



FCC Test Report

for

47 CFR Part 22H, 24E

Equipment : USB dongle
(GSM/GPRS/EDGE/WCDMA/HSDPA)

Trade Name : Inventec

Model No. : Minerva 3025

FCC ID : DGIMINERVA3025

Tx Frequency Range : GSM850 : 824.2 ~ 848.8MHz
PCS1900 : 1850.2 ~1909.8 MHz
WCDMA Band V : 826.5 ~ 846.6 MHz
WCDMA Band II : 1852.5 ~1907.6 MHz

Max. ERP/EIRP Power : GGSM850(GSM) : 0.25 W
GSM850(EDGE) : 0.06 W
PCS1900(GSM) : 0.23 W
PCS1900(EDGE) : 0.07 W
WCDMA Band V : 0.02 W
WCDMA Band II : 0.05 W

Emission Designator : GSM : 300KGXW
EDGE : 300KG7W
WCDMA : 4M22F9W

Applicant : **Inventec Corporation**
Inventec Building No. 66, Hou-Kang Street Shin-Lin
District, 111 Taipei, Taiwan, R.O.C

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- The data shown in this test report were carried out on Sep. 14, 2007 at **Sporton International Inc. LAB.**
- Report No.: FG782107, Report Version: Rev. 01.

Jones Tsai
Manager

SPORTON International Inc.

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



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History of this test report

Report Issue Date: Oct. 11, 2007

Report No.	Description



1. General Information

1.2 Applicant

Inventec Corporation

Inventec Building No. 66, Hou-Kang Street Shin-Lin District, 111 Taipei, Taiwan, R.O.C

1.3 Manufacturer

Inventec Corporation

Inventec Building No. 66, Hou-Kang Street Shin-Lin District, 111 Taipei, Taiwan, R.O.C

1.4 Basic Description of Equipment under Test

Equipment		USB dongle (GSM/GPRS/EDGE/WCDMA/HSDPA)
Trade Name		Inventec
Model Name		Minerva 3025
FCC ID		DGIMINERVA3025
USB Cable	Brand Name	SMK
	Model Name	CRC9001-2401F
	Signal line Type	1.8 meter non-shielded cable without ferrite core

Remark: Above EUT's information was declared by manufacturer. Please refer to the specifications of manufacturer or User's Manual for more detailed features description.



1.5 Feature of Equipment under Test

DUT Type :	USB dongle (GSM/GPRS/EDGE/WCDMA/HSDPA)										
Trade Name :	Inventec										
Model Name :	Minerva 3025										
FCC ID :	DGIMINERVA3025										
Tx Frequency :	GSM850 : 826 ~ 847 MHz PCS1900 : 1852 ~1908 MHz WCDMA Band V : 824 ~ 849 MHz WCDMA Band II : 1850 ~ 1910 MHz										
Rx Frequency :	GSM850 : 871 ~ 892 MHz PCS1900 : 1932 ~ 1988 MHz WCDMA Band V : 869 ~ 894 MHz WCDMA Band II : 1930 ~ 1990 MHz										
Maximum Output Power to Antenna :	GSM850	:	31.12	dBm (GSM)	/	31.08	dBm (GPRS)	/	25.73	dBm (EDGE)	/
	PCS1900	:	28.41	dBm (GSM)	/	28.36	dBm (GPRS)	/	25.05	dBm (EDGE)	/
	WCDMA Band V	:	22.53	dBm(12.2kbps)	/	22.55	dBm(64kbps)	/	22.58	dBm(144kbps)	/
				22.54	dBm(384kbps)	/	21.64	dBm (12.2kbps+HSDPA)			
	WCDMA Band II	:	23.28	dBm(12.2kbps)	/	23.21	dBm(64kbps)	/	23.21	dBm(144kbps)	/
				23.25	dBm(384kbps)	/	21.82	dBm (12.2kbps+HSDPA)			
Maximum ERP/EIRP :	GSM850(GSM) : 0.25 W (24.06 dBm) GSM850(EDGE) : 0.06 W (17.59 dBm) PCS1900(GSM) : 0.23 W (23.56 dBm) PCS1900(EDGE) : 0.07 W (18.49 dBm) WCDMA Band V : 0.02 W (13.97 dBm) WCDMA Band V(HSDPA) : 0.02 W (13.59 dBm) WCDMA Band II : 0.05 W (16.83 dBm) WCDMA Band II(HSDPA) : 0.06 W (17.41 dBm)										
Antenna Type :	Fixed Internal Antenna										
Type of Antenna Connector	N/A										
GPRS / EGPRS Multislot class :	10										
Digital Modulation Emission :	GSM : GMSK EDGE : 8PSK WCDMA / HSDPA : QPSK										
Type of Emission :	GSM : 300KGXW EDGE : 300KG7W WCDMA : 4M22F9W										
DUT Stage :	Production Unit										



1.6 Report Date

EUT Received : Aug. 21, 2007

Report Date : Oct. 11, 2007

2. Test Configuration of Equipment under Test

2.1 Test Manner

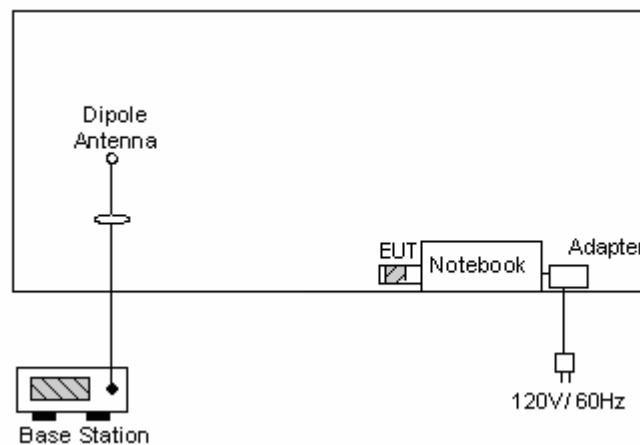
1. The spurious emission measurements were carried out in semi-anechoic chamber with 3-meter test range.
2. During all testings, EUT is in link mode with base station emulator at maximum power level.
3. Frequency range investigated: radiated emission 30 MHz to 9000 MHz for GSM850 and WCDMA Band V; 30MHz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

2.2 Test Mode

Application	GSM850	PCS1900	WCDMA Band V	WCDMA Band II
Radiated	☒ Mode 1: GSM Link	☒ Mode 3: GSM Link	☒ Mode 5: WCDMA Link	☒ Mode 7: WCDMA Link
Emission	☒ Mode 2: EDGE Link	☒ Mode 4: EDGE Link	☒ Mode 6: HSDPA Link	☒ Mode 8: HSDPA Link
Conducted	☒ Mode 1: GSM Link	☒ Mode 3: GSM Link	☒ Mode 5: WCDMA Link	☒ Mode 7: WCDMA Link
Measurement	☒ Mode 2: EDGE Link	☒ Mode 4: EDGE Link	☒ Mode 6: HSDPA Link	☒ Mode 8: HSDPA Link

2.3 Connection Diagram of Test System

EUT with Link Mode





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.	Notebook	DELL	D400	E2K24GBRL	Unshielded, 1.2m



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 : 886-3-318-0055
Test Site No : 03CH06-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 and WCDMA Band II.

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

In order to compliance with FCC rule, EMC test was performed according worst case scenario.

4.2 RF Output Power

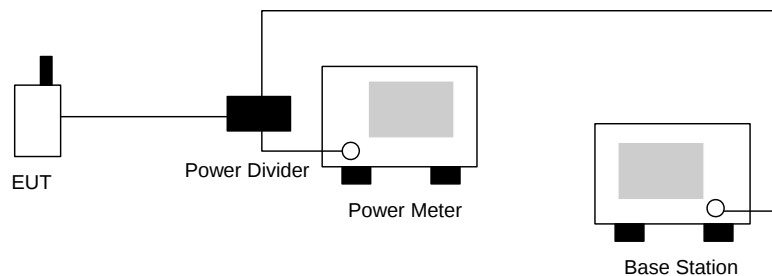
4.2.1 Measurement Instruments :

As described in chapter 5 of this test report.

4.2.2 Test Procedure :

1. The transmitter output was connected to power meter and base station through power divider.
2. Set EUT in maximum RF power through base station.
3. Select lowest, middle, and highest channels for each band.

4.2.3 Test Setup Layout :



**4.2.4 Test Result :**

Bands	Channel	Frequency (MHz)	Conducted Power (dBm)	Conducted Power (Watts)
GSM850 (GSM)	128	824.2 (Low)	31.05	1.27350
	189	836.4 (Mid)	31.08	1.28233
	251	848.8 (High)	31.04	1.27057
GSM850 (EDGE)	128	824.2 (Low)	25.7	0.37154
	189	836.4 (Mid)	25.73	0.37411
	251	848.8 (High)	25.63	0.36559
PCS1900 (GSM)	512	1850.2 (Low)	28.04	0.78705
	661	1880.0 (Mid)	28.26	0.73451
	810	1909.8 (High)	28.36	0.69663
PCS1900 (EDGE)	512	1850.2 (Low)	24.72	0.29648
	661	1880.0 (Mid)	24.96	0.31333
	810	1909.8 (High)	25.05	0.31989
WCDMA Band V (12.2k bps)	4132	826.4 (Low)	22.43	0.174985
	4182	836.4 (Mid)	22.53	0.179061
	4233	846.6 (High)	22.49	0.177419
WCDMA Band V (64k bps)	4132	826.4 (Low)	22.39	0.17338
	4182	836.4 (Mid)	22.55	0.179887
	4233	846.6 (High)	22.51	0.178238
WCDMA Band V (144k bps)	4132	826.4 (Low)	22.47	0.176604
	4182	836.4 (Mid)	22.52	0.178649
	4233	846.6 (High)	22.58	0.181134
WCDMA Band V (384k bps)	4132	826.4 (Low)	22.3	0.169824
	4182	836.4 (Mid)	22.51	0.178238
	4233	846.6 (High)	22.54	0.179473
WCDMA Band V (AMR)	4132	826.4 (Low)	22.45	0.175792
	4182	836.4 (Mid)	22.32	0.170608
	4233	846.6 (High)	22.46	0.176198
WCDMA Band V (HSDPA)	4132	826.4 (Low)	21.3	0.134896
	4182	836.4 (Mid)	21.64	0.145881
	4233	846.6 (High)	20.7	0.11749



Bands	Channel	Frequency (MHz)	Conducted Power (dBm)	Conducted Power (Watts)
WCDMA Band II (12.2k bps)	9262	1852.4 (Low)	23.28	0.212814
	9400	1880.0 (Mid)	23.1	0.204174
	9538	1907.6 (High)	21.22	0.132434
WCDMA Band II (64k bps)	9262	1852.4 (Low)	23.21	0.209411
	9400	1880.0 (Mid)	23.05	0.201837
	9538	1907.6 (High)	21.11	0.129122
WCDMA Band II (144k bps)	9262	1852.4 (Low)	23.21	0.209411
	9400	1880.0 (Mid)	23.08	0.203236
	9538	1907.6 (High)	21.21	0.13213
WCDMA Band II (384k bps)	9262	1852.4 (Low)	23.25	0.211349
	9400	1880.0 (Mid)	23.05	0.201837
	9538	1907.6 (High)	21.27	0.133968
WCDMA Band II (AMR)	9262	1852.4 (Low)	22.35	0.171791
	9400	1880.0 (Mid)	22.40	0.17378
	9538	1907.6 (High)	21.01	0.126183
WCDMA Band II (HSDPA)	9262	1852.4 (Low)	21.13	0.129718
	9400	1880.0 (Mid)	21.82	0.152055
	9538	1907.6 (High)	19.92	0.098175



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

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

P_s (dBm) : Input power to substitution antenna.

G_s (dBi or dBd) : Substitution antenna Gain.

$E_t = R_t + AF$

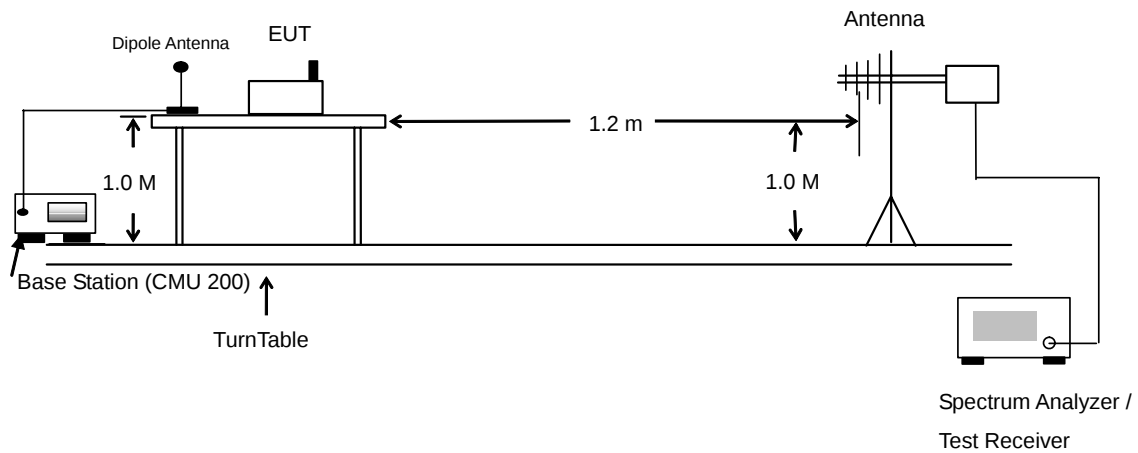
$E_s = R_s + AF$

AF (dB/m) : Receive antenna factor

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

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

4.3.3 Test Setup Layout of ERP/EIRP



**4.3.4 Test Result**

GSM850 (GSM) Radiated Power ERP						
Horizontal Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBd)	ERP (dBm)	ERP (W)
824.20	-25.23	-48.12	0.00	-1.08	21.81	0.15
836.40	-24.66	-48.28	0.00	-0.93	22.69	0.19
848.80	-23.53	-48.35	0.00	-0.76	24.06	0.25
Vertical Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBd)	ERP (dBm)	ERP (W)
824.20	-25.88	-47.97	0.00	-1.08	21.01	0.13
836.40	-25.76	-48.01	0.00	-0.93	21.32	0.14
848.80	-24.75	-48.05	0.00	-0.76	22.54	0.18

GSM850 (EDGE) Radiated Power ERP						
Horizontal Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBd)	ERP (dBm)	ERP (W)
824.20	-31.48	-48.12	0.00	-1.08	15.56	0.04
836.40	-30.55	-48.28	0.00	-0.93	16.80	0.05
848.80	-30.00	-48.35	0.00	-0.76	17.59	0.06
Vertical Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBd)	ERP (dBm)	ERP (W)
824.20	-31.61	-47.97	0.00	-1.08	15.28	0.03
836.40	-31.17	-48.01	0.00	-0.93	15.91	0.04
848.80	-30.95	-48.05	0.00	-0.76	16.34	0.04



PCS1900 (GSM) Radiated Power EIRP						
Horizontal Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBd)	EIRP (dBm)	EIRP (W)
1850.20	-36.38	-51.88	0.00	1.96	17.46	0.06
1880.00	-35.17	-52.99	0.00	2.00	19.82	0.10
1909.80	-33.95	-54.28	0.00	1.98	22.31	0.17
Vertical Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBd)	EIRP (dBm)	EIRP (W)
1850.20	-35.50	-52.13	0.00	1.96	18.59	0.07
1880.00	-34.12	-53.17	0.00	2.00	21.05	0.13
1909.80	-32.55	-54.13	0.00	1.98	23.56	0.23

PCS1900 (EDGE) Radiated Power EIRP						
Horizontal Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBd)	EIRP (dBm)	EIRP (W)
1850.20	-39.00	-51.88	0.00	1.96	14.84	0.03
1880.00	-39.16	-52.99	0.00	2.00	15.83	0.04
1909.80	-37.78	-54.28	0.00	1.98	18.48	0.07
Vertical Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBd)	EIRP (dBm)	EIRP (W)
1850.20	-39.05	-52.13	0.00	1.96	15.04	0.03
1880.00	-38.80	-53.17	0.00	2.00	16.37	0.04
1909.80	-37.62	-54.13	0.00	1.98	18.49	0.07



WCDMA Band V Radiated Power ERP						
Horizontal Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBd)	ERP (dBm)	ERP (W)
824.20	-34.11	-48.12	0.00	-1.08	12.93	0.02
836.40	-33.73	-48.28	0.00	-0.93	13.62	0.02
848.80	-34.19	-48.35	0.00	-0.76	13.40	0.02
Vertical Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBd)	ERP (dBm)	ERP (W)
824.20	-33.90	-47.97	0.00	-1.08	12.99	0.02
836.40	-33.11	-48.01	0.00	-0.93	13.97	0.02
848.80	-33.83	-48.05	0.00	-0.76	13.46	0.02

WCDMA Band V (HSDPA) Radiated Power ERP						
Horizontal Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBd)	ERP (dBm)	ERP (W)
824.20	-34.26	-48.12	0.00	-1.08	12.78	0.02
836.40	-34.28	-48.28	0.00	-0.93	13.07	0.02
848.80	-34.19	-48.35	0.00	-0.76	13.40	0.02
Vertical Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBd)	ERP (dBm)	ERP (W)
824.20	-33.86	-47.97	0.00	-1.08	13.03	0.02
836.40	-33.49	-48.01	0.00	-0.93	13.59	0.02
848.80	-33.88	-48.05	0.00	-0.76	13.41	0.02



WCDMA Band II Radiated Power EIRP						
Horizontal Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBd)	EIRP (dBm)	EIRP (W)
1852.40	-39.27	-51.88	0.00	1.96	14.57	0.03
1880.00	-39.60	-52.99	0.00	2.00	15.39	0.03
1907.60	-39.43	-54.28	0.00	1.98	16.83	0.05
Vertical Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBd)	ERP (dBm)	ERP (W)
1852.40	-39.31	-52.13	0.00	1.96	14.78	0.03
1880.00	-40.40	-53.17	0.00	2.00	14.77	0.03
1907.60	-39.33	-54.13	0.00	1.98	16.78	0.05

WCDMA Band II (HSDPA) Radiated Power EIRP						
Horizontal Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBd)	EIRP (dBm)	EIRP (W)
1852.40	-39.66	-51.88	0.00	1.96	14.18	0.03
1880.00	-39.45	-52.99	0.00	2.00	15.54	0.04
1907.60	-38.97	-54.28	0.00	1.98	17.29	0.05
Vertical Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBd)	ERP (dBm)	ERP (W)
1852.40	-39.72	-52.13	0.00	1.96	14.37	0.03
1880.00	-39.64	-53.17	0.00	2.00	15.53	0.04
1907.60	-38.70	-54.13	0.00	1.98	17.41	0.06

4.4 Occupied Bandwidth and Band Edge Measurement

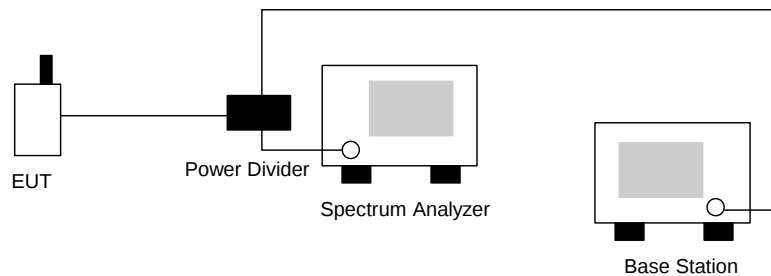
4.4.1 Measurement Instruments

As described in chapter 5 of this test report.

4.4.2 Test Procedure

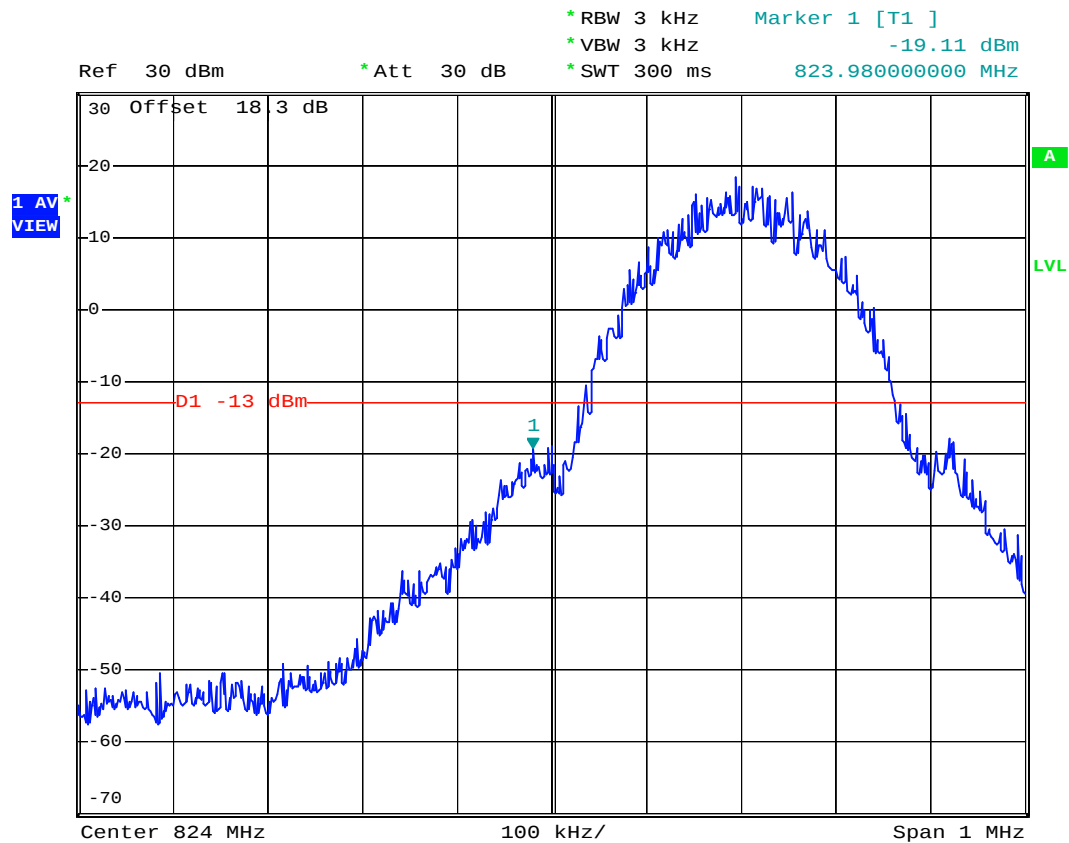
1. The EUT was connected to Spectrum Analyzer and Base Station via power divider.
2. The 99% occupied bandwidth of middle channel for the highest and lowest RF powers were measured.
3. The bandedge of low and high channels for the highest RF powers within the transmitting frequency band were measured.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

4.4.3 Test Setup Layout



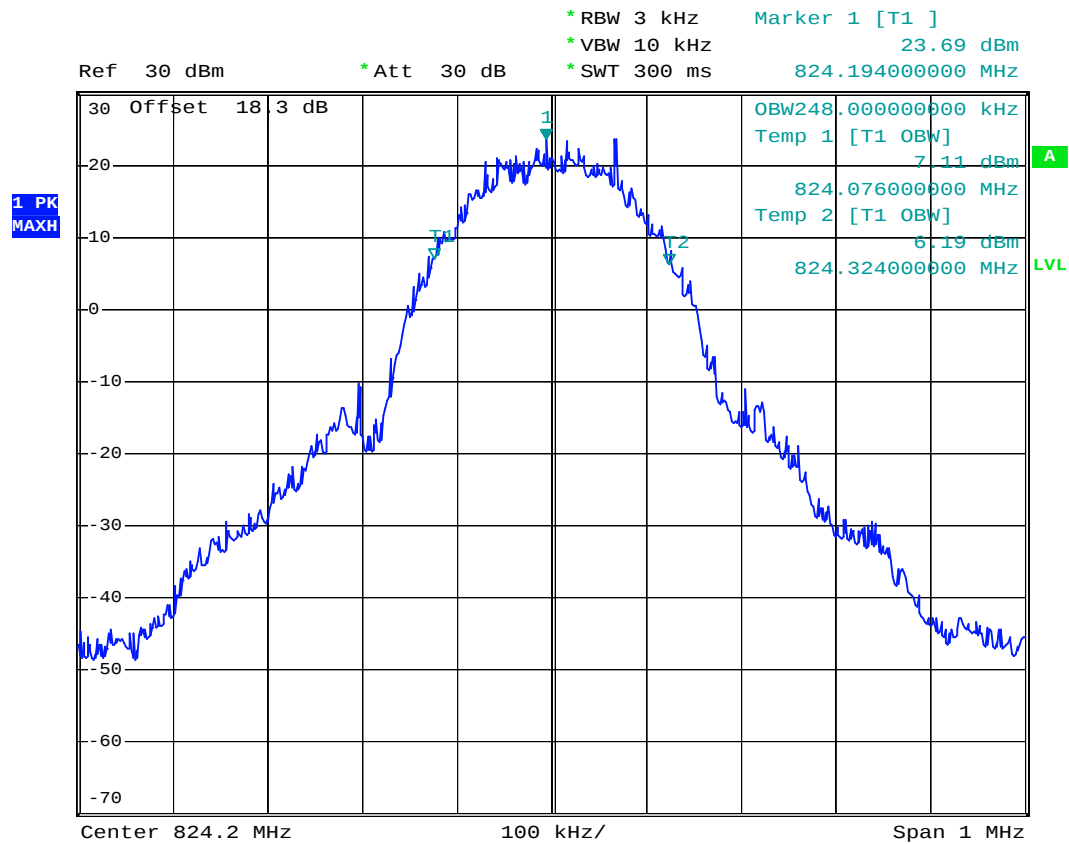
**4.4.4 Test Result**

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



Date: 4.SEP.2007 04:19:42

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



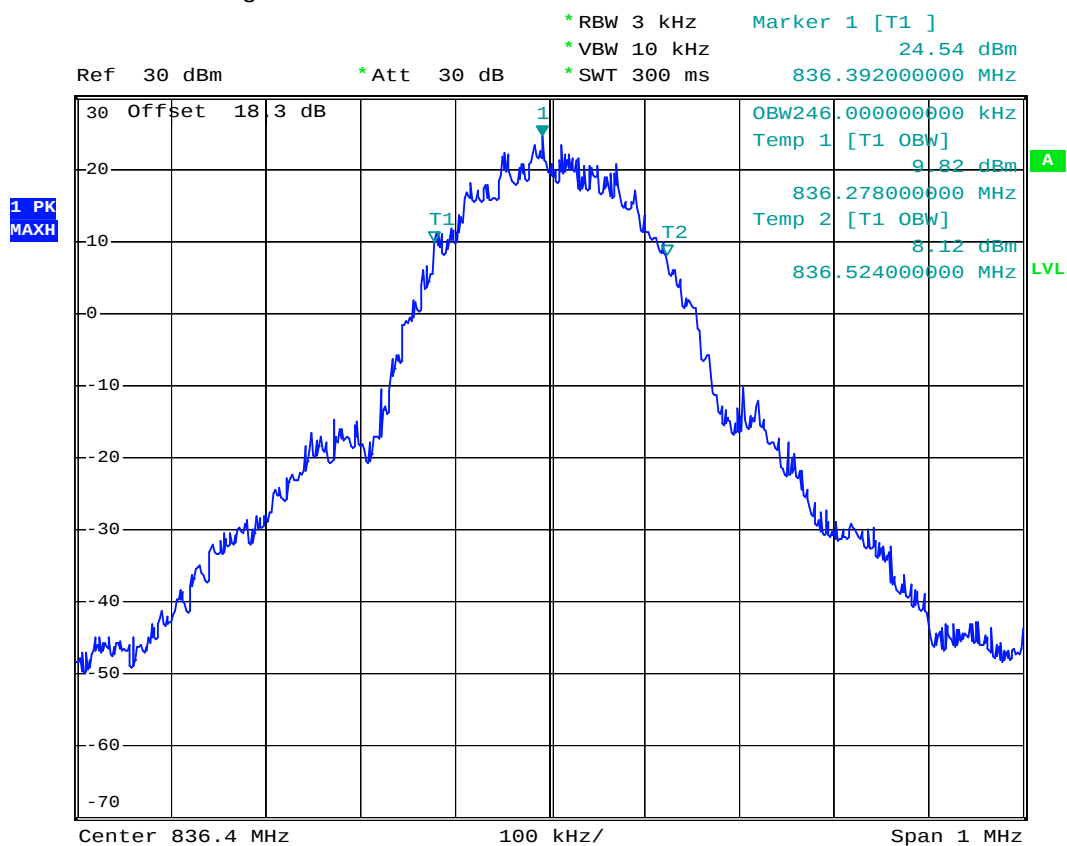
Date: 4.SEP.2007 04:43:56



FCC TEST REPORT

Report No. : FG782107

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



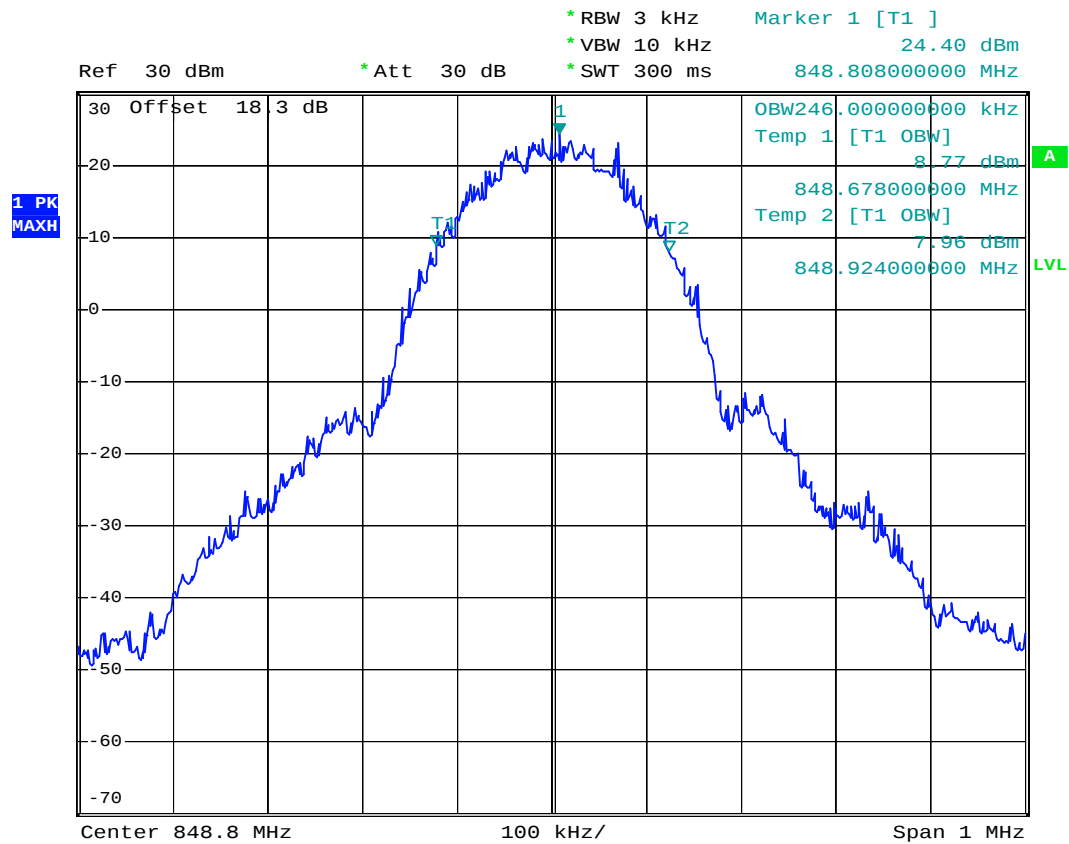
Date: 4.SEP.2007 04:42:59



FCC TEST REPORT

Report No. : FG782107

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



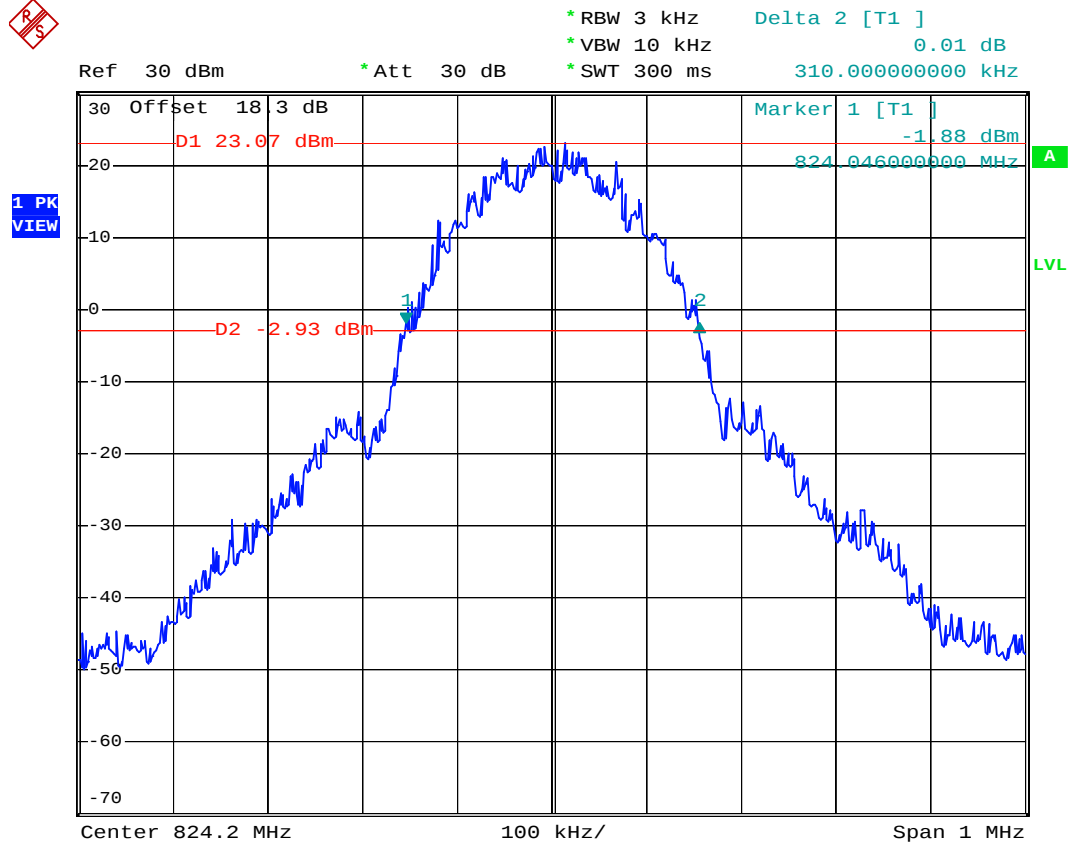
Date: 4.SEP.2007 04:39:36



FCC TEST REPORT

Report No. : FG782107

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



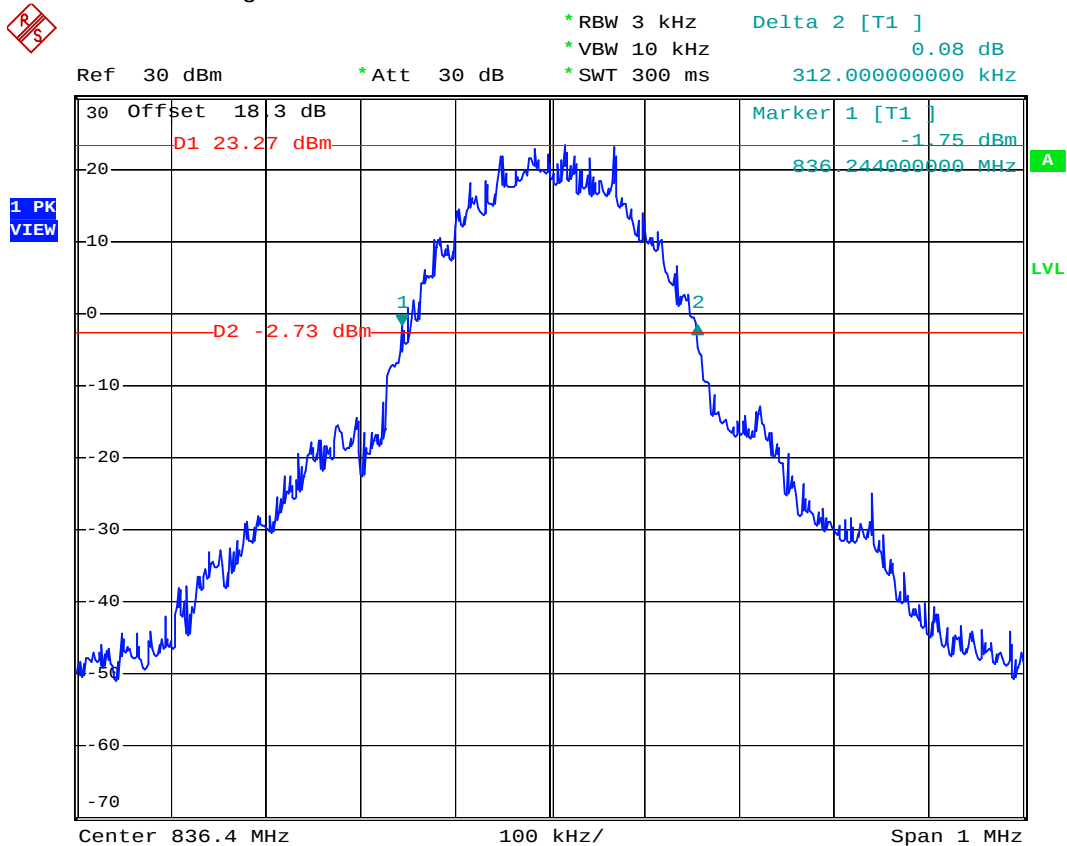
Date: 5.SEP.2007 01:43:26



FCC TEST REPORT

Report No. : FG782107

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



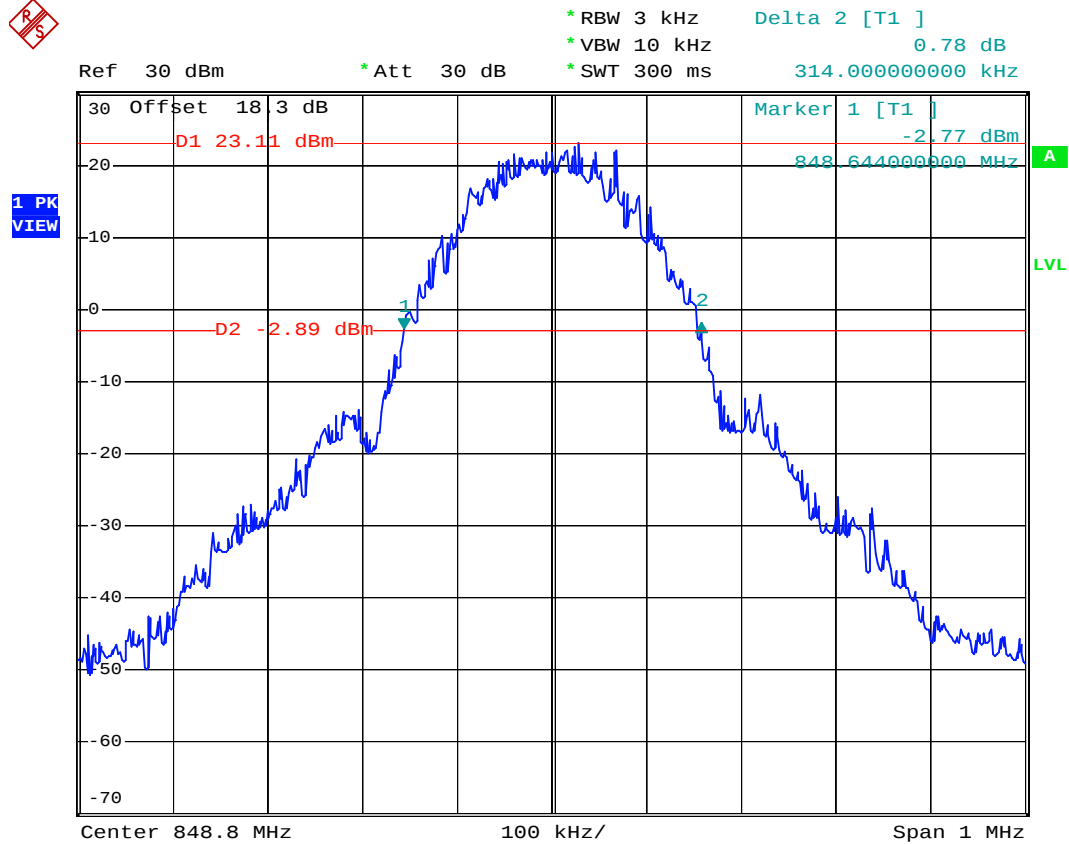
Date: 5.SEP.2007 01:44:34



FCC TEST REPORT

Report No. : FG782107

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



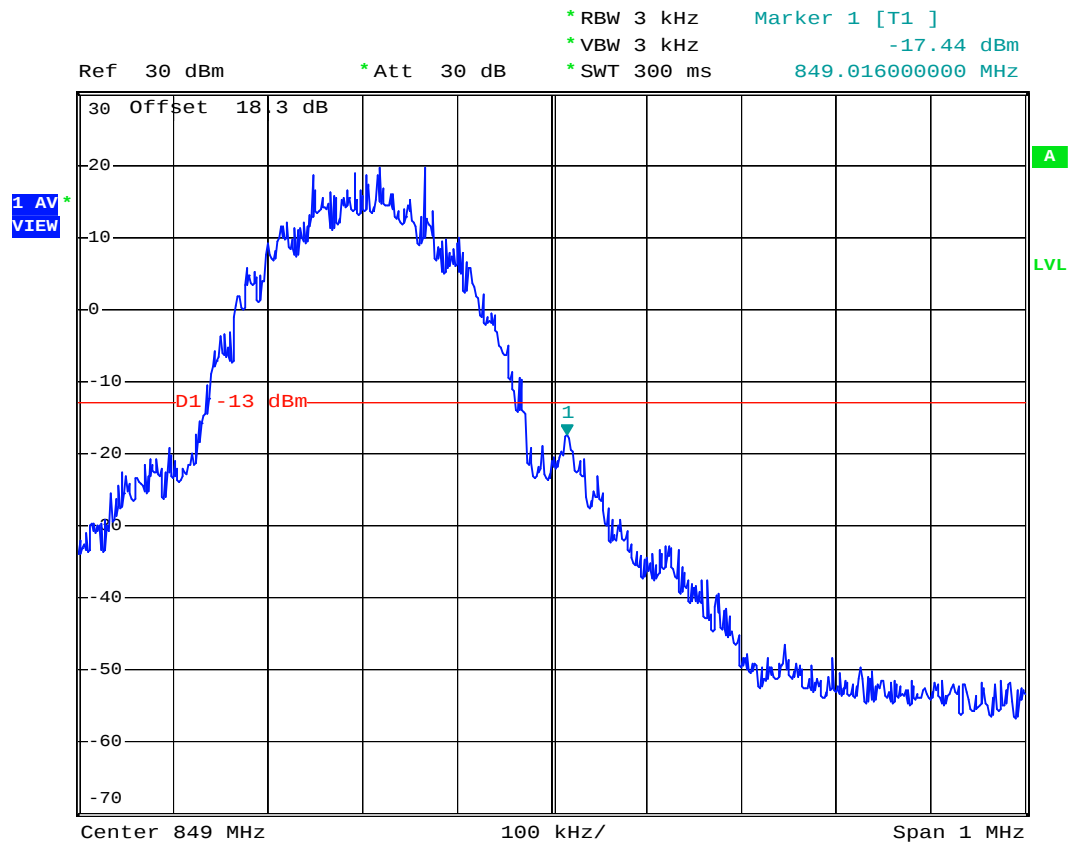
Date: 5.SEP.2007 01:46:01



FCC TEST REPORT

Report No. : FG782107

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



Date: 4.SEP.2007 04:24:53



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

```
* RBW 3 kHz      Marker 1 [T1 ]
* VBW 3 kHz      -26.15 dBm
* SWT 300 ms     823.986000000 MHz
```



