

FCC

EMC

TEST REPORT

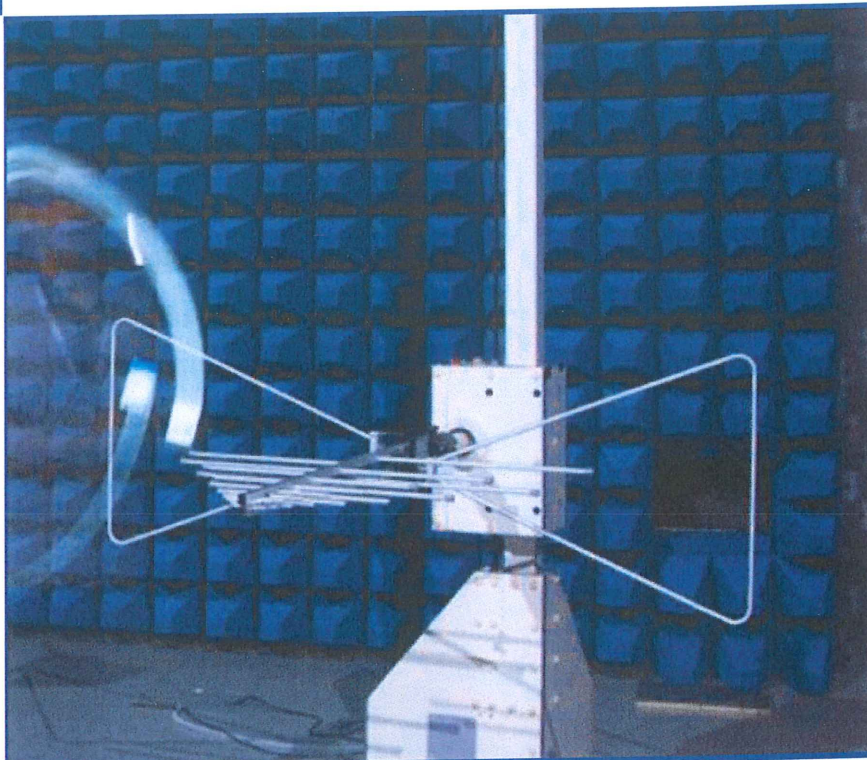
ISSUED BY
Shenzhen BALUN Technology Co., Ltd.



FOR
K2 Dual Core System

ISSUED TO
System Level Solutions Inc.

14100 Murphy Ave., San Martin, CA - 95046, United States.



Tested by: Zhang Yanqing

Zhang Yanqing

(Engineer)

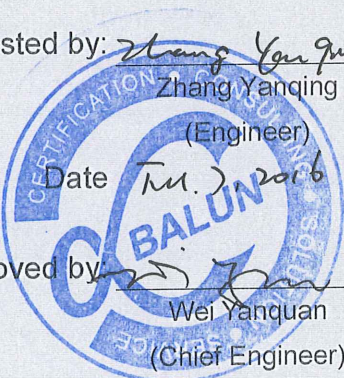
Date Jul. 7, 2016

Approved by: Wei Yanquan

Wei Yanquan

(Chief Engineer)

Date Jul. 7, 2016



Report No.: BL-SZ1620053-401

EUT Type: K2 Dual Core System

Model Name: PI1WLDD000100

Brand Name: K2DC

Test Standard: 47 CFR Part 15 Subpart B

FCC ID: 2AHK5-PI1WLD100

Test Conclusion: Pass

Test Date: Mar. 25, 2016 ~ May 25, 2016

Date of Issue: Jul. 7, 2016

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Revision History

Version	Issue Date	Revisions Content
<u>Rev. 01</u>	<u>Jul. 6, 2016</u>	<u>Initial Issue</u>
<u>Rev. 02</u>	<u>Jul. 7, 2016</u>	<u>Added FCC ID</u>

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1 GENERAL INFORMATION

1.1 Identification of the Testing Laboratory

Company Name	Shenzhen BALUN Technology Co., Ltd.
Address	Block B, 1st FL, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China
Phone Number	+86 755 6685 0100
Fax Number	+86 755 6182 4271

1.2 Identification of the Responsible Testing Location

Test Location	Shenzhen BALUN Technology Co., Ltd.
Address	Block B, 1st FL, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China
Accreditation Certificate	The laboratory has been listed by Industry Canada to perform electromagnetic emission measurements. The recognition numbers of test site are 11524A-1. The laboratory has been listed by US Federal Communications Commission to perform electromagnetic emission measurements. The recognition numbers of test site are 832625. The laboratory is a testing organization accredited by China National Accreditation Service for Conformity Assessment (CNAS) according to ISO/IEC 17025. The accreditation certificate number is L6791.
Description	All measurement facilities used to collect the measurement data are located at Block B, FL 1, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China 518055

1.3 Laboratory Condition

Ambient Temperature	20°C~25°C
Ambient Relative Humidity	45% - 55%
Ambient Pressure	100 kPa - 102 kPa

1.4 Announce

- (1) The test report reference to the report template version v2.3.
- (2) The test report is invalid if not marked with the signatures of the persons responsible for preparing and approving the test report.
- (3) The test report is invalid if there is any evidence and/or falsification.
- (4) The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein.
- (5) This document may not be altered or revised in any way unless done so by BALUN and all revisions are duly noted in the revisions section.

- (6) Content of the test report, in part or in full, cannot be used for publicity and/or promotional purposes without prior written approval from the laboratory.

2 PRODUCT INFORMATION

2.1 Applicant Information

Applicant	System Level Solutions Inc.
Address	14100 Murphy Ave., San Martin, CA - 95046, United States.

2.2 Manufacturer Information

Manufacturer	System Level Solutions (India) Pvt. Ltd.
Address	Plot#32, Zone-D/4, Phase-1, GIDC Estate, V.U. Nagar - 388 121, Gujarat, India.

2.3 Factory Information

Factory	Pronology Services (China) Inc.
Address	The Second Industrial Zone, Lou Village, Gongming Town, Guangming Dist., 518106, Shenzhen, Guangdong, China.

2.4 General Description for Equipment under Test (EUT)

EUT Type	K2 Dual Core System
Model Name Under Test	PI1WLDD000100
Series Model Name	N/A
Description of Model name differentiation	N/A
Hardware Version	1B-01
Software Version	2.3.0
Dimensions (Approx.)	120mm x 55mm x 23mm
Weight (Approx.)	0.085kg
Network and Wireless connectivity	Bluetooth, WIFI
Product Type	Class A ITE

2.5 Ancillary Equipment

Ancillary Equipment 1	Charger	
	Brand Name	L.T.E.
	Model No.	LTE05UW-S1-BU
	Serial No.	N/A
	Rated Input	100-240 V~, 0.2 A, 50-60 Hz
	Rated Output	5 V=, 1 A
Ancillary Equipment 2	Charger	
	Brand Name	
	Model No.	MX12X8-0501000UU
	Serial No.	N/A
	Rated Input	100-240 V~, 0.35 A, 50-60 Hz
	Rated Output	5 V=, 1 A
Ancillary Equipment 3	HDMI Cable	
	Length (Approx.)	34 cm
Ancillary Equipment 4	USB Cable	
	Length (Approx.)	103 cm
Ancillary Equipment 5	Ycable	
	Length (Approx.)	104 cm

2.6 Technical Information

N/A

3 SUMMARY OF TEST RESULTS

3.1 Test Standards

No.	Identity	Document Title
1	FCC 47 CFR Part 15 Subpart B (10-1-14 Edition)	Unintentional Radiators
2	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 Verdict

No.	Description	FCC Rule	Test Verdict	Result
1	Radiated Emission	15.109	Pass	Annex A .1
2	Conducted Emission, AC Ports	15.107	Pass	Annex A .2

3.3 Test Uncertainty

The following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

Measurement	Value
Conducted emissions (9 kHz-30 MHz)	3.23 dB
Radiated emissions (30 MHz-1 GHz)	3.45 dB
Radiated emissions (1 GHz-18 GHz)	4.55 dB

4 GENERAL TEST CONFIGURATIONS

4.1 Test Environments

Environment Parameter	Selected Values During Tests			
	Temperature	Voltage	Relative Humidity	Ambient Pressure
Normal Temperature, Normal Voltage (NTNV)	23°C~26°C	AC 120 V/60 Hz	50%-55%	100 to 102 kPa

4.2 Test Equipment List

Radiated Emission Test						
Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due	Use
EMI Receiver	ROHDE&SCHWARZ	ESRP	101036	2015.07.14	2016.07.13	☒
Test Antenna- Bi-Log(30 MHz- 3 GHz)	SCHWARZBECK	VULB 9163	9163-624	2015.07.22	2017.07.21	☒
Test Antenna- Horn(1- 18 GHz)	SCHWARZBECK	BBHA 9120D	9120D-1148	2015.07.22	2017.07.21	☒
Test Antenna- Horn(15- 26.5 GHz)	SCHWARZBECK	BBHA 9170	9170-305	2015.07.22	2017.07.21	☐
Anechoic Chamber	RAINFORD	9 m*6 m*6 m	N/A	2015.02.28	2017.02.27	☒

Conducted disturbance Test						
Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due	Use
EMI Receiver	ROHDE&SCHWARZ	ESRP	101036	2015.07.14	2016.07.13	☒
LISN	SCHWARZBECK	NSLK 8127	8127-687	2015.07.14	2016.07.13	☒
Shielded Enclosure	ChangNing	CN-130701	130703	N/A	N/A	☒

