

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: 22111317G
Brand Name: Redmi
FCC ID: 2AFZZ1317G
Test Standard: 47 CFR Part 15 Subpart B
Test Date: Sep. 28, 2022 ~ Oct. 12, 2022
Date of Issue: Nov. 03, 2022

ISSUED BY:

Shenzhen BALUN Technology Co., Ltd.

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(Technical Director)

Sijie Zheng

Xia Long

Liao Jianming

Revision History		
<u>Version</u>	<u>Issue Date</u>	<u>Revisions</u>
<u>Rev. 01</u>	<u>Nov. 03, 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	22111317G
Series Model Name	N/A
Description of Model name differentiation	N/A
Hardware Version	P2
Software Version	MIUI 13
Dimensions (Approx.)	N/A
Weight (Approx.)	N/A

2.5 Ancillary Equipment

Please refer the document “BL-SZ2290497-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 FDD LTE Band 1/2/3/4/5/7/8/20/28/32 TDD LTE Band 38/40/41</p> <p>LTE CA Uplink (UL): CA_3C, CA_7C, CA_38C, CA_40C, CA_1A-3A, CA_1A-7A, CA_3A-7A, CA_1A-20A, CA_3A-20A, CA_4A-7A, CA_7A-28A, CA_7A-20A</p> <p>LTE CA Downlink (DL): CA_20A-32A</p> <p>5G Network</p> <p>SA: NR n1/n3/n5/n7/n8/n20/n28/38/n40/n41/n77/n78</p> <p>NSA(EN-DC): DC_1A_n3A, DC_1A_n5A, DC_1A_n7A, DC_1A_n8A, DC_1A_n20A, DC_1A_n28A, DC_1A_n38A, DC_1A_n40A, DC_1A_n41A, DC_1A_n77A, DC_1A_n78A, DC_2A_n78A, DC_3A_n1A, DC_3A_n5A, DC_3A_n7A, DC_3A_n20A, DC_3A_n28A, DC_3A_n38A, DC_3A_n40A, DC_3A_n41A, DC_3A_n77A, DC_3A_n78A, DC_5A_n40A, DC_5A_n78A, DC_7A_n1A, DC_7A_n3A, DC_7A_n5A, DC_7A_n8A, DC_7A_n20A, DC_7A_n28A, DC_7A_n78A, DC_8A_n1A, DC_8A_n3A, DC_8A_n7A, DC_8A_n40A, DC_8A_n41A, DC_8A_n77A, DC_8A_n78A, DC_20A_n1A, DC_20A_n3A, DC_20A_n7A, DC_20A_n28A, DC_20A_n38A, DC_20A_n78A, DC_28A_n1A, DC_28A_n3A, DC_28A_n7A, DC_28A_n40A, DC_28A_n41A, DC_28A_n77A, DC_28A_n78A, DC_38A_n3A, DC_38A_n78A, DC_40A_n1A, DC_40A_n78A, DC_41A_n78A</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, NFC, FM receiver</p>
RAM & Storage	4+128G; 6+128G; 8+128G
IMEI	<p>S37: IMEI1: 864010060078460/ IMEI2: 864010060078478</p> <p>S38: IMEI1: 864010060075664/ IMEI2: 864010060075672</p> <p>S80: IEMI1: 864010060082249/ IMEI2: 864010060082256</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)	22.9℃	43%	101kPa	Oct. 01, 2022	Gu Shuaizhen
Conducted Emission	AC 240V/50Hz AC 120V/60Hz	24.3℃	47%		Oct. 12, 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	Agilent	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	9168-00867	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	2022.09.09	2023.09.08	<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	112	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

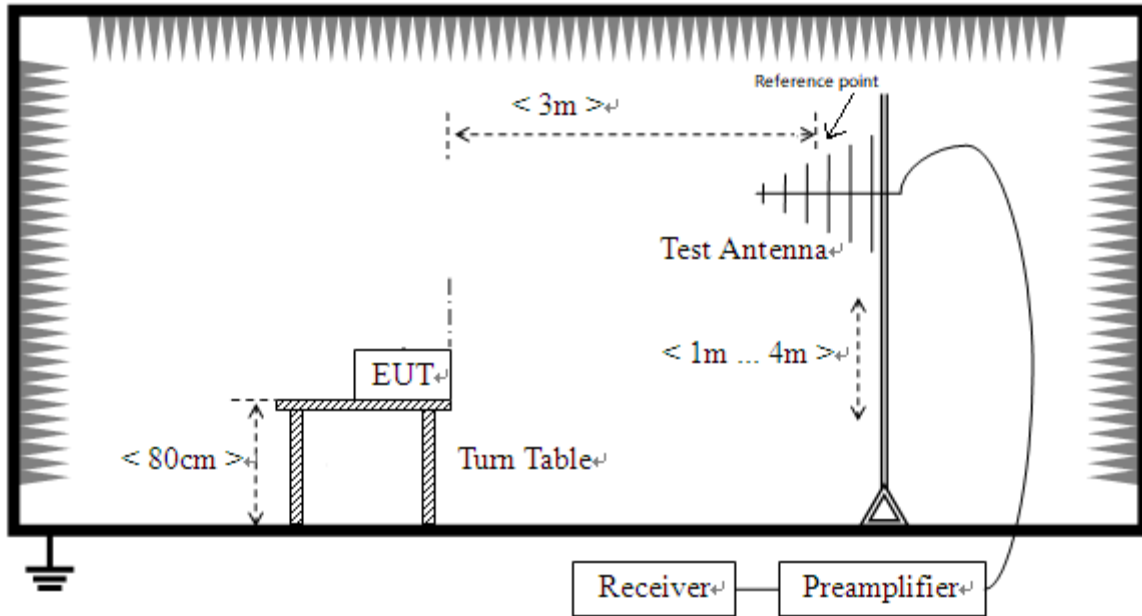
Description	Manufacturer	Model	Serial No.	Length	Description	Use
Wireless Communications Test Set	R&S	CMW200	121487	N/A	Cal. Due 2023.01.03	<input checked="" type="checkbox"/>
Wireless Communications Test Set	R&S	CMW500	127801	N/A	Cal. Due 2023.01.03	<input checked="" type="checkbox"/>
5G Wireless Test Platform	StarPoint	SP9500E	25103	N/A	Cal. Due 2023.03.28	<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 N5 RX Test Mode</u> N5 RX + EUT +Adapter + USB Cable + Battery + TF Card + Headset
TC06	<u>The FM RX Test Mode</u> FM RX + EUT +Adapter + USB Cable + Battery + TF Card + Headset
TC07	<u>The Camera Test Mode</u> EUT + Adapter + USB Cable + Battery + Headset + TF Card
TC08	<u>The Video Play Test Mode</u> EUT + Adapter + USB Cable + Battery + Headset + TF Card
TC09	<u>The USB transmission Test Mode</u> EUT + USB Cable + Battery + Laptop+ Headset + TF Card
TC10	<u>The Digital Headset Test Mode</u> EUT + Battery + Digital Headset +TF Card

