

FCC

EMC

TEST REPORT

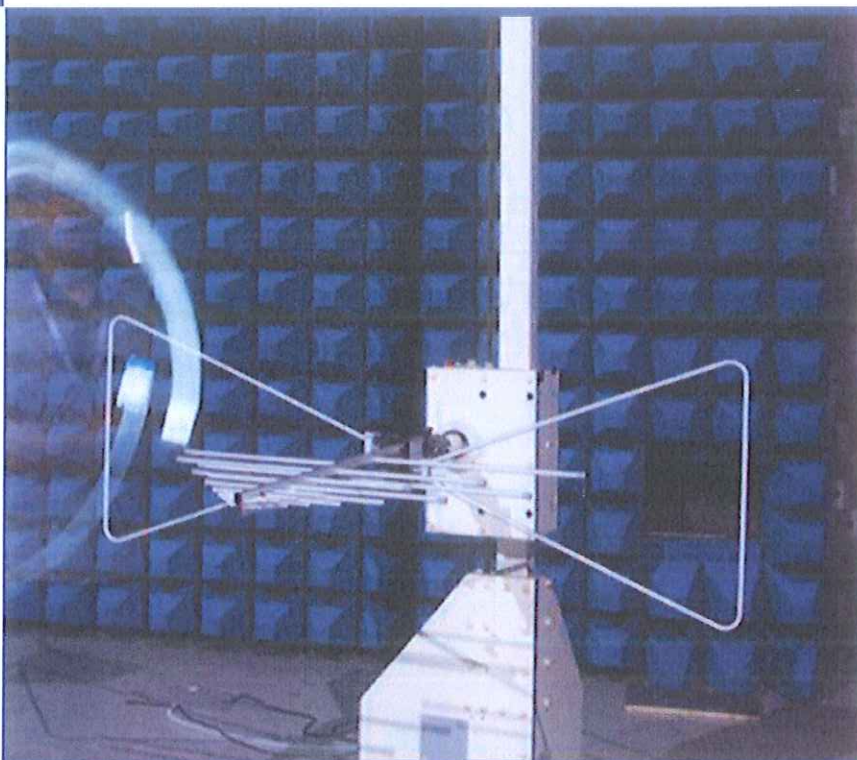
ISSUED BY
Shenzhen BALUN Technology Co., Ltd.



FOR
PIXI 4-7 4G android

ISSUED TO
TCL Communication Ltd

5F, C-Tower, No. 232, Liang Jing Road, Zhangjiang High-Tech Park,
Pudong Area, Shanghai, 201203, P. R. China



Tested by: Zhang Yanqing
Zhang Yanqing
(Engineer)

Date: Aug. 24, 2016

Approved by: Wei Yanguan
Wei Yanguan
(Chief Engineer)

Date: Aug. 24, 2016

Report No.: BL-SZ1660207-401

EUT Type: PIXI 4-7 4G android

Model Name: 9015J

Brand Name: alcatel

Test Standard: 47 CFR Part 15 Subpart B

FCC ID: 2ACCJB067

Test Conclusion: Pass

Test Date: Jul. 20, 2016 ~ Jul. 27, 2016

Date of Issue: Aug. 24, 2016

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Revision History

Version	Issue Date	Revisions Content
<u>Rev. 01</u>	<u>Aug. 24, 2016</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, 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	<p>The laboratory has been listed by Industry Canada to perform electromagnetic emission measurements. The recognition numbers of test site are 11524A-1.</p> <p>The laboratory has been listed by US Federal Communications Commission to perform electromagnetic emission measurements. The recognition numbers of test site are 832625.</p> <p>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.</p>
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~25°C
Ambient Relative Humidity	45% - 55%
Ambient Pressure	100 kPa - 102 kPa

1.4 Announce

- (1) The test report reference to the report template version v4.3.
- (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	TCL Communication Ltd
Address	5F, C-Tower, No. 232, Liang Jing Road, ZhangJiang High-Tech Park, Pudong Area, Shanghai, 201203, P. R. China

2.2 Manufacturer Information

Manufacturer	TCL Communication Ltd
Address	5F, C-Tower, No. 232, Liang Jing Road, ZhangJiang High-Tech Park, Pudong Area, Shanghai, 201203, P. R. China

2.3 Factory Information

Factory	TCL Communication Ltd
Address	5F, C-Tower, No. 232, Liang Jing Road, ZhangJiang High-Tech Park, Pudong Area, Shanghai, 201203, P. R. China

2.4 General Description for Equipment under Test (EUT)

EUT Type	PIXI 4-7 4G android
Model Name Under Test	9015J
Series Model Name	N/A
Description of Model name differentiation	N/A
Hardware Version	V3.0B
Software Version	N/A
Dimensions (Approx.)	190.2x106x9.1mm
Weight (Approx.)	267g
The Highest Speed of Processor	N/A
Network and Wireless connectivity	2G Network GSM/ GPRS/ EDGE 850/900/1800/1900 3G Network WCDMA/ HSUPA / Band I/II/VI/VIII 4G Network FDD LTE Band 2/3/4/7/17/28 TDD LTE Band 40 Bluetooth, WIFI, FM, GPS, GLONASS

2.5 Ancillary Equipment

Ancillary Equipment 1	Battery	
	Brand Name	TLp040HC
	Model No.	N/A
	Serial No.	N/A
	Capacitance	4000 mAh
	Rated Voltage	3.8 V
	Limit Charge Voltage	4.35 V
Ancillary Equipment 2	Charger 1	
	Brand Name	ALCATEL ONETOUCH or alcatel
	Model No.	UC13US
	Serial No.	N/A
	Rated Input	100-240 V~, 0.4 A, 50/60 Hz
	Rated Output	5 V=, 2 A
Ancillary Equipment 3	Charger 2	
	Brand Name	ALCATEL ONETOUCH or alcatel
	Model No.	UC13US
	Serial No.	N/A
	Rated Input	100-240 V~, 0.35 A, 50/60 Hz
	Rated Output	5 V=, 2 A
Ancillary Equipment 4	USB Cable 1	
	Length (Approx.)	0.8 m
Ancillary Equipment 5	USB Cable 2	
	Length (Approx.)	0.8 m
Ancillary Equipment 6	Earphone 1	
	Length (Approx.)	1.5 m
Ancillary Equipment 7	Earphone 2	
	Length (Approx.)	1.5 m

2.6 Technical Information

N/A

3 SUMMARY OF TEST RESULTS

3.1 Test Standards

No.	Identity	Document Title
1	FCC 47 CFR Part 15 Subpart B (10-1-15 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)	4.12 dB
Radiated emissions (30 MHz-1 GHz)	4.16 dB
Radiated emissions (1 GHz-18 GHz)	5.97 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~26°C	AC 120 V/ 60 Hz	50%-55%	100 to 102 kPa

