



FCC / IC TEST REPORT

for

47 CFR Part 22H, 24E, RSS-132, and RSS-133

Equipment : PDA Phone
Trade Name : palm
Model No. : Treo 750 / Treo 750v
FCC ID : O8F-KITT
IC ID : 3905A-KITT
Tx Frequency Range : GSM850 : 824~849 MHz
PCS : 1850~1910 MHz
WCDMA Band 5 : 824~849 MHz
WCDMA Band 2 : 1850~1910 MHz
Max. ERP/EIRP Power : GSM850 (GSM) : 0.37 W
GSM850 (EDGE) : 0.22 W
PCS (GSM) : 0.57 W
PCS (EDGE) : 0.19 W
WCDMA Band 5 : 0.07 W
WCDMA Band 2 : 0.05 W
Emission Designator : GSM : 246KGXW
EDGE : 244KG7W
WCDMA : 4M22F9W
Applicant : Palm, Inc
950 W Maude Avenue MS 22L02 Sunnyvale, CA 94085-2801

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- The data shown in this test report were carried out on Nov. 10, 2006 at **Sporton International Inc. LAB.**
- Report No.: FG660618-01, Report Version: Rev. 01.

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Report Version: Rev. 01



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Appendix A - Setup Photographs

Appendix B - WCDMA Test Modes



History of this test report

Report Issue Date: Nov. 13, 2006

Report No.	Description
FG660618-01	Update test report No. FG660618 by re-testing radiated emission, conducted emission, output power, occupied bandwidth, band edge and frequency stability for HSDPA mode, which is enabled by software on the EUT.



1. General Information

1.1. Applicant

Palm, Inc
950 W Maude Avenue MS 22L02 Sunnyvale, CA 94085-2801

1.2 Manufacturer

Palm, Inc
950 W Maude Avenue MS 22L02 Sunnyvale, CA 94085-2801

1.3 Basic Description of Equipment under Test

Equipment : PDA Phone
Trade Name : palm
Model No. : Treo 750 / Treo 750v
FCC ID : O8F-KITT
IC ID : 3905A-KITT
Power Supply Type : Switching
AC Power Cord : AC 120V, Non-shielded, Wall-mount, 1.8 meter, 2 pin
Adapter 1 : Netbit, DSC51F series
Adapter 2 : Leader, MU03-W052100-A1
Adapter 3 : MEI, SCPxxxxxyyyP series
Adapter 4 : Pie, P005WA050J01200
Battery 1 : Tyco, B6177
Battery 2 : SAMSUNG, ICP653450U

Remark: Battery 1 and Battery 2 have the same circuit design, only battery 2 was used for testing.



1.4 Feature of Equipment under Test

DUT Type :	PDA Phone
Trade Name :	palm
Model Name :	Treo 750 / Treo 750v
FCC ID :	O8F-KITT
IC ID :	3905A-KITT
Tx Frequency :	GSM850 : 824 ~ 849 MHz PCS : 1850 ~1910 MHz WCDMA Band 5 : 824~849 MHz WCDMA Band 2 : 1850~1910 MHz Bluetooth : 2400~2483.5 MHz
Rx Frequency :	GSM 850 : 869 ~ 894 MHz PCS : 1930 ~ 1990 MHz WCDMA Band 5 : 869~894 MHz WCDMA Band 2 : 1930~1990 MHz Bluetooth : 2400~2483.5 MHz
Antenna Type :	Fixed Internal
Maximum Output Power to Antenna :	GSM850 (GSM) : 32.60 dBm GSM850 (EDGE) : 26.8 dBm PCS (GSM) : 29.70 dBm PCS (EDGE) : 25.4 dBm WCDMA Band 5 : 23.51 dBm WCDMA Band 5 (HSDPA) : 23.96 dBm WCDMA Band 2 : 23.76 dBm WCDMA Band 2 (HSDPA) : 23.26 dBm Bluetooth : 1.22 dBm
Maximum ERP/EIRP :	GSM850 (GSM) : 0.37 W (25.67 dBm) GSM850 (EDGE) : 0.22 W (23.46 dBm) PCS (GSM) : 0.57 W (27.57 dBm) PCS (EDGE) : 0.19 W (22.80 dBm) WCDMA Band 5 : 0.07 W (18.39 dBm) WCDMA Band 2 : 0.05 W (17.09 dBm)
HW Version :	DVT PVT (for HSDPA)
SW Version :	0.85 1.2 (for HSDPA)
Power Rating (DC/AC , Voltage and Current of RF element or PA) :	DC 3.7V
Digital Modulation Emission :	GSM850/PCS : GMSK EDGE : 8PSK WCDMA/HSDPA : QPSK Bluetooth : GFSK
Type of Emission :	GSM : 246KGXW EDGE : 244KG7W WCDMA : 4M22F9W
Device Power Class :	GSM850 : 4 PCS1900 : 1
DUT Stage :	Identical Prototype



1.5 Report Date

EUT Received : Nov. 09, 2006

Report Date : Nov. 13, 2006



2 Test Configuration of Equipment under Test

2.1 Test Manner

- a. The spurious emission measurements were carried out in semi-anechoic chamber with 3-meter test range.
- b. During all testings, EUT is in link mode with base station emulator at maximum power level.
- c. Frequency range investigated: radiated emission 30 MHz to 9000 MHz for GSM850 and WCDMA Band 5; 30MHz to 19000 MHz for PCS and WCDMA Band 2.

2.1.1 Testing Rationale for WCDMA

RMC 12.2 Kbps is the main test mode for WCDMA. From the appendix B, the conducted output power, the bandedge and the conducted spurious emission for all WCDMA modes have no obvious deviation. Therefore, RMC 12.2 Kbps can be used as the main test mode for all test items.

2.1.2 Testing Rationale for HSDPA upgrade

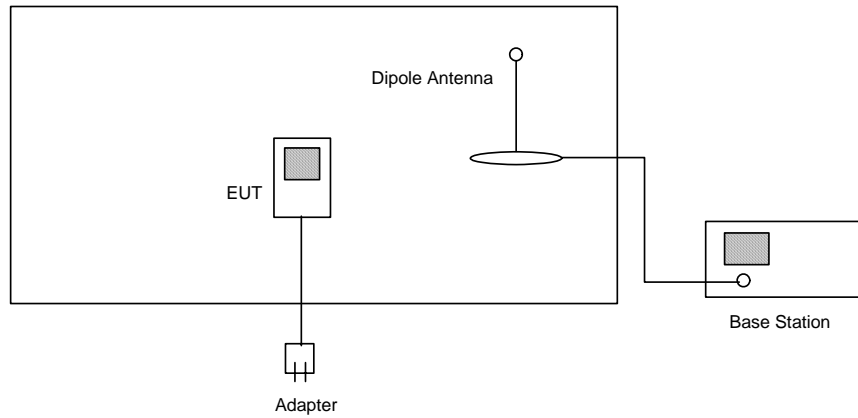
The WCDMA on the EUT is upgraded to enable HSDPA mode by software control. The main board, RF solution, the antenna and the others are kept the same. Therefore, only HSDPA mode is verified for the compliance. RMC12.2 Kbps is the main mode for HSDPA.

2.2 Test Mode

Application	GSM 850	PCS 1900	WCDMA Band 5	WCDMA Band 2
Radiated Emission	<input checked="" type="checkbox"/> Mode 1: GSM Link_CH 189 <input checked="" type="checkbox"/> Mode 2: EDGE Link_CH 189 <input checked="" type="checkbox"/> Mode 7: CH 189+Bluetooth CH00	<input checked="" type="checkbox"/> Mode 3: GSM Link_CH 661 <input checked="" type="checkbox"/> Mode 4: EDGE Link_CH 661	<input checked="" type="checkbox"/> Mode 5: CH 4182 <input checked="" type="checkbox"/> Mode 8: HSDPA Link_CH 4182	<input checked="" type="checkbox"/> Mode 6: CH 9400 <input checked="" type="checkbox"/> Mode 9: HSDPA Link_CH 9400
Conducted Measurement	<input checked="" type="checkbox"/> Mode 1: GSM_CH 189 <input checked="" type="checkbox"/> Mode 2: EDGE_CH 189	<input checked="" type="checkbox"/> Mode 3: GSM_CH 661 <input checked="" type="checkbox"/> Mode 4: EDGE_CH 661	<input checked="" type="checkbox"/> Mode 5: CH 4182 <input checked="" type="checkbox"/> Mode 7: HSDPA_CH 4182	<input checked="" type="checkbox"/> Mode 6: CH 9400 <input checked="" type="checkbox"/> Mode 8: HSDPA_CH 4182

Remark: In conducted measurement, only conducted power, occupied bandwidth, band edge, conducted emission and frequency stability were re-tested for HSDPA mode.

2.3 Connection Diagram of Test System



2.4 Ancillary Equipment List

Item	Equipment	Model No.	Serial No.
1.	Base Station(R&S)	CMU200	106656



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. The Industry Canada file number for this site is IC 4088.

3.1 Test Voltage

120V/ 60Hz

3.2 Test in Compliance with

47 CFR Part 22H, 24E, Part 2, RSS-132 Issue 2, and RSS-133 Issue 3.

3.3 Frequency Range Investigated

- a. Radiation: from 30MHz to 9000MHz for GSM850 and WCDMA Band 5.
- b. Radiation: from 30 MHz to 19000 MHz for PCS and WCDMA Band 2.

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	IC Rule	DESCRIPTION OF TEST	Result	Section
§2.1046	RSS-132 §4.4 RSS-133 §6.4	RF Output Power	Passed	4.2
§ 22.913 §24.232	RSS-132 §4.4 RSS-133 §6.4	ERP / EIRP	Passed	4.3
§2.1049, § 22.917, § 24.238(b)	RSS-132 §4.5 RSS-133 §6.5	Occupied Bandwidth & Band Edge Measurement	Passed	4.4
§2.1051	RSS-132 §4.5 RSS-133 §6.5	Conducted Emission	Passed	4.5
§2.1053	RSS-132 §4.5 RSS-133 §6.5	Field Strength of Spurious Radiation	Passed	4.6
§2.1055, § 22.355, §24.235	RSS-132 §4.3 RSS-133 §6.3	Frequency Stability vs. Temperature	Passed	4.7
§2.1055, §22.355, §24.235	RSS-132 §4.3 RSS-133 §6.3	Frequency Stability vs. Voltage	Passed	4.8

4.2 RF Output Power

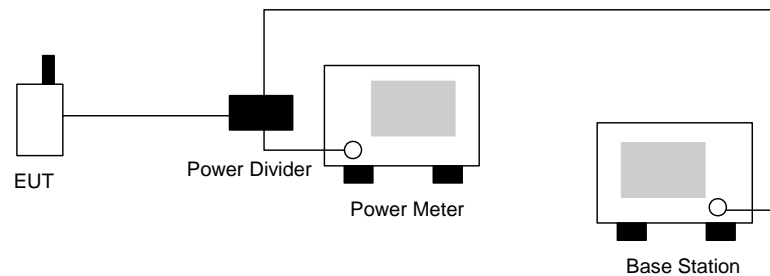
4.2.1 Measurement Instruments :

As described in chapter 5 of this test report.

4.2.2 Test Procedure :

1. The transmitter output was connected to power meter and base station through power divider.
2. Set EUT at PCL=5 for GSM 850 and/or PCL=0 for PCS and WCDMA maximum 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)	32.60	1.820
	189	836.4 (Mid)	32.60	1.820
	251	848.8 (High)	32.60	1.820
PCS (GSM)	512	1850.2 (Low)	29.70	0.933
	661	1880.0 (Mid)	29.60	0.912
	810	1909.8 (High)	29.50	0.891
GSM850 (EDGE10)	128	824.2 (Low)	26.80	0.479
	189	836.4 (Mid)	26.80	0.479
	251	848.8 (High)	26.80	0.479
PCS (EDGE10)	512	1850.2 (Low)	25.30	0.339
	661	1880.0 (Mid)	25.40	0.347
	810	1909.8 (High)	25.20	0.331
WCDMA Band 5	4132	826.4 (Low)	23.38	0.218
	4182	836.4 (Mid)	23.51	0.224
	4233	846.6 (High)	23.25	0.211
WCDMA Band 5 (HSDPA)	4132	826.4 (Low)	23.26	0.212
	4182	836.4 (Mid)	23.26	0.212
	4233	846.6 (High)	23.23	0.210
WCDMA Band 2	9262	1852.4 (Low)	23.76	0.238
	9400	1880.0 (Mid)	23.74	0.237
	9538	1907.6 (High)	23.72	0.236
WCDMA Band 2 (HSDPA)	9262	1852.4 (Low)	23.86	0.243
	9400	1880.0 (Mid)	23.96	0.249
	9538	1907.6 (High)	23.93	0.247



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 rotatable 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.

$E_t = R_t + AF$

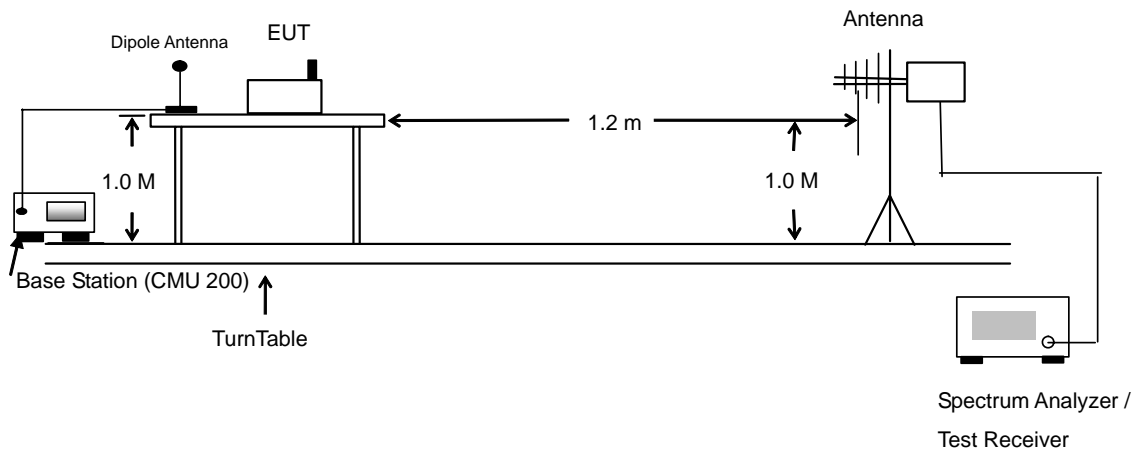
$E_s = R_s + AF$

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)
824.2	-21.77	-48.12	0	-1.08	25.27	0.34
836.4	-21.68	-48.28	0	-0.93	25.67	0.37
848.8	-22.82	-48.35	0	-0.76	24.77	0.30
Vertical Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBd)	ERP (dBm)	ERP (W)
824.2	-24.78	-47.97	0	-1.08	22.11	0.16
836.4	-24.71	-48.01	0	-0.93	22.37	0.17
848.8	-25.92	-48.05	0	-0.76	21.37	0.14

PCS (GSM) Radiated Power EIRP						
Horizontal Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBi)	EIRP (dBm)	EIRP (W)
1850.2	-30.39	-51.88	0	1.96	23.45	0.22
1880.0	-29.13	-52.99	0	2.00	25.86	0.39
1909.8	-28.69	-54.28	0	1.98	27.57	0.57
Vertical Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBi)	EIRP (dBm)	EIRP (W)
1850.2	-41.10	-52.13	0	1.96	12.99	0.02
1880.0	-40.12	-53.17	0	2.00	15.05	0.03
1909.8	-40.26	-54.13	0	1.98	15.85	0.04



GSM850 (EDGE) Radiated Power ERP						
Horizontal Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBd)	ERP (dBm)	ERP (W)
824.2	-38.74	-48.12	0	-1.08	8.30	0.01
836.4	-38.58	-48.28	0	-0.93	8.77	0.01
848.8	-36.88	-48.35	0	-0.76	10.71	0.01
Vertical Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBd)	ERP (dBm)	ERP (W)
824.2	-26.33	-47.97	0	-1.08	20.56	0.11
836.4	-25.83	-48.01	0	-0.93	21.25	0.13
848.8	-23.83	-48.05	0	-0.76	23.46	0.22

PCS (EDGE) Radiated Power EIRP						
Horizontal Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBi)	EIRP (dBm)	EIRP (W)
1850.2	-33.32	-51.88	0	1.96	20.52	0.11
1880.0	-35.08	-52.99	0	2	19.91	0.10
1909.8	-37.00	-54.28	0	1.98	19.26	0.08
Vertical Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBi)	EIRP (dBm)	EIRP (W)
1850.2	-31.29	-52.13	0	1.96	22.80	0.19
1880.0	-33.35	-53.17	0	2	21.82	0.15
1909.8	-35.22	-54.13	0	1.98	20.89	0.12



WCDMA Band 5 Radiated Power ERP						
Horizontal Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBd)	ERP (dBm)	ERP (W)
826.4	-29.63	-48.12	0	-1.08	17.41	0.06
836.4	-28.96	-48.28	0	-0.93	18.39	0.07
846.6	-29.51	-48.35	0	-0.76	18.08	0.06
Vertical Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBd)	ERP (dBm)	ERP (W)
826.4	-31.85	-47.97	0	-1.08	15.04	0.03
836.4	-31.43	-48.01	0	-0.93	15.65	0.04
846.6	-31.97	-48.05	0	-0.76	15.32	0.03

WCDMA Band 2 Radiated Power EIRP						
Horizontal Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBi)	EIRP (dBm)	EIRP (W)
1852.4	-40.17	-51.88	0	1.96	13.67	0.02
1880.0	-38.98	-52.99	0	2.00	16.01	0.04
1907.6	-39.17	-54.28	0	1.98	17.09	0.05
Vertical Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBi)	EIRP (dBm)	EIRP (W)
1852.4	-49.53	-52.13	0	1.96	4.56	0.00
1880.0	-49.00	-53.17	0	2.00	6.17	0.00
1907.6	-49.05	-54.13	0	1.98	7.06	0.01

4.4 Occupied Bandwidth and Band Edge Measurement

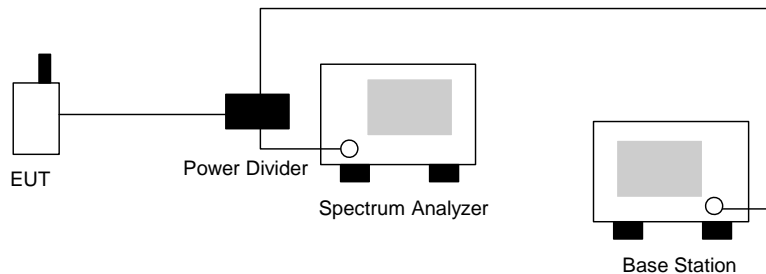
4.4.1 Measurement Instruments

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 $BW/100$.

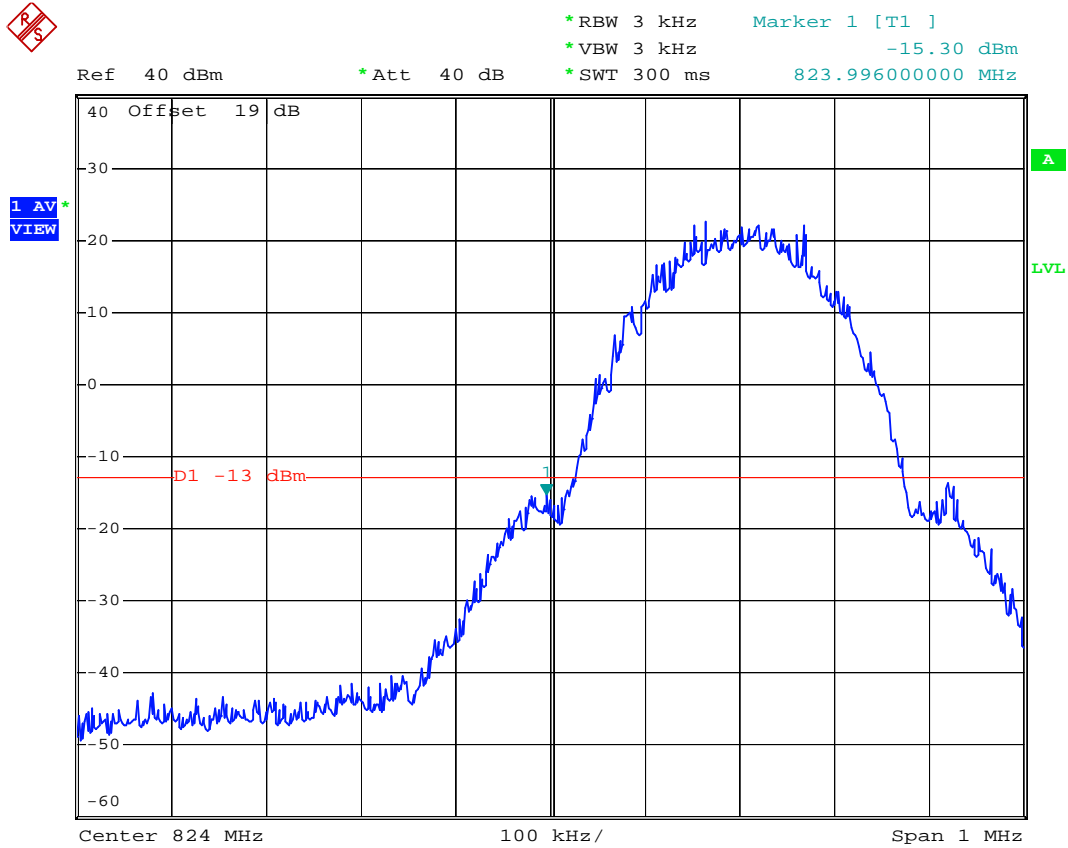
4.4.3 Test Setup Layout





4.4.4 Test Result

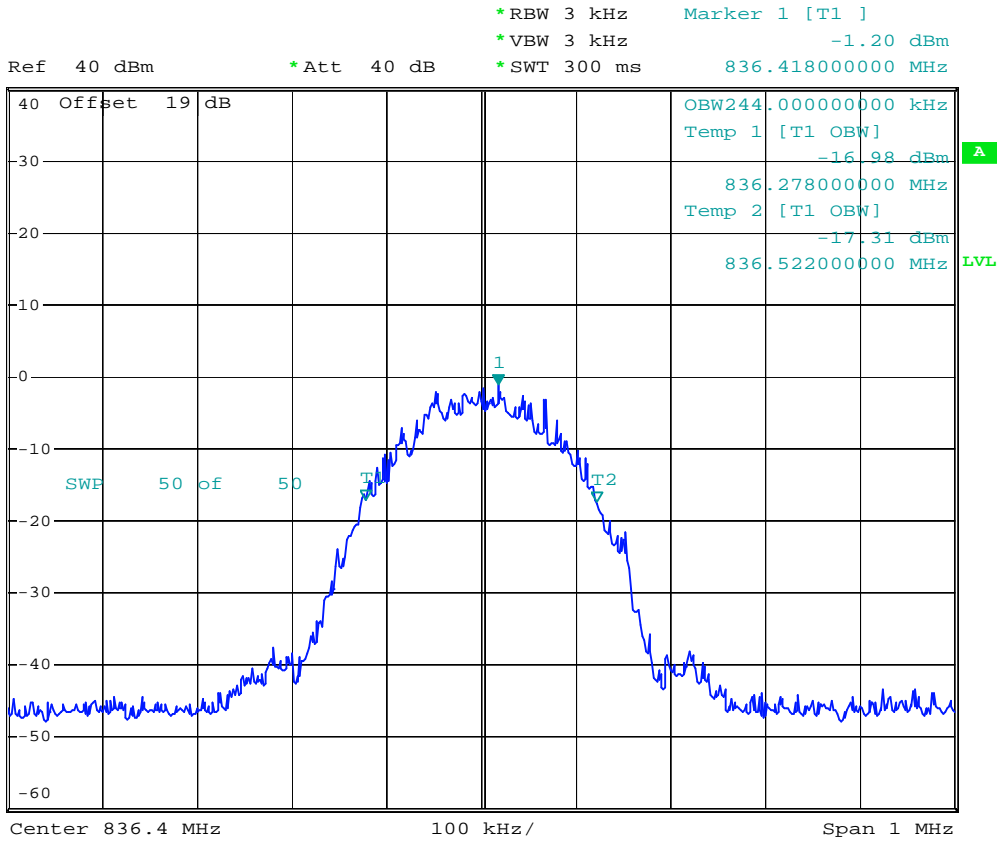
- Mode 1
- Test Mode : GSM 850 (GSM) CH128 Lower Band Edge
- Power State : High



Date: 4.MAR.2006 21:24:17



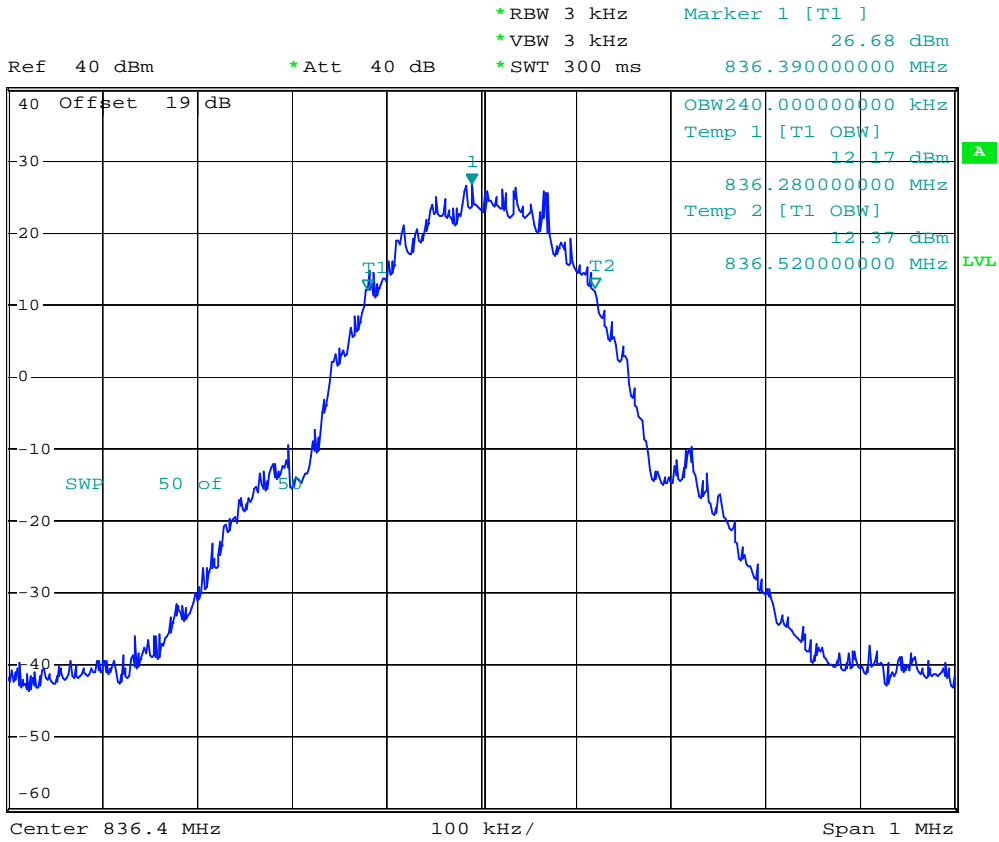
- Test Mode : GSM 850 (GSM) CH189 99% Occupied Bandwidth
- Power State : Low



Date: 4.MAR.2006 22:26:19



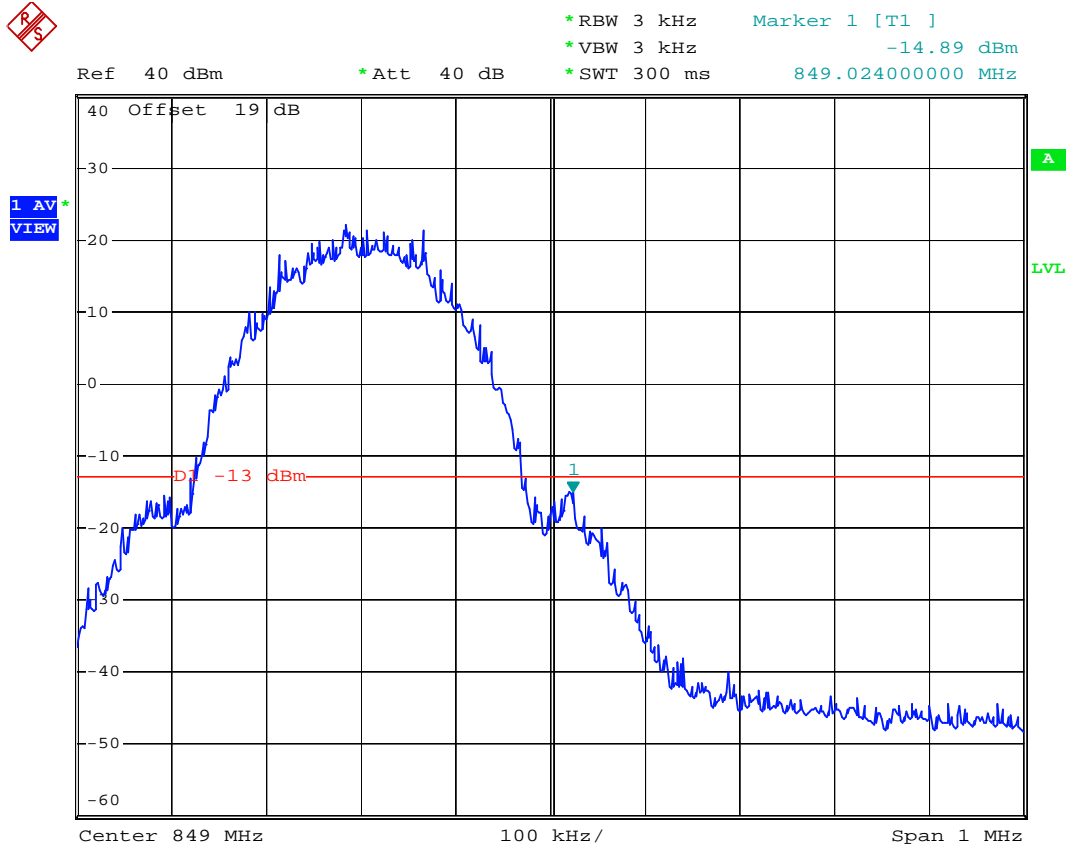
- Test Mode : GSM 850 (GSM) CH189 99% Occupied Bandwidth
- Power State : High



Date: 4.MAR.2006 22:25:12



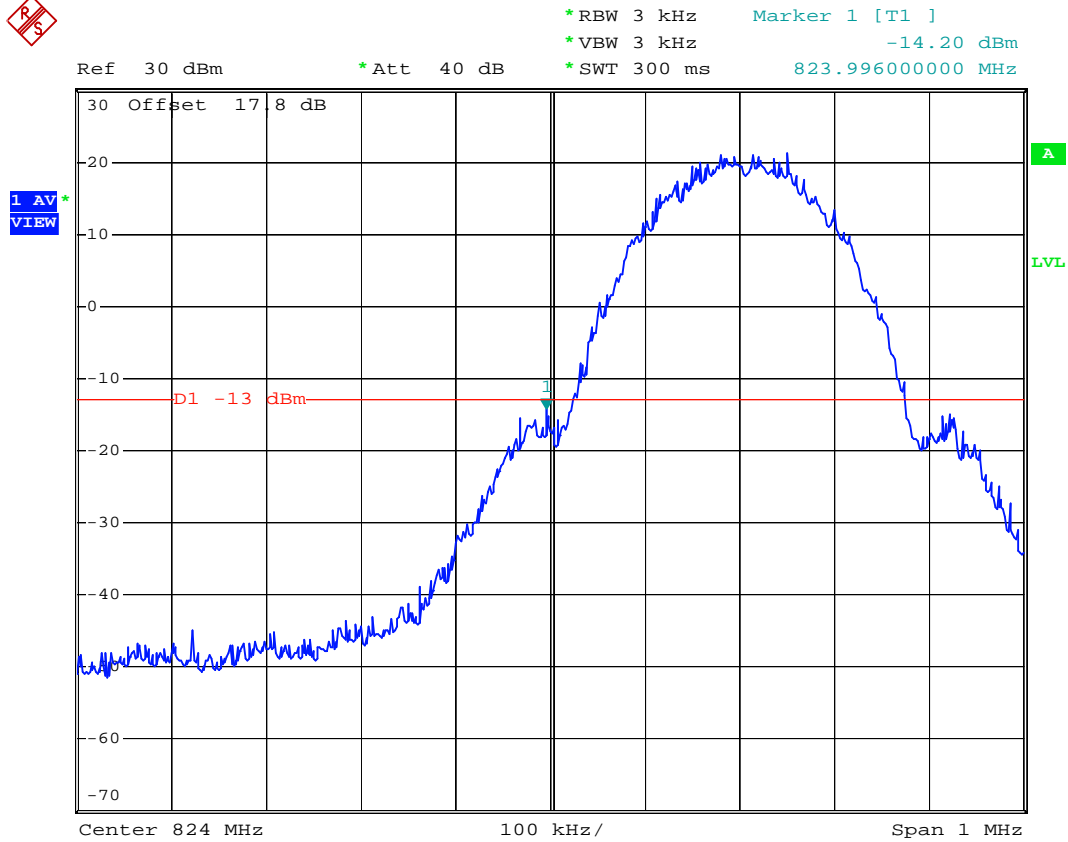
- Test Mode : GSM 850 (GSM) CH251 Higher Band Edge
- Power State : High



Date: 4.MAR.2006 21:26:42



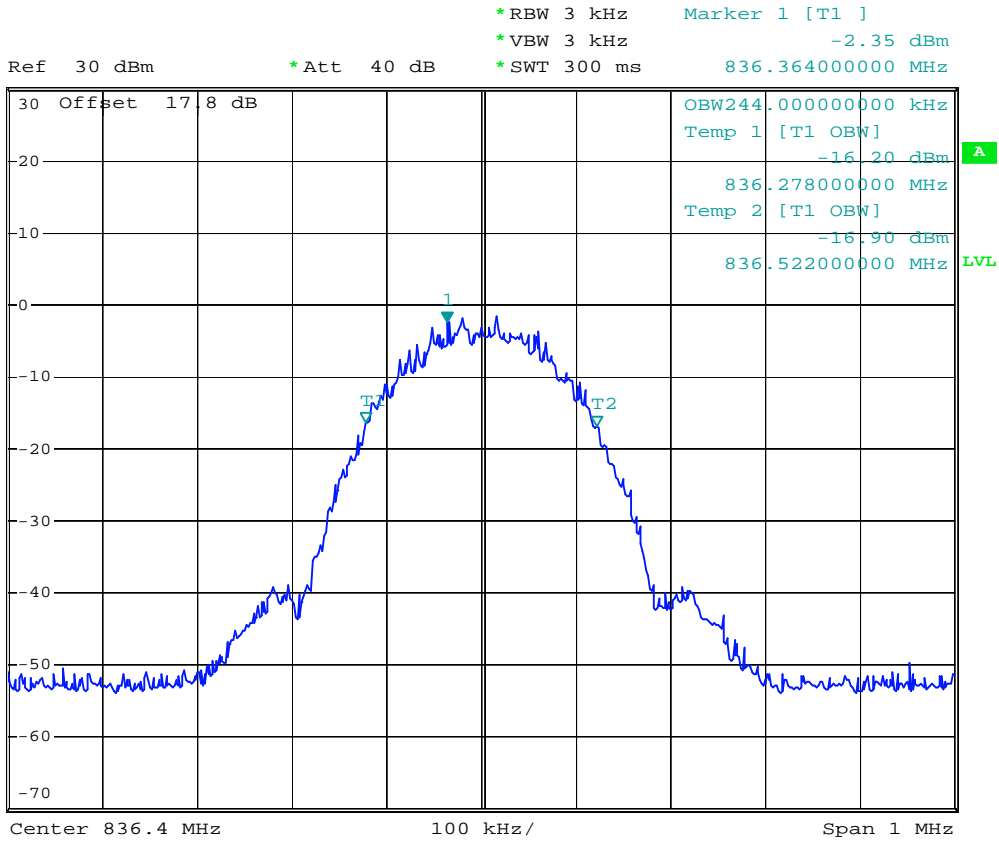
- Mode 2
- Test Mode : GSM 850 (EDGE) CH128 Lower Band Edge
- Power State : High



