

TEST REPORT

Applicant: Realme Chongqing Mobile Telecommunications Corp., Ltd.
Address: No.178 Yulong Avenue, Yufengshan, Yubei District, Chongqing, China
Equipment Type: Mobile Phone
Model Name: RMX3581
Brand Name: realme
FCC ID: 2AUYFRMX3581
Test Standard: 47 CFR Part 15 Subpart B
Test Date: Apr. 18, 2022 - Apr. 20, 2022
Date of Issue: May 18, 2022

ISSUED BY:

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Liao Jianming

Revision History		
<u>Version</u>	<u>Issue Date</u>	<u>Revisions</u>
<u>Rev. 01</u>	<u>May 18, 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	Realme Chongqing Mobile Telecommunications Corp., Ltd.
Address	No.178 Yulong Avenue, Yufengshan, Yubei District, Chongqing, China

2.2 Manufacturer Information

Manufacturer	Realme Chongqing Mobile Telecommunications Corp., Ltd.
Address	No.178 Yulong Avenue, Yufengshan, Yubei District, Chongqing, China

2.3 Factory Information

Factory	Realme Chongqing Mobile Telecommunications Corp., Ltd.
Address	No.178 Yulong Avenue, Yufengshan, Yubei District, Chongqing, China

2.4 General Description for Equipment under Test (EUT)

EUT Name	Mobile Phone
Model Name Under Test	RMX3581
Series Model Name	N/A
Description of Model name differentiation	N/A
Hardware Version	11
Software Version	RMX3581_11_A.01
Dimensions (Approx.)	164.1x75.53x8.48mm
Weight (Approx.)	181g(with battery)

2.5 Ancillary Equipment

Ancillary Equipment 1	Battery 1	
	Brand Name	realme
	Model No.	BLP877 (DESAY)
	Serial No.	N/A
	Capacity	4890 mAh (Rated) 5000 mAh (Typical)
	Rated Voltage	3.87 V
	Limited Voltage	4.45 V
Ancillary Equipment 2	Battery 2	
	Brand Name	realme
	Model No.	BLP877 (NVT)
	Serial No.	N/A
	Capacity	4890 mAh (Rated) 5000 mAh (Typical)
	Rated Voltage	3.87 V
	Limited Voltage	4.45 V
Ancillary Equipment 3	Battery 3	
	Brand Name	realme
	Model No.	BLP877 (TWS)
	Serial No.	N/A
	Capacity	4890 mAh (Rated) 5000 mAh (Typical)
	Rated Voltage	3.87 V
	Limited Voltage	4.45 V
Ancillary Equipment 4	Power Supply Unit 1	
	Brand Name	realme
	Model No.	OP52YAUH (CHEN YANG - US Plug)
	Serial No.	N/A
	Rated Input	100-240V~ 50/60Hz, 0.4A
	Rated Output	5 V= 2A
Ancillary Equipment 5	Power Supply Unit 2	
	Brand Name	realme
	Model No.	OP52JAUH (Golden Lake - US Plug)
	Serial No.	N/A
	Rated Input	100-240V~ 50/60Hz, 0.4A
	Rated Output	5 V= 2A
Ancillary Equipment 6	USB Cable	
	Model No.	DL122
	Length (Approx.)	1m
Ancillary Equipment 7	Headset	
	Model No.	MH156

	Length (Approx.)	1m
<p>Note 1: Letter in () means plug type.</p> <p>Note 2: All adapters are tested, only the worst data of OP52YAUH (CHEN YANG - US Plug) shown in this report.</p> <p>Note 3: All batteries are tested, only the worst data of BLP877 (DESAY) shown in this report.</p>		

2.6 Technical Information

Network and Wireless connectivity	2G Network GSM/GPRS/EGPRS 850/ 1900 MHz 3G Network WCDMA/HSDPA/HSUPA/HSPA+ Band 2/4/5 4G Network FDD LTE Band 2/4/5/7/13/66 TDD LTE Band 38/41 Bluetooth (BR+EDR+BLE) 2.4G WIFI 802.11b, 802.11g and 802.11n(HT20/40)
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The requirement for the following technical information of the EUT was tested in this report:

The Highest Speed of Processor	1.6 GHz
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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 3.87V(battery)	24.3°C, 24.0°C	50%, 48%	101kPa	Apr. 18, 2022 - Apr. 20, 2022	Wu Yunan
Conducted Emission	AC 230V/50Hz AC 120V/60Hz DC 3.87V(battery)	21.4°C	54%		Apr. 18, 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 9163	9163-624	2019.07.02	2022.07.01	<input checked="" type="checkbox"/>
Anechoic Chamber	YIHENG	9m*6m*6m	N/A	2021.09.04	2024.09.03	<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	2019.07.02	2022.07.01	<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	2021.09.04	2024.09.03	<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	2021.06.08	2022.06.07	<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

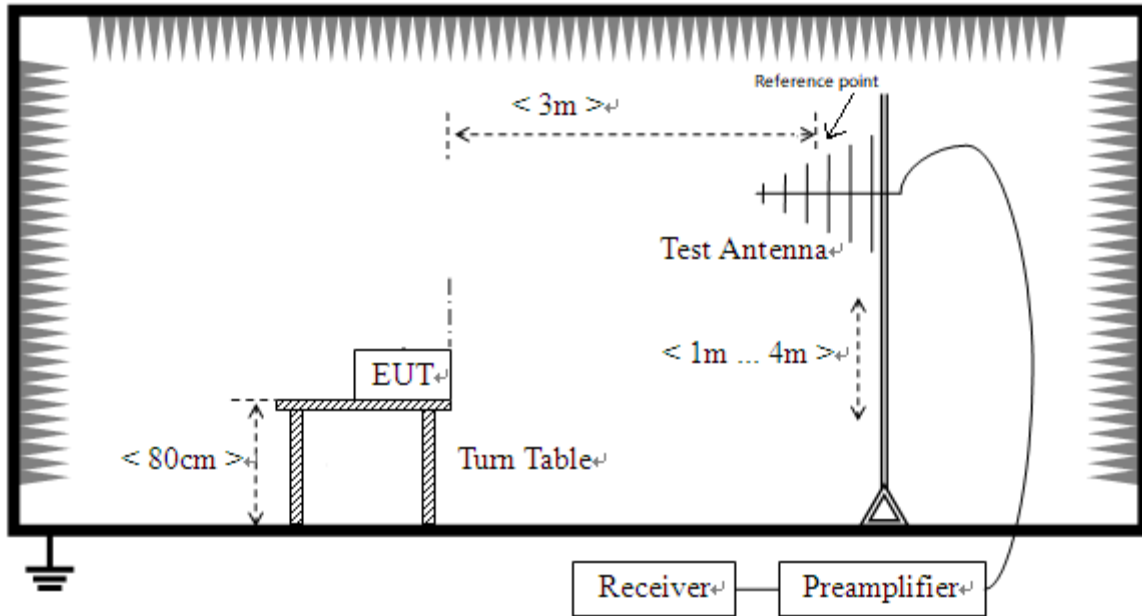
Description	Manufacturer	Model	Serial No.	Length	Description	Use
Wireless Communications Test Set	R&S	CMW500	127801	N/A	Cal. Due 2023.01.03	<input checked="" type="checkbox"/>
Laptop	HONOR	N/A	N/A	N/A	N/A	<input checked="" type="checkbox"/>
TF Card	Kingston	N/A	N/A	N/A	N/A	<input checked="" type="checkbox"/>

