ELECTROMAGNETIC EMISSIONS COMPLIANCE REPORT

INTENTIONAL RADIATOR CERTIFICATION TO FCC PART 22 SUBPART H and PART 24 SUBPART E

OF

Product Name:	**HSDPA USB Data Modem**
Brand Name:	**BandLuxe™**
Model Name:	**C177**
FCC ID:	**UZI-C177**
Report No.:	**EH/2008/A0028**
Issue Date:	**Nov. 24, 2008**
FCC Rule Part:	**2 , 22H & 24E**
Prepared for:	**BandRich Inc.** **7F.,No. 188, Baociao Rd., Sindian City, Taipei County 23146, Taiwan (R.O.C)**
Prepared by:	**SGS Taiwan Ltd.** **Electronics & Communication Laboratory** **No. 134, Wu Kung Rd., Wuku Industrial Zone, Taipei County, Taiwan.**

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VERIFICATION OF COMPLIANCE

Applicant:	BandRich Inc. 7F.,No. 188, Baociao Rd., Sindian City, Taipei County 23146, Taiwan (R.O.C)
Product Name:	HSDPA USB Data Modem
Brand Name:	BandLuxe™
FCC ID:	UZI-C177
Model No.:	C177
Model Difference:	N/A
File Number:	EH/2008/A0028
Date of test:	Oct. 24, 2008 ~ Nov. 21, 2008
Date of EUT Received:	Oct. 24, 2008

We hereby certify that:

The above equipment was tested by SGS Taiwan Ltd. Electronics & Communication Laboratory The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in TIA/EIA-603-C-2004 and the energy emitted by the sample EUT tested as described in this report is in compliance with conducted and radiated emission limits of FCC Rule FCC PART 22 subpart H and FCC PART 24 subpart E.

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

Test By:		***Date:***	Dec. 08, 2008
	Bondi liu / Engineer		
Prepared By:		***Date:***	Dec. 08, 2008
	Alex Hsieh / Sr. Engineer		
Approved By:		***Date:***	Dec. 08, 2008
	Vincent Su / Manager		

Version

Version No.	Date	Description
00	Nov 24, 2008	Initial creation of document
01	Dec. 08, 2008	Update 24.323(c), (d) RF Peak Power Output, Maximum Power Reduction in section 5.5

Table of Contents

1. GENERAL INFORMATION

Product Name:	HSDPA USB Data Modem
Brand Name:	BandLuxe™
Model Name:	C177
Model Difference:	N/A
Power Supply	5 Vdc form USB port

GSM:

Cellular Phone Standards Frequency Range and Power	E-GSM/GPRS 850 Class 12	824.2 MHz– 848.8MHz	33 dBm
	E-GSM/GPRS 900 Class 12	880MHz – 915MHz	33 dBm
	E-GSM/GPRS 1800 Class 12	1710MHz-1785MHz	30 dBm
	E-GSM/GPRS 1900 Class 12	1850.2MHz – 1909.8MHz	30 dBm
	WCDMA/HSDPA Band II	1852.4MHz – 1907.6MHz	24 dBm
	WCDMA/HSDPA Band V	826.4 MHz– 846.6MHz	24dBm

final amplifier voltage and current information		DC voltage (V)	DC current (mA)
	GPRS 850	5.0Vdc	553
	GPRS 1900	5.0Vdc	323
	EDGE 850	5.0Vdc	526
	EDGE 1900	5.0Vdc	322
	WCDMA B2	5.0Vdc	530
	WCDMA B5	5.0Vdc	384
	HSDPA B2	5.0Vdc	510
	HSDPA B5	5.0Vdc	375

Type of Emission	GPRS 850: 249KGXW GPRS 1900 :246KGXW EDGE 850: 246KG7W EDGE 1900:249KG7W WCDMA Band II: 4M22F9W WCDMA Band V:4M19F9W
Hardware Version	V02
Software Version	120016_001_025
IMEI	35809302

This test report applies for GSM/GPRS/EDGE 850 / 1900, WCDMA/HSDPA Band II and V.

1.1 Related Submittal(s) / Grant (s)

This submittal(s) (test report) is intended for FCC ID: **UZI-C177** filing to comply with Section Part 22 subpart H and Part 24 subpart E of the FCC CFR 47 Rules.

1.2 Test Methodology

Both conducted and radiated testing were performed according to the procedures document on chapter 13 of ANSI C63.4 (2003) and FCC CFR 47.1046, 2.1047, 2.1049, 2.1051, 2.1053, 2.1055 and 2.1057.

1.3 Test Facility

The measurement facilities used to collect the 3m Radiated Emission and AC power line conducted data are located on the address of SGS Taiwan Ltd. Electronics & Communication Laboratory No. 134, Wu Kung Rd., Wuku Industrial Zone, Taipei Country, Taiwan which are constructed and calibrated to meet the FCC requirements in documents ANSI C63.4: 2003. FCC Registration Number are: 990257 and 236194, Canada Registration Number: 4620A-1

The 10 m Open Area Test Sites located on the address of SGS Taiwan Ltd. Electronics & Communication Laboratory No. 29, Pau-Tou-Tsuo Valley Chia-Pau Tsuen, Linkou Hsiang, Taipei county, which is constructed and calibrated to meet the CISPR 22/EN 55022 requirements. SGS Site No. 1(3 &10 meters) and FCC Registration Number: 94644.

All equipment is calibrated externally and traceable to SI (International System of Unit).

1.4 Special Accessories

Not available for this EUT intended for grant.

1.5 Equipment Modifications

Not available for this EUT intended for grant.

2. SYSTEM TEST CONFIGURATION

2.1 EUT Configuration

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

2.2 EUT Exercise

The EUT (Transmitter) was operated in the engineering mode to fix the Tx frequency which was for the purpose of the measurements.

2.3 Test Procedure

2.3.1 AC Power Line Conducted Emissions

The EUT is placed on a turn table which is 0.8 m above ground plane. According to the requirements in Section 7 and 13 of ANSI 63.4-2003. Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30MHz using CISPR Quasi-Peak and Average detector mode.

2.3.2 Conducted Measurement at Antenna Port:

According to measurement procured TIA/EIA 603C, the EUT is placed on a turn table which is 0.8 m above ground plane. A low loss of RF cable was used to con- nect the antenna port of EUT to measurement equipment.

2.3.3 Radiated Emissions (ERP/EIRP):

According to measurement procured TIA/EIA 603C. The EUT is placed on a turn table which is 1.0 m above ground plane. The turn table 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 max. emission, the relative positions of this hand-held transmitter (EUT) was rotated through three orthogonal axes according to the requirements.

A standard antenna was used to replace the EUT and connect to the SG. Adjust the SG output level to reach the max emission level which were measured above.

2.4 Configuration of Tested System

Fig. 2-1 Configuration of Tested System

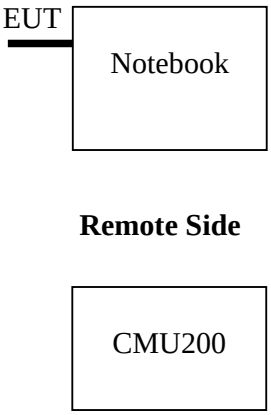


Table 2-1 Equipment Used in Tested System

Item	Equipment	Mfr/Brand	Model/ Type No.	Series No.	Data Cable	Power Cord
1.	Universal Radio Communication Tester	R&S	CMU200	102189	N/A	Un-shielded
2	Notebook	IBM	R61	L3A9050	Shielded	Un-shielded

3. SUMMARY OF TEST RESULTS

FCC Rules	Description Of Test	Result
§24.232(c)(d)	RF Peak Power Output, Maximum Power Reduction	Compliant
§2.1046(a) §22.913(a) §24.232(c)	ERP/ EIRP measurement	Compliant
§2.1049(h)	99% Occupied Bandwidth	Compliant
§2.1051 §22.917(a) §24.238(a)	Out of Band Emissions at Antenna Terminals and Band Edge	Compliant
§2.1053 §22.917(a) §24.238(a)	Field Strength of Spurious Radiation	Compliant
§2.1055(a)(1)(b)	Frequency Stability vs. Temperature	Compliant
§2.1055(d)(1)(2)	Frequency Stability vs. Voltage	Compliant
§15.107;§15.207	AC Power Line Conducted Emission	Compliant

4. DESCRIPTION OF TEST MODES

The EUT has been tested under operating condition.

EUT staying in continuous transmitting mode. Channel Low, Mid and High for each type band with rated data rate were chosen for full testing.

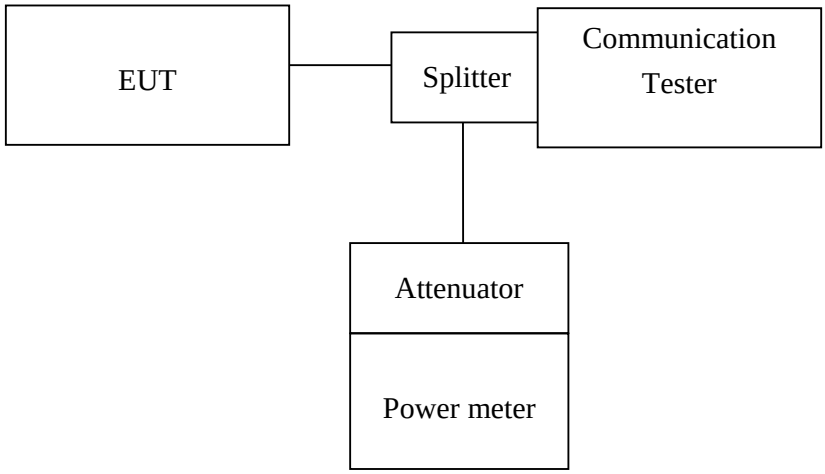
The field strength of spurious radiation emission was measured as EUT stand-up position (H mode) and lie down position (E1 mode) for GPRS / EDGE / WCDMA band 5 / WCDMA band 2 . The worst-case of H position for GPRS / EDGE / WCDMA band 5 / WCDMA band 2 were reported.

5. RF POWER OUTPUT MEASUREMENT

5.1 Standard Applicable

FCC 24.232(d) Peak Power Measurement, FCC 24.232(c)Maximum Power Reduction.

5.2 Test Set-up:



Note: *Measurement setup for testing on Antenna connector*

5.3 Measurement 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. was used for EUT and Base station setting.

5.4 Measurement Equipment Used:

Conducted Emission Test Site					
EQUIPMENT TYPE	**MFR**	**MODEL NUMBER**	**SERIAL NUMBER**	**LAST CAL.**	**CAL DUE.**
Spectrum Analyzer	Agilent	E4446A	MY43360126	04/27/2008	04/27/2009
Spectrum Analyzer	Agilent	E7405A	US41160416	07/04/2008	07/03/2009
Spectrum Analyzer	R&S	FSP 40	100034	11/09/2008	11/08/2009
Communication Test	R&S	CMU200	102189	05/13/2008	05/13/2010
Power Sensor	Anritsu	MA2490A	31431	07/07/2008	07/06/2009
Power Meter	Anritsu	ML2487A	6K00002070	07/07/2008	07/06/2009
Temperature Chamber	TERCHY	MHG-120LF	911009	10/14/2008	10/13/2009
Low Loss Cable	HUBER+SUHNER	SUCOFLEX 104PEA	N/A	N/A	N/A
Attenuator	Mini-Circuit	BW-S10W5	N/A	09/23/2008	09/22/2009
Attenuator	Mini-Circuit	BW-S6W5	N/A	09/23/2008	09/22/2009
Splitter	Agilent	11636B	51728	09/23/2008	09/22/2009
DC Power Supply	Agilent	6038A	2929A-07548	06/27/2008	06/26/2009

5.5 Measurement Result

EUT Mode	Frequency (MHz)	CH	Path Loss (dB)	Peak Power (1TS) (dBm)	Peak Power (2TS) (dBm)	Peak Power (3TS) (dBm)	Peak Power (4TS) (dBm)
GPRS 850 (Class 8,10,12)	824.20	128	0.00	32.49	29.70	28.70	27.78
	836.60	190	0.00	32.39	29.80	28.70	27.77
	848.80	251	0.00	32.21	29.80	28.80	27.90

EUT Mode	Frequency (MHz)	CH	Path Loss (dB)	Average Power (1TS) (dBm)	Average Power (2TS) (dBm)	Average Power (3TS) (dBm)	Average Power (4TS) (dBm)
GPRS 850 (Class 8,10,12)	824.20	128	0.00	32.35	29.54	28.51	27.50
	836.60	190	0.00	32.21	29.68	28.52	27.64
	848.80	251	0.00	32.10	29.63	28.64	27.78

** Offset 0.8dB*

EUT Mode	Frequency (MHz)	CH	Path Loss (dB)	Peak Power (1TS) (dBm)	Peak Power (2TS) (dBm)	Peak Power (3TS) (dBm)	Peak Power (4TS) (dBm)
GPRS 1900 (Class 8,10,12)	1850.20	512	0.00	30.33	27.70	26.50	24.80
	1880.00	661	0.00	30.16	27.2	26.00	24.73
	1909.80	810	0.00	29.56	26.80	25.60	24.69

EUT Mode	Frequency (MHz)	CH	Path Loss (dB)	Average Power (1TS) (dBm)	Average Power (2TS) (dBm)	Average Power (3TS) (dBm)	Average Power (4TS) (dBm)
GPRS 1900 (Class 8,10,12)	1850.20	512	0.00	30.12	27.49	26.40	24.71
	1880.00	661	0.00	29.97	26.88	25.87	24.59
	1909.80	810	0.00	29.34	26.64	25.43	24.55

*Offset 1.0dB

EUT Mode	Frequency (MHz)	CH	Path Loss (dB)	Peak Power (1TS) (dBm)	Peak Power (2TS) (dBm)	Peak Power (3TS) (dBm)	Peak Power (4TS) (dBm)
EDGE 850 (Class 8,10,12)	824.20	128	0.00	27.82	26.70	26.70	27.76
	836.60	190	0.00	28.01	26.80	26.80	27.76
	848.80	251	0.00	27.95	26.70	26.80	27.85

EUT Mode	Frequency (MHz)	CH	Path Loss (dB)	Average Power (1TS) (dBm)	Average Power (2TS) (dBm)	Average Power (3TS) (dBm)	Average Power (4TS) (dBm)
EDGE 850 (Class 8,10,12)	824.20	128	0.00	27.68	26.56	26.61	27.62
	836.60	190	0.00	27.88	26.65	26.67	27.64
	848.80	251	0.00	27.83	26.58	26.66	27.76

* Offset 0.8dB

EUT Mode	Frequency (MHz)	CH	Path Loss (dB)	Peak Power (1TS) (dBm)	Peak Power (2TS) (dBm)	Peak Power (3TS) (dBm)	Peak Power (4TS) (dBm)
EDGE 1900 (Class 8,10,12)	1850.20	128	0.00	26.32	25.80	25.60	24.80
	1880.00	190	0.00	26.51	26.10	25.10	24.70
	1909.80	251	0.00	26.42	25.30	24.70	24.65

EUT Mode	Frequency (MHz)	CH	Path Loss (dB)	Average Power (1TS) (dBm)	Average Power (2TS) (dBm)	Average Power (3TS) (dBm)	Average Power (4TS) (dBm)
EDGE 1900 (Class 8,10,12)	1850.20	128	0.00	26.20	25.66	25.44	24.64
	1880.00	190	0.00	26.42	25.95	24.98	24.53
	1909.80	251	0.00	26.34	25.19	24.52	24.54

*Offset 1.0dB

EUT Mode	Frequency (MHz)	CH	Average Reading (dBm)	Peak Reading (dBm)	Path Loss (dB)	Average Power (dBm)	Peak Power (dBm)
WCDMA V	826.40	4132	22.32	22.44	0.00	22.32	22.44
	836.00	4180	22.24	22.34	0.00	22.24	22.34
	846.60	4233	23.29	23.41	0.00	23.29	22.83

Offset 0.8dB

EUT Mode	Frequency (MHz)	CH	Average Reading (dBm)	Peak Reading (dBm)	Path Loss (dB)	Average Power (dBm)	Peak Power (dBm)
WCDMA II	1852.40	9262	22.25	22.38	0.00	22.25	22.38
	1880.00	9400	22.05	22.15	0.00	22.05	22.15
	1907.60	9538	21.82	21.95	0.00	21.82	21.95

Offset 1.0dB

EUT Mode	Frequency (MHz)	CH	Average Reading (dBm)	Peak Reading (dBm)	Path Loss (dB)	Average Power (dBm)	Peak Power (dBm)
HSDPA V	826.40	4132	22.33	22.47	0.00	22.33	22.47
	836.00	4180	22.20	22.35	0.00	22.20	22.35
	846.60	4233	23.35	23.45	0.00	23.35	23.45

Offset 0.8dB

EUT Mode	Frequency (MHz)	CH	Average Reading (dBm)	Peak Reading (dBm)	Path Loss (dB)	Average Power (dBm)	Peak Power (dBm)
HSDPA II	1852.40	9262	22.49	22.65	0.00	22.49	22.65
	1880.00	9400	22.42	22.57	0.00	22.42	22.57
	1907.60	9538	21.46	21.60	0.00	21.46	21.60

Offset 1.0dB

Maximum Power Reduction: GPRS1900 band Class 8 1TS.

PCL	0	1	2	3	4	5	6	7	8
Output power (dBm)	29.80	28.50	26.50	24.50	22.50	20.60	18.60	16.70	14.70
PCL	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
Output power (dBm)	12.60	10.60	8.50	6.50	4.50	2.30	0.00		

Note: The EUT output power was controlled by simulator. Set Communication Tester CMU200 PCL as above, and get the mobile phone output power reading.

Maximum Power Reduction: WCDMA/HSDPA band 2

The EUT output power was controlled by simulator. Set Communication Tester CMU200 function key “UE Power Control” and enter max rated power 24dBm. The EUT is going to be set to max output power to 24dBm. then record the read(see page 15 for measurement data) . The min. power was measures by a function key “minimum power” then record the read. It is -52.5dBm. The power variation can be 0.1dB step by setting.

6. ERP, EIRP MEASUREMENT

6.1 Standard Applicable

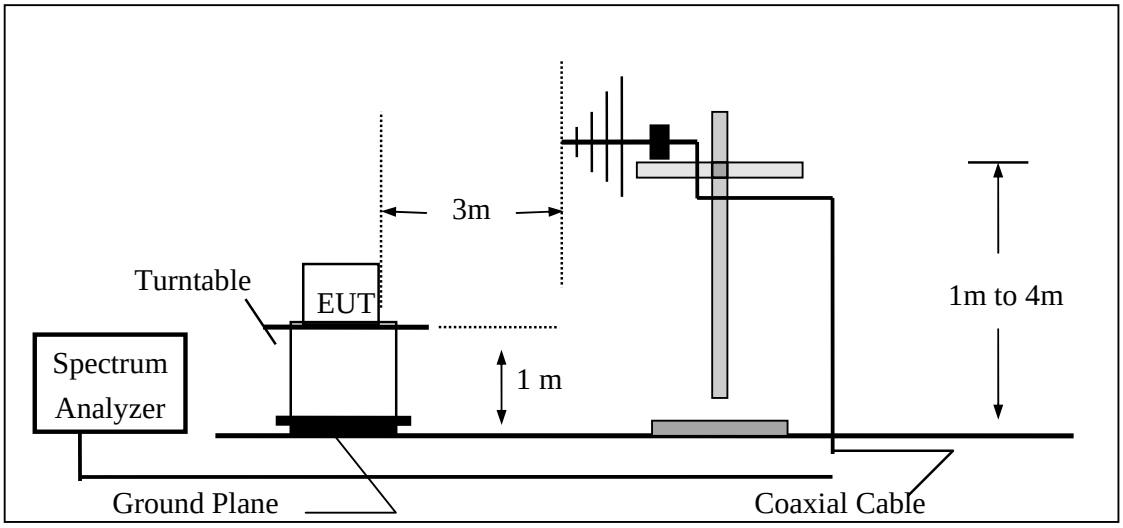
According to FCC §2.1046

FCC 22.913(a) Mobile station are limited to 7W ERP.

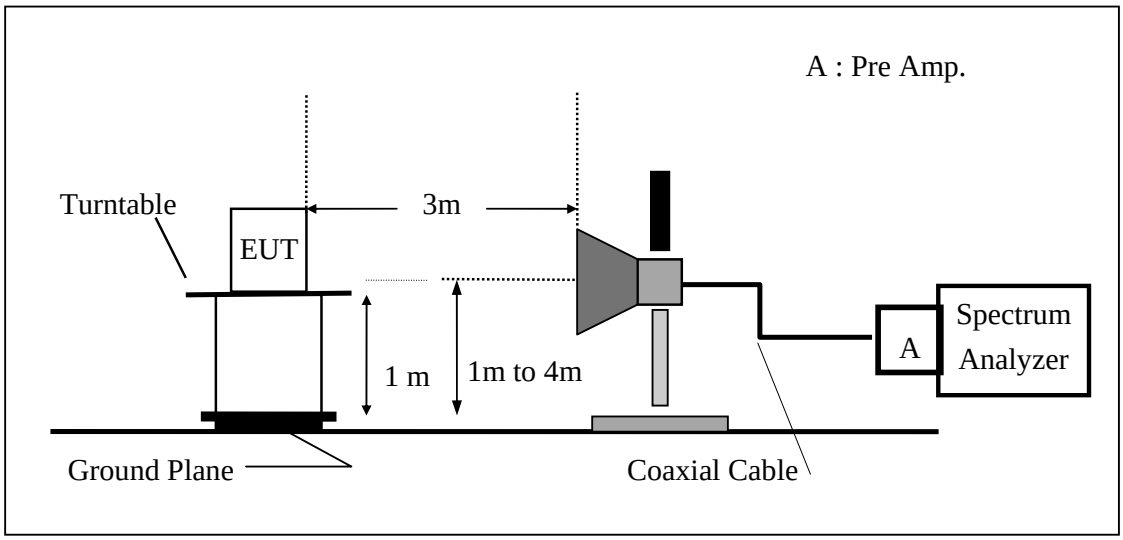
FCC 24.232(c) Mobile station are limited to 2W EIRP.

6.2 Test SET-UP (Block Diagram of Configuration)

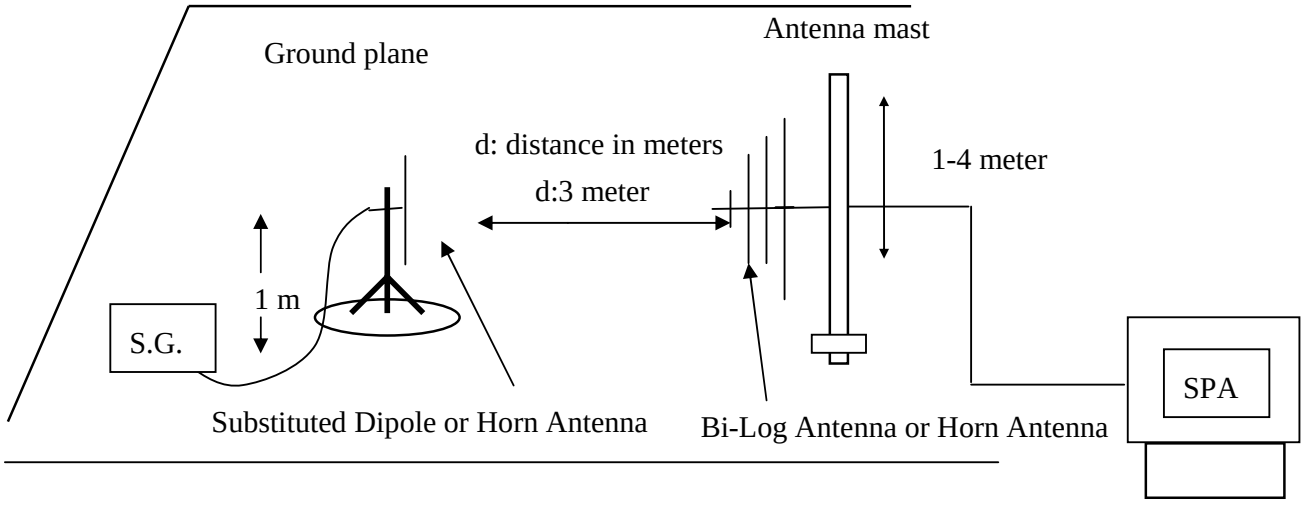
(A) Radiated Emission Test Set-Up, Frequency Below 1000MHz



(B) Radiated Emission Test Set-UP Frequency Over 1 GHz



(C) Substituted Method Test Set-UP



6.3 Measurement Procedure

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

During the measurement, the EUT was communication with the station. The highest emission was recorded with the rotation of the turntable and the lowering of the test antenna from 4m to 1m. The reading was recorded and the field strength (E in dBuV/m) was calculated.

ERP in frequency band 824.2 –848.80.8MHz were measured using a substitution method. The EUT was replaced by dipole antenna connected, the S.G. output was recorded and ERP was calculated as follows:

EIRP in frequency band 1850.2 –1909.8MHz were measured using a substitution method. The EUT was replaced by or horn antenna connected, the S.G. output was recorded and EIRP was calculated as follows:

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

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

6.4 Measurement Equipment Used:

EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL DUE.
Spectrum Analyzer	Agilent	E4446A	MY43360126	04/27/2008	04/26/2009
Spectrum Analyzer	Agilent	E7405A	US41160416	07/04/2008	07/03/2009
Spectrum Analyzer	R&S	FSP 40	100034	11/09/2008	11/10/2009
Communication Test	R&S	SMU200	N/A	N/A	N/A
Bi-log Antenna	SCHWAZBECK	VULB9160	3224	11/14/2008	11/13/2009
Horn antenna	SCHWAZBECK	BBHA 9120D	309/320	08/16/2008	08/15/2009
Pre-Amplifier	HP	8447D	2944A09469	07/19/2008	07/18/2009
Pre-Amplifier	HP	8494B	3008A00578	02/26/2008	02/25/2009
Signal Generator	R&S	SMR40	100210	02/09/2008	02/10/2009
Turn Table	HD	DT420	N/A	N.C.R	N.C.R
Antenna Tower	HD	MA240-N	240/657	N.C.R	N.C.R
Controller	HD	HD100	N/A	N.C.R	N.C.R
Low Loss Cable	HUBER+SUHNER	SUCOFLEX 104PEA-10M	10m	10/09/2008	10/08/2009
Low Loss Cable	HUBER+SUHNER	SUCOFLEX 104PEA-3M	3m	10/09/2008	10/08/2009
Low Loss Cable	HUBER+SUHNER	SUCOFLEX 104PEA-0.5M	0.5m	10/09/2008	10/08/2009
Site NSA	SGS	966 chamber	N/A	11/17/2008	11/16/2009
Attenuator	Mini-Circult	BW-S10W5	N/A	09/23/2008	09/22/2009
Dipole Antenna	SCHWAZBECK	VHAP	908/909	06/09/2008	06/10/2009

6.5 Measurement Result

EUT Mode	Frequency (MHz)	CH	EUT Pol.	Antenna Pol.	SPA Reading (dBuV)	S.G. Output (dBm)	Antenna Gain (dBd)	Cable Loss (dB)	ERP (dBm)	Limit (dBm)
GPRS 850 (1Ts)	824.20	128	H	V	110.01	22.69	-7.87	3.64	11.17	38.45
				H	113.89	26.23	-7.87	3.64	14.72	38.45
	836.60	190	H	V	110.12	23.09	-7.88	3.70	11.52	38.45
				H	113.14	25.80	-7.88	3.70	14.23	38.45
	848.80	251	H	V	110.28	23.54	-7.88	3.75	11.91	38.45
				H	113.28	26.26	-7.88	3.75	14.63	38.45

Remark：

(1) The RBW,VBW of SPA for frequency

Below 1GHz was RBW=300 KHz, VBW=1000KHz,

Above 1GHz was RBW= 1MHz , VBW= 3MHz

EUT Mode	Frequency (MHz)	CH	EUT Pol.	Antenna Pol.	SPA Reading (dBuV)	S.G. Output (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	EIRP (dBm)	Limit (dBm)
GPRS 1900 (1Ts)	1850.20	512	H	V	114.69	7.73	9.90	5.41	12.22	33.00
				H	119.22	12.33	9.90	5.41	16.82	33.00
	1880.00	661	H	V	113.47	6.52	9.99	5.46	11.05	33.00
				H	117.44	10.57	9.99	5.46	15.10	33.00
	1909.80	810	H	V	111.99	5.05	10.08	5.51	9.62	33.00
				H	116.45	9.60	10.08	5.51	14.16	33.00

Remark：

(1) The RBW,VBW of SPA for frequency

Below 1GHz was RBW=300 KHz, VBW=1000KHz,

Above 1GHz was RBW= 1MHz , VBW= 3MHz

EUT Mode	Frequency (MHz)	CH	EUT Pol.	Antenna Pol.	SPA Reading (dBuV)	S.G. Output (dBm)	Antenna Gain (dBd)	Cable Loss (dB)	ERP (dBm)	Limit (dBm)
EDGE 850 (1Ts)	824.20	128	H	V	108.51	21.19	-7.87	3.64	9.67	38.45
				H	112.03	24.37	-7.87	3.64	12.86	38.45
	836.60	190	H	V	108.17	21.14	-7.88	3.70	9.57	38.45
				H	111.69	24.35	-7.88	3.70	12.78	38.45
	848.80	251	H	V	108.36	21.62	-7.88	3.75	9.99	38.45
				H	111.10	24.08	-7.88	3.75	12.45	38.45

Remark：

(1) The RBW,VBW of SPA for frequency

Below 1GHz was RBW=300 KHz, VBW=1000KHz,

Above 1GHz was RBW= 1MHz , VBW= 3MHz

EUT Mode	Frequency (MHz)	CH	EUT Pol.	Antenna Pol.	SPA Reading (dBuV)	S.G. Output (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	EIRP (dBm)	Limit (dBm)
EDGE 1900 (1Ts)	1850.20	512	H	V	116.14	9.18	9.90	5.41	13.67	33.00
				H	119.98	13.09	9.90	5.41	17.58	33.00
	1880.00	661	H	V	115.14	8.19	9.99	5.46	12.72	33.00
				H	119.11	12.24	9.99	5.46	16.77	33.00
	1909.80	810	H	V	114.19	7.25	10.08	5.51	11.82	33.00
				H	118.39	11.54	10.08	5.51	16.10	33.00

Remark：

(1) The RBW,VBW of SPA for frequency

Below 1GHz was RBW=300 KHz, VBW=1000KHz,

Above 1GHz was RBW= 1MHz , VBW= 3MHz

EUT Mode	Frequency (MHz)	CH	EUT Pol.	Antenna Pol.	SPA Reading (dBuV)	S.G. Output (dBm)	Antenna Gain (dBd)	Cable Loss (dB)	ERP (dBm)	Limit (dBm)
WCDMA Band V	826.40	4132	H	V	104.21	17.85	-7.88	3.63	6.34	38.45
				H	107.05	20.79	-7.88	3.63	9.29	38.45
	836.60	4183	H	V	106.93	20.67	-7.88	3.65	9.14	38.45
				H	109.70	23.47	-7.88	3.65	11.94	38.45
	846.60	4233	H	V	105.77	19.62	-7.88	3.67	8.07	38.45
				H	107.73	21.53	-7.88	3.67	9.98	38.45

Remark：

(1) The RBW,VBW of SPA for frequency

Below 1GHz was RBW=300 KHz, VBW=1000KHz,

Above 1GHz was RBW= 1MHz , VBW= 3MHz

EUT Mode	Frequency (MHz)	CH	EUT Pol.	Antenna Pol.	SPA Reading (dBuV)	S.G. Output (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	EIRP (dBm)	Limit (dBm)
WCDMA Band II	1852.40	9262	H	V	110.35	5.97	9.90	5.56	10.30	33.00
				H	117.65	13.47	9.90	5.56	17.81	33.00
	1880.00	9400	H	V	110.21	5.85	9.99	5.61	10.23	33.00
				H	113.80	9.66	9.99	5.61	14.03	33.00
	1907.60	9538	H	V	111.53	7.20	10.07	5.66	11.61	33.00
				H	115.08	10.97	10.07	5.66	15.38	33.00

Remark：

(1) The RBW,VBW of SPA for frequency

Below 1GHz was RBW=100 KHz, VBW=300KHz,

Above 1GHz was RBW= 1MHz , VBW= 3MHz

EUT Mode	Frequency (MHz)	CH	EUT Pol.	Antenna Pol.	SPA Reading (dBuV)	S.G. Output (dBm)	Antenna Gain (dBd)	Cable Loss (dB)	ERP (dBm)	Limit (dBm)
HSDPA Band V	826.40	4132	H	V	103.68	17.32	-7.88	3.63	5.81	38.45
				H	108.19	21.93	-7.88	3.63	10.43	38.45
	836.60	4183	H	V	106.87	20.61	-7.88	3.65	9.08	38.45
				H	109.98	23.75	-7.88	3.65	12.22	38.45
	846.60	4233	H	V	105.52	19.37	-7.88	3.67	7.82	38.45
				H	108.64	22.44	-7.88	3.67	10.89	38.45

Remark：

(1) The RBW,VBW of SPA for frequency

Below 1GHz was RBW=300 KHz, VBW=1000KHz,

Above 1GHz was RBW= 1MHz , VBW= 3MHz

EUT Mode	Frequency (MHz)	CH	EUT Pol.	Antenna Pol.	SPA Reading (dBuV)	S.G. Output (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	EIRP (dBm)	Limit (dBm)
HSDPA Band II	1852.40	9262	H	V	111.51	7.13	9.90	5.56	11.46	33.00
				H	115.21	11.03	9.90	5.56	15.37	33.00
	1880.00	9400	H	V	109.91	5.55	9.99	5.61	9.93	33.00
				H	115.65	11.51	9.99	5.61	15.88	33.00
	1907.60	9538	H	V	109.98	5.65	10.07	5.66	10.06	33.00
				H	113.76	9.65	10.07	5.66	14.06	33.00

Remark：

(1) The RBW,VBW of SPA for frequency

Below 1GHz was RBW=100 KHz, VBW=300KHz,

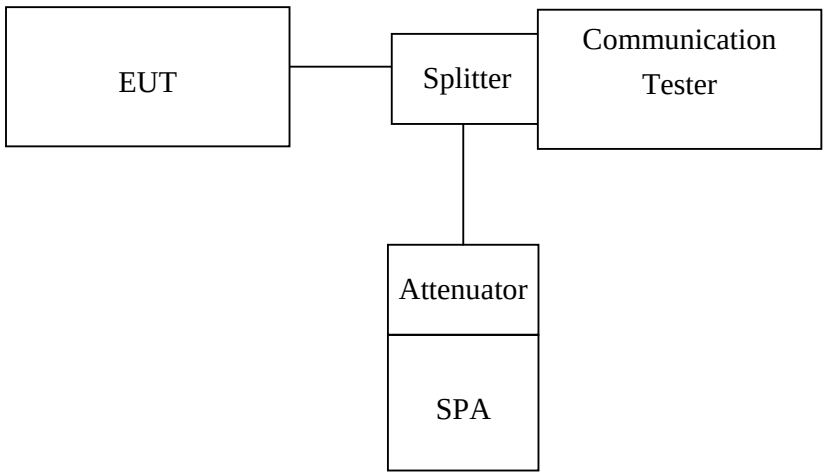
Above 1GHz was RBW= 1MHz , VBW= 3MHz

7. 99% OCCUPIED BANDWIDTH MEASUREMENT

7.1 Standard Applicable

According to §FCC 2.1049.

7.2 Test Set-up:



Note: *Measurement setup for testing on Antenna connector*

7.3 Measurement Procedure

The EUT's output RF connector was connected with a short cable to the spectrum analyzer, RBW (10/30KHz) was set to about 1% of emission BW, VBW= 3 times RBW(30/100KHz), -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.