4.2 Test Equipment List

Radiated Emission Test						
Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due	Use
EMI Receiver	ROHDE&SCHWARZ	ESRP	101036	2016.07.05	2017.07.04	<input checked="" type="checkbox"/>
Test Antenna-Bi-Log	SCHWARZBECK	VULB 9163	9163-624	2015.07.22	2017.07.21	<input checked="" type="checkbox"/>
Test Antenna-Horn	SCHWARZBECK	BBHA 9120D	9120D-1148	2015.07.22	2017.07.21	<input checked="" type="checkbox"/>
Test Antenna-Loop	SCHWARZBECK	FMZB 1519	1519-037	2015.07.22	2017.07.21	<input type="checkbox"/>
Anechoic Chamber	RAINFORD	9m*6m*6m	N/A	2015.02.28	2017.02.27	<input checked="" type="checkbox"/>

Conducted disturbance Test						
Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due	Use
EMI Receiver	ROHDE&SCHWARZ	ESRP	101036	2016.07.05	2017.07.04	<input checked="" type="checkbox"/>
LISN	SCHWARZBECK	NSLK 8127	8127-687	2016.07.05	2017.07.04	<input checked="" type="checkbox"/>
Shielded Enclosure	ChangNing	CN-130701	130703	N/A	N/A	<input checked="" type="checkbox"/>

4.3 Test Enclosure list

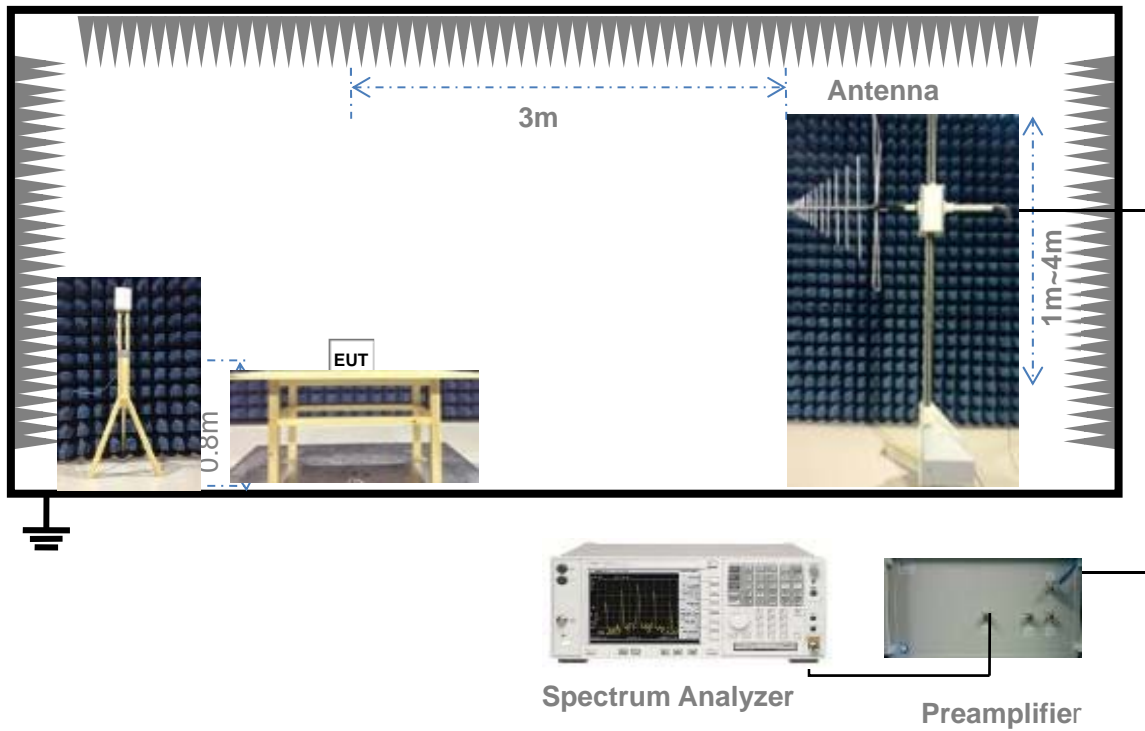
Description	Manufacturer	Model	Serial No.	Length	Description	Use
PC	N/A	N/A	N/A	N/A	Special Handled	<input type="checkbox"/>
Laptop	Apple	A1465	N/A	N/A	N/A	<input checked="" type="checkbox"/>
Printer	HP	DESKJET 1000	N/A	N/A	N/A	<input type="checkbox"/>
Keyboard	Logitech	Y-BP62a	N/A	N/A	N/A	<input type="checkbox"/>
Mouse	Logitech	M100	N/A	N/A	N/A	<input type="checkbox"/>
USB disk	Kingston	N/A	N/A	N/A	N/A	<input type="checkbox"/>
TF Card	Kingston	N/A	N/A	N/A	N/A	<input checked="" type="checkbox"/>
VGA Cable	N/A	N/A	N/A	1.5 m	Shielded with core	<input type="checkbox"/>
HDMI Cable	N/A	N/A	N/A	1.5 m	Shielded with core	<input type="checkbox"/>
DVI Cable	N/A	N/A	N/A	1.5 m	Shielded with core	<input type="checkbox"/>
Coaxial video cable	N/A	N/A	N/A	2.0 m	Shielded with core	<input type="checkbox"/>
iPhone	Apple	A1586	N/A	N/A	N/A	<input type="checkbox"/>
Phone	MI	M4	N/A	N/A	N/A	<input type="checkbox"/>
Laptop	LENOVO	K29	N/A	N/A	N/A	<input type="checkbox"/>
Bluetooth Earphone	SAMSUNG	Gear Circle	N/A	N/A	N/A	<input type="checkbox"/>
GPS/GLONASS Vector signal generator	R&S	N5172B EXG	N/A	N/A	N/A	<input type="checkbox"/>
WIFI Router	TP-LINK	TL-WDR7500	N/A	N/A	N/A	<input type="checkbox"/>
Earphone	N/A	OPPO	N/A	1.1 m	N/A	<input type="checkbox"/>
Car Battery	Camel	55530	N/A	N/A	12 V/55 Ah	<input type="checkbox"/>
Artificial load	N/A	N/A	N/A	N/A	2.5 Ω /100 W	<input type="checkbox"/>
Artificial load	N/A	N/A	N/A	N/A	5 Ω /100 W	<input type="checkbox"/>
Electronic Load	ITECH	IT8511	N/A	N/A	N/A	<input type="checkbox"/>
USB Cable	N/A	N/A	N/A	1.5 m	Shielded with core	<input type="checkbox"/>
DC Power Supply	ROHDE&SCHWARZ	HMP2020	18141664	N/A	N/A	<input type="checkbox"/>

