

FCC Part 15B Measurement and Test Report

For

DDC TRADING INC

2480 NW 20th Street #D Miami, Florida 33142

FCC ID: 2AGF3L5S

Test Rule(s): FCC Part 15 Subpart B

Product Description: Mobile Phone

Tested Model: L5Ss

Report No.: STR15118100I-5

Tested Date: 2015-11-06 to 2015-11-20

Issued Date: 2015-11-20

Tested By: Seven Song / Engineer

Reviewed By: Silin Chen / EMC Manager

Approved & Authorized By: Jandy So / PSQ Manager

Prepared By:

Seven Song

Silin Chen

Jandy So

Shenzhen SEM.Test Technology Co., Ltd.

1/F, Building A, Hongwei Industrial Park, Liuxian 2nd Road,
Bao'an District, Shenzhen, P.R.C. (518101)

Tel.: +86-755-33663308 Fax.: +86-755-33663309 Website: www.semtest.com.cn

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: DDC TRADING INC
Address of applicant: 2480 NW 20th Street #D Miami, Florida 33142

Manufacturer: Shenzhen CHK Technology Limited.
Address of manufacturer: Rm1703,Block A, Electronic & Technology Building,
No.2070,Shennan Central Road, Futian, Shenzhen,
China.

General Description of EUT	
Product Name:	Mobile phone
Brand Name:	DDC
Model No.:	L5SS
Hardware version:	X5_V1.4
Software version:	L5Ss_EAGY_X5 20151028_120836
Rated Voltage:	DC 3.7V Li-ion Battery
Battery:	2800mAh
Device Category:	Portable Device
Note: The test data is gathered from a production sample provided by the manufacturer.	

Technical Characteristics of EUT	
Rated Voltage:	DC 3.7V
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 DDC TRADING INC 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	Front Camera
TM4	Camera on	Rear Camera

EUT Cable List and Details

Cable Description	Length (M)	Shielded/Unshielded	With Core/Without Core
USB Cable	0.75	Shielded	Without Ferrite
Earphone	1.05	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

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

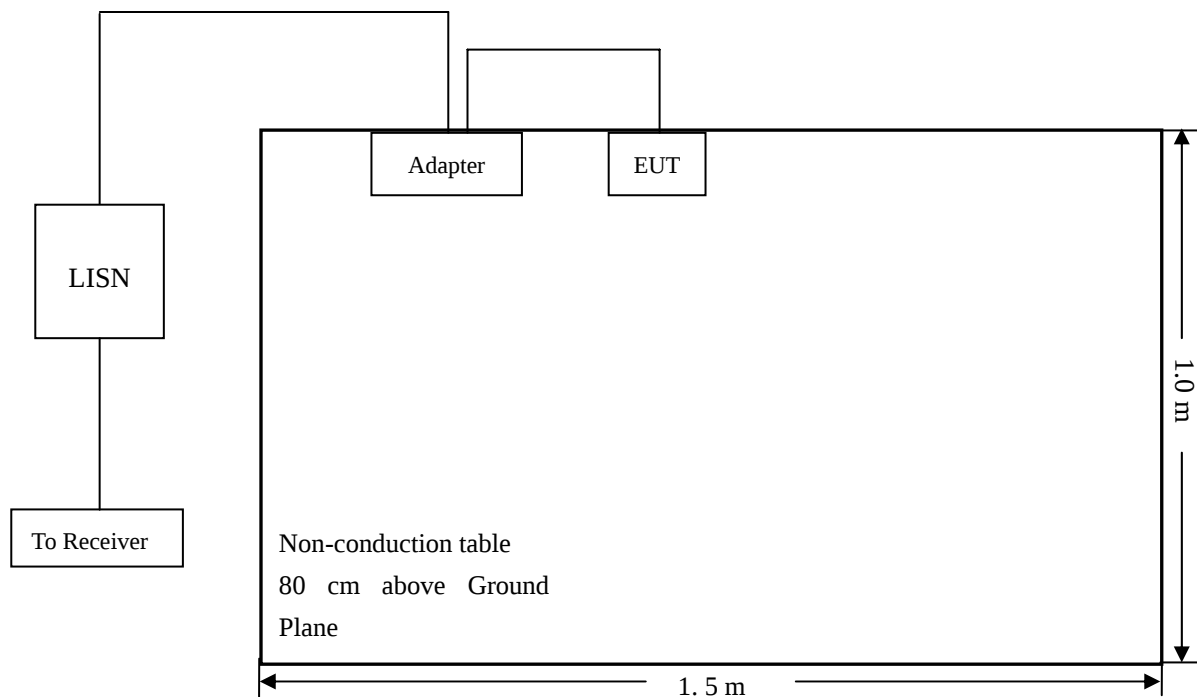
3.1 Measurement Uncertainty

Base on NIS 81, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of any conducted emissions measurement is ± 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:

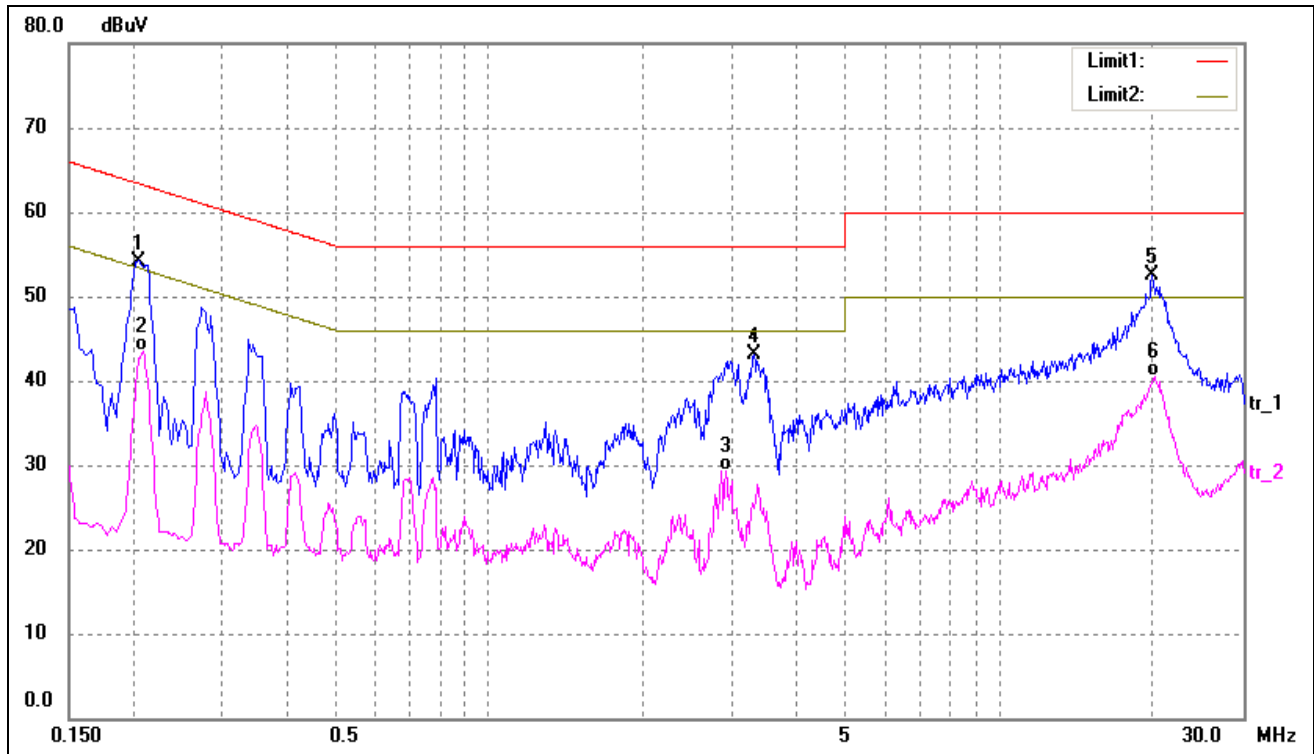
-9.04 dB at 0.1980 MHz in the **Neutral, TM2, Peak** detector, TM1, 0.15-30MHz

