FCC RF Test Report

APPLICANT	:	PAX Technology Limited
EQUIPMENT	:	Wireless POS Terminal
BRAND NAME	:	PAX
MODEL NAME	:	S900
MARKETING NAME	:	S900
FCC ID	:	V5PS900WCDMA
STANDARD	:	FCC 47 CFR Part 2, 22(H), 24(E)
CLASSIFICATION	:	PCS Licensed Transmitter (PCB)

The product was received on Mar. 18, 2013 and completely tested on Dec. 13, 2013. We, SPORTON INTERNATIONAL (SHENZHEN) INC., would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI / TIA / EIA-603-C-2004 and shown compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL (SHENZHEN) INC., the test report shall not be reproduced except in full.

Reviewed by: Joseph Lin / Supervisor

Approved by: Jones Tsai / Manager

Testing Laboratory
2353

SPORTON INTERNATIONAL (SHENZHEN) INC.
No. 3 Building, the third floor of south, Shahe River west, Fengzeyuan warehouse, Nanshan District, Shenzhen, Guangdong, P.R.C.

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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FG3O0802	Rev. 01	Initial issue of report	Dec. 13, 2013

SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.1	§2.1046	Conducted Output Power	N/A	PASS	-
3.2	§24.232(d)	Peak-to-Average Ratio	< 13 dB	PASS	-
3.3	§22.913(a)(2)	Effective Radiated Power	< 7 Watts	PASS	-
3.3	§24.232(c)	Equivalent Isotropic Radiated Power	< 2 Watts	PASS	-
3.4	§2.1049 §22.917(b) §24.238(b)	99% Occupied Bandwidth and 26dB Bandwidth	N/A	PASS	-
3.5	§2.1051 §22.917(a) §24.238(a)	Band Edge Measurement	< $43+10\log_{10}$(P[Watts])	PASS	-
3.6	§2.1051 §22.917(a) §24.238(a)	Conducted Spurious Emission	< $43+10\log_{10}$(P[Watts])	PASS	-
3.7	§2.1053 §22.917(a) §24.238(a)	Field Strength of Spurious Radiated	< $43+10\log_{10}$(P[Watts])	PASS	Under limit 6.76 dB at 1672.000 MHz
3.8	§2.1055 §22.355 §24.235	Frequency Stability for Temperature and Voltage	< 2.5 ppm	PASS	-

1 General Description

1.1 Applicant

PAX Technology Limited
Room 2416, 24/F., Sun Hung Kai Centre, 30 Harbour Road, Wanchai, Hong Kong

1.2 Manufacturer

PAX Computer Technology (Shenzhen) Co., Ltd.
4/F, No.3 Building, Software Park, Second Central Science-Tech Road, High-Tech industrial Park, Shenzhen, Guangdong, P.R.C.

1.3 Feature of Equipment Under Test

Product Feature	
Equipment	Wireless POS Terminal
Brand Name	PAX
Model Name	S900
Marketing Name	S900
FCC ID	V5PS900WCDMA
EUT supports Radios application	GSM/GPRS/EGPRS/WCDMA/HSDPA/RFID
HW Version	S900-XXX-XX3-XXXX
SW Version	S900 PED 3.1
EUT Stage	Identical Prototype

Remark: The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.

1.4 Product Specification of Equipment Under Test

Product Specification subjective to this standard	
Tx Frequency	GSM850: 824.2 MHz ~ 848.8 MHz GSM1900: 1850.2 MHz ~ 1909.8MHz WCDMA Band V: 826.4 MHz ~ 846.6 MHz WCDMA Band II: 1852.4 MHz ~ 1907.6 MHz
Rx Frequency	GSM850: 869.2 MHz ~ 893.8 MHz GSM1900: 1930.2 MHz ~ 1989.8 MHz WCDMA Band V: 871.4 MHz ~ 891.6 MHz WCDMA Band II: 1932.4 MHz ~ 1987.6 MHz
Maximum Output Power to Antenna	GSM850 : 32.52 dBm GSM1900 : 29.06 dBm WCDMA Band V : 22.87 dBm WCDMA Band II : 22.28 dBm
Antenna Type	PIFA Antenna
Type of Modulation	GSM: GMSK GPRS: GMSK EDGE: GMSK / 8PSK WCDMA: QPSK (Uplink) HSDPA: QPSK (Uplink)

1.5 Modification of EUT

No modifications are made to the EUT during all test items.

1.6 Maximum ERP/EIRP Power, Frequency Tolerance, and Emission Designator

FCC Rule	System	Type of Modulation	Maximum ERP/EIRP (W)	Frequency Tolerance (%, Hz, ppm)	Emission Designator
Part 22	GSM850 GSM	GMSK	0.5949	0.06 ppm	249KGXW
Part 22	GSM850 EDGE 8	8PSK	0.1680	0.07 ppm	249KG7W
Part 22	WCDMA Band V RMC 12.2Kbps	QPSK	0.0808	0.04 ppm	4M17F9W
Part 24	GSM1900 GSM	GMSK	0.9520	0.03 ppm	245KGXW
Part 24	GSM1900 EDGE 8	8PSK	0.4261	0.03 ppm	246KG7W
Part 24	WCDMA Band II RMC 12.2Kbps	QPSK	0.2062	0.02 ppm	4M17F9W

1.7 Testing Site

Test Site	SPORTON INTERNATIONAL (SHENZHEN) INC.		
Test Site Location	No. 3 Building, the third floor of south, Shahe River west, Fengzeyuan warehouse, Nanshan District, Shenzhen, Guangdong, P.R.C. TEL: +86-755-3320-2398		
Test Site No.	**Sporton Site No.**		**FCC Registration No.**
	TH01-SZ	03CH01-SZ	831040

1.8 Applied Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- Preliminary Guidance for Receiving Applications for Certification of 3G Device. May 9, 2006.
- FCC 47 CFR Part 2, 22(H), 24(E)
- ANSI / TIA / EIA-603-C-2004
- FCC KDB 971168 D01 Power Meas. License Digital Systems v02r01

Remark:

1. All test items were verified and recorded according to the standards and without any deviation during the test.
2. This EUT has also been tested and complied with the requirements of FCC Part 15, Subpart B, recorded in a separate test report.

2 Test Configuration of Equipment Under Test

2.1 Test Mode

During all testing, EUT is in link mode with base station emulator at maximum power level. The spurious emission measurements were carried out in semi-anechoic chamber with 3-meter test range.

Frequency range investigated for radiated emission is as follows:

1. 30 MHz to 9000 MHz for GSM850 and WCDMA Band V.
2. 30 MHz to 19000 MHz for GSM1900 and WCDMA Band II.

Test Modes		
Band	**Radiated TCs**	**Conducted TCs**
GSM 850	■ GSM Link ■ EDGE 8 Link	■ GSM Link ■ EDGE 8 Link
GSM 1900	■ GSM Link ■ EDGE 8 Link	■ GSM Link ■ EDGE 8 Link
WCDMA Band V	■ RMC 12.2Kbps Link	■ RMC 12.2Kbps Link
WCDMA Band II	■ RMC 12.2Kbps Link	■ RMC 12.2Kbps Link

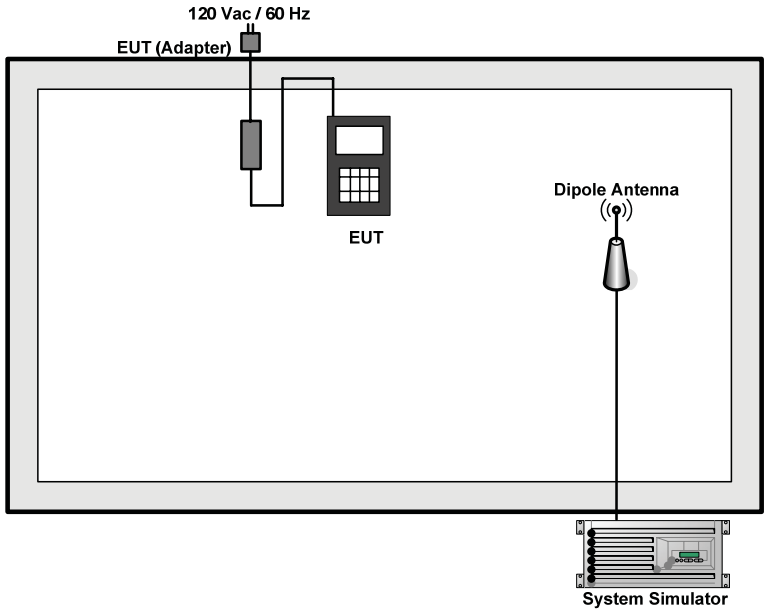
Note: The maximum power levels are GSM mode for GMSK link, EDGE multi-slot class 8 mode for 8PSK link, RMC 12.2Kbps mode for WCDMA band V, and RMC 12.2Kbps mode for WCDMA band II, only these modes were used for all tests.

The conducted power tables are as follows:

Conducted Power (*Unit: dBm)						
Band	GSM850			GSM1900		
Channel	128	189	251	512	661	810
Frequency	824.2	836.4	848.8	1850.2	1880.0	1909.8
GSM	32.44	32.52	32.12	29.06	28.72	28.37
GPRS 8	32.43	32.48	32.08	28.98	28.67	28.32
GPRS 10	32.38	32.45	32.05	28.94	28.65	28.30
EGPRS 8	27.10	27.04	26.68	25.54	25.24	24.91
EGPRS 10	27.08	27.01	26.67	25.53	25.24	24.87
EGPRS 11	27.05	26.98	26.64	25.49	25.22	24.86
EGPRS 12	26.98	26.97	26.62	25.48	25.21	24.85

Conducted Power (*Unit: dBm)						
Band	WCDMA Band V			WCDMA Band II		
Channel	4132	4182	4233	9262	9400	9538
Frequency	826.4	836.4	846.6	1852.4	1880.0	1907.6
RMC 12.2K	22.81	22.48	22.87	21.82	22.28	21.79
HSDPA Subtest-1	22.76	22.44	22.85	21.79	22.26	21.71
HSDPA Subtest-2	22.73	22.42	22.85	21.80	22.25	21.70
HSDPA Subtest-3	22.75	22.45	22.86	21.80	22.12	21.62
HSDPA Subtest-4	22.73	22.43	22.84	21.77	22.17	21.60

2.2 Connection Diagram of Test System



2.3 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model No.	FCC ID	Data Cable	Power Cord
1.	System Simulator	R&S	CMU200	N/A	N/A	Unshielded, 1.8 m
2.	DC Power Supply	TOPWORD	3303DR	N/A	N/A	Unshielded, 1.8 m

2.4 Measurement Results Explanation Example

For all conducted test items:

The offset level is set in the spectrum analyzer to compensate the RF cable loss and attenuator factor between EUT conducted output port and spectrum analyzer. With the offset compensation, the spectrum analyzer reading level is exactly the EUT RF output level.

Example:

The spectrum analyzer offset is derived from RF cable loss and attenuator factor.

Offset = RF cable loss + attenuator factor.

Following shows an offset computation example with cable loss 7.5 dB and 10dB attenuator.

Offset(dB) = RF cable loss(dB) + attenuator factor(dB).

= 7.5 + 10 = 17.5 (dB)

3 Test Result

3.1 Conducted Output Power Measurement

3.1.1 Description of the Conducted Output Power Measurement

A base station simulator was used to establish communication with the EUT. Its parameters were set to transmit the maximum power on the EUT. The measured power in the radio frequency on the transmitter output terminals shall be reported.

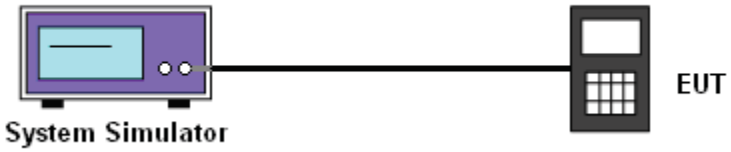
3.1.2 Measuring Instruments

See list of measuring instruments of this test report.

3.1.3 Test Procedures

1. The transmitter output port was connected to base station.
2. Set EUT at maximum power through base station.
3. Select lowest, middle, and highest channels for each band and different modulation.
4. Measure the maximum burst average power for GSM and maximum average power for other modulation signal.

3.1.4 Test Setup



3.1.5 Test Result of Conducted Output Power

Cellular Band									
Modes	GSM850 (GSM)			GSM850 (EDGE 8)			WCDMA Band V (RMC 12.2Kbps)		
Channel	128 (Low)	189 (Mid)	251 (High)	128 (Low)	189 (Mid)	251 (High)	4132 (Low)	4182 (Mid)	4233 (High)
Frequency (MHz)	824.2	836.4	848.8	824.2	836.4	848.8	826.4	836.4	846.6
Conducted Power (dBm)	32.44	32.52	32.12	27.10	27.04	26.68	22.81	22.48	22.87
Conducted Power (Watts)	1.75	1.79	1.63	0.51	0.51	0.47	0.19	0.18	0.19

PCS Band									
Modes	GSM1900 (GSM)			GSM1900 (EDGE 8)			WCDMA Band II (RMC 12.2Kbps)		
Channel	512 (Low)	661 (Mid)	810 (High)	512 (Low)	661 (Mid)	810 (High)	9262 (Low)	9400 (Mid)	9538 (High)
Frequency (MHz)	1850.2	1880	1909.8	1850.2	1880	1909.8	1852.4	1880	1907.6
Conducted Power (dBm)	29.06	28.72	28.37	25.54	25.24	24.91	21.82	22.28	21.79
Conducted Power (Watts)	0.81	0.74	0.69	0.36	0.33	0.31	0.15	0.17	0.15

Note: Maximum burst average power for GSM, and maximum average power for WCDMA.

3.2 Peak-to-Average Ratio

3.2.1 Description of the PAR Measurement

The peak-to-average ratio (PAR) of the transmission may not exceed 13 dB.

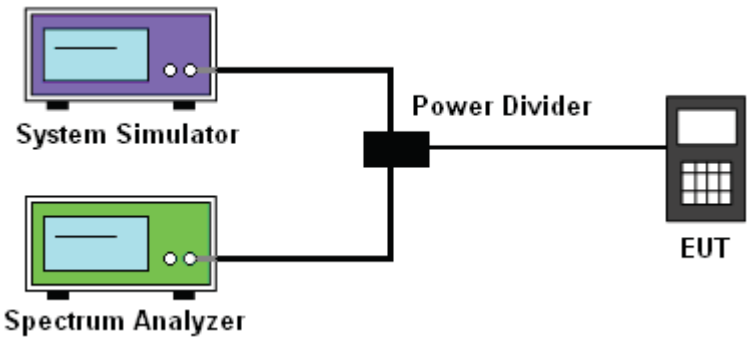
3.2.2 Measuring Instruments

See list of measuring instruments of this test report.

