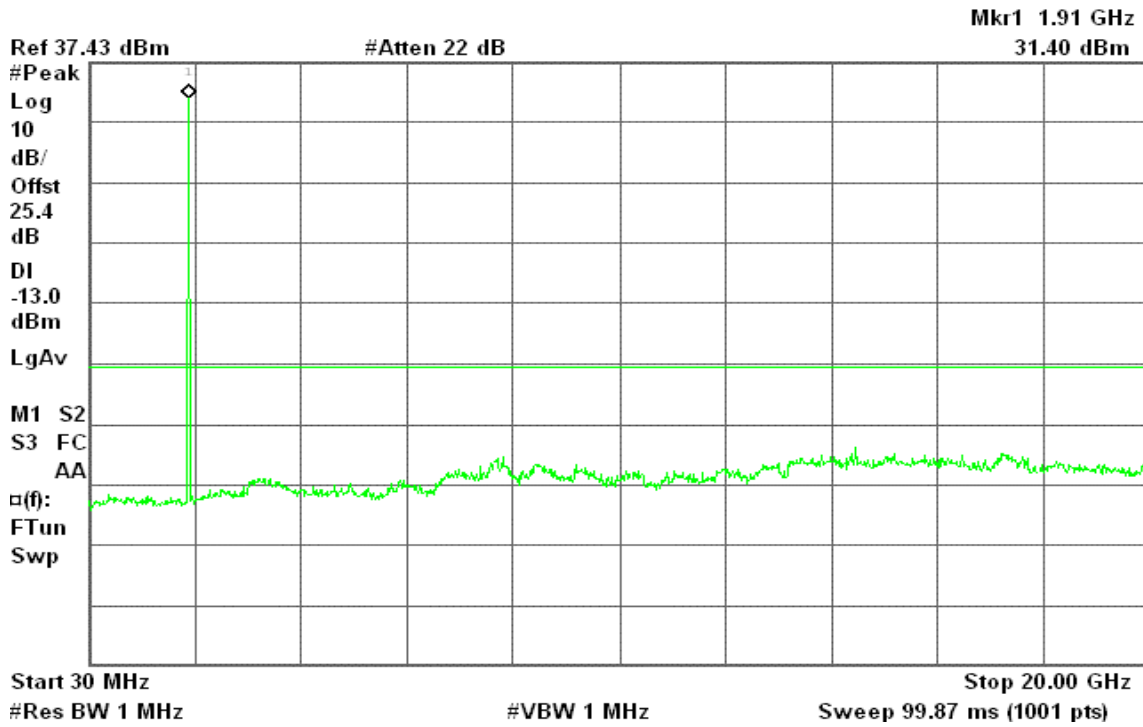




Figure 8-3: Out of Band emission at antenna terminals – GSM CH High

Agilent 23:11:07 May 6, 2008

R T



GPRS 1900

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

Agilent 23:34:32 May 6, 2008

R T

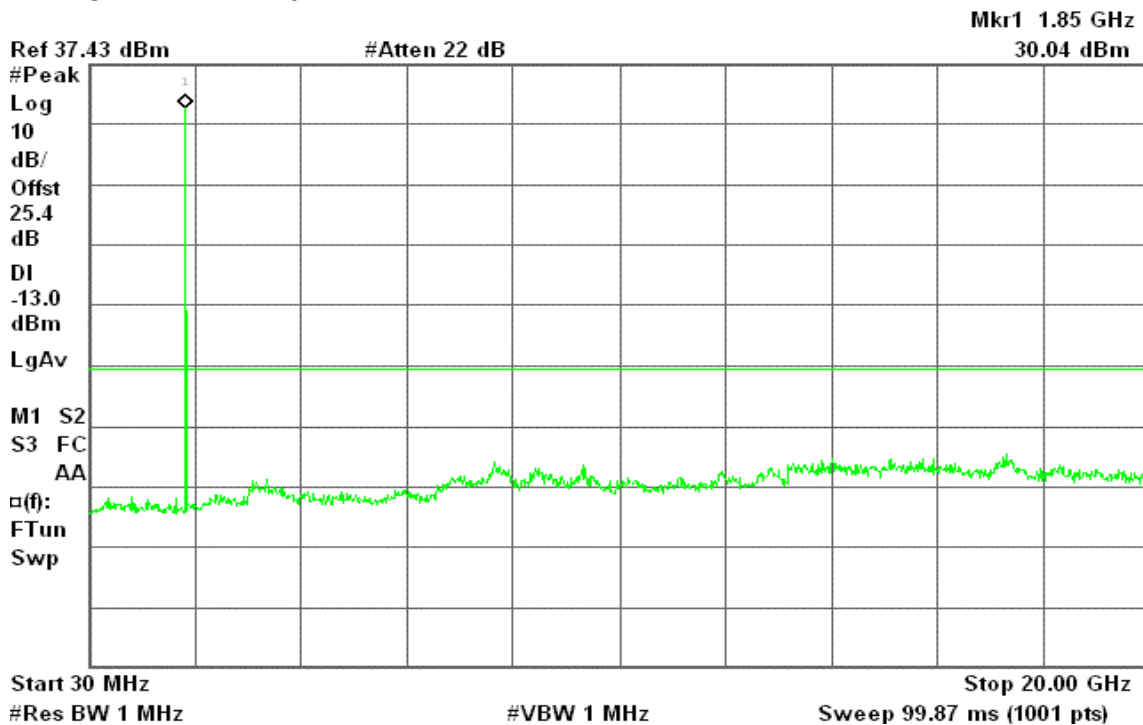




Figure 8-5: Out of Band emission at antenna terminals – GPRS CH Mid

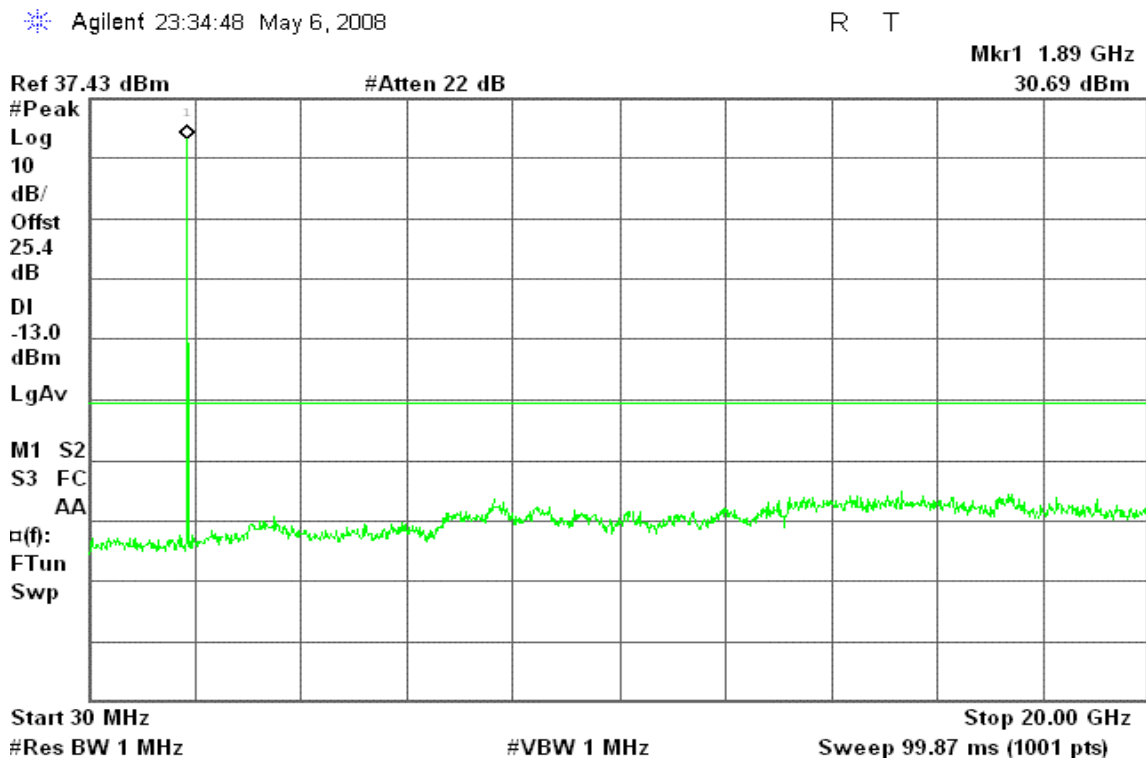


Figure 8-6: Out of Band emission at antenna terminals – GPRS CH High





GSM 850

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

Agilent 22:42:16 May 6, 2008

R T

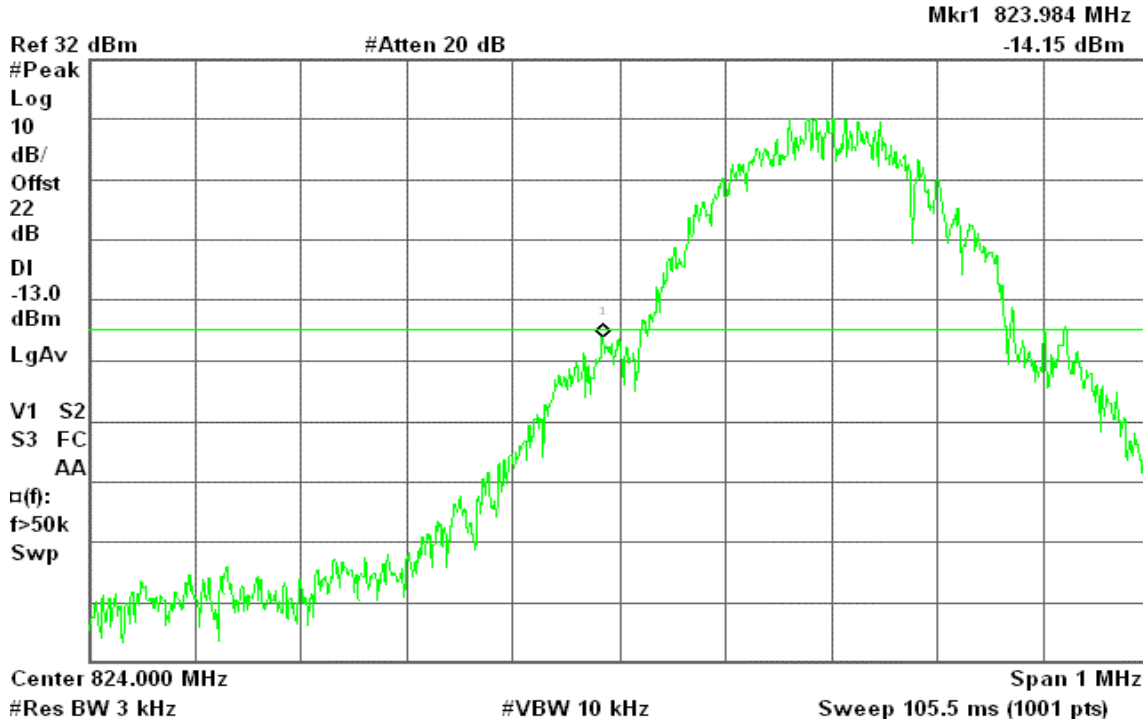
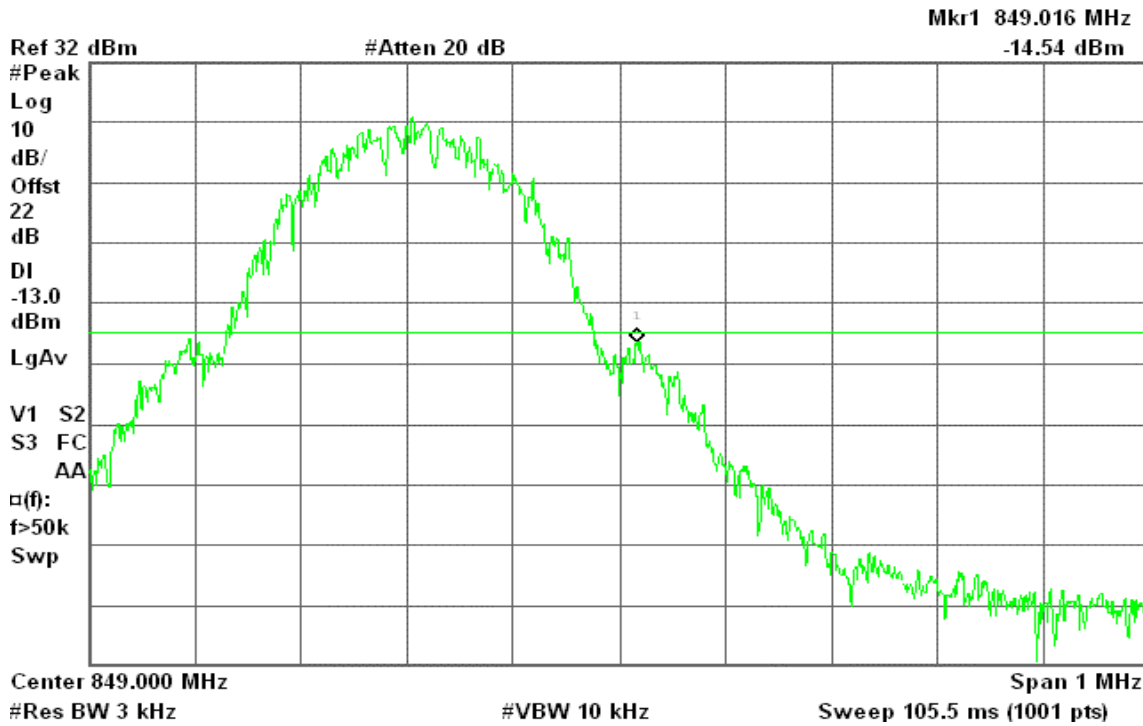


Figure 9-2: Band Edge emissions – GSM CH High

Agilent 22:41:27 May 6, 2008

R T





GPRS 850

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

Agilent 23:30:20 May 6, 2008

R T

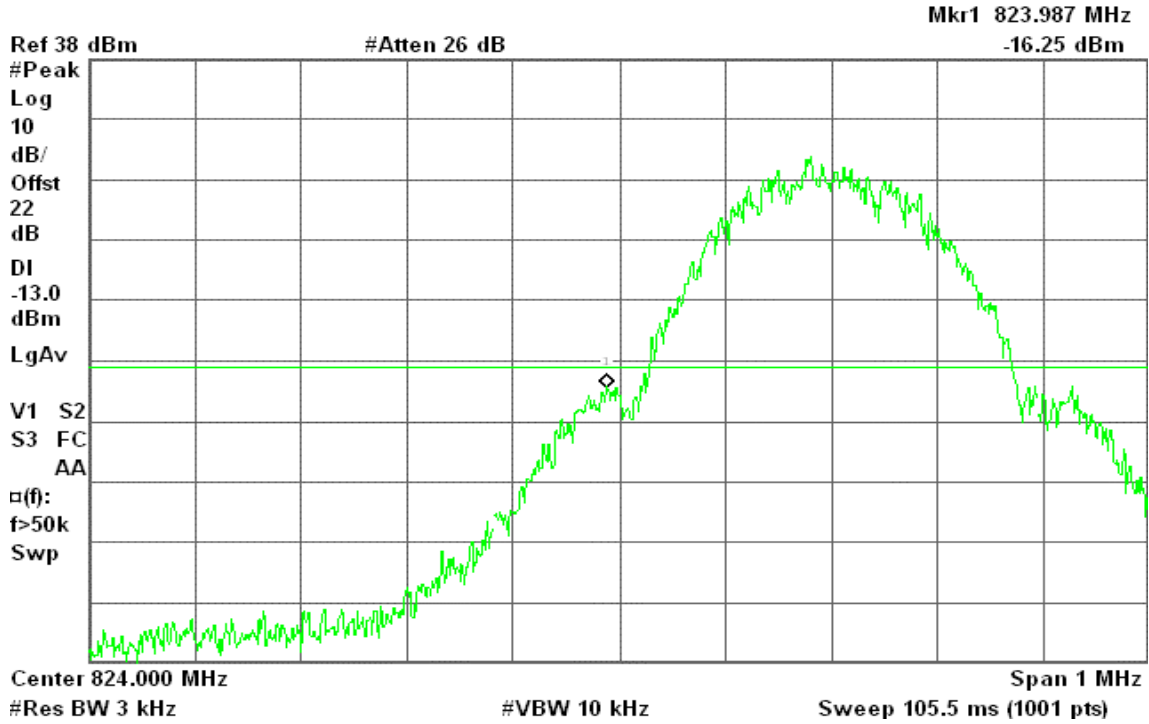
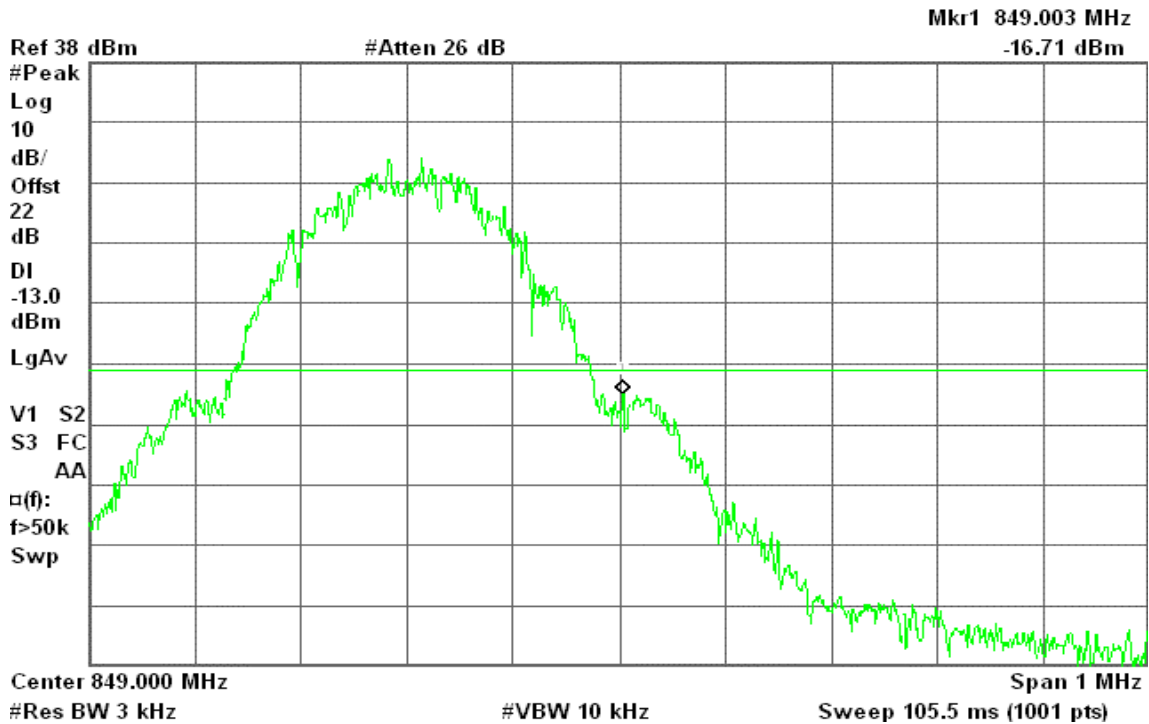


Figure 9-4: Band Edge emissions –GPRS CH High

Agilent 23:30:58 May 6, 2008

R T





GSM 1900

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

Agilent 23:15:06 May 6, 2008

R T

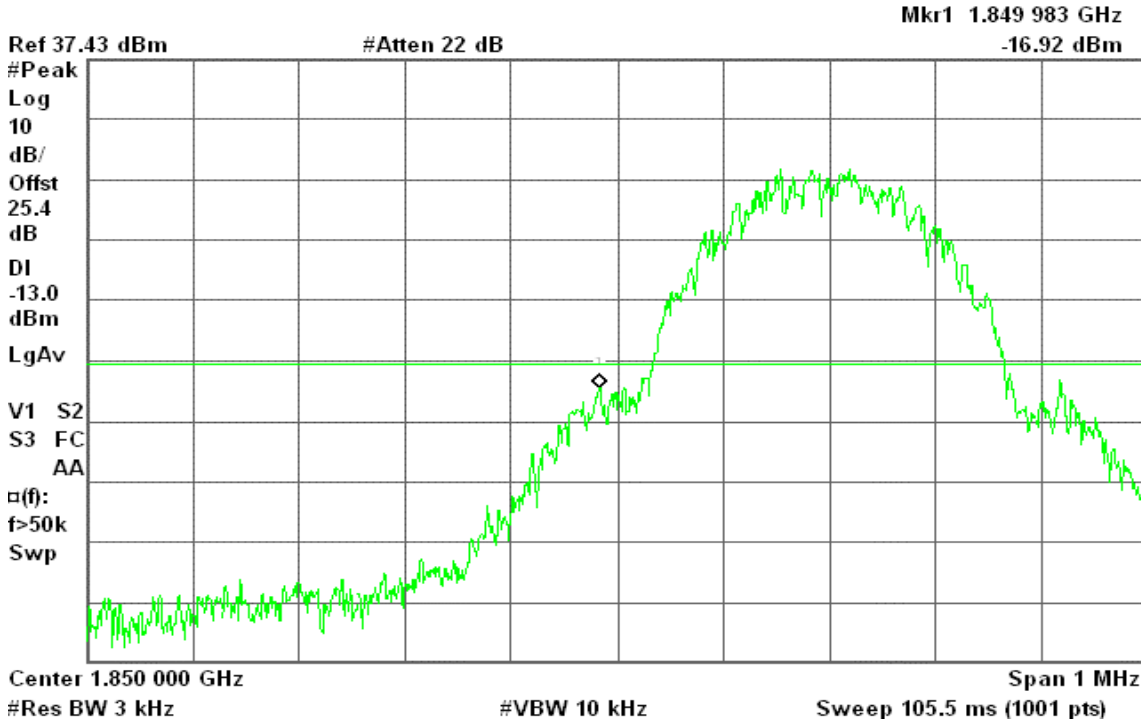
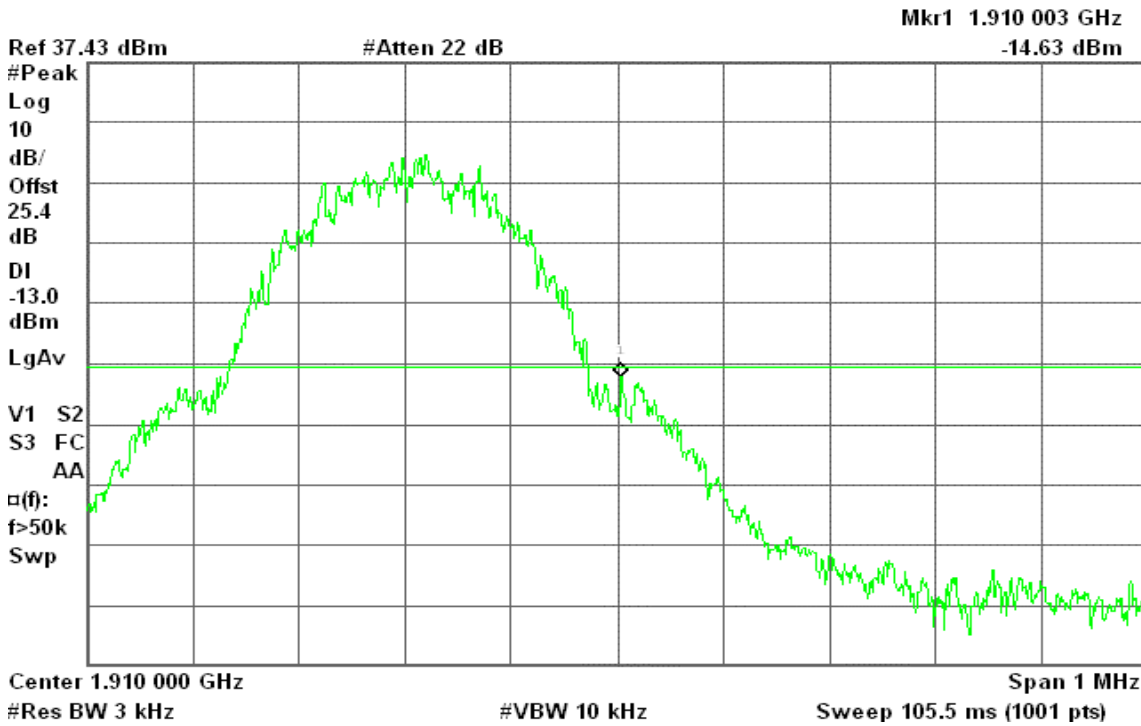