4.4 Test Configurations

Test Configurations (TC) No.	Description
TC01	<u>The Download Test mode</u> EUT + TF Card + Battery + laptop + Earphone + USB Cable
TC02	<u>The Video record test mode</u> EUT + Battery + Charger + Earphone + USB Cable + TF Card
TC03	<u>The FM test mode</u> EUT + Battery + Charger + Earphone + USB Cable + TF Card
TC04	<u>The Video play test mode</u> EUT + Battery + Charger + Earphone + USB Cable + TF Card

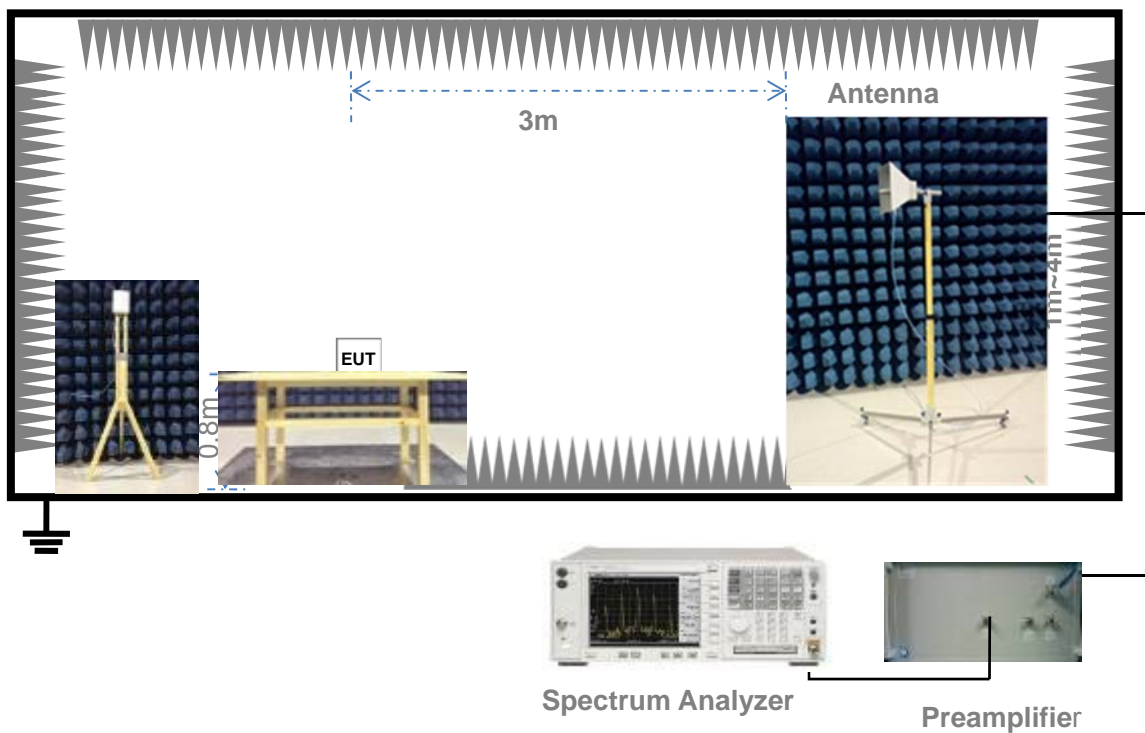
4.5 Test Setups

Test Setup 1



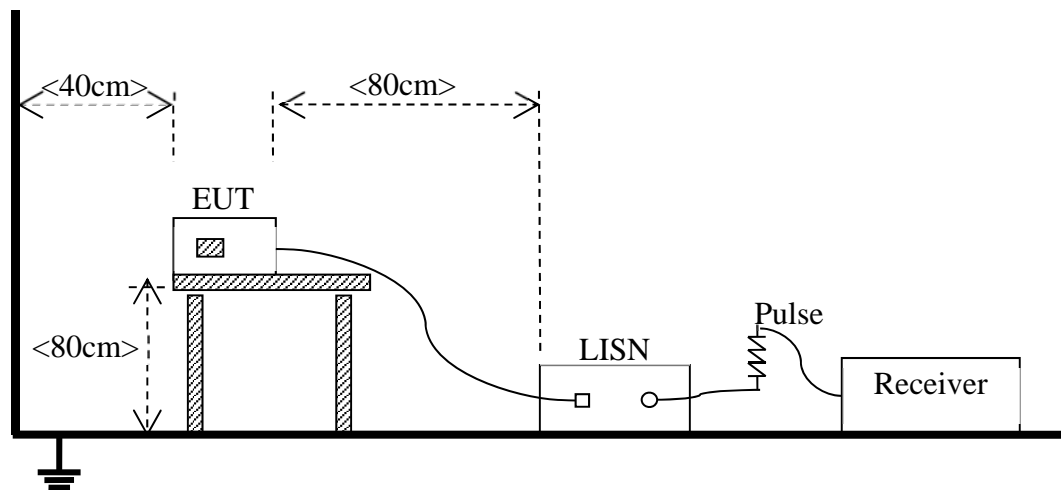
(For Radiated Emission Test (30 MHz-1 GHz))

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~TC04 ^{Note}
Conducted Emission, AC Ports	Test Env.	NTNV
	Test Setup	Test Setup 3
	Test Configuration	TC01~TC04 ^{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 Video record 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 (MHz)	Field Strength ($\mu\text{V/m}$)	Measurement Distance (m)
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
Above 960	500	3

NOTE:

- 1) Field Strength ($\text{dB}\mu\text{V/m}$) = $20 \cdot \log [\text{Field Strength } (\mu\text{V/m})]$.
- 2) In the emission tables above, the tighter limit applies at the band edges.
- 3) For above 1000 MHz, limit field strength of harmonics: 54 $\text{dB}\mu\text{V/m}@3\text{ m}$ (AV) and 74 $\text{dB}\mu\text{V/m}@3\text{ m}$ (PK)

5.1.1.2 Test Setup

Refer to 4.5 section (test setups1 to test setups2) 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.

5.1.2 Conducted Emission

5.1.2.1 Test Limit

Frequency range (MHz)	Conducted Limit (dB μ V)	
	Quasi-peak	Average
0.15 - 0.50	66 to 56	56 to 46
0.50 - 5	56	46
5 - 30	60	50

NOTE:

- 1) The limit is applicable to Class B ITE.
- 2) The lower limit shall apply at the band edges.
- 3) 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.

5.1.2.4 Test Result

Please refer to ANNEX A.2.

