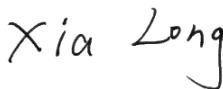


TEST REPORT

Applicant: Volansys Technologies Pvt Ltd
Address: Block A-7th Floor, Safal Profitaire, Corporate Road,
Pralhadnagar, Ahmedabad-380015, Gujarat, India
Equipment Type: CENTAURI 200 Automotive/Telematics IoT Gateway
Model Name: CT200-AT
Brand Name: Volansys
FCC ID: 2AKNO-CT200-AT
47 CFR Part 15 Subpart B
Test Standard: ICES-003 (Issue 7, sOctober 15, 2020)
ANSI C63.4-2014
Sample Arrival Date: Mar. 02, 2023
Test Date: Mar. 07, 2023 - Jul. 19, 2023
Date of Issue: Aug. 17, 2023

ISSUED BY:

Shenzhen BALUN Technology Co., Ltd.

Tested by: Zhang Guoxi**Checked by:** Xia Long**Approved by:** Liao Jianming
(Technical Director)

Revision History

Version	Issue Date	Revisions Content
<u>Rev. 01</u>	<u>Apr. 13, 2023</u>	<u>Initial Issue</u>
<u>Rev. 02</u>	<u>Aug. 17, 2023</u>	<u>Updated Radiated Emission data</u>

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1 GENERAL INFORMATION

1.1 Test Laboratory

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

1.2 Test Location

Name	Shenzhen BALUN Technology Co., Ltd.
Location	☒ Block B, 1/F, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China
	☐ 1/F, Building B, Ganghongji High-tech Intelligent Industrial Park, No. 1008, Songbai Road, Yangguang Community, Xili Sub-district, Nanshan District, Shenzhen, Guangdong Province, P. R. China
Accreditation Certificate	The laboratory is a testing organization accredited by FCC as a accredited testing laboratory. The designation number is CN1196. The laboratory has been listed by Industry Canada to perform electromagnetic emission measurements. The recognition numbers of test site are 11524A.

2 PRODUCT INFORMATION

2.1 Applicant Information

Applicant	Volansys Technologies Pvt Ltd
Address	Block A-7th Floor, Safal Profitaire, Corporate Road, Prahaladnagar, Ahmedabad-380015, Gujarat, India

2.2 Manufacturer Information

Manufacturer	Volansys Technologies Pvt Ltd
Address	Ratana Business Hub, 207, 2nd Floor, Opp Bharat Petrol Pump, Sanathal Chokdi, Changodar Highway, Ahmedabad 382210 Gujarat India

2.3 Factory Information

Factory	Volansys Technologies Pvt Ltd
Address	Ratana Business Hub, 207, 2nd Floor, Opp Bharat Petrol Pump, Sanathal Chokdi, Changodar Highway, Ahmedabad 382210 Gujarat India

2.4 General Description for Equipment under Test (EUT)

EUT Name	CENTAURI 200 Automotive/Telematics IoT Gateway
Model Name Under Test	CT200-AT
Series Model Name	N/A
Description of Model name differentiation	N/A
Hardware Version	1.1
Software Version	1.0.0
Dimensions (Approx.)	180 (L) x 100 (W) x 32 (H) mm
Weight (Approx.)	245g

2.5 Ancillary Equipment

Ancillary Equipment 1	External (GPS+LTE Combo ANT)	
	Brand Name	N/A
	Model No.	SD-GPS003

2.6 Technical Information

Network and Wireless connectivity	3G Network WCDMA/HSDPA/HSUPA Band 2/4/5 4G Network FDD LTE Band 2/4/5/12/13 2.4G WIFI 802.11b, 802.11g, 802.11n(HT20) GPS, GLONASS
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The requirement for the following technical information of the EUT was tested in this report:

The highest internal frequency of EUT	2483.5MHz
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3 SUMMARY OF TEST RESULTS

3.1 Test Standards

No.	Identity	Document Title
1	47 CFR Part 15 Subpart B	Unintentional Radiators
2	ICES-003 (Issue 7, October 15, 2020)	Information Technology Equipment (Including Digital Apparatus)
3	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	ISED Rule	Test Verdict	Result
1	Radiated Emission	15.109	ICES-003, 3.2.2	Pass	Annex A .1
2	Conducted Emission, AC Ports	15.107	ICES-003, 3.2.1	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)	3.22 dB
Radiated emissions (30 MHz-1 GHz)-10m	4.80 dB
Radiated emissions (30 MHz-1 GHz)-3m	4.76 dB
Radiated emissions (1 GHz-18 GHz)-3m	4.88 dB

4 GENERAL TEST CONFIGURATIONS

4.1 Test Environments, Test Date and Test Engineer

Test items	Voltage	Temperature	Relative Humidity	Ambient Pressure	Test Date	Test Engineer
Radiated Emission	DC 12V/1.5A	22.9℃	53%	101kPa	Jul. 19, 2023	Yu Jiahao
Conducted Emission	DC 12V/1.5A	22.1℃	40%		Mar. 07, 2023	Yuan Zhishen

4.2 Test Equipment List

Radiated Emission Test For Frequency Below 1 GHz (3m)						
Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due	Use
EMI Receiver	Keysight	N9038A	MY55330120	2022.09.09	2023.09.08	☒
Amplifier (30-1GHz)	COM-MV	ZT30-1000M	B2017119081	2022.12.07	2023.12.06	☒
Test Antenna-Bi-Log	SCHWARZBECK	VULB 9168	9168-00867	2022.04.12	2025.04.11	☒
Anechoic Chamber	YiHeng	9m*6m*6m	142	2021.08.19	2024.08.18	☒
Description	Manufacturer	Name		Version		Use
Test Software	BALUN	BL410-E		V22.930		☒

Radiated Emission Test For Frequency Above 1 GHz (3m)						
Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due	Use
EMI Receiver	Keysight	N9038A	MY55330120	2022.09.09	2023.09.08	☒
Amplifier (1-12GHz)	Advanced Microwave	WLA652A	1740103	2022.12.07	2023.12.06	☒
Amplifier (0.8-21GHz)	Mini-Circuits	ZVA-213-S+	225321316	2022.12.07	2023.12.06	☒
Test Antenna- Horn	SCHWARZBECK	BBHA 9120D	01917	2022.06.09	2025.06.08	☒
Anechoic Chamber	YiHeng	9m*6m*6m	142	2021.08.19	2024.08.18	☒
Description	Manufacturer	Name		Version		Use
Test Software	BALUN	BL410-E		V22.930		☒