7.4 Measurement Equipment Used:

Conducted Emission Test Site					
EQUIPMENT TYPE	**MFR**	**MODEL NUMBER**	**SERIAL NUMBER**	**LAST CAL.**	**CAL DUE.**
Spectrum Analyzer	Agilent	E4446A	MY43360126	04/27/2008	04/26/2009
Spectrum Analyzer	Agilent	E7405A	US41160416	07/04/2008	07/03/2009
Power Sensor	Anritsu	MA2490A	31431	07/07/2008	07/06/2009
Power Meter	Anritsu	ML2487A	6K00002070	07/07/2008	07/06/2009
Communication Test	R&S	SMU200	N/A	N/A	N/A
Temperature Chamber	TERCHY	MHG-120LF	911009	04/26/2008	04/25/2009
Low Loss Cable	HUBER+SUHNER	SUCOFLEX 104PEA	N/A	N/A	N/A
Attenuator	Mini-Circuit	BW-S10W5	N/A	07/05/2008	07/04/2009
Attenuator	Mini-Circuit	BW-S6W5	N/A	07/05/2008	07/04/2009
Splitter	Agilent	11636B	51728	09/23/2008	09/22/2009
Signal Generator	R&S	SMR40	100210	11/09/2008	11/10/2009
DC Power Supply	Agilent	6038A	2929A-07548	01/06/2008	01/05/2009

7.5 Measurement Result:

EUT Mode	Frequency (MHz)	CH	99% Bandwidth (MHz)
GPRS 850	824.20	128	0.2430
	836.60	190	0.2490
	848.80	251	0.2460

EUT Mode	Frequency (MHz)	CH	99% Bandwidth (MHz)
GPRS 1900	1850.20	512	0.2430
	1880.00	661	0.2460
	1909.80	810	0.2460

EUT Mode	Frequency (MHz)	CH	99% Bandwidth (MHz)
EDGE 850	824.20	128	0.2430
	836.60	190	0.2430
	848.80	251	0.2460

EUT Mode	Frequency (MHz)	CH	99% Bandwidth (MHz)
EDGE 1900	1850.20	512	0.2430
	1880.00	661	0.2490
	1909.80	810	0.2460

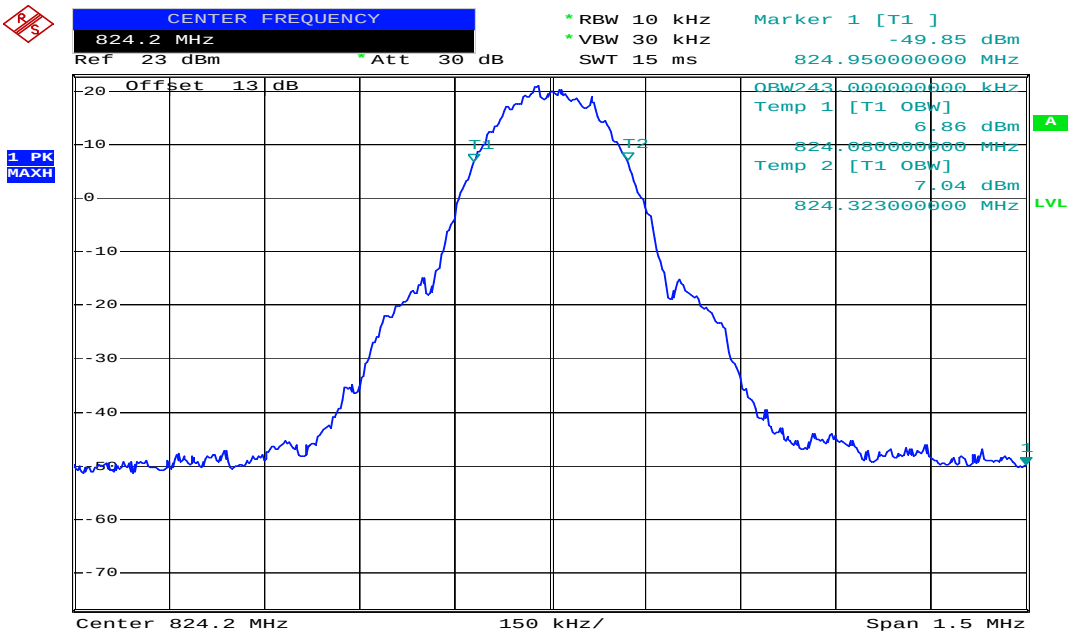
EUT Mode	Frequency (MHz)	CH	99% Bandwidth (MHz)
WCDMA V	826.40	4132	4.1640
	836.00	4180	4.1760
	846.60	4233	4.1880

EUT Mode	Frequency (MHz)	CH	99% Bandwidth (MHz)
WCDMA II	1852.40	9262	4.1880
	1880.00	9400	4.1880
	1907.60	9538	4.2240

EUT Mode	Frequency (MHz)	CH	99% Bandwidth (MHz)
HSDPA V	826.40	4132	4.1760
	836.00	4180	4.1880
	846.60	4233	4.1880

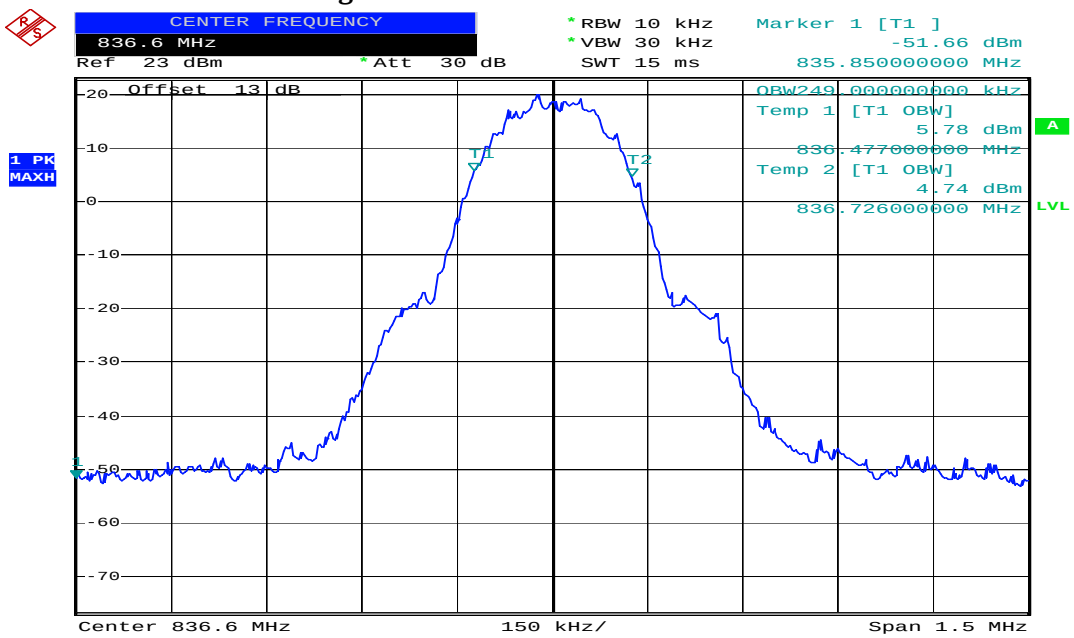
EUT Mode	Frequency (MHz)	CH	99% Bandwidth (MHz)
HSDPA II	1852.40	9262	4.1760
	1880.00	9400	4.1880
	1907.60	9538	4.1880

Figure 7-1: GPRS 850 Channel Low



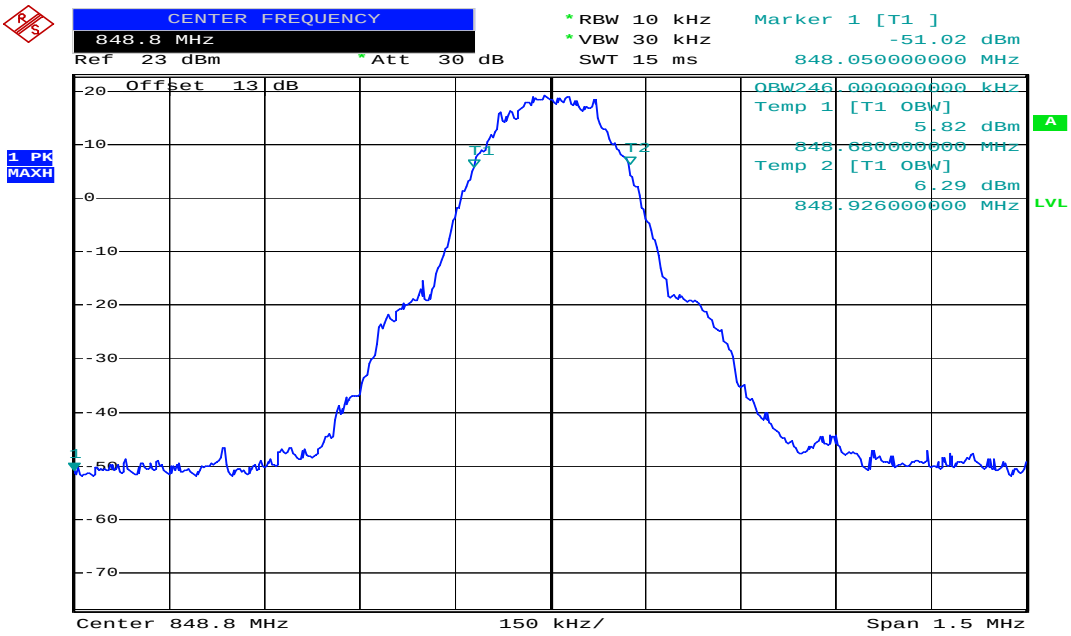
Comment: 1
Date: 19.NOV.2008 14:35:18

Figure 7-2 GPRS 850 Channel Mid



Comment: 1
Date: 19.NOV.2008 14:36:33

Figure 7-3: GPRS 850 Channel High



Comment: 1
Date: 19.NOV.2008 14:37:14

Figure 7-4: GPRS 1900 Channel Low

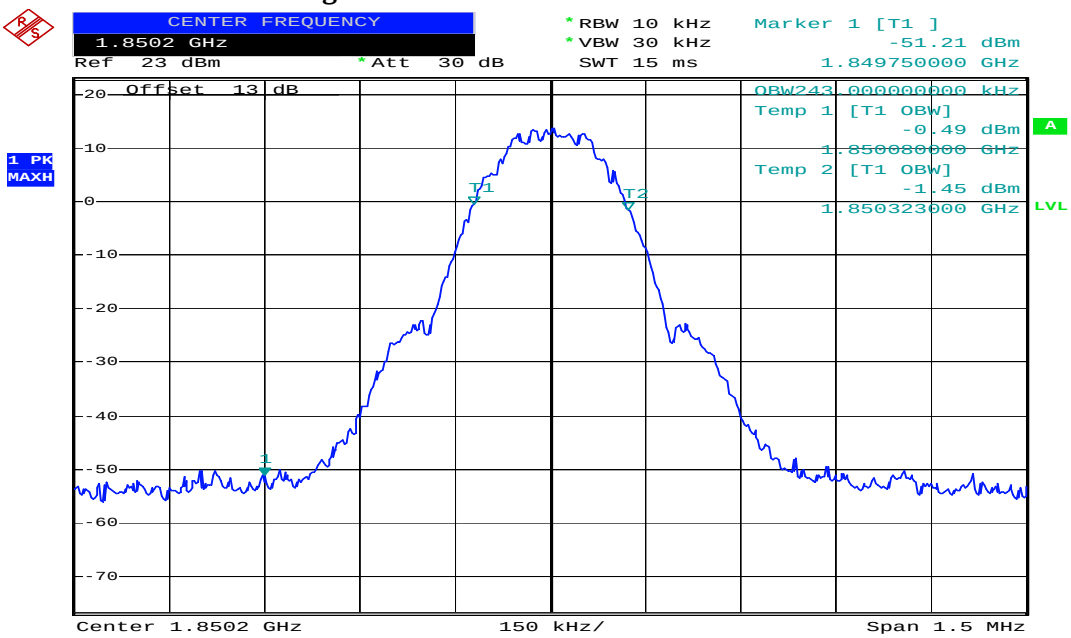


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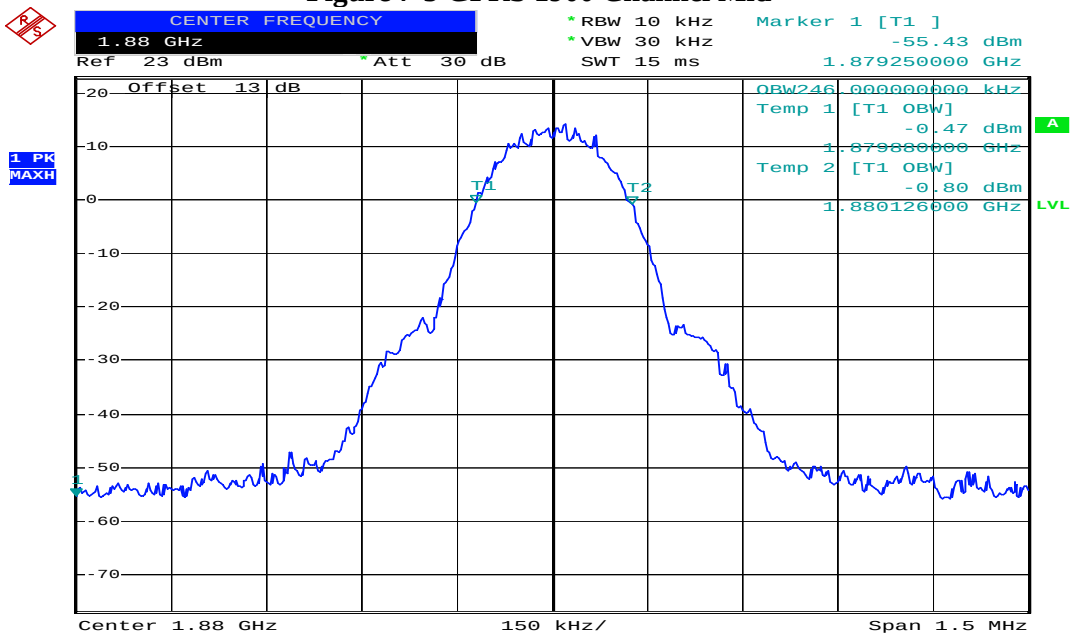
Figure 7-5 GPRS 1900 Channel Mid



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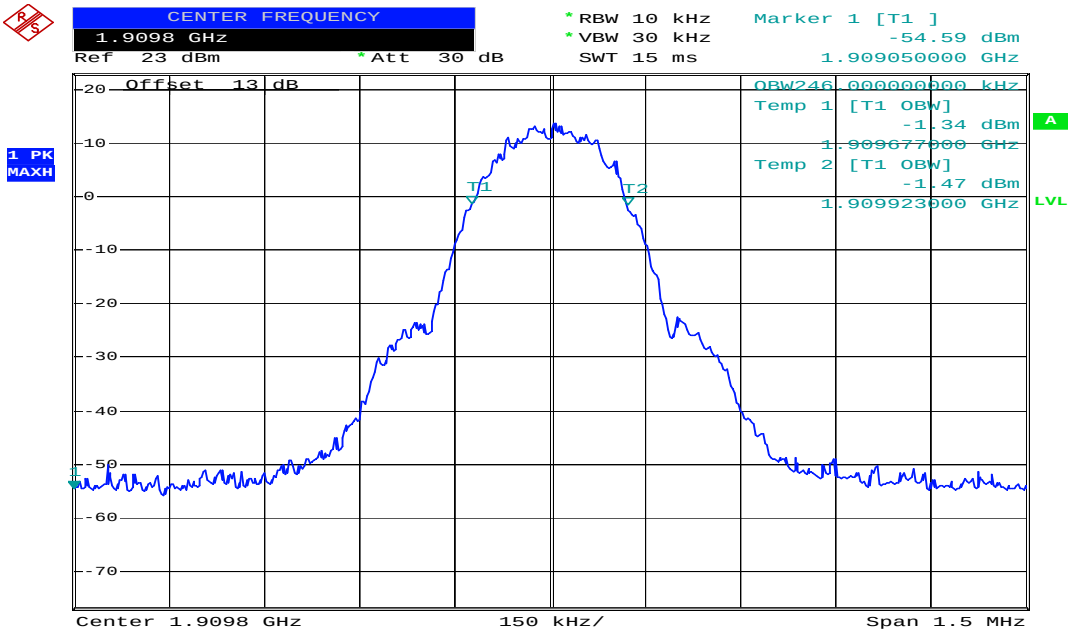
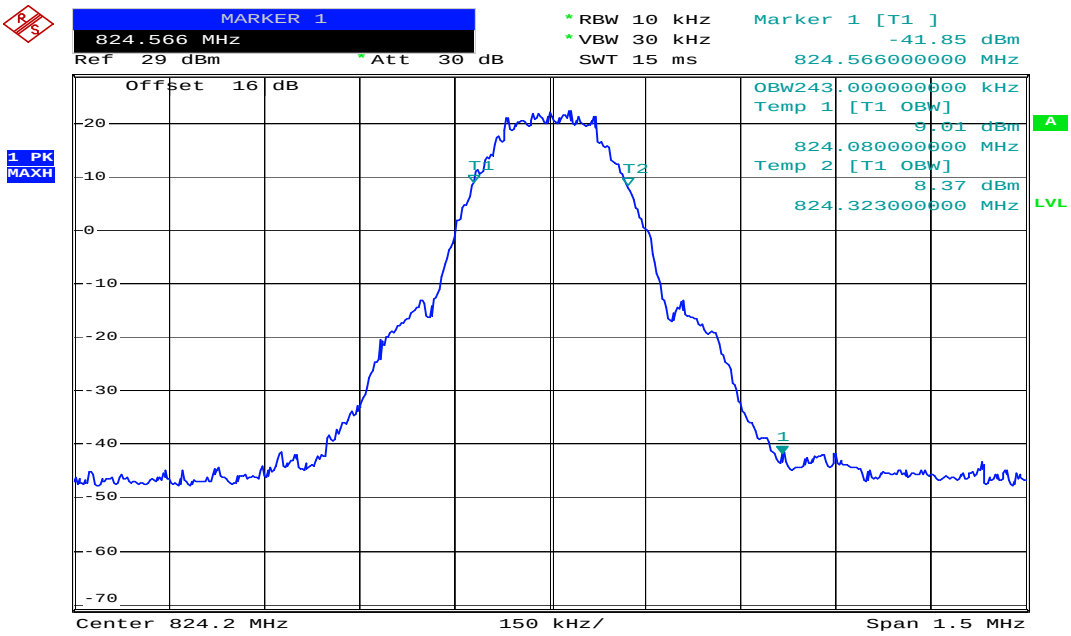
Date: 19.NOV.2008 14:39:37

Figure 7-6: GPRS 1900 Channel High



Comment: 1
Date: 19.NOV.2008 14:40:15

Figure 7-7: EDGE 850 Channel Low



Comment: 1
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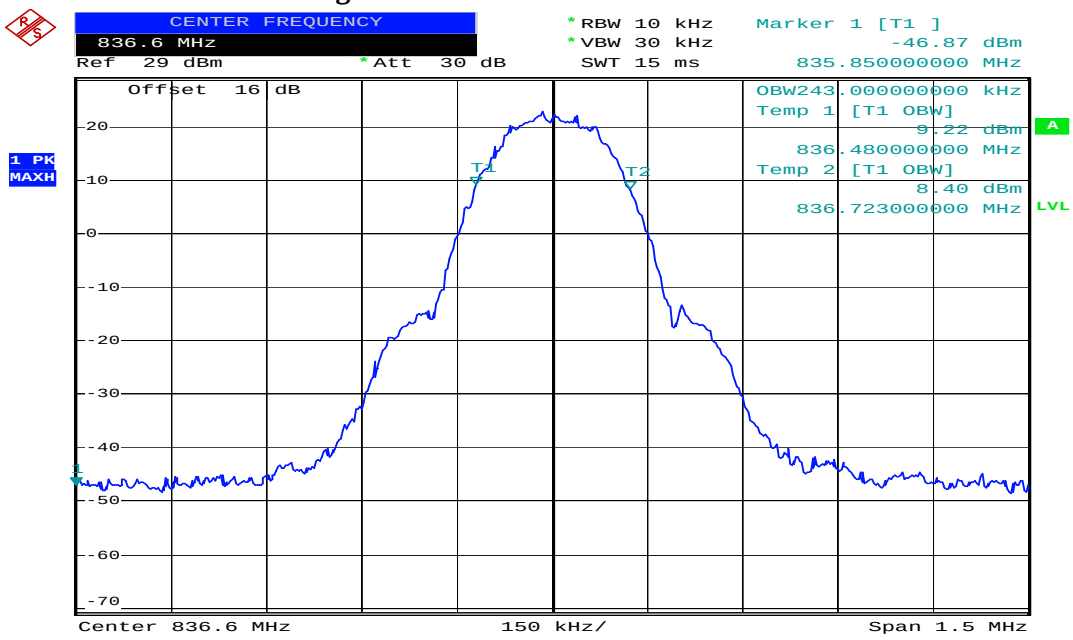
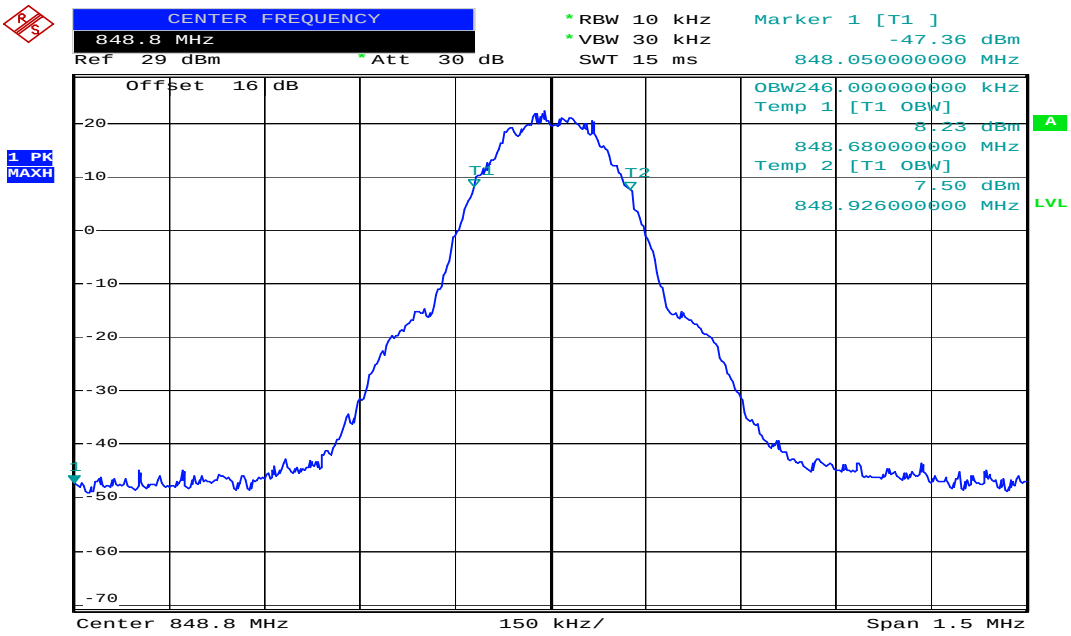
Figure 7-8 EDGE 850 Channel Mid



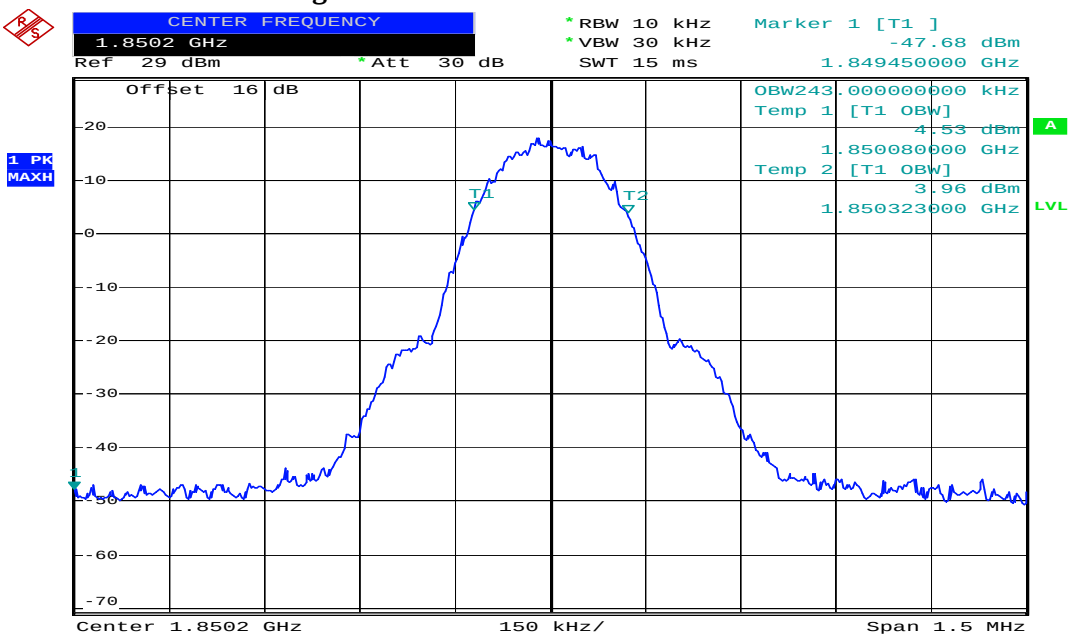
Comment: 1
Date: 19.NOV.2008 17:21:05

Figure 7-9: EDGE 850 Channel High



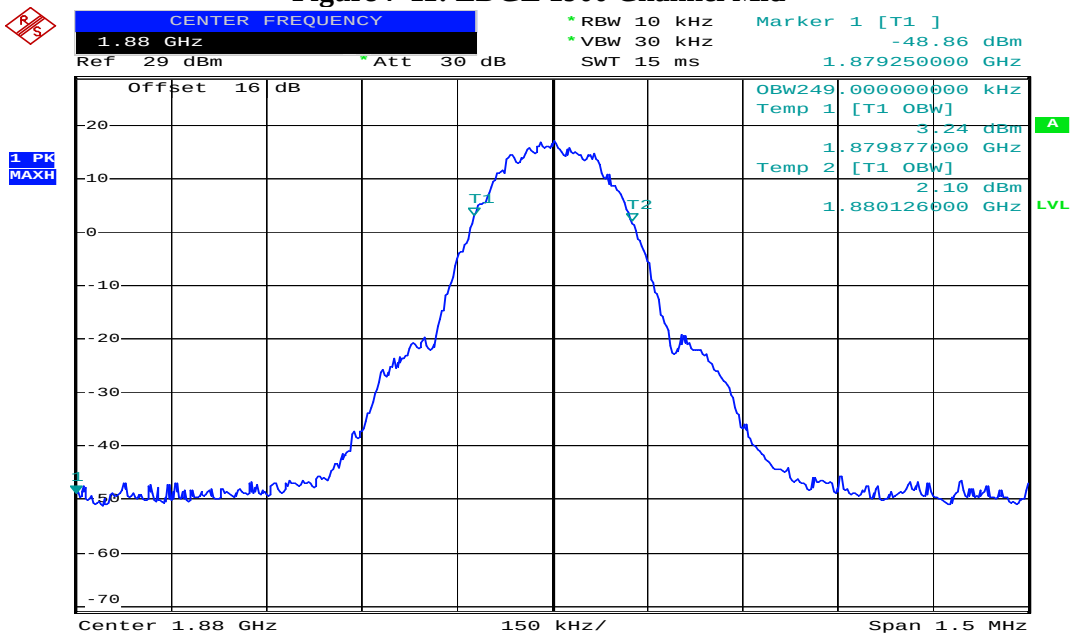
Comment: 1
Date: 19.NOV.2008 17:21:34

Figure 7-10: EDGE 1900 Channel Low



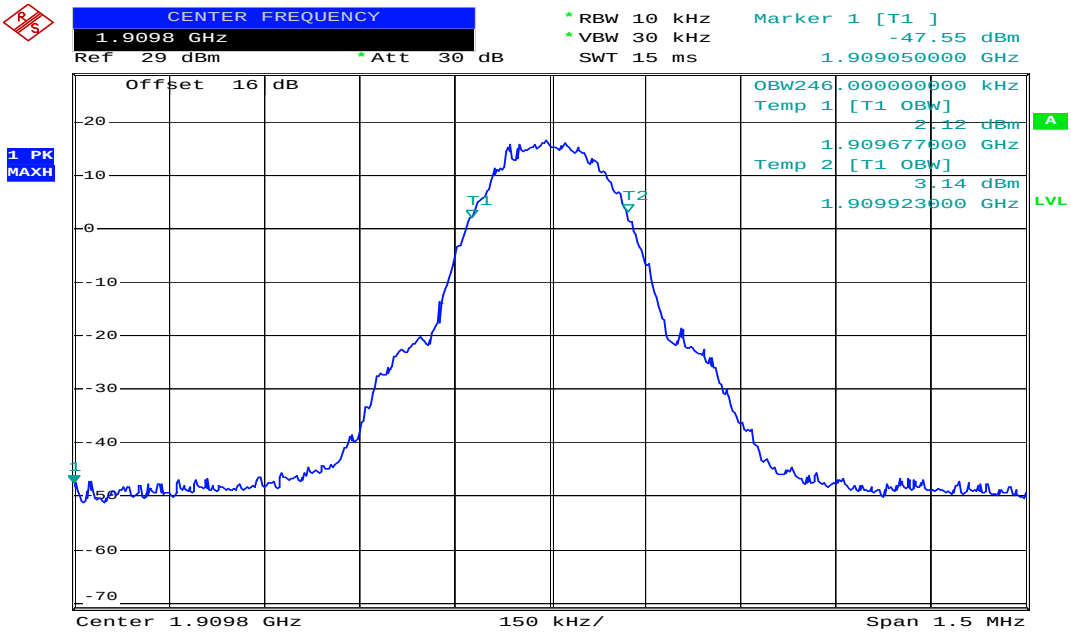
Comment: 1
Date: 19.NOV.2008 17:23:52

Figure 7-11: EDGE 1900 Channel Mid



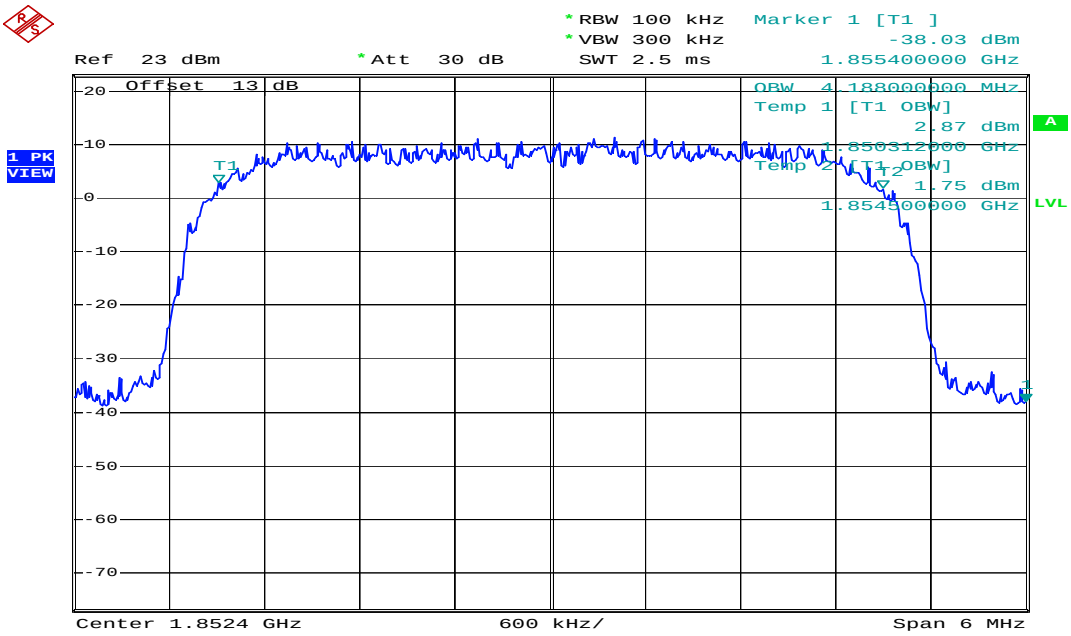
Comment: 1
Date: 19.NOV.2008 17:24:29

Figure 7-12: EDGE 1900 Channel High



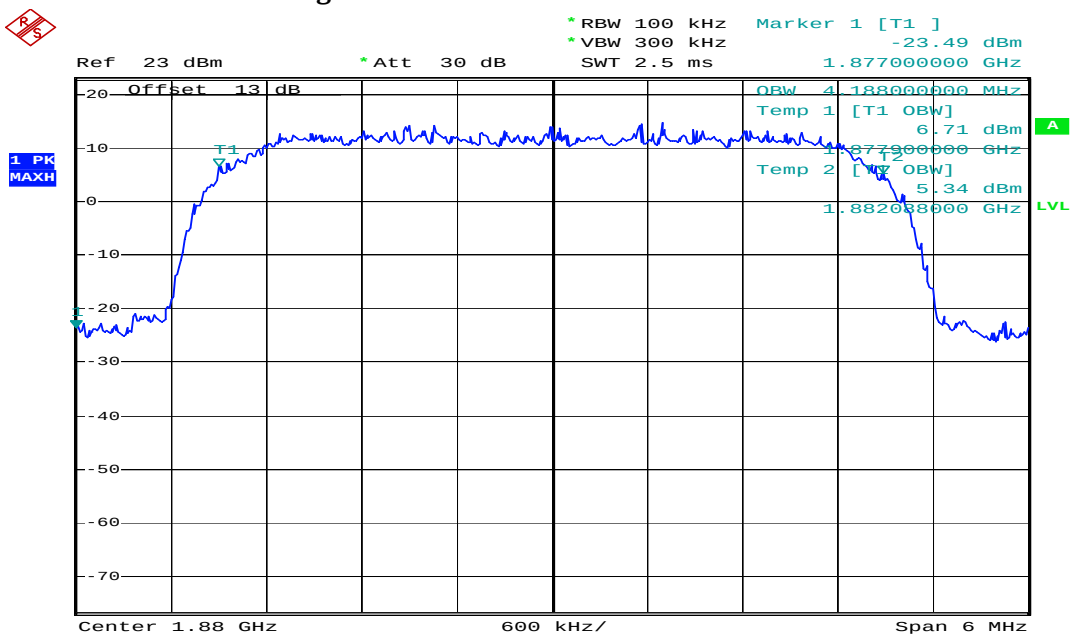
Comment: 1
Date: 19.NOV.2008 17:24:57

Figure 7-13: WCDMA II Channel Low



Comment: 1
Date: 19.NOV.2008 14:23:59

Figure 7-14: WCDMA II Channel Mid



Comment: 1
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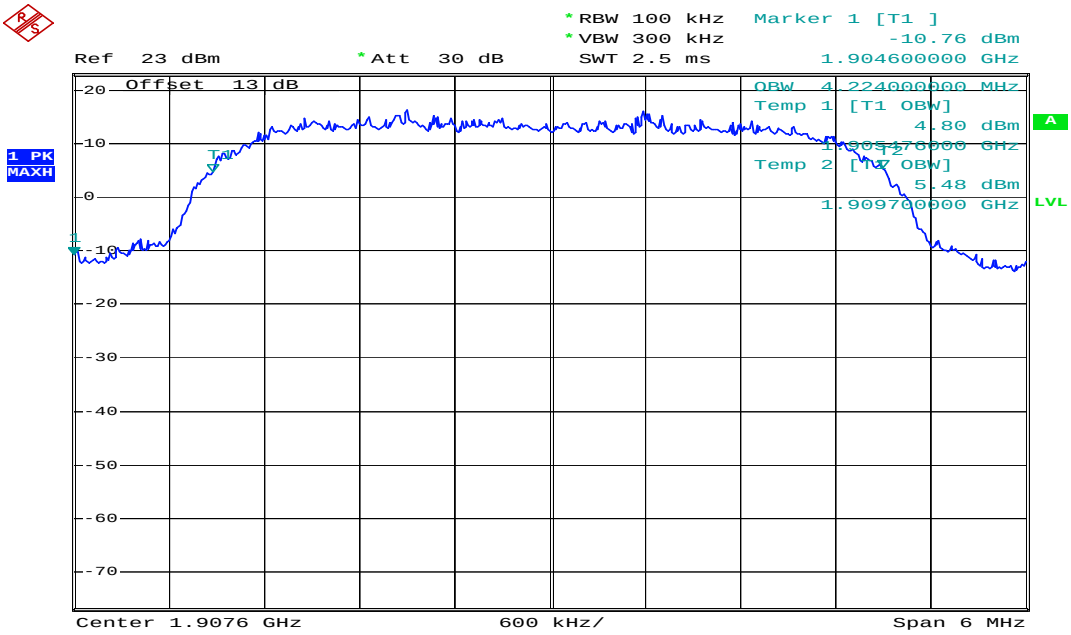
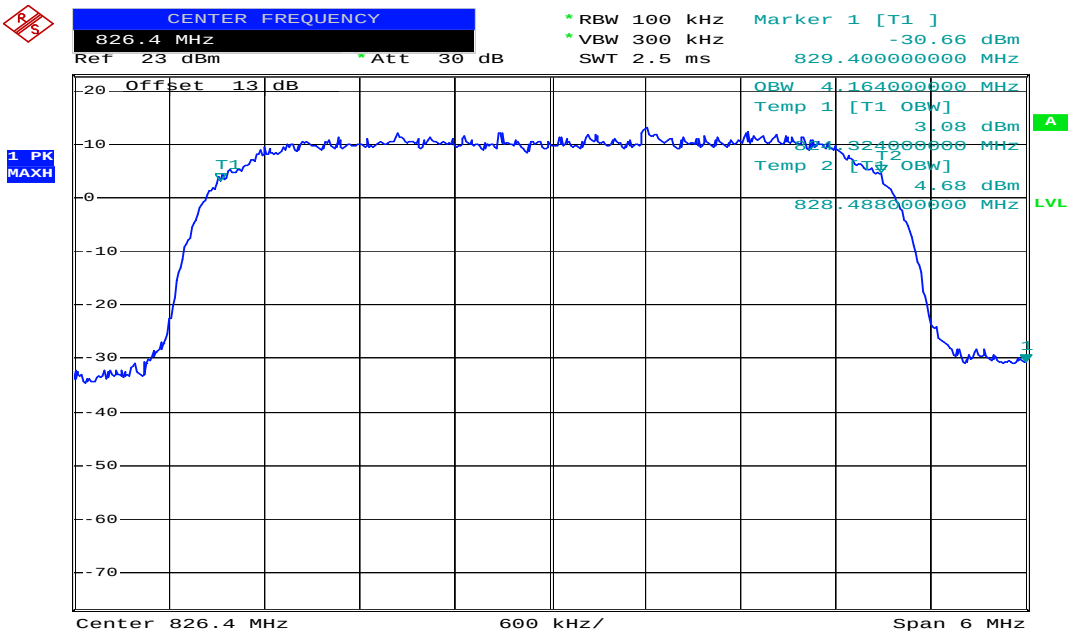
Figure 7-15: WCDMA II Channel High



