SGS-CSTC Standards Technical Services Co., Ltd.

No. 1 Workshop, M-10, Middle section, Science & Technology Park, Nanshan District, Shenzhen, Guangdong, China 518057
Telephone: +86 (0) 755 2601 2053
Fax: +86 (0) 755 2671 0594
Email: ee.shenzhen@sgs.com

FCC REPORT

Application No:	**SZEM1203001212RF**
Applicant:	**Shenzhen CASTEL Wireless Telecommunications Co., Ltd.**
Product Name:	**3G Vehicle Multimedia**
Operation Frequency:	**GSM 850/1900**
	WCDMA 850/1900
	HSDPA 850/1900
FCC ID:	**XDV950**
Standards:	**FCC Part 2,**
	FCC Part 22,
	FCC Part 24
Date of Receipt:	**2012-03-22**
Date of Test:	**2012-04-06 to 2012-05-09**
Date of Issue:	**2012-05-15**
Test Result:	**PASS ***

* In the configuration tested, the EUT complied with the standards specified above.

Authorized Signature:

Jack Zhang
EMC Laboratory Manager

2 Contents

3 Test Summary

Test Item	Section in CFR 47	Result
RF Power Output	FCC Part 2.1046(a) FCC Part 22.913(a) FCC Part 24.232(c)	PASS
99% Occupied Bandwidth	FCC Part 2.1049(h)	PASS
Effective Isotropic Radiated Power	FCC Part 2.1046(a) FCC Part 22.913(a) FCC Part 22.232(c)	PASS
Out of Band Emissions at antenna Terminals	FCC Part 2.1051 FCC Part 22.917(a) FCC Part 24.238(a)	PASS
Band Edge	FCC Part 2.1051 FCC Part 22.917(a) FCC Part 24.238(a)	PASS
Field Strength of Spurious Emissions	FCC Part 2.1053 FCC Part 22.917(a) FCC Part 24.238(a)	PASS
Frequency Stability vs. Temperature and Voltage	FCC Part 2.1055(a)&(d)	PASS

Remark: Pass: The EUT complies with the essential requirements in the standard.

Fail: The EUT does not comply with the essential requirements in the standard.

4 General Information

4.1 Client Information

Applicant:	Shenzhen CASTEL Wireless Telecommunications Co., Ltd.
Address of Applicant:	5/F, 5th Building, Software Park, No.2 Gaoxin C. 3rd Road, Hi-Tech. Industrial Park, Nanshan, Shenzhen, Guangdong, China

4.2 General Description of E.U.T.

Product Name:	3G Vehicle Multimedia
Model No.:	VMID-950
Trade Mark:	CASTEL
Support Frequency Band:	GSM 850/1900 HSDPA 850/1900 WCDMA 850/1900
Type of Modulation:	GMSK for GSM QPSK for HSDPA QPSK for WCDMA
Antenna Gain:	3.0dBi
EUT Power Supply:	DC 14.4V
Test Voltage:	Normal Voltage 14.4Vdc/ Low Voltage 10Vdc / High Voltage 16.8Vdc

GSM

	Operating frequency		Rated Power
Cellular phone standards Frequency Range and Power:	GSM 850	824.2MHz-848.8MHz	33dBm
	PCS 1900	1850.2MHz-1909.8MHz	30dBm
	HSDPA / WCDMA 850	826.4MHz-846.6MHz	23.5dBm
	HSDPA / WCDMA 1900	1852.4MHz-1907.6MHz	23.5dBm
IMEI:	354524040017163		

Note: GSM 850

Channel	Channel number	Frequency (MHz)
Lowest channel	128	824.2
Middle channel	189	836.4
Highest channel	251	848.8

Note: PCS1900

Channel	Channel number	Frequency (MHz)
Lowest channel	512	1850.2
Middle channel	661	1880.0
Highest channel	810	1909.8

Note: HSDPA / WCDMA 850

Channel	Channel number	Frequency (MHz)
Lowest channel	4357	826.4
Middle channel	4408	836.6
Highest channel	4538	846.6

Note: HSDPA / WCDMA 1900

Channel	Channel number	Frequency (MHz)
Lowest channel	9662	1852.4
Middle channel	9800	1880.0
Highest channel	9938	1907.6

4.3 Test Environment and Mode

Test Environment:	
Temperature:	24.0 °C
Humidity:	52 % RH
Atmospheric Pressure:	1006 mbar
Test Mode:	
Traffic mode(850 MHz)	A Communication link was established in the mentioned band 1. ABT and RXQ were observed during test according to the standard 2. Continuing working in correct operating mode after test
Traffic mode(1900 MHz)	A Communication link was established in the mentioned band 1. ABT and RXQ were observed during test according to the standard 2. Continuing working in correct operating mode after test
Idle mode(850 MHz)	The EUT was registered in the mentioned band.
Idle mode(1900 MHz)	The EUT was registered in the mentioned band.

4.4 Test Facility

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

- **CNAS (No. CNAS L2929)**
  CNAS has accredited SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch EMC Lab 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.
- **VCCI**
  The 3m Semi-anechoic chamber, Full-anechoic Chamber and Shielded Room (7.5m x 4.0m x 3.0m) of SGS-CSTC Standards Technical Services Co., Ltd. have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-2197, G-416, T-1153 and C-2383 respectively.
- **FCC – Registration No.: 556682**
  SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration No.: 556682.
- **Industry Canada (IC)**
  The 3m Semi-anechoic chamber of SGS-CSTC Standards Technical Services Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 4620C-1.

4.5 Test Location

All tests were performed at:
SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch E&E Lab
No. 1 Workshop, M-10, Middle section, Science & Technology Park, Shenzhen, Guangdong, China 518057
Telephone: +86 (0) 755 2601 2053 Fax: +86 (0) 755 2671 0594
No tests were sub-contracted.

4.6 Other Information Requested by the Customer

None.

4.7 Description of Support Units

The EUT was tested with associated equipment as below:

Description	Manufacturer	Model No.
DC power	Zhao Xin	RXN-305D

4.8 Test Instruments List

Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Due date (yyyy-mm-dd)
1	3m Semi-Anechoic Chamber	ETS-LINDGREN	N/A	SEL0017	2012-06-10
2	EMI Test Receiver	Rohde & Schwarz	ESIB26	SEL0023	2012-05-26
3	EMI Test software	AUDIX	E3	SEL0050	N/A
4	Coaxial cable	SGS	N/A	SEL0028	2012-05-29
5	BiConiLog Antenna (26-3000MHz)	ETS-LINDGREN	3142C	SEL0015	2012-10-09
6	Double-ridged horn (1-18GHz)	ETS-LINDGREN	3117	SEL0006	2012-10-09
7	Horn Antenna (18-26GHz)	ETS-LINDGREN	3160	SEL0076	2012-10-09
8	Pre-amplifier (0.1-1300MHz)	Agilent Technologies	8447D	SEL0053	2012-05-26
9	Pre-Amplifier (0.1-26.5GHz)	Compliance Directions Systems Inc.	PAP-0126	SEL0168	2012-10-26
10	Pre-amplifier (18-26GHz)	Compliance Directions Systems Inc.	AFS33-18002 650-30-8P-44	SEL0080	2012-06-04
11	Band filter	Amindeon	Asi3314	SEL0094	2012-05-26
12	Bilogical Antenna	A.H. Systems, inc	SAS-521-2	SEL0122	2012-11-01
13	Power sensors	Rohde & Schwarz	URV5-Z2	SEL0072	2012-05-26
14	Power Meter	Rohde & Schwarz	NRVD	SEL0069	2012-05-26
15	Coaxial Cable	SGS	N/A	SEL0028	2012-05-29
16	Power Divider(splitter)	Agilent Technologies	11636B	SEL0130	2011-07-09
17	Universal radio communication tester	Rohde & Schwarz	CMU200	SEL0091	2011-10-27
18	Spectrum Analyzer	Rohde & Schwarz	FSP 30	SEL0154	2011-07-27
19	BiConiLog Antenna (26-3000MHz)	ETS-LINDGREN	3142C	SEL0015	2012-10-29
20	Double-ridged horn (1-18GHz)	ETS-LINDGREN	3117	SEL0006	2012-10-29
21	Horn Antenna (18-26GHz)	ETS-LINDGREN	3160	SEL0076	2012-10-29
22	Signal Generator (9kHz-3.3GHz)	Rohde & Schwarz	SML03	SEL0068	2012-05-26
23	Signal Generator (10M-27GHz)	Rohde & Schwarz	SMR27	SEL0067	2012-06-22

General used equipment					
Item	**Test Equipment**	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal.Due date (yyyy-mm-dd)**
1	Humidity/ Temperature Indicator	Shanghai	ZJ1-2B	SEL0102 to SEL0103	2012-10-27
2	Humidity/ Temperature Indicator	Shanghai	ZJ1-2B	SEL0101	2012-10-27
3	Barometer	ChangChun	DYM3	SEL0088	2012-05-18

5 Test results and Measurement Data

5.1 RF Power Output

Standard Requirement:	FCC Part 2.1046, ANSI/TIA-603-C FCC Part 22.913(a) Mobile station are limited to 7W. FCC Part 24.232(c) Peak Power measurement limited to 2W.

Maximum Output Powers With GSM 850 for test:

Normal Peak output power:	Limit:
33dBm	7W(38.45dBm)

Maximum Output Powers With PCS 1900 for test:

Normal Peak output power:	Limit:
30dBm	2W(33.0dBm)

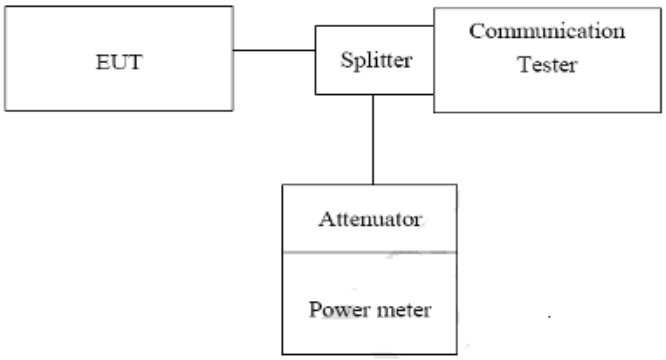
Maximum Output Powers With HSDPA/WCDMA 850 for test:

Normal Peak output power:	Limit:
23.5dBm	7W(38.45dBm)

Maximum Output Powers With HSDPA/WCDMA 1900 for test:

Normal Peak output power:	Limit:
23.5dBm	2W(33.0dBm)

Test Setup:



Measurement Setup for testing on Antenna connector.

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.

Test Instruments:	Refer to section 4.8 for details
Test Mode:	Traffic mode
Test Results:	Pass

Measurement Result:

RF Conducted output power

GSM 850 Result:

Frequency(MHz)	Channel:	Peak power (dBm)	AV power (dBm)
824.2	128	33.69	33.62
836.4	189	33.67	33.63
848.8	251	34.13	34.08

PCS 1900 Result:

Frequency(MHz)	Channel:	Peak power (dBm)	AV power (dBm)
1850.2	512	29.62	29.56
1880.0	661	29.92	29.86
1909.8	810	29.44	29.38

HSDPA 850 Result:

Frequency(MHz)	Channel:	Peak power (dBm)	AV power (dBm)
826.4	4357	26.36	23.69
836.6	4408	25.73	22.56
846.6	4538	25.40	22.67

HSDPA 1900 Result:

Frequency(MHz)	Channel:	Peak power (dBm)	AV power (dBm)
1852.4	9662	25.44	22.58
1880.0	9800	23.16	20.97
1907.6	9938	23.52	20.62

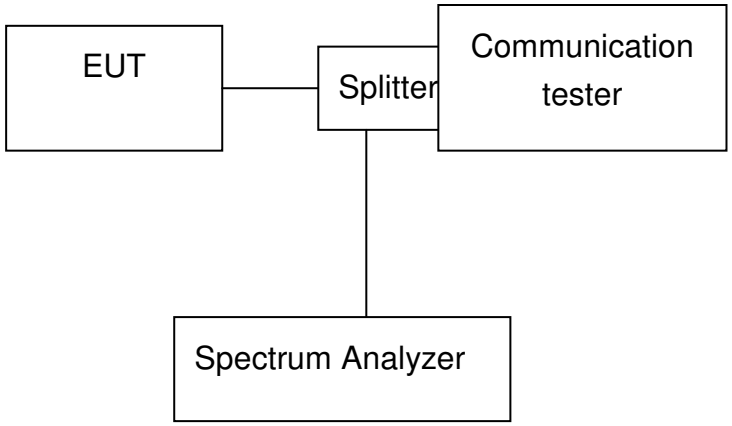
WCDMA 850 Result:

Frequency(MHz)	Channel:	Peak power (dBm)	AV power (dBm)
826.4	4357	26.03	24.74
836.6	4408	25.15	23.10
846.6	4538	25.16	23.52

WCDMA 1900 Result:

Frequency(MHz)	Channel:	Peak power (dBm)	AV power (dBm)
1852.4	9662	24.17	22.38
1880.0	9800	22.19	20.65
1907.6	9938	21.97	19.96

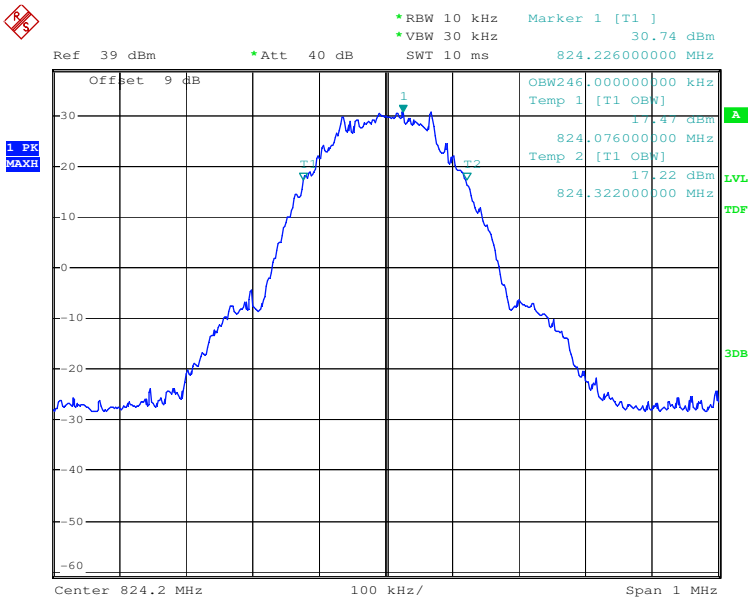
5.2 Occupied Bandwidth

Test Requirement:	FCC Part 2.1049, ANSI/TIA-603-C
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% bandwidth were measured, the occupied bandwidth is the delta frequency between the two points where the display line intersects the signal trace.
Test Setup:	
Test Instruments:	Refer to section 4.8 for details
Test Mode:	Traffic mode
Test Results:	Pass

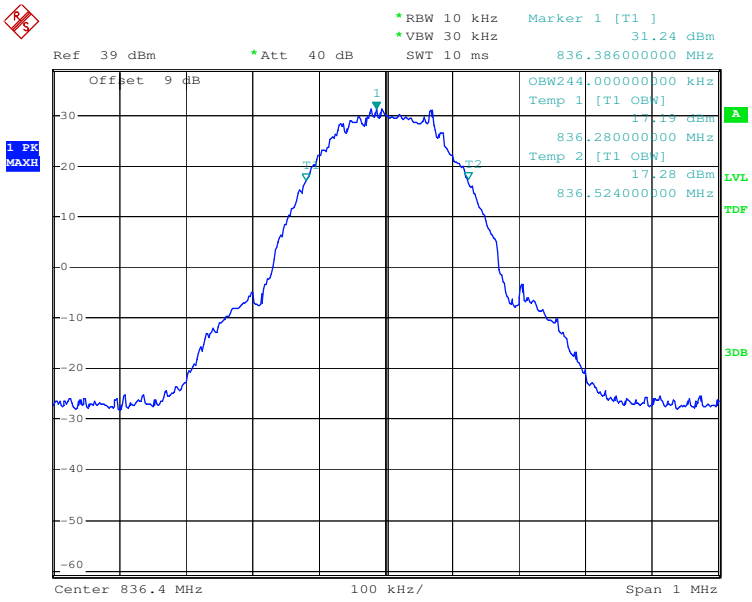
Measurement Result:

EUT Mode	Frequency(MHz)	Channel number	99% Bandwidth (kHz)
GSM 850	824.2	128	246.0
	836.6	189	244.0
	848.8	251	244.0
PCS 1900	1850.2	512	244.0
	1880.0	661	244.0
	1909.8	810	244.0
HSDPA 850	826.4	4357	4100.0
	836.6	4408	4140.0
	846.6	4538	4140.0
HSDPA1900	1852.4	9662	4180.0
	1880.0	9800	4180.0
	1907.6	9938	4180.0
WCDMA 850	826.4	4357	4120.0
	836.6	4408	4140.0
	846.6	4538	4140.0
WCDMA 1900	1852.4	9662	4160.0
	1880.0	9800	4160.0
	1907.6	9938	4180.0