ANNEX A TEST RESULTS

A.1 Radiated Emission

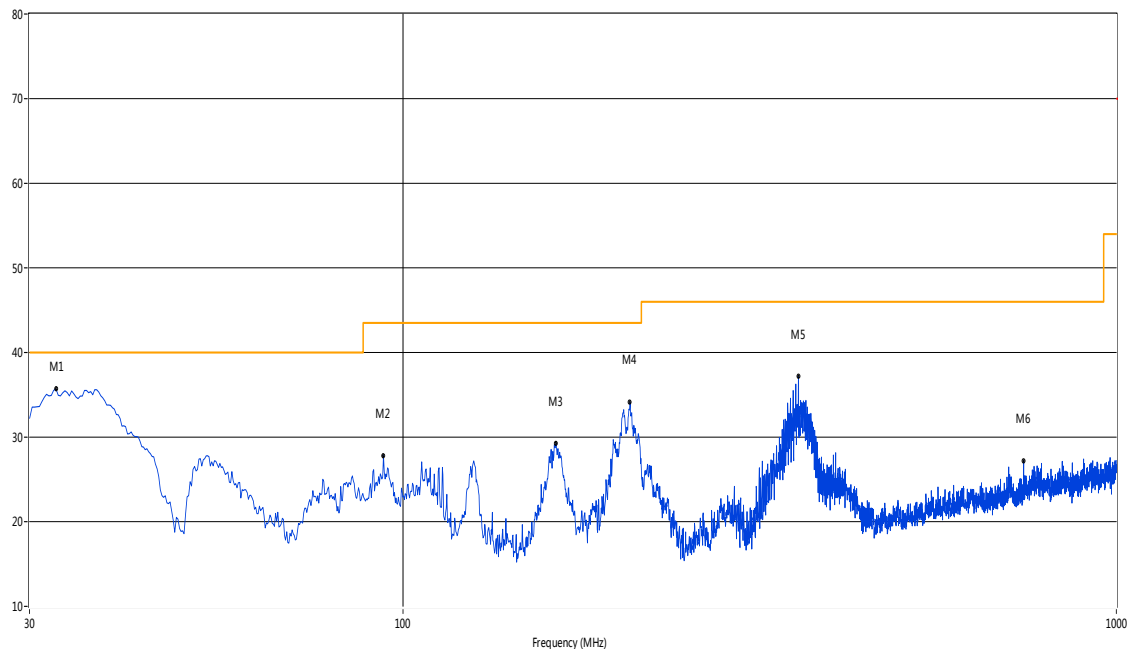
Note 1: The symbol of “--” in the table which means not application.

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

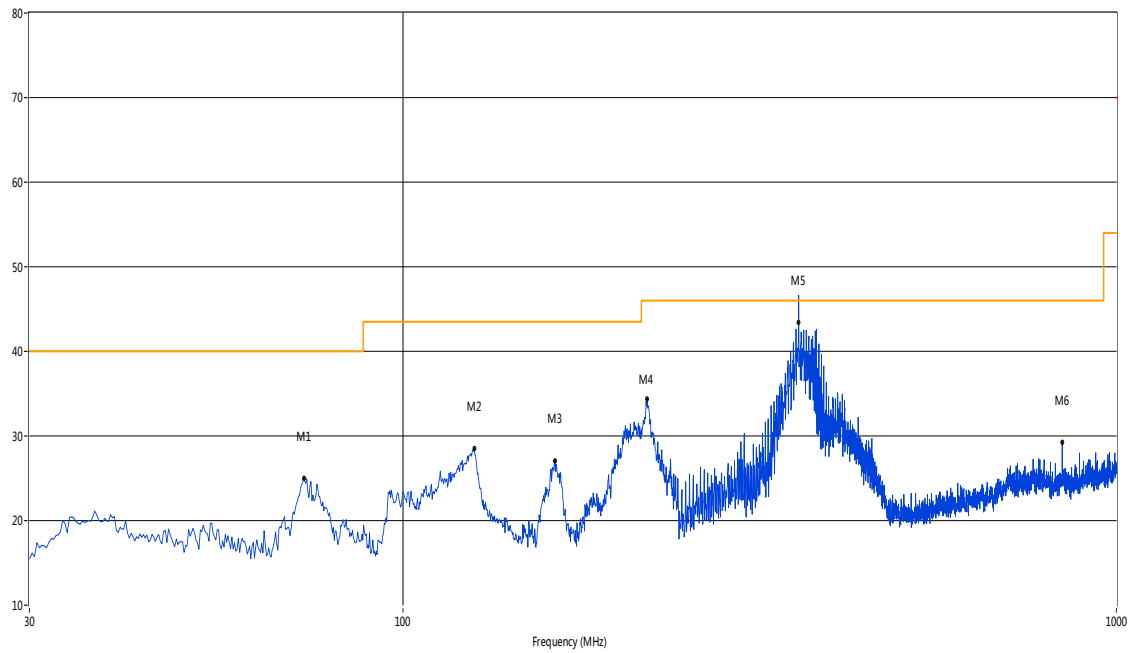
The worst test mode: Video record test mode (Ten Pao)

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



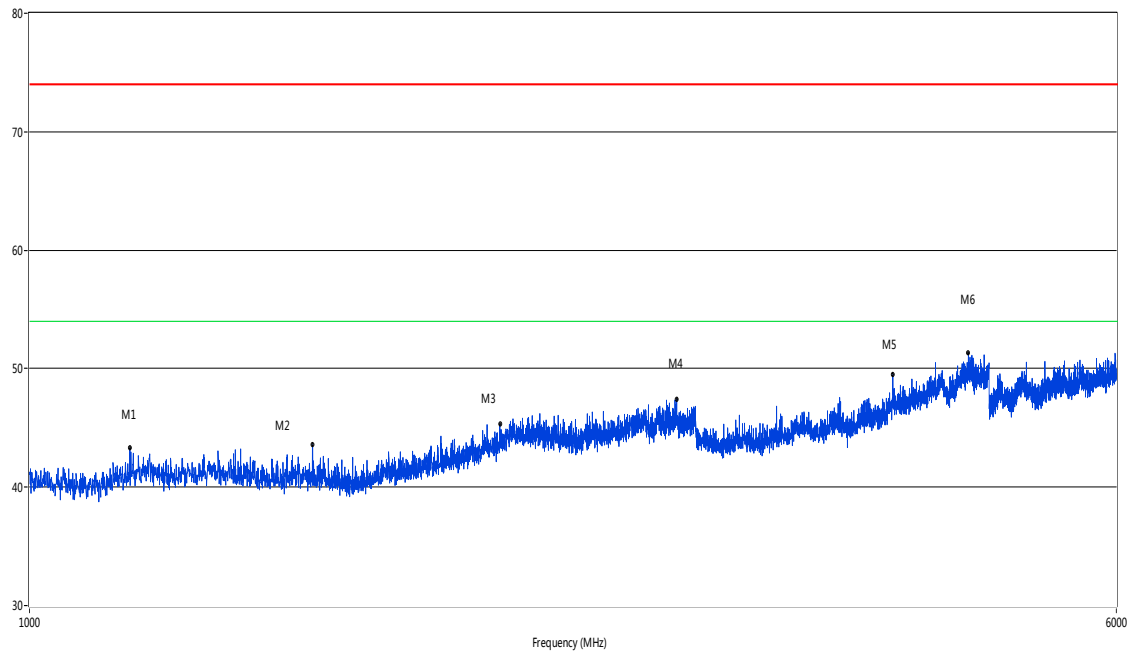
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	32.67	35.71	-23.01	40.0	4.29	Peak	16.00	100	Vertical	Pass
2	94.00	27.84	-22.96	43.5	15.66	Peak	349.60	100	Vertical	Pass
3	164.07	29.23	-25.34	43.5	14.27	Peak	289.90	100	Vertical	Pass
4	208.19	34.10	-22.69	43.5	9.40	Peak	145.40	100	Vertical	Pass
5	358.75	37.21	-19.58	46.0	8.79	Peak	0.40	100	Vertical	Pass
6	741.56	27.25	-13.59	46.0	18.75	Peak	26.00	100	Vertical	Pass

