FCC Part 15B
Measurement and Test Report

For

Shenzhen Fortuneship Technology Co., Ltd.

Room 701-716, 7th Floor, Kanghesheng Building, No.1 ChuangSheng Road,

Nanshan District, Shenzhen, Guangdong, P. R. China

FCC ID: 2ABXIE400

Test Rule(s):	FCC Part 15 Subpart B
Product Description:	3G Mobile Phone
Tested Model:	PCD E400
Report No.:	STR16018171I-5
Tested Date:	2016-01-27 to 2016-02-19
Issued Date:	2016-02-20
Tested By:	Iven Guo / Engineer
Reviewed By:	Silin Chen / EMC Manager
Approved & Authorized By:	Jandy So / PSQ Manager

Prepared By:

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1. GENERAL INFORMATION

1.1 Product Description for Equipment Under Test (EUT)

Client Information

Applicant:	Shenzhen Fortuneship Technology Co., Ltd.
Address of applicant:	Room 701-716, 7th Floor, Kanghesheng Building, No.1 ChuangSheng Road, Nanshan District, Shenzhen, Guangdong, P. R. China
Manufacturer:	Shenzhen Fortuneship Technology Co., Ltd.
Address of manufacturer:	Room 701-716, 7th Floor, Kanghesheng Building, No.1 ChuangSheng Road, Nanshan District, Shenzhen, Guangdong, P. R. China

General Description of EUT:	
Product Name:	3G Mobile Phone
Brand Name:	/
Model No.:	PCD E400
Hardware Version:	A500-MB-V0.6
Software Version:	VS401_NFUTRAL_B25_2SIM_UNLOCK_V01_20151022
IMEI:	354329060072092
Rated Voltage:	Battery: DC 3.7V(5.18Wh)
Power Adaptor:	Model: PCD E400
	INPUT: AC100-240V 50/60Hz,0.15A OUTPUT: DC5V/0.7A
Lowest Internal Frequency:	26MHz
Highest Internal Frequency:	1.3GHz
Classification of ITE:	Class B
Note: The test data is gathered from a production sample provided by the manufacturer.	

1.2 Test Standards

The following report is prepared on behalf of the Shenzhen Fortuneship Technology Co., Ltd. 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	1.0	Unshielded	Without Ferrite
Earphone	1.2	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	±2.88dB
Transmitter Spurious Emissions	Radiated	±5.1dB

