

# FCC Part 15B

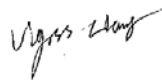


## Measurement and Test Report

For

Sky Phone LLC

1348 Washington Av.Suite 350 Miami Beach, FL 33139

**FCC ID: 2ABOSSKYPLA55**

Test Rule(s):	<u>FCC Part 15 Subpart B</u>
Product Description:	<u>3G Smart Phone</u>
Tested Model:	<u>Platinum 5.5</u>
Report No.:	<u>STR15098339I-5</u>
Tested Date:	<u>2015-09-29 to 2015-10-15</u>
Issued Date:	<u>2015-10-16</u>
Tested By:	<u>Vigoss Liang / Engineer</u> 
Reviewed By:	<u>Silin Chen / EMC Manager</u> 
Approved & Authorized By:	<u>Jandy So / PSQ Manager</u> 

Prepared By:

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Note: This test report is limited to the above client company and the product model only. It may not be duplicated without prior permitted by Shenzhen SEM.Test Technology Co., Ltd.

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## 1. GENERAL INFORMATION

### 1.1 Product Description for Equipment Under Test (EUT)

#### Client Information

Applicant: Sky Phone LLC  
Address of applicant: 1348 Washington Av.Suite 350 Miami Beach, FL 33139

Manufacturer: Shenzhen Tablet Electronics Limited  
Address of manufacturer: 2F, B5b Building, Yingzhan Industrial Zone, Longtian Community, Kengzi Street, Longgang, Shenzhen, China

General Description of EUT	
Product Name:	3G Smart Phone
Trade Name:	SKY
Model No.:	Platinum 5.5
Adding Model(s):	PQ55, PQ551, PQ552, SKY 5.5WPlus
Adapter Model:	WTA0501000USA1
	INPUT:100-240V,50/60Hz,0.3A; OUTPUT:5V,1A
Hardware version:	AL_Q220_MB_V20
Software version:	Sky5.5WPLUS.v1.0.0_20150916
<i>The EUT Main board support GSM850/900/DCS1800/PCS1900, WCDMA Band 2/5, It is intended for speech, Multimedia Message Service (MMS) transmission and Platinum 5.5. It is equipped with GPRS class 12 for GSM850/900/DCS1800/PCS1900, GPS, FM, Bluetooth and Wi-Fi functions. For more information see the following datasheet</i>	
<i>Note: The test data is gathered from a production sample provided by the manufacturer. The appearance of others models listed in the report is different from main-test model Platinum 5.5, but the circuit and the electronic construction do not change, declared by the manufacturer.</i>	

Technical Characteristics of EUT	
Rated Voltage:	DC 3.8V Li-ion Battery
Battery Capacity:	2200mAh
Rated Power:	/
Lowest Internal Frequency:	32.768kHz
Highest Internal Frequency:	1.2GHz
Classification of ITE:	Class B

## 1.2 Test Standards

The following report is prepared on behalf of the Sky Phone LLC in accordance with Part 2, Subpart J, and Part 15, Subparts A and B of the Federal Communication Commissions rules.

The objective is to determine compliance with FCC Part 15, Subpart B, and section 15.205, 15.107, and 15.109 rules.

**Maintenance of compliance** is the responsibility of the manufacturer. Any modification of the product, which result in lowering the emission, should be checked to ensure compliance has been maintained.

## 1.3 Test Methodology

All measurements contained in this report were conducted with ANSI C63.4-2014, 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.

## 1.4 Test Facility

- **FCC – Registration No.: 934118**

Shenzhen SEM.Test Technology Co., Ltd. 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 and the Registration is 934118.

- **Industry Canada (IC) Registration No.: 11464A**

The 3m Semi-anechoic chamber of Shenzhen SEM.Test Technology Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 11464A.

- **CNAS Registration No.: L4062**

Shenzhen SEM.Test Technology Co., Ltd. is a testing organization accredited by China National Accreditation Service for Conformity Assessment (CNAS) according to ISO/IEC 17025. The accreditation certificate number is L4062. All measurement facilities used to collect the measurement data are located at 1/F, Building A, Hongwei Industrial Park, Liuxian 2nd Road, Bao'an District, Shenzhen, P.R.C (518101)

## 1.5 EUT Setup and Operation Mode

The equipment under test (EUT) was configured to measure its highest possible emission level. The test modes were adapted according to the operation manual for use, more detailed description as follows:

Test Mode List:

Test Mode	Description	Remark
TM1	Charging & Playing	With Earphone
TM2	Downloading	Connected to PC
TM3	Camera on	Powered by battery
TM4	/	/

EUT Cable List and Details

Cable Description	Length (M)	Shielded/Unshielded	With Core/Without Core
USB Cable	1.05	Unshielded	Without Ferrite
Earphone	1.10	Unshielded	Without Ferrite

Auxiliary Equipment List and Details

Description	Manufacturer	Model	Serial Number
Notebook	Lenovo	E10	LR-63C8R

Special Cable List and Details

Cable Description	Length (M)	Shielded/Unshielded	With Core/Without Core
/	/	/	/

## 1.6 Test Equipment List and Details

Description	Manufacturer	Model	Serial Number	Cal Date	Due Date
Spectrum Analyzer	Agilent	E4407B	MY41440400	2015-06-17	2016-06-16
Spectrum Analyzer	Rohde & Schwarz	FSP	836079/035	2015-06-17	2016-06-16
EMI Test Receiver	Rohde & Schwarz	ESVB	825471/005	2015-06-17	2016-06-16
Amplifier	Agilent	8447F	3113A06717	2015-06-17	2016-06-16
Amplifier	C&D	PAP-1G18	2002	2015-06-17	2016-06-16
Broadband Antenna	Schwarz beck	VULB9163	9163-333	2015-06-17	2016-06-16
Horn Antenna	ETS	3117	00086197	2015-06-17	2016-06-16
Loop Antenna	Schwarz beck	FMZB 1516	9773	2015-06-17	2016-06-16
EMI Test Receiver	Rohde & Schwarz	ESPI	101611	2015-06-17	2016-06-16
L.I.S.N	Schwarz beck	NSLK8126	8126-224	2015-06-17	2016-06-16
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100911	2015-06-17	2016-06-16

## 2. SUMMARY OF TEST RESULTS

<b>FCC Rules</b>	<b>Description of Test Item</b>	<b>Result</b>
§ 15.107 (a)	Conducted Emissions	Compliant
§ 15.109 (a)	Radiated Emissions	Compliant

