

# TEST REPORT

**Applicant:** Xiaomi Communications Co., Ltd.  
**Address:** #019, 9th Floor, Building 6, 33 Xi'erqi Middle Road,  
Haidian District, Beijing, China, 100085  
**Equipment Type:** Mobile Phone  
**Model Name:** 2209116AG  
**Brand Name:** Redmi  
**FCC ID:** 2AFZZ16AG  
**Test Standard:** 47 CFR Part 15 Subpart B  
**Test Date:** Aug. 11, 2022 - Aug. 15, 2022  
**Date of Issue:** Sep. 07, 2022

**ISSUED BY:**

Shenzhen BALUN Technology Co., Ltd.

**Tested by:** Sijie Zheng

**Checked by:** Xia Long

**Approved by:** Liao Jianming  
(Technical Director)

*Sijie Zheng*

*Xia Long*

*Jm Liao*

<b>Revision History</b>		
<u>Version</u>	<u>Issue Date</u>	<u>Revisions</u>
<u>Rev. 01</u>	<u>Sep. 07, 2022</u>	<u>Initial Issue</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	<input checked="" type="checkbox"/> Block B, 1/F, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China
	<input type="checkbox"/> 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.

## 2 PRODUCT INFORMATION

### 2.1 Applicant Information

Applicant	Xiaomi Communications Co., Ltd.
Address	#019, 9th Floor, Building 6, 33 Xi'erqi Middle Road, Haidian District, Beijing, China, 100085

### 2.2 Manufacturer Information

Manufacturer	Xiaomi Communications Co., Ltd.
Address	#019, 9th Floor, Building 6, 33 Xi'erqi Middle Road, Haidian District, Beijing, China, 100085

### 2.3 Factory Information

Factory	N/A
Address	N/A

### 2.4 General Description for Equipment under Test (EUT)

EUT Name	Mobile Phone
Model Name Under Test	2209116AG
Series Model Name	N/A
Description of Model name differentiation	N/A
Hardware Version	P1.1
Software Version	MIUI 13
Dimensions (Approx.)	N/A
Weight (Approx.)	N/A

## 2.5 Ancillary Equipment

Please refer the document “BL-SZ2270591-AW EUT external photo.pdf”.

## 2.6 Technical Information

Network and Wireless connectivity	<p>2G Network GSM/GPRS/EDGE 850/900/1800/1900 MHz</p> <p>3G Network WCDMA/HSDPA/HSUPA/DC-HSDPA Band 1/2/4/5/8</p> <p>4G Network LTE FDD Band 1/2/3/4/5/7/8/20/28/66 LTE TDD Band 38/40/41</p> <p>LTE CA Uplink (UL): CA_3C, CA_7C, CA_38C, CA_40C, CA_41C</p> <p>Bluetooth (BR+EDR+BLE)</p> <p>2.4G WIFI 802.11b, 802.11g, 802.11n(HT20/40)</p> <p>5G WIFI 802.11a, 802.11n(HT20/40) and 802.11ac(VHT20/40/80)</p> <p>U-NII-1/2A/2C/3, GPS, GLONASS, Galileo, BDS, FM receiver, NFC</p>
RAM & Storage	6+64G; 6+128G; 8+128G
IMEI	<p>S25: IMEI1#: 862244060088953; IMEI2#: 862244060088961</p> <p>S26: IMEI1#: 862244060089258; IMEI2#: 862244060089266</p> <p>S36: IMEI1#: 862244060091031; IMEI2#: 862244060091049</p> <p>S38: IMEI1#: 862244060087815; IMEI2#: 862244060087823</p>

### 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 3.87V(battery)	25.5℃	45%	101kPa	Aug. 13, 2022	Gu Shuaizhen
Conducted Emission	AC 230V/50Hz AC 120V/60Hz DC 3.87V(battery)	25.3℃	53%		Aug. 11, 2022	Ye Guangqi

## 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	KEYSIGHT	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 Room	YiHeng Electronic Co., Ltd	3.5m*3.1m*2. 8m	CE#1	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

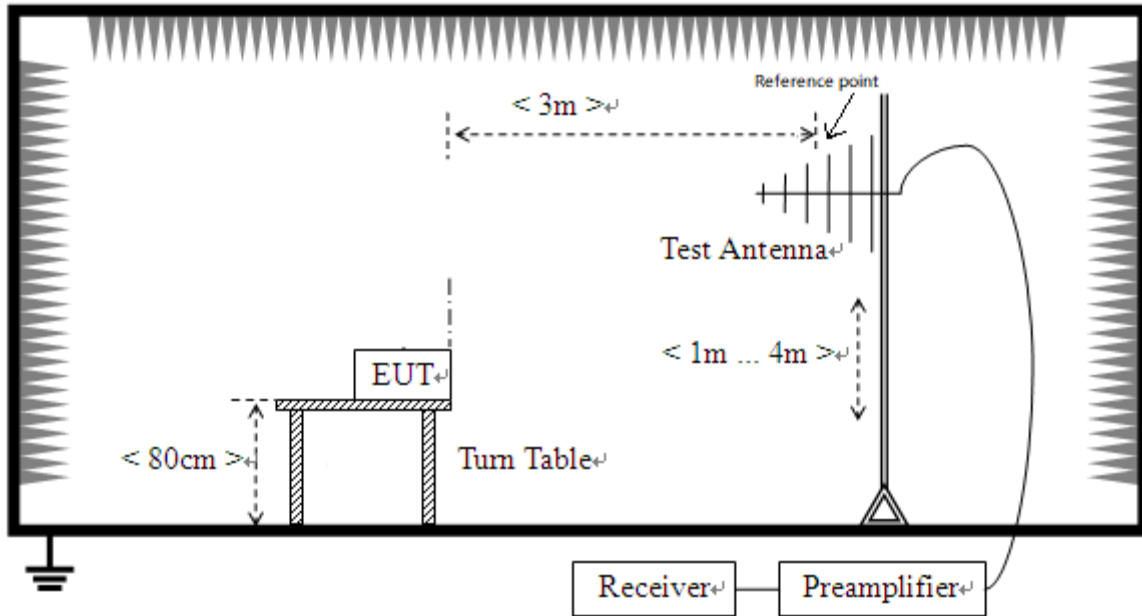
Description	Manufacturer	Model	Serial No.	Length	Description	Use
Wireless Communications Test Set	R&S	CMW500	127801	N/A	Cal. Due 2023.01.03	<input checked="" type="checkbox"/>
Laptop	HONOR	N/A	N/A	N/A	N/A	<input checked="" type="checkbox"/>
Laptop	Apple	A1465	N/A	N/A	N/A	<input checked="" type="checkbox"/>
TF Card	Kingston	N/A	N/A	N/A	N/A	<input checked="" type="checkbox"/>
Headset	xiaomi	EM023	N/A	N/A	N/A	<input checked="" type="checkbox"/>
Digital Headset	N/A	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 + Headset
TC02	<u>The EGPRS 850 MHz RX Test Mode</u> EGPRS 850 MHz RX + EUT +Adapter + USB Cable + Battery + TF Card + Headset
TC03	<u>The WCDMA Band 5 RX Test Mode</u> WCDMA Band 5 RX + EUT +Adapter + USB Cable + Battery + TF Card + Headset
TC04	<u>The FDD LTE Band 5 RX Test Mode</u> LTE Band 5 RX + EUT +Adapter + USB Cable + Battery + TF Card + Headset
TC05	<u>The FM RX Test Mode</u> LTE FM RX + EUT +Adapter + USB Cable + Battery + TF Card + Headset
TC06	<u>The Camera Test Mode</u> EUT + Adapter + USB Cable + Battery + Headset + TF Card
TC07	<u>The Video Play Test Mode</u> EUT + Adapter + USB Cable + Battery + Headset + TF Card
TC08	<u>The USB Test Mode</u> EUT + USB Cable + Battery + Laptop+ Headset + TF Card
TC09	<u>The Digital Headset Test Mode</u> EUT + Digital Headset + Battery +TF Card