A

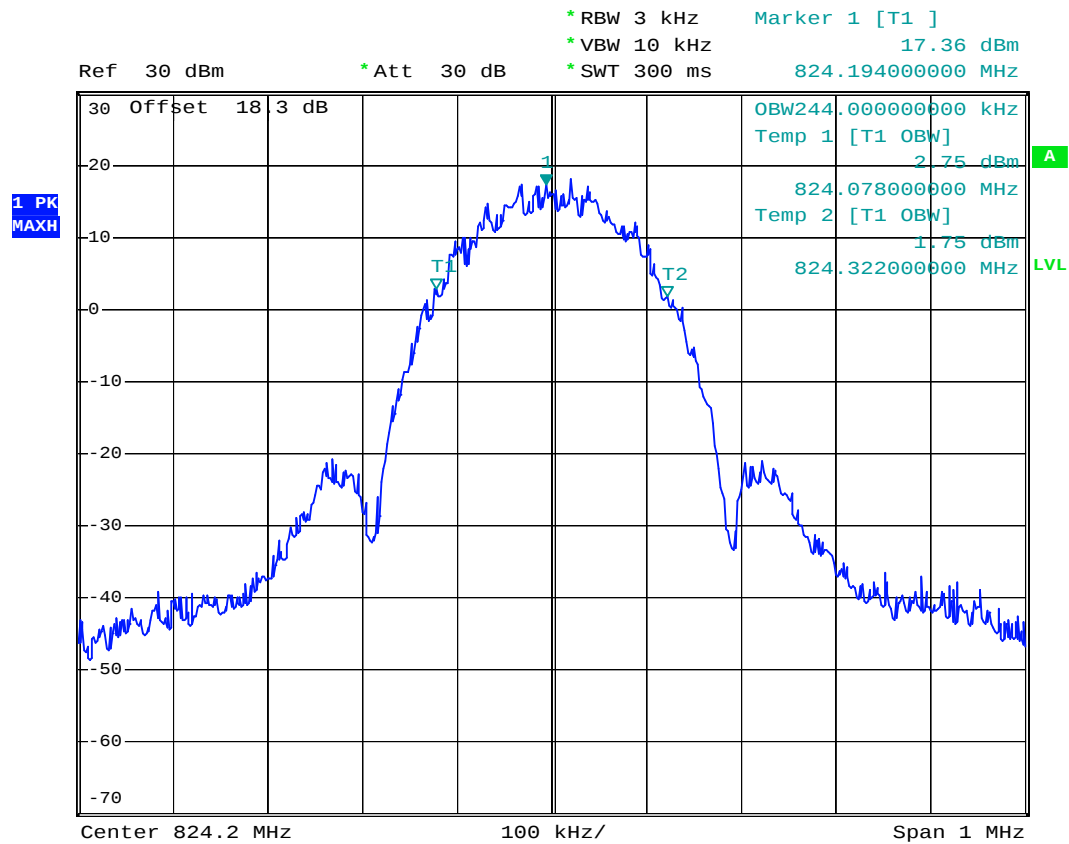
LVL



FCC TEST REPORT

Report No. : FG782107

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



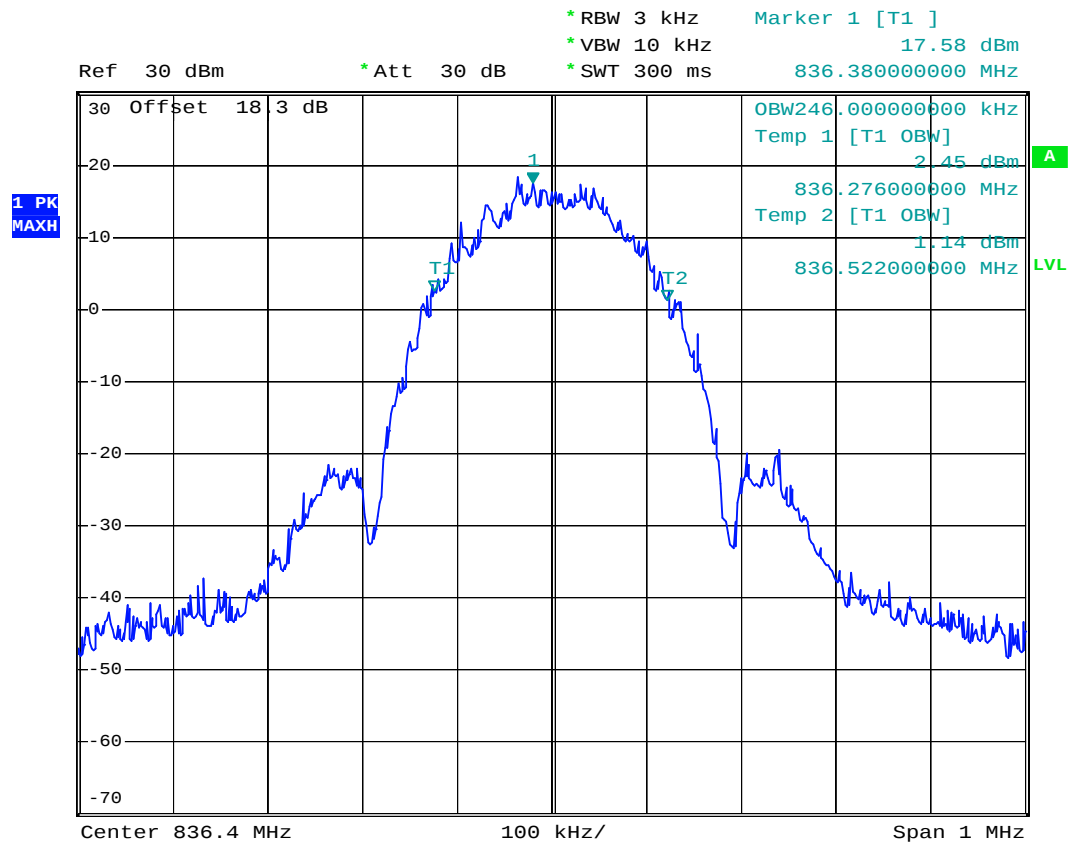
Date: 4.SEP.2007 04:34:11



FCC TEST REPORT

Report No. : FG782107

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



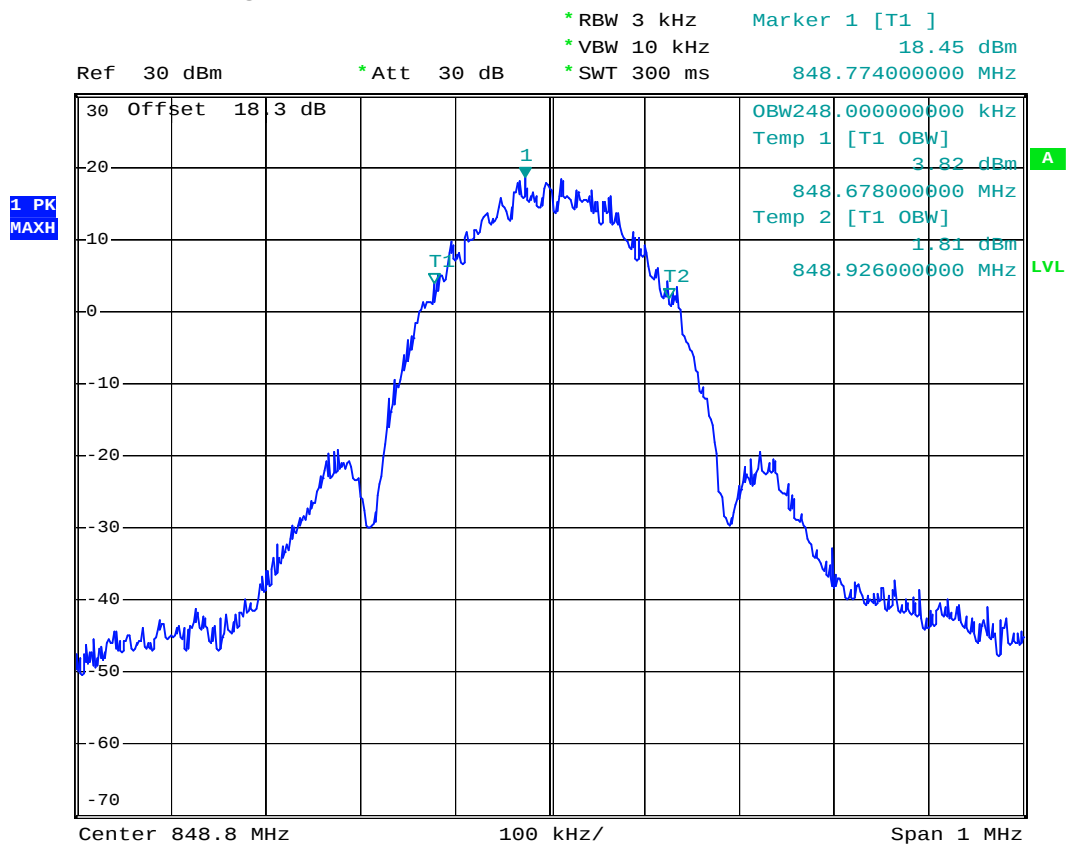
Date: 4.SEP.2007 04:34:58



FCC TEST REPORT

Report No. : FG782107

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



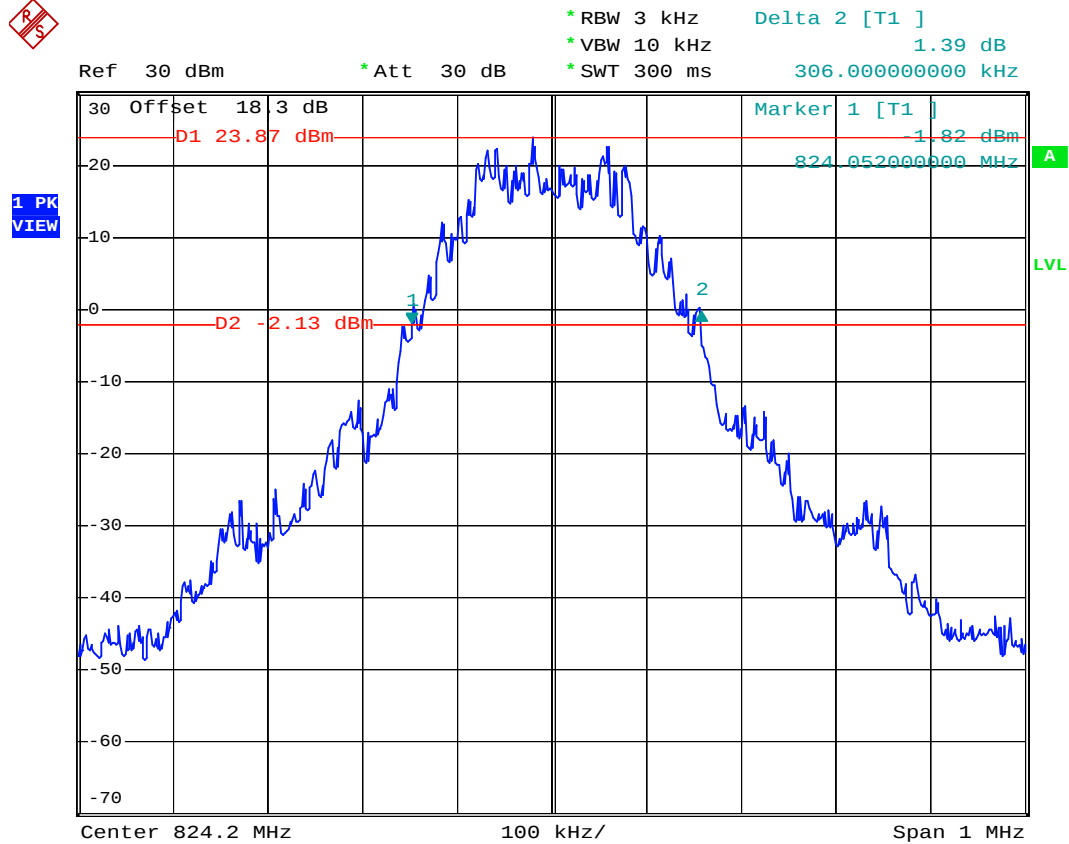
Date: 4.SEP.2007 04:37:42



FCC TEST REPORT

Report No. : FG782107

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



Date: 5.SEP.2007 01:25:23



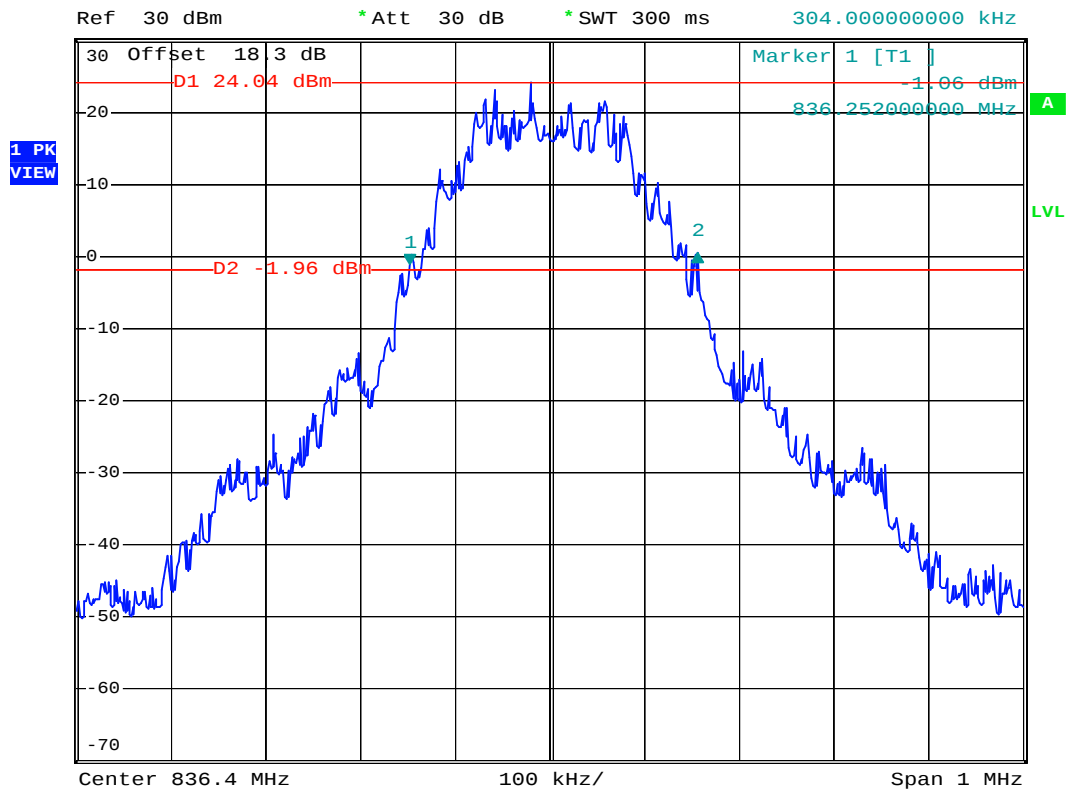
FCC TEST REPORT

Report No. : FG782107

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



* RBW 3 kHz Delta 2 [T1] 1.48 dB
* VBW 10 kHz
* SWT 300 ms 304.000000000 kHz



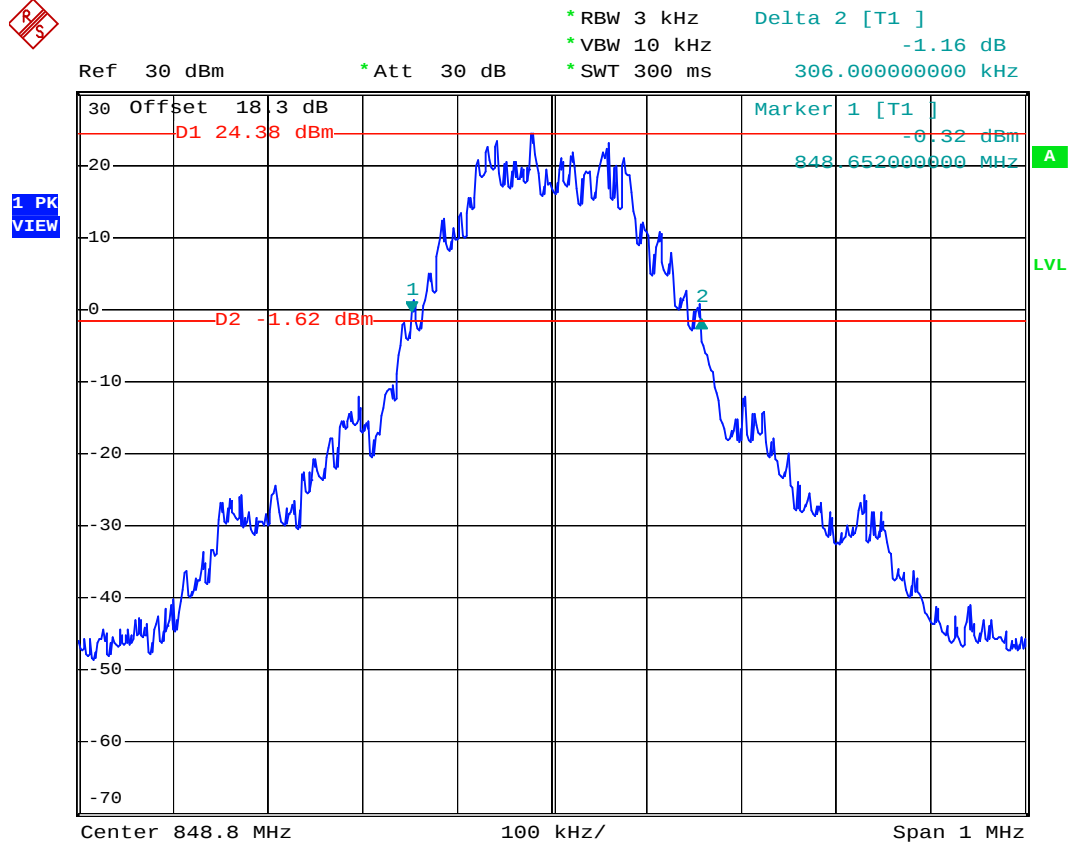
Date: 5.SEP.2007 01:26:50



FCC TEST REPORT

Report No. : FG782107

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



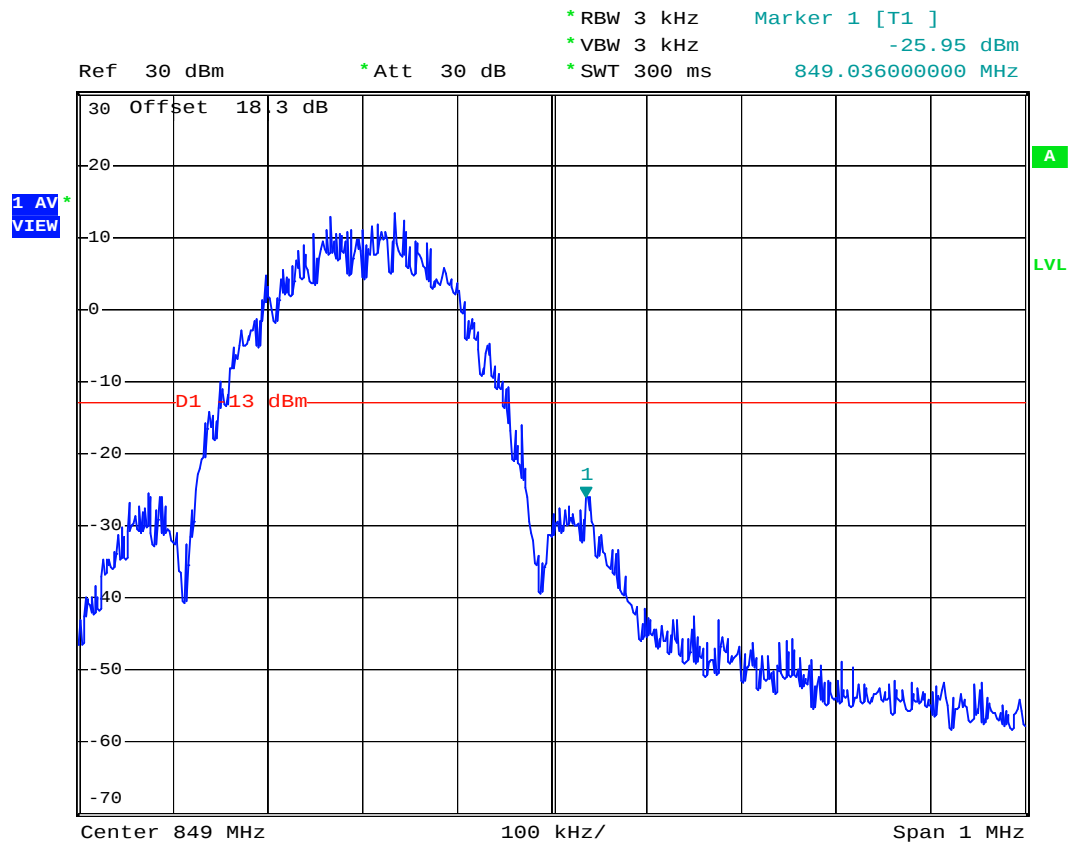
Date: 5.SEP.2007 01:28:23



FCC TEST REPORT

Report No. : FG782107

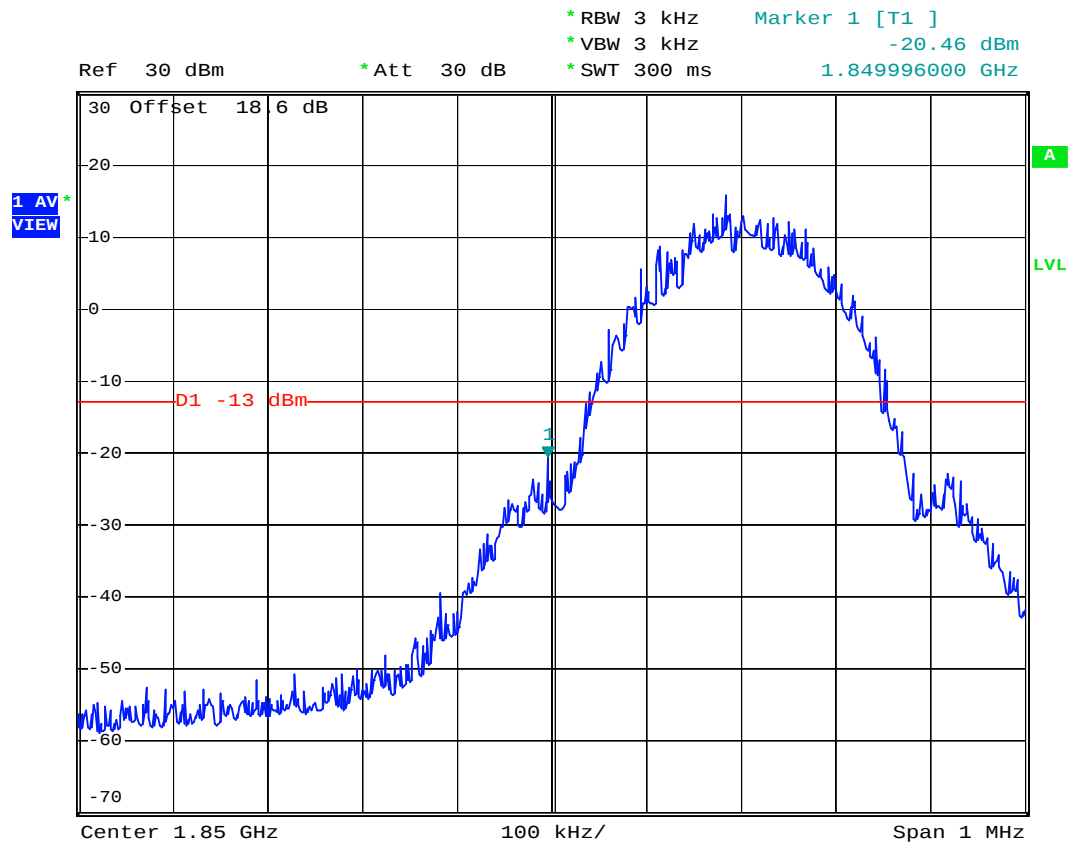
- Test Mode : GSM850 (EDGE) CH251 Higher Band Edge
- Power State : High



Date: 4.SEP.2007 04:30:18



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



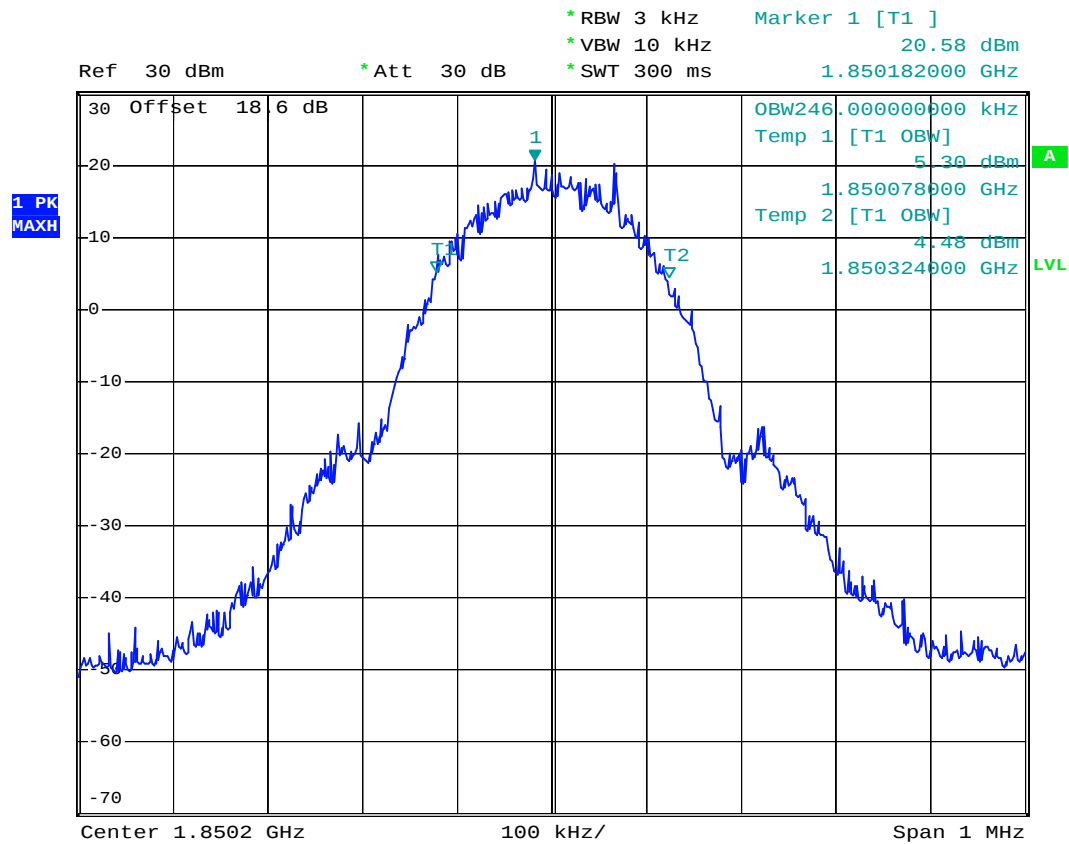
Date: 4.SEP.2007 06:13:37



FCC TEST REPORT

Report No. : FG782107

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



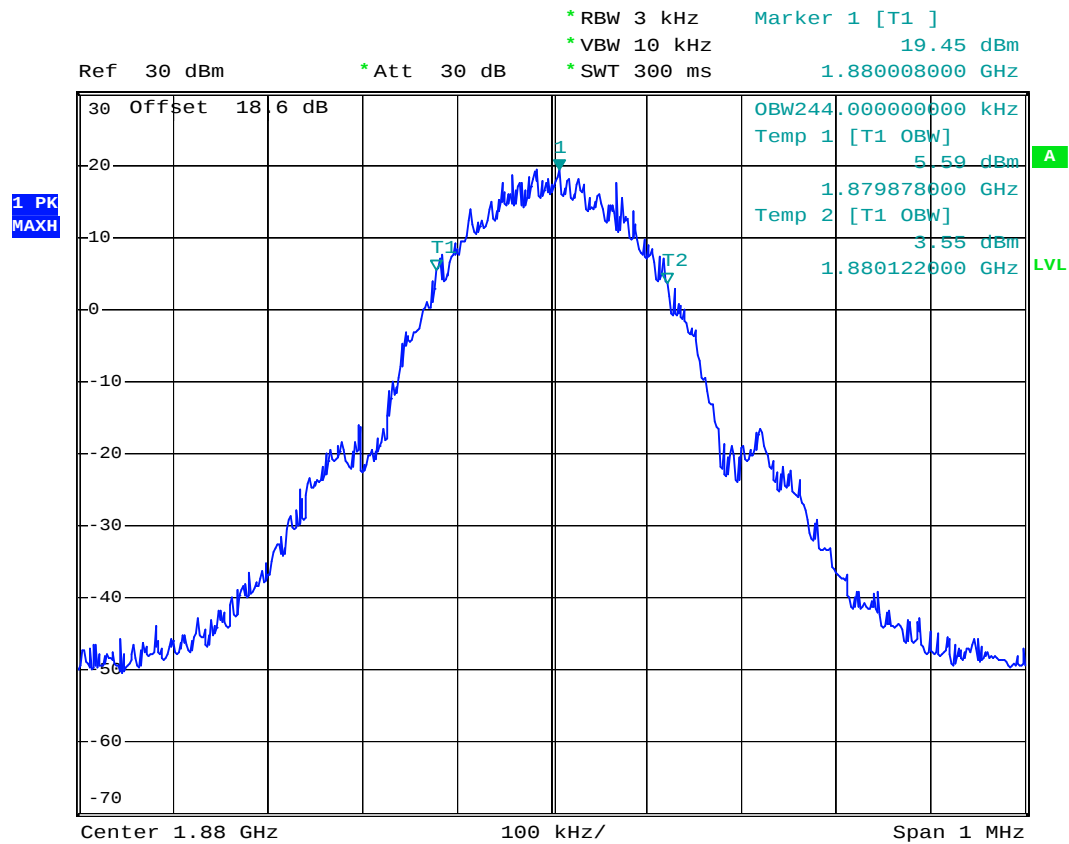
Date: 4.SEP.2007 06:16:55



FCC TEST REPORT

Report No. : FG782107

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



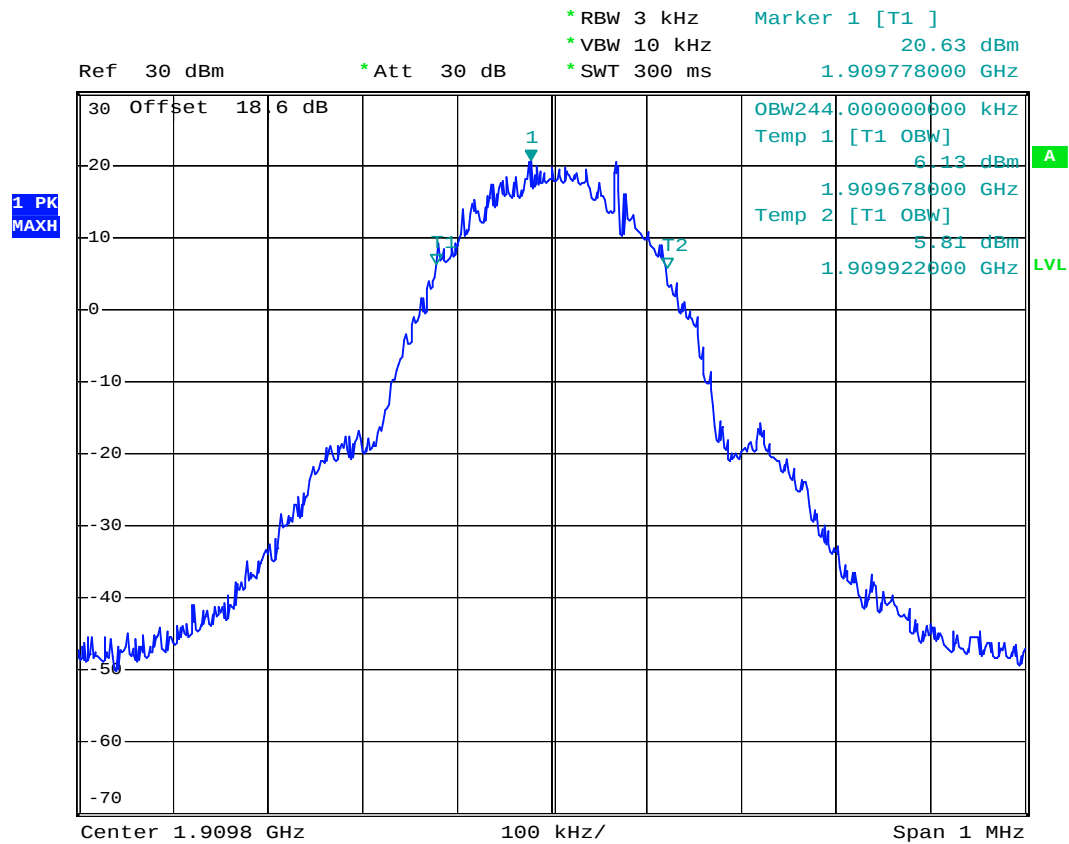
Date: 4.SEP.2007 06:17:45



FCC TEST REPORT

Report No. : FG782107

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



Date: 4.SEP.2007 06:22:06



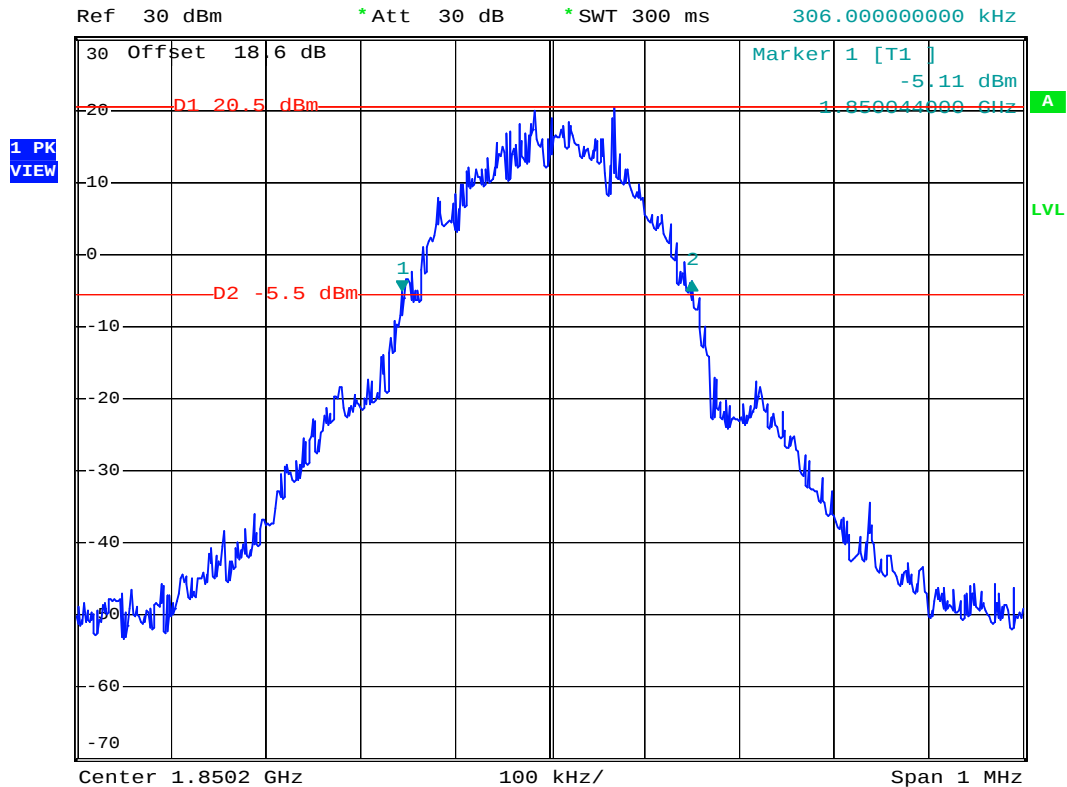
FCC TEST REPORT

Report No. : FG782107

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



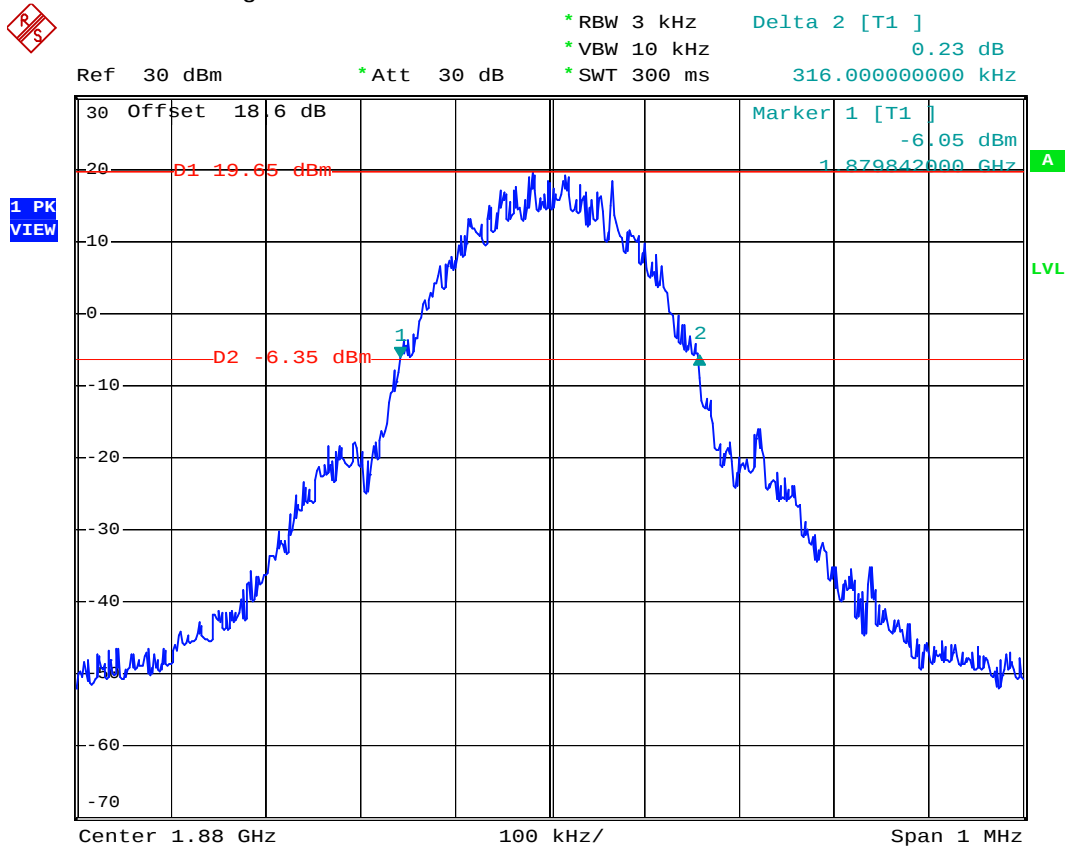
* RBW 3 kHz Delta 2 [T1]
* VBW 10 kHz 1.26 dB
* SWT 300 ms 306.000000000 kHz



Date: 5.SEP.2007 01:50:51



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



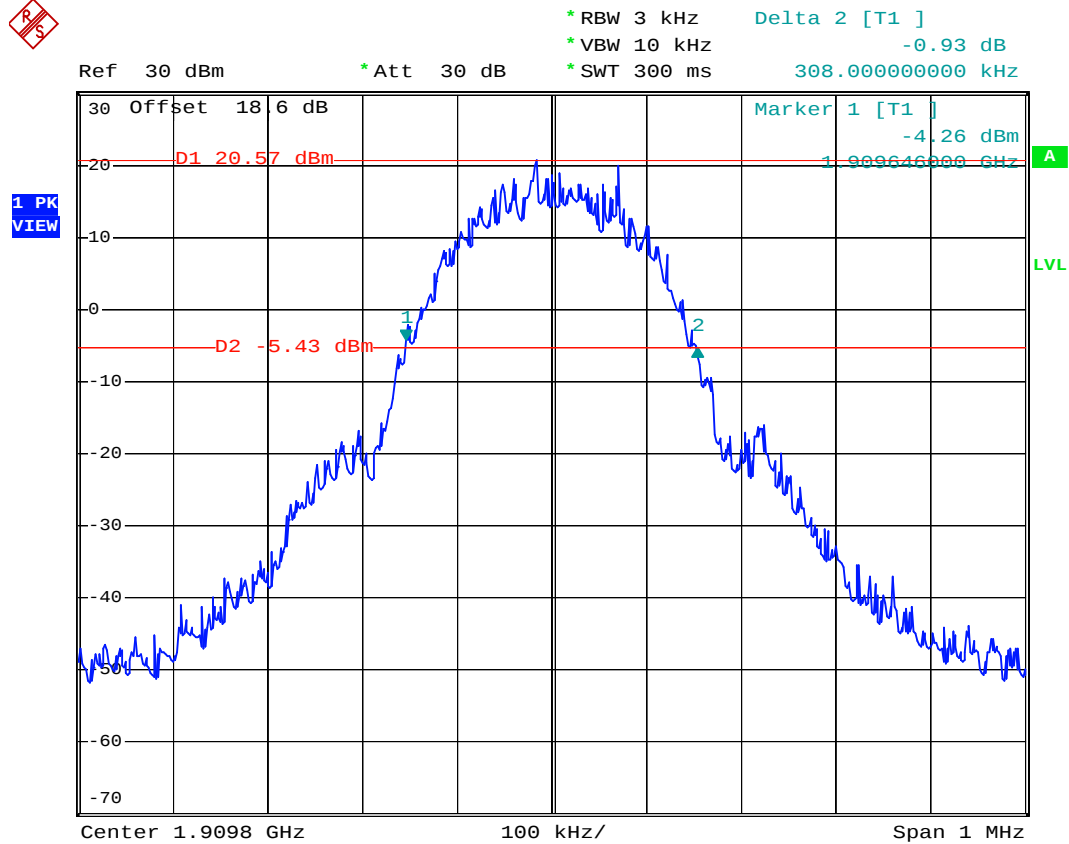
Date: 5.SEP.2007 01:52:23



FCC TEST REPORT

Report No. : FG782107

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



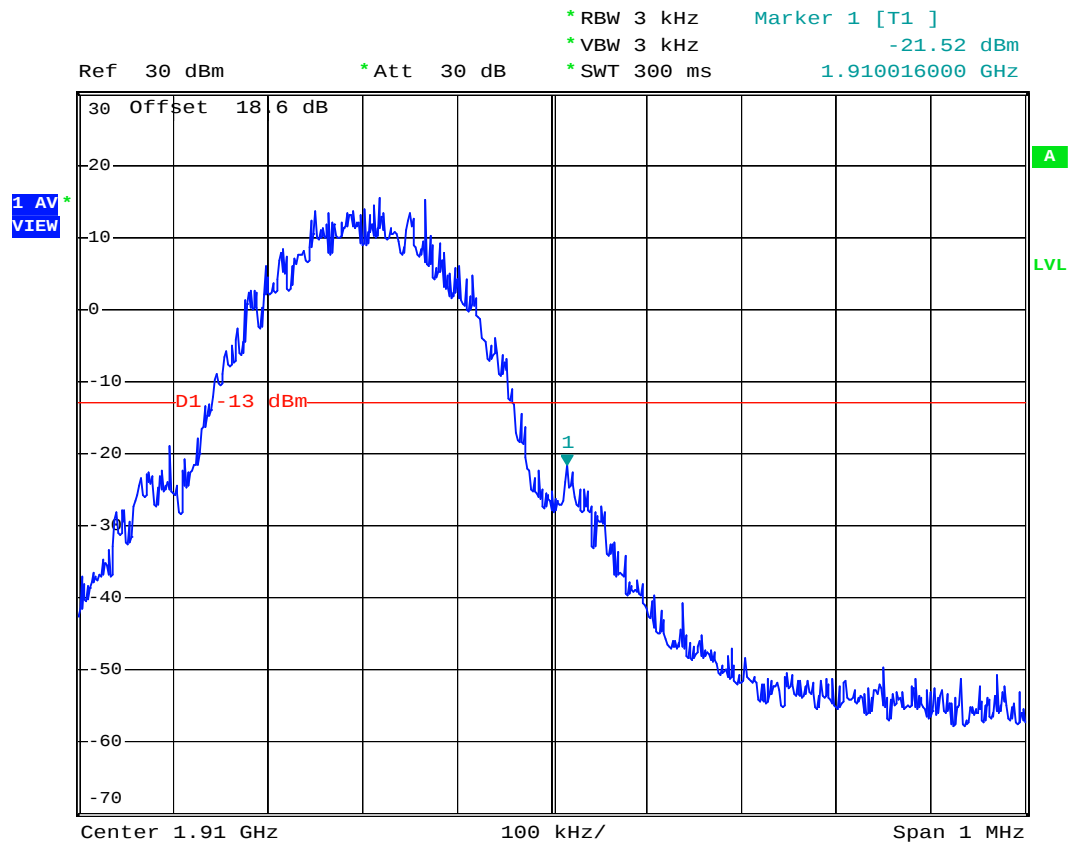
Date: 5.SEP.2007 01:54:42



FCC TEST REPORT

Report No. : FG782107

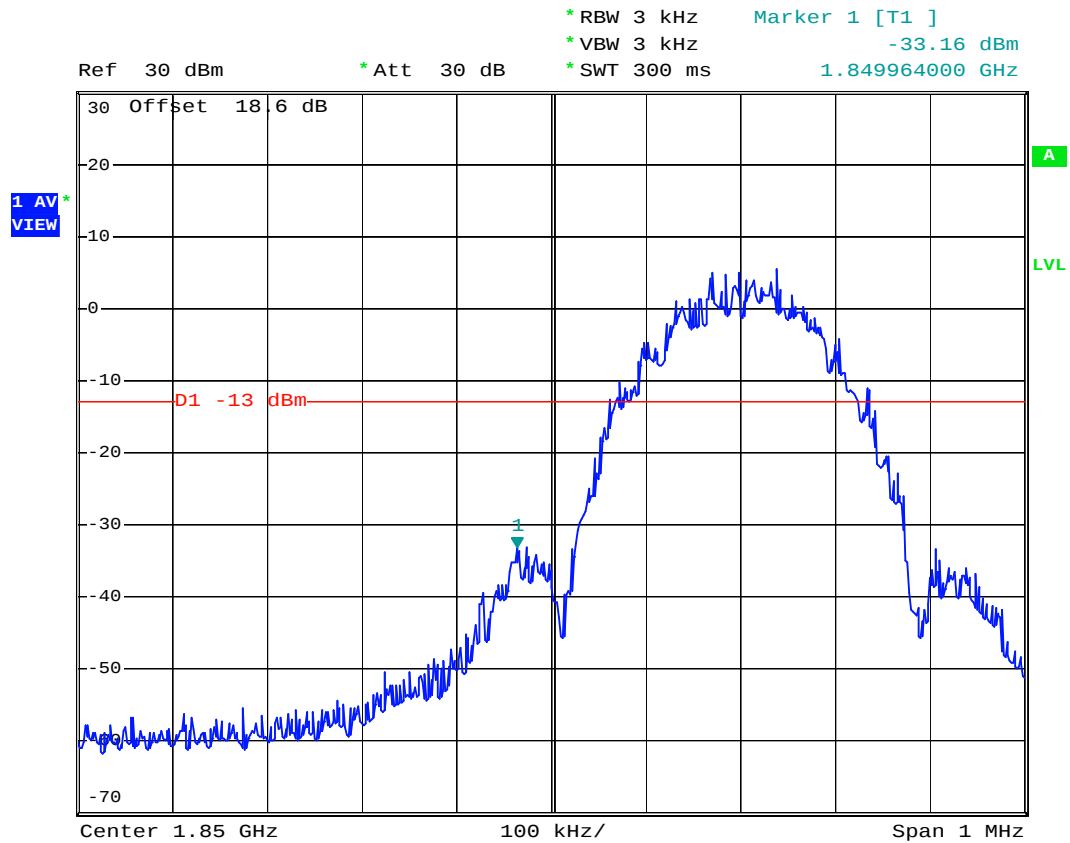
- Test Mode : PCS1900 (GSM) CH810 Higher Band Edge
- Power State : High



