FCC Test Report

Report No.: AGCX0M130301F2C

FCC ID	:	ONGORBIT5700T
APPLICATION PURPOSE	:	Original Equipment
PRODUCT DESIGNATION	:	WCDMA MOBILE PHONE
BRAND NAME	:	MAXWEST
MODEL NAME	:	Orbit 5700T
CLIENT	:	MAXWEST TELECOM.
DATE OF ISSUE	:	Mar.28, 2013
STANDARD(S)	:	FCC Part 15 Rules
REPORT VERSION	:	V1.0

Attestation of ***G***lobal ***C***ompliance (Shenzhen) Co., Ltd

Report Revise Record

Report Version	Revise Time	Issued Date	Valid Version	Notes
V1.0	/	Mar.28,2013	Valid	Original Report

VERIFICATION OF COMPLIANCE

Applicant	MAXWEST TELECOM
	11037 warner ave #201 fountain valley, ca, 92708 USA
Manufacturer	MAXWEST TELECOM
	11037 warner ave #201 fountain valley, ca, 92708 USA
Product Designation	WCDMA MOBILE PHONE
Brand Name	MAXWEST
Test Model	Orbit 5700T
Date of Test	Mar.16, 2013 to Mar.20, 2013

WE HEREBY CERTIFY THAT:

The above equipment was tested by Attestation of Global Compliance (Shenzhen) Co., Ltd. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.4 (2003) and the energy emitted by the sample EUT tested as described in this report is in compliance with requirement of FCC Part 15 Rules requirement.

Prepared By

Wall Huang Mar.28, 2013

Checked By

Forrest Lei Mar.28, 2013

Authorized By

Solger Zhang Mar.28, 2013

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1 .GENERAL INFORMATION

1.1 PRODUCT DESCRIPTION

The EUT is a WCDMA mobile phone designed as a “Communication Device”. It is designed by way of utilizing the FHSS technology to achieve the system operation.

A major technical description of EUT is described as following

Operation Frequency	2.402 GHz to 2.480GHz
Bluetooth Version	V4.0
Modulation	GFSK
Number of channels	40 Channel(37 Hopping Channel,3 advertising Channel)
Antenna Designation	Integrated Antenna
Antenna Gain	0.8dBi
Hardware Version	N/A
Software Version	N/A
Power Supply	DC 3.7V by Li-ion Battery

1.2 RELATED SUBMITTAL(S)/GRANT(S)
This submittal(s) (test report) is intended for **FCC ID: ONGORBIT5700T** filing to comply with Section 15.247of the FCC Part 15, Subpart C Rules.

1.3TEST METHODOLOGY
All measurements contained in this report were conducted with ANSI C63.4-2003, American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the range of 9 kHz to 40 GHz.
The equipment under test (EUT) was configured to measure its highest possible emission level. The test modes were adapted accordingly in reference to the Operating Instructions. The EUT was tested in all three orthogonal planes and the worse case was showed.

1.4 TEST FACILITY

All measurement facilities used to collect the measurement data are located at
Attestation of Global Compliance (Shenzhen) Co, Ltd

2/F., Building 2, No.1-No.4, Chaxi Sanwei Technical Industrial Park, Gushu, Xixiang, Bao'an District, Shenzhen, Guangdong, China.

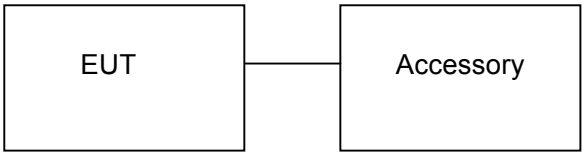
FCC register No.: 259865

1.5 SPECIAL ACCESSORIES
Refer to section 2.2.

1.6 EQUIPMENT MODIFICATIONS
Not available for this EUT intended for grant.

2. SYSTEM TEST CONFIGURATION

2.1 CONFIGURATION OF TESTED SYSTEM



Note: All the accessories have been used during the test.

2.1 EQUIPMENT USED IN TESTED SYSTEM

Item	Equipment	Model No.	ID or Specification	Note
1	WCDMA MOBILE PHONE	Orbit 5700T	FCC ID: ONGORBIT5700T	EUT
2	Adapter	Orbit 5700T	DC 5.0V / 700mA	Accessory
3	Battery	Orbit 5700T	DC 3.7V/ 2100mAh	Accessory
4	Earphone	Orbit 5700T	N/A	Accessory
5	USB Cable	Orbit 5700T	N/A	Accessory

3. SUMMARY OF TEST RESULTS

FCC RULES	DESCRIPTION OF TEST	RESULT
§ 15.203	Antenna Requirement	Compliant
§15.209 §15.247(d)	Radiated Emission	Compliant
§15.247(d)	Band Edges	Compliant
§15.247	6 dB Bandwidth	Compliant
§15.247(b)	Conducted Power	Compliant
§15.247(e)	Maximum Conducted Output Power SPECTRAL Density	Compliant
§15.207	Line Conduction Emission	Compliant

4. DESCRIPTION OF TEST MODES

The EUT has been operated in three modulations: GFSK independently.

No.	TEST MODES
1	Low Channel(TX)
2	Middle Channel(TX)
3	High Channel(TX)
4	Normal Operating(BT)

Note: *1. All the test modes can be supply by Li-ion battery, only the result of the worst case was recorded in the report if no other records.*
2. For Radiated Emission, 3axis were chosen for testing for each applicable mode

5. ANTENNA REQUIREMENT

5.1. STANDARD APPLICABLE

According to FCC 15.203, An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this Section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited. This requirement does not apply to carrier current devices or to devices operated under the provisions of Sections 15.211, 15.213, 15.217, 15.219, or 15.221. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with Section 15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this Part are not exceeded.

5.2. TEST RESULT

This product has a permanent antenna, fulfill the requirement of this section.

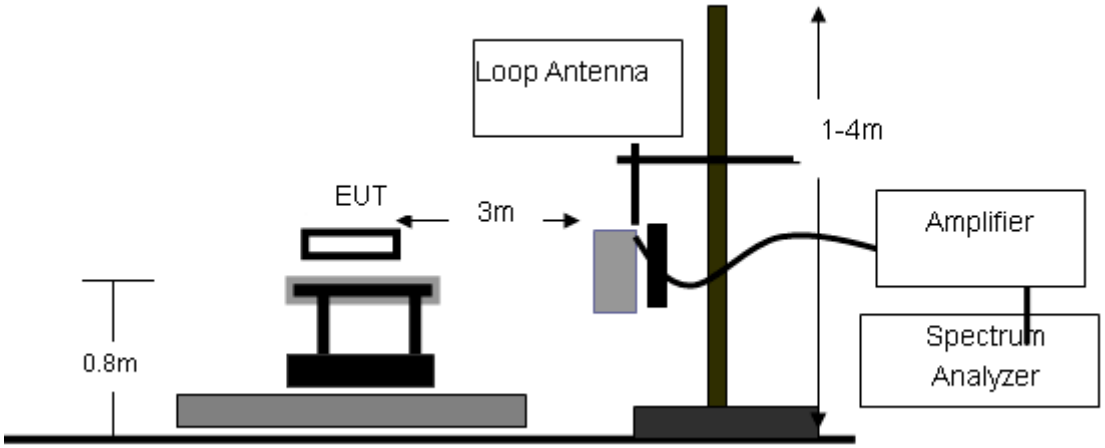
6. RADIATED EMISSION

6.1 MEASUREMENT PROCEDURE

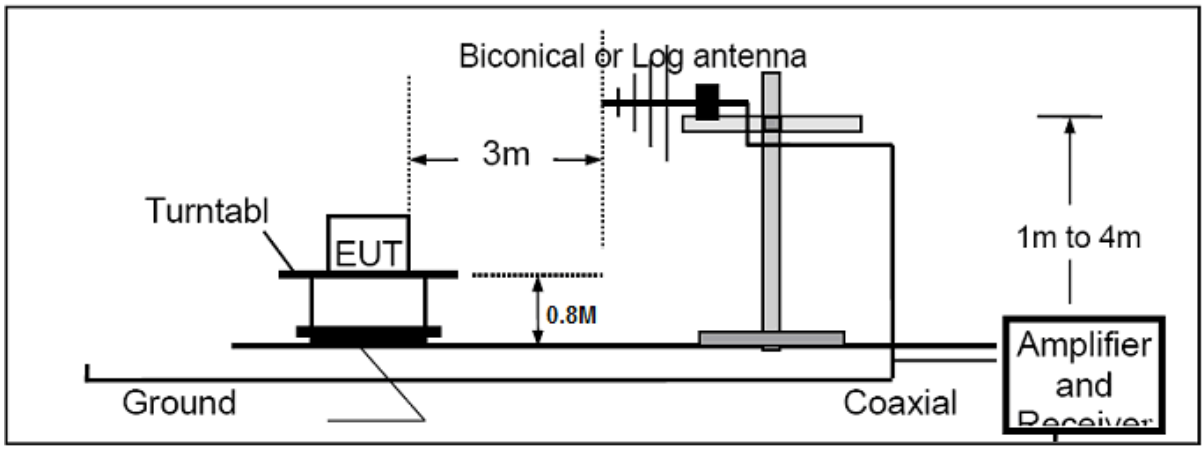
1. Configure the EUT according to ANSI C63.4. The EUT was placed on the top of the turntable 0.8 meter above ground. The phase center of the receiving antenna mounted on the top of a height-variable antenna tower was placed 3 meters far away from the turntable.
2. Power on the EUT and all the supporting units. The turntable was rotated by 360 degrees to determine the position of the highest radiation.
3. The height of the broadband receiving antenna was varied between one meter and four meters above ground to find the maximum emissions field strength of both horizontal and vertical polarization.
4. For each suspected emissions, the antenna tower was scan (from 1 M to 4 M) and then the turntable was rotated (from 0 degree to 360 degrees) to find the maximum reading.
5. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function with specified bandwidth under Maximum Hold Mode.
6. For emissions above 1GHz, use 1MHz VBW and RBW for peak reading. Then 1MHz RBW and 10Hz VBW for average reading in spectrum analyzer.
7. When the radiated emissions limits are expressed in terms of the average value of the emissions, and pulsed operation is employed, the measurement field strength shall be determined by averaging over one complete pulse train, including blanking intervals, as long as the pulse train does not exceed 0.1 seconds. As an alternative (provided the transmitter operates for longer than 0.1 seconds) or in cases where the pulse train exceeds 0.1 seconds, the measured field strength shall be determined from the average absolute voltage during a 0.1 second interval during which the field strength is at its maximum values.
8. If the emissions level of the EUT in peak mode was 3 dB lower than the average limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions which do not have 3 dB margin will be repeated one by one using the quasi-peak method for below 1GHz.
9. For testing above 1GHz, the emissions level of the EUT in peak mode was lower than average limit (that means the emissions level in peak mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.
10. In case the emission is lower than 30MHz, loop antenna has to be used for measurement and the recorded data should be QP measured by receiver. High - Low scan is not required in this case.

6.2 TEST SETUP

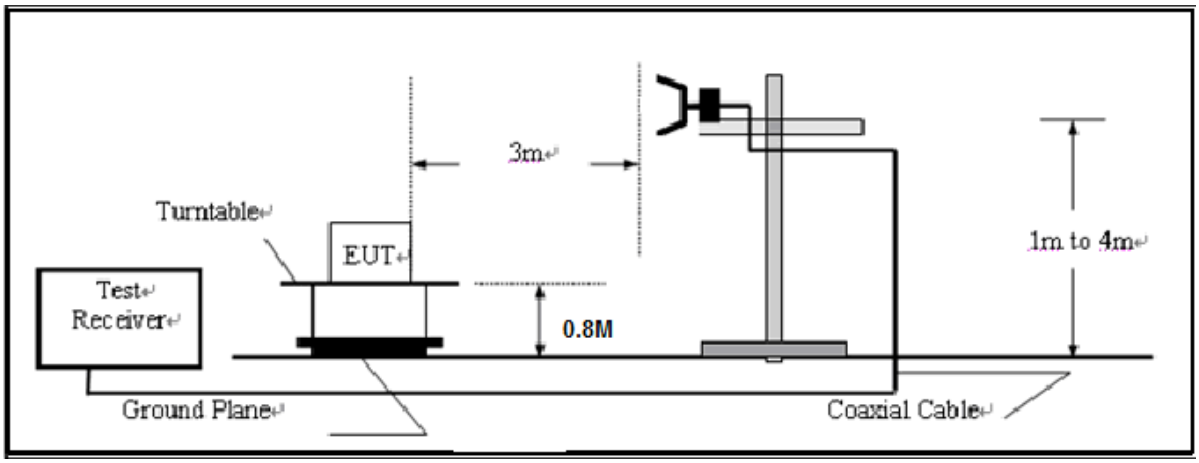
RADIATED EMISSION TEST SETUP BELOW 30MHz



RADIATED EMISSION TEST SETUP 30MHz-1000MHz



RADIATED EMISSION TEST SETUP ABOVE 1000MHz



6.3 LIMITS AND MEASUREMENT RESULT

15.209 Limit in the below table has to be followed

Frequencies (MHz)	Field Strength (micorvolts/meter)	Measurement Distance (meters)
0.009~0.490	2400/F(KHz)	300
0.490~1.705	24000/F(KHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

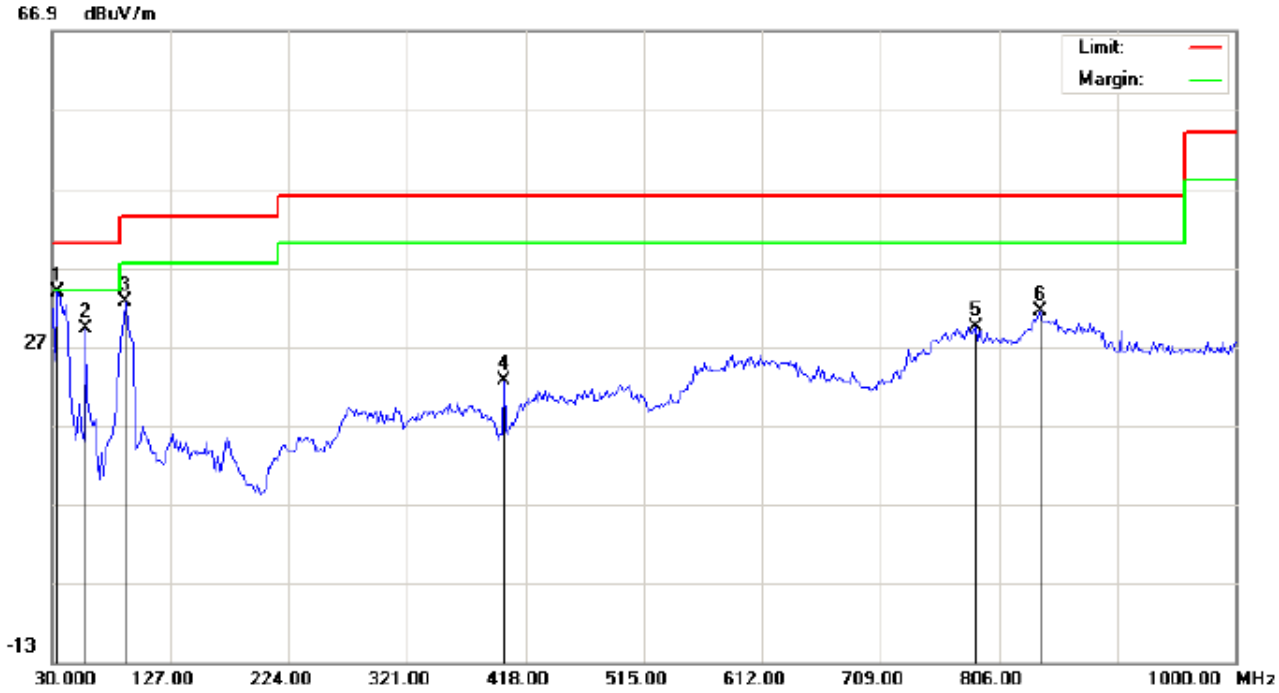
Note: All modes were tested For restricted band radiated emission,
the test records reported below are the worst result compared to other modes.

6.4 TEST RESULT

RADIATED EMISSION BELOW 30MHZ

No emission found between lowest internal used/generated frequencies to 30MHz.