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



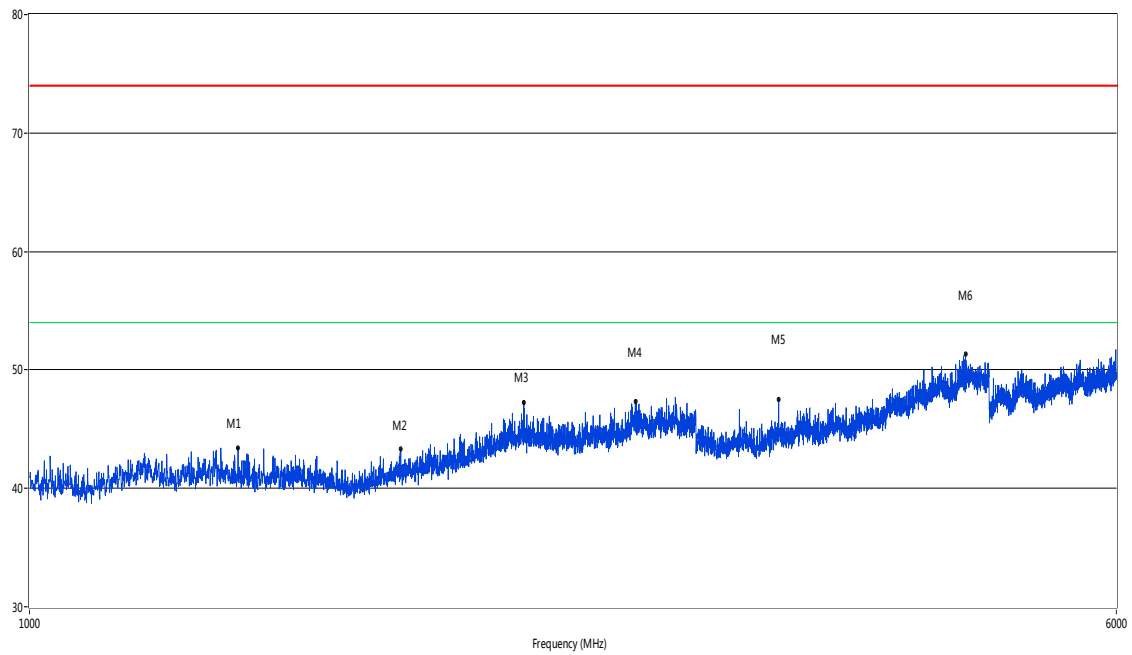
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	72.67	25.05	-25.50	40.0	14.95	Peak	28.30	100	Horizontal	Pass
2	126.01	28.58	-24.87	43.5	14.92	Peak	357.30	100	Horizontal	Pass
3	163.34	27.07	-25.36	43.5	16.43	Peak	294.80	100	Horizontal	Pass
4	220.07	34.37	-22.77	46.0	11.63	Peak	68.30	100	Horizontal	Pass
5	358.99	46.62	-19.65	46.0	-0.62	Peak	294.80	100.00	Horizontal	N/A
5*	358.99	38.25	-19.65	46.0	7.75	QP	294.80	100.00	Horizontal	Pass

A.1.3 Test Antenna Vertical, 1 GHz – 6 GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	1179.96	43.31	-5.58	74.0	30.69	Peak	175.20	100	Vertical	Pass
2	1594.35	43.58	-4.29	74.0	30.42	Peak	226.10	100	Vertical	Pass
3	2171.71	45.32	-1.02	74.0	28.68	Peak	118.50	100	Vertical	Pass
4	2907.02	47.41	2.60	74.0	26.59	Peak	219.80	100	Vertical	Pass
5	4150.96	49.51	11.46	74.0	24.49	Peak	284.40	100	Vertical	Pass
6	4701.32	51.35	13.33	74.0	22.65	Peak	360.70	100	Vertical	Pass