Date: 4.SEP.2007 06:14:25



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



Date: 4.SEP.2007 06:38:36

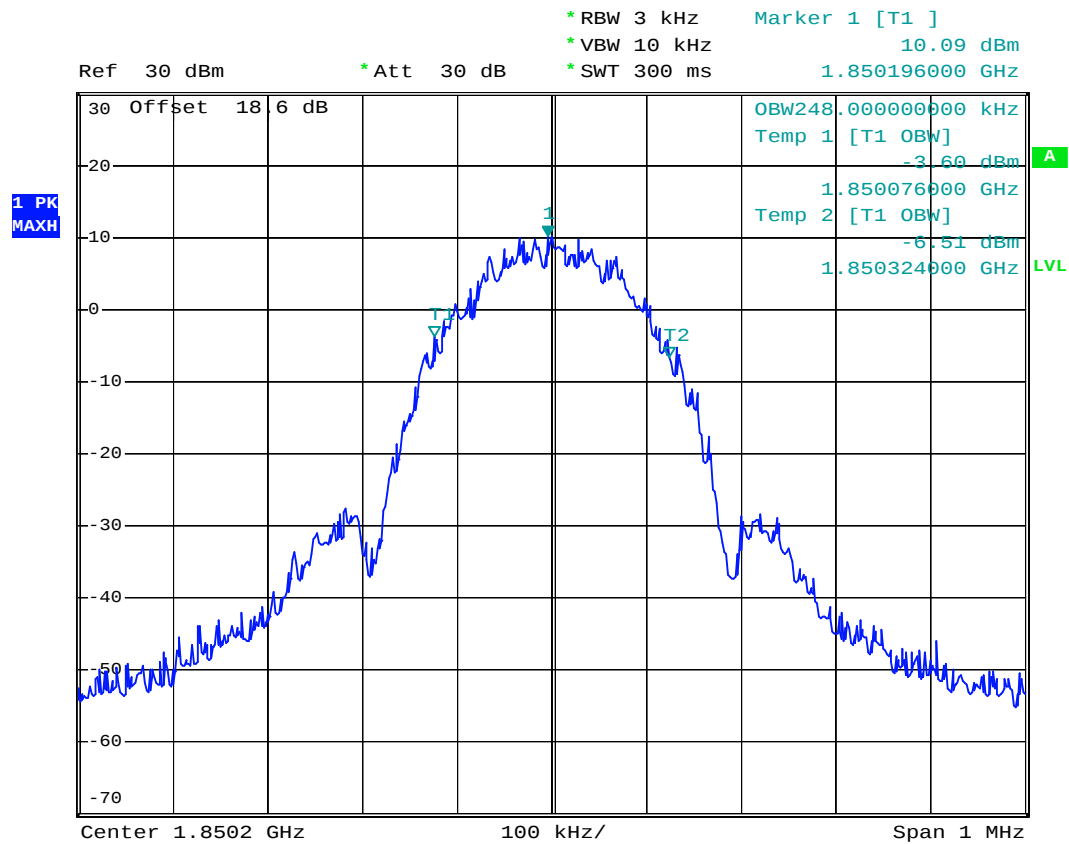


FCC TEST REPORT

Report No. : FG782107

Test Mode : PCS1900 (EDGE) CH512 99% Occupied Bandwidth

- Power State : High



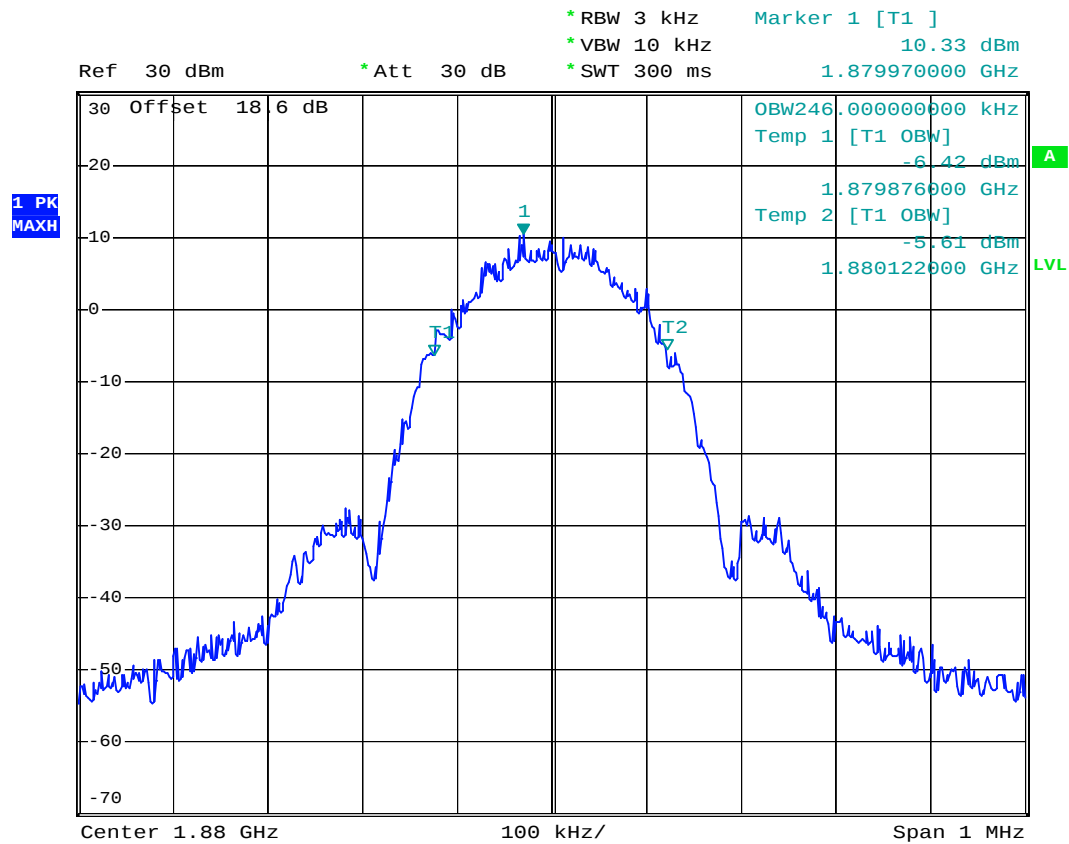
Date: 4.SEP.2007 06:45:04



FCC TEST REPORT

Report No. : FG782107

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



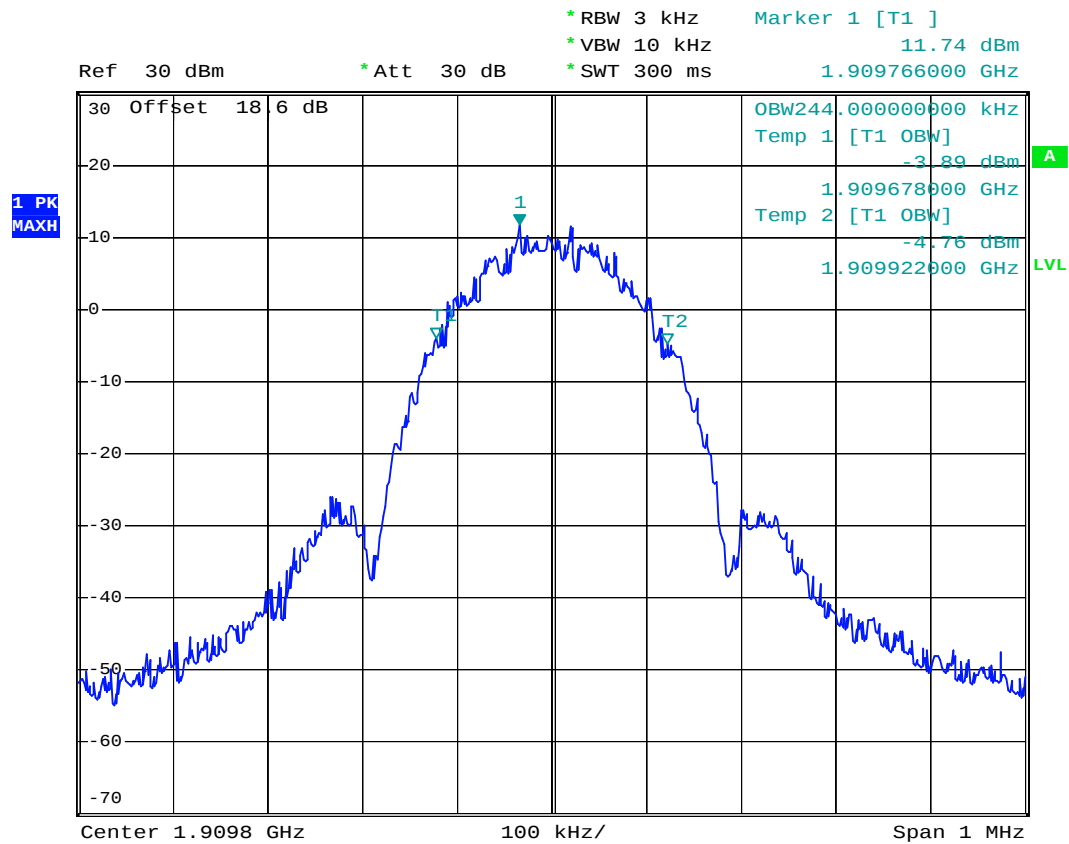
Date: 4.SEP.2007 06:45:55



FCC TEST REPORT

Report No. : FG782107

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



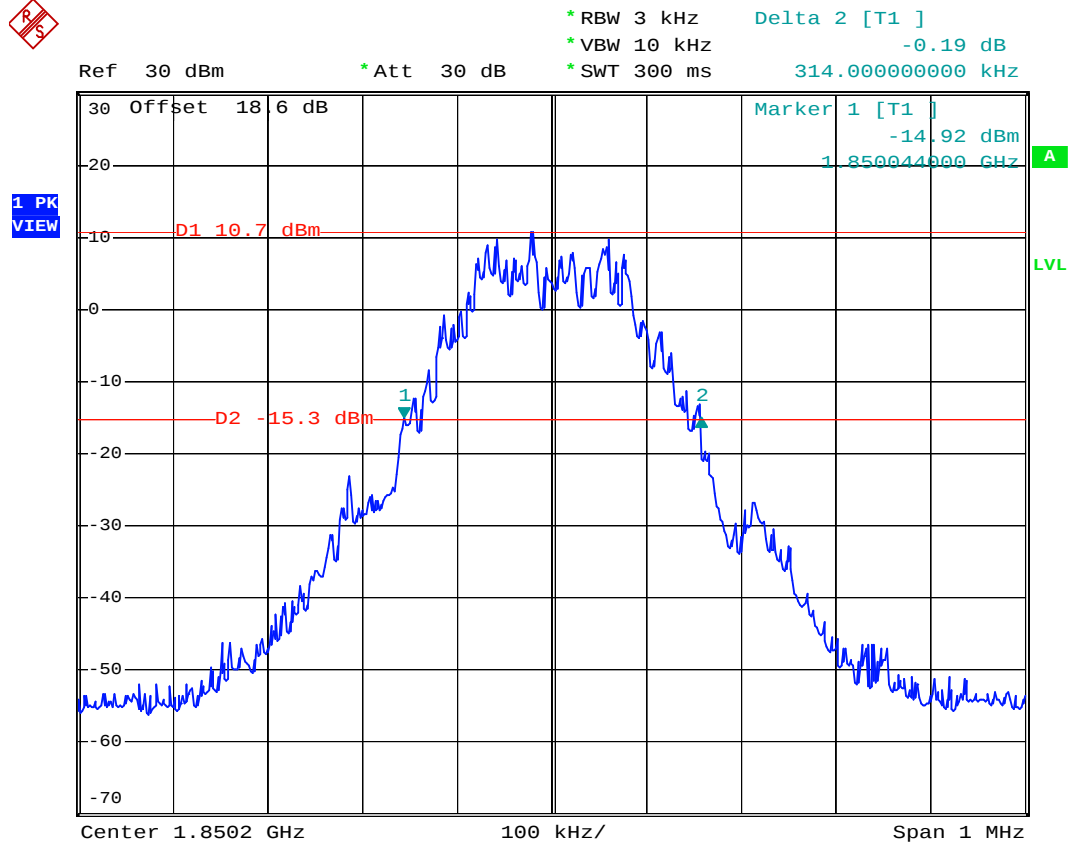
Date: 4.SEP.2007 06:48:25



FCC TEST REPORT

Report No. : FG782107

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



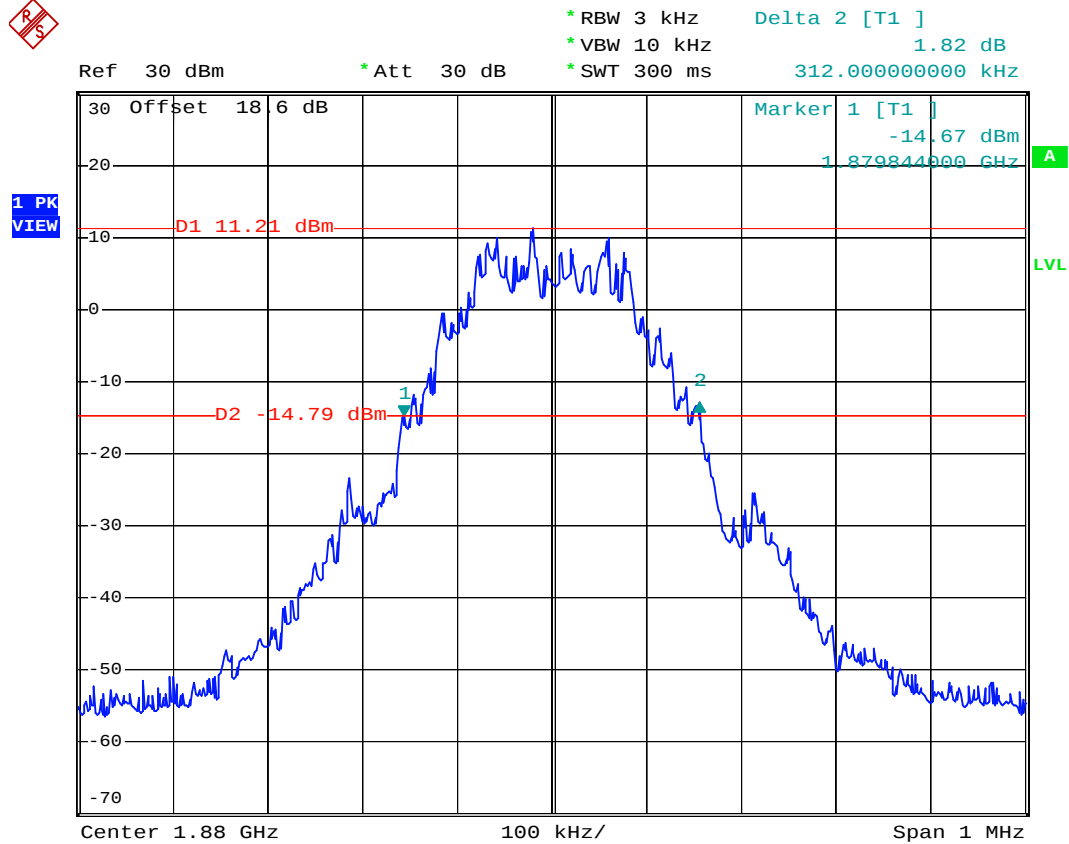
Date: 5.SEP.2007 01:37:41



FCC TEST REPORT

Report No. : FG782107

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



Date: 5.SEP.2007 01:39:23



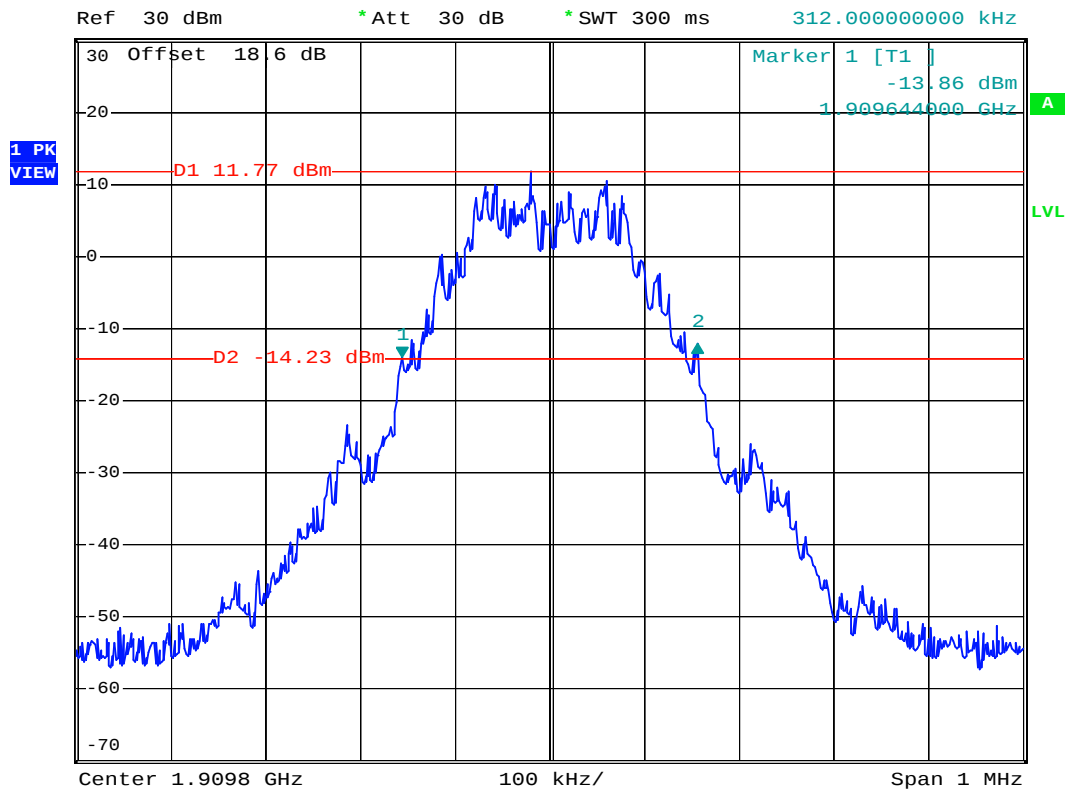
FCC TEST REPORT

Report No. : FG782107

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



* RBW 3 kHz Delta 2 [T1] 1.85 dB
* VBW 10 kHz
* SWT 300 ms 312.000000000 kHz



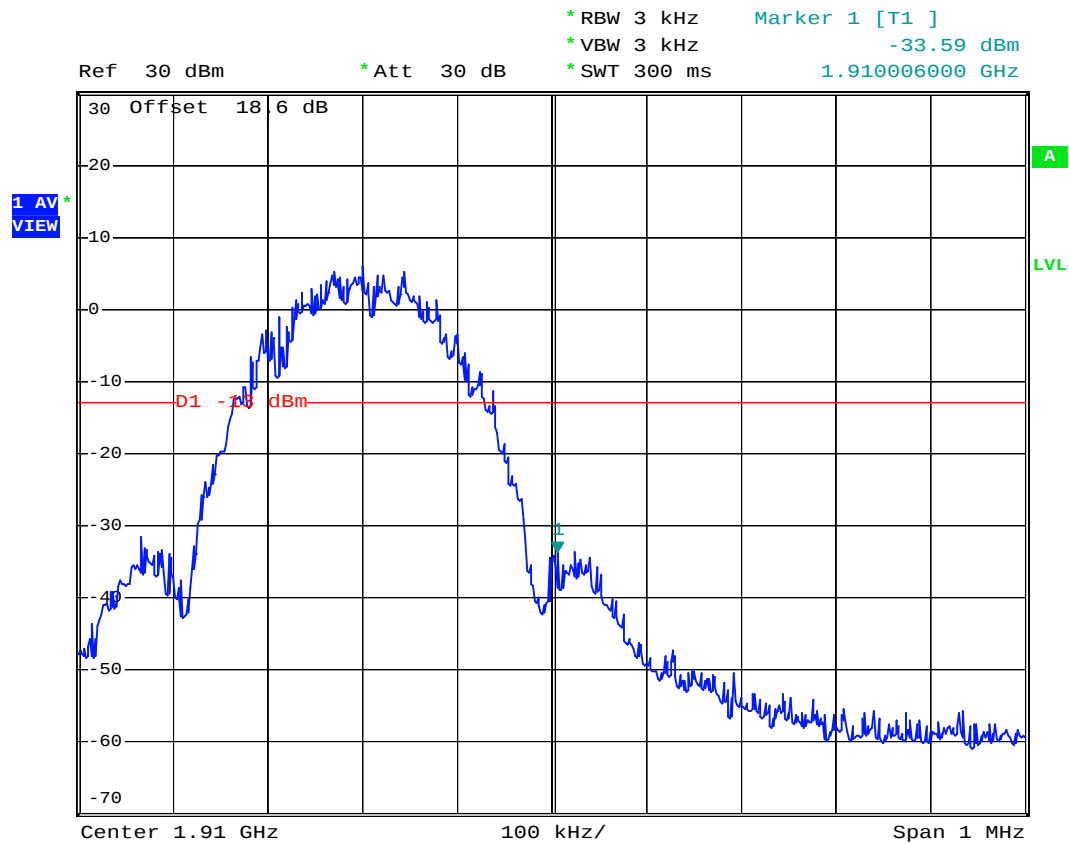
Date: 5.SEP.2007 01:41:00



FCC TEST REPORT

Report No. : FG782107

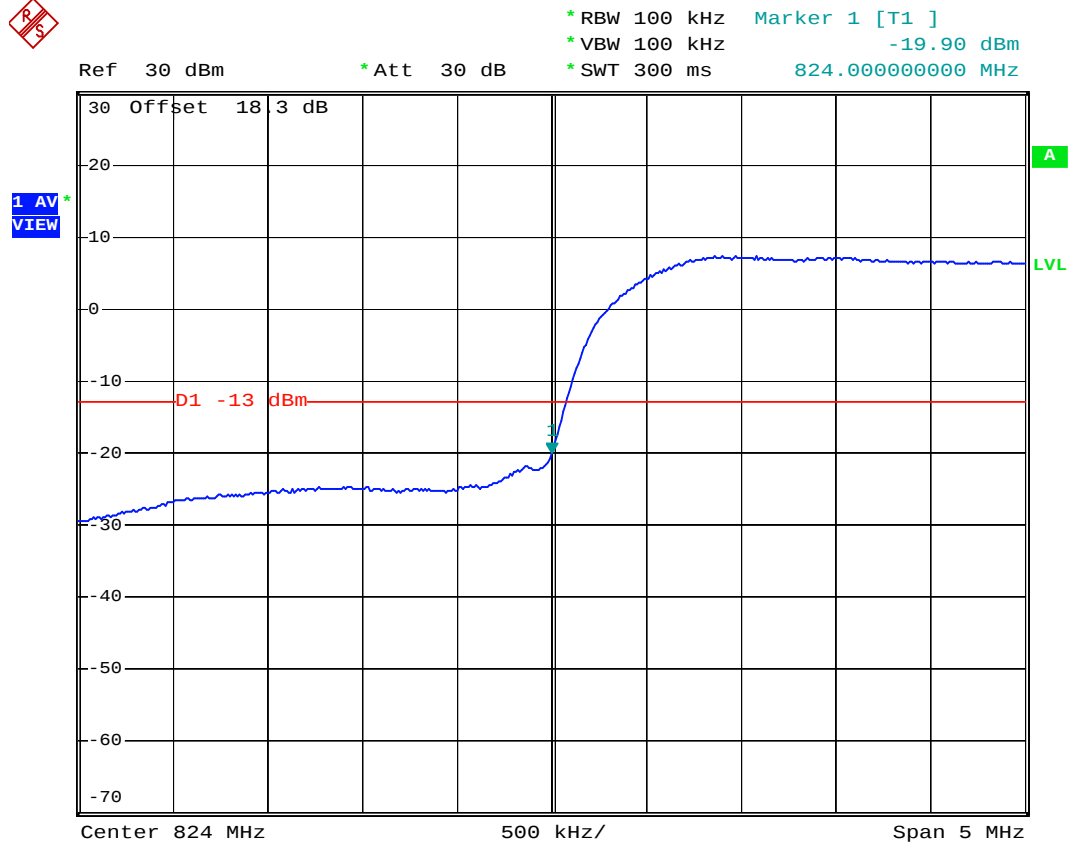
- Test Mode : PCS1900(EDGE) CH810 Higher Band Edge
- Power State : High



Date: 4.SEP.2007 06:43:27



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



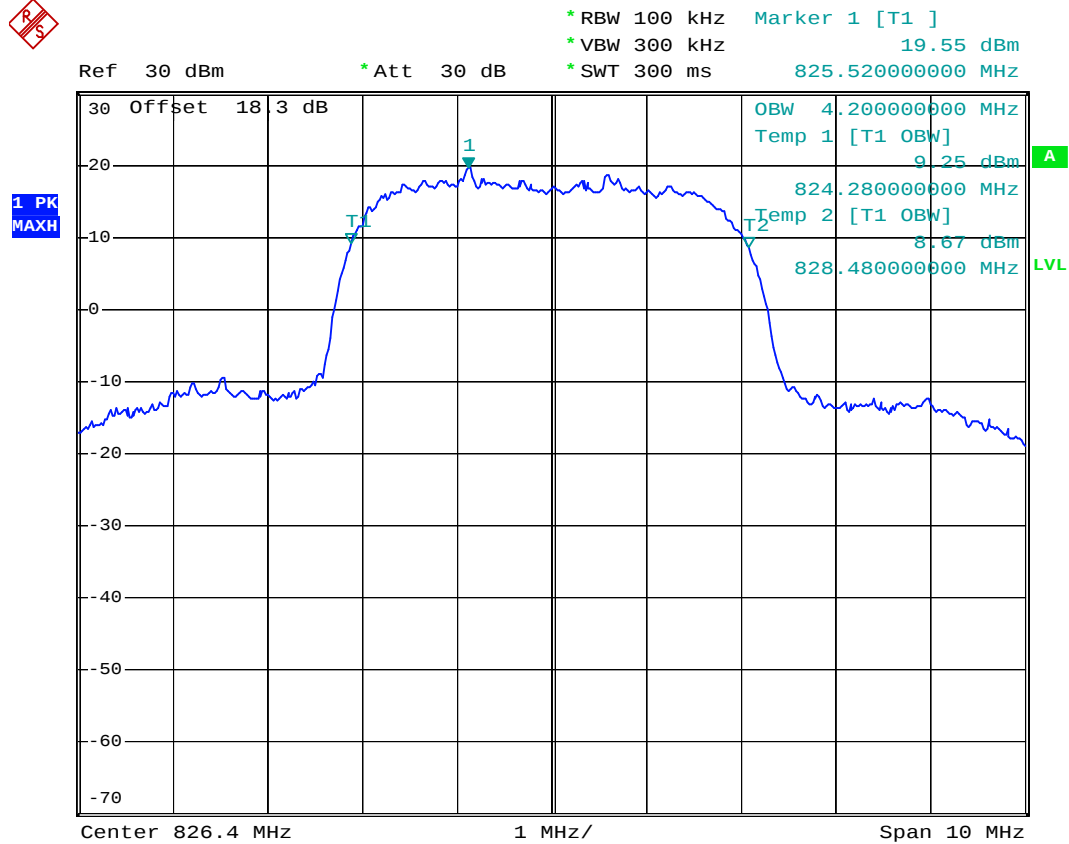
Date: 5.SEP.2007 04:08:33



FCC TEST REPORT

Report No. : FG782107

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



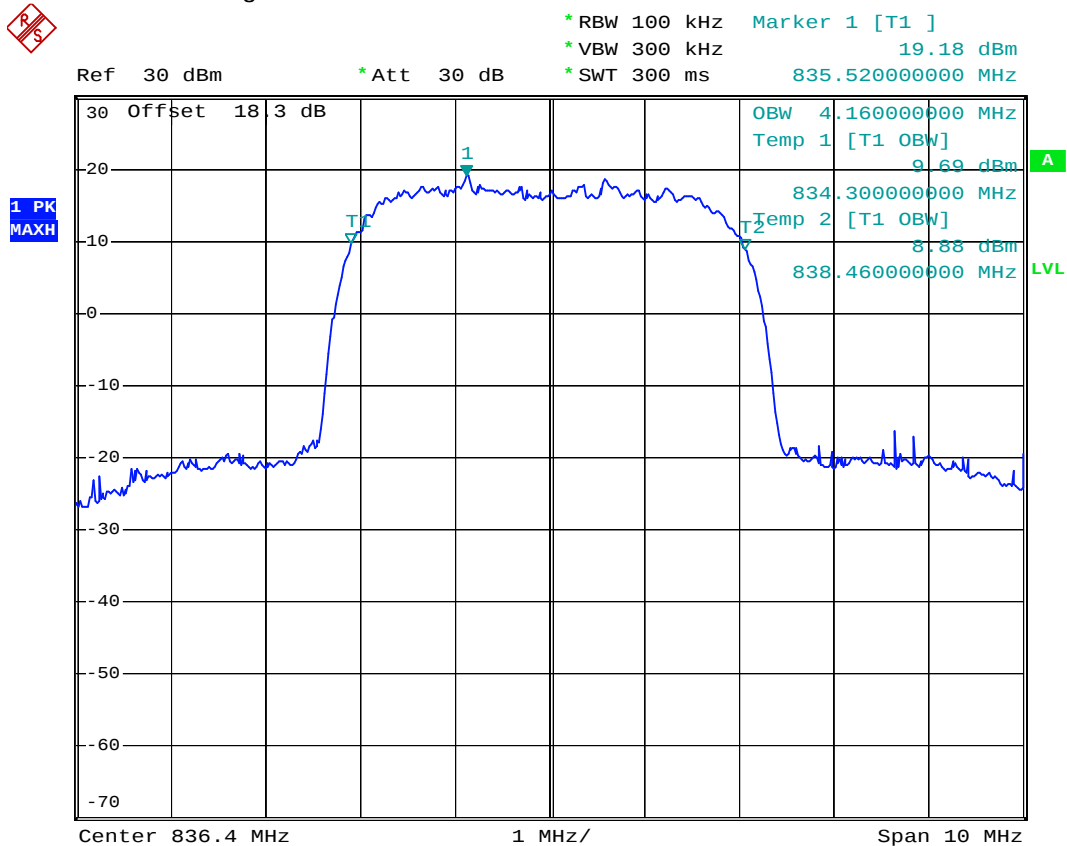
Date: 5.SEP.2007 05:44:19



FCC TEST REPORT

Report No. : FG782107

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



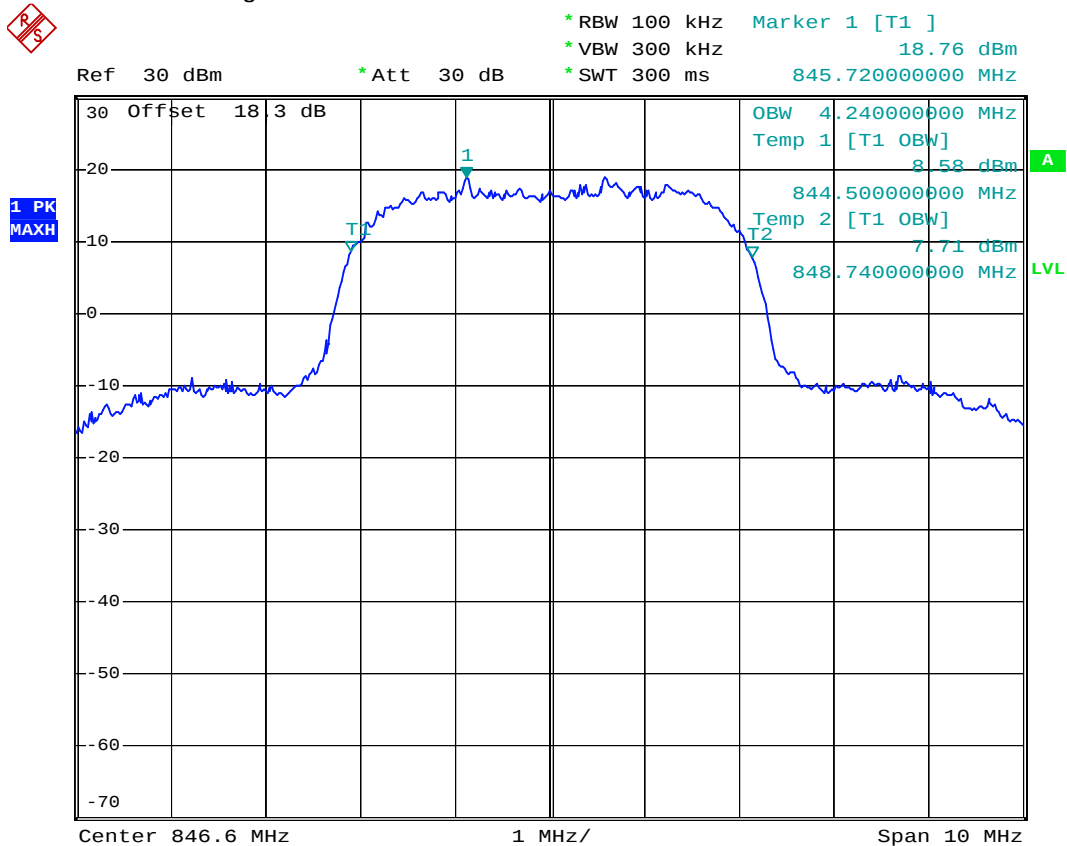
Date: 5.SEP.2007 05:45:04



FCC TEST REPORT

Report No. : FG782107

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



Date: 13.SEP.2007 22:24:54



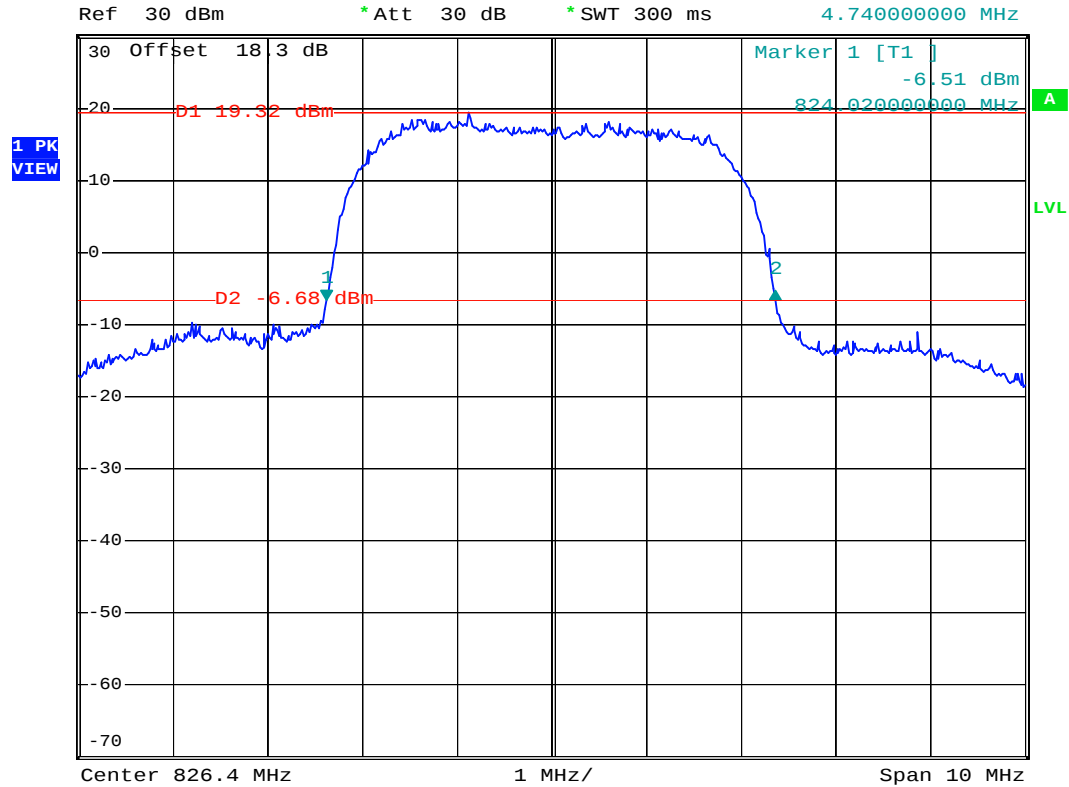
FCC TEST REPORT

Report No. : FG782107

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



* RBW 100 kHz Delta 2 [T1]
* VBW 300 kHz 1.27 dB
* SWT 300 ms 4.740000000 MHz



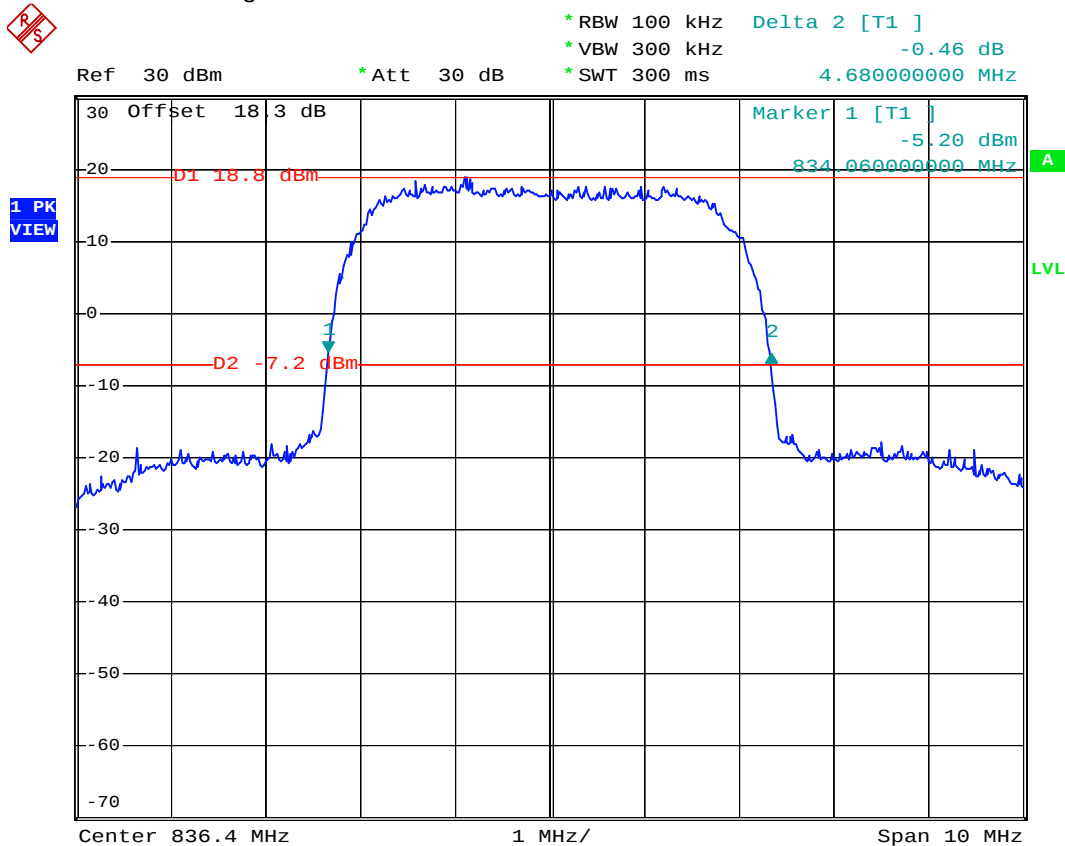
Date: 5.SEP.2007 05:26:25



FCC TEST REPORT

Report No. : FG782107

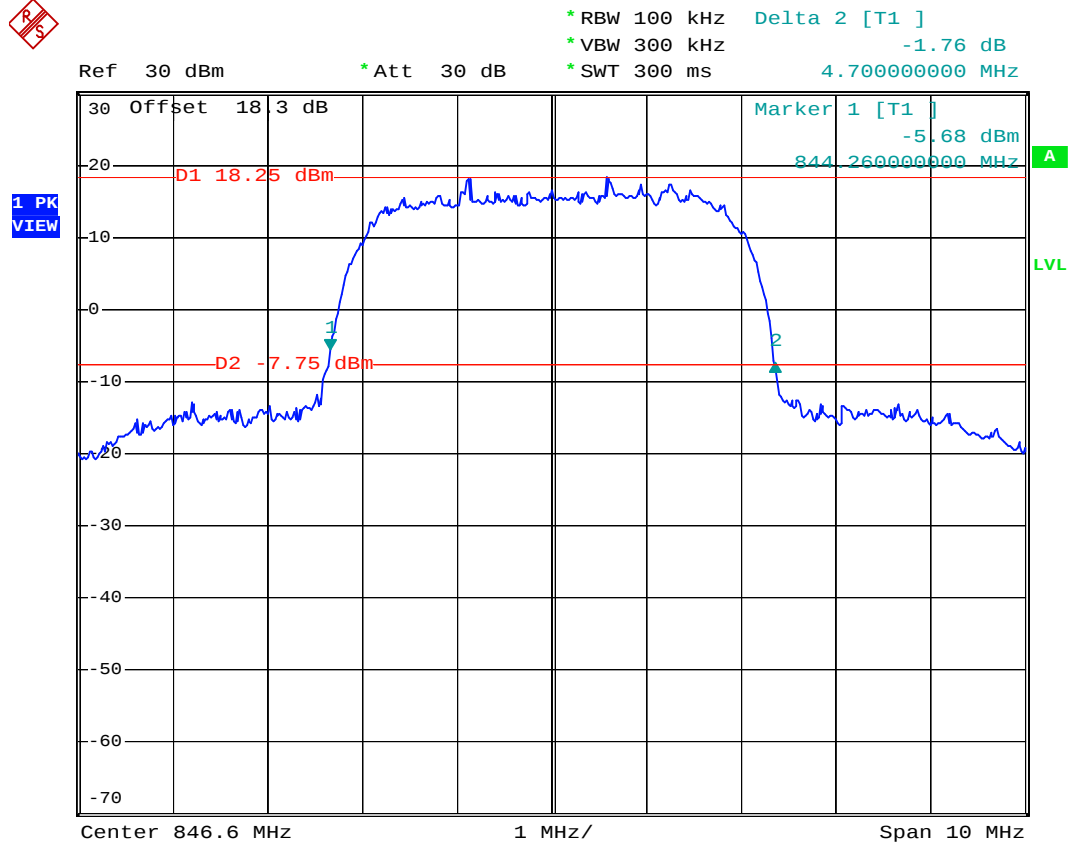
- Test Mode : WCDMA Band V CH4182 26dB Bandwidth
- Power State : High



Date: 5.SEP.2007 05:27:52



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



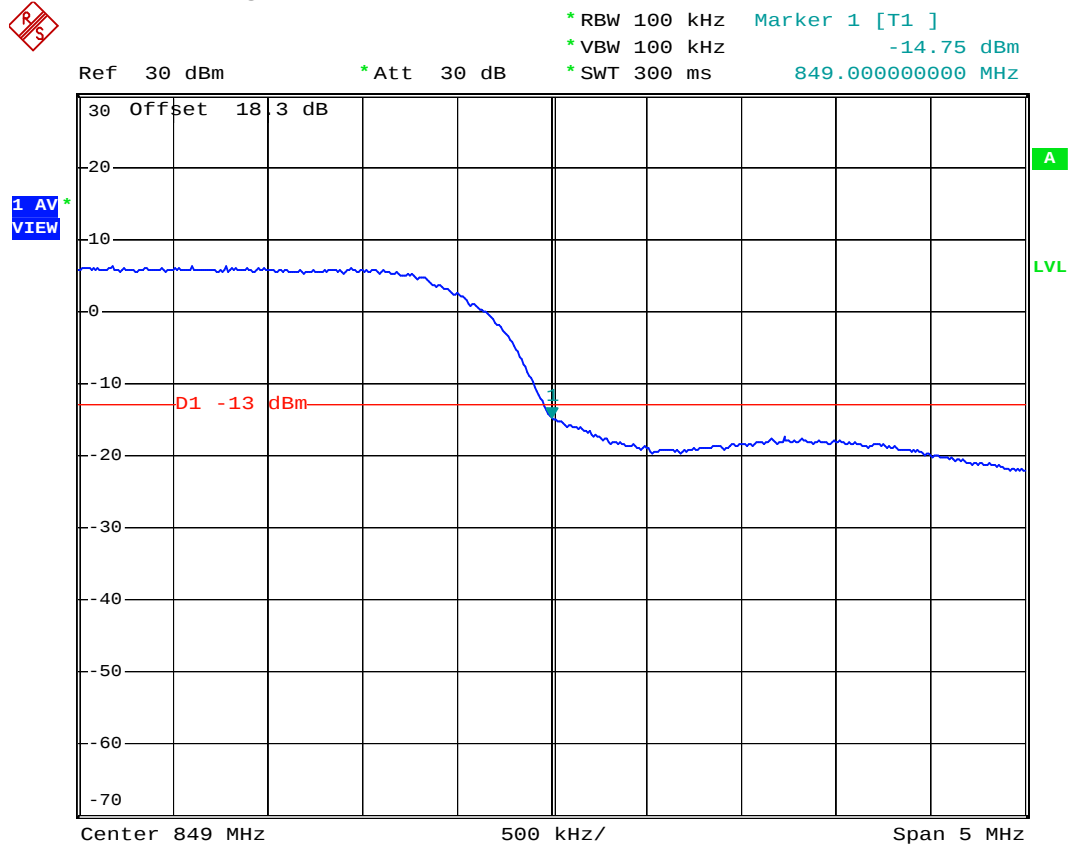
Date: 13.SEP.2007 22:16:47



FCC TEST REPORT

Report No. : FG782107

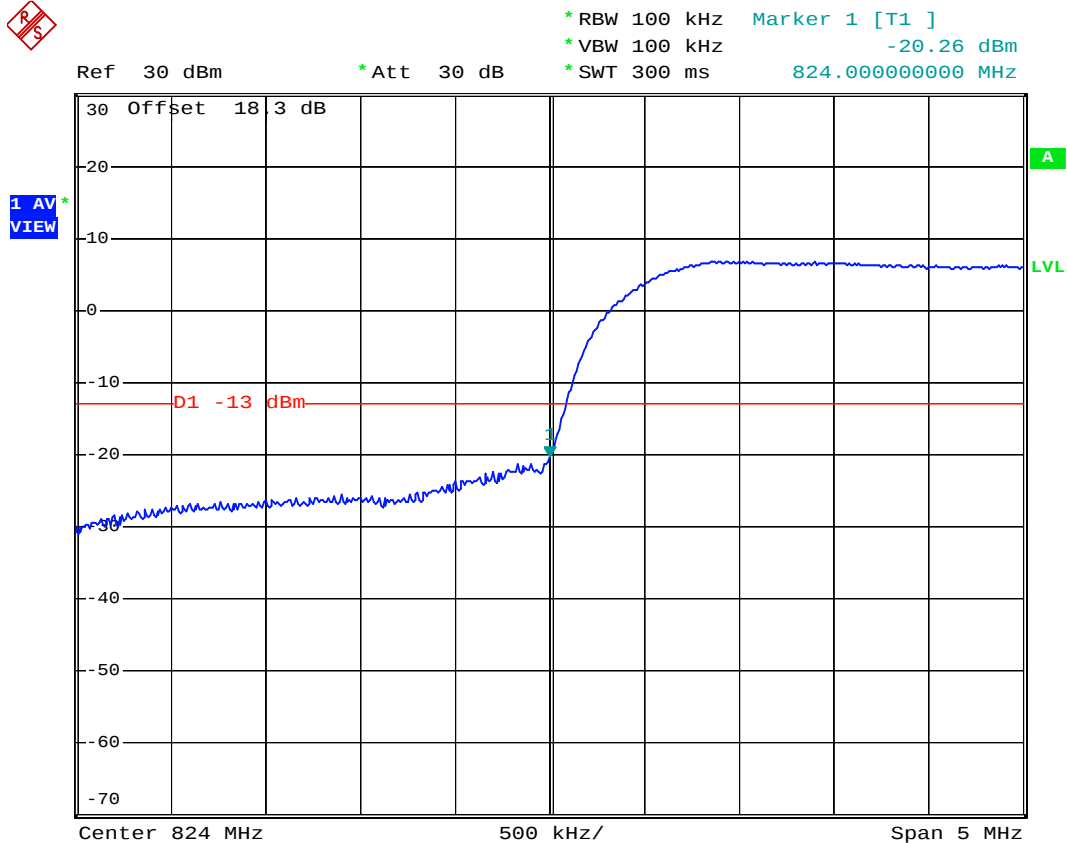
- Test Mode : WCDMA Band V CH4233 Higher Band Edge
- Power State : High



Date: 5.SEP.2007 05:08:59



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



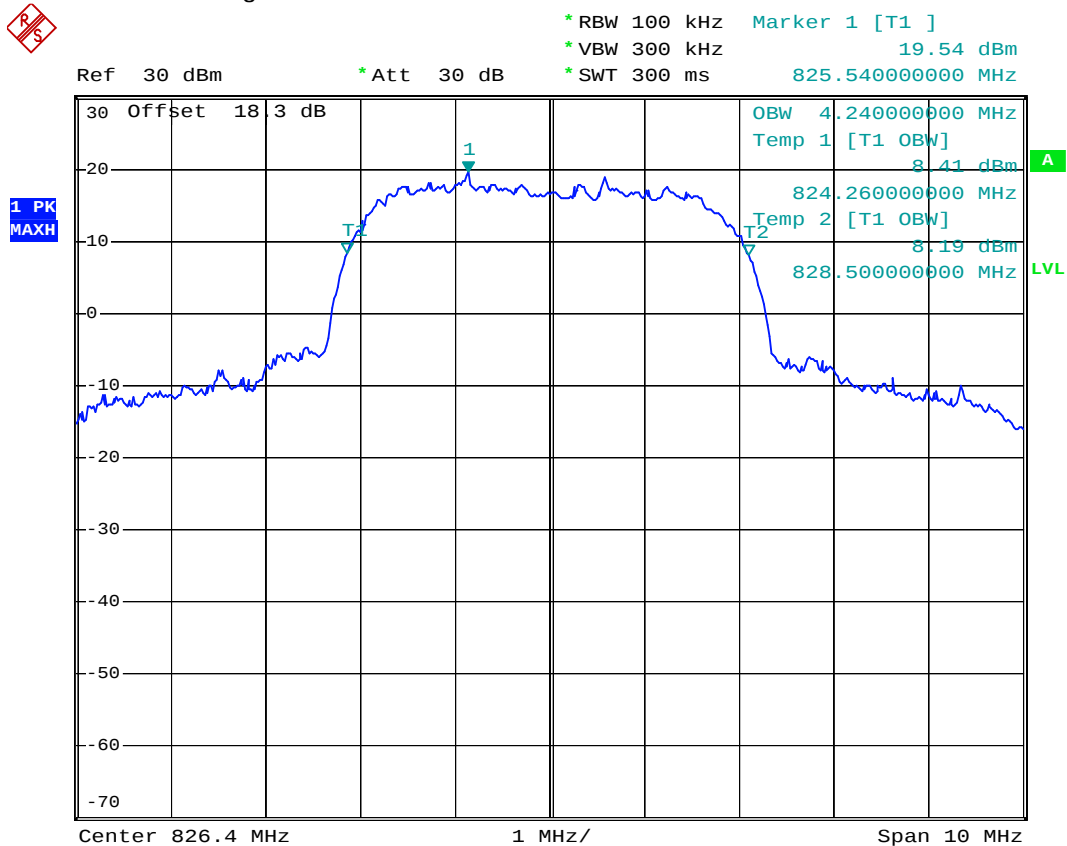
Date: 5.SEP.2007 04:14:43



FCC TEST REPORT

Report No. : FG782107

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



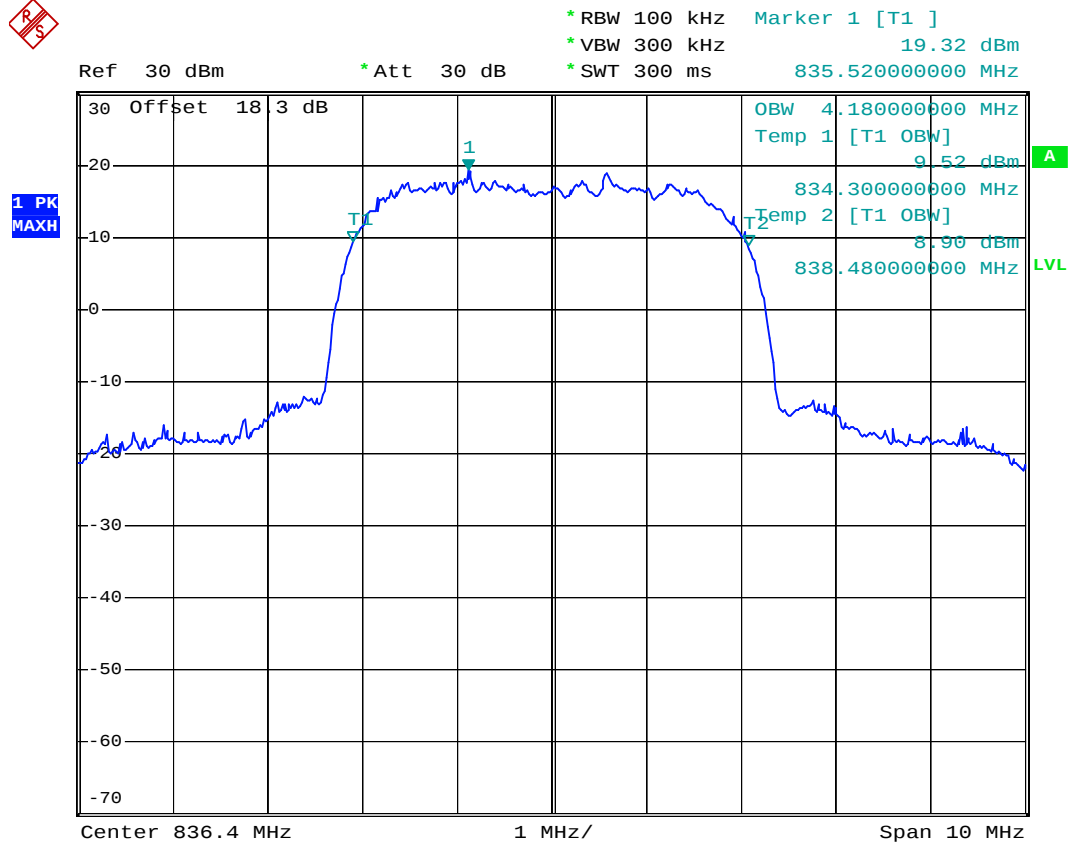
Date: 5.SEP.2007 06:15:08



FCC TEST REPORT

Report No. : FG782107

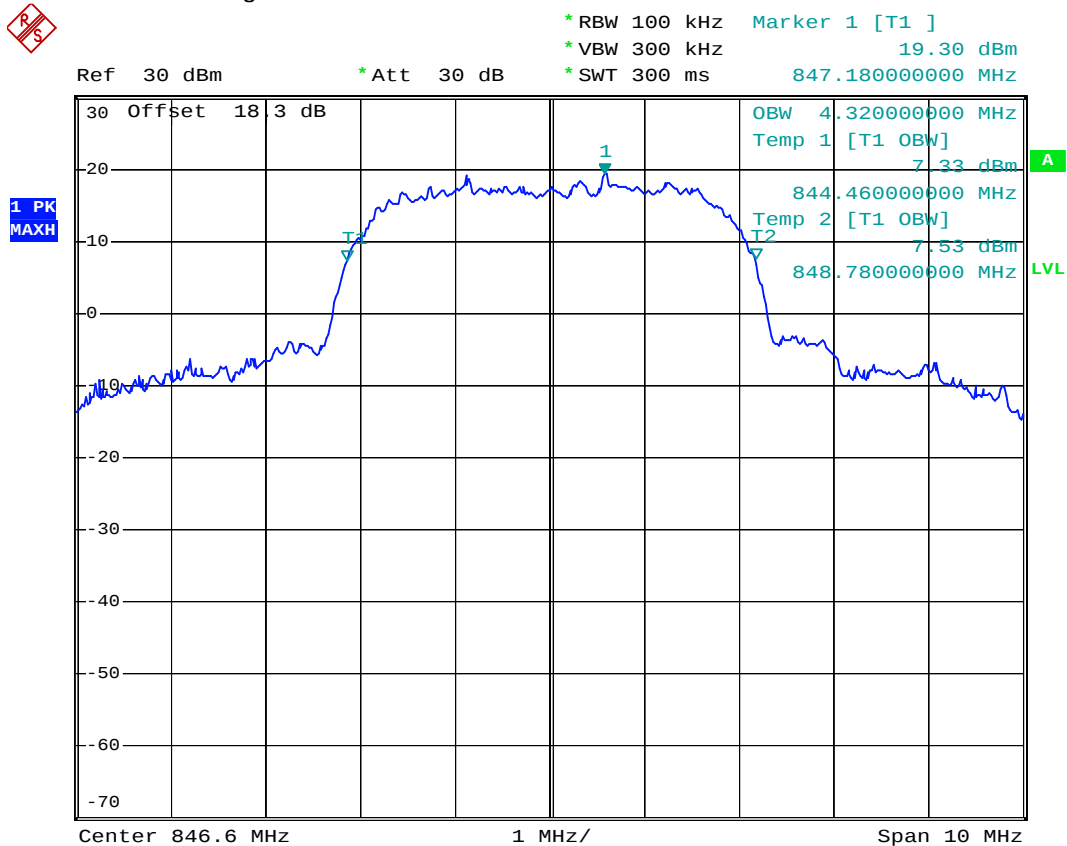
- Test Mode : WCDMA Band V (HSDPA) CH4182 99% Occupied Bandwidth
- Power State : High



Date: 5.SEP.2007 06:17:40



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



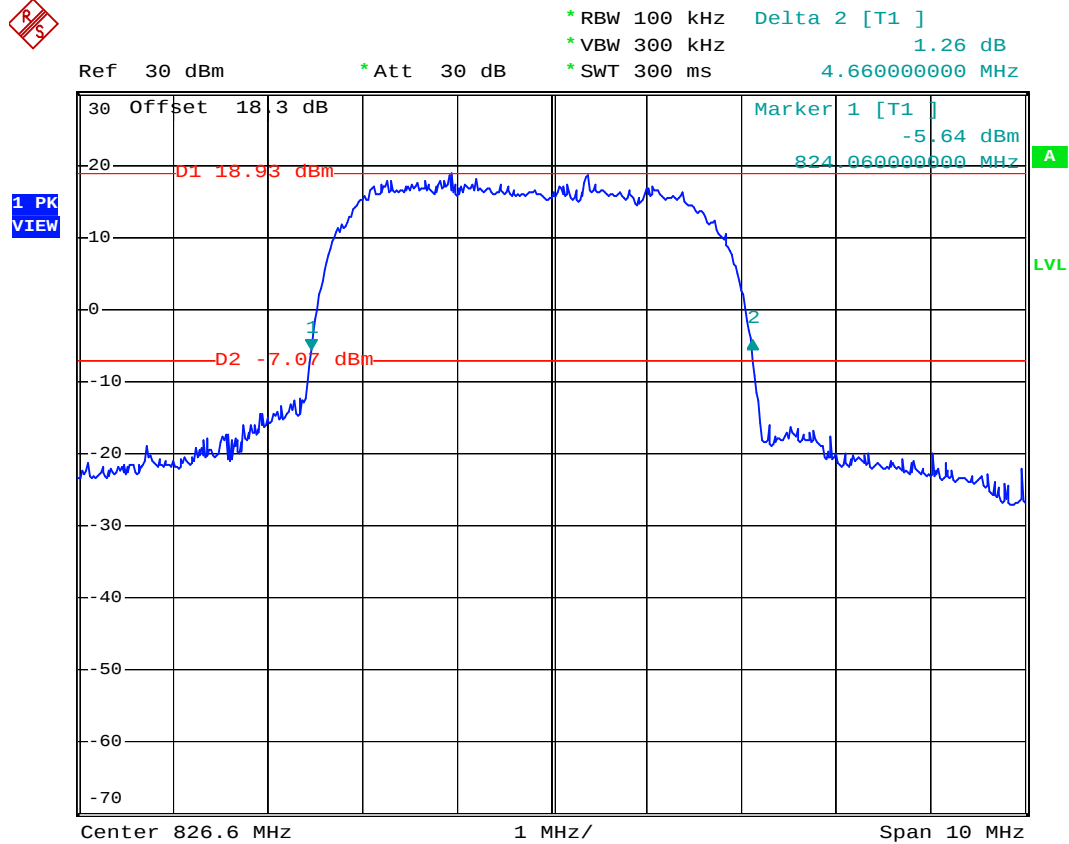
Date: 14.SEP.2007 03:33:29



FCC TEST REPORT

Report No. : FG782107

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



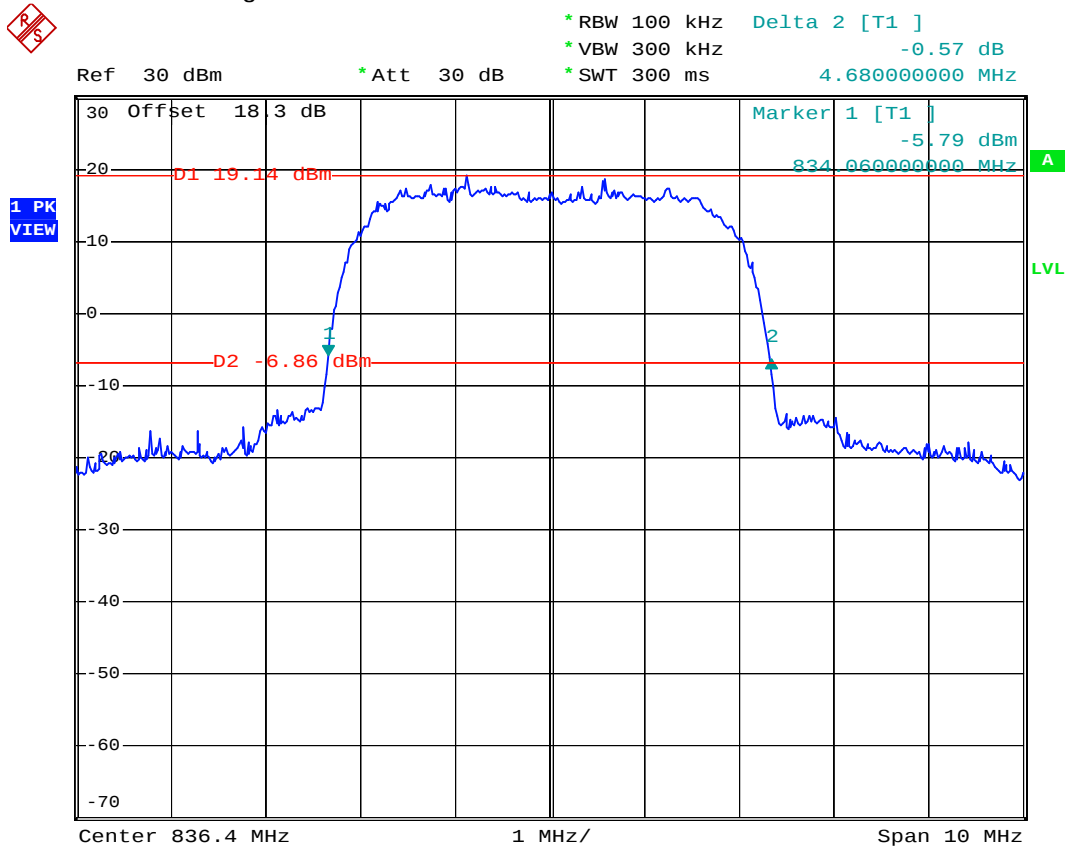
Date: 14.SEP.2007 03:36:28



FCC TEST REPORT

Report No. : FG782107

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



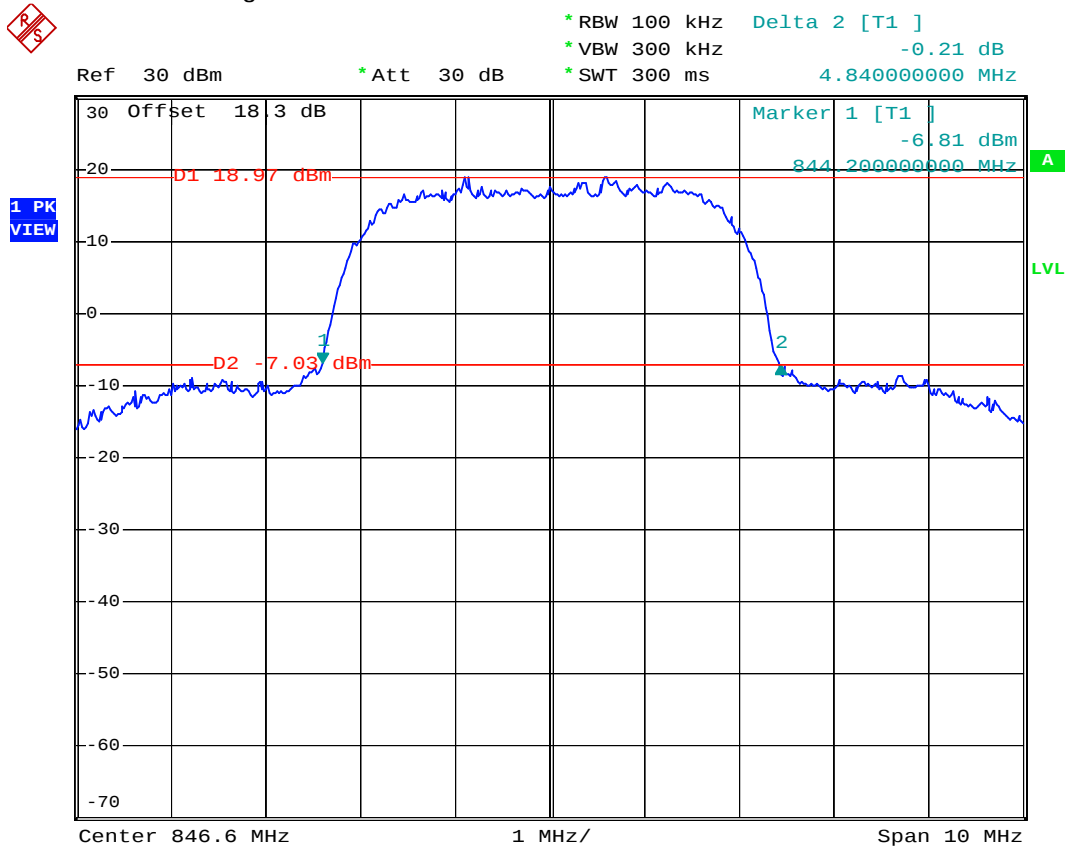
Date: 5.SEP.2007 06:12:17



FCC TEST REPORT

Report No. : FG782107

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



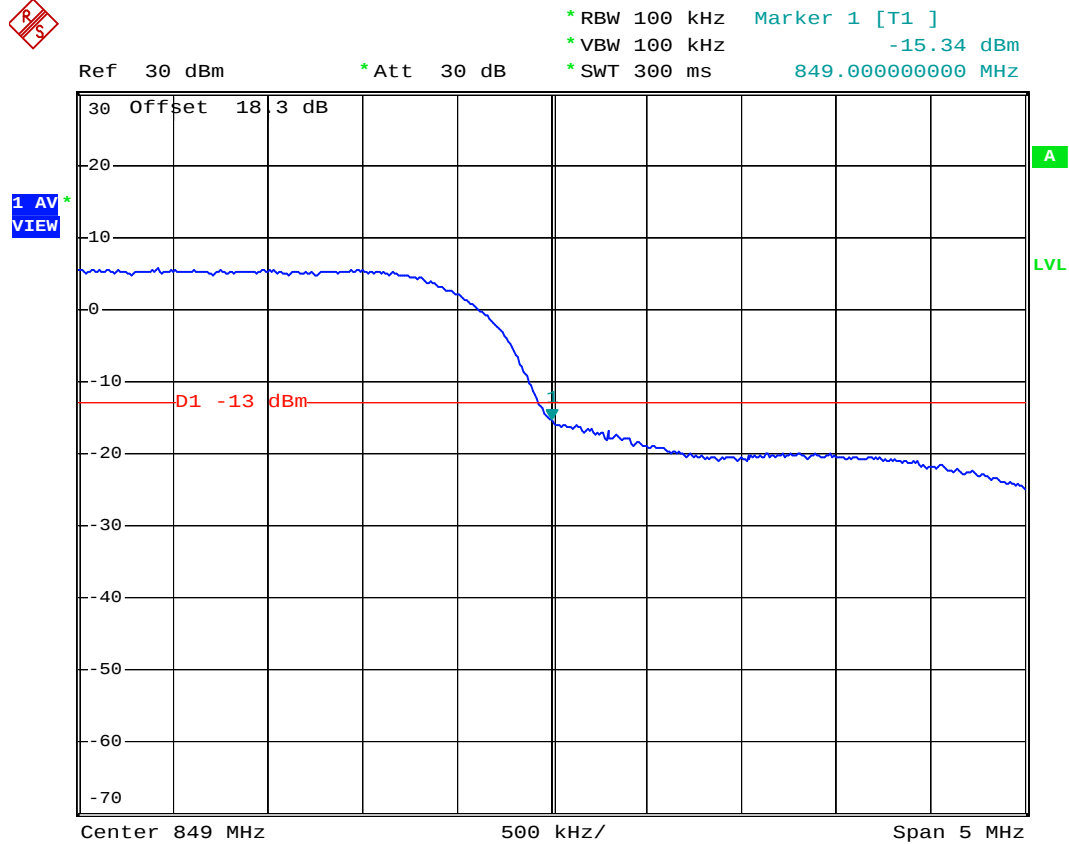
Date: 14.SEP.2007 04:32:43



FCC TEST REPORT

Report No. : FG782107

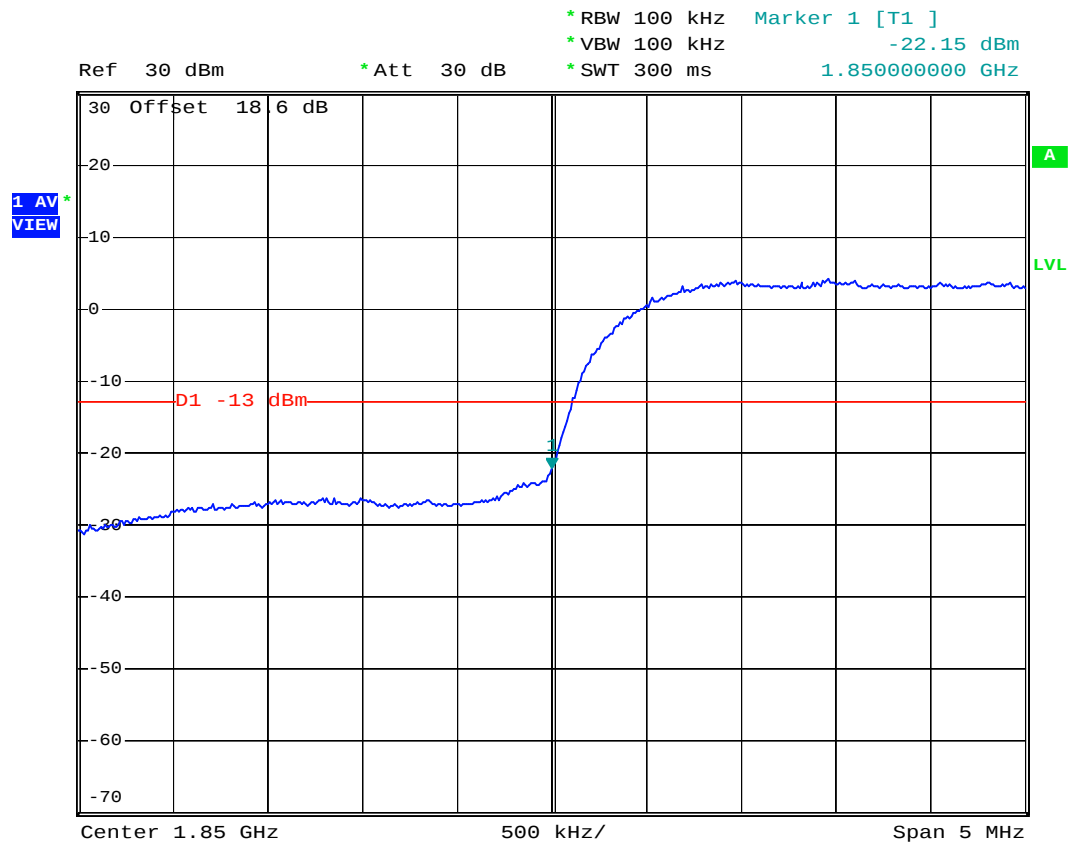
- Test Mode : WCDMA Band V (HSDPA) CH4233 Higher Band Edge
- Power State : High



