

TEST REPORT

Applicant: SEUIC Technologies Co., Ltd.
Address: NO.15 Xinghuo Road, Nanjing New & High Technology Industry Development Zone, 210061, Nanjing City, Jiangsu Province, China
Equipment Type: Portable Data Collection Terminal
Model Name: AUTOID10 (refer section 2.4)
Brand Name: AUTOID, Seuic
FCC ID: 2AC68-AUTOID10
Test Standard: 47 CFR Part 15 Subpart B (refer section 3.1)
Test Date : Jul. 13, 2022 - Jul. 18, 2022
Date of Issue: Aug. 10, 2022

ISSUED BY:

Shenzhen BALUN Technology Co., Ltd.

Tested by: Zhang Guoxi

Checked by: Xia Long

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(Technical Director)

Zhang Guoxi

Xia Long

Liao Jianming

Revision History		
Version	Issue Date	Revisions
<u>Rev. 01</u>	<u>Aug. 10, 2022</u>	<u>Initial Issue</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, 1/F, Baisha Science and Technology Park, Shahe West Road, Nanshan District, ShenZhen, GuangDong Province, China
Phone Number	+86 755 6685 0100

1.2 Identification of the Responsible Testing Location

Test Location	Shenzhen BALUN Technology Co., Ltd.
Address	Block B, 1/F, Baisha Science and Technology Park, Shahe West Road, Nanshan District, ShenZhen, GuangDong Province, China
Accreditation Certificate	The laboratory is a testing organization accredited by FCC as a accredited testing laboratory. The designation number is CN1196.
Description	All measurement facilities used to collect the measurement data are located at Block B, 1/F, Baisha Science and Technology Park, Shahe West Road, Nanshan District, ShenZhen, GuangDong Province, China

2 PRODUCT INFORMATION

2.1 Applicant Information

Applicant	SEUIC Technologies Co., Ltd.
Address	NO.15 Xinghuo Road, Nanjing New & High Technology Industry Development Zone, 210061, Nanjing City, Jiangsu Province, China

2.2 Manufacturer Information

Manufacturer	SEUIC Technologies Co., Ltd.
Address	NO.15 Xinghuo Road, Nanjing New & High Technology Industry Development Zone, 210061, Nanjing City, Jiangsu Province, China

2.3 Factory Information

Factory	SEUIC Technologies Co., Ltd.
Address	3rd Floor, No.4 Building, Zhicheng Industrial Park, Zhida Road, Nanjing Jiangbei New Area, Nanjing City, China

2.4 General Description for Equipment under Test (EUT)

EUT Name	Portable Data Collection Terminal
Model Name Under Test	AUTOID10
Series Model Name	AUTOID10N, AUTOID10HC, AUTOID10L, AUTOID10R, AUTOID10B, AUTOID10P, AUTOID10I, AUTOID10-6L, AUTOID10C, AUTOID10X, AUTOID10U, AUTOID10W, AUTOID10E, AUTOID10T, AUTOID10G, AUTOID10D, AUTOID10 1/2, AUTOID10F
Description of Model name differentiation	All models are same with electrical parameters and internal circuit structure, but only differ in model name and color.
Hardware Version	D560_Main_PCB_V3.1
Software Version	V1.0.30
Dimensions (Approx.)	160.34*67.02*19.9mm
Weight (Approx.)	N/A

2.5 Ancillary Equipment

Ancillary Equipment 1	Battery 1	
	Brand Name	N/A
	Model No.	BT02560AI10
	Serial No.	N/A
	Capacity	5200 mAh
	Rated Voltage	3.85 V
	Limit Charge Voltage	4.40 V
	Manufacturer	DONGGUAN BOB ELECTRONICS CO., LTD.
Ancillary Equipment 2	Battery 2	
	Brand Name	N/A
	Model No.	471120
	Serial No.	N/A
	Capacity	50 mAh
	Rated Voltage	3.7 V
	Limit Charge Voltage	4.2 V
	Manufacturer	DONGGUAN BOB ELECTRONICS CO., LTD.
Ancillary Equipment 3	Adapter	
	Brand Name	N/A
	Model No.	TPA-23A050200UU01 (USA Plug)
	Serial No.	N/A
	Rated Input	100-240VAC 50/60Hz 0.3A
	Rated Output	5VDC 2A
	Manufacturer	SHENZHEN TIANYIN ELECTRONICS CO., LTD.
Ancillary Equipment 4	USB Cable	
	Length (Approx.)	1m
Note 1: Letter in () means plug type.		

2.6 Technical Information

<p>Network and Wireless connectivity</p>	<p>2G Network GSM/GPRS/EGPRS 850/ 1900 MHz 3G Network CDMA 1x Band Class 0 EVDO Rel. 0/Rev. A Band Class 0 WCDMA/HSDPA/HSUPA Band 2/ 5 4G Network FDD LTE Band 5/ 7 TDD LTE Band 38/ 41 Bluetooth (BR+EDR+BLE) 2.4G WIFI 802.11b, 802.11g, 802.11n(HT20) 5G WIFI 802.11a, 802.11n(HT20/40) and 802.11ac(VHT20/40/80) U-NII-1/2A/2C/3, GPS, Beidou, GLONASS, Galileo, NFC</p>
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The requirement for the following technical information of the EUT was tested in this report:

<p>The Highest Speed of Processor</p>	<p>2.0 GHz</p>
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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	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)	3.22 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	AC 120V/60Hz DC 3.85V(battery)	24.3°C	52%	101kPa	Jul. 13, 2022	Jiang Pan
Conducted Emission	AC 230 V/50 Hz AC 120V/60Hz DC 3.85V(battery)	26.5°C	55%		Jul. 18, 2022	Chen Jiali

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	2021.10.20	2022.10.19	<input checked="" type="checkbox"/>
Amplifier (30-1GHz)	COM-MV	ZT30-1000M	B2017119081	2021.10.20	2022.10.19	<input checked="" type="checkbox"/>
Test Antenna- Bi-Log	SCHWARZBECK	VULB 9168	9168-0867	2022.04.12	2025.04.11	<input checked="" type="checkbox"/>
Anechoic Chamber	YIHENG	9m*6m*6m	N/A	2021.08.19	2024.08.18	<input checked="" type="checkbox"/>
Description	Manufacturer	Name		Version		Use
Test Software	BALUN	BL410-E		V19.918		<input checked="" type="checkbox"/>

Radiated Emission Test For Frequency Above 1 GHz (3m)						
Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due	Use
EMI Receiver	Agilent	N9038A	MY55330120	2021.10.20	2022.10.19	<input checked="" type="checkbox"/>
Spectrum Analyzer	ROHDE & SCHWARZ	FSV40	101544	2022.01.04	2023.01.03	<input checked="" type="checkbox"/>
Amplifier (1-12GHz)	Advanced Microwave	WLA652A	1740103	2021.10.20	2022.10.19	<input checked="" type="checkbox"/>
Amplifier (0.8-21GHz)	Mini-Circuits	ZVA-213-S+	225321316	2021.10.20	2022.10.19	<input checked="" type="checkbox"/>
Amplifier (18-40GHz)	COM-MV	KA_LNA18- 40G-01	18050001	2021.10.20	2022.10.19	<input checked="" type="checkbox"/>
Test Antenna- Horn	SCHWARZBECK	BBHA 9120D	1917	2022.06.09	2025.06.08	<input checked="" type="checkbox"/>
Test Antenna- Horn	A-INFOMW	LB- 180400KF	J211060273	2021.07.02	2024.07.01	<input checked="" type="checkbox"/>
Anechoic Chamber	YIHENG	9m*6m*6m	N/A	2021.08.19	2024.08.18	<input checked="" type="checkbox"/>
Description	Manufacturer	Name		Version		Use
Test Software	BALUN	BL410-E		V19.918		<input checked="" type="checkbox"/>