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

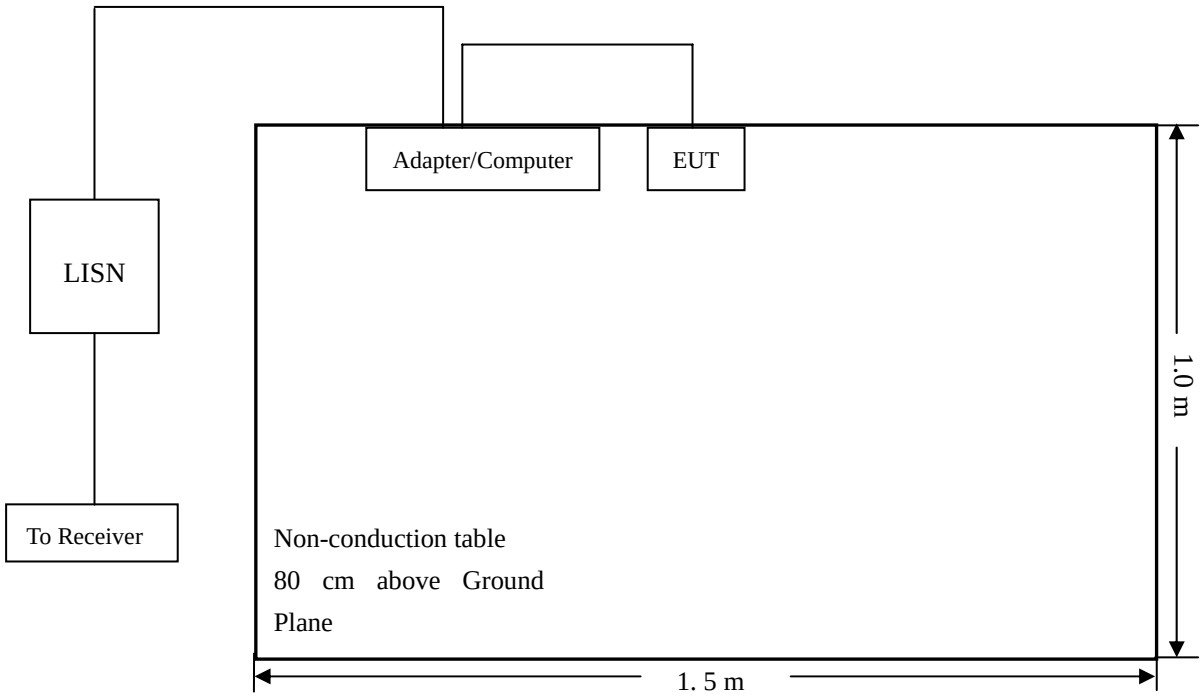
N/A: not applicable

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

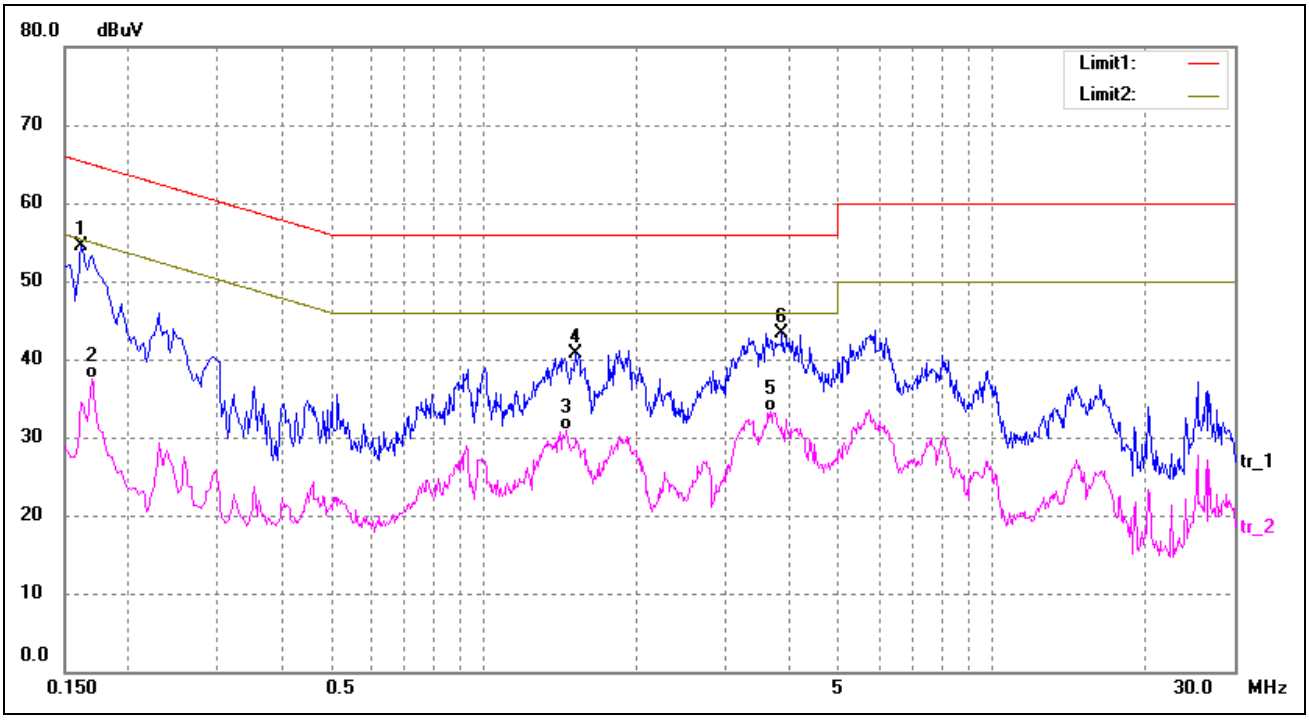
According to the data in section 3.6, the EUT complied with the FCC Part 15.107(a) Conducted margin for a Class B device, with the *worst* margin reading of:

-10.95 dB at 0.1620 MHz in the **Neutral, Peak** detector, TM1, 0.15-30MHz

3.5 Conducted Emissions Test Data

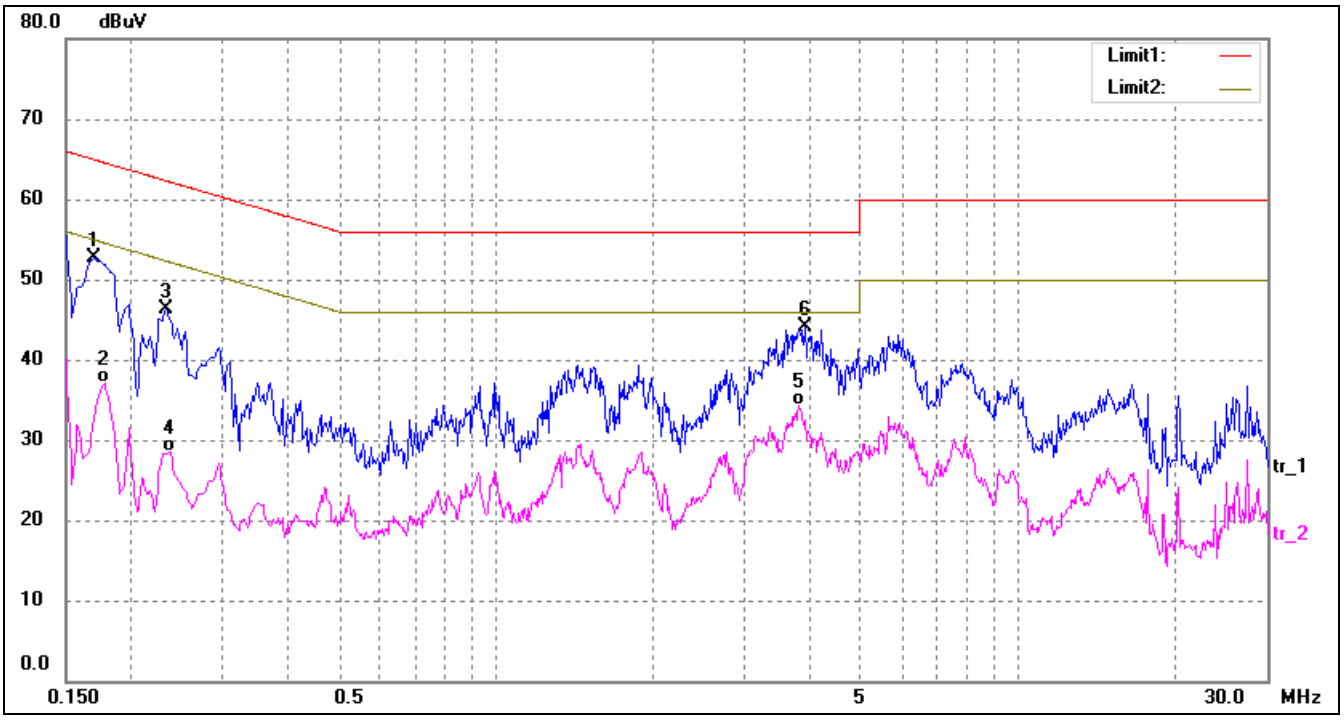
Plot of Conducted Emissions Test Data

EUT: *3G Mobile Phone*
Tested Model: *PCD E400*
Operating Condition: *TM1*
Comment: *AC 120V/60Hz; Adapter DC 5V*
Test Specification: *Neutral*



No.	Frequency	Reading	Correct	Result	Limit	Margin	Detector
	(MHz)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dB)	
1*	0.1620	44.63	9.78	54.41	65.36	-10.95	peak
2	0.1700	28.23	9.30	37.53	54.96	-17.43	AVG
3	1.4580	19.82	11.00	30.82	46.00	-15.18	AVG
4	1.5140	29.66	11.00	40.66	56.00	-15.34	peak
5	3.6660	21.21	12.11	33.32	46.00	-12.68	AVG
6	3.8620	31.14	12.24	43.38	56.00	-12.62	peak

