

FCC Part 15B Measurement and Test Report

For

Sky Phone LLC

1348 Washington Av.Suite 350 Miami Beach, FL 33139

FCC ID: 2ABOSSKYELITE60

Test Rule(s):	<u>FCC Part 15 Subpart B</u>
Product Description:	<u>Smart phone</u>
Tested Model:	<u>Elite 6.0L</u>
Report No.:	<u>STR16028064I-1</u>
Tested Date:	<u>2016-02-27 to 2016-03-11</u>
Issued Date:	<u>2016-03-12</u>
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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:	Smart phone
Brand Name:	SKY
Model No.:	Elite 6.0L
Adding Model No.:	LQ60
Adapter Model:	WTA0501000USA1 INPUT:100-240V,50/60Hz,0.3A; OUTPUT:DC5V,1A
Hardware version:	WW816_MB_V0.5
Software version:	Sky_Elite 6.0L_SW_VN_V06_20160128
Rated Voltage:	DC 3.8V Li-ion Battery
Battery:	2800mAh
Device Category:	Portable Device
<i>The EUT Main board support GSM850/900/DCS1800/PCS1900, WCDMA Band 1/2/4/5, LTE Band 2/4/7/17 function. It is intended for speech, Multimedia Message Service (MMS) transmission. It is equipped with GPRS/EDGE 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 Elite 6.0L, but the circuit and the electronic construction do not change, declared by the manufacturer.</i>	

Technical Characteristics of EUT	
Rated Voltage:	DC 3.8V
Battery Capacity:	2800mAh
Rated Power:	/
Lowest Internal Frequency:	32.768kHz
Highest Internal Frequency:	1.3GHz
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	0.8	Shielded	Without Ferrite
Earphone	1.5	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 Measurement Uncertainty

Measurement uncertainty		
Parameter	Conditions	Uncertainty
Conducted Emissions	Conducted	$\pm 2.88\text{dB}$
Transmitter Spurious Emissions	Radiated	$\pm 5.1\text{dB}$

1.7 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

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

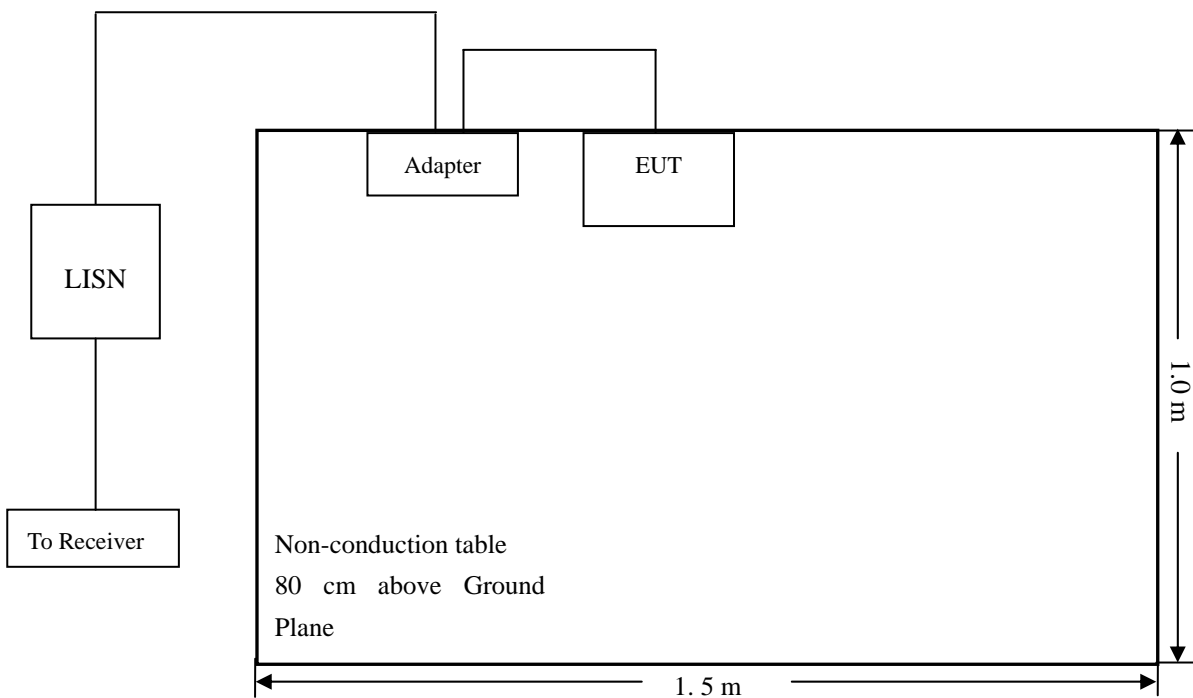
N/A: not applicable

3. Conducted Emissions

3.1 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.

3.2 Basic Test Setup Block Diagram



3.3 Environmental Conditions

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

3.4 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:

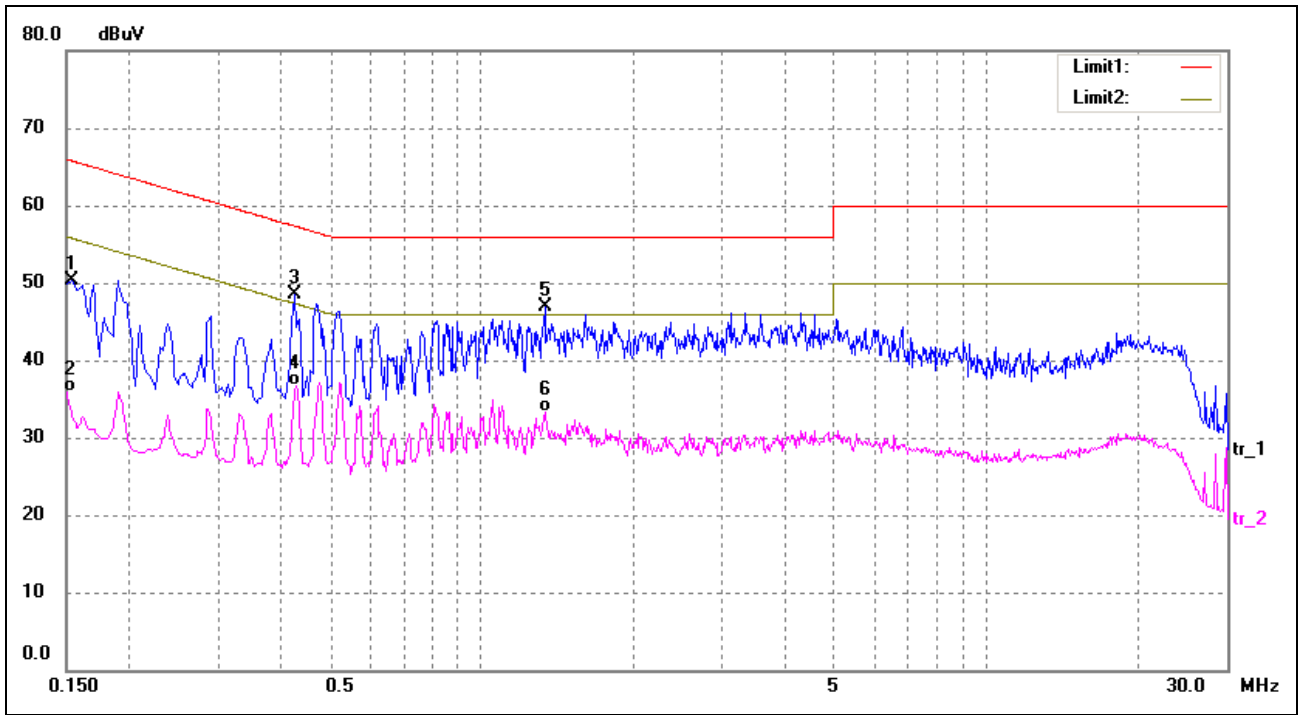
-6.40 dB at 0.4900 MHz in the **Line, Peak** detector, TM1, 0.15-30MHz

3.5 Conducted Emissions Test Data

Plot of Conducted Emissions Test Data

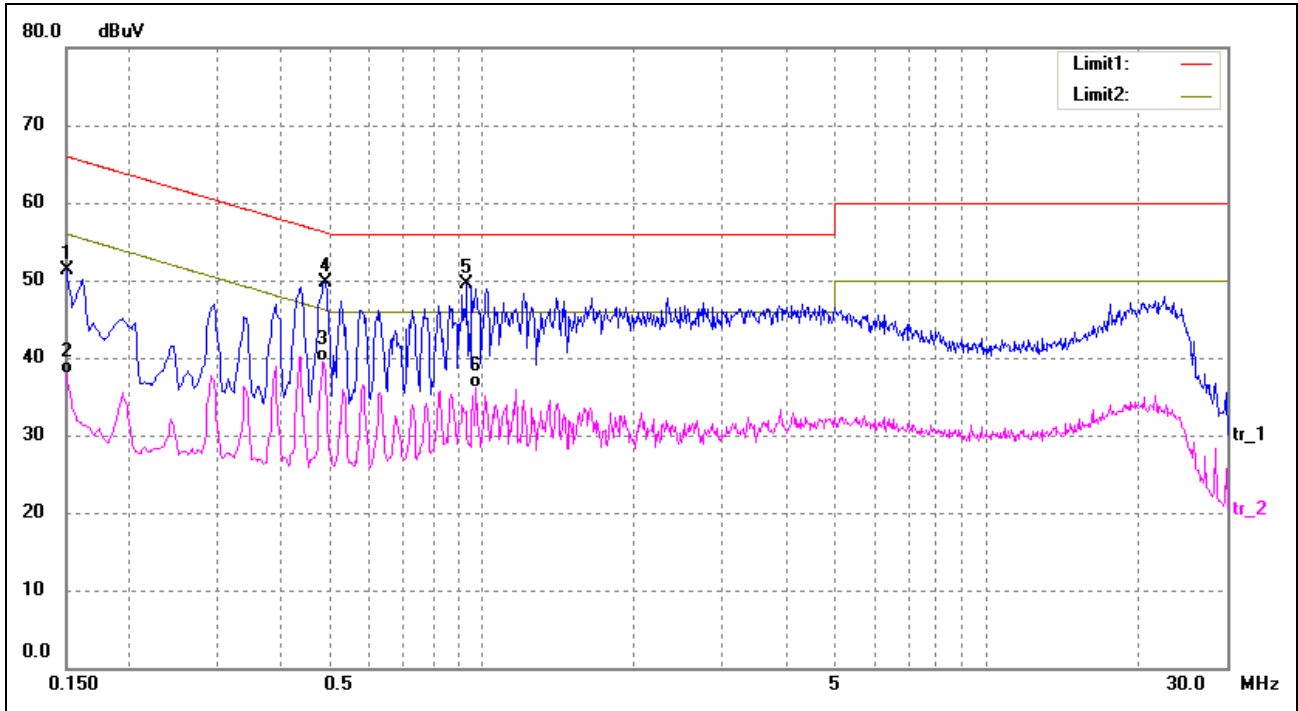
EUT: Smart phone
 Tested Model: Elite 6.0L
 Operating Condition: TM1
 Comment: AC 120V/60Hz; Adapter DC 5V

Test Specification: Neutral



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1539	40.12	10.26	50.38	65.78	-15.40	peak
2	0.1539	25.67	10.26	35.93	55.78	-19.85	AVG
3*	0.4260	40.94	7.50	48.44	57.33	-8.89	peak
4	0.4300	29.12	7.50	36.62	47.25	-10.63	AVG
5	1.3340	35.82	11.00	46.82	56.00	-9.18	peak
6	1.3340	22.22	11.00	33.22	46.00	-12.78	AVG