Conducted disturbance Test						
Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due	Use
EMI Receiver	KEYSIGHT	N9010B	MY57110309	2021.10.10	2022.10.09	<input checked="" type="checkbox"/>
LISN	SCHWARZBECK	NSLK 8127	8127-687	2022.06.01	2023.05.31	<input checked="" type="checkbox"/>
Shielded Enclosure	YiHeng Electronic Co., Ltd	3.5m*3.1m*2. 8m	N/A	2022.02.19	2025.02.18	<input checked="" type="checkbox"/>
Description	Manufacturer	Name		Version		Use
Test Software	BALUN	BL410-E		V19.918		<input checked="" type="checkbox"/>

4.3 Test Enclosure list

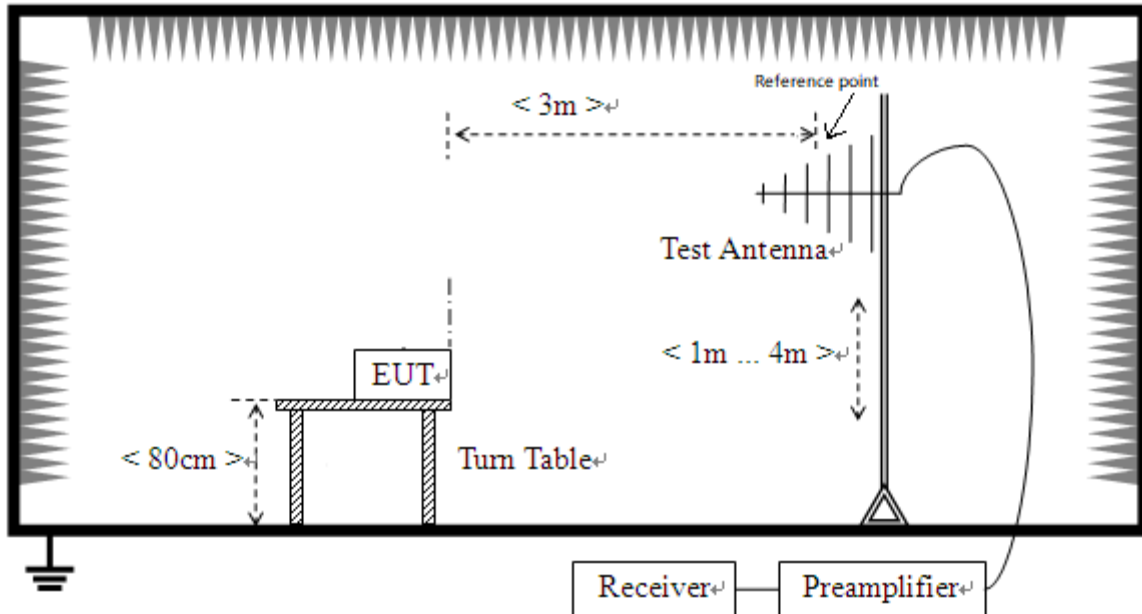
Description	Manufacturer	Model	Serial No.	Length	Description	Use
Wireless Communications Test Set	R&S	CMW500	127801	N/A	Cal. Due 2023.01.03	<input checked="" type="checkbox"/>
Laptop	Apple	A1465	N/A	N/A	N/A	<input checked="" type="checkbox"/>
Laptop	HONOR	N/A	N/A	N/A	N/A	<input checked="" type="checkbox"/>
TF Card	Kingston	N/A	N/A	N/A	N/A	<input checked="" type="checkbox"/>

4.4 Test Configurations

Test Configurations (TC) No.	Description
TC01	<u>The GSM 850 MHz RX Test Mode</u> GSM 850 MHz RX + EUT +Adapter + USB Cable + Battery + TF Card
TC02	<u>The EGPRS 850 MHz RX Test Mode</u> EGPRS 850 MHz RX + EUT +Adapter + USB Cable + Battery + TF Card
TC03	<u>The WCDMA Band 5 RX Test Mode</u> WCDMA Band 5 RX + EUT +Adapter + USB Cable + Battery + TF Card
TC04	<u>The FDD LTE Band 5 RX Test Mode</u> LTE Band 5 RX + EUT +Adapter + USB Cable + Battery + TF Card
TC05	<u>The Scanning Test Mode</u> EUT + Adapter + USB Cable + Battery + TF Card
TC06	<u>The Camera Test Mode</u> EUT + Adapter + USB Cable + Battery + TF Card
TC07	<u>The Video Play Test Mode</u> EUT + Adapter + USB Cable + Battery + TF Card
TC08	<u>The USB Test Mode</u> EUT + USB Cable + Battery + Laptop + TF Card

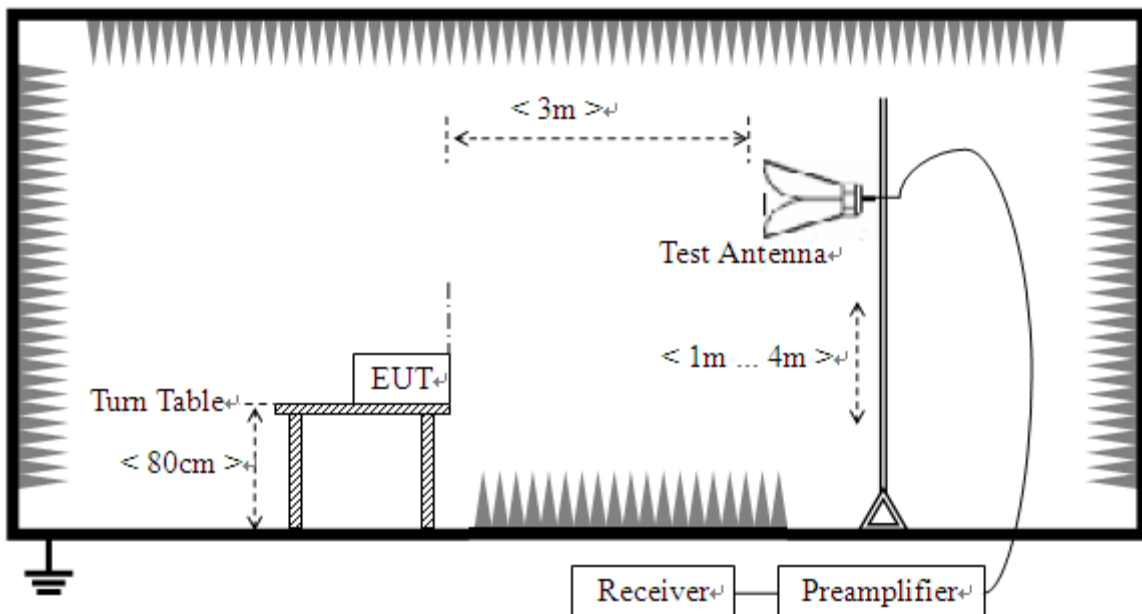
4.5 Test Setups

Test Setup 1



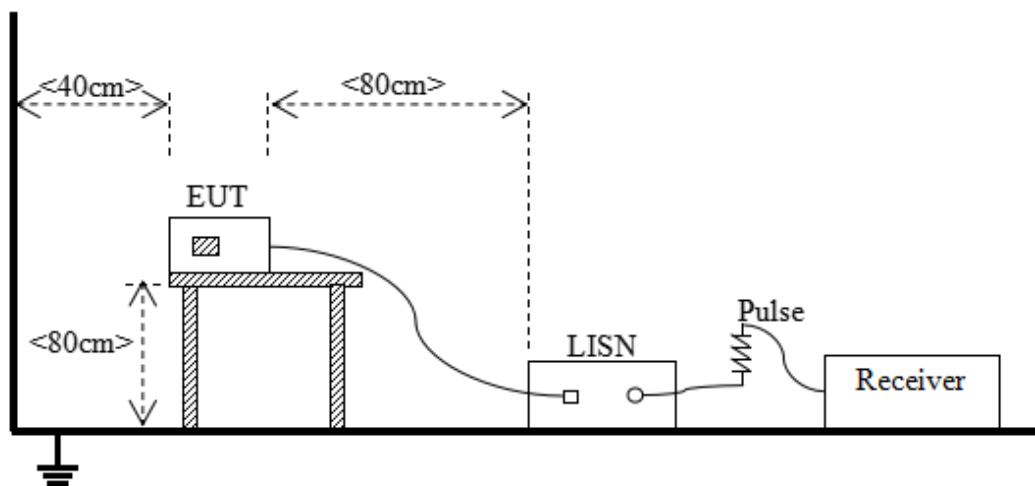
(For Radiated Emission Test (30 MHz-1 GHz))

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~TC08 ^{Note}
Conducted Emission, AC Ports	Test Setup	Test Setup 3
	Test Configuration	TC01~TC08 ^{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 Scanning Test Mode is the worst mode in this report.