Conducted disturbance Test						
Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due	Use
EMI Receiver	KEYSIGHT	N9010B	MY57110309	2022.09.09	2023.09.08	☒
LISN	SCHWARZBECK	NSLK 8127	8127-687	2022.06.01	2023.05.31	☒
ISN	TESEQ	ISN T800	34449	2022.11.11	2023.11.10	☐
ISN	TESEQ	ISN T8-Cat6	53561	2022.05.24	2023.05.23	☐
Shielded Room	YiHeng Electronic Co., Ltd	3.5m*3.1m*2. 8m	112	2022.02.19	2025.02.18	☒
Description	Manufacturer	Name		Version		Use
Test Software	BALUN	BL410-E		V22.930		☒

4.3 Test Enclosure list

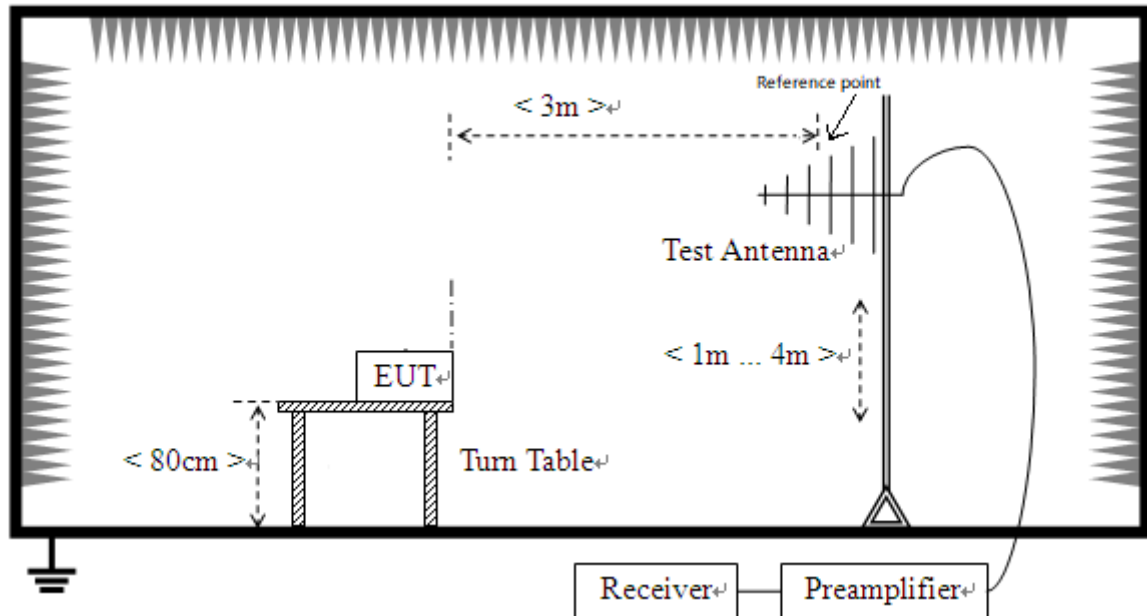
Description	Manufacturer	Model	Serial No.	Length	Description	Use
Wireless Communications Test Set	R&S	CMW500	127801	N/A	Cal. Due 2023.12.27	☒
Laptop	Lenovo	N/A	N/A	N/A	N/A	☒
USB Connector	N/A	N/A	N/A	N/A	N/A	☒
Keyboard	Logitech	Y-BP62a	N/A	N/A	N/A	☒
Mouse	Logitech	M100	N/A	N/A	N/A	☒
USB disk	Kingston	N/A	N/A	N/A	N/A	☒
Printer	N/A	N/A	N/A	N/A	N/A	☒
HDMI Cable	N/A	N/A	N/A	1.5 m	Shielded with core	☒
WIFI Router	HUAWEI	AX3	N/A	N/A	N/A	☒
WIFI Router	Xiaomi	AX6000	N/A	N/A	N/A	☒
Display Screen	DELL	N/A	N/A	N/A	N/A	☒
Display Screen	SAMSUNG	N/A	N/A	N/A	N/A	☒
RJ45 Cable	N/A	N/A	N/A	1.5 m	Unshielded	☒

4.4 Test Configurations

Test Configurations (TC) No.	Description
TC01	<u>The Working Test Mode 1</u> EUT + Antenna + Adapter + USB disk + RJ45 Cable + WIFI Router + Laptop + USB Connector + Mouse + Keyboard + Printer + HDMI Cable + Display Screen + GPS RX
TC02	<u>The Working Test Mode 2</u> EUT + Antenna + Adapter + USB disk + RJ45 Cable + WIFI Router + Laptop + USB Connector + Mouse + Keyboard + Printer + HDMI Cable + Display Screen + GLONASS RX