Figure 10-2: Band Edge emissions – GSM CH High

Agilent 23:14:29 May 6, 2008

R T





GPRS 1900

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

Agilent 23:36:48 May 6, 2008

R T

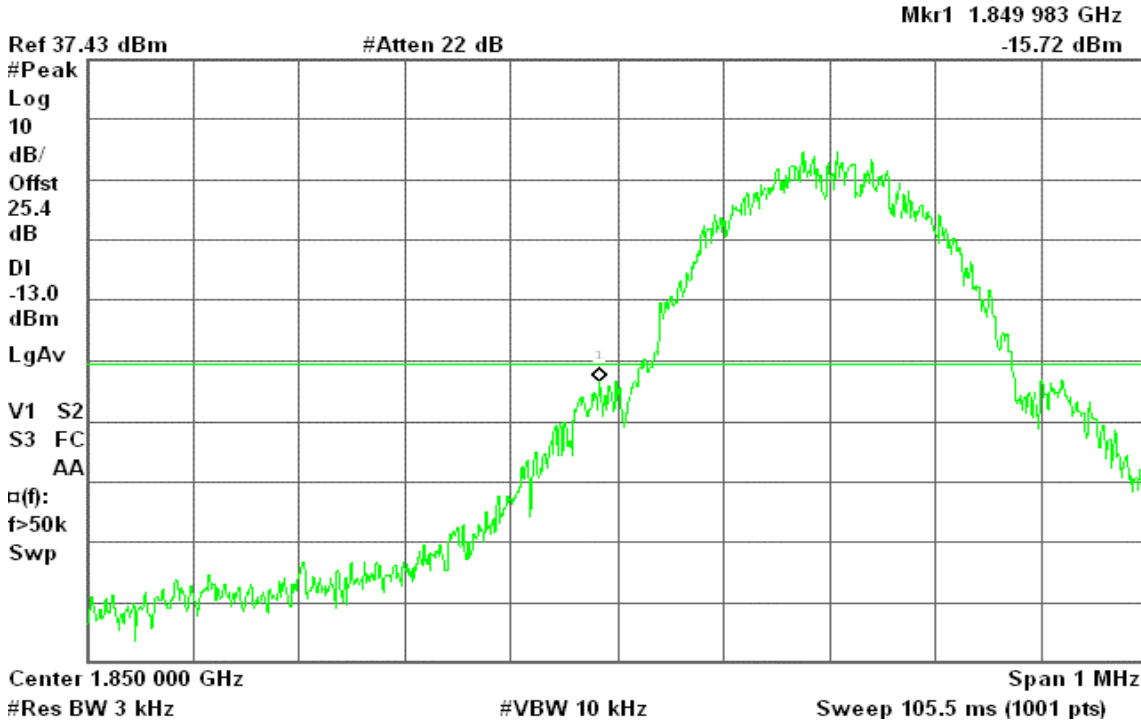
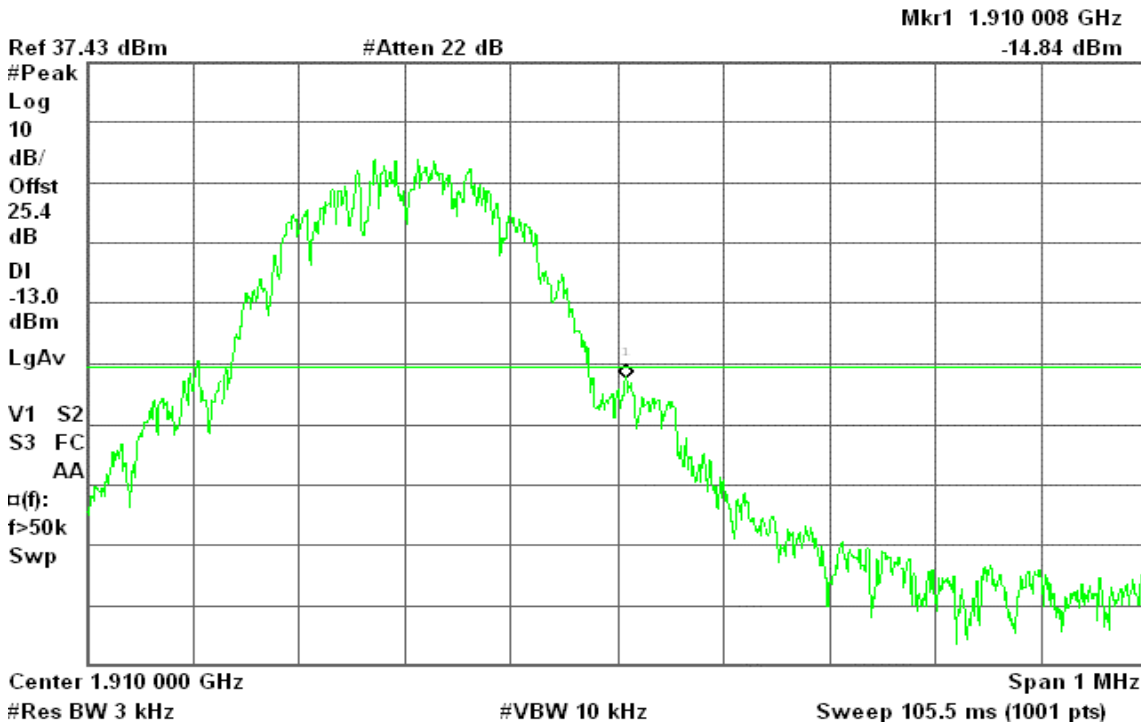


Figure 10-4: Band Edge emissions – GPRS CH High

Agilent 23:36:21 May 6, 2008

R T





EGPRS 850

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

Agilent 00:52:58 May 7, 2008

R T

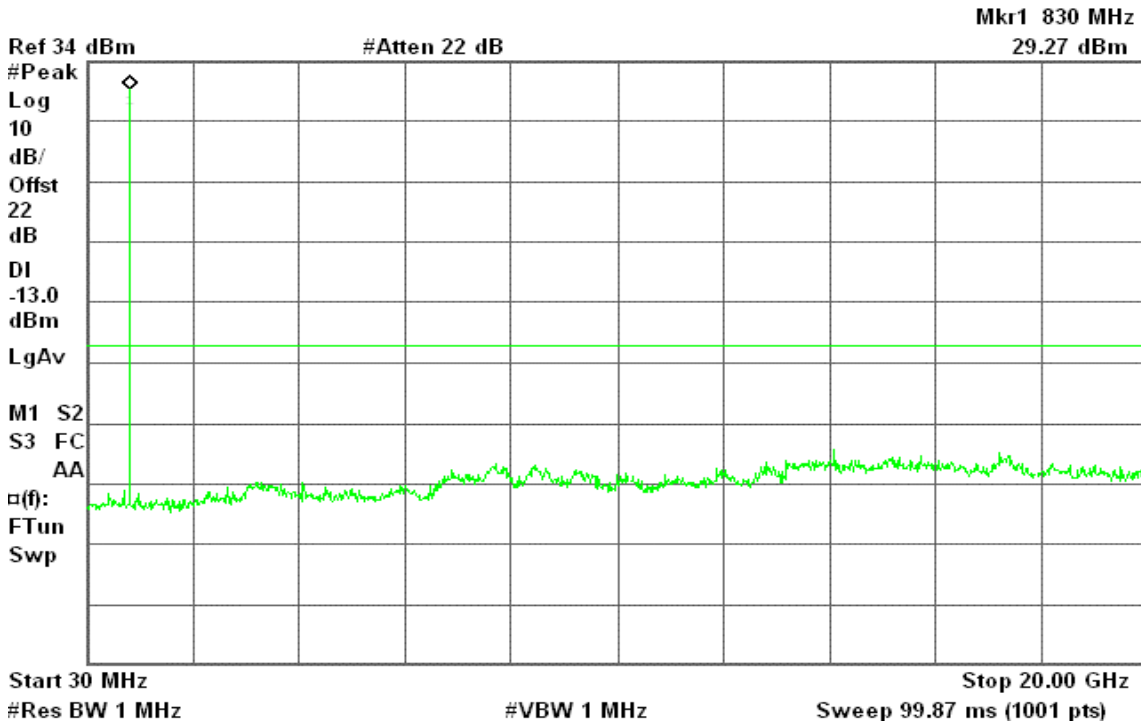


Figure 11-2: Out of Band emission at antenna terminals –EGPRS CH Mid

Agilent 00:53:18 May 7, 2008

R T

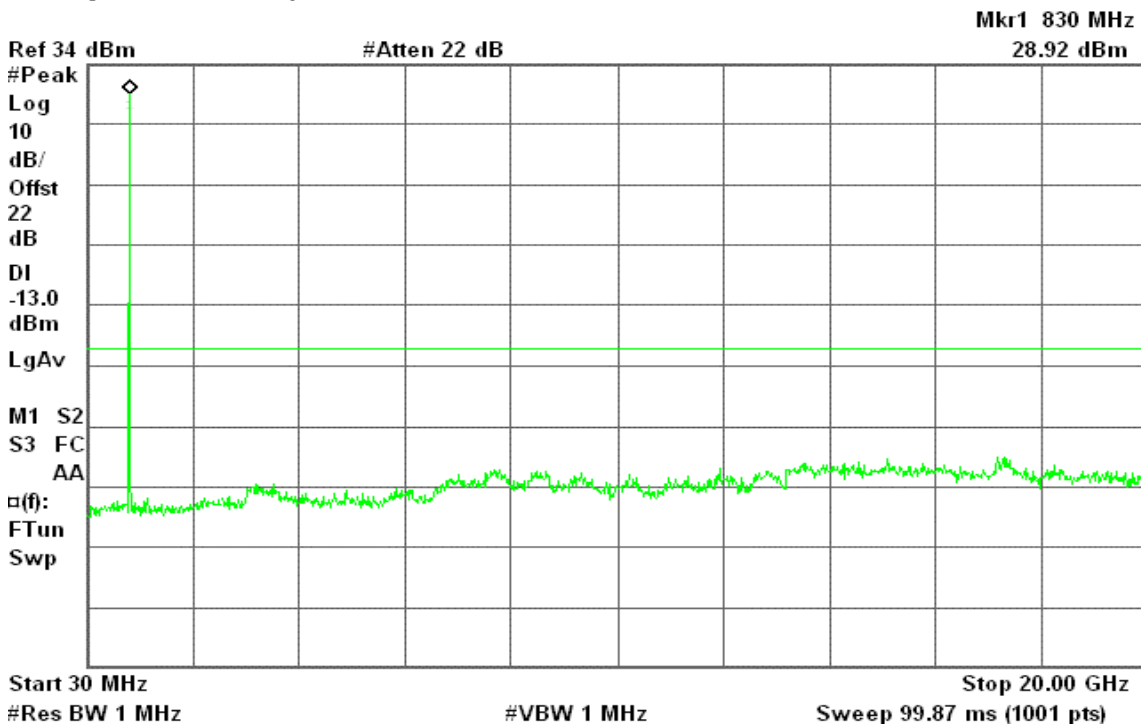
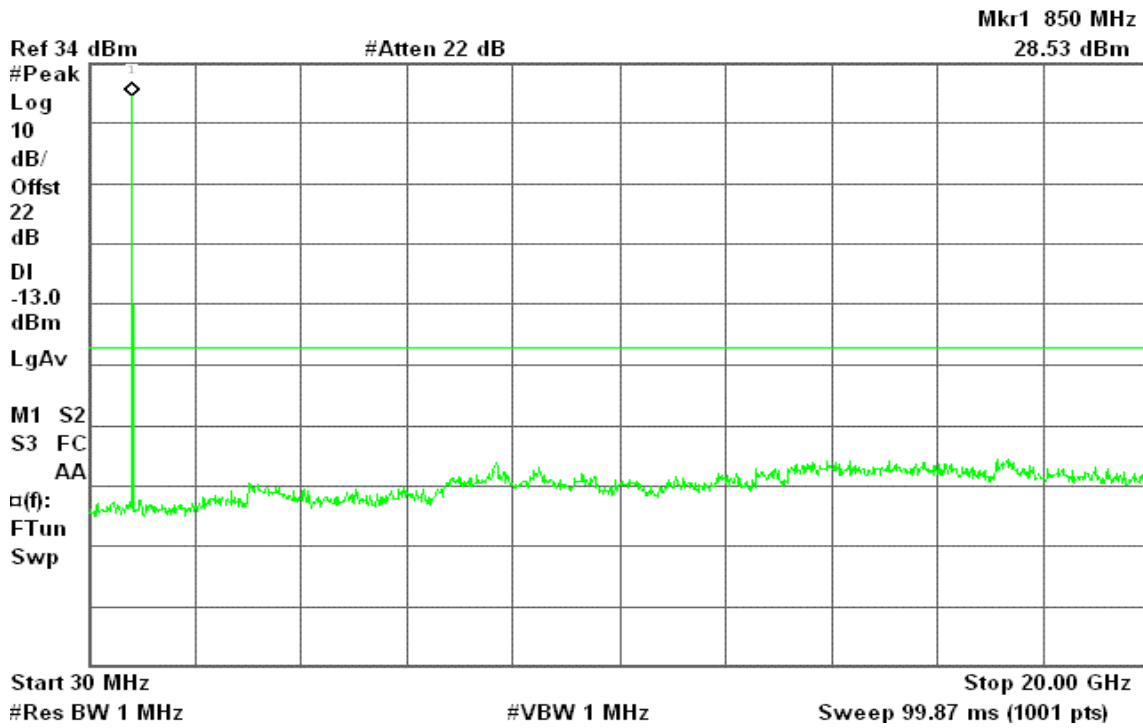




Figure 11-3: Out of Band emission at antenna terminals –EGPRS CH High

Agilent 00:53:36 May 7, 2008

R T



EGPRS 1900

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

Agilent 00:47:39 May 7, 2008

R T

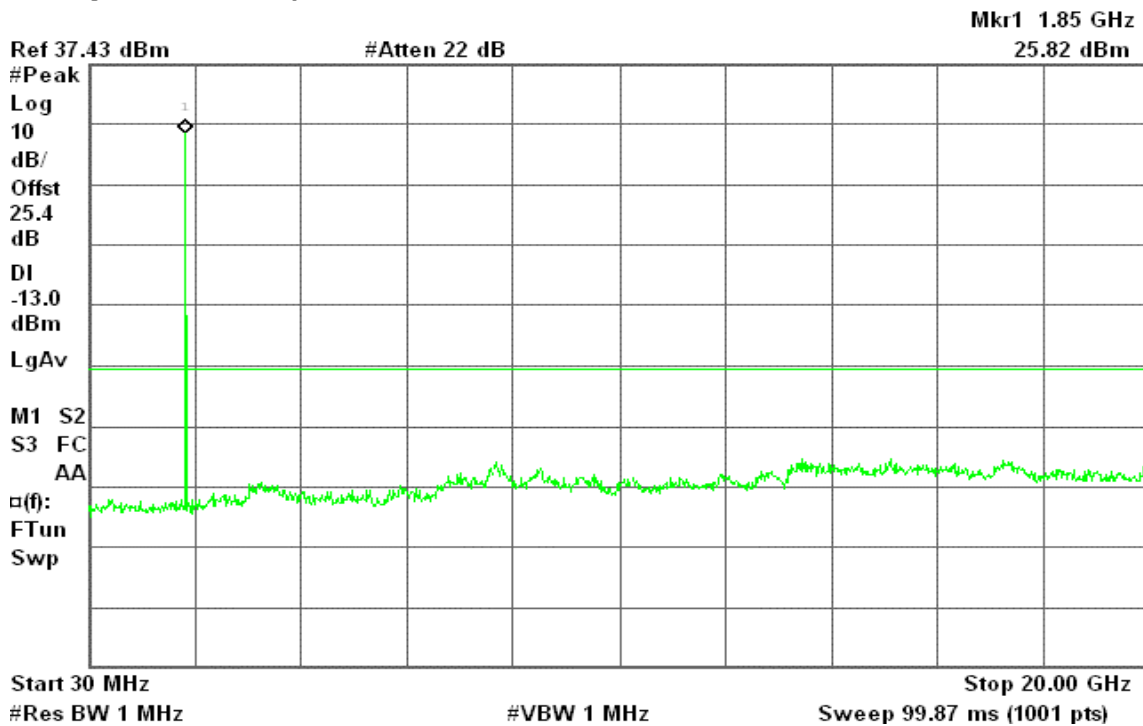




Figure 11-5: Out of Band emission at antenna terminals –EGPRS CH Mid

Agilent 00:48:29 May 7, 2008

R T

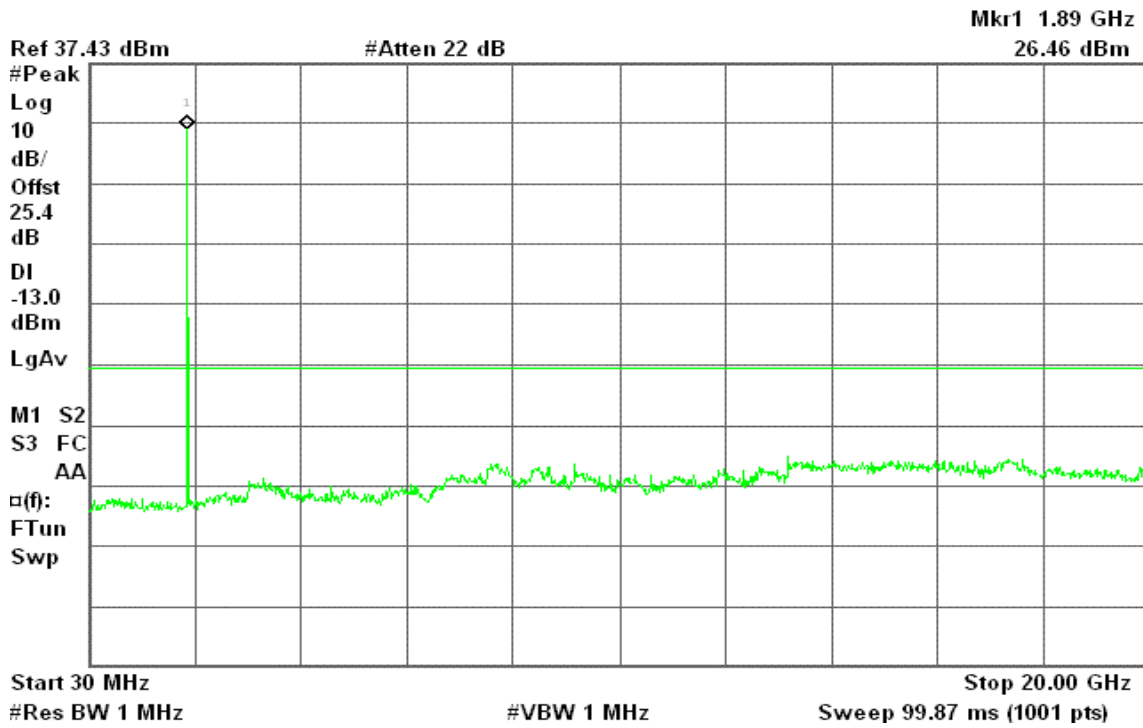
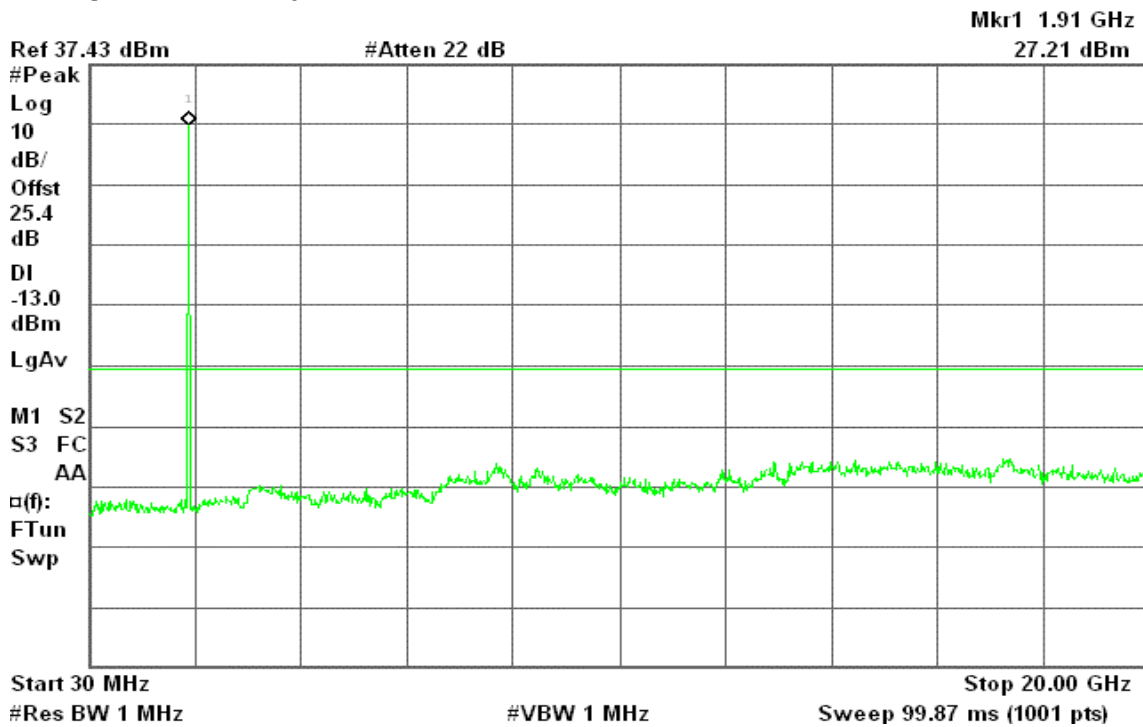


