

FCC
EMC
TEST REPORT

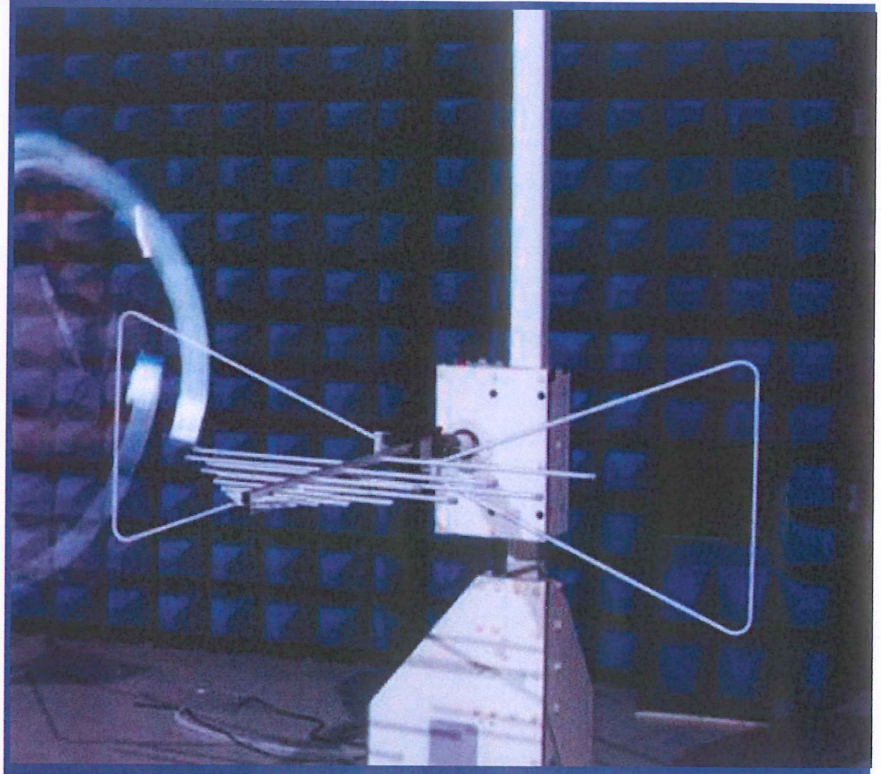
ISSUED BY
Shenzhen BALUN Technology Co., Ltd.



FOR
A1776 Flip Phone

ISSUED TO
Lan Global Inc

12031 Sherman Rd, North Hollywood, CA, USA



Tested by: Xia Long
Xia Long

Date: Mar. 09, 2020

Approved by: Wei Yanquan
Wei Yanquan
(Chief Engineer)

Date: Mar. 9, 2020

Report No.: BL-SZ1990123-401
EUT Name: A1776 Flip Phone
Model Name: A1776
Brand Name: ECS
Test Standard: 47 CFR Part 15 Subpart B
FCC ID: 2AUBNA1776

Test Conclusion: Pass
Test Date: Sep. 10, 2019 ~ Mar. 09, 2020
Date of Issue: Mar. 09, 2020

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Revision History

Version	Issue Date	Revisions Content
<u>Rev. 01</u>	<u>Mar. 05, 2020</u>	<u>Initial Issue</u>
<u>Rev. 02</u>	<u>Mar. 09, 2020</u>	<u>Added FM Mode test in page 11; Added FM Wireless connectivity in page 11; Updated Calibration Date of the Test Equipment List in page 8.</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, 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 has been listed by Industry Canada to perform electromagnetic emission measurements. The recognition numbers of test site are 11524A-1. The laboratory is a testing organization accredited by FCC as a accredited testing laboratory. The designation number is CN1196. The laboratory is a testing organization accredited by American Association for Laboratory Accreditation(A2LA) according to ISO/IEC 17025.The accreditation certificate is 4344.01. The laboratory is a testing organization accredited by China National Accreditation Service for Conformity Assessment (CNAS) according to ISO/IEC 17025. The accreditation certificate number is L6791.
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	45% to 55%
Ambient Pressure	100 kPa to 102 kPa

1.4 Announce

- (1) The test report refer to the BALUN report mode v6.7.
- (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.

2 PRODUCT INFORMATION

2.1 Applicant Information

Applicant	Lan Global Inc
Address	12031 Sherman Rd, North Hollywood, CA, USA

2.2 Manufacturer Information

Manufacturer	Lan Global Inc
Address	12031 Sherman Rd, North Hollywood, CA, USA

2.3 Factory Information

Factory	N/A
Address	N/A

2.4 General Description for Equipment under Test (EUT)

EUT Name	A1776 Flip Phone
Model Name Under Test	A1776
Series Model Name	N/A
Description of Model name differentiation	N/A
Hardware Version	DVT
Software Version	N/A
Dimensions (Approx.)	N/A
Weight (Approx.)	N/A

2.5 Ancillary Equipment

Ancillary Equipment 1	Battery	
	Brand Name	N/A
	Model No.	A1776
	Serial No.	N/A
	Capacity	2000 mAh
	Rated Voltage	3.8 V
	Limit Charge Voltage	4.35 V
Ancillary Equipment 2	Adapter	
	Brand Name	N/A
	Model No.	RD0501000-USBA-18MG
	Serial No.	N/A
	Rated Input	100-240 V~, 0.25 A, 60/50 Hz
	Rated Output	5 V= 1 A
Ancillary Equipment 3	Charging Dock	
	Brand Name	N/A
	Model No.	A1776-D0CK
	Serial No.	N/A
	Rated Input	5 V= 0.55 A
	Rated Output	5 V= 0.55 A
Ancillary Equipment 4	USB Cable	
	Model No.	N/A
	Length (Approx.)	1 m

2.6 Technical Information

Network and Wireless connectivity	3G Network CDMA BC0, BC1, BC10 EVDO BC0, BC1, BC10 4G Network FDD LTE Band 2/4/5/12/13/25/26/71 TDD LTE Band 41 Bluetooth, WIFI, GPS, GLONASS, FM
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3 SUMMARY OF TEST RESULTS

3.1 Test Standards

No.	Identity	Document Title
1	FCC 47 CFR Part 15 Subpart B (10-1-17 Edition)	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)	3.23 dB
Radiated emissions (30 MHz-1 GHz)	4.30 dB
Radiated emissions (1 GHz-18 GHz)	4.81 dB
Radiated emissions (18 GHz-40 GHz)	5.71 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)	23°C to 25°C	AC 120 V/60 Hz or or DC 3.8 V from battery	50% to 55%	100 kPa to 102 kPa

4.2 Test Equipment List

Radiated Emission Test For Frequency Below 1 GHz						
Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due	Use
EMI Receiver	ROHDE&SCHWARZ	ESRP	101036	2019.07.04	2020.07.03	☒
Test Antenna-Bi-Log	SCHWARZBECK	VULB 9163	9163-624	2018.08.22	2020.08.21	☒
Test Antenna-Horn	SCHWARZBECK	BBHA 9120D	9120D-1600	2018.07.11	2020.07.10	☐
Anechoic Chamber	EMC Electronic Co., Ltd	20.10*11.60 *7.35m	N/A	2018.08.08	2020.08.07	☒
Test Software	BALUN	BL410_E	V19.419	--	--	☒

Radiated Emission Test For Frequency Above 1 GHz						
Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due	Use
EMI Receiver	KEYSIGHT	N9038A	MY53220118	2019.10.29	2020.10.28	☒
Test Antenna-Bi-Log	SCHWARZBECK	VULB 9163	9163-624	2018.08.22	2020.08.21	☐
Test Antenna-Horn	SCHWARZBECK	BBHA 9120D	9120D-1148	2018.07.11	2020.07.10	☒
Anechoic Chamber	RAINFORD	9m*6m*6m	N/A	2020.02.20	2023.02.19	☒
Test Software	BALUN	BL410_E	V19.419	--	--	☒

Conducted Emission Test						
Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due	Use
EMI Receiver	KEYSIGHT	N9010B	MY57110309	2019.06.13	2020.06.12	☒
LISN	SCHWARZBECK	NSLK 8127	8127-687	2019.07.04	2020.07.03	☒
ISN	TESEQ	ISN T800	34449	2019.10.29	2020.10.28	☐
Shielded Enclosure	ChangNing	CN-130701	130703	N/A	N/A	☒
Test Software	BALUN	BL410_E	V19.419	--	--	☒