5 TEST ITEMS

5.1 Emission Tests

5.1.1 Radiated Emission

5.1.1.1 Limit

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 ($\text{dB}\mu\text{V/m}$)	Field Strength ($\text{dB}\mu\text{V/m}$)	Field Strength ($\mu\text{V/m}$)	Field Strength ($\text{dB}\mu\text{V/m}$)
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 ($\text{dB}\mu\text{V/m}$) = $20 \cdot \log$ [Field Strength ($\mu\text{V/m}$)].
- 2) In the emission tables above, the tighter limit applies at the band edges.

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

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 $f \geq 1$ GHz, 100 kHz for $f < 1$ 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.

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.

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.

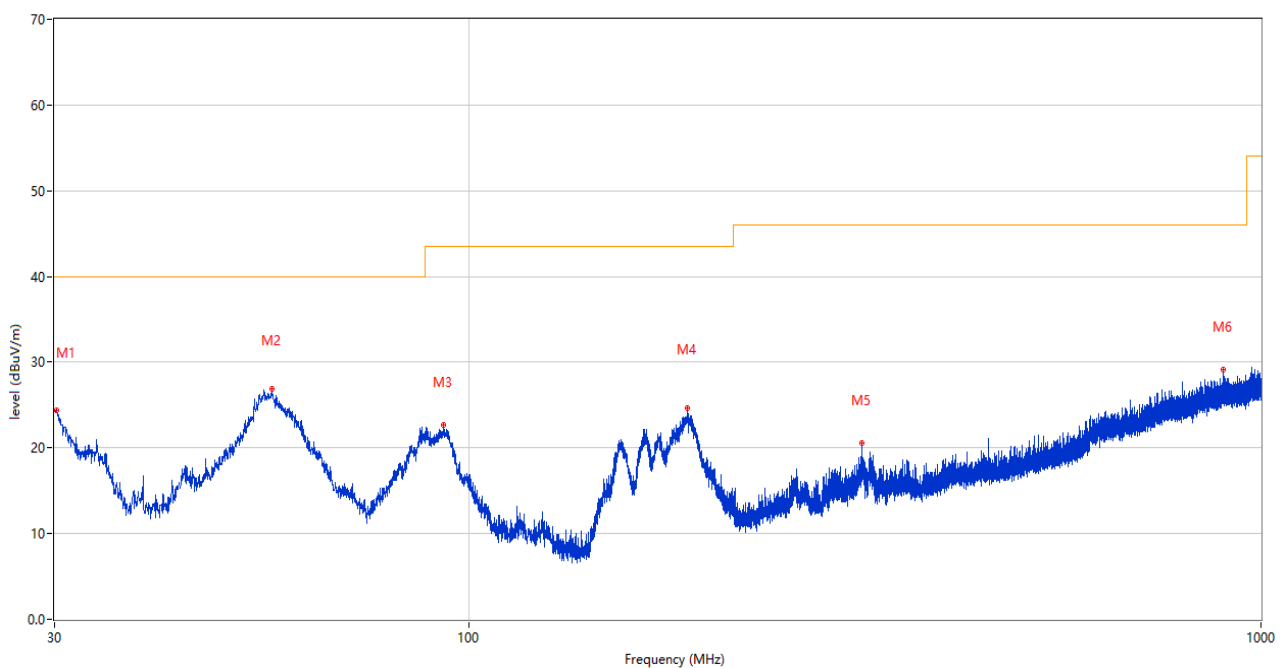
Note 3: The Radiated Emission from 18G-40G is noise only, do not show on the report.

Note 4: All the configurations were pre tested, only the worst configuration has been reported in this report.