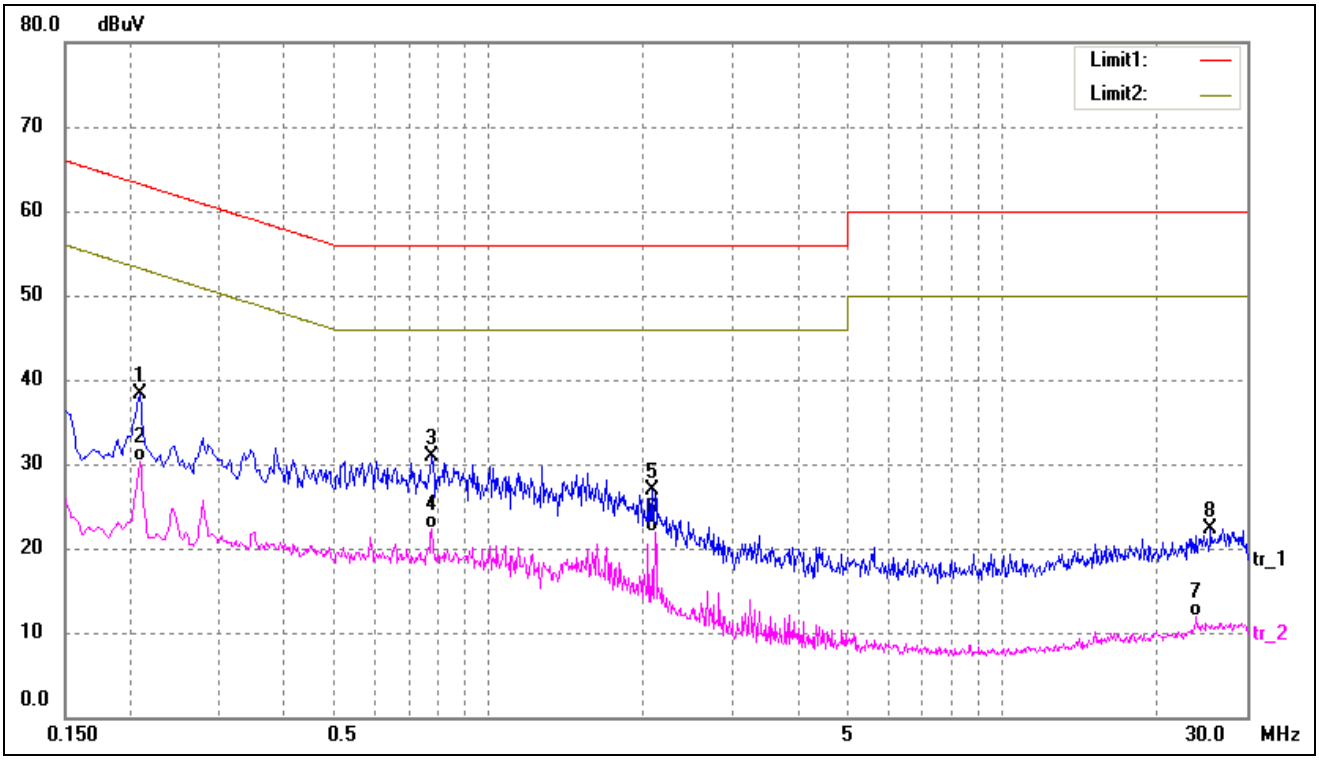
Test Specification: *Line*



No.	Frequency	Reading	Correct	Result	Limit	Margin	Detector
	(MHz)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dB)	
1	0.1700	43.39	9.30	52.69	64.96	-12.27	peak
2	0.1780	28.26	8.82	37.08	54.58	-17.50	AVG
3	0.2340	38.85	7.50	46.35	62.31	-15.96	peak
4	0.2380	21.04	7.50	28.54	52.17	-23.63	AVG
5*	3.8180	22.12	12.21	34.33	46.00	-11.67	AVG
6	3.9020	31.81	12.27	44.08	56.00	-11.92	peak