RADIATED EMISSION BELOW 1GHZ

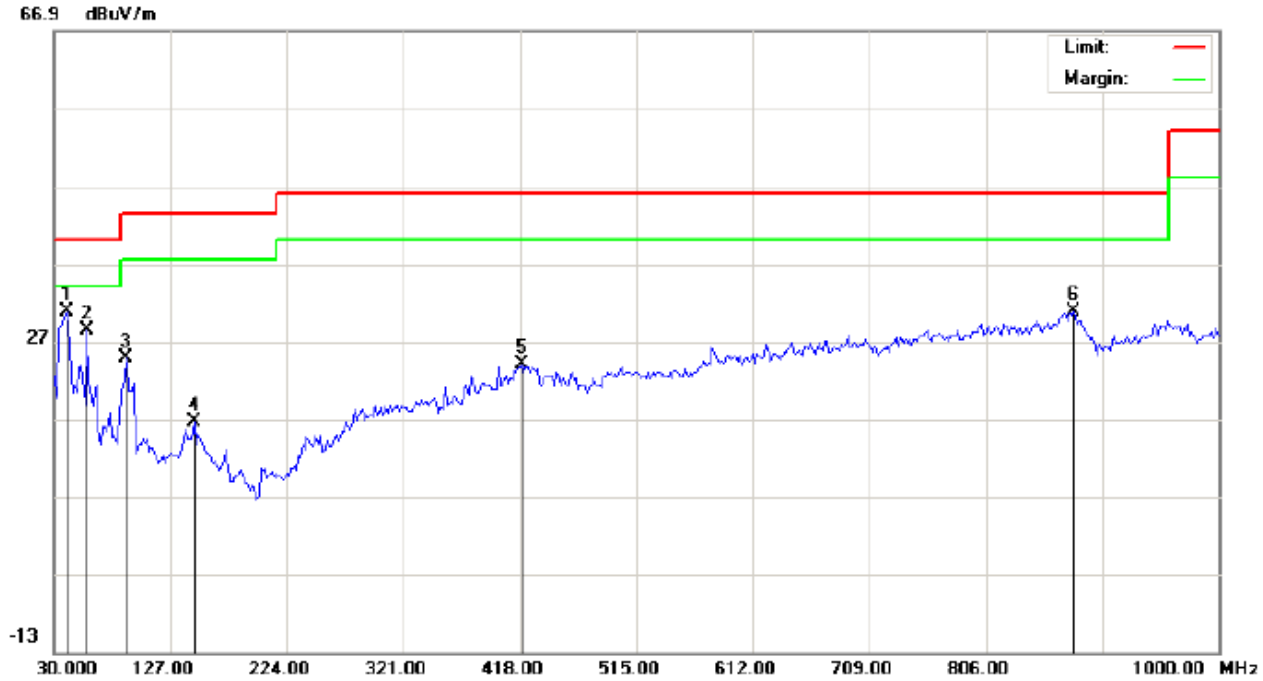


Site: site #1
Limit: FCC Class B 3M Radiation
EUT: WCDMA MOBILE PHONE
M/N: Orbit 5700T
Mode: Low Channel TX
Note:

Polarization: *Horizontal*
Power:
Distance:

Temperature: 26
Humidity: 60 %

No.	Mk.	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1	*	34.8500	21.89	11.93	33.82	40.00	-6.18	peak			
2		57.4833	26.89	2.39	29.28	40.00	-10.72	peak			
3		89.8167	15.53	17.11	32.64	43.50	-10.86	peak			
4		400.2167	6.77	15.88	22.65	46.00	-23.35	peak			
5		786.6000	1.34	28.10	29.44	46.00	-16.56	peak			
6		839.9500	0.05	31.34	31.39	46.00	-14.61	peak			

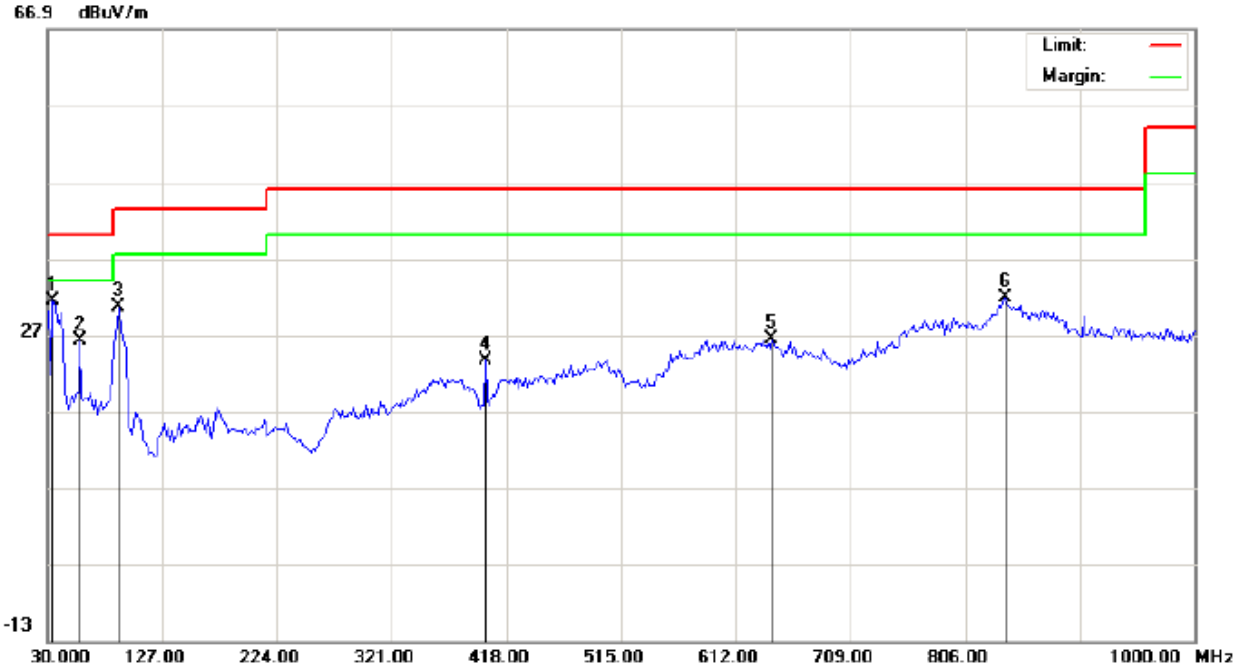


Site: site #1
Limit: FCC Class B 3M Radiation
EUT: WCDMA MOBILE PHONE
M/N: Orbit 5700T
Mode: Low Channel TX
Note:

Polarization: *Vertical*
Power:
Distance:

Temperature: 26
Humidity: 60 %

No.	Mk.	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1	*	41.3167	23.97	6.79	30.76	40.00	-9.24	peak			
2		57.4833	26.03	2.40	28.43	40.00	-11.57	peak			
3		89.8167	16.39	8.37	24.76	43.50	-18.74	peak			
4		146.4000	3.41	13.29	16.70	43.50	-26.80	peak			
5		419.6167	2.61	21.39	24.00	46.00	-22.00	peak			
6		878.7500	0.43	30.36	30.79	46.00	-15.21	peak			

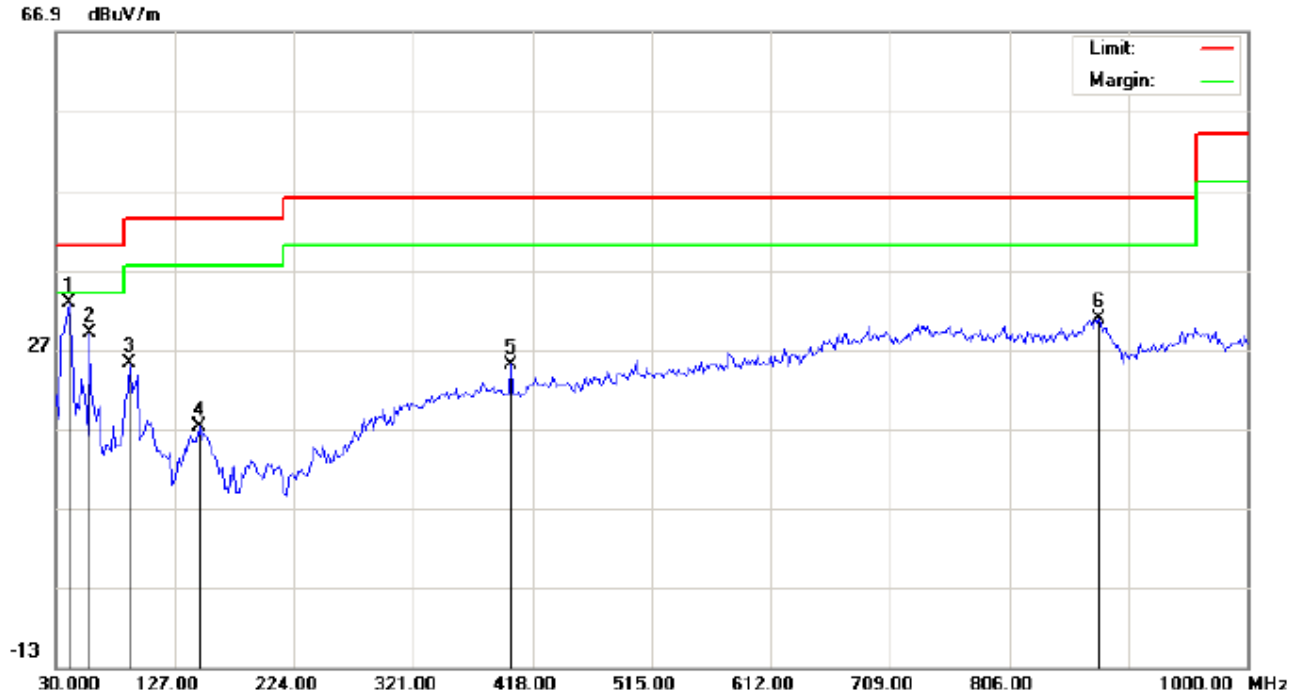


Site: site #1
Limit: FCC Class B 3M Radiation
EUT: WCDMA MOBILE PHONE
M/N: Orbit 5700T
Mode: Middle Channel TX
Note:

Polarization: ***Horizontal***
Power:
Distance:

Temperature: 26
Humidity: 60 %

No.	Mk.	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1	*	34.8500	19.39	11.93	31.32	40.00	-8.68	peak			
2		57.4833	23.89	2.39	26.28	40.00	-13.72	peak			
3		89.8167	13.53	17.11	30.64	43.50	-12.86	peak			
4		400.2167	7.77	15.88	23.65	46.00	-22.35	peak			
5		642.7166	1.72	24.61	26.33	46.00	-19.67	peak			
6		839.9500	0.55	31.34	31.89	46.00	-14.11	peak			

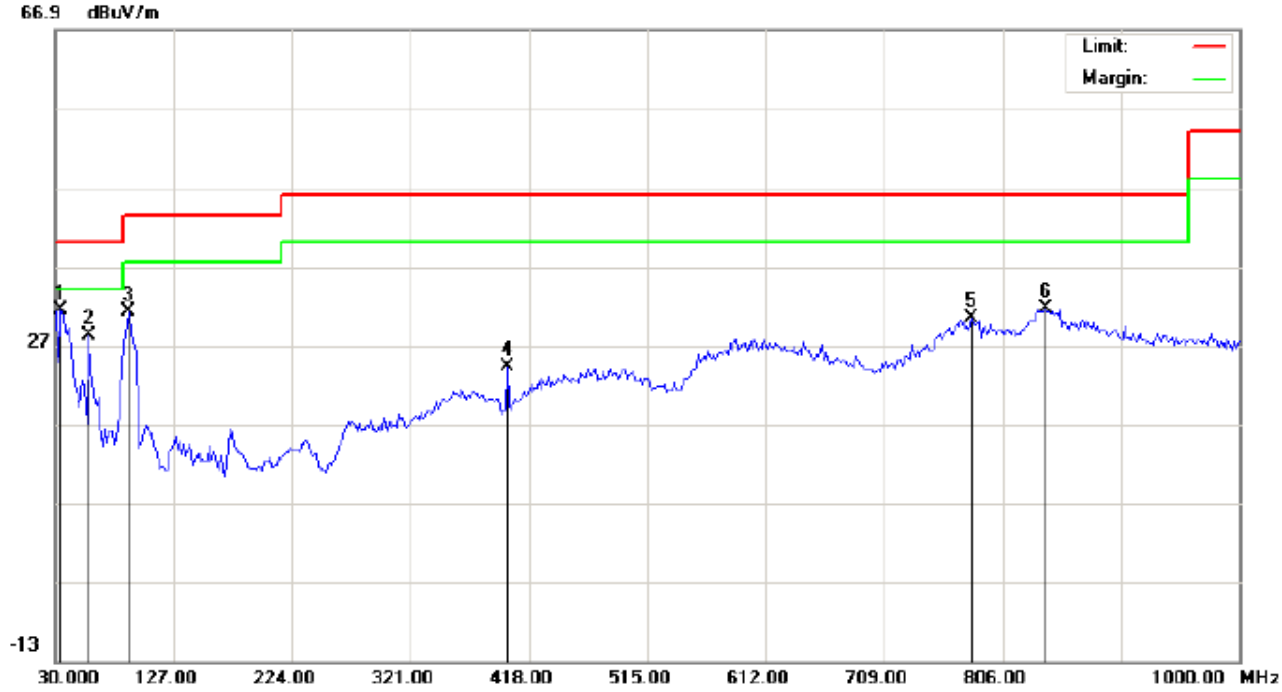


Site: site #1
Limit: FCC Class B 3M Radiation
EUT: WCDMA MOBILE PHONE
M/N: Orbit 5700T
Mode: Middle Channel TX
Note:

Polarization: *Vertical*
Power:
Distance:

Temperature: 26
Humidity: 60 %

No.	Mk.	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1	*	41.3167	25.97	6.79	32.76	40.00	-7.24	peak			
2		57.4833	26.53	2.40	28.93	40.00	-11.07	peak			
3		89.8167	16.89	8.37	25.26	43.50	-18.24	peak			
4		146.4000	3.91	13.29	17.20	43.50	-26.30	peak			
5		400.2167	6.24	18.86	25.10	46.00	-20.90	peak			
6		878.7500	0.43	30.36	30.79	46.00	-15.21	peak			

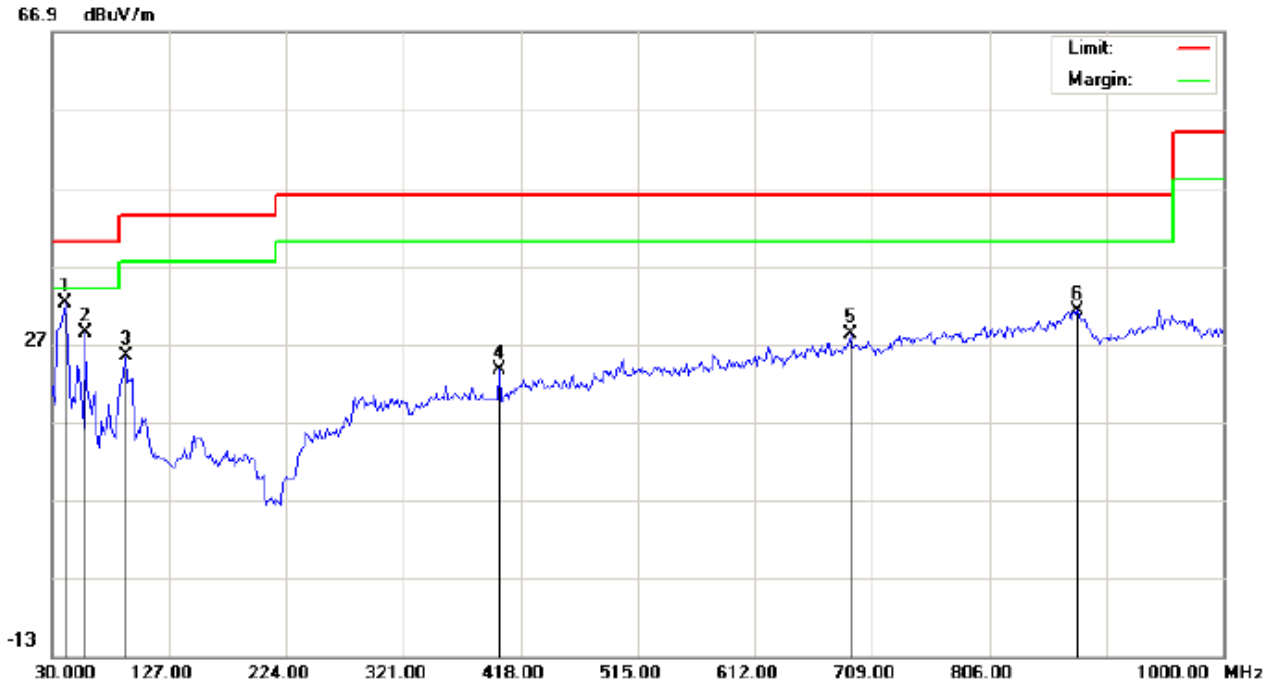


Site: site #1
Limit: FCC Class B 3M Radiation
EUT: WCDMA MOBILE PHONE
M/N: Orbit 5700T
Mode: High Channel TX
Note:

Polarization: *Horizontal*
Power:
Distance:

Temperature: 26
Humidity: 60 %

No.	Mk.	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1	*	34.8500	19.39	11.93	31.32	40.00	-8.68	peak			
2		57.4833	25.89	2.39	28.28	40.00	-11.72	peak			
3		89.8167	14.03	17.11	31.14	43.50	-12.36	peak			
4		400.2167	8.27	15.88	24.15	46.00	-21.85	peak			
5		780.1333	2.18	28.13	30.31	46.00	-15.69	peak			
6		841.5667	0.40	31.17	31.57	46.00	-14.43	peak			



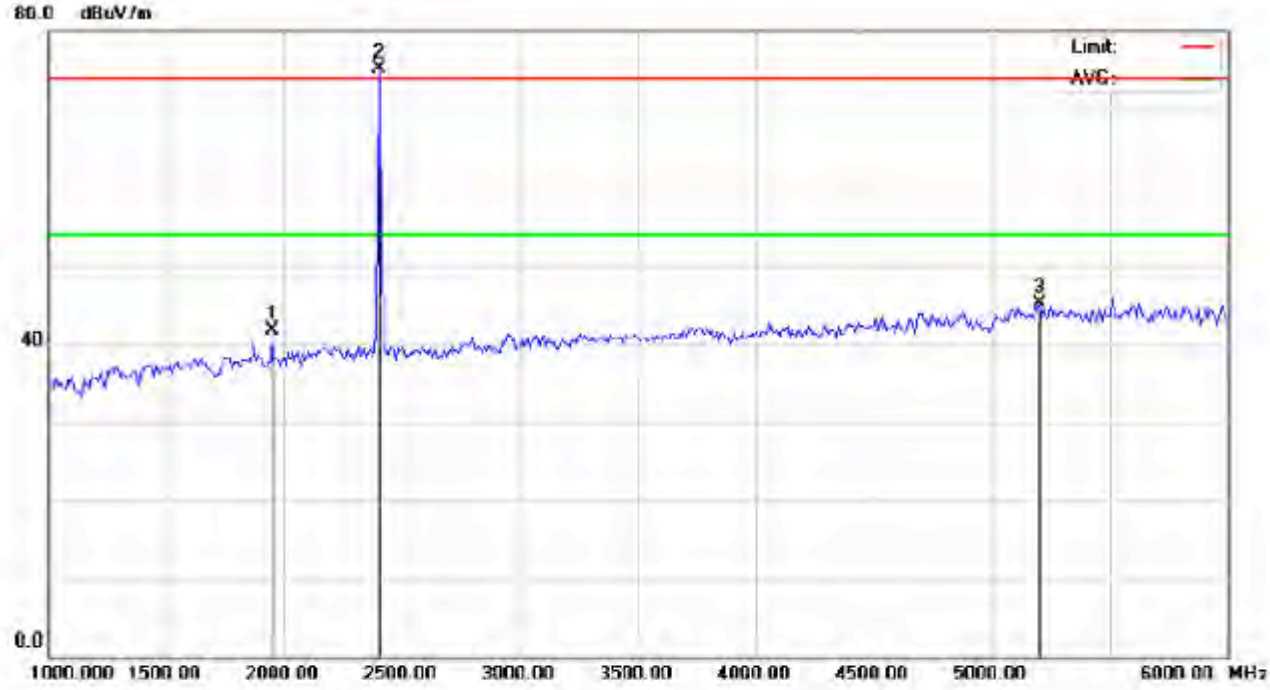
Site: site #1
Limit: FCC Class B 3M Radiation
EUT: WCDMA MOBILE PHONE
M/N: Orbit 5700T
Mode: High Channel TX
Note:

Polarization: *Vertical*
Power:
Distance:

Temperature: 26
Humidity: 60 %

No.	Mk.	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1	*	41.3167	25.47	6.79	32.26	40.00	-7.74	peak			
2		57.4833	26.03	2.40	28.43	40.00	-11.57	peak			
3		91.4333	17.85	7.58	25.43	43.50	-18.07	peak			
4		400.2167	4.74	18.86	23.60	46.00	-22.40	peak			
5		691.2166	1.95	26.27	28.22	46.00	-17.78	peak			
6		878.7500	0.93	30.36	31.29	46.00	-14.71	peak			

RADIATED EMISSION ABOVE 1GHZ



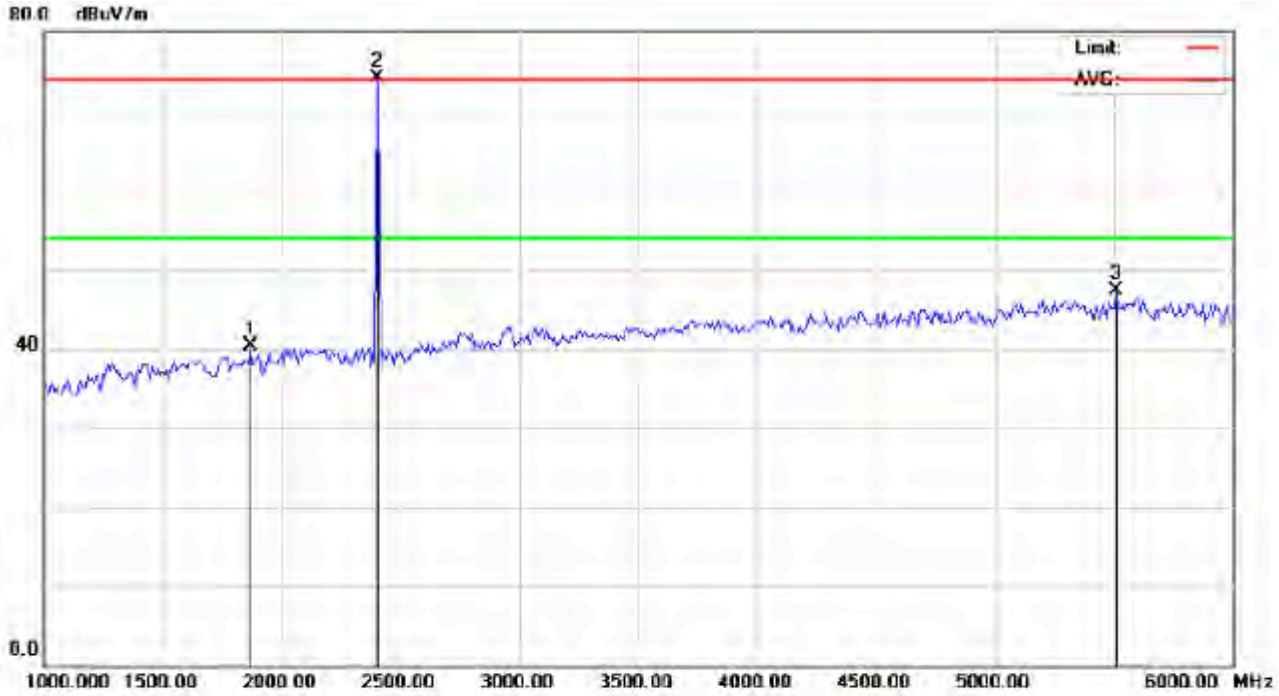
Site: site #1
Limit: FCC Class B 3M Radiation above 1GHZ(PK)
EUT: WCDMA MOBILE PHONE
M/N: Orbit 5700T
Mode: Low Channel TX
Note:

Polarization: *Horizontal*
Power:
Distance: 3m

Temperature: 26
Humidity: 60 %

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1		1950.000	41.73	0.00	41.73	74.00	-32.27	peak			
2	*	2400.000	75.02	0.00	75.02			peak			
3		5200.000	45.01	0.00	45.01	74.00	-28.99	peak			

Note: *The 2 is the basic frequency.*



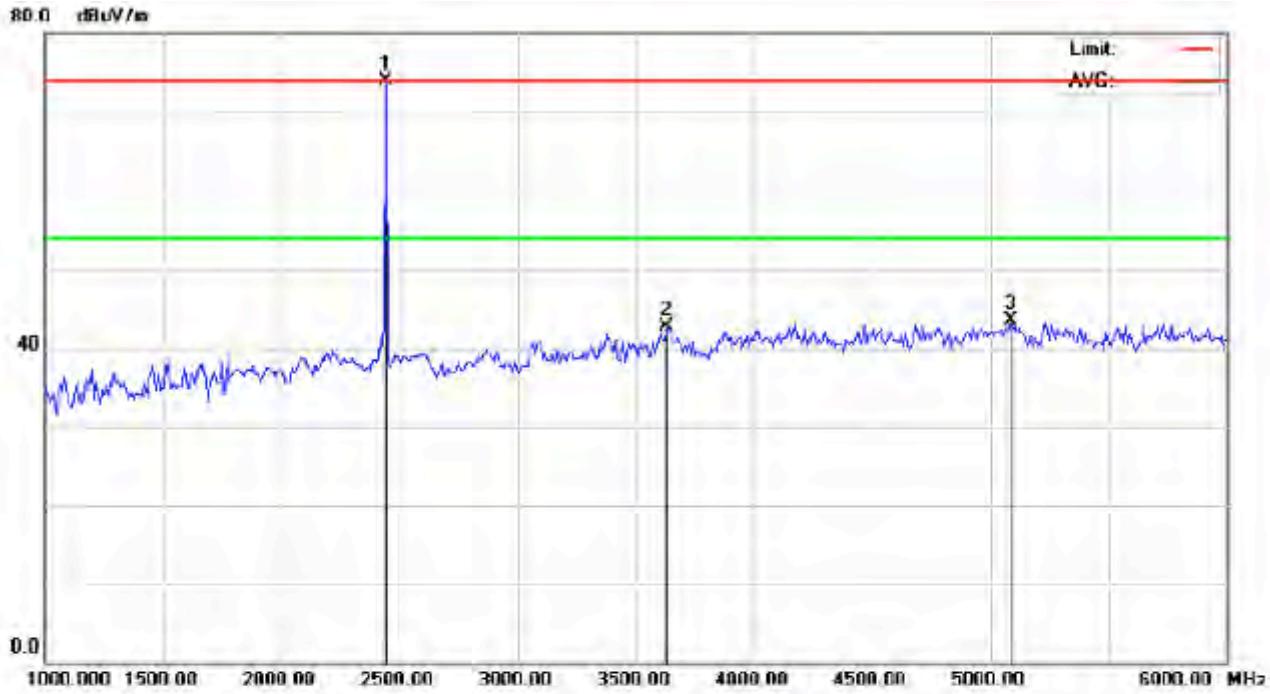
Site: site #1
Limit: FCC Class B 3M Radiation above 1GHZ(PK)
EUT: WCDMA MOBILE PHONE
M/N: Orbit 5700T
Mode: Low Channel TX
Note:

Polarization: *Vertical*
Power:
Distance: 3m

Temperature: 26
Humidity: 60 %

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1		1866.667	40.35	0.00	40.35	74.00	-33.65	peak			
2	*	2400.000	74.02	0.00	74.02			peak			
3		5508.333	47.40	0.00	47.40	74.00	-26.60	peak			

Note: *The 2 is the basic frequency.*



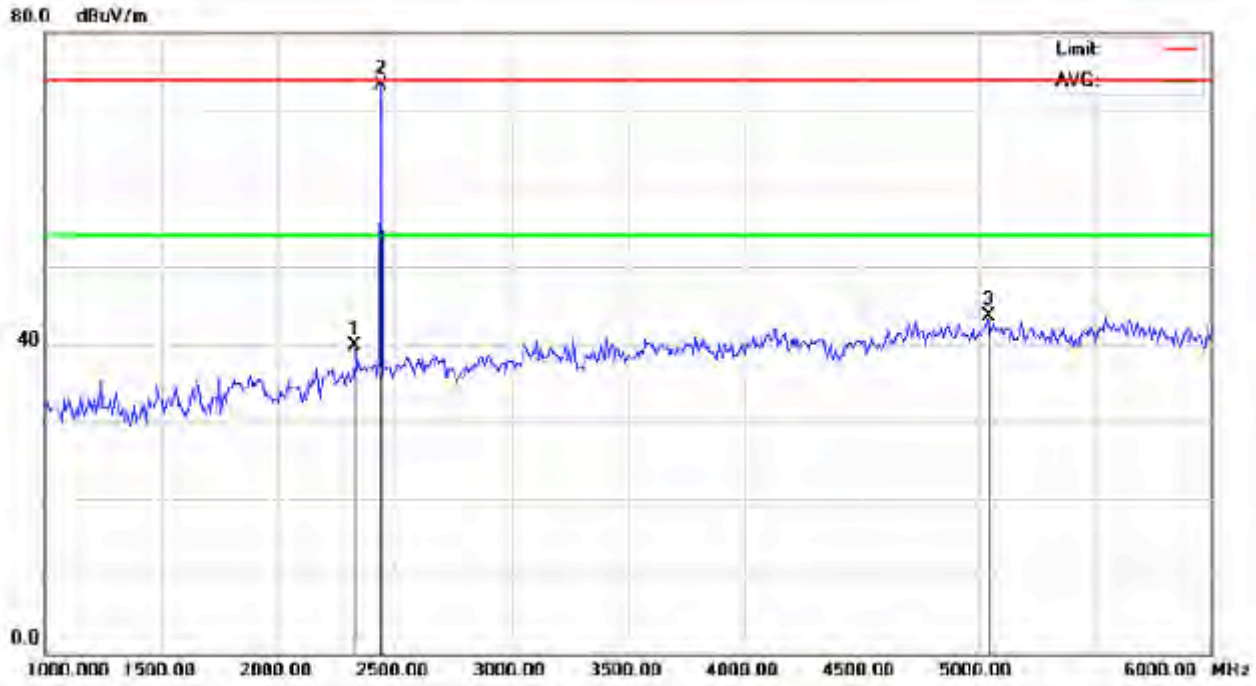
Site: site #1
Limit: FCC Class B 3M Radiation above 1GHZ(PK)
EUT: WCDMA MOBILE PHONE
M/N: Orbit 5700T
Mode: Middle Channel TX
Note:

Polarization: *Horizontal*
Power:
Distance: 3m

Temperature: 26
Humidity: 60 %

No.	Mk.	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1	*	2441.667	73.84	0.00	73.84			peak			
2		3633.333	42.76	0.00	42.76	74.00	-31.24	peak			
3		5091.667	43.41	0.00	43.41	74.00	-30.59	peak			

Note: *The 2 is the basic frequency.*



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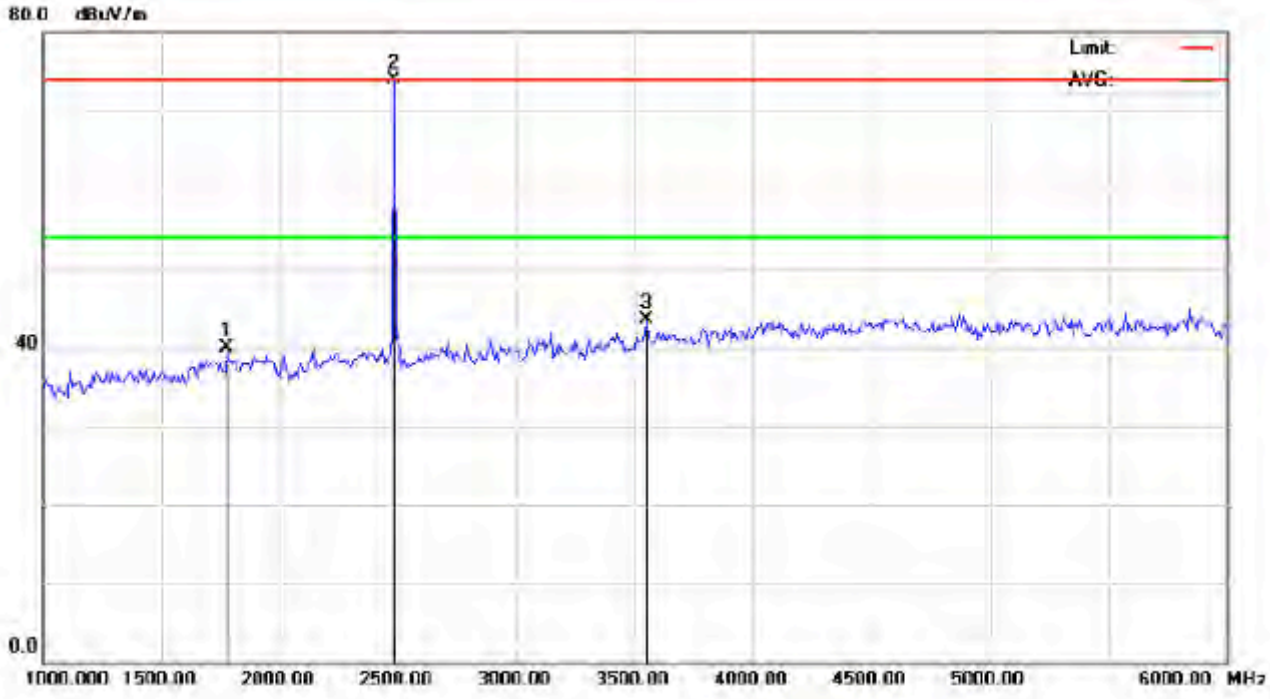
EUT: WCDMA MOBILE PHONE
M/N: Orbit 5700T
Mode: Middle Channel TX
Note:

Polarization: *Vertical*
Power:
Distance: 3m

Temperature: 26
Humidity: 60 %

No.	Mk.	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1		2333.333	39.62	0.00	39.62	74.00	-34.38	peak			
2	*	2441.667	73.27	0.00	73.27			peak			
3		5050.000	43.44	0.00	43.44	74.00	-30.56	peak			

Note: *The 2 is the basic frequency.*



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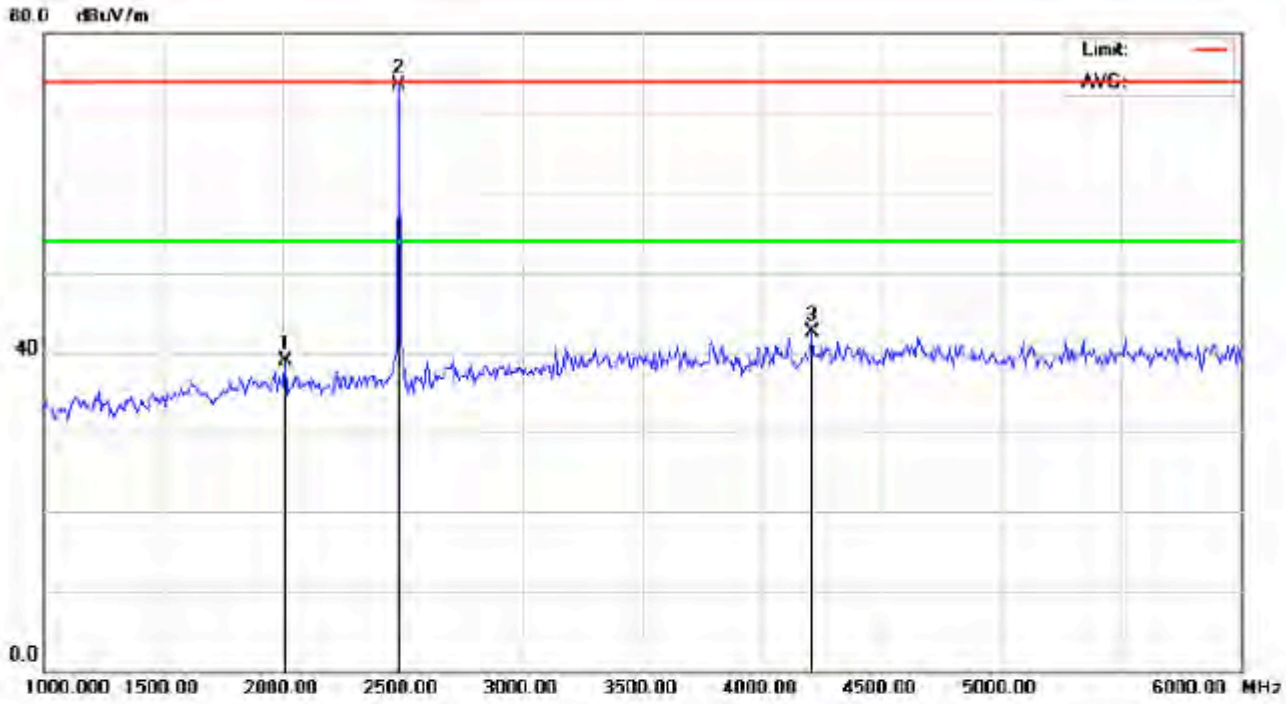
EUT: WCDMA MOBILE PHONE
M/N: Orbit 5700T
Mode: High Channel TX
Note:

Polarization: *Horizontal*
Power:
Distance: 3m

Temperature: 26
Humidity: 60 %

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1		1775.000	39.84	0.00	39.84	74.00	-34.16	peak			
2	*	2483.333	73.98	0.00	73.98			peak			
3		3550.000	43.57	0.00	43.57	74.00	-30.43	peak			

Note: *The 2 is the basic frequency.*
6~25GHz at least have 20dB margin. No recording in the test report.



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EUT: WCDMA MOBILE PHONE
M/N: Orbit 5700T
Mode: High Channel TX
Note:

Polarization: *Vertical*
Power:
Distance: 3m

Temperature: 26
Humidity: 60 %

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1		2008.333	38.91	0.00	38.91	74.00	-35.09	peak			
2	*	2483.333	73.55	0.00	73.55			peak			
3		4208.333	42.41	0.00	42.41	74.00	-31.59	peak			

Note: *The 2 is the basic frequency.*
6~25GHz at least have 20dB margin. No recording in the test report.

7. BAND EDGE EMISSION

7.1. MEASUREMENT PROCEDURE

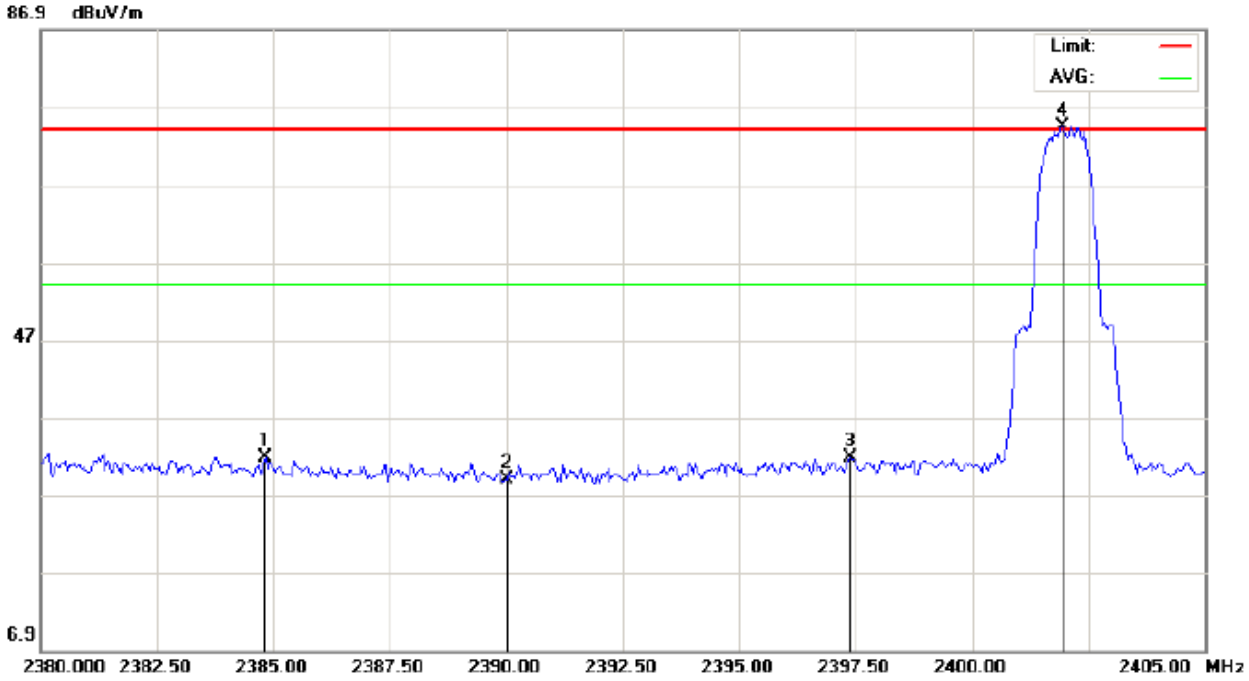
1. Set the EUT Work on the top, the bottom operation frequency individually.
2. Set SPA Start or Stop Frequency = Operation Frequency, RBW>=1%span, VBW>=RBW
3. The band edges was measured and recorded.

7.2. TEST SET-UP

Radiated same as 6.2

7.3. TEST RESULT

TEST PLOT OF BAND EDGE FOR LOW CHANNEL -Horizontal



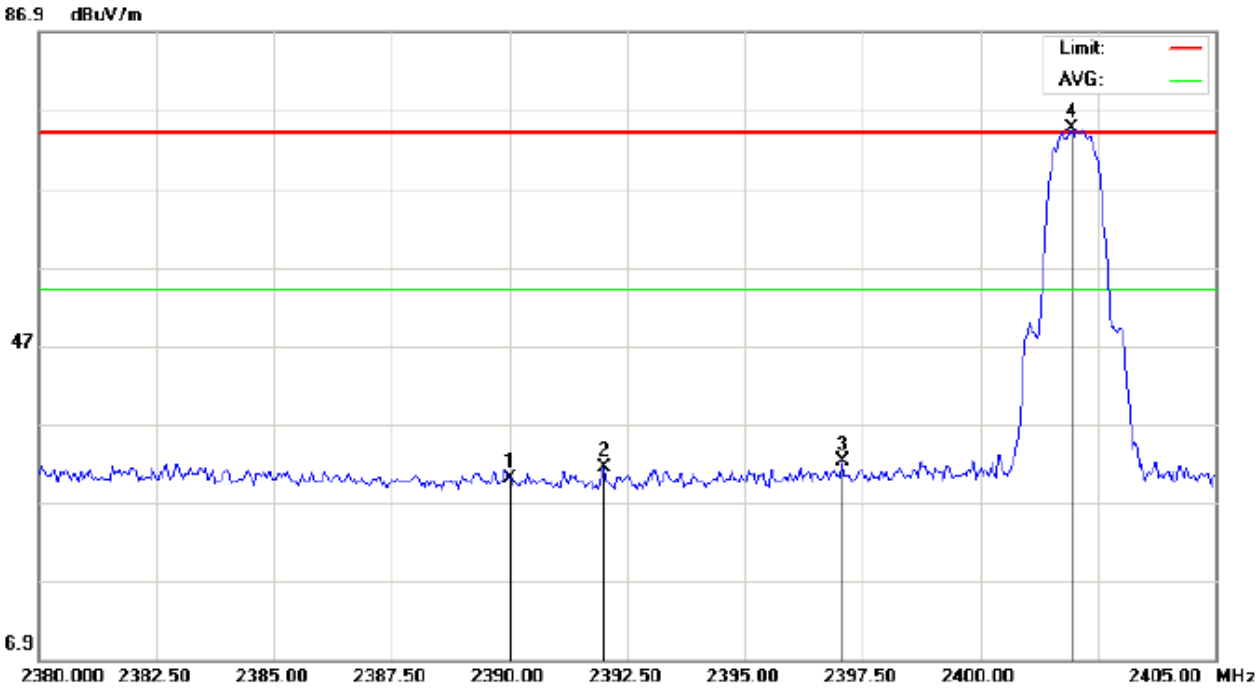
Site: site #1
Limit: FCC Class B 3M Radiation above 1GHZ(PK)
EUT: WCDMA MOBILE PHONE
M/N: Orbit 5700T
Mode: Low channel TX
Note:

Polarization: *Horizontal*
Power:
Distance: 3m

Temperature: 26
Humidity: 60 %

No.	Mk.	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1		2384.833	21.52	10.30	31.82	74.00	-42.18	peak			
2		2390.000	18.76	10.31	29.07	74.00	-44.93	peak			
3		2397.375	21.48	10.32	31.80	74.00	-42.20	peak			
4	*	2401.958	64.10	10.32	74.42	74.00	0.42	peak			

TEST PLOT OF BAND EDGE FOR LOW CHANNEL - Vertical



Site: site #1
Limit: FCC Class B 3M Radiation above 1GHZ(PK)
EUT: WCDMA MOBILE PHONE
M/N: Orbit 5700T
Mode: Low channel TX
Note:

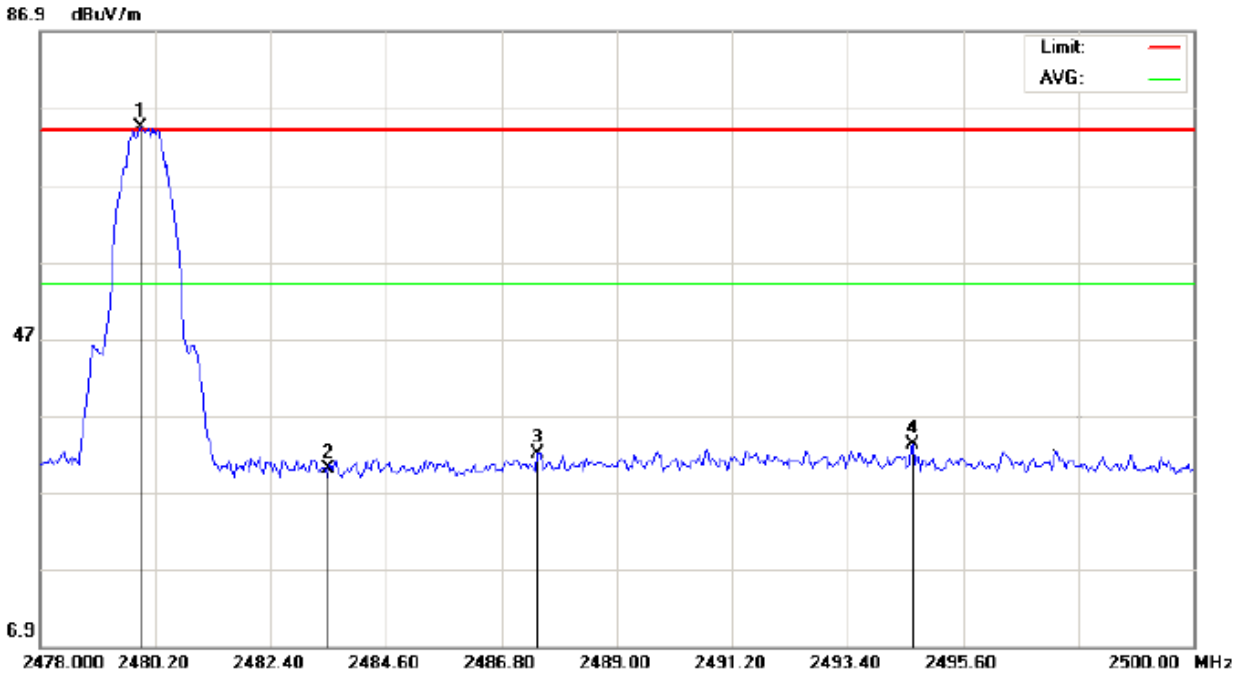
Polarization: *Vertical*
Power:
Distance: 3m

Temperature: 26
Humidity: 60 %

No.	Mk.	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1		2390.000	19.74	10.31	30.05	74.00	-43.95	peak			
2		2392.000	21.16	10.31	31.47	74.00	-42.53	peak			
3		2397.083	21.92	10.32	32.24	74.00	-41.76	peak			
4	*	2401.958	64.26	10.32	74.58	74.00	0.58	peak			

