

**SGS-CSTC Standards
Technical Services
(Shanghai)Co., Ltd.**

588 West Jindu Road, Songjiang District, Shanghai, China

Telephone: +86 (0) 21 6191 5666
Fax: +86 (0) 21 6191 5655
Tino.Pan@sgs.com

Report No.:SHEMO10030022503
Page 1 of 99

TEST REPORT

Application No. : SHEMO10030022503
Applicant: Shanghai Longcheer3g Technology Co.,Ltd
FCC ID: WLPW660
IC ID: 8858A-W660
Equipment Under Test (EUT):
Product Name: GSM/GPRS/EDGE/WCDMA/HSDPA Handhold Phone
Model Name: W660
Standards: FCC part 2, 22H & 24E & 27L
/IC RSS 132 Issue 2, RSS 133 Issue 5, RSS 139 Issue 2
Date of Receipt: Mar 09,2010
Date of Test: Mar 09,2010 to Mar 26,2010
Date of Issue: Mar 30,2010

Test Result :	PASS *
----------------------	---------------

* In the configuration tested, the EUT detailed in this report complied with the standards specified above. Please refer to section 2 of this report for further details.



Tino Pan
E&E Section Manager
SGS-CSTC(Shanghai) Co., Ltd.



Jack Wu
E&E Project Engineer
SGS-CSTC(Shanghai)Co.,Ltd

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms_and_conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms_e-document.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only

**SGS-CSTC Standards
Technical Services
(Shanghai)Co., Ltd.**

ReportNo.: SHEMO09100117302
Page: 2 of 99

2 Test Summary

Description of Test	FCC Rules	IC Standards	Result
RF Power Output	2.1046(a) 22.913(a) 24.232(b) 27.50(d)(2)	RSS-132,4.4 RSS-133,6.4 RSS-139,6.4	Compliant
Occupied Bandwidth	2.1049(h)	RSS-Gen,4.6	Compliant
Effective Isotropic Radiated Power	2.1046(a) 22.913(a) 24.232(b) 27.50(d)(2)	RSS-132,4.4 RSS-133,6.4 RSS-139,6.4	Compliant
Out of Band Emissions at antenna Terminals and Band Edge	2.1051 22.917(a) 24.238(a) 27.53(g)	RSS-132,4.5 RSS-133,6.5 RSS-139,6.5	Compliant
Field Strength of Spurious Emissions	2.1053 22.917(a) 24.238(a) 27.53(g)	RSS-132,4.5 RSS-133,6.5 RSS-139,6.5	Compliant
.Frequency Stability vs. Temperature and Voltage	2.1055	RSS-132,4.3 RSS-133,6.3 RSS-139,6.3	Compliant
AC Power Line Conducted Emission	15.207	RSS Gen 7.2.2	Compliant

3 Contents

	Page
1 COVER PAGE	1
2 TEST SUMMARY	2
3 CONTENTS	3
4 GENERAL INFORMATION	4
4.1 CLIENT INFORMATION	4
4.2 GENERAL DESCRIPTION OF E.U.T.	4
4.3 TEST LOCATION	4
4.4 TEST FACILITY	5
4.5 TEST METHODOGY	5
5 EQUIPMENTS USED DURING TEST.....	6
6 TEST RESULTS	8
6.1 E.U.T. TEST CONDITIONS.....	8
6.2 RF POWER OUTPUT.....	9
6.3 OCCUPIED BANDWIDTH.....	12
6.4 EFFECTIVE ISOTROPIC RADIATED POWER	40
6.5 OUT OF BAND EMISSIONS AT ANTENNA TERMINALS	49
6.5.1 Band edges emissions.....	49
6.6 FIELD STRENGTH OF RADIATED SPURIOUS EMISSIONS.....	66
6.7 RECEIVER SPURIOUS EMISSIONS	80
6.8 FREQUENCY STABILITY V.S. TEMPERATURE MEASUREMENT	86
6.9 FREQUENCY STABILITY V.S. VOLTAGE MEASUREMENT	89
6.10 CONDUCTED EMISSIONS MAINS TERMINALS, 150 KHZ TO 30MHZ.....	91

4 General Information

4.1 Client Information

Applicant: Shanghai Longcheer3g Technology Co.,Ltd
Address of Applicant: No.1,Building 5, 299 Bisheng Rd, Zhangjiang Hi-Tech Park, Pudong, Shanghai, P.R. China
Manufacturer: Shanghai Longcheer3g Technology Co.,Ltd
Address of Manufacturer: No.1,Building 5, 299 Bisheng Rd, Zhangjiang Hi-Tech Park, Pudong, Shanghai, P.R. China

4.2 General Description of E.U.T.

Product Name:	GSM/GPRS/EDGE/WCDMA/HSDPA Handhold Phone
Model Name:	W660
Power Supply:	3.8 V DC

GSM and WCDMA:

	Operating frequency		Rated Power
Cellular phone standards Frequency Range and Power:	GSM/GPRS/EDGE, 850 Class 12	824.2MHz-848.8MHz	33dBm
	GSM/GPRS/EDGE, 1900 Class 12	1850.2MHz-1909.8MHz	30dBm
	WCDMA/ HSDPA. Band IV	1710MHz-1755MHz	24dBm
	WCDMA/ HSDPA Band V	826.4MHz-846.6MHz	24dBm
Hardware Version:	W660_344		
Software Version:	LQARZ01_240005_0.0.4		
IMEI:	352129049999833		

4.3 Test Location

Tests were performed at:

SGS-CSTC Standards Technical Services Co., Ltd., Shanghai EMC Laboratory

588 West Jindu Road, Songjiang District, Shanghai, China

Tel: +86 21 61915666

Fax: +86 21 61915678

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms_and_conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms_e-document.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only

4.4 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

- **CNAS (No. CNAS L0599)**

CNAS has accredited SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. to ISO/IEC 17025:2005 General Requirements for the Competence of Testing and Calibration Laboratories (CNAS-CL01 Accreditation Criteria for the Competence of Testing and Calibration Laboratories) for the competence in the field of testing. Date of expiry: 2011-07-29.

- **FCC – Registration No.: 402683**

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. has been registered and fully described in a report filed with the Federal Communications Commission (FCC). The acceptance letter from the FCC is maintained in our files. Registration No.: 402683, Expiry Date: 2012-03-17.

- **Industry Canada (IC) – IC Assigned Code: 8617A**

The 3m Semi-anechoic chamber of SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 8617A. Expiry Date: 2011-09-29.

4.5 Test Methodology

Both conducted and radiated testing were performed according to the procedures document on TIA/EIA-603-C-2004 and FCC CFR 47 2.1046, 2.1047, 2.1049, 2.1051, 2.1053, 2.1055 and 2.1057.

The procedure of KDB941225 (SAR Measurement Procedures for 3G devices, WCDMA/HSDPA) was used for EUT and Base station setting.

**SGS-CSTC Standards
Technical Services
(Shanghai)Co., Ltd.**

ReportNo.: SHEMO09100117302

Page: 6 of 99

5 Equipments Used during Test

Item	Test Equipment	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due date
1	Spectrum Analyzer	Rohde & Schwarz	FSP-30	100324	2009-4-21	2010-4-20
2	EMI test receiver	Rohde & Schwarz	ESU40	100109	2009-6-4	2010-6-3
4	Horn Antenna	Rohde & Schwarz	HF906	100284	2009-04-11	2010-04-10
5	Horn Antenna	Rohde & Schwarz	HF906	100285	2009-10-9	2010-10-8
6	ANTENNA	SCHWARZBECK	BBHA9120D	9120D-679	2009-06-04	2010-06-03
7	Ultra broadband antenna	Rohde & Schwarz	HL562	100227	2009-10-09	2010-10-08
8	Atmosphere pressure meter	Shanghai ZhongXuan Electronic Co;Ltd	BY—2003P	--	2009-10-15	2010-10-14
9	CLAMP METER	FLUKE	316	86080010	2009-04-27	2010-04-26
10	Thermo-Hygrometer	ZHICHEN	ZC1-2	01050033	2009-10-21	2010-10-20
11	Digital illuminance meter	TES electrical electronic Corp.	TES-1330A	050602219	2009-10-16	2010-10-15
12	TEMPERATURE& HUMIDITY BOX	KSON	THS-D2C-100	K40723	2008-11-18	2009-11-17
13	High-low temperature cabinet	Shanghai YuanZhen	GW2050	--	2009-6-27	2010-6-26
14	DC power	KIKUSUI	PMC35—3	NF100260	2010-1-16	2011-1-15
15	Power meter	Rohde & Schwarz	NRP	101641	2009-5-5	2010-5-4
16	UNIVERSAL RADIO COMMUNICATION TESTER	Rohde & Schwarz	CMU 200	105964	2009-04-14	2010-04-13
17	UNIVERSAL RADIO COMMUNICATION TESTER	Rohde & Schwarz	CMU 200	112012	2009-08-25	2010-08-24
18	Tunable Notch Filter	WRCT800.0/880.0-0.2/40-5SSK	Wainwright instruments GmbH	9	2010-1-27	2011-1-26

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms_and_conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms_e-document.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only

**SGS-CSTC Standards
Technical Services
(Shanghai)Co., Ltd.**

ReportNo.: SHEMO09100117302

Page: 7 of 99

19	Tunable Notch Filter	WRCT1800.0/2000 .0-0.2/40-5SSK	Wainwright instruments GmbH	11	2010-1-27	2011-1-26
20	Band Reject Filter	WRCG 824/849- 814/859-40/8SS	Amiden,Ireland	1	2010-1-27	2011-1-26
21	Band Reject Filter	WRCG 1850/1910- 1835/1925-40/8SS	Amiden,Ireland	13	2010-1-27	2011-1-26

AC Conducted Measuring Equipment

Item	Test Equipment	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due date
1	EMI test receiver	Rohde & Schwarz	ESCS30	100086	2009-6-4	2010-6-3
2	Line impedance stabilization network	SCHWARZBECK	NSLK8127	8127-490	2009-5-8	2010-5-7

6 Test Results

6.1 E.U.T. test conditions

Power supply:	DC 3.8 V
Operating Environment:	
Temperature:	20.0 -25.0 °C
Humidity:	38-48 % RH
Atmospheric Pressure:	992 -1006 mbar

6.2 RF Power Output

Test Requirement:

Part 2.1046

Part 22.913(a) Mobile station are limited to 7W

Part 24.232(d) peak Power measurement, FCC 24.232(c) Maximum Power reduction 3GPP Power Limitation for HSDPA and HSUPA

Part 27.50(d)(2) Fixed, mobile, and portable (hand-held) stations operating in 1710-1755MHz

RSS 132.4.4 The maximum EIRP shall be 11.5 watts for mobile stations.

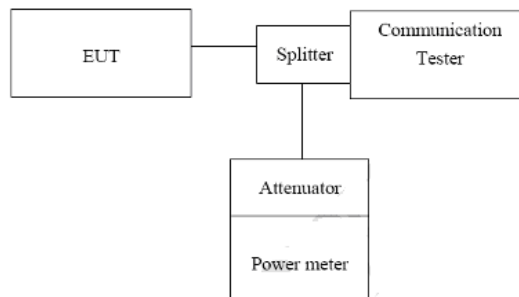
RSS 133.6.4 Mobile stations and hand-held portables are limited to 2 watts maximum e.i.r.p.

RSS 139.6.4 The average equivalent isotropically radiated power (e.i.r.p.) for fixed, mobile and portable transmitters in the 1710-1755 MHz shall not exceed 1 watt.

Maximum Output Powers With HSDPA for test:

Sub-test	Power Class 3		Power Class 4	
	Power (dBm)	Tol (dB)	Power (dBm)	Tol (dB)
1	+24	+1.7/-3.7	+21	+2.7/-2.7
2	+24	+1.7/-3.7	+21	+2.7/-2.7
3	+23	+2.7/-3.7	+20	+3.7/-2.7
4	+22	+3.7/-3.7	+19	+4.7/-2.7

Test Setup



Measurement Setup for testing on Antenna connector.

Test Date:

Mar 19, 2010

Test Status:

Test lowest, middle, highest channel.

Test Procedure:

The transmitter output was connected to calibrated attenuator, the other end of which was connected to a power meter. Transmitter output was read off the power in dBm. The power output at the transmitter antenna port was determined by adding the value of attenuator to the power meter reading. The procedure of KDB941125 (SAR Measurement Procedures for 3G devices, WCDMA/HSDPA) was used for EUT and Base station setting. RMC 12.2kps is used for testing.

SGS-CSTC Standards
Technical Services
(Shanghai)Co., Ltd.

ReportNo.: SHEMO09100117302
Page: 10 of 99

Measurement Result:

Result:

Mode		GPRS			
Slot (Uplink)		1	2	3	4
Band	Channel	GMSK			
850	128	31.2	29.1	27.7	25.7
	90	31.2	29.2	27.7	25.7
	251	31.4	29.4	27.9	25.9
1900	512	30.2	28.5	27.1	25.6
	661	30.0	28.5	27.1	25.5
	810	29.6	28.1	26.7	25.2

EGPRS							
1		2		3		4	
GMSK	8PSK	GMSK	8PSK	GMSK	8PSK	GMSK	8PSK
31.2	26.9	29.1	25.3	27.7	23.8	25.7	22.8
31.2	27.0	29.2	25.4	27.7	23.9	25.7	22.9
31.4	27.1	29.4	25.5	27.9	24.0	25.9	23.0
30.2	26.8	28.5	25.2	27.1	24.2	25.6	23.2
30.0	26.8	28.5	25.1	27.1	24.1	25.5	23.2
29.6	26.3	28.1	24.9	26.7	23.9	25.2	22.9

SGS-CSTC Standards
Technical Services
(Shanghai)Co., Ltd.

ReportNo.: SHEMO09100117302
Page: 11 of 99

WCDMA Mode;

Mode		WCDMA
Subtests		
Band	Channel	
IV	1312	21.2
	1412	21.4
	1513	21.4
V	4132	22.5
	4182	22.7
	4233	22.5

Mode		HSDPA(Rel 5)			
Subtests		1	2	3	4
Band	Channel				
IV (Category 6)	1312	21.1	21.0	20.2	19.3
	1412	21.3	21.2	20.3	19.4
	1513	21.3	21.2	20.4	19.4
V (Category 6)	4132	22.4	22.3	21.3	20.4
	4182	22.5	22.4	21.4	20.5
	4233	22.3	22.3	21.3	20.3

6.3 Occupied Bandwidth

Test Requirement: Part 2.1049
RSS Gen 4.6;
Test Date: Mar 16,2010
Test Status: Test lowest, middle, highest channel.
Test Procedure:

The EUT output RF connector was connected with a short a cable to the spectrum analyzer, RBW was set to about 1% of emission BW, VBW>=3 times RBW, 99%(or -26dBc) bandwidth bandwidth were measured, the occupied bandwidth is the delta frequency between the two points where the display line intersects the signal trace.

Test result:

EUT Mode	Frequency (MHz)	CH	99% Bandwidth (MHz)
GSM 850 (GMSK)	824.2	128	0.2436
	836.4	189	0.2436
	848.8	251	0.2436

EUT Mode	Frequency (MHz)	CH	99% Bandwidth (MHz)
GSM 850 (8-PSK)	824.2	128	0.2452
	836.4	189	0.2436
	848.8	251	0.2436

EUT Mode	Frequency (MHz)	CH	99% Bandwidth (MHz)
PCS 1900 (GMSK)	1850.2	512	0.2436
	1880.0	661	0.2436
	1909.8	810	0.2436

EUT Mode	Frequency (MHz)	CH	99% Bandwidth (MHz)
PCS 1900 (8-PSK)	1850.2	512	0.2468
	1880.0	661	0.2452
	1909.8	810	0.2452

SGS-CSTC Standards
Technical Services
(Shanghai)Co., Ltd.

ReportNo.: SHEMO09100117302

Page: 13 of 99

EUT Mode	Frequency (MHz)	CH	99% Bandwidth (MHz)
WCDMA IV	1712.4	1312	4.1667
	1732.6	1413	4.1667
	1752.6	1513	4.1988

EUT Mode	Frequency (MHz)	CH	99% Bandwidth (MHz)
WCDMA V	826.4	4132	4.1988
	836	4180	4.1587
	846.6	4233	4.1667

EUT Mode	Frequency (MHz)	CH	99% Bandwidth (MHz)
HSDPA IV	1712.4	1312	4.1747
	1732.6	1413	4.1667
	1752.6	1513	4.1747

EUT Mode	Frequency (MHz)	CH	99% Bandwidth (MHz)
HSDPA V	826.4	4132	4.2068
	836	4180	4.1587
	846.6	4233	4.1587

SGS-CSTC Standards
Technical Services
(Shanghai)Co., Ltd.

ReportNo.: SHEMO09100117302
Page: 14 of 99

26dB Bandwidth

EUT Mode	Frequency (MHz)	CH	26dB Bandwidth (MHz)
GSM 850 (GMSK)	824.2	128	0.3190
	836.4	189	0.3141
	848.8	251	0.3190

EUT Mode	Frequency (MHz)	CH	26dB Bandwidth (MHz)
GSM 850 (8-PSK)	824.2	128	0.3141
	836.4	189	0.3157
	848.8	251	0.3141

EUT Mode	Frequency (MHz)	CH	26dB Bandwidth (MHz)
PCS 1900 (GMSK)	1850.2	512	0.3238
	1880.0	661	0.3173
	1909.8	810	0.3173

EUT Mode	Frequency (MHz)	CH	26dB Bandwidth (MHz)
PCS 1900 (8-PSK)	1850.2	512	0.3125
	1880.0	661	0.3141
	1909.8	810	0.3109

EUT Mode	Frequency (MHz)	CH	26dB Bandwidth (MHz)
WCDMA IV	1712.4	1312	4.6395
	1732.6	1413	4.6475
	1752.6	1513	4.6395

**SGS-CSTC Standards
Technical Services
(Shanghai)Co., Ltd.**

ReportNo.: SHEMO09100117302

Page: 15 of 99

EUT Mode	Frequency (MHz)	CH	26dB Bandwidth (MHz)
WCDMA V	826.4	4132	4.6395
	836	4180	4.6315
	846.6	4233	4.6315

EUT Mode	Frequency (MHz)	CH	26dB Bandwidth (MHz)
HSDPA IV	1712.4	1312	4.6234
	1732.6	1413	4.6315
	1752.6	1513	4.6555

EUT Mode	Frequency (MHz)	CH	26dB Bandwidth (MHz)
HSDPA V	826.4	4132	4.6555
	836	4180	4.6395
	846.6	4233	4.6234

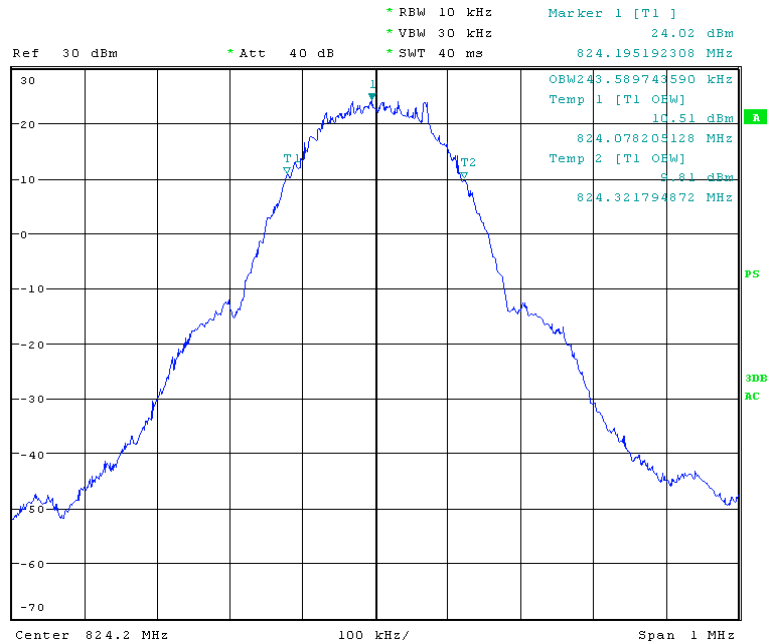
SGS-CSTC Standards
Technical Services
(Shanghai)Co., Ltd.

ReportNo.: SHEMO09100117302
Page: 16 of 99

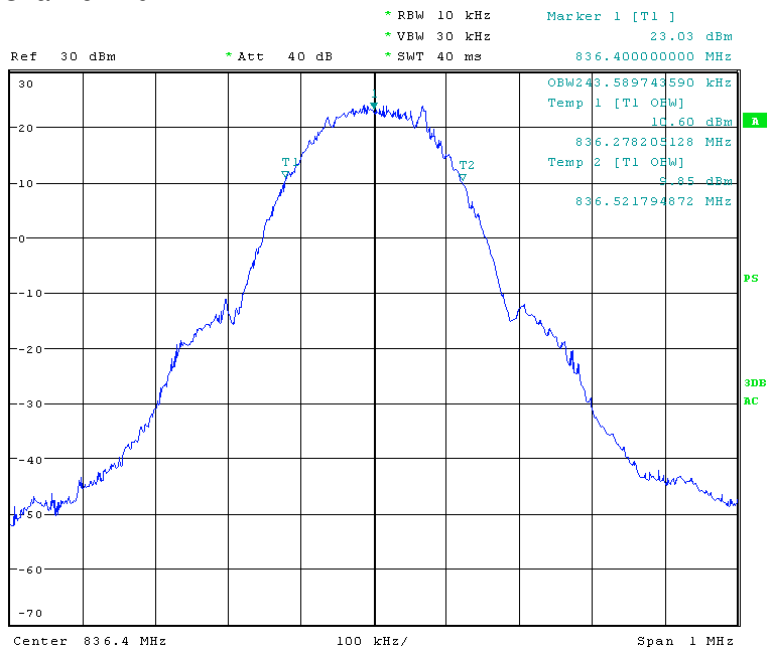
99% Bandwidth

GSM 850 GMSK

Channel Low



Channel Mid

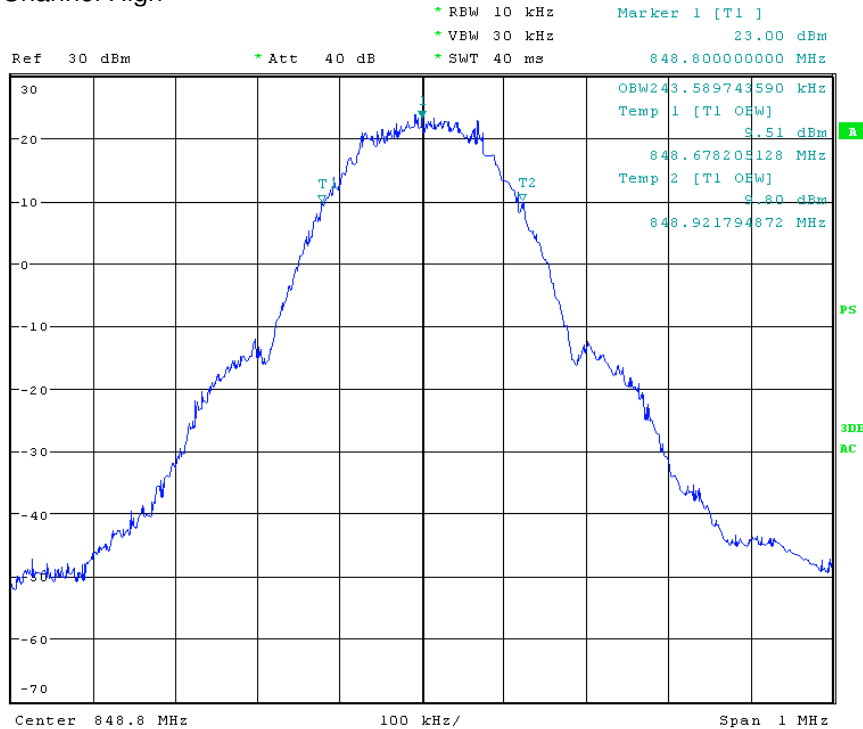


SGS-CSTC Standards
Technical Services
(Shanghai)Co., Ltd.

ReportNo.: SHEMO09100117302

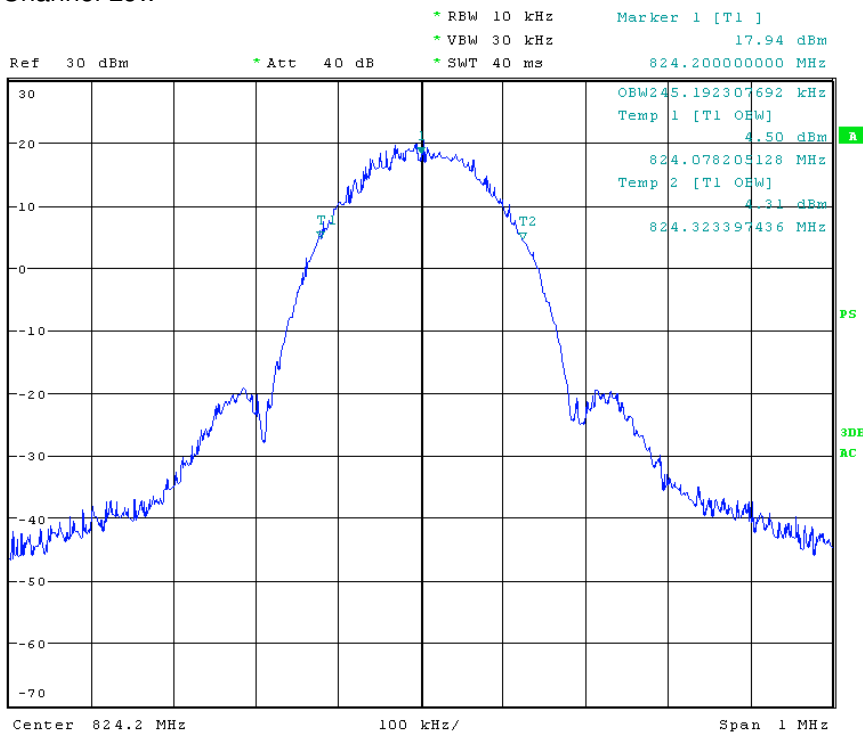
Page: 17 of 99

Channel High



GSM 850 8-PSK

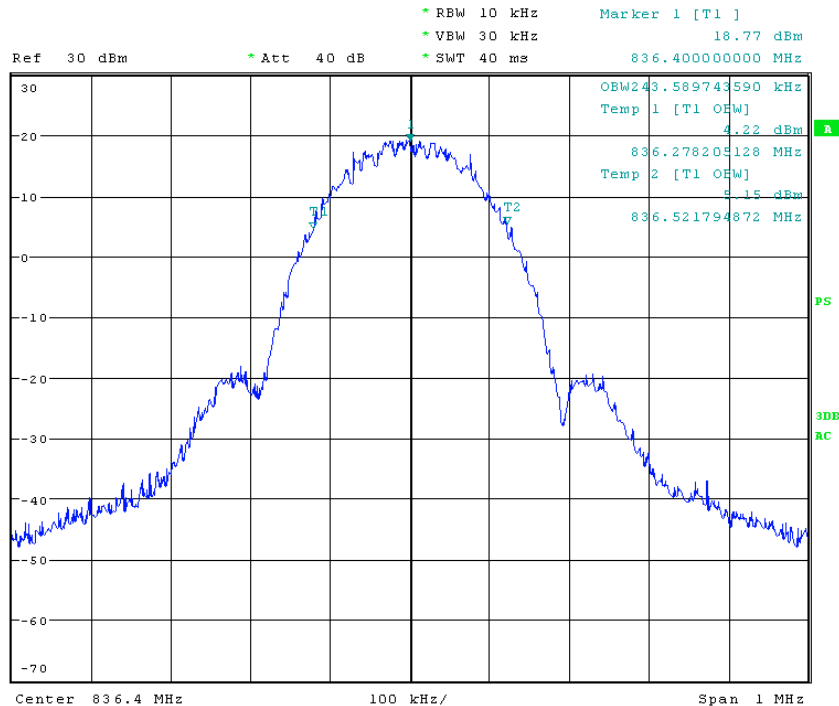
Channel Low



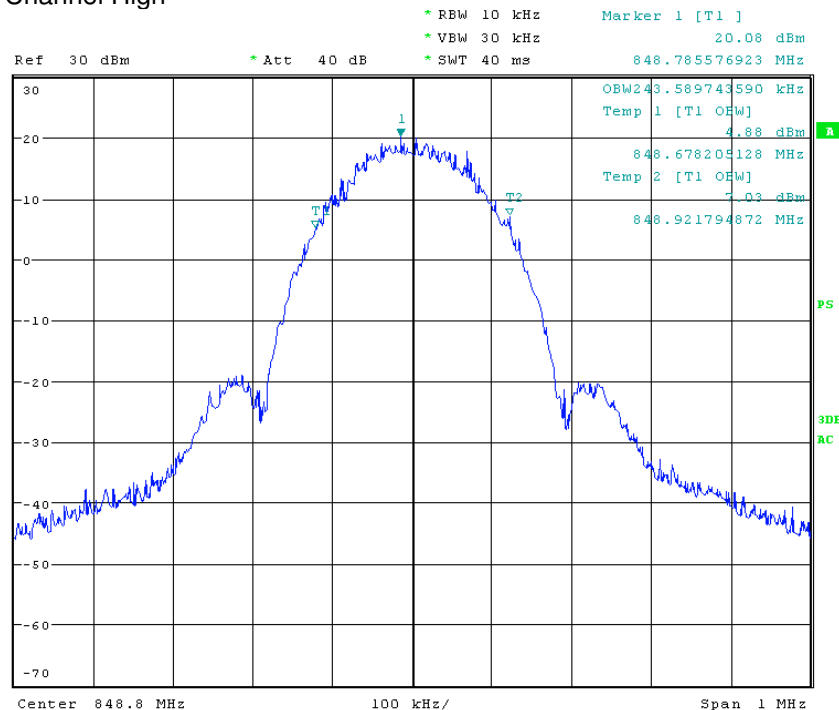
SGS-CSTC Standards
Technical Services
(Shanghai)Co., Ltd.

ReportNo.: SHEMO09100117302
Page: 18 of 99

Channel Mid



Channel High

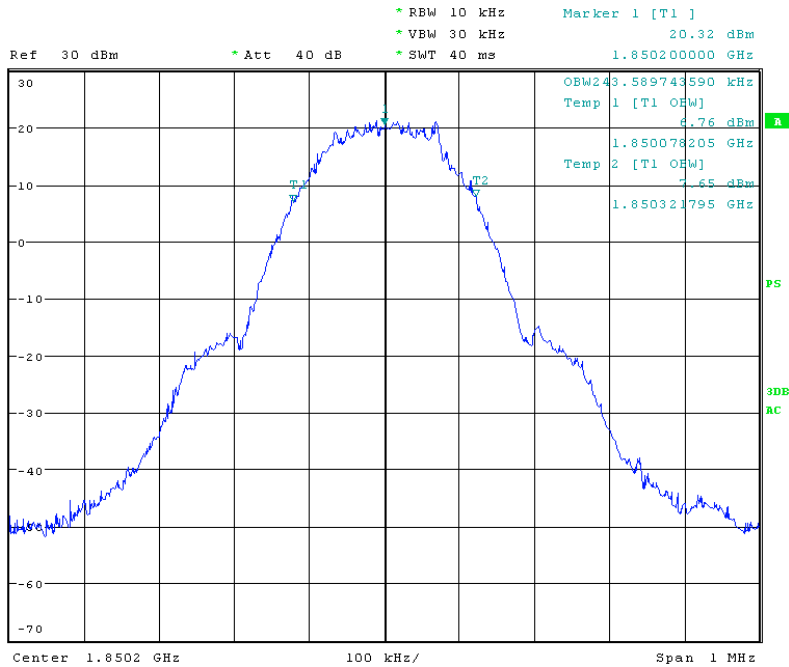


SGS-CSTC Standards
Technical Services
(Shanghai)Co., Ltd.