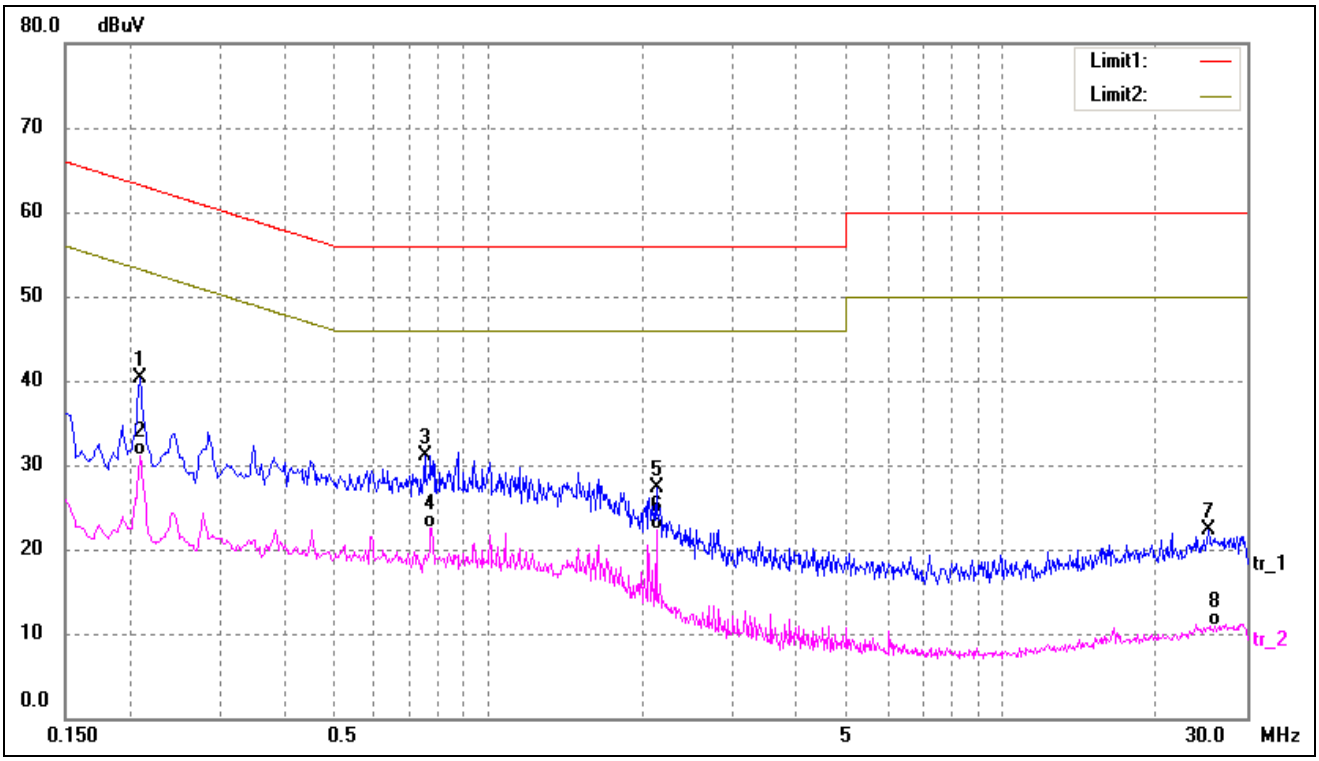
Plot of Conducted Emissions Test Data

EUT: *3G Mobile Phone*
Tested Model: *PCD E400*
Operating Condition: *TM2*
Comment: *AC 120V/60Hz; Adapter DC 5V*
Test Specification: *Neutral*



No.	Frequency	Reading	Correct	Result	Limit	Margin	Detector
	(MHz)	(dBuV)	(dB/m)	(dBuV)	(dBuV)	(dB)	
1	0.2100	28.89	9.50	38.39	63.21	-24.82	peak
2*	0.2100	20.86	9.50	30.36	53.21	-22.85	AVG
3	0.7780	21.19	9.78	30.97	56.00	-25.03	peak
4	0.7780	12.49	9.78	22.27	46.00	-23.73	AVG
5	2.0860	16.84	10.00	26.84	56.00	-29.16	peak
6	2.1180	11.83	10.00	21.83	46.00	-24.17	AVG
7	24.0060	-0.67	12.67	12.00	50.00	-38.00	AVG
8	25.4980	9.37	13.00	22.37	60.00	-37.63	peak