Test Data and Plots

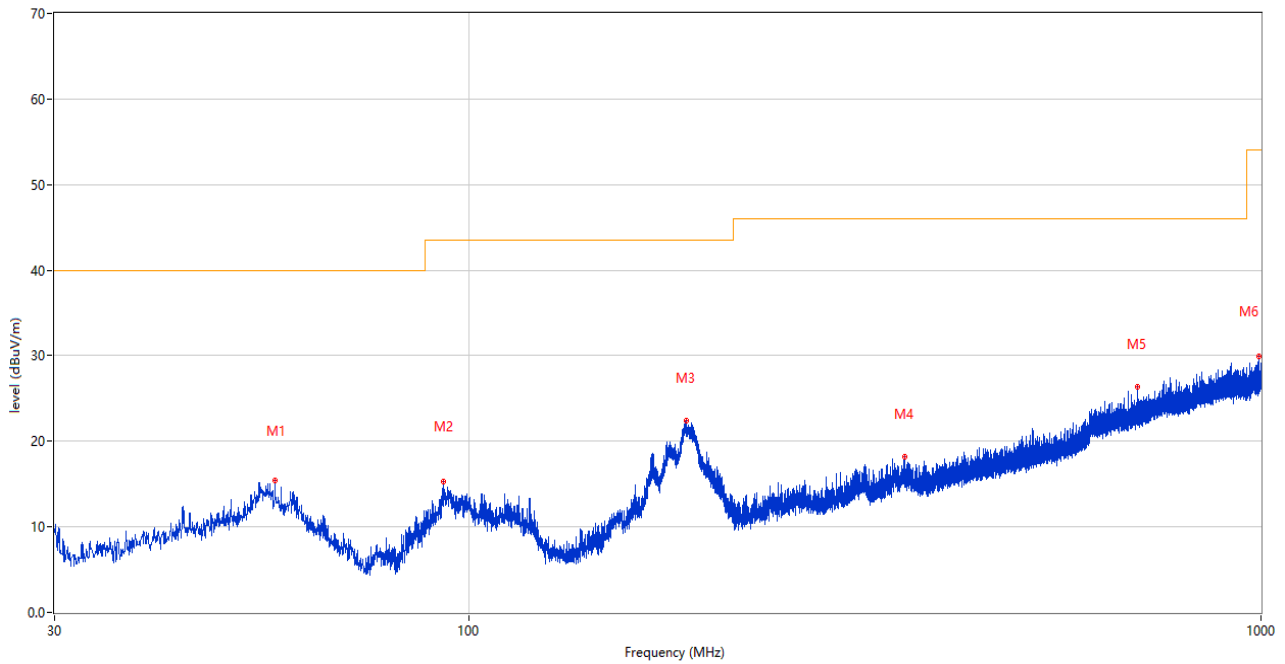
The Scanning Test Mode

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



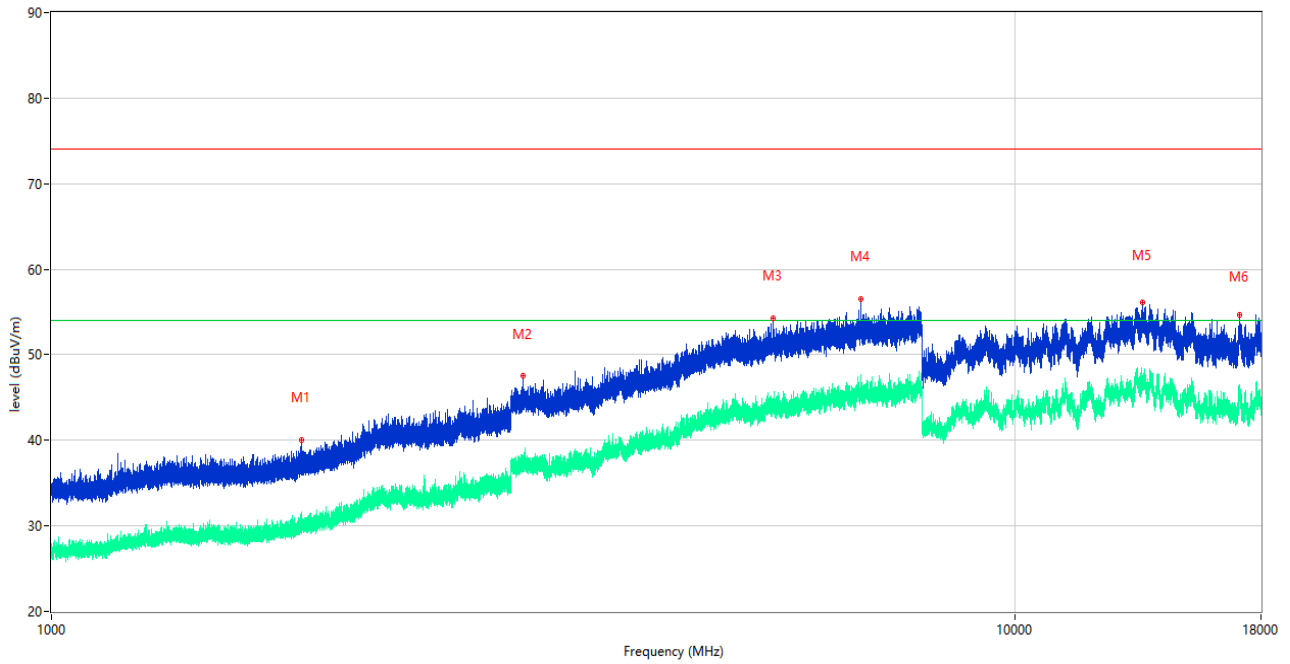
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	30.194	24.37	-28.91	40.0	-15.63	Peak	254.00	100	Vertical	Pass
2	56.432	26.83	-26.11	40.0	-13.17	Peak	37.00	100	Vertical	Pass
3	93.002	22.64	-27.88	43.5	-20.86	Peak	360.00	100	Vertical	Pass
4	188.983	24.60	-27.59	43.5	-18.90	Peak	360.00	100	Vertical	Pass
5	313.628	20.56	-23.31	46.0	-25.44	Peak	67.00	100	Vertical	Pass
6	897.374	29.09	-9.82	46.0	-16.91	Peak	284.00	100	Vertical	Pass

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



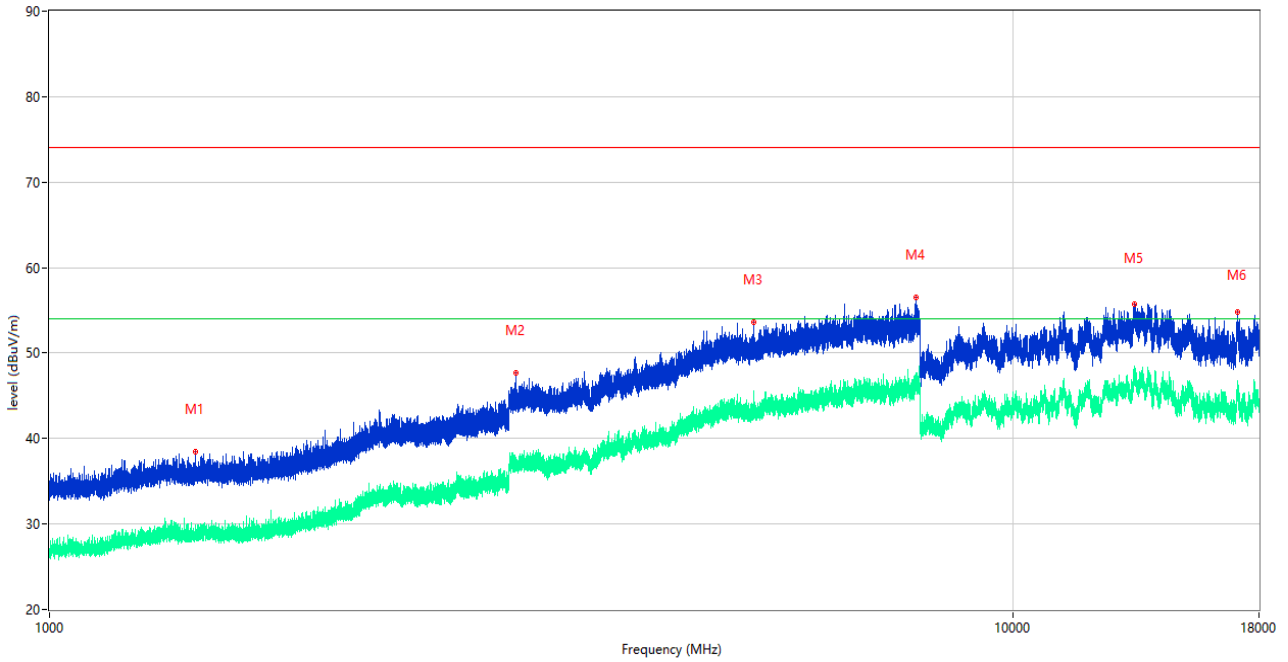
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	56.917	15.46	-26.31	40.0	-24.54	Peak	331.00	100	Horizontal	Pass
2	92.905	15.24	-27.90	43.5	-28.26	Peak	145.00	200	Horizontal	Pass
3	188.061	22.48	-27.71	43.5	-21.02	Peak	98.00	200	Horizontal	Pass
4	354.659	18.24	-21.91	46.0	-27.76	Peak	226.00	100	Horizontal	Pass
5	697.505	26.31	-14.03	46.0	-19.69	Peak	338.00	100	Horizontal	Pass
6	993.016	29.94	-8.40	54.0	-24.06	Peak	203.00	100	Horizontal	Pass

A.1.3 Test Antenna Vertical, 1 GHz – 18 GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1818.700	39.98	-16.01	74.0	-34.02	Peak	317.00	100	Vertical	Pass
1**	1818.700	29.19	-16.01	54.0	-24.81	AV	317.00	100	Vertical	Pass
2	3088.250	47.60	-5.62	74.0	-26.40	Peak	0.00	100	Vertical	Pass
2**	3088.250	38.19	-5.62	54.0	-15.81	AV	0.00	100	Vertical	Pass
3	5612.000	54.29	0.73	74.0	-19.71	Peak	269.00	100	Vertical	Pass
3**	5612.000	43.59	0.73	54.0	-10.41	AV	269.00	100	Vertical	Pass
4	6917.500	56.46	1.88	74.0	-17.54	Peak	257.00	100	Vertical	Pass
4**	6917.500	47.73	1.88	54.0	-6.27	AV	257.00	100	Vertical	Pass
5	13554.000	56.07	4.74	74.0	-17.93	Peak	116.00	100	Vertical	Pass
5**	13554.000	46.92	4.74	54.0	-7.08	AV	116.00	100	Vertical	Pass
6	17110.500	54.64	3.58	74.0	-19.36	Peak	342.00	100	Vertical	Pass
6**	17110.500	45.57	3.58	54.0	-8.43	AV	342.00	100	Vertical	Pass

