



FCC Test Report

for

47 CFR Part 22H, 24E

Equipment : Pocket PC Phone
Model No. : NEON100(HT1100)
FCC ID : NM8NEON100
Tx Frequency Range : GSM850 : 824.2 ~ 848.8MHz
PCS1900 : 1850.2 ~1909.8 MHz
WCDMA Band V : 826.4 ~ 846.6 MHz
Max. ERP/EIRP Power : GSM850(GSM) : 0.94 W
GSM850(EDGE) : 0.24 W
PCS1900(GSM) : 1.25 W
PCS1900(EDGE) : 0.41 W
WCDMA Band V : 0.08 W
WCDMA Band V(HSDPA) : 0.06 W
Emission Designator : GSM : 300KGXW
EDGE : 300KG7W
WCDMA : 4M22F9W
Applicant : High Tech Computer Corp.
1F, No.6-3, Baoqiang Rd, Xindian City, Taipei, Taiwan

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- The data shown in this test report were carried out on Oct. 12, 2007 at **Sporton International Inc. LAB.**
- Report No.: FG792103, Report Version: Rev. 02.

Jones Tsai
Manager

SPORTON International Inc.

6F, No.106, Sec. 1, Hsin Tai Wu Rd., Hsi Chih, Taipei Hsien, Taiwan, R.O.C.



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Appendix A - External Photographs of EUT

Appendix B - Internal Photographs of EUT

Appendix C - Setup Photographs



History of this test report

Report Issue Date: Dec. 06, 2007

Report No.	Description



1. General Information

1.2 Applicant

High Tech Computer Corp.

1F, No.6-3, Baoqiang Rd, Xindian City, Taipei, Taiwan

1.3 Manufacturer

High Tech Computer Corp.

1F, No.6-3, Baoqiang Rd, Xindian City, Taipei, Taiwan

1.4 Basic Description of Equipment under Test

Equipment		Pocket PC Phone
Model Name		NEON100(HT1100)
FCC ID		NM8NEON100
AC Adapter A	Brand Name	PhiHong
	Model Name	PSA105R-050Q
	Power Rating	I/P:100-240Vac, 50-60Hz, 0.3A; O/P: 5Vdc, 1A
	AC Power Cord Type	1.8 meter shielded cable without ferrite non-core
AC Adapter B	Brand Name	PhiHong
	Model Name	PSAA05X-050
	Power Rating	I/P:100-240Vac, 50-60Hz, 200mA; O/P: 5Vdc, 1A
	AC Power Cord Type	1.8 meter shielded cable without ferrite non-core
Battery	Manufacturer	Simplo
	Brand Name	hTC
	Model Name	NEON160
	Power Rating	3.7Vdc, 1000mAh
	Type	Li-ion
Earphone A	Brand Name	HTC
	Model Name	HS S168
	Signal Line Type	1.5 meter non-shielded cable without ferrite non-core
Earphone B	Brand Name	HTC
	Model Name	HS S200
	Signal Line Type	1.7 meter non-shielded cable without ferrite non-core
USB Cable	Brand Name	MEC
	Model Name	60-4251-100
	Signal Line Type	1.2 meter shielded cable with ferrite non-core
Holster	Brand Name	NewTech
	Model Name	HTC494-31

Remark:

1. bove EUT's information was declared by manufacturer. Please refer to the specifications of manufacturer or User's Manual for more detailed features description.
2. PSAA05X-050(X=A,C,E,K or S), have the same circuit design, the difference between these models are plug,only PSAA05E-050 used for testing.

**1.5 Feature of Equipment under Test**

DUT Type :	Pocket PC Phone
Model Name :	NEON100(HT1100)
FCC ID :	NM8NEON100
Tx Frequency :	GSM850 : 824 ~ 849 MHz PCS1900 : 1850 ~1910 MHz WCDMA Band V : 824 ~ 849 MHz Bluetooth : 2400 ~ 2483.5 MHz
Rx Frequency :	GSM850 : 869 ~ 894 MHz PCS1900 : 1930 ~ 1990 MHz WCDMA Band V : 869 ~ 894 MHz Bluetooth : 2400 ~ 2483.5 MHz
HW Version:	XC01
SW Version:	25.50.30.01
Maximum Output Power to Antenna :	GSM850 : 32.98 dBm(GSM) / 26.38 dBm(EDGE) / PCS1900 : 29.71 dBm(GSM) / 24.63 dBm(EDGE) / WCDMA Band V : 23.51 dBm(12.2kbps) / 23.56 dBm(64kbps) / 23.45 dBm(144kbps) / 23.40 dBm(384kbps) / 23.42 dBm(AMR) / 23.85 dBm(HSDPA) Bluetooth : 1.18 dBm(1Mbps) Bluetooth EDR : 2.23 dBm(2Mbps) / 2.47 dBm(3Mbps)
Maximum ERP/EIRP :	GSM850(GSM) : 0.94 W (29.75 dBm) GSM850(EDGE) : 0.24 W (23.80 dBm) PCS1900(GSM) : 1.25 W (30.97 dBm) PCS1900(EDGE) : 0.41 W (26.13 dBm) WCDMA Band V : 0.08 W (18.93 dBm) WCDMA Band V(HSDPA) : 0.06 W (17.63 dBm)
Antenna Type :	PIFA Antenna
Type of Antenna Connector	N/A
Power Rating (DC/AC , Voltage and Current of RF element or PA) :	GSM : 4.2V / 1.8A WCDMA : 4.2V / 0.5A
GPRS / EGPRS Multislot class :	12
Digital Modulation Emission :	GSM : GMSK EDGE : 8PSK WCDMA / HSDPA : QPSK Bluetooth : GFSK
Type of Emission :	GSM : 300KGXW EDGE : 300KG7W WCDMA : 4M22F9W
DUT Stage :	Production Unit



1.6 Report Date

EUT Received : Sep. 21, 2007

Report Date : Dec. 06, 2007

2. Test Configuration of Equipment under Test

2.1 Test Manner

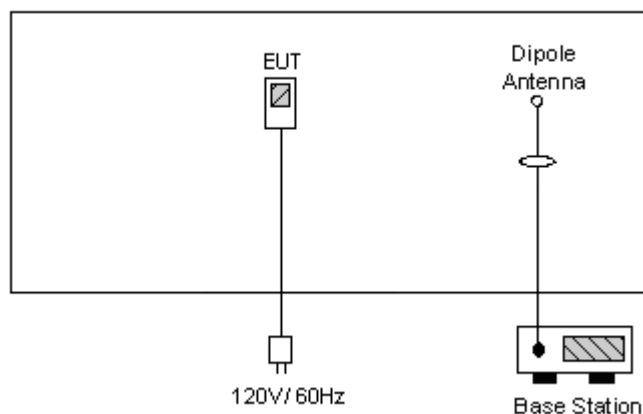
1. The spurious emission measurements were carried out in semi-anechoic chamber with 3-meter test range.
2. During all testings, EUT is in link mode with base station emulator at maximum power level.
3. Frequency range investigated: radiated emission 30 MHz to 9000 MHz for GSM850 and WCDMA Band V; 30MHz to 19000 MHz for PCS1900.

2.2 Test Mode

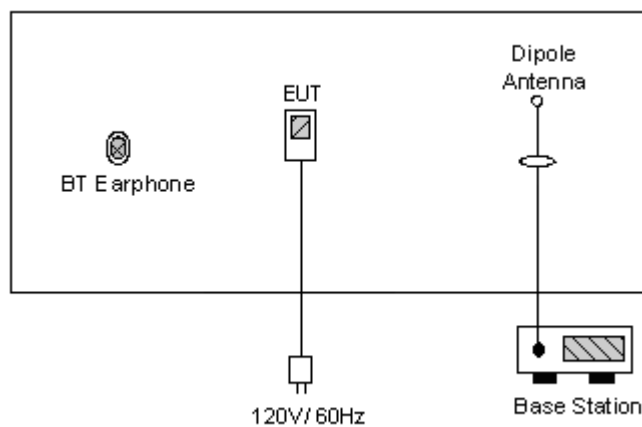
Application	GSM850	PCS1900	WCDMA Band V
Radiated Emission	☒ Mode 1: GSM Link	☒ Mode 3: GSM Link	☒ Mode 5: WCDMA Link
	☒ Mode 2: EDGE Link	☒ Mode 4: EDGE Link	☒ Mode 6: HSDPA Link
	☒ Mode 7: GSM Link + BT Link		
Conducted Measurement	☒ Mode 1: GSM Link	☒ Mode 3: GSM Link	☒ Mode 5: WCDMA Link
	☒ Mode 2: EDGE Link	☒ Mode 4: EDGE Link	☒ Mode 6: HSDPA Link

2.3 Connection Diagram of Test System

<Mode 1~6>



<Mode 7>



2.4 Ancillary Equipment List

Item	Equipment	Trade Name	Model No.	FCC ID	Cable Cord / Power Code
1.	Base Station	R&S	CMU200	N/A	Unshielded, 1.8m
2.	BT Earphone	Engotech	ET-BH111	PQY471087	N/A



3. General Information of Test Site

Test Site Location : No. 52, Hwa Ya 1st Rd., Hwa Ya Technology Park,
Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C.
TEL : 886-3-327-3456
FAX : 886-3-328-4978
Test Site No : 03CH04-HY, TH02-HY

The chamber meets the characteristics of ANSI C63.4-2003. This site is on file with the FCC.

3.1 Test Voltage

AC 120V / 60Hz

3.2 Test Compliance

47 CFR Part 22H, 24E, Part 2

Preliminary Guidance for Receiving Applications for Certification of 3G Device. May 9, 2006.

3.3 Frequency Range

- a. Radiation: from 30MHz to 9000MHz for GSM850 and WCDMA Band V.
- b. Radiation: from 30 MHz to 19000 MHz for PCS1900.

3.4 Test Distance

The test distance of radiated emission from antenna to EUT is 3 m.

4. Test Data and Test Result

4.1 List of Measurements and Examinations

FCC Rule	Description of Test	Result	Section
§2.1046	RF Output Power	Passed	4.2
§ 22.913 §24.232	ERP / EIRP	Passed	4.3
§2.1049, § 22.917, § 24.238(b)	Occupied Bandwidth & Band Edge Measurement	Passed	4.4
§2.1051	Conducted Emission	Passed	4.5
§2.1053	Field Strength of Spurious Radiation	Passed	4.6
§2.1055, § 22.355, §24.235	Frequency Stability vs. Temperature	Passed	4.7
§2.1055, §22.355, §24.235	Frequency Stability vs. Voltage	Passed	4.8

4.2 RF Output Power

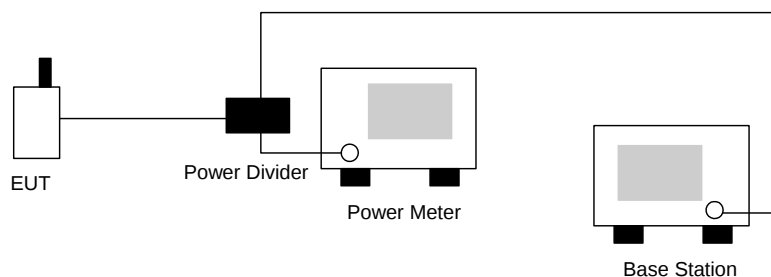
4.2.1 Measurement Instruments :

As described in chapter 5 of this test report.

4.2.2 Test Procedure :

- a. The transmitter output was connected to power meter and base station through power divider.
- b. Set EUT at maximum power through base station.
- c. Select lowest, middle, and highest channels for each band.

4.2.3 Test Setup Layout :



**4.2.4 Test Result :**

Bands	Channel	Frequency (MHz)	Conducted Power (dBm)	Conducted Power (Watts)
GSM850 (GSM)	128	824.2 (Low)	32.95	1.972
	189	836.4 (Mid)	32.93	1.963
	251	848.8 (High)	32.98	1.986
GSM850 (EDGE)	128	824.2 (Low)	26.37	0.434
	189	836.4 (Mid)	26.38	0.435
	251	848.8 (High)	26.36	0.433
PCS1900 (GSM)	512	1850.2 (Low)	29.71	0.935
	661	1880.0 (Mid)	29.56	0.904
	810	1909.8 (High)	29.42	0.875
PCS1900 (EDGE)	512	1850.2 (Low)	23.78	0.239
	661	1880.0 (Mid)	24.18	0.262
	810	1909.8 (High)	24.63	0.290
WCDMA Band V (12.2 Kbps)	4132	826.4 (Low)	23.51	0.224
	4182	836.4 (Mid)	23.27	0.212
	4233	846.6 (High)	23.30	0.214
WCDMA Band V (64 Kbps)	4132	826.4 (Low)	23.56	0.227
	4182	836.4 (Mid)	23.40	0.219
	4233	846.6 (High)	23.29	0.213
WCDMA Band V (144 Kbps)	4132	826.4 (Low)	23.45	0.221
	4182	836.4 (Mid)	23.30	0.214
	4233	846.6 (High)	23.34	0.216
WCDMA Band V (384k bps)	4132	826.4 (Low)	23.40	0.219
	4182	836.4 (Mid)	23.13	0.206
	4233	846.6 (High)	23.36	0.217
WCDMA Band V (AMR)	4132	826.4 (Low)	23.42	0.220
	4182	836.4 (Mid)	23.26	0.212
	4233	846.6 (High)	23.31	0.214
WCDMA Band V (HSDPA)	4132	826.4 (Low)	23.85	0.243
	4182	836.4 (Mid)	23.82	0.241
	4233	846.6 (High)	23.78	0.239

4.3 ERP / EIRP Measurement

Equivalent isotropic radiated power measurements by substitution method according to ANSI/TIA/EIA-603-C.

4.3.1 Measurement Instruments

As described in chapter 5 of this test report.

4.3.2 Test Procedure

- a. The EUT was placed on a tutable with 1.0 meter height in an fully anechoic chamber.
- b. The EUT was set 1.2 meters from the receiving antenna which was mounted on the antenna tower.
- c. The table was rotated 360 degrees to determine the position of the highest radiated power.
- d. The height of the receiving antenna is also kept at 1.0M height.
- e. Taking the record of maximum ERP/EIRP.
- f. A dipole antenna was substituted in place of the EUT and was driven by a signal generator.
- g. The conducted power at the terminal of the dipole antenna is measured.
- h. Repeat step 3 to step 5 to get the maximum ERP/EIRP of the substitution antenna.
- i. $ERP/EIRP = P_s + E_t - E_s + G_s = P_s + R_t - R_s + G_s$

P_s (dBm) : Input power to substitution antenna.

G_s (dBi or dBd) : Substitution antenna Gain.

$E_t = R_t + AF$

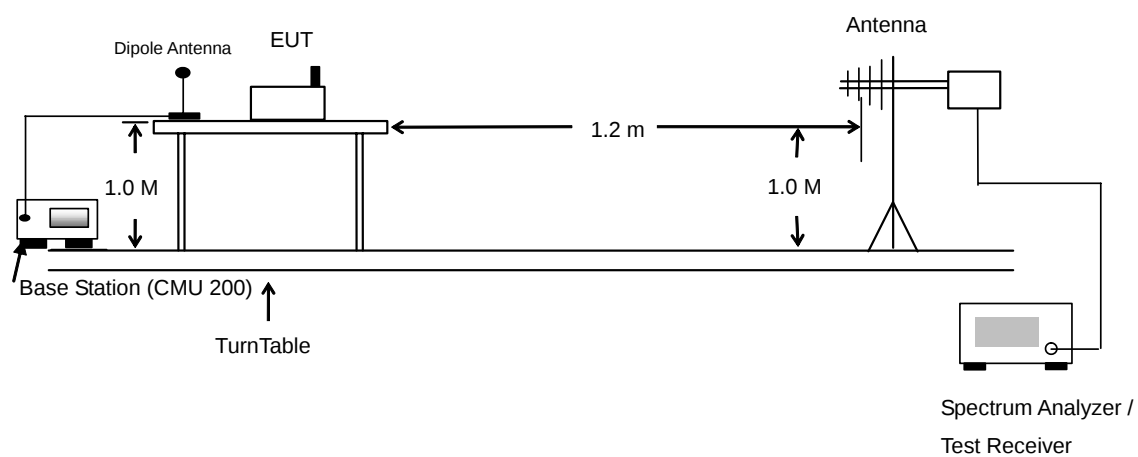
$E_s = R_s + AF$

AF (dB/m) : Receive antenna factor

R_t : The highest received signal in Spectrum Analyzer for EUT.

R_s : The highest received signal in spectrum analyzer for substitution antenna.

4.3.3 Test Setup Layout of ERP/EIRP



**4.3.4 Test Result**

GSM850 (GSM) Radiated Power ERP						
Horizontal Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBd)	ERP (dBm)	ERP (W)
824.20	-18.91	-48.12	0.00	-1.08	28.13	0.65
836.40	-18.08	-48.28	0.00	-0.93	29.27	0.85
848.80	-17.84	-48.35	0.00	-0.76	29.75	0.94
Vertical Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBd)	ERP (dBm)	ERP (W)
824.20	-30.72	-47.97	0.00	-1.08	16.17	0.04
836.40	-29.85	-48.01	0.00	-0.93	17.23	0.05
848.80	-29.76	-48.05	0.00	-0.76	17.53	0.06

GSM850 (EDGE) Radiated Power ERP						
Horizontal Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBd)	ERP (dBm)	ERP (W)
824.20	-24.62	-48.12	0.00	-1.08	22.42	0.17
836.40	-23.55	-48.28	0.00	-0.93	23.80	0.24
848.80	-25.20	-48.35	0.00	-0.76	22.39	0.17
Vertical Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBd)	ERP (dBm)	ERP (W)
824.20	-37.18	-47.97	0.00	-1.08	9.71	0.01
836.40	-36.75	-48.01	0.00	-0.93	10.33	0.01
848.80	-38.87	-48.05	0.00	-0.76	8.42	0.01



PCS1900 (GSM) Radiated Power EIRP						
Horizontal Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBi)	EIRP (dBm)	EIRP (W)
1850.20	-24.18	-51.88	0.00	1.96	29.66	0.92
1880.00	-24.67	-52.99	0.00	2.00	30.32	1.08
1909.80	-25.41	-54.28	0.00	1.98	30.85	1.22
Vertical Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBi)	EIRP (dBm)	EIRP (W)
1850.20	-24.77	-52.13	0.00	1.96	29.32	0.86
1880.00	-25.03	-53.17	0.00	2.00	30.14	1.03
1909.80	-25.14	-54.13	0.00	1.98	30.97	1.25

PCS1900 (EDGE) Radiated Power EIRP						
Horizontal Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBi)	EIRP (dBm)	EIRP (W)
1850.20	-29.42	-51.88	0.00	1.96	24.42	0.28
1880.00	-28.95	-52.99	0.00	2.00	26.04	0.40
1909.80	-30.56	-54.28	0.00	1.98	25.70	0.37
Vertical Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBi)	EIRP (dBm)	EIRP (W)
1850.20	-29.63	-52.13	0.00	1.96	24.46	0.28
1880.00	-29.85	-53.17	0.00	2.00	25.32	0.34
1909.80	-29.98	-54.13	0.00	1.98	26.13	0.41



WCDMA Band V Radiated Power ERP						
Horizontal Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBd)	ERP (dBm)	ERP (W)
826.40	-29.62	-48.12	0.00	-1.08	17.42	0.06
836.40	-28.72	-48.28	0.00	-0.93	18.63	0.07
846.60	-28.66	-48.35	0.00	-0.76	18.93	0.08
Vertical Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBd)	ERP (dBm)	ERP (W)
826.40	-41.43	-47.97	0.00	-1.08	5.46	0.00
836.40	-39.60	-48.01	0.00	-0.93	7.48	0.01
846.60	-42.04	-48.05	0.00	-0.76	5.25	0.00

WCDMA Band V (HSDPA) Radiated Power ERP						
Horizontal Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBd)	ERP (dBm)	ERP (W)
826.40	-30.53	-48.12	0.00	-1.08	16.51	0.04
836.40	-29.78	-48.28	0.00	-0.93	17.57	0.06
846.60	-29.96	-48.35	0.00	-0.76	17.63	0.06
Vertical Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBd)	ERP (dBm)	ERP (W)
826.40	-43.97	-47.97	0.00	-1.08	2.92	0.00
836.40	-43.01	-48.01	0.00	-0.93	4.07	0.00
846.60	-43.29	-48.05	0.00	-0.76	4.00	0.00

4.4 Occupied Bandwidth and Band Edge Measurement

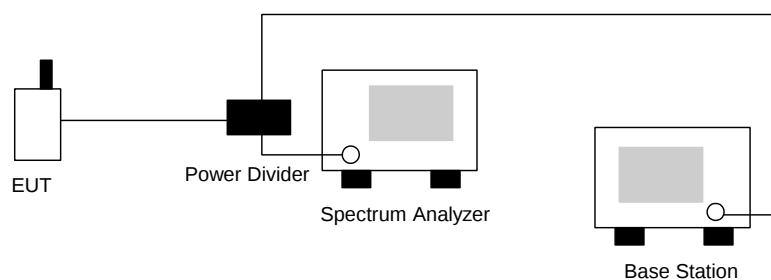
4.4.1 Measurement Instruments

As described in chapter 5 of this test report.

4.4.2 Test Procedure

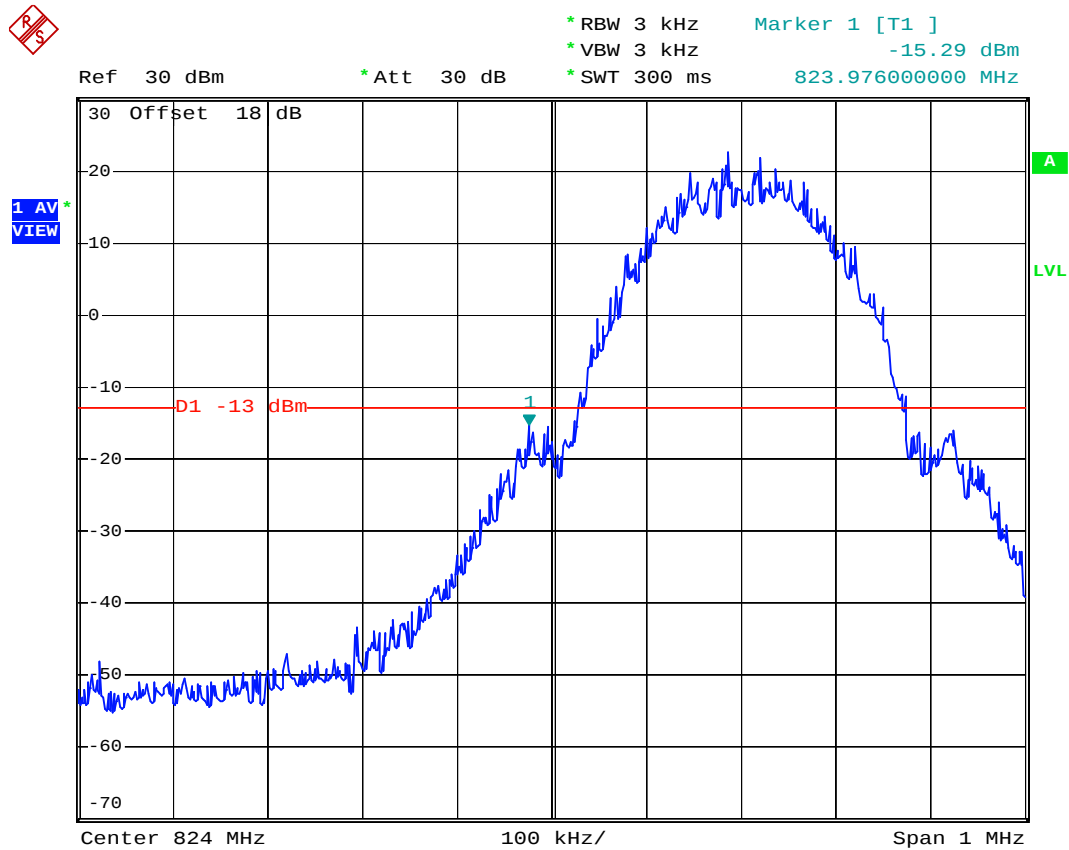
- a. The EUT was connected to Spectrum Analyzer and Base Station via power divider.
- b. The 99% occupied bandwidth of middle channel for the highest and lowest RF powers were measured.
- c. The bandedge of low and high channels for the highest RF powers within the transmitting frequency band were measured. Setting RBW as roughly BW/100.

4.4.3 Test Setup Layout



**4.4.4 Test Result**

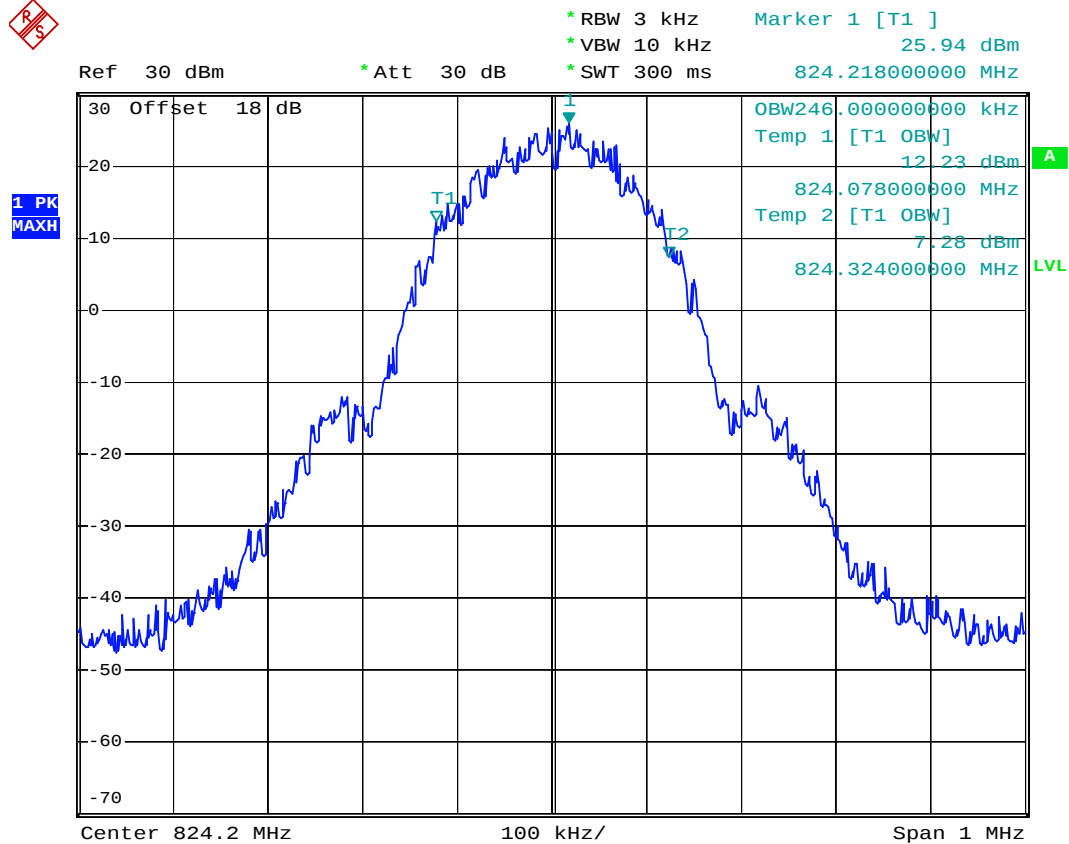
- Mode 1
- Test Mode : GSM850 (GSM) CH128 Lower Band Edge
- Power State : High



Date: 30.SEP.2007 20:08:47



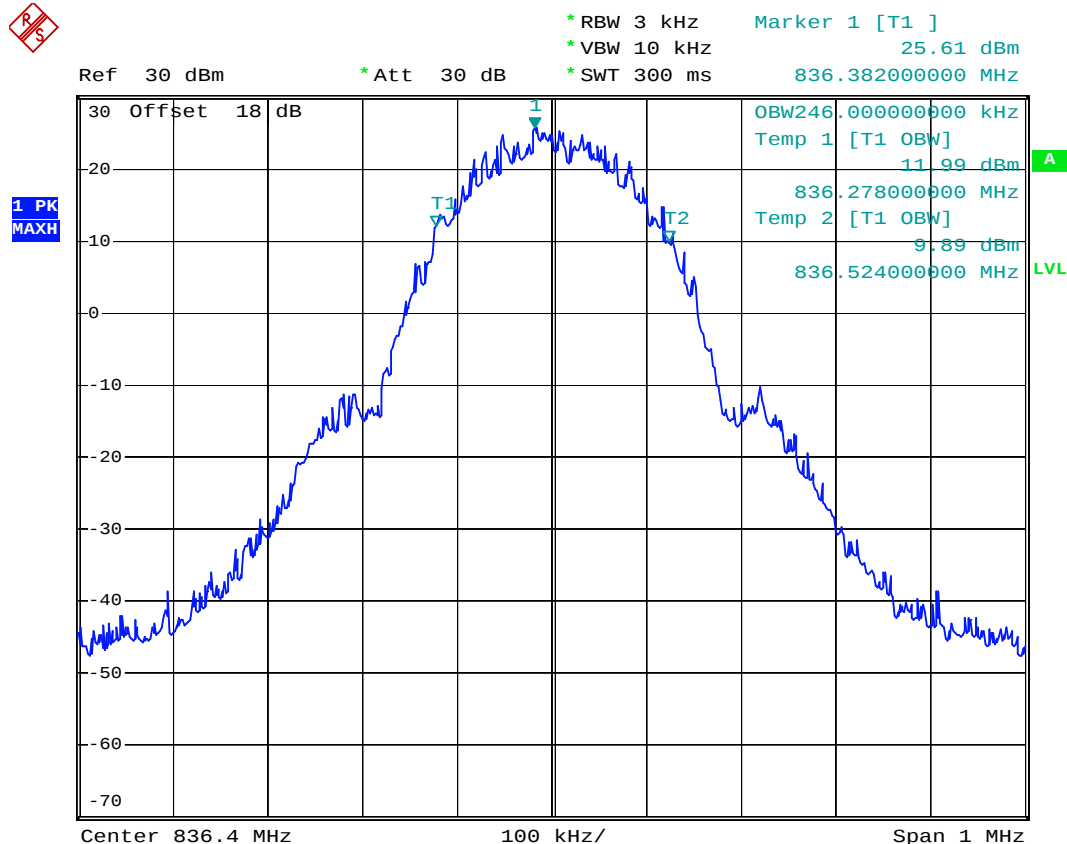
- Test Mode : GSM850 (GSM) CH128 99% Occupied Bandwidth
- Power State : High



Date: 30.SEP.2007 19:57:08



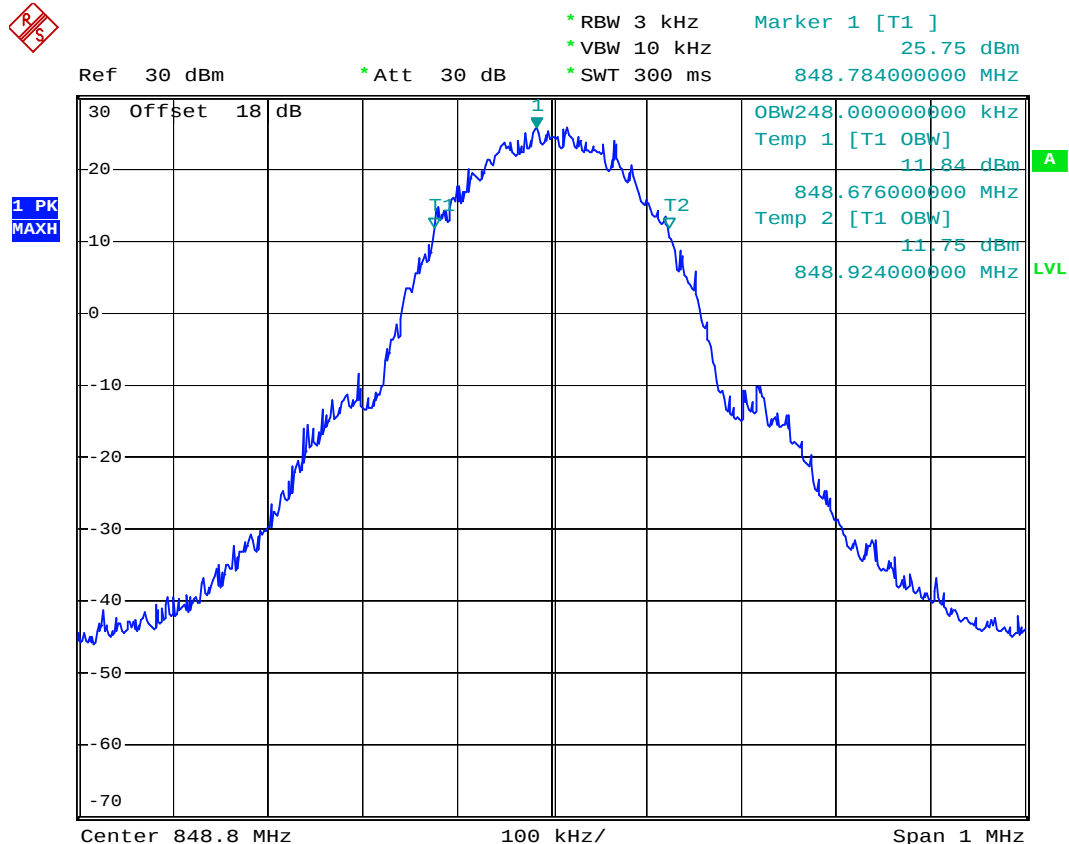
- Test Mode : GSM850 (GSM) CH189 99% Occupied Bandwidth
- Power State : High



Date: 30.SEP.2007 19:58:59



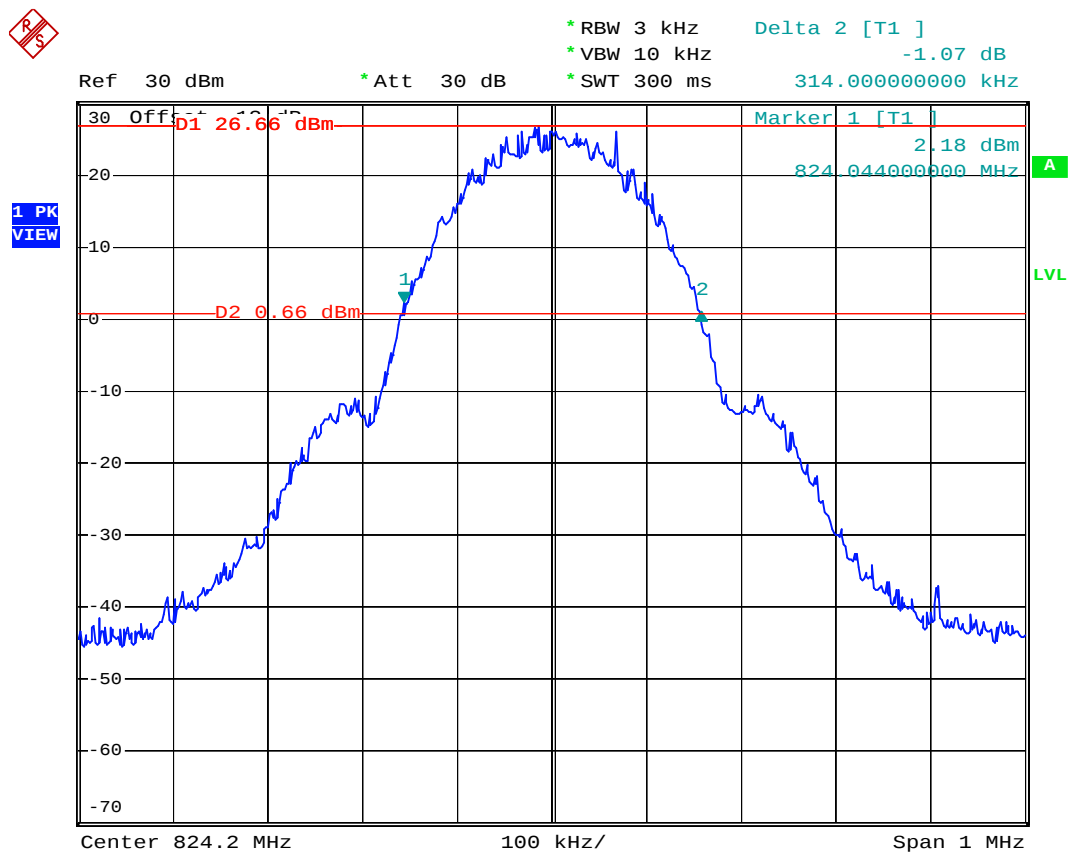
- Test Mode : GSM850 (GSM) CH 251 99% Occupied Bandwidth
- Power State : High



Date: 30.SEP.2007 19:55:35



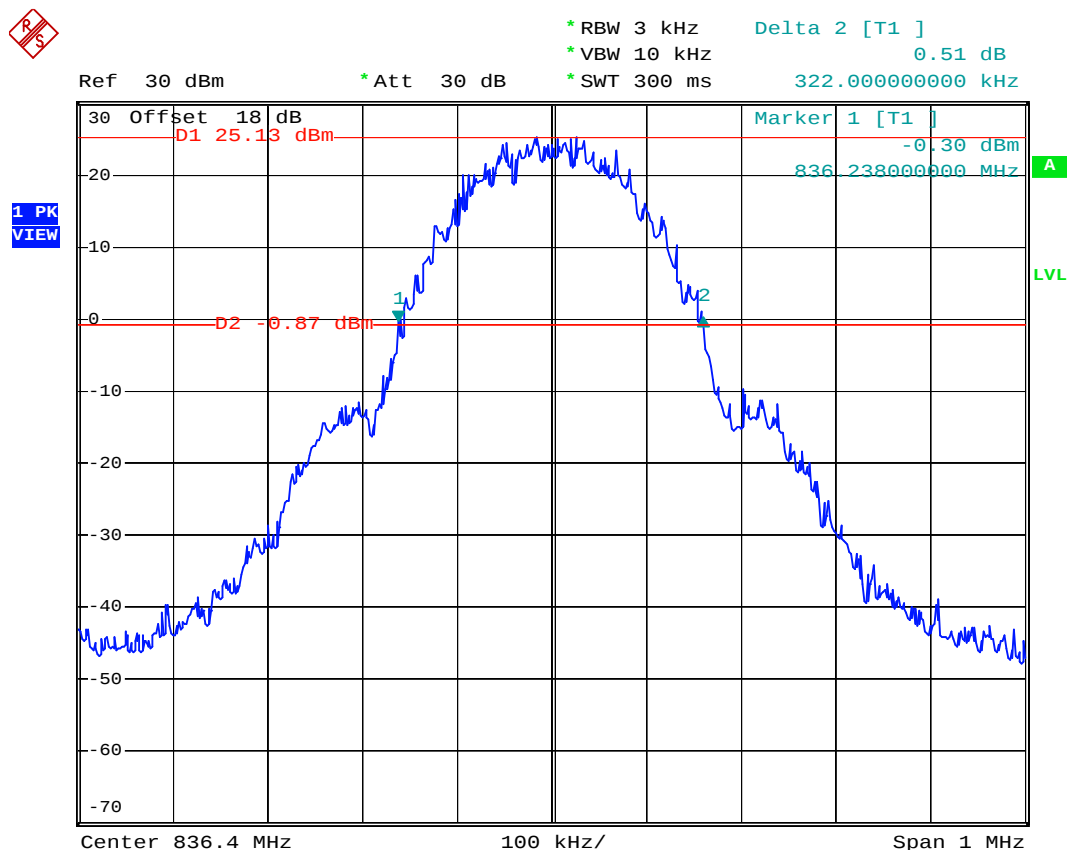
- Test Mode : GSM850 (GSM) CH128 26dB Bandwidth
- Power State : High