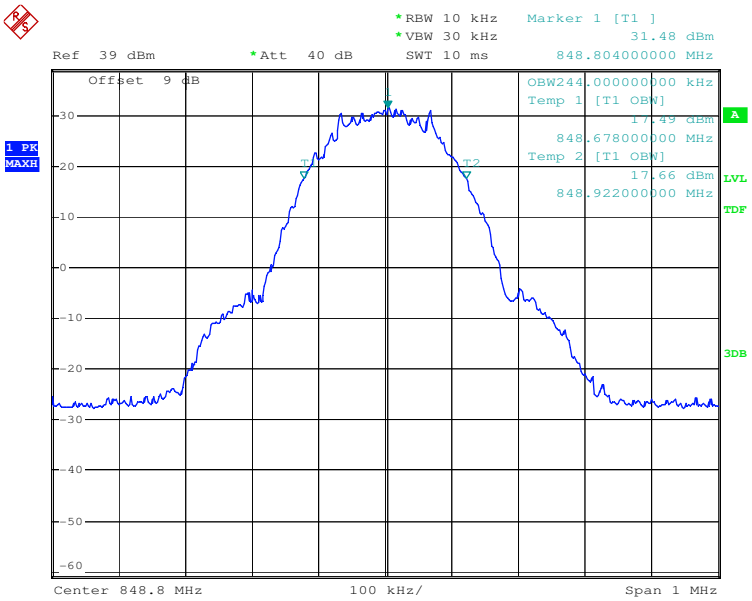
GSM 850 Channel Low



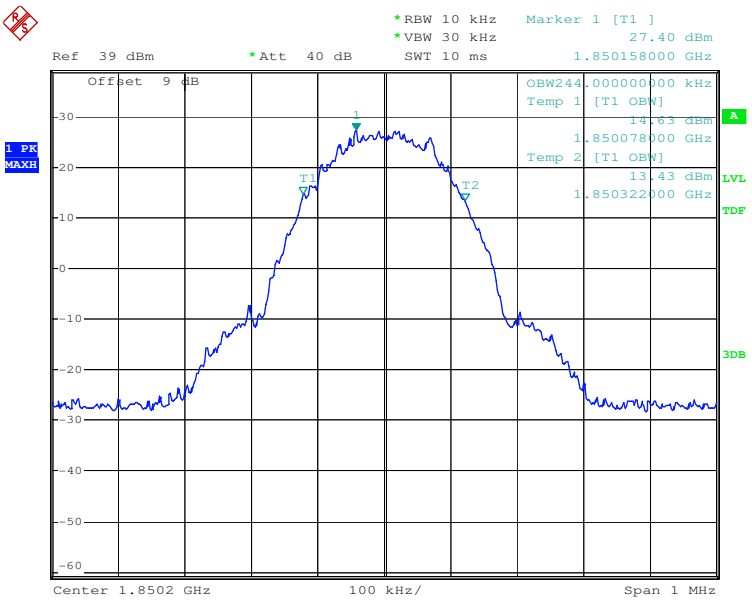
GSM 850 Channel Mid



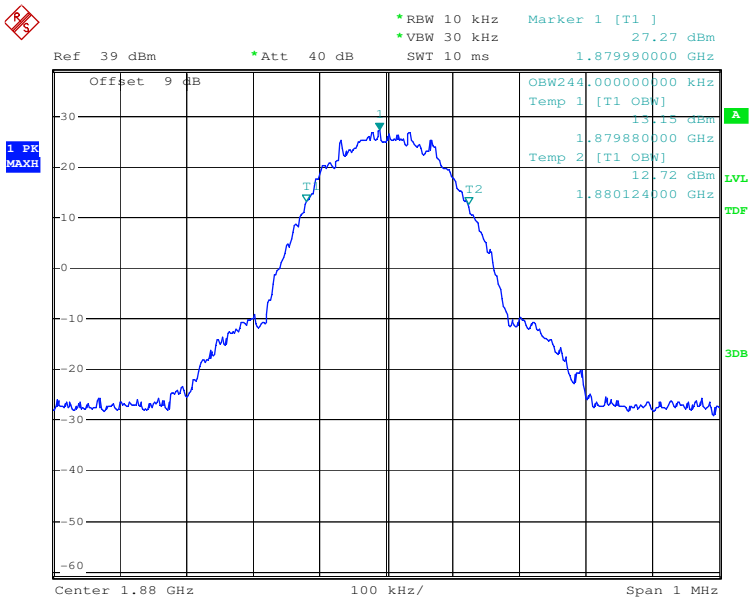
GSM 850 Channel High



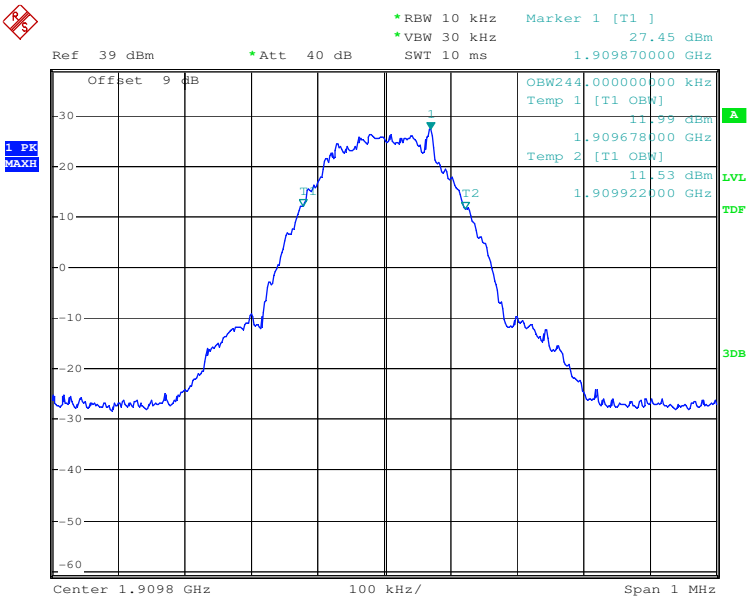
PCS 1900 Channel Low



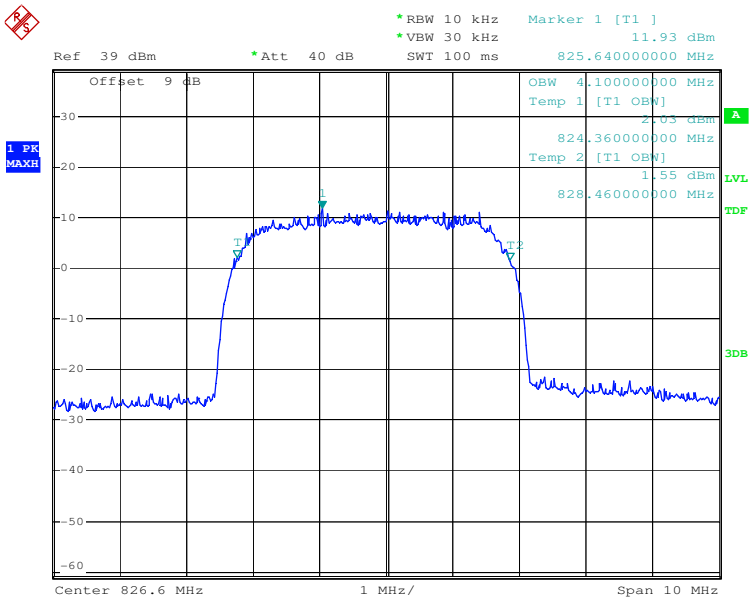
PCS 1900 Channel Mid



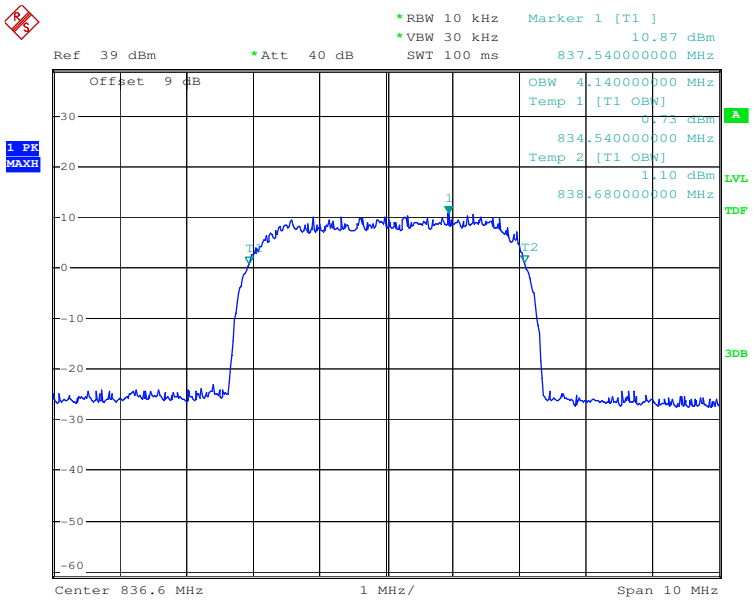
PCS 1900 Channel High



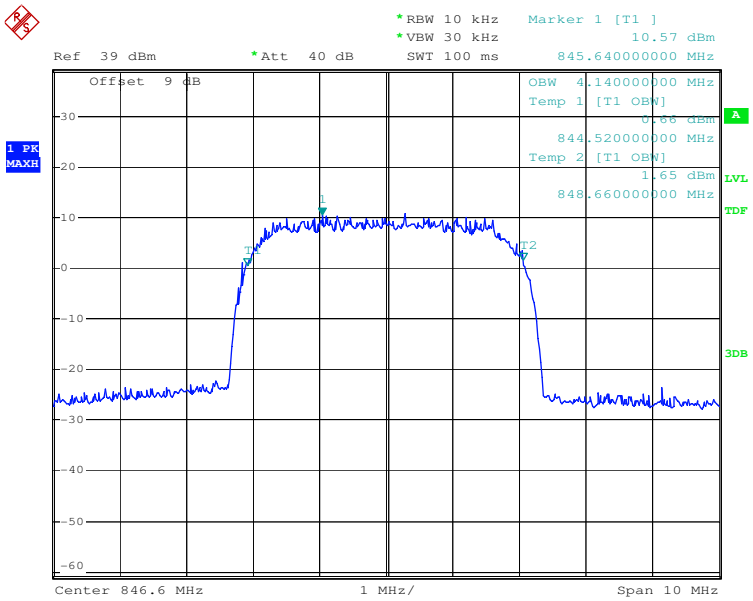
HSDPA 850 Channel Low



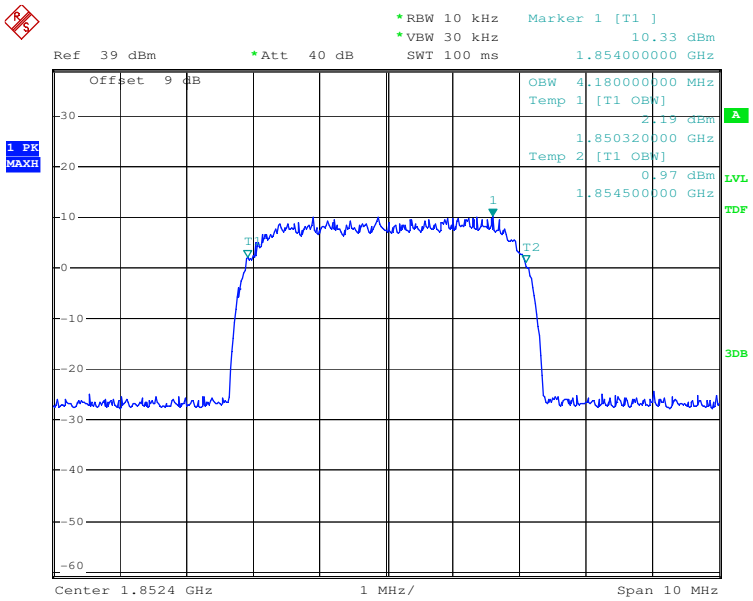
HSDPA 850 Channel Mid



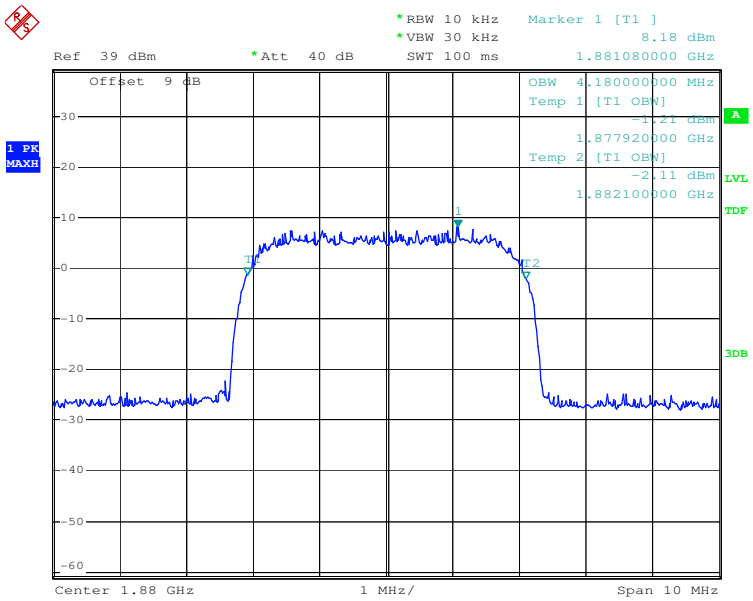
HSDPA 850 Channel High



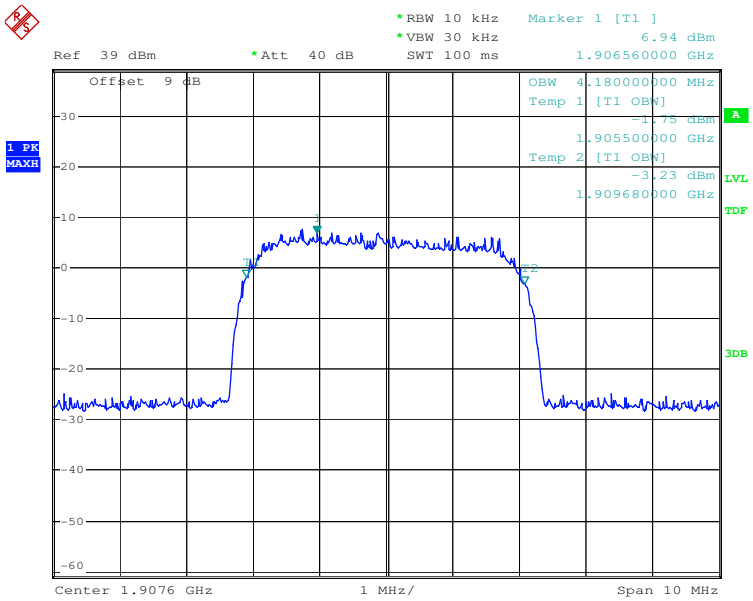
HSDPA 1900 Channel Low



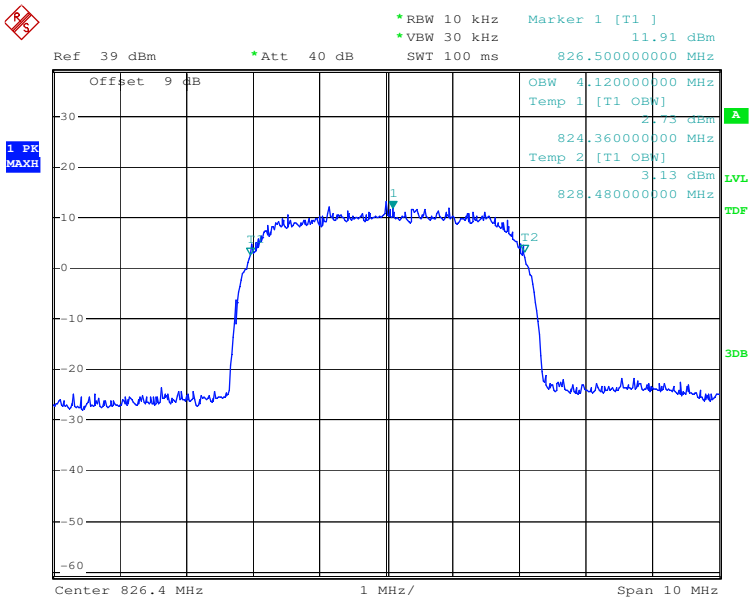
HSDPA 1900 Channel Mid



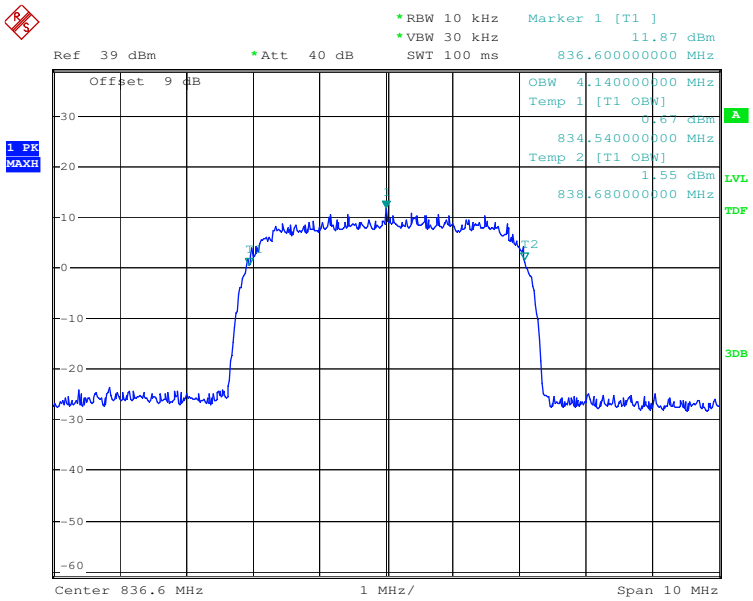
HSDPA 1900 Channel High



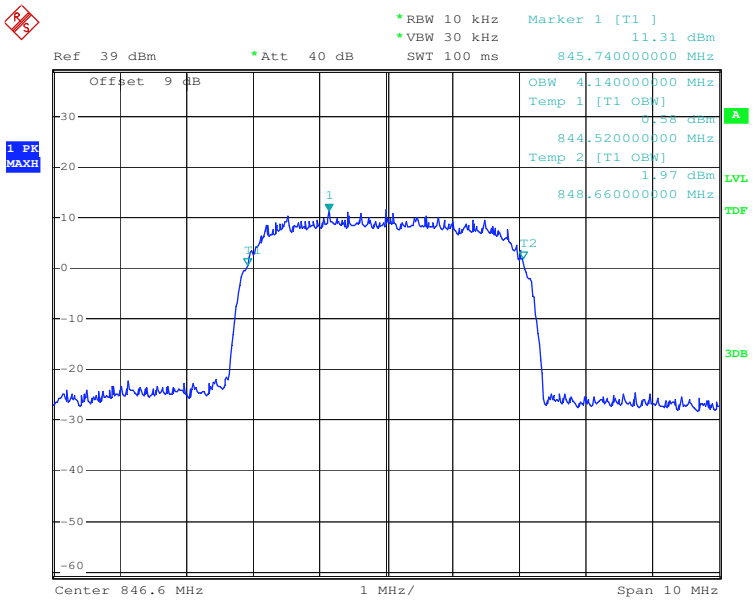
WCDMA 850 Channel Low



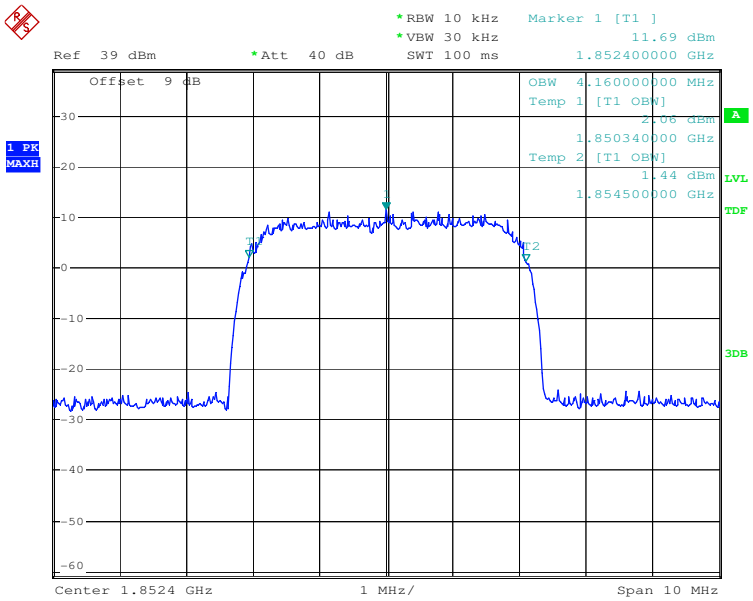
WCDMA 850 Channel Mid



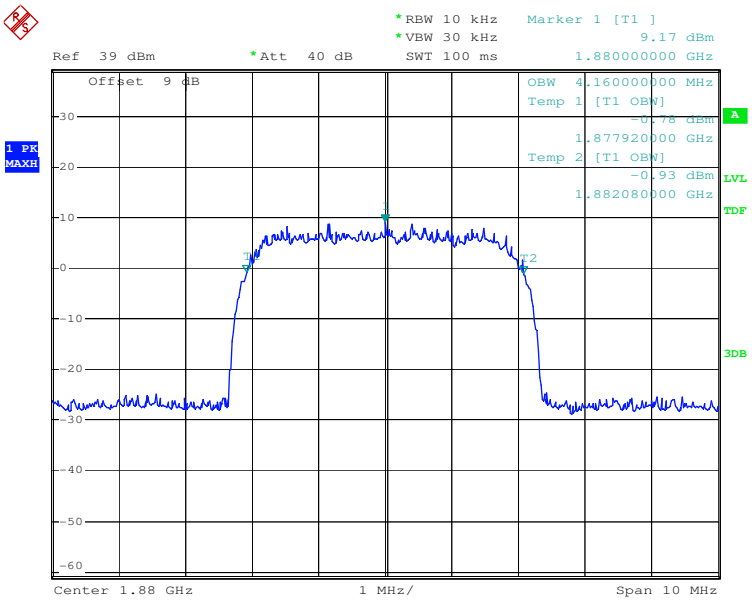
WCDMA 850 Channel High



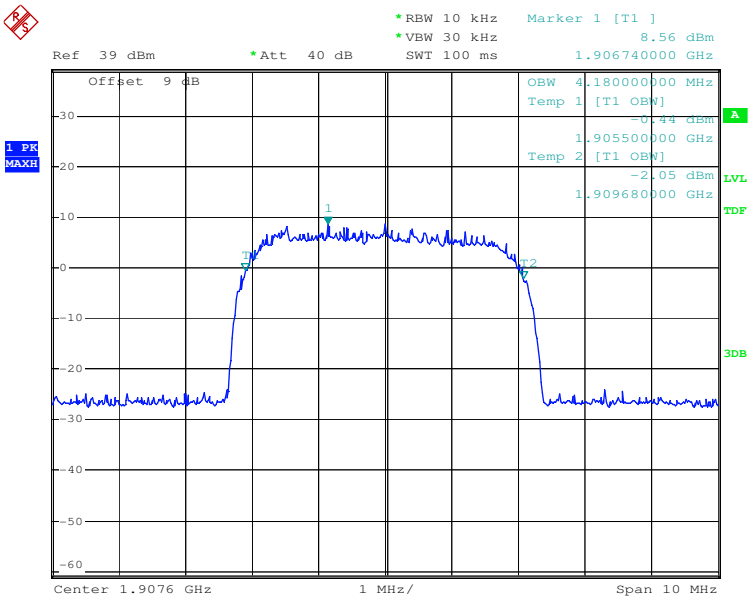
WCDMA 1900 Channel Low



WCDMA 1900 Channel Mid



WCDMA 1900 Channel High



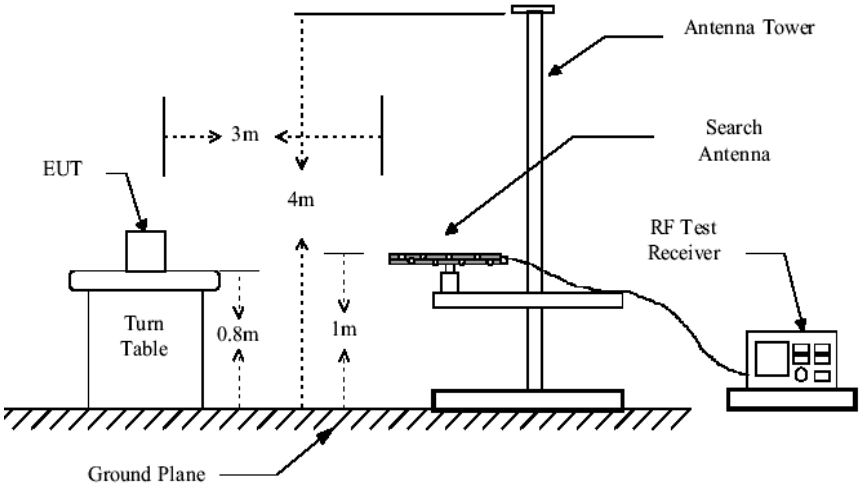
5.3 Effective Isotropic Radiated Power

Test Requirement:	FCC Part 2.1046, ANSI/TIA-603-C FCC Part 24.232 Mobile station are Limited to 2W ERP. FCC Part 22.913 Mobile station are limited to 7W EIRP.
Receiver Setup:	See table below
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. ERP in frequency band 824.2-848.8MHz and 826.4-846.6MHz 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 1852.4-1907.6 MHz 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=S.G. output (dBm) + Antenna Gain (dBi) - Cable Loss(dB)-2.15 EIRP= S.G. output (dBm) + Antenna Gain (dBi) - Cable Loss(dB)

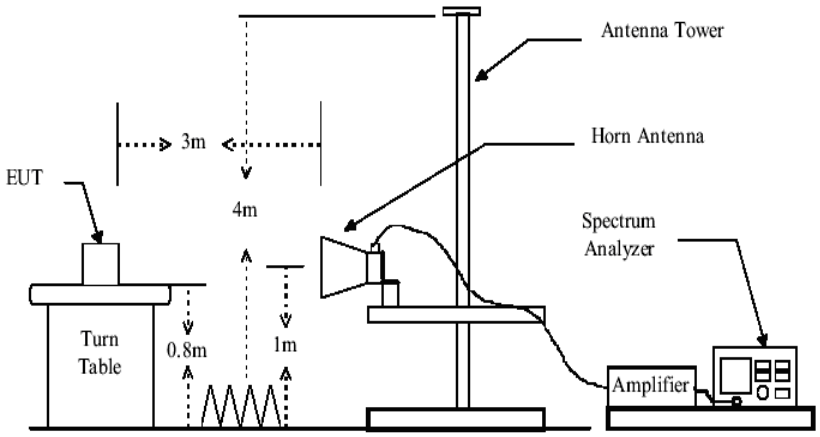
Frequency	Detector	RBW	VBW	Remark
30MHz-1GHz	Quasi-peak	300KHz	1MHz	Quasi-peak Value
Above 1GHz	Peak	1MHz	3MHz	Peak Value

Test Setup:

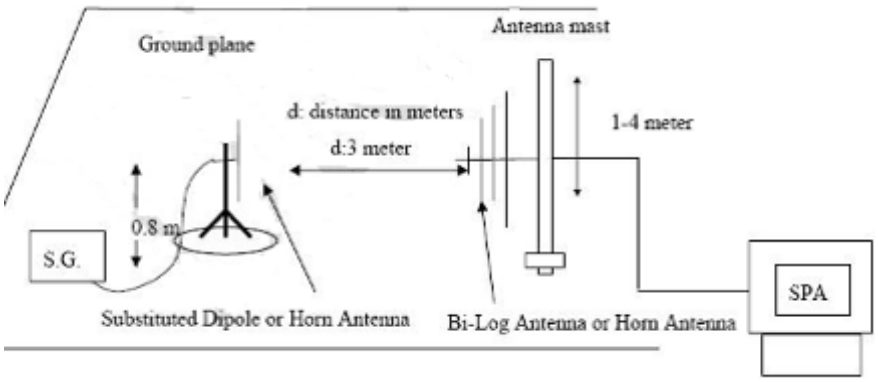
(a)Below 1GHz



(b)Above 1GHz



(c)Substituted Method Test setup:



Test Instruments:	Refer to section 4.8 for details
Test Mode:	Traffic mode
Test Results:	Pass

Measurement Result:

The RBW, VBW of SPA for frequency

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

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

GSM 850

CH	Frequency (MHz)	S.G. Output (dBm)	Antenna Gain (dBi)	Cable loss (dB)	EUT polarize	Antenna polarize	ERP (dBm)	Limit (dBm)	Margin (dB)
128	824.2	29.41	5.40	3.31	H	H	29.35	38.45	9.10
		29.94	5.40	3.31		V	29.88	38.45	8.57
189	836.4	30.02	4.60	3.35	H	H	29.12	38.45	9.33
		30.74	4.60	3.35		V	29.84	38.45	8.61
251	848.8	29.81	4.80	3.41	H	H	29.05	38.45	9.40
		30.52	4.80	3.41		V	29.76	38.45	8.69

PCS 1900

CH	Frequency (MHz)	S.G. Output (dBm)	Antenna Gain (dBi)	Cable loss (dB)	EUT polarize	Antenna polarize	EIRP (dBm)	Limit (dBm)	Margin (dB)
512	1850.2	24.40	8.40	5.42	H	H	27.38	33.00	5.62
		25.16	8.40	5.42		V	28.14	33.00	4.86
661	1880	24.41	8.80	5.56	H	H	27.65	33.00	5.35
		24.98	8.80	5.56		V	28.22	33.00	4.78
810	1909.8	23.68	9.20	5.50	H	H	27.38	33.00	5.62
		25.02	9.20	5.50		V	28.72	33.00	4.28

HSDPA 850

CH	Frequency (MHz)	S.G. Output (dBm)	Antenna Gain (dBi)	Cable loss (dB)	EUT polarize	Antenna polarize	ERP (dBm)	Limit (dBm)	Margin (dB)
4357	826.4	20.28	5.40	3.31	H	H	20.22	38.45	18.23
		21.14	5.40	3.31		V	21.08	38.45	17.37
4408	836.6	21.32	4.60	3.35	H	H	20.42	38.45	18.03
		22.26	4.60	3.35		V	21.36	38.45	17.09
4538	846.6	21.31	4.80	3.41	H	H	20.55	38.45	17.90
		22.23	4.80	3.41		V	21.47	38.45	16.98

HSDPA 1900

CH	Frequency (MHz)	S.G. Output (dBm)	Antenna Gain (dBi)	Cable loss (dB)	EUT polarize	Antenna polarize	EIRP (dBm)	Limit (dBm)	Margin (dB)
9662	1852.4	17.64	8.40	5.42	H	H	20.62	33.00	12.38
		18.57	8.40	5.42		V	21.55	33.00	11.45
9800	1880	17.40	8.80	5.56	H	H	20.64	33.00	12.36
		17.96	8.80	5.56		V	21.20	33.00	11.80
9938	1907.6	17.01	9.20	5.50	H	H	20.71	33.00	12.29
		17.99	9.20	5.50		V	21.69	33.00	11.31

WCDMA 850

CH	Frequency (MHz)	S.G. Output (dBm)	Antenna Gain (dBi)	Cable loss (dB)	EUT polarize	Antenna polarize	ERP (dBm)	Limit (dBm)	Margin (dB)
4357	826.4	21.41	5.40	3.31	H	H	21.35	38.45	17.10
		22.17	5.40	3.31		V	22.11	38.45	16.34
4408	836.6	22.13	4.60	3.35	H	H	21.23	38.45	17.22
		23.32	4.60	3.35		V	22.42	38.45	16.03
4538	846.6	22.27	4.80	3.41	H	H	21.51	38.45	16.94
		23.22	4.80	3.41		V	22.46	38.45	15.99

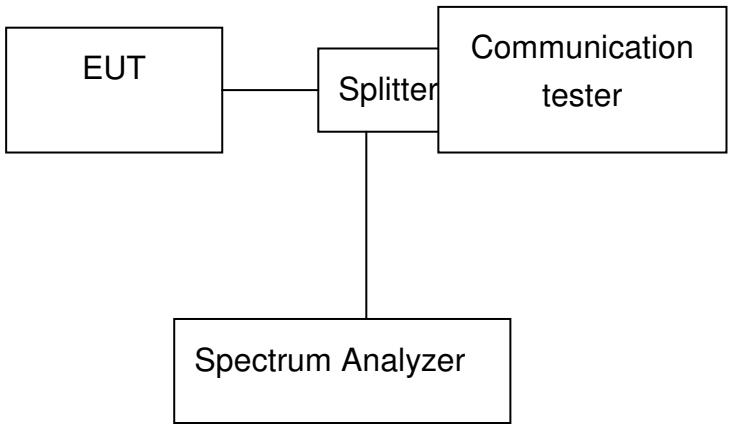
WCDMA 1900

CH	Frequency (MHz)	S.G. Output (dBm)	Antenna Gain (dBi)	Cable loss (dB)	EUT polarize	Antenna polarize	EIRP (dBm)	Limit (dBm)	Margin (dB)
9662	1852.4	17.26	8.40	5.42	H	H	20.24	33.00	12.76
		18.38	8.40	5.42		V	21.36	33.00	11.64
9800	1880	17.17	8.80	5.56	H	H	20.41	33.00	12.59
		18.39	8.80	5.56		V	21.63	33.00	11.37
9938	1907.6	16.76	9.20	5.50	H	H	20.46	33.00	12.54
		17.95	9.20	5.50		V	21.65	33.00	11.35

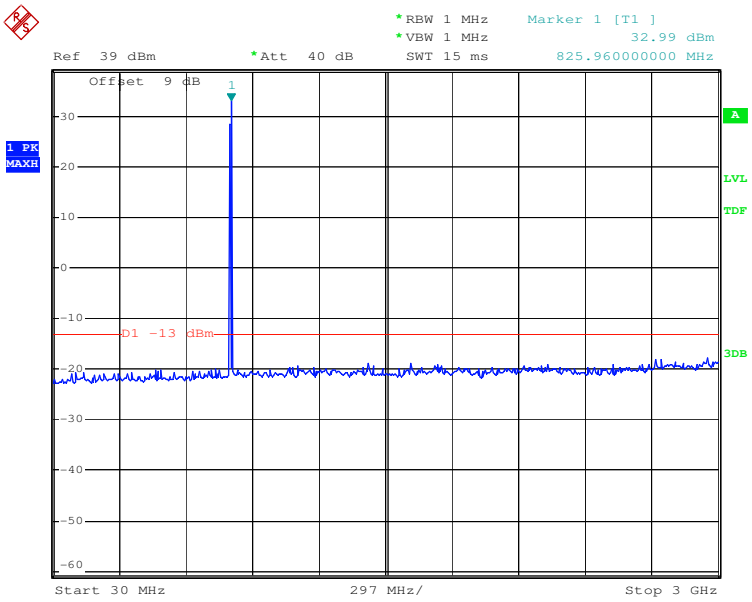
ERP=S.G. output (dBm) + Antenna Gain (dBi) - Cable Loss(dB)-2.15

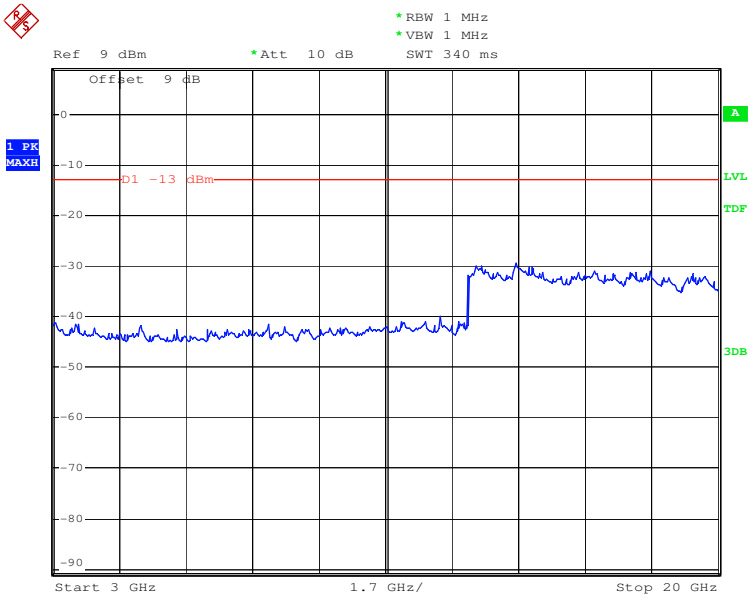
EIRP=S.G.output(dBm)+AntennaGain(dBi)-CableLoss(dB)