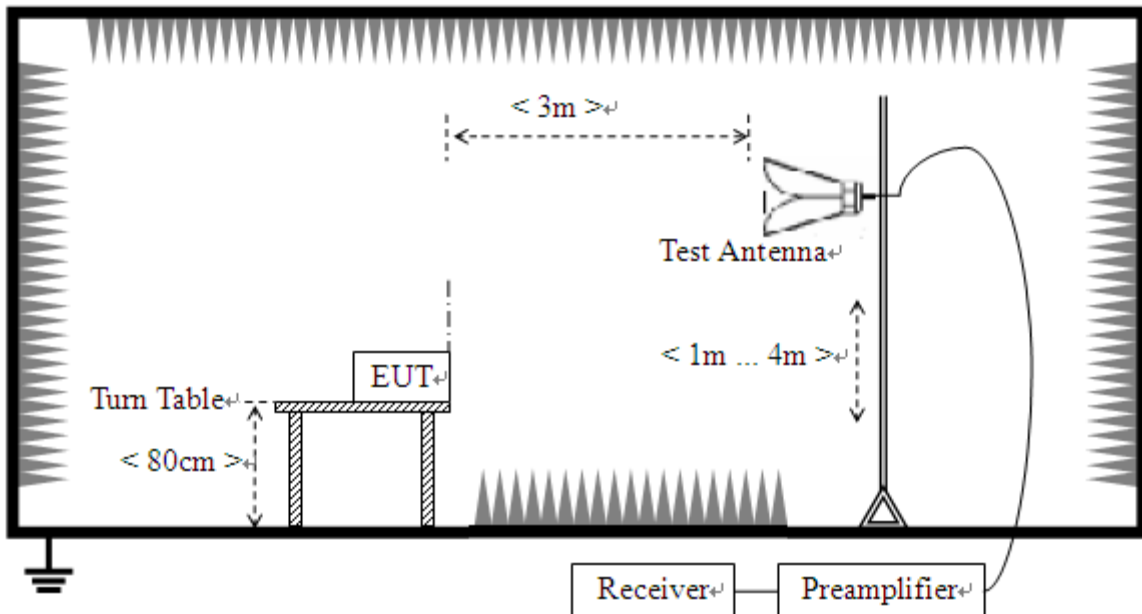
4.5 Test Setups

Test Setup 1



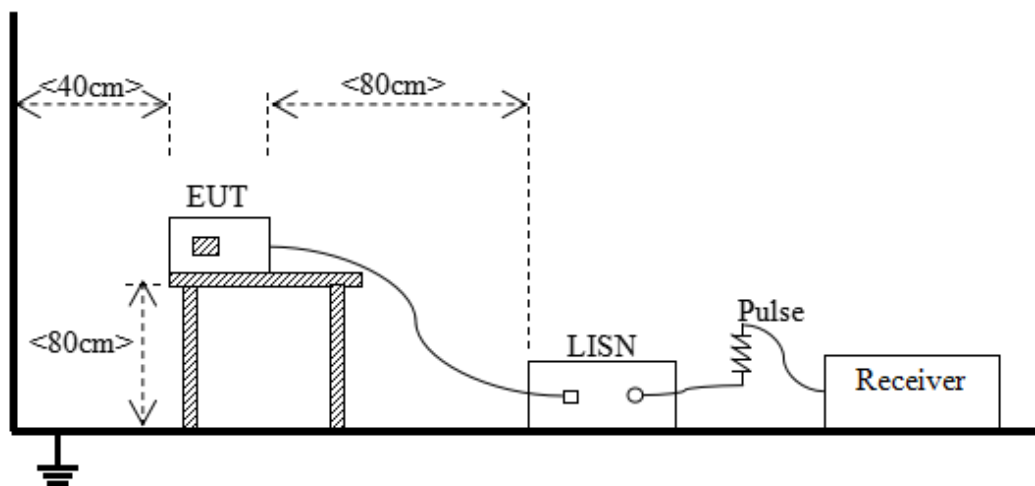
(For Radiated Emission Test (30 MHz-1 GHz))

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~TC10 ^{Note}
Conducted Emission, AC Ports	Test Setup	Test Setup 3
	Test Configuration	TC01~TC09 ^{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 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° 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 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 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.

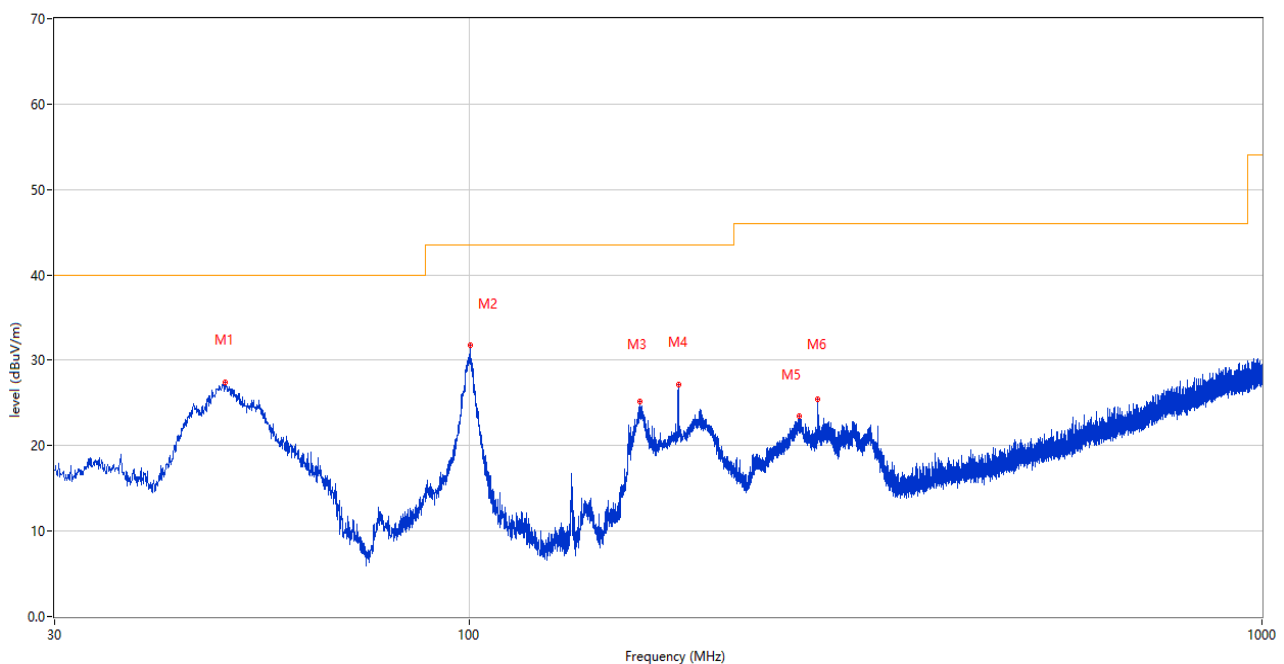
Note 3: The Radiated Emission from 18G-40G is noise only, do not show on the report.

