



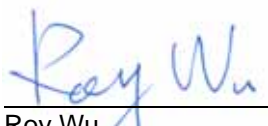
# FCC Test Report

for

## 47 CFR Part 22H, 24E

**Equipment** : Pocket PC Phone  
**Model No.** : FOMA HT1100(Neon100)  
**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) : 0.84W  
GSM850(EDGE) : 0.21W  
PCS1900(GSM) : 1.06W  
PCS1900(EDGE) : 0.45W  
WCDMA Band V : 0.07W  
WCDMA Band V(HSDPA) : 0.05W  
**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 Jan. 04, 2008 at **Sporton International Inc. LAB.**
- Report No.: FG792103-04, Report Version: Rev. 01.

  
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Roy Wu  
Manager

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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: Jan. 14, 2008

<b>Report No.</b>	<b>Description</b>
FG792103-04	Updated Report No. FG792103 by retest ERP/EIRP and radiation for change HW from XC01 to A01 with modify part of hinge and some electrically connected with GND.



## **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

<b>Equipment</b>		Pocket PC Phone
<b>Model Name</b>		FOMA HT1100(Neon100)
<b>FCC ID</b>		NM8NEON100
<b>AC Adapter A</b>	<b>Brand Name</b>	PhiHong
	<b>Model Name</b>	PSA105R-050Q
	<b>Power Rating</b>	I/P:100-240Vac, 50-60Hz, 0.3A; O/P: 5Vdc, 1A
	<b>AC Power Cord Type</b>	1.8 meter shielded cable without ferrite non-core
<b>AC Adapter B</b>	<b>Brand Name</b>	PhiHong
	<b>Model Name</b>	PSAA05X-050
	<b>Power Rating</b>	I/P:100-240Vac, 50-60Hz, 200mA; O/P: 5Vdc, 1A
	<b>AC Power Cord Type</b>	1.8 meter shielded cable without ferrite non-core
<b>Battery</b>	<b>Manufacturer</b>	Simple
	<b>Brand Name</b>	hTC
	<b>Model Name</b>	NEON160
	<b>Power Rating</b>	3.7Vdc, 1000mAh
	<b>Type</b>	Li-ion
<b>Earphone A</b>	<b>Brand Name</b>	HTC
	<b>Model Name</b>	HS S168
	<b>Signal Line Type</b>	1.5 meter non-shielded cable without ferrite non-core
<b>Earphone B</b>	<b>Brand Name</b>	HTC
	<b>Model Name</b>	HS S200
	<b>Signal Line Type</b>	1.7 meter non-shielded cable without ferrite non-core
<b>USB Cable</b>	<b>Brand Name</b>	MEC
	<b>Model Name</b>	60-4251-100
	<b>Signal Line Type</b>	1.2 meter shielded cable with ferrite non-core
<b>Holster</b>	<b>Brand Name</b>	NewTech
	<b>Model Name</b>	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 :	FOMA HT1100(Neon100)
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 A01
SW Version:	25.50.30.01 25.70.30.05
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 :	<b>For HW: XC01</b> 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) <b>For HW: A01</b> GSM850(GSM) : 0.84 W ( 29.24 dBm) GSM850(EDGE) : 0.21 W ( 23.25 dBm) PCS1900(GSM) : 1.06 W ( 30.25 dBm) PCS1900(EDGE) : 0.45 W ( 26.50 dBm) WCDMA Band V : 0.07 W (18.74 dBm) WCDMA Band V(HSDPA) : 0.05 W (16.97 dBm)
Antenna Type :	PIFA Antenna
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 : Jan. 03, 2008

Report Date : Jan. 14, 2008

## 2. Test Configuration of Equipment under Test

### 2.1 Test Manner

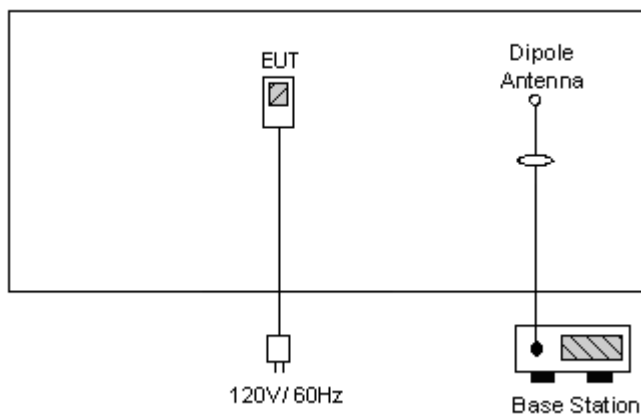
1. The spurious emission measurements were carried out in semi-anechoic chamber with 3-meter test range.
2. During all testings, EUT is in link mode with base station emulator at maximum power level.
3. Frequency range investigated: radiated emission 30 MHz to 9000 MHz for GSM850 and WCDMA Band V; 30MHz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

### 2.2 Test Mode

Application	GSM850	PCS1900	WCDMA Band V
Radiated Emission	<input checked="" type="checkbox"/> Mode 1: GSM Link for HW:XC01	<input checked="" type="checkbox"/> Mode 3: GSM Link for HW:XC01	<input checked="" type="checkbox"/> Mode 5: WCDMA Link for HW:XC01
	<input checked="" type="checkbox"/> Mode 2: EDGE Link for HW:XC01	<input checked="" type="checkbox"/> Mode 4: EDGE Link for HW:XC01	<input checked="" type="checkbox"/> Mode 6: HSDPA Link for HW:XC01
	<input checked="" type="checkbox"/> Mode 7: GSM Link + BT Link for HW:XC01	<input checked="" type="checkbox"/> Mode 9: GSM Link for HW:A01	
	<input checked="" type="checkbox"/> Mode 8: GSM Link for HW:A01		
Conducted Measurement	<input checked="" type="checkbox"/> Mode 1: GSM Link for HW:XC01	<input checked="" type="checkbox"/> Mode 3: GSM Link for HW:XC01	<input checked="" type="checkbox"/> Mode 5: WCDMA Link for HW:XC01
	<input checked="" type="checkbox"/> Mode 2: EDGE Link for HW:XC01	<input checked="" type="checkbox"/> Mode 4: EDGE Link for HW:XC01	<input checked="" type="checkbox"/> Mode 6: HSDPA Link for HW:XC01

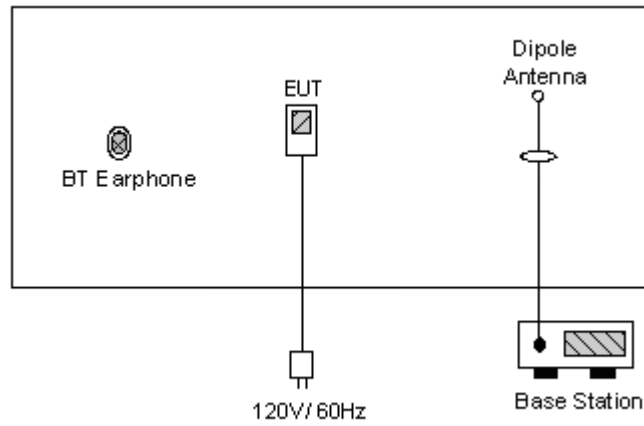
### 2.3 Connection Diagram of Test System

<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, 03CH06-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

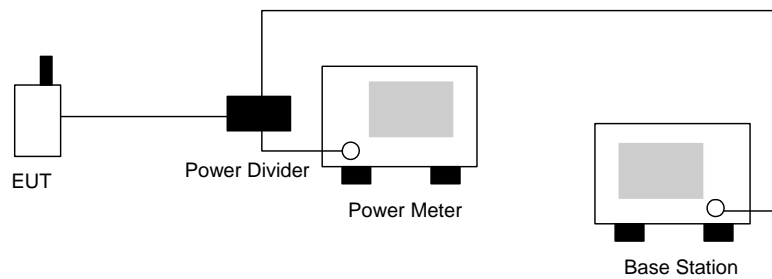
### 4.2.1 Measurement Instruments :

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) for HW:XC01	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) for HW:XC01	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) for HW:XC01	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) for HW:XC01	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) for HW:XC01	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) for HW:XC01	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) for HW:XC01	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) for HW:XC01	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) for HW:XC01	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) for HW:XC01	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.

$E_t = R_t + AF$

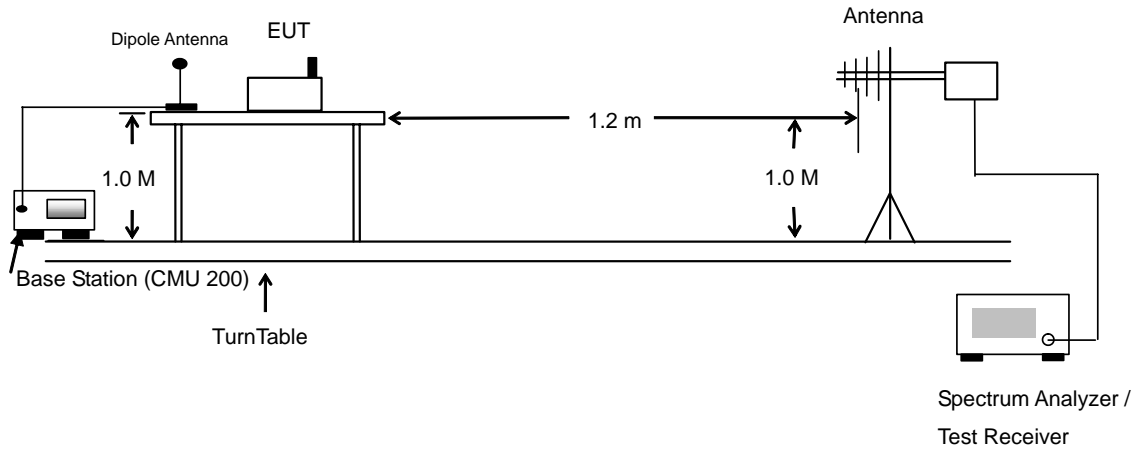
$E_s = R_s + AF$

$AF$  (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

<b>GSM850 (GSM) Radiated Power ERP for HW:XC01</b>						
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

<b>GSM850 (EDGE) Radiated Power ERP for HW:XC01</b>						
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





<b>PCS1900 (GSM) Radiated Power EIRP for HW:XC01</b>						
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

<b>PCS1900 (EDGE) Radiated Power EIRP for HW:XC01</b>						
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



<b>WCDMA Band V Radiated Power ERP for HW:XC01</b>						
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

<b>WCDMA Band V (HSDPA) Radiated Power ERP for HW:XC01</b>						
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



<b>GSM850 (GSM) Radiated Power ERP for HW:A01</b>						
Horizontal Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBd)	ERP (dBm)	ERP (W)
824.20	-19.99	-48.12	0.00	-1.08	27.05	0.51
836.40	-19.31	-48.28	0.00	-0.93	28.04	0.64
848.80	-18.35	-48.35	0.00	-0.76	29.24	0.84
Vertical Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBd)	ERP (dBm)	ERP (W)
824.20	-34.37	-47.97	0.00	-1.08	12.52	0.02
836.40	-33.09	-48.01	0.00	-0.93	13.99	0.03
848.80	-31.83	-48.05	0.00	-0.76	15.46	0.04

<b>GSM850 (EDGE) Radiated Power ERP for HW:A01</b>						
Horizontal Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBd)	ERP (dBm)	ERP (W)
824.20	-25.84	-48.12	0.00	-1.08	21.20	0.13
836.40	-25.19	-48.28	0.00	-0.93	22.16	0.16
848.80	-24.34	-48.35	0.00	-0.76	23.25	0.21
Vertical Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBd)	ERP (dBm)	ERP (W)
824.20	-40.36	-47.97	0.00	-1.08	6.53	0.00
836.40	-39.20	-48.01	0.00	-0.93	7.88	0.01
848.80	-38.48	-48.05	0.00	-0.76	8.81	0.01



PCS1900 (GSM) Radiated Power EIRP for HW:A01						
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	-25.77	-52.99	0.00	2.00	29.22	0.84
1909.80	-26.01	-54.28	0.00	1.98	30.25	1.06
Vertical Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBi)	EIRP (dBm)	EIRP (W)
1850.20	-25.19	-52.13	0.00	1.96	28.90	0.78
1880.00	-26.02	-53.17	0.00	2.00	29.15	0.82
1909.80	-26.46	-54.13	0.00	1.98	29.65	0.92

PCS1900 (EDGE) Radiated Power EIRP for HW:A01						
Horizontal Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBi)	EIRP (dBm)	EIRP (W)
1850.20	-28.22	-51.88	0.00	1.96	25.62	0.36
1880.00	-28.80	-52.99	0.00	2.00	26.19	0.42
1909.80	-29.76	-54.28	0.00	1.98	26.50	0.45
Vertical Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBi)	EIRP (dBm)	EIRP (W)
1850.20	-28.67	-52.13	0.00	1.96	25.42	0.35
1880.00	-29.68	-53.17	0.00	2.00	25.49	0.35
1909.80	-29.92	-54.13	0.00	1.98	26.19	0.42



WCDMA Band V Radiated Power ERP for HW:A01						
Horizontal Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBd)	ERP (dBm)	ERP (W)
826.40	-30.90	-48.12	0.00	-1.08	16.14	0.04
836.40	-28.61	-48.28	0.00	-0.93	18.74	0.07
846.60	-29.66	-48.35	0.00	-0.76	17.93	0.06
Vertical Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBd)	ERP (dBm)	ERP (W)
826.40	-44.97	-47.97	0.00	-1.08	1.92	0.00
836.40	-42.38	-48.01	0.00	-0.93	4.70	0.00
846.60	-43.15	-48.05	0.00	-0.76	4.14	0.00

WCDMA Band V (HSDPA) Radiated Power ERP for HW:A01						
Horizontal Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBd)	ERP (dBm)	ERP (W)
826.40	-31.76	-48.12	0.00	-1.08	15.28	0.03
836.40	-30.38	-48.28	0.00	-0.93	16.97	0.05
846.60	-31.10	-48.35	0.00	-0.76	16.49	0.04
Vertical Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBd)	ERP (dBm)	ERP (W)
826.40	-46.30	-47.97	0.00	-1.08	0.59	0.00
836.40	-44.36	-48.01	0.00	-0.93	2.72	0.00
846.60	-44.92	-48.05	0.00	-0.76	2.37	0.00

## 4.4 Occupied Bandwidth and Band Edge Measurement

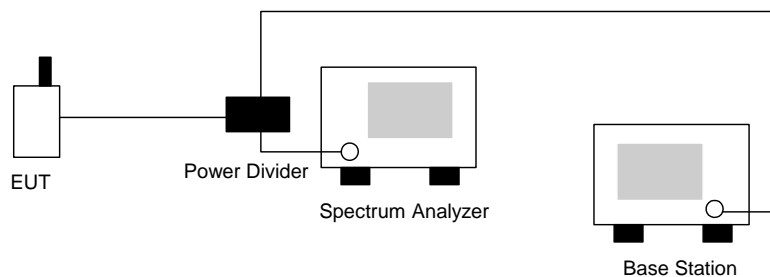
### 4.4.1 Measurement Instruments

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  $BW/100$ .

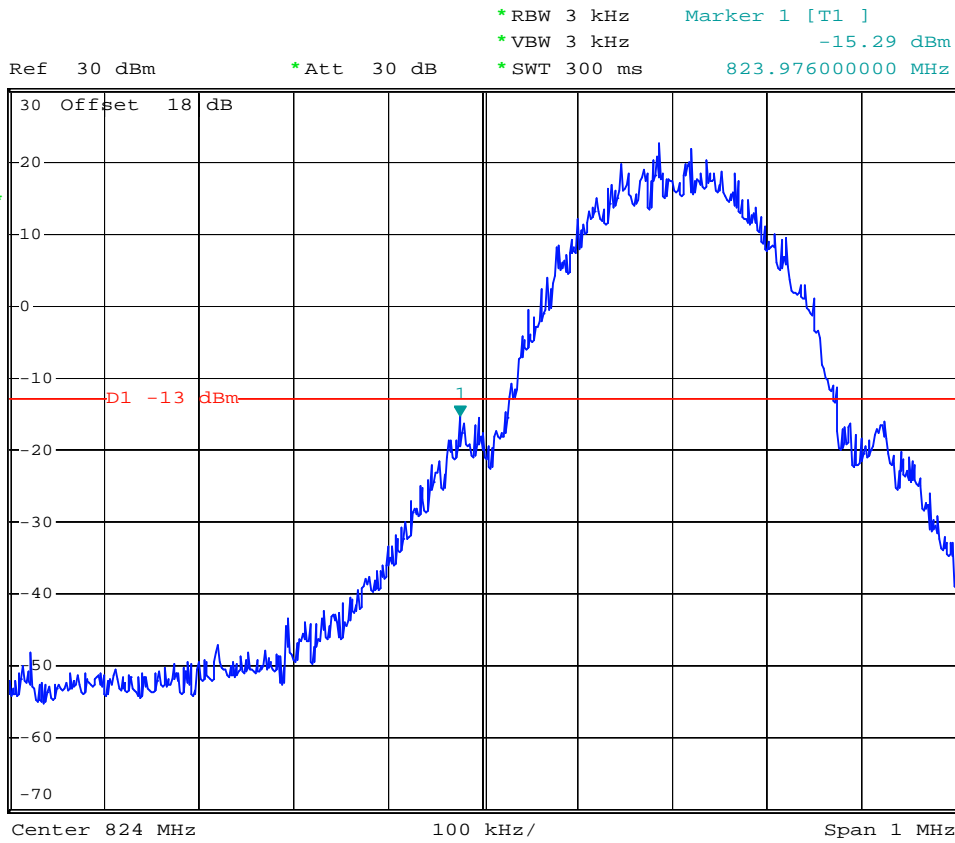
### 4.4.3 Test Setup Layout





4.4.4 Test Result

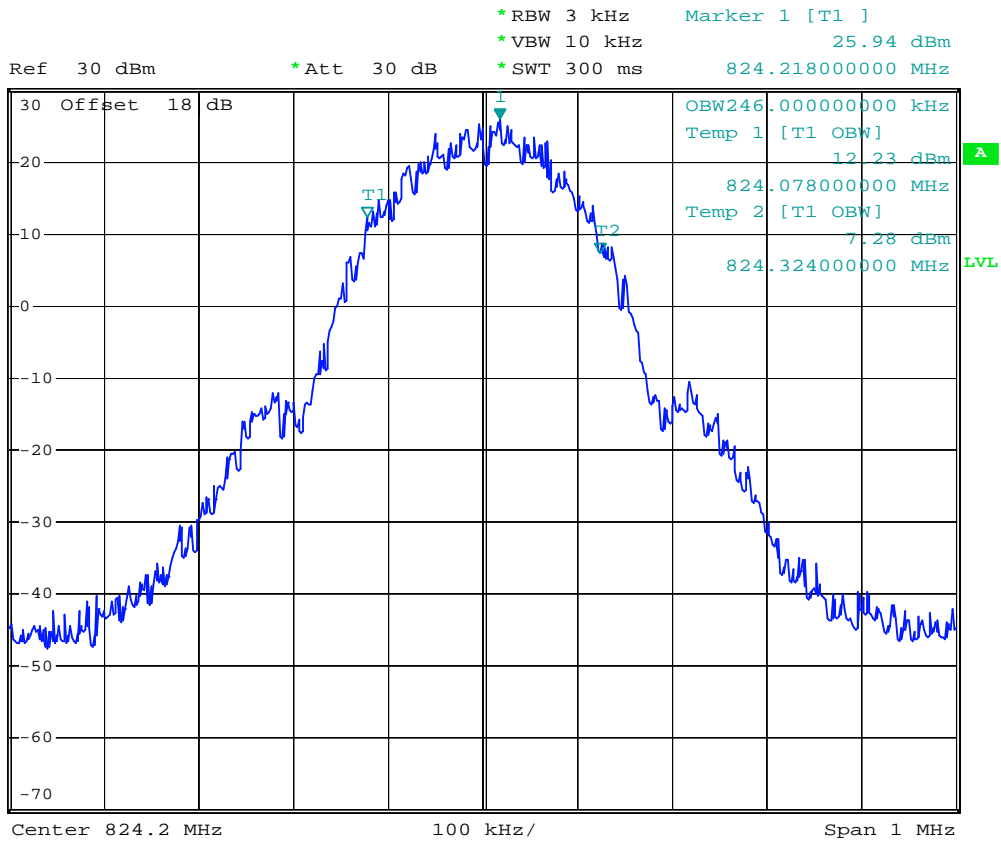
- Mode 1
- Test Mode : GSM850 (GSM) CH128 Lower Band Edge
- Power State : High



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



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

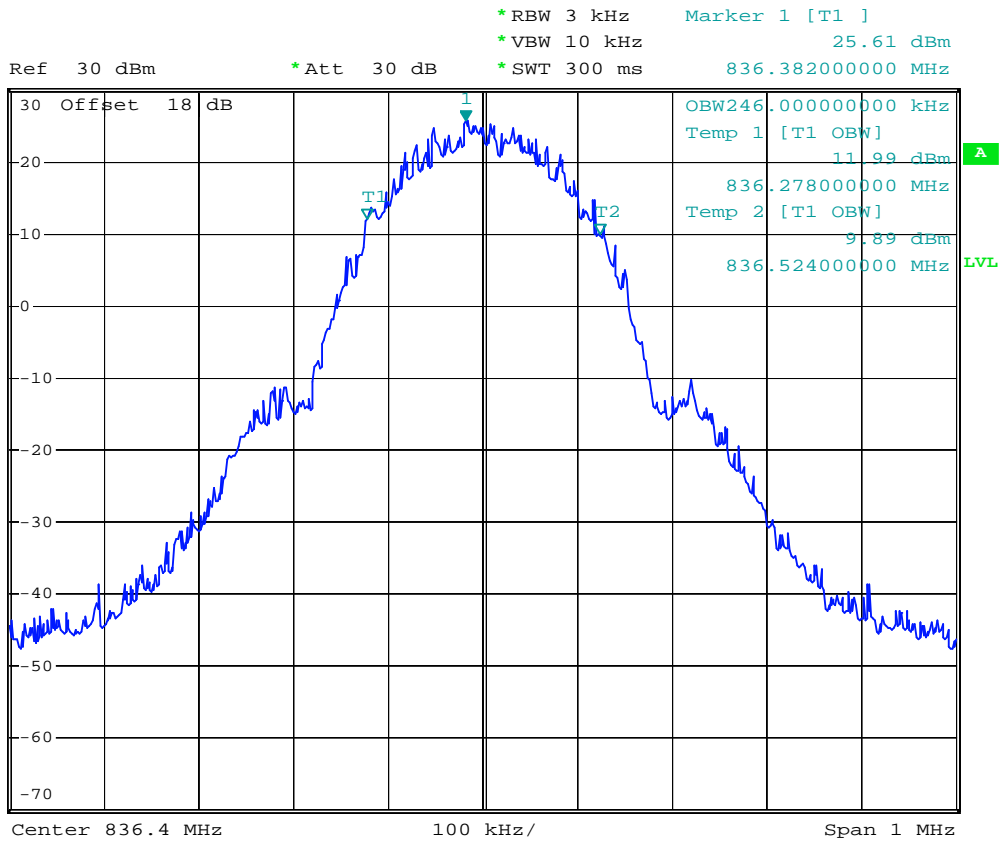


Date: 30.SEP.2007 19:57:08





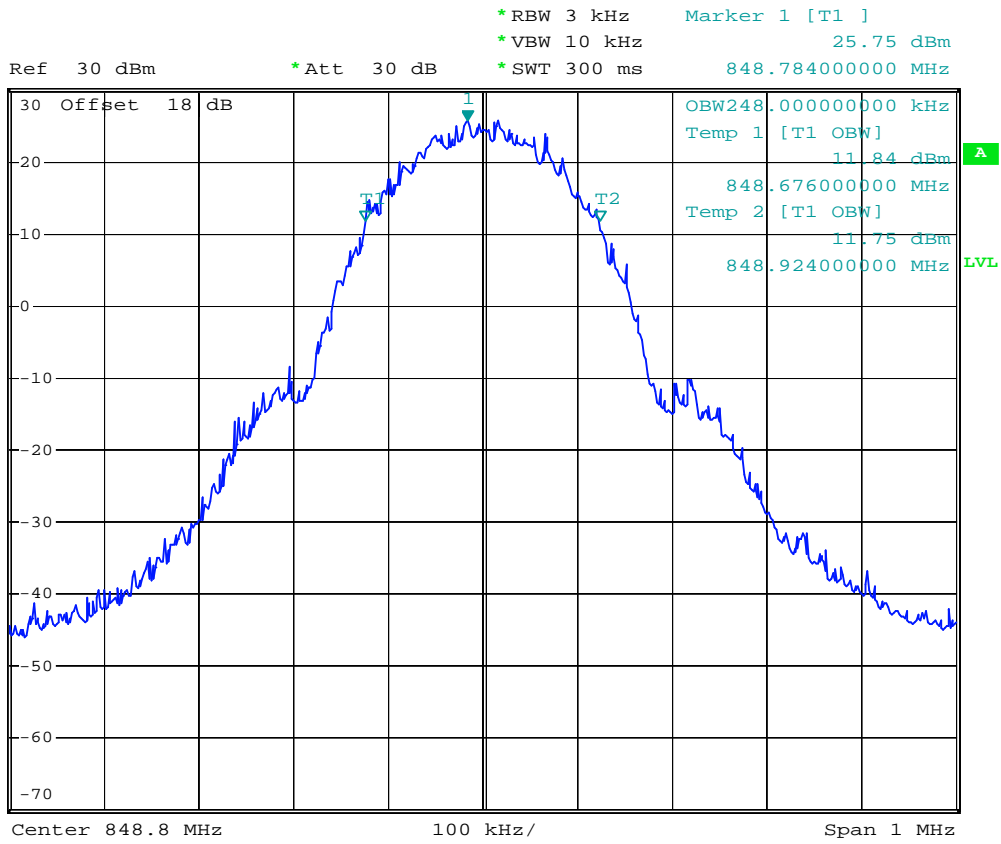
- Test Mode : GSM850 (GSM) CH189 99% Occupied Bandwidth
- Power State : High



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



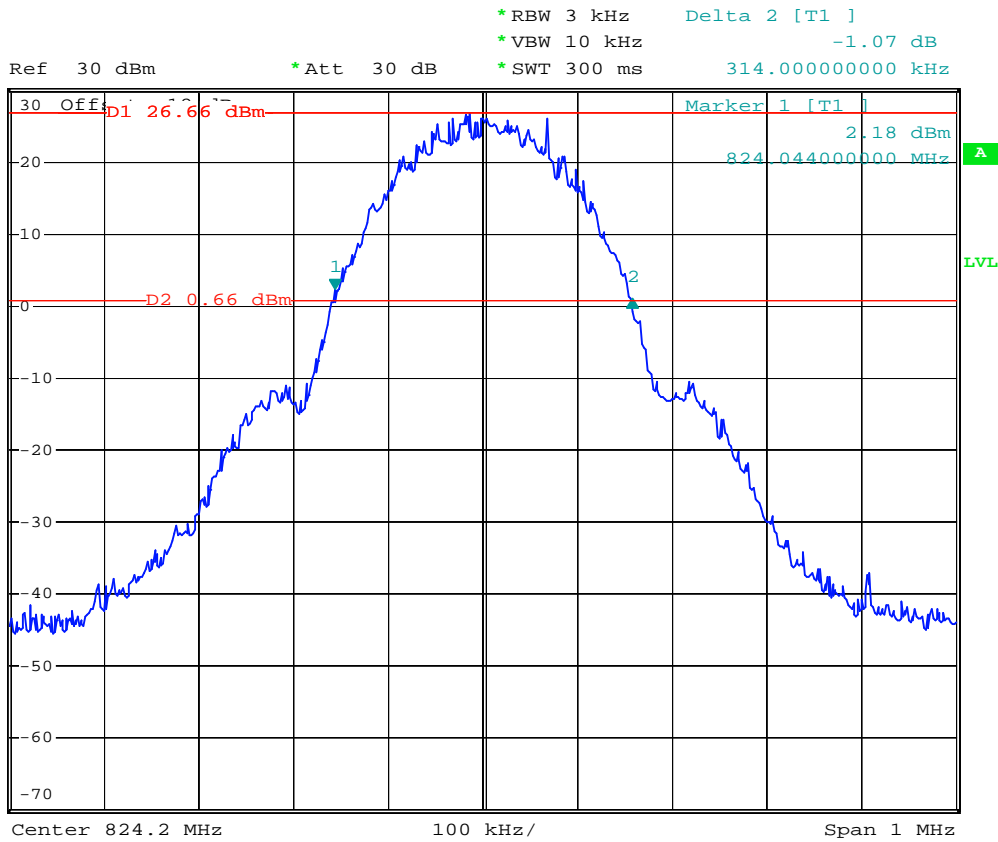
- Test Mode : GSM850 (GSM) CH 251 99% Occupied Bandwidth
- Power State : High



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



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



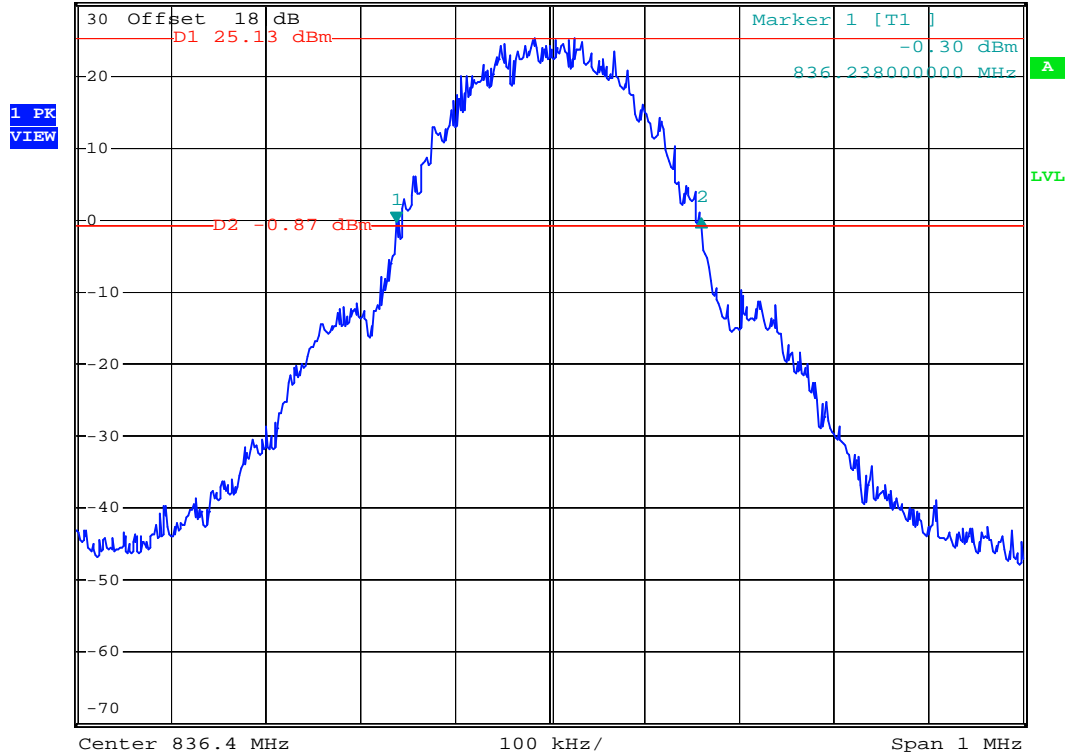
Date: 30.SEP.2007 19:49:08



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



Ref 30 dBm      \*Att 30 dB      \*RBW 3 kHz      Delta 2 [T1 ]  
 \*VBW 10 kHz      0.51 dB  
 \*SWT 300 ms      322.000000000 kHz



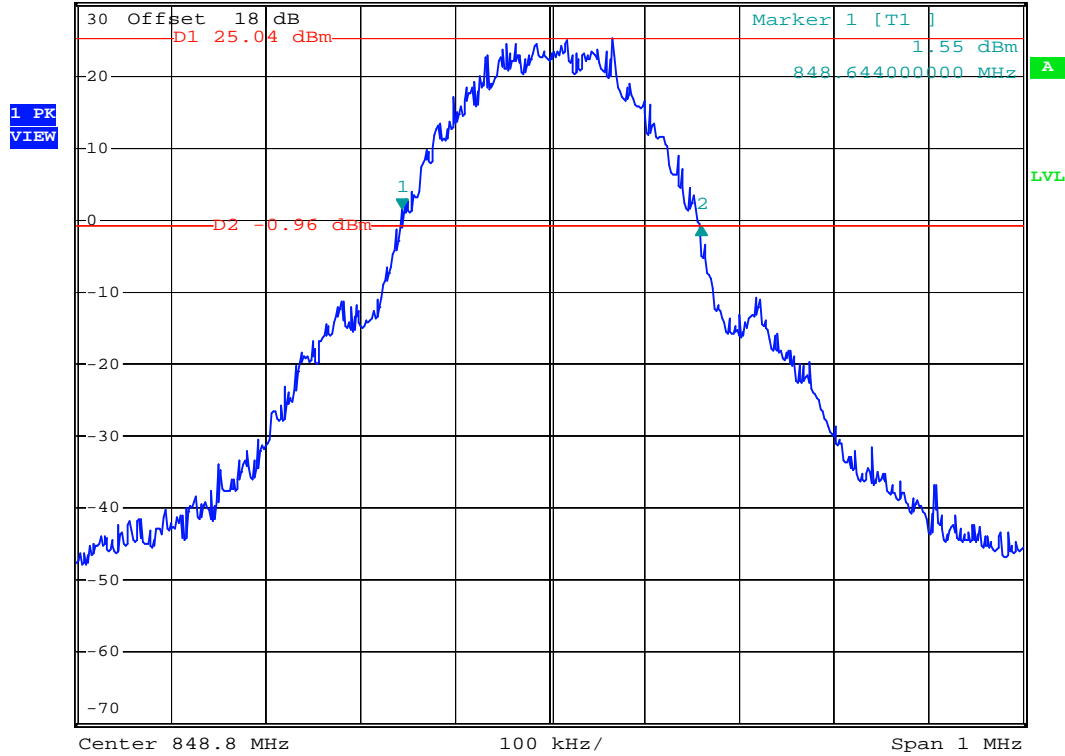
Date: 30.SEP.2007 19:50:54



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



Ref 30 dBm      \*Att 30 dB      \*RBW 3 kHz      Delta 2 [T1 ]  
 \*VBW 10 kHz      -2.33 dB  
 \*SWT 300 ms      316.000000000 kHz