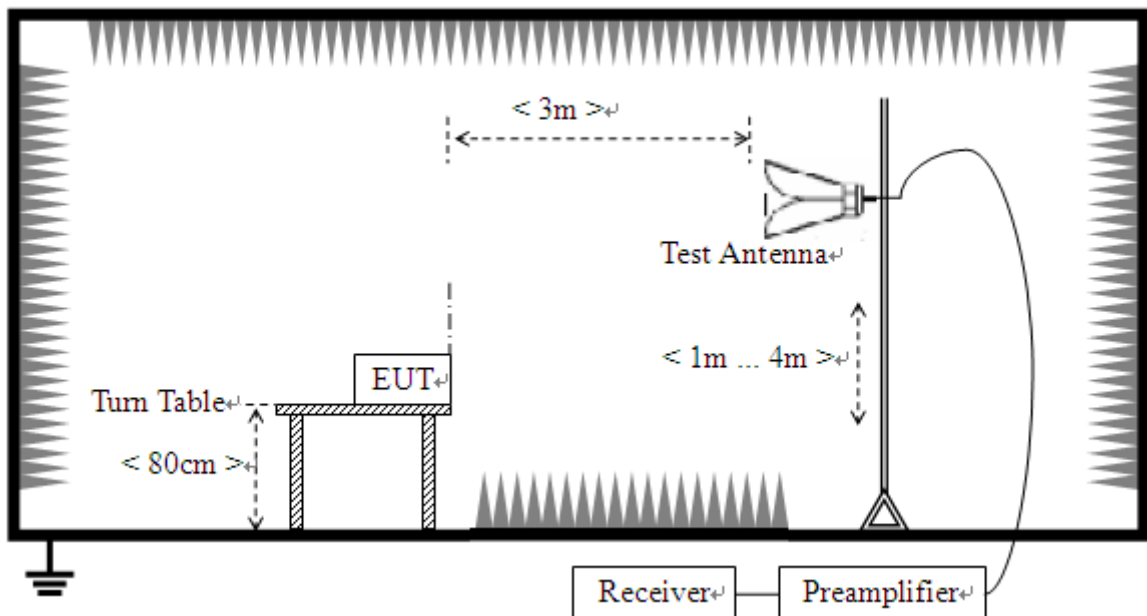
4.5 Test Setups

Test Setup 1

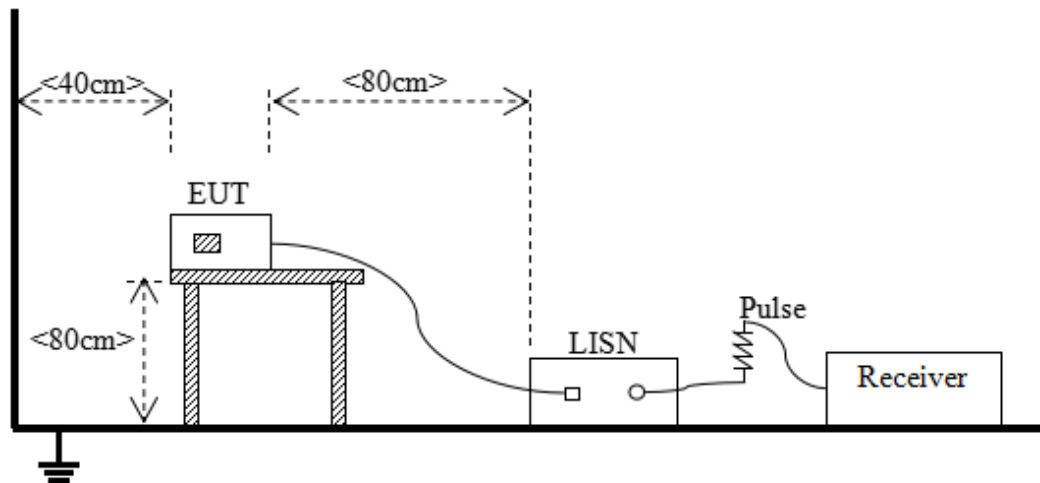


(For Radiated Emission Test (30 MHz-1 GHz))

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 Setup	Test Setup 1&2
	Test Configuration	TC01~TC02 ^{Note}
Conducted Emission, AC Ports	Test Setup	Test Setup 3
	Test Configuration	TC01~TC02 ^{Note}
Note: Based on client request, all normal using modes of the normal function were tested but only the worst test data of the worst mode is reported by this report. The Working Test Mode 1 is the worst mode in this report.		

5 TEST ITEMS

5.1 Emission Tests

5.1.1 Radiated Emission

5.1.1.1 Limit

FCC:

Frequency range (MHz)	Class B (at 3 m)		Class B (at 10 m)	Class A (at 10 m)	
	Field Strength ($\mu\text{V/m}$)	Field Strength (dB $\mu\text{V/m}$)	Field Strength (dB $\mu\text{V/m}$)	Field Strength ($\mu\text{V/m}$)	Field Strength (dB $\mu\text{V/m}$)
30 - 88	100	40	30	90	39
88 - 216	150	43.5	33.5	150	43.5
216 - 960	200	46	36	210	46.4
Above 960	500	54	44	300	49.5

NOTE:

- 1) Field Strength (dB $\mu\text{V/m}$) = $20 \times \log [\text{Field Strength } (\mu\text{V/m})]$.
- 2) In the emission tables above, the tighter limit applies at the band edges.
- 3) The limits using ANSI C63.4.

IC:

Frequency range (MHz)	Class A (3 m) Quasi-peak (dB $\mu\text{V/m}$)	Class A (10 m) Quasi-peak (dB $\mu\text{V/m}$)	Class B (3 m) Quasi-peak (dB $\mu\text{V/m}$)	Class B (10m) Quasi-peak (dB $\mu\text{V/m}$)
30 - 88	50.0	40.0	40	30.0
88 - 216	54.0	43.5	43.5	33.1
216 - 230	56.9	46.4	46.0	35.6
230 - 960	57.0	47.0	47.0	37.0
960 - 1000	60.0	49.5	54.0	43.5

Note: The more stringent limit applies at transition frequencies.

Frequency range (GHz)	Class A (3 m) Average (dB $\mu\text{V/m}$)	Class A (3 m) Peak (dB $\mu\text{V/m}$)	Class B (3 m) Average (dB $\mu\text{V/m}$)	Class B (3 m) Peak (dB $\mu\text{V/m}$)
1 - F_M	60	80	54	74

Note:

1. The highest measurement frequency, F_M , in GHz, shall be determined as next Table.
2. The measurement bandwidth shall be 1 MHz or greater.
3. These limit levels apply for a measurement distance of 3 m. If using a different measurement distance, the measured levels shall be extrapolated to the 3 m limit distance using a factor of 20 dB per decade of distance. The measurement distance shall place the measurement

Frequency range (GHz)	Class A (3 m) Average (dB μ V/m)	Class A (3 m) Peak (dB μ V/m)	Class B (3 m) Average (dB μ V/m)	Class B (3 m) Peak (dB μ V/m)
antenna in the far field of the ITE or digital apparatus under test.				
4. The test site shall have been validated at the distance used for radiated emission measurements on the ITE or digital apparatus under test				

Highest internal frequency (F_X)	Highest measurement frequency (F_M)
$F_X \leq 108 \text{ MHz}$	1GHz
$108 \text{ MHz} \leq F_X \leq 500 \text{ MHz}$	2GHz
$500 \text{ MHz} \leq F_X \leq 1 \text{ GHz}$	5GHz
$F_X \geq 1 \text{ GHz}$	$5 * F_X$ up to a maximum of 40 GHz
Note: F_X is the highest fundamental frequency generated and/or used in the ITE or digital apparatus under test.	

5.1.1.2 Test Setup

Refer to 4.5 section (test setup 1 to test setup 2) for radiated emission test, the photo of test setup please refer to ANNEX B.

5.1.1.3 Test Procedure

The test employing the methods of measurement described in the publication referenced in Section 3(b) (ANSI C63.4);

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.

The measurement frequency range is from 30 MHz to the 5th harmonic of the maximum frequency of the EUT internal source. The Turn Table is actuated to turn from 0° to 360°, and both horizontal and vertical polarizations of the Test Antenna are used to find the maximum radiated power. Mid channels on all channel bandwidth verified. Only the worst RB size/offset presented.