5.4 Out of band emissions at antenna Terminals

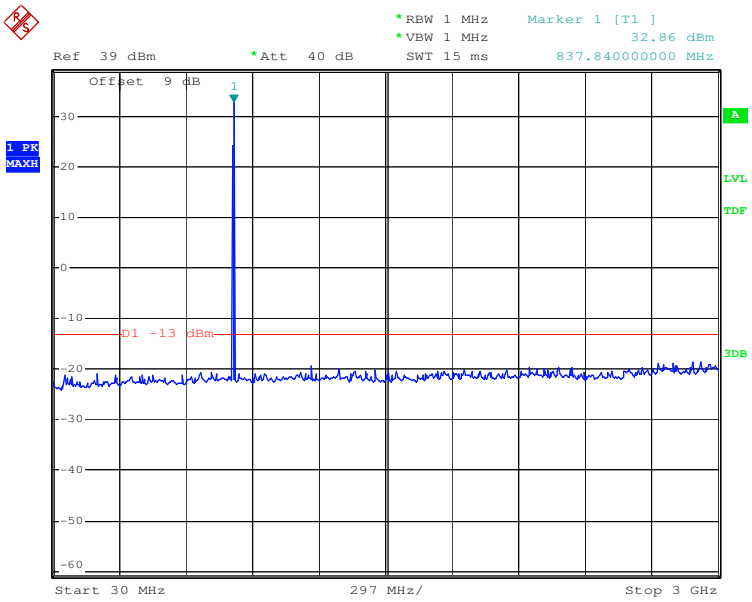
Test Requirement:	FCC Part 2.1051, ANSI/TIA-603-C
	FCC part 22.917(a), 24.238(a) the magnitude of each spurious and harmonic emission that can be detected when the equipment is operated under the conditions specification in the instruction manual and/or alignment procedure, shall not be less than 43+10log(Mean power in watts) dBc below the mean power output outside a license's frequency block(-13dBm).
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 10th 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.
Test Setup:	 *Remark:* *Offset the High-Frequency cable loss 9.0dB in the spectrum analyzer.*
Test Instruments:	Refer to section 4.8 for details
Test Results:	Pass

