FCC Test Report

According to

47 CFR Part 22H, 24E

Equipment	**: Notebook PC**
Trade Name	**: MTC; GETAC**
Model Name	**: B300**
FCC ID	**: MAU303**
Tx Frequency Range	**: GSM850 : 824.2 ~ 848.8MHz**
	GSM1900 : 1850.2 ~1909.8 MHz
	WCDMA Band V : 826.4 ~ 846.6 MHz
	WCDMA Band II : 1852.4 ~1907.6 MHz
Max. ERP/EIRP Power	**: GSM850(GSM) : 0.39 W**
	GSM850(EDGE) : 0.13 W
	GSM1900(GSM) : 0.54 W
	GSM1900(EDGE) : 0.35 W
	WCDMA Band V : 0.07 W
	WCDMA Band V(HSUPA) : 0.05 W
	WCDMA Band II : 0.15 W
	WCDMA Band II(HSUPA) : 0.11 W
Emission Designator	**: GSM : 300KGXW**
	EDGE : 300KG7W
	WCDMA : 4M22F9W
Applicant	**: MiTAC Technology Corp.**
	9th. FL., No.75, Ming Sheng E. Rd., Sec.3, Taipei, Taiwan

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- The data shown in this test report were carried out on Jul. 07, 2008 at **Sporton International Inc. LAB.**
- Report No.: FG852118, Report Version: Rev. 01.

Roy Wu
Manager

SPORTON International Inc.
No. 52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C.

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History of This Test Report

Report Issue Date: Jul. 09, 2008

Report No.	Description

1. General Information

1.1 Applicant

MiTAC Technology Corp.

9th. FL., No.75, Ming Sheng E. Rd., Sec.3, Taipei, Taiwan

1.2 Manufacturer

GeTAC Technology(Kunshan) LTD.

No.269, 2nd Road, Export Processing Zone, Changjiang South Road, Kunshan, Jiangsu, P.R.C.

1.3 Basic Description of Equipment under Test

Equipment		Notebook PC
Trade Name		MTC; GETAC
Model Name		B300
FCC ID		MAU303
AC Adapter	**Brand Name**	Delta
	Model Name	ADP-90SB BB
	Power Rating	I/P : 100-240Vac, 1.5A, 50-60Hz; O/P : 19Vdc, 4.74A
	AC Power Cord Type	1.73meter shielded with ferrite core
Battery	**Brand Name**	SAYNO
	Model Name	BP3S3P2550(P)
	Rating	10.8Vdc, 7.65Ah
	Type	Li-ion

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.

1.4 Feature of Equipment under Test

Product Feature & Specification	
DUT Type :	Notebook PC
Trade Name :	MTC; GETAC
Model Name :	B300
FCC ID :	MAU303
Tx Frequency :	GSM850 : 824 MHz ~ 849 MHz GSM1900 : 1850 MHz ~ 1910 MHz WCDMA Band V : 824 MHz ~ 849 MHz WCDMA Band II : 1850 MHz ~ 1910 MHz
Rx Frequency :	GSM850 : 869 MHz ~ 894 MHz GSM1900 : 1930 MHz ~ 1990 MHz WCDMA Band V : 869 MHz ~ 894 MHz WCDMA Band II : 1930 MHz ~ 1990 MHz
Maximum Output Power to Antenna :	GSM850 : 31.92 dBm GSM1900 : 28.30 dBm WCDMA Band V : 23.40 dBm WCDMA Band II : 23.49 dBm
Maximum ERP/EIRP :	GSM850(GSM) : 0.39 W (25.89 dBm) GSM850(EDGE) : 0.13 W (21.14 dBm) GSM1900(GSM) : 0.54 W (27.34 dBm) GSM1900(EDGE) : 0.35 W (25.39 dBm) WCDMA Band V : 0.07 W (18.22 dBm) WCDMA Band V(HSUPA) : 0.05 W (17.33 dBm) WCDMA Band II : 0.15 W (21.78 dBm) WCDMA Band II(HSUPA) : 0.11 W (20.33 dBm)
Antenna Type :	GSM / WCDMA : Fixed External
HW Version :	R01
Type of Modulation :	GSM / GPRS : GMSK EDGE : 8PSK WCDMA : QPSK
Type of Emission :	GSM : 300KGXW EDGE : 300KG7W WCDMA : 4M22F9W
DUT Stage :	Identical Prototype

1.5 Report Date

EUT Received : May 21, 2008

Report Date : Jul. 09, 2008

2. Test Configuration of Equipment under Test

2.1 Test Manner

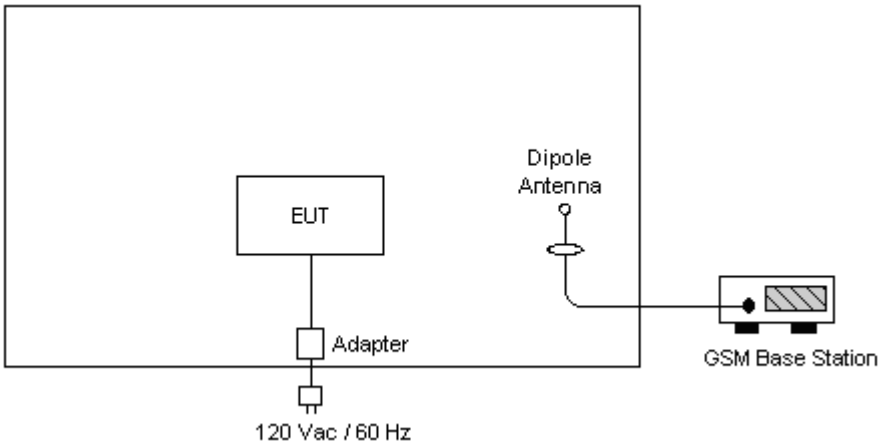
1. The spurious emission measurements were carried out in semi-anechoic chamber with 3-meter test range.
2. During all testings, EUT is in link mode with base station emulator at maximum power level.
3. Frequency range investigated: radiated emission 30 MHz to 9000 MHz for GSM850 and WCDMA Band V; 30MHz to 19000 MHz for GSM1900 and WCDMA Band II.

2.2 Test Mode

Application	GSM850	GSM1900
Radiated Emission	☒ Mode 1: GSM Link ☒ Mode 2: EDGE Link ☒ Mode 9: GSM Link + 802.11a Link ☒ Mode 10: GSM Link + 802.11g Link	☒ Mode 3: GSM Link ☒ Mode 4: EDGE Link
Conducted Measurement	☒ Mode 1: GSM Link ☒ Mode 2: EDGE Link	☒ Mode 3: GSM Link ☒ Mode 4: EDGE Link

Application	WCDMA Band V	WCDMA Band II
Radiated Emission	☒ Mode 5: WCDMA Link ☒ Mode 6: HSUPA Link	☒ Mode 7: WCDMA Link ☒ Mode 8: HSUPA Link
Conducted Measurement	☒ Mode 5: WCDMA Link ☒ Mode 6: HSDPA Link ☒ Mode 7: HSUPA Link	☒ Mode 8: WCDMA Link ☒ Mode 9: HSDPA Link ☒ Mode 10: HSUPA Link

2.3 Connection Diagram of Test System



2.4 Ancillary Equipment List

Item	Equipment	Trade Name	Model No.	FCC ID	Data Cable	Power Code
1.	GSM Base Station	R&S	CMU200	N/A	N/A	Unshielded, 1.8m

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	:	03CH07-HY, TH02-HY
FCC Designation No	:	TW1022

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 GSM1900 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

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.

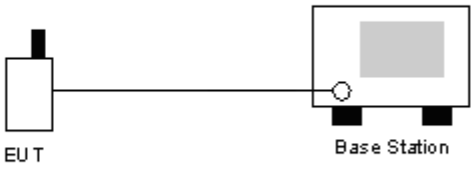
b. Set the EUT at maximum power through base station by using below setting

b.1 PCL=5 for GSM850, PCL=0 for PCS1900.

b.2 TPC with All Up Bits for WCDMA.

c. Select lowest, middle, and highest channels for each band.

4.2.3 Test Setup Layout



4.2.4 Test Result

Bands	Channel	Frequency (MHz)	Conducted Power (dBm)	Conducted Power (Watts)
GSM850 (GSM)	128	824.2 (Low)	31.92	1.56
	189	836.4 (Mid)	31.84	1.53
	251	848.8 (High)	31.77	1.50
GSM850 (EDGE)	128	824.2 (Low)	27.14	0.52
	189	836.4 (Mid)	27.06	0.51
	251	848.8 (High)	26.95	0.50
GSM1900 (GSM)	512	1850.2 (Low)	28.30	0.68
	661	1880.0 (Mid)	28.26	0.67
	810	1909.8 (High)	28.20	0.66
GSM1900 (EDGE)	512	1850.2 (Low)	25.45	0.35
	661	1880.0 (Mid)	25.47	0.35
	810	1909.8 (High)	25.38	0.35

Bands	Channel	Frequency (MHz)	Conducted Power (dBm)	Conducted Power (Watts)
WCDMA Band V (12.2k bps)	4132	826.4 (Low)	22.79	0.19
	4182	836.4 (Mid)	22.96	0.20
	4233	846.6 (High)	23.07	0.20
WCDMA Band V (64k bps)	4132	826.4 (Low)	22.91	0.20
	4182	836.4 (Mid)	22.98	0.20
	4233	846.6 (High)	23.11	0.20
WCDMA Band V (144k bps)	4132	826.4 (Low)	23.00	0.20
	4182	836.4 (Mid)	23.15	0.21
	4233	846.6 (High)	22.87	0.19
WCDMA Band V (384k bps)	4132	826.4 (Low)	22.86	0.19
	4182	836.4 (Mid)	23.13	0.21
	4233	846.6 (High)	23.05	0.20
WCDMA Band V (AMR)	4132	826.4 (Low)	22.92	0.20
	4182	836.4 (Mid)	23.07	0.20
	4233	846.6 (High)	22.80	0.19
WCDMA Band V (HSDPA)	4132	826.4 (Low)	22.75	0.19
	4182	836.4 (Mid)	22.83	0.19
	4233	846.6 (High)	22.84	0.19
WCDMA Band V (HSUPA) β (11/15)	4132	826.4 (Low)	22.39	0.17
	4182	836.4 (Mid)	22.77	0.19
	4233	846.6 (High)	22.41	0.17
WCDMA Band V (HSUPA) β (6/15)	4132	826.4 (Low)	22.95	0.20
	4182	836.4 (Mid)	23.40	0.22
	4233	846.6 (High)	22.98	0.20
WCDMA Band V (HSUPA) β (15/9)	4132	826.4 (Low)	22.46	0.18
	4182	836.4 (Mid)	22.77	0.19
	4233	846.6 (High)	22.45	0.18
WCDMA Band V (HSUPA) β (2/15)	4132	826.4 (Low)	22.86	0.19
	4182	836.4 (Mid)	23.40	0.22
	4233	846.6 (High)	22.93	0.20
WCDMA Band V (HSUPA) β (15/15)	4132	826.4 (Low)	22.21	0.17
	4182	836.4 (Mid)	22.69	0.19
	4233	846.6 (High)	22.31	0.17

Bands	Channel	Frequency (MHz)	Conducted Power (dBm)	Conducted Power (Watts)
WCDMA Band II (12.2k bps)	9262	1852.4 (Low)	22.63	0.18
	9400	1880.0 (Mid)	23.31	0.21
	9538	1907.6 (High)	22.82	0.19
WCDMA Band II (64k bps)	9262	1852.4 (Low)	22.59	0.18
	9400	1880.0 (Mid)	23.25	0.21
	9538	1907.6 (High)	22.79	0.19
WCDMA Band II (144k bps)	9262	1852.4 (Low)	22.60	0.18
	9400	1880.0 (Mid)	23.22	0.21
	9538	1907.6 (High)	22.80	0.19
WCDMA Band II (384k bps)	9262	1852.4 (Low)	22.57	0.18
	9400	1880.0 (Mid)	23.25	0.21
	9538	1907.6 (High)	22.80	0.19
WCDMA Band II (AMR)	9262	1852.4 (Low)	22.61	0.18
	9400	1880.0 (Mid)	23.29	0.21
	9538	1907.6 (High)	22.93	0.20
WCDMA Band II (HSDPA)	9262	1852.4 (Low)	22.46	0.18
	9400	1880.0 (Mid)	22.94	0.20
	9538	1907.6 (High)	22.66	0.18
WCDMA Band II (HSUPA) β (11/15)	9262	1852.4 (Low)	22.56	0.18
	9400	1880.0 (Mid)	22.89	0.19
	9538	1907.6 (High)	22.44	0.18
WCDMA Band II (HSUPA) β (6/15)	9262	1852.4 (Low)	23.00	0.20
	9400	1880.0 (Mid)	23.49	0.22
	9538	1907.6 (High)	23.06	0.20
WCDMA Band II (HSUPA) β (15/9)	9262	1852.4 (Low)	22.71	0.19
	9400	1880.0 (Mid)	23.12	0.21
	9538	1907.6 (High)	22.36	0.17
WCDMA Band II (HSUPA) β (2/15)	9262	1852.4 (Low)	22.96	0.20
	9400	1880.0 (Mid)	23.43	0.22
	9538	1907.6 (High)	22.99	0.20
WCDMA Band II (HSUPA) β (15/15)	9262	1852.4 (Low)	22.69	0.19
	9400	1880.0 (Mid)	23.07	0.20
	9538	1907.6 (High)	22.46	0.18

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 tutntable 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 = Ps + Et – Es + Gs = Ps + Rt – Rs + Gs

Ps (dBm)：Input power to substitution antenna.

Gs (dBi or dBd)：Substitution antenna Gain.

Et = Rt + AF

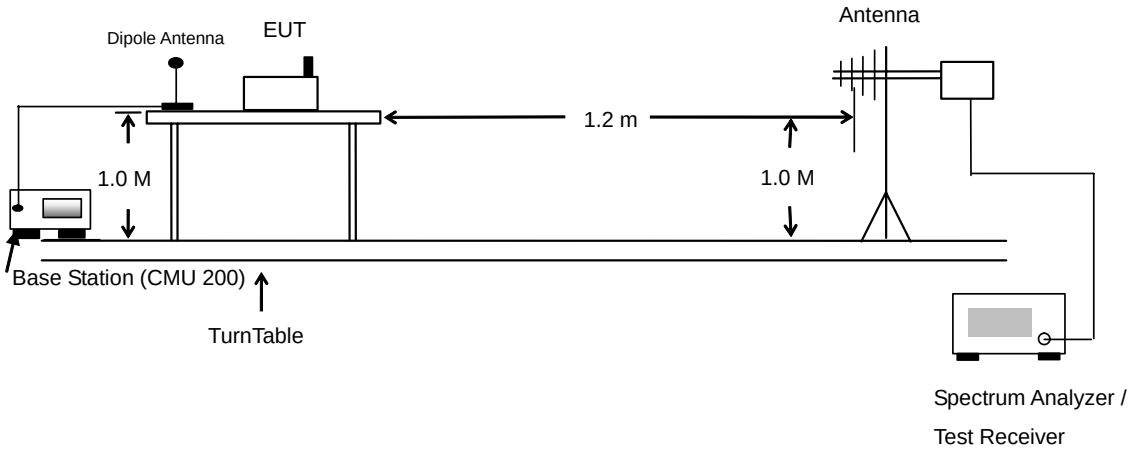
Es = Rs + AF

AF (dB/m)：Receive antenna factor

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

Rs：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	-22.65	-48.12	0.00	-1.08	24.39	0.27
836.40	-23.65	-48.28	0.00	-0.93	23.70	0.23
848.80	-25.75	-48.35	0.00	-0.76	21.84	0.15
Vertical Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBd)	ERP (dBm)	ERP (W)
824.20	-21.00	-47.97	0.00	-1.08	25.89	0.39
836.40	-21.45	-48.01	0.00	-0.93	25.63	0.37
848.80	-23.97	-48.05	0.00	-0.76	23.32	0.21

GSM850 (EDGE) Radiated Power ERP						
Horizontal Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBd)	ERP (dBm)	ERP (W)
824.20	-26.28	-48.12	0.00	-1.08	20.76	0.12
836.40	-26.71	-48.28	0.00	-0.93	20.64	0.12
848.80	-28.75	-48.35	0.00	-0.76	18.84	0.08
Vertical Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBd)	ERP (dBm)	ERP (W)
824.20	-25.75	-47.97	0.00	-1.08	21.14	0.13
836.40	-26.02	-48.01	0.00	-0.93	21.06	0.13
848.80	-28.37	-48.05	0.00	-0.76	18.92	0.08

GSM1900 (GSM) Radiated Power EIRP						
Horizontal Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBi)	EIRP (dBm)	EIRP (W)
1850.20	-28.95	-51.88	0.00	1.96	24.89	0.31
1880.00	-27.65	-52.99	0.00	2.00	27.34	0.54
1909.80	-30.80	-54.28	0.00	1.98	25.46	0.35
Vertical Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBi)	EIRP (dBm)	EIRP (W)
1850.20	-29.68	-52.13	0.00	1.96	24.41	0.28
1880.00	-28.05	-53.17	0.00	2.00	27.12	0.52
1909.80	-29.62	-54.13	0.00	1.98	26.49	0.45

GSM1900 (EDGE) Radiated Power EIRP						
Horizontal Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBi)	EIRP (dBm)	EIRP (W)
1850.20	-31.89	-51.88	0.00	1.96	21.95	0.16
1880.00	-30.54	-52.99	0.00	2.00	24.45	0.28
1909.80	-33.62	-54.28	0.00	1.98	22.64	0.18
Vertical Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBi)	EIRP (dBm)	EIRP (W)
1850.20	-31.34	-52.13	0.00	1.96	22.75	0.19
1880.00	-29.78	-53.17	0.00	2.00	25.39	0.35
1909.80	-32.26	-54.13	0.00	1.98	23.85	0.24

WCDMA Band V Radiated Power ERP						
Horizontal Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBd)	ERP (dBm)	ERP (W)
826.40	-30.35	-48.12	0.00	-1.08	16.69	0.05
836.40	-31.18	-48.28	0.00	-0.93	16.17	0.04
846.60	-34.62	-48.35	0.00	-0.76	12.97	0.02
Vertical Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBd)	ERP (dBm)	ERP (W)
826.40	-28.67	-47.97	0.00	-1.08	18.22	0.07
836.40	-29.02	-48.01	0.00	-0.93	18.06	0.06
846.60	-32.70	-48.05	0.00	-0.76	14.59	0.03

WCDMA Band V (HSUPA) Radiated Power ERP						
Horizontal Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBd)	ERP (dBm)	ERP (W)
826.40	-30.35	-48.12	0.00	-1.08	15.71	0.04
836.40	-31.18	-48.28	0.00	-0.93	15.05	0.03
846.60	-34.62	-48.35	0.00	-0.76	11.29	0.01
Vertical Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBd)	ERP (dBm)	ERP (W)
826.40	-28.67	-47.97	0.00	-1.08	17.33	0.05
836.40	-29.02	-48.01	0.00	-0.93	16.77	0.05
846.60	-32.70	-48.05	0.00	-0.76	12.88	0.02

WCDMA Band II Radiated Power EIRP						
Horizontal Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBi)	EIRP (dBm)	EIRP (W)
1852.40	-32.06	-51.88	0.00	1.96	21.78	0.15
1880.00	-34.38	-52.99	0.00	2.00	20.61	0.12
1907.60	-34.72	-54.28	0.00	1.98	21.54	0.14
Vertical Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBi)	EIRP (dBm)	EIRP (W)
1852.40	-32.75	-52.13	0.00	1.96	21.34	0.14
1880.00	-34.25	-53.17	0.00	2.00	20.92	0.12
1907.60	-34.99	-54.13	0.00	1.98	21.12	0.13

WCDMA Band II (HSUPA) Radiated Power EIRP						
Horizontal Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBi)	EIRP (dBm)	EIRP (W)
1852.40	-33.61	-51.88	0.00	1.96	20.23	0.11
1880.00	-35.10	-52.99	0.00	2.00	19.89	0.10
1907.60	-35.93	-54.28	0.00	1.98	20.33	0.11
Vertical Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBi)	EIRP (dBm)	EIRP (W)
1852.40	-34.51	-52.13	0.00	1.96	19.58	0.09
1880.00	-35.98	-53.17	0.00	2.00	19.19	0.08
1907.60	-35.78	-54.13	0.00	1.98	20.33	0.11

4.4 Occupied Bandwidth and Band Edge Measurement

4.4.1 Measurement Instruments

As described in chapter 5 of this test report.

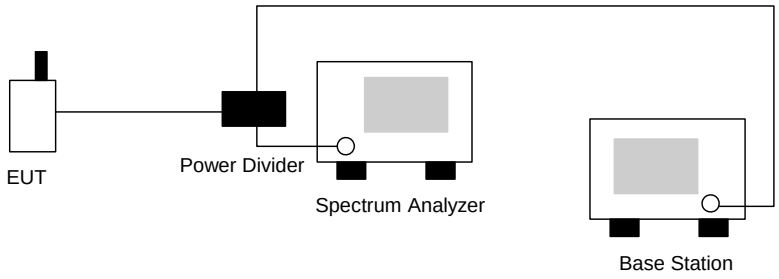
4.4.2 Test Procedure

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.

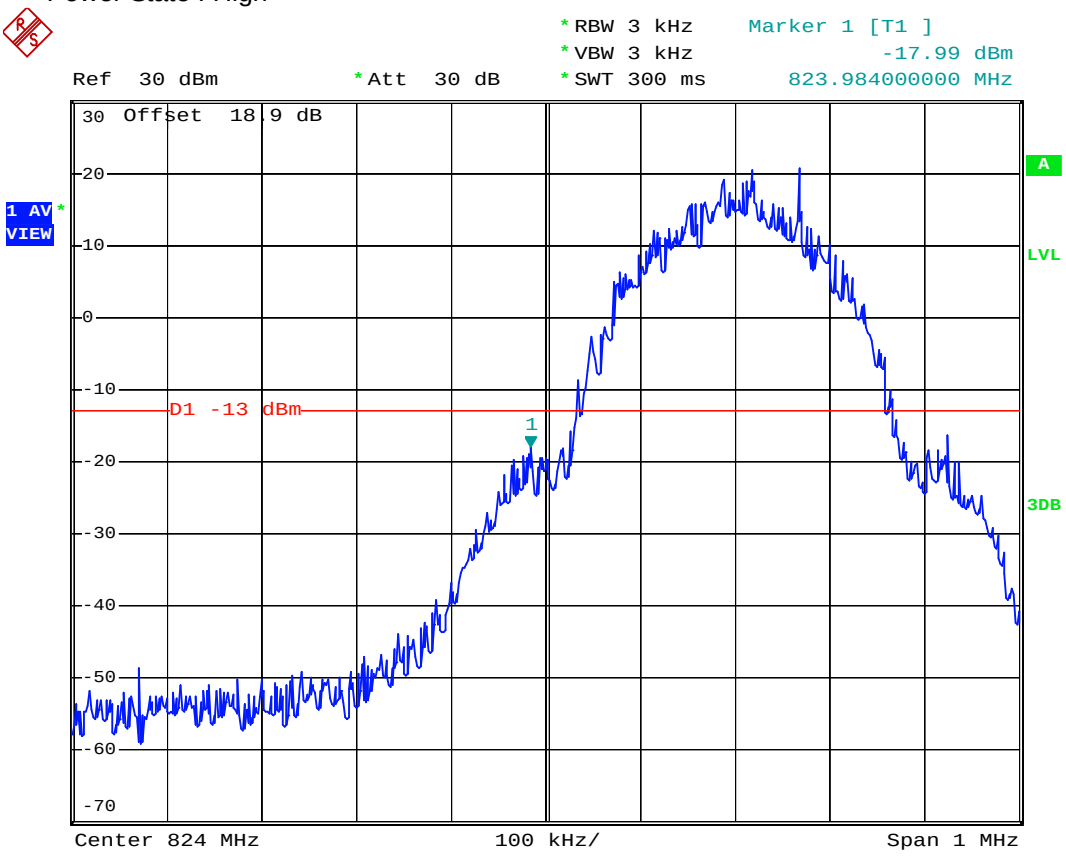
c. The bandedge of low and high channels for the highest RF powers within the transmitting frequency band were measured. Setting RBW as roughly BW/100.