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 + 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 FDD LTE Band 13 RX Test Mode</u> LTE Band 13 RX + EUT +Adapter + USB Cable + Battery + TF Card + Headset
TC06	<u>The Camera Test Mode</u> EUT + Adapter + USB Cable + Battery + TF Card + Headset
TC07	<u>The Video Play Test Mode</u> EUT + Adapter + USB Cable + Battery + TF Card + Headset
TC08	<u>The USB Test Mode</u> EUT + USB Cable + Battery + Laptop + TF Card + Headset

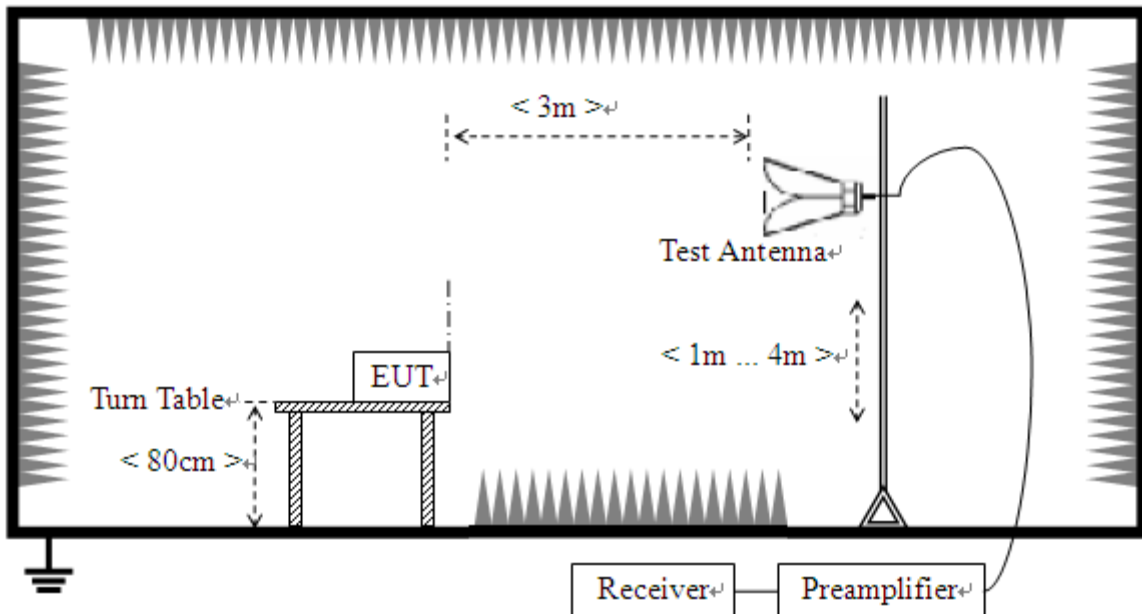
4.5 Test Setups

Test Setup 1



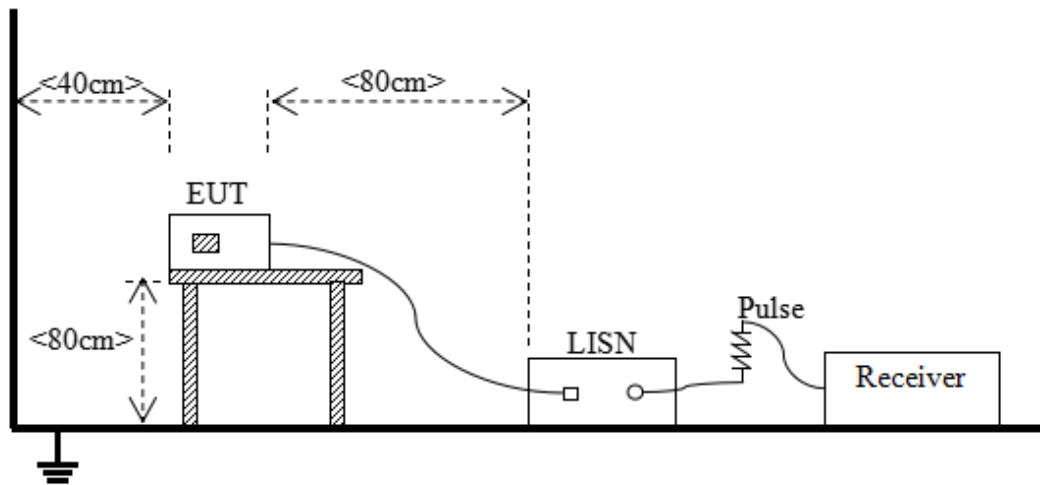
(For Radiated Emission Test (30 MHz-1 GHz))

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 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) 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 (dBuV/m) = Reading (dBuV/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 (dBuV) = Reading (dBuV) + 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.

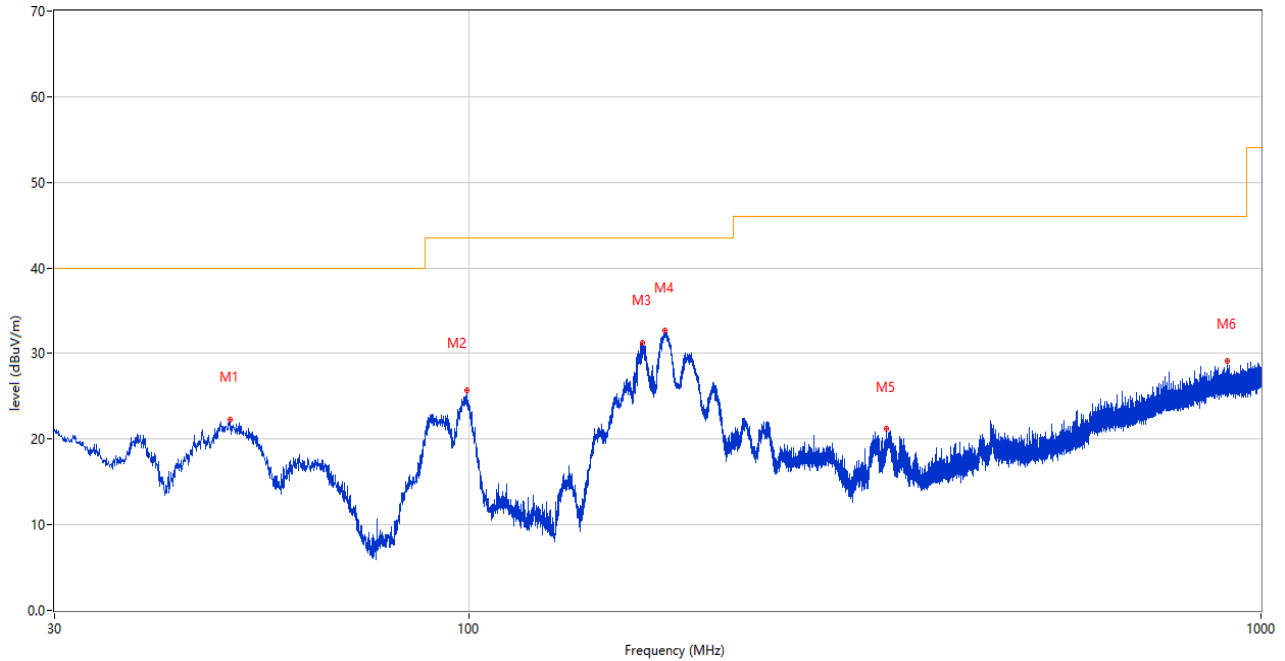
Note 3: The Radiated Emission from 18G-40G is noise only, do not show on the report.