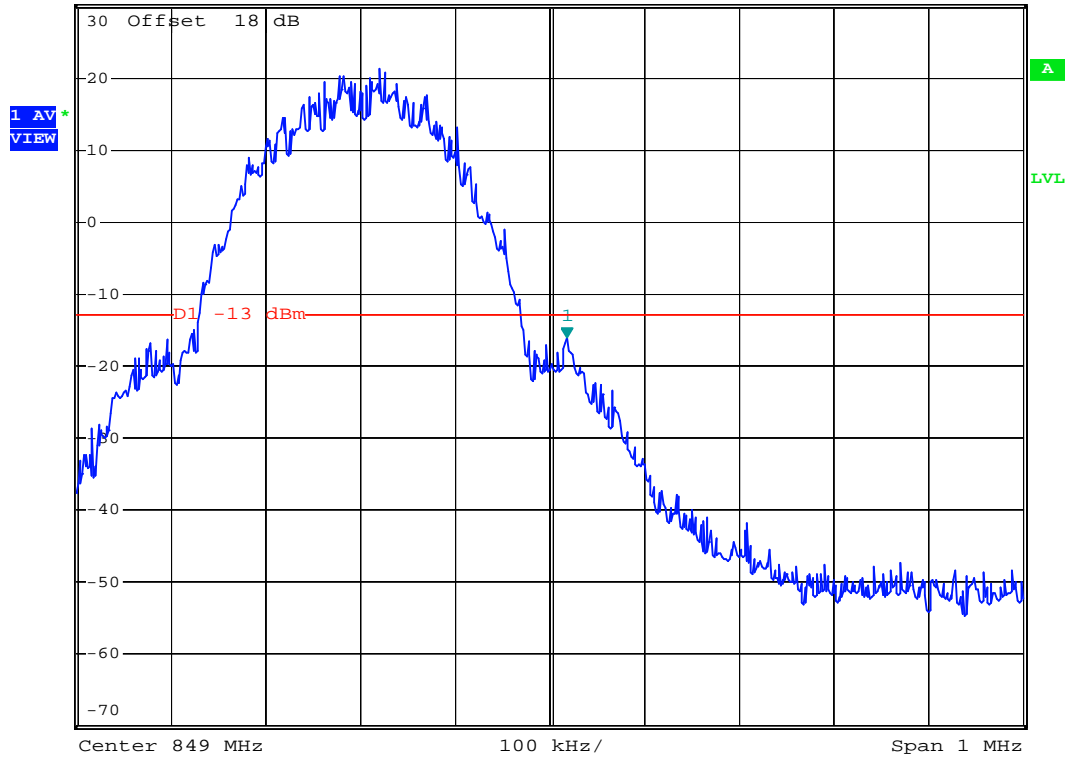
Date: 30.SEP.2007 19:53:09



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



Ref 30 dBm      \*Att 30 dB      \*RBW 3 kHz      Marker 1 [T1 ]  
\*VBW 3 kHz      -16.05 dBm  
\*SWT 300 ms      849.018000000 MHz



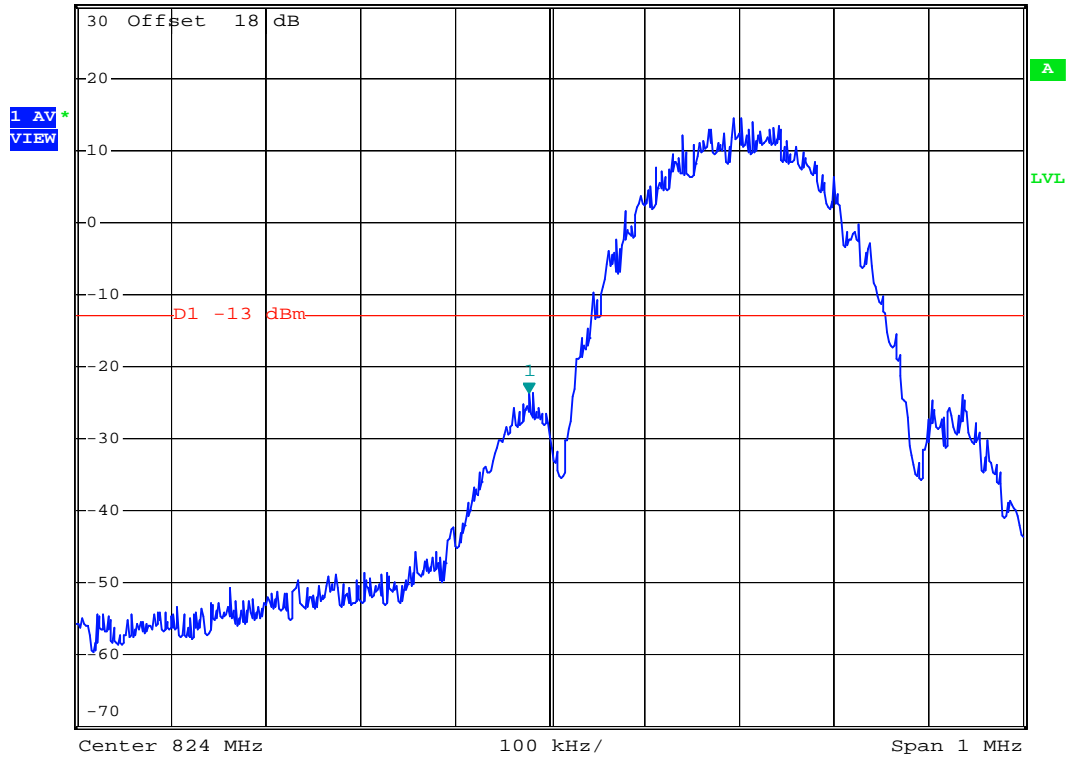
Date: 30.SEP.2007 20:12:56



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



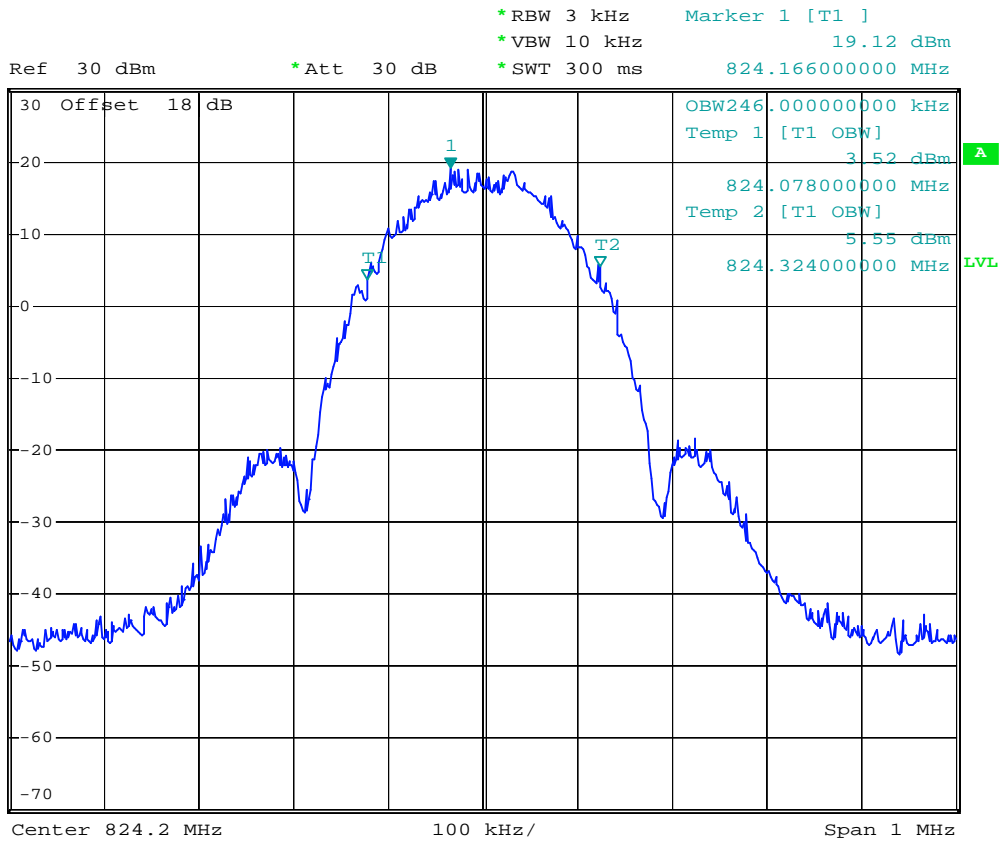
Ref 30 dBm      \*Att 30 dB      \*RBW 3 kHz      Marker 1 [T1 ]  
\*VBW 3 kHz      -23.62 dBm  
\*SWT 300 ms      823.978000000 MHz



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



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

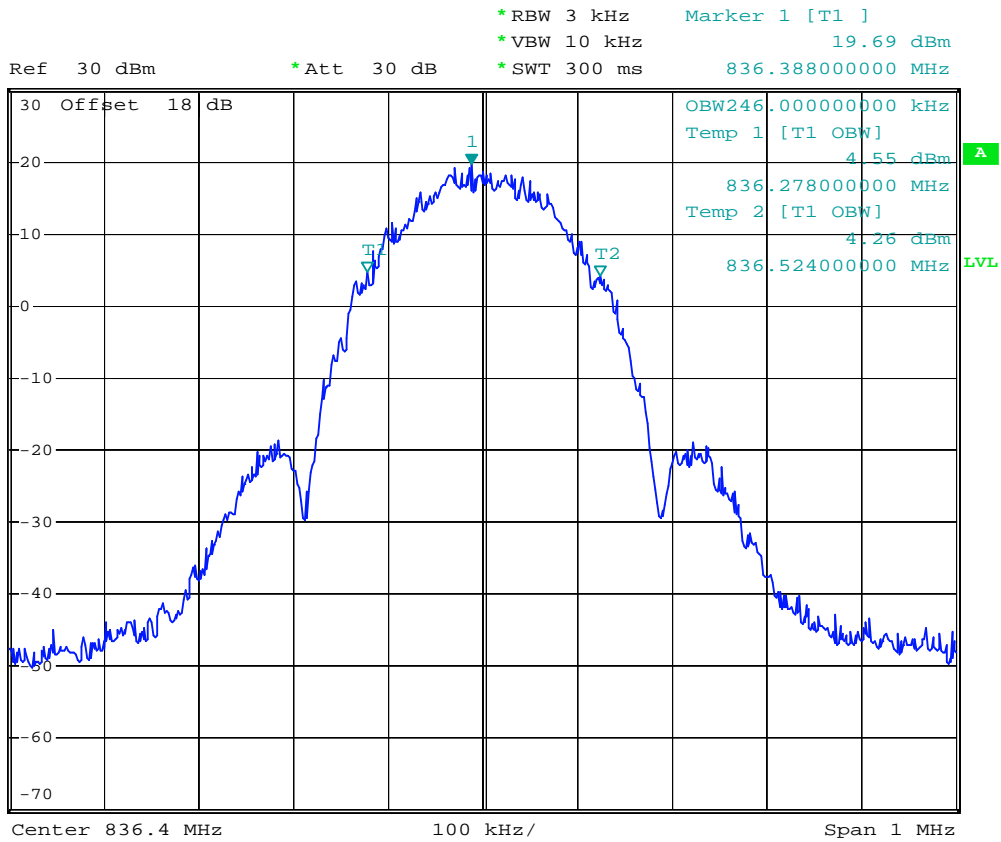


Date: 30.SEP.2007 21:14:33





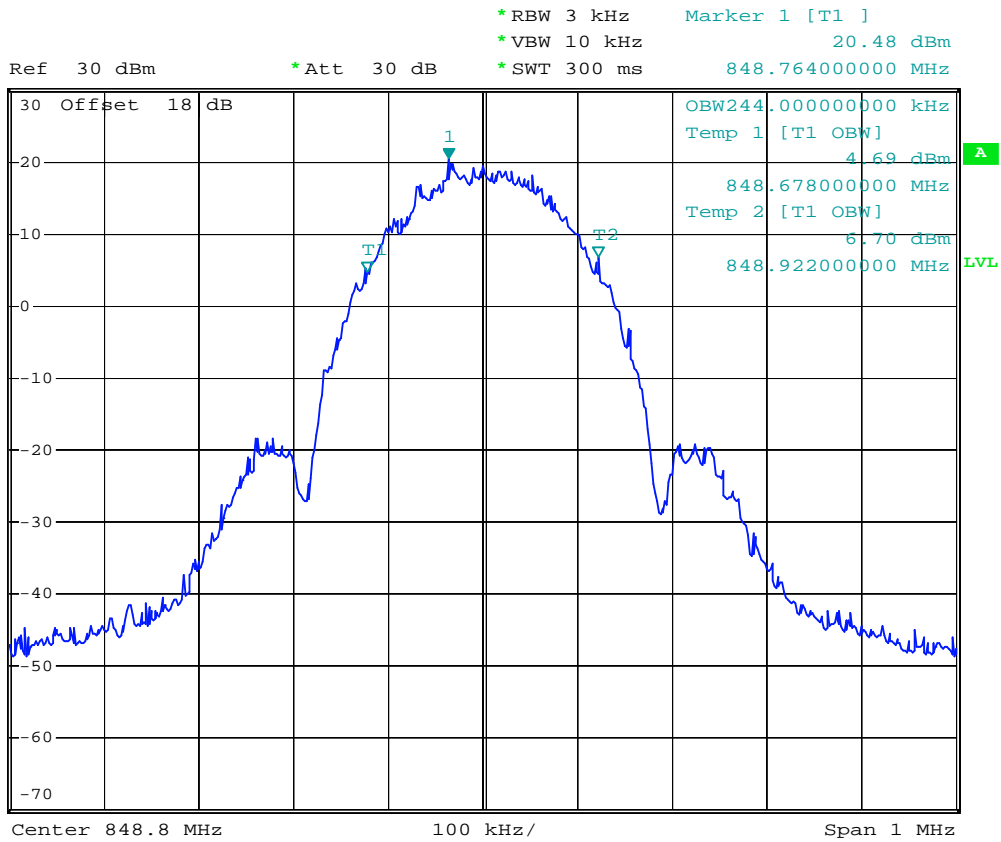
- Test Mode : GSM850 (EDGE) CH189 99% Occupied Bandwidth
- Power State : High



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



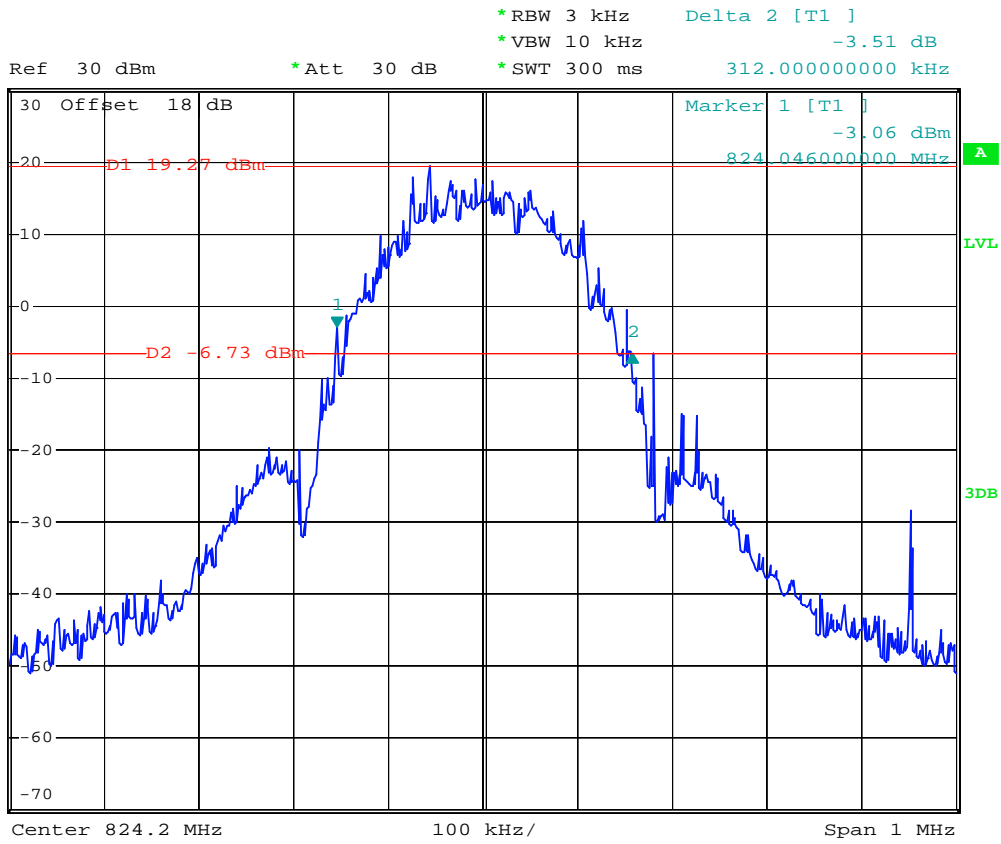
- Test Mode : GSM850 (EDGE) CH 251 99% Occupied Bandwidth
- Power State : High



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



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



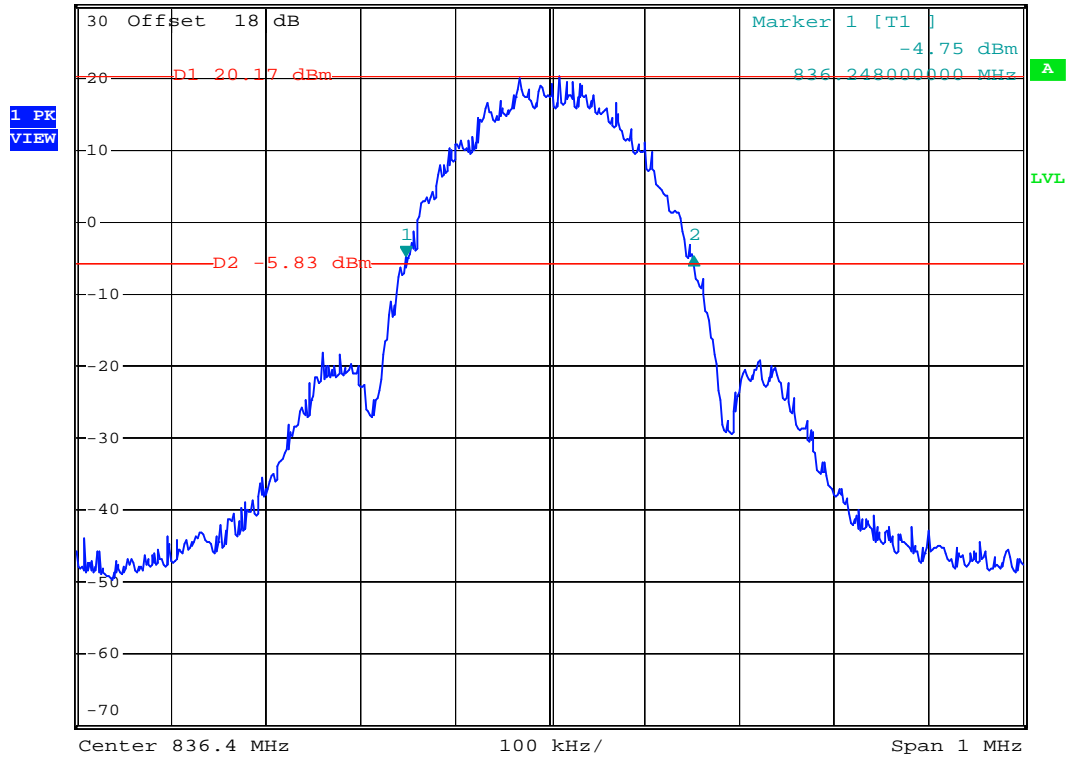
Date: 8.OCT.2007 17:15:57



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



Ref 30 dBm      \*Att 30 dB      \*RBW 3 kHz      Delta 2 [T1 ]  
 \*VBW 10 kHz      0.10 dB  
 \*SWT 300 ms      304.000000000 kHz



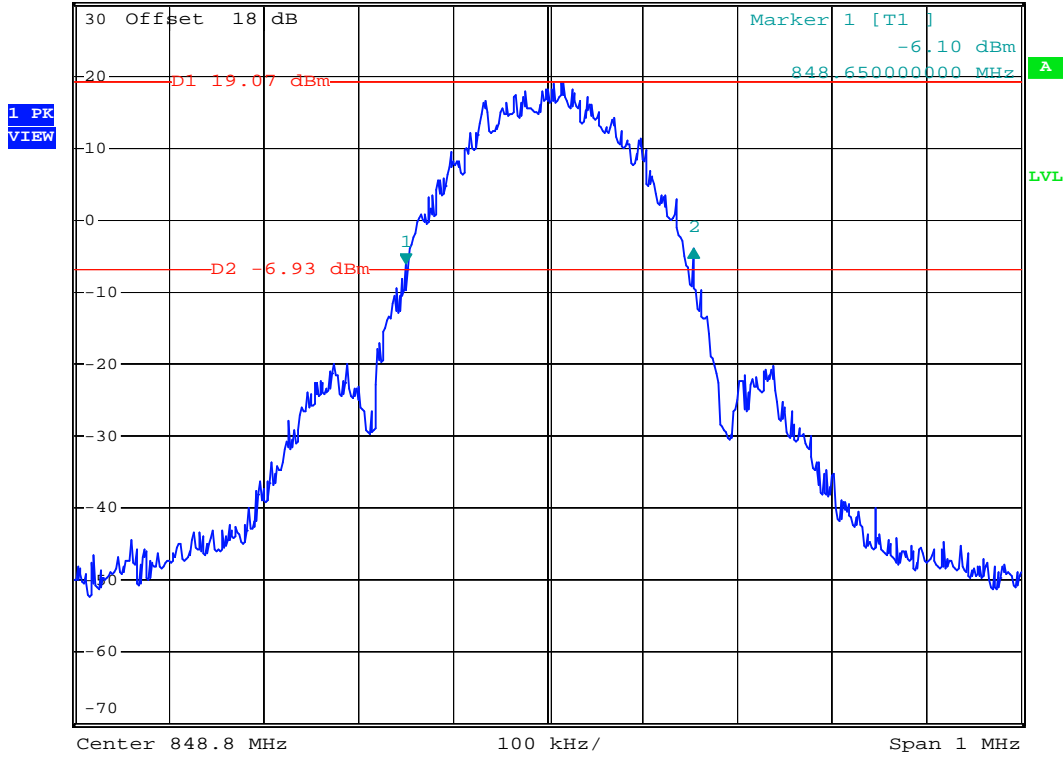
Date: 30.SEP.2007 21:06:58



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



Ref 30 dBm      \*Att 30 dB      \*RBW 3 kHz      Delta 2 [T1 ]  
 \*VBW 10 kHz      2.04 dB  
 \*SWT 300 ms      304.000000000 kHz



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



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

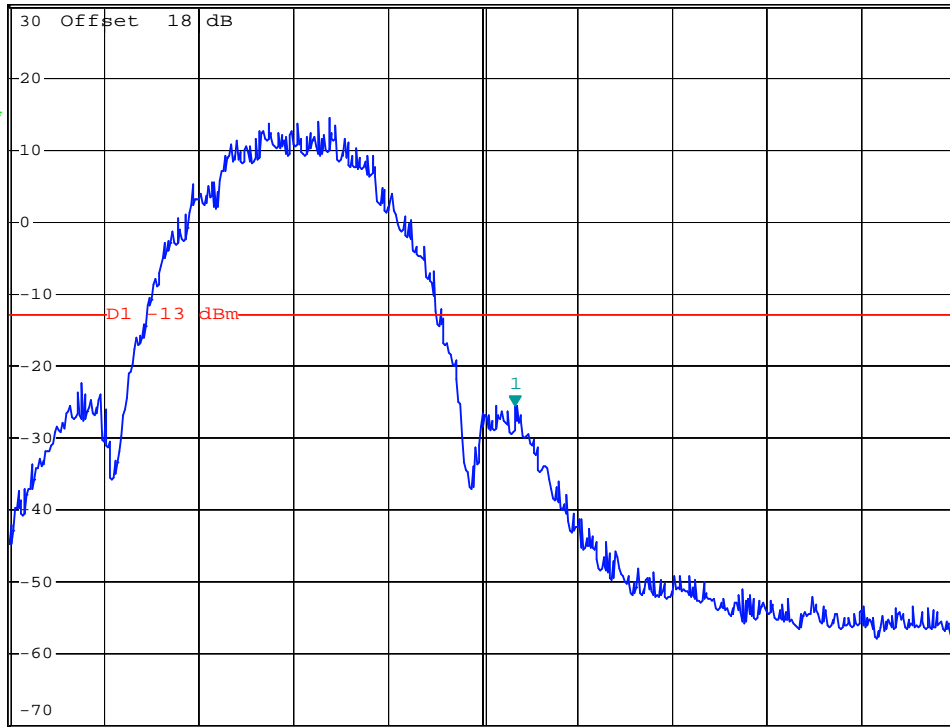


\*RBW 3 kHz      Marker 1 [T1 ]  
\*VBW 3 kHz      -25.40 dBm  
\*SWT 300 ms      849.034000000 MHz

Ref 30 dBm

\*Att 30 dB

1 AV\*  
VIEW



Center 849 MHz

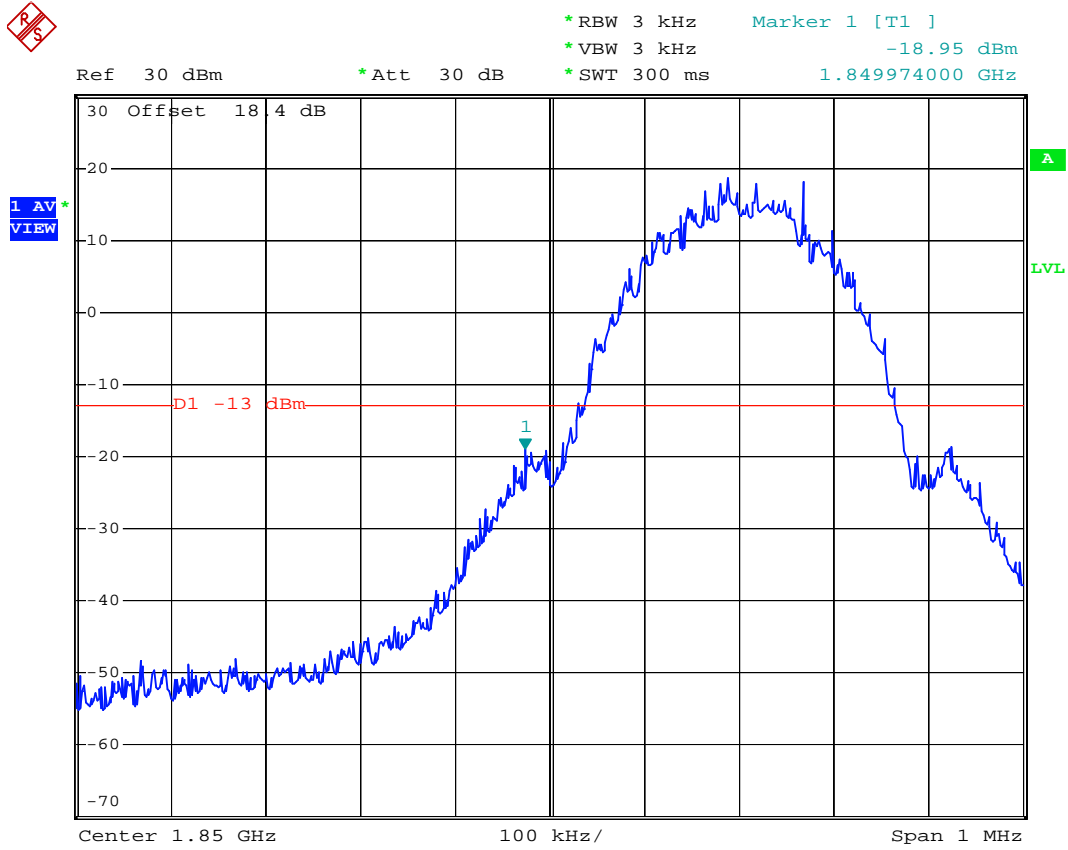
100 kHz/

Span 1 MHz

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



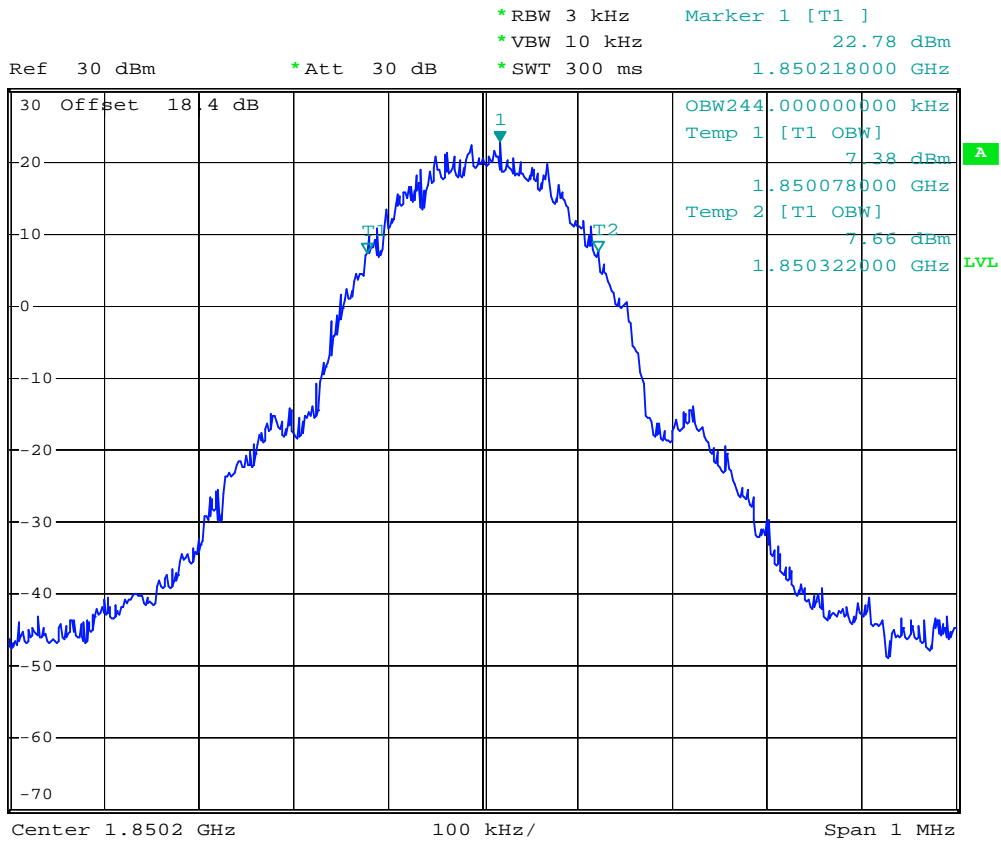
- Mode 3
- Test Mode : PCS1900 (GSM) CH512 Lower Band Edge
- Power State : High



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



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

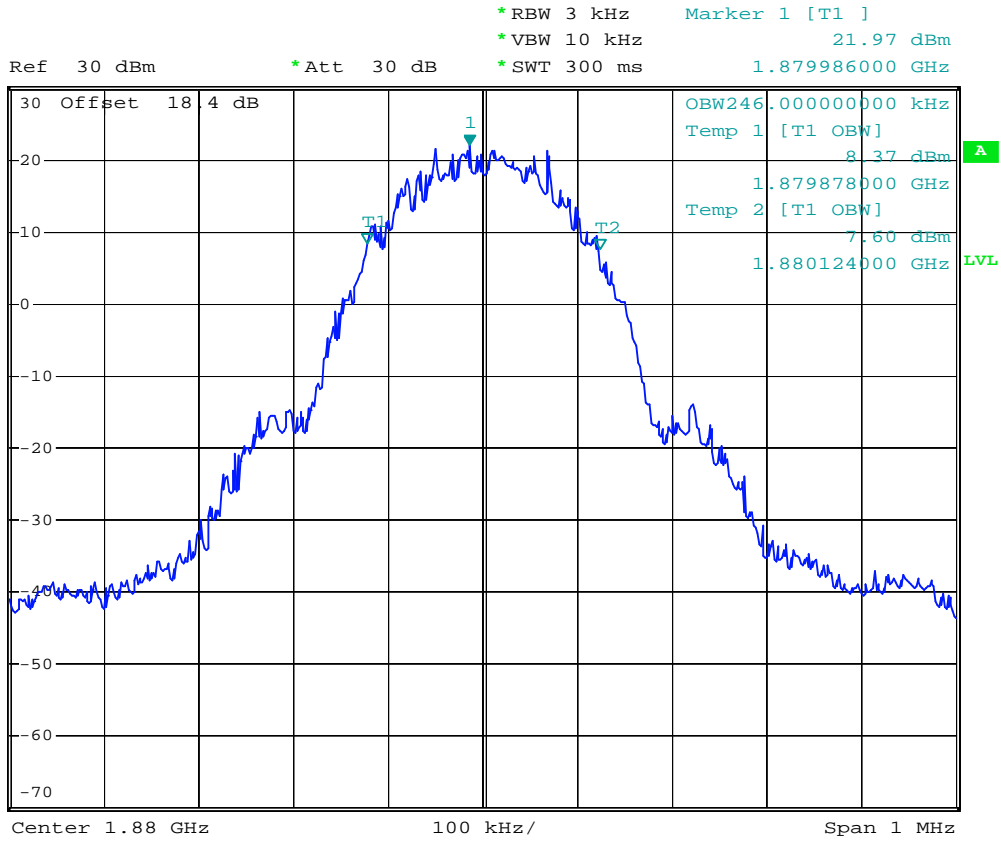


Date: 30.SEP.2007 23:07:43





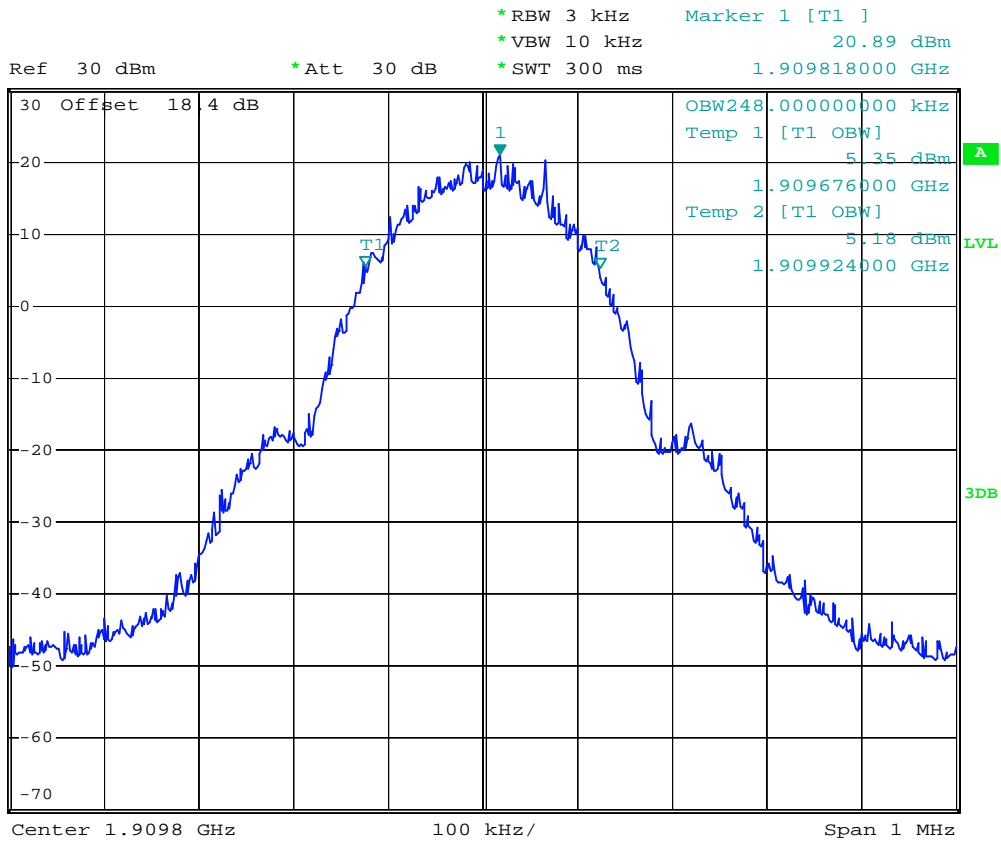
- Test Mode : PCS1900 (GSM) CH661 99% Occupied Bandwidth
- Power State : High