4.4.3 Test Setup Layout



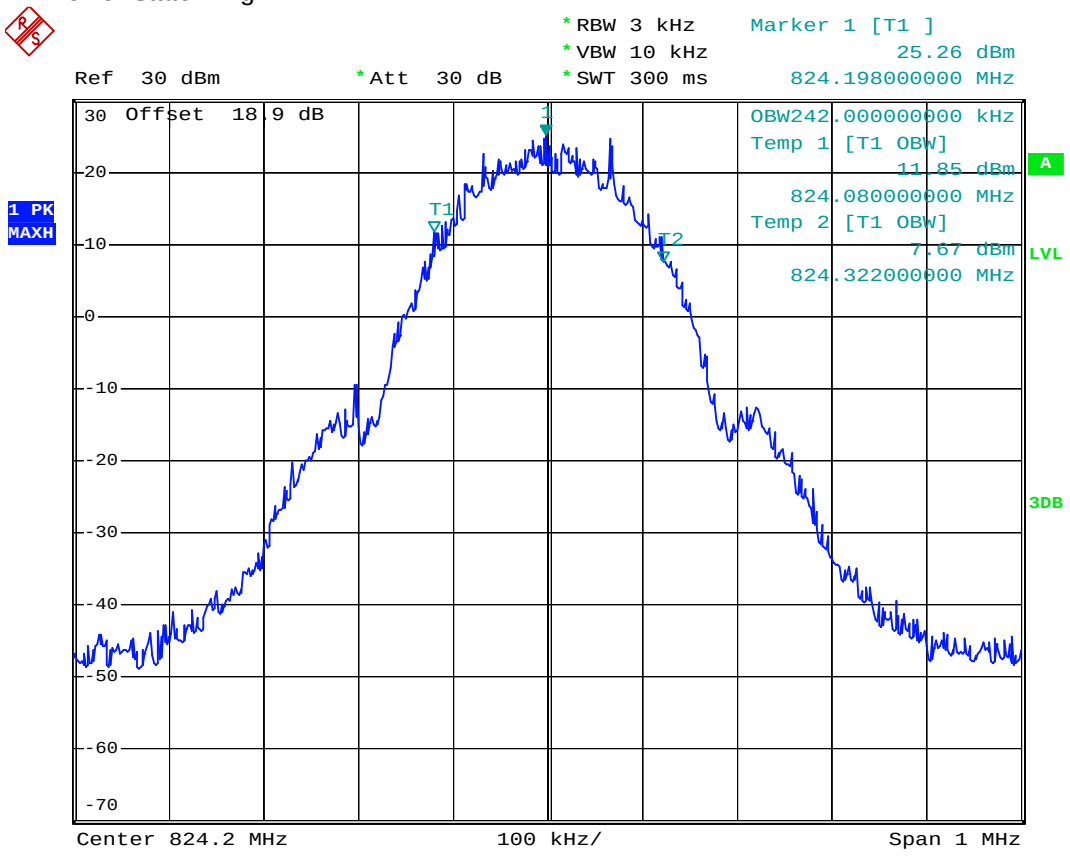
4.4.4 Test Result

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



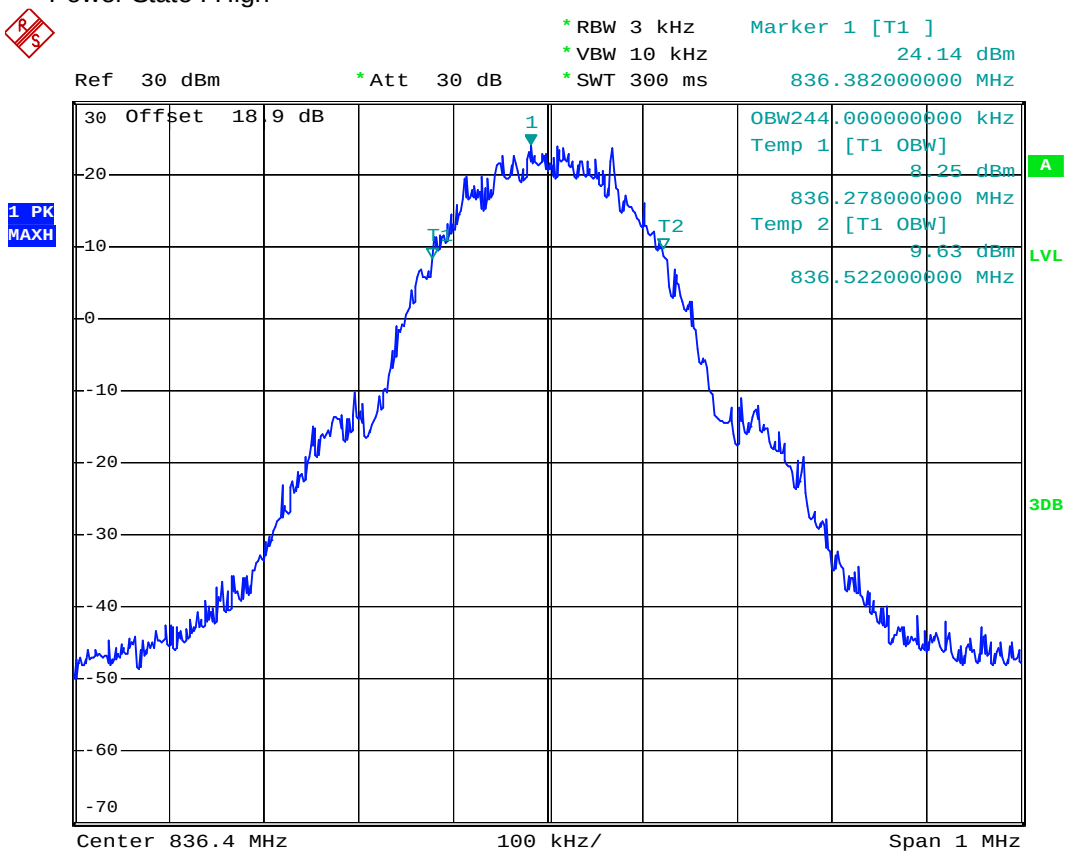
Date: 29.MAY.2008 20:19:37

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



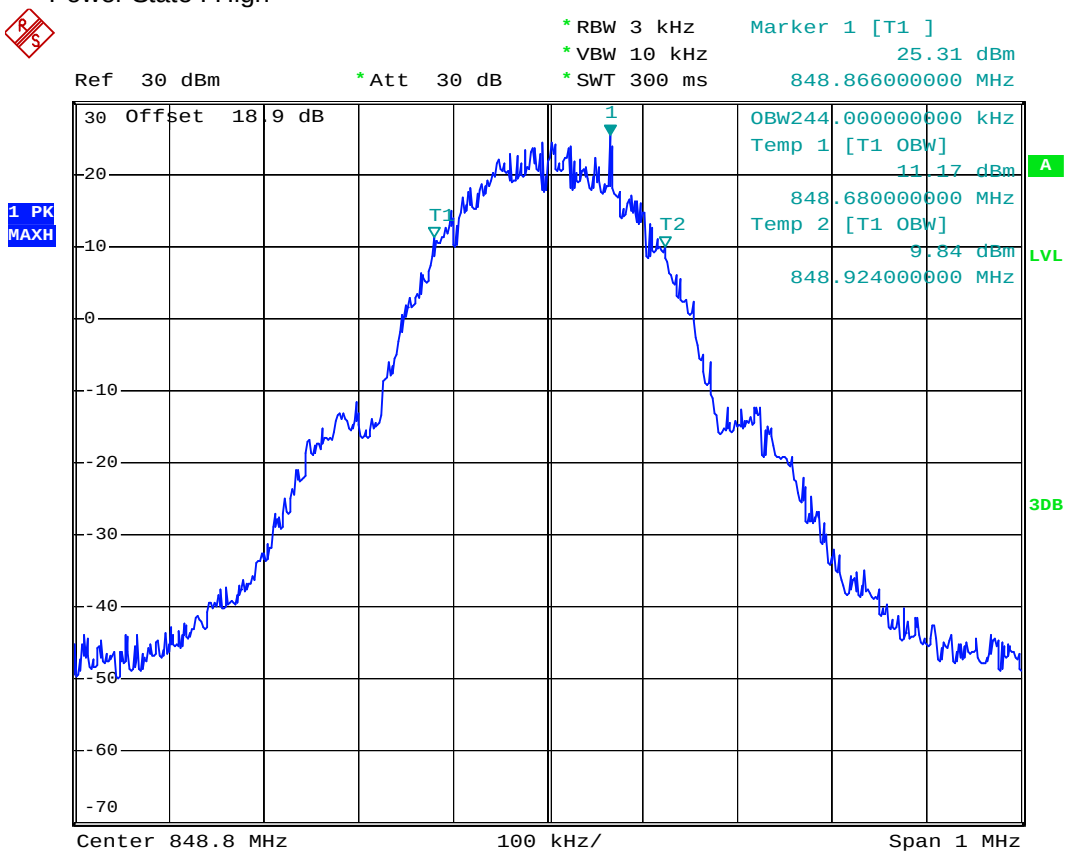
Date: 29.MAY.2008 20:15:51

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



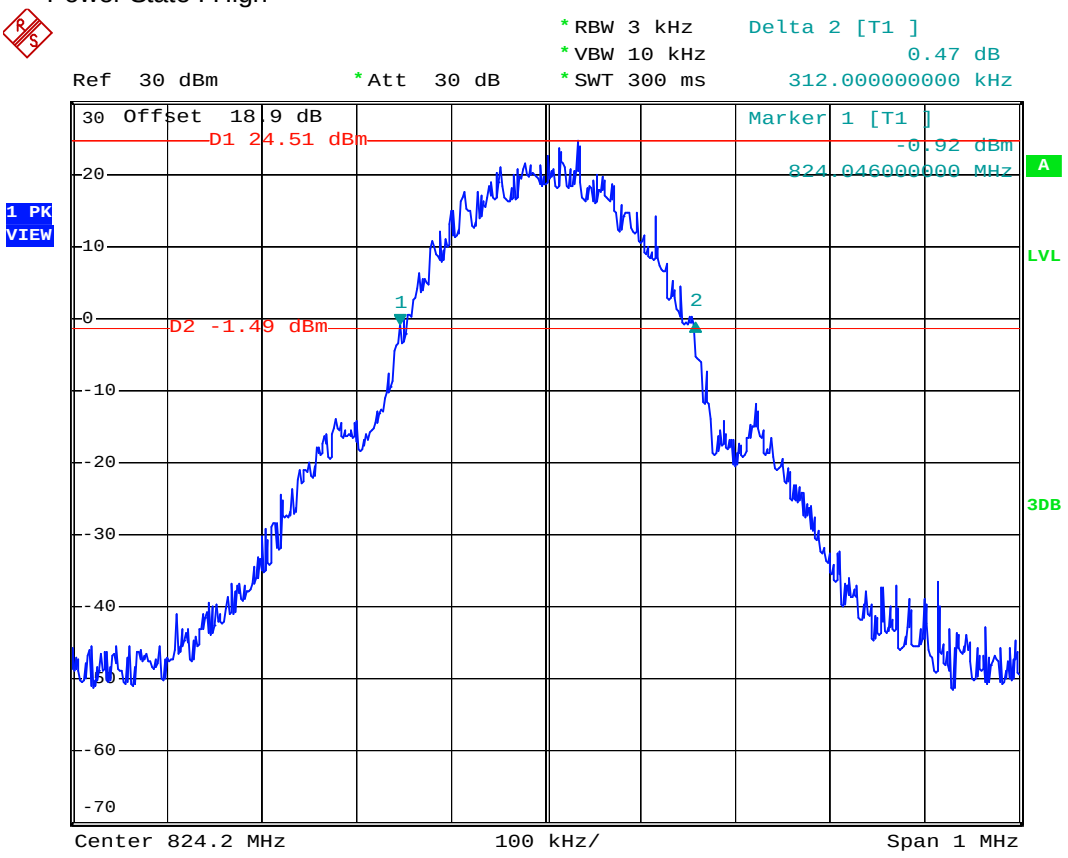
Date: 29.MAY.2008 20:15:07

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



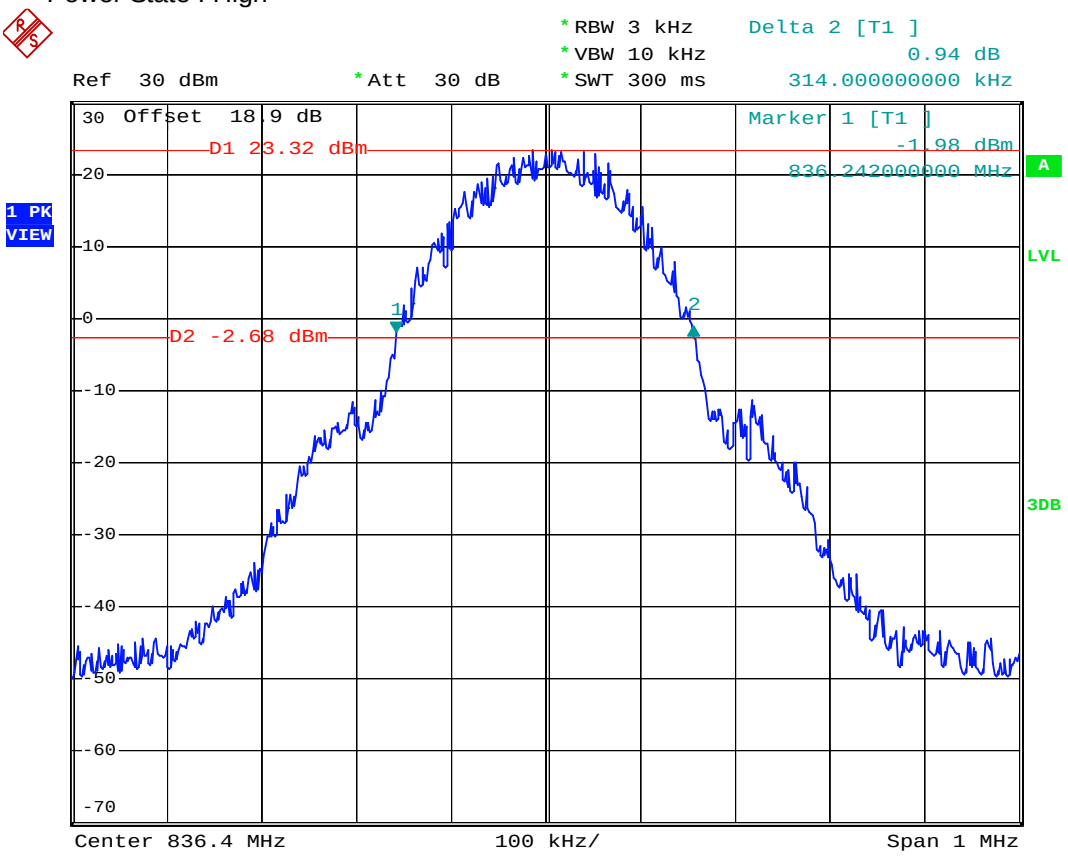
Date: 29.MAY.2008 20:14:25

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



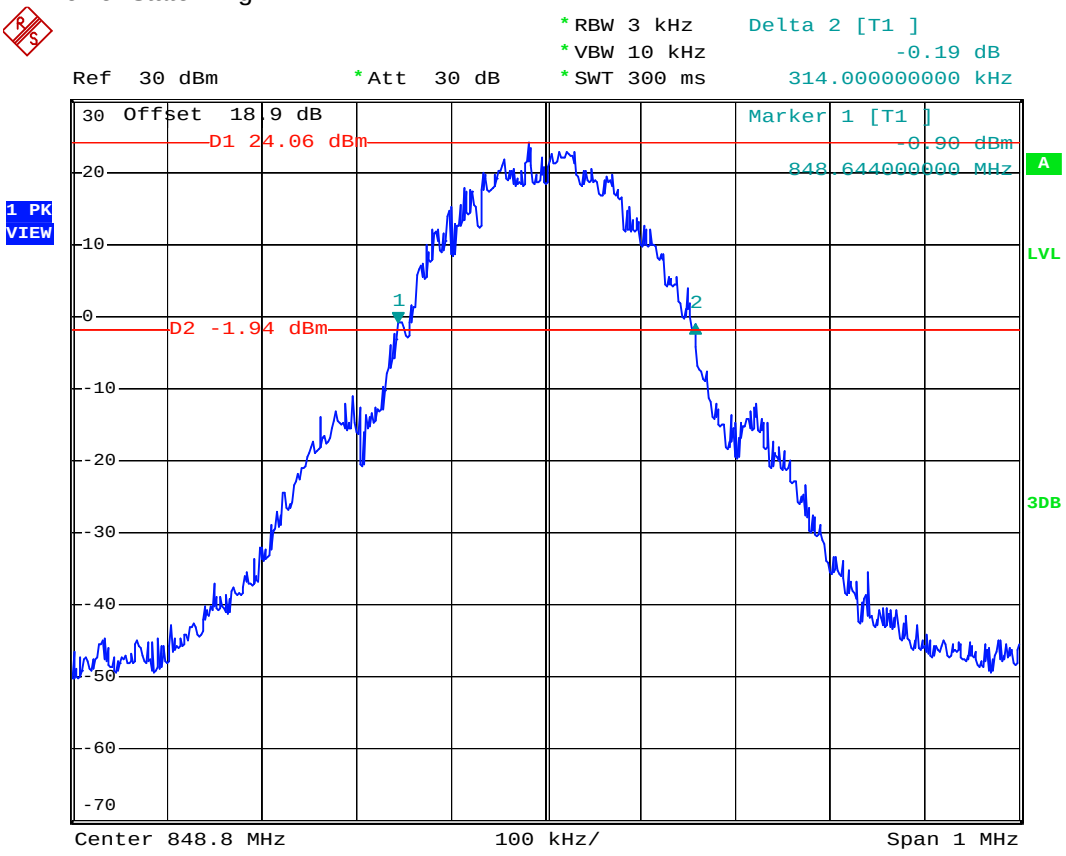
Date: 29.MAY.2008 20:10:43

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



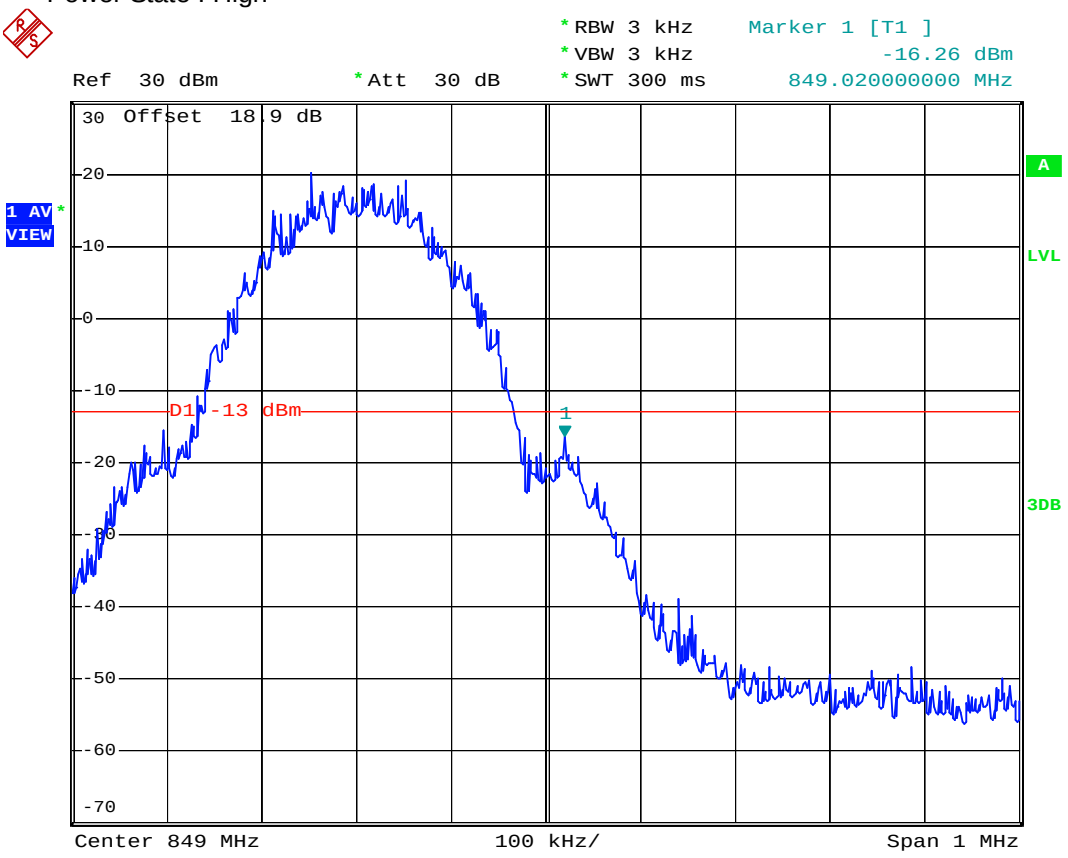
Date: 29.MAY.2008 20:12:17

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



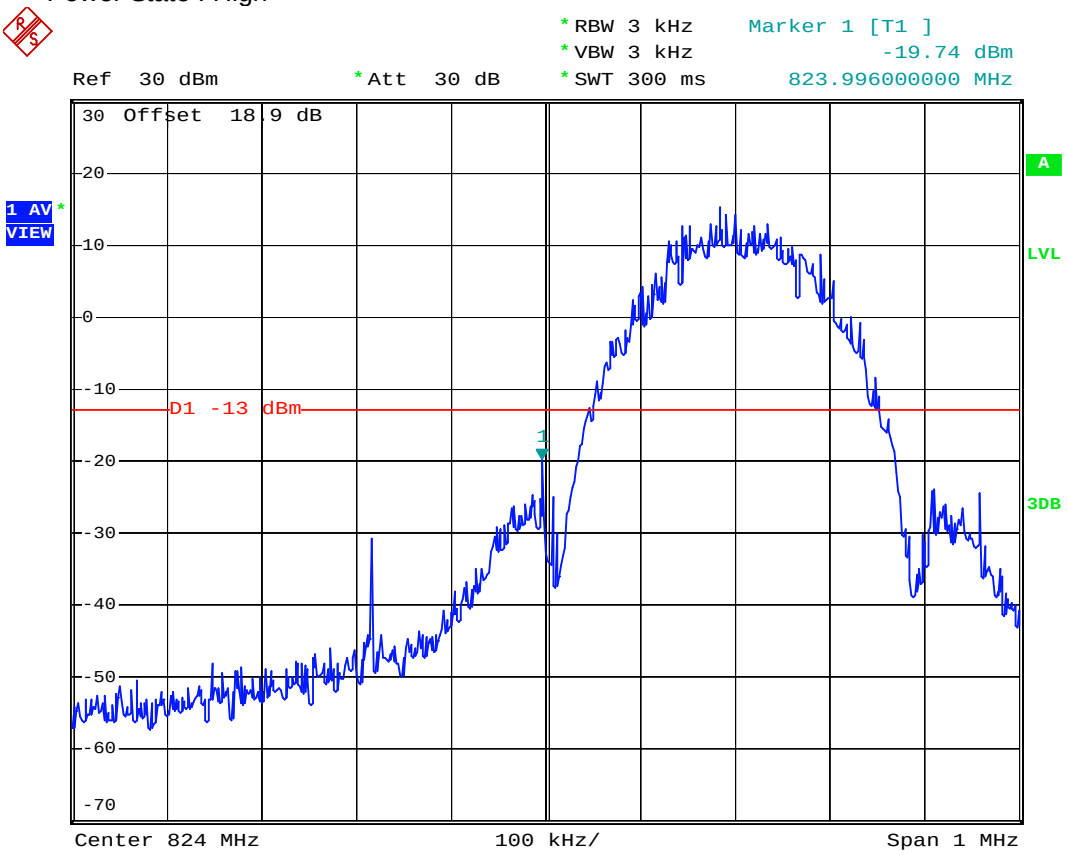
Date: 29.MAY.2008 20:13:38

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



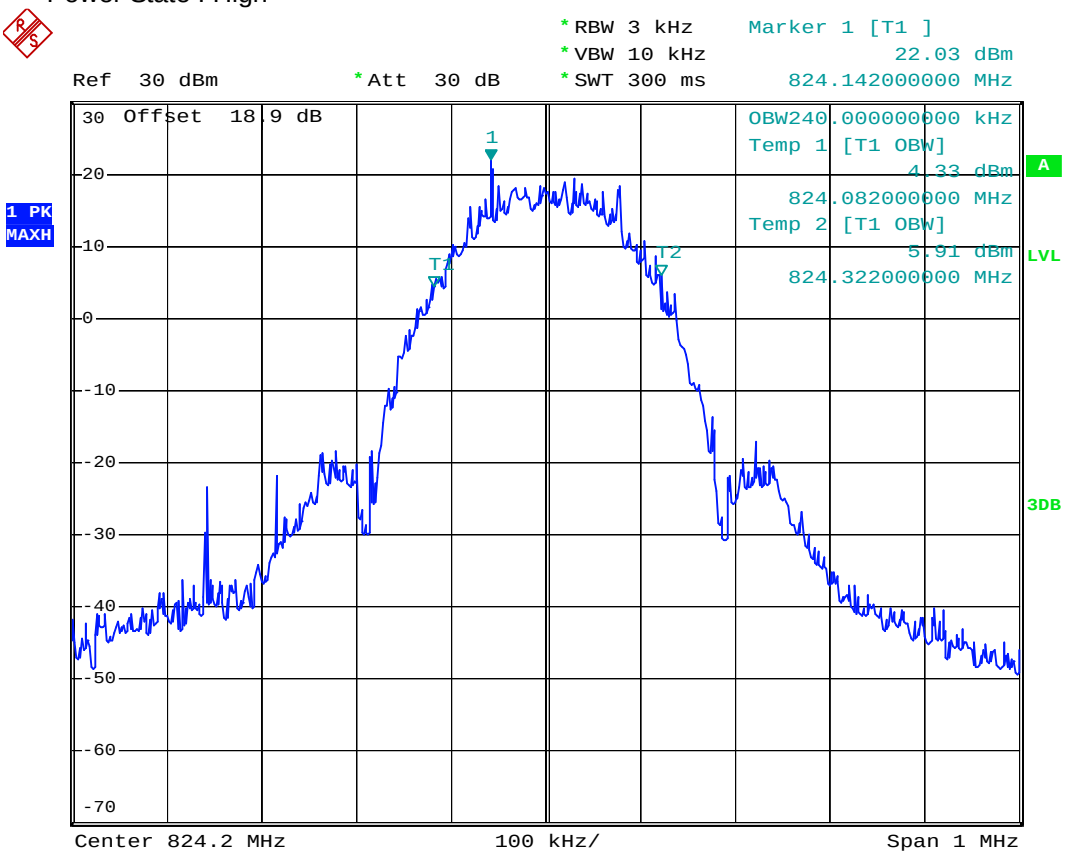
Date: 29.MAY.2008 20:21:55

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



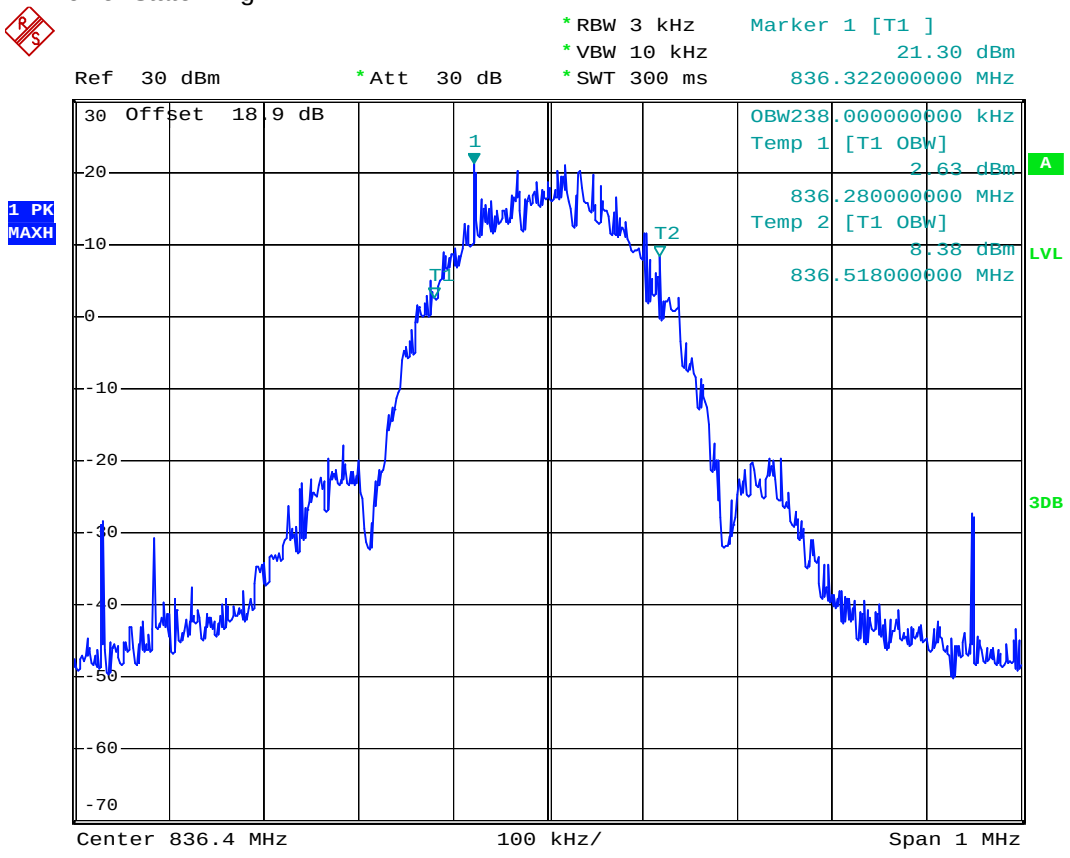
Date: 29.MAY.2008 21:35:10

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



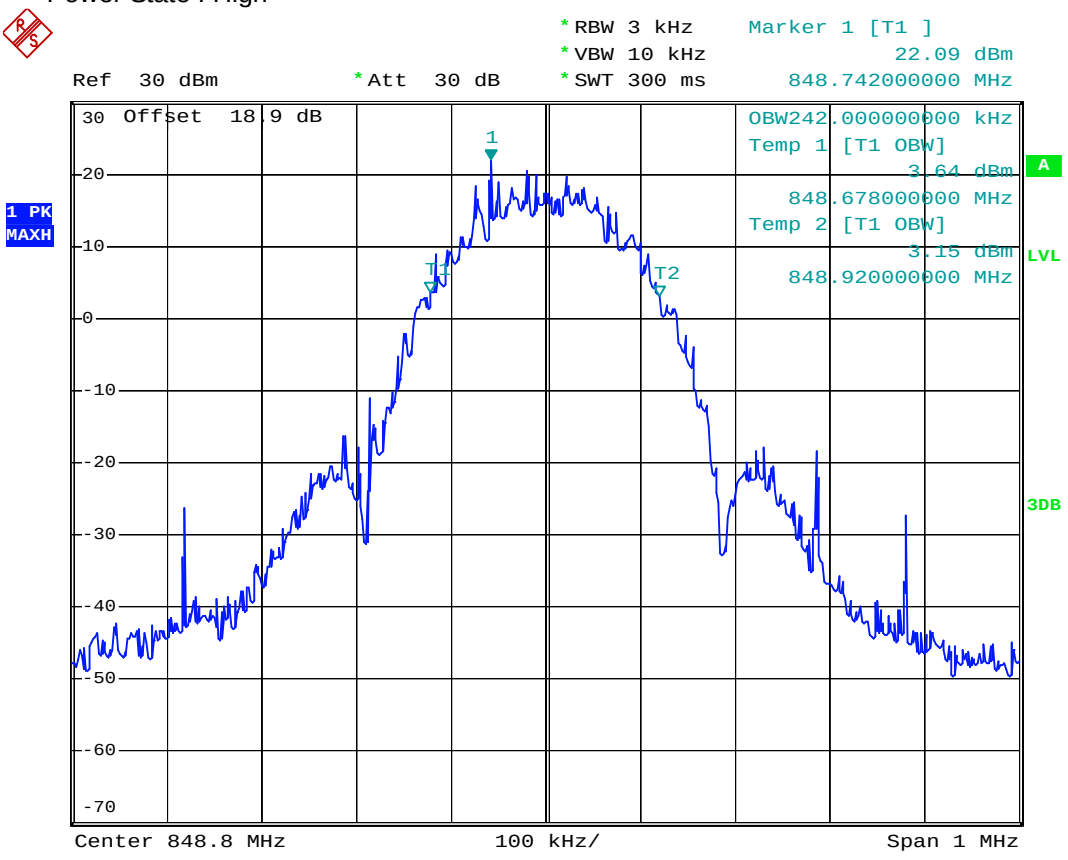
Date: 29.MAY.2008 21:30:42

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



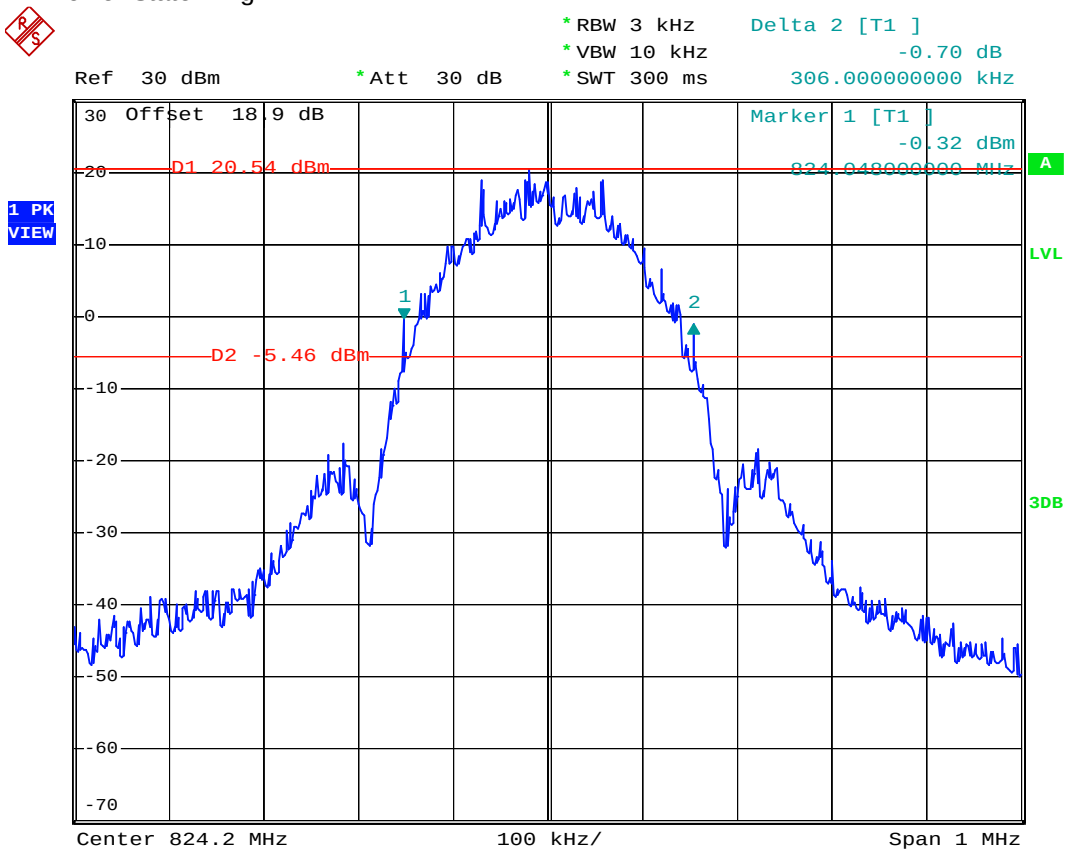
Date: 29.MAY.2008 21:31:12

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



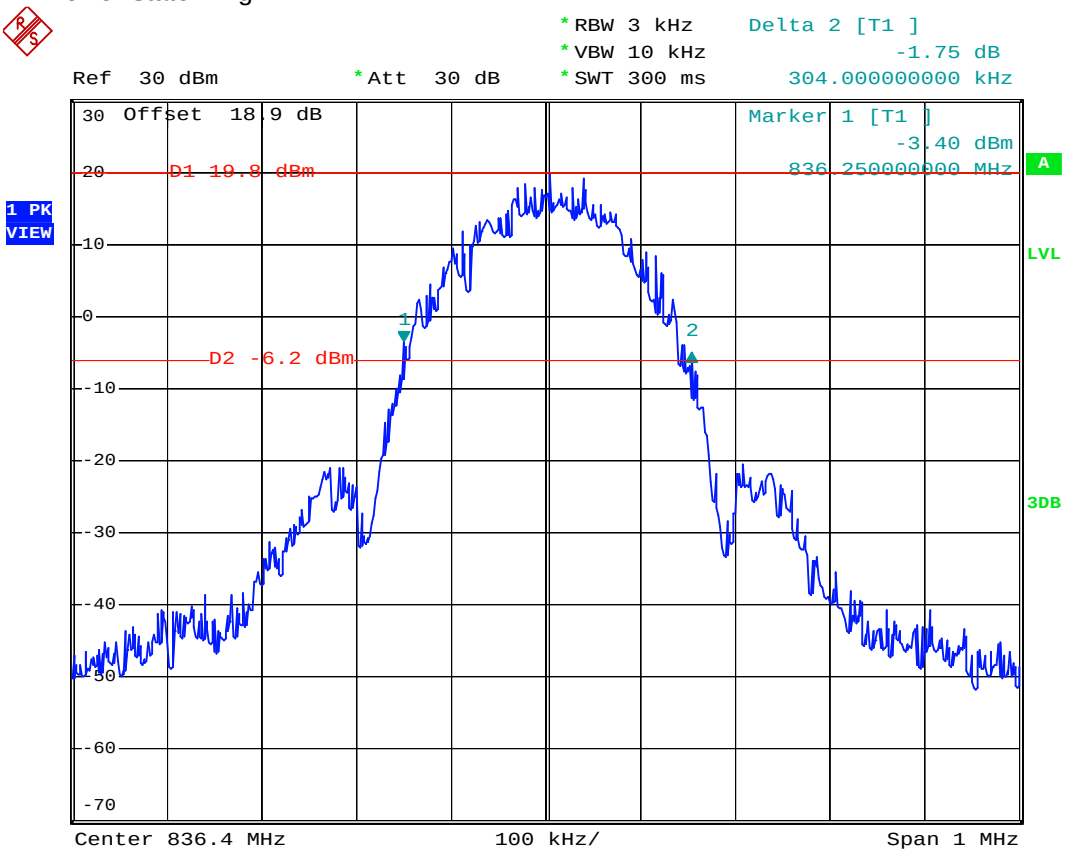
Date: 29.MAY.2008 21:31:43

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



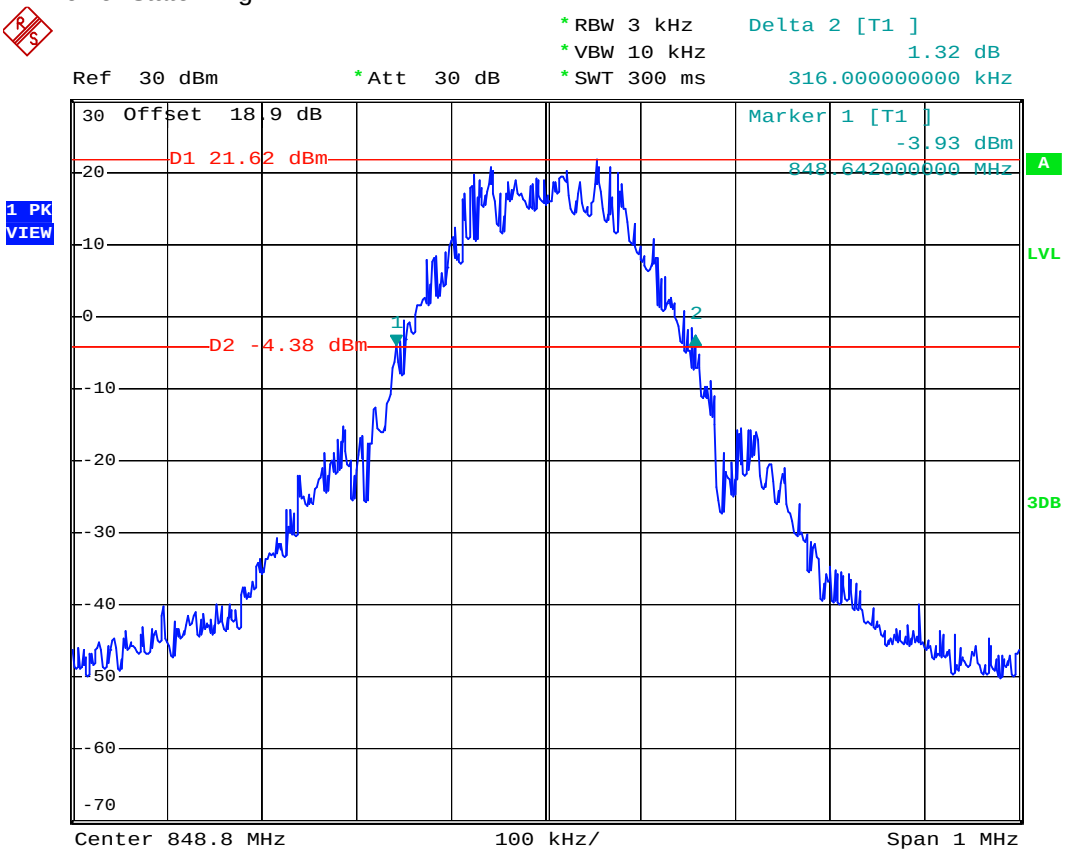
Date: 29.MAY.2008 21:28:33

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



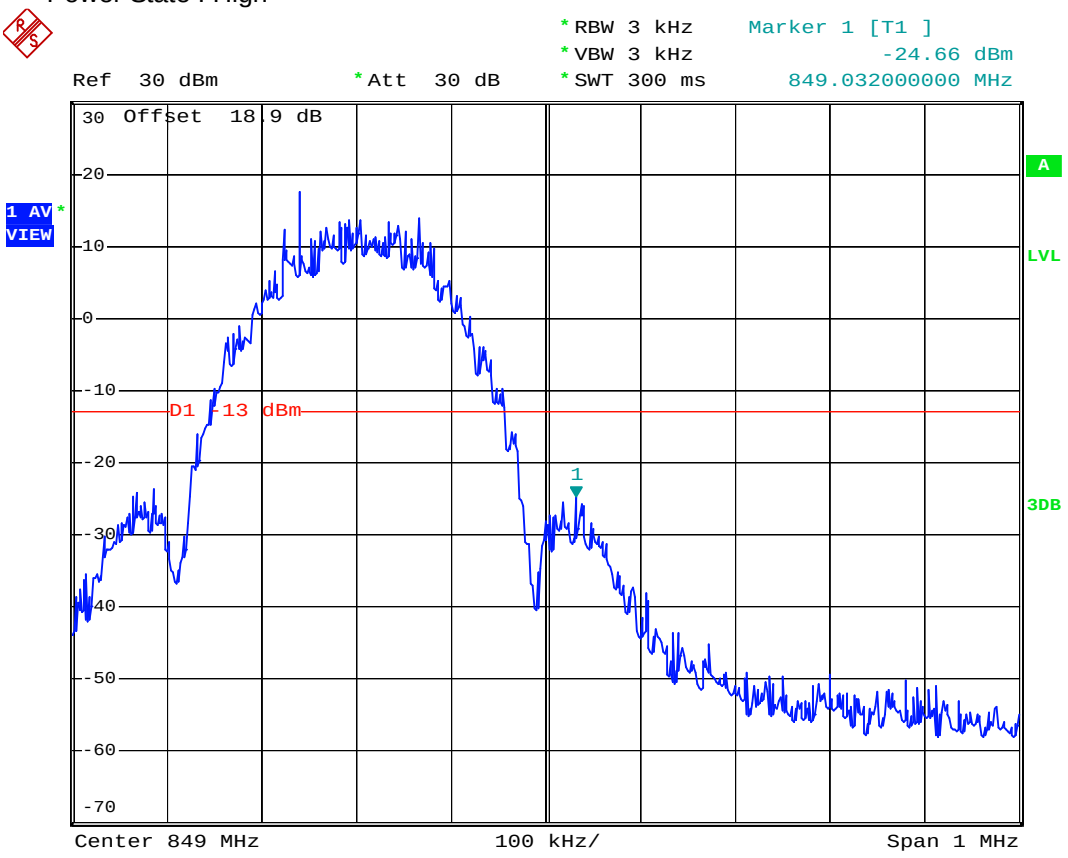
Date: 29.MAY.2008 21:27:37

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



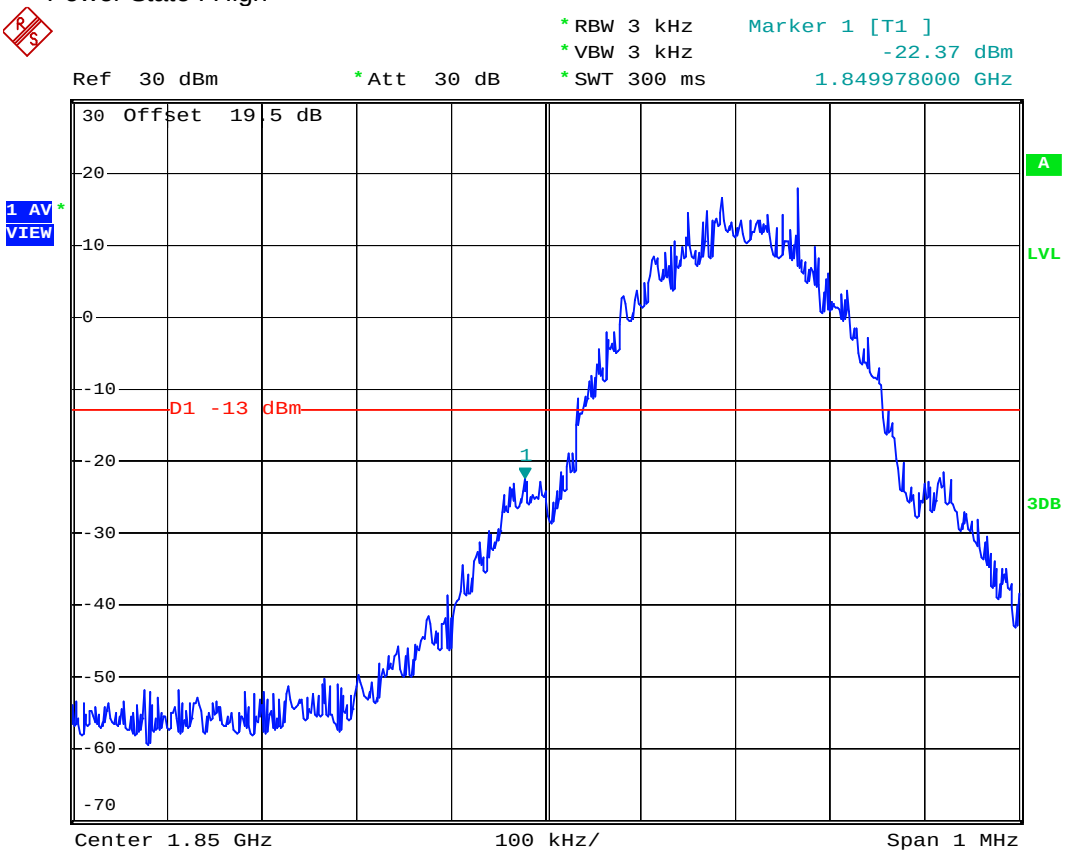
Date: 29.MAY.2008 21:29:41

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



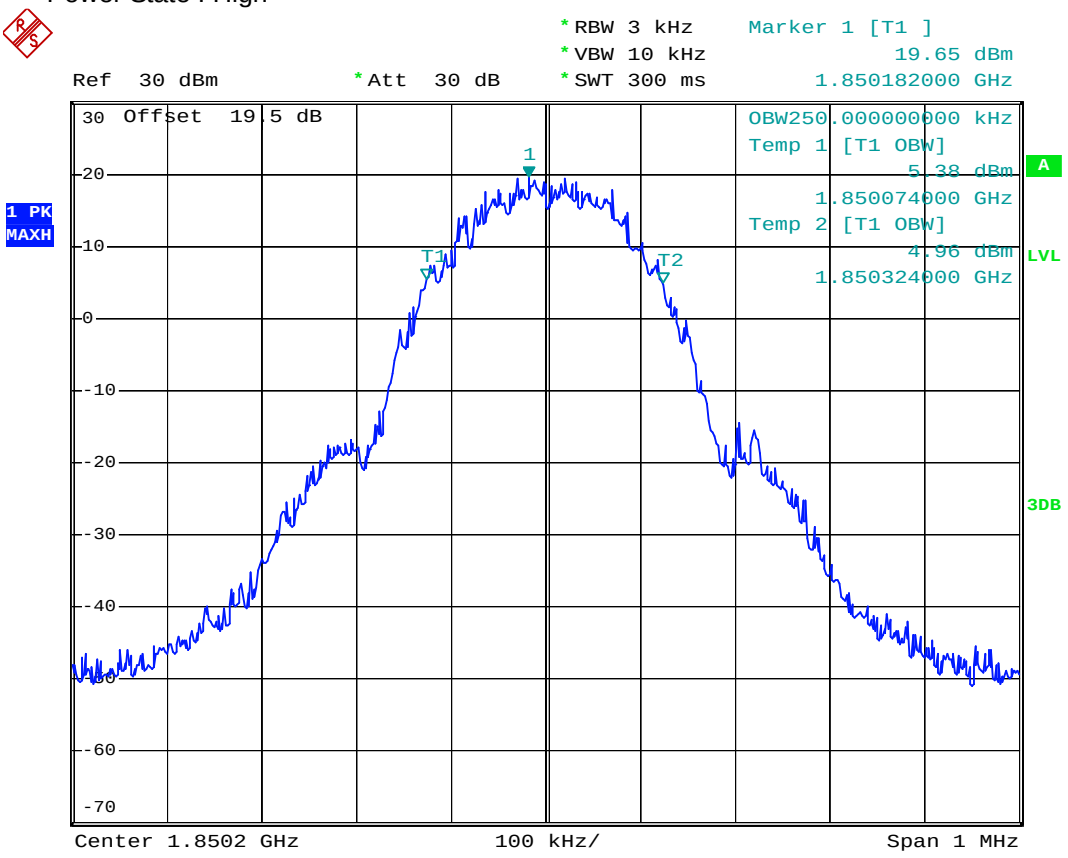
Date: 29.MAY.2008 21:36:00

- Mode 3
- Test Mode : GSM1900 (GSM) CH512 Lower Band Edge
- Power State : High



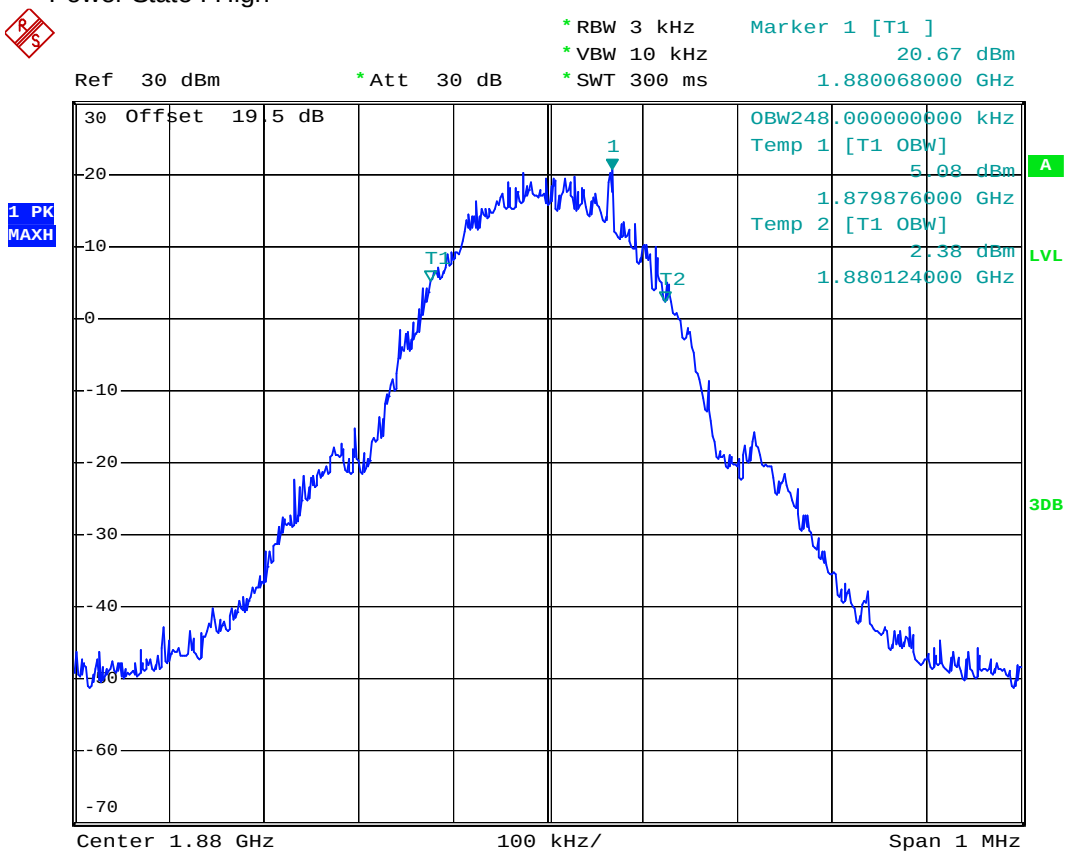
Date: 29.MAY.2008 23:08:02

- Test Mode : GSM1900 (GSM) CH512 99% Occupid Bandwidth
- Power State : High



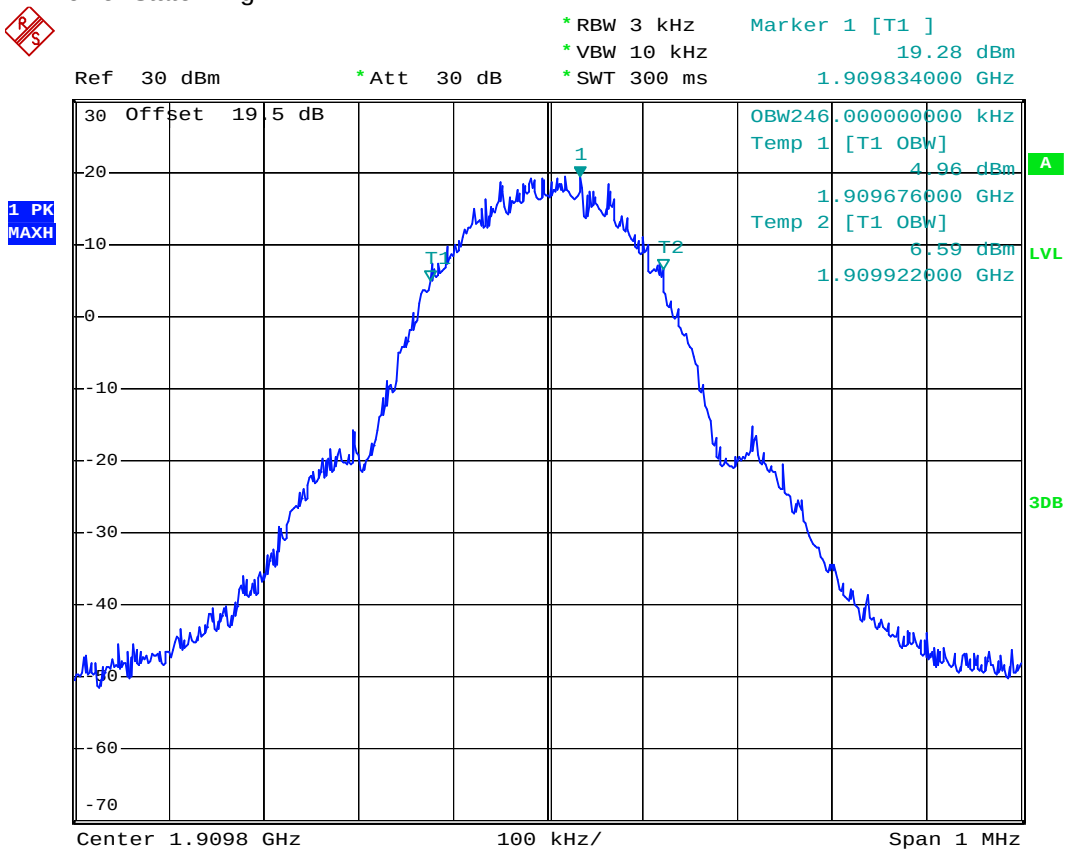
Date: 29.MAY.2008 23:05:00

- Test Mode : GSM1900 (GSM) CH661 99% Occupid Bandwidth
- Power State : High



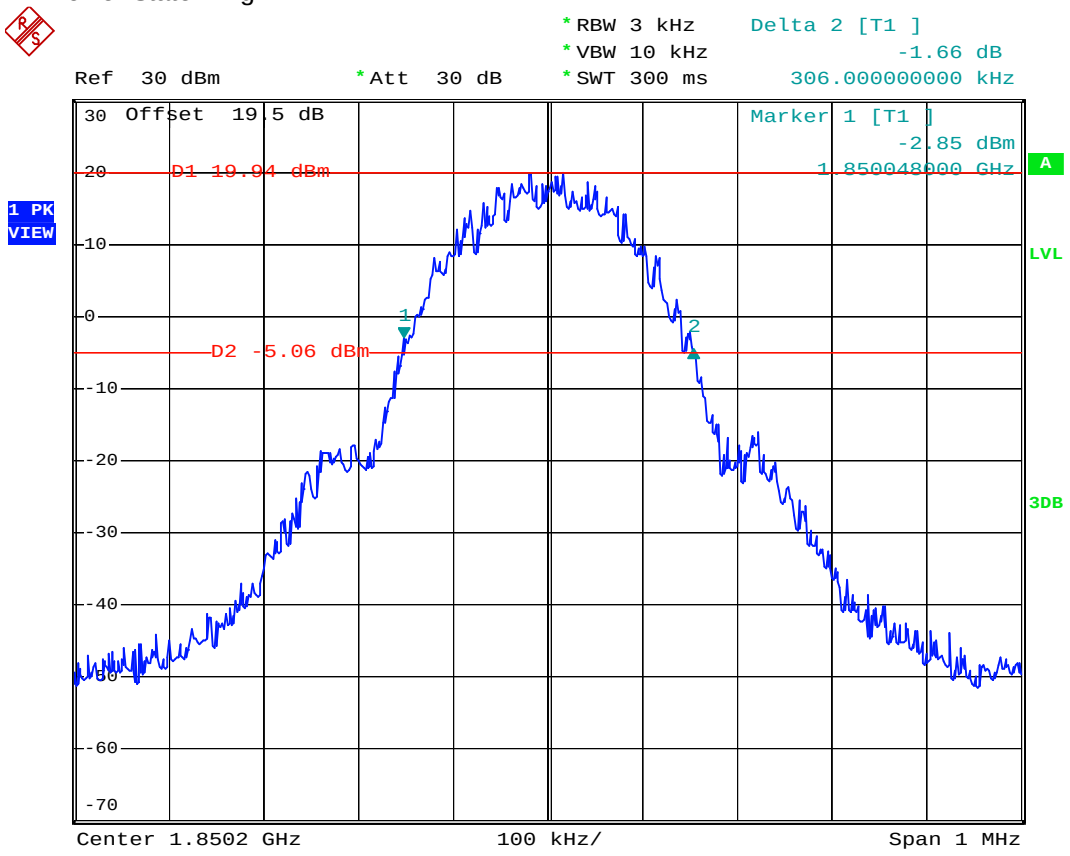
Date: 29.MAY.2008 23:04:27

- Test Mode : GSM1900 (GSM) CH810 99% Occupid Bandwidth
- Power State : High



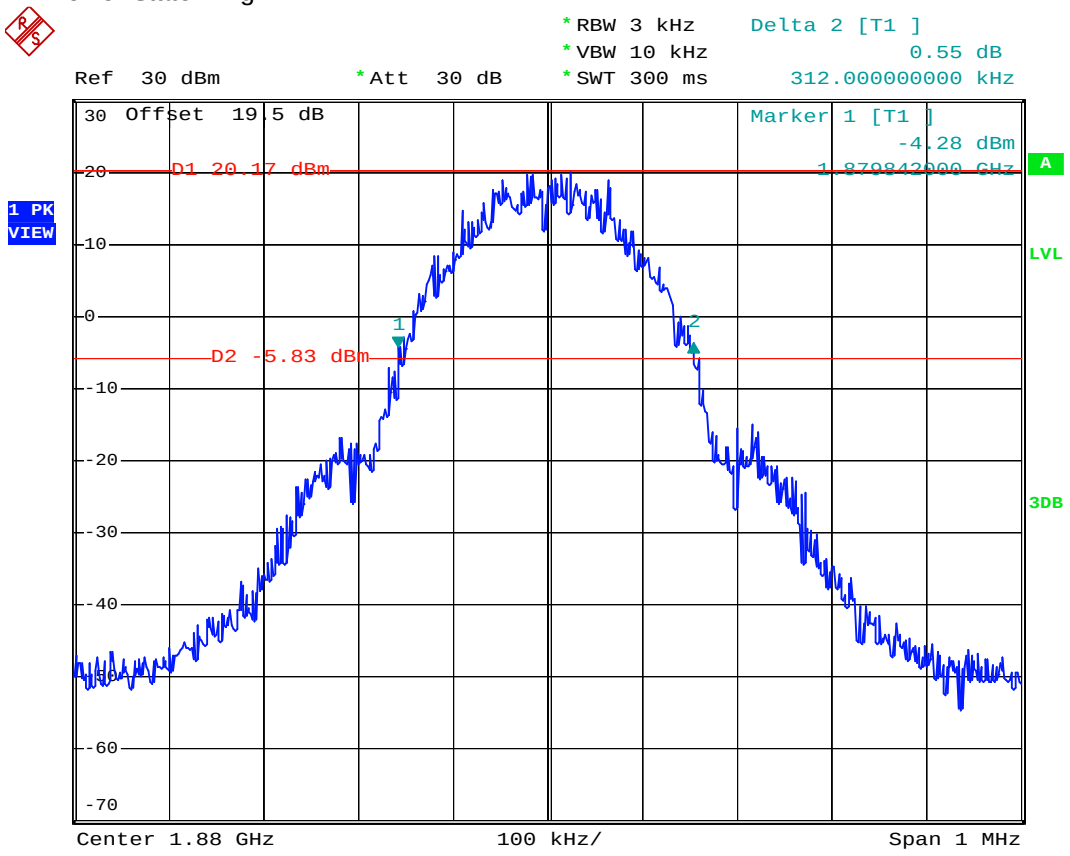
Date: 29.MAY.2008 23:03:48

- Test Mode : GSM1900 (GSM) CH512 26dB Bandwidth
- Power State : High