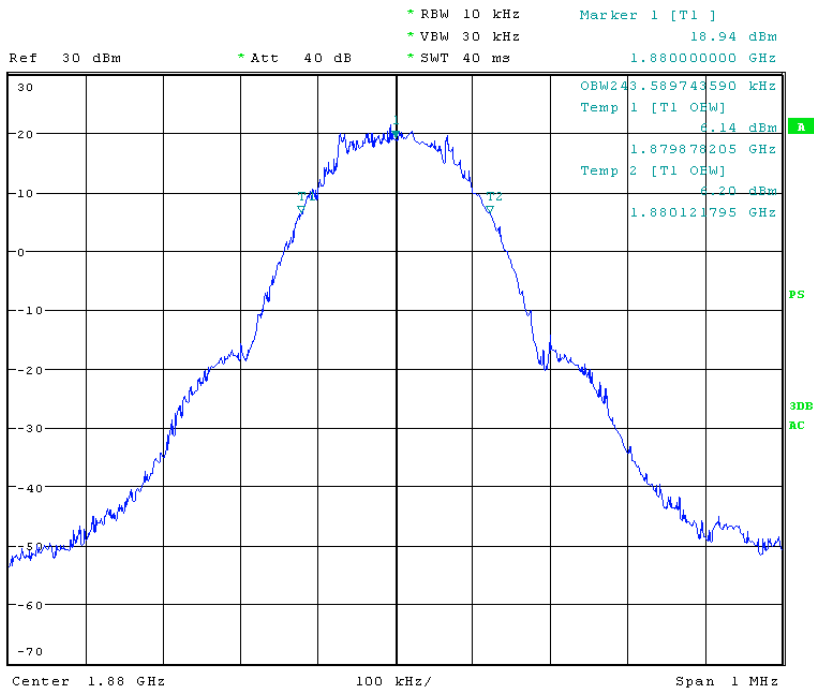
ReportNo.: SHEMO09100117302
Page: 19 of 99

PCS 1900 GMSK

Channel Low



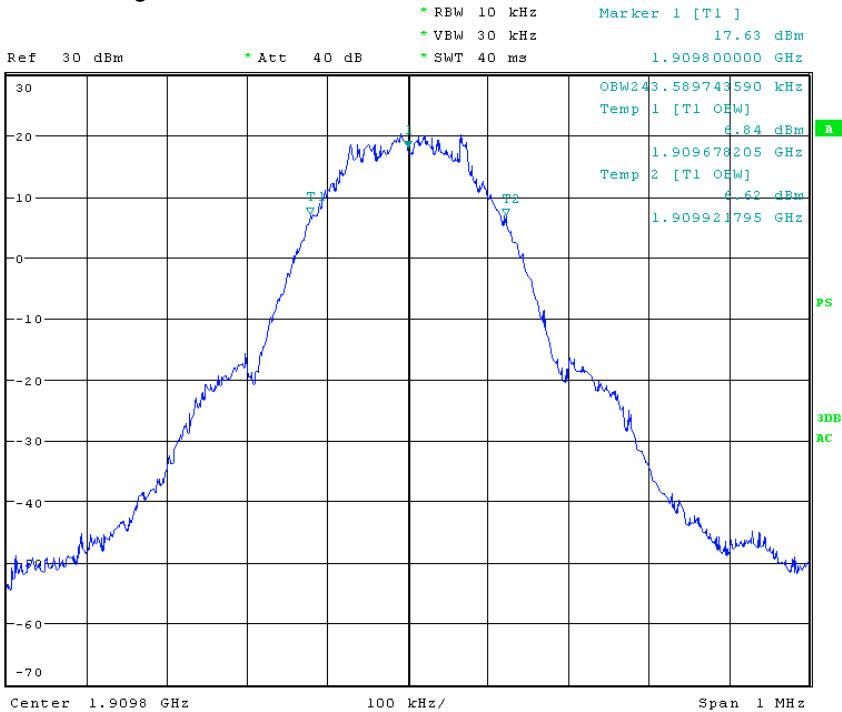
Channel Mid



SGS-CSTC Standards
Technical Services
(Shanghai)Co., Ltd.

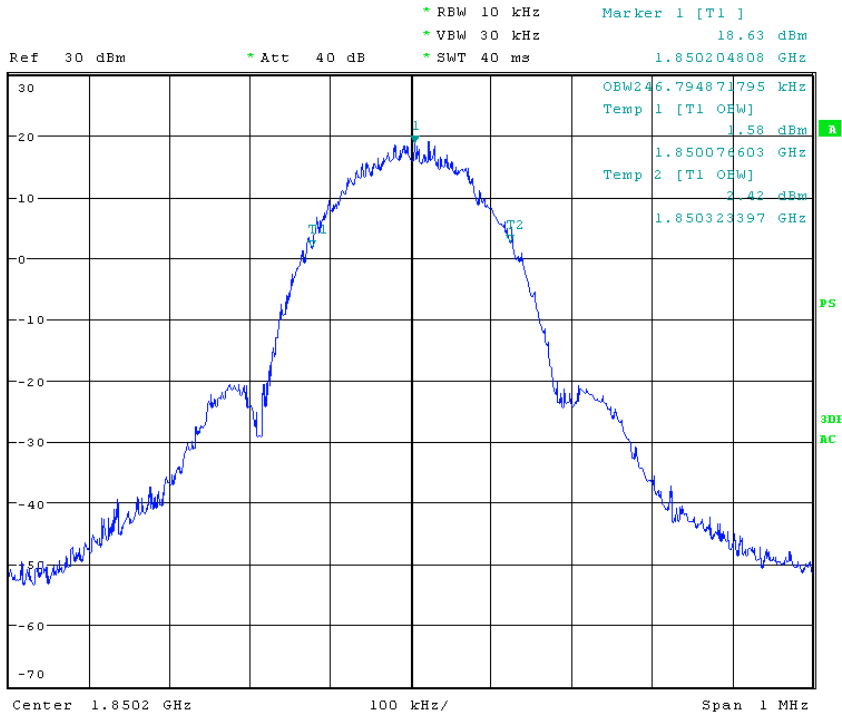
ReportNo.: SHEMO09100117302
Page: 20 of 99

Channel High



PCS 1900 8-PSK

Channel Low

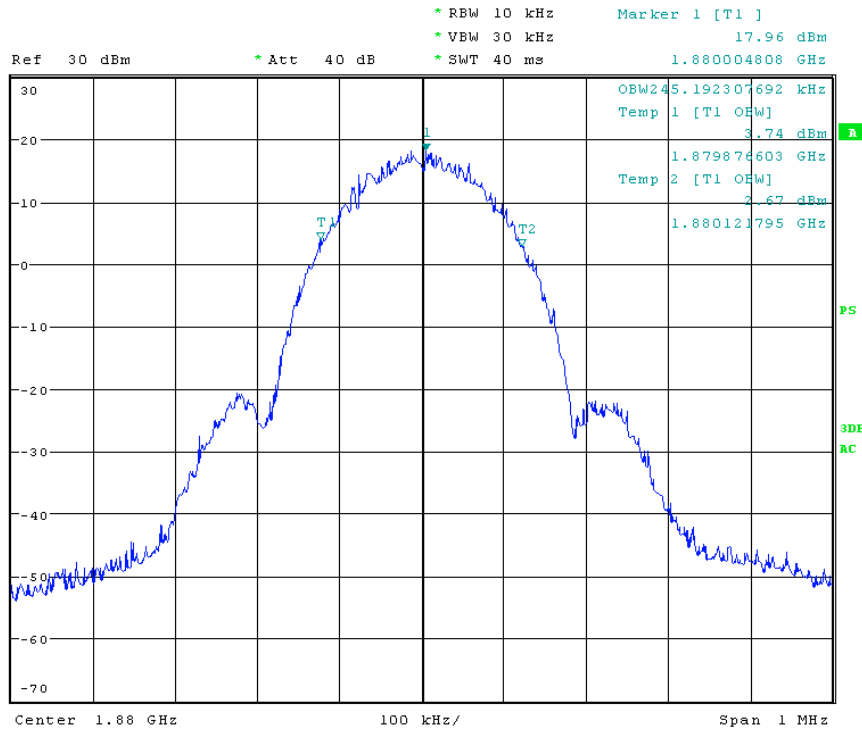


SGS-CSTC Standards
Technical Services
(Shanghai)Co., Ltd.

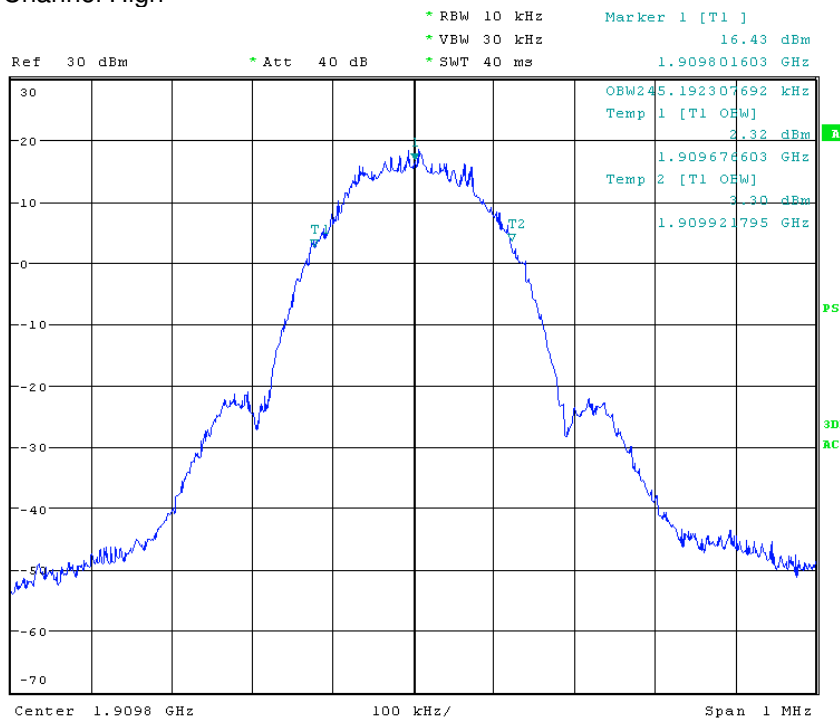
ReportNo.: SHEMO09100117302

Page: 21 of 99

Channel Mid



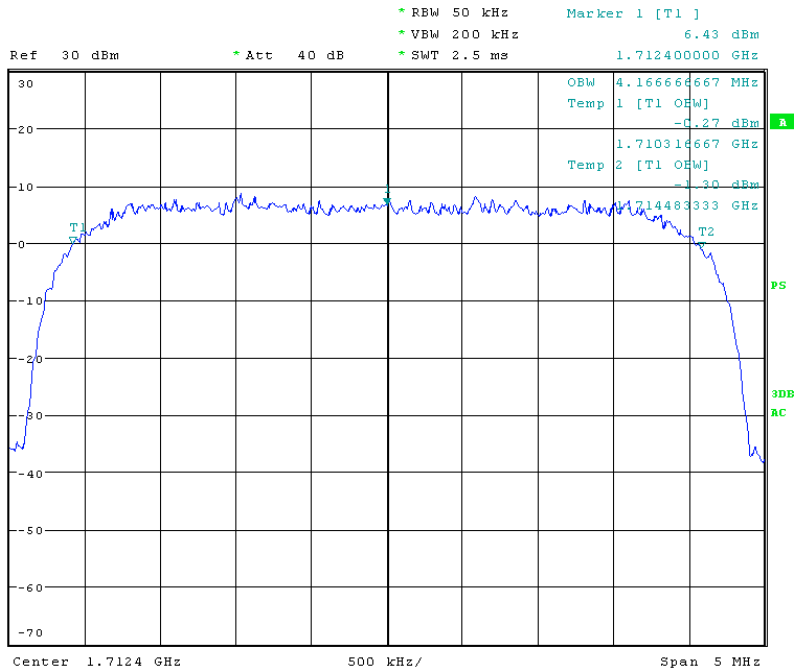
Channel High



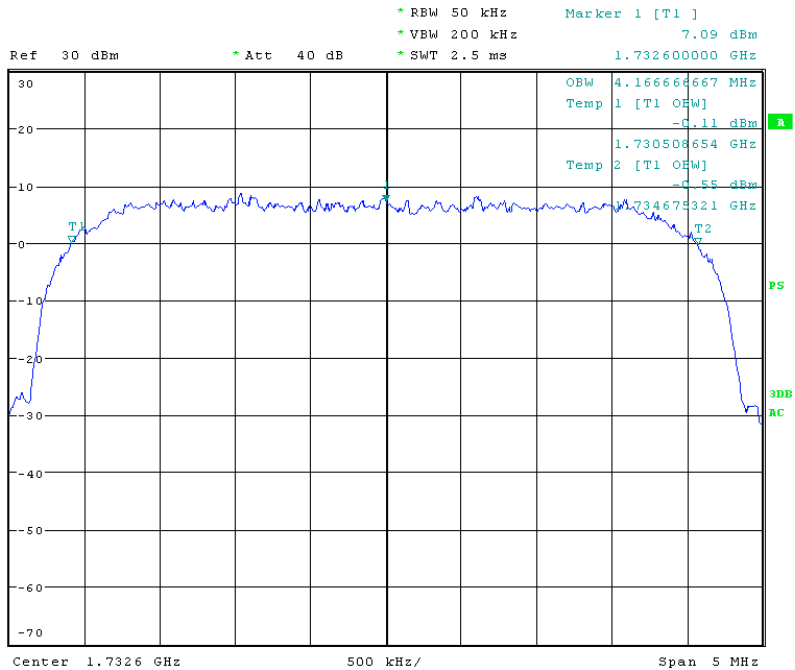
SGS-CSTC Standards
Technical Services
(Shanghai)Co., Ltd.

ReportNo.: SHEMO09100117302
Page: 22 of 99

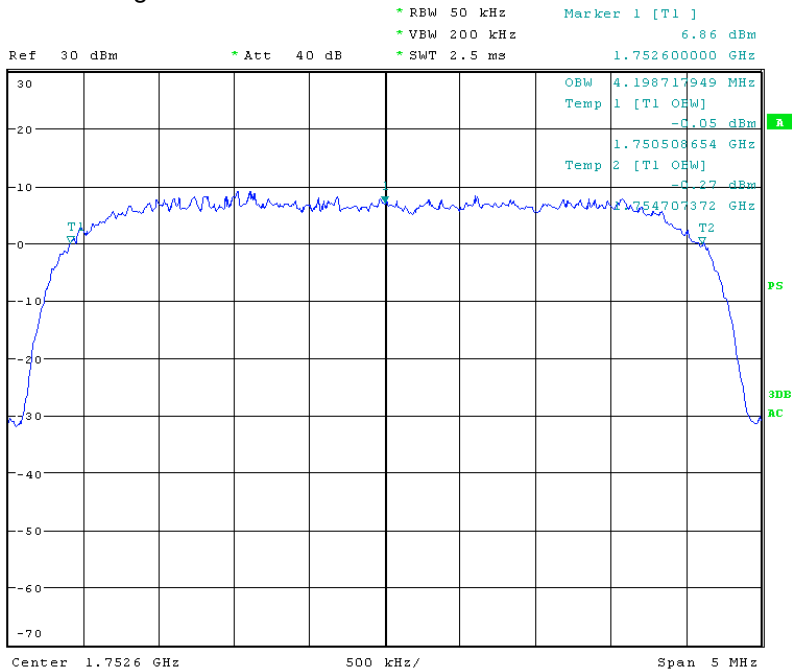
WCDMA IV
Channel Low



Channel Mid

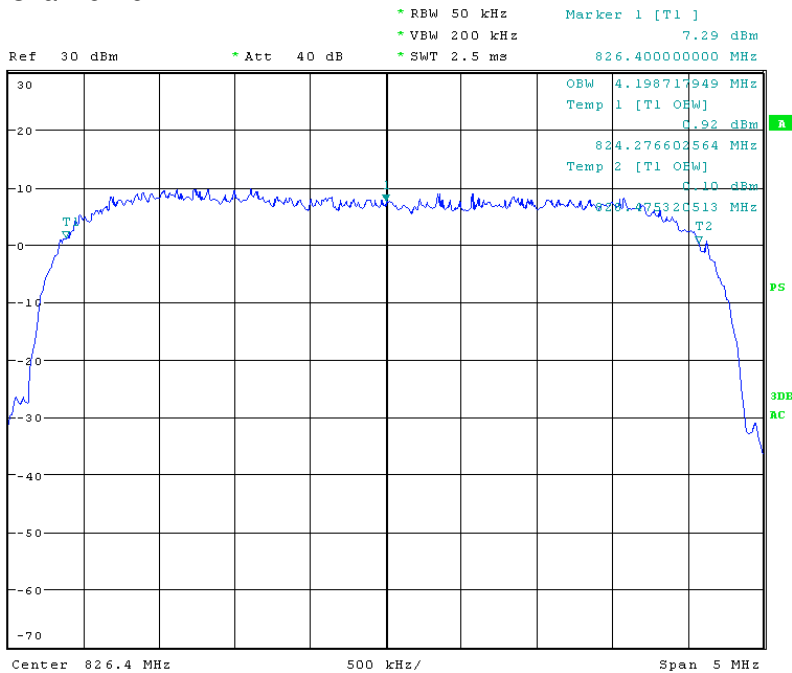


Channel High



WCDMA V

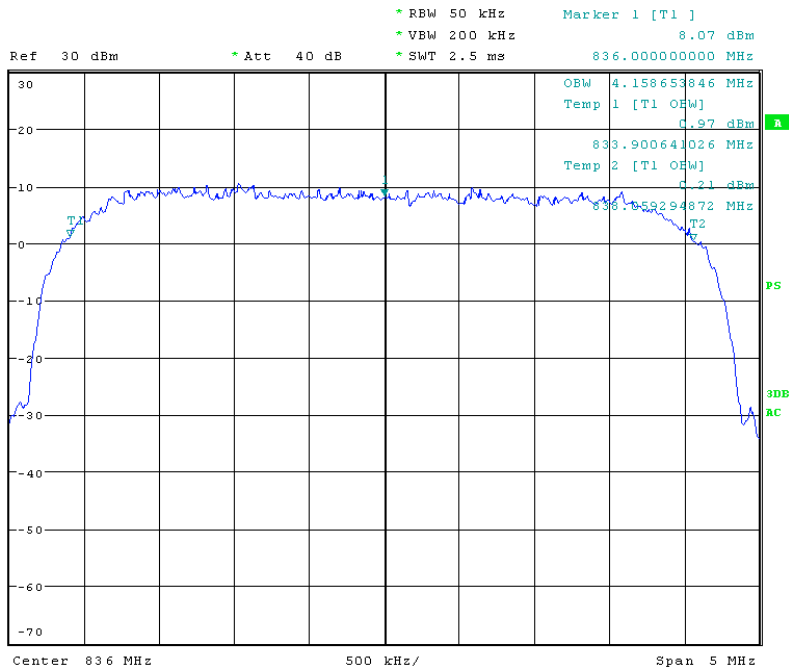
Channel Low



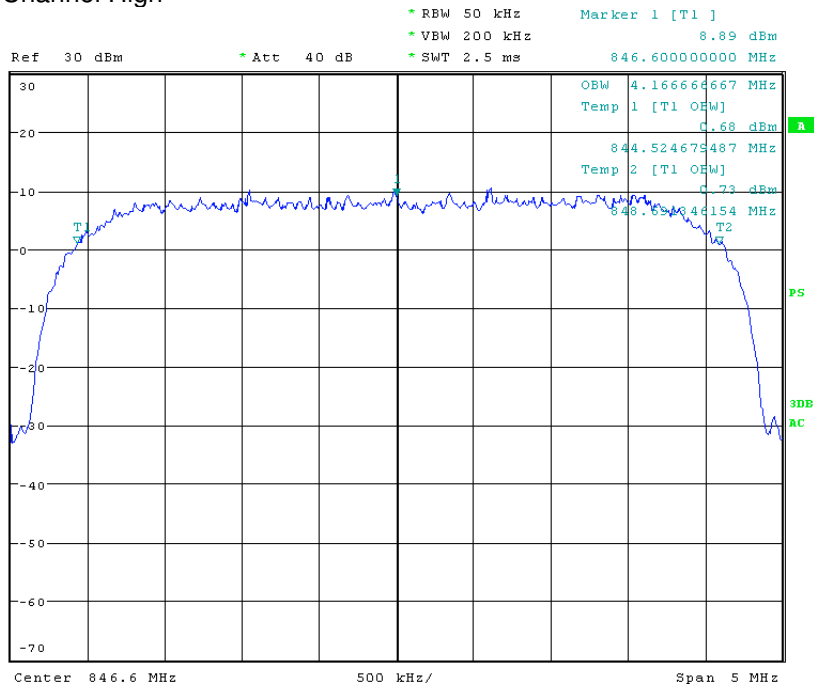
SGS-CSTC Standards
Technical Services
(Shanghai)Co., Ltd.

ReportNo.: SHEMO09100117302
Page: 24 of 99

Channel Mid



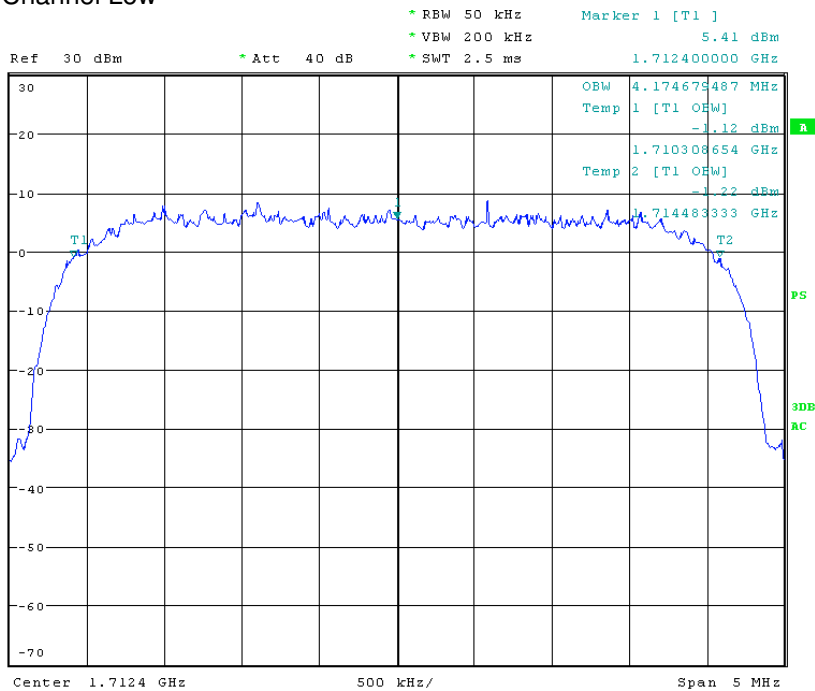
Channel High



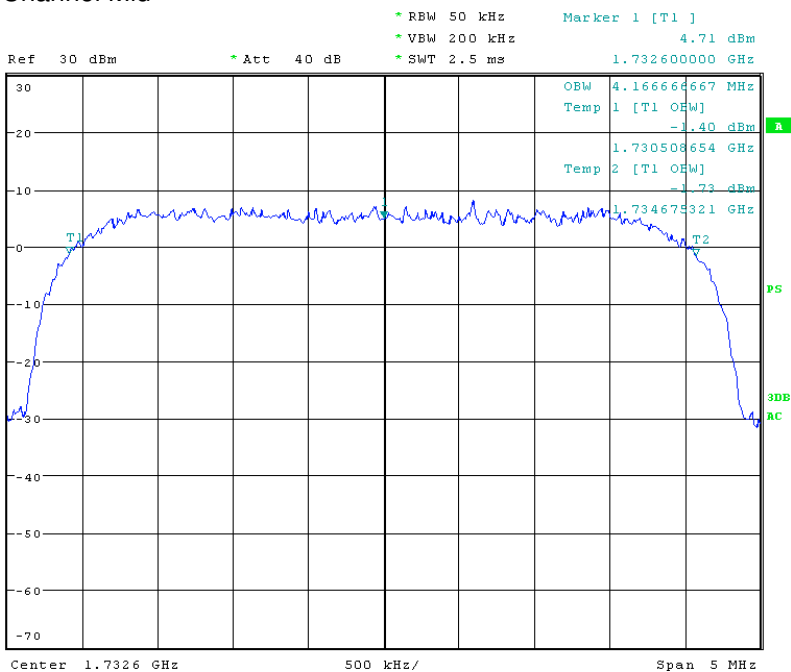
SGS-CSTC Standards
Technical Services
(Shanghai)Co., Ltd.

ReportNo.: SHEMO09100117302
Page: 25 of 99

HSDPA IV
Channel Low



Channel Mid

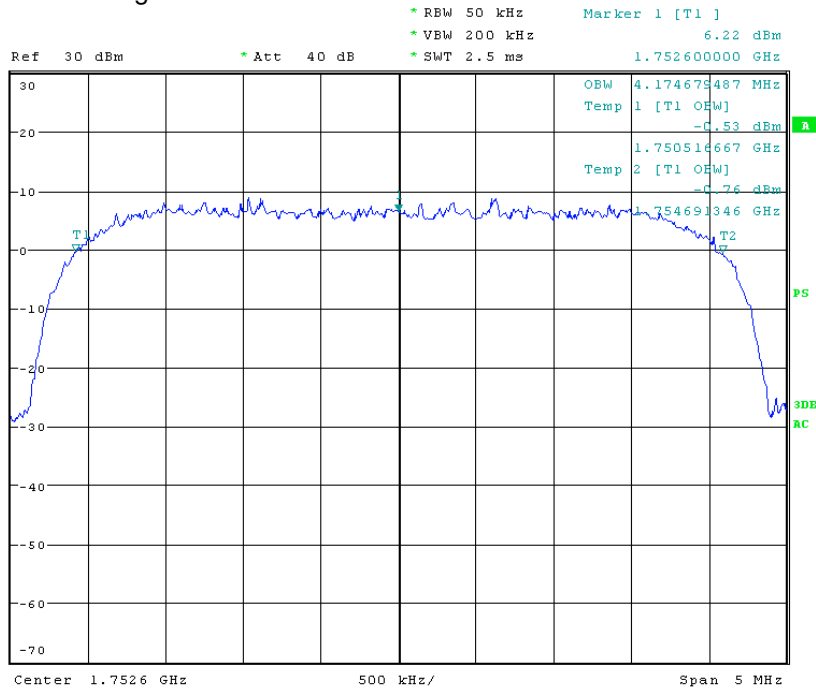


SGS-CSTC Standards
Technical Services
(Shanghai)Co., Ltd.

ReportNo.: SHEMO09100117302

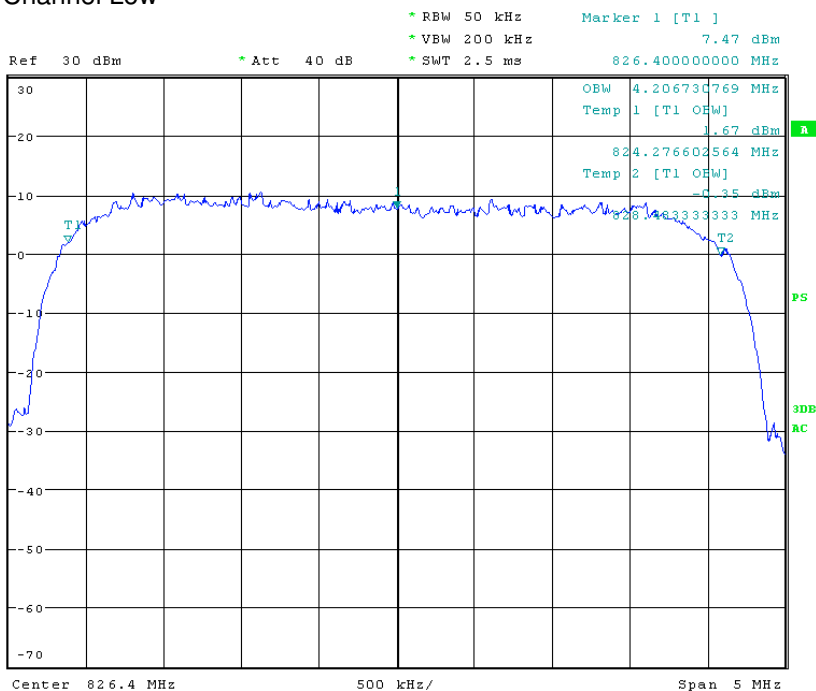
Page: 26 of 99

Channel High



HSDPA V

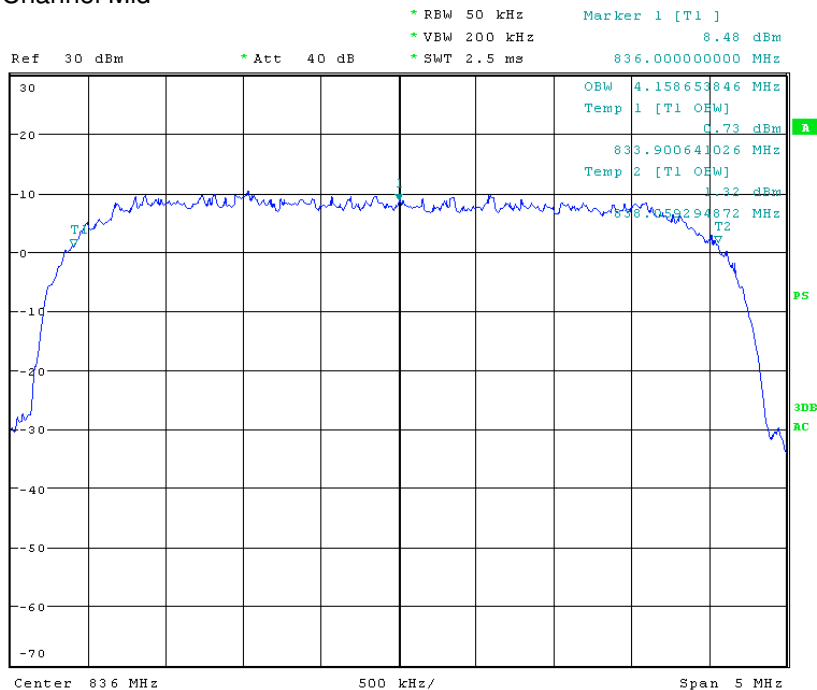
Channel Low



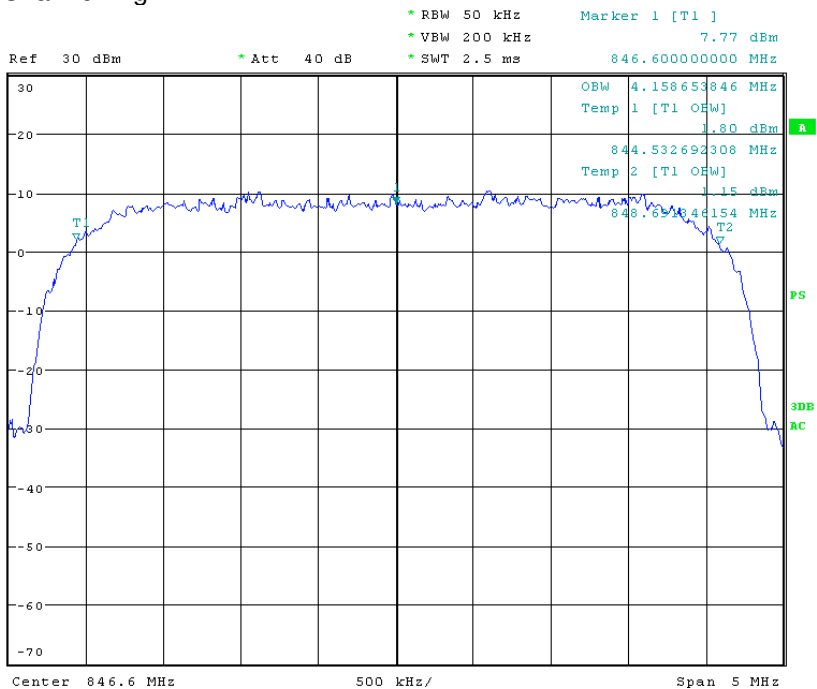
SGS-CSTC Standards
Technical Services
(Shanghai)Co., Ltd.