Use the following spectrum analyzer settings:

Span = wide enough to fully capture the emission being measured

RBW = 1 MHz for $f \geq 1 \text{ GHz}$, 100 kHz for $f < 1 \text{ GHz}$

VBW $\geq$ RBW

Sweep = auto

Detector function = peak for $f < 1$ GHz, peak & RMS Average for $f \geq 1$ GHz

Trace = max hold

5.1.1.4 Test Result

Please refer to ANNEX A.1.

NOTE:

1. Results (dB μ V/m) = Reading (dB μ V/m) + Factor (dB/m)

The reading level is calculated by software which is not shown in the sheet

2. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB) – Amplifier Gain (dB)

3. Over limit = Results – Limit.

5.1.2 Conducted Emission

5.1.2.1 Test Limit

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

Frequency range (MHz)	Class B	
	Quasi-peak (dB μ V)	Average (dB μ V)
0.15 - 0.50	66 to 56	56 to 46
0.50 - 5	56	46
5 - 30	60	50

NOTE:

- 1) The lower limit shall apply at the band edges.
- 2) The limit decreases linearly with the logarithm of the frequency in the range 0.15 - 0.50 MHz.
- 3) The limit using ANSI C63.4.

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 test employing the methods of measurement described in the publication referenced in Section 3(b) (ANSI C63.4);

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.

Use the following spectrum analyzer settings:

RBW = 9 kHz

VBW $\geq$ RBW

Sweep = 10ms

Detector function =peak & Average

Trace = max hold

5.1.2.4 Test Result

Please refer to ANNEX A.2.

NOTE:

1. Results (dB μ V) = Reading (dB μ V) + Factor (dB)

The reading level is calculated by software which is not shown in the sheet

2. Factor = Insertion loss + Cable loss

3. Over limit = Results – Limit.

ANNEX A TEST RESULTS

A.1 Radiated Emission

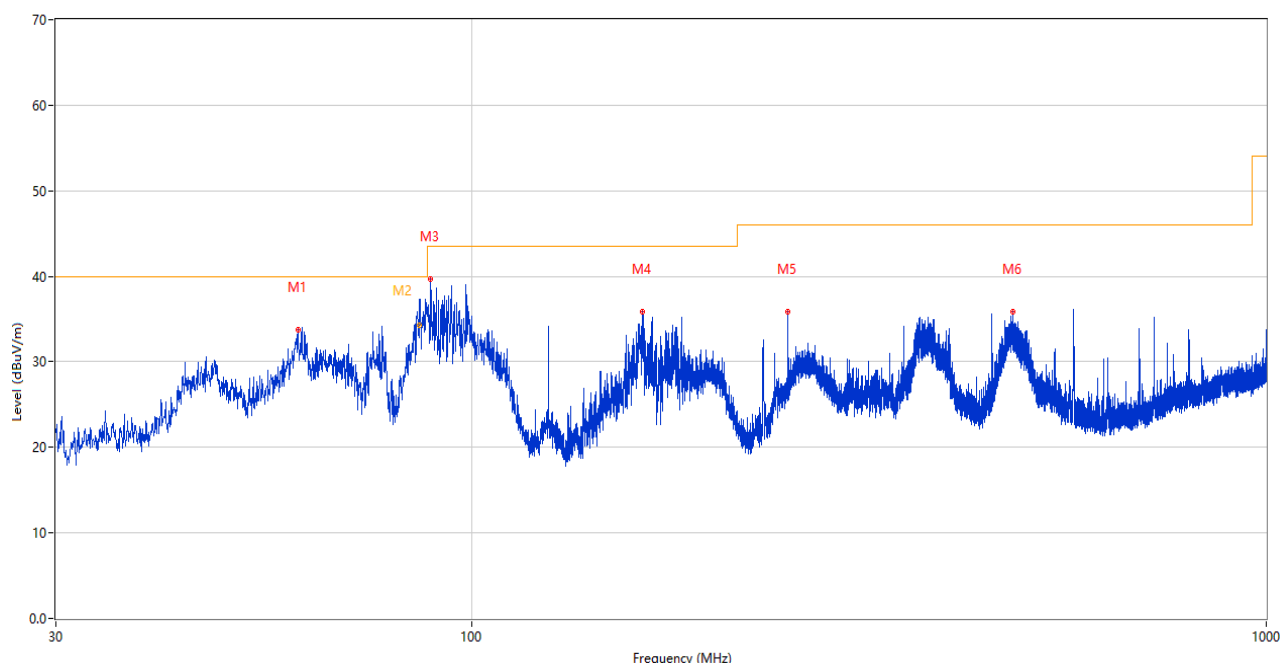
Note 1: The symbol of "--" in the table which means not application.

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.