Date: 27.JUN.2006 18:43:43



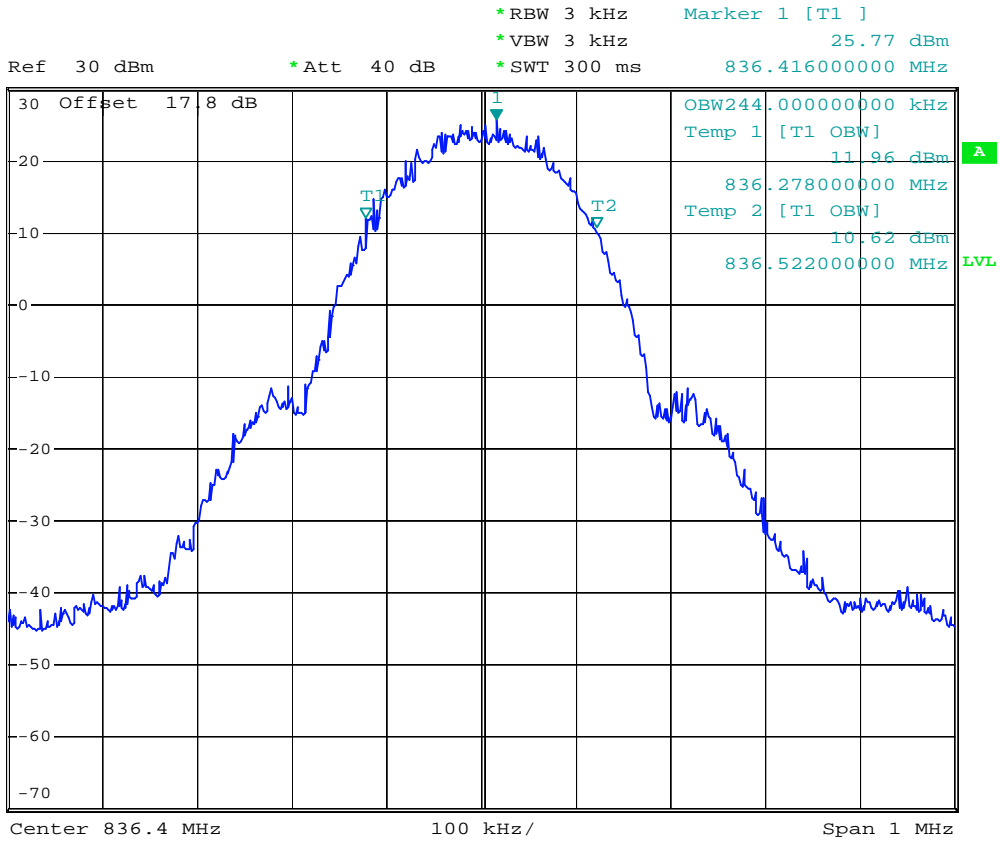
- Test Mode : GSM 850 (EDGE) CH189 99% Occupied Bandwidth
- Power State : Low



Date: 27.JUN.2006 18:38:56



- Test Mode : GSM 850 (EDGE) CH189 99% Occupied Bandwidth
- Power State : High



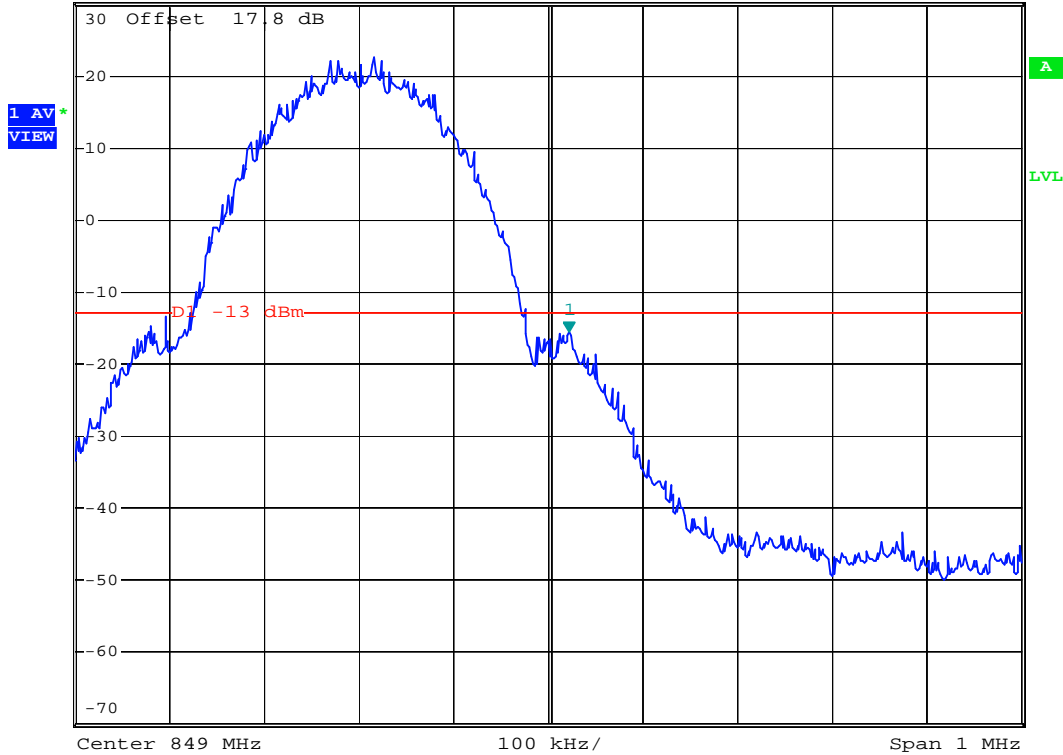
Date: 27.JUN.2006 18:37:18



- Test Mode : GSM 850 (EDGE) CH251 Higher Band Edge
- Power State : High



Ref 30 dBm * Att 40 dB * RBW 3 kHz Marker 1 [T1] -15.61 dBm
* VBW 3 kHz 849.02200000 MHz
* SWT 300 ms



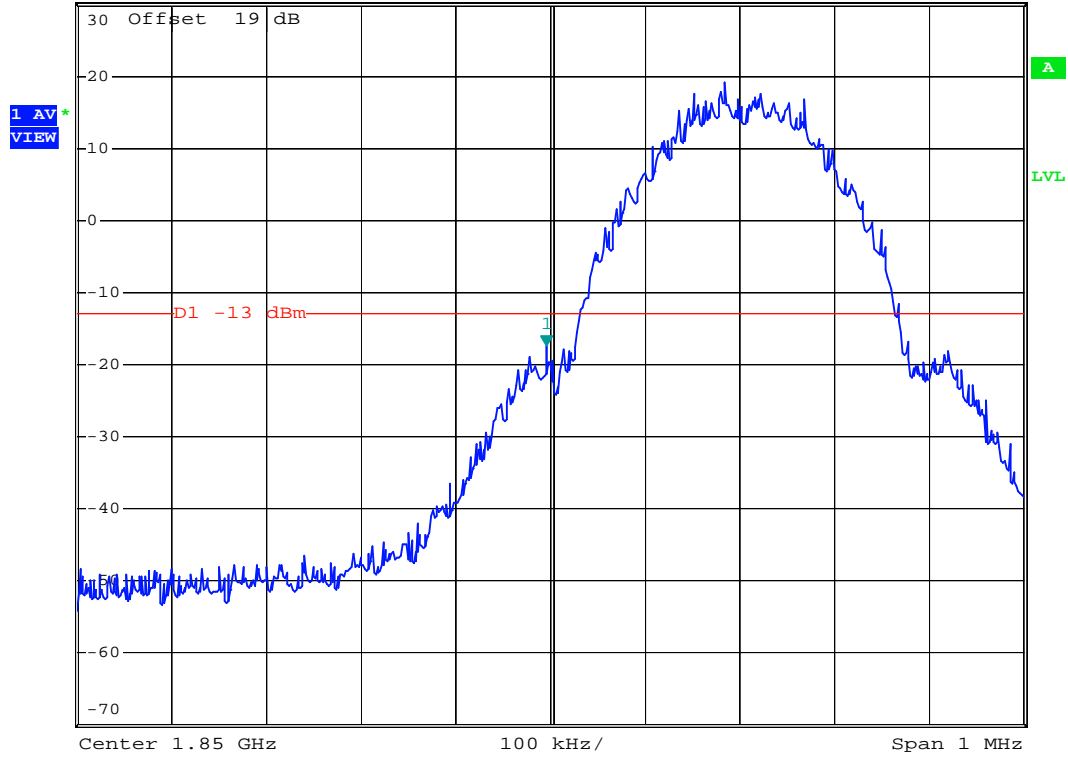
Date: 27.JUN.2006 18:45:34



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



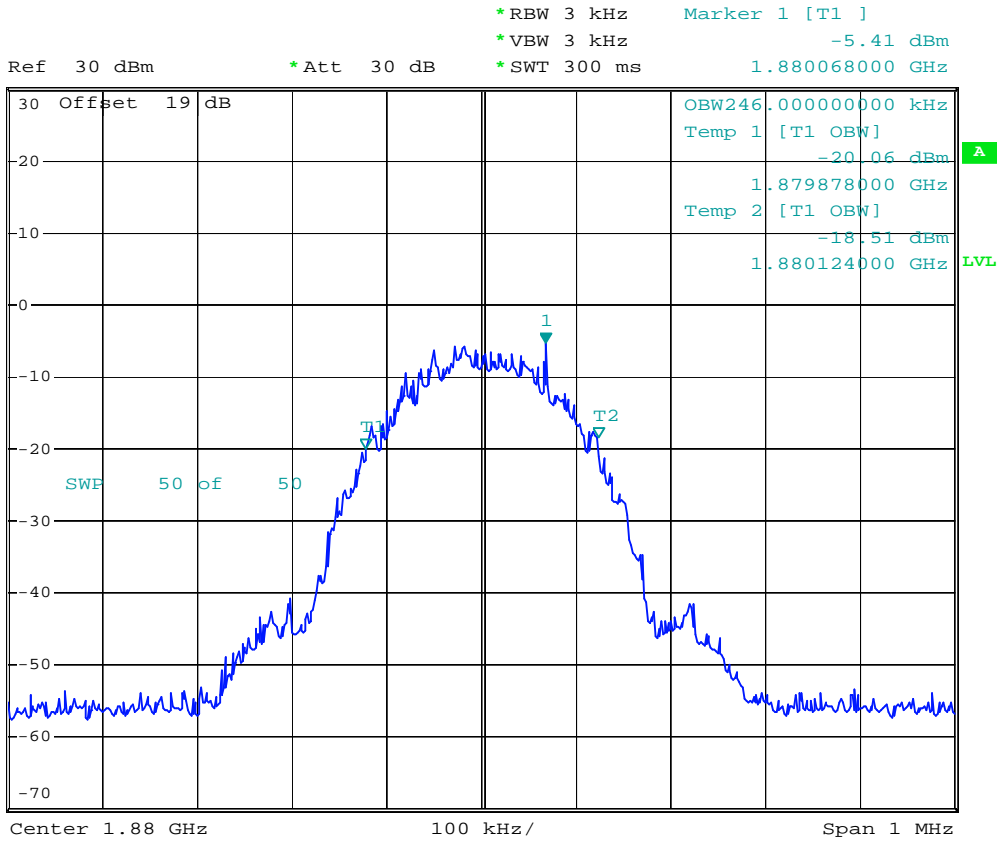
Ref 30 dBm *Att 30 dB *RBW 3 kHz Marker 1 [T1]
*VBW 3 kHz -17.34 dBm
*SWT 300 ms 1.849996000 GHz



Date: 4.MAR.2006 22:38:34



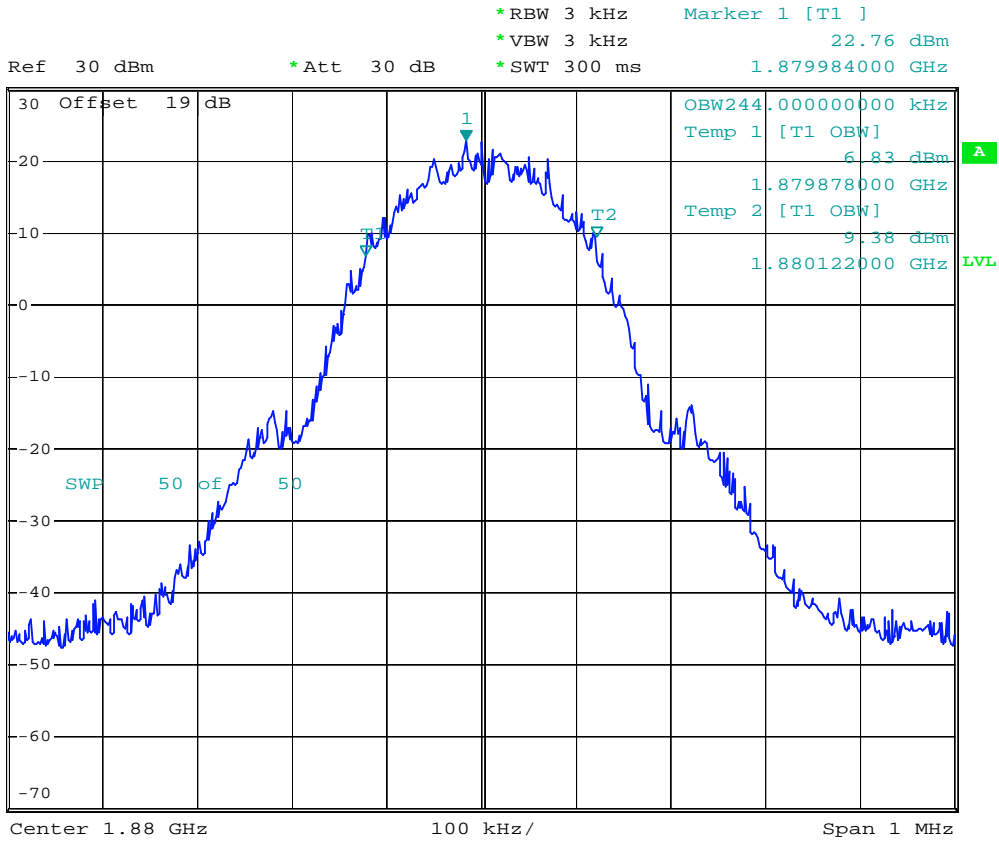
- Test Mode : PCS (GSM) CH661 99% Occupied Bandwidth
- Power State : Low



Date: 4.MAR.2006 22:35:10



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



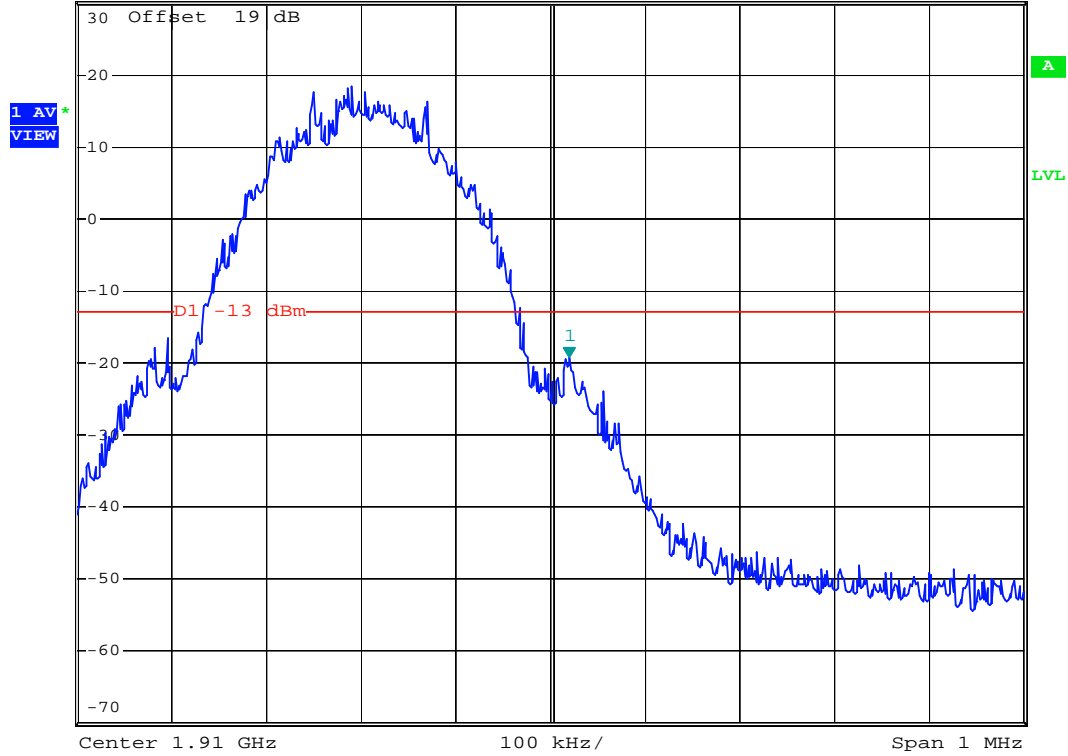
Date: 4.MAR.2006 22:34:09



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



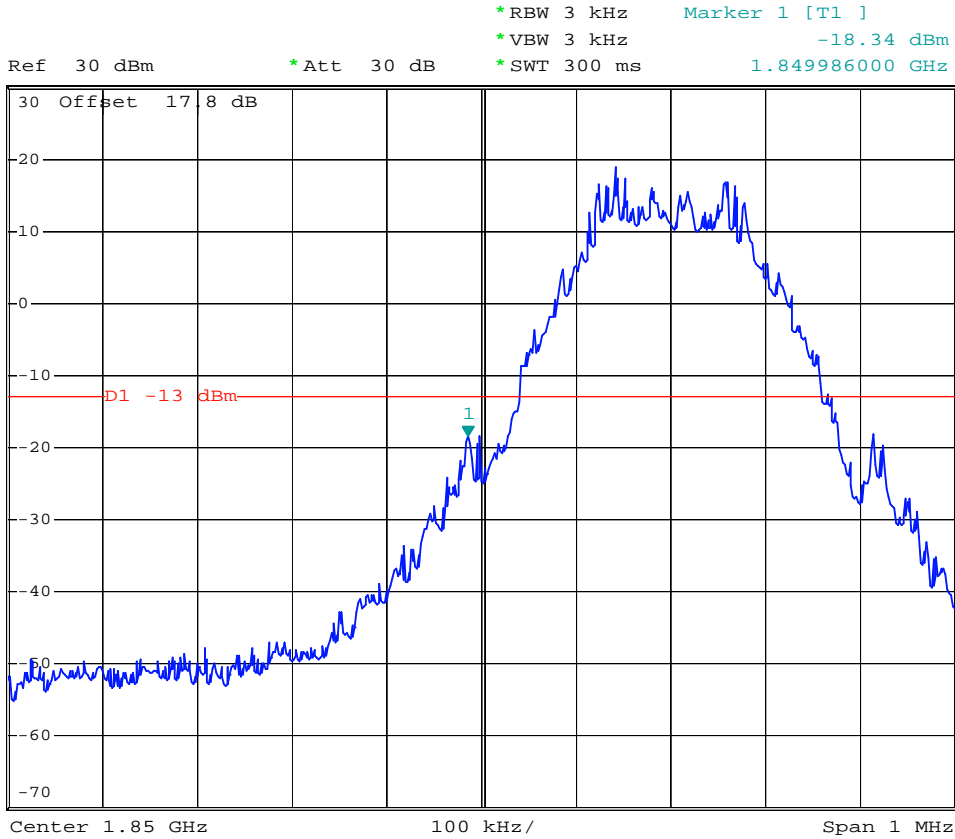
Ref 30 dBm *Att 30 dB *RBW 3 kHz Marker 1 [T1]
*VBW 3 kHz -19.34 dBm
*SWT 300 ms 1.910020000 GHz



Date: 4.MAR.2006 22:40:08



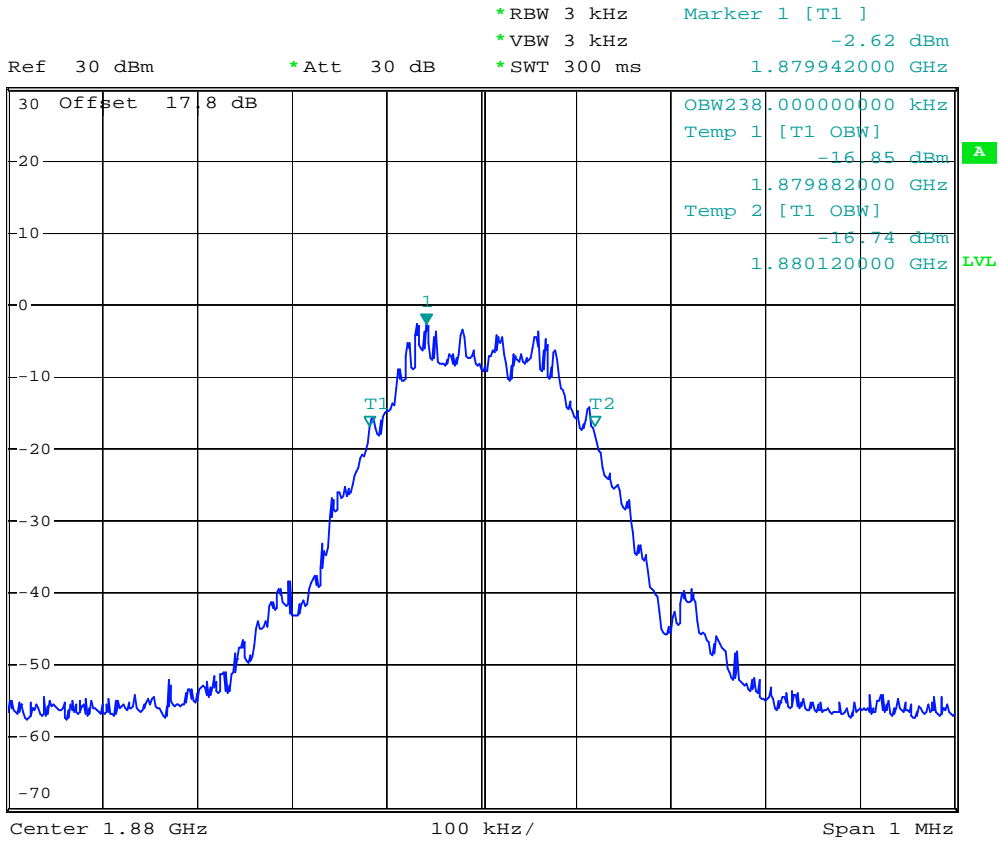
- Mode 4
- Test Mode : PCS (EDGE) CH512 Lower Band Edge
- Power State : High



Date: 27.JUN.2006 19:43:22



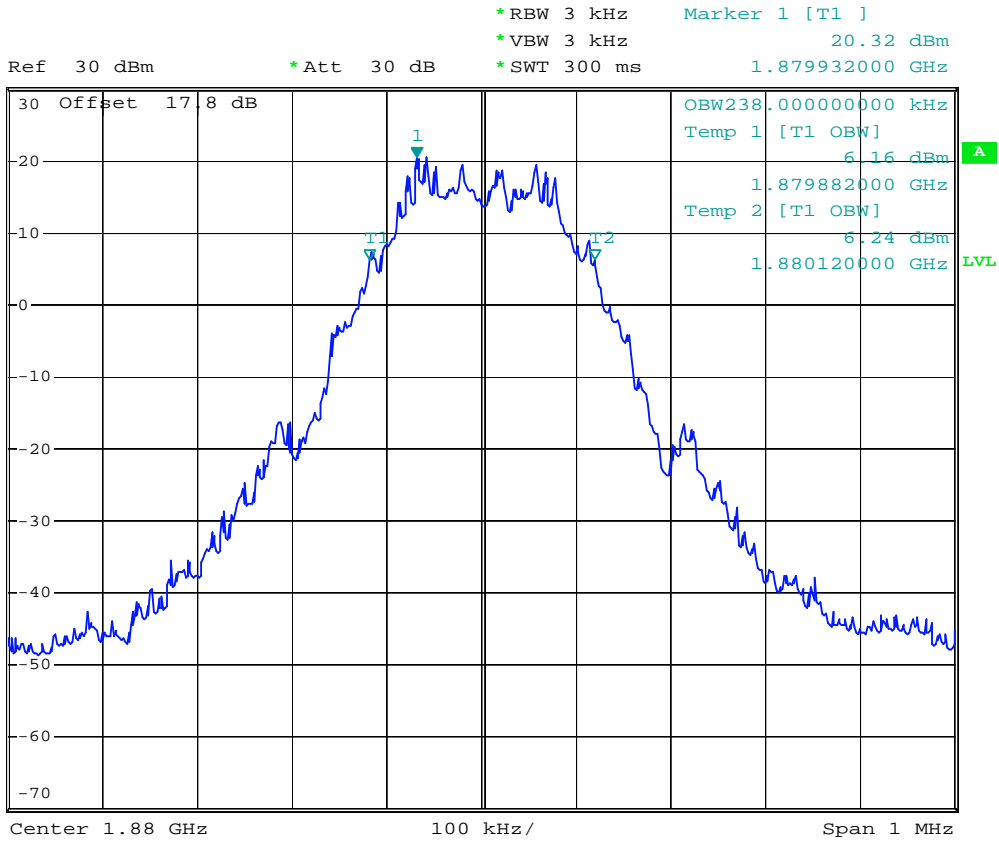
- Test Mode : PCS (EDGE) CH661 99% Occupied Bandwidth
- Power State : Low



Date: 27.JUN.2006 19:29:50



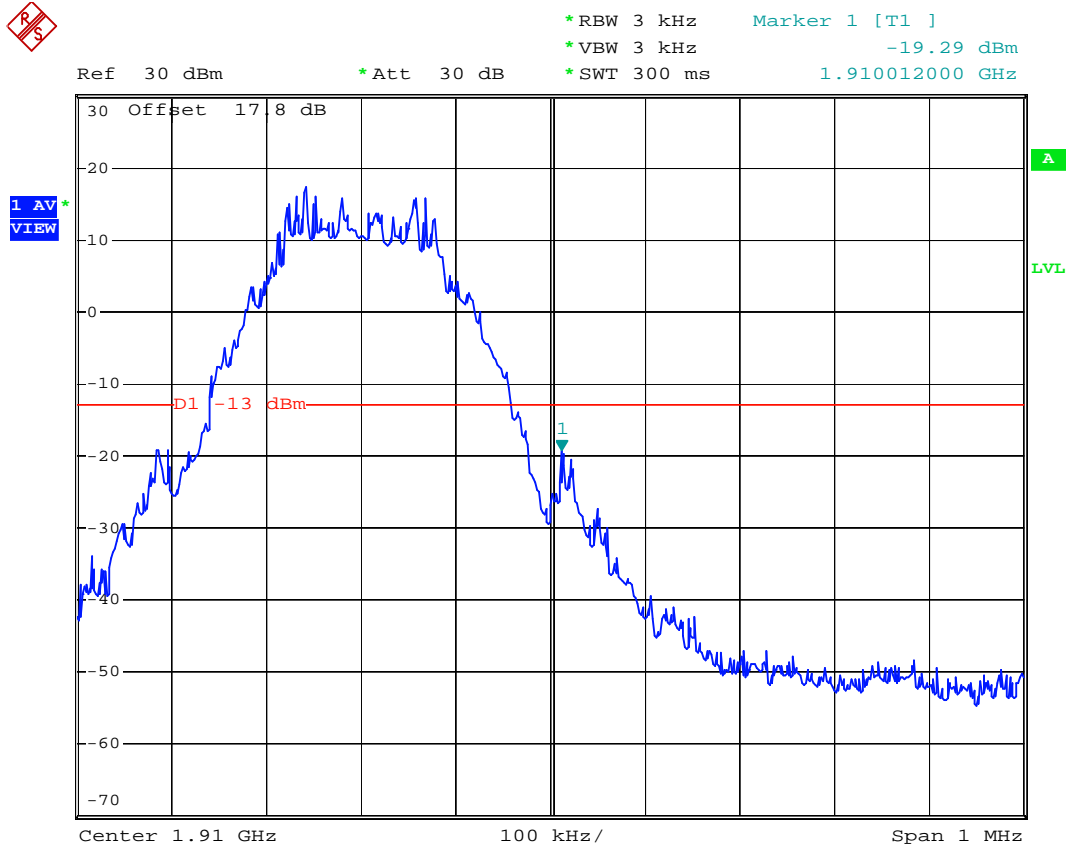
- Test Mode : PCS (EDGE) CH661 99% Occupied Bandwidth
- Power State : High



Date: 27.JUN.2006 19:27:20



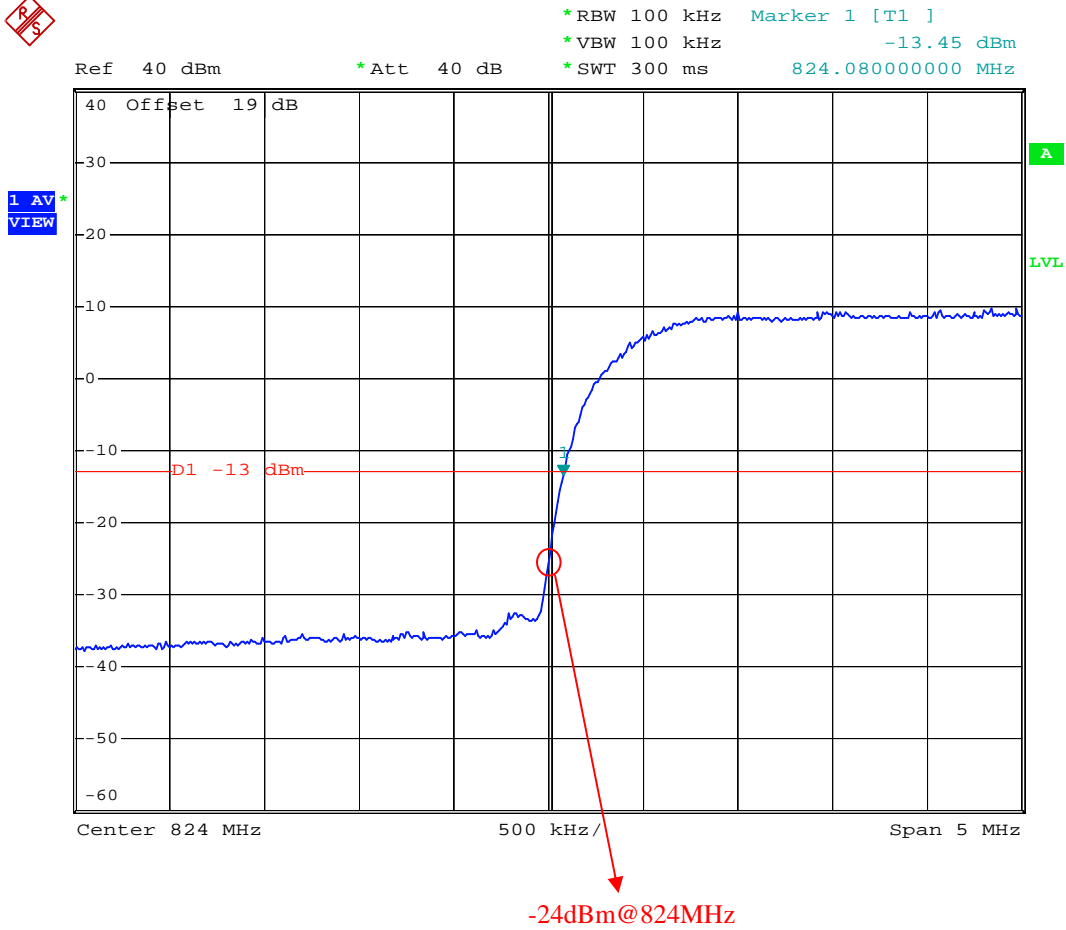
- Test Mode : PCS (EDGE) CH810 Higher Band Edge
- Power State : High



Date: 27.JUN.2006 19:41:32



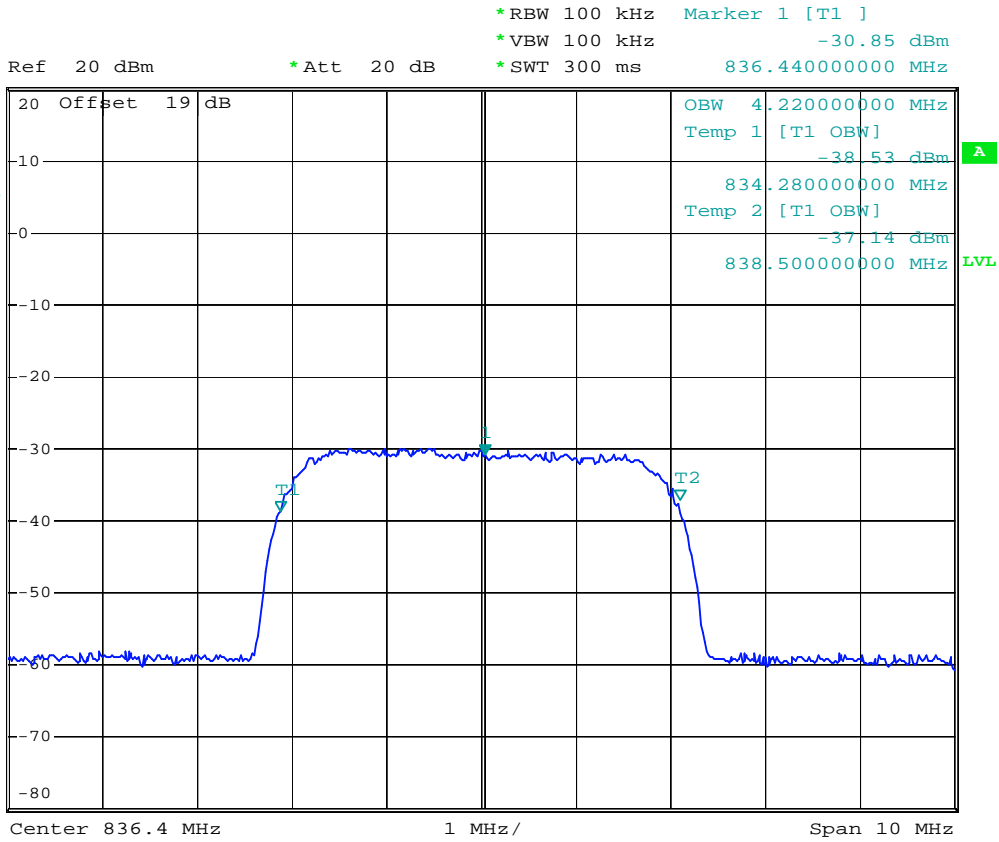
- Mode 5
- Test Mode : WCDMA Band 5 CH4132 Lower Band Edge
- Power State : High