ReportNo.: SHEMO09100117302
Page: 27 of 99

Channel Mid



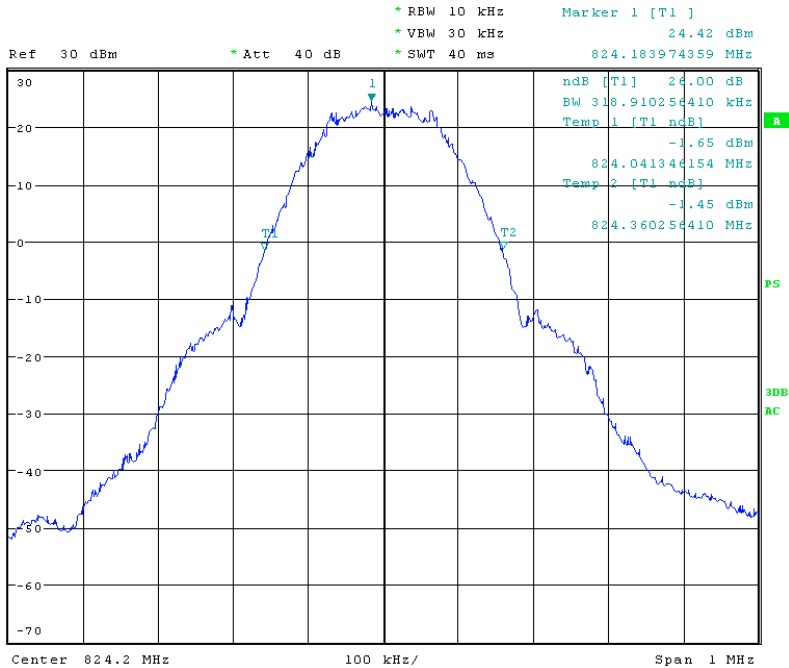
Channel High



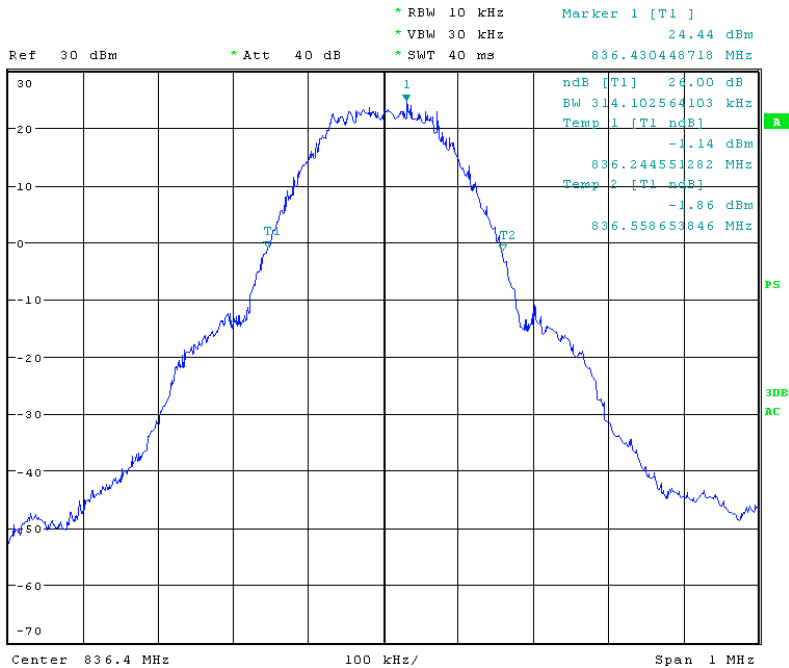
SGS-CSTC Standards
Technical Services
(Shanghai)Co., Ltd.

ReportNo.: SHEMO09100117302
Page: 28 of 99

26dB Bandwidth
GSM 850 GMSK
Channel Low



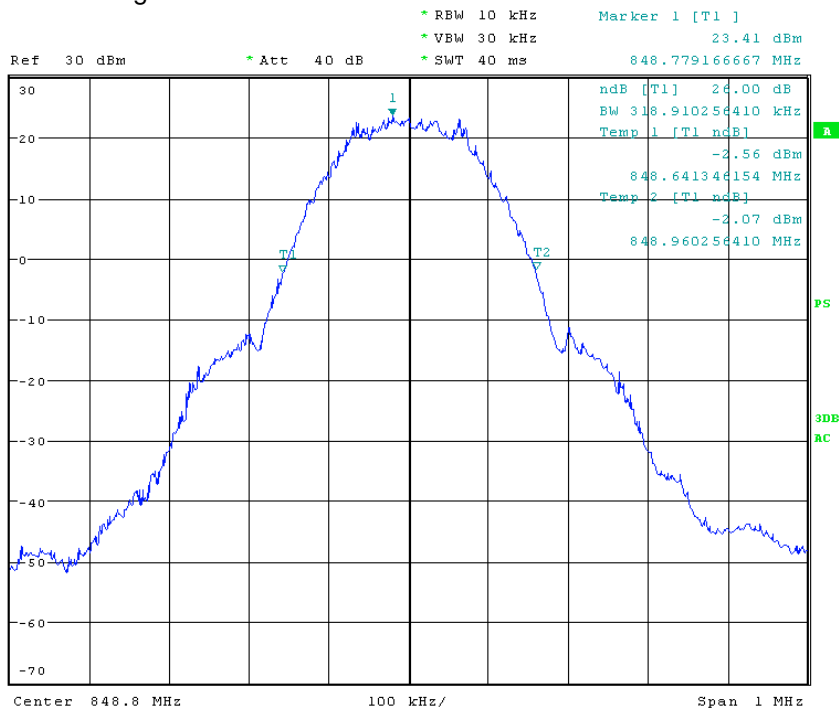
Channel Mid



SGS-CSTC Standards
Technical Services
(Shanghai)Co., Ltd.

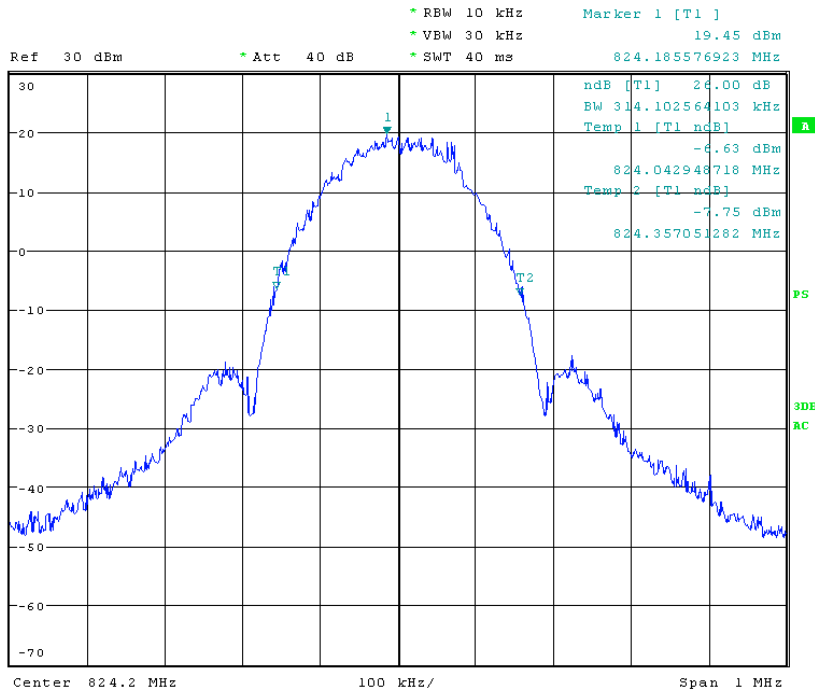
ReportNo.: SHEMO09100117302
Page: 29 of 99

Channel High



GSM850 8-PSK

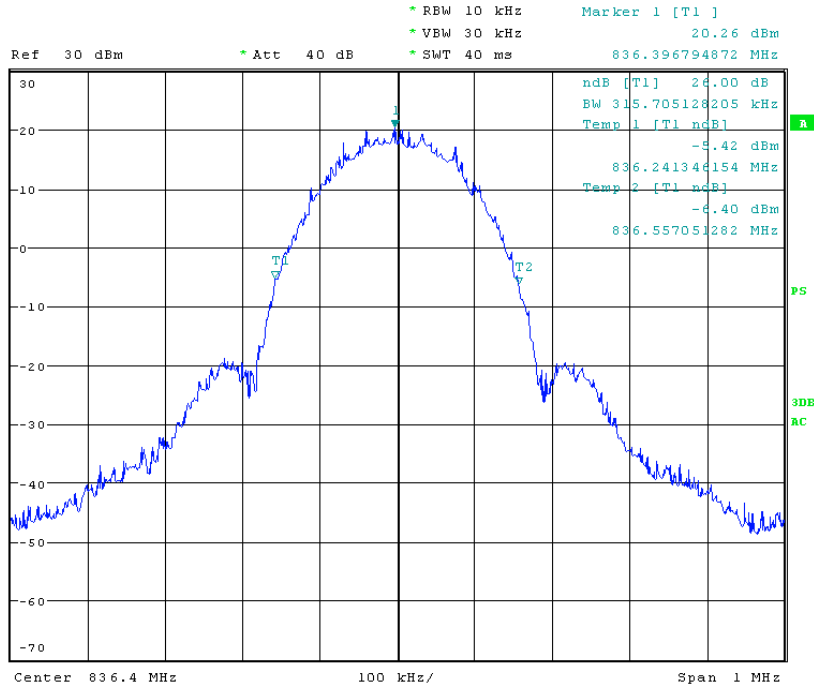
Channel Low



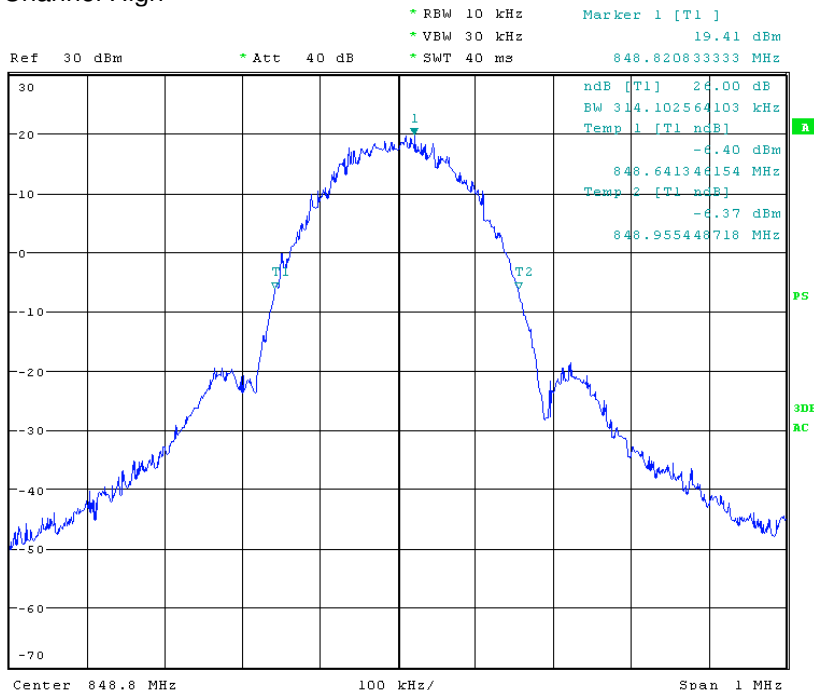
SGS-CSTC Standards
Technical Services
(Shanghai)Co., Ltd.

ReportNo.: SHEMO09100117302
Page: 30 of 99

Channel Mid



Channel High

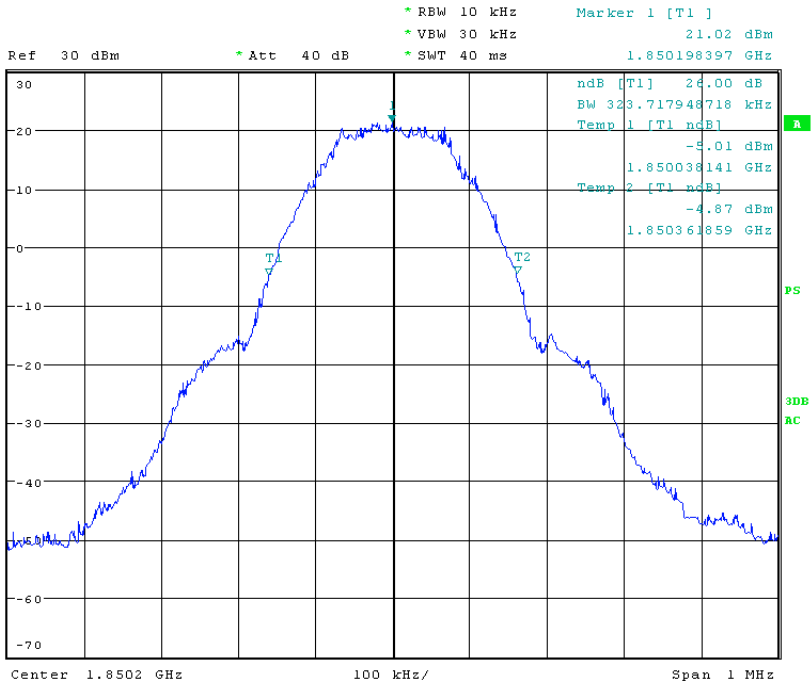


SGS-CSTC Standards
Technical Services
(Shanghai)Co., Ltd.

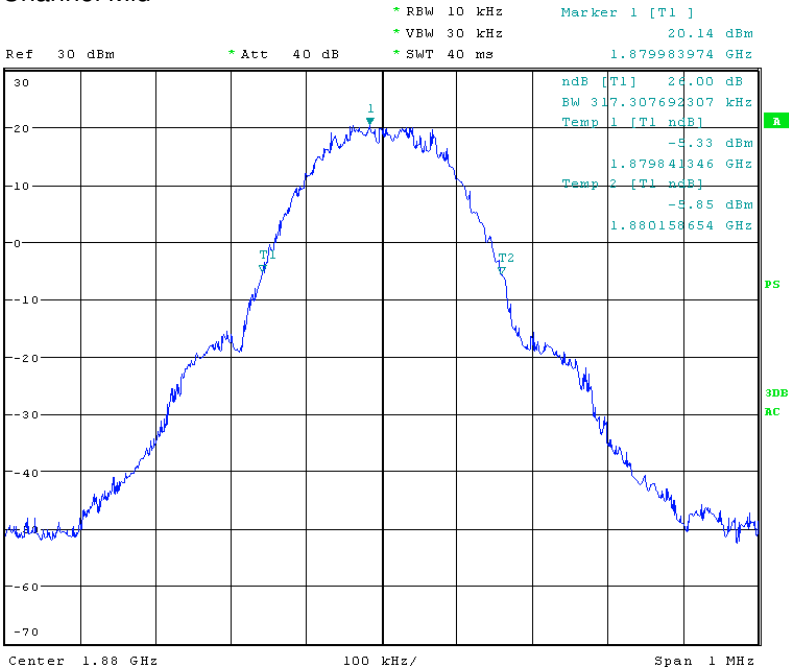
ReportNo.: SHEMO09100117302
Page: 31 of 99

PCS 1900 GMSK

Channel Low



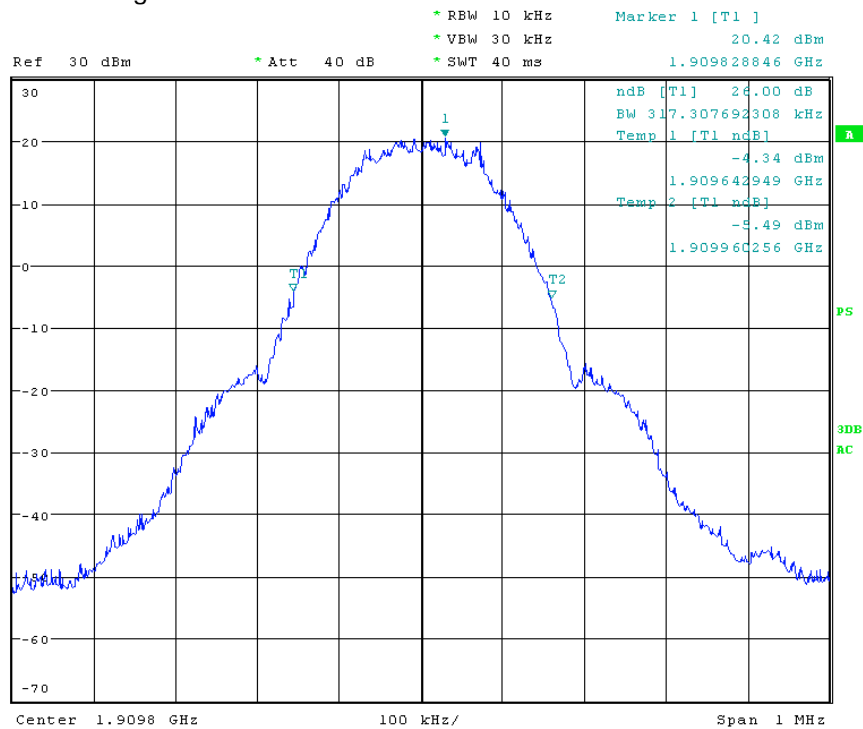
Channel Mid



SGS-CSTC Standards
Technical Services
(Shanghai)Co., Ltd.

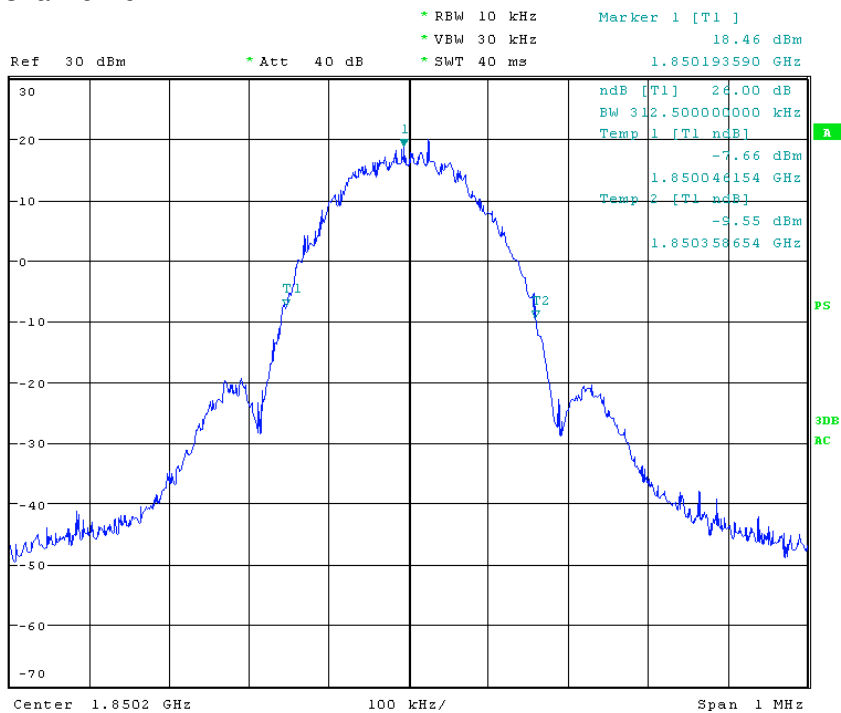
ReportNo.: SHEMO09100117302
Page: 32 of 99

Channel High



PCS 1900 8-PSK

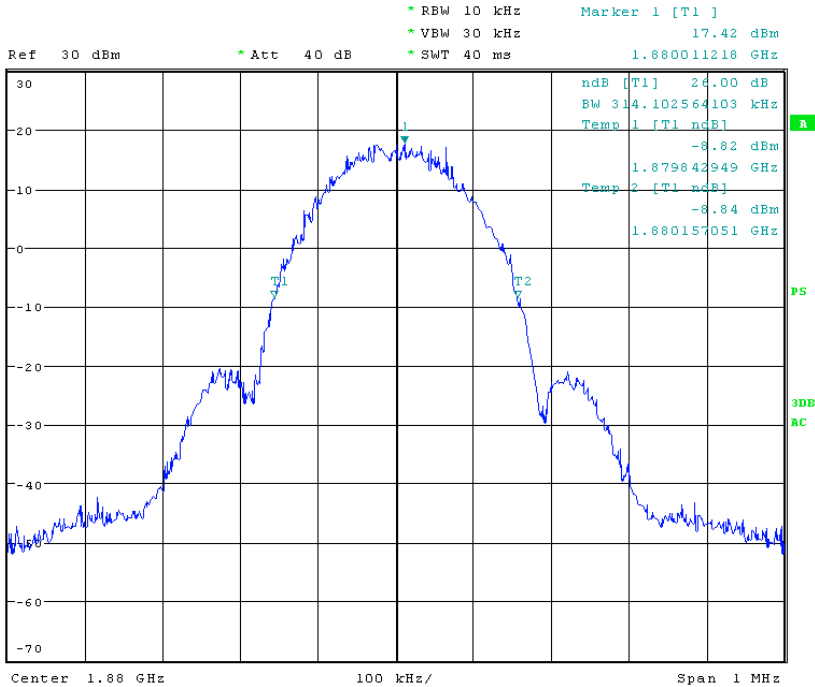
Channel Low



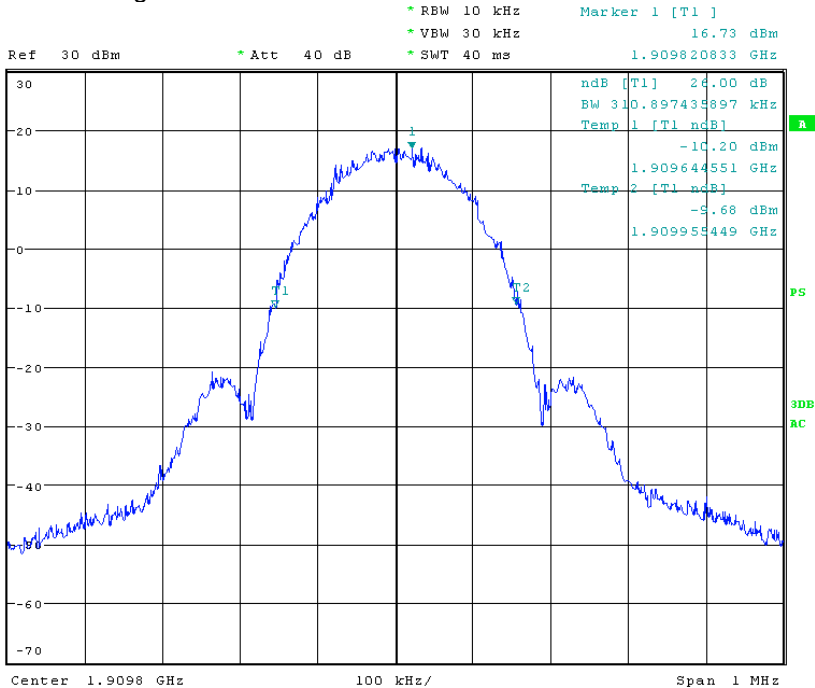
SGS-CSTC Standards
Technical Services
(Shanghai)Co., Ltd.

ReportNo.: SHEMO09100117302
Page: 33 of 99

Channel Mid



Channel High

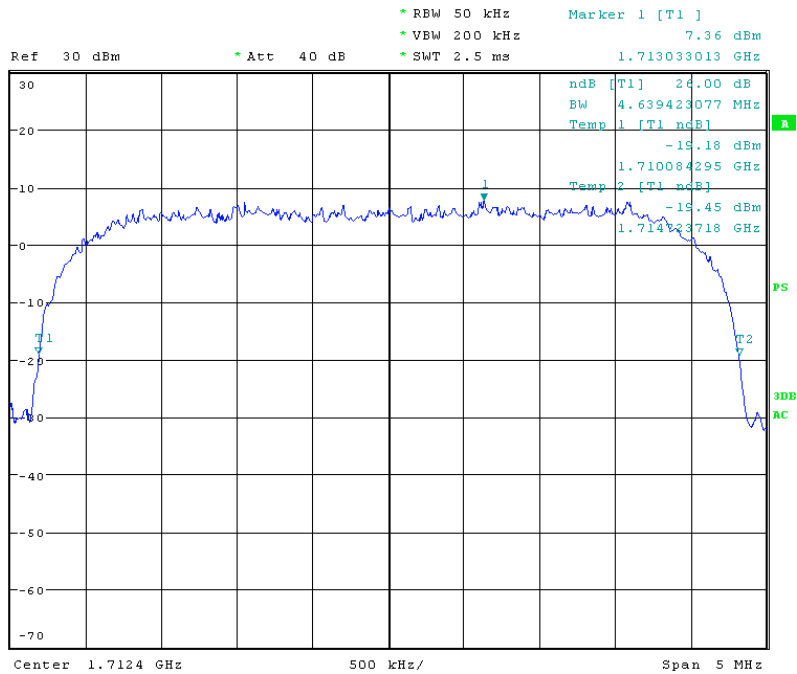


SGS-CSTC Standards
Technical Services
(Shanghai)Co., Ltd.

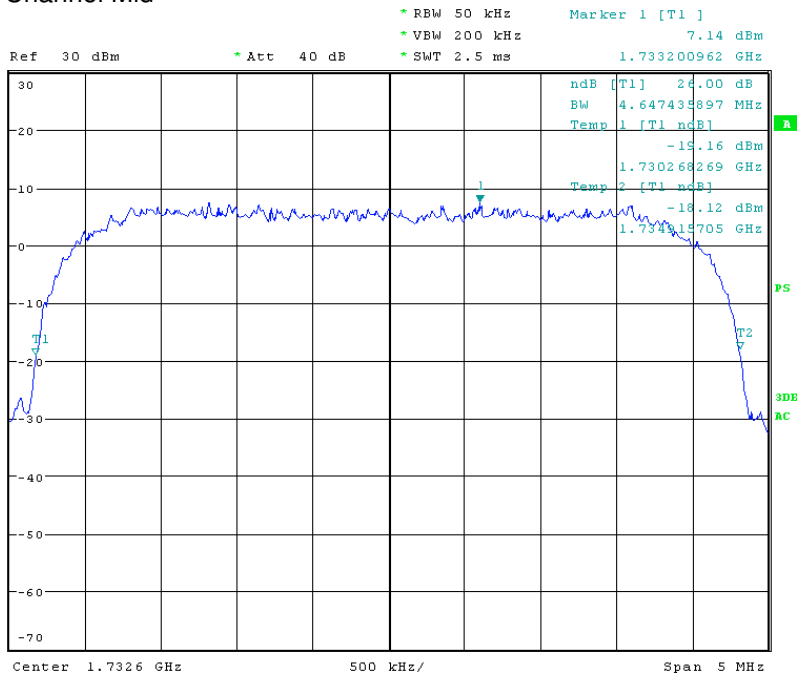
ReportNo.: SHEMO09100117302
Page: 34 of 99

WCDMA IV

Channel Low



Channel Mid

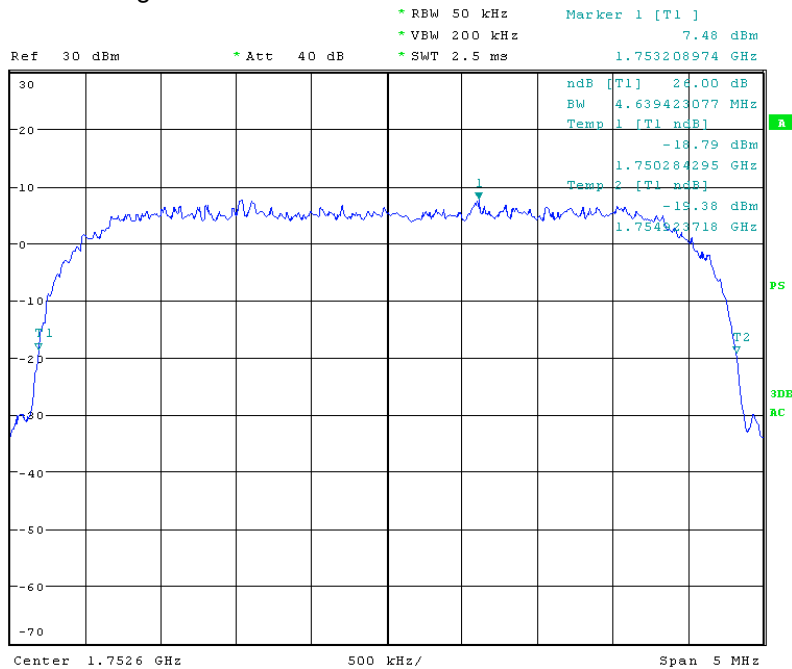


SGS-CSTC Standards
Technical Services
(Shanghai)Co., Ltd.

ReportNo.: SHEMO09100117302

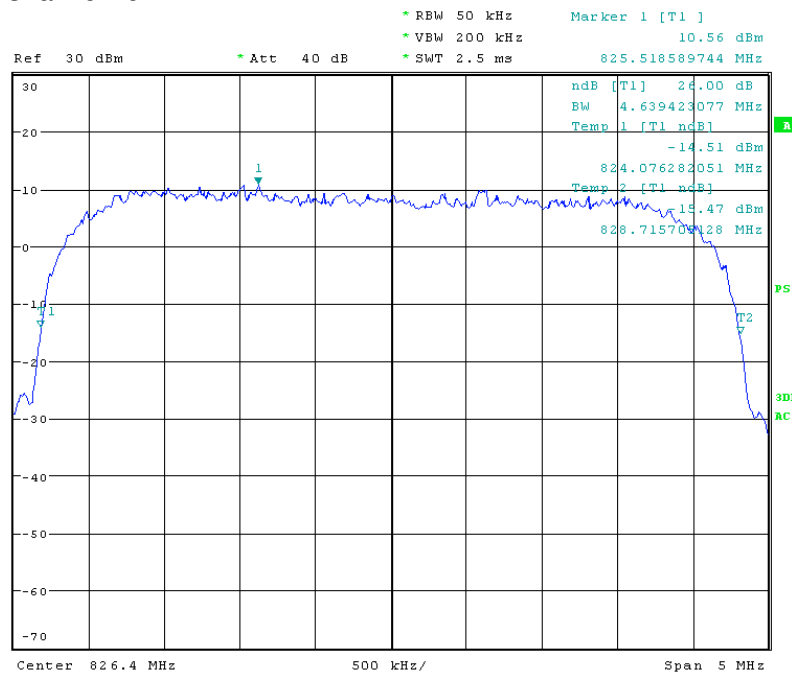
Page: 35 of 99

Channel High



WCDMA V

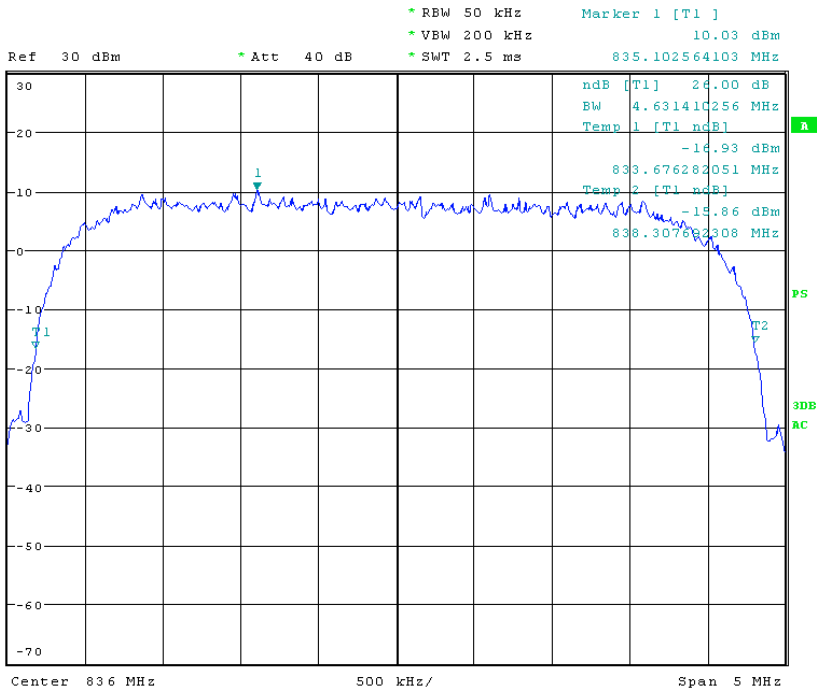
Channel Low



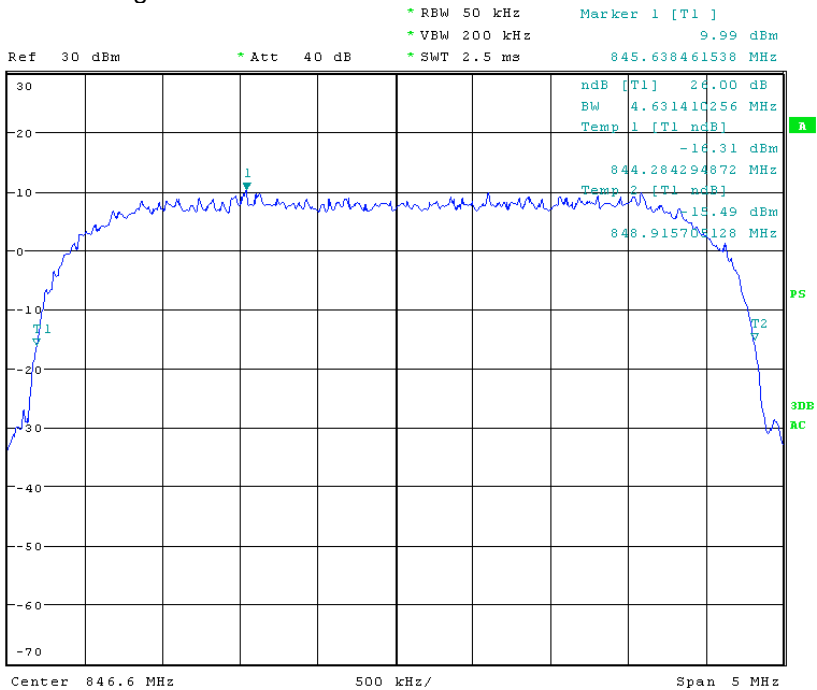
SGS-CSTC Standards
Technical Services
(Shanghai)Co., Ltd.