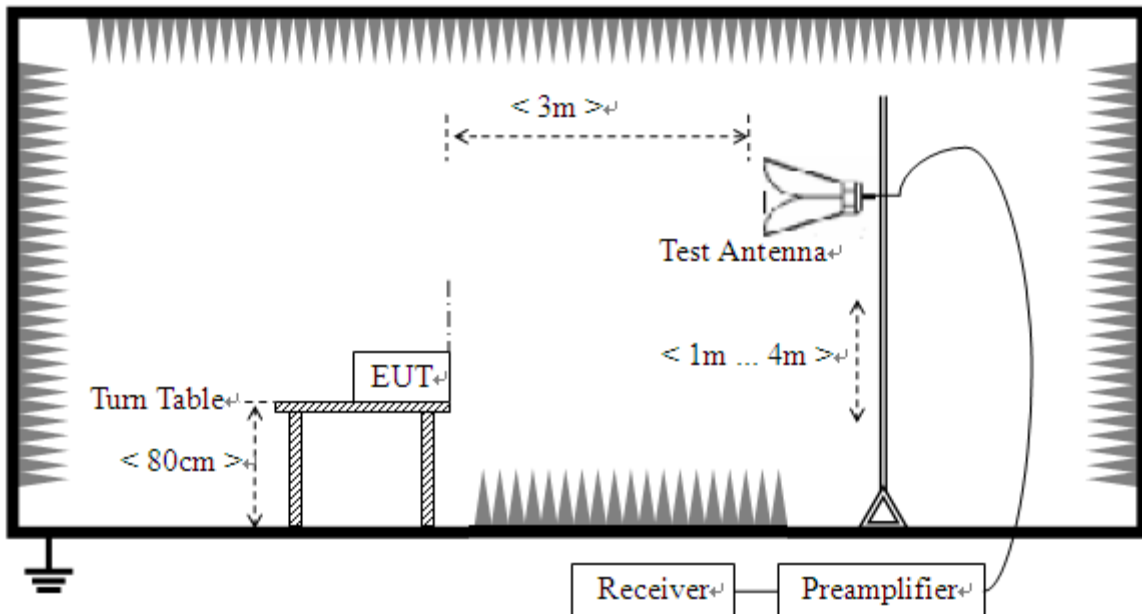
## 4.5 Test Setups

### Test Setup 1



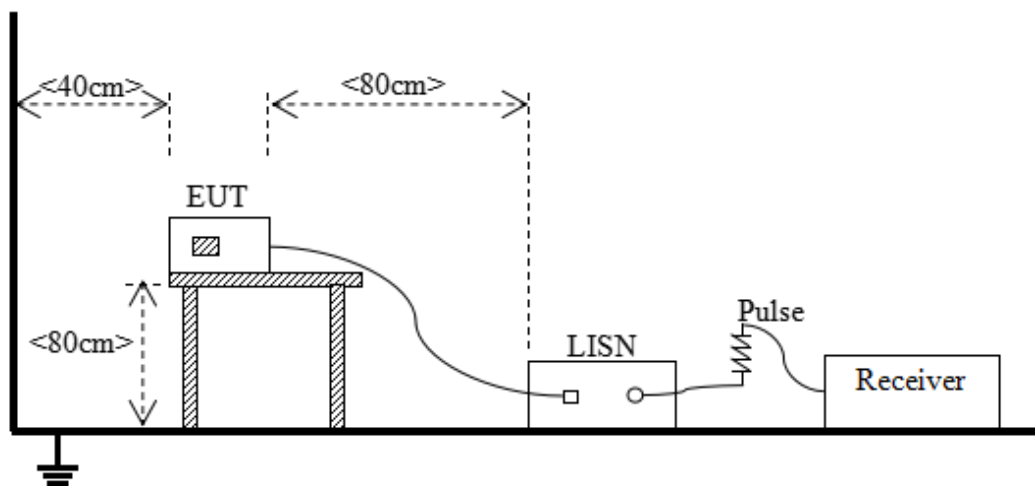
(For Radiated Emission Test (30 MHz-1 GHz))

### 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~TC09 <sup>Note</sup>
Conducted Emission, AC Ports	Test Setup	Test Setup 3
	Test Configuration	TC01~TC08 <sup>Note</sup>

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 Camera 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) The lower limit shall apply at the transition frequency.

##### 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  $0^\circ$  to  $360^\circ$ , 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 $\mu$ V/m) = Reading (dB $\mu$ 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 $\mu$ V)	Average (dB $\mu$ V)
0.15 - 0.50	79	66
0.50 - 30	73	60

Frequency range (MHz)	Class B	
	Quasi-peak (dB $\mu$ V)	Average (dB $\mu$ 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 transition frequency.
- 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  $\Omega$ /50  $\mu$ 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 $\mu$ V) = Reading (dB $\mu$ 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.

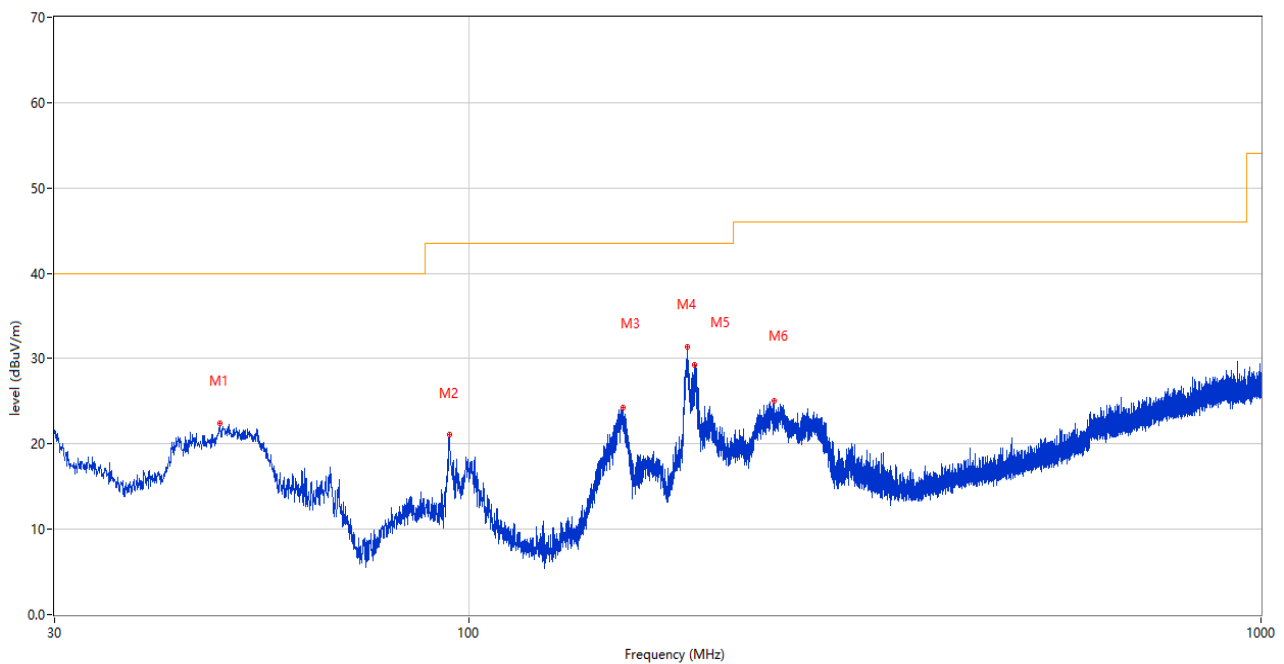
Note 3: The Radiated Emission from 18G-40G is noise only, do not show on the report.