3.2.3 Test Procedures

1. The EUT was connected to Spectrum Analyzer and System Simulator via power divider.
2. For GSM/EGPRS operating modes:
   a. Set EUT in maximum power output.
   b. Set the RBW = 1MHz, VBW = 3MHz, Peak detector in spectrum analyzer for first trace.
   c. Set the RBW = 1MHz, VBW = 3MHz, RMS detector in spectrum analyzer for second trace.
   d. The wanted burst signal is triggered by spectrum analyzer, and measured respectively the peak level and Mean level without burst-off time, after system simulator synchronized with the spectrum analyzer.
3. For UMTS operating modes:
   a. Set the CCDF (Complementary Cumulative Distribution Function) option in spectrum analyzer.
   b. The highest RF powers were measured and recorded the maximum PAPR level associated with a probability of 0.1 %.
4. Record the deviation as Peak to Average Ratio.

3.2.4 Test Setup



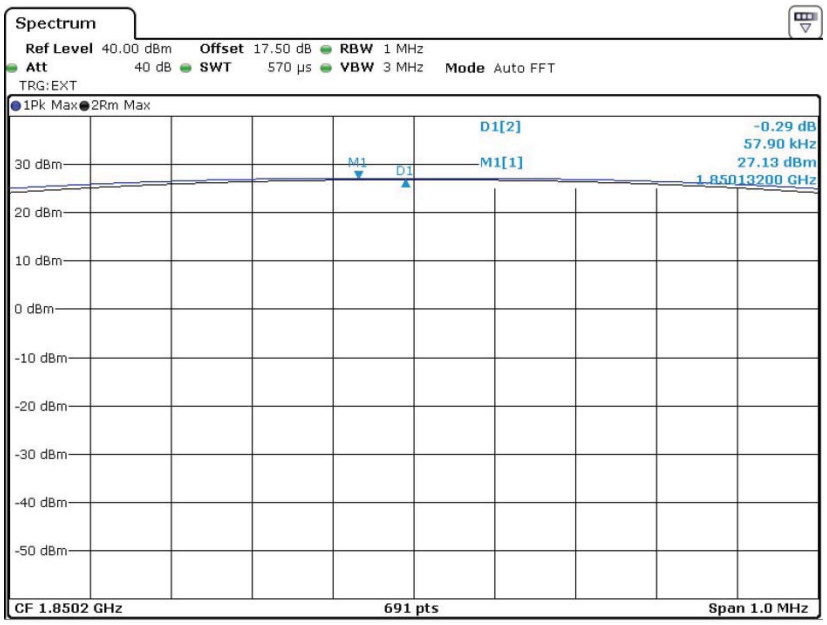
3.2.5 Test Result of Peak-to-Average Ratio

PCS Band									
Modes	GSM1900 (GSM)			GSM1900 (EDGE 8)			WCDMA Band II (RMC 12.2Kbps)		
Channel	512 (Low)	661 (Mid)	810 (High)	512 (Low)	661 (Mid)	810 (High)	9262 (Low)	9400 (Mid)	9538 (High)
Frequency (MHz)	1850.2	1880	1909.8	1850.2	1880	1909.8	1852.4	1880	1907.6
Peak-to-Average Ratio (dB)	0.29	0.26	0.27	2.73	2.72	2.76	3.13	3.22	3.28

3.2.6 Test Result (Plots) of Peak-to-Average Ratio

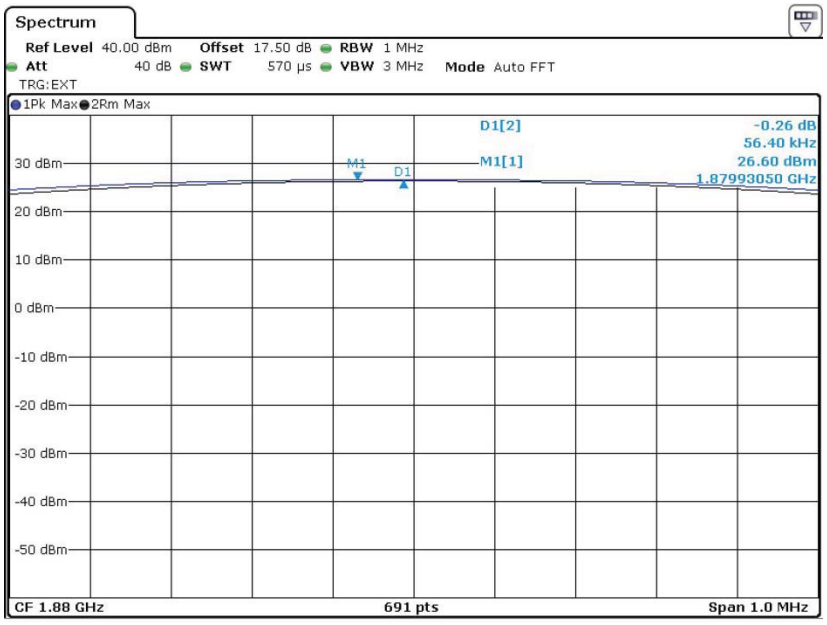
Band :	GSM 1900	Test Mode :	GSM Link

Peak-to-Average Ratio on Channel 512 (1850.2 MHz)



Date: 3.MAY.2013 17:51:14

Peak-to-Average Ratio on Channel 661 (1880.0 MHz)



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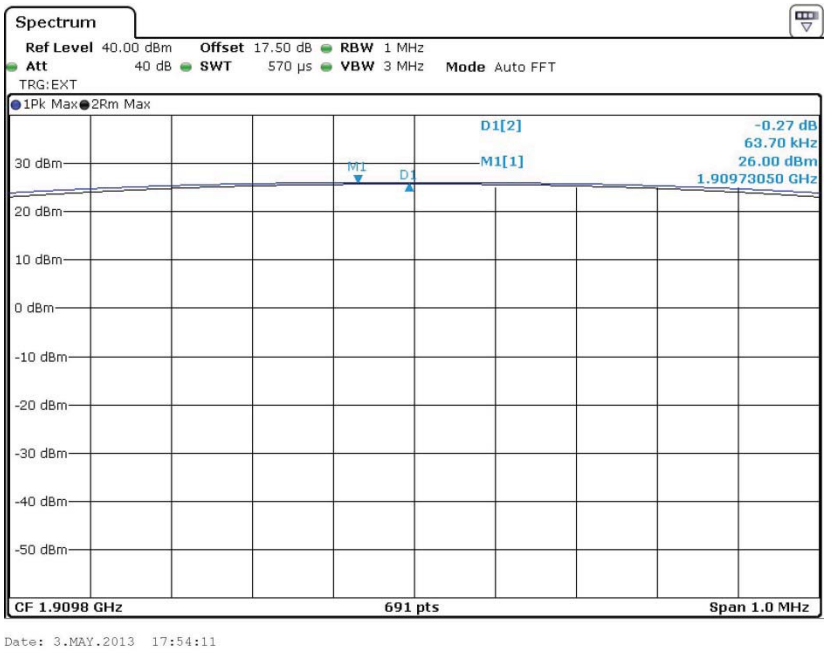
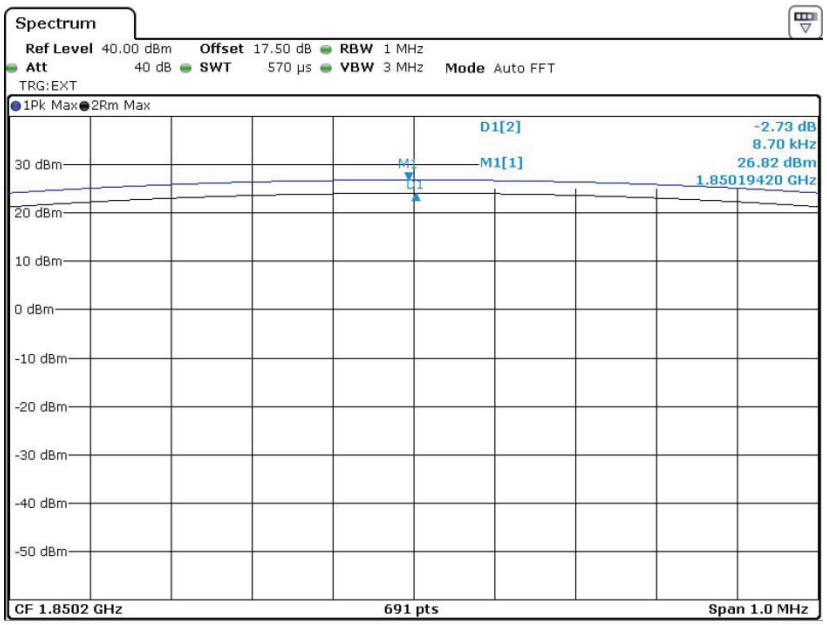
Peak-to-Average Ratio on Channel 810 (1909.8 MHz)



Band :	GSM 1900	Test Mode :	EDGE 8 Link

Peak-to-Average Ratio on Channel 512 (1850.2 MHz)



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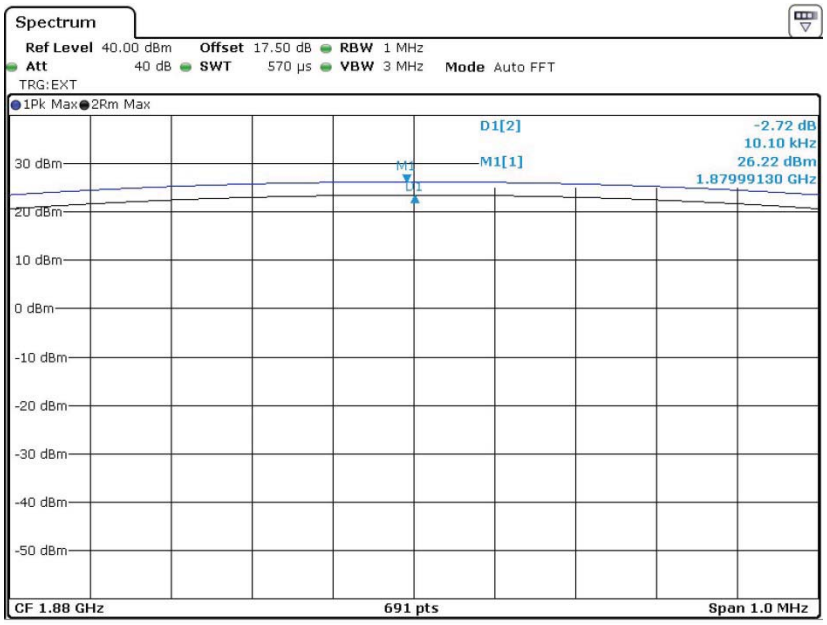
Peak-to-Average Ratio on Channel 661 (1880.0 MHz)



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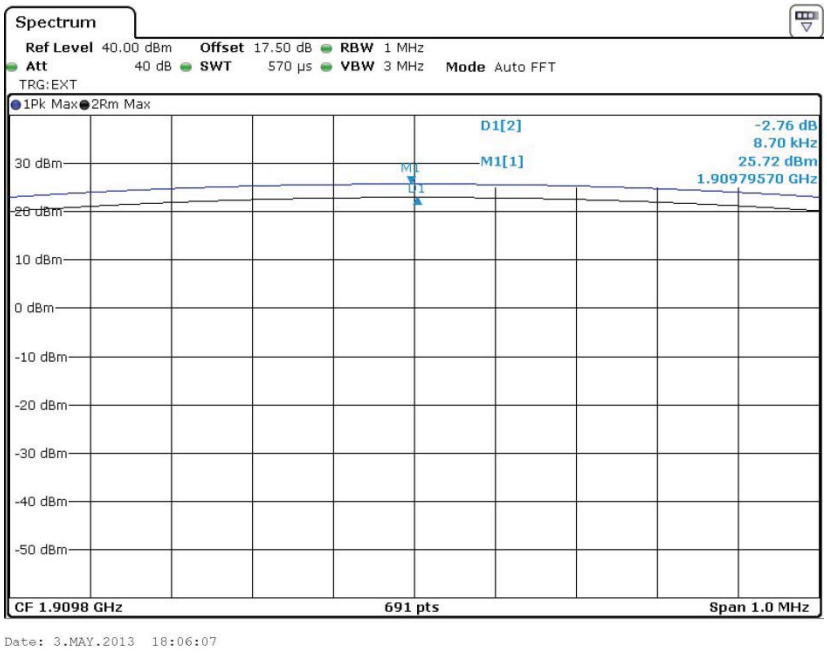
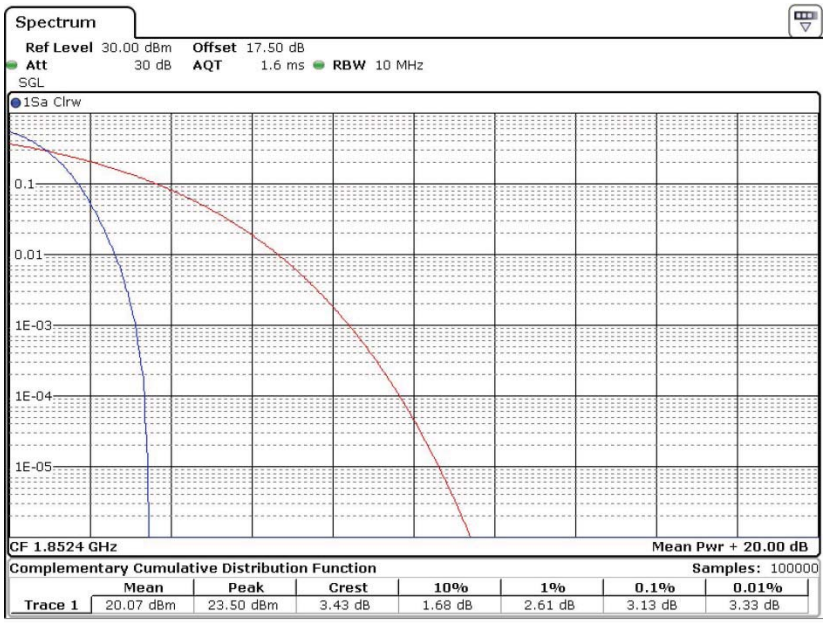
Peak-to-Average Ratio on Channel 810 (1909.8 MHz)