Figure 11-6: Out of Band emission at antenna terminals –EGPRS CH High

Agilent 00:49:12 May 7, 2008

R T





EGPRS 850

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

Agilent 00:55:40 May 7, 2008

R T

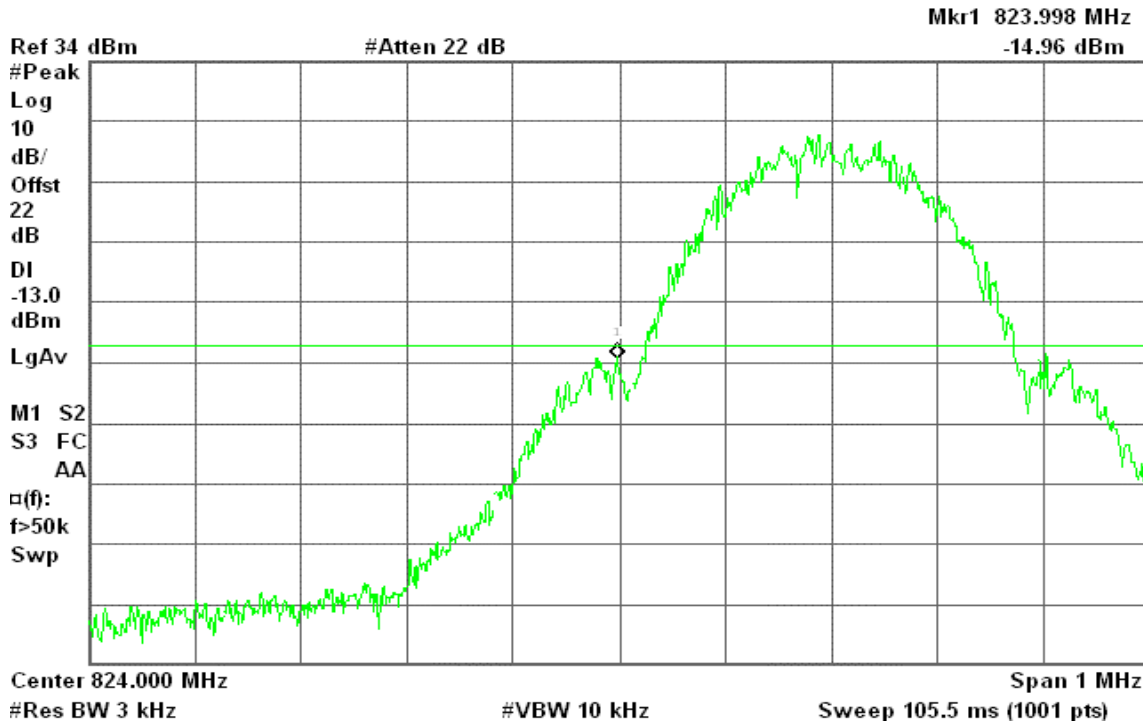
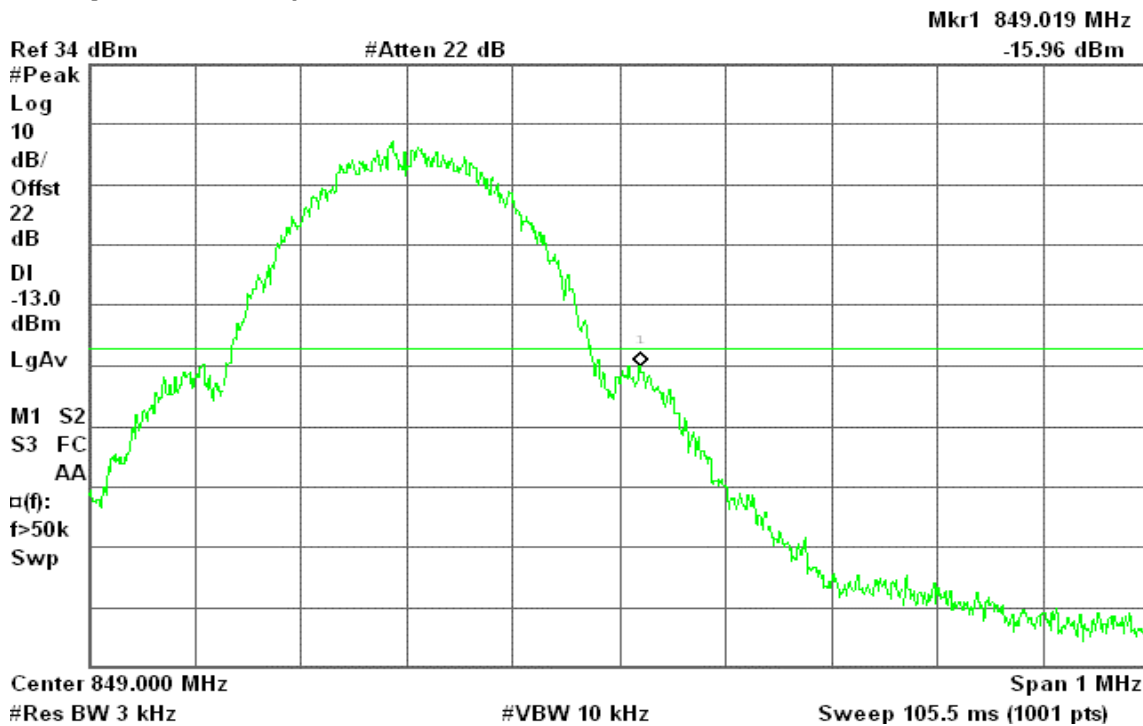


Figure 12-2: Band Edge emissions – EGPRS CH High

Agilent 00:54:50 May 7, 2008

R T





EGPRS 1900

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

Agilent 00:46:12 May 7, 2008

R T

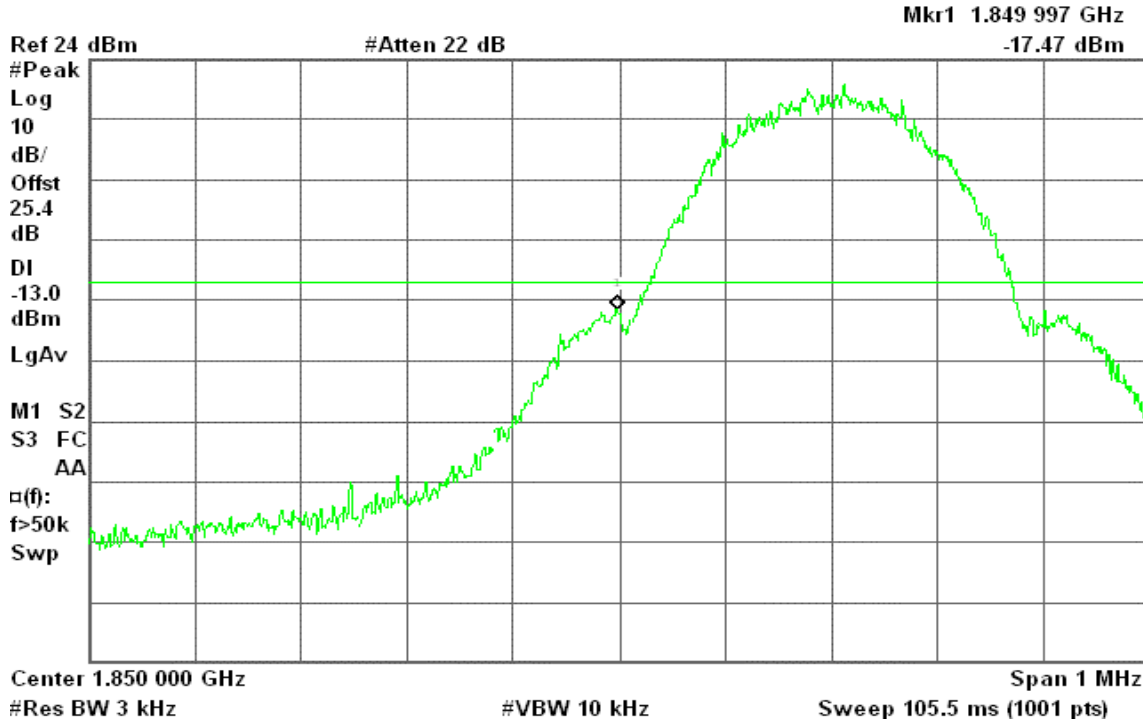
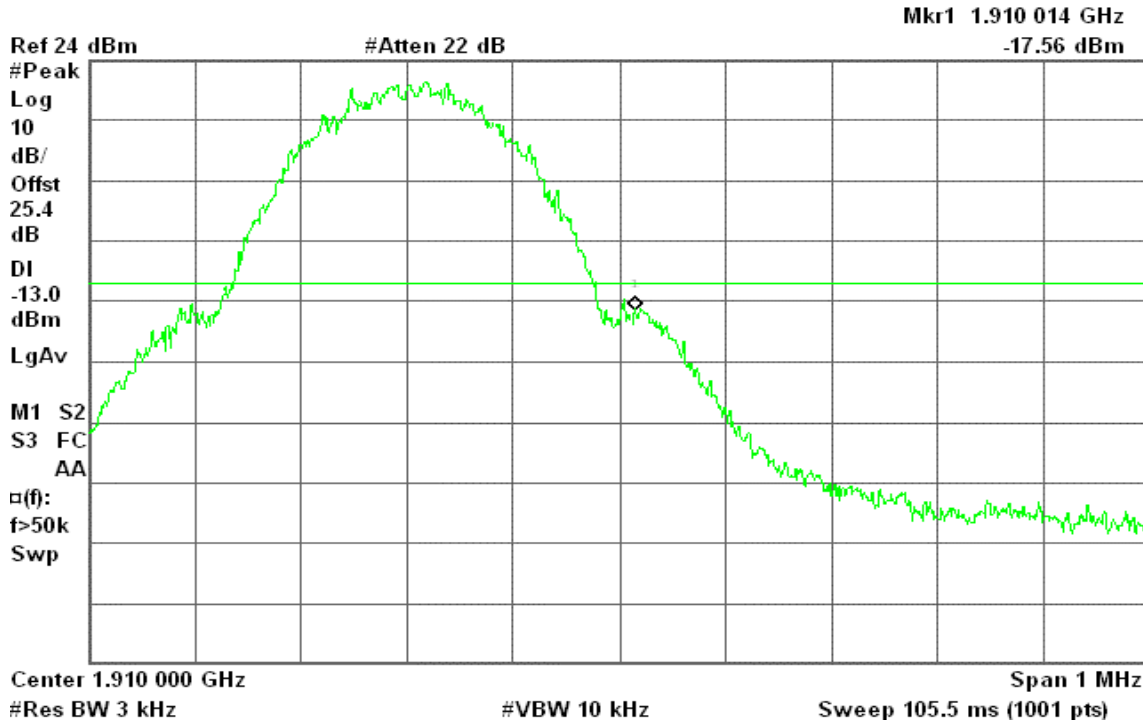


Figure 12-4: Band Edge emissions – EGPRS CH High

Agilent 00:45:21 May 7, 2008

R T





WCDMA Band II

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

Agilent 01:47:23 May 7, 2008

R L

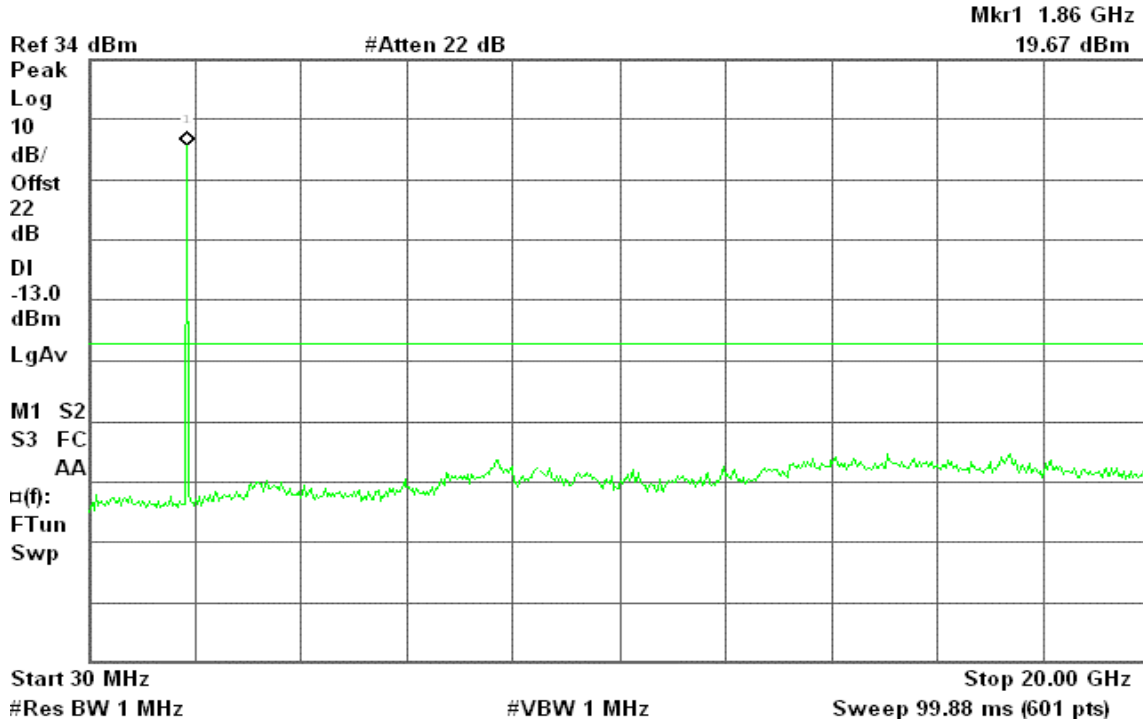


Figure 13-2: Out of Band emission at antenna terminals – WCDMA CH Mid

Agilent 01:47:37 May 7, 2008

R T

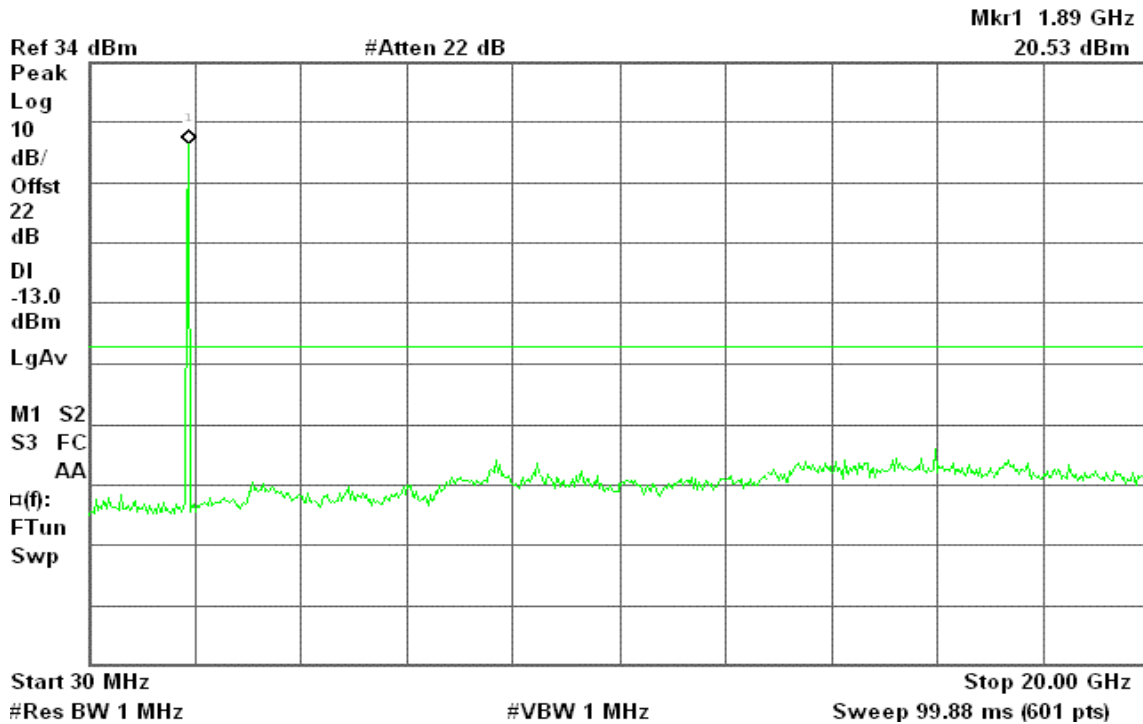
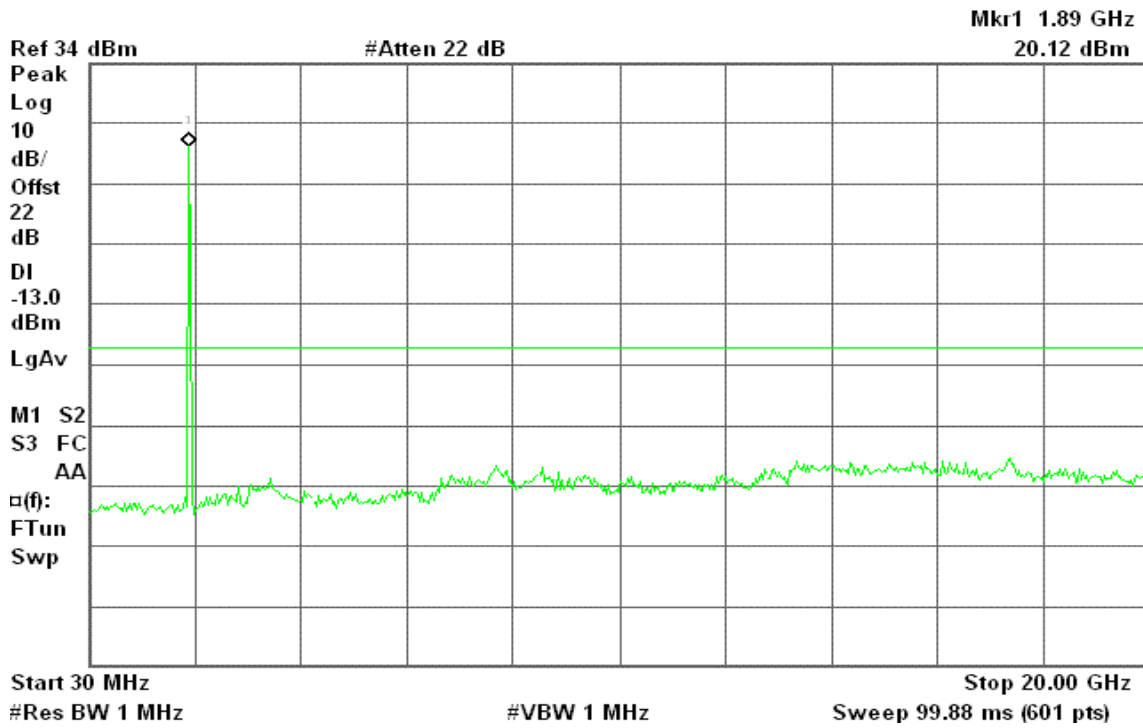