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

Test Data and Plots

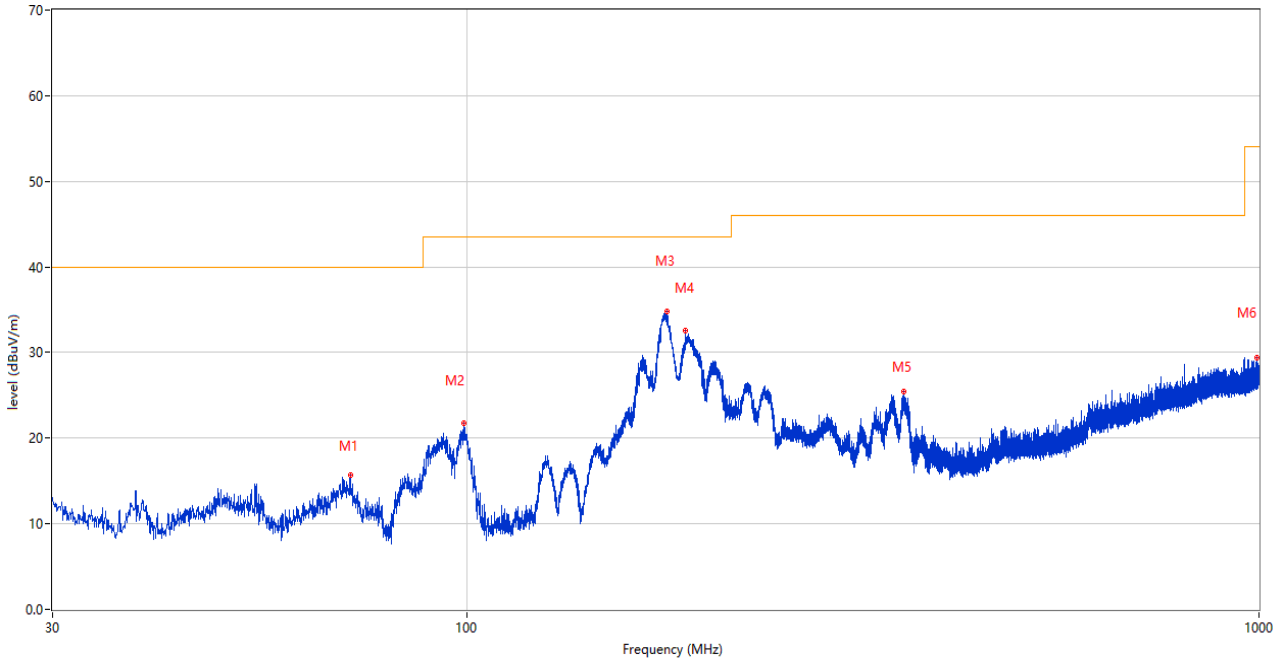
The Camera Test Mode

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



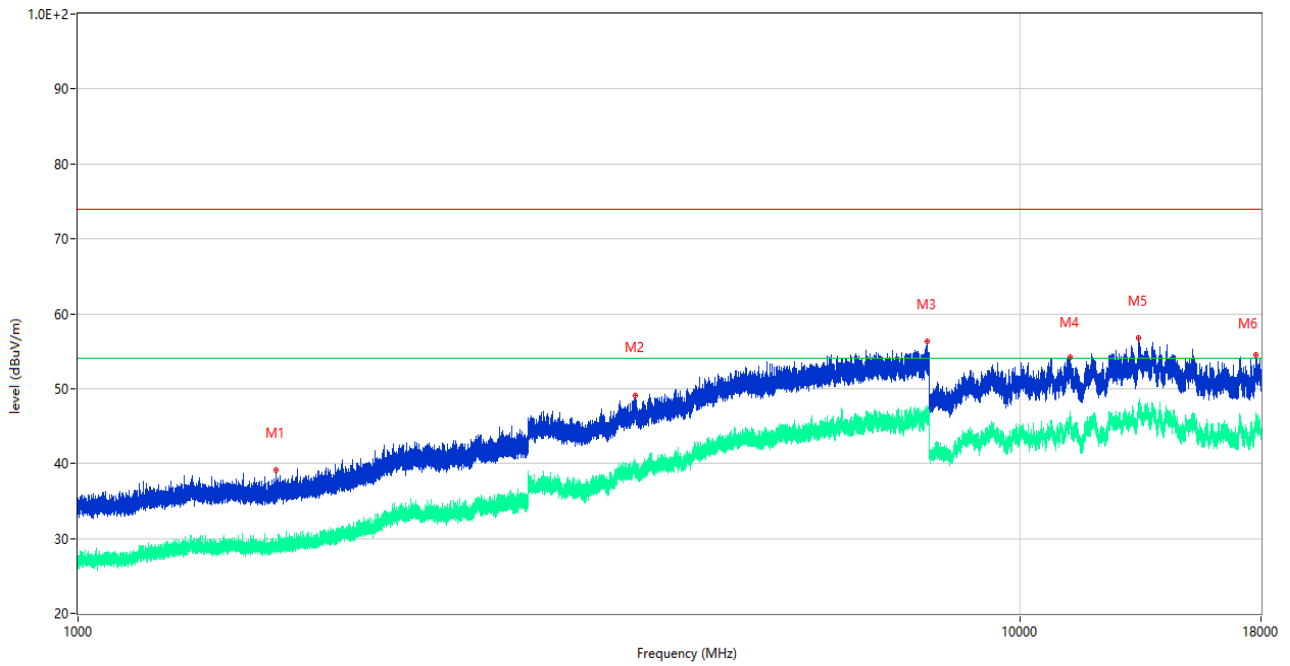
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	49.982	22.25	-25.58	40.0	-17.75	Peak	44.00	100	Vertical	Pass
2	99.404	25.74	-26.80	43.5	-17.76	Peak	33.00	100	Vertical	Pass
3	165.751	31.22	-29.33	43.5	-12.28	Peak	0.00	100	Vertical	Pass
4	176.858	32.69	-28.65	43.5	-10.81	Peak	112.00	100	Vertical	Pass
5	336.423	21.17	-22.49	46.0	-24.83	Peak	97.00	100	Vertical	Pass
6	905.619	29.07	-9.80	46.0	-16.93	Peak	360.00	200	Vertical	Pass

