

EMC

TEST REPORT

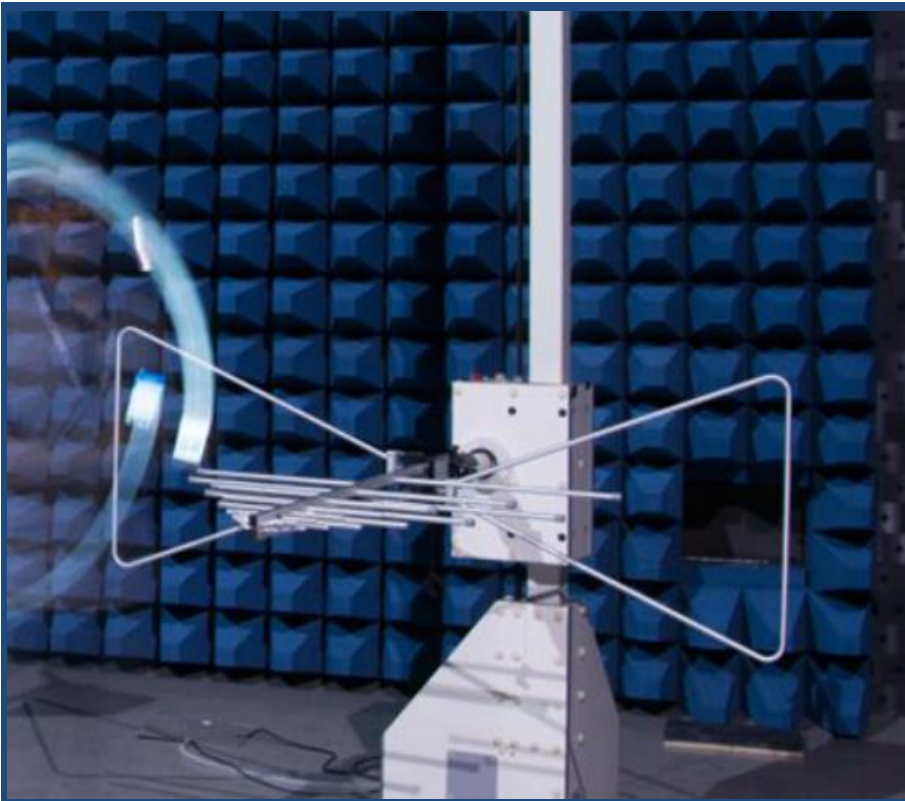
ISSUED BY
Shenzhen BALUN Technology Co., Ltd.



FOR
Mobile Phone

ISSUED TO
mMax Communications, Inc.

5151 California Ave. Suite 100, Irvine, CA 92617 US



Tested by: Sijie Zheng

Sijie Zheng
Date Feb. 16, 2022

Approved by: Liao Jianming

Liao Jianming
(Technical Director)
Date Feb. 16, 2022

Report No.: BL-SZ21B0604-401
EUT Name: Mobile Phone
Model Name: M55
Brand Name: mMax
Test Standard: 47 CFR Part 15 Subpart B
FCC ID: 2AWVS-M55

Test Conclusion: Pass
Test Date: Nov. 19, 2021 ~ Dec. 15, 2021
Date of Issue: Feb. 16, 2022

NOTE: This test report of test results only related to testing samples, which can be duplicated completely for the legal use with the approval of the applicant; it shall not be reproduced except in full, without the written approval of Shenzhen BALUN Technology Co., Ltd. Any objections should be raised within thirty days from the date of issue. To validate the report, please contact us.

Revision History

Version	Issue Date	Revisions Content
<u>Rev. 01</u>	<u>Feb. 16, 2022</u>	<u>Initial Issue</u>

TABLE OF CONTENTS

1	GENERAL INFORMATION.....	4
1.1	Identification of the Testing Laboratory.....	4
1.2	Identification of the Responsible Testing Location.....	4
1.3	Laboratory Condition.....	4
1.4	Announce.....	4
2	PRODUCT INFORMATION.....	5
2.1	Applicant Information.....	5
2.2	Manufacturer Information.....	5
2.3	Factory Information.....	5
2.4	General Description for Equipment under Test (EUT).....	5
2.5	Ancillary Equipment.....	6
2.6	Technical Information.....	6
3	SUMMARY OF TEST RESULTS.....	7
3.1	Test Standards.....	7
3.2	Verdict.....	7
3.3	Test Uncertainty.....	7
4	GENERAL TEST CONFIGURATIONS.....	8
4.1	Test Environments.....	8
4.2	Test Equipment List.....	8
4.3	Test Enclosure list.....	10
4.4	Test Configurations.....	11
4.5	Test Setups.....	12
4.6	Test Conditions.....	14
5	TEST ITEMS.....	15
5.1	Emission Tests.....	15
ANNEX A	TEST RESULTS.....	17

A.1	Radiated Emission	17
A.2	Conducted Emission	25
ANNEX B	TEST SETUP PHOTOS	29
ANNEX C	EUT EXTERNAL PHOTOS	29
ANNEX D	EUT INTERNAL PHOTOS.....	29

1 GENERAL INFORMATION

1.1 Identification of the Testing Laboratory

Company Name	Shenzhen BALUN Technology Co.,Ltd.
Address	Block B, 1st FL, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China
Phone Number	+86 755 6685 0100
Fax Number	+86 755 6182 4271

1.2 Identification of the Responsible Testing Location

Test Location	Shenzhen BALUN Technology Co.,Ltd.
Address	Block B, 1st FL, Baisha Science and Technology Park, Shahe Xi Road, 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.
Description	All measurement facilities used to collect the measurement data are located at Block B, FL 1, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China 518055

1.3 Laboratory Condition

Ambient Temperature	20°C to 25°C
Ambient Relative Humidity	30% to 60%
Ambient Pressure	100 kPa to 102 kPa

1.4 Announce

- (1) The test report reference to the report template version v7.2.
- (2) The test report is invalid if not marked with the signatures of the persons responsible for preparing and approving the test report.
- (3) The test report is invalid if there is any evidence and/or falsification.
- (4) The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein.
- (5) This document may not be altered or revised in any way unless done so by BALUN and all revisions are duly noted in the revisions section.
- (6) Content of the test report, in part or in full, cannot be used for publicity and/or promotional purposes without prior written approval from the laboratory.
- (7) The laboratory is only responsible for the data released by the laboratory, except for the part provided by the applicant.

2 PRODUCT INFORMATION

2.1 Applicant Information

Applicant	mMax Communications, Inc.
Address	5151 California Ave. Suite 100, Irvine, CA 92617 US

2.2 Manufacturer Information

Manufacturer	mMax Communications, Inc.
Address	5151 California Ave. Suite 100, Irvine, CA 92617 US

2.3 Factory Information

Factory	Sichuan Lingge Zhigu Technology Co., Ltd
Address	Lingge Industrial Park, No. 1, section 4, west section of Changjiang North Road, Lingang Economic Development Zone, Yibin City, Sichuan Province

2.4 General Description for Equipment under Test (EUT)

EUT Name	Mobile Phone
Model Name Under Test	M55
Series Model Name	N/A
Description of Model name differentiation	N/A
Hardware Version	M55-MB-1V0
Software Version	LTE_S0211_N_M55_0.010.08
Dimensions (Approx.)	N/A
Weight (Approx.)	N/A

2.5 Ancillary Equipment

Ancillary Equipment 1	Battery	
	Brand Name	N/A
	Model No.	BP-2330
	Serial No.	N/A
	Capacity	2300 mAh
	Rated Voltage	3.8 V
	Limit Charge Voltage	4.35 V
Ancillary Equipment 2	Adapter	
	Brand Name	N/A
	Model No.	UT-236A-5100
	Serial No.	N/A
	Rated Input	100-240 V~, 2 A, 50/60 Hz
	Rated Output	5 V= 1 A
Ancillary Equipment 3	USB Cable	
	Model No.	N/A
	Length (Approx.)	0.8 m

2.6 Technical Information

Network and Wireless connectivity	4G Network FDD LTE Band 2/4/5/13 Bluetooth (BR+EDR+BLE) WIFI 802.11b, 802.11g, 802.11n(HT20) GPS, GLONASS, FM Receiver
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The requirement for the following technical information of the EUT was tested in this report:

The Highest Speed of Processor	1.3 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)	2.96 dB
Radiated emissions (30 MHz-1 GHz)	3.67 dB
Radiated emissions (1 GHz-18 GHz)	3.57 dB
Radiated emissions (18 GHz-40 GHz)	5.16 dB