RESULT: PASS

TEST PLOT OF BAND EDGE FOR HIGH CHANNEL –Horizontal



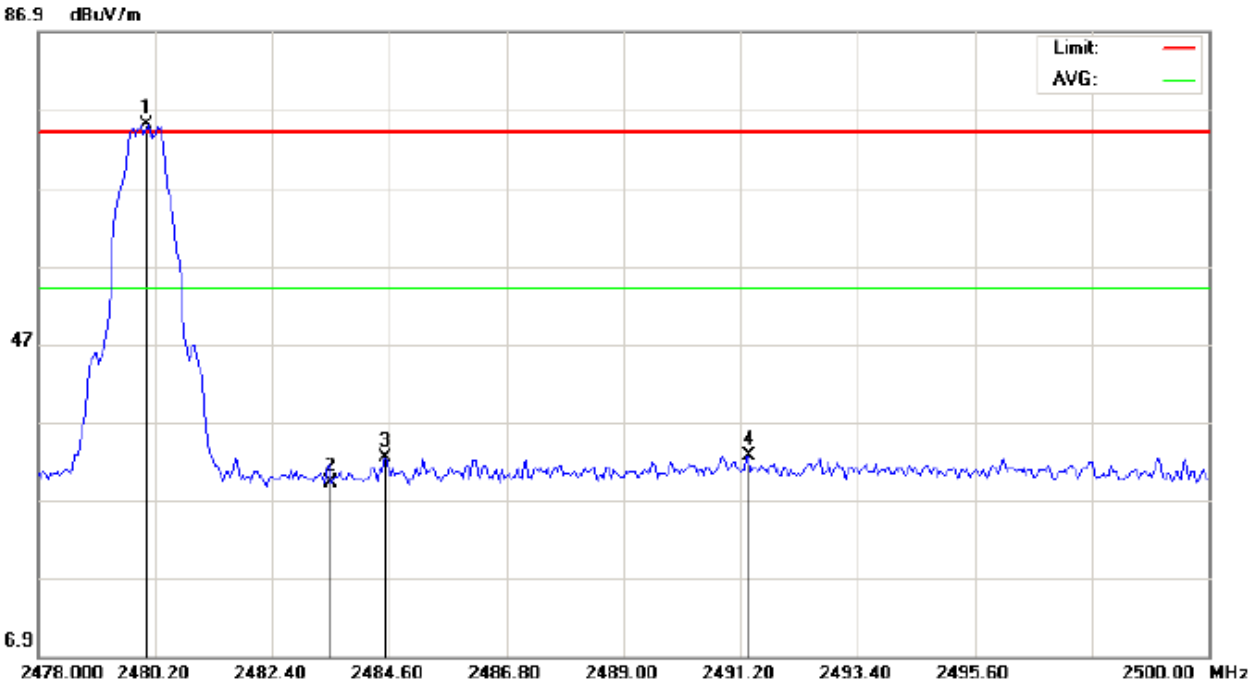
Site: site #1
Limit: FCC Class B 3M Radiation above 1GHZ(PK)
EUT: WCDMA MOBILE PHONE
M/N: Orbit 5700T
Mode: High channel TX
Note:

Polarization: *Horizontal*
Power:
Distance: 3m

Temperature: 26
Humidity: 60 %

No.	Mk.	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1	*	2479.907	63.95	10.41	74.36	74.00	0.36	peak			
2		2483.500	19.65	10.41	30.06	74.00	-43.94	peak			
3		2487.497	21.63	10.42	32.05	74.00	-41.95	peak			
4		2494.647	22.69	10.42	33.11	74.00	-40.89	peak			

TEST PLOT OF BAND EDGE FOR HIGH CHANNEL -Vertical



Site: site #1
Limit: FCC Class B 3M Radiation above 1GHZ(PK)
EUT: WCDMA MOBILE PHONE
M/N: Orbit 5700T
Mode: High channel TX
Note:

Polarization: *Vertical*
Power:
Distance: 3m

Temperature: 26
Humidity: 60 %

No.	Mk.	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1	*	2480.053	64.67	10.41	75.08	74.00	1.08	peak			
2		2483.500	18.86	10.41	29.27	74.00	-44.73	peak			
3		2484.527	22.00	10.41	32.41	74.00	-41.59	peak			
4		2491.347	22.26	10.42	32.68	74.00	-41.32	peak			

RESULT: PASS

8. 6DB BANDWIDTH

8.1. TEST EQUIPMENT LIST AND DETAILS

Equipment	Manufacturer	Model	S/N	Cal. Date	Cal. Due
PSA SERIES SPECTRUM ANALYZER	AGILENT	E4440A	US41421290	07/18/2012	07/17/2013
Biological Antenna	A.H. Systems Inc.	SAS-521-4	SA1134	06/08/2012	06/07/2013

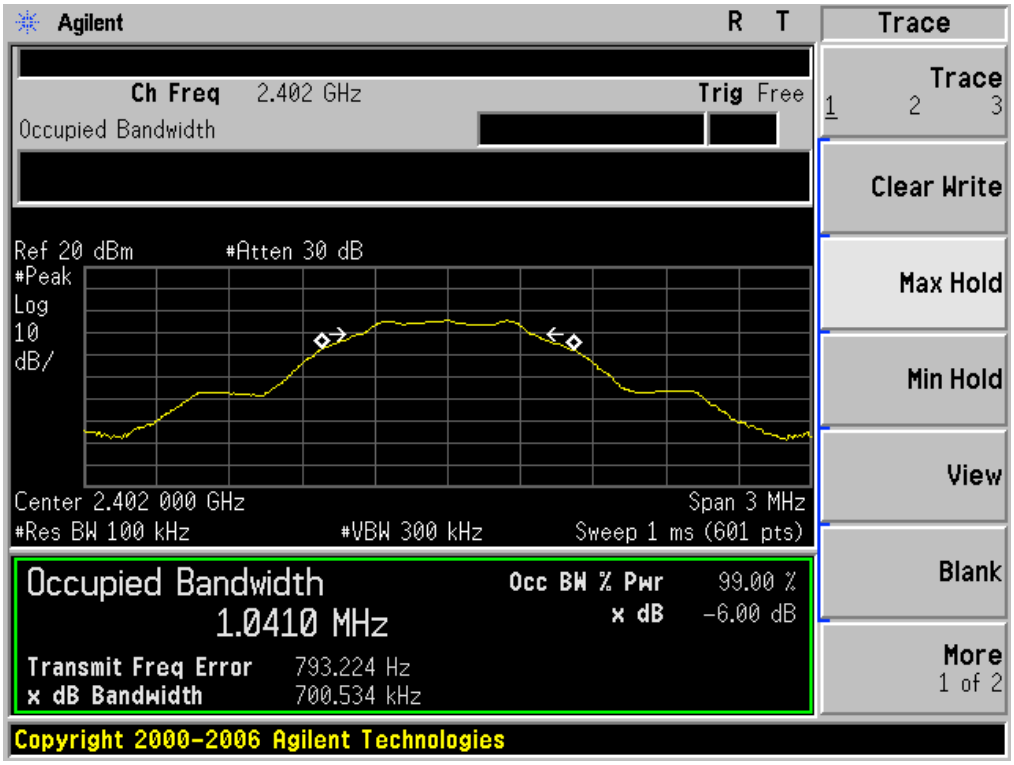
8.2. TEST PROCEDURE

1. The EUT was placed on a table which is 0.8m above ground plane.
2. Connect EUT RF output port to the Spectrum Analyzer through an RF attenuator
3. Set the EUT Work on the top, the middle and the bottom operation frequency individually.
3. Set SPA Centre Frequency = Operation Frequency, RBW= 100 KHz, VBW≥RBW.
4. Set SPA Trace 1 Max hold, then View.

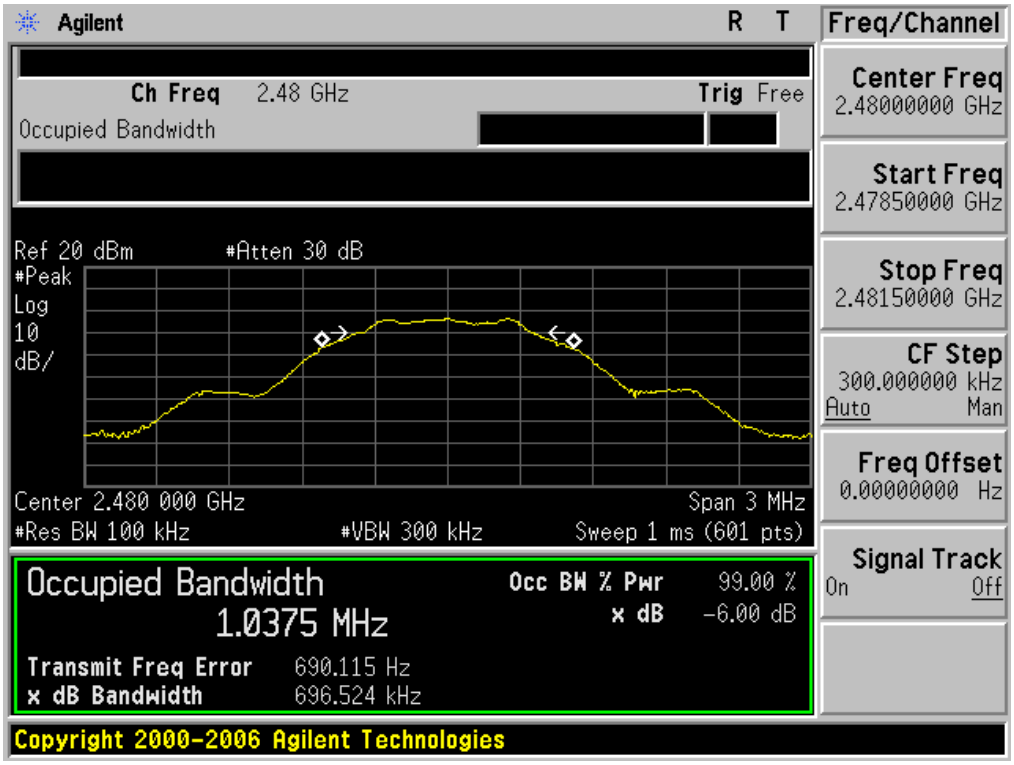
8.3. SUMMARY OF TEST RESULTS/PLOTS

Channel	6dB Bandwidth (KHz)	Minimum Limit (KHz)	Pass/Fail
Low	700.534	500KHz	Pass
Middle	696.524		Pass
High	700.944		Pass

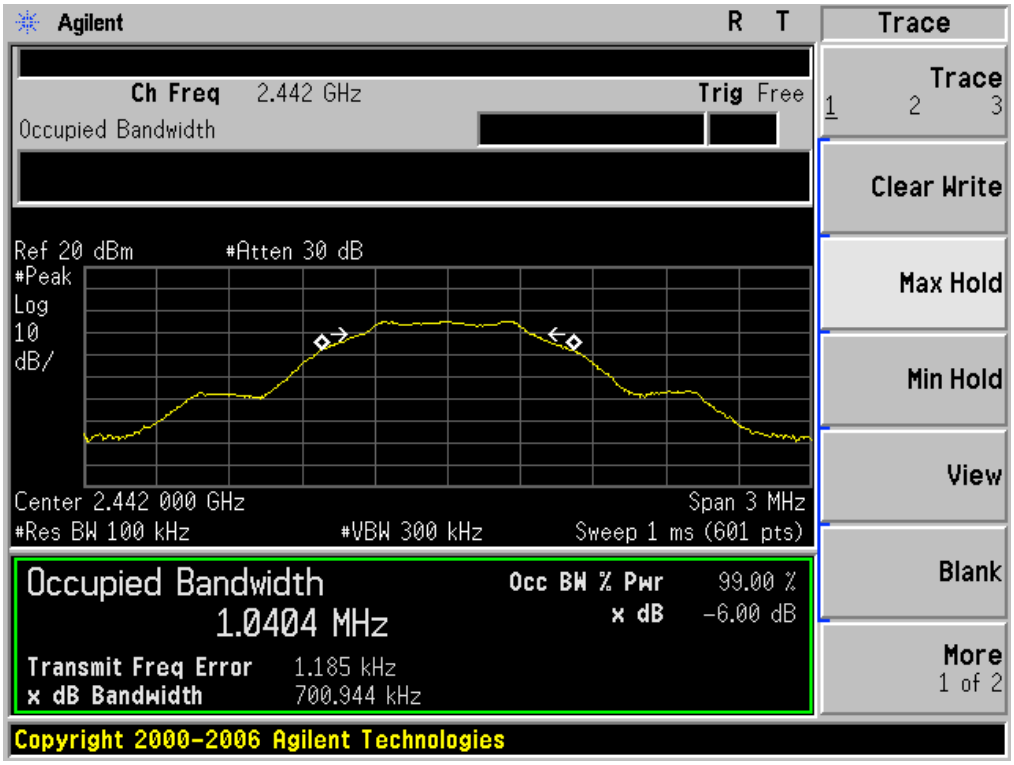
TEST PLOT OF BANDWIDTH FOR LOW CHANNEL



TEST PLOT OF BANDWIDTH FOR MIDDLE CHANNEL



TEST PLOT OF BANDWIDTH FOR HIGH CHANNEL



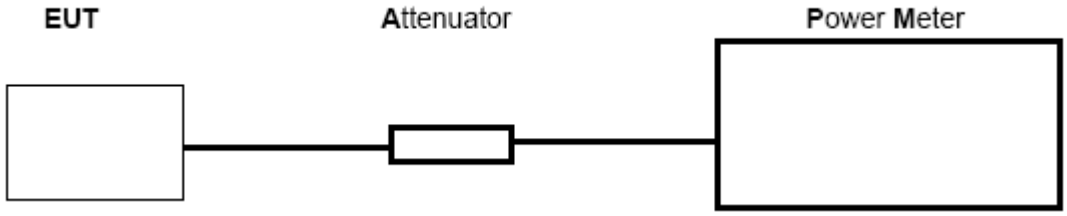
9. CONDUCTED OUTPUT POWER

9.1. MEASUREMENT PROCEDURE

1. The EUT was placed on a table which is 0.8m above ground plane.
2. Connect EUT RF output port to power meter through an RF attenuator
3. Set the EUT Work on the top, the middle and the bottom operation frequency individually.
4. Set the RBW greater than 6DB bandwidth of emission.
5. Record the maximum power from the power meter.
6. The maximum peak power shall be less 1 Watt (30dBm).

Note： The EUT was tested according to KDB 558074 for compliance to FCC 47CFR 15.247 requirements.

9.2. TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION)



9.3. LIMITS AND MEASUREMENT RESULT

Channel	Peak Power (dBm)	Applicable Limits (dBm)	Pass/Fail
Low Channel	3.01	20	Pass
Middle Channel	2.84	20	Pass
High Channel	2.88	20	Pass

10. MAXIMUM CONDUCTED OUTPUT POWER SPECTRAL DENSITY

10.1 MEASUREMENT PROCEDURE

(1). The EUT was placed on a turn table which is 0.8m above ground plane.

(2). Connect EUT RF output port to the Spectrum Analyzer through an RF attenuator

(3). Set the EUT Work on the top, the middle and the bottom operation frequency individually.

(4). Set SPA Trace 1 Max hold, then View.

Note: The EUT was tested according to KDB 558074 for compliance to FCC 47CFR 15.247 requirements.

10.2 TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION)

Refer To Section 8.2

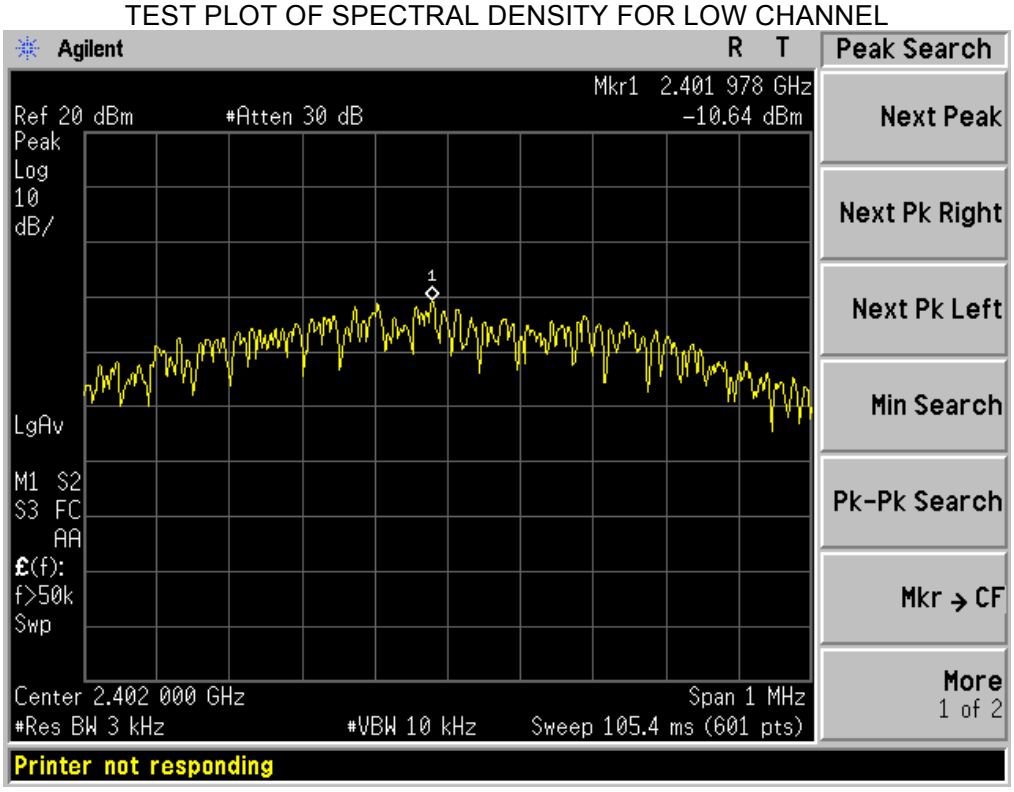
10.3 MEASUREMENT EQUIPMENT USED

Refer To Section 6.