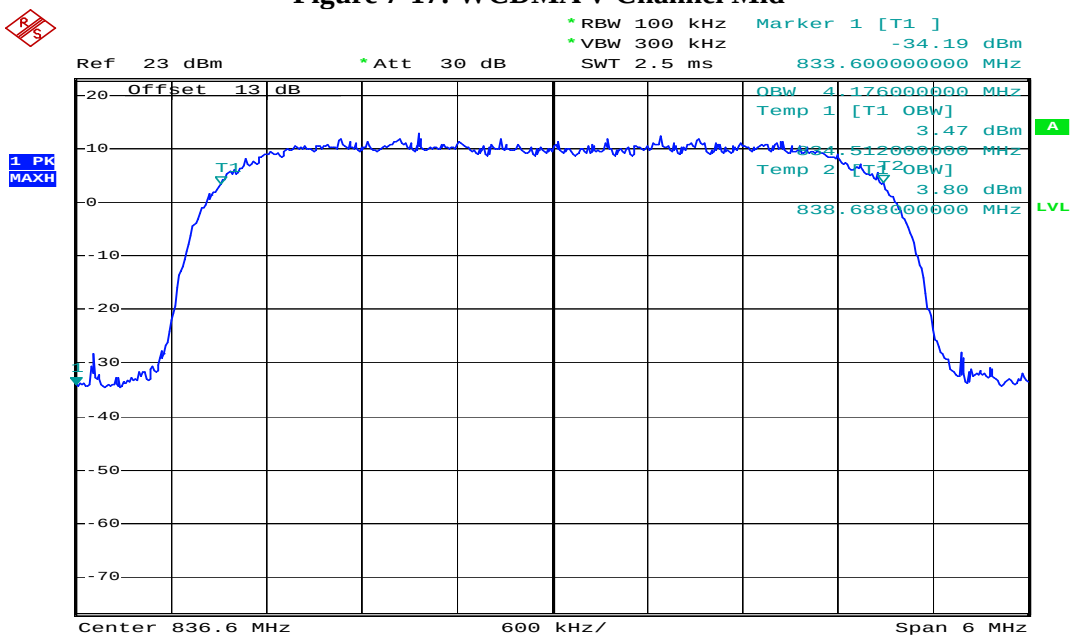
Comment: 1
Date: 19.NOV.2008 14:29:33

Figure 7-16: WCDMA V Channel Low



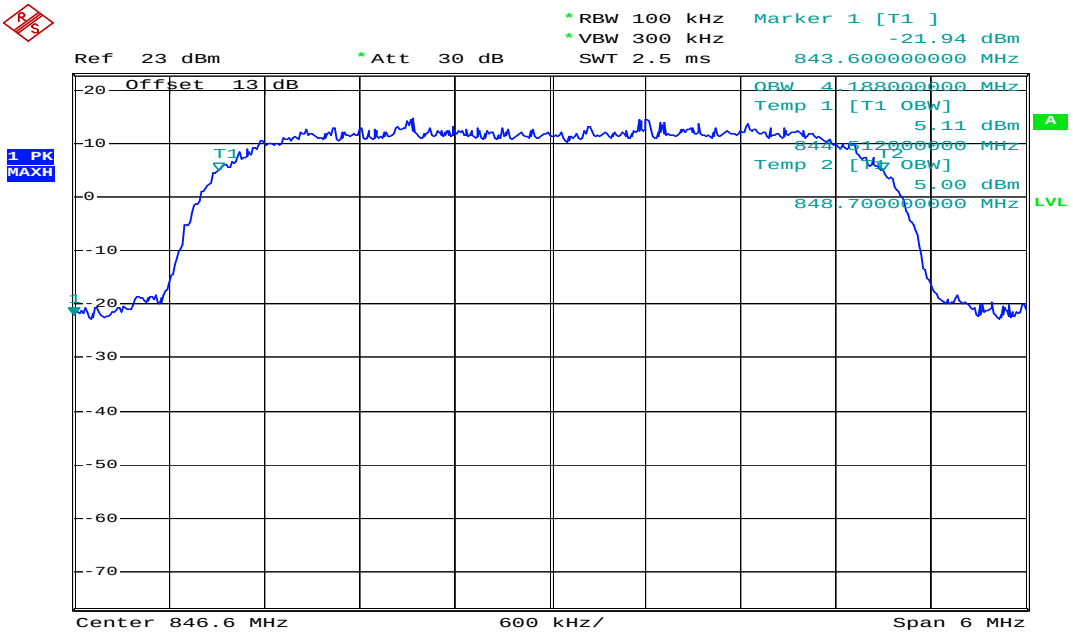
Comment: 1
Date: 19.NOV.2008 14:13:44

Figure 7-17: WCDMA V Channel Mid



Comment: 1
Date: 19.NOV.2008 14:12:24

Figure 7-18: WCDMA V Channel High



Comment: 1
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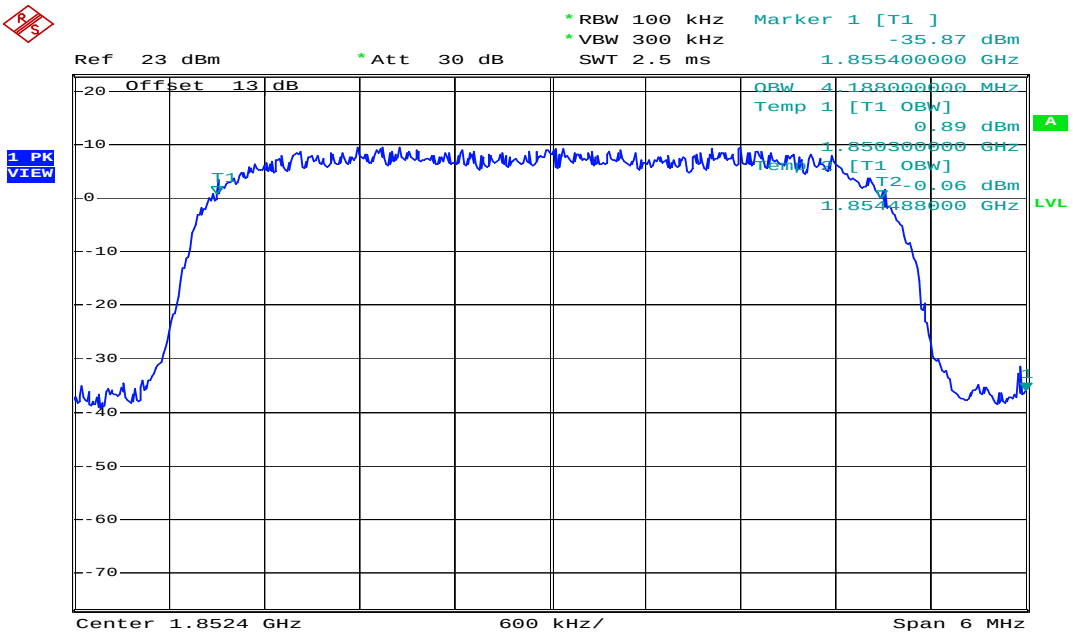
Figure 7-19: WCDMA II HSDPA Channel Low



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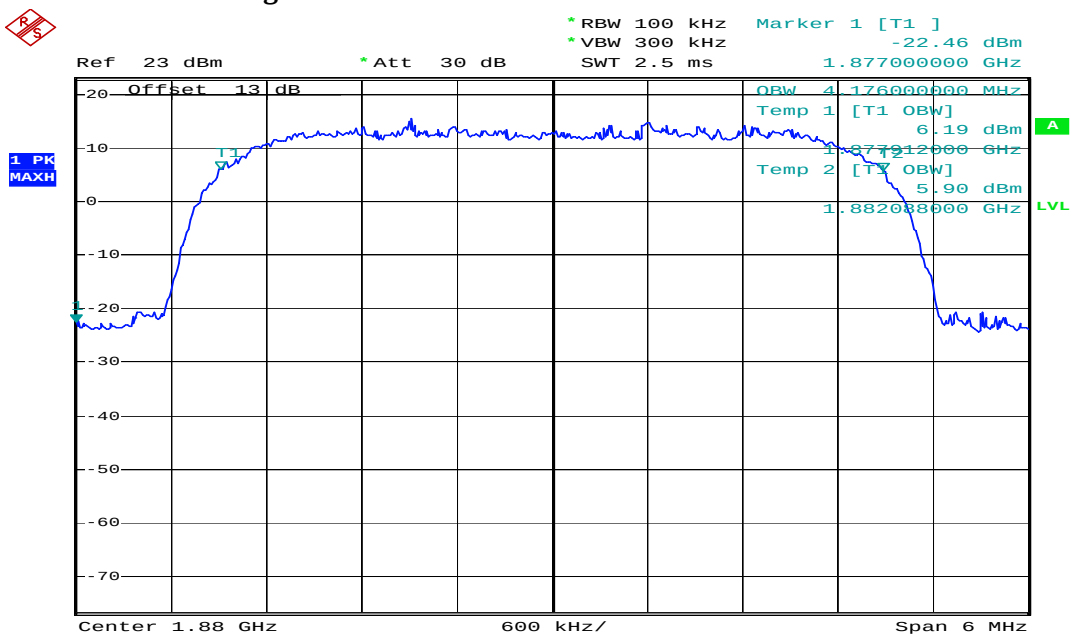
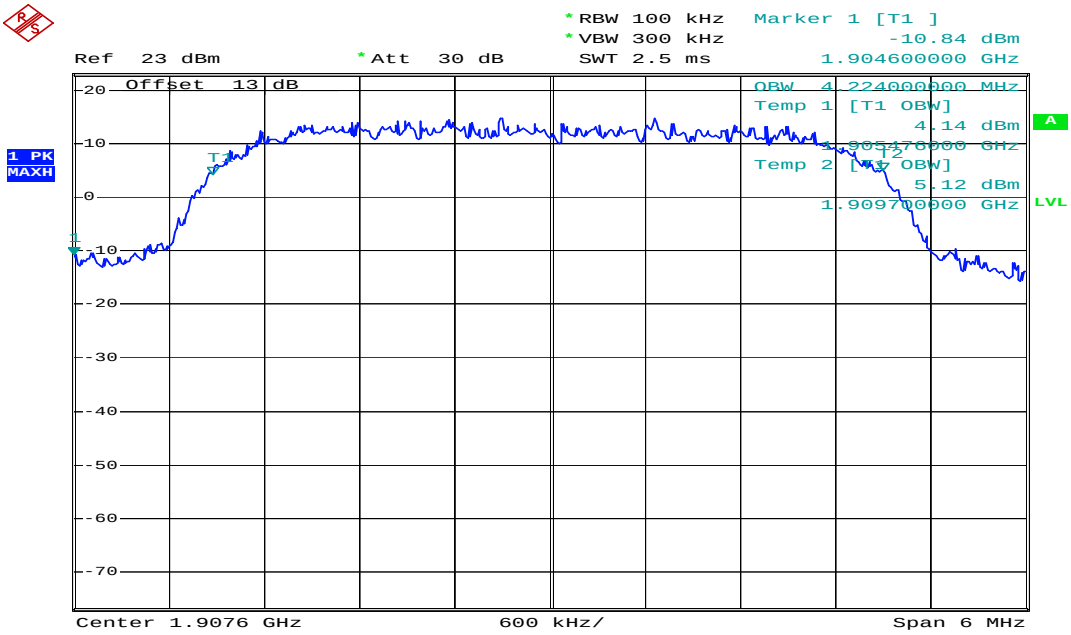
Date: 19.NOV.2008 14:25:29

Figure 7-20: WCDMA II HSDPA Channel Mid



Comment: 1
Date: 19.NOV.2008 14:26:46

Figure 7-21: WCDMA II HSDPA Channel High



Comment: 1
Date: 19.NOV.2008 14:30:12

Figure 7-22: WCDMA V HSDPA Channel Low

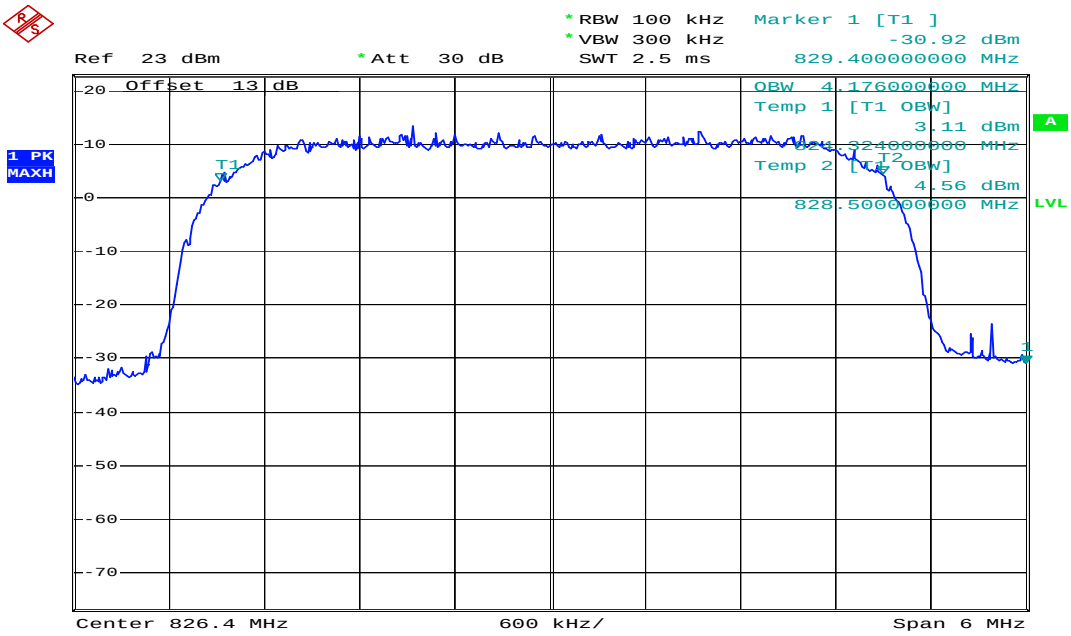


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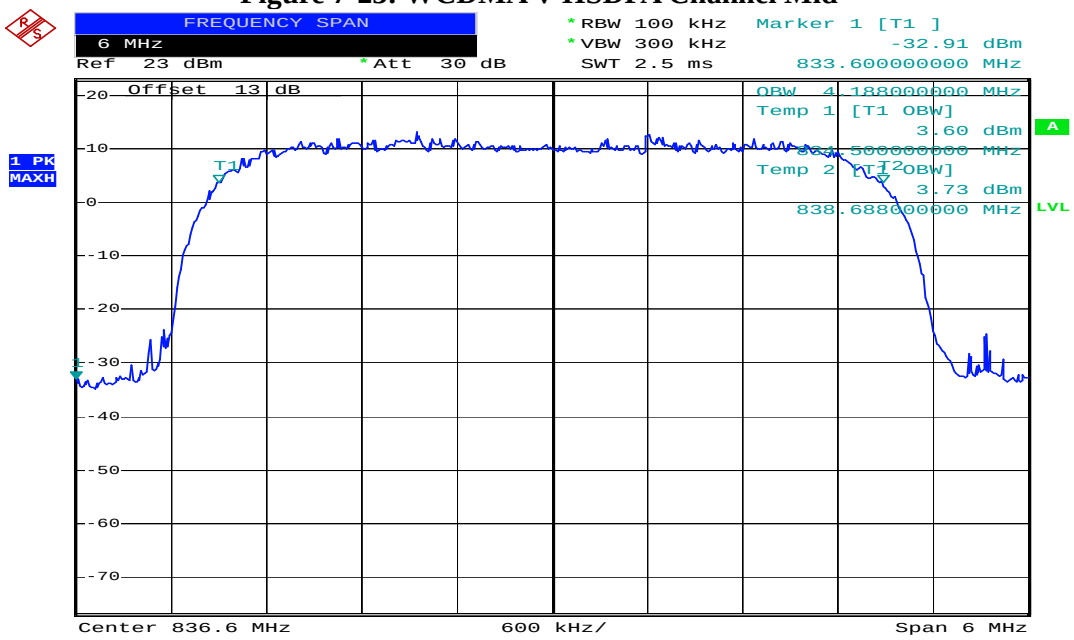
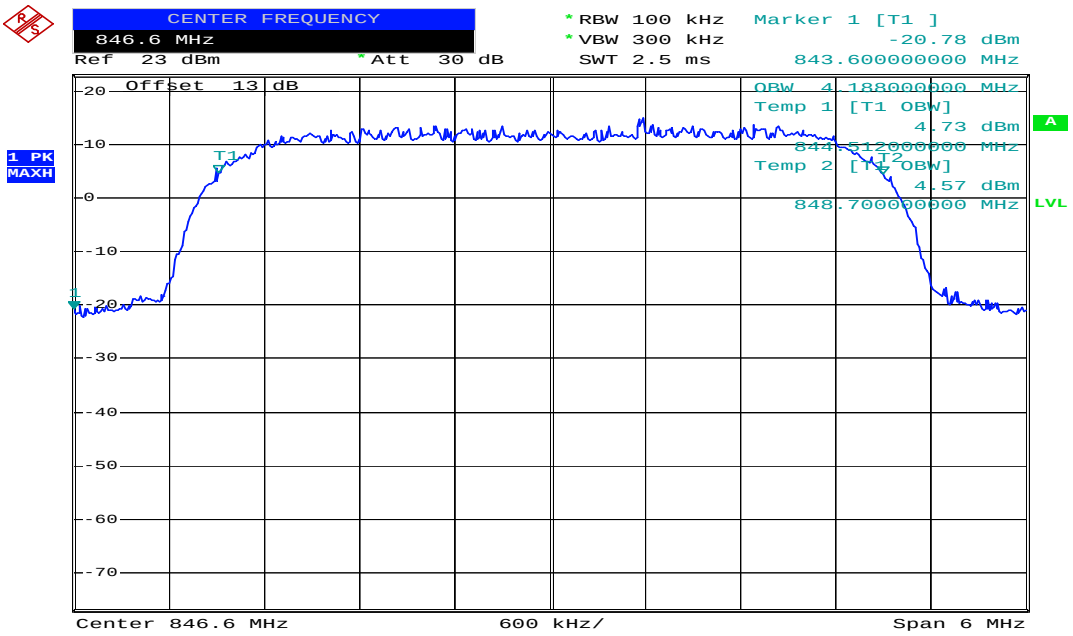
Figure 7-23: WCDMA V HSDPA Channel Mid



Comment: 1
Date: 19.NOV.2008 14:11:25

Figure 7-24: WCDMA V HSDPA Channel High



Comment: 1
Date: 19.NOV.2008 14:15:31

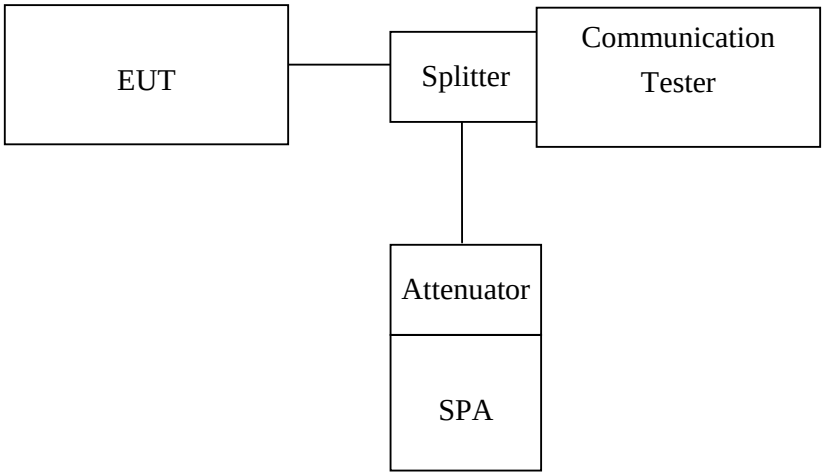
8. OUT OF BAND EMISSION AT ANTENNA TERMINALS

8.1 Standard Applicable

According to FCC §2.1051.

FCC §22.917(a),§24.238(a), the magnitude of each spurious and harmonic emission that can be detected when the equipment is operated under the conditions specified in the instruction manual and/ or alignment procedure, shall not be less than 43 + 10 log (mean output power in watts) dBc below the mean power output outside a license's frequency block (-13dBm)

8.2 Test SET-UP



Note: *Measurement setup for testing on Antenna connector*

8.3 Measurement 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

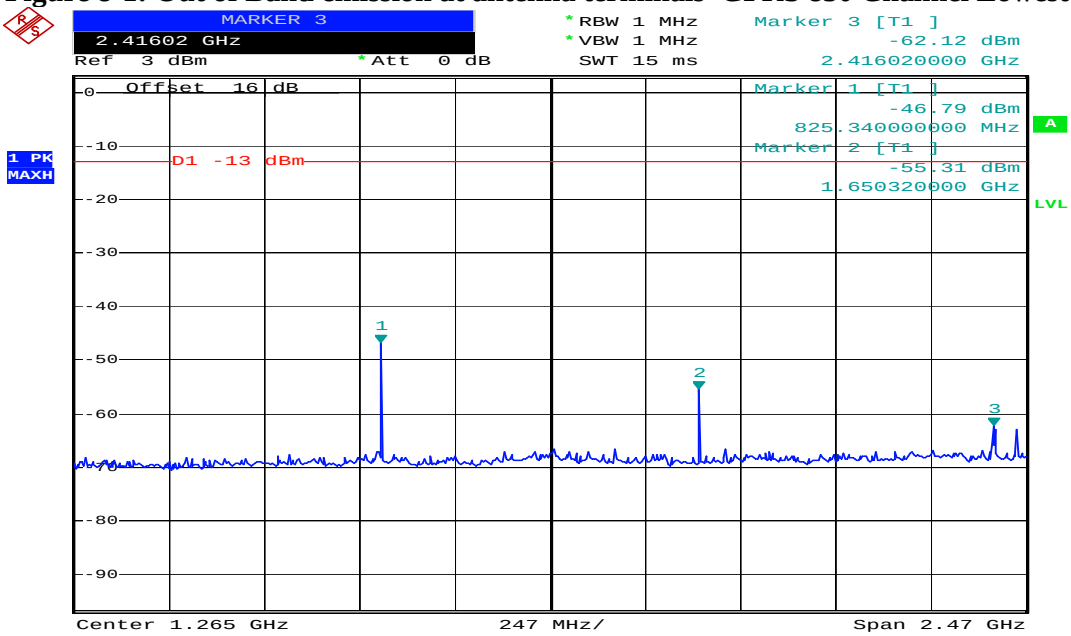
Band Edge Requirements: In the 1 MHz bands immediately outside and adjacent to the frequency block, a resolution bandwidth of at least 1 percent of the emission bandwidth of the fundamental emission of the transmitter may be employed to measure the out of band Emissions. Limit, -13dBm.

8.4 Measurement Equipment Used:

Conducted Emission Test Site					
EQUIPMENT TYPE	**MFR**	**MODEL NUMBER**	**SERIAL NUMBER**	**LAST CAL.**	**CAL DUE.**
Spectrum Analyzer	Agilent	E4446A	MY43360126	04/27/2008	04/26/2009
Spectrum Analyzer	Agilent	E7405A	US41160416	07/04/2008	07/03/2009
Power Sensor	Anritsu	MA2490A	31431	07/07/2008	07/06/2009
Power Meter	Anritsu	ML2487A	6K00002070	07/07/2008	07/06/2009
Communication Test	R&S	SMU200	N/A	N/A	N/A
Temperature Chamber	TERCHY	MHG-120LF	911009	04/26/2008	04/25/2009
Low Loss Cable	HUBER+SUHNER	SUCOFLEX 104PEA	N/A	N/A	N/A
Attenuator	Mini-Circuit	BW-S10W5	N/A	07/05/2008	07/04/2009
Attenuator	Mini-Circuit	BW-S6W5	N/A	07/05/2008	07/04/2009
Splitter	Agilent	11636B	51728	09/23/2008	09/22/2009
Signal Generator	R&S	SMR40	100210	11/09/2008	11/10/2009
DC Power Supply	Agilent	6038A	2929A-07548	01/06/2008	01/05/2009

8.5 Measurement Result

Figure 8-1: Out of Band emission at antenna terminals–GPRS 850 Channel Lowest



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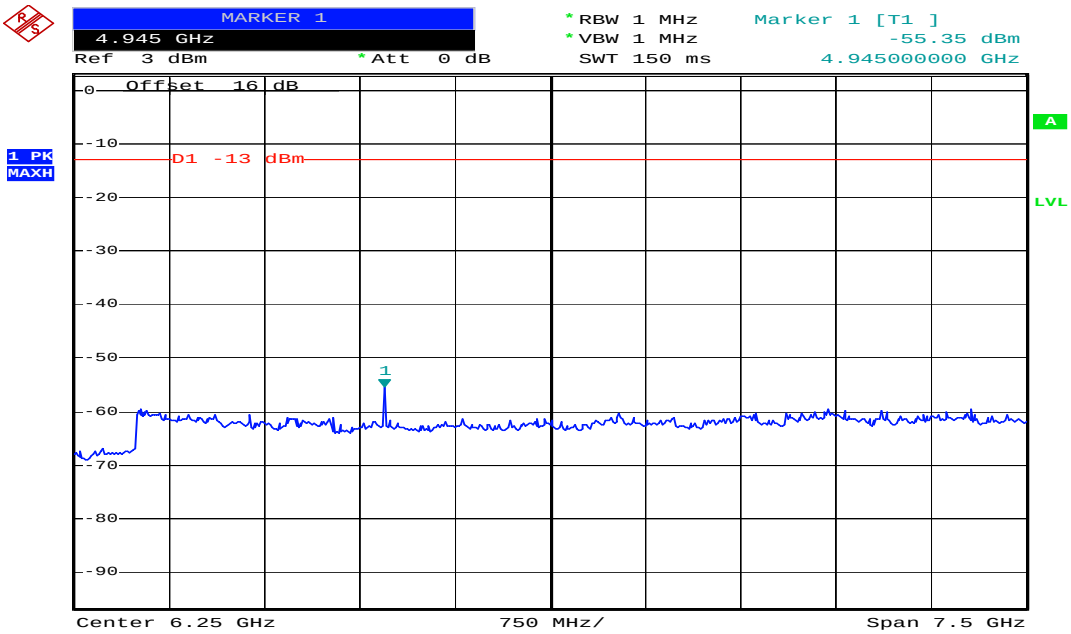
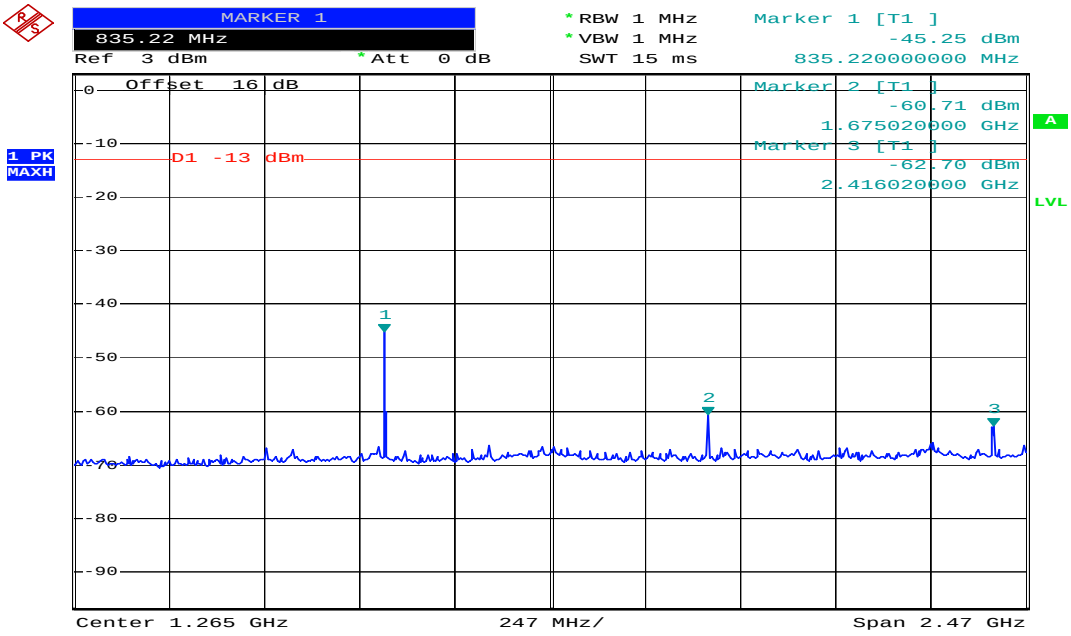


Comment: 1
Date: 19.NOV.2008 15:04:10

Figure 8-2: Out of Band emission at antenna terminals –GPRS 850 Channel Mid



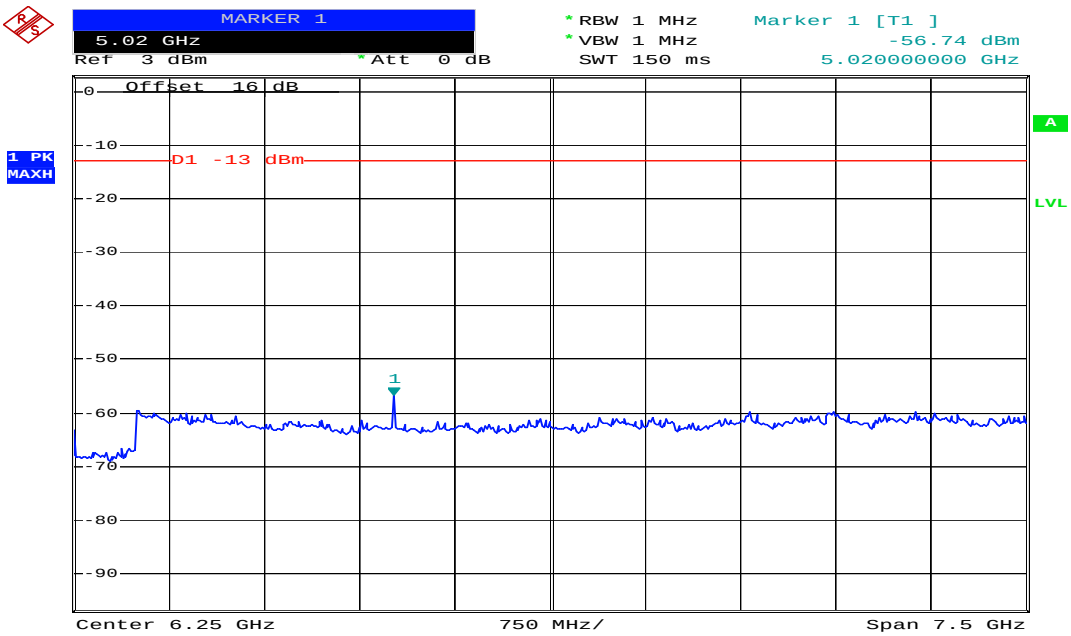
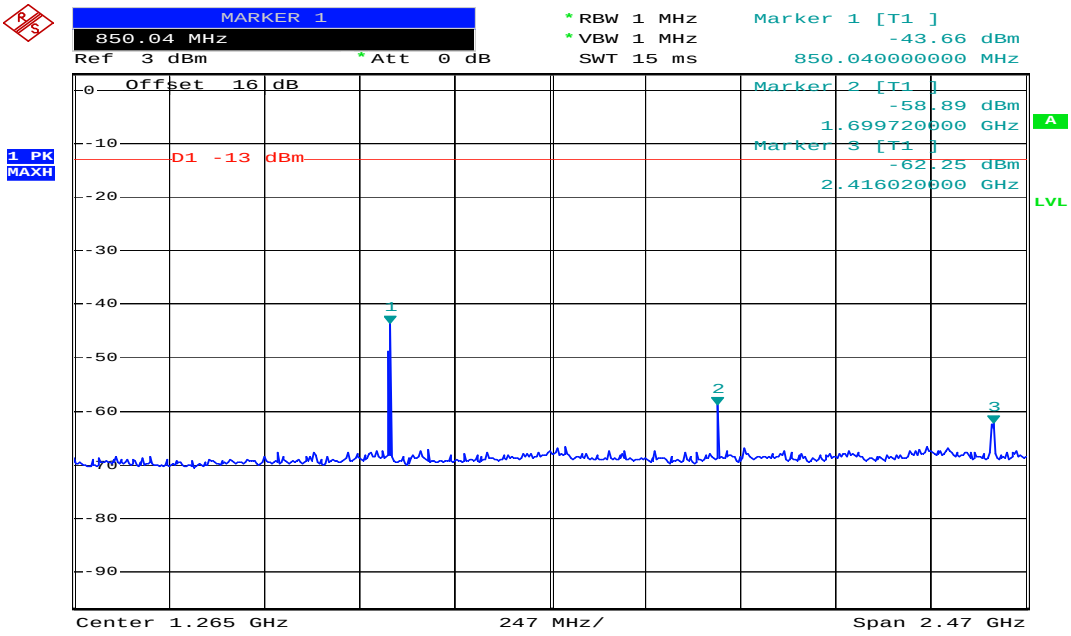