N/A: not applicable

### 3. Conducted Emissions

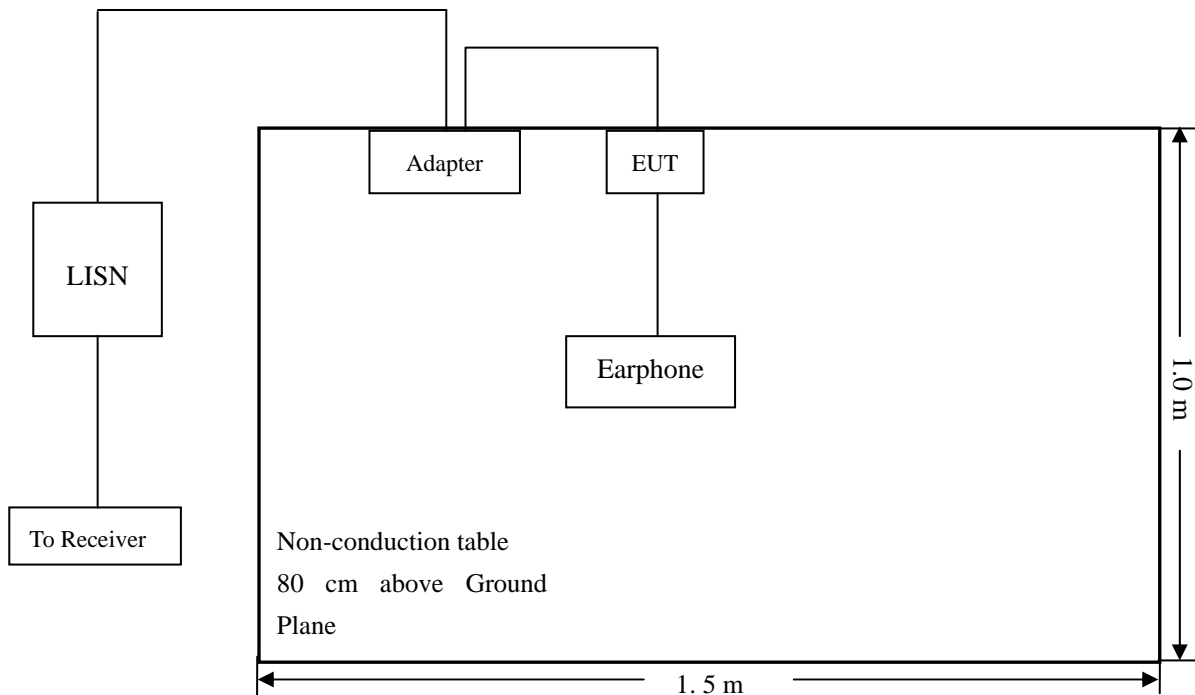
#### 3.1 Measurement Uncertainty

Base on NIS 81, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of any conducted emissions measurement is  $\pm 2.88$  dB.

#### 3.2 Test Procedure

Test is conducting under the description of ANSI C63.4-2014, 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.

#### 3.3 Basic Test Setup Block Diagram



### 3.4 Environmental Conditions

Temperature:	23 °C
Relative Humidity:	52%
ATM Pressure:	1011 mbar

### 3.5 Summary of Test Results/Plots

According to the data in section 3.6, the EUT complied with the FCC Part 15.107(a) Conducted margin for a Class B device, with the *worst* margin reading of:

**-0.81 dB at 0.5020 MHz** in the **Line, AVG** detector, TM1, 0.15-30MHz

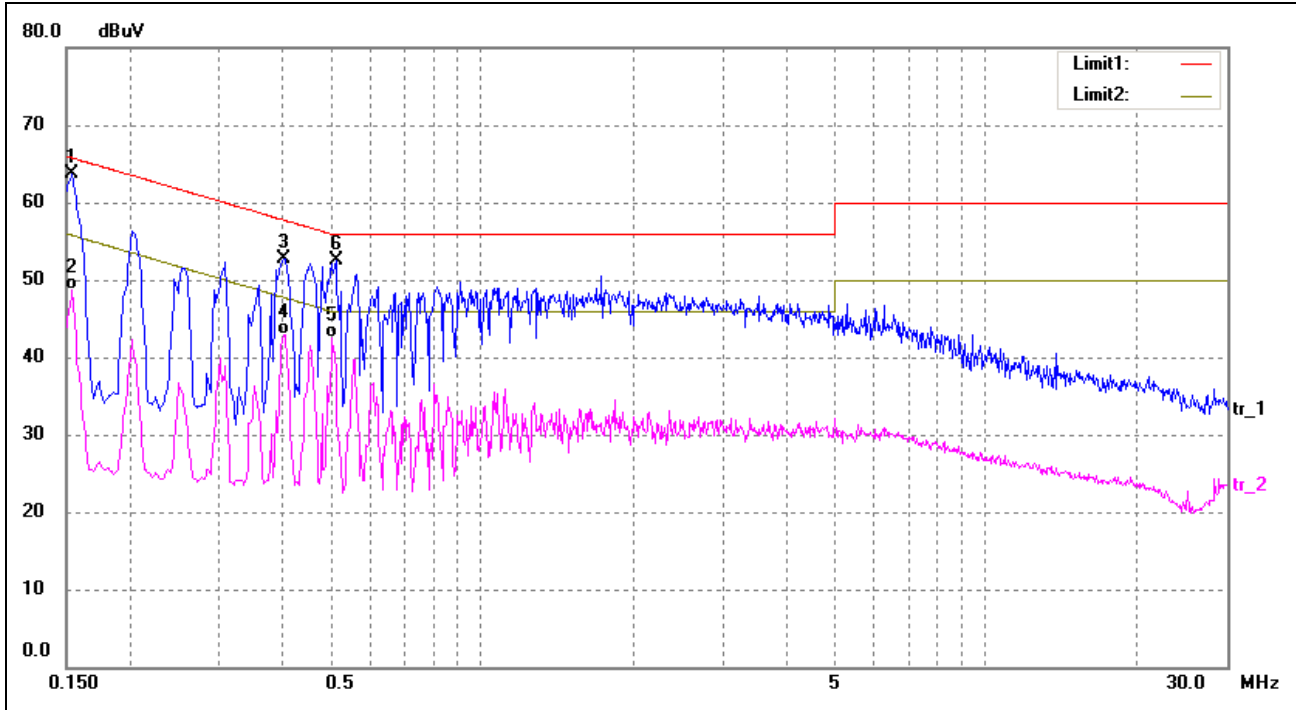
### 3.6 Conducted Emissions Test Data



**Plot of Conducted Emissions Test Data**

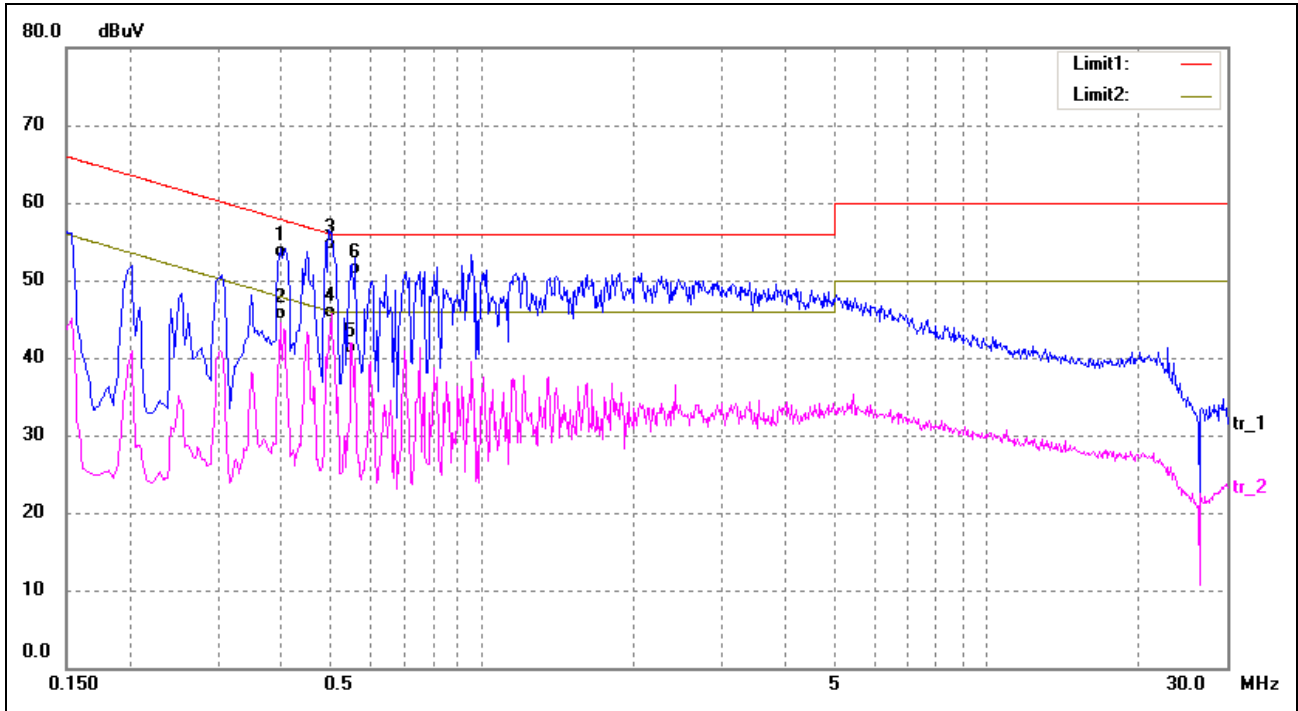
EUT: 3G Smart Phone  
 Tested Model: Platinum 5.5  
 Operating Condition: TM1  
 Comment: AC 120V/60Hz; Adapter DC 5V

Test Specification: Neutral



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1540	51.16	12.50	63.66	65.78	-2.12	QP
2	0.1540	36.27	12.50	48.77	55.78	-7.01	AVG
3	0.4060	40.21	12.50	52.71	57.73	-5.02	QP
4	0.4060	30.41	12.50	42.91	47.73	-4.82	AVG
5*	0.5060	29.98	12.51	42.49	46.00	-3.51	AVG
6	0.5140	40.08	12.51	52.59	56.00	-3.41	QP

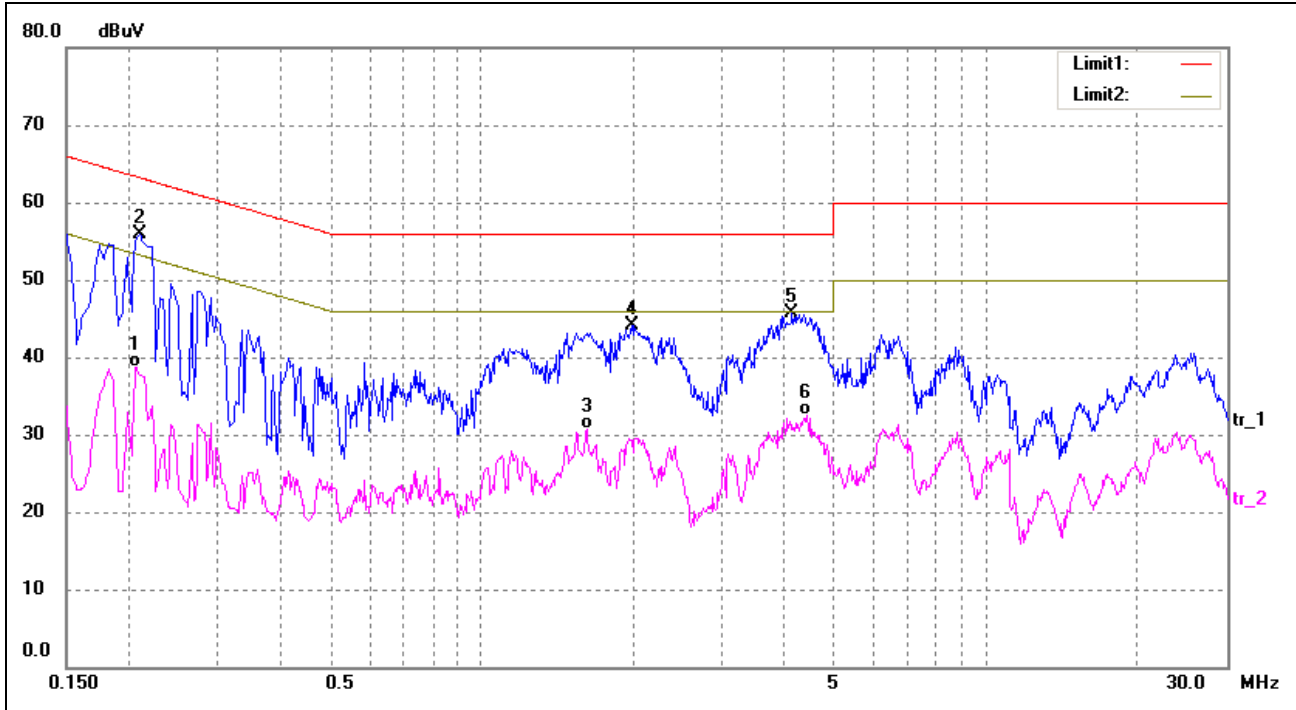
Test Specification: Line



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.3980	40.49	12.50	52.99	57.90	-4.91	QP
2*	0.3980	32.40	12.50	44.90	47.90	-3.00	AVG
3	0.4980	41.31	12.50	53.81	56.03	-2.22	QP
4	0.5020	32.69	12.50	45.19	46.00	-0.81	AVG
5	0.5500	27.95	12.55	40.50	46.00	-5.50	AVG
6	0.5620	38.20	12.56	50.76	56.00	-5.24	QP