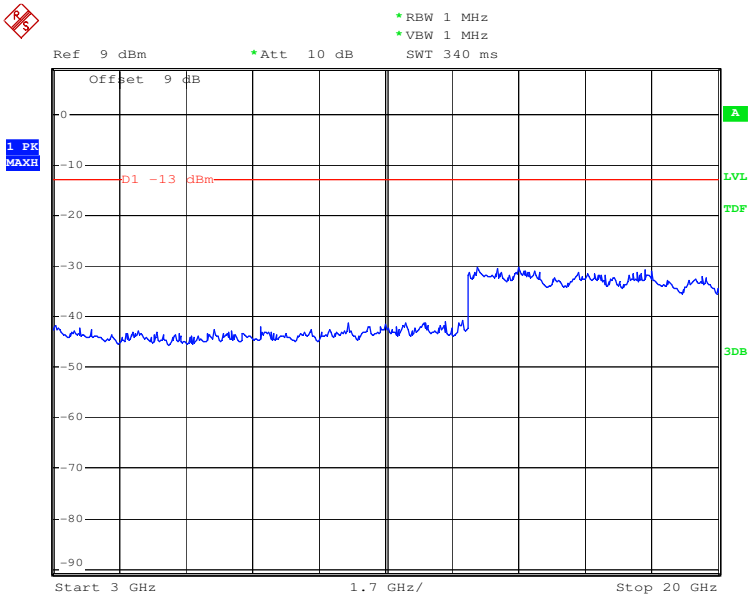
GSM 850 Channel Low



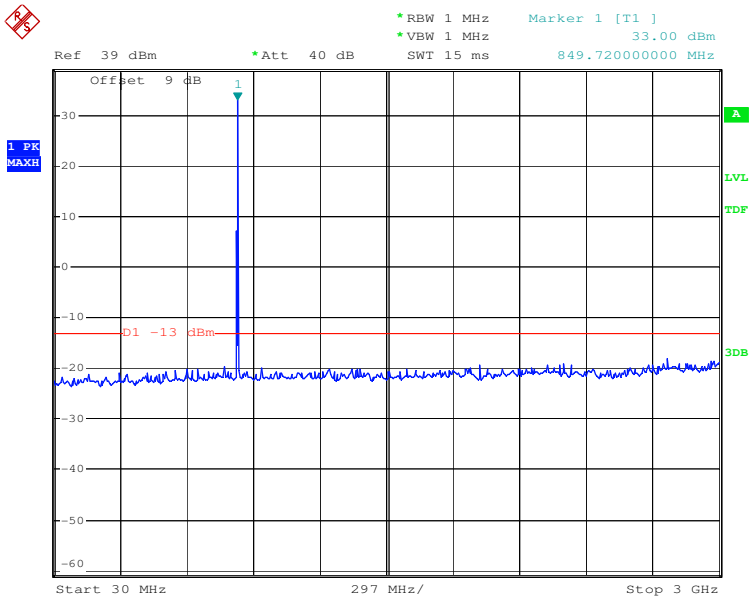


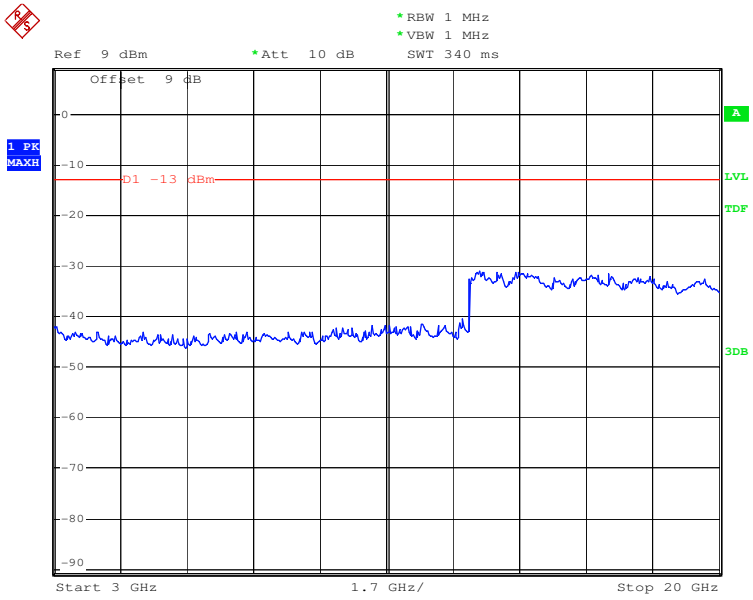
GSM 850 Channel Mid



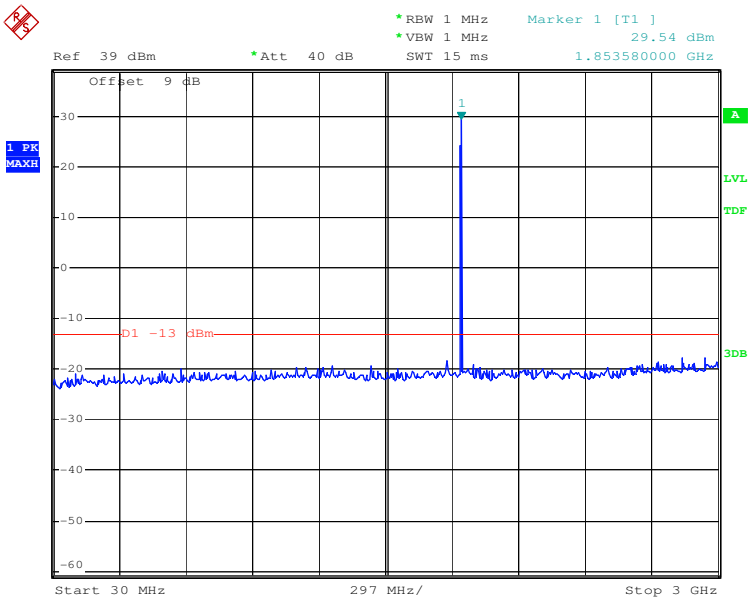


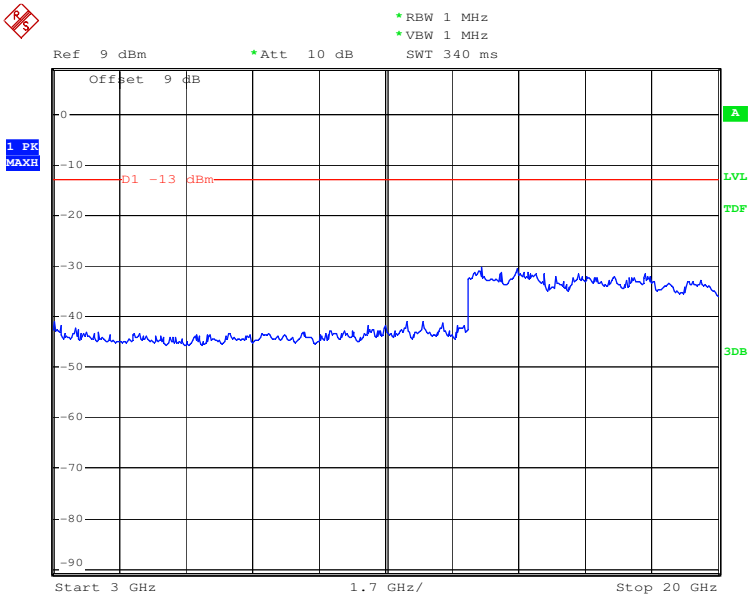
GSM 850 Channel High



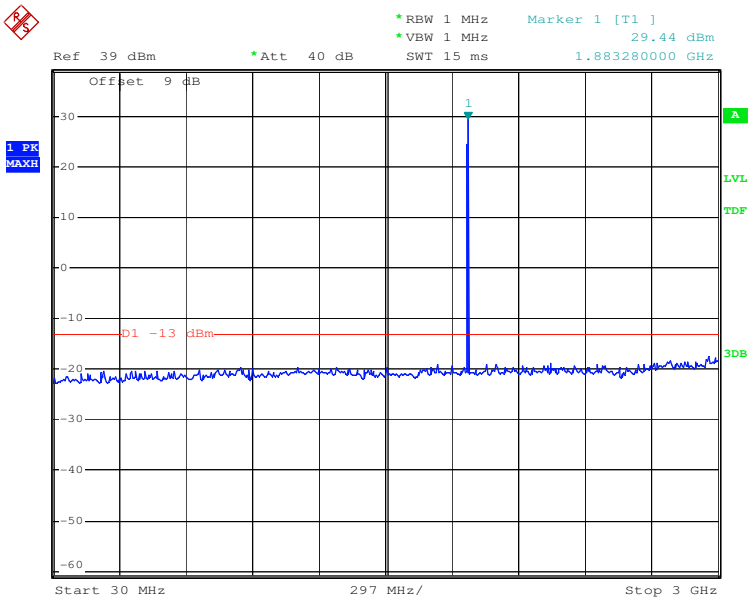


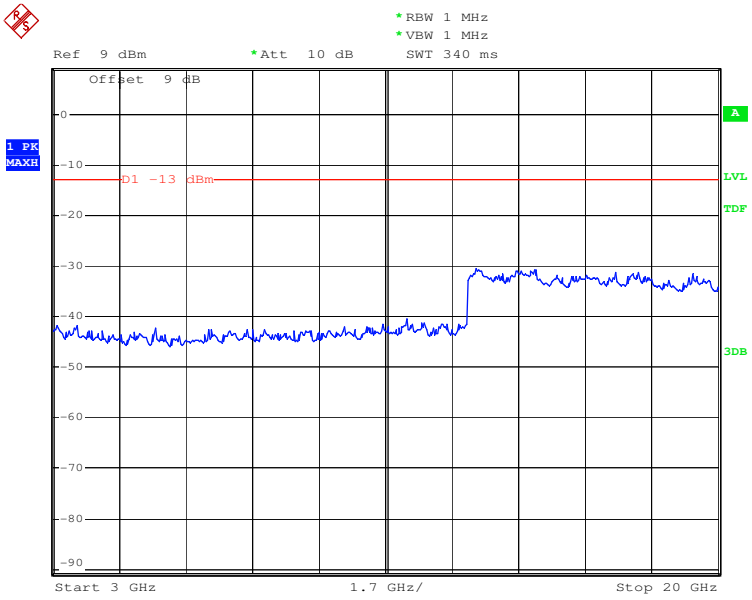
PCS 1900 Channel Low



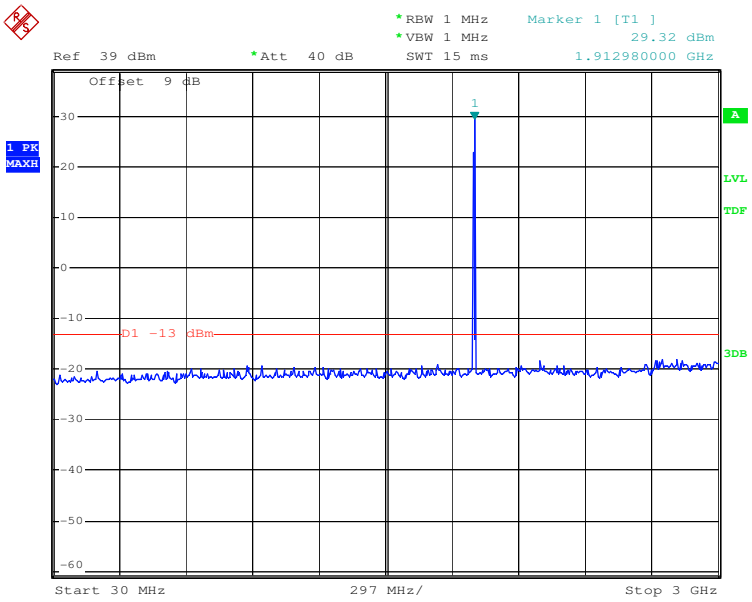


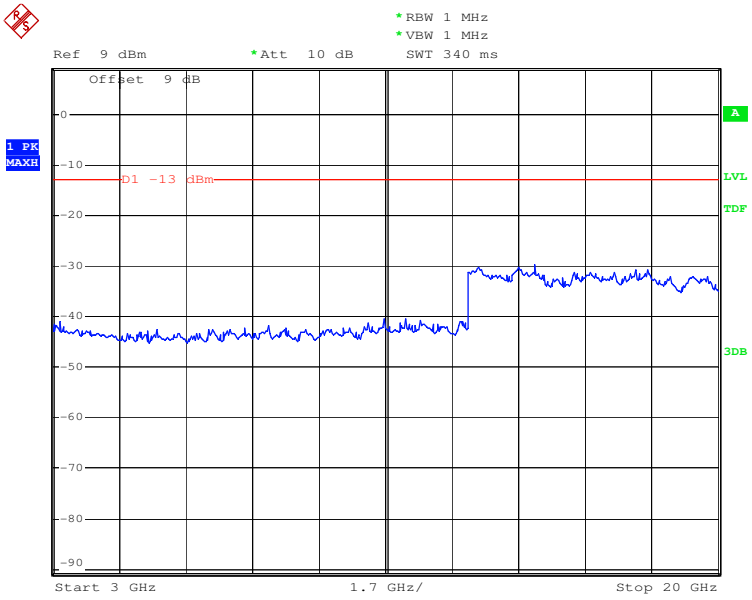
PCS 1900 Channel Mid



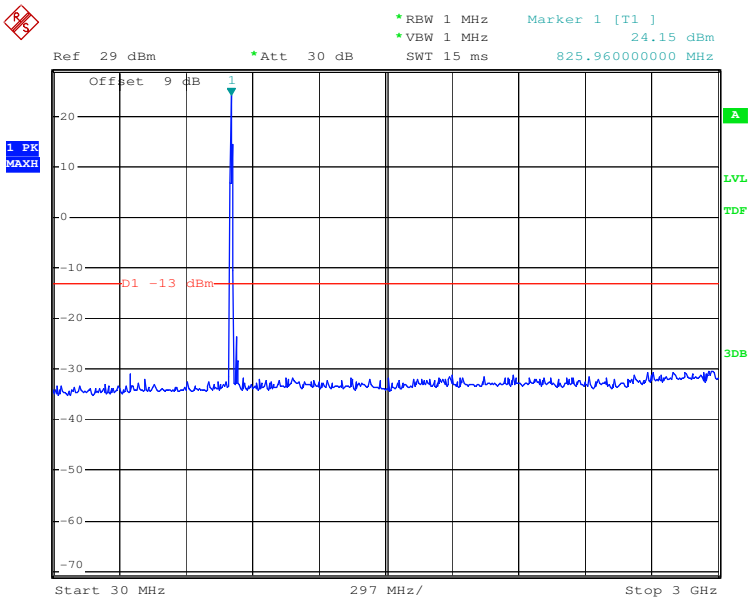


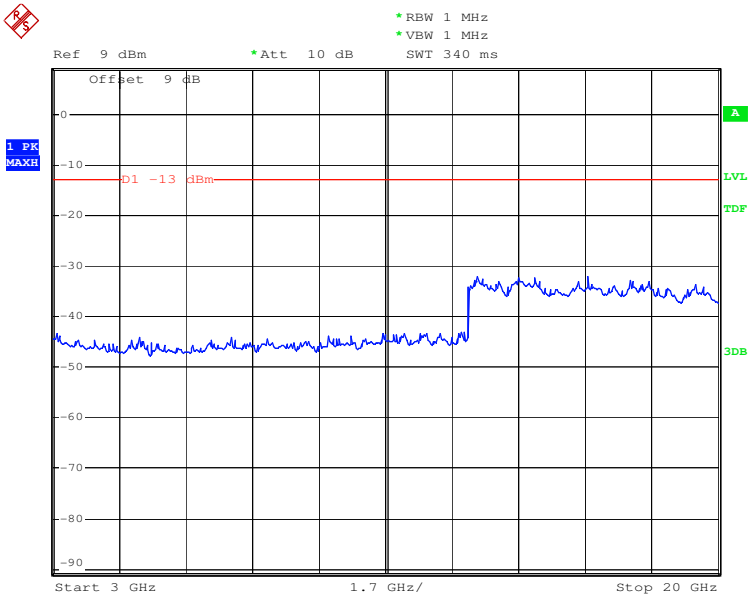
PCS 1900 Channel High



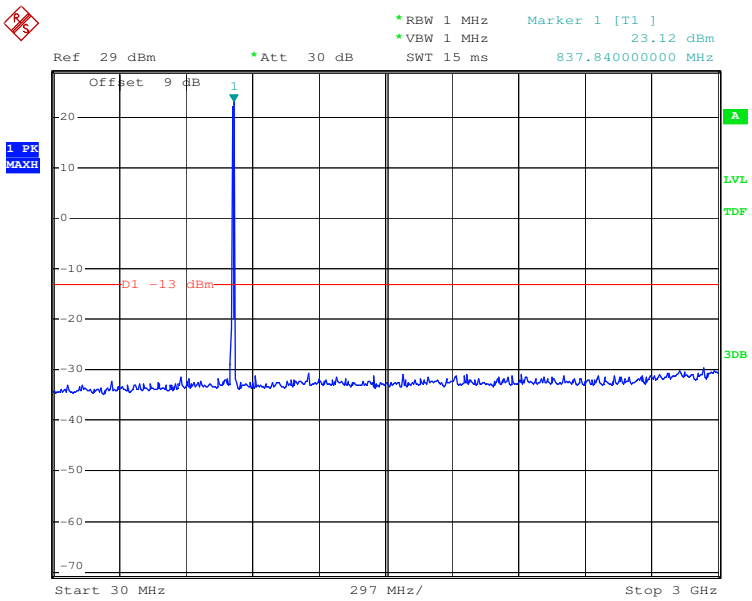


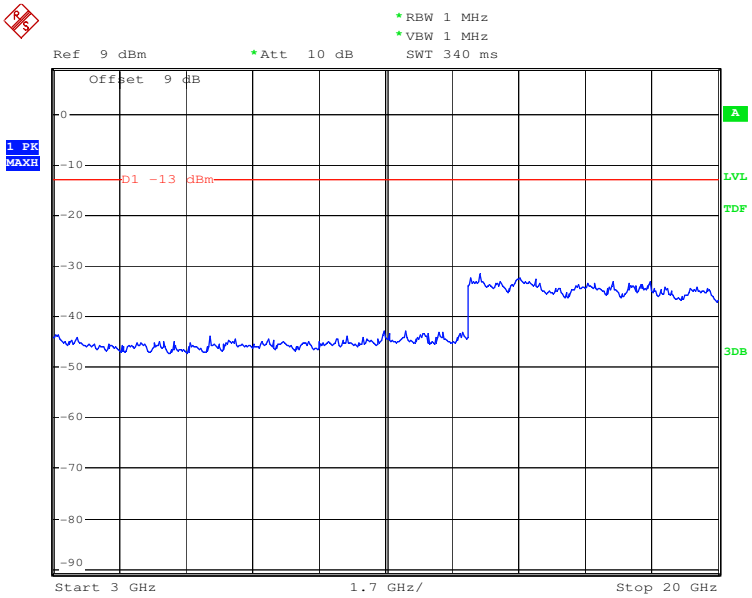
HSDPA 850 Channel Low



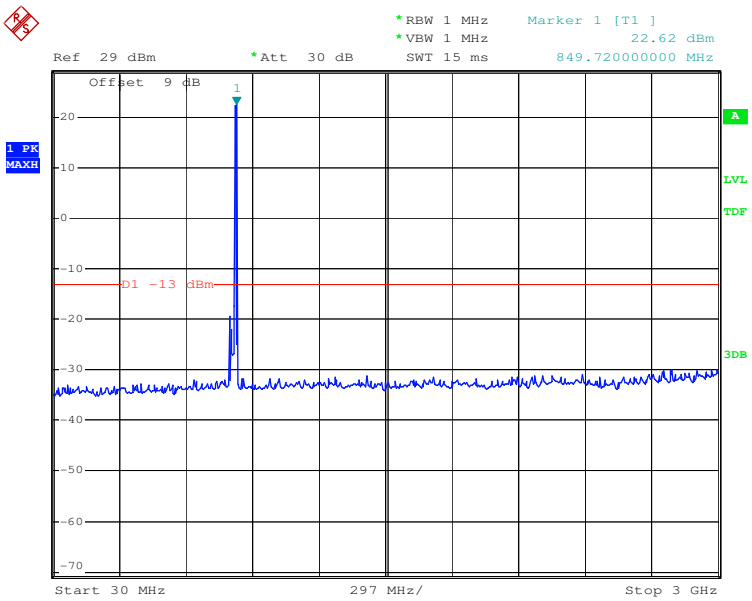


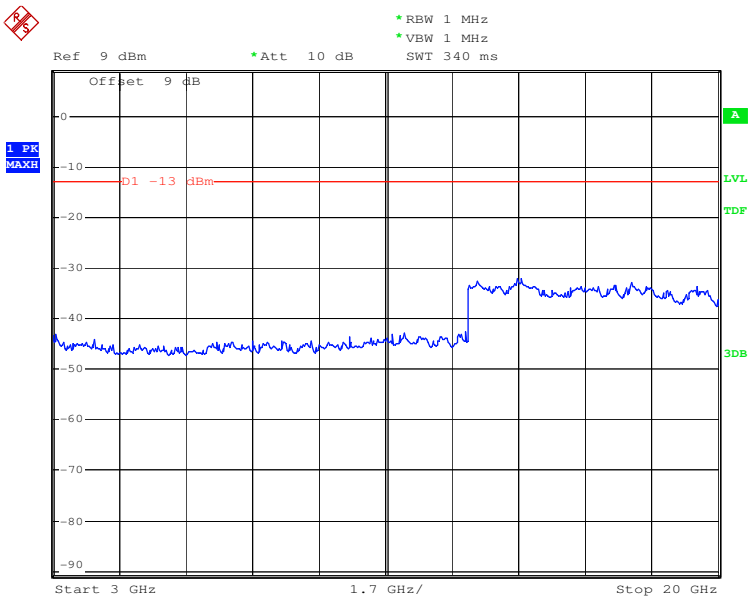
HSDPA 850 Channel Mid



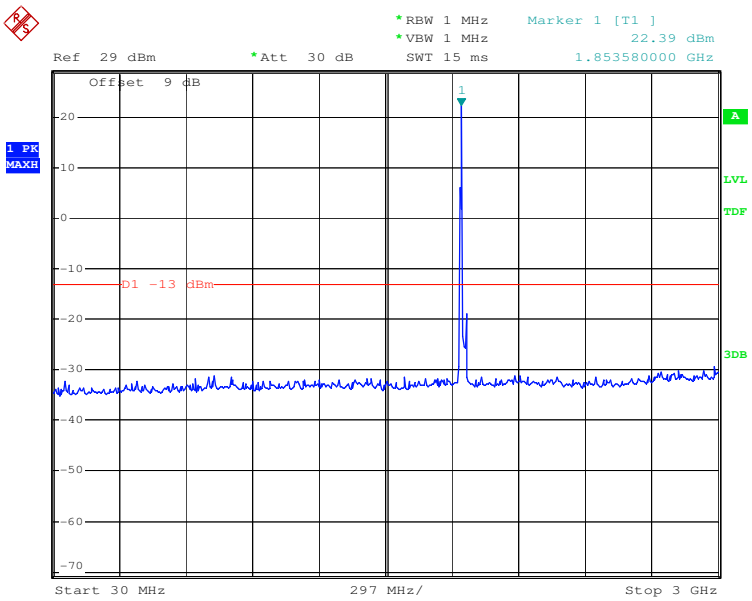


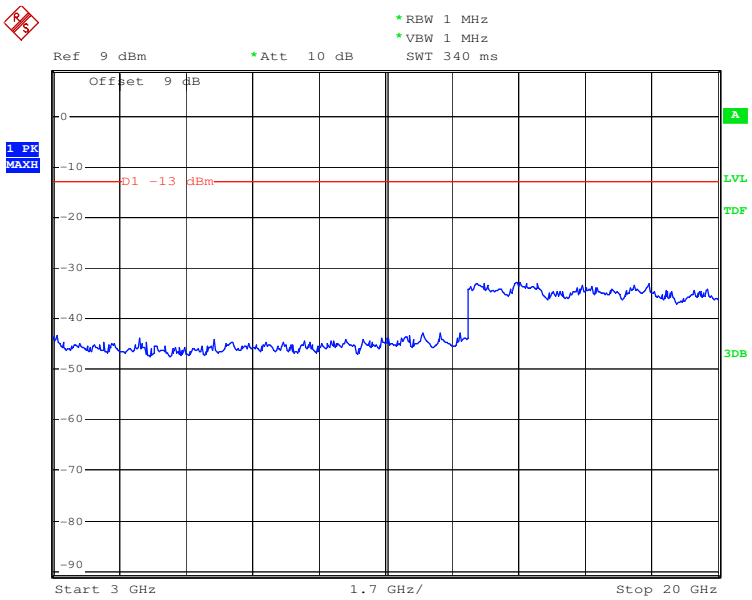
HSDPA 850 Channel High



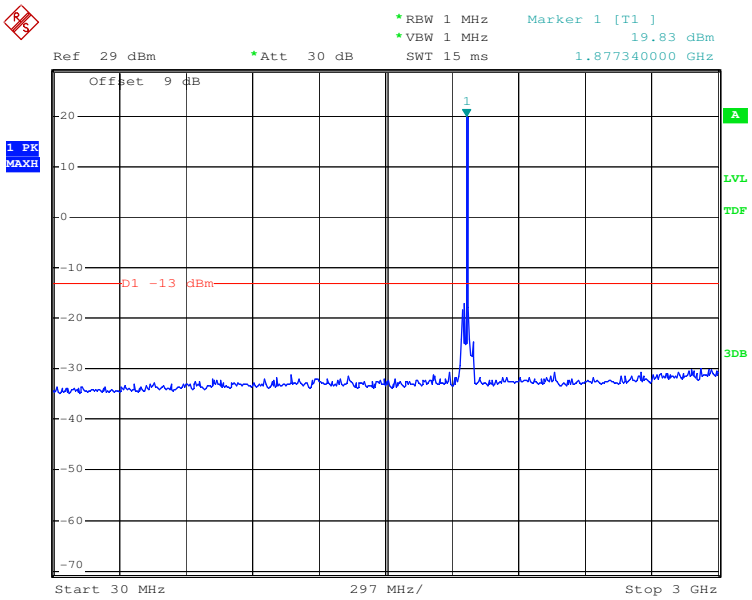


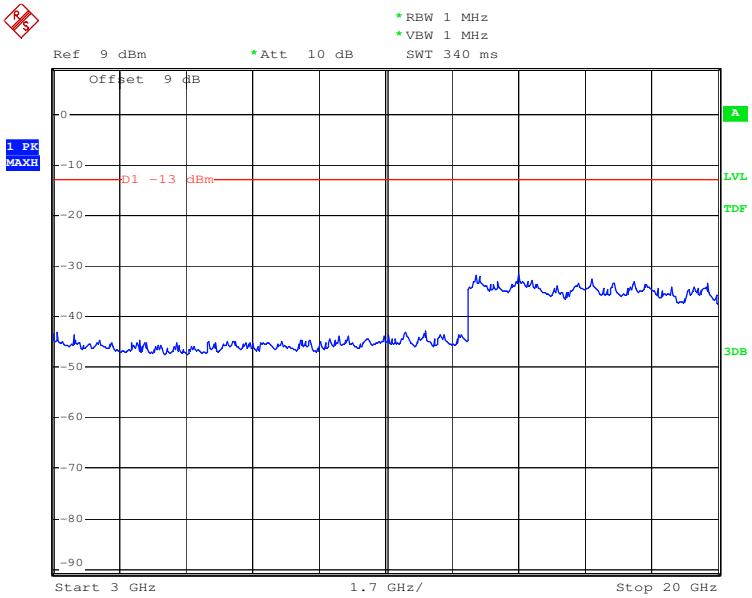
HSDPA 1900 Channel Low



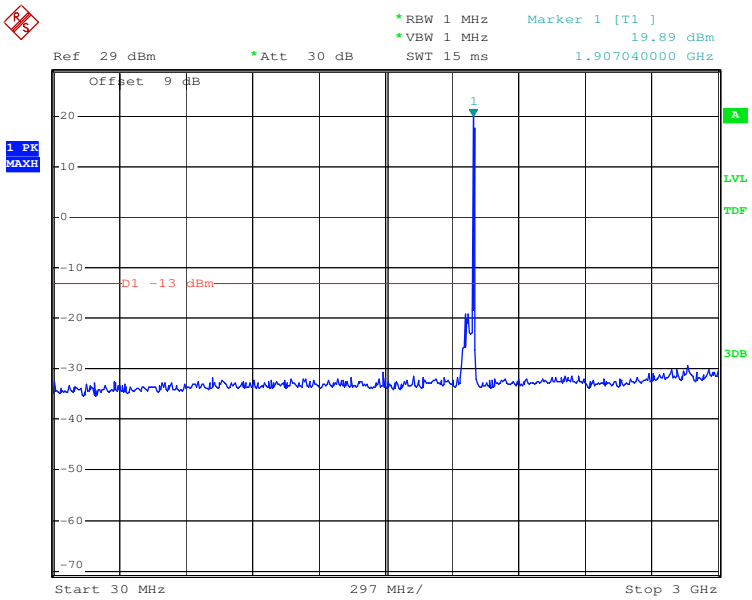


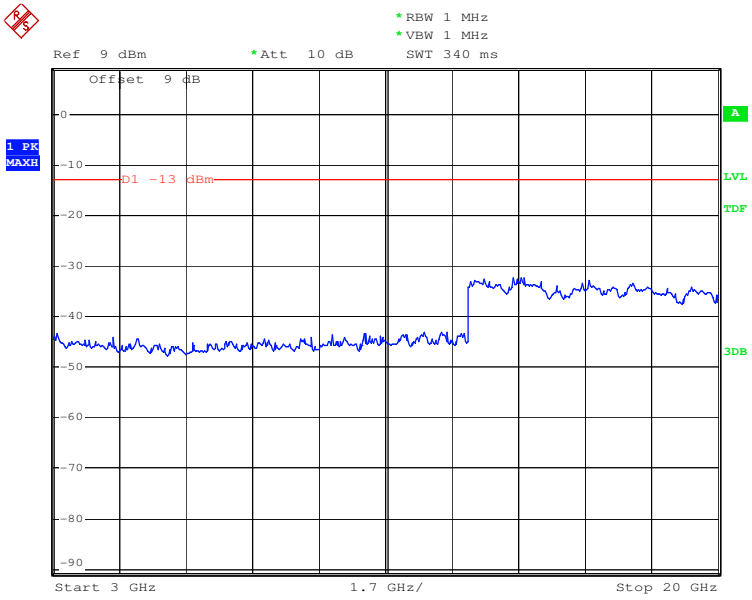
HSDPA 1900 Channel Mid



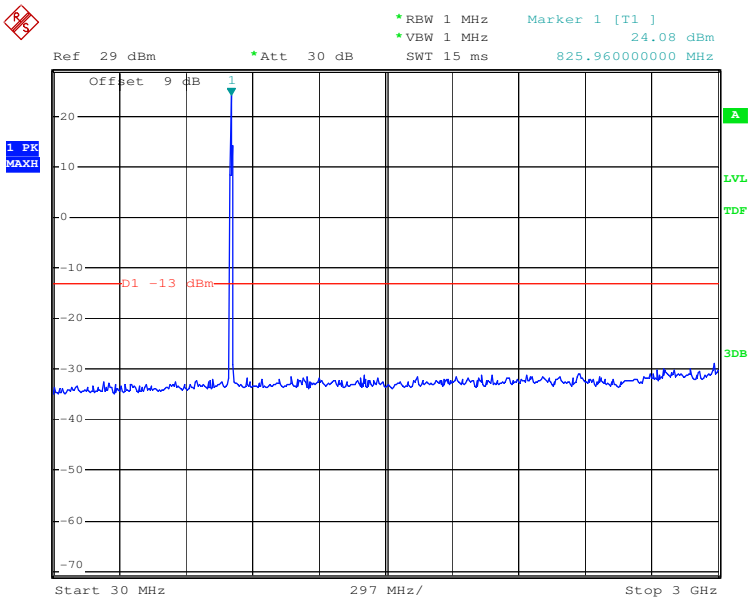


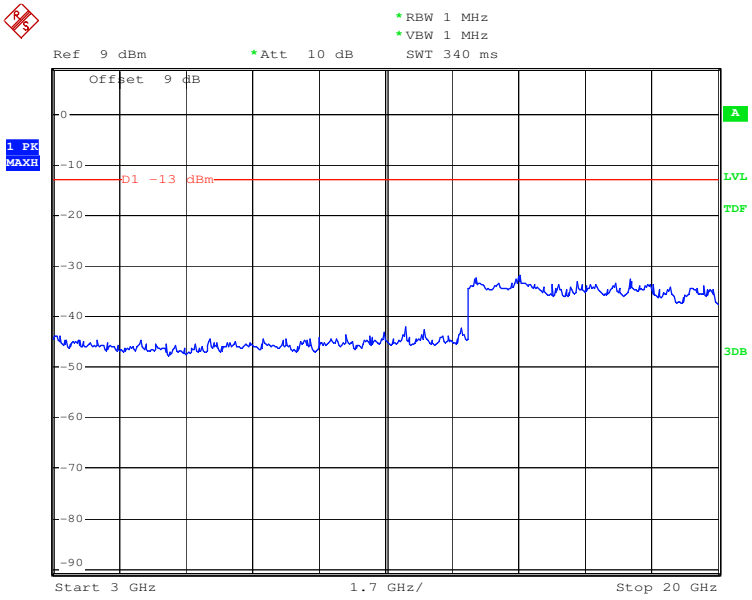
HSDPA 1900 Channel High



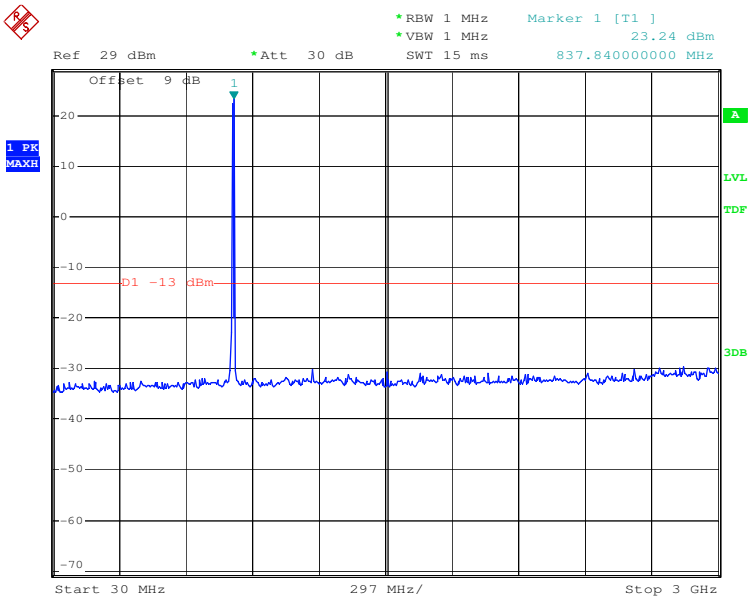


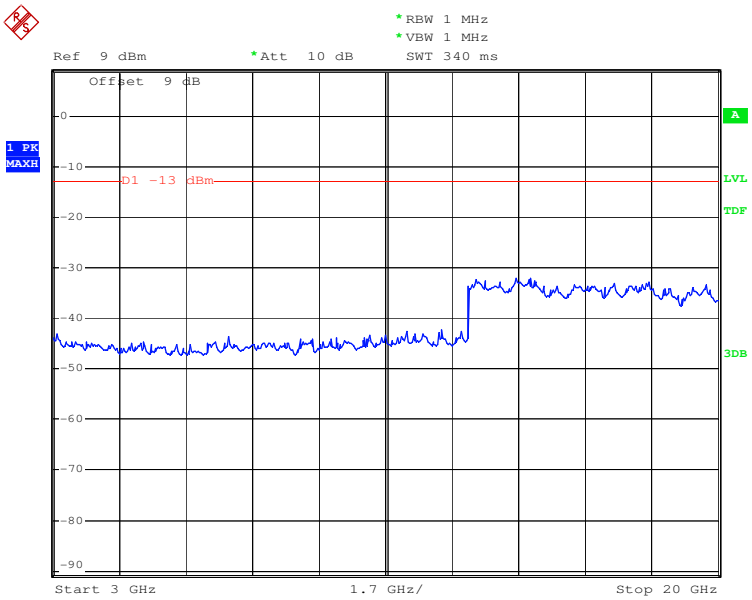
WCDMA 850 Channel Low



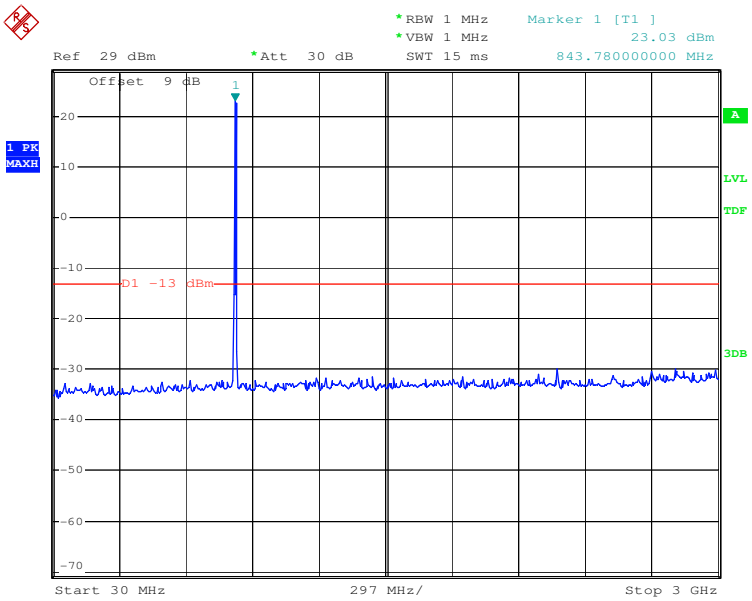


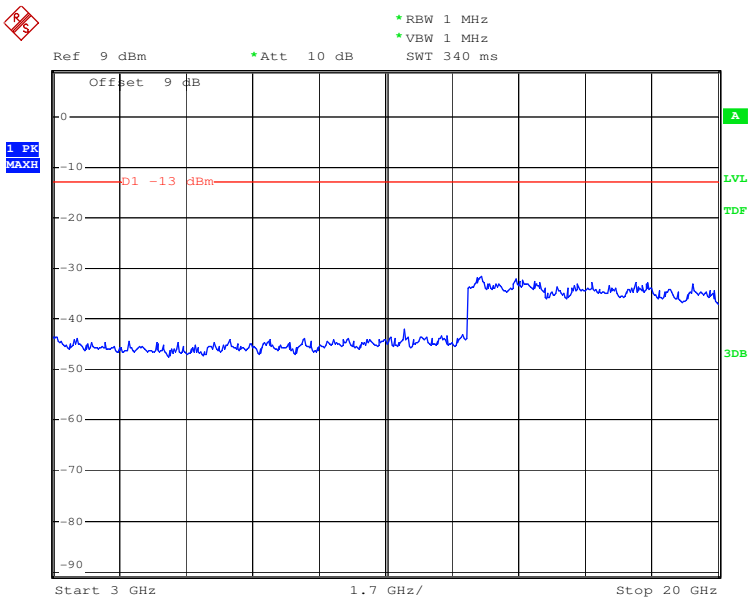
WCDMA 850 Channel Mid



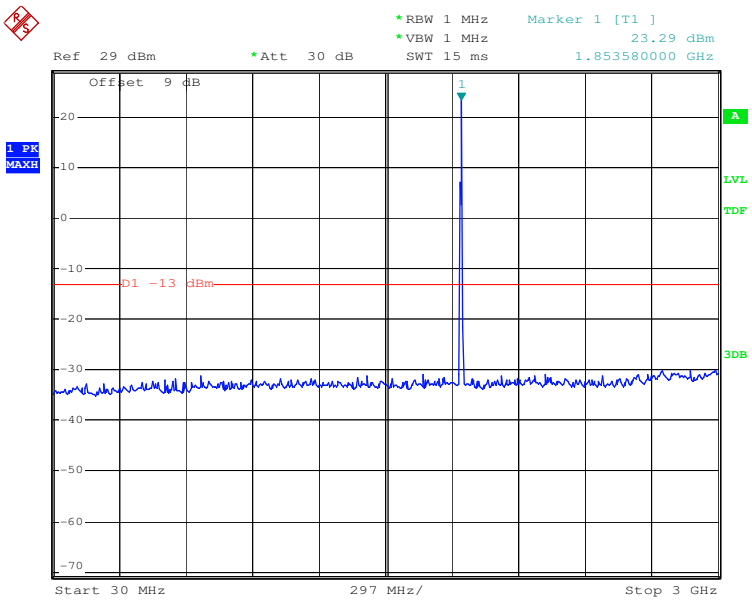


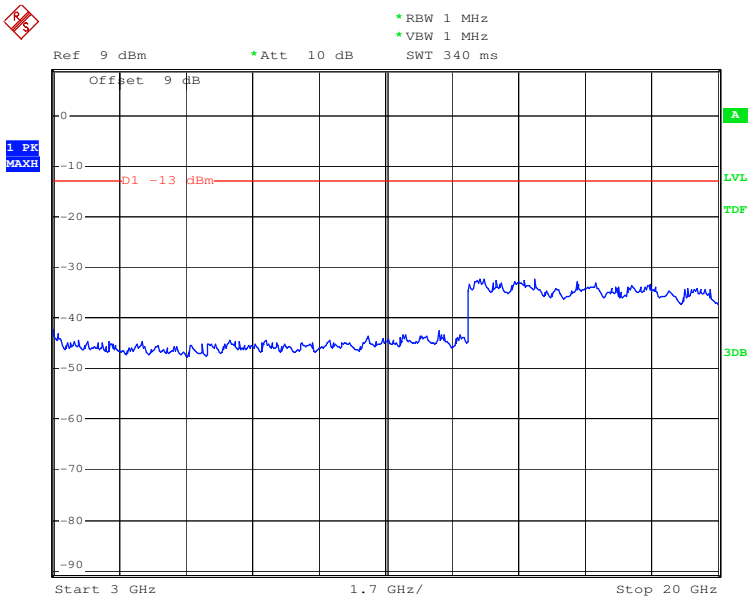
WCDMA 850 Channel High



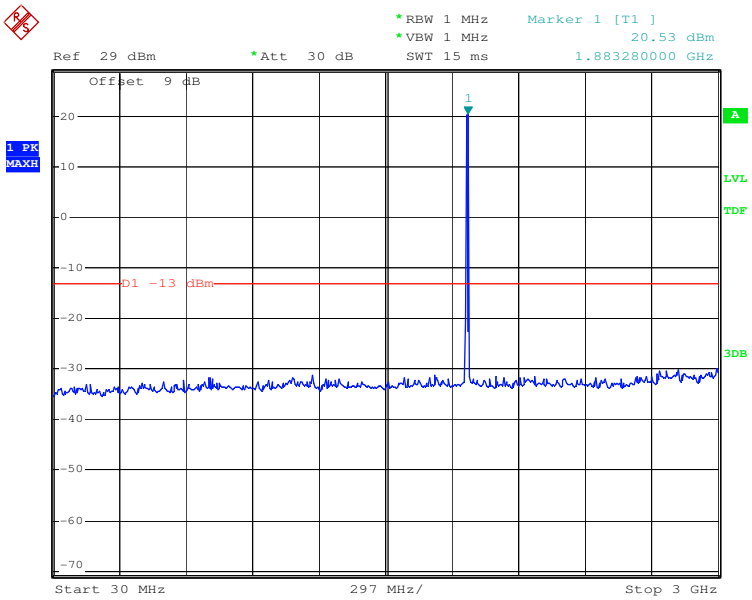


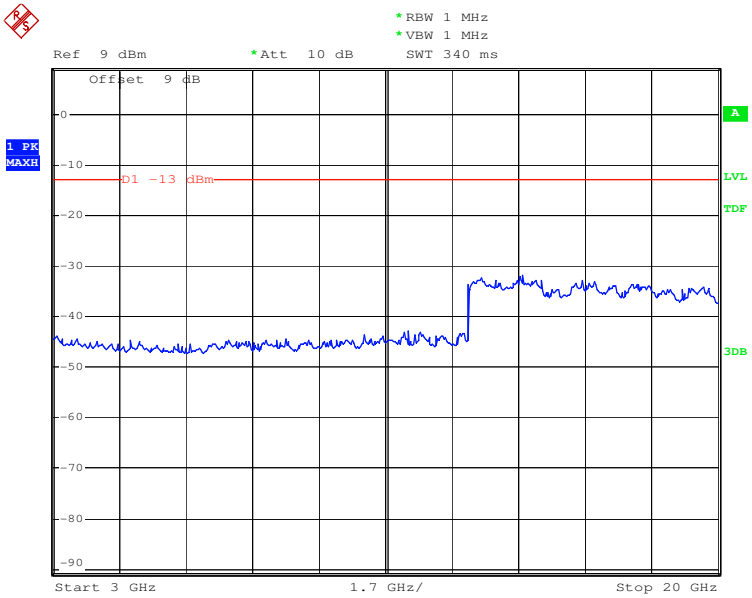
WCDMA 1900 Channel Low



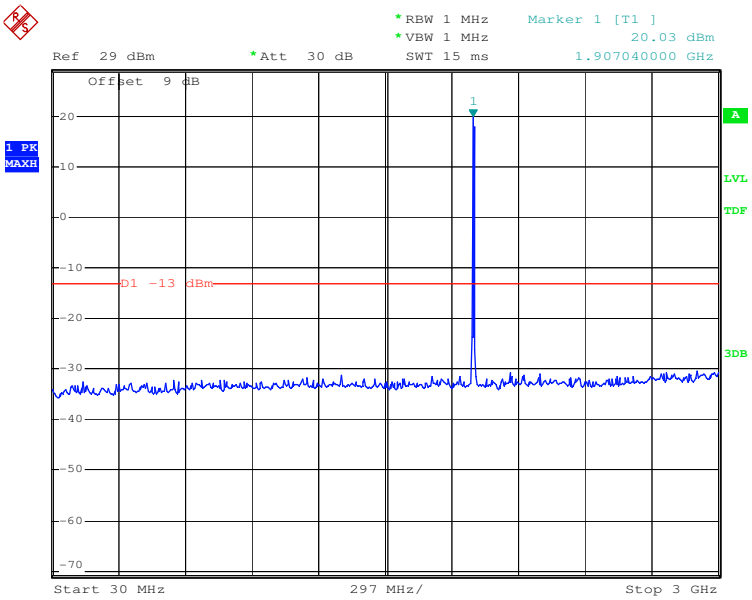


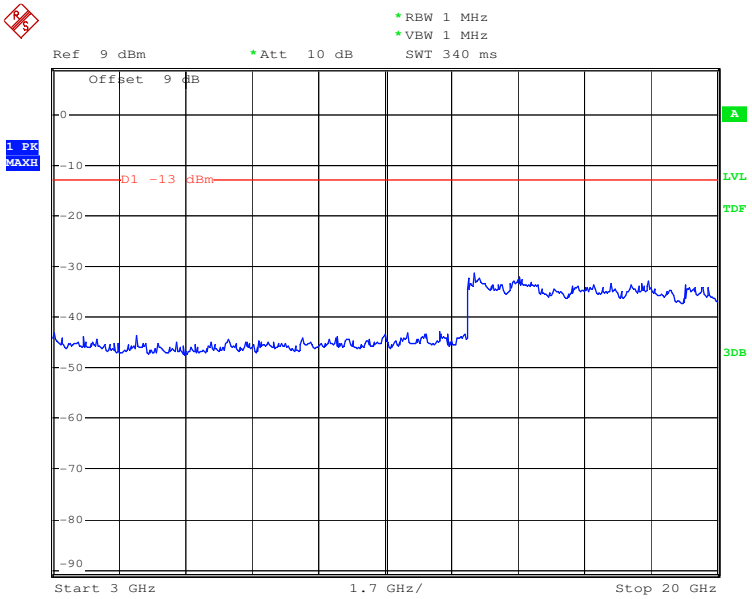
WCDMA 1900 Channel Mid



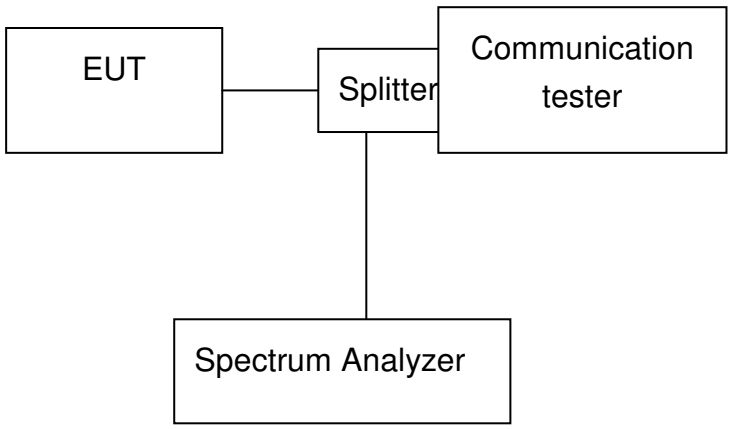


WCDMA 1900 Channel High

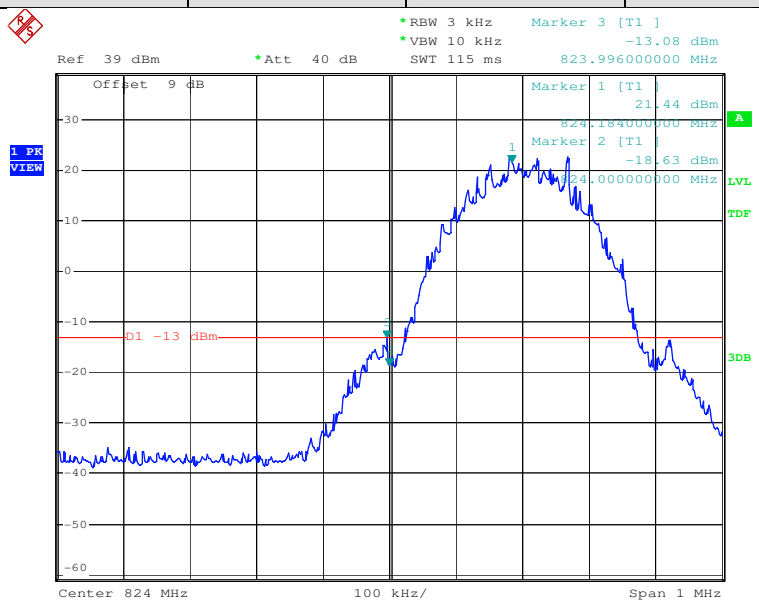




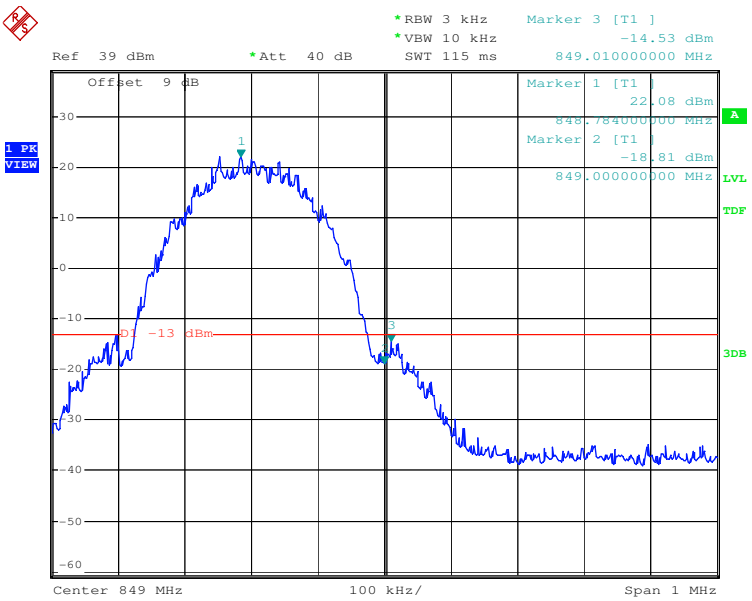
5.5 Band Edge

Test Requirement:	FCC Part 2.1051, ANSI/TIA-603-C
	FCC part 22.917(a), 24.238(a) 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+10log(Mean power in watts) dBc below the mean power output outside a license's frequency block (-13dBm).
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 10th harmonic. For the out of band: set RBW/VBW=3kHz/10kHz,. 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.
Test Setup:	 *Remark:* *Offset the High-Frequency cable loss 9.0dB in the spectrum analyzer.*
Test Instruments:	Refer to section 4.8 for details
Test Results:	Pass