3.6 Conducted Emissions Test Data

Plot of Conducted Emissions Test Data

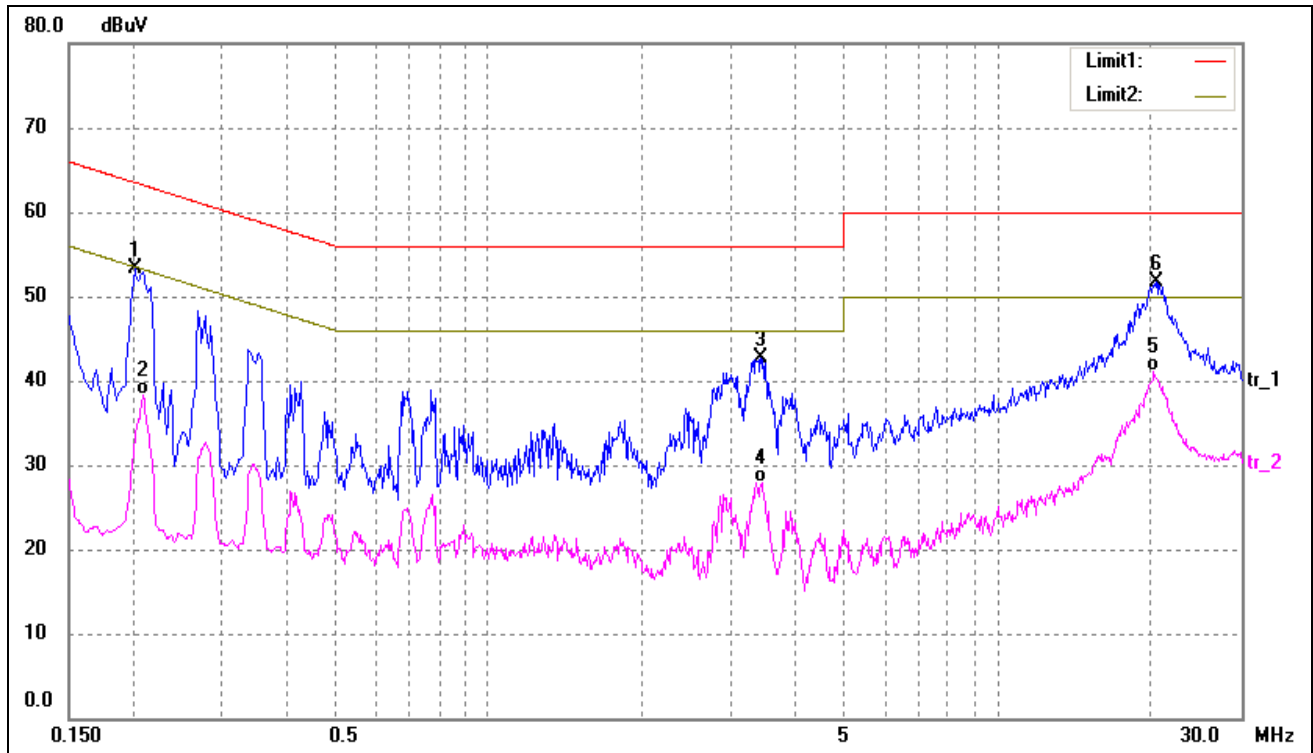
EUT: Mobile phone
 Tested Model: L5S
 Operating Condition: TM1
 Comment: AC 120V/60Hz; Adapter DC 5V

Test Specification: Neutral



No.	Frequency	Reading	Correct	Result	Limit	Margin	Detector
	(MHz)	(dBuV)	(dB/m)	(dBuV)	(dBuV)	(dB)	
1	0.2060	44.70	9.50	54.20	63.37	-9.17	peak
2	0.2100	34.09	9.50	43.59	53.21	-9.62	AVG
3	2.9140	19.24	10.00	29.24	46.00	-16.76	AVG
4	3.3020	33.02	10.00	43.02	56.00	-12.98	peak
5*	19.8740	40.46	11.97	52.43	60.00	-7.57	peak
6	20.1500	28.58	12.00	40.58	50.00	-9.42	AVG