Figure 13-3: Out of Band emission at antenna terminals – WCDMA CH High

Agilent 01:47:51 May 7, 2008

R T



WCDMA Band V

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

Agilent 01:45:16 May 7, 2008

R T

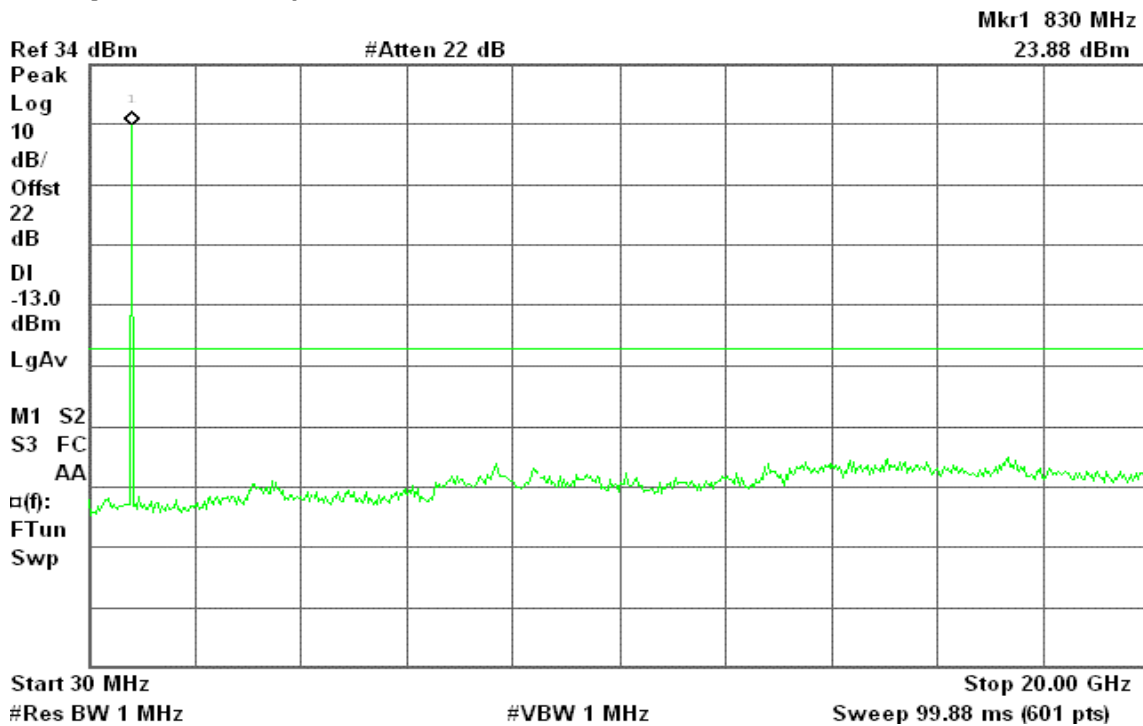




Figure 13-5: Out of Band emission at antenna terminals – WCDMA CH Mid

Agilent 01:46:29 May 7, 2008

R T

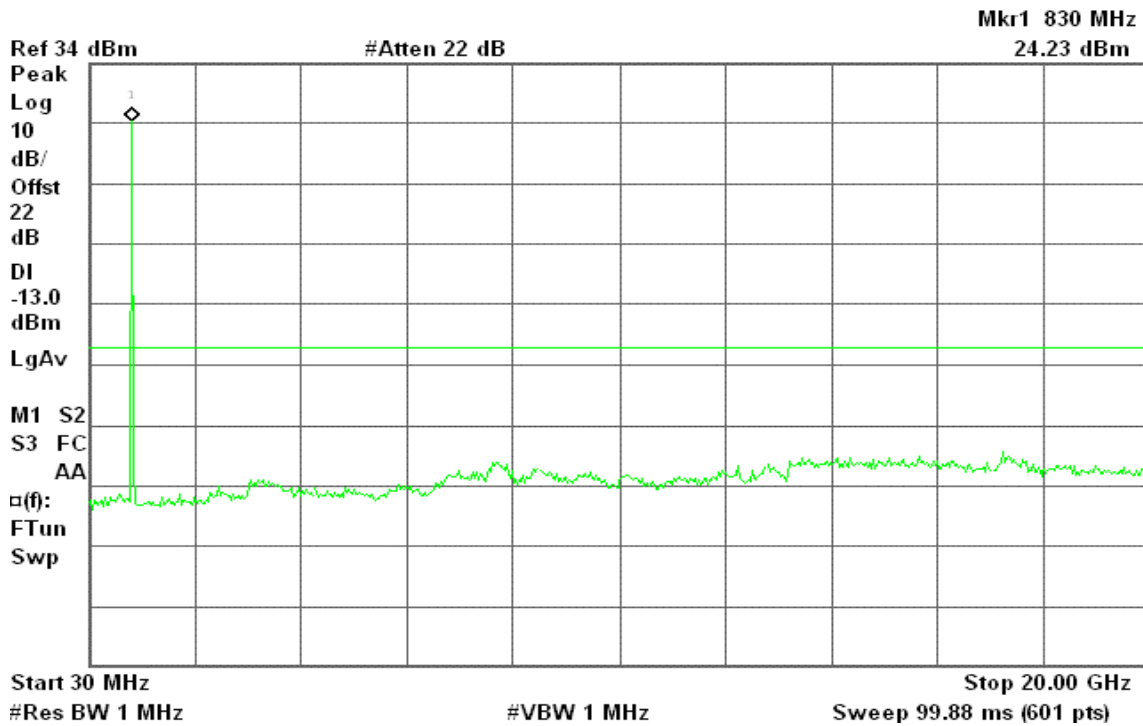
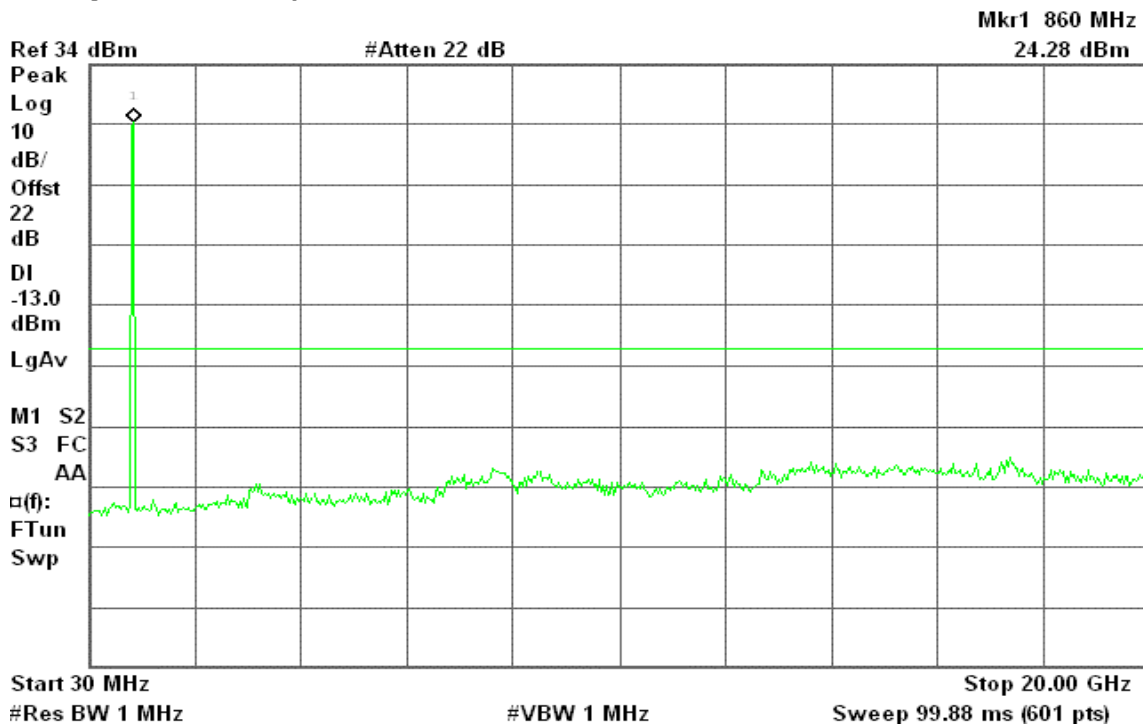


Figure 13-6: Out of Band emission at antenna terminals – WCDMA CH High

Agilent 01:46:45 May 7, 2008

R T





WCDMA Band II

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

Agilent 01:49:27 May 7, 2008

R T

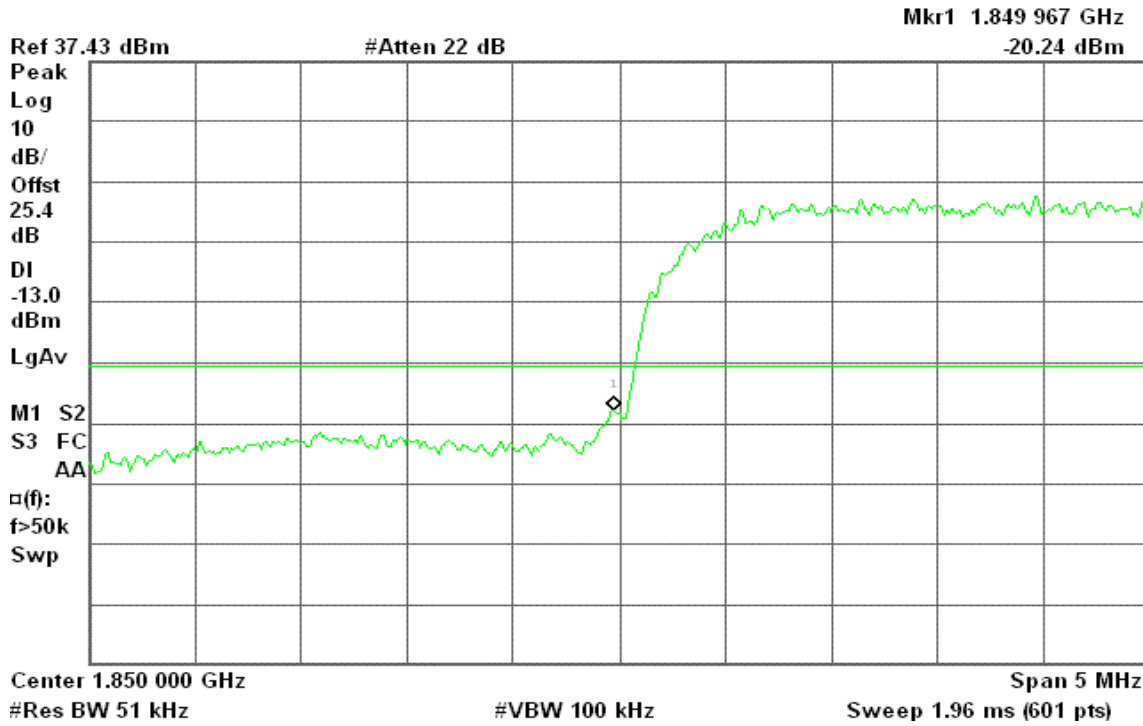
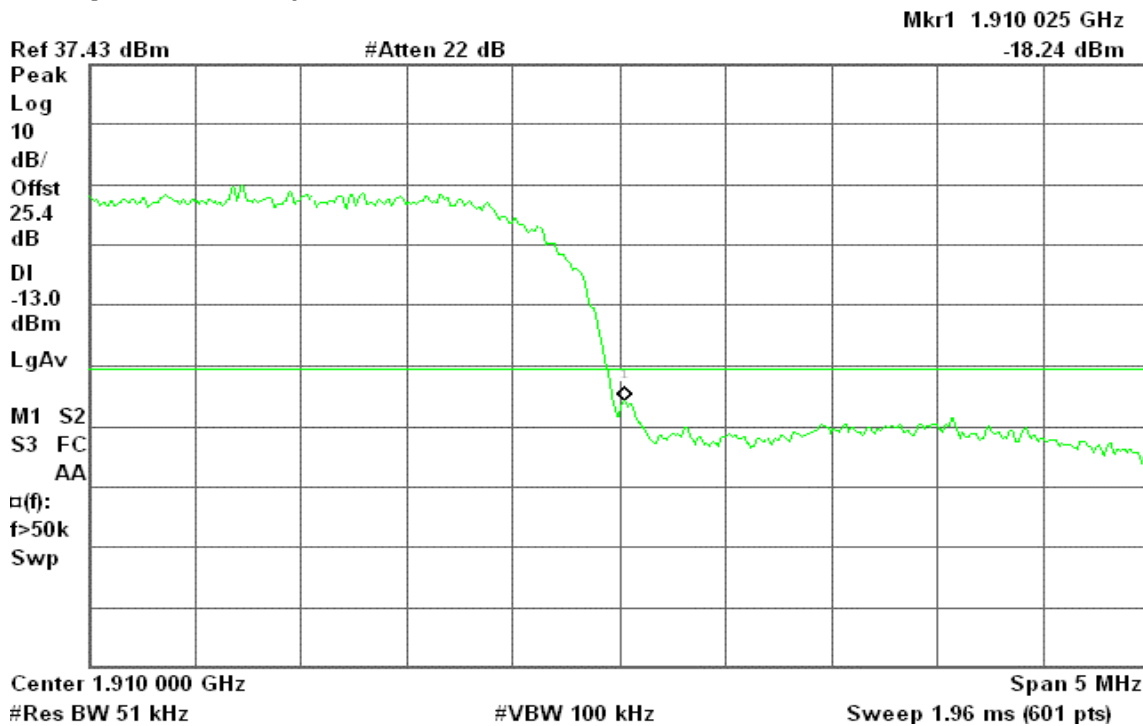


Figure 14-2: Band Edge emissions –WCDMA CH High

Agilent 01:49:05 May 7, 2008

R T





WCDMA Band V

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

Agilent 01:44:35 May 7, 2008

R T

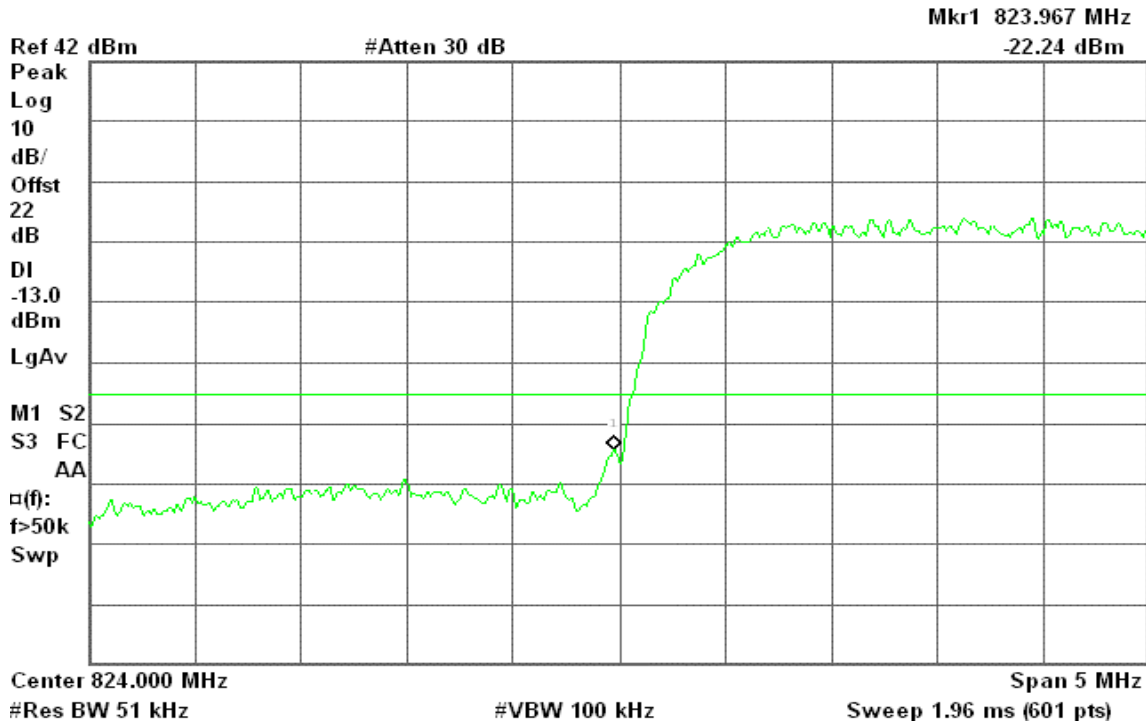
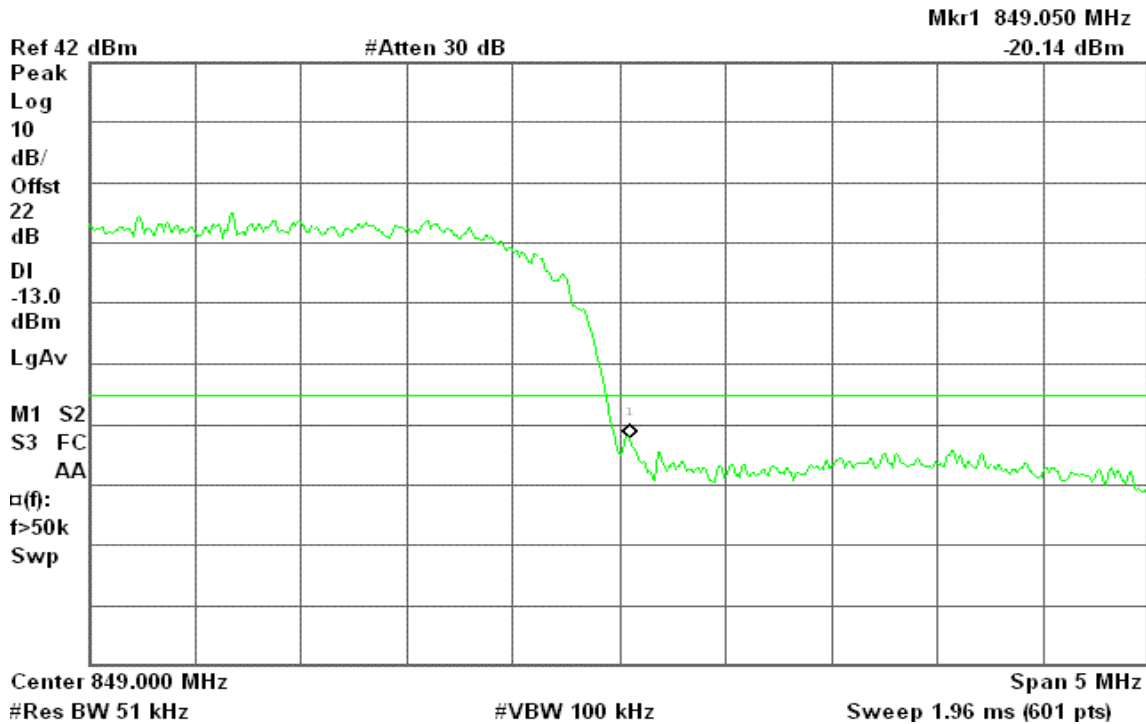