A.1.4 Test Antenna Horizontal, 1 GHz – 18 GHz

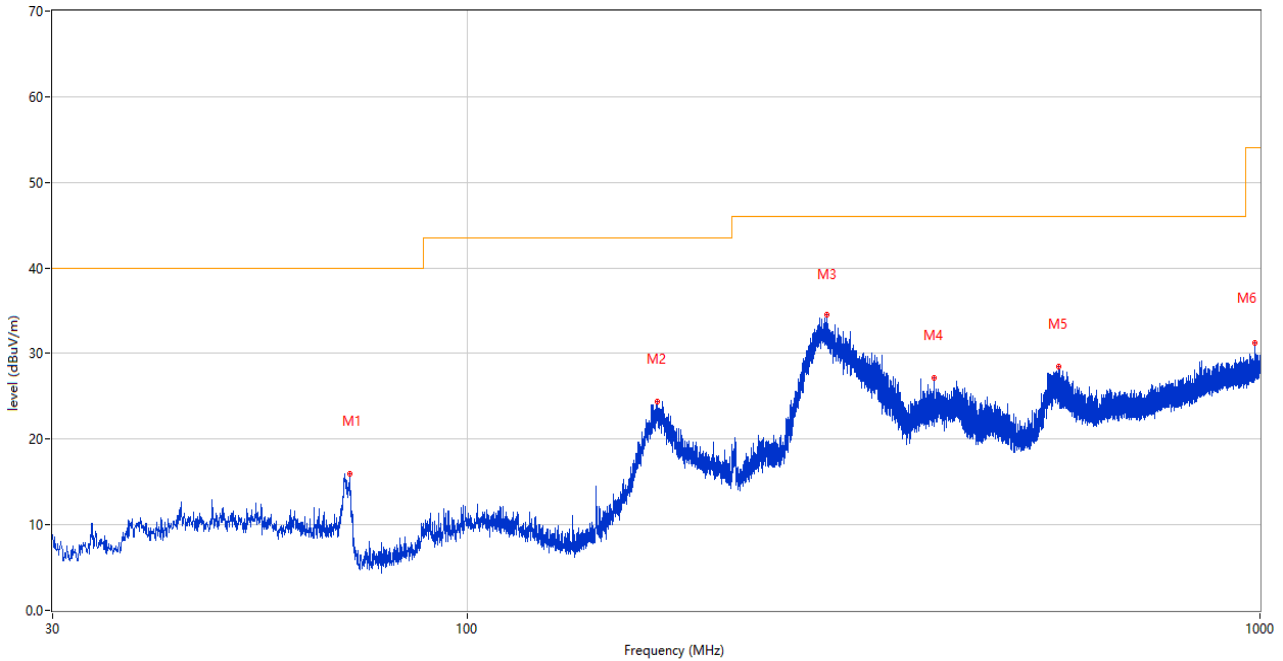


No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1418.400	38.41	-16.70	74.0	-35.59	Peak	160.00	100	Horizontal	Pass
1**	1418.400	28.42	-16.70	54.0	-25.58	AV	160.00	100	Horizontal	Pass
2	3047.750	47.62	-5.50	74.0	-26.38	Peak	55.00	100	Horizontal	Pass
2**	3047.750	36.41	-5.50	54.0	-17.59	AV	55.00	100	Horizontal	Pass
3	5375.250	53.62	1.28	74.0	-20.38	Peak	354.00	100	Horizontal	Pass
3**	5375.250	44.41	1.28	54.0	-9.59	AV	354.00	100	Horizontal	Pass
4	7923.750	56.57	2.99	74.0	-17.43	Peak	330.00	100	Horizontal	Pass
4**	7923.750	46.42	2.99	54.0	-7.58	AV	330.00	100	Horizontal	Pass
5	13370.500	55.74	5.10	74.0	-18.26	Peak	68.00	100	Horizontal	Pass
5**	13370.500	46.74	5.10	54.0	-7.26	AV	68.00	100	Horizontal	Pass
6	17114.500	54.84	3.51	74.0	-19.16	Peak	86.00	100	Horizontal	Pass
6**	17114.500	45.13	3.51	54.0	-8.87	AV	86.00	100	Horizontal	Pass