Test Specification: Line

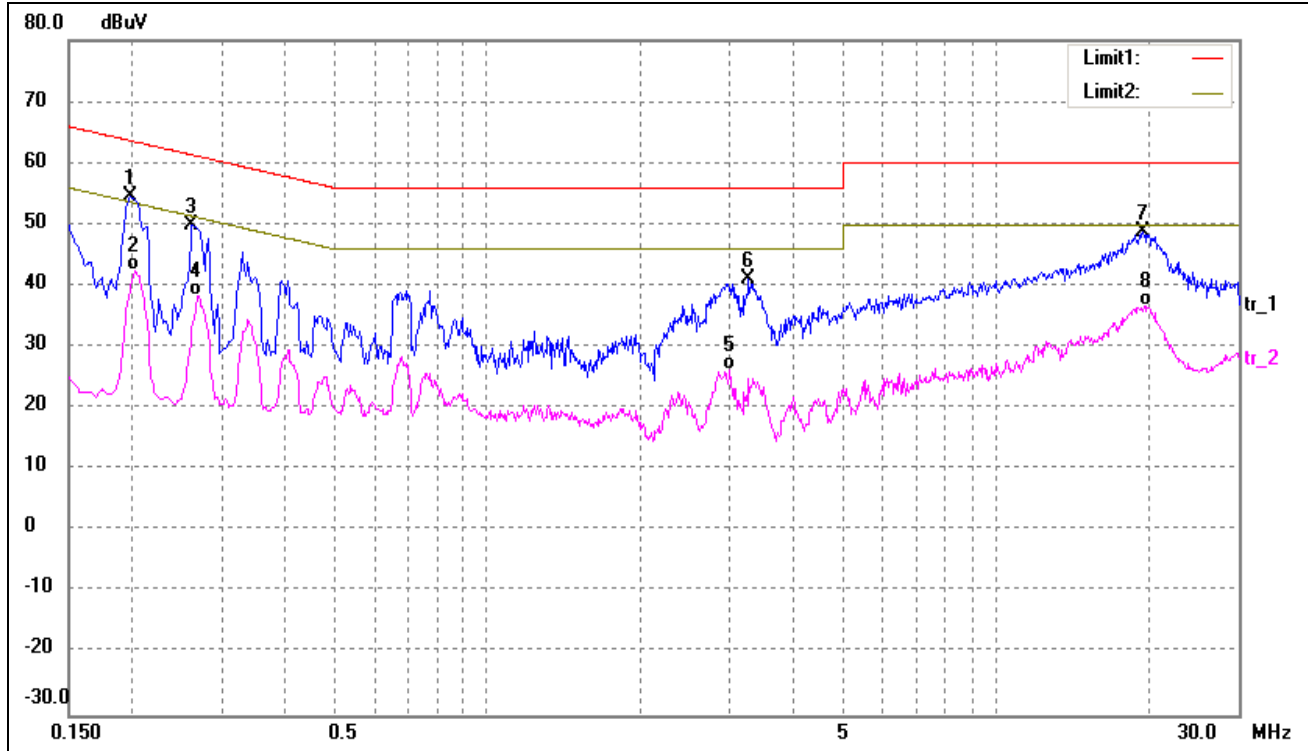


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.2020	43.77	9.50	53.27	63.53	-10.26	peak
2	0.2100	28.71	9.50	38.21	53.21	-15.00	AVG
3	3.4340	32.67	10.00	42.67	56.00	-13.33	peak
4	3.4500	17.95	10.00	27.95	46.00	-18.05	AVG
5	20.2260	29.06	12.00	41.06	50.00	-8.94	AVG
6*	20.4380	39.65	12.00	51.65	60.00	-8.35	peak

Plot of Conducted Emissions Test Data

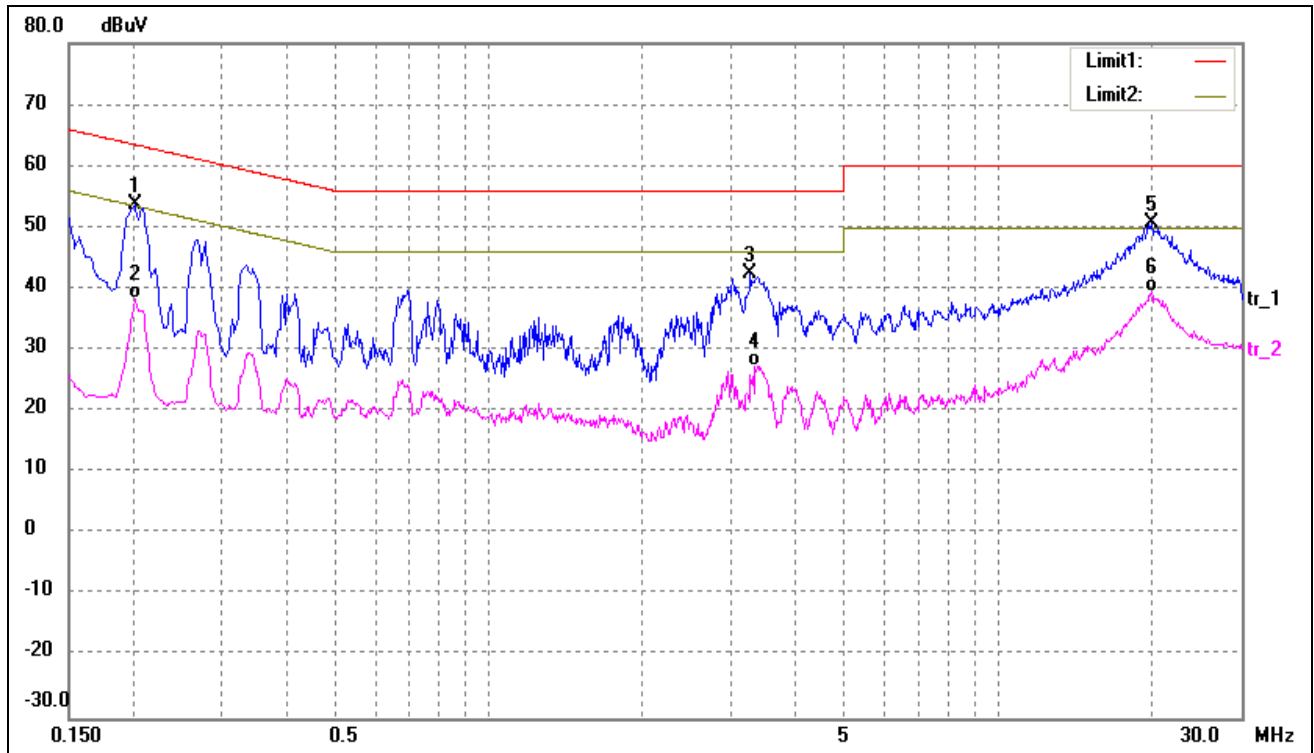
EUT: Mobile Phone
 Tested Model: L5S
 Operating Condition: TM2
 Comment: AC 120V/60Hz; USB 5V

Test Specification: Neutral



No.	Frequency	Reading	Correct	Result	Limit	Margin	Detector
	(MHz)	(dBuV)	(dB/m)	(dBuV)	(dBuV)	(dB)	
1*	0.1980	45.15	9.50	54.65	63.69	-9.04	peak
2	0.2020	32.95	9.50	42.45	53.53	-11.08	AVG
3	0.2620	40.34	9.50	49.84	61.37	-11.53	peak
4	0.2700	28.86	9.50	38.36	51.12	-12.76	AVG
5	3.0060	16.13	10.00	26.13	46.00	-19.87	AVG
6	3.2620	31.15	10.00	41.15	56.00	-14.85	peak
7	19.4340	36.77	11.89	48.66	60.00	-11.34	peak
8	19.6860	24.72	11.94	36.66	50.00	-13.34	AVG

Test Specification: Line



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.2020	44.31	9.50	53.81	63.53	-9.72	peak
2	0.2020	28.94	9.50	38.44	53.53	-15.09	AVG
3	3.2740	32.33	10.00	42.33	56.00	-13.67	peak
4	3.3420	17.38	10.00	27.38	46.00	-18.62	AVG
5*	19.9660	38.86	11.99	50.85	60.00	-9.15	peak
6	19.9660	27.43	11.99	39.42	50.00	-10.58	AVG