4 GENERAL TEST CONFIGURATIONS

4.1 Test Environments

Environment Parameter	Selected Values During Tests			
	Temperature	Voltage	Relative Humidity	Ambient Pressure
Normal Temperature, Normal Voltage (NTNV)	20°C to 25°C	AC 120 V/60 Hz or DC 3.8V from Battery	30% to 60%	100 kPa to 102 kPa

4.2 Test Equipment List

Radiated Emission Test For Frequency Below 1 GHz (10 m)						
Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due	Use
EMI Receiver	ROHDE&SCHWARZ	ESRP	101036	2021.10.08	2022.10.09	☐
Test Antenna-Bi-Log	SCHWARZBECK	VULB 9163	9163-624	2019.07.02	2022.07.01	☐
Anechoic Chamber	EMC Electronic Co., Ltd	20.10*11.60*7.35m	N/A	2021.08.15	2024.08.14	☐
Test Software	BALUN	BL410_E	V19.918	--	--	☐

Radiated Emission Test For Frequency Below 1 GHz (3 m)						
Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due	Use
EMI Receiver	KEYSIGHT	N9038A	MY55330120	2021.10.20	2022.10.19	☒
Test Antenna-Bi-Log	SCHWARZBECK	VULB 9163	9163-624	2019.07.02	2022.07.01	☒
Anechoic Chamber	YIHENG	9m*6m*6m	N/A	2021.09.04	2024.09.03	☒
Test Software	BALUN	BL410_E	V19.918	--	--	☒

Radiated Emission Test For Frequency Above 1 GHz						
Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due	Use
EMI Receiver	KEYSIGHT	N9038A	MY55330120	2021.10.20	2022.10.19	☐
Test Antenna-Horn	SCHWARZBECK	BBHA 9120D	9120D-1917	2019.07.02	2022.07.01	☐
Anechoic Chamber	YIHENG	9m*6m*6m	N/A	2021.09.04	2024.09.03	☐
Test Software	BALUN	BL410_E	V19.918	--	--	☐

Radiated Emission Test For Frequency 1 GHz-18 GHz						
Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due	Use
EMI Receiver	KEYSIGHT	N9038A	MY55330120	2021.10.20	2022.10.19	☒
Test Antenna-Horn	SCHWARZBECK	BBHA 9120D	9120D-1917	2019.07.02	2022.07.01	☒
Anechoic Chamber	YIHENG	9m*6m*6m	N/A	2021.09.04	2024.09.03	☒
Test Software	BALUN	BL410_E	V19.918	--	--	☒

Conducted disturbance Test						
Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due	Use
EMI Receiver	KEYSIGHT	N9010B	MY57110309	2021.10.10	2022.10.09	☒
LISN	SCHWARZBECK	NSLK 8127	8127-687	2021.06.08	2022.06.07	☒
Shielded Enclosure	YiHeng Electronic Co., Ltd	3.4m*3.1m*2.8m	N/A	2021.08.14	2024.08.13	☒
Test Software	BALUN	BL410_E	V19.918	--	--	☒

4.3 Test Enclosure list

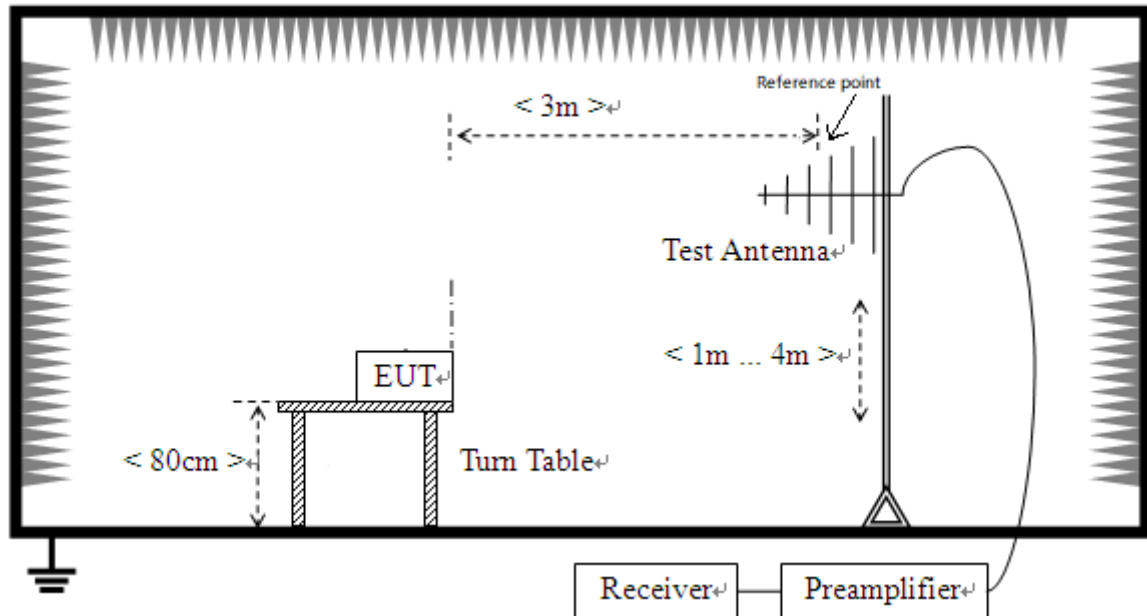
Description	Manufacturer	Model	Serial No.	Length	Description	Use
PC	Dell	015K3N	N/A	N/A	Special Handled	☐
Laptop	Apple	A1465	N/A	N/A	N/A	☒
Printer	HP	DESKJET 1000	N/A	N/A	N/A	☐
Keyboard	Logitech	Y-BP62a	N/A	N/A	N/A	☐
Mouse	Logitech	M100	N/A	N/A	N/A	☐
USB disk	Kingston	N/A	N/A	N/A	N/A	☐
TF Card	Kingston	N/A	N/A	N/A	N/A	☒
VGA Cable	N/A	N/A	N/A	1.5 m	Shielded with core	☐
HDMI Cable	N/A	N/A	N/A	1.5 m	Shielded with core	☐
DVI Cable	N/A	N/A	N/A	1.5 m	Shielded with core	☐
Coaxial video cable	N/A	N/A	N/A	2.0 m	Shielded with core	☐
iPhone	Apple	A1586	N/A	N/A	N/A	☐
Phone	MI	M4	N/A	N/A	N/A	☐
Bluetooth Earphone	SAMSUNG	Gear Circle	N/A	N/A	N/A	☐
Wireless Communication s Test Set	R&S	CMW500	142028	N/A	Cal. Due 2022.01.13	☐
WIFI Router	TP-LINK	TL-WDR7500	N/A	N/A	N/A	☐
Earphone	N/A	OPPO	N/A	1.1 m	N/A	☒
Car Battery	Camel	55530	N/A	N/A	12 V/55 Ah	☐
Artificial load	N/A	N/A	N/A	N/A	2.5 Ω /100 W	☐
Artificial load	N/A	N/A	N/A	N/A	5 Ω /100 W	☐
Electronic Load	ITECH	IT8511	N/A	N/A	N/A	☐
USB Cable	N/A	N/A	N/A	1.5 m	Shielded with core	☐
DC Power Supply	ITECH	IT6863A	60001401068 7210006	N/A	N/A	☐
LCD Monitor	SAMSUNG	UA32C4000P	N/A	N/A	N/A	☐
LCD Monitor	Dell	U241HB	N/A	N/A	N/A	☐
RJ45 Cable	N/A	N/A	N/A	1.5 m	Shielded with core	☐

4.4 Test Configurations

Test Configurations (TC) No.	Description
TC01	<u>The FDD LTE Band 5 RX Test Mode</u> LTE Band 5 RX + EUT +Adapter + USB Cable + Battery + TF Card
TC02	<u>The FDD LTE Band 13 RX Test Mode</u> LTE Band 13 RX + EUT +Adapter + USB Cable + Battery + TF Card
TC03	<u>The Camera Test Mode</u> EUT + Adapter + USB Cable + Battery + TF Card
TC04	<u>The Video Play Test Mode</u> EUT + Adapter + USB Cable + Battery + TF Card
TC05	<u>The USB Test Mode</u> EUT + USB Cable + Battery + Laptop + TF Card