Figure 14-4: Band Edge emissions –WCDMA CH High

Agilent 01:44:00 May 7, 2008

R T





WCDMA / HSDPA Band II

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

Agilent 21:44:51 May 7, 2008

R T

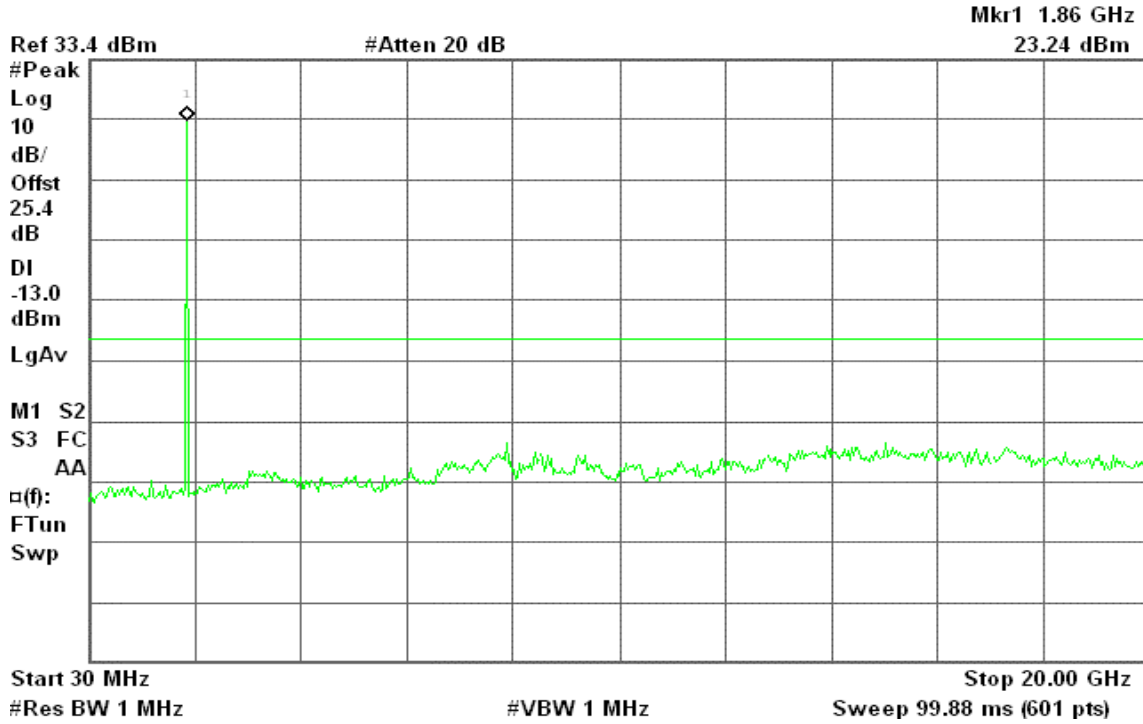


Figure 15-2: Out of Band emission at antenna terminals – HSDPA CH Mid

Agilent 21:44:40 May 7, 2008

R T

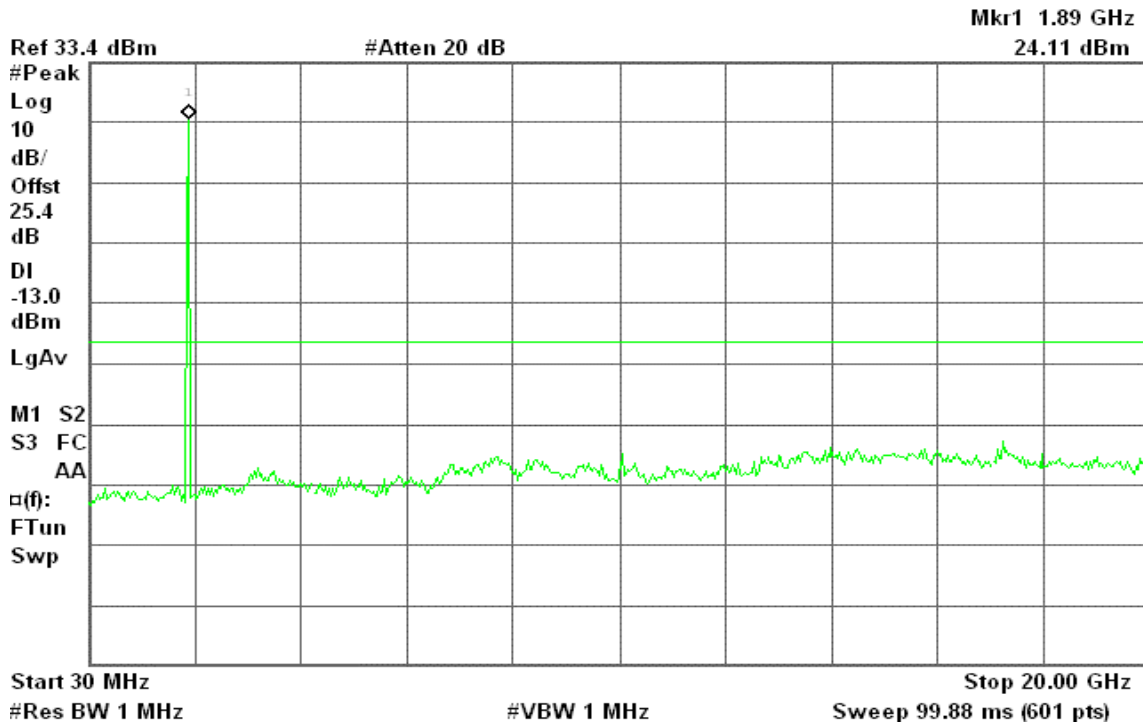
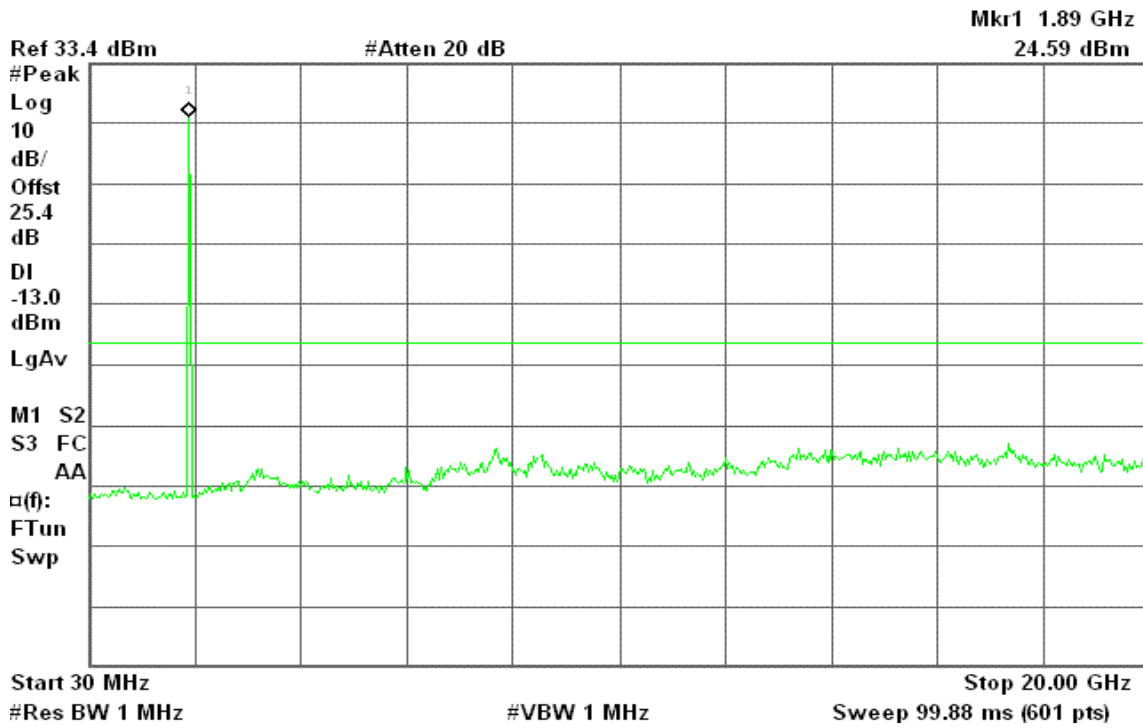




Figure 15-3: Out of Band emission at antenna terminals – HSDPA CH High

Agilent 21:44:29 May 7, 2008

R T



WCDMA / HSDPA Band V

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

Agilent 21:45:18 May 7, 2008

R T

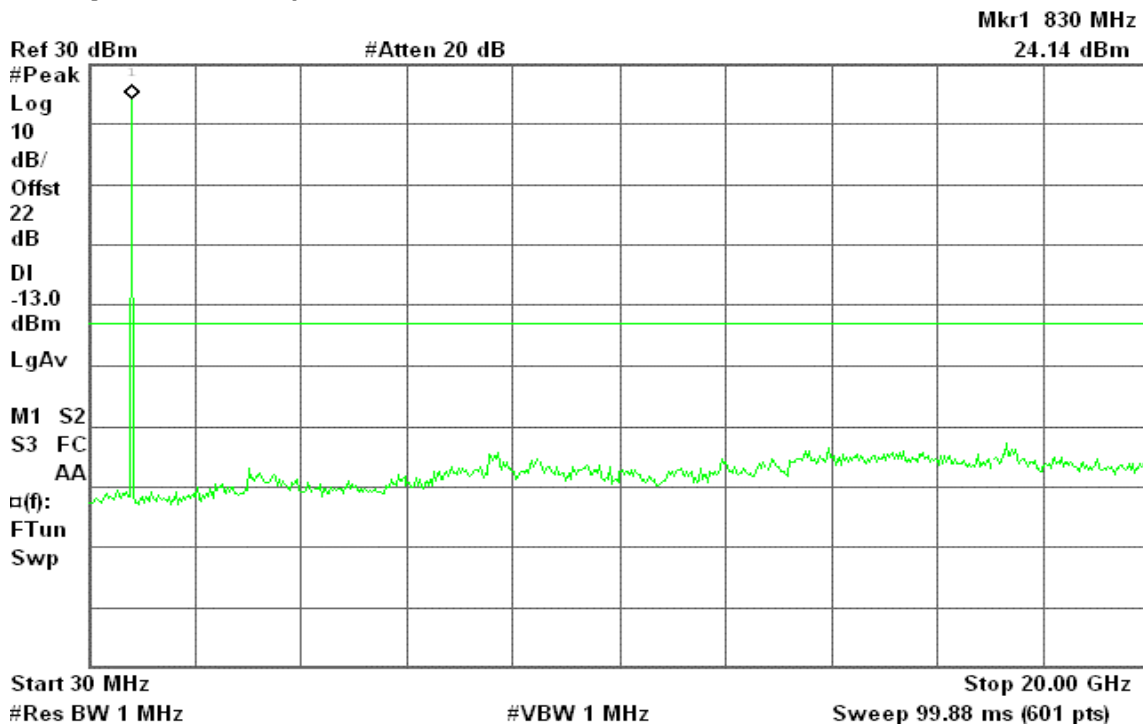




Figure 15-5: Out of Band emission at antenna terminals – HSDPA CH Mid

Agilent 21:45:29 May 7, 2008

R T

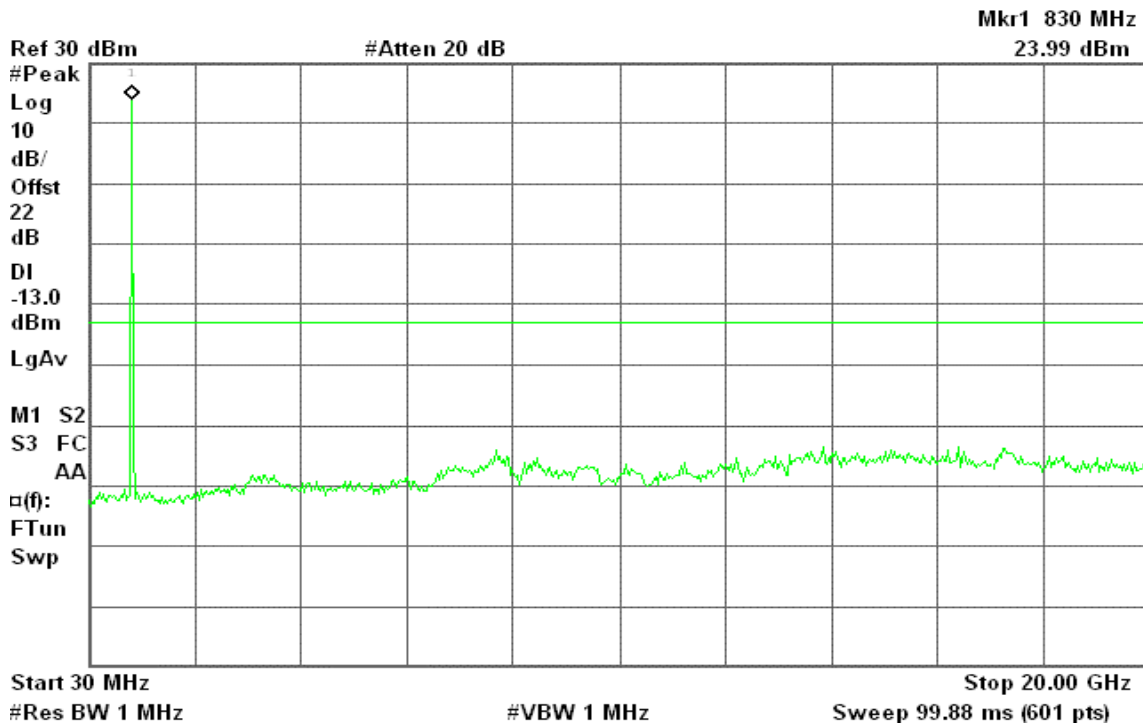
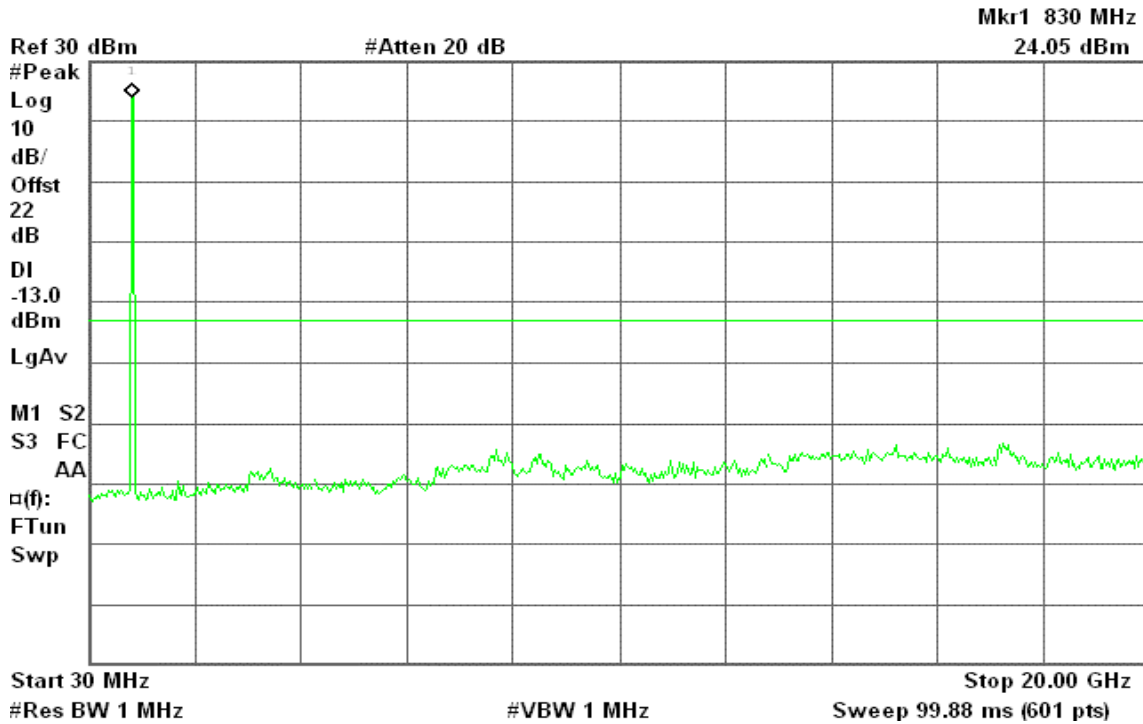


Figure 15-6: Out of Band emission at antenna terminals – HSDPA CH High

Agilent 21:45:41 May 7, 2008

R T





WCDMA / HSDPA Band II

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

Agilent 21:43:26 May 7, 2008

R T

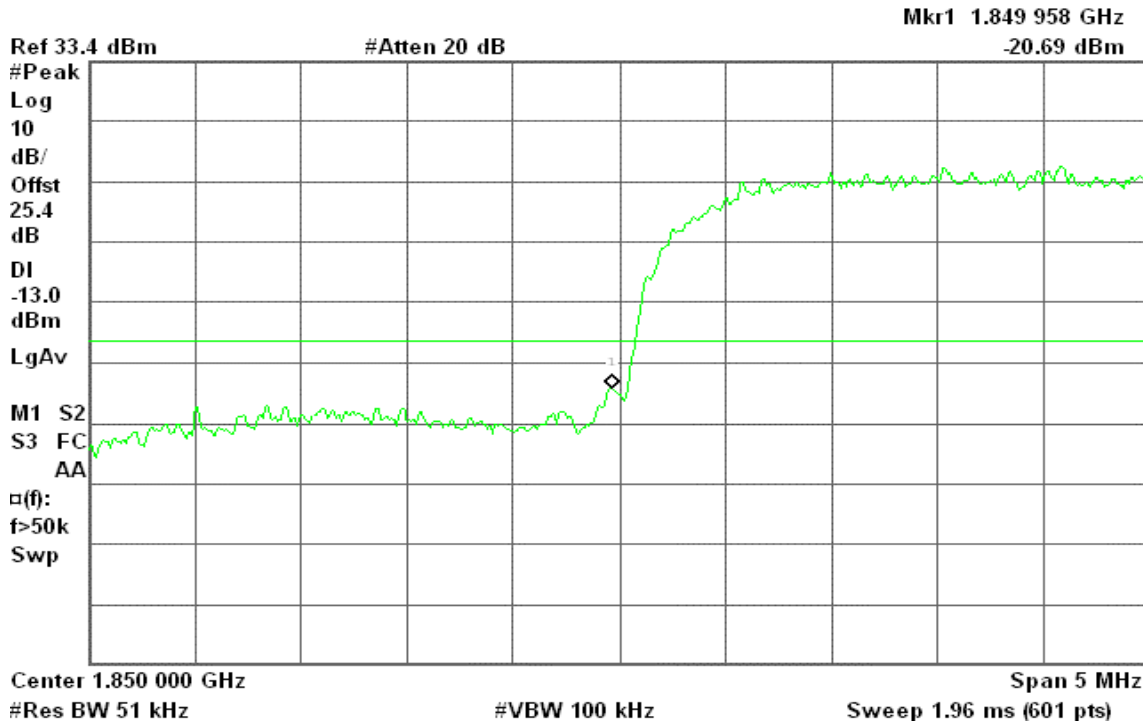
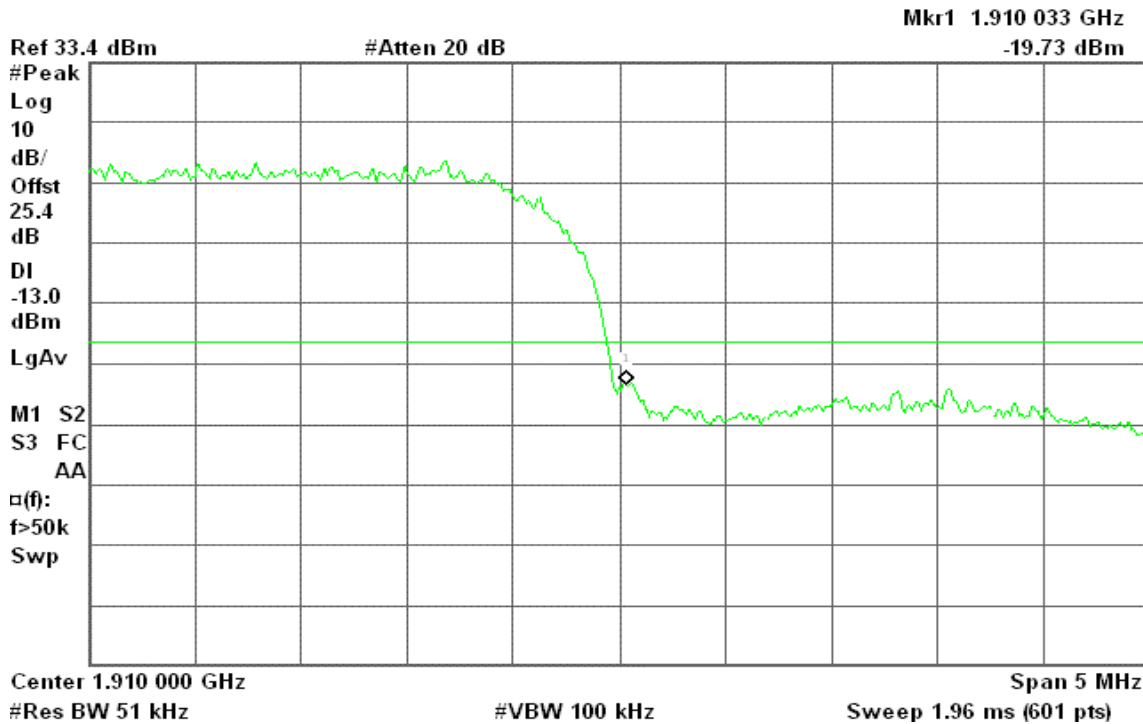


Figure 16-2: Band Edge emissions – HSDPA CH High

Agilent 21:43:46 May 7, 2008

R T





WCDMA / HSDPA Band V

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

Agilent 21:42:10 May 7, 2008

R T

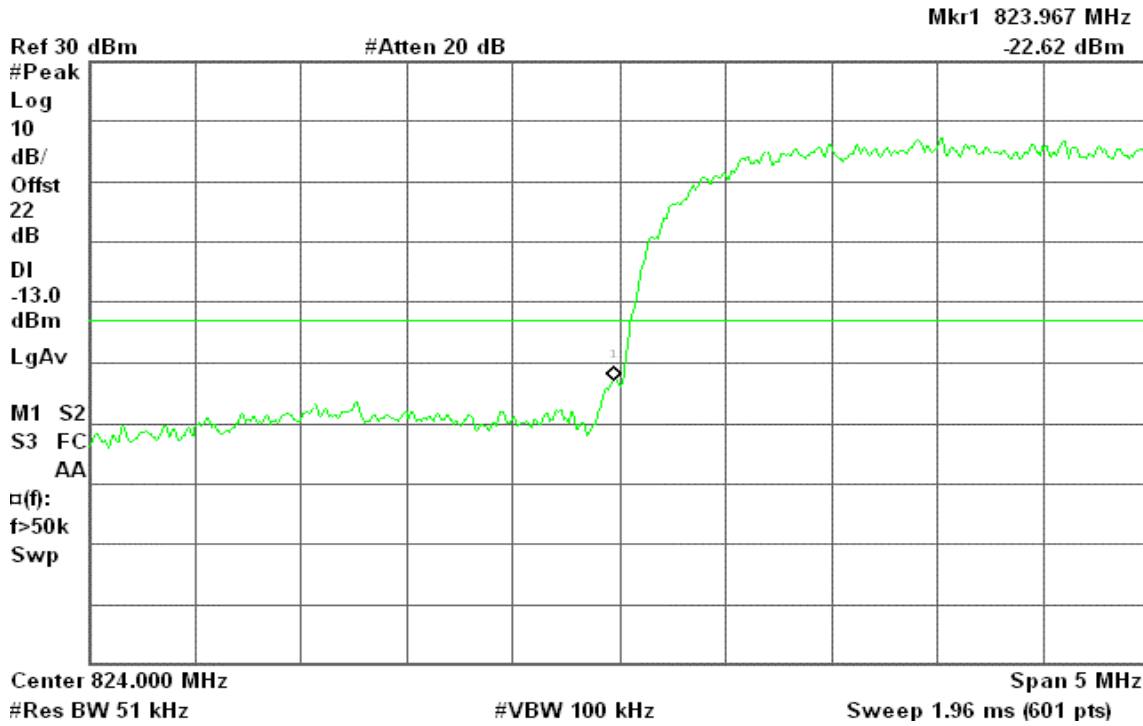
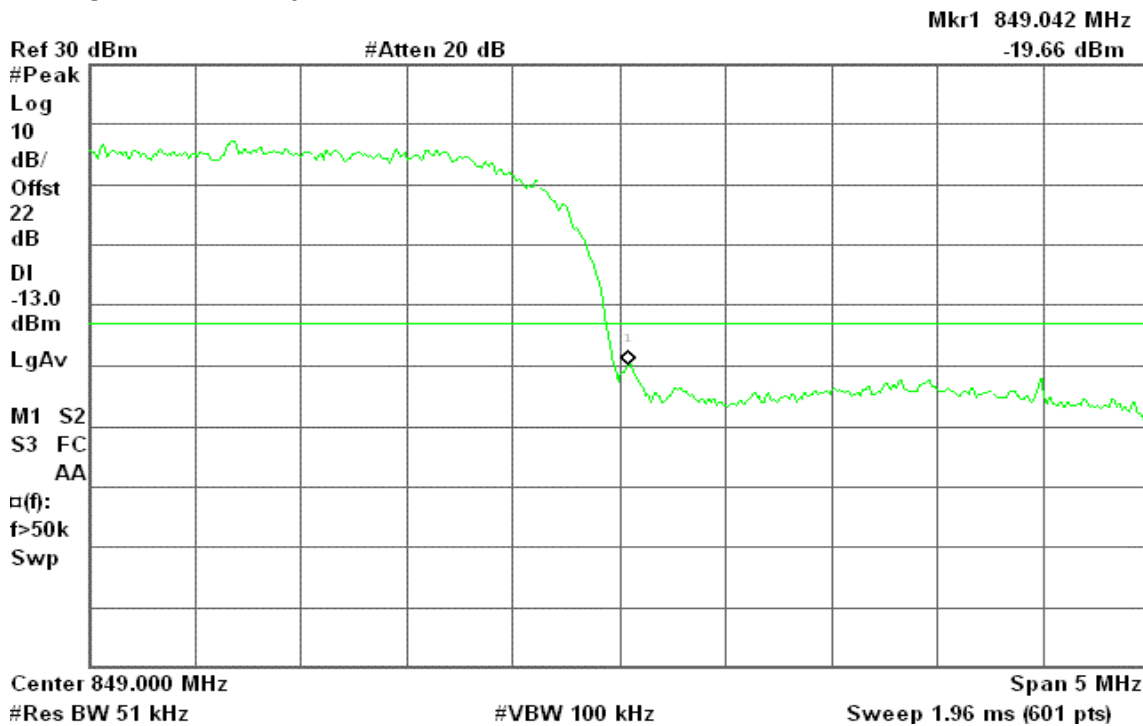