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

Test Data and Plots

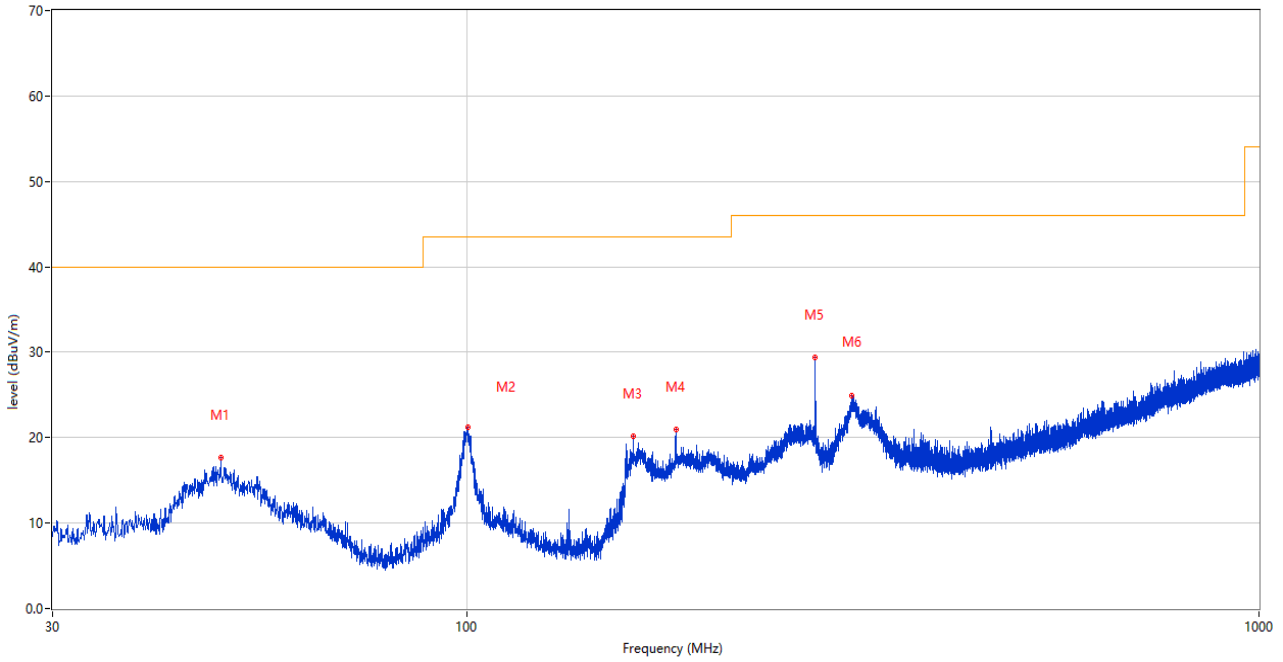
The Camera Test Mode

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



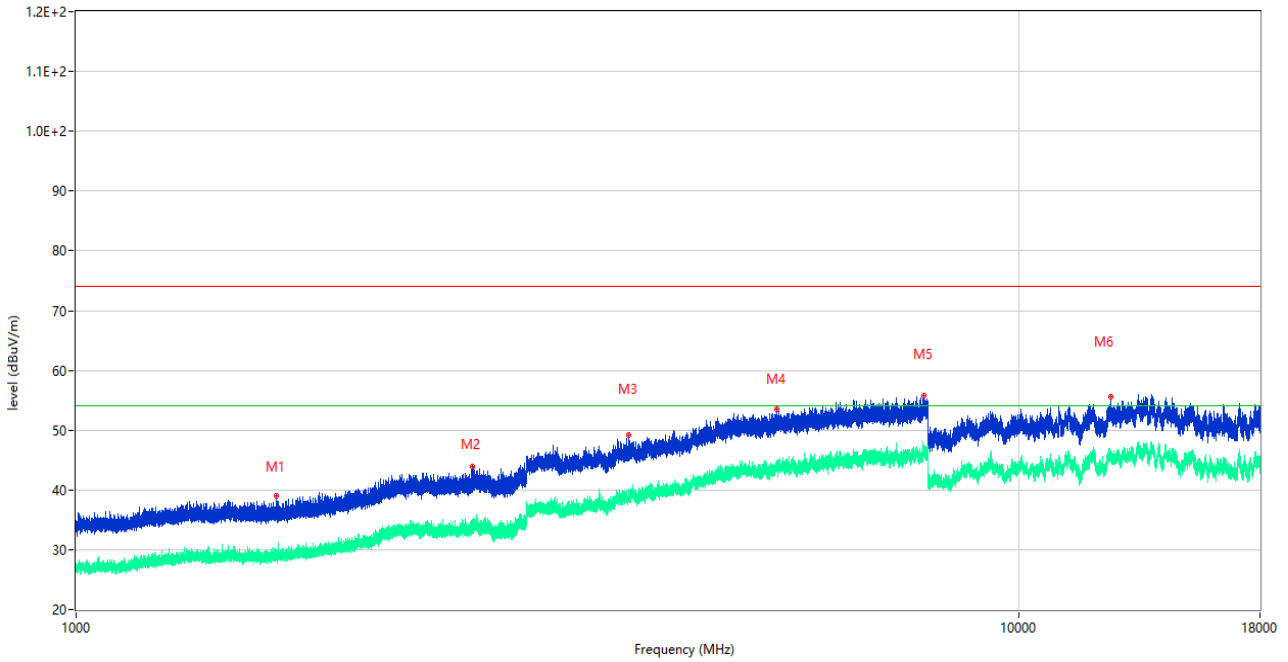
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	49.303	27.43	-25.48	40.0	-12.57	Peak	225.00	100	Vertical	Pass
2	100.228	31.76	-26.71	43.5	-11.74	Peak	11.00	100	Vertical	Pass
3	163.957	25.12	-29.38	43.5	-18.38	Peak	4.00	100	Vertical	Pass
4	183.551	27.20	-28.14	43.5	-16.30	Peak	0.00	100	Vertical	Pass
5	260.521	23.45	-24.59	46.0	-22.55	Peak	353.00	100	Vertical	Pass
6	275.410	25.48	-24.43	46.0	-20.52	Peak	360.00	200	Vertical	Pass