Figure 8-3: Out of Band emission at antenna terminals–GPRS 850 Channel Highest



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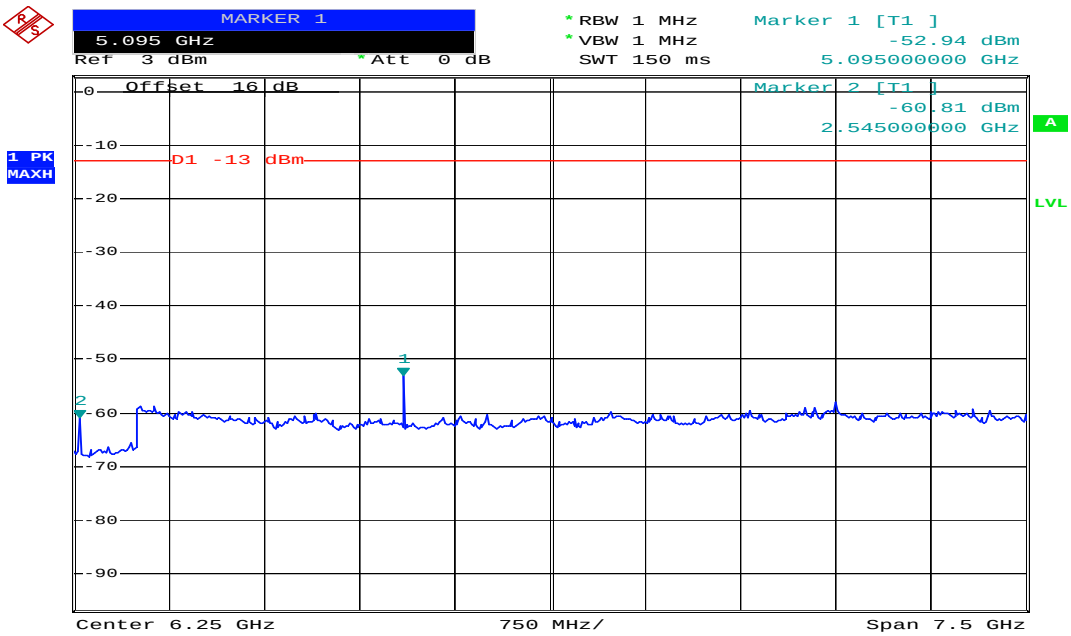
Date: 19.NOV.2008 15:08:44



Comment: 1
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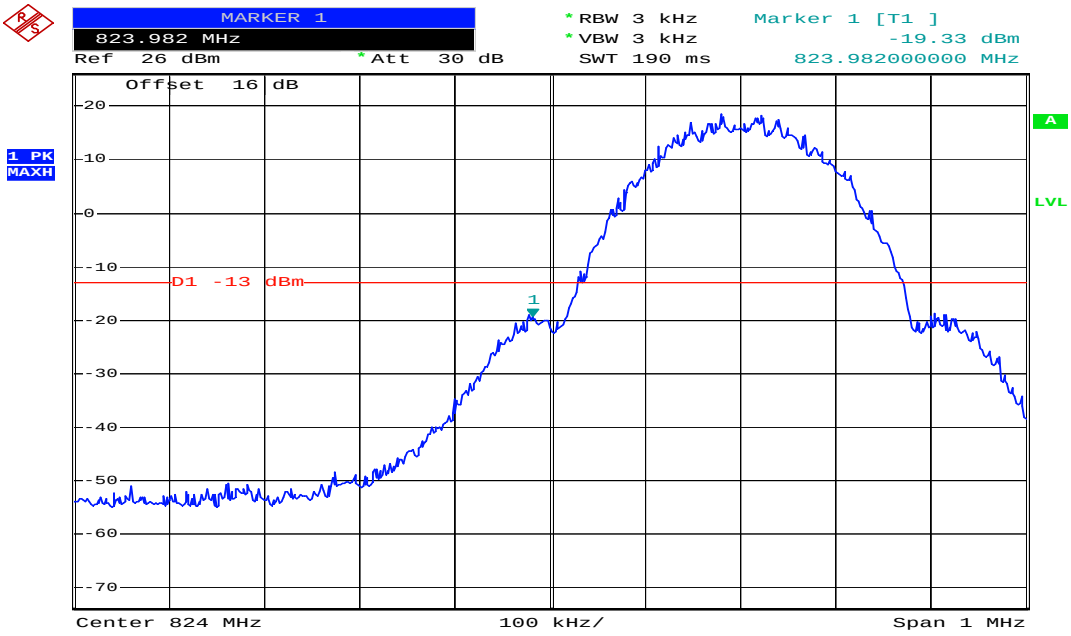
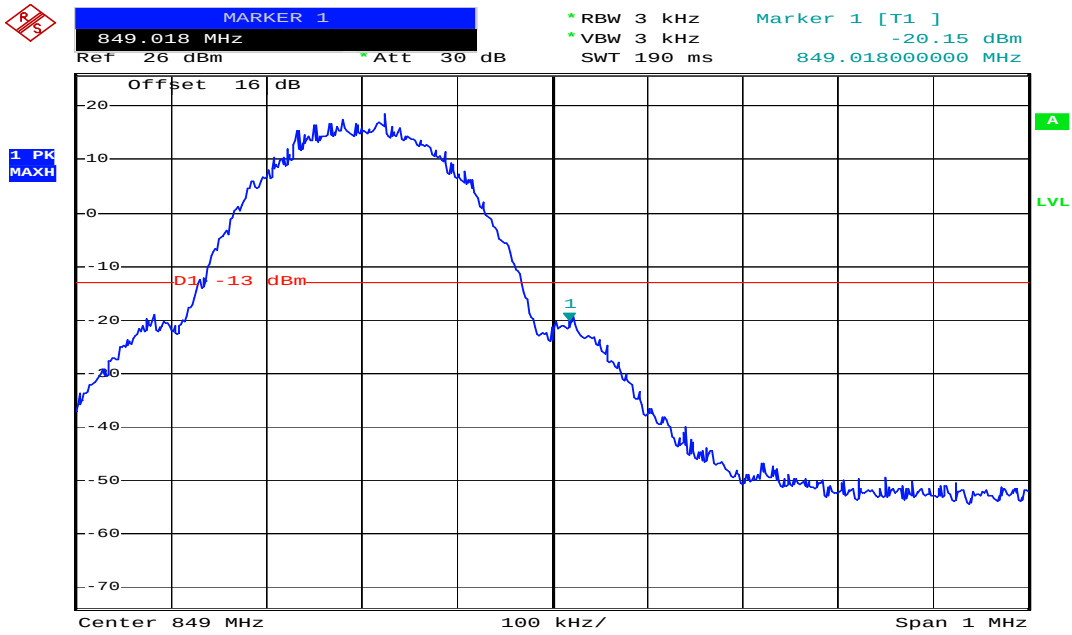
Figure 8-4: Band edge emission at antenna terminals –GPRS 850 Channel Lowest



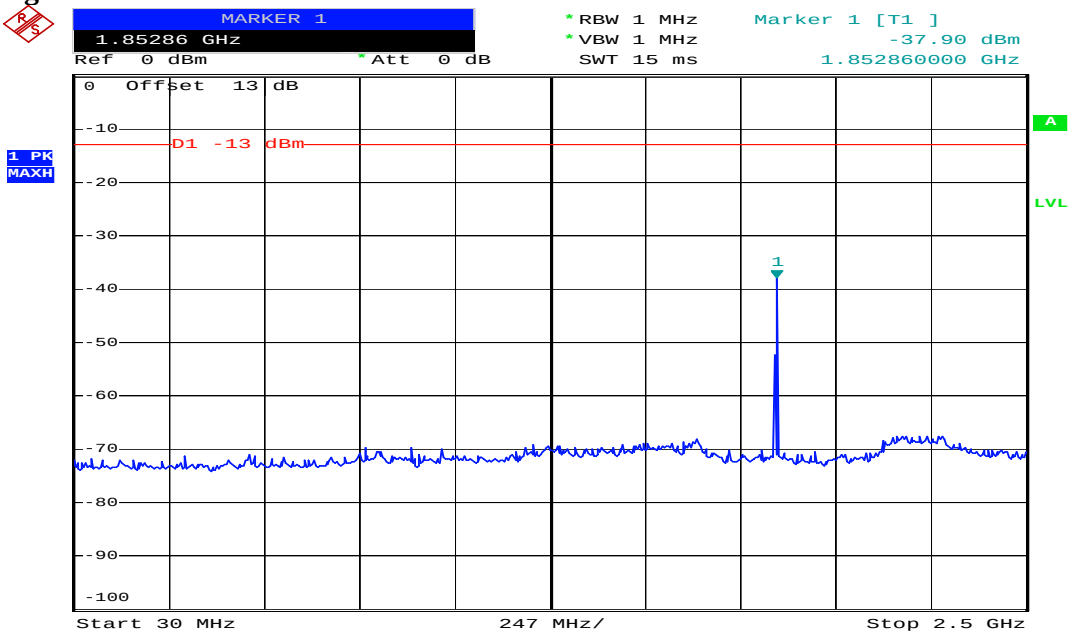
Comment: 1
Date: 19.NOV.2008 12:21:39

Figure 8-5: Band edge emission at antenna terminals –GPRS 850 Channel Highest

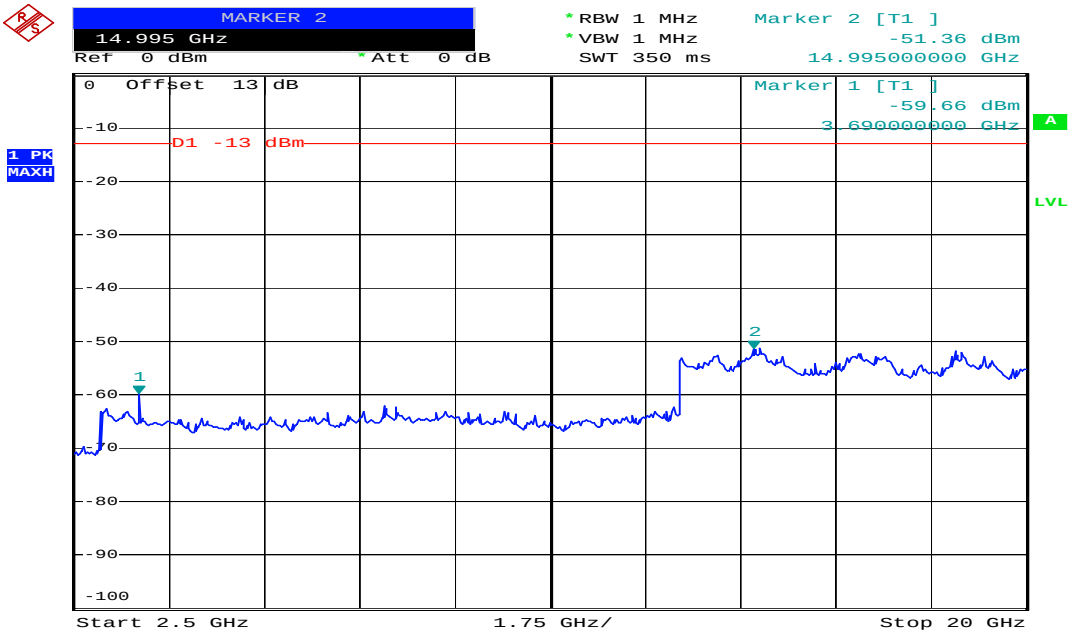


Comment: 1
Date: 19.NOV.2008 12:22:43

Figure 8-6: Out of Band emission at antenna terminals–GPRS 1900 Channel Lowest

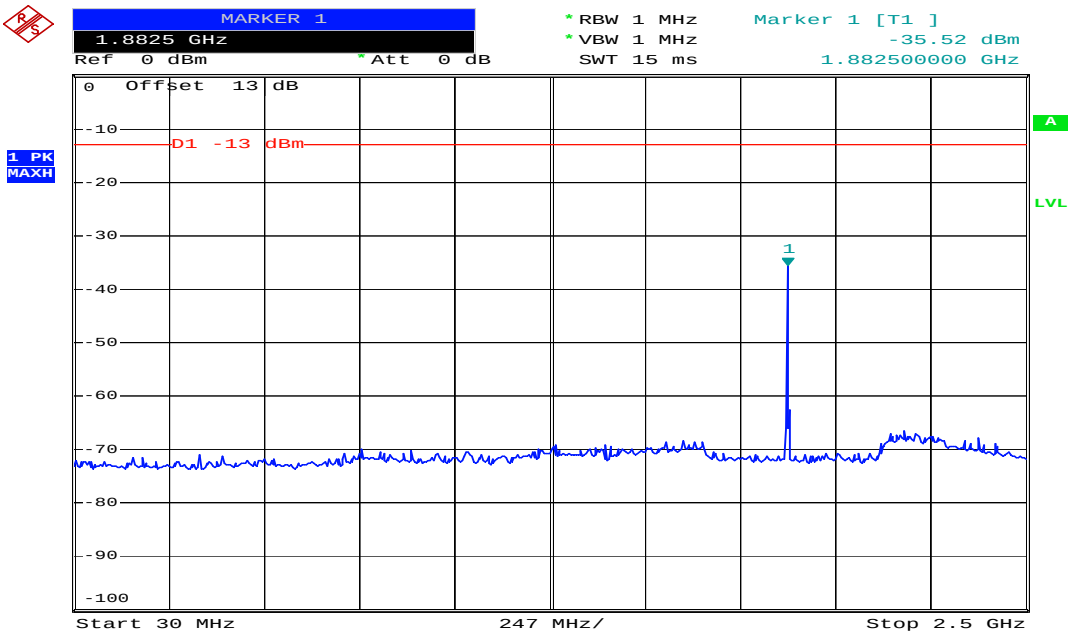


Comment: 1
Date: 19.NOV.2008 15:34:01

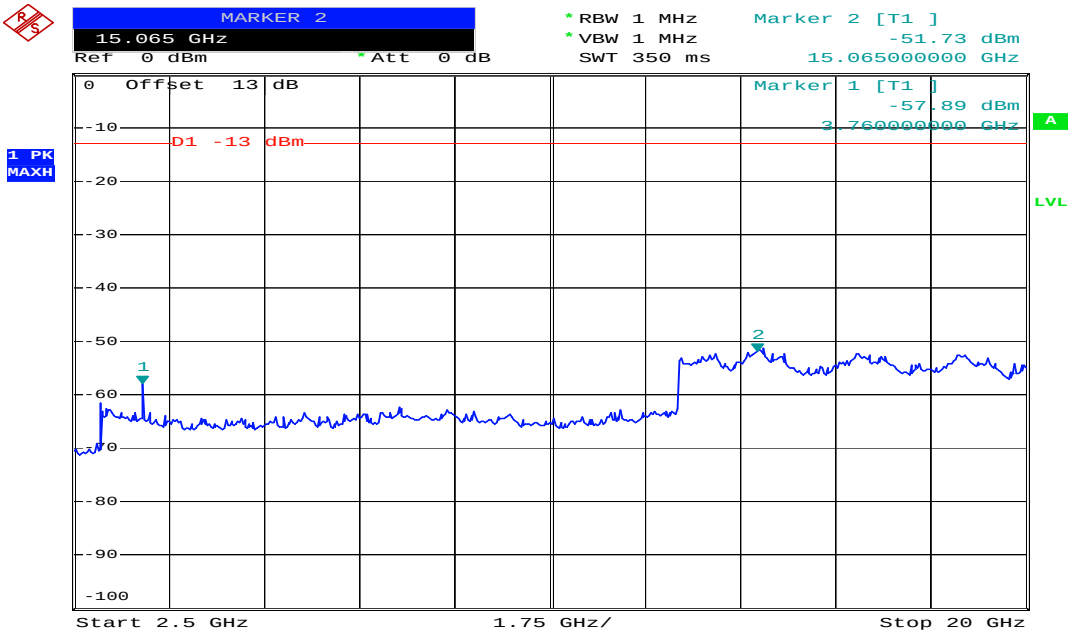


Comment: 1
Date: 19.NOV.2008 16:06:32

Figure 8-7: Out of Band emission at antenna terminals –GPRS 1900 Channel Mid

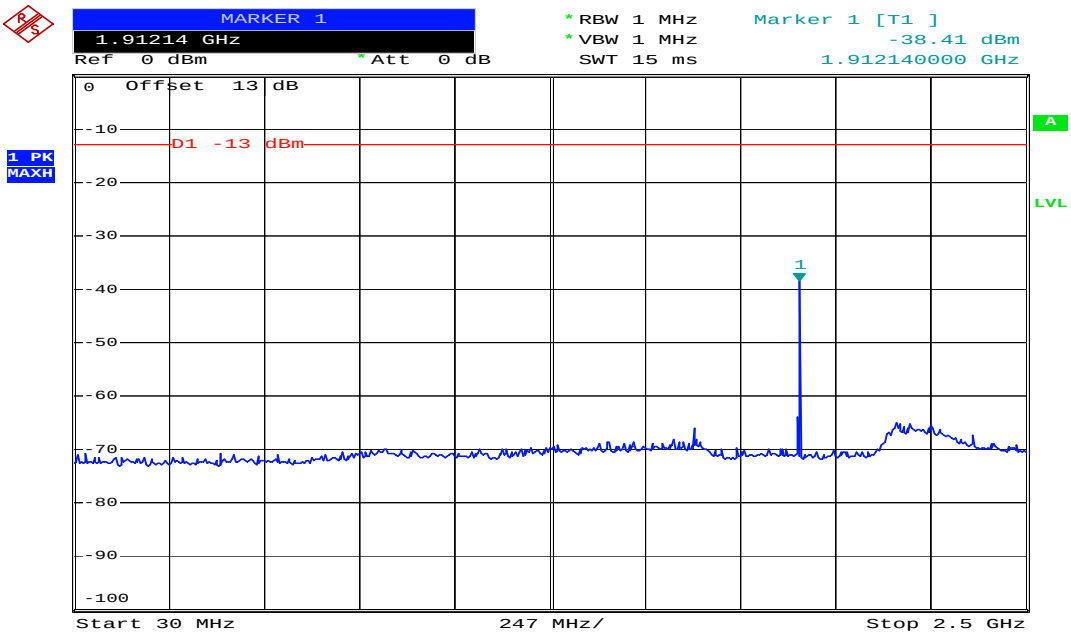


Comment: 1
Date: 19.NOV.2008 15:33:11



Comment: 1
Date: 19.NOV.2008 16:05:38

Figure 8-8: Out of Band emission at antenna terminals–GPRS 1900 Channel Highest



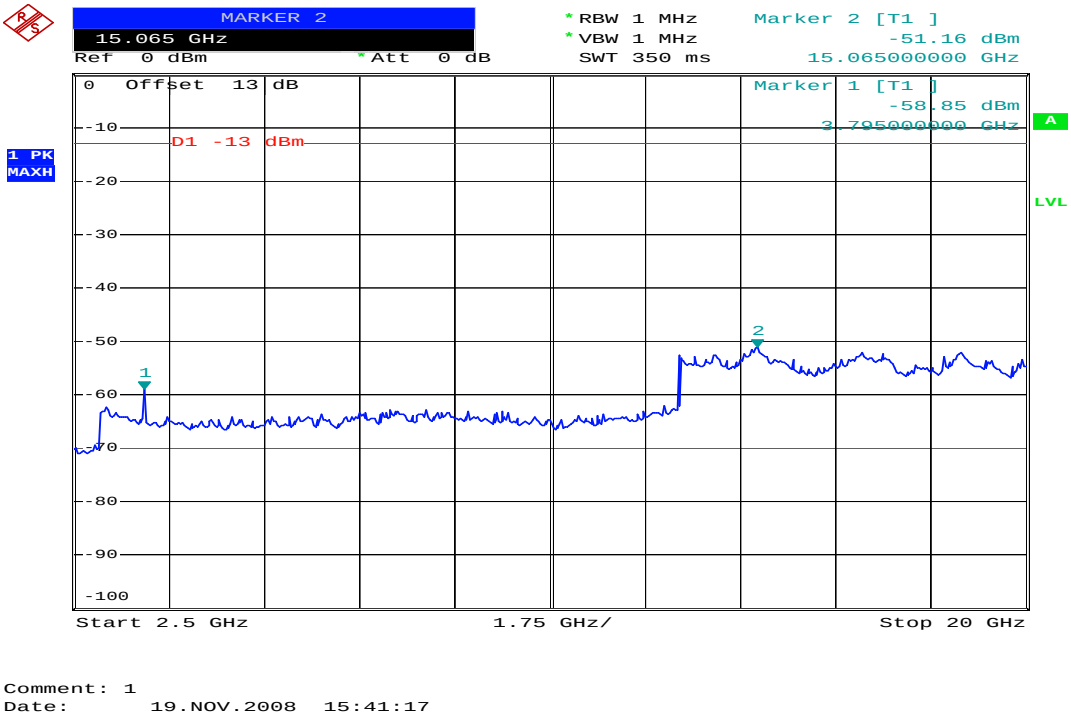
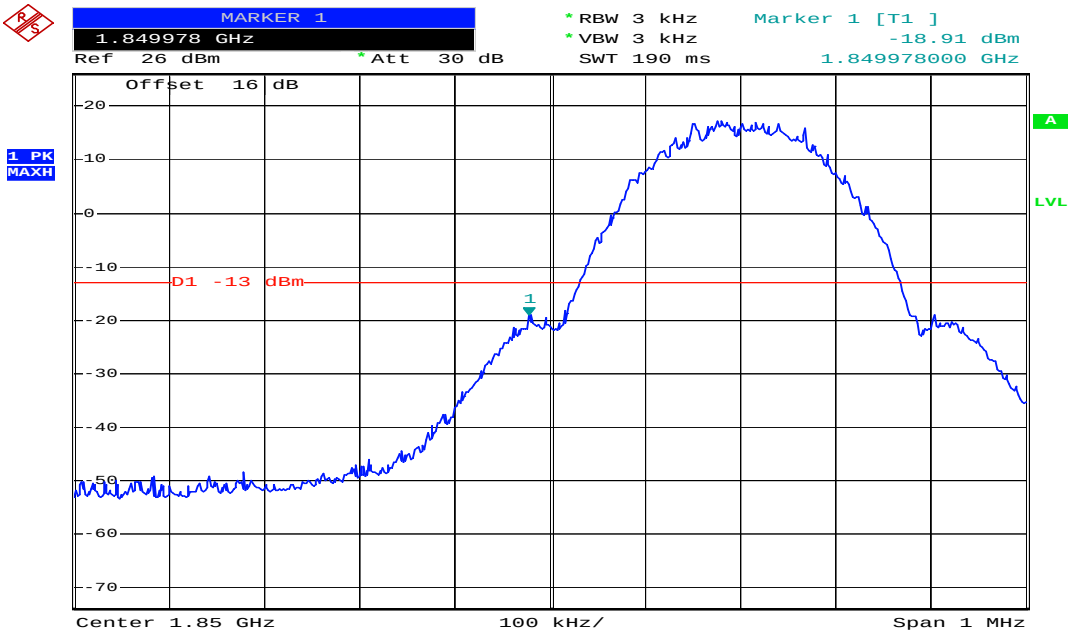
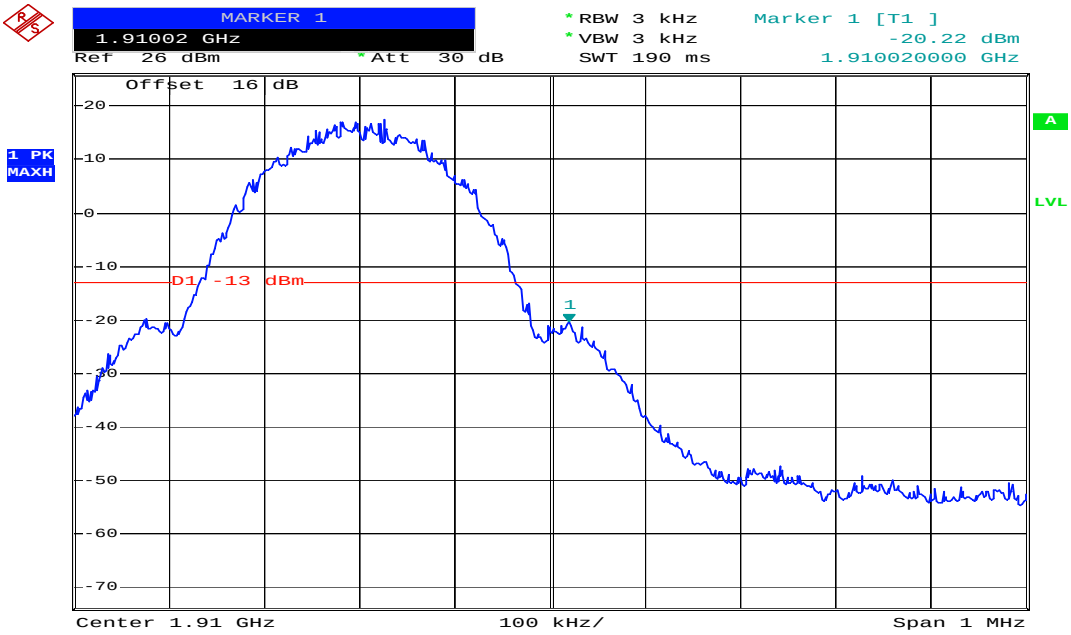