Date: 5.SEP.2007 05:06:43



- Mode 7
- Test Mode : WCDMA Band II CH9262 Lower Band Edge
- Power State : High



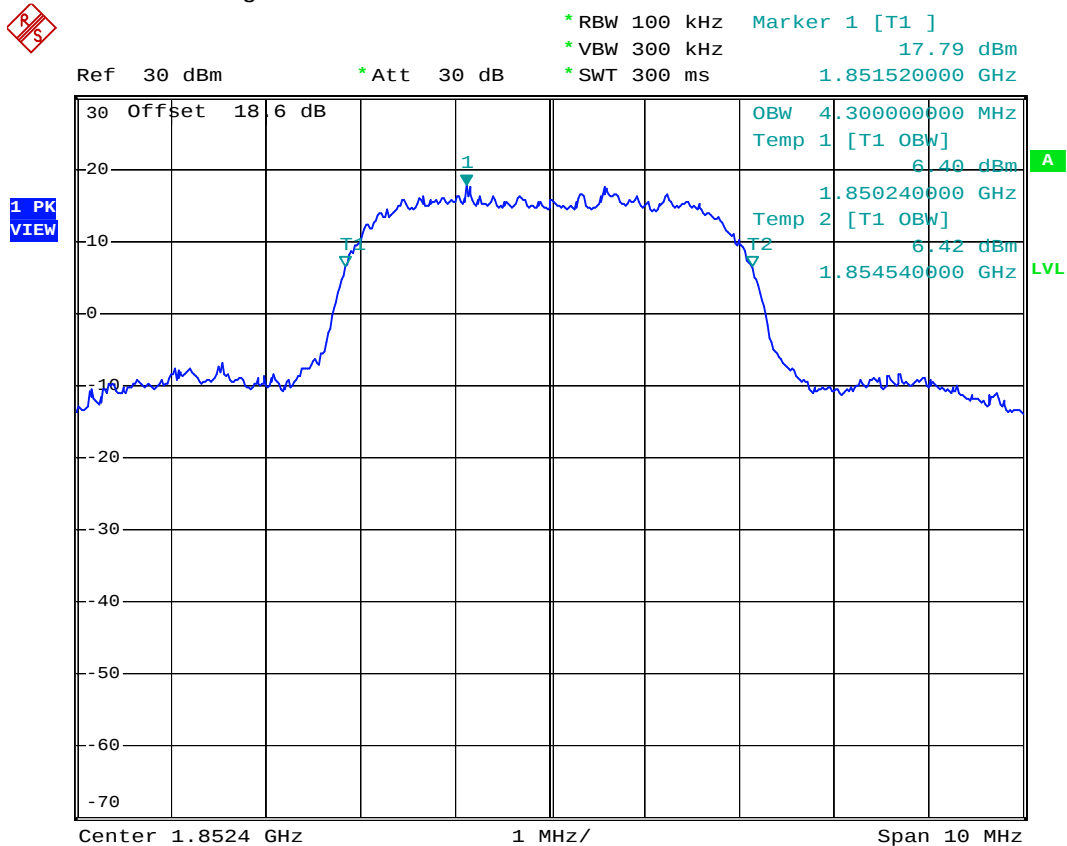
Date: 4.SEP.2007 08:16:17



FCC TEST REPORT

Report No. : FG782107

- Test Mode : WCDMA Band II CH9262 99% Occupied Bandwidth
- Power State : High



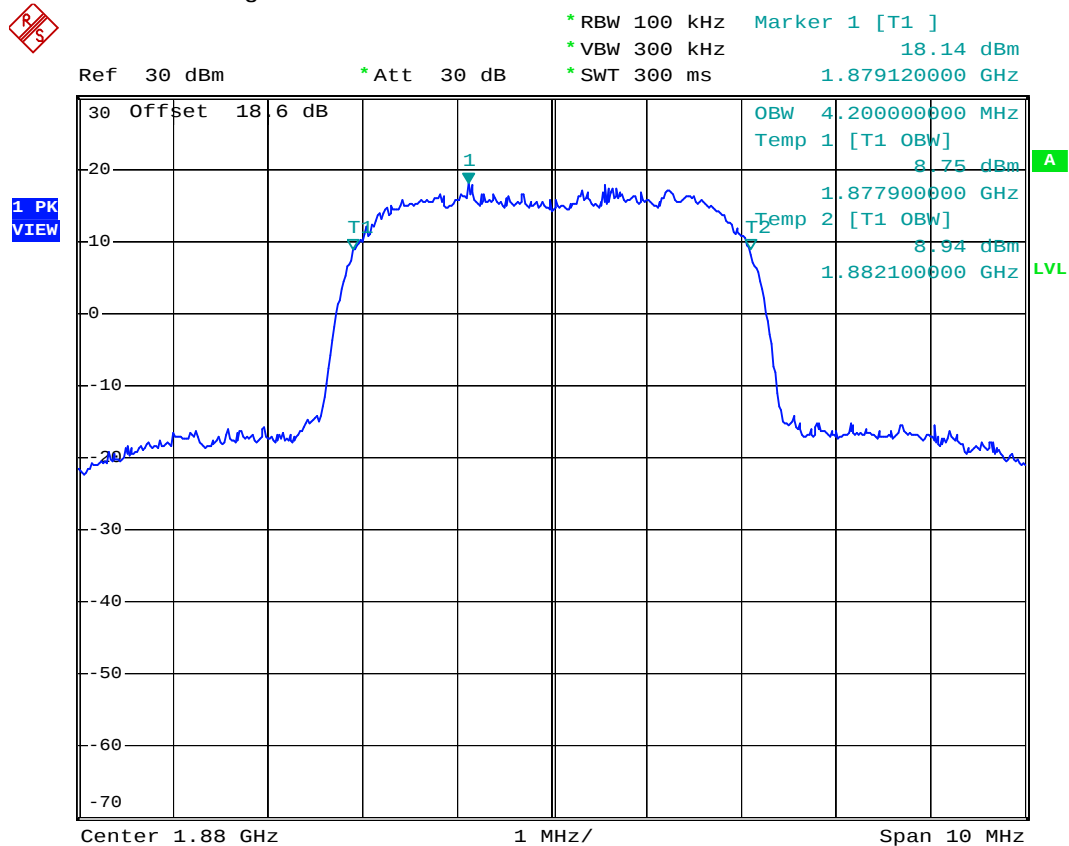
Date: 5.SEP.2007 03:32:45



FCC TEST REPORT

Report No. : FG782107

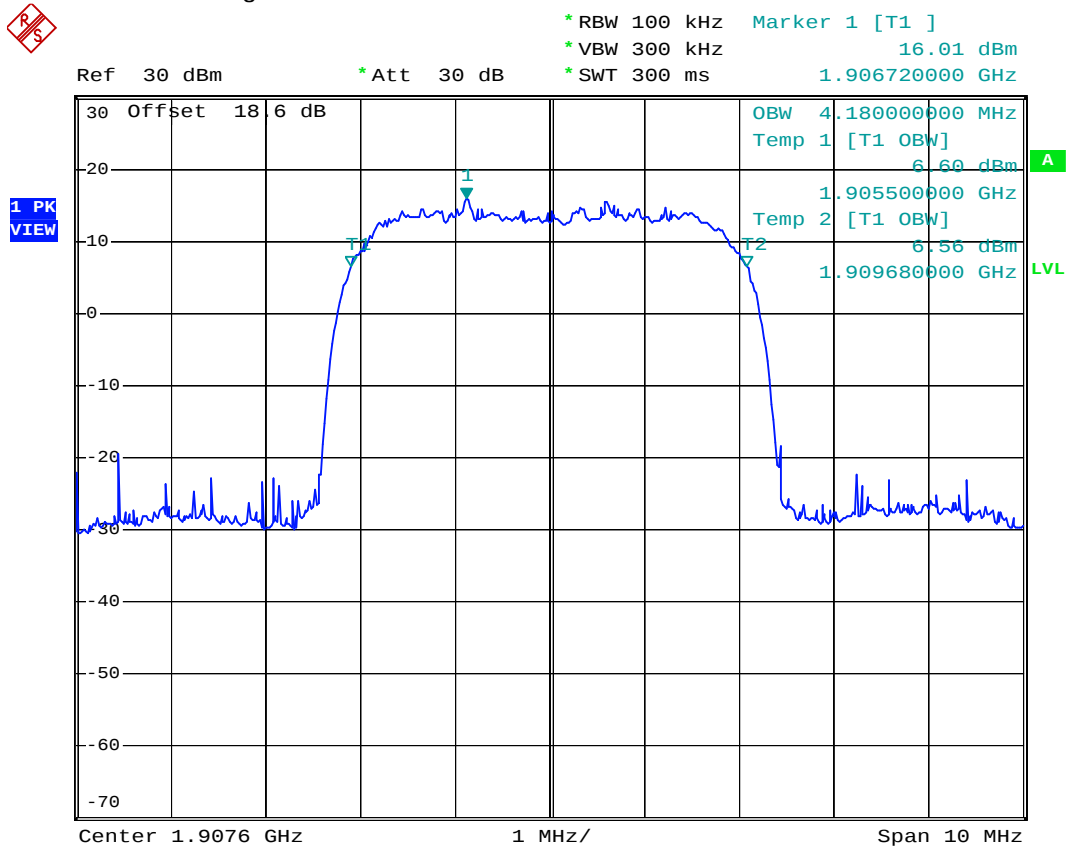
- Test Mode : WCDMA Band II CH9400 99% Occupied Bandwidth
- Power State : High



Date: 5.SEP.2007 03:33:24



- Test Mode : WCDMA Band II CH9538 99% Occupied Bandwidth
- Power State : High



Date: 5.SEP.2007 03:31:34



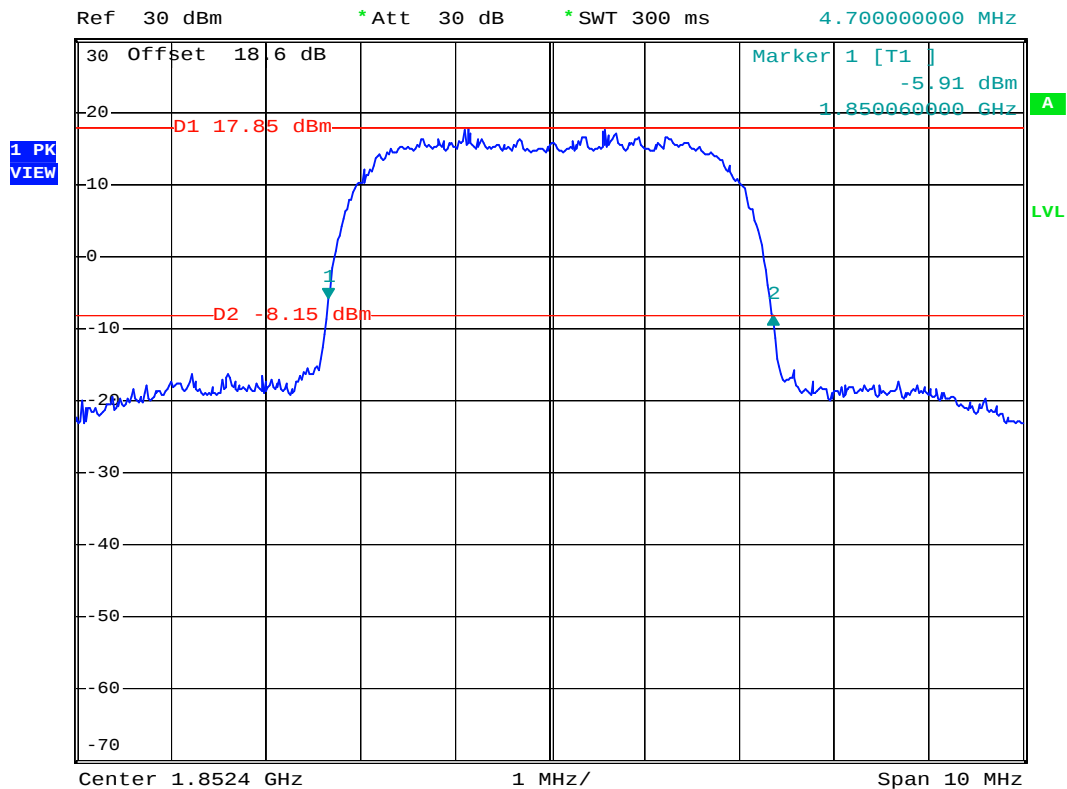
FCC TEST REPORT

Report No. : FG782107

- Test Mode : WCDMA Band II CH9262 26dB Bandwidth
- Power State : High



* RBW 100 kHz Delta 2 [T1]
* VBW 300 kHz -2.23 dB
* SWT 300 ms 4.700000000 MHz



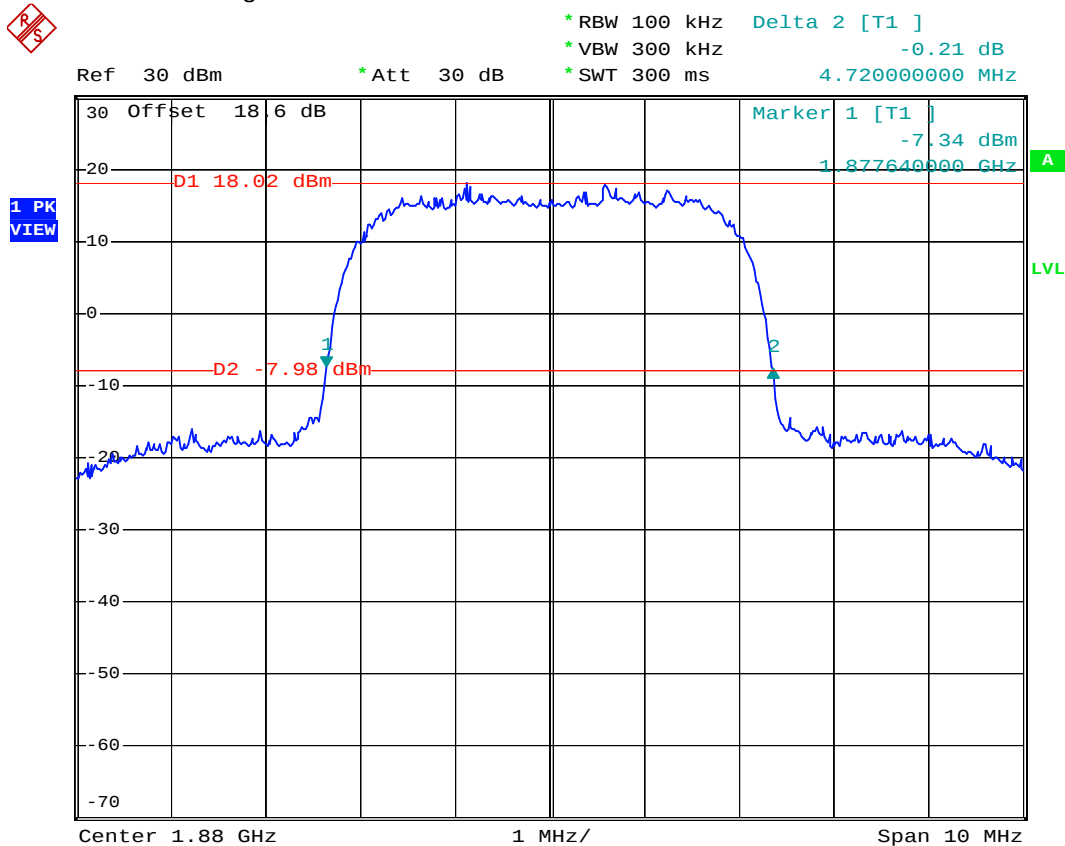
Date: 13.SEP.2007 22:19:48



FCC TEST REPORT

Report No. : FG782107

- Test Mode : WCDMA Band II CH9400 26dB Bandwidth
- Power State : High



Date: 5.SEP.2007 03:46:09



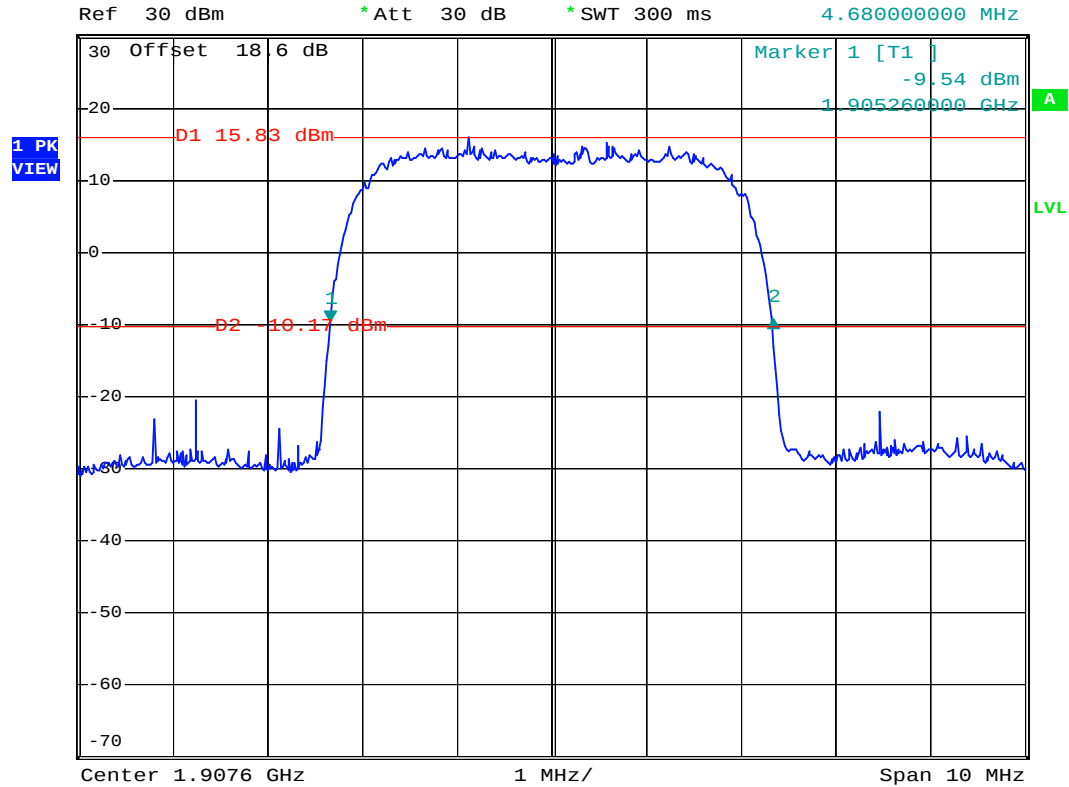
FCC TEST REPORT

Report No. : FG782107

- Test Mode : WCDMA Band II CH9538 26dB Bandwidth
- Power State : High



* RBW 100 kHz Delta 2 [T1]
* VBW 300 kHz 0.18 dB
* SWT 300 ms 4.680000000 MHz



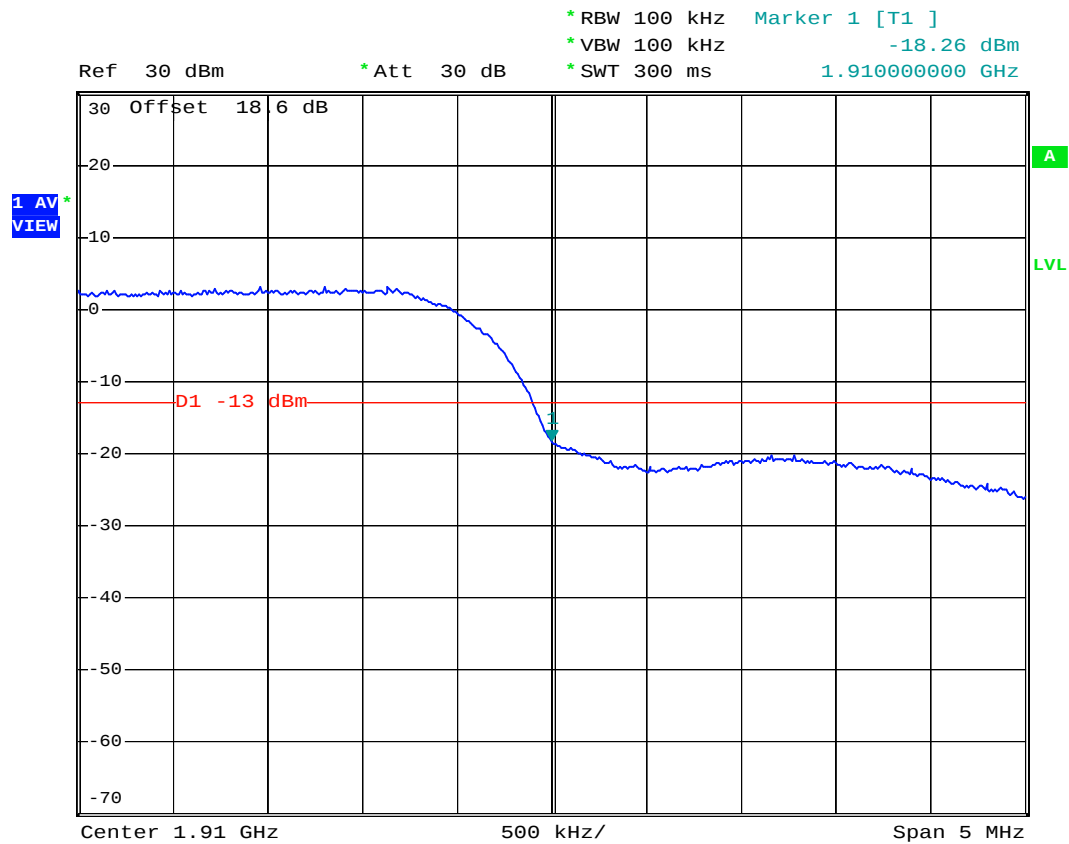
Date: 5.SEP.2007 03:45:00



FCC TEST REPORT

Report No. : FG782107

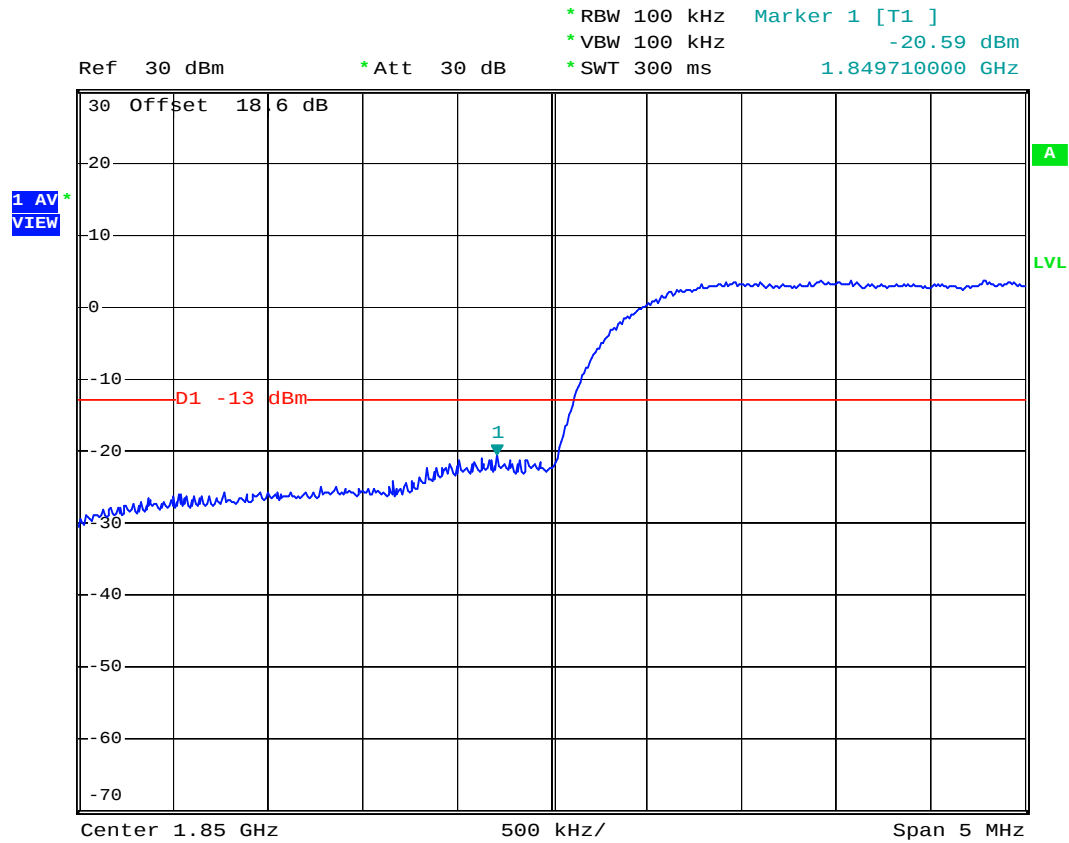
- Test Mode : WCDMA Band II CH9538 Higher Band Edge
- Power State : High



Date: 4.SEP.2007 08:36:50



- Mode 8
- Test Mode : WCDMA Band II (HSDPA) CH9262 Lower Band Edge
- Power State : High



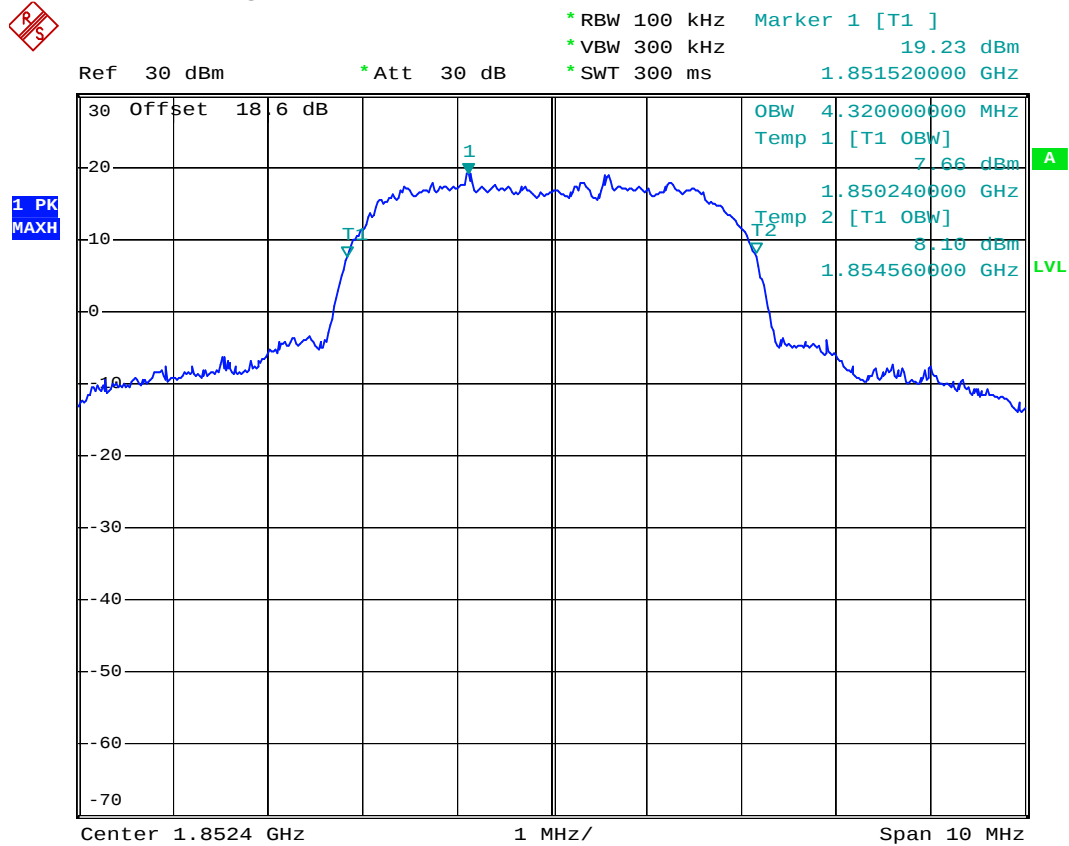
Date: 4.SEP.2007 08:31:28



FCC TEST REPORT

Report No. : FG782107

- Test Mode : WCDMA Band II (HSDPA) CH9262 99% Occupied Bandwidth
- Power State : High



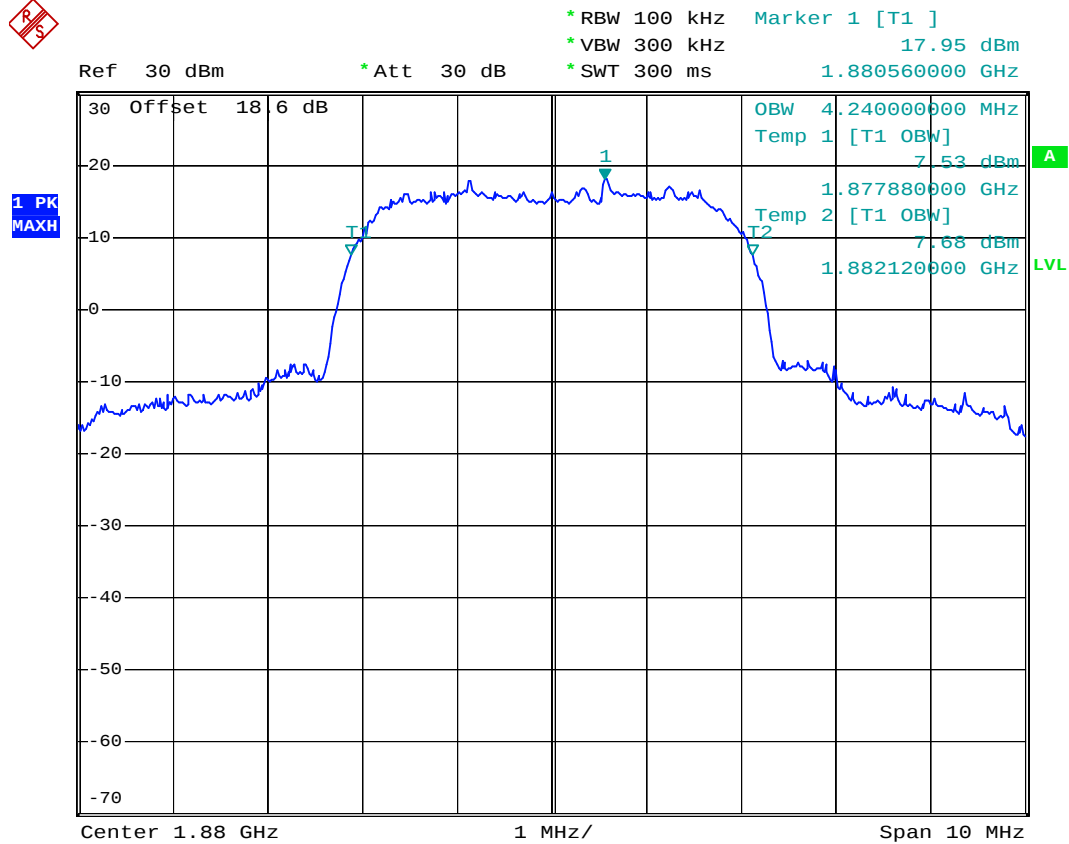
Date: 14.SEP.2007 03:48:51



FCC TEST REPORT

Report No. : FG782107

- Test Mode : WCDMA Band II (HSDPA) CH9400 99% Occupied Bandwidth
- Power State : High



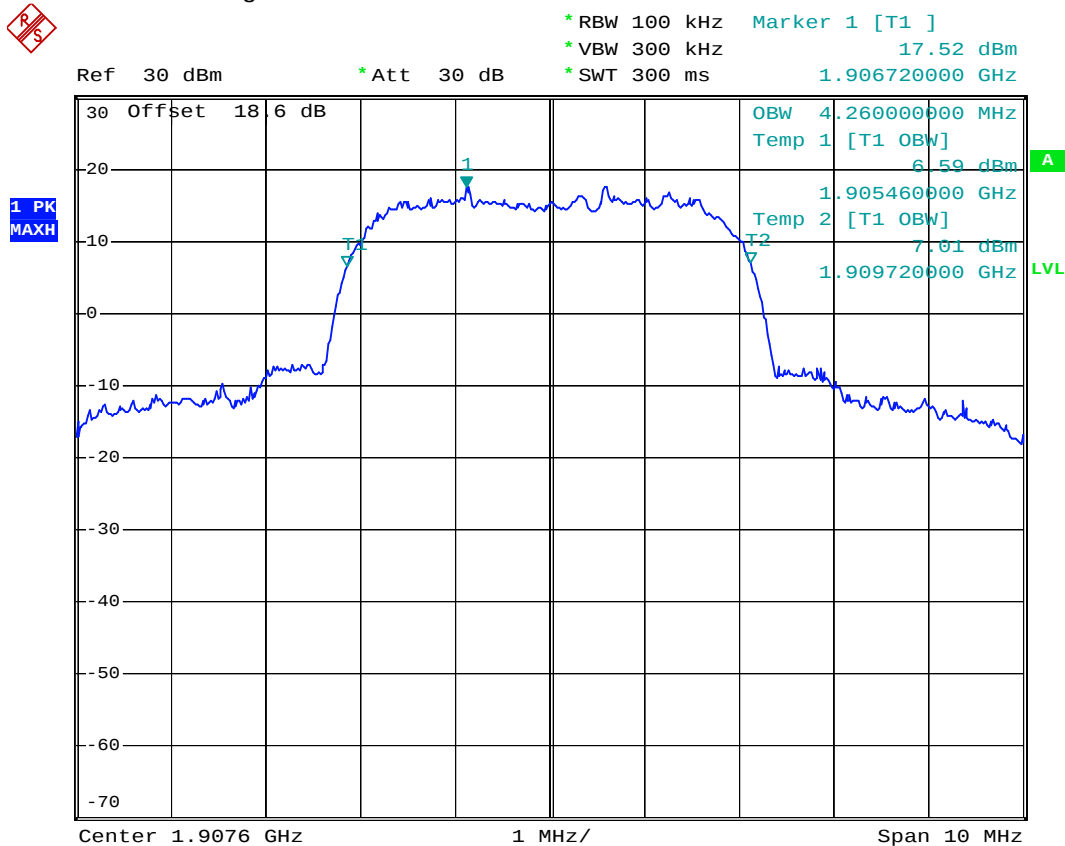
Date: 5.SEP.2007 06:53:19



FCC TEST REPORT

Report No. : FG782107

- Test Mode : WCDMA Band II (HSDPA) CH9538 99% Occupied Bandwidth
- Power State : High



Date: 5.SEP.2007 06:57:17



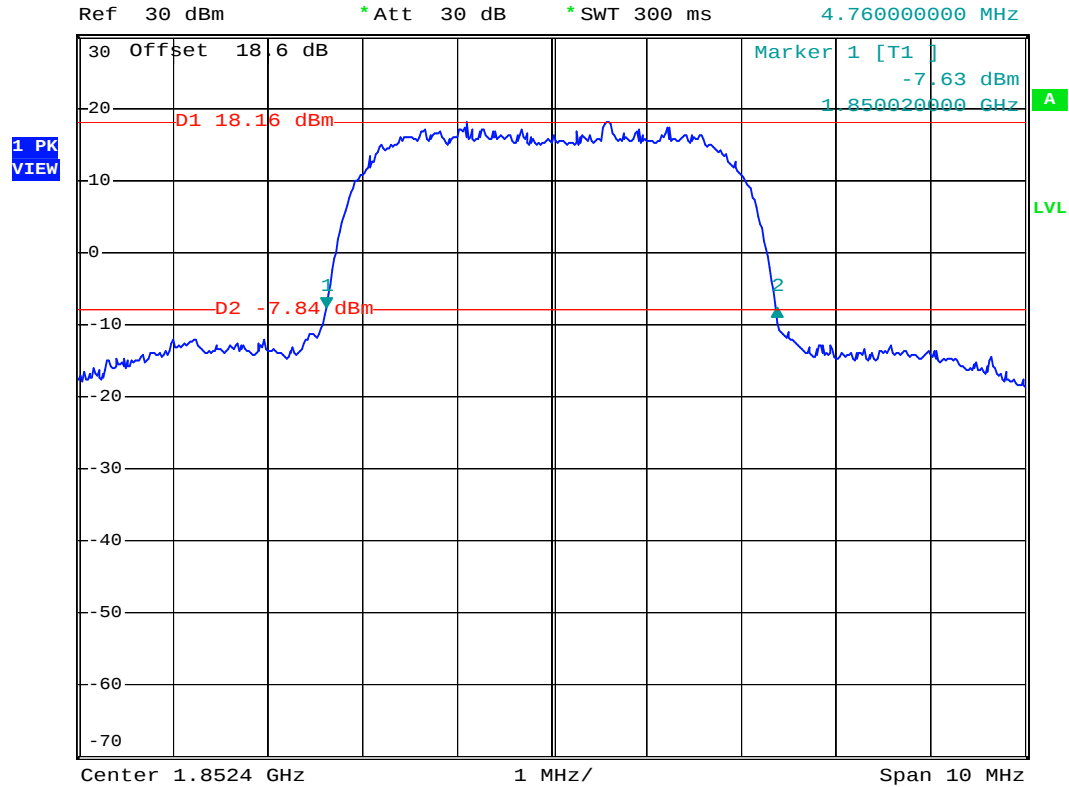
FCC TEST REPORT

Report No. : FG782107

- Test Mode : WCDMA Band II (HSDPA) CH9262 26dB Bandwidth
- Power State : High



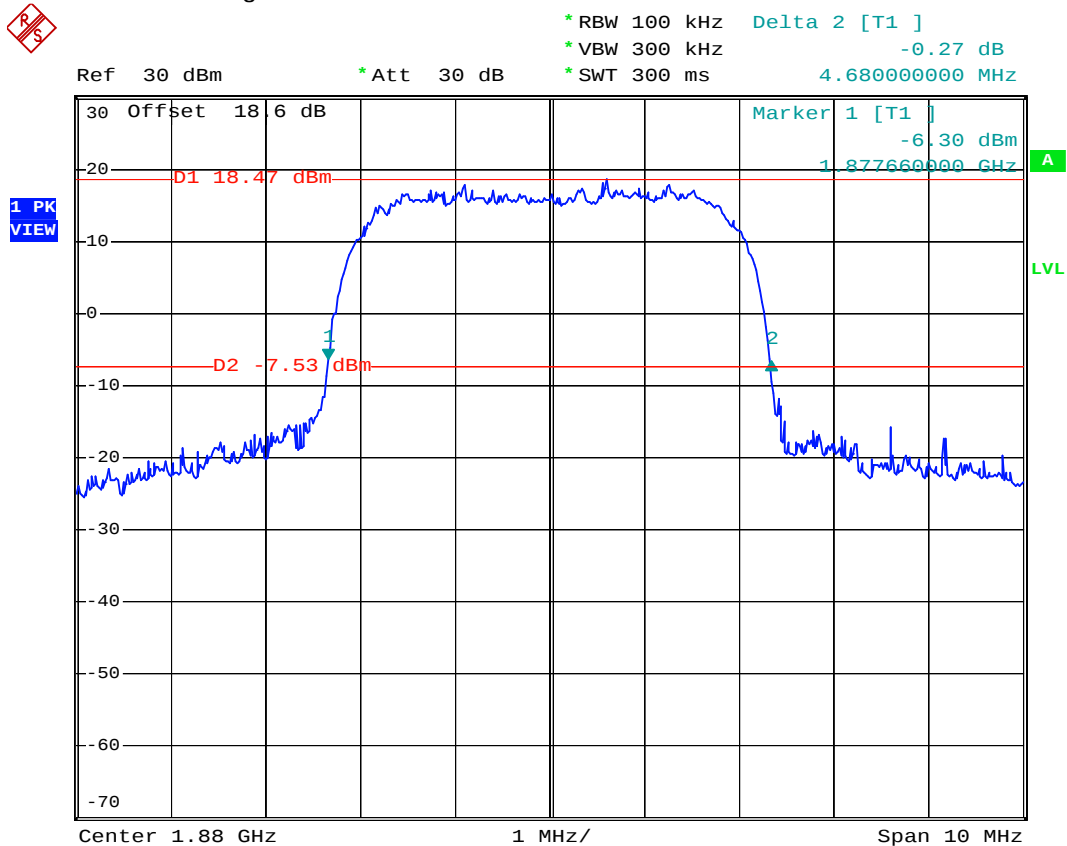
* RBW 100 kHz Delta 2 [T1]
* VBW 300 kHz 0.01 dB
* SWT 300 ms 4.760000000 MHz



Date: 14.SEP.2007 04:35:09



- Test Mode : WCDMA Band II (HSDPA) CH9400 26dB Bandwidth
- Power State : High



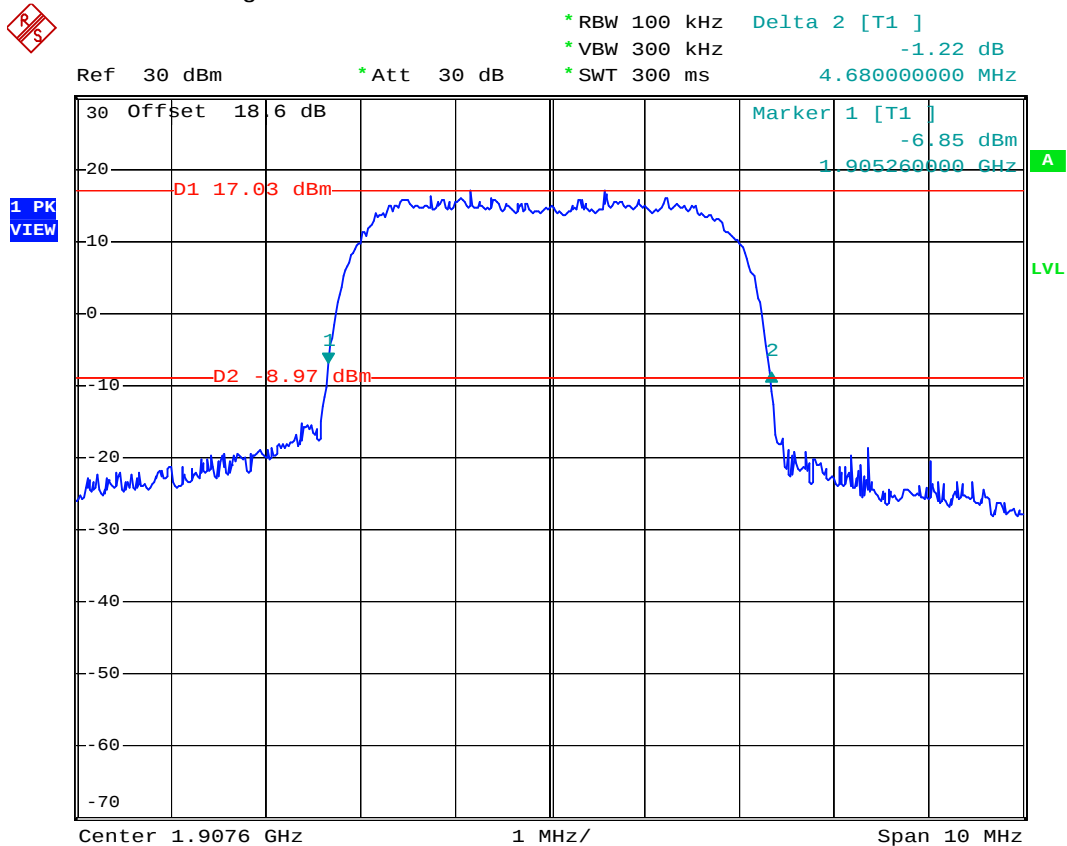
Date: 14.SEP.2007 03:42:22



FCC TEST REPORT

Report No. : FG782107

- Test Mode : WCDMA Band II (HSDPA) CH9538 26dB Bandwidth
- Power State : High



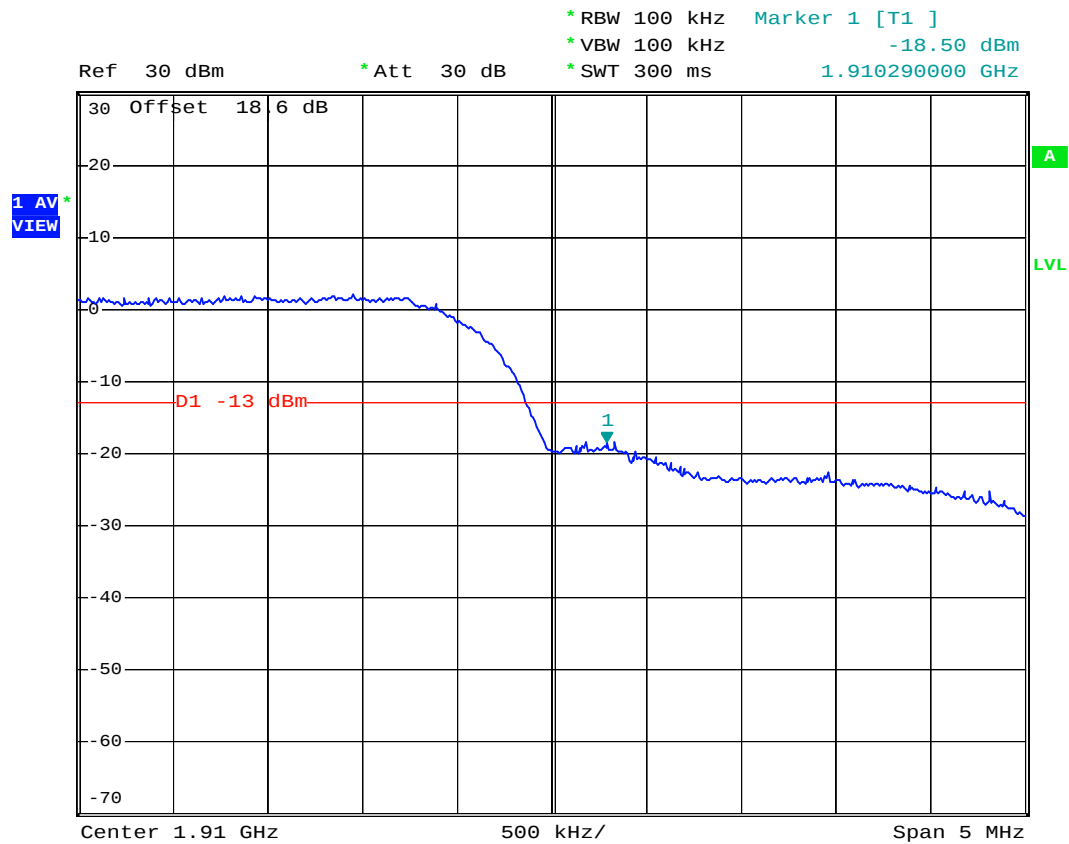
Date: 14.SEP.2007 03:43:58



FCC TEST REPORT

Report No. : FG782107

- Test Mode : WCDMA Band II (HSDPA) CH9538 Higher Band Edge
- Power State : High



Date: 4.SEP.2007 08:33:38

4.5 Conducted Emission

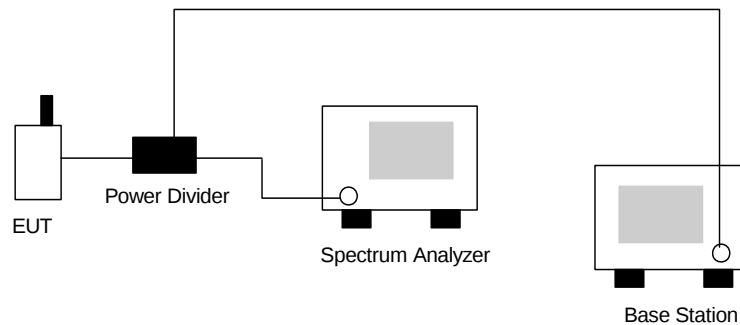
4.5.1 Measurement Instruments

As described in chapter 5 of this test report.