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

### Test Data and Plots

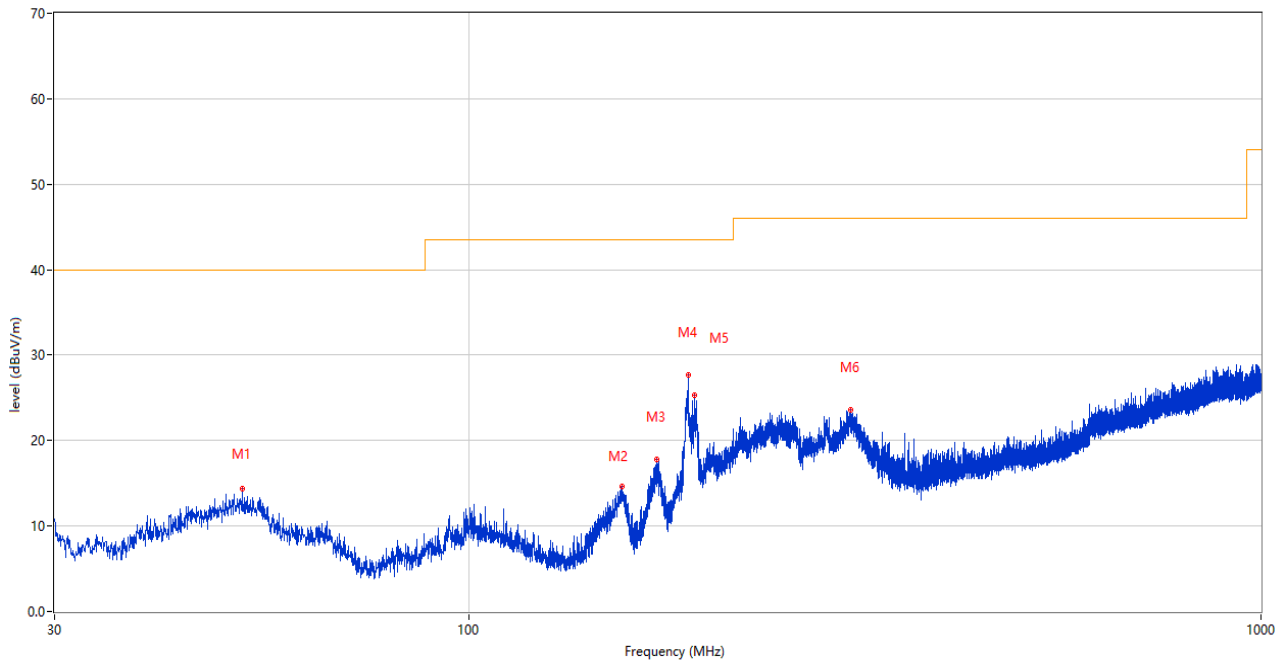
#### The Camera Test Mode

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



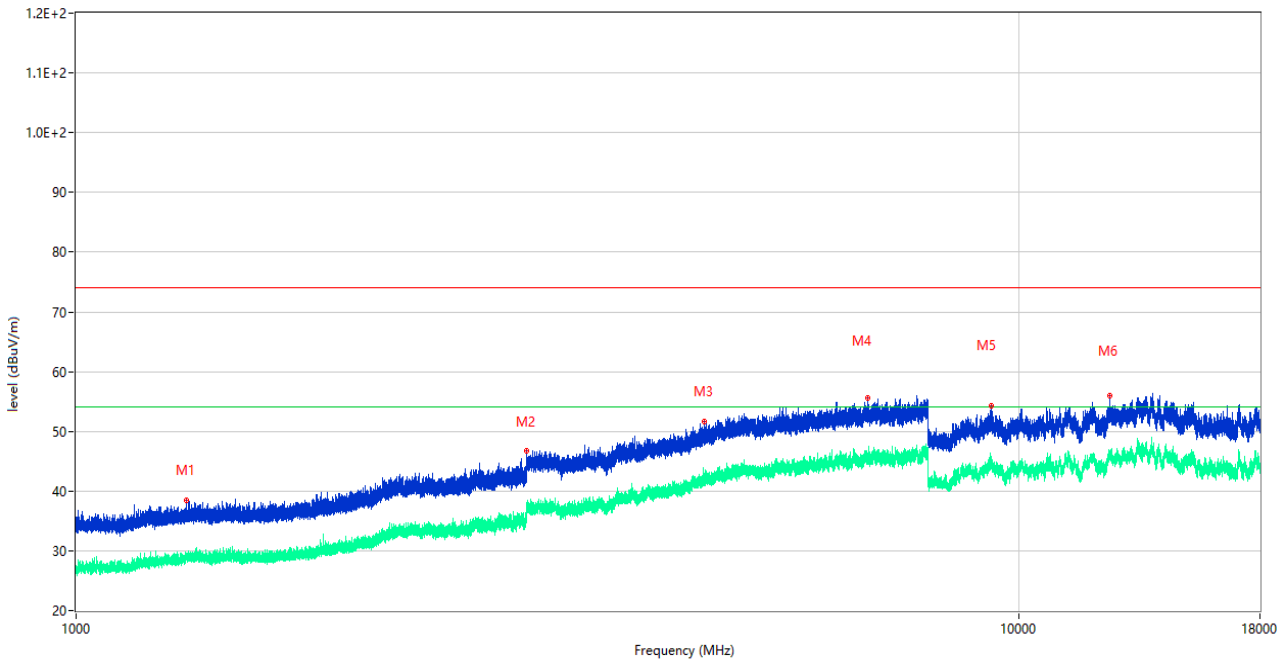
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	48.527	22.45	-25.34	40.0	-17.55	Peak	360.00	200	Vertical	Pass
2	94.505	21.03	-27.63	43.5	-22.47	Peak	0.00	100	Vertical	Pass
3	156.634	24.31	-29.73	43.5	-19.19	Peak	303.00	100	Vertical	Pass
4	188.595	31.35	-27.64	43.5	-12.15	Peak	315.00	100	Vertical	Pass
5	192.572	29.21	-27.10	43.5	-14.29	Peak	326.00	100	Vertical	Pass
6	243.012	25.04	-25.00	46.0	-20.96	Peak	326.00	100	Vertical	Pass