Figure 8-9: Bad edge emission at antenna terminals –GPRS 1900 Channel Lowest



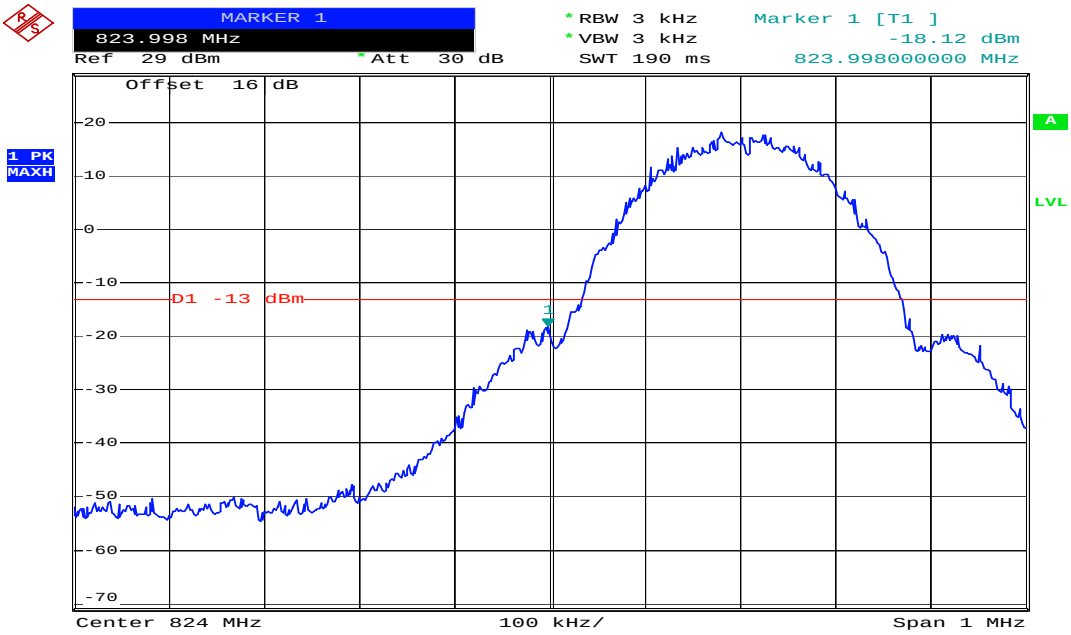
Comment: 1
Date: 19.NOV.2008 12:15:17

Figure 8-10: Band edge emission at antenna terminals –GPRS 1900 Channel Highest



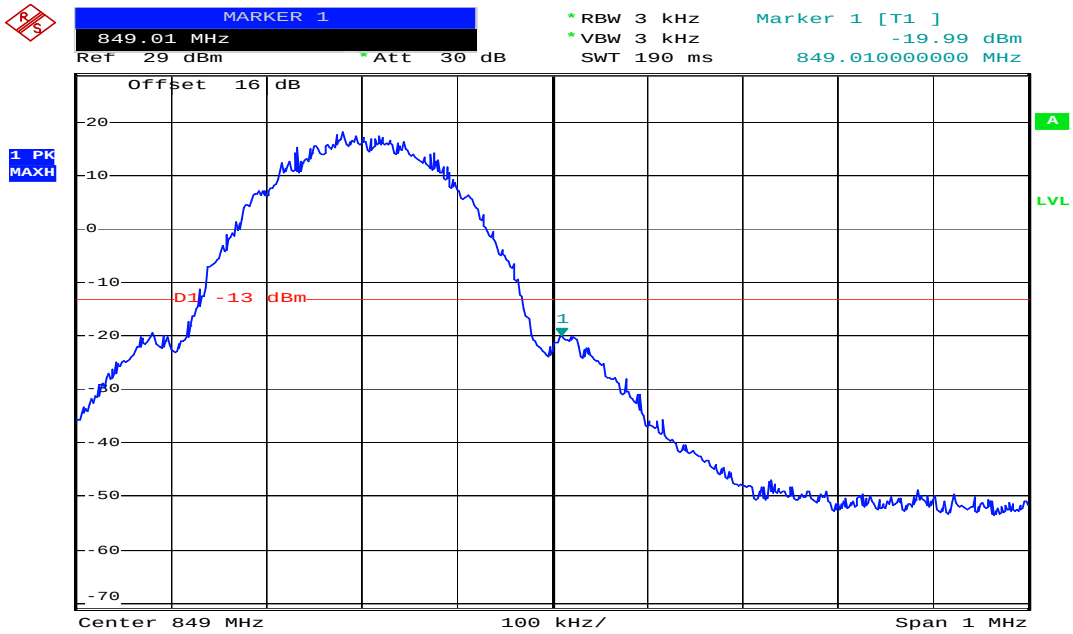
Comment: 1
Date: 19.NOV.2008 12:17:42

Figure 8-11: Band edge emission at antenna terminals –EDGE 850 Channel Lowest



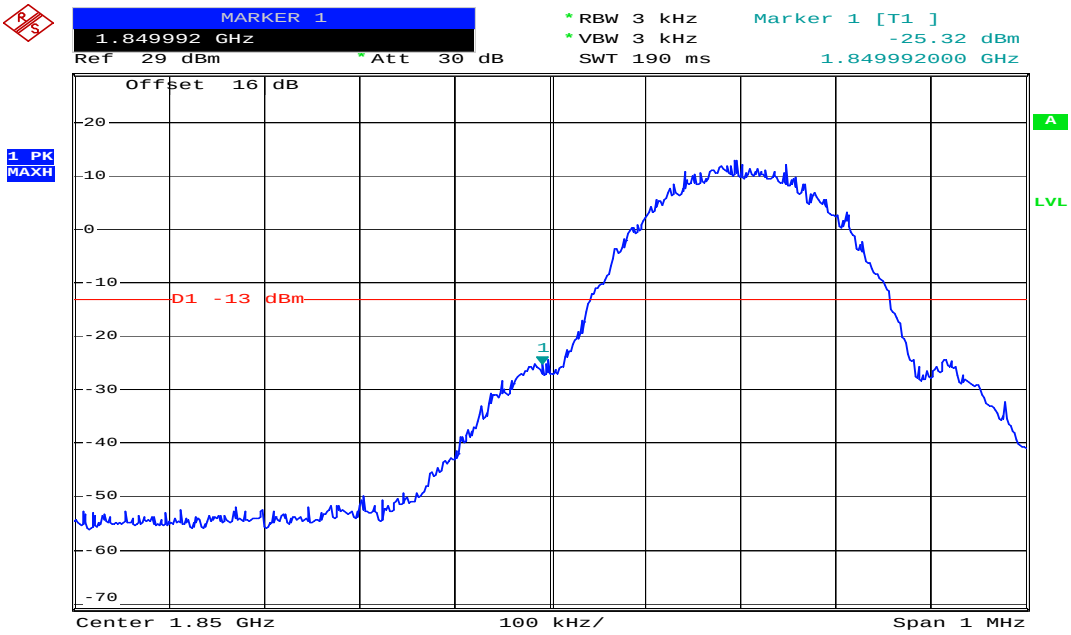
Comment: 1
Date: 19.NOV.2008 17:11:06

Figure 8-12: Band edge emission at antenna terminals –EDGE 850 Channel Highest



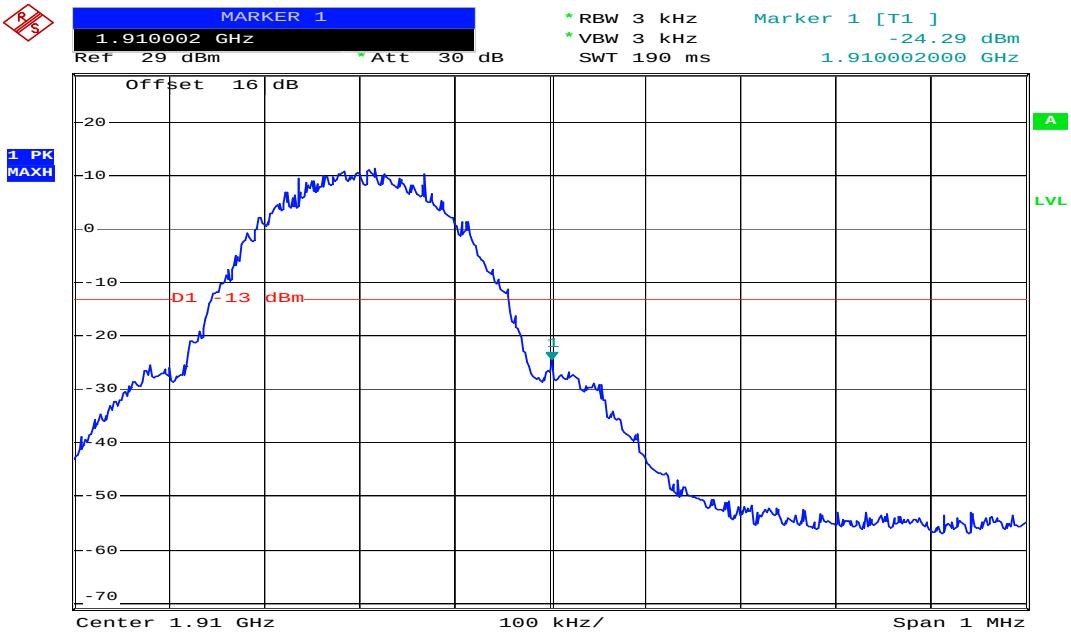
Comment: 1
Date: 19.NOV.2008 17:12:26

Figure 8-13: Bad edge emission at antenna terminals –EDGE 1900 Channel Lowest



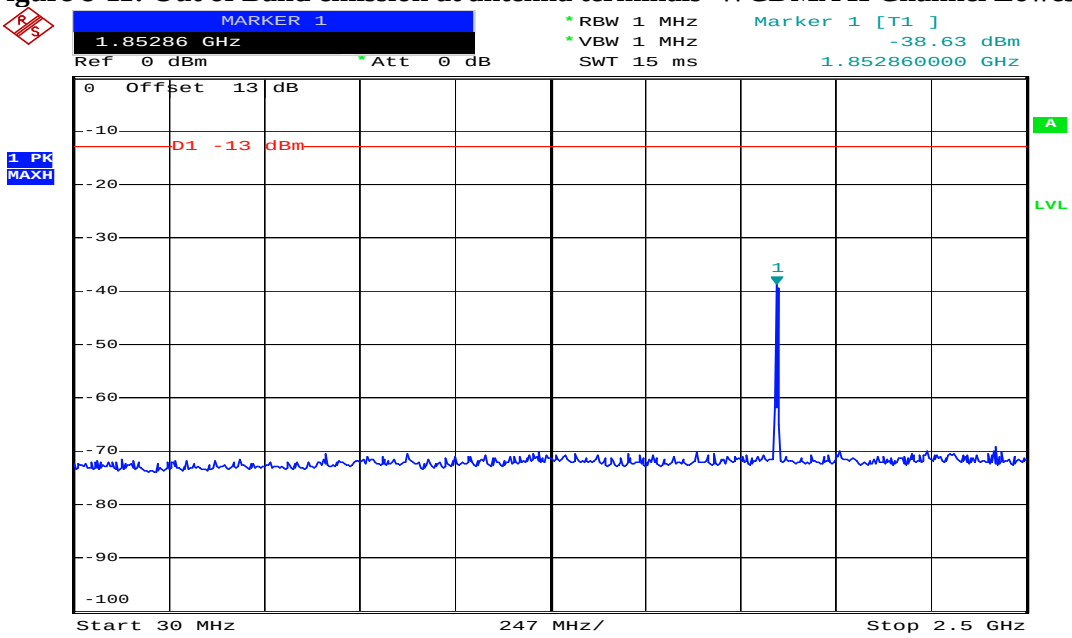
Comment: 1
Date: 19.NOV.2008 17:15:23

Figure 8-14: Band edge emission at antenna terminals –EDGE 1900 Channel Highest



Comment: 1
Date: 19.NOV.2008 17:16:04

Figure 8-11: Out of Band emission at antenna terminals–WCDMA II Channel Lowest



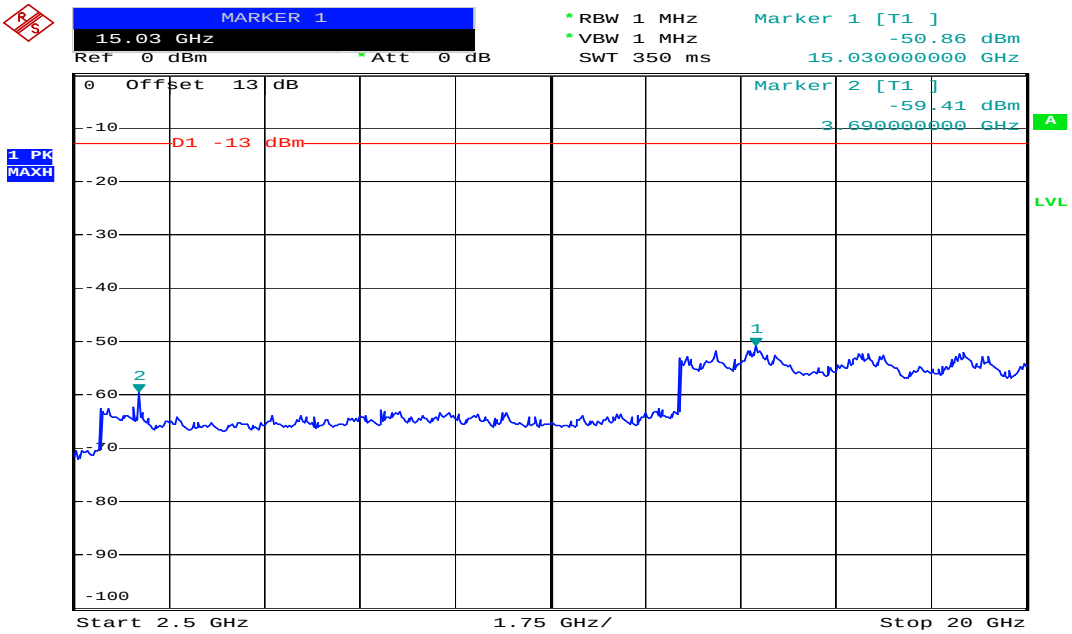
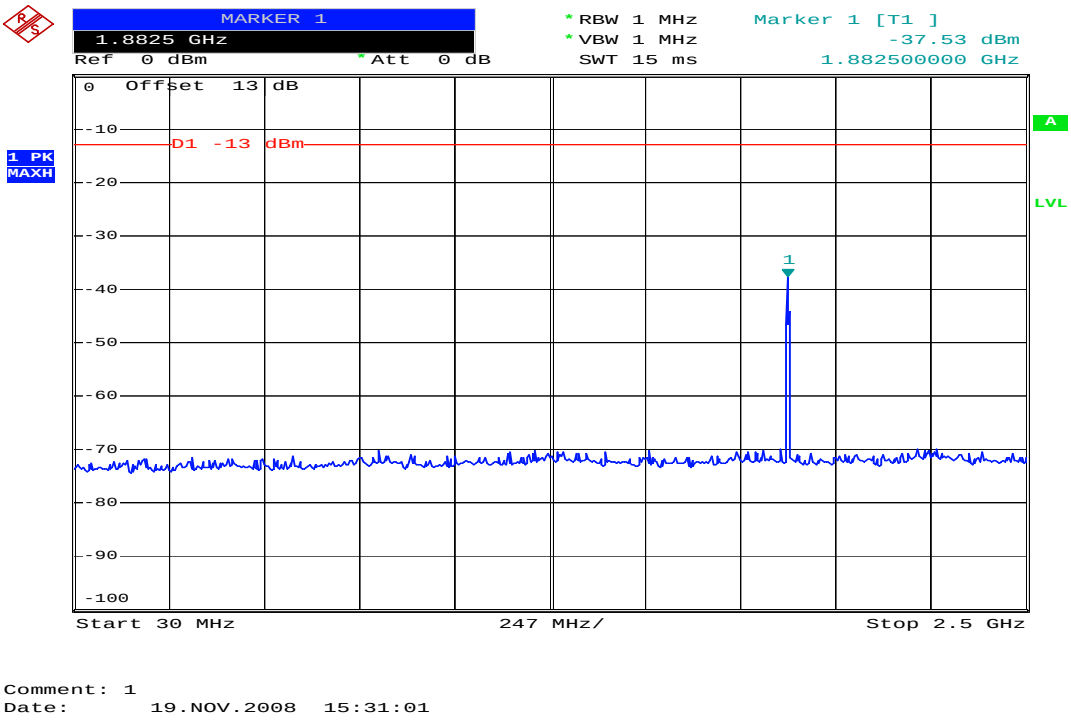


Figure 8-12: Out of Band emission at antenna terminals –WCDMA II Channel Mid



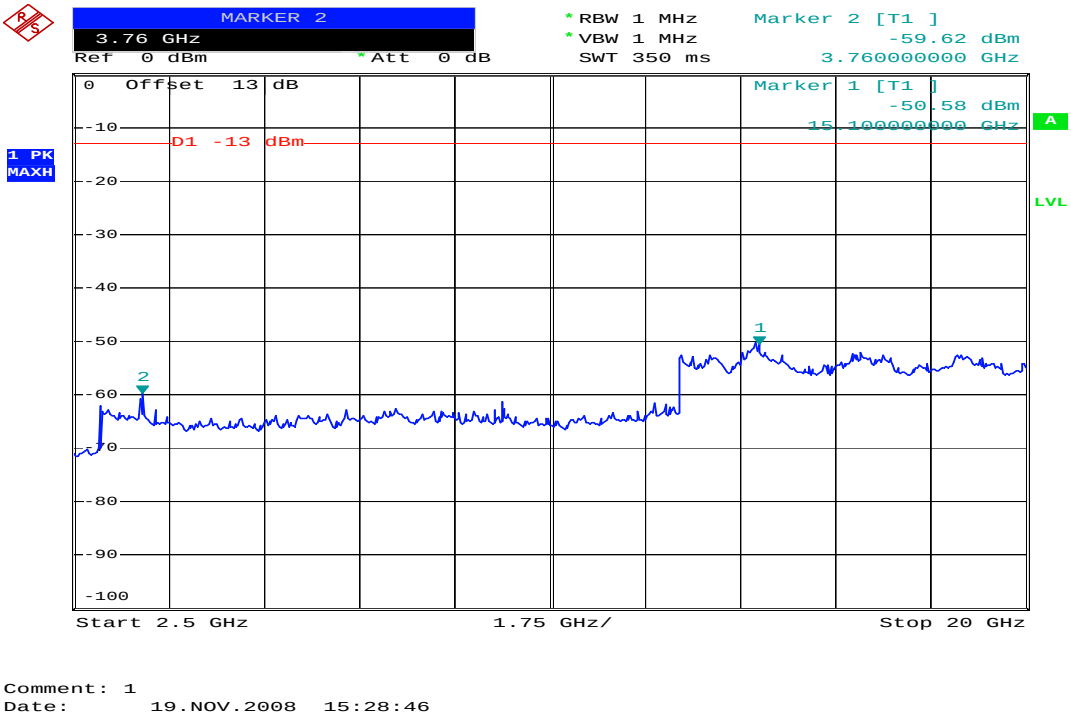
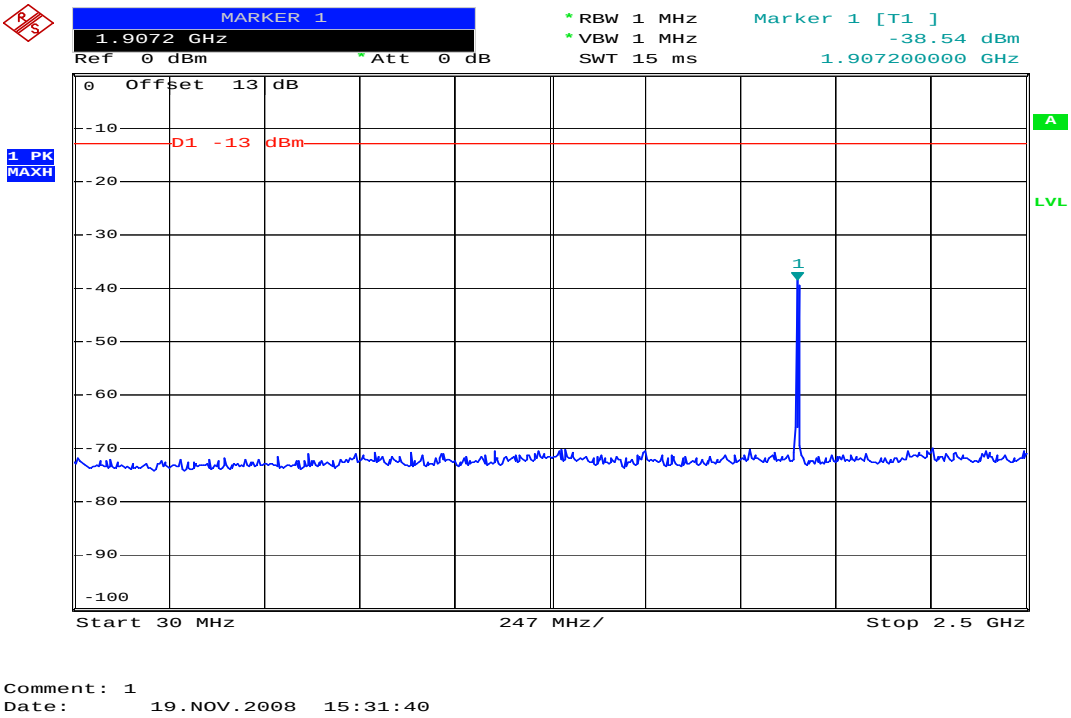


Figure 8-13: Out of Band emission at antenna terminals–WCDMA II Channel Highest



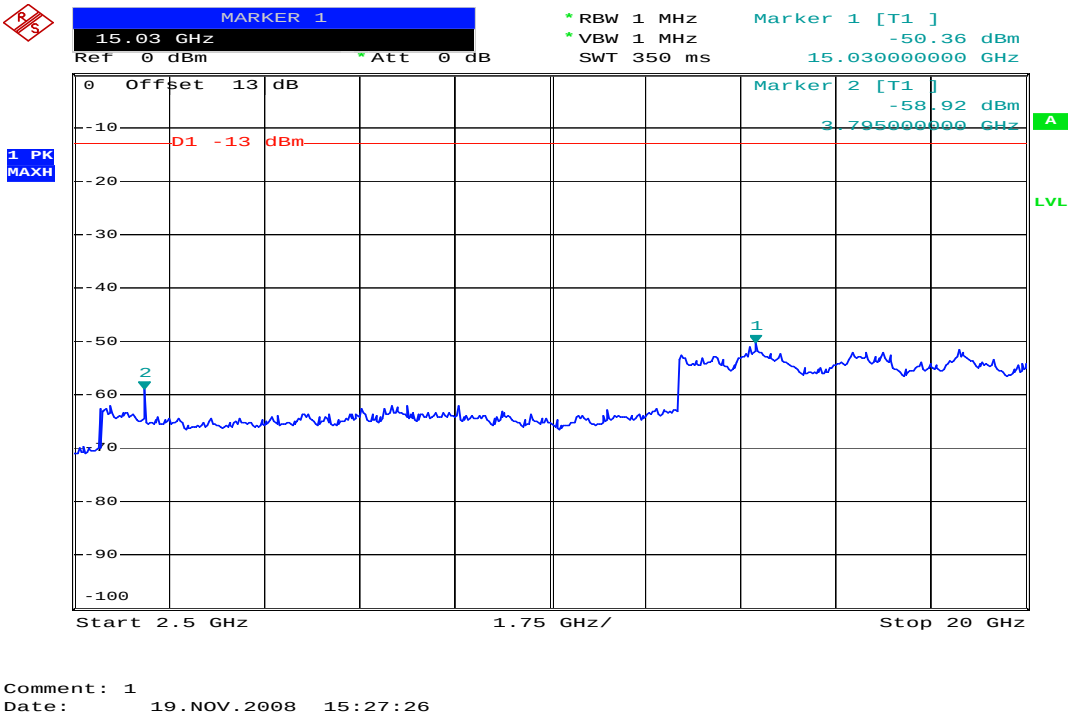
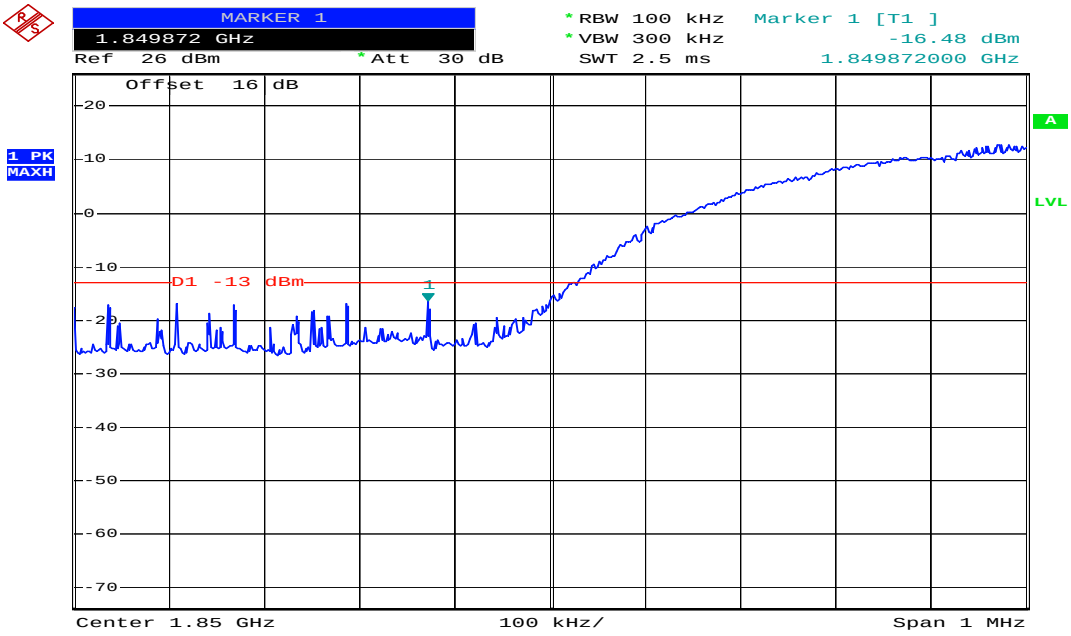
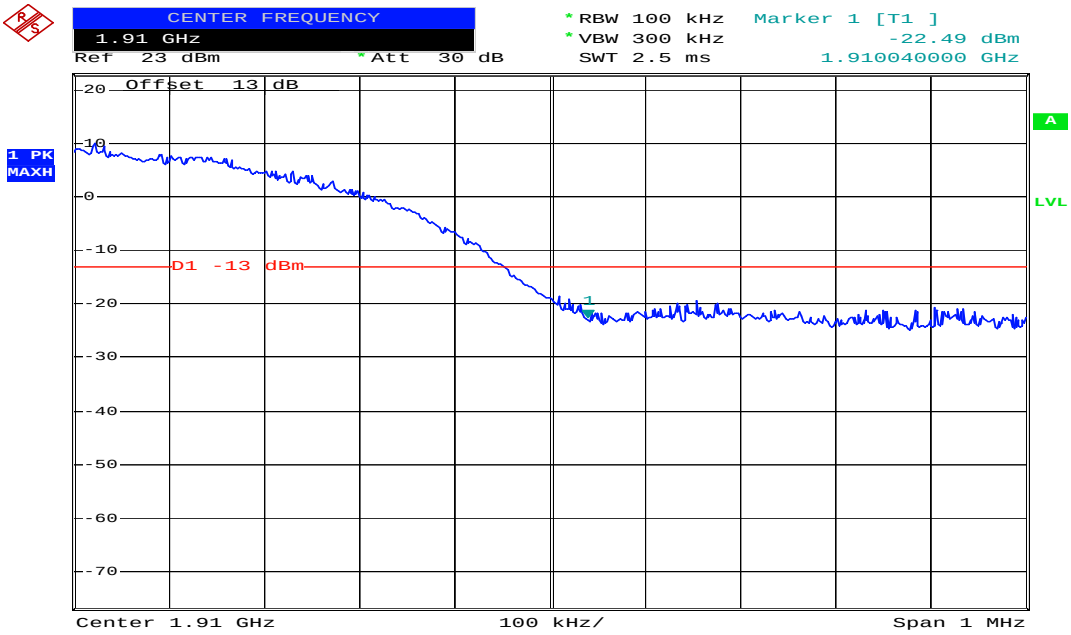


Figure 8-14: Bad edge emission at antenna terminals –WCDMA II Channel Lowest



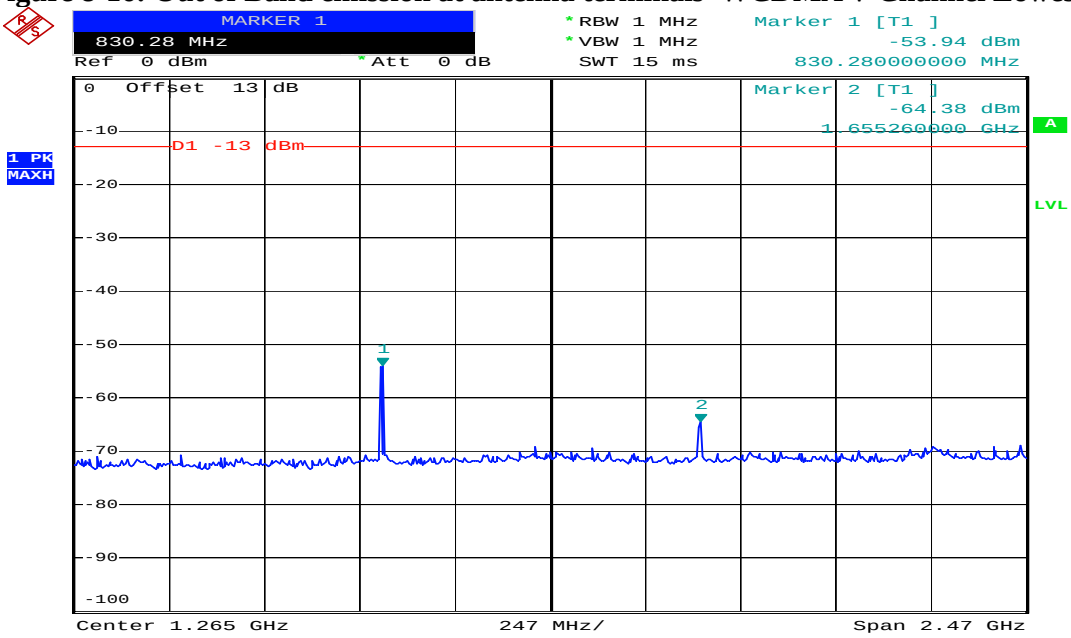
Comment: 1
Date: 19.NOV.2008 12:26:44

Figure 8-15: Band edge emission at antenna terminals –WCDMA II Channel Highest

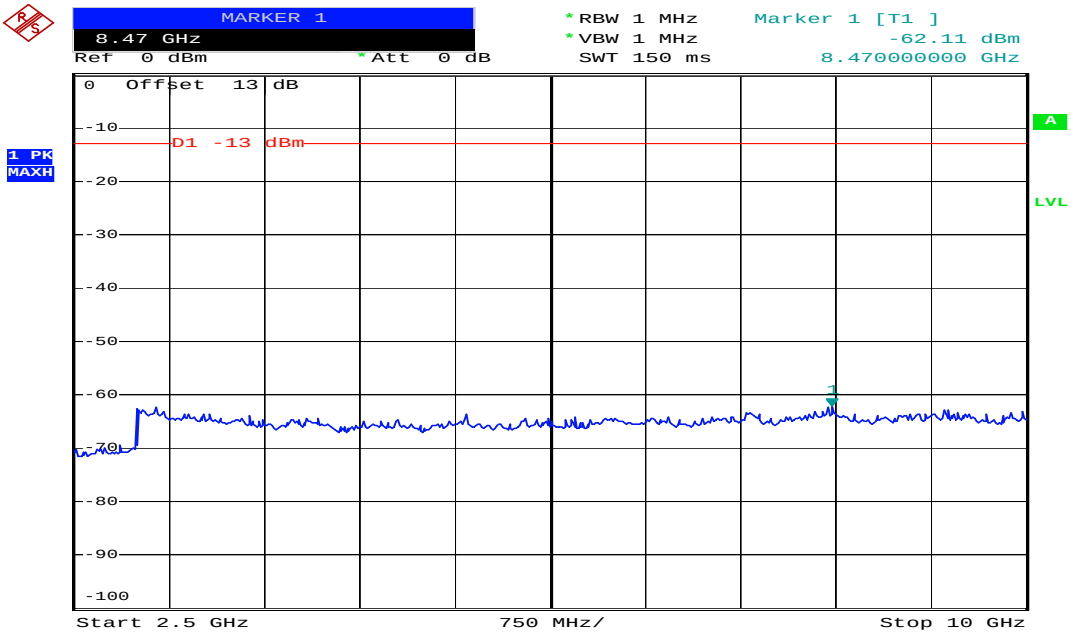


Comment: 1
Date: 19.NOV.2008 13:38:19

Figure 8-16: Out of Band emission at antenna terminals–WCDMA V Channel Lowest

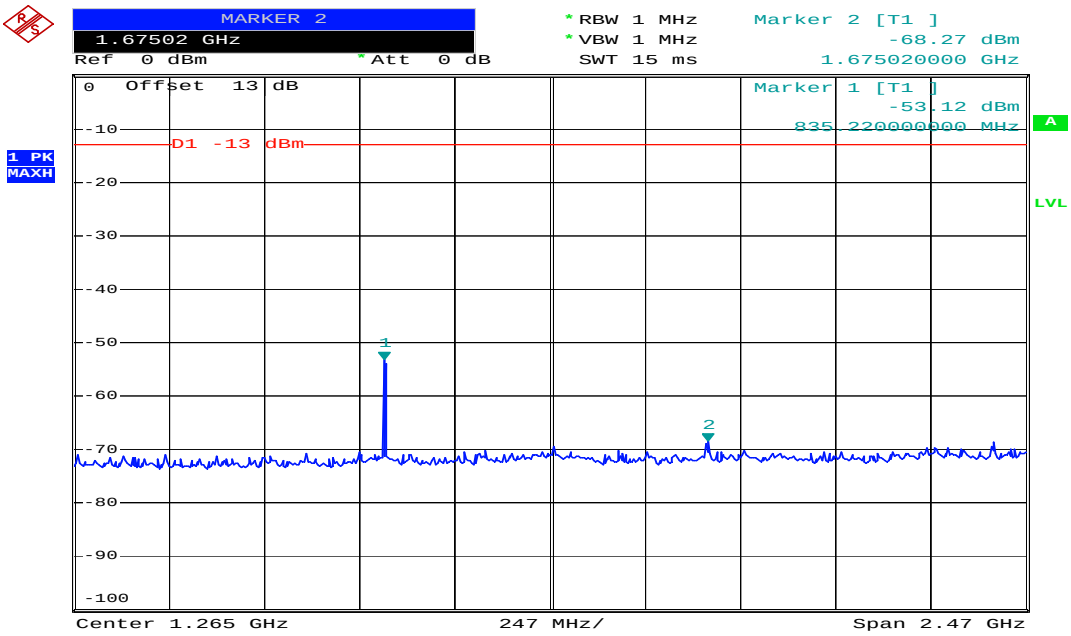


Comment: 1
Date: 19.NOV.2008 15:15:52

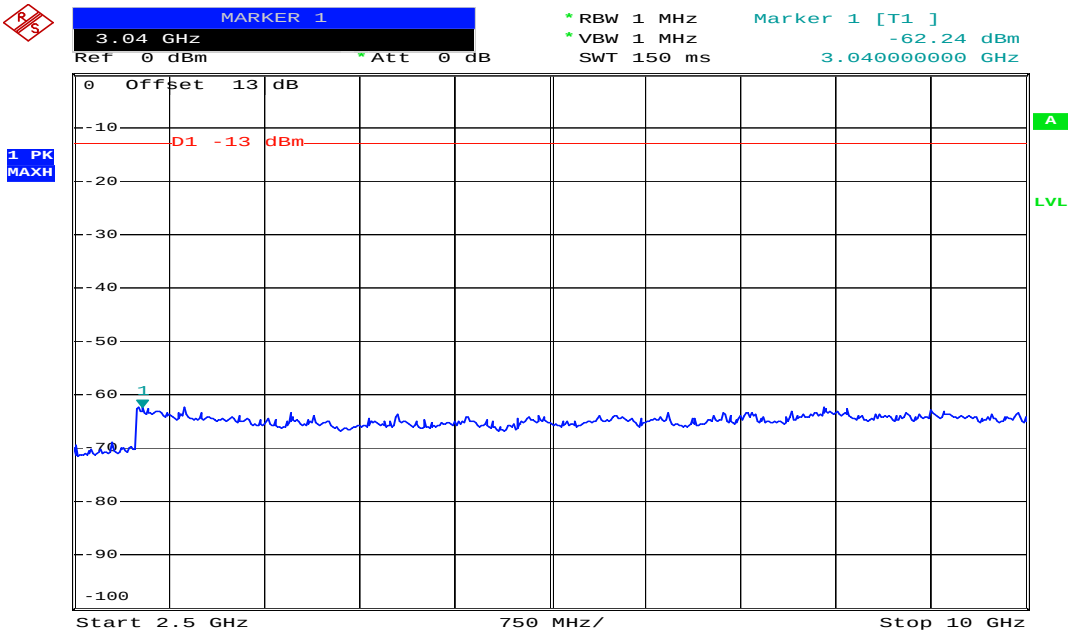


Comment: 1
Date: 19.NOV.2008 15:23:16

Figure 8-17: Out of Band emission at antenna terminals –WCDMA V Channel Mid

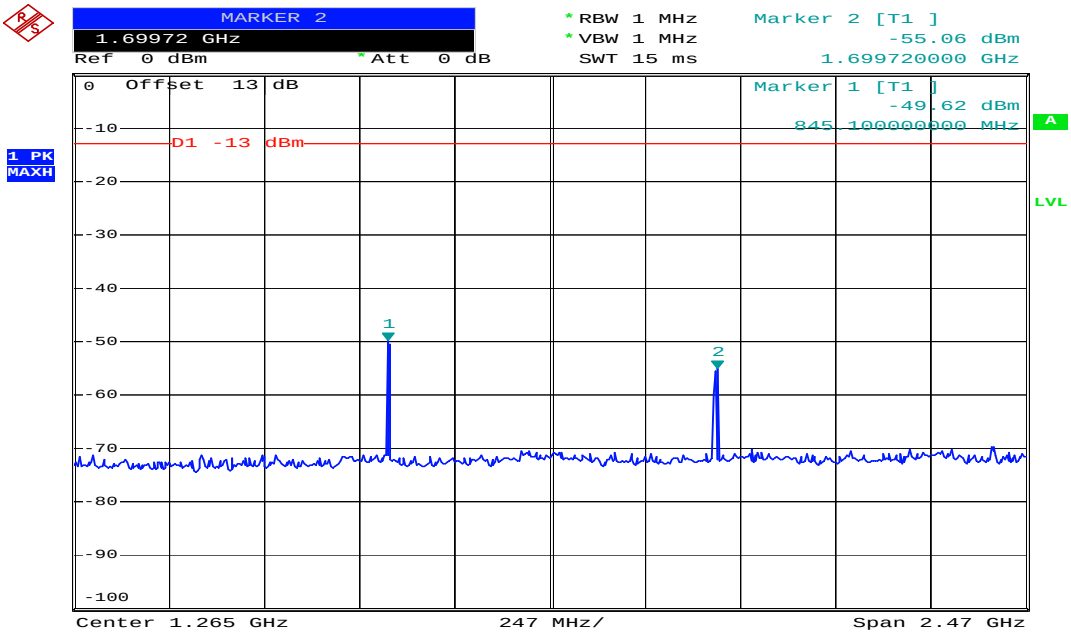


Comment: 1
Date: 19.NOV.2008 15:17:42



Comment: 1
Date: 19.NOV.2008 15:22:20

Figure 8-18: Out of Band emission at antenna terminals–WCDMA V Channel Highest



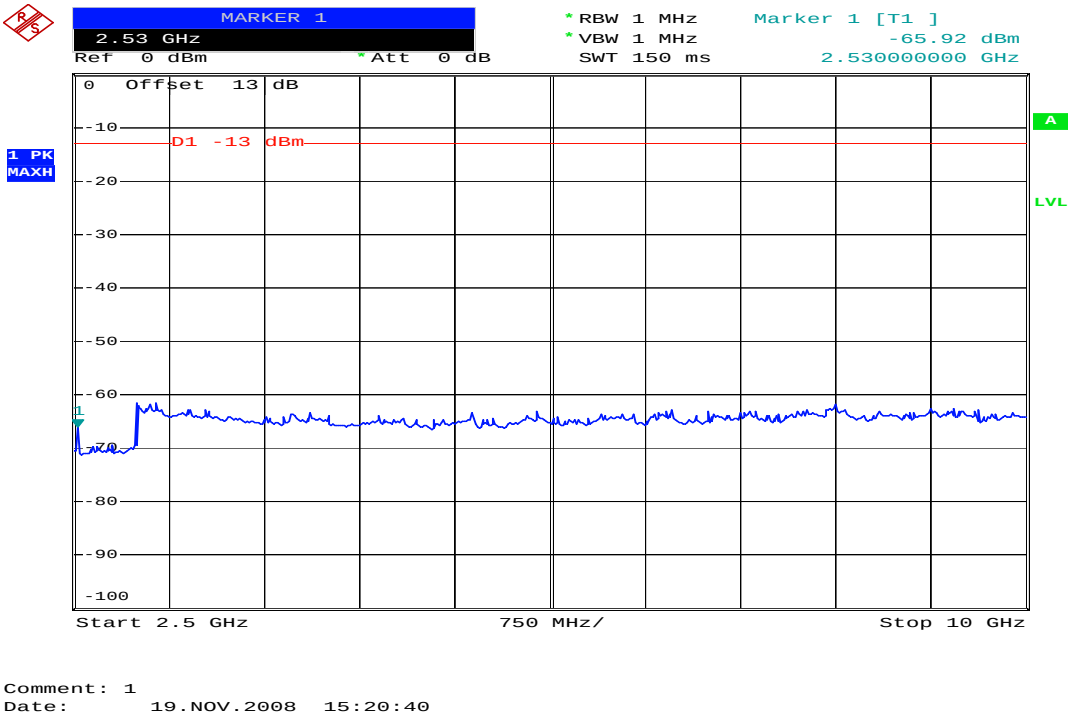
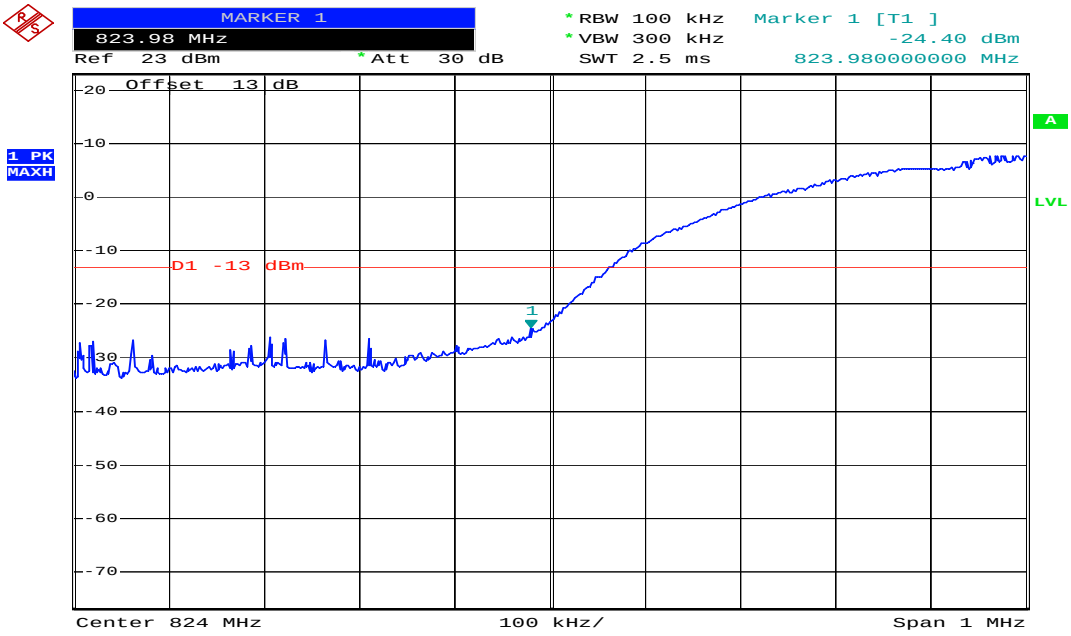
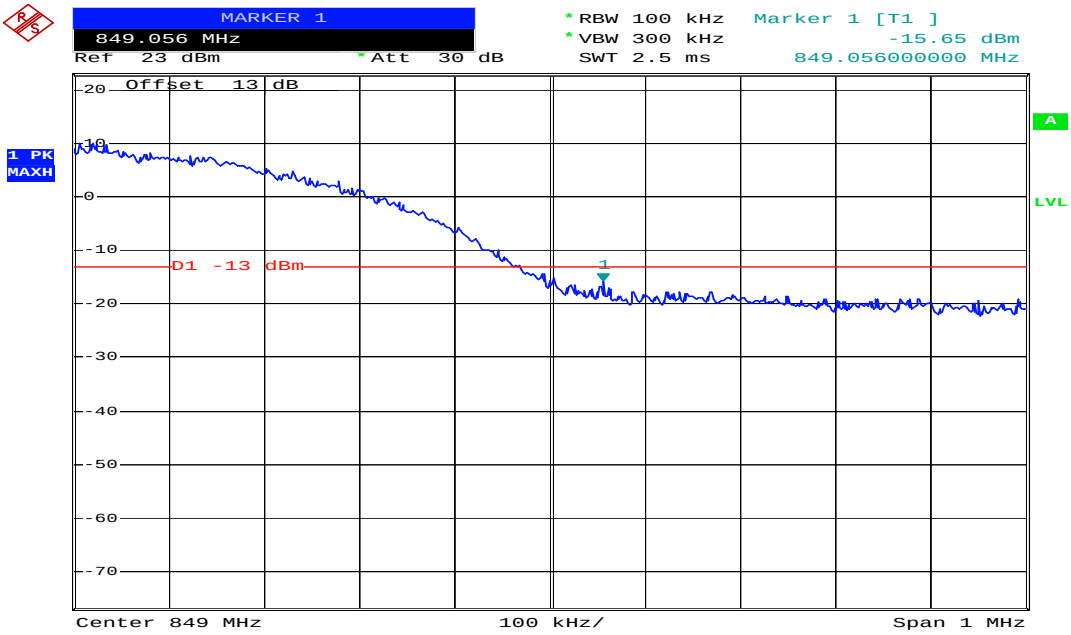