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	☒
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	☐
Wireless Communications Test Set	R&S	CMW500	142028	N/A	Cal. Due 2020.06.13	☒

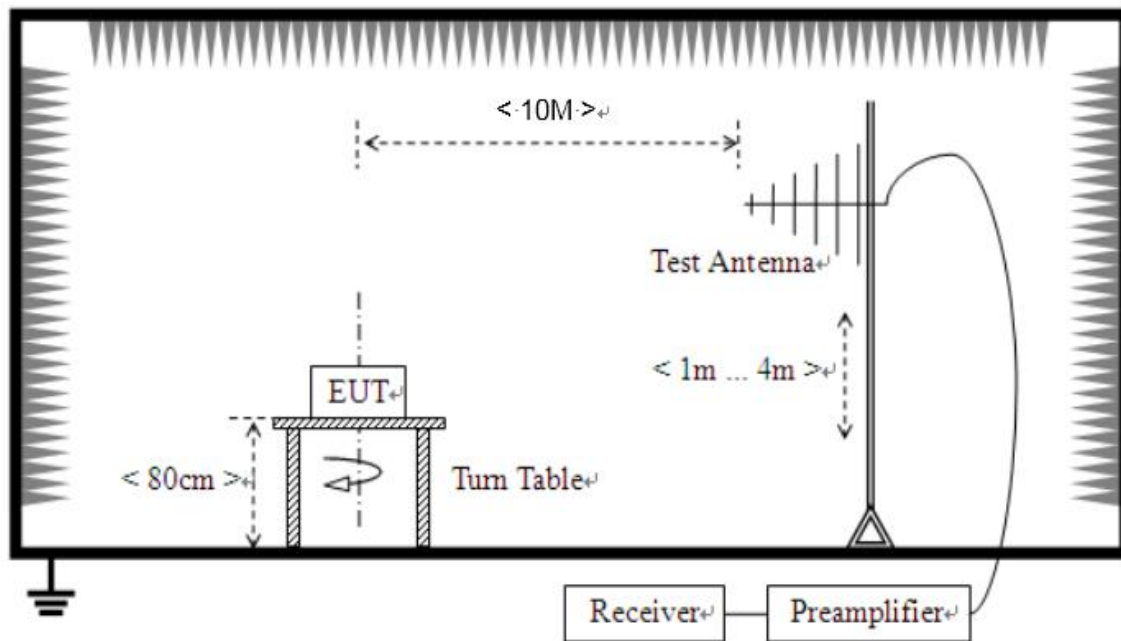
4.4 Test Configurations

Test Configurations (TC) No.	Description
Traffic Test Mode	
TC01	<u>The CDMA BC0 Test Mode</u> CDMA BC0 Link + Battery + Adapter + USB Cable + TF Card + Earphone +BT Link + WIFI Link + GPS RX
TC02	<u>The CDMA BC1 Test Mode</u> CDMA BC1 Link + Battery + Adapter + USB Cable + TF Card + Earphone +BT Link + WIFI Link + GLONASS RX
TC03	<u>The CDMA BC10 Test Mode</u> CDMA BC10 Link + Battery + Adapter + USB Cable + TF Card + Earphone +BT Link + WIFI Link + GPS RX
TC04	<u>The EVDO BC0 Test Mode</u> EVDO BC0 Link + Battery + Adapter + USB Cable + TF Card + Earphone +BT Link + WIFI Link + GLONASS RX
TC05	<u>The EVDO BC1 Test Mode</u> EVDO BC1 Link + Battery + Adapter + USB Cable + TF Card + Earphone +BT Link + WIFI Link + GPS RX
TC06	<u>The EVDO BC10 Test Mode</u> EVDO BC10 Link + Battery + Adapter + USB Cable + TF Card + Earphone +BT Link + WIFI Link + GLONASS RX
TC07	<u>The FDD LTE Band 2 Test Mode</u> LTE Band 2 Link + Battery + Adapter + USB Cable + TF Card + Earphone +BT Link + WIFI Link + GPS RX
TC08	<u>The FDD LTE Band 4 Test Mode</u> EUT + Battery + Adapter + USB Cable + TF Card + Earphone +BT Link + WIFI Link + FDD LTE Band 4 Link + GLONASS RX
TC09	<u>The FDD LTE Band 5 Test Mode</u> LTE Band 5 Link + Battery + Adapter + USB Cable + TF Card + Earphone +BT Link + WIFI Link + GPS RX
TC10	<u>The FDD LTE Band 12 Test Mode</u> LTE Band 12 Link + Battery + Adapter + USB Cable + TF Card + Earphone +BT Link + WIFI Link + GLONASS RX
TC11	<u>The FDD LTE Band 13 Test Mode</u> LTE Band 13 Link + Battery + Adapter + USB Cable + TF Card + Earphone +BT Link + WIFI Link + GPS RX
TC12	<u>The FDD LTE Band 25 Test Mode</u> LTE Band 25 Link + Battery + Adapter + USB Cable + TF Card + Earphone +BT Link + WIFI Link + GLONASS RX
TC13	<u>The FDD LTE Band 26 Test Mode</u> LTE Band 26 Link + Battery + Adapter + USB Cable + TF Card + Earphone +BT Link + WIFI Link + GPS RX
TC14	<u>The FDD LTE Band 41 Test Mode</u>

	LTE Band 41 Link + Battery + Adapter + USB Cable + TF Card + Earphone +BT Link + WIFI Link + GLONASS RX
TC15	<u>The FDD LTE Band 71 Test Mode</u> LTE Band 71 Link + Battery + Adapter + USB Cable + TF Card + Earphone +BT Link + WIFI Link + GPS RX
TC16	<u>The FM Test Mode</u> EUT + Battery + Adapter + USB Cable + TF Card + Earphone + FM RX
Amusement Test Mode	
TC17	<u>The Camera Test Mode</u> EUT + Battery + Adapter + USB Cable + TF Card + BT Link + WIFI Link
TC18	<u>The Play Video Test Mode</u> EUT + Battery + Adapter + USB Cable + TF Card + Earphone + BT Link + WIFI Link
TC19	<u>The USB Test Mode</u> EUT + USB Cable + Apple Laptop + TF Card + Earphone