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



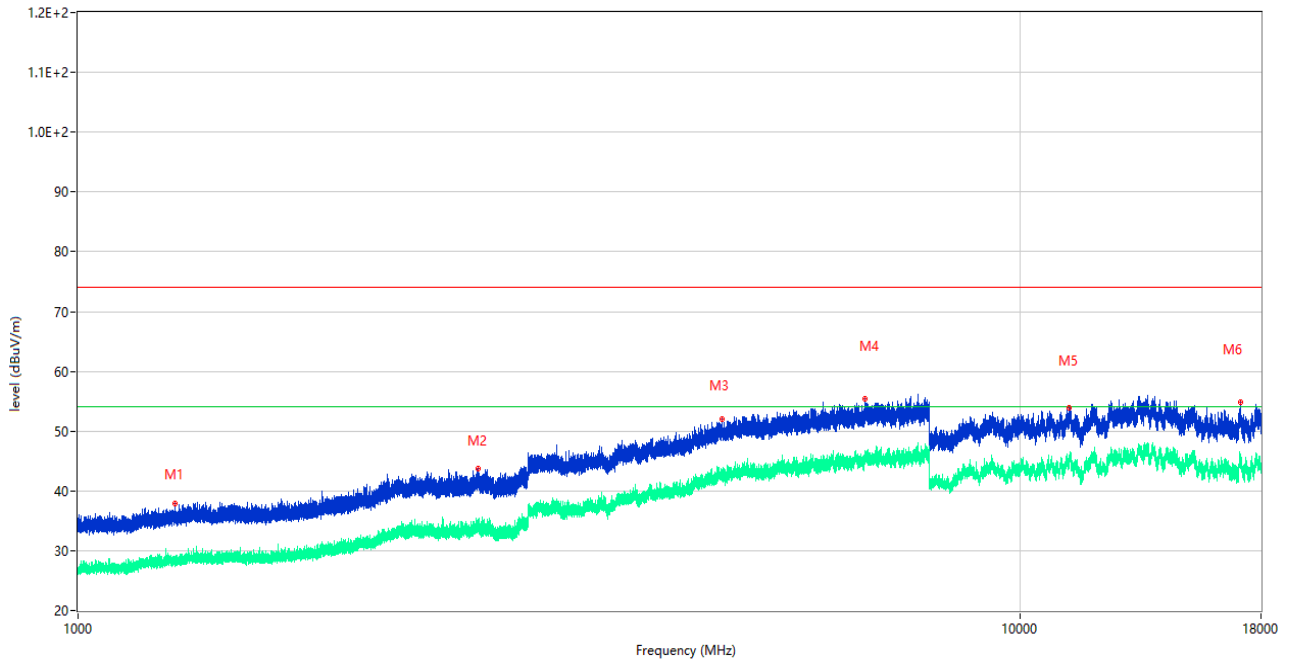
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	48.915	17.63	-25.38	40.0	-22.37	Peak	105.00	100	Horizontal	Pass
2	100.276	21.24	-26.71	43.5	-22.26	Peak	265.00	200	Horizontal	Pass
3	162.405	20.20	-29.49	43.5	-23.30	Peak	58.00	200	Horizontal	Pass
4	183.648	21.02	-28.13	43.5	-22.48	Peak	58.00	100	Horizontal	Pass
5	275.362	29.39	-24.42	46.0	-16.61	Peak	97.00	100	Horizontal	Pass
6	306.498	24.88	-23.56	46.0	-21.12	Peak	189.00	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	1631.100	38.96	-16.76	74.0	-35.04	Peak	323.00	100	Vertical	Pass
1**	1631.100	28.53	-16.76	54.0	-25.47	AV	323.00	100	Vertical	Pass
2	2633.400	43.83	-10.32	74.0	-30.17	Peak	3.00	100	Vertical	Pass
2**	2633.400	33.89	-10.32	54.0	-20.11	AV	3.00	100	Vertical	Pass
3	3850.500	49.19	-3.19	74.0	-24.81	Peak	122.00	100	Vertical	Pass
3**	3850.500	38.49	-3.19	54.0	-15.51	AV	122.00	100	Vertical	Pass
4	5539.250	53.52	0.85	74.0	-20.48	Peak	99.00	100	Vertical	Pass
4**	5539.250	43.78	0.85	54.0	-10.22	AV	99.00	100	Vertical	Pass
5	7930.500	55.75	3.23	74.0	-18.25	Peak	352.00	100	Vertical	Pass
5**	7930.500	46.18	3.23	54.0	-7.82	AV	352.00	100	Vertical	Pass
6	12492.500	55.50	3.13	74.0	-18.50	Peak	279.00	100	Vertical	Pass
6**	12492.500	46.09	3.13	54.0	-7.91	AV	279.00	100	Vertical	Pass

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

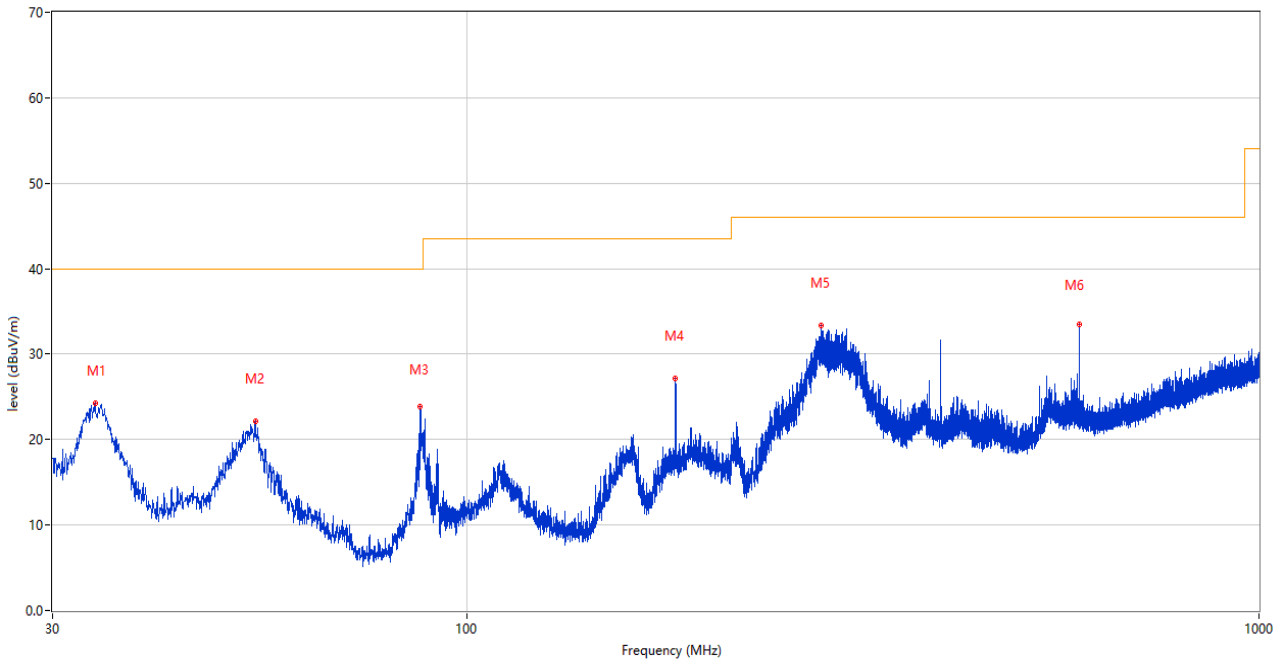


No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1268.100	37.83	-16.97	74.0	-36.17	Peak	165.00	100	Horizontal	Pass
1**	1268.100	28.51	-16.97	54.0	-25.49	AV	165.00	100	Horizontal	Pass
2	2655.200	43.78	-9.46	74.0	-30.22	Peak	120.00	100	Horizontal	Pass
2**	2655.200	34.43	-9.46	54.0	-19.57	AV	120.00	100	Horizontal	Pass
3	4824.000	52.03	0.54	74.0	-21.97	Peak	55.00	100	Horizontal	Pass
3**	4824.000	42.48	0.54	54.0	-11.52	AV	55.00	100	Horizontal	Pass
4	6848.000	55.39	1.81	74.0	-18.61	Peak	80.00	100	Horizontal	Pass
4**	6848.000	45.58	1.81	54.0	-8.42	AV	80.00	100	Horizontal	Pass
5	11270.000	53.89	2.03	74.0	-20.11	Peak	84.00	100	Horizontal	Pass
5**	11270.000	44.95	2.03	54.0	-9.05	AV	84.00	100	Horizontal	Pass
6	17131.000	54.77	3.24	74.0	-19.23	Peak	311.00	100	Horizontal	Pass
6**	17131.000	45.10	3.24	54.0	-8.90	AV	311.00	100	Horizontal	Pass