Date: 6.MAR.2006 14:14:16



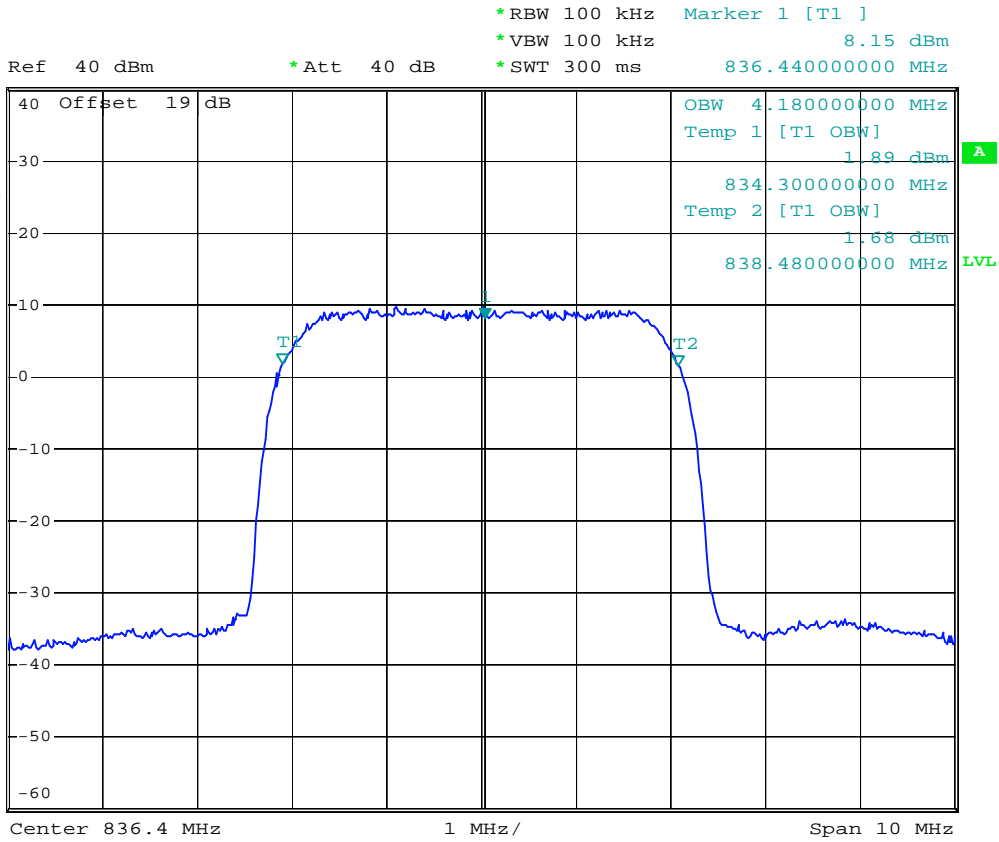
- Test Mode : WCDMA Band 5 CH4182 99% Occupied Bandwidth
- Power State : Low



Date: 6.MAR.2006 13:56:50



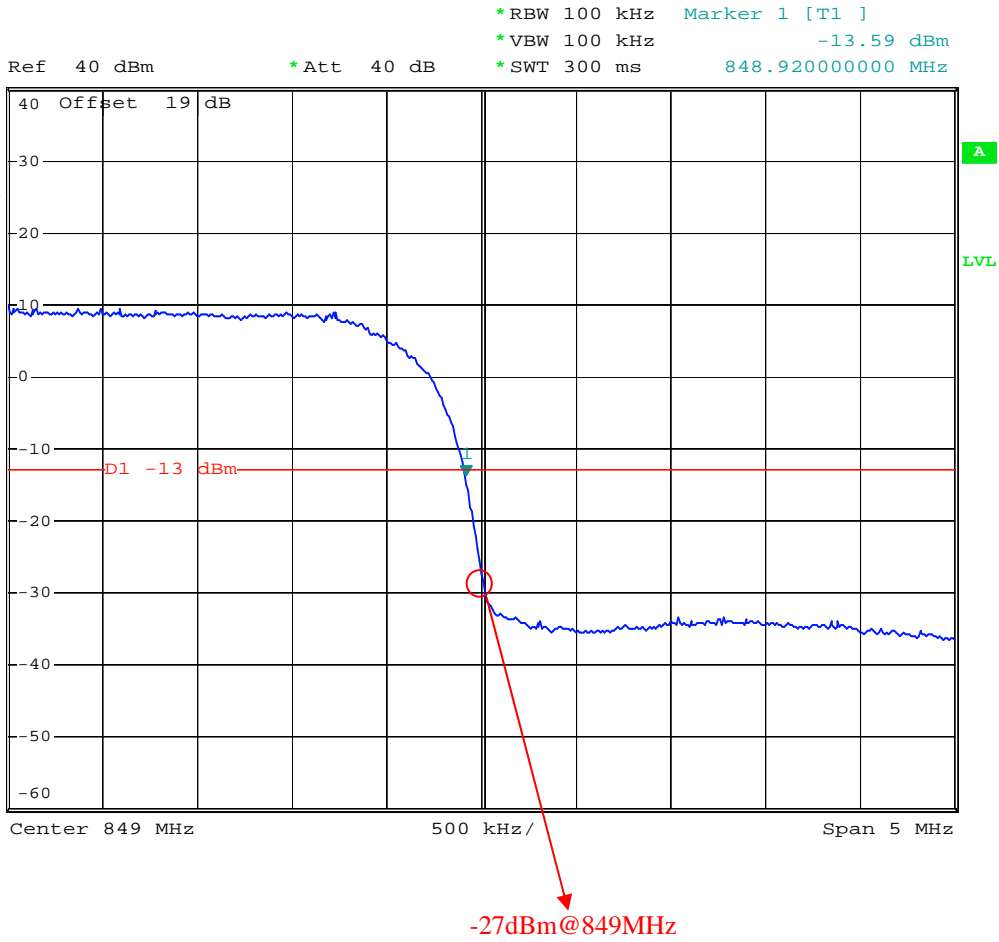
- Test Mode : WCDMA Band 5 CH4182 99% Occupied Bandwidth
- Power State : High



Date: 6.MAR.2006 13:55:45



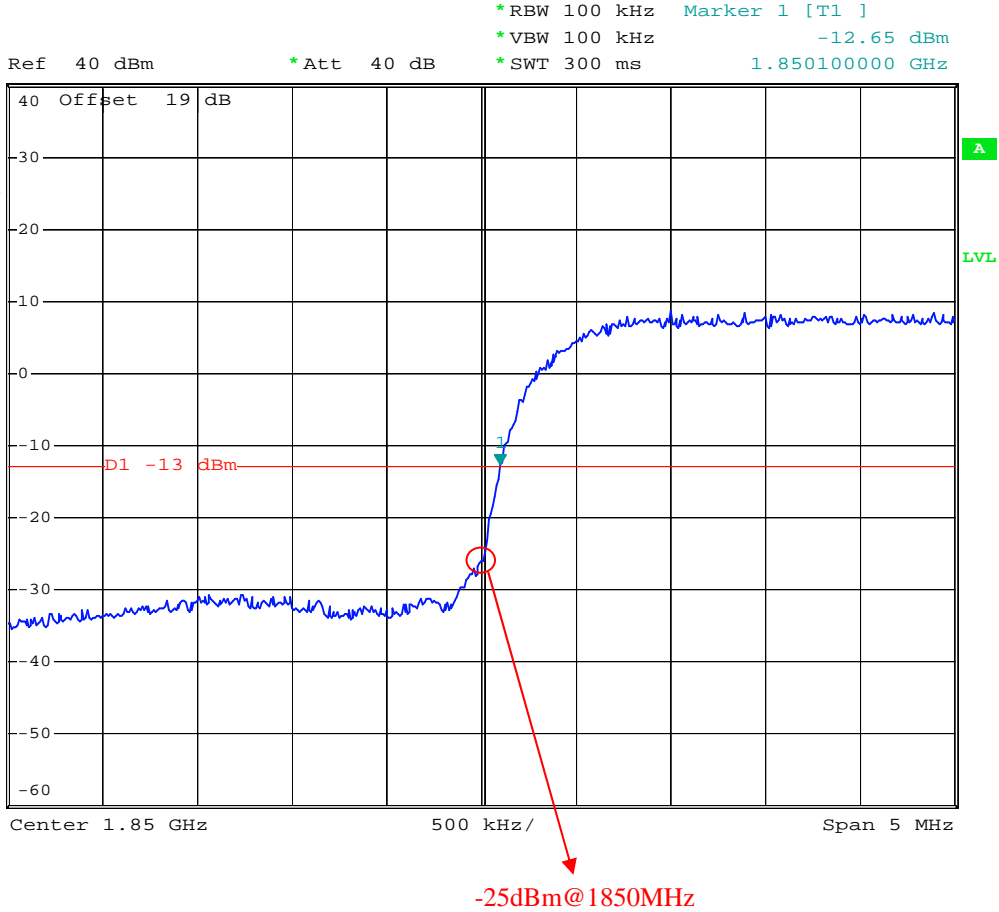
- Test Mode : WCDMA Band 5 CH4233 Higher Band Edge
- Power State : High



Date: 6.MAR.2006 14:15:12



- Mode 6
- Test Mode : WCDMA Band 2 CH9262 Lower Band Edge
- Power State : High



Date: 6.MAR.2006 14:28:18



- Test Mode : WCDMA Band 2 CH9400 99% Occupied Bandwidth
- Power State : Low

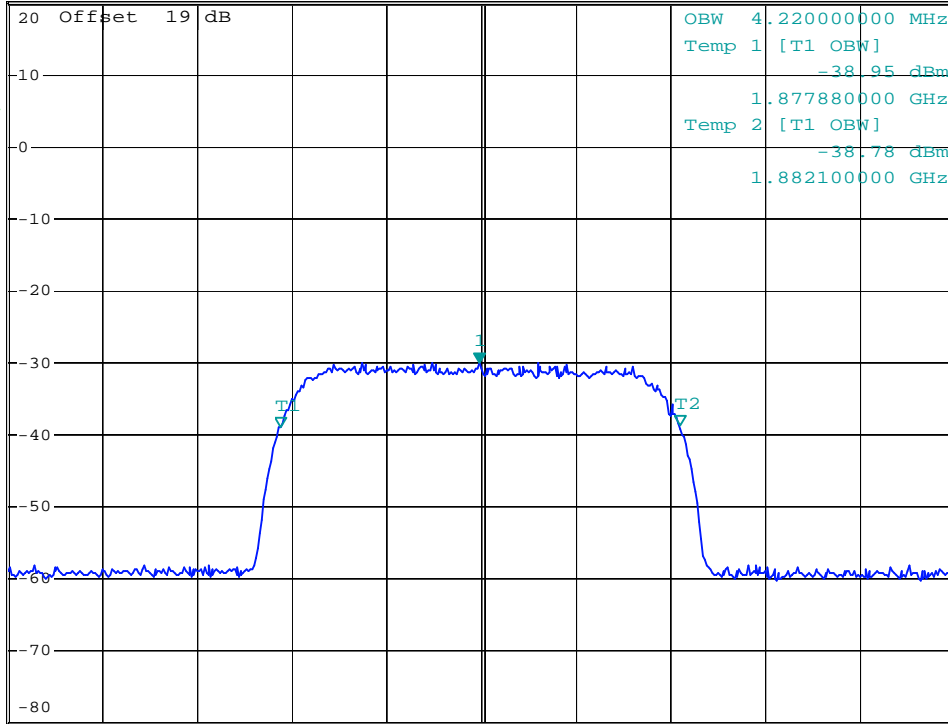


*RBW 100 kHz Marker 1 [T1]
 *VBW 100 kHz -29.91 dBm
 *SWT 300 ms 1.879980000 GHz

Ref 20 dBm

*Att 20 dB

1 AV*
VIEW



Center 1.88 GHz

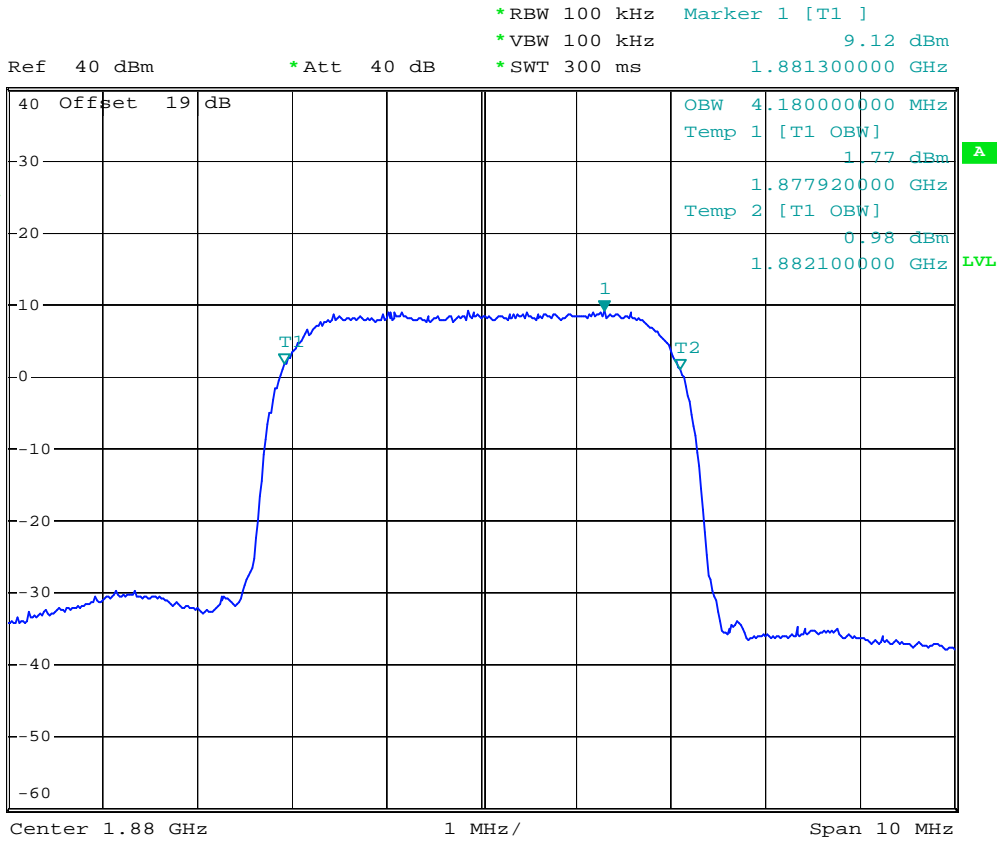
1 MHz/

Span 10 MHz

Date: 6.MAR.2006 14:25:57



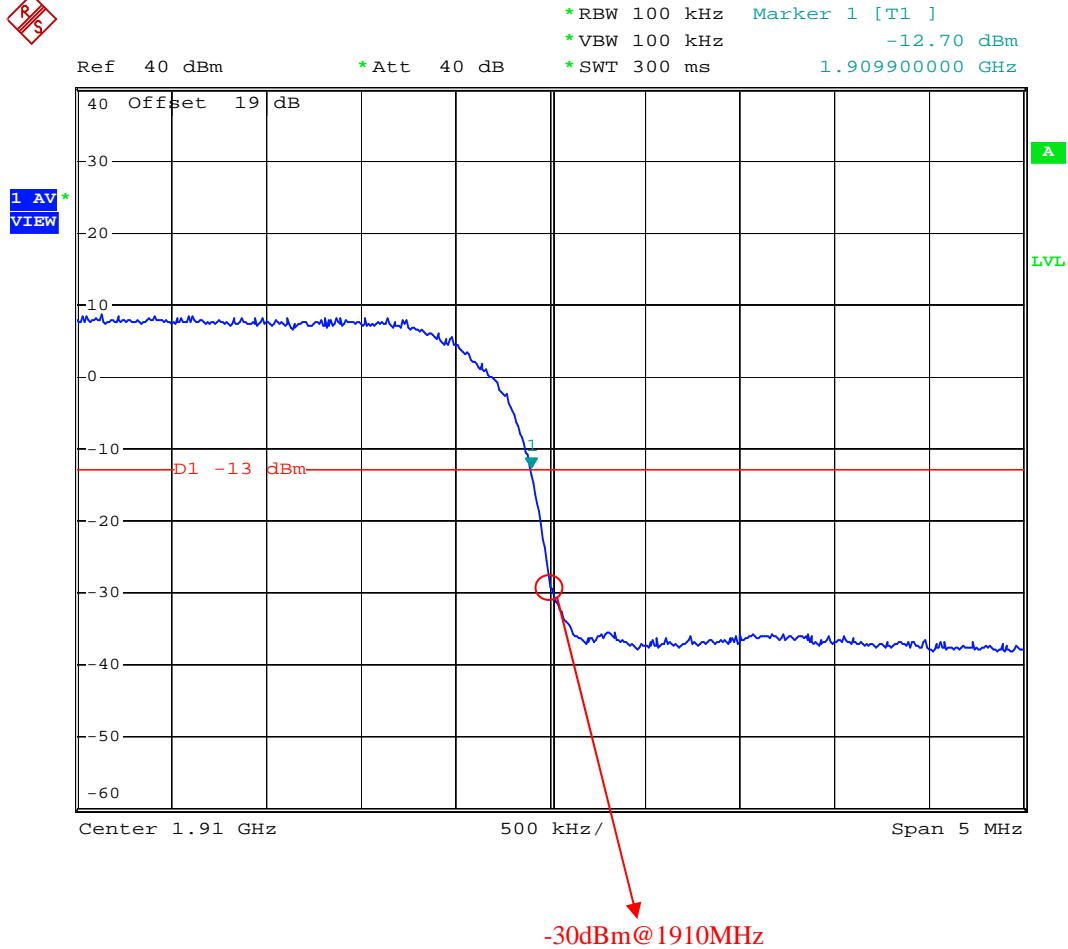
- Test Mode : WCDMA Band 2 CH9400 99% Occupied Bandwidth
- Power State : High



Date: 6.MAR.2006 14:23:48



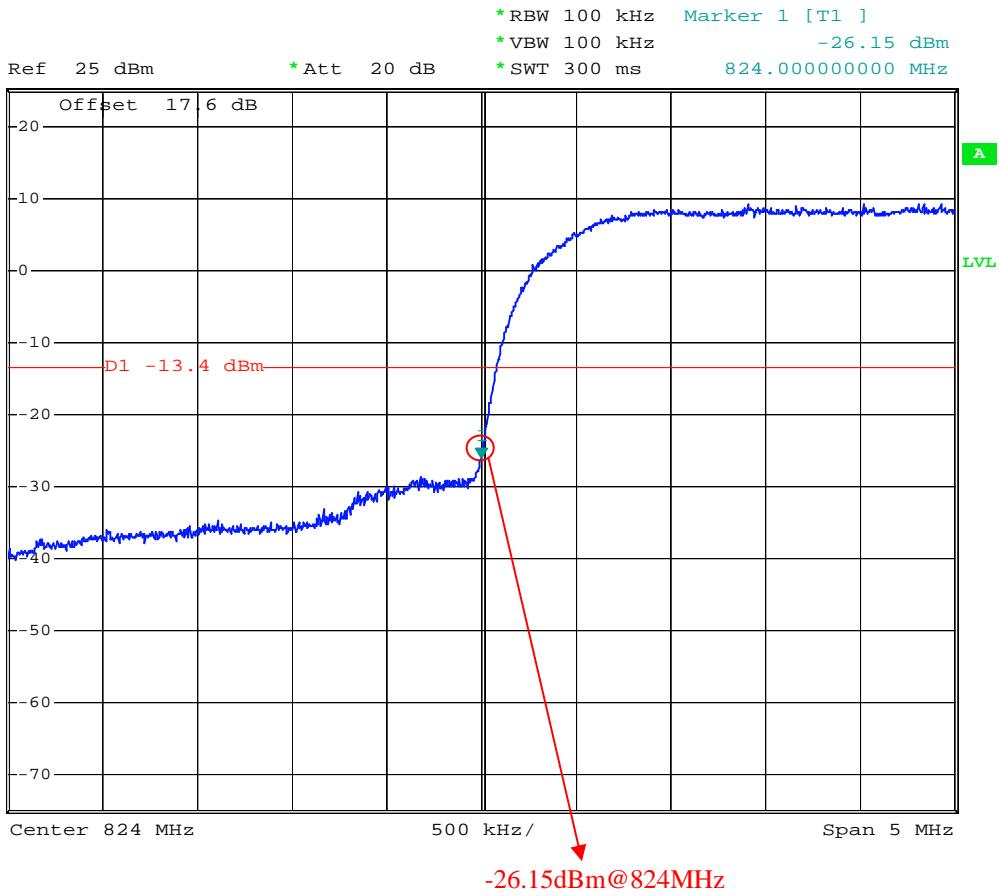
- Test Mode : WCDMA Band 2 CH9538 Higher Band Edge
- Power State : High



Date: 6.MAR.2006 14:29:07



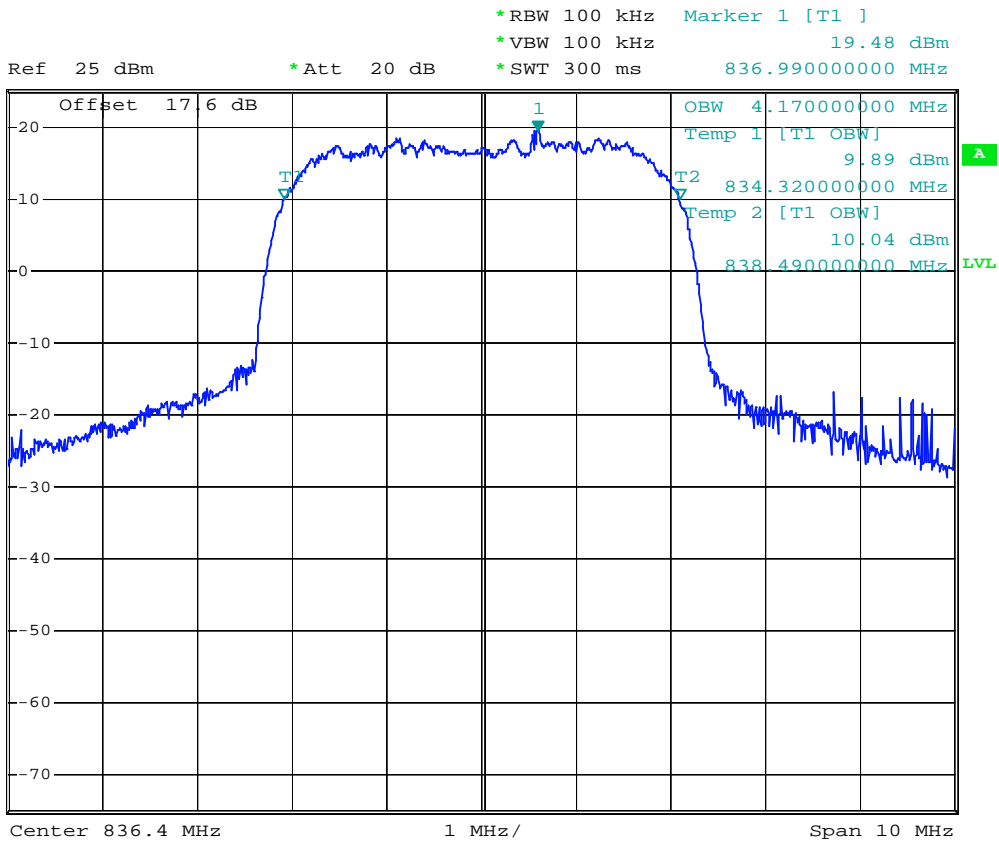
- Mode 7
- Test Mode : WCDMA Band 5 (HSDPA) CH4132 Lower Band Edge
- Power State : High



Date: 10.NOV.2006 00:10:40



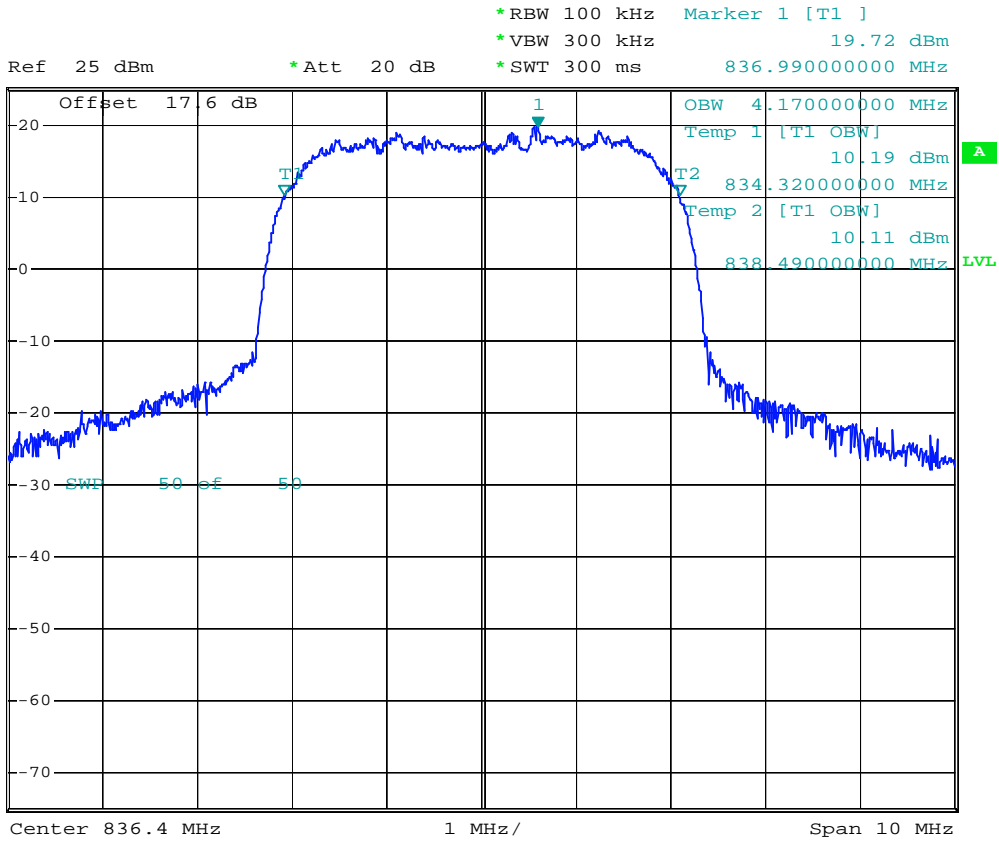
- Test Mode : WCDMA Band 5 (HSDPA) CH4182 99% Occupied Bandwidth
- Power State : Low



Date: 10.NOV.2006 01:35:59



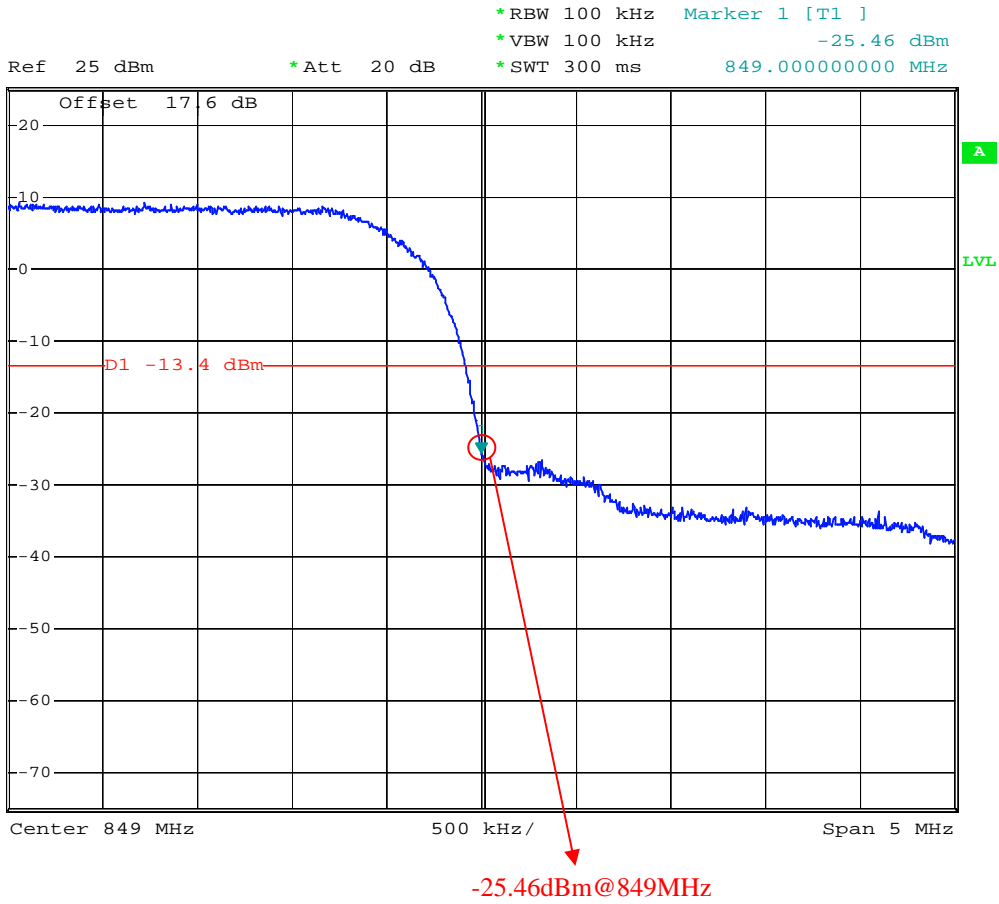
- Test Mode : WCDMA Band 5 (HSDPA) CH4182 99% Occupied Bandwidth
- Power State : High



Date: 10.NOV.2006 00:49:39



- Test Mode : WCDMA Band 5 (HSDPA) CH4233 Higher Band Edge
- Power State : High



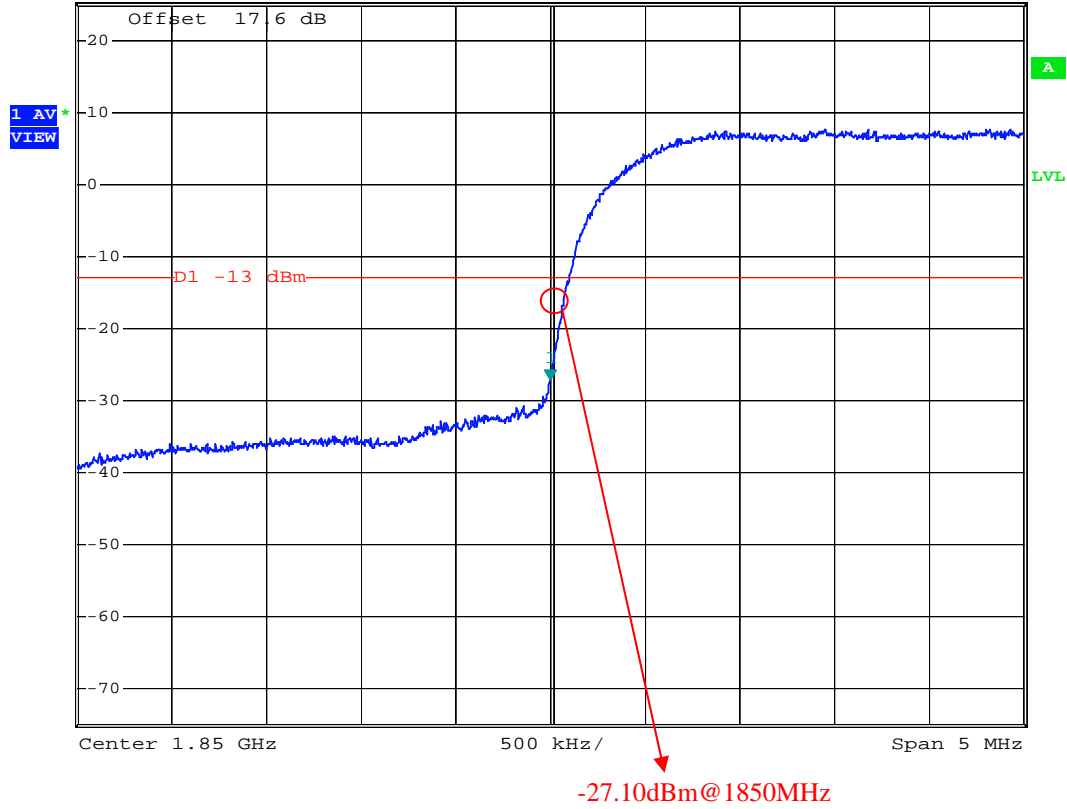
Date: 10.NOV.2006 00:11:57



- Mode 8
- Test Mode : WCDMA Band 2 (HSDPA) CH9262 Lower Band Edge
- Power State : High



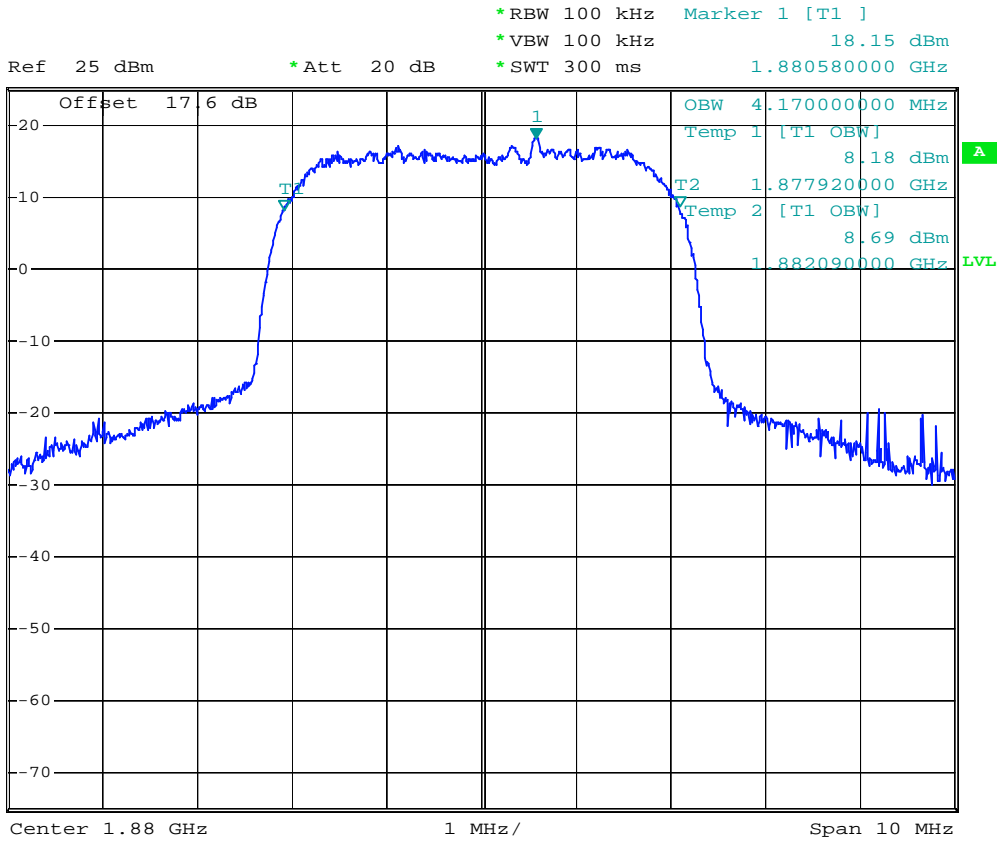
Ref 25 dBm *Att 20 dB *RBW 100 kHz Marker 1 [T1]
*VBW 100 kHz -27.10 dBm
*SWT 300 ms 1.850000000 GHz