Figure 8-19: Bad edge emission at antenna terminals –WCDMA V Channel Lowest



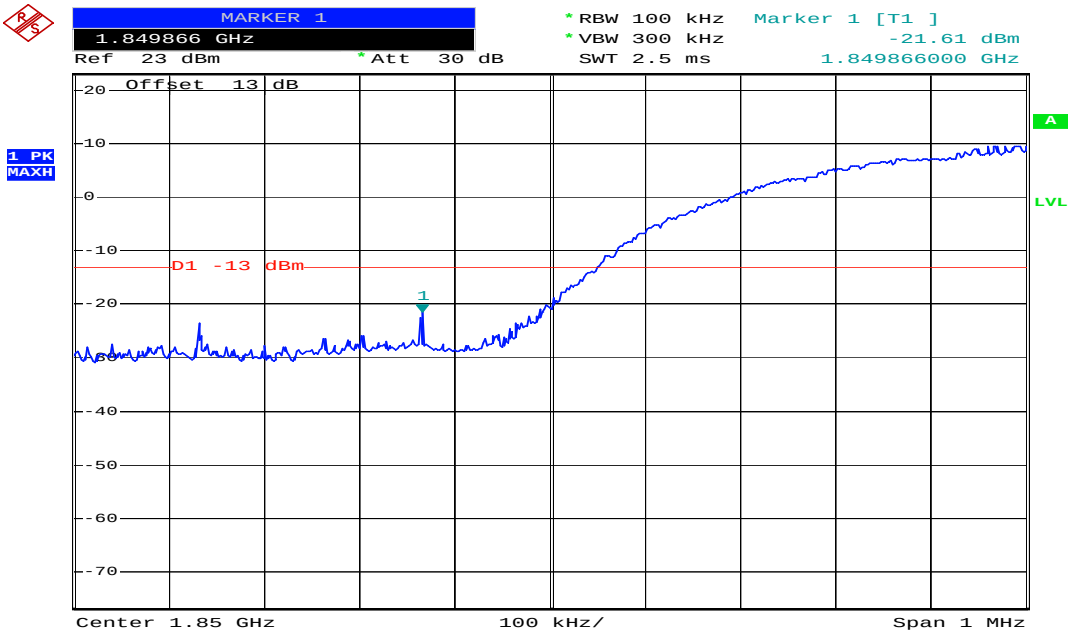
Comment: 1
Date: 19.NOV.2008 13:49:46

Figure 8-20: Band edge emission at antenna terminals –WCDMA V Channel Highest



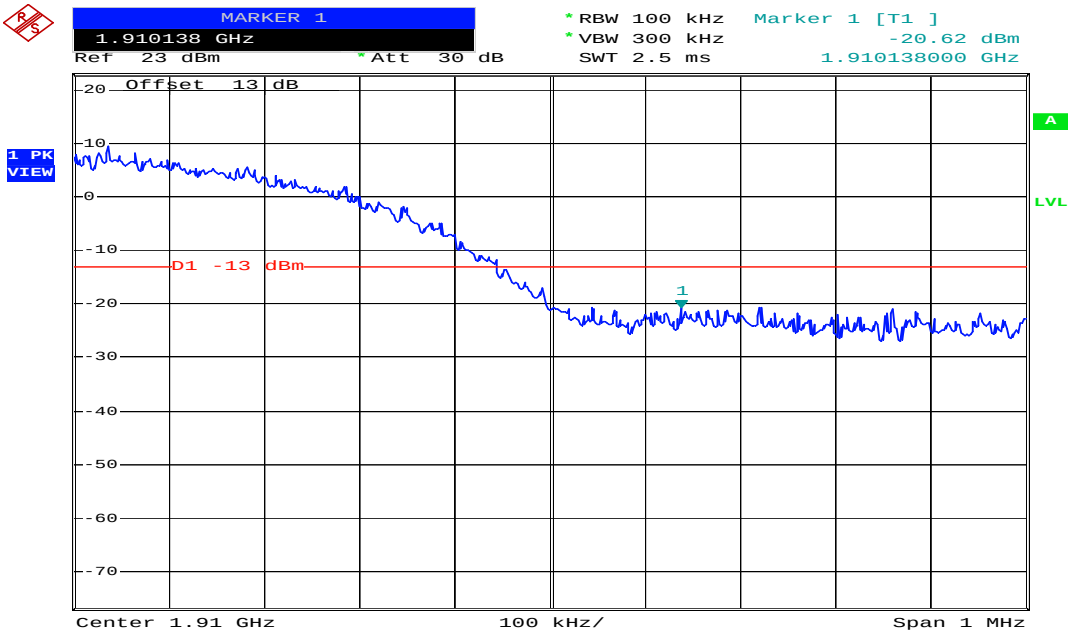
Comment: 1
Date: 19.NOV.2008 13:47:38

Figure 8-19: Bad edge emission at antenna terminals –WCDMA II HSDPA Channel Lowest



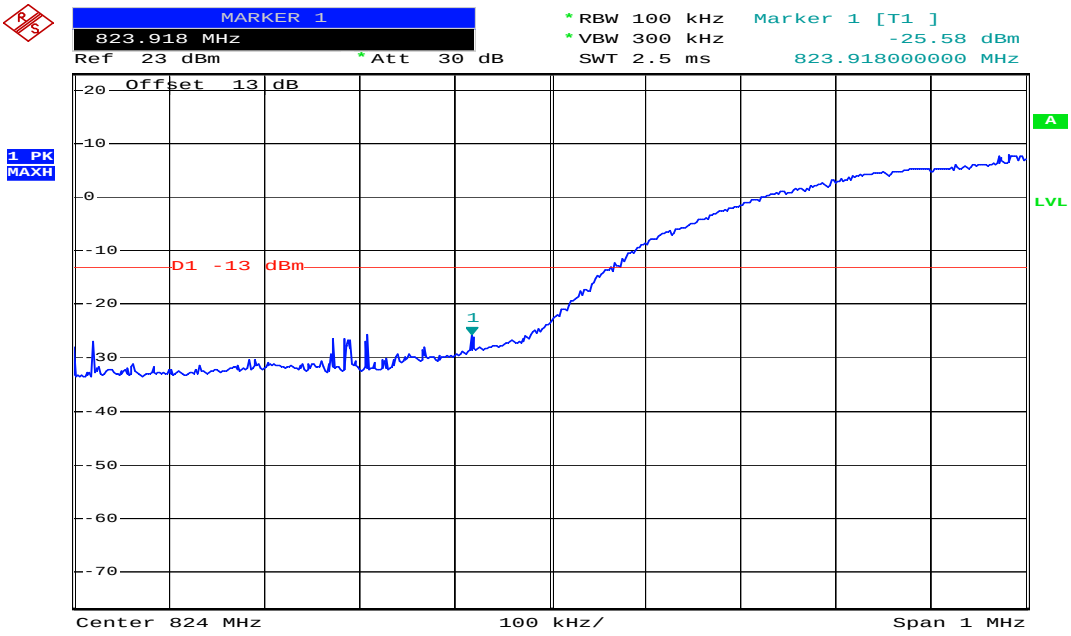
Comment: 1
Date: 19.NOV.2008 13:44:30

Figure 8-20: Band edge emission at antenna terminals –WCDMA V HSDPA Channel Highest



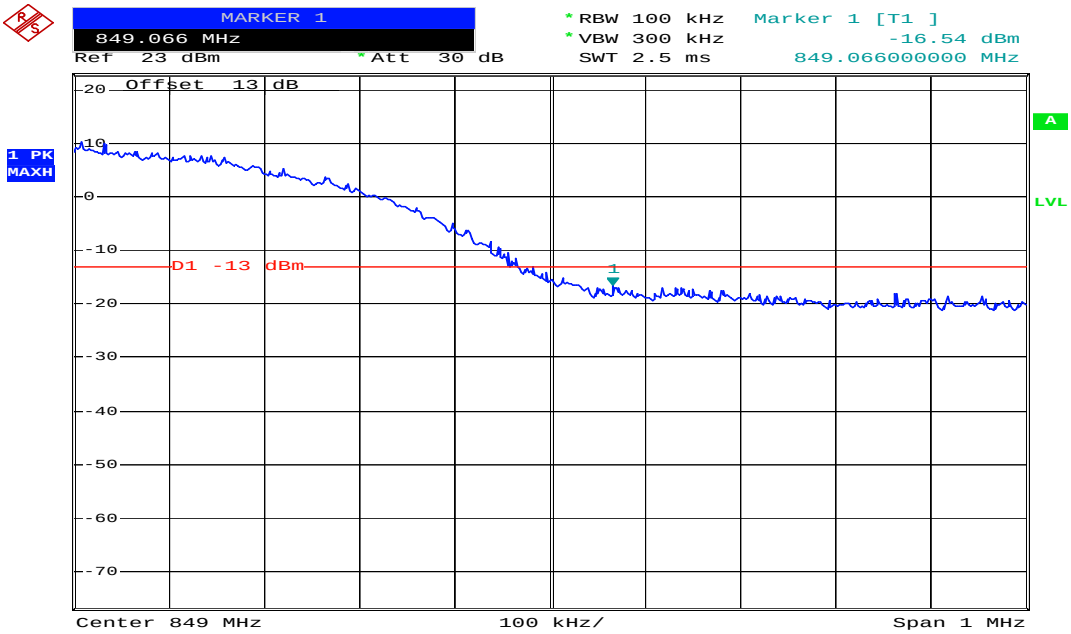
Comment: 1
Date: 19.NOV.2008 13:42:59

Figure 8-19: Bad edge emission at antenna terminals –WCDMA V HSDPA Channel Lowest



Comment: 1
Date: 19.NOV.2008 13:56:10

Figure 8-20: Band edge emission at antenna terminals –WCDMA V HSDPA Channel Highest



Comment: 1
Date: 19.NOV.2008 13:46:44

9. FIELD STRENGTH OF SPURIOUS RADIATION MEASUREMENT

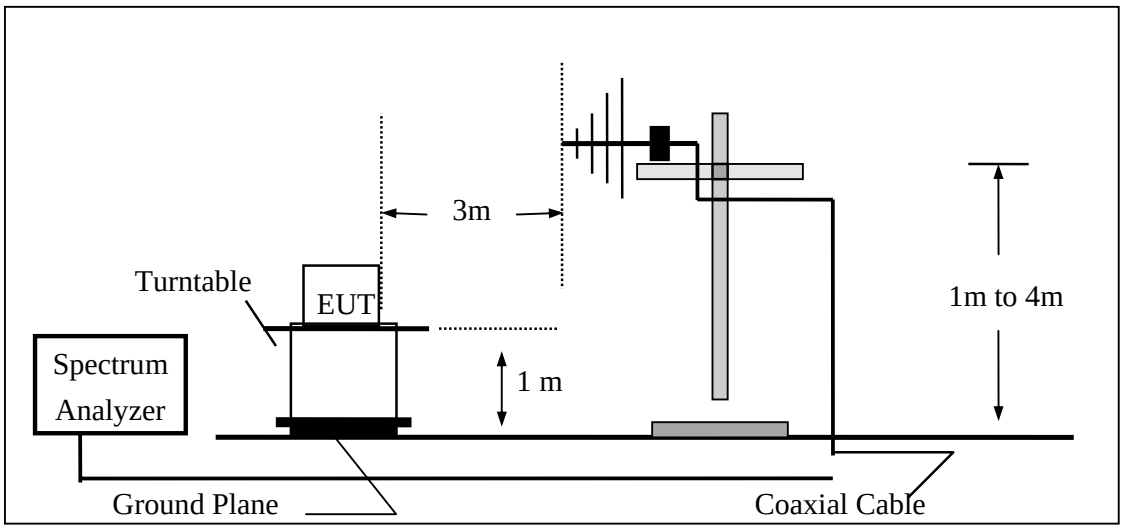
9.1 Standard Applicable

According to FCC §2.1053,

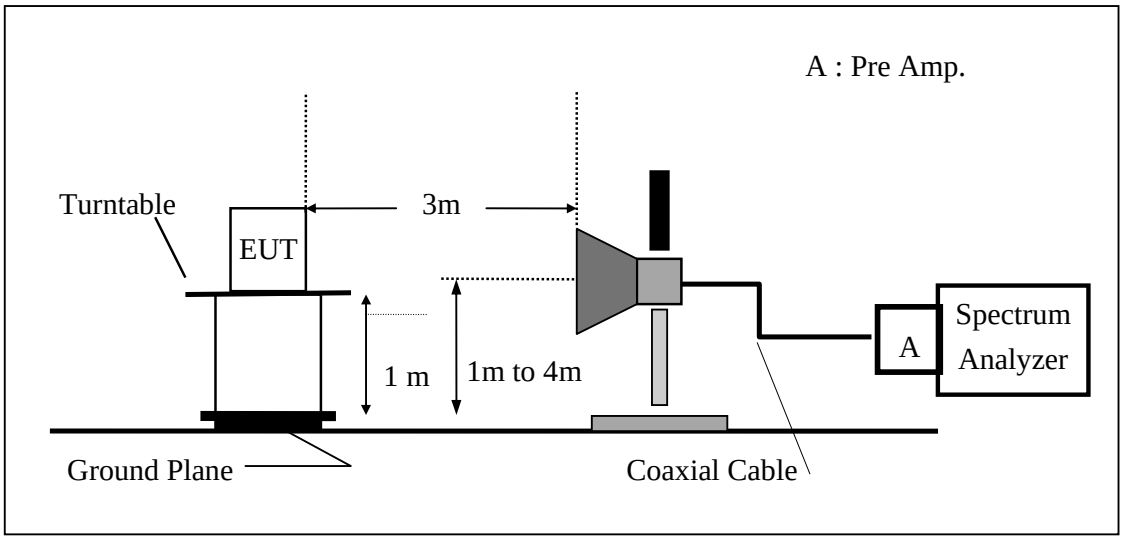
FCC §22.917(a),§24.238(a), the magnitude of each spurious and harmonic emission that can be detected when the equipment is operated under the conditions specified in the instruction manual and/ or alignment procedure, shall not be less than 43 + 10 log (mean output power in watts) dBc below the mean power output outside a license's frequency block (-13dBm)

9.2 EUT Setup (Block Diagram of Configuration)

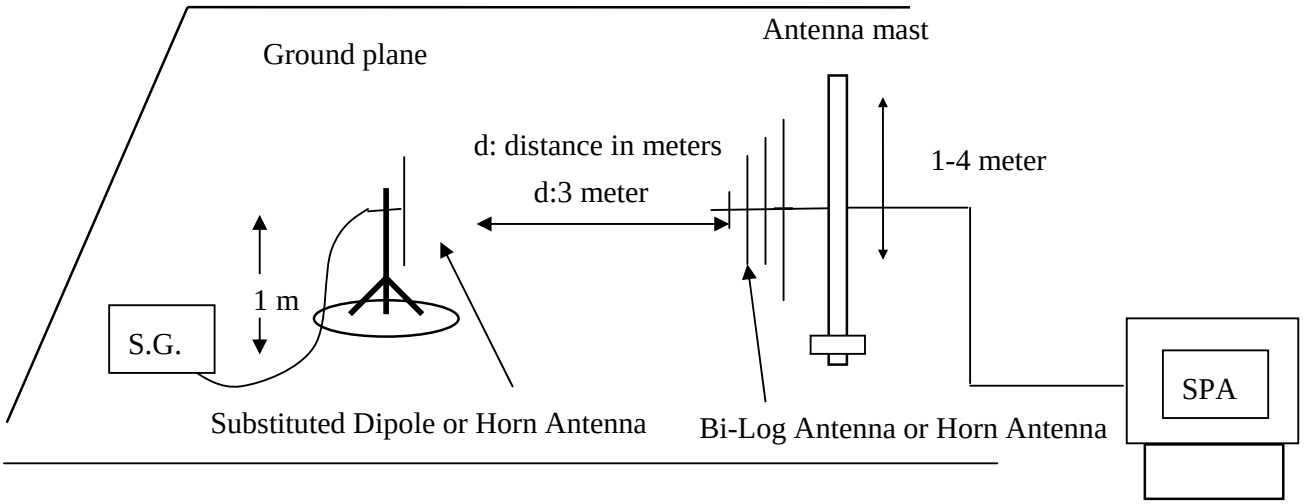
(A) Radiated Emission Test Set-Up, Frequency Below 1000MHz



(B) Radiated Emission Test Set-UP Frequency Over 1 GHz



(C) Substituted Method Test Set-UP



9.3 Measurement Procedure

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

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

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

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

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

9.4 Measurement Equipment Used:

EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL DUE.
Spectrum Analyzer	Agilent	E4446A	MY43360126	04/27/2008	04/26/2009
Spectrum Analyzer	Agilent	E7405A	US41160416	07/04/2008	07/03/2009
Communication Test	R&S	SMU200	N/A	N/A	N/A
Bi-log Antenna	SCHWAZBECK	VULB9160	3224	11/14/2008	11/13/2009
Horn antenna	SCHWAZBECK	BBHA 9120D	309/320	08/16/2008	08/15/2009
Pre-Amplifier	HP	8447D	2944A09469	07/19/2008	07/18/2009
Pre-Amplifier	HP	8494B	3008A00578	02/26/2008	02/25/2009
Signal Generator	R&S	SMR40	100210	02/09/2008	02/10/2009
Turn Table	HD	DT420	N/A	N.C.R	N.C.R
Antenna Tower	HD	MA240-N	240/657	N.C.R	N.C.R
Controller	HD	HD100	N/A	N.C.R	N.C.R
Low Loss Cable	HUBER+SUHNER	SUCOFLEX 104PEA-10M	10m	10/09/2008	10/08/2009
Low Loss Cable	HUBER+SUHNER	SUCOFLEX 104PEA-3M	3m	10/09/2008	10/08/2009
Low Loss Cable	HUBER+SUHNER	SUCOFLEX 104PEA-0.5M	0.5m	10/09/2008	10/08/2009
Site NSA	SGS	966 chamber	N/A	11/17/2008	11/16/2009
Attenuator	Mini-Circult	BW-S10W5	N/A	09/23/2008	09/22/2009
Dipole Antenna	SCHWAZBECK	VHAP	908/909	06/09/2008	06/10/2009
Dipole Antenna	SCHWAZBECK	UHAP	891/892	06/09/2008	06/10/2009
Horn antenna	SCHWAZBECK	BBHA 9120D	N/A	08/16/2008	08/15/2009

9.5 Measurement Result

Refer to attach tabular data sheets.

Radiated Spurious Emission Measurement Result: GPRS 850 Mode

Operation Mode	: TX CH Low H mode ,1Ts	Test Date:	Nov. 04, 2008
Fundamental Frequency	: 824.20 MHz	Test By:	Bondi
Temperature	: 25℃	Pol:	Ver
Humidity	: 65%		

Freq. (MHz)	SPA. Reading (dBuV)	Ant.Pol. H/V	S.G Out-put (dBm)	Antenna Gain (dB/dBi)	Cable Loss (dB)	ERP/ EIRP (dBm)	Limit (dBm)	Safe Margin (dBm)
51.34	43.44	V	-64.14	-0.58	0.91	-65.62	-13.00	-52.62
218.18	46.49	V	-55.10	-7.86	1.72	-64.68	-13.00	-51.68
261.83	44.28	V	-56.16	-7.90	1.99	-66.04	-13.00	-53.04
392.78	35.33	V	-61.00	-7.66	2.42	-71.08	-13.00	-58.08
458.74	39.01	V	-55.61	-7.70	2.59	-65.90	-13.00	-52.90
824.00	48.40	V	-38.93	-7.87	3.64	-50.45	-13.00	-37.45
1648.40	38.47	V	-68.57	9.29	5.06	-64.34	-13.00	-51.34
2472.60	43.31	V	-60.75	10.08	6.30	-56.98	-13.00	-43.98
3296.80	---	V		12.17	7.26		-13.00	
4121.00	---	V		12.61	8.33		-13.00	
4945.20	---	V		12.65	9.19		-13.00	
5769.40	---	V		13.55	9.80		-13.00	
6593.60	---	V		12.05	10.61		-13.00	
7417.80	---	V		11.49	11.28		-13.00	
8242.00	---	V		11.48	12.26		-13.00	

Measurement uncertainty	30MHz - 80MHz: 5.04dB
	80MHz -1000MHz: 3.76dB
	1GHz - 13GHz: 4.45dB

Remark：

1 The emission behaviors belong to narrowband spurious emission.

2 Remark"---" means that the emission level is too low to be measured

3 The result basic equation calculation is as follows:

4 ERP/EIRP (dBm) = SG Setting(dBm) + Antenna Gain (dB/dBi) – Cable loss (dB)

Radiated Spurious Emission Measurement Result: GPRS 850 Mode

Operation Mode	: TX CH Low H mode ,1Ts	Test Date:	Nov. 04, 2008
Fundamental Frequency	: 824.20 MHz	Test By:	Bondi
Temperature	: 25℃	Pol:	Hor
Humidity	: 65%		

Freq. (MHz)	SPA. Reading (dBuV)	Ant.Pol. H/V	S.G Out-put (dBm)	Antenna Gain (dB/dBi)	Cable Loss (dB)	ERP/ EIRP (dBm)	Limit (dBm)	Safe Margin (dBm)
70.74	41.27	H	-71.04	-1.18	1.02	-73.24	-13.00	-60.24
250.19	45.26	H	-55.64	-7.89	1.99	-65.51	-13.00	-52.51
397.63	36.79	H	-59.59	-7.66	2.42	-69.66	-13.00	-56.66
455.83	36.79	H	-58.43	-7.70	2.58	-68.72	-13.00	-55.72
531.49	36.74	H	-56.12	-7.75	2.74	-66.60	-13.00	-53.60
824.00	56.42	H	-31.24	-7.87	3.64	-42.76	-13.00	-29.76
1648.40	43.62	H	-63.39	9.29	5.06	-59.16	-13.00	-46.16
2472.60	44.44	H	-59.62	10.08	6.30	-55.84	-13.00	-42.84
3296.80	---	H		12.17	7.26		-13.00	
4121.00	---	H		12.61	8.33		-13.00	
4945.20	---	H		12.65	9.19		-13.00	
5769.40	---	H		13.55	9.80		-13.00	
6593.60	---	H		12.05	10.61		-13.00	
7417.80	---	H		11.49	11.28		-13.00	
8242.00	---	H		11.48	12.26		-13.00	

Measurement uncertainty	30MHz - 80MHz: 5.04dB
	80MHz -1000MHz: 3.76dB
	1GHz - 13GHz: 4.45dB

Remark：

1 The emission behaviors belong to narrowband spurious emission.

2 Remark"---" means that the emission level is too low to be measured

3 The result basic equation calculation is as follows:

4 ERP/EIRP (dBm) = SG Setting(dBm) + Antenna Gain (dB/dBi) – Cable loss (dB)

Radiated Spurious Emission Measurement Result: GPRS 850 Mode

Operation Mode	: TX CH Mid H mode ,1Ts	Test Date:	Nov. 04, 2008
Fundamental Frequency	: 836.60 MHz	Test By:	Bondi
Temperature	: 25℃	Pol:	Ver
Humidity	: 65%		

Freq. (MHz)	SPA. Reading (dBuV)	Ant.Pol. H/V	S.G Out-put (dBm)	Antenna Gain (dB/dBi)	Cable Loss (dB)	ERP/ EIRP (dBm)	Limit (dBm)	Safe Margin (dBm)
130.88	38.71	V	-61.23	-7.78	1.37	-70.39	-13.00	-57.39
218.18	46.16	V	-55.43	-7.86	1.72	-65.01	-13.00	-52.01
259.89	43.42	V	-57.06	-7.90	1.99	-66.94	-13.00	-53.94
392.78	35.59	V	-60.74	-7.66	2.42	-70.82	-13.00	-57.82
458.74	39.87	V	-54.75	-7.70	2.59	-65.04	-13.00	-52.04
1673.20	39.03	V	-68.00	9.36	5.10	-63.74	-13.00	-50.74
2509.80	---	V		10.09	6.35		-13.00	
3346.40	---	V		12.28	7.29		-13.00	
4183.00	---	V		12.62	8.40		-13.00	
5019.60	---	V		12.67	9.26		-13.00	
5856.20	---	V		13.68	9.85		-13.00	
6692.80	---	V		11.95	10.74		-13.00	
7529.40	---	V		11.45	11.35		-13.00	
8366.00	---	V		11.59	12.43		-13.00	

Measurement uncertainty	30MHz - 80MHz: 5.04dB
	80MHz -1000MHz: 3.76dB
	1GHz - 13GHz: 4.45dB

Remark：

1 The emission behaviors belongs to narrowband spurious emission.

2 Remark"---" means that the emission level is too low to be measured

3 The result basic equation calculation is as follows:

4 ERP/EIRP (dBm) = SG Setting(dBm) + Antenna Gain (dB/dBi) – Cable loss (dB)

Radiated Spurious Emission Measurement Result: GPRS 850 Mode

Operation Mode	: TX CH Mid H mode ,1Ts	Test Date:	Nov. 04, 2008
Fundamental Frequency	: 836.60 MHz	Test By:	Bondi
Temperature	: 25℃	Pol:	Hor
Humidity	: 65%		

Freq. (MHz)	SPA. Reading (dBuV)	Ant.Pol. H/V	S.G Out-put (dBm)	Antenna Gain (dB/dBi)	Cable Loss (dB)	ERP/ EIRP (dBm)	Limit (dBm)	Safe Margin (dBm)
51.34	42.04	H	-65.61	-0.58	0.91	-67.10	-13.00	-54.10
221.09	42.23	H	-59.19	-7.86	1.74	-68.79	-13.00	-55.79
264.74	41.18	H	-59.34	-7.90	1.99	-69.22	-13.00	-56.22
383.08	37.46	H	-59.16	-7.65	2.43	-69.25	-13.00	-56.25
531.49	36.70	H	-56.16	-7.75	2.74	-66.64	-13.00	-53.64
1673.20	42.76	H	-64.24	9.36	5.10	-59.97	-13.00	-46.97
2509.80	43.59	H	-60.28	10.09	6.35	-56.54	-13.00	-43.54
3346.40	44.72	H	-57.60	12.28	7.29	-52.62	-13.00	-39.62
4183.00	---	H		12.62	8.40		-13.00	
5019.60	---	H		12.67	9.26		-13.00	
5856.20	---	H		13.68	9.85		-13.00	
6692.80	---	H		11.95	10.74		-13.00	
7529.40	---	H		11.45	11.35		-13.00	
8366.00	---	H		11.59	12.43		-13.00	

Measurement uncertainty	30MHz - 80MHz: 5.04dB
	80MHz -1000MHz: 3.76dB
	1GHz - 13GHz: 4.45dB

Remark：

1 The emission behaviors belong to narrowband spurious emission.

2 Remark"---" means that the emission level is too low to be measured

3 The result basic equation calculation is as follows:

4 ERP/EIRP (dBm) = SG Setting(dBm) + Antenna Gain (dB/dBi) – Cable loss (dB)

Radiated Spurious Emission Measurement Result: GPRS 850 Mode

Operation Mode	: TX CH High H mode ,1Ts	Test Date:	Nov. 04, 2008
Fundamental Frequency	: 848.80 MHz	Test By:	Bondi
Temperature	: 25℃	Pol:	Ver
Humidity	: 65%		

Freq. (MHz)	SPA. Reading (dBuV)	Ant.Pol. H/V	S.G Out-put (dBm)	Antenna Gain (dB/dBi)	Cable Loss (dB)	ERP/ EIRP (dBm)	Limit (dBm)	Safe Margin (dBm)
51.34	43.57	V	-64.01	-0.58	0.91	-65.49	-13.00	-52.49
130.88	38.90	V	-61.04	-7.78	1.37	-70.20	-13.00	-57.20
218.18	46.95	V	-54.64	-7.86	1.72	-64.22	-13.00	-51.22
259.89	41.74	V	-58.74	-7.90	1.99	-68.62	-13.00	-55.62
458.74	39.39	V	-55.23	-7.70	2.59	-65.52	-13.00	-52.52
850.00	53.41	V	-33.30	-7.88	3.75	-44.93	-13.00	-31.93
1697.60	---	V		9.44	5.14		-13.00	
2546.40	47.09	V	-56.70	10.20	6.40	-52.90	-13.00	-39.90
3395.20	---	V		12.38	7.33		-13.00	
4244.00	---	V		12.63	8.46		-13.00	
5092.80	---	V		12.74	9.32		-13.00	
5941.60	---	V		13.81	9.89		-13.00	
6790.40	---	V		11.86	10.87		-13.00	
7639.20	---	V		11.40	11.48		-13.00	
8488.00	---	V		11.70	12.59		-13.00	

Measurement uncertainty	30MHz - 80MHz: 5.04dB
	80MHz -1000MHz: 3.76dB
	1GHz - 13GHz: 4.45dB

Remark：

1 The emission behaviors belong to narrowband spurious emission.

2 Remark"---" means that the emission level is too low to be measured

3 The result basic equation calculation is as follows:

4 ERP/EIRP (dBm) = SG Setting(dBm) + Antenna Gain (dB/dBi) – Cable loss (dB)

Radiated Spurious Emission Measurement Result: GPRS 850 Mode

Operation Mode	: TX CH High H mode ,1Ts	Test Date:	Nov. 04, 2008
Fundamental Frequency	: 848.80 MHz	Test By:	Bondi
Temperature	: 25℃	Pol:	Hor
Humidity	: 65%		

Freq. (MHz)	SPA. Reading (dBuV)	Ant.Pol. H/V	S.G Out-put (dBm)	Antenna Gain (dB/dBi)	Cable Loss (dB)	ERP/ EIRP (dBm)	Limit (dBm)	Safe Margin (dBm)
104.69	40.50	H	-62.27	-7.76	1.24	-71.27	-13.00	-58.27
201.69	42.97	H	-58.80	-7.84	1.58	-68.22	-13.00	-55.22
264.74	42.19	H	-58.33	-7.90	1.99	-68.21	-13.00	-55.21
397.63	37.67	H	-58.71	-7.66	2.42	-68.78	-13.00	-55.78
458.74	37.05	H	-58.09	-7.70	2.59	-68.38	-13.00	-55.38
850.00	62.86	H	-24.13	-7.88	3.75	-35.76	-13.00	-22.76
1697.60	45.49	H	-61.49	9.44	5.14	-57.20	-13.00	-44.20
2546.40	46.02	H	-57.76	10.20	6.40	-53.96	-13.00	-40.96
3395.20	---	H		12.38	7.33		-13.00	
4244.00	---	H		12.63	8.46		-13.00	
5092.80	---	H		12.74	9.32		-13.00	
5941.60	---	H		13.81	9.89		-13.00	
6790.40	---	H		11.86	10.87		-13.00	
7639.20	---	H		11.40	11.48		-13.00	
8488.00	---	H		11.70	12.59		-13.00	

Measurement uncertainty	30MHz - 80MHz: 5.04dB
	80MHz -1000MHz: 3.76dB
	1GHz - 13GHz: 4.45dB

Remark：

1 The emission behaviors belong to narrowband spurious emission.

2 Remark"---" means that the emission level is too low to be measured

3 The result basic equation calculation is as follows:

4 ERP/EIRP (dBm) = SG Setting(dBm) + Antenna Gain (dB/dBi) – Cable loss (dB)

Radiated Spurious Emission Measurement Result: GPRS 1900 Mode

Operation Mode	: TX CH Low H mode ,1Ts	Test Date:	Nov. 04, 2008
Fundamental Frequency	: 1850.20MHz	Test By:	Bondi
Temperature	: 25℃	Pol:	Ver
Humidity	: 65%		

Freq. (MHz)	SPA. Reading (dBuV)	Ant.Pol. H/V	S.G Out-put (dBm)	Antenna Gain (dB/dBi)	Cable Loss (dB)	ERP/ EIRP (dBm)	Limit (dBm)	Safe Margin (dBm)
196.84	47.10	V	-54.72	-7.84	1.56	-64.11	-13.00	-51.11
216.24	47.63	V	-54.02	-7.86	1.70	-63.57	-13.00	-50.57
266.68	43.53	V	-56.80	-7.90	1.99	-66.68	-13.00	-53.68
392.78	35.67	V	-60.66	-7.66	2.42	-70.74	-13.00	-57.74
458.74	40.14	V	-54.48	-7.70	2.59	-64.77	-13.00	-51.77
1850.00	67.51	V	-39.45	9.90	5.41	-34.96	-13.00	-21.96
3700.40	---	V		12.61	7.73		-13.00	
5550.60	34.58	V	-60.63	13.23	9.68	-57.09	-13.00	-44.09
7400.80	---	V		11.50	11.28		-13.00	
9251.00	---	V		11.92	13.10		-13.00	
11101.20	---	V		11.66	14.33		-13.00	
12951.40	---	V		13.63	15.98		-13.00	
14801.60	---	V		12.76	17.27		-13.00	
16651.80	---	V		15.92	19.04		-13.00	
18502.00	---	V		18.75	21.21		-13.00	

Measurement uncertainty	30MHz - 80MHz: 5.04dB
	80MHz -1000MHz: 3.76dB
	1GHz - 13GHz: 4.45dB

Remark：

1 The emission behaviors belong to narrowband spurious emission.

2 Remark"---" means that the emission level is too low to be measured

3 The result basic equation calculation is as follows:

4 ERP/EIRP (dBm) = SG Setting(dBm) + Antenna Gain (dB/dBi) – Cable loss (dB)

Radiated Spurious Emission Measurement Result: GPRS 1900 Mode

Operation Mode	: TX CH Low H mode ,1Ts	Test Date:	Nov. 04, 2008
Fundamental Frequency	: 1850.20MHz	Test By:	Bondi
Temperature	: 25℃	Pol:	Hor
Humidity	: 65%		

Freq. (MHz)	SPA. Reading (dBuV)	Ant.Pol. H/V	S.G Out-put (dBm)	Antenna Gain (dB/dBi)	Cable Loss (dB)	ERP/ EIRP (dBm)	Limit (dBm)	Safe Margin (dBm)
218.18	43.95	H	-57.52	-7.86	1.72	-67.10	-13.00	-54.10
264.74	40.17	H	-60.35	-7.90	1.99	-70.23	-13.00	-57.23
397.63	36.81	H	-59.57	-7.66	2.42	-69.64	-13.00	-56.64
455.83	37.54	H	-57.68	-7.70	2.58	-67.97	-13.00	-54.97
531.49	35.53	H	-57.33	-7.75	2.74	-67.81	-13.00	-54.81
1850.00	68.89	H	-38.00	9.90	5.41	-33.51	-13.00	-20.51
3700.40	---	H		12.61	7.73		-13.00	
5550.60	37.16	H	-57.97	13.23	9.68	-54.42	-13.00	-41.42
7400.80	---	H		11.50	11.28		-13.00	
9251.00	---	H		11.92	13.10		-13.00	
11101.20	---	H		11.66	14.33		-13.00	
12951.40	---	H		13.63	15.98		-13.00	
14801.60	---	H		12.76	17.27		-13.00	
16651.80	---	H		15.92	19.04		-13.00	
18502.00	---	H		18.75	21.21		-13.00	

Measurement uncertainty	30MHz - 80MHz: 5.04dB
	80MHz -1000MHz: 3.76dB
	1GHz - 13GHz: 4.45dB

Remark：

1 The emission behaviors belong to narrowband spurious emission.

2 Remark"---" means that the emission level is too low to be measured

3 The result basic equation calculation is as follows:

4 ERP/EIRP (dBm) = SG Setting(dBm) + Antenna Gain (dB/dBi) – Cable loss (dB)

Radiated Spurious Emission Measurement Result: GPRS 1900 Mode

Operation Mode	: TX CH Mid H mode ,1Ts	Test Date:	Nov. 04, 2008
Fundamental Frequency	: 1880MHz	Test By:	Bondi
Temperature	: 25℃	Pol:	Ver
Humidity	: 65%		