Date: 30.SEP.2007 19:49:08



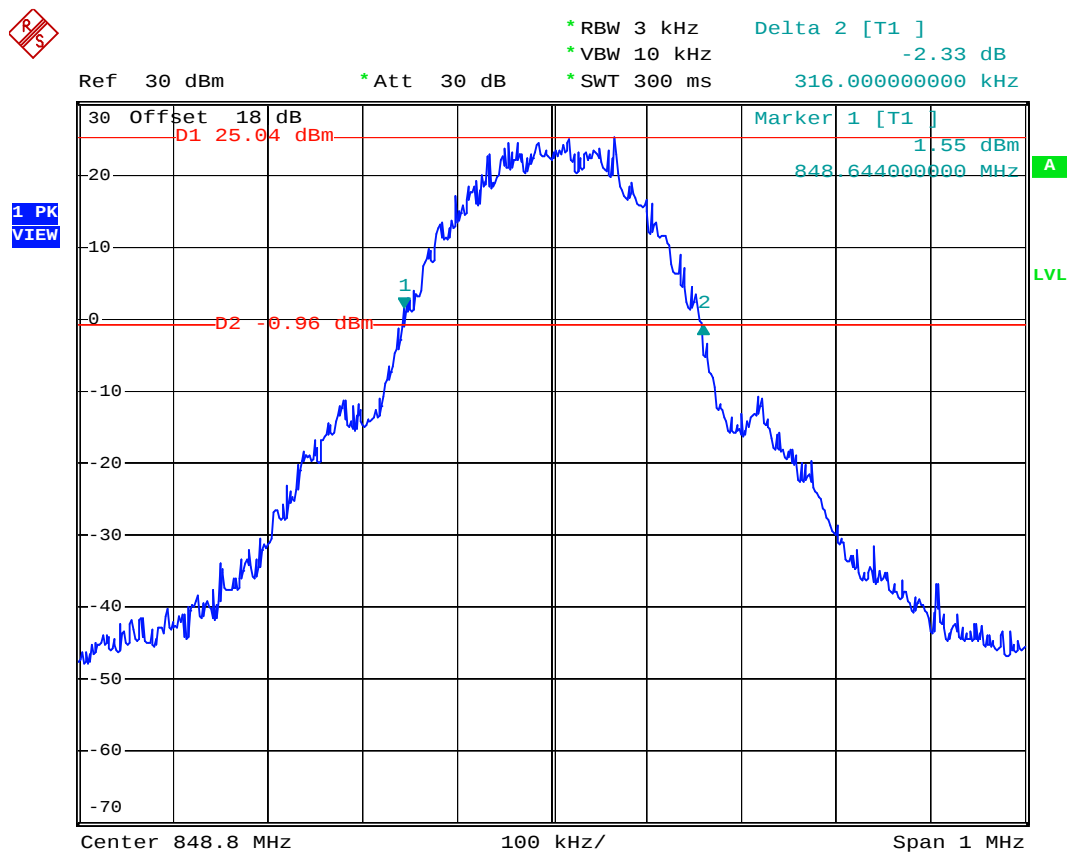
- Test Mode : GSM850 (GSM) CH189 26dB Bandwidth
- Power State : High



Date: 30.SEP.2007 19:50:54



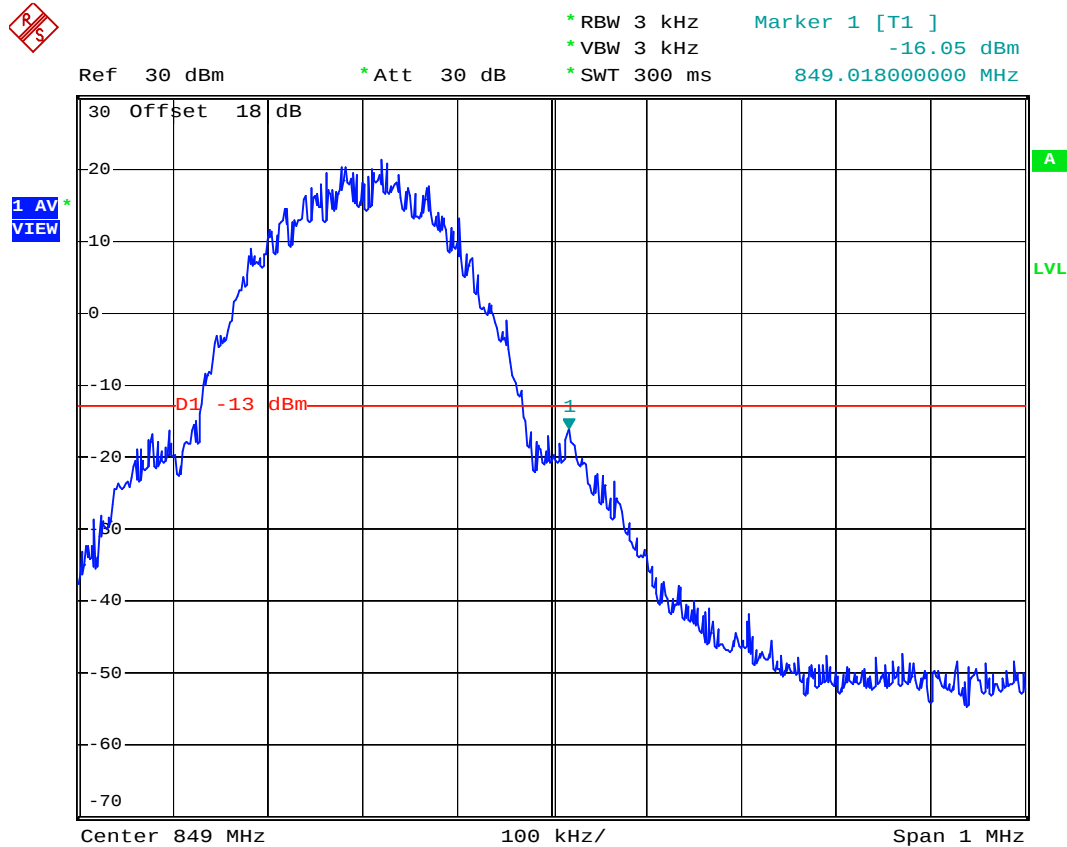
- Test Mode : GSM850 (GSM) CH 251 26dB Bandwidth
- Power State : High



Date: 30.SEP.2007 19:53:09



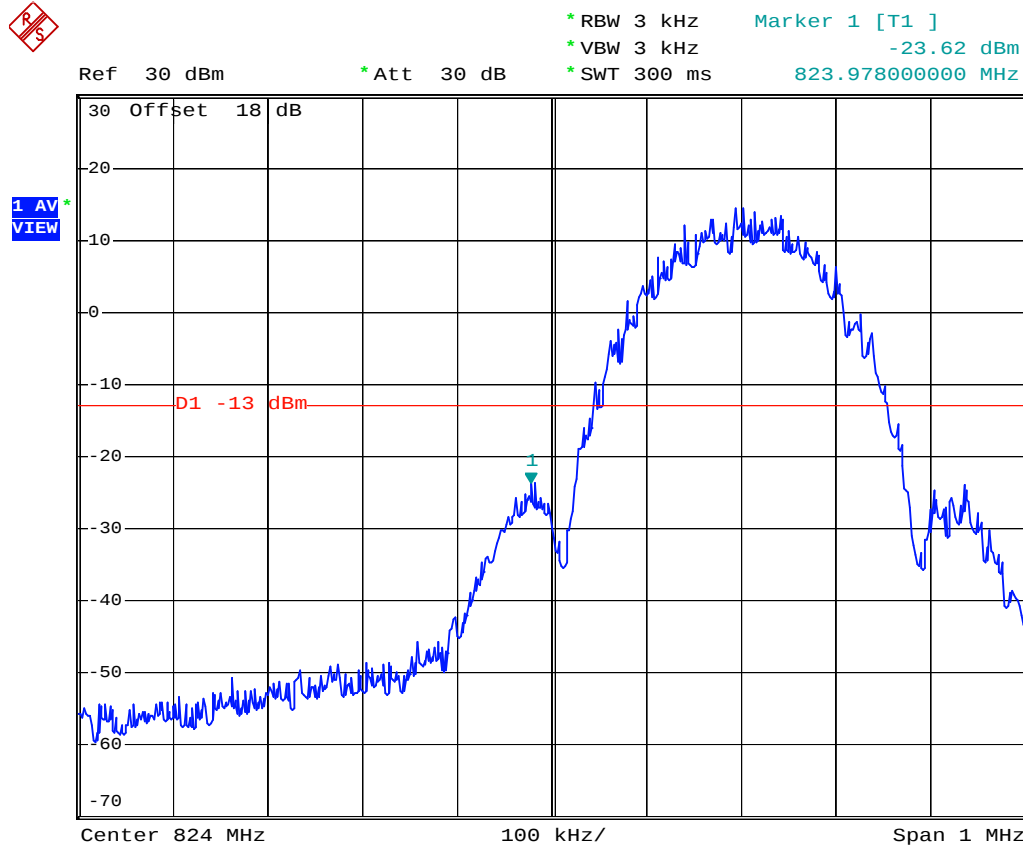
- Test Mode : GSM850 (GSM) CH251 Higher Band Edge
- Power State : High



Date: 30.SEP.2007 20:12:56



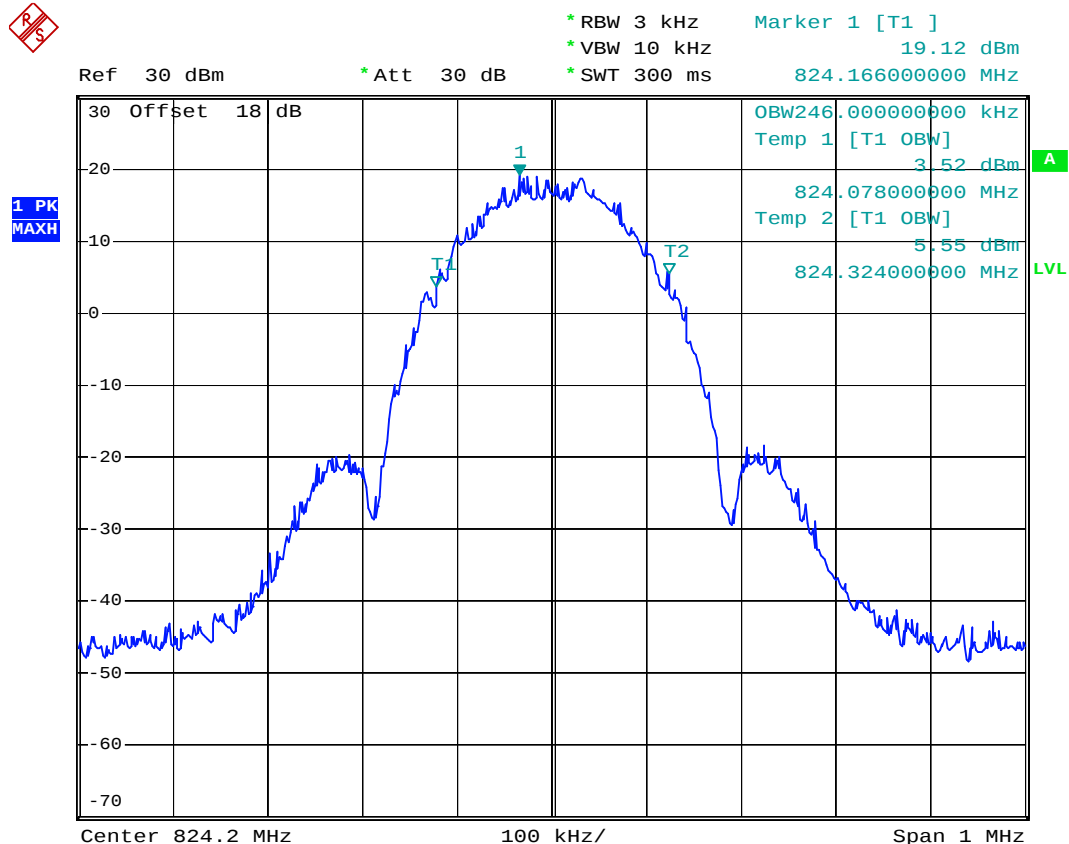
- Mode 2
- Test Mode : GSM850 (EDGE) CH128 Lower Band Edge
- Power State : High



Date: 30.SEP.2007 21:26:00



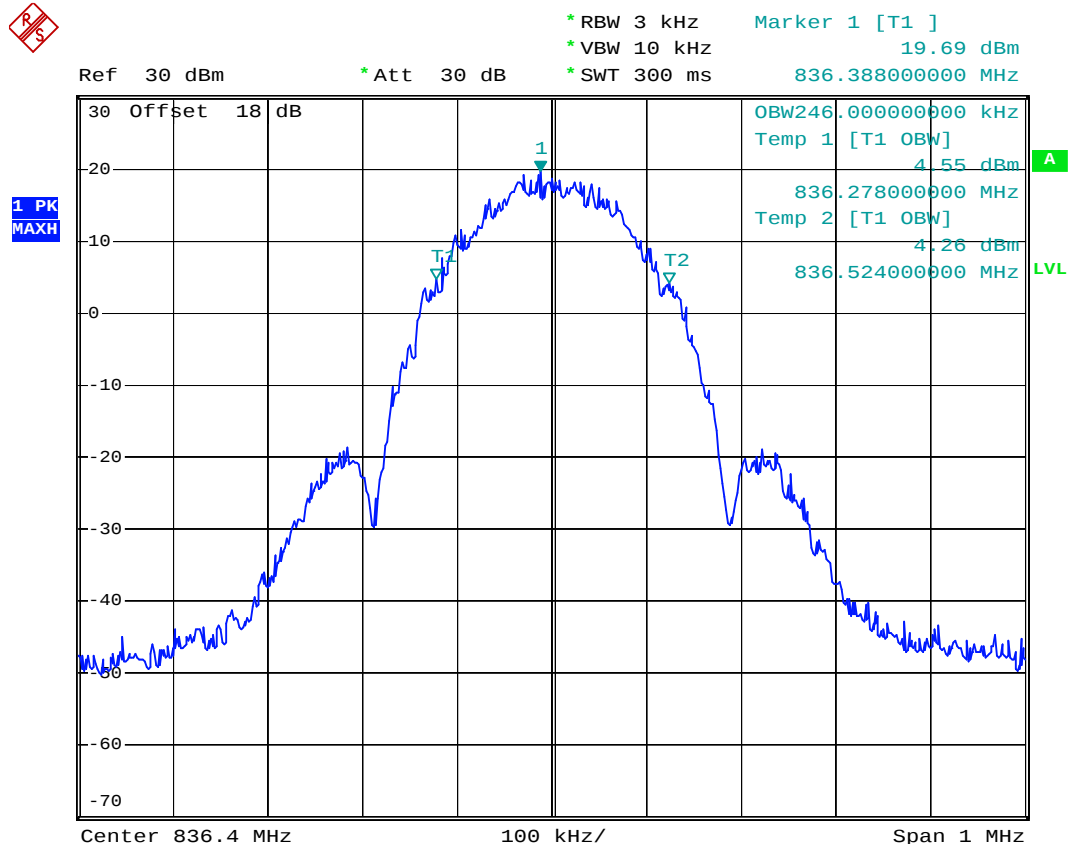
- Test Mode : GSM850 (EDGE) CH128 99% Occupied Bandwidth
- Power State : High



Date: 30.SEP.2007 21:14:33



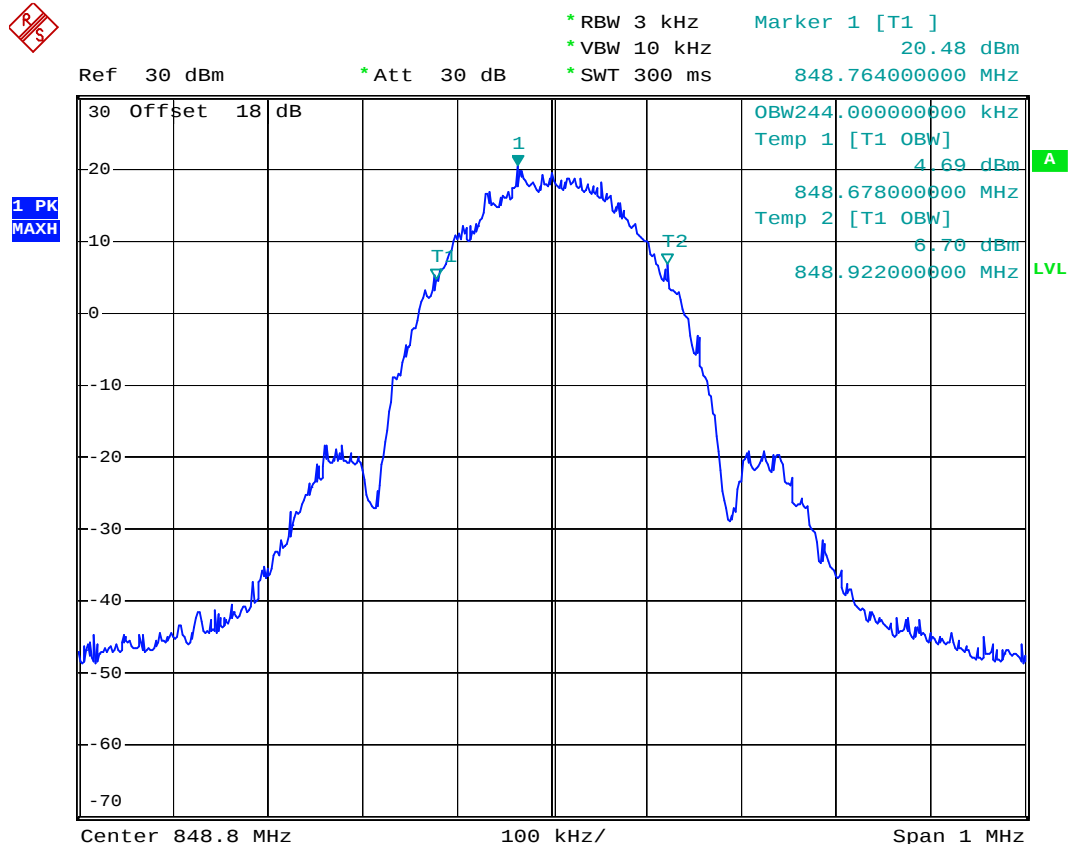
- Test Mode : GSM850 (EDGE) CH189 99% Occupied Bandwidth
- Power State : High



Date: 30.SEP.2007 21:15:34



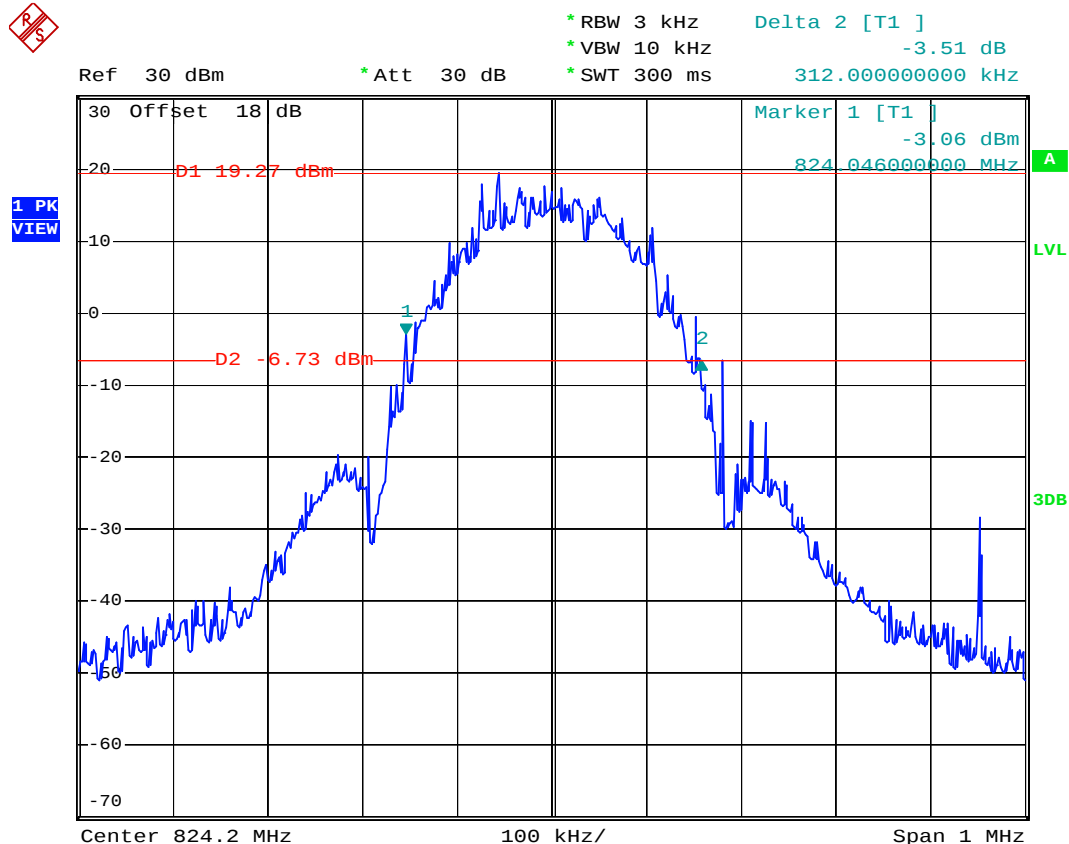
- Test Mode : GSM850 (EDGE) CH 251 99% Occupied Bandwidth
- Power State : High



Date: 30.SEP.2007 21:13:26



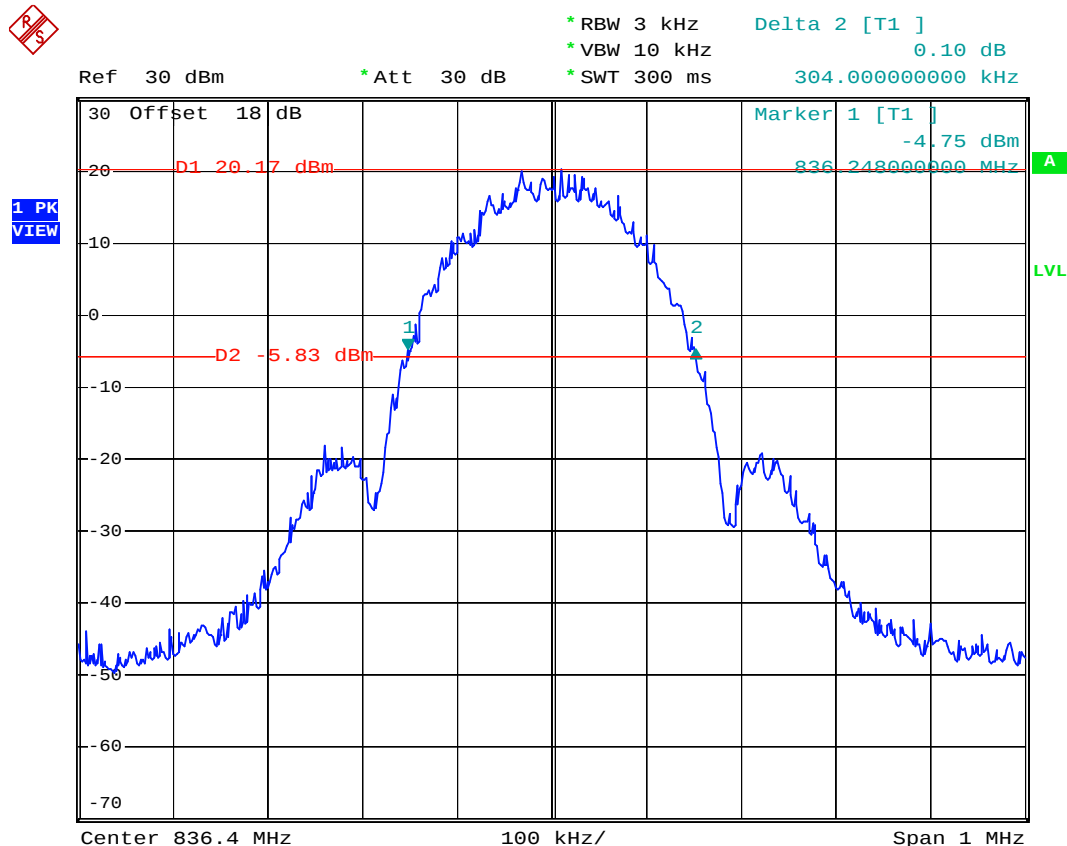
- Test Mode : GSM850 (EDGE) CH128 26dB Bandwidth
- Power State : High



Date: 8.OCT.2007 17:15:57



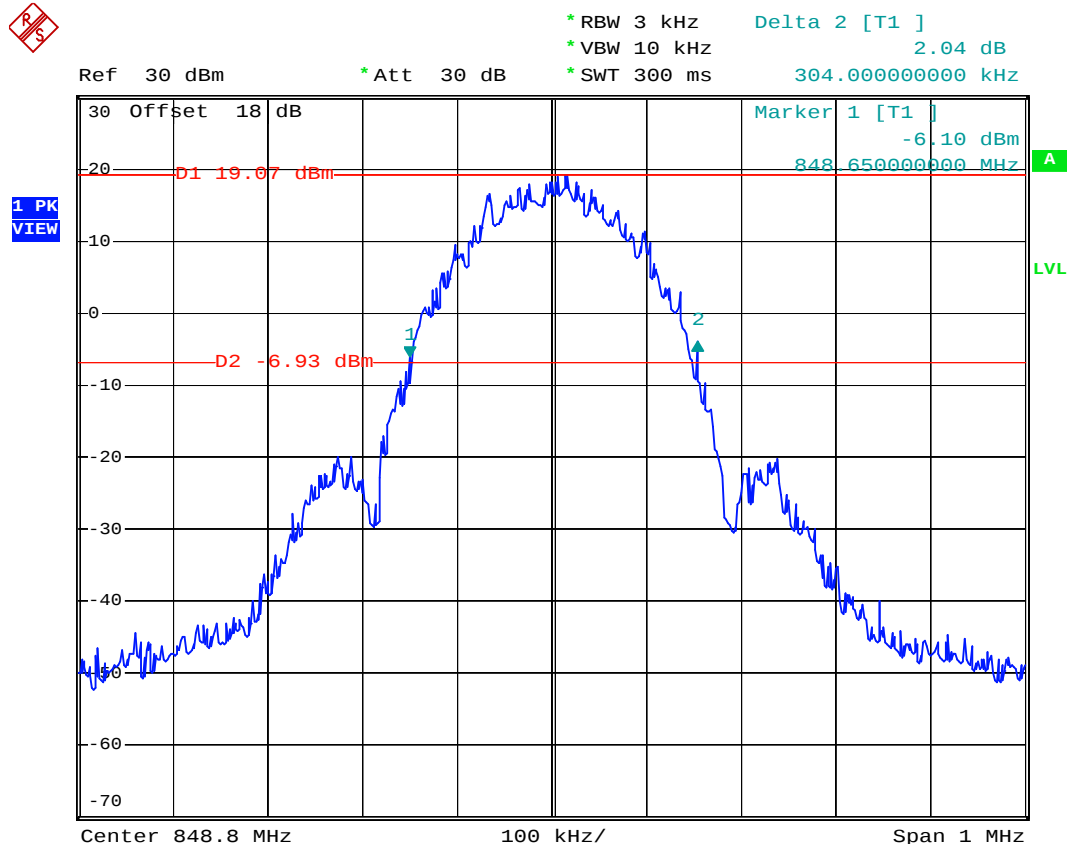
- Test Mode : GSM850 (EDGE) CH189 26dB Bandwidth
- Power State : High



Date: 30.SEP.2007 21:06:58



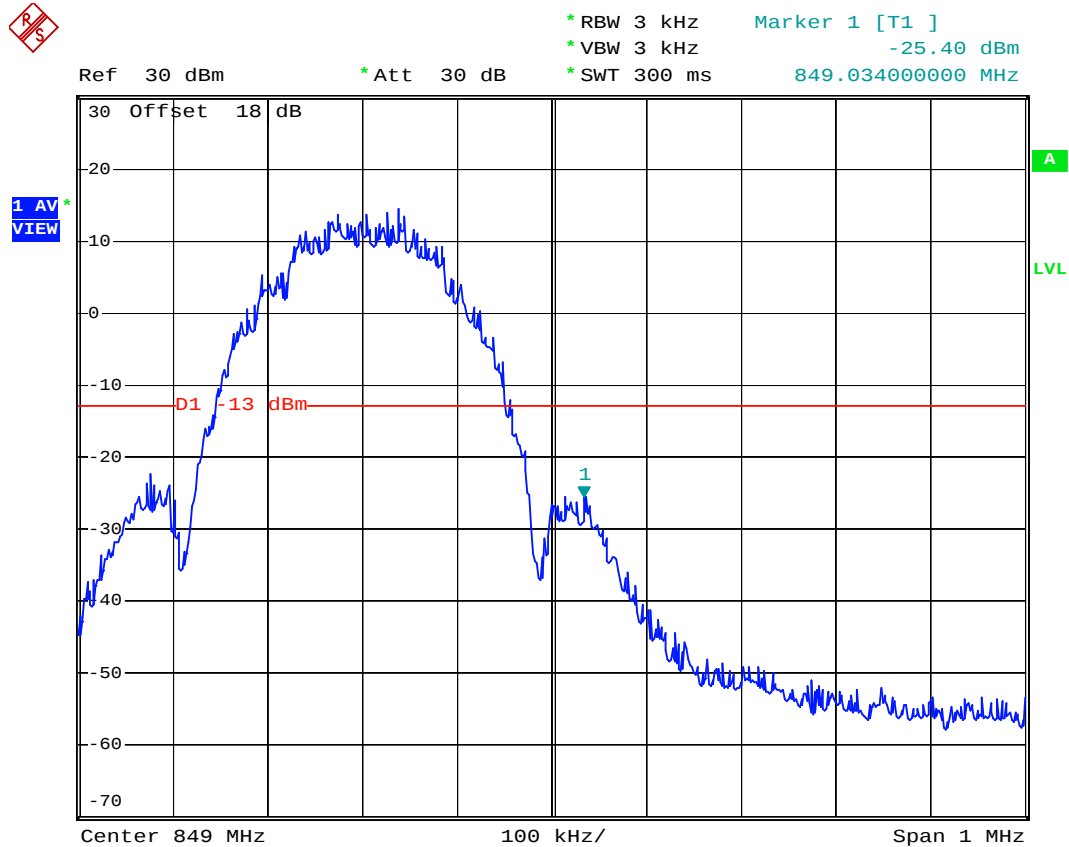
- Test Mode : GSM850 (EDGE) CH 251 26dB Bandwidth
- Power State : High



Date: 30.SEP.2007 21:08:51



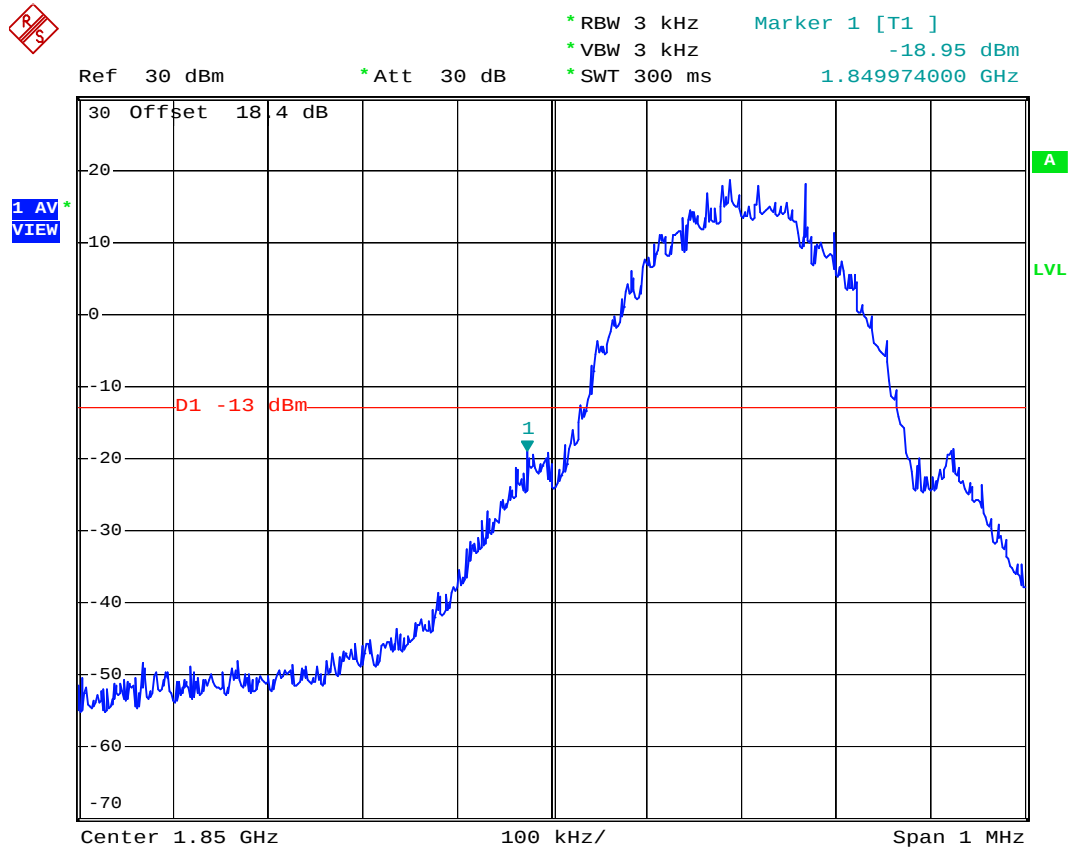
- Test Mode : GSM850 (EDGE) CH251 Higher Band Edge
- Power State : High



Date: 30.SEP.2007 21:30:34



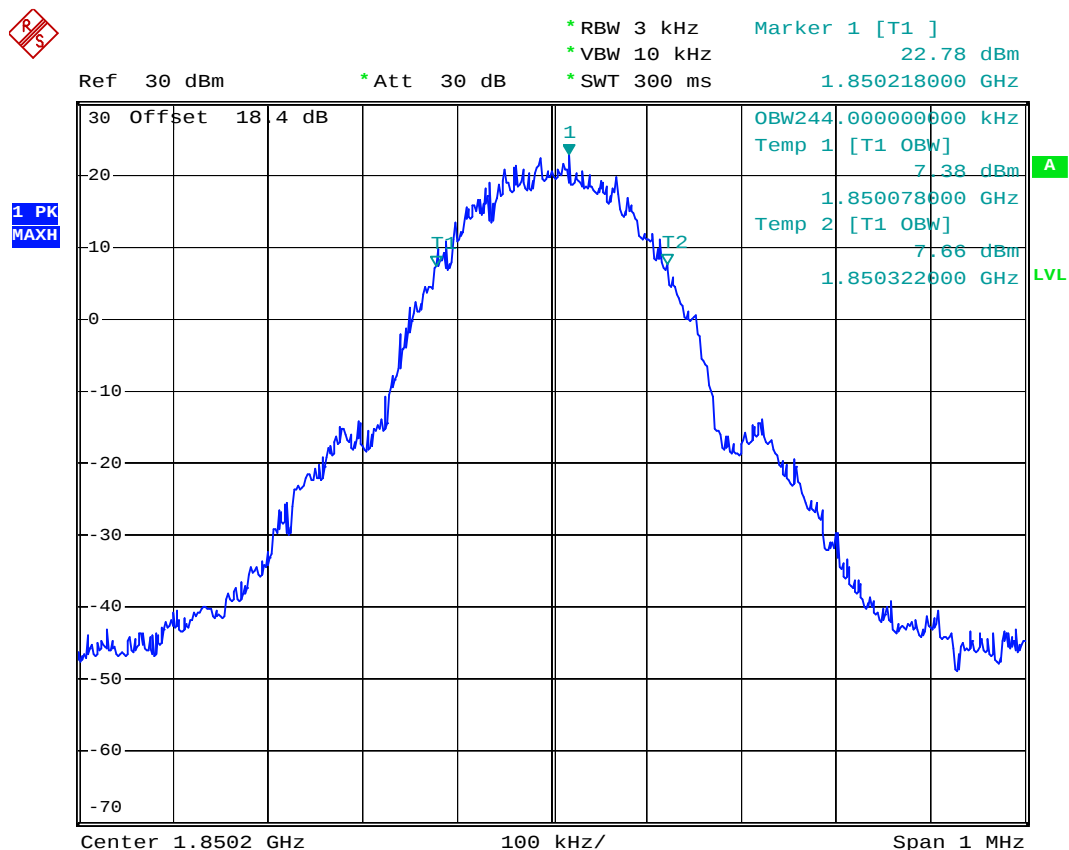
- Mode 3
- Test Mode : PCS1900 (GSM) CH512 Lower Band Edge
- Power State : High



Date: 30.SEP.2007 23:11:55



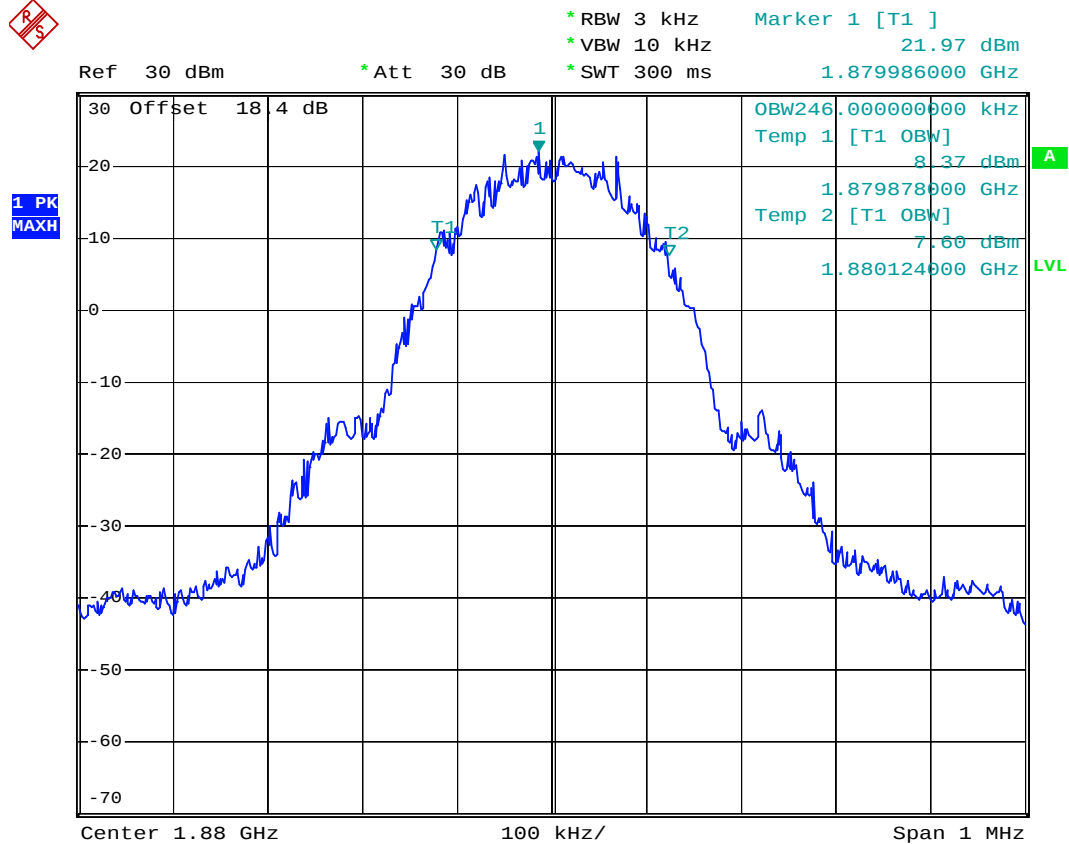
- Test Mode : PCS1900 (GSM) CH512 99% Occupied Bandwidth
- Power State : High