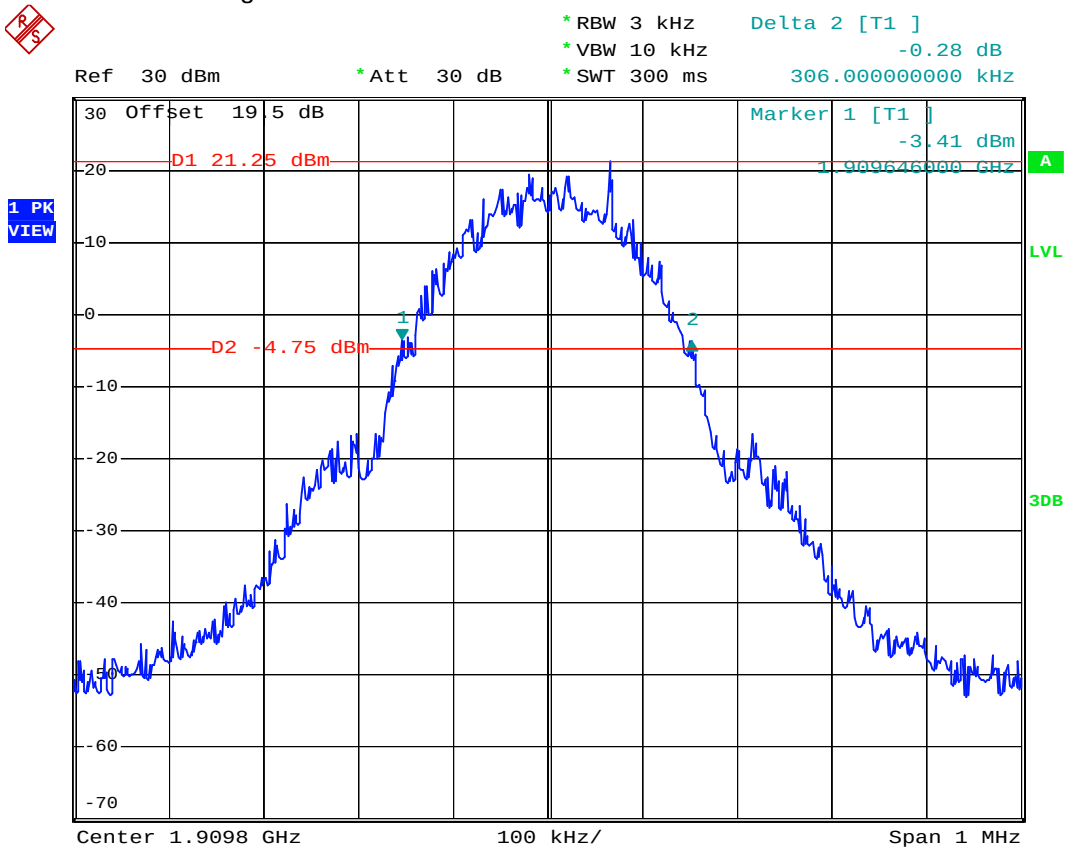
Date: 29.MAY.2008 23:01:09

- Test Mode : GSM1900 (GSM) CH661 26dB Bandwidth
- Power State : High



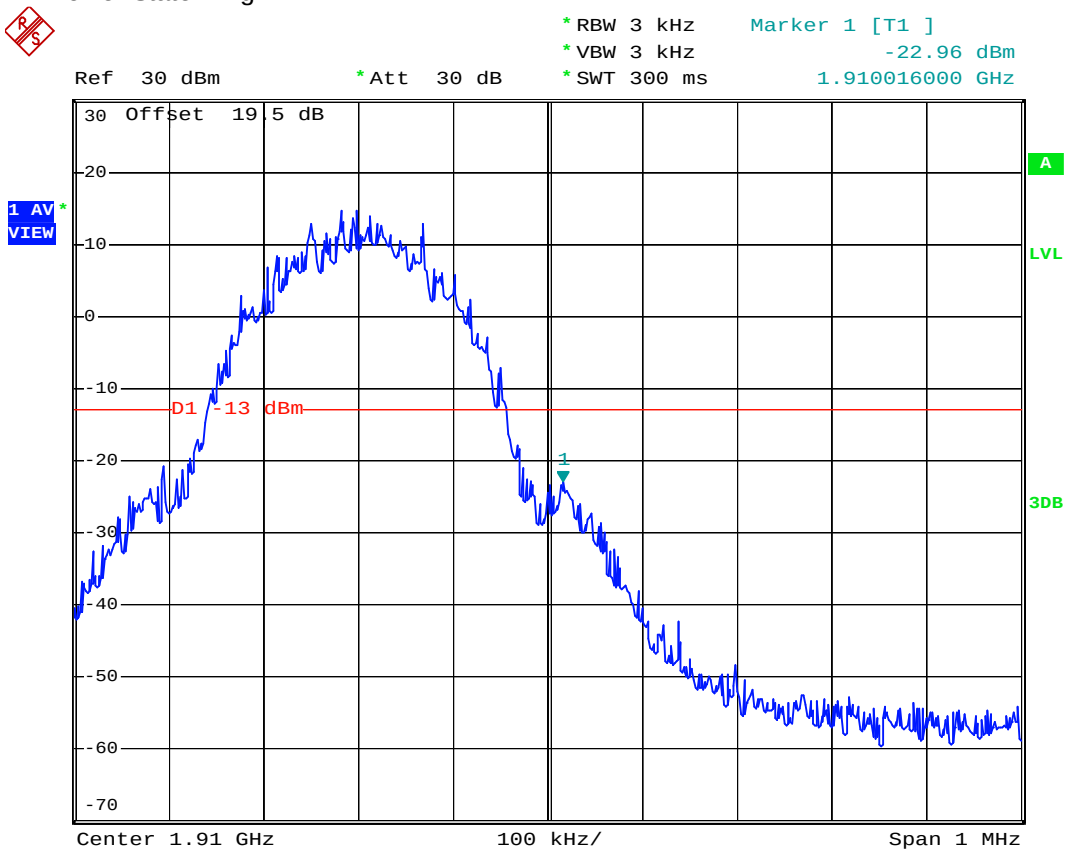
Date: 29.MAY.2008 23:02:02

- Test Mode : GSM1900 (GSM) CH810 26dB Bandwidth
- Power State : High



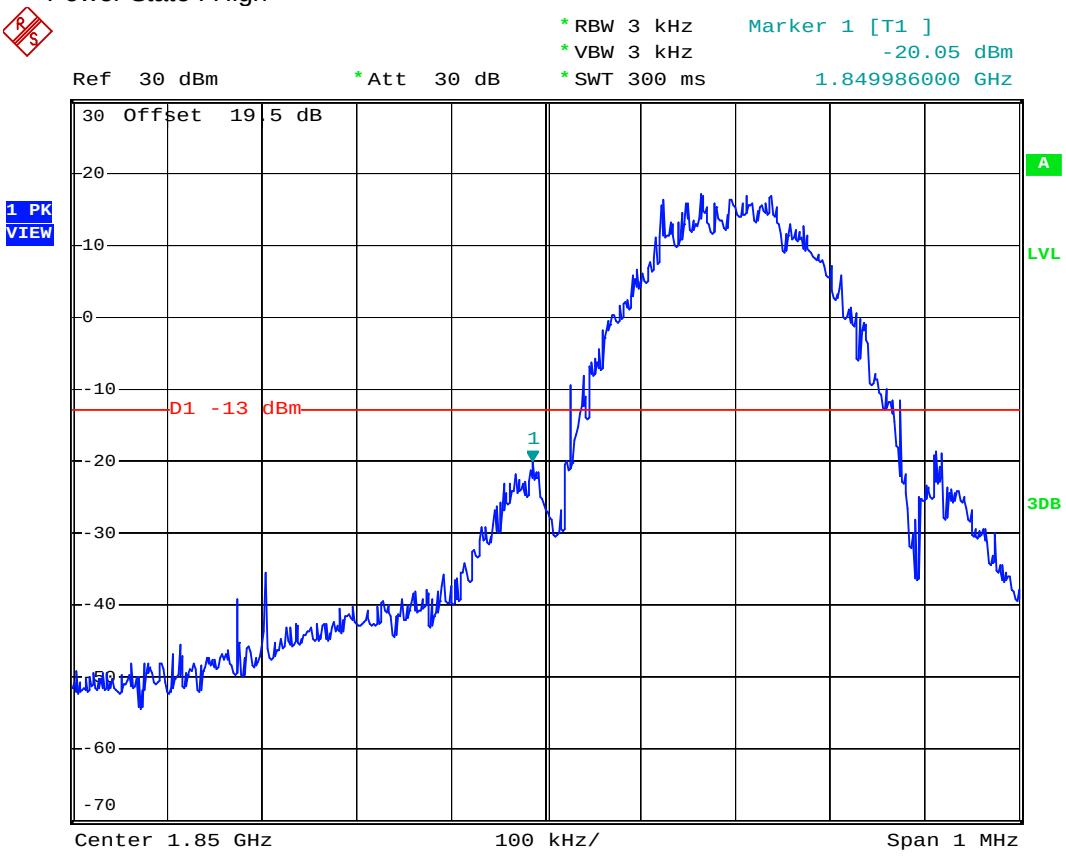
Date: 29.MAY.2008 23:02:49

- Test Mode : GSM1900 (GSM) CH810 Higher Band Edge
- Power State : High



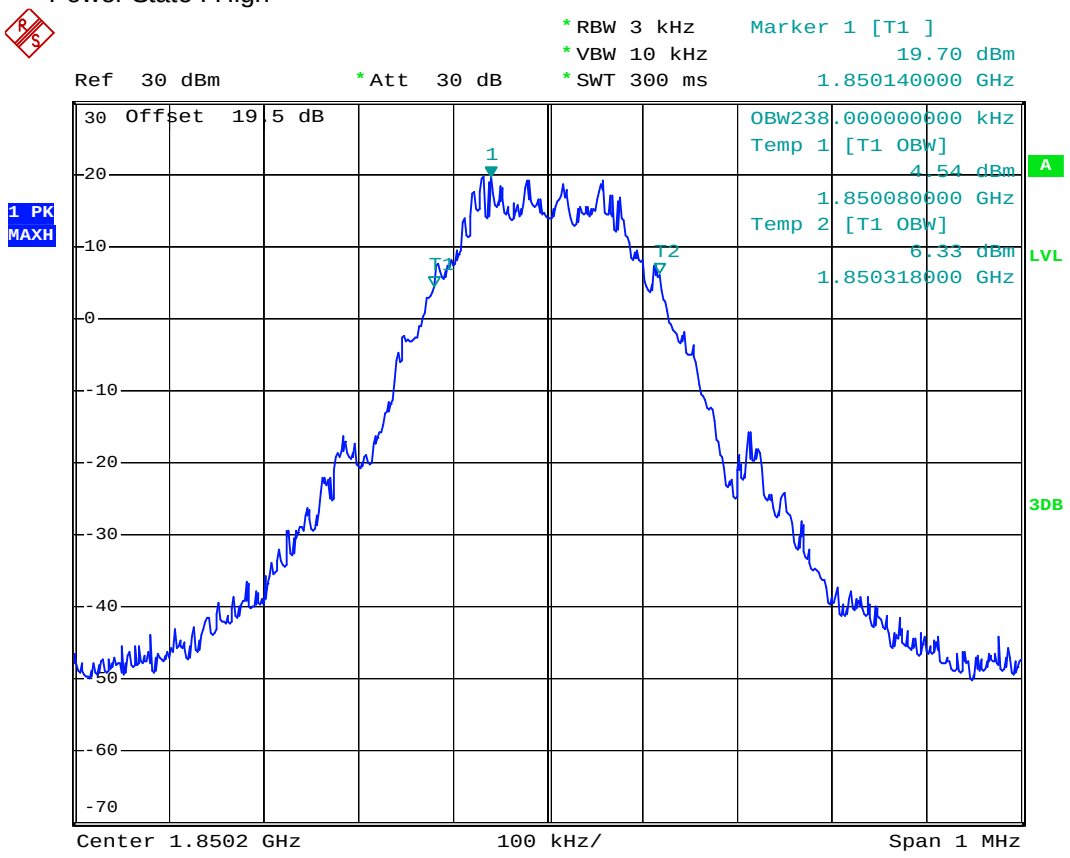
Date: 29.MAY.2008 23:08:56

- Mode 4
- Test Mode : GSM1900 (EDGE) CH512 Lower Band Edge
- Power State : High



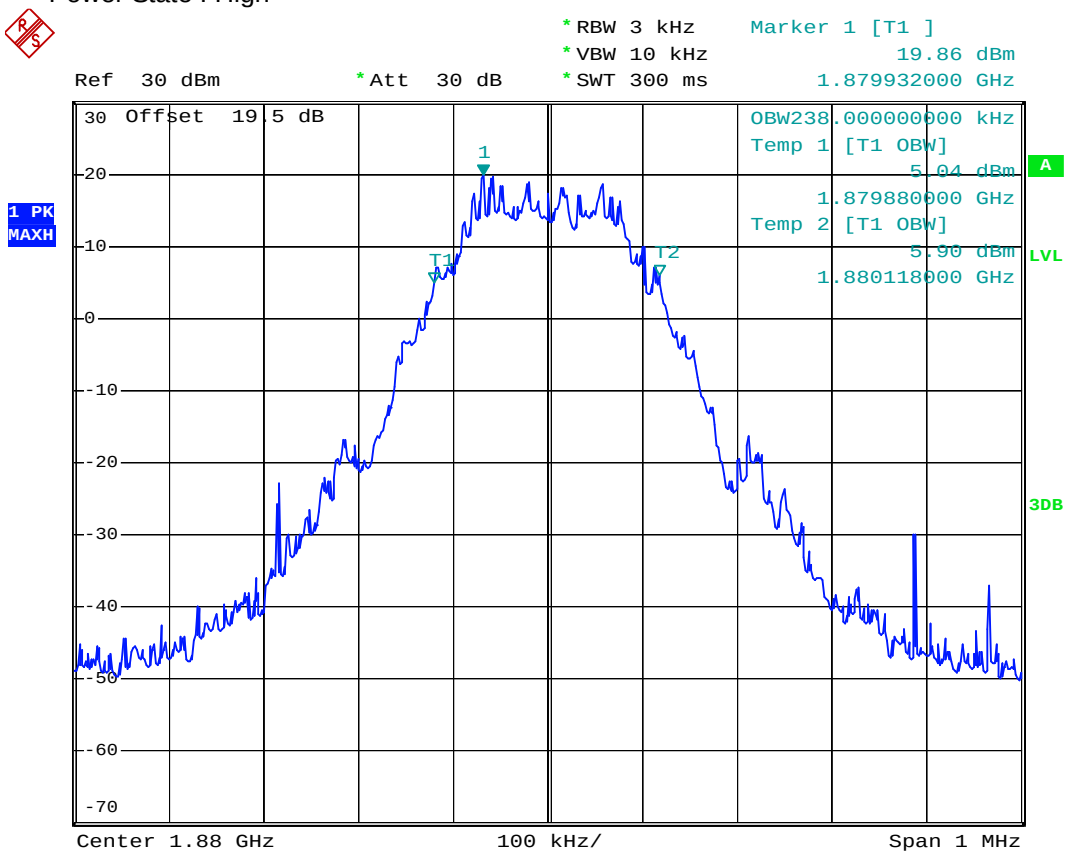
Date: 29.MAY.2008 23:35:06

- Test Mode : GSM1900 (EDGE) CH512 99% Occupid Bandwidth
- Power State : High



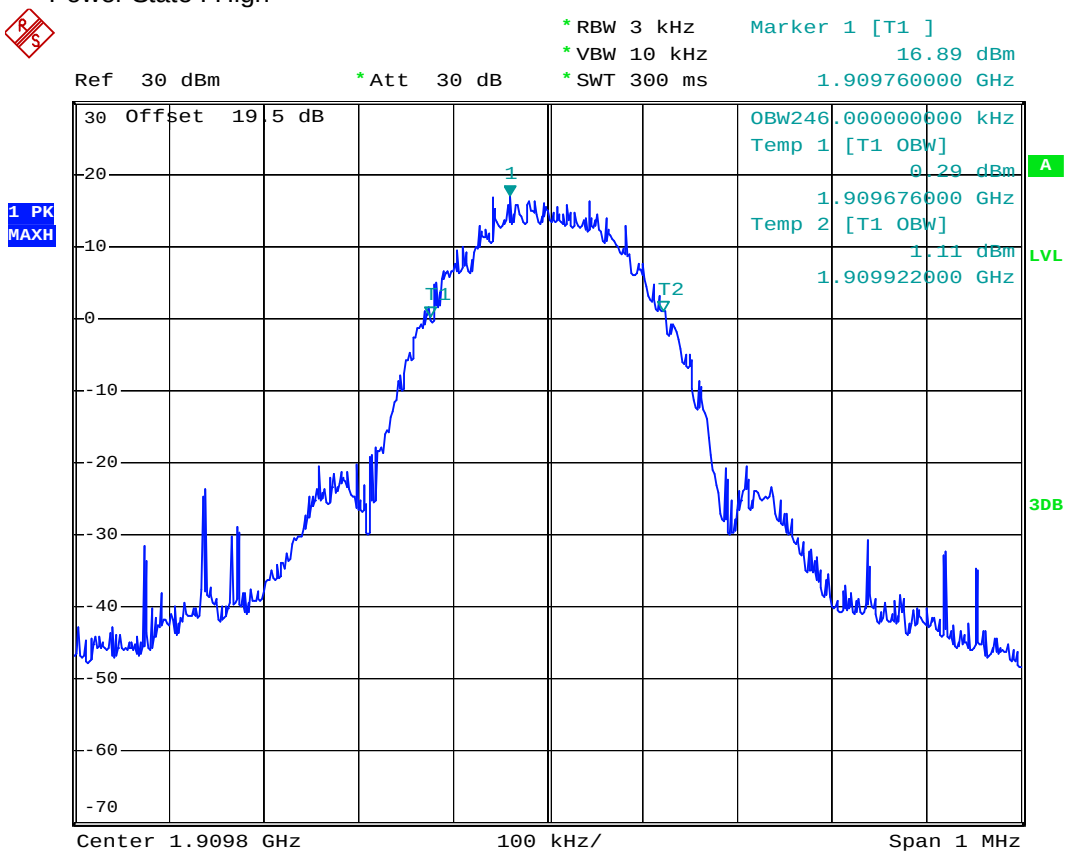
Date: 29.MAY.2008 23:31:31

- Test Mode : GSM1900 (EDGE) CH661 99% Occupid Bandwidth
- Power State : High



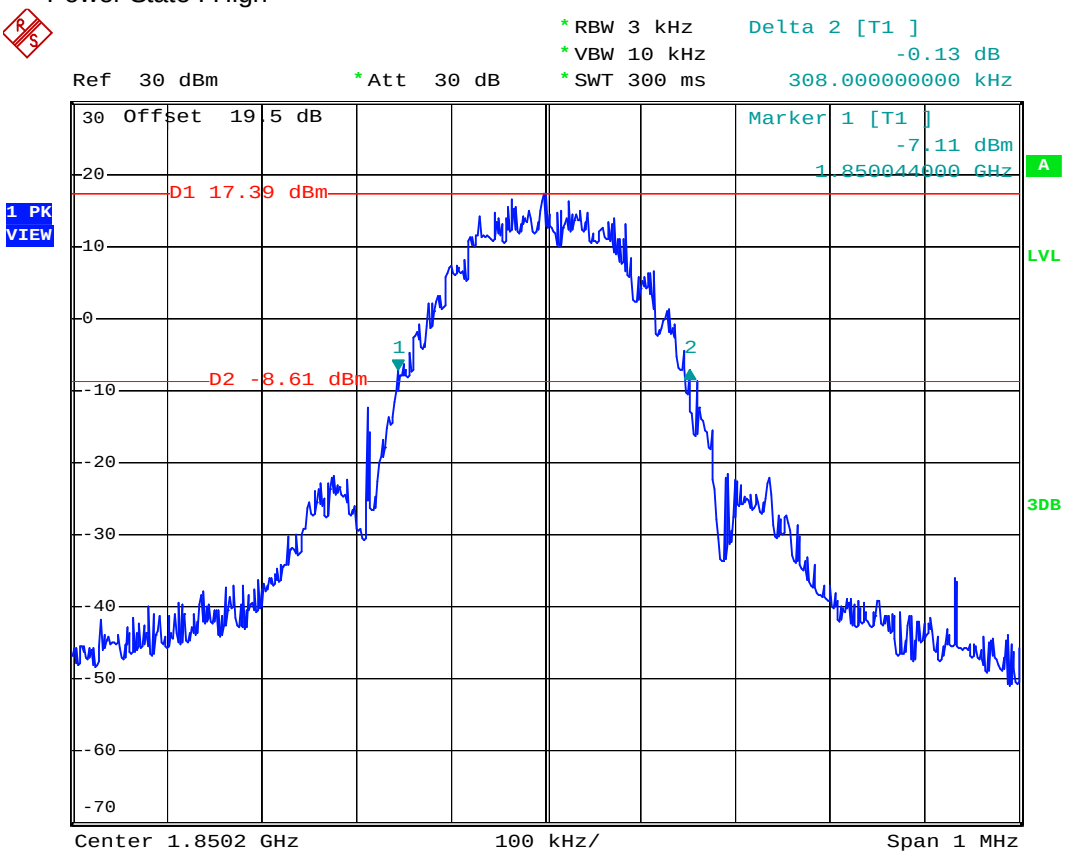
Date: 29.MAY.2008 23:30:39

- Test Mode : GSM1900 (EDGE) CH810 99% Occupid Bandwidth
- Power State : High



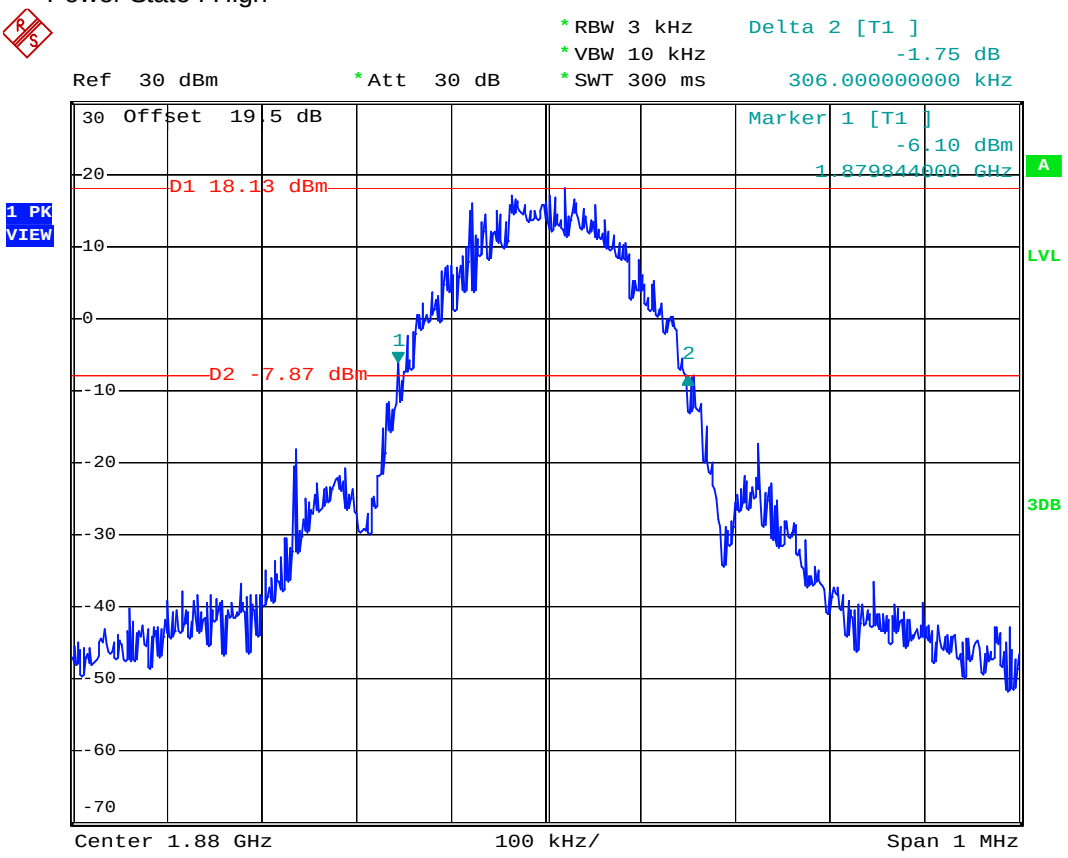
Date: 29.MAY.2008 23:29:36

- Test Mode : GSM1900 (EDGE) CH512 26dB Bandwidth
- Power State : High



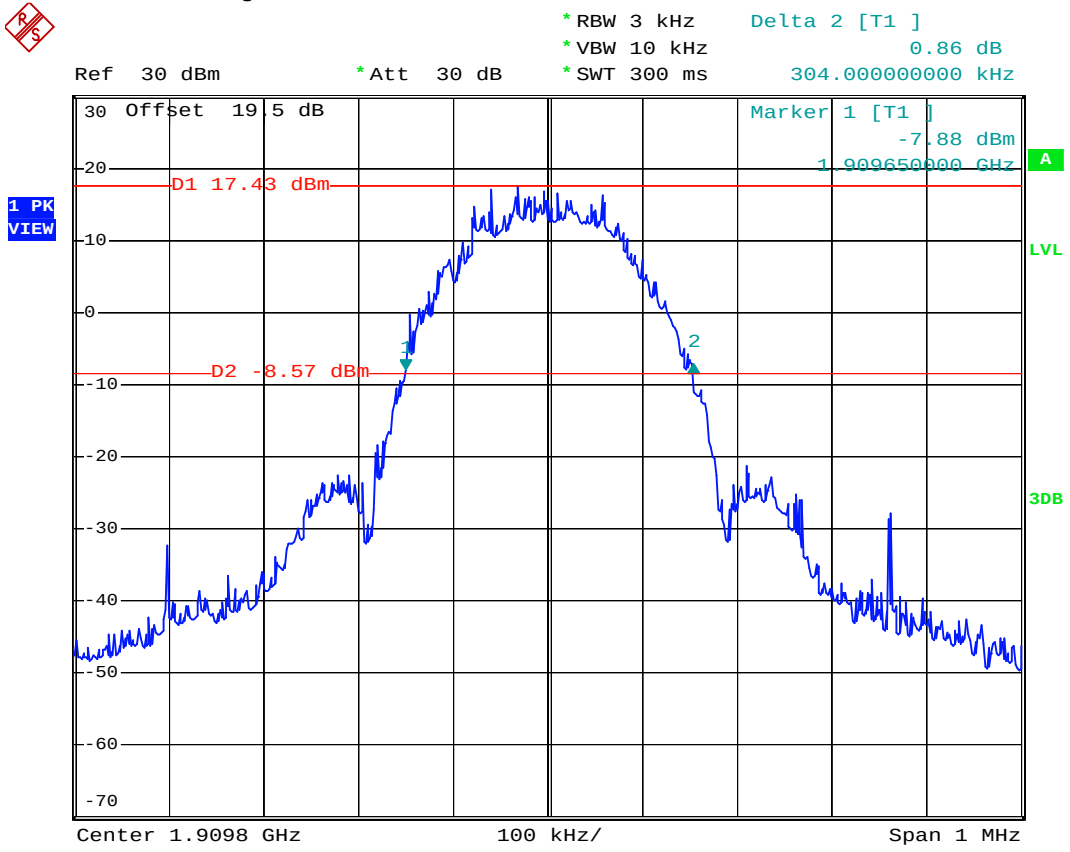
Date: 29.MAY.2008 23:26:11

- Test Mode : GSM1900 (EDGE) CH661 26dB Bandwidth
- Power State : High



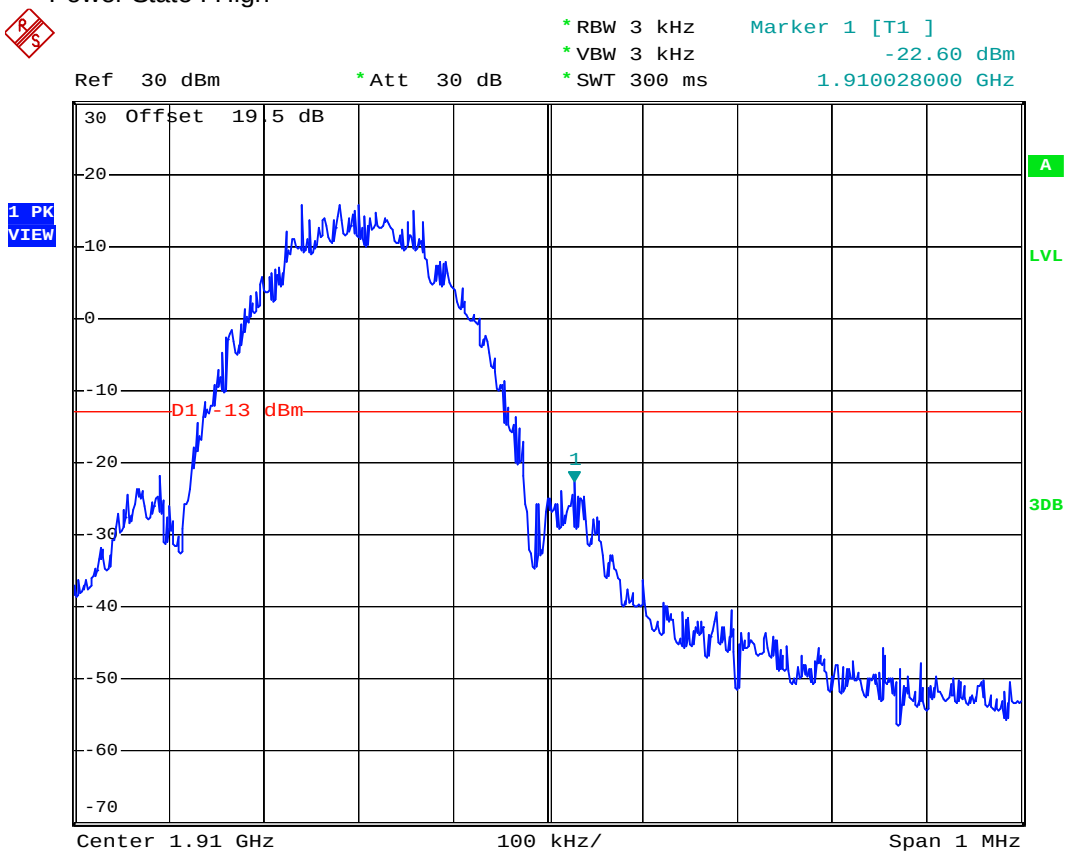
Date: 29.MAY.2008 23:27:25

- Test Mode : GSM1900 (EDGE) CH810 26dB Bandwidth
- Power State : High



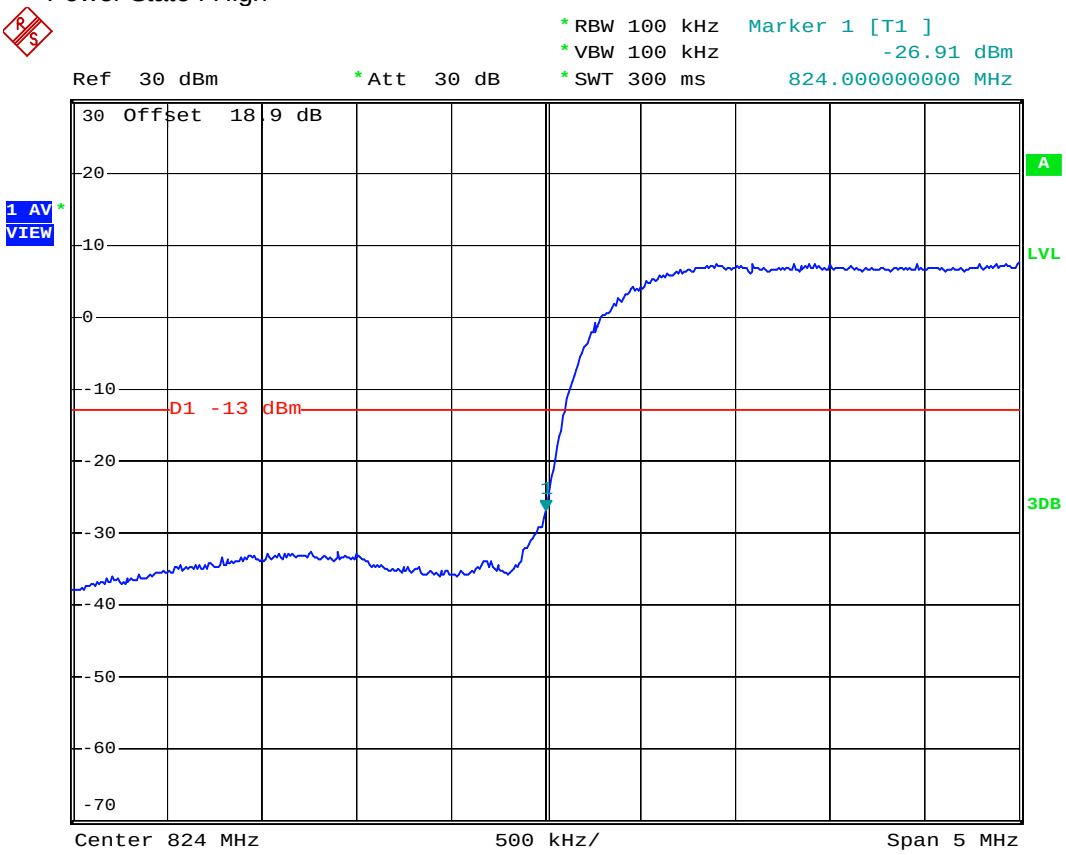
Date: 29.MAY.2008 23:28:32

- Test Mode : GSM1900(EDGE) CH810 Higher Band Edge
- Power State : High



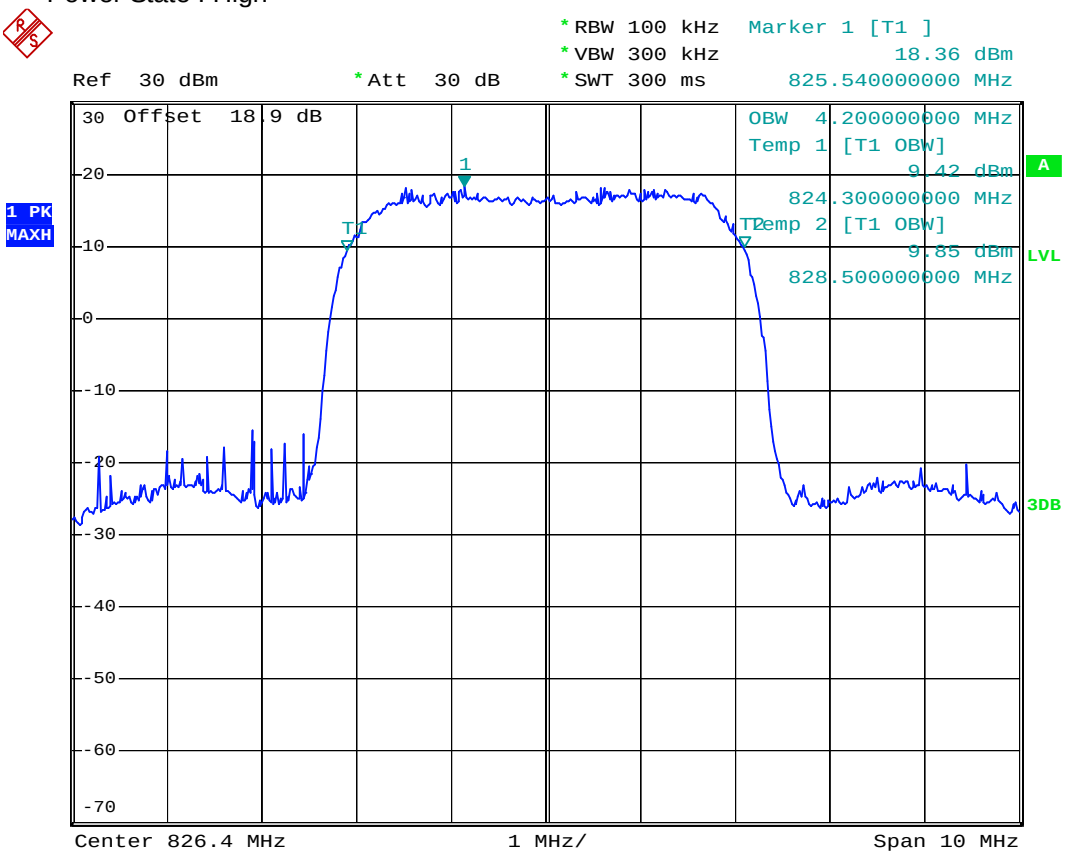
Date: 29.MAY.2008 23:36:07

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



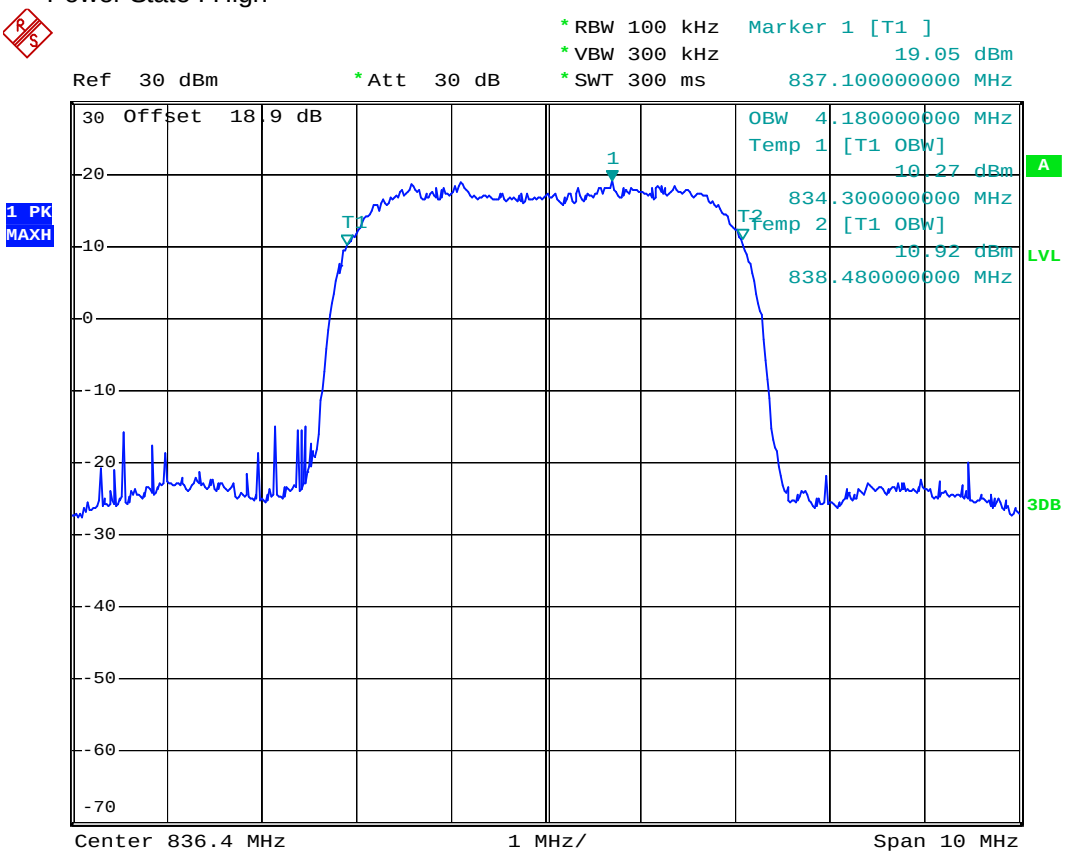
Date: 18.JUN.2008 05:01:29

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



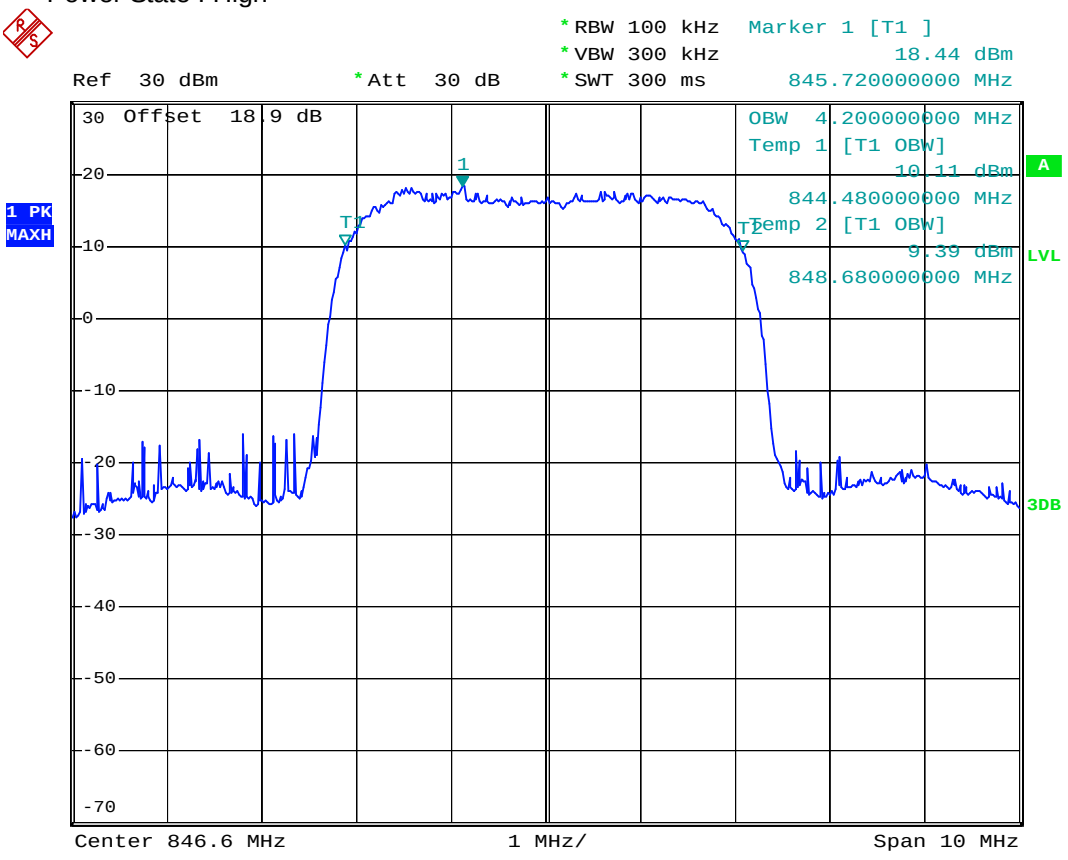
Date: 18.JUN.2008 04:51:04

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



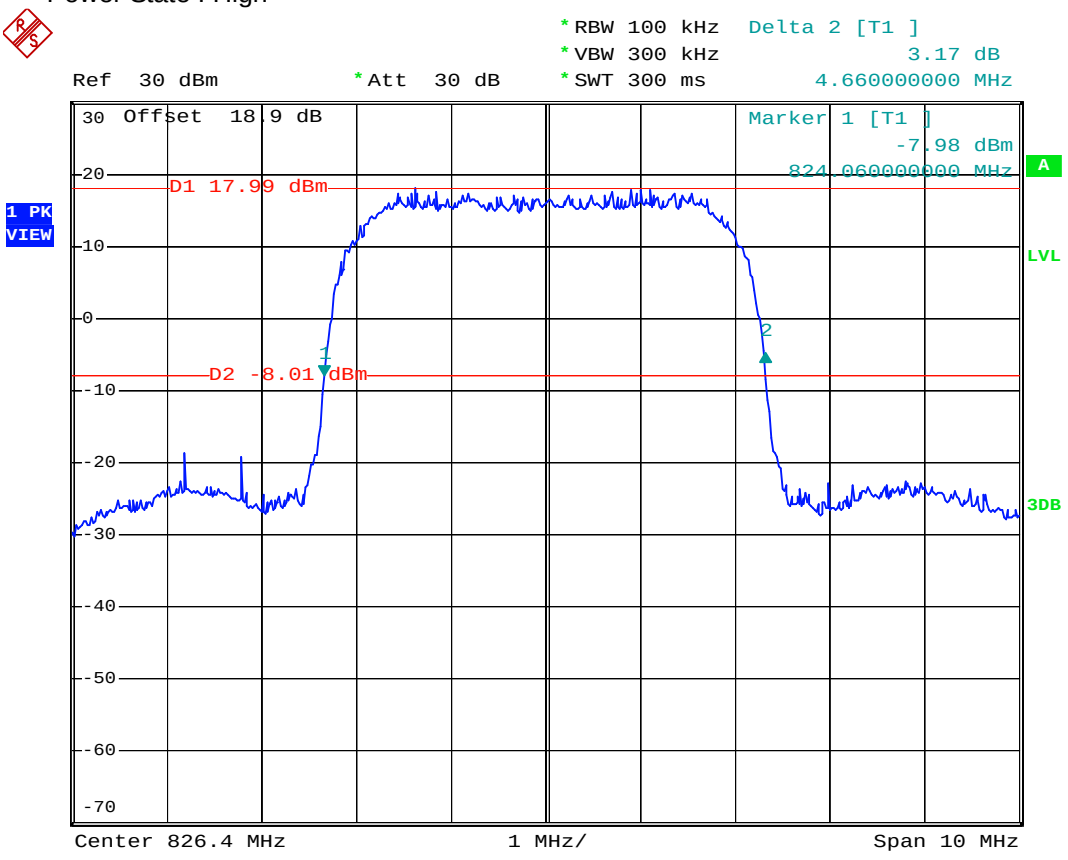
Date: 18.JUN.2008 04:50:35

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



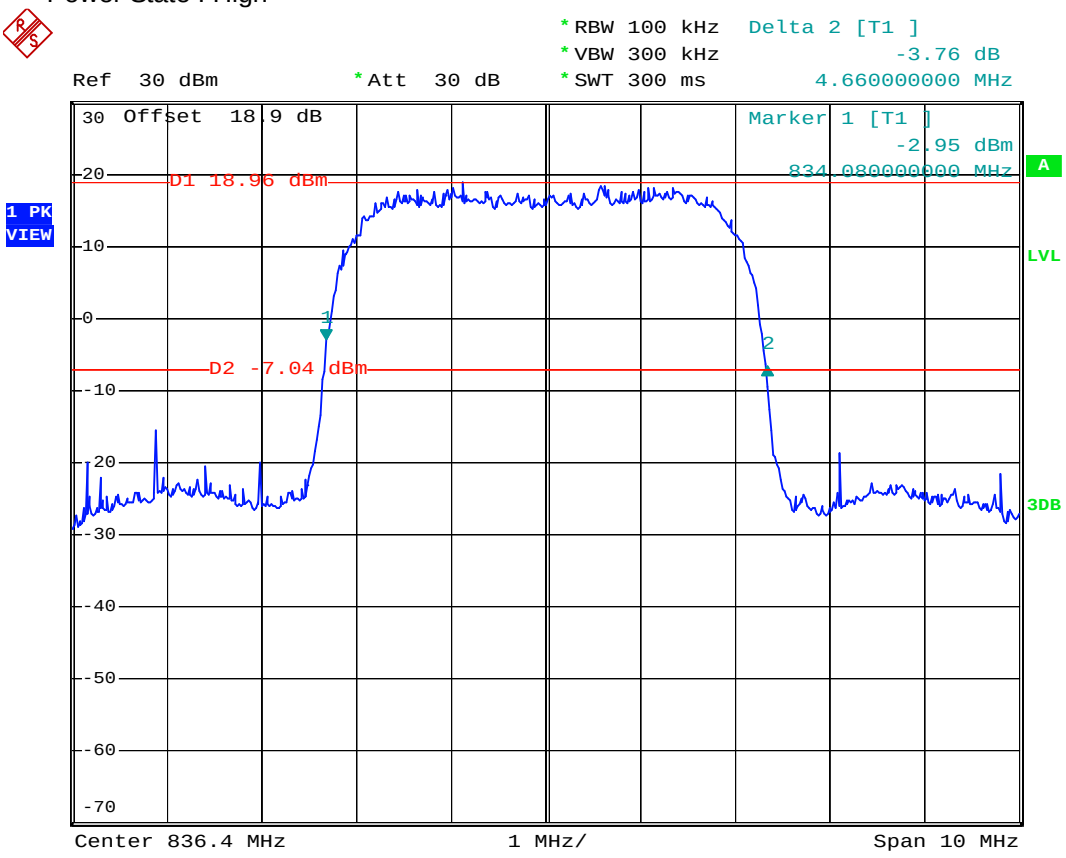
Date: 18.JUN.2008 04:50:08

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



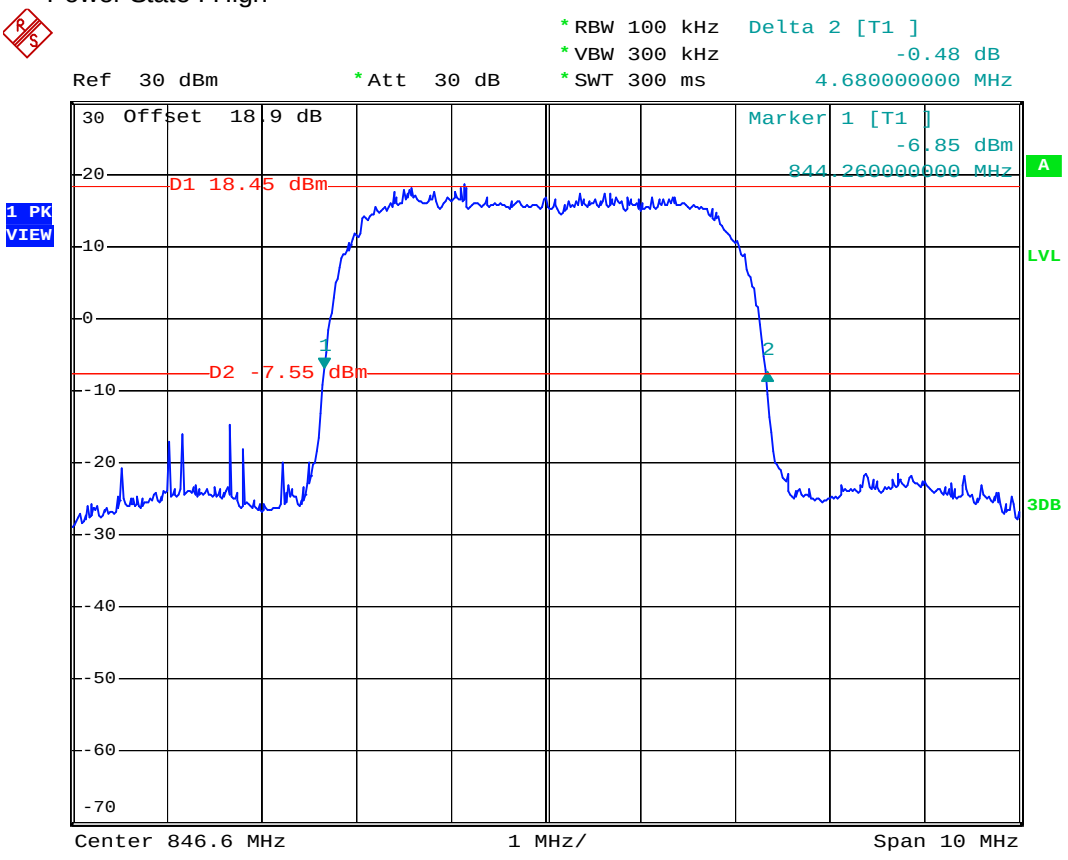
Date: 18.JUN.2008 04:47:24

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



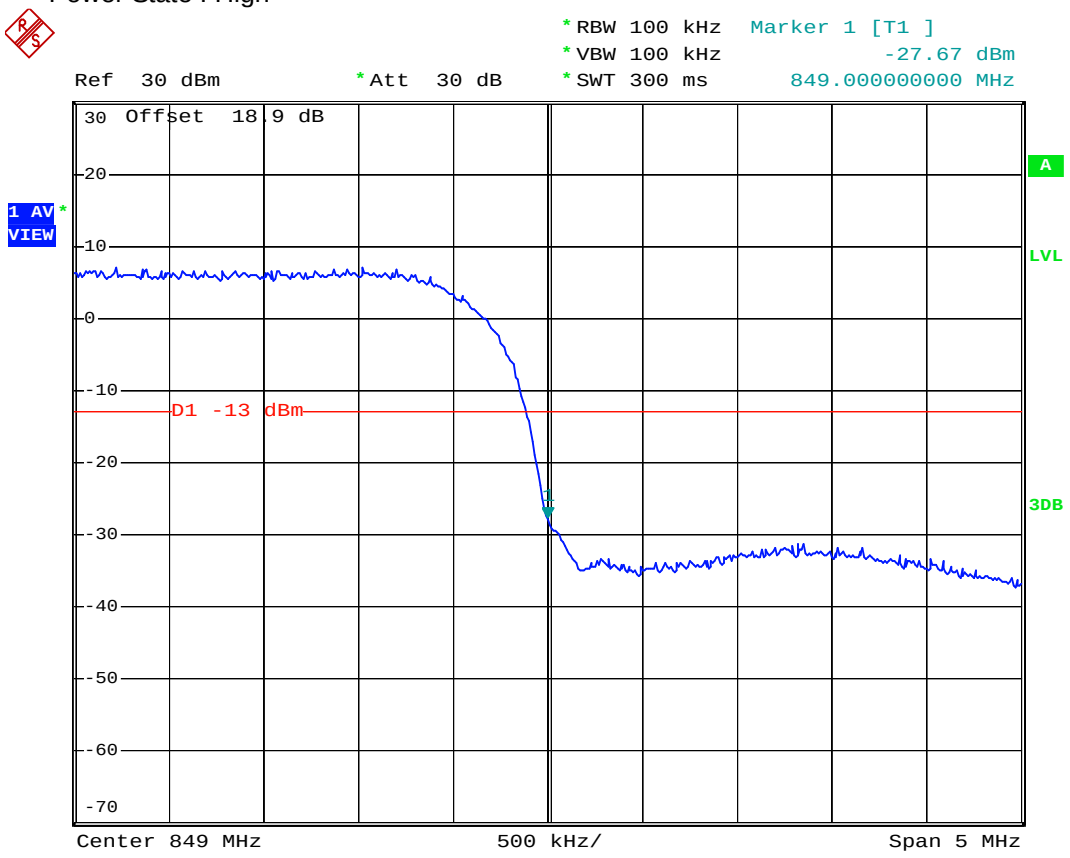
Date: 18.JUN.2008 04:48:25

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



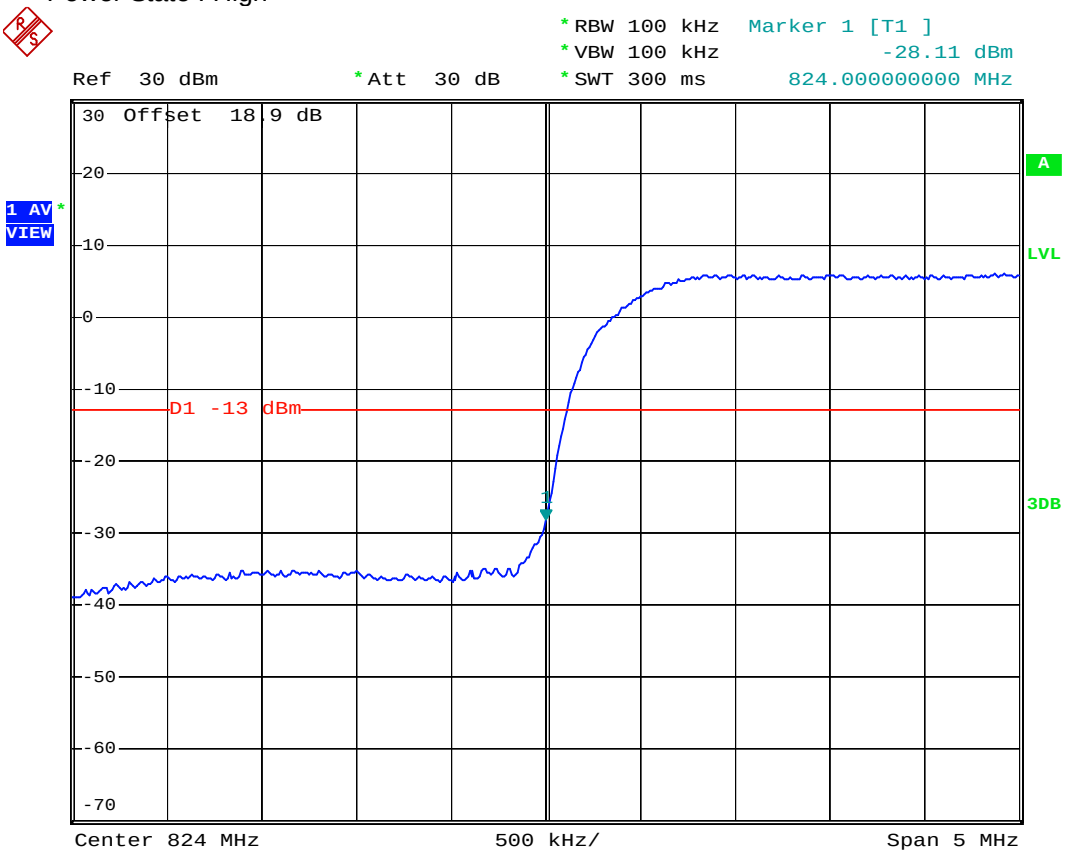
Date: 18.JUN.2008 04:49:10

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



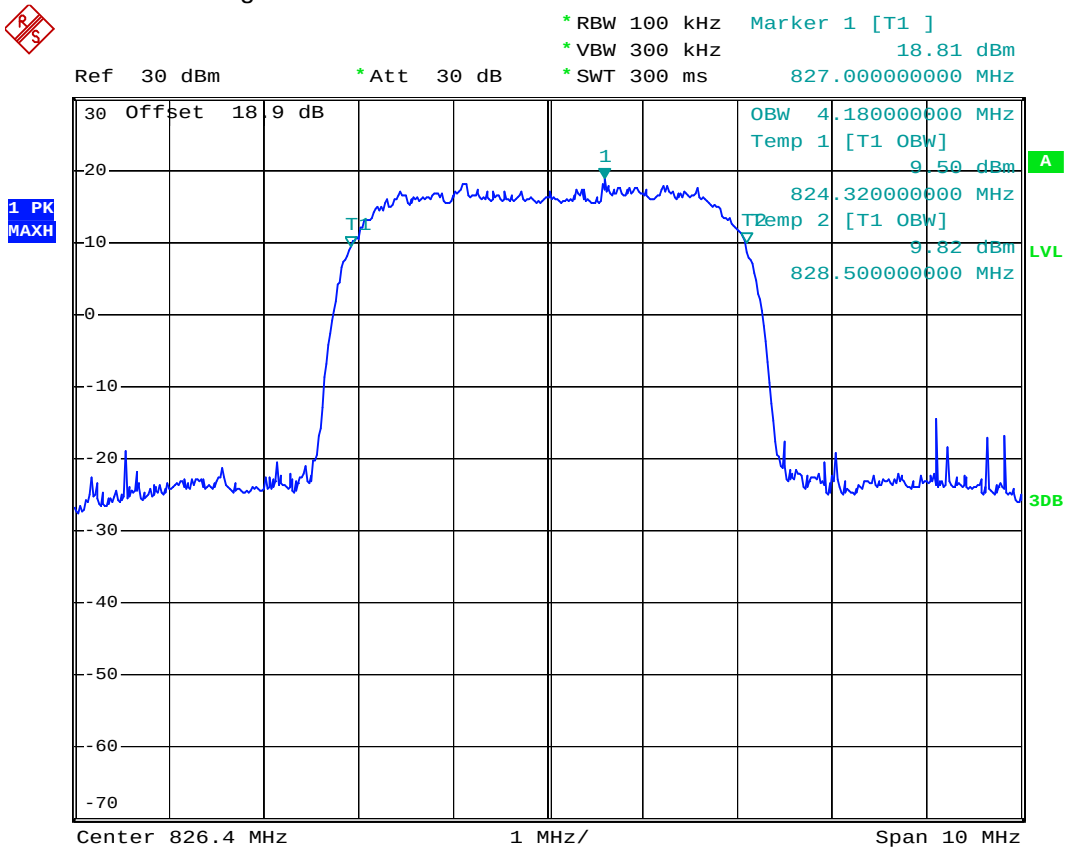
Date: 18.JUN.2008 05:06:41

- Mode 7
- Test Mode : WCDMA Band V (HSUPA) CH4132 Lower Band Edge
- Power State : High