Test Data and Plots

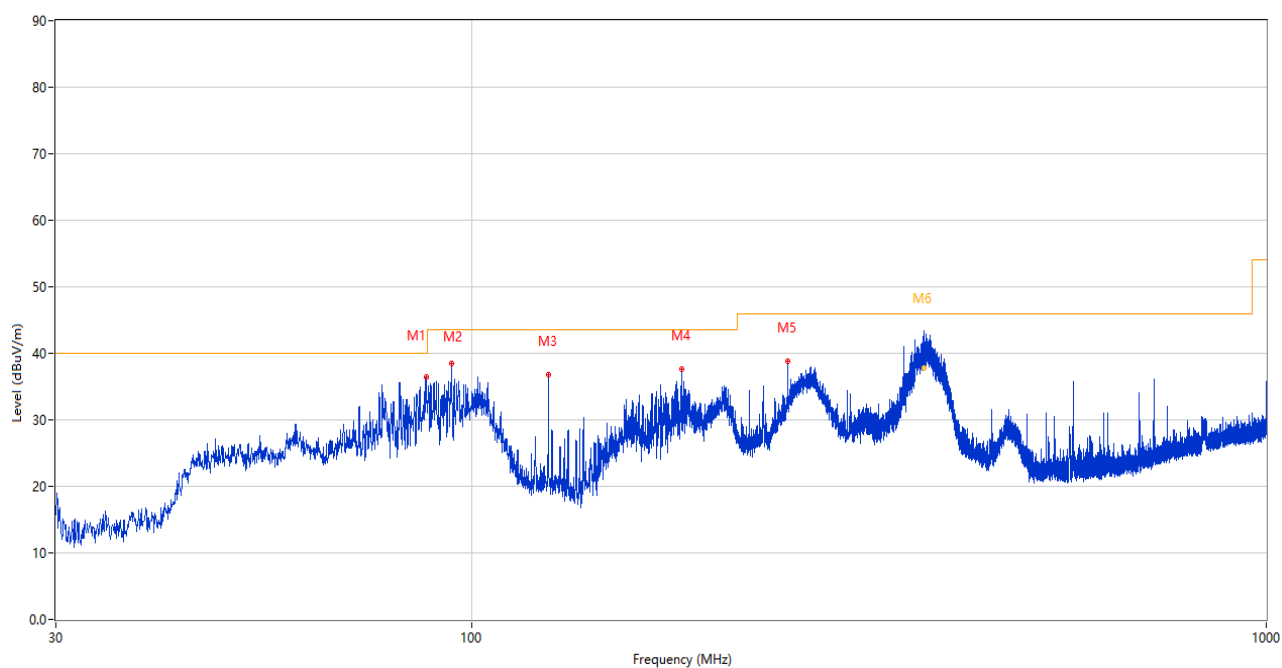
The Working Test Mode 1

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



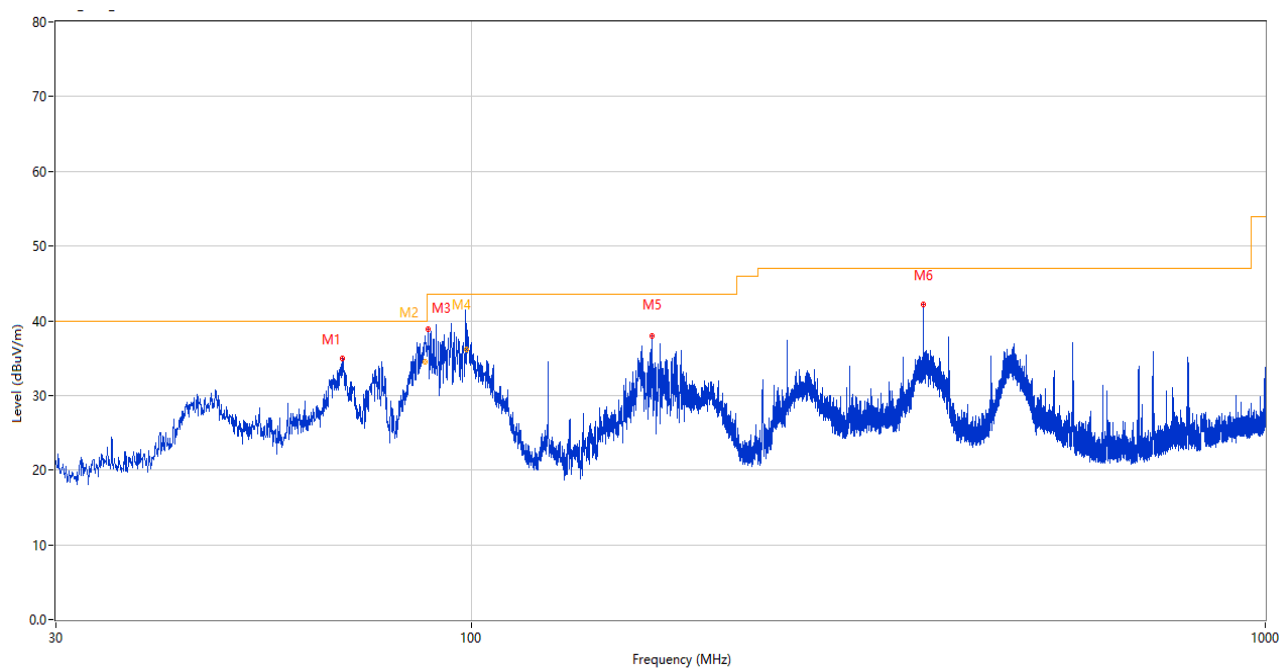
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	60.458	33.73	-26.99	40.0	6.27	Peak	87.00	100	Vertical	Pass
2	86.054	38.09	-29.71	40.0	1.91	Peak	170.00	106	Vertical	N/A
2*	86.054*	34.23	-29.71	40.0	5.77	QP	170.00	106	Vertical	Pass
3	88.879	39.65	-28.87	43.5	3.85	Peak	130.00	100	Vertical	Pass
4	163.908	35.81	-29.39	43.5	7.69	Peak	273.00	100	Vertical	Pass
5	249.996	35.81	-24.87	46.0	10.19	Peak	272.00	200	Vertical	Pass
6	479.255	35.84	-19.21	46.0	10.16	Peak	326.00	100	Vertical	Pass

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



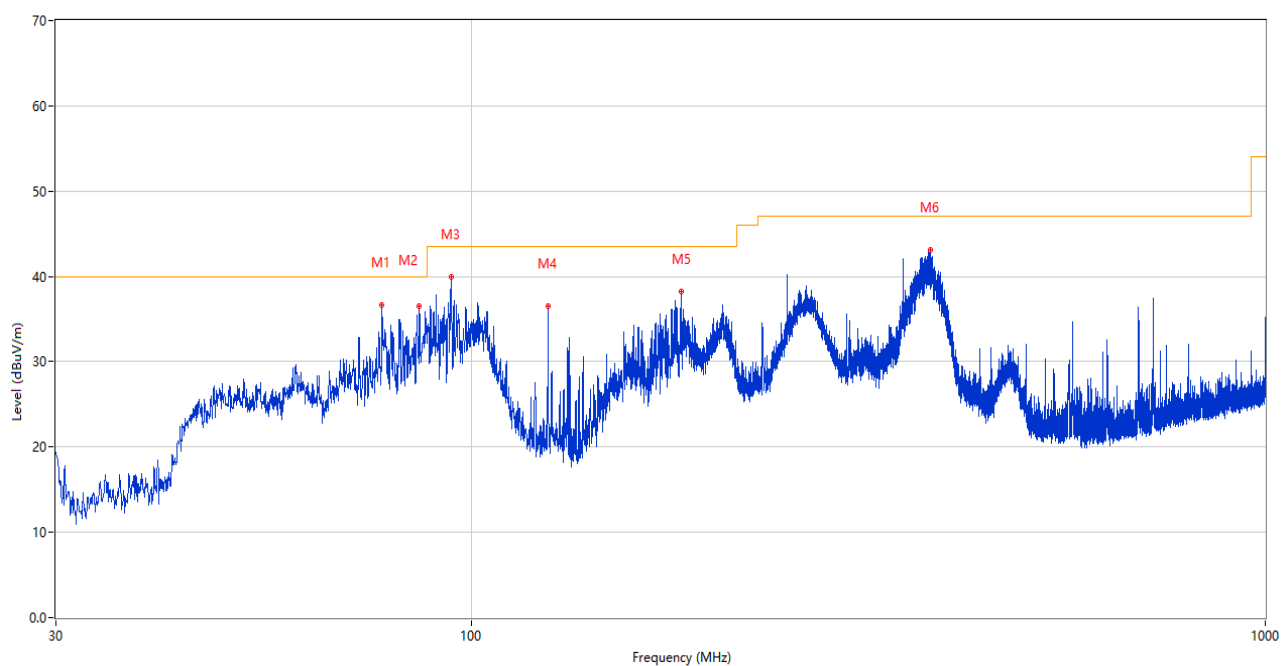
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	87.666	36.45	-29.23	40.0	3.55	Peak	361.00	200	Horizontal	Pass
2	94.359	38.39	-27.65	43.5	5.11	Peak	183.00	200	Horizontal	Pass
3	125.011	36.85	-29.47	43.5	6.65	Peak	162.00	200	Horizontal	Pass
4	183.745	37.63	-28.13	43.5	5.87	Peak	325.00	200	Horizontal	Pass
5	249.996	38.86	-24.87	46.0	7.14	Peak	338.00	100	Horizontal	Pass
6	370.887	42.56	-21.90	46.0	3.44	Peak	307.00	105	Horizontal	N/A
6*	370.887*	37.73	-21.90	46.0	8.27	QP	307.00	105	Horizontal	Pass