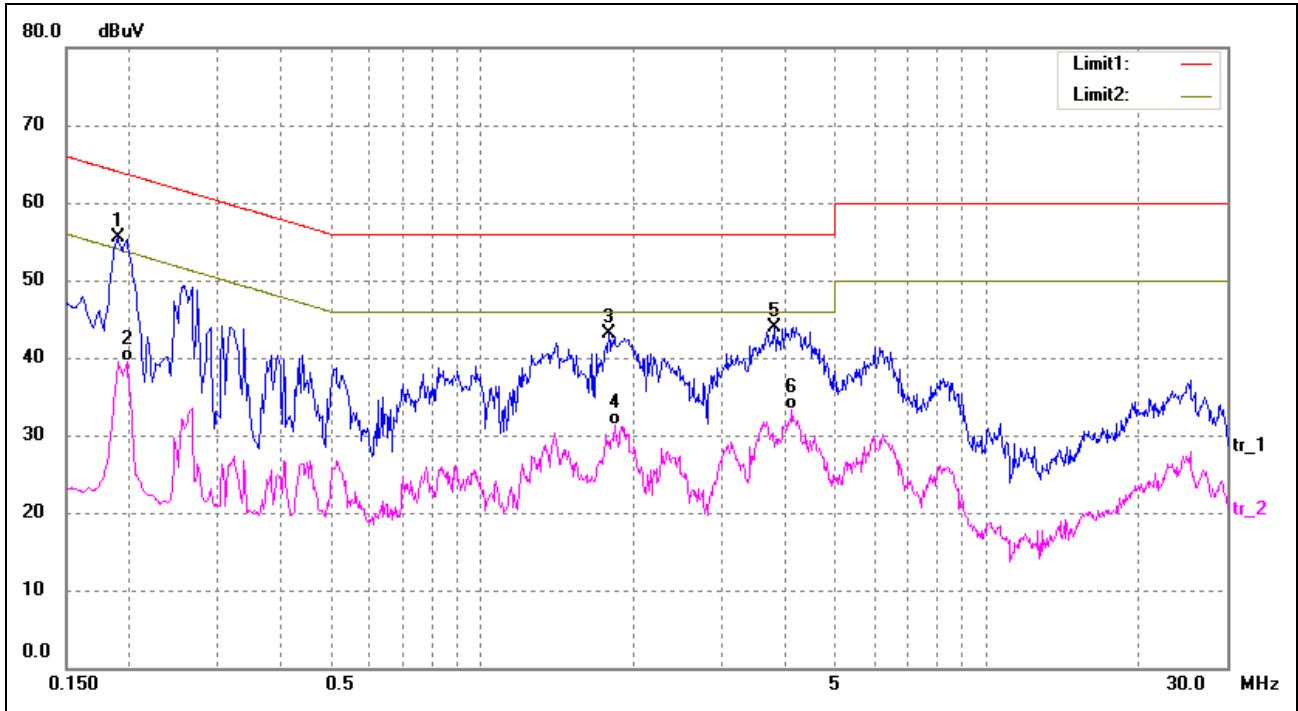
**Plot of Conducted Emissions Test Data**

EUT: 3G Smart Phone  
 Tested Model: Platinum 5.5  
 Operating Condition: TM2  
 Comment: AC 120V/60Hz; USB 5V  
 Test Specification: Neutral



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.2060	29.21	9.50	38.71	53.37	-14.66	AVG
2	0.2100	46.46	9.50	55.96	63.21	-7.25	QP
3	1.6140	20.66	10.00	30.66	46.00	-15.34	AVG
4	1.9820	34.11	10.00	44.11	56.00	-11.89	QP
5	4.1220	35.76	10.00	45.76	56.00	-10.24	QP
6	4.4140	22.48	10.00	32.48	46.00	-13.52	AVG

Test Specification: Line



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1900	46.08	9.50	55.58	64.04	-8.46	QP
2	0.1980	30.09	9.50	39.59	53.69	-14.10	AVG
3	1.7900	33.06	10.00	43.06	56.00	-12.94	QP
4	1.8340	21.36	10.00	31.36	46.00	-14.64	AVG
5	3.8020	33.88	10.00	43.88	56.00	-12.12	QP
6	4.1220	23.22	10.00	33.22	46.00	-12.78	AVG