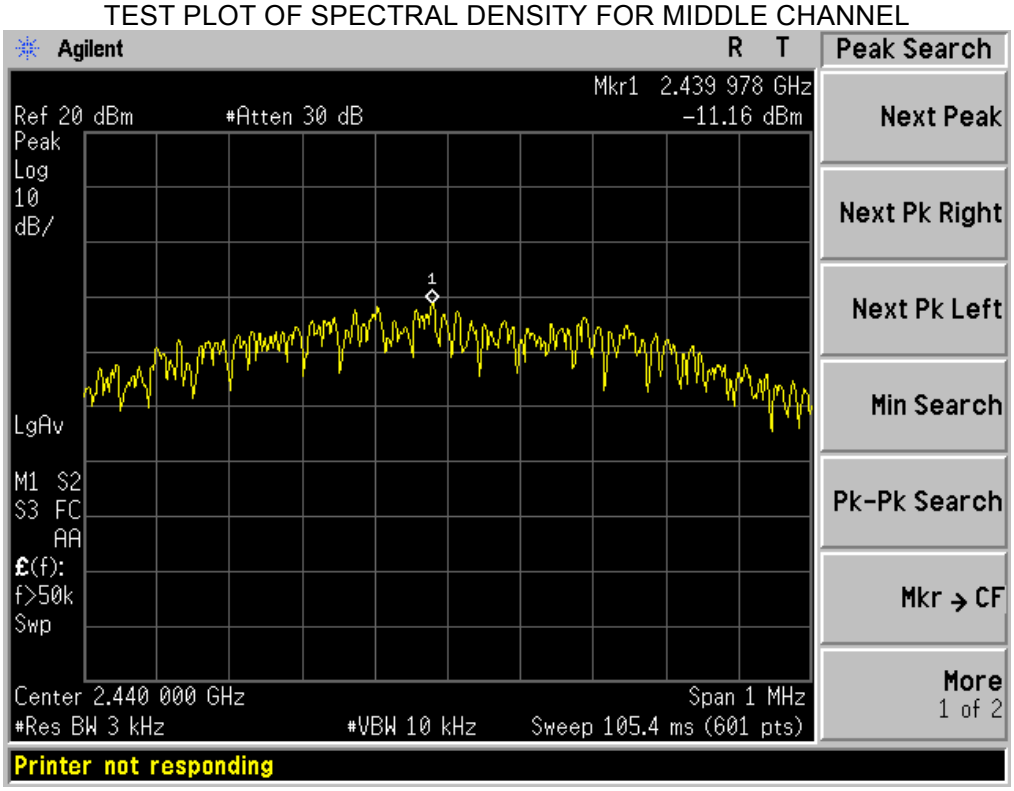
10.4 LIMITS AND MEASUREMENT RESULT

Channel No.	PSD (dBm)	Limit (dBm)	Result
Low Channel	-10.64	8	Pass
Middle Channel	-11.16	8	Pass
High Channel	-11.90	8	Pass

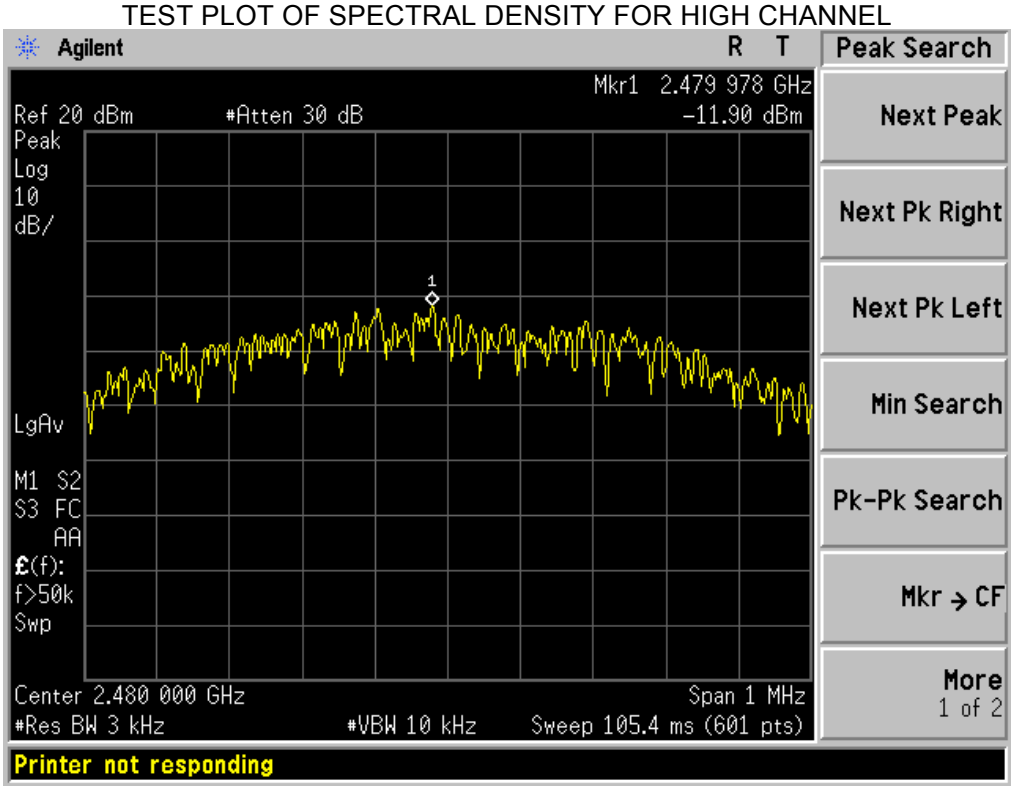
TEST PLOT OF SPECTRAL DENSITY FOR LOW CHANNEL



TEST PLOT OF SPECTRAL DENSITY FOR MIDDLE CHANNEL



TEST PLOT OF SPECTRAL DENSITY FOR HIGH CHANNEL



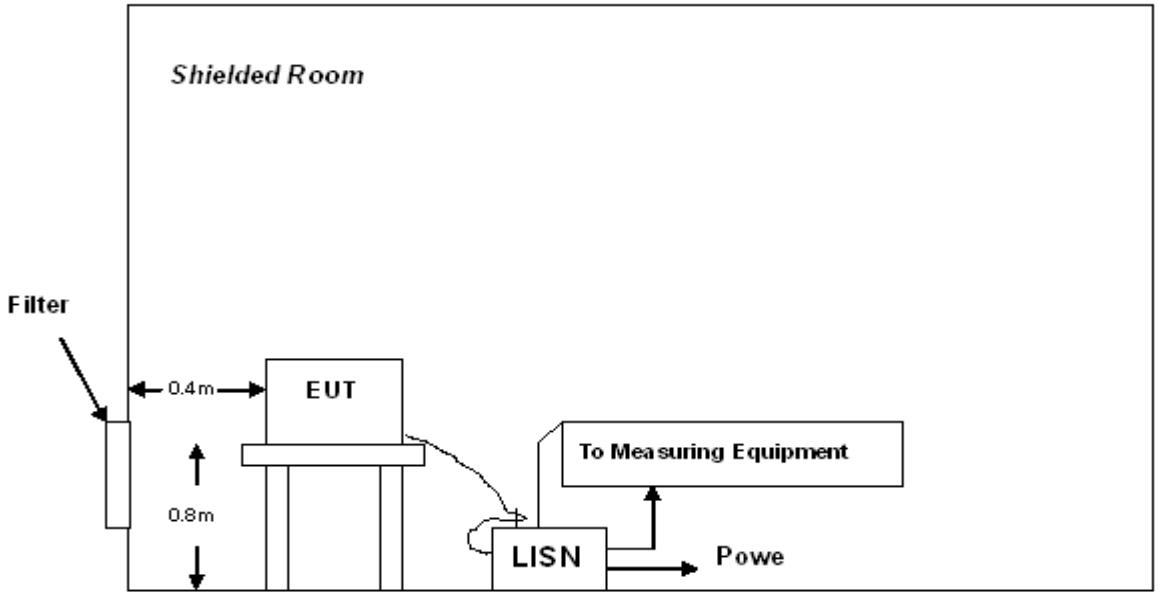
11. FCC LINE CONDUCTED EMISSION TEST

11.1 LIMITS

Frequency	Maximum RF Line Voltage	
	Q.P.(dBuV)	Average(dBuV)
150kHz~500kHz	66-56	56-46
500kHz~5MHz	56	46
5MHz~30MHz	60	50

***Note:** 1. The lower limit shall apply at the transition frequency.*
2. The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz

11.2 TEST SETUP



A: Powered through filter

11.3 PRELIMINARY PROCEDURE

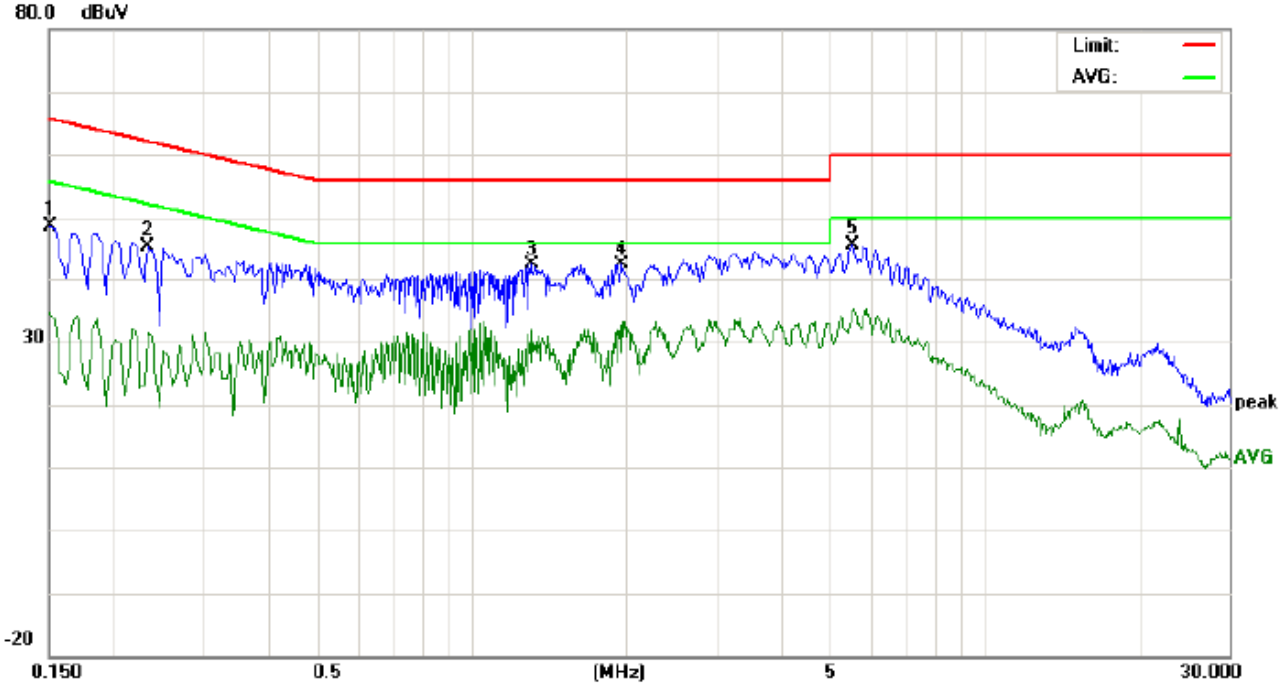
1) The equipment was set up as per the test configuration to simulate typical actual usage per the user's manual. When the EUT is a tabletop system, a wooden table with a height of 0.8 meters is used and is placed on the ground plane as per ANSI C63.4 (see Test Facility for the dimensions of the ground plane used). When the EUT is a floor-standing equipment, it is placed on the ground plane which has a 3-12 mm non-conductive covering to insulate the EUT from the ground plane.
2) Support equipment, if needed, was placed as per ANSI C63.4.
3) All I/O cables were positioned to simulate typical actual usage as per ANSI C63.4.
4) All support equipments received AC120V/60Hz power from a LISN, if any.
5) The EUT received power by adapter which received power by a LISN.
6) The test program was started. Emissions were measured on each current carrying line of the EUT using a spectrum Analyzer / Receiver connected to the LISN powering the EUT. The LISN has two monitoring points: Line 1 (Hot Side) and Line 2 (Neutral Side). Two scans were taken: one with Line 1 connected to Analyzer / Receiver and Line 2 connected to a 50 ohm load; the second scan had Line 1 connected to a 50 ohm load and Line 2 connected to the Analyzer / Receiver.
7) Analyzer / Receiver scanned from 150 kHz to 30MHz for emissions in each of the test modes.
8) During the above scans, the emissions were maximized by cable manipulation.
9) The following test mode(s) were scanned during the preliminary test.
   Then, the EUT configuration and cable configuration of the above highest emission level were recorded for reference of final testing.

11.4 FINAL TEST PROCEDURE

10) EUT and support equipment was set up on the test bench as per step 2 of the preliminary test.
11) 2) A scan was taken on both power lines, Line 1 and Line 2, recording at least the six highest emissions. Emission frequency and amplitude were recorded into a computer in which correction factors were used to calculate the emission level and compare reading to the applicable limit. If EUT emission level was less –2dB to the A.V. limit in Peak mode, then the emission signal was re-checked using Q.P and Average detector.
12) 3) The test data of the worst case condition(s) was reported on the Summary Data page.

11.5 TEST RESULT OF POWER LINE

Line Conducted Emission Test Line 1-L



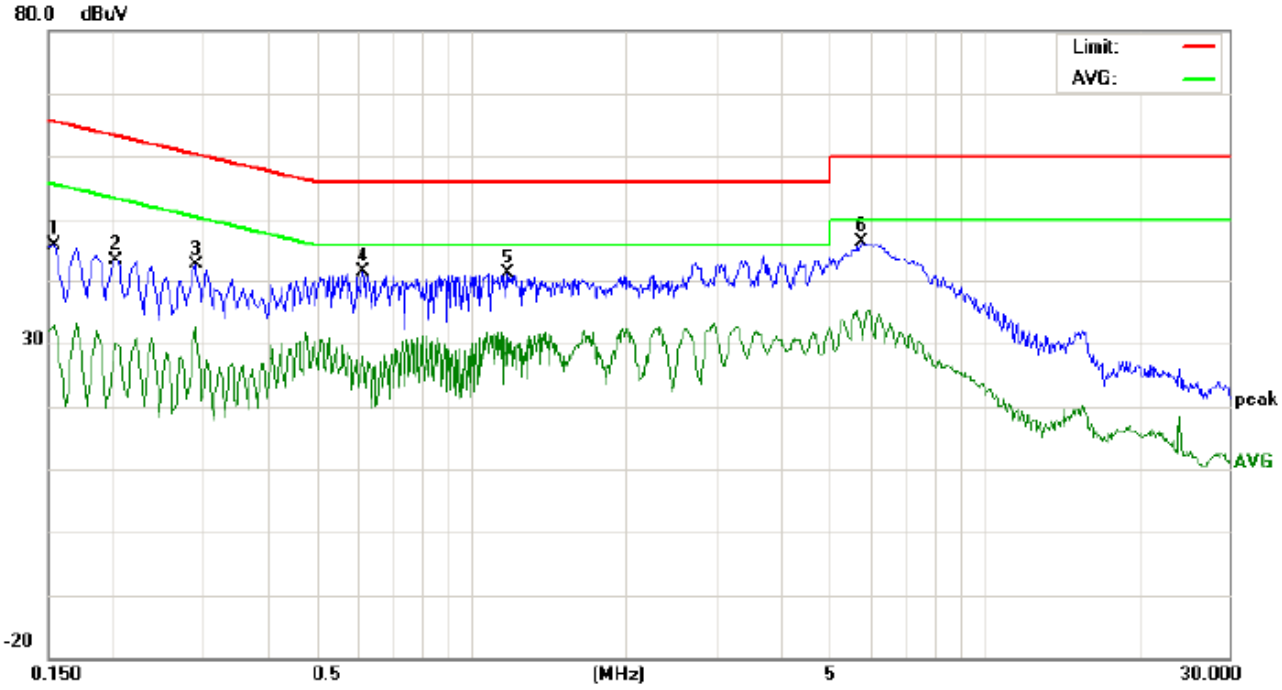
Site: Conduction
Limit: FCC Class B Conduction(QP)
EUT: WCDMA MOBILE PHONE
M/N: Orbit 5700T
Mode: Normal Operating(BT)
Note:

Phase: L1
Power:

Temperature: 26
Humidity: 60 %

No.	Freq. (MHz)	Reading_Level (dBuV)			Correct Factor	Measurement (dBuV)			Limit (dBuV)		Margin (dB)		P/F	Comment
		Peak	QP	AVG	dB	Peak	QP	AVG	QP	AVG	QP	AVG		
1	0.1499	38.44		24.47	10.16	48.60		34.63	66.00	56.00	-17.40	-21.37	P	
2	0.2340	35.20		21.13	10.25	45.45		31.38	62.30	52.30	-16.85	-20.92	P	
3	1.3060	31.92		21.51	10.38	42.30		31.89	56.00	46.00	-13.70	-14.11	P	
4	1.9580	32.22		22.33	10.23	42.45		32.56	56.00	46.00	-13.55	-13.44	P	
5	5.5299	35.41		23.94	10.25	45.66		34.19	60.00	50.00	-14.34	-15.81	P	

Line Conducted Emission Test Line 1-N



Site: Conduction
Limit: FCC Class B Conduction(QP)
EUT: WCDMA MOBILE PHONE
M/N: Orbit 5700T
Mode: Normal Operating(BT)
Note:

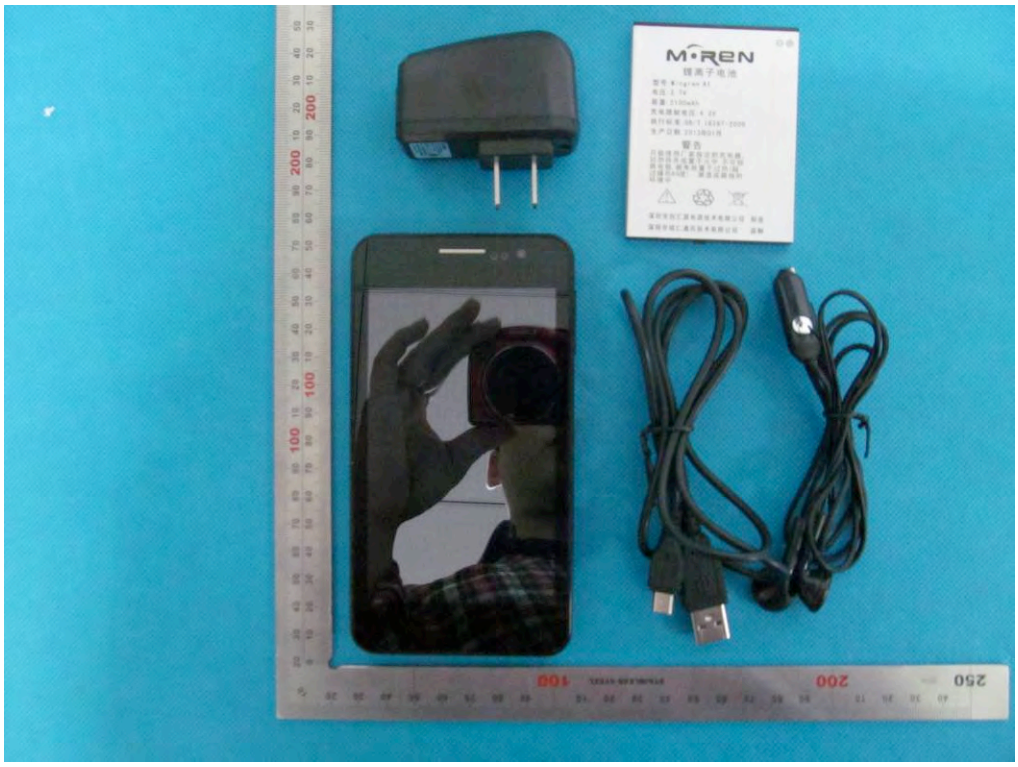
Phase: N
Power:

Temperature: 26
Humidity: 60 %

No.	Freq. (MHz)	Reading_Level (dBuV)			Correct Factor	Measurement (dBuV)			Limit (dBuV)		Margin (dB)		P/F	Comment
		Peak	QP	AVG	dB	Peak	QP	AVG	QP	AVG	QP	AVG		
1	0.1539	35.70		22.80	10.16	45.86		32.96	65.78	55.78	-19.92	-22.82	P	
2	0.2020	33.10		19.81	10.22	43.32		30.03	63.52	53.52	-20.20	-23.49	P	
3	0.2900	32.26		22.42	10.29	42.55		32.71	60.52	50.52	-17.97	-17.81	P	
4	0.6140	31.16		17.57	10.32	41.48		27.89	56.00	46.00	-14.52	-18.11	P	
5	1.1740	30.85		20.49	10.37	41.22		30.86	56.00	46.00	-14.78	-15.14	P	
6	5.7859	36.03		20.46	10.27	46.30		30.73	60.00	50.00	-13.70	-19.27	P	