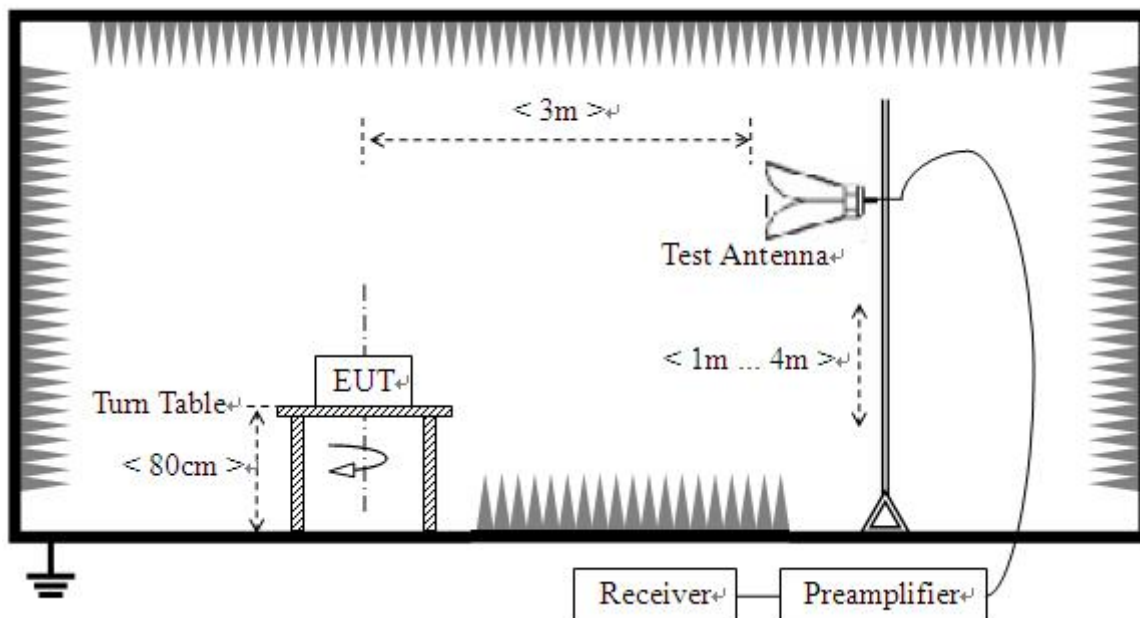
4.5 Test Setups

Test Setup 1



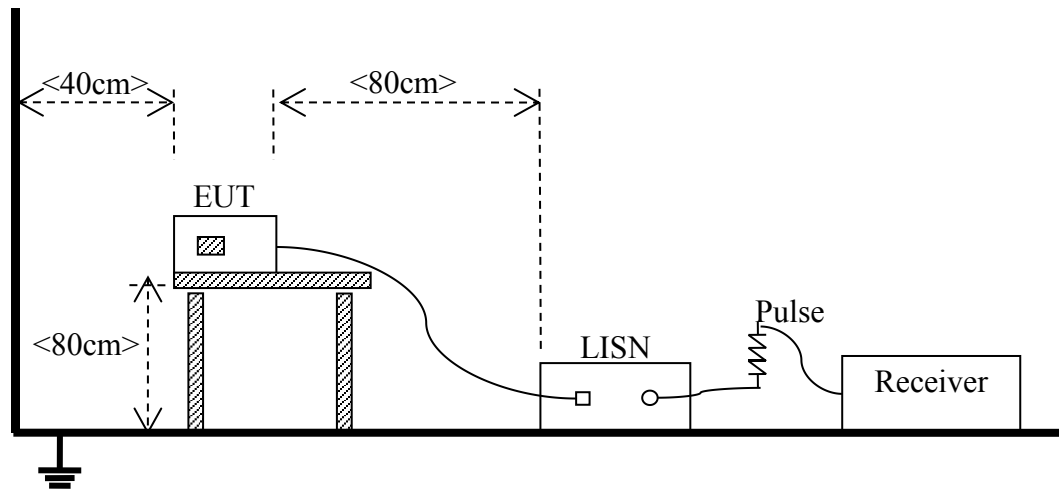
(For Radiated Emission Test (30 MHz-1 GHz))

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~TC19 ^{Note}
Conducted Emission, AC Ports	Test Env.	NTNV
	Test Setup	Test Setup 3
	Test Configuration	TC01~TC19 ^{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 μV) + 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/m) = Reading (dBuV) + Factor (dB/m)

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

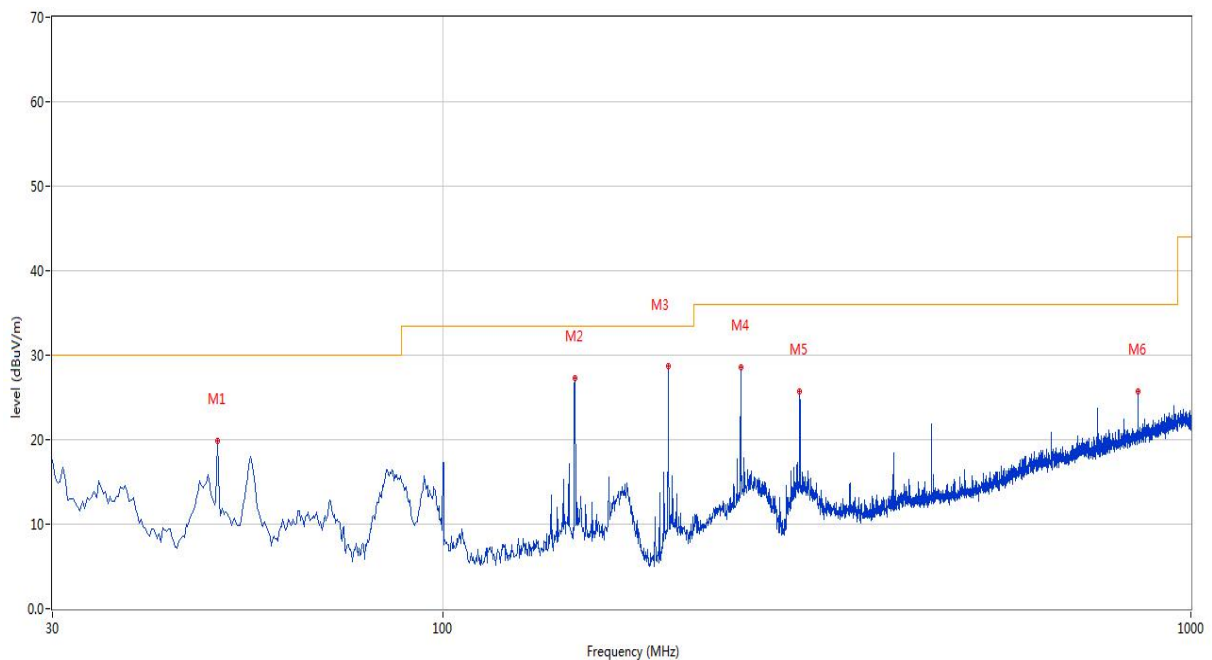
Note 1: The symbol of “--” in the table which means not application.

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.