4.3 Test Enclosure list

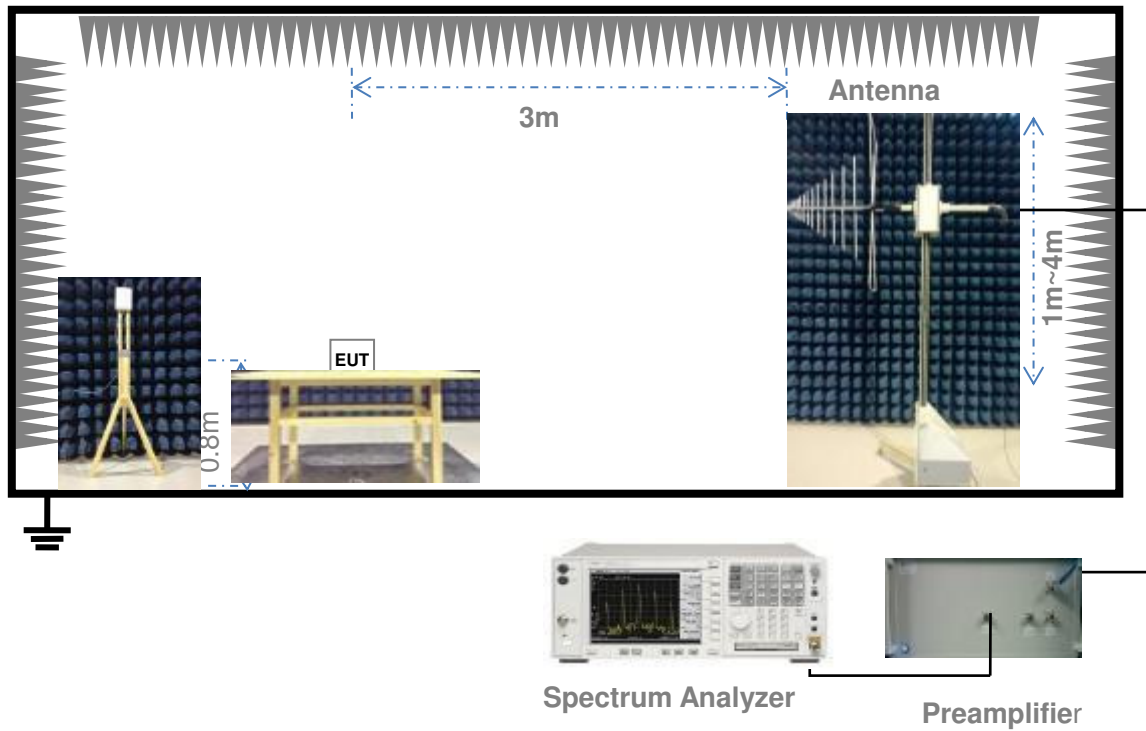
Description	Manufacturer	Model	Serial No.	Length	Description	Use
PC	N/A	N/A	N/A	N/A	Special Handled	☐
Laptop	Apple	A1465	N/A	N/A	N/A	☐
Printer	HP	DESKJET 1000	N/A	N/A	N/A	☐
Keyboard	Logitech	Y-BP62a	N/A	N/A	N/A	☐
Mouse	Logitech	M100	N/A	N/A	N/A	☐
USB disk	Kingston	N/A	N/A	N/A	N/A	☐
TF Card	Kingston	N/A	N/A	N/A	N/A	☐
VGA Cable	N/A	N/A	N/A	1.5 m	Shielded with core	☐
HDMI Cable	N/A	N/A	N/A	1.5 m	Shielded with core	☐
DVI Cable	N/A	N/A	N/A	1.5 m	Shielded with core	☐
Coaxial video cable	N/A	N/A	N/A	2.0 m	Shielded with core	☐
iPhone	Apple	A1586	N/A	N/A	N/A	☐
Phone	MI	M4	N/A	N/A	N/A	☐
Laptop	LENOVO	K29	N/A	N/A	N/A	☐
Bluetooth Earphone	SAMSUNG	Gear Circle	N/A	N/A	N/A	☐
GPS/GLONASS Vector signal generator	R&S	N5172B EXG	N/A	N/A	N/A	☐
WIFI Router	TP-LINK	TL-WDR7500	N/A	N/A	N/A	☒
Earphone	N/A	OPPO	N/A	1.1 m	N/A	☐
Car Battery	Camel	55530	N/A	N/A	12 V/55 Ah	☐
Artificial load	N/A	N/A	N/A	N/A	2.5 Ω /100 W	☐
Artificial load	N/A	N/A	N/A	N/A	5 Ω /100 W	☐
Electronic Load	ITECH	IT8511	N/A	N/A	N/A	☐
USB Cable	N/A	N/A	N/A	1.5 m	Shielded with core	☐
DC Power Supply	ROHDE & SCHWARZ	HMP2020	18141664	N/A	N/A	☐
Screen	Sony	KDL-32W600D	N/A	N/A	N/A	☒
RJ45 Cable	N/A	N/A	N/A	2 m	Shielded with core	☒

4.4 Test Configurations

Test Configurations (TC) No.	Description
TC01	<u>The Working test mode (Charger Model: LTE05UW-S1-BU)</u> EUT +USB Cable + Charger+ HDMI Cable + Screen + WIFI Router.
TC02	<u>The Working test mode (Charger Model: MX12X8-0501000UU)</u> EUT +USB Cable + Charger+ HDMI Cable + Screen + WIFI Router.
TC03	<u>The Working test mode (Ycable)</u> EUT + Ycable + WIFI Router + HDMI Cable+ Screen.

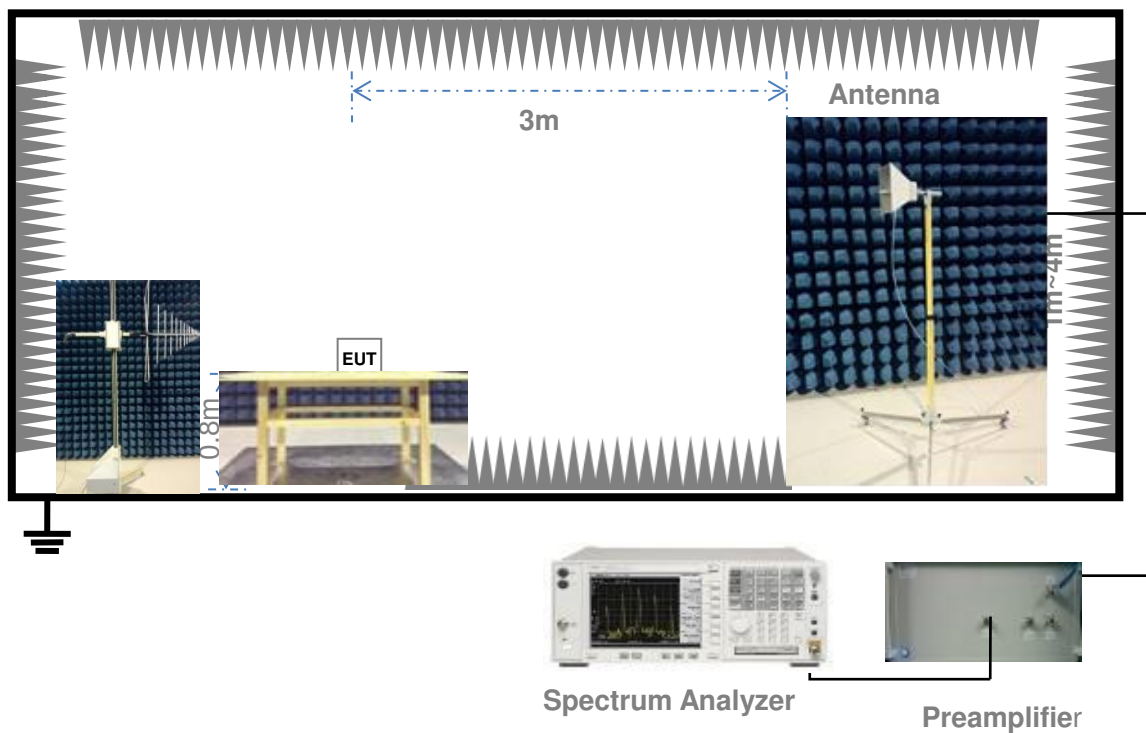
4.5 Test Setups

Test Setup 1



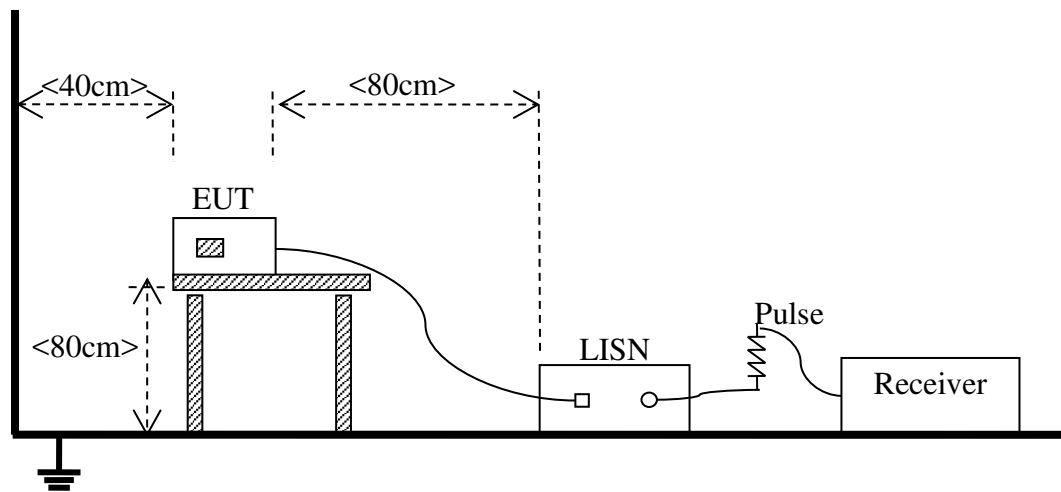
(For Radiated Emission Test (30 MHz-1 GHz))

Test Setup 2



(For Radiated Emission Test (above 1 GHz))

Test Setup 3



(For Conducted Emission, AC Ports Test)

4.6 Test Conditions

Test Case	Test Conditions	
Radiated Emission	Test Env.	NTNV
	Test Setup	Test Setup 1&2
	Test Configuration	TC01~TC03 ^{Note}
Conducted Emission, AC Ports	Test Env.	NTNV
	Test Setup	Test Setup 3
	Test Configuration	TC01~TC03 ^{Note}

5 TEST ITEMS

5.1 Emission Tests

5.1.1 Radiated Emission

5.1.1.1 Limit

Frequency (MHz)	Field Strength (dB μ V/m)	Measurement Distance (m)
30 - 88	49.5	3
88 - 216	54	3
216 - 960	56.9	3
Above 960	60	3

NOTE:

- 1) In the emission tables above, the tighter limit applies at the band edges.
- 2) For above 1000 MHz, limit field strength of harmonics: 60 dB μ V/m@3 m (AV) and 80 dB μ V/m@3 m (PK)

5.1.1.2 Test Setup

Refer to 4.5 section (test setups1 to test setups2) for radiated emission test, the photo of test setup please refer to ANNEX B.

5.1.1.3 Test Procedure

All Spurious Emission tests were performed in X, Y, Z axis direction. And only the worst axis test condition was recorded in this test report.

An initial pre-scan was performed in the chamber using the EMI Receiver in peak detection mode. Quasi-peak measurements were conducted based on the peak sweep graph. The EUT was measured by Bi-Log antenna with 2 orthogonal polarities.

5.1.1.4 Test Result

Please refer to ANNEX A.1.

5.1.2 Conducted Emission

5.1.2.1 Test Limit

Frequency range (MHz)	Conducted Limit (dB μ V)	
	Quasi-peak	Average
0.15 - 0.50	79	66
0.50 - 30	73	60

NOTE:

- 1) The limit is applicable to Class A ITE.
- 2) The lower limit shall apply at the band edges.
- 3) The limit decreases linearly with the logarithm of the frequency in the range 0.15 - 0.50 MHz.

5.1.2.2 Test Setup

Refer to 4.5 section test (test setup 3) for conducted emission, the photo of test setup please refer to ANNEX B.

5.1.2.3 Test Procedure

The EUT is connected to the power mains through a LISN which provides 50 Ω /50 μ H of coupling impedance for the measuring instrument. The test frequency range is from 150 kHz to 30 MHz. The maximum conducted interference is searched using Peak (PK), Quasi-peak (QP) and Average (AV) detectors; the emission levels that are more than the AV and QP limits, and that have narrow margins from the AV and QP limits will be re-measured with AV and QP detectors. Tests for both L phase and N phase lines of the power mains connected to the EUT are performed.