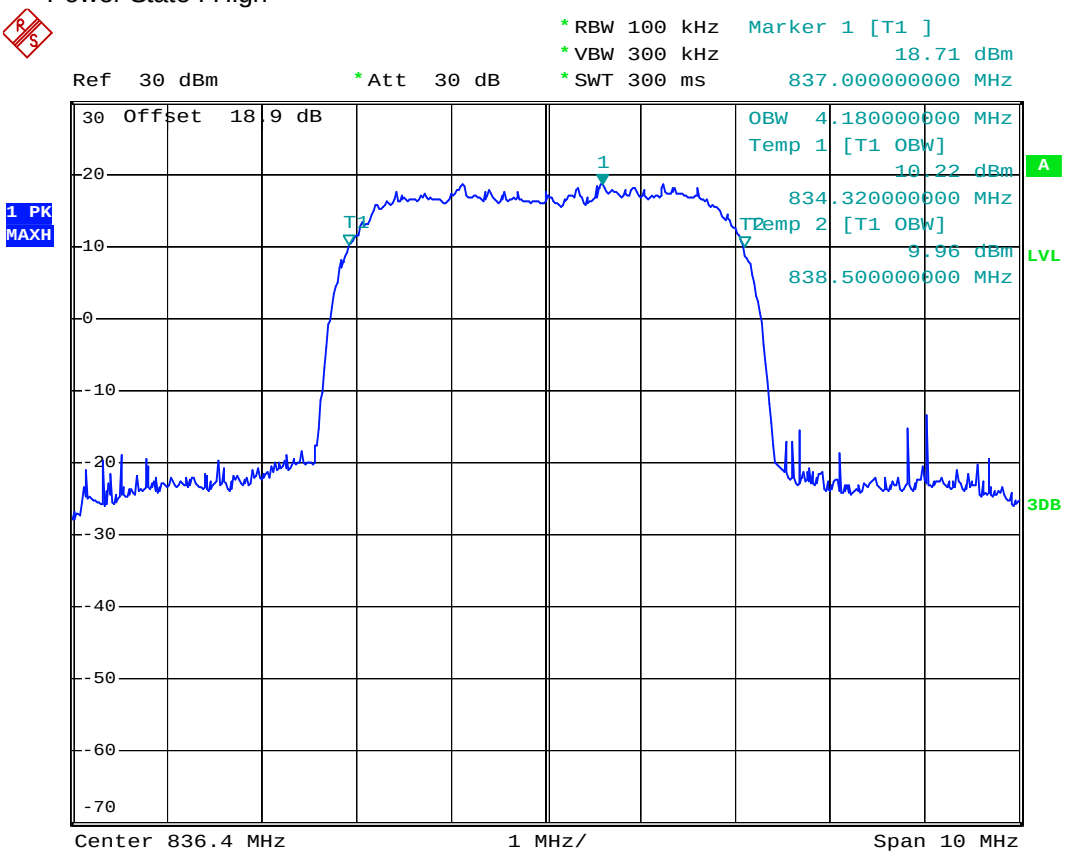
Date: 30.MAY.2008 14:37:44

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



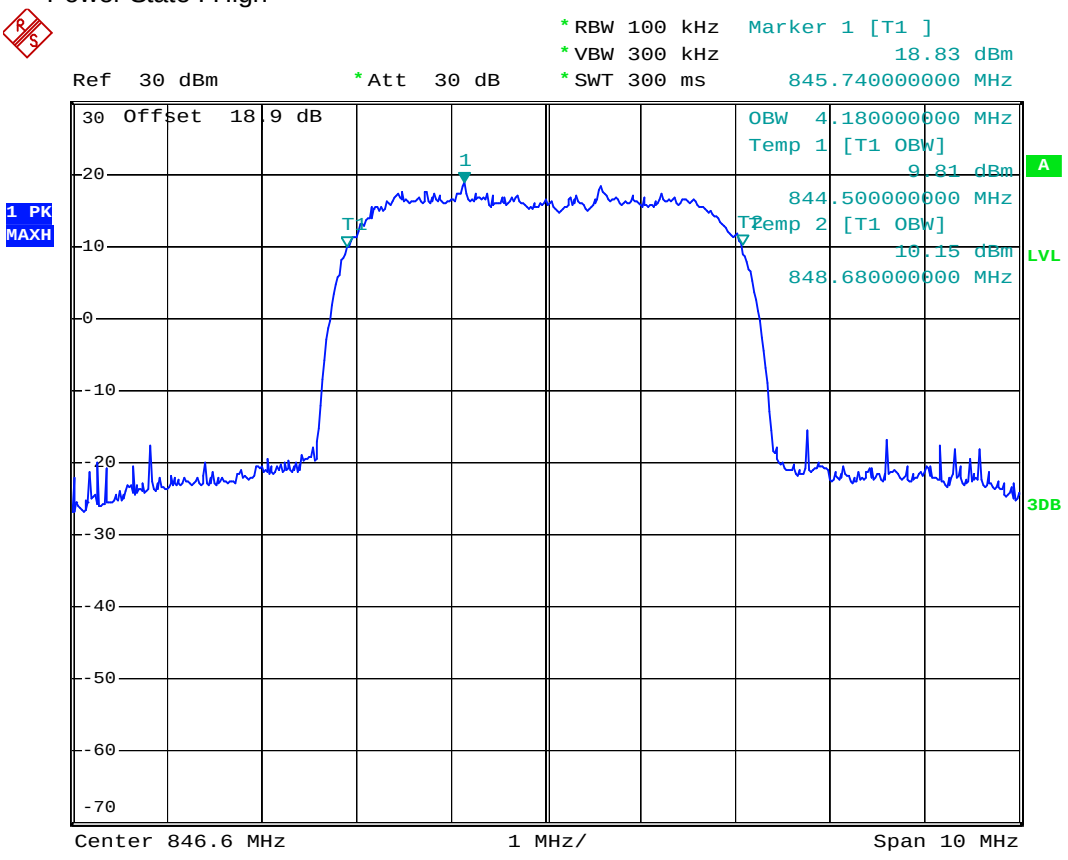
Date: 30.MAY.2008 14:34:56

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



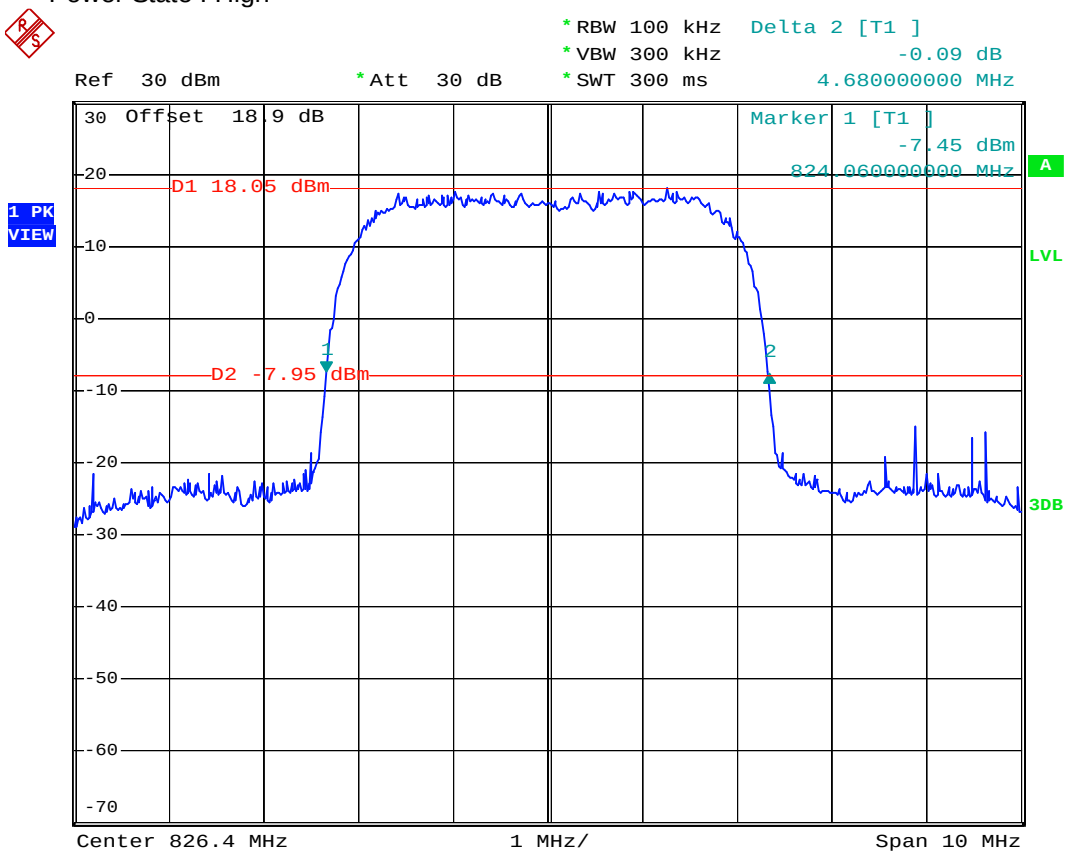
Date: 30.MAY.2008 14:34:19

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



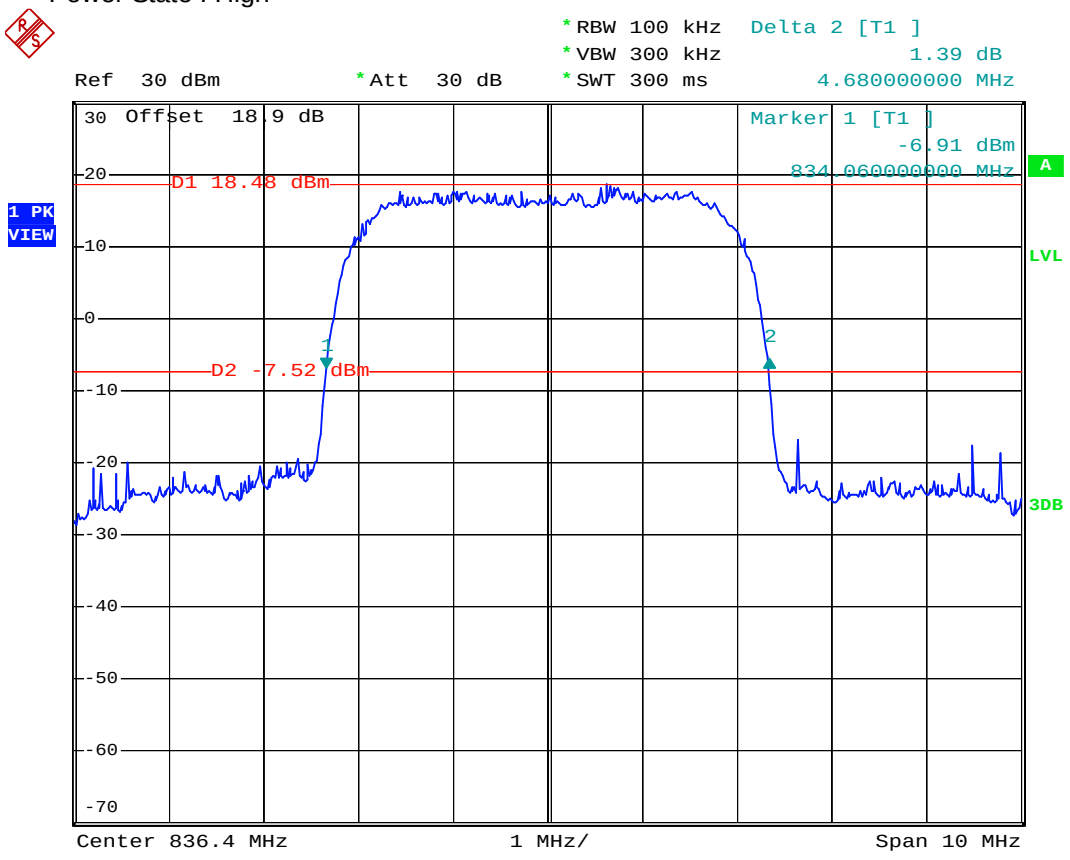
Date: 30.MAY.2008 14:33:46

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



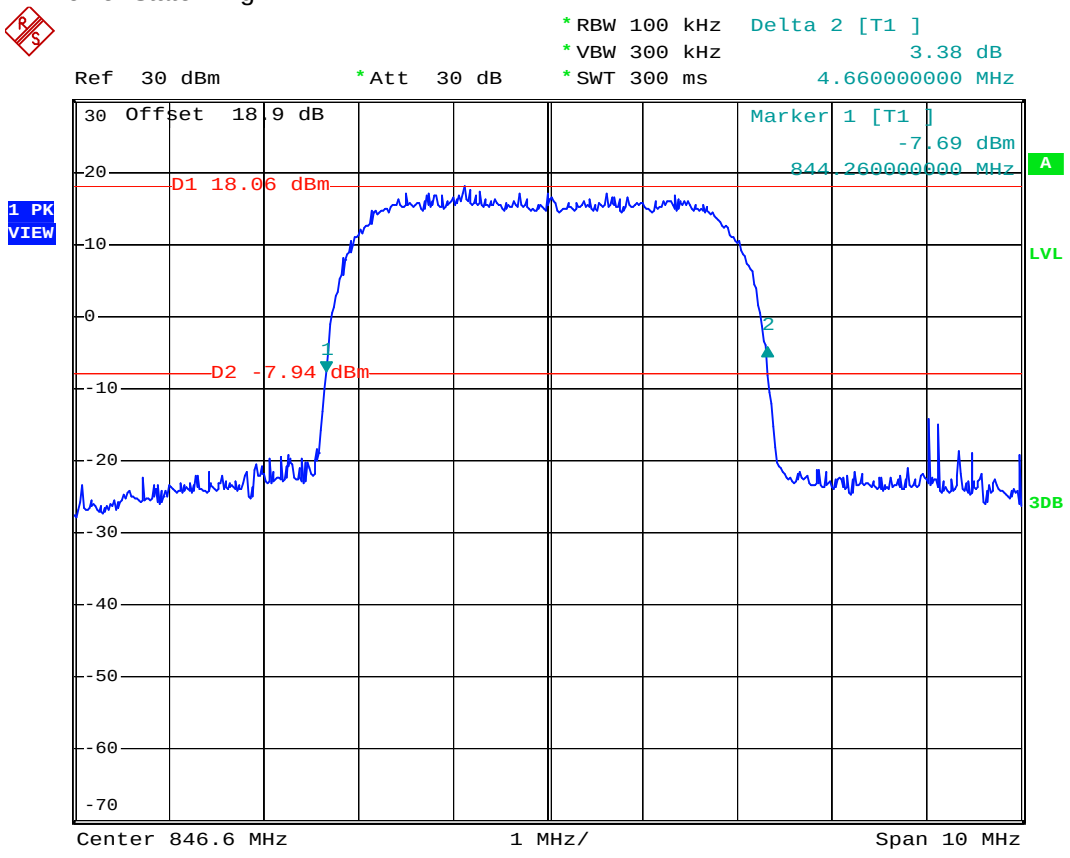
Date: 30.MAY.2008 14:29:59

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



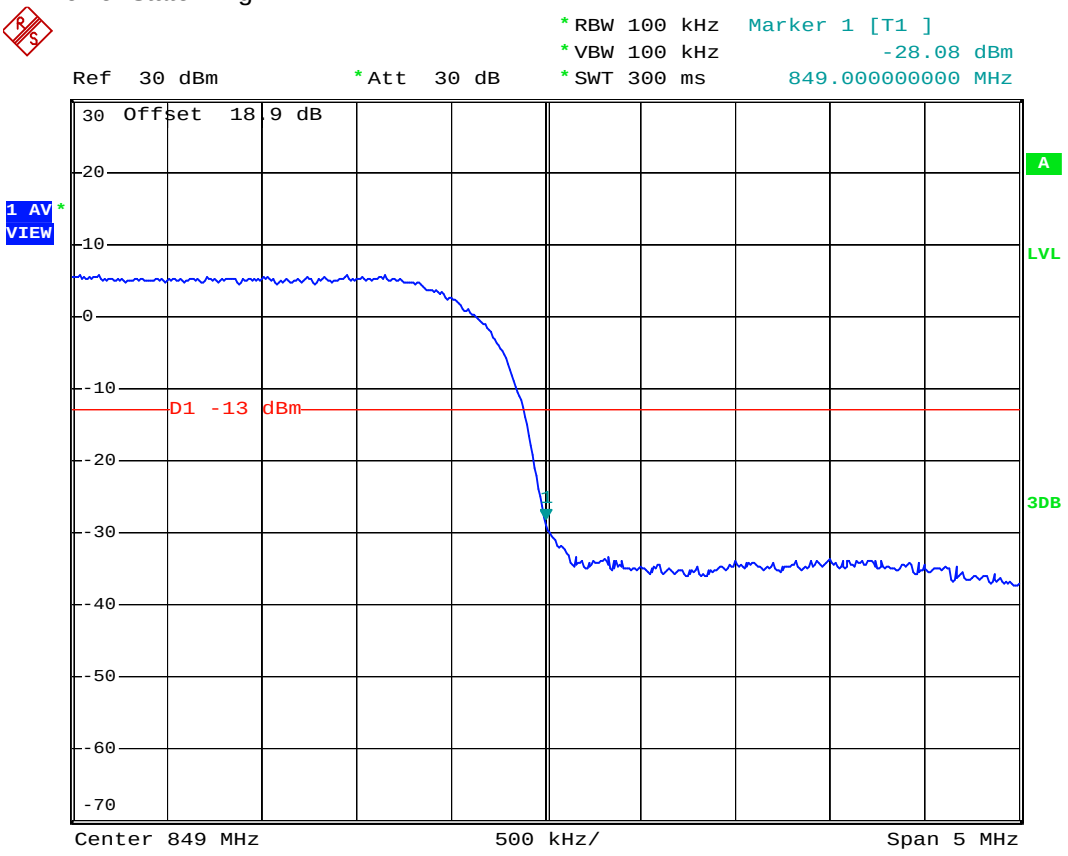
Date: 30.MAY.2008 14:30:58

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



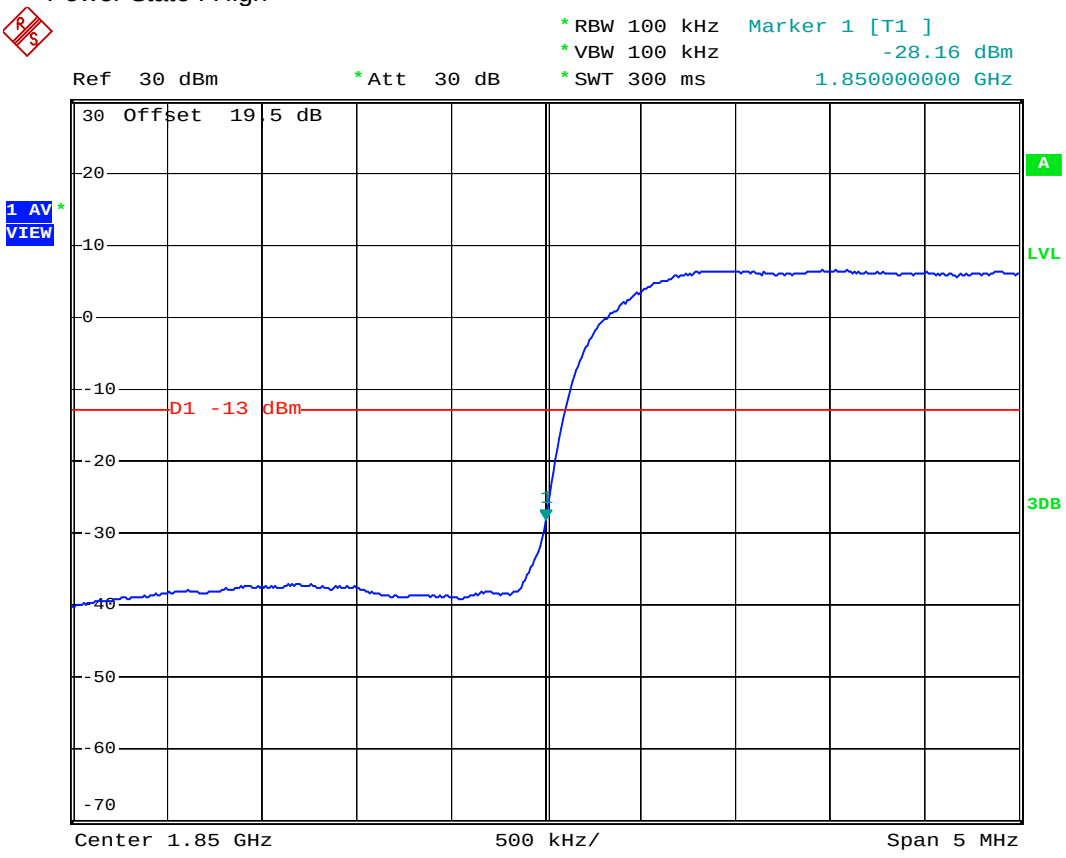
Date: 30.MAY.2008 14:31:57

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



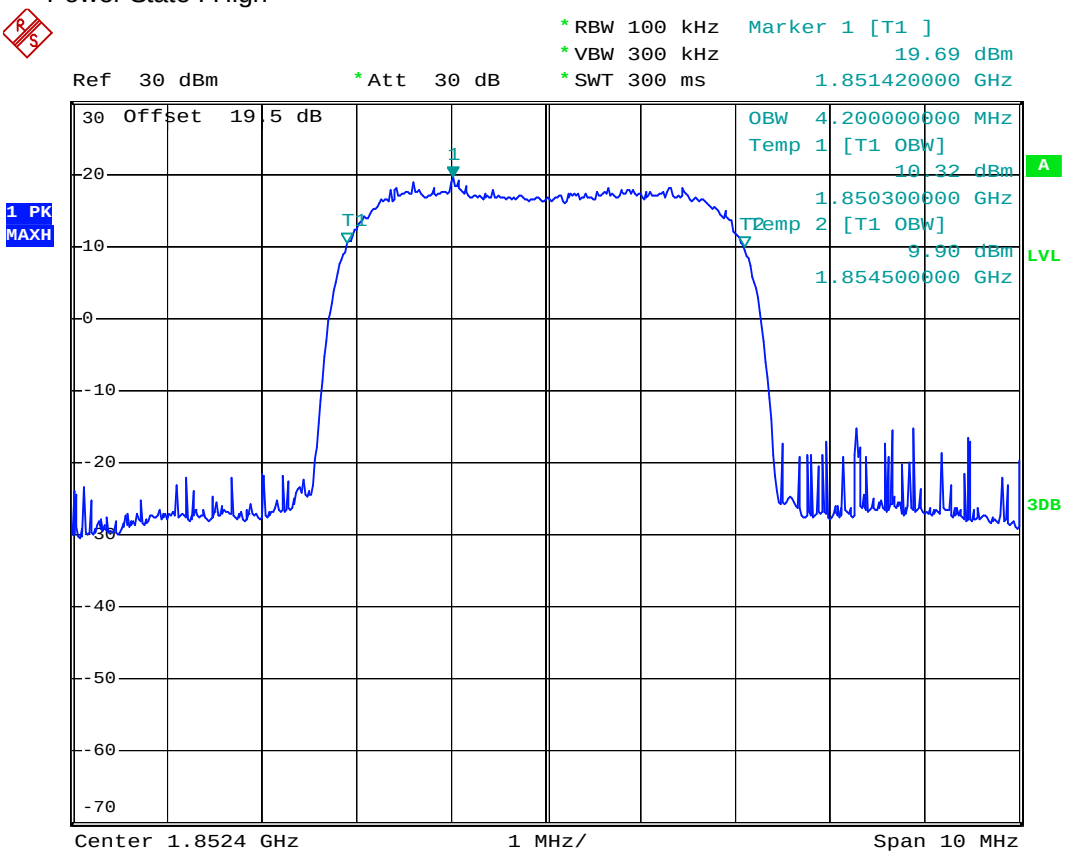
Date: 30.MAY.2008 14:39:29

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



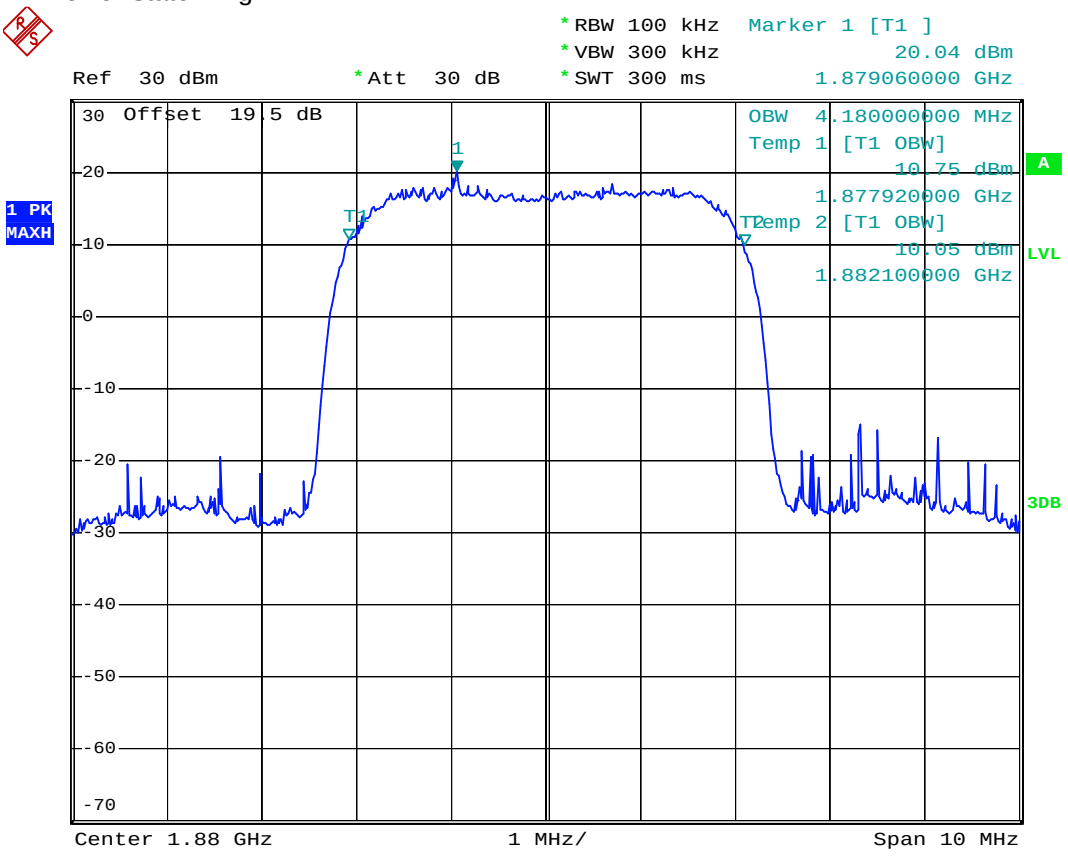
Date: 30.MAY.2008 11:22:05

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



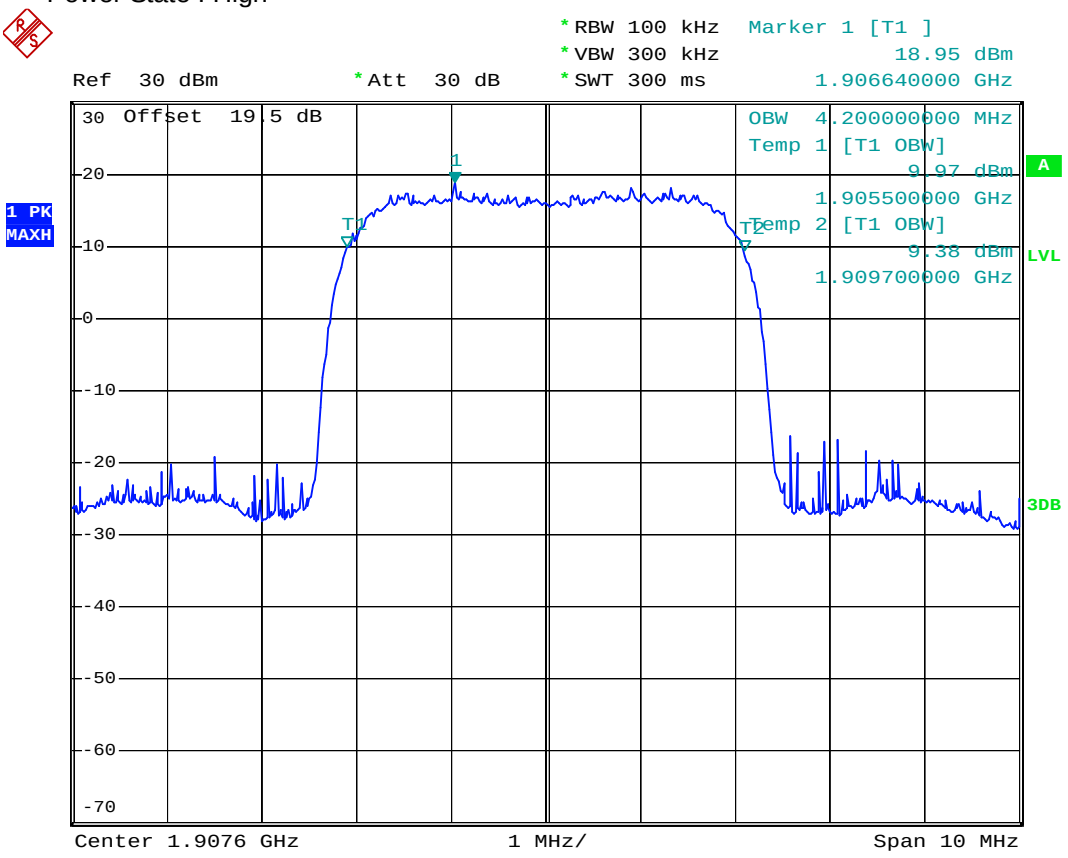
Date: 30.MAY.2008 02:41:20

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



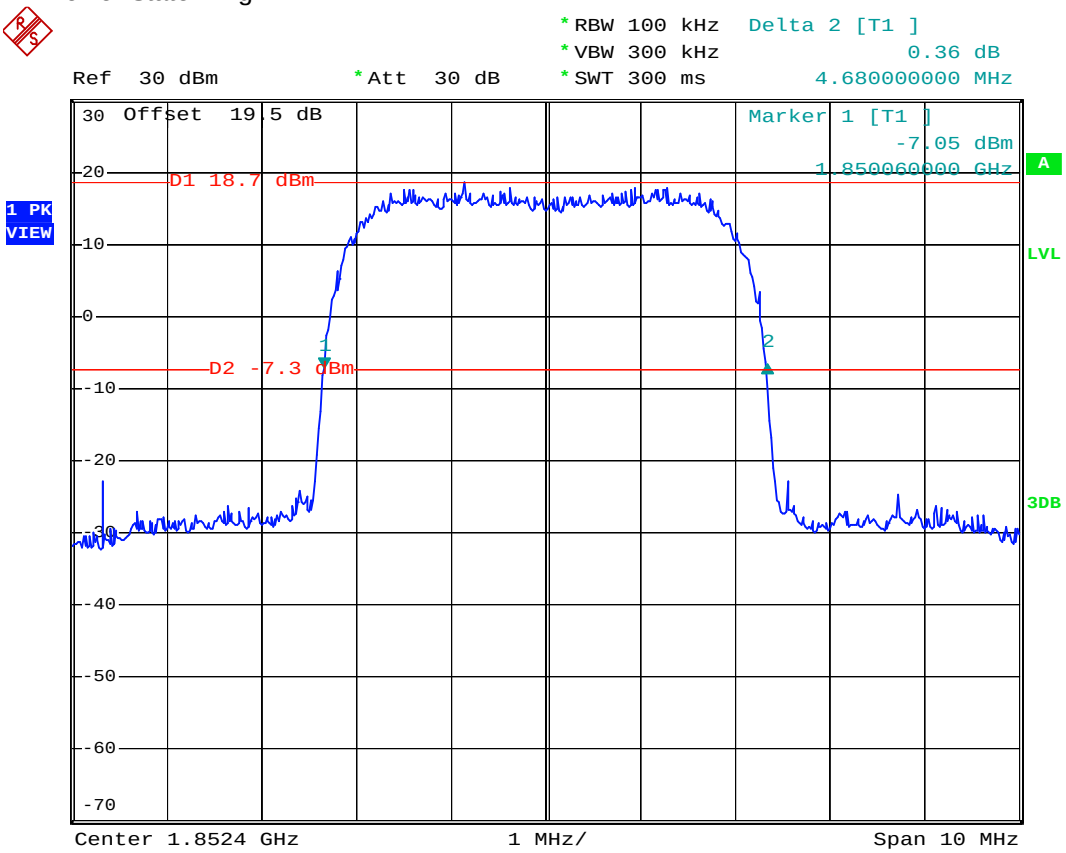
Date: 30.MAY.2008 02:41:51

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



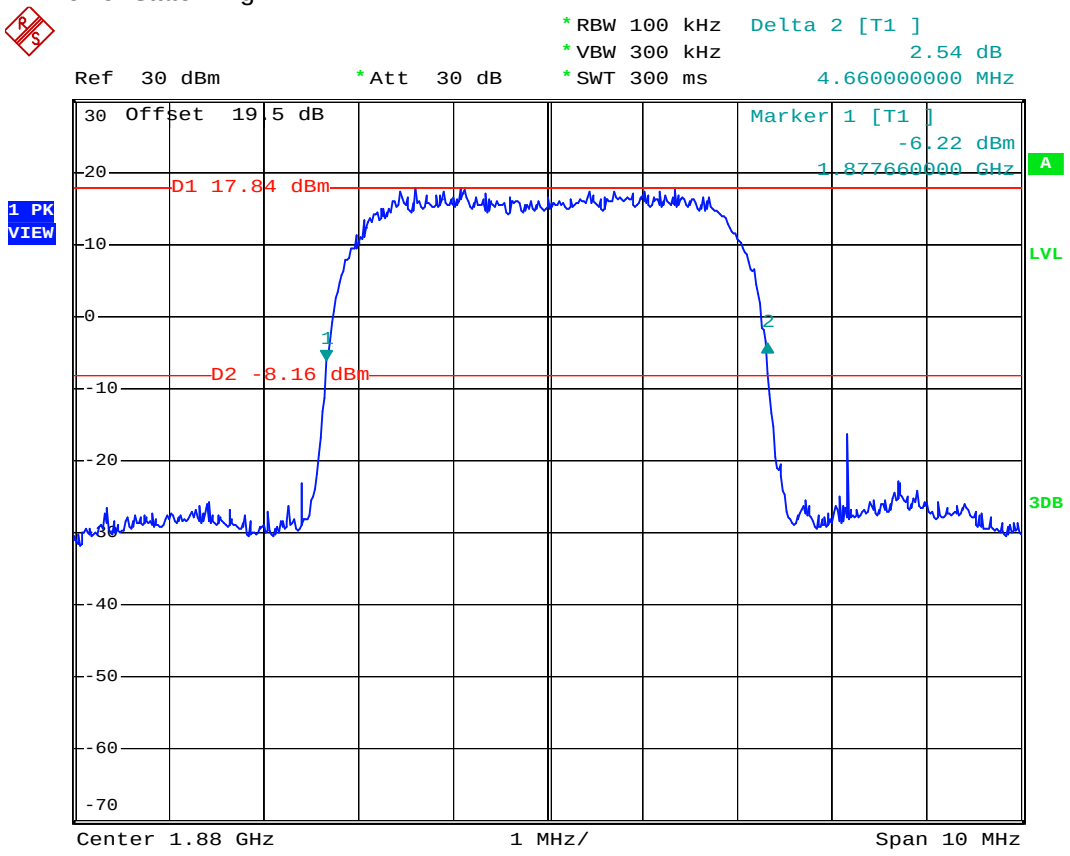
Date: 30.MAY.2008 02:42:20

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



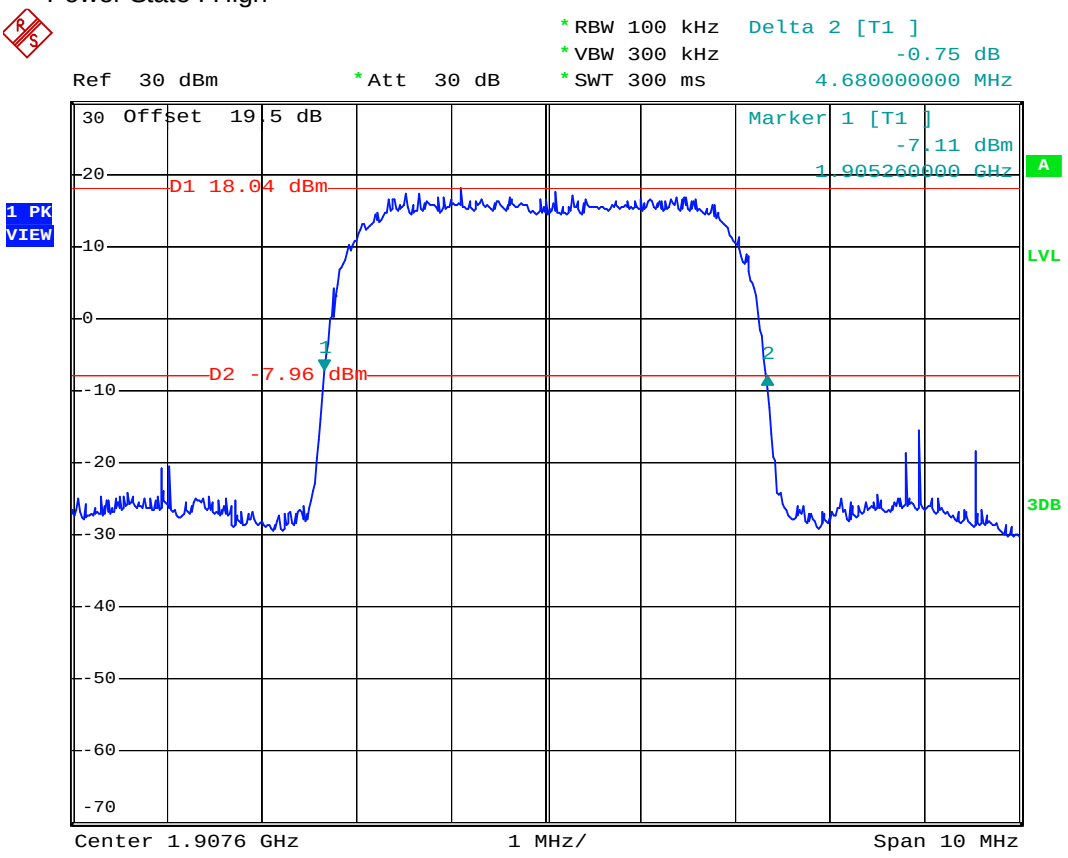
Date: 30.MAY.2008 02:40:47

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



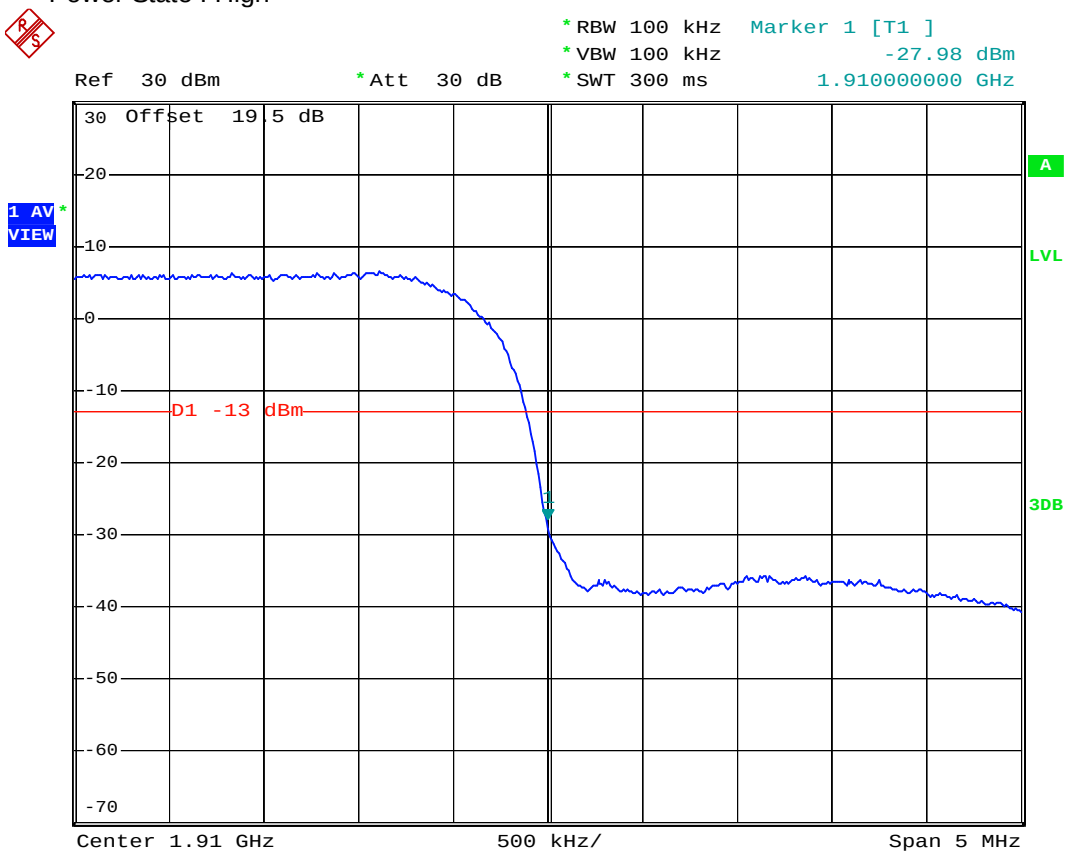
Date: 30.MAY.2008 02:40:05

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



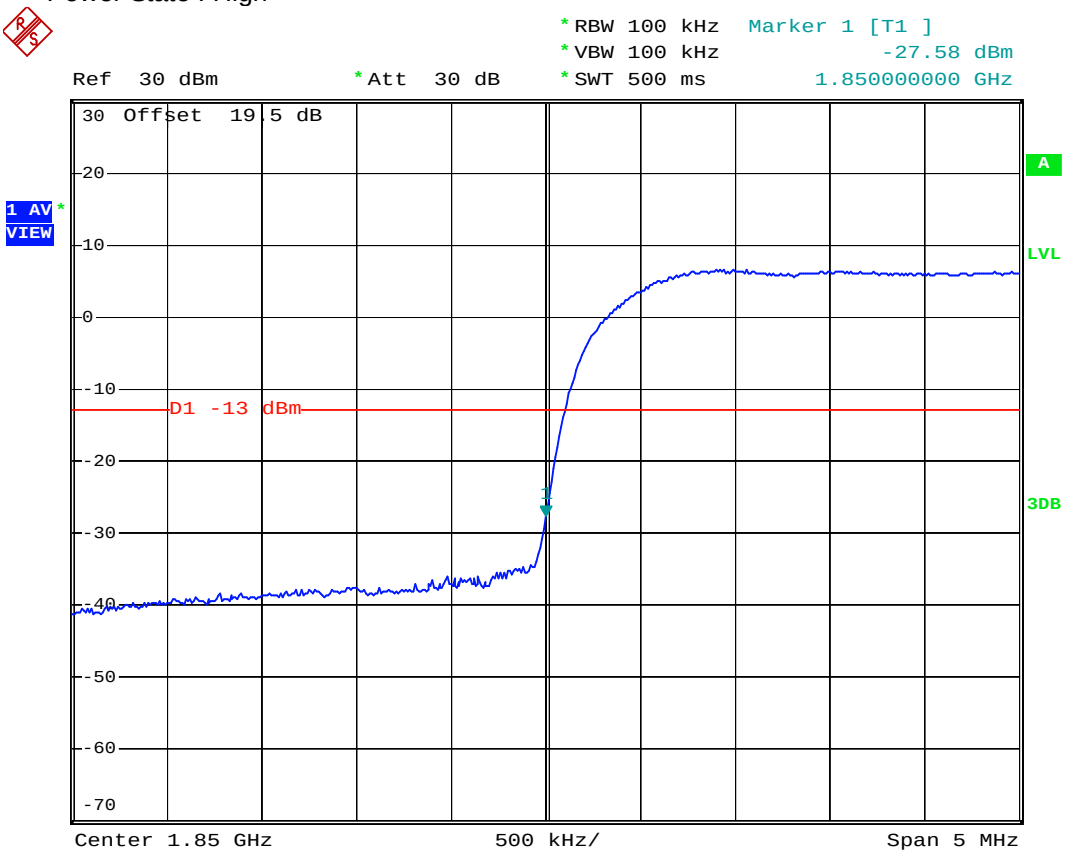
Date: 30.MAY.2008 02:39:24

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



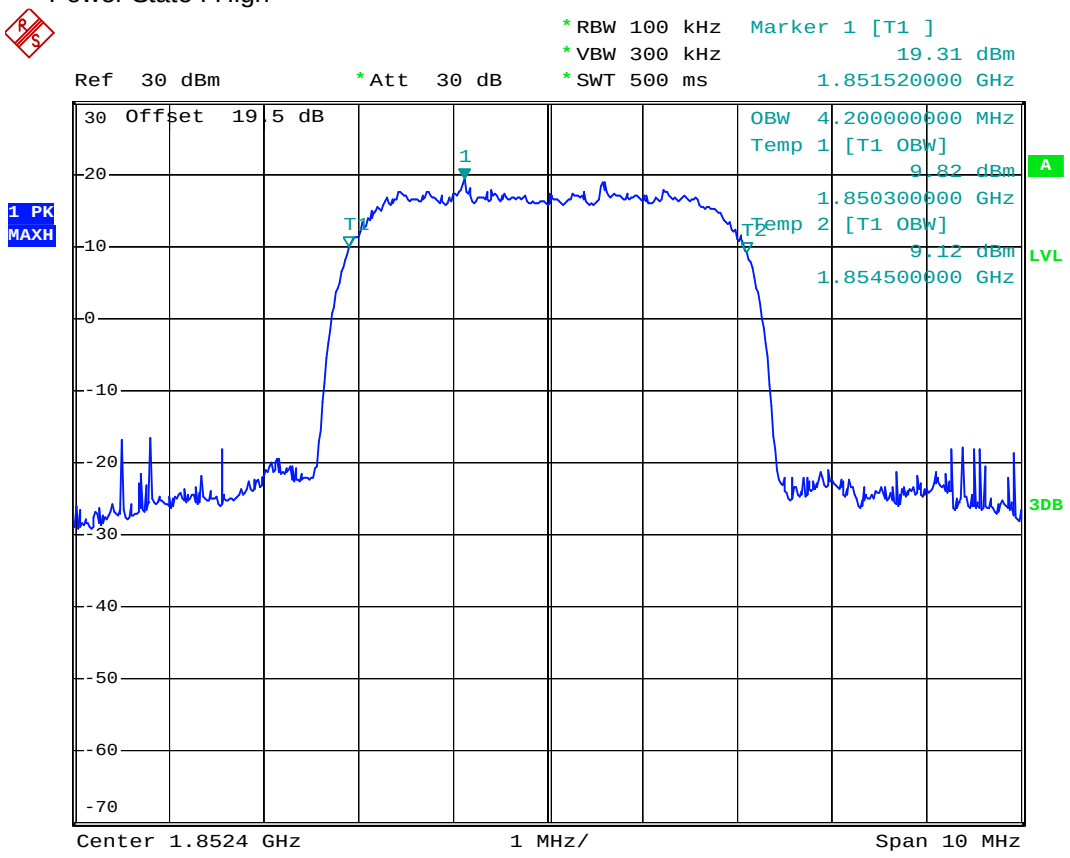
Date: 30.MAY.2008 11:31:43

- Mode 10
- Test Mode : WCDMA Band II (HSUPA) CH9262 Lower Band Edge
- Power State : High