Test Data and Plots

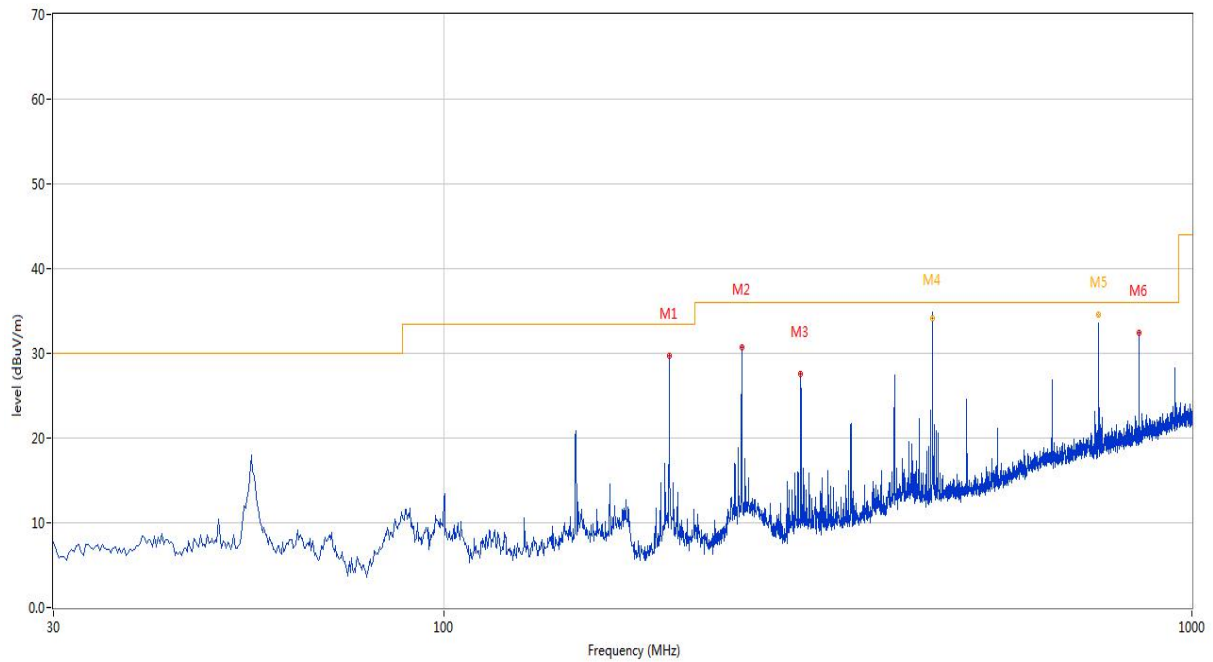
The Camera Test Mode

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



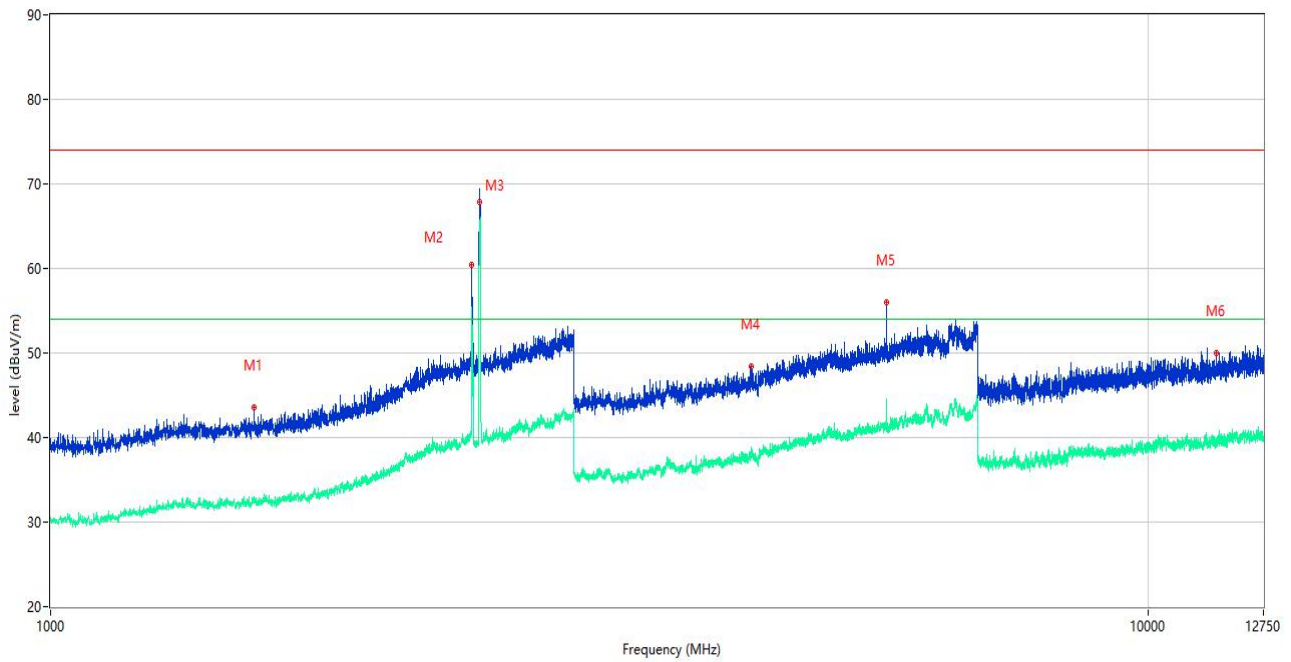
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	49.880	19.81	-27.28	30.0	-10.19	Peak	29.00	200	Vertical	Pass
2	150.007	27.35	-25.94	33.5	-6.15	Peak	212.00	100	Vertical	Pass
3	199.950	28.78	-29.71	33.5	-4.72	Peak	300.00	100	Vertical	Pass
4	249.893	28.56	-27.39	36.0	-7.44	Peak	161.00	100	Vertical	Pass
5	299.835	25.77	-25.89	36.0	-10.23	Peak	0.00	200	Vertical	Pass
6	849.930	25.75	-13.47	36.0	-10.25	Peak	142.00	300	Vertical	Pass

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



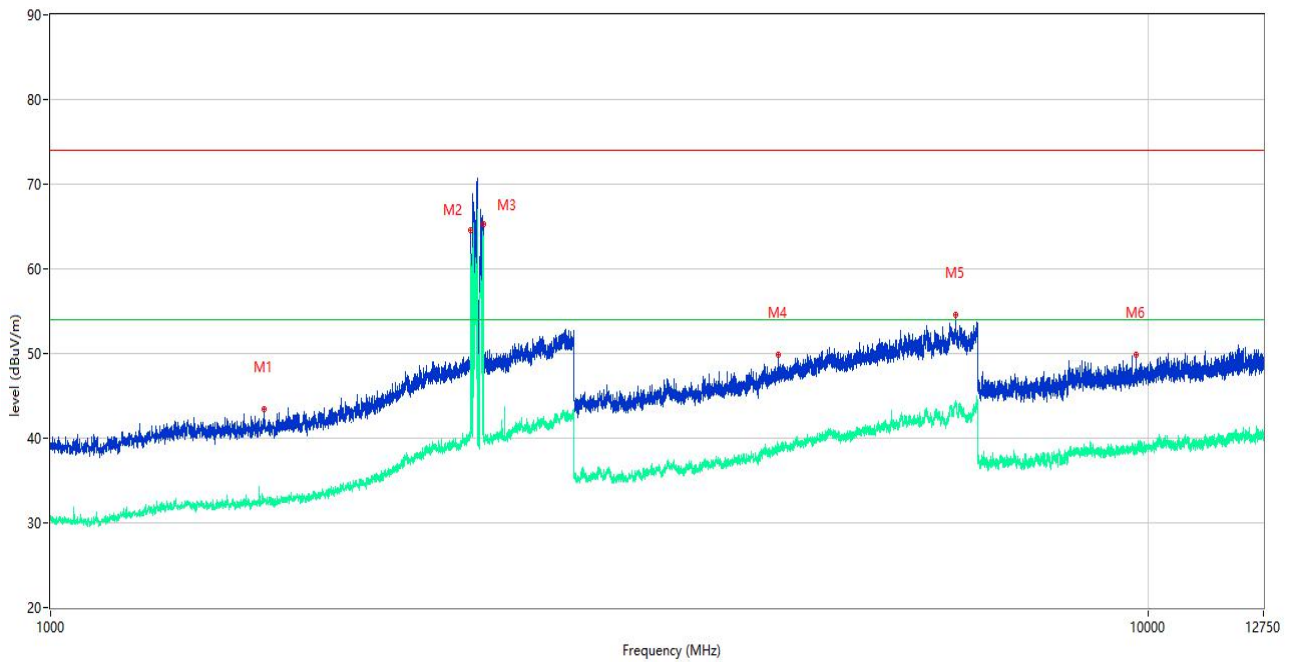
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	199.950	29.67	-29.71	33.5	-3.83	Peak	149.00	400	Horizontal	Pass
2	249.893	30.76	-27.39	36.0	-5.24	Peak	218.00	400	Horizontal	Pass
3	299.835	27.55	-25.89	36.0	-8.45	Peak	237.00	300	Horizontal	Pass
4	449.999	36.15	-21.47	36.0	0.15	Peak	174.00	196	Horizontal	N/A
4*	449.999	34.20	-21.47	36.0	-1.80	QP	174.00	196	Horizontal	Pass
5	749.999	36.60	-14.90	36.0	0.60	Peak	180.00	135	Horizontal	N/A
5*	749.999	34.56	-14.90	36.0	-1.44	QP	180.00	135	Horizontal	Pass
6	849.930	32.44	-13.47	36.0	-3.56	Peak	161.00	100	Horizontal	Pass

A.1.3 Test Antenna Vertical, 1 GHz – 12.75 GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1**	1533.500	32.81	-15.04	54.0	-21.19	AV	348.00	100	Vertical	Pass
1	1533.500	43.52	-15.04	74.0	-30.48	Peak	348.00	100	Vertical	Pass
2**	2420.500	40.40	-8.68	54.0	-13.60	AV	204.00	100	Vertical	N/A
2	2420.500	60.37	-8.68	74.0	-13.63	Peak	204.00	100	Vertical	N/A
3**	2461.000	64.49	-10.09	54.0	10.49	AV	170.00	100	Vertical	N/A
3	2461.000	67.88	-10.09	74.0	-6.12	Peak	170.00	100	Vertical	N/A
4**	4355.000	37.95	-3.94	54.0	-16.05	AV	167.00	100	Vertical	Pass
4	4355.000	48.39	-3.94	74.0	-25.61	Peak	167.00	100	Vertical	Pass
5**	5779.000	41.24	-1.70	54.0	-12.76	AV	308.00	100	Vertical	Pass
5	5779.000	56.04	-1.70	74.0	-17.96	Peak	308.00	100	Vertical	Pass
6**	11542.500	38.81	-0.26	54.0	-15.19	AV	331.00	100	Vertical	Pass
6	11542.500	49.97	-0.26	74.0	-24.03	Peak	331.00	100	Vertical	Pass