Band :	WCDMA Band II	Test Mode :	RMC 12.2Kbps Link

Peak-to-Average Ratio on Channel 9262 (1852.4 MHz)



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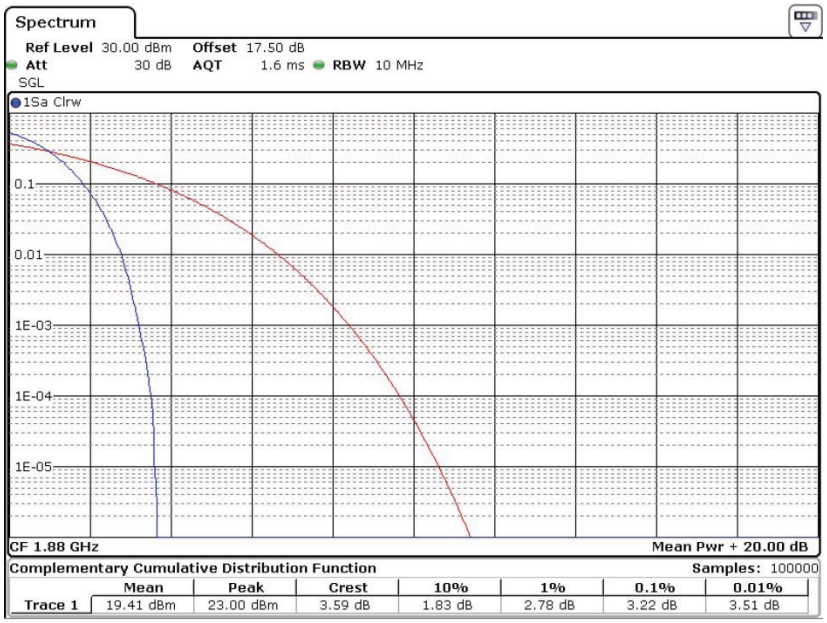
Peak-to-Average Ratio on Channel 9400 (1880.0 MHz)



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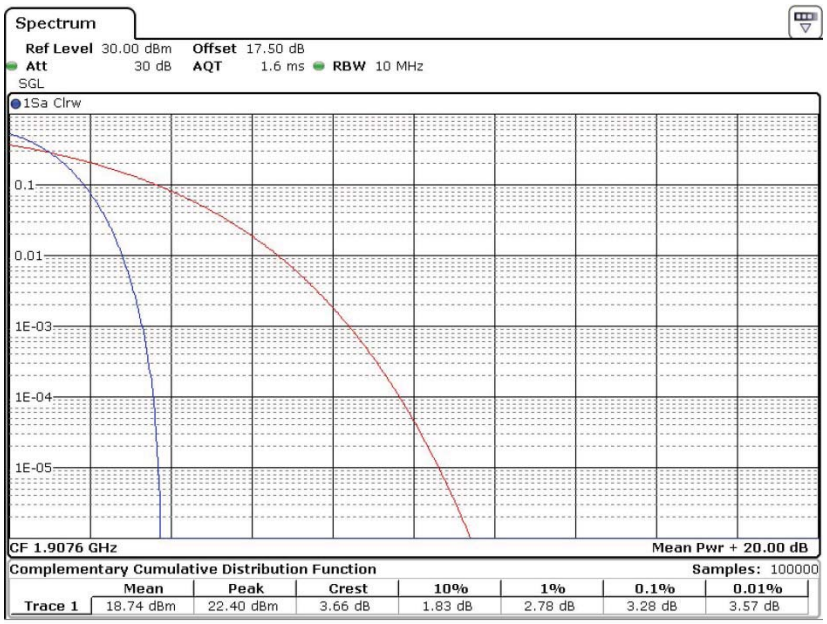
Peak-to-Average Ratio on Channel 9538 (1907.6 MHz)



Date: 4.MAY.2013 09:32:37

3.3 Effective Radiated Power and Effective Isotropic Radiated Power Measurement

3.3.1 Description of the ERP/EIRP Measurement

The substitution method, in ANSI / TIA / EIA-603-C-2004, was used for ERP/EIRP measurement, and the spectrum analyzer configuration follows KDB 971168 D01 Power Meas. License Digital Systems v02r01. The ERP of mobile transmitters must not exceed 7 Watts and the EIRP of mobile transmitters are limited to 2 Watts.

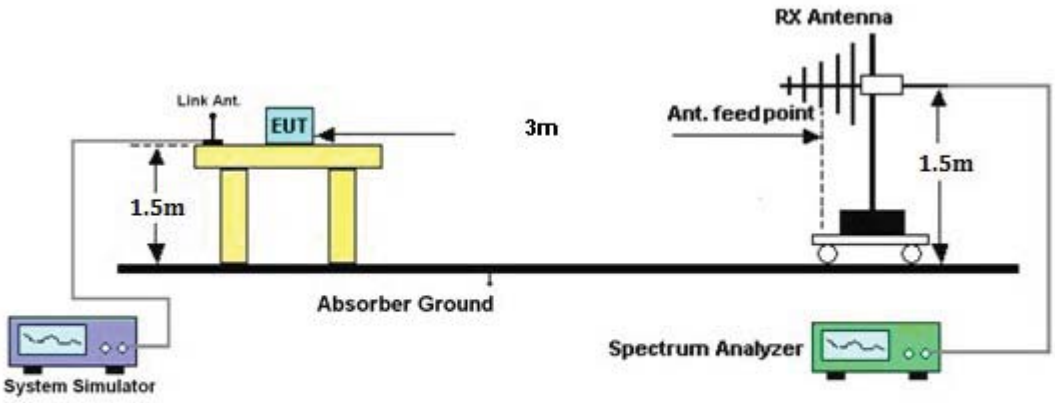
3.3.2 Measuring Instruments

See list of measuring instruments of this test report.

3.3.3 Test Procedures

1. The EUT was placed on a turntable with 1.5 meter height in a fully anechoic chamber.
2. The EUT was set at 3 meters from the receiving antenna, which was mounted on the antenna tower.
3. GSM operating modes: Set RBW= 1MHz, VBW= 3MHz, RMS detector over burst;
   UMTS operating modes: Set RBW= 100 KHz, VBW= 300 KHz, RMS detector over frame, and use channel power option with bandwidth=5MHz, per section 4.0 of KDB 971168 D01.
4. The table was rotated 360 degrees to determine the position of the highest radiated power.
5. The height of the receiving antenna is adjusted to look for the maximum ERP/EIRP.
6. Taking the record of maximum ERP/EIRP.
7. A dipole antenna was substituted in place of the EUT and was driven by a signal generator.
8. The conducted power at the terminal of the dipole antenna is measured.
9. Repeat step 3 to step 5 to get the maximum ERP/EIRP of the substitution antenna.
10. 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.

3.3.4 Test Setup



3.3.5 Test Result of ERP

GSM850 (GSM) Radiated Power ERP						
Horizontal Polarization						
Frequency (MHz)	**Rt (dBm)**	**Rs (dBm)**	**Ps (dBm)**	**Gs (dBd)**	**ERP (dBm)**	**ERP (W)**
824.20	-20.42	-48.12	0.00	-1.08	26.62	0.4596
836.40	-20.12	-48.28	0.00	-0.93	27.23	0.5281
848.80	-19.85	-48.35	0.00	-0.76	27.74	0.5949
Vertical Polarization						
Frequency (MHz)	**Rt (dBm)**	**Rs (dBm)**	**Ps (dBm)**	**Gs (dBd)**	**ERP (dBm)**	**ERP (W)**
824.20	-28.92	-47.97	0.00	-1.08	17.97	0.0627
836.40	-27.98	-48.01	0.00	-0.93	19.10	0.0812
848.80	-26.99	-48.05	0.00	-0.76	20.30	0.1072

GSM850 (EDGE 8) Radiated Power ERP						
Horizontal Polarization						
Frequency (MHz)	**Rt (dBm)**	**Rs (dBm)**	**Ps (dBm)**	**Gs (dBd)**	**ERP (dBm)**	**ERP (W)**
824.20	-25.64	-48.12	0.00	-1.08	21.40	0.1379
836.40	-25.52	-48.28	0.00	-0.93	21.83	0.1523
848.80	-25.34	-48.35	0.00	-0.76	22.25	0.1680
Vertical Polarization						
Frequency (MHz)	**Rt (dBm)**	**Rs (dBm)**	**Ps (dBm)**	**Gs (dBd)**	**ERP (dBm)**	**ERP (W)**
824.20	-34.29	-47.97	0.00	-1.08	12.60	0.0182
836.40	-33.57	-48.01	0.00	-0.93	13.51	0.0224
848.80	-32.58	-48.05	0.00	-0.76	14.71	0.0296

WCDMA Band V (RMC 12.2Kbps) Radiated Power ERP						
Horizontal Polarization						
Frequency (MHz)	**Rt (dBm)**	**Rs (dBm)**	**Ps (dBm)**	**Gs (dBd)**	**ERP (dBm)**	**ERP (W)**
826.40	-27.97	-48.12	0.00	-1.08	19.07	0.0808
836.40	-28.81	-48.28	0.00	-0.93	18.54	0.0715
846.60	-28.99	-48.35	0.00	-0.76	18.60	0.0724
Vertical Polarization						
Frequency (MHz)	**Rt (dBm)**	**Rs (dBm)**	**Ps (dBm)**	**Gs (dBd)**	**ERP (dBm)**	**ERP (W)**
826.40	-36.30	-47.97	0.00	-1.08	10.59	0.0115
836.40	-36.90	-48.01	0.00	-0.93	10.18	0.0104
846.60	-36.38	-48.05	0.00	-0.76	10.91	0.0123

3.3.6 Test Result of EIRP

GSM1900 (GSM) Radiated Power EIRP						
Horizontal Polarization						
Frequency (MHz)	**Rt (dBm)**	**Rs (dBm)**	**Ps (dBm)**	**Gs (dBi)**	**EIRP (dBm)**	**EIRP (W)**
1850.20	-25.74	-51.88	0.00	1.96	28.10	0.6463
1880.00	-27.22	-52.99	0.00	2.00	27.77	0.5983
1909.80	-27.48	-54.28	0.00	1.98	28.78	0.7543
Vertical Polarization						
Frequency (MHz)	**Rt (dBm)**	**Rs (dBm)**	**Ps (dBm)**	**Gs (dBi)**	**EIRP (dBm)**	**EIRP (W)**
1850.20	-24.70	-52.13	0.00	1.96	29.39	0.8681
1880.00	-26.01	-53.17	0.00	2.00	29.16	0.8248
1909.80	-26.32	-54.13	0.00	1.98	29.79	0.9520

GSM1900 (EDGE 8) Radiated Power EIRP						
Horizontal Polarization						
Frequency (MHz)	**Rt (dBm)**	**Rs (dBm)**	**Ps (dBm)**	**Gs (dBi)**	**EIRP (dBm)**	**EIRP (W)**
1850.20	-29.11	-51.88	0.00	1.96	24.73	0.2973
1880.00	-30.54	-52.99	0.00	2.00	24.45	0.2785
1909.80	-31.28	-54.28	0.00	1.98	24.98	0.3145
Vertical Polarization						
Frequency (MHz)	**Rt (dBm)**	**Rs (dBm)**	**Ps (dBm)**	**Gs (dBi)**	**EIRP (dBm)**	**EIRP (W)**
1850.20	-28.14	-52.13	0.00	1.96	25.95	0.3939
1880.00	-29.45	-53.17	0.00	2.00	25.72	0.3732
1909.80	-29.81	-54.13	0.00	1.98	26.30	0.4261

WCDMA Band II (RMC 12.2Kbps) Radiated Power EIRP						
Horizontal Polarization						
Frequency (MHz)	**Rt (dBm)**	**Rs (dBm)**	**Ps (dBm)**	**Gs (dBi)**	**EIRP (dBm)**	**EIRP (W)**
1852.40	-32.13	-51.88	0.00	1.96	21.71	0.1482
1880.00	-33.40	-52.99	0.00	2.00	21.59	0.1441
1907.60	-33.85	-54.28	0.00	1.98	22.41	0.1741
Vertical Polarization						
Frequency (MHz)	**Rt (dBm)**	**Rs (dBm)**	**Ps (dBm)**	**Gs (dBi)**	**EIRP (dBm)**	**EIRP (W)**
1852.40	-31.01	-52.13	0.00	1.96	23.08	0.2034
1880.00	-32.39	-53.17	0.00	2.00	22.78	0.1897
1907.60	-32.97	-54.13	0.00	1.98	23.14	0.2062

3.4 99% Occupied Bandwidth and 26dB Bandwidth Measurement

3.4.1 Description of 99% Occupied Bandwidth and 26dB Bandwidth Measurement

The 99% occupied bandwidth is the width of a frequency band such that, below the lower and above the upper frequency limits, the mean powers emitted are each equal to a specified percentage 0.5% of the total mean transmitted power.

The emission bandwidth is defined as the width of the signal between two points, located at the 2 sides of the carrier frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

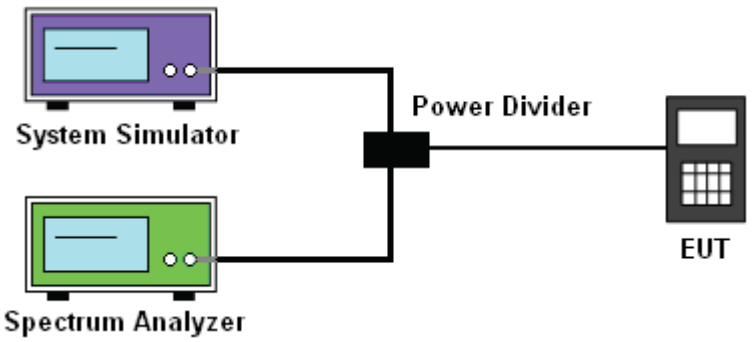
3.4.2 Measuring Instruments

See list of measuring instruments of this test report.

3.4.3 Test Procedures

1. The EUT was connected to Spectrum Analyzer and Base Station via power divider.
2. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. The 99% occupied bandwidth were measured, set RBW= 1% of span, VBW= 3*RBW, sample detector, trace maximum hold.
4. The 26dB bandwidth were measured, set RBW= 1% of EBW, VBW= 3*RBW, peak detector, trace maximum hold.