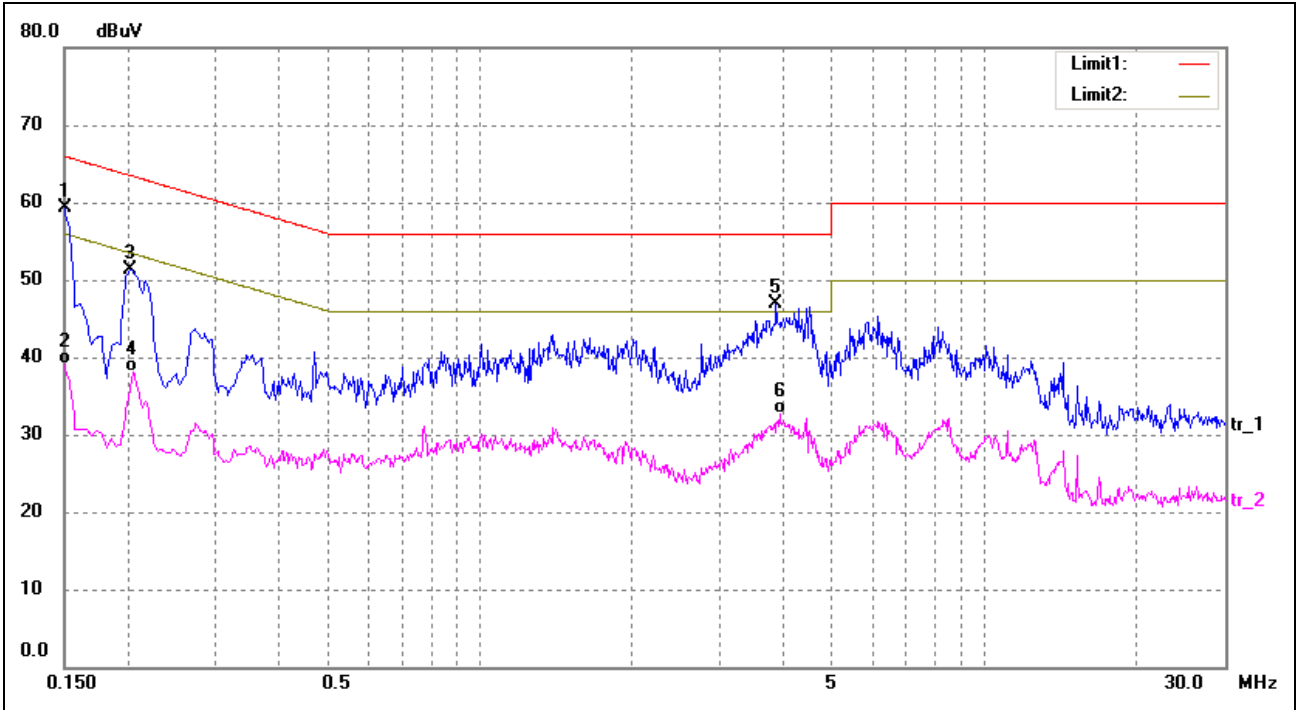
Test Specification: Line



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1500	40.85	10.50	51.35	66.00	-14.65	peak
2	0.1500	27.49	10.50	37.99	56.00	-18.01	AVG
3	0.4860	31.98	7.50	39.48	46.24	-6.76	AVG
4*	0.4900	42.27	7.50	49.77	56.17	-6.40	peak
5	0.9340	38.95	10.54	49.49	56.00	-6.51	peak
6	0.9740	25.26	10.82	36.08	46.00	-9.92	AVG