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



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



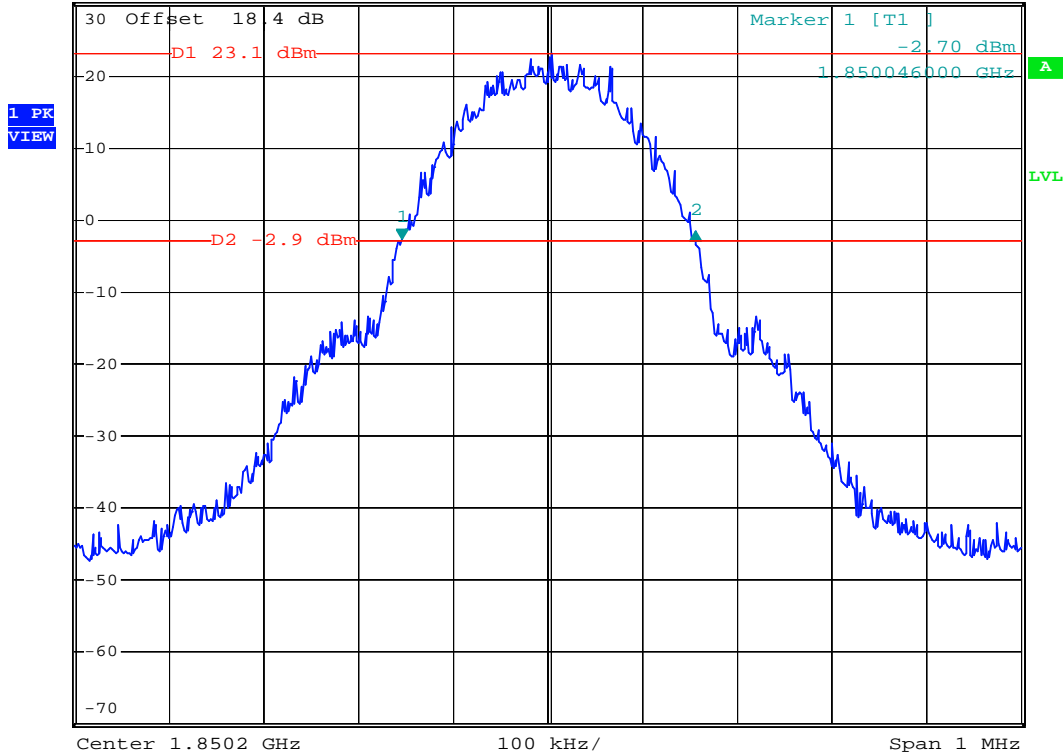
Date: 8.OCT.2007 17:36:37



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



Ref 30 dBm      \*Att 30 dB      \*RBW 3 kHz      Delta 2 [T1 ]  
 \*VBW 10 kHz      1.00 dB  
 \*SWT 300 ms      310.000000000 kHz



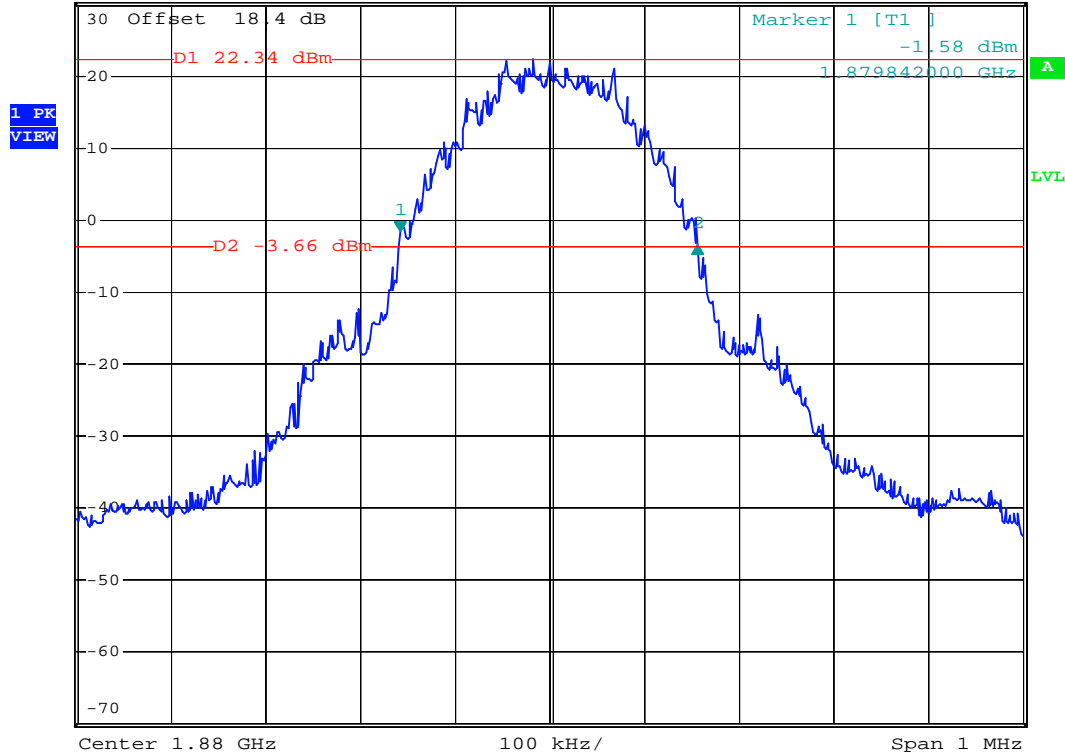
Date: 30.SEP.2007 23:03:59



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



Ref 30 dBm      \*Att 30 dB      \*RBW 3 kHz      Delta 2 [T1 ]  
 \*VBW 10 kHz      -1.76 dB  
 \*SWT 300 ms      314.000000000 kHz



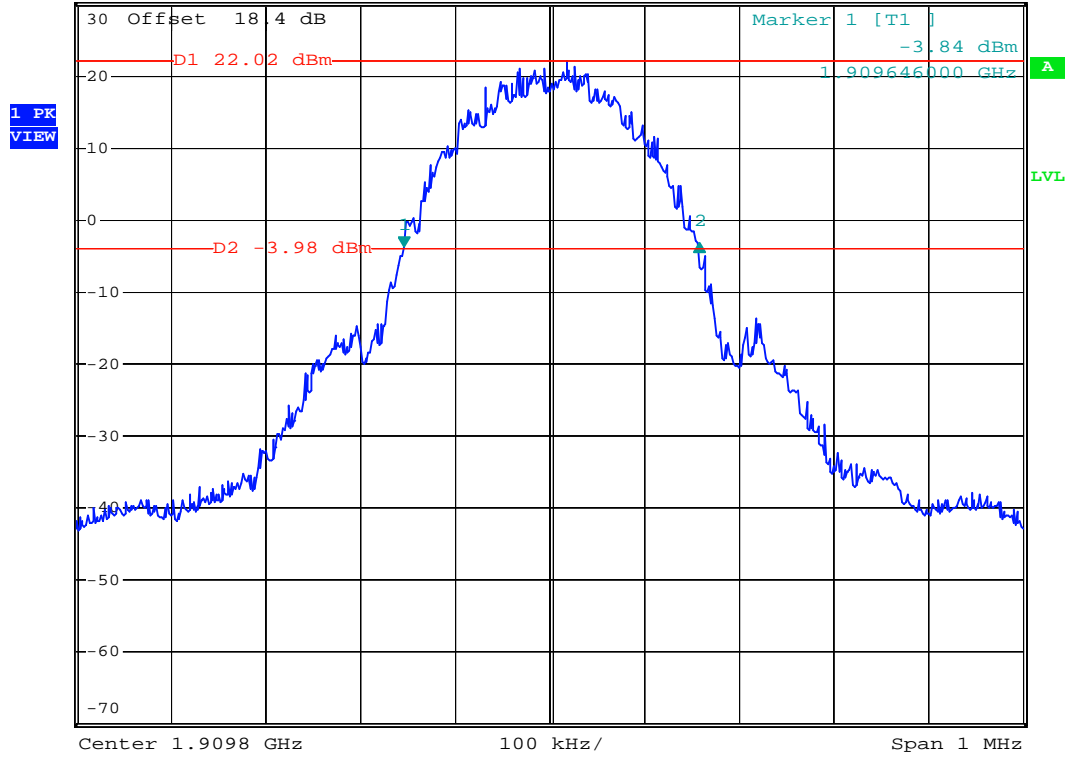
Date: 30.SEP.2007 23:05:01



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



Ref 30 dBm      \*Att 30 dB      \*RBW 3 kHz      Delta 2 [T1 ]  
 \*VBW 10 kHz      0.65 dB  
 \*SWT 300 ms      312.000000000 kHz



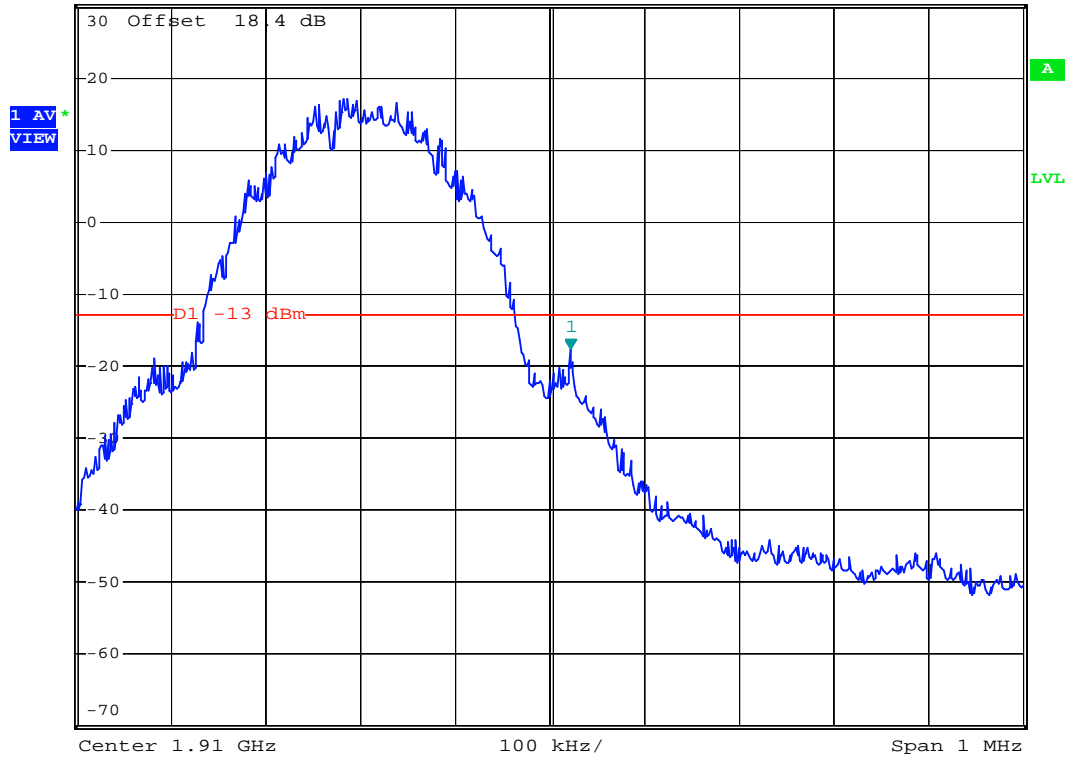
Date: 30.SEP.2007 23:06:15



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



Ref 30 dBm      \*Att 30 dB      \*RBW 3 kHz      Marker 1 [T1 ]  
\*VBW 3 kHz      -17.60 dBm  
\*SWT 300 ms      1.910022000 GHz



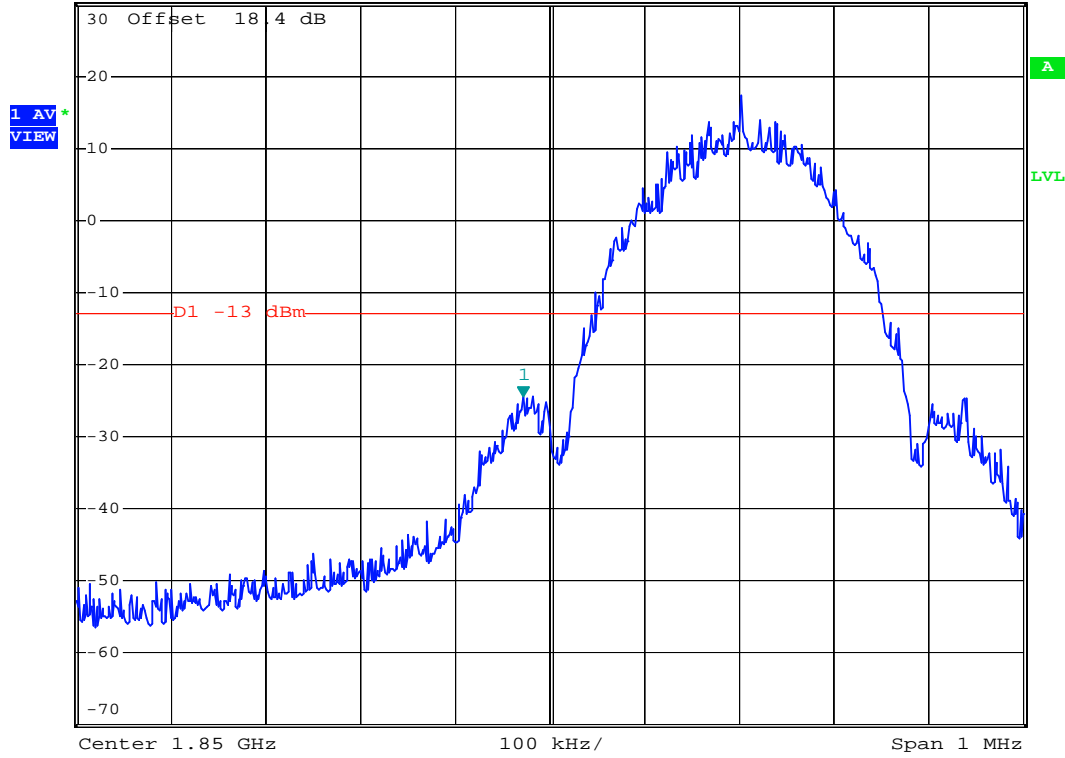
Date: 30.SEP.2007 23:16:49



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



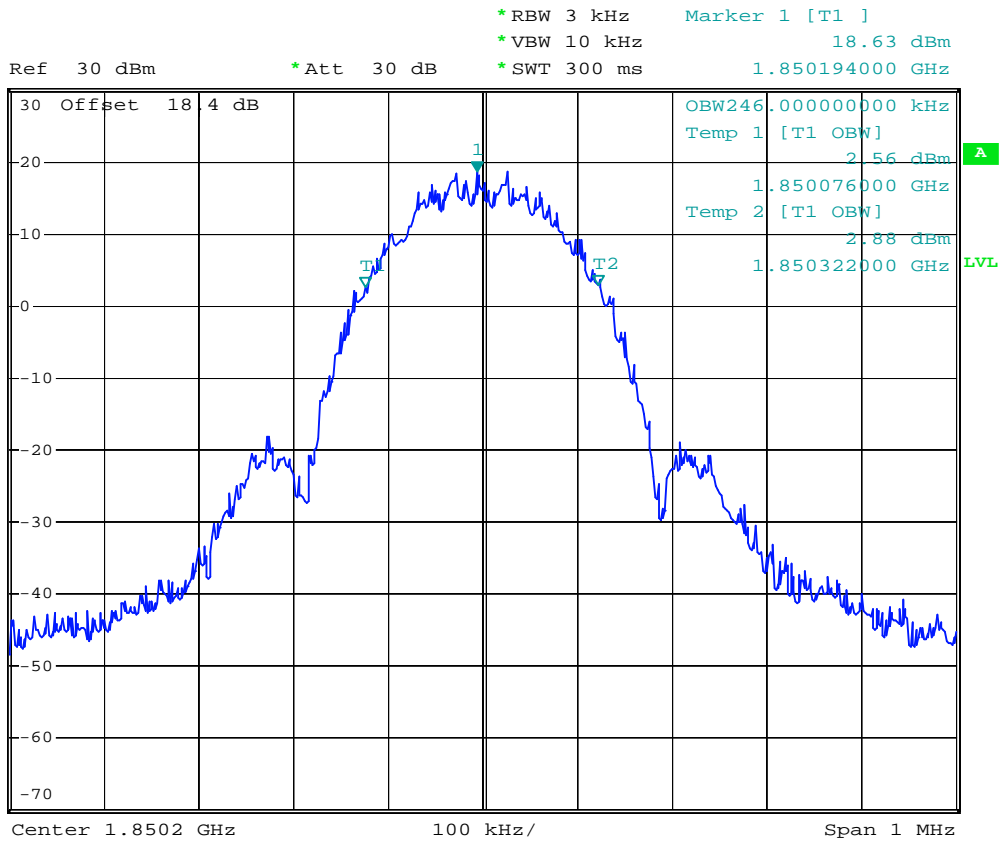
Ref 30 dBm      \*Att 30 dB      \*RBW 3 kHz      Marker 1 [T1 ]  
\*VBW 3 kHz      -24.44 dBm  
\*SWT 300 ms      1.849972000 GHz



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



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

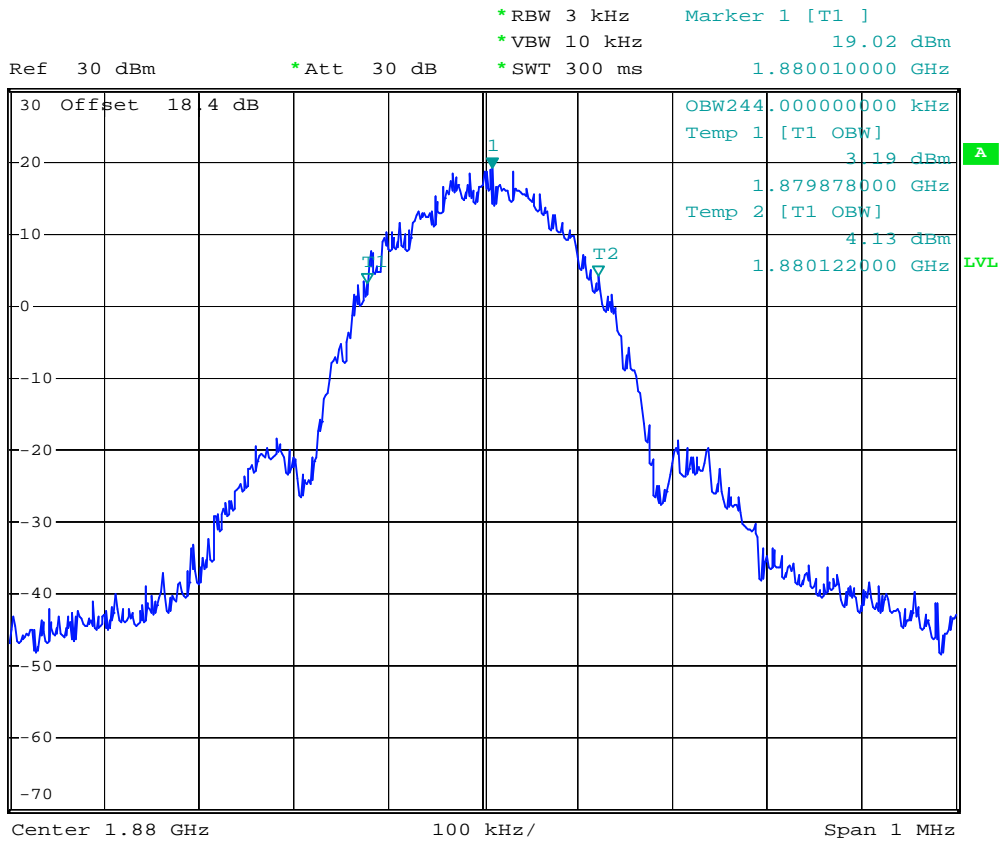


Date: 30.SEP.2007 22:30:47





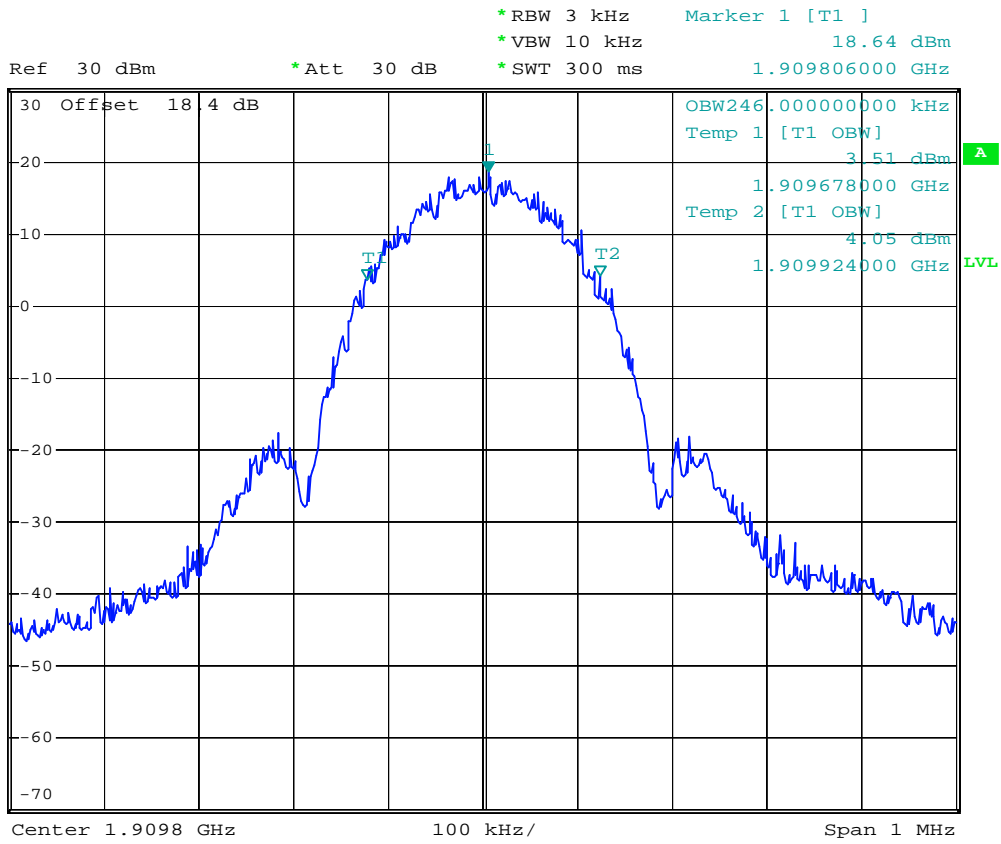
- Test Mode : PCS1900 (EDGE) CH661 99% Occupied Bandwidth
- Power State : High



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



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



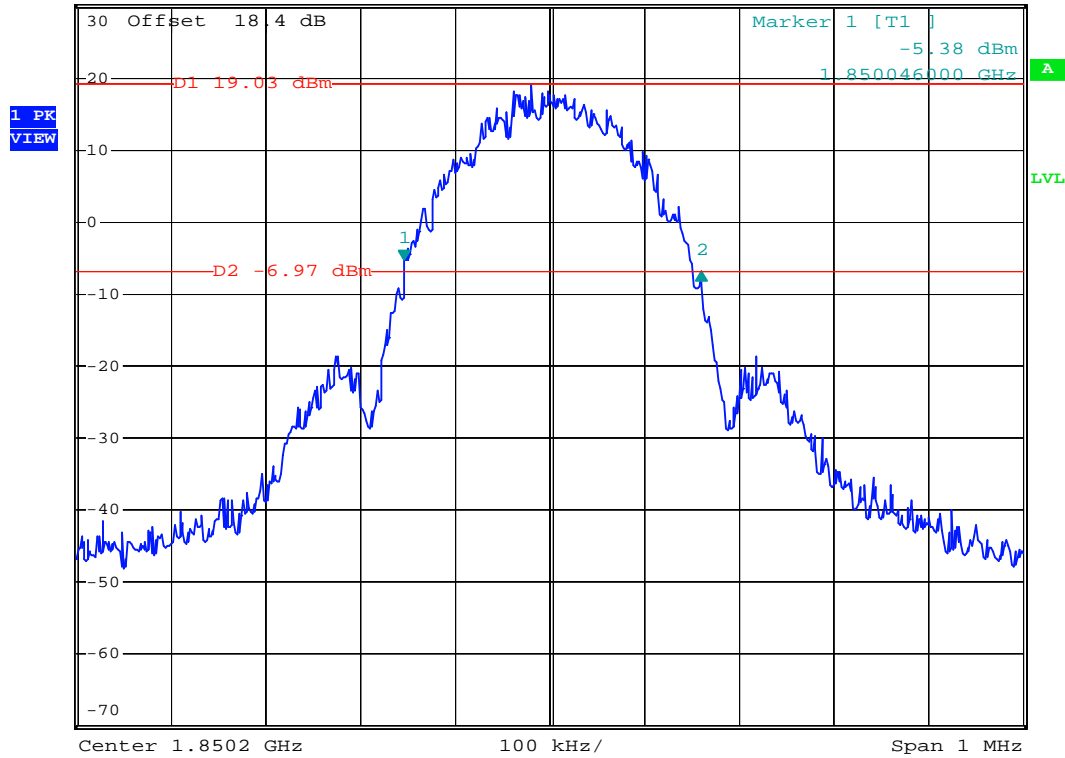
Date: 30.SEP.2007 22:29:55



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



Ref 30 dBm      \*Att 30 dB      \*RBW 3 kHz      Delta 2 [T1 ]  
 \*VBW 10 kHz      -1.44 dB  
 \*SWT 300 ms      314.000000000 kHz



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



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

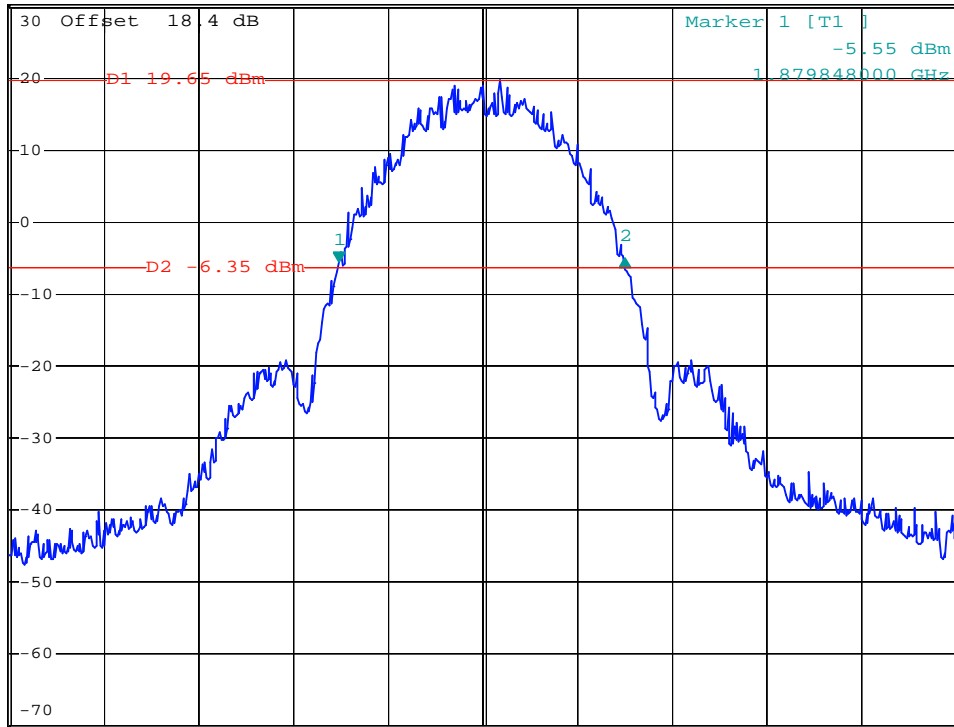


\*RBW 3 kHz      Delta 2 [T1 ]  
 \*VBW 10 kHz      0.58 dB  
 \*SWT 300 ms      302.000000000 kHz

Ref 30 dBm

\*Att 30 dB

1 PK  
VIEW



Center 1.88 GHz

100 kHz/

Span 1 MHz

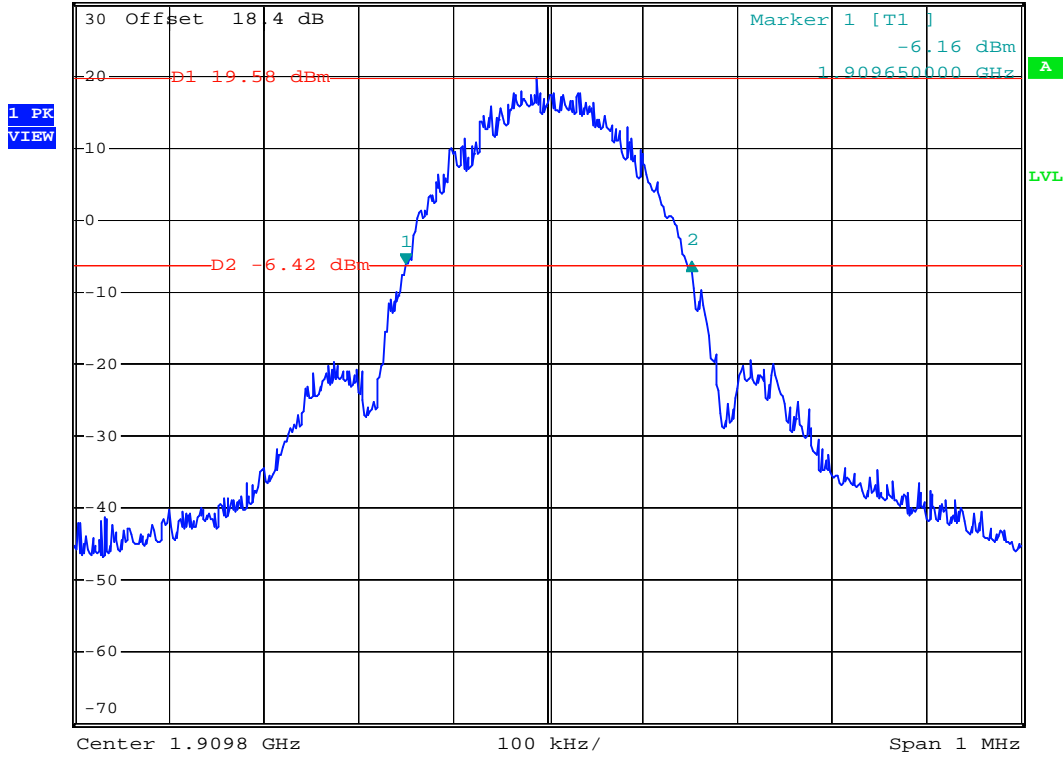
Date: 30.SEP.2007 22:25:14



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



Ref 30 dBm      \*Att 30 dB      \*RBW 3 kHz      Delta 2 [T1 ]  
 \*VBW 10 kHz      0.43 dB  
 \*SWT 300 ms      302.000000000 kHz



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



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

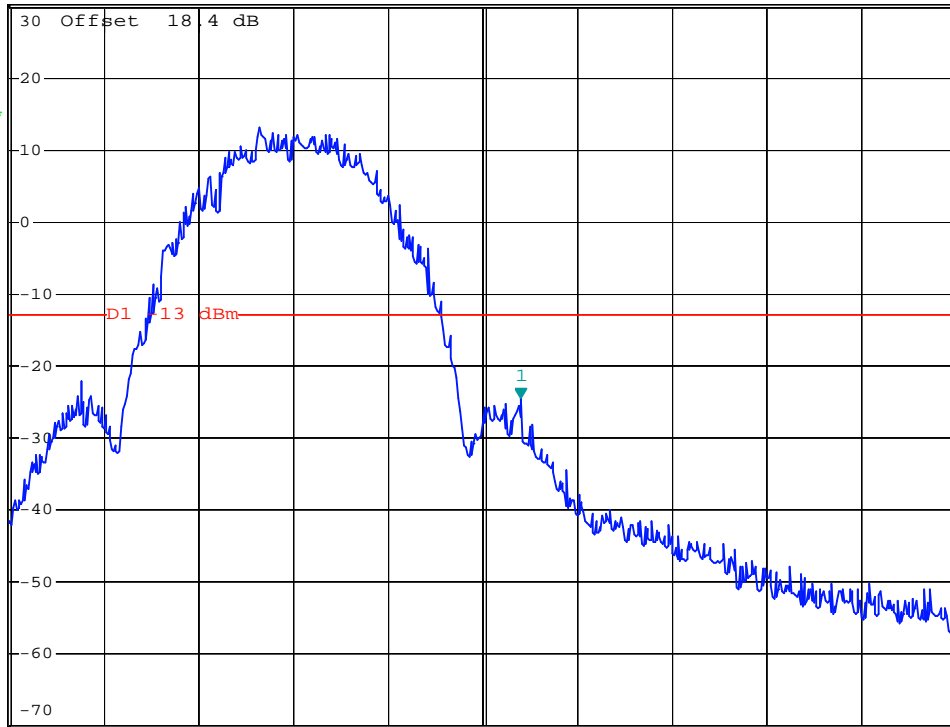


\*RBW 3 kHz      Marker 1 [T1 ]  
\*VBW 3 kHz      -24.55 dBm  
\*SWT 300 ms      1.910040000 GHz