Date: 30.SEP.2007 23:07:43



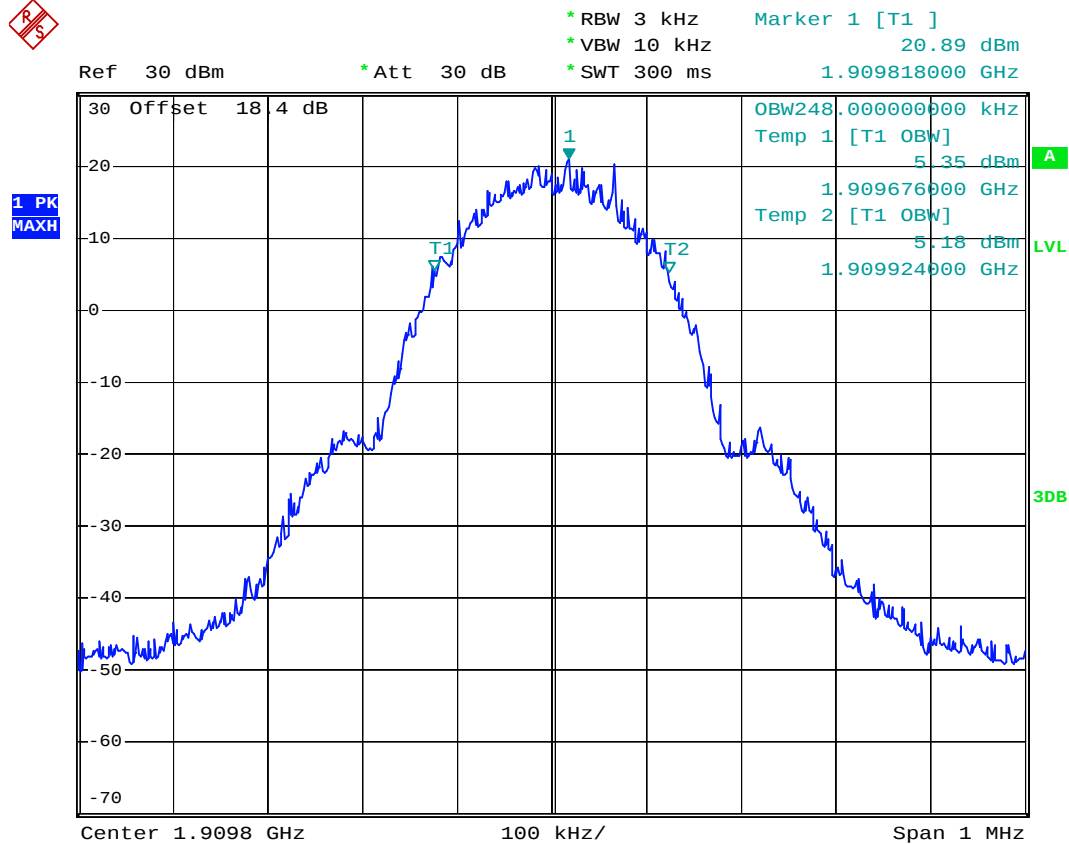
- Test Mode : PCS1900 (GSM) CH661 99% Occupied Bandwidth
- Power State : High



Date: 30.SEP.2007 23:08:20



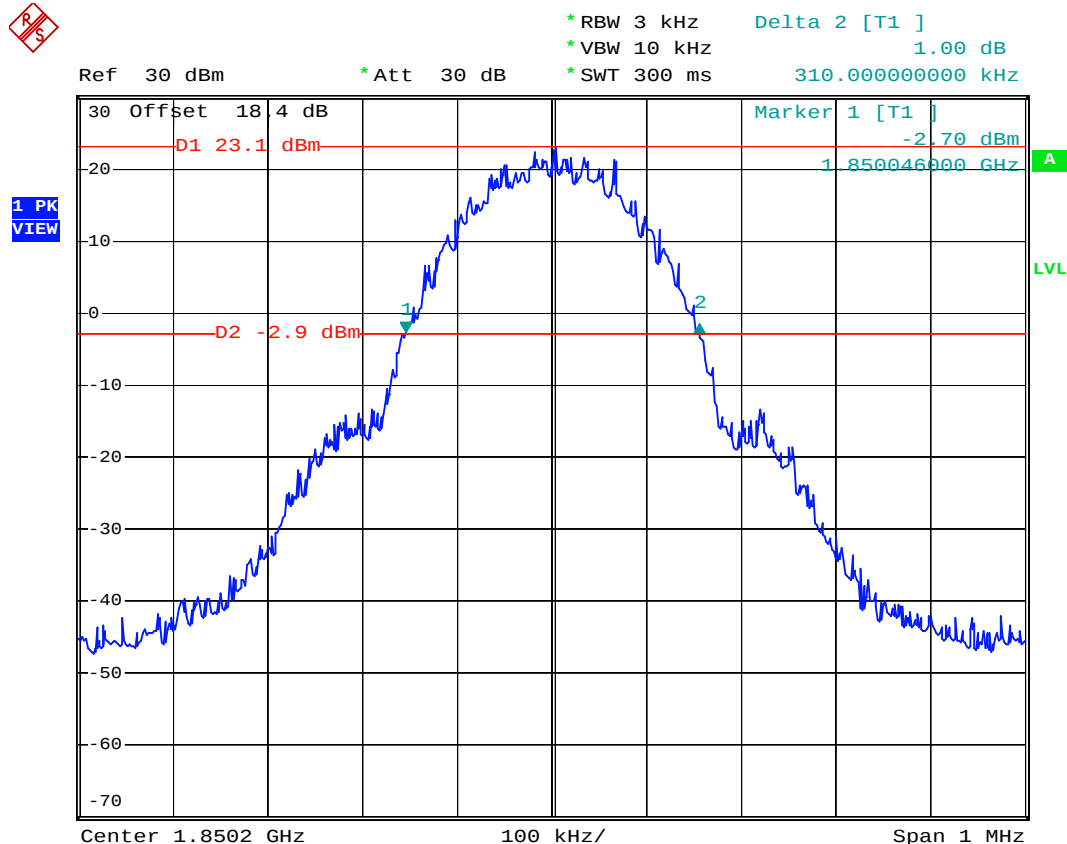
- Test Mode : PCS1900 (GSM) CH810 99% Occupied Bandwidth
- Power State : High



Date: 8.OCT.2007 17:36:37



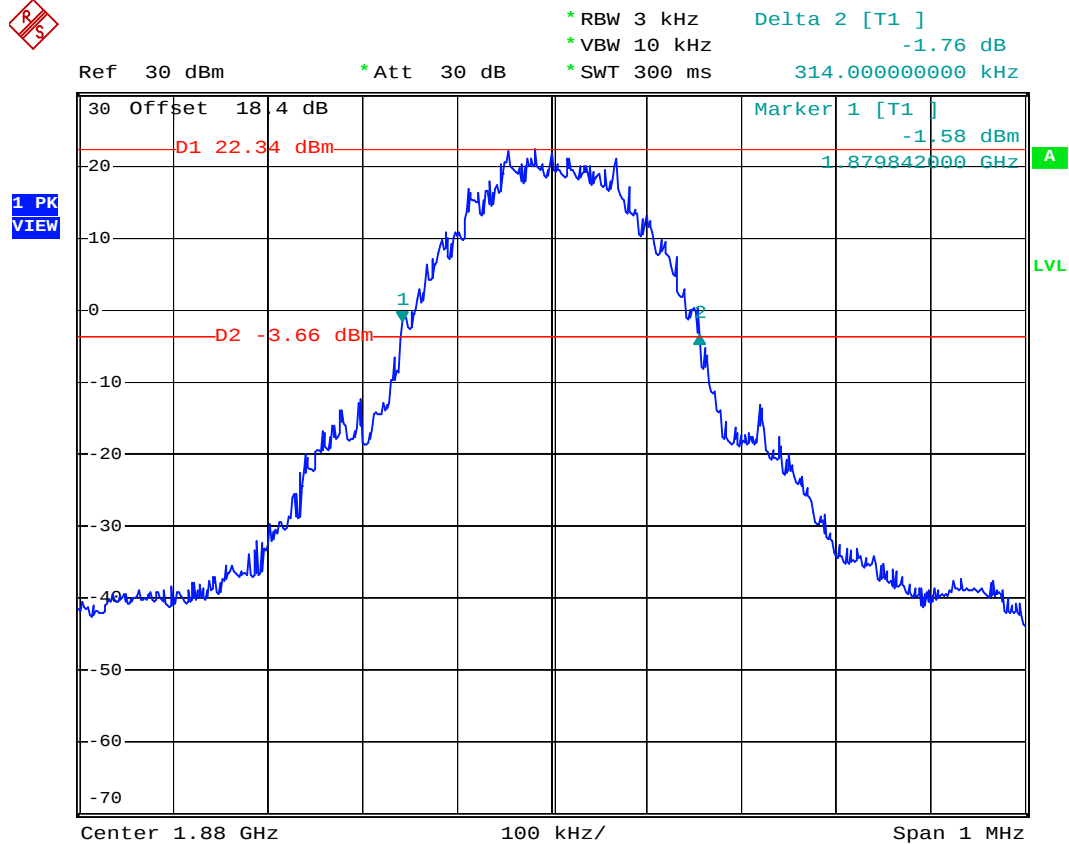
- Test Mode : PCS1900 (GSM) CH512 26dB Bandwidth
- Power State : High



Date: 30.SEP.2007 23:03:59



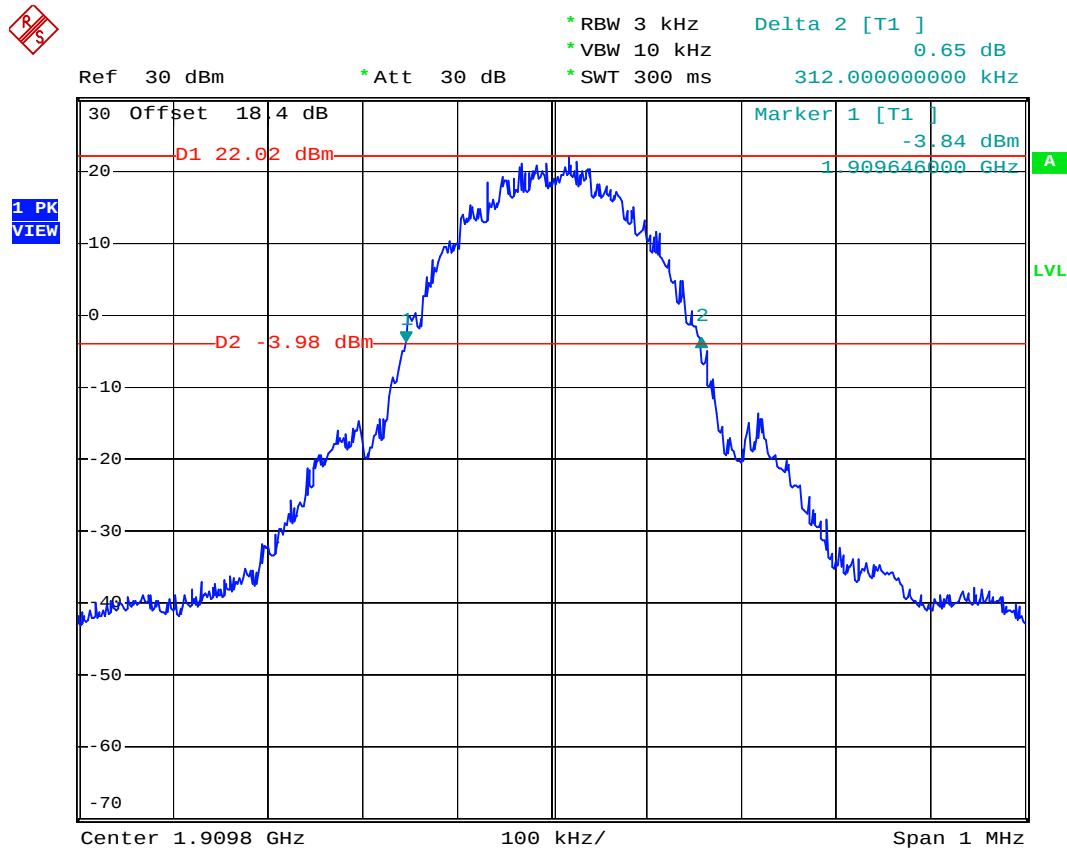
- Test Mode : PCS1900 (GSM) CH661 26dB Bandwidth
- Power State : High



Date: 30.SEP.2007 23:05:01



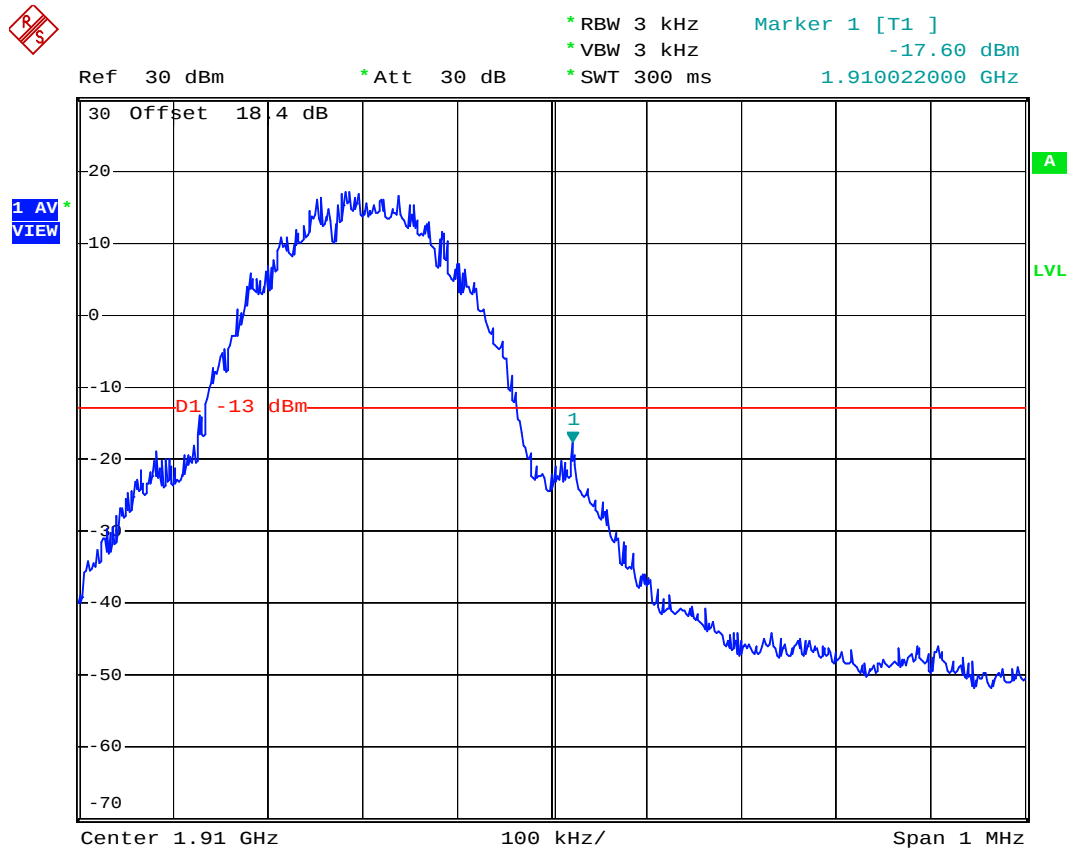
- Test Mode : PCS1900 (GSM) CH810 26dB Bandwidth
- Power State : High



Date: 30.SEP.2007 23:06:15



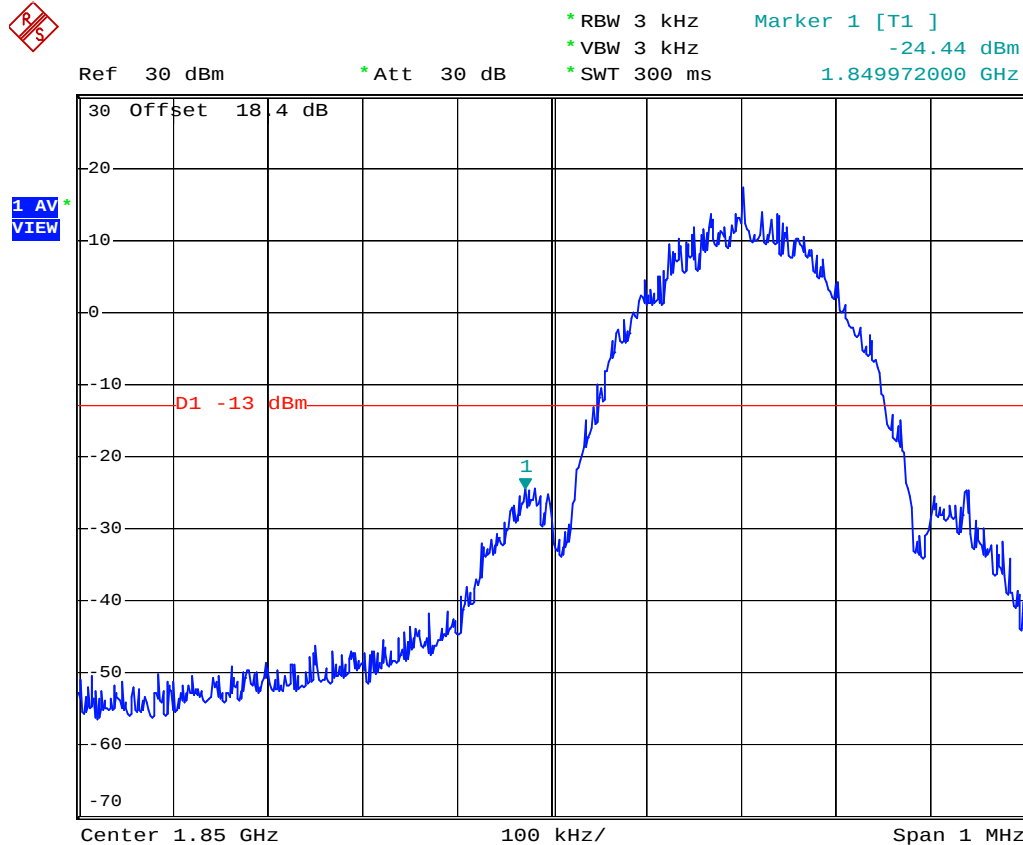
- Test Mode : PCS1900 (GSM) CH810 Higher Band Edge
- Power State : High



Date: 30.SEP.2007 23:16:49



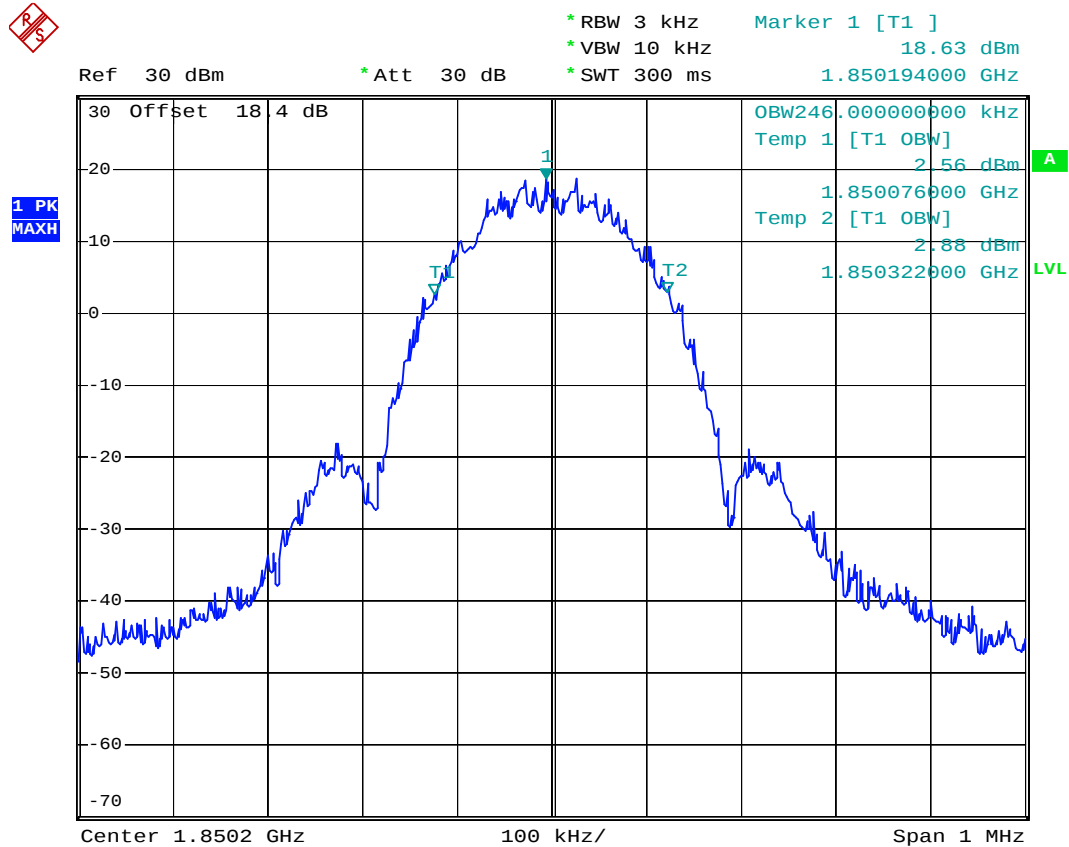
- Mode 4
- Test Mode : PCS1900 (EDGE) CH512 Lower Band Edge
- Power State : High



Date: 30.SEP.2007 21:47:57



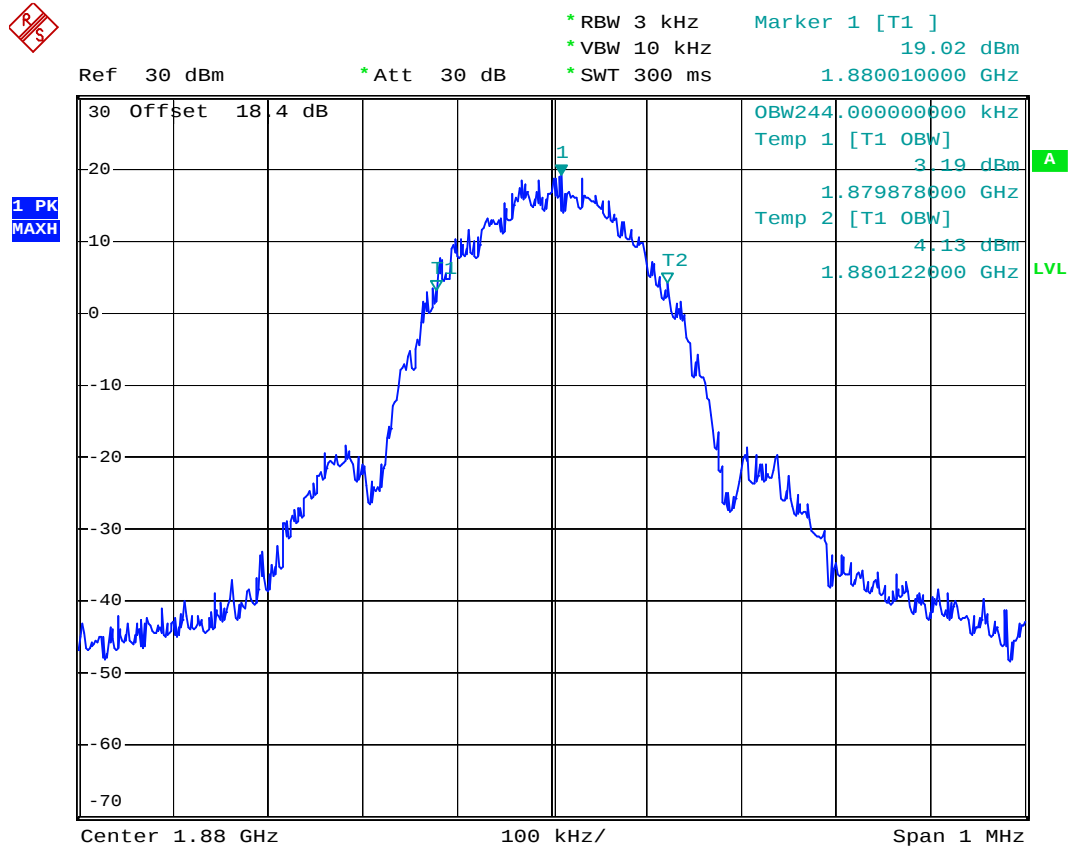
- Test Mode : PCS1900 (EDGE) CH512 99% Occupied Bandwidth
- Power State : High



Date: 30.SEP.2007 22:30:47



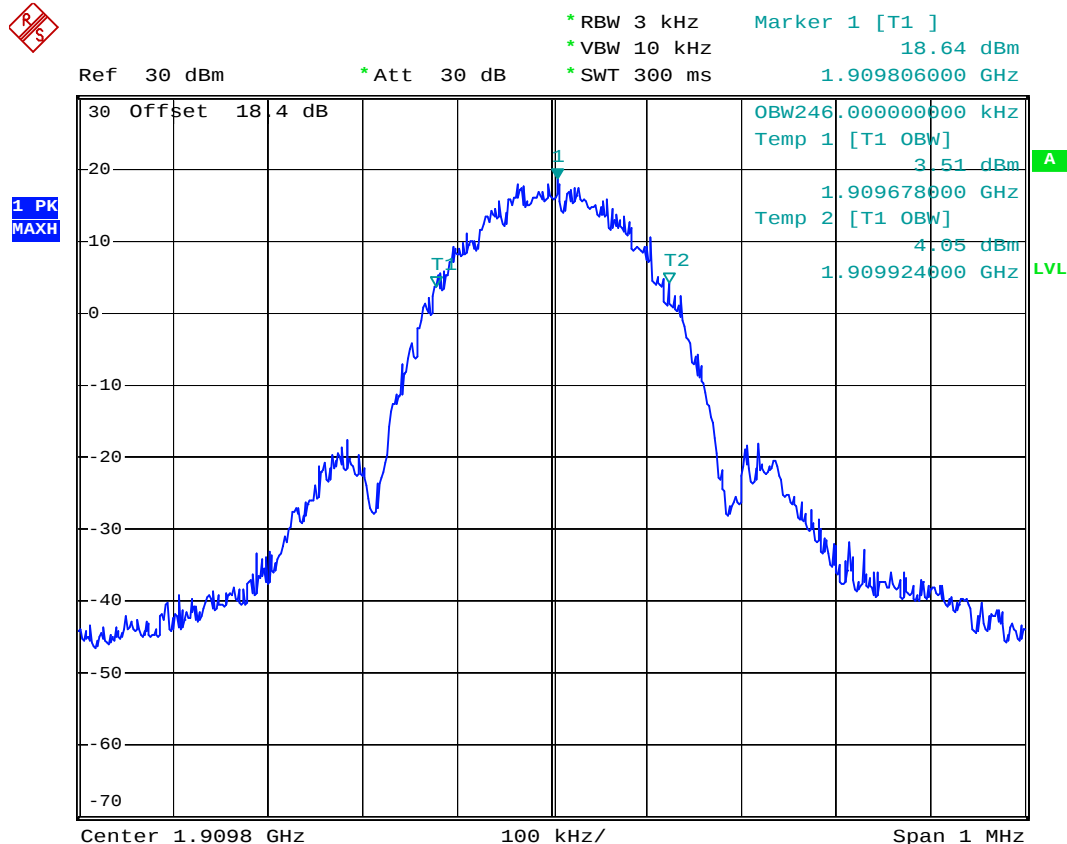
- Test Mode : PCS1900 (EDGE) CH661 99% Occupied Bandwidth
- Power State : High



Date: 30.SEP.2007 22:31:30



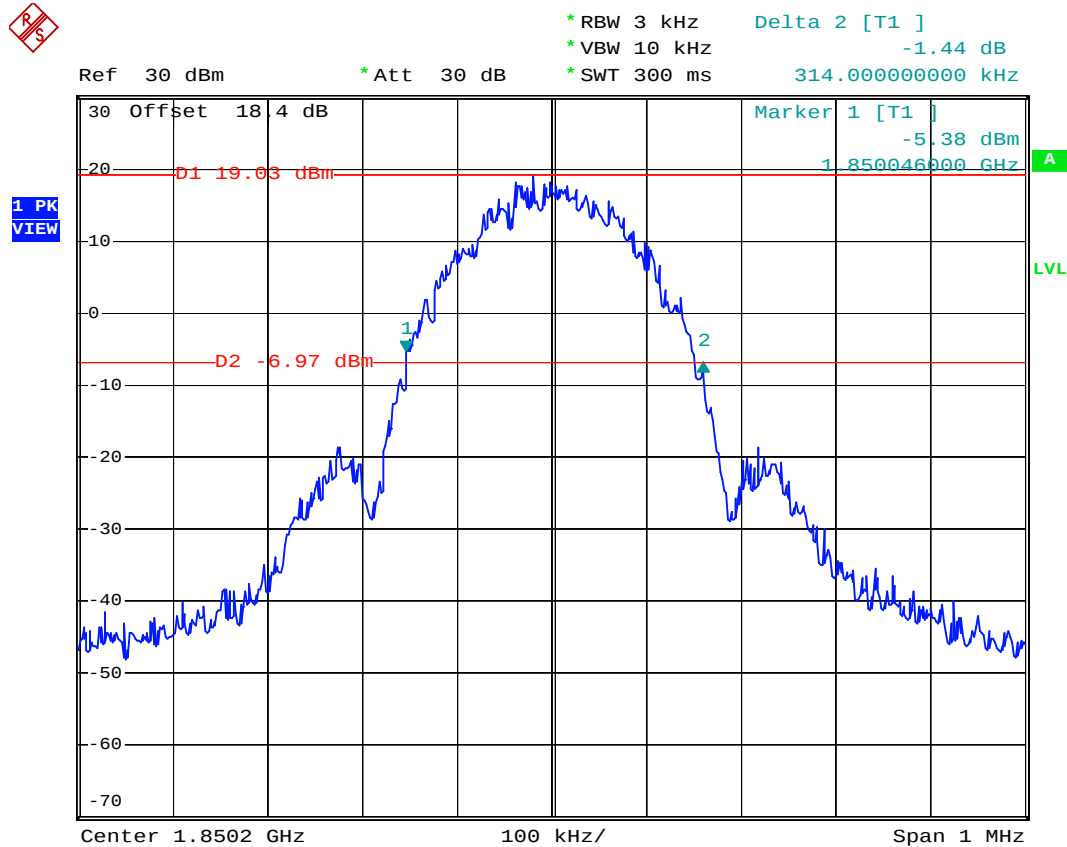
- Test Mode : PCS1900 (EDGE) CH810 99% Occupied Bandwidth
- Power State : High



Date: 30.SEP.2007 22:29:55



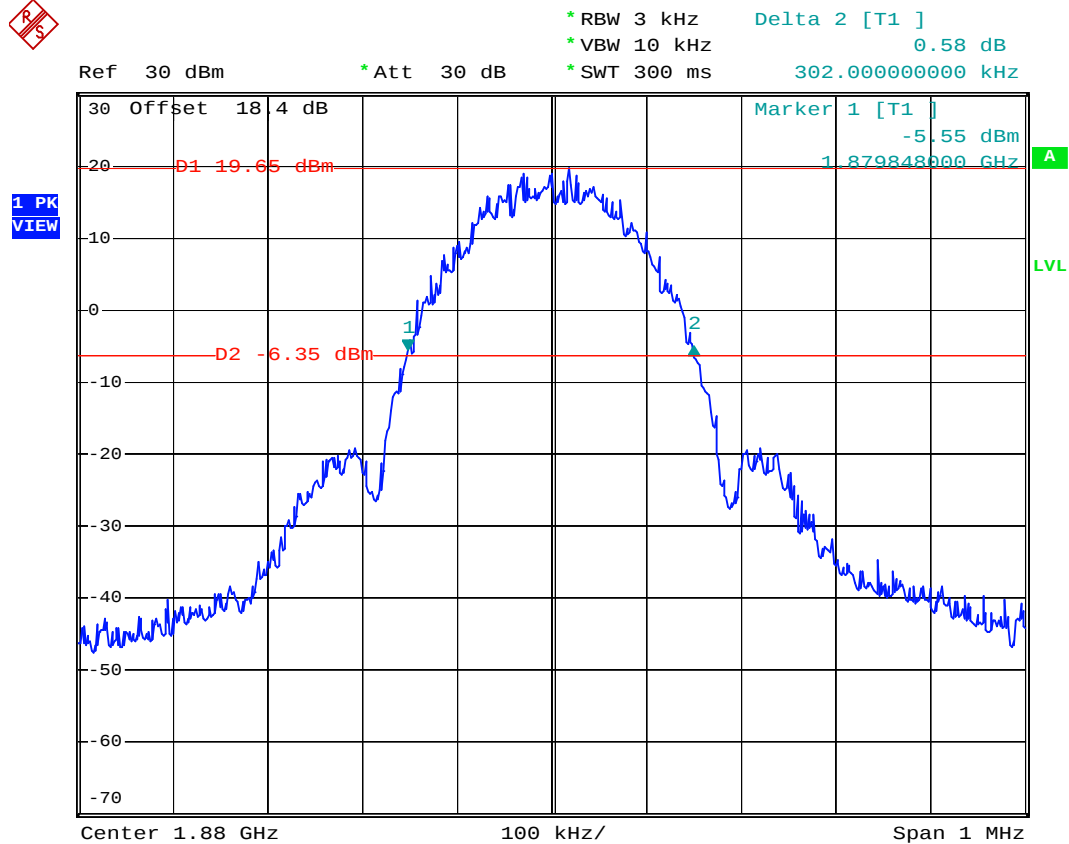
- Test Mode : PCS1900 (EDGE) CH512 26dB Bandwidth
- Power State : High



Date: 30.SEP.2007 22:22:59



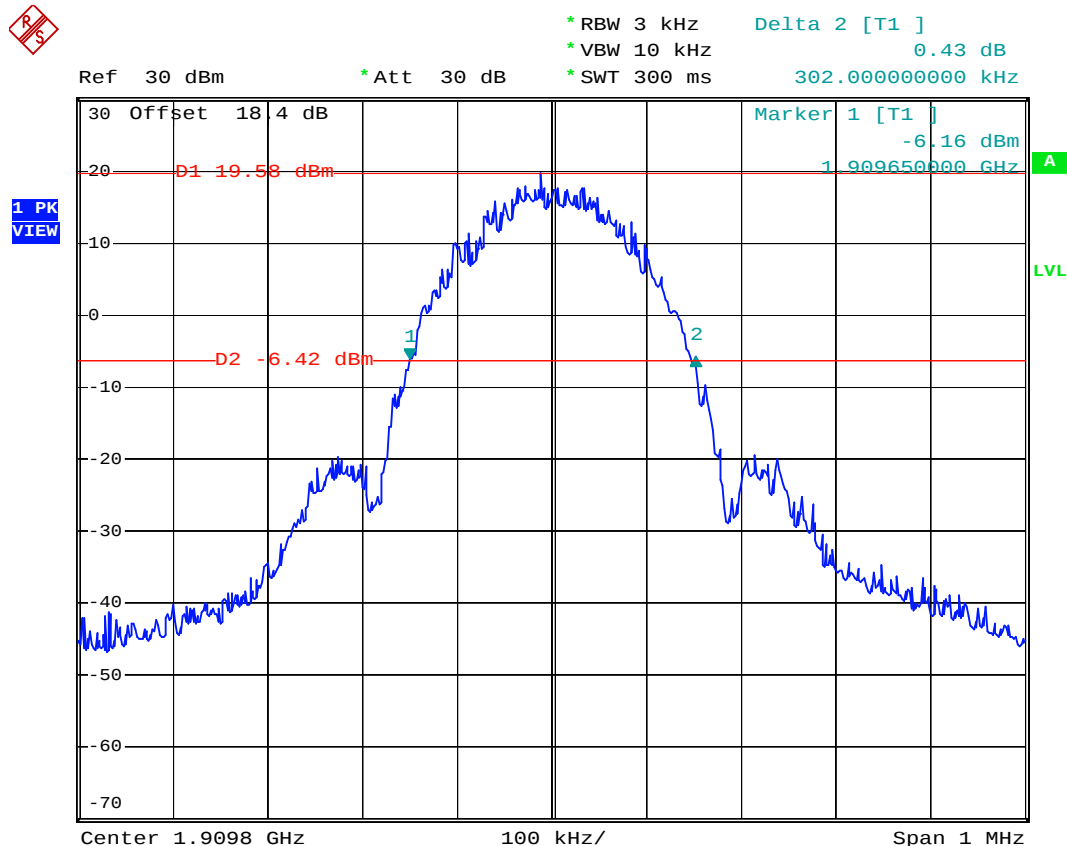
- Test Mode : PCS1900 (EDGE) CH661 26dB Bandwidth
- Power State : High



Date: 30.SEP.2007 22:25:14



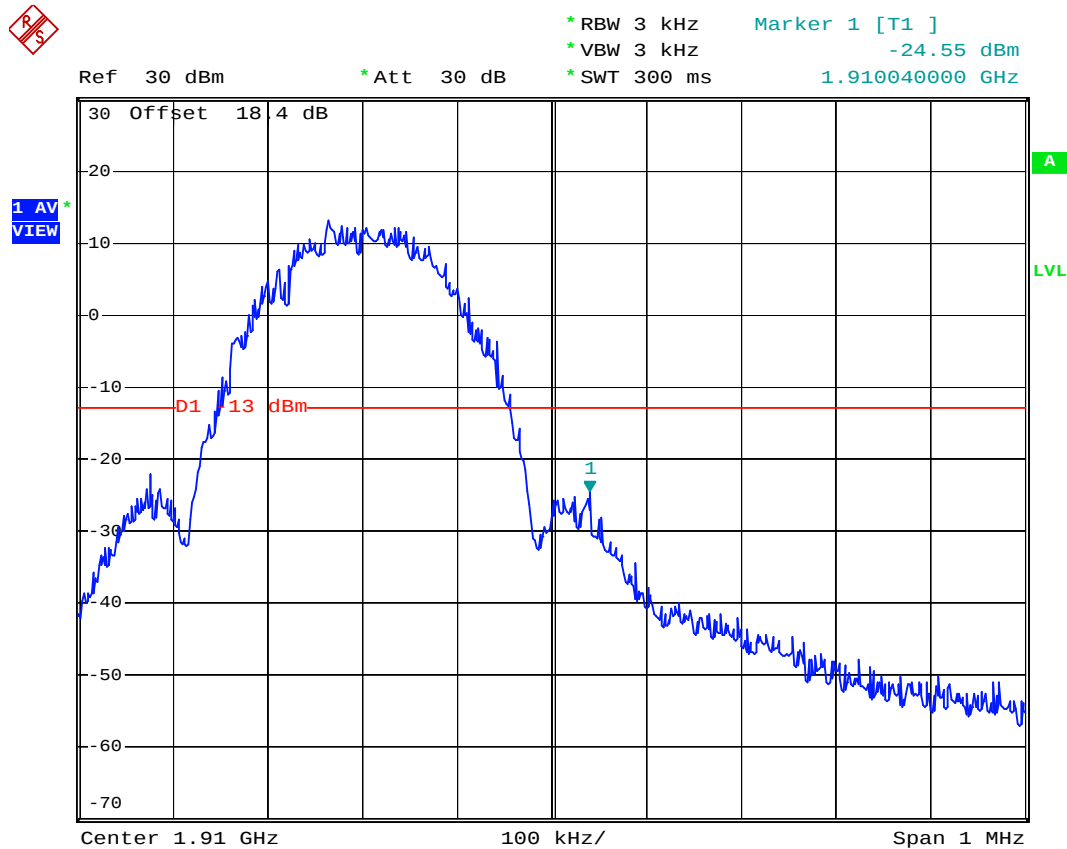
- Test Mode : PCS1900 (EDGE) CH810 26dB Bandwidth
- Power State : High