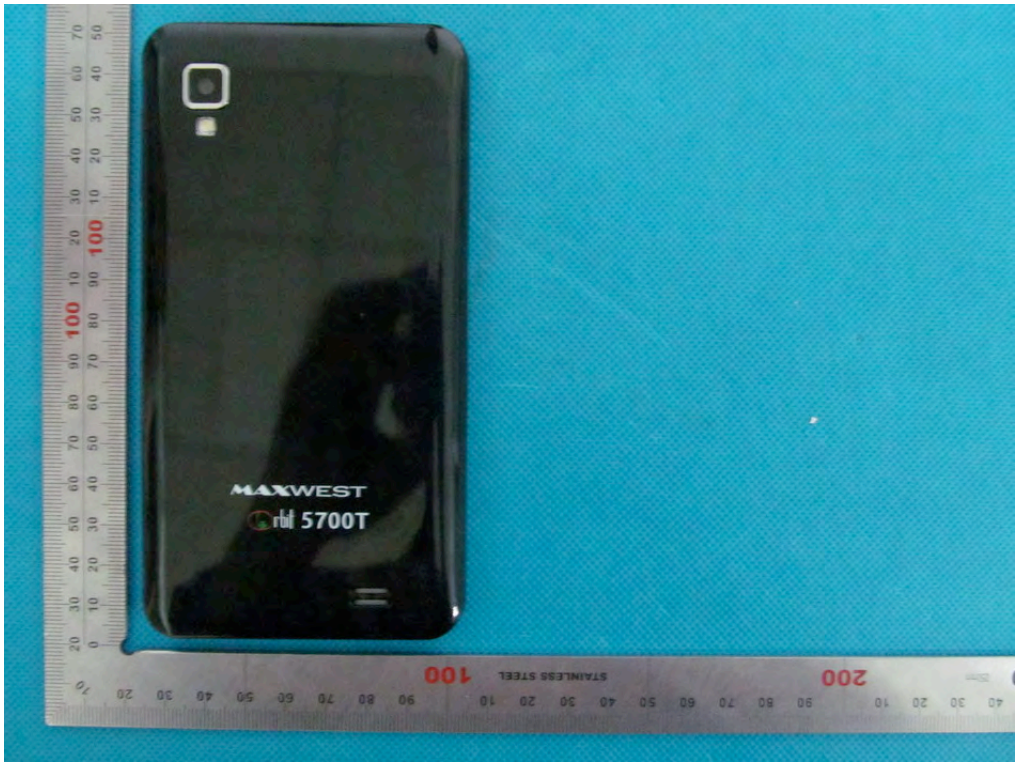
APPENDIX I: PHOTOGRAPHS OF THE EUT

TOTAL VIEW OF EUT

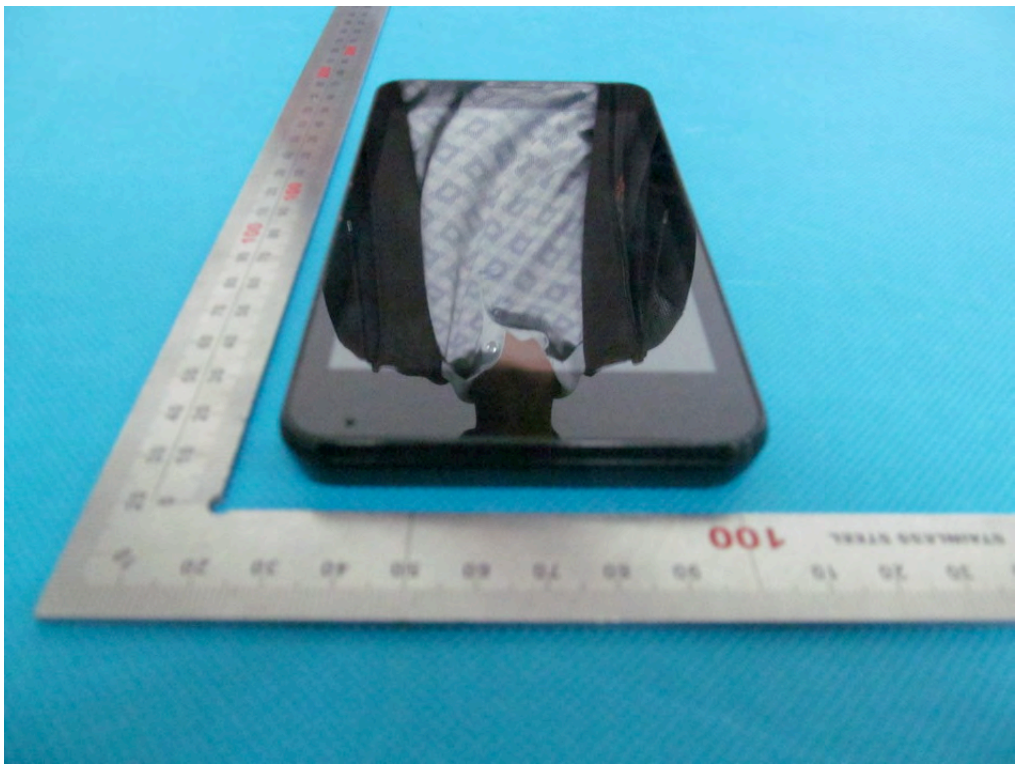


TOP VIEW OF EUT

BOTTOM VIEW OF EUT

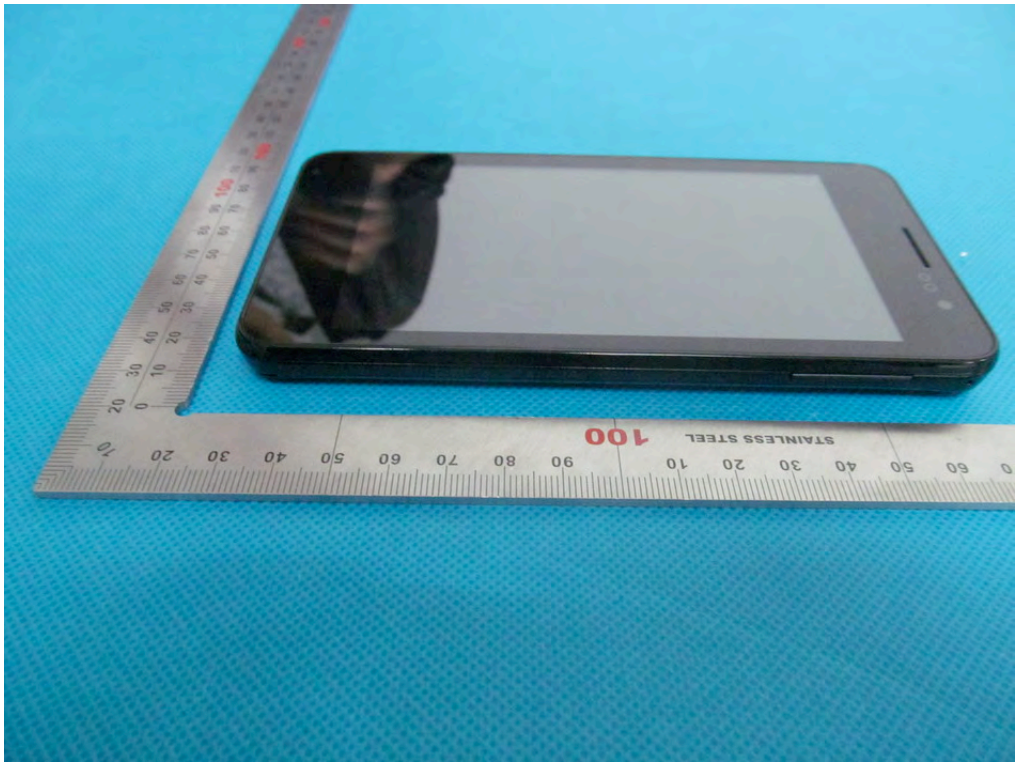


FRONT VIEW OF EUT

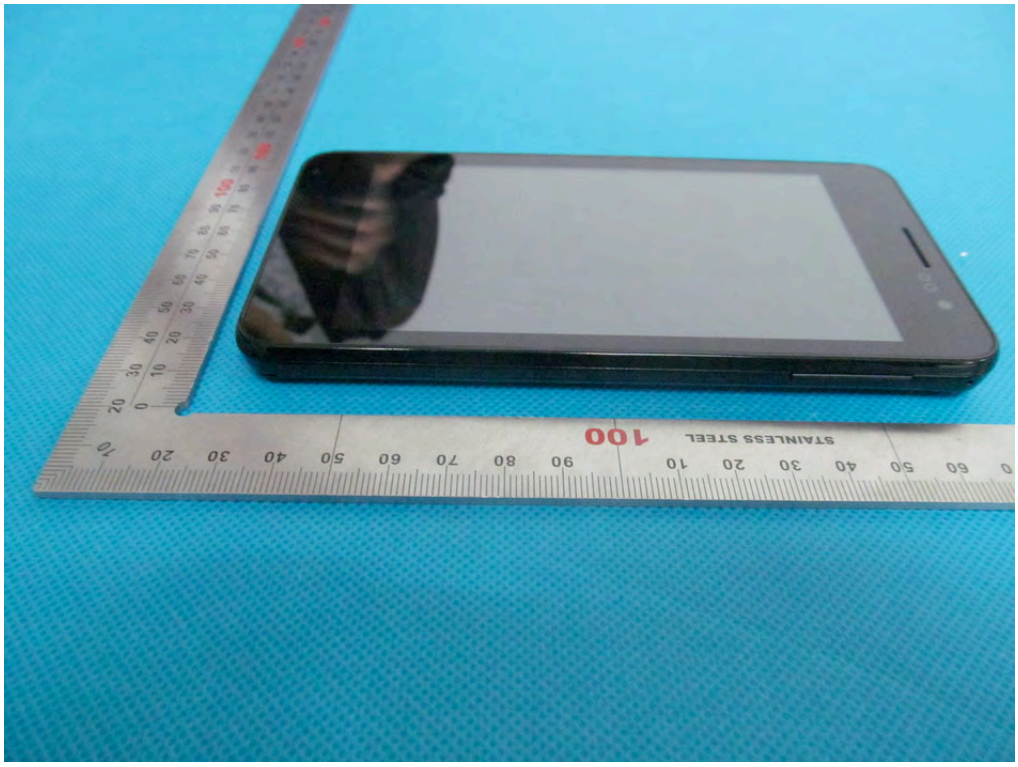


BACK VIEW OF EUT

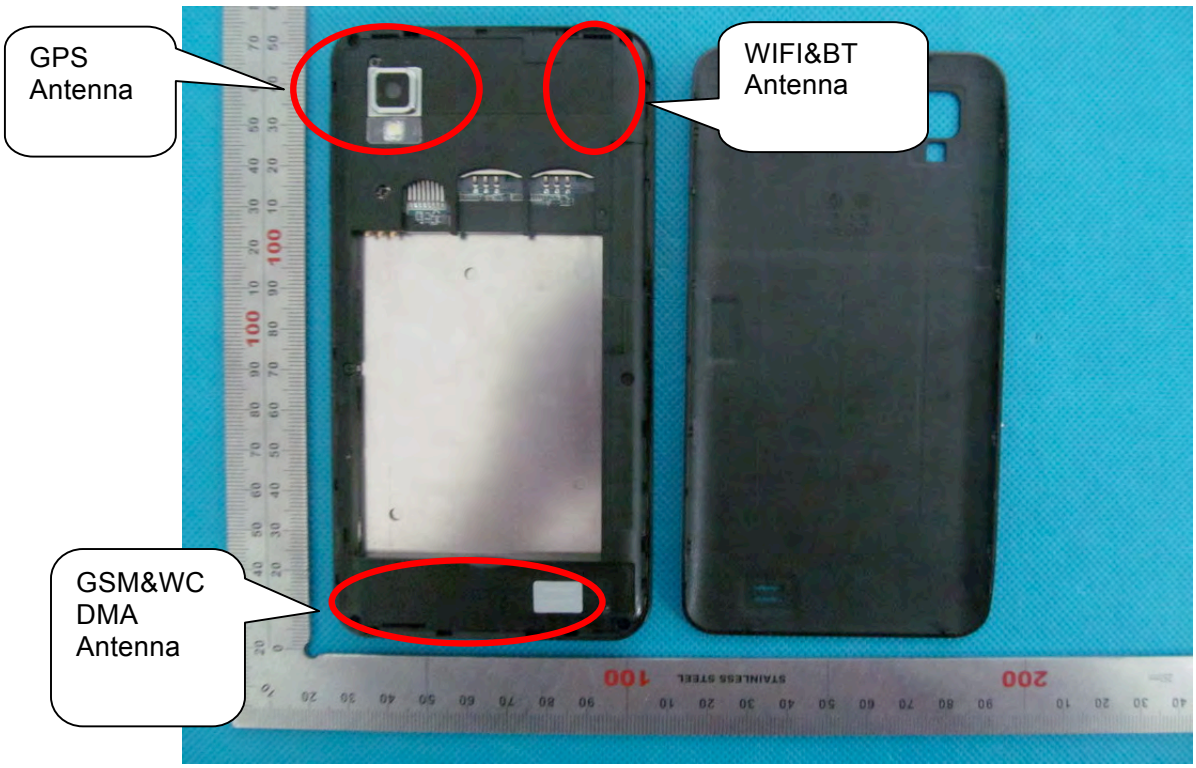
LEFT VIEW OF EUT



RIGHT VIEW OF EUT



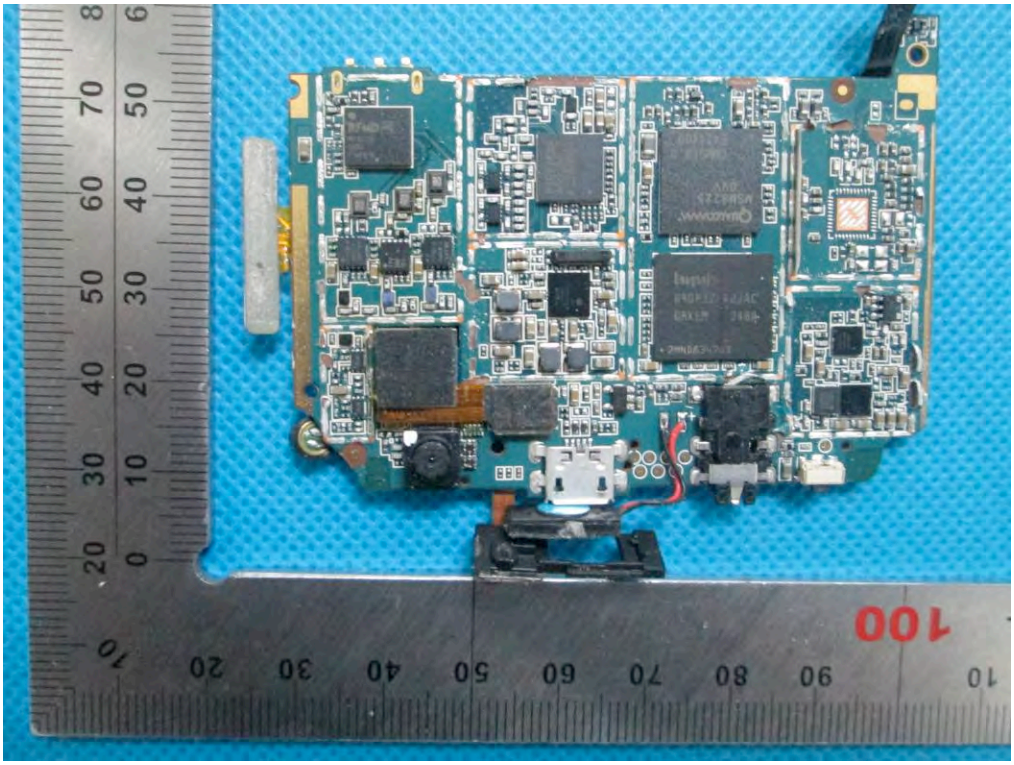
OPEN VIEW-1 OF EUT



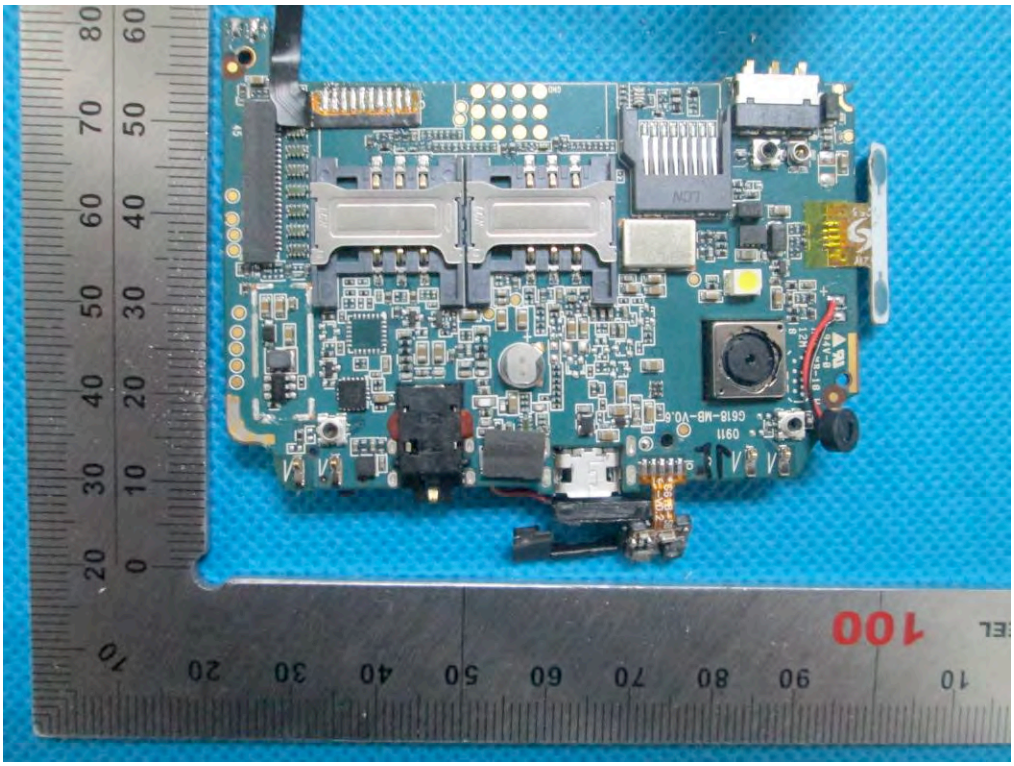
OPEN VIEW-2 OF EUT

INTERNAL VIEW-1 OF EUT

INTERNAL VIEW-2 OF EUT

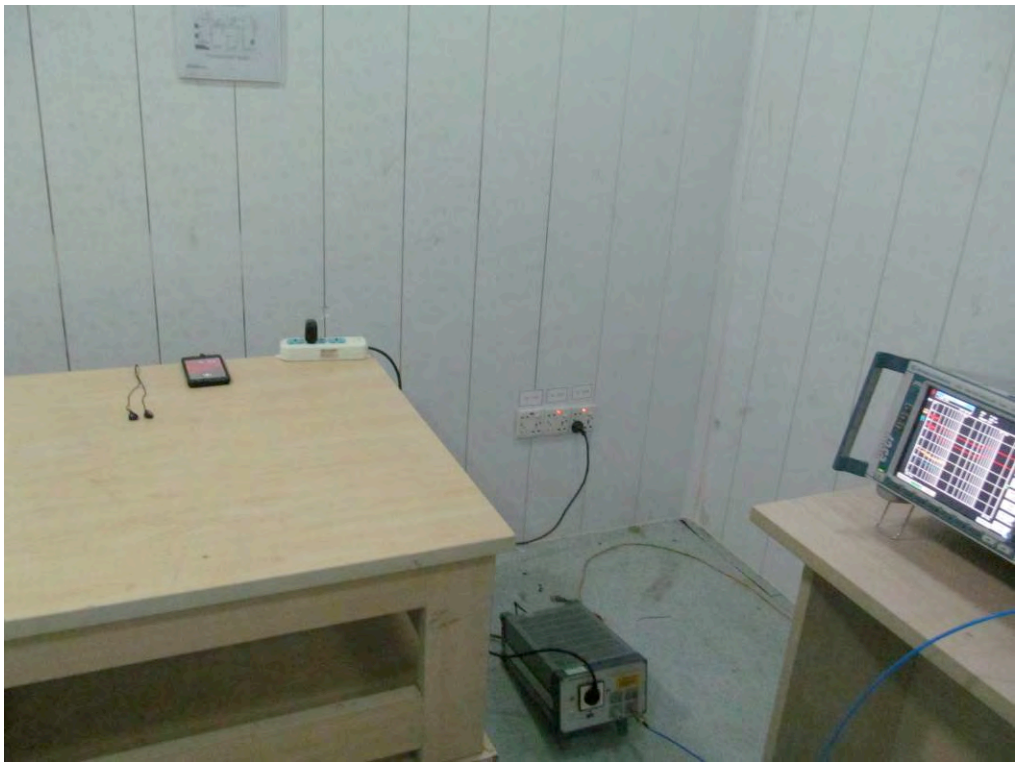


INTERNAL VIEW-3 OF EUT

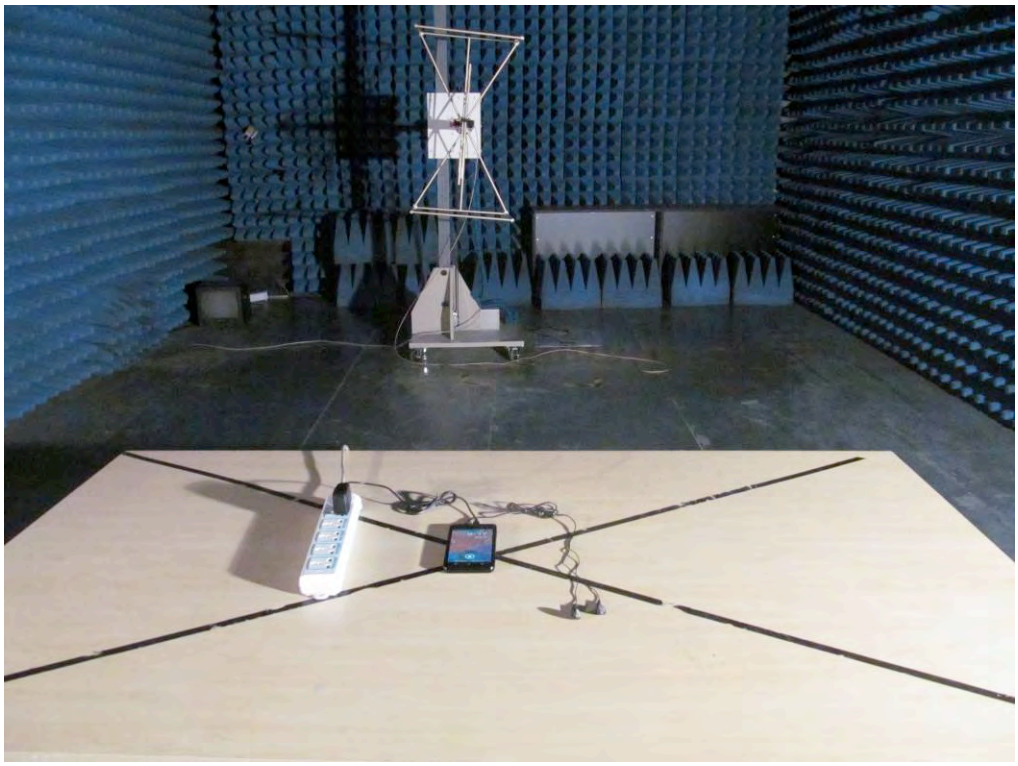


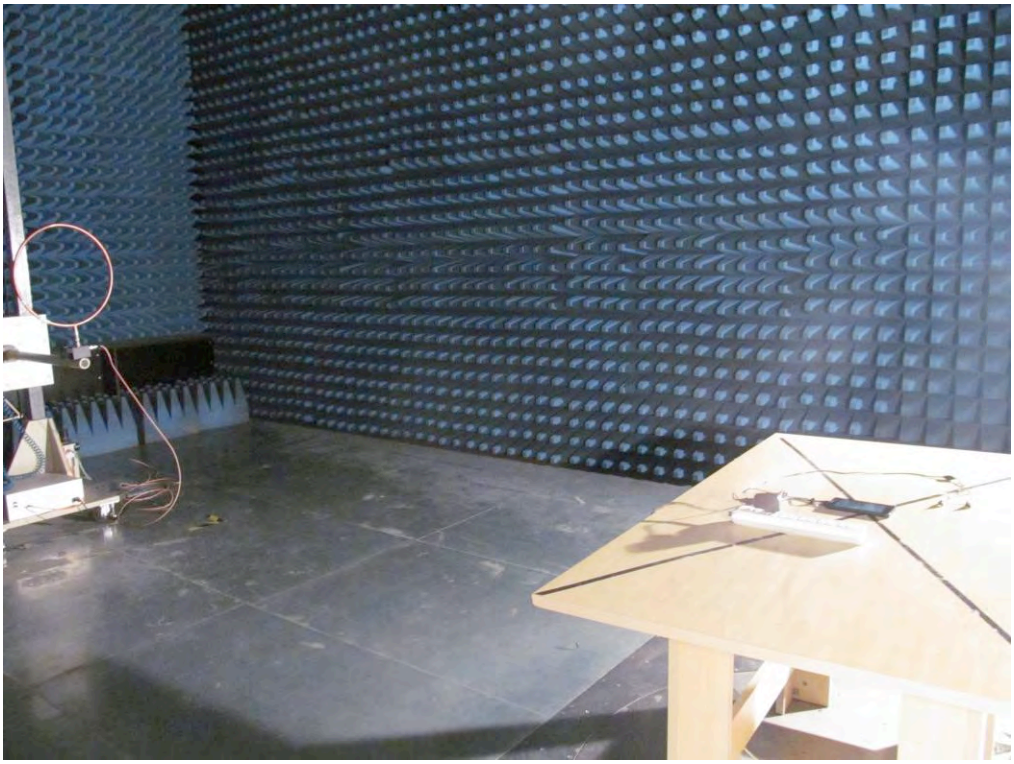
APPENDIX II: PHOTOGRAPHS OF THE TEST SETUP

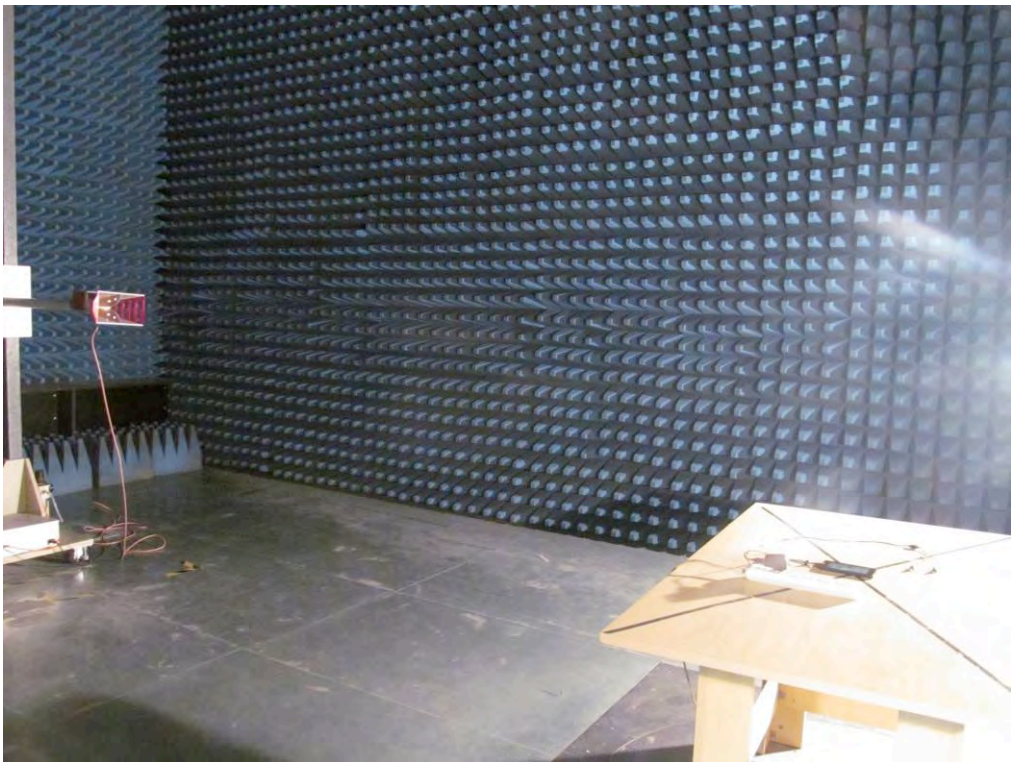
LINE COMDUCTED EMISSION TEST SETUP



RADIATED EMISSION TEST SETUP







----END OF REPORT----