Ref 30 dBm

\*Att 30 dB

1 AV\*  
VIEW



Center 1.91 GHz

100 kHz/

Span 1 MHz

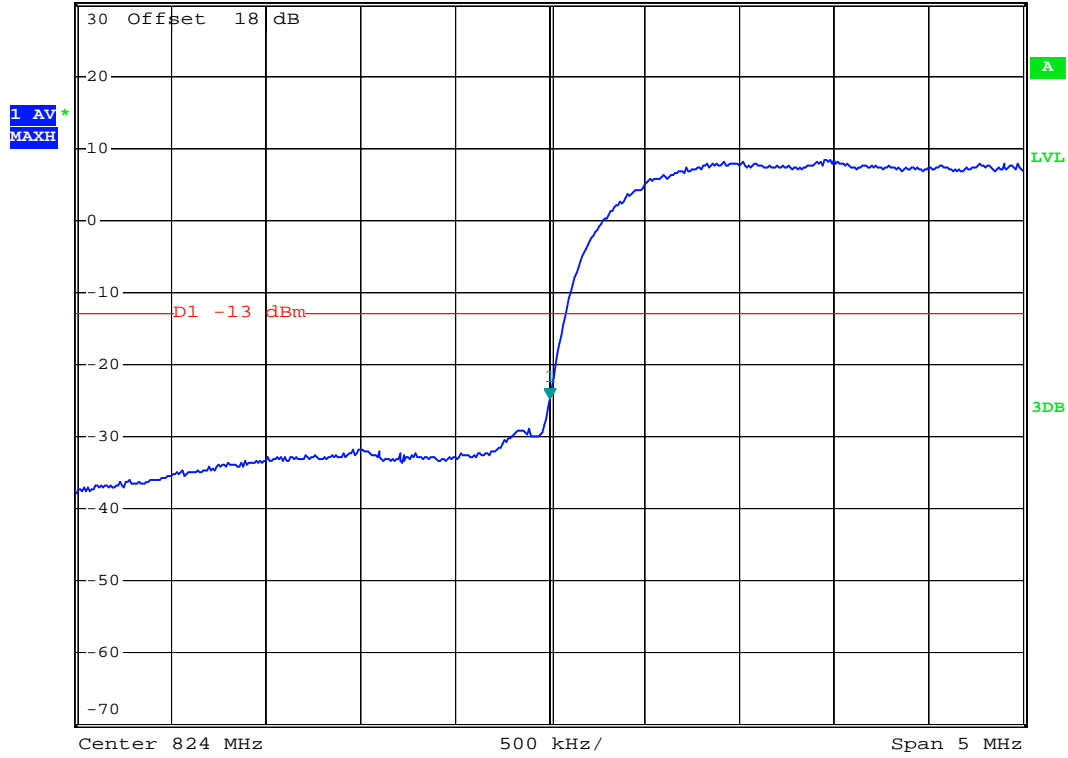
Date: 30.SEP.2007 22:09:16



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



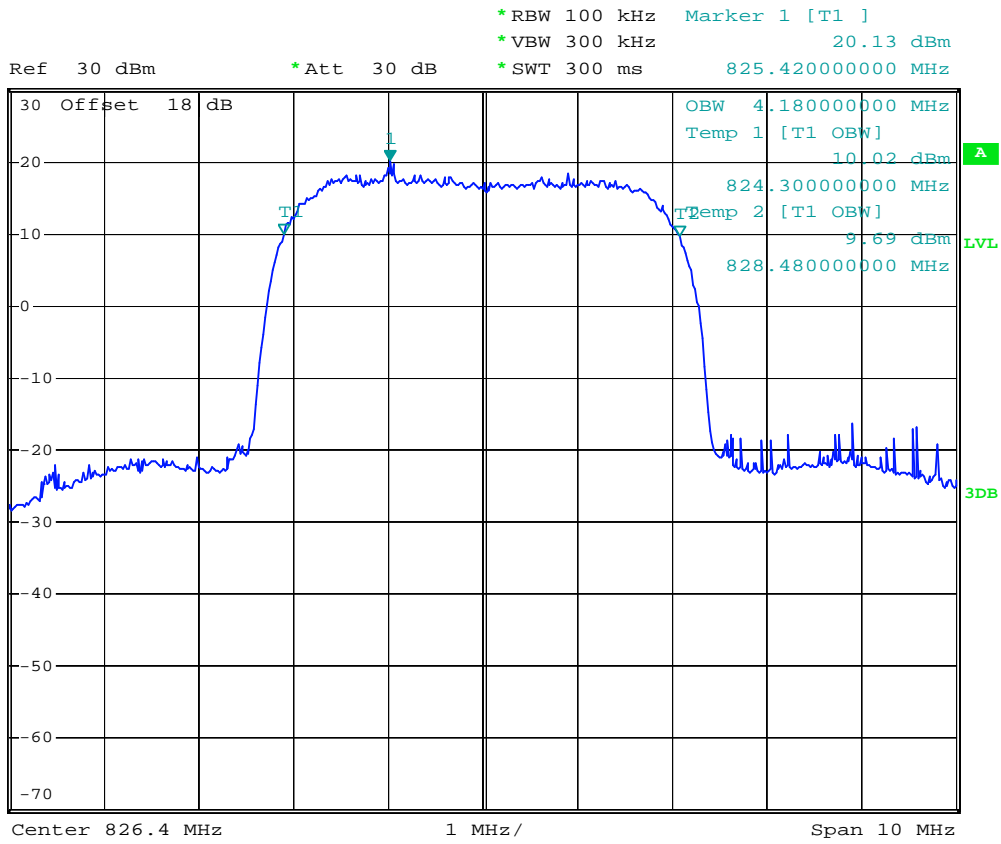
Ref 30 dBm      \*Att 30 dB      \*RBW 100 kHz      Marker 1 [T1 ]  
 \*VBW 100 kHz      -24.62 dBm  
 \*SWT 300 ms      824.00000000 MHz



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



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

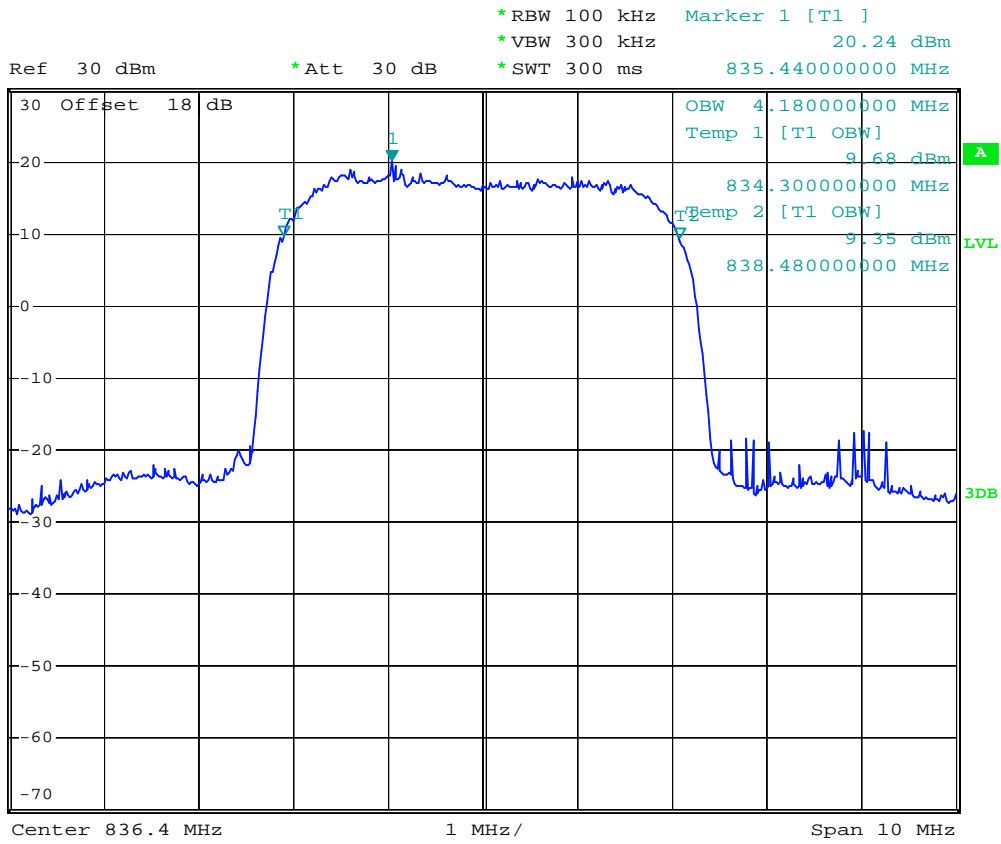


Date: 8.OCT.2007 11:53:26





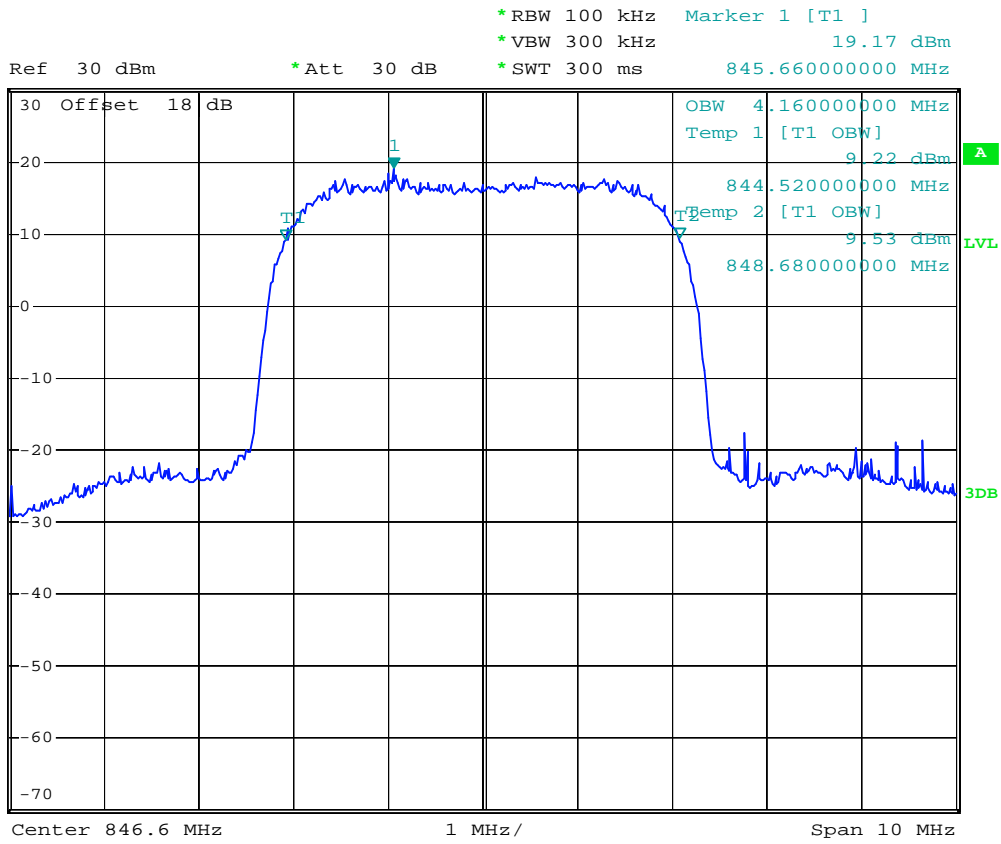
- Test Mode : WCDMA Band V CH4182 99% Occupied Bandwidth
- Power State : High



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



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



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



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

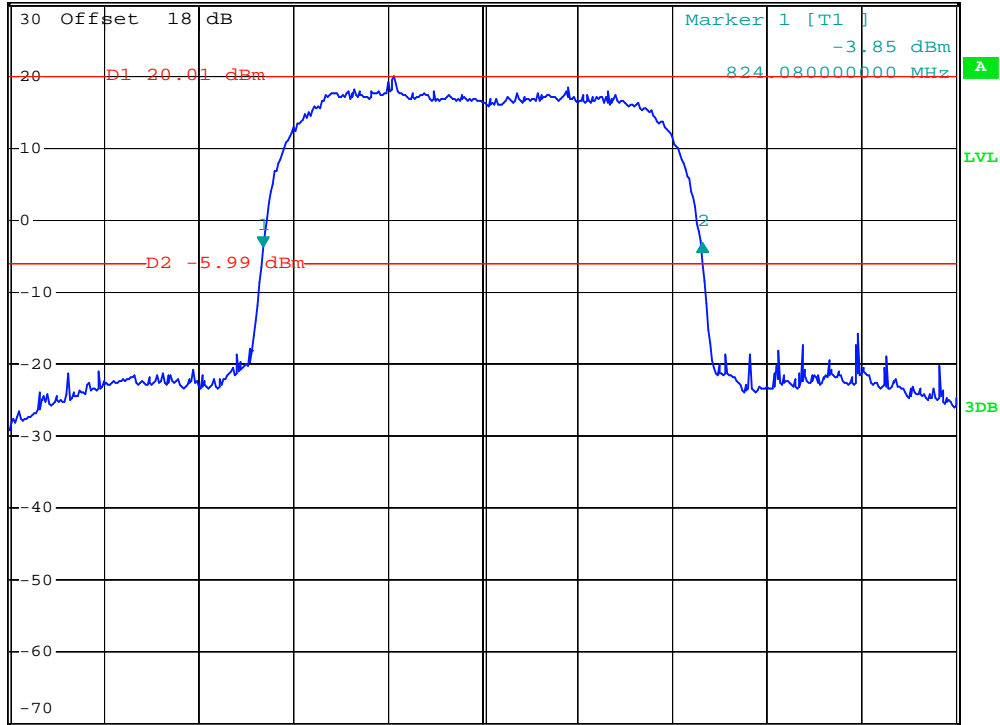


\*RBW 100 kHz    Delta 2 [T1 ]  
 \*VBW 300 kHz    0.69 dB  
 \*SWT 300 ms    4.640000000 MHz

Ref 30 dBm

\*Att 30 dB

1 PK  
VIEW



Center 826.4 MHz

1 MHz/

Span 10 MHz

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



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

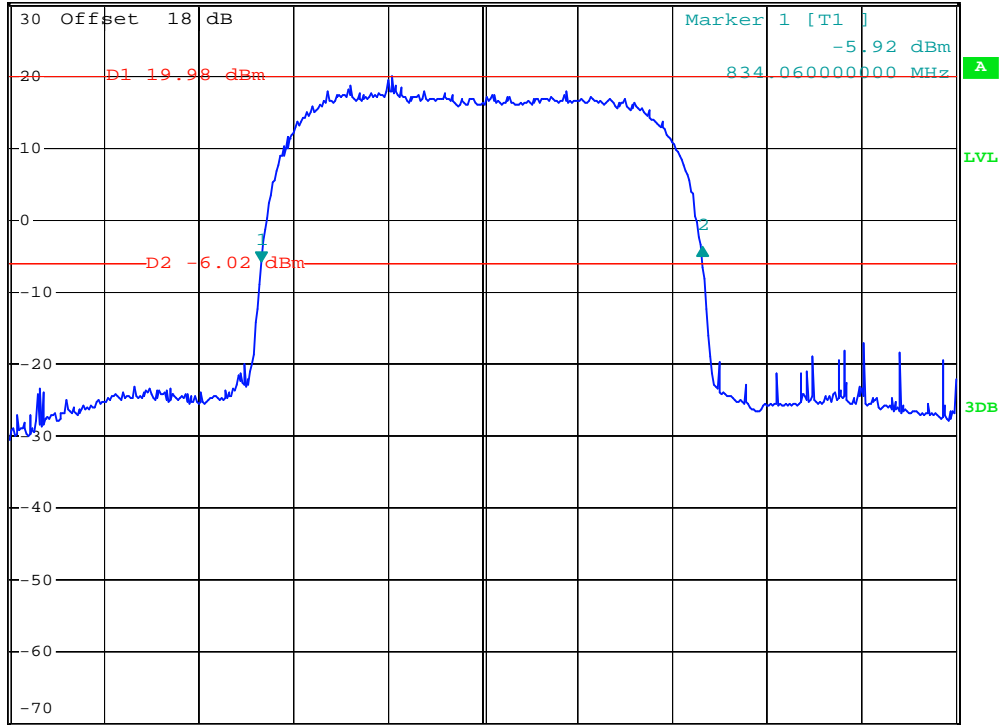


\*RBW 100 kHz Delta 2 [T1 ]  
 \*VBW 300 kHz 2.15 dB  
 \*SWT 300 ms 4.660000000 MHz

Ref 30 dBm

\*Att 30 dB

1 PK  
VIEW



Center 836.4 MHz

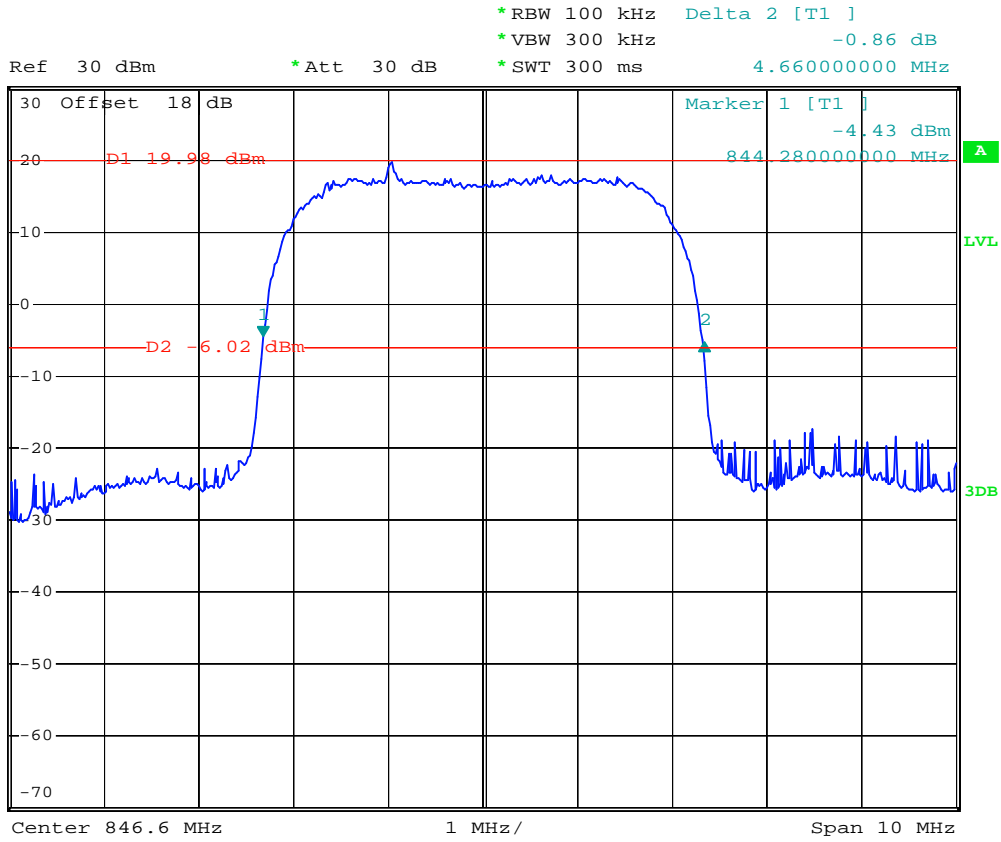
1 MHz/

Span 10 MHz

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



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



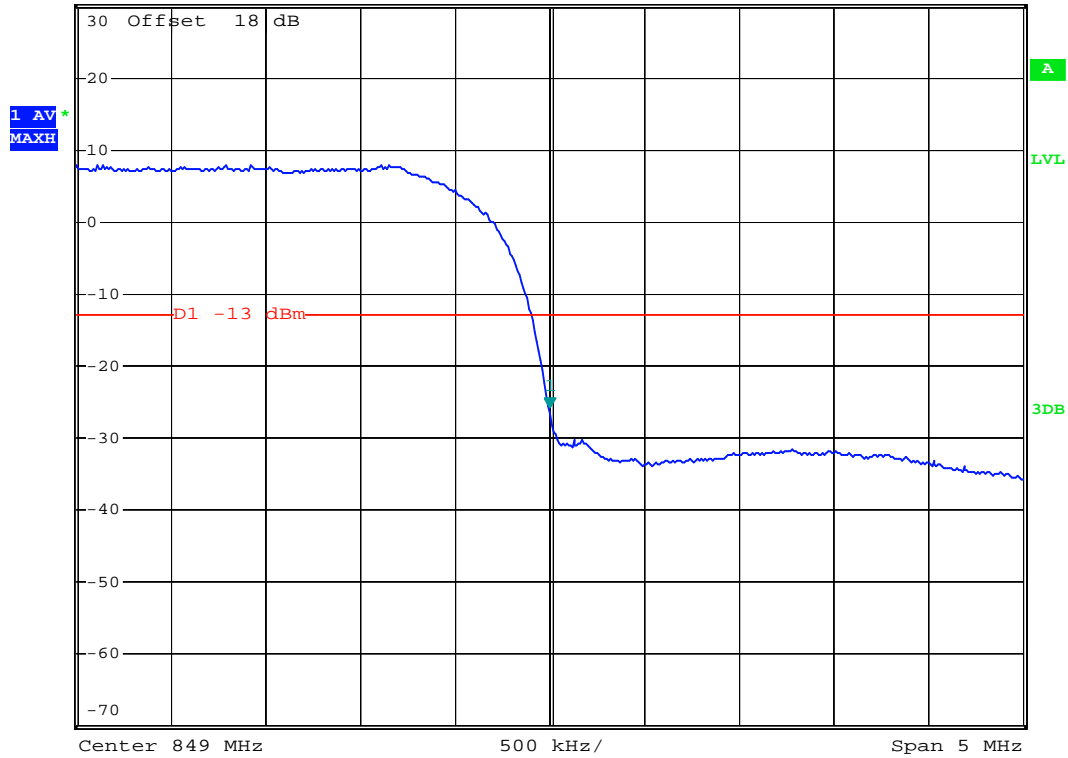
Date: 8.OCT.2007 12:02:22



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



Ref 30 dBm      \*Att 30 dB      \*RBW 100 kHz      Marker 1 [T1 ]  
\*VBW 100 kHz      -25.81 dBm  
\*SWT 300 ms      849.000000000 MHz



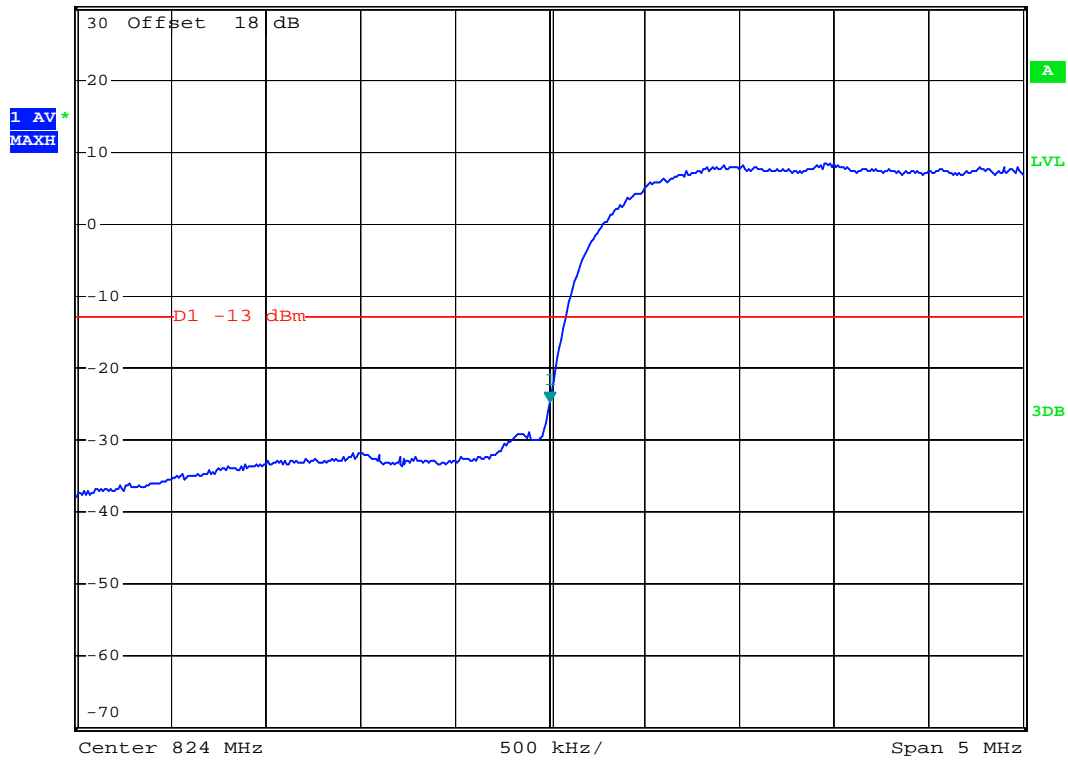
Date: 8.OCT.2007 12:18:56



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



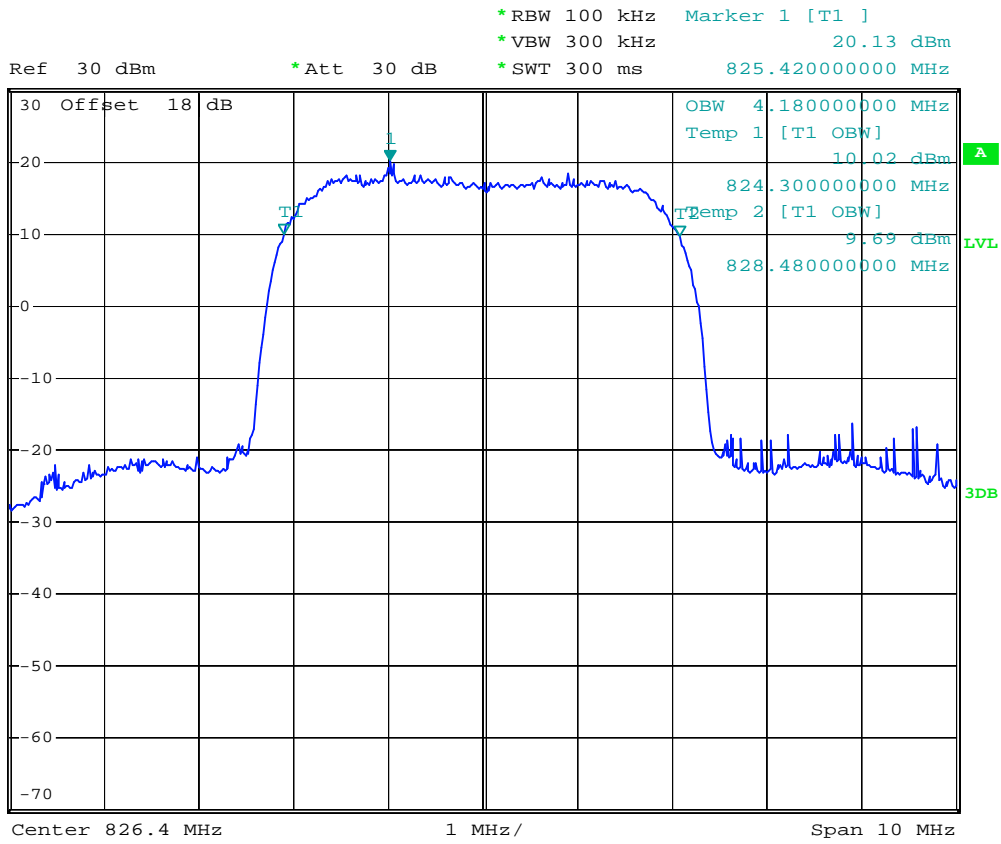
Ref 30 dBm      \*Att 30 dB      \*RBW 100 kHz      Marker 1 [T1 ]  
\*VBW 100 kHz      -24.62 dBm  
\*SWT 300 ms      824.000000000 MHz



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



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

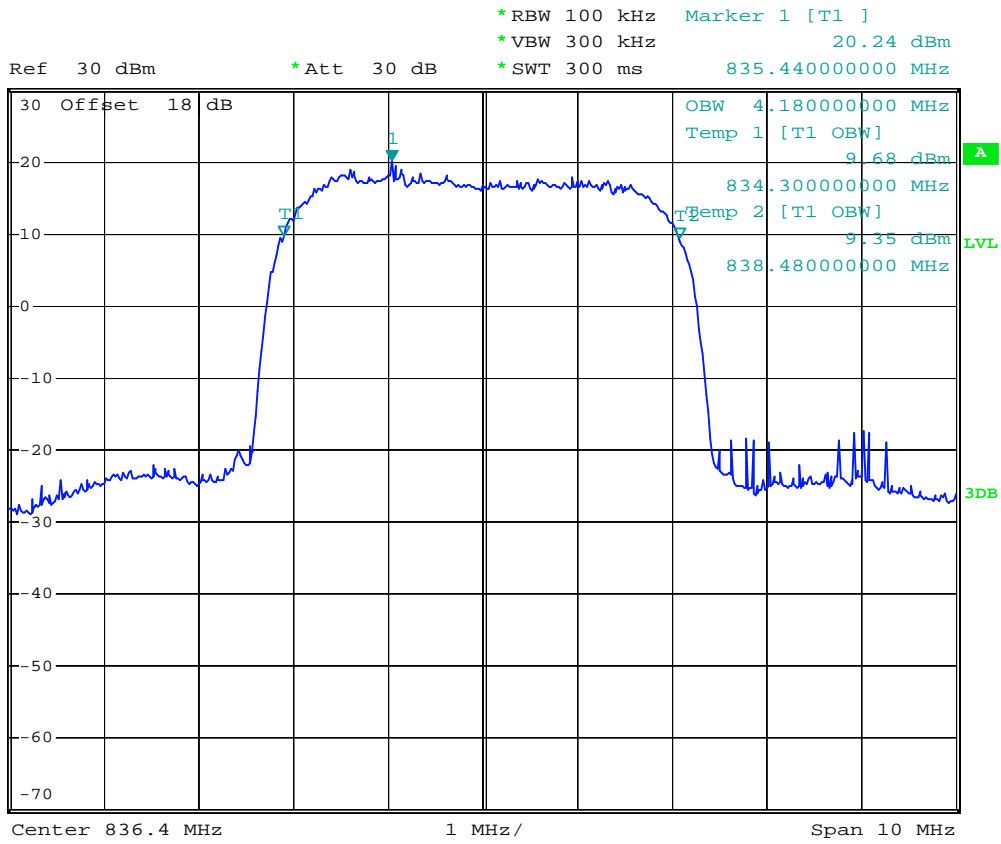


Date: 8.OCT.2007 11:53:26





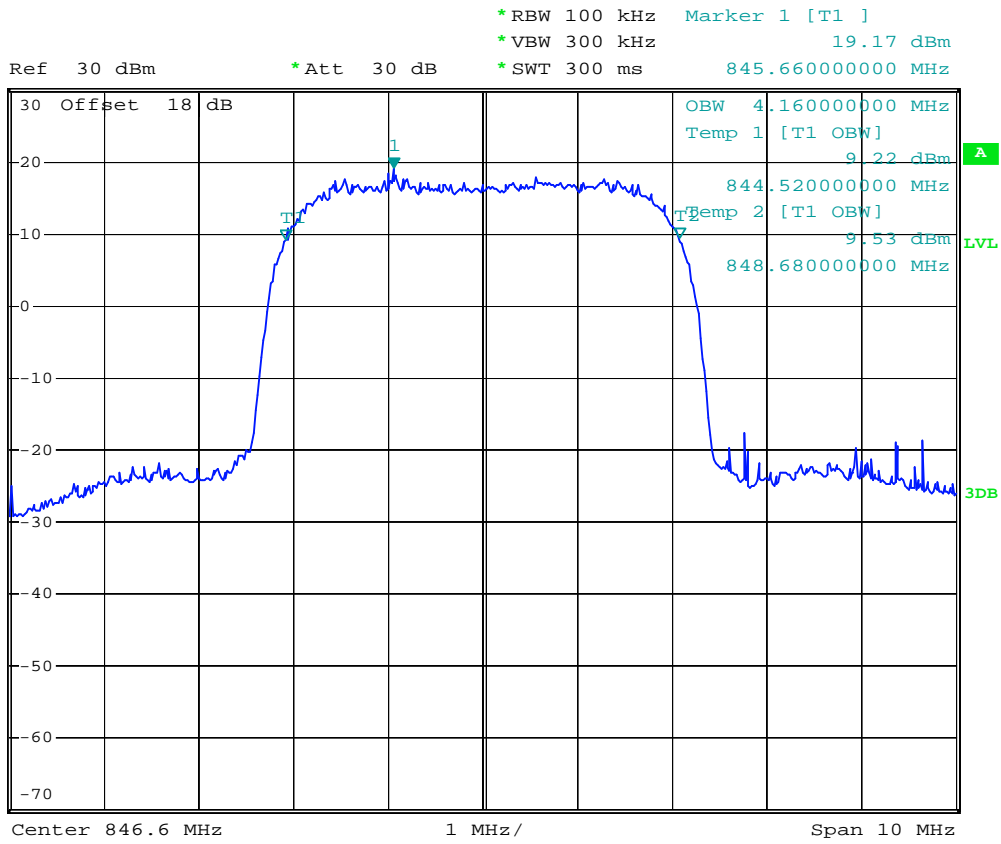
- Test Mode : WCDMA Band V (HSDPA) CH4182 99% Occupied Bandwidth
- Power State : High



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



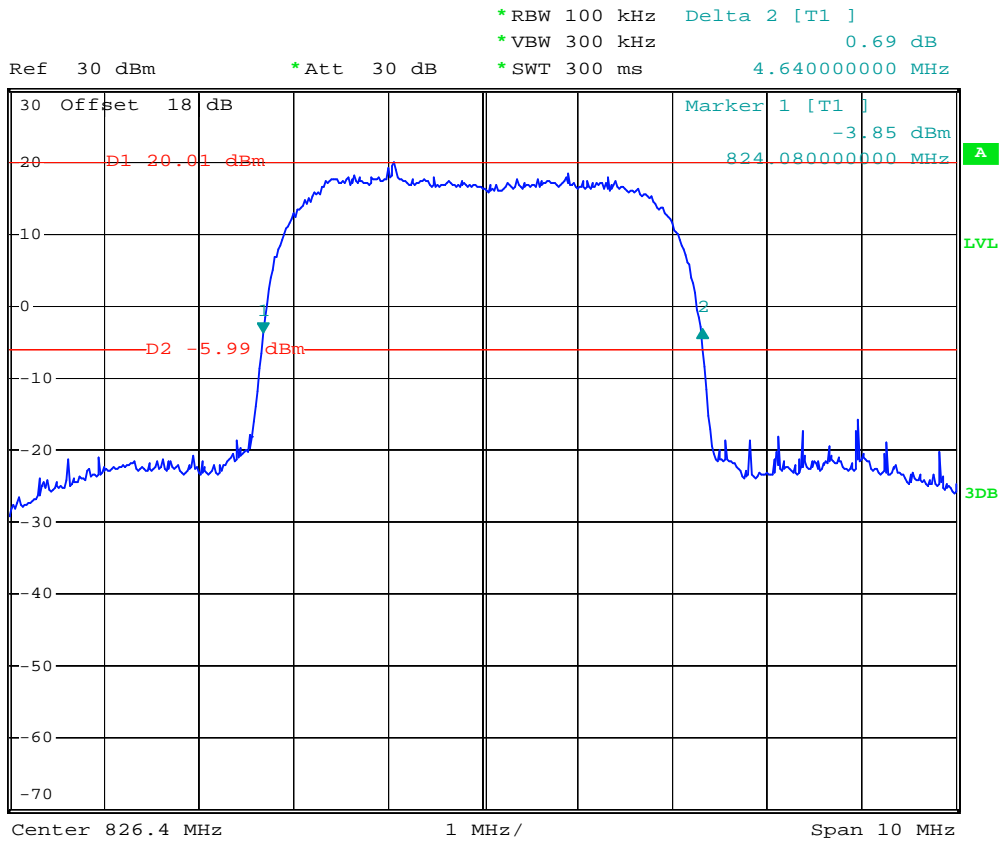
- Test Mode : WCDMA Band V (HSDPA) CH4233 99% Occupied Bandwidth
- Power State : High