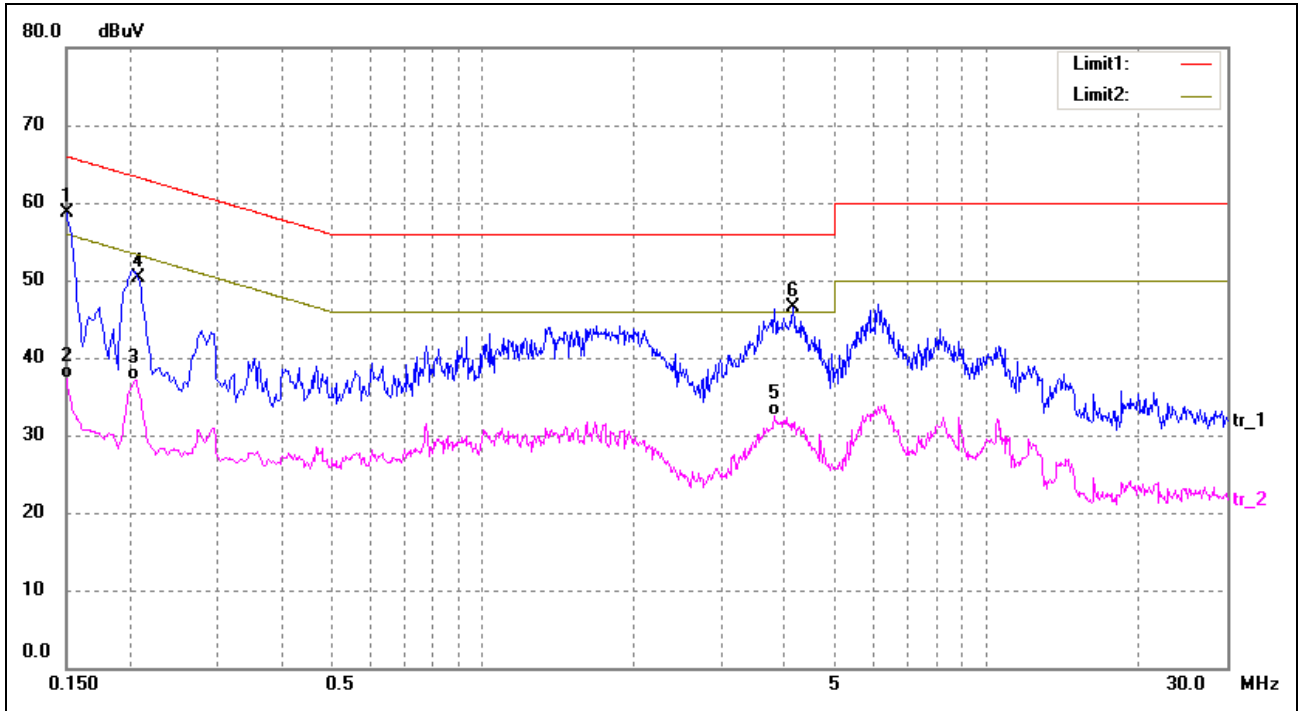
Plot of Conducted Emissions Test Data

EUT: Smart phone
 Tested Model: Elite 6.0L
 Operating Condition: TM2
 Comment: AC 120V/60Hz; USB 5V
 Test Specification: Neutral



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1*	0.1500	48.79	10.49	59.28	66.00	-6.72	peak
2	0.1500	28.55	10.49	39.04	56.00	-16.96	AVG
3	0.2020	43.88	7.50	51.38	63.53	-12.15	peak
4	0.2060	30.51	7.50	38.01	53.37	-15.36	AVG
5	3.8740	34.61	12.25	46.86	56.00	-9.14	peak
6	3.9420	20.41	12.29	32.70	46.00	-13.30	AVG

Test Specification: Line



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1*	0.1500	48.29	10.49	58.78	66.00	-7.22	peak
2	0.1500	26.78	10.49	37.27	56.00	-18.73	AVG
3	0.2060	29.61	7.50	37.11	53.37	-16.26	AVG
4	0.2083	42.72	7.50	50.22	63.27	-13.05	peak
5	3.8140	20.28	12.21	32.49	46.00	-13.51	AVG
6	4.1540	34.13	12.44	46.57	56.00	-9.43	peak

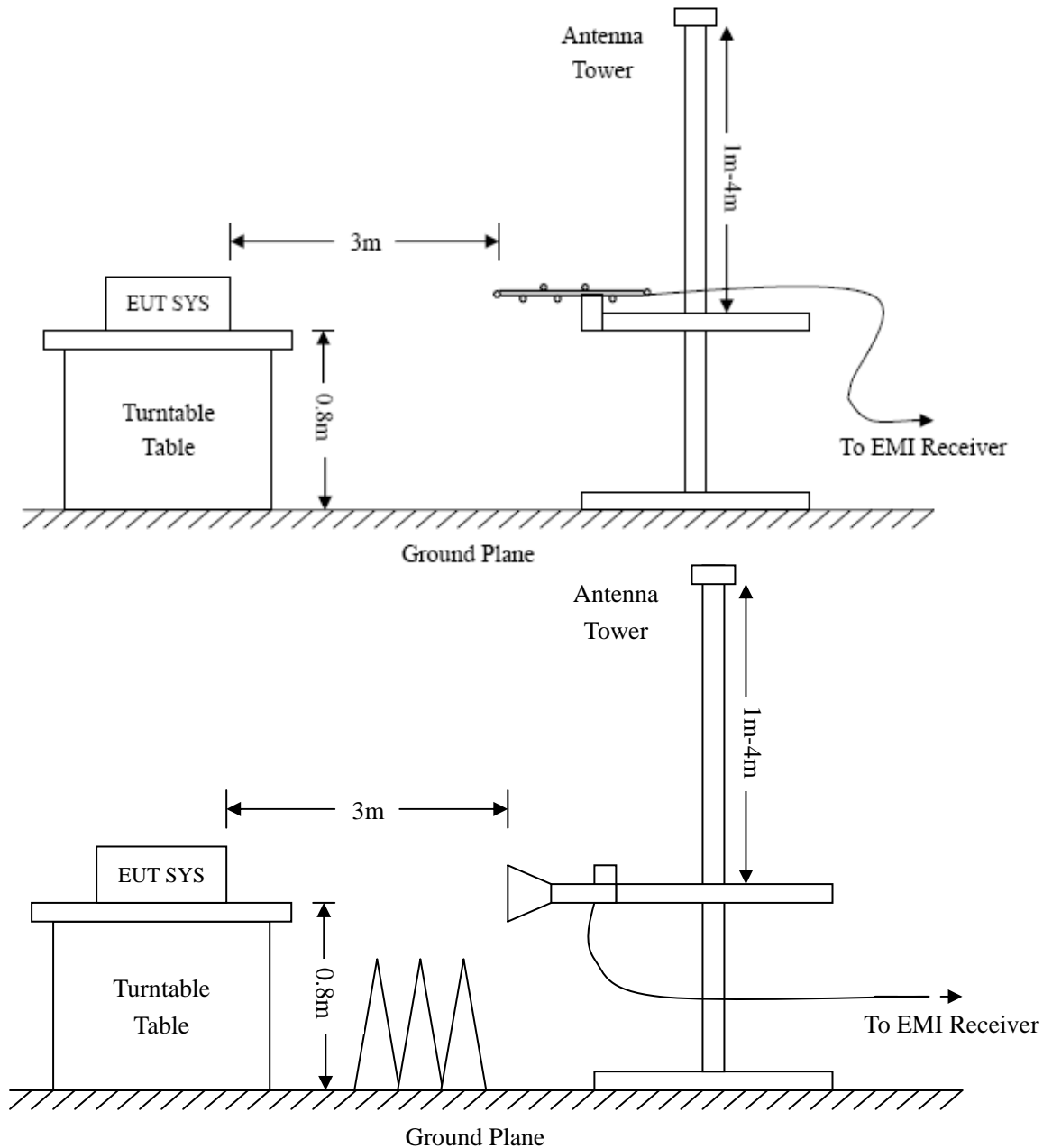
4. Radiated Emissions

4.1 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.