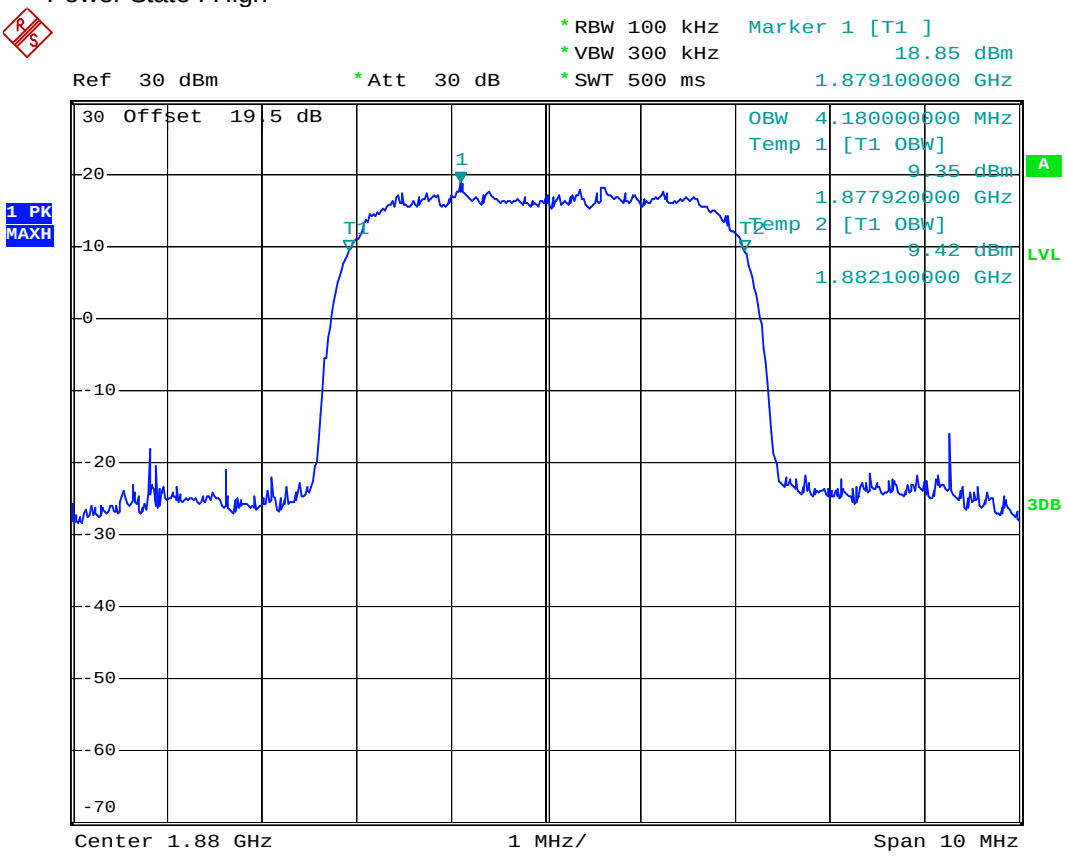
Date: 30.MAY.2008 15:26:43

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



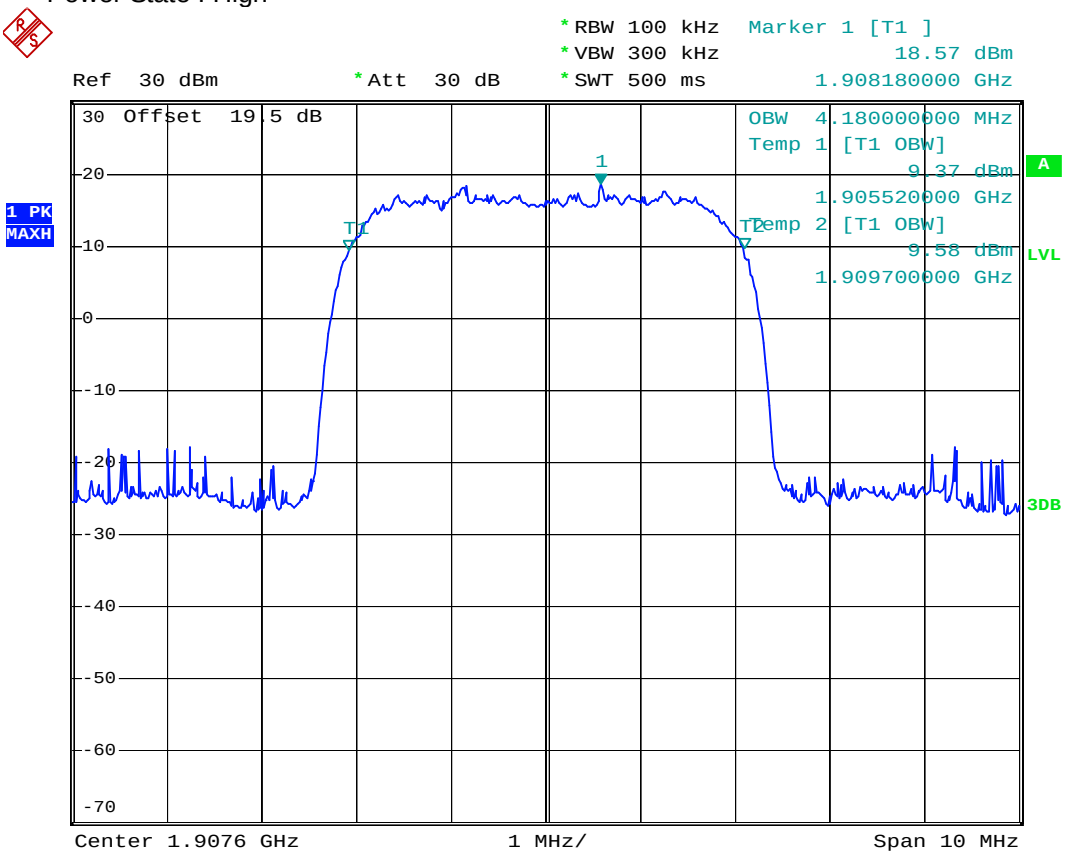
Date: 30.MAY.2008 15:23:29

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



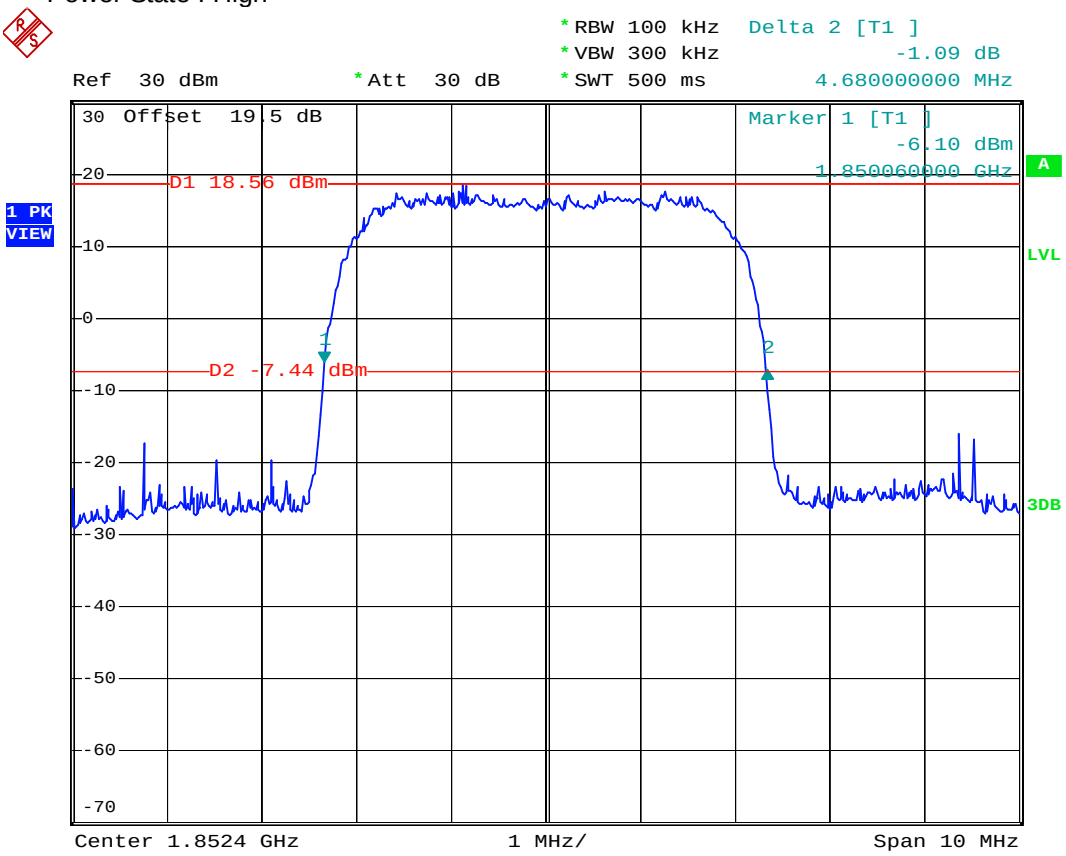
Date: 30.MAY.2008 15:22:36

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

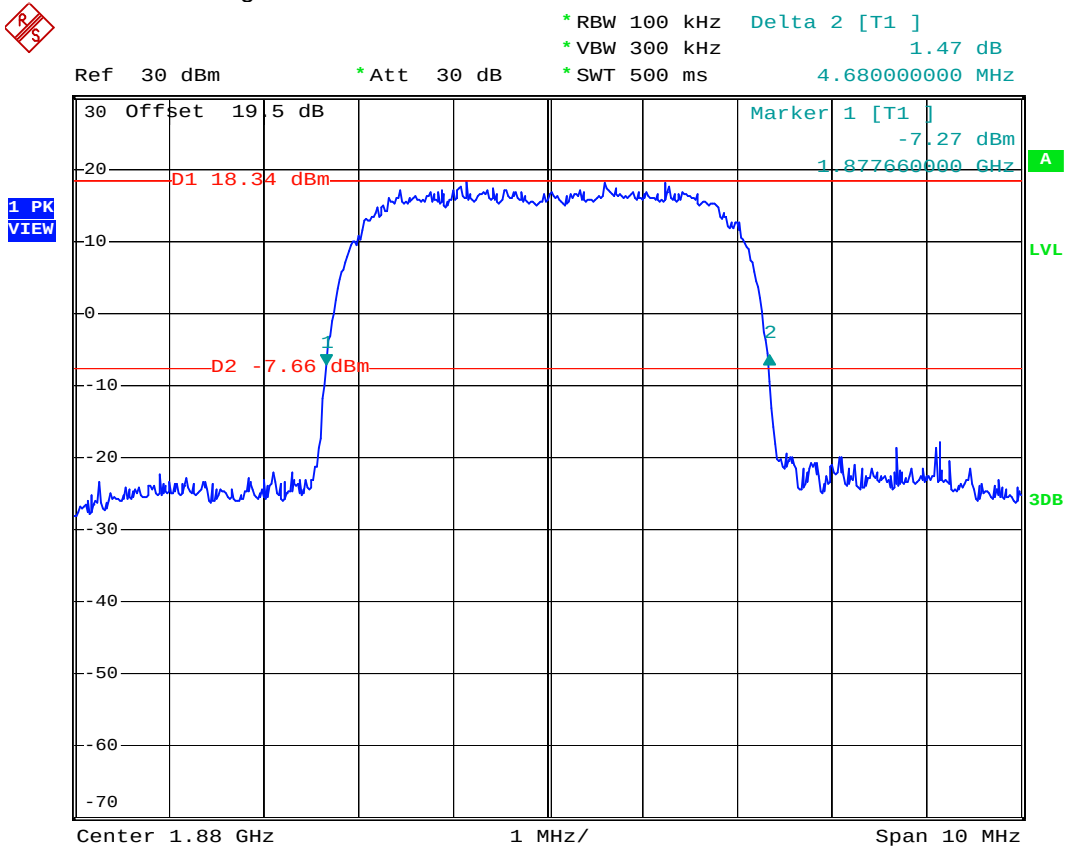


Date: 30.MAY.2008 15:22:08

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

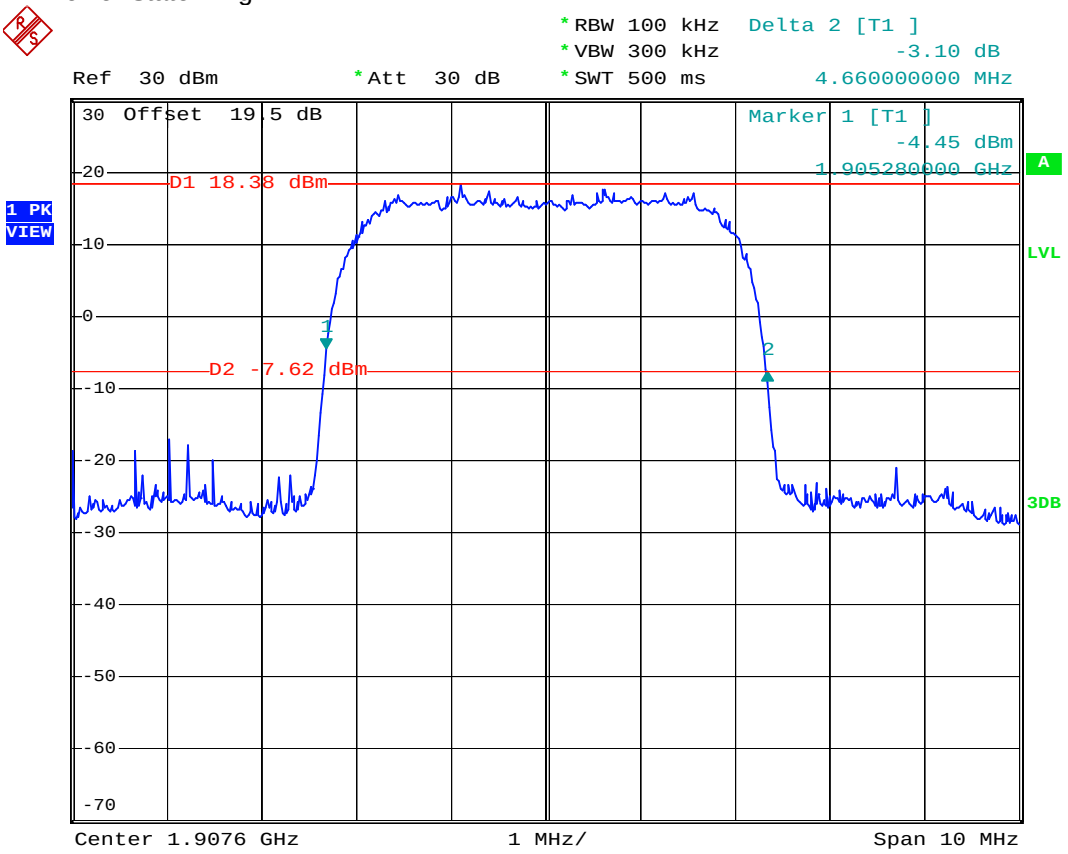


- Test Mode : WCDMA Band II (HSUPA) CH9400 26dB Bandwidth
- Power State : High



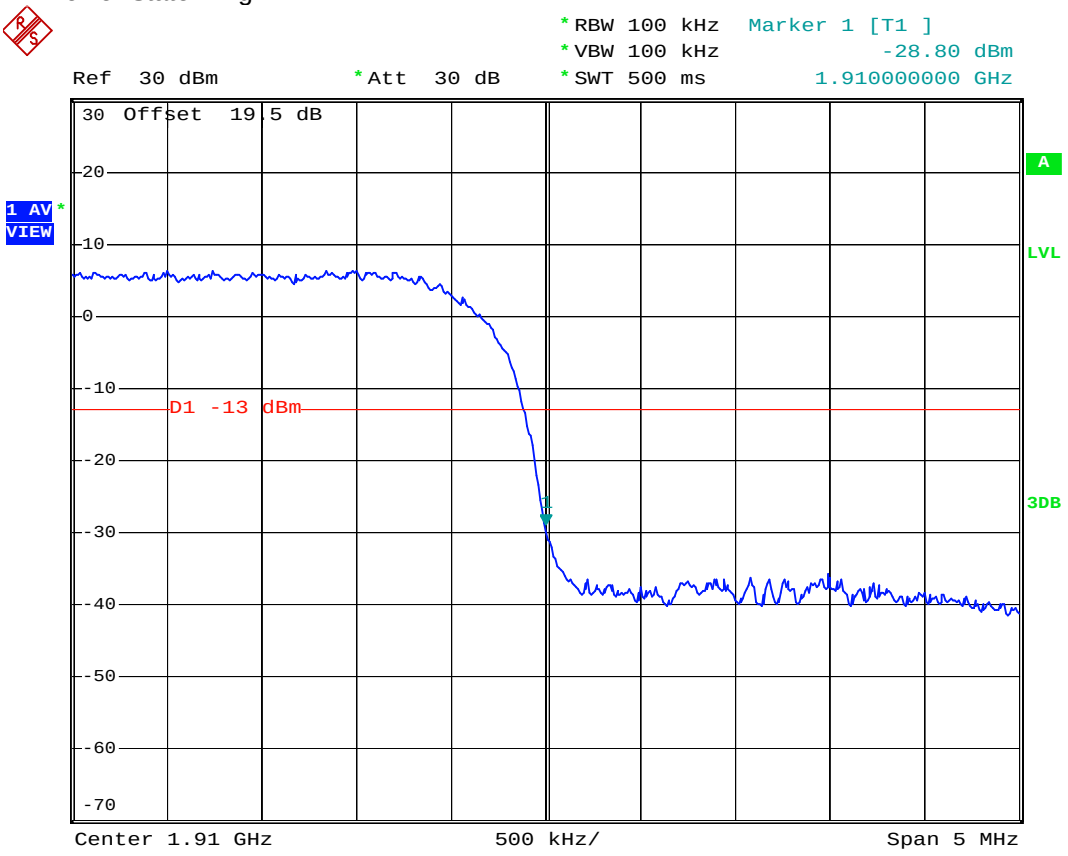
Date: 30.MAY.2008 15:20:12

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



Date: 30.MAY.2008 15:21:20

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



Date: 30.MAY.2008 15:28:54

4.5 Conducted Emission

4.5.1 Measurement Instruments

As described in chapter 5 of this test report.

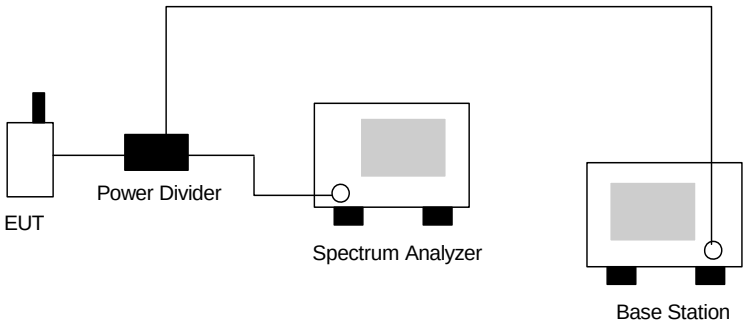
4.5.2 Test Procedure

a. The EUT was connected to Spectrum Analyzer and Base Station via power divider.

b. The middle channel for the highest RF power within the transmitting frequency was measured.

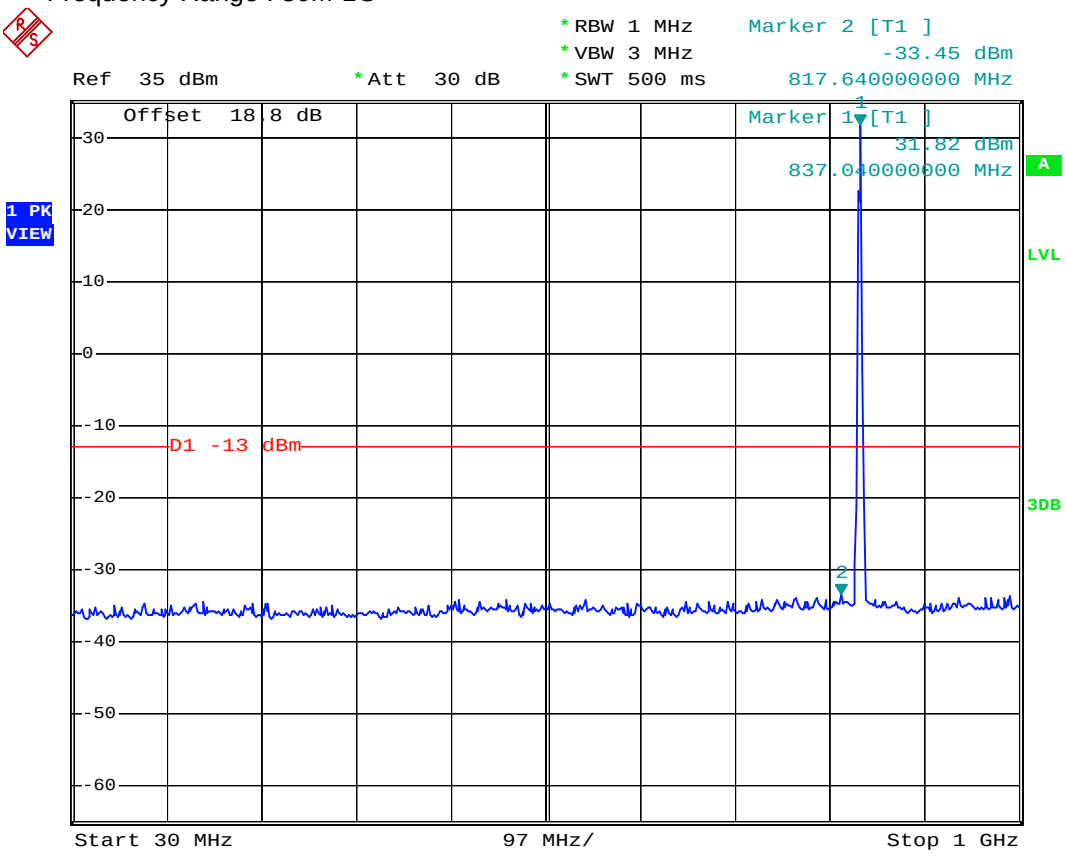
c. The conducted spurious emission for the whole frequency range was taken.