A.1.4 Test Antenna Horizontal, 1 GHz –12.75 GHz

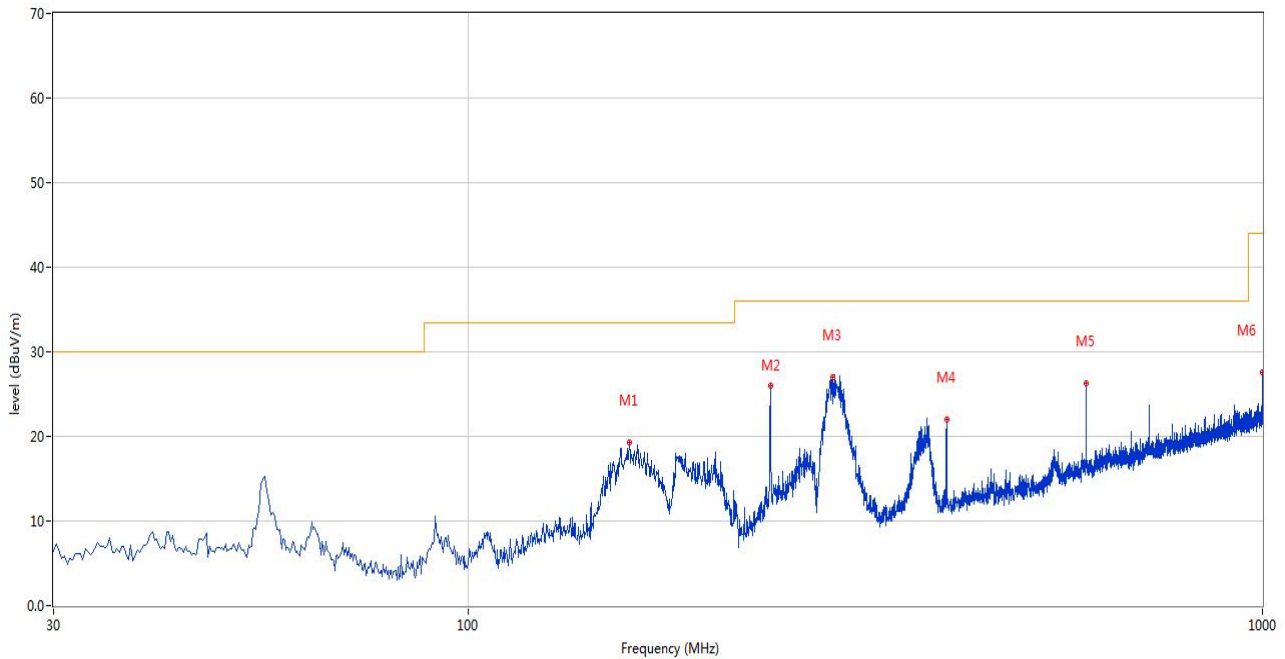


No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1**	1566.500	32.49	-14.98	54.0	-21.51	AV	154.00	100	Horizontal	Pass
1	1566.500	43.42	-14.98	74.0	-30.58	Peak	154.00	100	Horizontal	Pass
2**	2415.500	56.01	-8.85	54.0	2.01	AV	87.00	100	Horizontal	N/A
2	2415.500	64.63	-8.85	74.0	-9.37	Peak	87.00	100	Horizontal	N/A
3**	2480.000	58.82	-9.20	54.0	4.82	AV	221.00	100	Horizontal	N/A
3	2480.000	65.27	-9.20	74.0	-8.73	Peak	221.00	100	Horizontal	N/A
4**	4610.000	38.37	-4.23	54.0	-15.63	AV	139.00	100	Horizontal	Pass
4	4610.000	49.81	-4.23	74.0	-24.19	Peak	139.00	100	Horizontal	Pass
5**	6689.000	43.83	-0.03	54.0	-10.17	AV	224.00	100	Horizontal	Pass
5	6689.000	54.54	-0.03	74.0	-19.46	Peak	224.00	100	Horizontal	Pass
6**	9768.625	38.19	0.09	54.0	-15.81	AV	59.00	100	Horizontal	Pass
6	9768.625	49.90	0.09	74.0	-24.10	Peak	59.00	100	Horizontal	Pass