Date: 10.NOV.2006 01:14:57



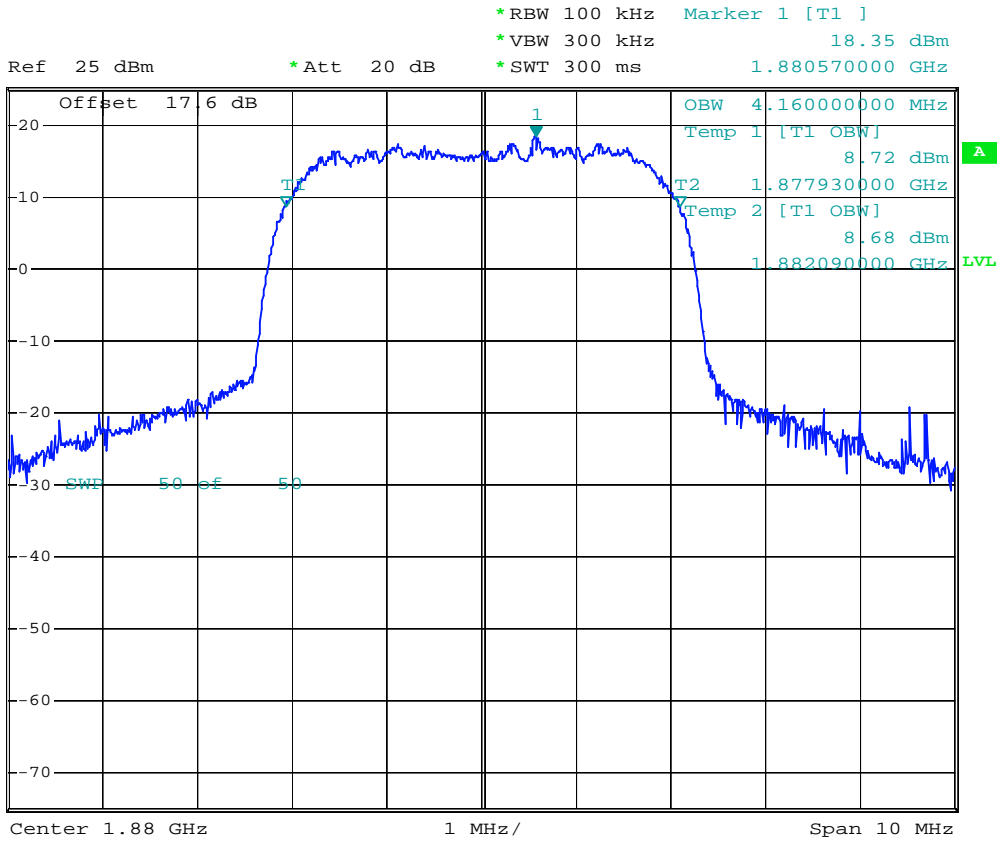
- Test Mode : WCDMA Band 2 (HSDPA) CH9400 99% Occupied Bandwidth
- Power State : Low



Date: 10.NOV.2006 01:18:21



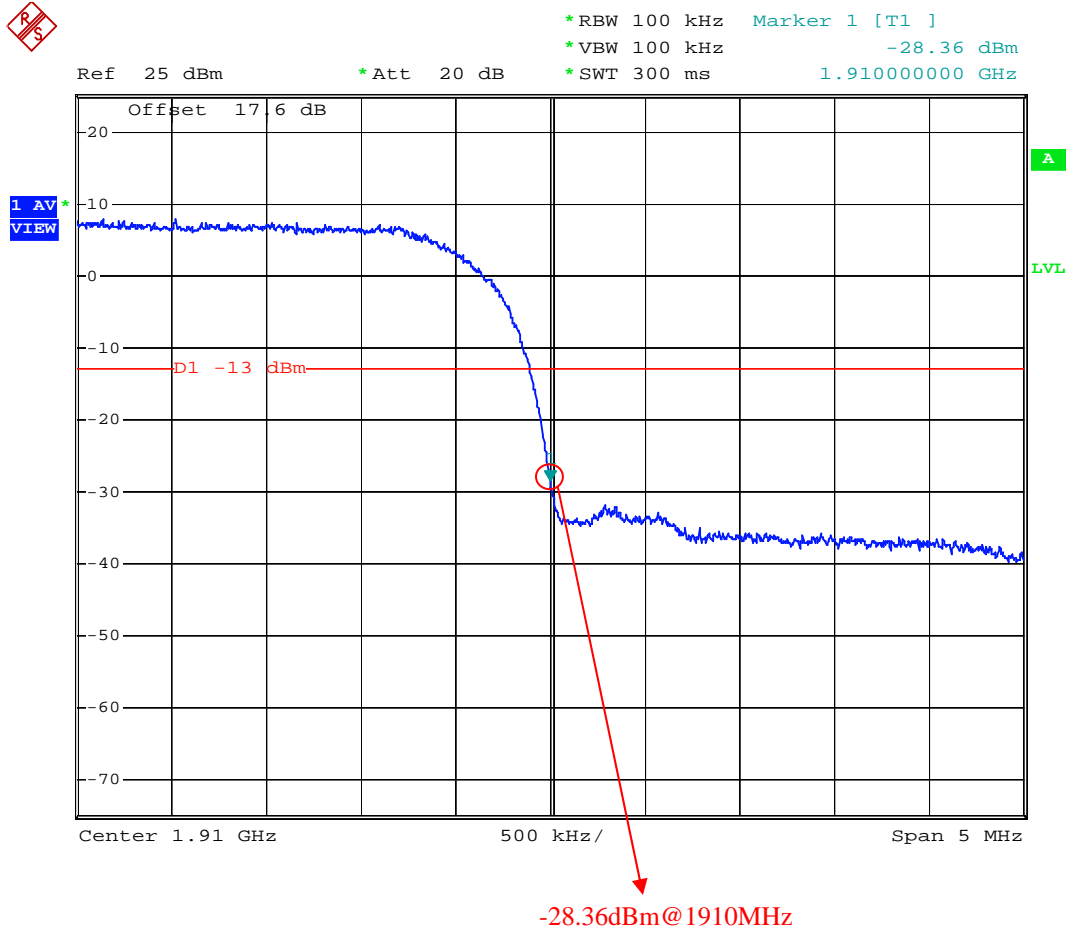
- Test Mode : WCDMA Band 2 (HSDPA) CH9400 99% Occupied Bandwidth
- Power State : High



Date: 10.NOV.2006 01:19:23



- Test Mode : WCDMA Band 2 (HSDPA) CH9538 Higher Band Edge
- Power State : High



Date: 10.NOV.2006 01:15:56

4.5 Conducted Emission

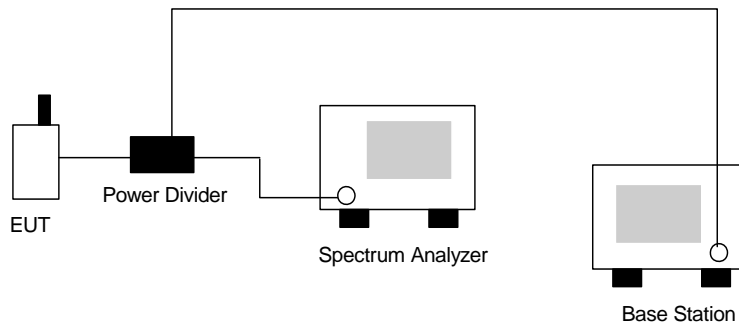
4.5.1 Measurement Instruments

As described in chapter 5 of this test report.

4.5.2 Test Procedure

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

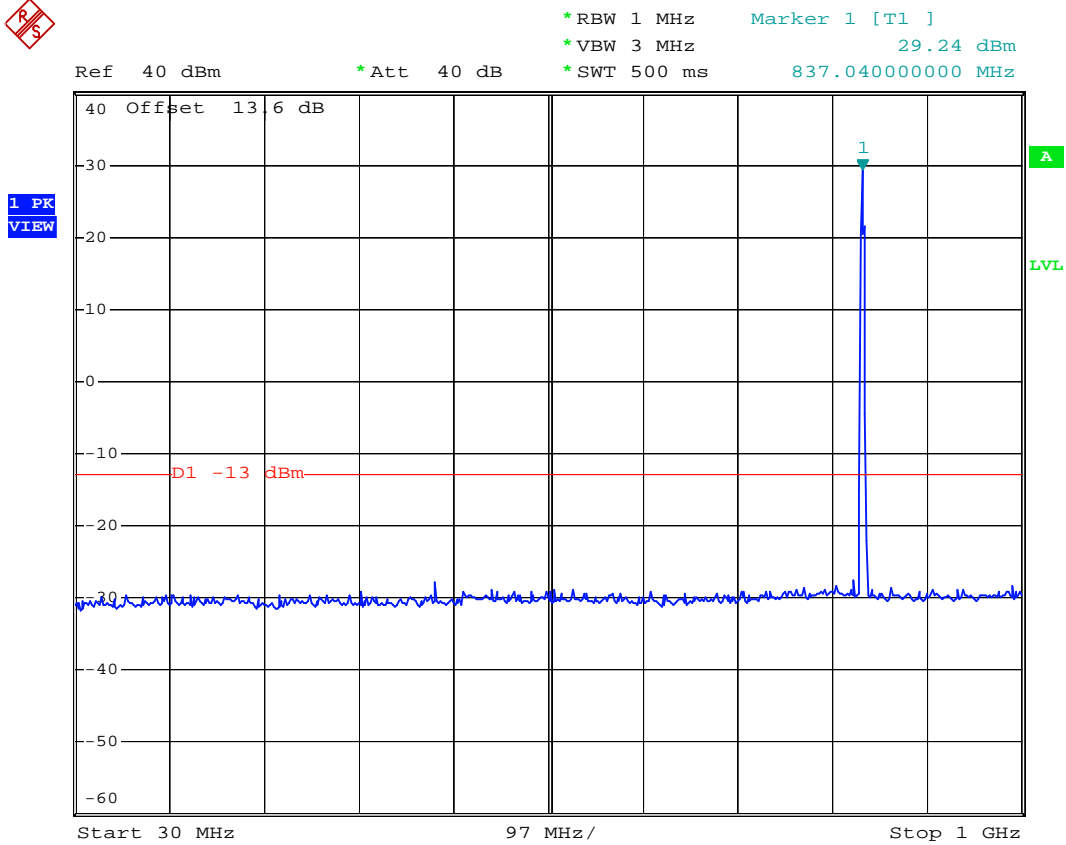
4.5.3 Test Setup Layout





4.5.4 Test Result

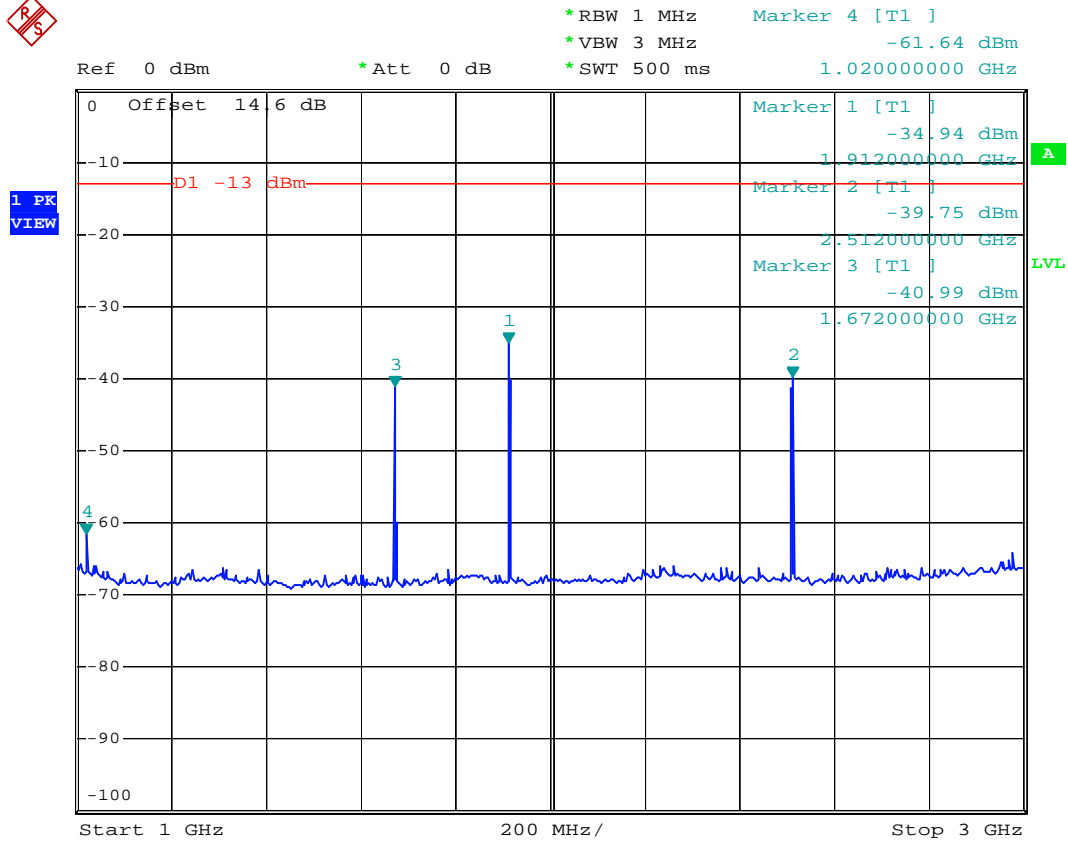
- Mode 1
- Test Mode : GSM 850 (GSM) CH189
- Frequency Range : 30M-1G



Date: 5.MAR.2006 10:52:20



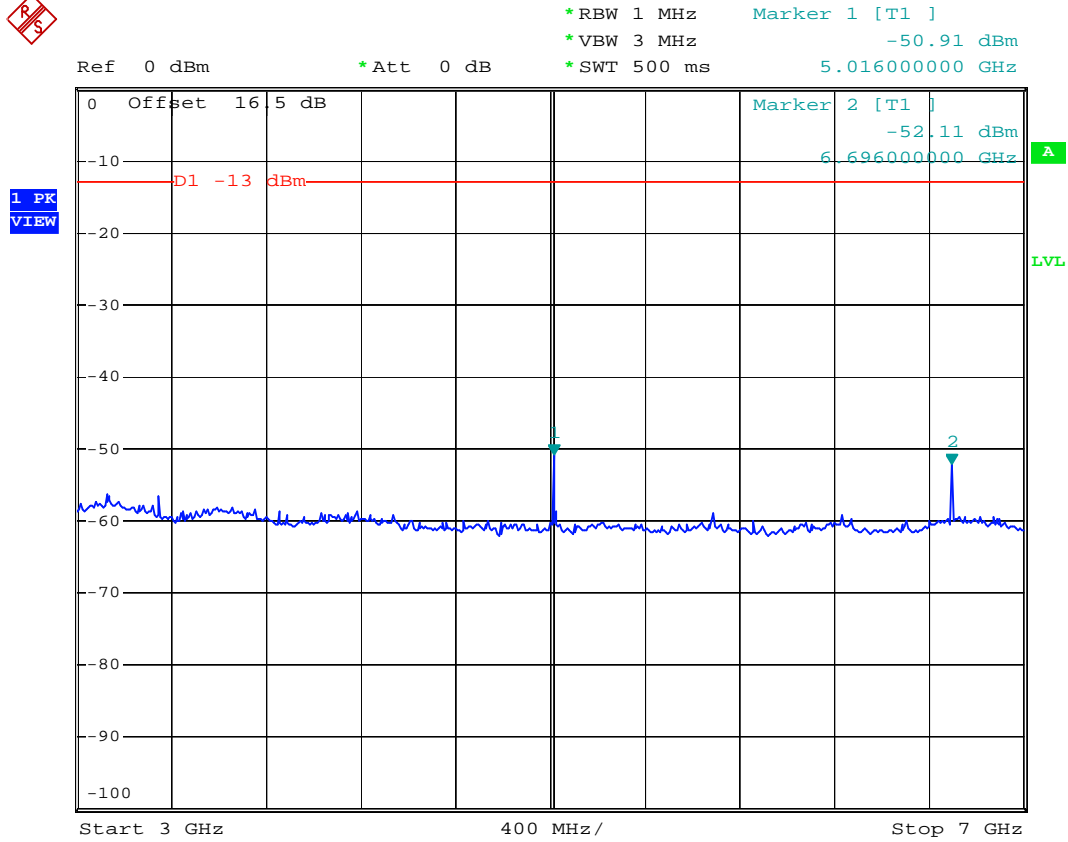
- Test Mode : GSM 850 (GSM) CH189
- Frequency Range : 1G-3G



Date: 5.MAR.2006 10:56:13



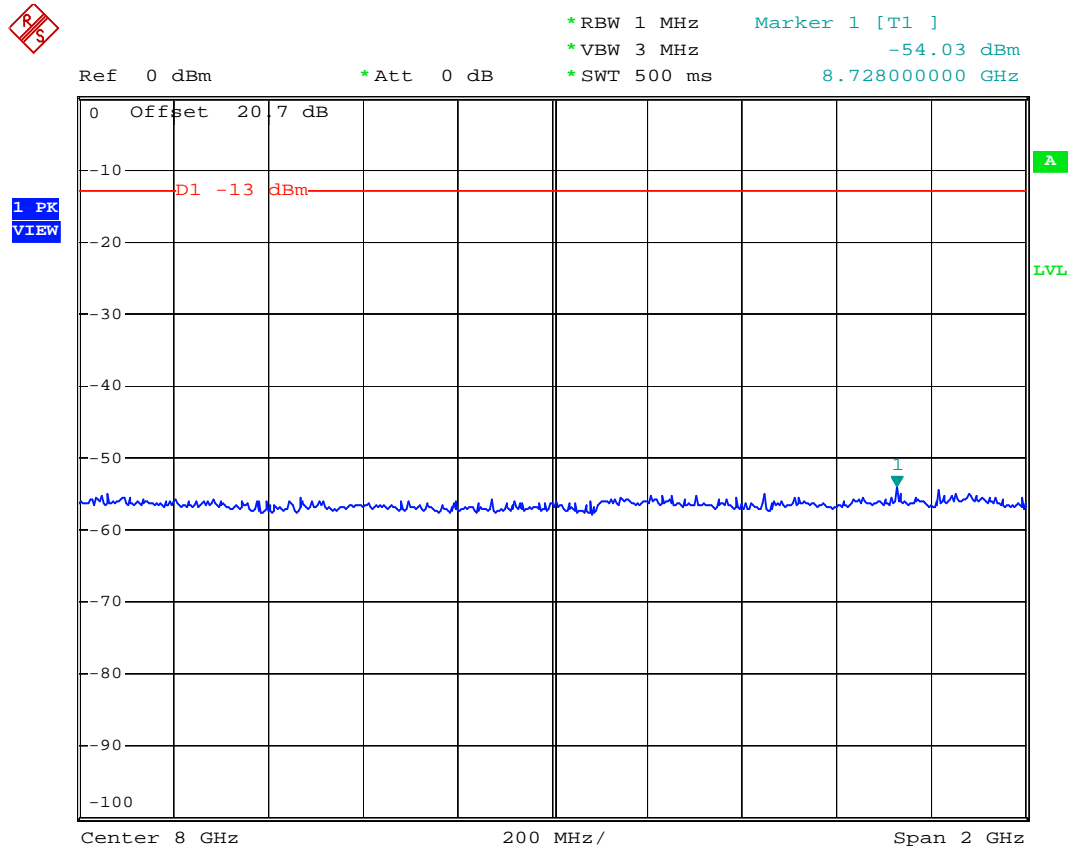
- Test Mode : GSM 850 (GSM) CH189
- Frequency Range : 3G-7G



Date: 5.MAR.2006 11:05:48



- Test Mode : GSM 850 (GSM) CH189
- Frequency Range : 7G-9G



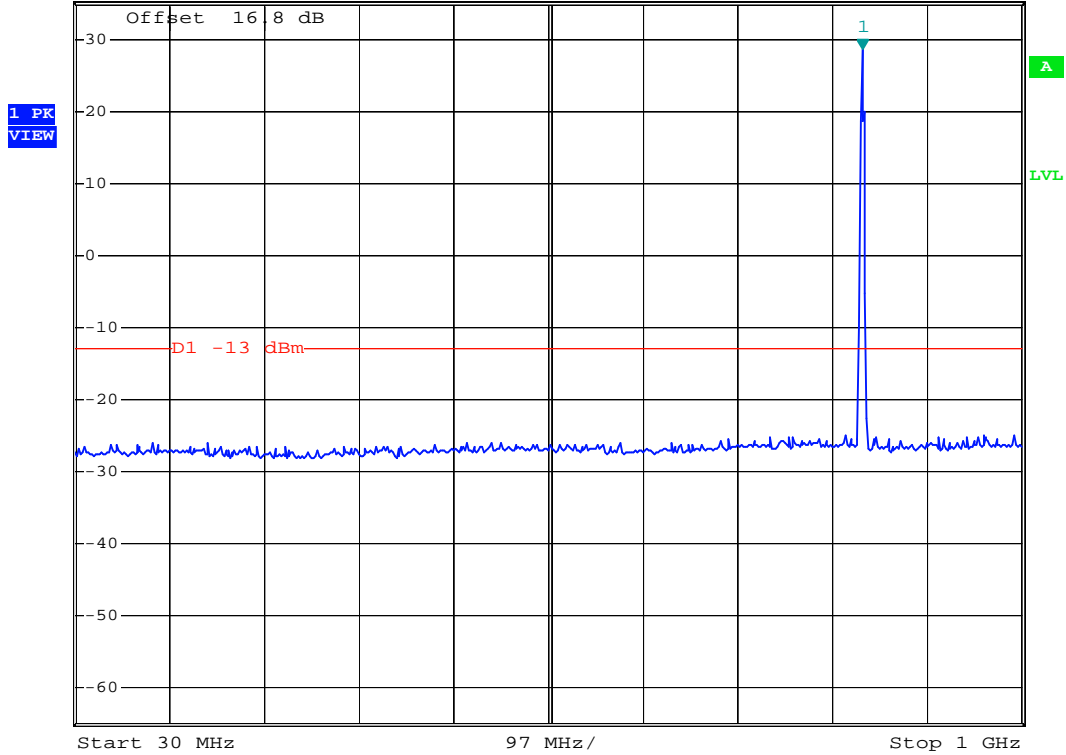
Date: 5.MAR.2006 11:01:28



- Mode 2
- Test Mode : GSM 850 (EDGE) CH189
- Frequency Range : 30M-1G



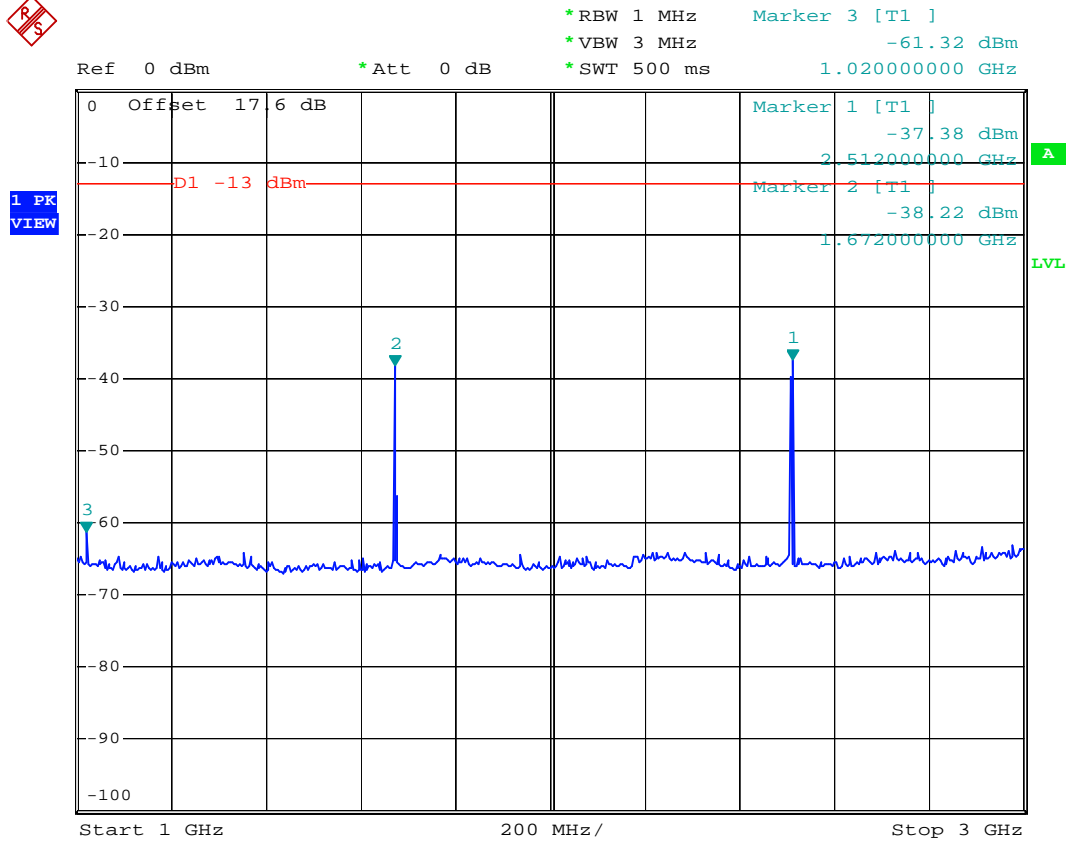
Ref 35 dBm * Att 40 dB * RBW 1 MHz Marker 1 [T1] 28.69 dBm
* VBW 3 MHz 837.04000000 MHz
* SWT 500 ms



Date: 27.JUN.2006 18:53:05



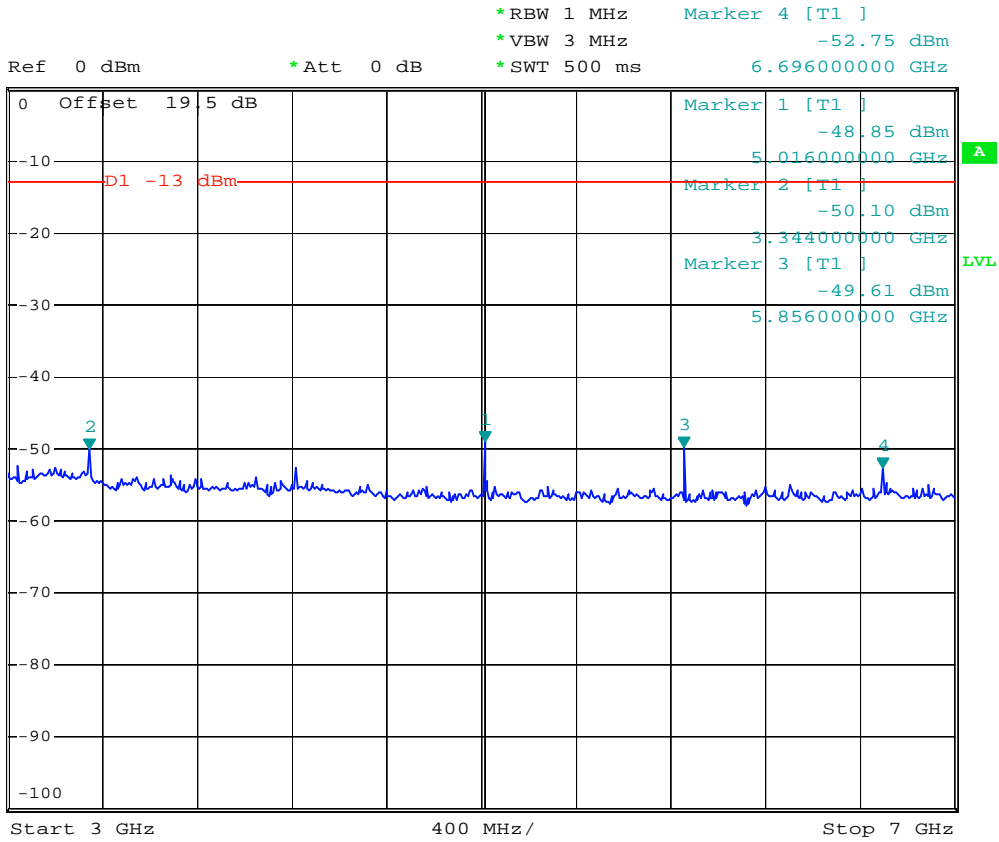
- Test Mode : GSM 850 (EDGE) CH189
- Frequency Range : 1G-3G



Date: 27.JUN.2006 19:06:03



- Test Mode : GSM 850 (EDGE) CH189
- Frequency Range : 3G-7G



Date: 27.JUN.2006 19:11:34



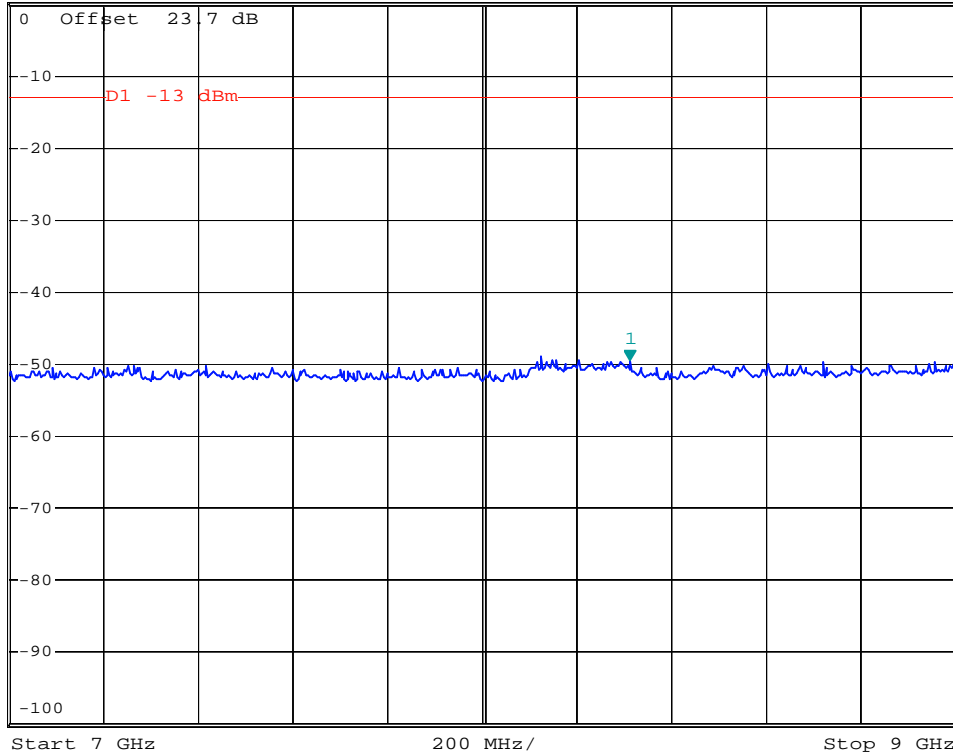
- Test Mode : GSM 850 (EDGE) CH189
- Frequency Range : 7G-9G



*RBW 1 MHz Marker 1 [T1]
*VBW 3 MHz -49.36 dBm
*SWT 500 ms 8.31200000 GHz

Ref 0 dBm

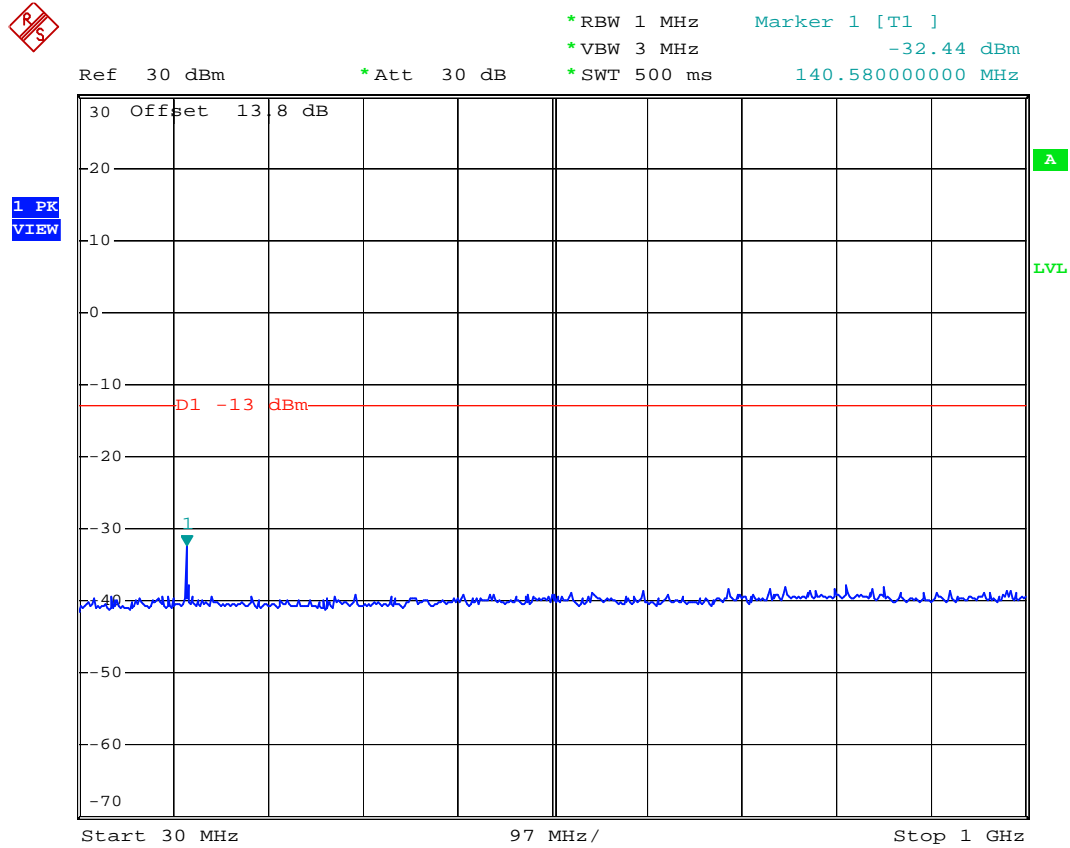
*Att 0 dB



Date: 27.JUN.2006 19:07:56



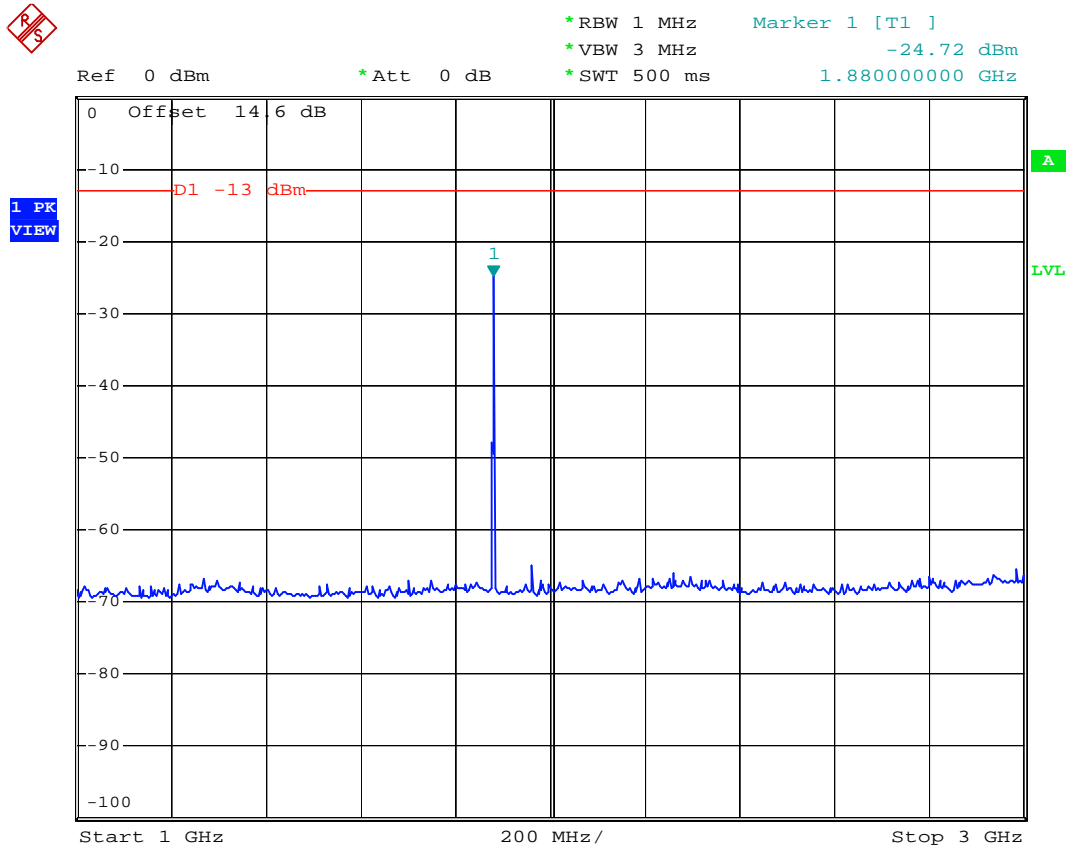
- Mode 3
- Test Mode : PCS (GSM) CH661
- Frequency Range : 30M-1G



Date: 5.MAR.2006 11:12:20



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

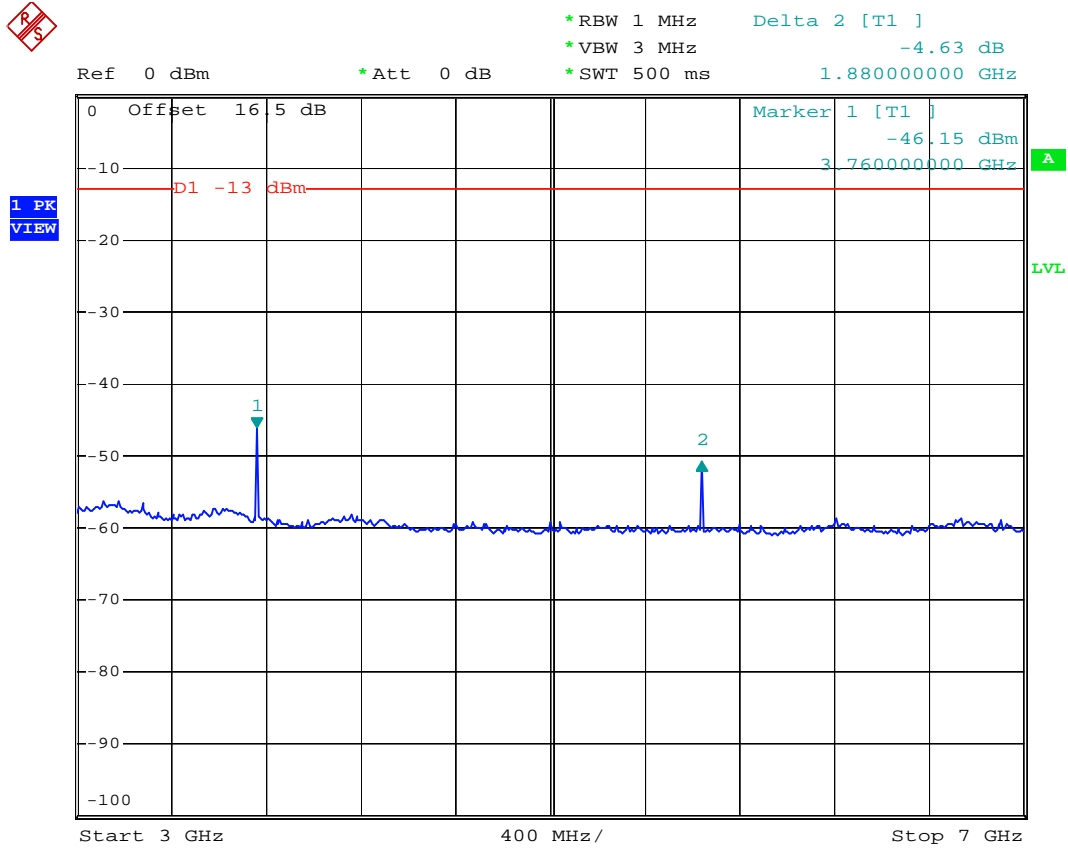


Date: 5.MAR.2006 11:19:18

Remark : The PCS fundamental signal was filtered by notch filter.