3.4.4 Test Setup



3.4.5 Test Result of 99% Occupied Bandwidth and 26dB Bandwidth

Cellular Band						
Modes	GSM850 (GSM)			GSM850 (EDGE 8)		
Channel	128 (Low)	189 (Mid)	251 (High)	128 (Low)	189 (Mid)	251 (High)
Frequency (MHz)	824.2	836.4	848.8	824.2	836.4	848.8
99% OBW (KHz)	248.91	244.57	246.02	248.91	247.47	248.91
26dB BW (KHz)	312.60	316.90	314.00	314.00	311.10	309.70

PCS Band						
Modes	GSM1900 (GSM)			GSM1900 (EDGE 8)		
Channel	512 (Low)	661 (Mid)	810 (High)	512 (Low)	661 (Mid)	810 (High)
Frequency (MHz)	1850.2	1880	1909.8	1850.2	1880	1909.8
99% OBW (KHz)	244.57	243.13	243.13	246.02	246.02	243.13
26dB BW (KHz)	315.50	309.70	316.90	316.90	312.60	319.80

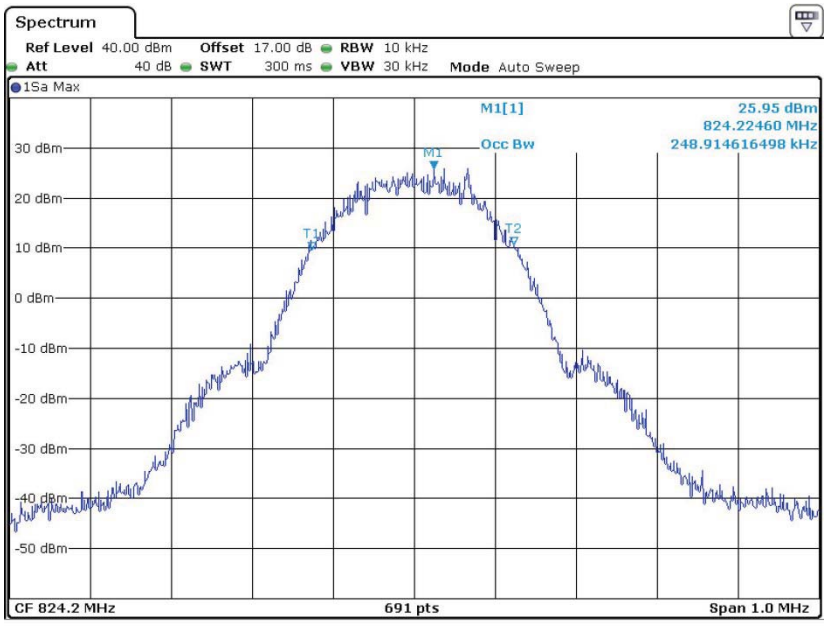
Cellular Band			
Modes	WCDMA Band V (RMC 12.2Kbps)		
Channel	4132 (Low)	4182 (Mid)	4233 (High)
Frequency (MHz)	826.4	836.4	846.6
99% OBW (MHz)	4.15	4.15	4.17
26dB BW (MHz)	4.66	4.67	4.66

PCS Band			
Modes	WCDMA Band II (RMC 12.2Kbps)		
Channel	9262 (Low)	9400 (Mid)	9538 (High)
Frequency (MHz)	1852.4	1880	1907.6
99% OBW (MHz)	4.14	4.15	4.17
26dB BW (MHz)	4.66	4.66	4.65

3.4.6 Test Result (Plots) of 99% Occupied Bandwidth and 26dB Bandwidth

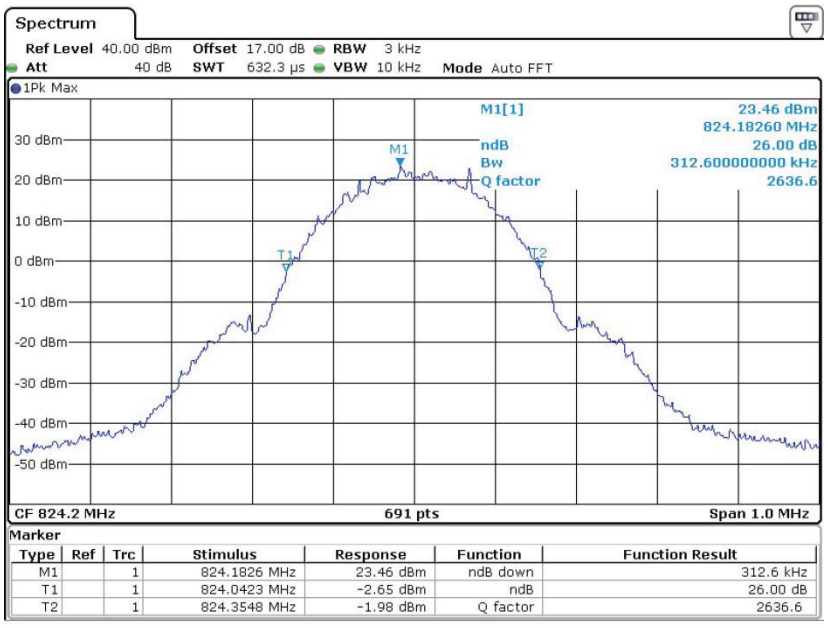
Band :	GSM 850	Test Mode :	GSM Link

99% Occupied Bandwidth Plot on Channel 128 (824.2 MHz)



Date: 3.MAY.2013 08:10:00

26dB Bandwidth Plot on Channel 128 (824.2 MHz)

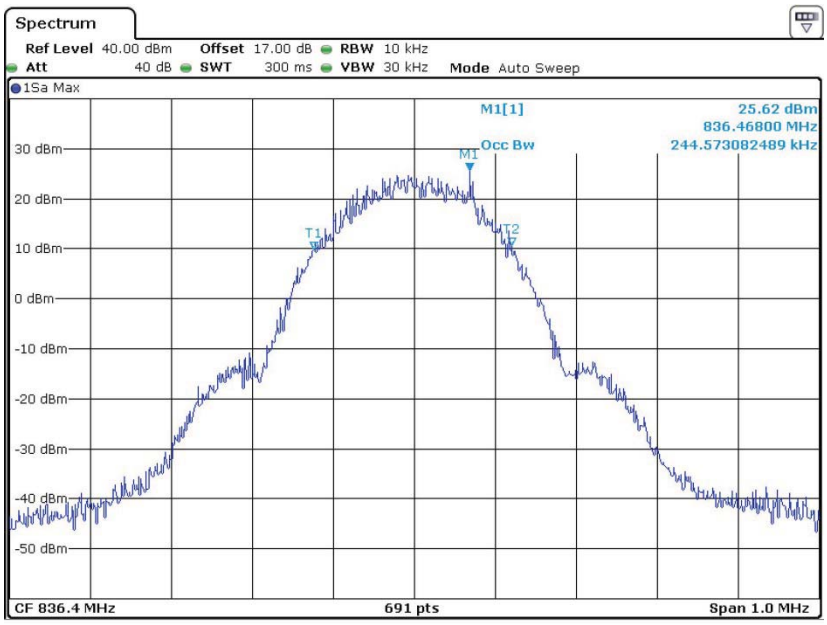


Marker

Type	Ref	Trc	Stimulus	Response	Function	Function Result
M1		1	824.1826 MHz	23.46 dBm	ndB down	312.6 kHz
T1		1	824.0423 MHz	-2.65 dBm	ndB	26.00 dB
T2		1	824.3548 MHz	-1.98 dBm	Q factor	2636.6

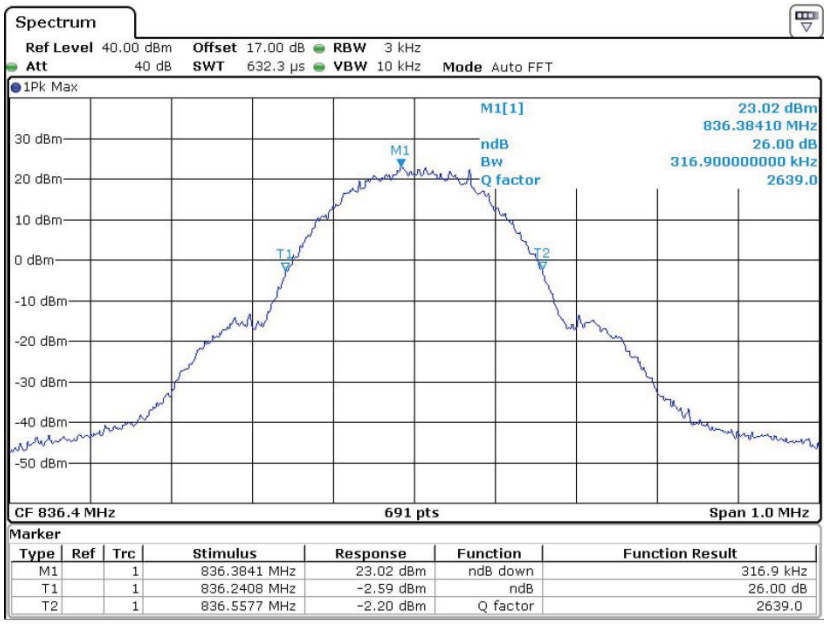
Date: 3.MAY.2013 08:02:24

99% Occupied Bandwidth Plot on Channel 189 (836.4 MHz)



Date: 3.MAY.2013 08:07:43

26dB Bandwidth Plot on Channel 189 (836.4 MHz)

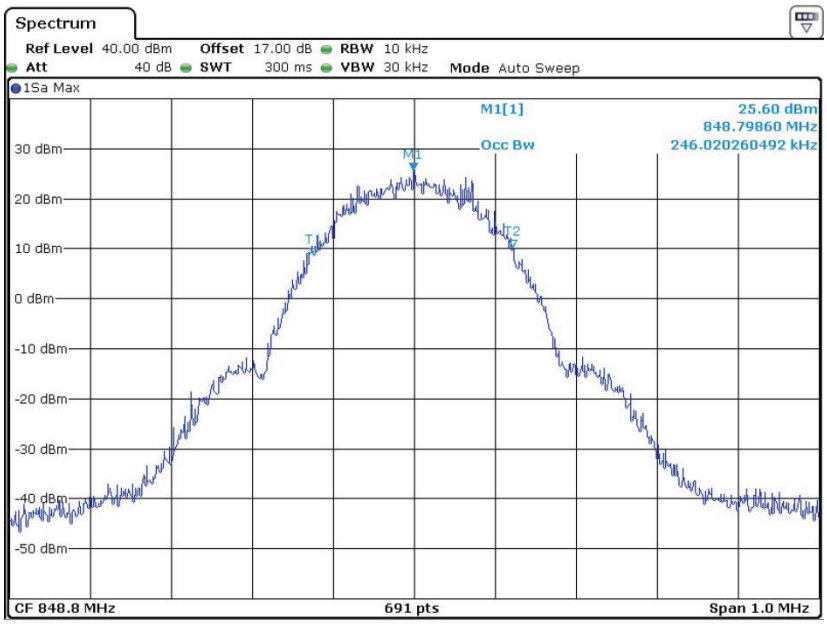


Marker

Type	Ref	Trc	Stimulus	Response	Function	Function Result
M1		1	836.3841 MHz	23.02 dBm	ndB down	316.9 kHz
T1		1	836.2408 MHz	-2.59 dBm	ndB	26.00 dB
T2		1	836.5577 MHz	-2.20 dBm	Q factor	2639.0

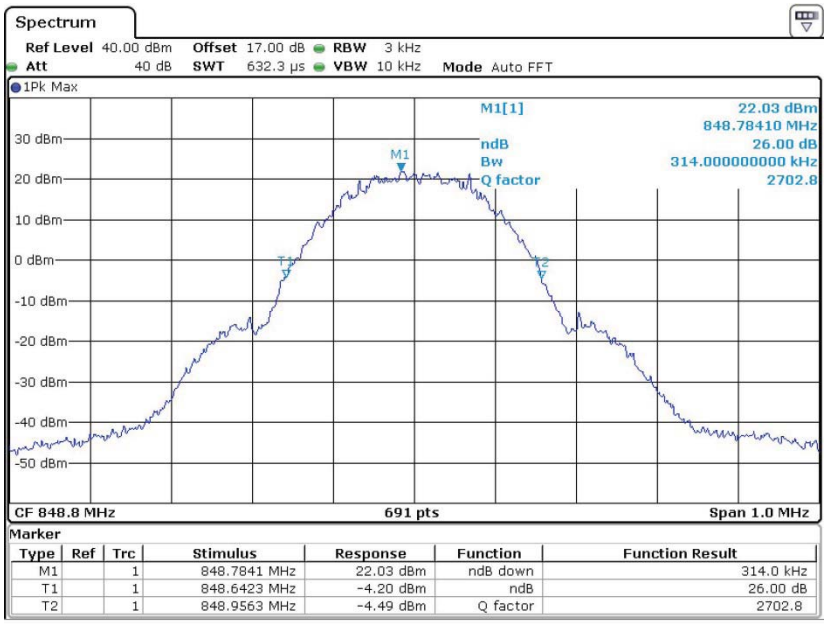
Date: 3.MAY.2013 08:00:17

99% Occupied Bandwidth Plot on Channel 251 (848.8 MHz)



Date: 3.MAY.2013 08:06:21

26dB Bandwidth Plot on Channel 251 (848.8 MHz)



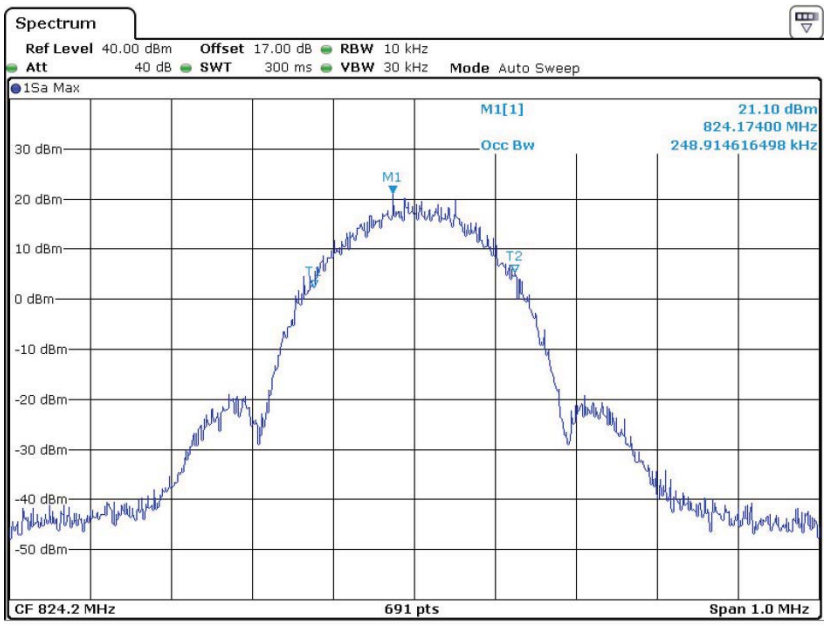
Marker

Type	Ref	Trc	Stimulus	Response	Function	Function Result
M1		1	848.7841 MHz	22.03 dBm	ndB down	314.0 kHz
T1		1	848.6423 MHz	-4.20 dBm	ndB	26.00 dB
T2		1	848.9563 MHz	-4.49 dBm	Q factor	2702.8