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



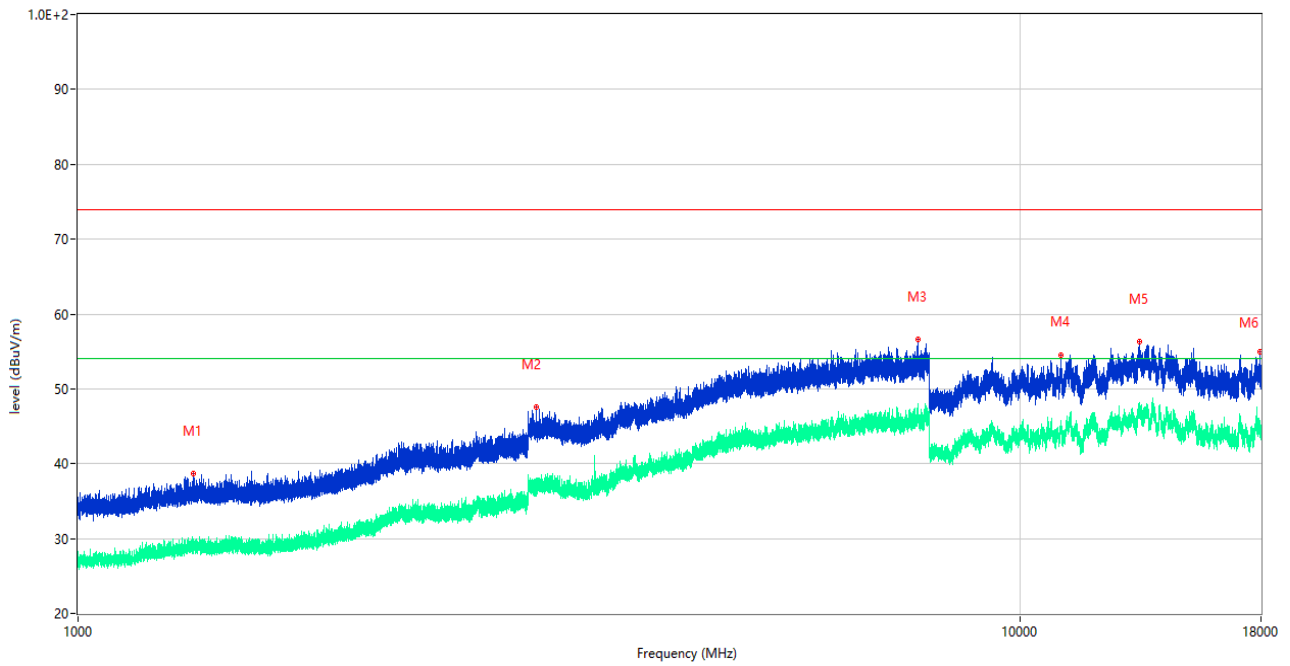
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	71.322	15.67	-29.87	40.0	-24.33	Peak	296.00	200	Horizontal	Pass
2	99.258	21.77	-26.84	43.5	-21.73	Peak	246.00	200	Horizontal	Pass
3	179.186	34.85	-28.51	43.5	-8.65	Peak	170.00	200	Horizontal	Pass
4	188.643	32.55	-27.63	43.5	-10.95	Peak	78.00	200	Horizontal	Pass
5	356.017	25.38	-21.86	46.0	-20.62	Peak	360.00	200	Horizontal	Pass
6	993.307	29.46	-8.40	54.0	-24.54	Peak	107.00	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	1621.600	39.10	-16.71	74.0	-34.90	Peak	15.00	150	Vertical	Pass
1**	1621.600	28.95	-16.71	54.0	-25.05	AV	15.00	150	Vertical	Pass
2	3904.750	49.08	-2.51	74.0	-24.92	Peak	360.00	150	Vertical	Pass
2**	3904.750	39.30	-2.51	54.0	-14.70	AV	360.00	150	Vertical	Pass
3	7953.750	56.28	2.99	74.0	-17.72	Peak	289.00	150	Vertical	Pass
3**	7953.750	46.32	2.99	54.0	-7.68	AV	289.00	150	Vertical	Pass
4	11290.500	54.25	2.28	74.0	-19.75	Peak	68.00	150	Vertical	Pass
4**	11290.500	45.14	2.28	54.0	-8.86	AV	68.00	150	Vertical	Pass
5	13360.500	56.81	5.16	74.0	-17.19	Peak	14.00	150	Vertical	Pass
5**	13360.500	46.87	5.16	54.0	-7.13	AV	14.00	150	Vertical	Pass
6	17796.499	54.48	2.75	74.0	-19.52	Peak	86.00	150	Vertical	Pass
6**	17796.499	46.02	2.75	54.0	-7.98	AV	86.00	150	Vertical	Pass

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

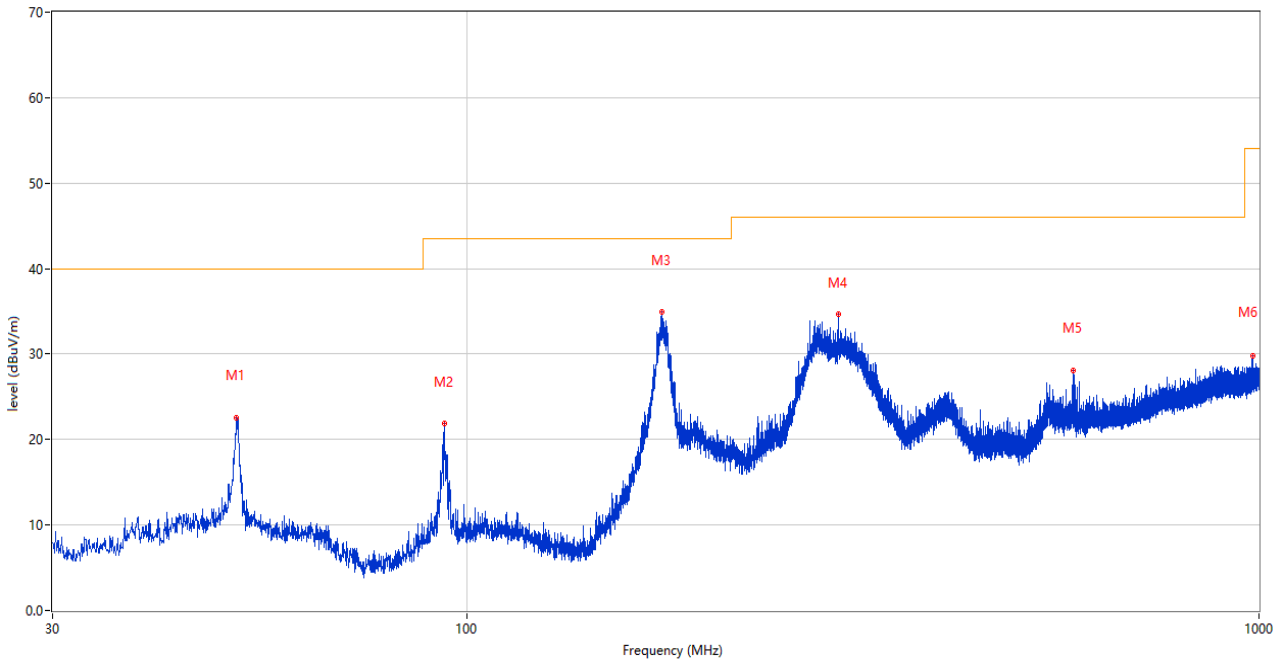


No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1323.900	38.71	-16.58	74.0	-35.29	Peak	327.00	150	Horizontal	Pass
1**	1323.900	28.41	-16.58	54.0	-25.59	AV	327.00	150	Horizontal	Pass
2	3061.250	47.50	-6.59	74.0	-26.50	Peak	121.00	150	Horizontal	Pass
2**	3061.250	36.86	-6.59	54.0	-17.14	AV	121.00	150	Horizontal	Pass
3	7789.750	56.60	3.09	74.0	-17.40	Peak	46.00	150	Horizontal	Pass
3**	7789.750	46.21	3.09	54.0	-7.79	AV	46.00	150	Horizontal	Pass
4	11042.500	54.57	1.84	74.0	-19.43	Peak	237.00	150	Horizontal	Pass
4**	11042.500	44.95	1.84	54.0	-9.05	AV	237.00	150	Horizontal	Pass
5	13379.500	56.29	5.04	74.0	-17.71	Peak	291.00	150	Horizontal	Pass
5**	13379.500	46.72	5.04	54.0	-7.28	AV	291.00	150	Horizontal	Pass
6	17963.000	54.91	2.17	74.0	-19.09	Peak	0.00	150	Horizontal	Pass
6**	17963.000	45.02	2.17	54.0	-8.98	AV	0.00	150	Horizontal	Pass