A.1.3 Test Antenna Vertical, 30 MHz – 1 GHz(IC)



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	68.897	34.97	-28.93	40.0	5.03	Peak	15.00	100	Vertical	Pass
2	87.460	38.15	-29.28	40.0	1.85	Peak	123.00	101	Vertical	N/A
2*	87.460*	34.47	-29.28	40.0	5.53	QP	123.00	101	Vertical	Pass
3	88.248	38.83	-29.05	43.5	4.67	Peak	104.00	100	Vertical	Pass
4	98.513	38.53	-27.03	43.5	4.97	Peak	228.00	101	Vertical	N/A
4*	98.513*	36.12	-27.03	43.5	7.38	QP	228.00	101	Vertical	Pass
5	168.758	37.99	-29.26	43.5	5.51	Peak	285.00	100	Vertical	Pass
6	370.664	42.19	-21.90	47.0	4.81	Peak	102.00	100	Vertical	Pass

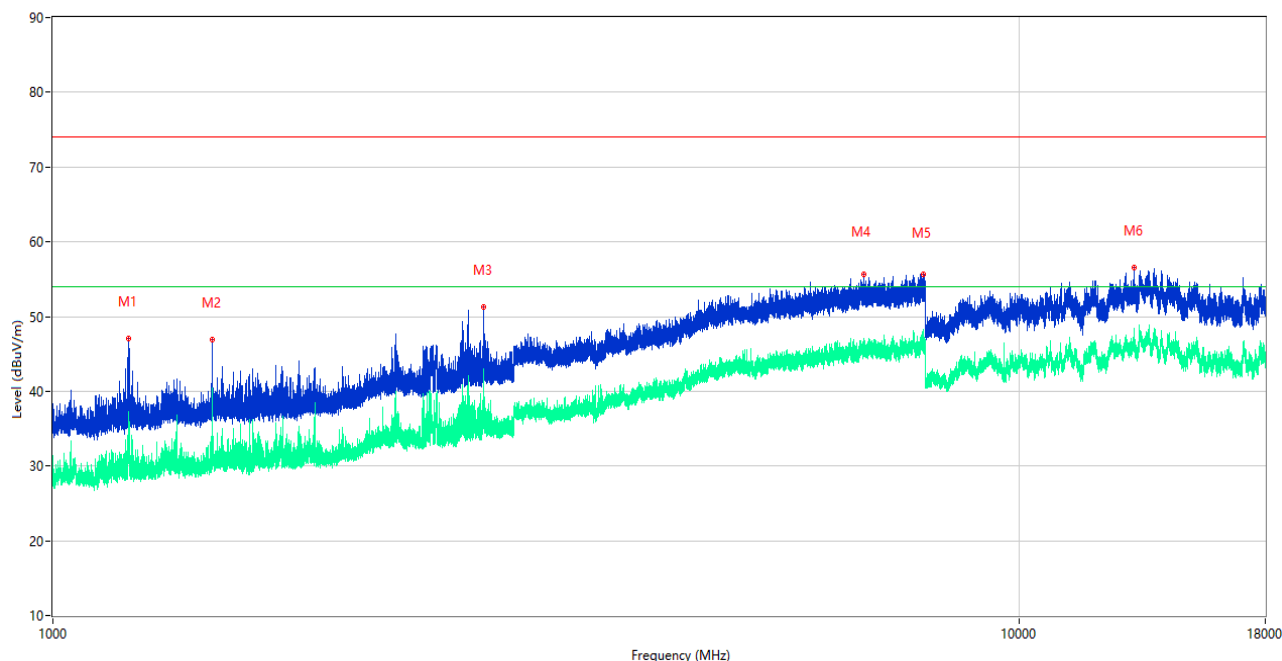
A.1.4 Test Antenna Horizontal, 30 MHz – 1 GHz(IC)



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	77.190	36.67	-31.12	40.0	3.33	Peak	172.00	200	Horizontal	Pass
2	86.066	36.54	-29.71	40.0	3.46	Peak	1.00	200	Horizontal	Pass
3	94.359	39.97	-27.65	43.5	3.53	Peak	158.00	200	Horizontal	Pass
4	125.011	36.55	-29.47	43.5	6.95	Peak	185.00	200	Horizontal	Pass
5	183.745	38.19	-28.13	43.5	5.31	Peak	332.00	200	Horizontal	Pass
6	378.715	43.16	-21.58	47.0	3.84	Peak	315.00	100	Horizontal	Pass