Test Data and Plots

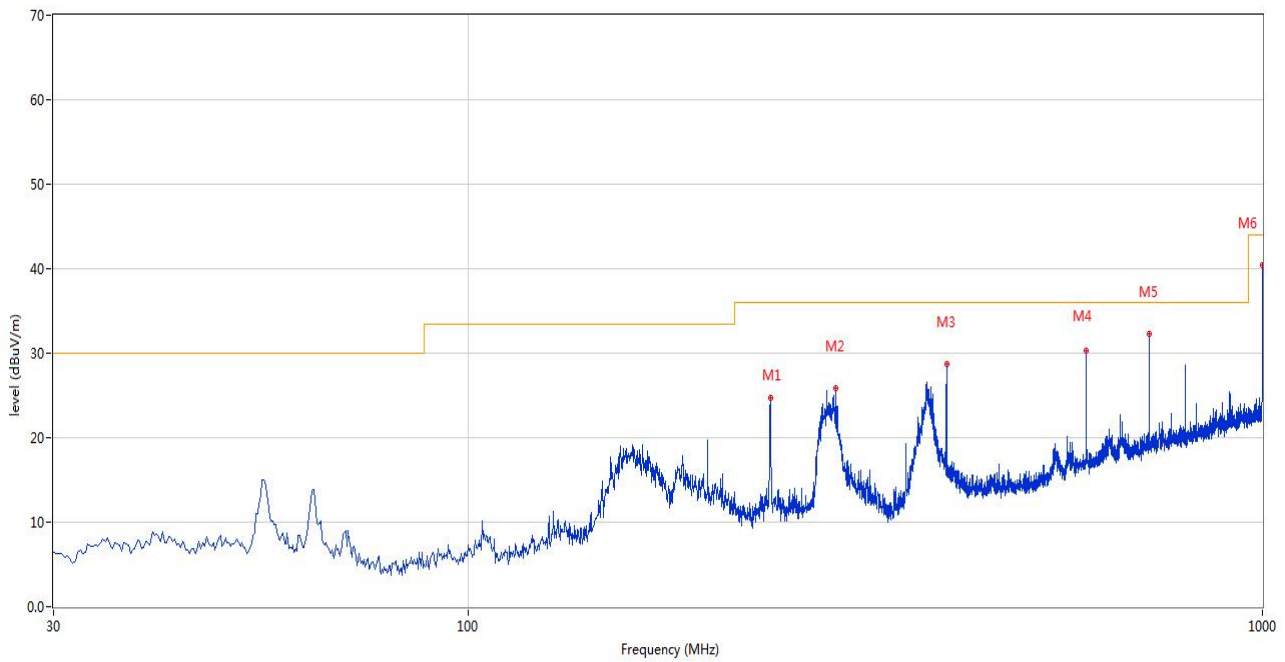
The USB Test Mode

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



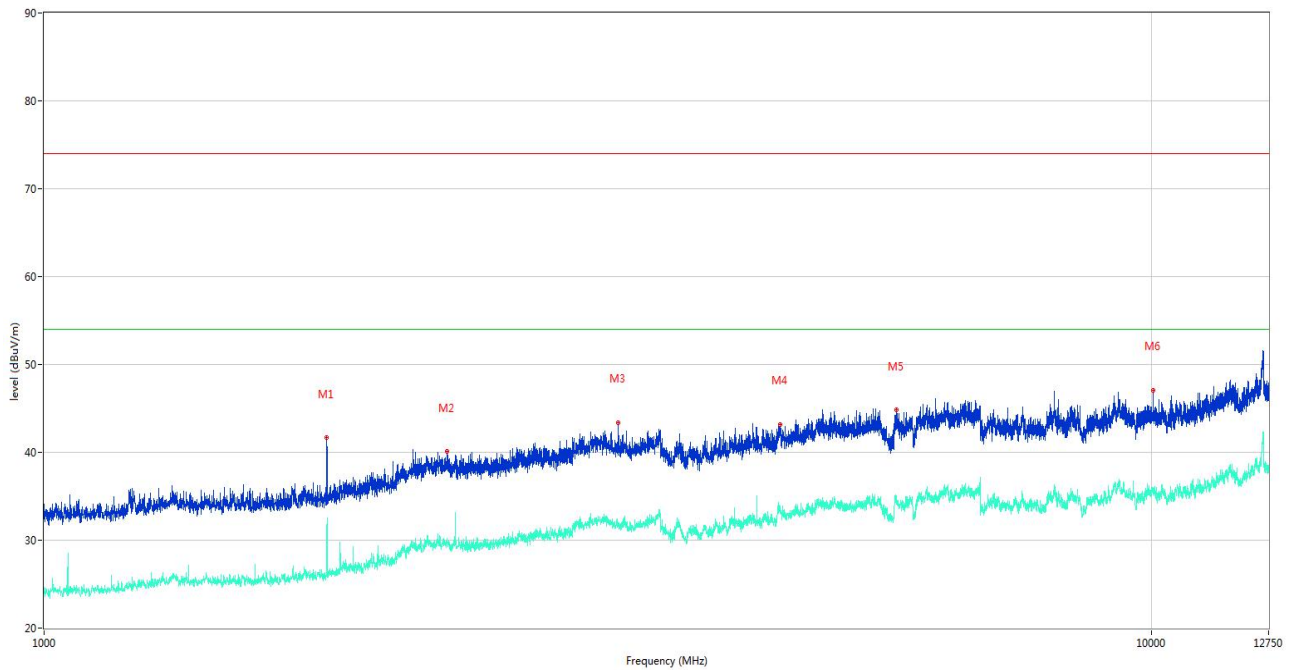
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	159.220	19.22	-25.83	33.5	-14.28	Peak	43.00	100	Vertical	Pass
2	239.795	25.76	-27.87	36.0	-10.24	Peak	266.00	200	Vertical	Pass
3	287.228	26.97	-26.11	36.0	-9.03	Peak	72.00	100	Vertical	Pass
4	399.963	22.03	-23.17	36.0	-13.97	Peak	124.00	100	Vertical	Pass
5	599.975	26.34	-18.21	36.0	-9.66	Peak	46.00	100	Vertical	Pass
6	1000.000	27.57	-11.32	44.0	-16.43	Peak	221.00	100	Vertical	Pass

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



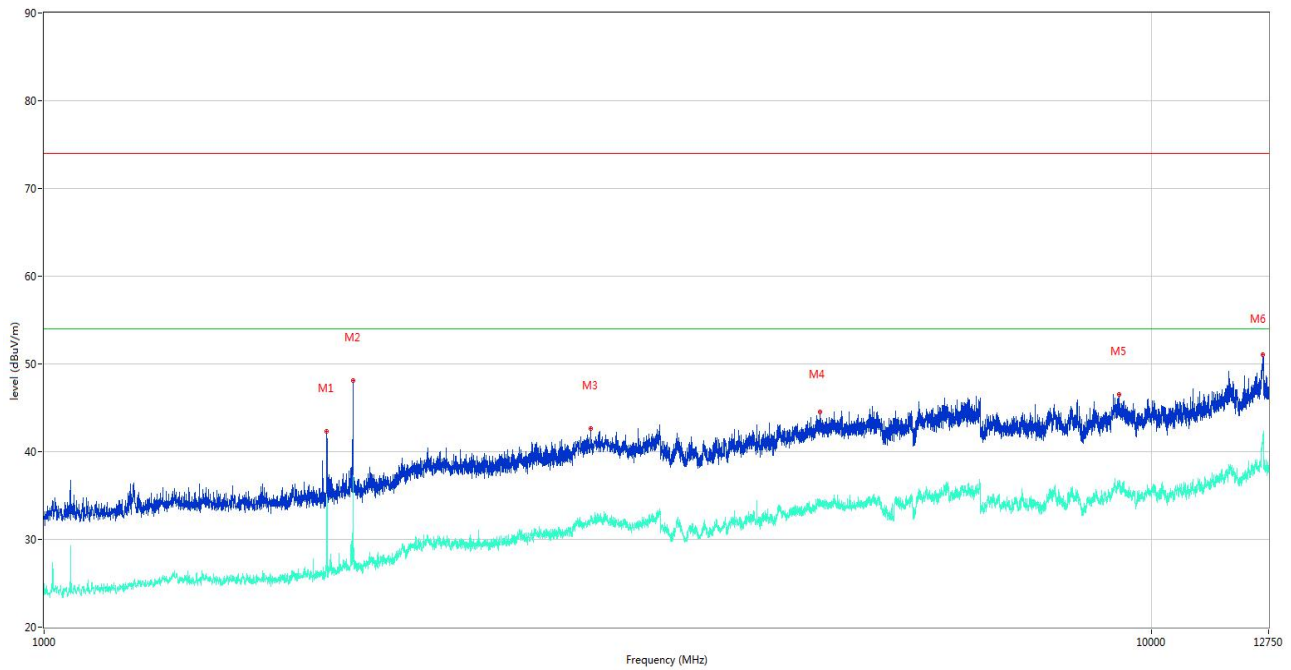
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	239.996	25.11	-27.87	36.0	-10.89	Peak	0.00	400	Horizontal	Pass
2	290.137	25.92	-26.16	36.0	-10.08	Peak	199.00	300	Horizontal	Pass
3	399.963	28.71	-23.17	36.0	-7.29	Peak	222.00	200	Horizontal	Pass
4	599.975	30.22	-18.21	36.0	-5.78	Peak	204.00	200	Horizontal	Pass
5	719.983	32.34	-15.62	36.0	-3.66	Peak	44.00	200	Horizontal	Pass
6	1000.000	40.43	-11.32	44.0	-3.57	Peak	205.00	100	Horizontal	Pass

A.1.7 Test Antenna Vertical, 1 GHz –12.75 GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1**	1799.500	27.55	-17.75	54.0	-26.45	AV	223.40	100	Vertical	Pass
1	1799.500	41.67	-17.75	74.0	-32.33	Peak	223.40	100	Vertical	Pass
2**	2311.000	30.07	-13.48	54.0	-23.93	AV	219.50	100	Vertical	Pass
2	2311.000	40.07	-13.48	74.0	-33.93	Peak	219.50	100	Vertical	Pass
3**	3300.000	31.95	-9.63	54.0	-22.05	AV	133.40	100	Vertical	Pass
3	3300.000	43.38	-9.63	74.0	-30.62	Peak	133.40	100	Vertical	Pass
4**	4618.000	33.60	-5.67	54.0	-20.40	AV	355.50	100	Vertical	Pass
4	4618.000	43.17	-5.67	74.0	-30.83	Peak	355.50	100	Vertical	Pass
5**	5886.000	34.30	-5.02	54.0	-19.70	AV	82.40	100	Vertical	Pass
5	5886.000	44.81	-5.02	74.0	-29.19	Peak	82.40	100	Vertical	Pass
6**	10024.500	35.46	15.97	54.0	-18.54	AV	63.40	100	Vertical	Pass
6	10024.500	47.02	15.97	74.0	-26.98	Peak	63.40	100	Vertical	Pass