Test Data and Plots

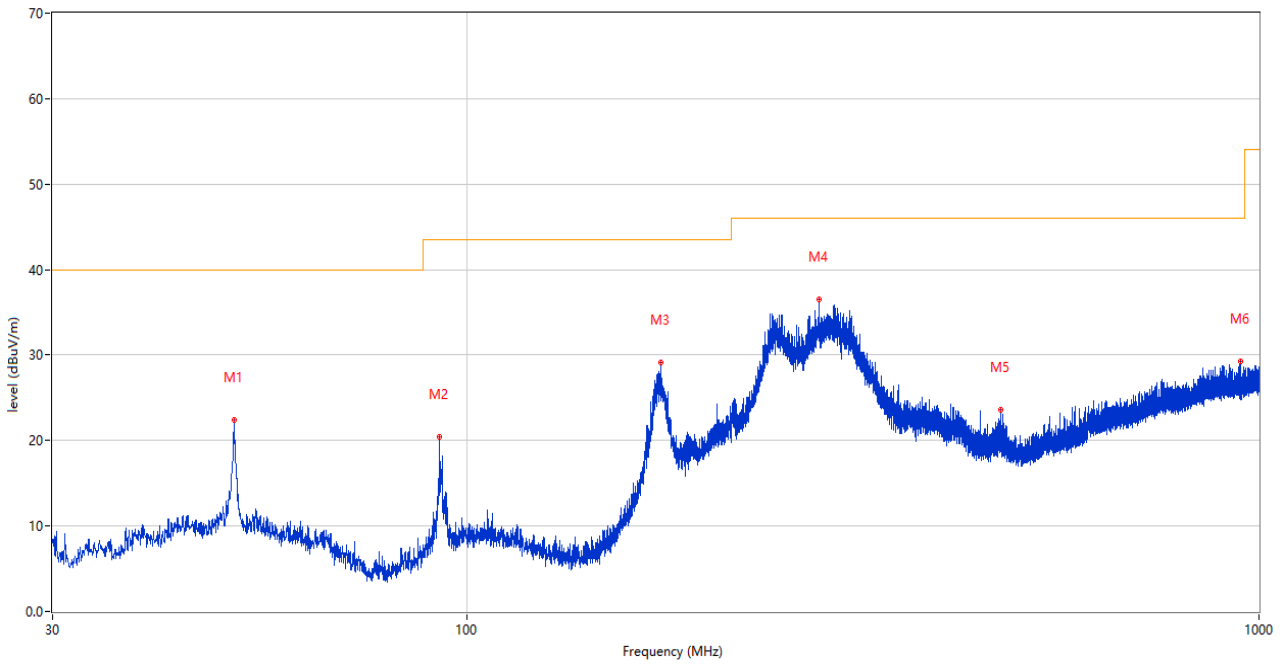
The USB Test Mode

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



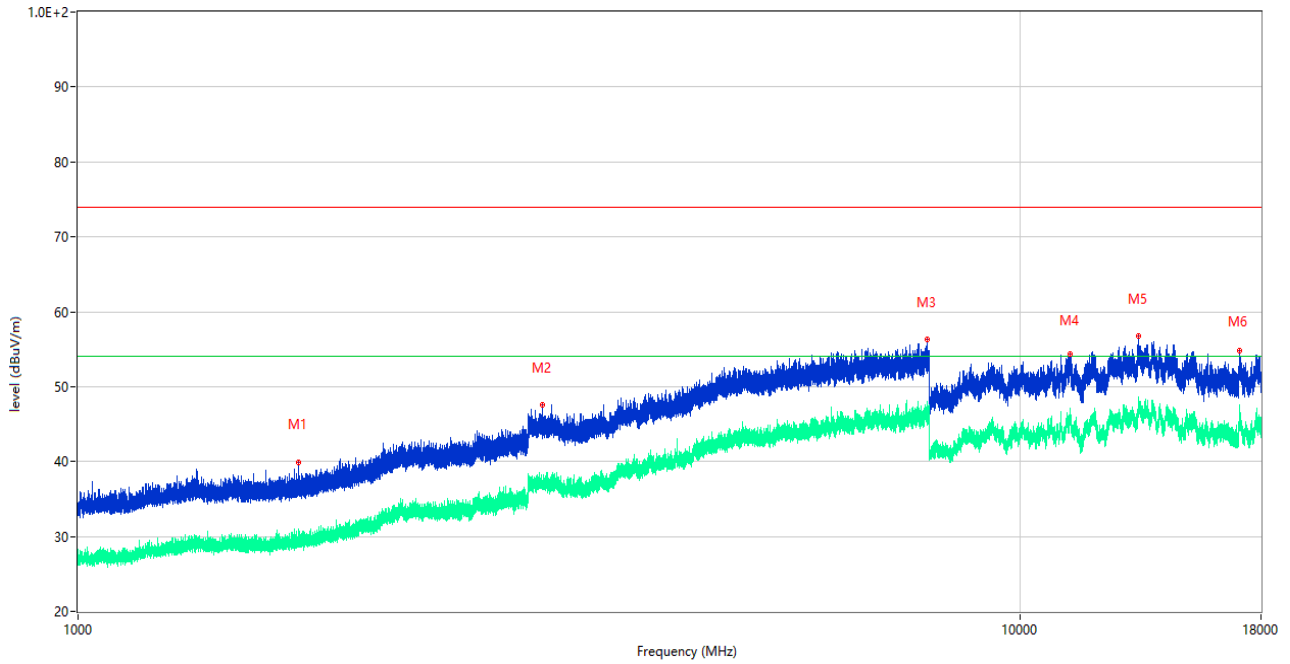
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	51.243	22.53	-25.46	40.0	-17.47	Peak	72.00	100	Vertical	Pass
2	93.777	21.82	-27.72	43.5	-21.68	Peak	106.00	100	Vertical	Pass
3	176.276	34.96	-28.76	43.5	-8.54	Peak	256.00	100	Vertical	Pass
4	294.276	34.69	-23.80	46.0	-11.31	Peak	360.00	200	Vertical	Pass
5	583.628	28.02	-16.50	46.0	-17.98	Peak	159.00	100	Vertical	Pass
6	981.619	29.85	-8.63	54.0	-24.15	Peak	226.00	200	Vertical	Pass