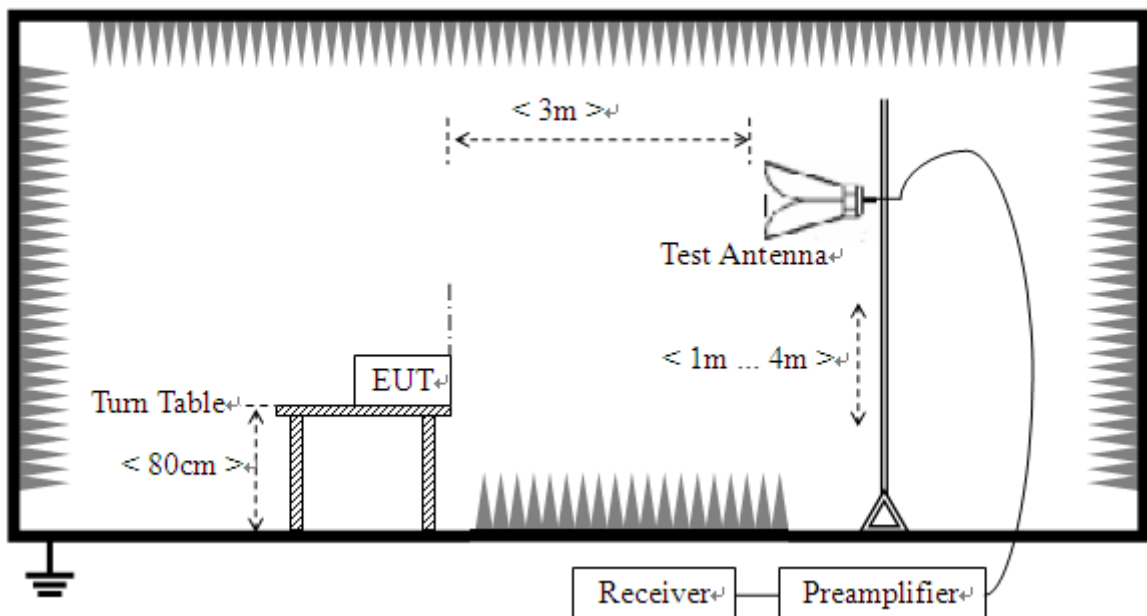
4.5 Test Setups

Test Setup 1



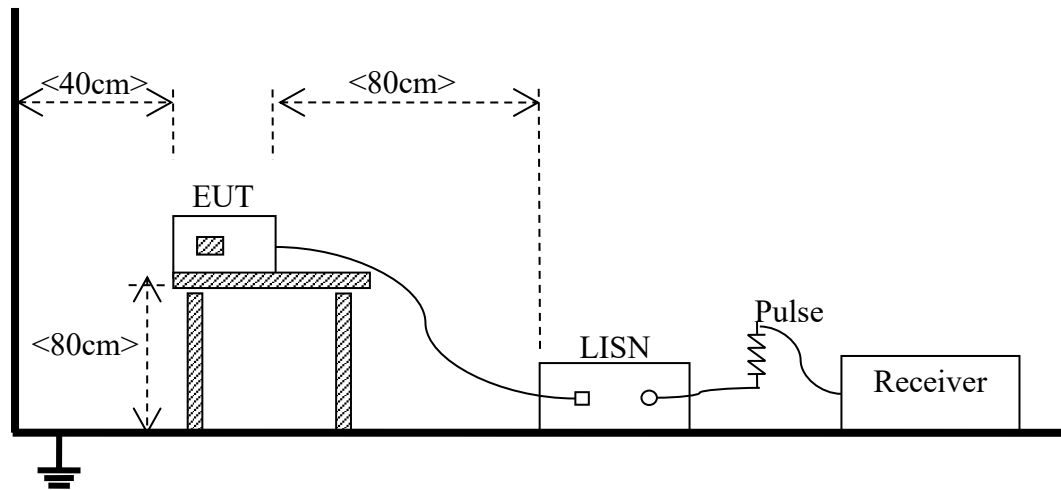
(For Radiated Emission Test (30 MHz-1 GHz))

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 Env.	NTNV
	Test Setup	Test Setup 1&2
	Test Configuration	TC01~TC05 ^{Note}
Conducted Emission, AC Ports	Test Env.	NTNV
	Test Setup	Test Setup 3
	Test Configuration	TC01~TC05 ^{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 (dB $\mu\text{V/m}$)	Field Strength (dB $\mu\text{V/m}$)	Field Strength ($\mu\text{V/m}$)	Field Strength (dB $\mu\text{V/m}$)
30 - 88	100	40	30	90	39
88 - 216	150	43.5	33.5	150	43.5
216 - 960	200	46	36	210	46.4
Above 960	500	54	44	300	49.5

NOTE:

- 1) Field Strength (dB $\mu\text{V/m}$) = $20 \cdot \log$ [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.

5.1.1.4 Test Result

Please refer to ANNEX A.1.

NOTE:

1. Results (dB $\mu\text{V/m}$) = Reading (dB $\mu\text{V/m}$) + 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 (dBμV)	Average (dBμV)
0.15 - 0.50	79	66
0.50 - 30	73	60

Frequency range (MHz)	Class B	
	Quasi-peak (dBμV)	Average (dBμV)
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 μH 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.

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.

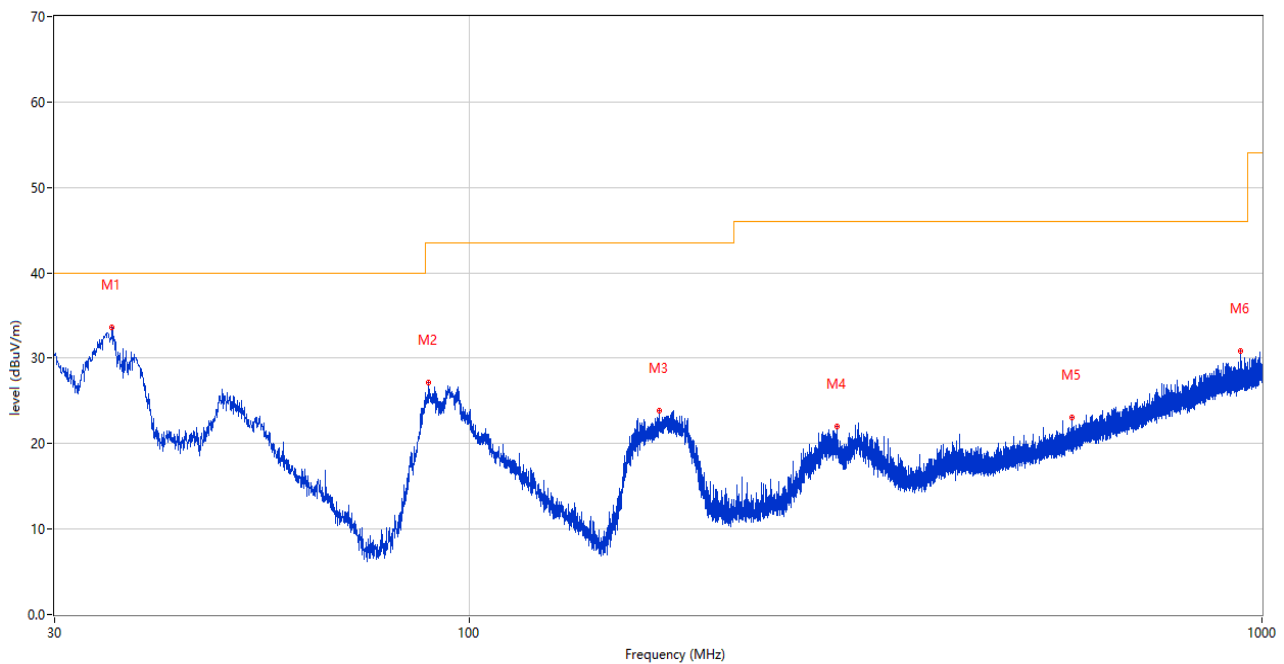
Note 2: For the test data above 1 GHz, according the ANSI C63.4-2014, where limits are specified for both average and peak (or quasi-peak) detector functions, if the peak (or quasi-peak) measured value complies with the average limit, it is unnecessary to perform an average measurement.