4.5.2 Test Procedure

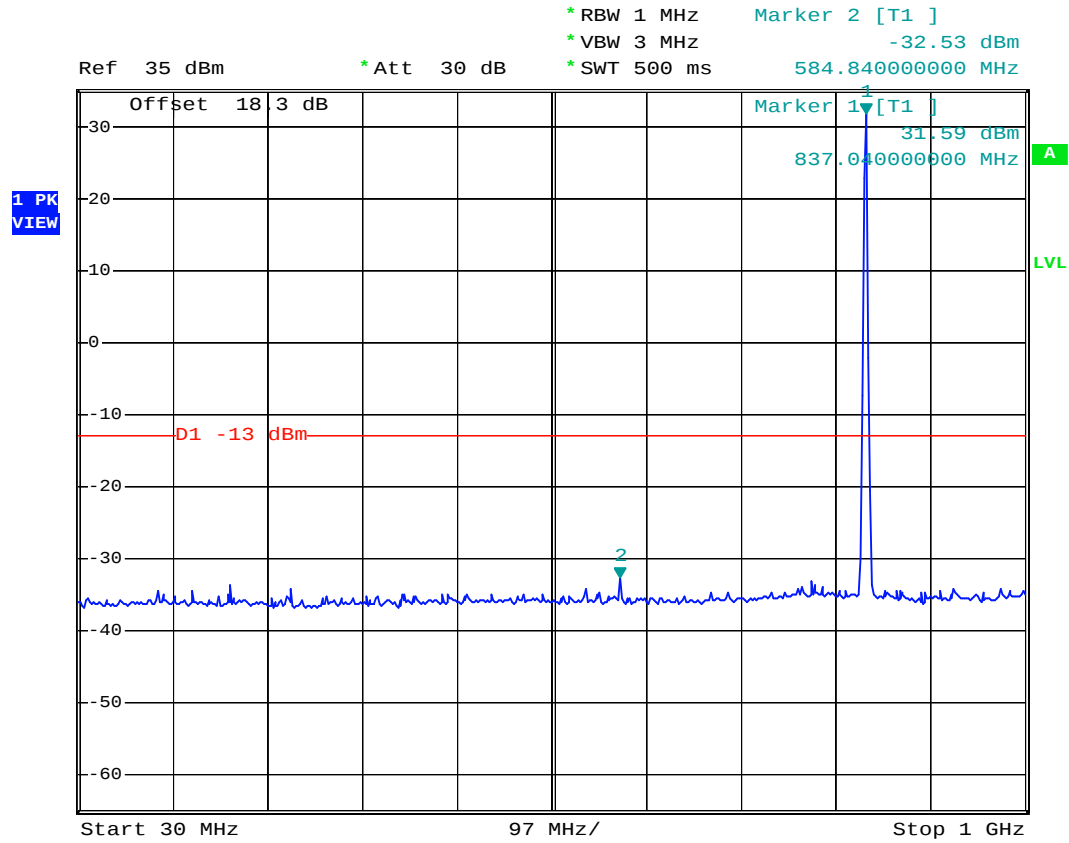
1. The EUT was connected to Spectrum Analyzer and Base Station via power divider.
2. The middle channel for the highest RF power within the transmitting frequency was measured.
3. The conducted spurious emission for the whole frequency range was taken.

4.5.3 Test Setup Layout



**4.5.4 Test Result**

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



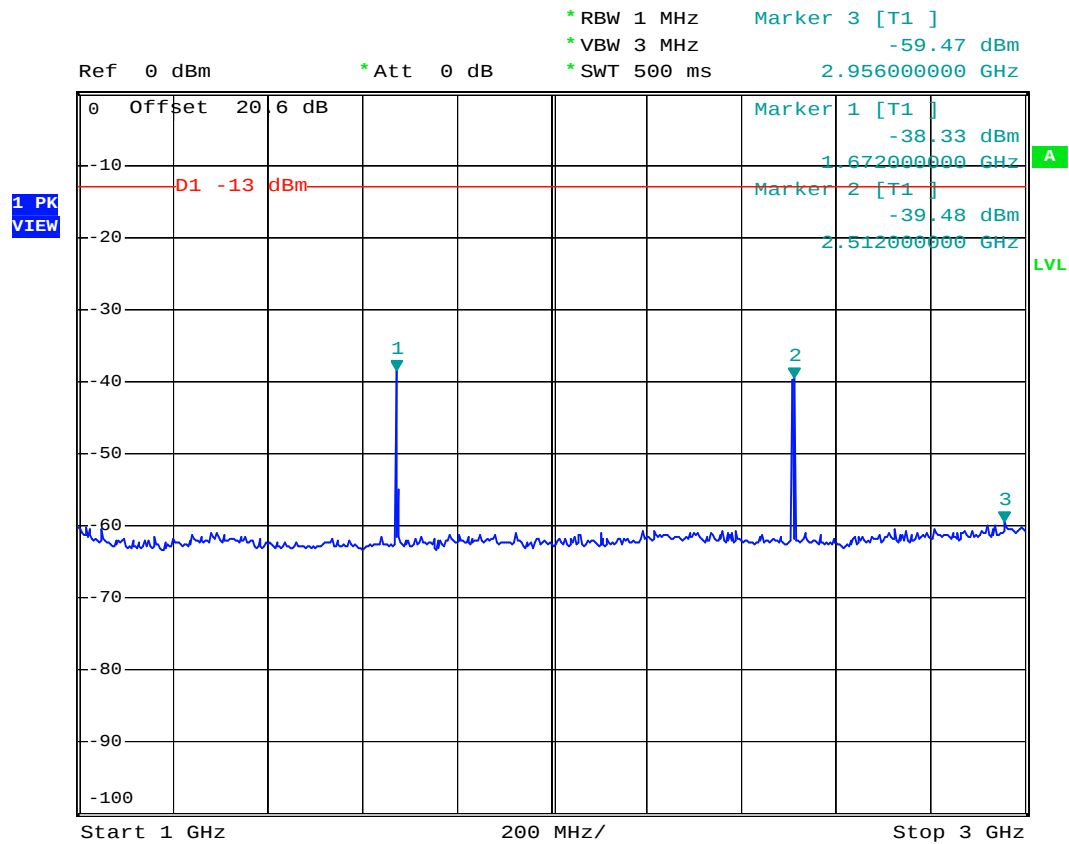
Date: 4.SEP.2007 09:17:46



FCC TEST REPORT

Report No. : FG782107

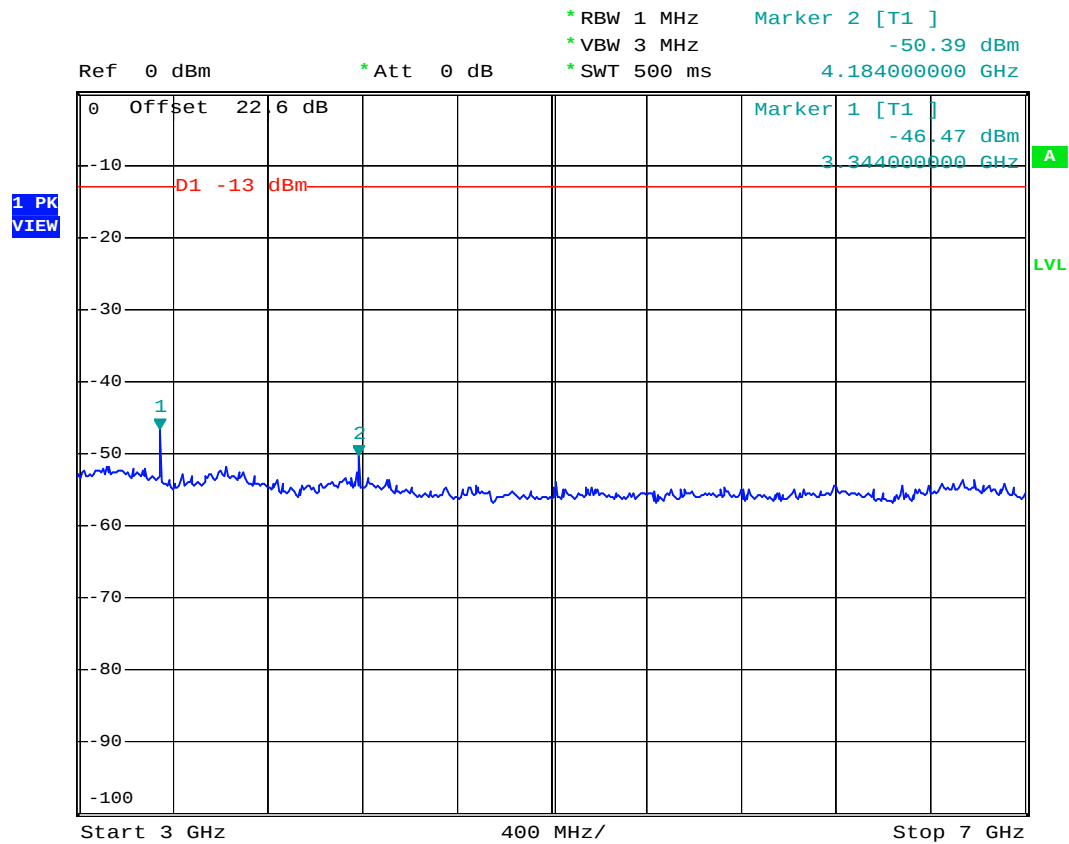
- Test Mode : GSM850 (GSM) CH189
- Frequency Range : 1G-3G



Date: 4.SEP.2007 09:14:39



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



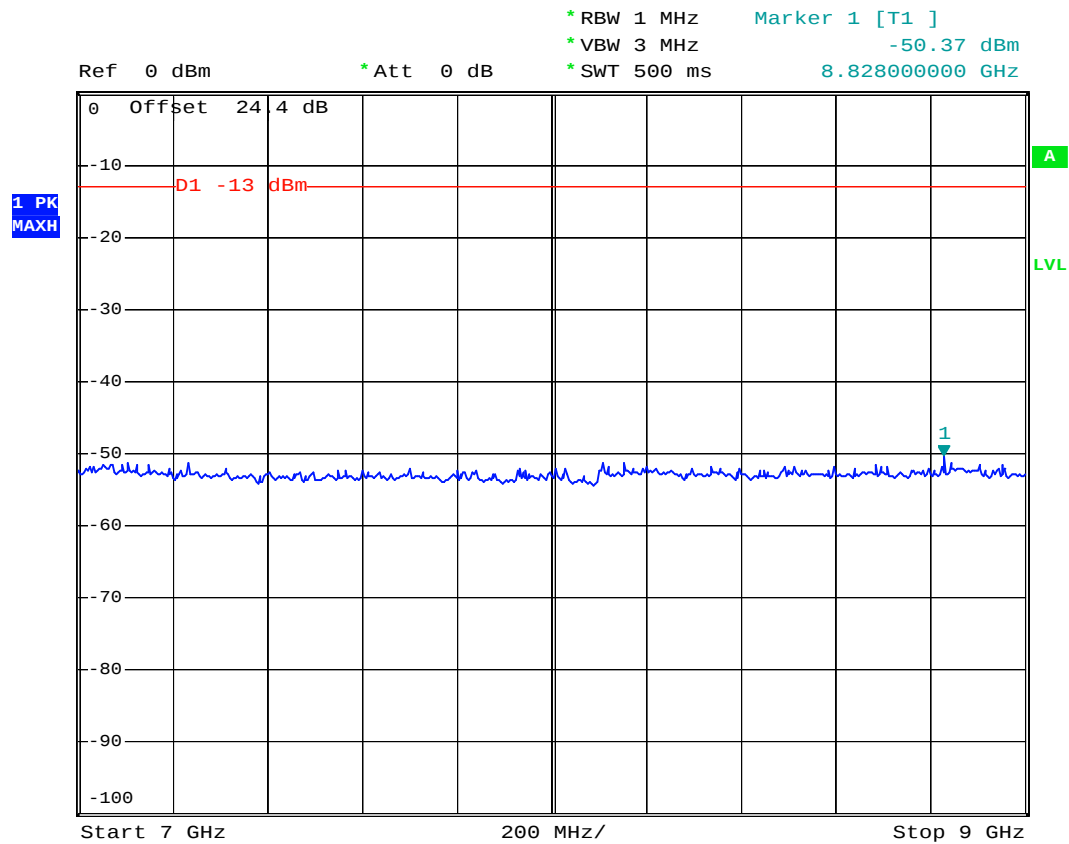
Date: 4.SEP.2007 05:09:57



FCC TEST REPORT

Report No. : FG782107

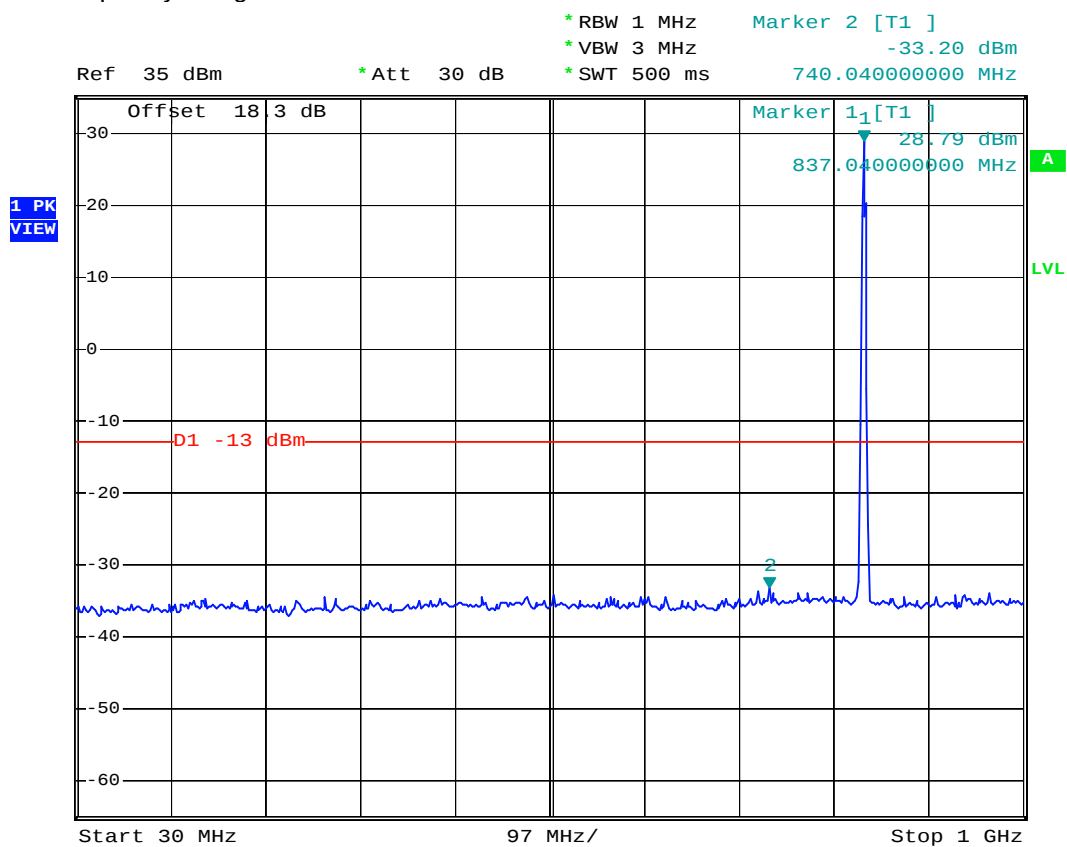
- Test Mode : GSM850 (GSM) CH189
- Frequency Range : 7G-9G



Date: 4.SEP.2007 05:13:50



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



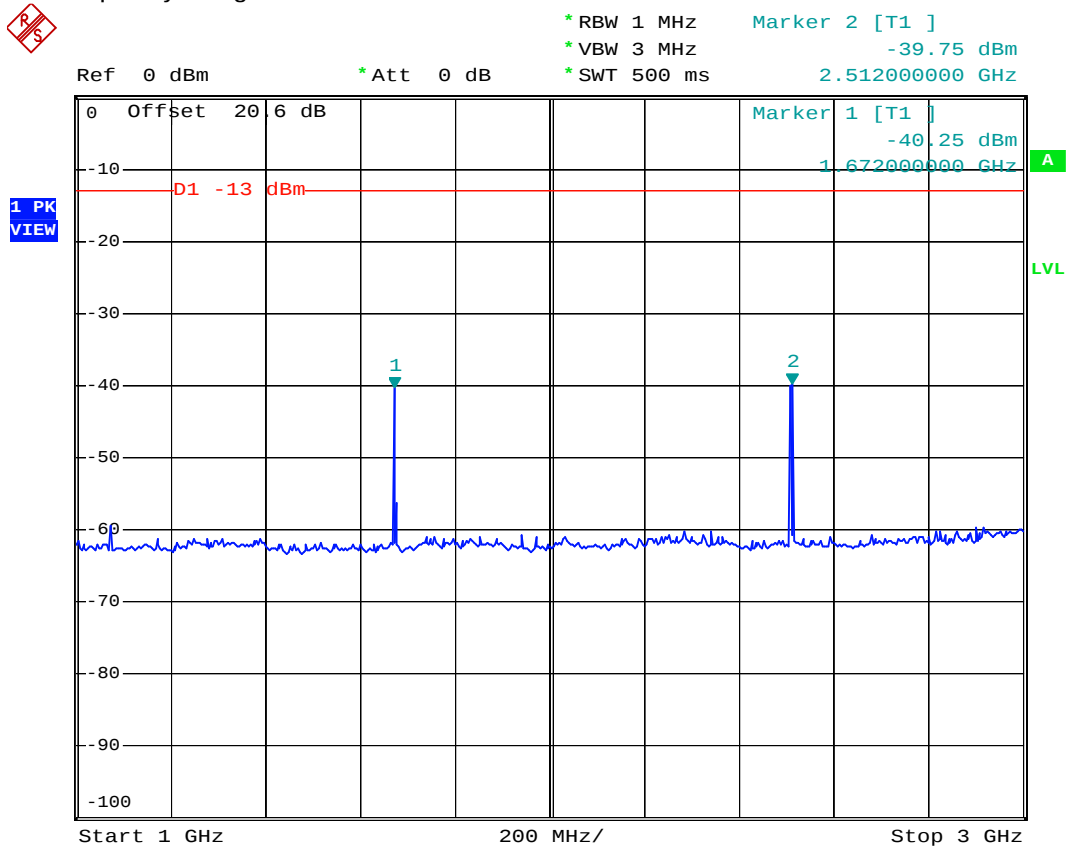
Date: 4.SEP.2007 04:58:15



FCC TEST REPORT

Report No. : FG782107

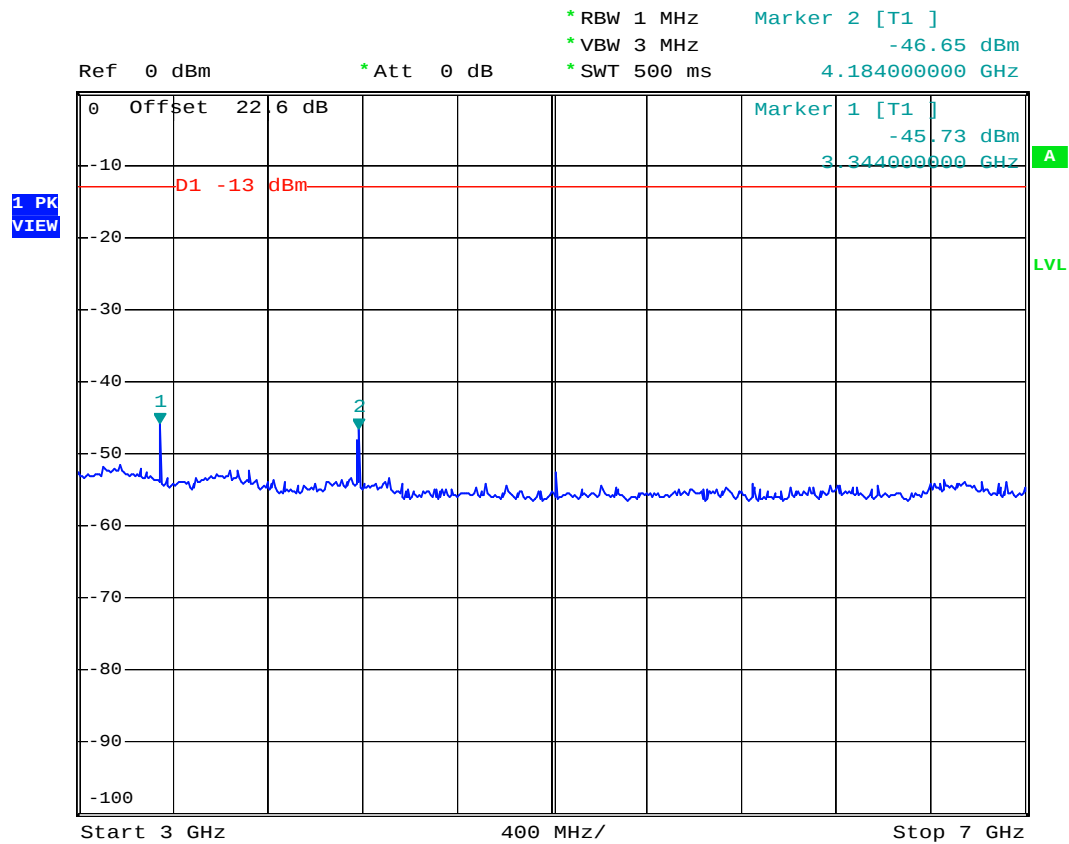
- Test Mode : GSM850 (EDGE) CH189
- Frequency Range : 1G-3G



Date: 5.SEP.2007 01:09:24



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



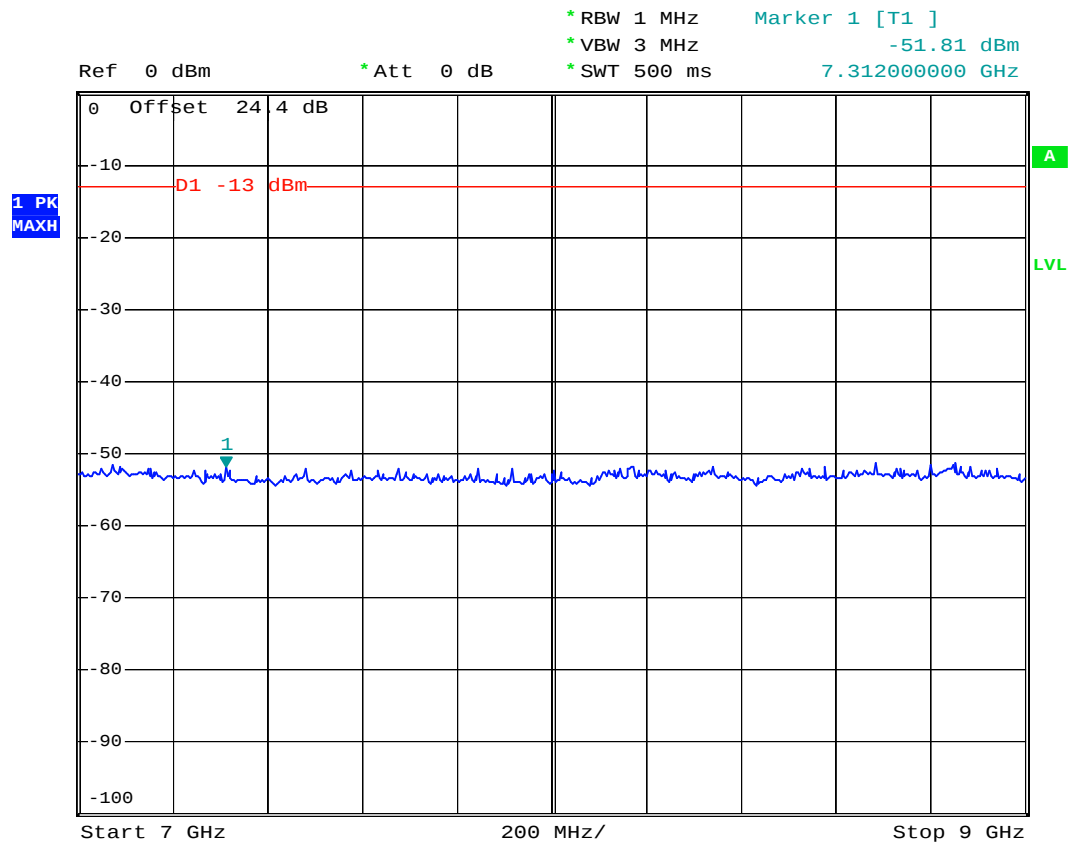
Date: 4.SEP.2007 05:11:19



FCC TEST REPORT

Report No. : FG782107

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



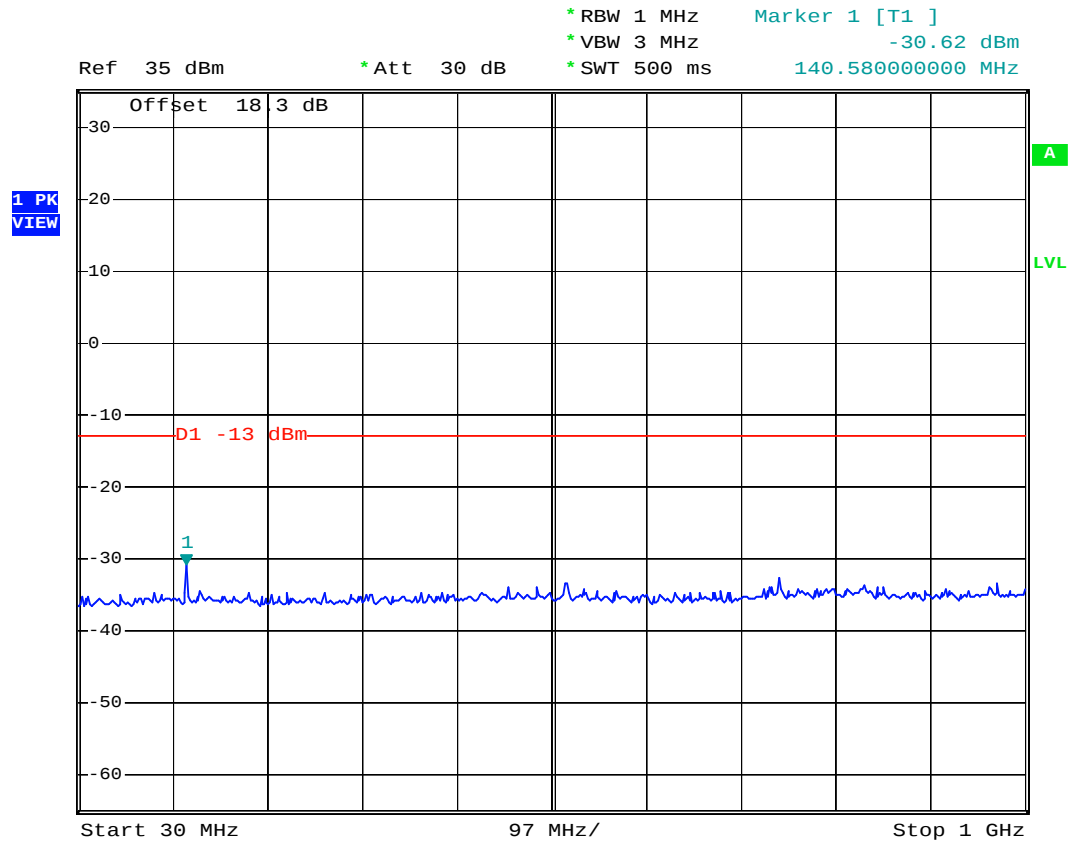
Date: 4.SEP.2007 05:14:27



FCC TEST REPORT

Report No. : FG782107

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



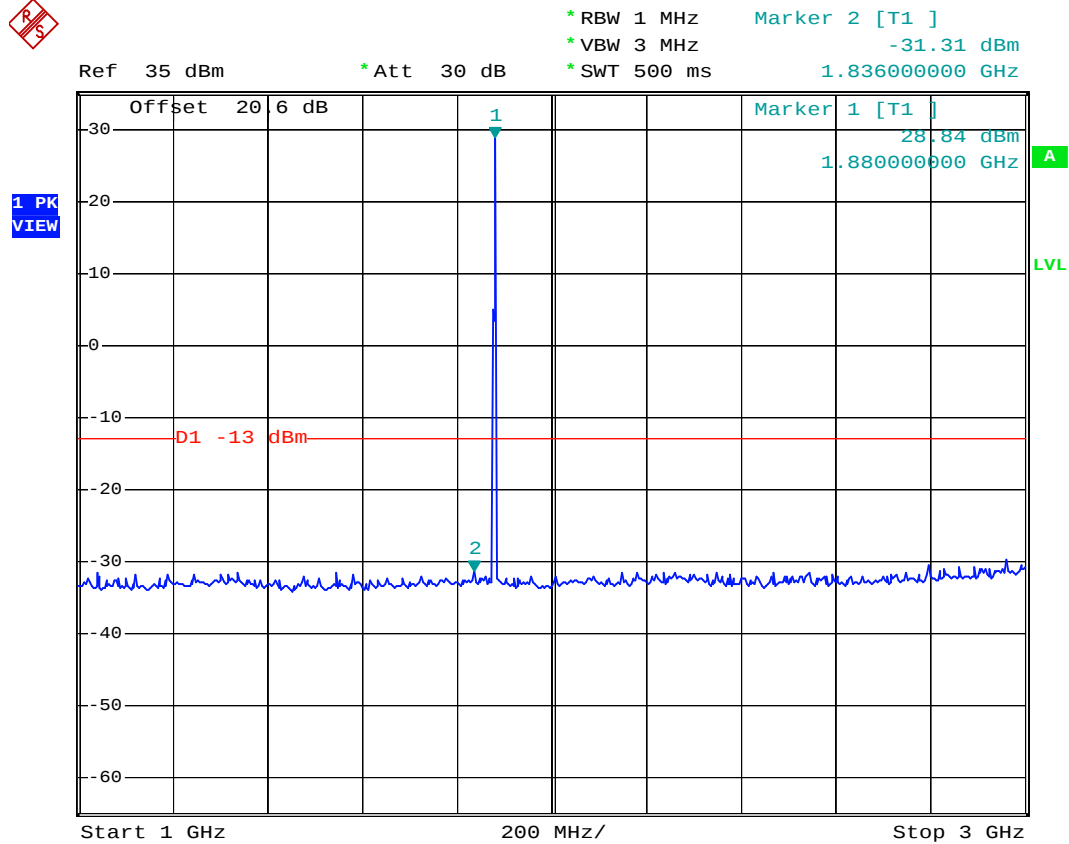
Date: 4.SEP.2007 09:19:27



FCC TEST REPORT

Report No. : FG782107

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



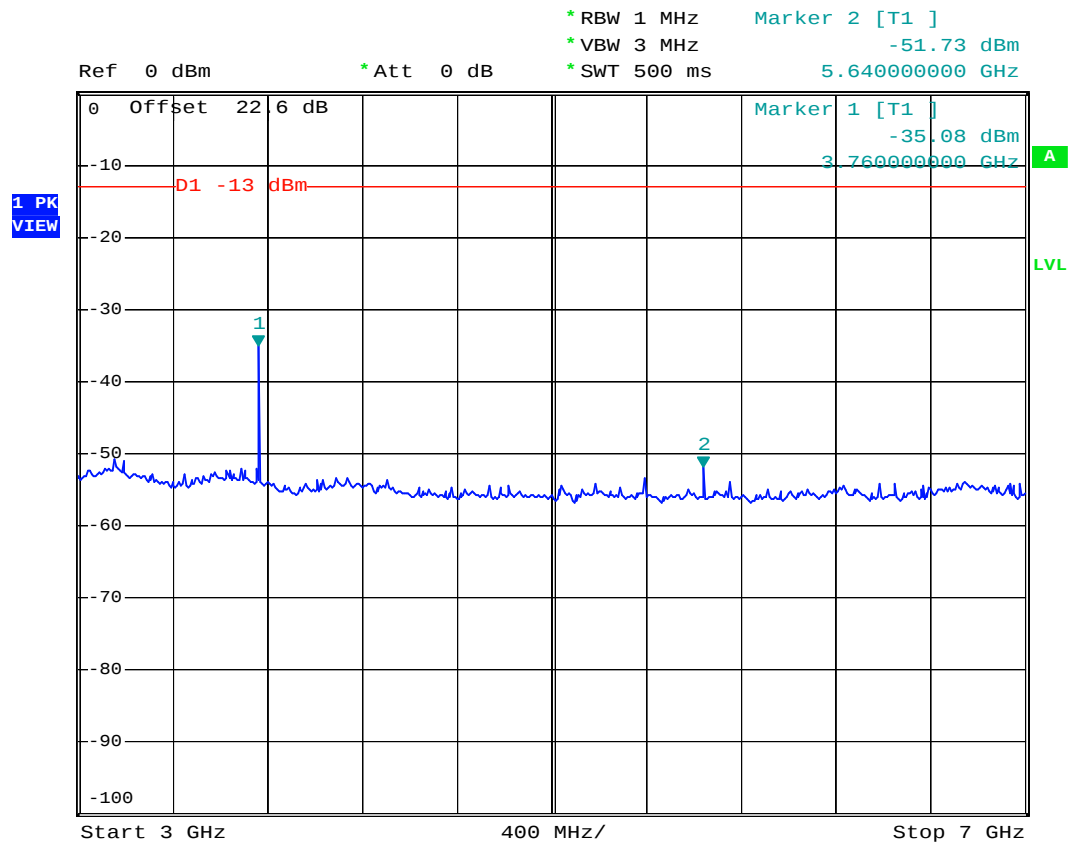
Date: 5.SEP.2007 01:16:30



FCC TEST REPORT

Report No. : FG782107

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



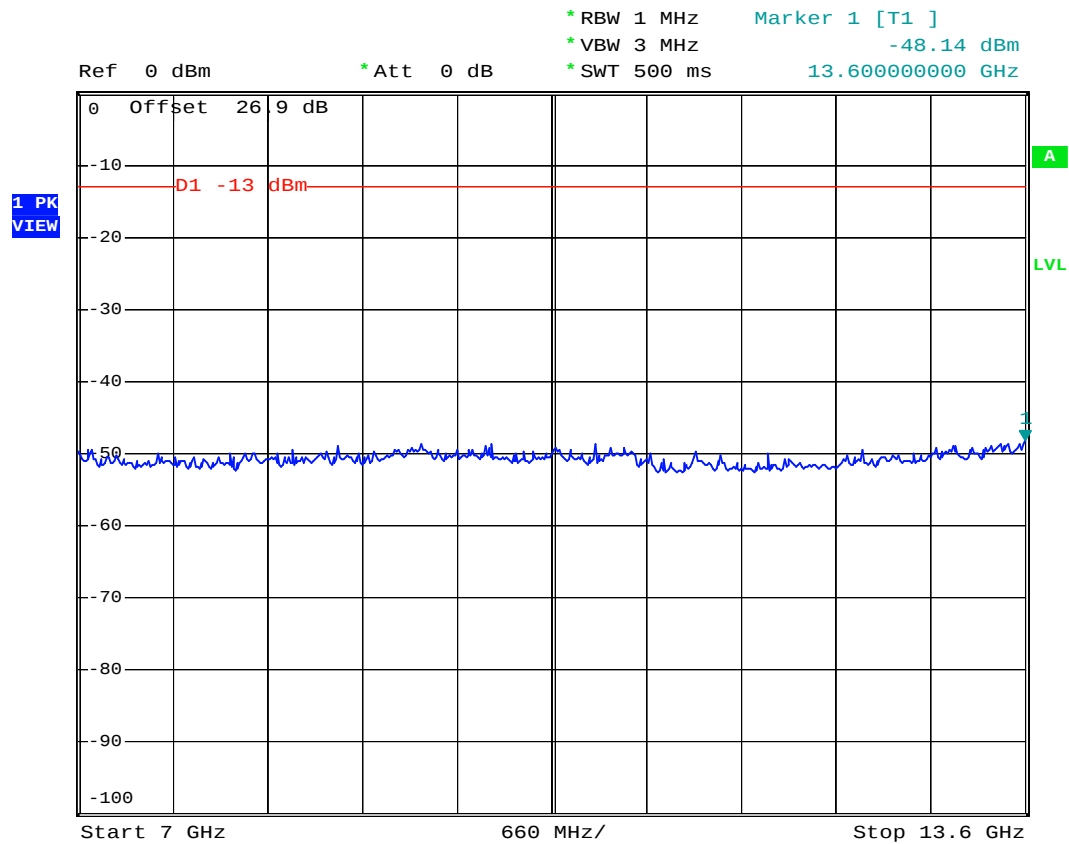
Date: 4.SEP.2007 05:48:38



FCC TEST REPORT

Report No. : FG782107

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



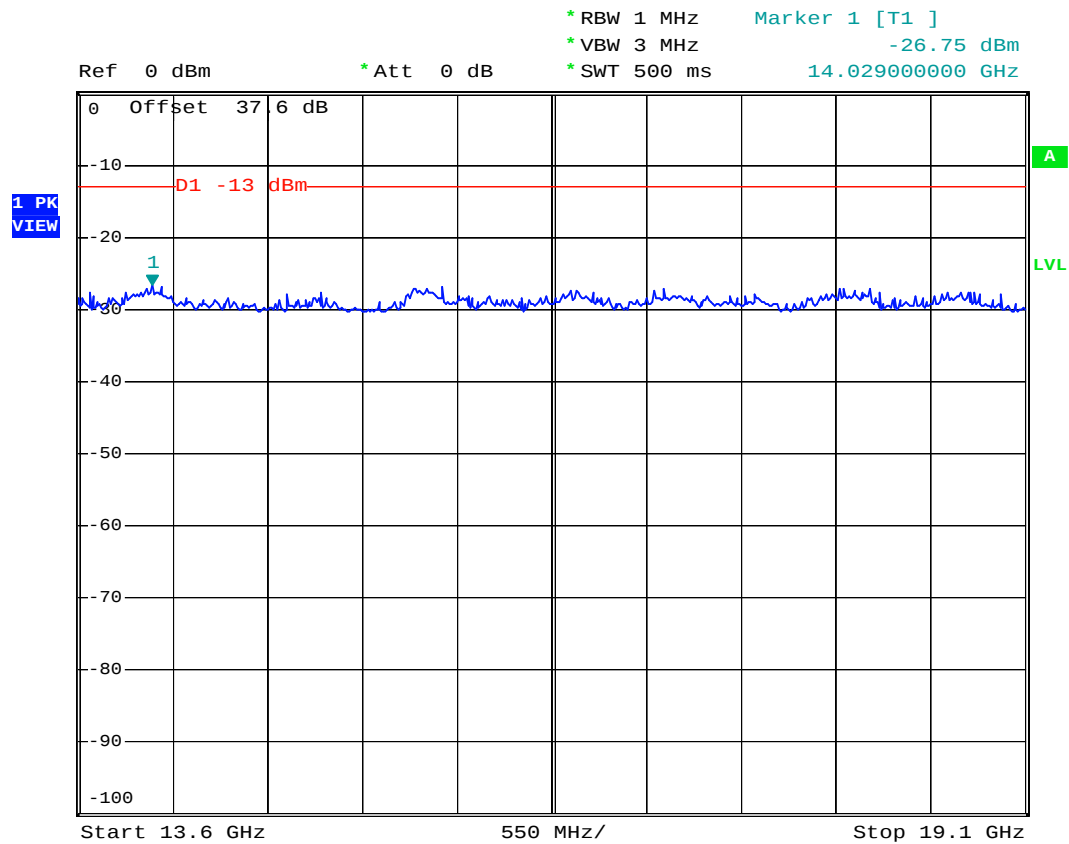
Date: 4.SEP.2007 05:50:01



FCC TEST REPORT

Report No. : FG782107

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



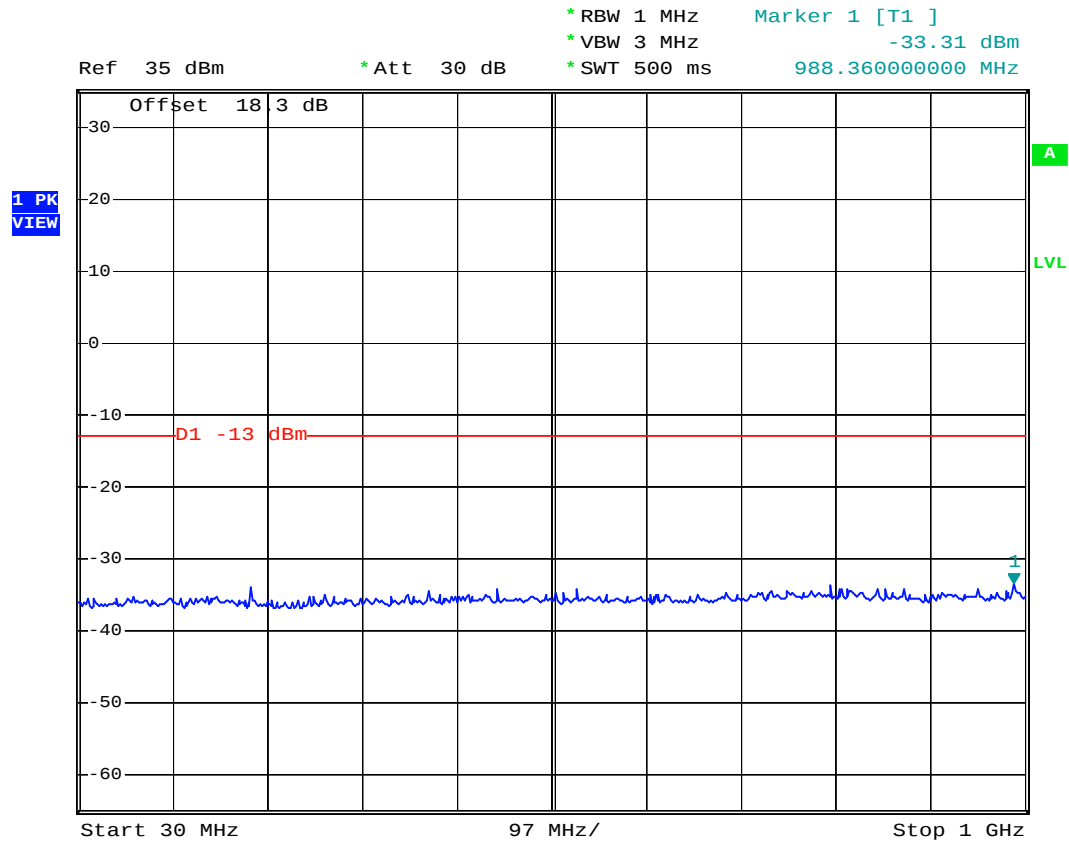
Date: 4.SEP.2007 05:51:19



FCC TEST REPORT

Report No. : FG782107

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



Date: 4.SEP.2007 09:24:18



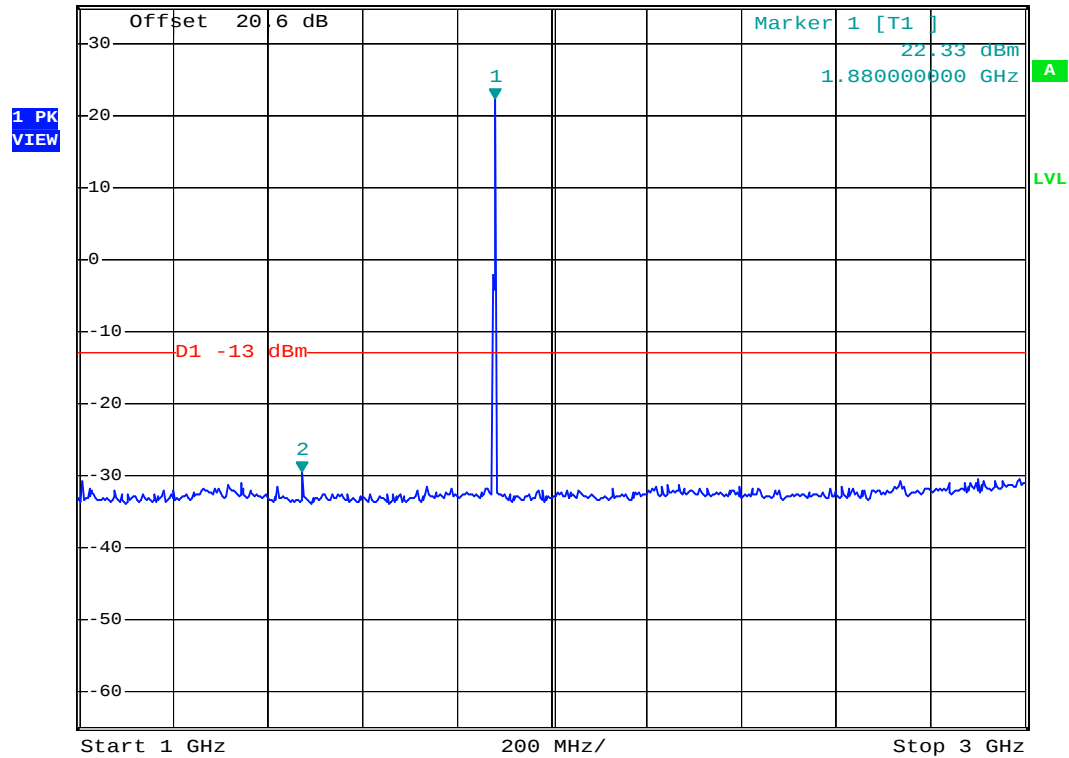
FCC TEST REPORT

Report No. : FG782107

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



Ref 35 dBm * Att 30 dB * RBW 1 MHz * VBW 3 MHz * SWT 500 ms Marker 2 [T1] -29.45 dBm 1.472000000 GHz



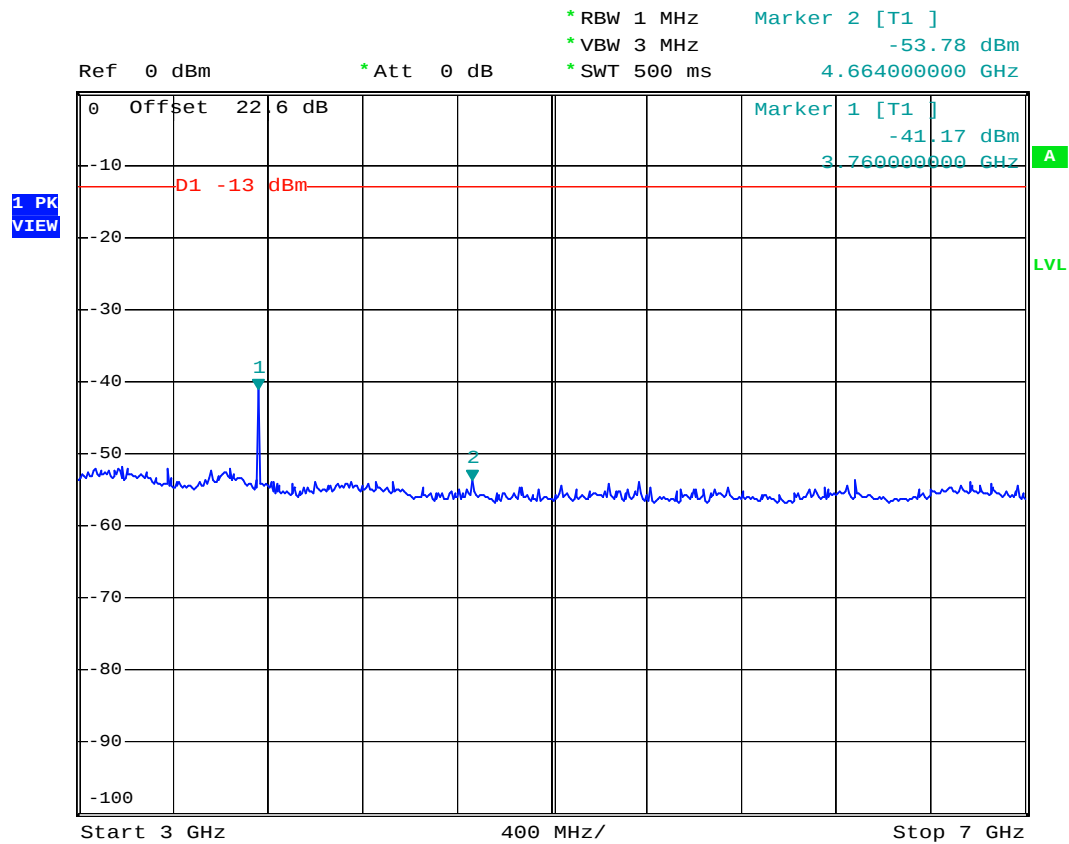
Date: 5.SEP.2007 01:13:39



FCC TEST REPORT

Report No. : FG782107

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



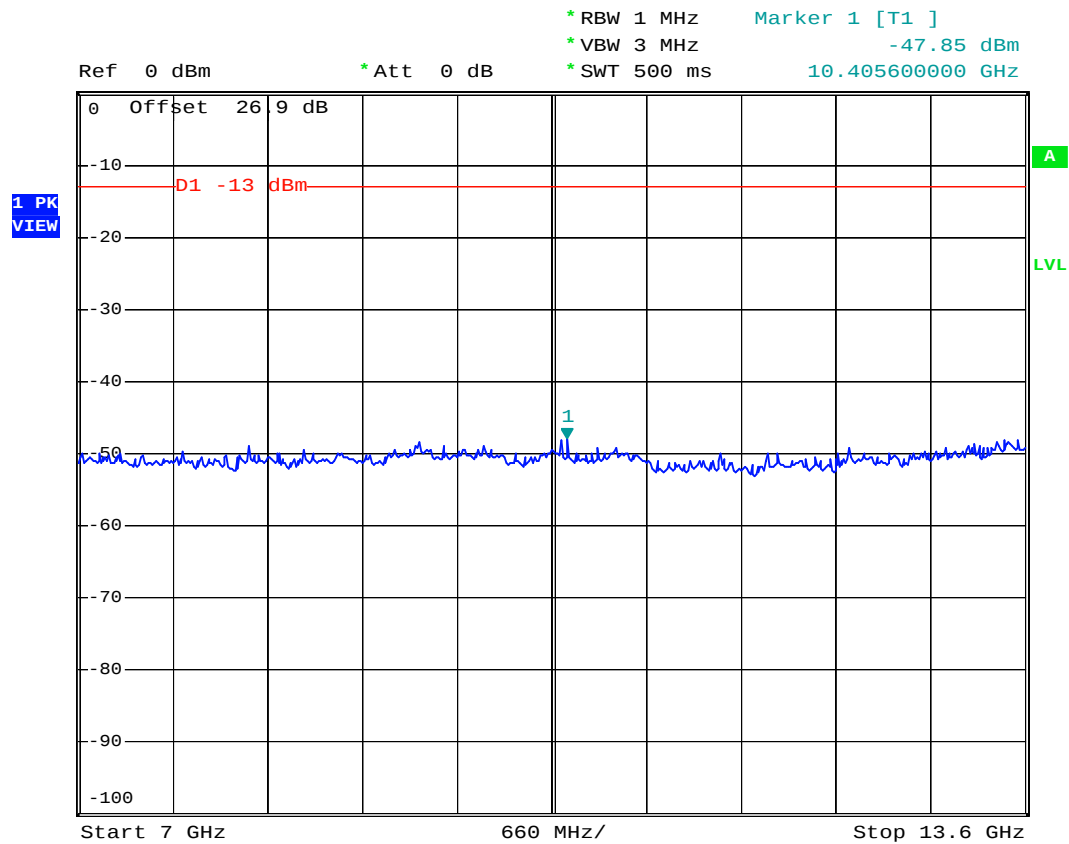
Date: 4.SEP.2007 05:58:36



FCC TEST REPORT

Report No. : FG782107

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



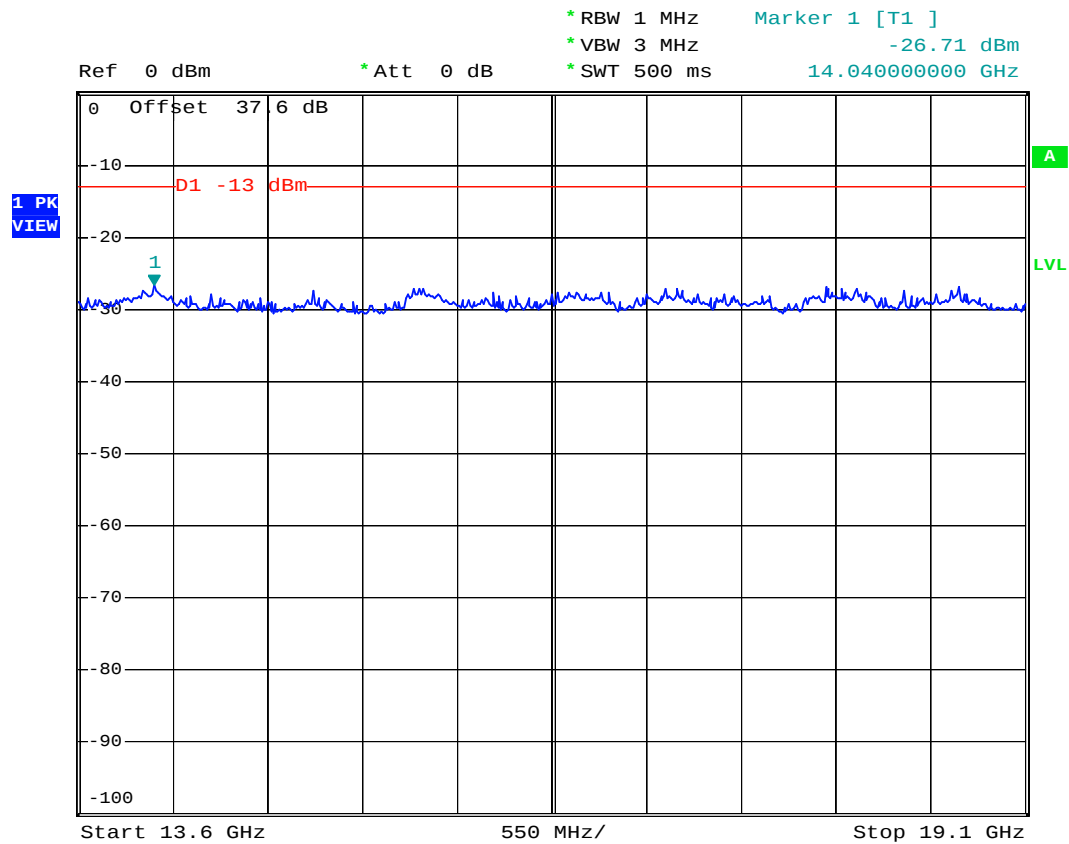
Date: 4.SEP.2007 05:57:31



FCC TEST REPORT

Report No. : FG782107

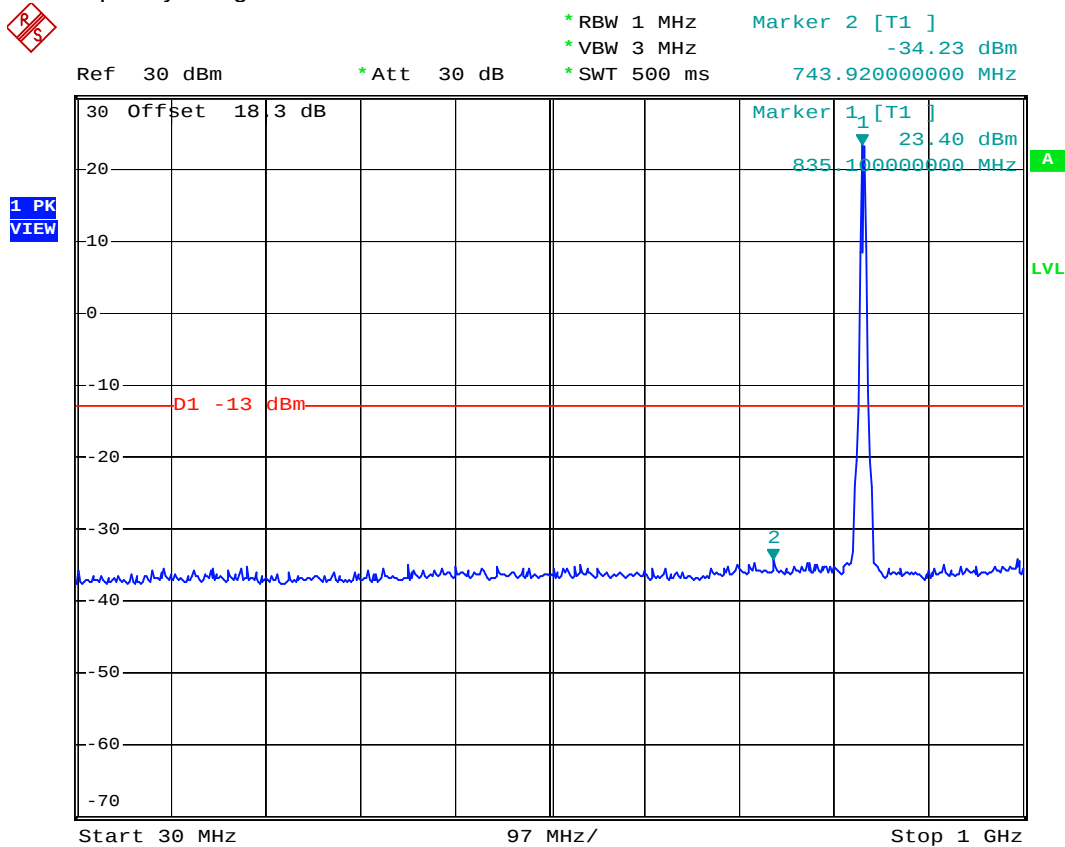
- Test Mode : PCS1900 (EDGE) CH661
- Frequency Range : 13.6G-19.1G