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



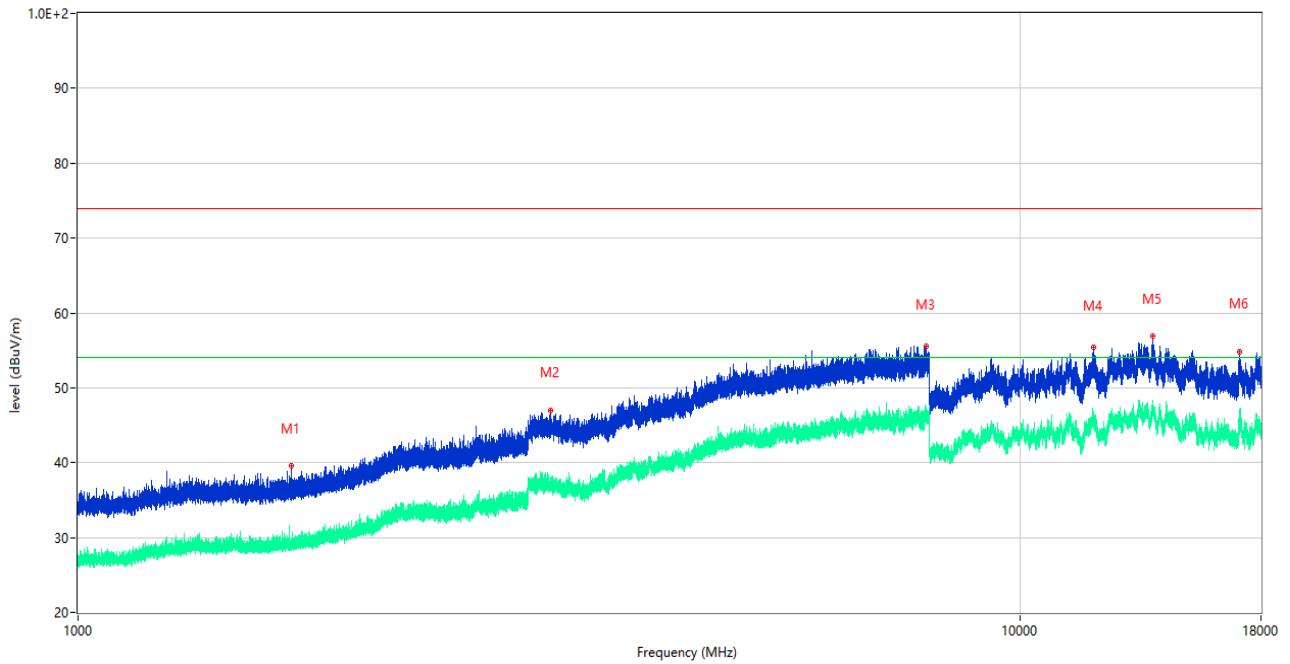
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	50.855	22.43	-25.50	40.0	-17.57	Peak	361.00	200	Horizontal	Pass
2	92.371	20.49	-28.01	43.5	-23.01	Peak	61.00	200	Horizontal	Pass
3	175.791	29.17	-28.86	43.5	-14.33	Peak	213.00	200	Horizontal	Pass
4	278.078	36.46	-24.23	46.0	-9.54	Peak	101.00	100	Horizontal	Pass
5	472.320	23.63	-19.39	46.0	-22.37	Peak	57.00	200	Horizontal	Pass
6	949.269	29.32	-9.46	46.0	-16.68	Peak	271.00	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	1712.800	39.95	-16.44	74.0	-34.05	Peak	229.00	100	Vertical	Pass
1**	1712.800	29.61	-16.44	54.0	-24.39	AV	229.00	100	Vertical	Pass
2	3114.000	47.58	-6.23	74.0	-26.42	Peak	49.00	100	Vertical	Pass
2**	3114.000	36.66	-6.23	54.0	-17.34	AV	49.00	100	Vertical	Pass
3	7966.750	56.37	2.33	74.0	-17.63	Peak	233.00	100	Vertical	Pass
3**	7966.750	45.92	2.33	54.0	-8.08	AV	233.00	100	Vertical	Pass
4	11285.000	54.36	2.22	74.0	-19.64	Peak	311.00	100	Vertical	Pass
4**	11285.000	44.89	2.22	54.0	-9.11	AV	311.00	100	Vertical	Pass
5	13344.000	56.72	5.02	74.0	-17.28	Peak	185.00	100	Vertical	Pass
5**	13344.000	46.85	5.02	54.0	-7.15	AV	185.00	100	Vertical	Pass
6	17089.500	54.87	3.34	74.0	-19.13	Peak	96.00	100	Vertical	Pass
6**	17089.500	45.84	3.34	54.0	-8.16	AV	96.00	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	1682.200	39.55	-16.60	74.0	-34.45	Peak	95.00	100	Horizontal	Pass
1**	1682.200	29.04	-16.60	54.0	-24.96	AV	95.00	100	Horizontal	Pass
2	3172.250	47.04	-5.61	74.0	-26.96	Peak	142.00	100	Horizontal	Pass
2**	3172.250	37.11	-5.61	54.0	-16.89	AV	142.00	100	Horizontal	Pass
3	7937.000	55.54	3.31	74.0	-18.46	Peak	339.00	100	Horizontal	Pass
3**	7937.000	46.87	3.31	54.0	-7.13	AV	339.00	100	Horizontal	Pass
4	11963.000	55.33	2.64	74.0	-18.67	Peak	33.00	100	Horizontal	Pass
4**	11963.000	45.53	2.64	54.0	-8.47	AV	33.00	100	Horizontal	Pass
5	13810.000	56.98	5.68	74.0	-17.02	Peak	267.00	100	Horizontal	Pass
5**	13810.000	47.41	5.68	54.0	-6.59	AV	267.00	100	Horizontal	Pass
6	17094.000	54.78	3.52	74.0	-19.22	Peak	357.00	100	Horizontal	Pass
6**	17094.000	46.20	3.52	54.0	-7.80	AV	357.00	100	Horizontal	Pass