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

Test Data and Plots

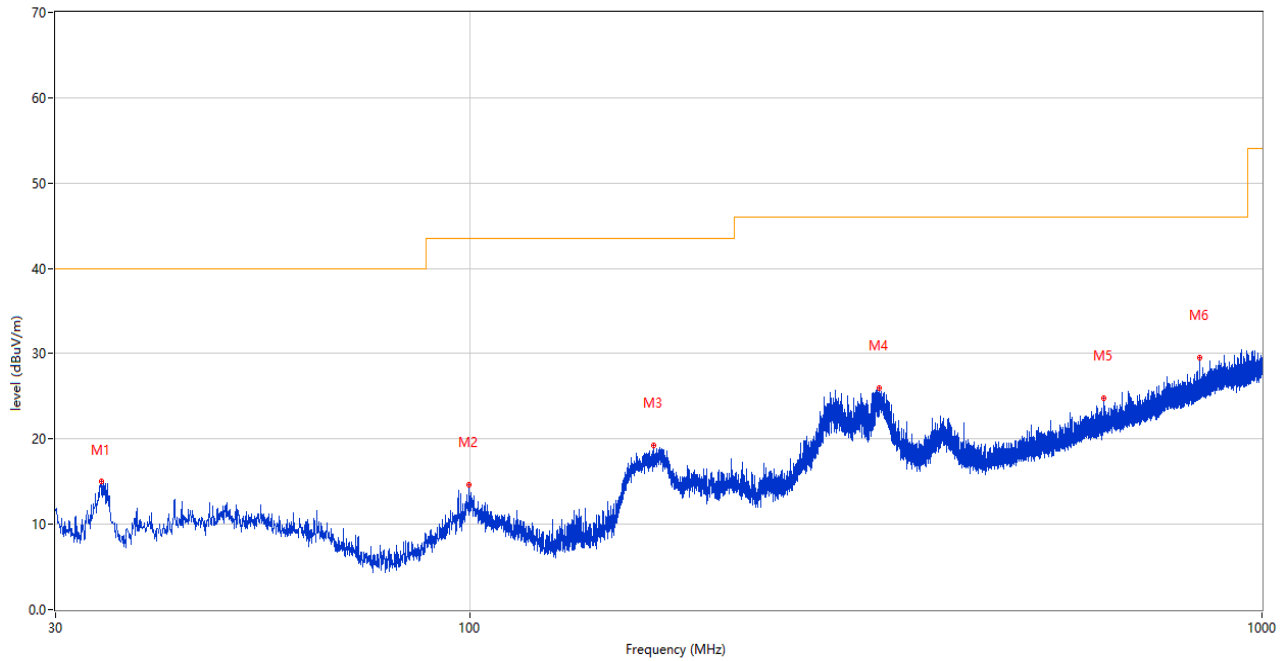
The Camera Test Mode

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



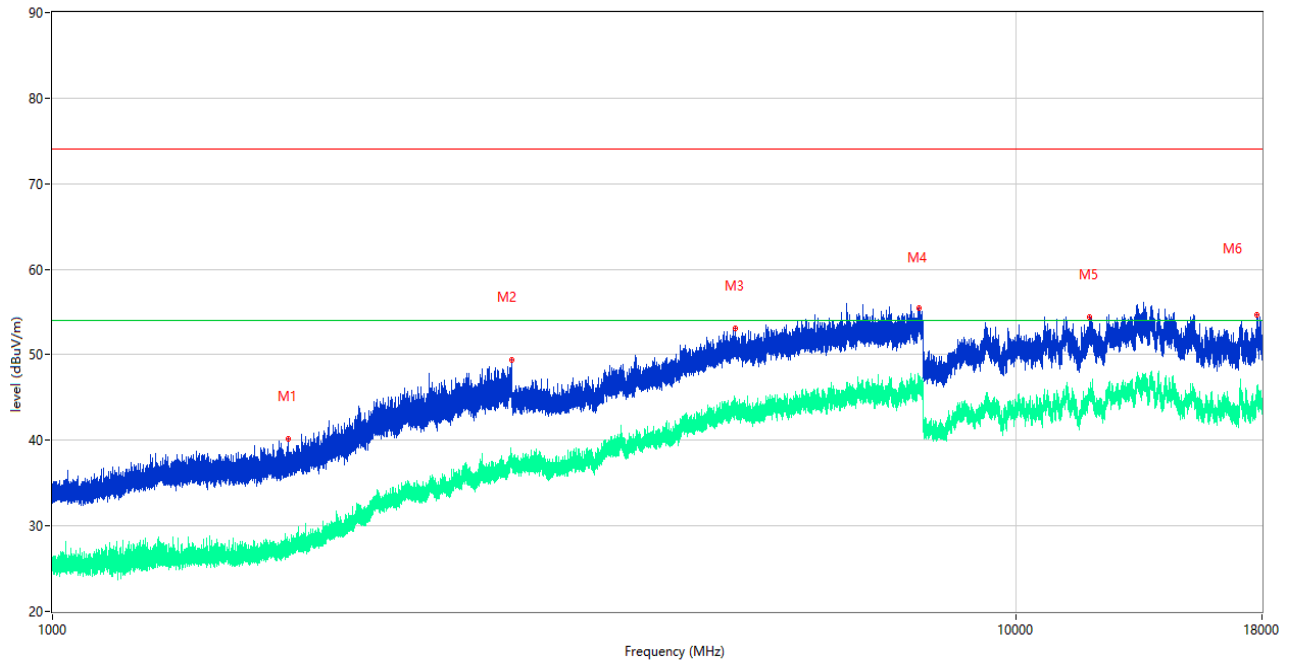
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	35.432	33.62	-28.26	40.0	-6.38	Peak	0.00	100	Vertical	Pass
2	88.976	27.20	-28.85	43.5	-16.30	Peak	361.00	200	Vertical	Pass
3	173.754	23.81	-28.93	43.5	-19.69	Peak	110.00	100	Vertical	Pass
4	291.172	22.05	-23.87	46.0	-23.95	Peak	4.00	100	Vertical	Pass
5	576.013	23.13	-16.91	46.0	-22.87	Peak	361.00	200	Vertical	Pass
6	940.151	30.90	-9.50	46.0	-15.10	Peak	272.00	200	Vertical	Pass

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



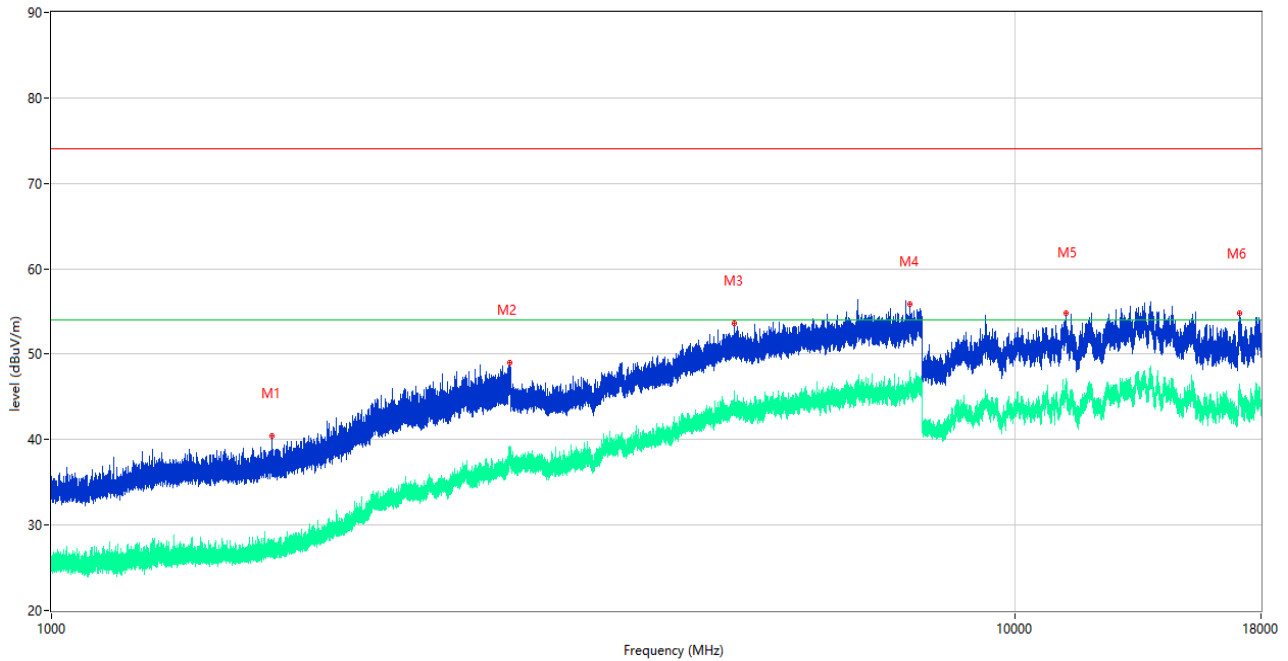
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	34.268	15.08	-28.70	40.0	-24.92	Peak	296.00	200	Horizontal	Pass
2	99.743	14.67	-26.74	43.5	-28.83	Peak	107.00	200	Horizontal	Pass
3	170.602	19.25	-29.17	43.5	-24.25	Peak	360.00	200	Horizontal	Pass
4	328.421	25.95	-22.77	46.0	-20.05	Peak	239.00	100	Horizontal	Pass
5	631.303	24.75	-15.30	46.0	-21.25	Peak	35.00	100	Horizontal	Pass
6	834.227	29.49	-11.11	46.0	-16.51	Peak	222.00	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	1758.300	40.14	-1.86	74.0	-33.86	Peak	179.00	150	Vertical	Pass
1**	1758.300	27.42	-1.86	54.0	-26.58	AV	179.00	150	Vertical	Pass
2	2999.900	49.37	8.68	74.0	-24.63	Peak	203.00	150	Vertical	Pass
2**	2999.900	37.19	8.68	54.0	-16.81	AV	203.00	150	Vertical	Pass
3	5111.750	53.05	0.21	74.0	-20.95	Peak	244.00	150	Vertical	Pass
3**	5111.750	43.86	0.21	54.0	-10.14	AV	244.00	150	Vertical	Pass
4	7939.750	55.51	3.32	74.0	-18.49	Peak	256.00	150	Vertical	Pass
4**	7939.750	46.09	3.32	54.0	-7.91	AV	256.00	150	Vertical	Pass
5	11926.000	54.38	2.47	74.0	-19.62	Peak	245.00	150	Vertical	Pass
5**	11926.000	45.85	2.47	54.0	-8.15	AV	245.00	150	Vertical	Pass
6	17785.500	54.65	2.24	74.0	-19.35	Peak	31.00	150	Vertical	Pass
6**	17785.500	45.33	2.24	54.0	-8.67	AV	31.00	150	Vertical	Pass