Test Data and Plots

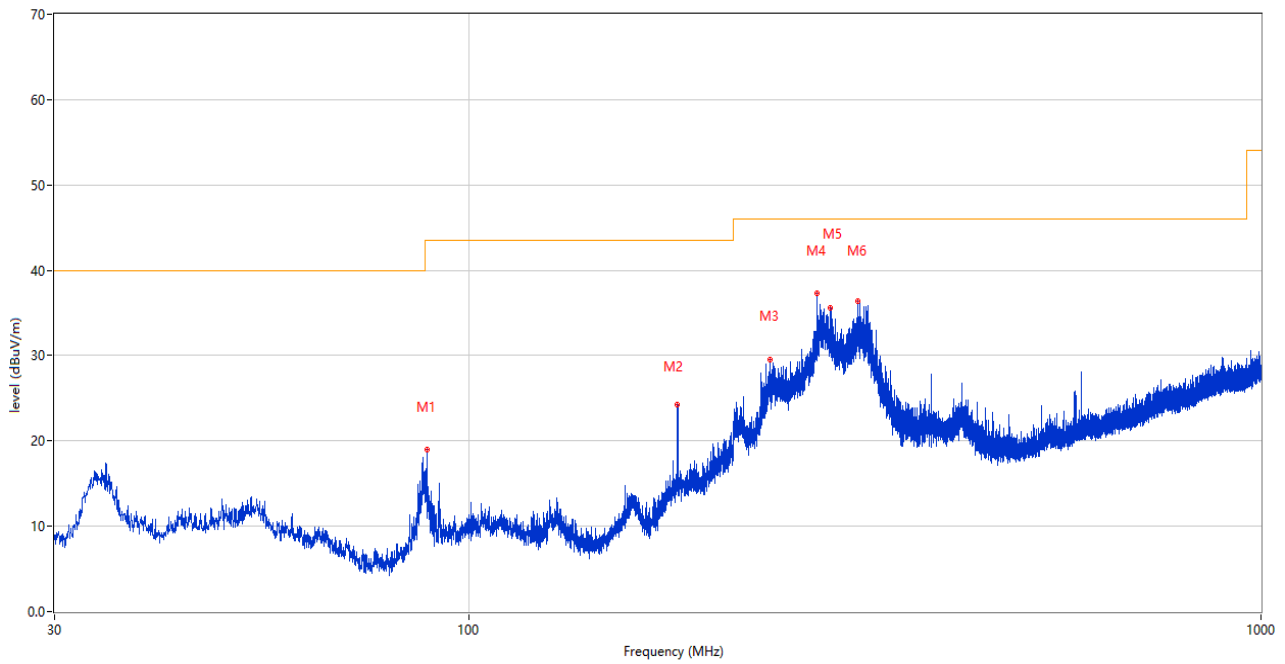
The USB transmission Test Mode

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



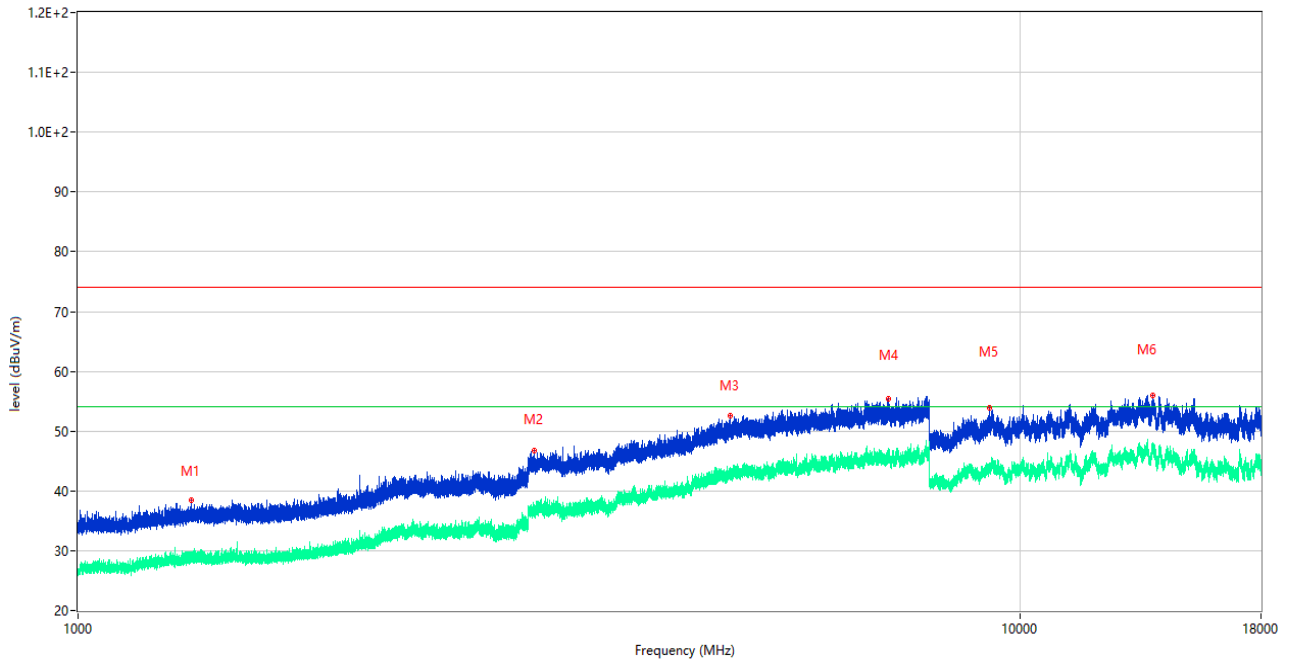
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	33.977	24.21	-28.78	40.0	-15.79	Peak	93.00	100	Vertical	Pass
2	54.105	22.14	-25.56	40.0	-17.86	Peak	93.00	100	Vertical	Pass
3	87.376	23.83	-29.30	40.0	-16.17	Peak	361.00	200	Vertical	Pass
4	183.454	27.17	-28.16	43.5	-16.33	Peak	143.00	100	Vertical	Pass
5	280.017	33.40	-24.14	46.0	-12.60	Peak	28.00	200	Vertical	Pass
6	594.006	33.51	-16.07	46.0	-12.49	Peak	171.00	200	Vertical	Pass