4.2 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

4.3 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 μ V means the emission is 6dB μ V below the maximum limit for a Class B device. The equation for margin calculation is as follows:

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

4.4 Environmental Conditions

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

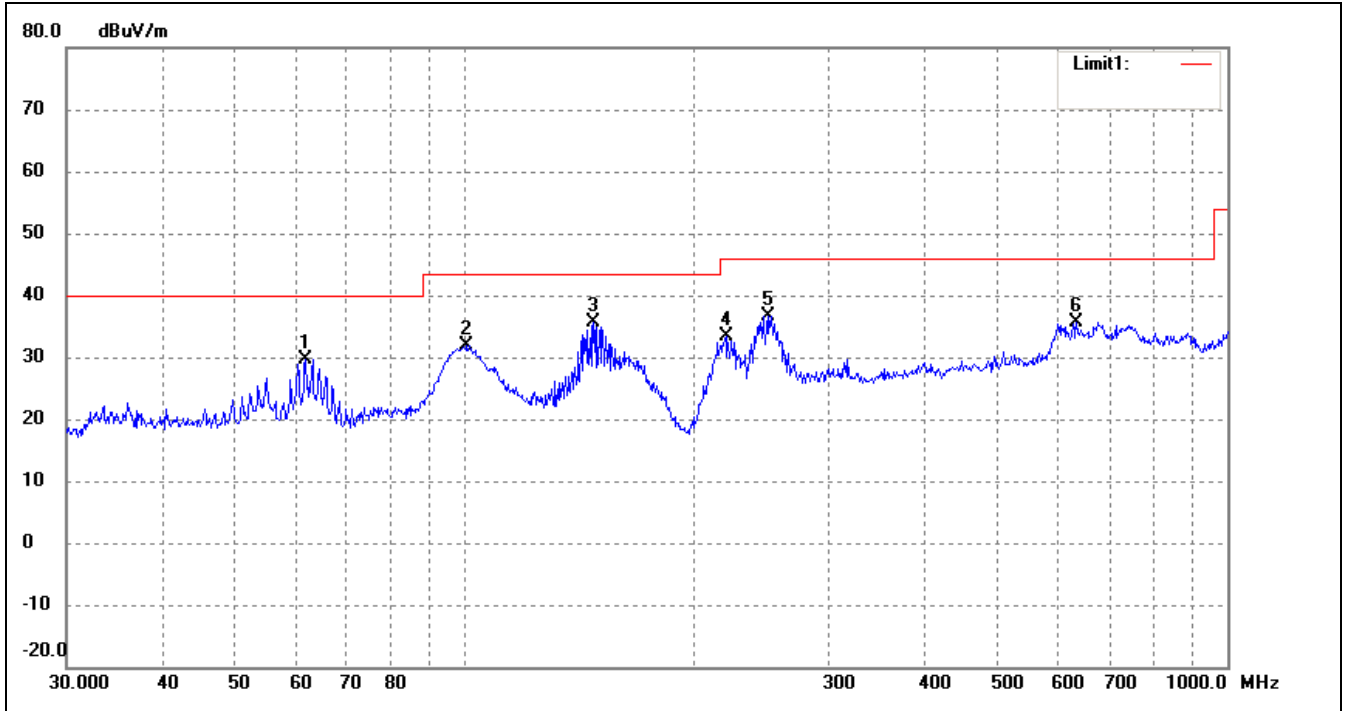
4.5 Summary of Test Results/Plots

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

-2.31 dB at 60.2801 MHz in the Vertical polarization, TM1 Mode 9 kHz to 6.5 GHz, 3Meters