A.1.4 Test Antenna Horizontal, 1 GHz – 6 GHz

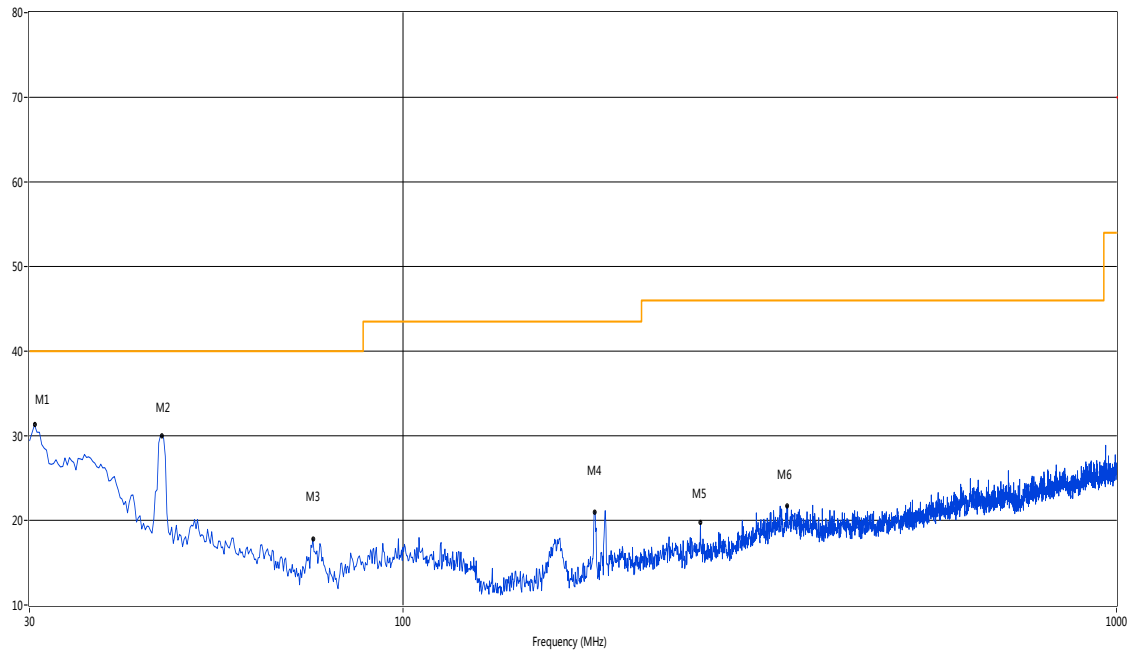


No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	1409.90	43.41	-4.57	74.0	30.59	Peak	119.10	100	Horizontal	Pass
2	1844.29	43.33	-3.18	74.0	30.67	Peak	264.70	100	Horizontal	Pass
3	2259.19	47.25	-0.53	74.0	26.75	Peak	264.70	100	Horizontal	Pass
4	2715.07	47.35	1.43	74.0	26.65	Peak	207.60	100	Horizontal	Pass
5	3438.64	47.55	9.35	74.0	26.45	Peak	269.10	100	Horizontal	Pass
6	4679.58	51.32	13.18	74.0	22.68	Peak	148.10	100	Horizontal	Pass

Test Data and Plots

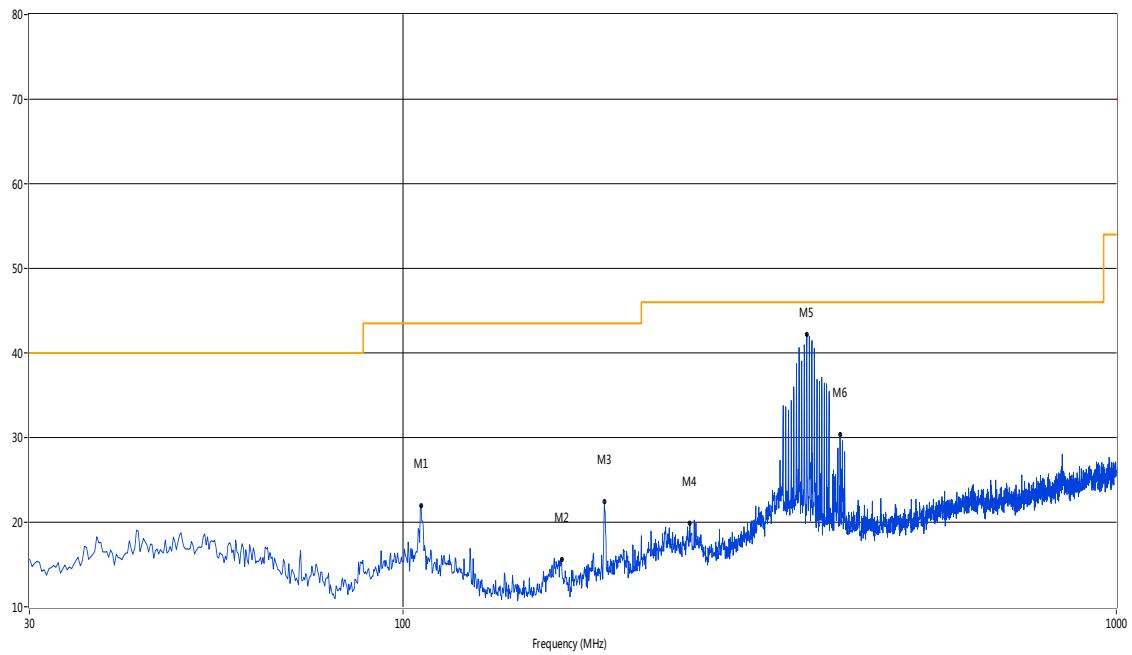
The worst test mode: Video record test mode (AO HAI)

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



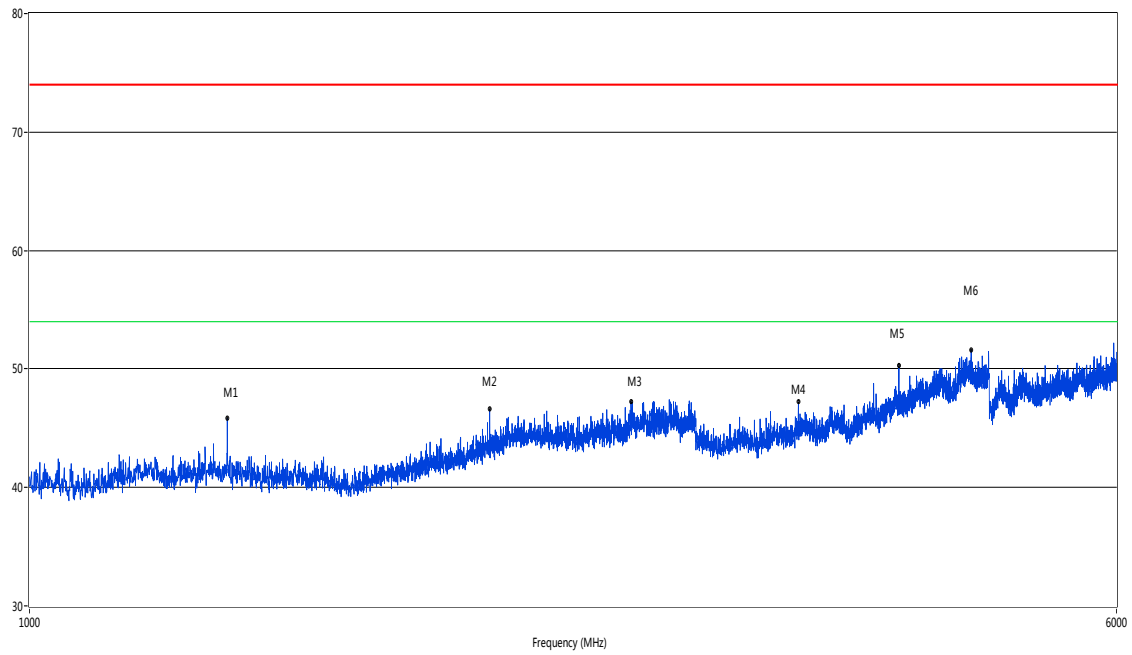
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	30.48	31.30	-22.84	40.0	8.70	Peak	357.90	100	Vertical	Pass
2	46.00	30.03	-20.12	40.0	9.97	Peak	329.80	100	Vertical	Pass
3	74.85	17.82	-26.13	40.0	22.18	Peak	325.00	100	Vertical	Pass
4	185.65	21.00	-24.02	43.5	22.50	Peak	2.00	100	Vertical	Pass
5	261.29	19.71	-21.58	46.0	26.29	Peak	359.40	100	Vertical	Pass
6	345.41	21.75	-19.65	46.0	24.25	Peak	359.40	100	Vertical	Pass