Devices subject to Part 15 must be tested for all available U.S. voltages and frequencies (such as a nominal 120 VAC, 50/60 Hz and 240 VAC, 50/60 Hz) for which the device is capable of operation. A device rated for 50/60 Hz operation need not be tested at both frequencies provided the radiated and line conducted emissions are the same at both frequencies.

5.1.2.4 Test Result

Please refer to ANNEX A.2.

ANNEX A TEST RESULTS

A.1 Radiated Emission

Note 1: The symbol of “--” in the table which means not application.

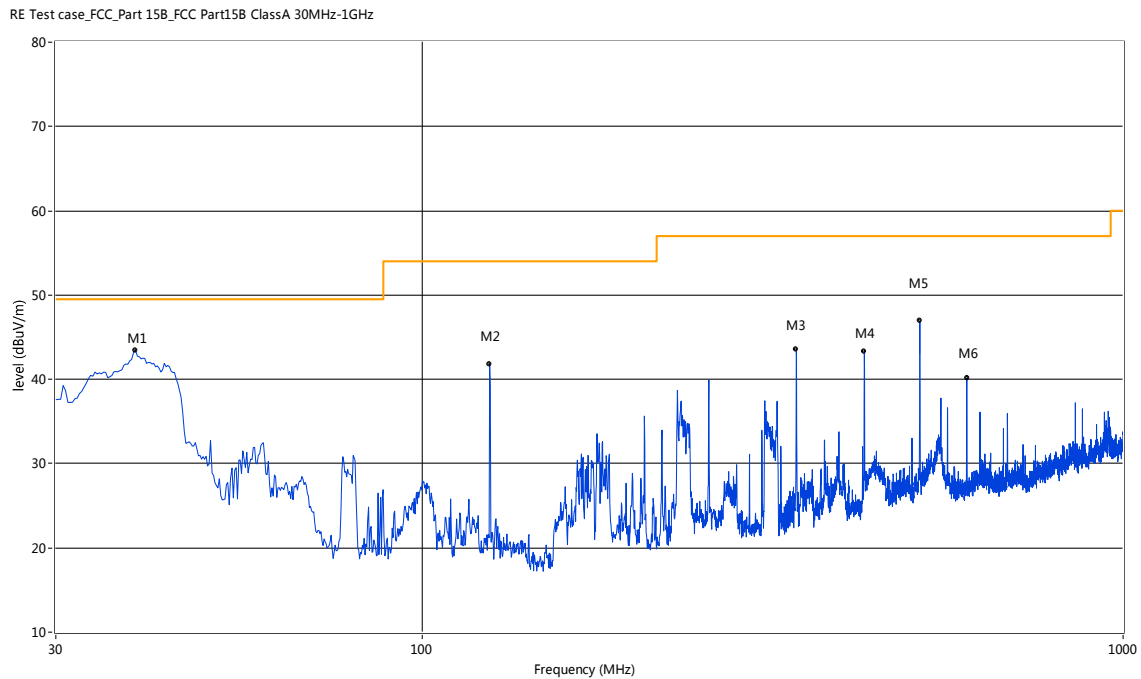
Note 2: For the test data above 1 GHz, according the ANSI C63.4-2014, where limits are specified for both average and peak (or quasi-peak) detector functions, if the peak (or quasi-peak) measured value complies with the average limit, it is unnecessary to perform an average measurement.

Note 3: The marked spikes near 2400 MHz with circle should be ignored because they are Bluetooth or WIFI carrier frequency.

Test Data and Plots

The worst test mode: The Working test mode (Charger Model: LTE05UW-S1-BU)

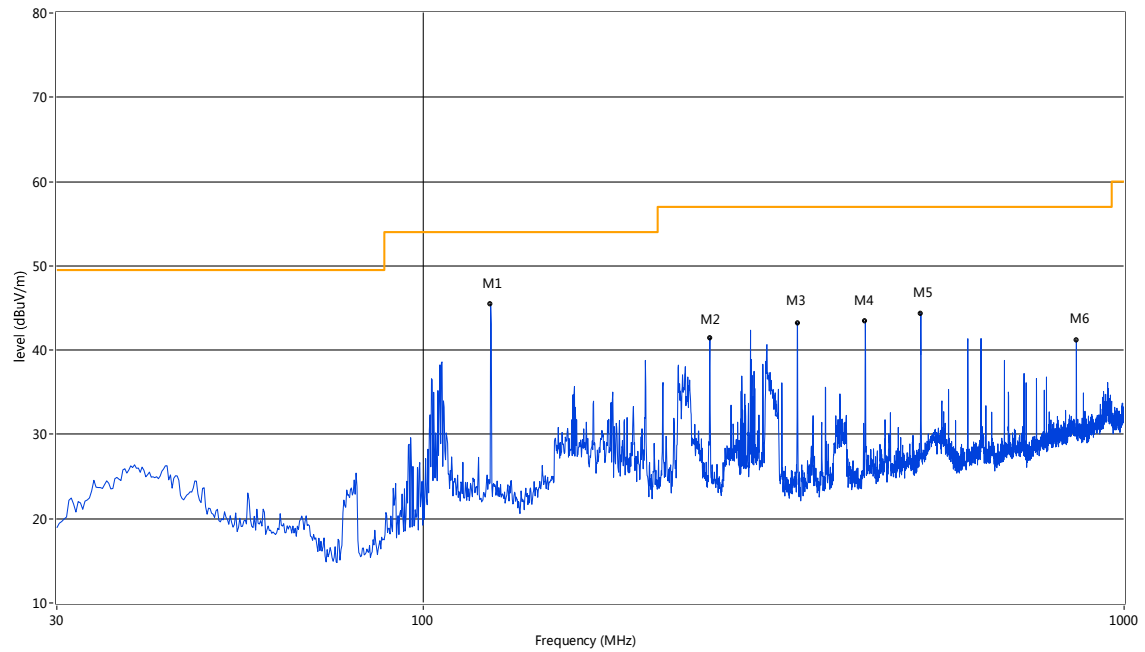
A.1.1 Test Antenna Vertical, 30 MHz – 1 GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	38.97	43.46	-19.96	49.5	6.04	Peak	304.90	100	Vertical	Pass
2	124.79	41.84	-22.47	54.0	12.16	Peak	61.20	100	Vertical	Pass
3	341.78	43.50	-16.31	56.9	13.40	Peak	0.00	100	Vertical	Pass
4	427.36	43.36	-14.62	56.9	13.54	Peak	354.70	100	Vertical	Pass
5	512.94	46.91	-13.01	56.9	9.99	Peak	21.00	100	Vertical	Pass
6	598.52	40.16	-10.86	56.9	16.74	Peak	34.50	100	Vertical	Pass

A.1.2 Test Antenna Horizontal, 30 MHz – 1 GHz

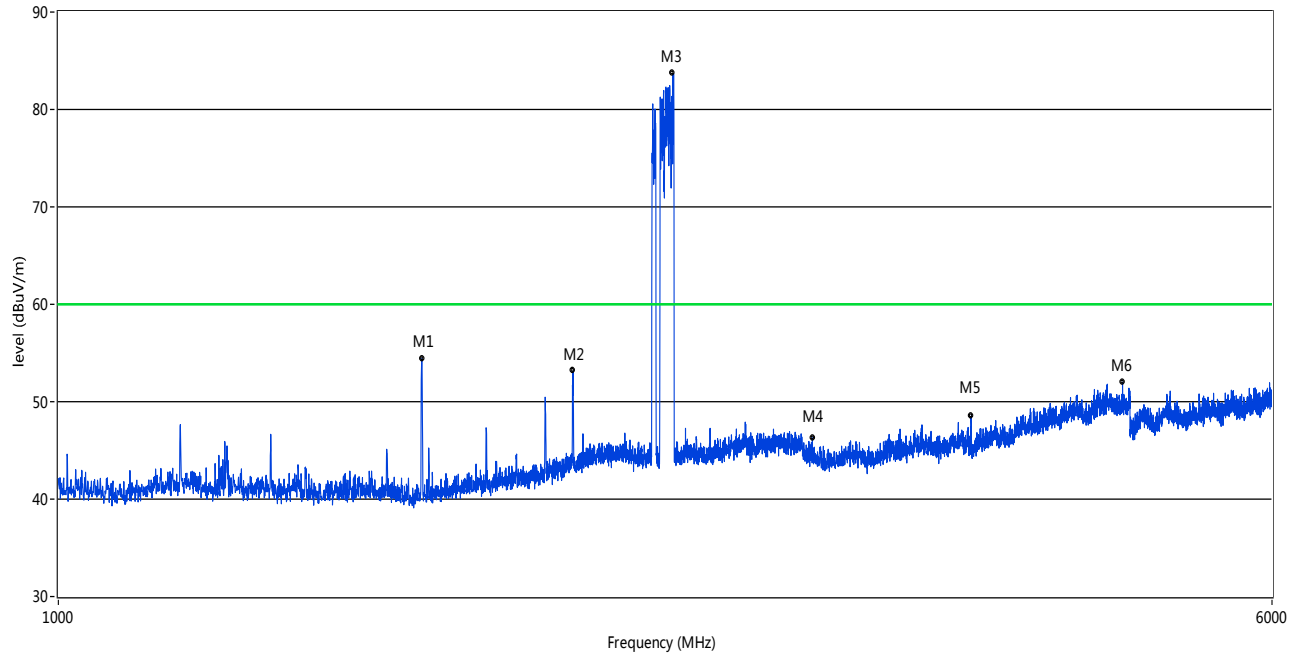
RE Test case_FCC_Part 15B_FCC Part15B ClassA 30MHz-1GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	124.79	45.43	-22.47	54.0	8.57	Peak	345.20	100	Horizontal	Pass
2	256.44	41.42	-18.74	56.9	15.48	Peak	136.60	100	Horizontal	Pass
3	342.02	43.21	-16.28	56.9	13.69	Peak	130.00	100	Horizontal	Pass
4	427.36	43.43	-14.62	56.9	13.47	Peak	160.10	100	Horizontal	Pass
5	512.94	44.34	-13.01	56.9	12.56	Peak	153.20	100	Horizontal	Pass
6	855.02	41.09	-6.28	56.9	15.81	Peak	335.10	100	Horizontal	Pass