Freq. (MHz)	SPA. Reading (dBuV)	Ant.Pol. H/V	S.G Out-put (dBm)	Antenna Gain (dB/dBi)	Cable Loss (dB)	ERP/ EIRP (dBm)	Limit (dBm)	Safe Margin (dBm)
218.18	46.83	V	-54.76	-7.86	1.72	-64.34	-13.00	-51.34
261.83	42.95	V	-57.49	-7.90	1.99	-67.37	-13.00	-54.37
458.74	40.17	V	-54.45	-7.70	2.59	-64.74	-13.00	-51.74
480.08	37.95	V	-56.66	-7.71	2.66	-67.04	-13.00	-54.04
533.43	38.16	V	-55.41	-7.75	2.74	-65.89	-13.00	-52.89
3760.00	---	V		12.60	7.82		-13.00	
5640.00	39.68	V	-55.28	13.36	9.73	-51.65	-13.00	-38.65
7520.00	---	V		11.45	11.33		-13.00	
9400.00	---	V		11.93	13.15		-13.00	
11280.00	---	V		11.92	14.56		-13.00	
13160.00	---	V		13.33	16.11		-13.00	
15040.00	---	V		13.76	17.57		-13.00	
16920.00	---	V		15.27	19.66		-13.00	
18800.00	---	V		18.68	21.34		-13.00	

Measurement uncertainty	30MHz - 80MHz: 5.04dB
	80MHz -1000MHz: 3.76dB
	1GHz - 13GHz: 4.45dB

Remark：

1 The emission behaviors belong to narrowband spurious emission.

2 Remark"---" means that the emission level is too low to be measured

3 The result basic equation calculation is as follows:

4 ERP/EIRP (dBm) = SG Setting(dBm) + Antenna Gain (dB/dBi) – Cable loss (dB)

Radiated Spurious Emission Measurement Result: GPRS 1900 Mode

Operation Mode	: TX CH Mid H mode ,1Ts	Test Date:	Nov. 04, 2008
Fundamental Frequency	: 1880MHz	Test By:	Bondi
Temperature	: 25℃	Pol:	Hor
Humidity	: 65%		

Freq. (MHz)	SPA. Reading (dBuV)	Ant.Pol. H/V	S.G Out-put (dBm)	Antenna Gain (dB/dBi)	Cable Loss (dB)	ERP/ EIRP (dBm)	Limit (dBm)	Safe Margin (dBm)
70.74	40.62	H	-71.69	-1.18	1.02	-73.89	-13.00	-60.89
218.18	43.83	H	-57.64	-7.86	1.72	-67.22	-13.00	-54.22
264.74	41.40	H	-59.12	-7.90	1.99	-69.00	-13.00	-56.00
397.63	37.29	H	-59.09	-7.66	2.42	-69.16	-13.00	-56.16
458.74	37.13	H	-58.01	-7.70	2.59	-68.30	-13.00	-55.30
3760.00	---	H		12.60	7.82		-13.00	
5640.00	39.16	H	-55.73	13.36	9.73	-52.10	-13.00	-39.10
7520.00	---	H		11.45	11.33		-13.00	
9400.00	---	H		11.93	13.15		-13.00	
11280.00	---	H		11.92	14.56		-13.00	
13160.00	---	H		13.33	16.11		-13.00	
15040.00	---	H		13.76	17.57		-13.00	
16920.00	---	H		15.27	19.66		-13.00	
18800.00	---	H		18.68	21.34		-13.00	

Measurement uncertainty	30MHz - 80MHz: 5.04dB
	80MHz -1000MHz: 3.76dB
	1GHz - 13GHz: 4.45dB

Remark：

1 The emission behaviors belong to narrowband spurious emission.

2 Remark"---" means that the emission level is too low to be measured

3 The result basic equation calculation is as follows:

4 ERP/EIRP (dBm) = SG Setting(dBm) + Antenna Gain (dB/dBi) – Cable loss (dB)

Radiated Spurious Emission Measurement Result: GPRS 1900 Mode

Operation Mode	: TX CH High H mode ,1Ts	Test Date:	Nov. 04, 2008
Fundamental Frequency	: 1909.8 MHz	Test By:	Bondi
Temperature	: 25℃	Pol:	Ver
Humidity	: 65%		

Freq. (MHz)	SPA. Reading (dBuV)	Ant.Pol. H/V	S.G Out-put (dBm)	Antenna Gain (dB/dBi)	Cable Loss (dB)	ERP/ EIRP (dBm)	Limit (dBm)	Safe Margin (dBm)
225.94	46.11	V	-55.26	-7.87	1.78	-64.91	-13.00	-51.91
259.89	42.84	V	-57.64	-7.90	1.99	-67.52	-13.00	-54.52
392.78	35.53	V	-60.80	-7.66	2.42	-70.88	-13.00	-57.88
458.74	39.46	V	-55.16	-7.70	2.59	-65.45	-13.00	-52.45
480.08	35.12	V	-59.49	-7.71	2.66	-69.87	-13.00	-56.87
1910.00	65.28	V	-41.66	10.08	5.51	-37.09	-13.00	-24.09
3981.60	---	V		12.60	8.17		-13.00	
5972.40	39.30	V	-54.72	13.86	9.91	-50.77	-13.00	-37.77
7963.20	---	V		11.27	11.88		-13.00	
9954.00	---	V		12.08	13.43		-13.00	
11944.80	---	V		13.08	15.21		-13.00	
13935.60	---	V		11.82	16.86		-13.00	
15926.40	---	V		17.08	18.33		-13.00	
17917.20	---	V		9.63	20.12		-13.00	
19908.00	---	V		18.88	20.85		-13.00	

Measurement uncertainty	30MHz - 80MHz: 5.04dB
	80MHz -1000MHz: 3.76dB
	1GHz - 13GHz: 4.45dB

Remark：

1 The emission behaviors belong to narrowband spurious emission.

2 Remark"---" means that the emission level is too low to be measured

3 The result basic equation calculation is as follows:

4 ERP/EIRP (dBm) = SG Setting(dBm) + Antenna Gain (dB/dBi) – Cable loss (dB)

Radiated Spurious Emission Measurement Result: GPRS 1900 Mode

Operation Mode	: TX CH High H mode ,1Ts	Test Date:	Nov. 04, 2008
Fundamental Frequency	: 1909.8 MHz	Test By:	Bondi
Temperature	: 25℃	Pol:	Hor
Humidity	: 65%		

Freq. (MHz)	SPA. Reading (dBuV)	Ant.Pol. H/V	S.G Out-put (dBm)	Antenna Gain (dB/dBi)	Cable Loss (dB)	ERP/ EIRP (dBm)	Limit (dBm)	Safe Margin (dBm)
70.74	39.69	H	-72.62	-1.18	1.02	-74.82	-13.00	-61.82
218.18	43.62	H	-57.85	-7.86	1.72	-67.43	-13.00	-54.43
431.58	37.33	H	-58.42	-7.69	2.51	-68.61	-13.00	-55.61
458.74	37.83	H	-57.31	-7.70	2.59	-67.60	-13.00	-54.60
531.49	35.48	H	-57.38	-7.75	2.74	-67.86	-13.00	-54.86
1910.00	68.63	H	-38.22	10.08	5.51	-33.66	-13.00	-20.66
3981.60	---	H		12.60	8.17		-13.00	
5972.40	40.75	H	-53.26	13.86	9.91	-49.31	-13.00	-36.31
7963.20	---	H		11.27	11.88		-13.00	
9954.00	---	H		12.08	13.43		-13.00	
11944.80	---	H		13.08	15.21		-13.00	
13935.60	---	H		11.82	16.86		-13.00	
15926.40	---	H		17.08	18.33		-13.00	
17917.20	---	H		9.63	20.12		-13.00	
19908.00	---	H		18.88	20.85		-13.00	

Measurement uncertainty	30MHz - 80MHz: 5.04dB
	80MHz -1000MHz: 3.76dB
	1GHz - 13GHz: 4.45dB

Remark：

1 The emission behaviors belong to narrowband spurious emission.

2 Remark"---" means that the emission level is too low to be measured

3 The result basic equation calculation is as follows:

4 ERP/EIRP (dBm) = SG Setting(dBm) + Antenna Gain (dB/dBi) – Cable loss (dB)

Radiated Spurious Emission Measurement Result: WCDMA V Mode

Operation Mode	: TX CH Low H mode ,1Ts	Test Date:	Nov. 04, 2008
Fundamental Frequency	: 826.4 MHz	Test By:	Bondi
Temperature	: 25℃	Pol:	Ver
Humidity	: 65%		

Freq. (MHz)	SPA. Reading (dBuV)	Ant.Pol. H/V	S.G Out-put (dBm)	Antenna Gain (dB/dBi)	Cable Loss (dB)	ERP/ EIRP (dBm)	Limit (dBm)	Safe Margin (dBm)
90.14	43.56	V	-59.62	-7.75	1.27	-68.64	-13.00	-55.64
221.09	45.92	V	-55.06	-7.86	1.83	-64.75	-13.00	-51.75
266.68	50.26	V	-49.08	-7.90	2.05	-59.03	-13.00	-46.03
392.78	35.24	V	-60.57	-7.66	2.49	-70.71	-13.00	-57.71
458.74	40.50	V	-53.47	-7.70	2.68	-63.85	-13.00	-50.85
825.00	38.57	V	-47.81	-7.88	3.63	-59.31	-13.00	-46.31
1652.80	---	V		9.30	5.23		-13.00	
2479.20	---	V		10.07	6.54		-13.00	
3305.60	---	V		12.19	7.73		-13.00	
4132.00	---	V		12.62	8.87		-13.00	
4958.40	---	V		12.65	9.75		-13.00	
5784.80	---	V		13.58	10.55		-13.00	
6611.20	---	V		12.03	11.31		-13.00	
7437.60	---	V		11.48	12.12		-13.00	
8264.00	---	V		11.50	12.73		-13.00	

Measurement uncertainty	30MHz - 80MHz: 5.04dB
	80MHz -1000MHz: 3.76dB
	1GHz - 13GHz: 4.45dB

Remark：

1 The emission behaviors belong to narrowband spurious emission.

2 Remark"---" means that the emission level is too low to be measured

3 The result basic equation calculation is as follows:

4 ERP/EIRP (dBm) = SG Setting(dBm) + Antenna Gain (dB/dBi) – Cable loss (dB)

Radiated Spurious Emission Measurement Result: WCDMA V Mode

Operation Mode	: TX CH Low H mode ,1Ts	Test Date:	Nov. 04, 2008
Fundamental Frequency	: 826.4 MHz	Test By:	Bondi
Temperature	: 25℃	Pol:	Hor
Humidity	: 65%		

Freq. (MHz)	SPA. Reading (dBuV)	Ant.Pol. H/V	S.G Out-put (dBm)	Antenna Gain (dB/dBi)	Cable Loss (dB)	ERP/ EIRP (dBm)	Limit (dBm)	Safe Margin (dBm)
218.18	42.84	H	-57.93	-7.86	1.81	-67.60	-13.00	-54.60
264.74	42.36	H	-56.40	-7.90	2.04	-66.34	-13.00	-53.34
397.63	35.85	H	-60.62	-7.66	2.50	-70.78	-13.00	-57.78
458.74	39.02	H	-54.79	-7.70	2.68	-65.18	-13.00	-52.18
533.43	33.59	H	-58.70	-7.75	2.91	-69.36	-13.00	-56.36
825.00	44.83	H	-41.44	-7.88	3.63	-52.94	-13.00	-39.94
1652.80	---	H		9.30	5.23		-13.00	
2479.20	---	H		10.07	6.54		-13.00	
3305.60	---	H		12.19	7.73		-13.00	
4132.00	34.95	H	-61.26	12.62	8.87	-57.52	-13.00	-44.52
4958.40	---	H		12.65	9.75		-13.00	
5784.80	---	H		13.58	10.55		-13.00	
6611.20	---	H		12.03	11.31		-13.00	
7437.60	---	H		11.48	12.12		-13.00	
8264.00	---	H		11.50	12.73		-13.00	

Measurement uncertainty	30MHz - 80MHz: 5.04dB
	80MHz -1000MHz: 3.76dB
	1GHz - 13GHz: 4.45dB

Remark：

1 The emission behaviors belong to narrowband spurious emission.

2 Remark"---" means that the emission level is too low to be measured

3 The result basic equation calculation is as follows:

4 ERP/EIRP (dBm) = SG Setting(dBm) + Antenna Gain (dB/dBi) – Cable loss (dB)

Radiated Spurious Emission Measurement Result: WCDMA V Mode

Operation Mode	: TX CH Mid H mode ,1Ts	Test Date:	Nov. 04, 2008
Fundamental Frequency	: 836.60 MHz	Test By:	Bondi
Temperature	: 25℃	Pol:	Ver
Humidity	: 65%		

Freq. (MHz)	SPA. Reading (dBuV)	Ant.Pol. H/V	S.G Out-put (dBm)	Antenna Gain (dB/dBi)	Cable Loss (dB)	ERP/ EIRP (dBm)	Limit (dBm)	Safe Margin (dBm)
221.09	46.81	V	-54.17	-7.86	1.83	-63.86	-13.00	-50.86
298.69	42.11	V	-56.18	-7.92	2.17	-66.27	-13.00	-53.27
392.78	35.05	V	-60.76	-7.66	2.49	-70.90	-13.00	-57.90
458.74	41.29	V	-52.68	-7.70	2.68	-63.06	-13.00	-50.06
531.49	37.71	V	-55.39	-7.75	2.90	-66.04	-13.00	-53.04
1673.20	58.99	V	-45.57	9.36	5.27	-41.47	-13.00	-28.47
2509.80	---	V		10.09	6.58		-13.00	
2740.00	37.03	V	-62.88	10.76	6.90	-59.02	-13.00	-46.02
3346.40	---	V		12.28	7.79		-13.00	
4183.00	---	V		12.62	8.93		-13.00	
5019.60	---	V		12.67	9.81		-13.00	
5856.20	---	V		13.68	10.62		-13.00	
6692.80	---	V		11.95	11.39		-13.00	
7529.40	---	V		11.45	12.20		-13.00	
8366.00	---	V		11.59	12.81		-13.00	

Measurement uncertainty	30MHz - 80MHz: 5.04dB
	80MHz -1000MHz: 3.76dB
	1GHz - 13GHz: 4.45dB

Remark：

1 The emission behaviors belongs to narrowband spurious emission.

2 Remark"---" means that the emission level is too low to be measured

3 The result basic equation calculation is as follows:

4 ERP/EIRP (dBm) = SG Setting(dBm) + Antenna Gain (dB/dBi) – Cable loss (dB)

Radiated Spurious Emission Measurement Result: WCDMA V Mode

Operation Mode	: TX CH Mid H mode ,1Ts	Test Date:	Nov. 04, 2008
Fundamental Frequency	: 836.60 MHz	Test By:	Bondi
Temperature	: 25℃	Pol:	Hor
Humidity	: 65%		

Freq. (MHz)	SPA. Reading (dBuV)	Ant.Pol. H/V	S.G Out-put (dBm)	Antenna Gain (dB/dBi)	Cable Loss (dB)	ERP/ EIRP (dBm)	Limit (dBm)	Safe Margin (dBm)
203.63	44.27	H	-57.20	-7.84	1.73	-66.78	-13.00	-53.78
264.74	41.30	H	-57.46	-7.90	2.04	-67.40	-13.00	-54.40
397.63	35.29	H	-61.18	-7.66	2.50	-71.34	-13.00	-58.34
458.74	38.01	H	-55.80	-7.70	2.68	-66.19	-13.00	-53.19
531.49	34.14	H	-58.22	-7.75	2.90	-68.87	-13.00	-55.87
1673.20	---	H		9.36	5.27		-13.00	
2509.80	---	H		10.09	6.58		-13.00	
2927.50	37.38	H	-62.14	11.31	7.15	-57.98	-13.00	-44.98
3346.40	---	H		12.28	7.79		-13.00	
4183.00	---	H		12.62	8.93		-13.00	
5019.60	---	H		12.67	9.81		-13.00	
5856.20	---	H		13.68	10.62		-13.00	
6692.80	---	H		11.95	11.39		-13.00	
7529.40	---	H		11.45	12.20		-13.00	
8366.00	---	H		11.59	12.81		-13.00	

Measurement uncertainty	30MHz - 80MHz: 5.04dB
	80MHz -1000MHz: 3.76dB
	1GHz - 13GHz: 4.45dB

Remark：

1 The emission behaviors belong to narrowband spurious emission.

2 Remark"---" means that the emission level is too low to be measured

3 The result basic equation calculation is as follows:

4 ERP/EIRP (dBm) = SG Setting(dBm) + Antenna Gain (dB/dBi) – Cable loss (dB)

Radiated Spurious Emission Measurement Result: WCDMA V Mode

Operation Mode	: TX CH High H mode ,1Ts	Test Date:	Nov. 04, 2008
Fundamental Frequency	: 846.6 MHz	Test By:	Bondi
Temperature	: 25℃	Pol:	Ver
Humidity	: 65%		

Freq. (MHz)	SPA. Reading (dBuV)	Ant.Pol. H/V	S.G Out-put (dBm)	Antenna Gain (dB/dBi)	Cable Loss (dB)	ERP/ EIRP (dBm)	Limit (dBm)	Safe Margin (dBm)
198.78	51.81	V	-49.86	-7.84	1.71	-59.41	-13.00	-46.41
286.08	42.36	V	-56.35	-7.91	2.12	-66.38	-13.00	-53.38
392.78	34.97	V	-60.84	-7.66	2.49	-70.98	-13.00	-57.98
458.74	40.12	V	-53.85	-7.70	2.68	-64.23	-13.00	-51.23
533.43	37.47	V	-55.57	-7.75	2.91	-66.22	-13.00	-53.22
850.00	46.33	V	-39.78	-7.88	3.68	-51.34	-13.00	-38.34
1693.20	---	V		9.42	5.30		-13.00	
2539.80	---	V		10.18	6.62		-13.00	
3386.40	---	V		12.36	7.85		-13.00	
4233.00	---	V		12.63	8.99		-13.00	
5079.60	---	V		12.73	9.87		-13.00	
5926.20	---	V		13.79	10.69		-13.00	
6772.80	---	V		11.87	11.47		-13.00	
7619.40	---	V		11.41	12.26		-13.00	
8466.00	---	V		11.68	12.89		-13.00	

Measurement uncertainty	30MHz - 80MHz: 5.04dB
	80MHz -1000MHz: 3.76dB
	1GHz - 13GHz: 4.45dB

Remark：

1 The emission behaviors belong to narrowband spurious emission.

2 Remark"---" means that the emission level is too low to be measured

3 The result basic equation calculation is as follows:

4 ERP/EIRP (dBm) = SG Setting(dBm) + Antenna Gain (dB/dBi) – Cable loss (dB)

Radiated Spurious Emission Measurement Result: WCDMA V Mode

Operation Mode	: TX CH High H mode ,1Ts	Test Date:	Nov. 04, 2008
Fundamental Frequency	: 846.6 MHz	Test By:	Bondi
Temperature	: 25℃	Pol:	Hor
Humidity	: 65%		

Freq. (MHz)	SPA. Reading (dBuV)	Ant.Pol. H/V	S.G Out-put (dBm)	Antenna Gain (dB/dBi)	Cable Loss (dB)	ERP/ EIRP (dBm)	Limit (dBm)	Safe Margin (dBm)
193.93	42.96	H	-58.22	-7.84	1.70	-67.75	-13.00	-54.75
264.74	41.89	H	-56.87	-7.90	2.04	-66.81	-13.00	-53.81
397.63	35.75	H	-60.72	-7.66	2.50	-70.88	-13.00	-57.88
458.74	38.30	H	-55.51	-7.70	2.68	-65.90	-13.00	-52.90
565.44	40.09	H	-51.32	-7.77	2.98	-62.07	-13.00	-49.07
850.00	49.39	H	-36.80	-7.88	3.68	-48.36	-13.00	-35.36
1693.20	---	H		9.42	5.30		-13.00	
2539.80	---	H		10.18	6.62		-13.00	
3386.40	---	H		12.36	7.85		-13.00	
4233.00	---	H		12.63	8.99		-13.00	
5079.60	---	H		12.73	9.87		-13.00	
5926.20	---	H		13.79	10.69		-13.00	
6772.80	---	H		11.87	11.47		-13.00	
7619.40	---	H		11.41	12.26		-13.00	
8466.00	---	H		11.68	12.89		-13.00	

Measurement uncertainty	30MHz - 80MHz: 5.04dB
	80MHz -1000MHz: 3.76dB
	1GHz - 13GHz: 4.45dB

Remark：

1 The emission behaviors belong to narrowband spurious emission.

2 Remark"---" means that the emission level is too low to be measured

3 The result basic equation calculation is as follows:

4 ERP/EIRP (dBm) = SG Setting(dBm) + Antenna Gain (dB/dBi) – Cable loss (dB)

Radiated Spurious Emission Measurement Result: WCDMA II Mode

Operation Mode	: TX CH Low H mode ,1Ts	Test Date:	Nov. 04, 2008
Fundamental Frequency	: 1852.4MHz	Test By:	Bondi
Temperature	: 25℃	Pol:	Ver
Humidity	: 65%		

Freq. (MHz)	SPA. Reading (dBuV)	Ant.Pol. H/V	S.G Out-put (dBm)	Antenna Gain (dB/dBi)	Cable Loss (dB)	ERP/ EIRP (dBm)	Limit (dBm)	Safe Margin (dBm)
90.14	43.60	V	-59.58	-7.75	1.27	-68.60	-13.00	-55.60
218.18	45.76	V	-55.33	-7.86	1.81	-65.00	-13.00	-52.00
264.74	42.58	V	-56.83	-7.90	2.04	-66.77	-13.00	-53.77
458.74	40.72	V	-53.25	-7.70	2.68	-63.63	-13.00	-50.63
533.43	37.59	V	-55.45	-7.75	2.91	-66.10	-13.00	-53.10
1850.00	54.03	V	-50.36	9.90	5.56	-46.02	-13.00	-33.02
3704.80	---	V		12.61	8.31		-13.00	
5557.20	---	V		13.24	10.33		-13.00	
7409.60	---	V		11.49	12.09		-13.00	
9262.00	---	V		11.92	13.51		-13.00	
11114.40	---	V		11.68	15.12		-13.00	
12966.80	---	V		13.62	16.61		-13.00	
14819.20	---	V		12.83	17.96		-13.00	
16671.60	---	V		15.87	19.15		-13.00	
18524.00	---	V		18.74	10.86		-13.00	

Measurement uncertainty	30MHz - 80MHz: 5.04dB
	80MHz -1000MHz: 3.76dB
	1GHz - 13GHz: 4.45dB

Remark：

1 The emission behaviors belong to narrowband spurious emission.

2 Remark"---" means that the emission level is too low to be measured

3 The result basic equation calculation is as follows:

4 ERP/EIRP (dBm) = SG Setting(dBm) + Antenna Gain (dB/dBi) – Cable loss (dB)

Radiated Spurious Emission Measurement Result: WCDMA II Mode

Operation Mode	: TX CH Low H mode ,1Ts	Test Date:	Nov. 04, 2008
Fundamental Frequency	: 1852.4MHz	Test By:	Bondi
Temperature	: 25℃	Pol:	Hor
Humidity	: 65%		

Freq. (MHz)	SPA. Reading (dBuV)	Ant.Pol. H/V	S.G Out-put (dBm)	Antenna Gain (dB/dBi)	Cable Loss (dB)	ERP/ EIRP (dBm)	Limit (dBm)	Safe Margin (dBm)
96.93	44.31	H	-58.92	-7.76	1.33	-68.01	-13.00	-55.01
201.69	43.54	H	-58.03	-7.84	1.72	-67.59	-13.00	-54.59
264.74	41.67	H	-57.09	-7.90	2.04	-67.03	-13.00	-54.03
397.63	35.89	H	-60.58	-7.66	2.50	-70.74	-13.00	-57.74
455.83	38.40	H	-55.44	-7.70	2.68	-65.82	-13.00	-52.82
1850.00	56.00	H	-48.18	9.90	5.56	-43.84	-13.00	-30.84
3704.80	35.61	H	-62.41	12.61	8.31	-58.12	-13.00	-45.12
5557.20	---	H		13.24	10.33		-13.00	
7409.60	---	H		11.49	12.09		-13.00	
9262.00	---	H		11.92	13.51		-13.00	
11114.40	---	H		11.68	15.12		-13.00	
12966.80	---	H		13.62	16.61		-13.00	
14819.20	---	H		12.83	17.96		-13.00	
16671.60	---	H		15.87	19.15		-13.00	
18524.00	---	H		18.74	10.86		-13.00	

Measurement uncertainty	30MHz - 80MHz: 5.04dB
	80MHz -1000MHz: 3.76dB
	1GHz - 13GHz: 4.45dB

Remark：

1 The emission behaviors belong to narrowband spurious emission.

2 Remark"---" means that the emission level is too low to be measured

3 The result basic equation calculation is as follows:

4 ERP/EIRP (dBm) = SG Setting(dBm) + Antenna Gain (dB/dBi) – Cable loss (dB)

Radiated Spurious Emission Measurement Result: WCDMA II Mode

Operation Mode	: TX CH Mid H mode ,1Ts	Test Date:	Nov. 04, 2008
Fundamental Frequency	: 1880MHz	Test By:	Bondi
Temperature	: 25℃	Pol:	Ver
Humidity	: 65%		

Freq. (MHz)	SPA. Reading (dBuV)	Ant.Pol. H/V	S.G Out-put (dBm)	Antenna Gain (dB/dBi)	Cable Loss (dB)	ERP/ EIRP (dBm)	Limit (dBm)	Safe Margin (dBm)
133.79	39.37	V	-59.42	-7.79	1.52	-68.72	-13.00	-55.72
221.09	45.48	V	-55.50	-7.86	1.83	-65.19	-13.00	-52.19
284.14	42.06	V	-56.71	-7.91	2.11	-66.73	-13.00	-53.73
392.78	34.99	V	-60.82	-7.66	2.49	-70.96	-13.00	-57.96
455.83	40.05	V	-53.90	-7.70	2.68	-64.28	-13.00	-51.28
1868.00	57.78	V	-46.59	9.95	5.59	-42.23	-13.00	-29.23
3760.00	---	V		12.60	8.39		-13.00	
5640.00	---	V		13.36	10.41		-13.00	
7520.00	---	V		11.45	12.19		-13.00	
9400.00	---	V		11.93	13.61		-13.00	
11280.00	---	V		11.92	15.27		-13.00	
13160.00	---	V		13.33	16.71		-13.00	
15040.00	---	V		13.76	18.15		-13.00	
16920.00	---	V		15.27	19.32		-13.00	
18800.00	---	V		18.68	16.58		-13.00	

Measurement uncertainty	30MHz - 80MHz: 5.04dB
	80MHz -1000MHz: 3.76dB
	1GHz - 13GHz: 4.45dB

Remark：

1 The emission behaviors belong to narrowband spurious emission.

2 Remark"---" means that the emission level is too low to be measured

3 The result basic equation calculation is as follows:

4 ERP/EIRP (dBm) = SG Setting(dBm) + Antenna Gain (dB/dBi) – Cable loss (dB)

Radiated Spurious Emission Measurement Result: WCDMA II Mode

Operation Mode	: TX CH Mid H mode ,1Ts	Test Date:	Nov. 04, 2008
Fundamental Frequency	: 1880MHz	Test By:	Bondi
Temperature	: 25℃	Pol:	Hor
Humidity	: 65%		

Freq. (MHz)	SPA. Reading (dBuV)	Ant.Pol. H/V	S.G Out-put (dBm)	Antenna Gain (dB/dBi)	Cable Loss (dB)	ERP/ EIRP (dBm)	Limit (dBm)	Safe Margin (dBm)
92.08	46.60	H	-56.99	-7.75	1.29	-66.03	-13.00	-53.03
223.03	43.63	H	-56.90	-7.86	1.84	-66.60	-13.00	-53.60
264.74	41.88	H	-56.88	-7.90	2.04	-66.82	-13.00	-53.82
397.63	36.95	H	-59.52	-7.66	2.50	-69.68	-13.00	-56.68
458.74	38.69	H	-55.12	-7.70	2.68	-65.51	-13.00	-52.51
1868.00	56.98	H	-47.18	9.95	5.59	-42.82	-13.00	-29.82
3760.00	---	H		12.60	8.39		-13.00	
5640.00	---	H		13.36	10.41		-13.00	
7520.00	---	H		11.45	12.19		-13.00	
9400.00	---	H		11.93	13.61		-13.00	
11280.00	---	H		11.92	15.27		-13.00	
13160.00	---	H		13.33	16.71		-13.00	
15040.00	---	H		13.76	18.15		-13.00	
16920.00	---	H		15.27	19.32		-13.00	
18800.00	---	H		18.68	16.58		-13.00	

Measurement uncertainty	30MHz - 80MHz: 5.04dB
	80MHz -1000MHz: 3.76dB
	1GHz - 13GHz: 4.45dB

Remark：

1 The emission behaviors belong to narrowband spurious emission.

2 Remark”---“ means that the emission level is too low to be measured

3 The result basic equation calculation is as follows:

4 ERP/EIRP (dBm) = SG Setting(dBm) + Antenna Gain (dB/dBi) – Cable loss (dB)

Radiated Spurious Emission Measurement Result: WCDMA II Mode

Operation Mode	: TX CH High H mode ,1Ts	Test Date:	Nov. 04, 2008
Fundamental Frequency	: 1907.6 MHz	Test By:	Bondi
Temperature	: 25℃	Pol:	Ver
Humidity	: 65%		

Freq. (MHz)	SPA. Reading (dBuV)	Ant.Pol. H/V	S.G Out-put (dBm)	Antenna Gain (dB/dBi)	Cable Loss (dB)	ERP/ EIRP (dBm)	Limit (dBm)	Safe Margin (dBm)
90.14	42.34	V	-60.84	-7.75	1.27	-69.86	-13.00	-56.86
221.09	45.50	V	-55.48	-7.86	1.83	-65.17	-13.00	-52.17
266.68	51.86	V	-47.48	-7.90	2.05	-57.43	-13.00	-44.43
392.78	34.77	V	-61.04	-7.66	2.49	-71.18	-13.00	-58.18
458.74	40.44	V	-53.53	-7.70	2.68	-63.91	-13.00	-50.91
1910.00	62.33	V	-42.00	10.08	5.66	-37.58	-13.00	-24.58
3815.20	---	V		12.60	8.46		-13.00	
5230.00	34.46	V	-57.18	12.88	10.02	-54.32	-13.00	-41.32
5722.80	---	V		13.48	10.49		-13.00	
7630.40	---	V		11.41	12.27		-13.00	
9538.00	---	V		11.95	13.73		-13.00	
11445.60	---	V		12.15	15.42		-13.00	
13353.20	---	V		13.00	16.81		-13.00	
15260.80	---	V		14.91	18.28		-13.00	
17168.40	---	V		14.53	19.50		-13.00	
19076.00	---	V		18.65	20.76		-13.00	

Measurement uncertainty	30MHz - 80MHz: 5.04dB
	80MHz -1000MHz: 3.76dB
	1GHz - 13GHz: 4.45dB

Remark：

1 The emission behaviors belong to narrowband spurious emission.

2 Remark"---" means that the emission level is too low to be measured

3 The result basic equation calculation is as follows:

4 ERP/EIRP (dBm) = SG Setting(dBm) + Antenna Gain (dB/dBi) – Cable loss (dB)

Radiated Spurious Emission Measurement Result: WCDMA II Mode

Operation Mode	: TX CH High H mode ,1Ts	Test Date:	Nov. 04, 2008
Fundamental Frequency	: 1907.6 MHz	Test By:	Bondi
Temperature	: 25℃	Pol:	Hor
Humidity	: 65%		

Freq. (MHz)	SPA. Reading (dBuV)	Ant.Pol. H/V	S.G Out-put (dBm)	Antenna Gain (dB/dBi)	Cable Loss (dB)	ERP/ EIRP (dBm)	Limit (dBm)	Safe Margin (dBm)
96.93	45.19	H	-58.04	-7.76	1.33	-67.13	-13.00	-54.13
216.24	42.82	H	-58.04	-7.86	1.80	-67.70	-13.00	-54.70
264.74	40.49	H	-58.27	-7.90	2.04	-68.21	-13.00	-55.21
397.63	36.68	H	-59.79	-7.66	2.50	-69.95	-13.00	-56.95
458.74	38.19	H	-55.62	-7.70	2.68	-66.01	-13.00	-53.01
1910.00	64.99	H	-39.12	10.08	5.66	-34.70	-13.00	-21.70
3815.20	---	H		12.60	8.46		-13.00	
5477.50	34.46	H	-56.81	13.13	10.26	-53.94	-13.00	-40.94
5722.80	---	H		13.48	10.49		-13.00	
7630.40	---	H		11.41	12.27		-13.00	
9538.00	---	H		11.95	13.73		-13.00	
11445.60	---	H		12.15	15.42		-13.00	
13353.20	---	H		13.00	16.81		-13.00	
15260.80	---	H		14.91	18.28		-13.00	
17168.40	---	H		14.53	19.50		-13.00	
19076.00	---	H		18.65	20.76		-13.00	

Measurement uncertainty	30MHz - 80MHz: 5.04dB
	80MHz -1000MHz: 3.76dB
	1GHz - 13GHz: 4.45dB

Remark：

1 The emission behaviors belong to narrowband spurious emission.

2 Remark"---" means that the emission level is too low to be measured

3 The result basic equation calculation is as follows:

4 ERP/EIRP (dBm) = SG Setting(dBm) + Antenna Gain (dB/dBi) – Cable loss (dB)

10. FREQUENCY STABILITY V.S. TEMPERATURE MEASUREMENT

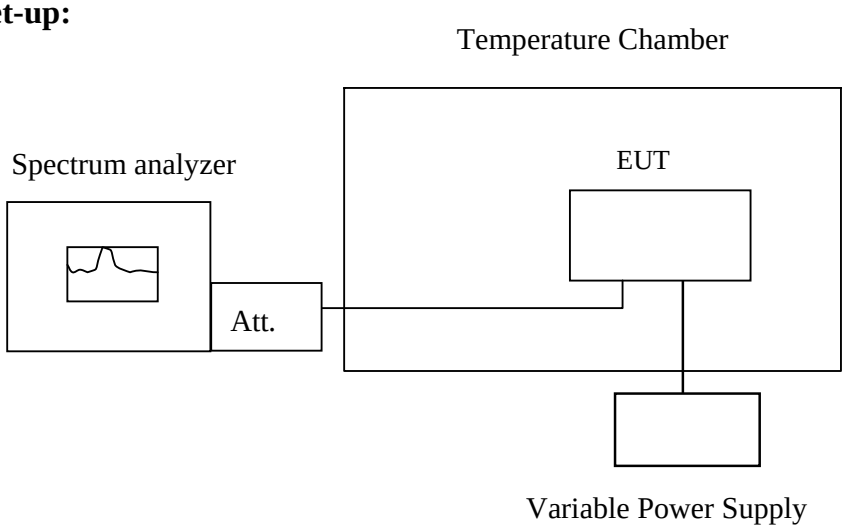
10.1 Standard Applicable

According to FCC §2.1055(d)(1)(2)

Frequency Tolerance: +/-2.5ppm for 850MHz band

+/-2.5ppm for 1900MHz band

10.2 Test Set-up:



Note : Measurement setup for testing on Antenna connector

10.3 Measurement 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 25°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.