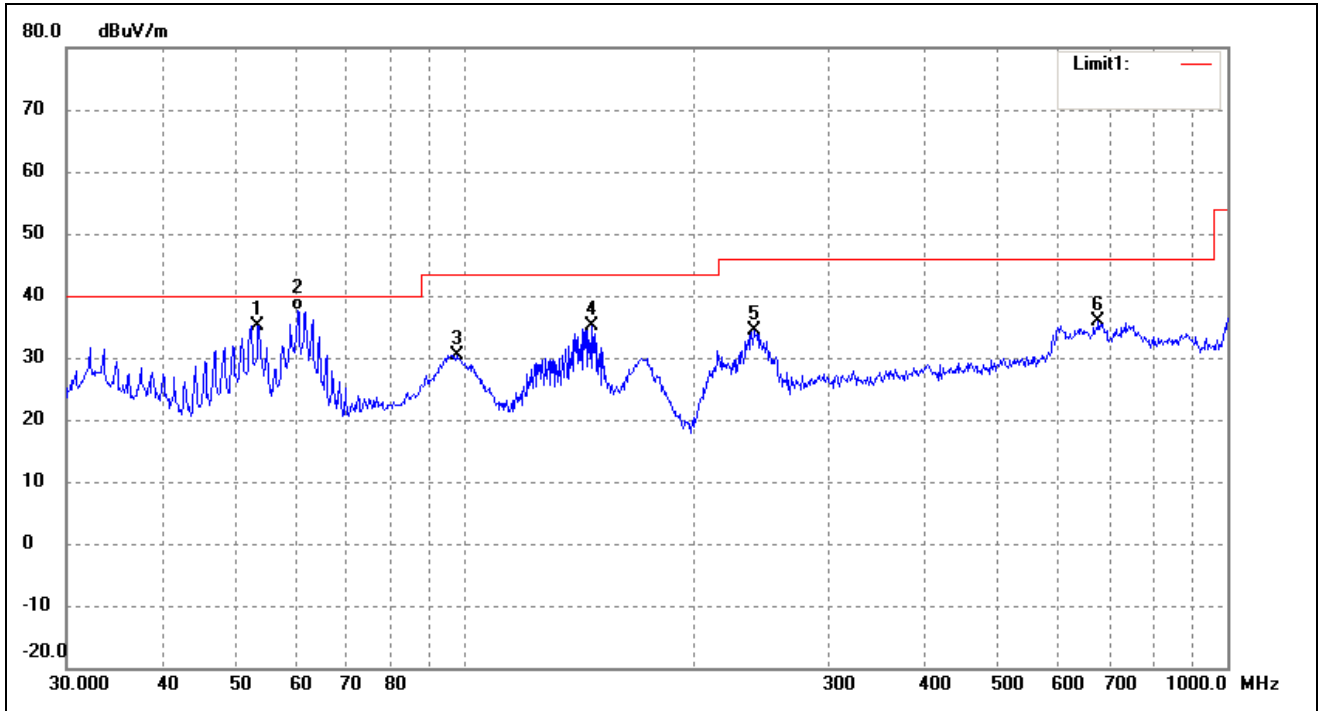
Plot of Radiated Emissions Test Data

EUT: Smart phone
 Tested Model: Elite 6.0L
 Operating Condition: TM1
 Comment: AC 120V/60Hz; Adapter DC 5V
 Test Specification: Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	61.7781	24.55	4.99	29.54	40.00	-10.46	42	100	QP
2	100.5806	26.86	5.12	31.98	43.50	-11.52	132	100	QP
3	147.4036	32.46	3.11	35.57	43.50	-7.93	168	100	QP
4	219.8449	25.40	8.07	33.47	46.00	-12.53	0	100	QP
5	249.4250	26.97	9.68	36.65	46.00	-9.35	45	100	QP
6	633.9073	17.28	18.41	35.69	46.00	-10.31	68	100	QP

Test Specification: Vertical



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	53.5052	29.82	5.31	35.13	40.00	-4.87	59	100	QP
2	60.2801	32.37	5.32	37.69	40.00	-2.31	147	100	QP
3	97.4560	25.69	4.75	30.44	43.50	-13.06	236	100	QP
4	146.3735	31.97	3.14	35.11	43.50	-8.39	158	100	QP
5	239.1473	25.04	9.28	34.32	46.00	-11.68	47	100	QP
6	677.5798	16.71	19.13	35.84	46.00	-10.16	82	100	QP