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

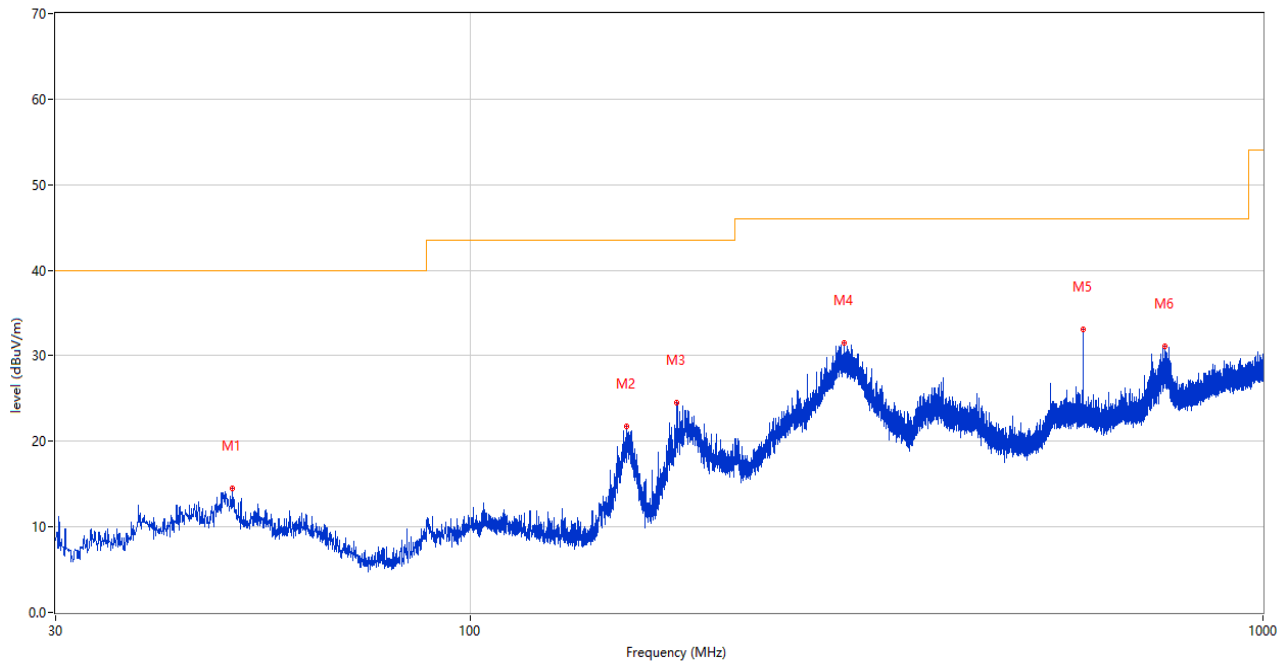


No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1691.900	40.40	-2.88	74.0	-33.60	Peak	98.00	150	Horizontal	Pass
1**	1691.900	27.29	-2.88	54.0	-26.71	AV	98.00	150	Horizontal	Pass
2	2990.100	48.98	8.87	74.0	-25.02	Peak	156.00	150	Horizontal	Pass
2**	2990.100	38.10	8.87	54.0	-15.90	AV	156.00	150	Horizontal	Pass
3	5114.250	53.57	0.15	74.0	-20.43	Peak	106.00	150	Horizontal	Pass
3**	5114.250	43.82	0.15	54.0	-10.18	AV	106.00	150	Horizontal	Pass
4	7770.500	55.86	2.79	74.0	-18.14	Peak	249.00	150	Horizontal	Pass
4**	7770.500	46.75	2.79	54.0	-7.25	AV	249.00	150	Horizontal	Pass
5	11298.500	54.81	2.38	74.0	-19.19	Peak	346.00	150	Horizontal	Pass
5**	11298.500	45.36	2.38	54.0	-8.64	AV	346.00	150	Horizontal	Pass
6	17116.000	54.86	3.49	74.0	-19.14	Peak	190.00	150	Horizontal	Pass
6**	17116.000	44.80	3.49	54.0	-9.20	AV	190.00	150	Horizontal	Pass