ReportNo.: SHEMO09100117302
Page: 36 of 99

Channel Mid



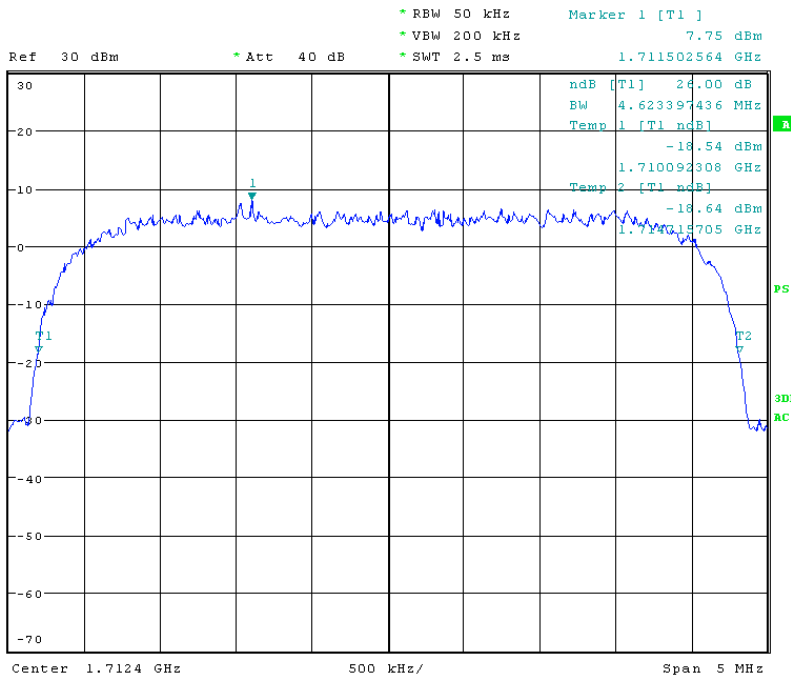
Channel High



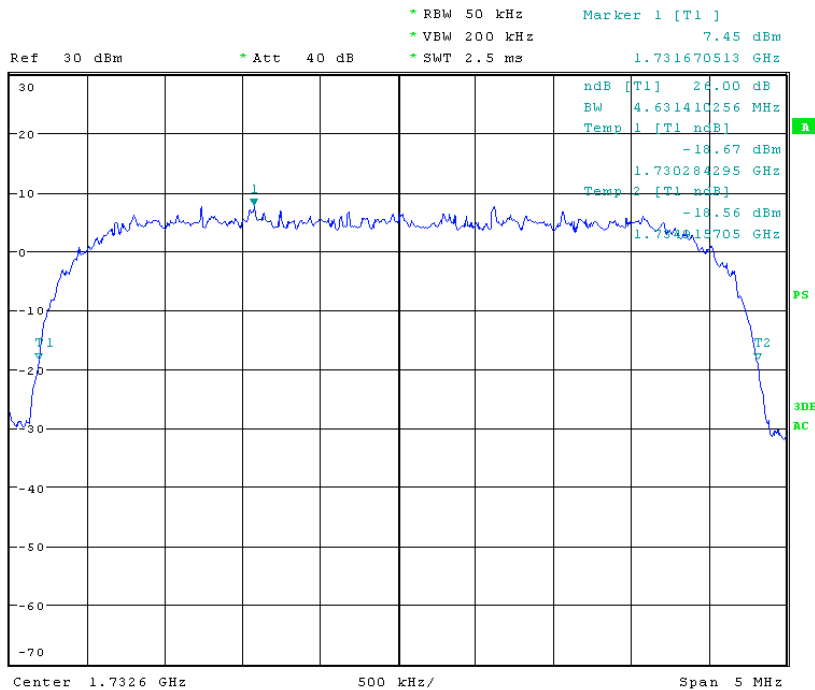
SGS-CSTC Standards
Technical Services
(Shanghai)Co., Ltd.

ReportNo.: SHEMO09100117302
Page: 37 of 99

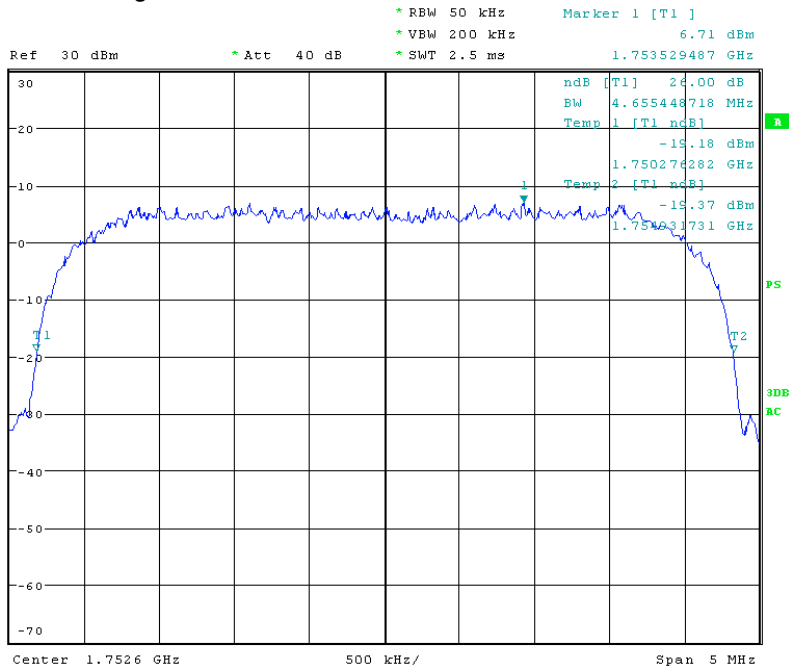
HSDPA IV
Channel Low



Channel Mid

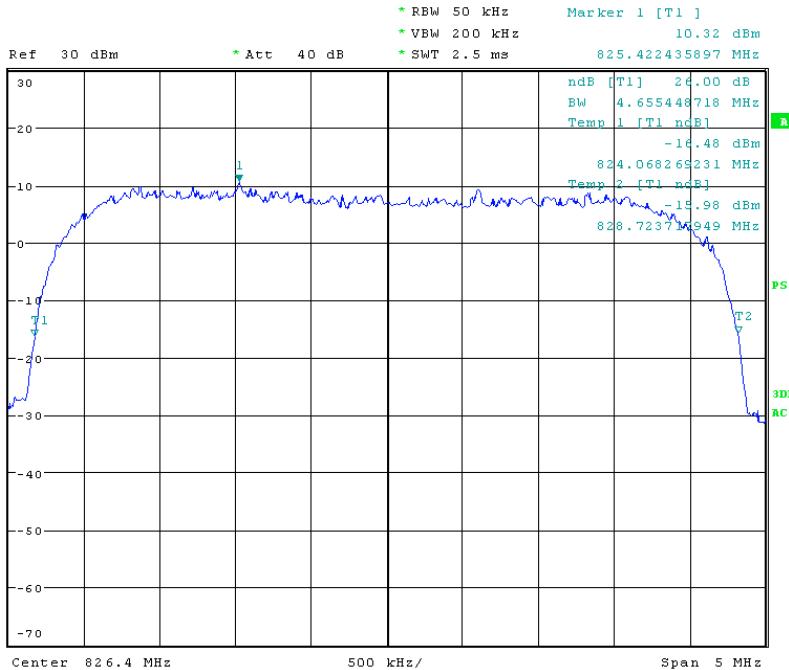


Channel High



HSDPA V

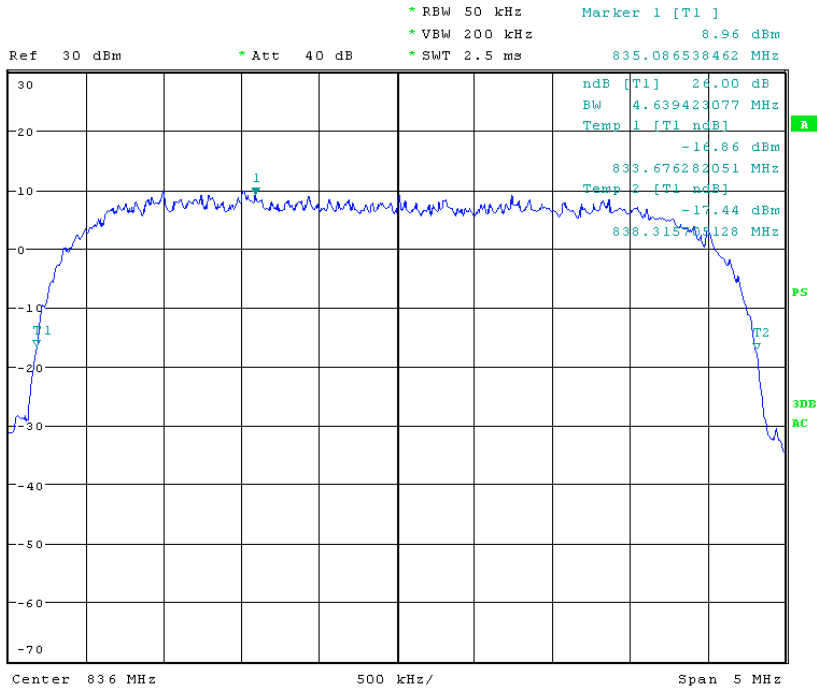
Channel Low



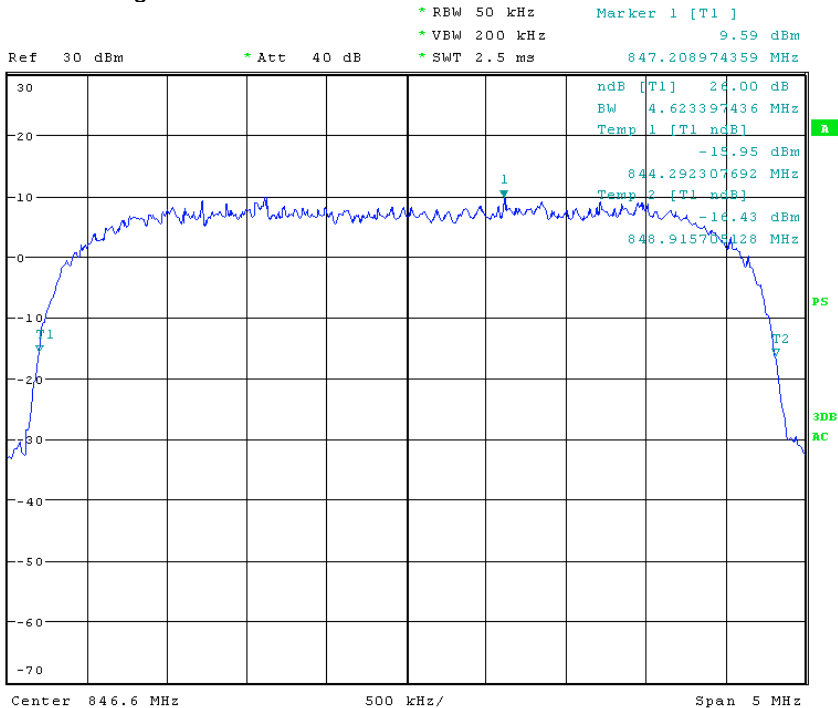
SGS-CSTC Standards
Technical Services
(Shanghai)Co., Ltd.

ReportNo.: SHEMO09100117302
Page: 39 of 99

Channel Mid



Channel High



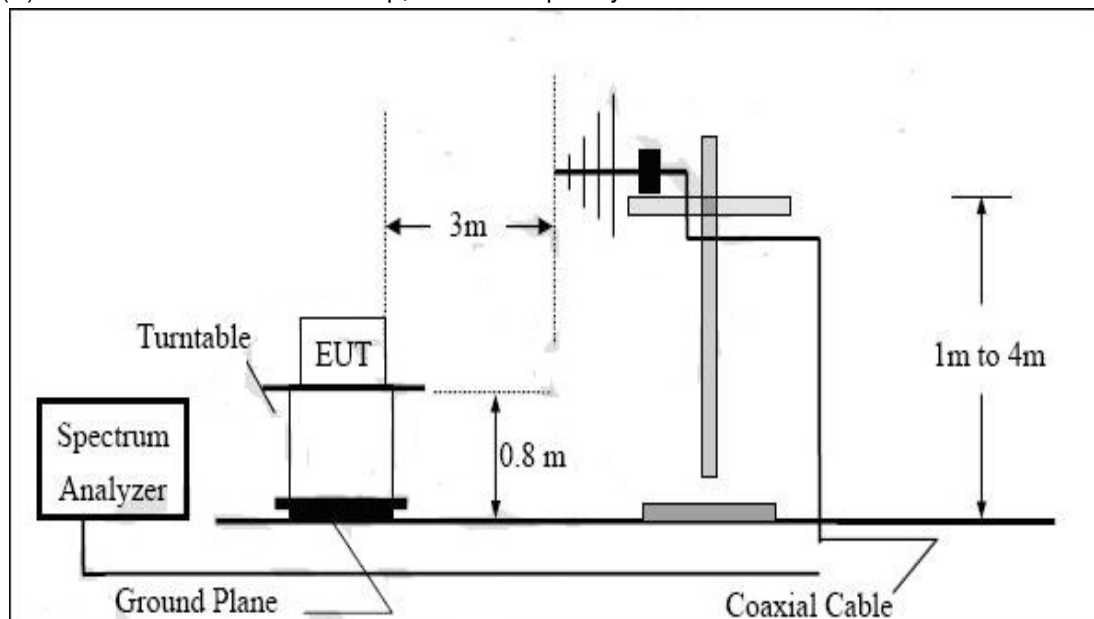
6.4 Effective Isotropic Radiated Power

Test Requirement: Part 2.1046
Part 22.913(a) Mobile station are limited to 7W
Part 24.232(d) peak Power measurement, FCC 24.232(c) Maximum Power reduction 3GPP Power Limitation for HSDPA and HSUPA
Part 27.50(d)(2) Fixed, mobile, and portable (hand-held) stations operating in 1710-1755MHz
RSS 132.4.4 The maximum EIRP shall be 11.5 watts for mobile stations.
RSS 133.6.4 Mobile stations and hand-held portables are limited to 2 watts maximum e.i.r.p.
RSS 139.6.4 The average equivalent isotropically radiated power (e.i.r.p.) for fixed, mobile and portable transmitters in the 1710-1755 MHz shall not exceed 1 watt.

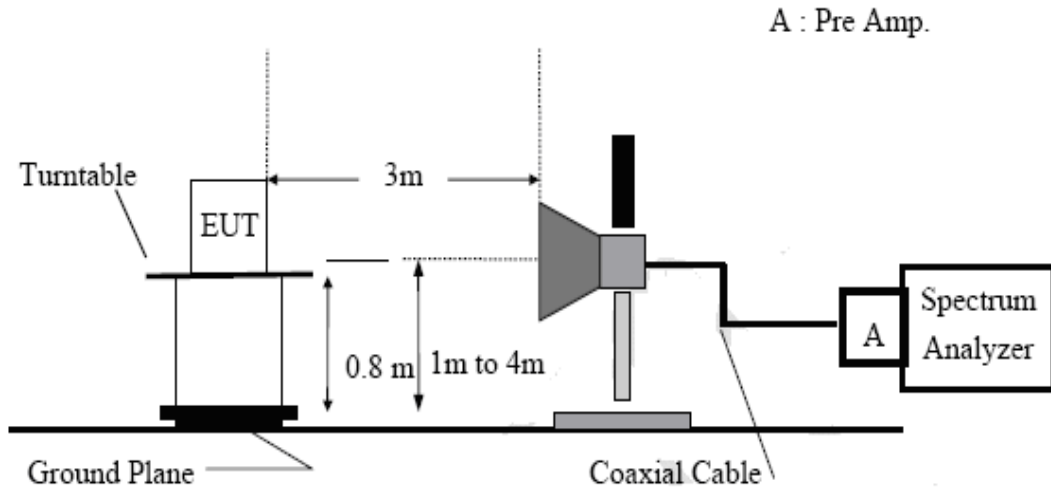
Test Date: Mar 22, 2010

Test Setup:

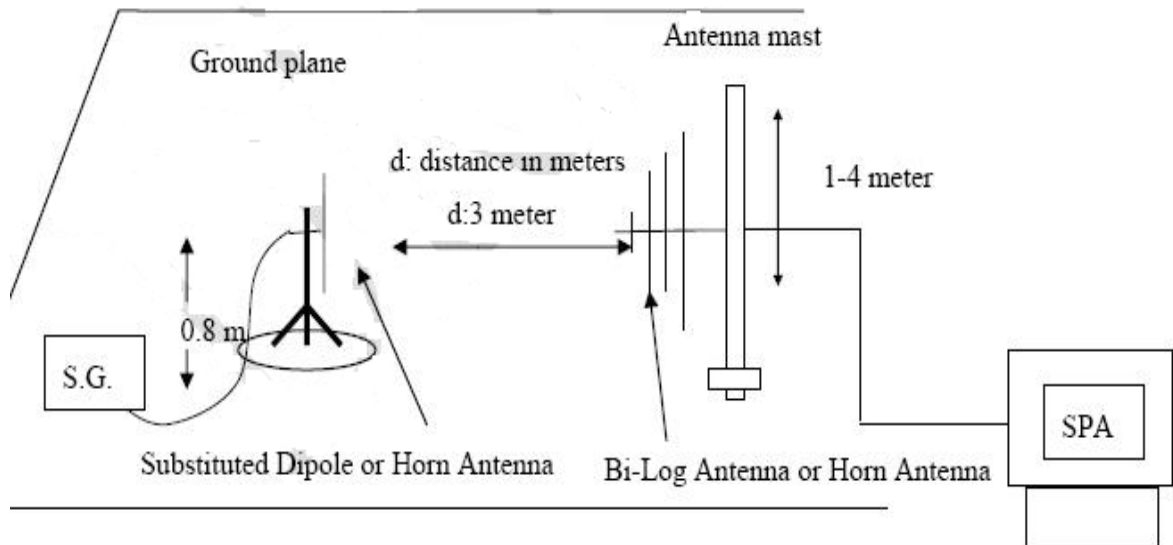
(A) Radiated emission Test setup, Below Frequency 1000MHz:



(B) Radiated emission Test setup frequency over 1GHz:



(C) Substituted Method Test setup:



Test Procedure:

The EUT was placed on an non-conductive turntable using a non-conductive support. The radiated emission at the fundamental frequency was measured at 3 m with a test antenna and EMI spectrum analyzer. During the measurement, the EUT was communication with the station. The highest emission was recorded with the rotation of the turntable and lowering of the test antenna from 4m to 1m. The reading was recorded and the field strength(E in dBuV/m) was calculated.

**SGS-CSTC Standards
Technical Services
(Shanghai)Co., Ltd.**

ReportNo.: SHEMO09100117302
Page: 42 of 99

ERP in frequency band 824.2-848.8MHz were measured using substitution method. The EUT was replaced by dipole antenna connected, the S.G. output was recorded and ERP was calculated as follow:

EIRP in frequency band 1850.2-1909.8MHz and 1710-1755MHz were measured using a substitution method. The EUT was replaced by a horn antenna connected, the S.G. output was recorded and EIRP was calculated as follows:

$ERP = \text{S.G. output (dBm)} + \text{Antenna Gain (dBd)} - \text{Cable Loss (dB)}$

$EIRP = \text{S.G. output (dBm)} + \text{Antenna Gain (dBi)} - \text{Cable Loss (dB)}$

The procedure of KDB941225 (SAR Measurement Procedures for 3G devices, WCDMA/HSDPA) was used for EUT and Base station setting.

The field strength(E in dBuV/m) was calculated as below:

$3m \text{ Field strength (E in dBuV/m)} = \text{SPA Reading (dBuV)} + \text{Receive Antenna factor (dB/m)} + \text{Receive Cable Loss (dB)}$

**SGS-CSTC Standards
Technical Services
(Shanghai)Co., Ltd.**

ReportNo.: SHEMO09100117302
Page: 43 of 99

Measurement result:

(1) The RBW, VBW of SPA for frequency

Below 1GHz was RBW=300KHz, VBW=1MHz;

Above 1GHz was RBW=1MHz, VBW=3MHz

EUT mode	Frequency(MHz)	CH	EUT Pol.	Antenna Pol.	SPA Reading (dBuV)	Receive Antenna factor (dB/m)	Receive Cable loss (dB)	Field Strength (dBuV/m)
GSM 850 (GMSK)	824.2	128	H	V	96.87	22.5	3.45	122.82
				H	95.74	22.5	3.45	121.69
	836.4	189	H	V	94.36	22.6	3.48	120.44
				H	94.16	22.6	3.48	120.24
	848.8	251	H	V	97.12	22.8	3.5	123.42
				H	94.11	22.8	3.5	120.41

S.G. output (dBm)	Antenna Gain (dBd)	TX Cable loss (dB)	ERP (dBm)	Limit (dBm)
15.81	8.4	2.89	21.32	38.45
15.27	8.4	2.89	20.78	38.45
15.04	8.45	2.93	20.56	38.45
14.64	8.45	2.93	20.16	38.45
15.35	8.76	2.97	21.14	38.45
14.19	8.76	2.97	19.98	38.45

SGS-CSTC Standards
Technical Services
(Shanghai)Co., Ltd.

ReportNo.: SHEMO09100117302
Page: 44 of 99

EUT mode	Frequency(MHz)	CH	EUT Pol.	Antenna Pol.	SPA Reading (dBuV)	Receive Antenna factor (dB/m)	Receive Cable loss (dB)	Field Strength (dBuV/m)
PCS 1900 (GMSK)	1850.2	512	H	V	93.69	25.2	4.1	122.99
				H	92.84	25.2	4.1	122.14
	1880.0	661	H	V	93.44	25.4	4.12	122.96
				H	92.64	25.4	4.12	122.16
	1909.8	810	H	V	93.39	25.6	4.15	123.14
				H	91.78	25.6	4.15	121.53

S.G. output (dBm)	Antenna Gain (dBi)	Cable loss (dB)	EIRP (dBm)	Limit (dBm)
17.34	7.05	4.45	19.94	33
16.28	7.05	4.45	18.88	33
17.22	7.13	4.57	19.78	33
16.11	7.13	4.57	18.67	33
16.57	7.25	4.48	19.34	33
15.84	7.25	4.48	18.61	33

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms_and_conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms_e-document.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only

SGS-CSTC Standards
Technical Services
(Shanghai)Co., Ltd.

ReportNo.: SHEMO09100117302
Page: 45 of 99

EUT mode	Frequen cy(MHz)	CH	EUT Pol.	Antenna Pol.	SPA Reading (dBuV)	Receive Antenna factor (dB/m)	Receive Cable loss (dB)	Field Strength (dBuV/m)
GSM 850 (8PSK)	824.2	128	H	V	95.11	22.5	3.45	121.06
				H	94.87	22.5	3.45	120.82
	836.6	190	H	V	94.61	22.6	3.48	120.69
				H	94.57	22.6	3.48	120.65
	848.8	251	H	V	95.03	22.8	3.5	121.33
				H	93.97	22.8	3.5	120.27

S.G. output (dBm)	Antenna Gain (dBd)	Cable loss (dB)	ERP (dBm)	Limit (dBm)
13.15	8.4	2.89	18.66	38.45
11.97	8.4	2.89	17.48	38.45
11.7	8.45	2.93	17.22	38.45
11.87	8.45	2.93	17.39	38.45
12.92	8.76	2.97	18.71	38.45
11.58	8.76	2.97	17.37	38.45

SGS-CSTC Standards
Technical Services
(Shanghai)Co., Ltd.

ReportNo.: SHEMO09100117302
Page: 46 of 99

EUT mode	Frequency(MHz)	CH	EUT Pol.	Antenna Pol.	SPA Reading (dBuV)	Receive Antenna factor (dB/m)	Receive Cable loss (dB)	Field Strength (dBuV/m)
PCS 1900 (8PSK)	1850.2	512	H	V	91.55	25.2	4.1	120.85
				H	89.87	25.2	4.1	119.17
	1880.0	661	H	V	91.32	25.4	4.12	120.84
				H	90.29	25.4	4.12	119.81
	1909.8	810	H	V	91.41	25.6	4.15	121.16
				H	90.01	25.6	4.15	119.76

S.G. output (dBm)	Antenna Gain (dBi)	Cable loss (dB)	EIRP (dBm)	Limit (dBm)
15.14	7.05	4.45	17.74	33
14.27	7.05	4.45	16.87	33
15.09	7.13	4.57	17.65	33
14.38	7.13	4.57	16.94	33
14.56	7.25	4.48	17.33	33
13.8	7.25	4.48	16.57	33

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms_and_conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms_e-document.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only

**SGS-CSTC Standards
Technical Services
(Shanghai)Co., Ltd.**

ReportNo.: SHEMO09100117302
Page: 47 of 99

(2) The RBW, VBW of SPA for frequency

Below 1GHz was RBW=5MHz, VBW=5MHz

Above 1GHz was RBW=5MHz, VBW=5MHz

EUT mode	Frequency(MHz)	CH	EUT Pol.	Antenna Pol.	SPA Reading (dBuV)	Receive Antenna factor (dB/m)	Receive Cable loss (dB)	Field Strength (dBuV/m)
WCDMA Band IV	1712.4	1312	H	V	91.34	25.2	4.01	120.55
				H	90.41	25.2	4.01	119.62
	1732.6	1413	H	V	91.16	25.4	4.03	120.59
				H	90.32	25.4	4.03	119.75
	1752.6	1513	H	V	91.43	25.6	4.05	121.08
				H	90.29	25.6	4.05	119.94

S.G. output (dBm)	Antenna Gain (dBi)	Cable loss (dB)	EIRP (dBm)	Limit (dBm)
12.11	6.89	4.33	14.67	30
11.43	6.89	4.33	13.99	30
12.07	6.95	4.48	14.54	30
11.37	6.95	4.48	13.84	30
12.06	7.01	4.31	14.76	30
11.01	7.01	4.31	13.71	30

SGS-CSTC Standards
Technical Services
(Shanghai)Co., Ltd.

ReportNo.: SHEMO09100117302
Page: 48 of 99

EUT mode	Frequency(MHz)	CH	EUT Pol.	Antenna Pol.	SPA Reading (dBuV)	Receive Antenna factor (dB/m)	Receive Cable loss (dB)	Field Strength (dBuV/m)
WCDMA Band V	826.4	4132	H	V	90.45	22.5	3.46	116.41
				H	89.39	22.5	3.46	115.35
	836.0	4180	H	V	90.21	22.6	3.48	116.29
				H	88.47	22.6	3.48	114.55
	846.6	4233	H	V	90.31	22.8	3.51	116.62
				H	88.14	22.8	3.51	114.45

S.G. output (dBm)	Antenna Gain (dBd)	Cable loss (dB)	ERP (dBm)	Limit (dBm)
9.81	8.42	2.9	15.33	38.45
8.69	8.42	2.9	14.21	38.45
9.66	8.44	2.93	15.17	38.45
8.86	8.44	2.93	14.37	38.45
9.7	8.7	2.97	15.43	38.45
8.21	8.7	2.97	13.94	38.45

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms_and_conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms_e-document.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only

6.5 Out of band emissions at antenna Terminals

6.5.1 Band edges emissions

Test Requirement: Part 2.1051,
RSS 132, 4.5.1;RSS 133, 6.5.1(a)(i),(b),RSS-139,6.5
FCC part 22.917(a), 24.238(a),27.53(g) the magnitude of each spurious and harmonic emission that can be detected when the equipment is operated under the conditions specification in the instruction manual and/or alignment procedure, shall not be less than $43+10\log(\text{Mean power in watts})$ dBc below the mean power output outside a license's frequency block(-13dBm).

Test Date: Mar 16, 2010

Test Procedure:

The RF output of the transceiver was connected to a spectrum analyzer through appropriate attenuation. The resolution bandwidth of spectrum analyzer was set at 1MHz, sufficient scans were taken to show the out of band Emission is any up to 10^{th} harmonic.

For the out of band: set RBW, VBW=1MHz, stat=30MHz, stop= 10 th harmonic. Limit= -13dBm

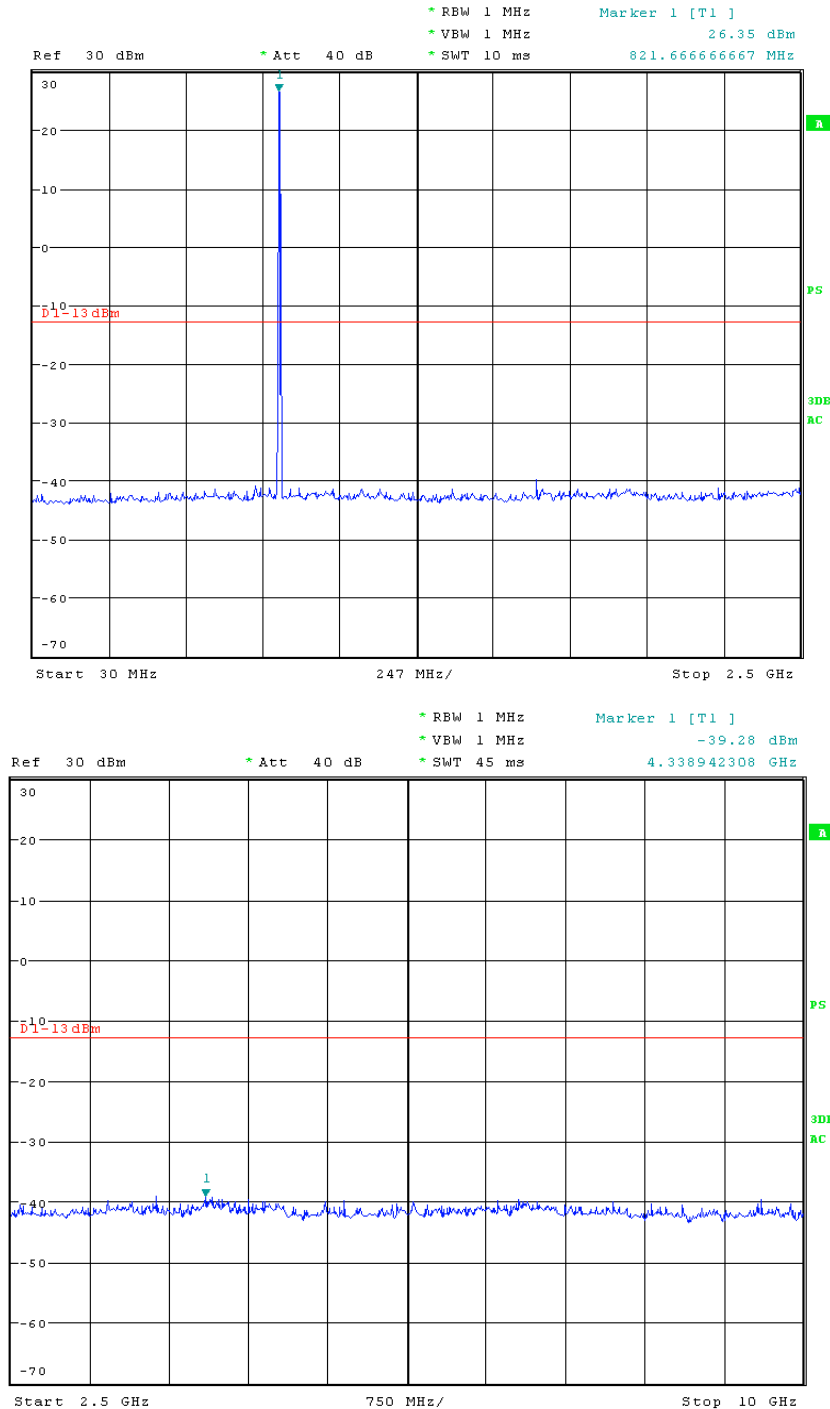
Band Edge requirements: In 1Mhz bands immediately outside and adjacent to the frequency block, a resolution bandwidth of at least 1 % of bandwidth of fundamental emission of the transmitter any be employed to measure the out of band emission. Limit=-13dBm.