Date: 30.SEP.2007 22:26:53



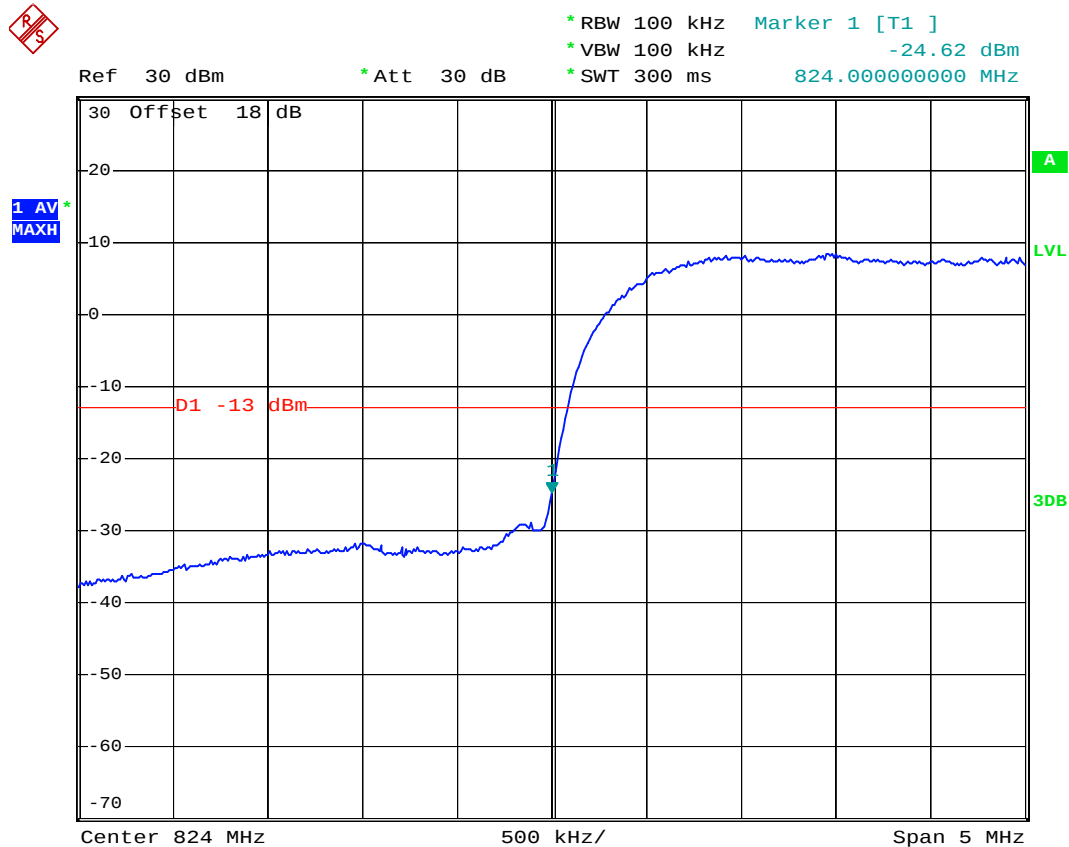
- Test Mode : PCS1900(EDGE) CH810 Higher Band Edge
- Power State : High



Date: 30.SEP.2007 22:09:16



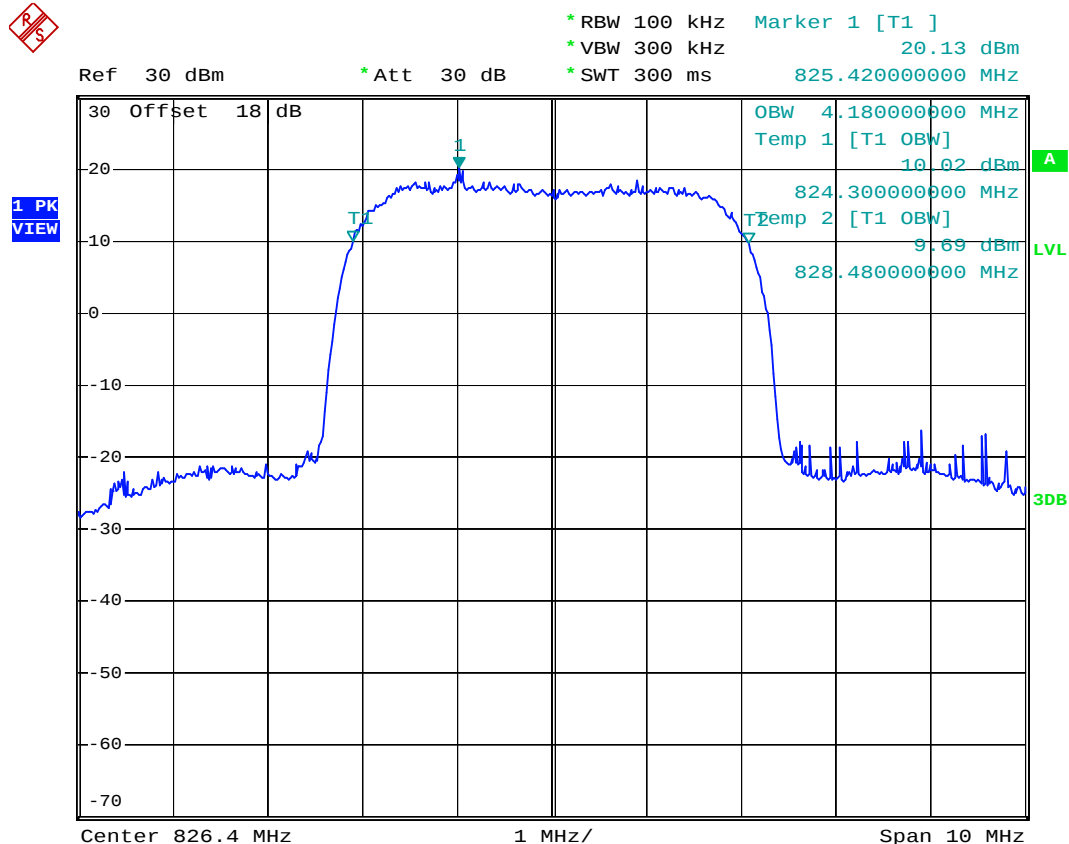
- Mode 5
- Test Mode : WCDMA Band V CH4132 Lower Band Edge
- Power State : High



Date: 8.OCT.2007 12:07:16



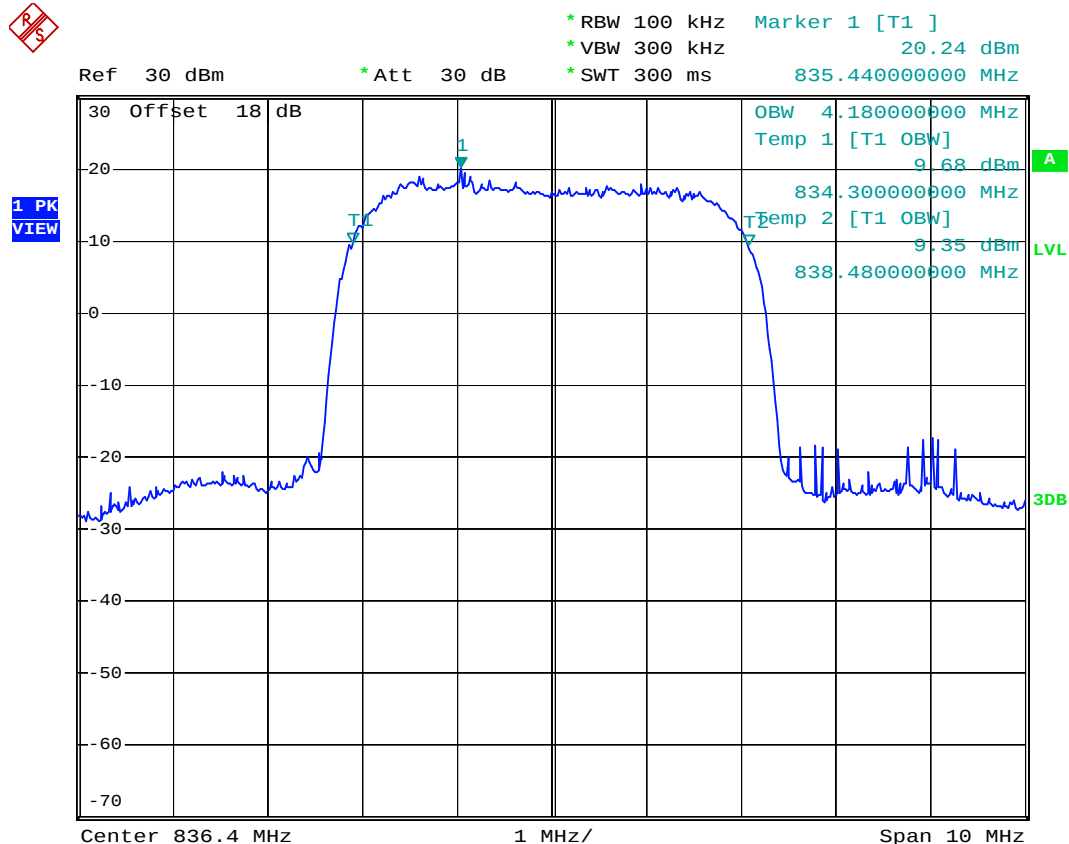
- Test Mode : WCDMA Band V CH4132 99% Occupied Bandwidth
- Power State : High



Date: 8.OCT.2007 11:53:26



- Test Mode : WCDMA Band V CH4182 99% Occupied Bandwidth
- Power State : High

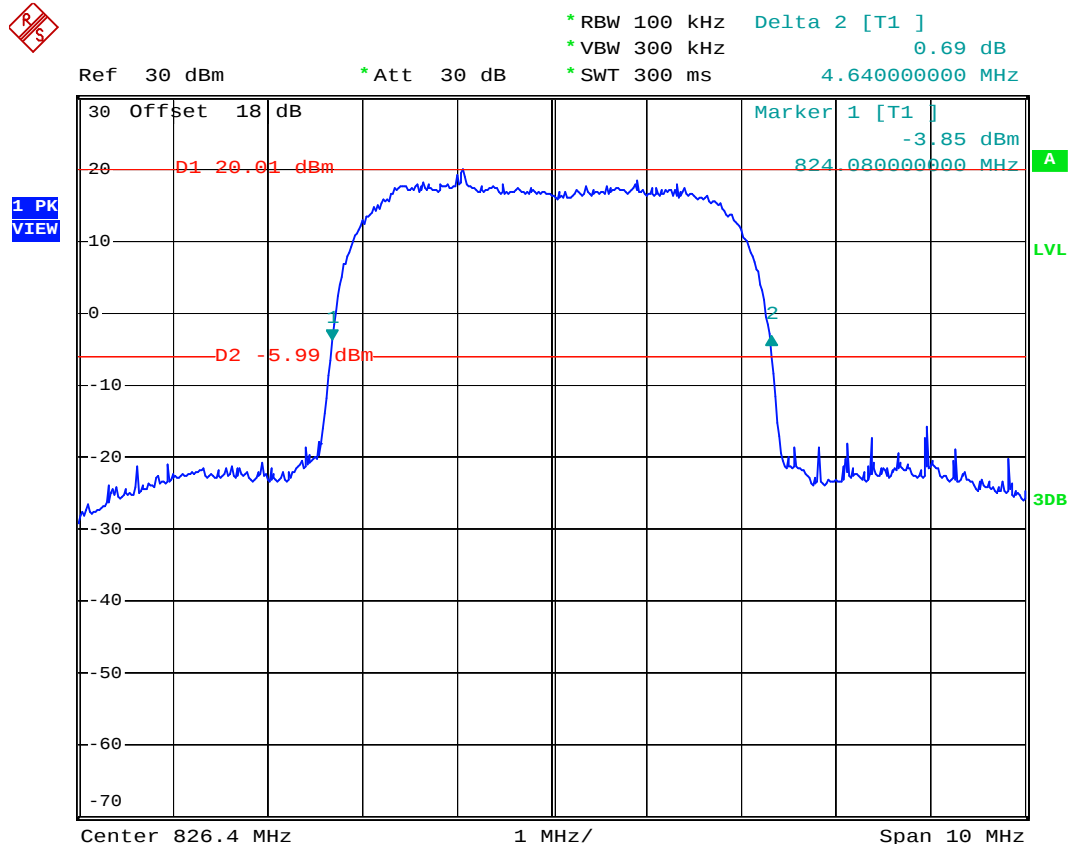


Date: 8.OCT.2007 11:52:11





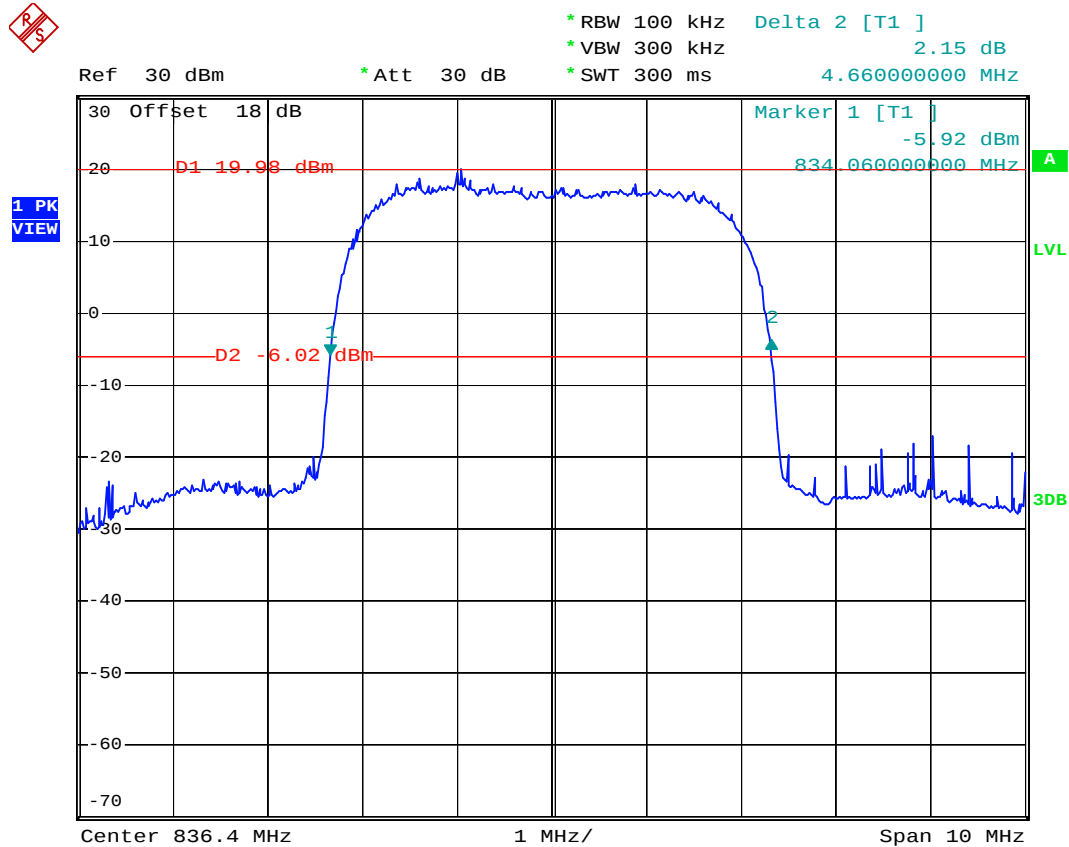
- Test Mode : WCDMA Band V CH4132 26dB Bandwidth
- Power State : High



Date: 8.OCT.2007 11:59:17



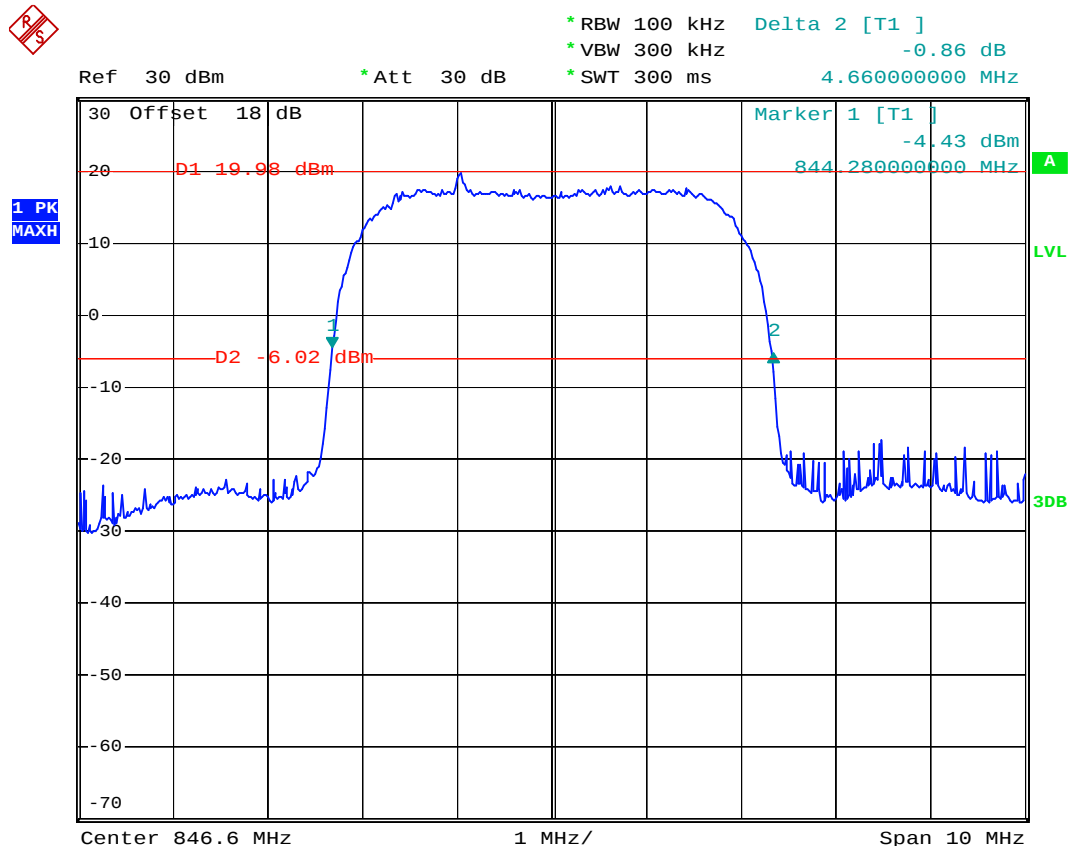
- Test Mode : WCDMA Band V CH4182 26dB Bandwidth
- Power State : High



Date: 8.OCT.2007 12:00:40



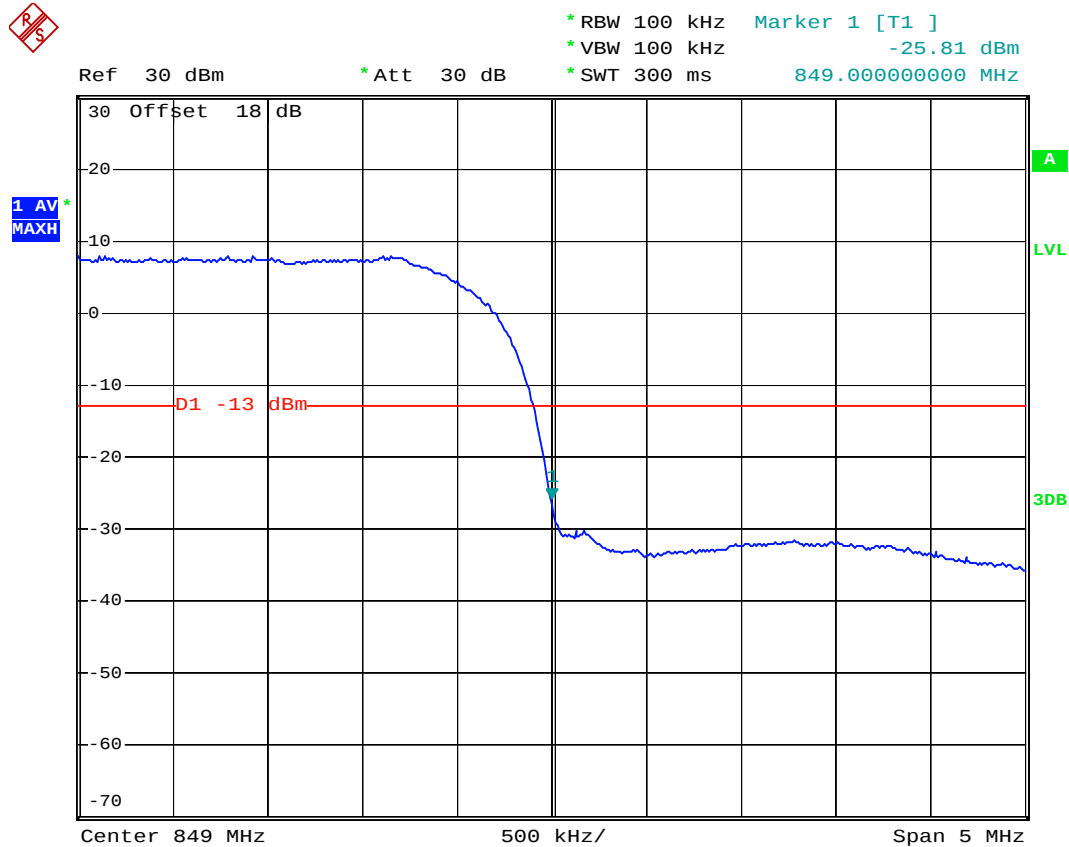
- Test Mode : WCDMA Band V CH4233 26dB Bandwidth
- Power State : High



Date: 8.OCT.2007 12:02:22



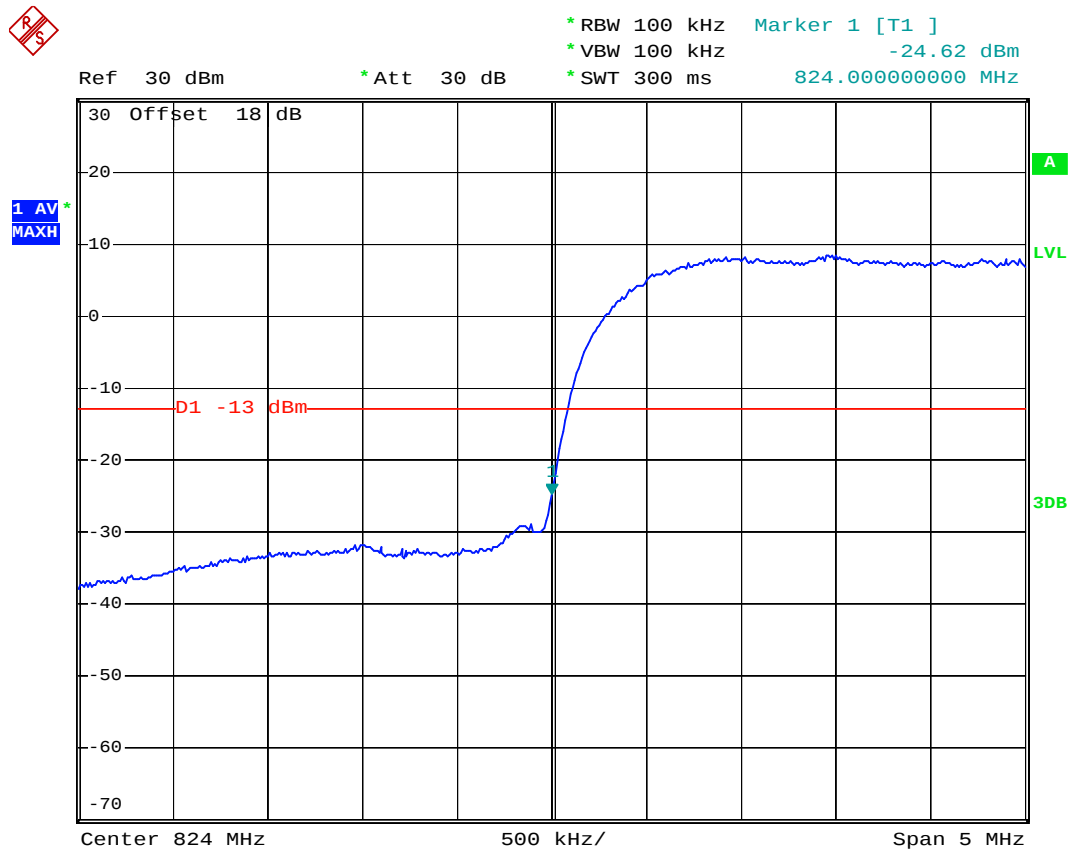
- Test Mode : WCDMA Band V CH4233 Higher Band Edge
- Power State : High



Date: 8.OCT.2007 12:18:56



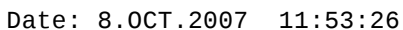
- Mode 6
- Test Mode : WCDMA Band V (HSDPA) CH4132 Lower Band Edge
- Power State : High



Date: 8.OCT.2007 12:07:16

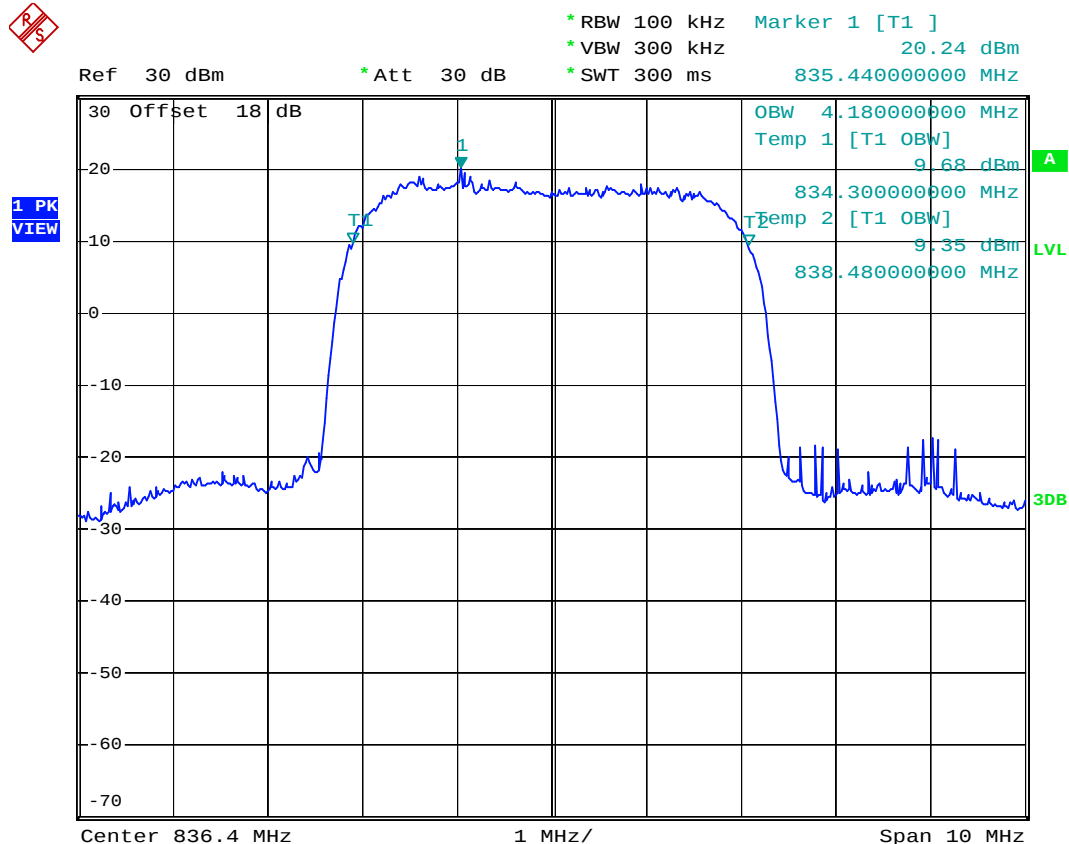


- Test Mode : WCDMA Band V (HSDPA) CH4132 99% Occupied Bandwidth
- Power State : High





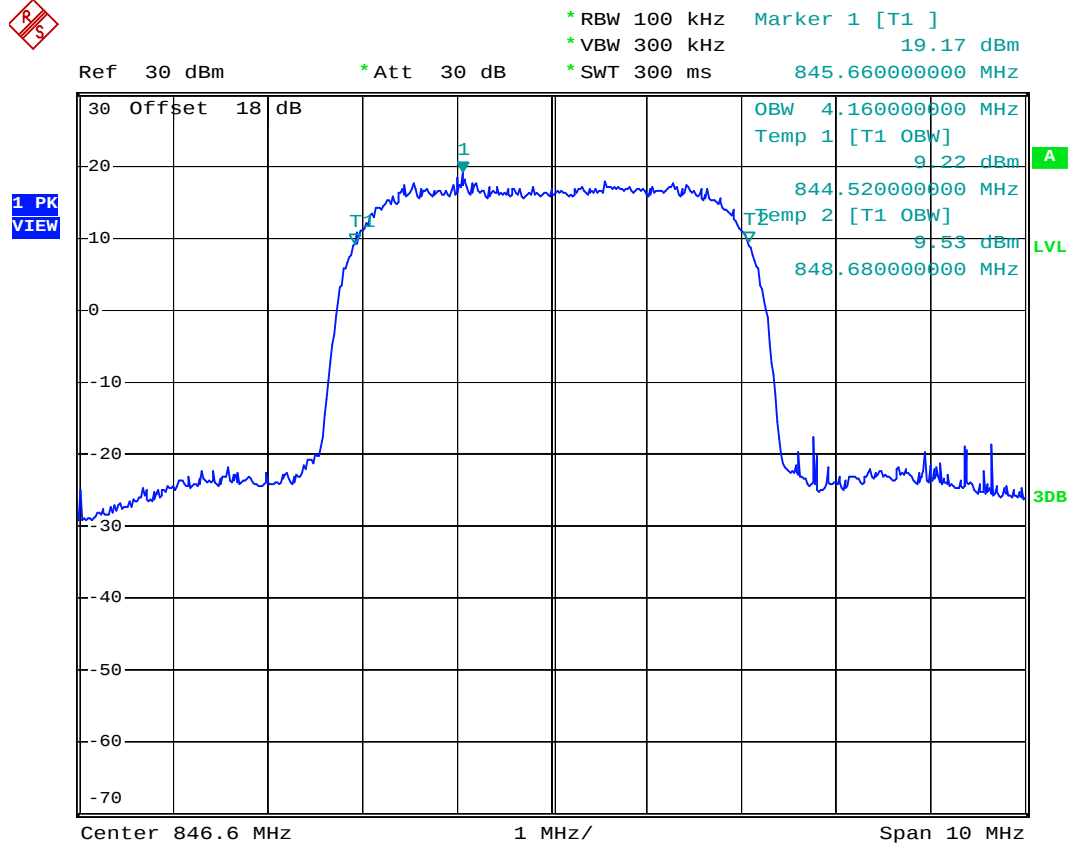
- Test Mode : WCDMA Band V (HSDPA) CH4182 99% Occupied Bandwidth
- Power State : High



Date: 8.OCT.2007 11:52:11



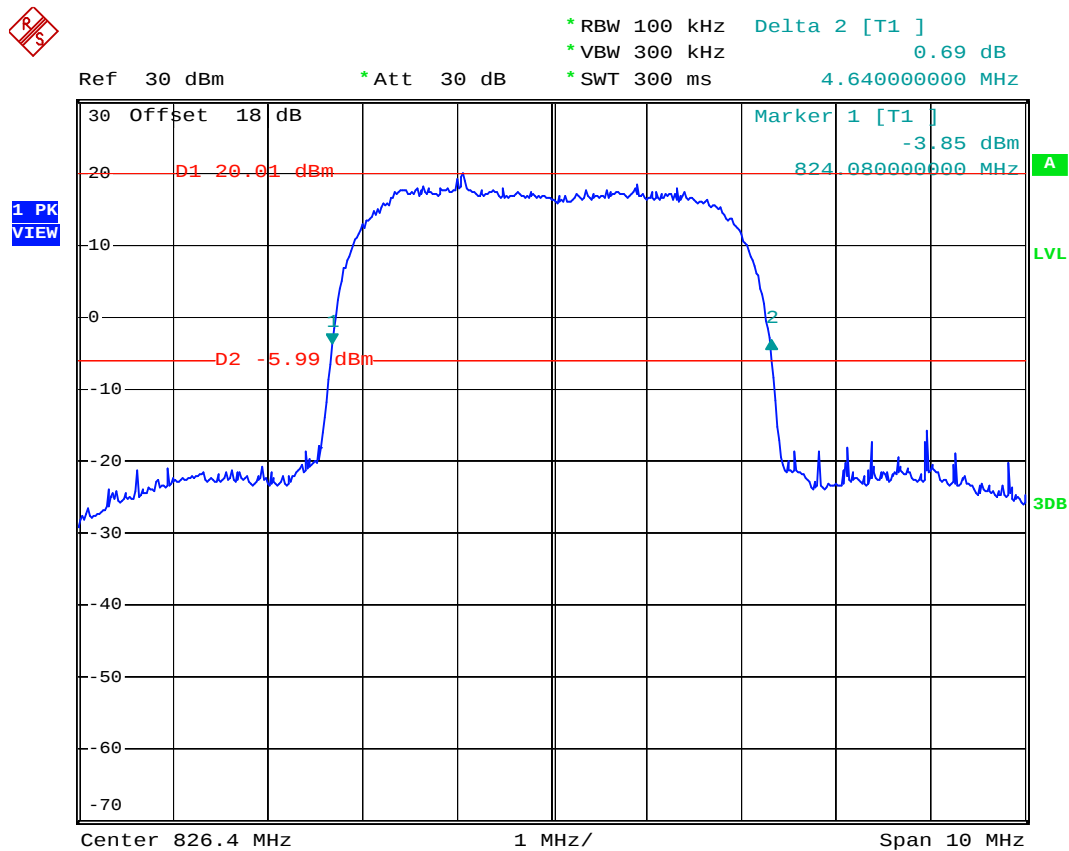
- Test Mode : WCDMA Band V (HSDPA) CH4233 99% Occupied Bandwidth
- Power State : High



Date: 8.OCT.2007 11:51:22



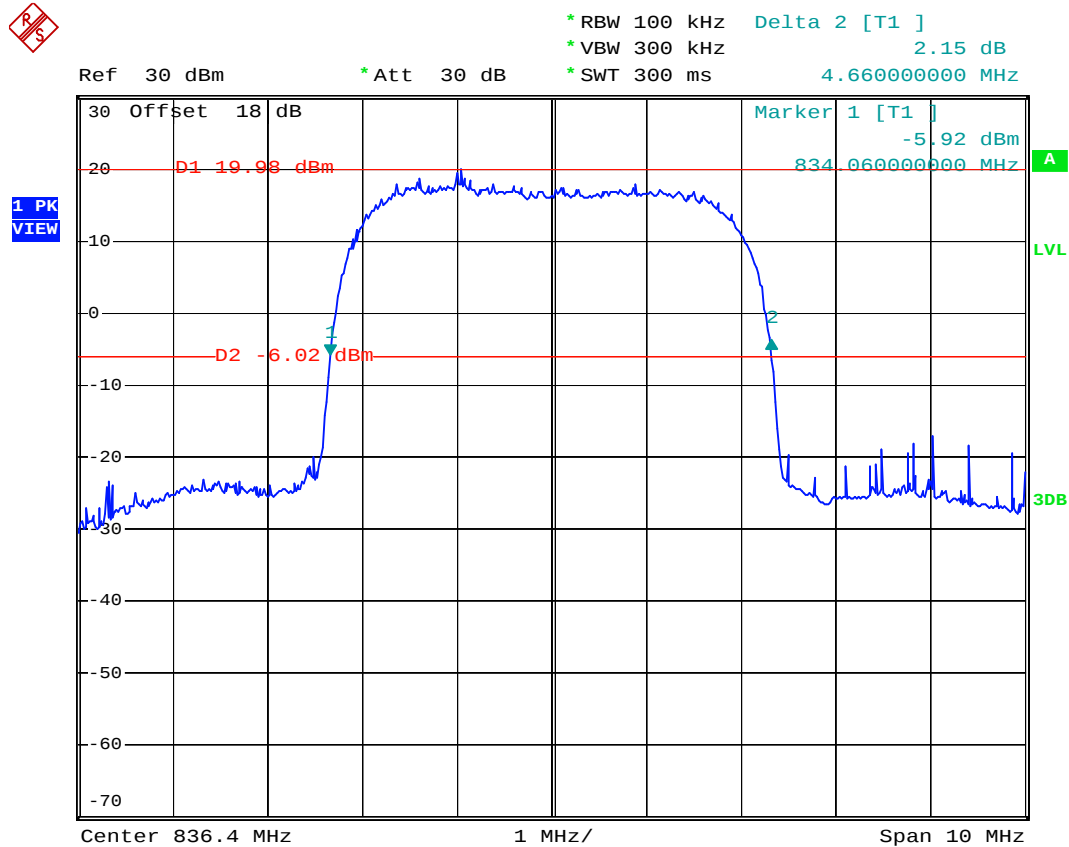
- Test Mode : WCDMA Band V (HSDPA) CH4132 26dB Bandwidth
- Power State : High



Date: 8.OCT.2007 11:59:17



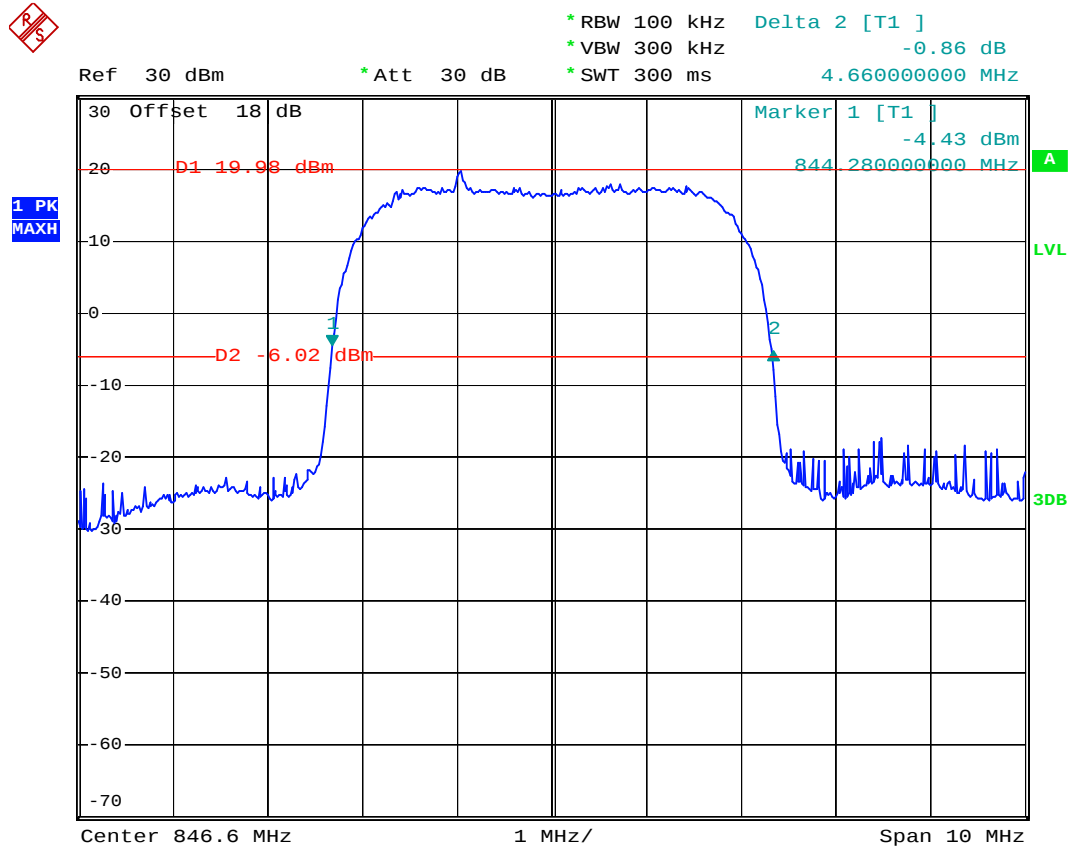
- Test Mode : WCDMA Band V (HSDPA) CH4182 26dB Bandwidth
- Power State : High



Date: 8.OCT.2007 12:00:40



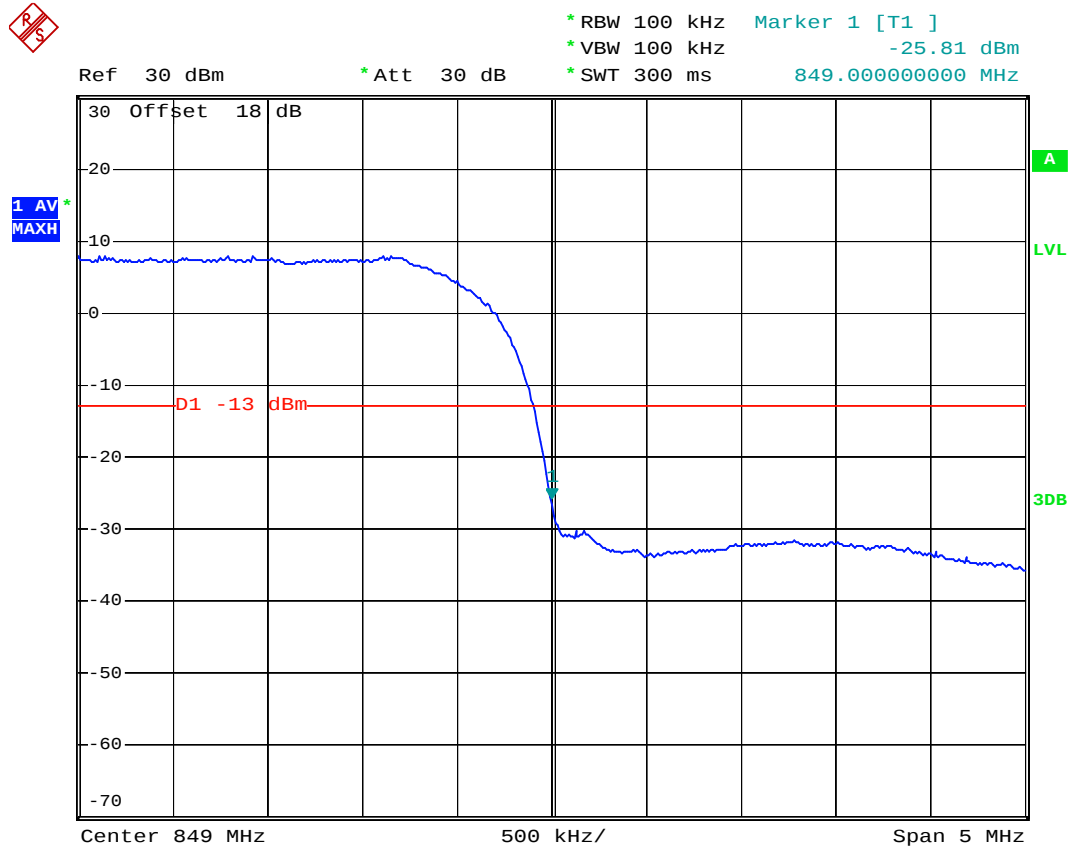
- Test Mode : WCDMA Band V (HSDPA) CH4233 26dB Bandwidth
- Power State : High



Date: 8.OCT.2007 12:02:22



- Test Mode : WCDMA Band V (HSDPA) CH4233 Higher Band Edge
- Power State : High



Date: 8.OCT.2007 12:18:56

4.5 Conducted Emission

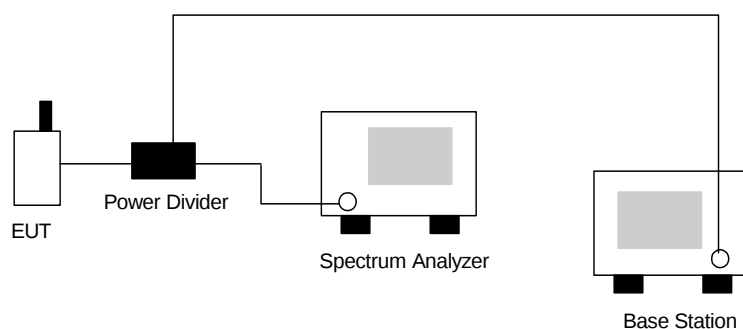
4.5.1 Measurement Instruments

As described in chapter 5 of this test report.