Test Data and Plots

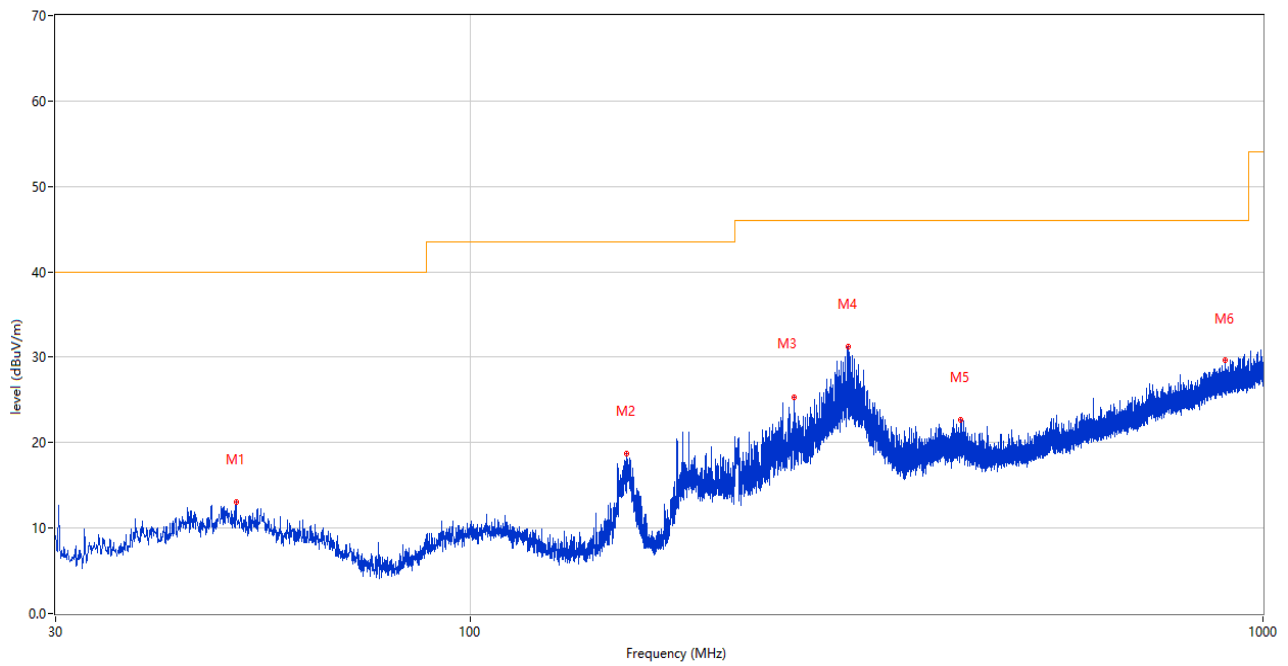
The USB Test Mode

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



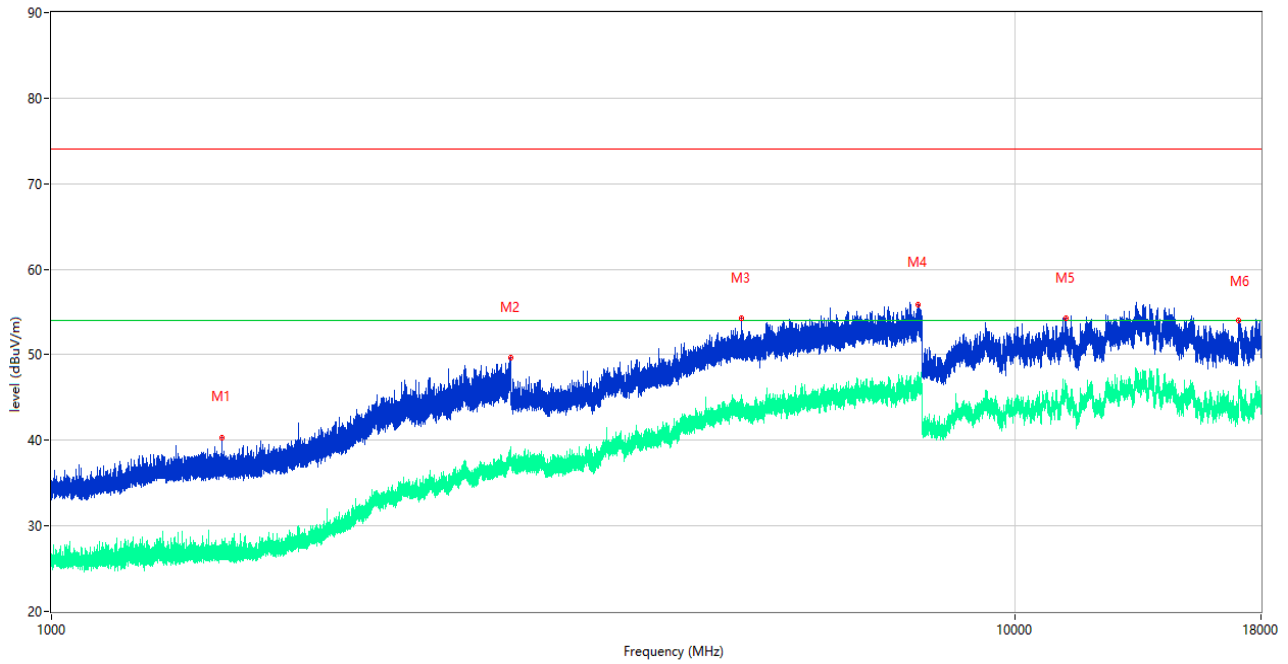
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	50.176	14.48	-25.59	40.0	-25.52	Peak	55.00	100	Vertical	Pass
2	157.555	21.79	-29.73	43.5	-21.71	Peak	92.00	100	Vertical	Pass
3	182.387	24.47	-28.28	43.5	-19.03	Peak	92.00	100	Vertical	Pass
4	296.022	31.51	-23.82	46.0	-14.49	Peak	360.00	200	Vertical	Pass
5	593.958	33.12	-16.07	46.0	-12.88	Peak	172.00	200	Vertical	Pass
6	751.486	31.10	-12.71	46.0	-14.90	Peak	360.00	200	Vertical	Pass

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



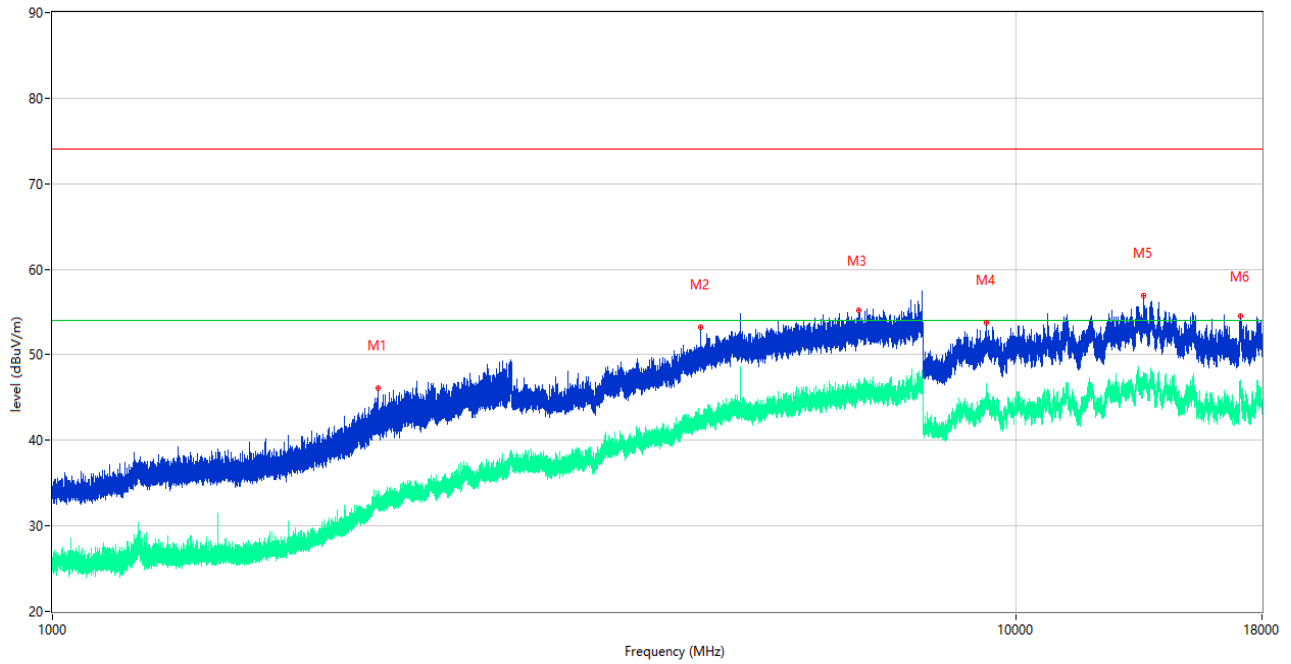
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	50.661	13.08	-25.53	40.0	-26.92	Peak	329.00	100	Horizontal	Pass
2	157.700	18.76	-29.72	43.5	-24.74	Peak	360.00	200	Horizontal	Pass
3	256.058	25.29	-24.62	46.0	-20.71	Peak	122.00	100	Horizontal	Pass
4	300.000	31.30	-23.67	46.0	-14.70	Peak	68.00	100	Horizontal	Pass
5	415.624	22.64	-20.47	46.0	-23.36	Peak	52.00	200	Horizontal	Pass
6	894.804	29.62	-10.00	46.0	-16.38	Peak	59.00	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	1504.100	40.24	-3.61	74.0	-33.76	Peak	360.00	150	Vertical	Pass
1**	1504.100	26.69	-3.61	54.0	-27.31	AV	360.00	150	Vertical	Pass
2	2993.600	49.67	8.88	74.0	-24.33	Peak	360.00	150	Vertical	Pass
2**	2993.600	37.82	8.88	54.0	-16.18	AV	360.00	150	Vertical	Pass
3	5198.500	54.31	0.34	74.0	-19.69	Peak	332.00	150	Vertical	Pass
3**	5198.500	44.28	0.34	54.0	-9.72	AV	332.00	150	Vertical	Pass
4	7926.500	55.91	3.05	74.0	-18.09	Peak	308.00	150	Vertical	Pass
4**	7926.500	46.39	3.05	54.0	-7.61	AV	308.00	150	Vertical	Pass
5	11305.500	54.33	2.24	74.0	-19.67	Peak	156.00	150	Vertical	Pass
5**	11305.500	45.69	2.24	54.0	-8.31	AV	156.00	150	Vertical	Pass
6	17078.000	54.03	2.89	74.0	-19.97	Peak	103.00	150	Vertical	Pass
6**	17078.000	46.41	2.89	54.0	-7.59	AV	103.00	150	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	2177.600	46.09	3.83	74.0	-27.91	Peak	160.00	150	Horizontal	Pass
1**	2177.600	32.81	3.83	54.0	-21.19	AV	160.00	150	Horizontal	Pass
2	4706.250	53.21	-0.91	74.0	-20.79	Peak	114.00	150	Horizontal	Pass
2**	4706.250	41.58	-0.91	54.0	-12.42	AV	114.00	150	Horizontal	Pass
3	6871.000	55.26	1.79	74.0	-18.74	Peak	0.00	150	Horizontal	Pass
3**	6871.000	46.59	1.79	54.0	-7.41	AV	0.00	150	Horizontal	Pass
4	9319.999	53.73	2.18	74.0	-20.27	Peak	311.00	150	Horizontal	Pass
4**	9319.999	44.95	2.18	54.0	-9.05	AV	311.00	150	Horizontal	Pass
5	13580.000	56.88	4.72	74.0	-17.12	Peak	31.00	150	Horizontal	Pass
5**	13580.000	47.55	4.72	54.0	-6.45	AV	31.00	150	Horizontal	Pass
6	17093.500	54.51	3.50	74.0	-19.49	Peak	101.00	150	Horizontal	Pass
6**	17093.500	45.70	3.50	54.0	-8.30	AV	101.00	150	Horizontal	Pass