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



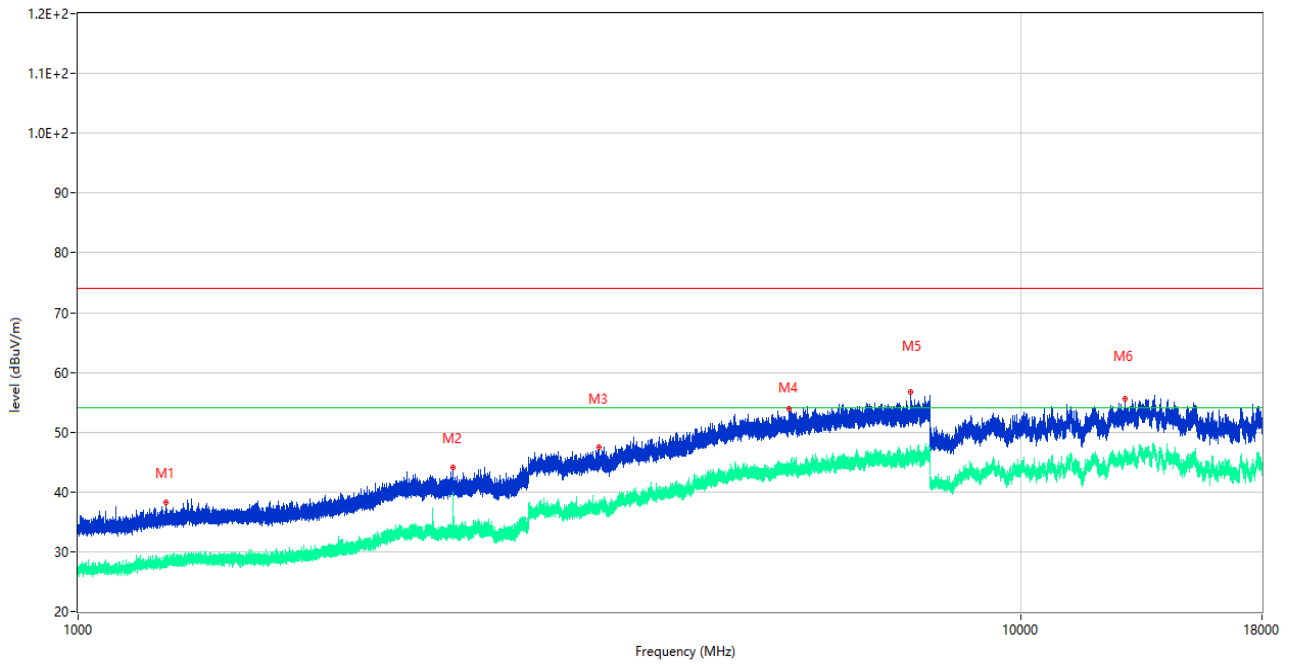
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	88.539	18.96	-28.96	43.5	-24.54	Peak	212.00	200	Horizontal	Pass
2	183.502	24.25	-28.15	43.5	-19.25	Peak	232.00	100	Horizontal	Pass
3	240.005	29.59	-25.15	46.0	-16.41	Peak	98.00	100	Horizontal	Pass
4	275.264	37.29	-24.42	46.0	-8.71	Peak	111.00	100	Horizontal	Pass
5	285.934	35.60	-23.97	46.0	-10.40	Peak	100.00	100	Horizontal	Pass
6	310.087	36.44	-23.36	46.0	-9.56	Peak	244.00	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	1317.800	38.37	-16.48	74.0	-35.63	Peak	154.00	100	Vertical	Pass
1**	1317.800	28.66	-16.48	54.0	-25.34	AV	154.00	100	Vertical	Pass
2	3045.750	46.73	-5.37	74.0	-27.27	Peak	139.00	100	Vertical	Pass
2**	3045.750	36.85	-5.37	54.0	-17.15	AV	139.00	100	Vertical	Pass
3	4919.000	52.53	0.99	74.0	-21.47	Peak	343.00	100	Vertical	Pass
3**	4919.000	42.48	0.99	54.0	-11.52	AV	343.00	100	Vertical	Pass
4	7250.250	55.33	2.49	74.0	-18.67	Peak	115.00	100	Vertical	Pass
4**	7250.250	45.64	2.49	54.0	-8.36	AV	115.00	100	Vertical	Pass
5	9270.000	53.81	1.75	74.0	-20.19	Peak	242.00	100	Vertical	Pass
5**	9270.000	44.02	1.75	54.0	-9.98	AV	242.00	100	Vertical	Pass
6	13811.500	56.02	5.66	74.0	-17.98	Peak	154.00	100	Vertical	Pass
6**	13811.500	47.03	5.66	54.0	-6.97	AV	154.00	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	1239.600	38.23	-17.07	74.0	-35.77	Peak	129.00	100	Horizontal	Pass
1**	1239.600	28.01	-17.07	54.0	-25.99	AV	129.00	100	Horizontal	Pass
2	2499.900	44.04	-11.12	74.0	-29.96	Peak	76.00	100	Horizontal	Pass
2**	2499.900	39.32	-11.12	54.0	-14.68	AV	76.00	100	Horizontal	Pass
3	3569.750	47.55	-4.91	74.0	-26.45	Peak	210.00	100	Horizontal	Pass
3**	3569.750	36.99	-4.91	54.0	-17.01	AV	210.00	100	Horizontal	Pass
4	5668.250	53.82	0.65	74.0	-20.18	Peak	338.00	100	Horizontal	Pass
4**	5668.250	44.19	0.65	54.0	-9.81	AV	338.00	100	Horizontal	Pass
5	7628.250	56.74	2.36	74.0	-17.26	Peak	326.00	100	Horizontal	Pass
5**	7628.250	46.94	2.36	54.0	-7.06	AV	326.00	100	Horizontal	Pass
6	12893.000	55.57	3.61	74.0	-18.43	Peak	290.00	100	Horizontal	Pass
6**	12893.000	46.22	3.61	54.0	-7.78	AV	290.00	100	Horizontal	Pass