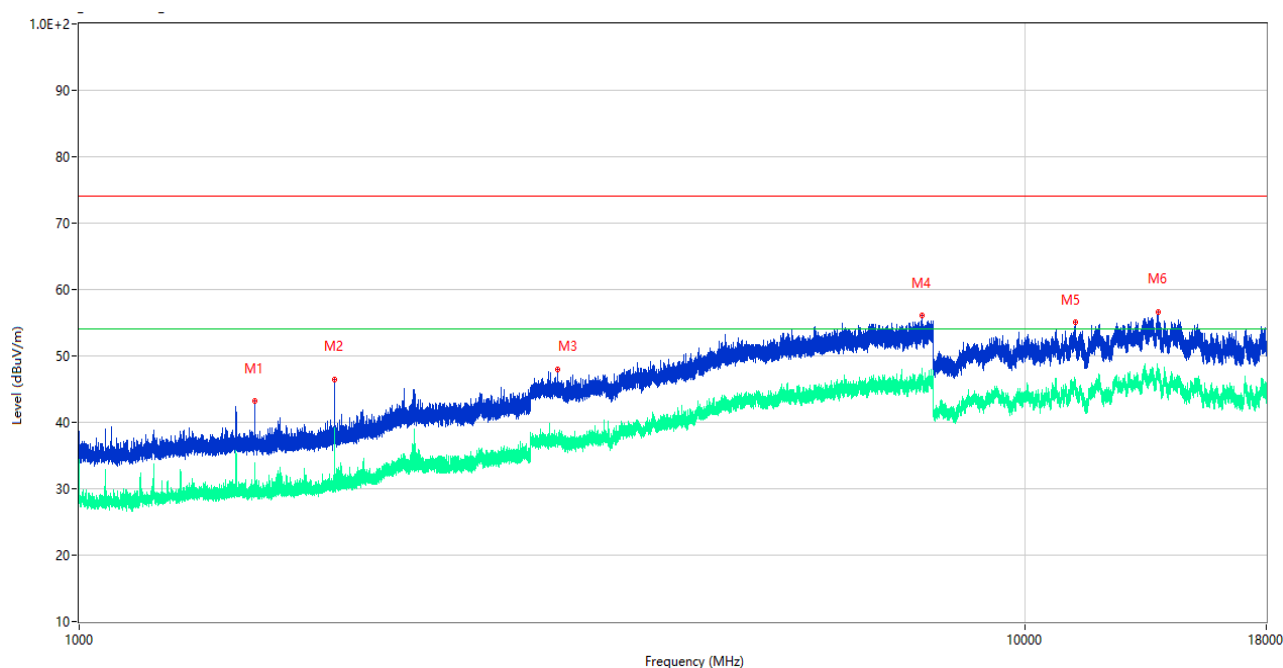
Test Data and Plots (Above 1 GHz)

A.1.5 Test Antenna Vertical, 1 GHz – 18 GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1197.400	47.13	-17.33	74.0	26.87	Peak	206.00	100	Vertical	Pass
1**	1197.400	31.01	-17.33	54.0	22.99	AV	206.00	100	Vertical	Pass
2	1461.700	46.87	-16.50	74.0	27.13	Peak	65.00	100	Vertical	Pass
2**	1461.700	30.59	-16.50	54.0	23.41	AV	65.00	100	Vertical	Pass
3	2789.800	51.32	-9.07	74.0	22.68	Peak	162.00	100	Vertical	Pass
3**	2789.800	36.65	-9.07	54.0	17.35	AV	162.00	100	Vertical	Pass
4	6916.250	55.66	1.84	74.0	18.34	Peak	264.00	100	Vertical	Pass
4**	6916.250	45.24	1.84	54.0	8.76	AV	264.00	100	Vertical	Pass
5	7958.000	55.59	2.80	74.0	18.41	Peak	196.00	100	Vertical	Pass
5**	7958.000	47.30	2.80	54.0	6.70	AV	196.00	100	Vertical	Pass
6	13165.000	56.52	4.04	74.0	17.48	Peak	178.00	100	Vertical	Pass
6**	13165.000	45.80	4.04	54.0	8.20	AV	178.00	100	Vertical	Pass

A.1.6 Test Antenna Horizontal, 1 GHz – 18 GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1533.500	43.21	-16.77	74.0	30.79	Peak	0.00	100	Horizontal	Pass
1**	1533.500	30.54	-16.77	54.0	23.46	AV	0.00	100	Horizontal	Pass
2	1862.200	46.48	-15.57	74.0	27.52	Peak	119.00	100	Horizontal	Pass
2**	1862.200	30.63	-15.57	54.0	23.37	AV	119.00	100	Horizontal	Pass
3	3207.000	47.92	-6.23	74.0	26.08	Peak	228.00	100	Horizontal	Pass
3**	3207.000	37.08	-6.23	54.0	16.92	AV	228.00	100	Horizontal	Pass
4	7788.500	56.04	3.12	74.0	17.96	Peak	267.00	100	Horizontal	Pass
4**	7788.500	46.78	3.12	54.0	7.22	AV	267.00	100	Horizontal	Pass
5	11301.000	55.11	2.37	74.0	18.89	Peak	294.00	100	Horizontal	Pass
5**	11301.000	45.42	2.37	54.0	8.58	AV	294.00	100	Horizontal	Pass
6	13831.000	56.67	5.42	74.0	17.33	Peak	210.00	100	Horizontal	Pass
6**	13831.000	46.97	5.42	54.0	7.03	AV	210.00	100	Horizontal	Pass