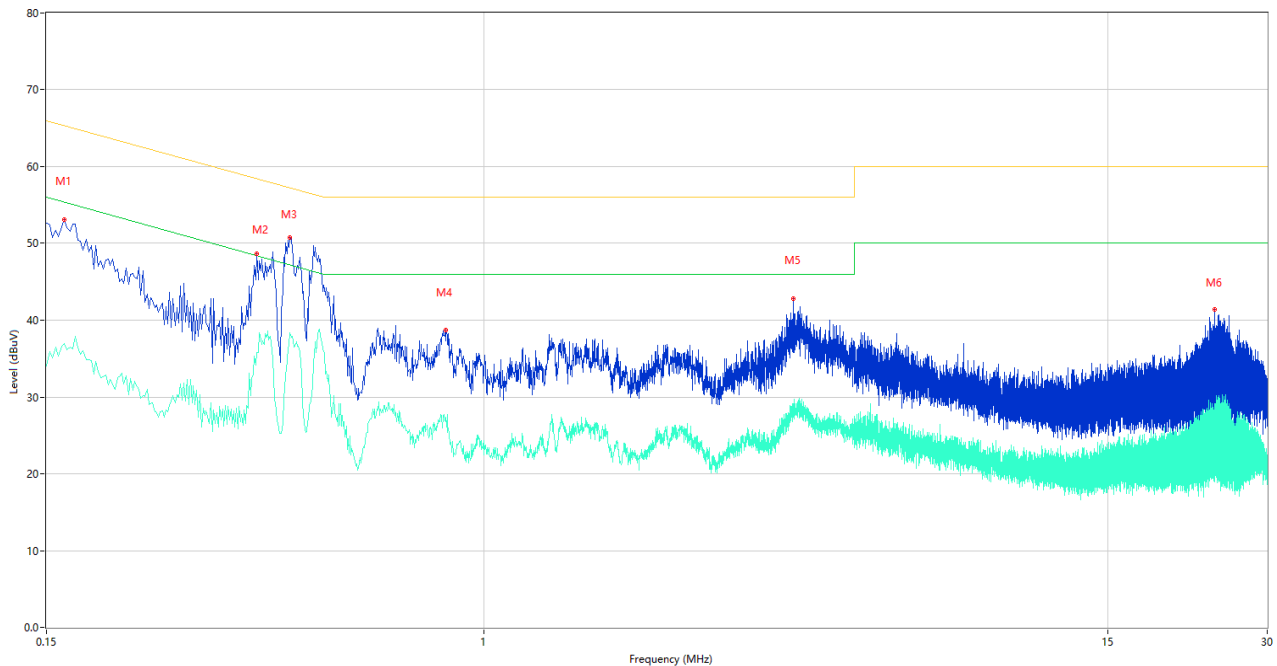
A.2 Conducted Emission

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

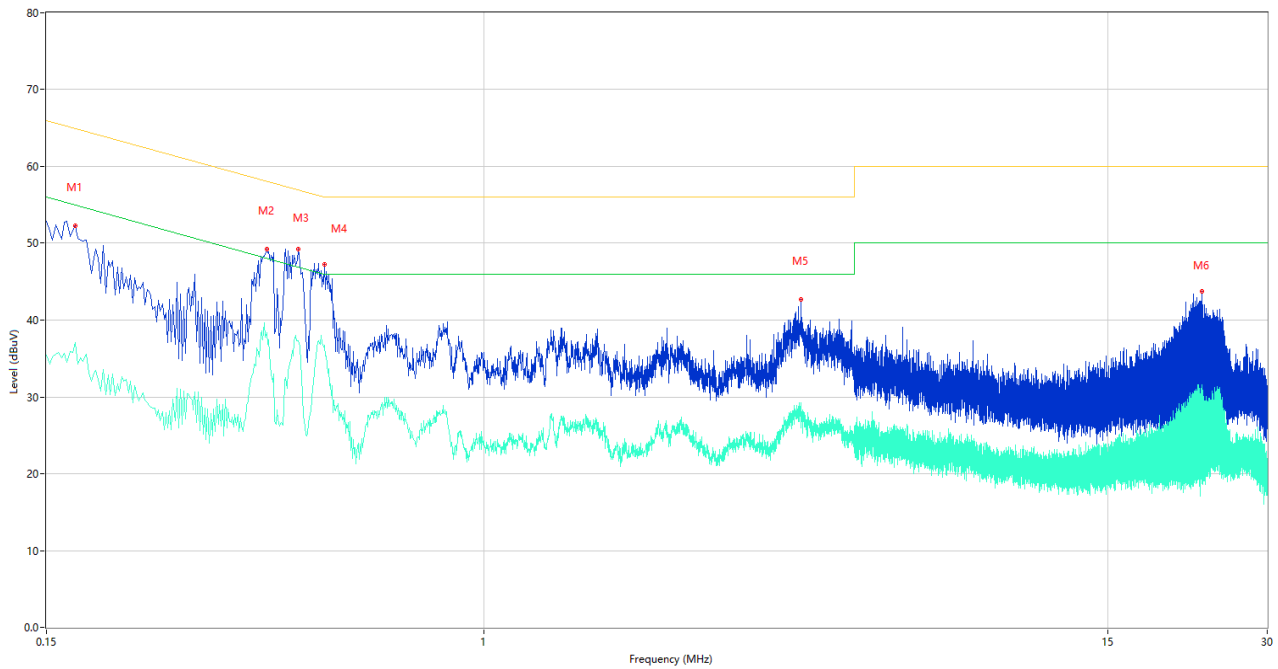
The Camera Test Mode

A.2.1 L Phase



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Over Limit (dB)	Detector	Line	Verdict
1	0.162	53.15	10.17	65.36	-12.21	Peak	L	Pass
1**	0.162	36.91	10.17	55.36	-18.45	AV	L	Pass
2	0.374	48.64	10.08	58.41	-9.77	Peak	L	Pass
2**	0.374	35.82	10.08	48.41	-12.59	AV	L	Pass
3	0.432	50.81	10.10	57.21	-6.40	Peak	L	Pass
3**	0.432	38.37	10.10	47.21	-8.84	AV	L	Pass
4	0.850	38.74	10.05	56.00	-17.26	Peak	L	Pass
4**	0.850	27.42	10.05	46.00	-18.58	AV	L	Pass
5	3.834	42.82	10.09	56.00	-13.18	Peak	L	Pass
5**	3.834	28.79	10.09	46.00	-17.21	AV	L	Pass
6	23.850	41.35	10.18	60.00	-18.65	Peak	L	Pass
6**	23.850	28.58	10.18	50.00	-21.42	AV	L	Pass