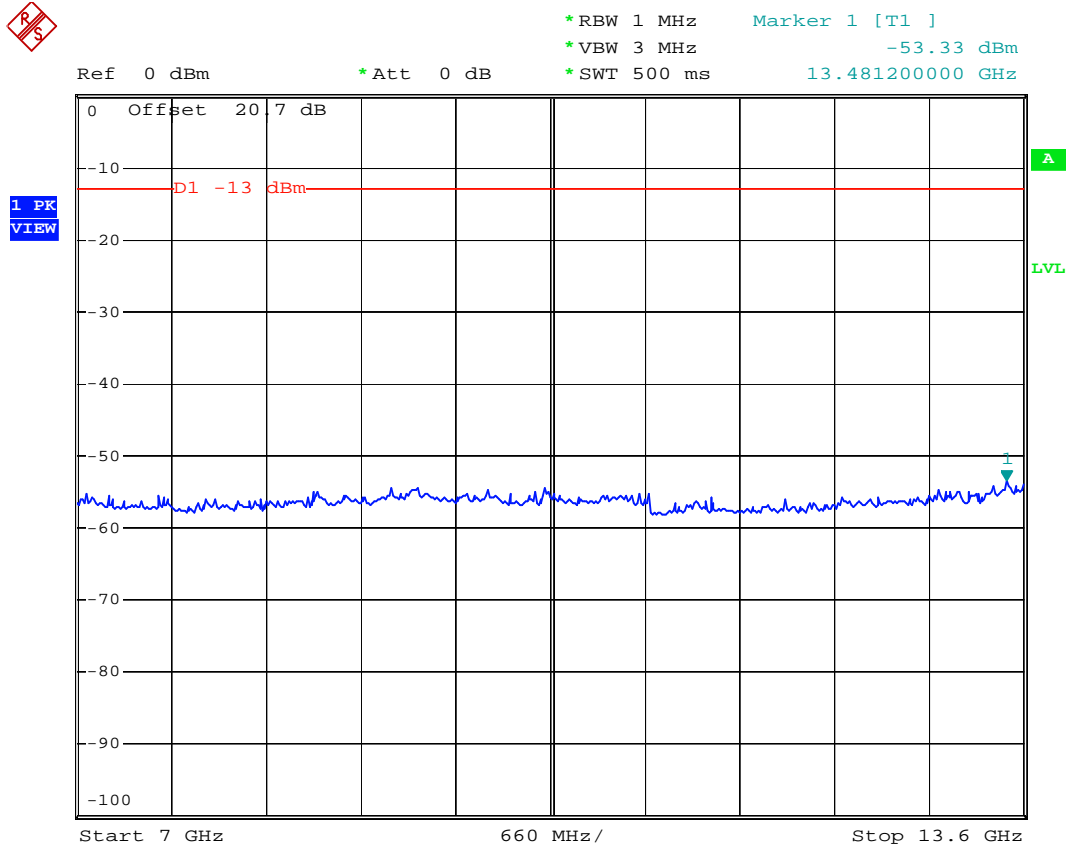
- Test Mode : PCS (GSM) CH661
- Frequency Range : 3G-7G



Date: 5.MAR.2006 11:43:27



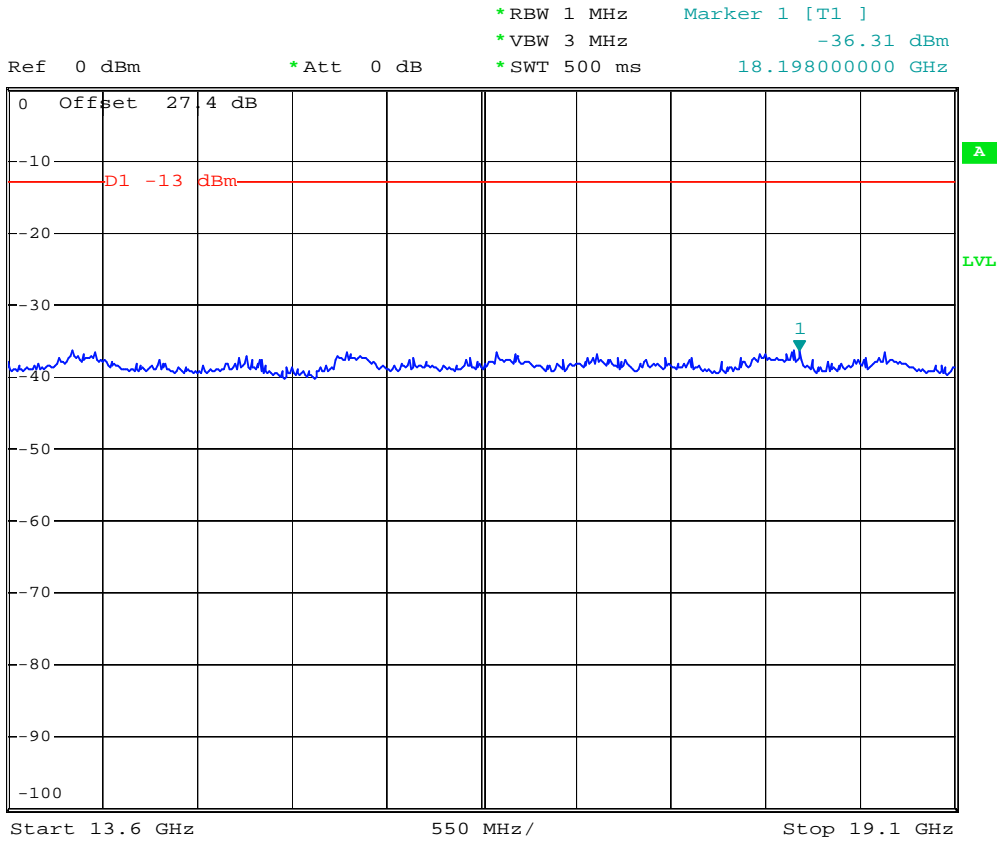
- Test Mode : PCS (GSM) CH661
- Frequency Range : 7G-13.6G



Date: 5.MAR.2006 11:45:43



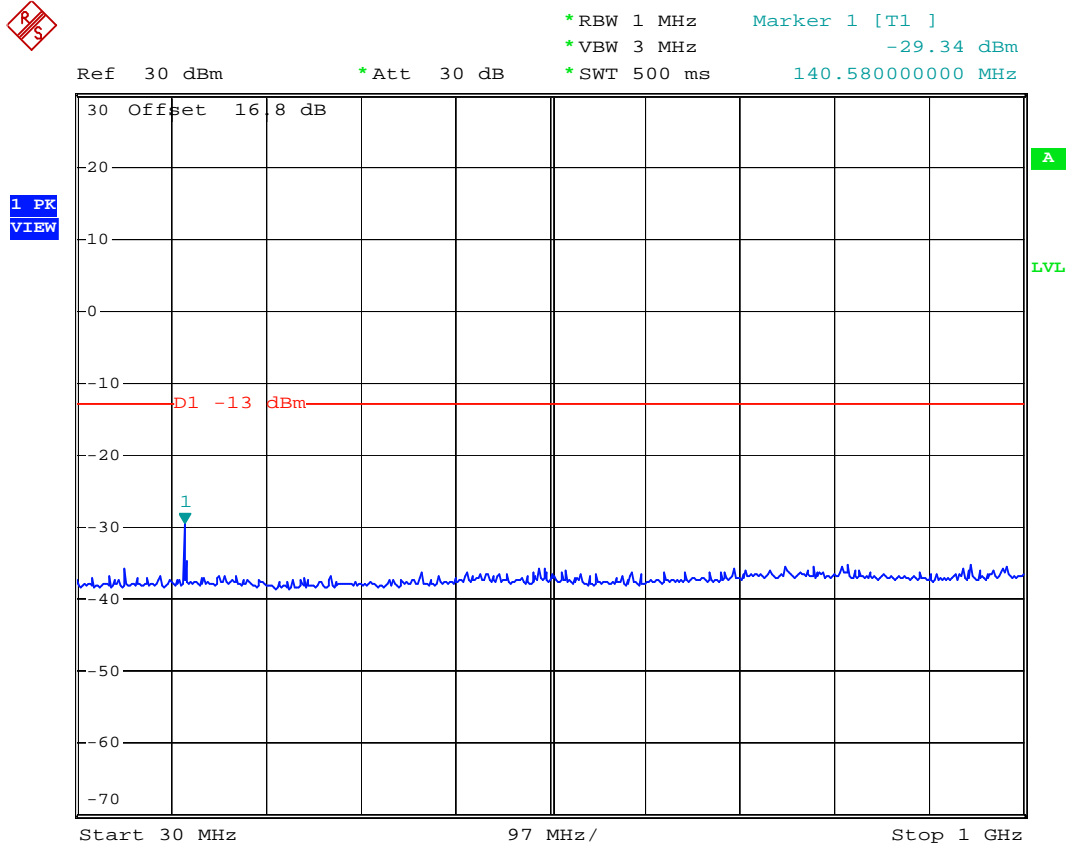
- Test Mode : PCS (GSM) CH661
- Frequency Range : 13.6G-19.1G



Date: 5.MAR.2006 11:48:34



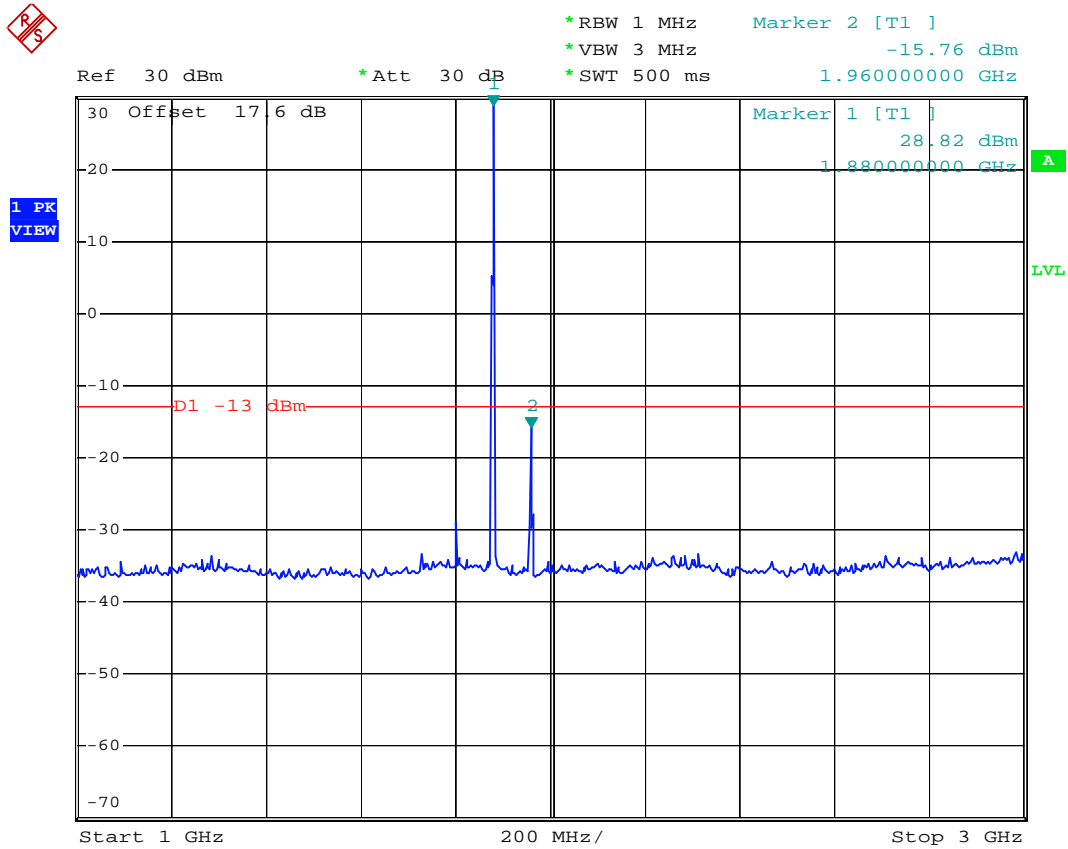
- Mode 4
- Test Mode : PCS (EDGE) CH661
- Frequency Range : 30M-1G



Date: 27.JUN.2006 19:49:12



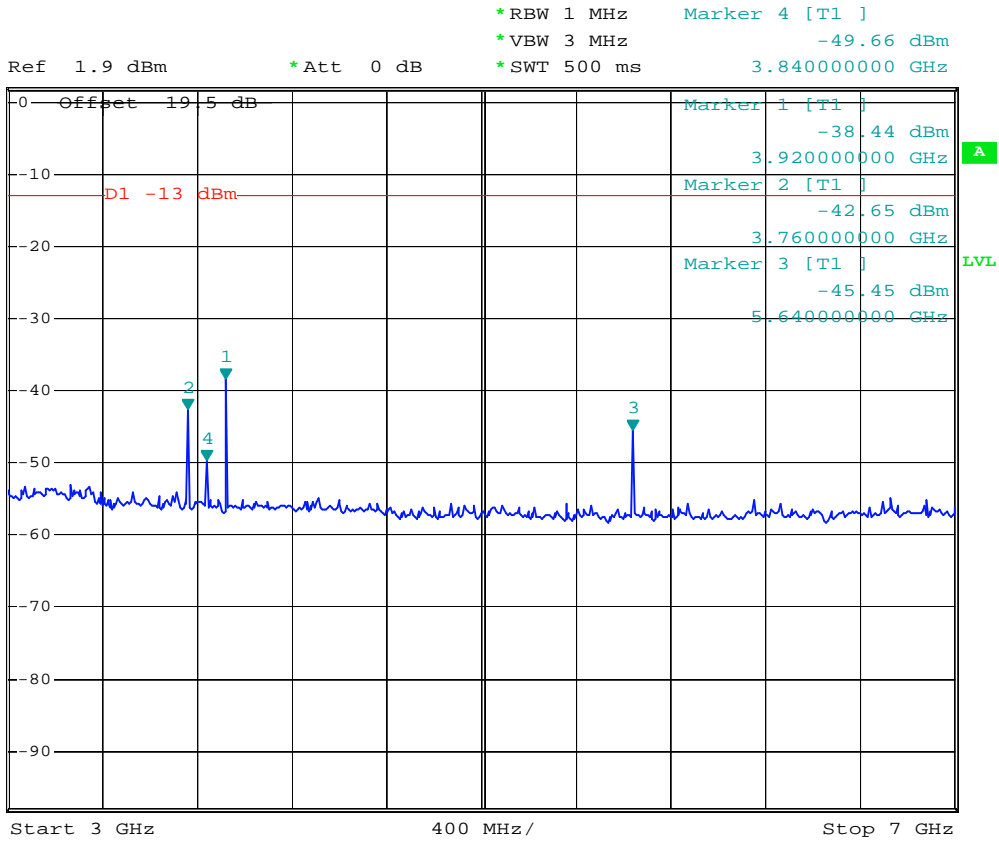
- Test Mode : PCS (EDGE) CH661
- Frequency Range : 1G-3G



Date: 27.JUN.2006 19:59:35



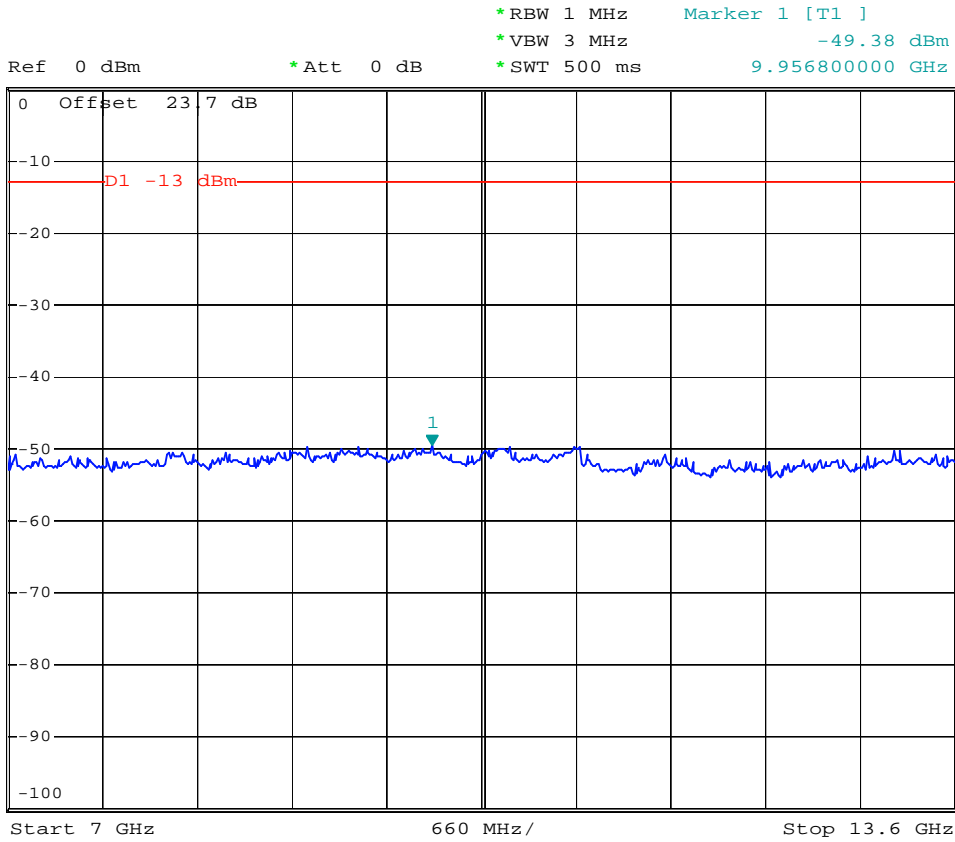
- Test Mode : PCS (EDGE) CH661
- Frequency Range : 3G-7G



Date: 27.JUN.2006 20:03:46



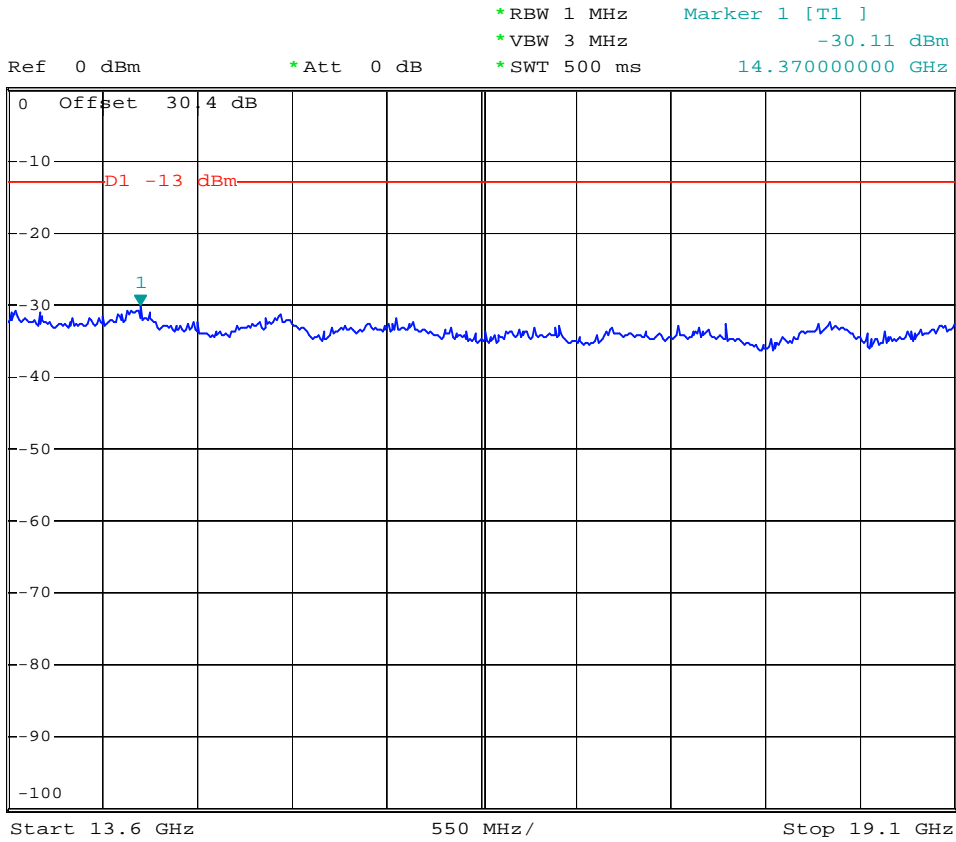
- Test Mode : PCS (EDGE) CH661
- Frequency Range : 7G-13.6G



Date: 27.JUN.2006 20:05:42



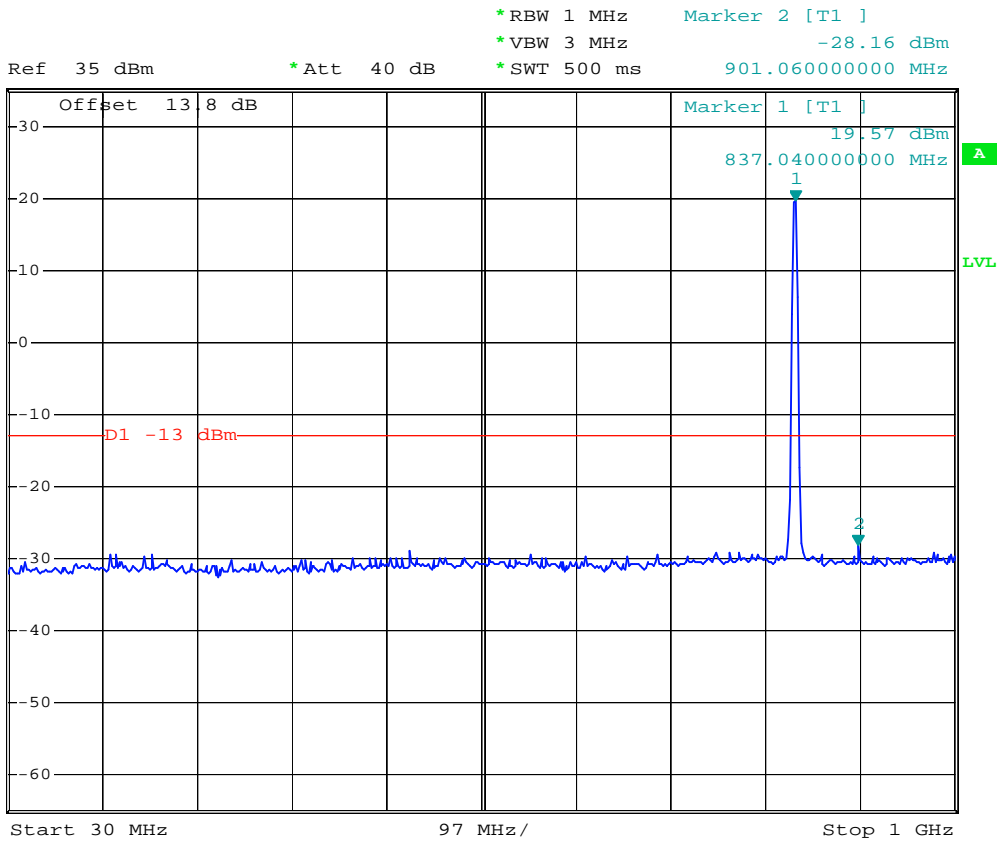
- Test Mode : PCS (EDGE) CH661
- Frequency Range : 13.6G-19.1G



Date: 27.JUN.2006 20:07:37



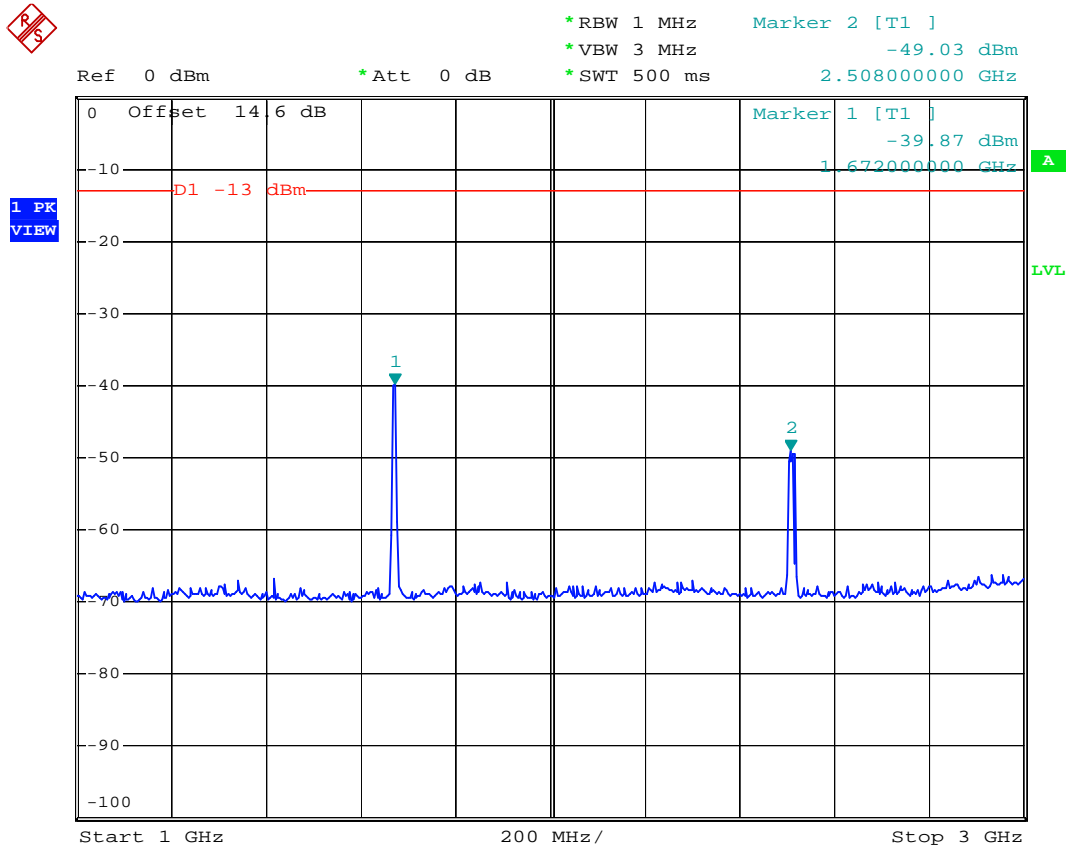
- Mode 5
- Test Mode : WCDMA Band 5 CH4182
- Frequency Range : 30M-1G



Date: 6.MAR.2006 15:06:45



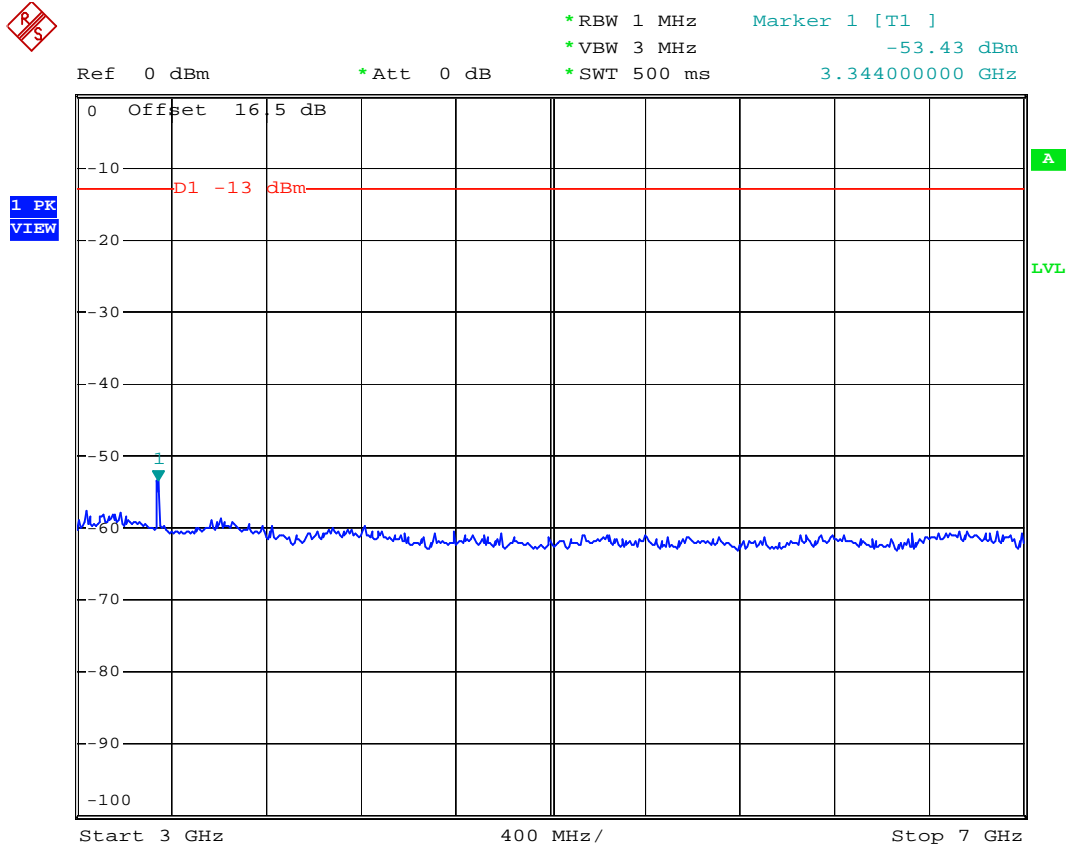
- Test Mode : WCDMA Band 5 CH4182
- Frequency Range : 1G-3G



Date: 6.MAR.2006 15:15:55



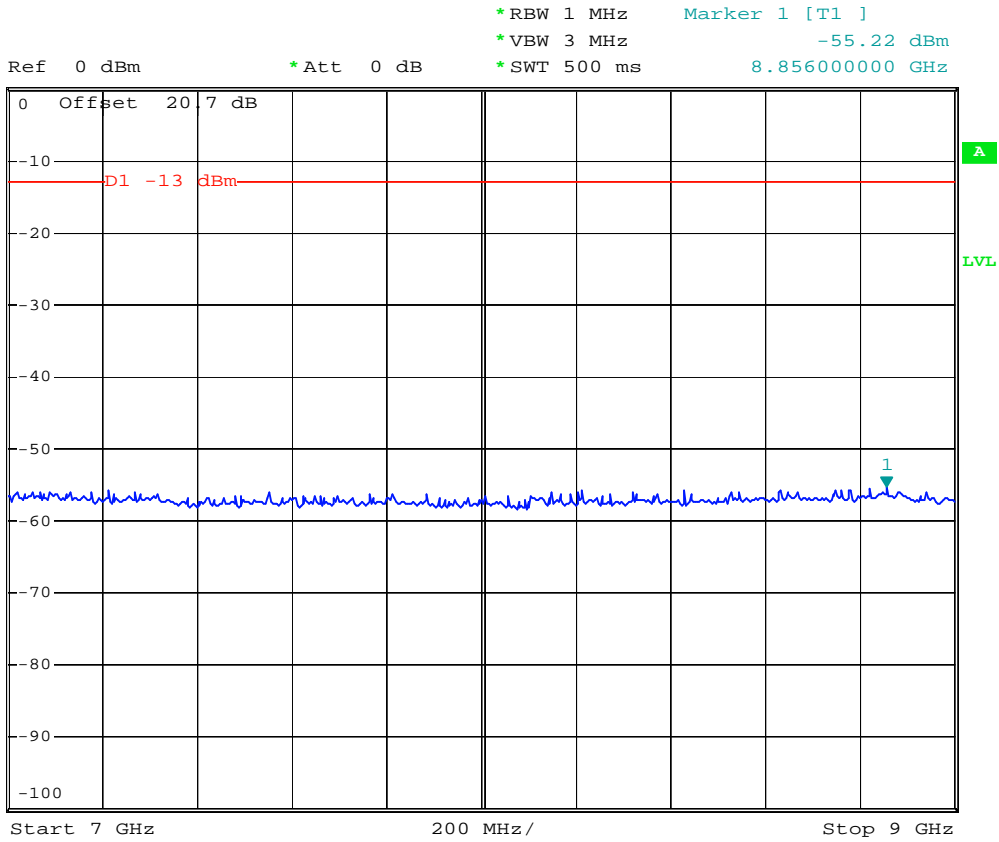
- Test Mode : WCDMA Band 5 CH4182
- Frequency Range : 3G-7G