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



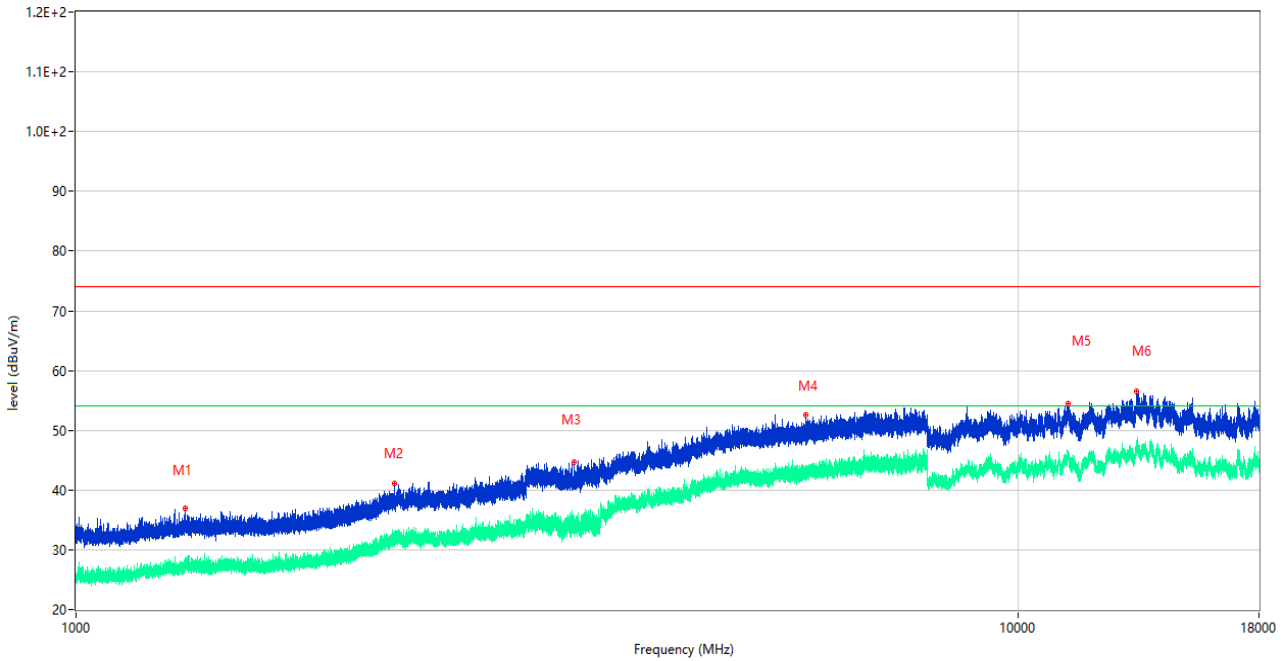
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	51.776	14.39	-25.43	40.0	-25.61	Peak	57.00	100	Horizontal	Pass
2	156.100	14.69	-29.77	43.5	-28.81	Peak	360.00	200	Horizontal	Pass
3	172.542	17.76	-29.06	43.5	-25.74	Peak	94.00	200	Horizontal	Pass
4	189.322	27.71	-27.56	43.5	-15.79	Peak	235.00	100	Horizontal	Pass
5	192.960	25.28	-27.08	43.5	-18.22	Peak	242.00	100	Horizontal	Pass
6	303.297	23.57	-23.67	46.0	-22.43	Peak	360.00	200	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	1309.200	38.49	-16.34	74.0	-35.51	Peak	262.00	100	Vertical	Pass
1**	1309.200	29.31	-16.34	54.0	-24.69	AV	262.00	100	Vertical	Pass
2	3002.250	46.79	-6.74	74.0	-27.21	Peak	225.00	100	Vertical	Pass
2**	3002.250	36.53	-6.74	54.0	-17.47	AV	225.00	100	Vertical	Pass
3	4641.000	51.56	-1.10	74.0	-22.44	Peak	153.00	100	Vertical	Pass
3**	4641.000	42.39	-1.10	54.0	-11.61	AV	153.00	100	Vertical	Pass
4	6913.250	55.55	1.73	74.0	-18.45	Peak	250.00	100	Vertical	Pass
4**	6913.250	45.53	1.73	54.0	-8.47	AV	250.00	100	Vertical	Pass
5	9350.500	54.34	2.14	74.0	-19.66	Peak	275.00	100	Vertical	Pass
5**	9350.500	43.70	2.14	54.0	-10.30	AV	275.00	100	Vertical	Pass
6	12470.500	55.96	2.90	74.0	-18.04	Peak	206.00	100	Vertical	Pass
6**	12470.500	46.17	2.90	54.0	-7.83	AV	206.00	100	Vertical	Pass