A.1.8 Test Antenna Horizontal, 1 GHz –12.75 GHz



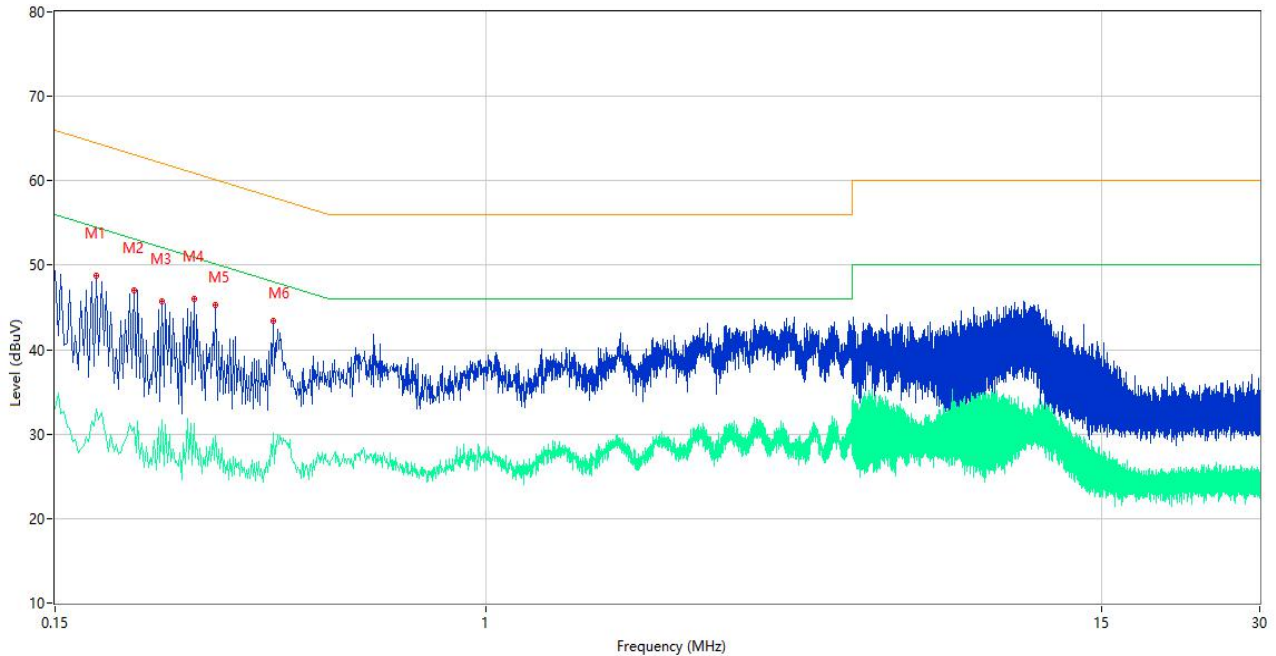
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1**	1800.000	32.59	-17.78	54.0	-21.41	AV	176.60	100	Horizontal	Pass
1	1800.000	42.28	-17.78	74.0	-31.72	Peak	176.60	100	Horizontal	Pass
2**	1900.000	30.07	-16.72	54.0	-23.93	AV	143.80	100	Horizontal	Pass
2	1900.000	48.09	-16.72	74.0	-25.91	Peak	143.80	100	Horizontal	Pass
3**	3116.000	32.41	-9.33	54.0	-21.59	AV	282.00	100	Horizontal	Pass
3	3116.000	42.58	-9.33	74.0	-31.42	Peak	282.00	100	Horizontal	Pass
4**	5014.000	34.05	-5.49	54.0	-19.95	AV	360.60	100	Horizontal	Pass
4	5014.000	44.50	-5.49	74.0	-29.50	Peak	360.60	100	Horizontal	Pass
5**	9343.126	35.91	17.73	54.0	-18.09	AV	16.90	100	Horizontal	Pass
5	9343.126	46.48	17.73	74.0	-27.52	Peak	16.90	100	Horizontal	Pass
6**	12600.500	41.54	21.78	54.0	-12.46	AV	2.50	100	Horizontal	Pass
6	12600.500	51.04	21.78	74.0	-22.96	Peak	2.50	100	Horizontal	Pass

A.2 Conducted Emission

Test Data and Plots

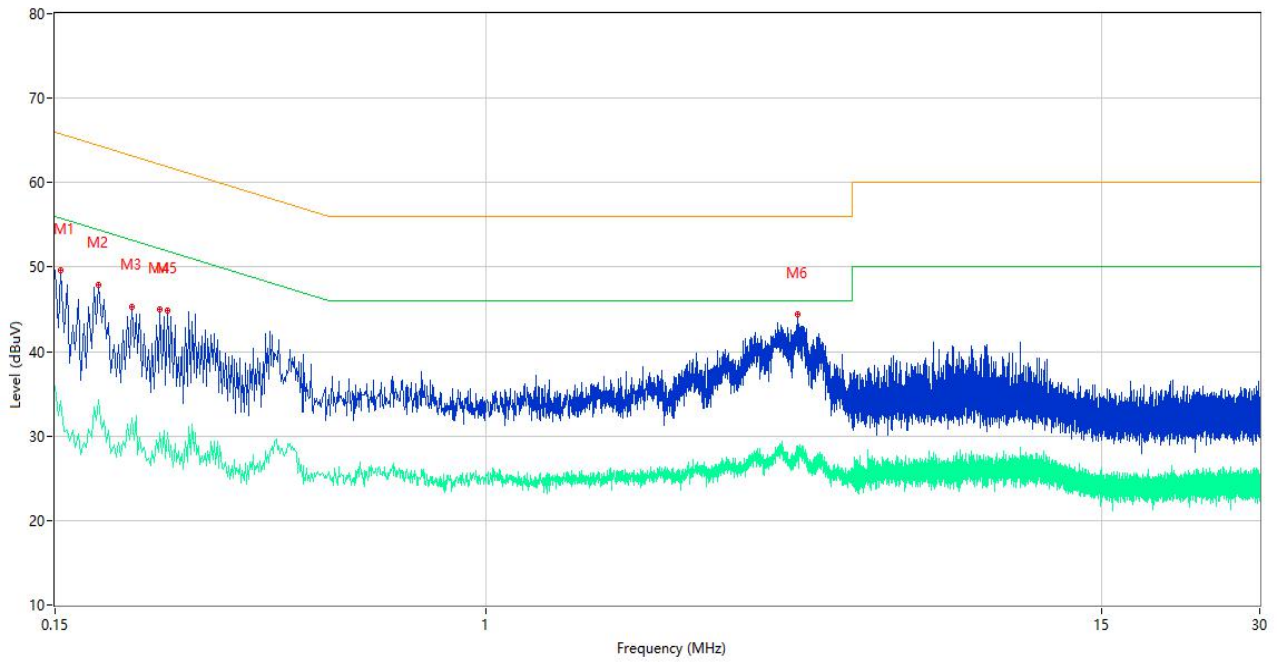
The Camera Test Mode

A.2.1 L Phase



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Over Limit (dB)	Detector	Line	Verdict
1	0.180	48.82	10.39	64.49	-15.67	Peak	L	Pass
1**	0.180	32.93	10.39	54.49	-21.56	AV	L	Pass
2	0.212	47.07	10.38	63.13	-16.06	Peak	L	Pass
2**	0.212	30.79	10.38	53.13	-22.34	AV	L	Pass
3	0.240	45.79	10.35	62.10	-16.31	Peak	L	Pass
3**	0.240	31.75	10.35	52.10	-20.35	AV	L	Pass
4	0.276	46.01	10.34	60.94	-14.93	Peak	L	Pass
4**	0.276	31.24	10.34	50.94	-19.70	AV	L	Pass
5	0.304	45.28	10.33	60.13	-14.85	Peak	L	Pass
5**	0.304	29.78	10.33	50.13	-20.35	AV	L	Pass
6	0.392	43.39	10.30	58.02	-14.63	Peak	L	Pass
6**	0.392	30.08	10.30	48.02	-17.94	AV	L	Pass