Plot of Radiated Emissions Test Data

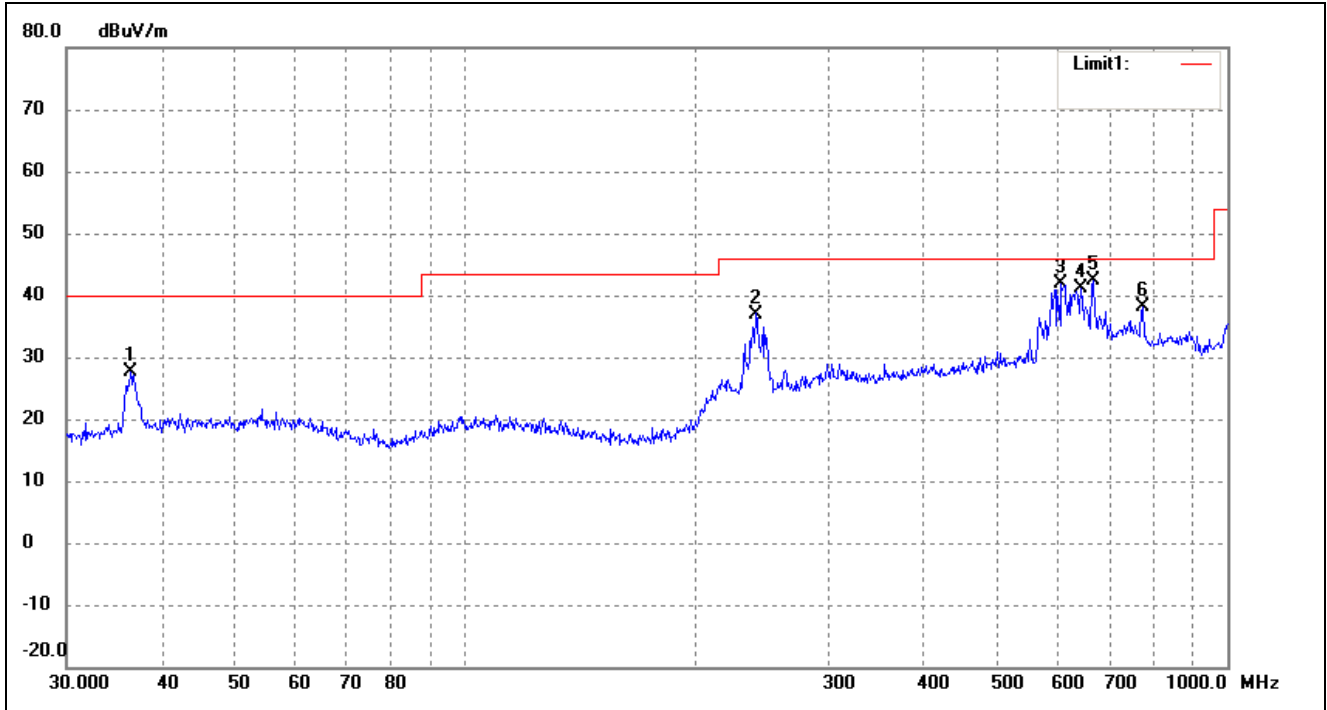
EUT: Smart phone

Tested Model: Elite 6.0L

Operating Condition: TM2

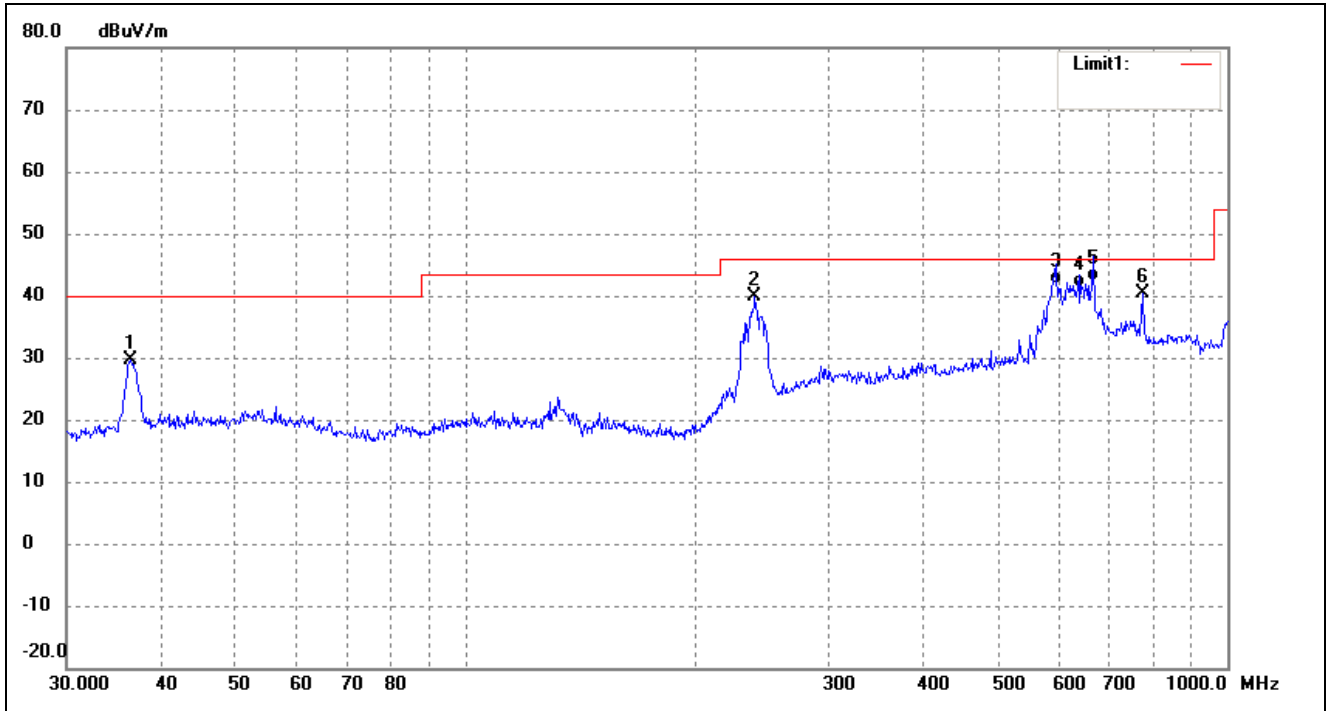
Comment: USB: DC5V

Test Specification: Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	36.3814	22.89	4.64	27.53	40.00	-12.47	51	100	QP
2	240.8304	27.64	9.36	37.00	46.00	-9.00	124	100	QP
3	605.6592	23.08	18.92	42.00	46.00	-4.00	203	100	QP
4	642.8613	22.68	18.55	41.23	46.00	-4.77	86	100	QP
5	665.8035	23.93	18.46	42.39	46.00	-3.61	164	100	QP
6	774.1584	20.36	17.82	38.18	46.00	-7.82	103	100	QP

Test Specification: Vertical



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	36.3814	24.90	4.64	29.54	40.00	-10.46	22	100	QP
2	239.9874	30.50	9.33	39.83	46.00	-6.17	146	100	QP
3	595.1329	23.54	18.41	41.95	46.00	-4.05	197	100	QP
4	638.3686	22.78	18.56	41.34	46.00	-4.66	375	100	QP
5	665.8035	23.90	18.46	42.36	46.00	-3.64	24	100	QP
6	774.1584	22.61	17.82	40.43	46.00	-5.57	82	100	QP