Date: 3.MAY.2013 08:02:55

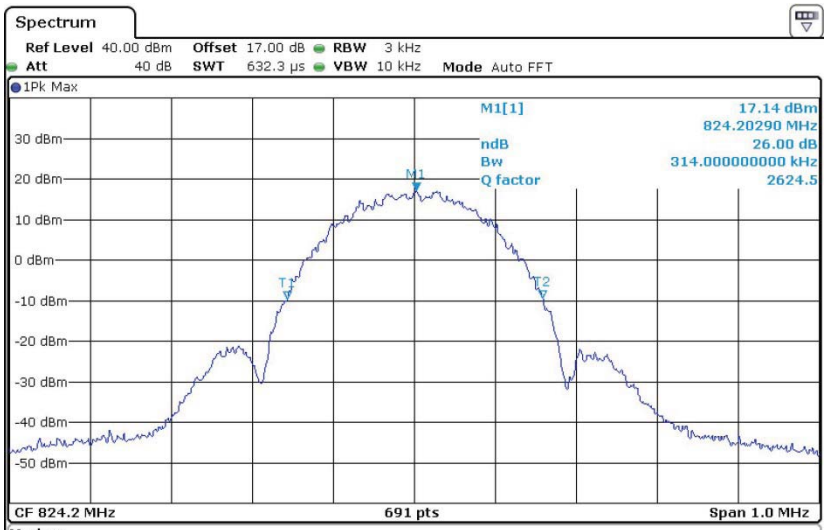
Band :	GSM 850	Test Mode :	EDGE 8 Link

99% Occupied Bandwidth Plot on Channel 128 (824.2 MHz)



Date: 3.MAY.2013 11:21:47

26dB Bandwidth Plot on Channel 128 (824.2 MHz)

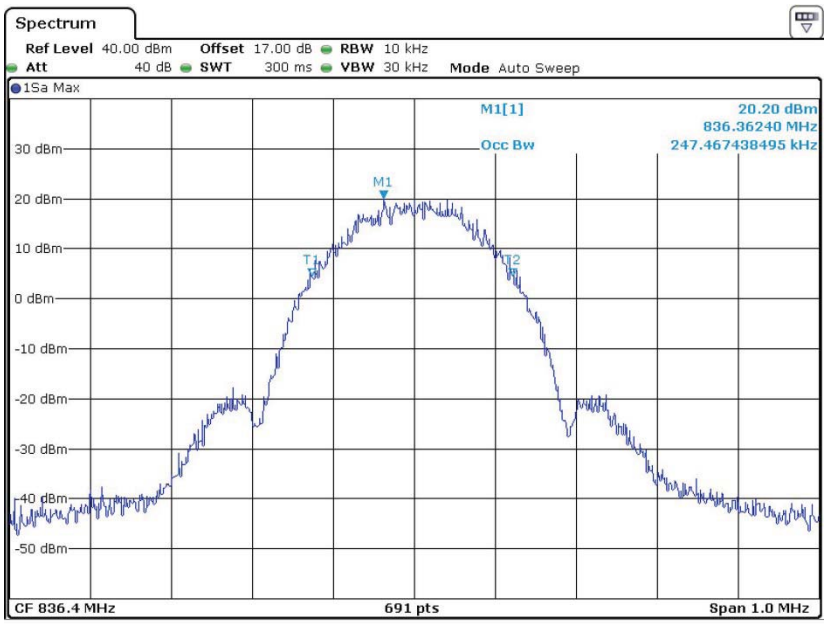


Marker

Type	Ref	Trc	Stimulus	Response	Function	Function Result
M1		1	824.2029 MHz	17.14 dBm	ndB down	314.0 kHz
T1		1	824.0437 MHz	-9.57 dBm	ndB	26.00 dB
T2		1	824.3577 MHz	-9.42 dBm	Q factor	2624.5

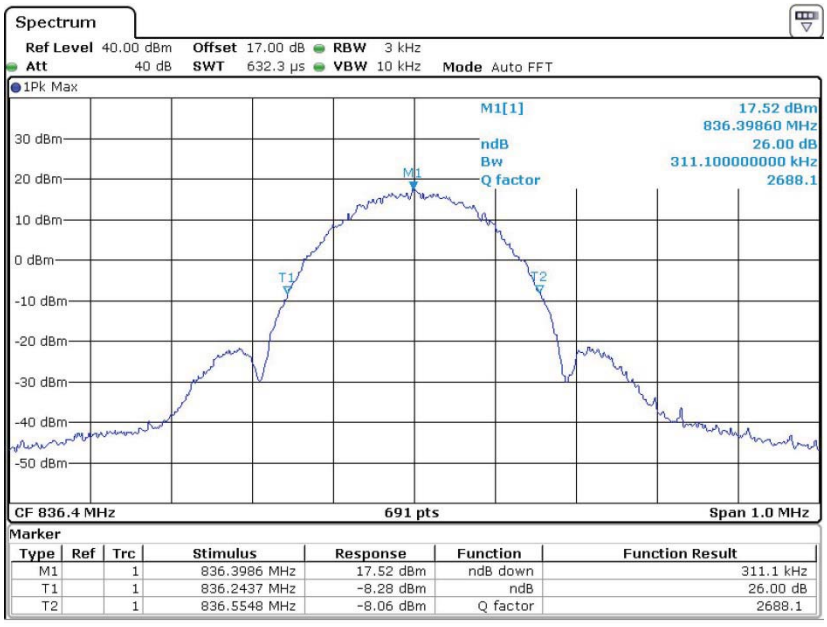
Date: 3.MAY.2013 11:09:59

99% Occupied Bandwidth Plot on Channel 189 (836.4 MHz)



Date: 3.MAY.2013 11:20:24

26dB Bandwidth Plot on Channel 189 (836.4 MHz)

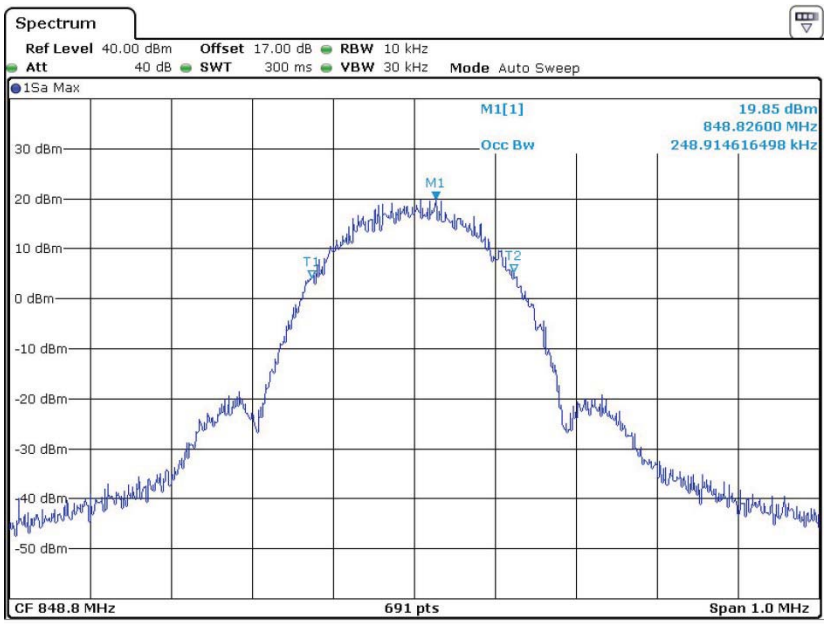


Marker

Type	Ref	Trc	Stimulus	Response	Function	Function Result
M1		1	836.3986 MHz	17.52 dBm	ndB down	311.1 kHz
T1		1	836.2437 MHz	-8.28 dBm	ndB	26.00 dB
T2		1	836.5548 MHz	-8.06 dBm	Q factor	2688.1

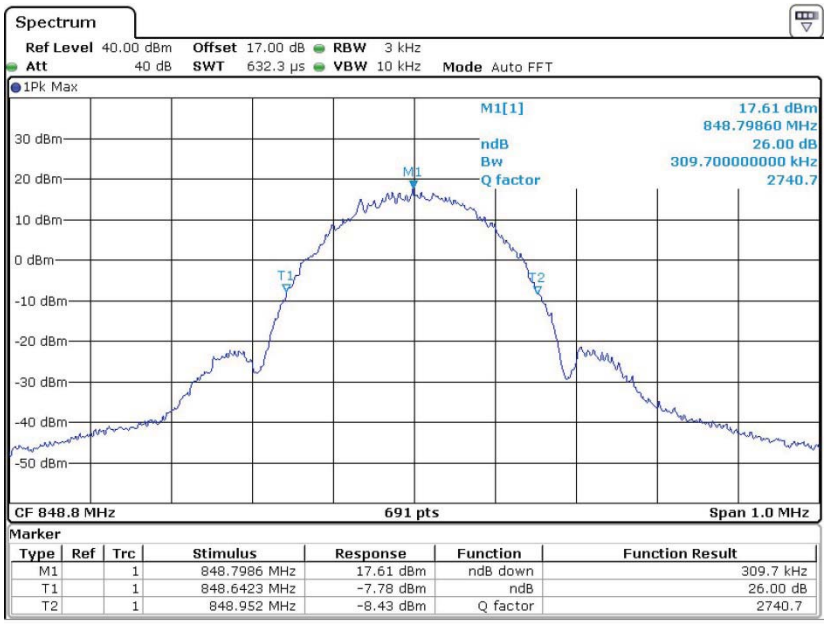
Date: 3.MAY.2013 11:12:16

99% Occupied Bandwidth Plot on Channel 251 (848.8 MHz)



Date: 3.MAY.2013 11:17:59

26dB Bandwidth Plot on Channel 251 (848.8 MHz)



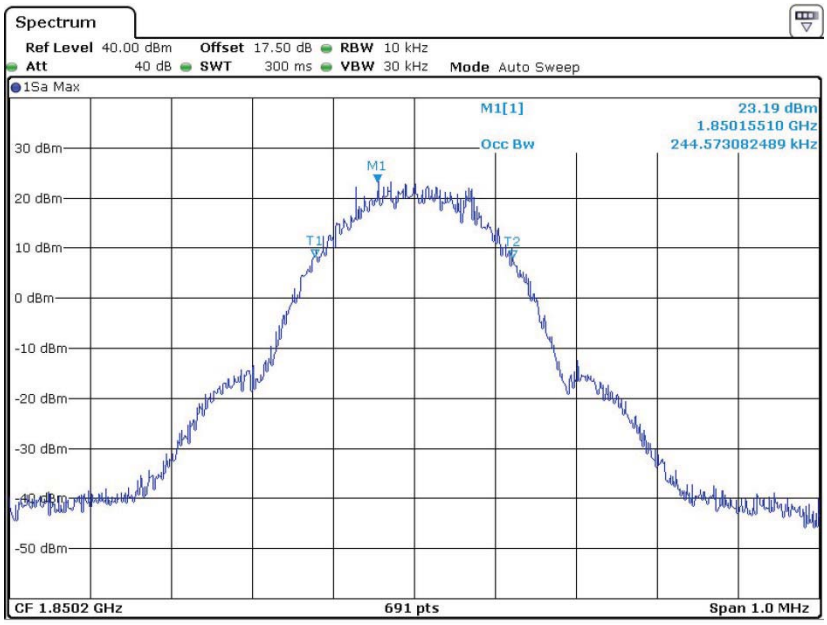
Marker

Type	Ref	Trc	Stimulus	Response	Function	Function Result
M1		1	848.7986 MHz	17.61 dBm	ndB down	309.7 kHz
T1		1	848.6423 MHz	-7.78 dBm	ndB	26.00 dB
T2		1	848.952 MHz	-8.43 dBm	Q factor	2740.7

Date: 3.MAY.2013 11:13:49

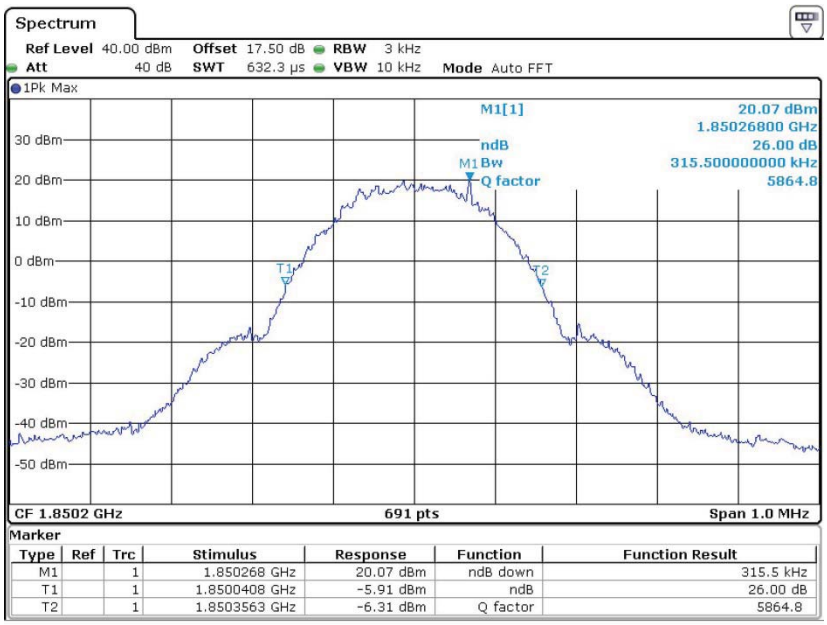
Band :	GSM 1900	Test Mode :	GSM Link

99% Occupied Bandwidth Plot on Channel 512 (1850.2 MHz)



Date: 3.MAY.2013 10:35:04

26dB Bandwidth Plot on Channel 512 (1850.2 MHz)