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

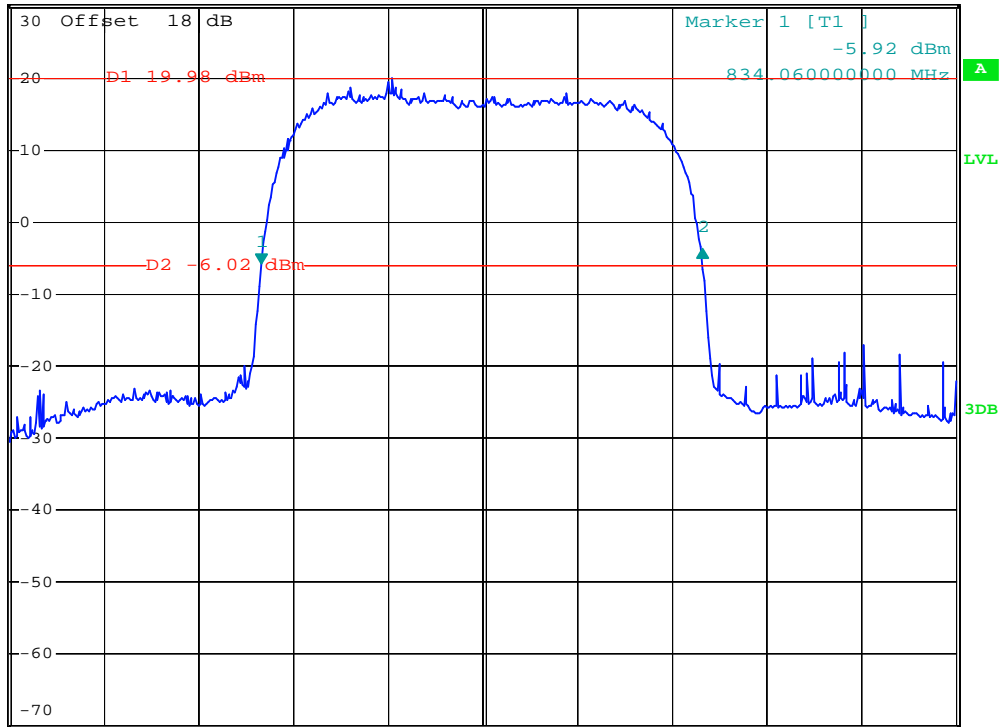


\*RBW 100 kHz    Delta 2 [T1 ]  
 \*VBW 300 kHz    2.15 dB  
 \*SWT 300 ms    4.660000000 MHz

Ref 30 dBm

\*Att 30 dB

1 PK  
VIEW



Center 836.4 MHz

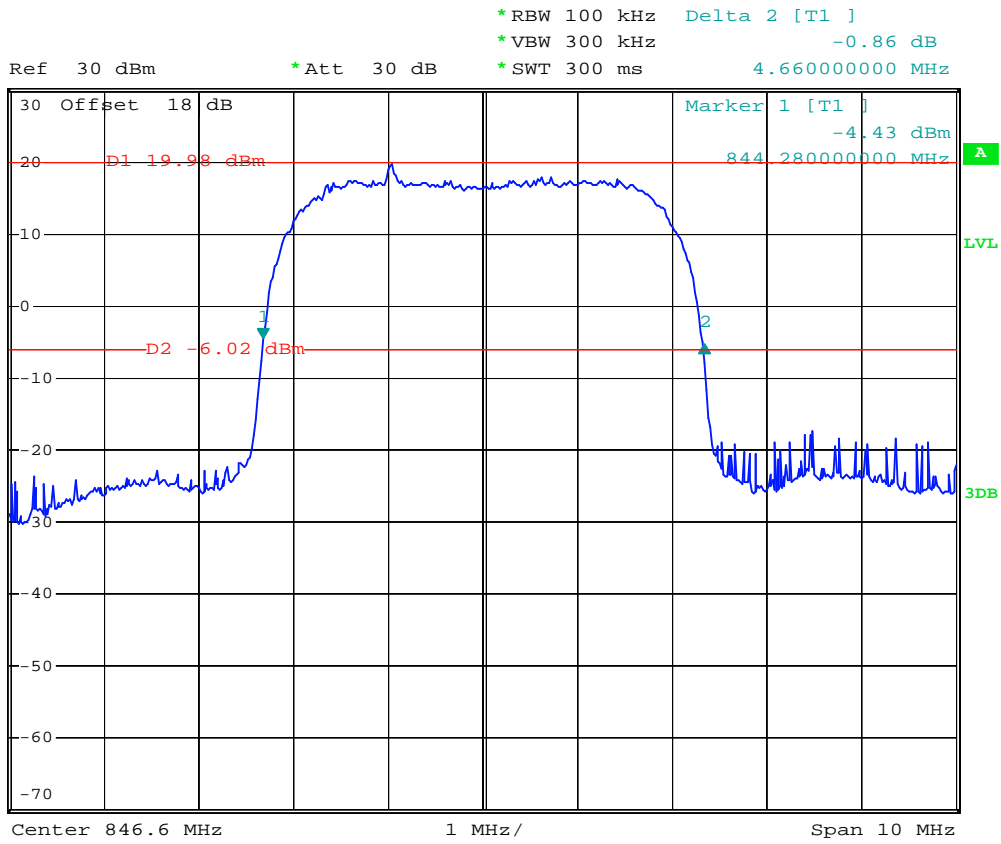
1 MHz/

Span 10 MHz

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



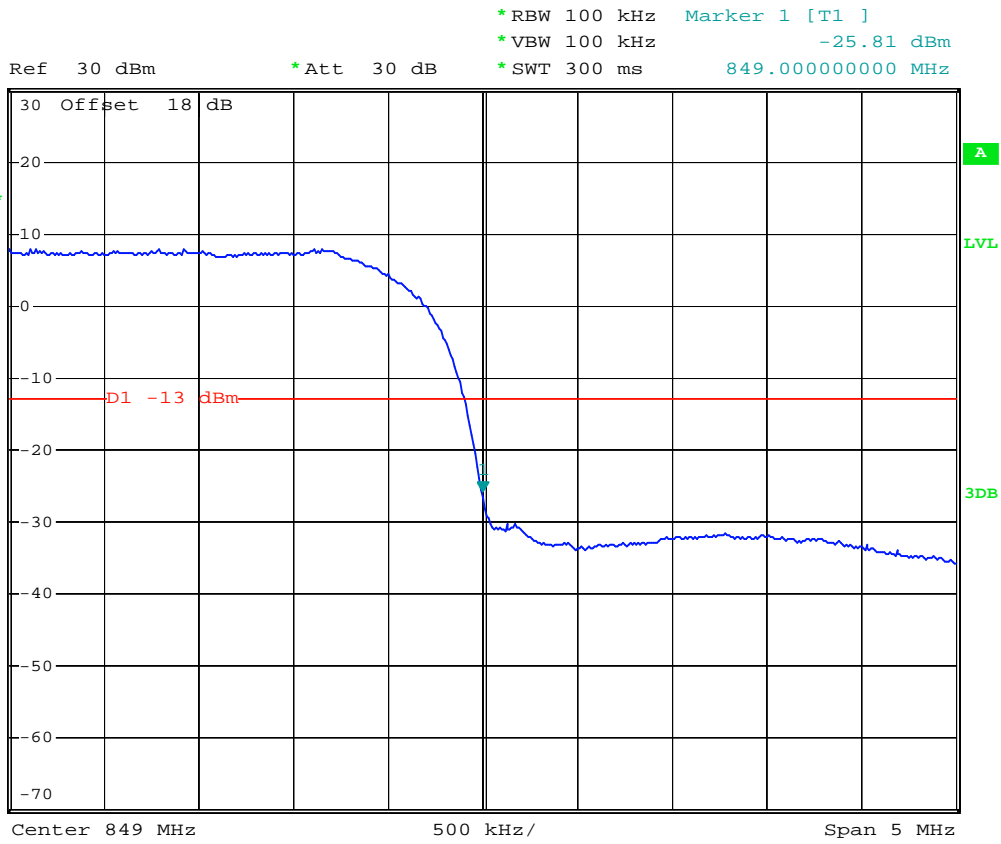
- Test Mode : WCDMA Band V (HSDPA) CH4233 26dB Bandwidth
- Power State : High



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

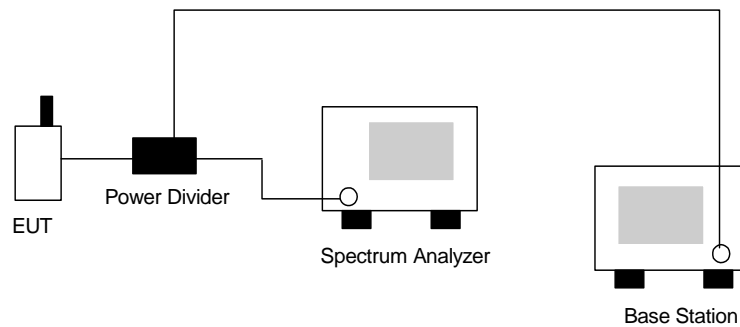
### 4.5.1 Measurement Instruments

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.

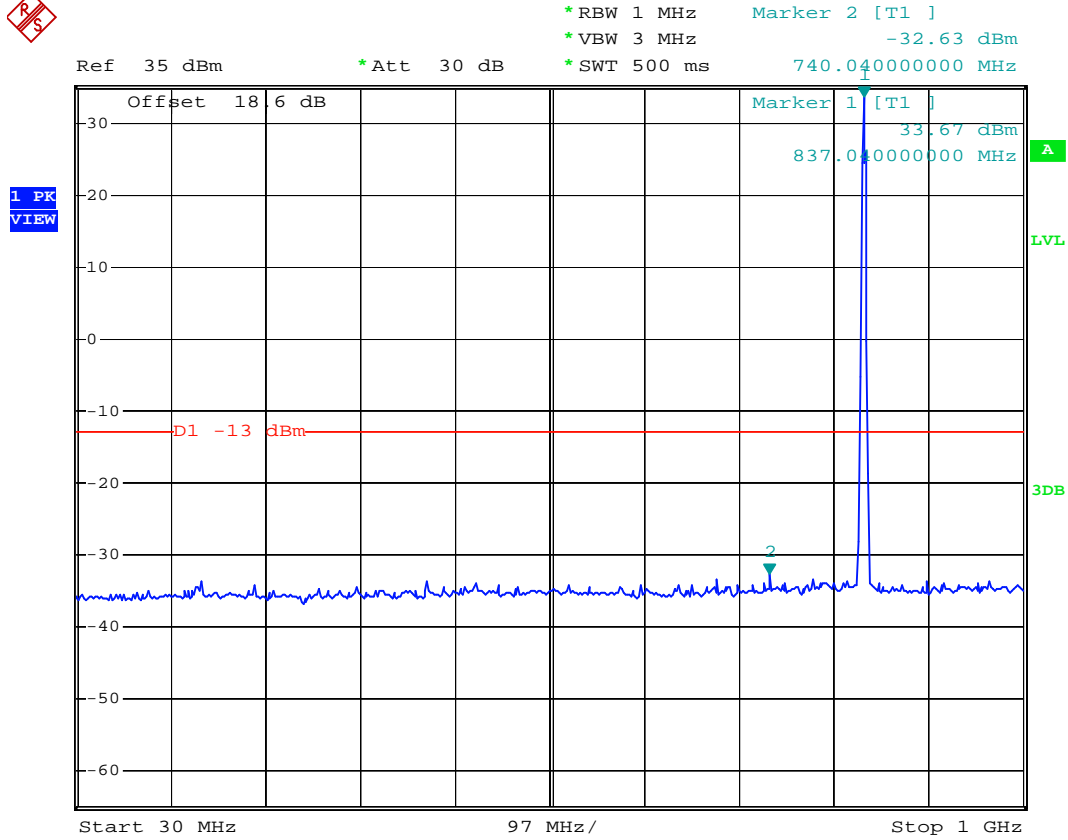
### 4.5.3 Test Setup Layout





4.5.4 Test Result

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



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

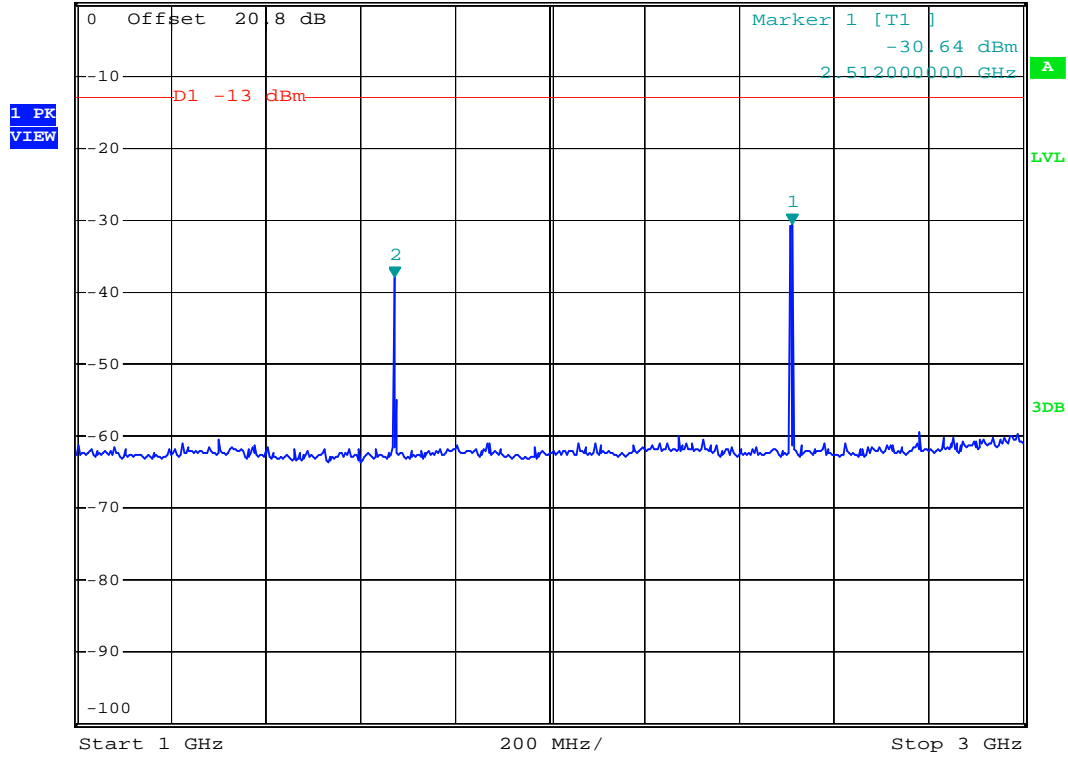




- Test Mode : GSM850 (GSM) CH189
- Frequency Range : 1G-3G



Ref 0 dBm      \*Att 0 dB      \*RBW 1 MHz      Marker 2 [T1 ]  
 \*VBW 3 MHz      -38.05 dBm  
 \*SWT 500 ms      1.672000000 GHz



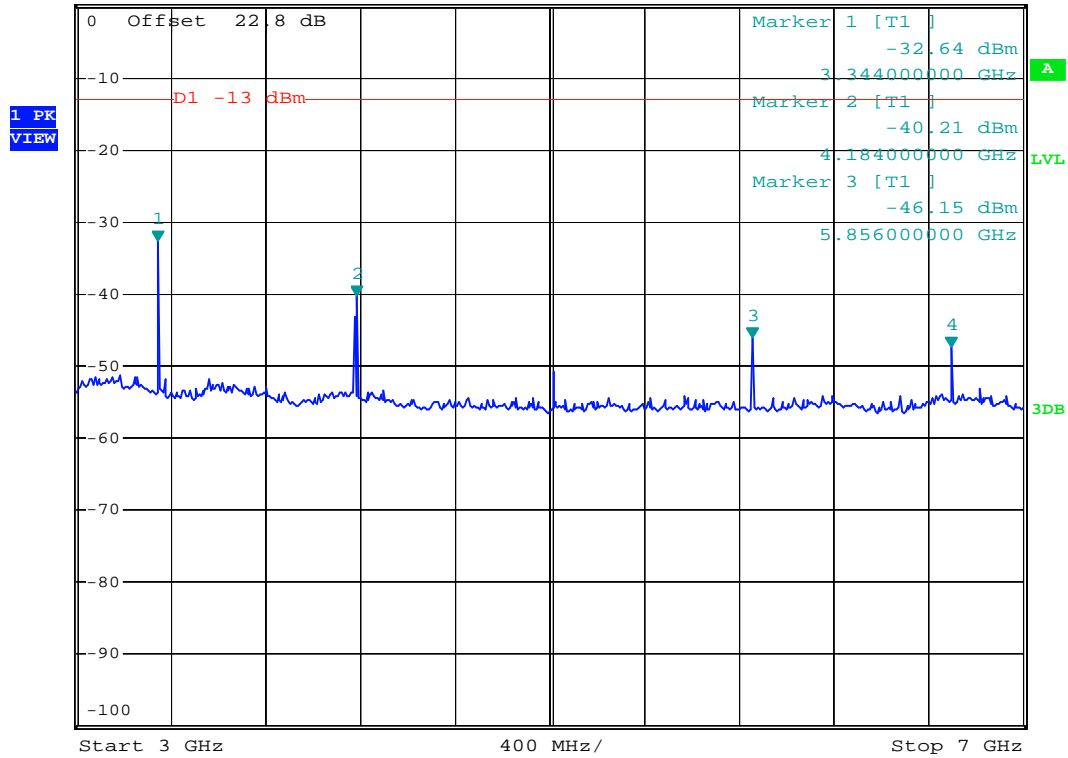
Date: 1.OCT.2007 07:51:20



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



Ref 0 dBm      \*Att 0 dB      \*RBW 1 MHz      Marker 4 [T1 ]  
 \*VBW 3 MHz      -47.25 dBm  
 \*SWT 500 ms      6.696000000 GHz



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



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

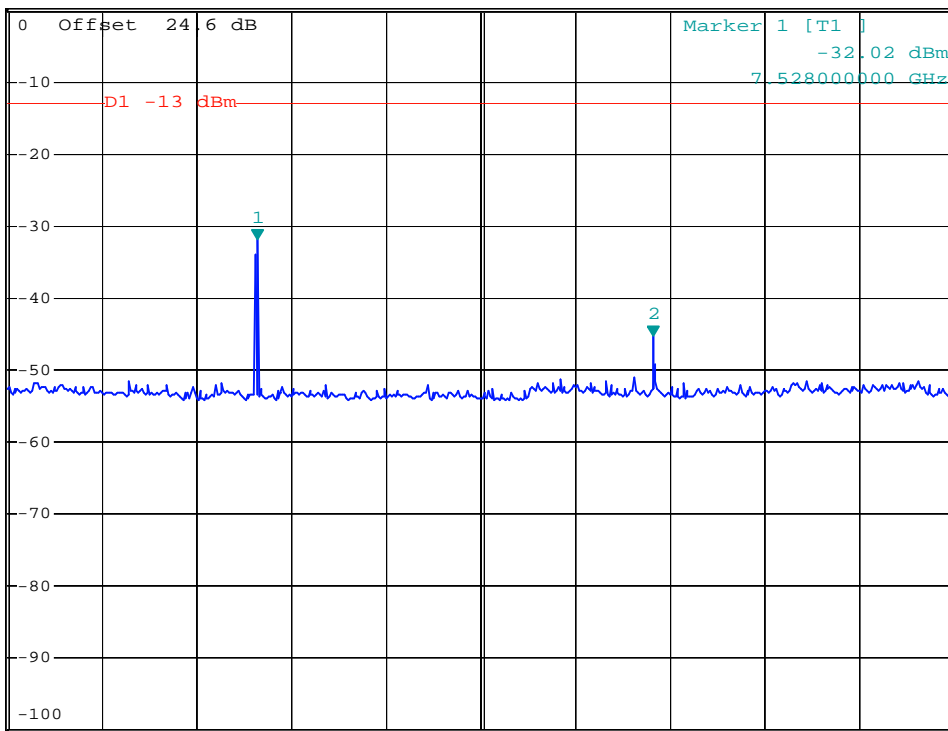


\*RBW 1 MHz     Marker 2 [T1 ]  
 \*VBW 3 MHz     -45.31 dBm  
 \*SWT 500 ms     8.364000000 GHz

Ref 0 dBm

\*Att 0 dB

1 PK  
VIEW



Start 7 GHz

200 MHz/

Stop 9 GHz

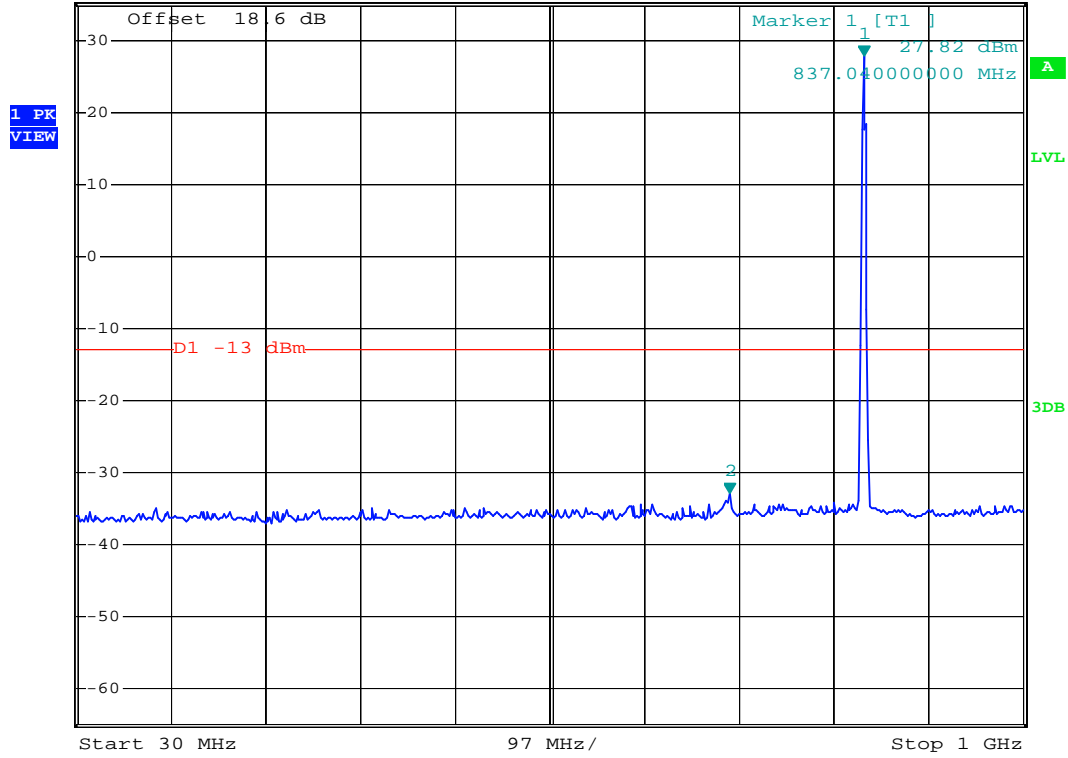
Date: 1.OCT.2007 07:59:51



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



Ref 35 dBm      \*Att 30 dB      \*RBW 1 MHz      Marker 2 [T1 ]  
 \*VBW 3 MHz      -32.79 dBm  
 \*SWT 500 ms      699.300000000 MHz



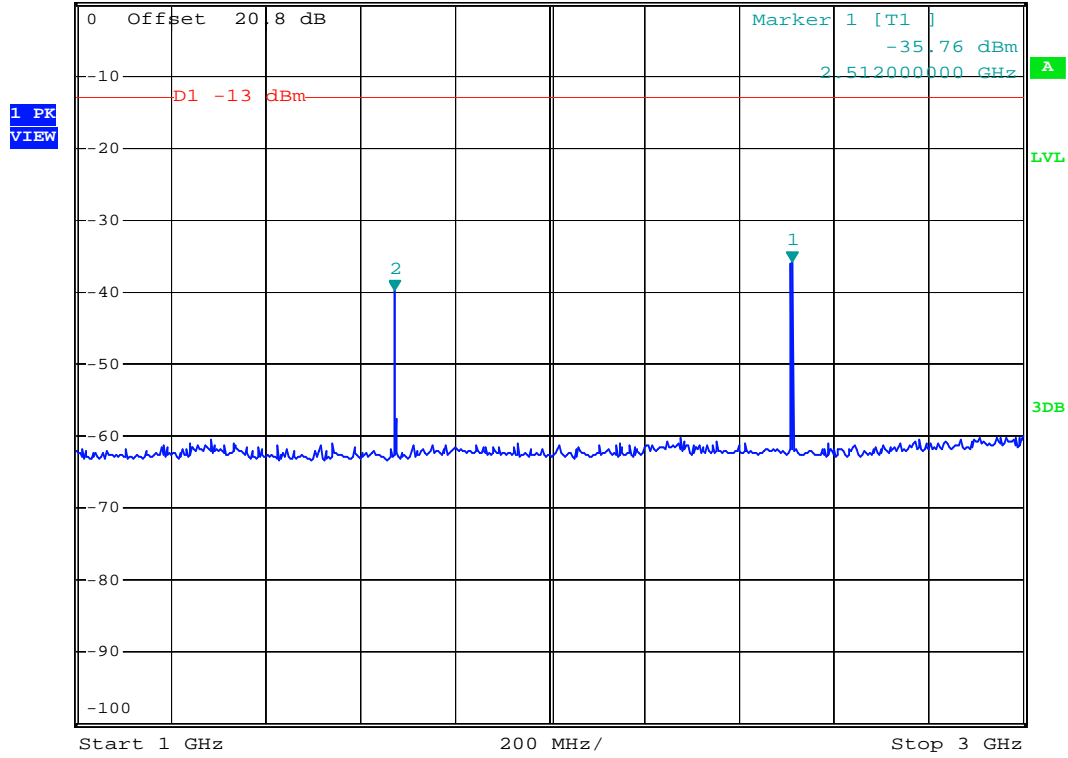
Date: 30.NOV.2007 11:15:25



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



Ref 0 dBm      \*Att 0 dB      \*RBW 1 MHz      Marker 2 [T1 ]  
 \*VBW 3 MHz      -39.69 dBm  
 \*SWT 500 ms      1.672000000 GHz



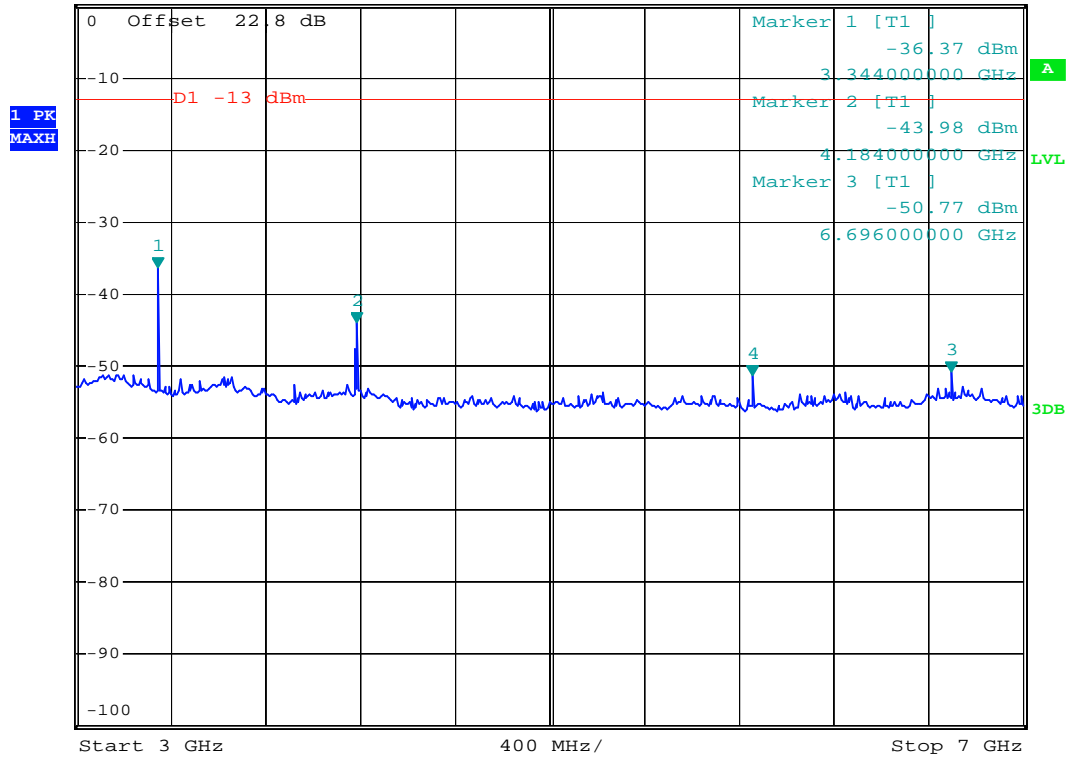
Date: 1.OCT.2007 07:52:06



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



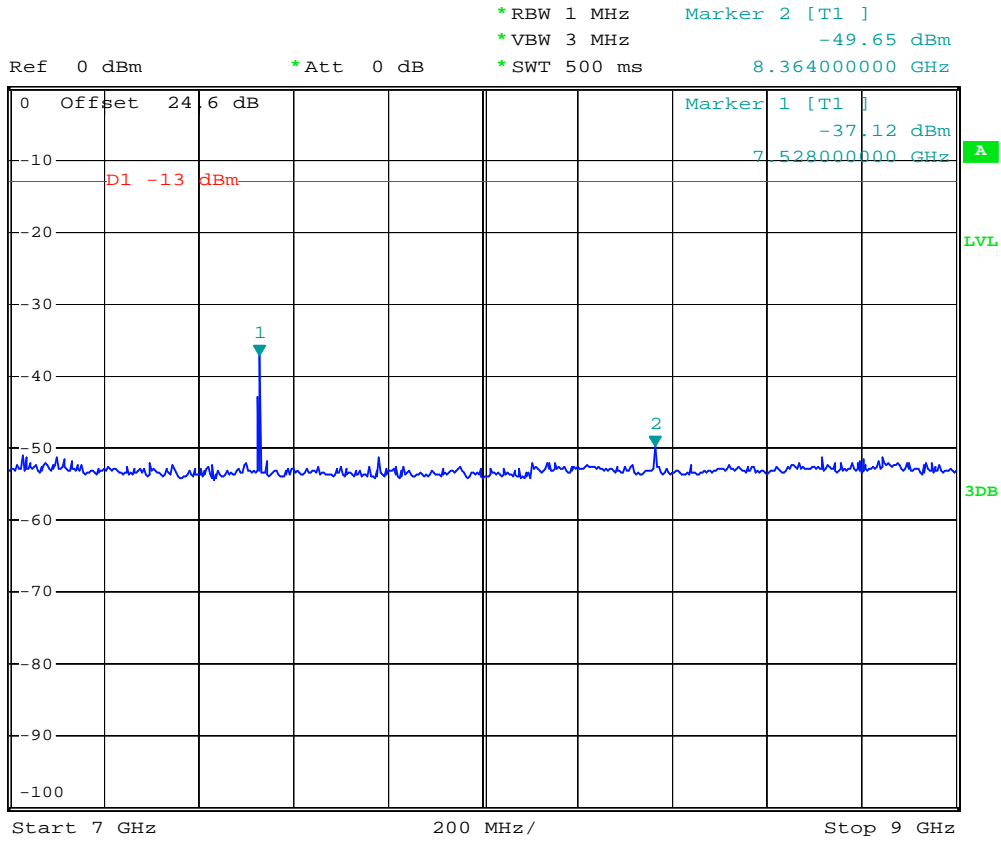
Ref 0 dBm      \*Att 0 dB      \*RBW 1 MHz      Marker 4 [T1 ]  
 \*VBW 3 MHz      -51.37 dBm  
 \*SWT 500 ms      5.856000000 GHz



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



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



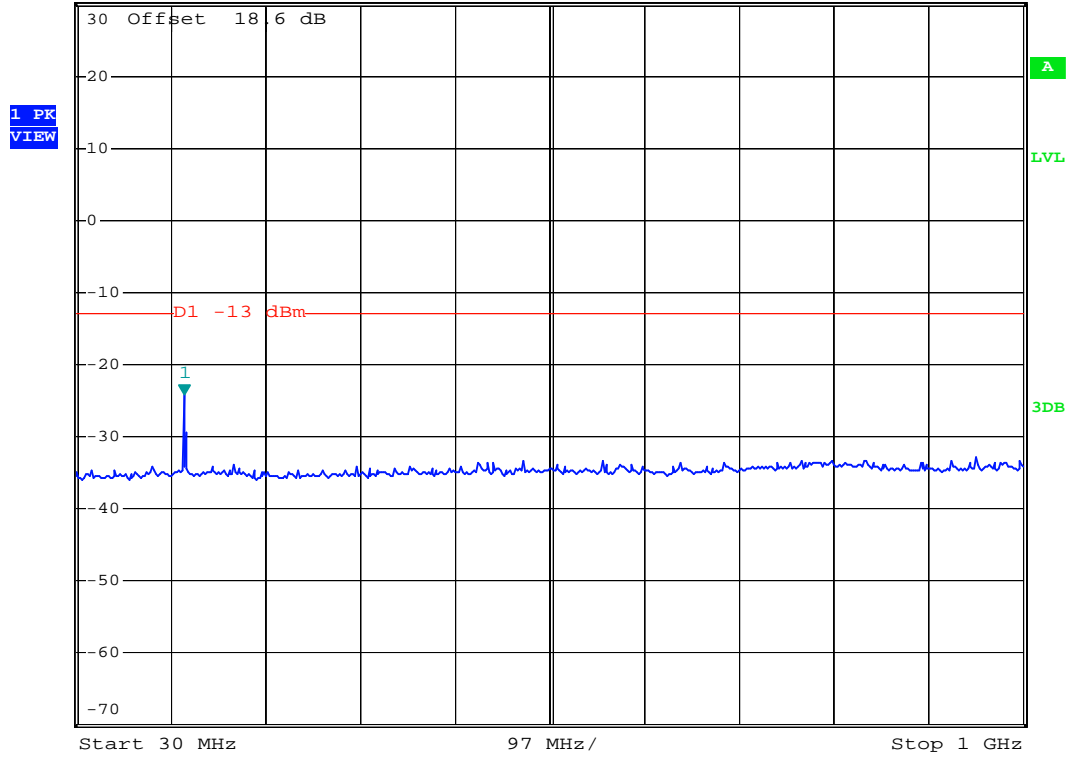
Date: 1.OCT.2007 08:00:37



- Mode 3
- Test Mode : PCS1900 (GSM) CH661
- Frequency Range : 30M-1G



Ref 30 dBm      \*Att 30 dB      \*RBW 1 MHz      Marker 1 [T1 ]  
\*VBW 3 MHz      -24.27 dBm  
\*SWT 500 ms      140.58000000 MHz