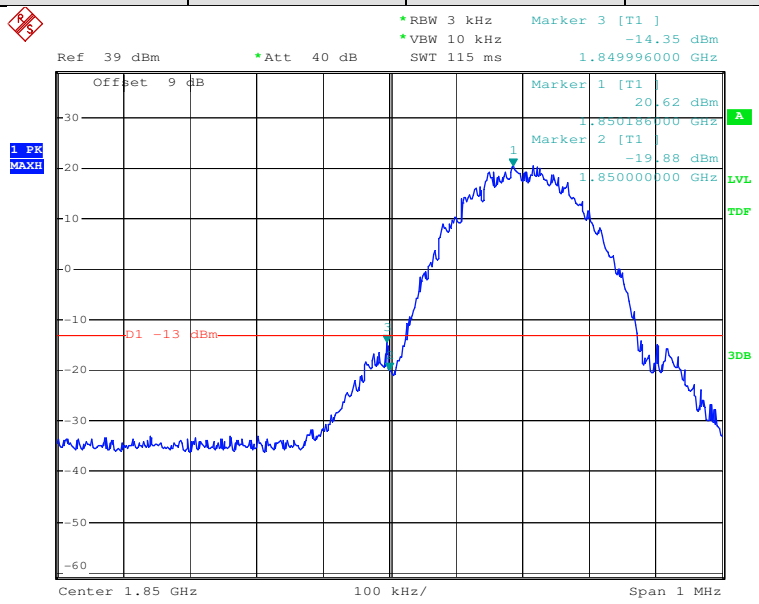
GSM850	Test mode:	Traffic mode	Test channel:	Lowest



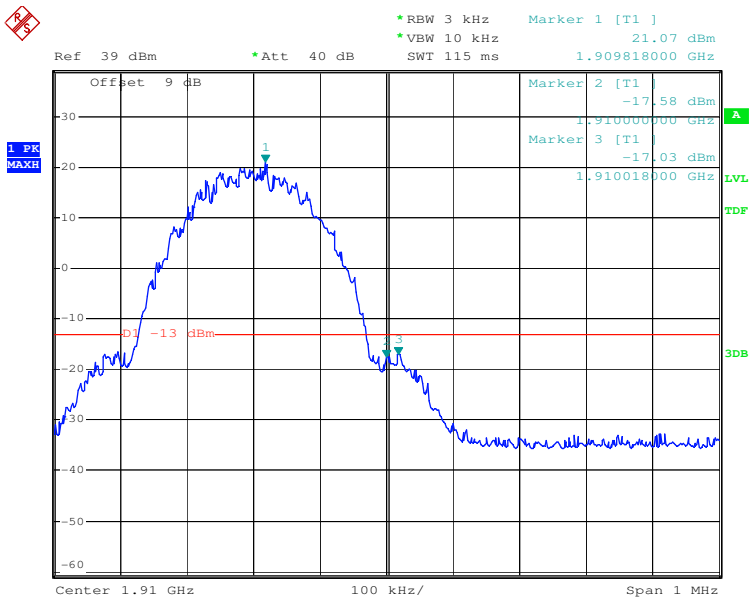
GSM850	Test mode:	Traffic mode	Test channel:	Highest



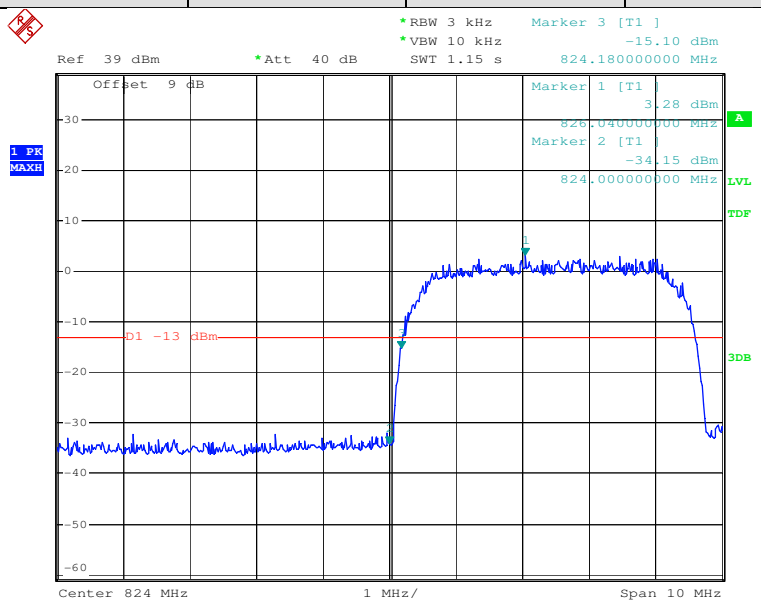
PCS1900	Test mode:	Traffic mode	Test channel:	Lowest



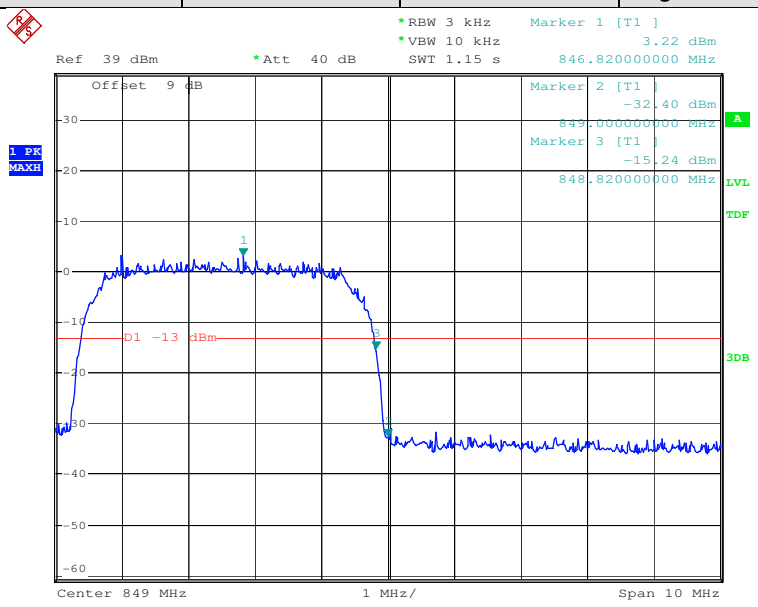
PCS1900	Test mode:	Traffic mode	Test channel:	Highest



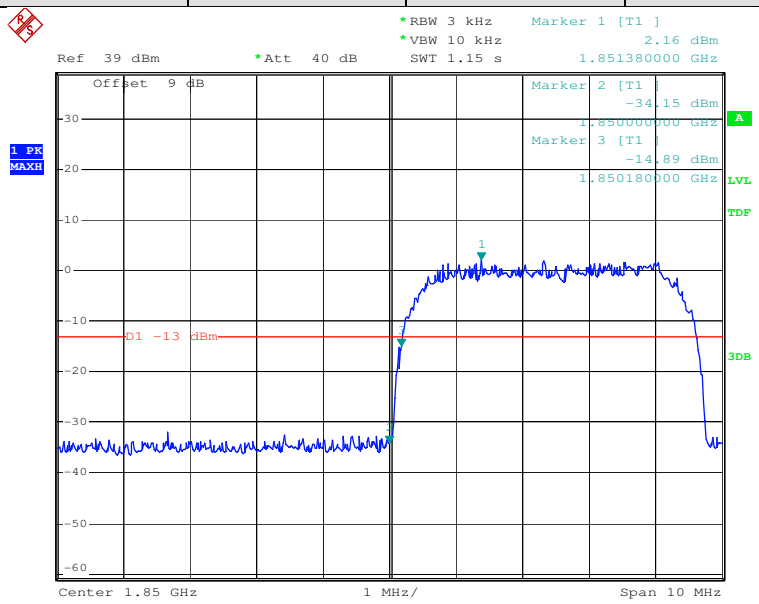
HSDPA 850	Test mode:	Traffic mode	Test channel:	Lowest



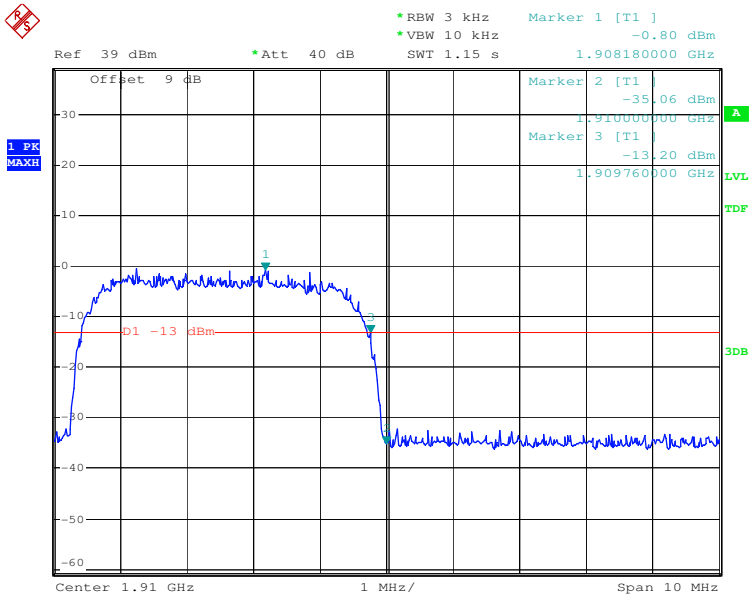
HSDPA 850	Test mode:	Traffic mode	Test channel:	Highest



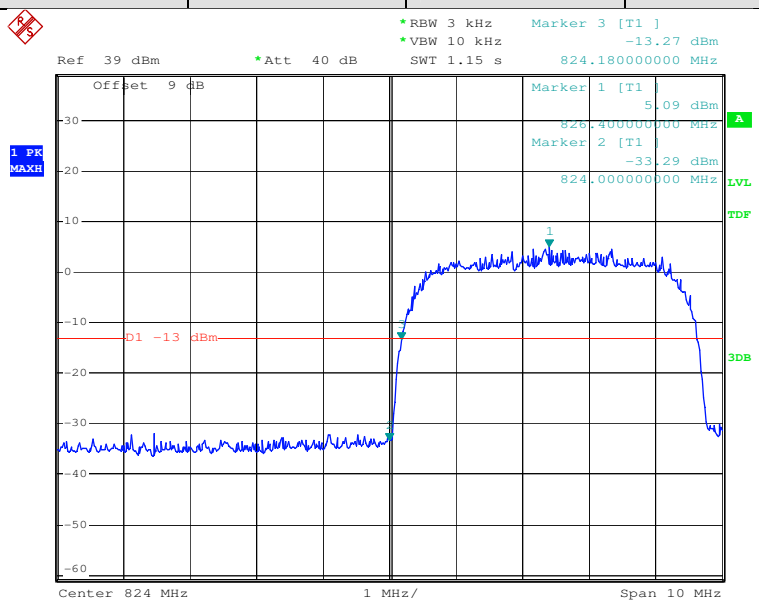
HSDPA 1900	Test mode:	Traffic mode	Test channel:	Lowest



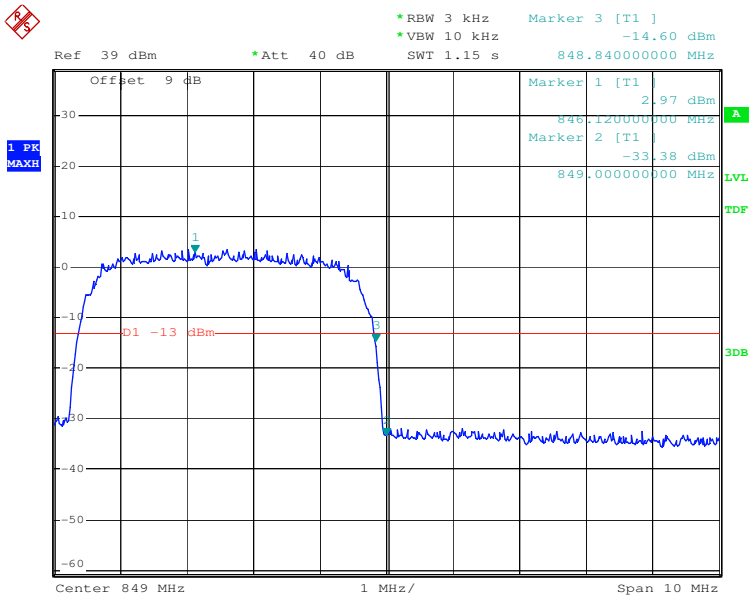
HSDPA 1900	Test mode:	Traffic mode	Test channel:	Highest



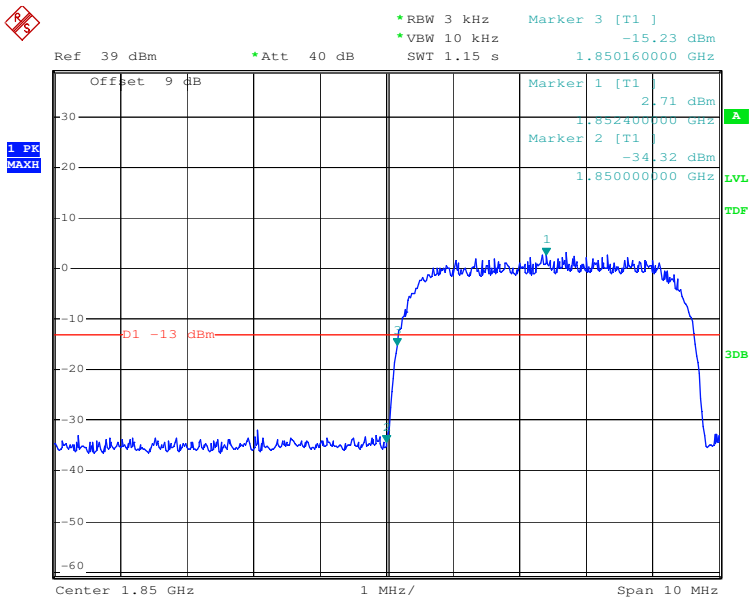
WCDMA 850	Test mode:	Traffic mode	Test channel:	Lowest



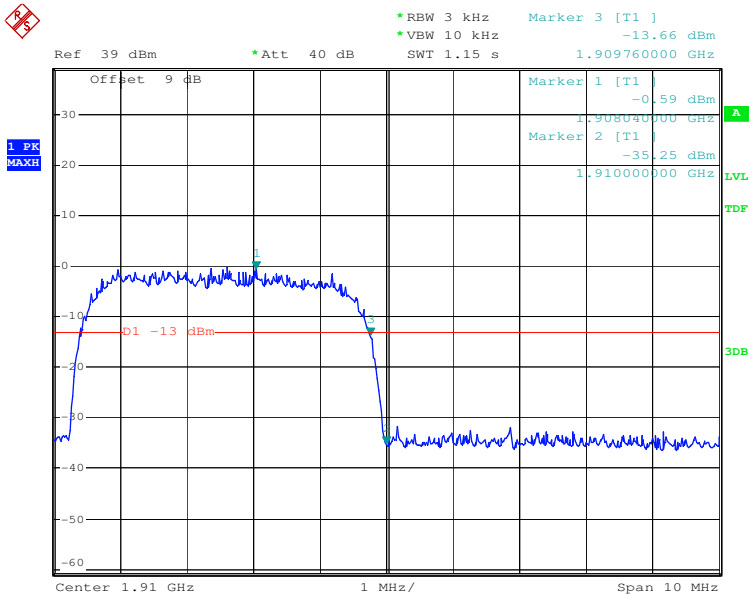
WCDMA 850	Test mode:	Traffic mode	Test channel:	Highest



WCDMA 1900	Test mode:	Traffic mode	Test channel:	Lowest



WCDMA 1900	Test mode:	Traffic mode	Test channel:	Highest

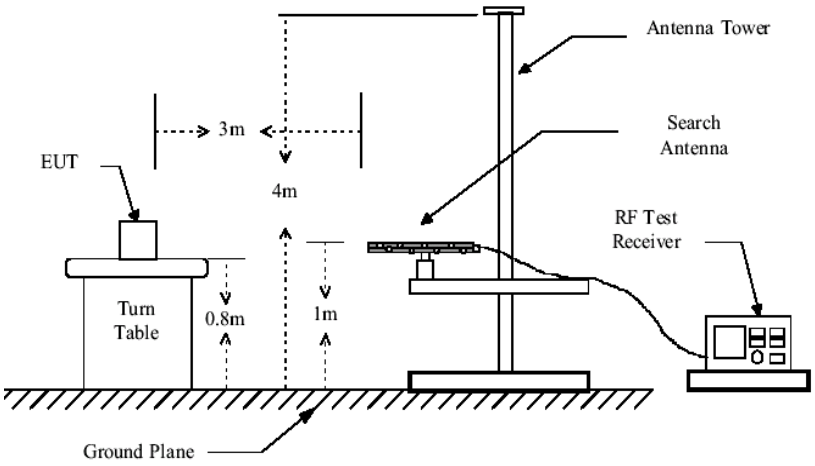


5.6 Field Strength of Radiated Spurious Emissions

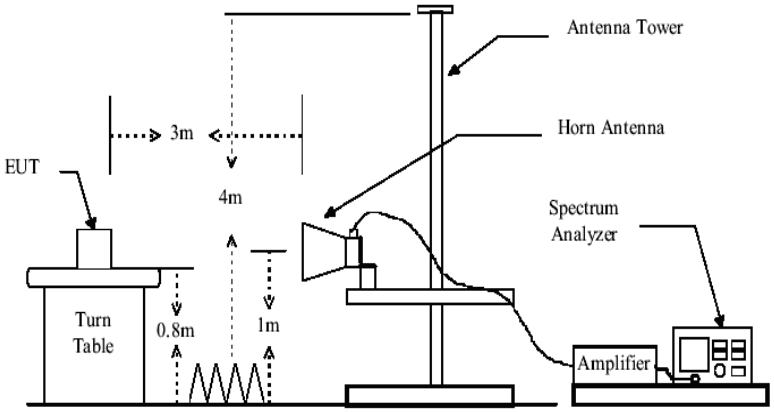
Test Requirement:	FCC Part 2.1053,ANSI/TIA-603-C
	FCC part 22.917(a), 24.238(a) the magnitude of each spurious and harmonic emission that can be detected when the equipment is operated under the conditions specification in the instruction manual and/or alignment procedure, shall not be less than 43+10log(Mean power in watts) dBc below the mean power output outside a license's frequency block (-13dBm).
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 10th harmonic. For the out of band: set below 1G:RBW=100kHz,VBW=300kHz, above1G: RBW=1MHz,VBW=3MHz 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. 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. 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: ERP in frequency band 1710-1755MHz and 1850.5-1909.8MHz 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=S.G. output (dBm) + Antenna Gain (dBi)-Cable Loss (dB)-2.15 EIRP=S.G. output (dBm) + Antenna Gain (dBi)-Cable Loss (dB)

Test setup:

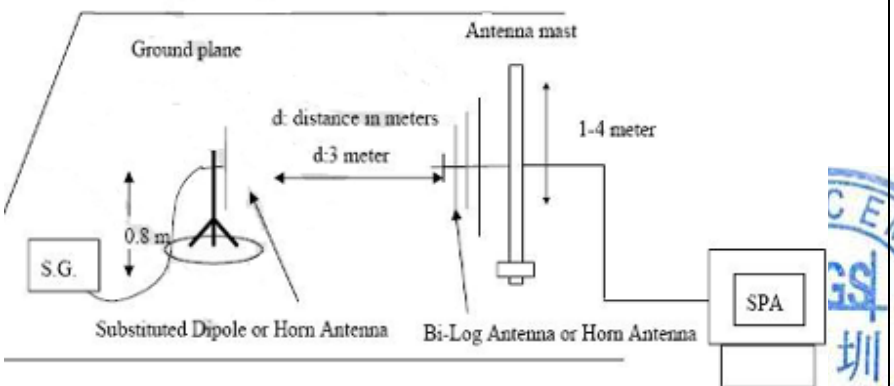
(a)Below 1GHz



(b)Above 1GHz



(c)Substituted Method Test setup:



Test Instruments:	Refer to section 4.8 for details
Test Mode:	Traffic mode
Test Results:	Pass

Below 1GHz

Radiated spurious Emission Measurement Result: GSM 850 mode

Operation mode: TX CH Low mode

Fundamental Frequency: 824.2MHz

Frequency (MHz)	S.G. Output (dBm)	Antenna Gain (dBi)	Cable loss (dB)	ERP (dBm)	Limit (dBm)	Antenna polarize	Margin (dB)
47.46	-60.35	-4.60	0.74	-67.84	-13.00	H	-54.84
104.69	-67.25	2.70	1.21	-67.91	-13.00	H	-54.91
201.69	-61.24	8.20	1.40	-56.59	-13.00	H	-43.59
388.9	-56.21	6.00	2.17	-54.53	-13.00	H	-41.53
458.74	-59.98	7.40	2.44	-57.17	-13.00	H	-44.17
709	-57.56	4.20	2.93	-58.44	-13.00	H	-45.44
48.43	-59.52	-4.60	0.77	-67.04	-13.00	V	-54.04
87.23	-61.15	3.00	1.10	-61.40	-13.00	V	-48.40
122.15	-65.85	5.20	1.26	-64.06	-13.00	V	-51.06
175.5	-56.16	6.70	1.36	-52.97	-13.00	V	-39.97
388.9	-59.77	6.00	2.16	-58.08	-13.00	V	-45.08
708.03	-53.43	4.20	2.93	-54.31	-13.00	V	-41.31

Remark:

1 emission behaviors belong to narrowband spurious emission.

2 The result basic equation calculation is as follow:

ERP(dBm)=S.G. Output(dBm) + Antenna Gain(dBi)-Cable Loss-2.15

Radiated spurious Emission Measurement Result: GSM 850 mode

Operation mode: TX CH Mid mode

Fundamental Frequency: 836.4MHz

Frequency (MHz)	S.G. Output (dBm)	Antenna Gain (dBi)	Cable loss (dB)	ERP (dBm)	Limit (dBm)	Antenna polarize	Margin (dB)
47.46	-60.83	-4.60	0.74	-68.32	-13.00	H	-55.32
105.66	-63.97	2.70	1.21	-64.63	-13.00	H	-51.63
175.5	-60.23	6.70	1.36	-57.04	-13.00	H	-44.04
211.39	-62.27	8.60	1.46	-57.28	-13.00	H	-44.28
388.9	-55.75	6.00	2.17	-54.07	-13.00	H	-41.07
568.35	-58.61	3.80	2.67	-59.63	-13.00	H	-46.63
48.43	-61.59	-4.60	0.77	-69.11	-13.00	V	-56.11
102.75	-61.09	2.30	1.21	-62.15	-13.00	V	-49.15
174.53	-59.18	6.70	1.36	-55.99	-13.00	V	-42.99
215.27	-60.78	8.50	1.49	-55.92	-13.00	V	-42.92
378.23	-58.14	6.90	2.14	-55.53	-13.00	V	-42.53
602.3	-59.08	8.10	1.70	-54.83	-13.00	V	-41.83

Remark:

1 emission behaviors belong to narrowband spurious emission.

2 The result basic equation calculation is as follow:

ERP(dBm)=S.G. Output(dBm) + Antenna Gain(dBi)-Cable Loss-2.15

Radiated spurious Emission Measurement Result: GSM 850 mode

Operation mode: TX CH High mode

Fundamental Frequency: 848.8MHz

Frequency (MHz)	S.G. Output (dBm)	Antenna Gain (dBi)	Cable loss (dB)	ERP (dBm)	Limit (dBm)	Antenna polarize	Margin (dB)
47.46	-61.55	-4.60	0.74	-69.04	-13.00	H	-56.04
175.5	-58.09	6.70	1.36	-54.90	-13.00	H	-41.90
191.99	-60.03	8.00	1.39	-55.57	-13.00	H	-42.57
213.33	-61.68	8.50	1.47	-56.80	-13.00	H	-43.80
370.47	-58.26	7.70	2.13	-54.84	-13.00	H	-41.84
459.71	-59.47	7.40	2.49	-56.71	-13.00	H	-43.71
47.46	-59.96	-4.60	0.74	-67.45	-13.00	V	-54.45
102.75	-59.17	2.30	1.21	-60.23	-13.00	V	-47.23
140.58	-63.30	5.50	1.30	-61.25	-13.00	V	-48.25
184.23	-55.91	7.60	1.37	-51.83	-13.00	V	-38.83
214.3	-59.41	8.50	1.49	-54.55	-13.00	V	-41.55
388.9	-57.40	6.00	2.17	-55.72	-13.00	V	-42.72

Remark:

1 emission behaviors belong to narrowband spurious emission.