Test Data and Plots

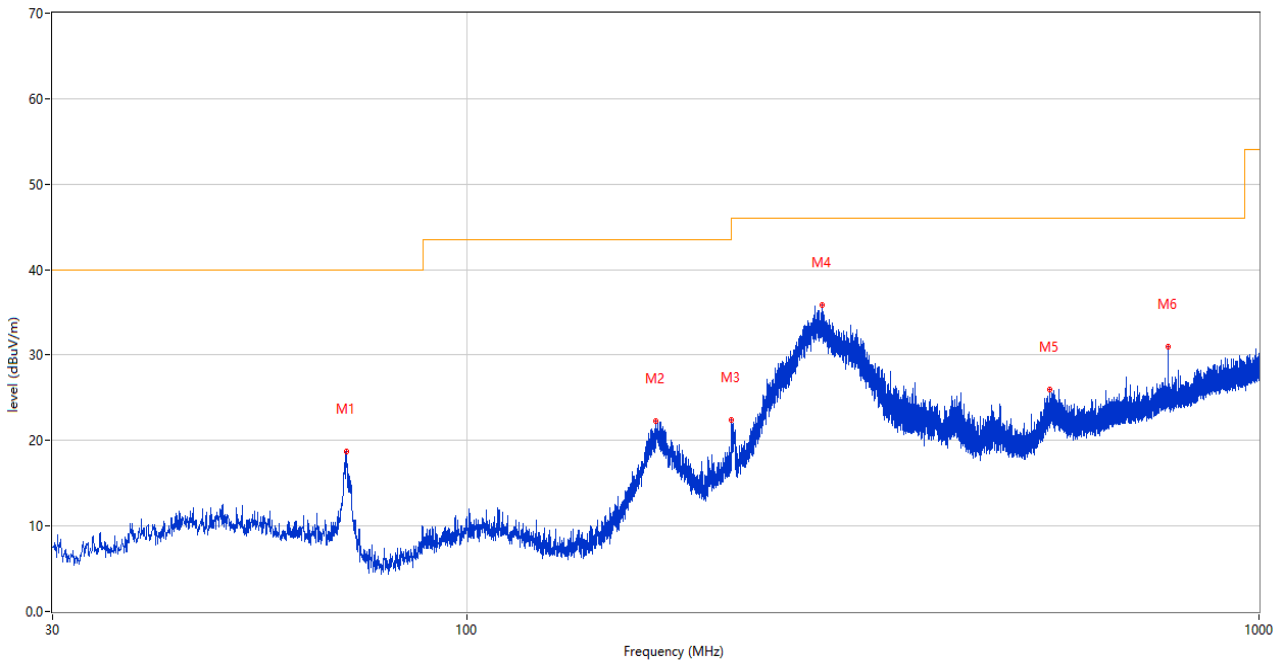
The USB Test Mode

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



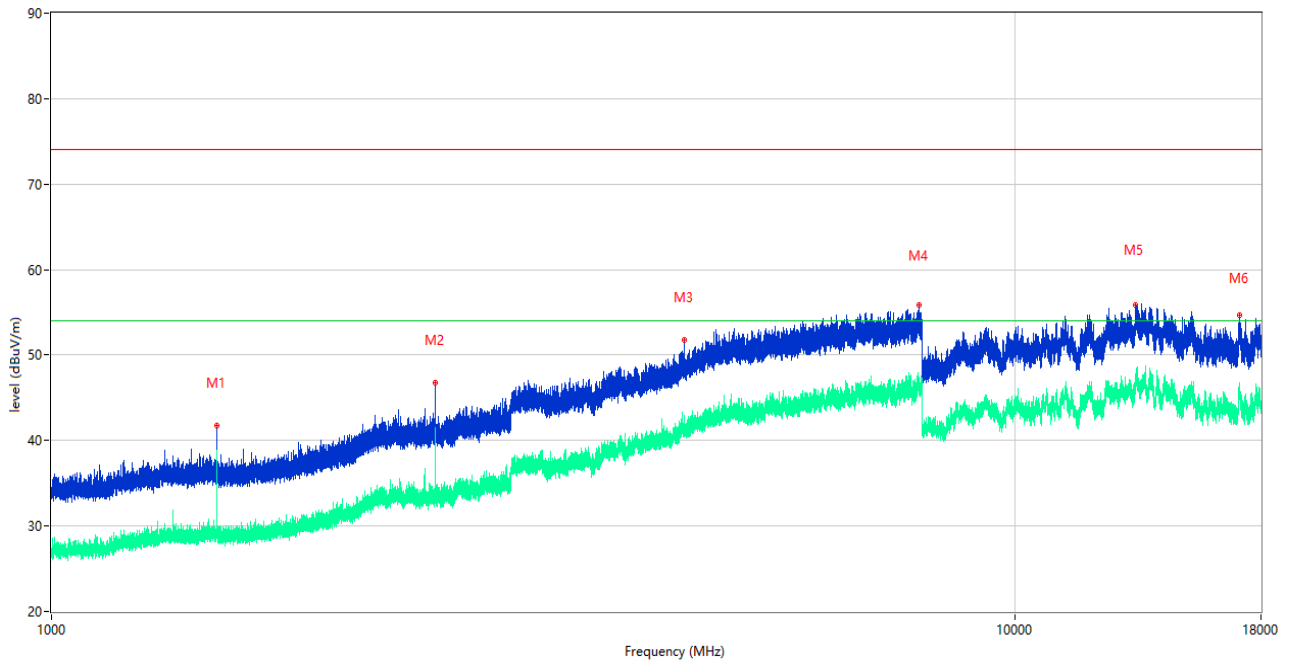
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	71.176	15.92	-29.83	40.0	-24.08	Peak	75.00	100	Vertical	Pass
2	173.706	24.42	-28.94	43.5	-19.08	Peak	190.00	100	Vertical	Pass
3	284.091	34.53	-24.09	46.0	-11.47	Peak	0.00	200	Vertical	Pass
4	388.366	27.22	-21.39	46.0	-18.78	Peak	0.00	200	Vertical	Pass
5	557.777	28.44	-17.44	46.0	-17.56	Peak	168.00	200	Vertical	Pass
6	984.286	31.28	-8.68	54.0	-22.72	Peak	321.00	200	Vertical	Pass

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



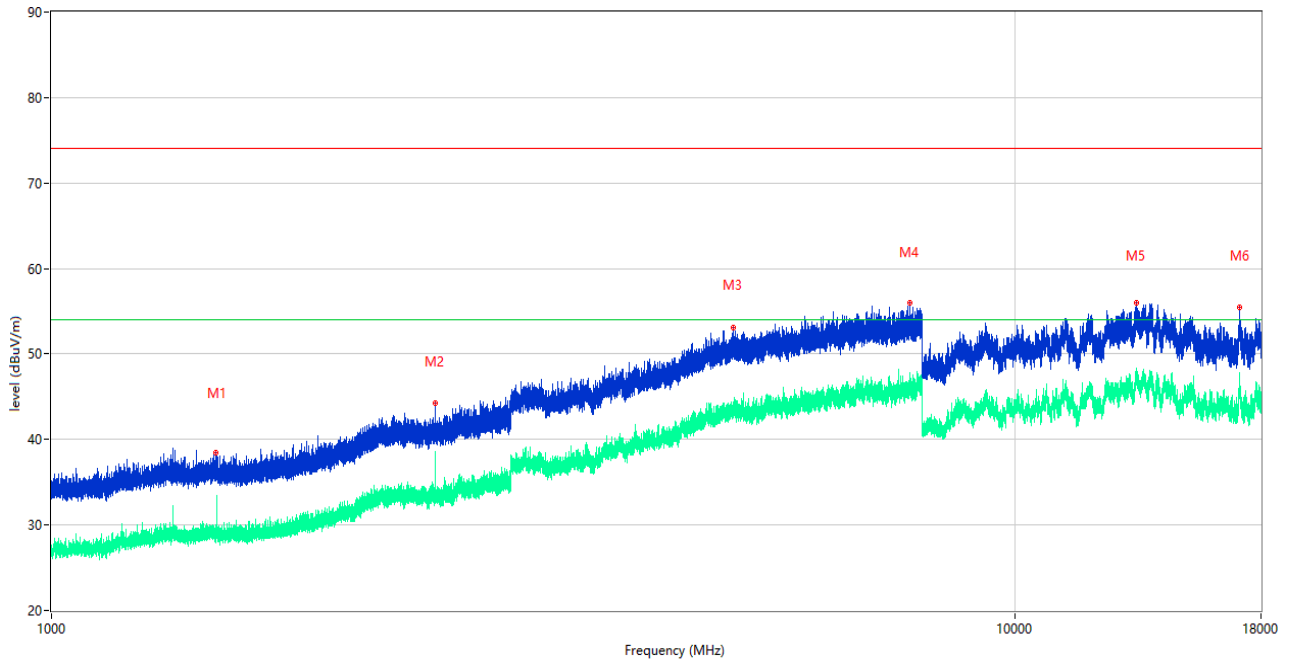
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	70.497	18.77	-29.60	40.0	-21.23	Peak	150.00	200	Horizontal	Pass
2	173.124	22.32	-29.00	43.5	-21.18	Peak	208.00	100	Horizontal	Pass
3	215.949	22.46	-26.42	43.5	-21.04	Peak	229.00	200	Horizontal	Pass
4	280.502	35.82	-24.10	46.0	-10.18	Peak	96.00	100	Horizontal	Pass
5	544.828	25.93	-17.62	46.0	-20.07	Peak	58.00	200	Horizontal	Pass
6	768.024	31.04	-12.47	46.0	-14.96	Peak	227.00	100	Horizontal	Pass

A.1.7 Test Antenna Vertical, 1 GHz – 18 GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1485.100	41.80	-16.62	74.0	-32.20	Peak	171.00	100	Vertical	Pass
1**	1485.100	38.88	-16.62	54.0	-15.12	AV	171.00	100	Vertical	Pass
2	2499.500	46.75	-11.12	74.0	-27.25	Peak	271.00	100	Vertical	Pass
2**	2499.500	35.99	-11.12	54.0	-18.01	AV	271.00	100	Vertical	Pass
3	4538.500	51.77	-1.51	74.0	-22.23	Peak	352.00	100	Vertical	Pass
3**	4538.500	42.93	-1.51	54.0	-11.07	AV	352.00	100	Vertical	Pass
4	7956.750	55.85	2.92	74.0	-18.15	Peak	55.00	100	Vertical	Pass
4**	7956.750	46.43	2.92	54.0	-7.57	AV	55.00	100	Vertical	Pass
5	13346.000	55.87	5.09	74.0	-18.13	Peak	295.00	100	Vertical	Pass
5**	13346.000	46.94	5.09	54.0	-7.06	AV	295.00	100	Vertical	Pass
6	17098.500	54.72	3.69	74.0	-19.28	Peak	190.00	100	Vertical	Pass
6**	17098.500	46.57	3.69	54.0	-7.43	AV	190.00	100	Vertical	Pass