Plot of Radiated Emissions Test Data

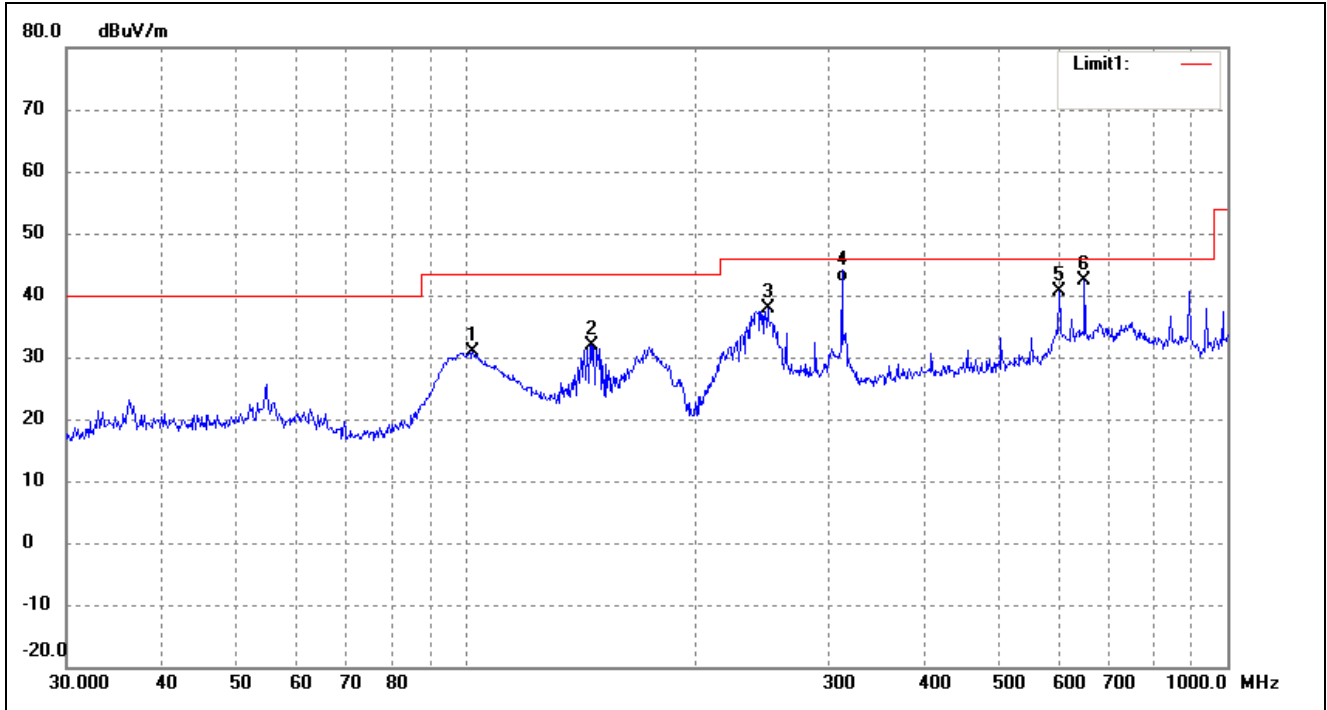
EUT: Smart phone

Tested Model: Elite 6.0L

Operating Condition: TM3

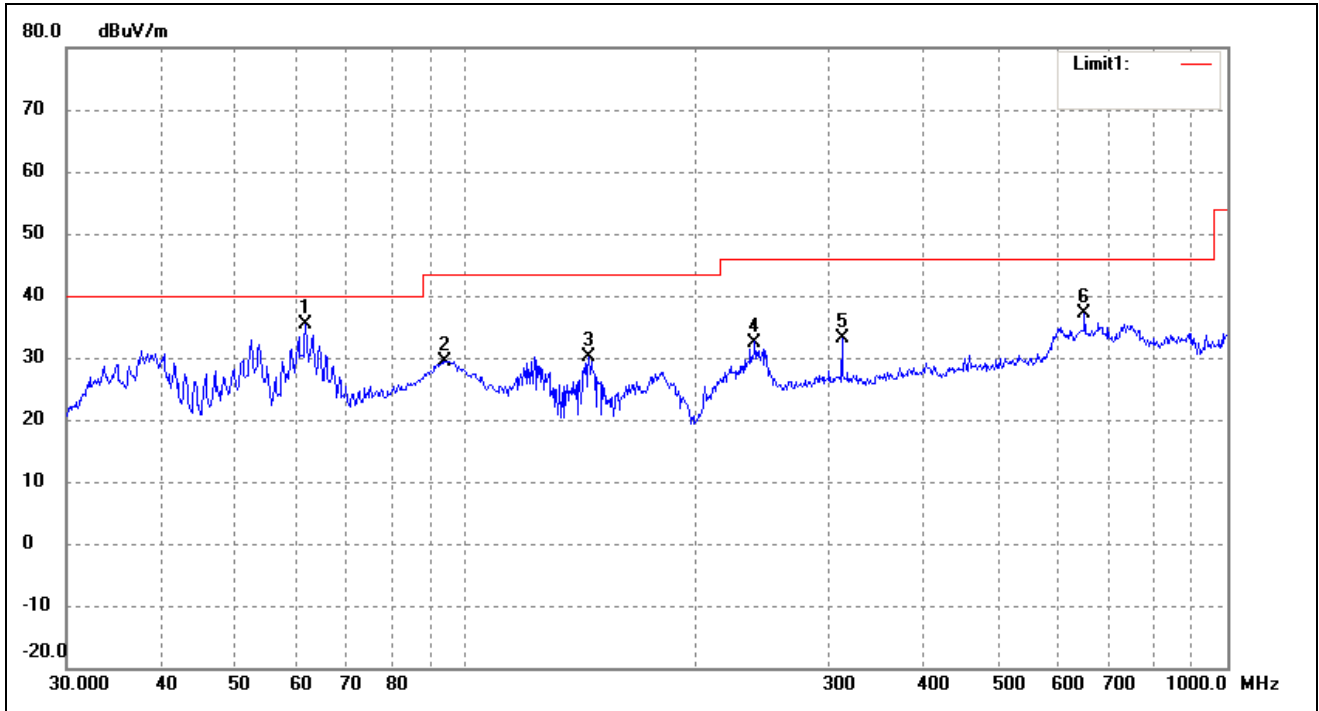
Comment: DC 3.8V

Test Specification: Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	102.3597	25.75	5.12	30.87	43.50	-12.63	158	100	QP
2	146.8877	28.84	3.12	31.96	43.50	-11.54	0	100	QP
3	249.4250	28.09	9.68	37.77	46.00	-8.23	147	100	QP
4	312.1793	29.78	12.24	42.02	46.00	-3.98	352	100	QP
5	601.4265	21.52	19.22	40.74	46.00	-5.26	32	100	QP
6	649.6597	24.09	18.39	42.48	46.00	-3.52	83	100	QP

Test Specification: Vertical



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	61.7781	30.34	4.99	35.33	40.00	-4.67	76	100	QP
2	94.0979	25.27	4.23	29.50	43.50	-14.00	288	100	QP
3	145.3506	27.03	3.19	30.22	43.50	-13.28	10	100	QP
4	239.9874	23.17	9.33	32.50	46.00	-13.50	11	100	QP
5	312.1794	20.86	12.24	33.10	46.00	-12.90	63	100	QP
6	649.6597	18.72	18.39	37.11	46.00	-8.89	92	100	QP

Note: Testing is carried out with frequency rang 9kHz to the 6.5GHz, 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 *****