2 The result basic equation calculation is as follow:

ERP(dBm)=S.G. Output(dBm) + Antenna Gain(dBi)-Cable Loss-2.15

Radiated spurious Emission Measurement Result: PCS 1900 mode

Operation mode: TX CH Low mode

Fundamental Frequency: 1850.2MHz

Frequency (MHz)	S.G. Output (dBm)	Antenna Gain (dBi)	Cable loss (dB)	EIRP (dBm)	Limit (dBm)	Antenna polarize	Margin (dB)
48.43	-61.71	-4.60	0.77	-69.23	-13.00	H	-56.23
102.75	-61.94	2.30	1.21	-63.00	-13.00	H	-50.00
140.58	-67.76	5.50	1.31	-65.72	-13.00	H	-52.72
180.35	-64.10	7.40	1.37	-60.22	-13.00	H	-47.22
322.94	-61.27	6.20	1.98	-59.20	-13.00	H	-46.20
459.71	-59.40	7.40	2.45	-56.60	-13.00	H	-43.60
47.46	-61.42	-4.60	0.74	-68.91	-13.00	V	-55.91
102.75	-61.62	2.30	1.21	-62.68	-13.00	V	-49.68
187.14	-64.36	7.60	1.38	-60.29	-13.00	V	-47.29
238.55	-65.71	7.00	1.62	-62.48	-13.00	V	-49.48
373.38	-58.21	7.70	2.13	-54.79	-13.00	V	-41.79
602.3	-58.13	8.10	2.70	-54.88	-13.00	V	-41.88

Remark:

1 emission behaviors belong to narrowband spurious emission.

2 The result basic equation calculation is as follow:

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

Radiated spurious Emission Measurement Result: PCS 1900 mode

Operation mode: TX CH mid mode

Fundamental Frequency: 1880.0MHz

Frequency (MHz)	S.G. Output (dBm)	Antenna Gain (dBi)	Cable loss (dB)	EIRP (dBm)	Limit (dBm)	Antenna polarize	Margin (dB)
47.46	-59.71	-4.60	0.74	-67.20	-13.00	H	-54.20
102.75	-60.62	2.30	1.20	-61.67	-13.00	H	-48.67
140.58	-64.88	5.50	1.30	-62.83	-13.00	H	-49.83
175.5	-59.52	6.70	1.36	-56.33	-13.00	H	-43.33
211.39	-63.00	8.60	1.46	-58.01	-13.00	H	-45.01
373.38	-59.22	7.70	2.13	-55.80	-13.00	H	-42.80
87.23	-64.56	3.00	1.10	-64.81	-13.00	V	-51.81
140.58	-63.68	5.50	1.30	-61.63	-13.00	V	-48.63
175.5	-58.42	6.70	1.36	-55.23	-13.00	V	-42.23
180.35	-58.62	7.40	1.37	-54.74	-13.00	V	-41.74
388.9	-57.91	6.00	2.17	-56.23	-13.00	V	-43.23
602.3	-58.64	8.10	2.70	-55.39	-13.00	V	-42.39

Remark:

1 emission behaviors belong to narrowband spurious emission.

2 The result basic equation calculation is as follow:

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

Radiated spurious Emission Measurement Result: PCS 1900 mode

Operation mode: TX CH High mode

Fundamental Frequency: 1909.8MHz

Frequency (MHz)	S.G. Output (dBm)	Antenna Gain (dBi)	Cable loss (dB)	EIRP (dBm)	Limit (dBm)	Antenna polarize	Margin (dB)
40.67	-57.29	-9.30	0.74	-69.48	-13.00	H	-56.48
102.75	-62.07	2.30	1.21	-63.13	-13.00	H	-50.13
175.5	-59.53	6.70	1.36	-56.34	-13.00	H	-43.34
388.9	-55.90	6.00	2.17	-54.22	-13.00	H	-41.22
459.71	-59.68	7.40	2.45	-56.88	-13.00	H	-43.88
909.79	-58.58	8.10	3.61	-56.24	-13.00	H	-43.24
51.34	-60.50	-3.50	0.80	-66.95	-13.00	V	-53.95
102.75	-62.10	2.30	1.21	-63.16	-13.00	V	-50.16
185.2	-59.98	7.60	1.38	-55.91	-13.00	V	-42.91
215.27	-62.38	8.50	1.49	-57.52	-13.00	V	-44.52
388.9	-58.52	6.00	2.17	-56.84	-13.00	V	-43.84
602.3	-58.10	8.10	2.70	-54.85	-13.00	V	-41.85

Remark:

1 emission behaviors belong to narrowband spurious emission.

2 The result basic equation calculation is as follow:

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

Radiated spurious Emission Measurement Result: HSDPA 850 mode

Operation mode: TX CH Low mode

Fundamental Frequency: 826.4MHz

Frequency (MHz)	S.G. Output (dBm)	Antenna Gain (dBi)	Cable loss (dB)	ERP (dBm)	Limit (dBm)	Antenna polarize	Margin (dB)
47.46	-63.90	-4.60	0.74	-71.39	-13.00	H	-58.39
140.58	-66.79	5.50	1.31	-64.75	-13.00	H	-51.75
211.39	-65.43	8.60	1.46	-60.44	-13.00	H	-47.44
264.74	-61.36	6.90	1.74	-58.35	-13.00	H	-45.35
373.38	-57.86	7.70	2.13	-54.44	-13.00	H	-41.44
520.82	-63.16	7.60	0.63	-58.34	-13.00	H	-45.34
51.34	-64.16	-2.50	0.80	-69.61	-13.00	V	-56.61
122.15	-65.04	5.20	1.26	-63.25	-13.00	V	-50.25
211.39	-65.09	8.60	1.46	-60.10	-13.00	V	-47.10
354.95	-65.40	9.10	2.07	-60.52	-13.00	V	-47.52
474.26	-63.18	8.30	2.50	-59.53	-13.00	V	-46.53
602.3	-60.27	8.10	2.70	-57.02	-13.00	V	-44.02

Remark:

1 emission behaviors belong to narrowband spurious emission.

2 The result basic equation calculation is as follow:

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

Radiated spurious Emission Measurement Result: HSDPA 850 mode

Operation mode: TX CH Mid mode

Fundamental Frequency: 836.6MHz

Frequency (MHz)	S.G. Output (dBm)	Antenna Gain (dBi)	Cable loss (dB)	ERP (dBm)	Limit (dBm)	Antenna polarize	Margin (dB)
48.43	-63.73	-4.60	0.77	-71.25	-13.00	H	-58.25
211.39	-67.83	8.60	1.46	-62.84	-13.00	H	-49.84
264.74	-63.67	6.90	1.74	-60.66	-13.00	H	-47.66
388.9	-57.22	6.00	2.17	-55.54	-13.00	H	-42.54
459.71	-60.51	7.40	2.45	-57.71	-13.00	H	-44.71
520.82	-60.45	7.60	2.63	-57.63	-13.00	H	-44.63
48.43	-62.65	-4.60	0.77	-70.17	-13.00	V	-57.17
175.5	-59.04	6.70	1.36	-55.85	-13.00	V	-42.85
215.27	-67.51	8.50	1.48	-62.64	-13.00	V	-49.64
264.74	-66.54	6.90	1.74	-63.53	-13.00	V	-50.53
520.82	-64.60	7.60	2.64	-61.79	-13.00	V	-48.79
602.3	-64.25	8.10	2.70	-61.00	-13.00	V	-48.00

Remark:

1 emission behaviors belong to narrowband spurious emission.

2 The result basic equation calculation is as follow:

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

Radiated spurious Emission Measurement Result: HSDPA 850 mode

Operation mode: TX CH High mode

Fundamental Frequency: 846.6MHz

Frequency (MHz)	S.G. Output (dBm)	Antenna Gain (dBi)	Cable loss (dB)	ERP (dBm)	Limit (dBm)	Antenna polarize	Margin (dB)
47.46	-62.15	-4.60	0.74	-69.64	-13.00	H	-56.64
140.58	-63.62	5.50	1.31	-61.58	-13.00	H	-48.58
264.74	-61.16	6.90	1.74	-58.15	-13.00	H	-45.15
316.15	-62.29	6.20	1.95	-60.19	-13.00	H	-47.19
450.98	-63.99	6.70	2.43	-61.87	-13.00	H	-48.87
568.35	-58.10	3.80	2.67	-59.12	-13.00	H	-46.12
51.34	-62.96	-2.50	0.80	-68.41	-13.00	V	-55.41
122.15	-62.48	5.20	1.26	-60.69	-13.00	V	-47.69
174.53	-66.40	6.70	1.36	-63.21	-13.00	V	-50.21
264.74	-65.98	6.90	1.74	-62.97	-13.00	V	-49.97
474.26	-64.43	8.30	2.50	-60.78	-13.00	V	-47.78
602.3	-59.75	8.10	2.71	-56.51	-13.00	V	-43.51

Remark:

1 emission behaviors belong to narrowband spurious emission.

2 The result basic equation calculation is as follow:

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

Radiated spurious Emission Measurement Result: HSDPA 1900 mode

Operation mode: TX CH Low mode

Fundamental Frequency: 1852.4MHz

Frequency (MHz)	S.G. Output (dBm)	Antenna Gain (dBi)	Cable loss (dB)	EIRP (dBm)	Limit (dBm)	Antenna polarize	Margin (dB)
46.49	-63.50	-5.60	0.73	-71.98	-13.00	H	-58.98
139.61	-68.96	5.50	1.29	-66.90	-13.00	H	-53.90
174.53	-63.63	6.70	1.36	-60.44	-13.00	H	-47.44
263.77	-65.13	6.90	1.74	-62.12	-13.00	H	-49.12
372.41	-58.35	7.70	2.09	-54.89	-13.00	H	-41.89
520.82	-60.58	7.60	2.63	-57.76	-13.00	H	-44.76
48.43	-65.53	-4.60	0.77	-73.05	-13.00	V	-60.05
139.61	-67.25	5.50	1.29	-65.19	-13.00	V	-52.19
174.53	-65.44	6.70	1.36	-62.25	-13.00	V	-49.25
213.33	-67.68	8.50	1.48	-62.81	-13.00	V	-49.81
263.77	-66.10	6.90	1.74	-63.09	-13.00	V	-50.09
375.32	-66.96	6.90	2.13	-64.34	-13.00	V	-51.34

Remark:

1 emission behaviors belong to narrowband spurious emission.

2 The result basic equation calculation is as follow:

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

Radiated spurious Emission Measurement Result: HSDPA 1900 mode

Operation mode: TX CH Mid mode

Fundamental Frequency: 1880MHz

Frequency (MHz)	S.G. Output (dBm)	Antenna Gain (dBi)	Cable loss (dB)	EIRP (dBm)	Limit (dBm)	Antenna polarize	Margin (dB)
49.4	-66.45	-3.50	0.79	-72.89	-13.00	H	-59.89
124.09	-68.86	5.20	1.26	-67.07	-13.00	H	-54.07
174.53	-62.61	6.70	1.36	-59.42	-13.00	H	-46.42
212.36	-63.35	8.60	1.47	-58.37	-13.00	H	-45.37
263.77	-66.39	6.90	1.73	-63.37	-13.00	H	-50.37
370.47	-60.57	7.70	2.12	-57.14	-13.00	H	-44.14
51.34	-65.23	-2.50	0.80	-70.68	-13.00	V	-57.68
139.61	-65.87	5.50	1.29	-63.81	-13.00	V	-50.81
210.42	-68.75	8.60	1.51	-63.81	-13.00	V	-50.81
264.74	-65.88	6.90	1.74	-62.87	-13.00	V	-49.87
370.47	-62.43	7.70	2.13	-59.01	-13.00	V	-46.01
520.82	-64.02	7.60	2.63	-61.20	-13.00	V	-48.20

Remark:

1 emission behaviors belong to narrowband spurious emission.

2 The result basic equation calculation is as follow:

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

Radiated spurious Emission Measurement Result: HSDPA 1900 mode

Operation mode: TX CH High mode

Fundamental Frequency: 1907.6MHz

Frequency (MHz)	S.G. Output (dBm)	Antenna Gain (dBi)	Cable loss (dB)	EIRP (dBm)	Limit (dBm)	Antenna polarize	Margin (dB)
47.46	-64.61	-4.60	0.74	-72.10	-13.00	H	-59.10
140.58	-62.86	5.50	1.31	-60.82	-13.00	H	-47.82
211.39	-64.59	8.60	1.48	-59.62	-13.00	H	-46.62
264.74	-61.72	6.90	1.74	-58.71	-13.00	H	-45.71
373.38	-59.93	7.70	2.13	-56.51	-13.00	H	-43.51
520.82	-61.27	7.60	2.63	-58.45	-13.00	H	-45.45
51.34	-64.18	-2.50	0.80	-69.63	-13.00	V	-56.63
180.35	-66.41	7.40	1.37	-62.53	-13.00	V	-49.53
264.74	-63.48	6.90	1.74	-60.47	-13.00	V	-47.47
354.95	-64.25	9.10	2.07	-59.37	-13.00	V	-46.37
474.26	-62.60	8.30	2.50	-58.95	-13.00	V	-45.95
520.82	-60.34	7.60	2.63	-57.52	-13.00	V	-44.52

Remark:

1 emission behaviors belong to narrowband spurious emission.

2 The result basic equation calculation is as follow:

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

Radiated spurious Emission Measurement Result: WCDMA 850 mode

Operation mode: TX CH Low mode

Fundamental Frequency: 826.4MHz

Frequency (MHz)	S.G. Output (dBm)	Antenna Gain (dBi)	Cable loss (dB)	ERP (dBm)	Limit (dBm)	Antenna polarize	Margin (dB)
47.46	-64.30	-4.60	0.74	-71.79	-13.00	H	-58.79
211.39	-65.10	8.60	1.46	-60.11	-13.00	H	-47.11
260.86	-57.87	7.00	7.76	-60.78	-13.00	H	-47.78
316.15	-60.05	6.20	1.95	-57.95	-13.00	H	-44.95
520.82	-60.15	7.60	2.63	-57.33	-13.00	H	-44.33
758.47	-62.65	9.80	3.08	-58.08	-13.00	H	-45.08
51.34	-65.08	-2.50	0.80	-70.53	-13.00	V	-57.53
212.36	-70.33	8.60	1.47	-65.35	-13.00	V	-52.35
246.31	-68.40	7.10	1.65	-65.10	-13.00	V	-52.10
354.95	-65.31	9.10	2.07	-60.43	-13.00	V	-47.43
450.98	-65.31	6.70	2.45	-63.21	-13.00	V	-50.21
568.35	-58.75	3.80	2.67	-59.77	-13.00	V	-46.77

Remark:

1 emission behaviors belong to narrowband spurious emission.

2 The result basic equation calculation is as follow:

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

Radiated spurious Emission Measurement Result: WCDMA 850 mode

Operation mode: TX CH Mid mode

Fundamental Frequency: 836.6MHz

Frequency (MHz)	S.G. Output (dBm)	Antenna Gain (dBi)	Cable loss (dB)	ERP (dBm)	Limit (dBm)	Antenna polarize	Margin (dB)
48.25	-63.65	-4.60	0.77	-71.17	-13.00	H	-58.17
122.15	-67.03	5.20	1.26	-65.24	-13.00	H	-52.24
211.39	-65.15	8.60	1.46	-60.16	-13.00	H	-47.16
260.86	-63.58	7.00	1.76	-60.49	-13.00	H	-47.49
378.23	-58.66	6.90	2.14	-56.05	-13.00	H	-43.05
520.82	-65.53	7.60	2.63	-62.71	-13.00	H	-49.71
48.43	-61.17	-4.60	0.77	-68.69	-13.00	V	-55.69
122.15	-65.39	5.20	1.26	-63.60	-13.00	V	-50.60
140.58	-64.85	5.50	1.31	-62.81	-13.00	V	-49.81
211.39	-69.18	8.60	1.47	-64.20	-13.00	V	-51.20
388.9	-57.87	6.00	2.17	-56.19	-13.00	V	-43.19
602.3	-59.47	8.10	2.70	-56.22	-13.00	V	-43.22

Remark:

1 emission behaviors belong to narrowband spurious emission.

2 The result basic equation calculation is as follow:

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

Radiated spurious Emission Measurement Result: WCDMA 850 mode

Operation mode: TX CH High mode

Fundamental Frequency: 846.6MHz

Frequency (MHz)	S.G. Output (dBm)	Antenna Gain (dBi)	Cable loss (dB)	ERP (dBm)	Limit (dBm)	Antenna polarize	Margin (dB)
47.46	-63.48	-4.60	0.74	-70.97	-13.00	H	-57.97
140.58	-69.53	5.50	1.31	-67.49	-13.00	H	-54.49
246.31	-66.14	7.10	1.65	-62.84	-13.00	H	-49.84
316.15	-62.83	6.20	1.95	-60.73	-13.00	H	-47.73
459.71	-59.66	7.40	2.45	-56.86	-13.00	H	-43.86
545.07	-60.84	4.80	2.65	-60.84	-13.00	H	-47.84
47.46	-62.20	-4.60	0.74	-69.69	-13.00	V	-56.69
140.58	-62.87	5.50	1.31	-60.83	-13.00	V	-47.83
180.35	-64.50	7.40	1.37	-60.62	-13.00	V	-47.62
211.39	-64.12	8.60	1.46	-59.13	-13.00	V	-46.13
316.15	-61.34	6.20	1.95	-59.24	-13.00	V	-46.24
520.82	-60.79	7.60	2.63	-57.97	-13.00	V	-44.97

Remark:

1 emission behaviors belong to narrowband spurious emission.

2 The result basic equation calculation is as follow:

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

Radiated spurious Emission Measurement Result: WCDMA 1900 mode

Operation mode: TX CH Low mode

Fundamental Frequency: 1852.4MHz

Frequency (MHz)	S.G. Output (dBm)	Antenna Gain (dBi)	Cable loss (dB)	EIRP (dBm)	Limit (dBm)	Antenna polarize	Margin (dB)
47.46	-64.14	-4.60	0.74	-71.63	-13.00	H	-58.63
175.5	-61.70	6.70	1.36	-58.51	-13.00	H	-45.51
260.86	-64.51	7.00	1.74	-61.40	-13.00	H	-48.40
388.9	-55.61	6.00	2.17	-53.93	-13.00	H	-40.93
459.71	-60.19	7.40	2.45	-57.39	-13.00	H	-44.39
520.82	-61.07	7.60	2.63	-58.25	-13.00	H	-45.25
51.34	-62.79	-2.50	0.80	-68.24	-13.00	V	-55.24
87.23	-60.95	3.00	1.10	-61.20	-13.00	V	-48.20
175.5	-59.11	6.70	1.36	-55.92	-13.00	V	-42.92
370.47	-57.63	7.70	2.13	-54.21	-13.00	V	-41.21
602.3	-60.96	8.10	2.70	-57.71	-13.00	V	-44.71
948.59	-56.07	5.80	3.60	-56.02	-13.00	V	-43.02

Remark:

1 emission behaviors belong to narrowband spurious emission.

2 The result basic equation calculation is as follow:

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

Radiated spurious Emission Measurement Result: WCDMA 1900 mode

Operation mode: TX CH Mid mode

Fundamental Frequency: 1880MHz

Frequency (MHz)	S.G. Output (dBm)	Antenna Gain (dBi)	Cable loss (dB)	EIRP (dBm)	Limit (dBm)	Antenna polarize	Margin (dB)
47.46	-64.03	-4.60	0.74	-71.52	-13.00	H	-58.52
122.15	-65.47	5.20	1.26	-63.68	-13.00	H	-50.68
211.39	-64.15	8.60	1.46	-59.16	-13.00	H	-46.16
370.47	-58.48	7.70	2.13	-55.06	-13.00	H	-42.06
459.71	-60.55	7.40	2.45	-57.75	-13.00	H	-44.75
520.82	-60.58	7.60	2.63	-57.76	-13.00	H	-44.76
48.43	-63.64	-4.60	0.77	-71.16	-13.00	V	-58.16
87.23	-66.15	3.00	1.10	-66.40	-13.00	V	-53.40
180.35	-63.36	7.40	1.37	-59.48	-13.00	V	-46.48
388.9	-57.82	6.00	2.17	-56.14	-13.00	V	-43.14
497.54	-64.74	9.40	2.59	-60.08	-13.00	V	-47.08
900.09	-61.87	8.90	3.60	-58.72	-13.00	V	-45.72

Remark:

1 emission behaviors belong to narrowband spurious emission.

2 The result basic equation calculation is as follow:

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

Radiated spurious Emission Measurement Result: WCDMA 1900 mode

Operation mode: TX CH High mode

Fundamental Frequency: 1907.6MHz

Frequency (MHz)	S.G. Output (dBm)	Antenna Gain (dBi)	Cable loss (dB)	EIRP (dBm)	Limit (dBm)	Antenna polarize	Margin (dB)
47.46	-64.47	-4.60	0.74	-71.96	-13.00	H	-58.96
122.15	-70.10	5.20	1.26	-68.31	-13.00	H	-55.31
211.39	-66.38	8.60	1.46	-61.39	-13.00	H	-48.39
260.86	-64.95	7.00	1.76	-61.86	-13.00	H	-48.86
520.82	-61.24	7.60	2.63	-58.42	-13.00	H	-45.42
967.02	-56.59	4.80	3.67	-57.61	-13.00	H	-44.61
51.34	-64.00	-2.50	0.80	-69.45	-13.00	V	-56.45
122.15	-63.10	5.20	1.26	-61.31	-13.00	V	-48.31
140.58	-65.21	5.50	1.31	-63.17	-13.00	V	-50.17
180.35	-67.68	7.40	1.37	-63.80	-13.00	V	-50.80
520.82	-61.90	7.60	2.63	-59.08	-13.00	V	-46.08
901.06	-59.93	8.90	3.60	-56.78	-13.00	V	-43.78

Remark:

1 emission behaviors belong to narrowband spurious emission.

2 The result basic equation calculation is as follow:

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

Above 1GHz

Radiated spurious Emission Measurement Result: GSM 850 mode

Operation mode: TX CH Low mode

Fundamental Frequency: 824.2MHz

Frequency (MHz)	S.G. Output (dBm)	Antenna Gain (dBi)	Cable loss (dB)	ERP (dBm)	Limit (dBm)	Antenna polarize	Margin (dB)
1640.59	-42.37	8.40	5.13	-39.10	-13.00	H	-26.10
3147.748	-48.09	7.10	7.36	-48.35	-13.00	H	-35.35
3971.916	-45.21	6.60	7.89	-46.50	-13.00	H	-33.50
5236.004	-38.92	5.50	11.74	-45.16	-13.00	H	-32.16
6966.265	-40.04	9.70	13.69	-44.03	-13.00	H	-31.03
9332.543	-41.98	14.00	13.64	-41.62	-13.00	H	-28.62
1640.59	-44.79	8.40	5.13	-41.52	-13.00	V	-28.52
3126.079	-49.21	7.10	7.36	-49.47	-13.00	V	-36.47
4395.416	-46.38	6.60	8.96	-48.74	-13.00	V	-35.74
5847.901	-44.31	10.20	13.00	-47.11	-13.00	V	-34.11
6966.265	-42.45	9.70	13.69	-46.44	-13.00	V	-33.44
7550.922	-44.27	10.80	12.81	-46.28	-13.00	V	-33.28

Remark:

1 emission behaviors belong to narrowband spurious emission.

2 The result basic equation calculation is as follow:

ERP(dBm)=S.G. Output(dBm) + Antenna Gain(dBi)-Cable Loss-2.15

Radiated spurious Emission Measurement Result: GSM 850 mode

Operation mode: TX CH Mid mode

Fundamental Frequency: 836.4MHz

Frequency (MHz)	S.G. Output (dBm)	Antenna Gain (dBi)	Cable loss (dB)	ERP (dBm)	Limit (dBm)	Antenna polarize	Margin (dB)
1671.091	-47.01	8.40	5.05	-43.66	-13.00	H	-30.66
3396.253	-47.56	7.80	7.22	-46.98	-13.00	H	-33.98
4159.106	-44.48	6.60	8.59	-46.47	-13.00	H	-33.47
5188	-37.98	5.50	11.71	-44.19	-13.00	H	-31.19
6966.265	-39.06	9.70	13.74	-43.10	-13.00	H	-30.10
9354.057	-42.55	14.00	13.92	-42.47	-13.00	H	-29.47
1671.091	-40.81	8.40	5.05	-37.46	-13.00	V	-24.46
3589.219	-46.26	7.80	8.44	-46.90	-13.00	V	-33.90
4466.836	-44.20	6.60	8.86	-46.46	-13.00	V	-33.46
5584.702	-38.76	6.60	12.72	-44.88	-13.00	V	-31.88
7430.191	-41.88	10.80	12.68	-43.76	-13.00	V	-30.76
8933.055	-43.39	13.80	13.30	-42.89	-13.00	V	-29.89

Remark:

1 emission behaviors belong to narrowband spurious emission.

2 The result basic equation calculation is as follow:

ERP(dBm)=S.G. Output(dBm) + Antenna Gain(dBi)-Cable Loss-2.15

Radiated spurious Emission Measurement Result: GSM 850 mode

Operation mode: TX CH High mode

Fundamental Frequency: 848.8MHz

Frequency (MHz)	S.G. Output (dBm)	Antenna Gain (dBi)	Cable loss (dB)	ERP (dBm)	Limit (dBm)	Antenna polarize	Margin (dB)
1698.244	-44.72	8.40	5.05	-41.37	-13.00	H	-28.37
3013.006	-49.48	7.10	6.68	-49.06	-13.00	H	-36.06
3890.451	-46.03	6.60	7.89	-47.32	-13.00	H	-34.32
5035.006	-42.35	5.50	9.80	-46.65	-13.00	H	-33.65
6516.284	-38.73	9.20	13.73	-43.26	-13.00	H	-30.26
7481.695	-41.29	10.80	12.77	-43.26	-13.00	H	-30.26
1185.769	-54.63	5.50	4.33	-53.46	-13.00	V	-40.46
1698.244	-42.73	8.40	5.05	-39.38	-13.00	V	-26.38
3715.352	-47.62	7.80	7.40	-47.22	-13.00	V	-34.22
5093.309	-40.23	5.50	10.83	-45.56	-13.00	V	-32.56
6397.348	-38.55	9.20	14.41	-43.76	-13.00	V	-30.76
8749.838	-43.29	13.30	13.10	-43.09	-13.00	V	-30.09

Remark:

1 emission behaviors belong to narrowband spurious emission.