A.1.3 Test Antenna Vertical, 1 GHz – 6 GHz

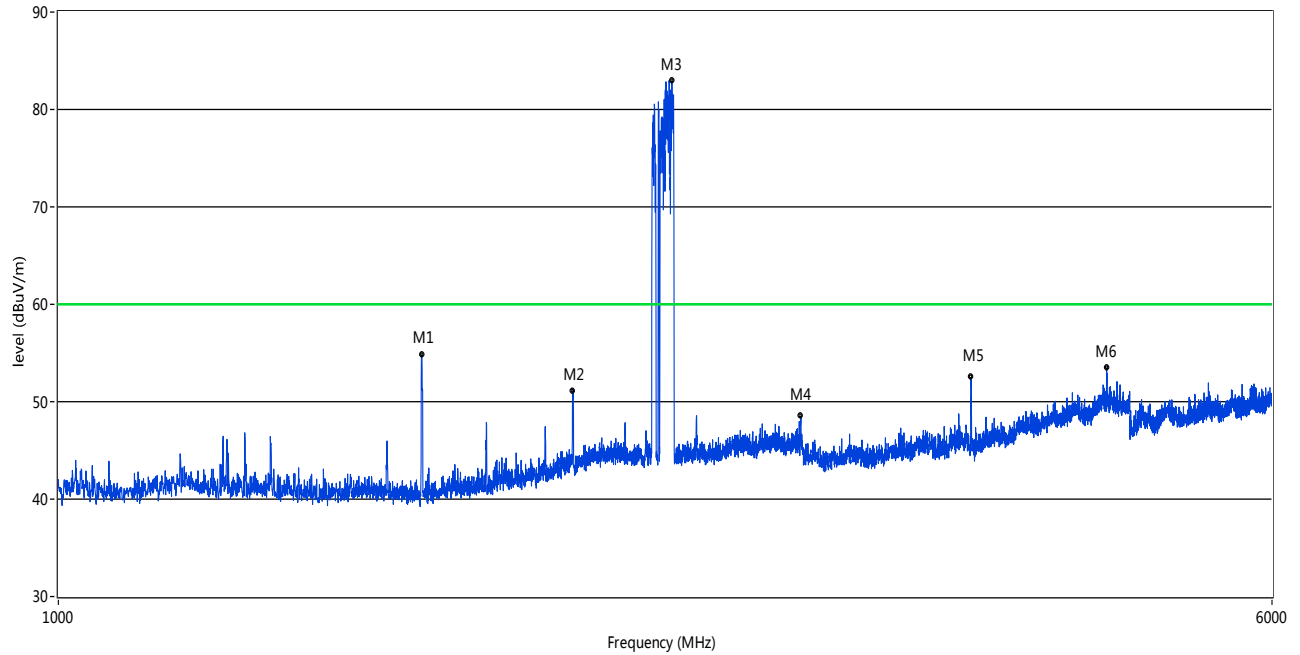
RE Test case_FCC 15B 1GHz-6GHz class_A



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	1710.32	54.43	-4.08	80.0	25.57	Peak	330.10	100	Vertical	Pass
2	2138.22	53.15	-1.16	80.0	26.85	Peak	317.50	100	Vertical	Pass
3	2477.63	83.68	-0.53	80.0	-3.68	Peak	25.30	100	Vertical	N/A
4	3044.24	46.29	9.08	80.0	33.71	Peak	216.70	100	Vertical	Pass
5	3847.29	48.52	10.70	80.0	31.48	Peak	357.90	100	Vertical	Pass
6	4812.30	52.01	13.93	80.0	27.99	Peak	100.00	100	Vertical	Pass

A.1.4 Test Antenna Horizontal, 1 GHz – 6 GHz

RE Test case_FCC 15B 1GHz-6GHz class_A

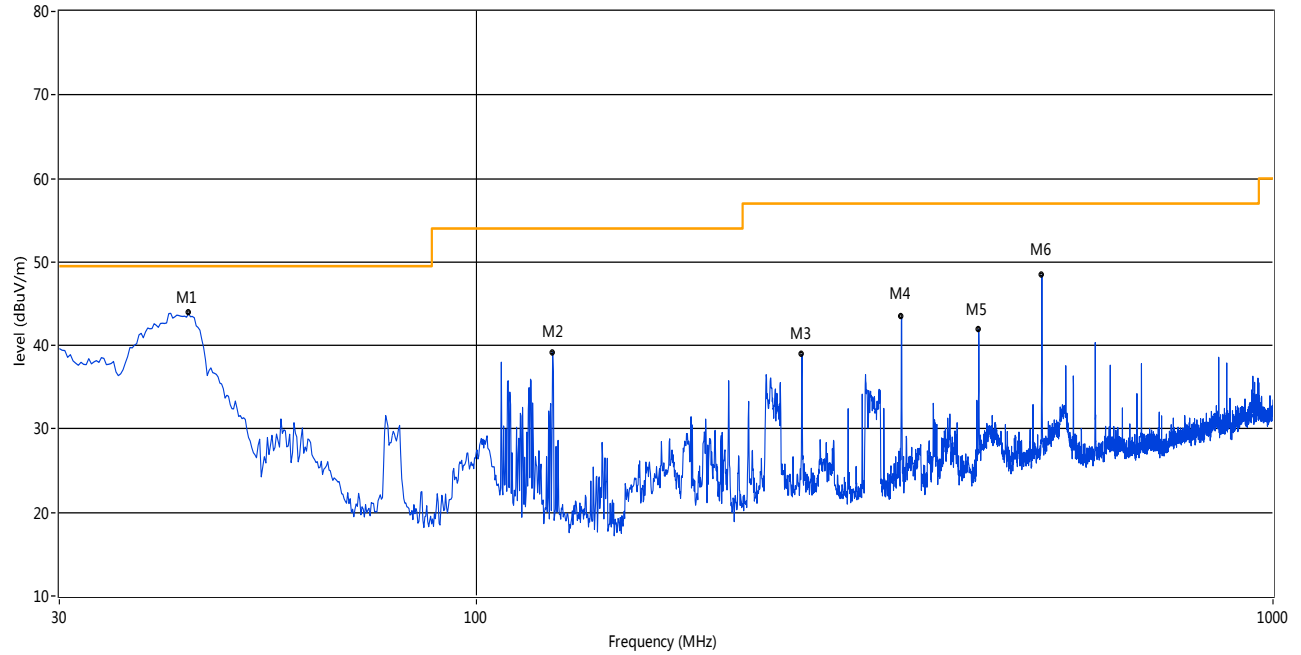


No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	1710.32	54.81	-4.08	80.0	25.19	Peak	198.00	100	Horizontal	Pass
2	2138.22	53.15	-1.16	80.0	26.85	Peak	317.50	100	Horizontal	Pass
3	2474.13	82.95	-0.49	80.0	-2.95	Peak	153.00	100	Horizontal	N/A
4	2993.00	48.54	2.43	80.0	31.46	Peak	304.00	100	Horizontal	Pass
5	3847.29	48.52	10.70	80.0	31.48	Peak	357.90	100	Horizontal	Pass
6	4700.57	53.48	13.32	80.0	26.52	Peak	162.00	100	Horizontal	Pass

The Working test mode (Charger Model: MX12X8-0501000UU)

A.1.5 Test Antenna Vertical, 30 MHz – 1 GHz

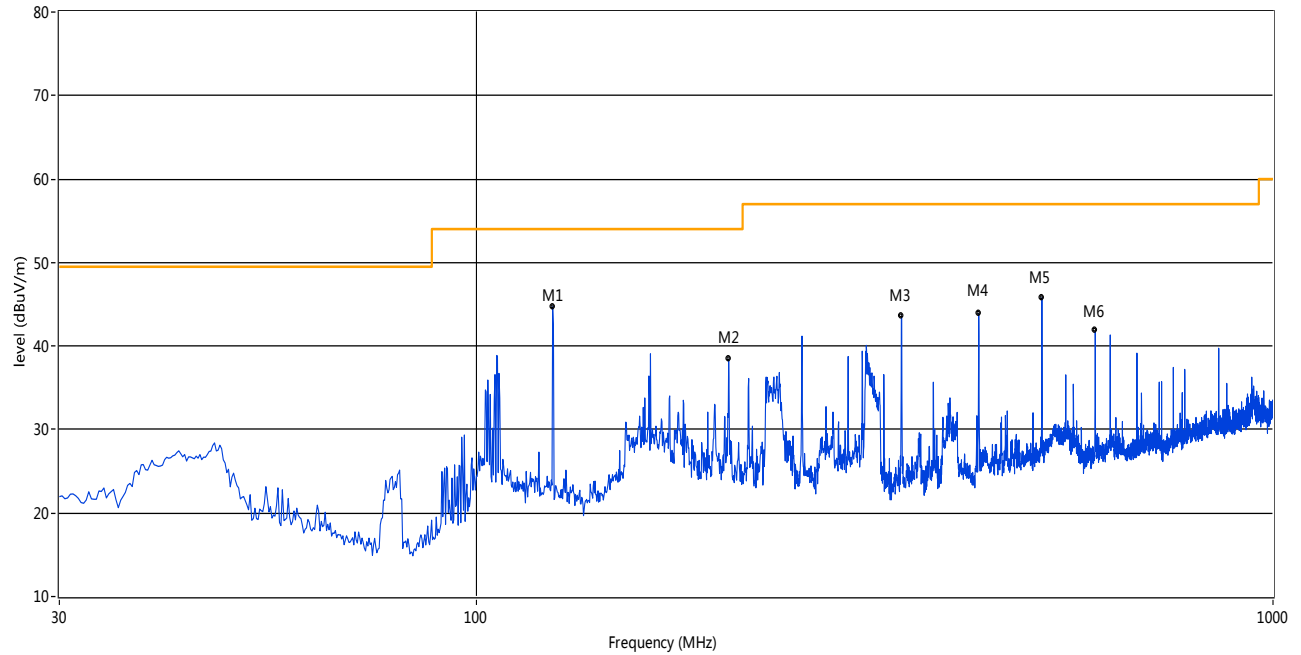
RE Test case_FCC 15A 30MHz-1GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	43.58	43.85	-18.95	49.5	5.65	Peak	280.20	100	Vertical	Pass
2	124.79	39.16	-22.47	54.0	14.84	Peak	95.10	100	Vertical	Pass
3	256.44	38.93	-18.74	56.9	17.97	Peak	44.80	100	Vertical	Pass
4	342.02	43.38	-16.28	56.9	13.52	Peak	3.40	100	Vertical	Pass
5	427.36	41.94	-14.62	56.9	14.96	Peak	14.70	100	Vertical	Pass
6	512.94	48.43	-13.01	56.9	8.47	Peak	31.30	100	Vertical	Pass