Date: 4.SEP.2007 05:54:36



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



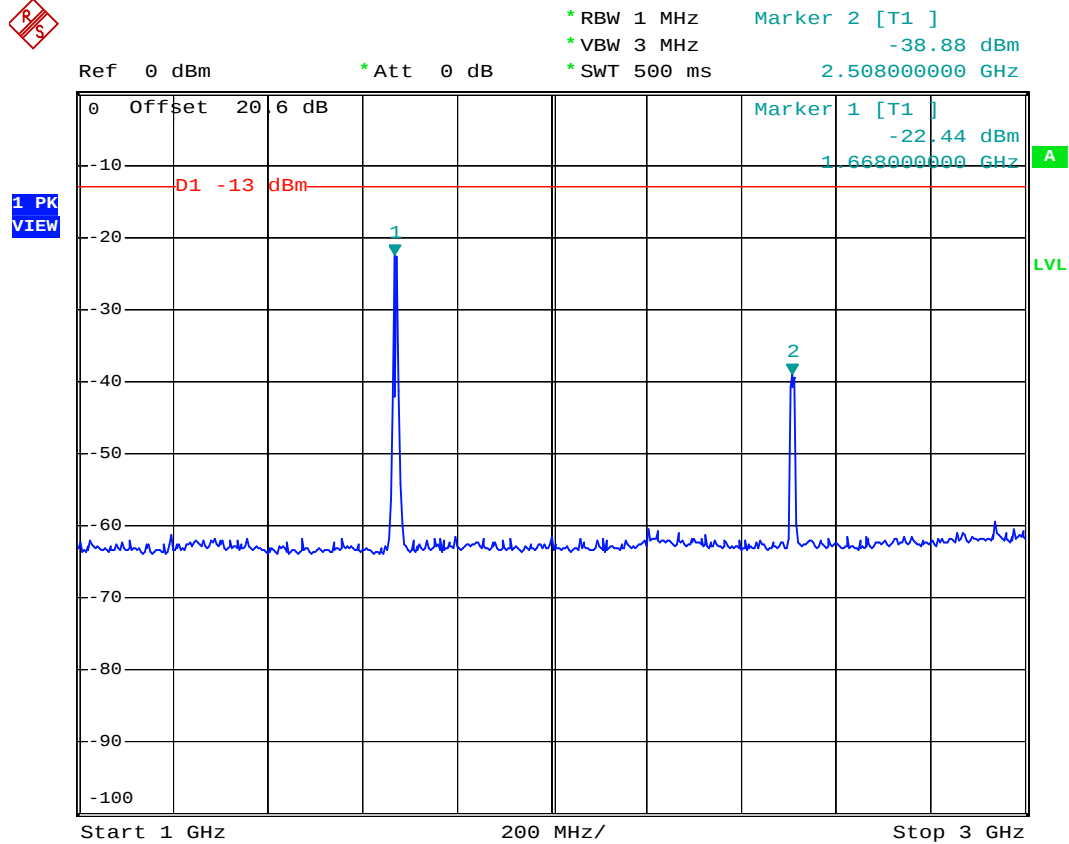
Date: 5.SEP.2007 07:05:12



FCC TEST REPORT

Report No. : FG782107

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



Date: 5.SEP.2007 07:11:35



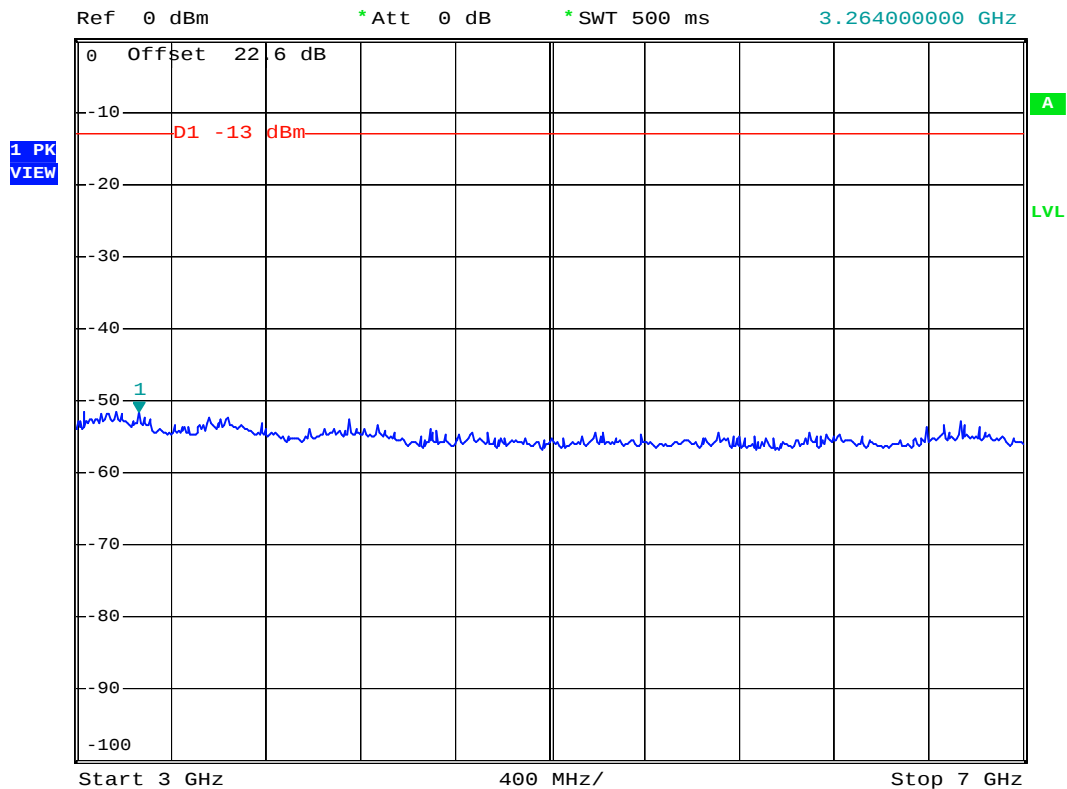
FCC TEST REPORT

Report No. : FG782107

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



* RBW 1 MHz Marker 1 [T1]
* VBW 3 MHz -51.46 dBm
* SWT 500 ms 3.264000000 GHz



Date: 5.SEP.2007 07:17:56



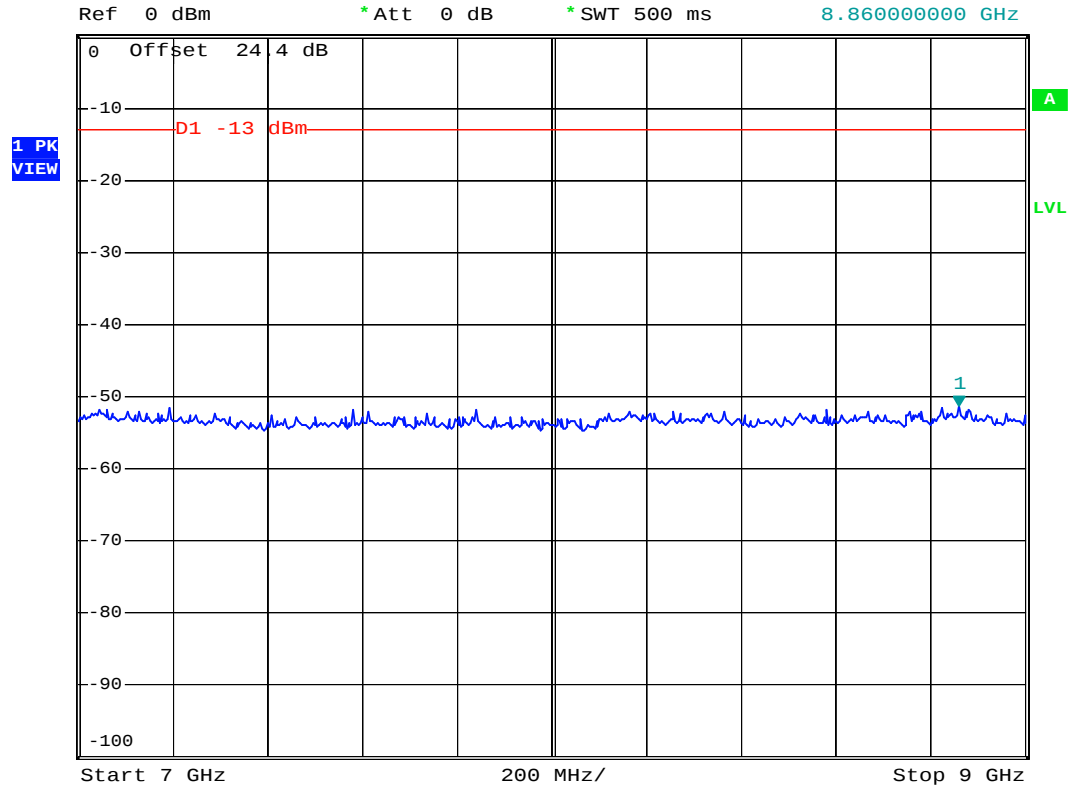
FCC TEST REPORT

Report No. : FG782107

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



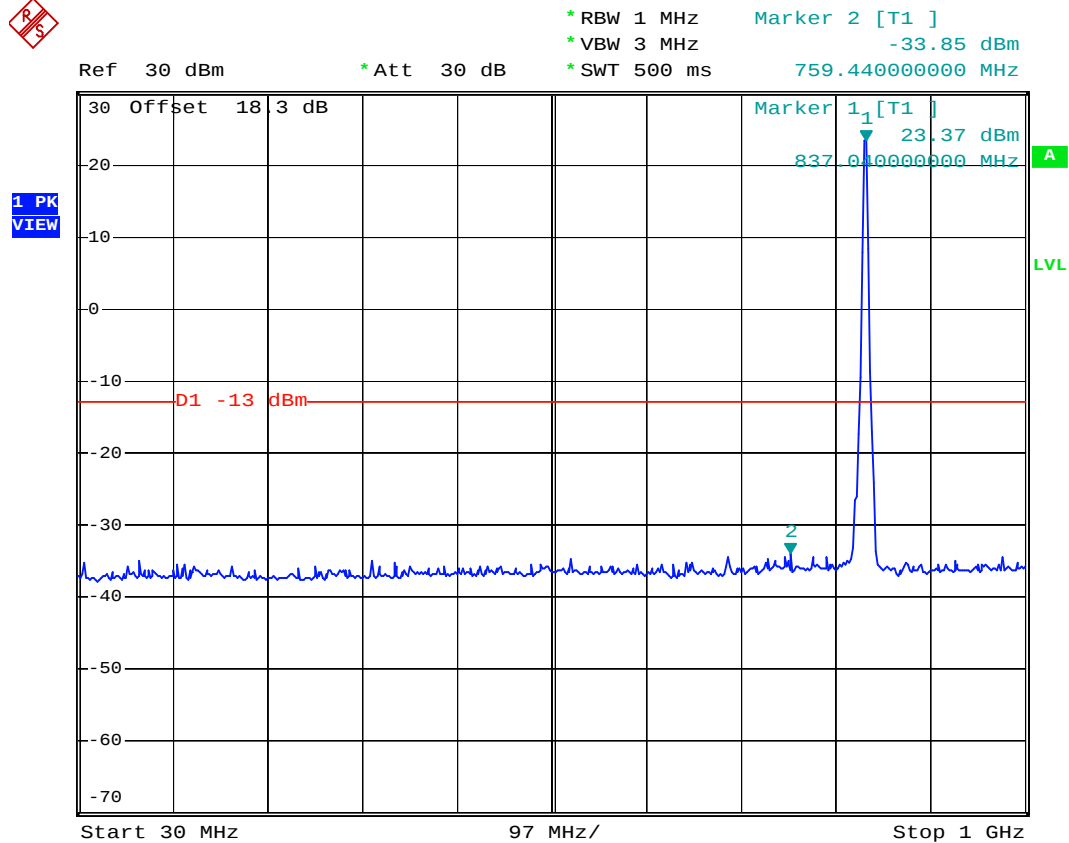
* RBW 1 MHz Marker 1 [T1]
* VBW 3 MHz -51.31 dBm
* SWT 500 ms 8.860000000 GHz



Date: 5.SEP.2007 07:20:33



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



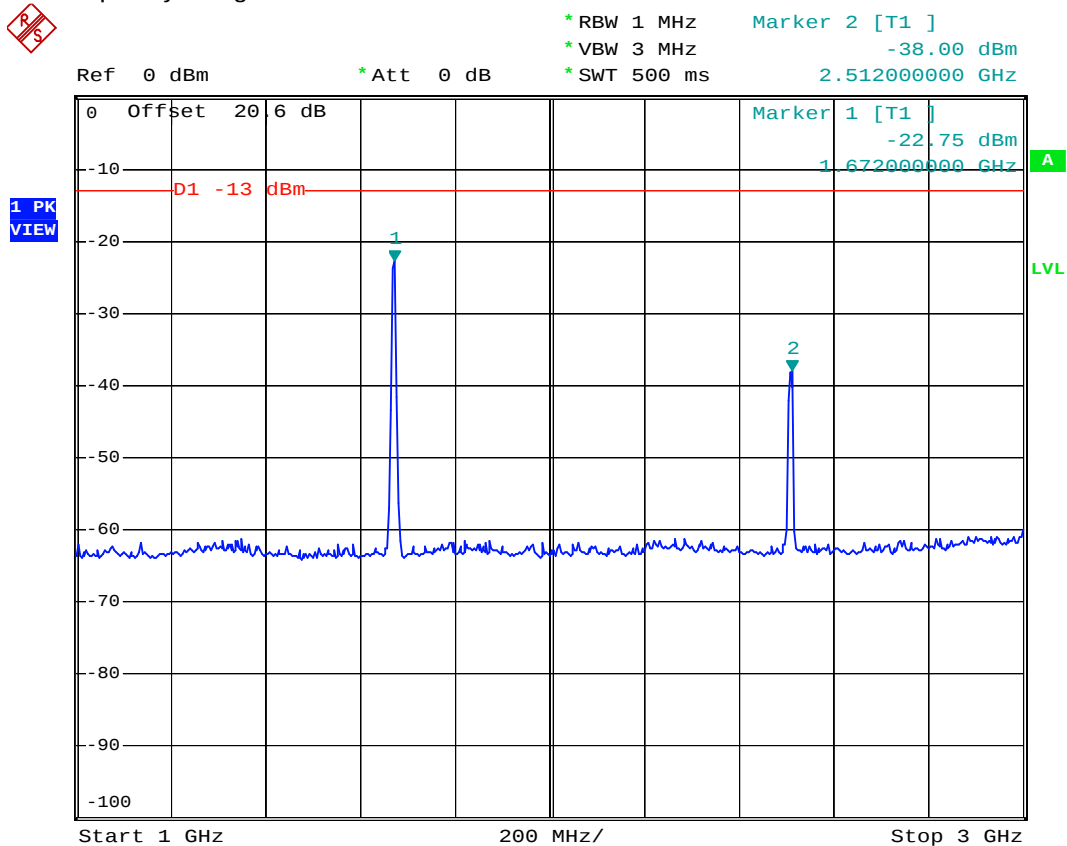
Date: 5.SEP.2007 07:06:02



FCC TEST REPORT

Report No. : FG782107

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



Date: 5.SEP.2007 07:12:11



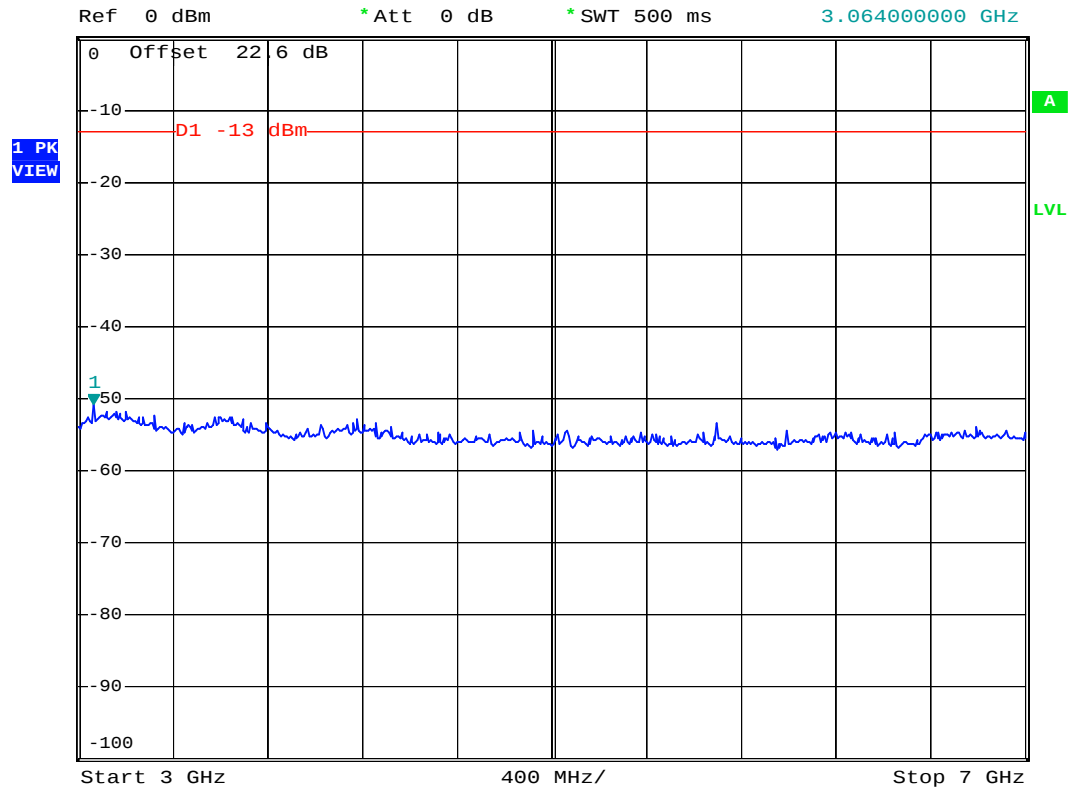
FCC TEST REPORT

Report No. : FG782107

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



* RBW 1 MHz Marker 1 [T1]
* VBW 3 MHz -50.69 dBm
* SWT 500 ms 3.064000000 GHz



Date: 5.SEP.2007 07:18:37



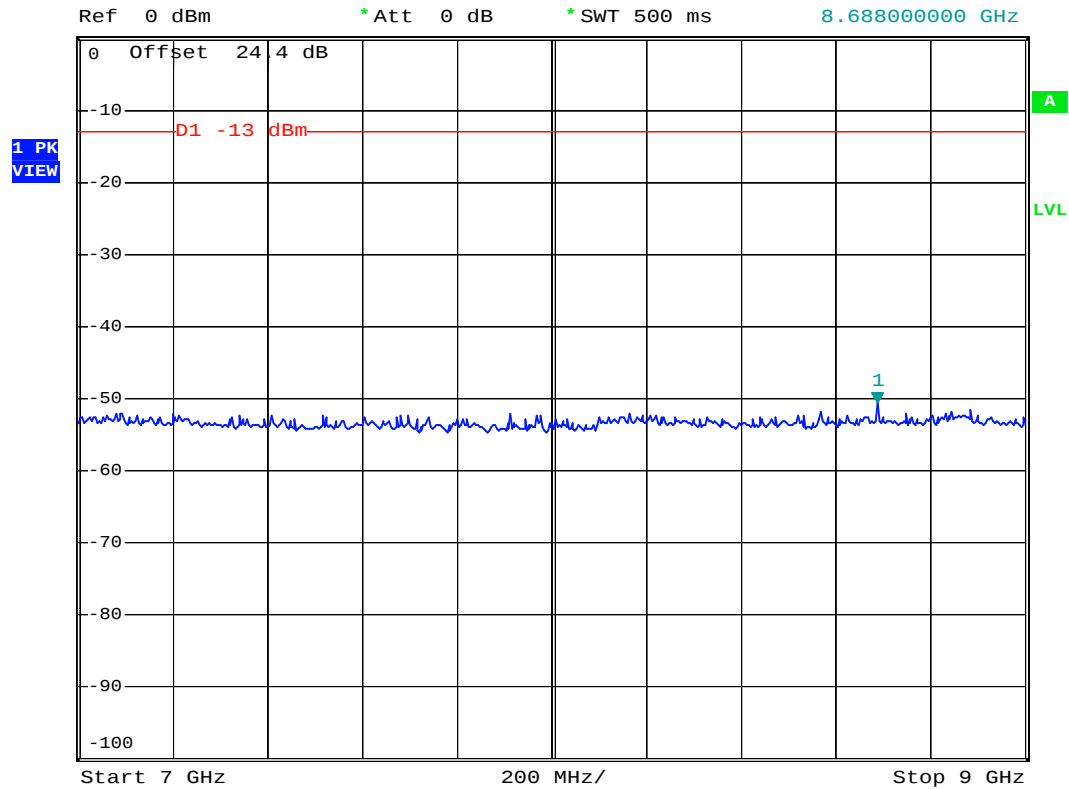
FCC TEST REPORT

Report No. : FG782107

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



* RBW 1 MHz Marker 1 [T1]
* VBW 3 MHz -50.47 dBm
* SWT 500 ms 8.688000000 GHz



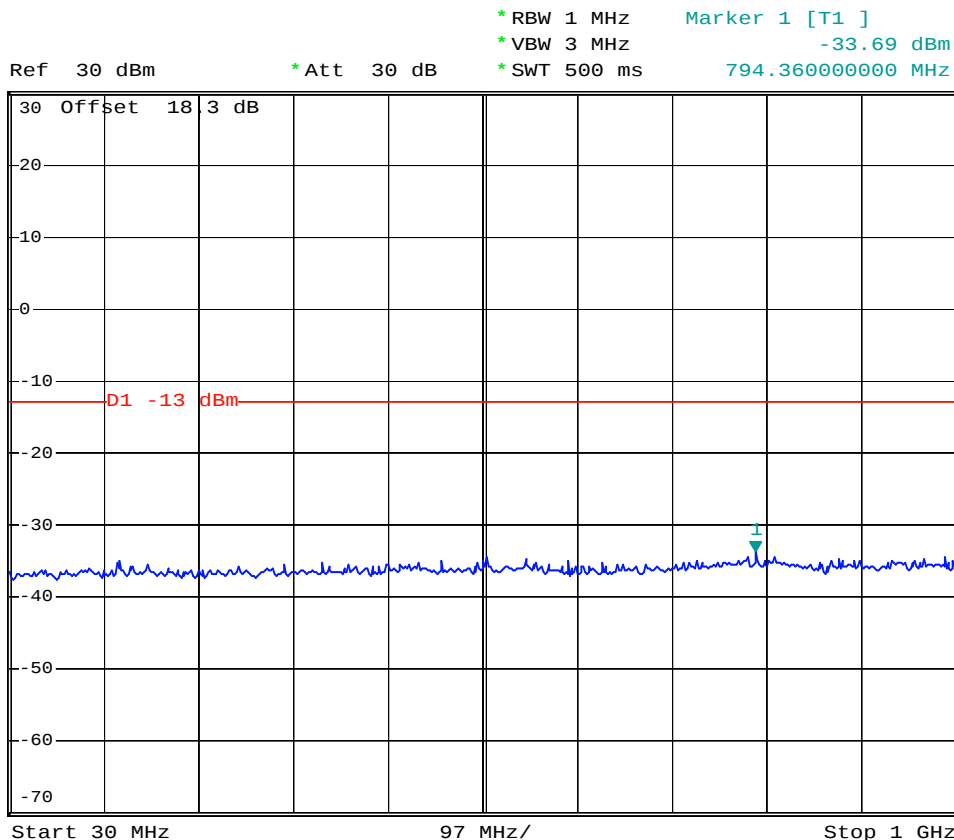
Date: 5.SEP.2007 07:19:46



FCC TEST REPORT

Report No. : FG782107

- Mode 7
- Test Mode : WCDMA Band II CH9400
- Frequency Range : 30M-1G



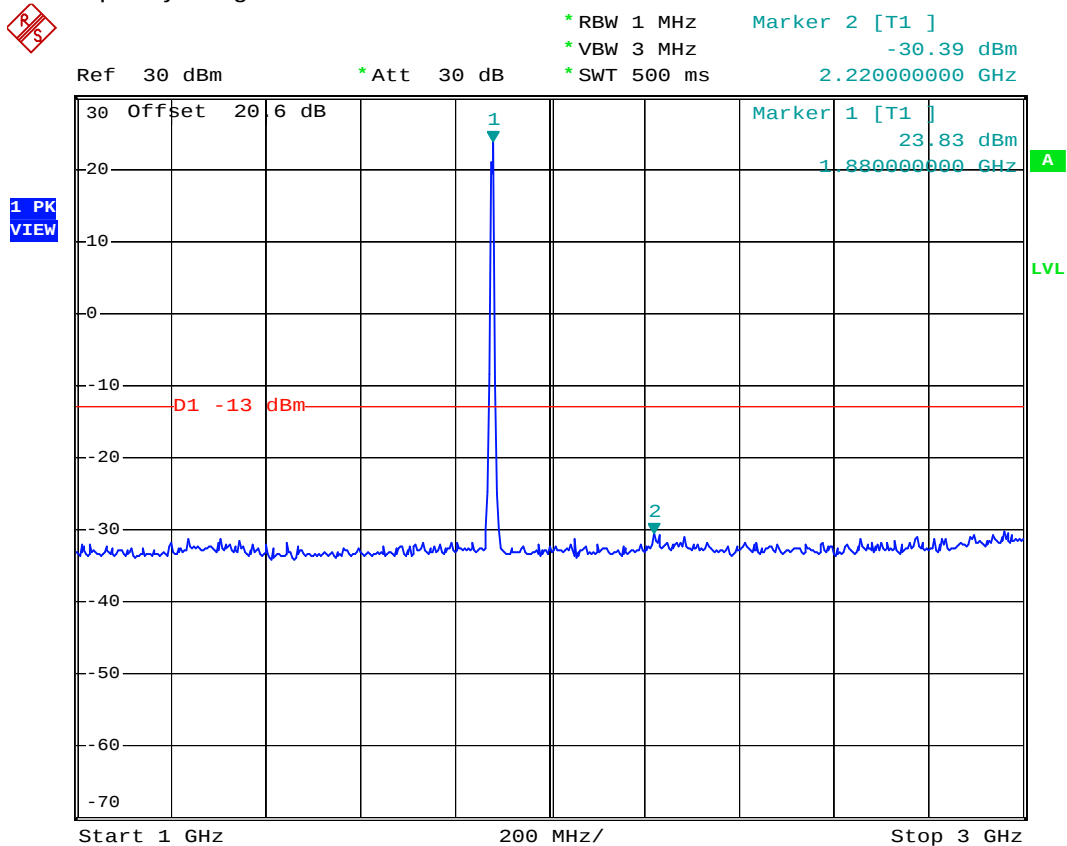
Date: 5.SEP.2007 07:03:37



FCC TEST REPORT

Report No. : FG782107

- Test Mode : WCDMA Band II CH9400
- Frequency Range : 1G-3G



Date: 5.SEP.2007 07:13:55



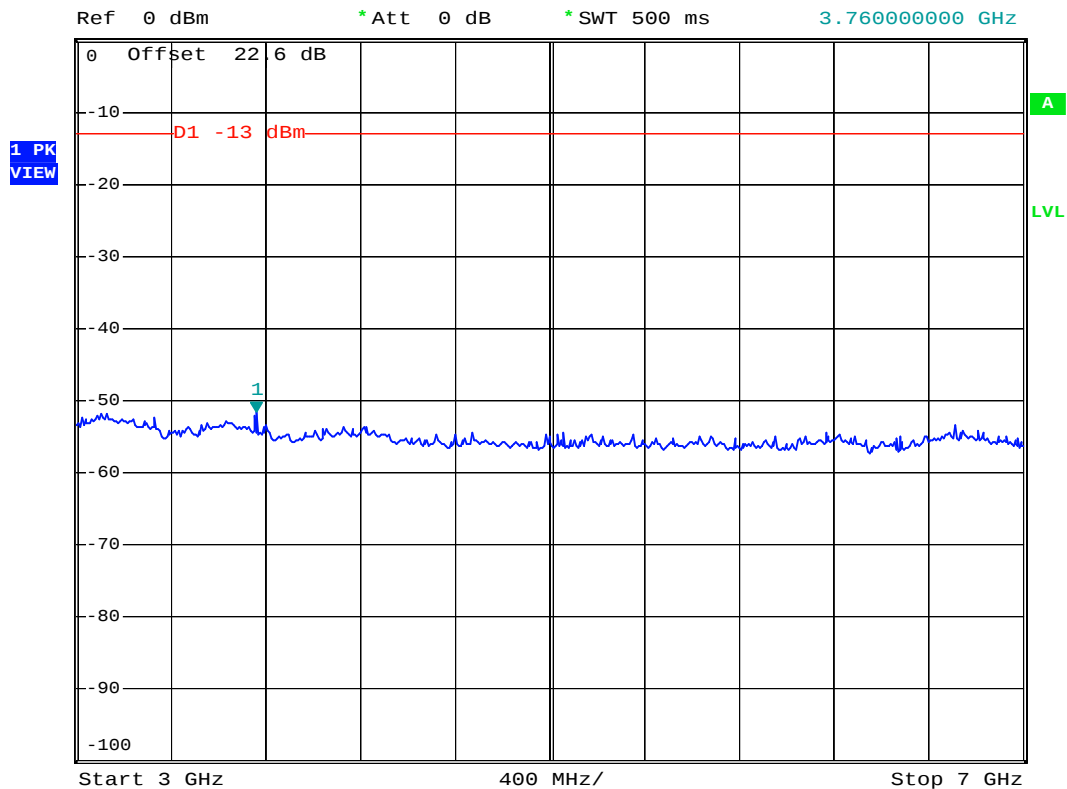
FCC TEST REPORT

Report No. : FG782107

- Test Mode : WCDMA Band II CH9400
- Frequency Range : 3G-7G



* RBW 1 MHz Marker 1 [T1]
* VBW 3 MHz -51.58 dBm
* SWT 500 ms 3.760000000 GHz



Date: 5.SEP.2007 07:16:54



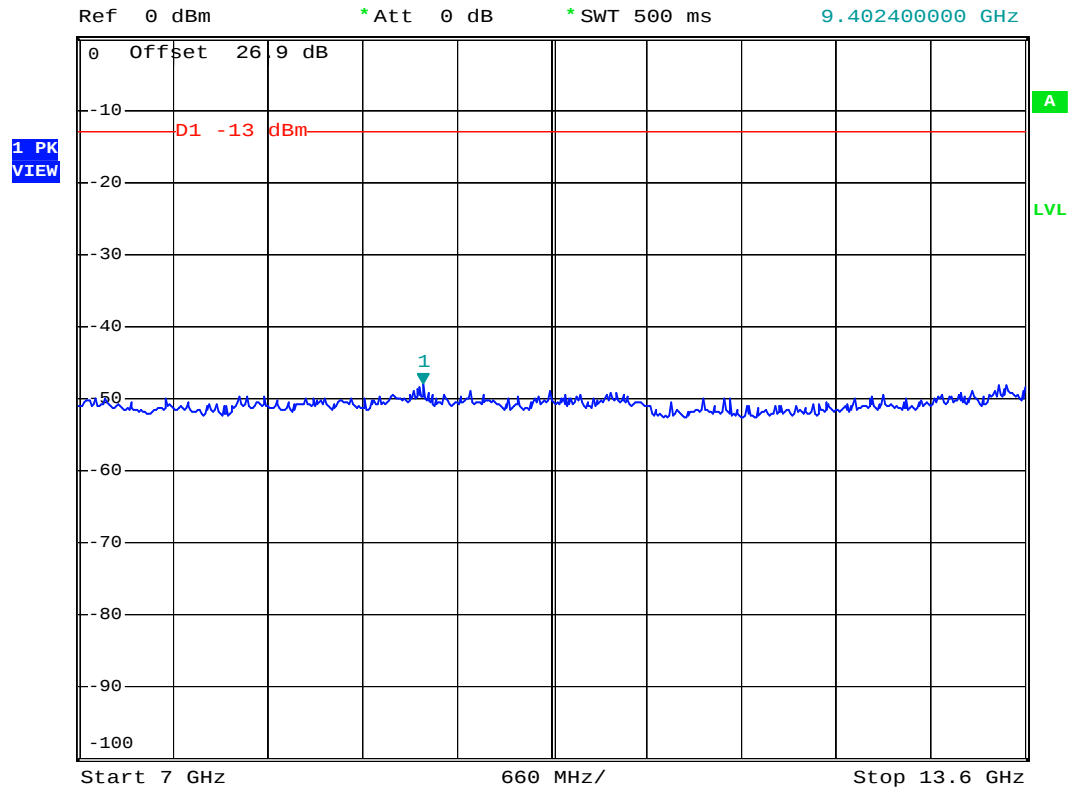
FCC TEST REPORT

Report No. : FG782107

- Test Mode : WCDMA Band II CH9400
- Frequency Range : 7G-13.6G



* RBW 1 MHz Marker 1 [T1]
* VBW 3 MHz -47.77 dBm
* SWT 500 ms 9.402400000 GHz



Date: 5.SEP.2007 07:22:02



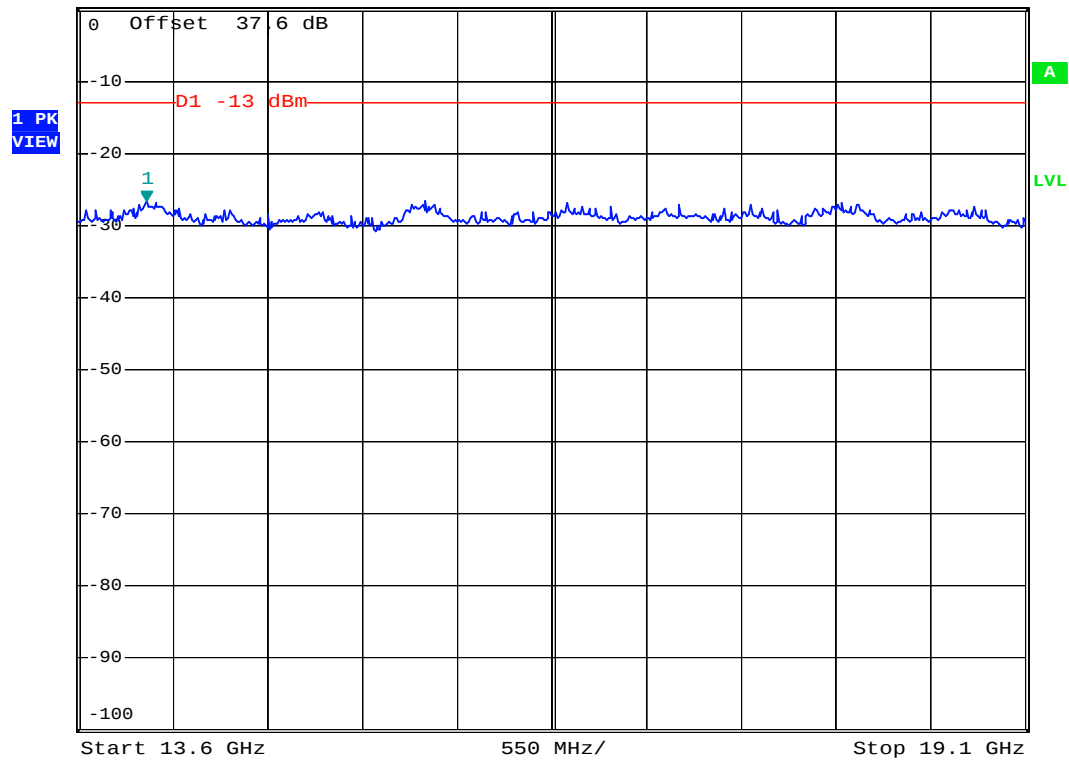
FCC TEST REPORT

Report No. : FG782107

- Test Mode : WCDMA Band II CH9400
- Frequency Range : 13.6G-19.1G



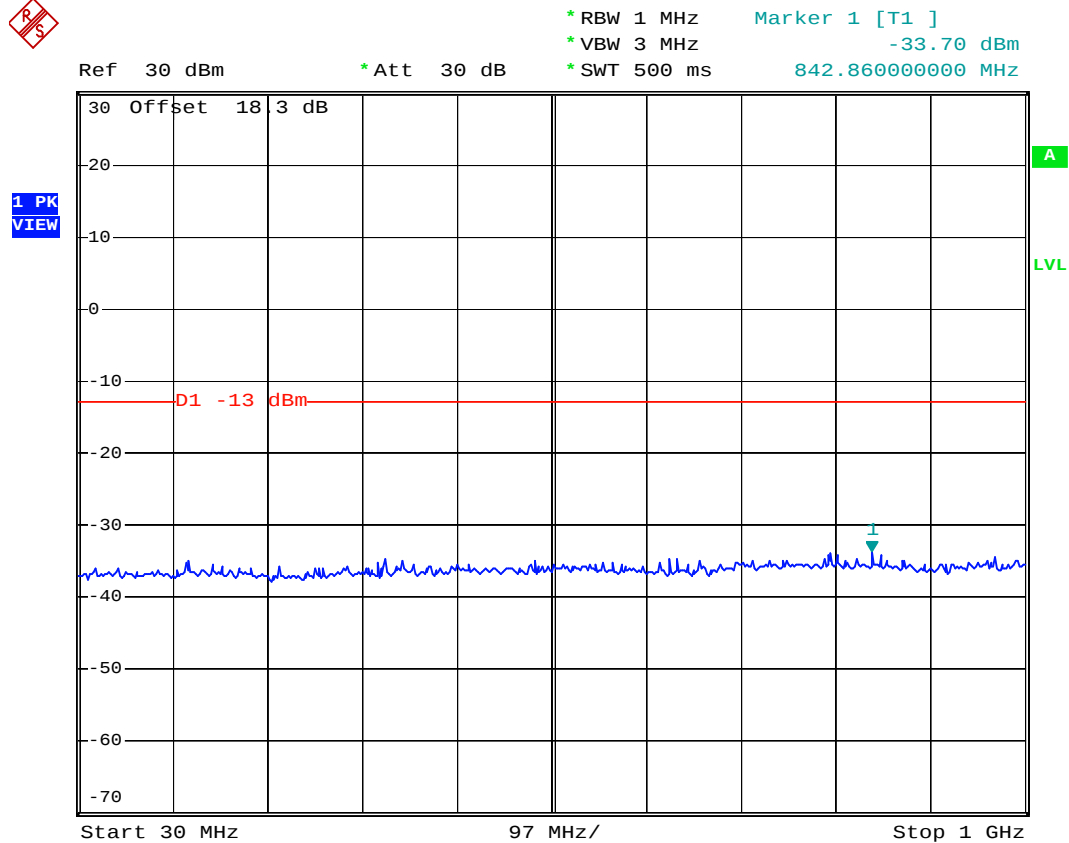
Ref 0 dBm * Att 0 dB * RBW 1 MHz * VBW 3 MHz * SWT 500 ms Marker 1 [T1] -26.55 dBm 13.996000000 GHz



Date: 5.SEP.2007 07:24:46



- Mode 8
- Test Mode : WCDMA Band II (HSDPA) CH9400
- Frequency Range : 30M-1G



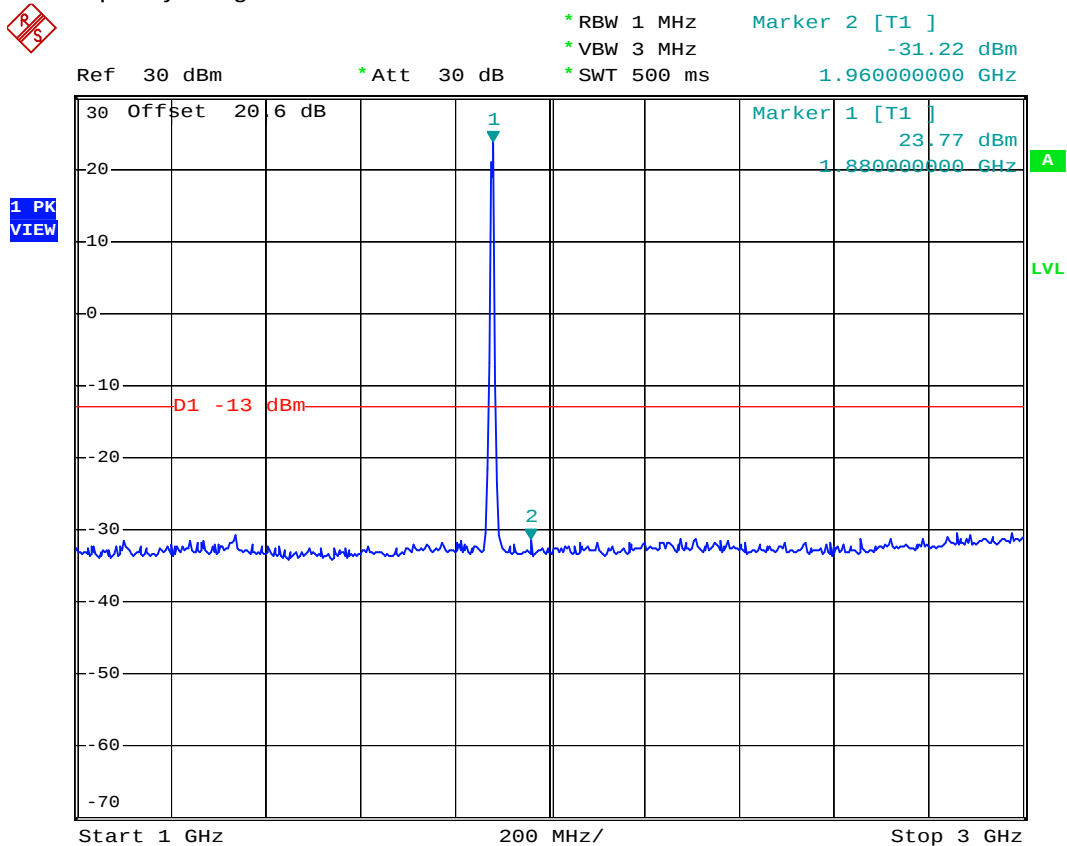
Date: 5.SEP.2007 07:01:51



FCC TEST REPORT

Report No. : FG782107

- Test Mode : WCDMA Band II (HSDPA) CH9400
- Frequency Range : 1G-3G



Date: 5.SEP.2007 07:14:43



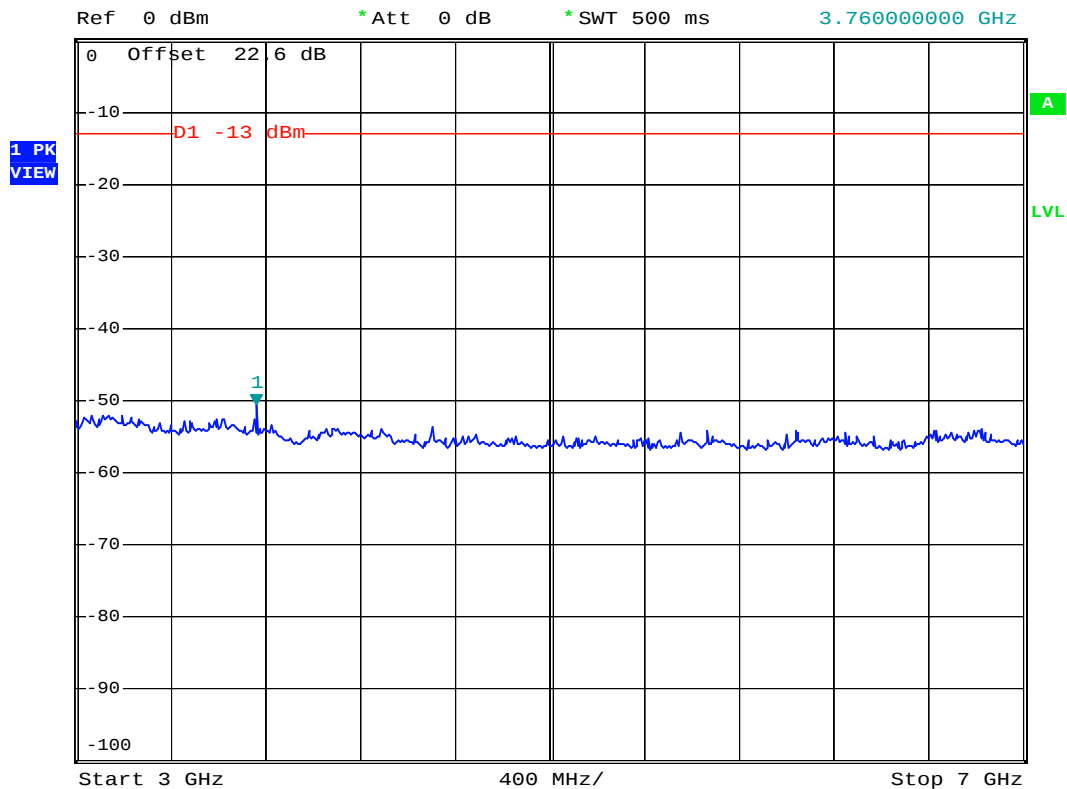
FCC TEST REPORT

Report No. : FG782107

- Test Mode : WCDMA Band II (HSDPA) CH9400
- Frequency Range : 3G-7G



* RBW 1 MHz Marker 1 [T1]
* VBW 3 MHz -50.41 dBm
* SWT 500 ms 3.760000000 GHz



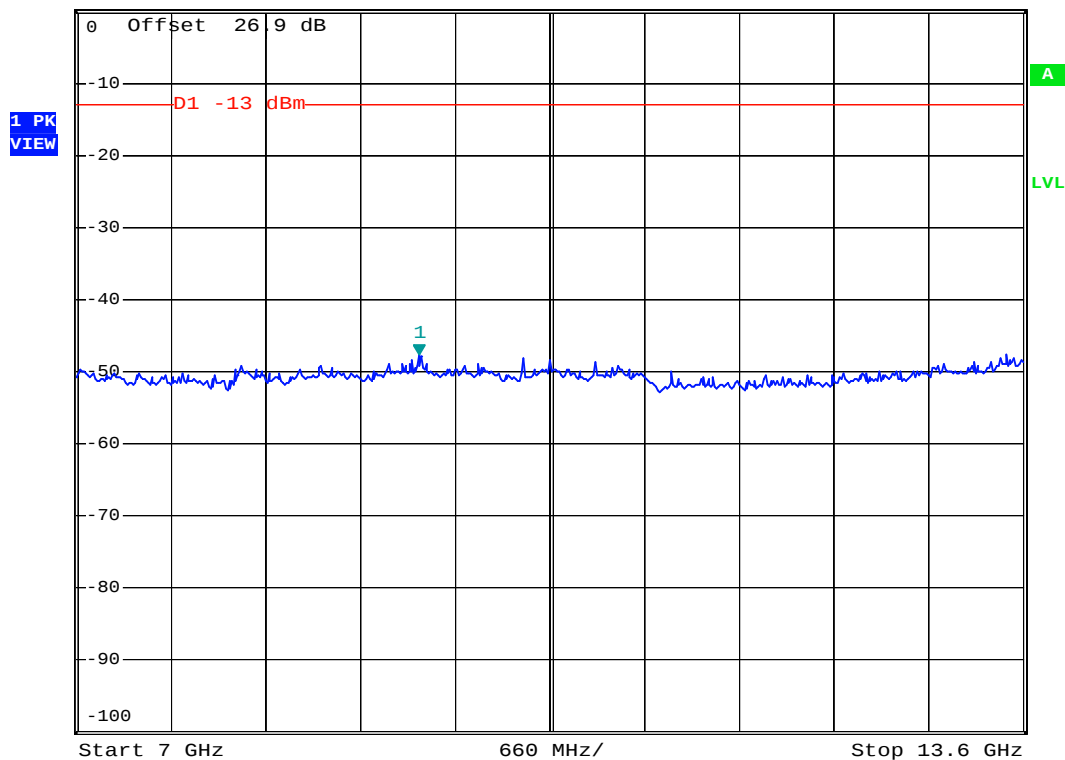
Date: 5.SEP.2007 07:16:12



- Test Mode : WCDMA Band II (HSDPA) CH9400
- Frequency Range : 7G-13.6G



Ref 0 dBm * Att 0 dB * RBW 1 MHz Marker 1 [T1] -47.55 dBm
* VBW 3 MHz * SWT 500 ms 9.389200000 GHz



Date: 5.SEP.2007 07:22:45



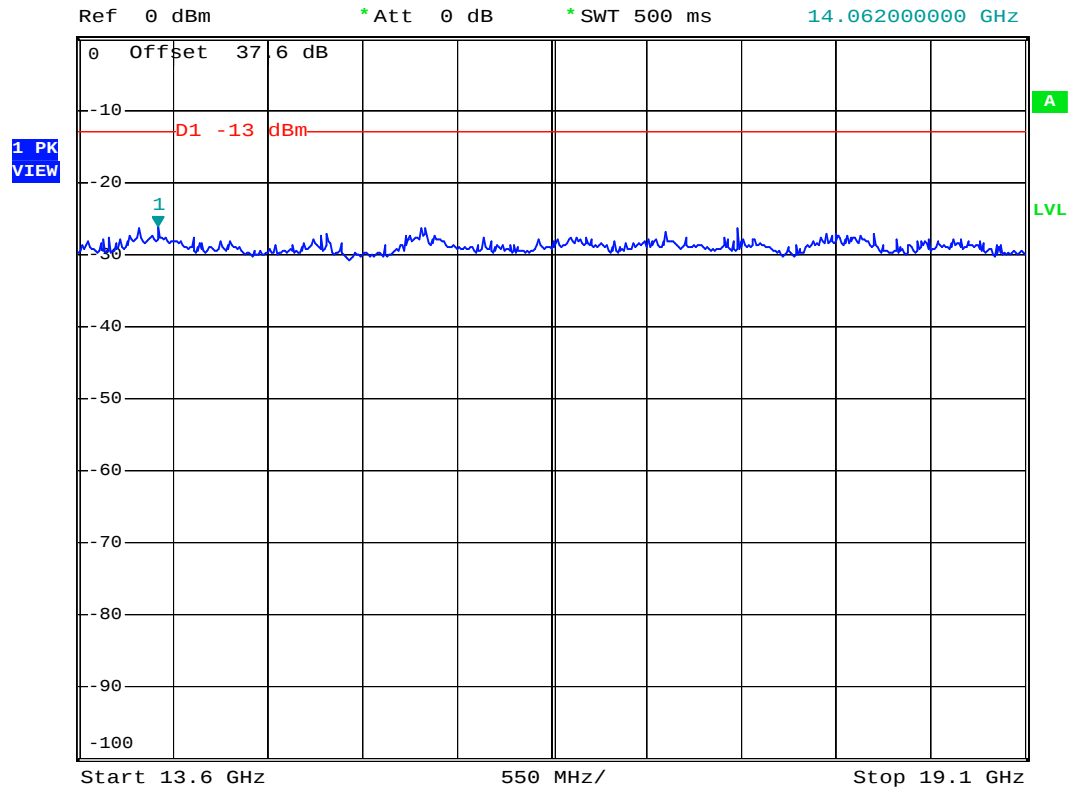
FCC TEST REPORT

Report No. : FG782107

- Test Mode : WCDMA Band II (HSDPA) CH9400
- Frequency Range : 13.6G-19.1G



* RBW 1 MHz Marker 1 [T1]
* VBW 3 MHz -26.03 dBm
* SWT 500 ms 14.062000000 GHz



Date: 5.SEP.2007 07:23:57

4.6 Field Strength of Spurious Radiation

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

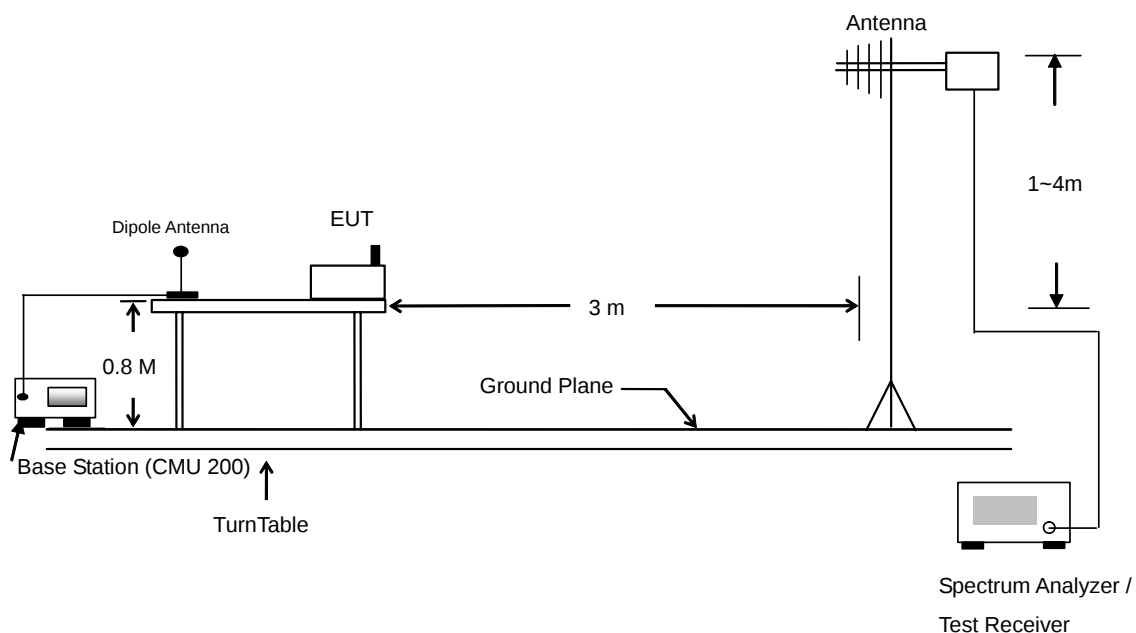
4.6.1 Measurement Instruments

As described in chapter 5 of this test report.