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

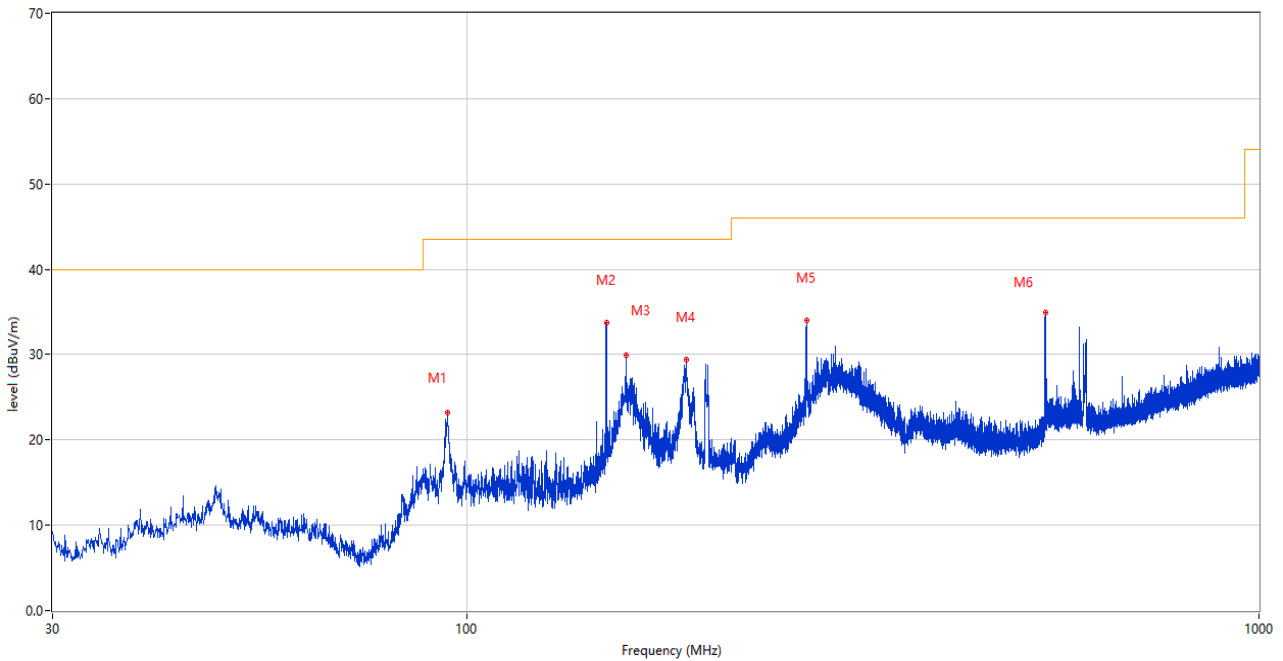


No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1306.300	36.91	-16.39	74.0	-37.09	Peak	78.00	100	Horizontal	Pass
1**	1306.300	28.44	-16.39	54.0	-25.56	AV	78.00	100	Horizontal	Pass
2	2179.500	41.02	-12.36	74.0	-32.98	Peak	190.00	100	Horizontal	Pass
2**	2179.500	31.56	-12.36	54.0	-22.44	AV	190.00	100	Horizontal	Pass
3	3376.500	44.60	-5.97	74.0	-29.40	Peak	182.00	100	Horizontal	Pass
3**	3376.500	34.92	-5.97	54.0	-19.08	AV	182.00	100	Horizontal	Pass
4	5943.250	52.63	1.40	74.0	-21.37	Peak	134.00	100	Horizontal	Pass
4**	5943.250	43.43	1.40	54.0	-10.57	AV	134.00	100	Horizontal	Pass
5	11289.500	54.45	2.27	74.0	-19.55	Peak	103.00	100	Horizontal	Pass
5**	11289.500	45.14	2.27	54.0	-8.86	AV	103.00	100	Horizontal	Pass
6	13356.500	56.53	5.19	74.0	-17.47	Peak	260.00	100	Horizontal	Pass
6**	13356.500	47.23	5.19	54.0	-6.77	AV	260.00	100	Horizontal	Pass

Test Data and Plots

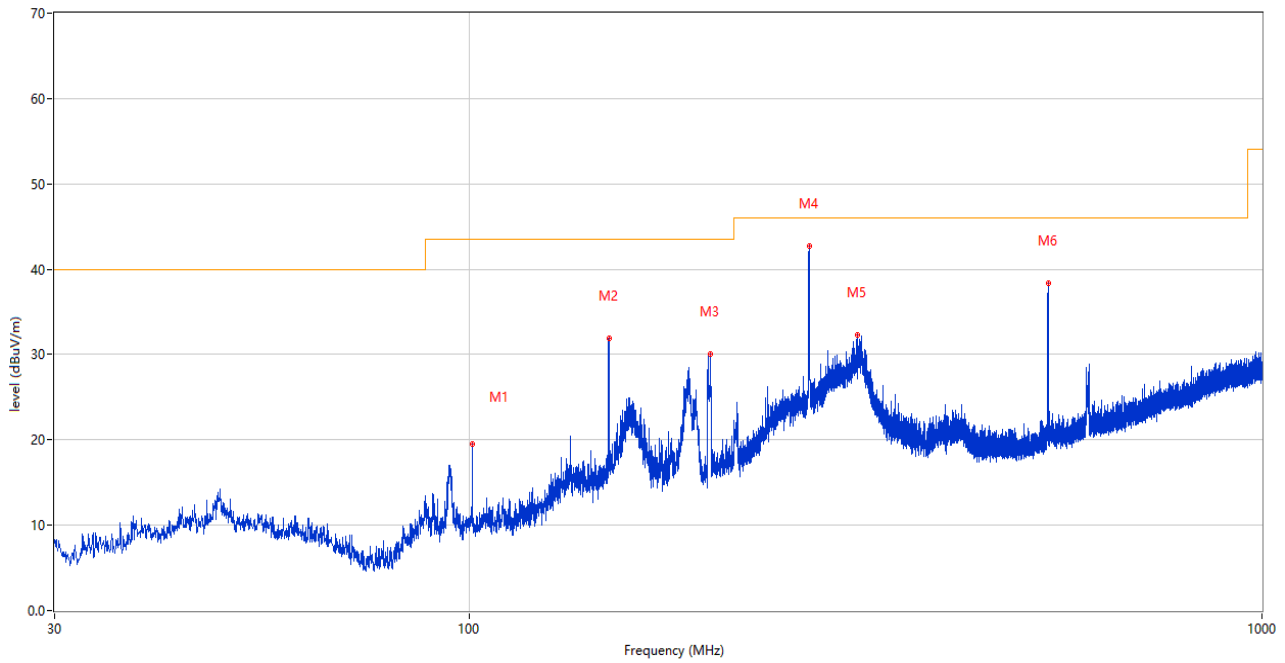
The USB Test Mode

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



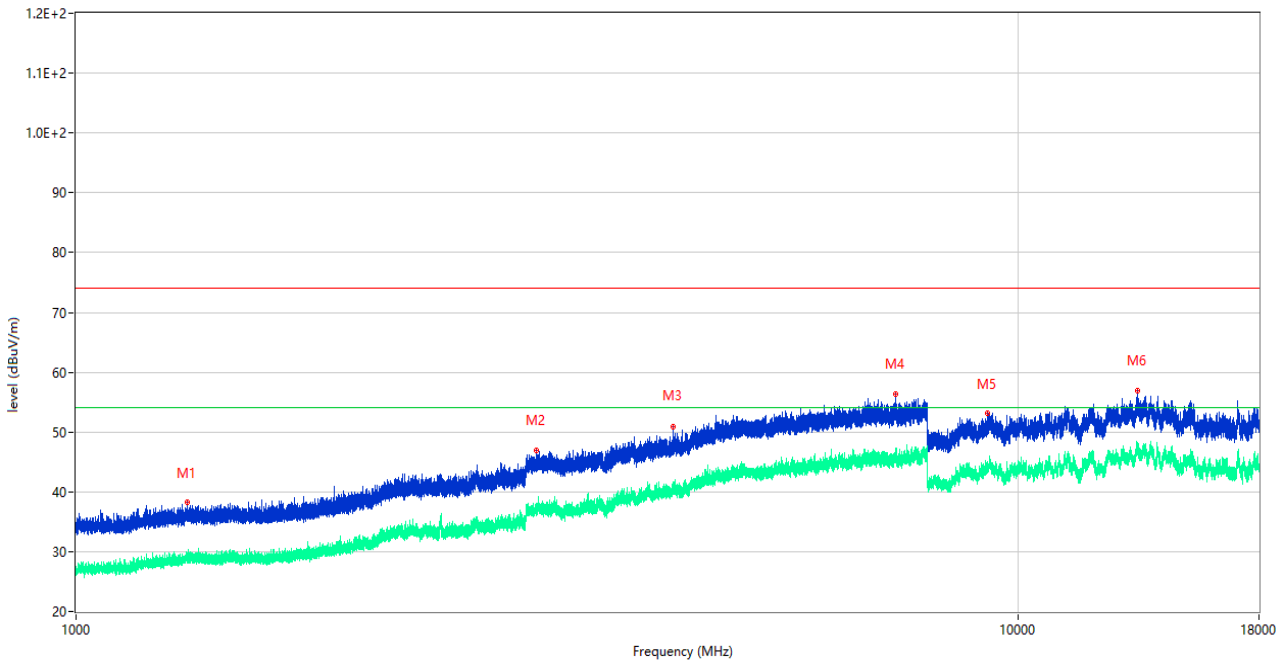
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	94.650	23.19	-27.62	43.5	-20.31	Peak	325.00	100	Vertical	Pass
2	150.038	33.79	-30.06	43.5	-9.71	Peak	340.00	100	Vertical	Pass
3	158.768	29.95	-29.66	43.5	-13.55	Peak	274.00	100	Vertical	Pass
4	189.322	29.44	-27.56	43.5	-14.06	Peak	346.00	100	Vertical	Pass
5	268.378	34.02	-24.43	46.0	-11.98	Peak	360.00	200	Vertical	Pass
6	537.213	34.89	-17.82	46.0	-11.11	Peak	355.00	100	Vertical	Pass