A.1.6 Test Antenna Horizontal, 30 MHz – 1 GHz

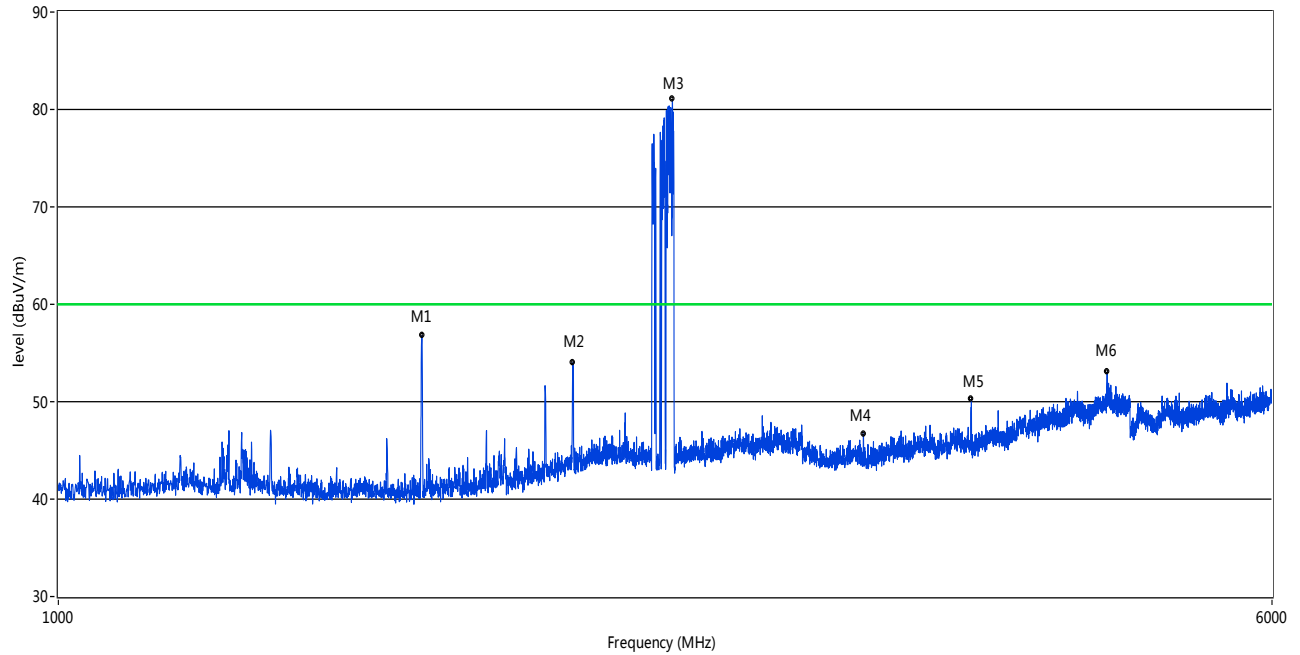
RE Test case_FCC 15A 30MHz-1GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	124.79	44.71	-22.47	54.0	9.29	Peak	343.30	100	Horizontal	Pass
2	207.47	38.42	-20.03	54.0	15.58	Peak	34.70	100	Horizontal	Pass
3	341.78	43.60	-16.31	56.9	13.30	Peak	144.60	100	Horizontal	Pass
4	427.36	43.87	-14.62	56.9	13.03	Peak	138.00	100	Horizontal	Pass
5	512.94	45.78	-13.01	56.9	11.12	Peak	144.60	100	Horizontal	Pass
6	598.28	41.82	-10.82	56.9	15.08	Peak	8.20	100	Horizontal	Pass

A.1.7 Test Antenna Vertical, 1 GHz – 6 GHz

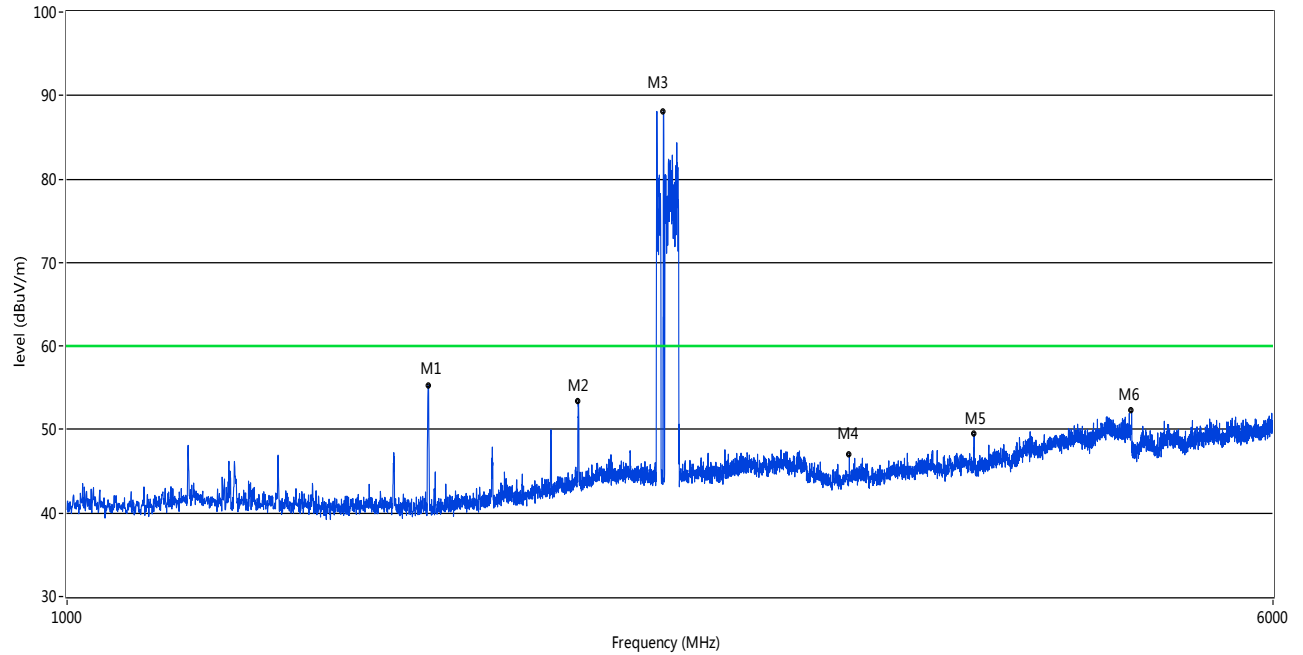
RE Test case_FCC 15B 1GHz-6GHz class_A



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	1710.32	56.77	-4.08	80.0	23.23	Peak	318.60	100	Vertical	Pass
2	2137.22	54.00	-1.14	80.0	26.00	Peak	337.10	100	Vertical	Pass
3	2476.13	81.00	-0.55	80.0	-1.00	Peak	318.60	100	Vertical	N/A
4	3281.93	46.71	8.84	80.0	33.29	Peak	-0.70	100	Vertical	Pass
5	3849.54	50.25	10.70	80.0	29.75	Peak	354.10	100	Vertical	Pass
6	4703.57	53.04	13.32	80.0	26.96	Peak	354.10	100	Vertical	Pass

A.1.8 Test Antenna Horizontal, 1 GHz – 6 GHz

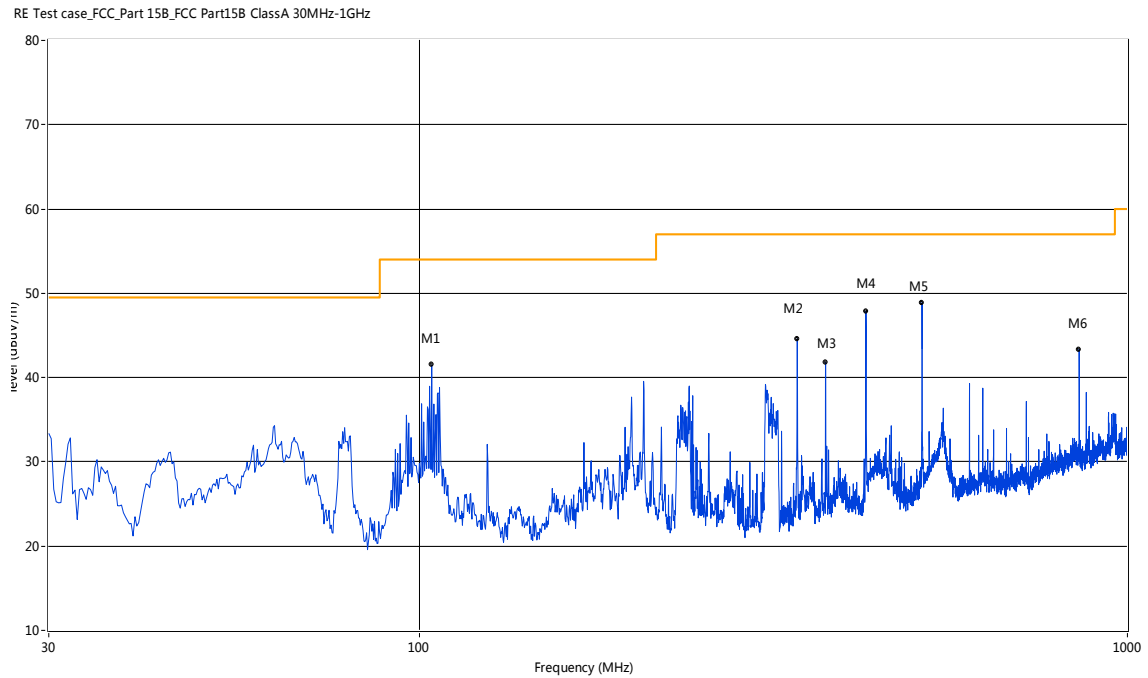
RE Test case_FCC 15B 1GHz-6GHz class_A



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	1710.82	55.27	-4.07	80.0	24.73	Peak	324.40	100	Horizontal	Pass
2	2138.22	53.39	-1.16	80.0	26.61	Peak	324.40	100	Horizontal	Pass
3	2425.64	88.10	-0.49	80.0	-8.10	Peak	241.60	100	Horizontal	N/A
4	3197.20	47.03	9.19	80.0	32.97	Peak	0.10	100	Horizontal	Pass
5	3848.79	49.46	10.66	80.0	30.54	Peak	305.10	100	Horizontal	Pass
6	4863.28	52.19	13.59	80.0	27.81	Peak	225.80	100	Horizontal	Pass

The Working test mode (Ycable)

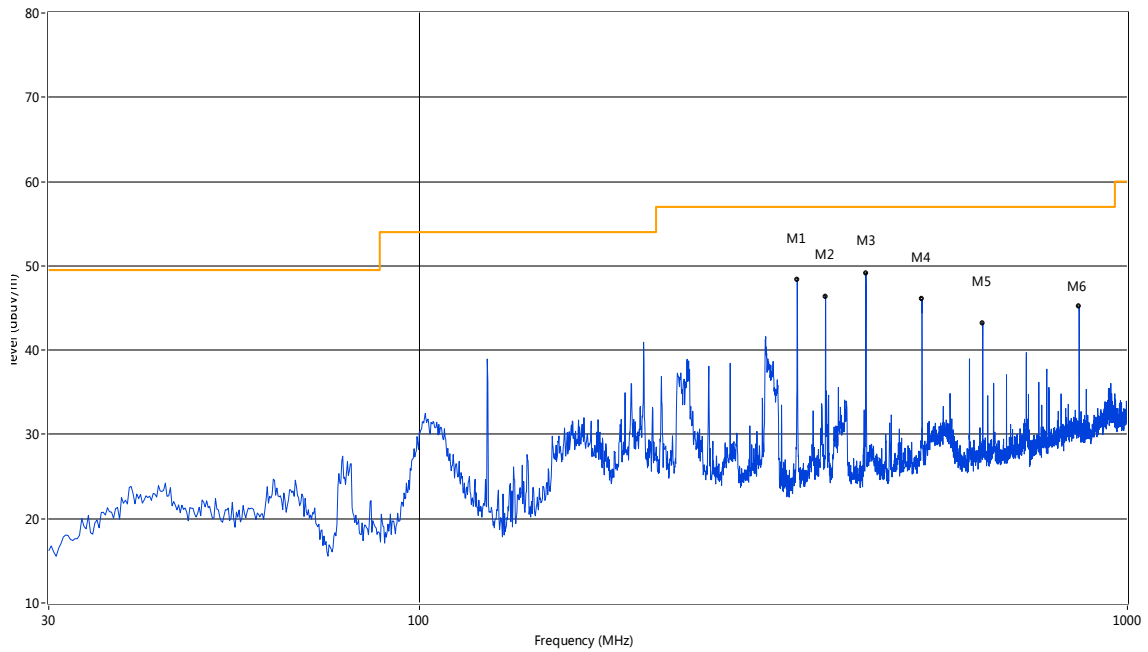
A.1.9 Test Antenna Vertical, 30 MHz – 1 GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	104.19	41.49	-20.30	54.0	12.51	Peak	222.70	100	Vertical	Pass
2	341.78	44.60	-16.31	56.9	12.30	Peak	325.80	100	Vertical	Pass
3	374.75	41.47	-15.82	56.9	15.43	Peak	332.70	100	Vertical	Pass
4	427.36	47.87	-14.62	56.9	9.03	Peak	359.40	100	Vertical	Pass
5	512.94	48.90	-13.01	56.9	8.00	Peak	8.00	100	Vertical	Pass
6	854.78	43.36	-6.23	56.9	13.54	Peak	329.30	100	Vertical	Pass