## 4. Radiated Emissions

### 4.1 Measurement Uncertainty

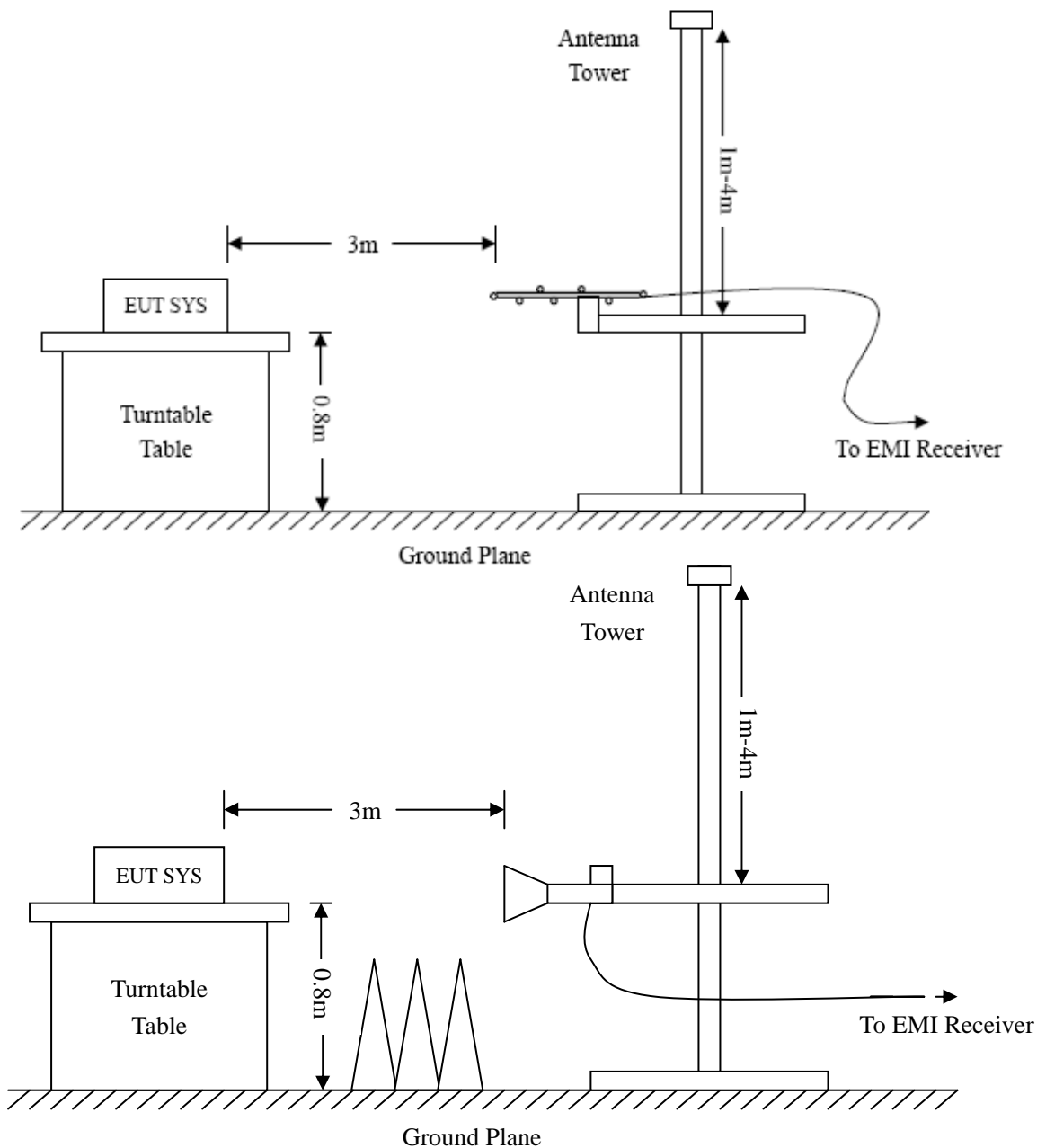
Base on NIS 81, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of any radiation emissions measurement is  $\pm 5.10$  dB.

### 4.2 Test Procedure

The setup of EUT is according with per ANSI C63.4-2014 measurement procedure. The specification used was with the FCC Part 15.109 Limit.

The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle.

The spacing between the peripherals was 10 cm.



### 4.3 Test Receiver Setup

Frequency :9kHz-30MHz	Frequency :30MHz-1GHz	Frequency :Above 1GHz
RBW=10KHz,	RBW=120KHz,	RBW=1MHz,
VBW =30KHz	VBW=300KHz	VBW=3MHz(Peak), 10Hz(AV)
Sweep time= Auto	Sweep time= Auto	Sweep time= Auto
Trace = max hold	Trace = max hold	Trace = max hold
Detector function = peak	Detector function = peak, QP	Detector function = peak, AV

### 4.4 Corrected Amplitude & Margin Calculation

The Corrected Amplitude is calculated by adding the Antenna Factor and the Cable Factor, and subtracting the Amplifier Gain from the Amplitude reading. The basic equation is as follows:

$$\text{Corr. Ampl.} = \text{Indicated Reading} - \text{Corr. Factor}$$

The “**Margin**” column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of -6dB $\mu$ V means the emission is 6dB $\mu$ V below the maximum limit for a Class B device. The equation for margin calculation is as follows:

$$\text{Margin} = \text{Corr. Ampl.} - \text{FCC Part 15.109(a) Limit}$$

### 4.5 Environmental Conditions

Temperature:	23 °C
Relative Humidity:	55 %
ATM Pressure:	1011 mbar

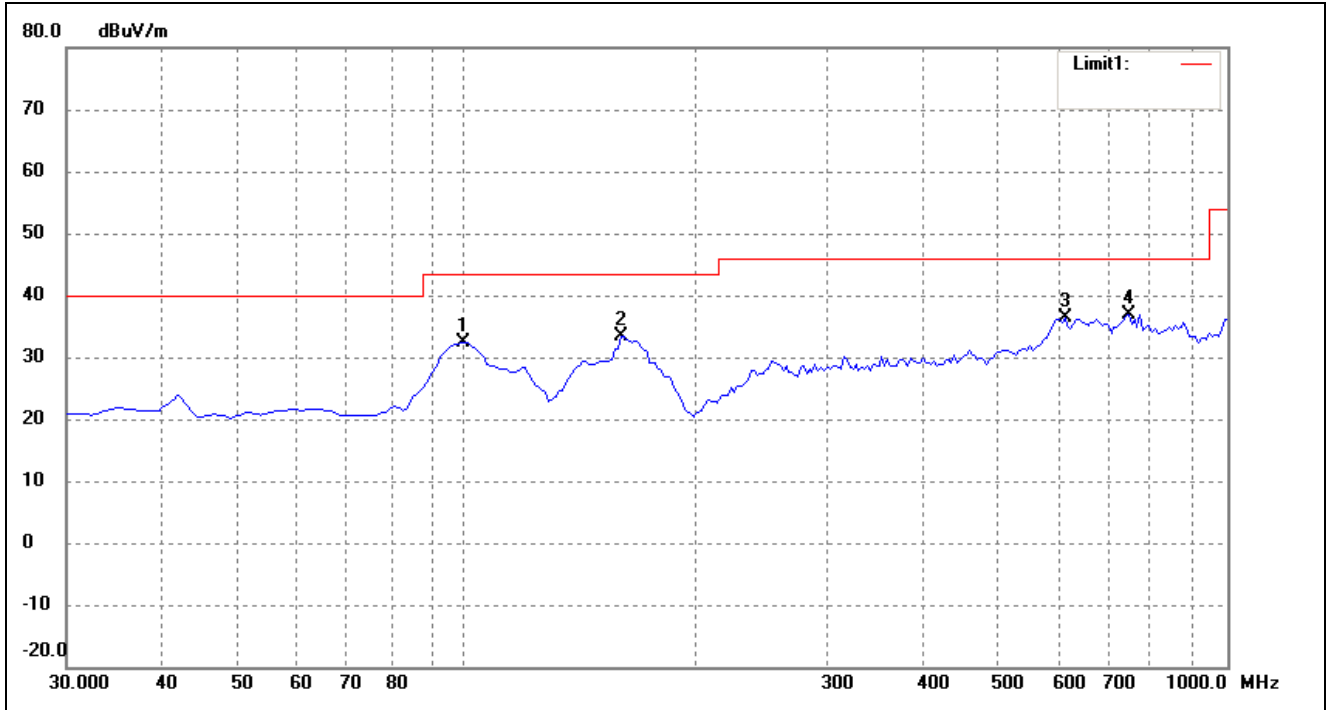
### 4.6 Summary of Test Results/Plots

According to the data, the EUT complied with the FCC Part 15.109(a) rule, and had the worst margin of:

**-0.93 dB** at **284.6250 MHz** in the **Horizontal** polarization, **9 kHz** to **6 GHz**, **TM2**, 3Meters

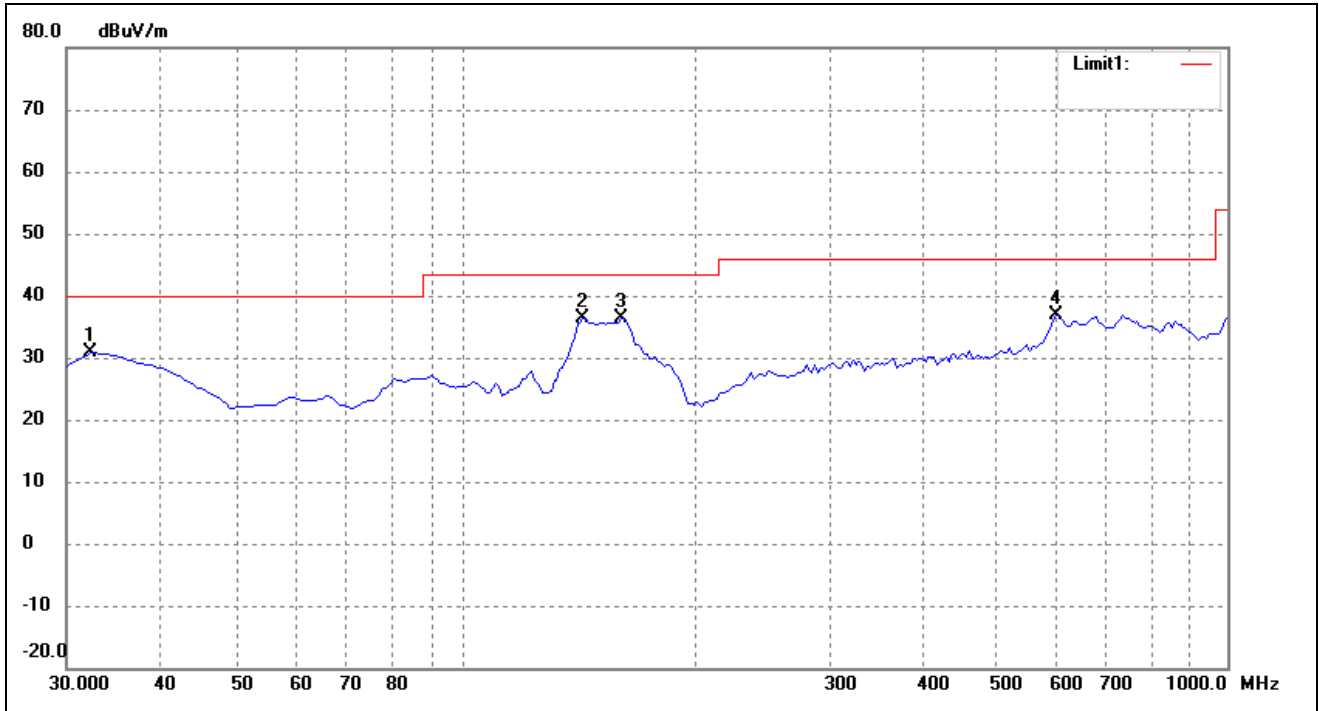
**Plot of Radiated Emissions Test Data**

EUT: 3G Smart Phone  
 Tested Model: Platinum 5.5  
 Operating Condition: TM1  
 Comment: AC 120V/60Hz; Adapter DC 5V  
 Test Specification: Horizontal



No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	100.3250	27.37	5.13	32.50	43.50	-11.00	42	100	QP
2	160.9500	30.77	2.62	33.39	43.50	-10.11	132	100	QP
3	614.4250	18.03	18.30	36.33	46.00	-9.67	168	100	QP
4	747.8000	17.70	19.19	36.89	46.00	-9.11	0	100	QP

Test Specification: Vertical



No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	32.4250	26.86	4.00	30.86	40.00	-9.14	59	100	QP
2	143.9750	33.15	3.25	36.40	43.50	-7.10	147	100	QP
3	160.9500	33.79	2.62	36.41	43.50	-7.09	236	100	QP
4	599.8750	17.64	19.30	36.94	46.00	-9.06	158	100	QP