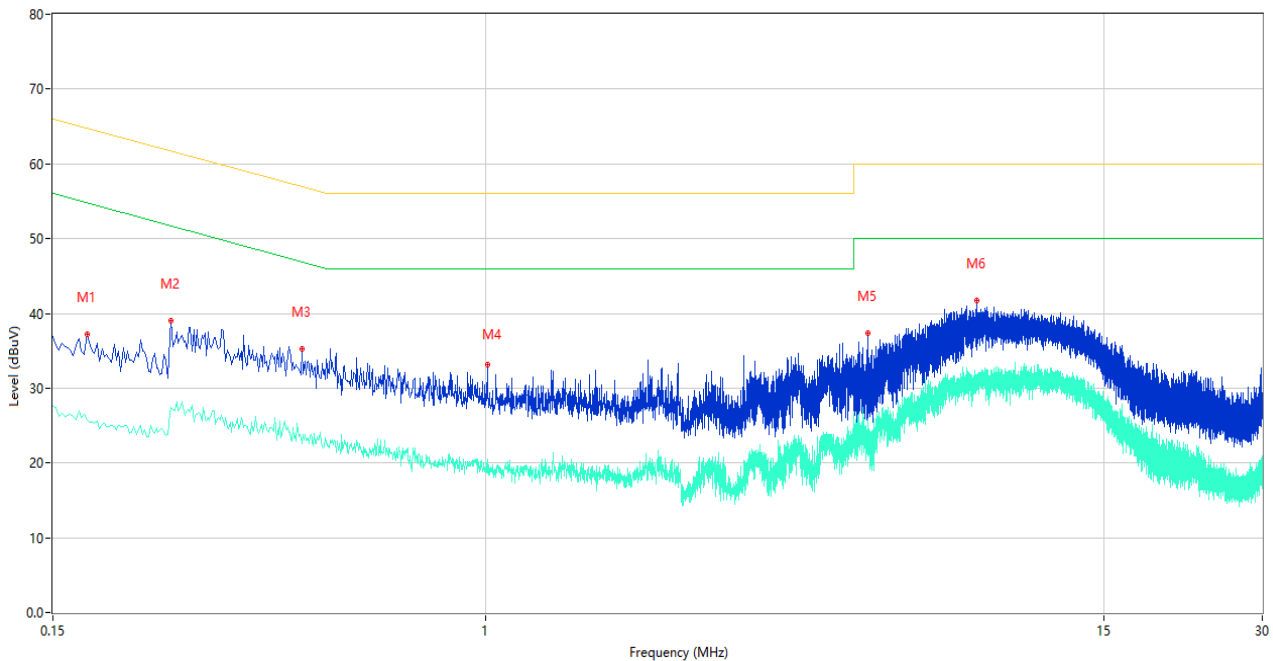
A.2 Conducted Emission

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

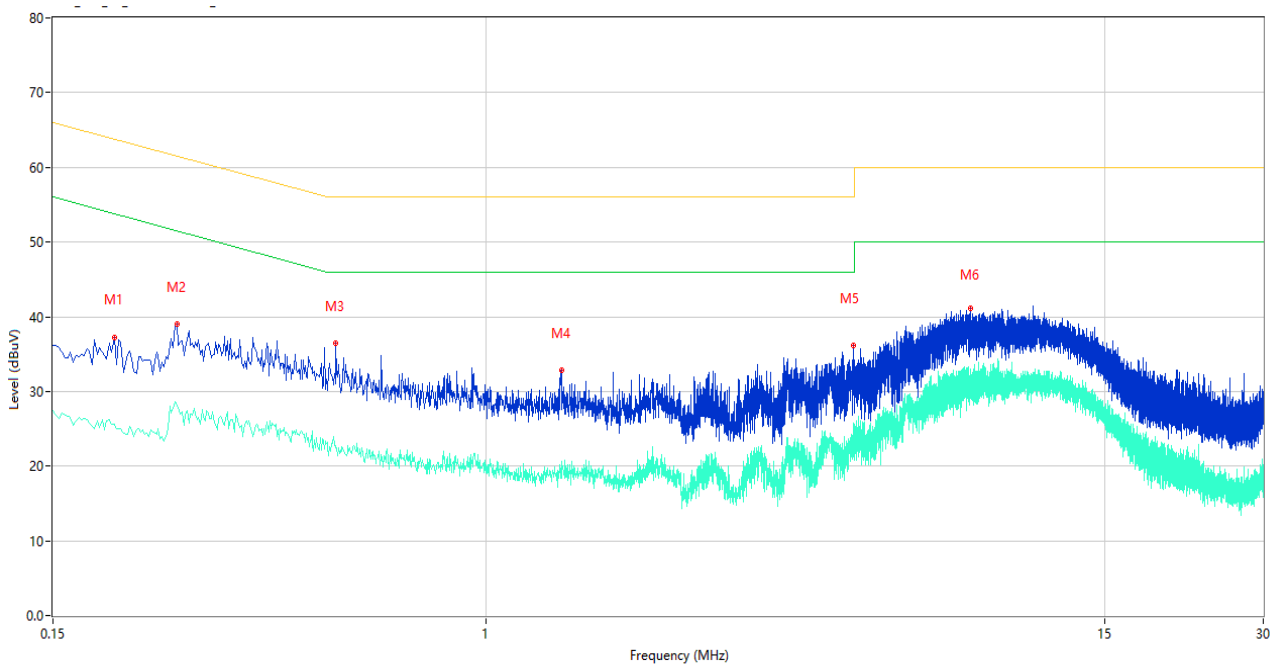
The Camera Test Mode

A.2.1 L Phase



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Over Limit (dB)	Detector	Line	Verdict
1	0.174	37.15	10.15	64.77	-27.62	Peak	L	Pass
1**	0.174	25.75	10.15	54.77	-29.02	AV	L	Pass
2	0.252	39.03	10.07	61.69	-22.66	Peak	L	Pass
2**	0.252	27.40	10.07	51.69	-24.29	AV	L	Pass
3	0.446	35.21	10.54	56.95	-21.74	Peak	L	Pass
3**	0.446	22.61	10.54	46.95	-24.34	AV	L	Pass
4	1.006	33.18	10.15	56.00	-22.82	Peak	L	Pass
4**	1.006	20.53	10.15	46.00	-25.47	AV	L	Pass
5	5.320	37.36	10.24	60.00	-22.64	Peak	L	Pass
5**	5.320	24.89	10.24	50.00	-25.11	AV	L	Pass
6	8.596	41.69	10.25	60.00	-18.31	Peak	L	Pass
6**	8.596	31.74	10.25	50.00	-18.26	AV	L	Pass