A.2.2 N Phase

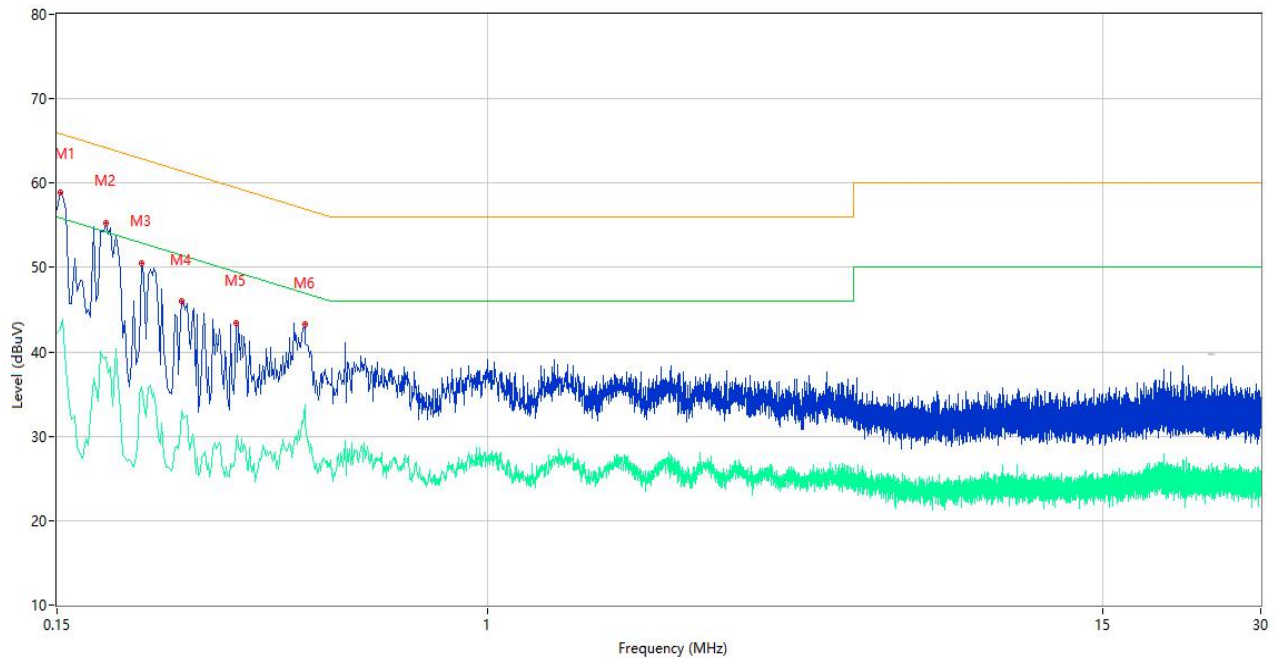


No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Over Limit (dB)	Detector	Line	Verdict
1	0.154	49.56	10.41	65.78	-16.22	Peak	N	Pass
1**	0.154	34.16	10.41	55.78	-21.62	AV	N	Pass
2	0.182	47.90	10.39	64.39	-16.49	Peak	N	Pass
2**	0.182	34.29	10.39	54.39	-20.10	AV	N	Pass
3	0.210	45.28	10.38	63.21	-17.93	Peak	N	Pass
3**	0.210	32.08	10.38	53.21	-21.13	AV	N	Pass
4	0.238	44.94	10.35	62.17	-17.23	Peak	N	Pass
4**	0.238	30.40	10.35	52.17	-21.77	AV	N	Pass
5	0.246	44.87	10.34	61.89	-17.02	Peak	N	Pass
5**	0.246	30.37	10.34	51.89	-21.52	AV	N	Pass
6	3.930	44.42	10.29	56.00	-11.58	Peak	N	Pass
6**	3.930	28.04	10.29	46.00	-17.96	AV	N	Pass

Test Data and Plots

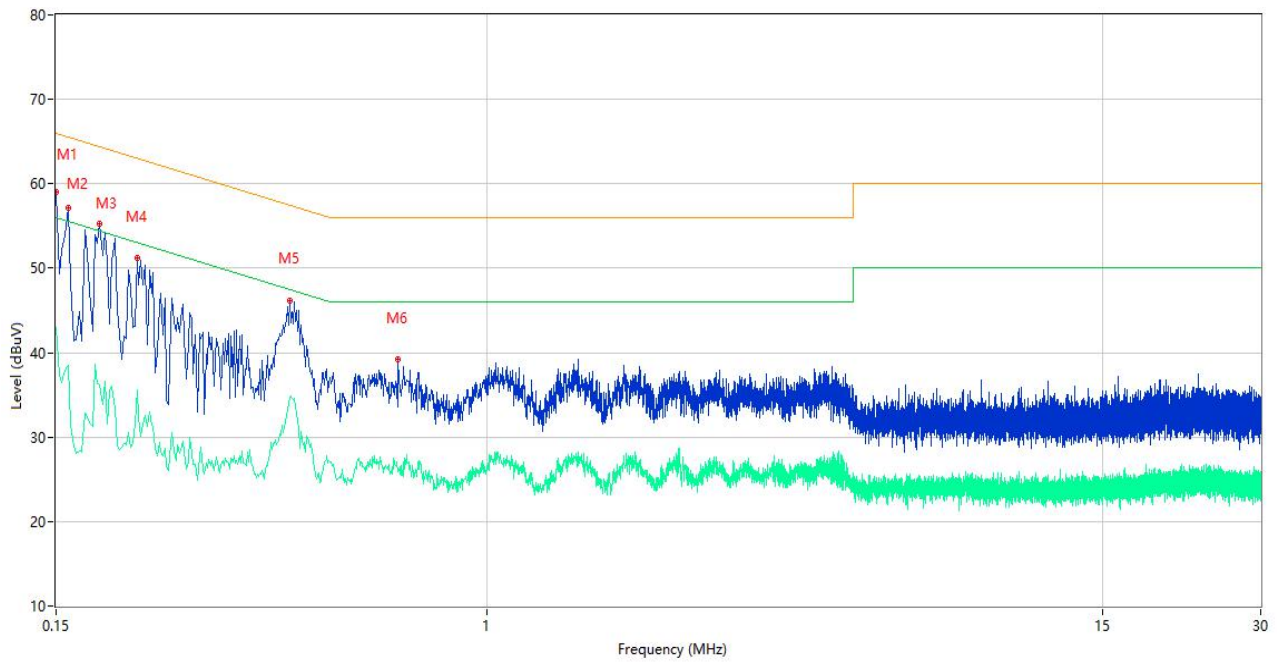
The USB Test Mode

A.2.3 L Phase



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Over Limit (dB)	Detector	Line	Verdict
1	0.150	56.89	10.41	66.00	-9.11	Peak	L	Pass
1**	0.150	42.20	10.41	56.00	-13.80	AV	L	Pass
2	0.186	55.27	10.39	64.21	-8.94	Peak	L	Pass
2**	0.186	39.31	10.39	54.21	-14.90	AV	L	Pass
3	0.218	50.53	10.37	62.89	-12.36	Peak	L	Pass
3**	0.218	35.87	10.37	52.89	-17.02	AV	L	Pass
4	0.260	45.95	10.34	61.43	-15.48	Peak	L	Pass
4**	0.260	33.04	10.34	51.43	-18.39	AV	L	Pass
5	0.330	43.41	10.33	59.45	-16.04	Peak	L	Pass
5**	0.330	28.88	10.33	49.45	-20.57	AV	L	Pass
6	0.446	43.21	10.30	56.95	-13.74	Peak	L	Pass
6**	0.446	33.67	10.30	46.95	-13.28	AV	L	Pass

A.2.4 N Phase



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Over Limit (dB)	Detector	Line	Verdict
1	0.150	59.03	10.41	66.00	-6.97	Peak	N	Pass
1**	0.150	43.02	10.41	56.00	-12.98	AV	N	Pass
2	0.158	57.21	10.40	65.57	-8.36	Peak	N	Pass
2**	0.158	38.53	10.40	55.57	-17.04	AV	N	Pass
3	0.182	55.26	10.39	64.39	-9.13	Peak	N	Pass
3**	0.182	36.12	10.39	54.39	-18.27	AV	N	Pass
4	0.214	51.16	10.38	63.05	-11.89	Peak	N	Pass
4**	0.214	35.65	10.38	53.05	-17.40	AV	N	Pass
5	0.420	46.16	10.31	57.45	-11.29	Peak	N	Pass
5**	0.420	34.68	10.31	47.45	-12.77	AV	N	Pass
6	0.676	39.18	10.27	56.00	-16.82	Peak	N	Pass
6**	0.676	26.21	10.27	46.00	-19.79	AV	N	Pass

ANNEX B TEST SETUP PHOTOS

Please refer the document “BL-SZ1990123-AE.PDF”.

ANNEX C EUT EXTERNAL PHOTOS

Please refer the document “BL-SZ1990123-AW.PDF”.

ANNEX D EUT INTERNAL PHOTOS

Please refer the document “BL-SZ1990123-AI.PDF”.

--END OF REPORT--