A.1.10 Test Antenna Horizontal, 30 MHz – 1 GHz

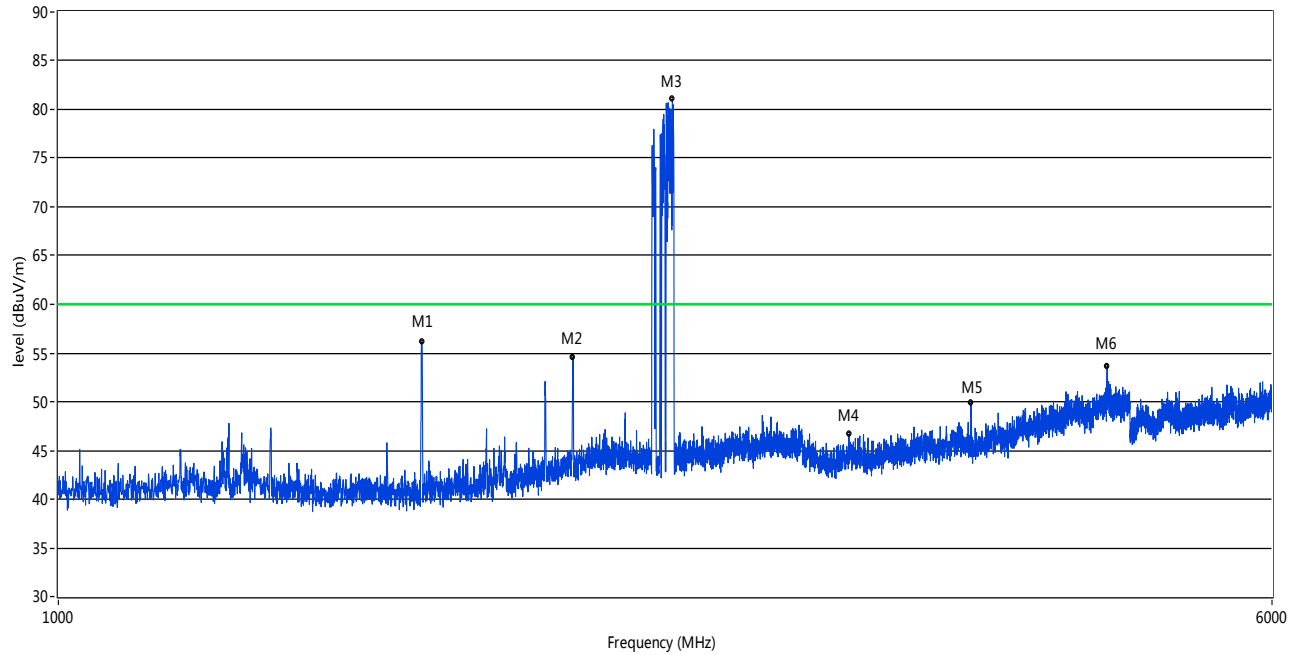
RE Test case_FCC_Part 15B_FCC Part15B ClassA 30MHz-1GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	341.78	48.32	-16.31	56.9	8.58	Peak	176.00	100	Horizontal	Pass
2	374.75	46.37	-15.82	56.9	10.53	Peak	3.60	100	Horizontal	Pass
3	427.36	49.11	-14.62	56.9	7.79	Peak	142.40	100	Horizontal	Pass
4	512.94	46.01	-13.01	56.9	10.89	Peak	145.90	100	Horizontal	Pass
5	624.95	43.22	-10.27	56.9	13.68	Peak	360.00	100	Horizontal	Pass
6	854.78	45.15	-6.23	56.9	11.75	Peak	45.80	100	Horizontal	Pass

A.1.11 Test Antenna Vertical, 1 GHz – 6 GHz

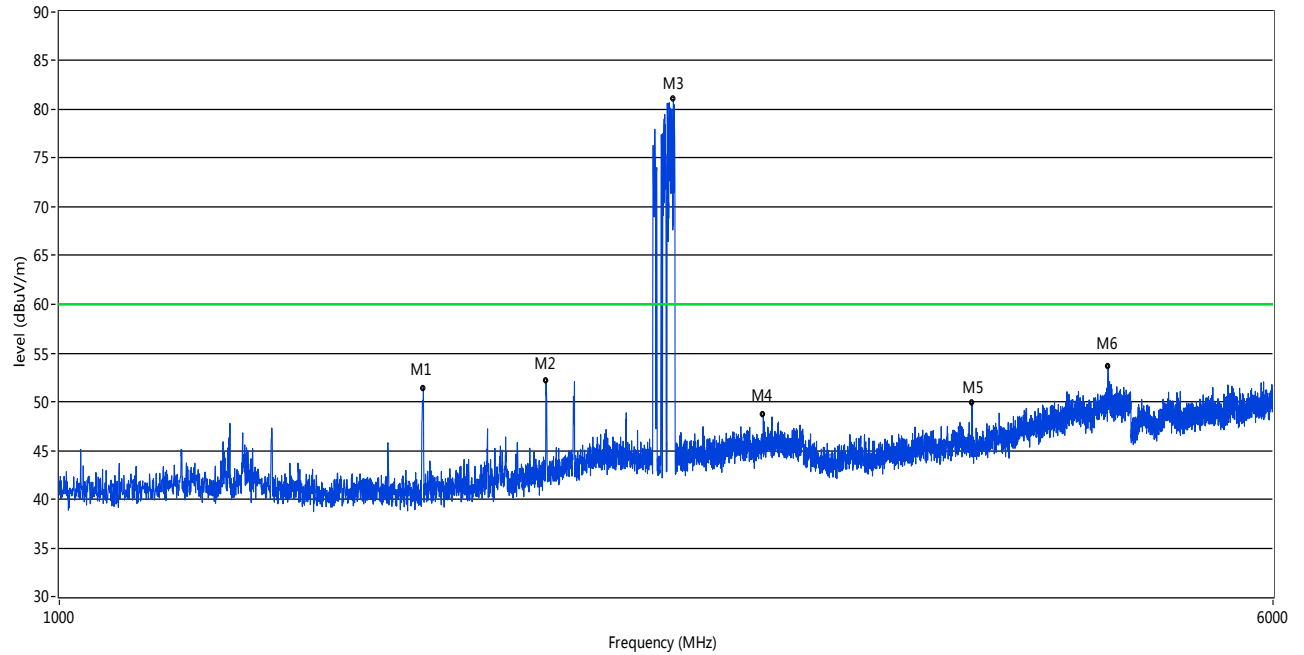
RE Test case_FCC 15B 1GHz-6GHz class_A



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	1710.32	56.14	-4.08	80.0	23.86	Peak	319.20	100	Vertical	Pass
2	2137.22	54.55	-1.14	80.0	25.45	Peak	337.10	100	Vertical	Pass
3	2476.13	81.01	-0.55	80.0	-1.01	Peak	319.20	100	Vertical	N/A
4	3212.95	46.62	9.19	80.0	33.38	Peak	0.50	100	Vertical	Pass
5	3847.29	49.85	10.70	80.0	30.15	Peak	342.00	100	Vertical	Pass
6	4703.57	53.58	13.32	80.0	26.42	Peak	353.30	100	Vertical	Pass

A.1.12 Test Antenna Horizontal, 1 GHz – 6 GHz

RE Test case_FCC 15B 1GHz-6GHz class_A



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	1711.82	51.35	-4.08	80.0	28.65	Peak	45.00	100	Horizontal	Pass
2	2051.74	52.08	-1.98	80.0	27.92	Peak	354.00	100	Horizontal	Pass
3	2476.13	81.01	-0.55	80.0	-1.01	Peak	319.20	100	Horizontal	N/A
4	2827.04	48.60	1.95	80.0	31.40	Peak	331.50	100	Horizontal	Pass
5	3847.29	49.85	10.70	80.0	30.15	Peak	342.00	100	Horizontal	Pass
6	4703.57	53.58	13.32	80.0	26.42	Peak	353.30	100	Horizontal	Pass

A.2 Conducted Emission

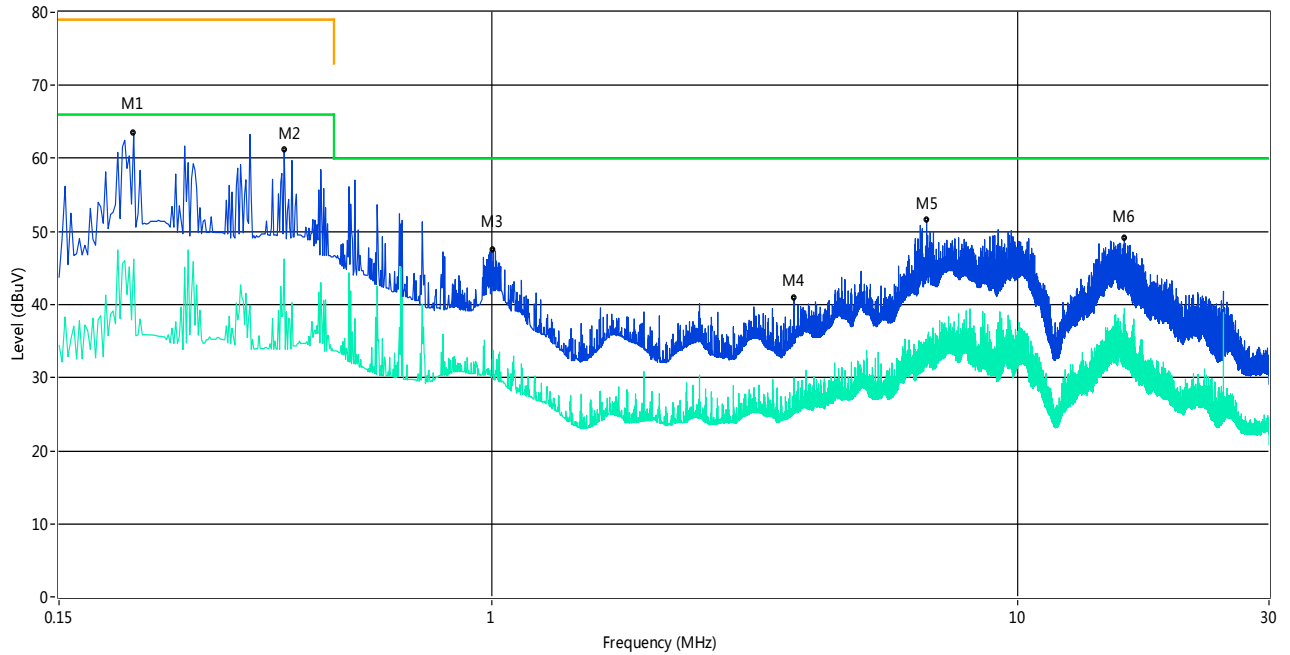
Test Data and Plots

The worst test mode: The Working test mode (Charger Model: LTE05UW-S1-BU)

Note: Devices subject to Part 15 must be tested for all available U.S. voltages and frequencies (such as a nominal 120 VAC, 50/60 Hz and 240 VAC, 50/60 Hz) for which the device is capable of operation. So, The configuration 120 VAC, 60 Hz and 240 VAC, 50 Hz were tested respectively, but only the worst configuration (120 VAC, 60 Hz) shown here.