4.5.3 Test Setup Layout



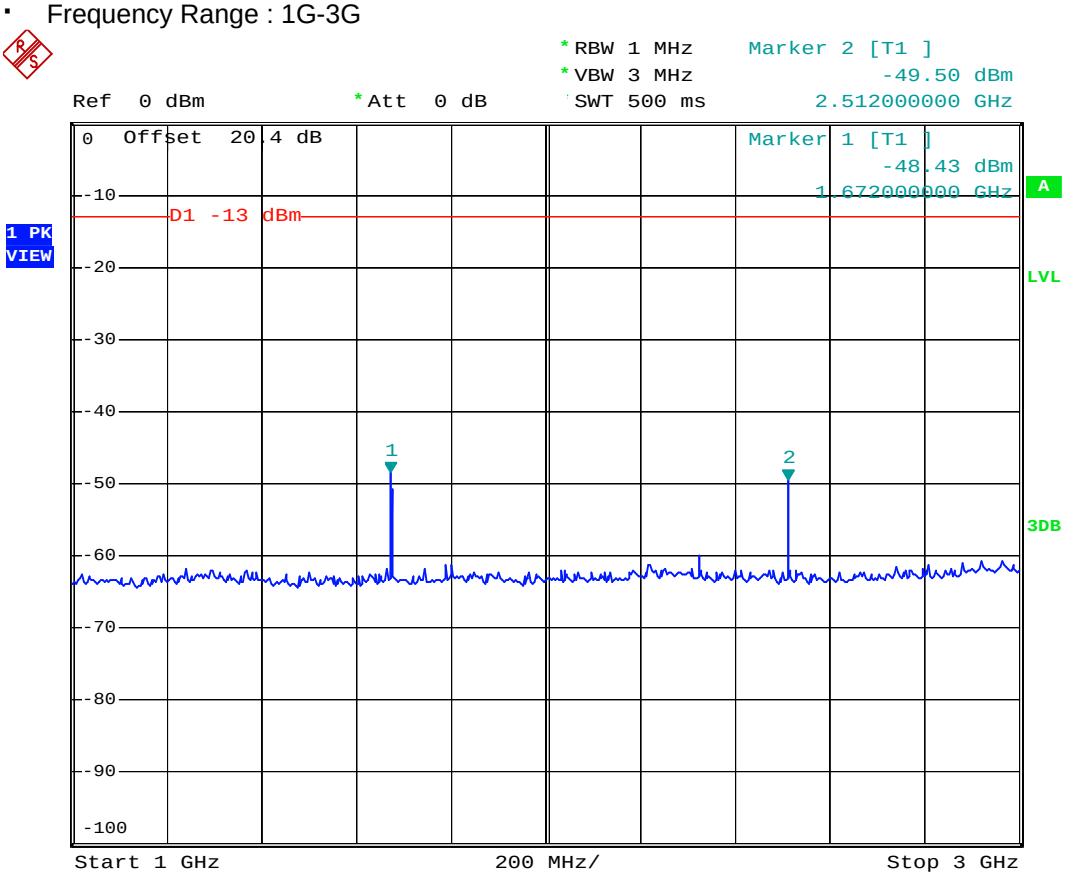
4.5.4 Test Result

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



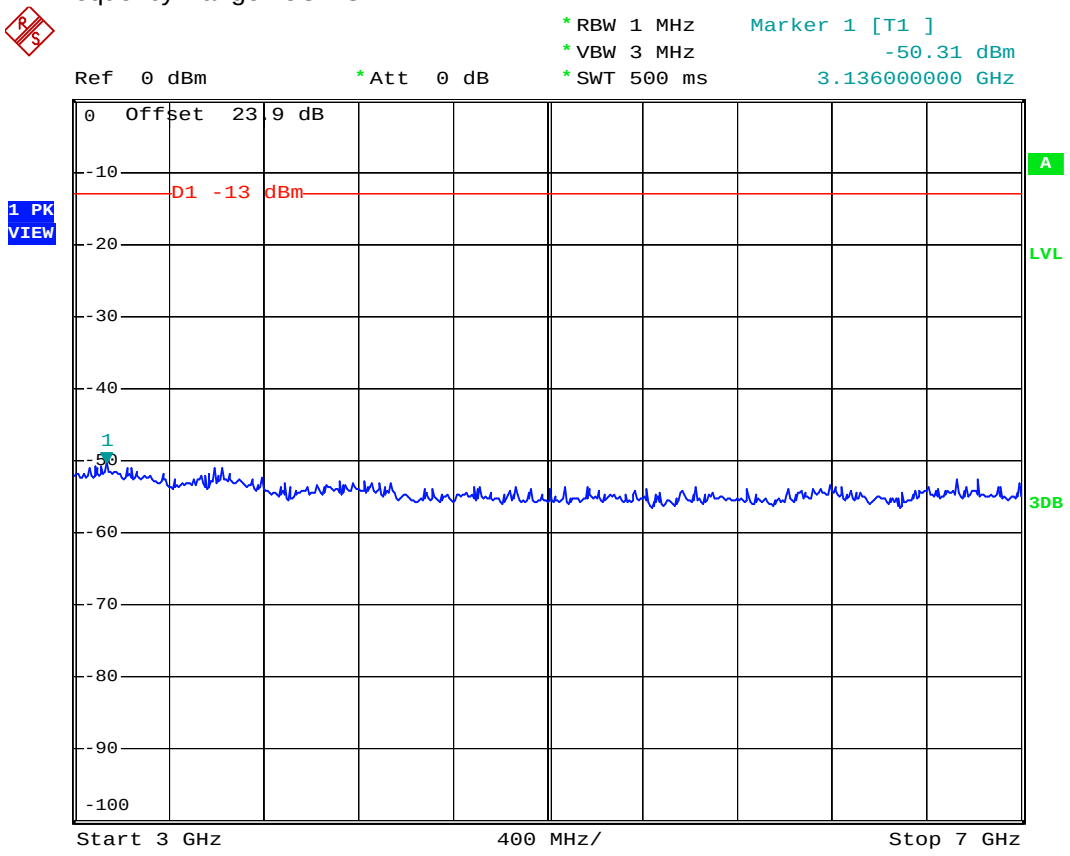
Date: 30.MAY.2008 00:20:02

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



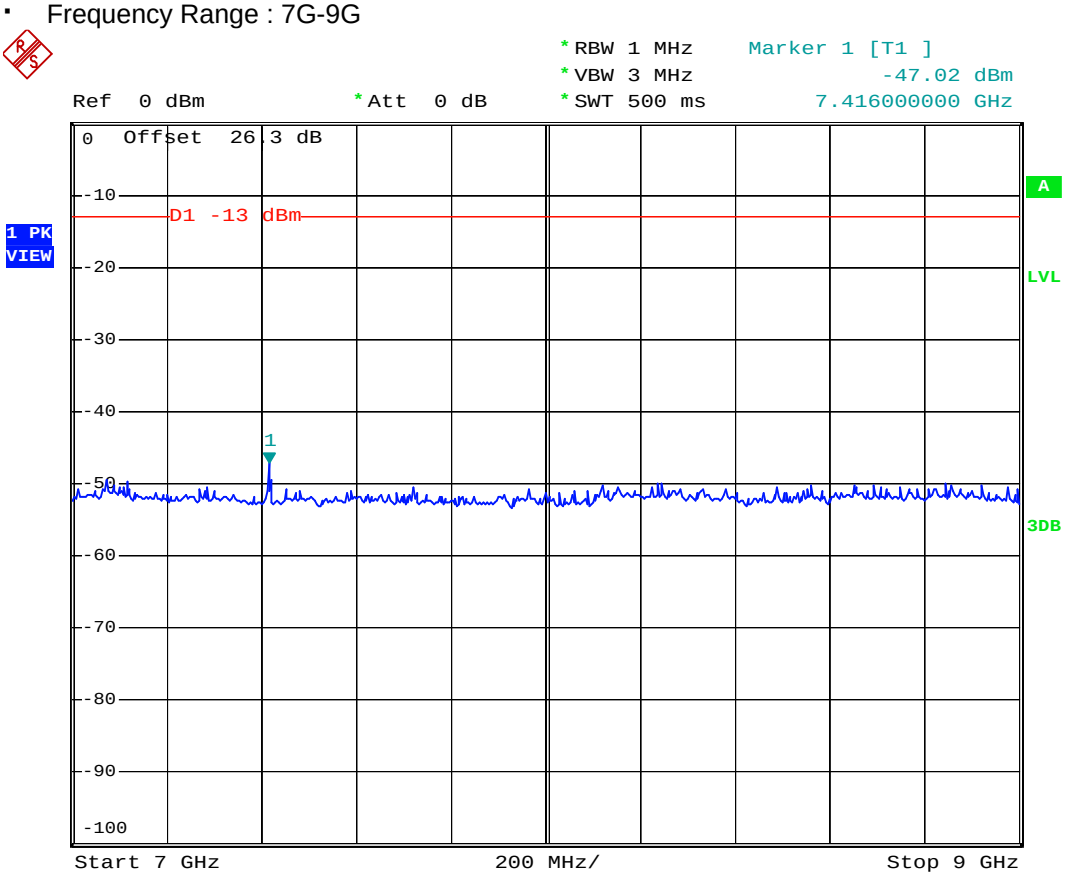
Date: 29.MAY.2008 21:57:49

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



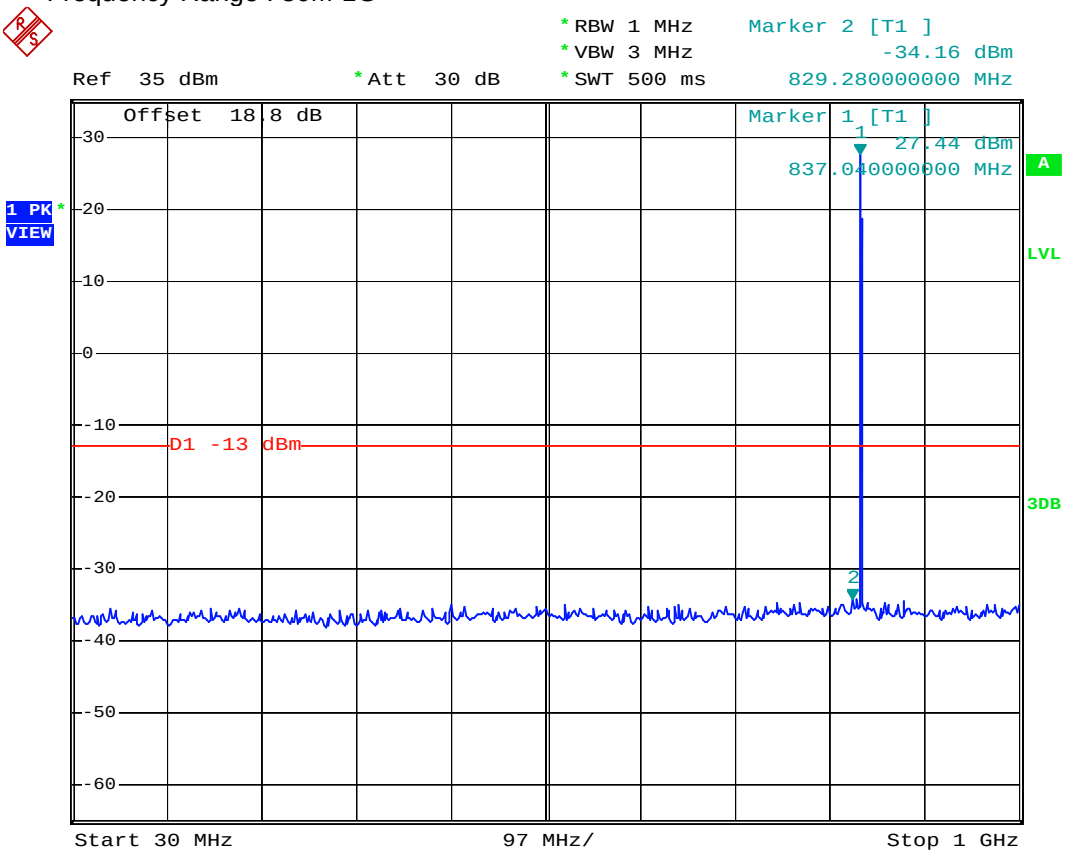
Date: 29.MAY.2008 21:59:37

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



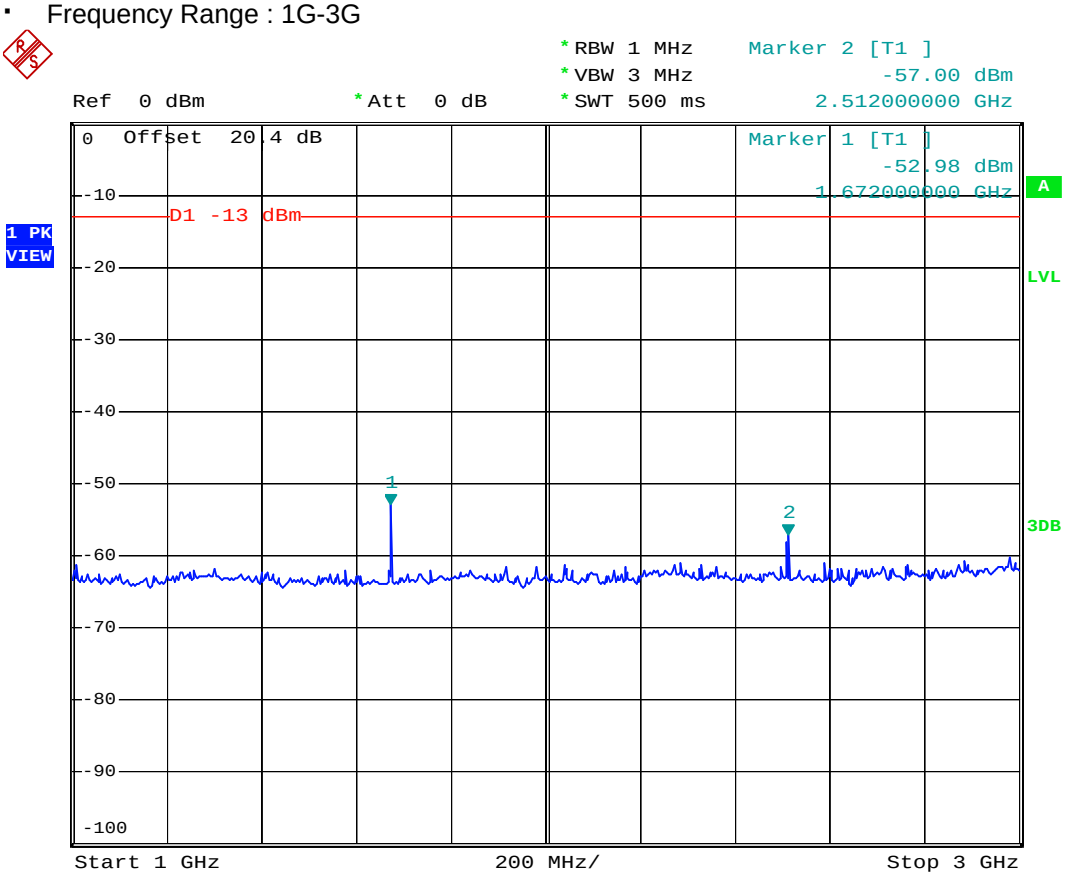
Date: 29.MAY.2008 22:00:12

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



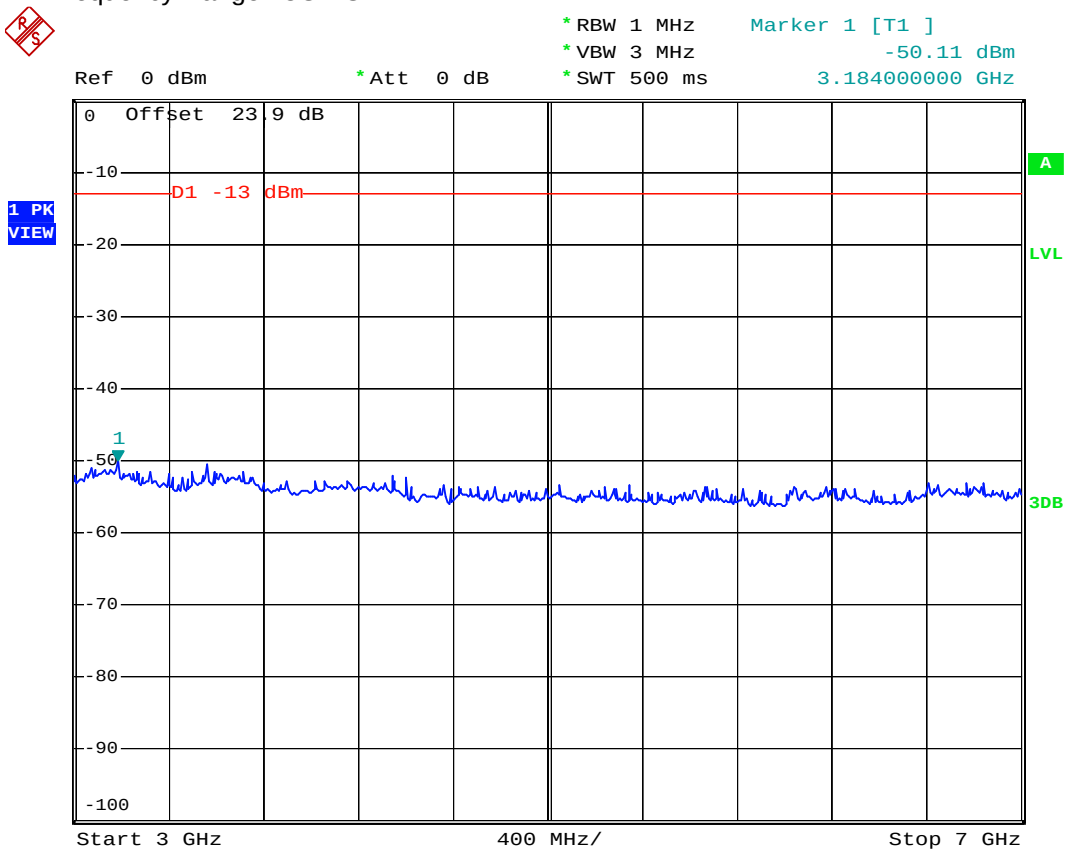
Date: 30.MAY.2008 00:18:49

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



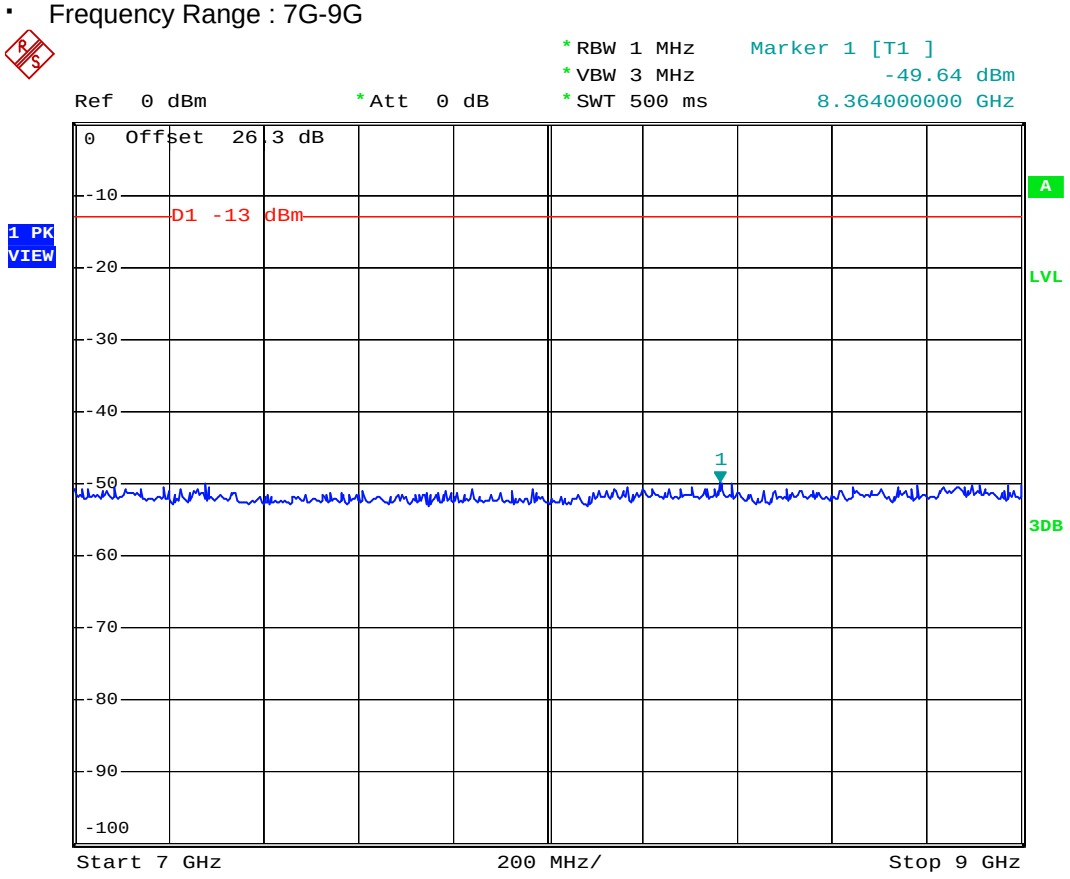
Date: 29.MAY.2008 21:58:27

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



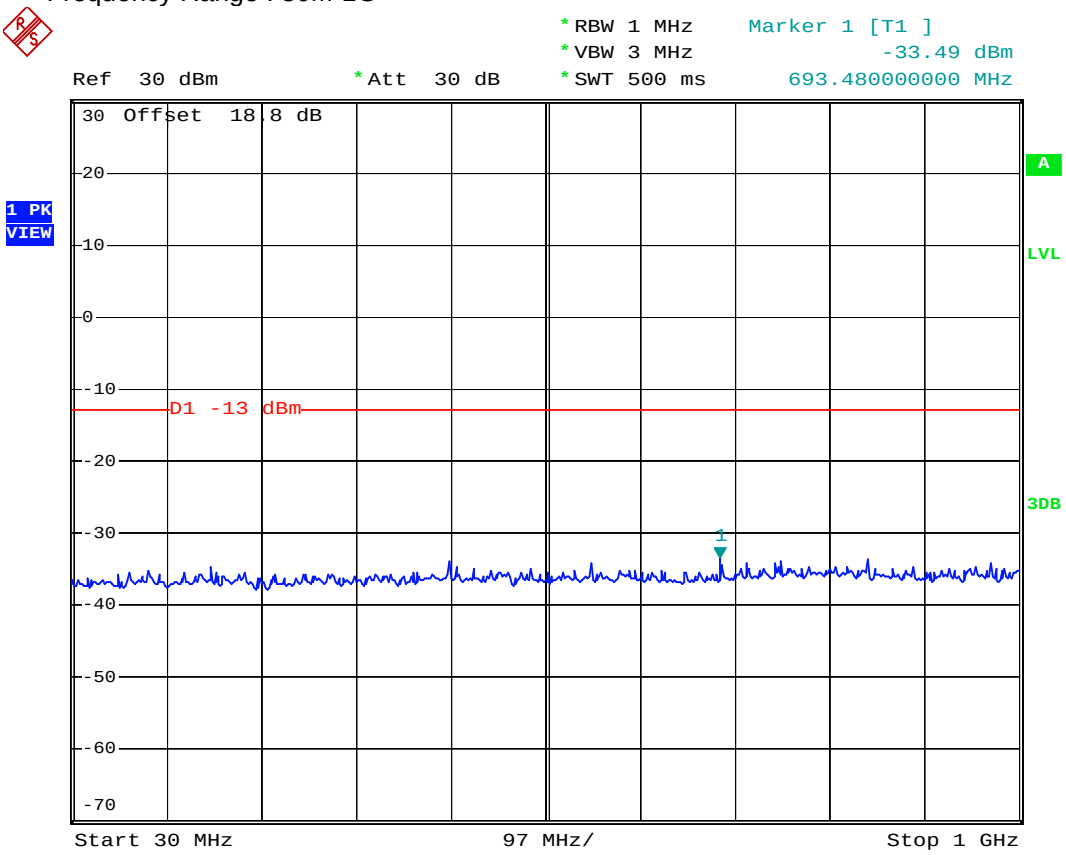
Date: 29.MAY.2008 21:59:05

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



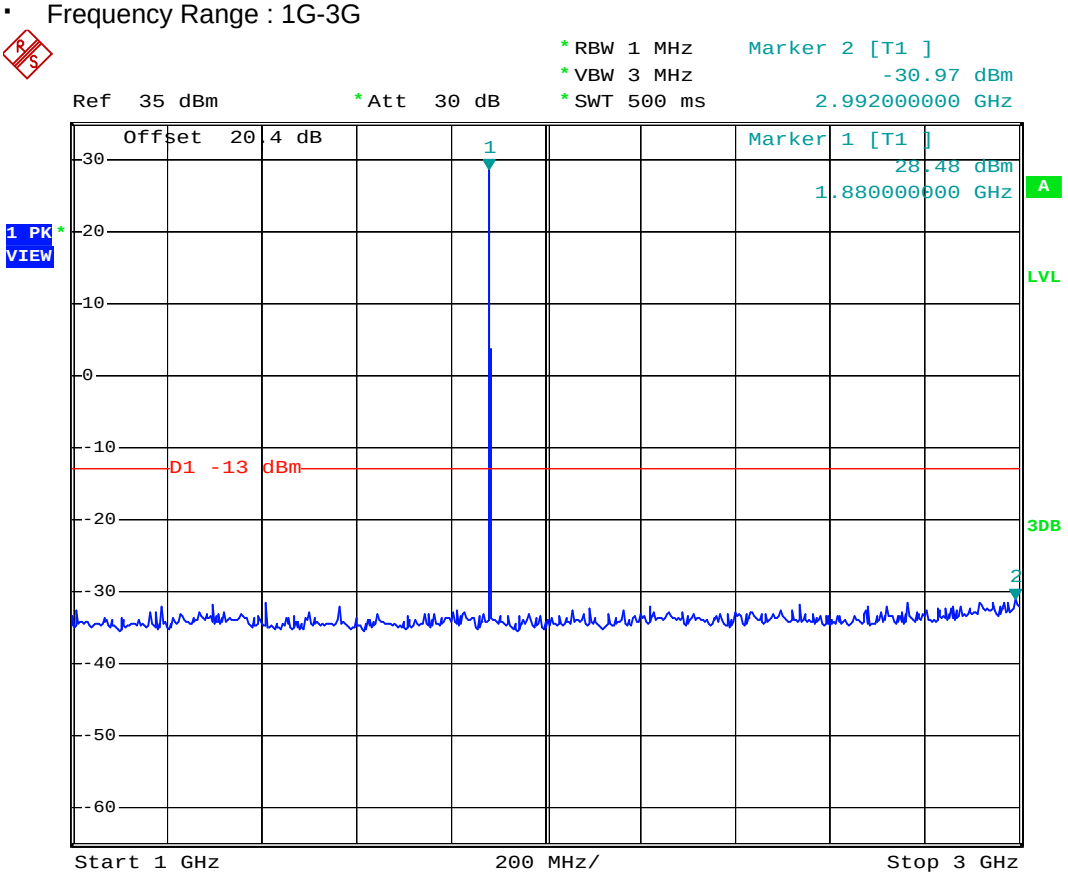
Date: 29.MAY.2008 22:00:37

- Mode 3
- Test Mode : GSM1900 (GSM) CH661
- Frequency Range : 30M-1G



Date: 29.MAY.2008 22:15:03

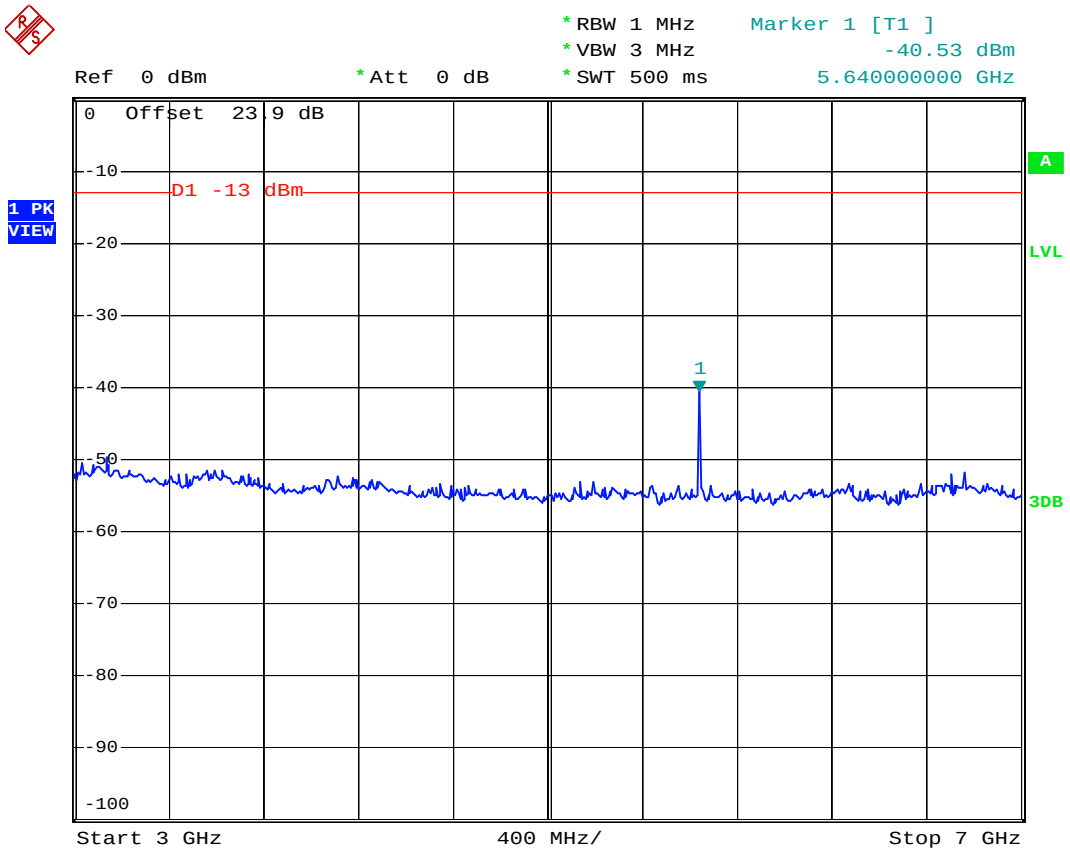
- Test Mode : GSM1900 (GSM) CH661
- Frequency Range : 1G-3G



Date: 29.MAY.2008 22:58:46

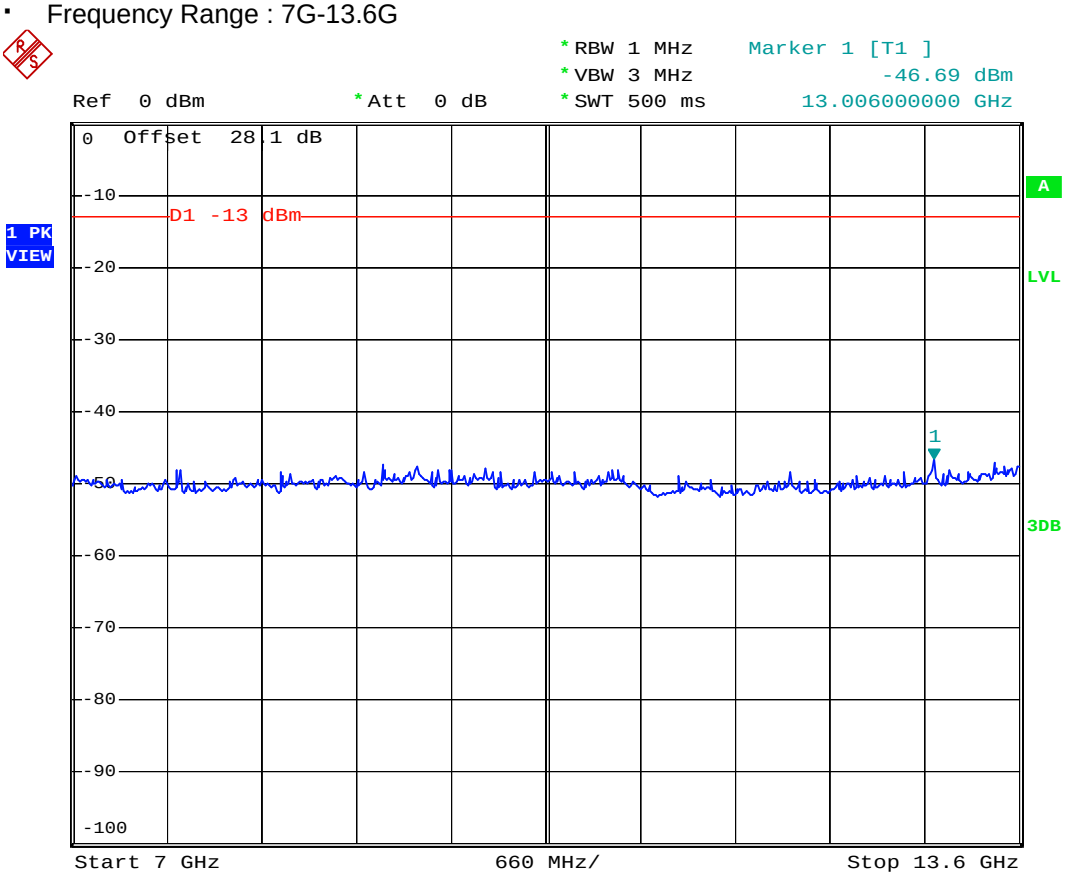
- Test Mode : GSM1900 (GSM) CH661
- Frequency Range : 3G-7G