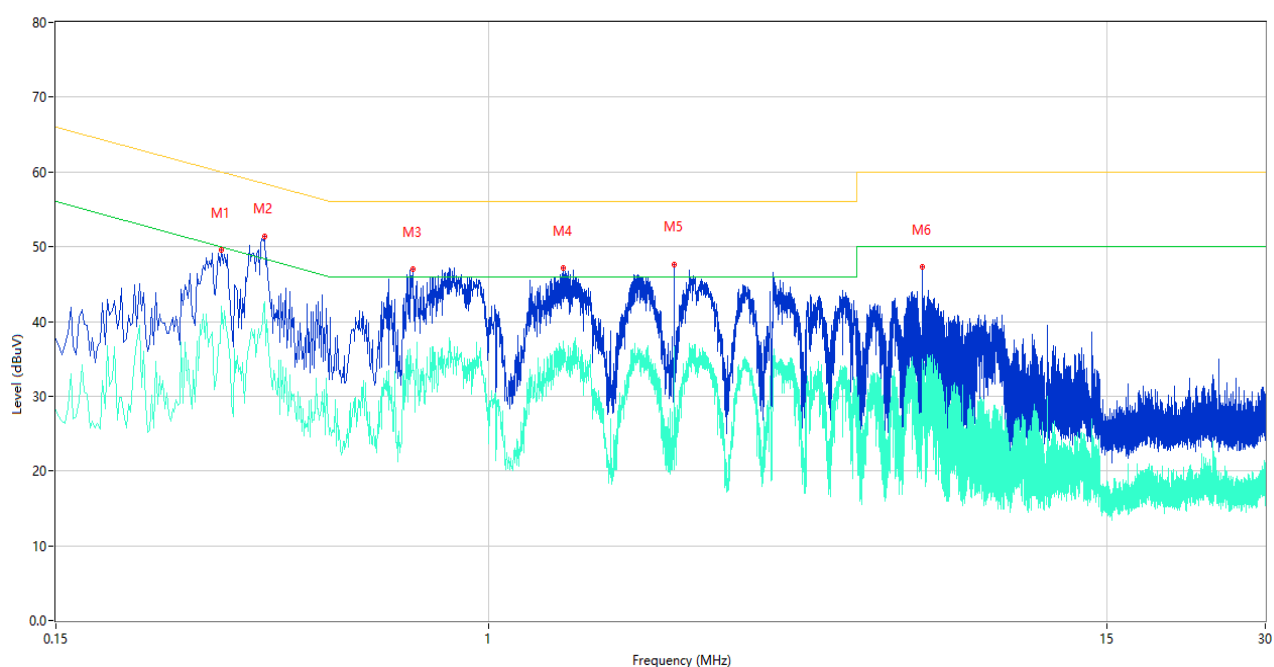
A.2 Conducted Emission

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.

Test Data and Plots

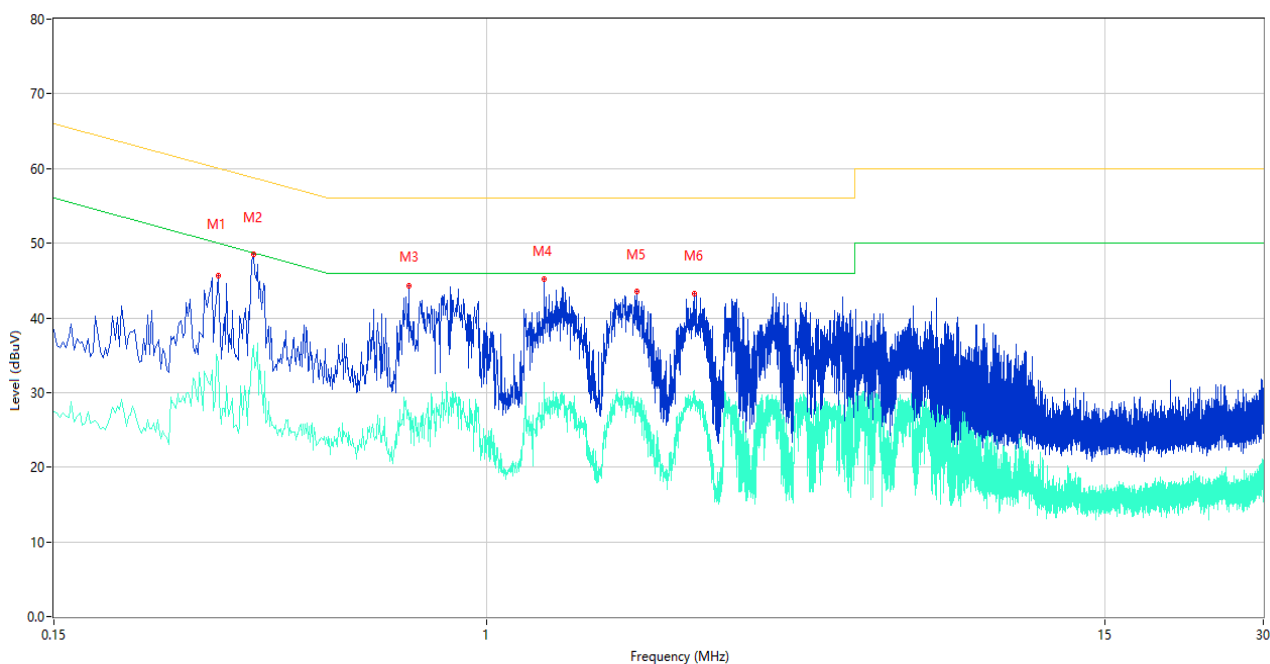
The Working Test Mode 1

A.2.1 L Phase



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.310	49.55	10.03	59.97	10.42	Peak	L	Pass
1**	0.310	42.00	10.03	49.97	7.97	AV	L	Pass
2	0.374	51.34	10.27	58.41	7.07	Peak	L	Pass
2**	0.374	42.66	10.27	48.41	5.75	AV	L	Pass
3	0.718	46.96	10.40	56.00	9.04	Peak	L	Pass
3**	0.718	34.41	10.40	46.00	11.59	AV	L	Pass
4	1.386	47.15	10.61	56.00	8.85	Peak	L	Pass
4**	1.386	37.34	10.61	46.00	8.66	AV	L	Pass
5	2.254	47.68	10.30	56.00	8.32	Peak	L	Pass
5**	2.254	36.55	10.30	46.00	9.45	AV	L	Pass
6	6.670	47.31	10.43	60.00	12.69	Peak	L	Pass
6**	6.670	31.89	10.43	50.00	18.11	AV	L	Pass

A.2.2 N Phase



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.308	45.62	10.03	60.02	14.40	Peak	N	Pass
1**	0.308	34.00	10.03	50.02	16.02	AV	N	Pass
2	0.360	48.49	10.08	58.73	10.24	Peak	N	Pass
2**	0.360	36.25	10.08	48.73	12.48	AV	N	Pass
3	0.710	44.28	10.51	56.00	11.72	Peak	N	Pass
3**	0.710	27.10	10.51	46.00	18.90	AV	N	Pass
4	1.284	45.18	10.20	56.00	10.82	Peak	N	Pass
4**	1.284	31.29	10.20	46.00	14.71	AV	N	Pass
5	1.932	43.51	10.07	56.00	12.49	Peak	N	Pass
5**	1.932	28.84	10.07	46.00	17.16	AV	N	Pass
6	2.480	43.29	10.11	56.00	12.71	Peak	N	Pass
6**	2.480	30.34	10.11	46.00	15.66	AV	N	Pass

ANNEX B TEST SETUP PHOTOS

Please refer the document “BL-SZ2320838-AE.PDF”.

ANNEX C EUT EXTERNAL PHOTOS

Please refer the document “BL-SZ2320838-AW.PDF”.

ANNEX D EUT INTERNAL PHOTOS

Please refer the document “BL-SZ2320838-AI.PDF”.

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--END OF REPORT--