A.1.8 Test Antenna Horizontal, 1 GHz – 18 GHz



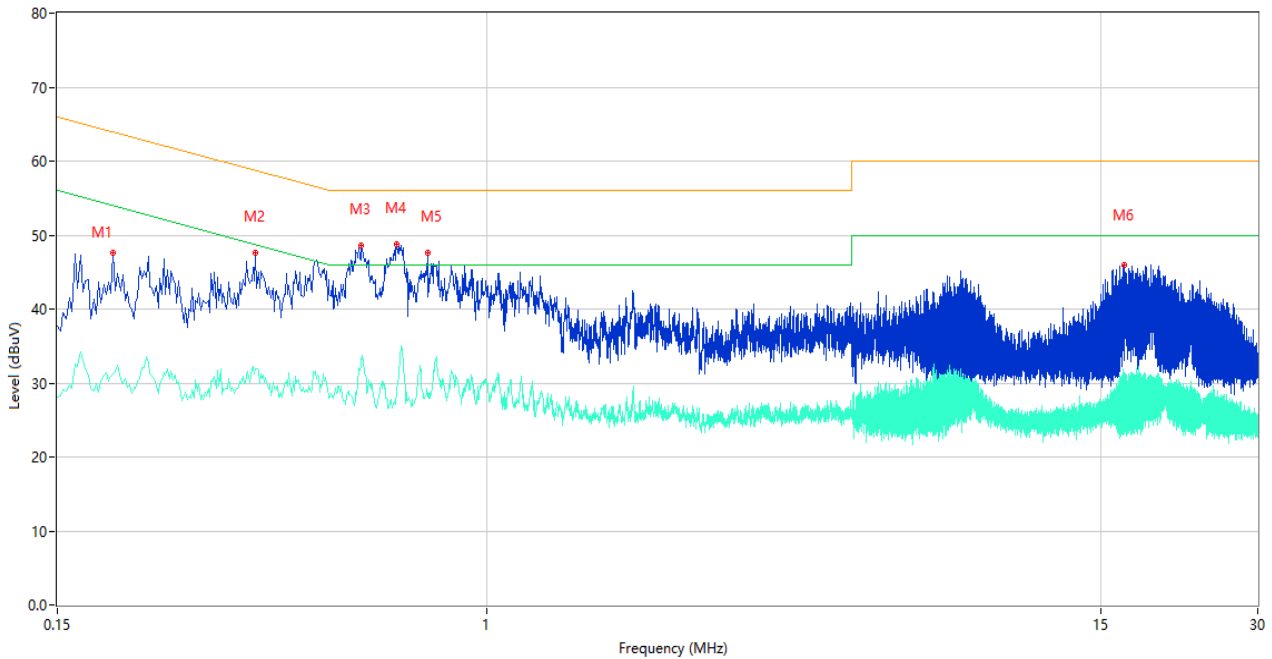
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1482.300	38.41	-16.66	74.0	-35.59	Peak	169.00	100	Horizontal	Pass
1**	1482.300	28.47	-16.66	54.0	-25.53	AV	169.00	100	Horizontal	Pass
2	2499.900	44.19	-11.12	74.0	-29.81	Peak	169.00	100	Horizontal	Pass
2**	2499.900	37.76	-11.12	54.0	-16.24	AV	169.00	100	Horizontal	Pass
3	5099.500	53.10	0.46	74.0	-20.90	Peak	208.00	100	Horizontal	Pass
3**	5099.500	43.70	0.46	54.0	-10.30	AV	208.00	100	Horizontal	Pass
4	7784.500	56.01	3.21	74.0	-17.99	Peak	30.00	100	Horizontal	Pass
4**	7784.500	46.48	3.21	54.0	-7.52	AV	30.00	100	Horizontal	Pass
5	13360.500	56.05	5.16	74.0	-17.95	Peak	67.00	100	Horizontal	Pass
5**	13360.500	47.19	5.16	54.0	-6.81	AV	67.00	100	Horizontal	Pass
6	17097.000	55.51	3.63	74.0	-18.49	Peak	67.00	100	Horizontal	Pass
6**	17097.000	46.11	3.63	54.0	-7.89	AV	67.00	100	Horizontal	Pass

A.2 Conducted Emission

Test Data and Plots

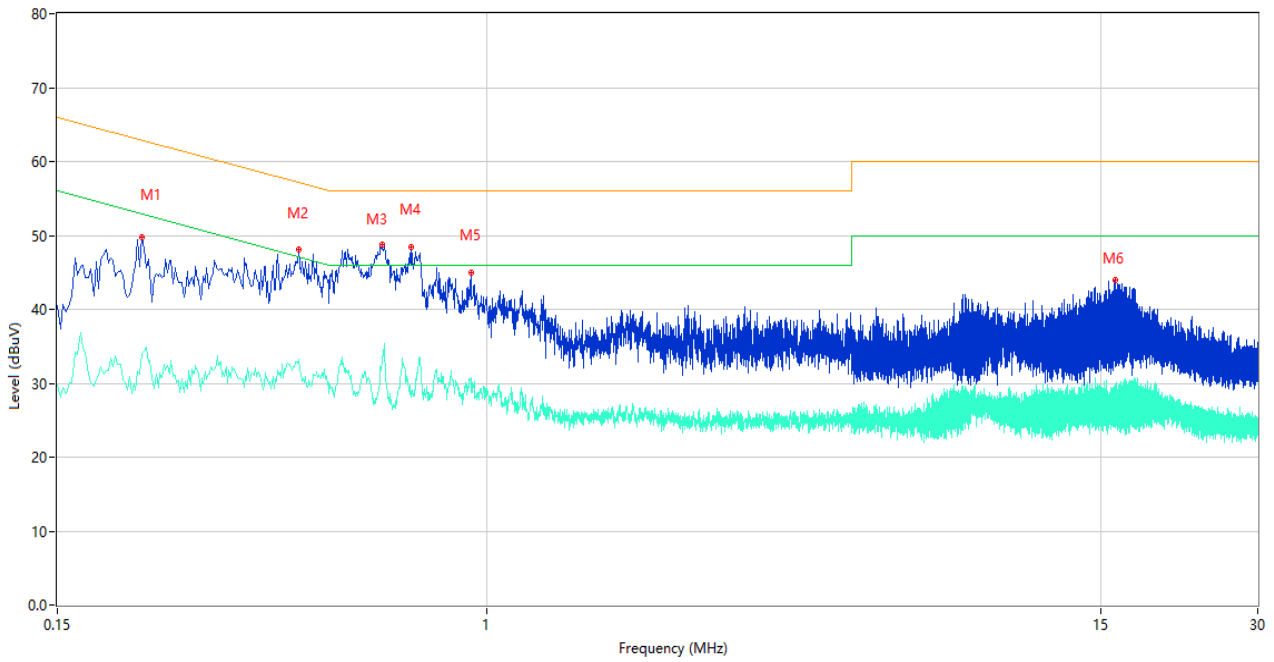
The Scanning Test Mode

A.2.1 L Phase



No.	Frequency (MHz)	Results (dBUV)	Factor (dB)	Limit (dBUV)	Over Limit (dB)	Detector	Line	Verdict
1	0.192	47.68	10.06	63.95	-16.27	Peak	L	Pass
1**	0.192	31.17	10.06	53.95	-22.78	AV	L	Pass
2	0.360	47.57	10.93	58.73	-11.16	Peak	L	Pass
2**	0.360	31.98	10.93	48.73	-16.75	AV	L	Pass
3	0.574	48.62	10.27	56.00	-7.38	Peak	L	Pass
3**	0.574	33.26	10.27	46.00	-12.74	AV	L	Pass
4	0.670	48.77	10.56	56.00	-7.23	Peak	L	Pass
4**	0.670	28.33	10.56	46.00	-17.67	AV	L	Pass
5	0.768	47.58	10.45	56.00	-8.42	Peak	L	Pass
5**	0.768	28.43	10.45	46.00	-17.57	AV	L	Pass
6	16.648	45.99	10.41	60.00	-14.01	Peak	L	Pass
6**	16.648	30.39	10.41	50.00	-19.61	AV	L	Pass