Figure 16-4: Band Edge emissions – HSDPA CH High

Agilent 21:42:49 May 7, 2008

R T



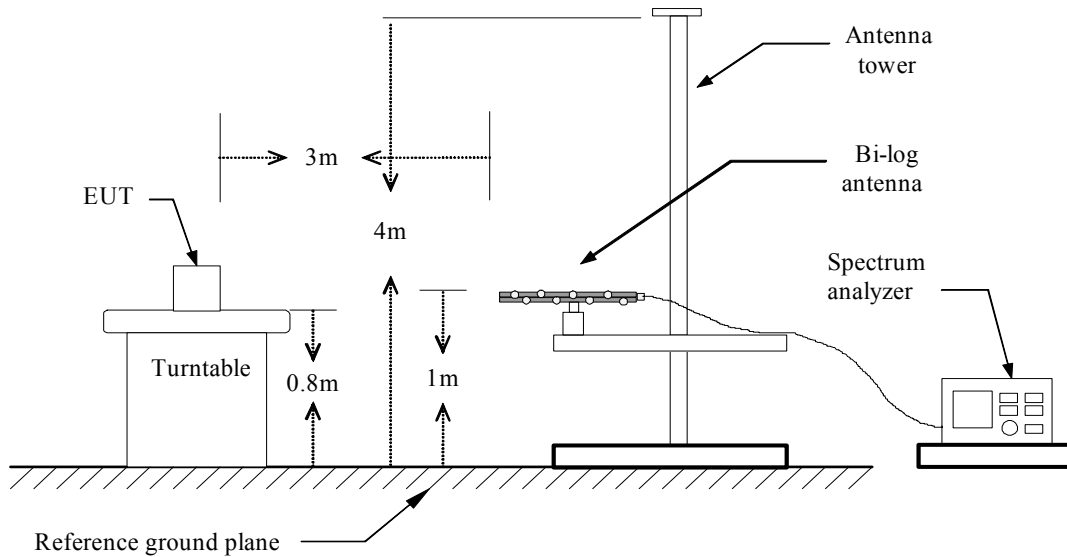
7.5 FIELD STRENGTH OF SPURIOUS RADIATION MEASUREMENT

LIMIT

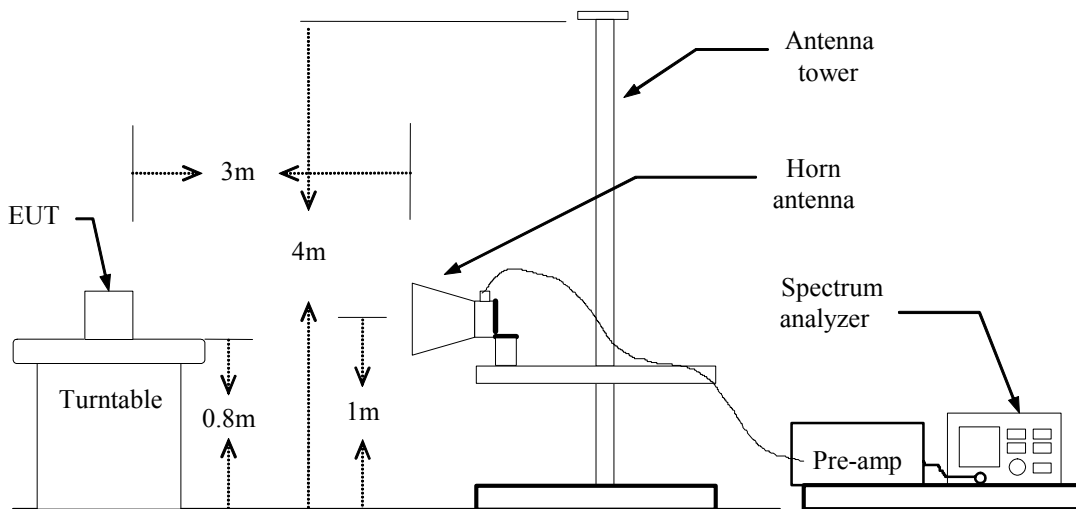
According to FCC §2.1053

Test Configuration

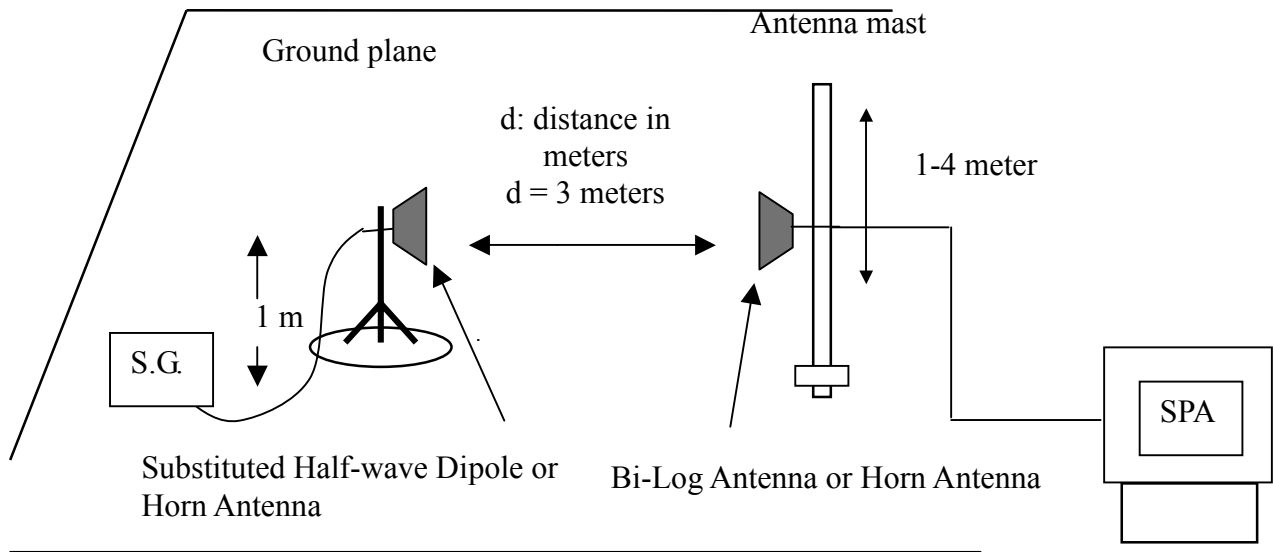
Below 1 GHz



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.

$$ERP = \text{S.G. output (dBm)} + \text{Antenna Gain (dBd)} - \text{Cable (dB)}$$

$$EIRP = \text{S.G. output (dBm)} + \text{Antenna Gain (dBi)} - \text{Cable (dB)}$$

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:** April 21, 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)
47.46	V	-53.24	-14.75	-67.99	-13.00	-54.99
99.84	V	-45.67	-18.23	-63.90	-13.00	-50.90
129.91	V	-55.89	-12.14	-68.03	-13.00	-55.03
181.32	V	-58.30	-14.16	-72.46	-13.00	-59.46
408.30	V	-54.07	-10.21	-64.28	-13.00	-51.28
512.09	V	-58.67	-7.39	-66.06	-13.00	-53.06
66.86	H	-58.52	-17.07	-75.59	-13.00	-62.59
99.84	H	-43.87	-18.12	-61.99	-13.00	-48.99
127.97	H	-55.58	-13.98	-69.57	-13.00	-56.57
268.62	H	-60.14	-12.60	-72.74	-13.00	-59.74
407.33	H	-53.37	-10.01	-63.37	-13.00	-50.37
512.09	H	-57.60	-7.45	-65.06	-13.00	-52.06

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: April 21, 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)
47.46	V	-54.69	-14.75	-69.44	-13.00	-56.44
130.88	V	-48.85	-12.10	-60.95	-13.00	-47.95
184.23	V	-57.34	-14.29	-71.64	-13.00	-58.64
270.56	V	-61.09	-11.90	-73.00	-13.00	-60.00
396.66	V	-62.52	-10.71	-73.22	-13.00	-60.22
548.95	V	-64.53	-6.86	-71.39	-13.00	-58.39
130.88	H	-44.89	-13.91	-58.80	-13.00	-45.80
180.35	H	-60.46	-13.21	-73.68	-13.00	-60.68
270.56	H	-59.06	-12.47	-71.54	-13.00	-58.54
452.92	H	-62.06	-8.58	-70.64	-13.00	-57.64
548.95	H	-59.09	-6.92	-66.01	-13.00	-53.01
967.02	H	-64.52	-1.98	-66.50	-13.00	-53.50

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: April 21, 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)
48.43	V	-52.26	-15.31	-67.58	-13.00	-54.58
128.94	V	-56.72	-12.31	-69.03	-13.00	-56.03
185.20	V	-58.19	-14.34	-72.52	-13.00	-59.52
273.47	V	-61.19	-11.92	-73.10	-13.00	-60.10
435.46	V	-65.21	-9.01	-74.22	-13.00	-61.22
625.58	V	-68.29	-5.68	-73.97	-13.00	-60.97
127.97	H	-54.84	-13.98	-68.83	-13.00	-55.83
160.95	H	-58.32	-13.07	-71.39	-13.00	-58.39
268.62	H	-59.48	-12.60	-72.08	-13.00	-59.08
422.85	H	-65.00	-9.33	-74.33	-13.00	-61.33
511.12	H	-67.66	-7.45	-75.11	-13.00	-62.11
639.16	H	-68.11	-5.37	-73.48	-13.00	-60.48

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: April 22, 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)
60.07	V	-48.38	-15.40	-63.78	-13.00	-50.78
99.84	V	-44.13	-18.23	-62.36	-13.00	-49.36
215.27	V	-54.01	-14.51	-68.51	-13.00	-55.51
407.33	V	-53.73	-10.26	-63.99	-13.00	-50.99
452.92	V	-63.85	-8.61	-72.45	-13.00	-59.45
512.09	V	-58.11	-7.39	-65.49	-13.00	-52.49
60.07	H	-47.69	-15.57	-63.26	-13.00	-50.26
99.84	H	-43.29	-18.12	-61.41	-13.00	-48.41
186.17	H	-56.84	-13.71	-70.55	-13.00	-57.55
228.85	H	-59.91	-13.35	-73.26	-13.00	-60.26
407.33	H	-52.53	-10.01	-62.53	-13.00	-49.53
512.09	H	-57.44	-7.45	-64.90	-13.00	-51.90

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: April 22, 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)
60.07	V	-48.55	-15.40	-63.95	-13.00	-50.95
130.88	V	-50.49	-12.10	-62.59	-13.00	-49.59
186.17	V	-54.29	-14.38	-68.67	-13.00	-55.67
402.48	V	-56.22	-10.47	-66.70	-13.00	-53.70
452.92	V	-64.19	-8.61	-72.80	-13.00	-59.80
548.95	V	-65.53	-6.86	-72.39	-13.00	-59.39
60.07	H	-46.75	-15.57	-62.32	-13.00	-49.32
99.84	H	-44.02	-18.12	-62.14	-13.00	-49.14
186.17	H	-57.45	-13.71	-71.15	-13.00	-58.15
377.26	H	-59.15	-10.91	-70.06	-13.00	-57.06
408.30	H	-52.47	-9.96	-62.43	-13.00	-49.43
512.09	H	-57.10	-7.45	-64.56	-13.00	-51.56

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: April 22, 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)
60.07	V	-47.41	-15.40	-62.81	-13.00	-49.81
133.79	V	-60.97	-12.00	-72.97	-13.00	-59.97
215.27	V	-53.67	-14.51	-68.18	-13.00	-55.18
281.23	V	-62.71	-11.95	-74.66	-13.00	-61.66
402.48	V	-61.49	-10.47	-71.96	-13.00	-58.96
452.92	V	-62.94	-8.61	-71.55	-13.00	-58.55
60.07	H	-46.19	-15.57	-61.76	-13.00	-48.76
115.36	H	-58.40	-14.71	-73.12	-13.00	-60.12
136.70	H	-58.99	-13.48	-72.47	-13.00	-59.47
200.72	H	-58.52	-12.25	-70.77	-13.00	-57.77
228.85	H	-58.60	-13.35	-71.95	-13.00	-58.95
377.26	H	-58.91	-10.91	-69.82	-13.00	-56.82

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: April 21, 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)
48.43	V	-50.87	-15.31	-66.18	-13.00	-53.18
133.79	V	-58.97	-12.00	-70.97	-13.00	-57.97
181.32	V	-55.80	-14.16	-69.96	-13.00	-56.96
269.59	V	-56.18	-11.97	-68.16	-13.00	-55.16
429.64	V	-61.15	-9.26	-70.41	-13.00	-57.41
810.85	V	-66.50	-3.58	-70.09	-13.00	-57.09
136.70	H	-51.23	-13.48	-64.71	-13.00	-51.71
272.50	H	-60.88	-12.59	-73.47	-13.00	-60.47
423.82	H	-63.94	-9.30	-73.24	-13.00	-60.24
627.52	H	-67.74	-5.76	-73.50	-13.00	-60.50
825.40	H	-67.05	-3.59	-70.65	-13.00	-57.65
916.58	H	-68.94	-2.52	-71.46	-13.00	-58.46

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: April 21, 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)
46.49	V	-50.45	-14.19	-64.64	-13.00	-51.64
134.76	V	-57.25	-11.97	-69.22	-13.00	-56.22
182.29	V	-55.33	-14.20	-69.54	-13.00	-56.54
270.56	V	-56.11	-11.90	-68.01	-13.00	-55.01
612.00	V	-65.78	-6.10	-71.89	-13.00	-58.89
865.17	V	-67.29	-3.05	-70.34	-13.00	-57.34
66.86	H	-54.67	-17.07	-71.74	-13.00	-58.74
136.70	H	-49.11	-13.48	-62.59	-13.00	-49.59
267.65	H	-58.87	-12.71	-71.58	-13.00	-58.58
336.52	H	-57.99	-12.57	-70.55	-13.00	-57.55
384.05	H	-58.57	-10.73	-69.30	-13.00	-56.30
727.43	H	-65.67	-4.86	-70.53	-13.00	-57.53

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: April 21, 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)
184.23	V	-55.04	-14.29	-69.33	-13.00	-56.33
268.62	V	-59.12	-12.15	-71.27	-13.00	-58.27
384.05	V	-61.13	-11.16	-72.29	-13.00	-59.29
477.17	V	-65.19	-7.94	-73.13	-13.00	-60.13
576.11	V	-66.47	-6.21	-72.68	-13.00	-59.68
788.54	V	-68.46	-3.82	-72.28	-13.00	-59.28
135.73	H	-54.68	-13.55	-68.23	-13.00	-55.23
191.99	H	-59.60	-13.65	-73.25	-13.00	-60.25
244.37	H	-63.25	-12.83	-76.08	-13.00	-63.08
337.49	H	-61.95	-12.56	-74.51	-13.00	-61.51
433.52	H	-64.96	-8.98	-73.94	-13.00	-60.94
709.97	H	-67.27	-5.32	-72.58	-13.00	-59.58

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: May 2, 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)
90.14	V	-54.19	-13.97	-68.15	-13.00	-55.15
103.72	V	-59.34	-11.66	-71.00	-13.00	-58.00
127.00	V	-55.13	-17.51	-72.64	-13.00	-59.64
198.78	V	-62.40	-11.81	-74.20	-13.00	-61.20
277.35	V	-60.20	-16.24	-76.44	-13.00	-63.44
487.84	V	-61.66	-11.01	-72.67	-13.00	-59.67
39.70	H	-62.42	-10.41	-72.83	-13.00	-59.83
90.14	H	-55.55	-17.15	-72.70	-13.00	-59.70
103.72	H	-56.55	-15.93	-72.49	-13.00	-59.49
127.00	H	-51.26	-20.96	-72.22	-13.00	-59.22
277.35	H	-63.93	-13.57	-77.50	-13.00	-64.50
362.71	H	-61.48	-14.44	-75.93	-13.00	-62.93

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: May 2, 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)
90.14	V	-54.37	-13.97	-68.34	-13.00	-55.34
103.72	V	-59.78	-11.66	-71.44	-13.00	-58.44
127.00	V	-55.96	-17.51	-73.47	-13.00	-60.47
199.75	V	-62.65	-11.66	-74.31	-13.00	-61.31
277.35	V	-60.83	-16.24	-77.07	-13.00	-64.07
552.83	V	-64.19	-8.50	-72.69	-13.00	-59.69
90.14	H	-53.81	-17.15	-70.97	-13.00	-57.97
103.72	H	-55.64	-15.93	-71.57	-13.00	-58.57
126.03	H	-52.65	-20.68	-73.33	-13.00	-60.33
199.75	H	-63.28	-15.45	-78.73	-13.00	-65.73
277.35	H	-62.48	-13.57	-76.05	-13.00	-63.05
345.25	H	-63.37	-14.29	-77.66	-13.00	-64.66

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: May 2, 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)
90.14	V	-55.44	-13.97	-69.40	-13.00	-56.40
101.78	V	-60.00	-11.17	-71.17	-13.00	-58.17
127.97	V	-55.64	-17.82	-73.46	-13.00	-60.46
198.78	V	-63.01	-11.81	-74.81	-13.00	-61.81
277.35	V	-60.34	-16.24	-76.58	-13.00	-63.58
552.83	V	-64.42	-8.50	-72.92	-13.00	-59.92
61.04	H	-63.04	-10.28	-73.32	-13.00	-60.32
103.72	H	-57.05	-15.93	-72.99	-13.00	-59.99
126.03	H	-51.98	-20.68	-72.66	-13.00	-59.66
221.09	H	-51.55	-14.21	-65.75	-13.00	-52.75
234.67	H	-55.69	-14.76	-70.45	-13.00	-57.45
277.35	H	-63.58	-13.57	-77.15	-13.00	-64.15

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: EGPRS 850 / TX / CH 128

Test Date: May 2, 2008

Temperature: 25°C

Tested by: Ryan Chen

Humidity: 50 % RH

Polarity: Ver. / Hor.

Frequency (MHz)	Antenna Polarization (V/H)	Reading (dBm)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
90.14	V	-47.01	-13.97	-60.97	-13.00	-47.97
105.66	V	-52.02	-12.15	-64.17	-13.00	-51.17
121.18	V	-54.33	-15.67	-70.00	-13.00	-57.00
198.78	V	-55.73	-11.81	-67.54	-13.00	-54.54
277.35	V	-58.54	-16.24	-74.78	-13.00	-61.78
506.27	V	-60.37	-9.63	-69.99	-13.00	-56.99
77.53	H	-48.14	-17.01	-65.15	-13.00	-52.15
103.72	H	-41.01	-15.93	-56.94	-13.00	-43.94
121.18	H	-49.03	-19.29	-68.32	-13.00	-55.32
175.50	H	-52.38	-20.09	-72.47	-13.00	-59.47
199.75	H	-57.69	-15.45	-73.14	-13.00	-60.14
277.35	H	-61.98	-13.57	-75.54	-13.00	-62.54

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: EGPRS 850 / TX / CH 190

Test Date: May 2, 2008

Temperature: 25°C

Tested by: Ryan Chen

Humidity: 50 % RH

Polarity: Ver. / Hor.

Frequency (MHz)	Antenna Polarization (V/H)	Reading (dBm)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
61.04	V	-56.31	-11.39	-67.70	-13.00	-54.70
96.93	V	-50.55	-11.73	-62.27	-13.00	-49.27
122.15	V	-51.97	-15.98	-67.95	-13.00	-54.95
198.78	V	-56.12	-11.81	-67.93	-13.00	-54.93
277.35	V	-58.55	-16.24	-74.79	-13.00	-61.79
506.27	V	-61.20	-9.63	-70.83	-13.00	-57.83
77.53	H	-47.29	-17.01	-64.30	-13.00	-51.30
103.72	H	-40.12	-15.93	-56.06	-13.00	-43.06
123.12	H	-47.29	-19.85	-67.14	-13.00	-54.14
175.50	H	-53.44	-20.09	-73.53	-13.00	-60.53
198.78	H	-57.69	-15.62	-73.31	-13.00	-60.31
730.34	H	-61.18	-6.57	-67.75	-13.00	-54.75

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: EGPRS 850 / TX / CH 251

Test Date: May 2, 2008

Temperature: 25°C

Tested by: Ryan Chen

Humidity: 50 % RH

Polarity: Ver. / Hor.

Frequency (MHz)	Antenna Polarization (V/H)	Reading (dBm)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
62.01	V	-56.92	-11.84	-68.76	-13.00	-55.76
96.93	V	-49.92	-11.73	-61.65	-13.00	-48.65
122.15	V	-52.38	-15.98	-68.36	-13.00	-55.36
199.75	V	-55.88	-11.66	-67.54	-13.00	-54.54
285.11	V	-58.50	-16.54	-75.03	-13.00	-62.03
506.27	V	-60.93	-9.63	-70.56	-13.00	-57.56
77.53	H	-48.41	-17.01	-65.42	-13.00	-52.42
90.14	H	-47.02	-17.15	-64.17	-13.00	-51.17
103.72	H	-40.96	-15.93	-56.89	-13.00	-43.89
121.18	H	-47.85	-19.29	-67.14	-13.00	-54.14
199.75	H	-55.73	-15.45	-71.18	-13.00	-58.18
745.86	H	-59.14	-6.53	-65.66	-13.00	-52.66

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: EGPRS 1900 / TX / CH 512

Test Date: May 2, 2008

Temperature: 25°C

Tested by: Ryan Chen

Humidity: 50 % RH

Polarity: Ver. / Hor.