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



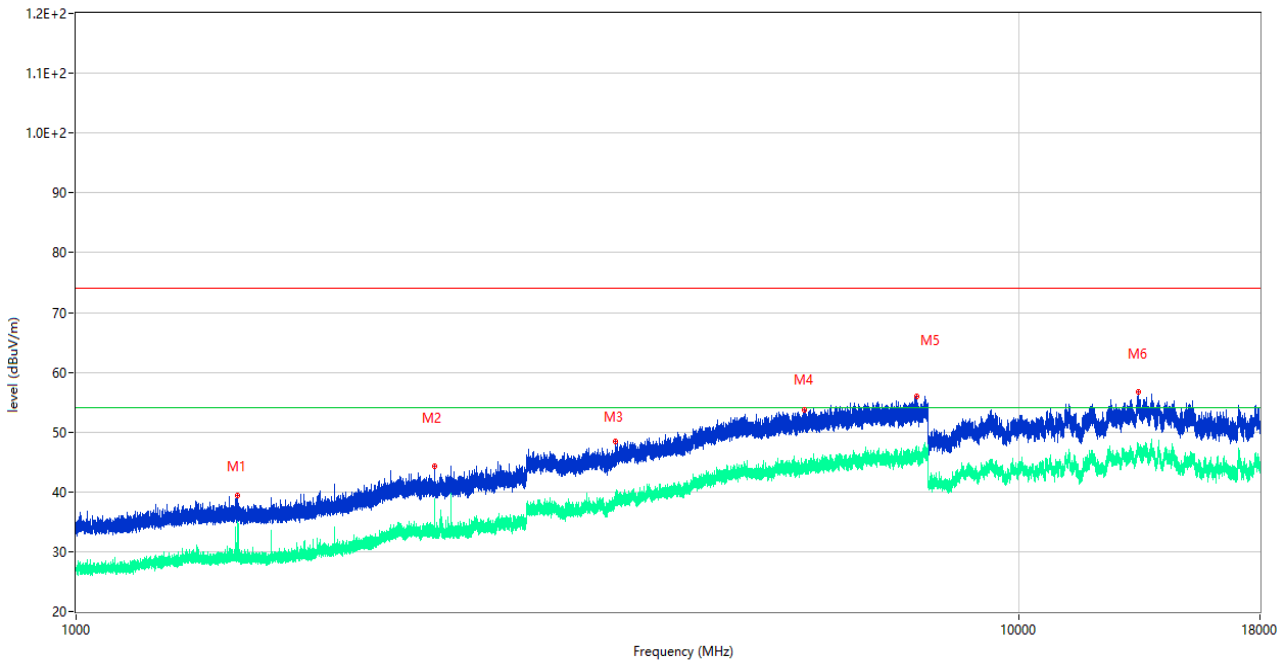
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	100.858	19.57	-26.72	43.5	-23.93	Peak	231.00	200	Horizontal	Pass
2	150.038	31.94	-30.06	43.5	-11.56	Peak	37.00	100	Horizontal	Pass
3	201.641	30.07	-26.48	43.5	-13.43	Peak	56.00	200	Horizontal	Pass
4	268.668	42.71	-24.44	46.0	-3.29	Peak	113.00	100	Horizontal	Pass
5	309.069	32.30	-23.44	46.0	-13.70	Peak	353.00	100	Horizontal	Pass
6	537.213	38.33	-17.82	46.0	-7.67	Peak	281.00	200	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	1312.300	38.22	-16.37	74.0	-35.78	Peak	217.00	100	Vertical	Pass
1**	1312.300	28.50	-16.37	54.0	-25.50	AV	217.00	100	Vertical	Pass
2	3077.750	46.86	-5.94	74.0	-27.14	Peak	45.00	100	Vertical	Pass
2**	3077.750	36.91	-5.94	54.0	-17.09	AV	45.00	100	Vertical	Pass
3	4306.500	50.80	-1.70	74.0	-23.20	Peak	360.00	100	Vertical	Pass
3**	4306.500	41.37	-1.70	54.0	-12.63	AV	360.00	100	Vertical	Pass
4	7414.750	56.38	3.00	74.0	-17.62	Peak	105.00	100	Vertical	Pass
4**	7414.750	45.80	3.00	54.0	-8.20	AV	105.00	100	Vertical	Pass
5	9273.000	53.14	1.80	74.0	-20.86	Peak	0.00	100	Vertical	Pass
5**	9273.000	45.10	1.80	54.0	-8.90	AV	0.00	100	Vertical	Pass
6	13393.500	56.86	4.94	74.0	-17.14	Peak	360.00	100	Vertical	Pass
6**	13393.500	46.74	4.94	54.0	-7.26	AV	360.00	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	1484.600	39.45	-16.61	74.0	-34.55	Peak	142.00	100	Horizontal	Pass
1**	1484.600	31.10	-16.61	54.0	-22.90	AV	142.00	100	Horizontal	Pass
2	2401.100	44.35	-12.22	74.0	-29.65	Peak	108.00	100	Horizontal	Pass
2**	2401.100	36.89	-12.22	54.0	-17.11	AV	108.00	100	Horizontal	Pass
3	3730.250	48.40	-4.30	74.0	-25.60	Peak	27.00	100	Horizontal	Pass
3**	3730.250	37.85	-4.30	54.0	-16.15	AV	27.00	100	Horizontal	Pass
4	5920.500	53.66	1.64	74.0	-20.34	Peak	0.00	100	Horizontal	Pass
4**	5920.500	44.41	1.64	54.0	-9.59	AV	0.00	100	Horizontal	Pass
5	7790.500	55.91	3.04	74.0	-18.09	Peak	255.00	100	Horizontal	Pass
5**	7790.500	46.01	3.04	54.0	-7.99	AV	255.00	100	Horizontal	Pass
6	13363.500	56.64	5.14	74.0	-17.36	Peak	278.00	100	Horizontal	Pass
6**	13363.500	46.58	5.14	54.0	-7.42	AV	278.00	100	Horizontal	Pass