4. Radiated Emissions

4.1 Measurement Uncertainty

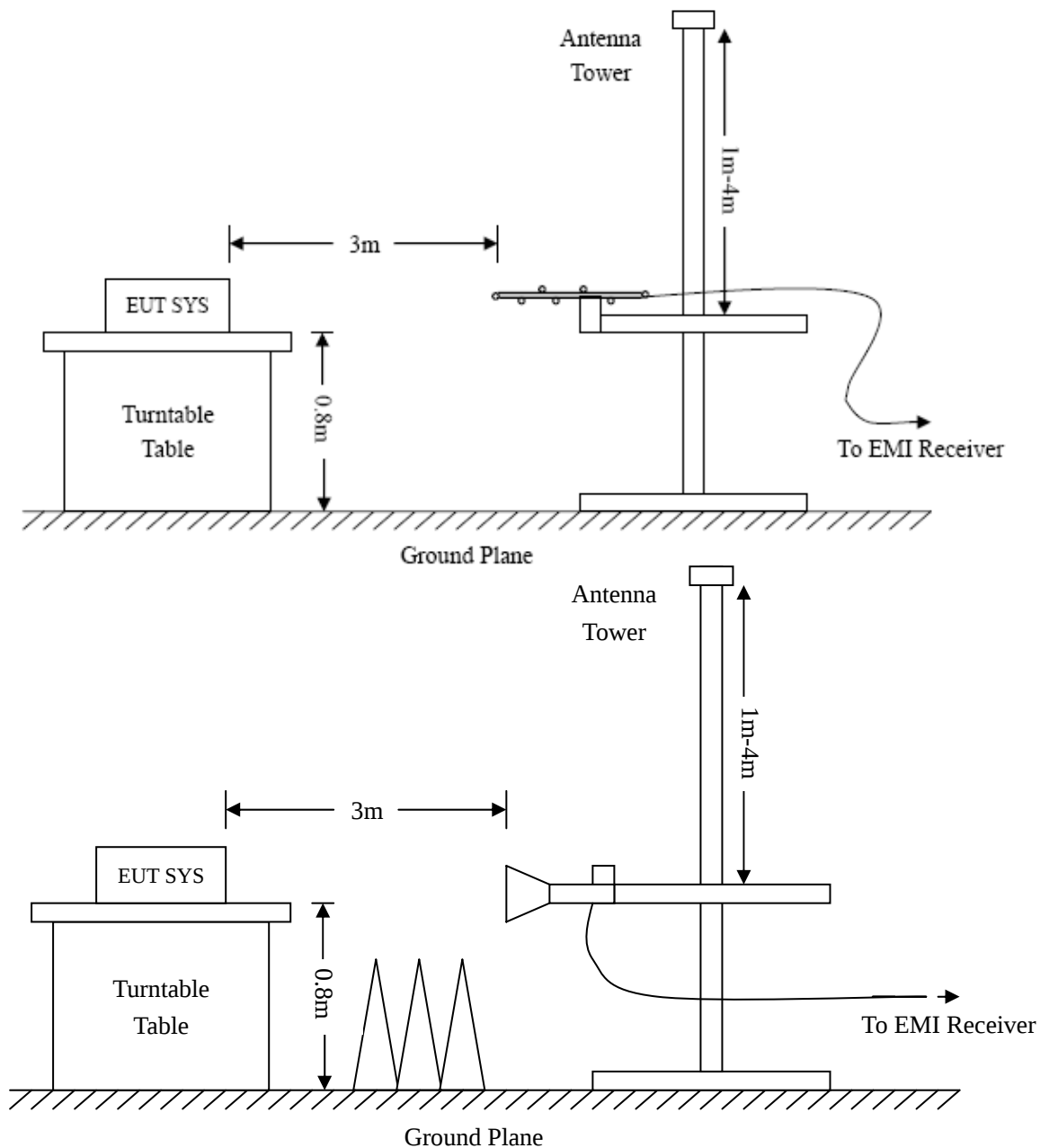
Base on NIS 81, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of any radiation emissions measurement is ± 5.10 dB.

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

RBW=10KHz,

VBW =30KHz

Sweep time= Auto

Trace = max hold

Detector function = peak

Frequency :30MHz-1GHz

RBW=120KHz,

VBW=300KHz

Sweep time= Auto

Trace = max hold

Detector function = peak, QP

Frequency :Above 1GHz

RBW=1MHz,

VBW=3MHz(Peak), 10Hz(AV)

Sweep time= Auto

Trace = max hold

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 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:

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

4.5 Environmental Conditions

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

4.6 Summary of Test Results/Plots

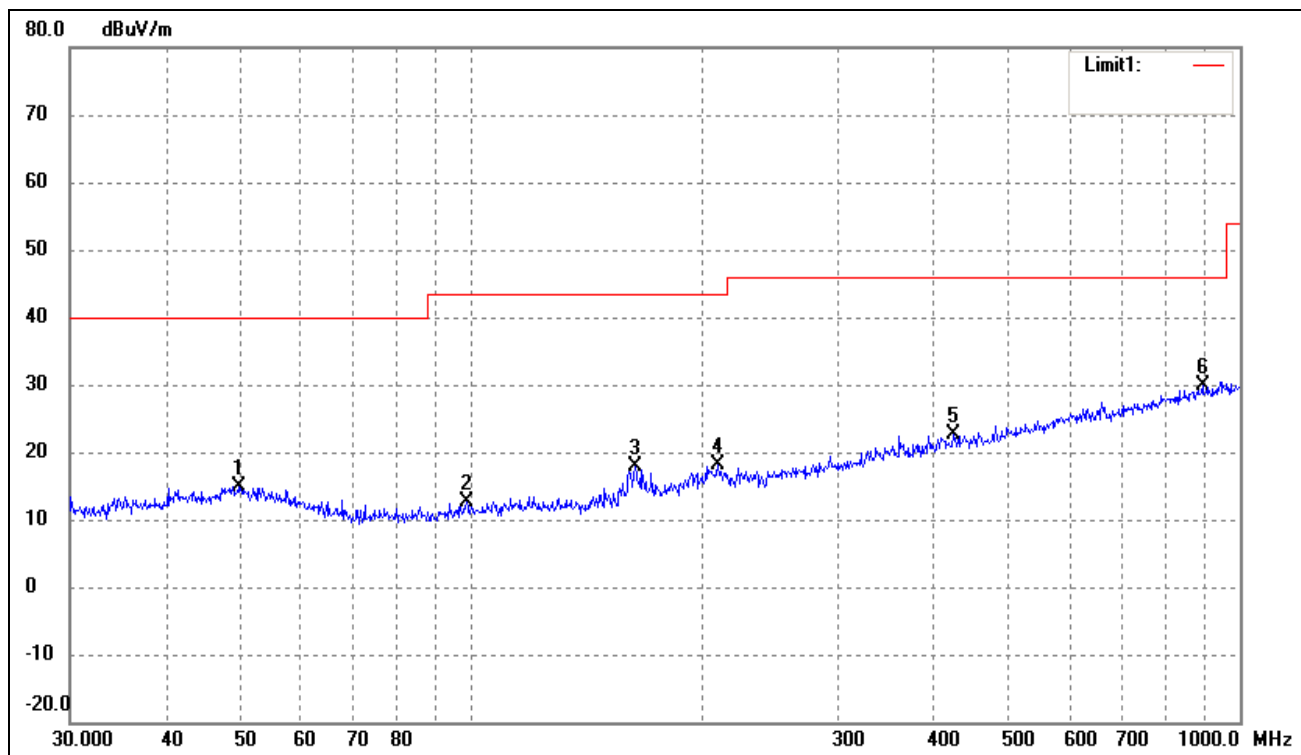
According to the data, the EUT complied with the FCC Part 15.109(a) rule, and had the worst margin of:

-1.69 dB at 165.8000 MHz in the Vertical polarization, TM2 Mode 9 kHz to 6.5 GHz, 3Meters

Plot of Radiated Emissions Test Data

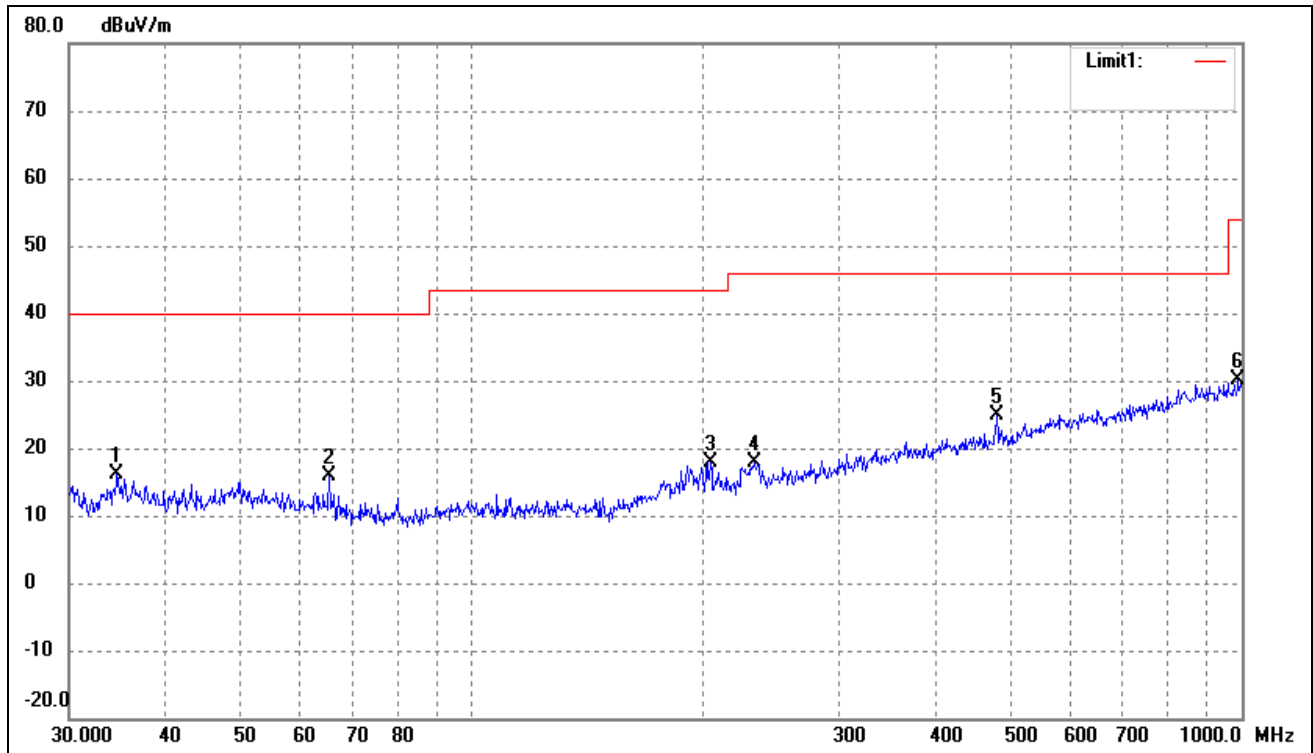
EUT: Mobile Phone
 Tested Model: L5S
 Operating Condition: TM1
 Comment: AC 120V/60Hz; Adapter DC 5V

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	49.7068	24.00	-9.01	14.99	40.00	-25.01	142	100	QP
2	98.4866	24.74	-12.01	12.73	43.50	-30.77	225	100	QP
3	163.1818	28.78	-10.89	17.89	43.50	-25.61	270	100	QP
4	209.3129	26.41	-8.27	18.14	43.50	-25.36	26	100	QP
5	423.5403	24.95	-2.33	22.62	46.00	-23.38	334	100	peak
6	893.8567	24.92	4.98	29.90	46.00	-16.10	238	100	peak

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	34.6385	27.19	-11.17	16.02	40.00	-23.98	360	100	QP
2	65.3432	28.14	-12.21	15.93	40.00	-24.07	276	100	QP
3	204.2377	26.24	-8.42	17.82	43.50	-25.68	229	100	QP
4	233.3487	24.86	-7.04	17.82	46.00	-28.18	109	100	QP
5	480.5276	26.30	-1.47	24.83	46.00	-21.17	360	100	QP
6	989.5355	24.20	5.81	30.01	54.00	-23.99	360	100	QP