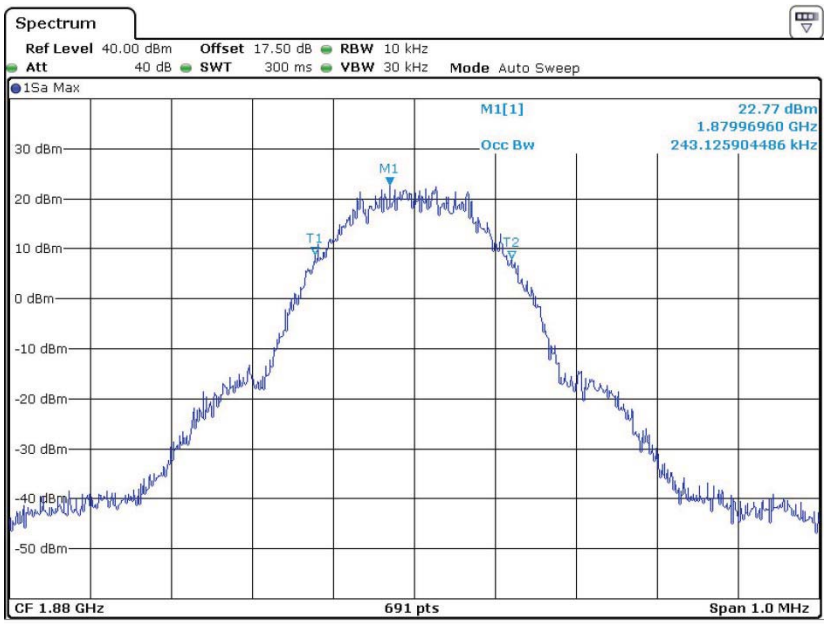


Marker

Type	Ref	Trc	Stimulus	Response	Function	Function Result
M1		1	1.850268 GHz	20.07 dBm	ndB down	315.5 kHz
T1		1	1.8500408 GHz	-5.91 dBm	ndB	26.00 dB
T2		1	1.8503563 GHz	-6.31 dBm	Q factor	5864.8

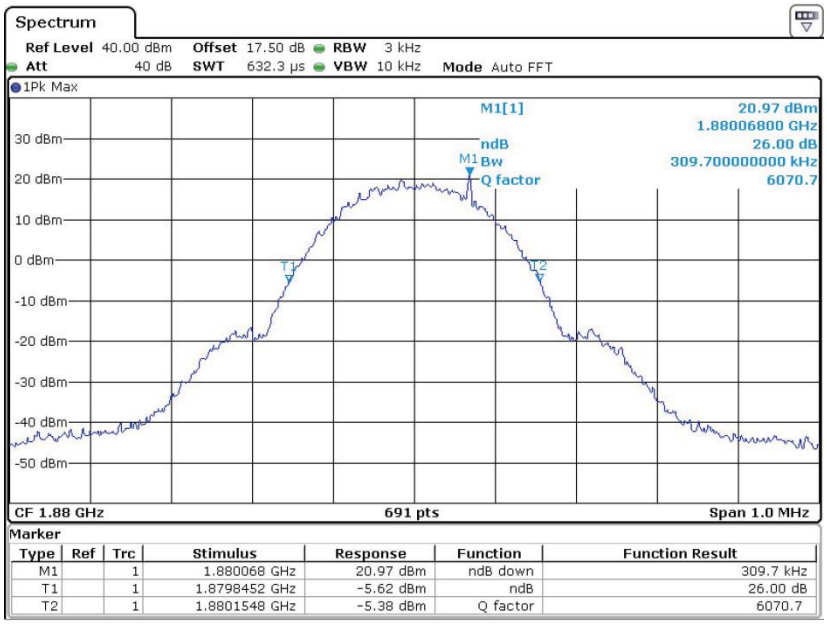
Date: 3.MAY.2013 09:40:32

99% Occupied Bandwidth Plot on Channel 661 (1880.0 MHz)



Date: 3.MAY.2013 10:36:35

26dB Bandwidth Plot on Channel 661 (1880.0 MHz)

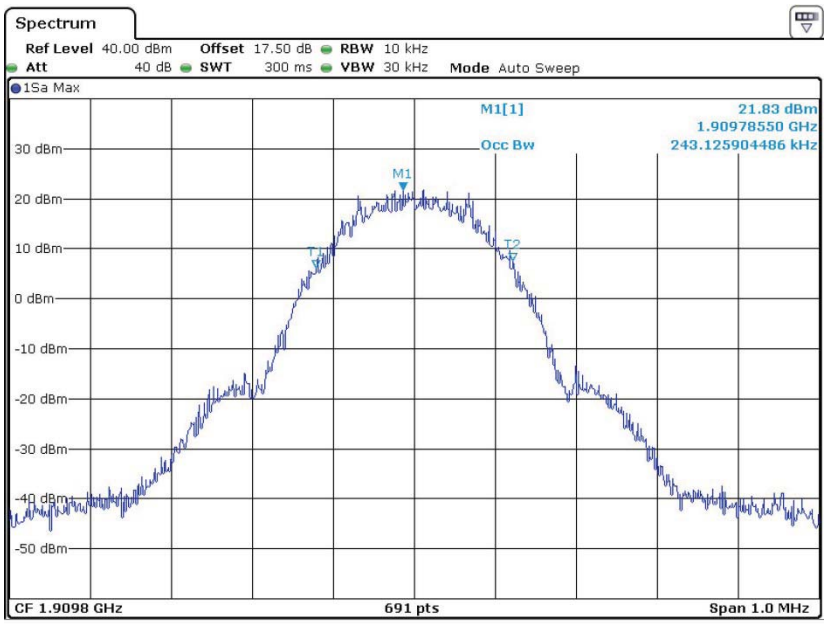


Marker

Type	Ref	Trc	Stimulus	Response	Function	Function Result
M1		1	1.880068 GHz	20.97 dBm	ndB down	309.7 kHz
T1		1	1.8798452 GHz	-5.62 dBm	ndB	26.00 dB
T2		1	1.8801548 GHz	-5.38 dBm	Q factor	6070.7

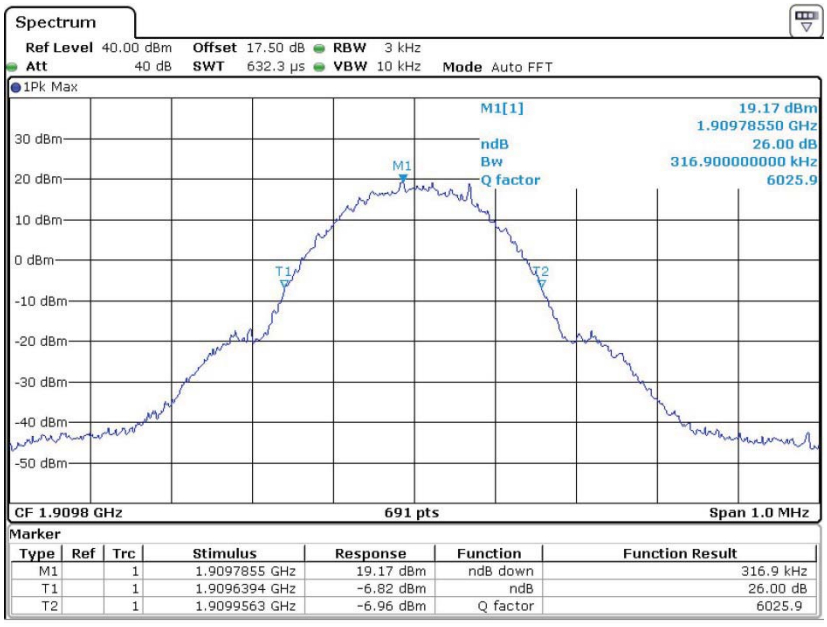
Date: 3.MAY.2013 09:41:23

99% Occupied Bandwidth Plot on Channel 810 (1909.8 MHz)



Date: 3.MAY.2013 10:38:18

26dB Bandwidth Plot on Channel 810 (1909.8 MHz)



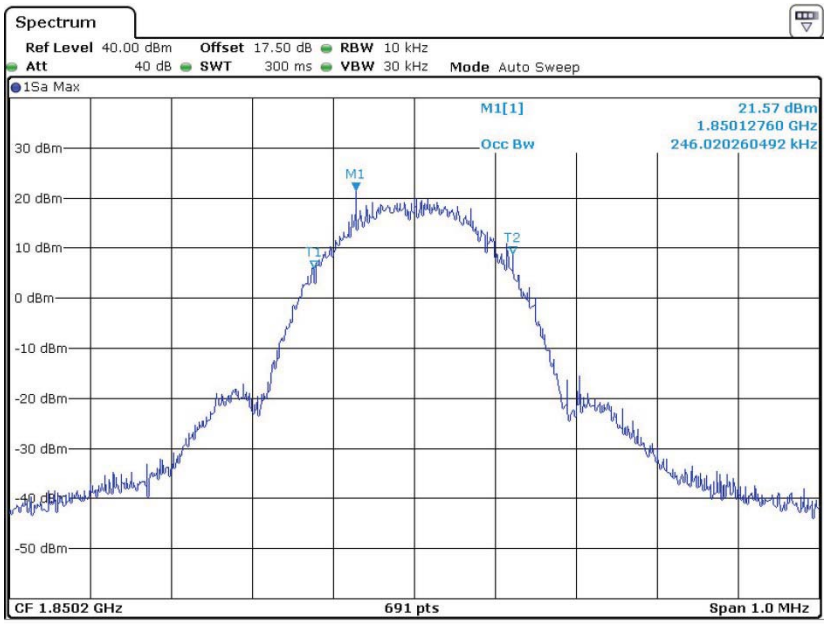
Marker

Type	Ref	Trc	Stimulus	Response	Function	Function Result
M1		1	1.9097855 GHz	19.17 dBm	ndB down	316.9 kHz
T1		1	1.9096394 GHz	-6.82 dBm	ndB	26.00 dB
T2		1	1.9099563 GHz	-6.96 dBm	Q factor	6025.9

Date: 3.MAY.2013 09:42:03

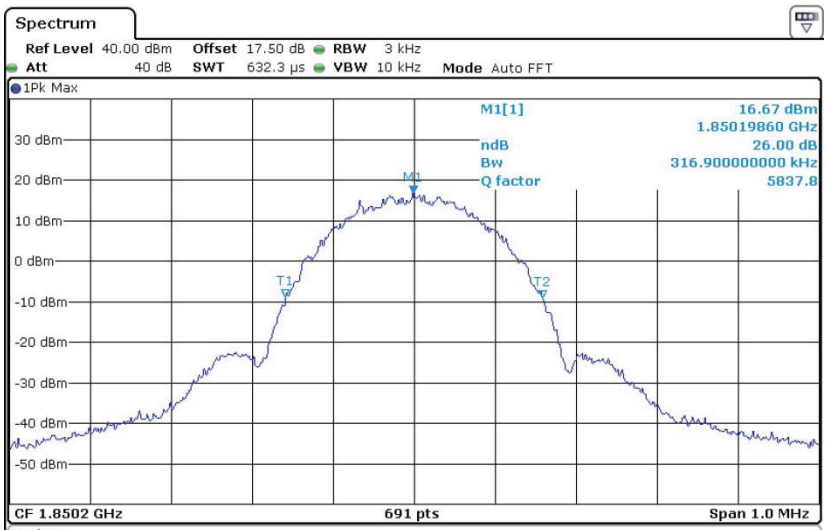
Band :	GSM 1900	Test Mode :	EDGE 8 Link

99% Occupied Bandwidth Plot on Channel 512 (1850.2 MHz)



Date: 3.MAY.2013 18:36:50

26dB Bandwidth Plot on Channel 512 (1850.2 MHz)

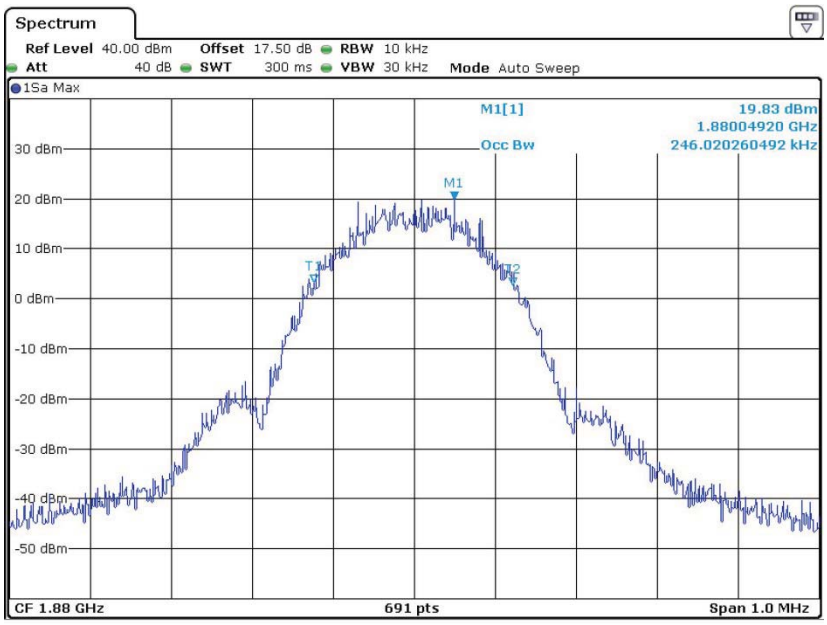


Marker

Type	Ref	Trc	Stimulus	Response	Function	Function Result
M1		1	1.8501986 GHz	16.67 dBm	ndB down	316.9 kHz
T1		1	1.8500408 GHz	-8.90 dBm	ndB	26.00 dB
T2		1	1.8503577 GHz	-9.12 dBm	Q factor	5837.8

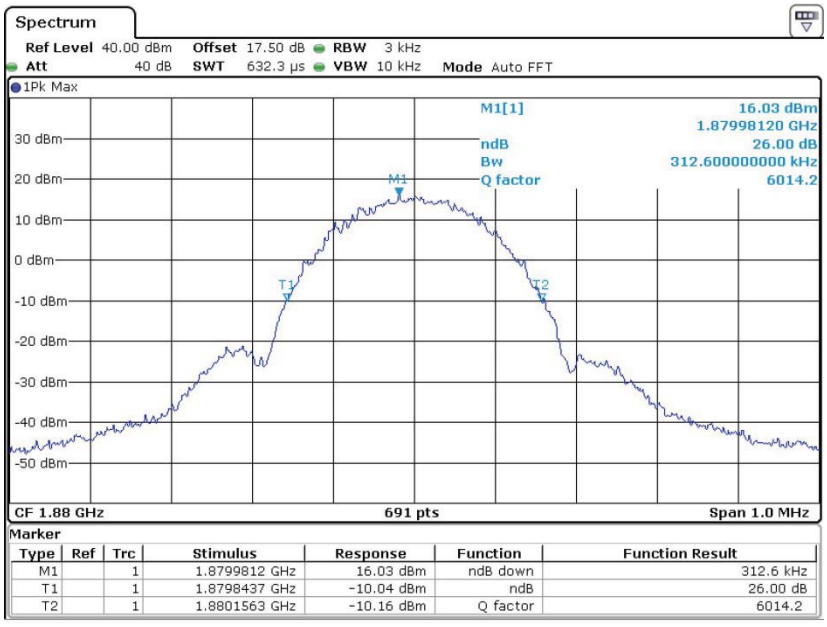
Date: 3.MAY.2013 10:42:16

99% Occupied Bandwidth Plot on Channel 661 (1880.0 MHz)