1



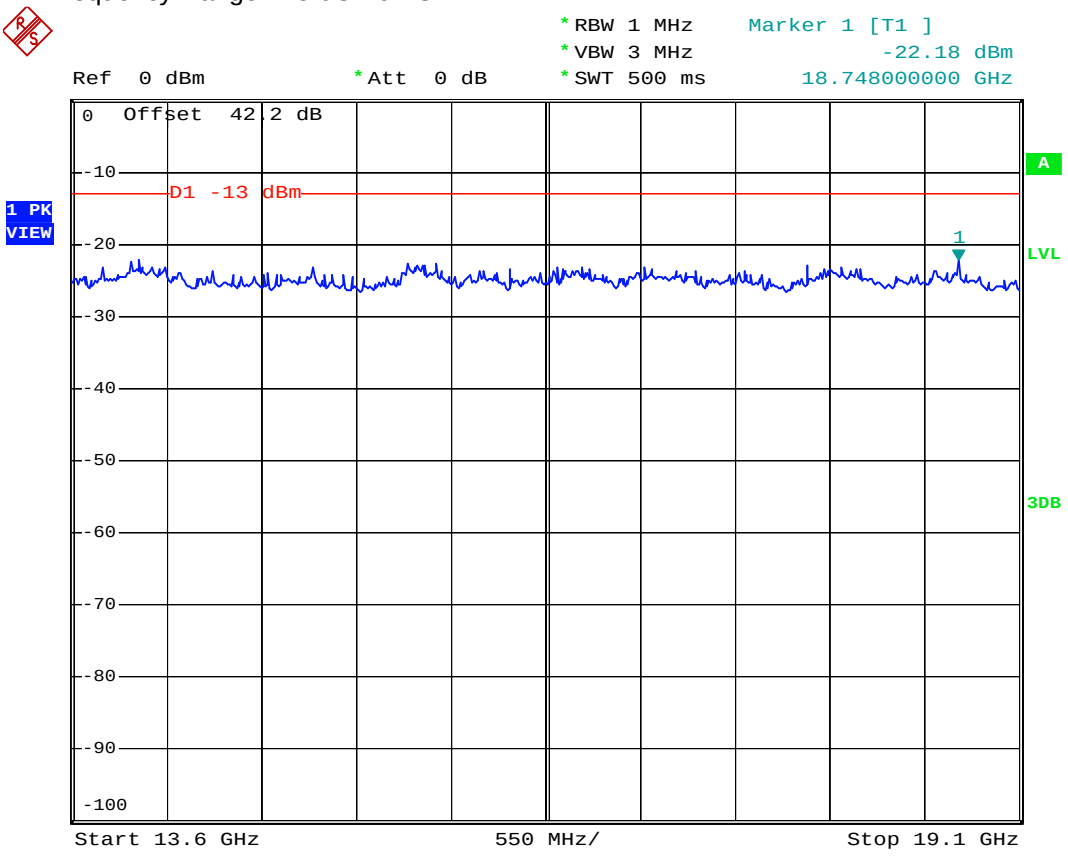
Date: 29.MAY.2008 22:50:32

- Test Mode : GSM1900 (GSM) CH661
- Frequency Range : 7G-13.6G



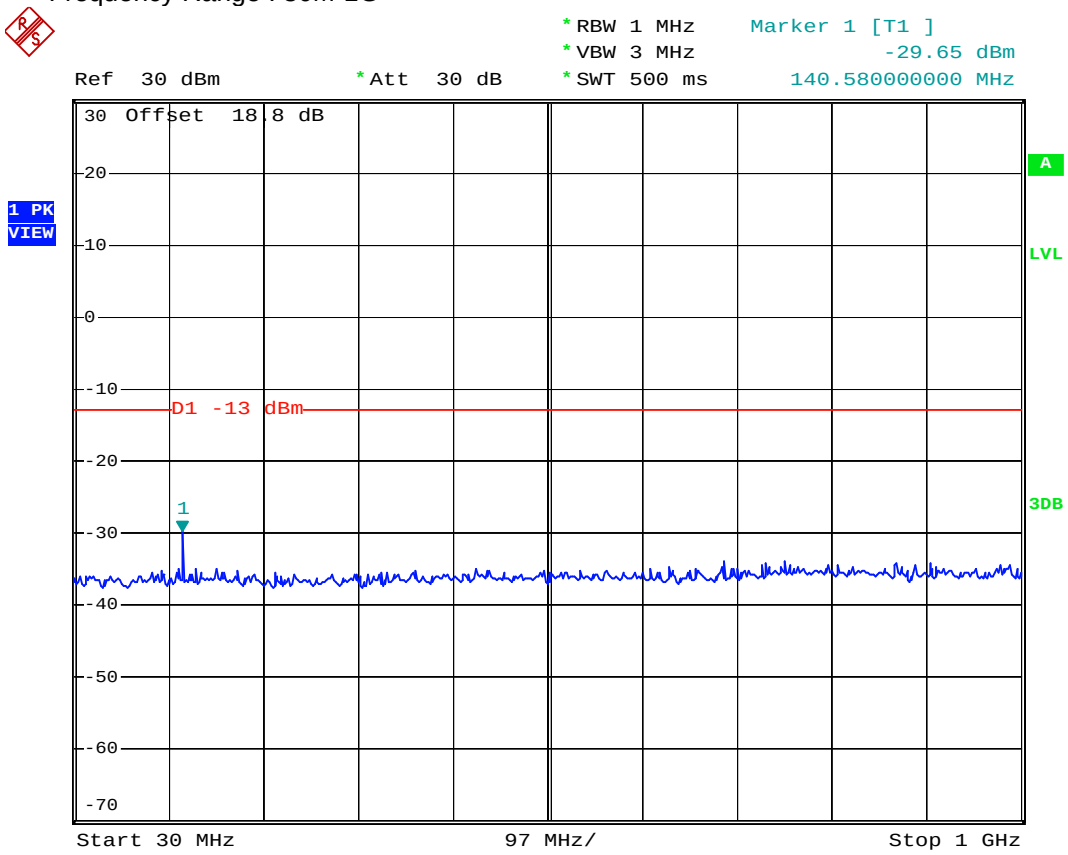
Date: 29.MAY.2008 22:51:18

- Test Mode : GSM1900 (GSM) CH661
- Frequency Range : 13.6G-19.1G



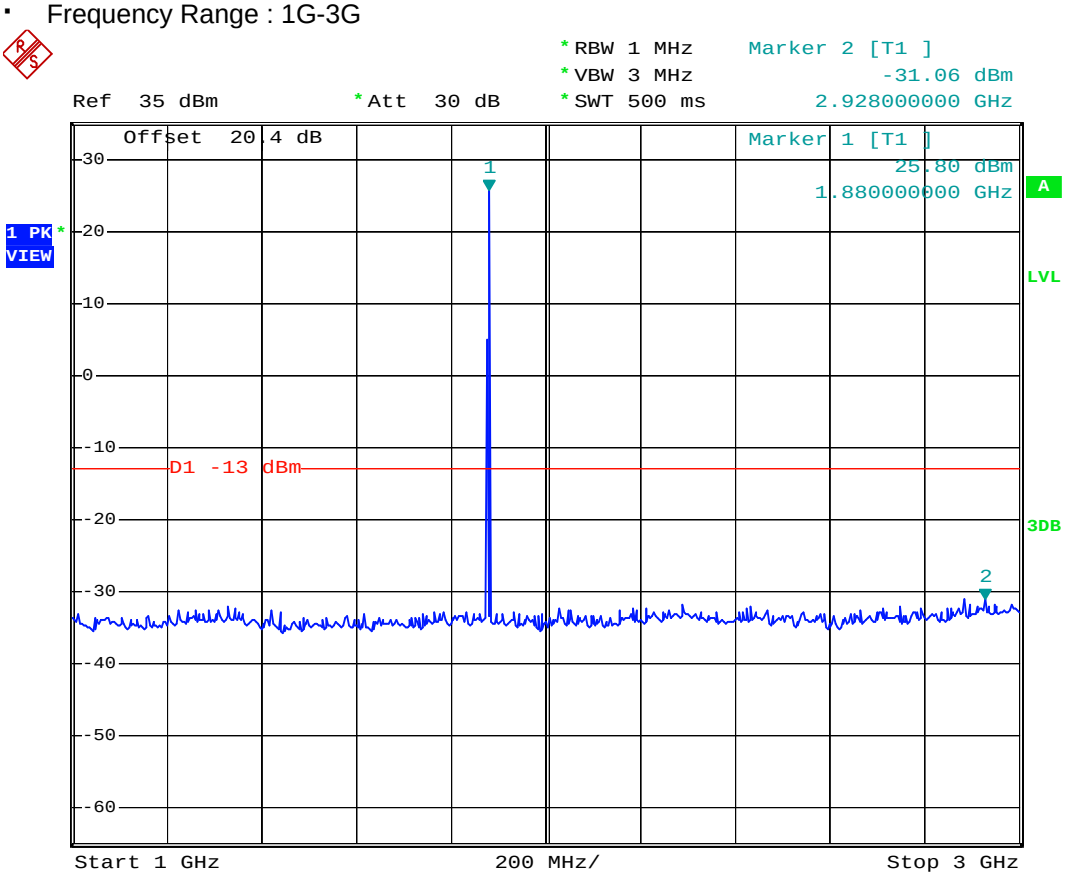
Date: 18.JUN.2008 06:55:21

- Mode 4
- Test Mode : GSM1900 (EDGE) CH661
- Frequency Range : 30M-1G



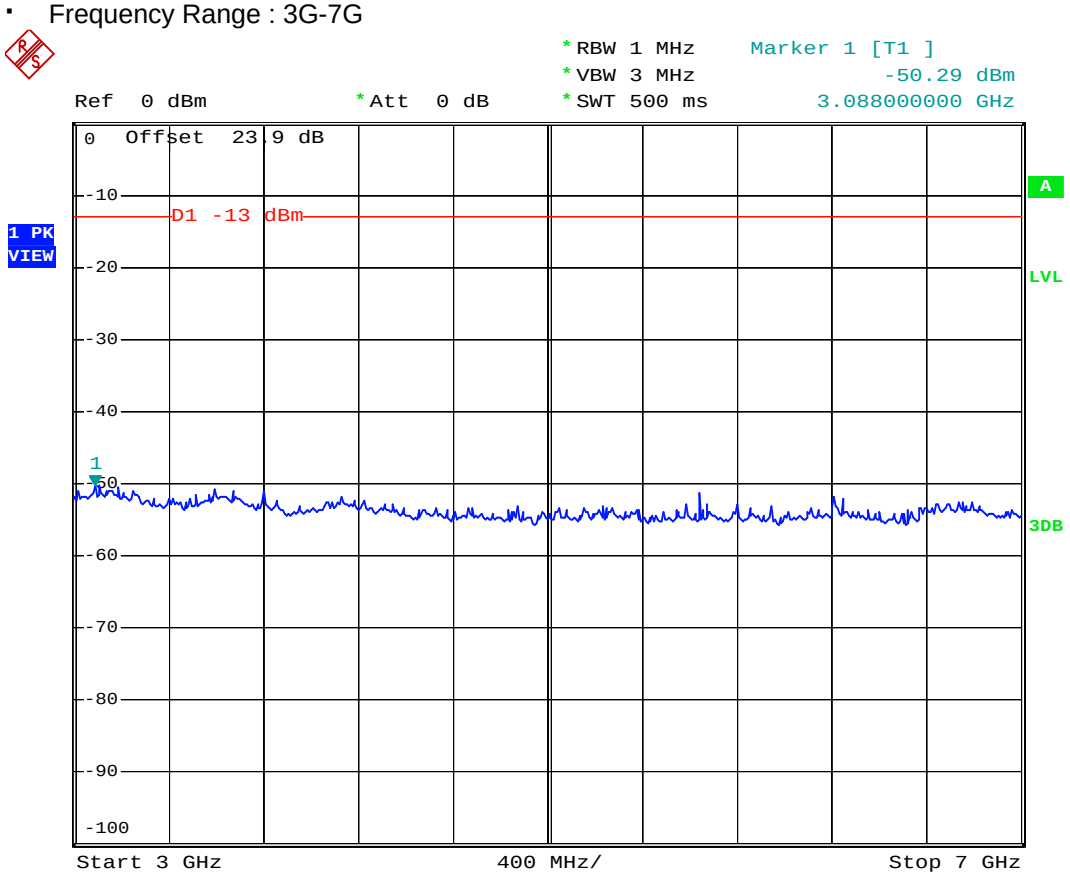
Date: 29.MAY.2008 22:11:39

- Test Mode : GSM1900 (EDGE) CH661
- Frequency Range : 1G-3G



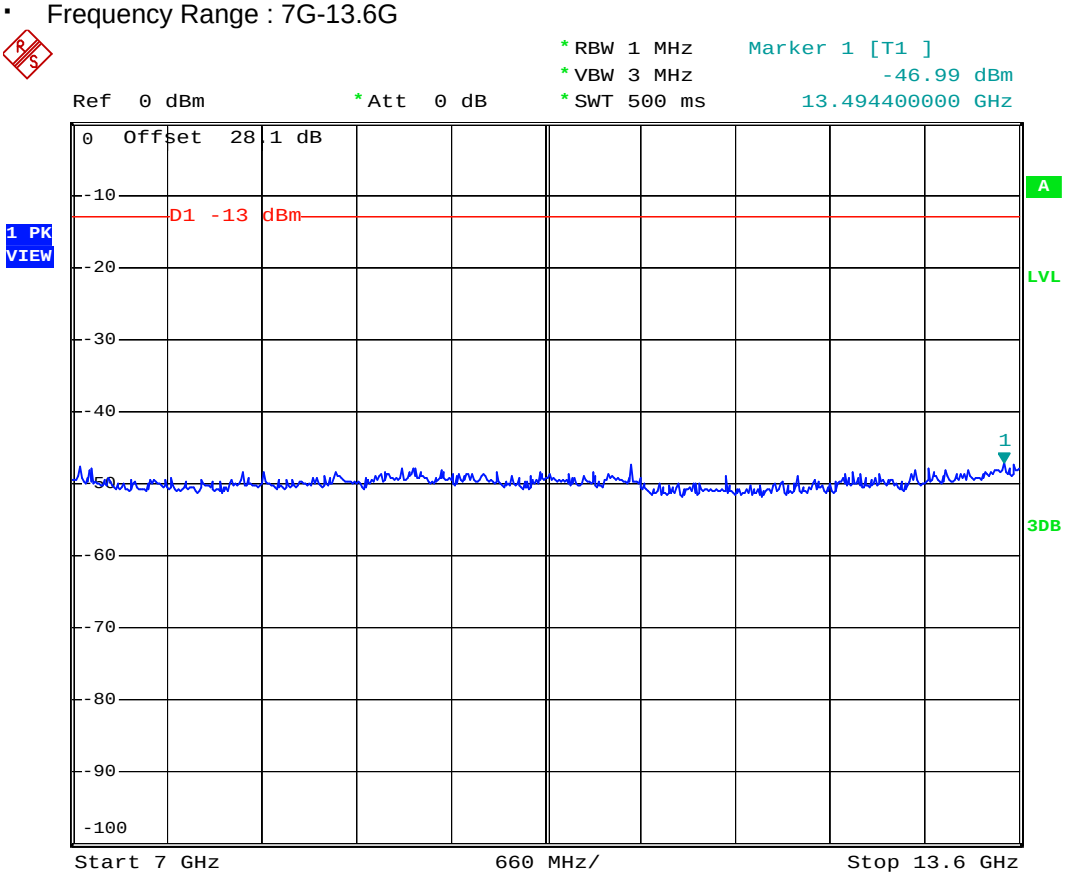
Date: 29.MAY.2008 22:56:42

- Test Mode : GSM1900 (EDGE) CH661
- Frequency Range : 3G-7G



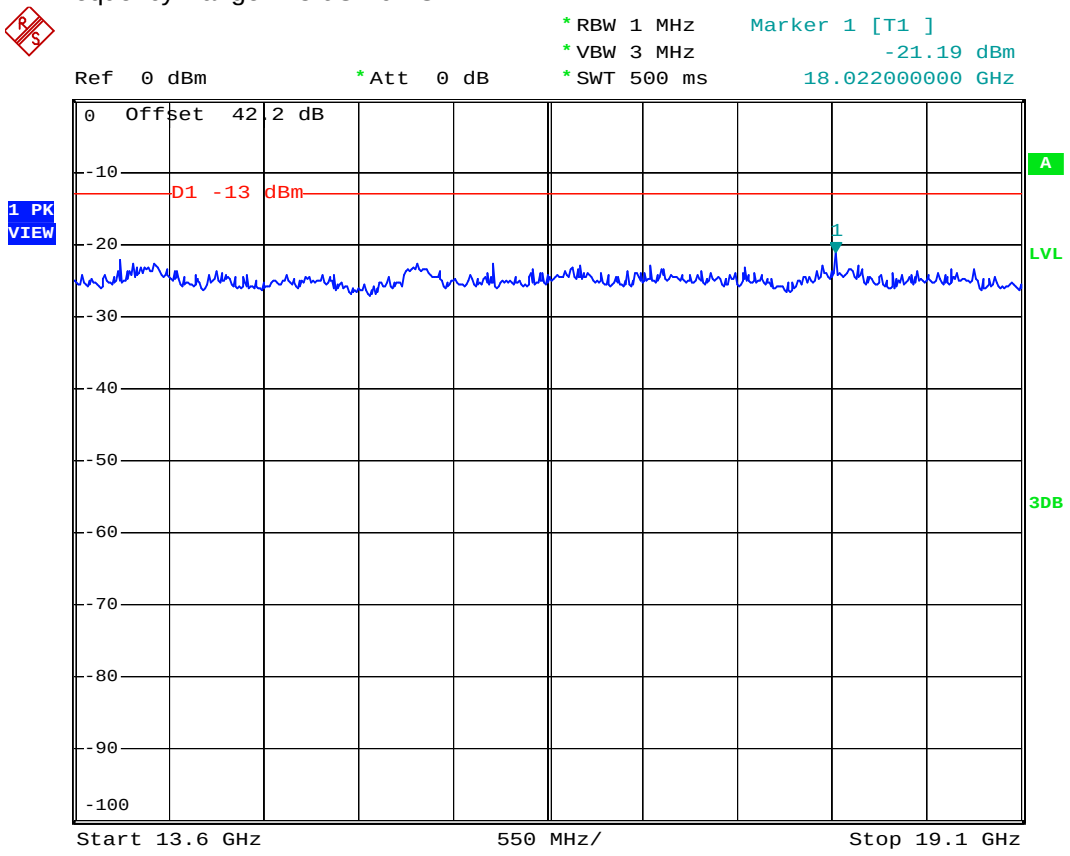
Date: 29.MAY.2008 22:50:05

- Test Mode : GSM1900 (EDGE) CH661
- Frequency Range : 7G-13.6G



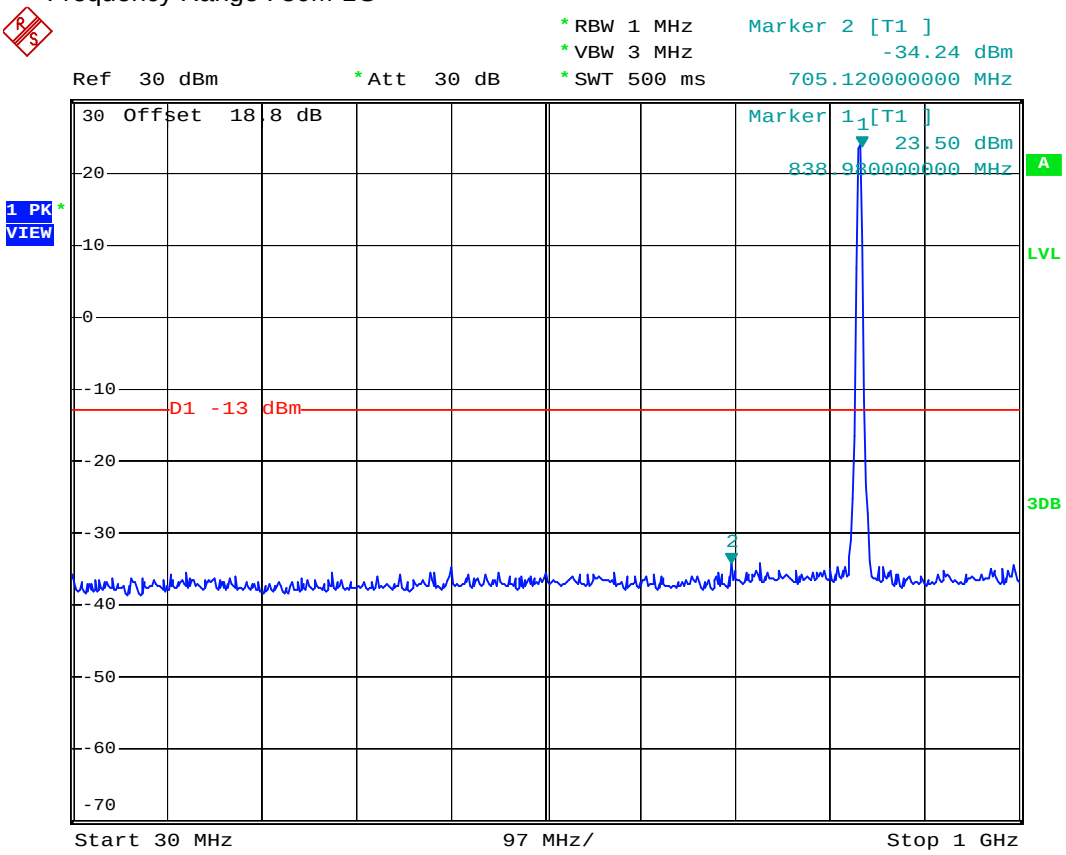
Date: 29.MAY.2008 22:51:43

- Test Mode : GSM1900 (EDGE) CH661
- Frequency Range : 13.6G-19.1G



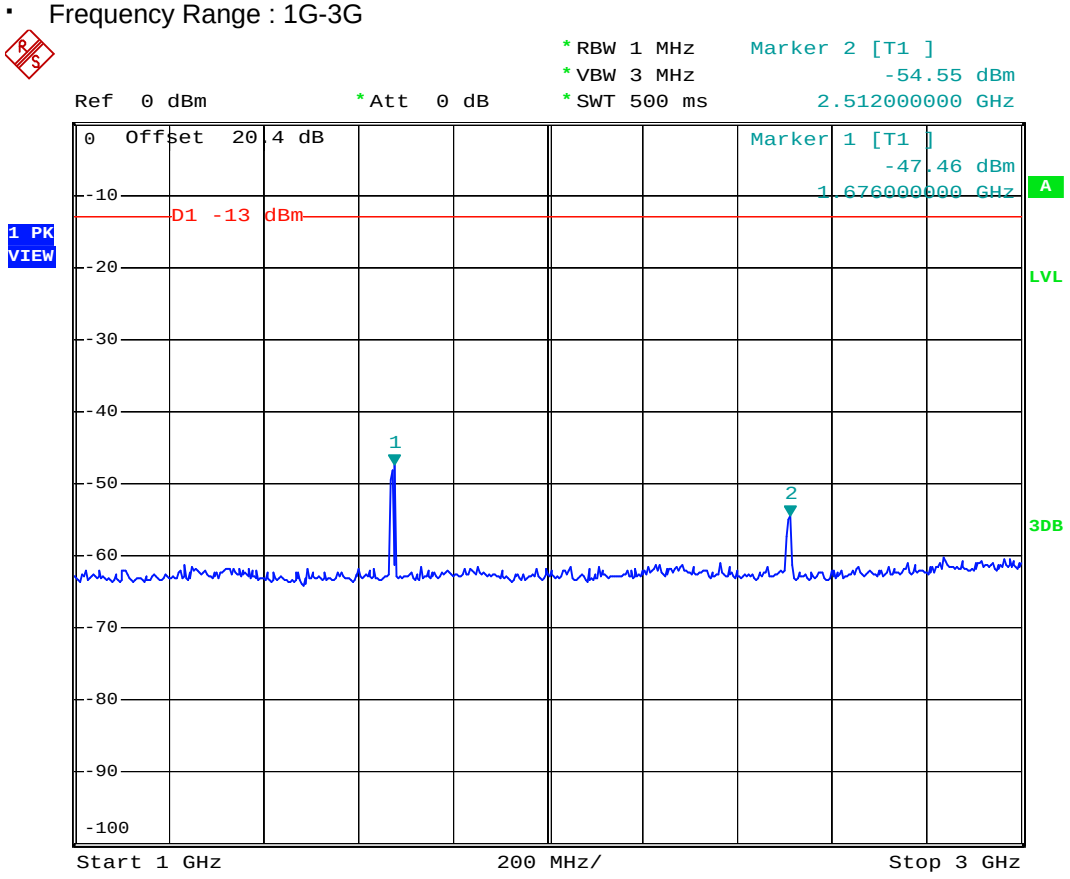
Date: 18.JUN.2008 06:55:31

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



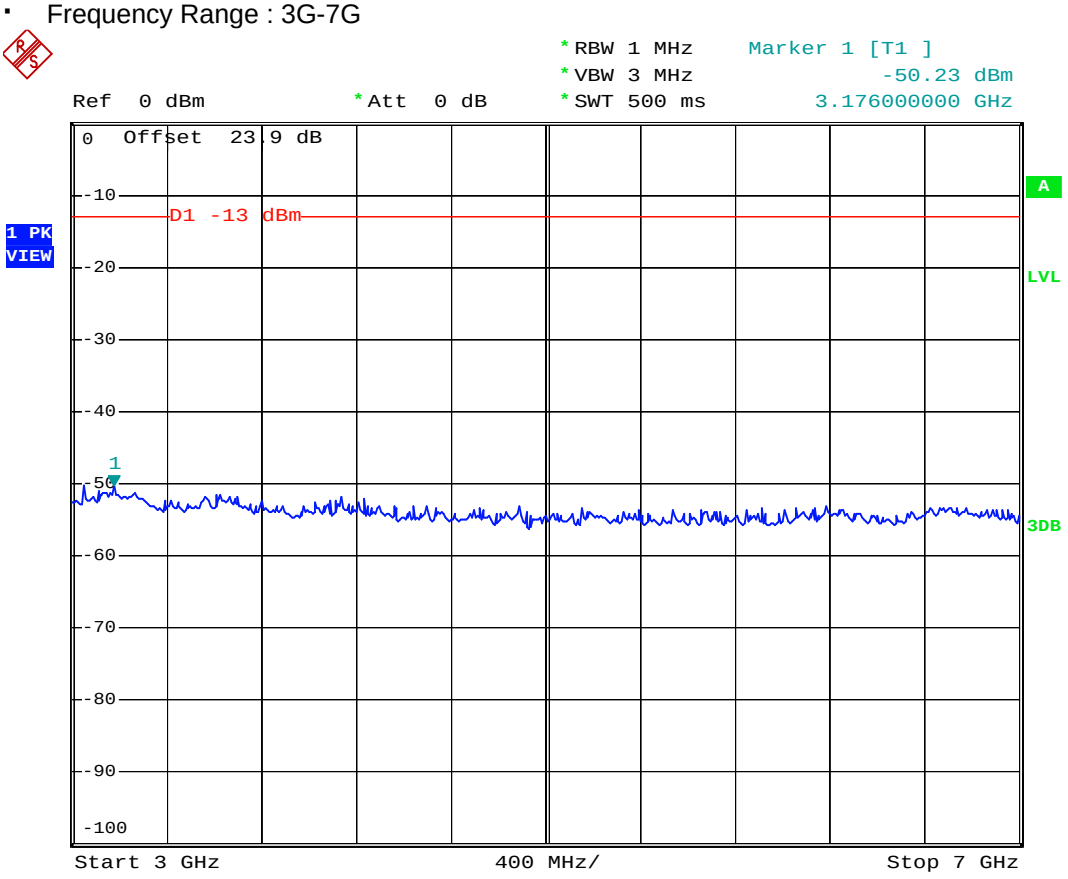
Date: 30.MAY.2008 02:11:13

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



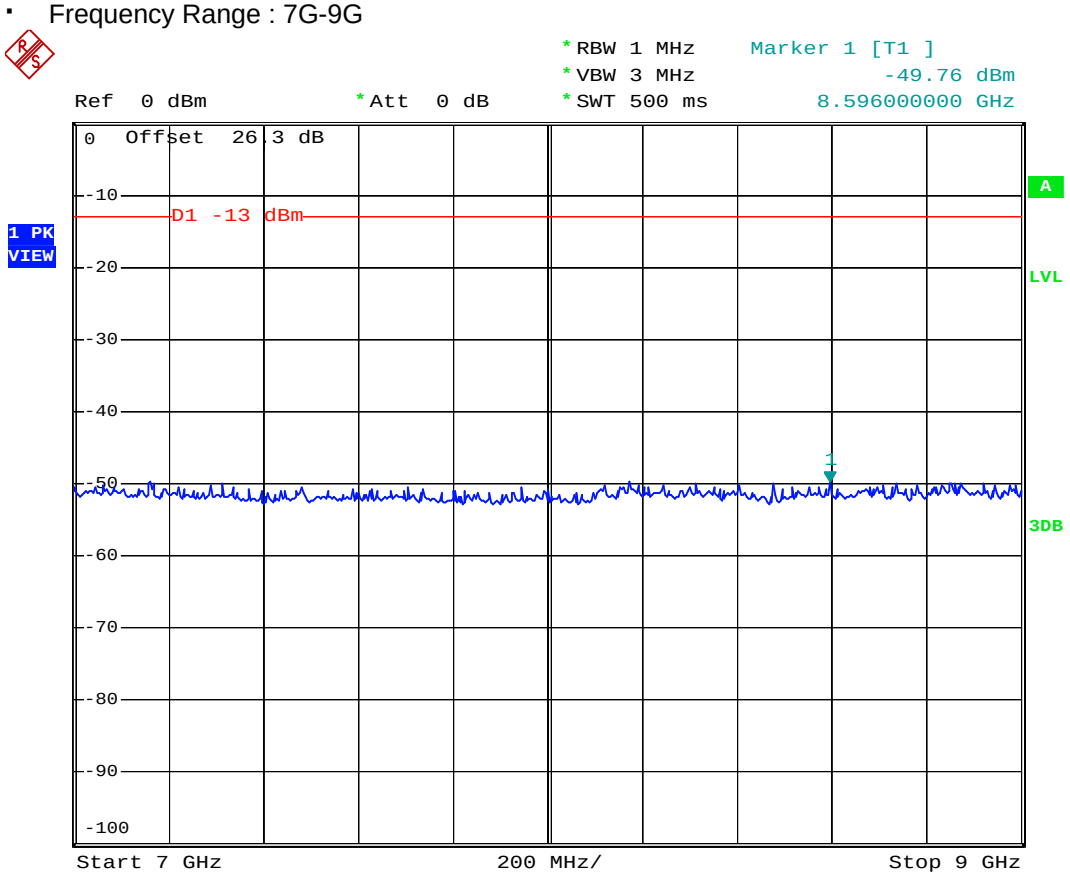
Date: 30.MAY.2008 02:08:07

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



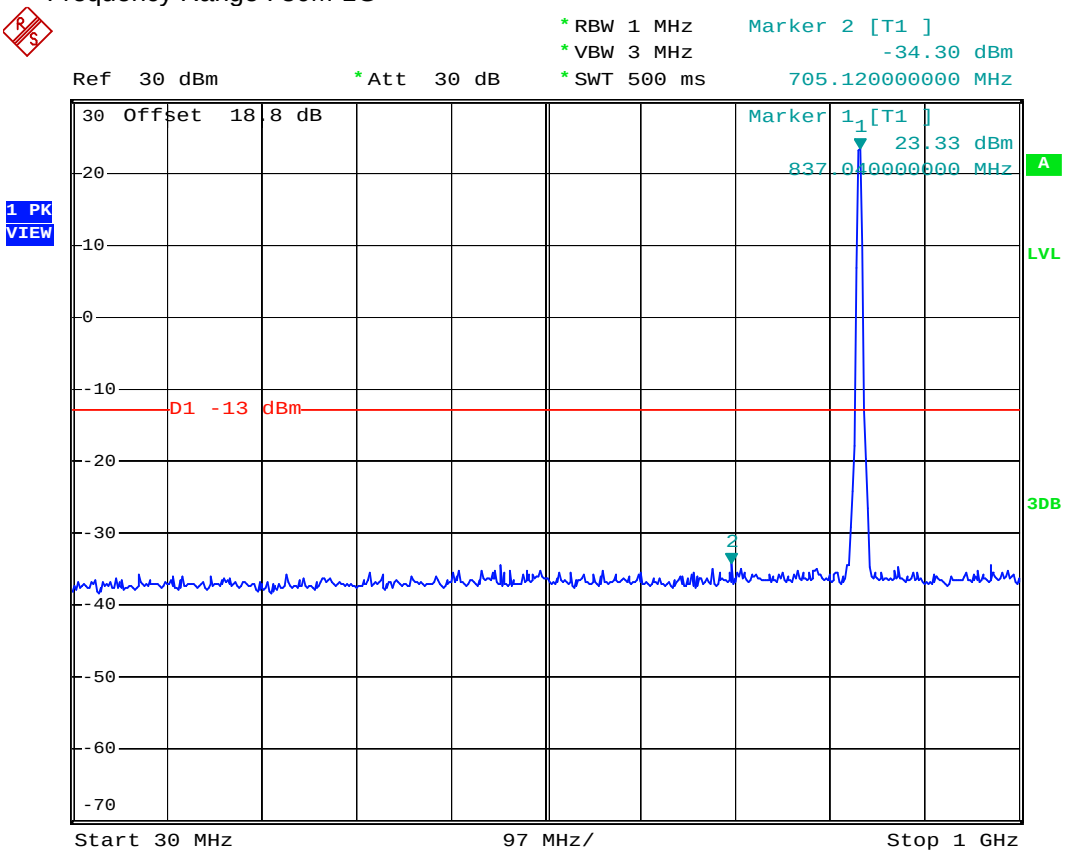
Date: 30.MAY.2008 02:08:41

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



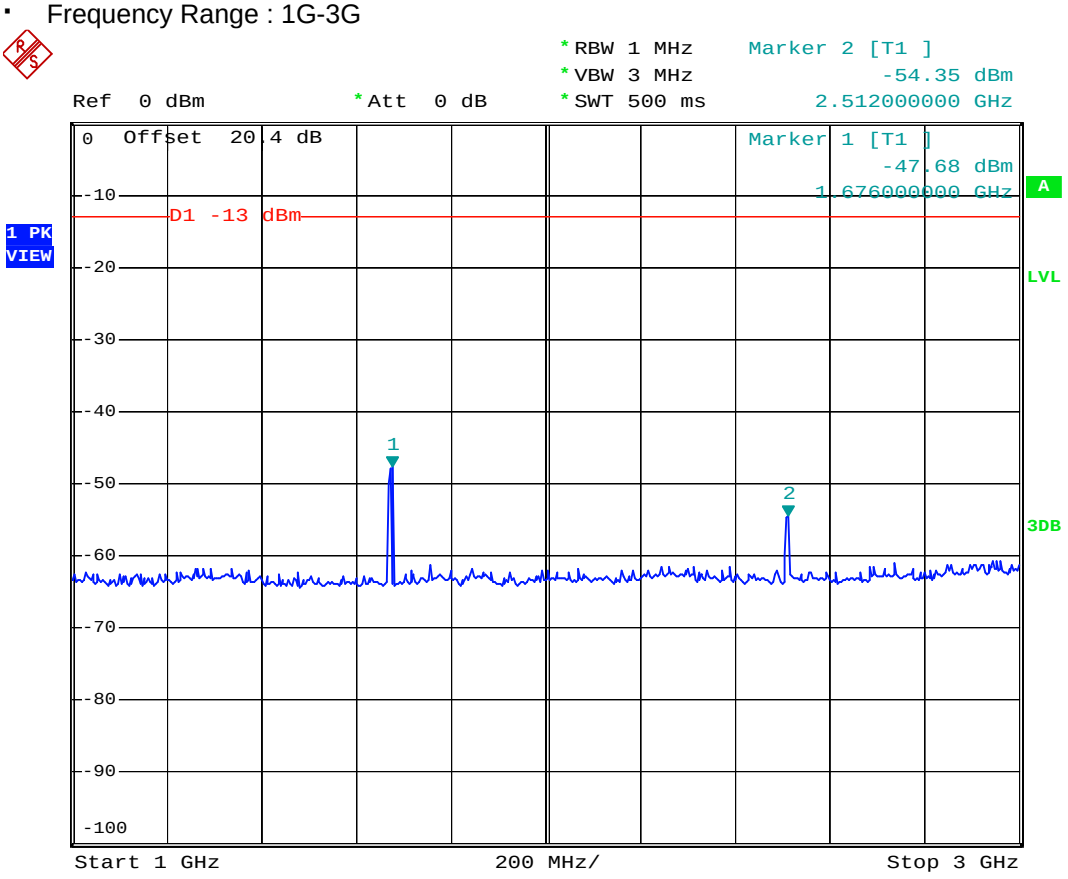
Date: 30.MAY.2008 02:09:05

- Mode 7
- Test Mode : WCDMA Band V (HSUPA) CH4182
- Frequency Range : 30M-1G



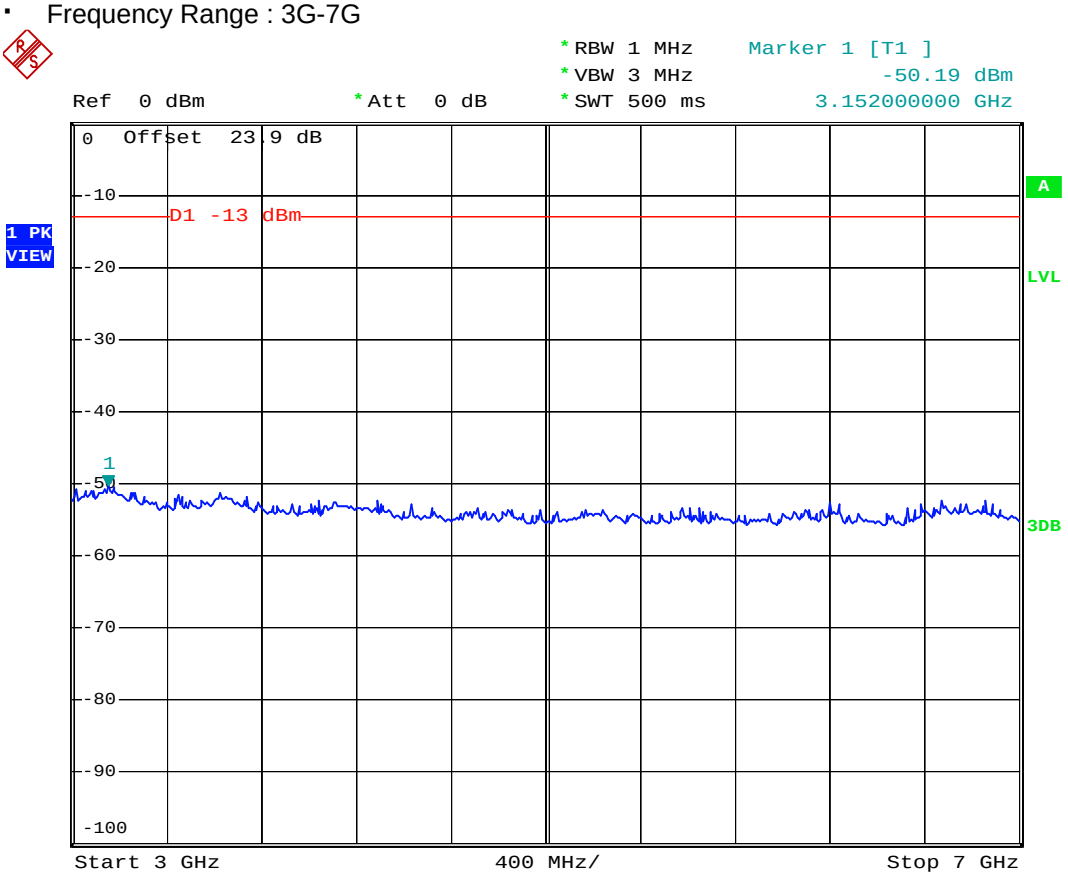
Date: 30.MAY.2008 14:50:15

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



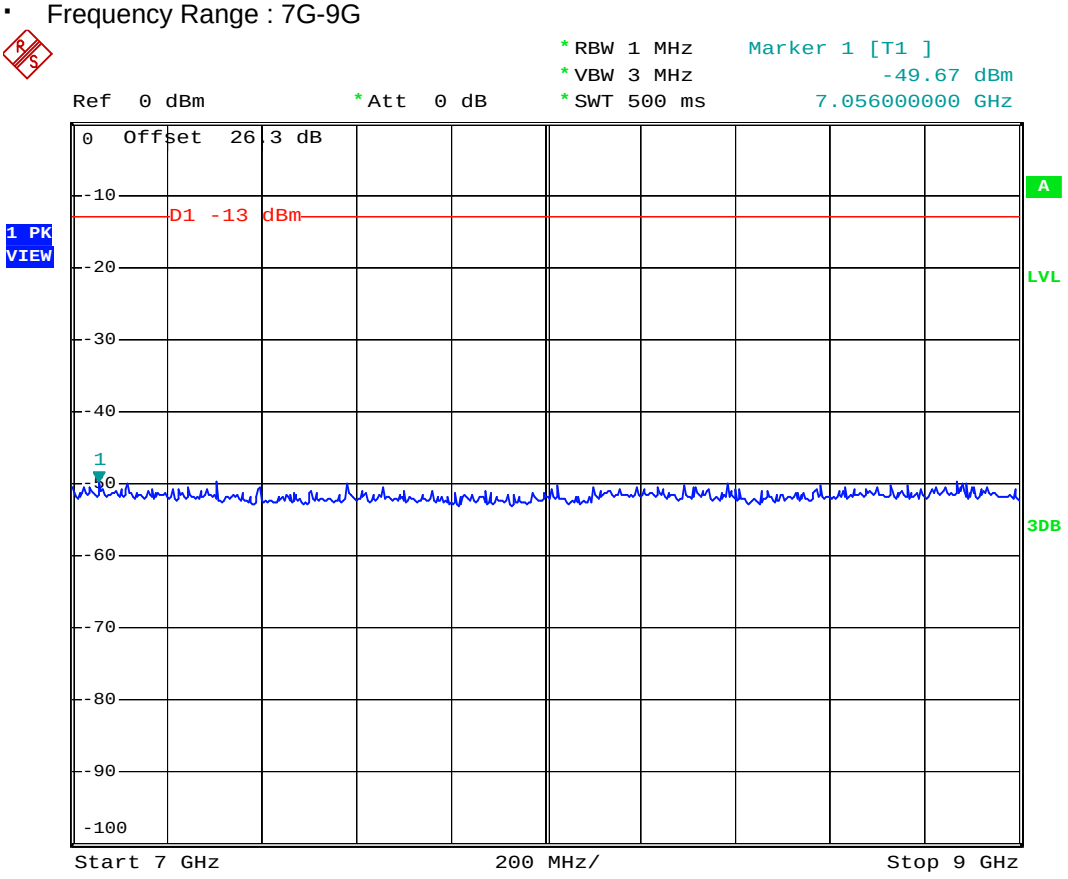
Date: 30.MAY.2008 14:56:56

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



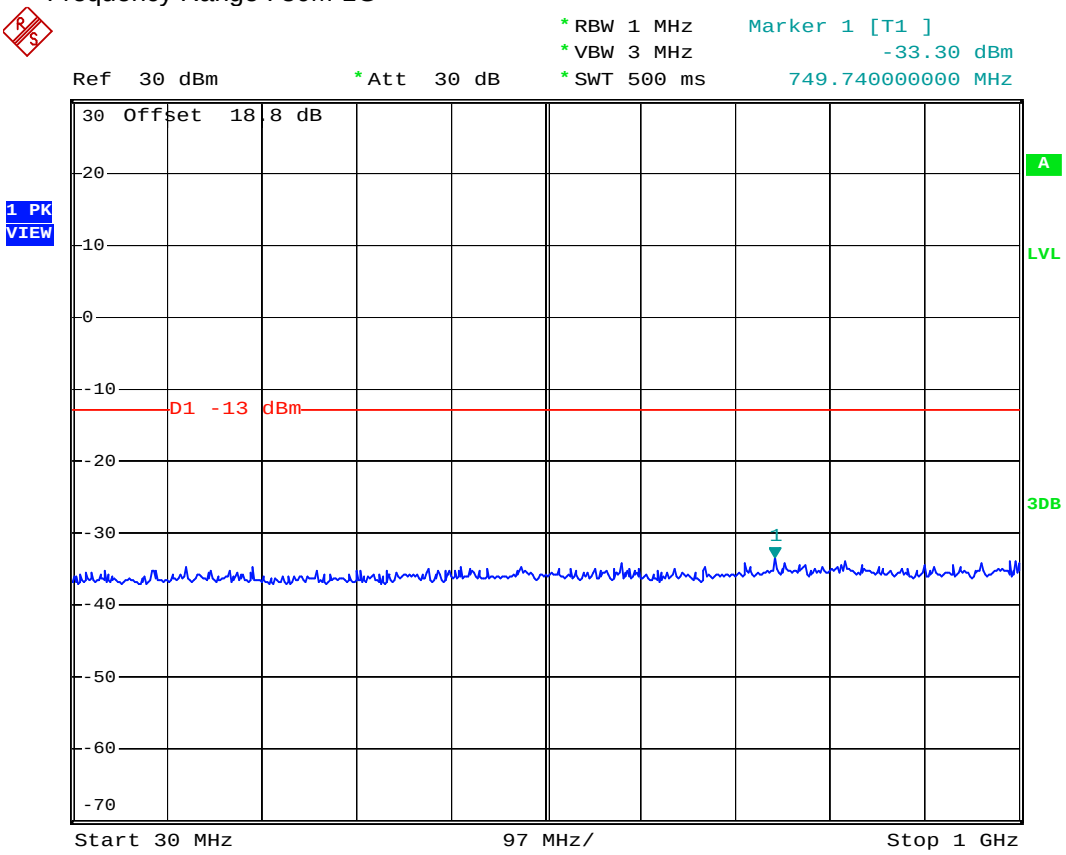
Date: 30.MAY.2008 14:57:59

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



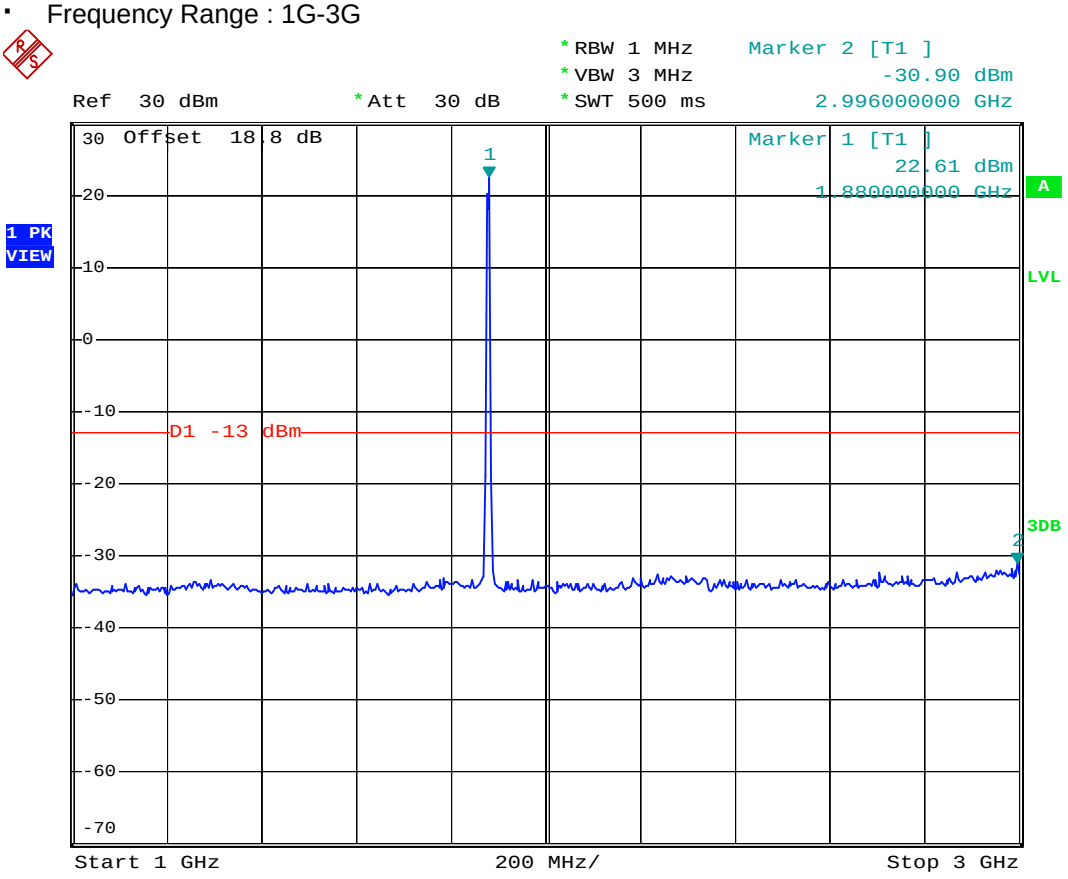
Date: 30.MAY.2008 14:58:38

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



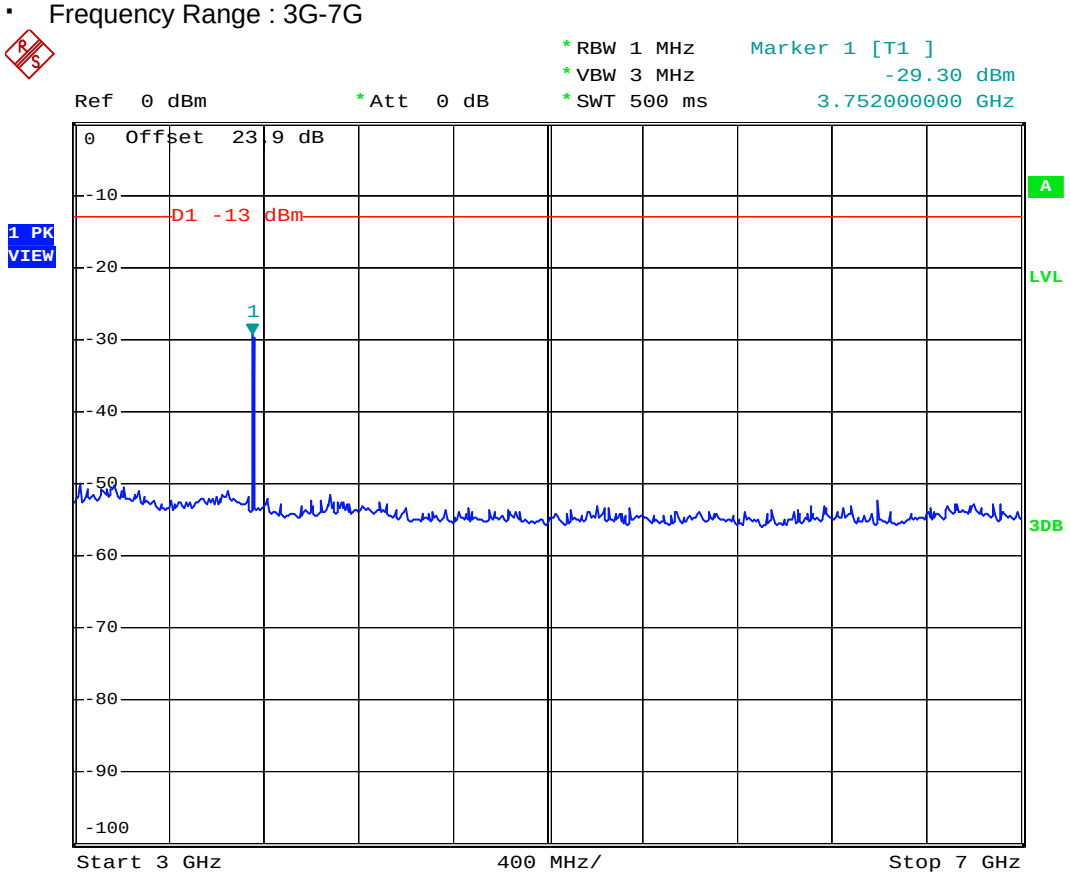
Date: 30.MAY.2008 02:12:56

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



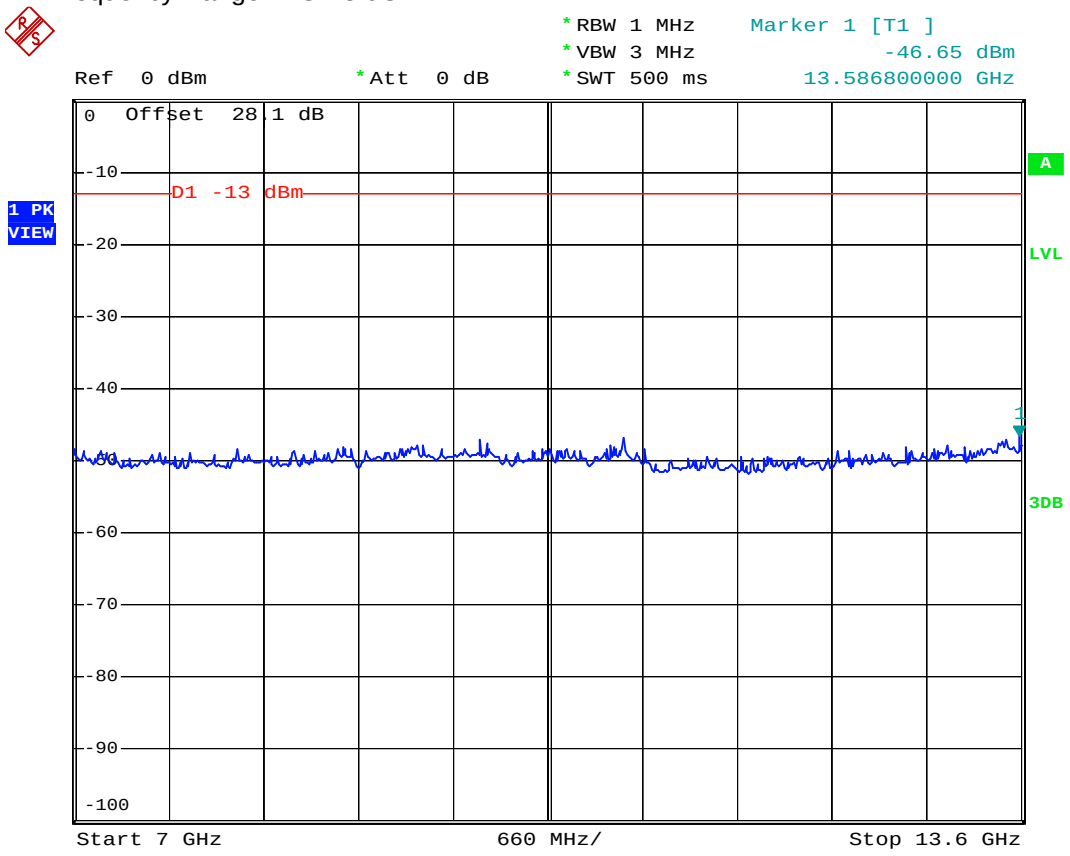
Date: 30.MAY.2008 02:20:36

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



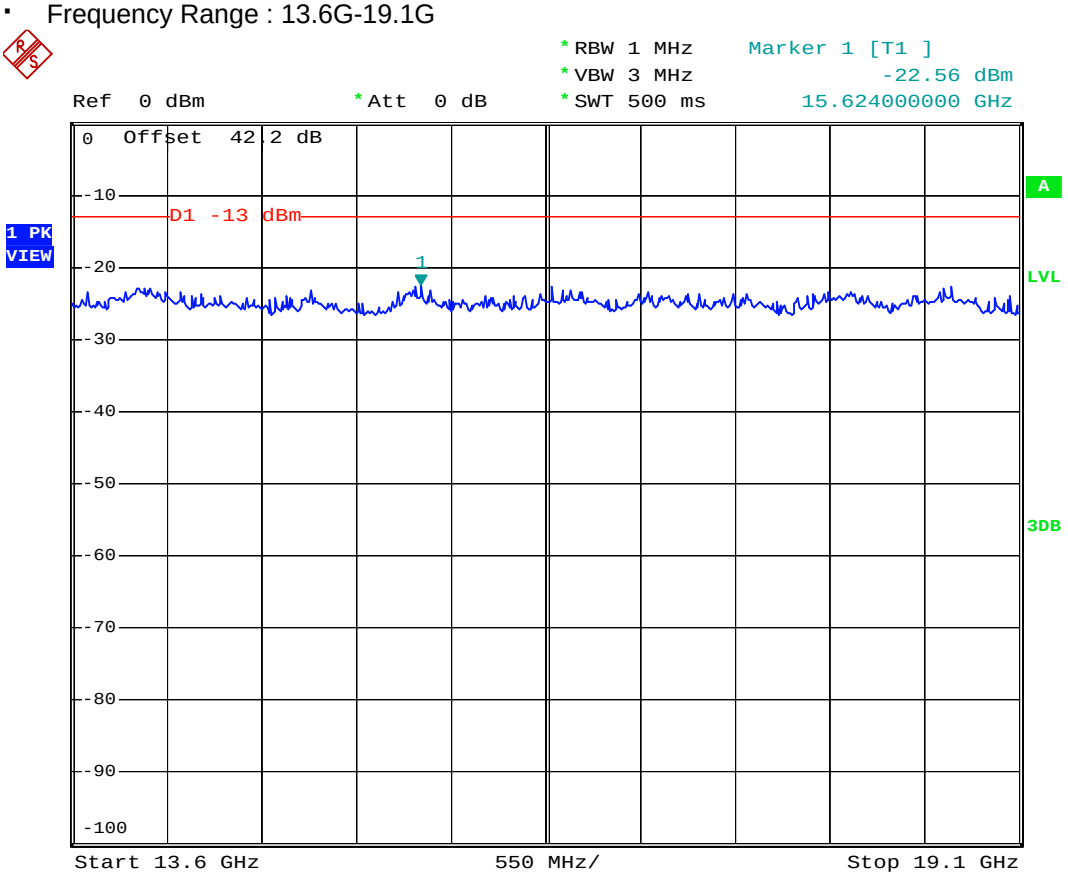
Date: 30.MAY.2008 02:27:44

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



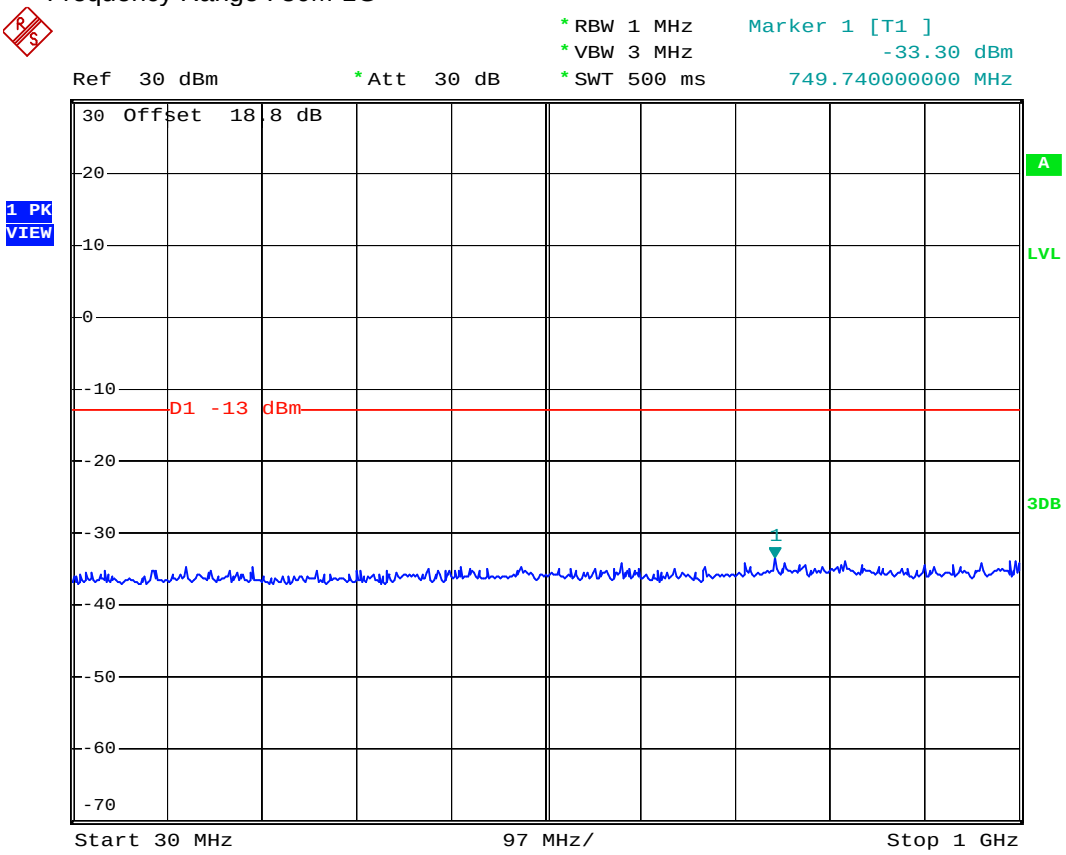
Date: 30.MAY.2008 02:30:59

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



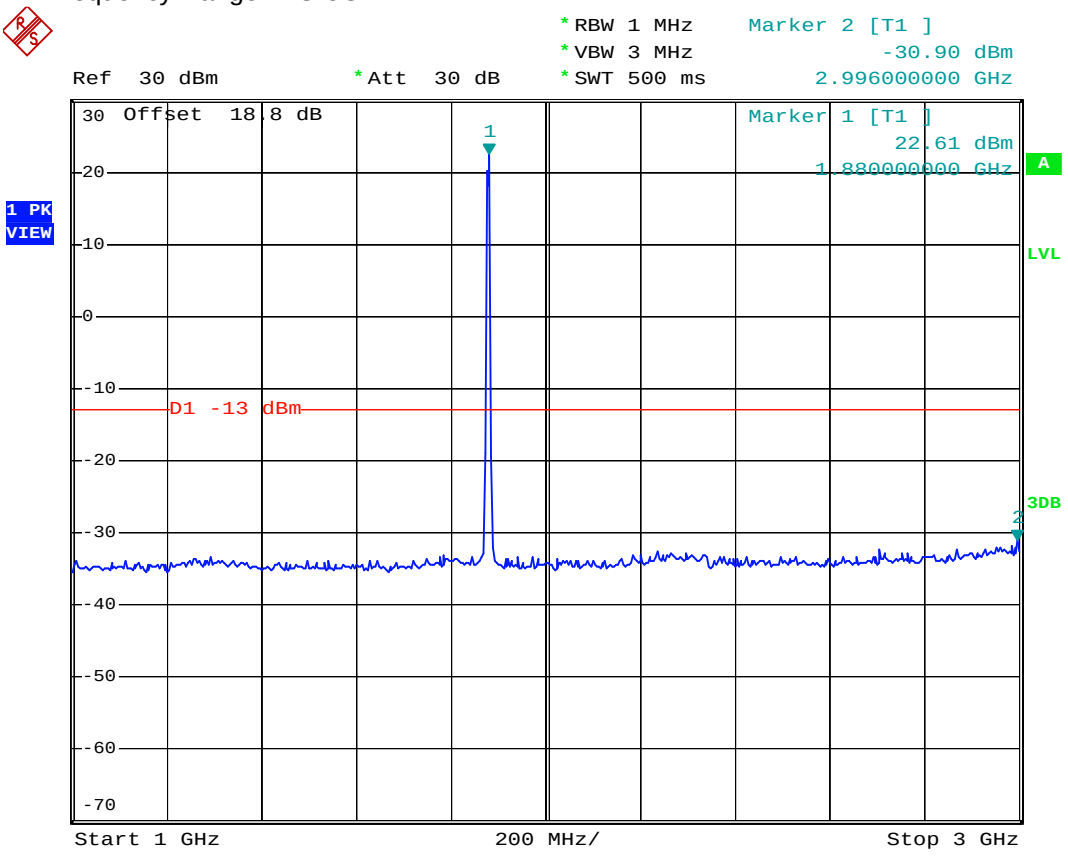
Date: 18.JUN.2008 06:55:52

- Mode 10
- Test Mode : WCDMA Band II (HSUPA) CH9400
- Frequency Range : 30M-1G



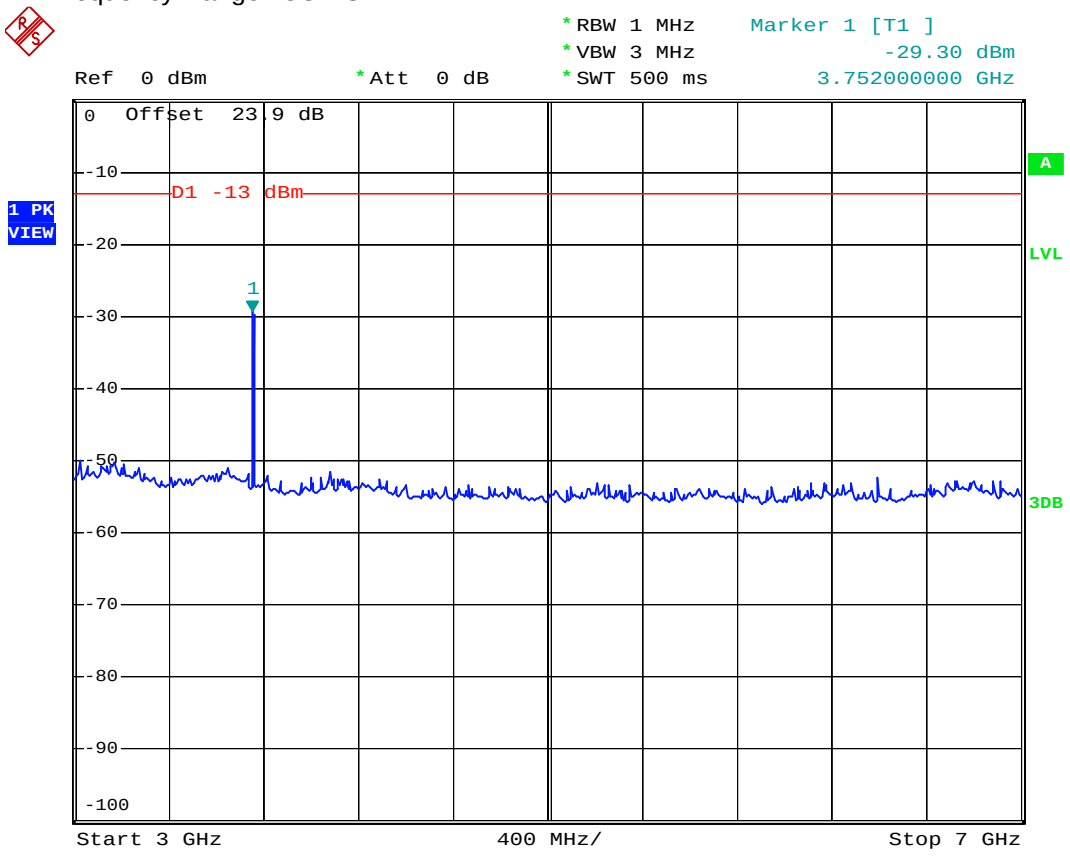
Date: 30.MAY.2008 02:12:56

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



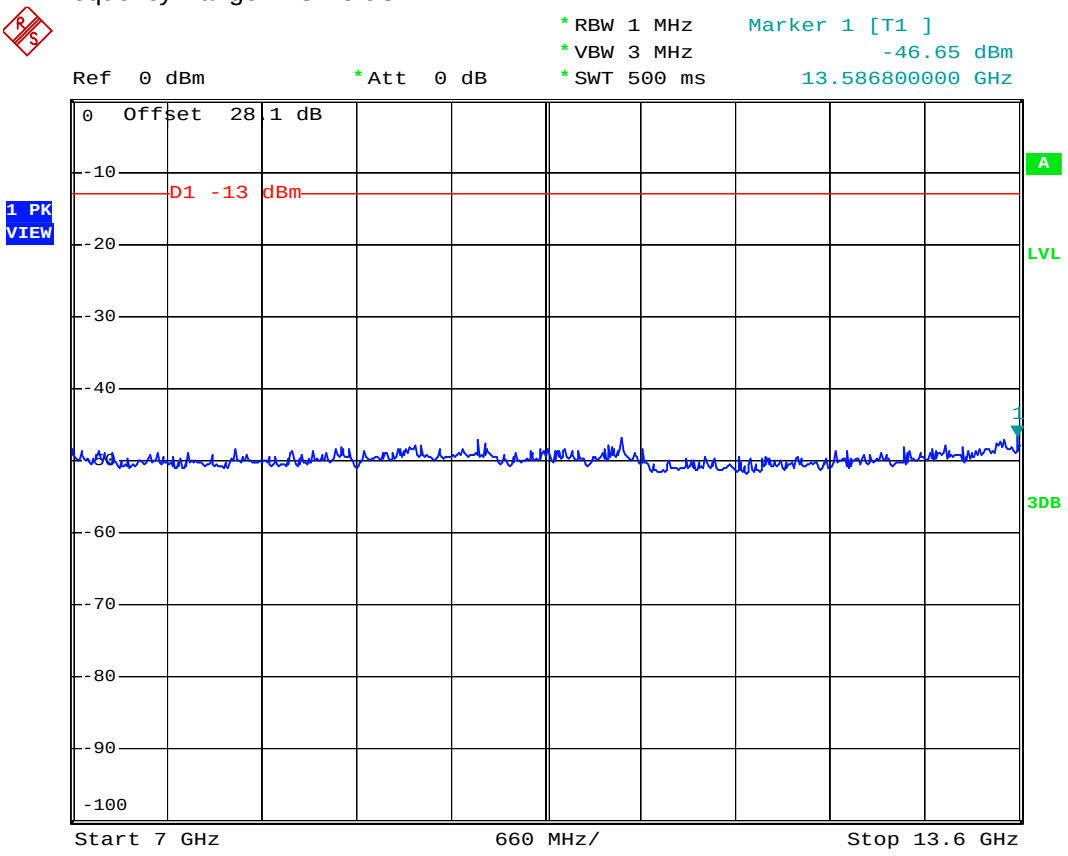
Date: 30.MAY.2008 02:20:36

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



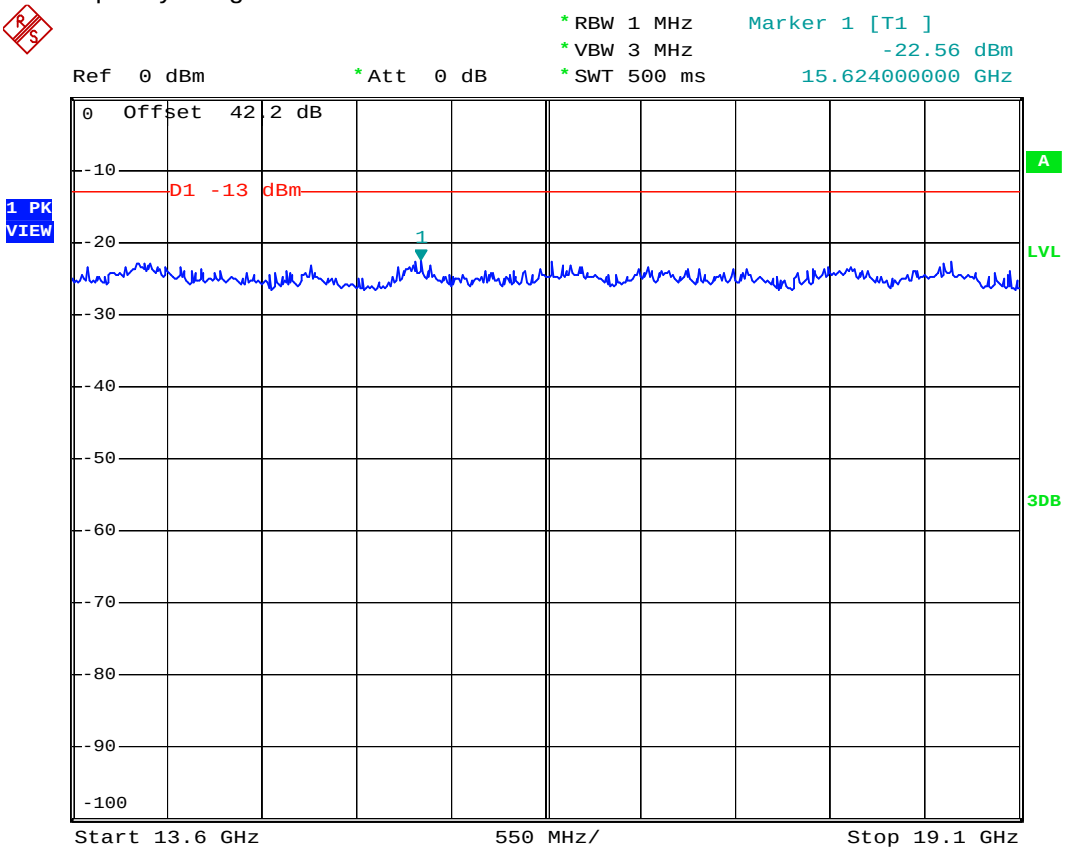
Date: 30.MAY.2008 02:27:44

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



Date: 30.MAY.2008 02:30:59

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



Date: 18.JUN.2008 06:55:52

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.

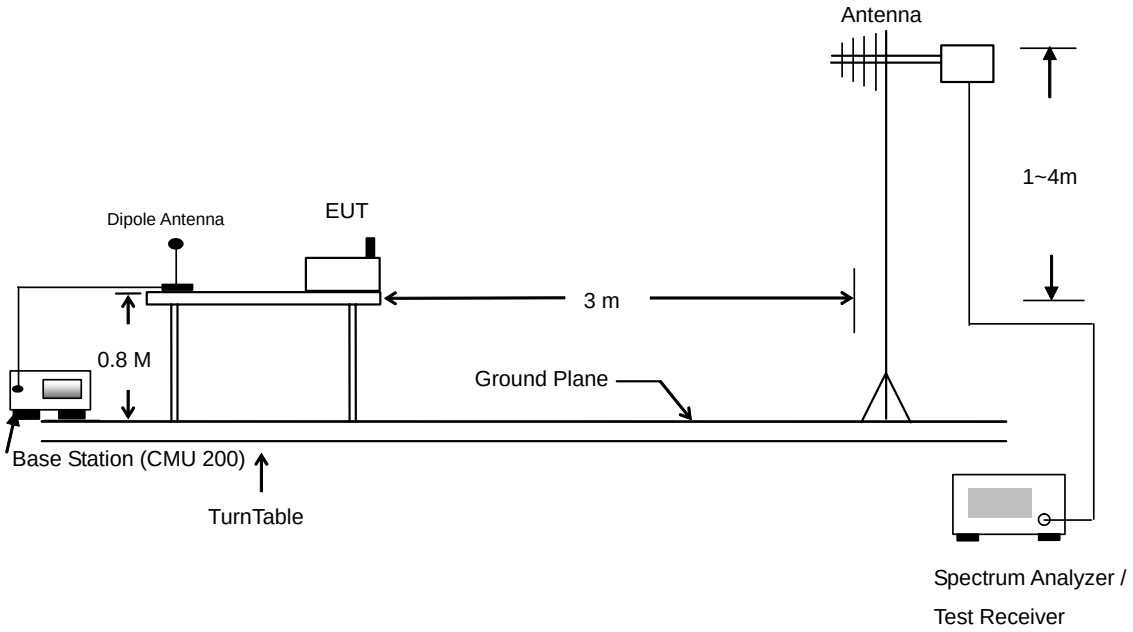
g. Tune the output power of signal generator to the same emission level with EUT maximum spurious emission.

h. Taking the recored of output power at antenna port.

i. Repeat step 7 to step 8 for another polarization.

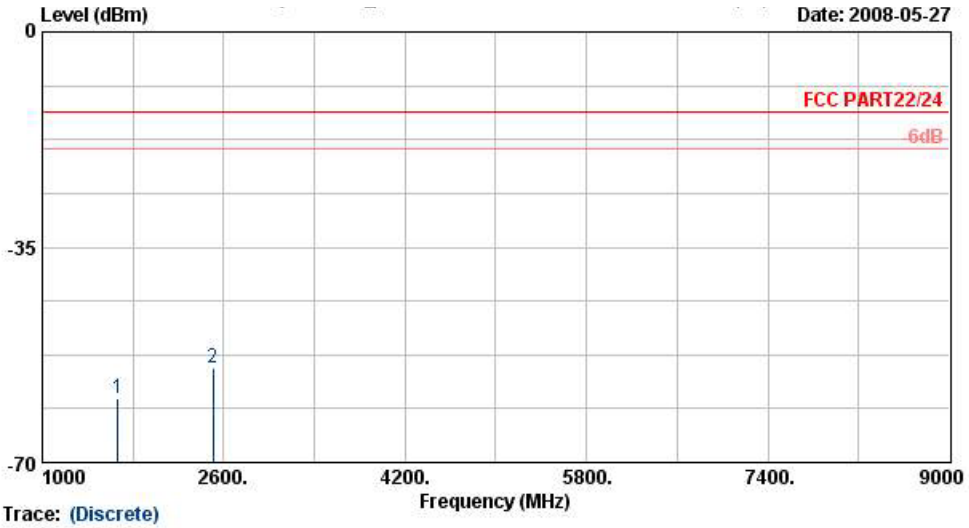
j. Emission level (dBm) = output power + substitution Gain.