Plot of Radiated Emissions Test Data

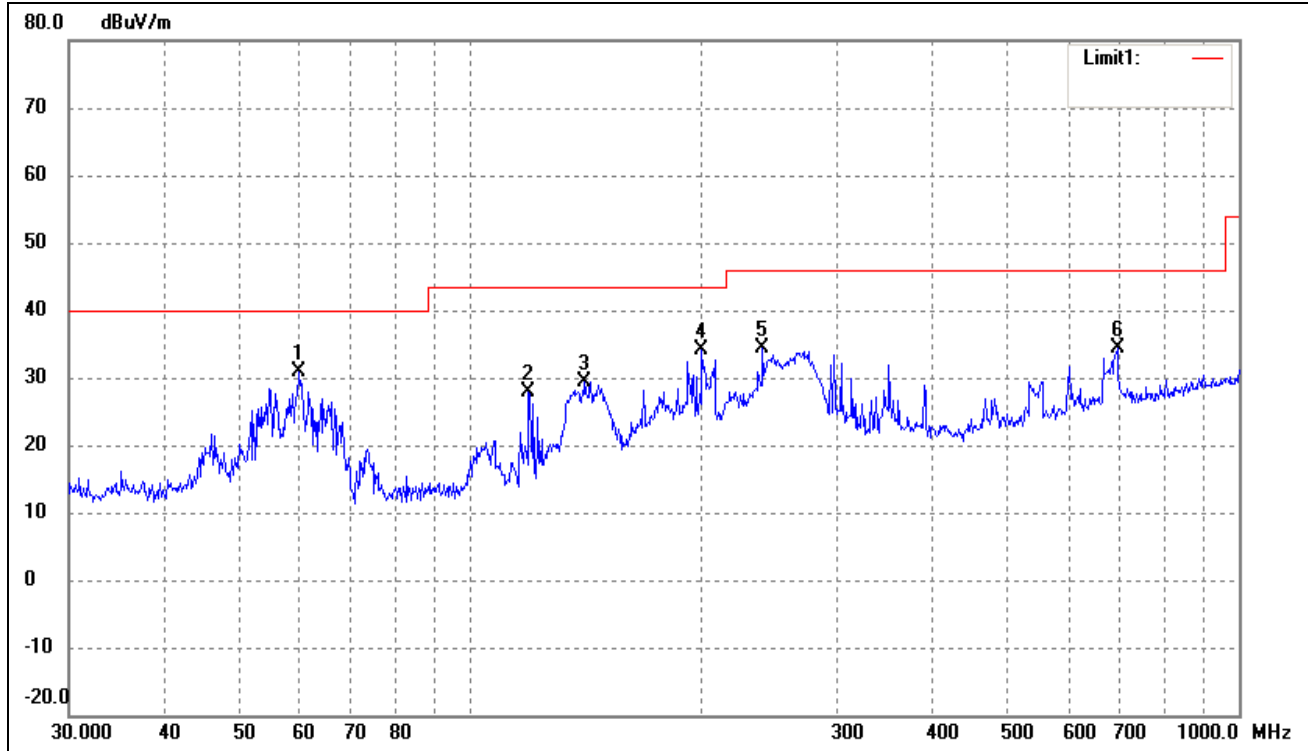
EUT: Mobile Phone

Tested Model: L5S

Operating Condition: TM2

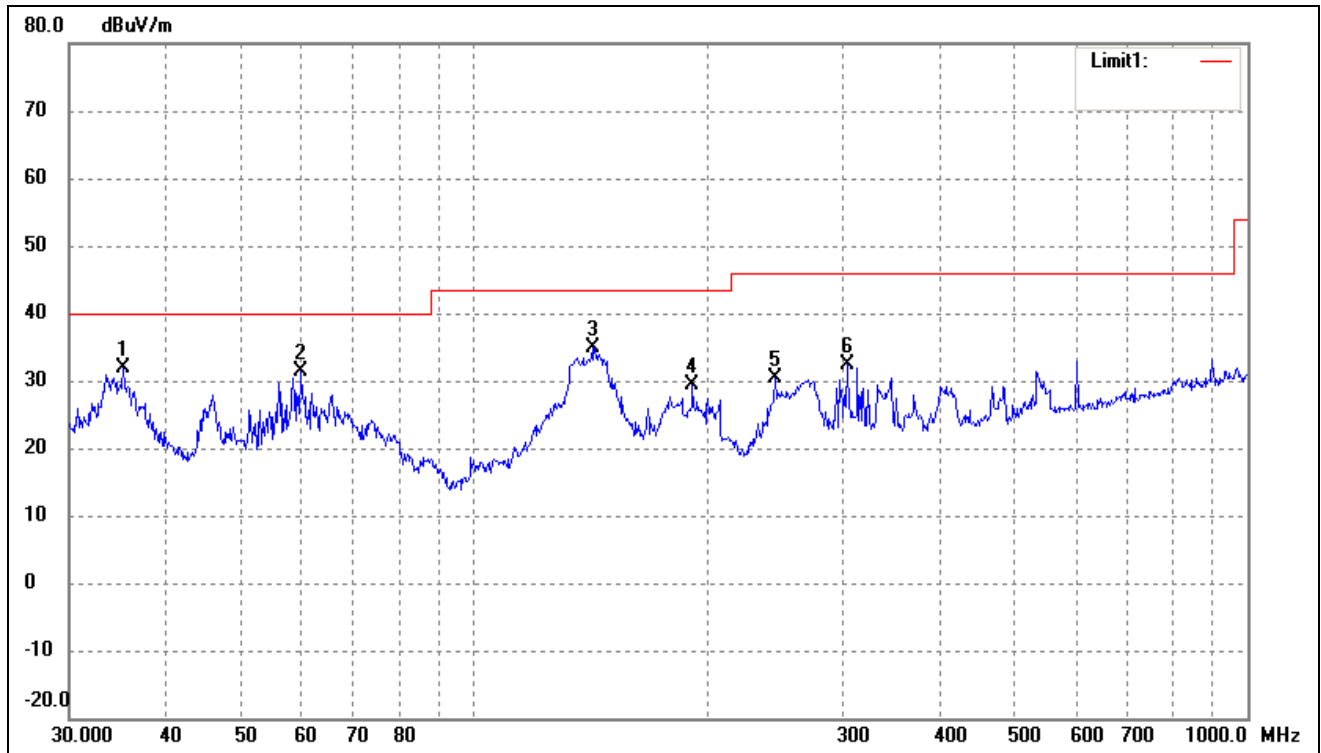
Comment: USB: DC5V

Test Specification: Horizontal



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(°)	(cm)	
1	59.8588	41.86	-11.05	30.81	40.00	-9.19	251	100	QP
2	119.0180	39.04	-11.20	27.84	43.50	-15.66	322	100	QP
3	140.8351	40.84	-11.46	29.38	43.50	-14.12	360	100	QP
4	199.9856	42.57	-8.56	34.01	43.50	-9.49	360	100	QP
5	239.9874	41.33	-6.85	34.48	46.00	-11.52	360	100	QP
6	694.4174	32.25	2.20	34.45	46.00	-11.55	360	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	35.2512	42.92	-11.09	31.83	40.00	-8.17	223	100	QP
2	59.8588	42.42	-11.05	31.37	40.00	-8.63	213	100	QP
3	142.3243	46.34	-11.47	34.87	43.50	-8.63	341	100	QP
4	191.7450	38.31	-8.81	29.50	43.50	-14.00	223	100	QP
5	245.0900	37.06	-6.69	30.37	46.00	-15.63	180	100	QP
6	303.5437	37.61	-5.30	32.31	46.00	-13.69	210	100	QP