2 The result basic equation calculation is as follow:

ERP(dBm)=S.G. Output(dBm) + Antenna Gain(dBi)-Cable Loss-2.15

Radiated spurious Emission Measurement Result: PCS 1900 mode

Operation mode: TX CH Low mode

Fundamental Frequency: 1850.2MHz

Frequency (MHz)	S.G. Output (dBm)	Antenna Gain (dBi)	Cable loss (dB)	EIRP (dBm)	Limit (dBm)	Antenna polarize	Margin (dB)
2790.113	-50.84	6.80	6.42	-50.46	-13.00	H	-37.46
3757.637	-47.67	7.80	7.51	-47.38	-13.00	H	-34.38
5031.499	-41.54	5.50	9.80	-45.84	-13.00	H	-32.84
7454.429	-41.55	10.80	12.77	-43.52	-13.00	H	-30.52
9475.497	-42.64	14.00	13.66	-42.30	-13.00	H	-29.30
11533.48	-31.68	11.00	16.45	-37.13	-13.00	H	-24.13
3025.306	-49.63	7.10	6.68	-49.21	-13.00	V	-36.21
3714.443	-47.18	7.80	7.40	-46.78	-13.00	V	-33.78
5031.499	-41.97	5.50	9.80	-46.27	-13.00	V	-33.27
6698.373	-40.29	9.20	13.32	-44.41	-13.00	V	-31.41
8248.005	-43.56	12.60	12.33	-43.29	-13.00	V	-30.29
10068.45	-39.31	13.30	14.36	-40.37	-13.00	V	-27.37

Remark:

1 emission behaviors belong to narrowband spurious emission.

2 The result basic equation calculation is as follow:

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

Radiated spurious Emission Measurement Result: PCS 1900 mode

Operation mode: TX CH Mid mode

Fundamental Frequency: 1880.0MHz

Frequency (MHz)	S.G. Output (dBm)	Antenna Gain (dBi)	Cable loss (dB)	EIRP (dBm)	Limit (dBm)	Antenna polarize	Margin (dB)
1877.8	-56.34	9.20	5.50	-52.64	-13.00	H	-39.64
3598.203	-47.48	7.80	8.44	-48.12	-13.00	H	-35.12
5209.075	-39.08	5.50	11.71	-45.29	-13.00	H	-32.29
6698.373	-39.76	9.20	13.32	-43.88	-13.00	H	-30.88
8943.274	-42.45	13.80	13.30	-41.95	-13.00	H	-28.95
11975.1	-32.02	13.30	16.45	-35.17	-13.00	H	-22.17
1877.8	-55.38	9.20	5.50	-51.68	-13.00	V	-38.68
3096.075	-48.86	7.10	7.55	-49.31	-13.00	V	-36.31
4039.212	-45.41	6.60	8.11	-46.92	-13.00	V	-33.92
5519.072	-39.36	6.60	12.36	-45.12	-13.00	V	-32.12
7015.42	-40.22	9.70	13.74	-44.26	-13.00	V	-31.26
10885.67	-37.85	12.60	14.36	-39.61	-13.00	V	-26.61

Remark:

1 emission behaviors belong to narrowband spurious emission.

2 The result basic equation calculation is as follow:

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

Radiated spurious Emission Measurement Result: PCS 1900 mode

Operation mode: TX CH High mode

Fundamental Frequency: 1909.8MHz

Frequency (MHz)	S.G. Output (dBm)	Antenna Gain (dBi)	Cable loss (dB)	EIRP (dBm)	Limit (dBm)	Antenna polarize	Margin (dB)
1883.236	-57.26	9.20	5.50	-53.56	-13.00	H	-40.56
3159.355	-49.30	7.10	7.03	-49.23	-13.00	H	-36.23
4469.214	-43.67	5.50	8.86	-47.03	-13.00	H	-34.03
6340.436	-38.23	9.20	14.44	-43.47	-13.00	H	-30.47
8368.069	-44.56	13.30	13.06	-44.32	-13.00	H	-31.32
10545.01	-36.92	12.60	15.16	-39.48	-13.00	H	-26.48
1390.276	-57.71	8.40	4.45	-53.76	-13.00	V	-40.76
3123.039	-48.56	7.10	7.55	-49.01	-13.00	V	-36.01
4133.699	-45.75	6.60	8.09	-47.24	-13.00	V	-34.24
5780.3	-37.26	6.60	12.97	-43.63	-13.00	V	-30.63
7454.429	-41.00	10.80	12.77	-42.97	-13.00	V	-29.97
9502.925	-41.25	14.00	13.66	-40.91	-13.00	V	-27.91

Remark:

1 emission behaviors belong to narrowband spurious emission.

2 The result basic equation calculation is as follow:

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

Radiated spurious Emission Measurement Result: HSDPA 850 mode

Operation mode: TX CH Low mode

Fundamental Frequency: 826.4MHz

Frequency (MHz)	S.G. Output (dBm)	Antenna Gain (dBi)	Cable loss (dB)	ERP (dBm)	Limit (dBm)	Antenna polarize	Margin (dB)
1279.381	-55.17	5.50	4.54	-54.21	-13.00	H	-41.21
1967.886	-54.83	9.20	5.34	-50.97	-13.00	H	-37.97
4226.686	-43.94	6.60	8.59	-45.93	-13.00	H	-32.93
5533.501	-39.31	6.60	12.36	-45.07	-13.00	H	-32.07
6576.579	-39.02	9.20	13.17	-42.99	-13.00	H	-29.99
8912.51	-42.67	13.80	13.30	-42.17	-13.00	H	-29.17
1348.963	-58.25	8.40	4.54	-54.39	-13.00	V	-41.39
3672.823	-47.71	7.80	7.40	-47.31	-13.00	V	-34.31
4518.56	-43.85	6.60	8.86	-46.11	-13.00	V	-33.11
6067.363	-39.62	10.20	13.87	-43.29	-13.00	V	-30.29
7638.358	-39.70	10.80	12.86	-41.76	-13.00	V	-28.76
9506.048	-42.05	14.00	13.66	-41.71	-13.00	V	-28.71

Remark:

1 emission behaviors belong to narrowband spurious emission.

2 The result basic equation calculation is as follow:

ERP(dBm)=S.G. Output(dBm) + Antenna Gain(dBi)-Cable Loss-2.15

Radiated spurious Emission Measurement Result: HSDPA 850 mode

Operation mode: TX CH Mid mode

Fundamental Frequency: 836.6MHz

Frequency (MHz)	S.G. Output (dBm)	Antenna Gain (dBi)	Cable loss (dB)	ERP (dBm)	Limit (dBm)	Antenna polarize	Margin (dB)
1671.091	-52.89	8.40	5.05	-49.54	-13.00	H	-36.54
1990.673	-50.52	9.20	5.34	-46.66	-13.00	H	-33.66
3258.367	-49.17	7.10	6.89	-48.96	-13.00	H	-35.96
4187.936	-45.52	6.60	8.59	-47.51	-13.00	H	-34.51
6486.344	-39.89	9.20	13.73	-44.42	-13.00	H	-31.42
9099.133	-43.36	13.80	13.38	-42.94	-13.00	H	-29.94
1671.091	-51.77	8.40	5.05	-48.42	-13.00	V	-35.42
3515.604	-49.22	7.80	7.27	-48.69	-13.00	V	-35.69
4487.454	-44.35	6.60	8.86	-46.61	-13.00	V	-33.61
5847.901	-42.36	10.20	12.97	-45.13	-13.00	V	-32.13
7430.191	-41.88	10.80	12.68	-43.76	-13.00	V	-30.76
9289.664	-42.44	13.80	13.64	-42.28	-13.00	V	-29.28

Remark:

1 emission behaviors belong to narrowband spurious emission.

2 The result basic equation calculation is as follow:

ERP(dBm)=S.G. Output(dBm) + Antenna Gain(dBi)-Cable Loss-2.15

Radiated spurious Emission Measurement Result: HSDPA 850 mode

Operation mode: TX CH High mode

Fundamental Frequency: 846.6MHz

Frequency (MHz)	S.G. Output (dBm)	Antenna Gain (dBi)	Cable loss (dB)	ERP (dBm)	Limit (dBm)	Antenna polarize	Margin (dB)
1377.209	-56.94	8.40	4.45	-52.99	-13.00	H	-39.99
3176.874	-48.41	7.10	7.03	-48.34	-13.00	H	-35.34
4120.975	-45.04	6.60	8.09	-46.53	-13.00	H	-33.53
5382.698	-40.31	6.60	11.93	-45.64	-13.00	H	-32.64
7095.778	-39.59	9.70	13.56	-43.45	-13.00	H	-30.45
9418.896	-40.98	14.00	13.92	-40.90	-13.00	H	-27.90
1374.042	-57.50	8.40	4.45	-53.55	-13.00	V	-40.55
3548.134	-47.83	7.80	7.27	-47.30	-13.00	V	-34.30
4920.396	-41.74	5.50	10.77	-47.01	-13.00	V	-34.01
6109.42	-39.71	10.20	13.87	-43.38	-13.00	V	-30.38
7603.263	-41.74	10.80	12.86	-43.80	-13.00	V	-30.80
9332.543	-42.31	14.00	13.64	-41.95	-13.00	V	-28.95

Remark:

1 emission behaviors belong to narrowband spurious emission.

2 The result basic equation calculation is as follow:

ERP(dBm)=S.G. Output(dBm) + Antenna Gain(dBi)-Cable Loss-2.15

Radiated spurious Emission Measurement Result: HSDPA 1900 mode

Operation mode: TX CH Low mode

Fundamental Frequency: 1852.4MHz

Frequency (MHz)	S.G. Output (dBm)	Antenna Gain (dBi)	Cable loss (dB)	EIRP (dBm)	Limit (dBm)	Antenna polarize	Margin (dB)
1390.276	-55.93	8.40	4.45	-51.98	-13.00	H	-38.98
3901.516	-44.76	6.60	7.89	-46.05	-13.00	H	-33.05
5194.041	-38.42	5.50	11.71	-44.63	-13.00	H	-31.63
6698.373	-39.08	9.20	13.32	-43.20	-13.00	H	-30.20
9393.689	-41.74	14.00	13.92	-41.66	-13.00	H	-28.66
11871.71	-32.65	13.30	16.45	-35.80	-13.00	H	-22.80
1274.802	-56.07	5.50	4.54	-55.11	-13.00	V	-42.11
3096.075	-48.70	7.10	7.55	-49.15	-13.00	V	-36.15
4086.182	-44.67	6.60	8.09	-46.16	-13.00	V	-33.16
5967.033	-41.10	10.20	13.15	-44.05	-13.00	V	-31.05
8368.069	-43.11	13.30	13.06	-42.87	-13.00	V	-29.87
11012.25	-34.87	12.10	15.16	-37.93	-13.00	V	-24.93

Remark:

1 emission behaviors belong to narrowband spurious emission.

2 The result basic equation calculation is as follow:

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

Radiated spurious Emission Measurement Result: HSDPA 1900 mode

Operation mode: TX CH mid mode

Fundamental Frequency: 1880.0MHz

Frequency (MHz)	S.G. Output (dBm)	Antenna Gain (dBi)	Cable loss (dB)	EIRP (dBm)	Limit (dBm)	Antenna polarize	Margin (dB)
1342.882	-57.52	8.40	4.54	-53.66	-13.00	H	-40.66
3587.818	-45.89	7.80	8.44	-46.53	-13.00	H	-33.53
4573.76	-43.20	6.60	9.64	-46.24	-13.00	H	-33.24
6322.136	-38.30	9.20	14.44	-43.54	-13.00	H	-30.54
8866.062	-42.72	13.80	13.30	-42.22	-13.00	H	-29.22
12947.07	-28.39	12.10	16.69	-32.98	-13.00	H	-19.98
1213.677	-55.51	5.50	4.33	-54.34	-13.00	V	-41.34
3386.297	-48.16	7.80	7.22	-47.58	-13.00	V	-34.58
4748.888	-42.56	6.60	10.10	-46.06	-13.00	V	-33.06
6395.654	-38.18	9.20	14.41	-43.39	-13.00	V	-30.39
9393.689	-41.56	14.00	13.92	-41.48	-13.00	V	-28.48
12651.13	-29.34	12.10	16.69	-33.93	-13.00	V	-20.93

Remark:

1 emission behaviors belong to narrowband spurious emission.

2 The result basic equation calculation is as follow:

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

Radiated spurious Emission Measurement Result: HSDPA 1900 mode

Operation mode: TX CH High mode

Fundamental Frequency: 1907.6MHz

Frequency (MHz)	S.G. Output (dBm)	Antenna Gain (dBi)	Cable loss (dB)	EIRP (dBm)	Limit (dBm)	Antenna polarize	Margin (dB)
1342.882	-58.75	8.40	4.54	-54.89	-13.00	H	-41.89
2065.729	-52.17	5.79	5.79	-52.17	-13.00	H	-39.17
3205.345	-49.12	7.10	7.03	-49.05	-13.00	H	-36.05
4074.388	-45.91	6.60	8.09	-47.40	-13.00	H	-34.40
6545.263	-38.71	9.20	13.73	-43.24	-13.00	H	-30.24
11433.91	-32.95	11.00	15.16	-37.11	-13.00	H	-24.11
1819.036	-56.14	9.20	5.65	-52.59	-13.00	V	-39.59
3123.039	-47.97	7.10	7.55	-48.42	-13.00	V	-35.42
4267.237	-44.38	6.60	8.76	-46.54	-13.00	V	-33.54
5377.354	-39.98	6.60	11.93	-45.31	-13.00	V	-32.31
7432.914	-41.72	10.80	12.68	-43.60	-13.00	V	-30.60
10514.58	-35.58	12.60	15.16	-38.14	-13.00	V	-25.14

Remark:

1 emission behaviors belong to narrowband spurious emission.

2 The result basic equation calculation is as follow:

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

Radiated spurious Emission Measurement Result: WCDMA 850 mode

Operation mode: TX CH Low mode

Fundamental Frequency: 826.4MHz

Frequency (MHz)	S.G. Output (dBm)	Antenna Gain (dBi)	Cable loss (dB)	ERP (dBm)	Limit (dBm)	Antenna polarize	Margin (dB)
1651.962	-52.51	8.40	5.05	-49.16	-13.00	H	-36.16
3155.005	-48.53	7.10	7.03	-48.46	-13.00	H	-35.46
4036.454	-46.37	6.60	8.11	-47.88	-13.00	H	-34.88
5199.96	-40.19	5.50	11.71	-46.40	-13.00	H	-33.40
6576.579	-40.83	9.20	13.17	-44.80	-13.00	H	-31.80
9204.496	-43.61	13.80	13.26	-43.07	-13.00	H	-30.07
1639.274	-52.34	8.40	5.13	-49.07	-13.00	V	-36.07
2930.633	-51.64	7.10	6.27	-50.81	-13.00	V	-37.81
3671.746	-47.91	7.80	7.40	-47.51	-13.00	V	-34.51
4482.15	-43.91	6.60	8.86	-46.17	-13.00	V	-33.17
5697.365	-38.15	6.60	12.85	-44.40	-13.00	V	-31.40
8943.274	-43.40	13.80	13.30	-42.90	-13.00	V	-29.90

Remark:

1 emission behaviors belong to narrowband spurious emission.

2 The result basic equation calculation is as follow:

ERP(dBm)=S.G. Output(dBm) + Antenna Gain(dBi)-Cable Loss-2.15

Radiated spurious Emission Measurement Result: WCDMA 850 mode

Operation mode: TX CH Mid mode

Fundamental Frequency: 836.6MHz

Frequency (MHz)	S.G. Output (dBm)	Antenna Gain (dBi)	Cable loss (dB)	ERP (dBm)	Limit (dBm)	Antenna polarize	Margin (dB)
1671.091	-55.62	8.40	5.05	-52.27	-13.00	H	-39.27
3589.219	-47.11	7.80	8.44	-47.75	-13.00	H	-34.75
4864.072	-39.09	5.50	10.77	-44.36	-13.00	H	-31.36
5533.501	-38.04	6.60	12.36	-43.80	-13.00	H	-30.80
7430.191	-41.26	10.80	12.68	-43.14	-13.00	H	-30.14
9354.057	-42.14	14.00	13.92	-42.06	-13.00	H	-29.06
1412.538	-56.15	8.40	4.45	-52.20	-13.00	V	-39.20
1828.1	-48.45	9.20	5.65	-44.90	-13.00	V	-31.90
3647.54	-46.39	7.80	8.44	-47.03	-13.00	V	-34.03
4560.369	-44.27	6.60	9.64	-47.31	-13.00	V	-34.31
6053.409	-40.22	10.20	13.87	-43.89	-13.00	V	-30.89
8317.638	-45.53	13.30	12.70	-44.93	-13.00	V	-31.93

Remark:

1 emission behaviors belong to narrowband spurious emission.

2 The result basic equation calculation is as follow:

ERP(dBm)=S.G. Output(dBm) + Antenna Gain(dBi)-Cable Loss-2.15

Radiated spurious Emission Measurement Result: WCDMA 850 mode

Operation mode: TX CH High mode

Fundamental Frequency: 846.6MHz

Frequency (MHz)	S.G. Output (dBm)	Antenna Gain (dBi)	Cable loss (dB)	ERP (dBm)	Limit (dBm)	Antenna polarize	Margin (dB)
1690.441	-53.17	8.40	5.05	-49.82	-13.00	H	-36.82
3273.407	-48.93	7.10	6.89	-48.72	-13.00	H	-35.72
4120.975	-45.34	6.60	8.09	-46.83	-13.00	H	-33.83
5260.173	-40.37	5.50	11.71	-46.58	-13.00	H	-33.58
7046.931	-40.64	9.70	13.74	-44.68	-13.00	H	-31.68
9311.079	-43.49	14.00	13.64	-43.13	-13.00	H	-30.13
1686.553	-51.82	8.40	5.05	-48.47	-13.00	V	-35.47
3396.253	-48.51	7.80	7.22	-47.93	-13.00	V	-34.93
4634.469	-43.96	6.60	9.64	-47.00	-13.00	V	-34.00
6039.486	-41.56	10.20	13.15	-44.51	-13.00	V	-31.51
7603.263	-41.73	10.80	12.86	-43.79	-13.00	V	-30.79
9462.372	-42.03	14.00	13.66	-41.69	-13.00	V	-28.69

Remark:

1 emission behaviors belong to narrowband spurious emission.

2 The result basic equation calculation is as follow:

ERP(dBm)=S.G. Output(dBm) + Antenna Gain(dBi)-Cable Loss-2.15

Radiated spurious Emission Measurement Result: WCDMA 1900 mode

Operation mode: TX CH Low mode

Fundamental Frequency: 1852.4MHz

Frequency (MHz)	S.G. Output (dBm)	Antenna Gain (dBi)	Cable loss (dB)	EIRP (dBm)	Limit (dBm)	Antenna polarize	Margin (dB)
1410.514	-56.65	8.40	4.45	-52.70	-13.00	H	-39.70
3725.195	-47.83	7.80	7.40	-47.43	-13.00	H	-34.43
5194.041	-38.34	5.50	11.71	-44.55	-13.00	H	-31.55
7432.914	-41.73	10.80	12.68	-43.61	-13.00	H	-30.61
9073.46	-42.89	13.80	13.38	-42.47	-13.00	H	-29.47
11012.25	-34.54	12.10	15.16	-37.60	-13.00	H	-24.60
1327.446	-57.44	8.40	4.54	-53.58	-13.00	V	-40.58
3435.59	-47.58	7.80	7.22	-47.00	-13.00	V	-34.00
5780.3	-37.64	6.60	12.85	-43.89	-13.00	V	-30.89
7541.114	-41.88	10.80	12.77	-43.85	-13.00	V	-30.85
8969.161	-43.39	13.80	13.10	-42.69	-13.00	V	-29.69
12397.74	-30.04	12.10	16.45	-34.39	-13.00	V	-21.39

Remark:

1 emission behaviors belong to narrowband spurious emission.

2 The result basic equation calculation is as follow:

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

Radiated spurious Emission Measurement Result: WCDMA 1900 mode

Operation mode: TX CH Mid mode

Fundamental Frequency: 1880.0MHz

Frequency (MHz)	S.G. Output (dBm)	Antenna Gain (dBi)	Cable loss (dB)	EIRP (dBm)	Limit (dBm)	Antenna polarize	Margin (dB)
1410.514	-57.64	8.40	4.45	-53.69	-13.00	H	-40.69
3196.094	-48.79	7.10	7.03	-48.72	-13.00	H	-35.72
3992.781	-45.38	6.60	8.11	-46.89	-13.00	H	-33.89
6177.627	-39.53	10.20	14.46	-43.79	-13.00	H	-30.79
8738.852	-43.28	13.30	13.10	-43.08	-13.00	H	-30.08
11533.48	-30.92	11.00	16.45	-36.37	-13.00	H	-23.37
1285.904	-61.77	12.10	4.54	-54.21	-13.00	V	-41.21
3096.075	-47.78	7.10	7.55	-48.23	-13.00	V	-35.23
4973.662	-42.36	5.50	9.80	-46.66	-13.00	V	-33.66
5967.033	-40.43	10.20	13.15	-43.38	-13.00	V	-30.38
7695.244	-41.43	10.80	13.52	-44.15	-13.00	V	-31.15
10636.85	-36.93	12.60	15.16	-39.49	-13.00	V	-26.49

Remark:

1 emission behaviors belong to narrowband spurious emission.

2 The result basic equation calculation is as follow:

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

Radiated spurious Emission Measurement Result: WCDMA 1900 mode

Operation mode: TX CH High mode

Fundamental Frequency: 1907.6MHz

Frequency (MHz)	S.G. Output (dBm)	Antenna Gain (dBi)	Cable loss (dB)	EIRP (dBm)	Limit (dBm)	Antenna polarize	Margin (dB)
1242.068	-56.49	5.50	4.33	-55.32	-13.00	H	-42.32
3801.333	-46.64	6.60	7.51	-47.55	-13.00	H	-34.55
6106.616	-40.35	10.20	13.87	-44.02	-13.00	H	-31.02
7096.999	-39.21	9.70	13.56	-43.07	-13.00	H	-30.07
8943.274	-43.13	13.80	13.30	-42.63	-13.00	H	-29.63
10667.64	-36.79	12.60	15.16	-39.35	-13.00	H	-26.35
2543.625	-53.27	6.80	5.76	-52.23	-13.00	V	-39.23
3087.14	-49.33	7.10	7.55	-49.78	-13.00	V	-36.78
4062.629	-45.88	6.60	8.09	-47.37	-13.00	V	-34.37
5830.64	-42.13	10.20	12.97	-44.90	-13.00	V	-31.90
7454.429	-42.41	10.80	12.77	-44.38	-13.00	V	-31.38
10393.71	-37.09	12.60	14.36	-38.85	-13.00	V	-25.85

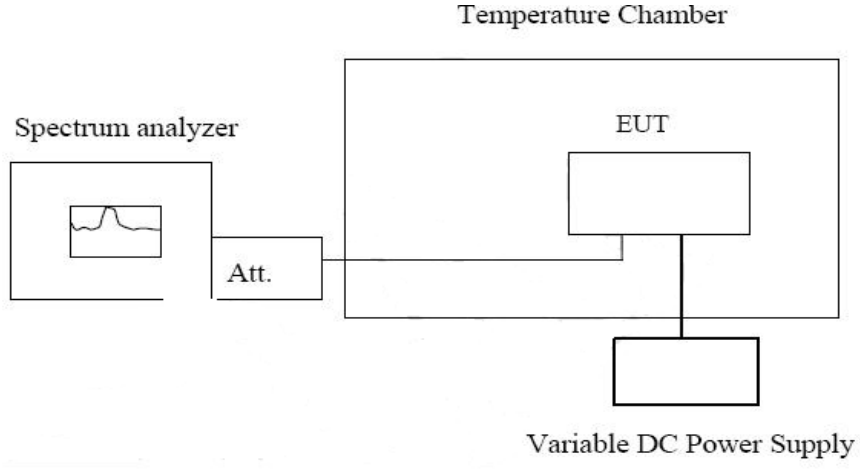
Remark:

1 emission behaviors belong to narrowband spurious emission.