4.5.2 Test Procedure

1. The EUT was connected to Spectrum Analyzer and Base Station via power divider.
2. The middle channel for the highest RF power within the transmitting frequency was measured.
3. The conducted spurious emission for the whole frequency range was taken.

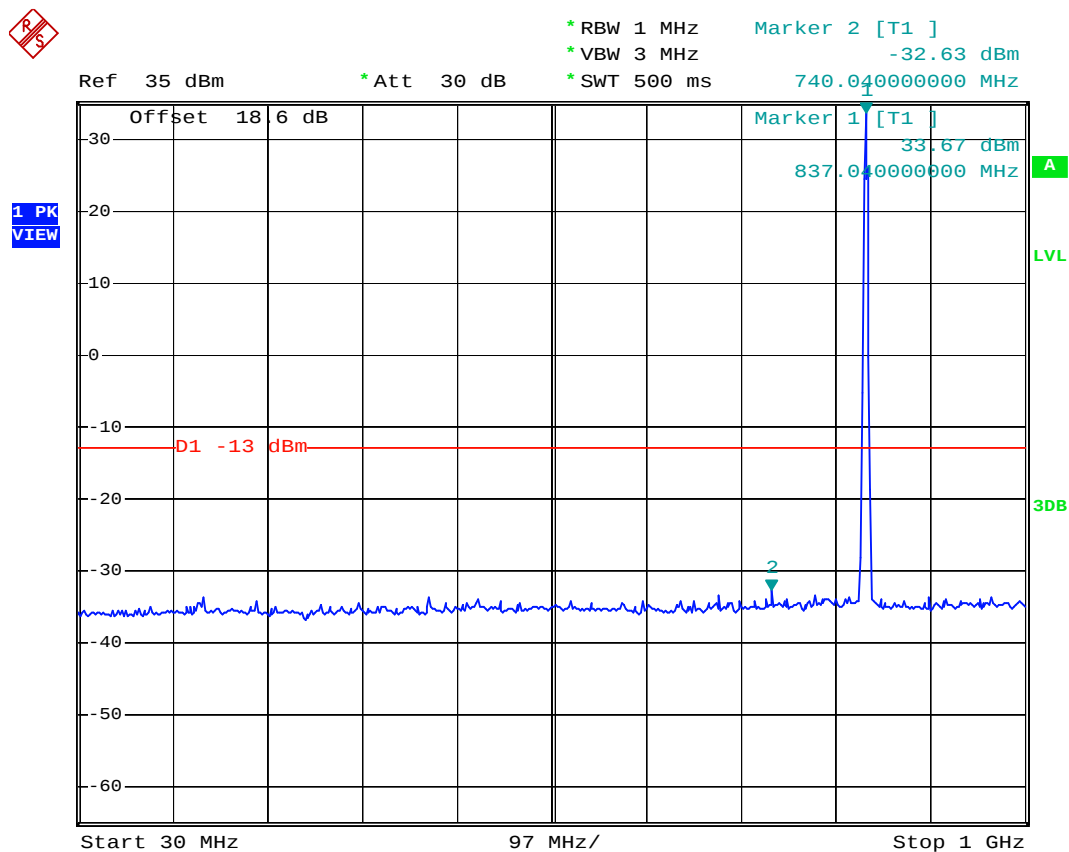
4.5.3 Test Setup Layout





4.5.4 Test Result

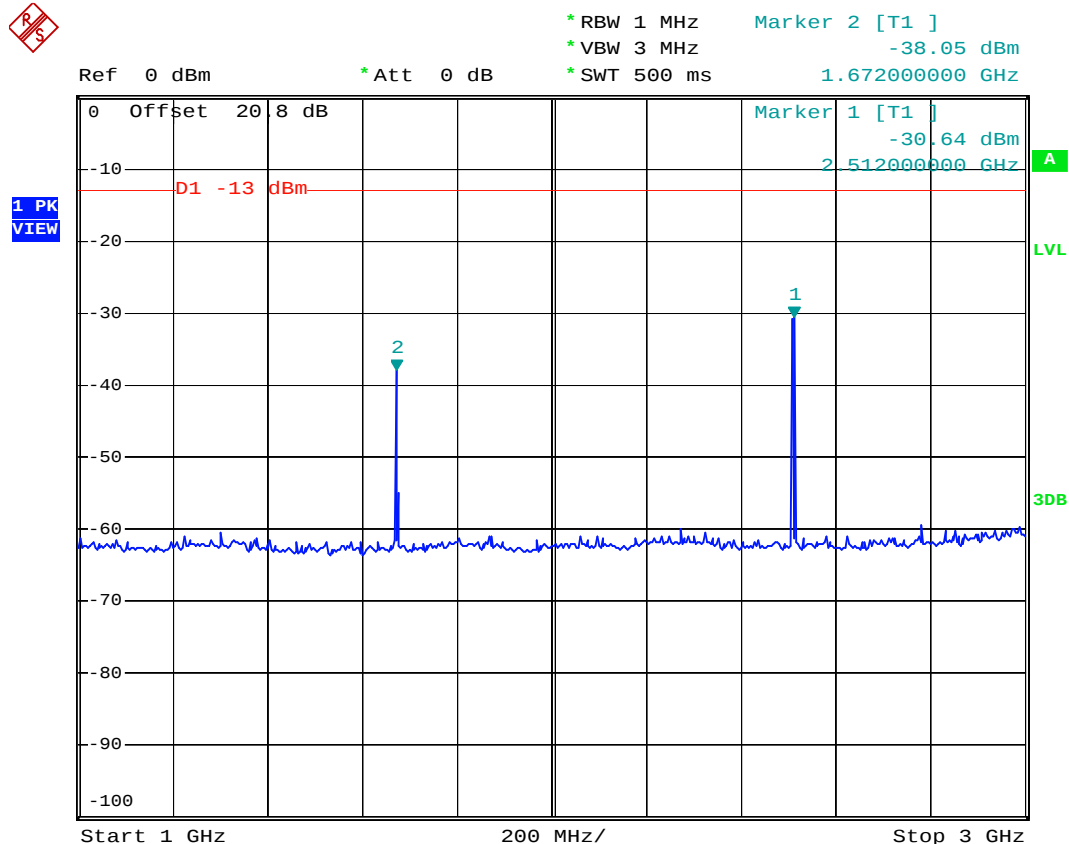
- Mode 1
- Test Mode : GSM850 (GSM) CH189
- Frequency Range : 30M-1G



Date: 1.OCT.2007 07:29:29



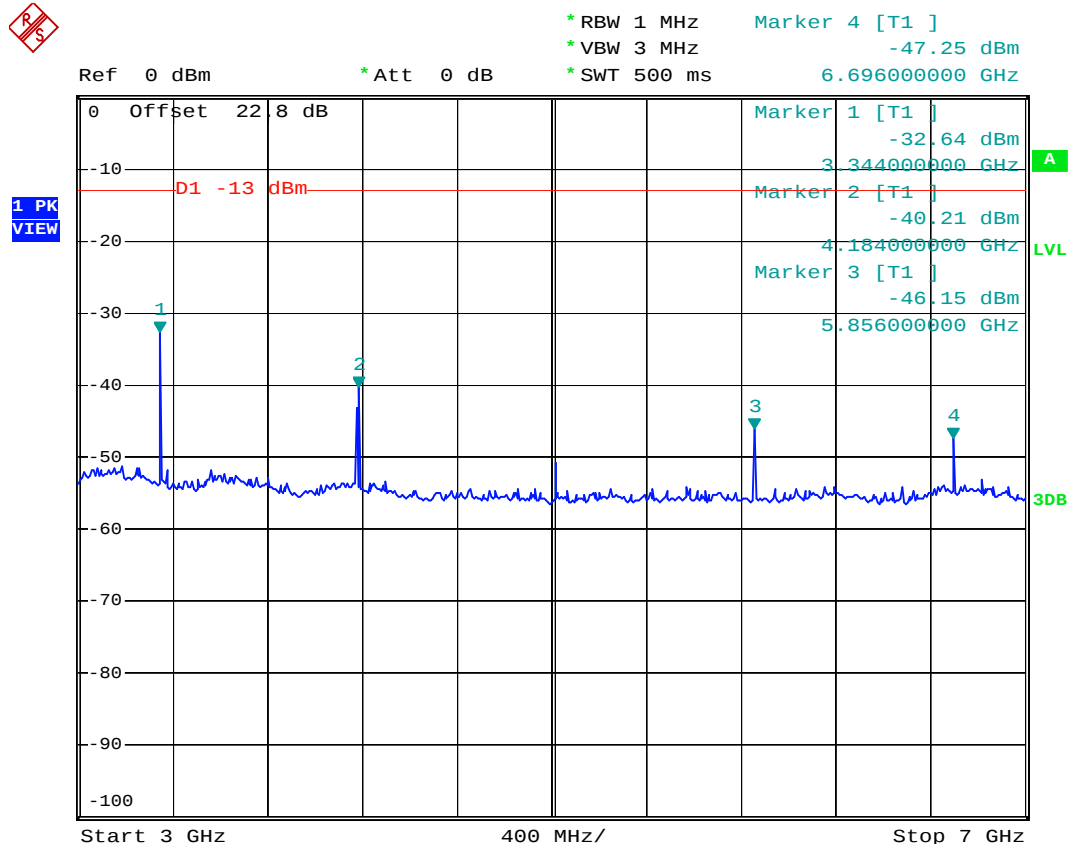
- Test Mode : GSM850 (GSM) CH189
- Frequency Range : 1G-3G



Date: 1.OCT.2007 07:51:20



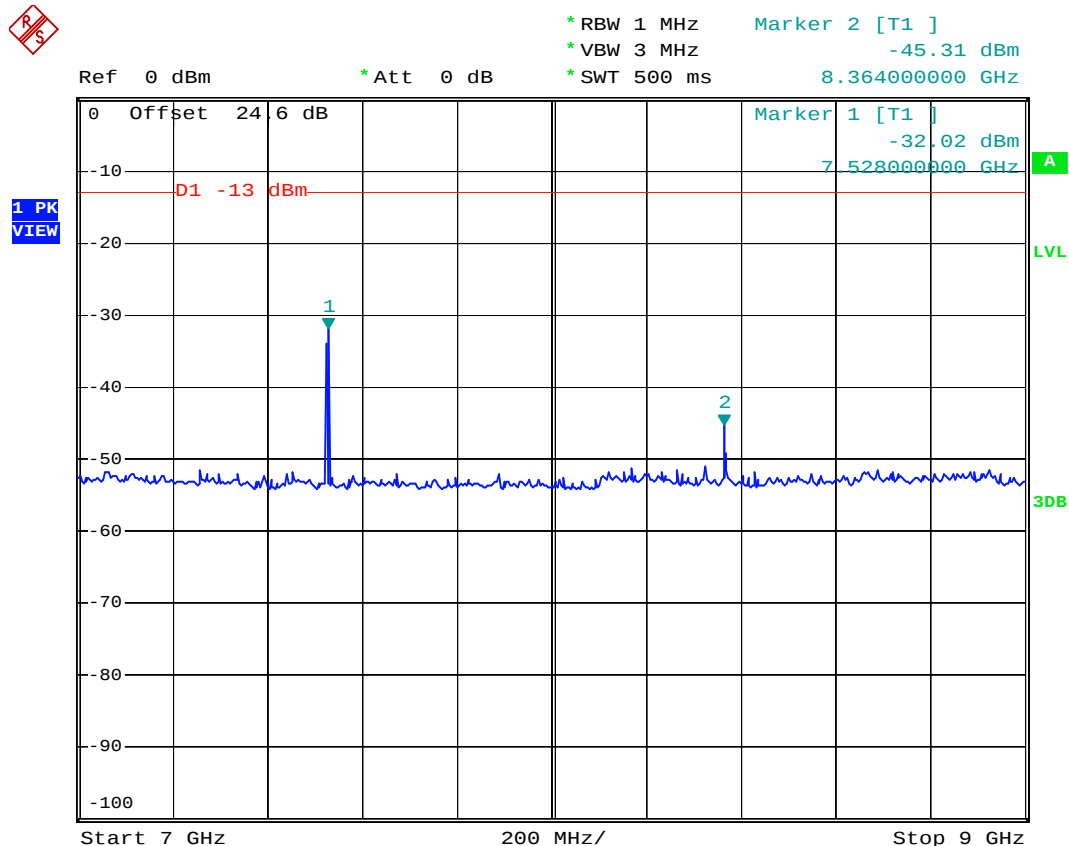
- Test Mode : GSM850 (GSM) CH189
- Frequency Range : 3G-7G



Date: 1.OCT.2007 07:55:35



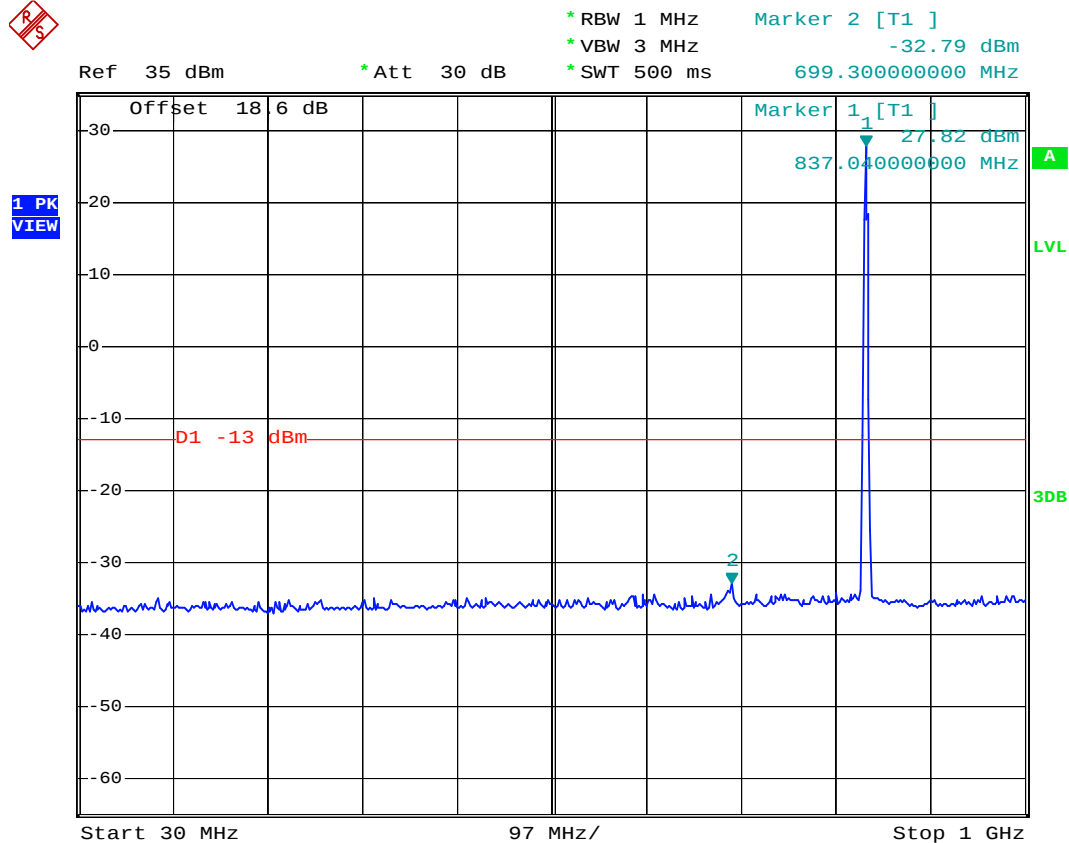
- Test Mode : GSM850 (GSM) CH189
- Frequency Range : 7G-9G



Date: 1.OCT.2007 07:59:51



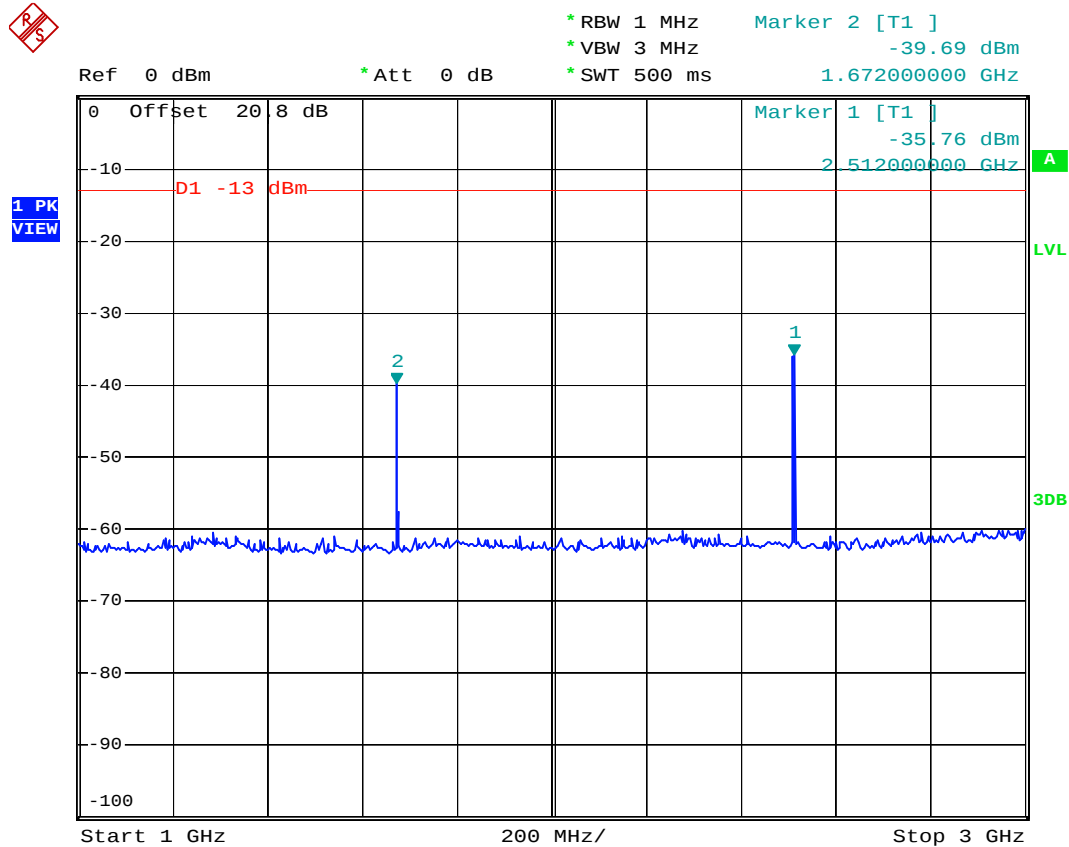
- Mode 2
- Test Mode : GSM850 (EDGE) CH189
- Frequency Range : 30M-1G



Date: 30.NOV.2007 11:15:25



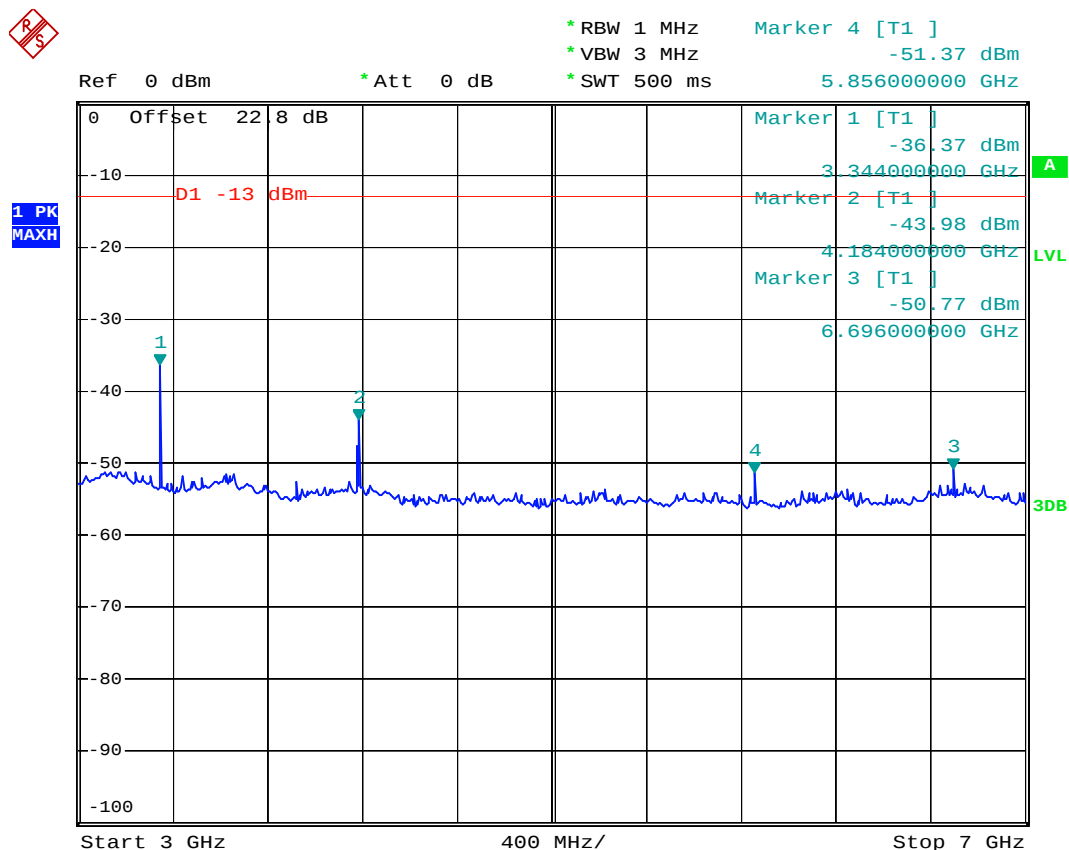
- Test Mode : GSM850 (EDGE) CH189
- Frequency Range : 1G-3G



Date: 1.OCT.2007 07:52:06



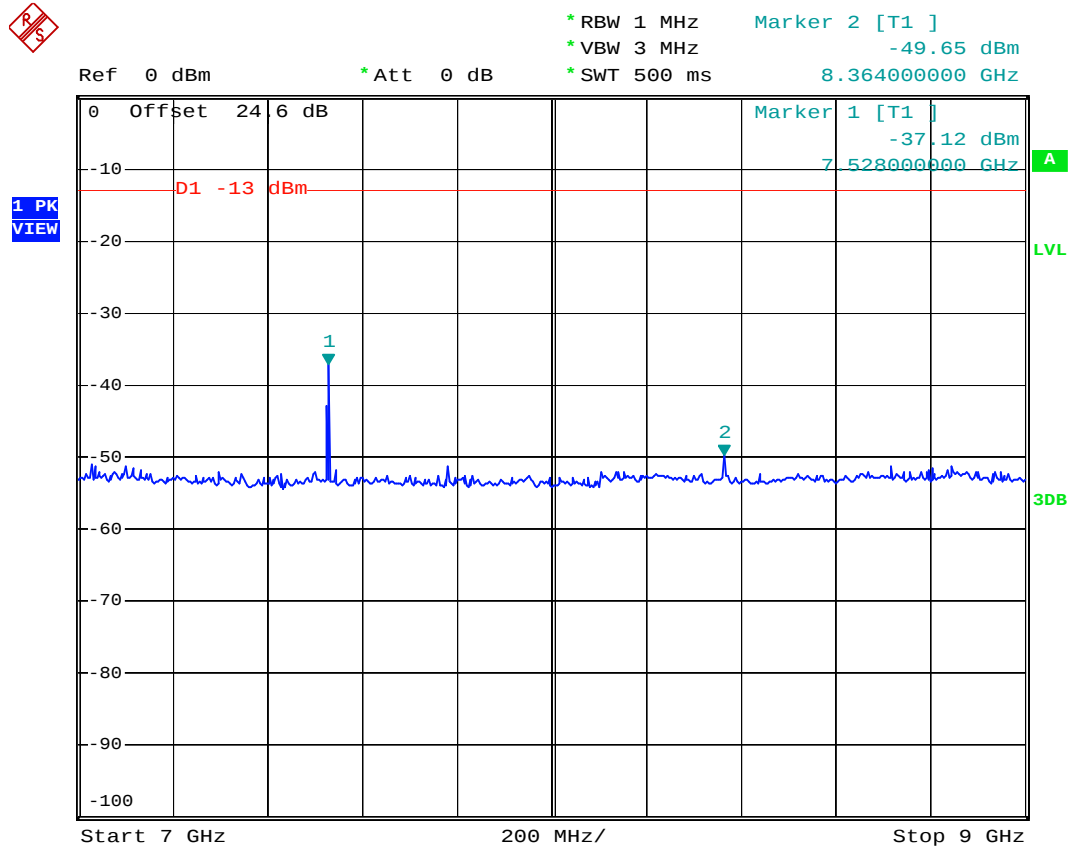
- Test Mode : GSM850 (EDGE) CH189
- Frequency Range : 3G-7G



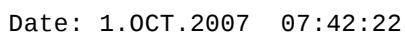
Date: 1.OCT.2007 07:54:15



- Test Mode : GSM850 (EDGE) CH189
- Frequency Range : 7G-9G

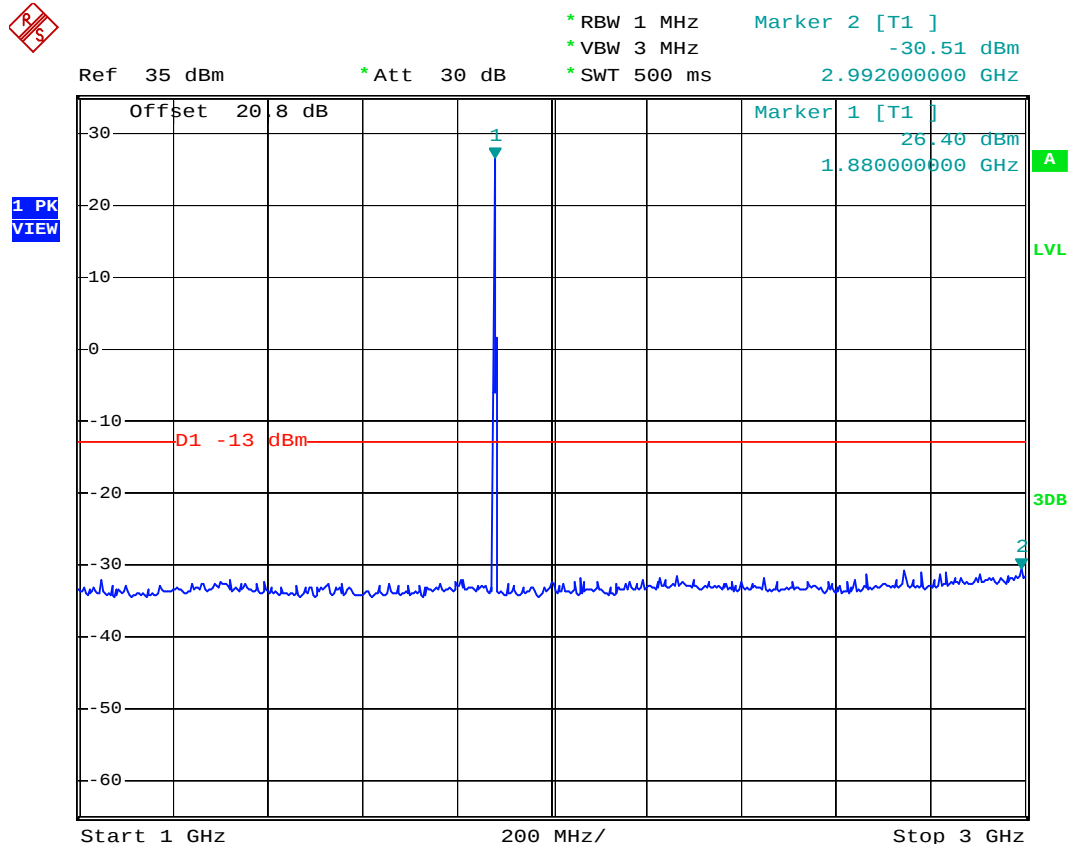


Date: 1.OCT.2007 08:00:37





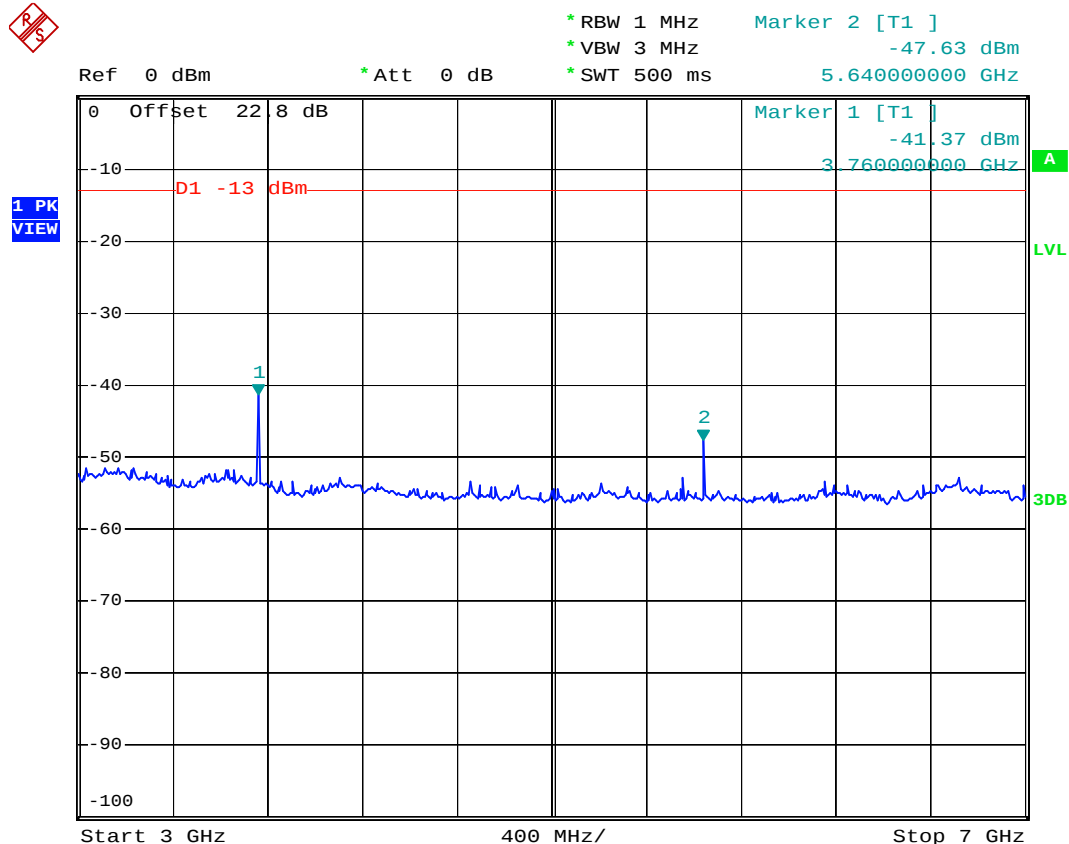
- Test Mode : PCS1900 (GSM) CH661
- Frequency Range : 1G-3G



Date: 30.NOV.2007 13:10:25



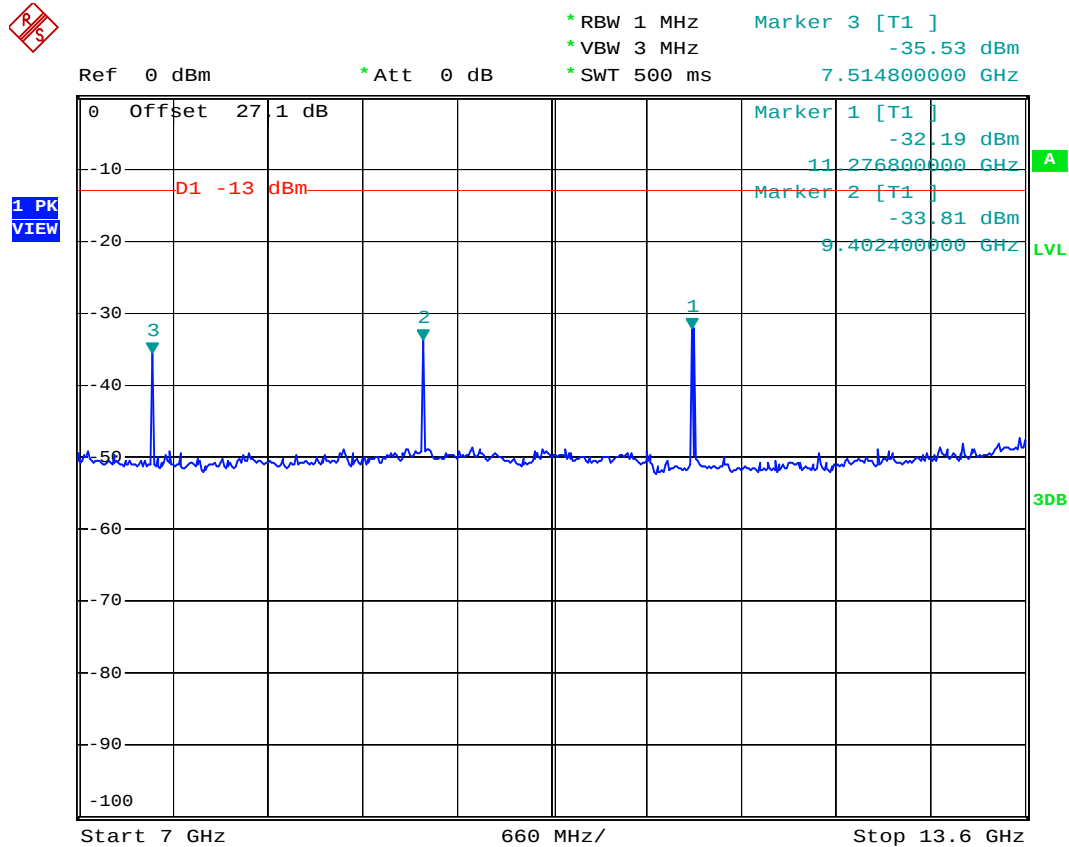
- Test Mode : PCS1900 (GSM) CH661
- Frequency Range : 3G-7G



Date: 1.OCT.2007 07:56:30



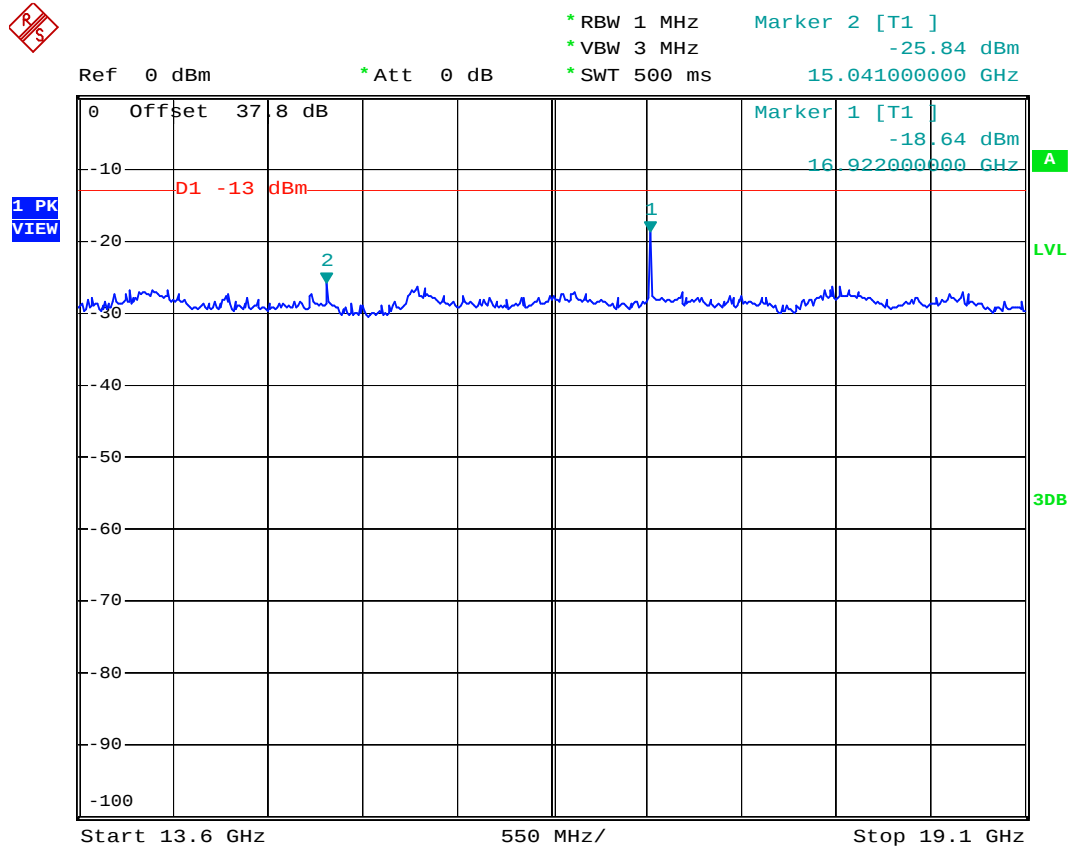
- Test Mode : PCS1900 (GSM) CH661
- Frequency Range : 7G-13.6G