**Plot of Radiated Emissions Test Data**

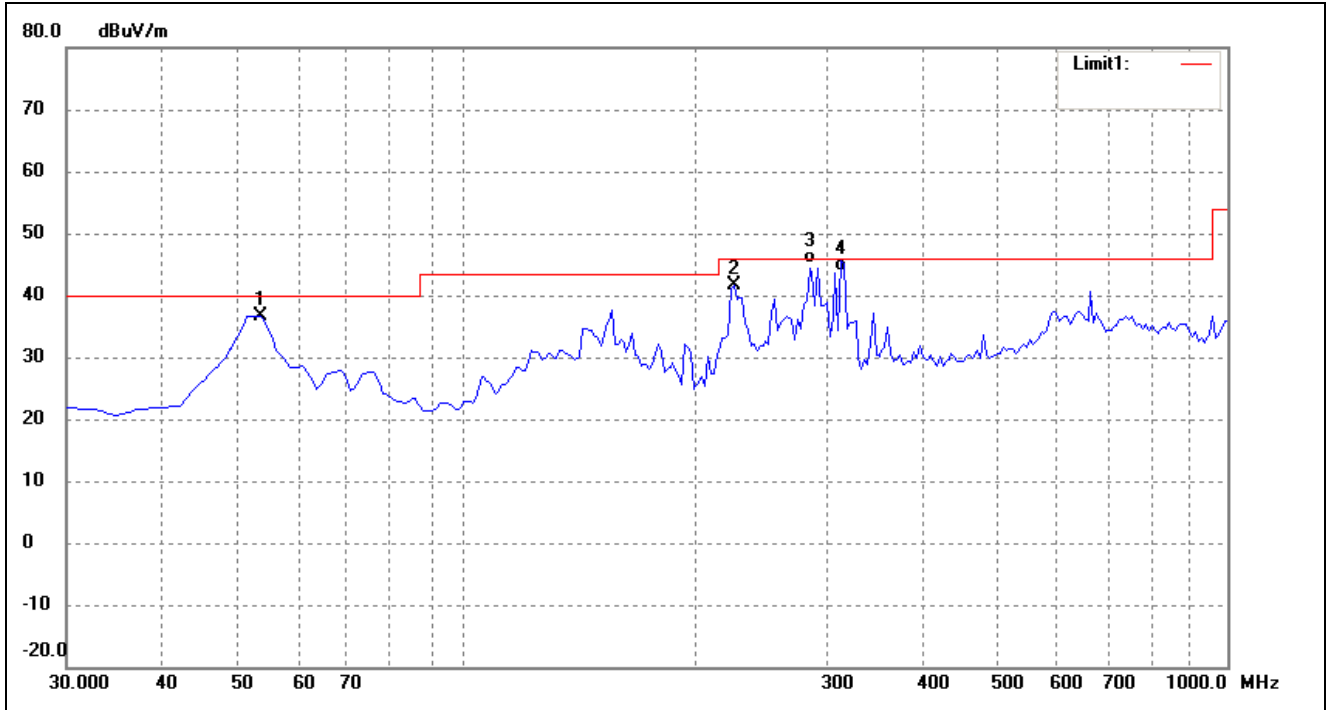
EUT: 3G Smart Phone

Tested Model: Platinum 5.5

Operating Condition: TM2

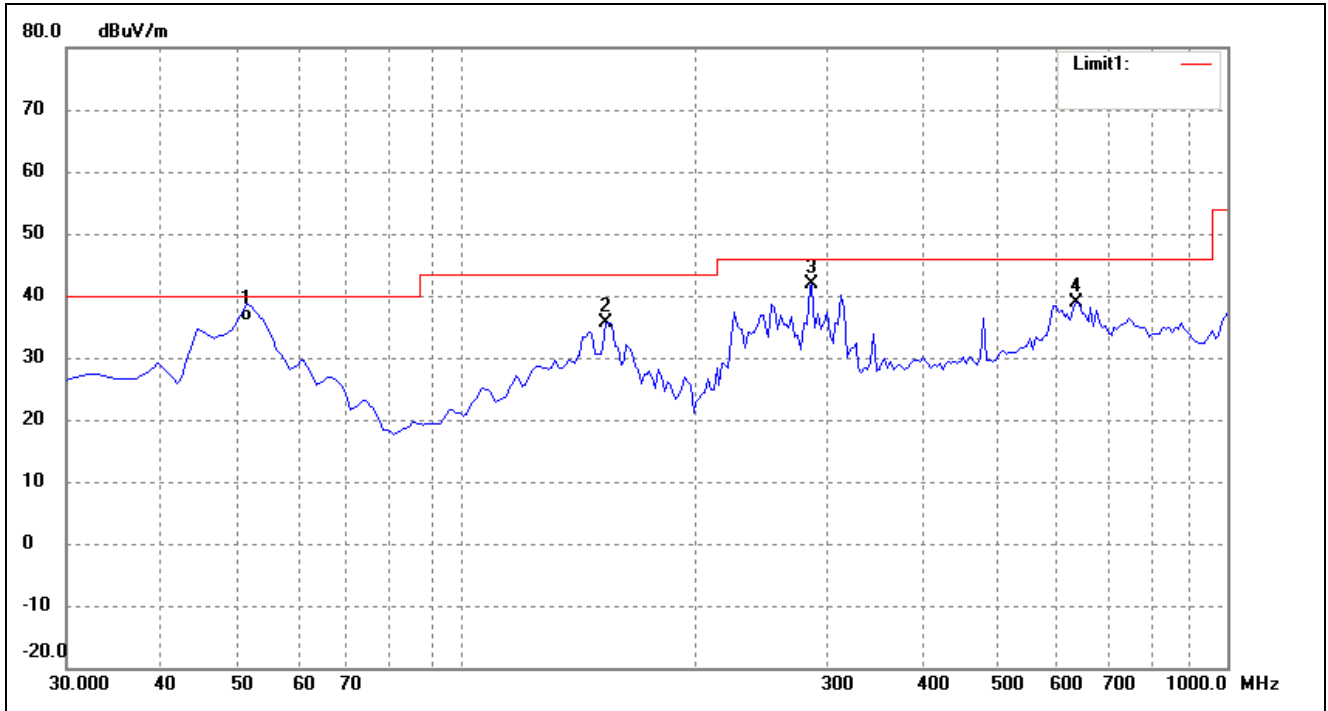
Comment: USB: DC5V

Test Specification: Horizontal



No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( ° )	Height (cm)	Remark
1	54.2500	31.29	5.31	36.60	40.00	-3.40	51	100	QP
2	226.4250	33.22	8.50	41.72	46.00	-4.28	124	100	QP
3	284.6250	33.50	11.57	45.07	46.00	-0.93	100	100	QP
4	313.8850	31.75	12.25	44.00	46.00	-2.00	100	273	QP

Test Specification: Vertical



No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	51.8250	30.60	5.29	35.89	40.00	-4.11	100	98	QP
2	153.6750	32.69	2.85	35.54	43.50	-7.96	146	100	QP
3	287.0500	30.08	11.68	41.76	46.00	-4.24	197	100	QP
4	638.6750	20.41	18.57	38.98	46.00	-7.02	375	100	QP