Date: 1.OCT.2007 07:42:22

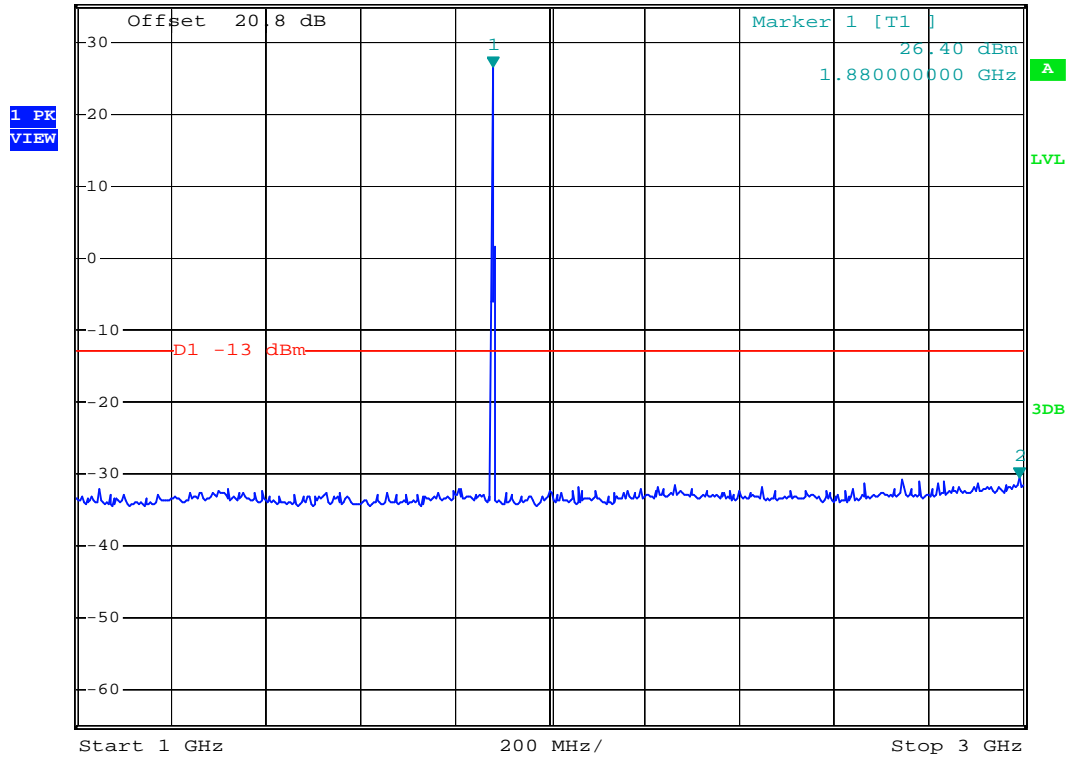




- Test Mode : PCS1900 (GSM) CH661
- Frequency Range : 1G-3G



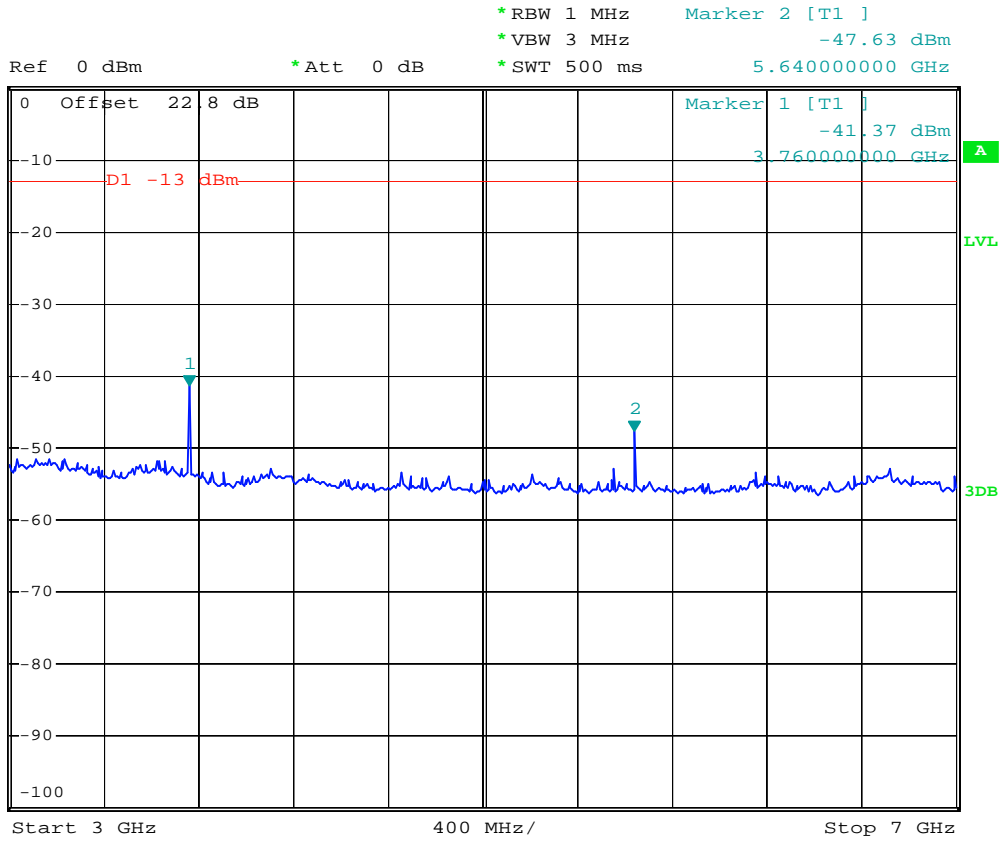
Ref 35 dBm      \*Att 30 dB      \*RBW 1 MHz      Marker 2 [T1 ]  
 \*VBW 3 MHz      -30.51 dBm  
 \*SWT 500 ms      2.992000000 GHz



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



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



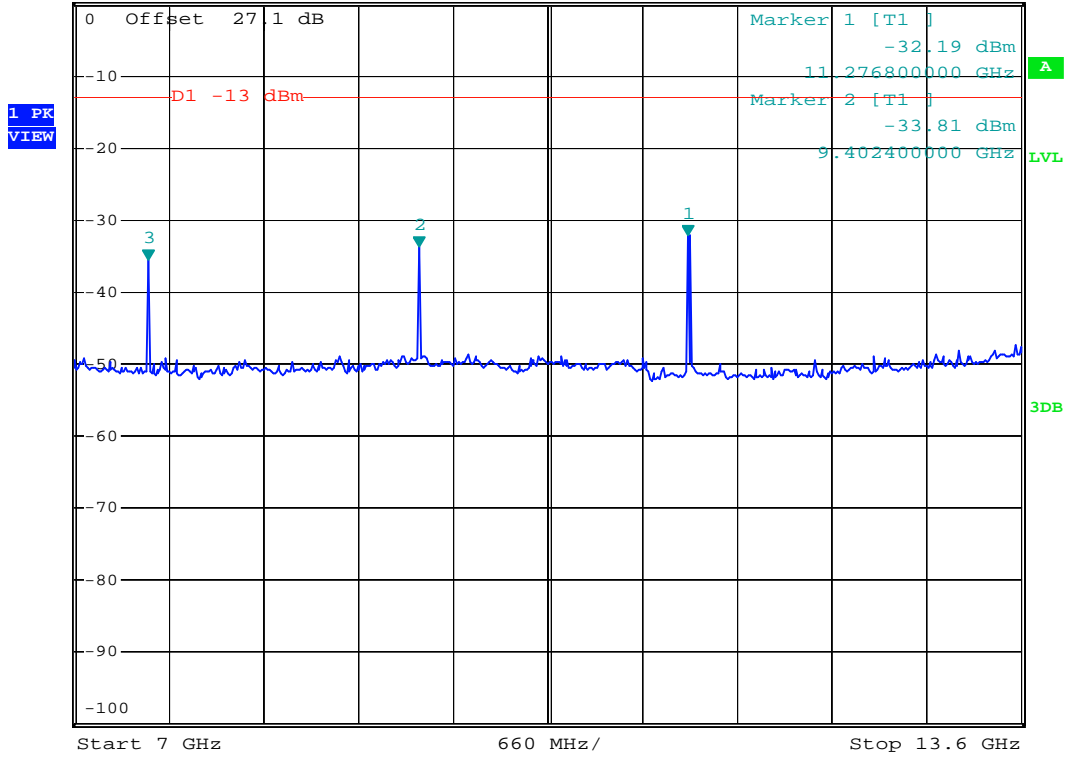
Date: 1.OCT.2007 07:56:30



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



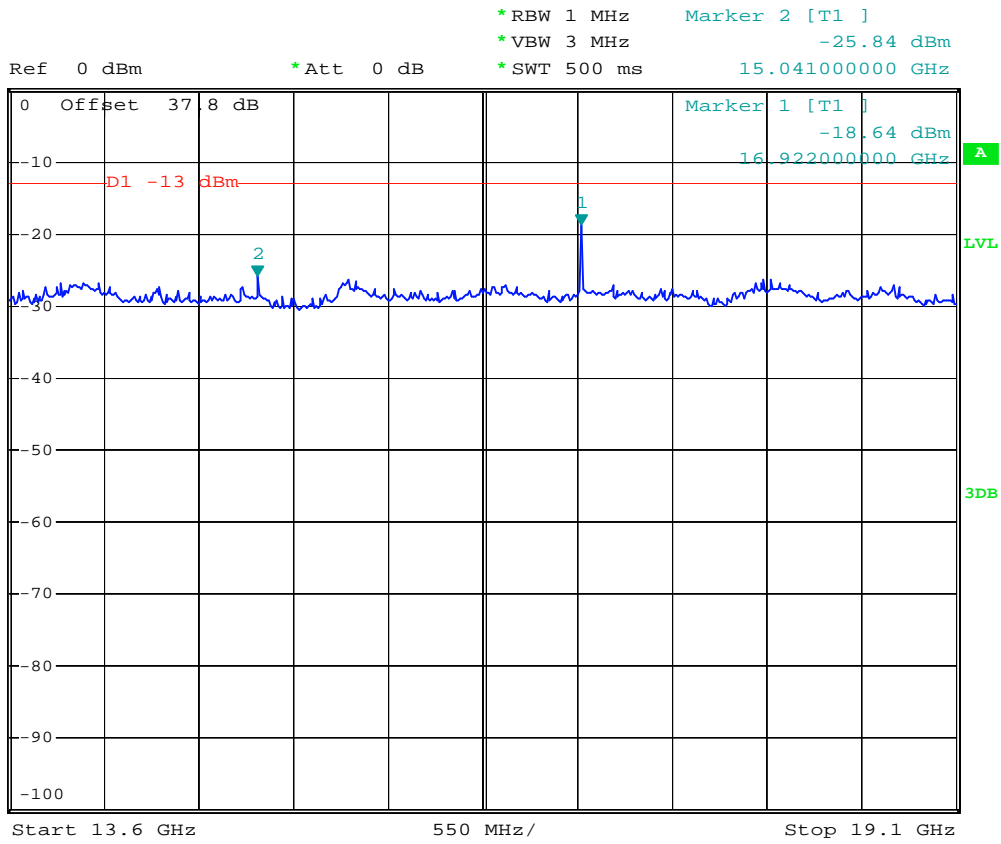
Ref 0 dBm      \*Att 0 dB      \*RBW 1 MHz      Marker 3 [T1 ]  
 \*VBW 3 MHz      -35.53 dBm  
 \*SWT 500 ms      7.514800000 GHz



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



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



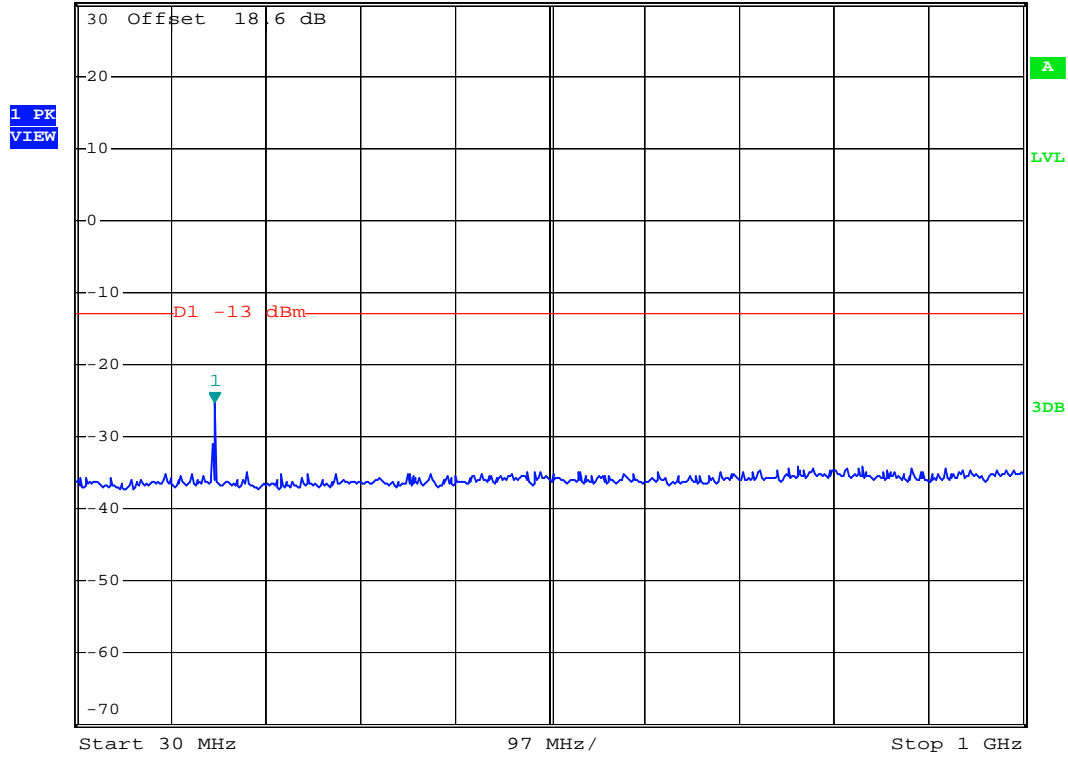
Date: 1.OCT.2007 08:07:25



- Mode 4
- Test Mode : PCS1900 (EDGE) CH661
- Frequency Range : 30M-1G



Ref 30 dBm      \*Att 30 dB      \*RBW 1 MHz      Marker 1 [T1 ]  
 \*VBW 3 MHz      -25.30 dBm  
 \*SWT 500 ms      171.62000000 MHz



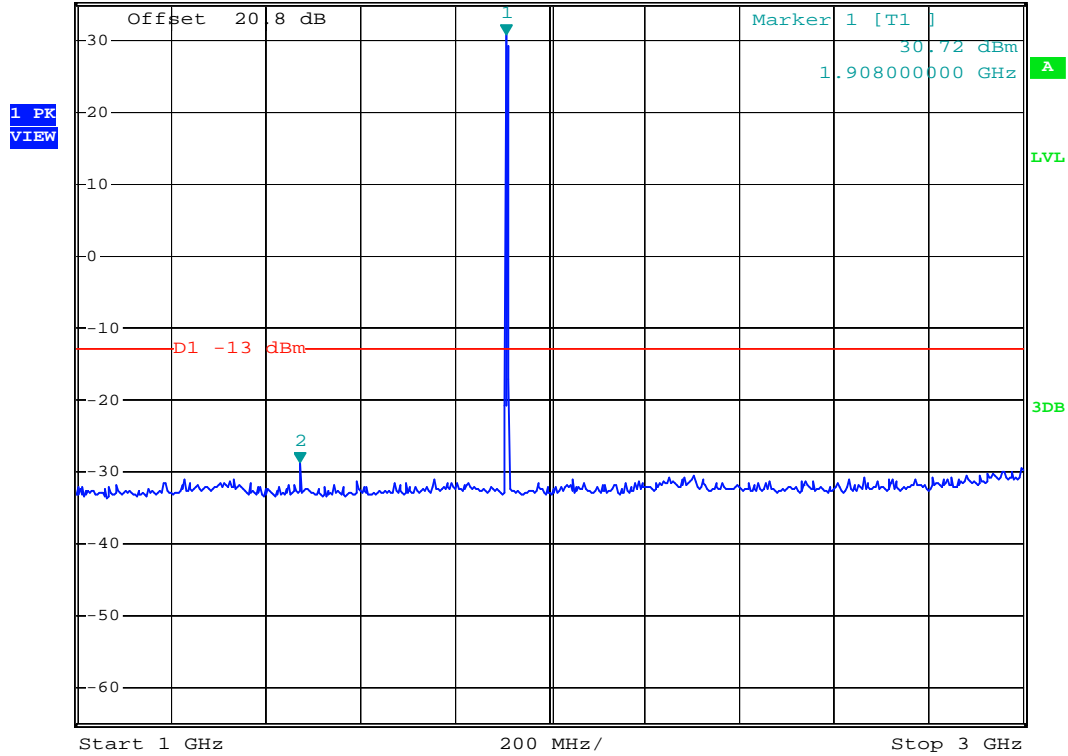
Date: 1.OCT.2007 07:43:02



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



Ref 35 dBm      \*Att 30 dB      \*RBW 1 MHz      Marker 2 [T1 ]  
 \*VBW 3 MHz      -28.78 dBm  
 \*SWT 500 ms      1.472000000 GHz



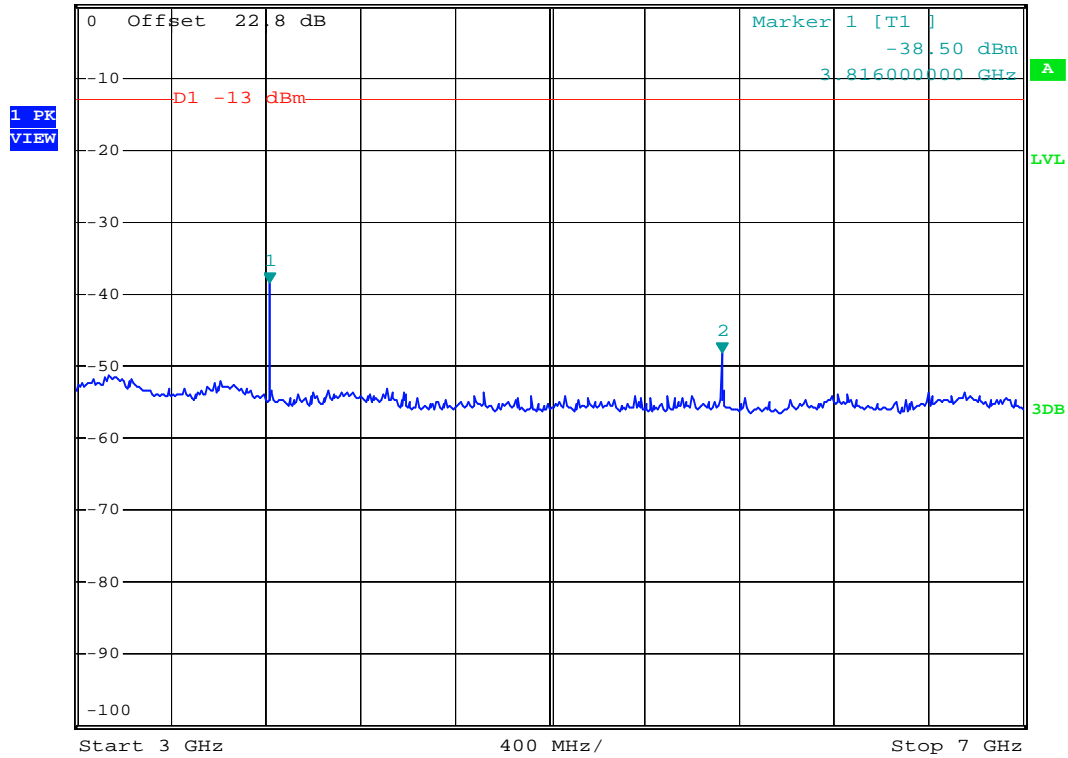
Date: 1.OCT.2007 07:49:04



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



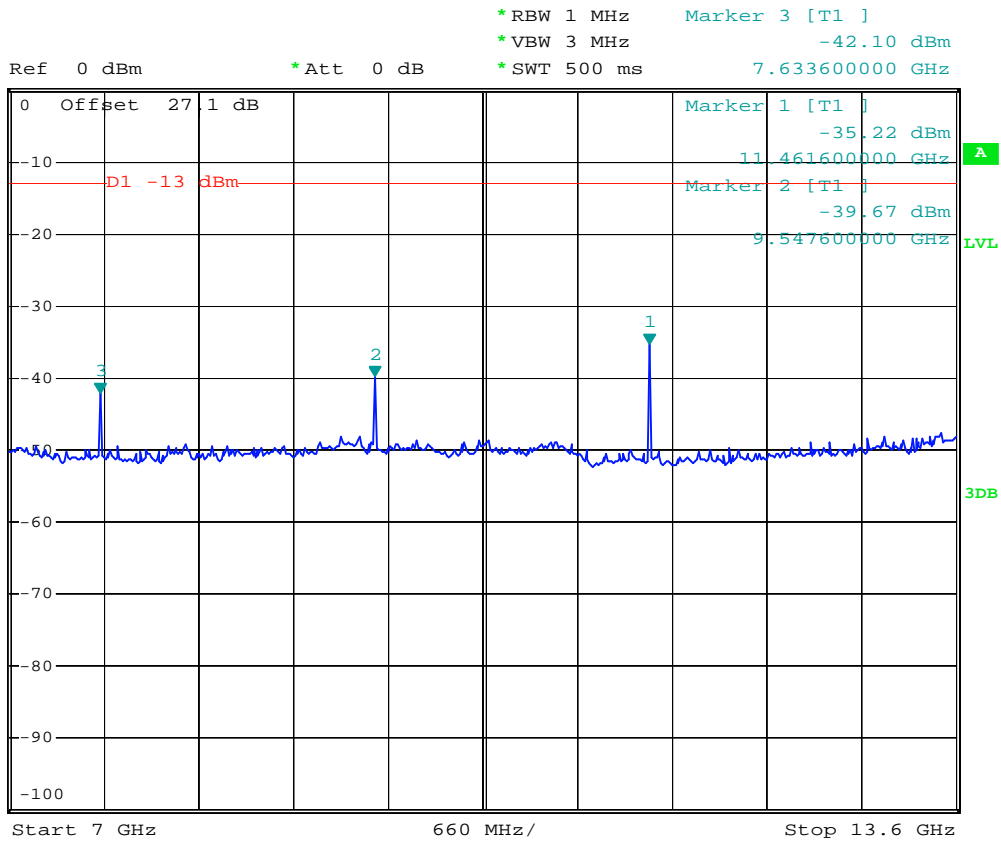
Ref 0 dBm      \*Att 0 dB      \*RBW 1 MHz      Marker 2 [T1 ]  
 \*VBW 3 MHz      -48.17 dBm  
 \*SWT 500 ms      5.728000000 GHz



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



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



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

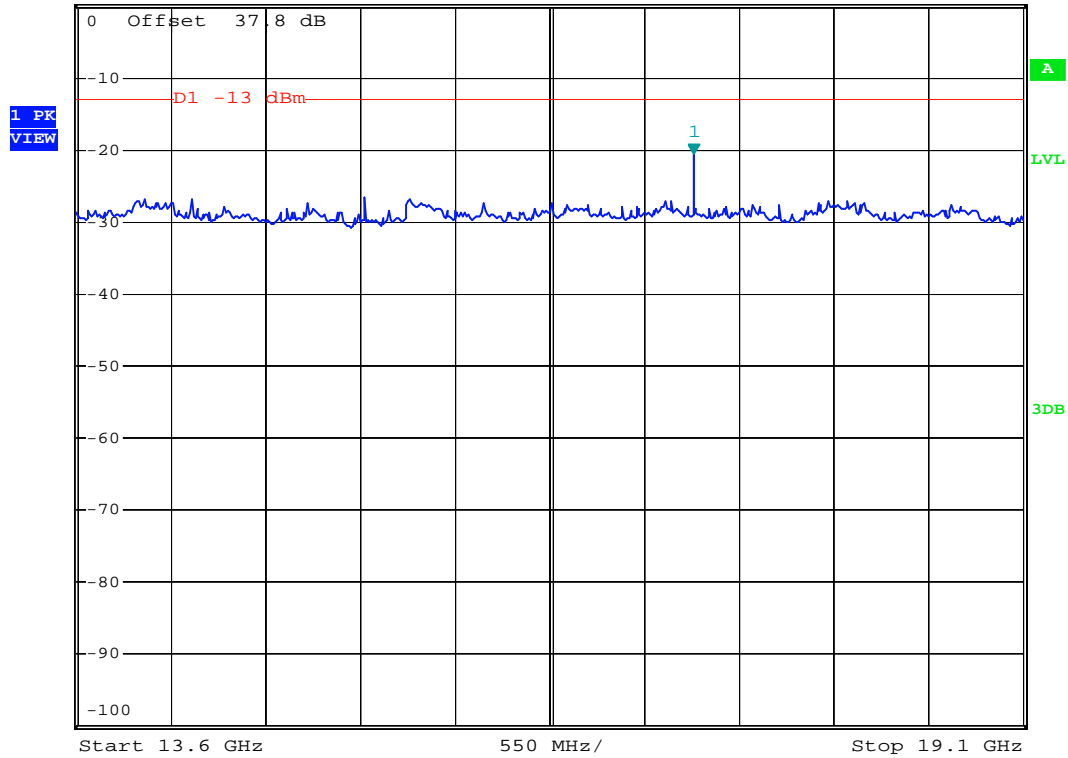




- Test Mode : PCS1900 (EDGE) CH661
- Frequency Range : 13.6G-19.1G



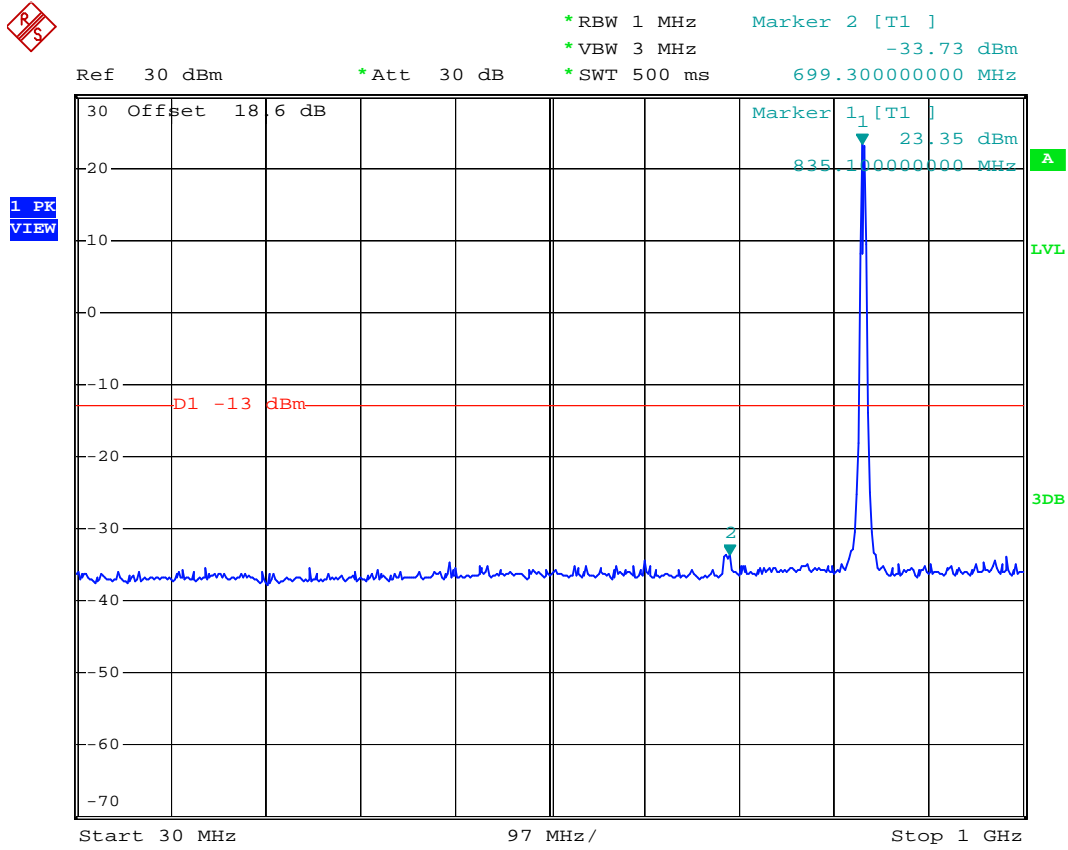
Ref 0 dBm      \*Att 0 dB      \*RBW 1 MHz      Marker 1 [T1 ]  
\*VBW 3 MHz      -20.60 dBm  
\*SWT 500 ms      17.186000000 GHz



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

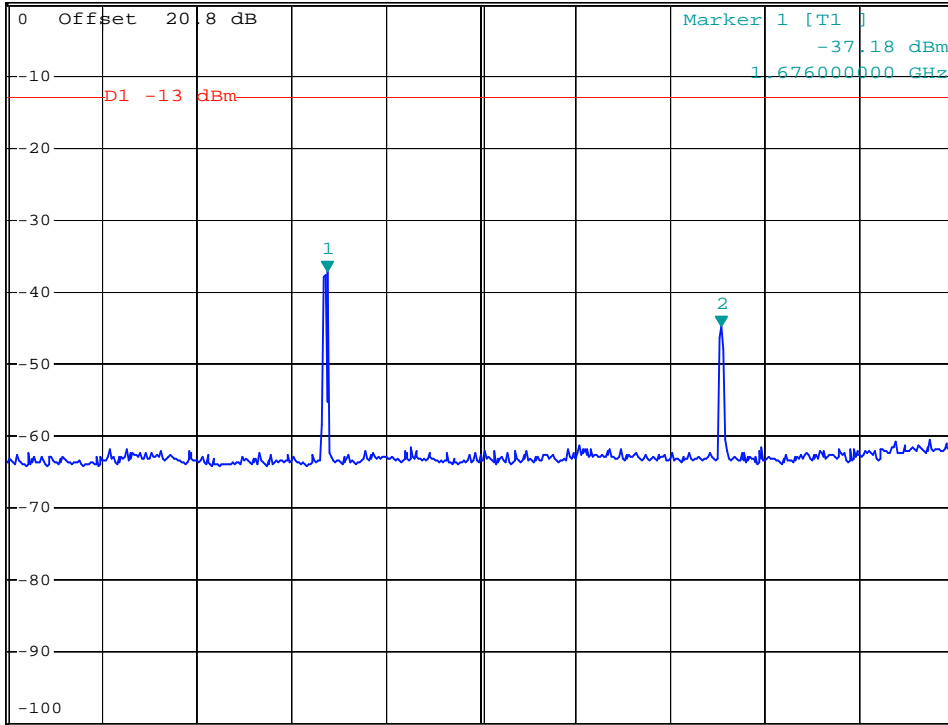


\*RBW 1 MHz      Marker 2 [T1 ]  
 \*VBW 3 MHz      -44.82 dBm  
 \*SWT 500 ms      2.508000000 GHz

Ref 0 dBm

\*Att 0 dB

1 PK VIEW



Start 1 GHz      200 MHz/      Stop 3 GHz

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



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

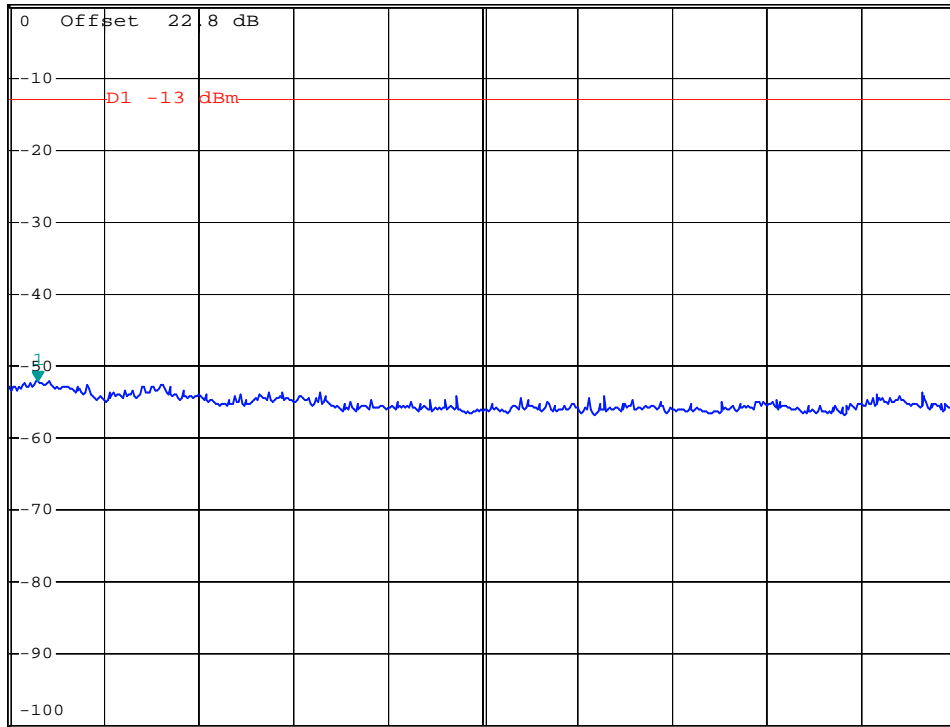


\*RBW 1 MHz      Marker 1 [T1 ]  
 \*VBW 3 MHz      -52.00 dBm  
 \*SWT 500 ms      3.120000000 GHz

Ref 0 dBm

\*Att 0 dB

1 PK  
MAXH



Start 3 GHz

400 MHz/

Stop 7 GHz

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



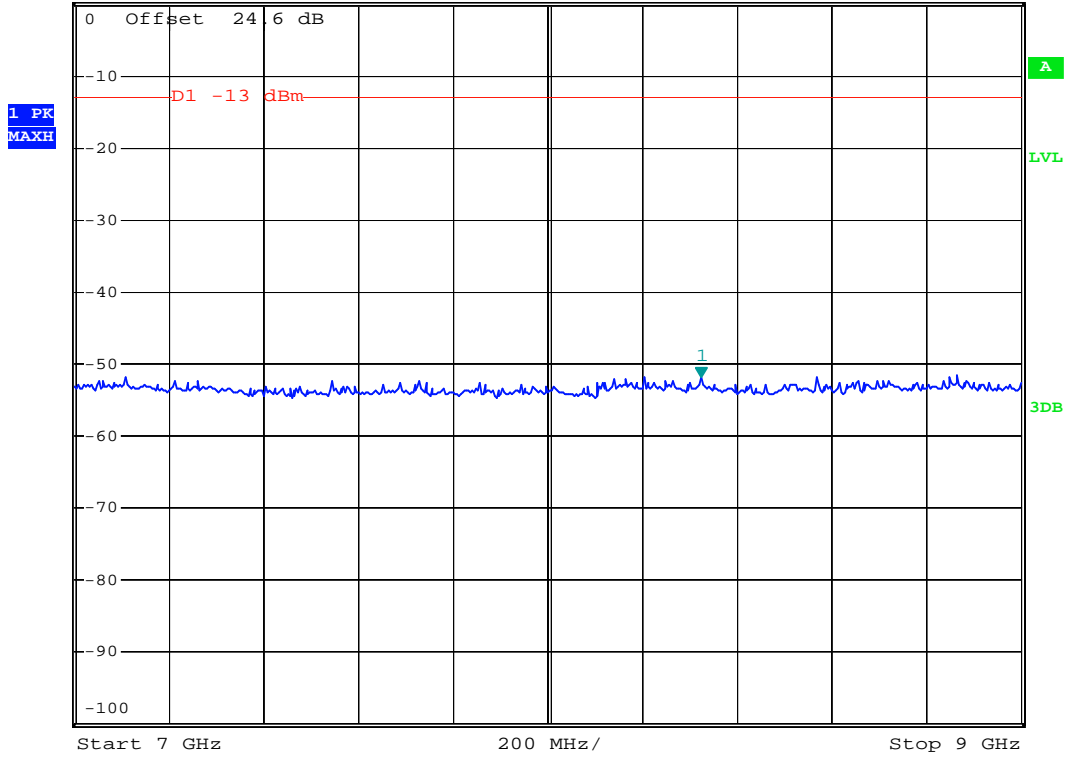
- Test Mode : WCDMA Band V CH4182
- Frequency Range : 7G-9G