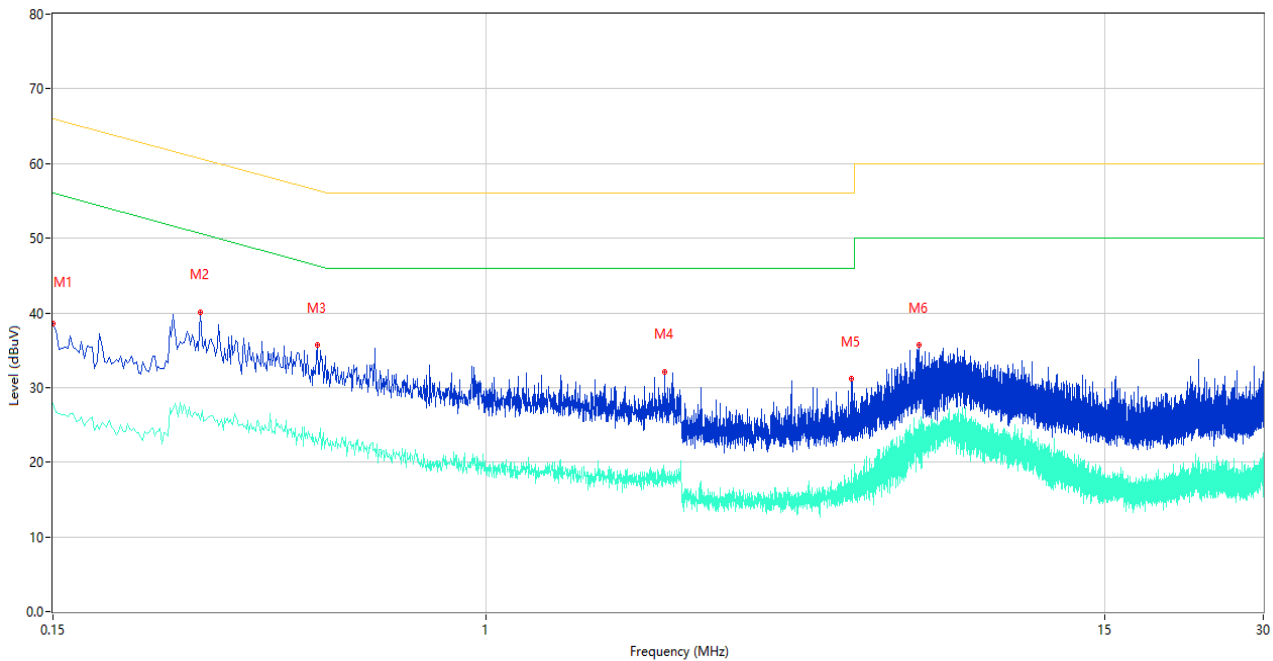
## A.2 Conducted Emission

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

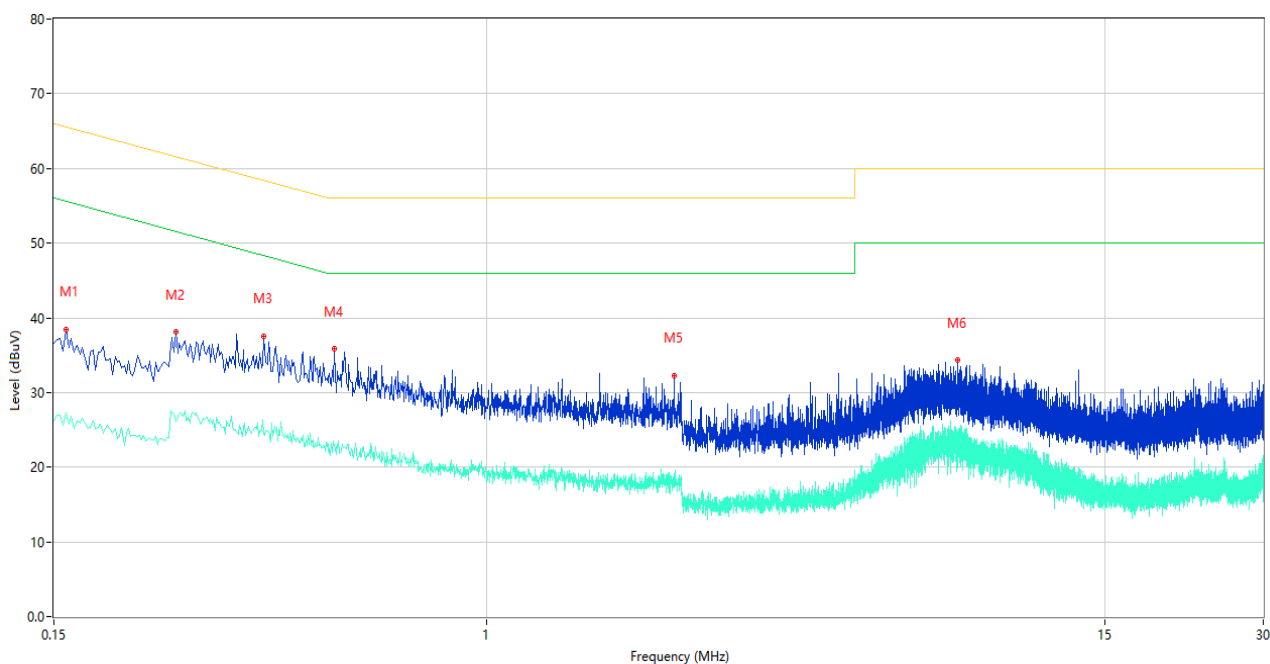
#### The Camera Test Mode

##### A.2.1 L Phase



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Over Limit (dB)	Detector	Line	Verdict
1	0.150	38.54	10.19	66.00	-27.46	Peak	L	Pass
1**	0.150	27.89	10.19	56.00	-28.11	AV	L	Pass
2	0.286	40.13	10.06	60.64	-20.51	Peak	L	Pass
2**	0.286	25.62	10.06	50.64	-25.02	AV	L	Pass
3	0.478	35.67	10.39	56.37	-20.70	Peak	L	Pass
3**	0.478	22.44	10.39	46.37	-23.93	AV	L	Pass
4	2.186	32.15	10.40	56.00	-23.85	Peak	L	Pass
4**	2.186	18.90	10.40	46.00	-27.10	AV	L	Pass
5	4.934	31.12	10.14	56.00	-24.88	Peak	L	Pass
5**	4.934	18.92	10.14	46.00	-27.08	AV	L	Pass
6	6.658	35.69	10.44	60.00	-24.31	Peak	L	Pass
6**	6.658	23.14	10.44	50.00	-26.86	AV	L	Pass