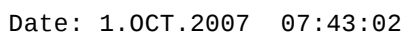
Date: 1.OCT.2007 08:03:06



- Test Mode : PCS1900 (GSM) CH661
- Frequency Range : 13.6G-19.1G

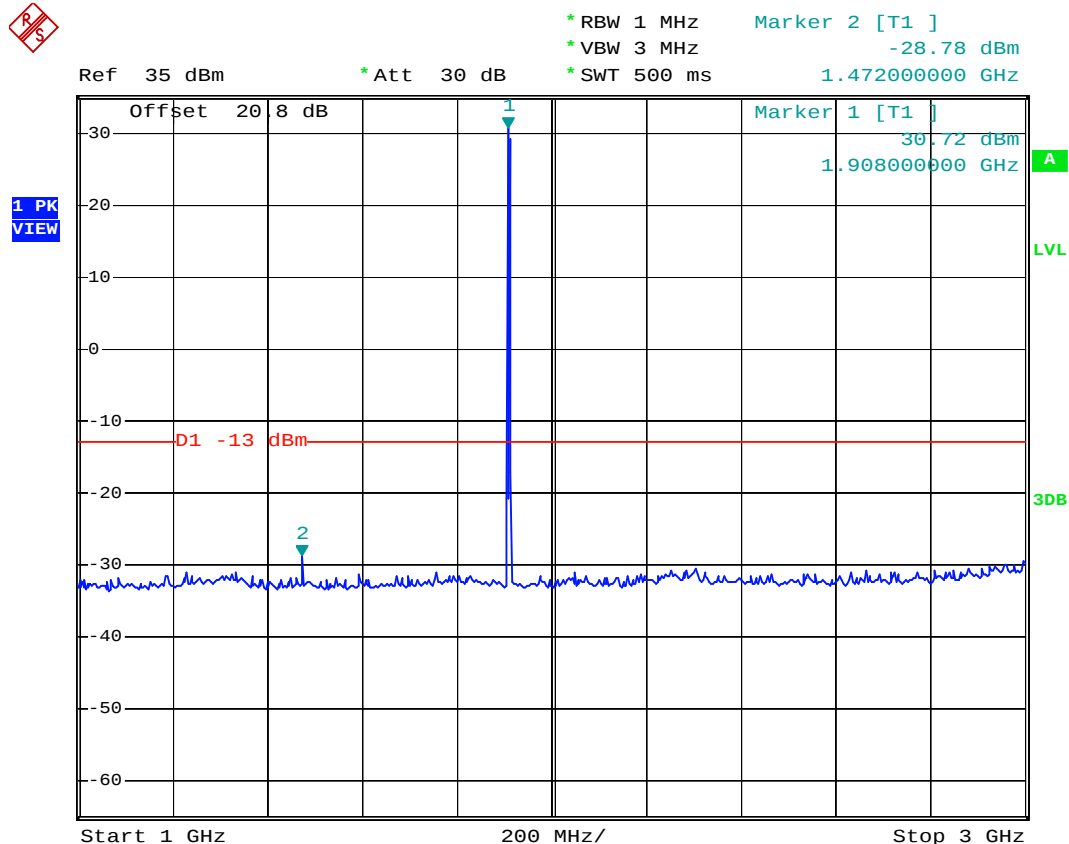


Date: 1.OCT.2007 08:07:25





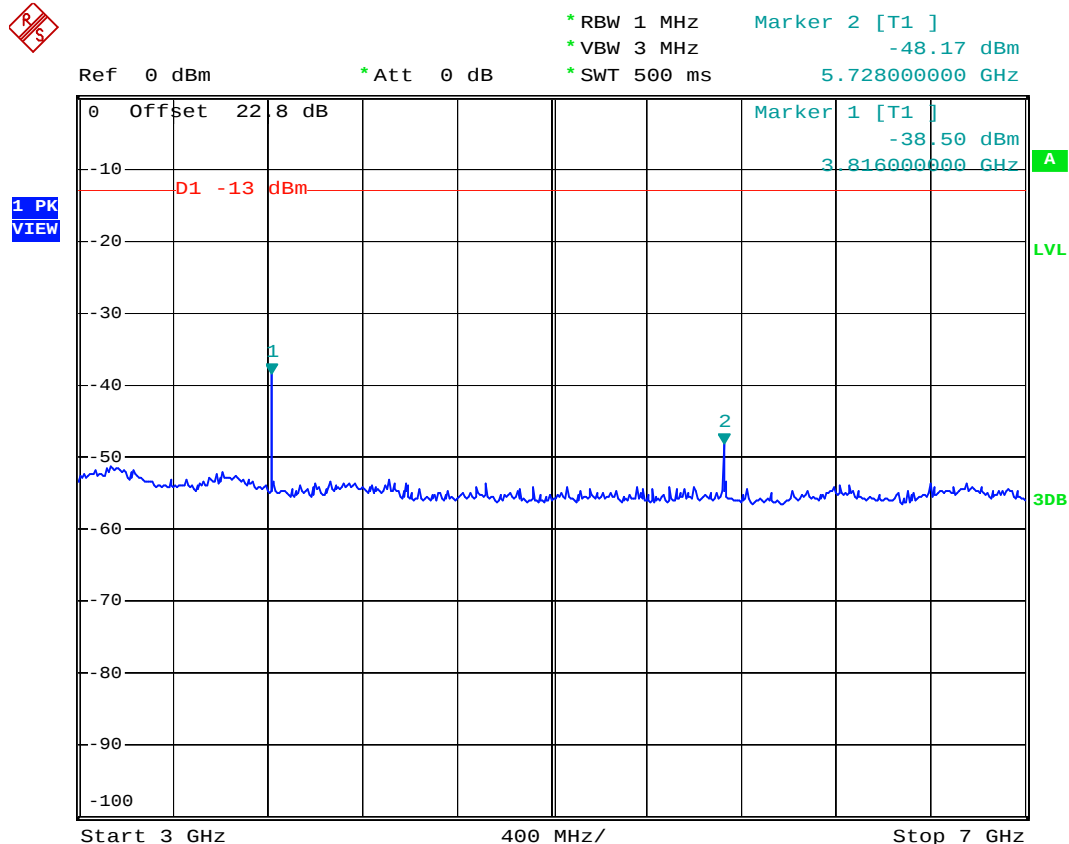
- Test Mode : PCS1900 (EDGE) CH661
- Frequency Range : 1G-3G



Date: 1.OCT.2007 07:49:04



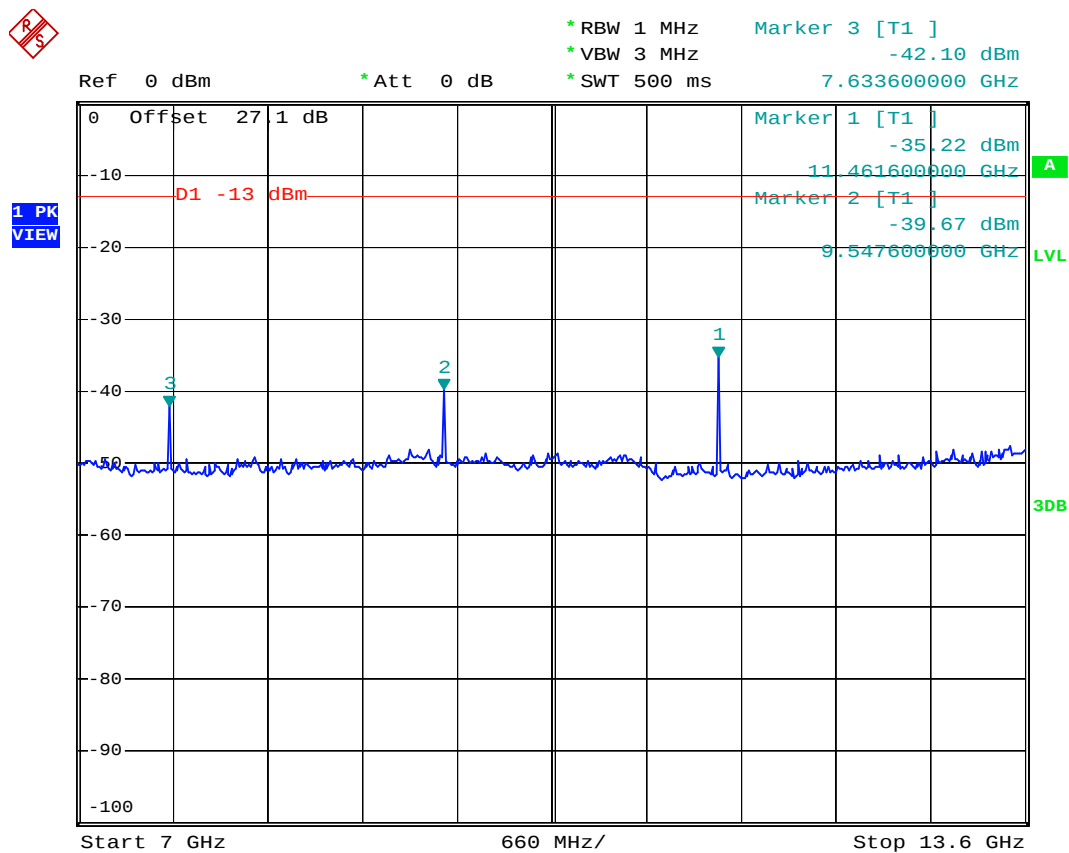
- Test Mode : PCS1900 (EDGE) CH661
- Frequency Range : 3G-7G



Date: 1.OCT.2007 07:57:41



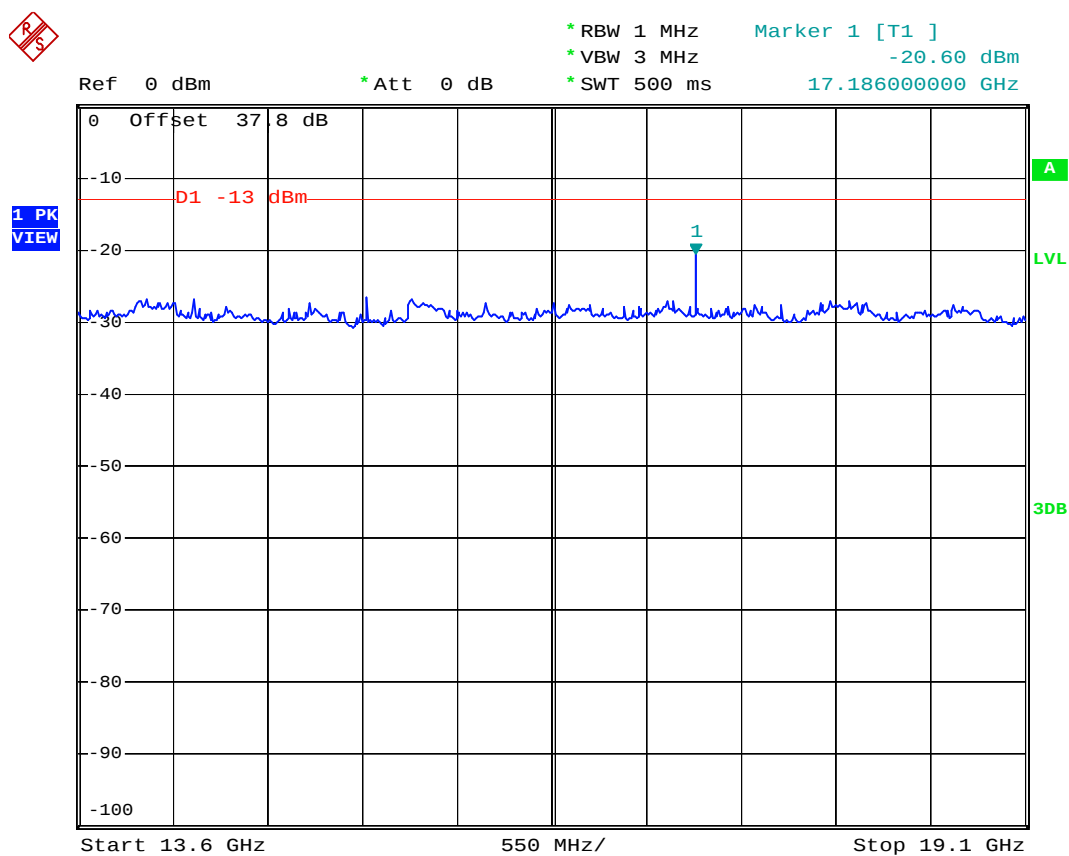
- Test Mode : PCS1900 (EDGE) CH661
- Frequency Range : 7G-13.6G



Date: 1.OCT.2007 08:04:06



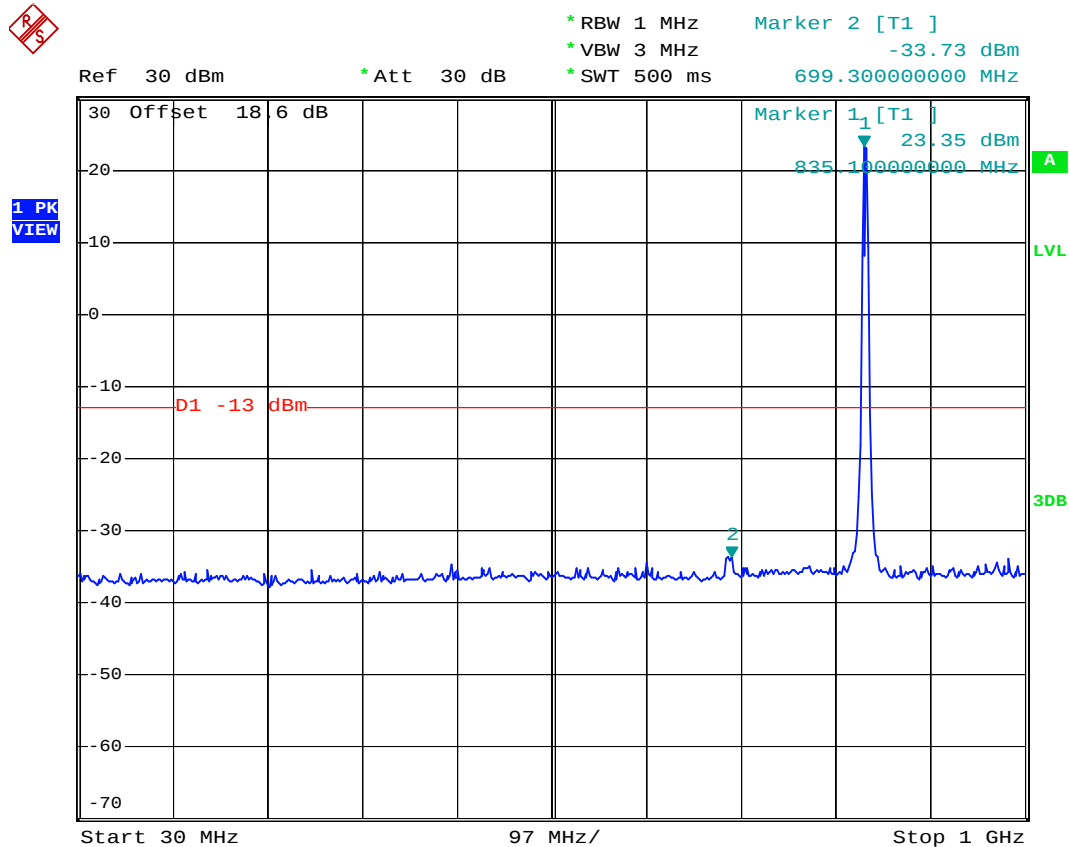
- Test Mode : PCS1900 (EDGE) CH661
- Frequency Range : 13.6G-19.1G



Date: 1.OCT.2007 08:06:38



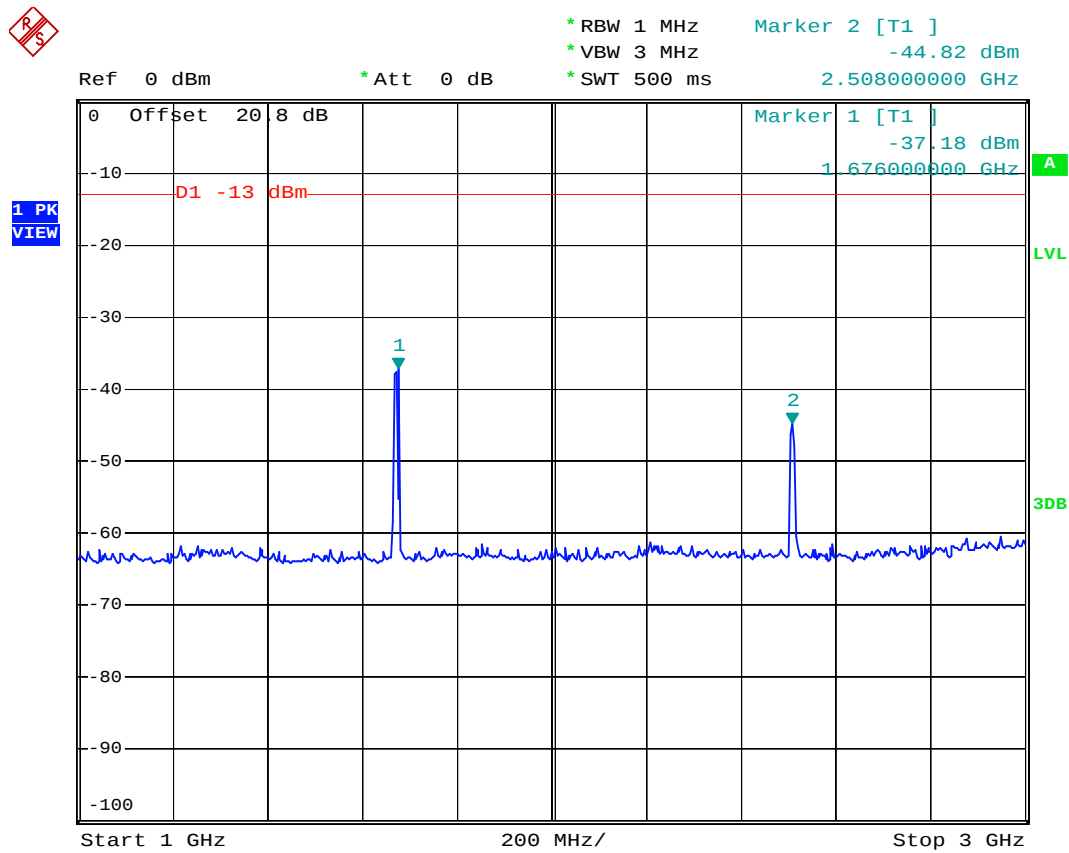
- Mode 5
- Test Mode : WCDMA Band V CH4182
- Frequency Range : 30M-1G



Date: 8.OCT.2007 16:18:02



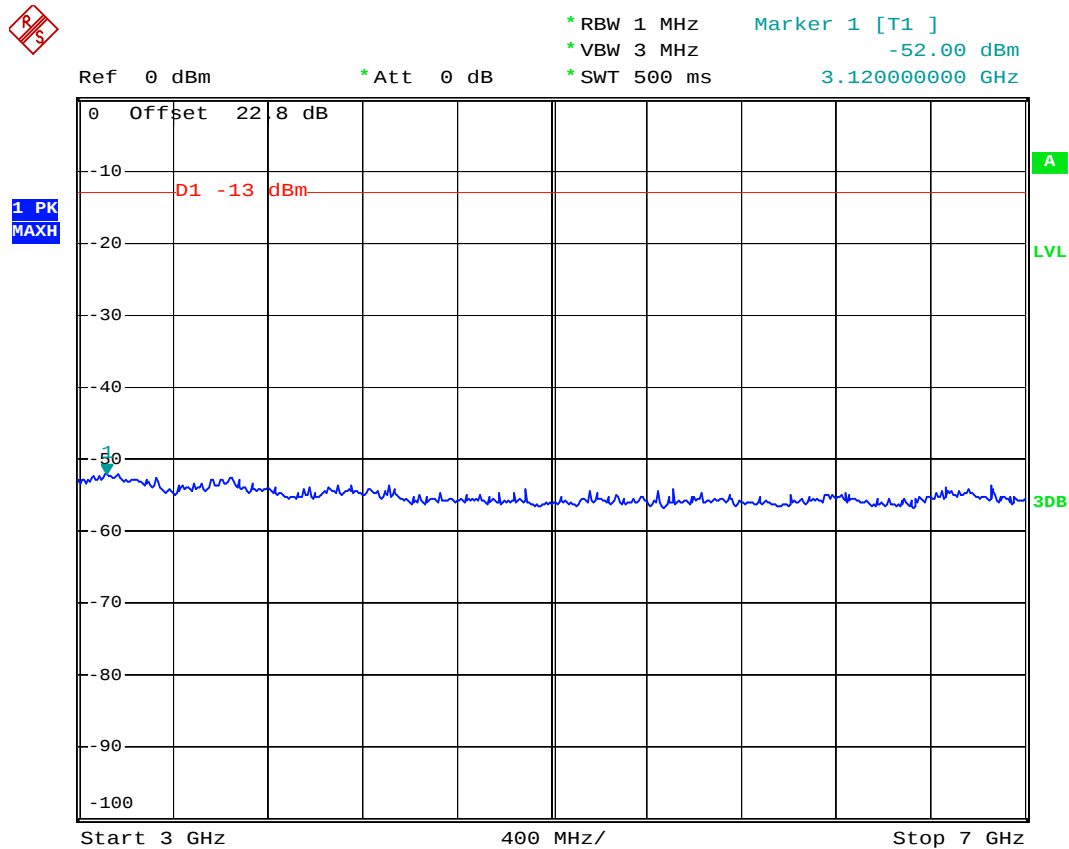
- Test Mode : WCDMA Band V CH4182
- Frequency Range : 1G-3G



Date: 8.OCT.2007 16:47:21



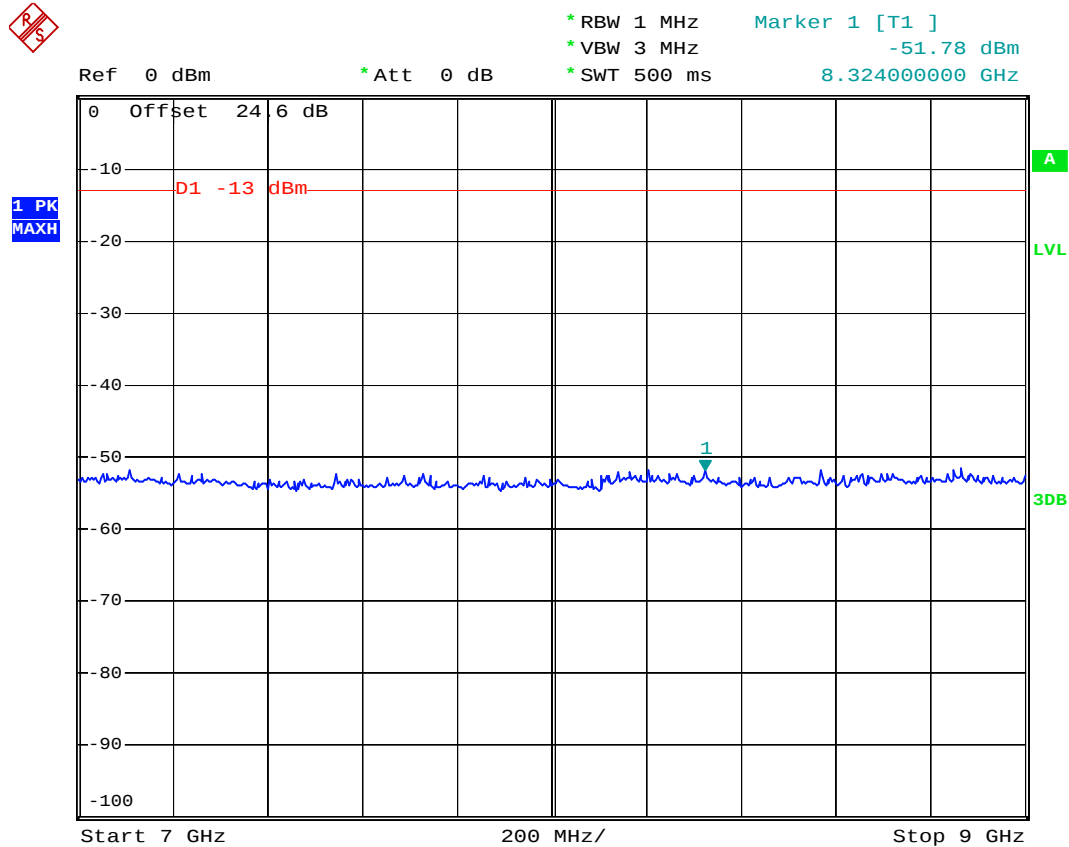
- Test Mode : WCDMA Band V CH4182
- Frequency Range : 3G-7G



Date: 8.OCT.2007 16:23:57



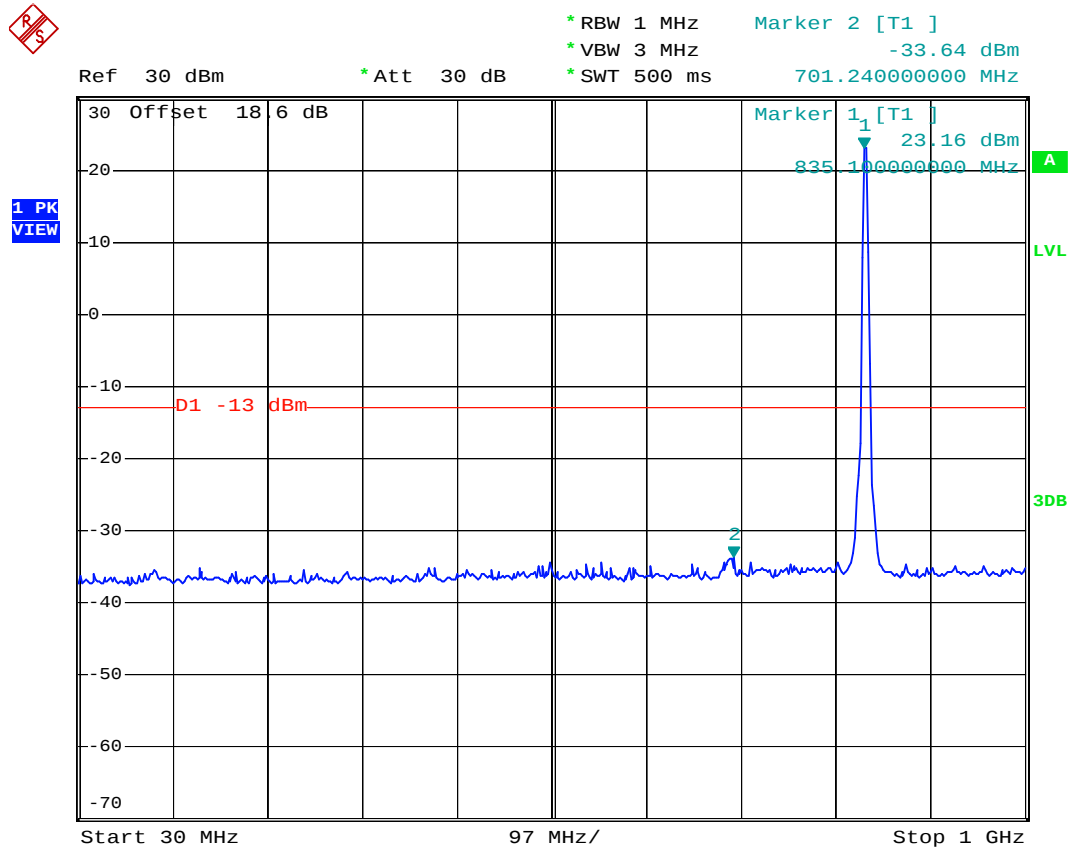
- Test Mode : WCDMA Band V CH4182
- Frequency Range : 7G-9G



Date: 8.OCT.2007 16:25:17



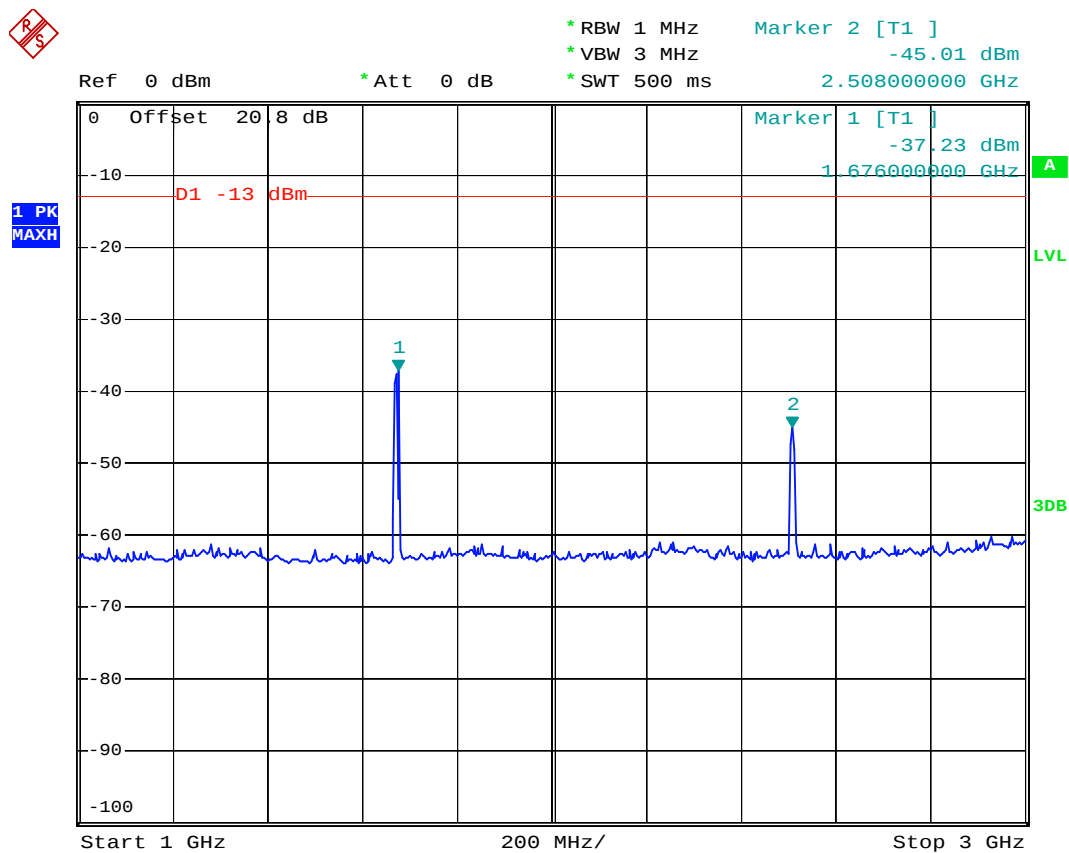
- Mode 6
- Test Mode : WCDMA Band V (HSDPA) CH4182
- Frequency Range : 30M-1G



Date: 8.OCT.2007 16:19:21



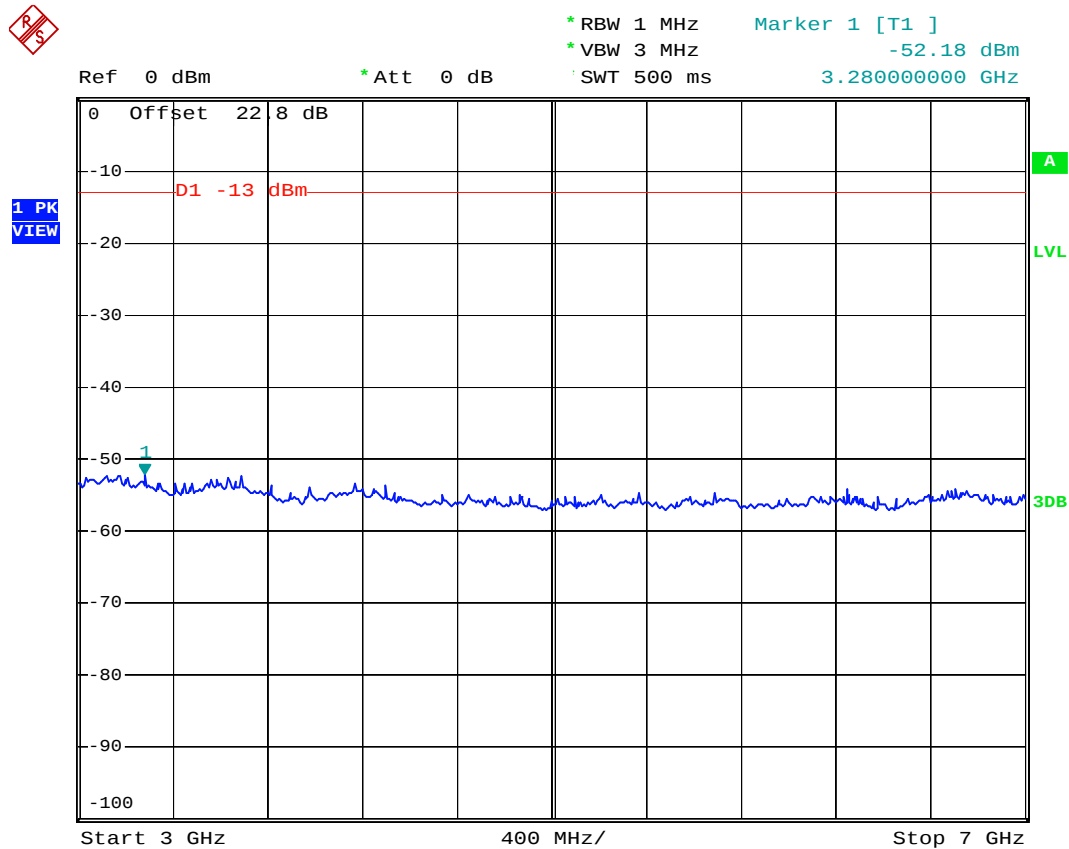
- Test Mode : WCDMA Band V (HSDPA) CH4182
- Frequency Range : 1G-3G



Date: 8.OCT.2007 16:46:27



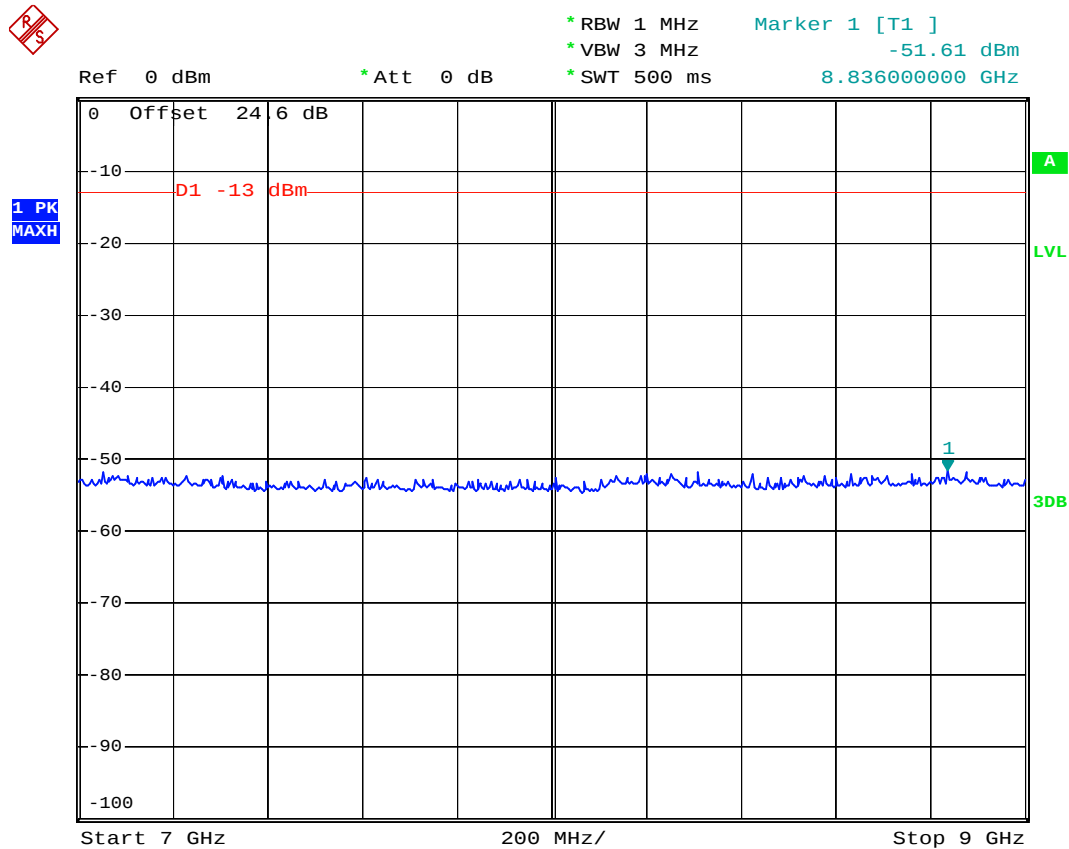
- Test Mode : WCDMA Band V (HSDPA) CH4182
- Frequency Range : 3G-7G



Date: 8.OCT.2007 16:22:19



- Test Mode : WCDMA Band V (HSDPA) CH4182
- Frequency Range : 7G-9G



Date: 8.OCT.2007 16:26:24

4.6 Field Strength of Spurious Radiation

Equivalent isotropic radiated Power Measurements by substitution method according to ANSI/TIA/EIA-603-C.