2 The result basic equation calculation is as follow:

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

5.7 Frequency Stability V.S. Temperature Measurement

Test Requirement:	FCC Part 2.1055(a)&(d), ANSI/TIA-603-C
Test Status:	Test lowest channel, middle, highest channel.
Test Setup:	 *Remark:* *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. 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 for GSM 850MHz band +/-2.5ppm for PCS 1900MHz band
Test Instruments:	Refer to section 4.8 for details
Test Results:	Pass

Reference Frequency: GSM Low channel 824.2MHz@ 25 degree				
Limit: +/- 2.5ppm = 2091Hz				
Power Supply	Environment	Frequency	Delta	Limit
Vdc	Temperature(degree)	(MHz)	(Hz)	(Hz)
14.4	-20	824.199954	46	2091
14.4	-10	824.199905	95	2091
14.4	10	824.199953	47	2091
14.4	20	824.199974	26	2091
14.4	30	824.199936	64	2091
14.4	40	824.199975	25	2091
14.4	50	824.199962	38	2091

Reference Frequency: GSM Mid channel 836.4MHz@ 25 degree				
Limit: +/- 2.5ppm = 2091Hz				
Power Supply	Environment	Frequency	Delta	Limit
Vdc	Temperature(degree)	(MHz)	(Hz)	(Hz)
14.4	-20	836.399974	26	2091
14.4	-10	836.399982	18	2091
14.4	10	836.399932	68	2091
14.4	20	836.399928	72	2091
14.4	30	836.399971	29	2091
14.4	40	836.399981	19	2091
14.4	50	836.399952	48	2091

Reference Frequency: GSM High channel 848.8MHz@ 25 degree				
Limit: +/- 2.5ppm = 2091Hz				
Power Supply	Environment	Frequency	Delta	Limit
Vdc	Temperature(degree)	(MHz)	(Hz)	(Hz)
14.4	-20	848.799956	44	2091
14.4	-10	848.799967	33	2091
14.4	10	848.799972	28	2091
14.4	20	848.799982	18	2091
14.4	30	848.799957	43	2091
14.4	40	848.799963	37	2091
14.4	50	848.799966	34	2091

Reference Frequency: PCS Low channel 1850.2MHz@ 25 degree				
Limit: +/- 2.5ppm = 4700Hz				
Power Supply	Environment	Frequency	Delta	Limit
Vdc	Temperature(degree)	(MHz)	(Hz)	(Hz)
14.4	-20	1850.199973	27	4700
14.4	-10	1850.199954	46	4700
14.4	10	1850.199927	73	4700
14.4	20	1850.199986	14	4700
14.4	30	1850.199977	23	4700
14.4	40	1850.199955	45	4700
14.4	50	1850.199953	47	4700

Reference Frequency: PCS Mid channel 1880MHz@ 25 degree				
Limit: +/- 2.5ppm = 4700Hz				
Power Supply	Environment	Frequency	Delta	Limit
Vdc	Temperature(degree)	(MHz)	(Hz)	(Hz)
14.4	-20	1879.999956	44	4700
14.4	-10	1879.999974	36	4700
14.4	10	1879.999982	18	4700
14.4	20	1879.999963	37	4700
14.4	30	1879.999953	47	4700
14.4	40	1879.999971	29	4700
14.4	50	1879.999987	13	4700

Reference Frequency: PCS High channel 1909.8MHz@ 25 degree				
Limit: +/- 2.5ppm = 4700Hz				
Power Supply	Environment	Frequency	Delta	Limit
Vdc	Temperature(degree)	(MHz)	(Hz)	(Hz)
14.4	-20	1909.799973	27	4700
14.4	-10	1909.799975	25	4700
14.4	10	1909.799972	28	4700
14.4	20	1909.799983	17	4700
14.4	30	1909.799968	32	4700
14.4	40	1909.799985	15	4700
14.4	50	1909.799969	31	4700

Reference Frequency: HSDPA 850 Low channel 826.4MHz@ 25 degree				
Limit: +/- 2.5ppm = 2091Hz				
Power Supply	Environment	Frequency	Delta	Limit
Vdc	Temperature(degree)	(MHz)	(Hz)	(Hz)
14.4	-20	826.400052	52	2091
14.4	-10	826.400023	23	2091
14.4	10	826.400052	52	2091
14.4	20	826.400017	17	2091
14.4	30	826.400035	35	2091
14.4	40	826.400027	27	2091
14.4	50	826.400036	36	2091

Reference Frequency: HSDPA 850 Mid channel 836.6MHz@ 25 degree				
Limit: +/- 2.5ppm = 2091Hz				
Power Supply	Environment	Frequency	Delta	Limit
Vdc	Temperature(degree)	(MHz)	(Hz)	(Hz)
14.4	-20	836.600025	25	2091
14.4	-10	836.600057	57	2091
14.4	10	836.600035	35	2091
14.4	20	836.600091	91	2091
14.4	30	836.600085	85	2091
14.4	40	836.600038	38	2091
14.4	50	836.600028	28	2091

Reference Frequency: HSDPA 850 High channel 846.6MHz@ 25 degree				
Limit: +/- 2.5ppm = 2091Hz				
Power Supply	Environment	Frequency	Delta	Limit
Vdc	Temperature(degree)	(MHz)	(Hz)	(Hz)
14.4	-20	846.600042	42	2091
14.4	-10	846.600025	25	2091
14.4	10	846.600039	39	2091
14.4	20	846.600059	59	2091
14.4	30	846.600037	37	2091
14.4	40	846.600056	56	2091
14.4	50	846.600052	52	2091

Reference Frequency: HSDPA 1900 Low channel 1852.4MHz@ 25 degree				
Limit: +/- 2.5ppm = 4700Hz				
Power Supply	Environment	Frequency	Delta	Limit
Vdc	Temperature(degree)	(MHz)	(Hz)	(Hz)
14.4	-20	1852.400017	17	4700
14.4	-10	1852.400025	25	4700
14.4	10	1852.400038	38	4700
14.4	20	1852.400096	96	4700
14.4	30	1852.400057	57	4700
14.4	40	1852.400072	72	4700
14.4	50	1852.400017	17	4700

Reference Frequency: HSDPA 1900 Mid channel 1880MHz@ 25 degree				
Limit: +/- 2.5ppm = 4700Hz				
Power Supply	Environment	Frequency	Delta	Limit
Vdc	Temperature(degree)	(MHz)	(Hz)	(Hz)
14.4	-20	1880.000047	47	4700
14.4	-10	1880.000052	52	4700
14.4	10	1880.000066	66	4700
14.4	20	1880.000071	71	4700
14.4	30	1880.000083	83	4700
14.4	40	1880.000059	59	4700
14.4	50	1880.000065	65	4700

Reference Frequency: HSDPA 1900 High channel 1907.6MHz@ 25 degree				
Limit: +/- 2.5ppm = 4700Hz				
Power Supply	Environment	Frequency	Delta	Limit
Vdc	Temperature(degree)	(MHz)	(Hz)	(Hz)
14.4	-20	1907.600022	22	4700
14.4	-10	1907.600053	53	4700
14.4	10	1907.600073	73	4700
14.4	20	1907.600093	93	4700
14.4	30	1907.600057	57	4700
14.4	40	1907.600044	44	4700
14.4	50	1907.600053	53	4700

Reference Frequency: WCDMA 850 Low channel 826.4MHz@ 25 degree				
Limit: +/- 2.5ppm = 2091Hz				
Power Supply	Environment	Frequency	Delta	Limit
Vdc	Temperature(degree)	(MHz)	(Hz)	(Hz)
14.4	-20	826.399905	85	2091
14.4	-10	826.399818	82	2091
14.4	10	826.399858	42	2091
14.4	20	826.399869	31	2091
14.4	30	826.399983	17	2091
14.4	40	826.399937	63	2091
14.4	50	826.399957	43	2091

Reference Frequency: WCDMA 850 Mid channel 836.6MHz@ 25 degree				
Limit: +/- 2.5ppm = 2091Hz				
Power Supply	Environment	Frequency	Delta	Limit
Vdc	Temperature(degree)	(MHz)	(Hz)	(Hz)
14.4	-20	836.599928	72	2091
14.4	-10	836.599929	71	2091
14.4	10	836.599906	94	2091
14.4	20	836.599935	65	2091
14.4	30	836.599957	43	2091
14.4	40	836.599933	67	2091
14.4	50	836.599914	86	2091

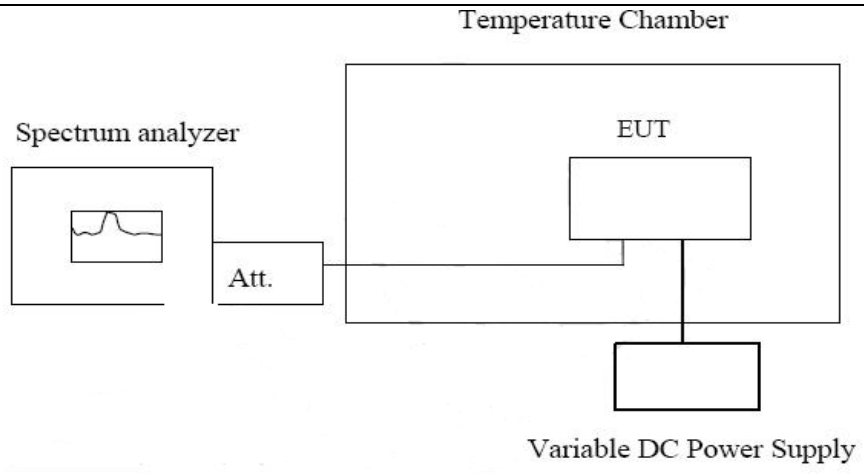
Reference Frequency: WCDMA 850 High channel 846.6MHz@ 25 degree				
Limit: +/- 2.5ppm = 2091Hz				
Power Supply	Environment	Frequency	Delta	Limit
Vdc	Temperature(degree)	(MHz)	(Hz)	(Hz)
14.4	-20	846.599985	15	2091
14.4	-10	846.599947	53	2091
14.4	10	846.599970	30	2091
14.4	20	846.599953	47	2091
14.4	30	846.599947	53	2091
14.4	40	846.599938	62	2091
14.4	50	846.599919	81	2091

Reference Frequency: WCDMA 1900 Low channel 1852.4MHz@ 25 degree				
Limit: +/- 2.5ppm = 4700Hz				
Power Supply	Environment	Frequency	Delta	Limit
Vdc	Temperature(degree)	(MHz)	(Hz)	(Hz)
14.4	-20	1852.399955	45	4700
14.4	-10	1852.399963	37	4700
14.4	10	1852.399975	25	4700
14.4	20	1852.399968	32	4700
14.4	30	1852.399949	51	4700
14.4	40	1852.399963	37	4700
14.4	50	1852.399944	56	4700

Reference Frequency: WCDMA 1900 Mid channel 1880MHz@ 25 degree				
Limit: +/- 2.5ppm = 4700Hz				
Power Supply	Environment	Frequency	Delta	Limit
Vdc	Temperature(degree)	(MHz)	(Hz)	(Hz)
14.4	-20	1879.999942	58	4700
14.4	-10	1879.999895	105	4700
14.4	10	1879.999882	118	4700
14.4	20	1879.999925	75	4700
14.4	30	1879.999939	61	4700
14.4	40	1879.999948	52	4700
14.4	50	1879.999920	80	4700

Reference Frequency: WCDMA 1900 High channel 1907.6MHz@ 25 degree				
Limit: +/- 2.5ppm = 4700Hz				
Power Supply	Environment	Frequency	Delta	Limit
Vdc	Temperature(degree)	(MHz)	(Hz)	(Hz)
14.4	-20	1907.599935	65	4700
14.4	-10	1907.599982	18	4700
14.4	10	1907.599962	38	4700
14.4	20	1907.599967	33	4700
14.4	30	1907.599953	47	4700
14.4	40	1907.599946	54	4700
14.4	50	1907.599952	48	4700

5.8 Frequency Stability V.S. Voltage Measurement

Test Requirement:	FCC Part 2.1055(a)&(d), ANSI/TIA-603-C
Test Status:	Test lowest channel, middle, highest channel.
Test Setup:	 *Remark:* *Note: Measurement setup for testing On antenna connector.*
Test Procedure:	Set chamber temperature to 25 degree. Use a variable DC power supply to power the EUT and set the Voltage to rated voltage. 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 chang. Frequency Tolerance: +/-2.5ppm for GSM850MHz band +/-2.5ppm for PCS1900MHz band
Test Instruments:	Refer to section 4.8 for details
Test Results:	Pass

Reference Frequency: GSM Low channel 824.2MHz				
Limit: +/- 2.5ppm = 2091Hz				
Power Supply	Environment	Frequency	Delta	Limit
Vdc	Temperature(degree)	(MHz)	(Hz)	(Hz)
16.8	25	824.200035	35	2091
14.4	25	824.200025	25	2091
10.0 (Endpoint)	25	824.200038	38	2091

Reference Frequency: GSM Mid channel 836.4MHz				
Limit: +/- 2.5ppm = 2091Hz				
Power Supply	Environment	Frequency	Delta	Limit
Vdc	Temperature(degree)	(MHz)	(Hz)	(Hz)
16.8	25	836.400022	22	2091
14.4	25	836.400058	58	2091
10.0 (Endpoint)	25	836.400075	75	2091

Reference Frequency: GSM High channel 848.8MHz				
Limit: +/- 2.5ppm = 2091Hz				
Power Supply	Environment	Frequency	Delta	Limit
Vdc	Temperature(degree)	(MHz)	(Hz)	(Hz)
16.8	25	848.800074	74	2091
14.4	25	848.800096	96	2091
10.0 (Endpoint)	25	848.800083	83	2091

Reference Frequency: PCS Low channel 1850.2MHz				
Limit: +/- 2.5ppm = 4700Hz				
Power Supply	Environment	Frequency	Delta	Limit
Vdc	Temperature(degree)	(MHz)	(Hz)	(Hz)
16.8	25	1850.200055	55	4700
14.4	25	1850.200047	47	4700
10.0 (Endpoint)	25	1850.200069	69	4700

Reference Frequency: PCS Mid channel 1880MHz				
Limit: +/- 2.5ppm = 4700Hz				
Power Supply	Environment	Frequency	Delta	Limit
Vdc	Temperature(degree)	(MHz)	(Hz)	(Hz)
16.8	25	1880.000085	85	4700
14.4	25	1880.000069	69	4700
10.0 (Endpoint)	25	1880.000057	57	4700

Reference Frequency: PCS High channel 1909.8MHz				
Limit: +/- 2.5ppm = 4700Hz				
Power Supply	Environment	Frequency	Delta	Limit
Vdc	Temperature(degree)	(MHz)	(Hz)	(Hz)
16.8	25	1909.800083	83	4700
14.4	25	1909.800053	53	4700
10.0 (Endpoint)	25	1909.800091	91	4700

Reference Frequency: HSDPA 850 Low channel 826.4MHz				
Limit: +/- 2.5ppm = 2091Hz				
Power Supply	Environment	Frequency	Delta	Limit
Vdc	Temperature(degree)	(MHz)	(Hz)	(Hz)
16.8	25	826.400035	35	2091
14.4	25	826.400024	24	2091
10.0 (Endpoint)	25	826.400018	18	2091

Reference Frequency: HSDPA 850 Mid channel 836.6MHz				
Limit: +/- 2.5ppm = 2091Hz				
Power Supply	Environment	Frequency	Delta	Limit
Vdc	Temperature(degree)	(MHz)	(Hz)	(Hz)
16.8	25	836.600062	62	2091
14.4	25	836.600038	38	2091
10.0 (Endpoint)	25	836.600053	53	2091

Reference Frequency: HSDPA 850 High channel 846.6MHz				
Limit: +/- 2.5ppm = 2091Hz				
Power Supply	Environment	Frequency	Delta	Limit
Vdc	Temperature(degree)	(MHz)	(Hz)	(Hz)
16.8	25	846.600058	58	2091
14.4	25	846.600036	36	2091
10.0 (Endpoint)	25	846.600072	72	2091

Reference Frequency: HSDPA 1900 Low channel 1852.4MHz				
Limit: +/- 2.5ppm = 4700Hz				
Power Supply	Environment	Frequency	Delta	Limit
Vdc	Temperature(degree)	(MHz)	(Hz)	(Hz)
16.8	25	1852.400044	44	4700
14.4	25	1852.400053	53	4700
10.0 (Endpoint)	25	1852.400061	61	4700

Reference Frequency: HSDPA 1900 Mid channel 1880MHz				
Limit: +/- 2.5ppm = 4700Hz				
Power Supply	Environment	Frequency	Delta	Limit
Vdc	Temperature(degree)	(MHz)	(Hz)	(Hz)
16.8	25	1880.000055	55	4700
14.4	25	1880.000029	29	4700
10.0 (Endpoint)	25	1880.000037	37	4700

Reference Frequency: HSDPA 1900 High channel 1907.6MHz				
Limit: +/- 2.5ppm = 4700Hz				
Power Supply	Environment	Frequency	Delta	Limit
Vdc	Temperature(degree)	(MHz)	(Hz)	(Hz)
16.8	25	1907.600058	58	4700
14.4	25	1907.600063	63	4700
10.0 (Endpoint)	25	1907.600026	26	4700

Reference Frequency: WCDMA 850 Low channel 826.4MHz				
Limit: +/- 2.5ppm = 2091Hz				
Power Supply	Environment	Frequency	Delta	Limit
Vdc	Temperature(degree)	(MHz)	(Hz)	(Hz)
16.8	25	826.400057	57	2091
14.4	25	826.400063	63	2091
10.0 (Endpoint)	25	826.400071	71	2091

Reference Frequency: WCDMA 850 Mid channel 836.6MHz				
Limit: +/- 2.5ppm = 2091Hz				
Power Supply	Environment	Frequency	Delta	Limit
Vdc	Temperature(degree)	(MHz)	(Hz)	(Hz)
16.8	25	836.600035	35	2091
14.4	25	836.600069	69	2091
10.0 (Endpoint)	25	836.600083	83	2091

Reference Frequency: WCDMA 850 High channel 846.6MHz				
Limit: +/- 2.5ppm = 2091Hz				
Power Supply	Environment	Frequency	Delta	Limit
Vdc	Temperature(degree)	(MHz)	(Hz)	(Hz)
16.8	25	846.600056	56	2091
14.4	25	846.600041	41	2091
10.0 (Endpoint)	25	846.600085	85	2091

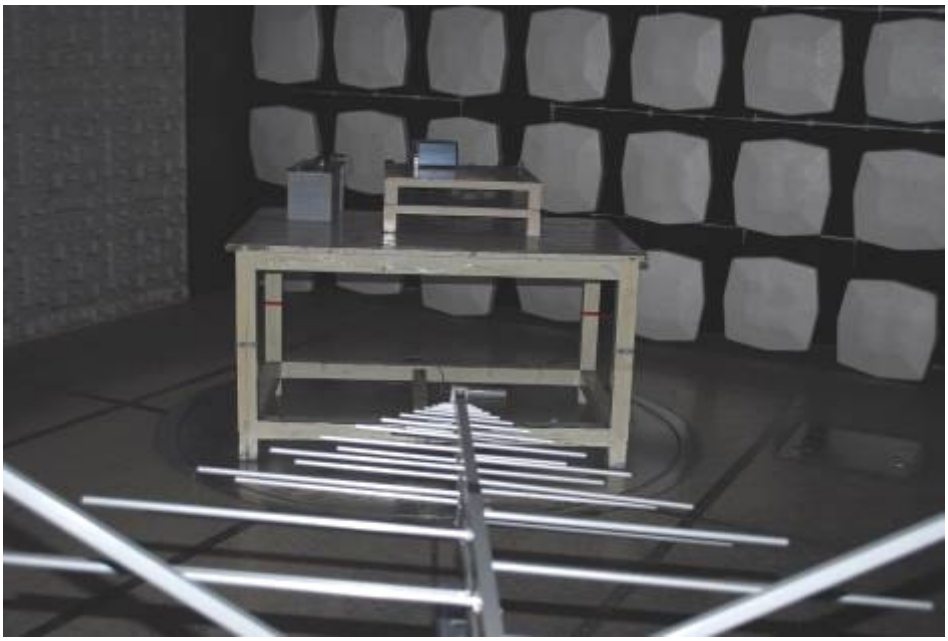
Reference Frequency: WCDMA 1900 Low channel 1852.4MHz				
Limit: +/- 2.5ppm = 4700Hz				
Power Supply	Environment	Frequency	Delta	Limit
Vdc	Temperature(degree)	(MHz)	(Hz)	(Hz)
16.8	25	1852.400052	52	4700
14.4	25	1852.400063	63	4700
10.0 (Endpoint)	25	1852.400068	68	4700

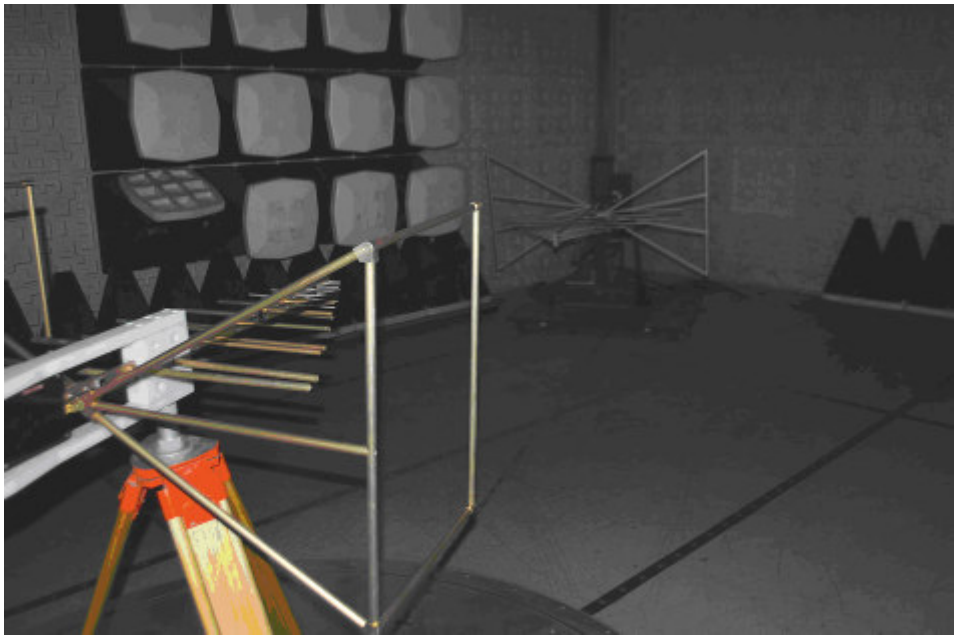
Reference Frequency: WCDMA 1900 Mid channel 1880MHz				
Limit: +/- 2.5ppm = 4700Hz				
Power Supply	Environment	Frequency	Delta	Limit
Vdc	Temperature(degree)	(MHz)	(Hz)	(Hz)
16.8	25	1880.000038	38	4700
14.4	25	1880.000028	28	4700
10.0 (Endpoint)	25	1880.000067	67	4700

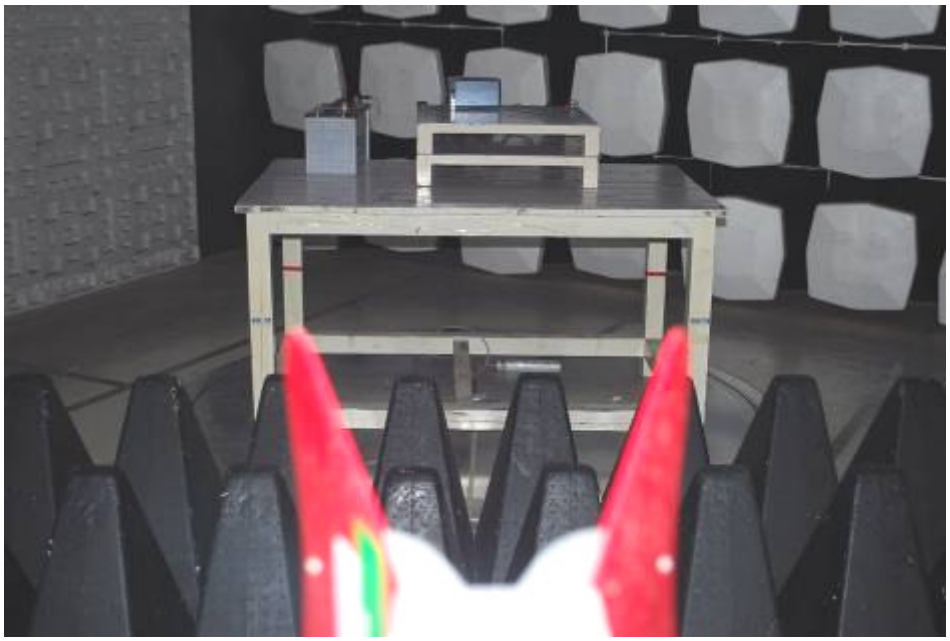
Reference Frequency: WCDMA 1900 High channel 1907.6MHz				
Limit: +/- 2.5ppm = 4700Hz				
Power Supply	Environment	Frequency	Delta	Limit
Vdc	Temperature(degree)	(MHz)	(Hz)	(Hz)
16.8	25	1907.600052	52	4700
14.4	25	1907.600074	74	4700
10.0 (Endpoint)	25	1907.600037	37	4700

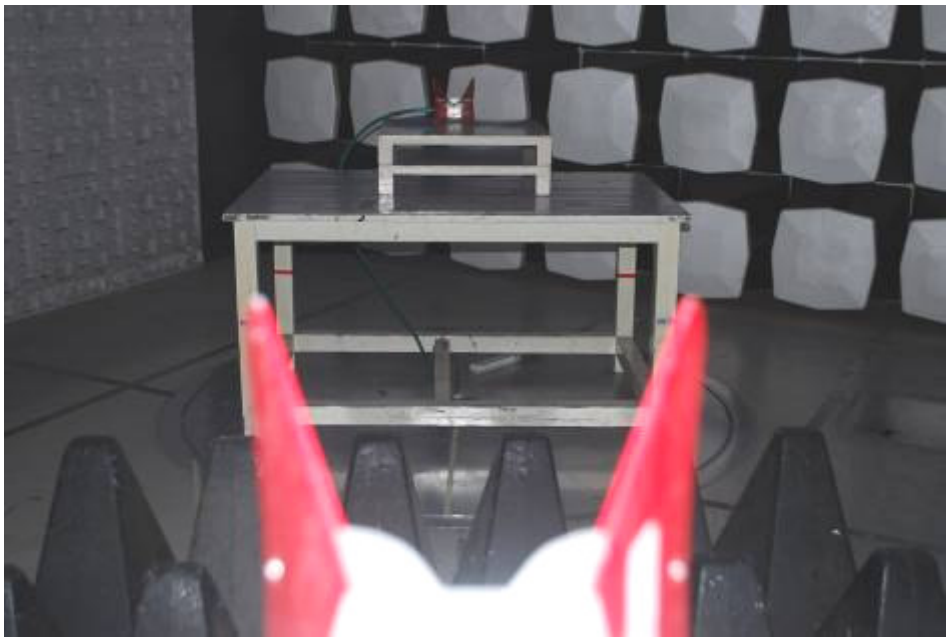
6 Photographs-Test Setup Photo (Test Model No.: VMID-950)

6.1 Radiated Spurious Emission Test Setup



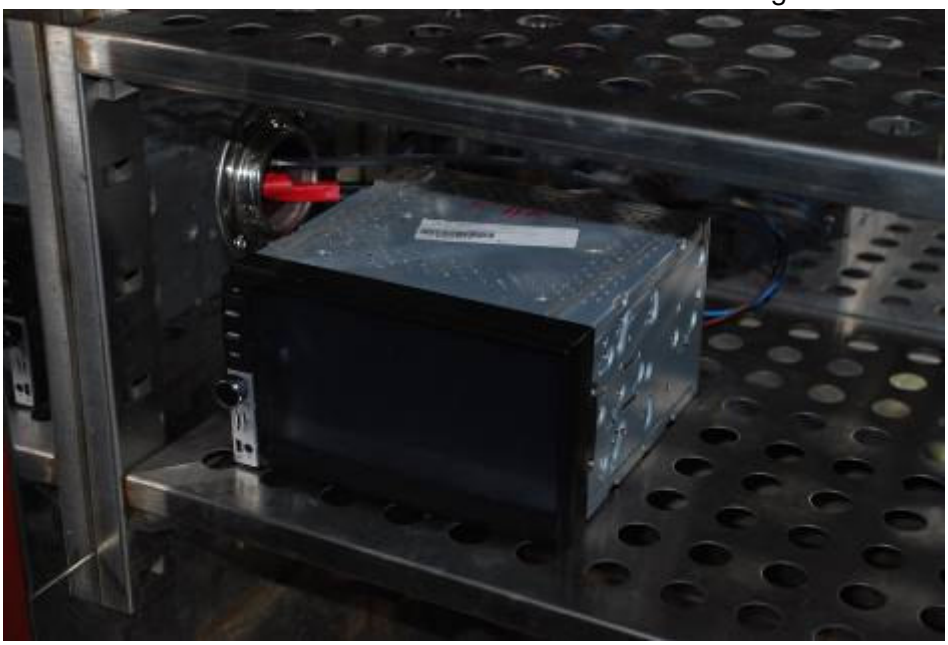






6.2 Conducted Peak Output Power Test Setup

6.3 Frequency Stability V.S. Voltage Measurement Test Setup



6.4 Conducted Spurious Output Power Test Setup

6.5 EUT Constructional Details

Refer to Report No. SZEM120300121201 for EUT external and internal photos.