**SGS-CSTC Standards
Technical Services
(Shanghai)Co., Ltd.**

ReportNo.: SHEMO09100117302
Page: 50 of 99

Measurement result:

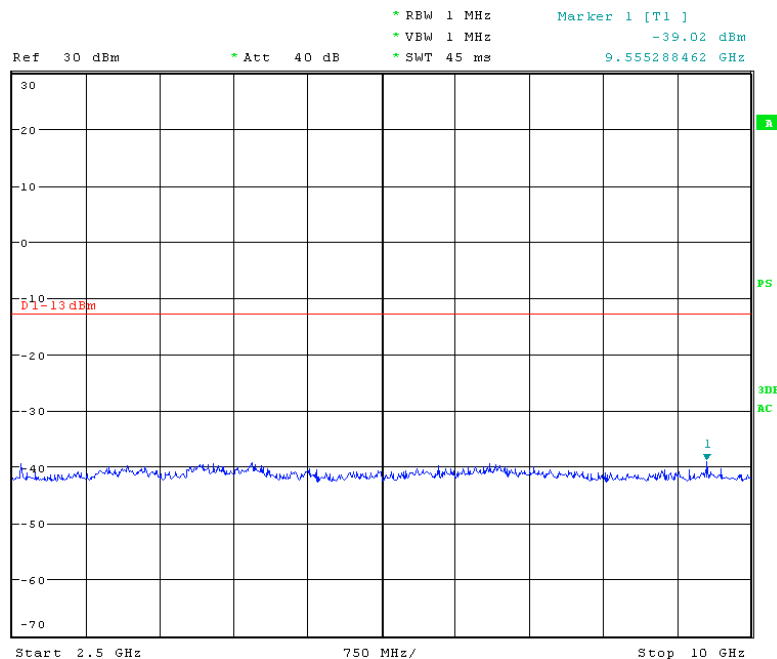
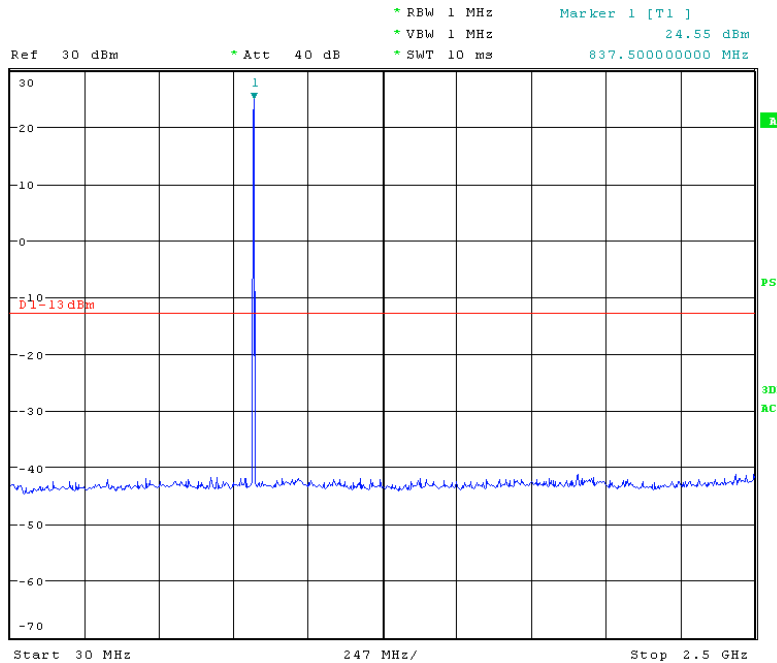
GSM 850 Channel Low



SGS-CSTC Standards
Technical Services
(Shanghai)Co., Ltd.

ReportNo.: SHEMO09100117302
Page: 51 of 99

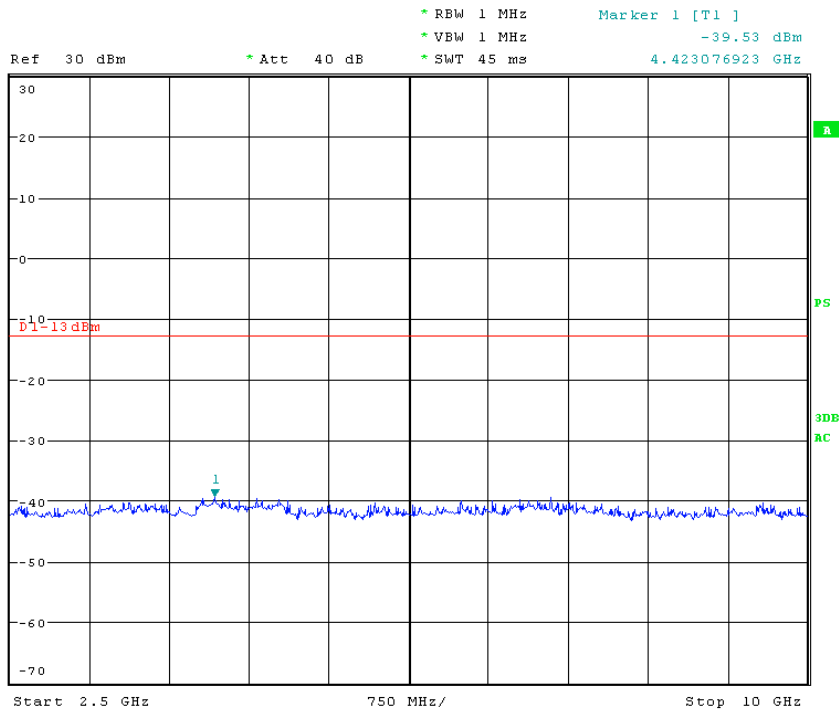
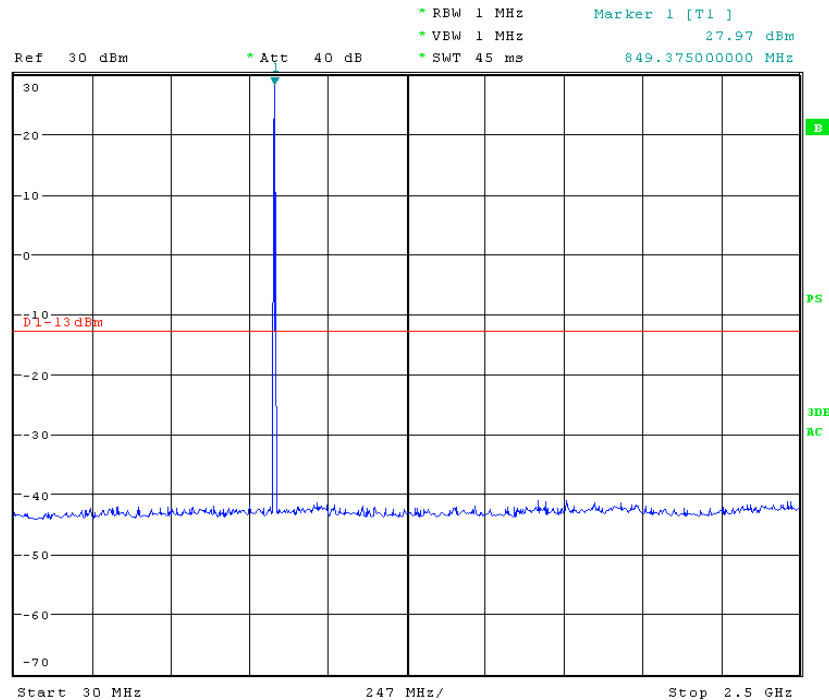
GSM 850 Channel Mid



SGS-CSTC Standards
Technical Services
(Shanghai)Co., Ltd.

ReportNo.: SHEMO09100117302
Page: 52 of 99

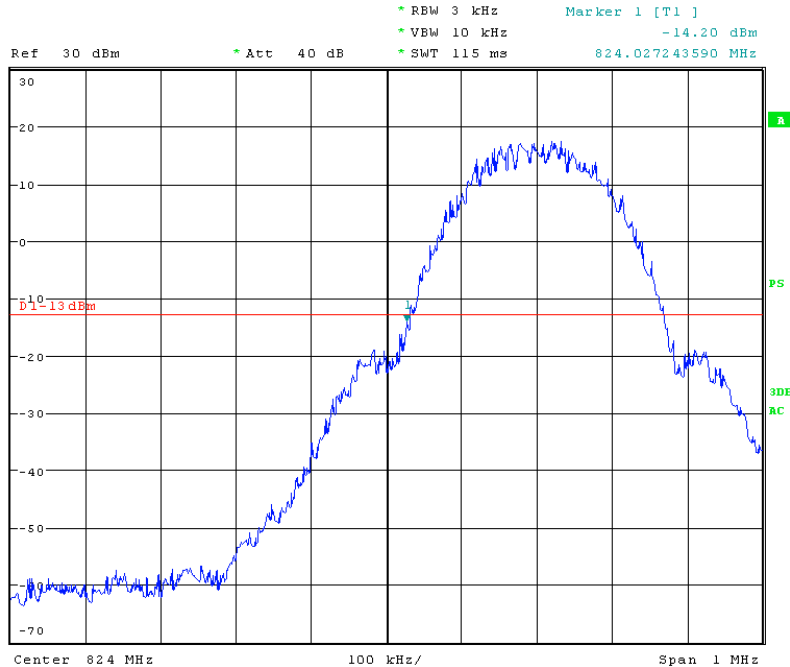
GSM 850 Channel High



SGS-CSTC Standards
Technical Services
(Shanghai)Co., Ltd.

ReportNo.: SHEMO09100117302
Page: 53 of 99

Band Edge emission GSM 850 Channel Low



Band Edge emission GSM 850 Channel high

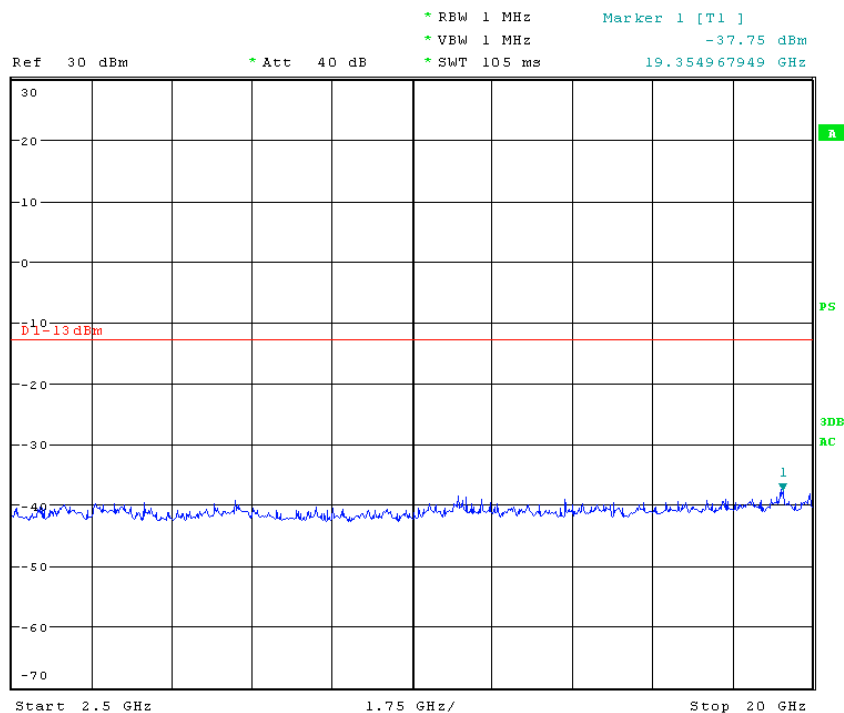
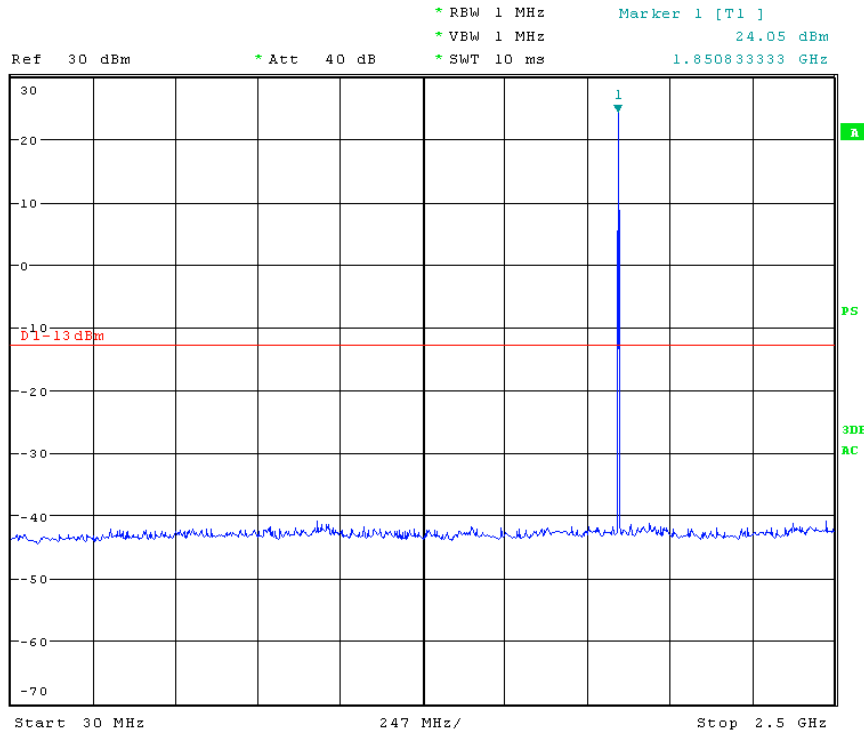


SGS-CSTC Standards
Technical Services
(Shanghai)Co., Ltd.

ReportNo.: SHEMO09100117302

Page: 54 of 99

PCS 1900 Channel Low

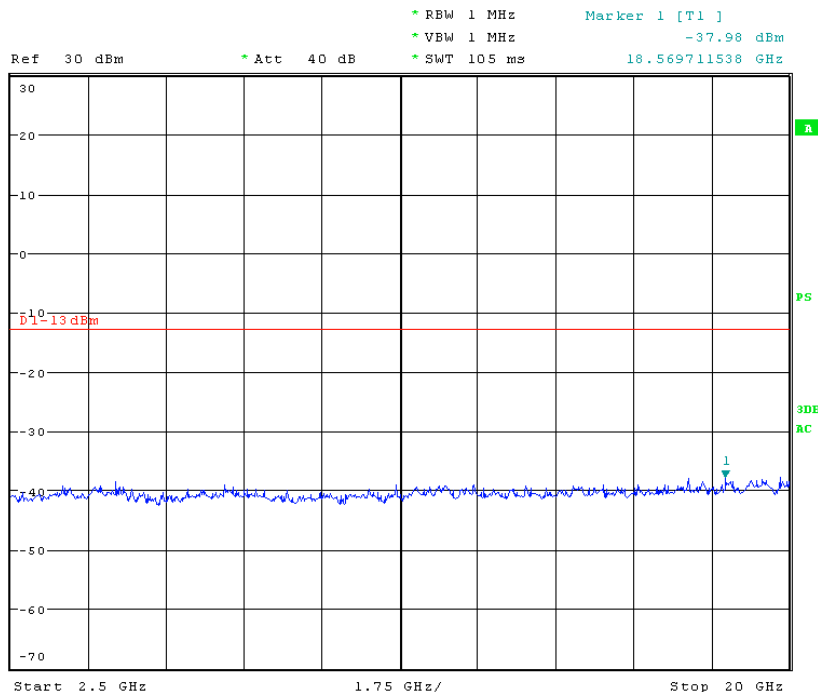
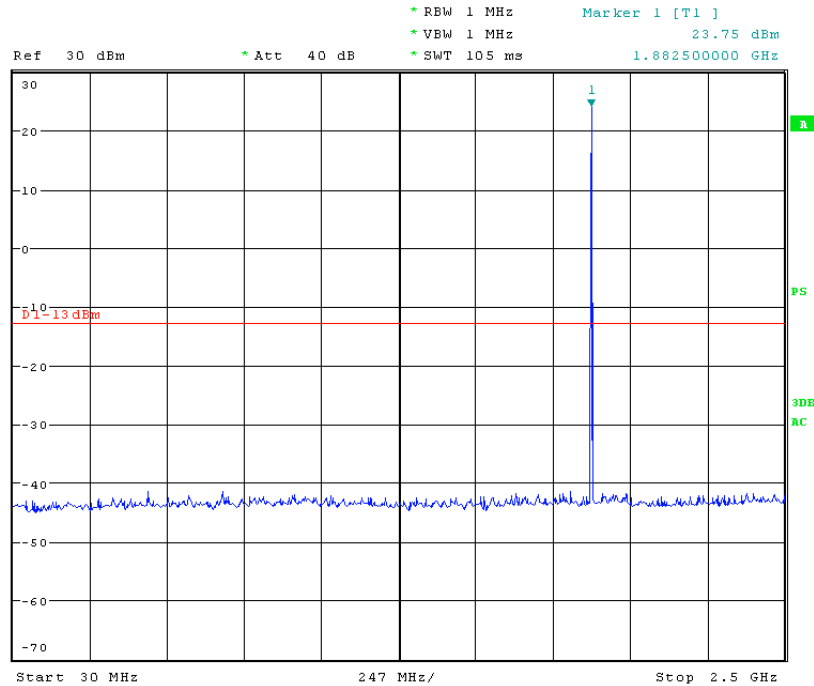


This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms_and_conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms_e-document.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only

SGS-CSTC Standards
Technical Services
(Shanghai)Co., Ltd.

ReportNo.: SHEMO09100117302
Page: 55 of 99

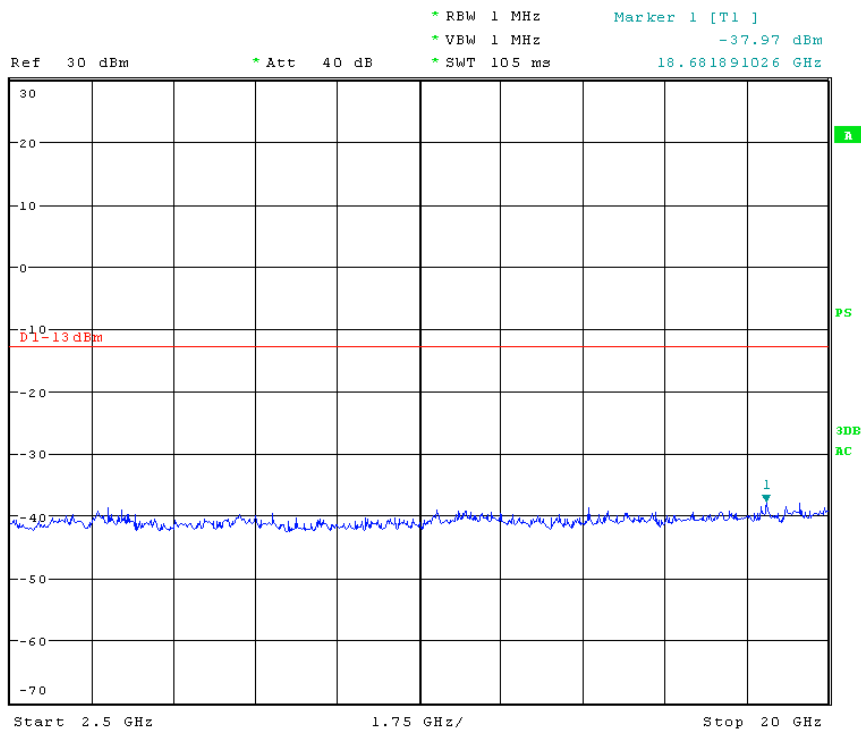
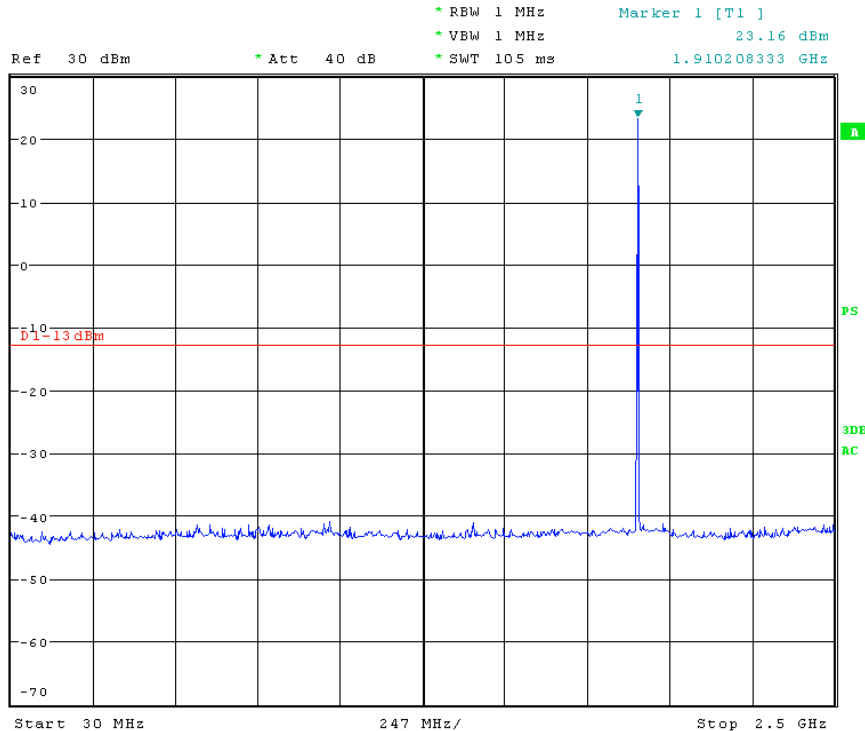
PCS 1900 Channel Mid



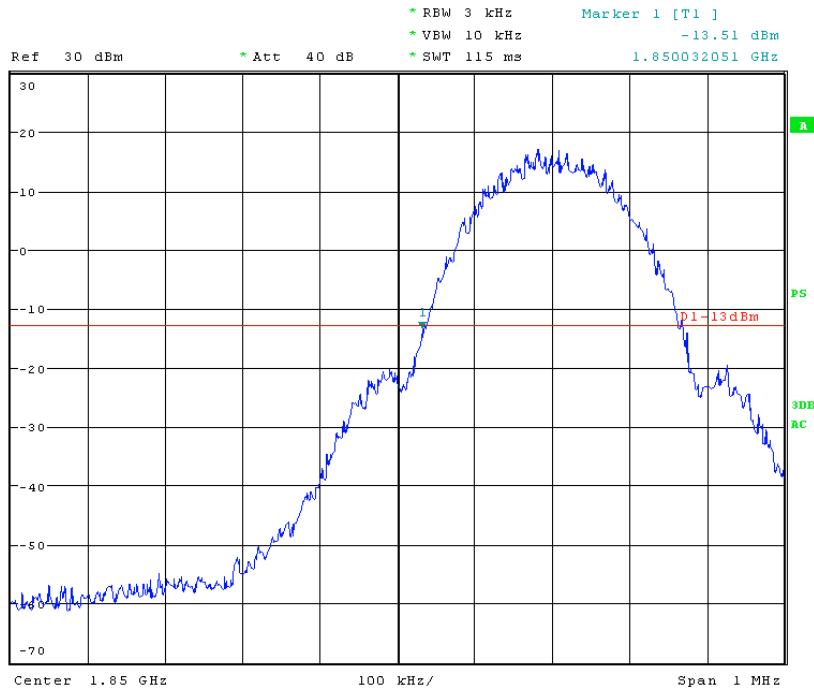
SGS-CSTC Standards
Technical Services
(Shanghai)Co., Ltd.

ReportNo.: SHEMO09100117302
Page: 56 of 99

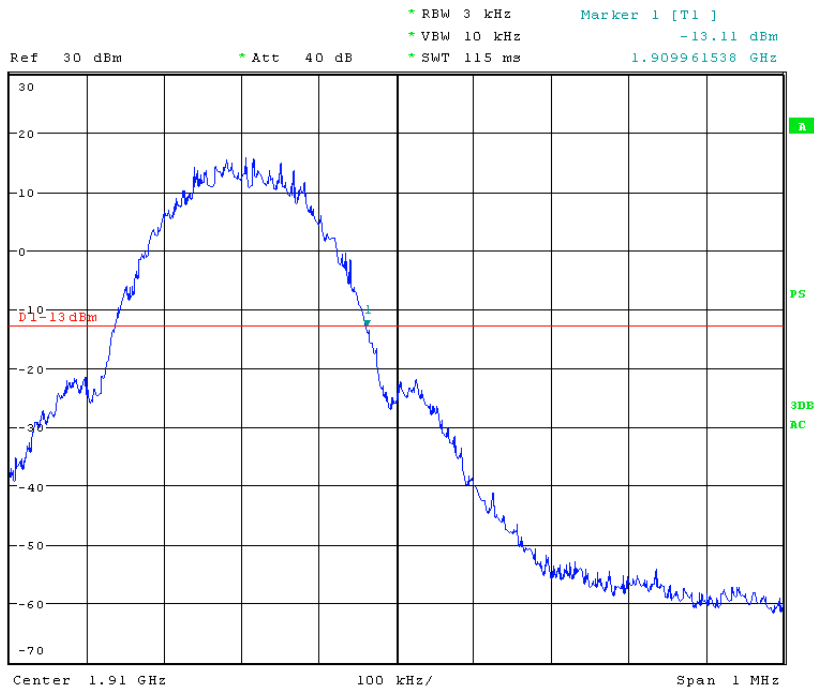
PCS 1900 Channel High



Band Edge emission PCS 1900 Channel Low



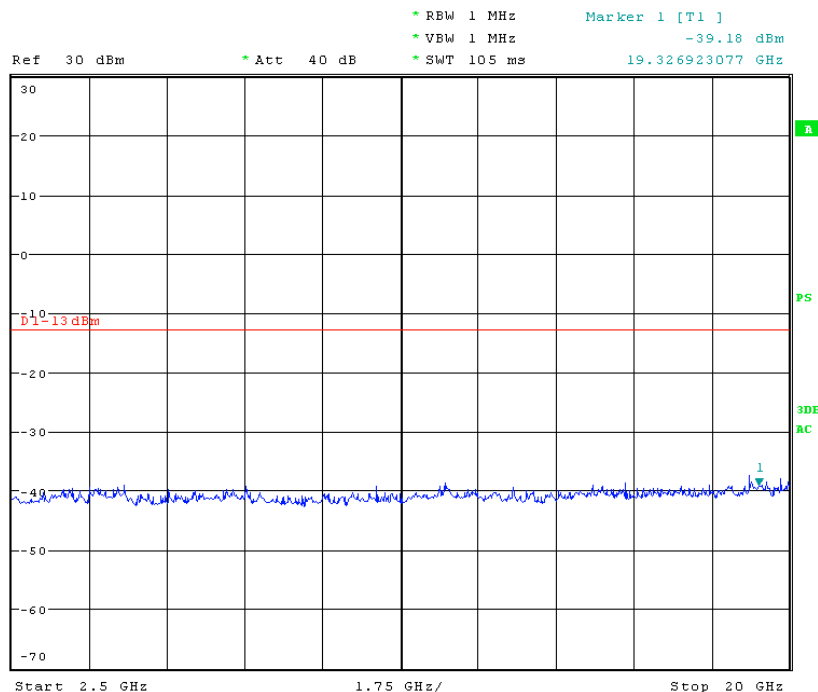
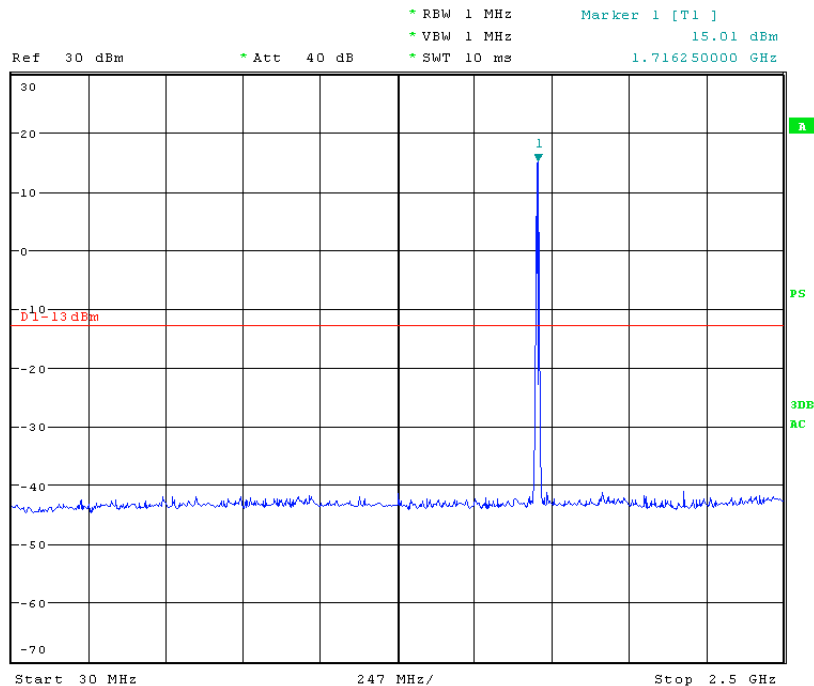
Band Edge emission PCS 1900 Channel high



SGS-CSTC Standards
Technical Services
(Shanghai)Co., Ltd.

ReportNo.: SHEMO09100117302
Page: 58 of 99

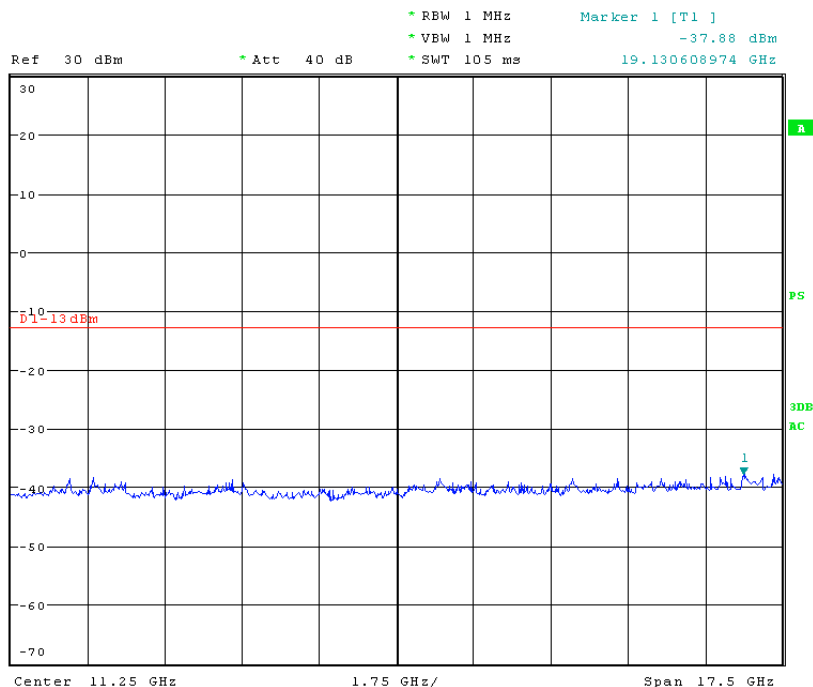
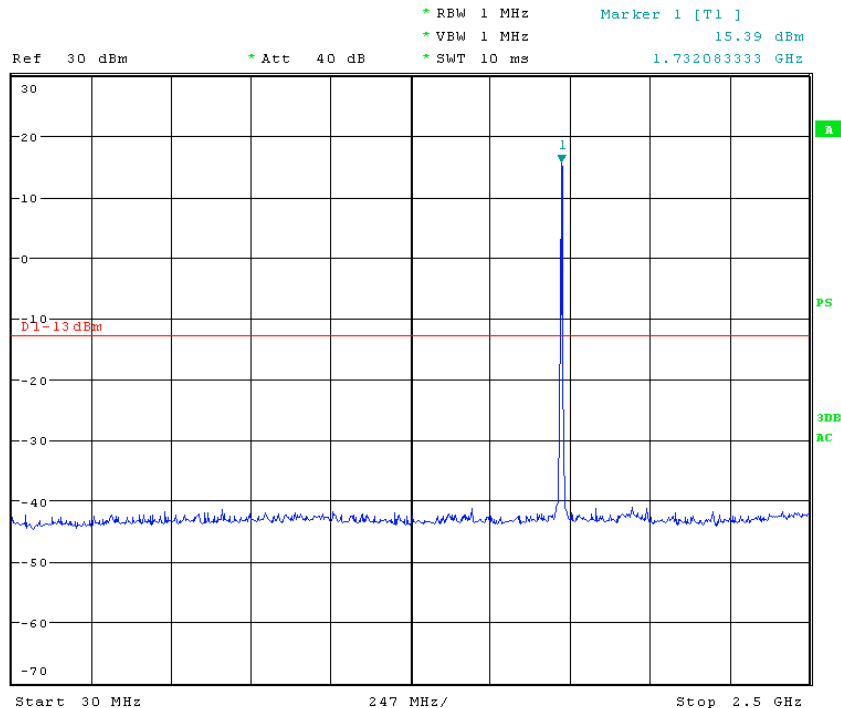
WCDMA IV Channel low



SGS-CSTC Standards
Technical Services
(Shanghai)Co., Ltd.