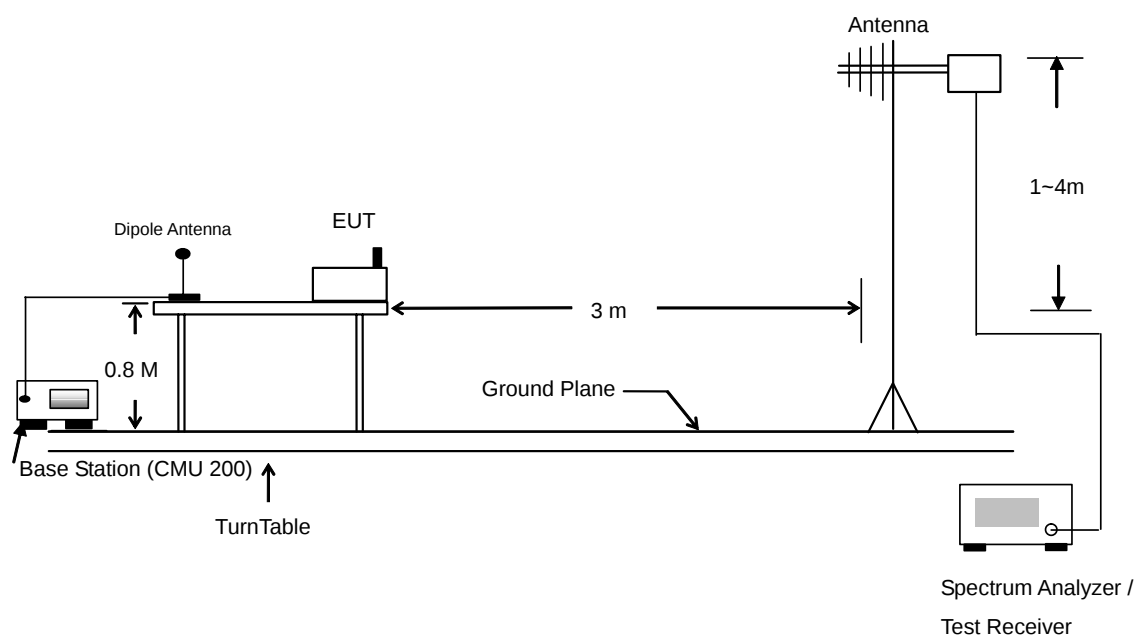
4.6.1 Measurement Instruments

As described in chapter 5 of this test report.

4.6.2 Test Procedure

- The EUT was placed on a rotatable wooden table with 0.8 meter about ground.
- The EUT was set 3 meters from the receiving antenna which was mounted on the antenna tower.
- The table was rotated 360 degrees to determine the position of the highest spurious emission.
- The height of the receiving antenna is varied between one meter and four meters to reach the maximum spurious emission for both horizontal and vertical polarizations.
- Taking the record of maximum spurious emission.
- A Horn antenna was substituted in place of the EUT and was driven by a signal generator.
- Tune the output power of signal generator to the same emission level with EUT maximum spurious emission.
- Taking the record of output power at antenna port.
- Repeat step 7 to step 8 for another polarization.
- Emission level (dBm) = output power + substitution Gain.

4.6.3 Test Setup Layout



**4.6.4 Test Result**

- Test Mode : Mode 1

GSM850 (GSM) Radiated Spurious ERP							
H Polarization				V Polarization			
Frequency	ERP (dBm)	Limit	Margin	Frequency	ERP (dBm)	Limit	Margin
(MHz)		(dBm)	(dB)	(MHz)		(dBm)	(dB)
117.210	-60.530	-13	-47.53	38.370	-46.430	-13	-33.43
197.940	-56.180	-13	-43.18	52.410	-45.530	-13	-32.53
233.850	-58.070	-13	-45.07	117.210	-53.940	-13	-40.94
433.000	-56.940	-13	-43.94	430.900	-54.240	-13	-41.24
1670.000	-42.210	-13	-29.21	1670.000	-41.490	-13	-28.49
2126.000	-53.960	-13	-40.96	2126.000	-56.270	-13	-43.27
2510.000	-41.610	-13	-28.61	2510.000	-40.800	-13	-27.80
3342.000	-44.870	-13	-31.87	3342.000	-47.080	-13	-34.08
4182.000	-46.140	-13	-33.14	4182.000	-40.180	-13	-27.18
5014.000	-41.850	-13	-28.85	5014.000	-41.750	-13	-28.75
7526.000	-27.630	-13	-14.63	5854.000	-44.490	-13	-31.49
8364.000	-30.200	-13	-17.20	6692.000	-45.270	-13	-32.27
				7526.000	-24.080	-13	-11.08
				8364.000	-24.910	-13	-11.91



• Test Mode : Mode 2

GSM850 (EDGE) Radiated Spurious ERP							
H Polarization				V Polarization			
Frequency	ERP (dBm)	Limit	Margin	Frequency	ERP (dBm)	Limit	Margin
(MHz)		(dBm)	(dB)	(MHz)		(dBm)	(dB)
196.050	-56.290	-13	-43.29	233.850	-56.430	-13	-43.43
233.850	-58.590	-13	-45.59	250.860	-60.170	-13	-47.17
248.970	-61.430	-13	-48.43	299.730	-57.160	-13	-44.16
430.900	-57.020	-13	-44.02	430.900	-52.890	-13	-39.89
1670.000	-41.160	-13	-28.16	1670.000	-40.850	-13	-27.85
2126.000	-53.740	-13	-40.74	2126.000	-55.800	-13	-42.80
2510.000	-41.220	-13	-28.22	2510.000	-41.600	-13	-28.60
3342.000	-45.450	-13	-32.45	3342.000	-43.850	-13	-30.85
4182.000	-44.270	-13	-31.27	4182.000	-40.180	-13	-27.18
5014.000	-43.570	-13	-30.57	5014.000	-43.620	-13	-30.62
5854.000	-46.450	-13	-33.45	5854.000	-44.770	-13	-31.77
7526.000	-32.010	-13	-19.01	6692.000	-45.630	-13	-32.63
8364.000	-30.160	-13	-17.16	7526.000	-26.760	-13	-13.76
				8364.000	-26.570	-13	-13.57



- Test Mode : Mode 3

PCS1900 (GSM) Radiated Spurious EIRP							
H Polarization				V Polarization			
Frequency	EIRP (dBm)	Limit	Margin	Frequency	EIRP (dBm)	Limit	Margin
(MHz)		(dBm)	(dB)	(MHz)		(dBm)	(dB)
40.530	-49.330	-13	-36.33	40.260	-50.420	-13	-37.42
115.860	-50.770	-13	-37.77	52.410	-43.850	-13	-30.85
194.700	-52.380	-13	-39.38	116.940	-52.710	-13	-39.71
433.000	-56.630	-13	-43.63	400.100	-56.650	-13	-43.65
598.900	-59.700	-13	-46.70	430.900	-53.270	-13	-40.27
957.300	-57.350	-13	-44.35	598.200	-57.900	-13	-44.90
2126.000	-51.240	-13	-38.24	2126.000	-54.050	-13	-41.05
3758.000	-44.520	-13	-31.52	3758.000	-39.320	-13	-26.32
5638.000	-39.180	-13	-26.18	5638.000	-37.540	-13	-24.54
7518.000	-28.330	-13	-15.33	7518.000	-29.650	-13	-16.65
9398.000	-25.700	-13	-12.70	9398.000	-18.680	-13	-5.68
11278.000	-17.200	-13	-4.20	11278.000	-17.430	-13	-4.43
13158.000	-29.400	-13	-16.40	13158.000	-23.790	-13	-10.79
15033.000	-27.520	-13	-14.52	15033.000	-27.410	-13	-14.41
16917.000	-25.730	-13	-12.73	16917.000	-24.740	-13	-11.74



• Test Mode : Mode 4

PCS1900 (EDGE) Radiated Spurious EIRP							
H Polarization				V Polarization			
Frequency	EIRP (dBm)	Limit	Margin	Frequency	EIRP (dBm)	Limit	Margin
(MHz)		(dBm)	(dB)	(MHz)		(dBm)	(dB)
31.890	-49.410	-13	-36.41	31.890	-56.620	-13	-43.62
39.180	-47.470	-13	-34.47	232.500	-54.960	-13	-41.96
115.860	-51.960	-13	-38.96	299.730	-55.230	-13	-42.23
430.200	-55.980	-13	-42.98	365.800	-53.840	-13	-40.84
729.800	-58.280	-13	-45.28	430.900	-53.890	-13	-40.89
903.400	-57.770	-13	-44.77	466.600	-56.280	-13	-43.28
2126.000	-51.510	-13	-38.51	2126.000	-53.690	-13	-40.69
3758.000	-46.900	-13	-33.90	3758.000	-42.770	-13	-29.77
5638.000	-41.560	-13	-28.56	5638.000	-35.580	-13	-22.58
7518.000	-30.820	-13	-17.82	7518.000	-29.670	-13	-16.67
9398.000	-22.810	-13	-9.81	9398.000	-18.550	-13	-5.55
11278.000	-18.450	-13	-5.45	11278.000	-17.310	-13	-4.31
13158.000	-28.900	-13	-15.90	13158.000	-25.230	-13	-12.23
15033.000	-25.740	-13	-12.74	15033.000	-22.730	-13	-9.73
16917.000	-21.590	-13	-8.59	16917.000	-18.880	-13	-5.88



▪ Test Mode : Mode 5

WCDMA Band V Radiated Spurious ERP							
H Polarization				V Polarization			
Frequency	ERP (dBm)	Limit	Margin	Frequency	ERP (dBm)	Limit	Margin
(MHz)		(dBm)	(dB)	(MHz)		(dBm)	(dB)
39.450	-50.260	-13	-37.26	39.180	-61.950	-13	-48.95
113.970	-53.140	-13	-40.14	176.610	-58.810	-13	-45.81
193.890	-52.770	-13	-39.77	199.290	-60.210	-13	-47.21
433.000	-60.510	-13	-47.51	430.900	-55.800	-13	-42.80
1670.000	-43.230	-13	-30.23	1676.000	-41.990	-13	-28.99
2276.000	-54.160	-13	-41.16	2276.000	-53.200	-13	-40.20
2396.000	-51.060	-13	-38.06	2396.000	-44.890	-13	-31.89
2460.000	-47.500	-13	-34.50	2460.000	-48.490	-13	-35.49
2518.000	-51.000	-13	-38.00	2518.000	-50.780	-13	-37.78
				3316.000	-50.380	-13	-37.38
				5844.000	-45.650	-13	-32.65



• Test Mode : Mode 6

WCDMA Band V (HSDPA) Radiated Spurious ERP							
H Polarization				V Polarization			
Frequency	ERP (dBm)	Limit	Margin	Frequency	ERP (dBm)	Limit	Margin
(MHz)		(dBm)	(dB)	(MHz)		(dBm)	(dB)
39.450	-48.990	-13	-35.99	39.180	-52.510	-13	-39.51
116.940	-61.140	-13	-48.14	177.420	-58.100	-13	-45.10
196.050	-52.780	-13	-39.78	299.730	-60.280	-13	-47.28
374.900	-60.700	-13	-47.70	430.900	-55.730	-13	-42.73
1670.000	-43.310	-13	-30.31	1668.000	-42.460	-13	-29.46
2270.000	-54.030	-13	-41.03	2270.000	-53.040	-13	-40.04
2396.000	-50.670	-13	-37.67	2396.000	-45.040	-13	-32.04
2460.000	-47.790	-13	-34.79	2460.000	-48.610	-13	-35.61
2508.000	-50.960	-13	-37.96	2508.000	-50.950	-13	-37.95
				3316.000	-50.070	-13	-37.07
				5860.000	-45.140	-13	-32.14

• Test Mode : Mode 7

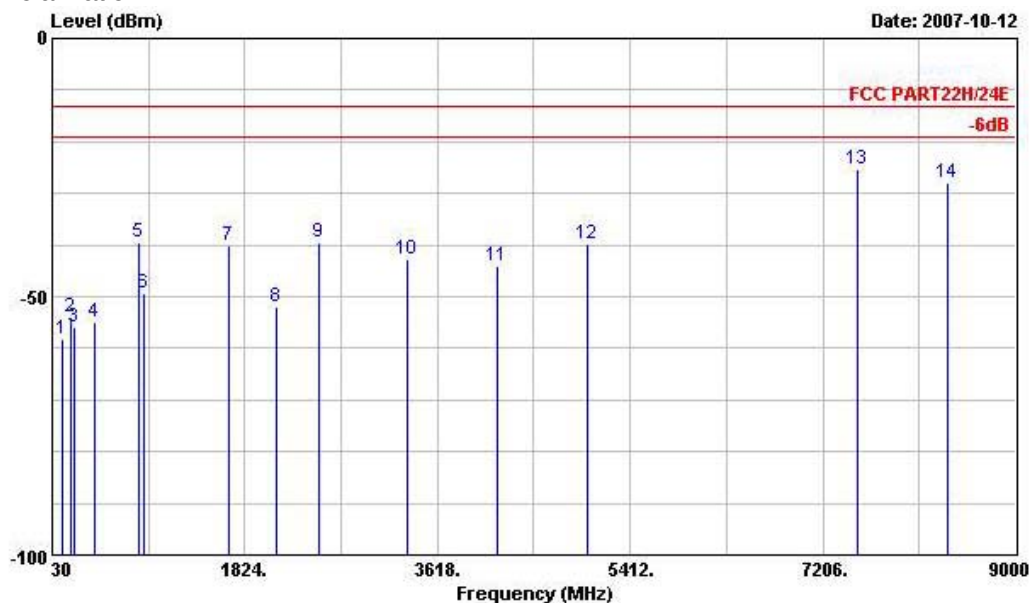
(GSM+BT) Radiated Spurious ERP							
H Polarization				V Polarization			
Frequency	ERP (dBm)	Limit	Margin	Frequency	ERP (dBm)	Limit	Margin
(MHz)		(dBm)	(dB)	(MHz)		(dBm)	(dB)
39.450	-47.840	-13	-34.84	39.450	-58.480	-13	-45.48
196.050	-59.860	-13	-46.86	233.850	-57.670	-13	-44.67
231.690	-59.220	-13	-46.22	298.650	-58.770	-13	-45.77
430.900	-58.880	-13	-45.88	430.900	-55.270	-13	-42.27
1670.000	-41.930	-13	-28.93	1670.000	-41.700	-13	-28.70
2510.000	-38.750	-13	-25.75	2510.000	-41.230	-13	-28.23
3342.000	-46.440	-13	-33.44	3342.000	-44.840	-13	-31.84
4182.000	-45.180	-13	-32.18	4182.000	-42.760	-13	-29.76
5014.000	-46.620	-13	-33.62	4942.000	-41.250	-13	-28.25
7526.000	-29.140	-13	-16.14	5014.000	-44.790	-13	-31.79
8364.000	-32.310	-13	-19.31	7526.000	-27.360	-13	-14.36
				8364.000	-27.010	-13	-14.01



4.6.5 Test Data

4.6.5.1 Mode 1

Horizontal Polarization



Site : 03CH04-HY
 Condition: FCC PART22H/24E LF-SPURIOUS HORIZONTAL
 EUT : GSM/EDGE (Class12) 850/900/1800/
 . : 1900 UMTS/HSDPA 850/2100 (BAND I and
 . : V) with BT_EDR Phone_Slide Type
 POWER : 120Vac/60Hz
 MODEL : FG 792103
 MOME : GSM850 Link; Ch189 + Adaptor B
 PLANE : E2 滑蓋打開

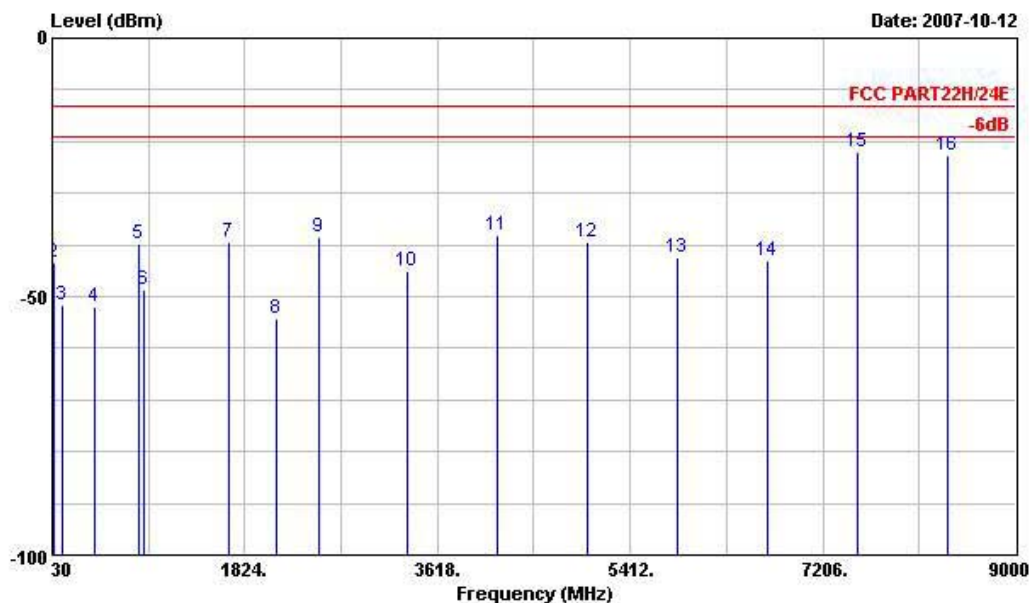
	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB		
1	117.210	-58.38	-45.38	-13.00	-55.54	-2.84	Peak	HORIZONTAL
2	197.940	-54.03	-41.03	-13.00	-52.40	-1.63	Peak	HORIZONTAL
3	233.850	-55.92	-42.92	-13.00	-55.26	-0.66	Peak	HORIZONTAL
4	433.000	-54.79	-41.79	-13.00	-54.57	-0.22	Peak	HORIZONTAL
5	836.200	-39.36			-48.30	8.94	Peak	HORIZONTAL
6	881.700	-49.37			-59.68	10.31	Peak	HORIZONTAL
7	1670.000	-40.06	-27.06	-13.00	-45.67	5.61	Peak	HORIZONTAL
8	2126.000	-51.81	-38.81	-13.00	-59.34	7.53	Peak	HORIZONTAL
9	2510.000	-39.46	-26.46	-13.00	-47.86	8.40	Peak	HORIZONTAL
10	3342.000	-42.72	-29.72	-13.00	-54.73	12.01	Peak	HORIZONTAL
11	4182.000	-43.99	-30.99	-13.00	-58.20	14.21	Peak	HORIZONTAL
12	5014.000	-39.70	-26.70	-13.00	-56.32	16.62	Peak	HORIZONTAL
13 @	7526.000	-25.48	-12.48	-13.00	-45.45	19.97	Peak	HORIZONTAL
14 @	8364.000	-28.05	-15.05	-13.00	-50.01	21.96	Peak	HORIZONTAL

Remark:

1. #5: MS Signal
2. #6: BS Signal



Vertical Polarization



Site : 03CH04-HY
 Condition: FCC PART22H/24E LF-SPURIOUS VERTICAL
 EUT : GSM/EDGE(Class12) 850/900/1800/
 : 1900 UMTS/HSDPA 850/2100(BAND I and
 : V) with BT_EDR Phone_Slide Type
 POWER : 120Vac/60Hz
 MODEL : FG 792103
 MOME : GSM850 Link;Ch189 + Adaptor B
 PLANE : E2 滑蓋打開

	Freq	Level	Over	Limit	Read		
	MHz	dBm	Limit	Line	Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	Pol/Phase
1	38.370	-44.28	-31.28	-13.00	-39.31	-4.97	Peak
2	52.410	-43.38	-30.38	-13.00	-33.31	-10.07	Peak
3	117.210	-51.79	-38.79	-13.00	-48.95	-2.84	Peak
4	430.900	-52.09	-39.09	-13.00	-51.93	-0.16	Peak
5	836.200	-39.80			-48.74	8.94	Peak
6	881.700	-48.79			-59.10	10.31	Peak
7	1670.000	-39.34	-26.34	-13.00	-44.95	5.61	Peak
8	2126.000	-54.12	-41.12	-13.00	-61.65	7.53	Peak
9	2510.000	-38.65	-25.65	-13.00	-47.05	8.40	Peak
10	3342.000	-44.93	-31.93	-13.00	-56.94	12.01	Peak
11 @	4182.000	-38.03	-25.03	-13.00	-52.24	14.21	Peak
12	5014.000	-39.60	-26.60	-13.00	-56.22	16.62	Peak
13	5854.000	-42.34	-29.34	-13.00	-60.51	18.17	Peak
14	6692.000	-43.12	-30.12	-13.00	-61.87	18.75	Peak
15 @	7526.000	-21.93	-8.93	-13.00	-41.90	19.97	Peak
16 @	8364.000	-22.76	-9.76	-13.00	-44.72	21.96	Peak

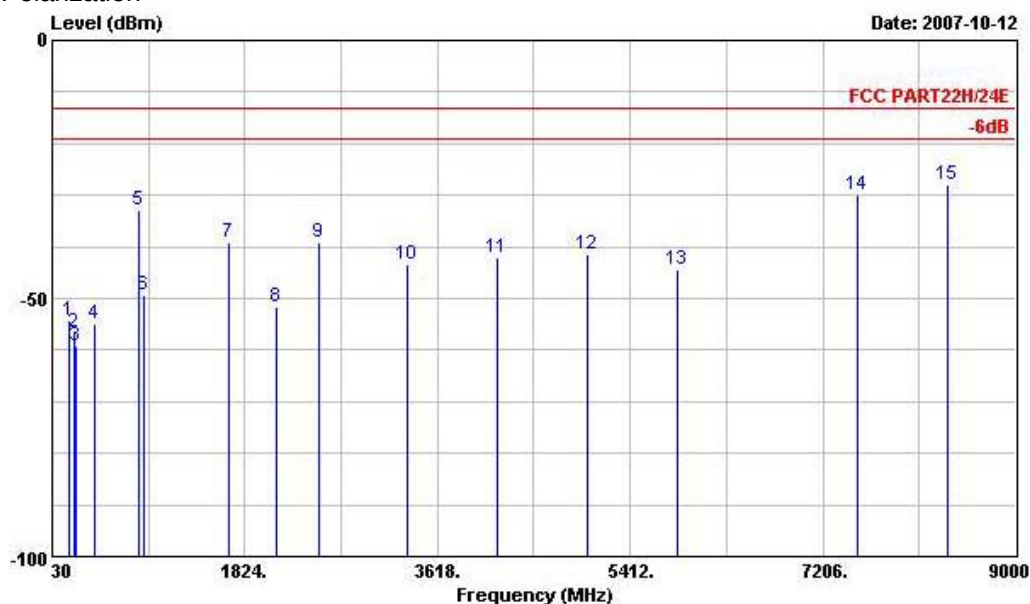
Remark:

- 1.#5: MS Signal
- 2.#6: BS Signal
3. There is no more obvious emission except the listings above.



4.6.5.2 Mode 2

Horizontal Polarization



Site : 03CH04-HY
 Condition: FCC PART22H/24E LF-SPURIOUS HORIZONTAL
 EUT : GSM/EDGE (Class12) 850/900/1800/
 . : 1900 UMTS/HSDPA 850/2100 (BAND I and
 . : V) with BT_EDR Phone_Slide Type
 POWER : 120Vac/60Hz
 MODEL : FG 792103
 MOME : GSM850 EDGE Link + Adaptor B
 PLANE : E2 滑蓋打開

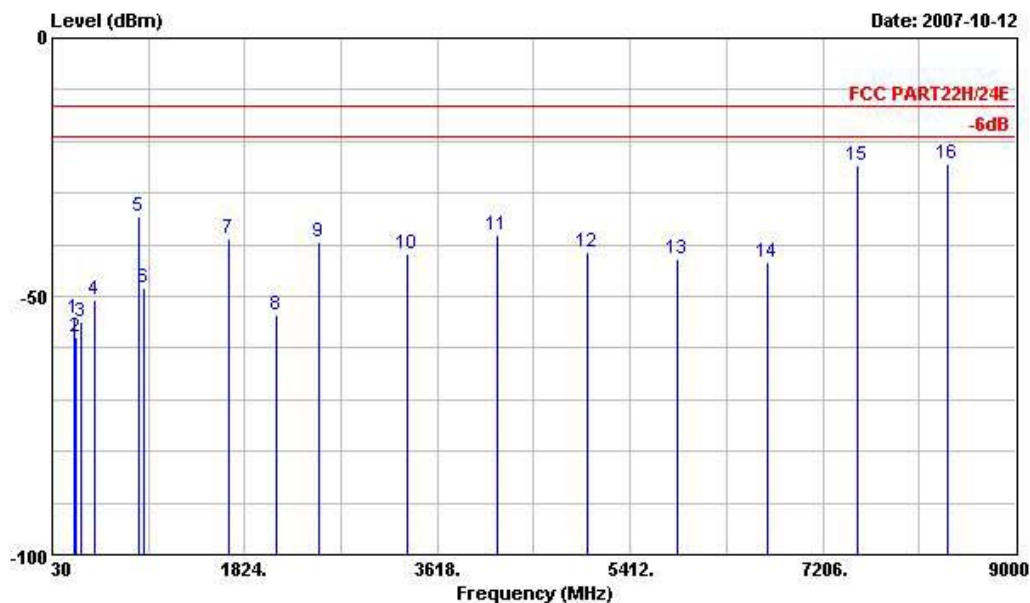
	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB		
1	196.050	-54.14	-41.14	-13.00	-52.38	-1.76	Peak	HORIZONTAL
2	233.850	-56.44	-43.44	-13.00	-55.78	-0.66	Peak	HORIZONTAL
3	248.970	-59.28	-46.28	-13.00	-59.01	-0.27	Peak	HORIZONTAL
4	430.900	-54.87	-41.87	-13.00	-54.71	-0.16	Peak	HORIZONTAL
5	839.700	-33.05			-42.11	9.06	Peak	HORIZONTAL
6	881.700	-49.26			-59.57	10.31	Peak	HORIZONTAL
7	1670.000	-39.01	-26.01	-13.00	-44.62	5.61	Peak	HORIZONTAL
8	2126.000	-51.59	-38.59	-13.00	-59.12	7.53	Peak	HORIZONTAL
9	2510.000	-39.07	-26.07	-13.00	-47.47	8.40	Peak	HORIZONTAL
10	3342.000	-43.30	-30.30	-13.00	-55.31	12.01	Peak	HORIZONTAL
11	4182.000	-42.12	-29.12	-13.00	-56.33	14.21	Peak	HORIZONTAL
12	5014.000	-41.42	-28.42	-13.00	-58.04	16.62	Peak	HORIZONTAL
13	5854.000	-44.30	-31.30	-13.00	-62.47	18.17	Peak	HORIZONTAL
14	7526.000	-29.86	-16.86	-13.00	-49.83	19.97	Peak	HORIZONTAL
15	8364.000	-28.01	-15.01	-13.00	-49.97	21.96	Peak	HORIZONTAL

Remark:

- 1.#5: MS Signal
 2.#6: BS Signal



Vertical Polarization



Site : 03CH04-HY
 Condition: FCC PART22H/24E LF-SPURIOUS VERTICAL
 EUT : GSM/EDGE(Class12) 850/900/1800/
 : 1900 UMTS/HSDPA 850/2100(BAND I and
 : V) with BT_EDR Phone_Slide Type
 POWER : 120Vac/60Hz
 MODEL : FG 792103
 MOME : GSM850 EDGE Link + Adaptor B
 PLANE : E2 滑蓋打開

	Freq	Level	Over	Limit	Read			
	MHz	dBm	Limit	Line	Level	Factor	Remark	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB		
1	233.850	-54.28	-41.28	-13.00	-53.62	-0.66	Peak	VERTICAL
2	250.860	-58.02	-45.02	-13.00	-57.78	-0.24	Peak	VERTICAL
3	299.730	-55.01	-42.01	-13.00	-55.20	0.19	Peak	VERTICAL
4	430.900	-50.74	-37.74	-13.00	-50.58	-0.16	Peak	VERTICAL
5	839.700	-34.60			-43.66	9.06	Peak	VERTICAL
6	881.700	-48.47			-58.78	10.31	Peak	VERTICAL
7	1670.000	-38.70	-25.70	-13.00	-44.31	5.61	Peak	VERTICAL
8	2126.000	-53.65	-40.65	-13.00	-61.18	7.53	Peak	VERTICAL
9	2510.000	-39.45	-26.45	-13.00	-47.85	8.40	Peak	VERTICAL
10	3342.000	-41.70	-28.70	-13.00	-53.71	12.01	Peak	VERTICAL
11	4182.000	-38.03	-25.03	-13.00	-52.24	14.21	Peak	VERTICAL
12	5014.000	-41.47	-28.47	-13.00	-58.09	16.62	Peak	VERTICAL
13	5854.000	-42.62	-29.62	-13.00	-60.79	18.17	Peak	VERTICAL
14	6692.000	-43.48	-30.48	-13.00	-62.23	18.75	Peak	VERTICAL
15	7526.000	-24.61	-11.61	-13.00	-44.58	19.97	Peak	VERTICAL
16	8364.000	-24.42	-11.42	-13.00	-46.38	21.96	Peak	VERTICAL

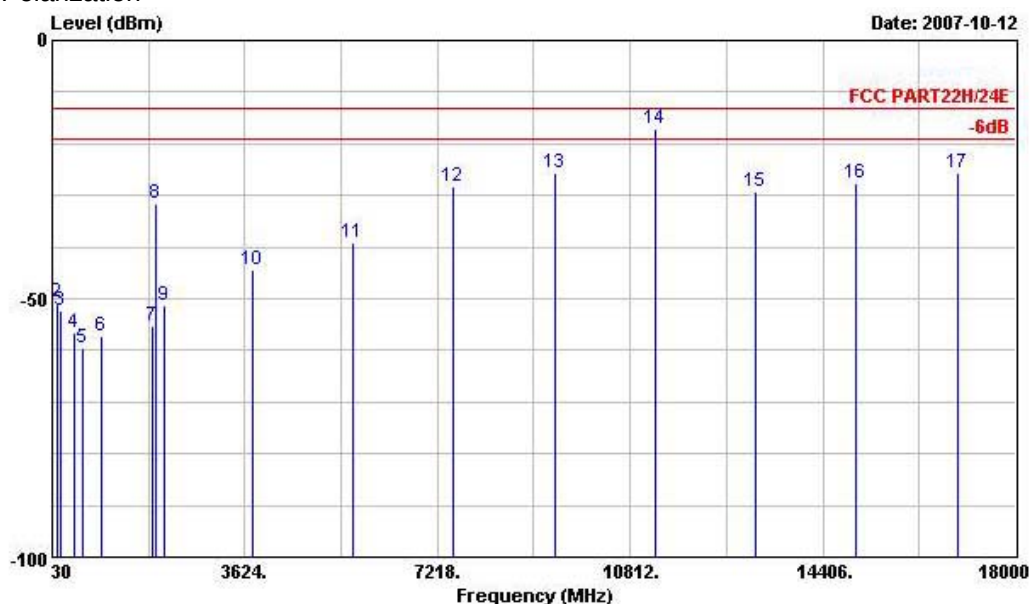
Remark:

- #5: MS Signal
- #6: BS Signal
- There is no more obvious emission except the listings above.



4.6.5.3 Mode 3

Horizontal Polarization



Site : 03CH04-HY
 Condition: FCC PART22H/24E LF-SPURIOUS HORIZONTAL
 EUT : GSM/EDGE (Class12) 850/900/1800/
 . : 1900 UMTS/HSDPA 850/2100 (BAND I and
 . : V) with BT_EDR Phone_Slide Type
 POWER : 120Vac/60Hz
 MODEL : FG 792103
 MOME : PCS1900 Link; Ch661 + Adaptor B
 PLANE : E2 滑蓋打開

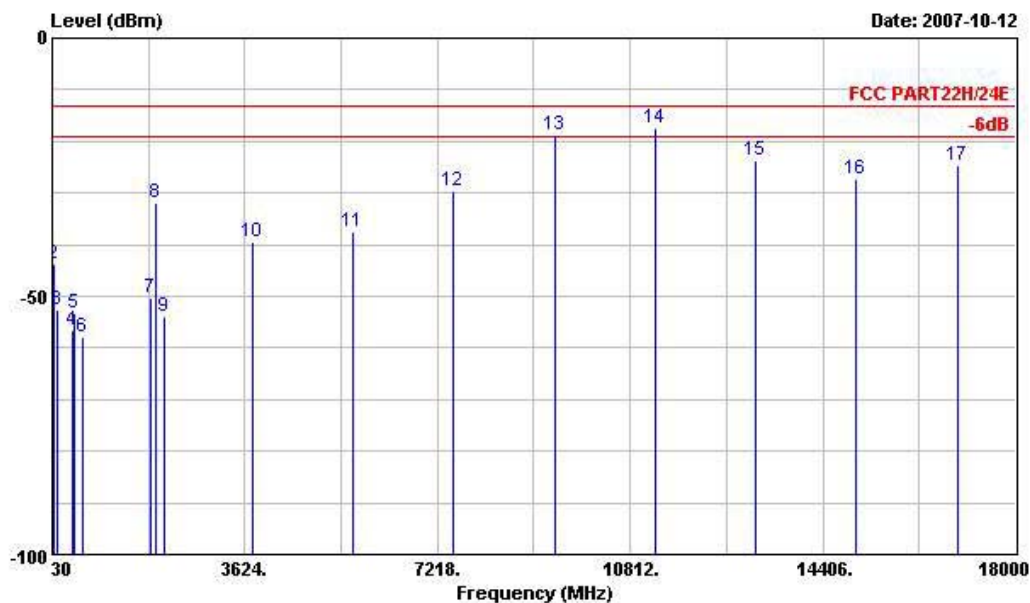
	Freq	Level	Over	Limit	Read		
	MHz	dBm	Limit	Line	Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1	40.530	-49.33	-36.33	-13.00	-44.09	-5.24	Peak
2	115.860	-50.77	-37.77	-13.00	-47.83	-2.94	Peak
3	194.700	-52.38	-39.38	-13.00	-50.55	-1.83	Peak
4	433.000	-56.63	-43.63	-13.00	-56.41	-0.22	Peak
5	598.900	-59.70	-46.70	-13.00	-65.30	5.60	Peak
6	957.300	-57.35	-44.35	-13.00	-68.47	11.12	Peak
7	1886.000	-55.10			-61.80	6.70	Peak
8	1958.000	-31.69			-38.72	7.03	Peak
9	2126.000	-51.24	-38.24	-13.00	-58.77	7.53	Peak
10	3758.000	-44.52	-31.52	-13.00	-57.89	13.37	Peak
11	5638.000	-39.18	-26.18	-13.00	-57.34	18.16	Peak
12	7518.000	-28.33	-15.33	-13.00	-48.24	19.91	Peak
13	9398.000	-25.70	-12.70	-13.00	-48.49	22.79	Peak
14 @	11278.000	-17.20	-4.20	-13.00	-41.80	24.60	Peak
15	13158.000	-29.40	-16.40	-13.00	-59.52	30.12	Peak
16	15033.000	-27.52	-14.52	-13.00	-56.61	29.09	Peak
17	16917.000	-25.73	-12.73	-13.00	-53.47	27.74	Peak

Remark:

- 1.#7: MS Signal
- 2.#8: BS Signal



Vertical Polarization



Site : 03CH04-HY
 Condition: FCC PART22H/24E LF-SPURIOUS VERTICAL
 EUT : GSM/EDGE(Class12) 850/900/1800/
 : 1900 UMITS/HSDPA 850/2100(BAND I and
 : V) with BT_EDR Phone_Slide Type
 POWER : 120Vac/60Hz
 MODEL : FG 792103
 MOME : PCS1900 Link;Ch661 + Adaptor B
 PLANE : E2 滑蓋打開

	Freq	Level	Over	Limit	Read	
	MHz	dBm	Limit	Line	Level	Factor Remark
	MHz	dBm	dB	dBm	dBm	dB
1	40.260	-50.42	-37.42	-13.00	-45.18	-5.24 Peak
2	52.410	-43.85	-30.85	-13.00	-33.78	-10.07 Peak
3	116.940	-52.71	-39.71	-13.00	-49.87	-2.84 Peak
4	400.100	-56.65	-43.65	-13.00	-57.52	0.87 Peak
5	430.900	-53.27	-40.27	-13.00	-53.11	-0.16 Peak
6	598.200	-57.90	-44.90	-13.00	-63.50	5.60 Peak
7	1884.000	-50.26			-56.96	6.70 Peak
8	1958.000	-31.98			-39.01	7.03 Peak
9	2126.000	-54.05	-41.05	-13.00	-61.58	7.53 Peak
10	3758.000	-39.32	-26.32	-13.00	-52.69	13.37 Peak
11	5638.000	-37.54	-24.54	-13.00	-55.70	18.16 Peak
12	7518.000	-29.65	-16.65	-13.00	-49.56	19.91 Peak
13	9398.000	-18.68	-5.68	-13.00	-41.47	22.79 Peak
14 @	11278.000	-17.43	-4.43	-13.00	-42.03	24.60 Peak
15	13158.000	-23.79	-10.79	-13.00	-53.91	30.12 Peak
16	15033.000	-27.41	-14.41	-13.00	-56.50	29.09 Peak
17	16917.000	-24.74	-11.74	-13.00	-52.48	27.74 Peak

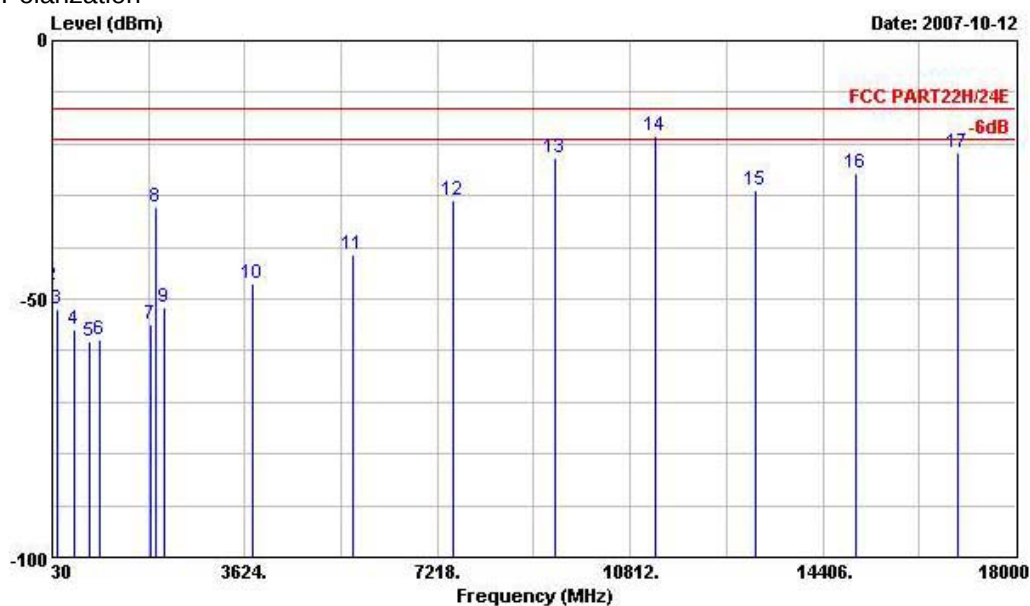
Remark:

1. #7: MS Signal
2. #8: BS Signal
3. There is no more obvious emission except the listings above.