Test Specification: *Neutral*

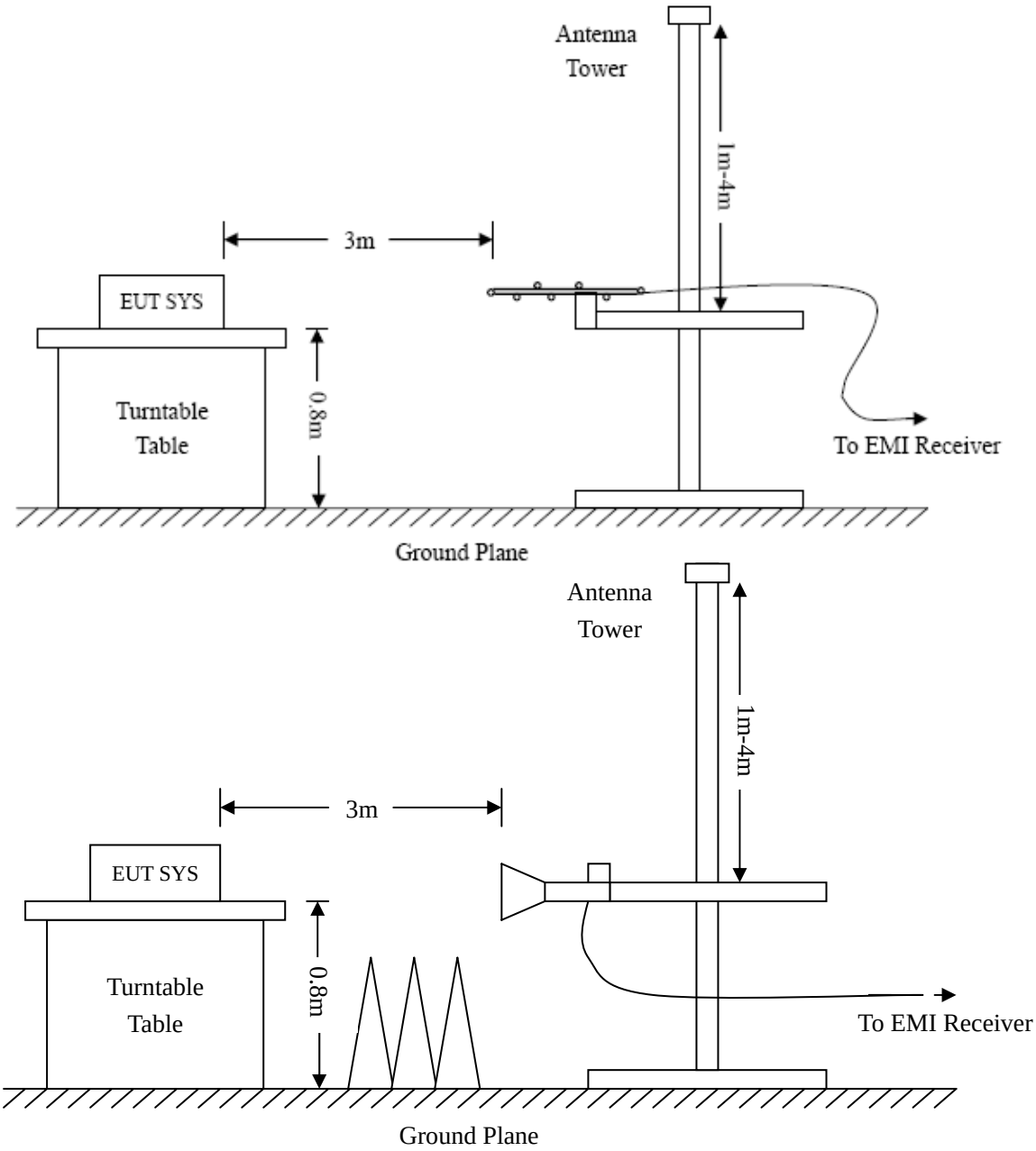


No.	Frequency	Reading	Correct	Result	Limit	Margin	Detector
	(MHz)	(dBuV)	(dB/m)	(dBuV)	(dBuV)	(dB)	
1	0.2100	30.83	9.50	40.33	63.21	-22.88	peak
2*	0.2100	21.58	9.50	31.08	53.21	-22.13	AVG
3	0.7540	21.40	9.75	31.15	56.00	-24.85	peak
4	0.7780	12.72	9.78	22.50	46.00	-23.50	AVG
5	2.1260	17.29	10.00	27.29	56.00	-28.71	peak
6	2.1260	12.21	10.00	22.21	46.00	-23.79	AVG
7	25.2340	9.22	13.00	22.22	60.00	-37.78	peak
8	26.0260	-2.06	13.00	10.94	50.00	-39.06	AVG

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:

Corr. Ampl. = Indicated Reading – Corr. Factor

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

Margin = Corr. Ampl. – FCC Part 15.109(a) Limit

4.4 Environmental Conditions

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

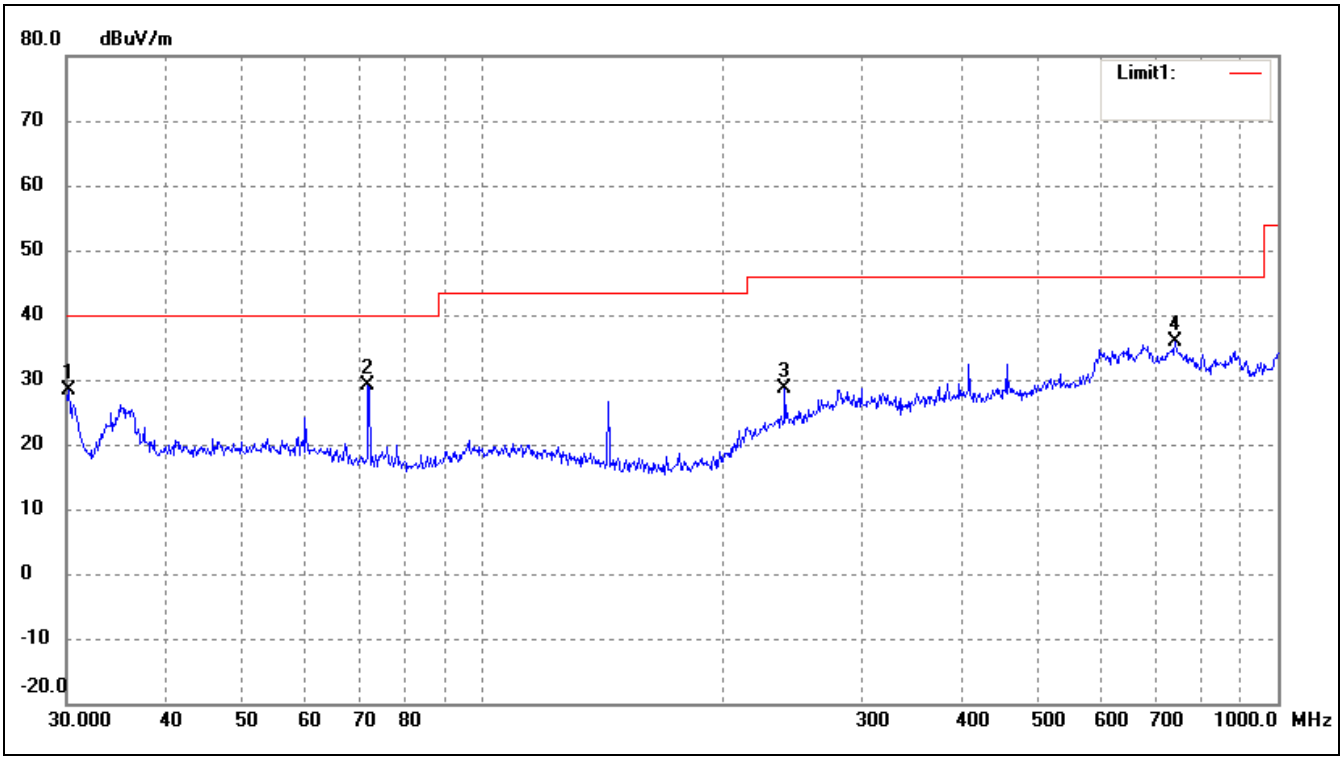
4.5 Summary of Test Results/Plots

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

-1.91 dB at 71.8320 MHz in the **Vertical** polarization, **TM1 Mode 30MHz** to **6.5 GHz**, **3Meters**