A.2.2 N Phase

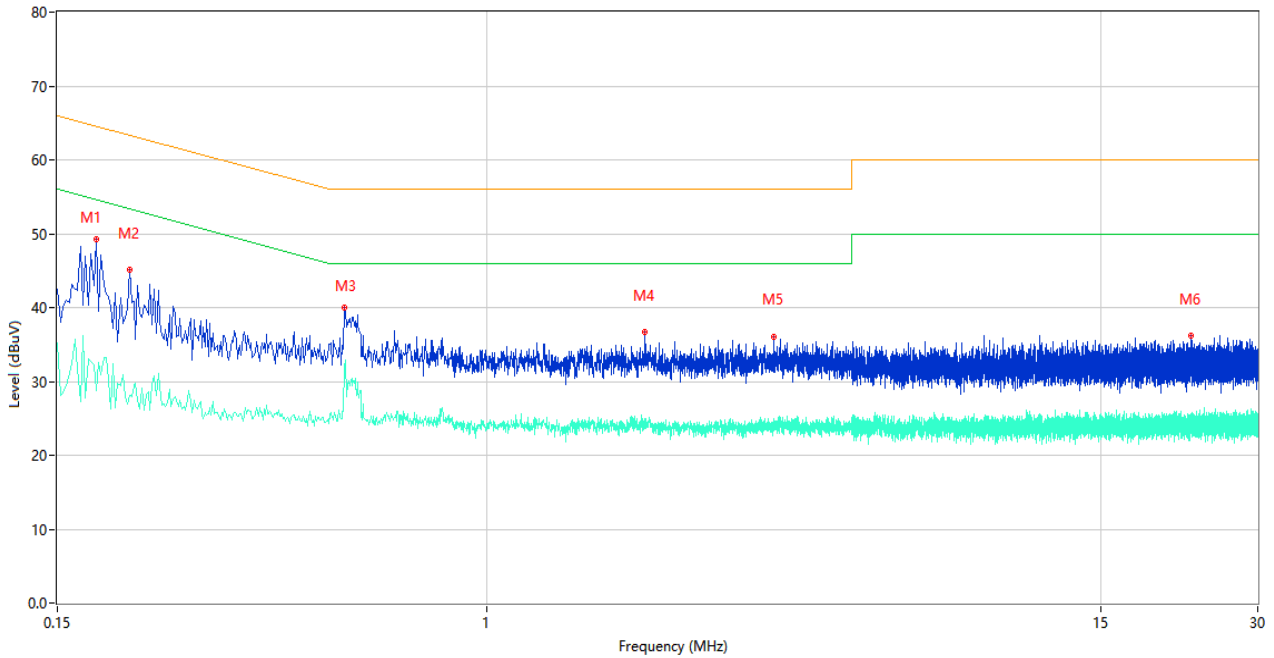


No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Over Limit (dB)	Detector	Line	Verdict
1	0.218	49.70	10.04	62.89	-13.19	Peak	N	Pass
1**	0.218	34.01	10.04	52.89	-18.88	AV	N	Pass
2	0.436	48.06	10.37	57.14	-9.08	Peak	N	Pass
2**	0.436	33.17	10.37	47.14	-13.97	AV	N	Pass
3	0.628	48.74	10.36	56.00	-7.26	Peak	N	Pass
3**	0.628	33.18	10.36	46.00	-12.82	AV	N	Pass
4	0.716	48.50	10.65	56.00	-7.50	Peak	N	Pass
4**	0.716	28.81	10.65	46.00	-17.19	AV	N	Pass
5	0.930	44.88	10.23	56.00	-11.12	Peak	N	Pass
5**	0.930	30.82	10.23	46.00	-15.18	AV	N	Pass
6	15.994	44.03	10.22	60.00	-15.97	Peak	N	Pass
6**	15.994	26.26	10.22	50.00	-23.74	AV	N	Pass

Test Data and Plots

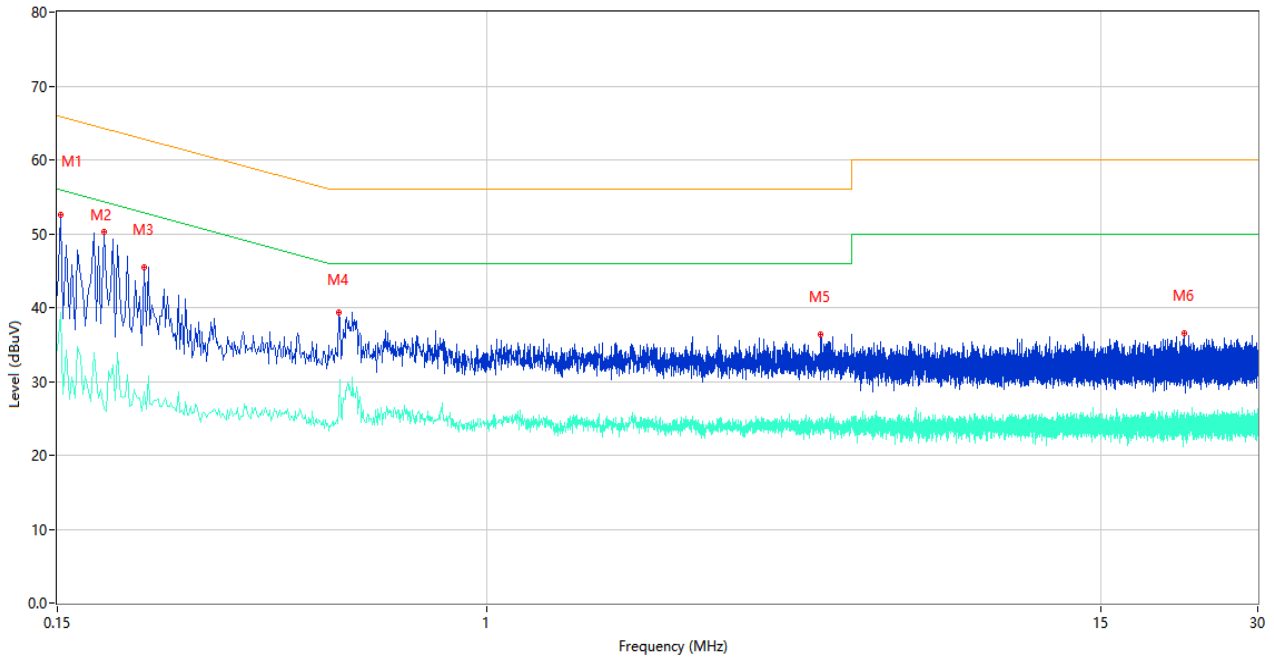
The USB Test Mode

A.2.3 L Phase



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Over Limit (dB)	Detector	Line	Verdict
1	0.178	49.30	10.07	64.58	-15.28	Peak	L	Pass
1**	0.178	28.73	10.07	54.58	-25.85	AV	L	Pass
2	0.206	45.12	10.05	63.37	-18.25	Peak	L	Pass
2**	0.206	28.04	10.05	53.37	-25.33	AV	L	Pass
3	0.532	39.98	10.20	56.00	-16.02	Peak	L	Pass
3**	0.532	32.39	10.20	46.00	-13.61	AV	L	Pass
4	2.008	36.75	10.36	56.00	-19.25	Peak	L	Pass
4**	2.008	25.04	10.36	46.00	-20.96	AV	L	Pass
5	3.540	35.96	10.27	56.00	-20.04	Peak	L	Pass
5**	3.540	24.99	10.27	46.00	-21.01	AV	L	Pass
6	22.342	36.21	10.69	60.00	-23.79	Peak	L	Pass
6**	22.342	24.71	10.69	50.00	-25.29	AV	L	Pass

A.2.4 N Phase



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Over Limit (dB)	Detector	Line	Verdict
1	0.150	41.58	10.09	66.00	-24.42	Peak	N	Pass
1**	0.150	34.19	10.09	56.00	-21.81	AV	N	Pass
2	0.184	50.33	10.07	64.30	-13.97	Peak	N	Pass
2**	0.184	26.20	10.07	54.30	-28.10	AV	N	Pass
3	0.220	45.51	10.04	62.82	-17.31	Peak	N	Pass
3**	0.220	28.59	10.04	52.82	-24.23	AV	N	Pass
4	0.520	39.33	10.19	56.00	-16.67	Peak	N	Pass
4**	0.520	25.91	10.19	46.00	-20.09	AV	N	Pass
5	4.358	36.39	10.15	56.00	-19.61	Peak	N	Pass
5**	4.358	24.70	10.15	46.00	-21.30	AV	N	Pass
6	21.742	36.48	10.40	60.00	-23.52	Peak	N	Pass
6**	21.742	23.54	10.40	50.00	-26.46	AV	N	Pass

ANNEX B TEST SETUP PHOTOS

Please refer the document “BL-SZ2270322-AE-1.PDF”.

ANNEX C EUT EXTERNAL PHOTOS

Please refer the document “BL-SZ2270322-AW.PDF”.

ANNEX D EUT INTERNAL PHOTOS

Please refer the document “BL-SZ2270322-AI.PDF”.

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