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



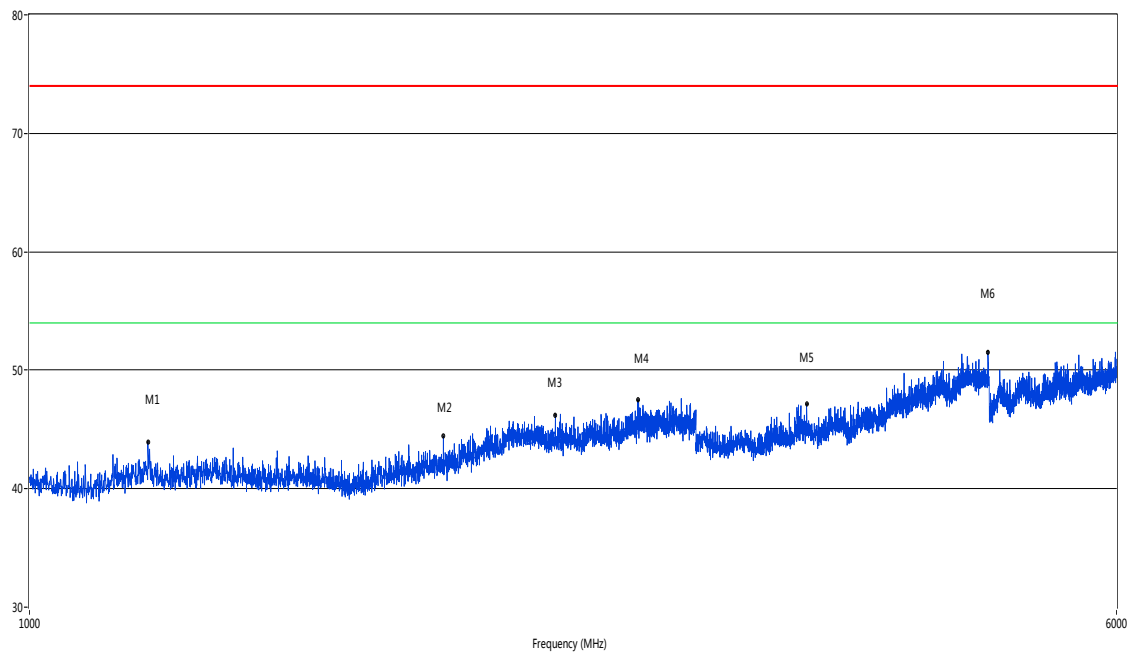
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	106.13	21.98	-22.26	43.5	21.52	Peak	177.80	100	Horizontal	Pass
2	166.98	15.65	-25.27	43.5	27.85	Peak	312.60	100	Horizontal	Pass
3	191.71	22.40	-23.48	43.5	21.10	Peak	277.80	100	Horizontal	Pass
4	252.56	19.84	-21.72	46.0	26.16	Peak	307.50	100	Horizontal	Pass
5	368.45	42.25	-19.48	46.0	3.75	Peak	273.00	100	Horizontal	Pass
6	410.14	30.32	-18.51	46.0	15.68	Peak	273.00	100	Horizontal	Pass

A.1.7 Test Antenna Vertical, 1 GHz – 6 GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	1385.40	45.86	-4.50	74.0	28.14	Peak	307.30	100	Vertical	Pass
2	2134.72	46.61	-1.07	74.0	27.39	Peak	206.70	100	Vertical	Pass
3	2695.08	47.26	1.51	74.0	26.74	Peak	238.00	100	Vertical	Pass
4	3551.86	47.21	9.84	74.0	26.79	Peak	56.80	100	Vertical	Pass
5	4191.45	50.28	11.59	74.0	23.72	Peak	335.50	100	Vertical	Pass
6	4722.32	51.61	13.59	74.0	22.39	Peak	122.00	100	Vertical	Pass

A.1.8 Test Antenna Horizontal, 1 GHz – 6 GHz

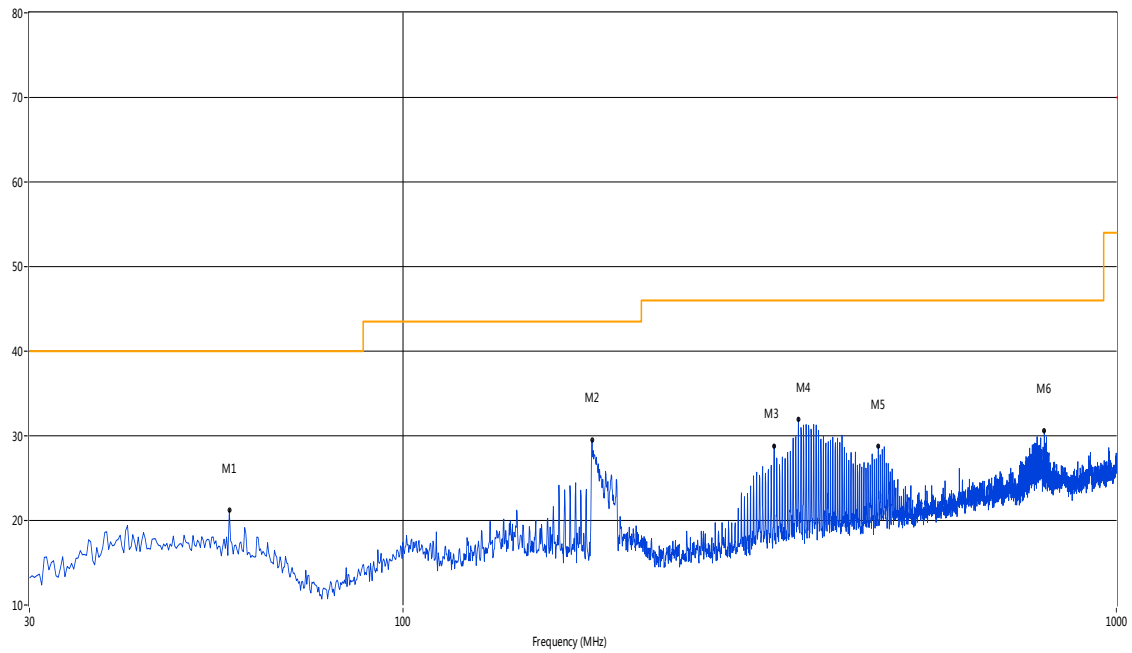


No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	1215.45	43.94	-5.07	74.0	30.06	Peak	28.40	100	Horizontal	Pass
2	1978.26	44.43	-2.60	74.0	29.57	Peak	72.70	100	Horizontal	Pass
3	2379.16	46.16	-0.51	74.0	27.84	Peak	5.90	100	Horizontal	Pass
4	2725.57	47.49	1.71	74.0	26.51	Peak	46.80	100	Horizontal	Pass
5	3599.85	47.13	9.91	74.0	26.87	Peak	158.60	100	Horizontal	Pass
6	4855.04	51.48	13.56	74.0	22.52	Peak	298.00	100	Horizontal	Pass