A.2.2 N Phase

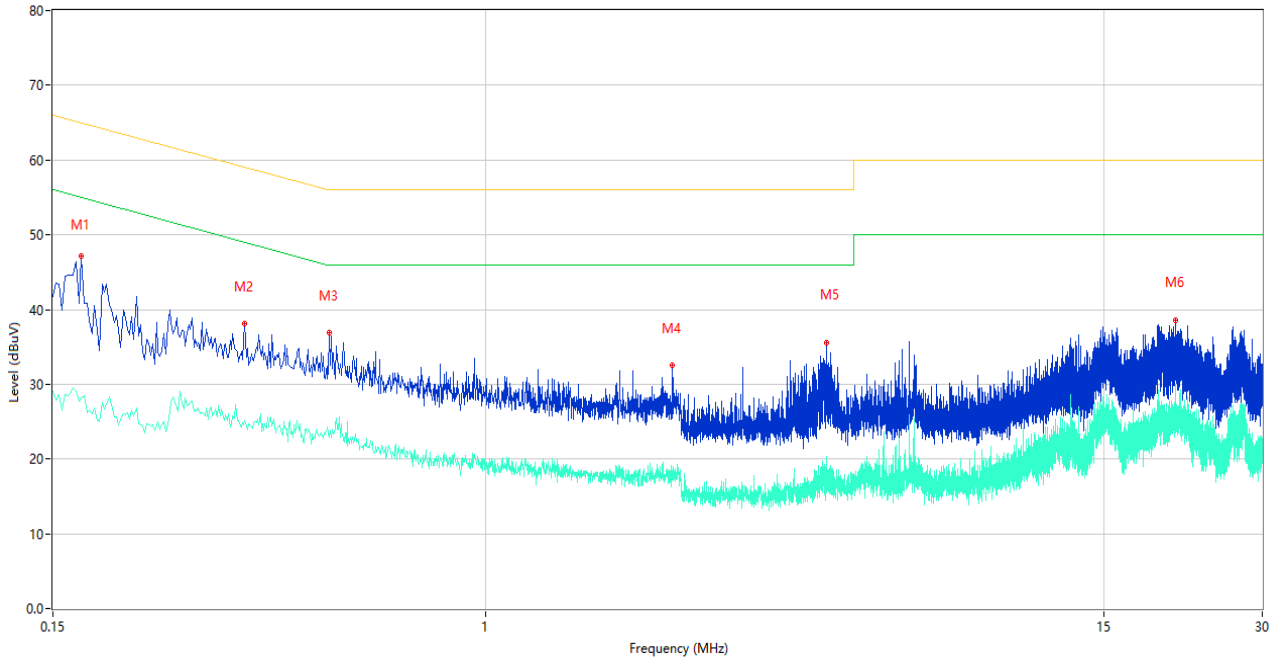


No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Over Limit (dB)	Detector	Line	Verdict
1	0.196	37.27	10.10	63.78	-26.51	Peak	N	Pass
1**	0.196	25.62	10.10	53.78	-28.16	AV	N	Pass
2	0.258	39.02	10.07	61.50	-22.48	Peak	N	Pass
2**	0.258	28.13	10.07	51.50	-23.37	AV	N	Pass
3	0.518	36.49	10.33	56.00	-19.51	Peak	N	Pass
3**	0.518	22.81	10.33	46.00	-23.19	AV	N	Pass
4	1.388	32.92	10.63	56.00	-23.08	Peak	N	Pass
4**	1.388	18.80	10.63	46.00	-27.20	AV	N	Pass
5	4.980	36.17	10.25	56.00	-19.83	Peak	N	Pass
5**	4.980	24.37	10.25	46.00	-21.63	AV	N	Pass
6	8.338	41.14	10.53	60.00	-18.86	Peak	N	Pass
6**	8.338	32.72	10.53	50.00	-17.28	AV	N	Pass

Test Data and Plots

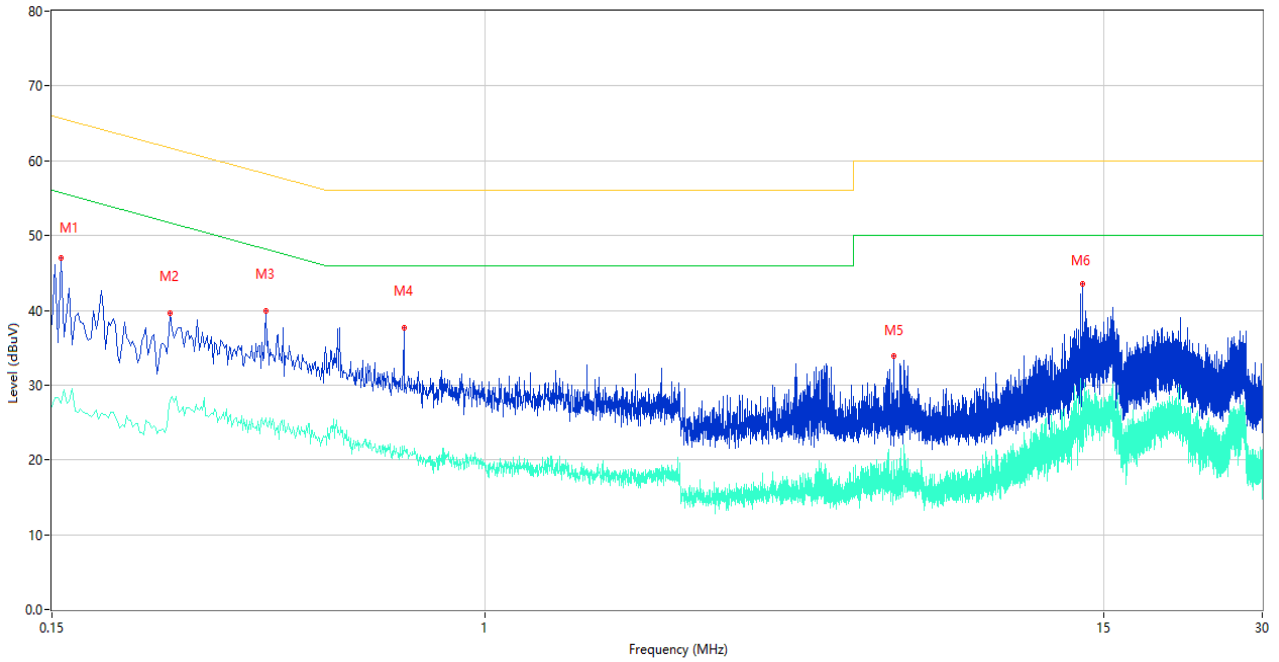
The USB transmission Test Mode

A.2.3 L Phase



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Over Limit (dB)	Detector	Line	Verdict
1	0.170	47.21	10.15	64.96	-17.75	Peak	L	Pass
1**	0.170	28.24	10.15	54.96	-26.72	AV	L	Pass
2	0.348	38.09	9.95	59.01	-20.92	Peak	L	Pass
2**	0.348	25.14	9.95	49.01	-23.87	AV	L	Pass
3	0.504	36.89	10.29	56.00	-19.11	Peak	L	Pass
3**	0.504	22.84	10.29	46.00	-23.16	AV	L	Pass
4	2.262	32.53	10.32	56.00	-23.47	Peak	L	Pass
4**	2.262	17.85	10.32	46.00	-28.15	AV	L	Pass
5	4.440	35.55	10.03	56.00	-20.45	Peak	L	Pass
5**	4.440	20.27	10.03	46.00	-25.73	AV	L	Pass
6	20.534	38.62	10.51	60.00	-21.38	Peak	L	Pass
6**	20.534	25.23	10.51	50.00	-24.77	AV	L	Pass

A.2.4 N Phase



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Over Limit (dB)	Detector	Line	Verdict
1	0.156	46.97	10.18	65.67	-18.70	Peak	N	Pass
1**	0.156	27.51	10.18	55.67	-28.16	AV	N	Pass
2	0.252	39.55	10.07	61.69	-22.14	Peak	N	Pass
2**	0.252	27.91	10.07	51.69	-23.78	AV	N	Pass
3	0.382	39.91	10.38	58.24	-18.33	Peak	N	Pass
3**	0.382	25.55	10.38	48.24	-22.69	AV	N	Pass
4	0.700	37.60	10.66	56.00	-18.40	Peak	N	Pass
4**	0.700	21.86	10.66	46.00	-24.14	AV	N	Pass
5	5.966	33.90	10.30	60.00	-26.10	Peak	N	Pass
5**	5.966	17.73	10.30	50.00	-32.27	AV	N	Pass
6	13.668	43.55	10.36	60.00	-16.45	Peak	N	Pass
6**	13.668	28.40	10.36	50.00	-21.60	AV	N	Pass

ANNEX B TEST SETUP PHOTOS

Please refer the document “BL-SZ2290497-AE-1.PDF”.

ANNEX C EUT EXTERNAL PHOTOS

Please refer the document “BL-SZ2290497-AW.PDF”.

ANNEX D EUT INTERNAL PHOTOS

Please refer the document “BL-SZ2290497-AI.PDF”.

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--END OF REPORT--