Date: 6.MAR.2006 15:17:23



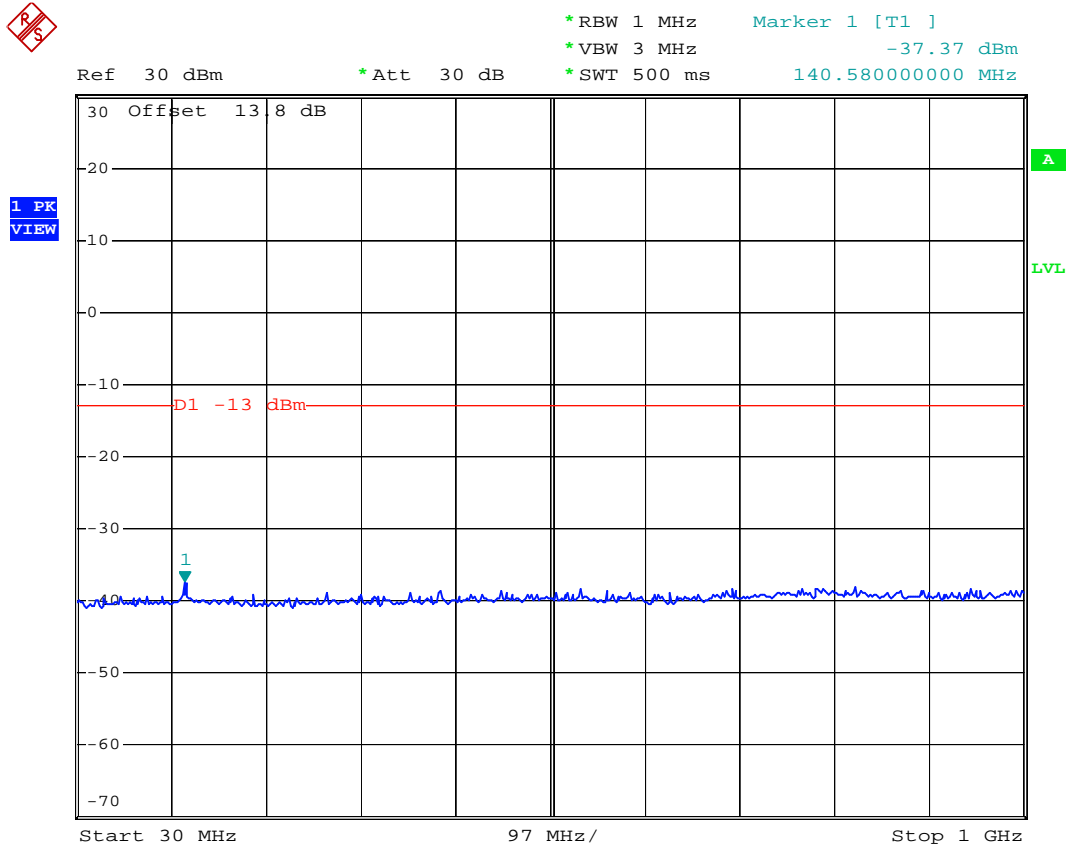
- Test Mode : WCDMA Band 5 CH4182
- Frequency Range : 7G-9G



Date: 6.MAR.2006 15:19:07



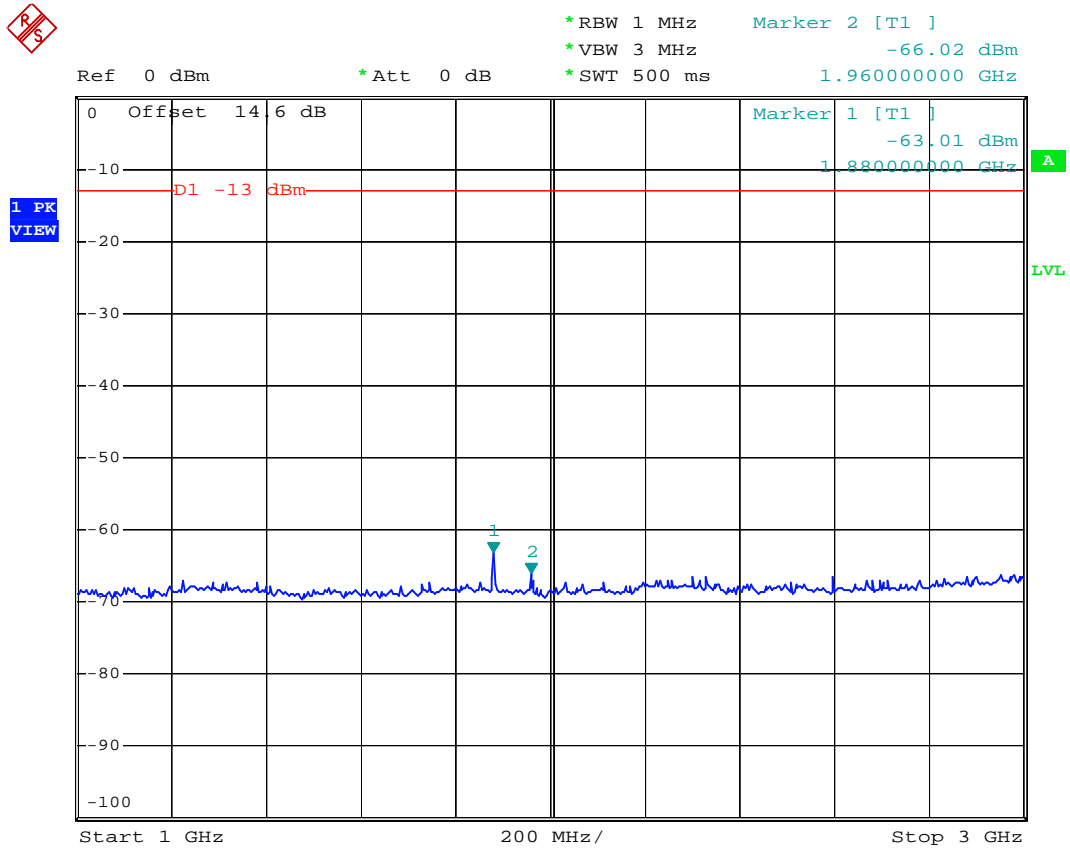
- Mode 6
- Test Mode : WCDMA Band 2 CH9400
- Frequency Range : 30M-1G



Date: 6.MAR.2006 14:45:38



- Test Mode : WCDMA Band 2 CH9400
- Frequency Range : 1G-3G

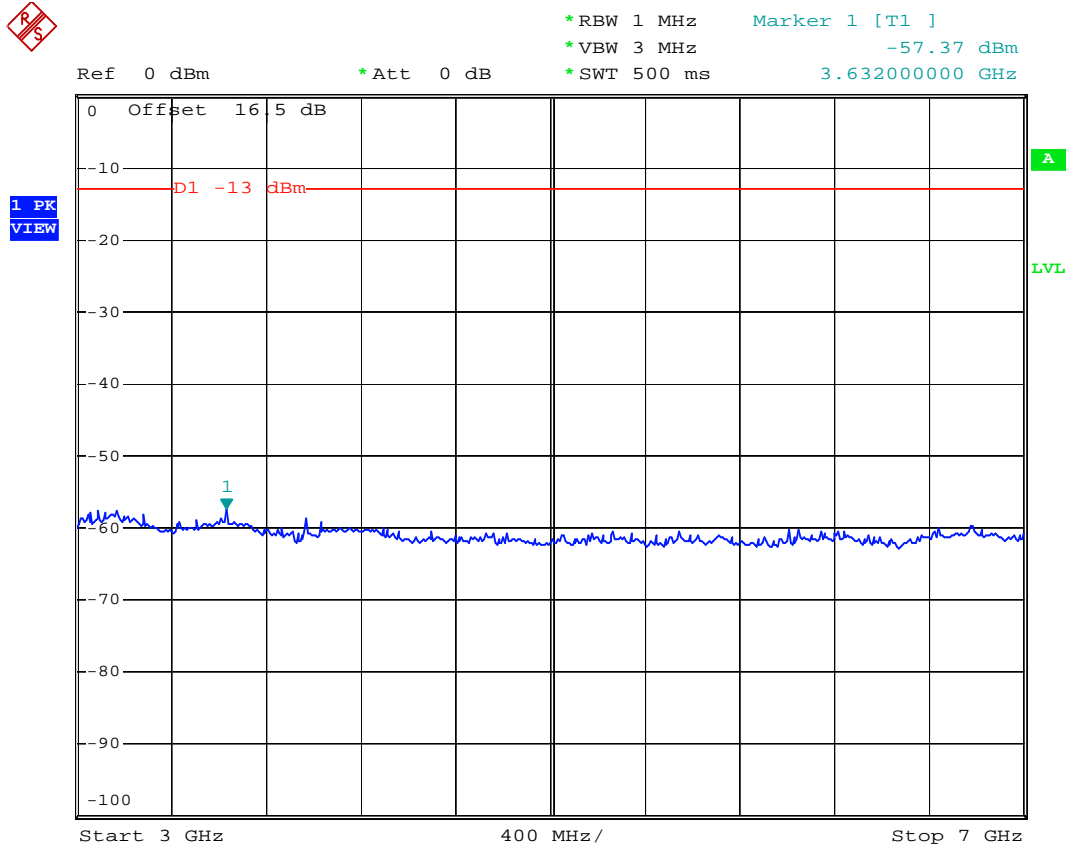


Date: 6.MAR.2006 14:53:54

Remark : The WCDMA fundamental signal was filtered by notch filter.



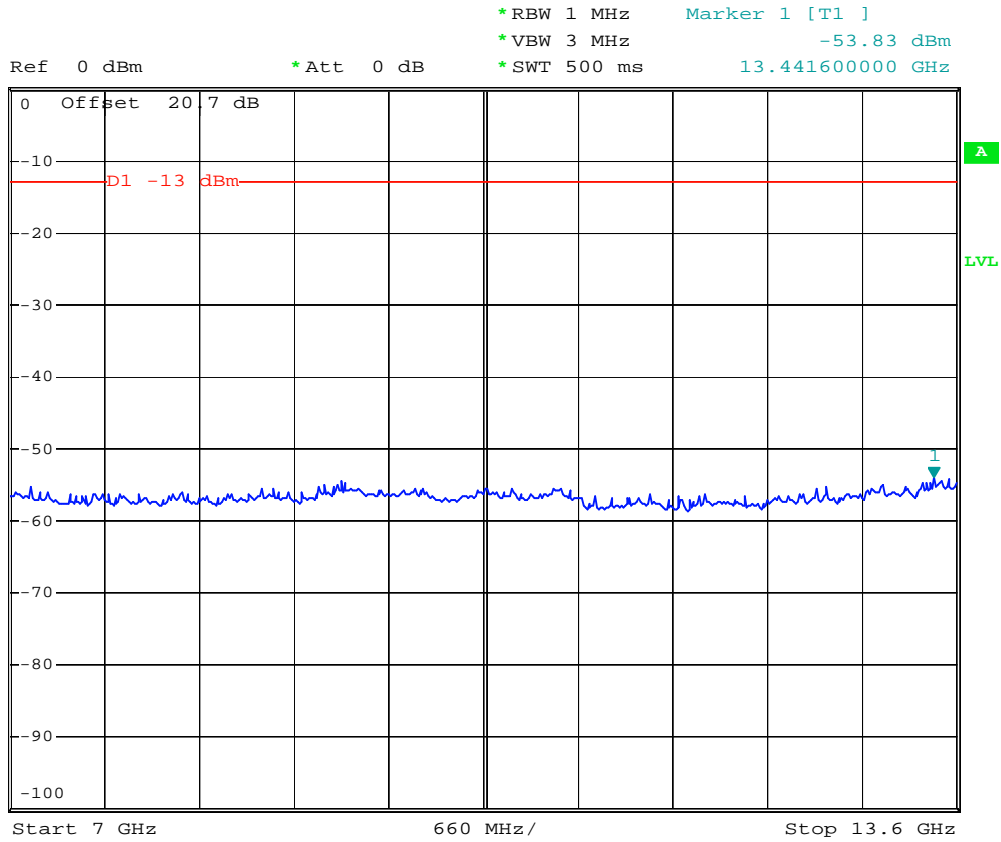
- Test Mode : WCDMA Band 2 CH9400
- Frequency Range : 3G-7G



Date: 6.MAR.2006 14:56:20



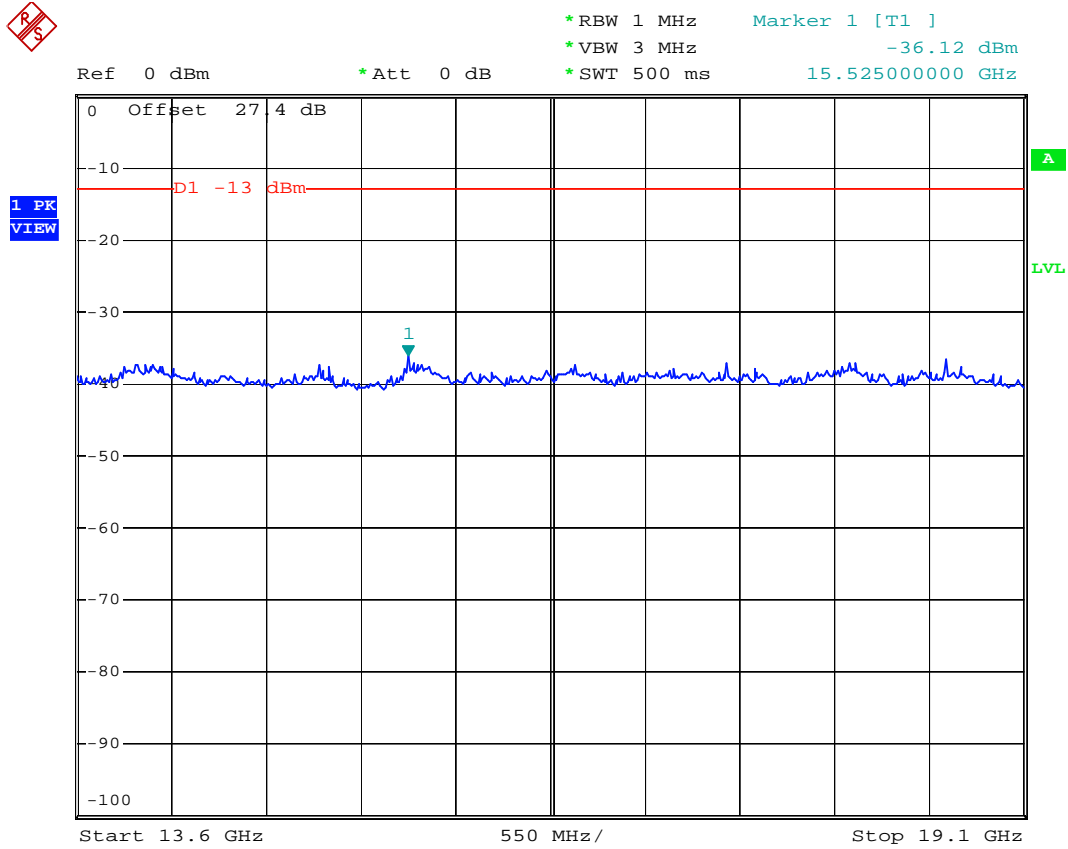
- Test Mode : WCDMA Band 2 CH9400
- Frequency Range : 7G-13.6G



Date: 6.MAR.2006 15:00:20



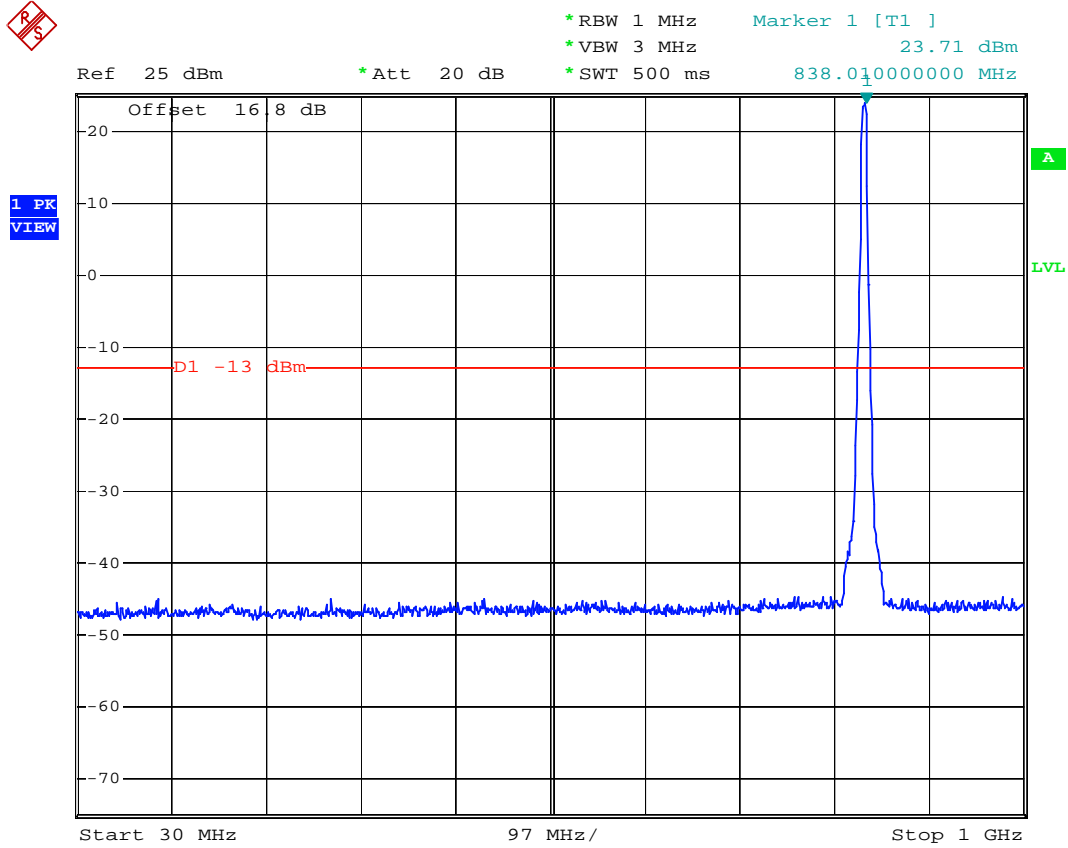
- Test Mode : WCDMA Band 2 CH9400
- Frequency Range : 13.6G-19.1G



Date: 6.MAR.2006 15:01:50



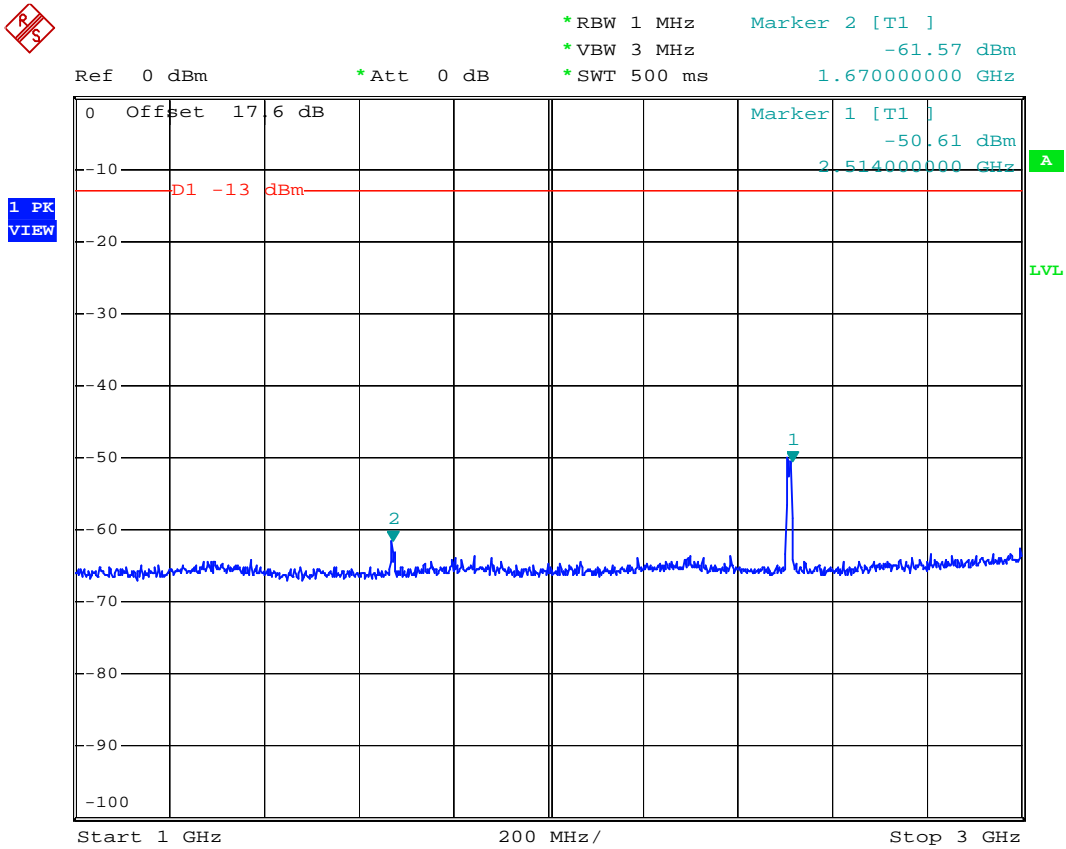
- Mode 7
- Test Mode : WCDMA Band 5 (HSDPA) CH4182
- Frequency Range : 30M-1G



Date: 10.NOV.2006 00:52:53



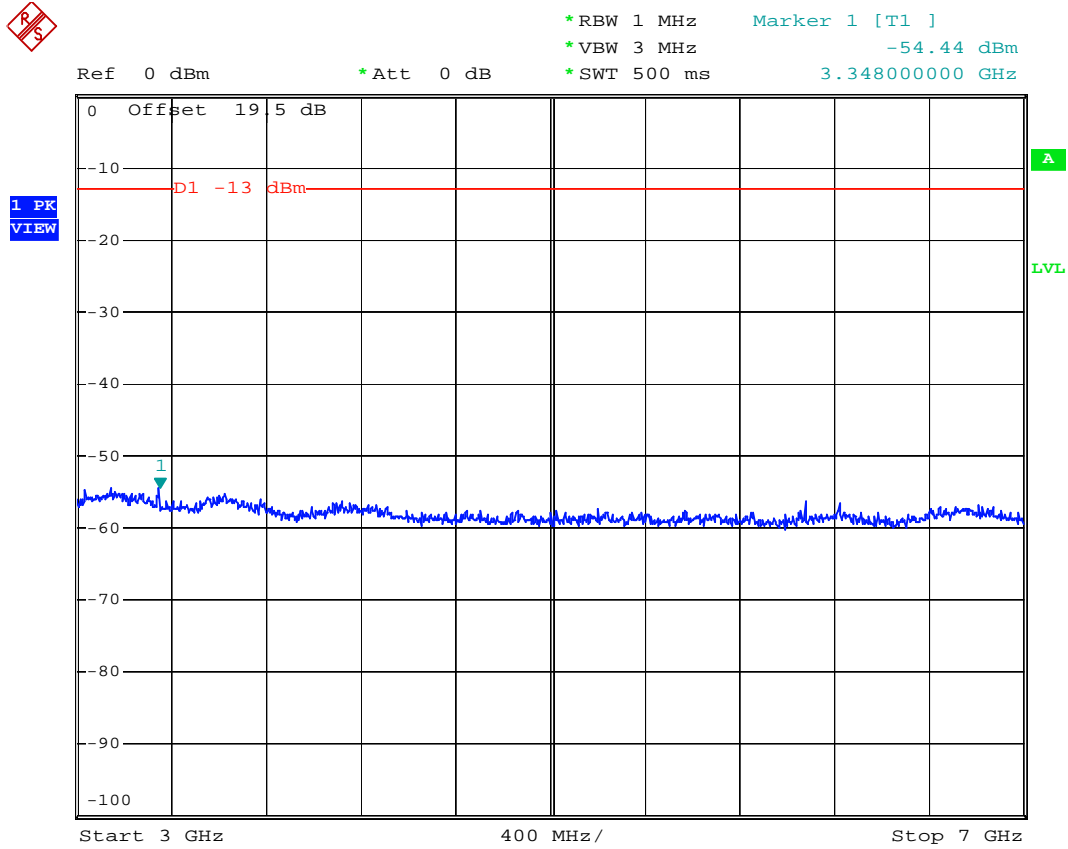
- Test Mode : WCDMA Band 5 (HSDPA) CH4182
- Frequency Range : 1G-3G



Date: 10.NOV.2006 01:01:59



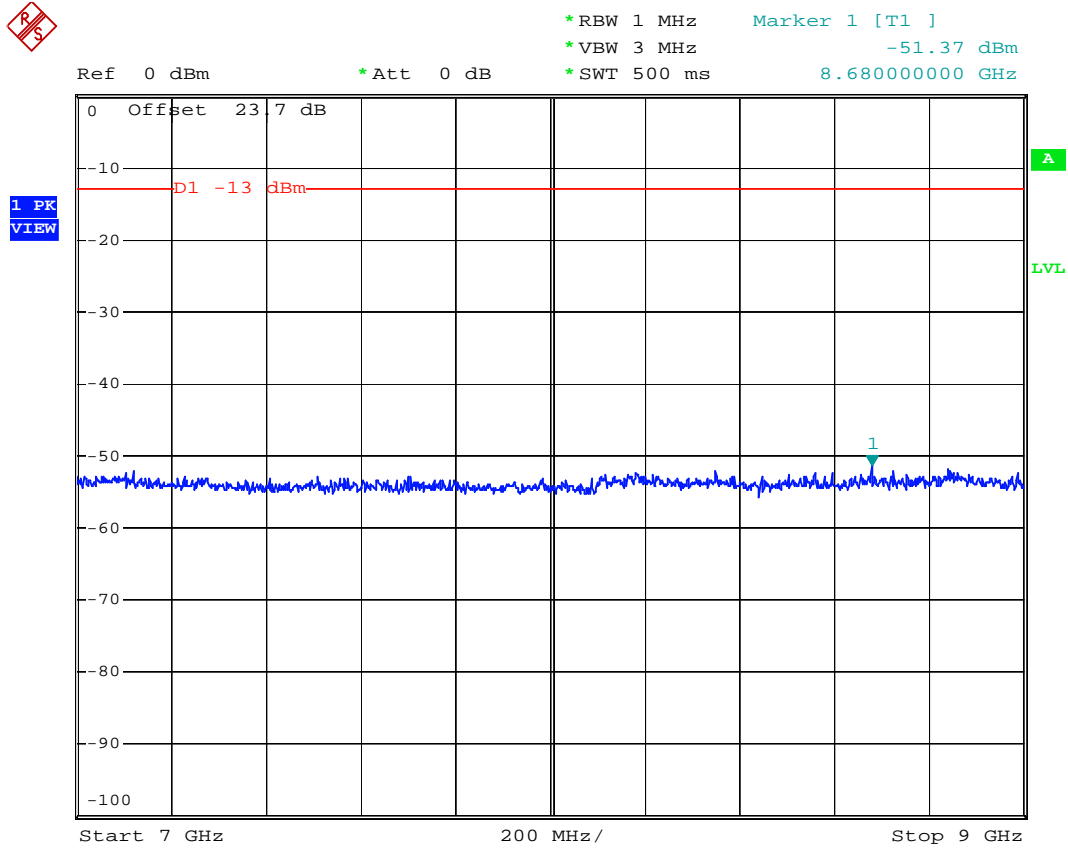
- Test Mode : WCDMA Band 5 (HSDPA) CH4182
- Frequency Range : 3G-7G



Date: 10.NOV.2006 01:03:27



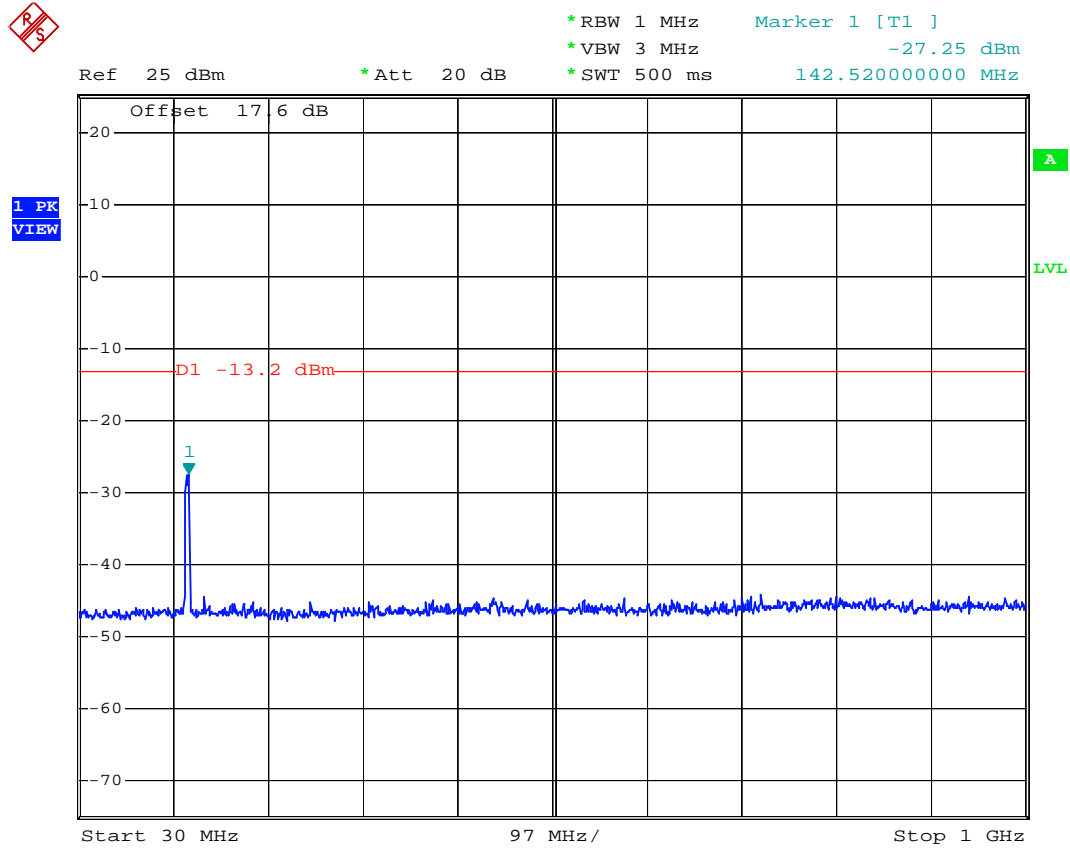
- Test Mode : WCDMA Band 5 (HSDPA) CH4182
- Frequency Range : 7G-9G



Date: 10.NOV.2006 01:04:57



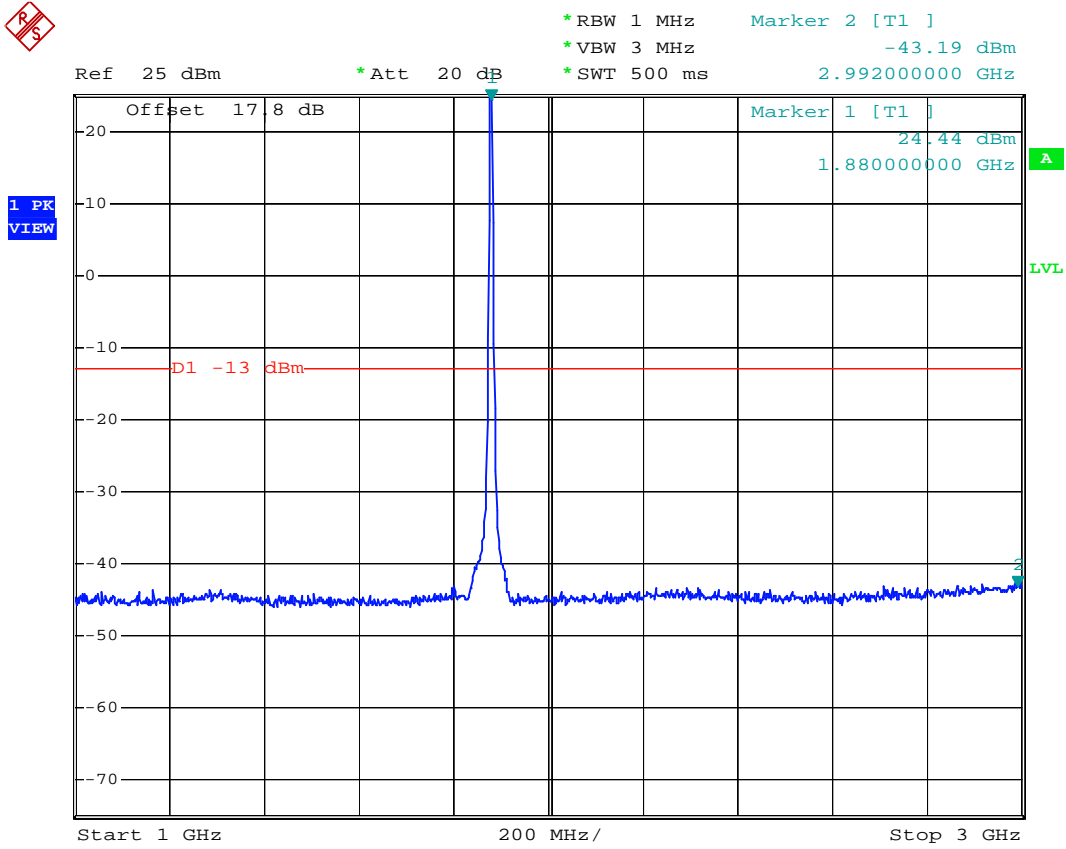
- Mode 8
- Test Mode : WCDMA Band 2 (HSDPA) CH9400
- Frequency Range : 30M-1G



Date: 10.NOV.2006 01:59:09



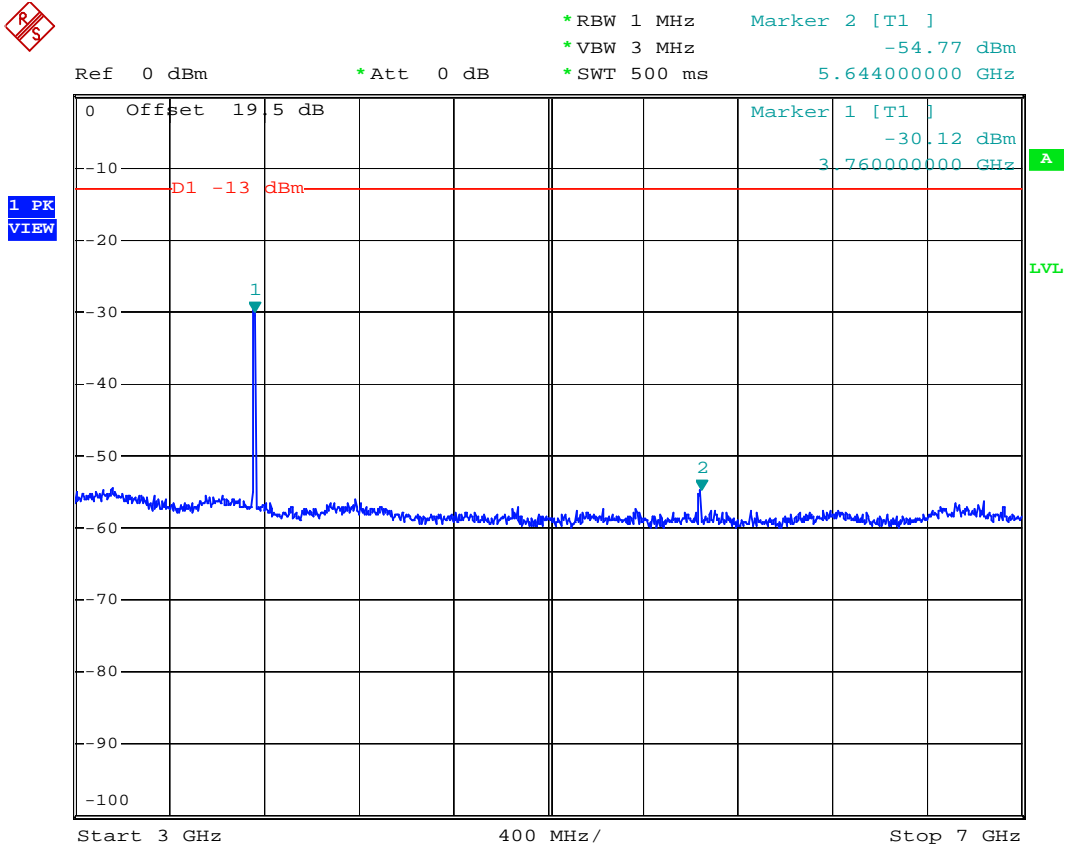
- Test Mode : WCDMA Band 2 (HSDPA) CH9400
- Frequency Range : 1G-3G