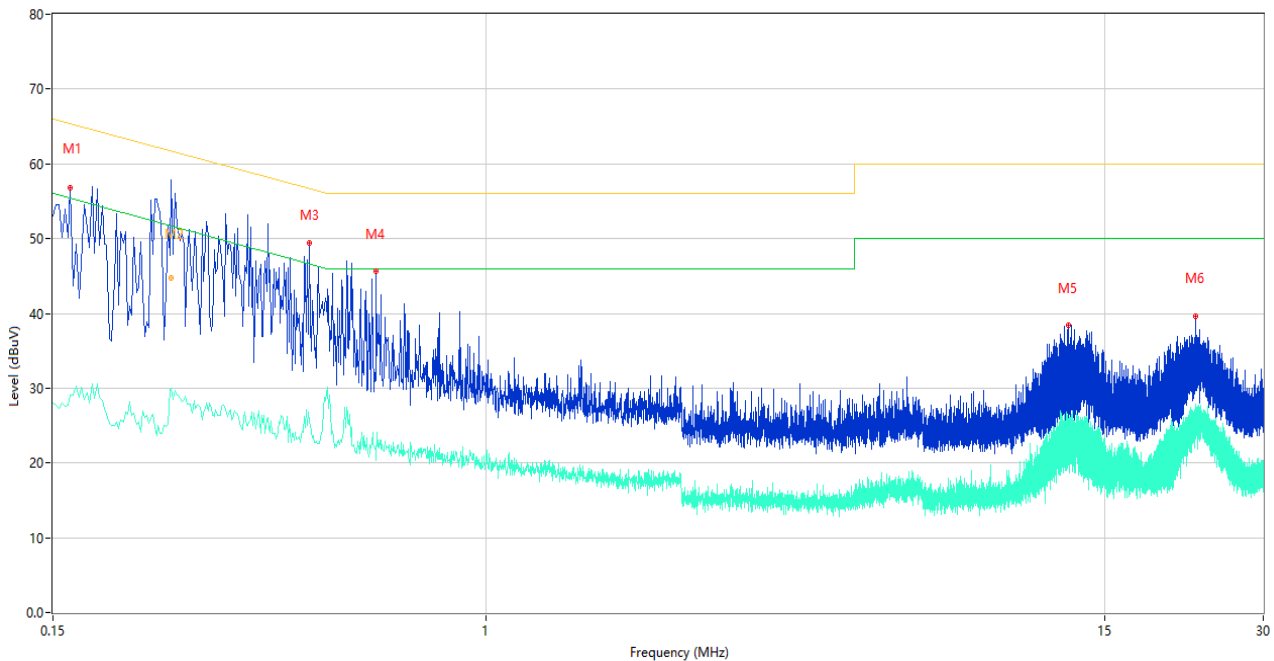
A.2 Conducted Emission

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

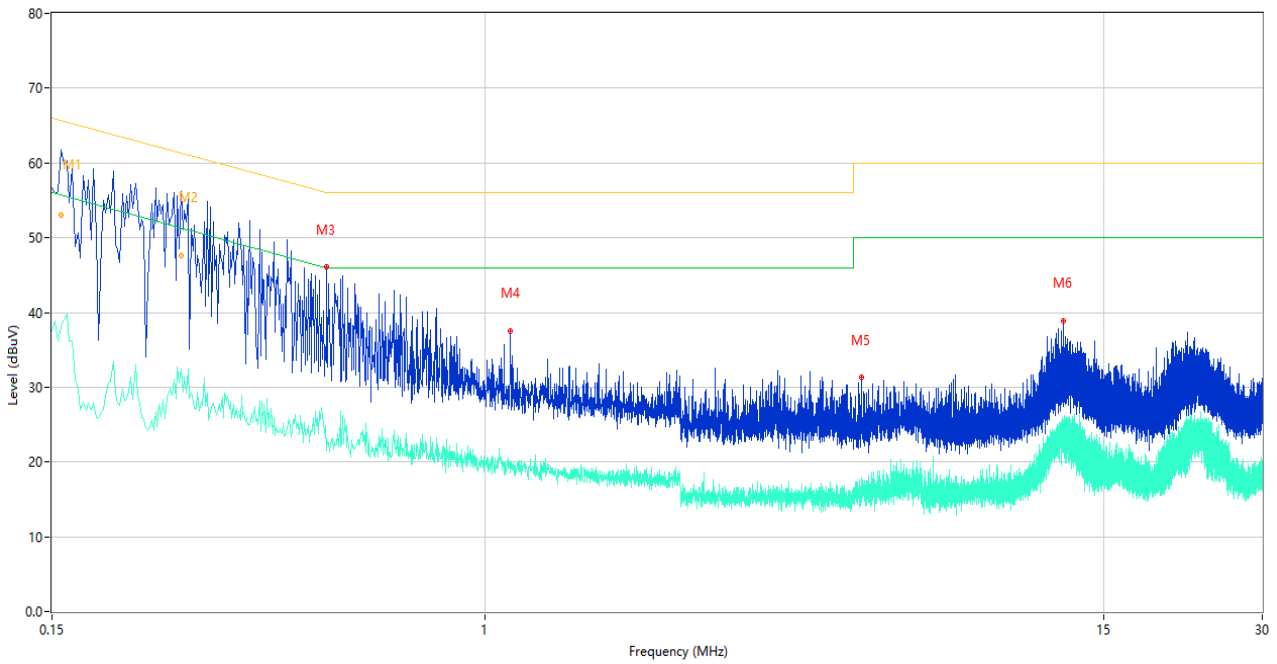
The Camera Test Mode

A.2.1 L Phase



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Over Limit (dB)	Detector	Line	Verdict
1	0.162	56.83	10.17	65.36	-8.53	Peak	L	Pass
1**	0.162	29.14	10.17	55.36	-26.22	AV	L	Pass
2	0.252	64.85	10.08	61.69	3.16	Peak	L	N/A
2*	0.252	44.82	10.08	61.69	-16.87	QP	L	Pass
2**	0.252	29.98	10.08	51.69	-21.71	AV	L	Pass
3	0.460	49.45	10.10	56.69	-7.24	Peak	L	Pass
3**	0.460	25.39	10.10	46.69	-21.30	AV	L	Pass
4	0.618	45.62	10.09	56.00	-10.38	Peak	L	Pass
4**	0.618	20.30	10.09	46.00	-25.70	AV	L	Pass
5	12.786	38.48	10.10	60.00	-21.52	Peak	L	Pass
5**	12.786	25.80	10.10	50.00	-24.20	AV	L	Pass
6	22.274	39.68	10.26	60.00	-20.32	Peak	L	Pass
6**	22.274	27.76	10.26	50.00	-22.24	AV	L	Pass