4.6.2 Test Procedure

1. The EUT was placed on a rotatable wooden table with 0.8 meter about ground.
2. The EUT was set 3 meters from the receiving antenna which was mounted on the antenna tower.
3. The table was rotated 360 degrees to determine the position of the highest spurious emission.
4. 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.
5. Taking the record of maximum spurious emission.
6. A Horn antenna was substituted in place of the EUT and was driven by a signal generator.
7. Tune the output power of signal generator to the same emission level with EUT maximum spurious emission.
8. Taking the record of output power at antenna port.
9. Repeat step 7 to step 8 for another polarization.
10. 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)
30.540	-65.630	-13	-52.63	113.430	-58.600	-13	-45.60
89.940	-63.230	-13	-50.23	211.440	-58.090	-13	-45.09
98.580	-64.220	-13	-51.22	257.880	-56.500	-13	-43.50
595.400	-64.150	-13	-51.15	353.900	-58.370	-13	-45.37
1674.000	-45.230	-13	-32.23	1674.000	-44.410	-13	-31.41
2508.000	-50.310	-13	-37.31	2508.000	-51.310	-13	-38.31
3344.000	-38.860	-13	-25.86	3344.000	-42.500	-13	-29.50
4178.000	-39.580	-13	-26.58	4178.000	-36.310	-13	-23.31
5018.000	-39.900	-13	-26.90	5018.000	-37.900	-13	-24.90
8364.000	-40.360	-13	-27.36	5854.000	-43.150	-13	-30.15
				6688.000	-44.800	-13	-31.80
				7524.000	-40.240	-13	-27.24
				8364.000	-36.960	-13	-23.96



▪ 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)
89.940	-64.080	-13	-51.08	112.080	-58.620	-13	-45.62
106.680	-62.580	-13	-49.58	211.980	-57.910	-13	-44.91
214.140	-68.100	-13	-55.10	259.230	-56.020	-13	-43.02
518.400	-64.300	-13	-51.30	516.300	-57.890	-13	-44.89
1674.000	-44.090	-13	-31.09	1674.000	-42.030	-13	-29.03
2508.000	-48.150	-13	-35.15	2508.000	-49.530	-13	-36.53
3344.000	-39.150	-13	-26.15	3344.000	-38.340	-13	-25.34
4184.000	-31.950	-13	-18.95	4178.000	-32.470	-13	-19.47
5018.000	-40.920	-13	-27.92	5018.000	-37.200	-13	-24.20
				5854.000	-44.270	-13	-31.27
				6688.000	-43.430	-13	-30.43
				7528.000	-40.150	-13	-27.15
				8364.000	-37.510	-13	-24.51



• Test Mode : Mode 3

PCS1900 (GSM) Radiated Spurious EIRP							
H Polarization				V Polarization			
Frequency	EIRP (dBm)	Limit	Margin	Frequency	EIRP (dBm)	Limit	Margin
(MHz)		(dBm)	(dB)	(MHz)		(dBm)	(dB)
85.080	-61.830	-13	-48.83	112.080	-56.200	-13	-43.20
90.480	-60.180	-13	-47.18	211.980	-52.950	-13	-39.95
210.630	-64.670	-13	-51.67	258.690	-54.320	-13	-41.32
322.400	-63.700	-13	-50.70	322.400	-56.500	-13	-43.50
518.400	-62.730	-13	-49.73	516.300	-56.060	-13	-43.06
598.900	-61.750	-13	-48.75	596.800	-57.170	-13	-44.17
3758.000	-34.160	-13	-21.16	3758.000	-30.920	-13	-17.92
5638.000	-37.310	-13	-24.31	5638.000	-28.820	-13	-15.82
9398.000	-35.860	-13	-22.86	7518.000	-41.580	-13	-28.58
11278.000	-26.680	-13	-13.68	9398.000	-41.350	-13	-28.35
15036.000	-34.020	-13	-21.02	11278.000	-24.500	-13	-11.50
				13158.000	-35.730	-13	-22.73
				15036.000	-34.460	-13	-21.46



▪ Test Mode : Mode 4

PCS1900 (EDGE) Radiated Spurious EIRP							
H Polarization				V Polarization			
Frequency	EIRP (dBm)	Limit	Margin	Frequency	EIRP (dBm)	Limit	Margin
(MHz)		(dBm)	(dB)	(MHz)		(dBm)	(dB)
30.270	-64.640	-13	-51.64	112.080	-55.850	-13	-42.85
89.940	-59.290	-13	-46.29	210.630	-55.660	-13	-42.66
98.040	-60.810	-13	-47.81	258.690	-53.640	-13	-40.64
322.400	-63.060	-13	-50.06	322.400	-56.050	-13	-43.05
516.300	-62.910	-13	-49.91	386.800	-58.120	-13	-45.12
600.300	-62.440	-13	-49.44	518.400	-55.950	-13	-42.95
3758.000	-30.450	-13	-17.45	3758.000	-32.360	-13	-19.36
5638.000	-37.480	-13	-24.48	5638.000	-28.370	-13	-15.37
9398.000	-32.770	-13	-19.77	7518.000	-38.110	-13	-25.11
11278.000	-27.530	-13	-14.53	9398.000	-29.420	-13	-16.42
13158.000	-34.450	-13	-21.45	11278.000	-20.060	-13	-7.06
				13158.000	-31.540	-13	-18.54
				15036.000	-31.710	-13	-18.71



- 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)				(MHz)			
90.480	-62.200	-13	-49.20	83.730	-58.460	-13	-45.46
114.780	-62.180	-13	-49.18	114.780	-54.610	-13	-41.61
208.740	-56.120	-13	-43.12	208.740	-56.070	-13	-43.07
322.400	-59.650	-13	-46.65	516.300	-60.400	-13	-47.40
1668.000	-30.020	-13	-17.02	1668.000	-28.700	-13	-15.70
2504.000	-41.810	-13	-28.81	2504.000	-43.660	-13	-30.66

- Test Mode : Mode 6

WCDMA Band V (HSDPA) Radiated Spurious ERP							
H Polarization				V Polarization			
Frequency	ERP (dBm)	Limit	Margin	Frequency	ERP (dBm)	Limit	Margin
(MHz)				(MHz)			
83.730	-61.990	-13	-48.99	114.240	-58.290	-13	-45.29
89.940	-60.130	-13	-47.13	203.880	-56.930	-13	-43.93
201.180	-66.480	-13	-53.48	258.690	-56.440	-13	-43.44
596.800	-65.100	-13	-52.10	516.300	-57.330	-13	-44.33
1668.000	-31.720	-13	-18.72	1668.000	-29.400	-13	-16.40
2504.000	-41.830	-13	-28.83	2504.000	-43.070	-13	-30.07

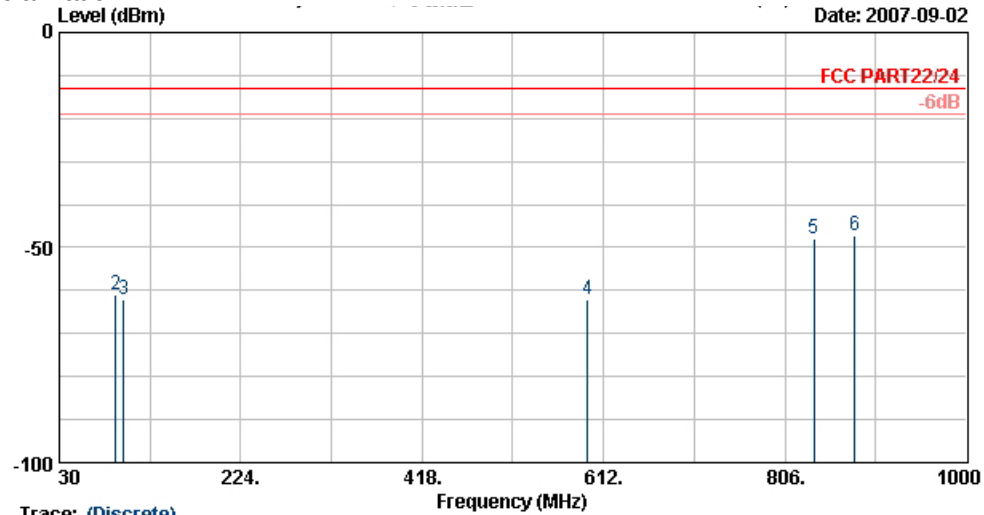


- Test Mode : Mode 7

WCDMA Band II Radiated Spurious EIRP							
H Polarization				V Polarization			
Frequency	EIRP (dBm)	Limit	Margin	Frequency	EIRP (dBm)	Limit	Margin
(MHz)		(dBm)	(dB)	(MHz)		(dBm)	(dB)
36.480	-60.840	-13	-47.84	73.740	-53.340	-13	-40.34
92.640	-51.040	-13	-38.04	114.780	-55.060	-13	-42.06
207.390	-65.100	-13	-52.10	211.980	-52.660	-13	-39.66
518.400	-62.640	-13	-49.64	320.300	-56.210	-13	-43.21
598.900	-61.490	-13	-48.49	518.400	-56.390	-13	-43.39
962.900	-63.580	-13	-50.58	598.900	-58.750	-13	-45.75

- Test Mode : Mode 8

WCDMA Band II (HSDPA) Radiated Spurious EIRP							
H Polarization				V Polarization			
Frequency	EIRP (dBm)	Limit	Margin	Frequency	EIRP (dBm)	Limit	Margin
(MHz)		(dBm)	(dB)	(MHz)		(dBm)	(dB)
89.130	-58.550	-13	-45.55	113.430	-56.130	-13	-43.13
98.040	-61.700	-13	-48.70	209.280	-52.180	-13	-39.18
209.280	-65.030	-13	-52.03	259.230	-53.960	-13	-40.96
323.800	-64.820	-13	-51.82	320.300	-55.630	-13	-42.63
514.900	-62.460	-13	-49.46	518.400	-56.690	-13	-43.69
596.800	-62.280	-13	-49.28	598.900	-57.710	-13	-44.71

**4.6.5 Test Data****4.6.5.1 Mode 1****Horizontal Polarization**

Site : 09CH06-HY
Condition : LF-SFURIOUS HORIZONTAL
EUT : GSM/GPRS/EDGE/850/900/1800/1900, WCDMA/
HSDPA/850/1900/2100 USB dongle
Power : From Notebook
Model : FG782107
Mode : GSM850 Link Mode;Ch189

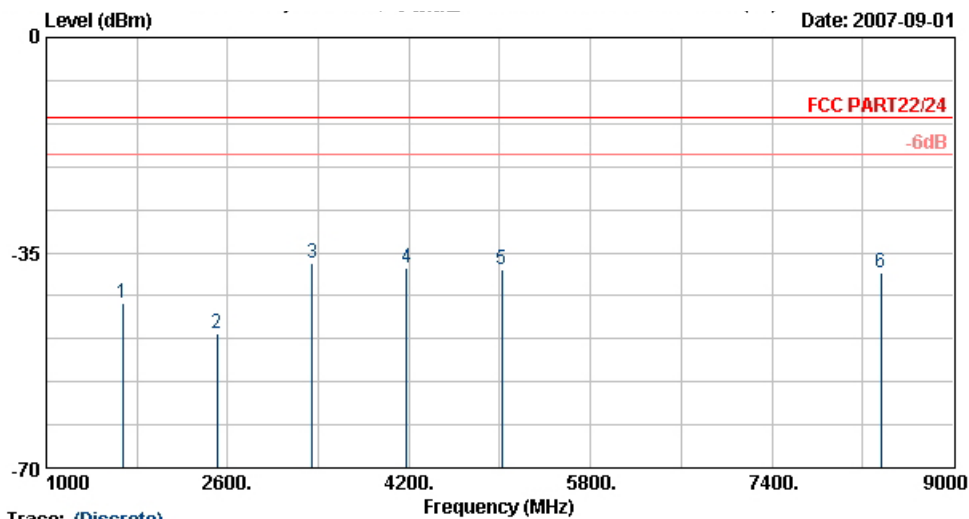
	Freq	Level	Over	Limit	Read		
	MHz	dBm	Limit	Line	Level	Factor	Remark
			dB	dBm	dBm	dB	
1	30.5	-63.48	-50.48	-13.00	-63.23	-0.25	Peak
2	89.9	-61.08	-48.08	-13.00	-48.81	-12.28	Peak
3	98.6	-62.07	-49.07	-13.00	-49.83	-12.24	Peak
4	595.4	-62.00	-49.00	-13.00	-58.20	-3.81	Peak
5	836.9	-47.78			-46.45	-1.33	Peak
6 @	880.3	-47.14			-46.23	-0.91	Peak

Remark:

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

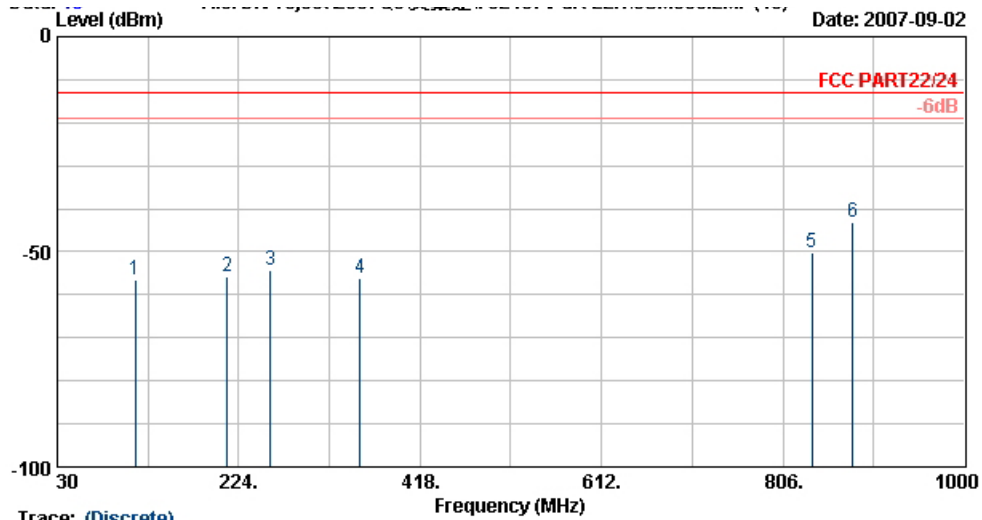
**FCC TEST REPORT**

Report No. : FG782107



Trace: (Discrete)
 Site : 03CH06-HY
 Condition : HF SPURIOUS-060929 HORIZONTAL
 EUT : GSM/GPRS/EDGE/850/900/1800/1900/WCDMA/
 : HSDPA/850/1900/2100 USB dongle
 Power : From Notebook
 Model : FG782107
 Mode : GSM850 Link Mode;CH189

	Freq	Level	Over	Limit	Read		
	MHz	dBm	Limit	Line	Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1 @	1674.0	-43.08	-30.08	-13.00	-45.43	2.36	Peak
2	2508.0	-48.16	-35.16	-13.00	-54.84	6.69	Peak
3 @	3344.0	-36.71	-23.71	-13.00	-46.11	9.40	Peak
4 @	4178.0	-37.43	-24.43	-13.00	-49.41	11.98	Peak
5 @	5018.0	-37.75	-24.75	-13.00	-53.83	16.07	Peak
6 @	8364.0	-38.21	-25.21	-13.00	-62.17	23.97	Peak

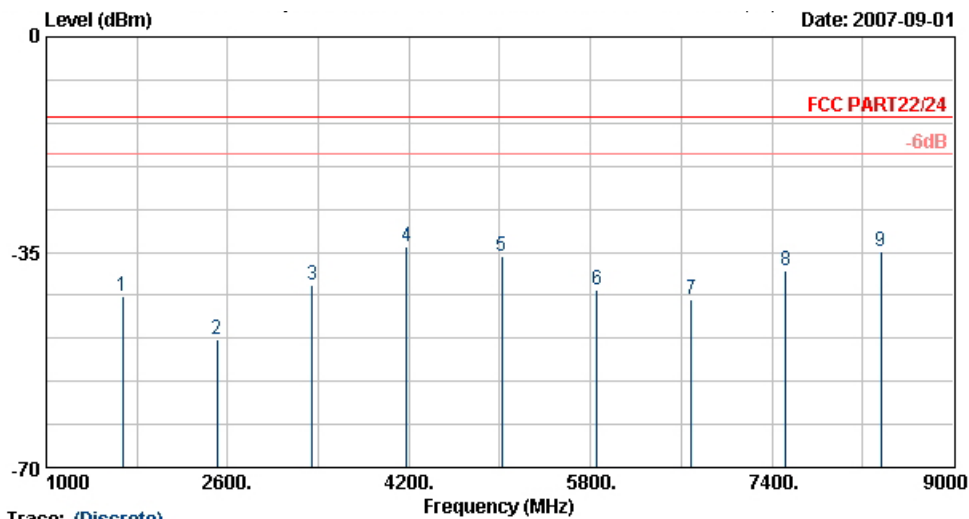
**Vertical Polarization**

Site : 03CH06-HY
Condition : LF-SFURIOUS VERTICAL
EUT : GSM/GPRS/EDGE/850/900/1800/1900/WCDMA/
HSDPA/850/1900/2100 USB dongle
Power : From Notebook
Model : FG782107
Mode : GSM850 Link Mode;Ch189

	Freq	Level	Over	Limit	Read		
	MHz	dBm	Limit	Line	Level	Factor	Remark
			dB	dBm	dBm	dB	
1	113.4	-56.45	-43.45	-13.00	-48.64	-7.81	Peak
2	211.4	-55.94	-42.94	-13.00	-47.59	-8.34	Peak
3	257.9	-54.35	-41.35	-13.00	-47.00	-7.35	Peak
4	353.9	-56.22	-43.22	-13.00	-50.92	-5.30	Peak
5	836.9	-50.32			-51.68	1.36	Peak
6 @	880.3	-43.30			-45.01	1.71	Peak

Remark:

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



Trace: (Discrete)
 Site : 03CHD6-HY
 Condition : HF SPURIOUS-060929 VERTICAL
 EUT : GSM/GPRS/EDGE/850/900/1800/1900/WCDMA/
 : HSDPA/850/1900/2100 USB dongle
 Power : From Notebook
 Model : FG782107
 Mode : GSM850 Link Mode;CH189

	Freq	Level	Over	Limit	Read		
	MHz	dBm	Limit	Line	Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1 @	1674.0	-42.26	-29.26	-13.00	-44.42	2.16	Peak
2	2508.0	-49.16	-36.16	-13.00	-56.34	7.18	Peak
3 @	3344.0	-40.35	-27.35	-13.00	-48.89	8.55	Peak
4 @	4178.0	-34.16	-21.16	-13.00	-45.52	11.36	Peak
5 @	5018.0	-35.75	-22.75	-13.00	-50.49	14.74	Peak
6 @	5854.0	-41.00	-28.00	-13.00	-59.49	18.49	Peak
7 @	6688.0	-42.65	-29.65	-13.00	-61.33	18.68	Peak
8 @	7524.0	-38.09	-25.09	-13.00	-57.60	19.51	Peak
9 @	8364.0	-34.81	-21.81	-13.00	-57.56	22.75	Peak

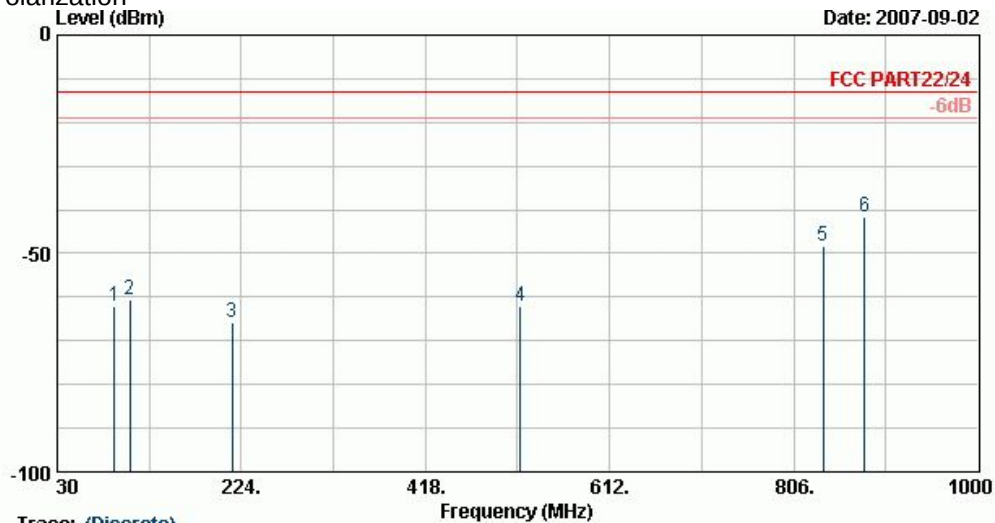
Remark:

1. There is no more obvious emission except the listings above.



4.6.5.2 Mode 2

Horizontal Polarization



Site : 08CH06-HY
Condition : LP-SFURIOUS HORIZONTAL
EUT : GSM/GPRS/EDGE850/900/1800/1900/WCDMA/
HSDPA850/1900/2100 USB dongle
Power : From Notebook
Model : FG782107
Mode : EDGE Link Mode, Ch189

	Freq	Level	Over	Limit	Read		
	MHz	dBm	Limit	Line	Level	Factor	Remark
			dB	dBm	dBm	dB	
1	89.9	-61.93	-48.93	-13.00	-49.65	-12.28	Peak
2	106.7	-60.43	-47.43	-13.00	-48.11	-12.32	Peak
3	214.1	-65.95	-52.95	-13.00	-53.06	-12.89	Peak
4	518.4	-62.15	-49.15	-13.00	-57.29	-4.86	Peak
5	836.9	-48.23			-46.90	-1.33	Peak
6 @	880.3	-41.63			-40.72	-0.91	Peak

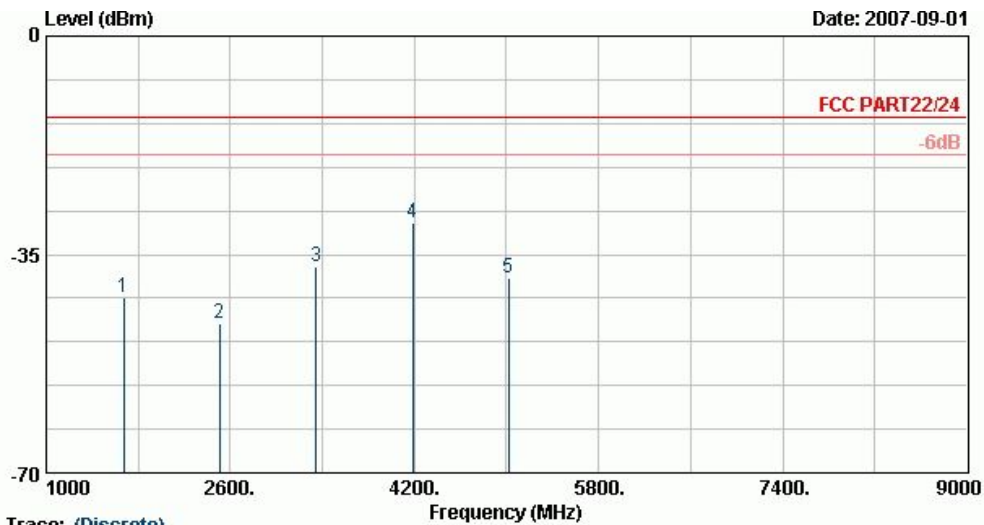
Remark:

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



FCC TEST REPORT

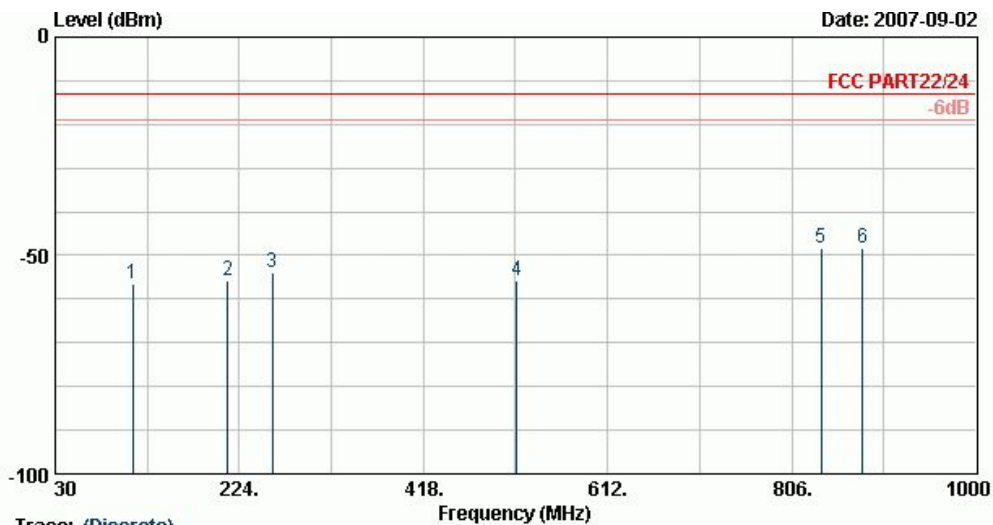
Report No. : FG782107



Trace: (Discrete)

Site : 03CH06-HY
Condition : HF-SPURIOUS-060929 HORIZONTAL
EUT : GSM/GPRS/EDGE/850/900/1800/1900/WCDMA/
: HSDPA/850/1900/2100 USB dongle
Power : From Notebook
Model : FG782107
Mode : EDGE Link Mode, CH189

	Freq	Level	Over	Limit	Read		
	MHz	dBm	Limit	Line	Level	Factor	Remark
			dB	dBm	dBm	dB	
1	1674.0	-41.94	-28.94	-13.00	-44.30	2.36	Peak
2	2508.0	-46.00	-33.00	-13.00	-52.69	6.69	Peak
3 @	3344.0	-37.00	-24.00	-13.00	-46.40	9.40	Peak
4 @	4184.0	-29.80	-16.80	-13.00	-41.78	11.98	Peak
5 @	5018.0	-38.77	-25.77	-13.00	-54.85	16.07	Peak

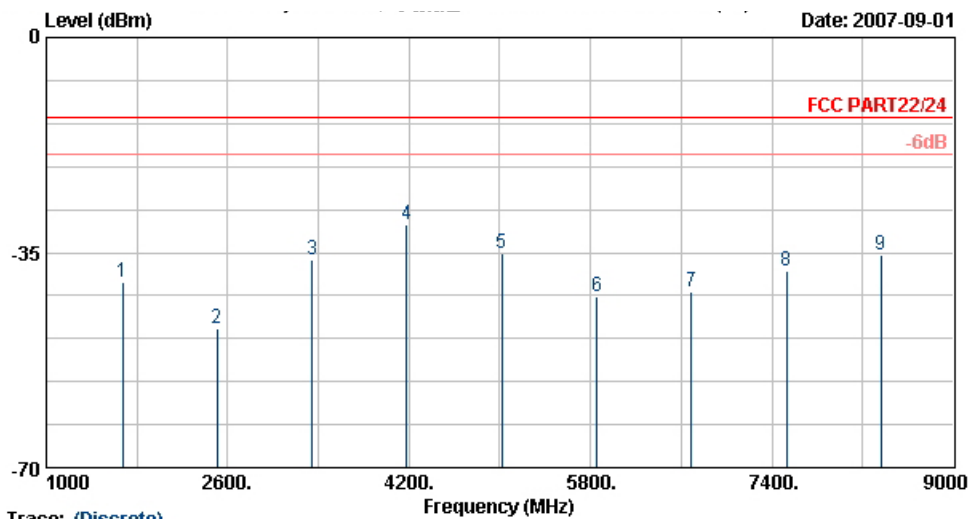
**Vertical Polarization****Trace: (Discrete)**

Site : 08CH06-HY
Condition : LF-SPURIOUS VERTICAL
EUT : GSM/GPRS/EDGE/850/900/1800/1900/WCDMA/
HSDPA/850/1900/2100 USB dongle
Power : From Notebook
Model : FG782107
Mode : EDGE Link Mode, CH189

	Freq	Level	Over	Limit	Read		
	MHz	dBm	Limit	Line	Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1	112.1	-56.47	-43.47	-13.00	-48.67	-7.80	Peak
2	212.0	-55.76	-42.76	-13.00	-47.44	-8.32	Peak
3	259.2	-53.87	-40.87	-13.00	-46.54	-7.33	Peak
4	516.3	-55.74	-42.74	-13.00	-52.80	-2.94	Peak
5	836.9	-48.44			-49.81	1.36	Peak
6	880.3	-48.38			-50.09	1.71	Peak

Remark:

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



Trace: (Discrete)

Site : 03CHD6-HY
 Condition : HF SPURIOUS-060929 VERTICAL
 EUT : GSM/GPRS/EDGE/850/900/1800/1900, WCDMA/
 : HSDPA/850/1900/2100 USB dongle
 Power : From Notebook
 Model : FG782107
 Mode : EDGE Link Mode;Ch189

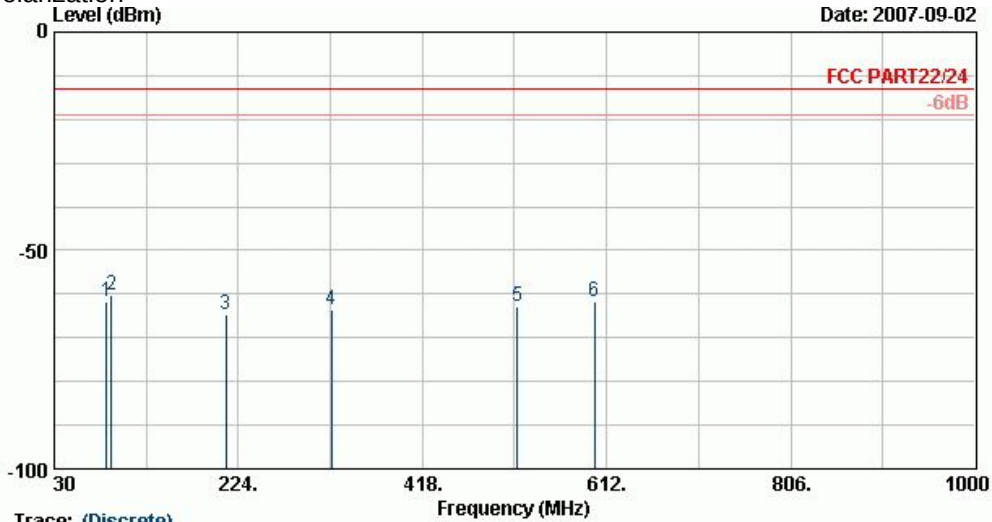
	Freq	Level	Over	Limit	Read		
	MHz	dBm	Limit	Line	Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1 @	1674.0	-39.88	-26.88	-13.00	-42.03	2.16	Peak
2	2508.0	-47.38	-34.38	-13.00	-54.57	7.18	Peak
3 @	3344.0	-36.19	-23.19	-13.00	-44.74	8.55	Peak
4 @	4178.0	-30.32	-17.32	-13.00	-41.68	11.36	Peak
5 @	5018.0	-35.05	-22.05	-13.00	-49.79	14.74	Peak
6	5854.0	-42.12	-29.12	-13.00	-60.60	18.49	Peak
7 @	6688.0	-41.28	-28.28	-13.00	-59.97	18.68	Peak
8 @	7528.0	-38.00	-25.00	-13.00	-57.51	19.51	Peak
9 @	8364.0	-35.36	-22.36	-13.00	-58.11	22.75	Peak

Remark:

- There is no more obvious emission except the listings above.

**4.6.5.3 Mode 3**

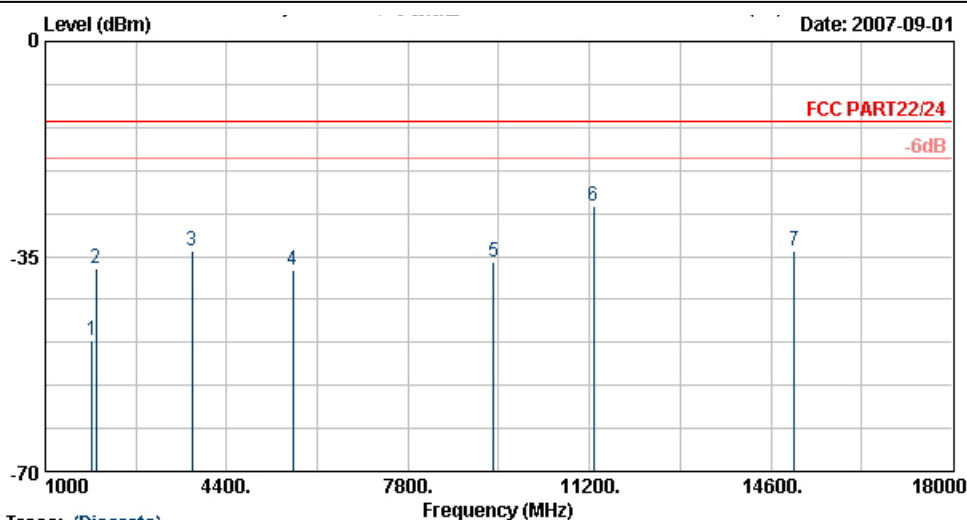
Horizontal Polarization



Trace: (Discrete)

Site : 08CH06-HY
Condition : LP-SPURIOUS HORIZONTAL
EUT : GSM/GPRS/EDGE/850/900/1800/1900/WCDMA/
HSDPA/850/1900/2100 USB dongle
Power : From Notebook
Model : FG782107
Mode : PCS1900 Link Mode;Ch661

	Freq	Level	Over	Limit	Read		
	MHz	dBm	Limit	Line	Level	Factor	Remark
			dB	dBm	dBm	dB	
1	85.1	-61.83	-48.83	-13.00	-49.53	-12.30	Peak
2 @	90.5	-60.18	-47.18	-13.00	-47.91	-12.28	Peak
3	210.6	-64.67	-51.67	-13.00	-51.65	-13.02	Peak
4	322.4	-63.70	-50.70	-13.00	-54.53	-9.18	Peak
5	518.4	-62.73	-49.73	-13.00	-57.87	-4.86	Peak
6	598.9	-61.75	-48.75	-13.00	-57.99	-3.77	Peak



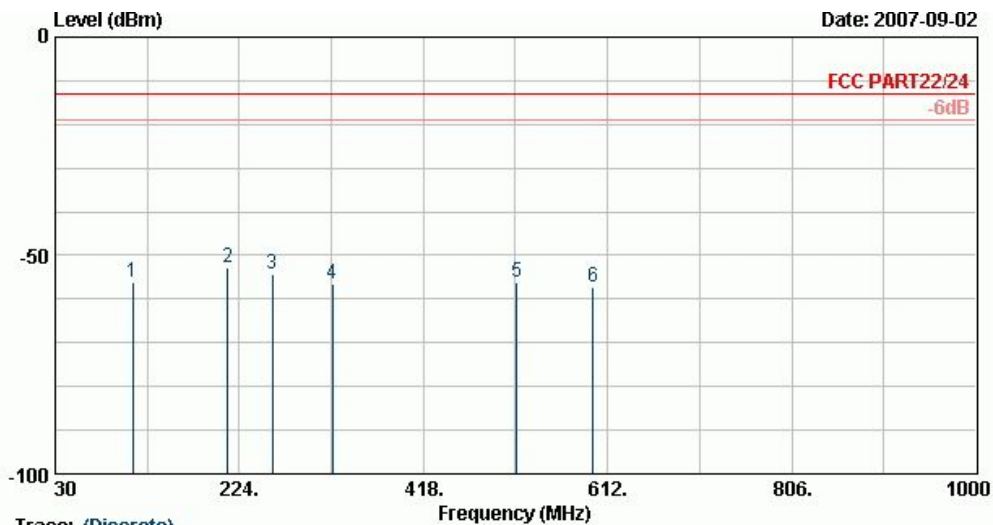
Trace: (Discrete)

Site : 03CH06-HY
 Condition : HF SPURIOUS-060929 HORIZONTAL
 EUT : GSM/GPRS/EDGE/850/900/1800/1900/WCDMA/
 : HSDPA/850/1900/2100 USB dongle
 Power : From Notebook
 Model : FG782107
 Mode : PCS1900 Link Mode, CH661

	Freq	Level	Over	Limit	Read		
	MHz	dBm	Limit	Line	Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1 @	1878.0	-48.73			-52.63	3.90	Peak
2 @	1958.0	-37.03			-41.44	4.41	Peak
3 @	3758.0	-34.16	-21.16	-13.00	-44.56	10.41	Peak
4 @	5638.0	-37.31	-24.31	-13.00	-55.75	18.45	Peak
5 @	9398.0	-35.86	-22.86	-13.00	-57.27	21.40	Peak
6 @	11278.0	-26.68	-13.68	-13.00	-51.41	24.72	Peak
7 @	15036.0	-34.02	-21.02	-13.00	-62.19	28.17	Peak

Remark:

- #1: MS Signal
- #2: BS Signal

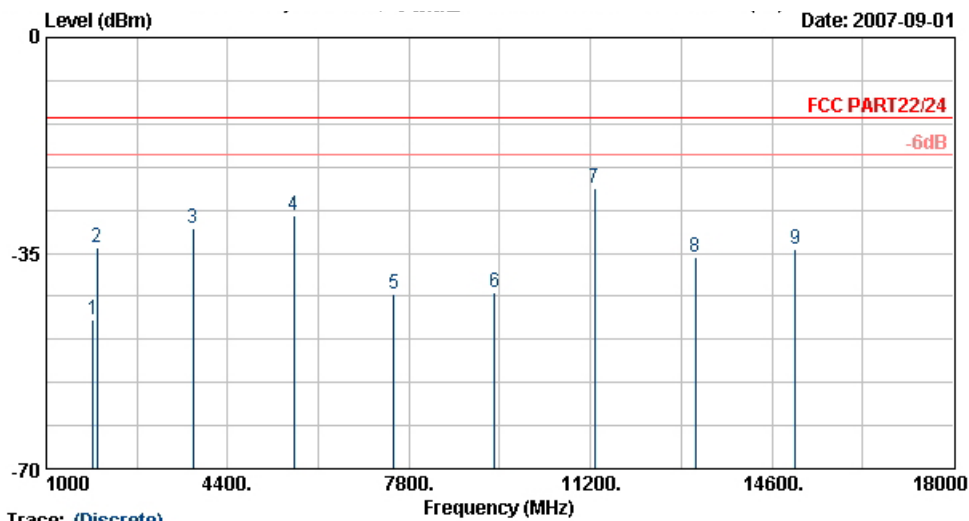
**Vertical Polarization****Trace: (Discrete)**

Site : 08CH06-HY
Condition : LF-SPURIOUS VERTICAL
EUT : GSM/GPRS/EDGE/850/900/1800/1900/WCDMA/
: HSDPA/850/1900/2100 USB dongle
Power : From Notebook
Model : FG782107
Mode : PCS1900 Link Mode;Ch661

	Freq	Level	Over	Limit	Read		
	MHz	dBm	Limit	Line	Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1 @	112.1	-56.20	-43.20	-13.00	-48.40	-7.80	Peak
2 @	212.0	-52.95	-39.95	-13.00	-44.63	-8.32	Peak
3 @	258.7	-54.32	-41.32	-13.00	-47.00	-7.33	Peak
4 @	322.4	-56.50	-43.50	-13.00	-50.51	-5.98	Peak
5 @	516.3	-56.06	-43.06	-13.00	-53.12	-2.94	Peak
6 @	596.8	-57.17	-44.17	-13.00	-55.19	-1.98	Peak

**FCC TEST REPORT**

Report No. : FG782107

**Trace: (Discrete)**

Site : 03CH06-HY
 Condition : HF-SPURIOUS-060929 VERTICAL
 EUT : GSM/GPRS/EDGE/850/900/1800/1900 WCDMA/
 : HSDPA/850/1900/2100 USB dongle
 Power : From Notebook
 Model : FG782107
 Mode : PCS1900 Link Mode;Ch661

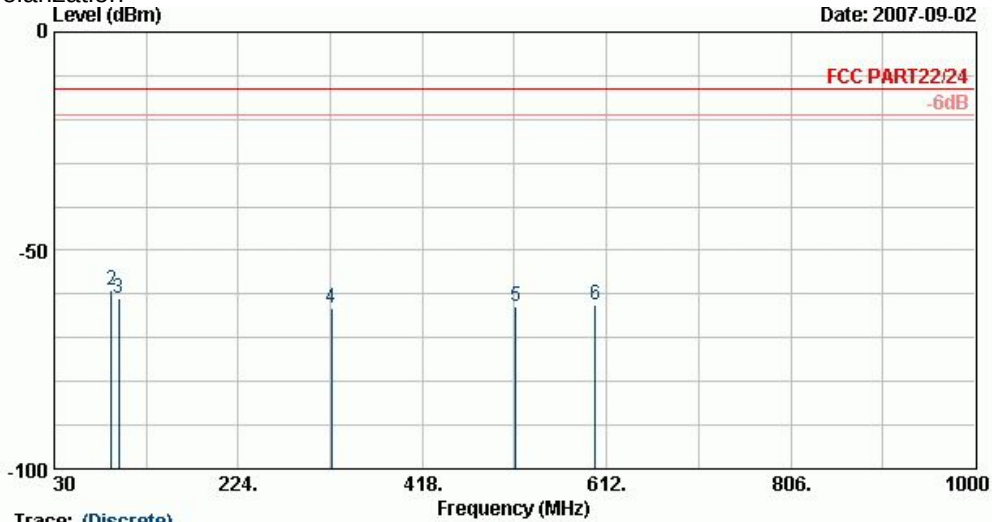
	Freq	Level	Over	Limit	Read		
	MHz	dBm	Limit	Line	Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1 @	1884.0	-45.88			-50.17	4.29	Peak
2 @	1958.0	-33.97			-38.98	5.01	Peak
3 @	3758.0	-30.92	-17.92	-13.00	-40.81	9.89	Peak
4 @	5638.0	-28.82	-15.82	-13.00	-45.79	16.97	Peak
5 @	7518.0	-41.58	-28.58	-13.00	-61.03	19.44	Peak
6 @	9398.0	-41.36	-28.36	-13.00	-61.24	19.89	Peak
7 @	11278.0	-24.50	-11.50	-13.00	-47.94	23.44	Peak
8 @	13158.0	-35.73	-22.73	-13.00	-62.19	26.46	Peak
9 @	15036.0	-34.46	-21.46	-13.00	-61.65	27.19	Peak

Remark:

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

**4.6.5.4 Mode 4**

Horizontal Polarization

**Trace: (Discrete)**

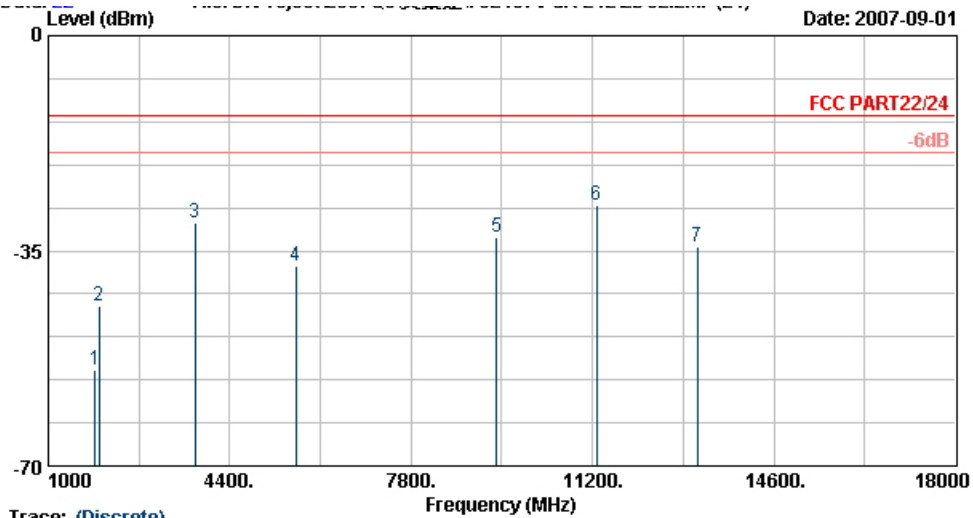
Site : 08CH06-HY
Condition : LP-SFURIOUS HORIZONTAL
EUT : GSM/GPRS/EDGE850/900/1800/1900/WCDMA/
HSDPA850/1900/2100 USB dongle
Power : From Notebook
Model : FG782107
Mode : EDGE Link Mode,CH661

	Freq	Level	Over	Limit	Read		
	MHz	dBm	Limit	Line	Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1	30.3	-64.64	-51.64	-13.00	-65.00	0.36	Peak
2 @	89.9	-59.29	-46.29	-13.00	-47.02	-12.28	Peak
3	98.0	-60.81	-47.81	-13.00	-48.56	-12.25	Peak
4	322.4	-63.06	-50.06	-13.00	-53.88	-9.18	Peak
5	516.3	-62.91	-49.91	-13.00	-58.01	-4.90	Peak
6	600.3	-62.44	-49.44	-13.00	-58.70	-3.74	Peak



FCC TEST REPORT

Report No. : FG782107



Trace: (Discrete)
Site : 03CH06-HY
Condition : HF-SPURIOUS-060929 HORIZONTAL
EUT : GSM/GPRS/EDGE/850/900/1800/1900/WCDMA/
: HSDPA/850/1900/2100 USB dongle
Power : From Notebook
Model : FG782107
Mode : EDGE Link Mode;CH661

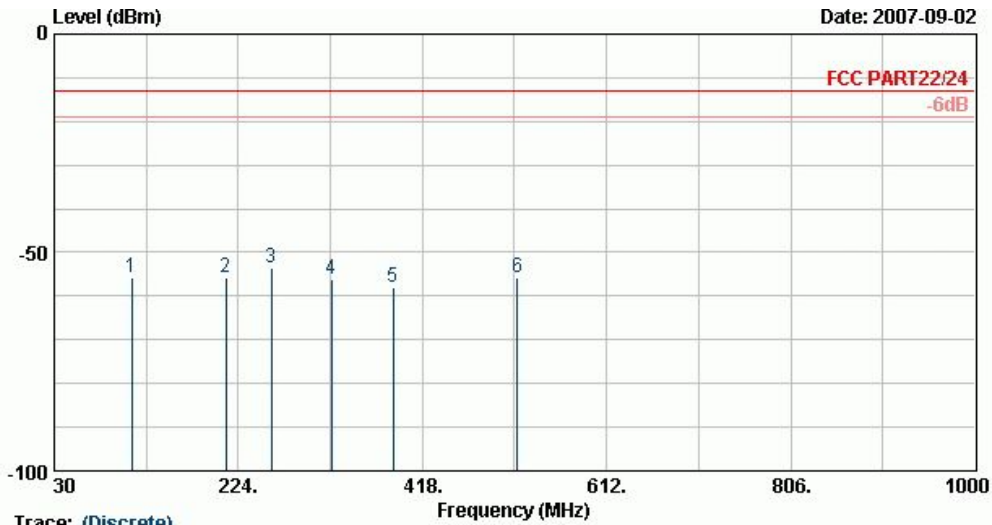
	Freq	Level	Over	Limit	Read		
	MHz	dBm	Limit	Line	Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1 @	1878.0	-54.51			-58.41	3.90	Peak
2 @	1958.0	-43.88			-48.29	4.41	Peak
3 @	3758.0	-30.45	-17.45	-13.00	-40.86	10.41	Peak
4 @	5638.0	-37.48	-24.48	-13.00	-55.92	18.45	Peak
5 @	9398.0	-32.77	-19.77	-13.00	-54.18	21.40	Peak
6 @	11278.0	-27.53	-14.53	-13.00	-52.26	24.72	Peak
7 @	13158.0	-34.45	-21.45	-13.00	-62.21	27.76	Peak