Date: 10.NOV.2006 01:57:49



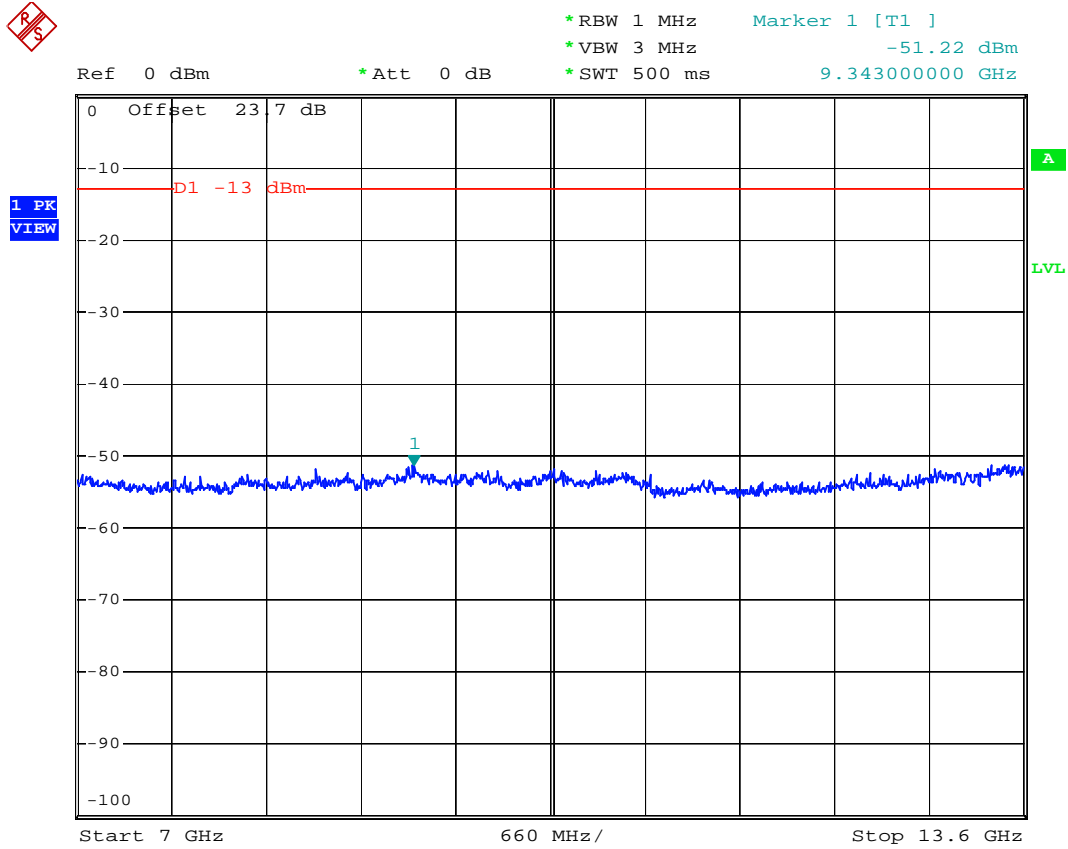
- Test Mode : WCDMA Band 2 (HSDPA) CH9400
- Frequency Range : 3G-7G



Date: 10.NOV.2006 02:01:07



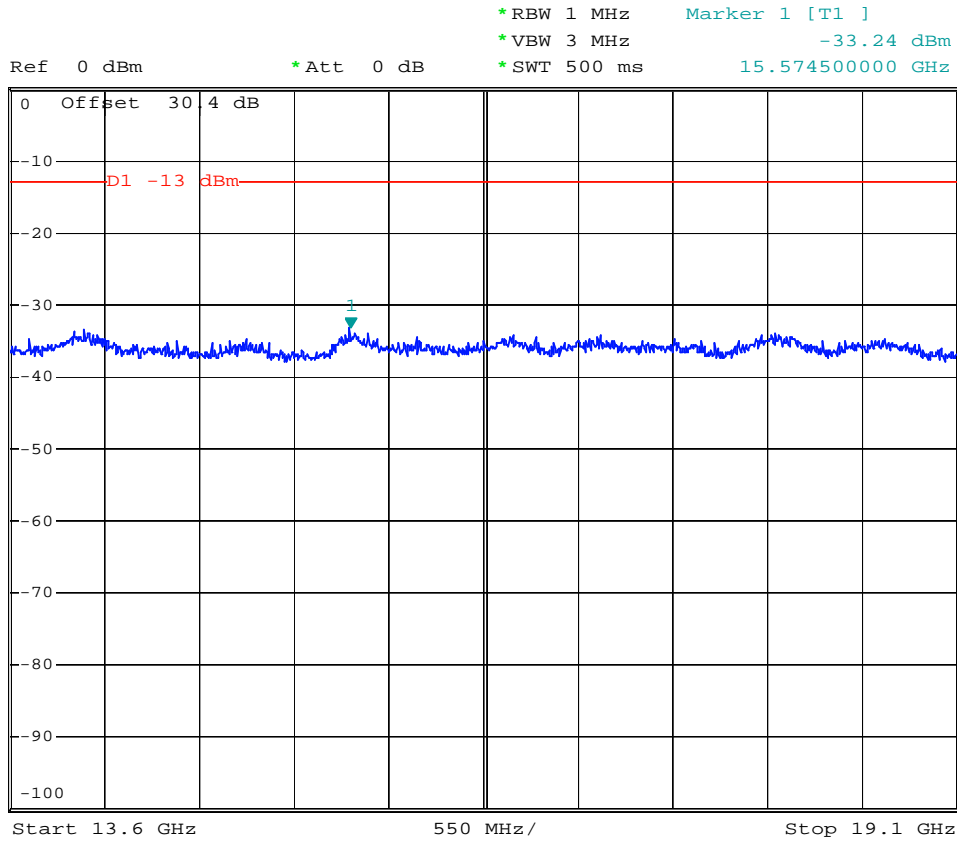
- Test Mode : WCDMA Band 2 (HSDPA) CH9400
- Frequency Range : 7G-13.6G



Date: 10.NOV.2006 02:02:18



- Test Mode : WCDMA Band 2 (HSDPA) CH9400
- Frequency Range : 13.6G-19.1G



Date: 10.NOV.2006 02:03:44

4.6 Field Strength of Spurious Radiation

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

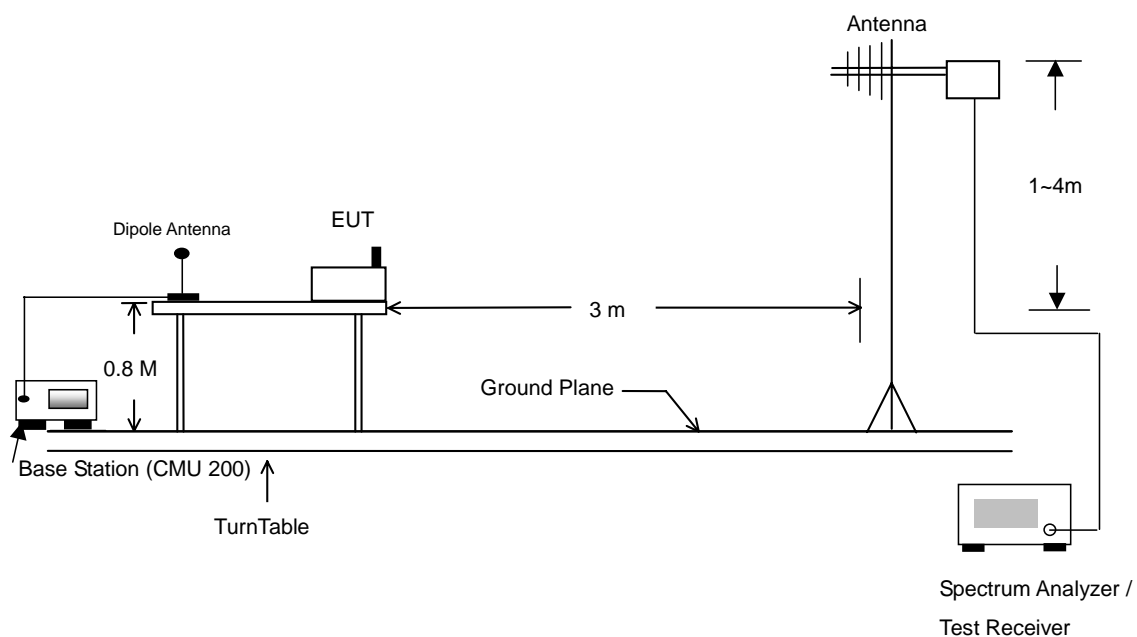
4.6.1 Measurement Instruments

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 (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)
32.4	-49.7	-13	-36.7	31.9	-42.4	-13	-29.4
99.4	-56.8	-13	-43.8	66.2	-49.4	-13	-36.4
143.1	-54.9	-13	-41.9	152.0	-51.2	-13	-38.2
194.4	-59.9	-13	-46.9	183.6	-53.9	-13	-40.9
1674.0	-35.2	-13	-22.2	1674.0	-39.7	-13	-26.7
2508.0	-33.7	-13	-20.7	2508.0	-34.8	-13	-21.8
3344.0	-37.2	-13	-24.2	3344.0	-31.4	-13	-18.4
4184.0	-50.8	-13	-37.8	4184.0	-46.4	-13	-33.4
5018.0	-46.0	-13	-33.0	5018.0	-43.6	-13	-30.6
5854.0	-49.3	-13	-36.3	5444.0	-51.6	-13	-38.6
6688.0	-45.9	-13	-32.9	5668.0	-51.6	-13	-38.6
				5854.0	-46.8	-13	-33.8
				6688.0	-42.4	-13	-29.4

- Test Mode : Mode 2

GSM850 (EDGE) Radiated Spurious ERP							
H Polarization				V Polarization			
Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)
39.180	-56.05	-13	-43.05	40.530	-43.30	-13	-30.30
71.040	-57.03	-13	-44.03	56.730	-53.010	-13	-40.01
102.090	-60.85	-13	-47.85	76.980	-49.690	-13	-36.69
901.300	-64.68	-13	-51.68	925.800	-63.860	-13	-50.86
1674.000	-38.84	-13	-25.84	1674.000	-43.520	-13	-30.52
2508.000	-46.68	-13	-33.68	2508.000	-50.420	-13	-37.42
				5018.000	-52.450	-13	-39.45



- Test Mode : Mode 3

PCS (GSM) Radiated Spurious EIRP							
H Polarization				V Polarization			
Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)
33.2	-45.0	-13	-32.0	32.4	-39.8	-13	-26.8
68.3	-46.8	-13	-33.8	75.1	-46.0	-13	-33.0
148.5	-51.8	-13	-38.8	149.3	-47.8	-13	-34.8
2008.0	-55.5	-13	-42.5	2008.0	-54.8	-13	-41.8
3758.0	-33.8	-13	-20.8	3758.0	-29.6	-13	-16.6
5638.0	-36.4	-13	-23.4	4018.0	-51.4	-13	-38.4
6374.0	-48.9	-13	-35.9	4778.0	-48.1	-13	-35.1
9398.0	-41.2	-13	-28.2	5638.0	-31.9	-13	-18.9
11278.0	-37.2	-13	-24.2	6028.0	-48.8	-13	-35.8
				6374.0	-46.9	-13	-33.9
				7518.0	-43.7	-13	-30.7
				11278.0	-35.8	-13	-22.8
				13158.0	-44.3	-13	-31.3

- Test Mode : Mode 4

PCS (EDGE) Radiated Spurious EIRP							
H Polarization				V Polarization			
Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)
34.590	-52.840	-13	-39.84	40.530	-42.010	-13	-29.01
39.180	-56.380	-13	-43.38	57.540	-47.880	-13	-34.88
90.480	-57.400	-13	-44.40	71.580	-47.980	-13	-34.98
763.400	-66.160	-13	-53.16	687.800	-64.540	-13	-51.54
864.900	-65.210	-13	-52.21	878.900	-62.340	-13	-49.34
1000.000	-64.060	-13	-51.06	983.900	-62.050	-13	-49.05
3758.000	-46.750	-13	-33.75	3758.000	-50.430	-13	-37.43
5638.000	-49.470	-13	-36.47	5638.000	-43.170	-13	-30.17
				9398.000	-42.800	-13	-29.80



- Test Mode : Mode 5

WCDMA Band 5 Radiated Spurious ERP							
H Polarization				V Polarization			
Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)
32.4	-51.2	-13	-38.2	32.4	-47.3	-13	-34.3
68.3	-54.7	-13	-41.7	72.4	-52.6	-13	-39.6
1668.0	-50.4	-13	-37.4	264.6	-62.7	-13	-49.7
				1668.0	-60.2	-13	-47.2
				3338.0	-55.8	-13	-42.8

- Test Mode : Mode 6

WCDMA Band 2 Radiated Spurious EIRP							
H Polarization				V Polarization			
Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)
32.4	-48.6	-13	-35.6	33.2	-44.9	-13	-31.9
67.5	-51.7	-13	-38.7	67.0	-49.2	-13	-36.2
147.2	-56.1	-13	-43.1	146.6	-53.6	-13	-40.6
3764.0	-44.4	-13	-31.4	3758.0	-46.5	-13	-33.5
5638.0	-50.2	-13	-37.2	5634.0	-49.9	-13	-36.9
				9394.0	-41.8	-13	-28.8



- Test Mode : Mode 7

GSM850 with Bluetooth Co-location Radiated Spurious ERP							
H Polarization				V Polarization			
Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)
32.4	-48.1	-13	-35.1	33.2	-42.8	-13	-29.8
100.7	-49.2	-13	-36.2	74.3	-49.1	-13	-36.1
143.1	-53.8	-13	-40.8	152.0	-52.3	-13	-39.3
1674.0	-34.4	-13	-21.4	1674.0	-40.0	-13	-27.0
2508.0	-33.8	-13	-20.8	2508.0	-33.6	-13	-20.6
3344.0	-36.8	-13	-23.8	3344.0	-33.6	-13	-20.6
4184.0	-47.6	-13	-34.6	4184.0	-43.0	-13	-30.0
5018.0	-46.5	-13	-33.5	5018.0	-45.3	-13	-32.3
5854.0	-47.9	-13	-34.9	5684.0	-51.1	-13	-38.1
6688.0	-46.2	-13	-33.2	5854.0	-46.9	-13	-33.9
10874.0	-39.4	-13	-26.4	6688.0	-42.6	-13	-29.6
				10874.0	-41.7	-13	-28.7

- Test Mode : Mode 8

WCDMA Band 5 (HSDPA) Radiated Spurious ERP							
H Polarization				V Polarization			
Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)
30.000	-65.680	-13	-52.68	59.430	-61.980	-13	-48.98
59.430	-67.950	-13	-54.95	71.040	-69.140	-13	-56.14
145.830	-67.720	-13	-54.72	146.640	-68.980	-13	-55.98
633.900	-64.770	-13	-51.77	315.400	-63.450	-13	-50.45



- Test Mode : Mode 9

WCDMA Band 2 (HSDPA) Radiated Spurious EIRP							
H Polarization				V Polarization			
Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)
30.000	-63.870	-13	-50.87	59.430	-59.350	-13	-46.35
59.430	-65.620	-13	-52.62	179.580	-66.370	-13	-53.37
145.830	-65.740	-13	-52.74	266.790	-64.760	-13	-51.76
854.400	-64.370	-13	-51.37	822.900	-62.090	-13	-49.09
953.800	-64.020	-13	-51.02	932.800	-61.710	-13	-48.71
983.900	-63.480	-13	-50.48	988.800	-61.040	-13	-48.04
3758.000	-44.390	-13	-31.39	3764.000	-48.810	-13	-35.81
5644.000	-51.190	-13	-38.19				



4.6.5 Test Data

4.6.5.1 Mode 1

Horizontal Polarization

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Preamp Factor	Cable Loss	Ant Pos	Table Pos	Remark
	MHz	dBm	dB	dBm	dBm	dB	dB	dB	cm	deg	
1 @	32.43	-47.57	-34.57	-13.00	-46.11	-1.47	0.00	0.00	400	0	Peak
2 @	99.39	-54.66	-41.66	-13.00	-42.42	-12.24	0.00	0.00	400	0	Peak
3 @	143.13	-52.75	-39.75	-13.00	-40.01	-12.74	0.00	0.00	400	0	Peak
4 @	194.43	-57.79	-44.79	-13.00	-44.45	-13.33	0.00	0.00	400	0	Peak

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Preamp Factor	Cable Loss	Ant Pos	Table Pos	Remark
	MHz	dBm	dB	dBm	dBm	dB	dB	dB	cm	deg	
1 @	836.90	-34.35	-21.35	-13.00	-33.02	-1.33	0.00	0.00	100	0	Peak
2 @	875.40	-43.29	-30.29	-13.00	-42.33	-0.96	0.00	0.00	100	0	Peak

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Preamp Factor	Cable Loss	Ant Pos	Table Pos	Remark
	MHz	dBm	dB	dBm	dBm	dB	dB	dB	cm	deg	
1 @	1674.00	-33.08	-20.08	-13.00	-33.30	0.22	0.00	0.00	300	133	Peak
2 @	2508.00	-31.57	-18.57	-13.00	-32.77	1.20	0.00	0.00	300	133	Peak

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Preamp Factor	Cable Loss	Ant Pos	Table Pos	Remark
	MHz	dBm	dB	dBm	dBm	dB	dB	dB	cm	deg	
1 @	3344.00	-35.01	-22.01	-13.00	-40.42	5.41	0.00	0.00	100	0	Peak
2 @	4184.00	-48.61	-35.61	-13.00	-58.40	9.79	0.00	0.00	100	0	Peak

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Preamp Factor	Cable Loss	Ant Pos	Table Pos	Remark
	MHz	dBm	dB	dBm	dBm	dB	dB	dB	cm	deg	
1 @	5018.00	-43.83	-30.83	-13.00	-54.07	10.24	0.00	0.00	200	0	Peak
2 @	5854.00	-47.12	-34.12	-13.00	-57.34	10.22	0.00	0.00	200	0	Peak
3 @	6688.00	-43.72	-30.72	-13.00	-56.86	13.14	0.00	0.00	200	0	Peak



Vertical Polarization

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Preamp Factor	Cable Loss	Ant Pos	Table Pos	Remark
	MHz	dBm	dB	dBm	dBm	dB	dB	dB	cm	deg	
1 @	31.89	-40.25	-27.25	-13.00	-30.63	-9.62	0.00	0.00	400	0	Peak
2 @	66.18	-47.26	-34.26	-13.00	-34.67	-12.58	0.00	0.00	400	0	Peak
3 @	152.04	-49.00	-36.00	-13.00	-40.83	-8.16	0.00	0.00	400	0	Peak
4 @	183.63	-51.72	-38.72	-13.00	-43.28	-8.44	0.00	0.00	400	0	Peak

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Preamp Factor	Cable Loss	Ant Pos	Table Pos	Remark
	MHz	dBm	dB	dBm	dBm	dB	dB	dB	cm	deg	
1 @	836.90	-33.37	-20.37	-13.00	-34.73	1.36	0.00	0.00	100	0	Peak
2 @	875.40	-39.72	-26.72	-13.00	-41.39	1.67	0.00	0.00	100	0	Peak

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Preamp Factor	Cable Loss	Ant Pos	Table Pos	Remark
	MHz	dBm	dB	dBm	dBm	dB	dB	dB	cm	deg	
1 @	1674.00	-37.52	-24.52	-13.00	-37.04	-0.48	0.00	0.00	300	360	Peak
2 @	2508.00	-32.66	-19.66	-13.00	-34.93	2.27	0.00	0.00	300	360	Peak

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Preamp Factor	Cable Loss	Ant Pos	Table Pos	Remark
	MHz	dBm	dB	dBm	dBm	dB	dB	dB	cm	deg	
1 @	3344.00	-29.28	-16.28	-13.00	-33.75	4.47	0.00	0.00	100	0	Peak
2 @	4184.00	-44.27	-31.27	-13.00	-52.63	8.36	0.00	0.00	100	0	Peak

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Preamp Factor	Cable Loss	Ant Pos	Table Pos	Remark
	MHz	dBm	dB	dBm	dBm	dB	dB	dB	cm	deg	
1 @	5018.00	-41.44	-28.44	-13.00	-50.29	8.85	0.00	0.00	200	0	Peak
2 @	5444.00	-49.49	-36.49	-13.00	-58.18	8.69	0.00	0.00	200	0	Peak
3 @	5668.00	-49.41	-36.41	-13.00	-58.09	8.68	0.00	0.00	200	0	Peak
4 @	5854.00	-44.67	-31.67	-13.00	-53.48	8.81	0.00	0.00	200	0	Peak
5 @	6688.00	-40.26	-27.26	-13.00	-51.79	11.53	0.00	0.00	200	0	Peak

Remark : There is no more obvious emission except the listings above.



4.6.5.2 Mode 2

Horizontal Polarization

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1 @	39.18	-53.90	-40.90	-13.00	-48.78	-5.12	Peak
2 @	71.04	-54.88	-41.88	-13.00	-42.53	-12.35	Peak
3 @	102.09	-58.70	-45.70	-13.00	-46.44	-12.26	Peak

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1 @	840.40	-39.32			-38.02	-1.31	Peak
2 @	880.30	-42.37			-41.46	-0.91	Peak
3 @	901.30	-62.53	-49.53	-13.00	-61.82	-0.72	Peak

Remark:

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

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1 @	1674.00	-36.69	-23.69	-13.00	-36.91	0.22	Peak
2 @	2508.00	-44.53	-31.53	-13.00	-45.73	1.20	Peak



Vertical Polarization

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1 @	40.53	-41.15	-28.15	-13.00	-29.07	-12.08	Peak
2 @	56.73	-50.86	-37.86	-13.00	-37.02	-13.84	Peak
3 @	76.98	-47.54	-34.54	-13.00	-36.50	-11.05	Peak

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1 @	827.80	-41.55			-42.83	1.29	Peak
2 @	880.30	-47.18			-48.90	1.71	Peak
3 @	925.80	-61.71	-48.71	-13.00	-63.78	2.07	Peak

Remark:

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

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1 @	1674.00	-41.37	-28.37	-13.00	-40.89	-0.48	Peak
2 @	2508.00	-48.27	-35.27	-13.00	-50.54	2.27	Peak

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1 @	5018.00	-50.30	-37.30	-13.00	-59.15	8.85	Peak

Remark : There is no more obvious emission except the listings above.



4.6.5.3 Mode 3
Horizontal Polarization

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Preamp Factor	Cable Loss	Ant Pos	Table Pos	Remark
	MHz	dBm	dB	dBm	dBm	dB	dB	dB	cm	deg	
1 @	33.24	-44.97	-31.97	-13.00	-43.50	-1.47	0.00	0.00	400	0	Peak
2 @	68.34	-46.80	-33.80	-13.00	-34.44	-12.36	0.00	0.00	400	0	Peak
3 @	148.53	-51.82	-38.82	-13.00	-39.02	-12.80	0.00	0.00	400	0	Peak

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Preamp Factor	Cable Loss	Ant Pos	Table Pos	Remark
	MHz	dBm	dB	dBm	dBm	dB	dB	dB	cm	deg	
1 @	1884.00	-46.21	-33.21	-13.00	-45.53	-0.68	0.00	0.00	200	0	Peak
2 @	1958.00	-52.97	-39.97	-13.00	-51.86	-1.11	0.00	0.00	200	0	Peak
3 @	2008.00	-55.51	-42.51	-13.00	-54.48	-1.02	0.00	0.00	200	0	Peak

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Preamp Factor	Cable Loss	Ant Pos	Table Pos	Remark
	MHz	dBm	dB	dBm	dBm	dB	dB	dB	cm	deg	
1 @	3758.00	-33.78	-20.78	-13.00	-41.70	7.92	0.00	0.00	300	360	Peak

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Preamp Factor	Cable Loss	Ant Pos	Table Pos	Remark
	MHz	dBm	dB	dBm	dBm	dB	dB	dB	cm	deg	
1 @	5638.00	-36.37	-23.37	-13.00	-46.34	9.97	0.00	0.00	100	0	Peak
2 @	6374.00	-48.94	-35.94	-13.00	-60.44	11.50	0.00	0.00	100	0	Peak

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Preamp Factor	Cable Loss	Ant Pos	Table Pos	Remark
	MHz	dBm	dB	dBm	dBm	dB	dB	dB	cm	deg	
1 @	9398.00	-41.22	-28.22	-13.00	-59.44	18.22	0.00	0.00	100	0	Peak

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Preamp Factor	Cable Loss	Ant Pos	Table Pos	Remark
	MHz	dBm	dB	dBm	dBm	dB	dB	dB	cm	deg	
1 @	11278.00	-37.23	-24.23	-13.00	-57.53	20.30	0.00	0.00	200	0	Peak



Vertical Polarization

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Preamp Factor	Cable Loss	Ant Pos	Table Pos	Remark
	MHz	dBm	dB	dBm	dBm	dB	dB	dB	cm	deg	
1 @	32.43	-39.82	-26.82	-13.00	-29.93	-9.89	0.00	0.00	400	0	Peak
2 @	75.09	-46.01	-33.01	-13.00	-34.69	-11.32	0.00	0.00	400	0	Peak
3 @	149.34	-47.80	-34.80	-13.00	-39.66	-8.14	0.00	0.00	400	0	Peak

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Preamp Factor	Cable Loss	Ant Pos	Table Pos	Remark
	MHz	dBm	dB	dBm	dBm	dB	dB	dB	cm	deg	
1 @	1884.00	-51.62	-38.62	-13.00	-51.12	-0.50	0.00	0.00	100	0	Peak
2 @	1958.00	-49.98	-36.98	-13.00	-49.38	-0.60	0.00	0.00	100	0	Peak
3 @	2008.00	-54.82	-41.82	-13.00	-54.46	-0.36	0.00	0.00	100	0	Peak

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Preamp Factor	Cable Loss	Ant Pos	Table Pos	Remark
	MHz	dBm	dB	dBm	dBm	dB	dB	dB	cm	deg	
1 @	3758.00	-29.63	-16.63	-13.00	-36.27	6.64	0.00	0.00	300	360	Peak
2 @	4018.00	-51.36	-38.36	-13.00	-58.96	7.60	0.00	0.00	300	360	Peak
3 @	4778.00	-48.14	-35.14	-13.00	-58.53	10.39	0.00	0.00	300	360	Peak

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Preamp Factor	Cable Loss	Ant Pos	Table Pos	Remark
	MHz	dBm	dB	dBm	dBm	dB	dB	dB	cm	deg	
1 @	5638.00	-31.90	-18.90	-13.00	-40.55	8.65	0.00	0.00	100	0	Peak
2 @	6028.00	-48.78	-35.78	-13.00	-57.08	8.29	0.00	0.00	100	0	Peak
3 @	6374.00	-46.92	-33.92	-13.00	-57.13	10.21	0.00	0.00	100	0	Peak

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Preamp Factor	Cable Loss	Ant Pos	Table Pos	Remark
	MHz	dBm	dB	dBm	dBm	dB	dB	dB	cm	deg	
1 @	7518.00	-43.71	-30.71	-13.00	-57.08	13.37	0.00	0.00	200	0	Peak

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Preamp Factor	Cable Loss	Ant Pos	Table Pos	Remark
	MHz	dBm	dB	dBm	dBm	dB	dB	dB	cm	deg	
1 @	11278.00	-35.83	-22.83	-13.00	-54.70	18.87	0.00	0.00	200	0	Peak

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Preamp Factor	Cable Loss	Ant Pos	Table Pos	Remark
	MHz	dBm	dB	dBm	dBm	dB	dB	dB	cm	deg	
1 @	13158.00	-44.31	-31.31	-13.00	-60.10	15.79	0.00	0.00	100	0	Peak

Remark: There is no more obvious emission except the listings above.



4.6.5.4 Mode 4
Horizontal Polarization

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1 @	34.59	-52.84	-39.84	-13.00	-50.16	-2.69	Peak
2	39.18	-56.38	-43.38	-13.00	-51.26	-5.12	Peak
3	90.48	-57.40	-44.40	-13.00	-45.12	-12.28	Peak

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1	763.40	-66.16	-53.16	-13.00	-64.09	-2.07	Peak
2	864.90	-65.21	-52.21	-13.00	-64.15	-1.06	Peak
3	1000.00	-64.06	-51.06	-13.00	-64.30	0.24	Peak

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1 @	1884.00	-48.63			-47.96	-0.68	Peak
2 @	1958.00	-49.94			-48.83	-1.11	Peak

Remark:

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

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1 @	3758.00	-46.75	-33.75	-13.00	-54.67	7.92	Peak

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1 @	5638.00	-49.47	-36.47	-13.00	-59.44	9.97	Peak



Vertical Polarization

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1 @	40.53	-42.01	-29.01	-13.00	-29.93	-12.08	Peak
2 @	57.54	-47.88	-34.88	-13.00	-34.04	-13.84	Peak
3 @	71.58	-47.98	-34.98	-13.00	-36.24	-11.74	Peak

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1	687.80	-64.54	-51.54	-13.00	-63.92	-0.62	Peak
2	878.90	-62.34	-49.34	-13.00	-64.04	1.70	Peak
3	983.90	-62.05	-49.05	-13.00	-64.58	2.53	Peak

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1	1884.00	-54.20			-53.70	-0.50	Peak
2	1958.00	-54.95			-54.36	-0.60	Peak

Remark:

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

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1 @	3758.00	-50.43	-37.43	-13.00	-57.07	6.64	Peak

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1 @	5638.00	-43.17	-30.17	-13.00	-51.82	8.65	Peak

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1 @	9398.00	-42.80	-29.80	-13.00	-60.00	17.20	Peak

Remark: There is no more obvious emission except the listings above.



4.6.5.5 Mode 5

Horizontal Polarization

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Preamp Factor	Cable Loss	Ant Pos	Table Pos	Remark
	MHz	dBm	dB	dBm	dBm	dB	dB	dB	cm	deg	
1 @	32.43	-49.07	-36.07	-13.00	-47.60	-1.47	0.00	0.00	400	0	Peak
2 @	68.34	-52.55	-39.55	-13.00	-40.20	-12.36	0.00	0.00	400	0	Peak

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Preamp Factor	Cable Loss	Ant Pos	Table Pos	Remark
	MHz	dBm	dB	dBm	dBm	dB	dB	dB	cm	deg	
1 @	831.30	-25.87	-12.87	-13.00	-24.48	-1.39	0.00	0.00	100	0	Peak

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Preamp Factor	Cable Loss	Ant Pos	Table Pos	Remark
	MHz	dBm	dB	dBm	dBm	dB	dB	dB	cm	deg	
1 @	1668.00	-48.25	-35.25	-13.00	-48.47	0.22	0.00	0.00	300	360	Peak



Vertical Polarization

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Preamp Factor	Cable Loss	Ant Pos	Table Pos	Remark
	MHz	dBm	dB	dBm	dBm	dB	dB	dB	cm	deg	
1 @	32.43	-45.14	-32.14	-13.00	-35.25	-9.89	0.00	0.00	400	0	Peak
2 @	72.39	-50.43	-37.43	-13.00	-38.83	-11.60	0.00	0.00	400	0	Peak
3 @	264.63	-60.53	-47.53	-13.00	-53.33	-7.20	0.00	0.00	400	0	Peak

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Preamp Factor	Cable Loss	Ant Pos	Table Pos	Remark
	MHz	dBm	dB	dBm	dBm	dB	dB	dB	cm	deg	
1 @	841.80	-30.32	-17.32	-13.00	-31.73	1.40	0.00	0.00	100	0	Peak
2 @	880.30	-54.61	-41.61	-13.00	-56.32	1.71	0.00	0.00	100	0	Peak

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Preamp Factor	Cable Loss	Ant Pos	Table Pos	Remark
	MHz	dBm	dB	dBm	dBm	dB	dB	dB	cm	deg	
1 @	1668.00	-58.02	-45.02	-13.00	-57.54	-0.48	0.00	0.00	300	360	Peak

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Preamp Factor	Cable Loss	Ant Pos	Table Pos	Remark
	MHz	dBm	dB	dBm	dBm	dB	dB	dB	cm	deg	
1 @	3338.00	-53.69	-40.69	-13.00	-58.15	4.47	0.00	0.00	100	0	Peak

Remark : There is no more obvious emission except the listings above.



4.6.5.6 Mode 6
Horizontal Polarization

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Preamp Factor	Cable Loss	Ant Pos	Table Pos	Remark
	MHz	dBm	dB	dBm	dBm	dB	dB	dB	cm	deg	
1 @	32.43	-48.61	-35.61	-13.00	-47.14	-1.47	0.00	0.00	400	0	Peak
2 @	67.53	-51.65	-38.65	-13.00	-39.29	-12.36	0.00	0.00	400	0	Peak
3 @	147.18	-56.05	-43.05	-13.00	-43.26	-12.79	0.00	0.00	400	0	Peak

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Preamp Factor	Cable Loss	Ant Pos	Table Pos	Remark
	MHz	dBm	dB	dBm	dBm	dB	dB	dB	cm	deg	
1 @	1878.00	-24.32	-11.32	-13.00	-23.80	-0.51	0.00	0.00	200	54	Peak
2 @	1958.00	-51.02	-38.02	-13.00	-49.91	-1.11	0.00	0.00	200	54	Peak

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Preamp Factor	Cable Loss	Ant Pos	Table Pos	Remark
	MHz	dBm	dB	dBm	dBm	dB	dB	dB	cm	deg	
1 @	3764.00	-44.37	-31.37	-13.00	-52.29	7.92	0.00	0.00	300	360	Peak

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Preamp Factor	Cable Loss	Ant Pos	Table Pos	Remark
	MHz	dBm	dB	dBm	dBm	dB	dB	dB	cm	deg	
1 @	5638.00	-50.17	-37.17	-13.00	-60.14	9.97	0.00	0.00	100	0	Peak



Vertical Polarization

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Preamp Factor	Cable Loss	Ant Pos	Table Pos	Remark
	MHz	dBm	dB	dBm	dBm	dB	dB	dB	cm	deg	
1 @	33.24	-44.91	-31.91	-13.00	-35.02	-9.89	0.00	0.00	400	0	Peak
2 @	66.99	-49.17	-36.17	-13.00	-36.73	-12.44	0.00	0.00	400	0	Peak
3 @	146.64	-53.62	-40.62	-13.00	-45.51	-8.11	0.00	0.00	400	0	Peak

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Preamp Factor	Cable Loss	Ant Pos	Table Pos	Remark
	MHz	dBm	dB	dBm	dBm	dB	dB	dB	cm	deg	
1 @	1884.00	-25.54	-12.54	-13.00	-25.04	-0.50	0.00	0.00	100	54	Peak
2 @	1958.00	-46.06	-33.06	-13.00	-45.46	-0.60	0.00	0.00	100	54	Peak

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Preamp Factor	Cable Loss	Ant Pos	Table Pos	Remark
	MHz	dBm	dB	dBm	dBm	dB	dB	dB	cm	deg	
1 @	3758.00	-46.53	-33.53	-13.00	-53.17	6.64	0.00	0.00	300	360	Peak

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Preamp Factor	Cable Loss	Ant Pos	Table Pos	Remark
	MHz	dBm	dB	dBm	dBm	dB	dB	dB	cm	deg	
1 @	5634.00	-49.94	-36.94	-13.00	-58.60	8.65	0.00	0.00	100	0	Peak

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Preamp Factor	Cable Loss	Ant Pos	Table Pos	Remark
	MHz	dBm	dB	dBm	dBm	dB	dB	dB	cm	deg	
1 @	9394.00	-41.75	-28.75	-13.00	-58.95	17.20	0.00	0.00	100	0	Peak

Remark: There is no more obvious emission except the listings above.