ReportNo.: SHEMO09100117302
Page: 59 of 99

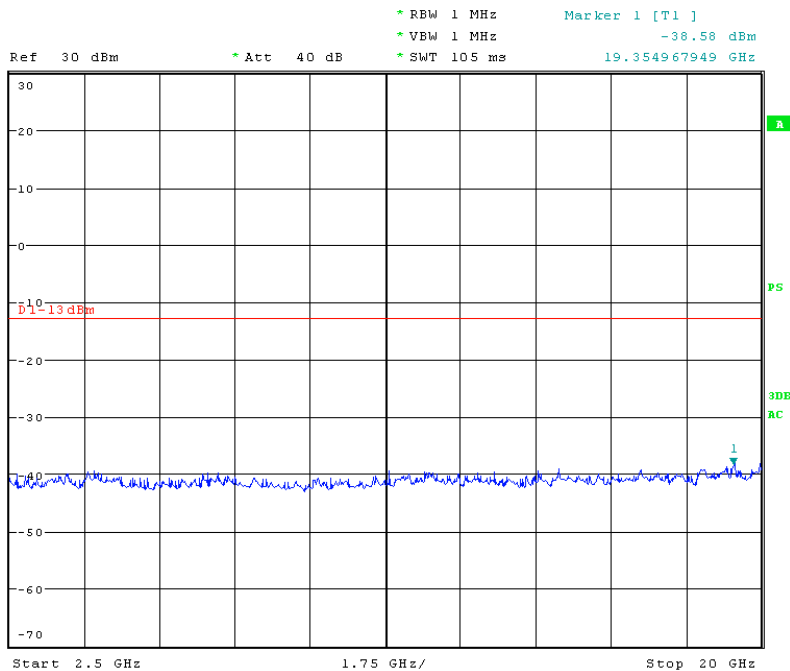
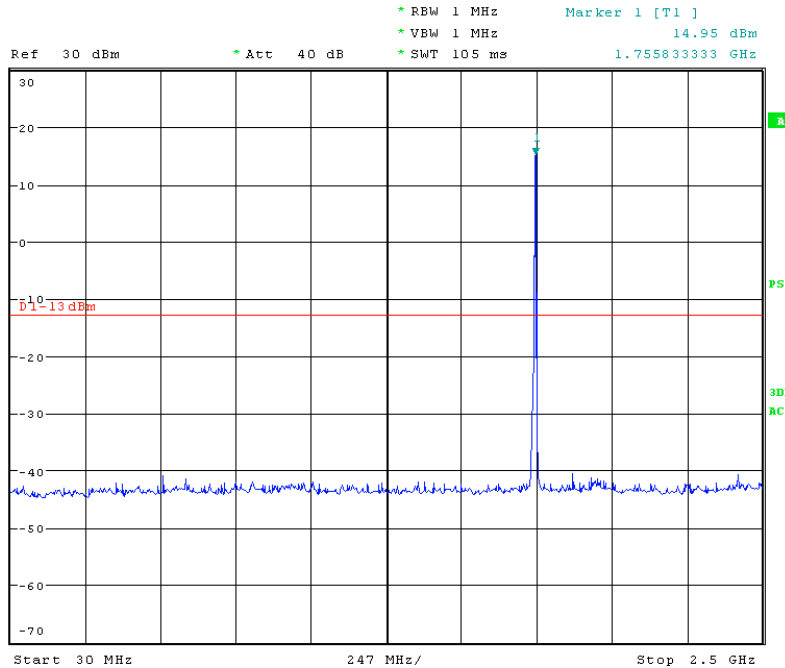
WCDMA IV Channel Mid



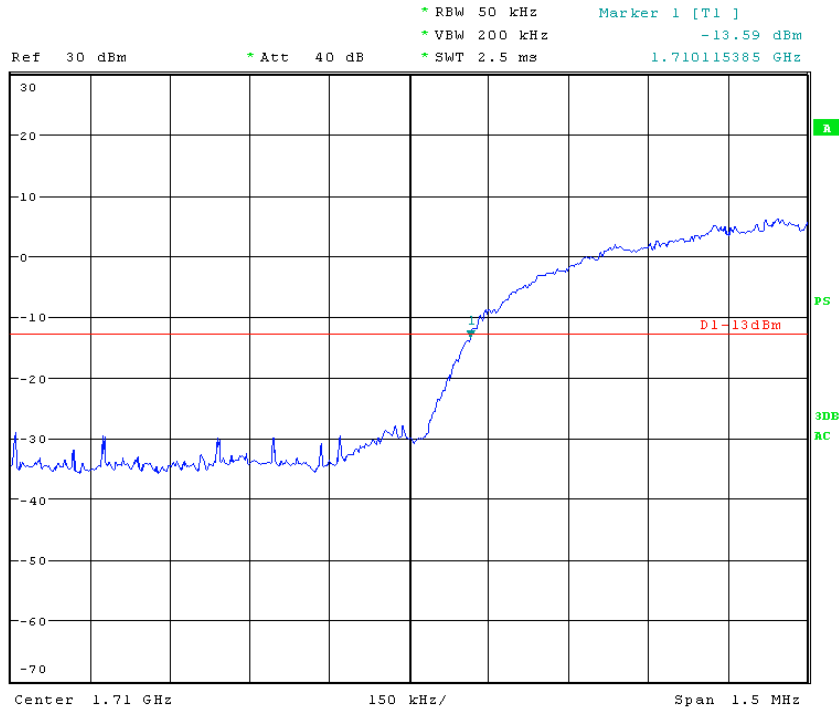
SGS-CSTC Standards
Technical Services
(Shanghai)Co., Ltd.

ReportNo.: SHEMO09100117302
Page: 60 of 99

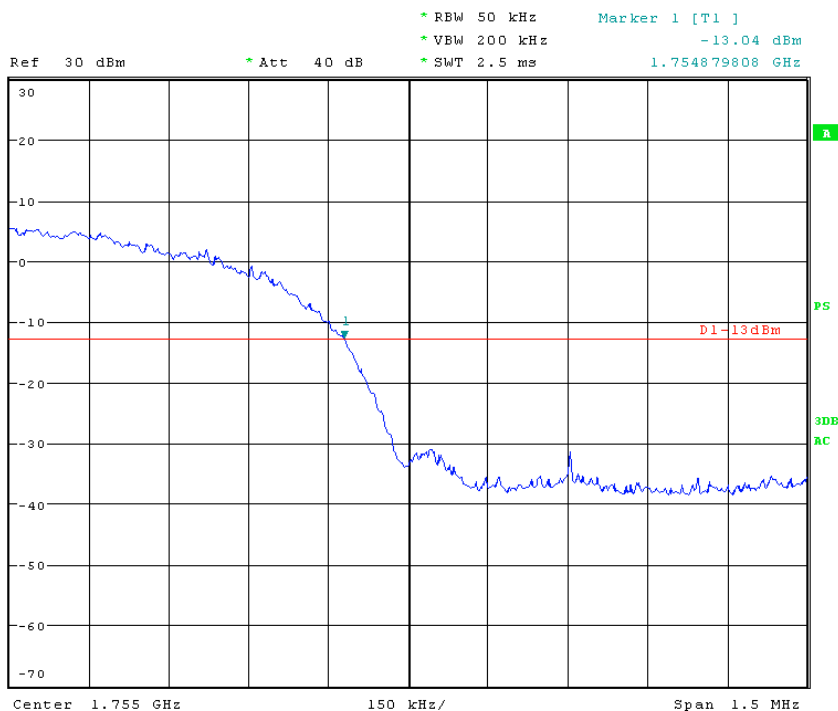
WCDMA IV Channel High



Band Edge emission WCDMA IV Channel Low



Band Edge emission WCDMA II Channel high

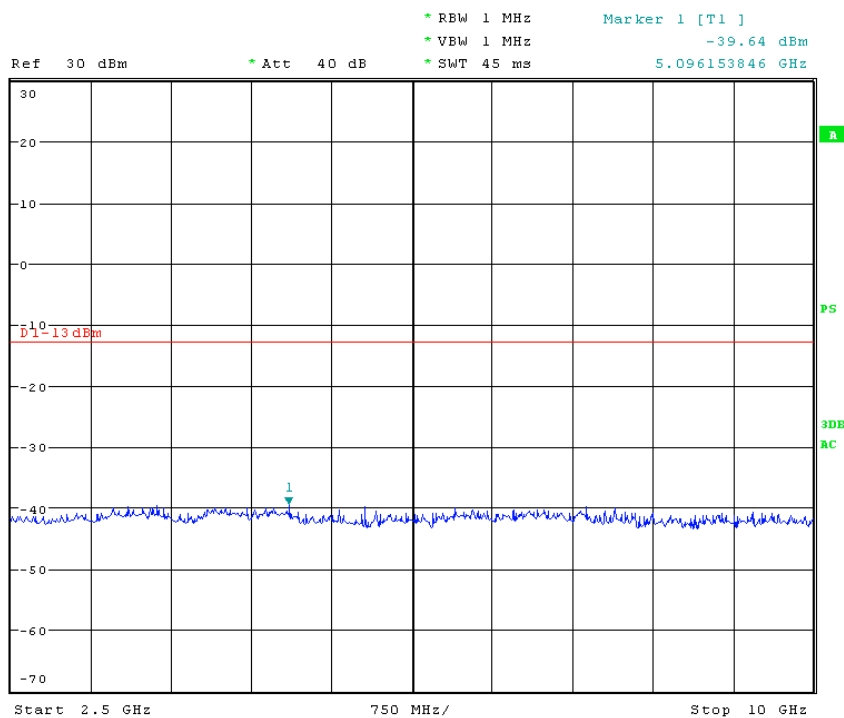
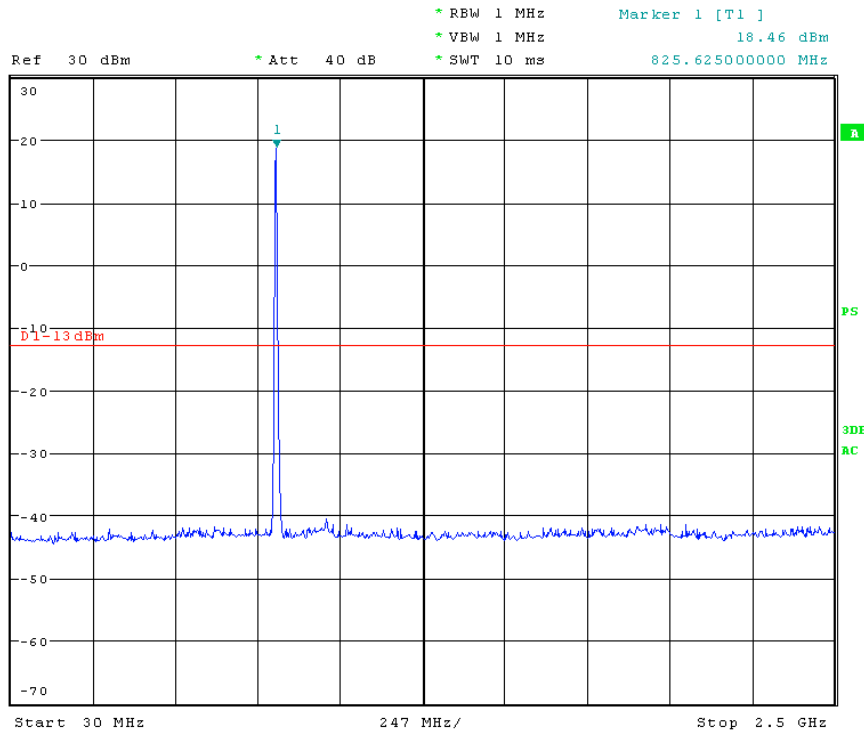


SGS-CSTC Standards
Technical Services
(Shanghai)Co., Ltd.

ReportNo.: SHEMO09100117302

Page: 62 of 99

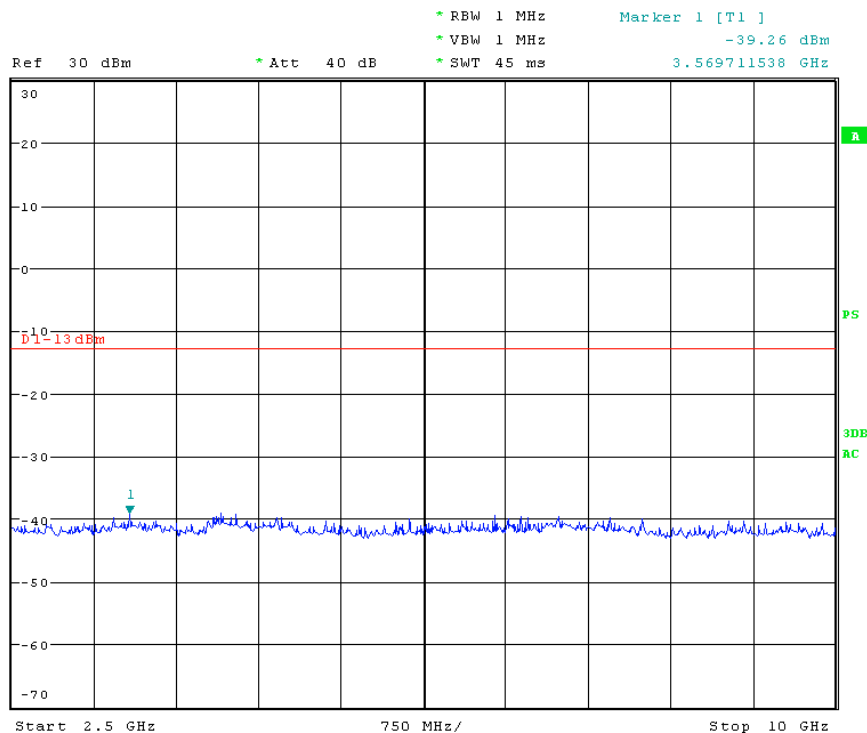
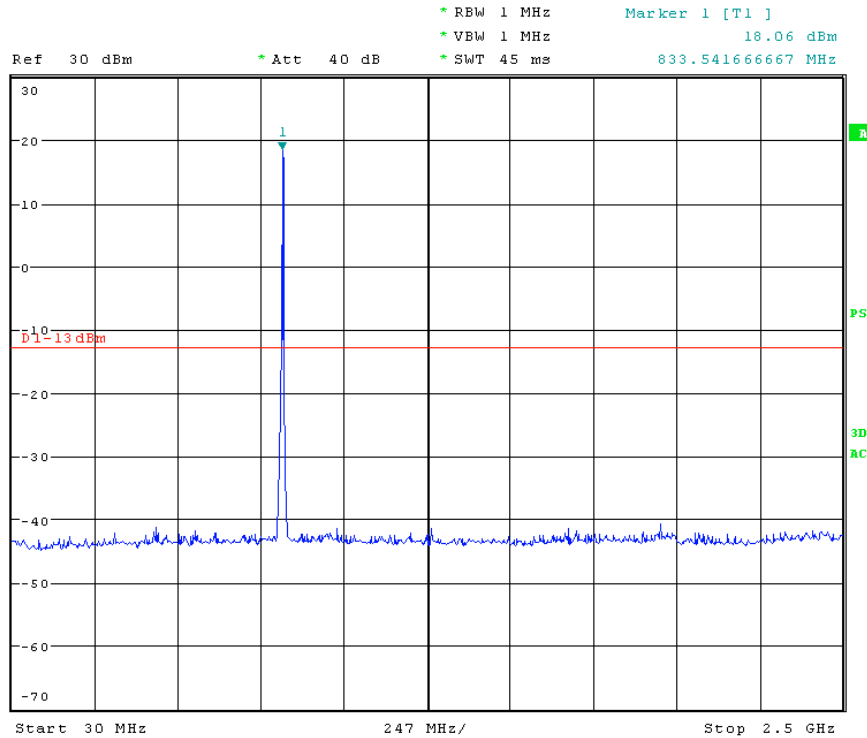
WCDMA V Channel Low



SGS-CSTC Standards
Technical Services
(Shanghai)Co., Ltd.

ReportNo.: SHEMO09100117302
Page: 63 of 99

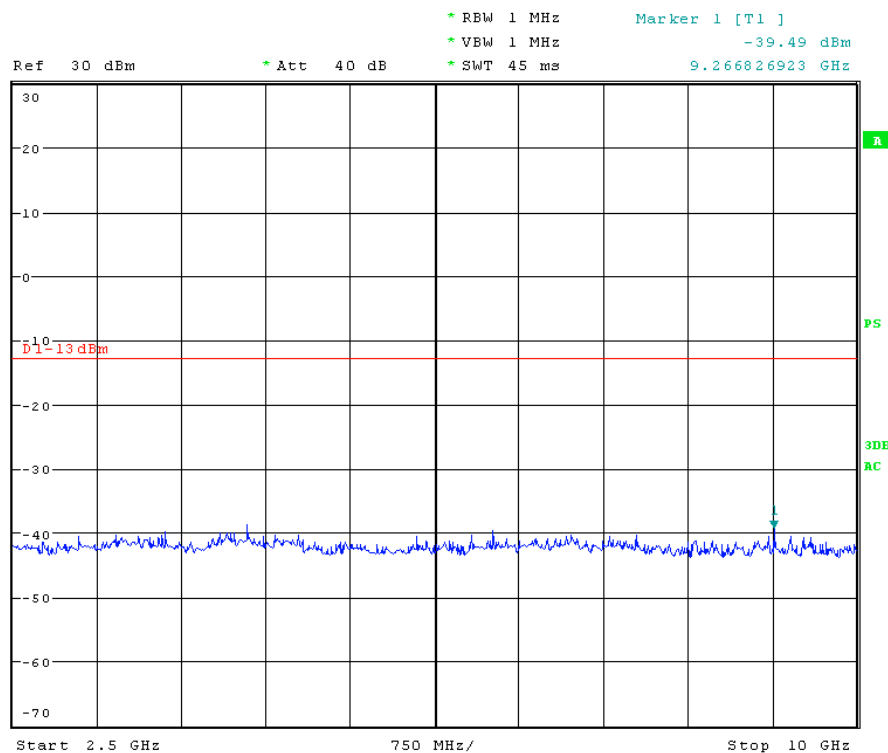
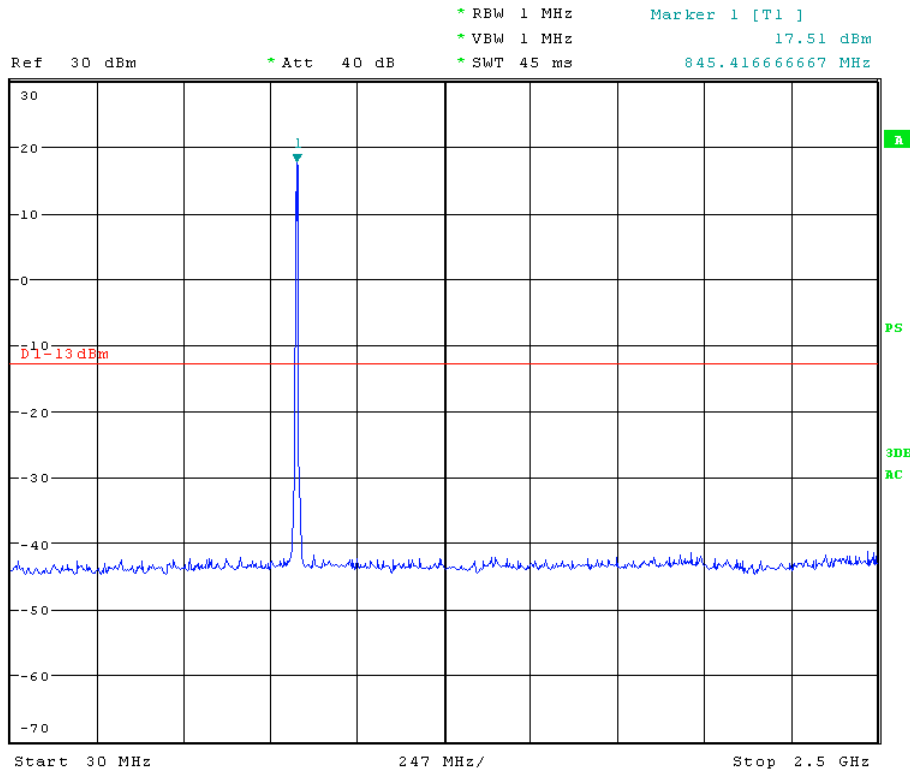
WCDMA V Channel Mid



SGS-CSTC Standards
Technical Services
(Shanghai)Co., Ltd.

ReportNo.: SHEMO09100117302
Page: 64 of 99

WCDMA V Channel High

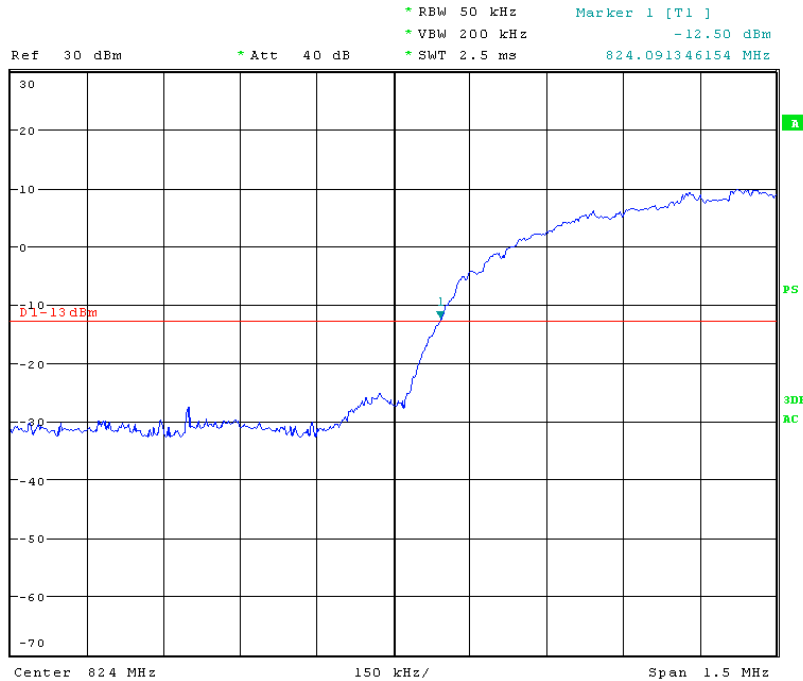


SGS-CSTC Standards
Technical Services
(Shanghai)Co., Ltd.

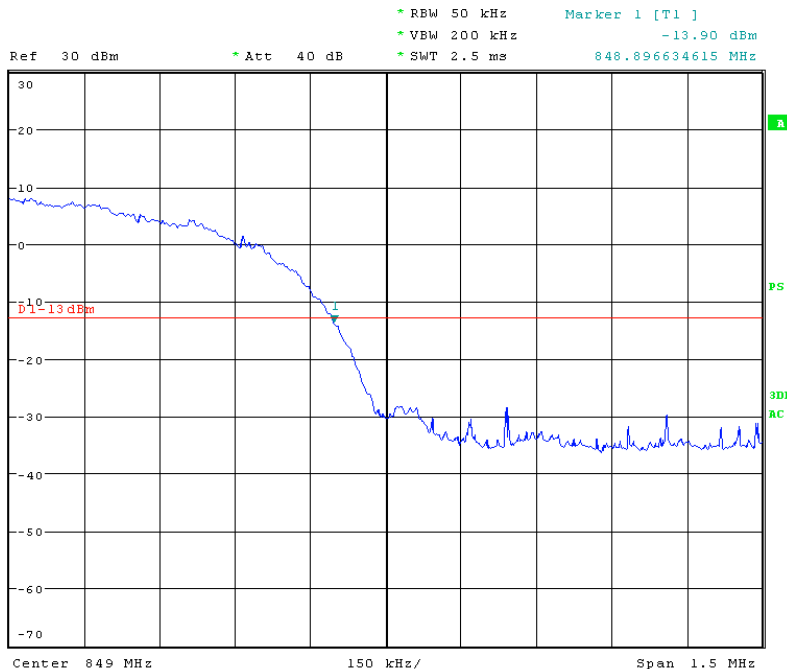
ReportNo.: SHEMO09100117302

Page: 65 of 99

Band Edge emission WCDMA V Channel Low



Band Edge emission WCDMA V Channel high



6.6 Field Strength of Radiated Spurious Emissions

Test Requirement:

Part 2.1053

RSS 132, 4.5.1;RSS 133, 6.5.1(a)(i),(b),RSS-139,6.5

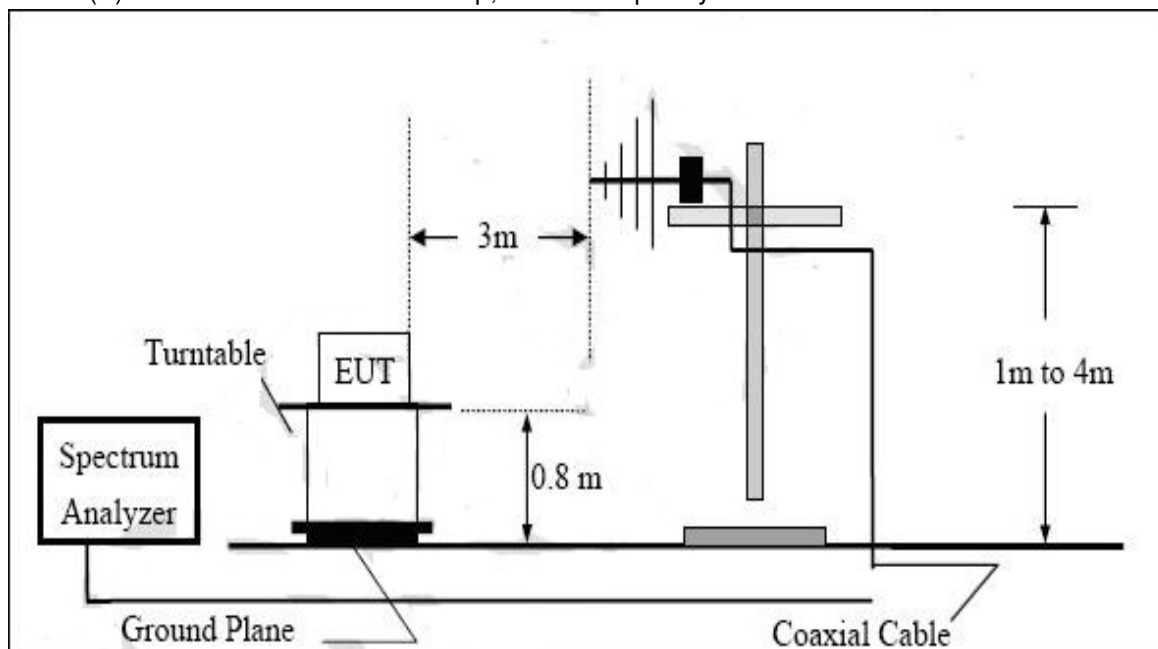
FCC part 22.917(a), 24.238(a),27.53(g) the magnitude of each spurious and harmonic emission that can be detected when the equipment is operated under the conditions specification in the instruction manual and/or alignment procedure, shall not be less than $43+10\log(\text{Mean power in watts})$ dBc below the mean power output outside a license's frequency block(-13dBm).

Test Date:

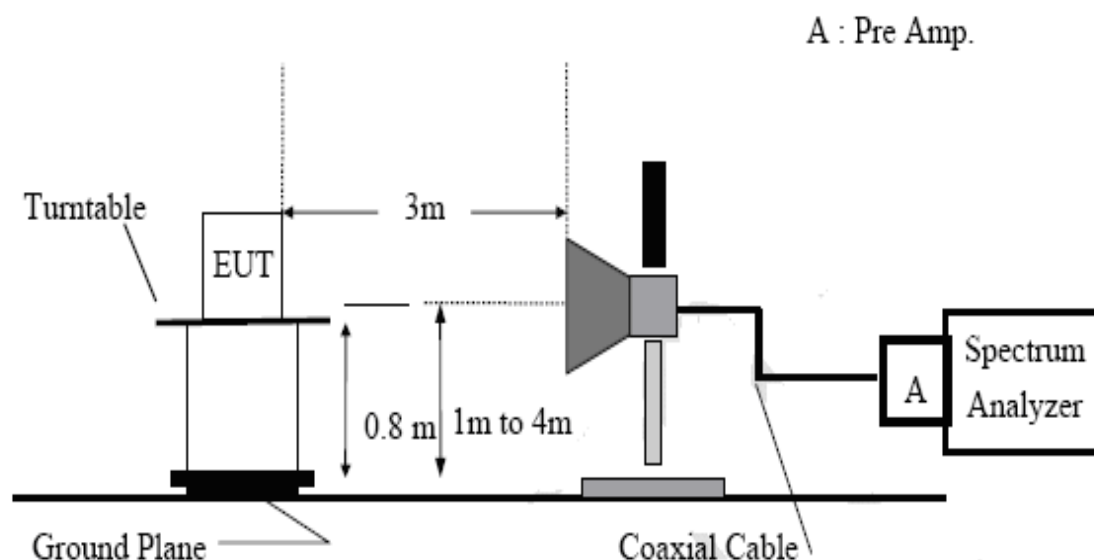
Mar 22,2010 to Mar 23,2010

Test Setup:

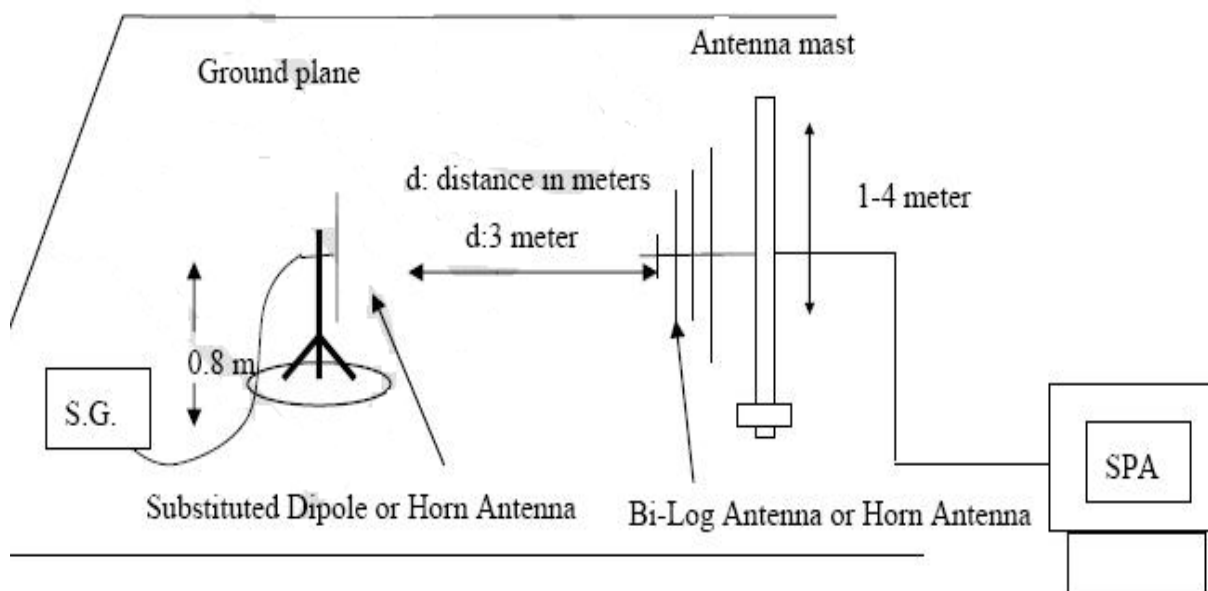
(A) Radiated emission Test setup, Below Frequency 1000MHz:



(B) Radiated emission Test setup frequency over 1GHz:



(C) Substituted Method Test setup:



Test Procedure:

The EUT was placed on an non-conductive turntable using a non-conductive support. The radiated emission at the fundamental frequency was measured at 3 m with a test antenna and EMI spectrum analyzer. During the measurement, the EUT was communication with the station. The highest

**SGS-CSTC Standards
Technical Services
(Shanghai)Co., Ltd.**

ReportNo.: SHEMO09100117302
Page: 68 of 99

emission was recorded with the rotation of the turntable and lowering of the test antenna from 4m to 1m. The reading was recorded and the field strength (E in dBuV/m) was calculated.