Plot of Radiated Emissions Test Data

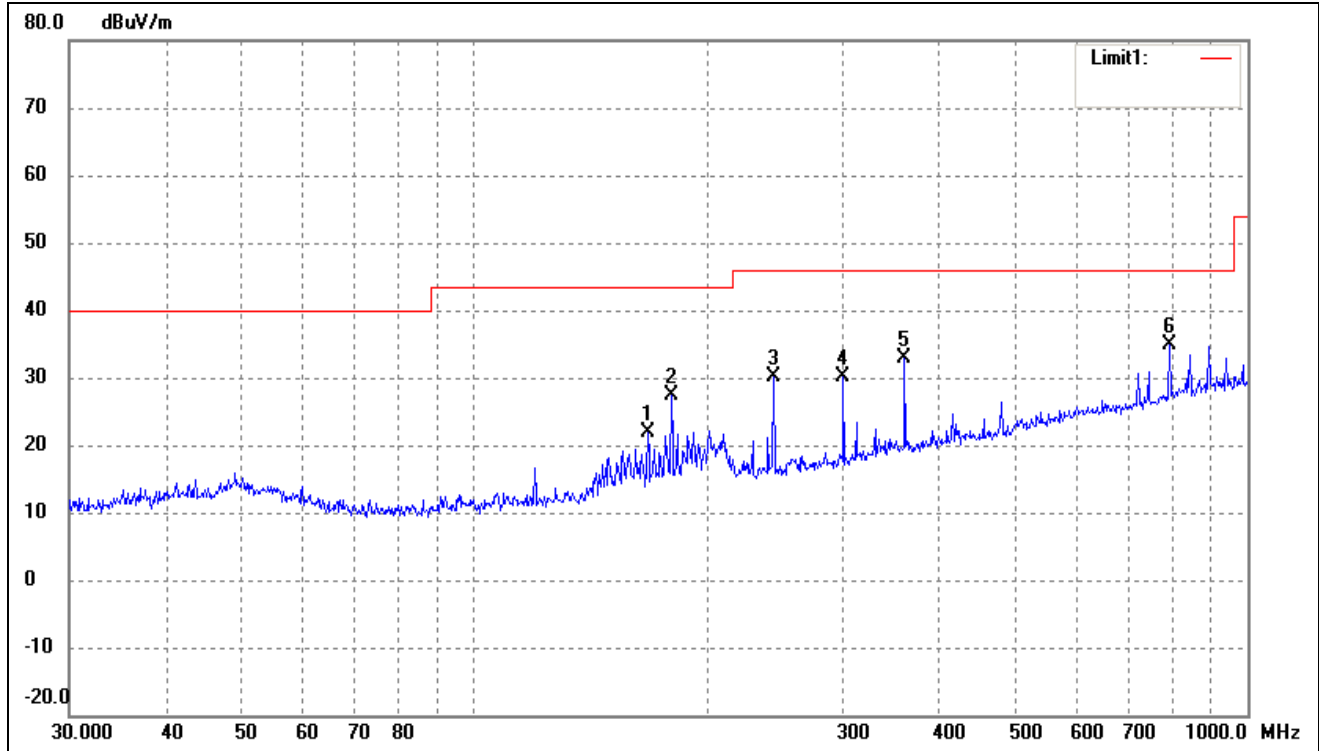
EUT: Mobile Phone

Tested Model: L5S

Operating Condition: TM3

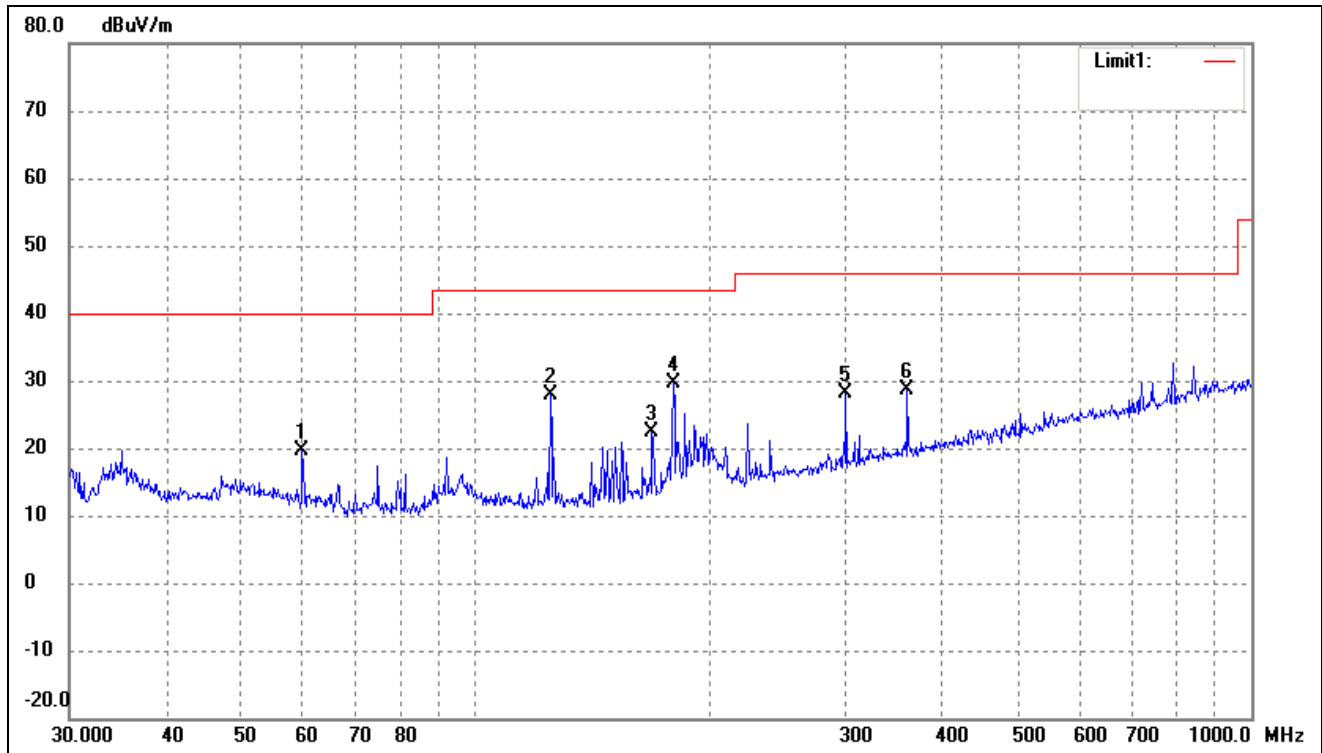
Comment: DC 3.8V

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	167.8243	32.57	-10.66	21.91	43.50	-21.59	158	100	QP
2	180.0165	37.19	-9.69	27.50	43.50	-16.00	0	100	QP
3	244.2321	36.91	-6.71	30.20	46.00	-15.80	147	100	QP
4	300.3673	35.49	-5.36	30.13	46.00	-15.87	352	100	QP
5	360.4477	36.62	-3.65	32.97	46.00	-13.03	100	100	QP
6	793.3960	31.32	3.59	34.91	46.00	-11.09	360	100	peak

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	59.8588	30.62	-11.05	19.57	40.00	-20.43	352	100	QP
2	125.0066	39.10	-11.26	27.84	43.50	-15.66	221	100	QP
3	169.0054	32.98	-10.59	22.39	43.50	-21.11	76	100	QP
4	180.0165	39.42	-9.69	29.73	43.50	-13.77	129	100	QP
5	300.3673	33.40	-5.36	28.04	46.00	-17.96	220	100	QP
6	360.4477	32.28	-3.65	28.63	46.00	-17.37	180	100	QP