\*RBW 1 MHz      Marker 1 [T1 ]  
 \*VBW 3 MHz      -51.78 dBm  
 \*SWT 500 ms      8.324000000 GHz

Ref 0 dBm

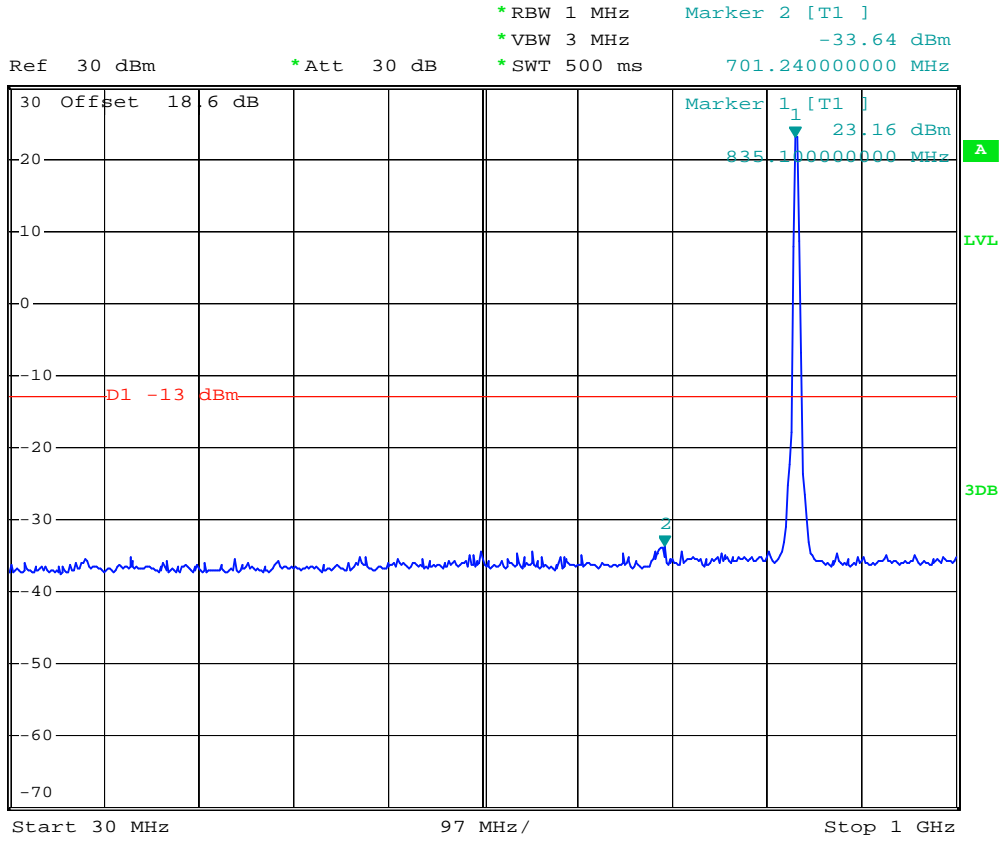
\*Att 0 dB



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



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



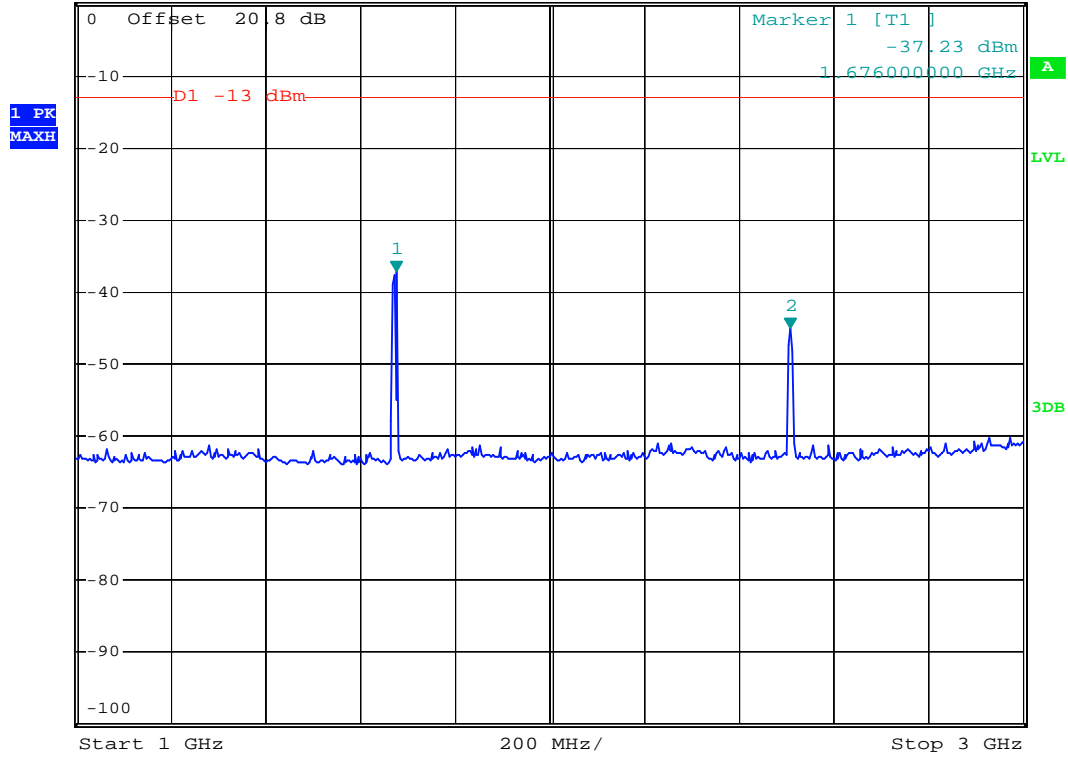
Date: 8.OCT.2007 16:19:21



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



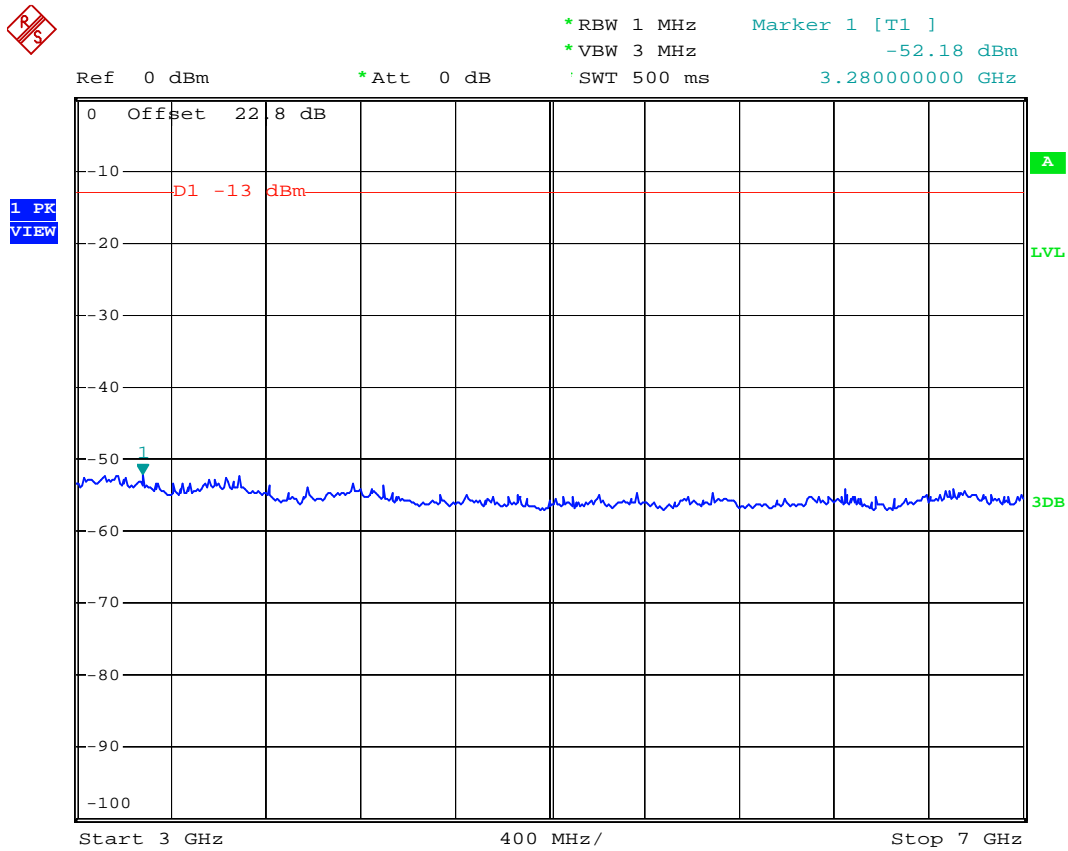
Ref 0 dBm      \*Att 0 dB      \*RBW 1 MHz      Marker 2 [T1 ]  
 \*VBW 3 MHz      -45.01 dBm  
 \*SWT 500 ms      2.508000000 GHz



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



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

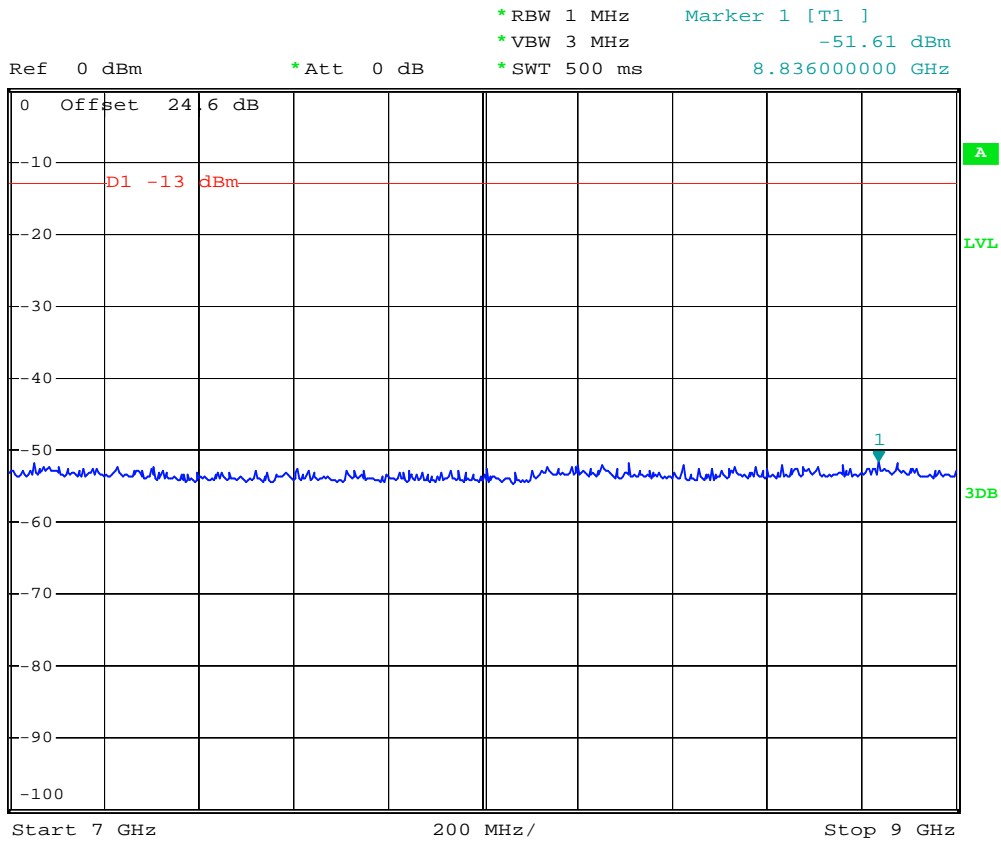


Date: 8.OCT.2007 16:22:19





- 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.

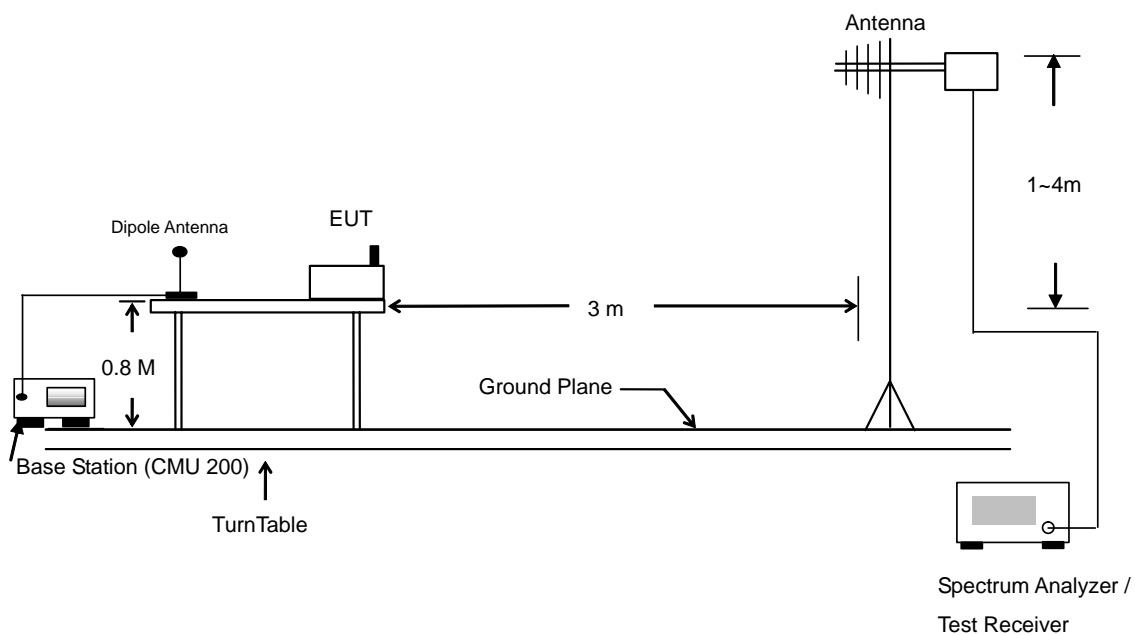
### 4.6.1 Measurement Instruments

As described in chapter 5 of this test report.

### 4.6.2 Test Procedure

- a. The EUT was placed on a rotatable wooden table with 0.8 meter about ground.
- b. The EUT was set 3 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 spurious emission.
- d. 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.
- e. Taking the record of maximum spurious emission.
- f. A Horn antenna was substituted in place of the EUT and was driven by a signal generator.
- g. Tune the output power of signal generator to the same emission level with EUT maximum spurious emission.
- h. Taking the record of output power at antenna port.
- i. Repeat step 7 to step 8 for another polarization.
- j. 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 (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (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 (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (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 (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (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

<b>(GSM+BT) Radiated Spurious ERP</b>							
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



Test Mode : Mode 8

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)
30.000	-46.740	-13	-33.74	30.000	-51.980	-13	-38.98
44.580	-44.680	-13	-31.68	57.540	-45.240	-13	-32.24
121.530	-55.840	-13	-42.84	120.180	-57.410	-13	-44.41
764.800	-68.240	-13	-55.24	757.100	-66.680	-13	-53.68
1672.000	-40.940	-13	-27.94	1672.000	-42.870	-13	-29.87
2506.000	-34.070	-13	-21.07	2506.000	-40.070	-13	-27.07
3346.000	-39.920	-13	-26.92	3346.000	-41.720	-13	-28.72
4185.000	-38.970	-13	-25.97	4185.000	-39.650	-13	-26.65
5020.000	-41.410	-13	-28.41	5020.000	-41.120	-13	-28.12
7520.000	-40.700	-13	-27.70	7520.000	-37.610	-13	-24.61
8360.000	-28.490	-13	-15.49	8360.000	-26.250	-13	-13.25



• Test Mode : Mode 9

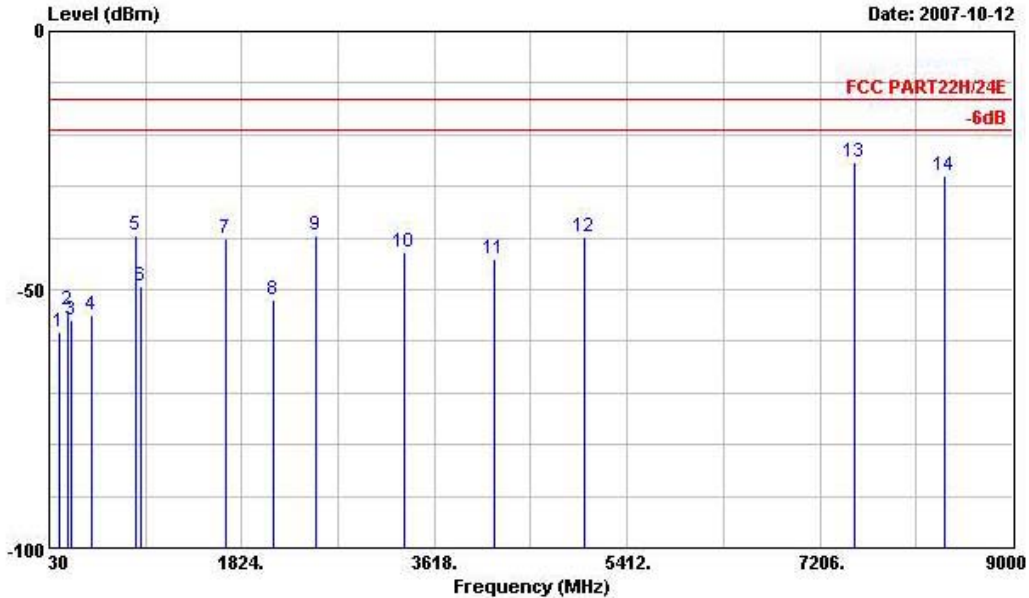
PCS1900 (GSM) Radiated Spurious EIRP							
H Polarization				V Polarization			
Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)
30.000	-46.040	-13	-33.04	33.780	-50.660	-13	-37.66
44.580	-51.300	-13	-38.30	58.080	-42.110	-13	-29.11
121.530	-54.200	-13	-41.20	121.530	-55.130	-13	-42.13
759.900	-65.950	-13	-52.95	705.300	-64.320	-13	-51.32
868.400	-65.430	-13	-52.43	829.900	-62.970	-13	-49.97
978.300	-64.450	-13	-51.45	959.400	-62.290	-13	-49.29
3756.000	-40.270	-13	-27.27	3756.000	-39.770	-13	-26.77
5636.000	-40.090	-13	-27.09	5636.000	-40.260	-13	-27.26
9396.000	-28.770	-13	-15.77	7516.000	-39.790	-13	-26.79
11276.000	-17.860	-13	-4.86	9396.000	-27.440	-13	-14.44
13156.000	-34.590	-13	-21.59	11276.000	-19.600	-13	-6.60
15036.000	-31.480	-13	-18.48	13156.000	-36.080	-13	-23.08
16917.000	-29.380	-13	-16.38	15036.000	-30.480	-13	-17.48
				16917.000	-27.340	-13	-14.34



4.6.5 Test Data

4.6.5.1 Mode 1

Horizontal Polarization



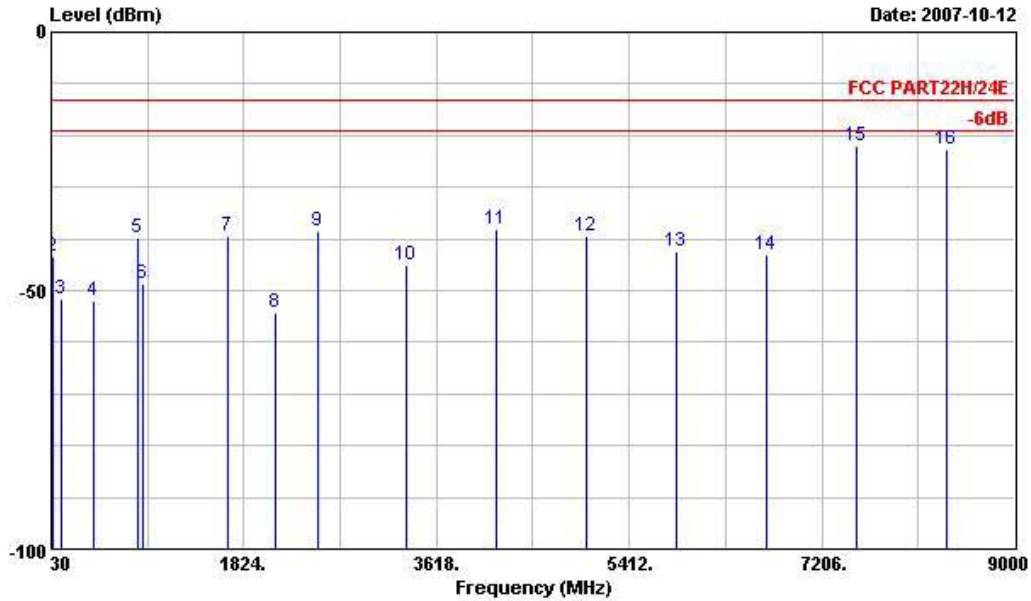
Site : 03CH04-HY  
 Condition: FCC PART22H/24E LF-SPURIOUS HORIZONTAL  
 EUT : GSM/EDGE (Class12) 850/900/1800/  
 . : 1900 UMTS/HSDPA 850/2100 (BAND I and  
 . : V) with BT\_EDR Phone\_Slide Type  
 POWER : 120Vac/60Hz  
 MODEL : FG 792103  
 MOME : GSM850 Link;Ch189 + Adaptor B  
 PLANE : E2 滑蓋打開

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

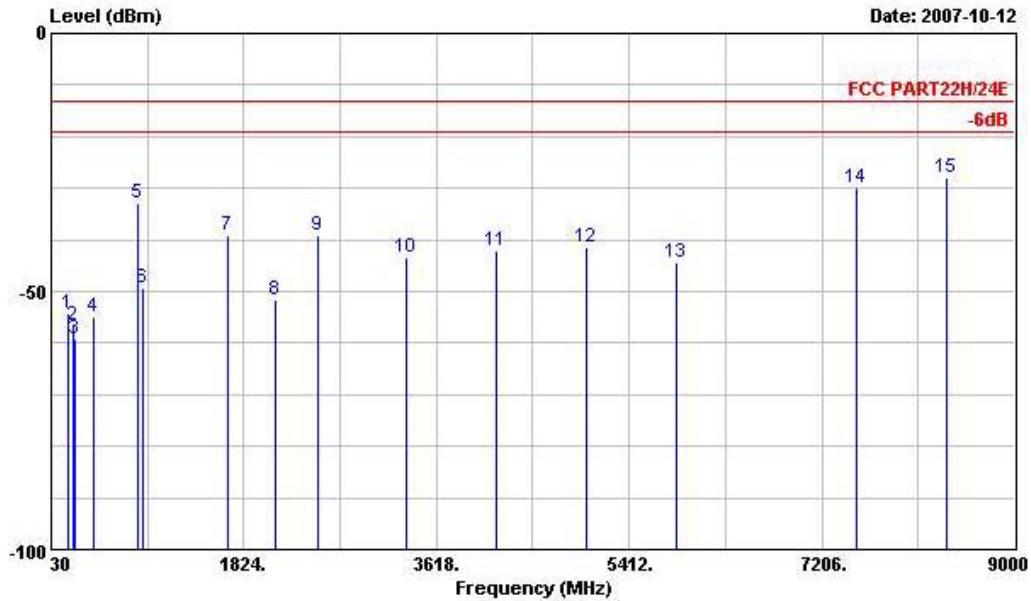
Remark:

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



4.6.5.2 Mode 2

Horizontal Polarization



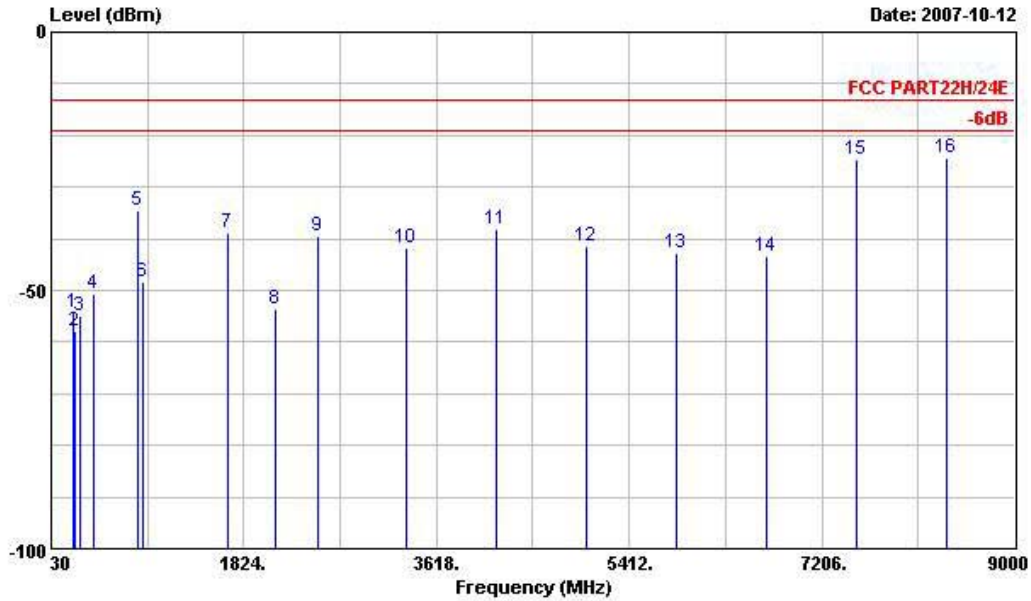
Site : 03CH04-HY  
 Condition: FCC PART22H/24E LF-SPURIOUS HORIZONTAL  
 EUT : GSM/EDGE (Class12) 850/900/1800/  
 . : 1900 UMTS/HSDEA 850/2100 (BAND I and  
 . : V) with BT\_EDR Phone\_Slide Type  
 POWER : 120Vac/60Hz  
 MODEL : FG 792103  
 MOME : GSM850 EDGE Link + Adaptor B  
 PLANE : E2 滑蓋打開

	Freq	Level	Over	Limit	Read			
	MHz	dBm	Limit	Line	Level	Factor	Remark	Pol/Phase
			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  
 HOME : 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
			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

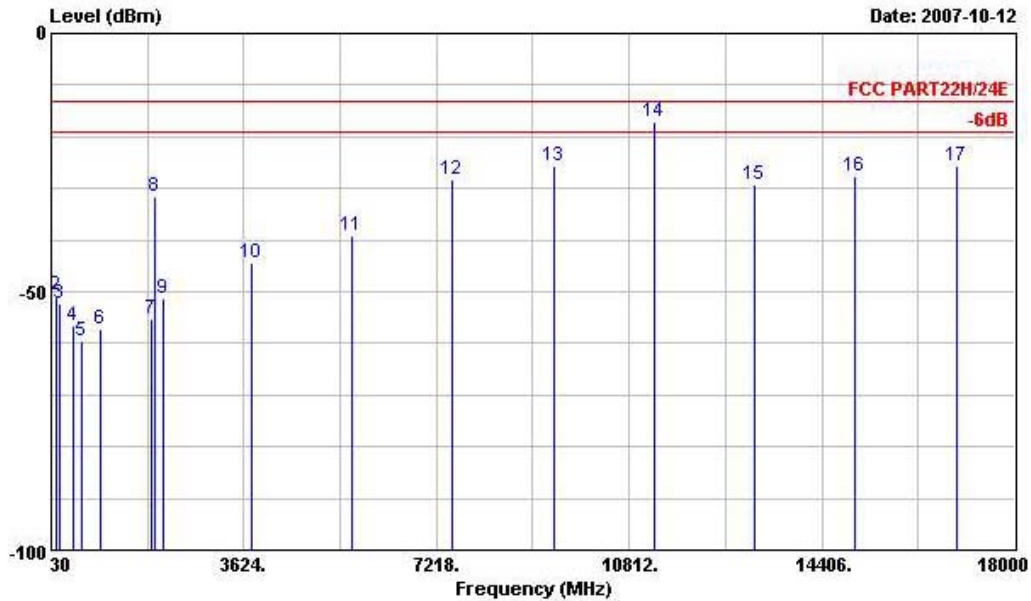
Remark:

- #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

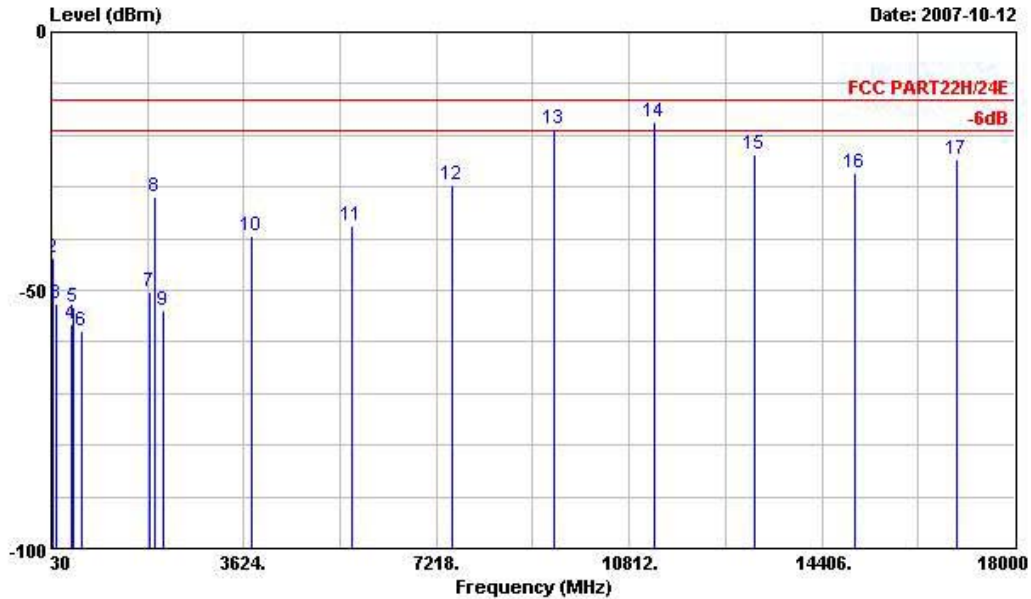
	Freq	Level	Over	Limit	Read		
	MHz	dBm	Limit	Line	Level	Factor	Remark
			dB	dBm	dBm	dB	
1	40.530	-49.33	-36.33	-13.00	-44.09	-5.24	Peak
2	115.860	-50.77	-37.77	-13.00	-47.83	-2.94	Peak
3	194.700	-52.38	-39.38	-13.00	-50.55	-1.83	Peak
4	433.000	-56.63	-43.63	-13.00	-56.41	-0.22	Peak
5	598.900	-59.70	-46.70	-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  
 HOME : PCS1900 Link;Ch661 + Adaptor B  
 PLANE : E2 滑蓋打開

	Freq	Level	Over	Limit	Read	
	MHz	dBm	Limit	Line	Level	Factor Remark
			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

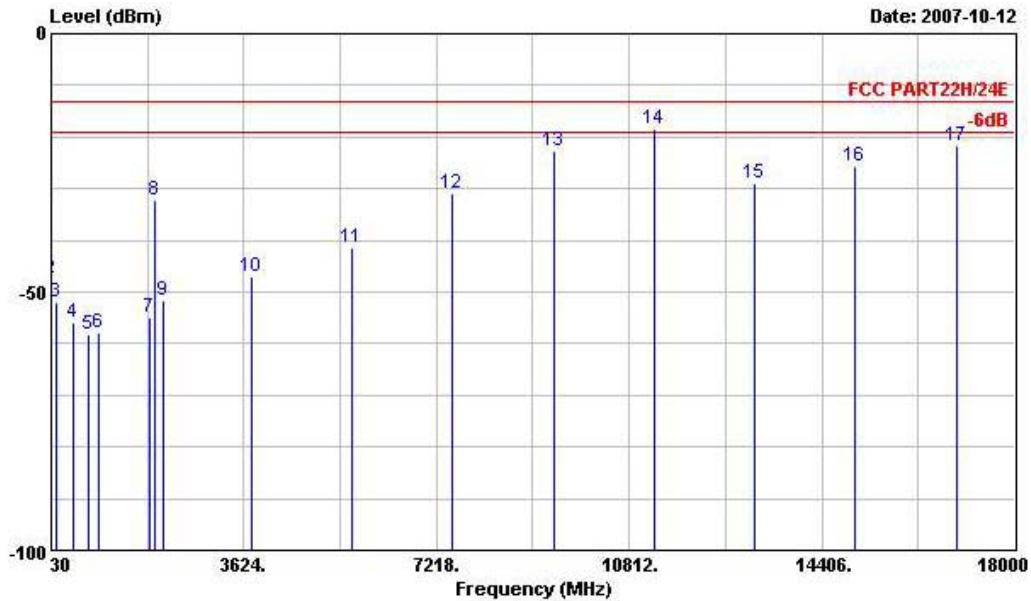
Remark:

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



4.6.5.4 Mode 4

Horizontal Polarization



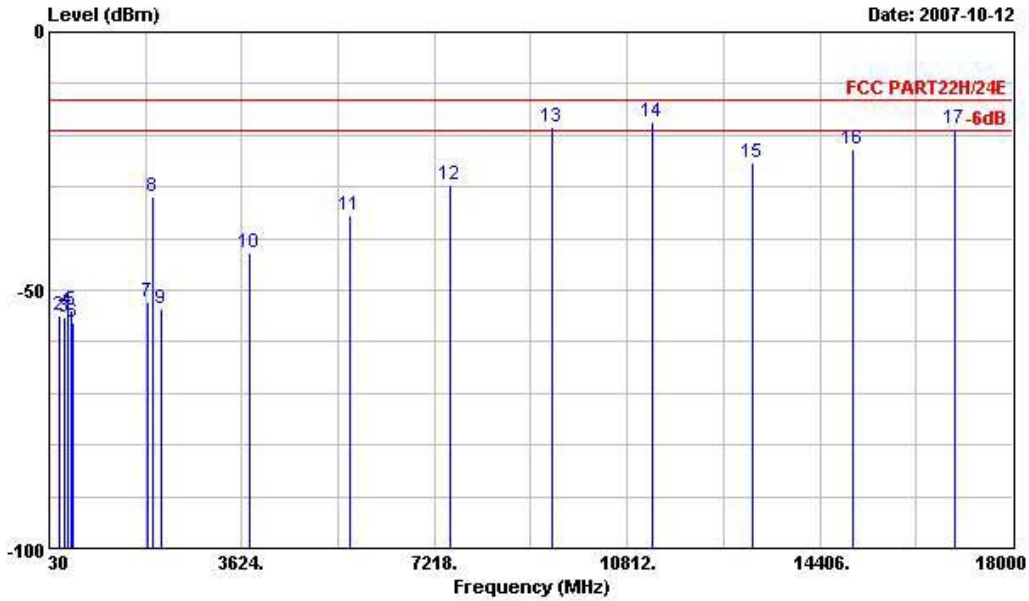
Site : 03CH04-HY  
 Condition: FCC PART22H/24E LF-SPURIOUS HORIZONTAL  
 EUT : GSM/EDGE (Class12) 850/900/1800/  
 . : 1900 UMTS/HSDPA 850/2100 (BAND I and  
 . : V) with BT\_EDR Phone\_Slide Type  
 POWER : 120Vac/60Hz  
 MODEL : FG 792103  
 MOME : PCS1900 EDGE Link + Adaptor B  
 PLANE : E2 滑蓋打開