A.2.2 N Phase

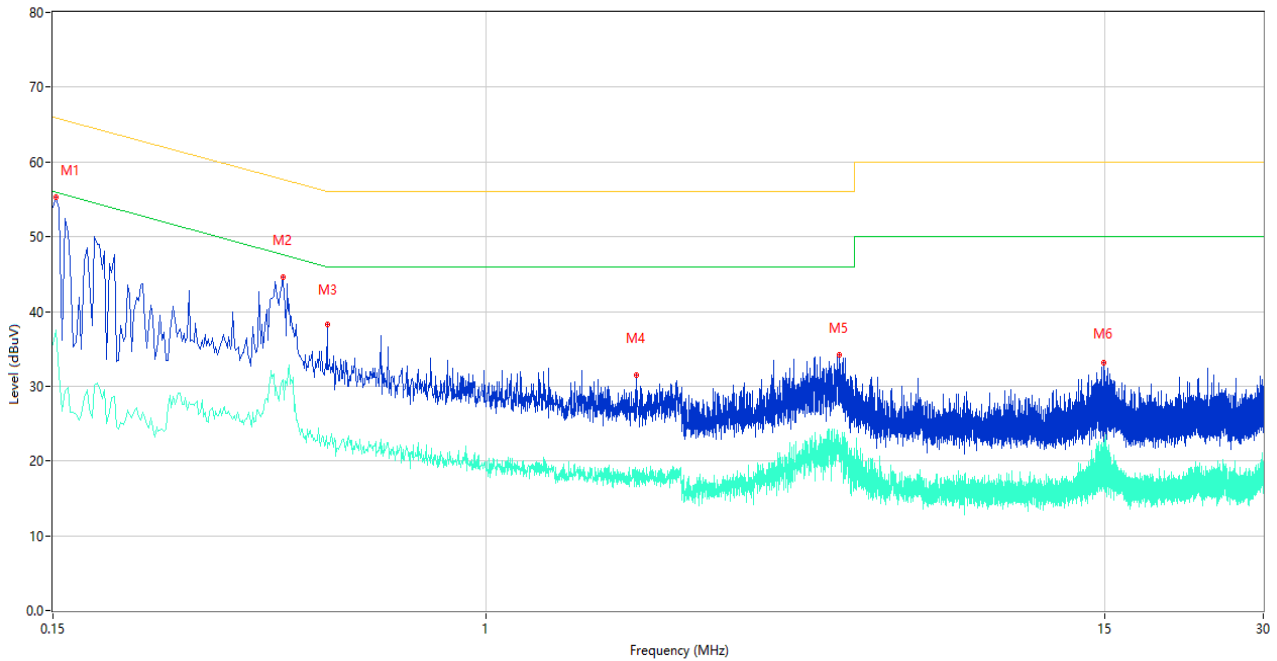


No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Over Limit (dB)	Detector	Line	Verdict
1	0.156	64.70	10.18	65.67	-0.97	Peak	N	N/A
1*	0.156	53.10	10.18	65.67	-12.57	QP	N	Pass
1**	0.156	38.10	10.18	55.67	-17.57	AV	N	Pass
2	0.264	58.43	10.08	61.30	-2.87	Peak	N	N/A
2*	0.264	47.66	10.08	61.30	-13.64	QP	N	Pass
2**	0.264	32.44	10.08	51.30	-18.86	AV	N	Pass
3	0.500	46.14	10.11	56.00	-9.86	Peak	N	Pass
3**	0.500	23.14	10.11	46.00	-22.86	AV	N	Pass
4	1.116	37.56	10.01	56.00	-18.44	Peak	N	Pass
4**	1.116	18.59	10.01	46.00	-27.41	AV	N	Pass
5	5.190	31.38	9.96	60.00	-28.62	Peak	N	Pass
5**	5.190	15.96	9.96	50.00	-34.04	AV	N	Pass
6	12.574	38.93	10.10	60.00	-21.07	Peak	N	Pass
6**	12.574	21.17	10.10	50.00	-28.83	AV	N	Pass

Test Data and Plots

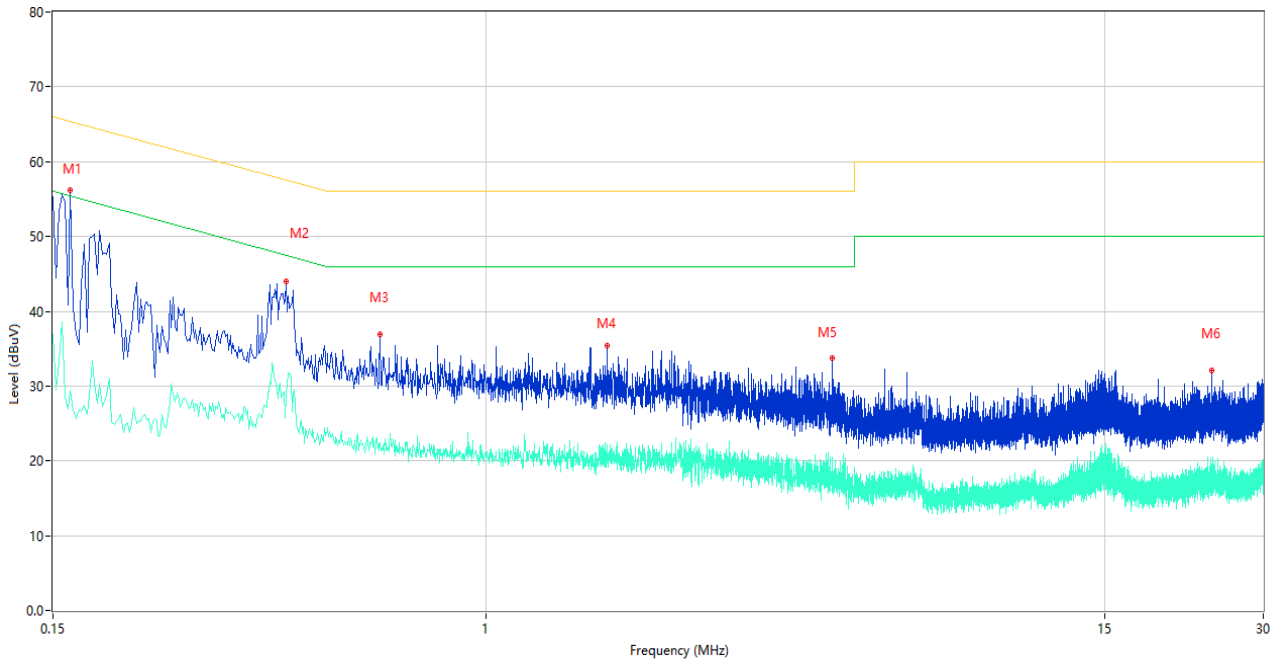
The USB Test Mode

A.2.3 L Phase



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Over Limit (dB)	Detector	Line	Verdict
1	0.152	55.25	10.19	65.89	-10.64	Peak	L	Pass
1**	0.152	37.44	10.19	55.89	-18.45	AV	L	Pass
2	0.410	44.59	10.09	57.65	-13.06	Peak	L	Pass
2**	0.410	30.94	10.09	47.65	-16.71	AV	L	Pass
3	0.498	38.33	10.11	56.03	-17.70	Peak	L	Pass
3**	0.498	21.75	10.11	46.03	-24.28	AV	L	Pass
4	1.926	31.43	9.87	56.00	-24.57	Peak	L	Pass
4**	1.926	18.61	9.87	46.00	-27.39	AV	L	Pass
5	4.682	34.27	9.98	56.00	-21.73	Peak	L	Pass
5**	4.682	22.43	9.98	46.00	-23.57	AV	L	Pass
6	14.944	33.15	10.14	60.00	-26.85	Peak	L	Pass
6**	14.944	22.51	10.14	50.00	-27.49	AV	L	Pass

A.2.4 N Phase



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Over Limit (dB)	Detector	Line	Verdict
1	0.162	56.21	10.17	65.36	-9.15	Peak	N	Pass
1**	0.162	29.33	10.17	55.36	-26.03	AV	N	Pass
2	0.416	43.95	10.09	57.53	-13.58	Peak	N	Pass
2**	0.416	28.99	10.09	47.53	-18.54	AV	N	Pass
3	0.628	36.92	10.09	56.00	-19.08	Peak	N	Pass
3**	0.628	22.50	10.09	46.00	-23.50	AV	N	Pass
4	1.700	35.39	9.91	56.00	-20.61	Peak	N	Pass
4**	1.700	22.09	9.91	46.00	-23.91	AV	N	Pass
5	4.550	33.77	10.00	56.00	-22.23	Peak	N	Pass
5**	4.550	20.50	10.00	46.00	-25.50	AV	N	Pass
6	23.918	32.11	10.17	60.00	-27.89	Peak	N	Pass
6**	23.918	17.52	10.17	50.00	-32.48	AV	N	Pass

ANNEX B TEST SETUP PHOTOS

Please refer the document “BL-SZ2240469-AE.PDF”.

ANNEX C EUT EXTERNAL PHOTOS

Please refer the document “BL-SZ2240469-AW.PDF”.

ANNEX D EUT INTERNAL PHOTOS

Please refer the document “BL-SZ2240469-AI.PDF”.

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