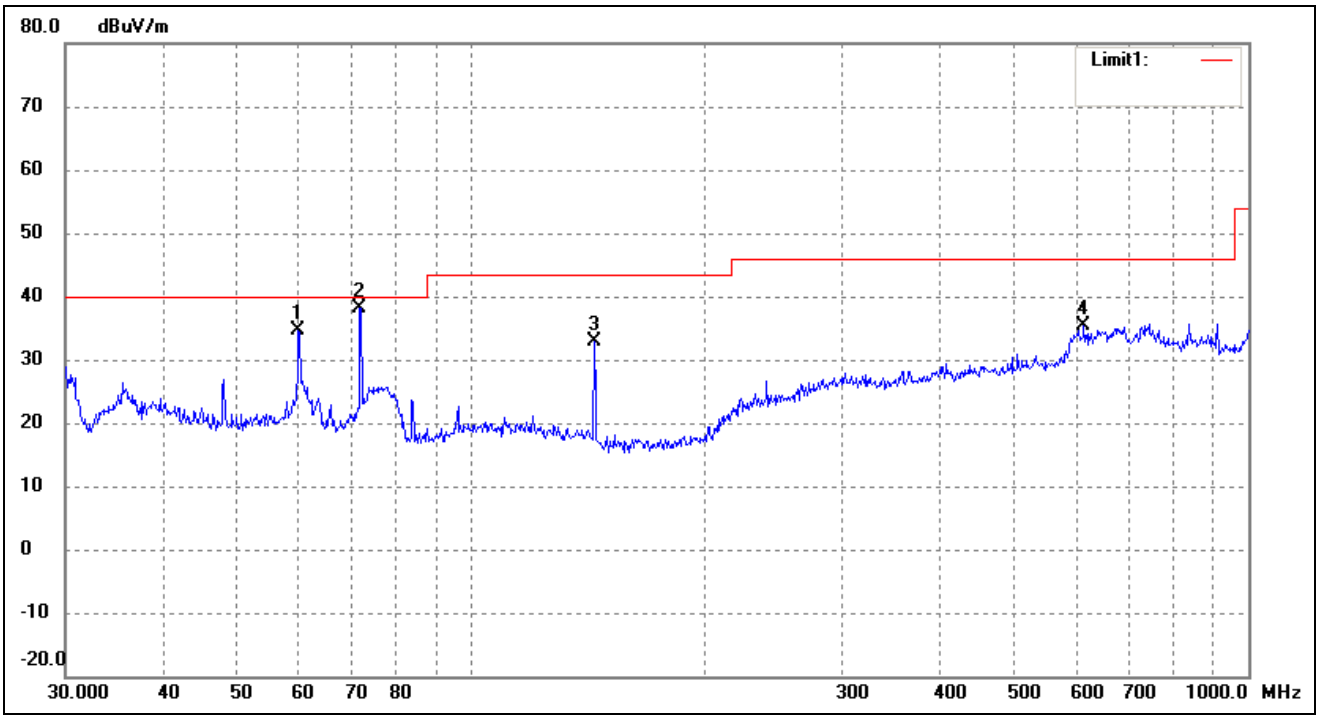
Plot of Radiated Emissions Test Data

EUT: *3G Mobile Phone*
Tested Model: *PCD E400*
Operating Condition: *TM1*
Comment: *AC 120V/60Hz; Adapter DC 5V*
Test Specification: *Horizontal*



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(•)	(cm)	
1	30.2111	24.79	3.67	28.46	40.00	-11.54	42	100	peak
2	71.8320	26.25	2.97	29.22	40.00	-10.78	132	100	peak
3	239.9874	19.19	9.33	28.52	46.00	-17.48	168	100	peak
4	742.2587	16.35	19.45	35.80	46.00	-10.20	0	100	peak

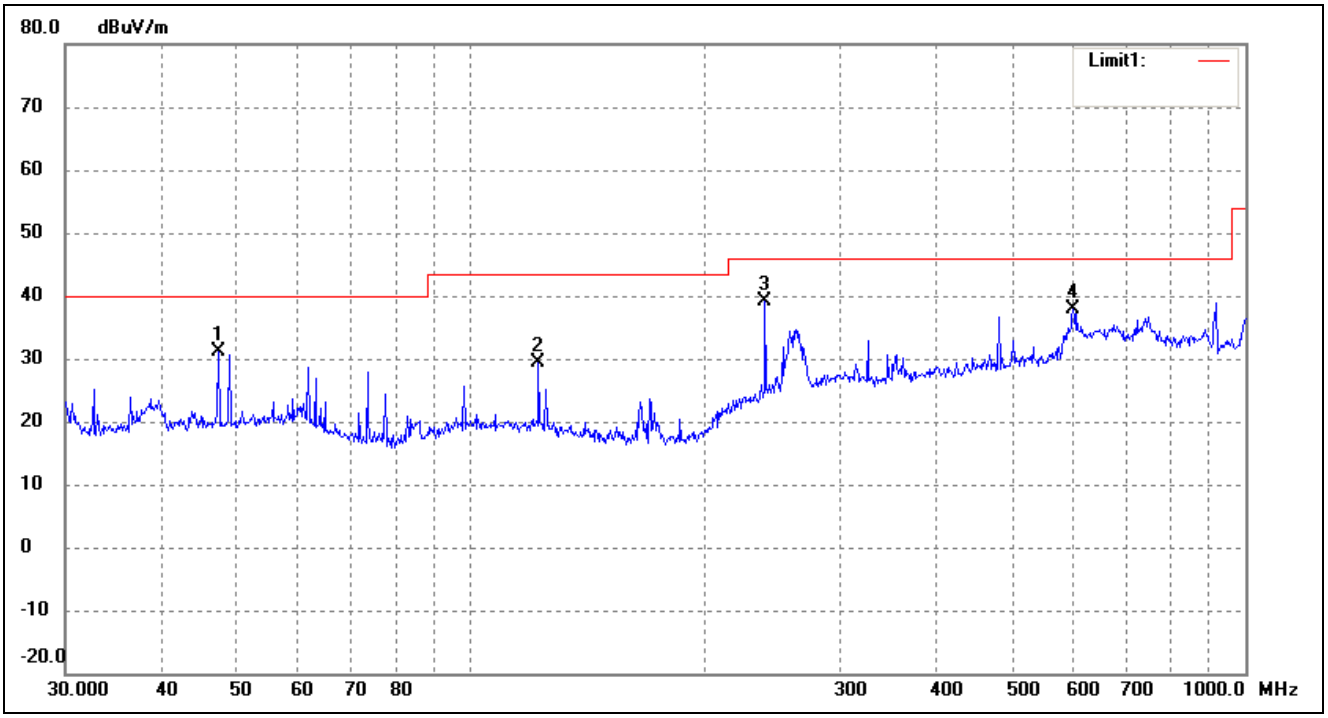
Test Specification: *Vertical*



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(•)	(cm)	
1	59.8588	29.27	5.38	34.65	40.00	-5.35	59	100	peak
2	71.8320	35.12	2.97	38.09	40.00	-1.91	147	100	peak
3	143.8295	29.50	3.26	32.76	43.50	-10.74	236	100	peak
4	614.2142	17.12	18.32	35.44	46.00	-10.56	158	100	peak