10.4 Measurement Equipment Used:

Conducted Emission Test Site					
EQUIPMENT TYPE	**MFR**	**MODEL NUMBER**	**SERIAL NUMBER**	**LAST CAL.**	**CAL DUE.**
Spectrum Analyzer	Agilent	E4446A	MY43360126	04/27/2008	04/26/2009
Spectrum Analyzer	Agilent	E7405A	US41160416	07/04/2008	07/03/2009
Power Sensor	Anritsu	MA2490A	31431	07/07/2008	07/06/2009
Power Meter	Anritsu	ML2487A	6K00002070	07/07/2008	07/06/2009
Communication Test	R&S	SMU200	N/A	N/A	N/A
Temperature Chamber	TERCHY	MHG-120LF	911009	04/26/2008	04/25/2009
Low Loss Cable	HUBER+SUHNER	SUCOFLEX 104PEA	N/A	N/A	N/A
Attenuator	Mini-Circult	BW-S10W5	N/A	07/05/2008	07/04/2009
Attenuator	Mini-Circult	BW-S6W5	N/A	07/05/2008	07/04/2009
Splitter	Agilent	11636B	51728	09/23/2008	09/22/2009
Signal Generator	R&S	SMR40	100210	11/09/2008	11/10/2009
DC Power Supply	Agilent	6038A	2929A-07548	01/06/2008	01/05/2009

10.5 Measurement Result

Reference Frequency: GSM Mid Channel 836.6 MHz @ 25℃				
Limit: +/- 2.5 ppm = 2091 Hz				
Power Supply	Environment	Frequency	Delta (Hz)	Limit (Hz)
Vdc	Temperature (℃)	(MHz)		
5	-30	836.599995	4.00	2091
5	-20	836.599991	8.00	2091
5	-10	836.600029	-30.00	2091
5	0	836.600034	-35.00	2091
5	10	836.600012	-13.00	2091
5	20	836.599999	0.00	2091
5	30	836.599994	5.00	2091
5	40	836.599989	10.00	2091
5	50	836.600008	-9.00	2091

Reference Frequency: PCS Mid Channel 1880 MHz @ 25℃				
Limit: +/- 2.5 ppm = 4700 Hz				
Power Supply	Environment	Frequency	Delta (Hz)	Limit (Hz)
Vdc	Temperature (℃)	(MHz)		
5	-30	1880.000033	-21.00	4700
5	-20	1880.000021	-9.00	4700
5	-10	1880.000018	-6.00	4700
5	0	1880.000037	-25.00	4700
5	10	1880.000023	-11.00	4700
5	20	1880.000012	0.00	4700
5	30	1880.000006	6.00	4700
5	40	1880.000017	-5.00	4700
5	50	1880.000032	-20.00	4700

Note: The 5Vdc from USB port

Reference Frequency: WCDMA V Mid Channel 836.6 MHz @ 25℃				
Limit: +/- 2.5 ppm = 2091 Hz				
Power Supply	Environment	Frequency	Delta (Hz)	Limit (Hz)
Vdc	Temperature (℃)	(MHz)		
5	-30	836.600022	-40.00	2091
5	-20	836.600004	-22.00	2091
5	-10	836.600043	-61.00	2091
5	0	836.600000	-18.00	2091
5	10	836.600019	-37.00	2091
5	20	836.599982	0.00	2091
5	30	836.599986	-4.00	2091
5	40	836.599983	-1.00	2091
5	50	836.599986	-4.00	2091

Reference Frequency: WCDMA II Mid Channel 1880 MHz @ 25℃				
Limit: +/- 2.5 ppm = 4700 Hz				
Power Supply	Environment	Frequency	Delta (Hz)	Limit (Hz)
Vdc	Temperature (℃)	(MHz)		
5	-30	836.599999	2.00	4700
5	-20	836.599998	3.00	4700
5	-10	836.599998	3.00	4700
5	0	836.599997	4.00	4700
5	10	836.600003	-2.00	4700
5	20	836.600001	0.00	4700
5	30	836.600005	-4.00	4700
5	40	836.599996	5.00	4700
5	50	836.600003	-2.00	4700

Note: The 5Vdc from USB port

11. FREQUENCY STABILITY V.S. VOLTAGE MEASUREMENT

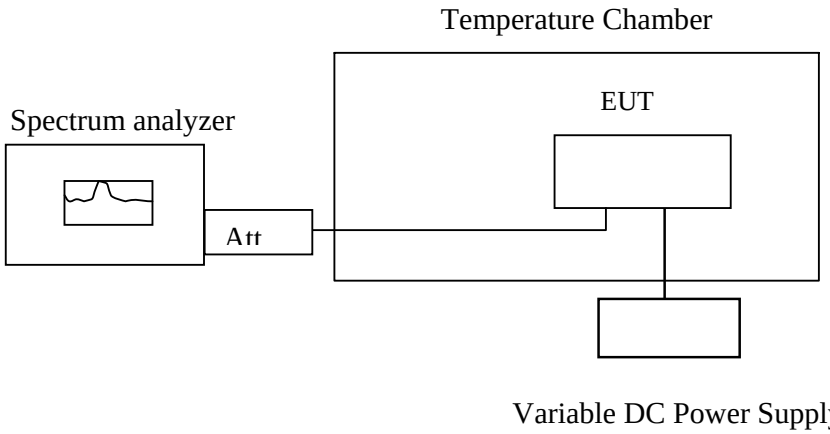
11.1 Standard Applicable

According to FCC §2.1055(d)(1)(2)

Frequency Tolerance: +/-2.5ppm for 850MHz band

+/-2.5ppm for 1900MHz band

11.2 Test Set-up:



Note: *Measurement setup for testing on Antenna connector*

11.3 Measurement Procedure

Set chamber temperature to 25℃. 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 specified extreme voltage variation (+/- 15%) and endpoint, record the maximum frequency change.

11.4 Measurement Equipment Used:

Conducted Emission Test Site					
EQUIPMENT TYPE	**MFR**	**MODEL NUMBER**	**SERIAL NUMBER**	**LAST CAL.**	**CAL DUE.**
Spectrum Analyzer	Agilent	E4446A	MY43360126	04/27/2008	04/26/2009
Spectrum Analyzer	Agilent	E7405A	US41160416	07/04/2008	07/03/2009
Power Sensor	Anritsu	MA2490A	31431	07/07/2008	07/06/2009
Power Meter	Anritsu	ML2487A	6K00002070	07/07/2008	07/06/2009
Communication Test	R&S	SMU200	N/A	N/A	N/A
Temperature Chamber	TERCHY	MHG-120LF	911009	04/26/2008	04/25/2009
Low Loss Cable	HUBER+SUHNER	SUCOFLEX 104PEA	N/A	N/A	N/A
Attenuator	Mini-Circult	BW-S10W5	N/A	07/05/2008	07/04/2009
Attenuator	Mini-Circult	BW-S6W5	N/A	07/05/2008	07/04/2009
Splitter	Agilent	11636B	51728	09/23/2008	09/22/2009
Signal Generator	R&S	SMR40	100210	11/09/2008	11/10/2009
DC Power Supply	Agilent	6038A	2929A-07548	01/06/2008	01/05/2009

11.5 Measurement Result

Reference Frequency: GSM Mid Channel 836.6 MHz @ 25℃				
Limit: +/- 2.5 ppm = 2091 Hz				
Power Supply	Environment	Frequency	Delta (Hz)	Limit (Hz)
Vdc	Temperature (℃)	(MHz)		
5.75	25.00	836.599956	15.00	2091
5.00	25.00	836.599971	0.00	2091
4.25	25.00	836.599968	3.00	2091
3.1 (End Point)	25.00	836.599966	5.00	2091

Reference Frequency: PCS Mid Channel 1880 MHz @ 25℃				
Limit: +/- 2.5 ppm = 4700 Hz				
Power Supply	Environment	Frequency	Delta (Hz)	Limit (Hz)
Vdc	Temperature (℃)	(MHz)		
5.75	25	1879.999925	8.00	4700
5	25	1879.999933	0.00	4700
4.25	25	1879.999943	-18.00	4700
3.1 (Endpoint)	25	1879.999946	-21.00	4700

Note: The 5Vdc from USB port

Reference Frequency: WCDMA V Mid Channel 836.6 MHz @ 25℃				
Limit: +/- 2.5 ppm = 2091 Hz				
Power Supply	Environment	Frequency	Delta (Hz)	Limit (Hz)
Vdc	Temperature (℃)	(MHz)		
5.75	25.00	1880.000003	2.00	2091
5	25.00	1880.000005	0.00	2091
4.25	25.00	1880.000002	1.00	2091
3.1 (Endpoint)	25.00	1879.999997	6.00	2091

Reference Frequency: WCDMA II Mid Channel 1880 MHz @ 25℃				
Limit: +/- 2.5 ppm = 4700 Hz				
Power Supply	Environment	Frequency	Delta (Hz)	Limit (Hz)
Vdc	Temperature (℃)	(MHz)		
5.75	25.00	836.600000	1.00	4700
5.00	25.00	836.600001	0.00	4700
4.25	25.00	836.599999	2.00	4700
3.1 (End Point)	25.00	836.599998	3.00	4700

Note: The 5Vdc from USB port

12. AC POWER LINE CONDUCTED EMISSION TEST

12.1 Standard Applicable

According to §15.207. The emission value for frequency within 150KHz to 30MHz shall not exceed criteria of below chart.

Frequency range MHz	Limits dB(uV)	
	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
Note 1.The lower limit shall apply at the transition frequencies 2.The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz.		

12.2 EUT Setup

1. The conducted emission tests were performed in the test site, using the setup in accordance with the ANSI C63.4-2001.
2. The EUT was plug-in DC power adaptort and was placed on the center of the back edge on the test table. The peripherals like earphone was placed on the side of the EUT. The rear of the EUT and peripherals were placed flushed with the rear of the tabletop.
3. The Power adaptor was connected with 110Vac/60Hz power source.

12.3 Measurement 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.

12.4 Measurement Equipment Used:

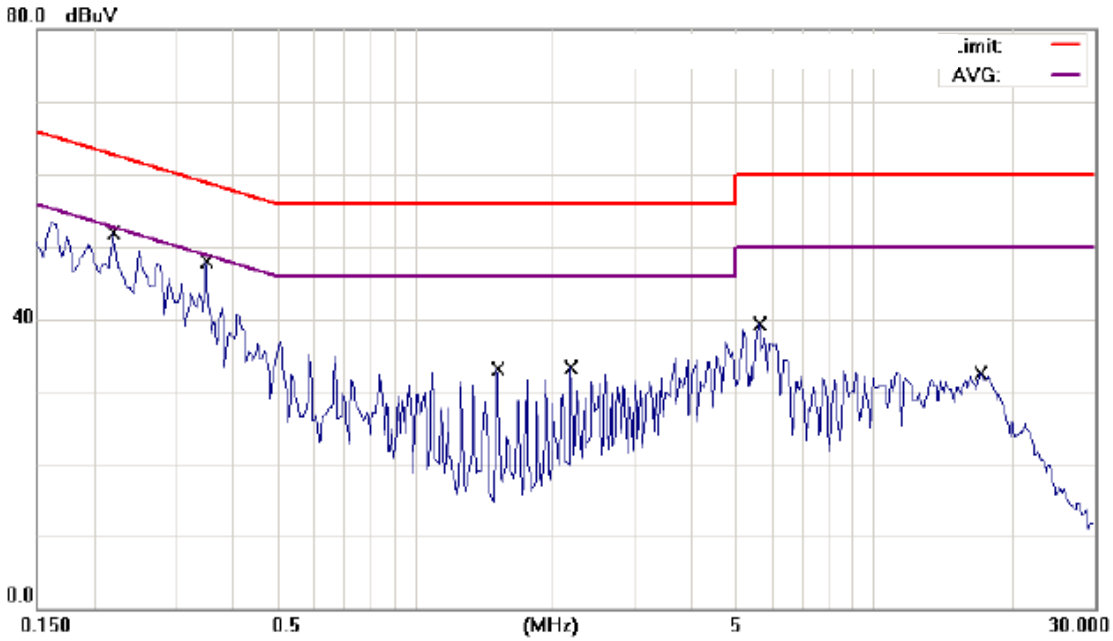
Conducted Emission Test Site					
EQUIPMENT TYPE	**MFR**	**MODEL NUMBER**	**SERIAL NUMBER**	**LAST CAL.**	**CAL DUE.**
EMC Analyzer	HP	8594EM	3624A00203	09/02/2008	09/03/2009
EMI Test Receiver	R&S	ESCS30	828985/004	06/09/2008	06/10/2009
Transient Limiter	HP	11947A	3107A02062	09/02/2008	09/03/2009
LISN	Rolf-Heine	NNB-2/16Z	99012	12/31/2007	12/30/2008
LISN	Rolf-Heine	NNB-2/16Z	99013	01/10/2008	01/09/2009
Coaxial Cables	N/A	No. 3, 4	N/A	01/11/2008	01/10/2009

12.5 Measurement Result

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.

AC POWER LINE CONDUCTED EMISSION TEST DATA

Operation Mode:	GPRS 850 LINK			Test Date:	Nov. 04, 2008
Temperature:	26 ℃	Humidity:	58 %	Test By:	Bondi

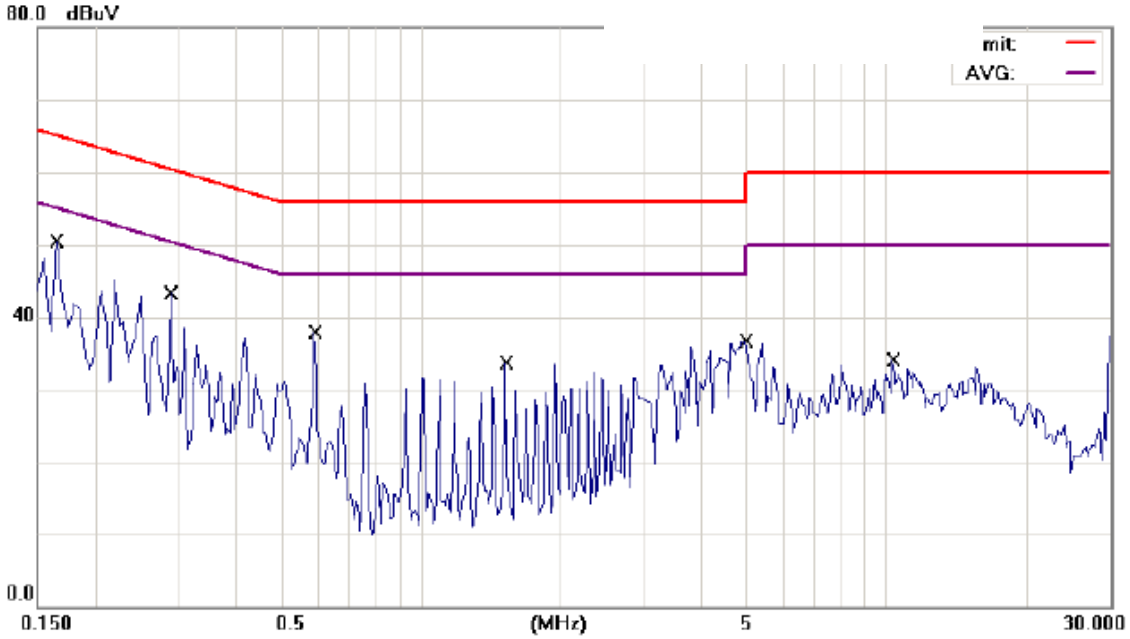


Site SGS CONDUCTED #1
Limit: CISPR22/11 Class B Conduction(QP)
EUT: HSDPA USB Data Modem
M/N: C177
Note: GPRS 850 LINK Mode

Phase: L1
Power: AC 120V/60Hz
Distance:

Temperature: 26 ℃
Humidity: 62 %
Air Pressure: hpa

No.	Mk.	Freq.	Reading Level	Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	*	0.2200	51.74	0.13	51.87	62.82	-10.95	QP	
2		0.3500	47.73	0.10	47.83	58.96	-11.13	QP	
3		1.5100	33.11	0.03	33.14	56.00	-22.86	QP	
4		2.1800	33.29	0.03	33.32	56.00	-22.68	QP	
5		5.6200	39.24	0.08	39.32	60.00	-20.68	QP	
6		17.1000	32.35	0.20	32.55	60.00	-27.45	QP	



Site SGS CONDUCTED #1
Limit: CISPR22/11 Class B Conduction(QP)
EUT: HSDPA USB Data Modem
M/N: C177
Note: GPRS 850 LINK Mode

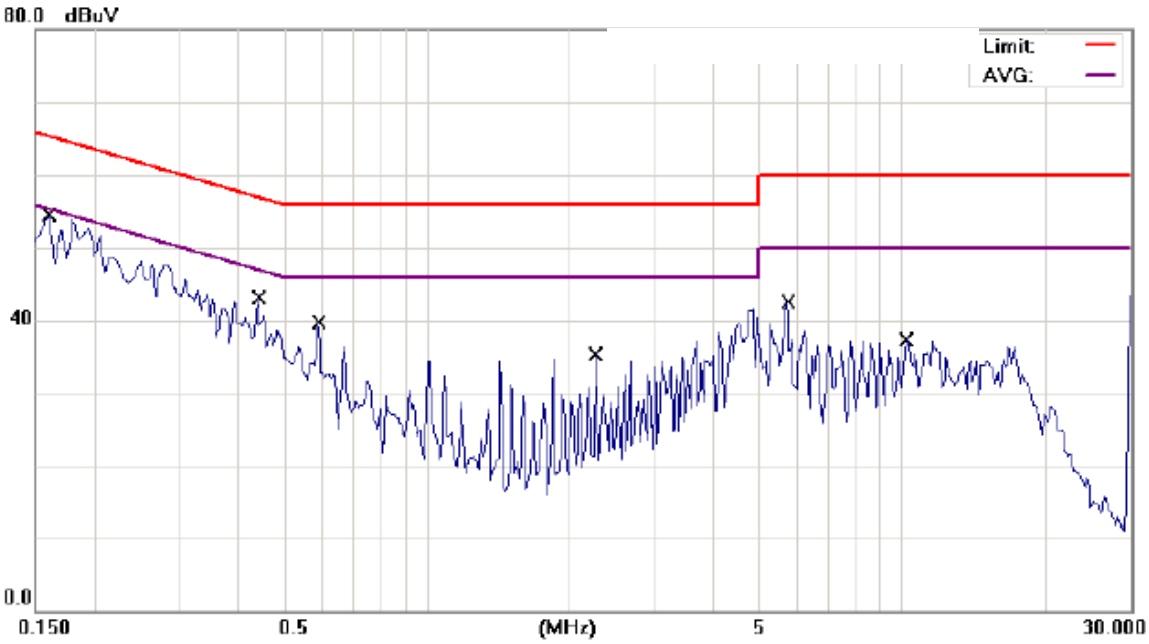
Phase: *N*
Power: AC 120V/60Hz
Distance:

Temperature: 26 ℃
Humidity: 62 %
Air Pressure: hpa

No.	Mk.	Freq.	Reading Level	Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	*	0.1650	50.15	0.32	50.47	65.21	-14.74	QP	
2		0.2900	43.15	0.11	43.26	60.52	-17.26	QP	
3		0.5900	37.82	0.05	37.87	56.00	-18.13	QP	
4		1.5200	33.68	0.03	33.71	56.00	-22.29	QP	
5		4.9800	36.70	0.06	36.76	56.00	-19.24	QP	
6		10.3000	33.97	0.19	34.16	60.00	-25.84	QP	

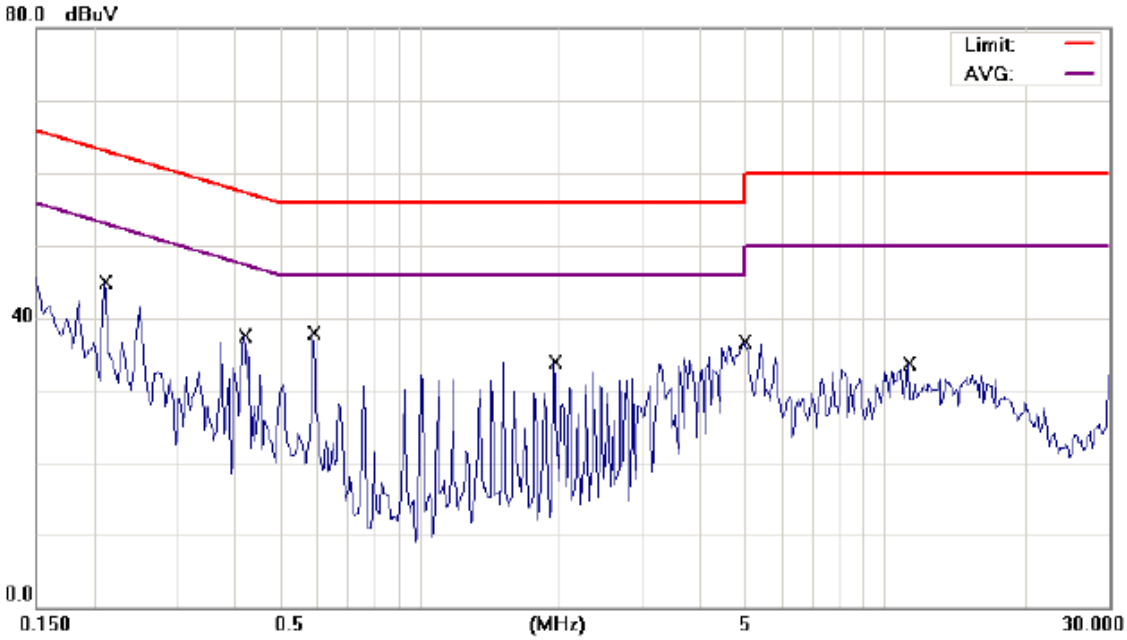
AC POWER LINE CONDUCTED EMISSION TEST DATA

Operation Mode:	GPRS 1900 Link			Test Date:	Nov. 04, 2008
Temperature:	26 ℃	Humidity:	58 %	Test By:	Bondi



Site SGS CONDUCTED #1 | Phase: L1 | Temperature: 26 ℃
Limit: CISPR22/11 Class B Conduction(QP) | Power: AC 120V/60Hz | Humidity: 62 %
EUT: HSDPA USB Data Modem | Distance: | Air Pressure: hpa
M/N: C177
Note: GPRS 1900 LINK Mode

No.	Mk.	Freq.	Reading Level	Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	*	0.1600	54.20	0.34	54.54	65.46	-10.92	QP	
2		0.4400	42.98	0.07	43.05	57.06	-14.01	QP	
3		0.5900	39.64	0.05	39.69	56.00	-16.31	QP	
4		2.2700	35.22	0.03	35.25	56.00	-20.75	QP	
5		5.7200	42.37	0.09	42.46	60.00	-17.54	QP	
6		10.1800	37.17	0.19	37.36	60.00	-22.64	QP	



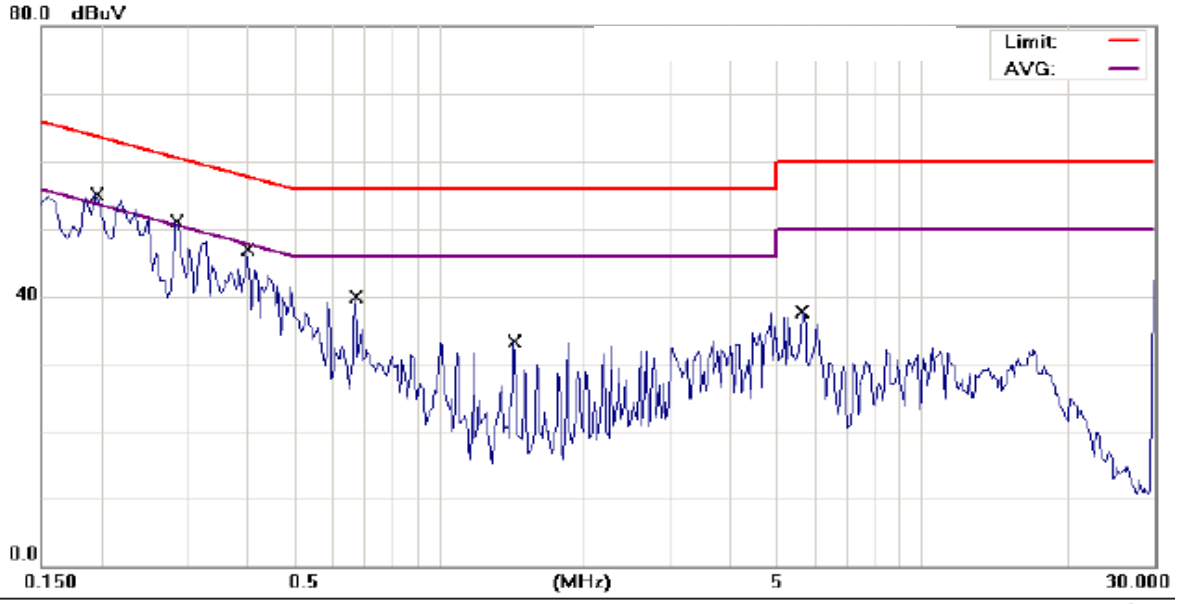
Site SGS CONDUCTED #1
Limit: CISPR22/11 Class B Conduction(QP)
EUT: HSDPA USB Data Modem
M/N: C177
Note: GPRS 1900 LINK Mode

Phase: *N*
Power: AC 120V/60Hz
Distance:

Temperature: 26 ℃
Humidity: 62 %
Air Pressure: hpa

No.	Mk.	Freq.	Reading Level	Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.2100	44.68	0.14	44.82	63.21	-18.39	QP	
2		0.4200	37.47	0.07	37.54	57.45	-19.91	QP	
3	*	0.5900	37.84	0.05	37.89	56.00	-18.11	QP	
4		1.9400	33.92	0.03	33.95	56.00	-22.05	QP	
5		4.9800	36.56	0.06	36.62	56.00	-19.38	QP	
6		11.2200	33.46	0.20	33.66	60.00	-26.34	QP	

Operation Mode:	WCDMA II LINK			Test Date:	Nov. 04, 2008
Temperature:	26 ℃	Humidity:	58 %	Test By:	Bondi

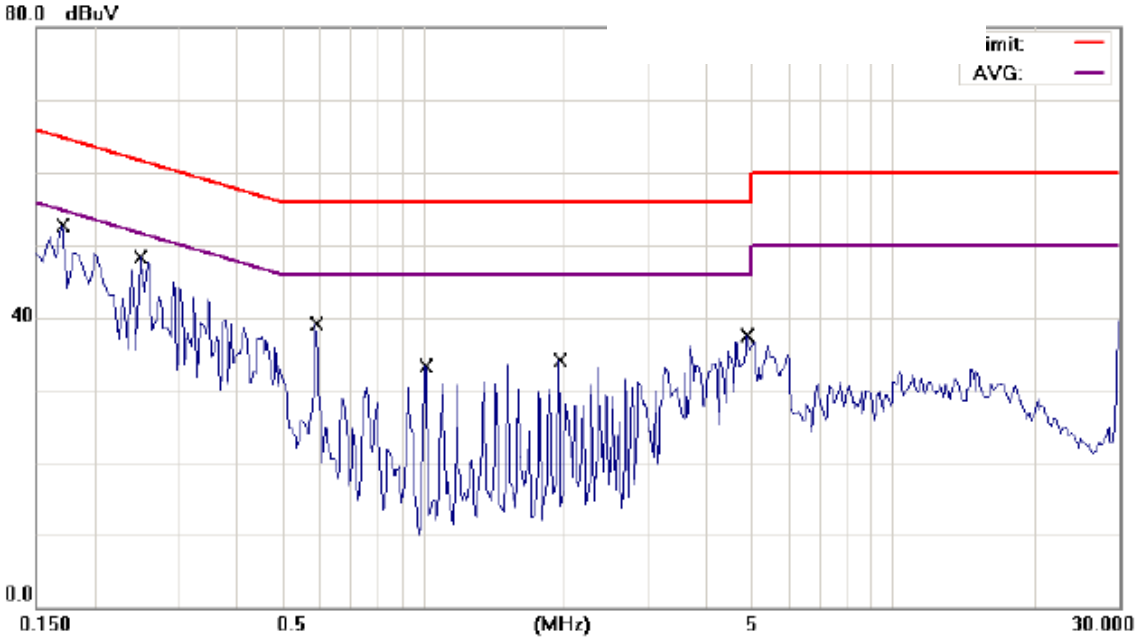


Site SGS CONDUCTED #1
Limit: CISPR22/11 Class B Conduction(QP)
EUT: HSDPA USB Data Modem
M/N: C177
Note: UMTS B2 LINK Mode

Phase: L1
Power: AC 120V/60Hz
Distance:

Temperature: 26 ℃
Humidity: 62 %
Air Pressure: hpa

No.	Mk.	Freq.	Reading Level	Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	*	0.1950	54.91	0.17	55.08	63.82	-8.74	QP	
2		0.1950	32.00	0.17	32.17	53.82	-21.65	AVG	
3		0.2850	50.93	0.11	51.04	60.67	-9.63	QP	
4		0.2850	26.00	0.11	26.11	50.67	-24.56	AVG	
5		0.4000	46.87	0.08	46.95	57.85	-10.90	QP	
6		0.6700	39.94	0.04	39.98	56.00	-16.02	QP	
7		1.4300	33.24	0.03	33.27	56.00	-22.73	QP	
8		5.6400	37.62	0.09	37.71	60.00	-22.29	QP	



Site SGS CONDUCTED #1
Limit: CISPR22/11 Class B Conduction(QP)
EUT: HSDPA USB Data Modem
M/N: C177
Note: UMTS B2 LINK Mode

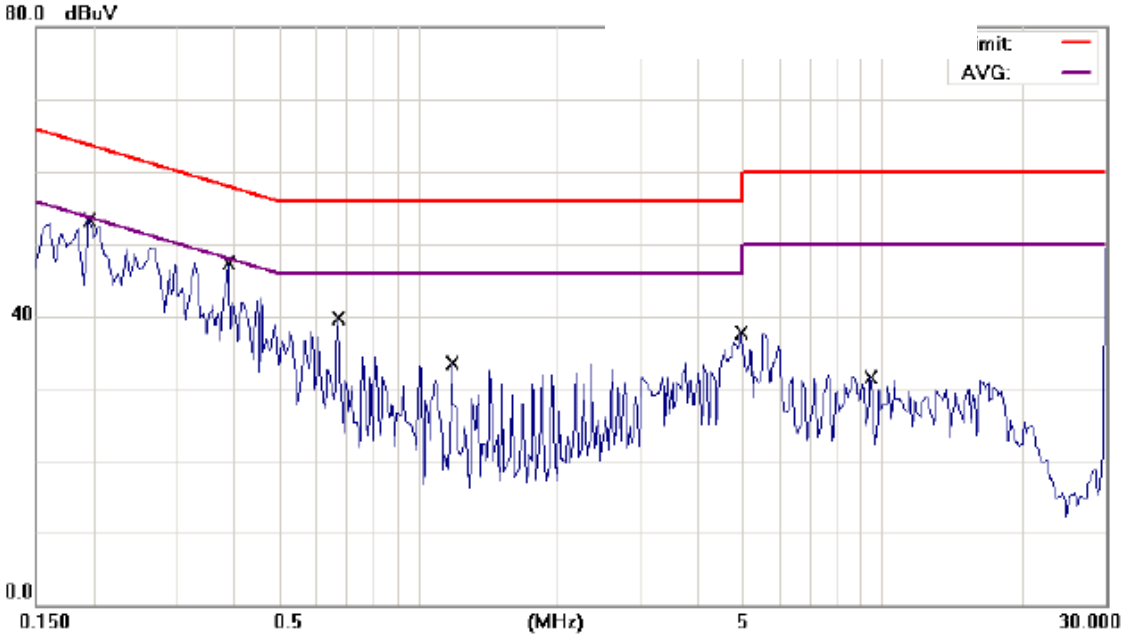
Phase: *N*
Power: AC 120V/60Hz
Distance:

Temperature: 26 ℃
Humidity: 62 %
Air Pressure: hpa

No.	Mk.	Freq.	Reading Level	Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	*	0.1700	52.37	0.29	52.66	64.96	-12.30	QP	
2		0.2500	48.27	0.13	48.40	61.76	-13.36	QP	
3		0.5900	39.02	0.05	39.07	56.00	-16.93	QP	
4		1.0100	33.31	0.03	33.34	56.00	-22.66	QP	
5		1.9400	34.04	0.03	34.07	56.00	-21.93	QP	
6		4.8900	37.38	0.06	37.44	56.00	-18.56	QP	

AC POWER LINE CONDUCTED EMISSION TEST DATA

Operation Mode:	WCDMA V Link			Test Date:	Nov. 04, 2008
Temperature:	26 ℃	Humidity:	58 %	Test By:	Bondi

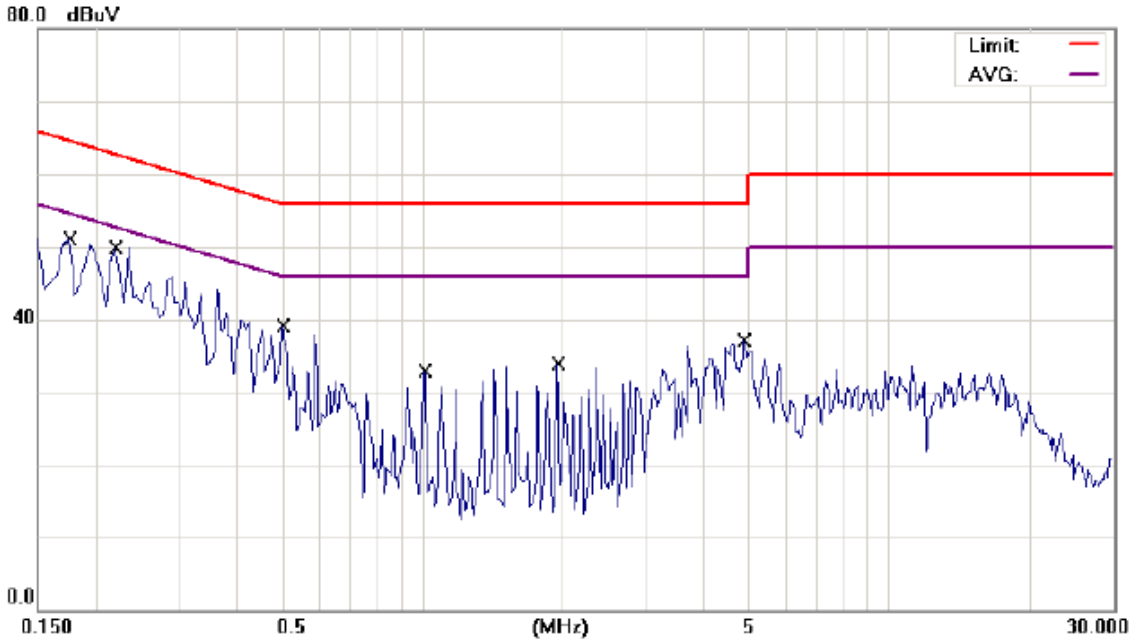


Site SGS CONDUCTED #1
Limit: CISPR22/11 Class B Conduction(QP)
EUT: HSDPA USB Data Modem
M/N: C177
Note: UMTS B5 LINK Mode

Phase: L1
Power: AC 120V/60Hz
Distance:

Temperature: 26 ℃
Humidity: 62 %
Air Pressure: hpa

No.	Mk.	Freq.	Reading Level	Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	*	0.1950	53.12	0.17	53.29	63.82	-10.53	QP	
2		0.3900	47.25	0.08	47.33	58.06	-10.73	QP	
3		0.6700	39.61	0.04	39.65	56.00	-16.35	QP	
4		1.1800	33.43	0.03	33.46	56.00	-22.54	QP	
5		4.9700	37.59	0.06	37.65	56.00	-18.35	QP	
6		9.4400	31.36	0.19	31.55	60.00	-28.45	QP	



Site SGS CONDUCTED #1
Limit: CISPR22/11 Class B Conduction(QP)
EUT: HSDPA USB Data Modem
M/N: C177
Note: UMTS B5 LINK Mode

Phase: N
Power: AC 120V/60Hz
Distance:

Temperature: 26 ℃
Humidity: 62 %
Air Pressure: hpa

No.	Mk.	Freq.	Reading Level	Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1750	50.90	0.27	51.17	64.72	-13.55	QP	
2	*	0.2200	49.85	0.13	49.98	62.82	-12.84	QP	
3		0.5000	39.10	0.05	39.15	56.00	-16.85	QP	
4		1.0100	32.86	0.03	32.89	56.00	-23.11	QP	
5		1.9400	33.88	0.03	33.91	56.00	-22.09	QP	
6		4.8900	36.99	0.06	37.05	56.00	-18.95	QP	