4.6.5.4 Mode 4

Horizontal Polarization



Site : 03CH04-HY
 Condition: FCC PART22H/24E LF-SPURIOUS HORIZONTAL
 EUT : GSM/EDGE (Class12) 850/900/1800/
 . : 1900 UMTS/HSDPA 850/2100 (BAND I and
 . : V) with BT_EDR Phone_Slide Type
 POWER : 120Vac/60Hz
 MODEL : FG 792103
 MOME : PCS1900 EDGE Link + Adaptor B
 PLANE : E2 滑蓋打開

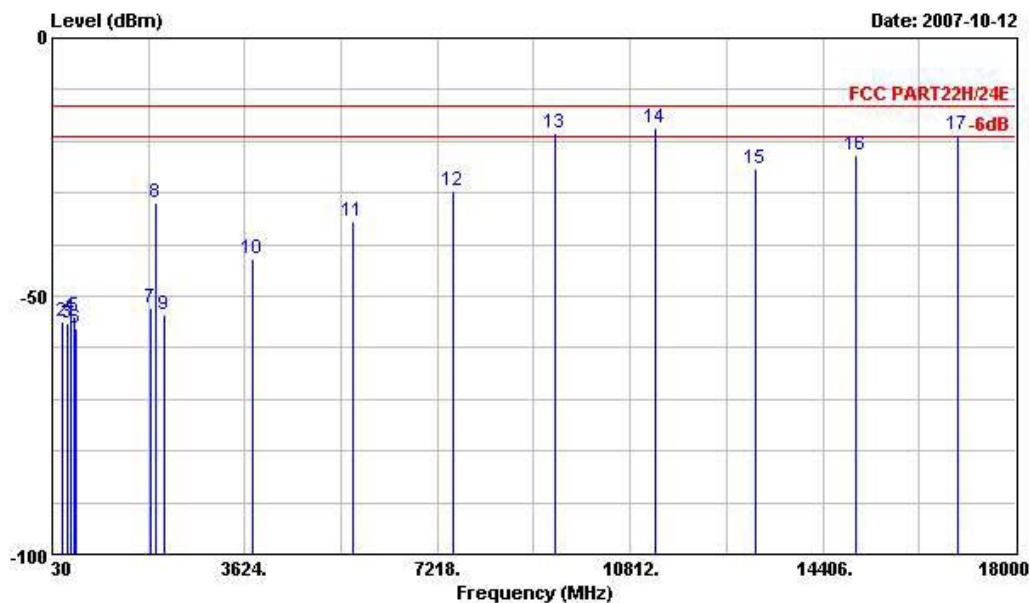
	Freq	Level	Over	Limit	Read	
	MHz	dBm	Limit	Line	Level	Factor Remark
	MHz	dBm	dB	dBm	dBm	dB
1	31.890	-49.41	-36.41	-13.00	-45.90	-3.51 Peak
2	39.180	-47.47	-34.47	-13.00	-42.50	-4.97 Peak
3	115.860	-51.96	-38.96	-13.00	-49.02	-2.94 Peak
4	430.200	-55.98	-42.98	-13.00	-55.82	-0.16 Peak
5	729.800	-58.28	-45.28	-13.00	-65.64	7.36 Peak
6	903.400	-57.77	-44.77	-13.00	-68.65	10.88 Peak
7	1884.000	-54.96			-61.66	6.70 Peak
8	1958.000	-32.38			-39.41	7.03 Peak
9	2126.000	-51.51	-38.51	-13.00	-59.04	7.53 Peak
10	3758.000	-46.90	-33.90	-13.00	-60.27	13.37 Peak
11	5638.000	-41.56	-28.56	-13.00	-59.72	18.16 Peak
12	7518.000	-30.82	-17.82	-13.00	-50.73	19.91 Peak
13	9398.000	-22.81	-9.81	-13.00	-45.60	22.79 Peak
14	11278.000	-18.45	-5.45	-13.00	-43.05	24.60 Peak
15	13158.000	-28.90	-15.90	-13.00	-59.02	30.12 Peak
16	15033.000	-25.74	-12.74	-13.00	-54.83	29.09 Peak
17	16917.000	-21.59	-8.59	-13.00	-49.33	27.74 Peak

Remark:

- 1.#7: MS Signal
- 2.#8: BS Signal



Vertical Polarization



Site : 03CH04-HY
 Condition: FCC PART22H/24E LF-SPURIOUS VERTICAL
 EUT : GSM/EDGE(Class12) 850/900/1800/
 : 1900 UMTS/HSDPA 850/2100(BAND I and
 : V) with BT_EDR Phone_Slide Type
 POWER : 120Vac/60Hz
 MODEL : FG 792103
 MOME : PCS1900 EDGE Link + Adaptor B
 PLANE : E2 滑蓋打開

	Freq	Level	Over	Limit	Read		
	MHz	dBm	Limit	Line	Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1	31.890	-56.62	-43.62	-13.00	-53.11	-3.51	Peak
2	232.500	-54.96	-41.96	-13.00	-54.28	-0.68	Peak
3	299.730	-55.23	-42.23	-13.00	-55.42	0.19	Peak
4	365.800	-53.84	-40.84	-13.00	-54.50	0.66	Peak
5	430.900	-53.89	-40.89	-13.00	-53.73	-0.16	Peak
6	466.600	-56.28	-43.28	-13.00	-54.90	-1.38	Peak
7	1884.000	-52.16			-58.86	6.70	Peak
8	1958.000	-31.75			-38.78	7.03	Peak
9	2126.000	-53.69	-40.69	-13.00	-61.22	7.53	Peak
10	3758.000	-42.77	-29.77	-13.00	-56.14	13.37	Peak
11	5638.000	-35.58	-22.58	-13.00	-53.74	18.16	Peak
12	7518.000	-29.67	-16.67	-13.00	-49.58	19.91	Peak
13	9398.000	-18.55	-5.55	-13.00	-41.34	22.79	Peak
14	11278.000	-17.31	-4.31	-13.00	-41.91	24.60	Peak
15	13158.000	-25.23	-12.23	-13.00	-55.35	30.12	Peak
16	15033.000	-22.73	-9.73	-13.00	-51.82	29.09	Peak
17	16917.000	-18.88	-5.88	-13.00	-46.62	27.74	Peak

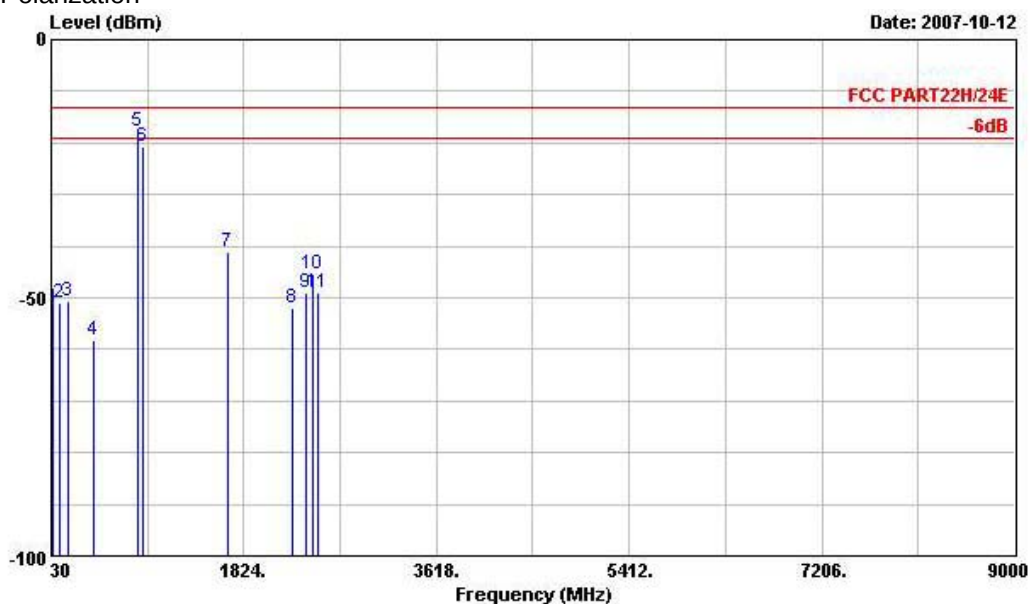
Remark:

1. #7: MS Signal
2. #8: BS Signal
3. There is no more obvious emission except the listings above.



4.6.5.5 Mode 5

Horizontal Polarization



Site : 03CH04-HY
 Condition: FCC PART22H/24E LF-SPURIOUS HORIZONTAL
 EUT : GSM/EDGE (Class12) 850/900/1800/
 . : 1900 UMTS/HSDPA 850/2100 (BAND I and
 . : V) with BT_EDR Phone_Slide Type
 POWER : 120Vac/60Hz
 MODEL : FG 792103
 MOME : WCDMA (BAND V) Link + Adaptor B
 PLANE : E2 滑蓋打開

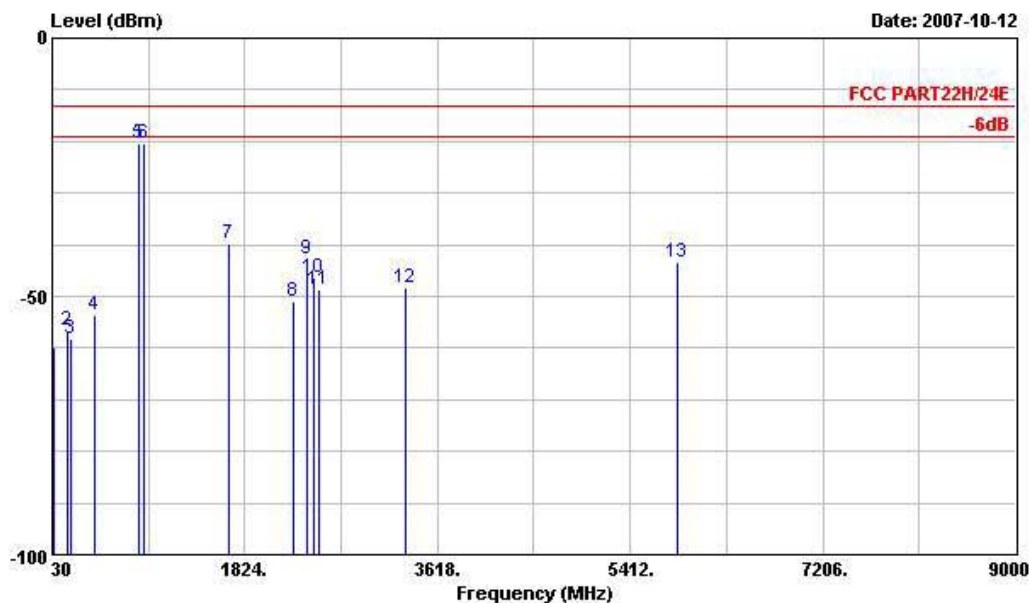
	Freq	Level	Over	Limit	Read			
	MHz	dBm	Limit	Line	Level	Factor	Remark	Pol/Phase
			dB	dBm	dBm	dB		
1	39.450	-48.11	-35.11	-13.00	-43.19	-4.92	Peak	HORIZONTAL
2	113.970	-50.99	-37.99	-13.00	-47.86	-3.13	Peak	HORIZONTAL
3	193.890	-50.62	-37.62	-13.00	-48.72	-1.90	Peak	HORIZONTAL
4	433.000	-58.36	-45.36	-13.00	-58.14	-0.22	Peak	HORIZONTAL
5 @	839.000	-17.76			-26.79	9.03	Peak	HORIZONTAL
6 @	881.700	-20.78			-31.09	10.31	Peak	HORIZONTAL
7	1670.000	-41.08	-28.08	-13.00	-46.69	5.61	Peak	HORIZONTAL
8	2276.000	-52.01	-39.01	-13.00	-59.86	7.85	Peak	HORIZONTAL
9	2396.000	-48.91	-35.91	-13.00	-57.01	8.10	Peak	HORIZONTAL
10	2460.000	-45.35	-32.35	-13.00	-53.59	8.24	Peak	HORIZONTAL
11	2518.000	-48.85	-35.85	-13.00	-57.25	8.40	Peak	HORIZONTAL

Remark:

- 1.#5: MS Signal
- 2.#6: BS Signal



Vertical Polarization



Site : 03CH04-HY
 Condition: FCC PART22H/24E LF-SPURIOUS VERTICAL
 EUT : GSM/EDGE(Class12) 850/900/1800/
 : 1900 UMTS/HSDPA 850/2100(BAND I and
 : V) with BT_EDR Phone_Slide Type
 POWER : 120Vac/60Hz
 MODEL : FG 792103
 MOBILE : WCDMA (BAND V) Link + Adaptor B
 PLANE : E2 滑蓋打開

	Freq	Level	Over	Limit	Read			
	MHz	dBm	Limit	Line	Level	Factor	Remark	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB		
1	39.180	-59.80	-46.80	-13.00	-54.83	-4.97	Peak	VERTICAL
2	176.610	-56.66	-43.66	-13.00	-53.75	-2.91	Peak	VERTICAL
3	199.290	-58.06	-45.06	-13.00	-56.56	-1.50	Peak	VERTICAL
4	430.900	-53.65	-40.65	-13.00	-53.49	-0.16	Peak	VERTICAL
5 @	831.300	-20.52			-29.32	8.80	Peak	VERTICAL
6 @	881.700	-20.30			-30.61	10.31	Peak	VERTICAL
7	1676.000	-39.84	-26.84	-13.00	-45.54	5.70	Peak	VERTICAL
8	2276.000	-51.05	-38.05	-13.00	-58.90	7.85	Peak	VERTICAL
9	2396.000	-42.74	-29.74	-13.00	-50.84	8.10	Peak	VERTICAL
10	2460.000	-46.34	-33.34	-13.00	-54.58	8.24	Peak	VERTICAL
11	2518.000	-48.63	-35.63	-13.00	-57.03	8.40	Peak	VERTICAL
12	3316.000	-48.23	-35.23	-13.00	-60.14	11.91	Peak	VERTICAL
13	5844.000	-43.50	-30.50	-13.00	-61.67	18.17	Peak	VERTICAL

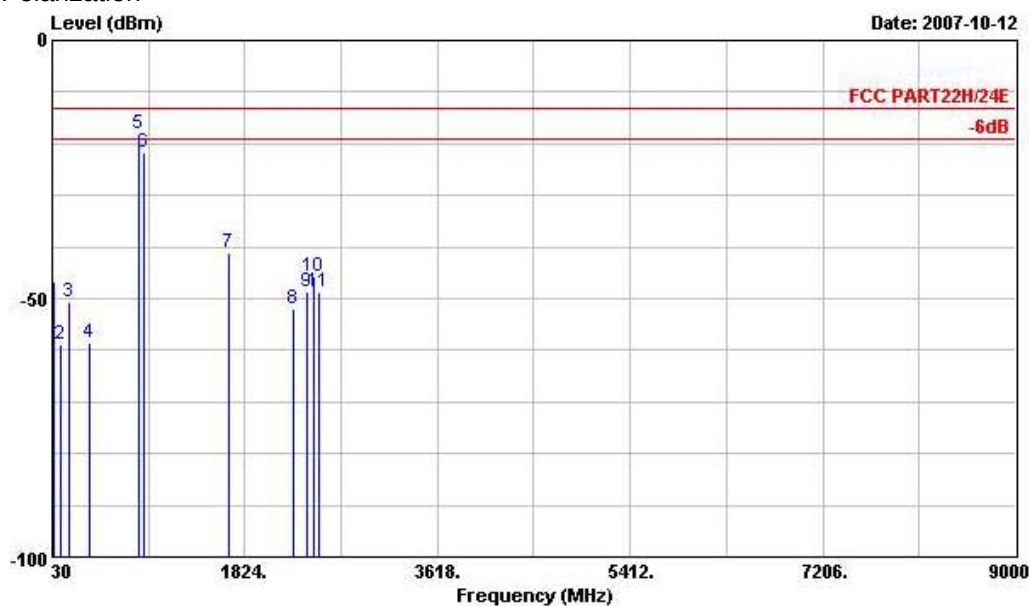
Remark:

- 1.#5: MS Signal
- 2.#6: BS Signal
3. There is no more obvious emission except the listings above.



4.6.5.6 Mode 6

Horizontal Polarization



Site : 03CH04-HY
 Condition: FCC PART22H/24E LF-SPURIOUS HORIZONTAL
 EUT : GSM/EDGE (Class12) 850/900/1800/
 . : 1900 UMTS/HSDPA 850/2100 (BAND I and
 . : V) with BT_EDR Phone_Slide Type
 POWER : 120Vac/60Hz
 MODEL : FG 792103
 MOME : HSDPA Link + Adaptor B
 PLANE : E2 滑蓋打開

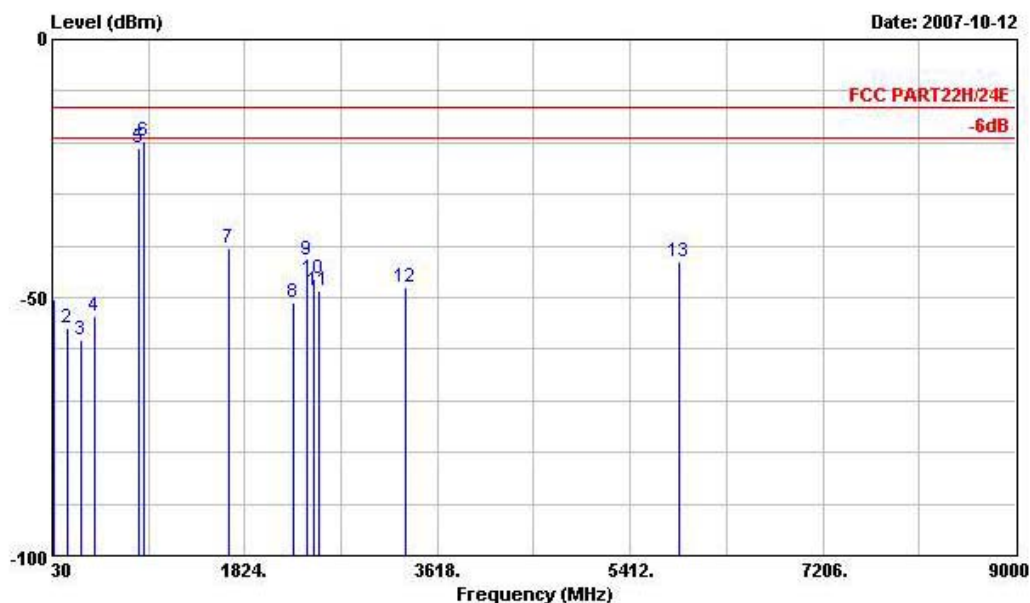
	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB		
1	39.450	-46.84	-33.84	-13.00	-41.92	-4.92	Peak	HORIZONTAL
2	116.940	-58.99	-45.99	-13.00	-56.15	-2.84	Peak	HORIZONTAL
3	196.050	-50.63	-37.63	-13.00	-48.87	-1.76	Peak	HORIZONTAL
4	374.900	-58.55	-45.55	-13.00	-59.28	0.73	Peak	HORIZONTAL
5 @	839.000	-18.24			-27.27	9.03	Peak	HORIZONTAL
6	881.000	-21.81			-32.10	10.29	Peak	HORIZONTAL
7	1670.000	-41.16	-28.16	-13.00	-46.77	5.61	Peak	HORIZONTAL
8	2270.000	-51.88	-38.88	-13.00	-59.73	7.85	Peak	HORIZONTAL
9	2396.000	-48.52	-35.52	-13.00	-56.62	8.10	Peak	HORIZONTAL
10	2460.000	-45.64	-32.64	-13.00	-53.88	8.24	Peak	HORIZONTAL
11	2508.000	-48.81	-35.81	-13.00	-57.21	8.40	Peak	HORIZONTAL

Remark:

- 1.#5: MS Signal
 2.#6: BS Signal



Vertical Polarization



Site : 03CH04-HY
 Condition: FCC PART22H/24E LF-SPURIOUS VERTICAL
 EUT : GSM/EDGE(Class12) 850/900/1800/
 : 1900 UMTS/HSDPA 850/2100(BAND I and
 : V) with BT_EDR Phone_Slide Type
 POWER : 120Vac/60Hz
 MODEL : FG 792103
 MOME : HSDPA Link + Adaptor B
 PLANE : E2 滑蓋打開

	Freq	Level	Over	Limit	Read		
	MHz	dBm	Limit	Line	Level	Factor	Pol/Phase
			dB	dBm	dBm	dB	
1	39.180	-50.36	-37.36	-13.00	-45.39	-4.97 Peak	VERTICAL
2	177.420	-55.95	-42.95	-13.00	-53.07	-2.89 Peak	VERTICAL
3	299.730	-58.13	-45.13	-13.00	-58.32	0.19 Peak	VERTICAL
4	430.900	-53.58	-40.58	-13.00	-53.42	-0.16 Peak	VERTICAL
5	841.800	-21.03			-30.15	9.12 Peak	VERTICAL
6 @	881.700	-19.68			-29.99	10.31 Peak	VERTICAL
7	1668.000	-40.31	-27.31	-13.00	-45.92	5.61 Peak	VERTICAL
8	2270.000	-50.89	-37.89	-13.00	-58.74	7.85 Peak	VERTICAL
9	2396.000	-42.89	-29.89	-13.00	-50.99	8.10 Peak	VERTICAL
10	2460.000	-46.46	-33.46	-13.00	-54.70	8.24 Peak	VERTICAL
11	2508.000	-48.80	-35.80	-13.00	-57.20	8.40 Peak	VERTICAL
12	3316.000	-47.92	-34.92	-13.00	-59.83	11.91 Peak	VERTICAL
13	5860.000	-42.99	-29.99	-13.00	-61.16	18.17 Peak	VERTICAL

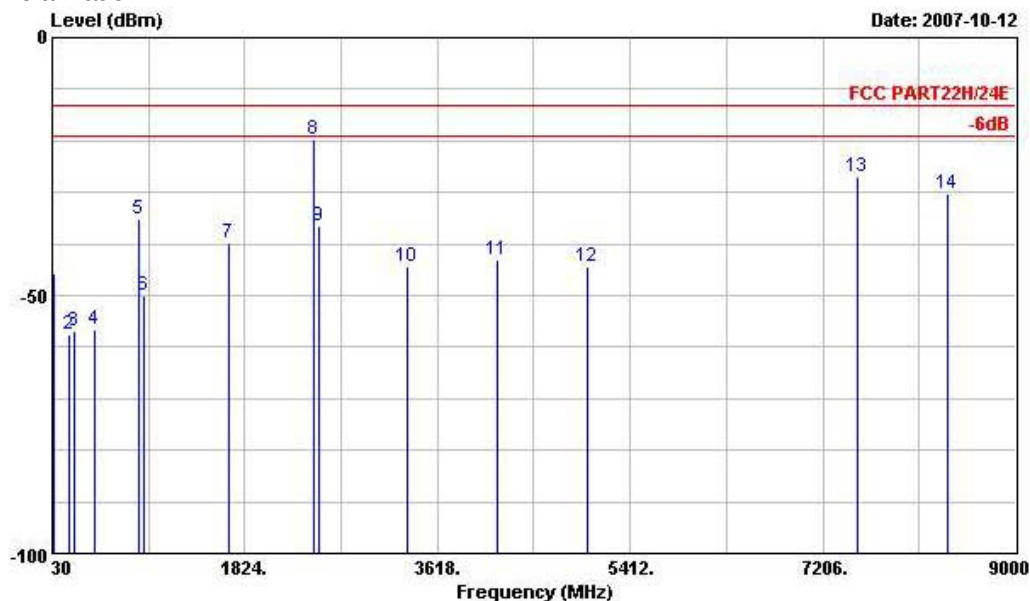
Remark:

- 1.#5: MS Signal
- 2.#6: BS Signa
3. There is no more obvious emission except the listings above.



4.6.5.7 Mode 7

Horizontal Polarization



Site : 03CH04-HY
 Condition: FCC PART22H/24E LF-SPURIOUS HORIZONTAL
 EUT : GSM/EDGE (Class12) 850/900/1800/
 . : 1900 UMTS/HSDPA 850/2100 (BAND I and
 . : V) with BT_EDR Phone_Slide Type
 POWER : Real Battery 3.7Vdc
 MODEL : FG 792103
 MOME : GSM850 Link+ BT Link
 PLANE : E2 滑蓋打開

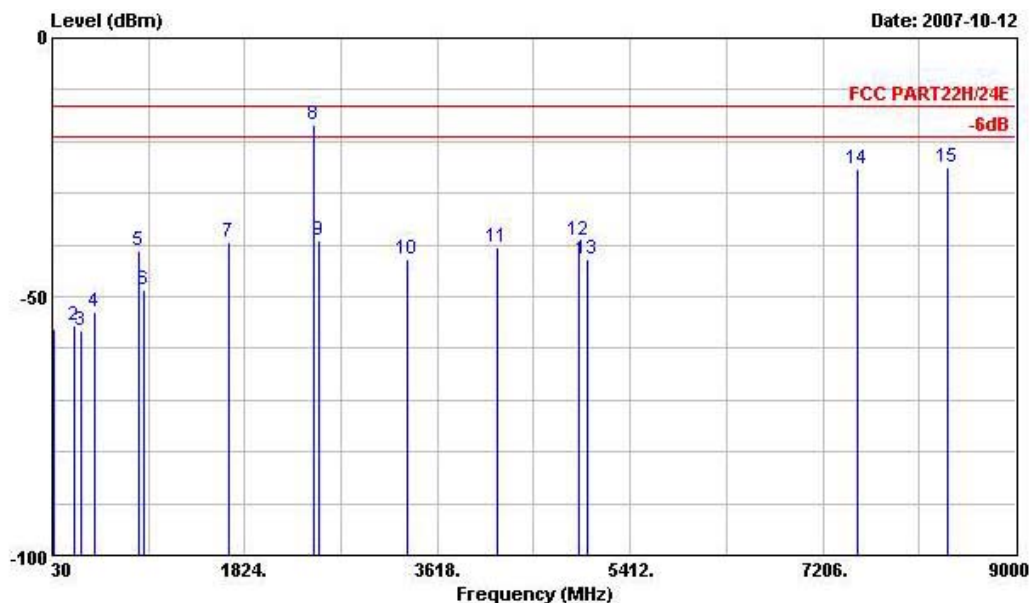
	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB		
1	39.450	-45.69	-32.69	-13.00	-40.77	-4.92	Peak	HORIZONTAL
2	196.050	-57.71	-44.71	-13.00	-55.95	-1.76	Peak	HORIZONTAL
3	231.690	-57.07	-44.07	-13.00	-56.36	-0.71	Peak	HORIZONTAL
4	430.900	-56.73	-43.73	-13.00	-56.57	-0.16	Peak	HORIZONTAL
5 @	836.200	-35.08			-44.02	8.94	Peak	HORIZONTAL
6	881.700	-49.99			-60.30	10.31	Peak	HORIZONTAL
7 @	1670.000	-39.78	-26.78	-13.00	-45.39	5.61	Peak	HORIZONTAL
8 @	2460.000	-19.90			-28.14	8.24	Peak	HORIZONTAL
9 @	2510.000	-36.60	-23.60	-13.00	-45.00	8.40	Peak	HORIZONTAL
10	3342.000	-44.29	-31.29	-13.00	-56.30	12.01	Peak	HORIZONTAL
11	4182.000	-43.03	-30.03	-13.00	-57.24	14.21	Peak	HORIZONTAL
12	5014.000	-44.47	-31.47	-13.00	-61.09	16.62	Peak	HORIZONTAL
13 @	7526.000	-26.99	-13.99	-13.00	-46.96	19.97	Peak	HORIZONTAL
14 @	8364.000	-30.16	-17.16	-13.00	-52.12	21.96	Peak	HORIZONTAL

Remark:

- 1.#5: MS Signal
- 2.#6: BS Signal
- 3.#8: BT Signal



Vertical Polarization



Site : 03CH04-HY
 Condition: FCC PART22H/24E LF-SPURIOUS VERTICAL
 EUT : GSM/EDGE(Class12) 850/900/1800/
 : 1900 UMTS/HSDPA 850/2100(BAND I and
 : V) with BT_EDR Phone_Slide Type
 POWER : Real Battery 3.7Vdc
 MODEL : FG 792103
 MOME : GSM850 Link+ BT Link
 PLANE : E2 滑蓋打開

	Freq	Level	Over	Limit	Read			
	MHz	dBm	Limit	Line	Level	Factor	Remark	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB		
1	39.450	-56.33	-43.33	-13.00	-51.41	-4.92	Peak	VERTICAL
2	233.850	-55.52	-42.52	-13.00	-54.86	-0.66	Peak	VERTICAL
3	298.650	-56.62	-43.62	-13.00	-56.80	0.18	Peak	VERTICAL
4	430.900	-53.12	-40.12	-13.00	-52.96	-0.16	Peak	VERTICAL
5 @	836.900	-41.06			-50.03	8.97	Peak	VERTICAL
6	881.700	-48.56			-58.87	10.31	Peak	VERTICAL
7 @	1670.000	-39.55	-26.55	-13.00	-45.16	5.61	Peak	VERTICAL
8 @	2470.000	-16.92			-25.16	8.24	Peak	VERTICAL
9 @	2510.000	-39.08	-26.08	-13.00	-47.48	8.40	Peak	VERTICAL
10 @	3342.000	-42.69	-29.69	-13.00	-54.70	12.01	Peak	VERTICAL
11 @	4182.000	-40.61	-27.61	-13.00	-54.82	14.21	Peak	VERTICAL
12 @	4942.000	-39.10	-26.10	-13.00	-55.49	16.39	Peak	VERTICAL
13 @	5014.000	-42.64	-29.64	-13.00	-59.26	16.62	Peak	VERTICAL
14 @	7526.000	-25.21	-12.21	-13.00	-45.18	19.97	Peak	VERTICAL
15 @	8364.000	-24.86	-11.86	-13.00	-46.82	21.96	Peak	VERTICAL

Remark:

- 1.#5: MS Signal
- 2.#6: BS Signal
- 3.#8: BT Signal
4. There is no more obvious emission except the listings above.

4.7 Frequency Stability (Temperature Variation)

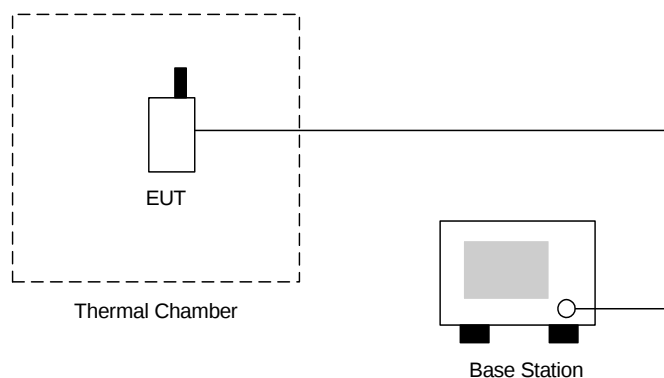
4.7.1 Measurement Instrument

As described in chapter 5 of this test report.

4.7.2 Test Procedure

- a. The EUT and test equipment were set up as shown on the following section.
- b. With all power removed, the temperature was decreased to -30°C and permitted to stabilize for three hours. Power was applied and the maximum change in frequency was noted within one minute.
- c. With power OFF, the temperature was raised in 10°C steps. The sample was permitted to stabilize at each step for at least one-half hour. Power was applied and the maximum frequency change was noted within one minute.
- d. The temperature tests were performed for the worst case.
- e. Test data was recorded.

4.7.3 Test Setup Layout



**4.7.4 Test Result**

- Test Mode : GSM850 (GSM) CH189

Temperature()	Change (Hz)	Change (ppm)	Limit (ppm)	Result
-30	-	-	2.5	Passed
-20	-	-		
-10	-17	-0.02		
0	31	0.04		
10	44	0.05		
20	-23	-0.03		
30	36	0.04		
40	40	0.05		
50	-27	-0.03		

Remark : The EUT can not be turn on at -20 and -30 .

- Test Mode : GSM850 (EDGE) CH189

Temperature()	Change (Hz)	Change (ppm)	Limit (ppm)	Result
-30	-	-	2.5	Passed
-20	-	-		
-10	-36	-0.04		
0	-42	-0.05		
10	45	0.05		
20	-34	-0.04		
30	-15	-0.02		
40	-38	-0.04		
50	-25	-0.03		

Remark : The EUT can not be turn on at -20 and -30 .



• Test Mode : PCS1900 (GSM) CH661

Temperature()	Change (Hz)	Change (ppm)	Limit (ppm)	Result
-30	-	-	2.5	Passed
-20	-	-		
-10	-55	-0.03		
0	28	0.01		
10	-31	-0.02		
20	-48	-0.03		
30	59	0.03		
40	46	0.02		
50	-64	-0.03		

Remark : The EUT can not be turn on at -20 and -30 .

• Test Mode : PCS1900 (EDGE) CH661

Temperature()	Change (Hz)	Change (ppm)	Limit (ppm)	Result
-30	-	-	2.5	Passed
-20	-	-		
-10	45	0.02		
0	39	0.02		
10	-41	-0.02		
20	-47	-0.02		
30	53	0.03		
40	-42	-0.02		
50	-68	-0.04		

Remark : The EUT can not be turn on at -20 and -30 .



• Test Mode : WCDMA Band V CH4182

Temperature()	Change (Hz)	Change (ppm)	Limit (ppm)	Result
-30	-	-	2.5	Passed
-20	-	-		
-10	-58	-0.07		
0	-49	-0.06		
10	-36	-0.04		
20	42	0.05		
30	-27	-0.03		
40	29	0.03		
50	34	0.04		

Remark : The EUT can not be turn on at -20 and -30 .

• Test Mode : WCDMA Band V (HSDPA) CH4182

Temperature()	Change (Hz)	Change (ppm)	Limit (ppm)	Result
-30	-	-	2.5	Passed
-20	-	-		
-10	-46	-0.05		
0	-41	-0.05		
10	33	0.04		
20	45	0.05		
30	-31	-0.04		
40	-49	-0.06		
50	37	0.04		

Remark : The EUT can not be turn on at -20 and -30 .

4.8 Frequency Stability (Voltage Variation)

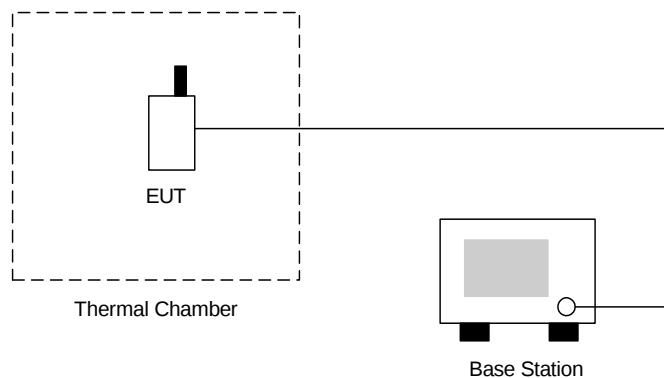
4.8.1 Measurement Instrument

As described in chapter 5 of this test report.

4.8.2 Test Procedure

- The EUT was placed in a temperature chamber at $25 \pm 5^{\circ}\text{C}$ and connected as the following section.
- The power supply voltage to the EUT was varied from BEP to 115% of the nominal value measured at the input to the EUT.
- The variation in frequency was measured for the worst case.

4.8.3 Test Setup Layout



4.8.4 Test Result

- Test Mode : GSM850 (GSM) CH189

Voltage(Volt)	Change (Hz)	Change (ppm)	Limit (ppm)	Result
3.7	-20.0	-0.02	2.5	Passed
BEP	-36.0	-0.04		
4.3	-26.0	-0.03		

- Test Mode : GSM850 (EDGE) CH189

Voltage(Volt)	Change (Hz)	Change (ppm)	Limit (ppm)	Result
3.7	-36.0	-0.04	2.5	Passed
BEP	-33.0	-0.05		
4.3	-42.0	-0.04		

- Test Mode : PCS1900 (GSM) CH661

Voltage(Volt)	Change (Hz)	Change (ppm)	Limit (ppm)	Result
3.7	54.0	0.03	2.5	Passed
BEP	36.0	0.02		
4.3	-61.0	-0.03		

- Test Mode : PCS1900 (EDGE) CH661

Voltage(Volt)	Change (Hz)	Change (ppm)	Limit (ppm)	Result
3.7	-47.0	-0.02	2.5	Passed
BEP	-41.0	-0.02		
4.3	-51.0	-0.03		

- Test Mode : WCDMA Band V CH4182

Voltage(Volt)	Change (Hz)	Change (ppm)	Limit (ppm)	Result
3.7	-35	-0.04	2.5	Passed
BEP	46	0.05		
4.3	-39	-0.05		

- Test Mode : WCDMA Band V (HSDPA) CH4182

Voltage(Volt)	Change (Hz)	Change (ppm)	Limit (ppm)	Result
3.7	38	0.05	2.5	Passed
BEP	47	0.06		
4.3	-40	-0.05		

Remark:

- Normal Voltage= 3.7V.
- Battery End Point (BEP)= 3.3 V.

5. List of Measurement Equipments

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Due Date	Remark
3m Semi Anechoic	TDK	SAC-3M	03CH04-HY	30 MHz - 1 GHz 3m	Oct. 29, 2007	Oct. 28, 2008	Radiation (03CH04-HY)
Amplifier	HP	87405A	3950M00135	10MHz - 3 GHz	Mar. 02, 2007	Mar. 01, 2008	Radiation (03CH04-HY)
Spectrum Analyzer	R&S	FSP30	100792	9 kHz – 30GHz	Dec. 13, 2006	Dec. 12, 2007	Radiation (03CH04-HY)
Bilog Antenna	SCHAFFNER	CBL6112B	2724	30 MHz - 1 GHz	Aug. 13, 2007	Aug. 12 2008	Radiation (03CH04-HY)
Turn Table	HD	Deis HD 2000	420/610	0 - 360 degree	N/A	N/A	Radiation (03CH04-HY)
Antenna Mast	Chaintek	3000	N/A	1 m - 4 m	N/A	N/A	Radiation (03CH04-HY)
RF Cable-R03m	Suhner Switzerland +	RG223/U +RG8/U	CB024	30 MHz - 1 GHz	Sep. 20, 2007	Sep. 19, 2008	Radiation (03CH04-HY)
Isolation Transformer	Erika FiedLer OHG	D-65396 Walluf	N/A	45 MHz – 2.15 GHz	N/A	N/A	Radiation (03CH04-HY)
Thermal Chamber	Tenyi technology	TTH-D35P	TBN-930701	N/A	Aug. 02, 2007	Aug. 01, 2008	Conduction (TH02-HY)
Spectrum	R&S	FSP40	100055	9KHz~40GHz	Jun. 25, 2007	Jun. 24, 2008	Conduction (TH02-HY)
Bluetooth Test	ANRITSU	MT8852A	6K00003939	N/A	N/A	N/A	Conduction (TH02-HY)
Power Divider	ARRA	5200-1	3871	N/A	Oct. 01, 2007	Sep. 30, 2008	Conduction (TH02-HY)
DC Power Supply	TOPWARD	3303D	740889	N/A	May 25, 2007	May 24, 2009	Conduction (TH02-HY)
Power Meter	Agilent	E4416A	GB41292344	N/A	Feb. 08, 2007	Feb. 07, 2008	Conduction (TH02-HY)
Power Sensor	Agilent	E9327A	US40441548	N/A	Feb. 08, 2007	Feb. 07, 2008	Conduction (TH02-HY)

6. Uncertainty Evaluation

Uncertainty of Radiated Emission Measurement (30MHz ~ 1000MHz)

Contribution	Uncertainty of x_i		$u(x_i)$
	dB	Probability Distribution	
Receiver reading	0.41	Normal(k=2)	0.21
Antenna factor calibration	0.83	Normal(k=2)	0.42
Cable loss calibration	0.25	Normal(k=2)	0.13
Pre Amplifier Gain calibration	0.27	Normal(k=2)	0.14
RCV/SPA specification	2.50	Rectangular	0.72
Antenna Factor Interpolation for Frequency	1.00	Rectangular	0.29
Site imperfection	1.43	Rectangular	0.83
Mismatch	+0.39/-0.41	U-shaped	0.28
Combined standard uncertainty Uc(y)	1.27		
Measuring uncertainty for a level of Confidence of 95% U=2Uc(y)	2.54		

Uncertainty of Radiated Emission Measurement (1GHz ~ 40GHz)

Contribution	Uncertainty of x_i		$u(x_i)$	C_i	$C_i * u(x_i)$
	dB	Probability Distribution			
Receiver reading	±0.10	Normal(k=1)	0.10	1	0.10
Antenna factor calibration	±1.70	Normal(k=2)	0.85	1	0.85
Cable loss calibration	±0.50	Normal(k=2)	0.25	1	0.25
Receiver Correction	±2.00	Rectangular	1.15	1	1.15
Antenna Factor Directional	±1.50	Rectangular	0.87	1	0.87
Site imperfection	±2.80	Triangular	1.14	1	1.14
Mismatch Receiver VSWR $\Gamma_1 = 0.197$ Antenna VSWR $\Gamma_2 = 0.194$ Uncertainty = $20 \log(1 - \Gamma_1 * \Gamma_2 * \Gamma_3)$	+0.34/-0.35	U-shaped	0.244	1	0.244
Combined standard uncertainty Uc(y)	2.36				
Measuring uncertainty for a level of Confidence of 95% U=2Uc(y)	4.72				

END OF TEST REPORT