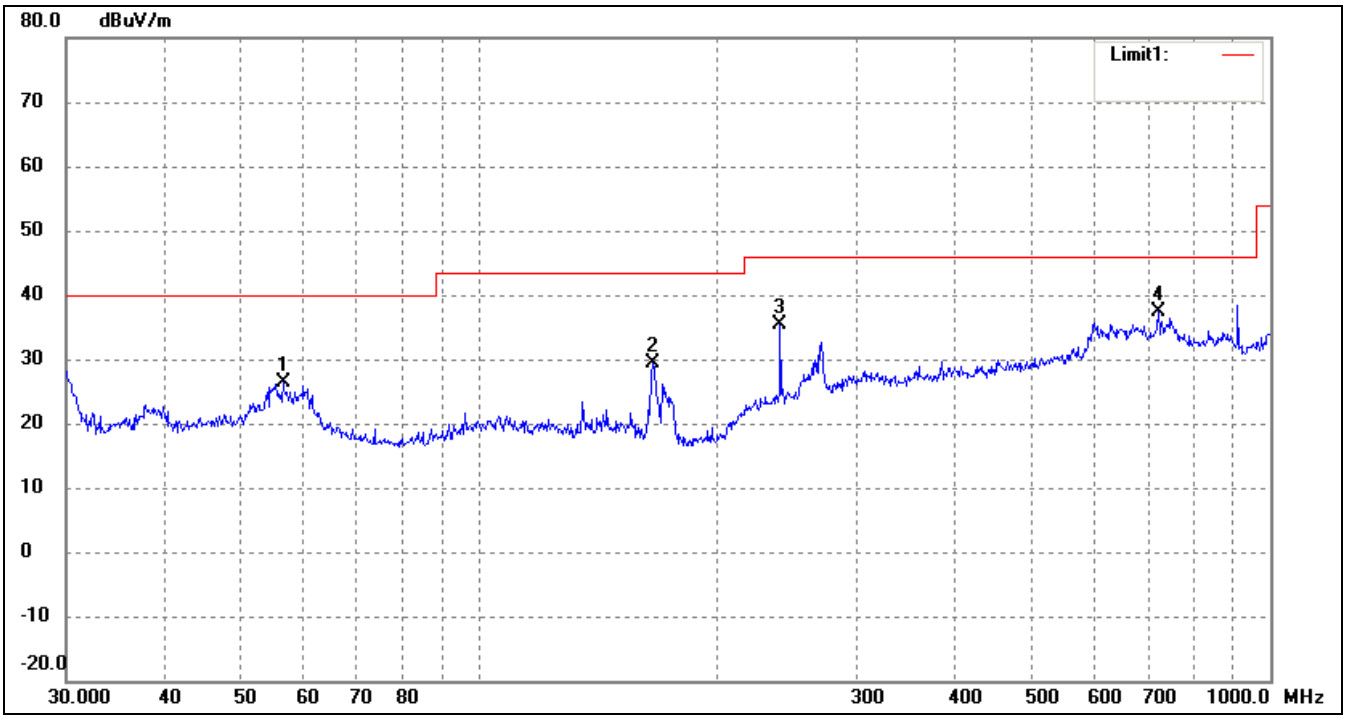
Plot of Radiated Emissions Test Data

EUT: *3G Mobile Phone*
Tested Model: *PCD E400*
Operating Condition: *TM2*
Comment: *USB: DC5V*
Test Specification: *Horizontal*



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV)	Factor(dB)	(dBuV/m)	(dBuV/m)	(dB)	(°)	(cm)	
1	47.3255	25.92	5.26	31.18	40.00	-8.82	51	100	peak
2	122.4040	24.60	4.82	29.42	43.50	-14.08	124	100	peak
3	239.9874	29.71	9.33	39.04	46.00	-6.96	203	100	peak
4	599.3213	18.61	19.19	37.80	46.00	-8.20	86	100	peak