Date: 3.MAY.2013 18:28:05

26dB Bandwidth Plot on Channel 661 (1880.0 MHz)

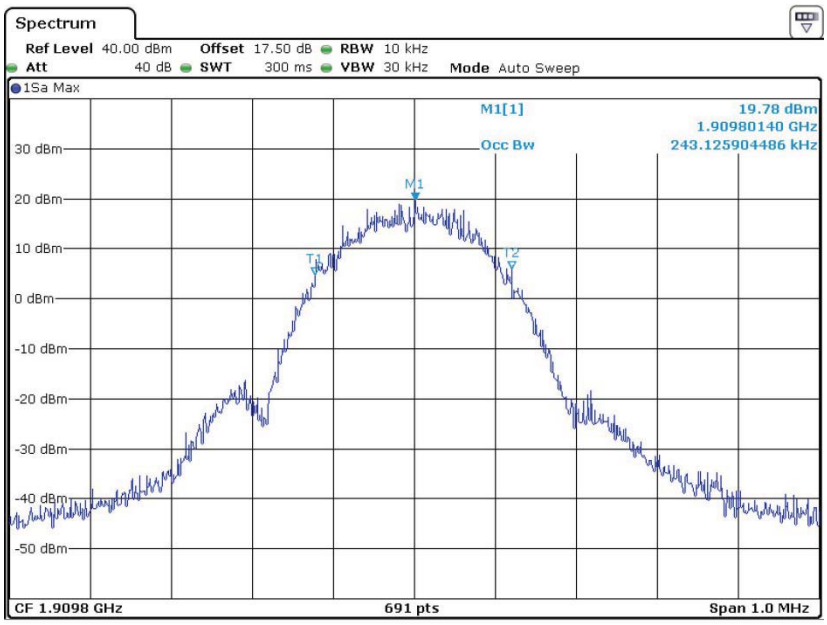


Marker

Type	Ref	Trc	Stimulus	Response	Function	Function Result
M1		1	1.8799812 GHz	16.03 dBm	ndB down	312.6 kHz
T1		1	1.8798437 GHz	-10.04 dBm	ndB	26.00 dB
T2		1	1.8801563 GHz	-10.16 dBm	Q factor	6014.2

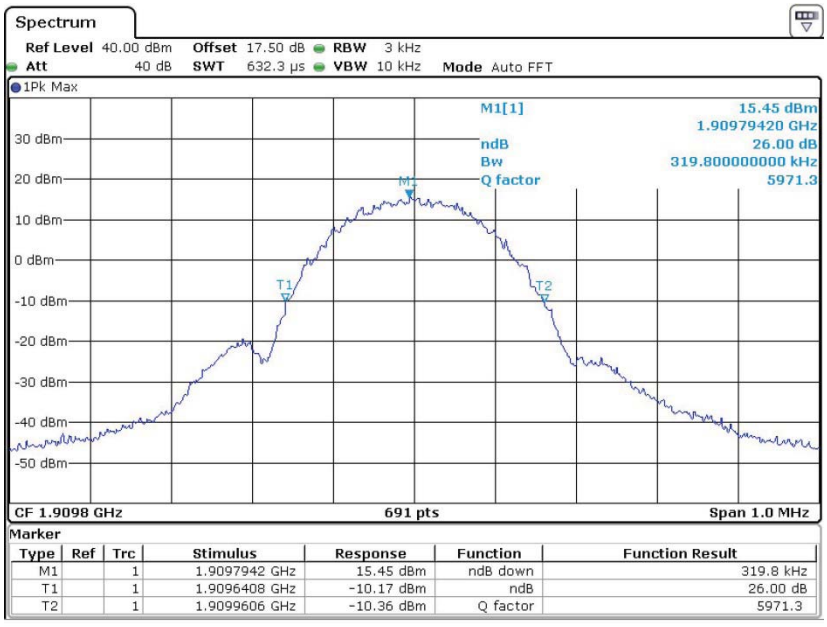
Date: 3.MAY.2013 10:41:28

99% Occupied Bandwidth Plot on Channel 810 (1909.8 MHz)



Date: 3.MAY.2013 18:39:01

26dB Bandwidth Plot on Channel 810 (1909.8 MHz)



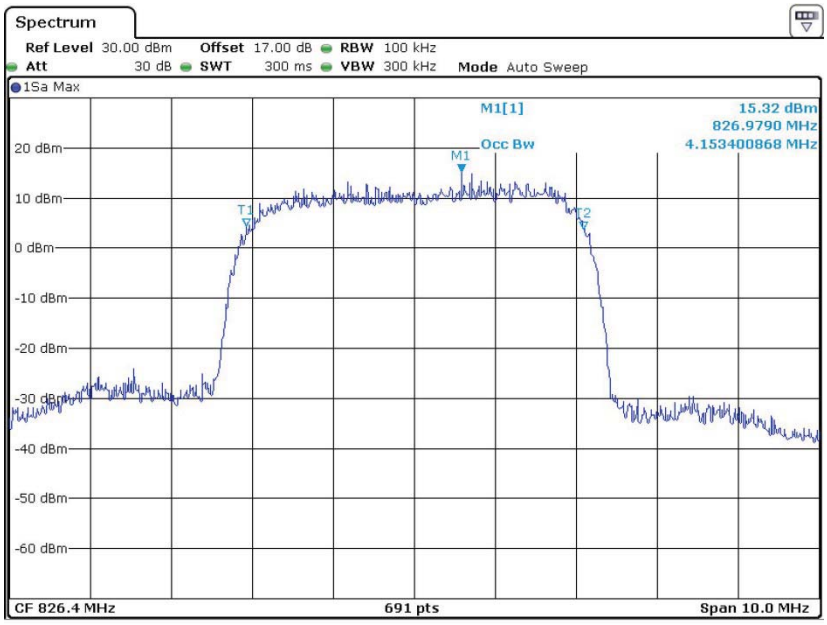
Marker

Type	Ref	Trc	Stimulus	Response	Function	Function Result
M1		1	1.9097942 GHz	15.45 dBm	ndB down	319.8 kHz
T1		1	1.9096408 GHz	-10.17 dBm	ndB	26.00 dB
T2		1	1.9099606 GHz	-10.36 dBm	Q factor	5971.3

Date: 3.MAY.2013 10:40:28

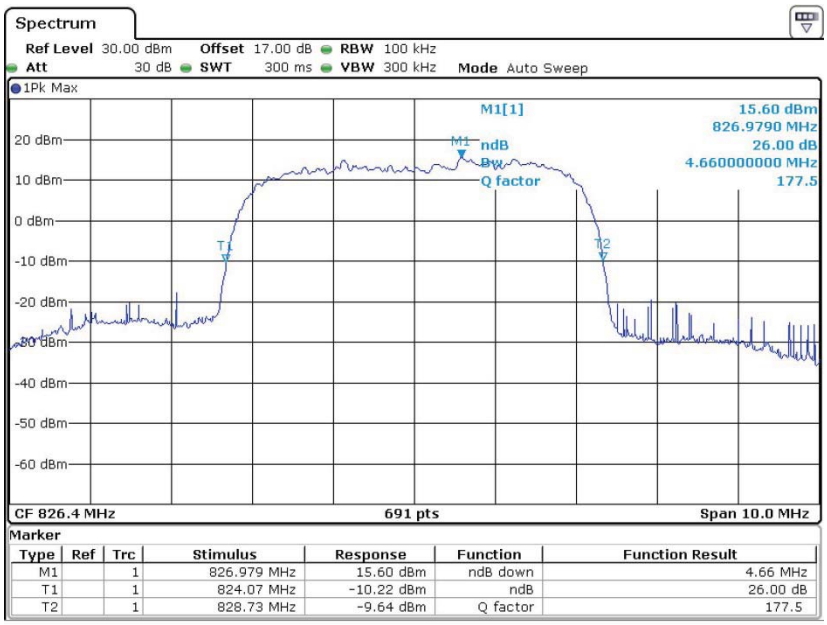
Band :	WCDMA Band V	Test Mode :	RMC 12.2Kbps Link

99% Occupied Bandwidth Plot on Channel 4132 (826.4 MHz)



Date: 4.MAY.2013 08:47:35

26dB Bandwidth Plot on Channel 4132 (826.4 MHz)

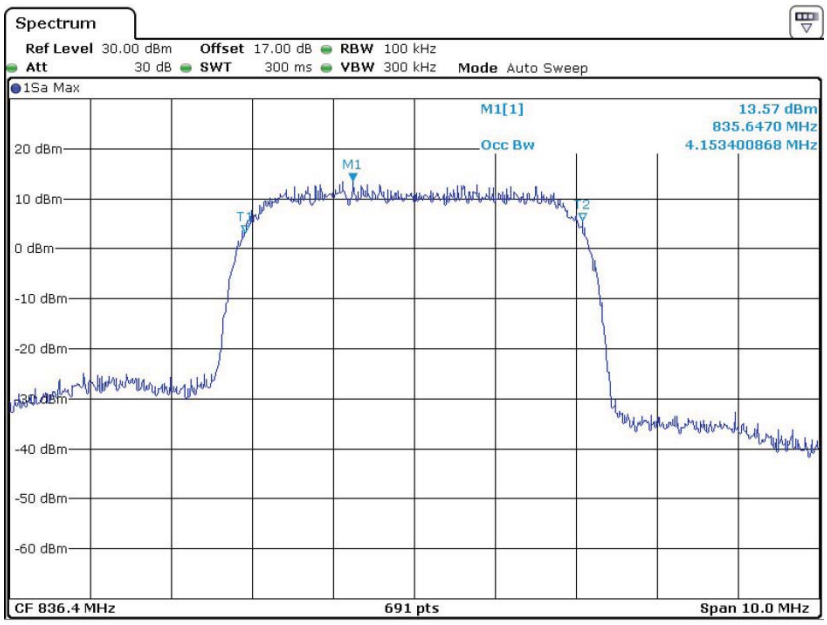


Marker

Type	Ref	Trc	Stimulus	Response	Function	Function Result
M1		1	826.979 MHz	15.60 dBm	ndB down	4.66 MHz
T1		1	824.07 MHz	-10.22 dBm	ndB	26.00 dB
T2		1	828.73 MHz	-9.64 dBm	Q factor	177.5

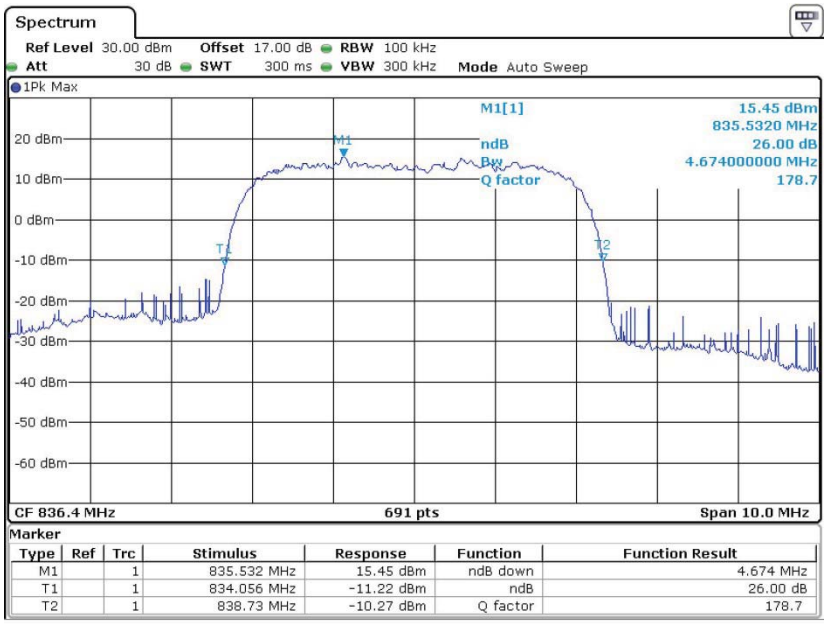
Date: 4.MAY.2013 08:44:44

99% Occupied Bandwidth Plot on Channel 4182 (836.4 MHz)



Date: 4.MAY.2013 08:48:27

26dB Bandwidth Plot on Channel 4182 (836.4 MHz)

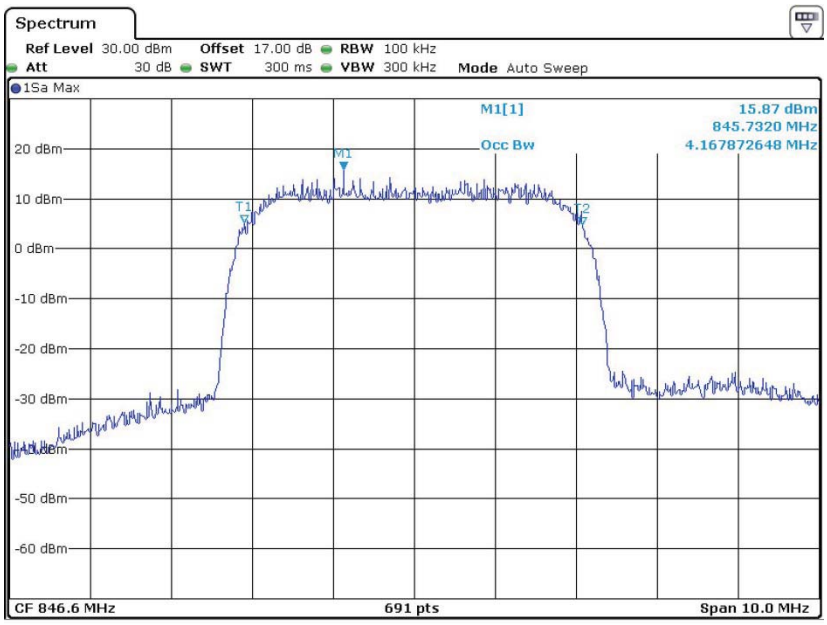


Marker

Type	Ref	Trc	Stimulus	Response	Function	Function Result
M1		1	835.532 MHz	15.45 dBm	ndB down	4.674 MHz
T1		1	834.056 MHz	-11.22 dBm	ndB	26.00 dB
T2		1	838.73 MHz	-10.27 dBm	Q factor	178.7