A.2.2 N Phase

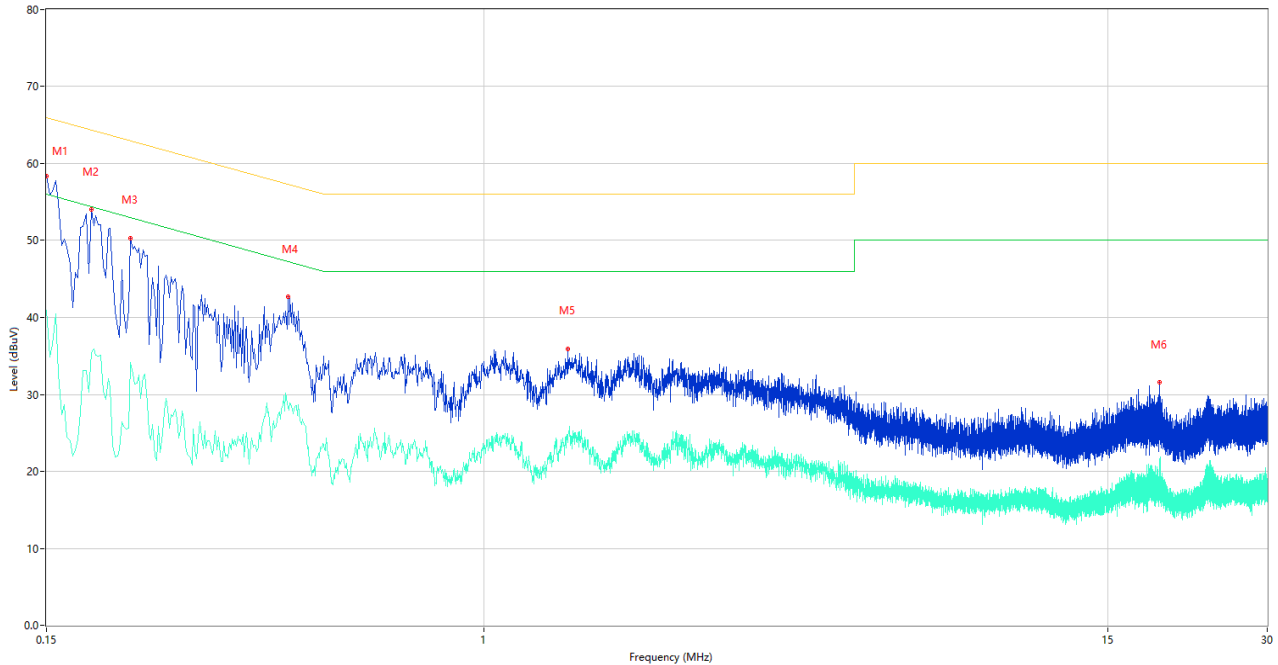


No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Over Limit (dB)	Detector	Line	Verdict
1	0.170	52.24	10.15	64.96	-12.72	Peak	N	Pass
1**	0.170	37.03	10.15	54.96	-17.93	AV	N	Pass
2	0.390	49.30	10.09	58.06	-8.76	Peak	N	Pass
2**	0.390	38.40	10.09	48.06	-9.66	AV	N	Pass
3	0.448	49.24	10.10	56.91	-7.67	Peak	N	Pass
3**	0.448	37.27	10.10	46.91	-9.64	AV	N	Pass
4	0.502	47.20	10.11	56.00	-8.80	Peak	N	Pass
4**	0.502	36.71	10.11	46.00	-9.29	AV	N	Pass
5	3.970	42.67	10.09	56.00	-13.33	Peak	N	Pass
5**	3.970	28.09	10.09	46.00	-17.91	AV	N	Pass
6	22.574	43.71	10.27	60.00	-16.29	Peak	N	Pass
6**	22.574	30.15	10.27	50.00	-19.85	AV	N	Pass

Test Data and Plots

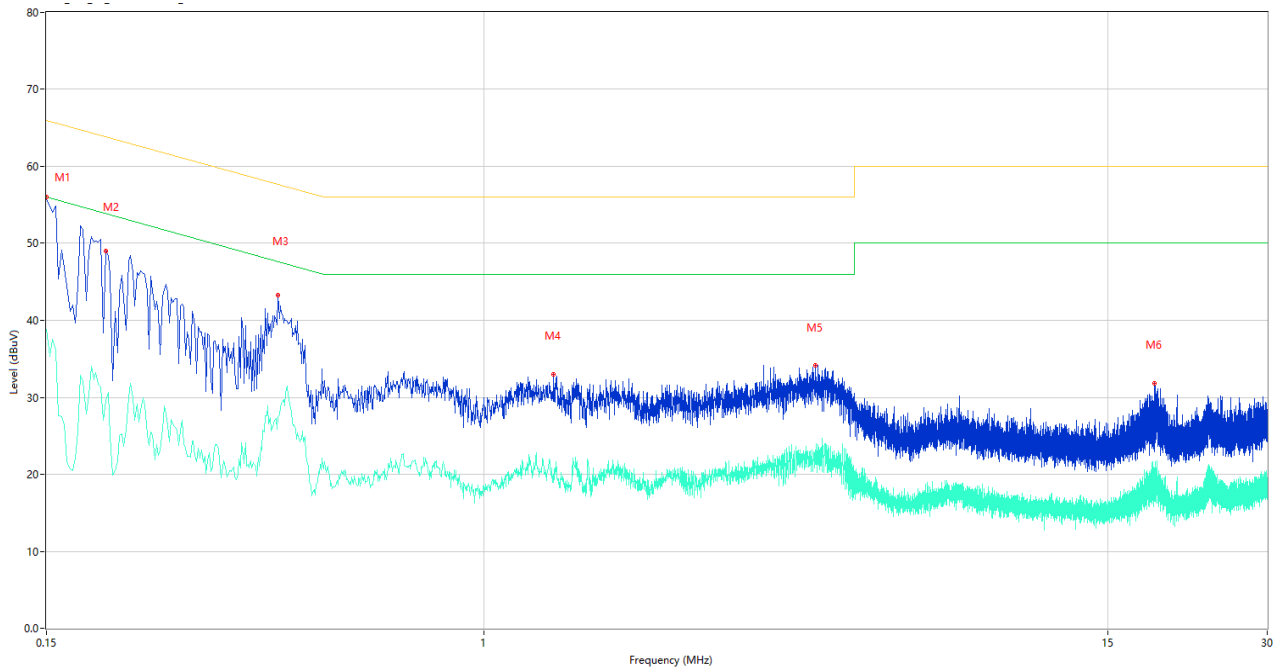
The USB Test Mode

A.2.3 L Phase



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Over Limit (dB)	Detector	Line	Verdict
1	0.150	58.40	10.19	66.00	-7.60	Peak	L	Pass
1**	0.150	40.94	10.19	56.00	-15.06	AV	L	Pass
2	0.182	53.98	10.13	64.39	-10.41	Peak	L	Pass
2**	0.182	35.41	10.13	54.39	-18.98	AV	L	Pass
3	0.216	50.28	10.09	62.97	-12.69	Peak	L	Pass
3**	0.216	34.14	10.09	52.97	-18.83	AV	L	Pass
4	0.428	42.74	10.10	57.29	-14.55	Peak	L	Pass
4**	0.428	28.34	10.10	47.29	-18.95	AV	L	Pass
5	1.444	35.95	9.95	56.00	-20.05	Peak	L	Pass
5**	1.444	24.50	9.95	46.00	-21.50	AV	L	Pass
6	18.834	31.59	10.22	60.00	-28.41	Peak	L	Pass
6**	18.834	21.42	10.22	50.00	-28.58	AV	L	PassF

A.2.4 N Phase



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Over Limit (dB)	Detector	Line	Verdict
1	0.150	55.82	10.19	66.00	-10.18	Peak	N	Pass
1**	0.150	38.82	10.19	56.00	-17.18	AV	N	Pass
2	0.194	49.00	10.11	63.86	-14.86	Peak	N	Pass
2**	0.194	29.60	10.11	53.86	-24.26	AV	N	Pass
3	0.410	43.23	10.09	57.65	-14.42	Peak	N	Pass
3**	0.410	27.50	10.09	47.65	-20.15	AV	N	Pass
4	1.356	33.03	9.97	56.00	-22.97	Peak	N	Pass
4**	1.356	19.71	9.97	46.00	-26.29	AV	N	Pass
5	4.218	34.12	10.06	56.00	-21.88	Peak	N	Pass
5**	4.218	22.65	10.06	46.00	-23.35	AV	N	Pass
6	18.366	31.84	10.20	60.00	-28.16	Peak	N	Pass
6**	18.366	18.65	10.20	50.00	-31.35	AV	N	Pass

ANNEX B TEST SETUP PHOTOS

Please refer the document “BL-SZ21B0604-AE.PDF”.

ANNEX C EUT EXTERNAL PHOTOS

Please refer the document “BL-SZ21B0604-AW.PDF”.

ANNEX D EUT INTERNAL PHOTOS

Please refer the document “BL-SZ21B0604-AI.PDF”.

--END OF REPORT--