A.2.1 L Phase

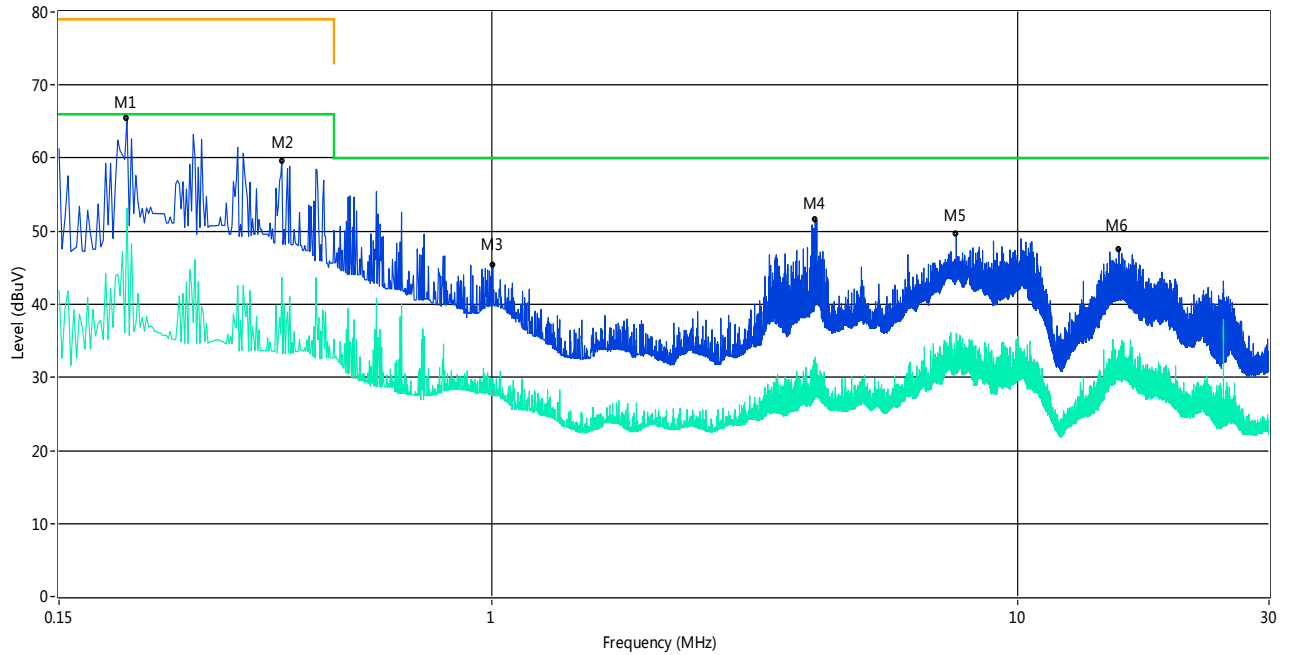
CE Test case_CE_FCC PART 15_ Class A



No.	Frequency (MHz)	Results (dBUV)	Factor (dB)	Limit (dBUV)	Margin (dB)	Detector	Line	Verdict
1	0.21	63.4	13.00	79.0	15.60	Peak	L Line	Pass
1**	0.21	46.2	13.00	66.0	19.80	AV	L Line	Pass
2	0.40	61.1	13.00	79.0	17.90	Peak	L Line	Pass
2**	0.40	46.3	13.00	66.0	19.70	AV	L Line	Pass
3	1.00	47.4	13.00	73.0	25.60	Peak	L Line	Pass
3**	1.00	33.8	13.00	60.0	26.20	AV	L Line	Pass
4	3.75	40.8	13.00	73.0	32.20	Peak	L Line	Pass
4**	3.75	30.0	13.00	60.0	30.00	AV	L Line	Pass
5	6.70	51.5	13.00	73.0	21.50	Peak	L Line	Pass
5**	6.70	34.1	13.00	60.0	25.90	AV	L Line	Pass
6	15.92	49.0	13.00	73.0	24.00	Peak	L Line	Pass
6**	15.92	34.6	13.00	60.0	25.40	AV	L Line	Pass

A.2.2 N Phase

CE Test case_CE_FCC PART 15_Class A

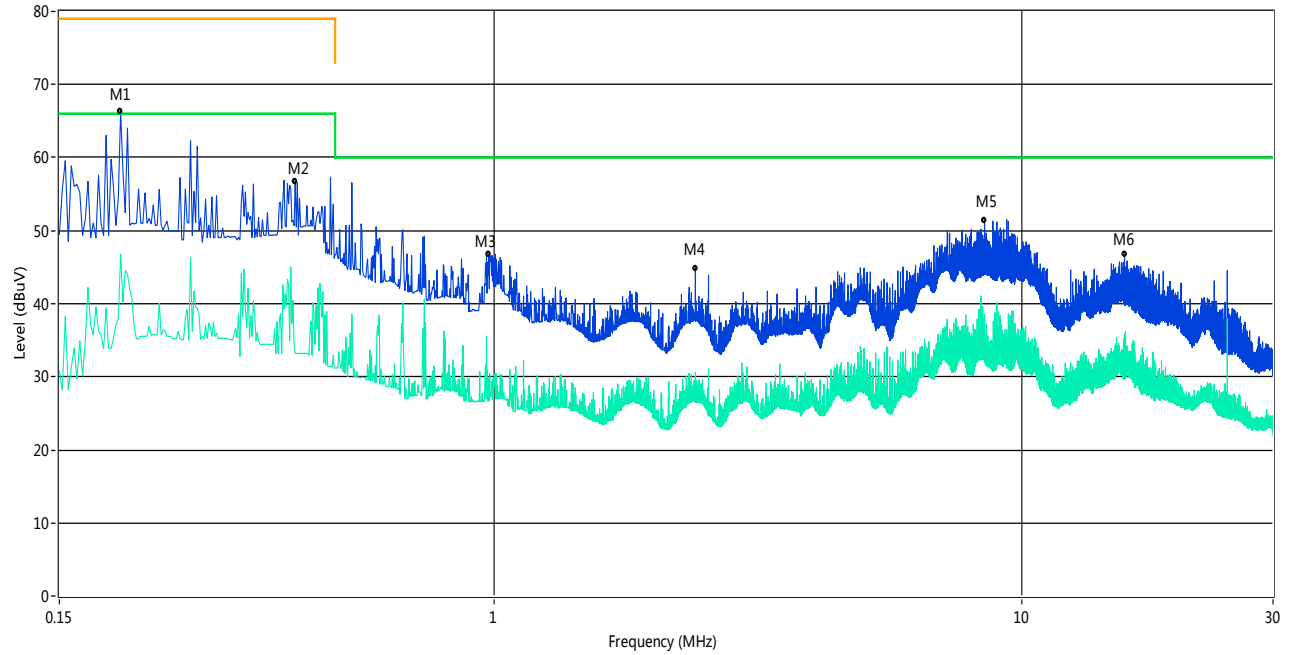


No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.20	65.5	13.00	79.0	13.50	Peak	N Line	Pass
1**	0.20	53.1	13.00	66.0	12.90	AV	N Line	Pass
2	0.40	59.6	13.00	79.0	19.40	Peak	N Line	Pass
2**	0.40	43.7	13.00	66.0	22.30	AV	N Line	Pass
3	1.00	45.4	13.00	73.0	27.60	Peak	N Line	Pass
3**	1.00	29.8	13.00	60.0	30.20	AV	N Line	Pass
4	4.11	51.6	13.00	73.0	21.40	Peak	N Line	Pass
4**	4.11	32.8	13.00	60.0	27.20	AV	N Line	Pass
5	7.63	49.6	13.00	73.0	23.40	Peak	N Line	Pass
5**	7.63	36.0	13.00	60.0	24.00	AV	N Line	Pass
6	15.55	47.5	13.00	73.0	25.50	Peak	N Line	Pass
6**	15.55	31.7	13.00	60.0	28.30	AV	N Line	Pass

The Working test mode (Charger Model: MX12X8-0501000UU)