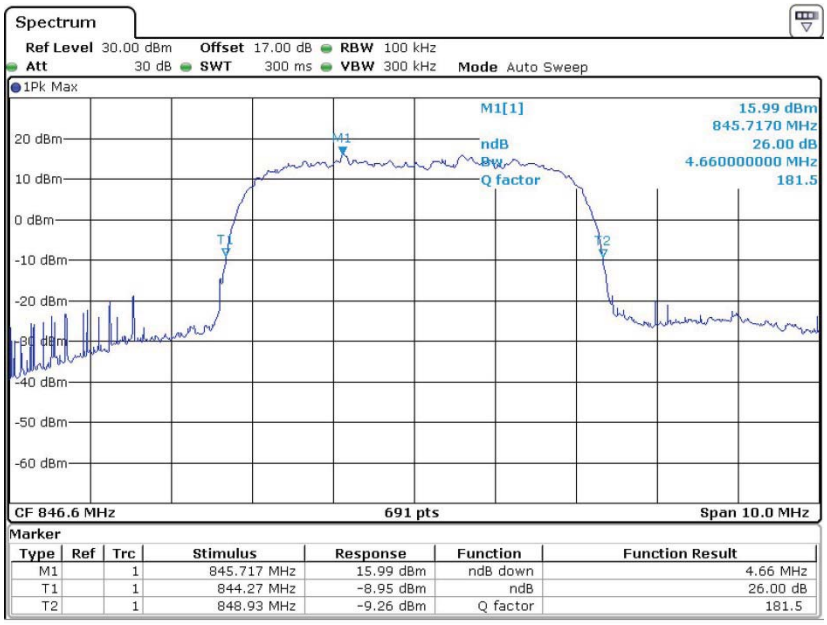
Date: 4.MAY.2013 08:43:35

99% Occupied Bandwidth Plot on Channel 4233 (846.6 MHz)



Date: 4.MAY.2013 08:46:45

26dB Bandwidth Plot on Channel 4233 (846.6 MHz)



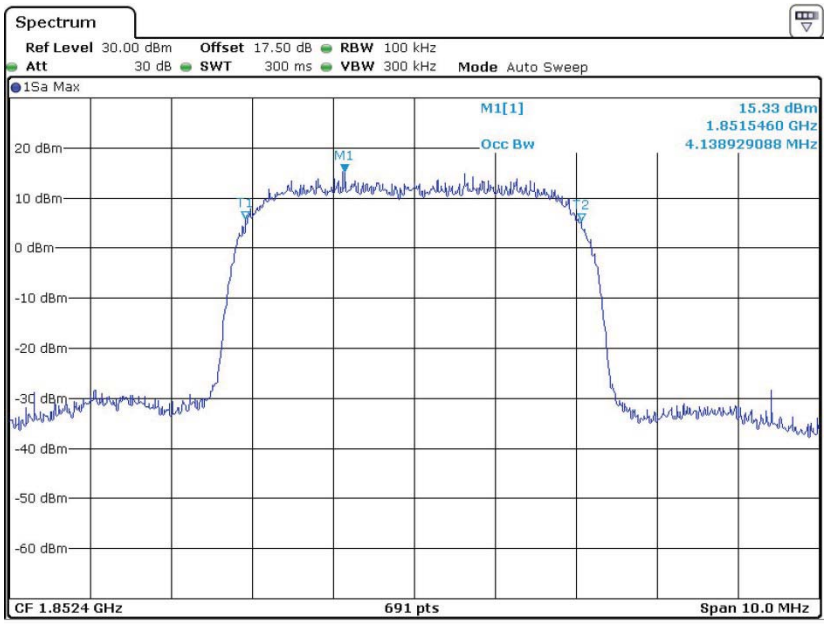
Marker

Type	Ref	Trc	Stimulus	Response	Function	Function Result
M1		1	845.717 MHz	15.99 dBm	ndB down	4.66 MHz
T1		1	844.27 MHz	-8.95 dBm	ndB	26.00 dB
T2		1	848.93 MHz	-9.26 dBm	Q factor	181.5

Date: 4.MAY.2013 08:45:29

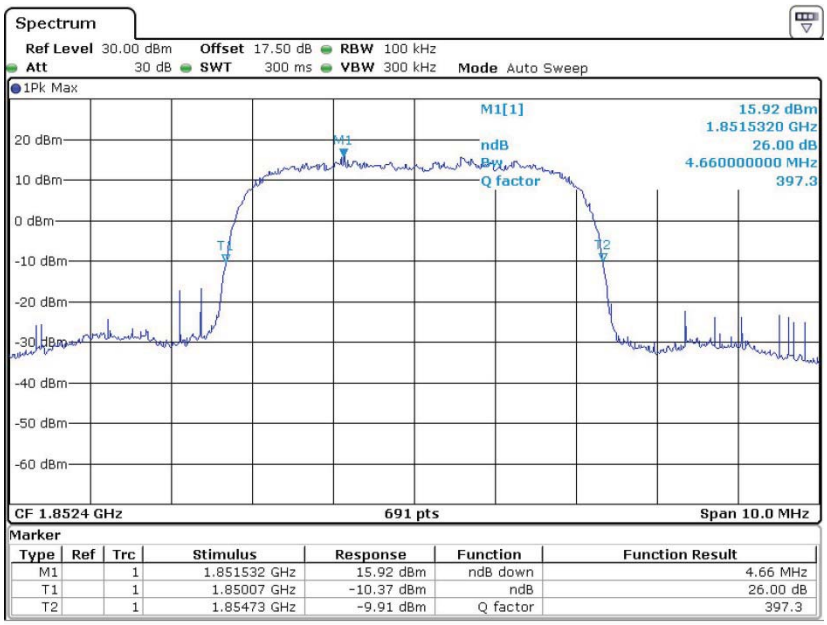
Band :	WCDMA Band II	Test Mode :	RMC 12.2Kbps Link

99% Occupied Bandwidth Plot on Channel 9262 (1852.4 MHz)



Date: 4.MAY.2013 09:39:58

26dB Bandwidth Plot on Channel 9262 (1852.4 MHz)

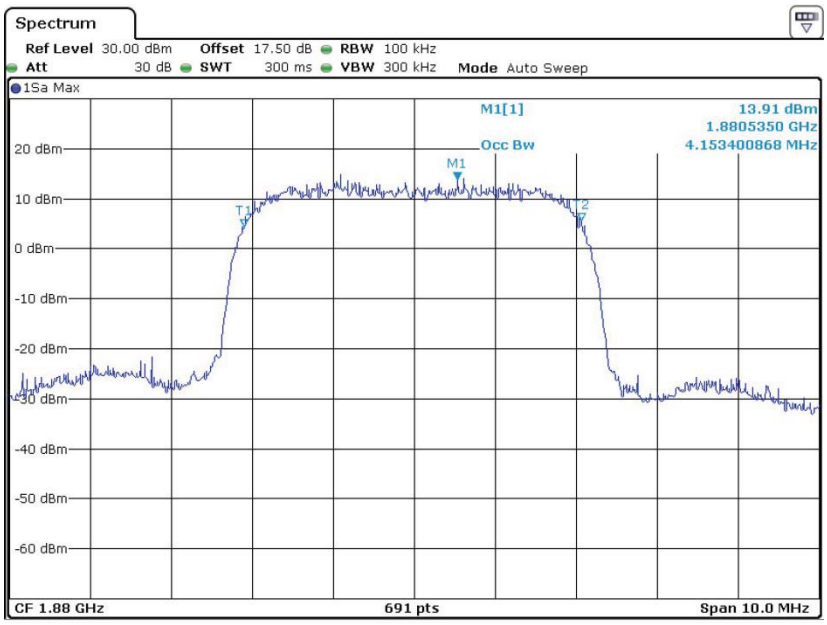


Marker

Type	Ref	Trc	Stimulus	Response	Function	Function Result
M1		1	1.851532 GHz	15.92 dBm	ndB down	4.66 MHz
T1		1	1.85007 GHz	-10.37 dBm	ndB	26.00 dB
T2		1	1.85473 GHz	-9.91 dBm	Q factor	397.3

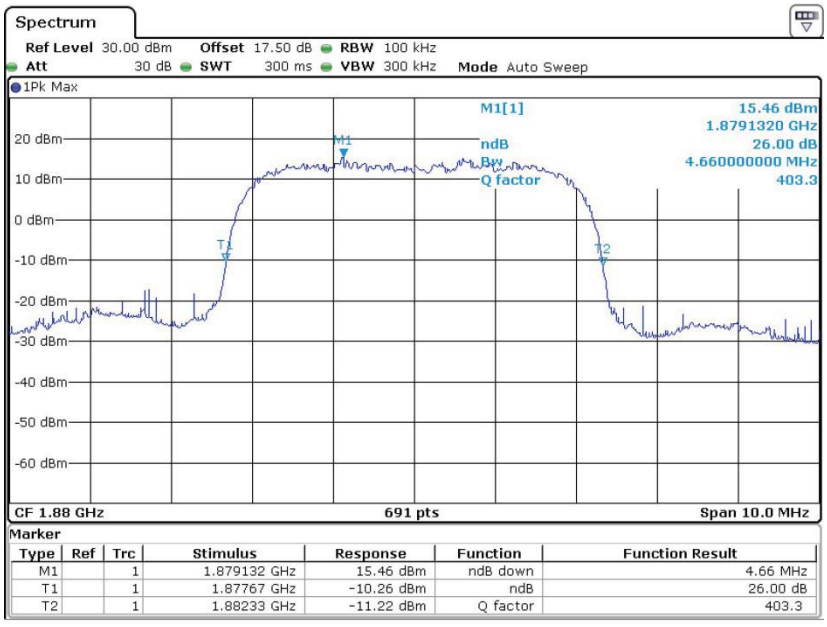
Date: 4.MAY.2013 09:34:11

99% Occupied Bandwidth Plot on Channel 9400 (1880.0 MHz)



Date: 4.MAY.2013 09:37:47

26dB Bandwidth Plot on Channel 9400 (1880.0 MHz)

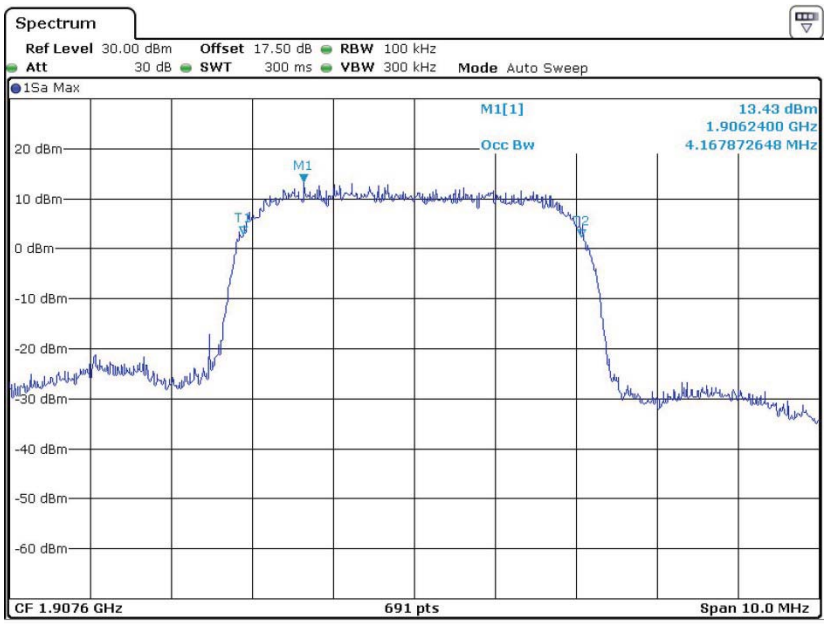


Marker

Type	Ref	Trc	Stimulus	Response	Function	Function Result
M1		1	1.879132 GHz	15.46 dBm	ndB down	4.66 MHz
T1		1	1.87767 GHz	-10.26 dBm	ndB	26.00 dB
T2		1	1.88233 GHz	-11.22 dBm	Q factor	403.3

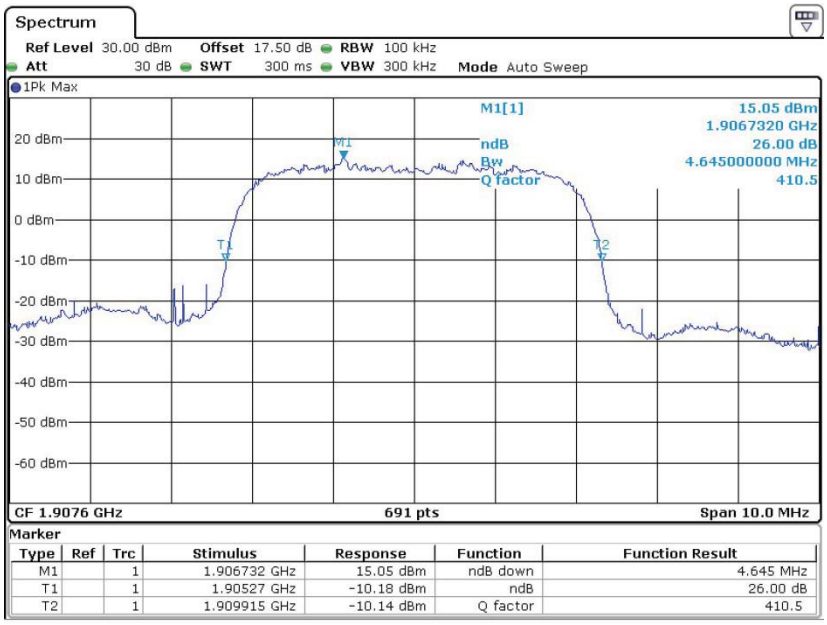
Date: 4.MAY.2013 09:34:48

99% Occupied Bandwidth Plot on Channel 9538 (1907.6 MHz)



Date: 4.MAY.2013 09:41:18

26dB Bandwidth Plot on Channel 9538 (1907.6 MHz)



Marker

Type	Ref	Trc	Stimulus	Response	Function	Function Result
M1		1	1.906732 GHz	15.05 dBm	ndB down	4.645 MHz
T1		1	1.90527 GHz	-10.18 dBm	ndB	26.00 dB
T2		1	1.909915 GHz	-10.14 dBm	Q factor	410.5

Date: 4.MAY.2013 09:33:35