A.2.2 N Phase

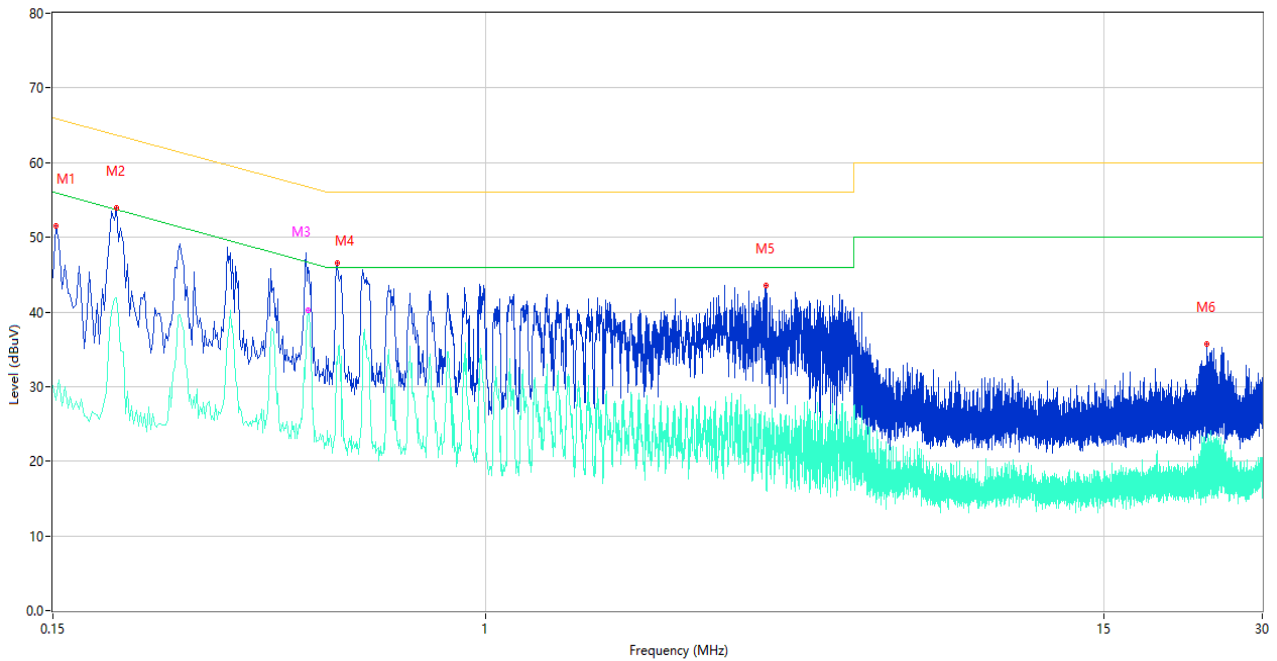


No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Over Limit (dB)	Detector	Line	Verdict
1	0.158	38.38	10.18	65.57	-27.19	Peak	N	Pass
1**	0.158	27.25	10.18	55.57	-28.32	AV	N	Pass
2	0.256	38.08	10.07	61.56	-23.48	Peak	N	Pass
2**	0.256	26.08	10.07	51.56	-25.48	AV	N	Pass
3	0.376	37.58	10.30	58.37	-20.79	Peak	N	Pass
3**	0.376	24.55	10.30	48.37	-23.82	AV	N	Pass
4	0.512	35.79	10.31	56.00	-20.21	Peak	N	Pass
4**	0.512	22.83	10.31	46.00	-23.17	AV	N	Pass
5	2.274	32.30	10.35	56.00	-23.70	Peak	N	Pass
5**	2.274	18.08	10.35	46.00	-27.92	AV	N	Pass
6	7.876	34.39	10.18	60.00	-25.61	Peak	N	Pass
6**	7.876	23.77	10.18	50.00	-26.23	AV	N	Pass

Test Data and Plots

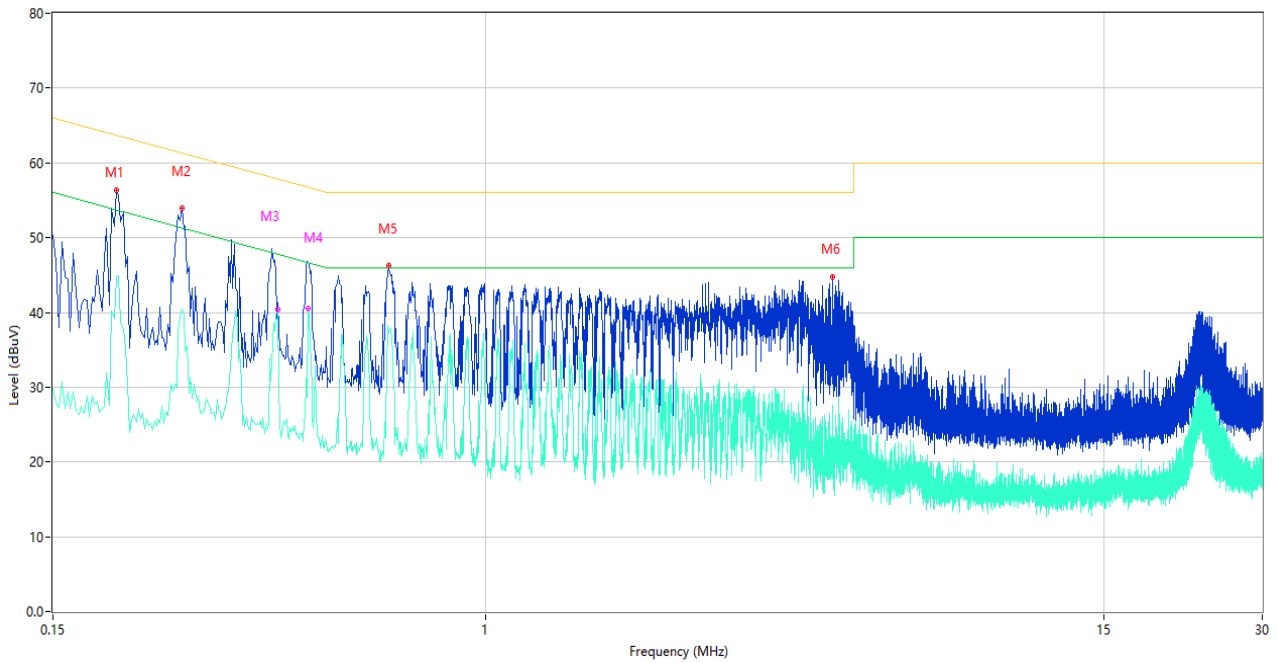
The USB Test Mode

A.2.3 L Phase



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Over Limit (dB)	Detector	Line	Verdict
1	0.152	51.56	10.19	65.89	-14.33	Peak	L	Pass
1**	0.152	28.16	10.19	55.89	-27.73	AV	L	Pass
2	0.198	53.93	10.10	63.69	-9.76	Peak	L	Pass
2**	0.198	41.85	10.10	53.69	-11.84	AV	L	Pass
3	0.458	45.88	10.49	56.73	-10.85	Peak	L	Pass
3**	0.458	40.24	10.49	46.73	-6.49	AV	L	Pass
4	0.522	46.61	10.34	56.00	-9.39	Peak	L	Pass
4**	0.522	33.00	10.34	46.00	-13.00	AV	L	Pass
5	3.404	43.55	10.20	56.00	-12.45	Peak	L	Pass
5**	3.404	24.62	10.20	46.00	-21.38	AV	L	Pass
6	23.502	35.73	10.38	60.00	-24.27	Peak	L	Pass
6**	23.502	17.48	10.38	50.00	-32.52	AV	L	Pass

A.2.4 N Phase



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Over Limit (dB)	Detector	Line	Verdict
1	0.198	56.30	10.10	63.69	-7.39	Peak	N	Pass
1**	0.198	44.75	10.10	53.69	-8.94	AV	N	Pass
2	0.264	53.91	10.07	61.30	-7.39	Peak	N	Pass
2**	0.264	40.49	10.07	51.30	-10.81	AV	N	Pass
3	0.402	41.22	10.61	57.81	-16.59	Peak	N	Pass
3**	0.402	40.35	10.61	47.81	-7.46	AV	N	Pass
4	0.458	46.69	10.49	56.73	-10.04	Peak	N	Pass
4**	0.458	40.47	10.49	46.73	-6.26	AV	N	Pass
5	0.652	46.30	10.25	56.00	-9.70	Peak	N	Pass
5**	0.652	37.26	10.25	46.00	-8.74	AV	N	Pass
6	4.566	44.78	10.08	56.00	-11.22	Peak	N	Pass
6**	4.566	27.53	10.08	46.00	-18.47	AV	N	Pass

## **ANNEX B TEST SETUP PHOTOS**

Please refer the document “BL-SZ2270591-AE-1.PDF”.

## **ANNEX C EUT EXTERNAL PHOTOS**

Please refer the document “BL-SZ2270591-AW.PDF”.

## **ANNEX D EUT INTERNAL PHOTOS**

Please refer the document “BL-SZ2270591-AI.PDF”.

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