Remark:

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



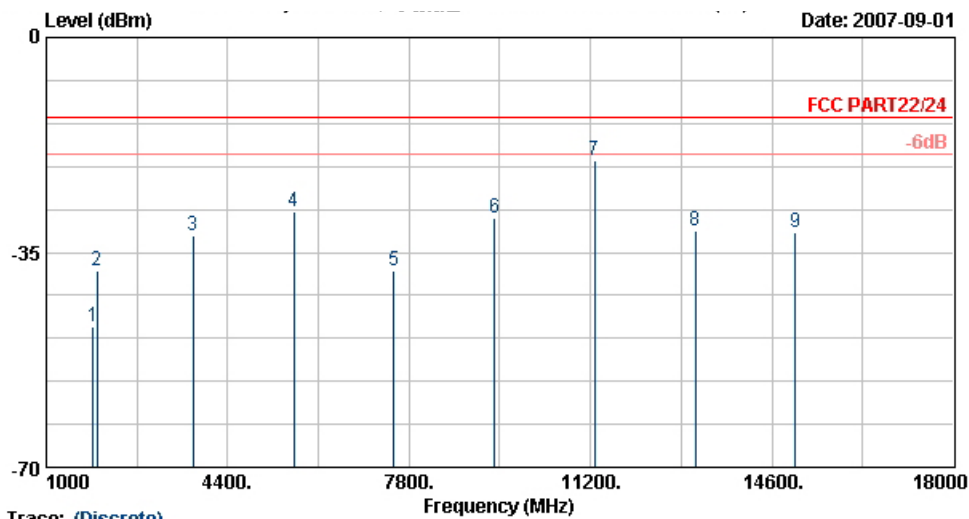
Vertical Polarization



Trace: (Discrete)

Site : 08CH06-HY
 Condition : LF-SPURIOUS VERTICAL
 EUT : GSM/GPRS/EDGE/850/900/1800/1900/WCDMA/
 : HSDPA/850/1900/2100 USB dongle
 Power : From Notebook
 Model : FG782107
 Mode : EDGE Link Mode, CH661

	Freq	Level	Over	Limit	Read		
	MHz	dBm	Limit	Line	Level	Factor	Remark
			dB	dBm	dBm	dB	
1 @	112.1	-55.85	-42.85	-13.00	-48.04	-7.80	Peak
2 @	210.6	-55.66	-42.66	-13.00	-47.29	-8.36	Peak
3 @	258.7	-53.64	-40.64	-13.00	-46.32	-7.33	Peak
4 @	322.4	-56.05	-43.05	-13.00	-50.06	-5.98	Peak
5 @	386.8	-58.12	-45.12	-13.00	-53.52	-4.60	Peak
6 @	518.4	-55.95	-42.95	-13.00	-53.04	-2.90	Peak



Trace: (Discrete)
 Site : 03CH06-HY
 Condition : HF SPURIOUS-060929 VERTICAL
 EUT : GSM/GPRS/EDGE/850/900/1800/1900/WCDMA/
 : HSDPA/850/1900/2100 USB dongle
 Power : From Notebook
 Model : FG782107
 Mode : EDGE Link Mode;CH661

	Freq	Level	Over	Limit	Read		
	MHz	dBm	Limit	Line	Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1 @	1884.0	-47.07			-51.36	4.29	Peak
2 @	1958.0	-38.12			-43.12	5.01	Peak
3 @	3758.0	-32.36	-19.36	-13.00	-42.25	9.89	Peak
4 @	5638.0	-28.37	-15.37	-13.00	-45.34	16.97	Peak
5 @	7518.0	-38.11	-25.11	-13.00	-57.55	19.44	Peak
6 @	9398.0	-29.42	-16.42	-13.00	-49.31	19.89	Peak
7 @	11278.0	-20.06	-7.06	-13.00	-43.50	23.44	Peak
8 @	13158.0	-31.54	-18.54	-13.00	-58.00	26.46	Peak
9 @	15036.0	-31.71	-18.71	-13.00	-58.90	27.19	Peak

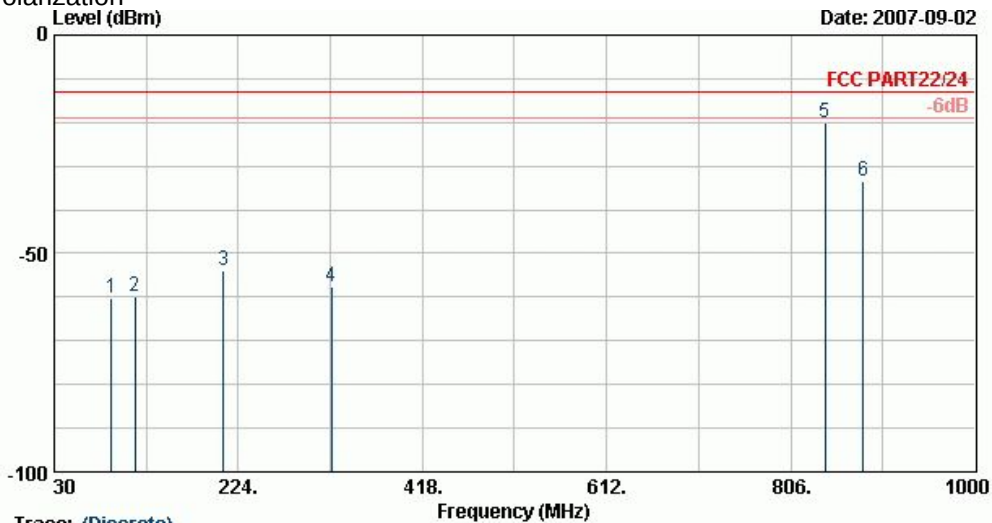
Remark:

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



4.6.5.5 Mode 5

Horizontal Polarization



Site : 08CH06-HY
Condition : LP-SPURIOUS HORIZONTAL
EUT : GSM/GPRS/EDGE/850/900/1800/1900/WCDMA/
HSDPA/850/1900/2100 USB dongle
Power : From Notebook
Model : FG782107
Mode : WCDMA V Link Mode;Ch4182

	Freq	Level	Over	Limit	Read		
	MHz	dBm	Limit	Line	Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1	90.5	-60.05	-47.05	-13.00	-47.77	-12.28	Peak
2	114.8	-60.03	-47.03	-13.00	-47.62	-12.41	Peak
3	208.7	-53.97	-40.97	-13.00	-40.88	-13.09	Peak
4	322.4	-57.50	-44.50	-13.00	-48.32	-9.18	Peak
5 @	841.8	-20.17			-18.88	-1.29	Peak
6	882.4	-33.57			-32.68	-0.89	Peak

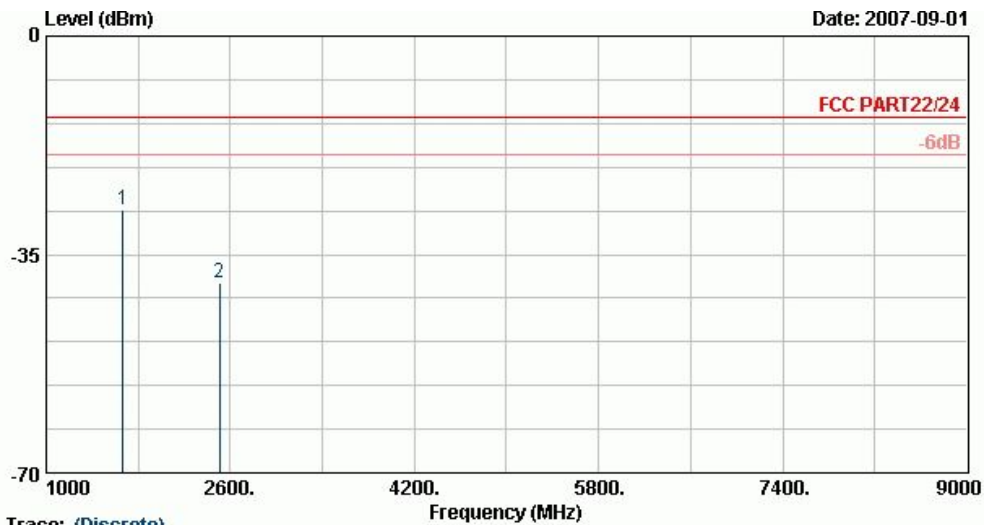
Remark:

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



FCC TEST REPORT

Report No. : FG782107



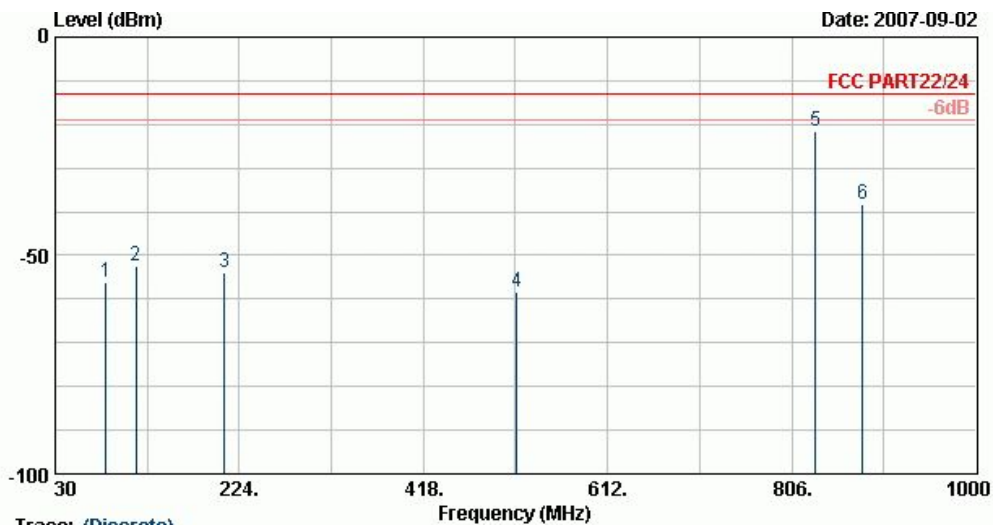
Trace: (Discrete)

Site : 08CH06-HY
Condition : HF-SPURIOUS-060929 HORIZONTAL
EUT : GSM/GPRS/EDGE/850/900/1800/1900/WCDMA/
HSDPA/850/1900/2100 USB dongle
Power : From Notebook
Model : FG782107
Mode : WCDMA V Link Mode;CH4182

	Freq	Level	Over	Limit	Read		
	MHz	dBm	Limit	Line	Level	Factor	Remark
			dB	dBm	dBm	dB	
1	1668.0	-27.87	-14.87	-13.00	-30.10	2.23	Peak
2	2504.0	-39.66	-26.66	-13.00	-46.29	6.63	Peak



Vertical Polarization



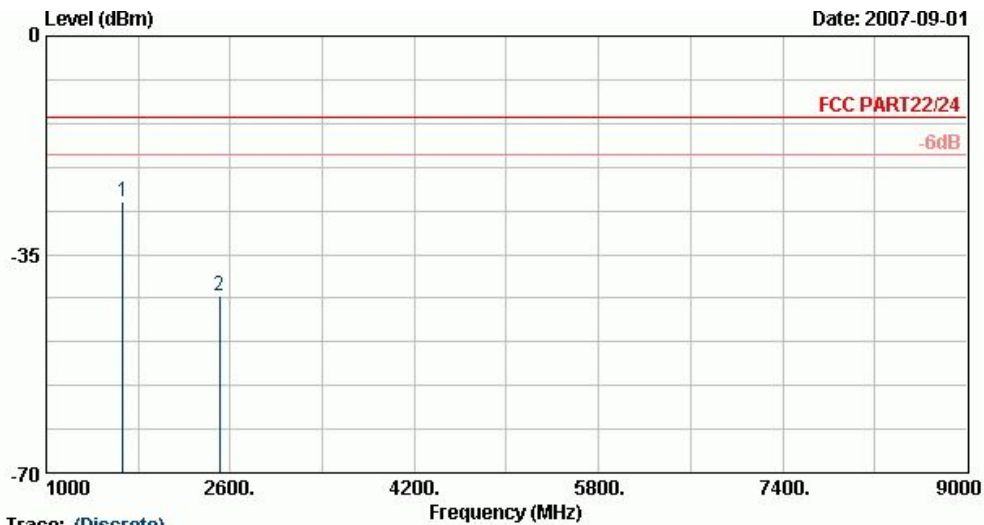
Trace: (Discrete)

Site : 08CH06-HY
 Condition : LF-SPURIOUS VERTICAL
 EUT : GSM/GPRS/EDGE/850/900/1800/1900/WCDMA/
 : HSDPA/850/1900/2100 USB dongle
 Power : From Notebook
 Model : FG782107
 Mode : WCDMA V Link Mode;Ch4182

	Freq	Level	Over	Limit	Read		
	MHz	dBm	Limit	Line	Level	Factor	Remark
			dB	dBm	dBm	dB	
1	83.7	-56.31	-43.31	-13.00	-46.24	-10.07	Peak
2	114.8	-52.46	-39.46	-13.00	-44.64	-7.82	Peak
3	208.7	-53.92	-40.92	-13.00	-45.51	-8.40	Peak
4	516.3	-58.25	-45.25	-13.00	-55.31	-2.94	Peak
5	831.3	-21.51			-22.83	1.32	Peak
6	880.3	-38.12			-39.83	1.71	Peak

Remark:

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



Site : 08CH06-HY
Condition : HF-SPURIOUS-060929 VERTICAL
EUT : GSM/GPRS/EDGE/850/900/1800/1900/WCDMA/
HSDPA/850/1900/2100 USB dongle
Power : From Notebook
Model : FG782107
Mode : WCDMA V Link Mode;CH4182

	Freq	Level	Over	Limit	Read		
	MHz	dBm	Limit	Line	Level	Factor	Remark
			dB	dBm	dBm	dB	
1	1668.0	-26.55	-13.55	-13.00	-28.53	1.98	Peak
2	2504.0	-41.51	-28.51	-13.00	-48.68	7.17	Peak

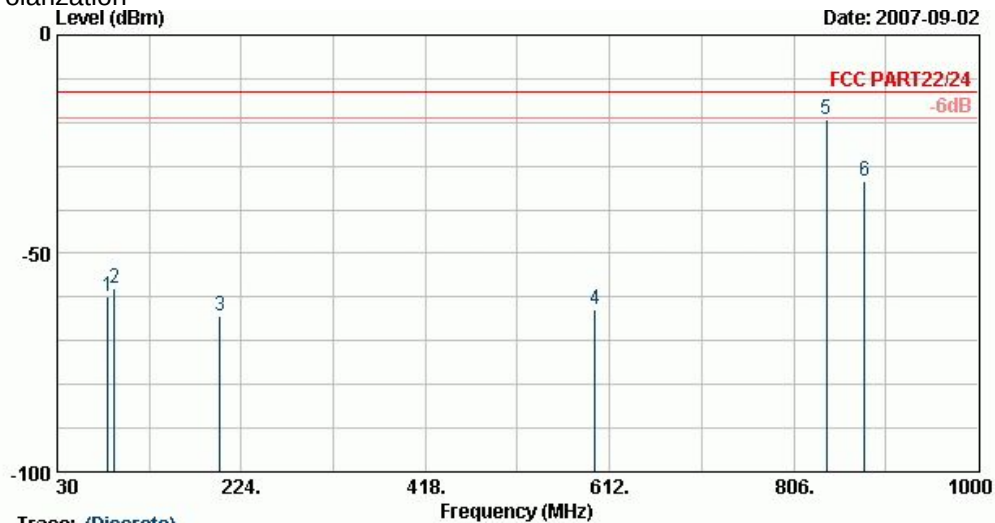
Remark:

1. There is no more obvious emission except the listings above.



4.6.5.6 Mode 6

Horizontal Polarization



Trace: (Discrete)

Site : 08CH06-HY
Condition : LP-SPURIOUS HORIZONTAL
EUT : GSM/GPRS/EDGE/850/900/1800/1900/WCDMA/
: HSDPA/850/1900/2100 USB dongle
Power : From Notebook
Model : FG782107
Mode : HSDPA Link Mode;CH4182

	Freq	Level	Over	Limit	Read		
	MHz	dBm	Limit	Line	Level	Factor	Remark
			dB	dBm	dBm	dB	
1	83.7	-59.84	-46.84	-13.00	-47.54	-12.30	Peak
2	89.9	-57.98	-44.98	-13.00	-45.71	-12.28	Peak
3	201.2	-64.33	-51.33	-13.00	-50.97	-13.36	Peak
4	596.8	-62.95	-49.95	-13.00	-59.16	-3.79	Peak
5 @	840.4	-19.42			-18.11	-1.31	Peak
6	880.3	-33.60			-32.69	-0.91	Peak

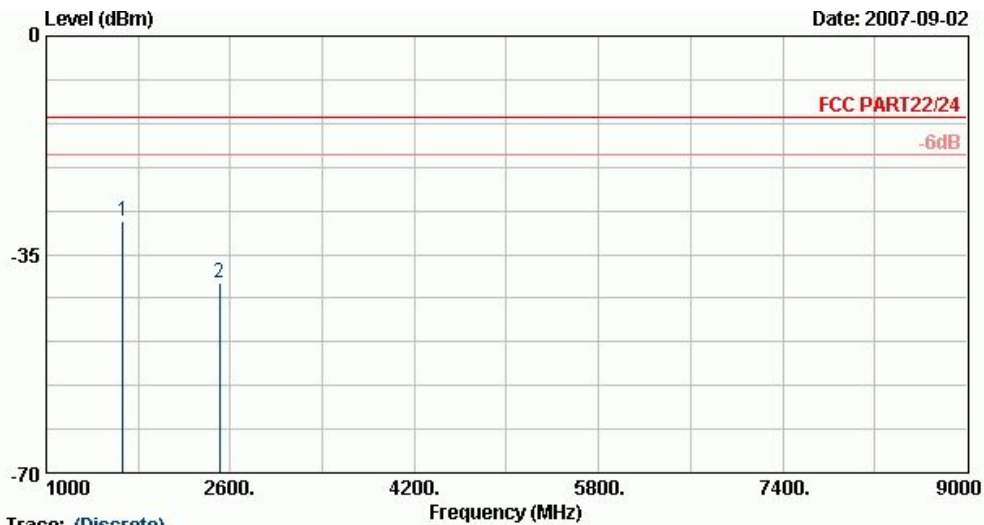
Remark:

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



FCC TEST REPORT

Report No. : FG782107



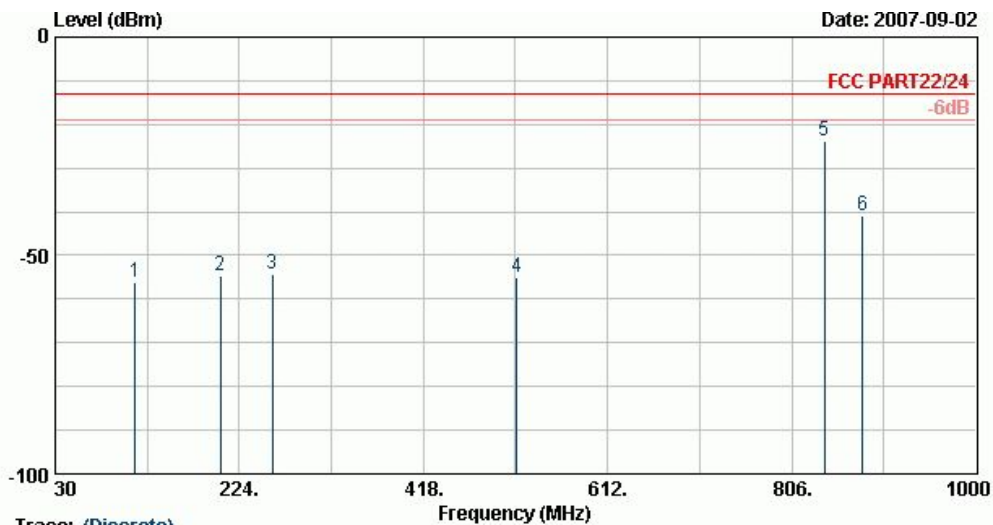
Trace: (Discrete)

Site : 08CH06-HY
Condition : HF-SPURIOUS-060929 HORIZONTAL
EUT : GSM/GPRS/EDGE/850/900/1800/1900/WCDMA/
HSDPA/850/1900/2100 USB dongle
Power : From Notebook
Model : FG782107
Mode : HSDPA Link Mode;Ch4182

	Freq	Level	Over	Limit	Read		
	MHz	dBm	Limit	Line	Level	Factor	Remark
			dB	dBm	dBm	dB	
1	1668.0	-29.57	-16.57	-13.00	-31.80	2.23	Peak
2	2504.0	-39.68	-26.68	-13.00	-46.31	6.63	Peak



Vertical Polarization



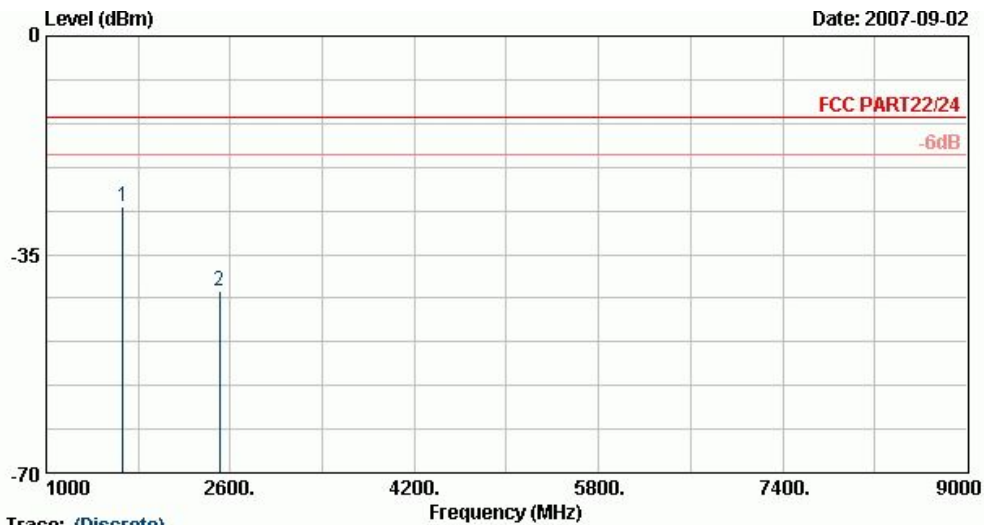
Trace: (Discrete)

Site : 08CH06-HY
 Condition : LF-SPURIOUS VERTICAL
 EUT : GSM/GPRS/EDGE/850/900/1800/1900/WCDMA/
 : HSDPA/850/1900/2100 USB dongle
 Power : From Notebook
 Model : FG782107
 Mode : HSDPA Link Mode;CH4182

	Freq	Level	Over	Limit	Read		
	MHz	dBm	Limit	Line	Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1	114.2	-56.14	-43.14	-13.00	-48.31	-7.82	Peak
2	203.9	-54.78	-41.78	-13.00	-46.28	-8.51	Peak
3	258.7	-54.29	-41.29	-13.00	-46.96	-7.33	Peak
4	516.3	-55.18	-42.18	-13.00	-52.24	-2.94	Peak
5	840.4	-23.71			-25.10	1.39	Peak
6	880.3	-40.98			-42.69	1.71	Peak

Remark:

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



Trace: (Discrete)

Site : 08CH06-HY
Condition : HF-SPURIOUS-060929 VERTICAL
EUT : GSM/GPRS/EDGE/850/900/1800/1900/WCDMA/
HSDPA/850/1900/2100 USB dongle
Power : From Notebook
Model : FG782107
Mode : HSDPA Link Mode;Ch4182

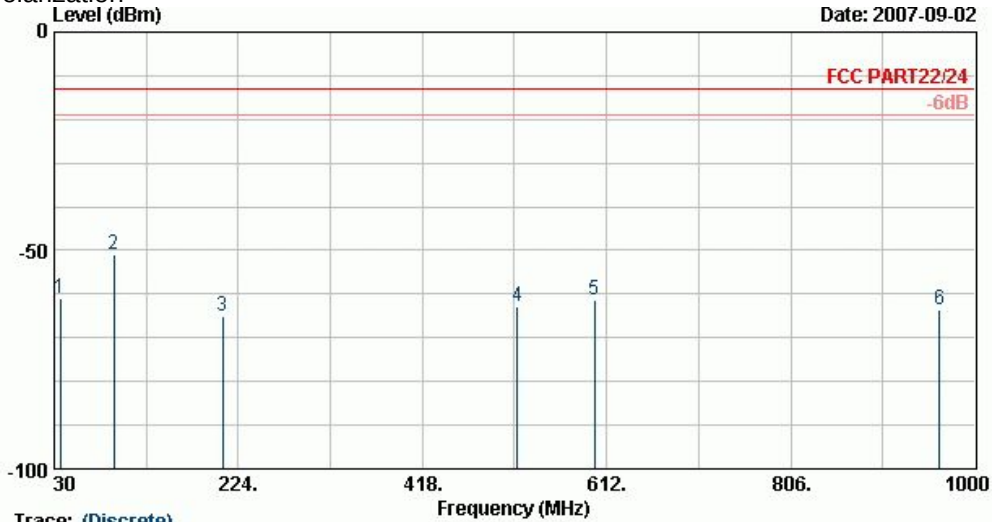
	Freq	Level	Over	Limit	Read		
	MHz	dBm	Limit	Line	Level	Factor	Remark
			dB	dBm	dBm	dB	
1	1668.0	-27.25	-14.25	-13.00	-29.23	1.98	Peak
2	2504.0	-40.92	-27.92	-13.00	-48.09	7.17	Peak

Remark:

1. There is no more obvious emission except the listings above.

**4.6.5.7 Mode 7**

Horizontal Polarization



Trace: (Discrete)

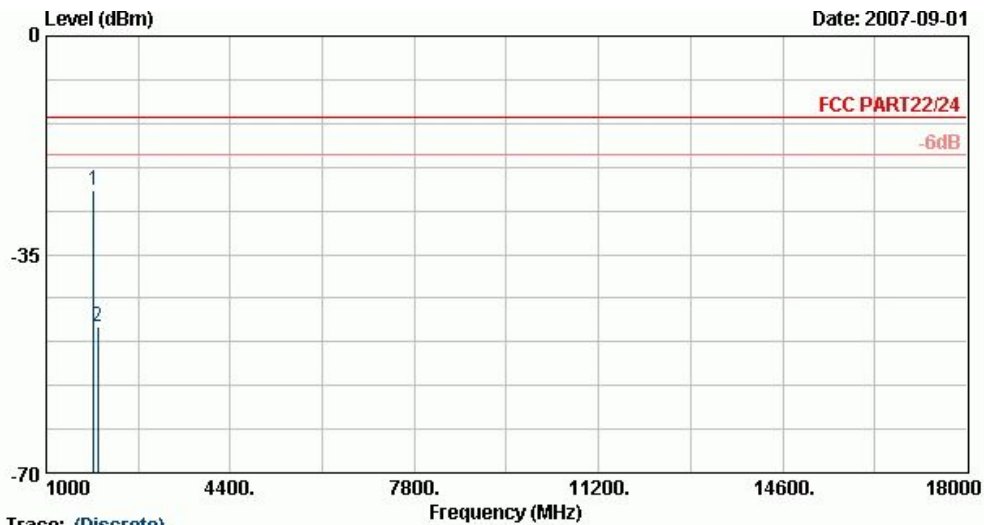
Site : 08CH06-HY
Condition : LP-SPURIOUS HORIZONTAL
EUT : GSM/GPRS/EDGE/850/900/1800/1900/WCDMA/
HSDPA/850/1900/2100 USB dongle
Power : From Notebook
Model : FG782107
Mode : WCDMA II Link Mode;Ch9400

	Freq	Level	Over	Limit	Read		
	MHz	dBm	Limit	Line	Level	Factor	Remark
			dB	dBm	dBm	dB	
1	36.5	-60.84	-47.84	-13.00	-56.94	-3.90	Peak
2 @	92.6	-51.04	-38.04	-13.00	-38.77	-12.27	Peak
3	207.4	-65.10	-52.10	-13.00	-51.98	-13.12	Peak
4	518.4	-62.64	-49.64	-13.00	-57.78	-4.86	Peak
5	598.9	-61.49	-48.49	-13.00	-57.73	-3.77	Peak
6	962.9	-63.58	-50.58	-13.00	-63.46	-0.12	Peak



FCC TEST REPORT

Report No. : FG782107



Trace: (Discrete)

Site : 03CH06-HY
Condition : HF-SPURIOUS-060929 HORIZONTAL
EUT : GSM/GPRS/EDGE/850/900/1800/1900/WCDMA/
HSDPA/850/1900/2100 USB dongle
Power : From Notebook
Model : FG782107
Mode : WCDMA II Link Mode;Ch9400

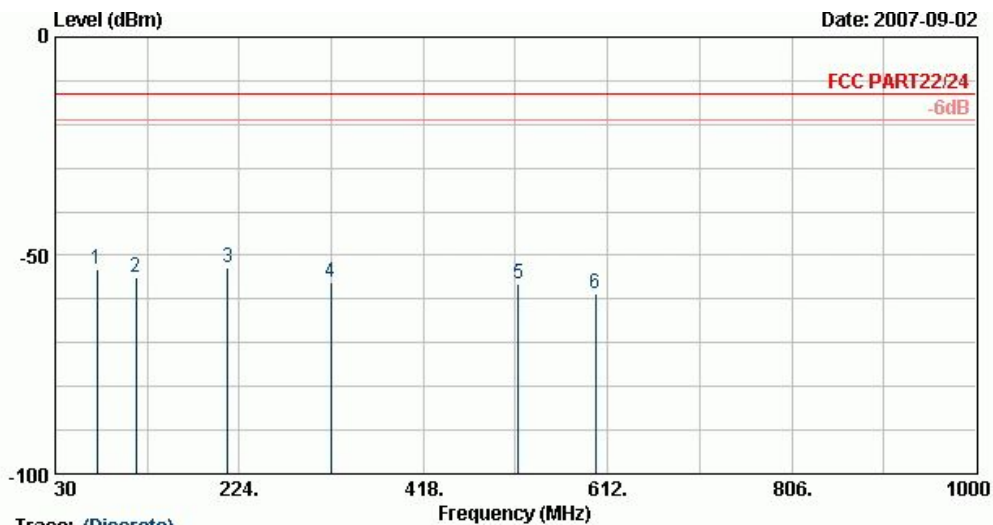
	Freq	Level	Over	Limit	Read		
	MHz	dBm	Limit	Line	Level	Factor	Remark
			dB	dBm	dBm	dB	
1 @	1878.0	-24.78			-28.68	3.90	Peak
2 @	1958.0	-46.46			-50.88	4.41	Peak

Remark:

- #1: MS Signal
- #2: BS Signal



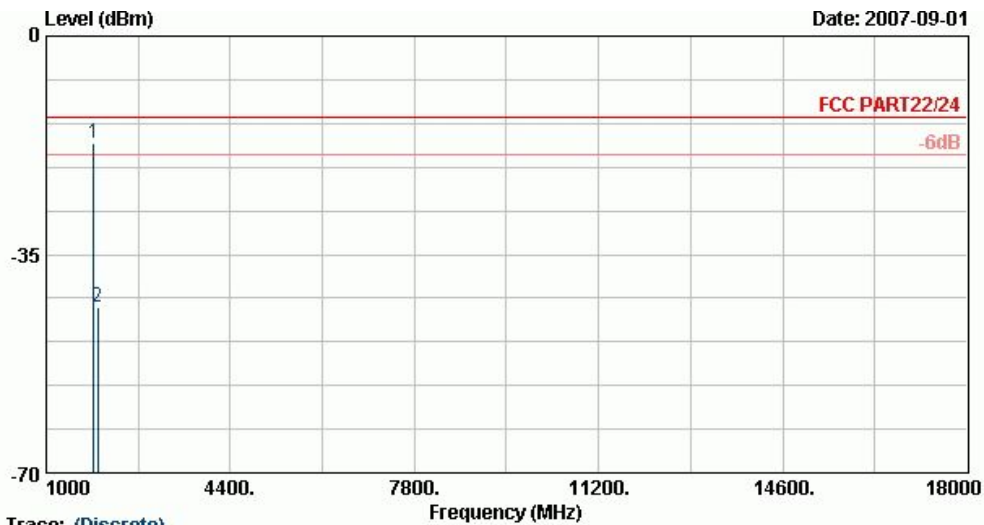
Vertical Polarization



Trace: (Discrete)

Site : 08CH06-HY
 Condition : LF-SPURIOUS VERTICAL
 EUT : GSM/GPRS/EDGE/850/900/1800/1900/WCDMA/
 : HSDPA/850/1900/2100 USB dongle
 Power : From Notebook
 Model : FG782107
 Mode : WCDMA II Link Mode;Ch9400

	Freq	Level	Over	Limit	Read		
	MHz	dBm	Limit	Line	Level	Factor	Remark
			dB	dBm	dBm	dB	
1	73.7	-53.34	-40.34	-13.00	-41.88	-11.46	Peak
2	114.8	-55.06	-42.06	-13.00	-47.24	-7.82	Peak
3	212.0	-52.66	-39.66	-13.00	-44.34	-8.32	Peak
4	320.3	-56.21	-43.21	-13.00	-50.19	-6.03	Peak
5	518.4	-56.39	-43.39	-13.00	-53.49	-2.90	Peak
6	598.9	-58.75	-45.75	-13.00	-56.80	-1.95	Peak

**Trace: (Discrete)**

Site : 08CH06-HY
Condition : HF-SPURIOUS-060929 VERTICAL
EUT : GSM/GPRS/EDGE/850/900/1800/1900/WCDMA/
: HSDPA/850/1900/2100 USB dongle
Power : From Notebook
Model : FG782107
Mode : WCDMA II Link Mode;Ch9400

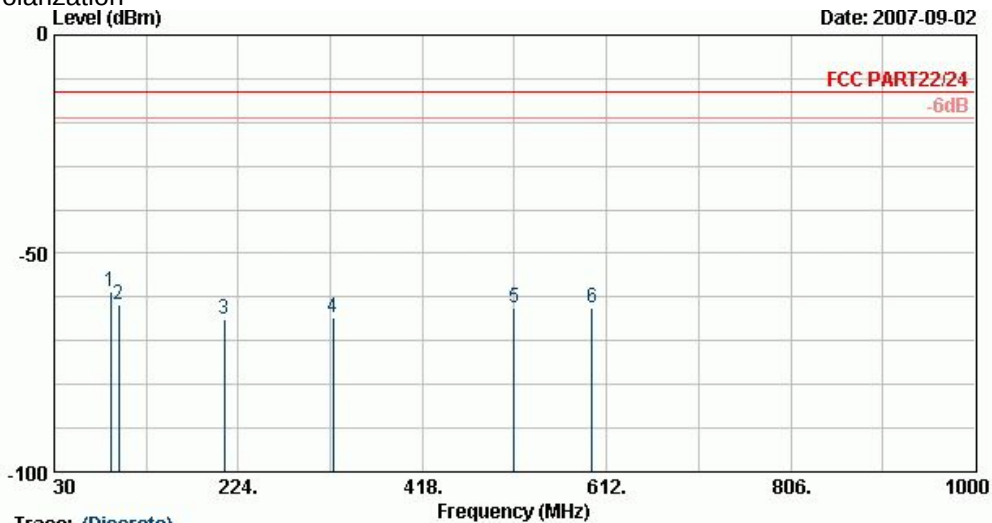
	Freq	Level	Over	Limit	Read		
	MHz	dBm	Limit	Line	Level	Factor	Remark
			dB	dBm	dBm	dB	
1 @	1878.0	-17.07			-21.36	4.29	Peak
2 @	1958.0	-43.45			-48.46	5.01	Peak

Remark:

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

**4.6.5.8 Mode 8**

Horizontal Polarization



Trace: (Discrete)

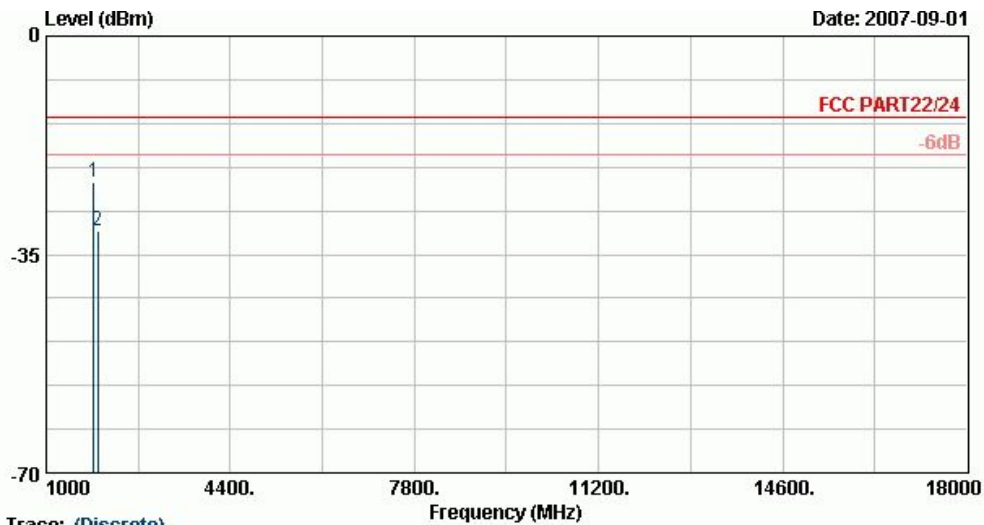
Site : 08CH06-HY
Condition : LP-SFURIOUS HORIZONTAL
EUT : GSM/GPRS/EDGE850/900/1800/1900/WCDMA/
HSDPA850/1900/2100 USB dongle
Power : From Notebook
Model : FG782107
Mode : HSDFA Link Mode;CA9400

	Freq	Level	Over	Limit	Read		
	MHz	dBm	Limit	Line	Level	Factor	Remark
			dB	dBm	dBm	dB	
1 @	89.1	-58.55	-45.55	-13.00	-46.27	-12.28	Peak
2	98.0	-61.70	-48.70	-13.00	-49.45	-12.25	Peak
3	209.3	-65.03	-52.03	-13.00	-51.98	-13.06	Peak
4	323.8	-64.82	-51.82	-13.00	-55.72	-9.11	Peak
5	514.9	-62.46	-49.46	-13.00	-57.54	-4.91	Peak
6	596.8	-62.28	-49.28	-13.00	-58.49	-3.79	Peak



FCC TEST REPORT

Report No. : FG782107



Trace: (Discrete)

Site : 03CH06-HY
Condition : HF-SPURIOUS-060929 HORIZONTAL
EUT : GSM/GPRS/EDGE/850/900/1800/1900/WCDMA/
HSDPA/850/1900/2100 USB dongle
Power : From Notebook
Model : FG782107
Mode : HSDPA Link Mode;Ch9400

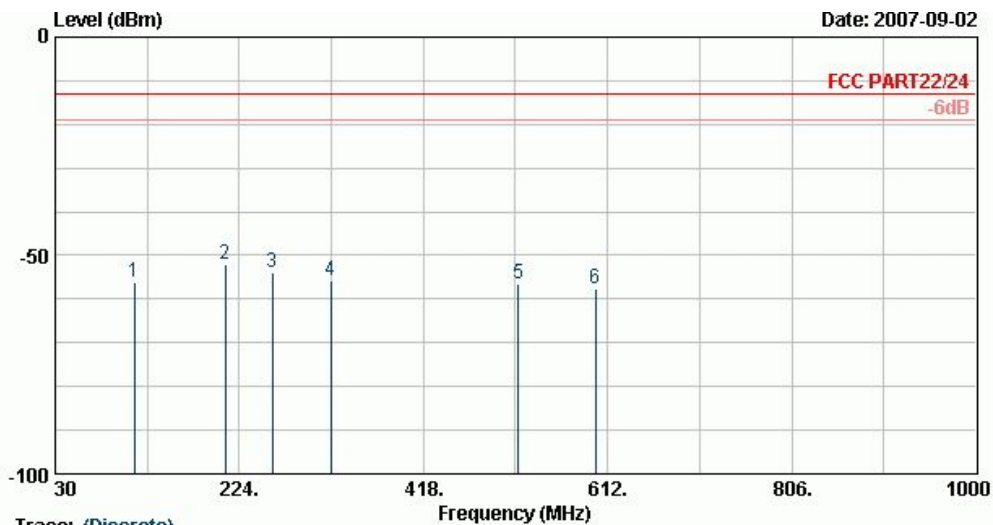
	Freq	Level	Over	Limit	Read		
	MHz	dBm	Limit	Line	Level	Factor	Remark
			dB	dBm	dBm	dB	
1 @	1884.0	-23.41			-27.31	3.90	Peak
2 @	1958.0	-31.34			-35.75	4.41	Peak

Remark:

- #1: MS Signal
- #2: BS Signal



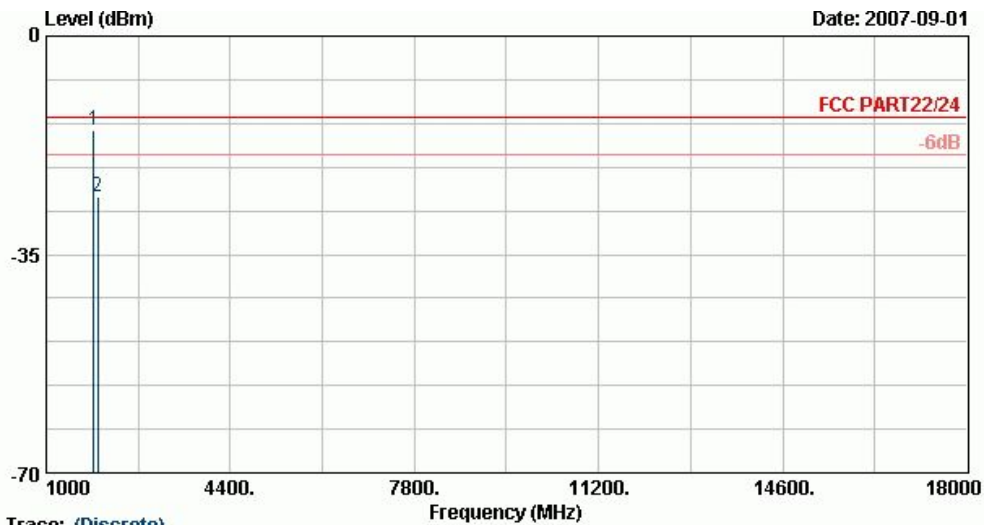
Vertical Polarization



Trace: (Discrete)

Site : 08CH06-HY
 Condition : LF-SPURIOUS VERTICAL
 EUT : GSM/GPRS/EDGE/850/900/1800/1900/WCDMA/
 : HSDPA/850/1900/2100 USB dongle
 Power : From Notebook
 Model : FG782107
 Mode : HSDPA Link Mode;Ch9400

	Freq	Level	Over	Limit	Read		
	MHz	dBm	Limit	Line	Level	Factor	Remark
			dB	dBm	dBm	dB	
1 @	113.4	-56.13	-43.13	-13.00	-48.32	-7.81	Peak
2 @	209.3	-52.18	-39.18	-13.00	-43.79	-8.38	Peak
3 @	259.2	-53.96	-40.96	-13.00	-46.63	-7.33	Peak
4 @	320.3	-55.63	-42.63	-13.00	-49.61	-6.03	Peak
5 @	518.4	-56.69	-43.69	-13.00	-53.78	-2.90	Peak
6 @	598.9	-57.71	-44.71	-13.00	-55.76	-1.95	Peak



Trace: (Discrete)

Site : 08CH06-HY
Condition : HF-SPURIOUS-060929 VERTICAL
EUT : GSM/GPRS/EDGE/850/900/1800/1900/WCDMA/
HSDPA/850/1900/2100 USB dongle
Power : From Notebook
Model : FG782107
Mode : HSDPA Link Mode;Ch9400

	Freq	Level	Over	Limit	Read		
	MHz	dBm	Limit	Line	Level	Factor	Remark
			dB	dBm	dBm	dB	
1 @	1884.0	-15.22			-19.52	4.29	Peak
2 @	1958.0	-25.81			-30.82	5.01	Peak

Remark:

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

4.7 Frequency Stability (Temperature Variation)

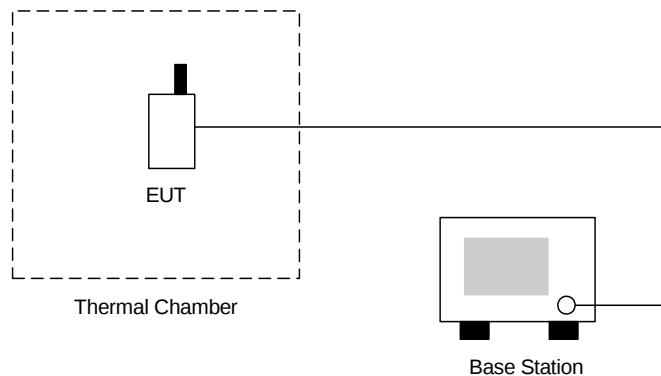
4.7.1 Measurement Instrument

As described in chapter 5 of this test report.

4.7.2 Test Procedure

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

4.7.3 Test Setup Layout



**4.7.4 Test Result**

- Test Mode : GSM850 (GSM) CH189

Temperature(°C)	Change (Hz)	Change (ppm)	Limit (ppm)	Result
-30	-26	-0.01368	2.5	Passed
-20	-27	-0.03176		
-10	-31	-0.03647		
0	25	0.02941		
10	22	0.02588		
20	18	0.02118		
30	24	0.02824		
40	31	0.03647		
50	29	0.03412		

- Test Mode : GSM850 (EDGE) CH189

Temperature(°C)	Change (Hz)	Change (ppm)	Limit (ppm)	Result
-30	46	0.02421	2.5	Passed
-20	44	0.05176		
-10	40	0.04706		
0	28	0.03294		
10	-22	-0.02588		
20	-18	-0.02118		
30	-20	-0.02353		
40	27	0.03176		
50	33	0.03882		



• Test Mode : PCS1900 (GSM) CH661

Temperature(°C)	Change (Hz)	Change (ppm)	Limit (ppm)	Result
-30	-66	-0.03474	2.5	Passed
-20	-55	-0.02895		
-10	-43	-0.02263		
0	27	0.01421		
10	38	0.02000		
20	-41	-0.02158		
30	-32	-0.01684		
40	36	0.01895		
50	41	0.02158		

• Test Mode : PCS1900 (EDGE) CH661

Temperature(°C)	Change (Hz)	Change (ppm)	Limit (ppm)	Result
-30	33	0.01737	2.5	Passed
-20	26	0.01368		
-10	27	0.01421		
0	21	0.01105		
10	-25	-0.01316		
20	-24	-0.01263		
30	-18	-0.00947		
40	-23	-0.01211		
50	-22	-0.01158		



▪ Test Mode : WCDMA Band V CH4182

Temperature(°C)	Change (Hz)	Change (ppm)	Limit (ppm)	Result
-30	-49	-0.05765	2.5	Passed
-20	39	0.04588		
-10	-28	-0.03294		
0	-29	-0.03412		
10	-31	-0.03647		
20	28	0.03294		
30	24	0.02824		
40	26	0.03059		
50	34	0.04000		

▪ Test Mode : WCDMA Band V (HSDPA) CH4182

Temperature(°C)	Change (Hz)	Change (ppm)	Limit (ppm)	Result
-30	57	0.06706	2.5	Passed
-20	-45	-0.05294		
-10	-44	-0.05176		
0	-22	-0.02588		
10	-25	-0.02941		
20	30	0.03529		
30	31	0.03647		
40	-38	-0.04471		
50	-41	-0.04824		



- Test Mode : WCDMA Band II CH9400

Temperature(°C)	Change (Hz)	Change (ppm)	Limit (ppm)	Result
-30	32	0.01684	2.5	Passed
-20	28	0.01474		
-10	26	0.01368		
0	27	0.01421		
10	-24	-0.01263		
20	-21	-0.01105		
30	-20	-0.01053		
40	25	0.01316		
50	34	0.01789		

- Test Mode : WCDMA Band II (HSDPA) CH9400

Temperature(°C)	Change (Hz)	Change (ppm)	Limit (ppm)	Result
-30	35	0.01842	2.5	Passed
-20	22	0.01158		
-10	-18	-0.00947		
0	21	0.01105		
10	-25	-0.01316		
20	26	0.01368		
30	28	0.01474		
40	22	0.01158		
50	30	0.01579		

4.8 Frequency Stability (Voltage Variation)

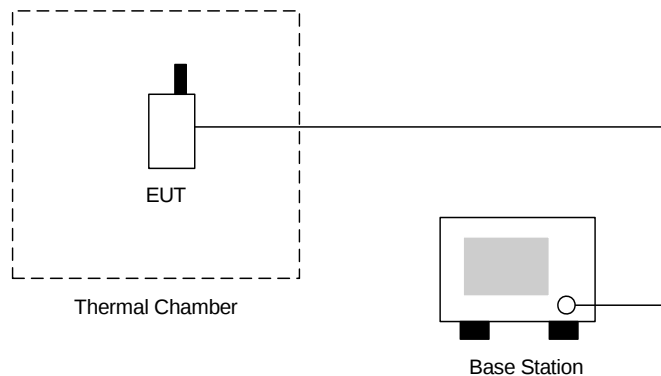
4.8.1 Measurement Instrument

As described in chapter 5 of this test report.

4.8.2 Test Procedure

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

4.8.3 Test Setup Layout



4.8.4 Test Result

- Test Mode : GSM850 (GSM) CH189

Voltage(Volt)	Change (Hz)	Change (ppm)	Limit (ppm)	Result
5	15.0	0.01765	2.5	Passed
BEP	17.0	0.02000		
5.8	19.0	0.02235		

- Test Mode : GSM850 (EDGE) CH189

Voltage(Volt)	Change (Hz)	Change (ppm)	Limit (ppm)	Result
5	-21.0	-0.02471	2.5	Passed
BEP	-16.0	-0.01882		
5.8	-20.0	-0.02353		



- Test Mode : PCS1900 (GSM) CH661

Voltage(Volt)	Change (Hz)	Change (ppm)	Limit (ppm)	Result
5	24.0	0.01263	2.5	Passed
BEP	11.0	0.00579		
5.8	18.0	0.00947		

- Test Mode : PCS1900 (EDGE) CH661

Voltage(Volt)	Change (Hz)	Change (ppm)	Limit (ppm)	Result
5	-14.0	-0.00737	2.5	Passed
BEP	-12.0	-0.00632		
5.8	-19.0	-0.01000		

- Test Mode : WCDMA Band V CH4182

Voltage(Volt)	Change (Hz)	Change (ppm)	Limit (ppm)	Result
5	19	0.02235	2.5	Passed
BEP	-22	-0.02588		
5.8	15	0.01765		

- Test Mode : WCDMA Band V (HSDPA) CH4182

Voltage(Volt)	Change (Hz)	Change (ppm)	Limit (ppm)	Result
5	17	0.02000	2.5	Passed
BEP	-29	-0.03412		
5.8	31	0.03647		

- Test Mode : WCDMA Band II CH9400

Voltage(Volt)	Change (Hz)	Change (ppm)	Limit (ppm)	Result
5	-14	-0.00737	2.5	Passed
BEP	-23	-0.01211		
5.8	20	0.01053		

- Test Mode : WCDMA Band II (HSDPA) CH9400

Voltage(Volt)	Change (Hz)	Change (ppm)	Limit (ppm)	Result
5	15	0.00789	2.5	Passed
BEP	-17	-0.00895		
5.8	-22	-0.01158		



Remark:

1. Normal Voltage=5V.
2. Battery End Point (BEP)= 4.3 V.
3. A DC power cable test fixture was used for voltage variation during measurement.



5. List of Measurement Equipments

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Due Date	Remark
Spectrum Analyzer	R&S	FSP40	100055	9KHz~40GHz	Jun.25,2007	Jun.24,2008	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	Nov. 20, 2006	Nov. 19, 2007	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	SCHWARZBECK	BBHA 9170	9170-249	14G - 40G	Nov. 20, 2006	Nov. 19, 2008	Radiation (03CH06-HY)
Pre Amplifier	Agilent	8449B	3008A01917	1G - 26.5G	Nov. 15, 2006	Nov. 14, 2007	Radiation (03CH06-HY)
Pre Amplifier	Mini Circuits	ZKL-2	D092004-1	10~2500MHz	Nov. 15, 2006	Nov. 14, 2007	Radiation (03CH06-HY)
Base Station Simulator	R & S	CMU200	106656	WWAN	Nov. 20, 2006	Nov. 19, 2007	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
Combined standard uncertainty Uc(y)	1.27		
Measuring uncertainty for a level of confidence of 95% U=2Uc(y)	2.54		

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

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

END OF TEST REPORT