Frequency (MHz)	Antenna Polarization (V/H)	Reading (dBm)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
58.13	V	-61.97	-11.49	-73.46	-13.00	-60.46
90.14	V	-54.07	-13.97	-68.04	-13.00	-55.04
101.78	V	-60.12	-11.17	-71.29	-13.00	-58.29
119.24	V	-58.56	-15.14	-73.71	-13.00	-60.71
199.75	V	-62.85	-11.66	-74.51	-13.00	-61.51
277.35	V	-60.49	-16.24	-76.73	-13.00	-63.73
43.58	H	-63.20	-9.84	-73.04	-13.00	-60.04
90.14	H	-54.07	-17.15	-71.22	-13.00	-58.22
103.72	H	-55.84	-15.93	-71.77	-13.00	-58.77
126.03	H	-52.97	-20.68	-73.65	-13.00	-60.65
198.78	H	-63.70	-15.62	-79.32	-13.00	-66.32
277.35	H	-63.66	-13.57	-77.23	-13.00	-64.23

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: EGPRS 1900 / TX / CH 661

Test Date: May 2, 2008

Temperature: 25°C

Tested by: Ryan Chen

Humidity: 50 % RH

Polarity: Ver. / Hor.

Frequency (MHz)	Antenna Polarization (V/H)	Reading (dBm)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
90.14	V	-54.74	-13.97	-68.70	-13.00	-55.70
101.78	V	-60.54	-11.17	-71.71	-13.00	-58.71
126.03	V	-56.42	-17.21	-73.63	-13.00	-60.63
199.75	V	-63.32	-11.66	-74.98	-13.00	-61.98
277.35	V	-60.99	-16.24	-77.23	-13.00	-64.23
552.83	V	-64.43	-8.50	-72.93	-13.00	-59.93
43.58	H	-63.10	-9.84	-72.94	-13.00	-59.94
90.14	H	-55.35	-17.15	-72.51	-13.00	-59.51
103.72	H	-56.36	-15.93	-72.29	-13.00	-59.29
125.06	H	-52.46	-20.40	-72.86	-13.00	-59.86
198.78	H	-63.03	-15.62	-78.66	-13.00	-65.66
277.35	H	-63.28	-13.57	-76.85	-13.00	-63.85

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: EGPRS 1900 / TX / CH 810

Test Date: May 2, 2008

Temperature: 25°C

Tested by: Ryan Chen

Humidity: 50 % RH

Polarity: Ver. / Hor.

Frequency (MHz)	Antenna Polarization (V/H)	Reading (dBm)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
45.52	V	-49.89	-13.54	-63.43	-13.00	-50.43
90.14	V	-54.43	-13.97	-68.40	-13.00	-55.40
103.72	V	-59.87	-11.66	-71.53	-13.00	-58.53
198.78	V	-62.97	-11.81	-74.78	-13.00	-61.78
277.35	V	-60.91	-16.24	-77.15	-13.00	-64.15
440.31	V	-60.77	-13.25	-74.01	-13.00	-61.01
45.52	H	-61.53	-9.82	-71.35	-13.00	-58.35
90.14	H	-55.09	-17.15	-72.24	-13.00	-59.24
101.78	H	-56.57	-15.52	-72.09	-13.00	-59.09
126.03	H	-51.97	-20.68	-72.65	-13.00	-59.65
277.35	H	-64.10	-13.57	-77.67	-13.00	-64.67
337.49	H	-63.53	-14.16	-77.69	-13.00	-64.69

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: May 7, 2008

Temperature: 25°C

Tested by: Ryan Chen

Humidity: 50 % RH

Polarity: Ver. / Hor.

Frequency (MHz)	Antenna Polarization (V/H)	Reading (dBm)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
61.04	V	-57.69	-11.39	-69.08	-13.00	-56.08
103.72	V	-55.34	-11.66	-67.00	-13.00	-54.00
128.94	V	-58.57	-18.13	-76.69	-13.00	-63.69
199.75	V	-58.52	-11.66	-70.17	-13.00	-57.17
256.98	V	-62.97	-16.10	-79.07	-13.00	-66.07
355.92	V	-62.29	-13.30	-75.59	-13.00	-62.59
43.58	H	-62.40	-9.84	-72.25	-13.00	-59.25
61.04	H	-61.89	-10.28	-72.16	-13.00	-59.16
103.72	H	-55.20	-15.93	-71.13	-13.00	-58.13
125.06	H	-55.66	-20.40	-76.07	-13.00	-63.07
187.14	H	-57.92	-17.85	-75.77	-13.00	-62.77
345.25	H	-60.16	-14.29	-74.45	-13.00	-61.45

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: May 7, 2008

Temperature: 25°C

Tested by: Ryan Chen

Humidity: 50 % RH

Polarity: Ver. / Hor.

Frequency (MHz)	Antenna Polarization (V/H)	Reading (dBm)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
62.01	V	-59.10	-11.84	-70.94	-13.00	-57.94
103.72	V	-55.16	-11.66	-66.82	-13.00	-53.82
127.00	V	-58.61	-17.51	-76.12	-13.00	-63.12
187.14	V	-57.36	-14.19	-71.55	-13.00	-58.55
343.31	V	-62.84	-13.73	-76.56	-13.00	-63.56
419.94	V	-62.30	-12.25	-74.55	-13.00	-61.55
42.61	H	-61.81	-9.94	-71.75	-13.00	-58.75
103.72	H	-55.47	-15.93	-71.40	-13.00	-58.40
126.03	H	-54.43	-20.68	-75.11	-13.00	-62.11
187.14	H	-57.80	-17.85	-75.65	-13.00	-62.65
265.71	H	-62.57	-14.26	-76.83	-13.00	-63.83
355.92	H	-61.05	-14.41	-75.46	-13.00	-62.46

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: May 7, 2008

Temperature: 25°C

Tested by: Ryan Chen

Humidity: 50 % RH

Polarity: Ver. / Hor.

Frequency (MHz)	Antenna Polarization (V/H)	Reading (dBm)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
60.07	V	-60.77	-10.93	-71.71	-13.00	-58.71
103.72	V	-54.52	-11.66	-66.18	-13.00	-53.18
124.09	V	-58.49	-16.59	-75.08	-13.00	-62.08
187.14	V	-57.16	-14.19	-71.35	-13.00	-58.35
274.44	V	-62.85	-16.09	-78.93	-13.00	-65.93
402.48	V	-63.28	-11.77	-75.05	-13.00	-62.05
58.13	H	-62.12	-9.82	-71.94	-13.00	-58.94
103.72	H	-55.90	-15.93	-71.84	-13.00	-58.84
123.12	H	-55.45	-19.85	-75.30	-13.00	-62.30
187.14	H	-57.92	-17.85	-75.77	-13.00	-62.77
210.42	H	-62.12	-14.12	-76.24	-13.00	-63.24
350.10	H	-60.81	-14.34	-75.16	-13.00	-62.16

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: May 7, 2008

Temperature: 25°C

Tested by: Ryan Chen

Humidity: 50 % RH

Polarity: Ver. / Hor.

Frequency (MHz)	Antenna Polarization (V/H)	Reading (dBm)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
60.07	V	-59.58	-10.93	-70.52	-13.00	-57.52
103.72	V	-55.45	-11.66	-67.11	-13.00	-54.11
126.03	V	-57.65	-17.21	-74.86	-13.00	-61.86
187.14	V	-57.64	-14.19	-71.83	-13.00	-58.83
375.32	V	-63.02	-12.24	-75.27	-13.00	-62.27
870.02	V	-58.71	-4.72	-63.43	-13.00	-50.43
40.67	H	-60.58	-10.13	-70.72	-13.00	-57.72
103.72	H	-55.98	-15.93	-71.91	-13.00	-58.91
126.03	H	-54.85	-20.68	-75.53	-13.00	-62.53
187.14	H	-57.73	-17.85	-75.57	-13.00	-62.57
276.38	H	-63.74	-13.56	-77.30	-13.00	-64.30
521.79	H	-65.19	-9.21	-74.40	-13.00	-61.40

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: May 7, 2008

Temperature: 25°C

Tested by: Ryan Chen

Humidity: 50 % RH

Polarity: Ver. / Hor.

Frequency (MHz)	Antenna Polarization (V/H)	Reading (dBm)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
60.07	V	-60.44	-10.93	-71.37	-13.00	-58.37
103.72	V	-55.70	-11.66	-67.36	-13.00	-54.36
125.06	V	-57.92	-16.90	-74.82	-13.00	-61.82
187.14	V	-57.54	-14.19	-71.73	-13.00	-58.73
274.44	V	-61.22	-16.09	-77.31	-13.00	-64.31
427.70	V	-62.51	-12.64	-75.15	-13.00	-62.15
60.07	H	-63.49	-9.63	-73.12	-13.00	-60.12
103.72	H	-56.39	-15.93	-72.33	-13.00	-59.33
126.03	H	-54.78	-20.68	-75.47	-13.00	-62.47
187.14	H	-58.45	-17.85	-76.30	-13.00	-63.30
427.70	H	-63.25	-12.43	-75.68	-13.00	-62.68
520.82	H	-64.87	-9.20	-74.07	-13.00	-61.07

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 4233

Test Date: May 7, 2008

Temperature: 25°C

Tested by: Ryan Chen

Humidity: 50 % RH

Polarity: Ver. / Hor.

Frequency (MHz)	Antenna Polarization (V/H)	Reading (dBm)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
60.07	V	-60.66	-10.93	-71.59	-13.00	-58.59
103.72	V	-55.49	-11.66	-67.15	-13.00	-54.15
187.14	V	-57.11	-14.19	-71.30	-13.00	-58.30
387.93	V	-63.17	-11.86	-75.04	-13.00	-62.04
603.27	V	-64.47	-7.84	-72.31	-13.00	-59.31
683.78	V	-64.04	-7.08	-71.13	-13.00	-58.13
39.70	H	-61.57	-10.41	-71.98	-13.00	-58.98
55.22	H	-62.25	-10.19	-72.44	-13.00	-59.44
103.72	H	-56.17	-15.93	-72.10	-13.00	-59.10
126.03	H	-53.37	-20.68	-74.06	-13.00	-61.06
187.14	H	-58.51	-17.85	-76.35	-13.00	-63.35
270.56	H	-62.38	-13.50	-75.88	-13.00	-62.88

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: May 8, 2008

Temperature: 25°C

Tested by: Ryan Chen

Humidity: 50 % RH

Polarity: Ver. / Hor.

Frequency (MHz)	Antenna Polarization (V/H)	Reading (dBm)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
61.04	V	-58.23	-11.39	-69.62	-13.00	-56.62
103.72	V	-54.16	-11.66	-65.83	-13.00	-52.83
128.94	V	-58.28	-18.13	-76.40	-13.00	-63.40
187.14	V	-56.68	-14.19	-70.87	-13.00	-57.87
199.75	V	-57.44	-11.66	-69.09	-13.00	-56.09
330.70	V	-60.43	-14.43	-74.86	-13.00	-61.86
48.43	H	-61.31	-10.50	-71.80	-13.00	-58.80
61.04	H	-61.26	-10.28	-71.54	-13.00	-58.54
103.72	H	-55.48	-15.93	-71.41	-13.00	-58.41
124.09	H	-55.00	-20.13	-75.12	-13.00	-62.12
191.99	H	-56.40	-16.83	-73.23	-13.00	-60.23
339.43	H	-60.52	-14.21	-74.73	-13.00	-61.73

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: May 8, 2008

Temperature: 25°C

Tested by: Ryan Chen

Humidity: 50 % RH

Polarity: Ver. / Hor.

Frequency (MHz)	Antenna Polarization (V/H)	Reading (dBm)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
60.07	V	-59.12	-10.93	-70.05	-13.00	-57.05
77.53	V	-58.75	-15.61	-74.36	-13.00	-61.36
103.72	V	-54.40	-11.66	-66.06	-13.00	-53.06
123.12	V	-59.75	-16.29	-76.04	-13.00	-63.04
191.99	V	-57.99	-12.85	-70.83	-13.00	-57.83
339.43	V	-61.55	-13.87	-75.43	-13.00	-62.43
38.73	H	-60.67	-11.09	-71.76	-13.00	-58.76
61.04	H	-61.98	-10.28	-72.26	-13.00	-59.26
103.72	H	-55.91	-15.93	-71.84	-13.00	-58.84
124.09	H	-55.04	-20.13	-75.17	-13.00	-62.17
199.75	H	-58.28	-15.45	-73.72	-13.00	-60.72
341.37	H	-60.34	-14.24	-74.58	-13.00	-61.58

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: May 8, 2008

Temperature: 25°C

Tested by: Ryan Chen

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	-60.63	-14.13	-74.76	-13.00	-61.76
61.04	V	-58.38	-11.39	-69.76	-13.00	-56.76
103.72	V	-53.56	-11.66	-65.23	-13.00	-52.23
121.18	V	-60.38	-15.67	-76.05	-13.00	-63.05
191.99	V	-56.66	-12.85	-69.50	-13.00	-56.50
340.40	V	-60.87	-13.82	-74.70	-13.00	-61.70
56.19	H	-61.72	-10.07	-71.79	-13.00	-58.79
103.72	H	-54.94	-15.93	-70.88	-13.00	-57.88
127.97	H	-54.37	-21.24	-75.60	-13.00	-62.60
191.99	H	-57.57	-16.83	-74.40	-13.00	-61.40
277.35	H	-63.23	-13.57	-76.80	-13.00	-63.80
338.46	H	-60.82	-14.18	-75.00	-13.00	-62.00

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: May 8, 2008

Temperature: 25°C

Tested by: Ryan Chen

Humidity: 50 % RH

Polarity: Ver. / Hor.

Frequency (MHz)	Antenna Polarization (V/H)	Reading (dBm)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
60.07	V	-61.74	-10.93	-72.67	-13.00	-59.67
103.72	V	-55.32	-11.66	-66.98	-13.00	-53.98
126.03	V	-58.86	-17.21	-76.07	-13.00	-63.07
187.14	V	-59.04	-14.19	-73.23	-13.00	-60.23
353.01	V	-61.40	-13.40	-74.79	-13.00	-61.79
870.02	V	-55.93	-4.72	-60.65	-13.00	-47.65
40.67	H	-62.83	-10.13	-72.96	-13.00	-59.96
57.16	H	-62.95	-9.94	-72.89	-13.00	-59.89
103.72	H	-56.59	-15.93	-72.53	-13.00	-59.53
187.14	H	-57.01	-17.85	-74.86	-13.00	-61.86
334.58	H	-61.48	-14.08	-75.56	-13.00	-62.56
870.99	H	-60.37	-4.68	-65.05	-13.00	-52.05

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: May 8, 2008

Temperature: 25°C

Tested by: Ryan Chen

Humidity: 50 % RH

Polarity: Ver. / Hor.

Frequency (MHz)	Antenna Polarization (V/H)	Reading (dBm)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
62.98	V	-59.54	-12.29	-71.83	-13.00	-58.83
103.72	V	-54.61	-11.66	-66.27	-13.00	-53.27
126.03	V	-59.12	-17.21	-76.33	-13.00	-63.33
187.14	V	-58.52	-14.19	-72.71	-13.00	-59.71
353.01	V	-62.42	-13.40	-75.81	-13.00	-62.81
494.63	V	-64.05	-10.37	-74.41	-13.00	-61.41
43.58	H	-62.51	-9.84	-72.35	-13.00	-59.35
59.10	H	-62.74	-9.70	-72.43	-13.00	-59.43
103.72	H	-56.55	-15.93	-72.49	-13.00	-59.49
127.00	H	-54.51	-20.96	-75.47	-13.00	-62.47
187.14	H	-57.62	-17.85	-75.46	-13.00	-62.46
359.80	H	-61.71	-14.45	-76.16	-13.00	-63.16

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: May 8, 2008

Temperature: 25°C

Tested by: Ryan Chen

Humidity: 50 % RH

Polarity: Ver. / Hor.

Frequency (MHz)	Antenna Polarization (V/H)	Reading (dBm)	Correction Factor (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)
60.07	V	-61.31	-10.93	-72.24	-13.00	-59.24
103.72	V	-54.63	-11.66	-66.30	-13.00	-53.30
187.14	V	-57.36	-14.19	-71.55	-13.00	-58.55
206.54	V	-61.50	-11.78	-73.28	-13.00	-60.28
349.13	V	-62.43	-13.53	-75.96	-13.00	-62.96
552.83	V	-63.96	-8.50	-72.46	-13.00	-59.46
43.58	H	-62.37	-9.84	-72.21	-13.00	-59.21
103.72	H	-55.84	-15.93	-71.78	-13.00	-58.78
127.00	H	-53.16	-20.96	-74.12	-13.00	-61.12
187.14	H	-57.54	-17.85	-75.39	-13.00	-62.39
210.42	H	-62.34	-14.12	-76.46	-13.00	-63.46
575.14	H	-63.66	-8.92	-72.57	-13.00	-59.57

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: April 21, 2008

Temperature: 25°C

Tested by: Jerry Lin

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	-39.47	2.73	-36.74	-13.00	-23.74
2428.00	V	-44.78	5.24	-39.54	-13.00	-26.54
3296.00	V	-48.15	7.28	-40.86	-13.00	-27.86
N/A						
1651.00	H	-36.40	2.76	-33.64	-13.00	-20.64
2470.00	H	-39.36	5.36	-34.00	-13.00	-21.00
3296.00	H	-50.11	7.35	-42.77	-13.00	-29.77
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: April 21, 2008

Temperature: 25°C

Tested by: Jerry Lin

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	-43.21	2.74	-40.47	-13.00	-27.47
2512.00	V	-51.91	5.68	-46.23	-13.00	-33.23
3345.00	V	-51.07	7.28	-43.79	-13.00	-30.79
7531.00	V	-58.53	15.30	-43.23	-13.00	-30.23
N/A						
1672.00	H	-40.73	2.78	-37.95	-13.00	-24.95
2512.00	H	-45.47	5.55	-39.92	-13.00	-26.92
3345.00	H	-53.19	7.39	-45.80	-13.00	-32.80
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: April 21, 2008

Temperature: 25°C

Tested by: Jerry Lin

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	-51.31	2.75	-48.56	-13.00	-35.56
2547.00	V	-54.65	5.80	-48.85	-13.00	-35.85
3394.00	V	-53.49	7.28	-46.21	-13.00	-33.21
7643.00	V	-59.92	15.53	-44.39	-13.00	-31.39
N/A						
1700.00	H	-47.43	2.79	-44.64	-13.00	-31.64
2547.00	H	-56.02	5.66	-50.36	-13.00	-37.36
3394.00	H	-56.74	7.43	-49.32	-13.00	-36.32
4780.00	H	-60.23	8.05	-52.18	-13.00	-39.18
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: April 22, 2008

Temperature: 25°C

Tested by: Jerry Lin

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	-55.05	2.73	-52.32	-13.00	-39.32
2470.00	V	-48.03	5.47	-42.56	-13.00	-29.56
3296.00	V	-48.74	7.28	-41.46	-13.00	-28.46
4122.00	V	-52.05	7.59	-44.46	-13.00	-31.46
6593.00	V	-56.09	12.55	-43.53	-13.00	-30.53
N/A						
1651.00	H	-52.43	2.76	-49.67	-13.00	-36.67
2470.00	H	-40.95	5.36	-35.60	-13.00	-22.60
3296.00	H	-47.98	7.35	-40.63	-13.00	-27.63
4122.00	H	-52.59	7.43	-45.16	-13.00	-32.16
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: April 22, 2008

Temperature: 25°C

Tested by: Jerry Lin

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	-58.72	2.74	-55.98	-13.00	-42.98
2512.00	V	-53.01	5.68	-47.33	-13.00	-34.33
3345.00	V	-53.18	7.28	-45.90	-13.00	-32.90
4185.00	V	-54.48	7.58	-46.90	-13.00	-33.90
6691.00	V	-56.70	13.01	-43.70	-13.00	-30.70
N/A						
1672.00	H	-53.47	2.78	-50.70	-13.00	-37.70
2512.00	H	-47.42	5.55	-41.87	-13.00	-28.87
3345.00	H	-52.20	7.39	-44.81	-13.00	-31.81
4185.00	H	-57.53	7.43	-50.10	-13.00	-37.10
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: April 22, 2008

Temperature: 25°C

Tested by: Jerry Lin

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	-51.32	2.75	-48.56	-13.00	-35.56
2547.00	V	-59.14	5.80	-53.35	-13.00	-40.35
3394.00	V	-58.61	7.28	-51.33	-13.00	-38.33
4241.00	V	-60.71	7.58	-53.13	-13.00	-40.13
6789.00	V	-55.31	13.46	-41.85	-13.00	-28.85
N/A						
1700.00	H	-50.13	2.79	-47.34	-13.00	-34.34
1966.00	H	-33.81	2.94	-30.87	-13.00	-17.87
3394.00	H	-58.16	7.43	-50.74	-13.00	-37.74
4248.00	H	-59.97	7.43	-52.54	-13.00	-39.54
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: April 21, 2008

Temperature: 25°C

Tested by: Jerry Lin

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	-43.77	7.40	-36.37	-13.00	-23.37
6600.00	V	-59.50	12.58	-46.91	-13.00	-33.91
N/A						
3702.00	H	-48.00	7.48	-40.53	-13.00	-27.53
5550.00	H	-59.11	9.07	-50.04	-13.00	-37.04
7398.00	H	-58.41	15.07	-43.34	-13.00	-30.34
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: April 21, 2008

Temperature: 25°C

Tested by: Jerry Lin

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	-46.03	7.44	-38.59	-13.00	-25.59
5641.00	V	-56.51	9.16	-47.34	-13.00	-34.34
N/A						
3758.00	H	-46.20	7.47	-38.73	-13.00	-25.73
5641.00	H	-57.57	9.19	-48.38	-13.00	-35.38
7524.00	H	-58.59	15.30	-43.29	-13.00	-30.29
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: GSM 1900 / TX / CH 810

Test Date: April 21, 2008

Temperature: 25°C

Tested by: Jerry Lin

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	-49.58	7.48	-42.11	-13.00	-29.11
5732.00	V	-51.80	9.30	-42.49	-13.00	-29.49
N/A						
3821.00	H	-46.28	7.46	-38.83	-13.00	-25.83
5732.00	H	-53.05	9.31	-43.74	-13.00	-30.74
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: May 17, 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	-53.48	7.40	-46.08	-13.00	-33.08
N/A						
3702.00	H	-52.97	7.48	-45.49	-13.00	-32.49
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: May 17, 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	-53.35	7.44	-45.92	-13.00	-32.92
N/A						
3758.00	H	-48.37	7.47	-40.90	-13.00	-27.90
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: May 17, 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	-53.22	7.48	-45.75	-13.00	-32.75
N/A						
3821.00	H	-48.32	7.46	-40.86	-13.00	-27.86
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.