ERP in frequency band 824.2-848.8MHz were measured using substitution method. The EUT was replaced by dipole antenna connected, the S.G. output was recorded and ERP was calculated as follow:

EIRP in frequency band 1850.5-1909.8MHz and 1710-1755MHz were measured using a substitution method. The EUT was replaced by a horn antenna connected, the S.G. output was recorded and EIRP was calculated as follows:

$$\begin{aligned} \text{ERP} &= \text{S.G. output (dBm)} + \text{Antenna Gain (dBd)} - \text{Cable Loss (dB)} \\ \text{EIRP} &= \text{S.G. output (dBm)} + \text{Antenna Gain (dBi)} - \text{Cable Loss (dB)} \end{aligned}$$

Radiated spurious Emission Measurement Result: GSM 850 mode

Operation mode: TX CH Low mode

Fundamental Frequency: 824.2MHz

Frequency (MHz)	Ant.Pol. H/V	S.G Output (dBm)	Antenna Gain (dBi/dBd)	Cable Loss (dBm)	ERP/ EIRP (dBm)	Limit (dBm)	Safe Margin (dB)
100.00	H	-59.05	2.6	1	-57.45	-13	44.45
200.00	H	-65.84	9.1	1.42	-58.16	-13	45.16
800.00	H	-62.31	8.7	2.86	-56.47	-13	43.47
1648.40	H	-50.9	6.95	4.17	-48.12	-13	35.12
2472.60	H	-53.28	8.35	5.24	-50.17	-13	37.17
3296.80	H	-49.29	8.15	6.11	-47.25	-13	34.25
4121.00	H	-48.26	8.45	6.94	-46.75	-13	33.75
100.00	V	-58.38	2.6	1	-56.78	-13	43.78
200.00	V	-65.04	9.1	1.42	-57.36	-13	44.36
800.00	V	-61.27	8.7	2.86	-55.43	-13	42.43
1648.40	V	-48	6.95	4.17	-45.22	-13	32.22
2472.60	V	-50.12	8.35	5.24	-47.01	-13	34.01
3296.80	V	-48.91	8.15	6.11	-46.87	-13	33.87
4121.00	V	-48.9	8.45	6.94	-47.39	-13	34.39

Remark:

1 emission behaviors belong to narrowband spurious emission.

2 The result basic equation calculation is as follow:

$$\text{ERP/EIRP(dBm)} = \text{S.G. Output(dBm)} + \text{Antenna Gain(dBd/dBi)} - \text{Cable Loss}$$

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms_and_conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms_e-document.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only

**SGS-CSTC Standards
Technical Services
(Shanghai)Co., Ltd.**

ReportNo.: SHEMO09100117302
Page: 69 of 99

Radiated spurious Emission Measurement Result: GSM 850 mode

Operation mode: TX CH Mid mode

Fundamental Frequency: 836.40MHz

Frequency (MHz)	Ant.Pol. H/V	S.G Output (dBm)	Antenna Gain (dBi/dBd)	Cable Loss (dBm)	ERP/ EIRP (dBm)	Limit (dBm)	Safe Margin (dB)
100.00	H	-59.93	2.6	1	-58.33	-13	45.33
200.00	H	-65.62	9.1	1.42	-57.94	-13	44.94
800.00	H	-62.28	8.7	2.86	-56.44	-13	43.44
1672.80	H	-49.04	6.95	4.2	-46.29	-13	33.29
2509.20	H	-50.6	8.35	5.36	-47.61	-13	34.61
3345.60	H	-48	8.15	6.25	-46.1	-13	33.1
4182.00	H	-48.38	8.45	6.98	-46.91	-13	33.91
100.00	V	-59.51	2.6	1	-57.91	-13	44.91
200.00	V	-65.04	9.1	1.42	-57.36	-13	44.36
800.00	V	-60.98	8.7	2.86	-55.14	-13	42.14
1672.80	V	-48.66	6.95	4.2	-45.91	-13	32.91
2509.20	V	-49.1	8.35	5.36	-46.11	-13	33.11
3345.60	V	-48.4	8.15	6.25	-46.5	-13	33.5
4182.00	V	-48.66	8.45	6.98	-47.19	-13	34.19

Remark:

1 emission behaviors belong to narrowband spurious emission.

2 The result basic equation calculation is as follow:

$ERP/EIRP(dBm) = S.G. Output(dBm) + Antenna Gain(dBd/dBi) - Cable Loss$

**SGS-CSTC Standards
Technical Services
(Shanghai)Co., Ltd.**

ReportNo.: SHEMO09100117302
Page: 70 of 99

Radiated spurious Emission Measurement Result: GSM 850 mode

Operation mode: TX CH High mode

Fundamental Frequency: 848.8MHz

Frequency (MHz)	Ant.Pol. H/V	S.G Output (dBm)	Antenna Gain (dBi/dBd)	Cable Loss (dBm)	ERP/ EIRP (dBm)	Limit (dBm)	Safe Margin (dB)
100.00	H	-59.26	2.6	1	-57.66	-13	44.66
200.00	H	-65.8	9.1	1.42	-58.12	-13	45.12
800.00	H	-62.33	8.7	2.86	-56.49	-13	43.49
1697.60	H	-47.74	6.95	4.22	-45.01	-13	32.01
2546.40	H	-47.27	8.35	5.39	-44.31	-13	31.31
3395.20	H	-48.96	8.15	6.35	-47.16	-13	34.16
4244.00	H	-47.96	8.45	7.04	-46.55	-13	33.55
100.00	V	-58.7	2.6	1	-57.1	-13	44.1
200.00	V	-64.17	9.1	1.42	-56.49	-13	43.49
800.00	V	-61.98	8.7	2.86	-56.14	-13	43.14
1697.60	V	-47.79	6.95	4.22	-45.06	-13	32.06
2546.40	V	-47.12	8.35	5.39	-44.16	-13	31.16
3395.20	V	-48.17	8.15	6.35	-46.37	-13	33.37
4244.00	V	-47.67	8.45	7.04	-46.26	-13	33.26

Remark:

1 emission behaviors belong to narrowband spurious emission.

2 The result basic equation calculation is as follow:

$ERP/EIRP(dBm)=S.G. \text{ Output}(dBm) + \text{Antenna Gain}(dBd/dBi)-\text{Cable Loss}$

**SGS-CSTC Standards
Technical Services
(Shanghai)Co., Ltd.**

ReportNo.: SHEMO09100117302
Page: 71 of 99

Radiated spurious Emission Measurement Result: PCS 1900 mode

Operation mode: TX CH Low mode

Fundamental Frequency: 1850.2MHz

Frequency (MHz)	Ant.Pol. H/V	S.G Output (dBm)	Antenna Gain (dBi/dBd)	Cable Loss (dBm)	ERP/ EIRP (dBm)	Limit (dBm)	Safe Margin (dB)
100.00	H	-58.39	2.6	1	-56.79	-13	43.79
200.00	H	-64.84	9.1	1.42	-57.16	-13	44.16
800.00	H	-63.45	8.7	2.86	-57.61	-13	44.61
1800.00	H	-47.63	7	4.38	-45.01	-13	32.01
3700.40	H	-48.57	8.35	6.77	-46.99	-13	33.99
5550.60	H	-44.16	9.55	8.1	-42.71	-13	29.71
7400.80	H	-49.88	9.75	9.51	-49.64	-13	36.64
9251.00	H	-49.66	10.55	11.08	-50.19	-13	37.19
100.00	V	-56.74	2.6	1	-55.14	-13	42.14
200.00	V	-64.09	9.1	1.42	-56.41	-13	43.41
800.00	V	-62.13	8.7	2.86	-56.29	-13	43.29
1800.00	V	-48.81	7	4.38	-46.19	-13	33.19
3700.40	V	-47.69	8.35	6.77	-46.11	-13	33.11
5550.60	V	-44.61	9.55	8.1	-43.16	-13	30.16
7400.80	V	-49.35	9.75	9.51	-49.11	-13	36.11
9251.00	V	-49.08	10.55	11.08	-49.61	-13	36.61

Remark:

1 emission behaviors belong to narrowband spurious emission.

2 The result basic equation calculation is as follow:

$ERP/EIRP(dBm) = S.G. Output(dBm) + Antenna Gain(dBd/dBi) - Cable Loss$

**SGS-CSTC Standards
Technical Services
(Shanghai)Co., Ltd.**

ReportNo.: SHEMO09100117302
Page: 72 of 99

Radiated spurious Emission Measurement Result: PCS 1900 mode

Operation mode: TX CH mid mode

Fundamental Frequency: 1880.0MHz

Frequency (MHz)	Ant.Pol. H/V	S.G Output (dBm)	Antenna Gain (dBi/dBd)	Cable Loss (dBm)	ERP/ EIRP (dBm)	Limit (dBm)	Safe Margin (dB)
100.00	H	-57.91	2.6	1	-56.31	-13	43.31
200.00	H	-64.9	9.1	1.42	-57.22	-13	44.22
800.00	H	-63	8.7	2.86	-57.16	-13	44.16
1800.00	H	-48.73	7	4.38	-46.11	-13	33.11
3760.00	H	-45.7	8.42	6.84	-44.12	-13	31.12
5640.00	H	-43.46	9.5	8.31	-42.27	-13	29.27
7520.00	H	-49.52	9.78	9.6	-49.34	-13	36.34
9400.00	H	-49.4	10.61	11.32	-50.11	-13	37.11
100.00	V	-56.73	2.6	1	-55.13	-13	42.13
200.00	V	-63.94	9.1	1.42	-56.26	-13	43.26
800.00	V	-62.18	8.7	2.86	-56.34	-13	43.34
1800.00	V	-48.63	7	4.38	-46.01	-13	33.01
3760.00	V	-48.89	8.42	6.84	-47.31	-13	34.31
5640.00	V	-42.55	9.5	8.31	-41.36	-13	28.36
7520.00	V	-49.85	9.78	9.6	-49.67	-13	36.67
9400.00	V	-49.52	10.61	11.32	-50.23	-13	37.23

Remark:

1 emission behaviors belong to narrowband spurious emission.

2 The result basic equation calculation is as follow:

$ERP/EIRP(dBm)=S.G. Output(dBm) + Antenna Gain(dBd/dBi)-Cable Loss$

**SGS-CSTC Standards
Technical Services
(Shanghai)Co., Ltd.**

ReportNo.: SHEMO09100117302
Page: 73 of 99

Radiated spurious Emission Measurement Result: PCS 1900 mode

Operation mode: TX CH High mode

Fundamental Frequency: 1909.8MHz

Frequency (MHz)	Ant.Pol. H/V	S.G Output (dBm)	Antenna Gain (dBi/dBd)	Cable Loss (dBm)	ERP/ EIRP (dBm)	Limit (dBm)	Safe Margin (dB)
100.00	H	-58.94	2.6	1	-57.34	-13	44.34
200.00	H	-64.11	9.1	1.42	-56.43	-13	43.43
800.00	H	-62.87	8.7	2.86	-57.03	-13	44.03
1800.00	H	-49.31	7	4.38	-46.69	-13	33.69
3819.60	H	-46.49	8.42	6.88	-44.95	-13	31.95
5729.80	H	-42.58	9.5	8.48	-41.56	-13	28.56
7639.20	H	-49.02	9.78	9.7	-48.94	-13	35.94
9549.00	H	-48.33	10.61	11.64	-49.36	-13	36.36
100.00	V	-57.72	2.6	1	-56.12	-13	43.12
200.00	V	-64.15	9.1	1.42	-56.47	-13	43.47
800.00	V	-61.97	8.7	2.86	-56.13	-13	43.13
1800.00	V	-48.25	7	4.38	-45.63	-13	32.63
3819.60	V	-49.05	8.42	6.88	-47.51	-13	34.51
5729.80	V	-44.39	9.5	8.48	-43.37	-13	30.37
7639.20	V	-50.39	9.78	9.7	-50.31	-13	37.31
9549.00	V	-48.75	10.61	11.64	-49.78	-13	36.78

Remark:

1 emission behaviors belong to narrowband spurious emission.

2 The result basic equation calculation is as follow:

$ERP/EIRP(dBm)=S.G. Output(dBm) + Antenna Gain(dBd/dBi)-Cable Loss$

**SGS-CSTC Standards
Technical Services
(Shanghai)Co., Ltd.**

ReportNo.: SHEMO09100117302
Page: 74 of 99

Radiated spurious Emission Measurement Result: WCDMA IV mode

Operation mode: TX CH Low mode

Fundamental Frequency: 1712.4MHz

Frequency (MHz)	Ant.Pol. H/V	S.G Output (dBm)	Antenna Gain (dBi/dBd)	Cable Loss (dBm)	ERP/ EIRP (dBm)	Limit (dBm)	Safe Margin (dB)
100.00	H	-59.77	2.6	1	-58.17	-13	45.17
200.00	H	-65.13	9.1	1.42	-57.45	-13	44.45
800.00	H	-62.29	8.7	2.86	-56.45	-13	43.45
1800.00	H	-53.73	7	4.38	-51.11	-13	38.11
3424.8	H	-54.23	8.25	6.52	-52.5	-13	39.5
5137.2	H	-54.61	9.26	8.01	-53.36	-13	40.36
6849.6	H	-51.39	9.95	9.25	-50.69	-13	37.69
8562.00	H	-51.97	10.35	10.51	-52.13	-13	39.13
100.00	V	-58.92	2.6	1	-57.32	-13	44.32
200.00	V	-65.12	9.1	1.42	-57.44	-13	44.44
800.00	V	-61.51	8.7	2.86	-55.67	-13	42.67
1800.00	V	-53.25	7	4.38	-50.63	-13	37.63
3424.8	V	-50.48	8.25	6.52	-48.75	-13	35.75
5137.2	V	-55.48	9.26	8.01	-54.23	-13	41.23
6849.6	V	-51.06	9.95	9.25	-50.36	-13	37.36
8562.00	V	-53.25	10.35	10.51	-53.41	-13	40.41

Remark:

1 emission behaviors belong to narrowband spurious emission.

2 The result basic equation calculation is as follow:

$ERP/EIRP(dBm) = S.G. Output(dBm) + Antenna Gain(dBd/dBi) - Cable Loss$

**SGS-CSTC Standards
Technical Services
(Shanghai)Co., Ltd.**

ReportNo.: SHEMO09100117302
Page: 75 of 99

Radiated spurious Emission Measurement Result: WCDMA IV mode

Operation mode: TX CH Mid mode

Fundamental Frequency: 1732.6MHz

Frequency (MHz)	Ant.Pol. H/V	S.G Output (dBm)	Antenna Gain (dBi/dBd)	Cable Loss (dBm)	ERP/ EIRP (dBm)	Limit (dBm)	Safe Margin (dB)
100.00	H	-59.29	2.6	1	-57.69	-13	44.69
200.00	H	-64.71	9.1	1.42	-57.03	-13	44.03
800.00	H	-61.98	8.7	2.86	-56.14	-13	43.14
1800.00	H	-52.85	7	4.38	-50.23	-13	37.23
3465.2	H	-56.2	8.25	6.36	-54.31	-13	41.31
5197.8	H	-54.09	9.25	7.8	-52.64	-13	39.64
6930.4	H	-51.76	9.75	9.38	-51.39	-13	38.39
8663	H	-52.43	10.41	10.75	-52.77	-13	39.77
100.00	H	-58.09	2.6	1	-56.49	-13	43.49
200.00	V	-64.16	9.1	1.42	-56.48	-13	43.48
800.00	V	-61.33	8.7	2.86	-55.49	-13	42.49
1800.00	V	-53.68	7	4.38	-51.06	-13	38.06
3465.2	V	-54.38	8.25	6.36	-52.49	-13	39.49
5197.8	V	-52.83	9.25	7.8	-51.38	-13	38.38
6930.4	V	-51.31	9.75	9.38	-50.94	-13	37.94
8663	V	-51.15	10.41	10.75	-51.49	-13	38.49

Remark:

1 emission behaviors belong to narrowband spurious emission.

2 The result basic equation calculation is as follow:

$ERP/EIRP(dBm) = S.G. Output(dBm) + Antenna Gain(dBd/dBi) - Cable Loss$

**SGS-CSTC Standards
Technical Services
(Shanghai)Co., Ltd.**

ReportNo.: SHEMO09100117302
Page: 76 of 99

Radiated spurious Emission Measurement Result: WCDMA IV mode

Operation mode: TX CH High mode

Fundamental Frequency: 1752.6MHz

Frequency (MHz)	Ant.Pol. H/V	S.G Output (dBm)	Antenna Gain (dBi/dBd)	Cable Loss (dBm)	ERP/ EIRP (dBm)	Limit (dBm)	Safe Margin (dB)
100.00	H	-59.66	2.6	1	-58.06	-13	45.06
200.00	H	-65.84	9.1	1.42	-58.16	-13	45.16
800.00	H	-61.95	8.7	2.86	-56.11	-13	43.11
1800.00	H	-53.8	7	4.38	-51.18	-13	38.18
3505.2	H	-55.26	8.25	6.32	-53.33	-13	40.33
5257.8	H	-54.95	9.35	7.81	-53.41	-13	40.41
7010.4	H	-52.85	9.75	9.06	-52.16	-13	39.16
8763	H	-49.93	10.45	10.41	-49.89	-13	36.89
100.00	H	-58.84	2.6	1	-57.24	-13	44.24
200.00	V	-65.12	9.1	1.42	-57.44	-13	44.44
800.00	V	-61.86	8.7	2.86	-56.02	-13	43.02
1800.00	V	-53.98	7	4.38	-51.36	-13	38.36
3505.2	V	-46.94	8.25	6.32	-45.01	-13	32.01
5257.8	V	-54.99	9.35	7.81	-53.45	-13	40.45
7010.4	V	-51.35	9.75	9.06	-50.66	-13	37.66
8763	V	-51.46	10.45	10.41	-51.42	-13	38.42

Remark:

1 emission behaviors belong to narrowband spurious emission.

2 The result basic equation calculation is as follow:

$ERP/EIRP(dBm)=S.G. \text{ Output}(dBm) + \text{Antenna Gain}(dBd/dBi)-\text{Cable Loss}$

**SGS-CSTC Standards
Technical Services
(Shanghai)Co., Ltd.**

ReportNo.: SHEMO09100117302
Page: 77 of 99

Radiated spurious Emission Measurement Result: WCDMA V mode

Operation mode: TX CH Low mode

Fundamental Frequency: 826.4MHz

Frequency (MHz)	Ant.Pol. H/V	S.G Output (dBm)	Antenna Gain (dBi/dBd)	Cable Loss (dBm)	ERP/ EIRP (dBm)	Limit (dBm)	Safe Margin (dB)
100.00	H	-59.21	2.6	1	-57.61	-13	44.61
200.00	H	-64.07	9.1	1.42	-56.39	-13	43.39
800.00	H	-53.23	8.7	2.86	-47.39	-13	34.39
1652.80	H	-51.03	6.95	4.19	-48.27	-13	35.27
2479.20	H	-43.84	8.35	5.26	-40.75	-13	27.75
3305.60	H	-43.6	8.15	6.11	-41.56	-13	28.56
4132.00	H	-54.71	8.45	6.9	-53.16	-13	40.16
100.00	V	-57.99	2.6	1	-56.39	-13	43.39
200.00	V	-63.67	9.1	1.42	-55.99	-13	42.99
800.00	V	-53.75	8.7	2.86	-47.91	-13	34.91
1652.80	V	-49.38	6.95	4.19	-46.62	-13	33.62
2479.20	V	-48.81	8.35	5.26	-45.72	-13	32.72
3305.60	V	-43.37	8.15	6.11	-41.33	-13	28.33
4132.00	V	-53.74	8.45	6.9	-52.19	-13	39.19

Remark:

1 emission behaviors belong to narrowband spurious emission.

2 The result basic equation calculation is as follow:

$ERP/EIRP(dBm)=S.G. Output(dBm) + Antenna Gain(dBd/dBi)-Cable Loss$

**SGS-CSTC Standards
Technical Services
(Shanghai)Co., Ltd.**

ReportNo.: SHEMO09100117302
Page: 78 of 99

Radiated spurious Emission Measurement Result: WCDMA V mode

Operation mode: TX CH Mid mode

Fundamental Frequency: 836.0MHz

Frequency (MHz)	Ant.Pol. H/V	S.G Output (dBm)	Antenna Gain (dBi/dBd)	Cable Loss (dBm)	ERP/ EIRP (dBm)	Limit (dBm)	Safe Margin (dB)
100.00	H	-59.04	2.6	1	-57.44	-13	44.44
200.00	H	-64.06	9.1	1.42	-56.38	-13	43.38
800.00	H	-52.55	8.7	2.86	-46.71	-13	33.71
1672.00	H	-48.89	6.95	4.19	-46.13	-13	33.13
2508.00	H	-48.43	8.35	5.26	-45.34	-13	32.34
3344.00	H	-53.38	8.15	6.11	-51.34	-13	38.34
4180.00	H	-55.76	8.45	6.9	-54.21	-13	41.21
100.00	V	-57.75	2.6	1	-56.15	-13	43.15
200.00	V	-63.16	9.1	1.42	-55.48	-13	42.48
800.00	V	-53.2	8.7	2.86	-47.36	-13	34.36
1672.00	V	-42.66	6.95	4.19	-48.22	-13	35.22
2508.00	V	-50.98	8.35	5.26	-45.66	-13	32.66
3344.00	V	-52.76	8.15	6.11	-50.72	-13	37.72
4180.00	V	-54.71	8.45	6.9	-53.16	-13	40.16

Remark:

1 emission behaviors belong to narrowband spurious emission.

2 The result basic equation calculation is as follow:

ERP/EIRP(dBm)=S.G. Output(dBm) + Antenna Gain(dBd/dBi)-Cable Loss

**SGS-CSTC Standards
Technical Services
(Shanghai)Co., Ltd.**

ReportNo.: SHEMO09100117302
Page: 79 of 99

Radiated spurious Emission Measurement Result: WCDMA V mode

Operation mode: TX CH High mode

Fundamental Frequency: 846.6MHz

Frequency (MHz)	Ant.Pol. H/V	S.G Output (dBm)	Antenna Gain (dBi/dBd)	Cable Loss (dBm)	ERP/ EIRP (dBm)	Limit (dBm)	Safe Margin (dB)
100.00	H	-59.87	2.6	1	-58.27	-13	45.27
200.00	H	-65.07	9.1	1.42	-57.39	-13	44.39
800.00	H	-54.08	8.7	2.86	-48.24	-13	35.24
1693.20	H	-48.61	6.99	4.2	-45.82	-13	32.82
2539.80	H	-48.27	8.41	5.35	-45.21	-13	32.21
3386.40	H	-54.23	8.22	6.21	-52.22	-13	39.22
4233.00	H	-55.03	8.48	6.91	-53.46	-13	40.46
100.00	V	-59.14	2.6	1	-57.54	-13	44.54
200.00	V	-63.35	9.1	1.42	-55.67	-13	42.67
800.00	V	-53.2	8.7	2.86	-47.36	-13	34.36
1693.20	V	-42.67	6.99	4.22	-39.9	-13	26.9
2539.80	V	-45.36	8.41	5.39	-42.34	-13	29.34
3386.40	V	-53.03	8.22	6.35	-51.16	-13	38.16
4233.00	V	-54.92	8.48	7.04	-53.48	-13	40.48

Remark:

1 emission behaviors belong to narrowband spurious emission.

2 The result basic equation calculation is as follow:

$ERP/EIRP(dBm) = S.G. Output(dBm) + Antenna Gain(dBd/dBi) - Cable Loss$

6.7 Receiver Spurious Emissions

Test Requirement: RSS-GEN section 6;
RSS-GEN section 7.2.3.2

Limit: **Table 1 - Spurious Emission Limits for Receivers**

Spurious Frequency (MHz)	Field Strength (microvolt/m at 3 metres)
30-88	100
88-216	150
216-960	200
Above 960	500

40.0 dBμV/m between 30MHz to 88MHz

43.5 dBμV/m between 88MHz to 216MHz

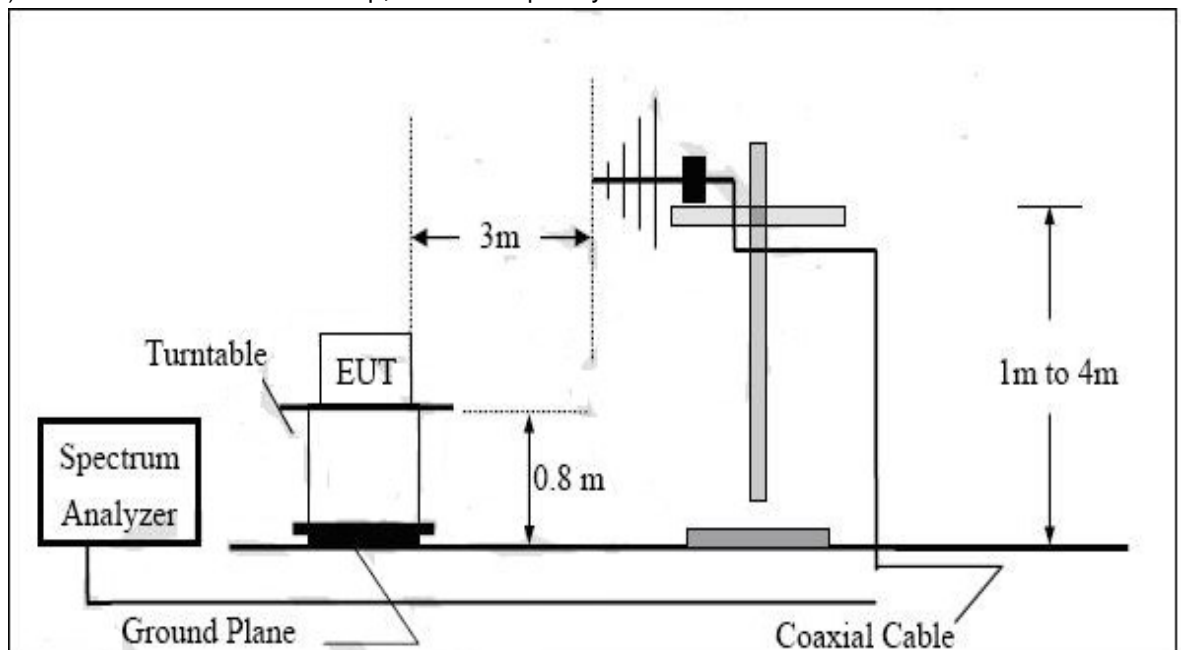
46.0 dBμV/m between 216MHz to 960MHz

54.0 dBμV/m above 960MHz

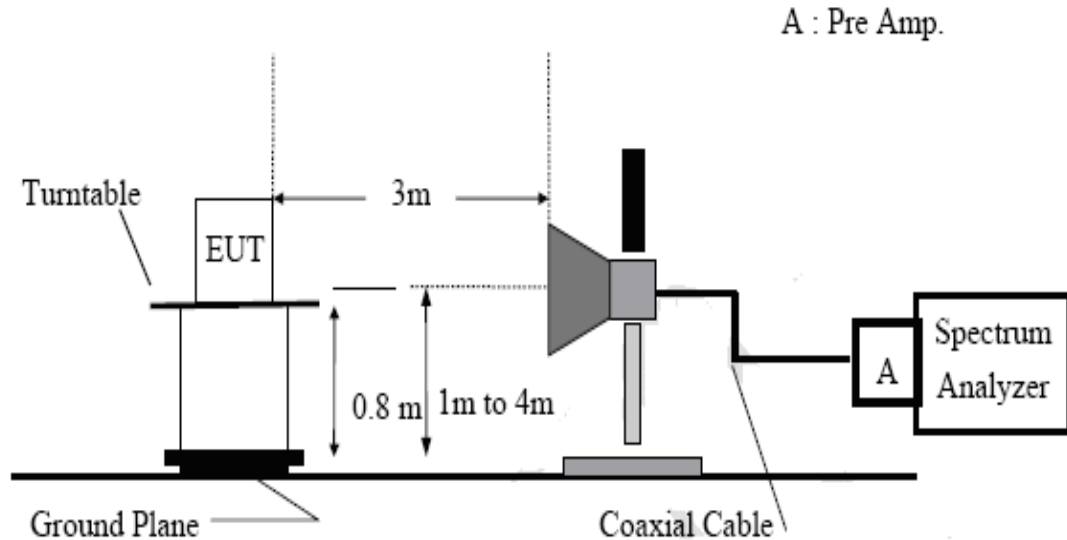
Test Date: Mar 23,2010

Test Setup:

(A) Radiated emission Test setup, Below Frequency 1000MHz:



(B) Radiated emission Test setup frequency over 1GHz:



Test Procedure:

The EUT was placed on an non-conductive turntable using a non-conductive support. The radiated emission at the fundamental frequency was measured at 3 m with a test antenna and EMI spectrum analyzer. During the measurement, the EUT was communication with the station. The highest emission was recorded with the rotation of the turntable and lowering of the test antenna from 4m to 1m. For emissions below 1 GHz, measurements shall be performed using QP detector. Above 1 GHz, measurements shall be performed using an average detector.

**SGS-CSTC Standards
Technical Services
(Shanghai)Co., Ltd.**

ReportNo.: SHEMO09100117302

Page: 82 of 99

Measurement Result:

Operation mode: GSM 850 Receiver mode

Frequency (MHz)	Ant.Pol. H/V	Level (dBuV/m)	Limit (dBuV/m)	Safe Margin (dB)
30.00	H	14.8	40.0	25.2
100.00	H	15.0	43.5	28.5
200.00	H	13.8	43.5	29.7
300.00	H	20.0	46.0	26.0
500.00	H	22.5	46.0	23.5
1000.00	H	28.0	54.0	26.0
35.00	V	23.0	40.0	17.0
40.00	V	25.0	40.0	15.0
100.00	V	14.2	43.5	29.3
300.00	V	18.5	46.0	27.5
500.00	V	25.0	46.0	21.0
1000.00	V	30.0	54.0	24.0

**SGS-CSTC Standards
Technical Services
(Shanghai)Co., Ltd.**

ReportNo.: SHEMO09100117302
Page: 83 of 99

Measurement Result:

Operation mode: GSM 1900 Receiver mode

Frequen cy (MHz)	Ant.Pol. H/V	Level (dBuV/m)	Limit (dBuV/m)	Safe Margin (dB)
30.00	H	14.9	40.0	25.1
100.00	H	13.2	43.5	30.3
200.00	H	14.6	43.5	28.9
300.00	H	19.9	46.0	26.1
500.00	H	22.4	46.0	23.6
1000.00	H	29.7	54.0	24.3
30.00	V	15.1	40.0	24.9
100.00	V	12.6	43.5	30.9
200.00	V	15.1	43.5	28.4
300.00	V	18.7	46.0	27.3
500.00	V	22.1	46.0	23.9
1000.00	V	30.5	54.0	23.5

**SGS-CSTC Standards
Technical Services
(Shanghai)Co., Ltd.**

ReportNo.: SHEMO09100117302
Page: 84 of 99

Measurement Result:

Operation mode: WCDMA Band IV Receiver mode

Frequen cy (MHz)	Ant.Pol. H/V	Level (dBuV/m)	Limit (dBuV/m)	Safe Margin (dB)
30.00	H	16.1	40.0	23.9
150.00	H	16.2	43.5	27.3
200.00	H	15.6	43.5	27.9
300.00	H	20.0	46.0	26.0
600.00	H	26.4	46.0	19.6
1000.00	H	30.7	54.0	23.3
35.00	V	25.1	40.0	14.9
40.00	V	23.0	43.5	20.5
100.00	V	14.6	43.5	28.9
300.00	V	20.0	46.0	26.0
500.00	V	24.1	46.0	21.9
1000.00	V	30.0	54.0	24.0

**SGS-CSTC Standards
Technical Services
(Shanghai)Co., Ltd.**

ReportNo.: SHEMO09100117302
Page: 85 of 99

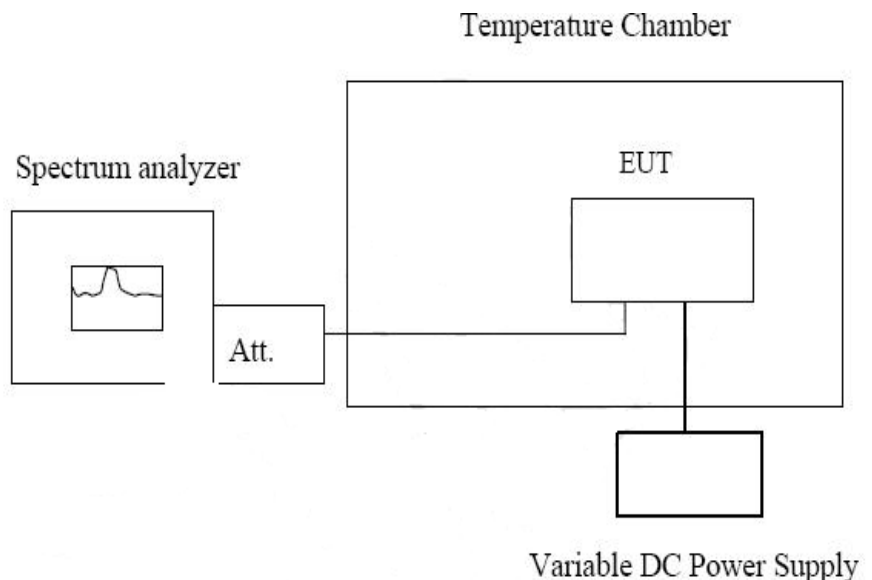
Measurement Result:

Operation mode: WCDMA Band V Receiver mode

Frequen cy (MHz)	Ant.Pol. H/V	Level (dBuV/m)	Limit (dBuV/m)	Safe Margin (dB)
30.00	H	15.0	40.0	25.0
60.00	H	17.1	43.5	26.4
200.00	H	15.0	43.5	28.5
300.00	H	20.0	46.0	26.0
600.00	H	26.6	46.0	19.4
1000.00	H	30.6	54.0	23.4
30.00	V	15.2	40.0	24.8
100.00	V	14.5	43.5	29.0
200.00	V	14.2	43.5	29.3
300.00	V	20.1	46.0	25.9
500.00	V	24.7	46.0	21.3
1000.00	V	31.0	54.0	23.0

6.8 Frequency Stability V.S. TEMPERATURE MEASUREMENT

Test Requirement: Part 2.1055(a)(1),
RSS-132,4.3; RSS-133,6.3;RSS-139 6.3
Test Date: Mar 23, 2010
Test Status: Test mode
Test Setup:



Note: Measurement setup for testing On antenna connector.