Plot of Radiated Emissions Test Data

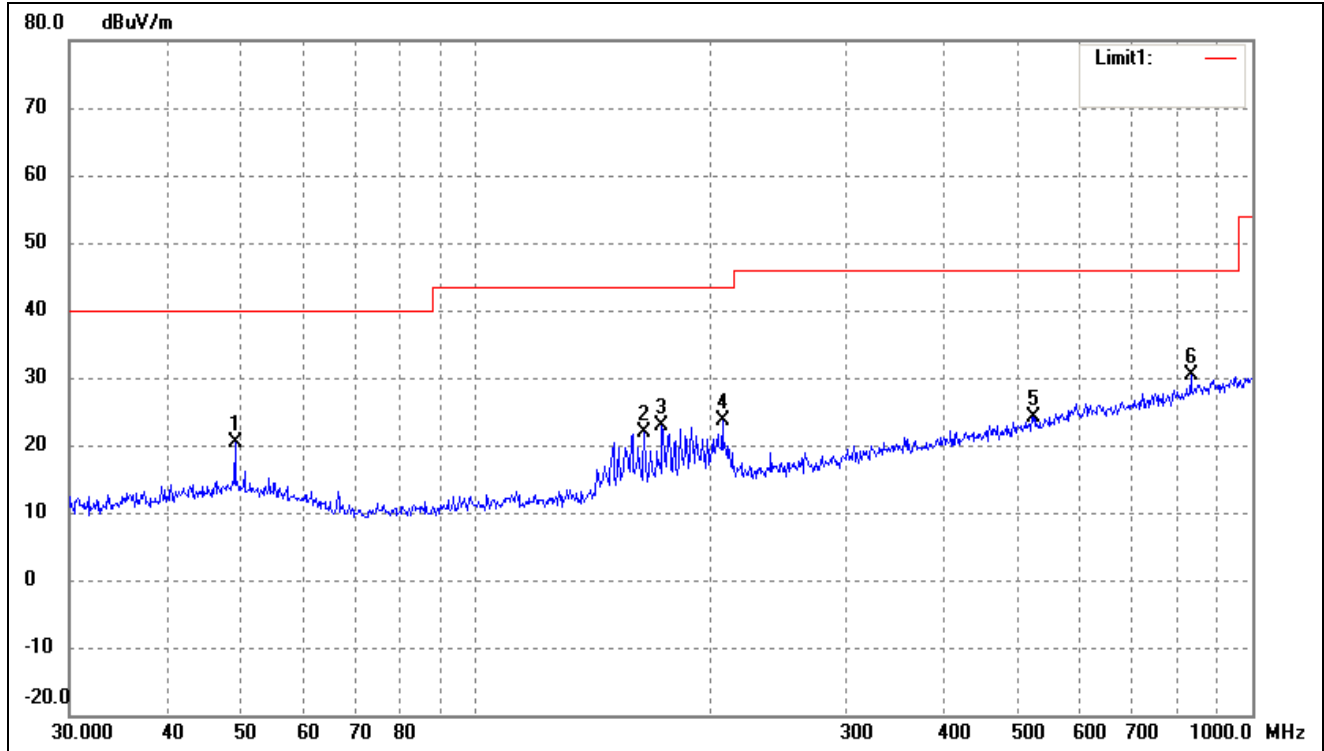
EUT: Mobile Phone

Tested Model: L5S

Operating Condition: TM4

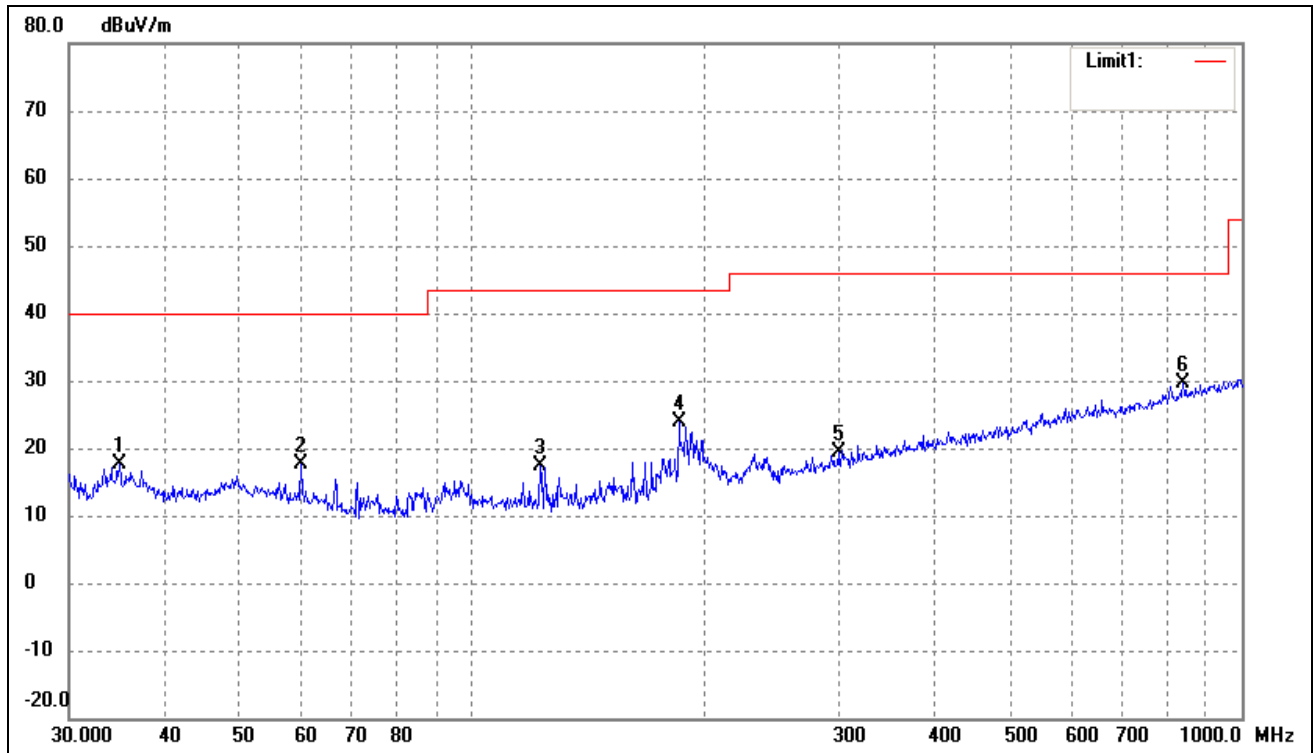
Comment: DC 3.8V

Test Specification: Horizontal



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(°)	(cm)	
1	49.0145	29.57	-9.12	20.45	40.00	-19.55	214	100	QP
2	164.9075	32.71	-10.81	21.90	43.50	-21.60	330	100	QP
3	173.8135	33.04	-10.23	22.81	43.50	-20.69	224	100	QP
4	207.8501	31.86	-8.31	23.55	43.50	-19.95	117	100	QP
5	522.7180	24.79	-0.57	24.22	46.00	-21.78	330	100	QP
6	833.3171	26.39	4.00	30.39	46.00	-15.61	360	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	34.8823	28.79	-11.14	17.65	40.00	-22.35	118	100	QP
2	60.0691	28.75	-11.09	17.66	40.00	-22.34	278	100	QP
3	122.8340	28.70	-11.24	17.46	43.50	-26.04	230	100	QP
4	185.7882	33.05	-9.21	23.84	43.50	-19.66	332	100	QP
5	299.3158	24.77	-5.38	19.39	46.00	-26.61	360	100	QP
6	839.1818	25.46	4.07	29.53	46.00	-16.47	360	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 *****