**Plot of Radiated Emissions Test Data**

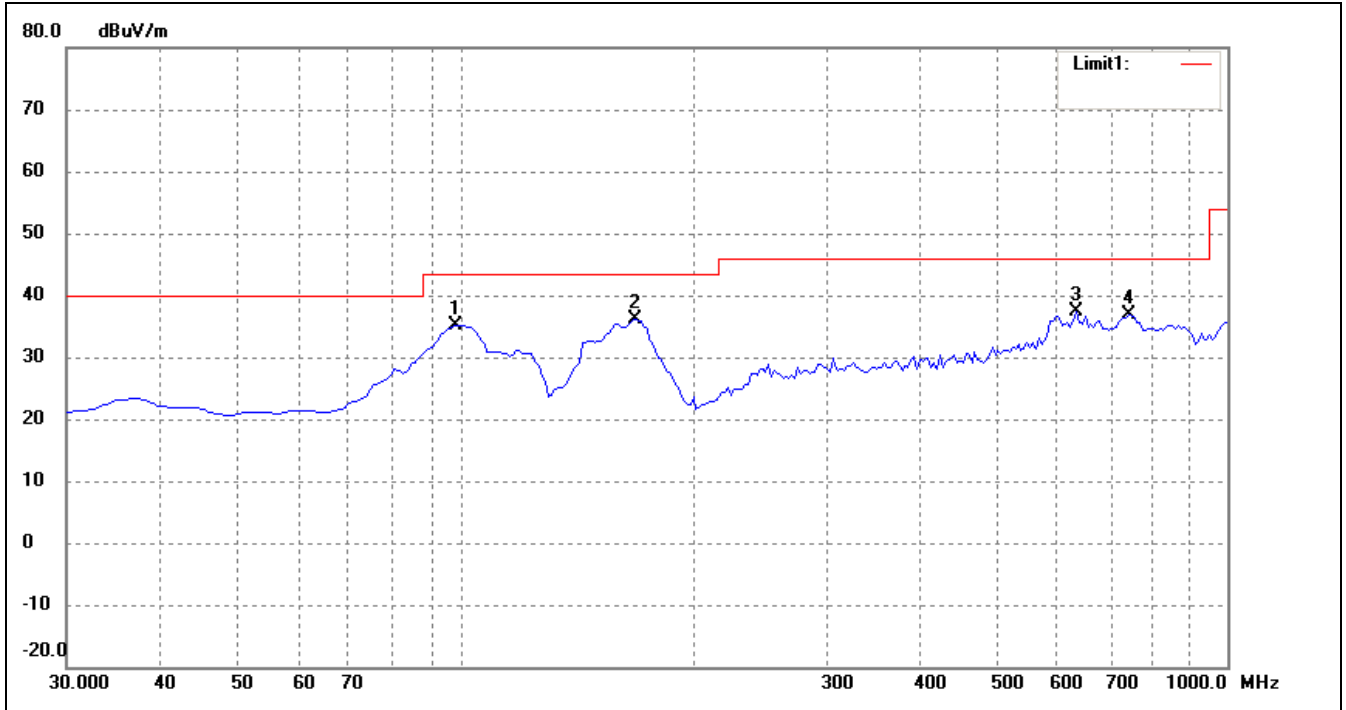
EUT: 3G Smart Phone

Tested Model: Platinum 5.5

Operating Condition: TM3

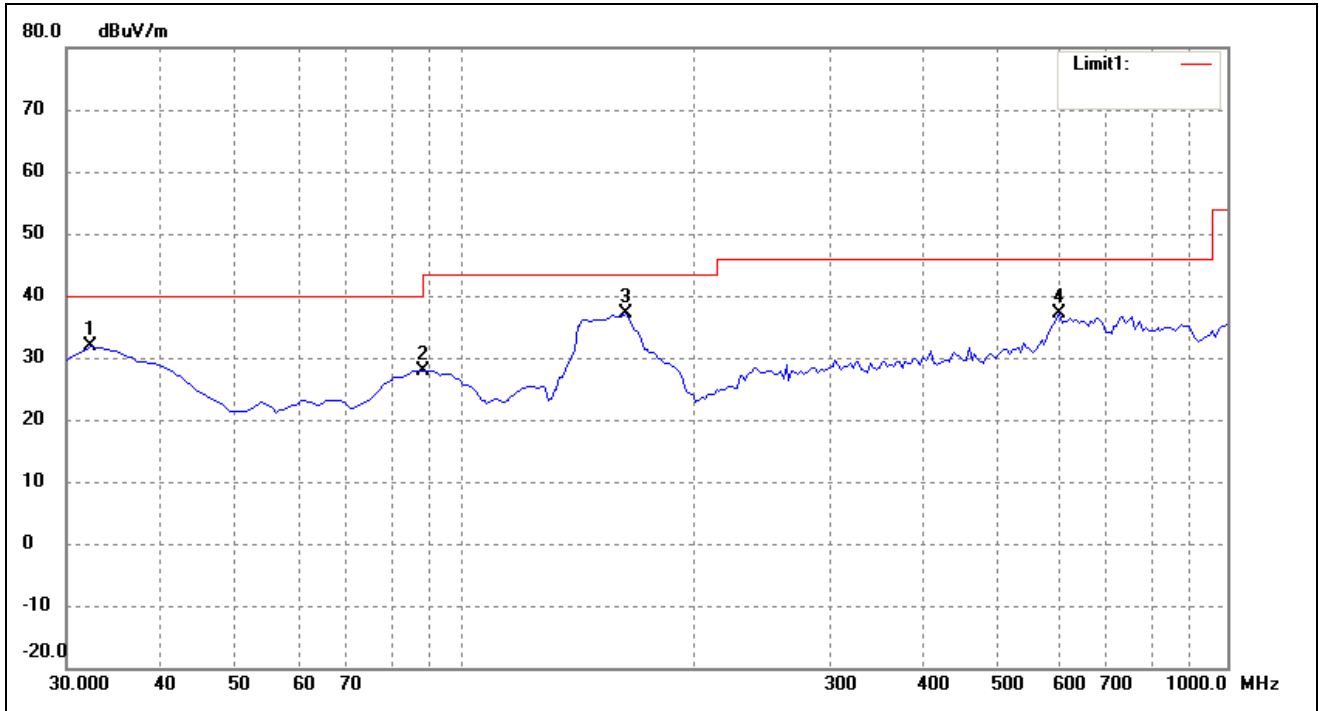
Comment: DC 3.8V

Test Specification: Horizontal



No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	97.9000	30.30	4.81	35.11	43.50	-8.39	158	100	QP
2	168.2250	33.36	2.67	36.03	43.50	-7.47	0	100	QP
3	638.6750	18.79	18.57	37.36	46.00	-8.64	147	100	QP
4	745.3750	17.57	19.31	36.88	46.00	-9.12	352	100	QP

Test Specification: Vertical



No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	32.4250	27.79	4.00	31.79	40.00	-8.21	76	100	QP
2	88.2000	24.54	3.32	27.86	43.50	-15.64	288	100	QP
3	163.3750	34.60	2.64	37.24	43.50	-6.26	10	100	QP
4	604.7250	18.11	18.98	37.09	46.00	-8.91	11	100	QP

Note: Testing is carried out with frequency rang 9kHz to the 6GHz, which above 1GHz is close to the noise base even antenna close up to 1meter distance according the measurement of ANSI C63.4.

The measurements greater than 20dB below the limit from 9kHz to 30MHz and test data are not provided.

\*\*\*\*\* END OF REPORT \*\*\*\*\*