4.6.3 Test Setup Layout



4.6.4 Test Data

- Mode 1
- Horizontal Polarization

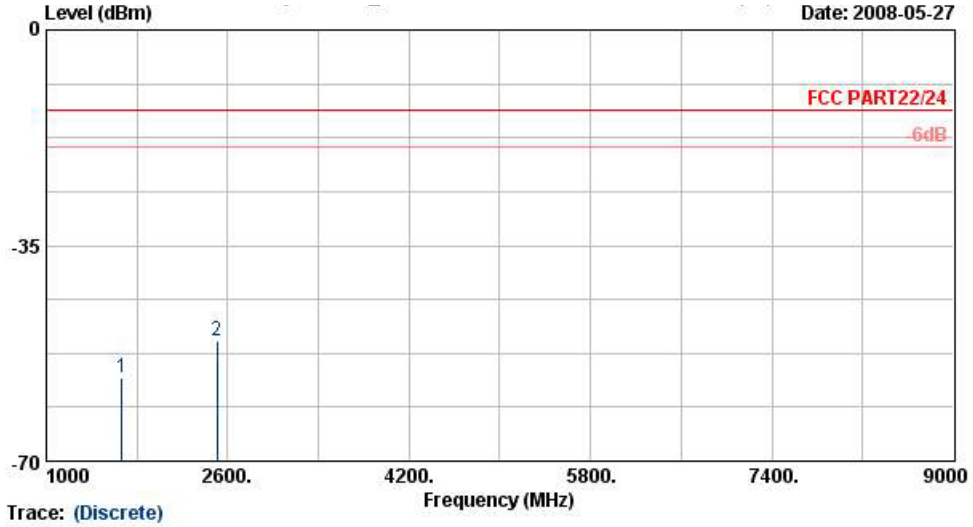


Site : 03CH07-HY
Condition : HF-EIRP(080306) HORIZONTAL
EUT : Notebook PC
Power : 120Vac/60Hz
Model : FG852118
Mode : GSM 850 Link; Ch189 + Adaptor
Plane : H
IMEI : 351532020021629

Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)	Result
1666	-59.49	-13	-46.49	-63.84	-58.5	3.39	4.55	H	Pass
2509	-54.74	-13	-41.74	-60.31	-54.8	3.71	5.92	H	Pass

Remark : Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

- Vertical Polarization



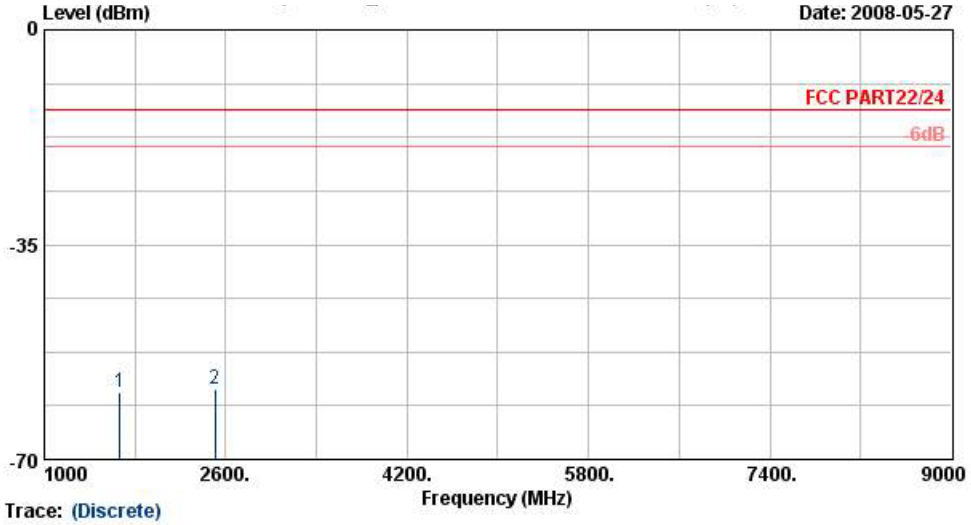
Trace: (Discrete)

Site : 03CH07-HY
Condition : HF-EIRP(080306) VERTICAL
EUT : Notebook PC
Power : 120Vac/60Hz
Model : FG852118
Mode : GSM 850 Link; Ch189 + Adaptor
Plane : H
IMEI : 351532020021629

Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)	Result
1666	-56.38	-13	-43.38	-62.72	-55.0	3.39	4.16	V	Pass
2509	-50.44	-13	-37.44	-60.03	-50.3	3.71	5.72	V	Pass

Remark : Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

- Mode 2
- Horizontal Polarization

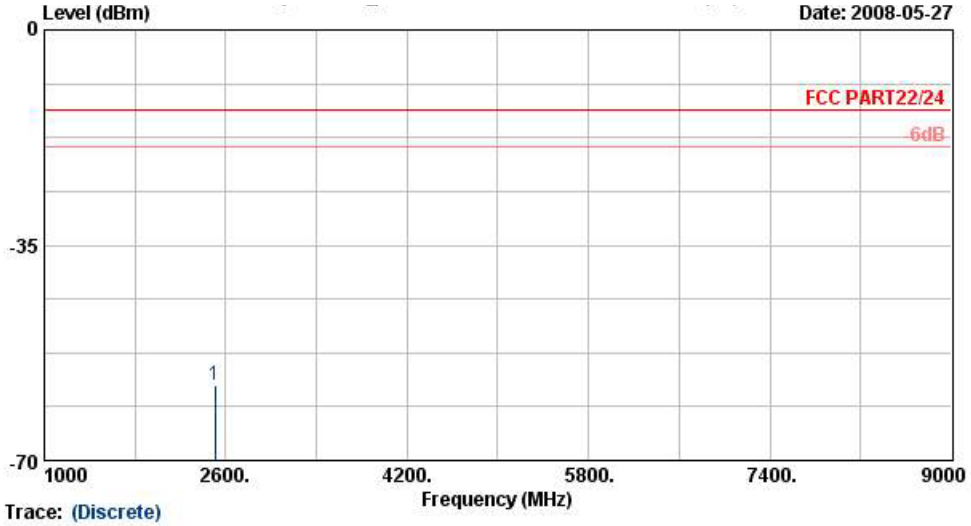


Site : 03CH07-HY
Condition : HF-EIRP(080306) HORIZONTAL
EUT : Notebook PC
Power : 120Vac/60Hz
Model : FG852118
Mode : EDGE Link; Ch189 + Adaptor
Plane : H
IMEI : 351532020021629

Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)	Result
1666	-59.19	-13	-46.19	-63.28	-58.2	3.39	4.55	H	Pass
2509	-58.44	-13	-45.44	-64.49	-58.5	3.71	5.92	H	Pass

Remark : Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

- Vertical Polarization



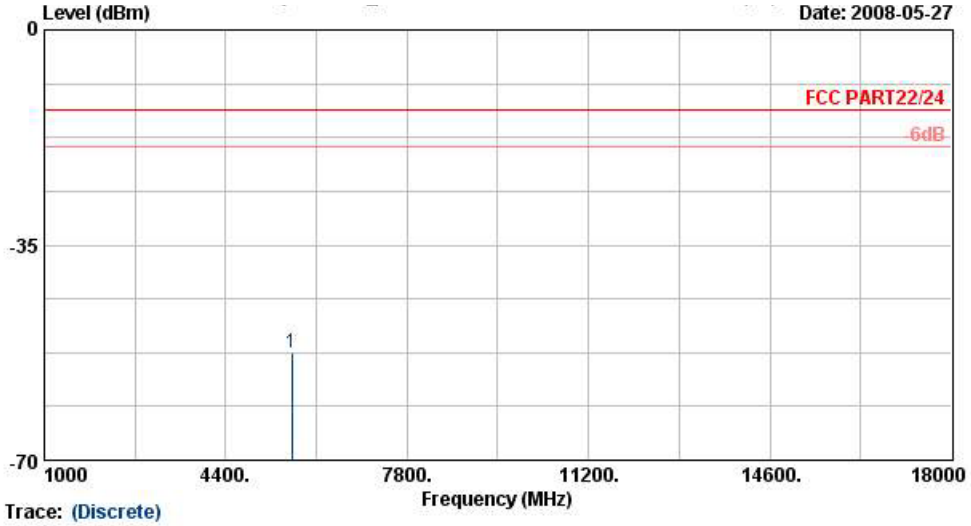
Trace: (Discrete)

Site : 03CH07-HY
Condition : HF-EIRP(080306) VERTICAL
EUT : Notebook PC
Power : 120Vac/60Hz
Model : FG852118
Mode : EDGE Link; Ch189 + Adaptor
Plane : H
IMEI : 351532020021629

Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)	Result
2509	-57.64	-13	-44.64	-64.19	-57.5	3.71	5.72	V	Pass

Remark : Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

- Mode 3
- Horizontal Polarization

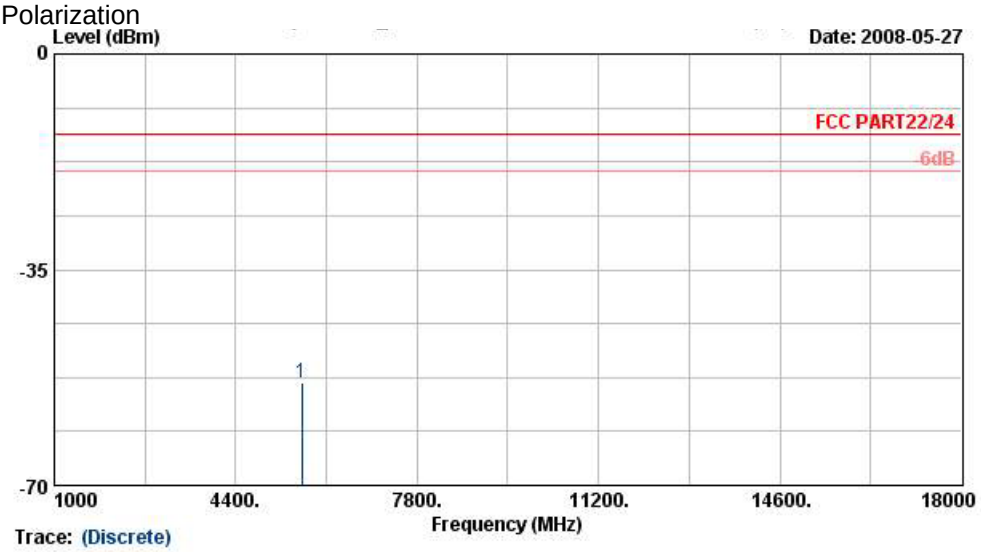


Site : 03CH07-HY
Condition : HF-EIRP(080306) HORIZONTAL
EUT : Notebook PC
Power : 120Vac/60Hz
Model : FG852118
Mode : PCS 1900 Link; Ch661 + Adaptor
Plane : H
IMEI : 351532020021629

Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)	Result
5636	-52.66	-13	-39.66	-67.61	-57.6	3.87	8.81	H	Pass

Remark : Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

- Vertical Polarization



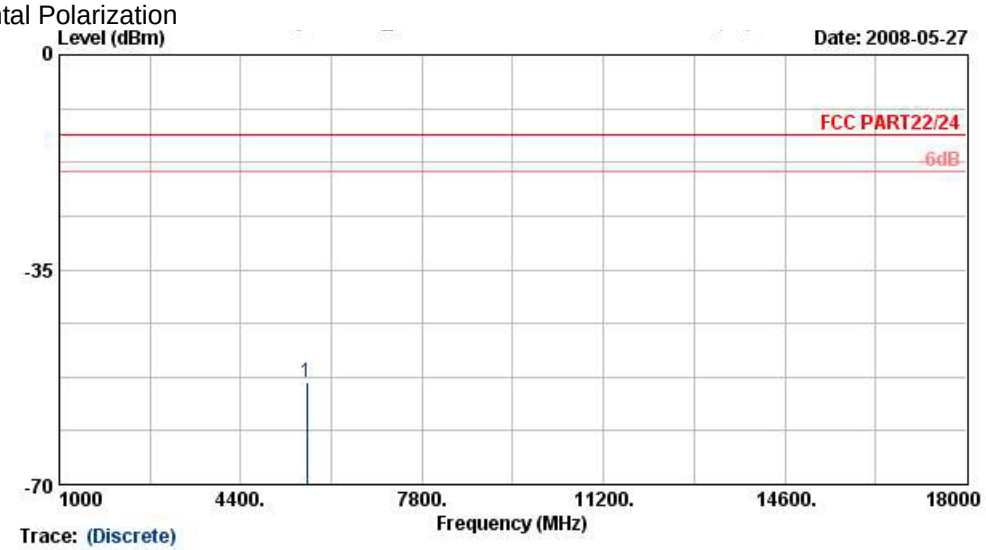
Trace: (Discrete)

Site : 03CH07-HY
Condition : HF-EIRP(080306) VERTICAL
EUT : Notebook PC
Power : 120Vac/60Hz
Model : FG852118
Mode : PCS 1900 Link; Ch661 + Adaptor
Plane : H
IMEI : 351532020021629

Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)	Result
5636	-53.40	-13	-40.40	-66.99	-59.3	3.87	9.77	V	Pass

Remark : Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

- Mode 4
- Horizontal Polarization

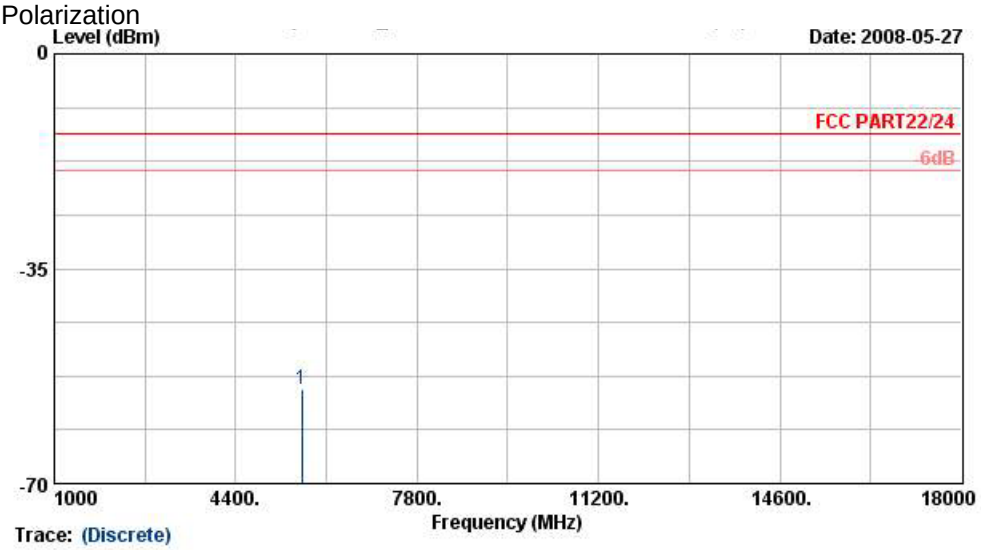


Site : 03CH07-HY
Condition : HF-EIRP(080306) HORIZONTAL
EUT : Notebook PC
Power : 120Vac/60Hz
Model : FG852118
Mode : EDGE Link; Ch661 + Adaptor
Plane : H
IMEI : 351532020021629

Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)	Result
5636	-53.26	-13	-40.26	-68.04	-58.2	3.87	8.81	H	Pass

Remark : Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

- Vertical Polarization

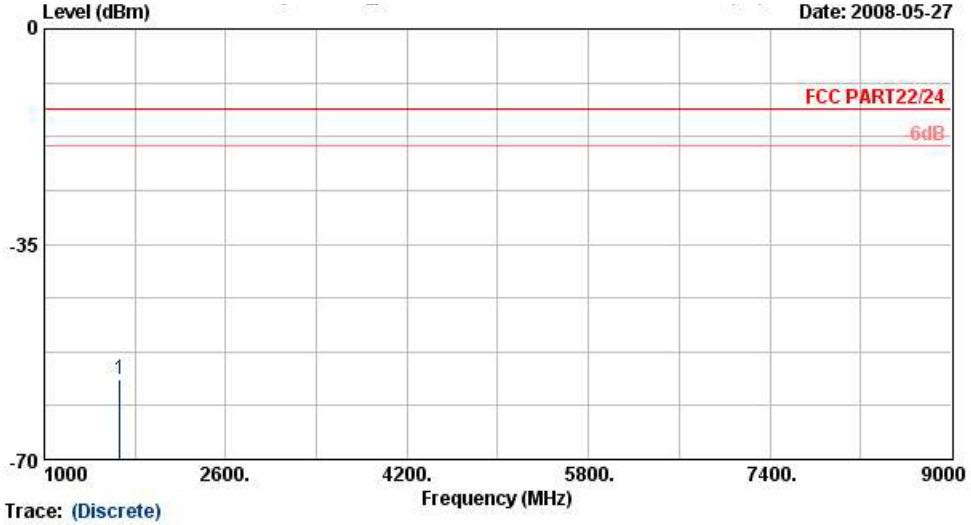


Site : 03CH07-HY
Condition : HF-EIRP(080306) VERTICAL
EUT : Notebook PC
Power : 120Vac/60Hz
Model : FG852118
Mode : EDGE Link; Ch661 + Adaptor
Plane : H
IMEI : 351532020021629

Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)	Result
5636	-54.60	-13	-41.60	-68.27	-60.5	3.87	9.77	V	Pass

Remark : Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

- Mode 5
- Horizontal Polarization

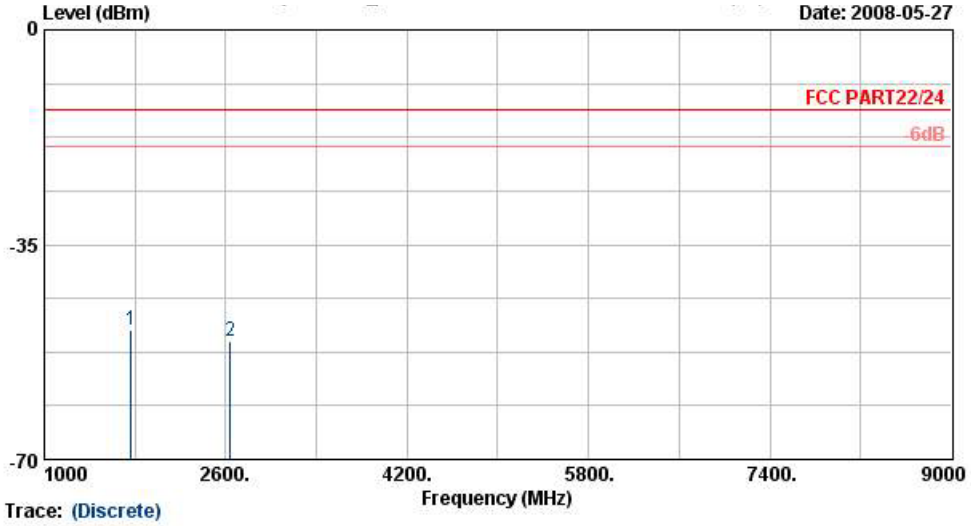


Site : 03CH07-HY
Condition : HF-EIRP(080306) HORIZONTAL
EUT : Notebook PC
Power : 120Vac/60Hz
Model : FG852118
Mode : WCDMA Link; Ch4182 + Adaptor
Plane : H
IMEI : 351532020021629

Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)	Result
1666	-56.99	-13	-43.99	-62.40	-56	3.39	4.55	H	Pass

Remark : Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

- Vertical Polarization

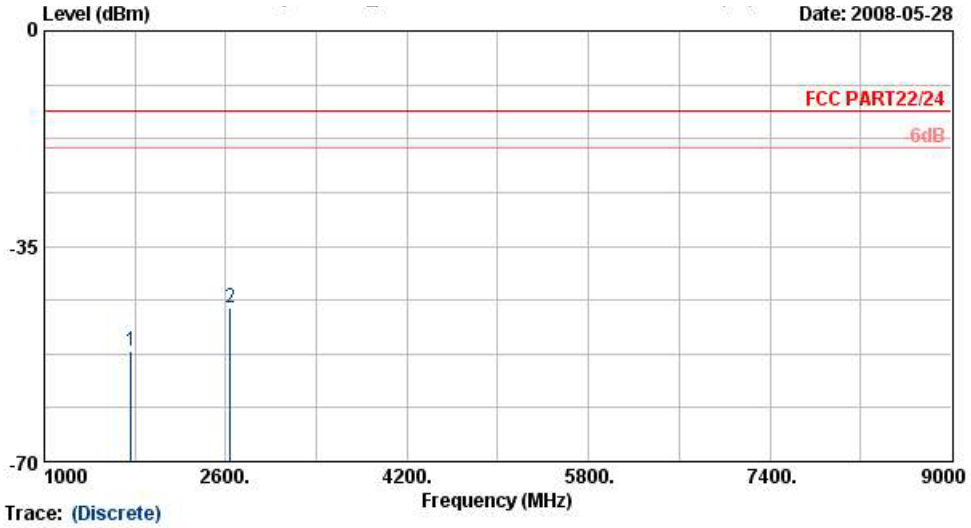


Site : 03CH07-HY
Condition : HF-EIRP(080306) VERTICAL
EUT : Notebook PC
Power : 120Vac/60Hz
Model : FG852118
Mode : WCDMA Link; Ch4182 + Adaptor
Plane : H
IMEI : 351532020021629

Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)	Result
1762	-48.88	-13	-35.88	-55.81	-47.5	3.39	4.16	V	Pass
2641	-50.64	-13	-37.64	-60.35	-50.5	3.71	5.72	V	Pass

Remark : Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

- Mode 6
- Horizontal Polarization

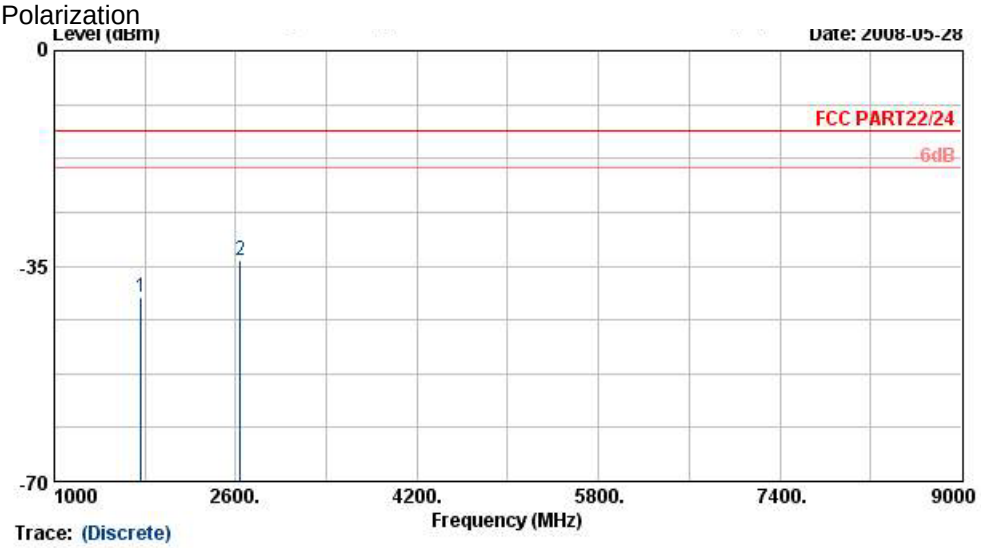


Site : 03CH07-HY
Condition : HF-EIRP(080306) HORIZONTAL
eut : Notebook PC
power : 120Vac/60Hz
Model : FG852118
Memo : HSUPA Link + Adaptor
IMEI : 351532020021629

Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)	Result
1762	-52.09	-13	-39.09	-57.70	-51.1	3.39	4.55	H	Pass
2641	-45.00	-13	-32.00	-52.29	-45.06	3.71	5.92	H	Pass

Remark : Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

- Vertical Polarization

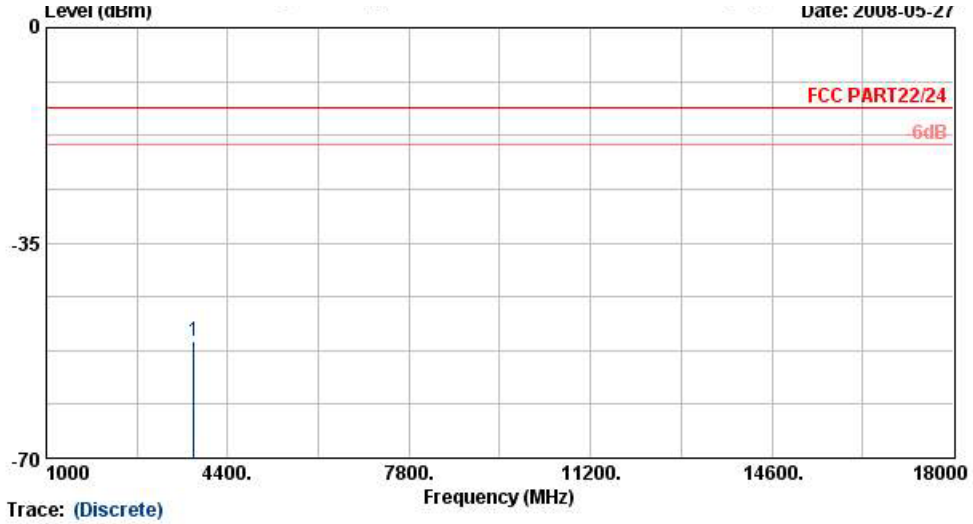


Site : 03CH07-HY
Condition : HF-EIRP(080306) VERTICAL
eut : Notebook PC
power : 120Vac/60Hz
Model : FG852118
Memo : HSUPA Link + Adaptor
IMEI : 351532020021629

Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)	Result
1762	-40.00	-13	-27.00	-45.84	-38.62	3.39	4.16	V	Pass
2641	-34.00	-13	-21.00	-45.10	-33.86	3.71	5.72	V	Pass

Remark : Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

- Mode 7
- Horizontal Polarization

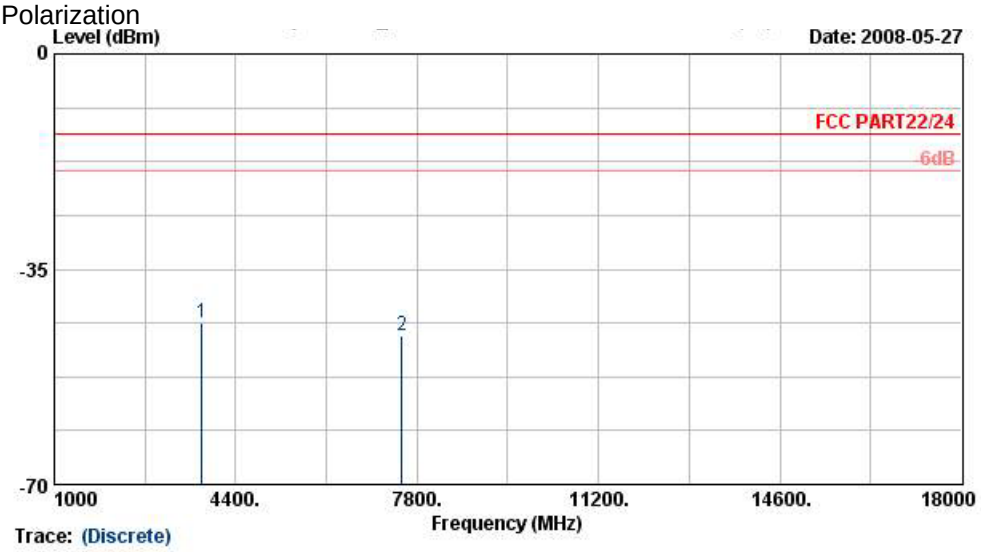


Site : 03CH07-HY
Condition : HF-EIRP(080306) HORIZONTAL
EUT : Notebook PC
Power : 120Vac/60Hz
Model : FG852118
Mode : WCDMA Link; Ch9400 + Adaptor
Plane : H
IMEI : 351532020021629

Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)	Result
3760	-50.93	-13	-37.93	-60.08	-54.3	4.03	7.40	H	Pass

Remark : Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

- Vertical Polarization

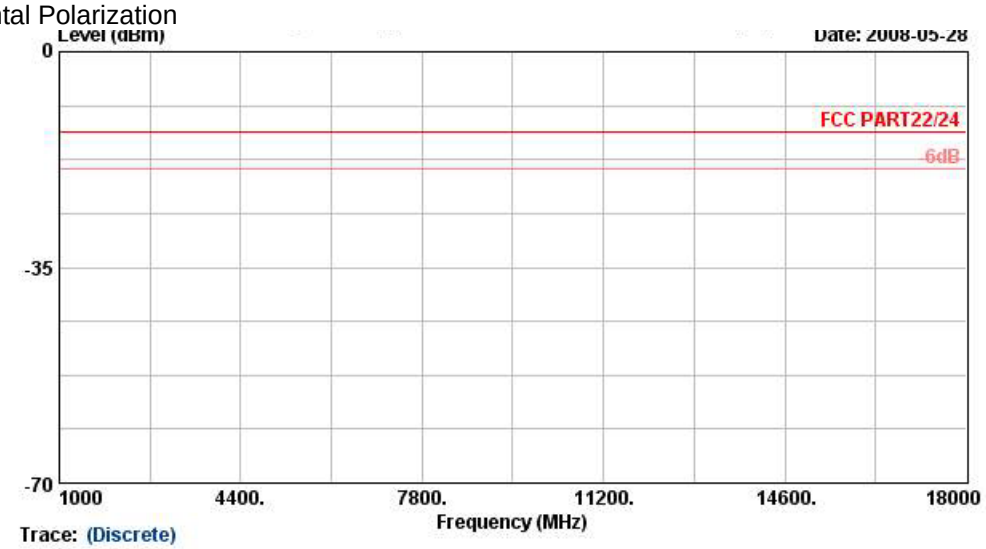


Site : 03CH07-HY
Condition : HF-EIRP(080306) VERTICAL
EUT : Notebook PC
Power : 120Vac/60Hz
Model : FG852118
Mode : WCDMA Link; Ch9400 + Adaptor
Plane : H
IMEI : 351532020021629

Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)	Result
3760	-43.62	-13	-30.62	-59.52	-47.5	4.03	7.91	V	Pass
7520	-45.82	-13	-32.82	-69.22	-50.8	5.83	10.81	V	Pass

Remark : Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

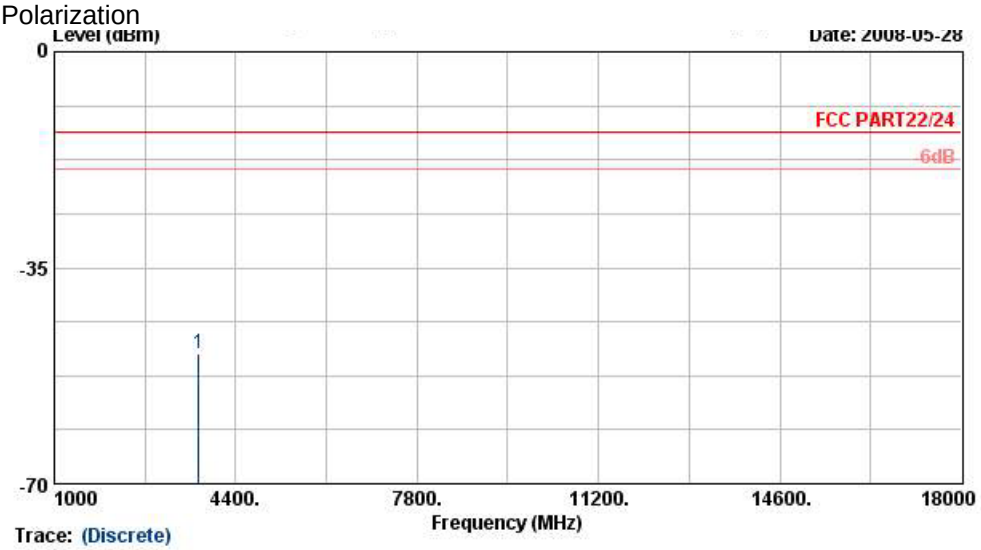
- Mode 8
- Horizontal Polarization



Site : 03CH07-HY
Condition : HF-EIRP(080306) HORIZONTAL
eut : Notebook PC
power : 120Vac/60Hz
Model : FG852118
Memo : HSUPA Link + Adaptor
IMEI : 351532020021629

Remark : Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

- Vertical Polarization

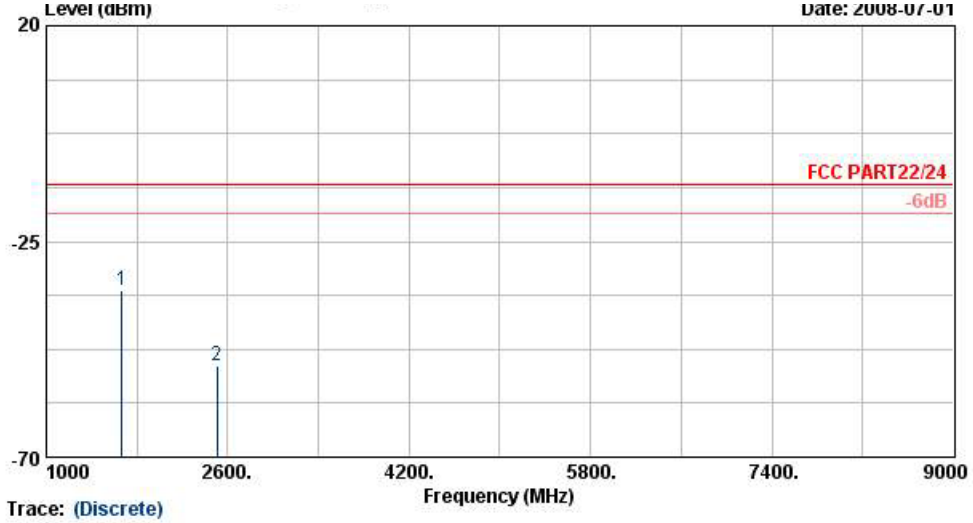


Site : 03CH07-HY
Condition : HF-EIRP(080306) VERTICAL
eut : Notebook PC
power : 120Vac/60Hz
Model : FG852118
Memo : HSUPA Link + Adaptor
IMEI : 351532020021629

Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)	Result
3700	-49.00	-13	-36.00	-63.64	-52.88	4.03	7.91	V	Pass

Remark : Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

- Mode 9
- Horizontal Polarization



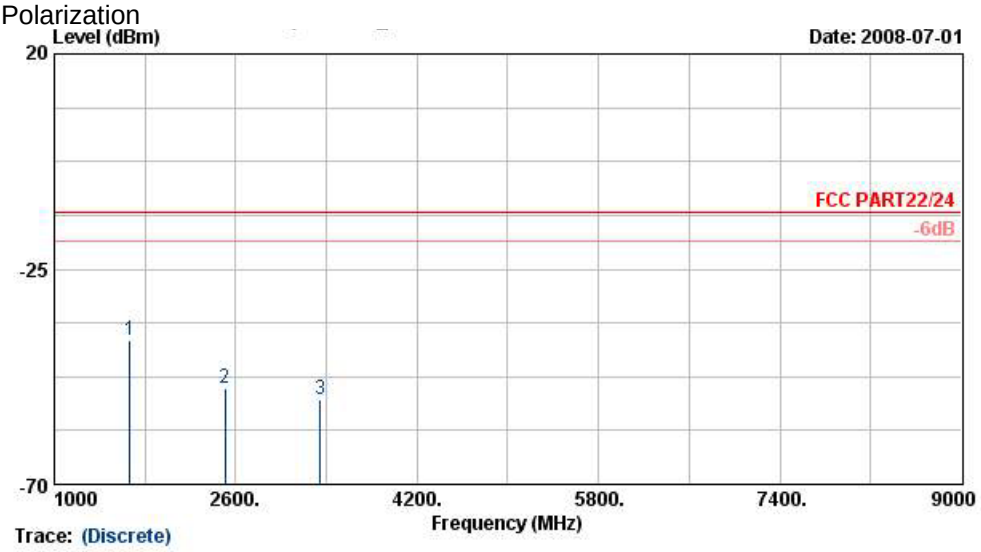
Trace: (Discrete)

Site : 03CH07-HY
Condition : HF-EIRP(080306) HORIZONTAL
EUT : Notebook PC
Power : 120Vac/60Hz
Model : FG852118
Mode : GSM 850 Link Ch189 + 11n(a) Tx_Ch165
: + Adaptor
Plane : H
IMEI : 351532020021629

Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)	Result
1669	-35.11	-13	-22.11	-43.65	-34.12	3.39	4.55	H	Pass
2509	-51.09	-13	-38.09	-57.49	-51.15	3.71	5.92	H	Pass

Remark : Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

- Vertical Polarization



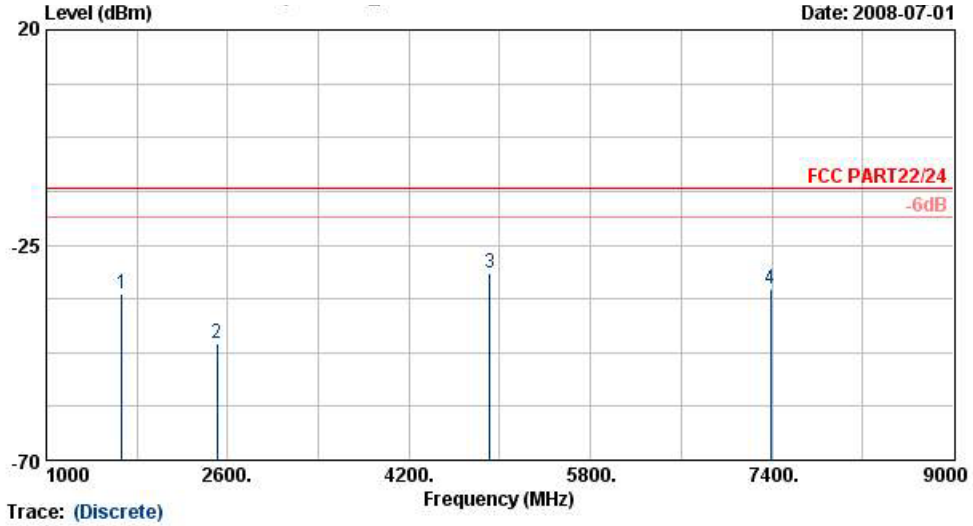
Trace: (Discrete)

Site : 03CH07-HY
Condition : HF-EIRP(080306) VERTICAL
EUT : Notebook PC
Power : 120Vac/60Hz
Model : FG852118
Mode : GSM 850 Link Ch189 + 11n(a) Tx_Ch165
: + Adaptor
Plane : H
IMEI : 351532020021629

Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)	Result
1669	-39.79	-13	-26.79	-45.44	-38.41	3.39	4.16	V	Pass
2509	-50.00	-13	-37.00	-58.80	-49.86	3.71	5.72	V	Pass
3346	-52.12	-13	-39.12	-61.40	-54.32	3.13	7.48	V	Pass

Remark : Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

- Mode 8
- Horizontal Polarization



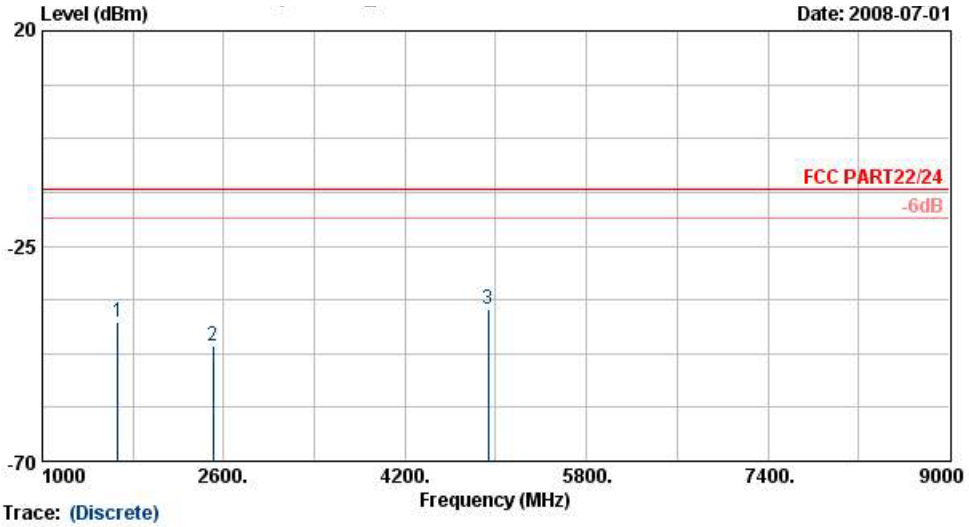
Trace: (Discrete)

Site : 03CH07-HY
Condition : HF-EIRP(080306) HORIZONTAL
EUT : Notebook PC
Power : 120Vac/60Hz
Model : FG 852118
Mode : GSM 850 Link Ch189 + 11n(g) Tx_Ch11
: + Adaptor
Plane : H
IMEI : 351532020021629

Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)	Result
1669	-35.34	-13	-22.34	-43.88	-34.35	3.39	4.55	H	Pass
2509	-45.50	-13	-32.50	-53.00	-45.56	3.71	5.92	H	Pass
4915	-30.94	-13	-17.94	-46.05	-34.69	2.61	8.51	H	Pass
7390	-34.04	-13	-21.04	-54.17	-35.38	6.22	9.71	H	Pass

Remark : Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

- Vertical Polarization



Trace: (Discrete)

Site : 03CH07-HY
Condition : HF-EIRP(080306) VERTICAL
EUT : Notebook PC
Power : 120Vac/60Hz
Model : FG 852118
Mode : GSM 850 Link Ch189 + 11n(g) Tx_Ch11
: + Adaptor
Plane : H
IMEI : 351532020021629

Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)	Result
1669	-40.80	-13	-27.80	-46.33	-39.42	3.39	4.16	V	Pass
2509	-45.88	-13	-32.88	-55.99	-45.74	3.71	5.72	V	Pass
4930	-38.05	-13	-25.05	-54.25	-42.41	2.61	9.12	V	Pass

Remark : Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

4.7 Frequency Stability (Temperature Variation)

4.7.1 Measurement Instrument

As decribed in chapter 5 of this test report.

4.7.2 Test Procedure

a. The EUT and test equipment were set up as shown on the following section.

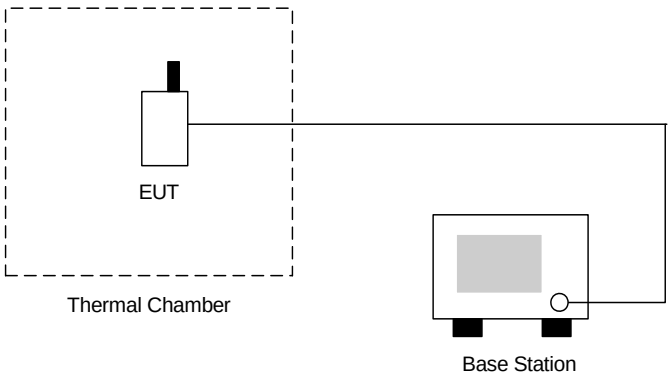
b. With all power removed, the temperature was decreased to -30°C and permitted to stabilize for three hours. Power was applied and the maximum change in frequency was note within one minute.

c. With power OFF, the temperature was raised in 10°C steps. The sample was permitted to stabilize at each step for at least one-half hour. Power was applied and the maximum frequency change ws noted within one minute.

d. The temperature tests were performed for the worst case.

e. Test data was recorded.

4.7.3 Test Setup Layout



4.7.4 Test Result

- Test Mode : GSM850 (GSM) CH189

Temperature(℃)	Change (Hz)	Change (ppm)	Limit (ppm)	Result
-30	-39	-0.02	2.5	Passed
-20	-27	-0.03		
-10	-38	-0.04		
0	-28	-0.03		
10	-30	-0.04		
20	-34	-0.04		
30	-37	-0.04		
40	-31	-0.04		
50	-34	-0.04		

- Test Mode : GSM850 (EDGE) CH189

Temperature(℃)	Change (Hz)	Change (ppm)	Limit (ppm)	Result
-30	-30	-0.02	2.5	Passed
-20	-28	-0.03		
-10	-33	-0.04		
0	-22	-0.03		
10	-35	-0.04		
20	-46	-0.05		
30	-40	-0.05		
40	-49	-0.06		
50	-59	-0.07		

- Test Mode : GSM1900 (GSM) CH661

Temperature(℃)	Change (Hz)	Change (ppm)	Limit (ppm)	Result
-30	-90	-0.05	2.5	Passed
-20	-78	-0.04		
-10	-94	-0.05		
0	-91	-0.05		
10	-76	-0.04		
20	-87	-0.05		
30	-81	-0.04		
40	-91	-0.05		
50	-96	-0.05		

- Test Mode : GSM1900 (EDGE) CH661

Temperature(℃)	Change (Hz)	Change (ppm)	Limit (ppm)	Result
-30	-97	-0.05	2.5	Passed
-20	-86	-0.05		
-10	-75	-0.04		
0	-92	-0.05		
10	-71	-0.04		
20	-53	-0.03		
30	-64	-0.03		
40	-75	-0.04		
50	-130	-0.07		

- Test Mode : WCDMA Band V CH4182

Temperature(℃)	Change (Hz)	Change (ppm)	Limit (ppm)	Result
-30	29	0.03	2.5	Passed
-20	-21	-0.02		
-10	14	0.02		
0	-13	-0.02		
10	-19	-0.02		
20	-27	-0.03		
30	-24	-0.03		
40	-14	-0.02		
50	-20	-0.02		

- Test Mode : WCDMA Band V (HSUPA) CH4182

Temperature(℃)	Change (Hz)	Change (ppm)	Limit (ppm)	Result
-30	22	0.03	2.5	Passed
-20	29	0.03		
-10	30	0.04		
0	15	0.02		
10	21	0.02		
20	-17	-0.02		
30	19	0.02		
40	14	0.02		
50	-17	-0.02		

- Test Mode : WCDMA Band II CH9400

Temperature(℃)	Change (Hz)	Change (ppm)	Limit (ppm)	Result
-30	-15	-0.01	2.5	Passed
-20	19	0.01		
-10	-36	-0.02		
0	-21	-0.01		
10	-32	-0.02		
20	-25	-0.01		
30	-40	-0.02		
40	-31	-0.02		
50	-36	-0.02		

- Test Mode : WCDMA Band II (HSUPA) CH9400

Temperature(℃)	Change (Hz)	Change (ppm)	Limit (ppm)	Result
-30	-35	-0.02	2.5	Passed
-20	-38	-0.02		
-10	-31	-0.02		
0	-20	-0.01		
10	-26	-0.01		
20	-23	-0.01		
30	-16	-0.01		
40	-25	-0.01		
50	17	0.01		

4.8 Frequency Stability (Voltage Variation)

4.8.1 Measurement Instrument

As described in chapter 5 of this test report.

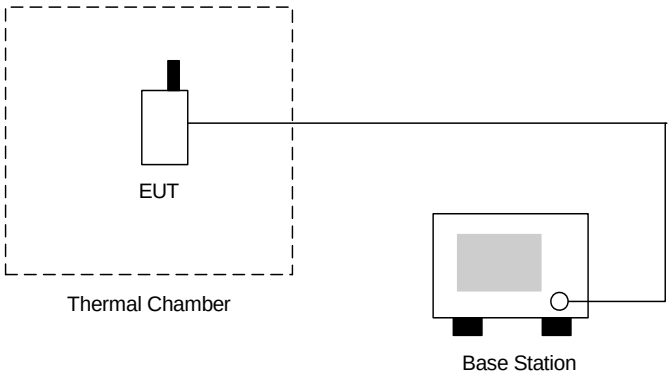
4.8.2 Test Procedure

a. The EUT was placed in a temperature chamber at 25±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

Voltage(Volt)	Change (Hz)	Change (ppm)	Limit (ppm)	Result
120	-3	0.00	2.5	Passed
BEP	39	0.05		
138	17	0.02		

- Test Mode : GSM850 (EDGE) CH189

Voltage(Volt)	Change (Hz)	Change (ppm)	Limit (ppm)	Result
120	40	0.05	2.5	Passed
BEP	59	0.07		
138	48	0.06		

- Test Mode : GSM1900 (GSM) CH661

Voltage(Volt)	Change (Hz)	Change (ppm)	Limit (ppm)	Result
120	-80	-0.04	2.5	Passed
BEP	-99	-0.05		
138	-91	-0.05		

- Test Mode : GSM1900 (EDGE) CH661

Voltage(Volt)	Change (Hz)	Change (ppm)	Limit (ppm)	Result
120	-70	-0.04	2.5	Passed
BEP	-97	-0.05		
138	-83	-0.04		

- Test Mode : WCDMA Band V CH4182

Voltage(Volt)	Change (Hz)	Change (ppm)	Limit (ppm)	Result
120	59	0.07	2.5	Passed
BEP	43	0.05		
138	66	0.08		

- Test Mode : WCDMA Band V (HSUPA) CH4182

Voltage(Volt)	Change (Hz)	Change (ppm)	Limit (ppm)	Result
120	23	0.03	2.5	Passed
BEP	33	0.04		
138	27	0.03		

- Test Mode : WCDMA Band II CH9400

Voltage(Volt)	Change (Hz)	Change (ppm)	Limit (ppm)	Result
120	-19	-0.01	2.5	Passed
BEP	-22	-0.01		
138	-37	-0.02		

- Test Mode : WCDMA Band II (HSUPA) CH9400

Voltage(Volt)	Change (Hz)	Change (ppm)	Limit (ppm)	Result
120	33	0.02	2.5	Passed
BEP	16	0.01		
138	27	0.01		

Remark:

1. Normal Voltage= 120V.
2. Battery End Point (BEP)= 102 V.

5. List of Measurement Equipments

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Due Date	Remark
Thermal Chamber	Tenyi	TTH-D35P	TBN-930701	N/A	Aug. 02, 2007	Aug. 01, 2008	Conducted (TH02-HY)
Power Meter	Agilent	E4416A	GB41292344	N/A	Feb. 21, 2008	Feb. 20, 2009	Conducted (TH02-HY)
Power Sensor	Agilent	E9327A	US40441548	N/A	Feb. 21, 2008	Feb. 20, 2009	Conducted (TH02-HY)
Spectrum	R&S	FSP40	100055	9KHz~40GHz	Jun. 26, 2008	Jun. 25, 2009	Conducted (TH02-HY)
Double Ridge Horn Antenna	ESCO	3117	66584	1G~18G	Dec. 20, 2007	Dec. 19, 2008	Radiation (03CH07-HY)
Bilog Antenna	SCHAFFNER	CBL6111C	2726	30MHz-1GHz	Dec. 01, 2007	Nov. 31, 2008	Radiation (03CH07-HY)
Spectrum Analyzer	R & S	FSP	101067	9KHz~30GHz	Dec. 05, 2007	Dec. 04, 2008	Radiation (03CH07-HY)
Base Station Simulator	R & S	CMU200	103937	Third-Band	Oct. 19, 2007	Oct. 18, 2008	Radiation (03CH07-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		$u(x_i)$	Ci	$Ci*u(x_i)$
	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 Γ1= 0.197 Antenna VSWR Γ2= 0.194 Uncertainty=20log(1-Γ1*Γ2*Γ3)	+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

Appendix A. Photographs of EUT

Please refer to Sporton report number EP852118 as below.