A.2.3 L Phase

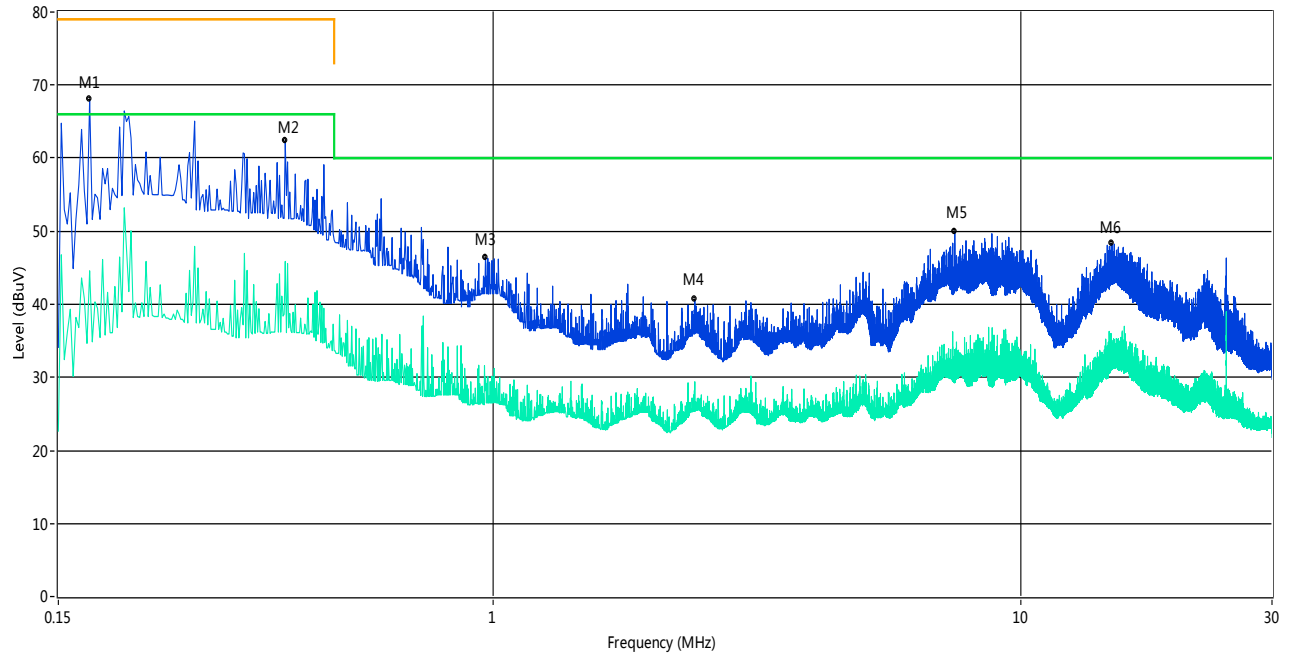
CE Test case_CE_FCC PART 15_ Class A



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.20	66.4	13.00	79.0	12.60	Peak	L Line	Pass
1**	0.20	46.8	13.00	66.0	19.20	AV	L Line	Pass
2	0.42	56.7	13.00	79.0	22.30	Peak	L Line	Pass
2**	0.42	33.2	13.00	66.0	32.80	AV	L Line	Pass
3	0.98	46.7	13.00	73.0	26.30	Peak	L Line	Pass
3**	0.98	29.8	13.00	60.0	30.20	AV	L Line	Pass
4	2.41	44.8	13.00	73.0	28.20	Peak	L Line	Pass
4**	2.41	30.6	13.00	60.0	29.40	AV	L Line	Pass
5	8.52	51.4	13.00	73.0	21.60	Peak	L Line	Pass
5**	8.52	38.6	13.00	60.0	21.40	AV	L Line	Pass
6	15.69	46.7	13.00	73.0	26.30	Peak	L Line	Pass
6**	15.69	35.8	13.00	60.0	24.20	AV	L Line	Pass

A.2.4 N Phase

CE Test case_CE_FCC PART 15_ Class A

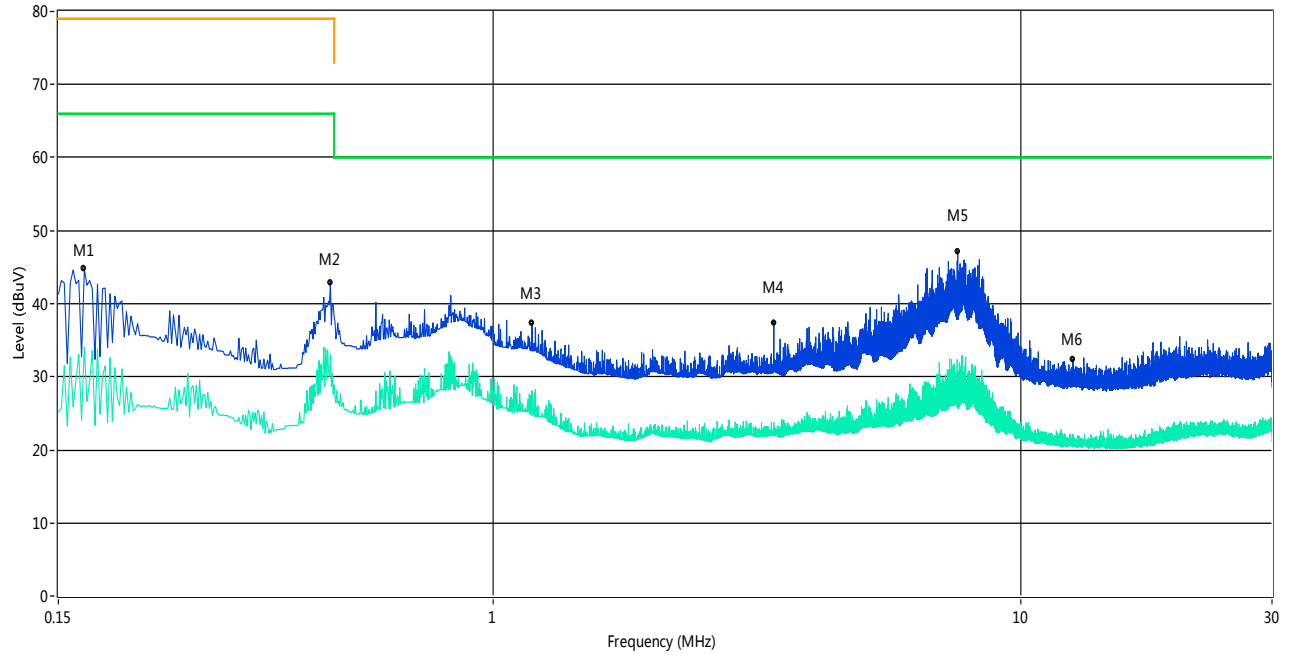


No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.17	68.0	13.00	79.0	11.00	Peak	N Line	Pass
1**	0.17	44.6	13.00	66.0	21.40	AV	N Line	Pass
2	0.40	62.4	13.00	79.0	16.60	Peak	N Line	Pass
2**	0.40	45.9	13.00	66.0	20.10	AV	N Line	Pass
3	0.97	46.4	13.00	73.0	26.60	Peak	N Line	Pass
3**	0.97	30.0	13.00	60.0	30.00	AV	N Line	Pass
4	2.41	40.6	13.00	73.0	32.40	Peak	N Line	Pass
4**	2.41	29.4	13.00	60.0	30.60	AV	N Line	Pass
5	7.51	49.9	13.00	73.0	23.10	Peak	N Line	Pass
5**	7.51	33.6	13.00	60.0	26.40	AV	N Line	Pass
6	14.87	48.3	13.00	73.0	24.70	Peak	N Line	Pass
6**	14.87	36.0	13.00	60.0	24.00	AV	N Line	Pass

The Working test mode (Ycable)

A.2.5 L Phase

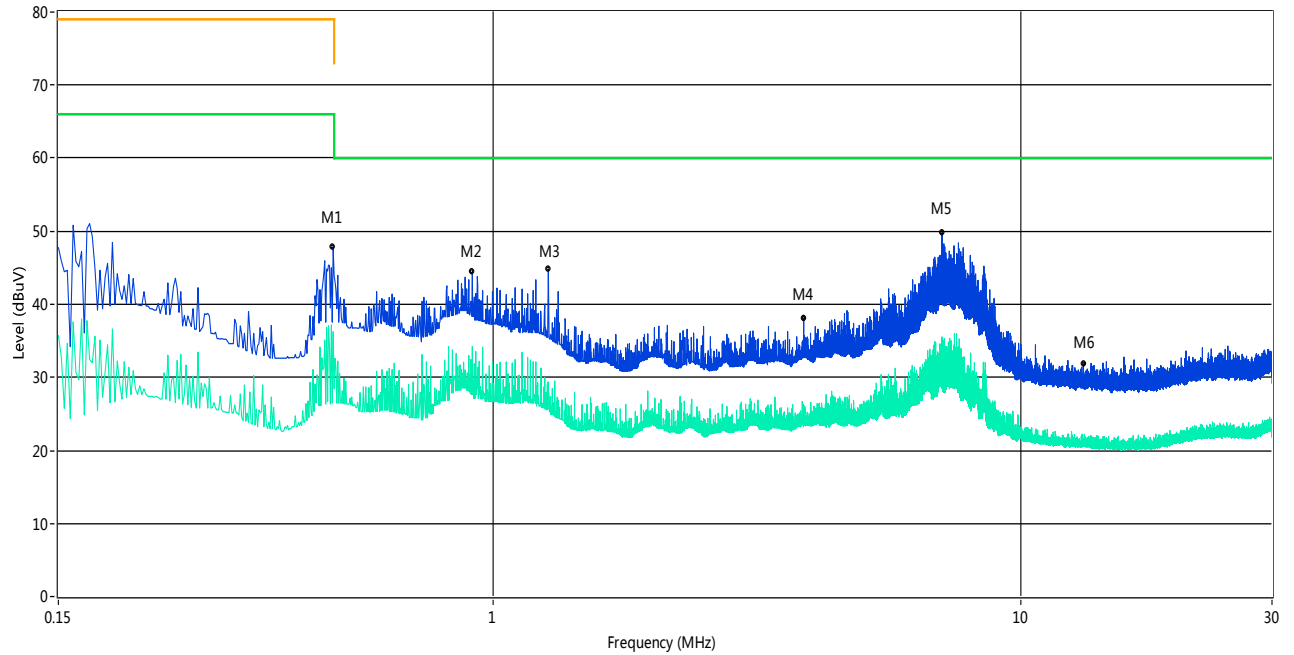
CE Test case_CE_FCC PART 15_ Class A



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.17	44.7	13.00	79.0	34.30	Peak	L Line	Pass
1**	0.17	34.1	13.00	66.0	31.90	AV	L Line	Pass
2	0.49	42.9	13.00	79.0	36.10	Peak	L Line	Pass
2**	0.49	33.1	13.00	66.0	32.90	AV	L Line	Pass
3	1.19	37.3	13.00	73.0	35.70	Peak	L Line	Pass
3**	1.19	28.1	13.00	60.0	31.90	AV	L Line	Pass
4	3.41	37.4	13.00	73.0	35.60	Peak	L Line	Pass
4**	3.41	23.7	13.00	60.0	36.30	AV	L Line	Pass
5	7.61	47.2	13.00	73.0	25.80	Peak	L Line	Pass
5**	7.61	31.8	13.00	60.0	28.20	AV	L Line	Pass
6	12.59	32.4	13.00	73.0	40.60	Peak	L Line	Pass
6**	12.59	22.1	13.00	60.0	37.90	AV	L Line	Pass

A.2.6 N Phase

CE Test case_CE_FCC PART 15_ Class A



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.50	47.9	13.00	79.0	31.10	Peak	N Line	Pass
1**	0.50	36.2	13.00	66.0	29.80	AV	N Line	Pass
2	0.91	44.4	13.00	73.0	28.60	Peak	N Line	Pass
2**	0.91	34.2	13.00	60.0	25.80	AV	N Line	Pass
3	1.27	44.7	13.00	73.0	28.30	Peak	N Line	Pass
3**	1.27	27.0	13.00	60.0	33.00	AV	N Line	Pass
4	3.88	38.1	13.00	73.0	34.90	Peak	N Line	Pass
4**	3.88	26.2	13.00	60.0	33.80	AV	N Line	Pass
5	7.10	49.8	13.00	73.0	23.20	Peak	N Line	Pass
5**	7.10	35.5	13.00	60.0	24.50	AV	N Line	Pass
6	13.17	31.9	13.00	73.0	41.10	Peak	N Line	Pass
6**	13.17	20.8	13.00	60.0	39.20	AV	N Line	Pass

ANNEX B TEST SETUP PHOTOS

Please refer the document “BL-SZ1620053-AE.PDF”.

ANNEX C EUT EXTERNAL PHOTOS

Please refer the document “BL-SZ1620053-AW.PDF”.

ANNEX D EUT INTERNAL PHOTOS

Please refer the document “BL-SZ1620053-AI.PDF”.

--END OF REPORT--