Operation Mode: EGPRS 850 / TX / CH 128

Test Date: May 15, 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	-40.75	5.39	-35.36	-13.00	-22.36
3296.00	V	-52.73	7.35	-45.38	-13.00	-32.38
4122.00	V	-56.67	7.43	-49.25	-13.00	-36.25
4948.00	V	-66.35	8.42	-57.93	-13.00	-44.93
5774.00	V	-65.39	9.36	-56.02	-13.00	-43.02
6593.00	V	-68.33	12.44	-55.89	-13.00	-42.89
1651.00	H	-66.10	2.73	-63.37	-13.00	-50.37
2477.00	H	-51.44	5.51	-45.93	-13.00	-32.93
3296.00	H	-47.92	7.28	-40.64	-13.00	-27.64
4122.00	H	-54.12	7.59	-46.53	-13.00	-33.53
4948.00	H	-65.86	8.88	-56.98	-13.00	-43.98
5767.00	H	-63.60	9.36	-54.25	-13.00	-41.25

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: EGPRS 850 / TX / CH 190

Test Date: May 15, 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	-64.39	2.74	-61.65	-13.00	-48.65
2512.00	V	-53.49	5.68	-47.81	-13.00	-34.81
3345.00	V	-48.11	7.28	-40.83	-13.00	-27.83
4185.00	V	-60.04	7.58	-52.46	-13.00	-39.46
5858.00	V	-65.26	9.49	-55.77	-13.00	-42.77
N/A						
1672.00	H	-67.33	2.78	-64.56	-13.00	-51.56
2512.00	H	-43.79	5.55	-38.24	-13.00	-25.24
3345.00	H	-55.85	7.39	-48.46	-13.00	-35.46
4185.00	H	-59.86	7.43	-52.43	-13.00	-39.43
5858.00	H	-68.47	9.47	-59.00	-13.00	-46.00
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: EGPRS 850 / TX / CH 251

Test Date: May 15, 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	-59.58	2.75	-56.83	-13.00	-43.83
2547.00	V	-60.76	5.80	-54.96	-13.00	-41.96
3394.00	V	-55.04	7.28	-47.76	-13.00	-34.76
4248.00	V	-61.95	7.58	-54.37	-13.00	-41.37
5942.00	V	-66.81	9.62	-57.18	-13.00	-44.18
N/A						
1700.00	H	-61.89	2.79	-59.10	-13.00	-46.10
2547.00	H	-51.13	5.66	-45.47	-13.00	-32.47
3394.00	H	-64.15	7.43	-56.72	-13.00	-43.72
4248.00	H	-64.12	7.43	-56.70	-13.00	-43.70
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: EGPRS 1900 / TX / CH 512

Test Date: May 15, 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	-57.55	7.40	-50.15	-13.00	-37.15
N/A						
3702.00	H	-57.37	7.48	-49.89	-13.00	-36.89
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: EGPRS 1900 / TX / CH 661

Test Date: May 15, 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	-57.15	7.44	-49.71	-13.00	-36.71
N/A						
3758.00	H	-53.44	7.47	-45.97	-13.00	-32.97
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: EGPRS 1900 / TX / CH 810

Test Date: May 15, 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	-55.12	7.48	-47.65	-13.00	-34.65
N/A						
3821.00	H	-53.26	7.46	-45.80	-13.00	-32.80
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: May 15, 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	-55.58	7.40	-48.18	-13.00	-35.18
N/A						
3863.00	H	-56.55	7.45	-49.10	-13.00	-36.10
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: May 15, 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	-52.65	7.44	-45.21	-13.00	-32.21
N/A						
3758.00	H	-58.78	7.47	-51.32	-13.00	-38.32
3919.00	H	-56.70	7.44	-49.26	-13.00	-36.26
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: May 15, 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	-52.05	7.47	-44.58	-13.00	-31.58
N/A						
3814.00	H	-57.15	7.46	-49.69	-13.00	-36.69
3975.00	H	-56.99	7.43	-49.55	-13.00	-36.55
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: WCDMA Band V / TX / CH 4132

Test Date: May 15, 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)
3310.00	V	-49.12	7.28	-41.84	-13.00	-28.84
N/A						
2484.00	H	-60.15	5.43	-54.72	-13.00	-41.72
3310.00	H	-56.23	7.36	-48.87	-13.00	-35.87
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: May 15, 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)
2505.00	V	-59.34	5.66	-53.68	-13.00	-40.68
3345.00	V	-49.52	7.28	-42.24	-13.00	-29.24
N/A						
2505.00	H	-51.29	5.53	-45.77	-13.00	-32.77
3345.00	H	-57.07	7.39	-49.68	-13.00	-36.68
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: May 15, 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)
2540.00	V	-59.44	5.77	-53.66	-13.00	-40.66
3387.00	V	-48.97	7.28	-41.70	-13.00	-28.70
4304.00	V	-61.37	7.58	-53.79	-13.00	-40.79
N/A						
2540.00	H	-52.36	5.64	-46.72	-13.00	-33.72
3387.00	H	-59.35	7.42	-51.93	-13.00	-38.93
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: May 15, 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	-57.01	7.40	-49.60	-13.00	-36.60
3863.00	V	-60.54	7.50	-53.04	-13.00	-40.04
N/A						
3709.00	H	-53.09	7.48	-45.61	-13.00	-32.61
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: May 16, 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	-50.63	7.44	-43.19	-13.00	-30.19
3919.00	V	-58.91	7.54	-51.38	-13.00	-38.38
N/A						
3765.00	H	-49.46	7.47	-41.99	-13.00	-28.99
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 9538

Test Date: May 16, 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	-51.24	7.47	-43.77	-13.00	-30.77
3975.00	V	-58.98	7.57	-51.40	-13.00	-38.40
N/A						
3814.00	H	-46.68	7.46	-39.22	-13.00	-26.22
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: May 16, 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)
2484.00	V	-59.40	5.55	-53.84	-13.00	-40.84
3310.00	V	-54.19	7.28	-46.90	-13.00	-33.90
N/A						
3310.00	H	-51.55	7.36	-44.20	-13.00	-31.20
4136.00	H	-60.00	7.43	-52.57	-13.00	-39.57
4794.00	H	-61.20	8.08	-53.13	-13.00	-40.13
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: May 16, 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)
2505.00	V	-51.17	5.66	-45.52	-13.00	-32.52
3345.00	V	-54.70	7.28	-47.42	-13.00	-34.42
N/A						
3345.00	H	-51.29	7.39	-43.91	-13.00	-30.91
4178.00	H	-60.85	7.43	-53.43	-13.00	-40.43
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: May 16, 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)
2540.00	V	-52.77	5.77	-47.00	-13.00	-34.00
3387.00	V	-55.17	7.28	-47.90	-13.00	-34.90
N/A						
3394.00	H	-52.08	7.43	-44.65	-13.00	-31.65
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.

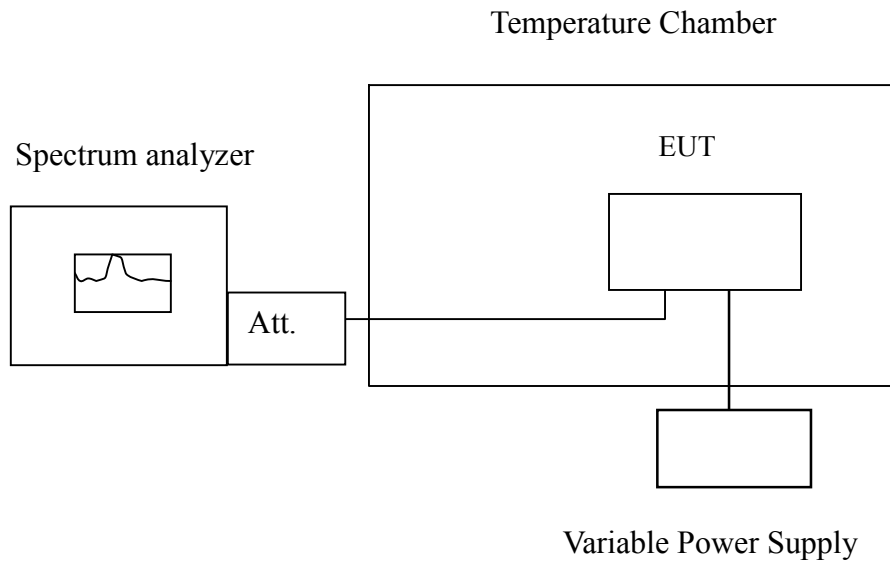
7.6 FREQUENCY STABILITY V.S. TEMPERATURE MEASUREMENT

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	83600002	13	2090
	40	83600001	12	
	30	83599999	10	
	20	83599989	0	
	10	83599984	-5	
	0	83599989	0	
	-10	83599988	-1	
	-20	83599990	1	
	-30	83599992	3	

Reference Frequency: GSM Mid Channel 1880 MHz @ 20°C				
Limit: ± 2.5 ppm = 4700 Hz				
Power Supply Vdc	Environment Temperature (°C)	Frequency (Hz)	Delta (Hz)	Limit (Hz)
3.7	50	1880000004	19	4700
	40	1880000000	15	
	30	1880000001	16	
	20	1879999985	0	
	10	1880000003	18	
	0	1880000001	16	
	-10	1880000008	23	
	-20	1880000005	20	
	-30	1880000007	22	



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	83600008	16	2090
	40	83600010	18	
	30	83600012	20	
	20	83599992	0	
	10	83600001	9	
	0	83600005	13	
	-10	83599998	6	
	-20	83599999	7	
	-30	83599997	5	

Reference Frequency: GPRS Mid Channel 1880 MHz @ 20°C				
Limit: ± 2.5 ppm = 4700 Hz				
Power Supply Vdc	Environment Temperature (°C)	Frequency (Hz)	Delta (Hz)	Limit (Hz)
3.7	50	1880000001	26	4700
	40	1880000005	30	
	30	1880000002	27	
	20	1879999975	0	
	10	1879999997	22	
	0	1880000008	33	
	-10	1880000012	37	
	-20	1880000028	53	
	-30	1880000029	54	



Reference Frequency: EGPRS 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	83600008	4	2090
	40	83600011	7	
	30	83600009	5	
	20	83600004	0	
	10	83600015	11	
	0	83599994	-10	
	-10	83599985	-19	
	-20	83599982	-22	
	-30	83600019	15	

Reference Frequency: EGPRS Mid Channel 1880 MHz @ 20°C				
Limit: ± 2.5 ppm = 4700 Hz				
Power Supply Vdc	Environment Temperature (°C)	Frequency (Hz)	Delta (Hz)	Limit (Hz)
3.7	50	1880000047	59	4700
	40	1880000043	55	
	30	1880000040	52	
	20	1879999988	0	
	10	1880000048	60	
	0	1880000051	63	
	-10	1880000056	68	
	-20	1880000055	67	
	-30	1880000060	72	



Reference Frequency: WCDMA Band II Mid Channel 1880 MHz @ 20°C				
Limit: ± 2.5 ppm = 4700 Hz				
Power Supply Vdc	Environment Temperature (°C)	Frequency (Hz)	Delta (Hz)	Limit (Hz)
3.7	50	1879999989	-23	4700
	40	1879999984	-28	
	30	1879999985	-27	
	20	1880000012	0	
	10	1879999992	-20	
	0	1879999995	-17	
	-10	1879999989	-23	
	-20	1880000001	-11	
	-30	1880000002	-10	

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	83599999	-32	2090
	40	83600004	-27	
	30	83600000	-31	
	20	83600031	0	
	10	83599988	-43	
	0	83599987	-44	
	-10	83599983	-48	
	-20	83599971	-60	
	-30	83599983	-48	



Reference Frequency: WCDMA / HSDPA Band II Mid Channel 1880 MHz @ 20°C				
Limit: ± 2.5 ppm = 4700 Hz				
Power Supply Vdc	Environment Temperature (°C)	Frequency (Hz)	Delta (Hz)	Limit (Hz)
3.7	50	1879999996	76	4700
	40	1879999995	75	
	30	1879999997	77	
	20	1879999920	0	
	10	1879999998	78	
	0	1879999999	79	
	-10	1880000000	80	
	-20	1879999997	77	
	-30	1879999999	79	

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	83599988	-12	2090
	40	83599990	-10	
	30	83599993	-7	
	20	83600000	0	
	10	83599981	-19	
	0	83599980	-20	
	-10	83599978	-22	
	-20	83599985	-15	
	-30	83599977	-23	

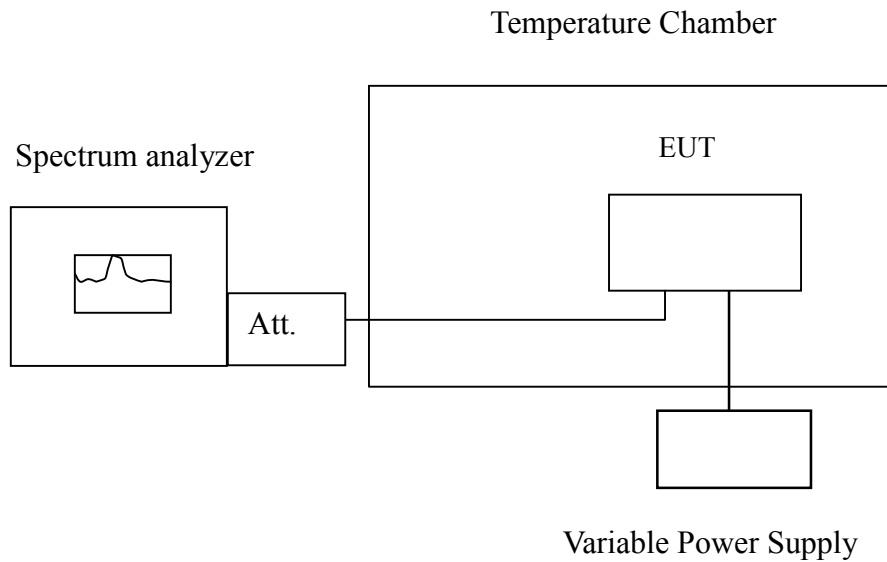
7.7 FREQUENCY STABILITY V.S. VOLTAGE MEASUREMENT

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)
4.07	20	83599988	-1	2090
3.7		83599989	0	
3.33		83599992	3	
3.1 END		83599987	-5	

Reference Frequency: GSM Mid Channel 1880 MHz @ 20°C				
Limit: ± 2.5 ppm = 4700 Hz				
Power Supply Vdc	Environment Temperature (°C)	Frequency (Hz)	Delta (Hz)	Limit (Hz)
4.07	20	1879999988	3	4700
3.7		1879999985	0	
3.33		1879999983	-2	
3.2 END		1879999979	-6	



Reference Frequency: GPRS Mid Channel 836.6 MHz @ 20°C				
Limit: ± 2.5 ppm = 2090Hz				
Power Supply Vdc	Environment Temperature (°C)	Frequency (Hz)	Delta (Hz)	Limit (Hz)
4.07	20	83599988	-4	2090
3.7		83599992	0	
3.33		83600008	16	
3.1 END		83599974	-34	

Reference Frequency: GPRS Mid Channel 1880 MHz @ 20°C				
Limit: ± 2.5 ppm = 4700 Hz				
Power Supply Vdc	Environment Temperature (°C)	Frequency (Hz)	Delta (Hz)	Limit (Hz)
4.07	20	187999973	-2	4700
3.7		187999975	0	
3.33		187999974	-1	
3.1 END		187999966	-9	



Reference Frequency: EGPRS Mid Channel 836.6 MHz @ 20°C				
Limit: ± 2.5 ppm = 2090Hz				
Power Supply Vdc	Environment Temperature (°C)	Frequency (Hz)	Delta (Hz)	Limit (Hz)
4.07	20	83600009	5	2090
3.7		83600004	0	
3.33		83600003	-1	
3.0 END		83600024	21	

Reference Frequency: EGPRS Mid Channel 1880 MHz @ 20°C				
Limit: ± 2.5 ppm = 4700 Hz				
Power Supply Vdc	Environment Temperature (°C)	Frequency (Hz)	Delta (Hz)	Limit (Hz)
4.07	20	1879999990	2	4700
3.7		1879999988	0	
3.33		1879999947	-41	
3.1 END		1879999474	-514	



Reference Frequency: WCDMA Band II Mid Channel 1880 MHz @ 20°C				
Limit: ± 2.5 ppm = 4700 Hz				
Power Supply Vdc	Environment Temperature (°C)	Frequency (Hz)	Delta (Hz)	Limit (Hz)
4	20	1880000016	4	4700
3.7		1880000012	0	
3.3		1880000013	1	
3.2 END		1879999890	-122	

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	20	83600017	-14	2090
3.7		83600031	0	
3.3		83600025	-6	
3.2 END		83600278	253	



Reference Frequency: WCDMA HSDPA Band II Mid Channel 1880 MHz @ 20°C				
Limit: ± 2.5 ppm = 4700 Hz				
Power Supply Vdc	Environment Temperature (°C)	Frequency (Hz)	Delta (Hz)	Limit (Hz)
4	20	1879999943	23	4700
3.7		1879999920	0	
3.3		1879999938	18	
3		1879999642	-278	

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	20	83600001	1	2090
3.7		83600000	0	
3.3		83599994	-6	
3.1		83599256	-738	



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 (dB μ V)	
	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: May 9, 2008

Temperature: 22°C

Tested by: Mimic Young

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
0.1800	35.51	18.51	14.39	49.90	32.90	64.49	54.49	-14.59	-21.59	L1
0.2050	33.81	20.31	13.19	47.00	33.50	63.41	53.41	-16.41	-19.91	L1
0.4400	38.56	29.36	7.54	46.10	36.90	57.06	47.06	-10.96	-10.16	L1
0.8150	29.10	19.30	3.90	33.00	23.20	56.00	46.00	-23.00	-22.80	L1
2.4750	35.19	27.19	0.91	36.10	28.10	56.00	46.00	-19.90	-17.90	L1
7.2650	30.35	22.45	0.45	30.80	22.90	60.00	50.00	-29.20	-27.10	L1
0.1750	36.34	17.44	14.66	51.00	32.10	64.72	54.72	-13.72	-22.62	L2
0.2350	33.53	18.13	12.47	46.00	30.60	62.27	52.27	-16.27	-21.67	L2
0.3100	33.63	20.73	10.67	44.30	31.40	59.97	49.97	-15.67	-18.57	L2
0.4500	35.10	22.40	7.30	42.40	29.70	56.88	46.88	-14.48	-17.18	L2
1.2950	27.77	13.27	2.13	29.90	15.40	56.00	46.00	-26.10	-30.60	L2
2.5400	33.20	23.00	0.90	34.10	23.90	56.00	46.00	-21.90	-22.10	L2

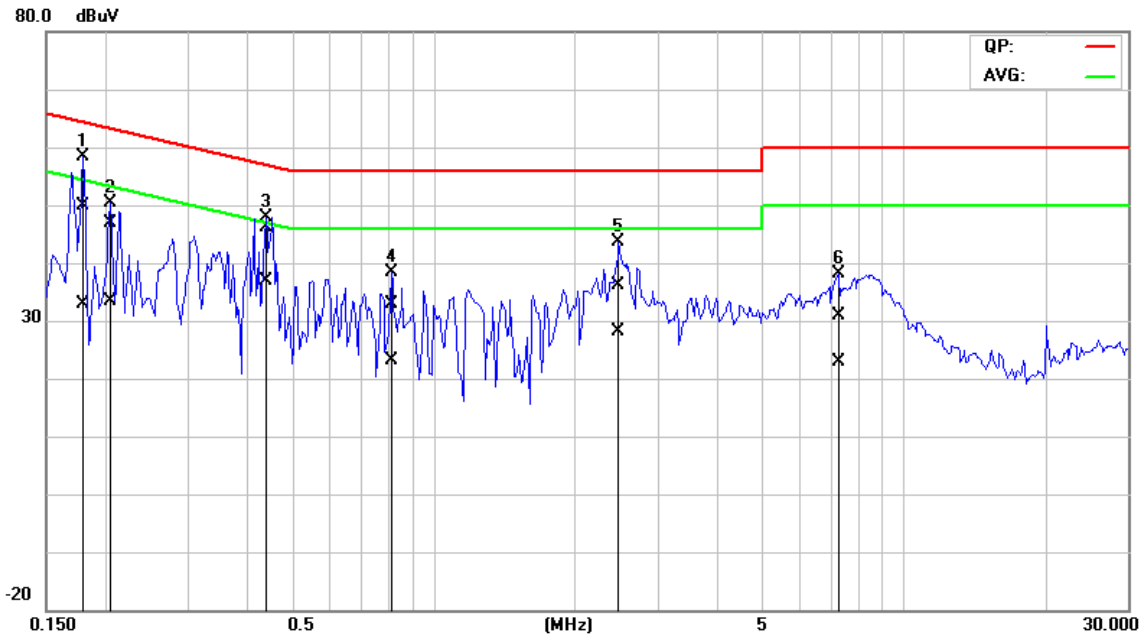
Remark:

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)