4.6.5.7 Mode 7

Horizontal Polarization

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Preamp Factor	Cable Loss	Ant Pos	Table Pos	Remark
	MHz	dBm	dB	dBm	dBm	dB	dB	dB	cm	deg	
1 @	32.43	-45.99	-32.99	-13.00	-44.52	-1.47	0.00	0.00	400	0	Peak
2 @	100.74	-47.07	-34.07	-13.00	-34.82	-12.25	0.00	0.00	400	0	Peak
3 @	143.13	-51.61	-38.61	-13.00	-38.87	-12.74	0.00	0.00	400	0	Peak

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Preamp Factor	Cable Loss	Ant Pos	Table Pos	Remark
	MHz	dBm	dB	dBm	dBm	dB	dB	dB	cm	deg	
1 @	836.90	-34.60	-21.60	-13.00	-33.27	-1.33	0.00	0.00	100	0	Peak
2 @	875.40	-44.39	-31.39	-13.00	-43.43	-0.96	0.00	0.00	100	0	Peak

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Preamp Factor	Cable Loss	Ant Pos	Table Pos	Remark
	MHz	dBm	dB	dBm	dBm	dB	dB	dB	cm	deg	
1 @	1674.00	-32.23	-19.23	-13.00	-32.46	0.22	0.00	0.00	200	0	Peak
2 @	2398.00	-6.12			-7.01	0.89	0.00	0.00	200	0	Peak
3 @	2508.00	-31.63	-18.63	-13.00	-32.83	1.20	0.00	0.00	200	0	Peak

Remark:

- 1. #2: BT Signal

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Preamp Factor	Cable Loss	Ant Pos	Table Pos	Remark
	MHz	dBm	dB	dBm	dBm	dB	dB	dB	cm	deg	
1 @	3344.00	-34.61	-21.61	-13.00	-40.01	5.41	0.00	0.00	300	360	Peak
2 @	4184.00	-45.42	-32.42	-13.00	-55.21	9.79	0.00	0.00	300	360	Peak

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Preamp Factor	Cable Loss	Ant Pos	Table Pos	Remark
	MHz	dBm	dB	dBm	dBm	dB	dB	dB	cm	deg	
1 @	5018.00	-44.33	-31.33	-13.00	-54.57	10.24	0.00	0.00	100	0	Peak
2 @	5854.00	-45.72	-32.72	-13.00	-55.94	10.22	0.00	0.00	100	0	Peak
3 @	6688.00	-44.03	-31.03	-13.00	-57.16	13.14	0.00	0.00	100	0	Peak

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Preamp Factor	Cable Loss	Ant Pos	Table Pos	Remark
	MHz	dBm	dB	dBm	dBm	dB	dB	dB	cm	deg	
1 @	10874.00	-37.25	-24.25	-13.00	-58.91	21.66	0.00	0.00	100	0	Peak



Vertical Polarization

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Preamp Factor	Cable Loss	Ant Pos	Table Pos	Remark
	MHz	dBm	dB	dBm	dBm	dB	dB	dB	cm	deg	
1 @	33.24	-40.63	-27.63	-13.00	-30.73	-9.89	0.00	0.00	400	0	Peak
2 @	74.28	-46.94	-33.94	-13.00	-35.61	-11.32	0.00	0.00	400	0	Peak
3 @	152.04	-50.13	-37.13	-13.00	-41.96	-8.16	0.00	0.00	400	0	Peak

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Preamp Factor	Cable Loss	Ant Pos	Table Pos	Remark
	MHz	dBm	dB	dBm	dBm	dB	dB	dB	cm	deg	
1 @	836.90	-33.28	-20.28	-13.00	-34.64	1.36	0.00	0.00	100	0	Peak
2 @	875.40	-38.78	-25.78	-13.00	-40.45	1.67	0.00	0.00	100	0	Peak

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Preamp Factor	Cable Loss	Ant Pos	Table Pos	Remark
	MHz	dBm	dB	dBm	dBm	dB	dB	dB	cm	deg	
1 @	1674.00	-37.88	-24.88	-13.00	-37.40	-0.48	0.00	0.00	100	0	Peak
2 @	2404.00	-12.18			-14.06	1.87	0.00	0.00	100	0	Peak
3 @	2508.00	-31.43	-18.43	-13.00	-33.70	2.27	0.00	0.00	100	0	Peak

Remark:

- 1. #2 BT Signal

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Preamp Factor	Cable Loss	Ant Pos	Table Pos	Remark
	MHz	dBm	dB	dBm	dBm	dB	dB	dB	cm	deg	
1 @	3344.00	-31.42	-18.42	-13.00	-35.89	4.47	0.00	0.00	300	360	Peak
2 @	4184.00	-40.87	-27.87	-13.00	-49.23	8.36	0.00	0.00	300	360	Peak

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Preamp Factor	Cable Loss	Ant Pos	Table Pos	Remark
	MHz	dBm	dB	dBm	dBm	dB	dB	dB	cm	deg	
1 @	5018.00	-43.15	-30.15	-13.00	-51.99	8.85	0.00	0.00	100	0	Peak
2 @	5684.00	-48.96	-35.96	-13.00	-57.68	8.72	0.00	0.00	100	0	Peak
3 @	5854.00	-44.76	-31.76	-13.00	-53.57	8.81	0.00	0.00	100	0	Peak
4 @	6688.00	-40.44	-27.44	-13.00	-51.97	11.53	0.00	0.00	100	0	Peak

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Preamp Factor	Cable Loss	Ant Pos	Table Pos	Remark
	MHz	dBm	dB	dBm	dBm	dB	dB	dB	cm	deg	
1 @	10874.00	-39.52	-26.52	-13.00	-59.38	19.86	0.00	0.00	100	0	Peak

Remark: There is no more obvious emission except the listings above.



4.6.5.8 Mode 8
Horizontal Polarization

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1	30.0	-63.53	-50.53	-13.00	-63.89	0.36	Peak
2	59.4	-65.80	-52.80	-13.00	-53.40	-12.40	Peak
3	145.8	-65.57	-52.57	-13.00	-52.81	-12.76	Peak

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1	633.9	-62.62	-49.62	-13.00	-59.23	-3.39	Peak
2 @	831.3	-20.87	-7.87	-13.00	-19.48	-1.39	Peak
3 @	880.3	-27.70	-14.70	-13.00	-26.79	-0.91	Peak

Vertical Polarization

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1 @	59.4	-59.83	-46.83	-13.00	-46.26	-13.56	Peak
2	71.0	-66.99	-53.99	-13.00	-55.10	-11.88	Peak
3	146.6	-66.83	-53.83	-13.00	-58.72	-8.11	Peak

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1	315.4	-61.30	-48.30	-13.00	-55.17	-6.13	Peak
2 @	831.3	-22.46	-9.46	-13.00	-23.78	1.32	Peak
3 @	880.3	-26.93	-13.93	-13.00	-28.64	1.71	Peak

Remark: There is no more obvious emission except the listings above.



4.6.5.9 Mode 9

Horizontal Polarization

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1 @	30.0	-63.87	-50.87	-13.00	-64.23	0.36	Peak
2	59.4	-65.62	-52.62	-13.00	-53.22	-12.40	Peak
3	145.8	-65.74	-52.74	-13.00	-52.98	-12.76	Peak

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1	854.4	-64.37	-51.37	-13.00	-63.21	-1.17	Peak
2	953.8	-64.02	-51.02	-13.00	-63.81	-0.21	Peak
3 @	983.9	-63.48	-50.48	-13.00	-63.56	0.08	Peak

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1 @	1884.0	-27.46	-14.46	-13.00	-26.78	-0.68	Peak
2 @	1958.0	-46.82	-33.82	-13.00	-45.71	-1.11	Peak

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1 @	3758.0	-44.39	-31.39	-13.00	-52.32	7.92	Peak

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1 @	5644.0	-51.19	-38.19	-13.00	-61.16	9.97	Peak



Vertical Polarization

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1 @	59.4	-59.35	-46.35	-13.00	-45.79	-13.56	Peak
2	179.6	-66.37	-53.37	-13.00	-57.96	-8.41	Peak
3	266.8	-64.76	-51.76	-13.00	-57.59	-7.16	Peak

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1 @	822.9	-62.09	-49.09	-13.00	-63.34	1.25	Peak
2 @	932.8	-61.71	-48.71	-13.00	-63.84	2.13	Peak
3 @	988.8	-61.04	-48.04	-13.00	-63.61	2.57	Peak

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1 @	1884.0	-28.82	-15.82	-13.00	-28.32	-0.50	Peak
2 @	1958.0	-39.74	-26.74	-13.00	-39.14	-0.60	Peak

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	Remark
	MHz	dBm	dB	dBm	dBm	dB	
1 @	3764.0	-48.81	-35.81	-13.00	-55.44	6.64	Peak

Remark: There is no more obvious emission except the listings above.

4.7 Frequency Stability (Temperature Variation)

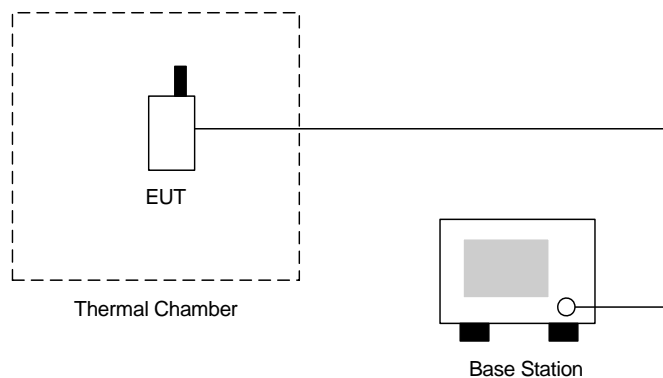
4.7.1 Measurement Instrument

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 : GSM 850 (GSM) CH189

Temperature(°C)	Change (Hz)	Change (ppm)	Limit (ppm)	Result
-30	-35	-0.02	2.5	Passed
-20	-32	-0.02		
-10	-12	-0.01		
0	16	0.01		
10	19	0.01		
20	-22	-0.01		
30	-16	-0.01		
40	-15	-0.01		
50	-26	-0.01		

- Test Mode : PCS (GSM) CH661

Temperature(°C)	Change (Hz)	Change (ppm)	Limit (ppm)	Result
-30	37	0.02	2.5	Passed
-20	33	0.02		
-10	24	0.01		
0	38	0.02		
10	22	0.01		
20	38	0.02		
30	38	0.02		
40	-27	-0.01		
50	-22	-0.01		

- Test Mode : GSM 850 (EDGE) CH189

Temperature(°C)	Change (Hz)	Change (ppm)	Limit (ppm)	Result
-30	-37	-0.02	2.5	Passed
-20	-31	-0.02		
-10	-19	-0.01		
0	-14	-0.01		
10	22	0.01		
20	-17	-0.01		
30	-19	-0.01		
40	-16	-0.01		
50	-28	-0.01		



▪ Test Mode : PCS (EDGE) CH661

Temperature(°C)	Change (Hz)	Change (ppm)	Limit (ppm)	Result
-30	35	0.02	2.5	Passed
-20	31	0.02		
-10	26	0.01		
0	39	0.02		
10	26	0.01		
20	35	0.02		
30	33	0.02		
40	-26	-0.01		
50	-24	-0.01		

▪ Test Mode : WCDMA Band 5 CH4182

Temperature(°C)	Change (Hz)	Change (ppm)	Limit (ppm)	Result
-30	-24	-0.01	2.5	Passed
-20	-26	-0.01		
-10	-22	-0.01		
0	-24	-0.01		
10	-19	-0.01		
20	-20	-0.01		
30	-16	-0.01		
40	-17	-0.01		
50	-20	-0.01		

▪ Test Mode : WCDMA Band 2 CH9400

Temperature(°C)	Change (Hz)	Change (ppm)	Limit (ppm)	Result
-30	-43	-0.02	2.5	Passed
-20	-45	-0.02		
-10	-38	-0.02		
0	-42	-0.02		
10	-40	-0.02		
20	-34	-0.02		
30	-42	-0.02		
40	-43	-0.02		
50	-44	-0.02		



▪ Test Mode : WCDMA Band 5 (HSDPA) CH4182

Temperature(°C)	Change (Hz)	Change (ppm)	Limit (ppm)	Result
-30	-44	-0.02	2.5	Passed
-20	-38	-0.02		
-10	-44	-0.02		
0	43	0.02		
10	37	0.02		
20	48	0.03		
30	22	0.01		
40	-50	-0.03		
50	-55	-0.03		

▪ Test Mode : WCDMA Band 2 (HSDPA) CH9400

Temperature(°C)	Change (Hz)	Change (ppm)	Limit (ppm)	Result
-30	48	0.03	2.5	Passed
-20	34	0.02		
-10	46	0.02		
0	-49	-0.03		
10	-55	-0.03		
20	36	0.02		
30	22	0.01		
40	-17	-0.01		
50	-46	-0.02		

4.8 Frequency Stability (Voltage Variation)

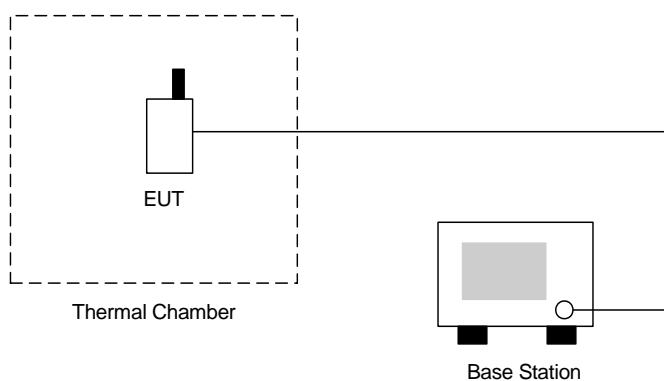
4.8.1 Measurement Instrument

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 : GSM 850 (GSM) CH189

Voltage(Volt)	Change (Hz)	Change (ppm)	Limit (ppm)	Result
3.7	-18	-0.01	2.5	Passed
BEP	-20	-0.01		
4.2	-16	-0.01		

- Test Mode : PCS (GSM) CH661

Voltage(Volt)	Change (Hz)	Change (ppm)	Limit (ppm)	Result
3.7	35	0.02	2.5	Passed
BEP	31	0.02		
4.2	33	0.02		



- Test Mode : GSM 850 (EDGE) CH189

Voltage(Volt)	Change (Hz)	Change (ppm)	Limit (ppm)	Result
3.7	-23.0	-0.01	2.5	Passed
BEP	-18.0	-0.01		
4.2	-19.0	-0.01		

- Test Mode : PCS (EDGE) CH661

Voltage(Volt)	Change (Hz)	Change (ppm)	Limit (ppm)	Result
3.7	36.0	0.02	2.5	Passed
BEP	29.0	0.02		
4.2	32.0	0.02		

- Test Mode : WCDMA Band 5 CH4182

Voltage(Volt)	Change (Hz)	Change (ppm)	Limit (ppm)	Result
3.7	-18	-0.01	2.5	Passed
BEP	-20	-0.01		
4.2	-17	-0.01		

- Test Mode : WCDMA Band 2 CH9400

Voltage(Volt)	Change (Hz)	Change (ppm)	Limit (ppm)	Result
3.7	-35	-0.02	2.5	Passed
BEP	-38	-0.02		
4.2	-37	-0.02		

- Test Mode : WCDMA Band 5 (HSDPA) CH4182

Voltage(Volt)	Change (Hz)	Change (ppm)	Limit (ppm)	Result
3.7	-24.0	-0.01	2.5	Passed
BEP	-66.0	-0.03		
4.2	-48.0	-0.03		



- Test Mode : WCDMA Band 2 (HSDPA) CH9400

Voltage(Volt)	Change (Hz)	Change (ppm)	Limit (ppm)	Result
3.7	-33.0	-0.02	2.5	Passed
BEP	-51.0	-0.03		
4.2	34.0	0.02		

Remark:

1. Normal Voltage=3.7V.
2. Battery End Point (BEP)=3.5 V.



5 List of Measurement Equipments

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Due Date	Remark
Spectrum analyzer	Agilent	E4408B	MY44211030	9KHz-26.5GHz	Jul. 25, 2006	Jul. 24, 2007	Radiation (03CH06-HY)
Receiver	R&S	ESCS30	100356	9KHz-2.75GHz	Jun. 26, 2006	Jun. 25, 2007	Radiation (03CH06-HY)
Controller	CT	SC100	N/A	N/A	N/A	N/A	Radiation (03CH06-HY)
Bilog Antenna	SCHAFFNER	CBL6112B	2885	30MHz -2GHz	Nov. 21, 2004	Nov. 20, 2006	Radiation (03CH06-HY)
Horn Antenna	Com-Power	AH118	071025	1G-18G	Feb. 1, 2005	Jan. 31, 2007	Radiation (03CH06-HY)
SHF-EHF Horn	SCHWARZBECK	BBHA 9170	9170-249	14G - 40G	Jul. 21, 2006	Jul. 20, 2007	Radiation (03CH06-HY)
HF Amplifier	MITEQ	AFS44	973248	0.1G - 26.5G	Dec. 17, 2005	Dec. 17, 2006	Radiation (03CH06-HY)
Amplifier	MITEQ	AMF-6F	997165	26G - 40G	Jul. 21, 2006	Jul. 20, 2007	Radiation (03CH06-HY)
Turn Table	HD	DS 420	420/650/00	0 ~ 360 degree	N/A	N/A	Radiation (03CH06-HY)
Antenna Mast	HD	MA 240	240/560/00	1 m - 4 m	N/A	N/A	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 = $20 \log(1 - \Gamma_1 * \Gamma_2 * \Gamma_3)$	+0.34/-0.35	U-shaped	0.244	1	0.244
Combined standard uncertainty Uc(y)	2.36				
Measuring uncertainty for a level of confidence of 95% U=2Ue(y)	4.72				

END OF TEST REPORT

Appendix A. Setup Photograph

Spurious Radiation

FRONT VIEW



REAR VIEW





Appendix B – WCDMA Test Modes

1. Conducted Output Power

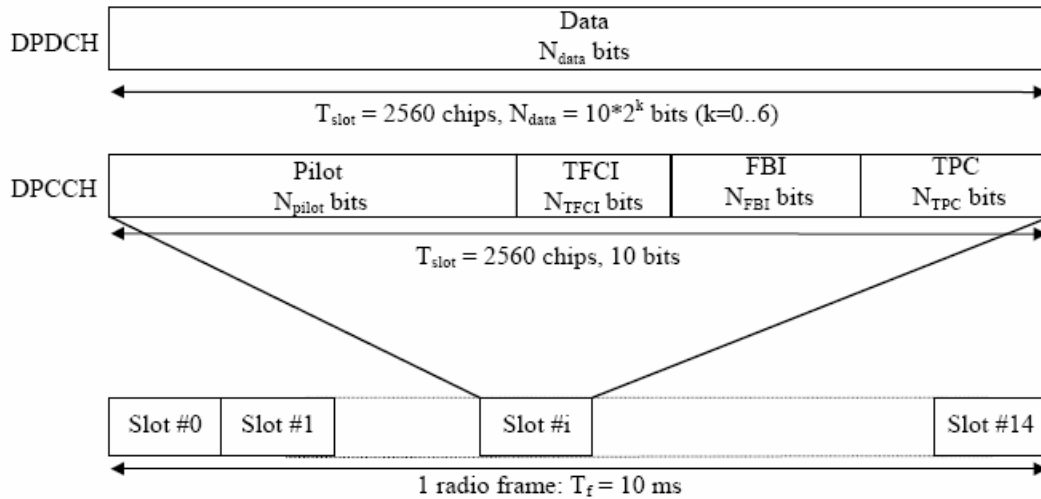
RMC 12.2 kbps is the main WCDMA test mode for both EMC and SAR reports. A detailed analysis of the output power for other WCDMA modes is provided in the table below. The mobile phone supports only one DPDCH1 with a various of data rates, such as 12.2Kbps, 64kbps, 144Kbps and 384Kbps.

	Symbol Rates (Kbps)	SF	K	Data	Reference Channel Type (Data Rates)	Band II			Band V		
						Ch 9262	Ch9400	Ch9538	Ch 4132	Ch4182	Ch4233
						1852.4	1880	1907.6	826.4	836.4	846.6
DPDCH1	15	256	0	10	RAB 3.4Kbps	23.68	23.61	23.66	23.19	23.37	23.2
	30	128	1	20	RAB 13.6Kbps	23.7	23.64	23.57	23.18	23.41	23.16
	60	64	2	40	RMC 12.2Kbps	23.73	23.72	23.69	23.36	23.45	23.18
	120	32	3	80	Not support						
	240	16	4	160	RMC 64Kbps	23.71	23.67	23.66	23.3	23.42	23.19
	480	8	5	320	RMC 144Kbps	23.71	23.65	23.66	23.32	23.37	23.17
	960	4	6	640	RMC 384Kbps	23.7	23.65	23.62	23.31	23.4	23.15
	60	64	2	40	Voice AMR 12.2Kbps	23.73	23.71	23.68	23.15	23.43	23.13
DPCCH	15	256	0	10							

Data: Bits/Slot ; SF:Spreading Factor ; K: Number of bits per uplink DPDCH slot.

Table 1 Conducted output power

Followed by FCC suggestinons[1]:



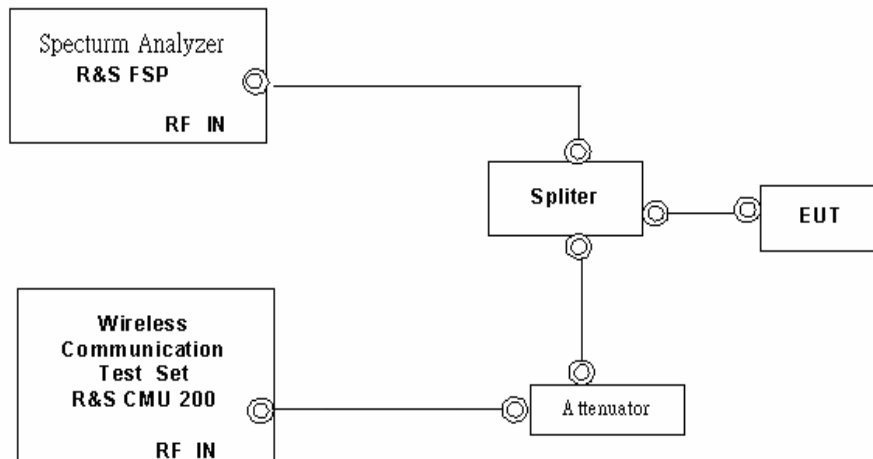
Frame structure for uplink DPDCH/DPCCH

The parameter K in the figure determines the number of bits per uplink DPDCH slot. It is related to the spreading factor SF of the DPDCH as $SF = 256/2^k$. The DPDCH spreading factor may range from 256 down to 4. The spreading factor of the uplink DPCCH is always equal to 256, i.e. there are 10 bits per uplink DPCCH slot.

	Channel Bit Rate (kbps)	Channel Symbol Rate (ksps)	Spreading Factor	Spreading Code Number	Bits/Slot
DPCCH	15	15	256	0	10
DPDCH ₁	15	15	256	64	10
	30	30	128	32	20
	60	60	64	16	40
	120	120	32	8	80
	240	240	16	4	160
	480	480	8	2	320
	960	960	4	1	640
DPDCH _n	960	960	4	1, 2, 3	640

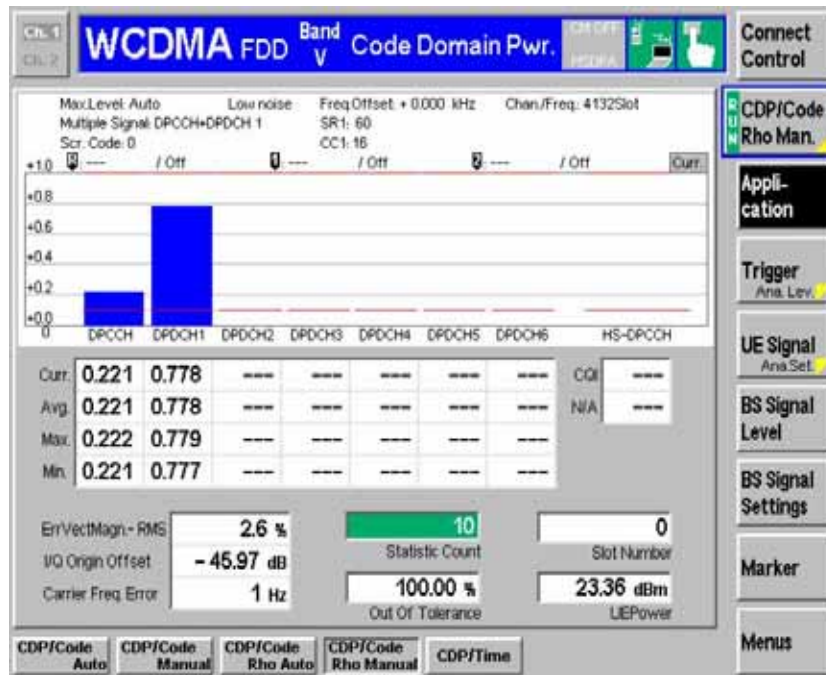
DPCCH and DPDCH

There is only one DPCCH per radio link. Data rates, channelization codes and spread factor information for DPCCH and DPDCH_n are indicated in the following Table. Spreading Rate (SF) * Symbol Rate = 3.84 Mcps.

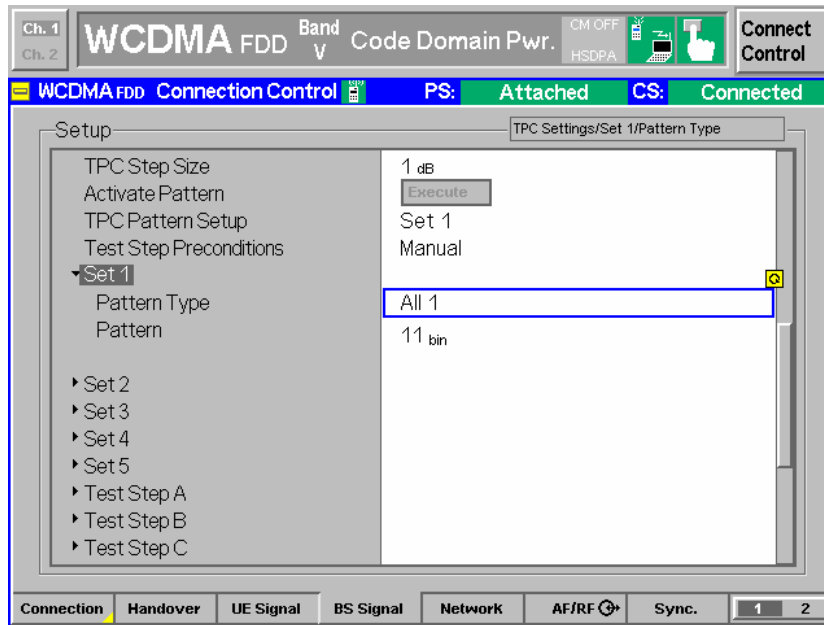


Setup Configuration

1. The EUT was connected to Spectrum Analyzer and Base Station via power splitter. Refer to the drawing of Setup Configuration.
2. The RF path losses was compensated into the measurements.
3. A call was established between EUT and Base Station with following setting
 - a. Data rates : Varied RAB,RMC and Voice for each measurements.
 - b. TPC with All Up
4. The transmitted maximum output power was recorded.



Single DPCCH with only one DPDCH at RMC 12.2Kbps (Symbol Rate 60 Kbps)



TPC with All “1” (Continuous transmitting)

2. Band Edge and Conducted Spurious Emission

The band edge and conducted spurious emission do not have obvious difference for all different WCDMA modes. As those results were far from the limit line, -13dBm, the test mode RMC 12.2Kbps can take as the main test mode for EMC requirement.

Symbol Rates	SF	K	Data	Ref. Channel Type	Band II		Band V	
					Ch 9262	Ch 9538	Ch 4132	Ch 4233
					1852.4(MHz)	1907.6(MHz)	826.4(MHz)	846.6(MHz)
15	256	0	10	RAB 3.4Kbps	-27.59dBm	-25.6dBm	-27.08dBm	-25.08dBm
30	128	1	20	RAB 13.6Kbps	-27.57dBm	-25.48dBm	-26.94dBm	-25.45dBm
60	64	2	40	RMC 12.2KbpsDL/UL	-27.49dBm	-27.96dBm	-27.28dBm	-26.38dBm
240	16	4	160	RMC 64KbpsDL/UL	-27.42dBm	-28.4dBm	-27.71dBm	-26.03dBm
480	8	5	320	RMC 144KbpsDL/UL	-27.02dBm	-27.86dBm	-26.33dBm	-25.15dBm
960	4	6	640	RMC 384KbpsDL/UL	-27.16dBm	-26.97dBm	-27.02dBm	-25.65dBm
60	64	2	40	Voice AMR 12.2Kbps	-26.93dBm	-26.44dBm	-27.53dBm	-26.51dBm

Table 2 Worst band edge data



Ref. Channel Type	Band II Ch9400				Band V Ch4182			
	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)
RAB 3.4Kbps	142.52	-26.83	-13	-13.83	1672	-57.98	-13	-44.98
	3760	-33.6	-13	-20.6	2508	-47.55	-13	-34.55
RAB 13.6Kbps	142.52	-29.08	-13	-16.08	1672	-58.64	-13	-45.64
	3760	-35.44	-13	-22.44	2508	-47.79	-13	-34.79
RMC 12.2KbpsDL/UL	142.52	-28.4	-13	-15.4	1672	-58	-13	-45
	3760	-33.92	-13	-20.92	2508	-48.01	-13	-35.01
RMC 64KbpsDL/UL	142.52	-29.16	-13	-16.16	1672	-58.61	-13	-45.61
	3760	-34.76	-13	-21.76	2508	-48.75	-13	-35.75
RMC 144KbpsDL/UL	142.52	-29	-13	-16	1672	-57.73	-13	-44.73
	3760	-34.76	-13	-21.76	2508	-48.17	-13	-35.17
RMC 384KbpsDL/UL	142.52	-28.9	-13	-15.9	1672	-58.44	-13	-45.44
	3760	-33.55	-13	-20.55	2512	-48.27	-13	-35.27
Voice AMR 12.2Kbps	142.52	-29.38	-13	-16.38	1672	-58.36	-13	-45.36
	3760	-34.17	-13	-21.17	2512	-47.87	-13	-34.87

Table 3 Conducted spurious emission

3. EVDO Test Modes

The EUT is only updated firmware for HSDPA mode from the first version and the hardware is fully identical same as the original sample. Comparing the maximum output power between two version is within 0.5dB variation. The RMC 12.2Kbps with HSDPA are adopted for EMC and SAR testing and the detail results are exhibited on the test report.



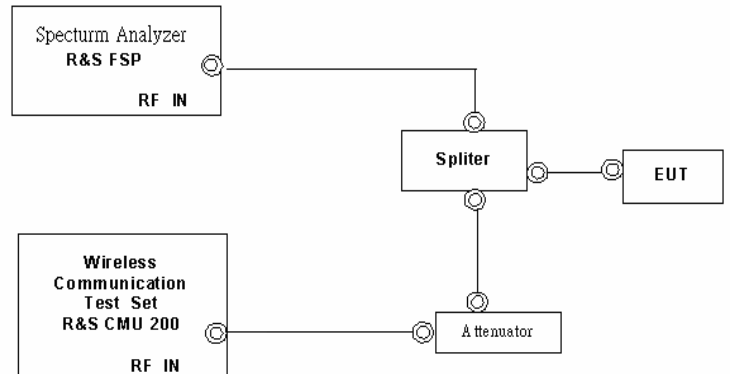
First Version

Reference Channel Type (Data Rates)	Band II			Band V		
	Ch 9262	Ch9400	Ch9538	Ch 4132	Ch4182	Ch4233
	1852.4	1880	1907.6	826.4	836.4	846.6
RMC 12.2Kbps	23.73	23.72	23.69	23.36	23.45	23.18
RMC 64Kbps	23.71	23.67	23.66	23.3	23.42	23.19
RMC 144Kbps	23.71	23.65	23.66	23.32	23.37	23.17
RMC 384Kbps	23.7	23.65	23.62	23.31	23.4	23.15
Voice AMR 12.2Kbps	23.73	23.71	23.68	23.15	23.43	23.13
RMC 12.2Kbps with HSDPA	Not support					

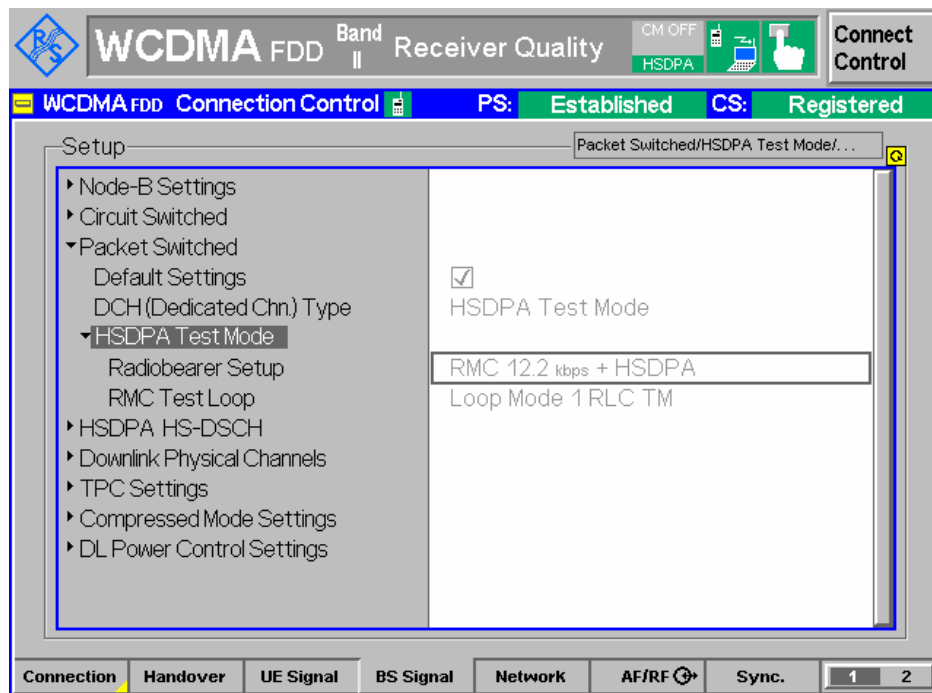
Second Version

Reference Channel Type (Data Rates)	Band II			Band V		
	Ch 9262	Ch9400	Ch9538	Ch 4132	Ch4182	Ch4233
	1852.4	1880	1907.6	826.4	836.4	846.6
RMC 12.2Kbps	23.88	23.97	23.93	23.1	23.17	23.28
RMC 64Kbps	23.93	23.95	23.93	23.05	23.16	23.15
RMC 144Kbps	23.76	23.9	23.9	23.03	23.19	23.22
RMC 384Kbps	23.91	23.87	23.9	23.02	23.15	23.23
Voice AMR 12.2Kbps	23.96	23.92	23.86	23.16	23.1	23.1
RMC 12.2Kbps with HSDPA	23.86	23.96	23.93	23.26	23.26	23.23

1. The EUT was connected to Spectrum Analyzer and Base Station via power splitter. Refer to the drawing of Setup Configuration.
2. The RF path losses was compensated into the measurements.
3. A call was established between EUT and Base Station with following setting:
 - a. Set RMC12.2Kbps with HSDPA mode.
 - b. TPC with All Up with H-set .
4. The transmitted maximum output power was recorded.



Setup Configuration



RMC 12.2Kbps with HSDPA function



Reference:

- [1.] SAR Measurement Procedures for 3G Devices CDMA 2000/Ev-Do/WCDMA/HSDPA June 2006
Laboratory Division Office of Engineering and Technology Federal Communications Commission

- [2.] TS 34.121 Universal Mobile Telecommunications System (UMTS); Terminal Conformance
Specification, Radio Transmission and Reception (FDD)