	Freq	Level	Over	Limit	Read		
	MHz	dBm	Limit	Line	Level	Factor	Remark
			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 UMITS/HSDPA 850/2100(BAND I and  
 : V) with BT\_EDR Phone\_Slide Type  
 POWER : 120Vac/60Hz  
 MODEL : FG 792103  
 HOME : PCS1900 EDGE Link + Adaptor B  
 PLANE : E2 滑蓋打開

	Freq	Level	Over	Limit	Read		
	MHz	dBm	Limit	Line	Level	Factor	Remark
			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

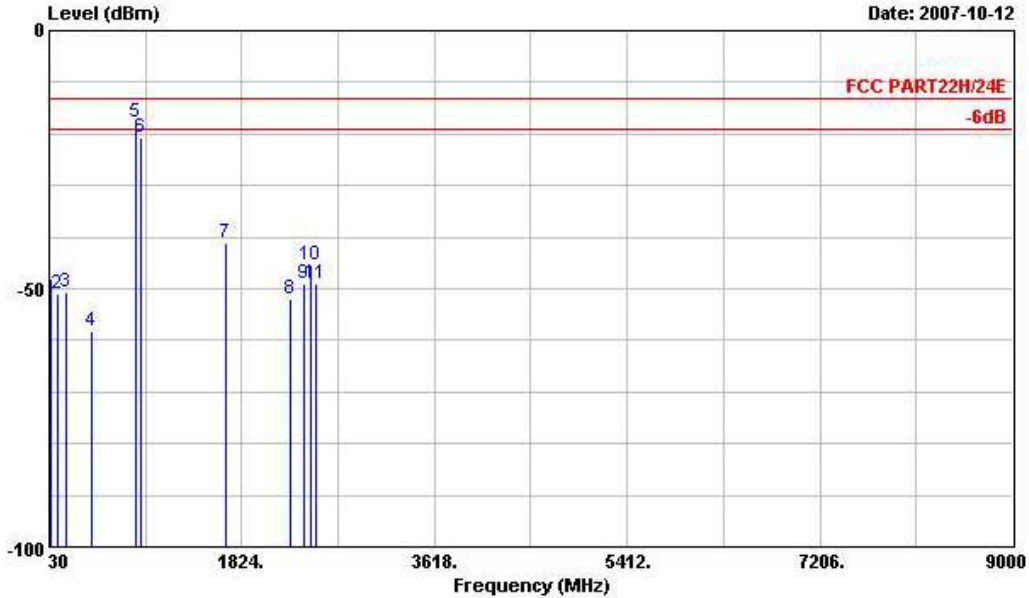
Remark:

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



4.6.5.5 Mode 5

Horizontal Polarization



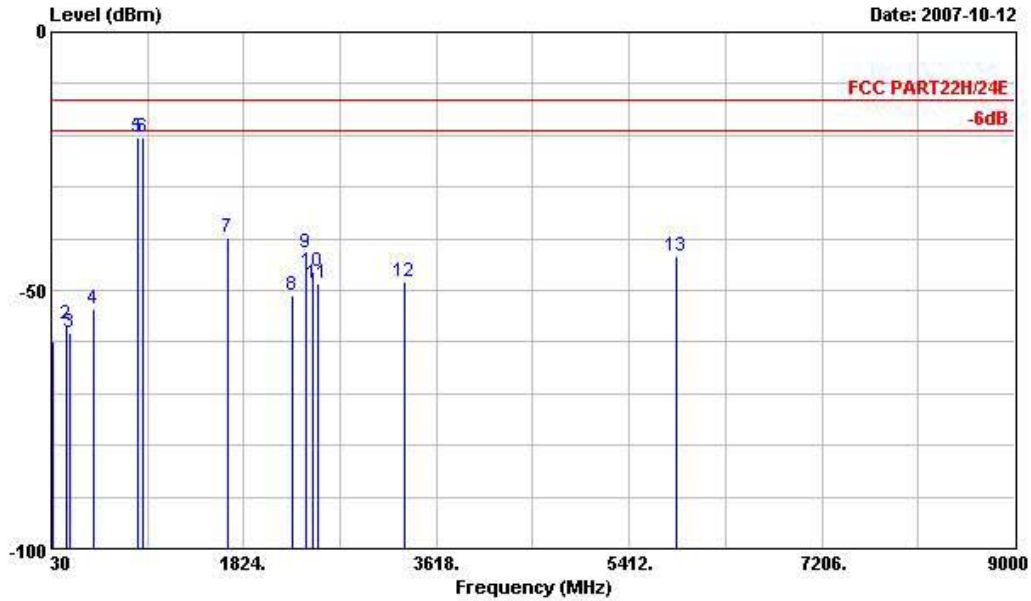
Site : 03CH04-HY  
 Condition: FCC PART22H/24E LF-SPURIOUS HORIZONTAL  
 EUT : GSM/EDGE (Class12) 850/900/1800/  
 . : 1900 UIMITS/HSDPA 850/2100 (BAND I and  
 . : V) with BT\_EDR Phone\_Slide Type  
 POWER : 120Vac/60Hz  
 MODEL : FG 792103  
 MOME : WCDMA (BAND V) Link + Adaptor B  
 PLANE : E2 滑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

	Freq	Level	Over	Limit	Read		Remark	Pol/Phase
	MHz	dBm	Limit	Line	Level	Factor		
			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  
 HOME : WCDMA (BAND V) Link + Adaptor B  
 PLANE : E2 滑蓋打開

	Freq	Level	Over	Limit	Read		Remark	Pol/Phase
	MHz	dBm	Limit	Line	Level	Factor		
			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

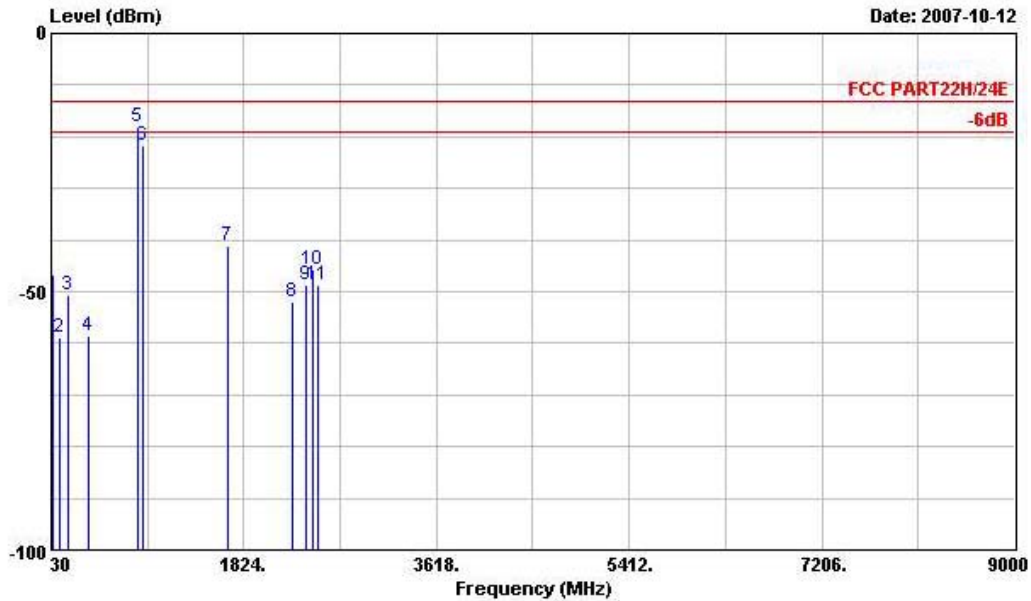
Remark:

- 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



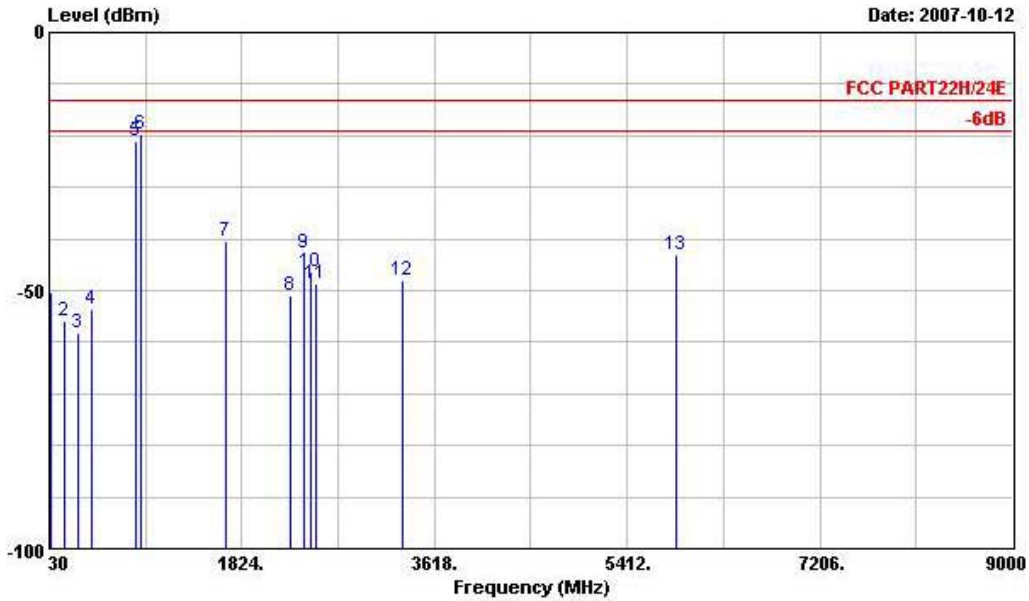
Site : 03CH04-HY  
 Condition: FCC PART22H/24E LF-SPURIOUS HORIZONTAL  
 EUT : GSM/EDGE (Class12) 850/900/1800/  
 . : 1900 UMTS/HSDPA 850/2100 (BAND I and  
 . : V) with BT\_EDR Phone\_Slide Type  
 POWER : 120Vac/60Hz  
 MODEL : FG 792103  
 MOME : HSDPA Link + Adaptor B  
 PLANE : E2 滑蓋打開

	Freq	Level	Over	Limit	Read			
	MHz	dBm	Limit	Line	Level	Factor	Remark	Pol/Phase
			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 : FC 792103  
 MOMI : HSDPA Link + Adaptor B  
 PLANE : E2 滑蓋打開

	Freq	Level	Over	Limit	Read		
	MHz	dBm	Limit	Line	Level	Factor	Remark
			dB	dBm	dBm	dB	Pol/Phase
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

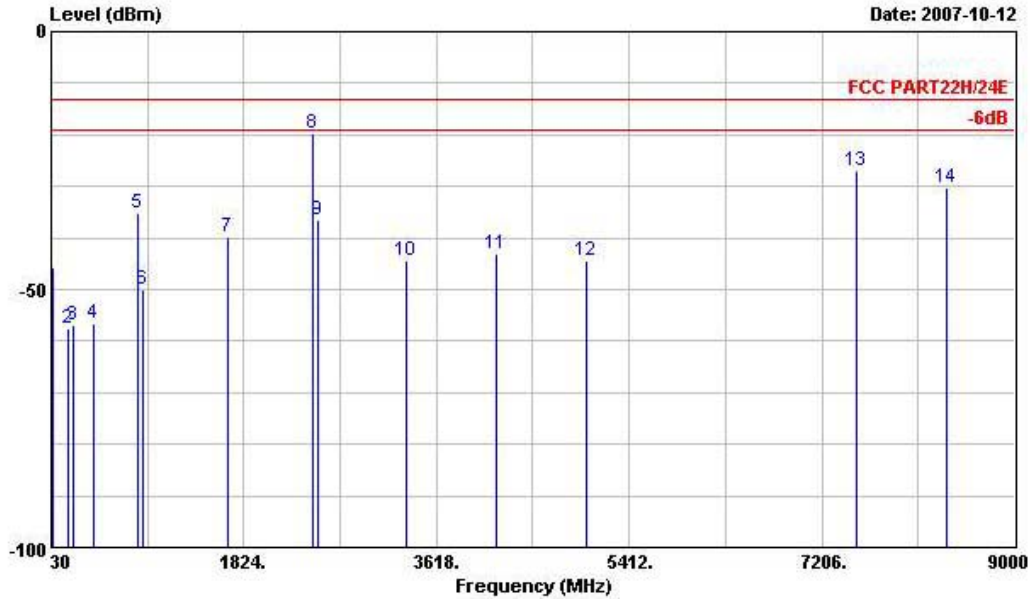
Remark:

- 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

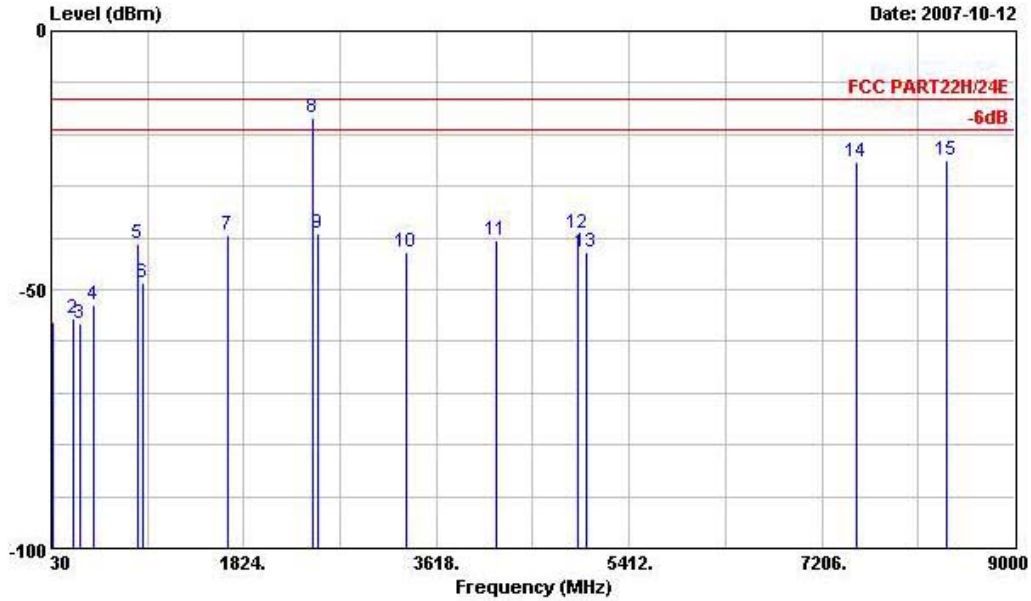
	Freq	Level	Over	Limit	Read			
	MHz	dBm	Limit	Line	Level	Factor	Remark	Pol/Phase
			dB	dBm	dBm	dB		
1	39.450	-45.69	-32.69	-13.00	-40.77	-4.92	Peak	HORIZONTAL
2	196.050	-57.71	-44.71	-13.00	-55.95	-1.76	Peak	HORIZONTAL
3	231.690	-57.07	-44.07	-13.00	-56.36	-0.71	Peak	HORIZONTAL
4	430.900	-56.73	-43.73	-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 UNITS/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
			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:

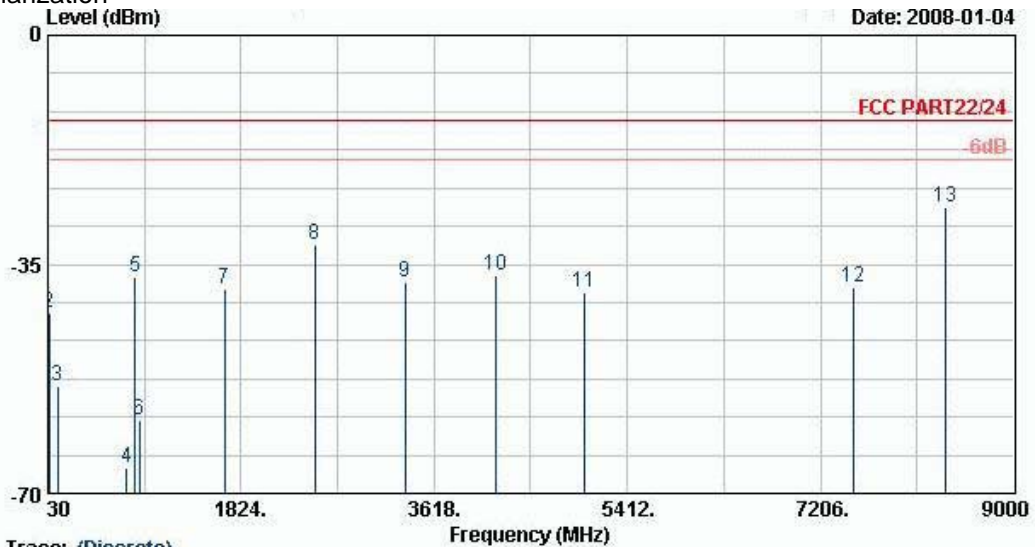
- 1.#5: MS Signal
- 2.#6: BS Signal
- 3.#8: BT Signal
4. There is no more obvious emission except the listings above.



4.6.5.8 Mode 8

Horizontal Polarization

Date: 2008-01-04



Trace: (Discrete)

Site : 03CH06-HY  
 Condition : FCC PART22/24 ETRP-071107 HORIZONTAL  
 EUT : GSM/EDGE(Class 12) 850/900/1800/1900  
 EUT : UMTS/HSDPA 850/2100 with  
 EUT : BT\_EDR\_Phone\_Slide  
 Power : 120Vac/60Hz  
 Model : FG 792103-04  
 Mode : GSM 850 Link+Adaptor B  
 Plane : E2. # open

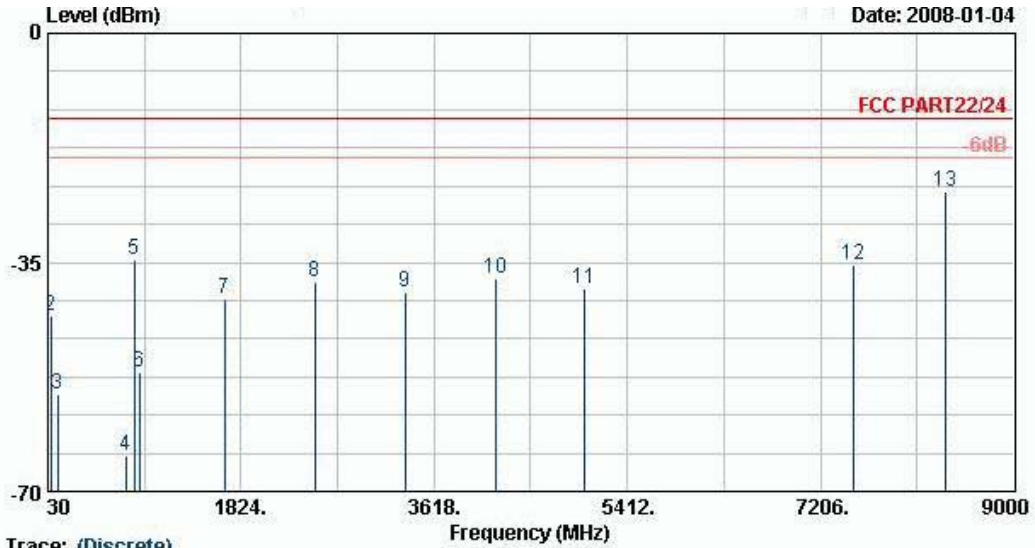
	Freq	Level	Over	Limit	Read	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1	30.00	-44.59	-31.59	-13.00	-44.95	0.36	Peak
2	44.58	-42.53	-29.53	-13.00	-33.76	-8.78	Peak
3	121.53	-53.69	-40.69	-13.00	-41.21	-12.49	Peak
4	764.80	-66.09	-53.09	-13.00	-64.04	-2.05	Peak
5	836.90	-37.03			-35.70	-1.33	Peak
6	880.30	-58.68			-57.77	-0.91	Peak
7	1672.00	-38.79	-25.79	-13.00	-44.22	5.43	Peak
8	2506.00	-31.92	-18.92	-13.00	-42.15	10.23	Peak
9	3346.00	-37.77	-24.77	-13.00	-49.96	12.19	Peak
10	4185.00	-36.82	-23.82	-13.00	-51.32	14.50	Peak
11	5020.00	-39.26	-26.26	-13.00	-55.12	15.86	Peak
12	7520.00	-38.55	-25.55	-13.00	-55.97	17.42	Peak
13	8360.00	-26.34	-13.34	-13.00	-47.00	20.66	Peak

Remark:

- #5: MS Signal
- #6: BS Signal



Vertical Polarization



Trace: (Discrete)

Site : 03CH06-HY  
 Condition : FCC PART22/24 ETRP-071107 VERTICAL  
 EUT : GSM/EDGE(Class 12) 850/900/1800/1900  
 EUT : UMTS/HSDPA 850/2100 with  
 EUT : BT\_EDR Phone\_Slide  
 Power : 120Vac/60Hz  
 Model : FG 792103-04  
 Mode : GSM 850 Link+Adaptor B  
 Plane : E2 屏 打开

	Freq	Level	Over	Limit	Read		
	MHz	dBm	Limit	Line	Level	Factor	Remark
			dB	dBm	dBm	dB	
1	30.00	-49.83	-36.83	-13.00	-40.76	-9.07	Peak
2	57.54	-43.09	-30.09	-13.00	-29.25	-13.84	Peak
3	120.18	-55.26	-42.26	-13.00	-47.39	-7.87	Peak
4	757.10	-64.53	-51.53	-13.00	-64.96	0.43	Peak
5	831.30	-34.64			-35.96	1.32	Peak
6	880.30	-51.86			-53.57	1.71	Peak
7	1672.00	-40.72	-27.72	-13.00	-46.15	5.43	Peak
8	2506.00	-37.92	-24.92	-13.00	-48.15	10.23	Peak
9	3346.00	-39.57	-26.57	-13.00	-51.76	12.19	Peak
10	4185.00	-37.50	-24.50	-13.00	-52.00	14.50	Peak
11	5020.00	-38.97	-25.97	-13.00	-54.83	15.86	Peak
12	7520.00	-35.46	-22.46	-13.00	-52.88	17.42	Peak
13 @	8360.00	-24.10	-11.10	-13.00	-44.76	20.66	Peak

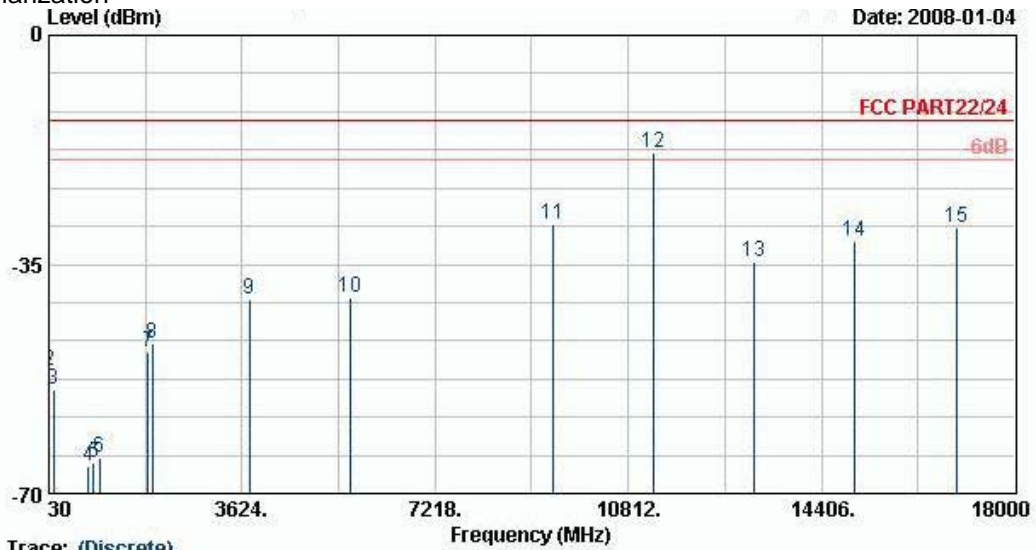
Remark:

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



4.6.5.9 Mode 9

Horizontal Polarization



Date: 2008-01-04

Trace: (Discrete)

Site : 03CH06-HY  
 Condition : FCC PART22/24 ETRP-071107 HORIZONTAL  
 EUT : GSM/EDGE(Class 12) 850/900/1800/1900  
 EUT : UMTS/HSDPA 850/2100 with  
 EUT : BT\_EDR\_Phone\_Slide  
 Power : 120Vac/60Hz  
 Model : FG 792103-04  
 Mode : PCS 1900 Link+Adaptor B  
 Plane : E2. # open

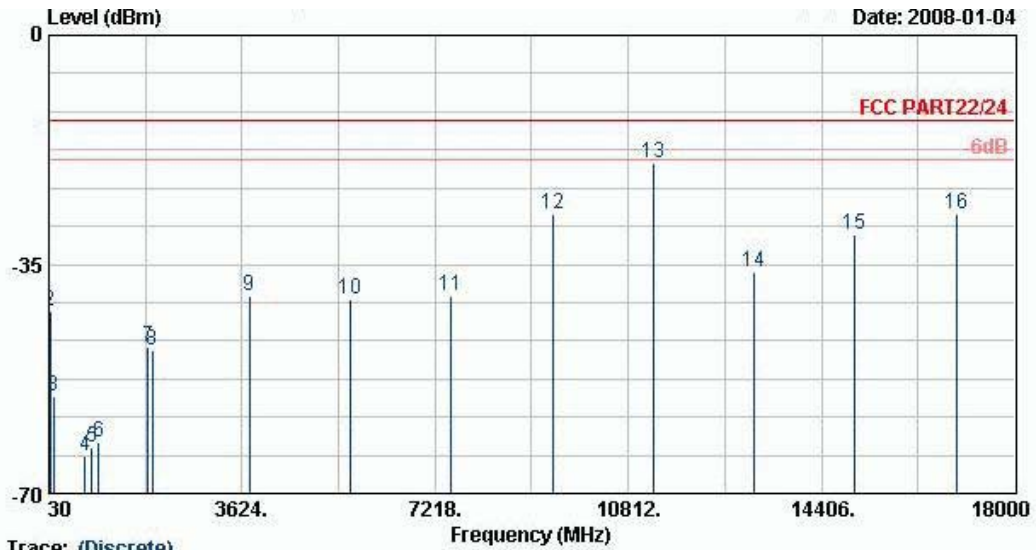
	Freq	Level	Over	Limit	Read		
	MHz	dBm	Limit	Line	Level	Factor	Remark
			dB	dBm	dBm	dB	
1	30.00	-46.04	-33.04	-13.00	-46.40	0.36	Peak
2	44.58	-51.30	-38.30	-13.00	-42.52	-8.78	Peak
3	121.53	-54.20	-41.20	-13.00	-41.72	-12.49	Peak
4	759.90	-65.95	-52.95	-13.00	-63.84	-2.11	Peak
5	868.40	-65.43	-52.43	-13.00	-64.39	-1.03	Peak
6	978.30	-64.45	-51.45	-13.00	-64.49	0.03	Peak
7	1878.00	-48.42			-55.43	7.01	Peak
8	1958.00	-47.13			-54.67	7.54	Peak
9	3756.00	-40.27	-27.27	-13.00	-53.58	13.32	Peak
10	5636.00	-40.09	-27.09	-13.00	-57.13	17.03	Peak
11	9396.00	-28.77	-15.77	-13.00	-47.56	18.79	Peak
12 @	11276.00	-17.86	-4.86	-13.00	-39.70	21.83	Peak
13	13156.00	-34.59	-21.59	-13.00	-58.66	24.08	Peak
14	15036.00	-31.48	-18.48	-13.00	-57.27	25.79	Peak
15	16917.00	-29.38	-16.38	-13.00	-57.93	28.55	Peak

Remark:

- #7: MS Signal
- #8: BS Signal



Vertical Polarization



Trace: (Discrete)

Site : 03CH06-HY  
 Condition : FCC PART22/24 ETRP-071107 VERTICAL  
 EUT : GSM/EDGE(Class 12) 850/900/1800/1900  
 EUT : UMTS/HSDPA 850/2100 with  
 EUT : BT\_EDR Phone\_Slide  
 Power : 120Vac/60Hz  
 Model : FG 792103-04  
 Mode : PCS 1900 Link+Adaptor B  
 Plane : E2# 空open

	Freq	Level	Over	Limit	Read		
	MHz	dBm	Limit	Line	Level	Factor	Remark
			dB	dBm	dBm	dB	
1	33.78	-50.66	-37.66	-13.00	-40.50	-10.17	Peak
2	58.08	-42.11	-29.11	-13.00	-28.41	-13.70	Peak
3	121.53	-55.13	-42.13	-13.00	-47.24	-7.88	Peak
4	705.30	-64.32	-51.32	-13.00	-63.96	-0.36	Peak
5	829.90	-62.97	-49.97	-13.00	-64.28	1.31	Peak
6	959.40	-62.29	-49.29	-13.00	-64.62	2.34	Peak
7	1878.00	-47.63			-54.64	7.01	Peak
8	1960.00	-48.14			-55.67	7.54	Peak
9	3756.00	-39.77	-26.77	-13.00	-53.09	13.32	Peak
10	5636.00	-40.26	-27.26	-13.00	-57.29	17.03	Peak
11	7516.00	-39.79	-26.79	-13.00	-57.10	17.31	Peak
12	9396.00	-27.44	-14.44	-13.00	-46.23	18.79	Peak
13 @	11276.00	-19.60	-6.60	-13.00	-41.43	21.83	Peak
14	13156.00	-36.08	-23.08	-13.00	-60.16	24.08	Peak
15	15036.00	-30.48	-17.48	-13.00	-56.27	25.79	Peak
16	16917.00	-27.34	-14.34	-13.00	-55.89	28.55	Peak

Remark:

- #7: MS Signal
- #8: BS Signa
- There is no more obvious emission except the listings above.

## 4.7 Frequency Stability (Temperature Variation)

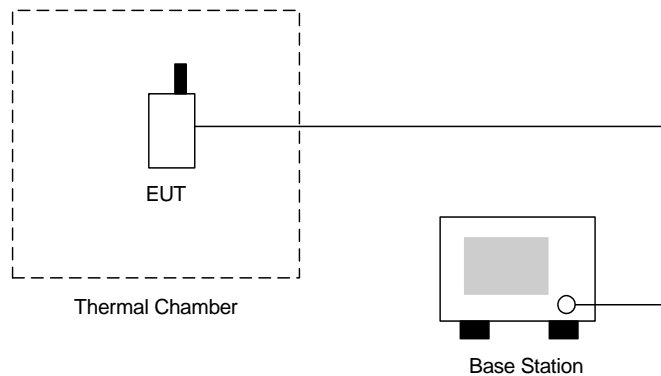
### 4.7.1 Measurement Instrument

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  $-30^{\circ}\text{C}$  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  $10^{\circ}\text{C}$  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 for HW:XC01

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 for HW:XC01

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 for HW:XC01

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 for HW:XC01

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 for HW:XC01

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 for HW:XC01

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)

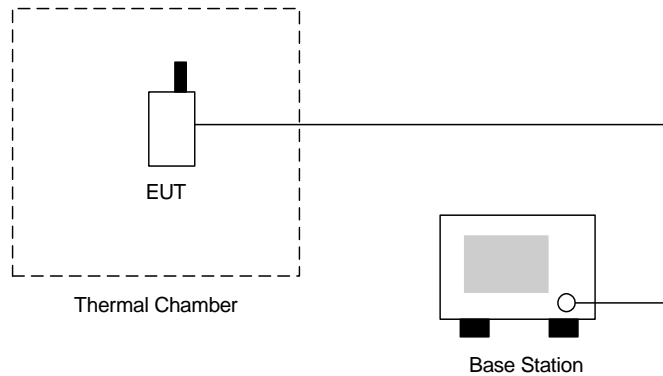
### 4.8.1 Measurement Instrument

As described in chapter 5 of this test report.

### 4.8.2 Test Procedure

- a. The EUT was placed in a temperature chamber at  $25 \pm 5$  °C and connected as the following section.
- b. The power supply voltage to the EUT was varied from BEP to 115% of the nominal value measured at the input to the EUT.
- c. 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 for HW:XC01

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 for HW:XC01

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 for HW:XC01

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 for HW:XC01

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 for HW:XC01

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 for HW:XC01

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)
Spectrum Analyzer	Agilent	E4408B	MY44211028	9KHz-26.5GHz	Oct. 17, 2007	Oct. 16, 2008	Radiation (03CH06-HY)
EMI Test Receiver	R&S	ESCS30	100356	9KHz-2.75GHz	Jul. 26, 2007	Jul. 25, 2008	Radiation (03CH06-HY)
Bilog Antenna	SCHAFFNER	CBL6112B	2885	30MHz -2GHz	Dec. 01, 2007	Nov. 30, 2008	Radiation (03CH06-HY)
Double Ridge Horn Antenna	Com-Power	AH118	071025	1G-18G	Jun. 04, 2007	Jun. 03, 2008	Radiation (03CH06-HY)
SHF-EHF Horn	SCHWARZBEC K	BBHA 9170	9170-251	14G - 40G	Oct. 17, 2007	Oct. 16, 2008	Radiation (03CH06-HY)
Pre Amplifier	Agilent	8449B	3008A01917	1G - 26.5G	Nov. 22, 2007	Nov. 21, 2008	Radiation (03CH06-HY)
PreAmplifier	EMEC	PA303	PA303-SMA-	100K-3GHz	Nov. 26, 2007	Nov. 25, 2008	Radiation (03CH06-HY)
Base Station Simulator	R & S	CMU200	103937	Third-Band	Oct. 19, 2007	Oct. 18, 2008	Radiation (03CH06-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
<b>Combined standard uncertainty Uc(y)</b>	<b>1.27</b>		
<b>Measuring uncertainty for a level of Confidence of 95% U=2Uc(y)</b>	<b>2.54</b>		

### 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
<b>Combined standard uncertainty Uc(y)</b>	<b>2.36</b>				
<b>Measuring uncertainty for a level of Confidence of 95% U=2Uc(y)</b>	<b>4.72</b>				

END OF TEST REPORT