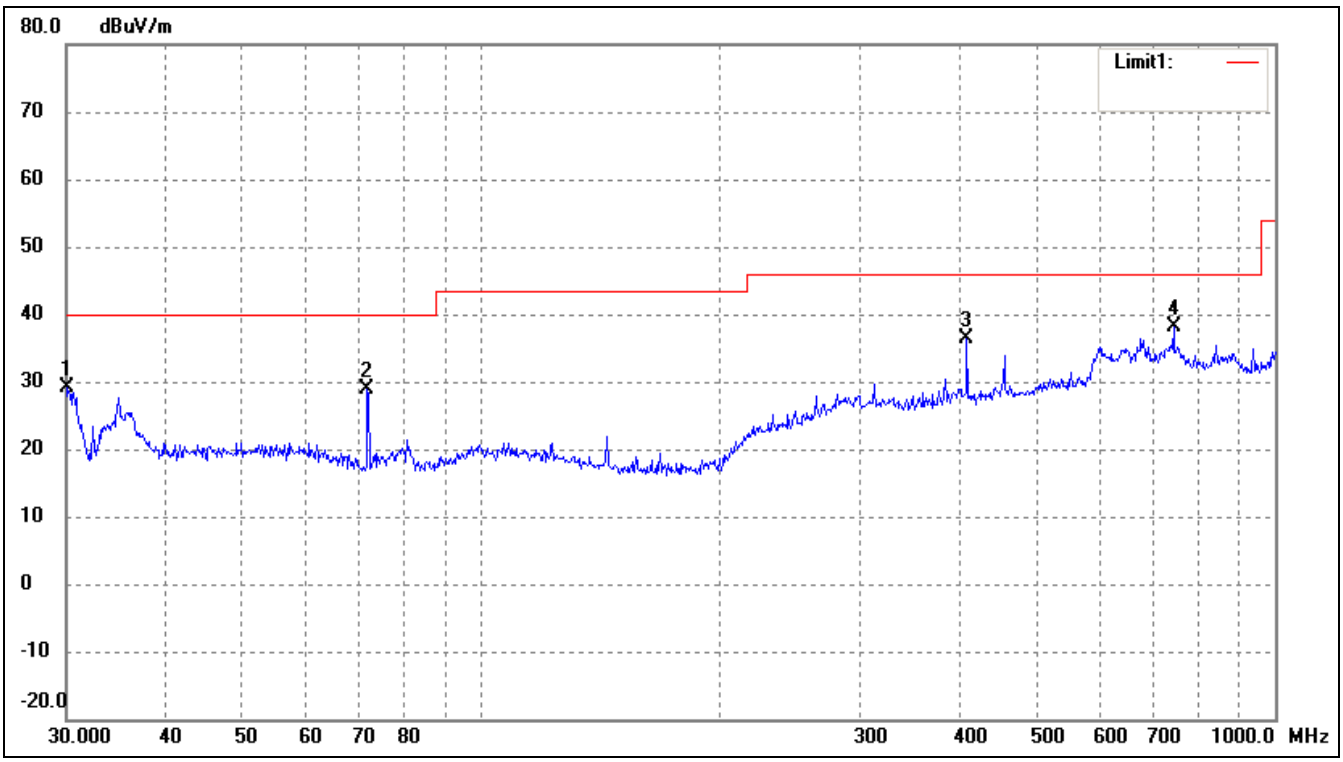
Test Specification: *Vertical*



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(°)	(cm)	
1	56.3948	21.12	5.33	26.45	40.00	-13.55	22	100	peak
2	165.4866	26.82	2.65	29.47	43.50	-14.03	146	100	peak
3	239.9874	25.95	9.33	35.28	46.00	-10.72	197	100	peak
4	721.7259	18.80	18.47	37.27	46.00	-8.73	375	100	peak

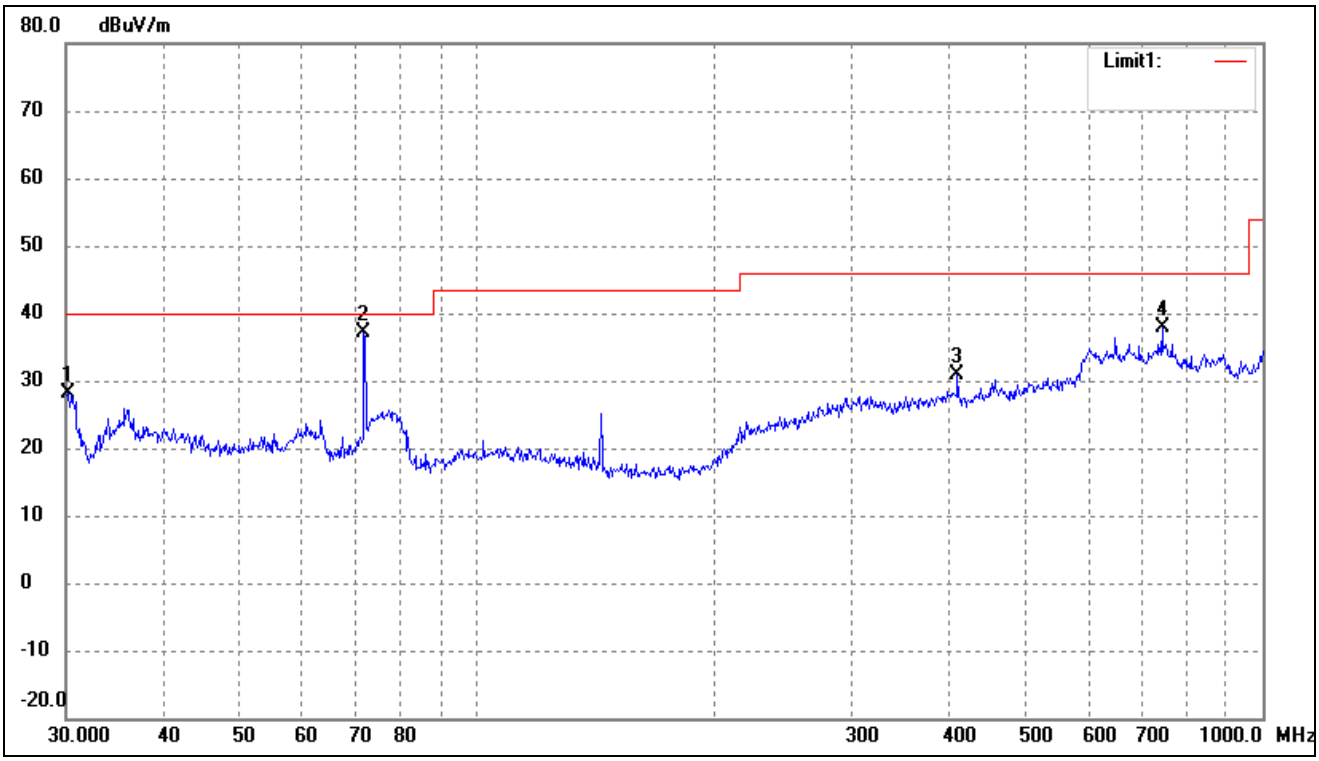
Plot of Radiated Emissions Test Data

EUT: *3G Mobile Phone*
Tested Model: *PCD E400*
Operating Condition: *TM3*
Comment: *AC 120V/60Hz; Adapter DC 5V*
Test Specification: *Horizontal*



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(•)	(cm)	
1	30.0000	25.45	3.64	29.09	40.00	-10.91	158	100	peak
2	71.8320	25.87	2.97	28.84	40.00	-11.16	0	100	peak
3	408.9460	23.67	12.80	36.47	46.00	-9.53	147	100	peak
4	744.8661	18.69	19.33	38.02	46.00	-7.98	352	100	peak

Test Specification: *Vertical*



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(•)	(cm)	
1	30.2111	24.48	3.67	28.15	40.00	-11.85	76	100	peak
2	71.8320	34.22	2.97	37.19	40.00	-2.81	288	100	peak
3	408.9460	18.07	12.80	30.87	46.00	-15.13	10	100	peak
4	744.8661	18.52	19.33	37.85	46.00	-8.15	11	100	peak

Note: Testing is carried out with frequency rang 30MHz 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.

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