Test procedure:

The equipment under test was connected to an external AC or DC power supply and input rated voltage. Reference power supply voltage for these tests is DC 3.8 V.RF output was connected to a frequency counter or spectrum analyzer via feed through attenuators. The EUT was placed inside the temperature chamber. Set the Spectrum analyzer RBW low enough to obtain the desired frequency resolution and measure EUT 25 degree operating frequency as reference frequency. Turn EUT off and set the chamber temperature to -30 degree. After the temperature stabilized for approximately 30 minutes record the frequency. Repeat step measure with 10 degree per stage until the highest temperature of 50 degree reached.

Frequency Tolerance: +/-2.5ppm

**SGS-CSTC Standards
Technical Services
(Shanghai)Co., Ltd.**

ReportNo.: SHEMO09100117302
Page: 87 of 99

Reference Frequency: GSM 850 Mid channel 836.4 MHz@ 25 degree			
Limit: +/- 2.5ppm = 2091Hz			
Environment	Frequency	Delta	Limit
Temperature(degree)	(MHz)		
-30	836.399911	89	2091
-20	836.399946	54	2091
-10	836.399967	33	2091
10	836.399984	16	2091
20	836.400004	4	2091
30	836.399983	17	2091
40	836.399978	22	2091
50	836.399937	63	2091

Reference Frequency: PCS 1900 Mid channel 1880MHz@ 25 degree			
Limit: +/- 2.5ppm = 4700Hz			
Environment	Frequency	Delta	Limit
Temperature(degree)	(MHz)		
-30	1879.999901	99	4700
-20	1879.999925	75	4700
-10	1879.999974	26	4700
10	1879.999990	10	4700
20	1879.999985	15	4700
30	1879.999974	26	4700
40	1879.999947	53	4700
50	1879.999933	67	4700

SGS-CSTC Standards
Technical Services
(Shanghai)Co., Ltd.

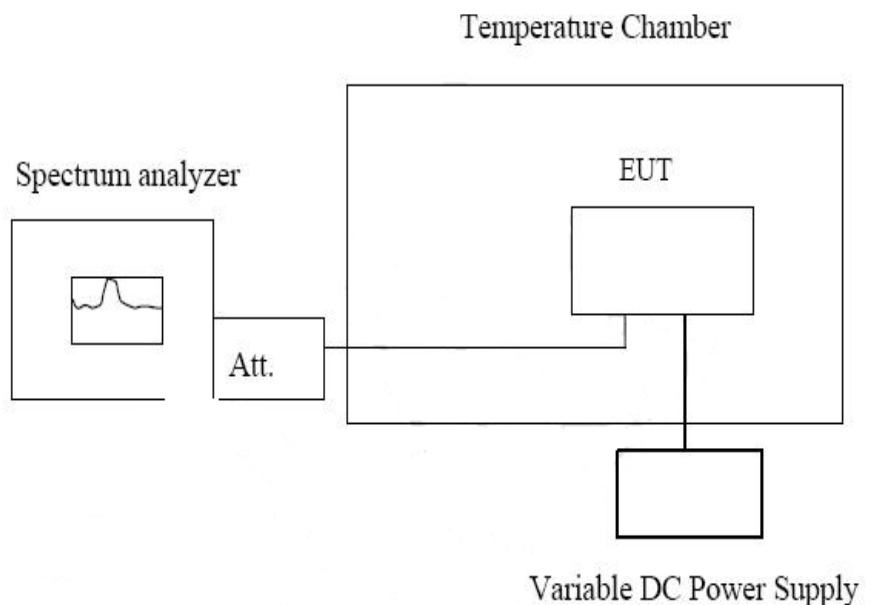
ReportNo.: SHEMO09100117302
Page: 88 of 99

Reference Frequency: WCDMA IV Mid channel 1732.6MHz@ 25 degree			
Limit: +/- 2.5ppm = 4331.5Hz			
Environment	Frequency	Delta	Limit
Temperature(degree)	(MHz)		
-30	1732.599921	79	4331.5
-20	1732.599933	67	4331.5
-10	1732.599944	56	4331.5
10	1732.599991	9	4331.5
20	1732.599993	7	4331.5
30	1732.599981	19	4331.5
40	1732.599975	25	4331.5
50	1732.599915	85	4331.5

Reference Frequency: WCDMA V Mid channel 836.0MHz@ 25 degree			
Limit: +/- 2.5ppm = 2090Hz			
Environment	Frequency	Delta	Limit
Temperature(degree)	(MHz)		
-30	835.999914	86	2090
-20	835.999929	71	2090
-10	835.999949	51	2090
10	835.999984	16	2090
20	835.999995	5	2090
30	835.999943	57	2090
40	835.999934	66	2090
50	835.999949	51	2090

6.9 Frequency Stability V.S. VOLTAGE MEASUREMENT

Test Requirement: Part 2.1055(d)(1)
RSS-132,4.3; RSS-133,6.3 ;RSS-139,6.3
Test Date: Mar 23, 2010
Test Status: Test mode
Test Setup:



Note: Measurement setup for testing On antenna connector.

Test procedure:

Set chamber temperature to 25 degree. Use a variable AC power/ DC power supply to power the EUT and set the Voltage to rated voltage. Reference power supply voltage for these tests is DC 3.8 V. Set the spectrum analyzer RBW enough to obtain the desired frequency resolution and recorded the frequency.

Reduce the input voltage to specified extreme voltage variation(+/-15%) and endpoint, record the maximum frequency change.

Frequency Tolerance: +/-2.5ppm

SGS-CSTC Standards
Technical Services
(Shanghai)Co., Ltd.

ReportNo.: SHEMO09100117302
Page: 90 of 99

Reference Frequency: GSM 850 Mid channel 836.4 MHz@ 25 degree			
Limit: +/- 2.5ppm = 2091Hz			
Power Supply	Frequency	Delta	Limit
Vdc	(MHz)		
4.2	836.400032	32	2091
3.8	836.400000	0	2091
3.3	836.399982	18	2091

Reference Frequency: PCS 1900 Mid channel 1880MHz@ 25 degree			
Limit: +/- 2.5ppm = 4700Hz			
Power Supply	Frequency	Delta	Limit
Vdc	(MHz)		
4.2	1879.999974	26	4700
3.8	1880.000000	0	4700
3.3	1879.999965	35	4700

Reference Frequency: WCDMA IV Mid channel 1732.6MHz@ 25 degree			
Limit: +/- 2.5ppm = 4331.5Hz			
Power Supply	Frequency	Delta	Limit
Vdc	(MHz)		
4.2	1732.600031	31	4331.5
3.8	1732.600000	0	4331.5
3.3	1732.600019	19	4331.5

Reference Frequency: WCDMA V Mid channel 836.0MHz@ 25 degree			
Limit: +/- 2.5ppm = 2090Hz			
Power Supply	Frequency	Delta	Limit
Vdc	(MHz)		
4.2	835.999973	27	2090
3.8	836.000000	0	2090
3.3	835.999965	35	2090

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms_and_conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms_e-document.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only

6.10 Conducted Emissions Mains Terminals, 150 kHz to 30MHz

Test Requirement: RSS Gen 7.2.2 ;
Part 15.207

Test Method: ANSI C63.4.

Test Date: Mar 15,2010

Frequency Range: 150KHz to 30MHz

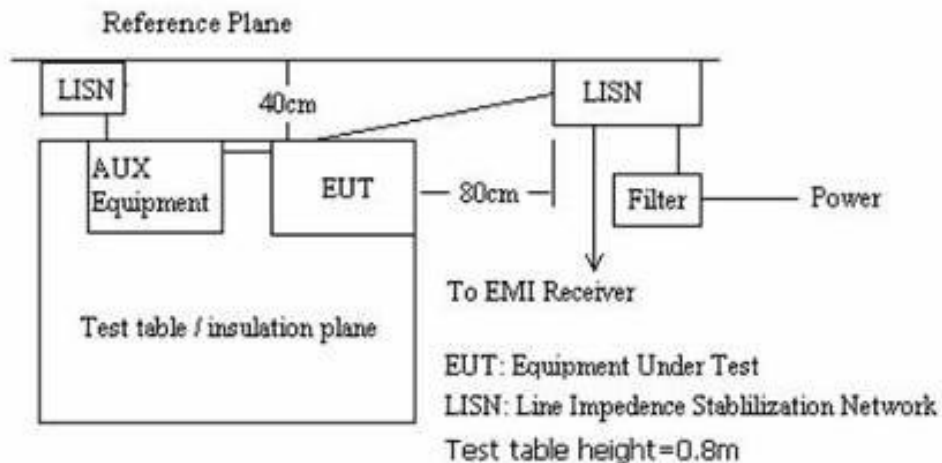
Detector: Peak for pre-scan (9kHz Resolution Bandwidth)
Quasi-Peak if maximised peak within 6dB of Quasi-Peak limit

EUT Operation: GSM 850/1900,WCDMA IV/V link mode

An initial pre-scan was performed on the live and neutral lines with peak detector.

Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission were detected.

Plan View of Test Setup

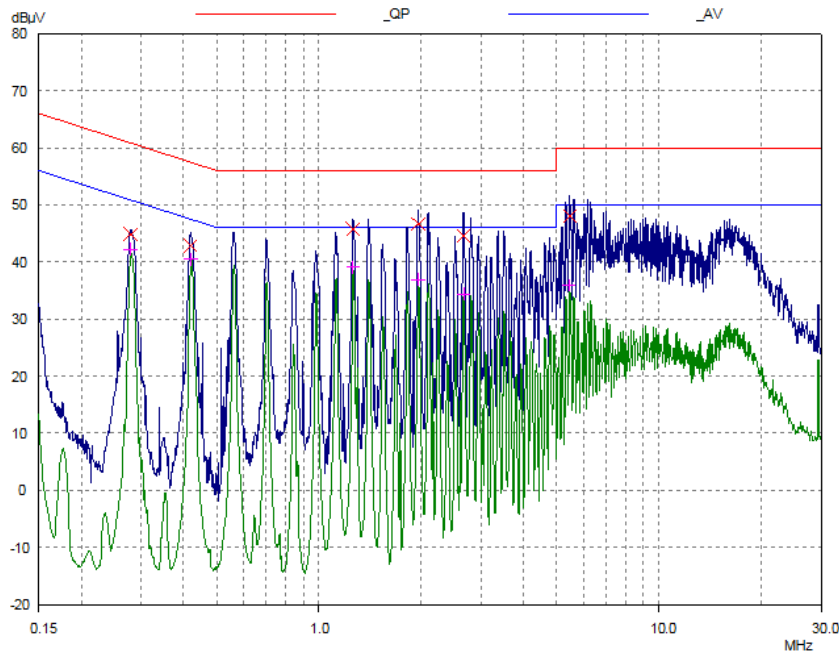


Limit:

Frequency range MHz	Limits dB(uV)	
	Quasi-peak	Average
0.15 to 0.50	66 to 56	56 to 46
0.50 to 5	56	46
5 to 30	60	50
Note 1. The lower limit shall apply at the transition frequencies 2. The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz.		

Operating mode: GSM 850 Link

L Line:



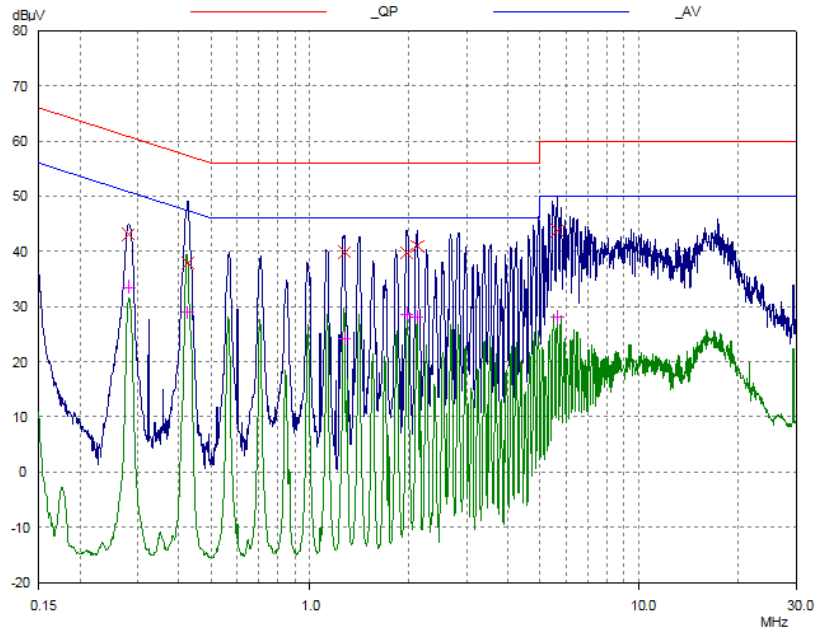
Final Measurement Results

Frequency MHz	QP Level dBμV	QP Limit dBμV	QP Delta dB
0.2796	44.90	60.83	15.93
0.42013	42.87	57.45	14.58
1.25938	45.80	56.00	10.20
1.95374	46.66	56.00	9.34
2.65683	44.57	56.00	11.43
5.45045	48.06	60.00	11.94

Frequency MHz	AV Level dBμV	AV Limit dBμV	AV Delta dB
0.2796	42.16	50.83	8.67
0.42013	40.41	47.45	7.04
1.25938	39.06	46.00	6.94
1.95374	36.96	46.00	9.04
2.65683	34.34	46.00	11.66
5.45045	35.90	50.00	14.10

Operating mode: GSM 850 Link

N Line:



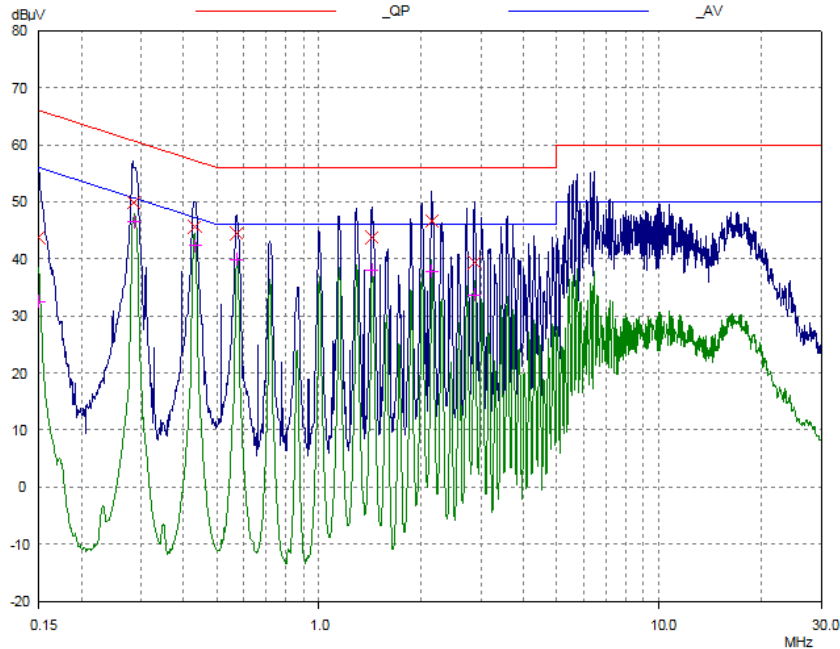
Final Measurement Results

Frequency MHz	QP Level dBμV	QP Limit dBμV	QP Delta dB
0.28072	43.08	60.79	17.71
0.42519	37.97	57.35	19.38
1.27456	39.77	56.00	16.23
1.9694	39.66	56.00	16.34
2.11613	40.92	56.00	15.08
5.64984	43.76	60.00	16.24

Frequency MHz	AV Level dBμV	AV Limit dBμV	AV Delta dB
0.28072	33.49	50.79	17.30
0.42519	28.88	47.35	18.47
1.27456	24.17	46.00	21.83
1.9694	28.58	46.00	17.42
2.11613	28.09	46.00	17.91
5.64984	28.00	50.00	22.00

Operating mode: PCS 1900 Link

L Line:



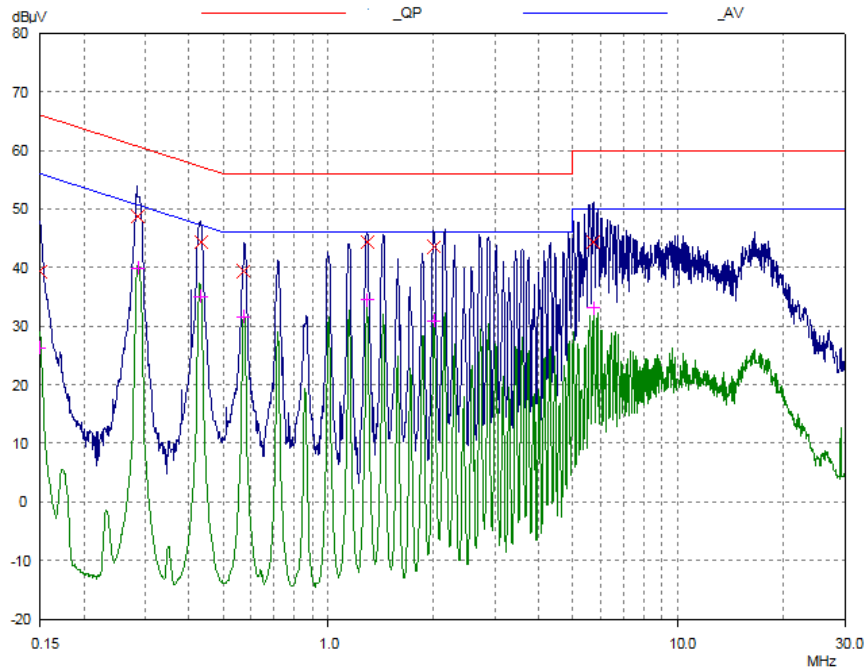
Final Measurement Results

Frequency MHz	QP Level dBμV	QP Limit dBμV	QP Delta dB
0.15	43.77	66.00	22.23
0.28524	49.93	60.66	10.73
0.43204	45.63	57.21	11.58
0.57132	44.41	56.00	11.59
1.43099	43.76	56.00	12.24
2.14162	46.68	56.00	9.32
2.86619	39.37	56.00	16.63

Frequency MHz	AV Level dBμV	AV Limit dBμV	AV Delta dB
0.15	32.51	56.00	23.49
0.28524	46.47	50.66	4.19
0.43204	42.25	47.21	4.96
0.57132	39.92	46.00	6.08
1.43099	38.08	46.00	7.92
2.14162	37.82	46.00	8.18
2.86619	33.57	46.00	12.43

Operating mode: PCS 1900 Link

N Line:



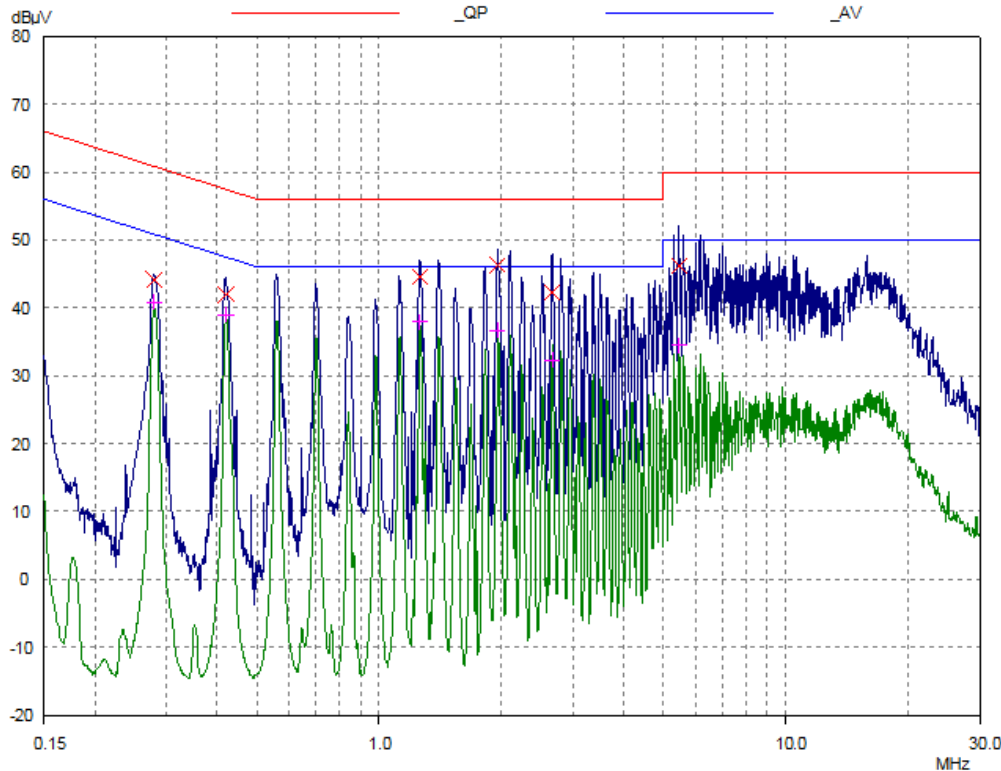
Final Measurement Results

Frequency MHz	QP Level dBμV	QP Limit dBμV	QP Delta dB
0.15	39.32	66.00	26.68
0.28524	48.71	60.66	11.95
0.43204	44.30	57.21	12.91
0.57361	39.32	56.00	16.68
1.28991	44.33	56.00	11.67
2.00911	43.53	56.00	12.47
5.71791	44.34	60.00	15.66

Frequency MHz	AV Level dBμV	AV Limit dBμV	AV Delta dB
0.15	26.23	56.00	29.77
0.28524	39.86	50.66	10.80
0.43204	34.97	47.21	12.24
0.57361	31.51	46.00	14.49
1.28991	34.42	46.00	11.58
2.00911	30.90	46.00	15.10
5.71791	33.03	50.00	16.97

Operating mode: WCDMA BAND IV Link Mode

L Line:



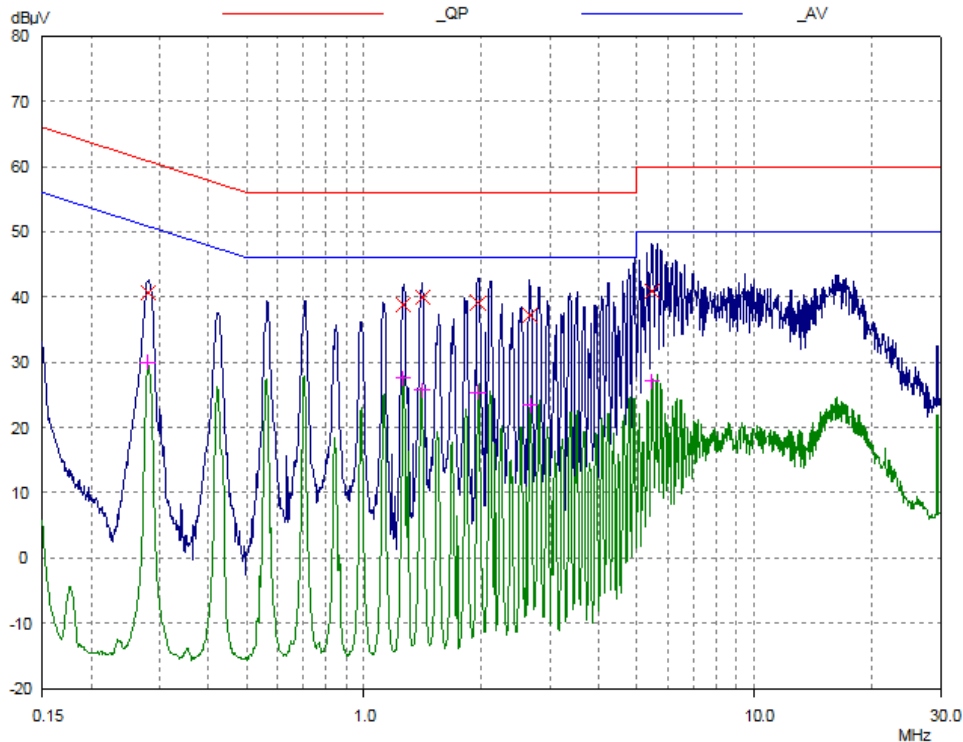
Final Measurement Results

Frequency MHz	QP Level dBμV	QP Limit dBμV	QP Delta dB
0.2796	44.18	60.83	16.65
0.42013	42.00	57.45	15.45
1.25938	44.53	56.00	11.47
1.95374	46.30	56.00	9.70
2.65683	42.32	56.00	13.68
5.45045	46.21	60.00	13.79

Frequency MHz	AV Level dBμV	AV Limit dBμV	AV Delta dB
0.2796	40.90	50.83	9.93
0.42013	39.02	47.45	8.43
1.25938	37.88	46.00	8.12
1.95374	36.69	46.00	9.31
2.65683	32.27	46.00	13.73
5.45045	34.43	50.00	15.57

Operating mode: WCDMA BAND IV Link Mode

N Line:



Final Measurement Results

Frequency MHz	QP Level dBμV	QP Limit dBμV	QP Delta dB
0.2796	40.69	60.83	20.14
1.25938	38.82	56.00	17.18
1.40832	39.92	56.00	16.08
1.95374	39.08	56.00	16.92
2.65683	37.17	56.00	18.83
5.45045	40.93	60.00	19.07

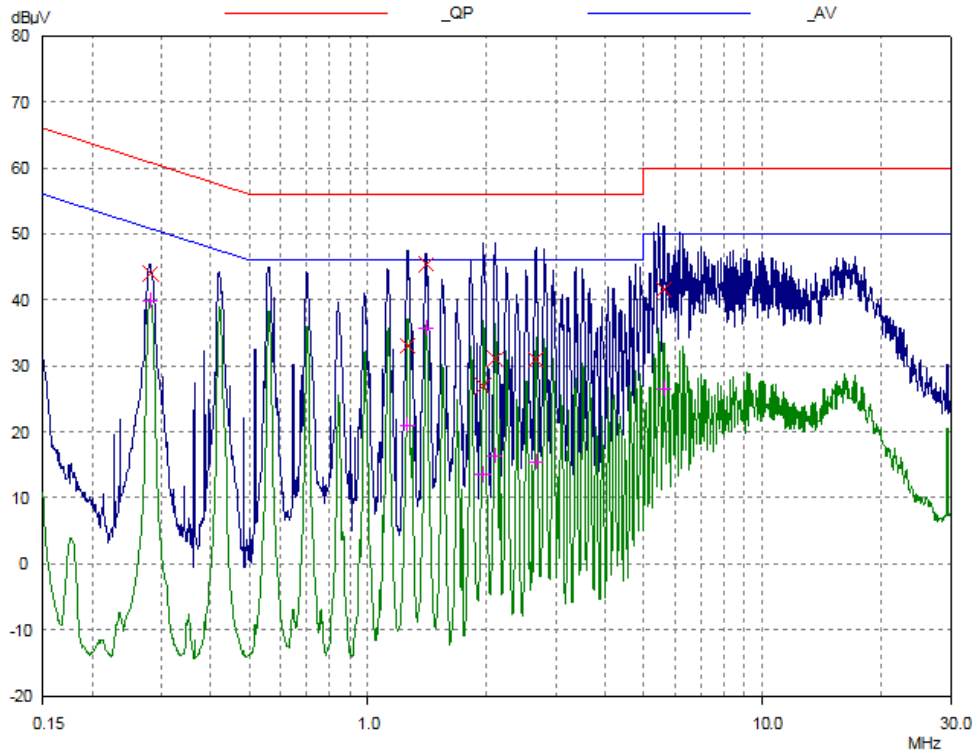
Frequency MHz	AV Level dBμV	AV Limit dBμV	AV Delta dB
0.2796	29.95	50.83	20.88
1.25938	27.48	46.00	18.52
1.40832	25.72	46.00	20.28
1.95374	25.25	46.00	20.75
2.65683	23.41	46.00	22.59
5.45045	27.03	50.00	22.97

**SGS-CSTC Standards
Technical Services
(Shanghai)Co., Ltd.**

ReportNo.: SHEMO09100117302
Page: 98 of 99

Operating mode: WCDMA BAND V Link Mode

L Line:



Final Measurement Results

Frequency MHz	QP Level dBμV	QP Limit dBμV	QP Delta dB
0.28072	44.10	60.79	16.69
1.25938	33.06	56.00	22.94
1.40832	45.39	56.00	10.61
1.95374	26.87	56.00	29.13
2.0993	31.00	56.00	25.00
2.65683	31.03	56.00	24.97
5.62733	41.52	60.00	18.48

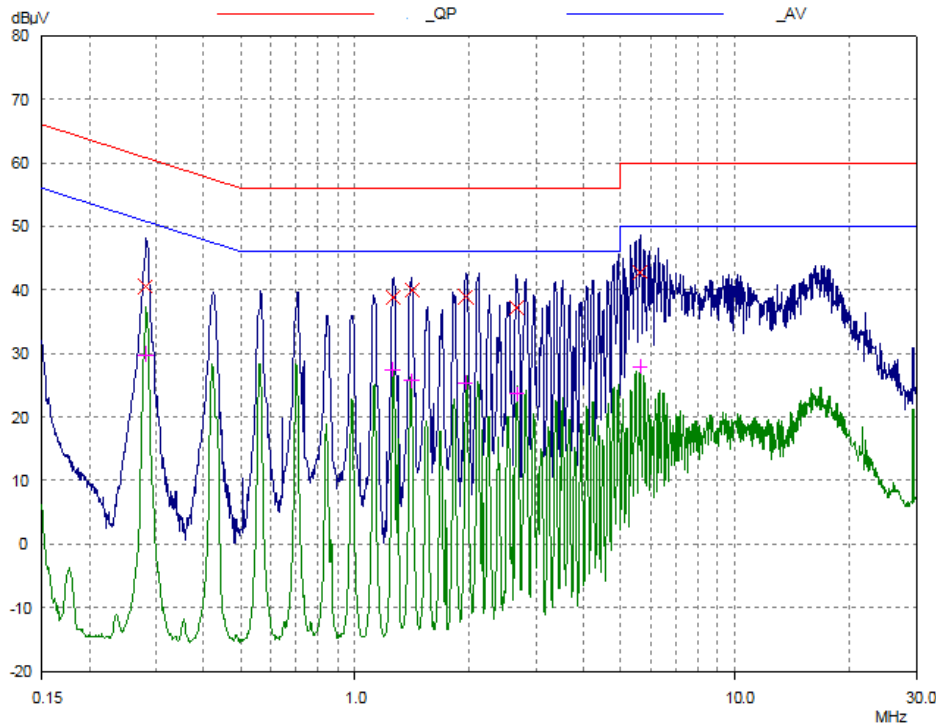
Frequency MHz	AV Level dBμV	AV Limit dBμV	AV Delta dB
0.28072	39.81	50.79	10.98
1.25938	21.05	46.00	24.95
1.40832	35.68	46.00	10.32
1.95374	13.49	46.00	32.51
2.0993	16.39	46.00	29.61
2.65683	15.49	46.00	30.51
5.62733	26.46	50.00	23.54

**SGS-CSTC Standards
Technical Services
(Shanghai)Co., Ltd.**

ReportNo.: SHEMO09100117302
Page: 99 of 99

Operating mode: WCDMA BAND V Link Mode

N Line:



Final Measurement Results

Frequency MHz	QP Level dBμV	QP Limit dBμV	QP Delta dB
0.28072	40.59	60.79	20.20
1.25938	38.82	56.00	17.18
1.40832	39.96	56.00	16.04
1.95374	39.00	56.00	17.00
2.65683	37.23	56.00	18.77
5.62733	42.77	60.00	17.23

Frequency MHz	AV Level dBμV	AV Limit dBμV	AV Delta dB
0.28072	29.80	50.79	20.99
1.25938	27.43	46.00	18.57
1.40832	25.72	46.00	20.28
1.95374	25.31	46.00	20.69
2.65683	23.57	46.00	22.43
5.62733	27.94	50.00	22.06

~End of Report~

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms_and_conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms_e-document.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only