Test Data and Plots

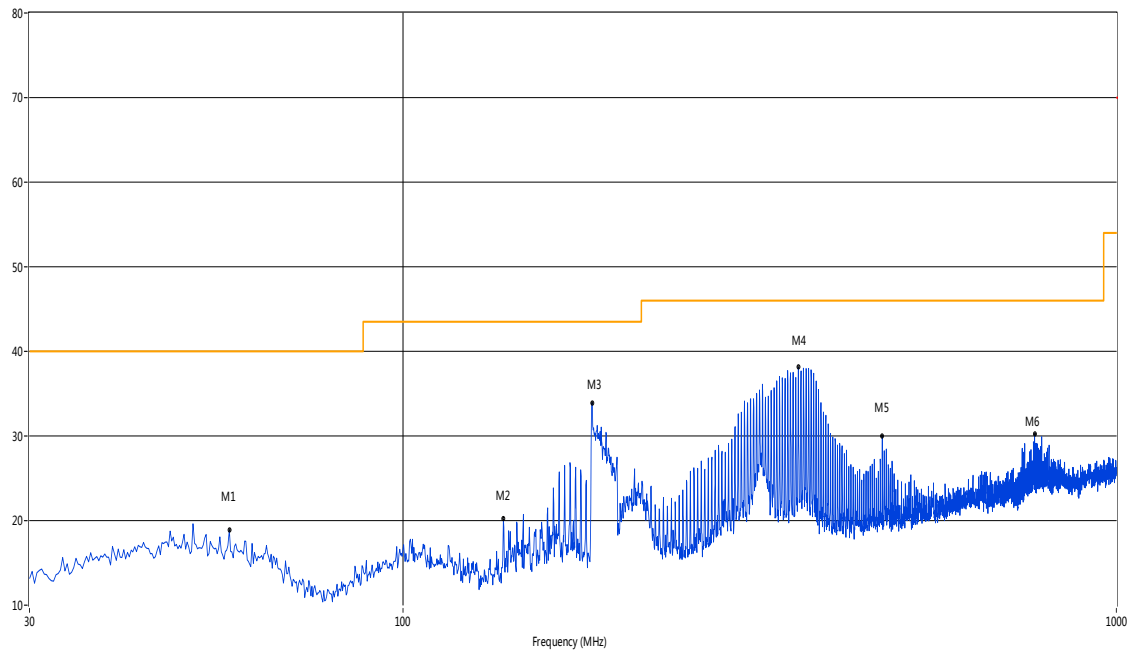
Download test mode

A.1.9 Test Antenna Vertical, 30 MHz – 1 GHz



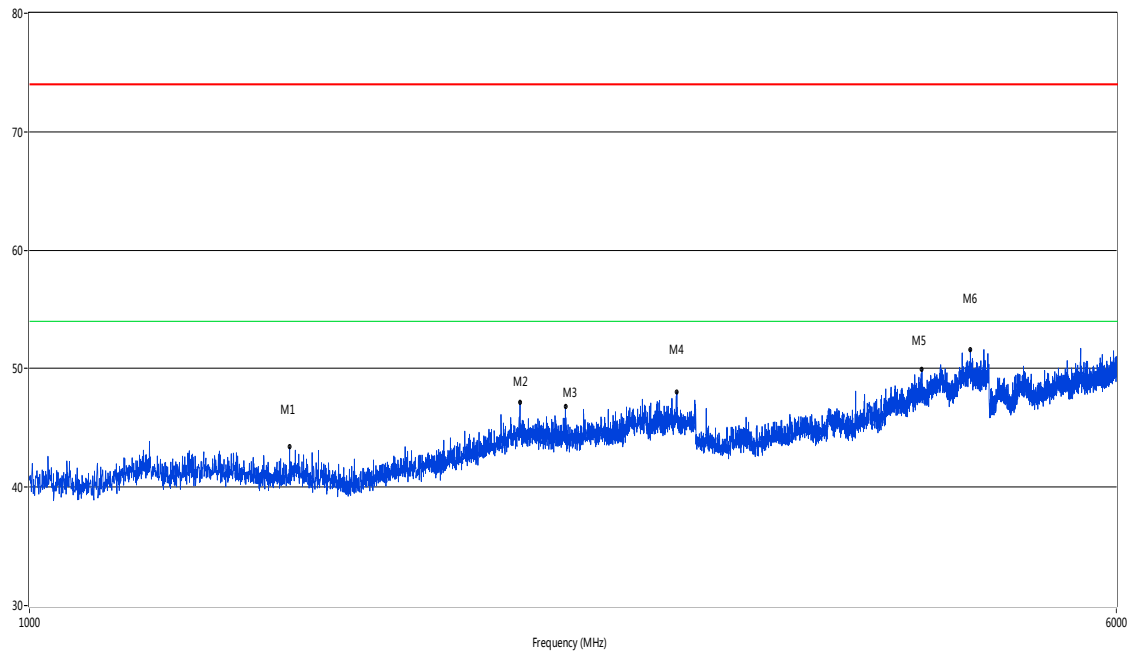
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	57.15	21.23	-21.07	40.0	18.77	Peak	87.70	100	Vertical	Pass
2	184.19	29.50	-24.26	43.5	14.00	Peak	297.40	100	Vertical	Pass
3	331.35	28.77	-19.98	46.0	17.23	Peak	347.10	100	Vertical	Pass
4	358.51	32.00	-19.63	46.0	14.00	Peak	336.70	100	Vertical	Pass
5	463.97	28.77	-18.11	46.0	17.23	Peak	360.00	100	Vertical	Pass
6	792.71	30.60	-12.56	46.0	15.40	Peak	107.80	100	Vertical	Pass

A.1.10 Test Antenna Horizontal, 30 MHz – 1 GHz



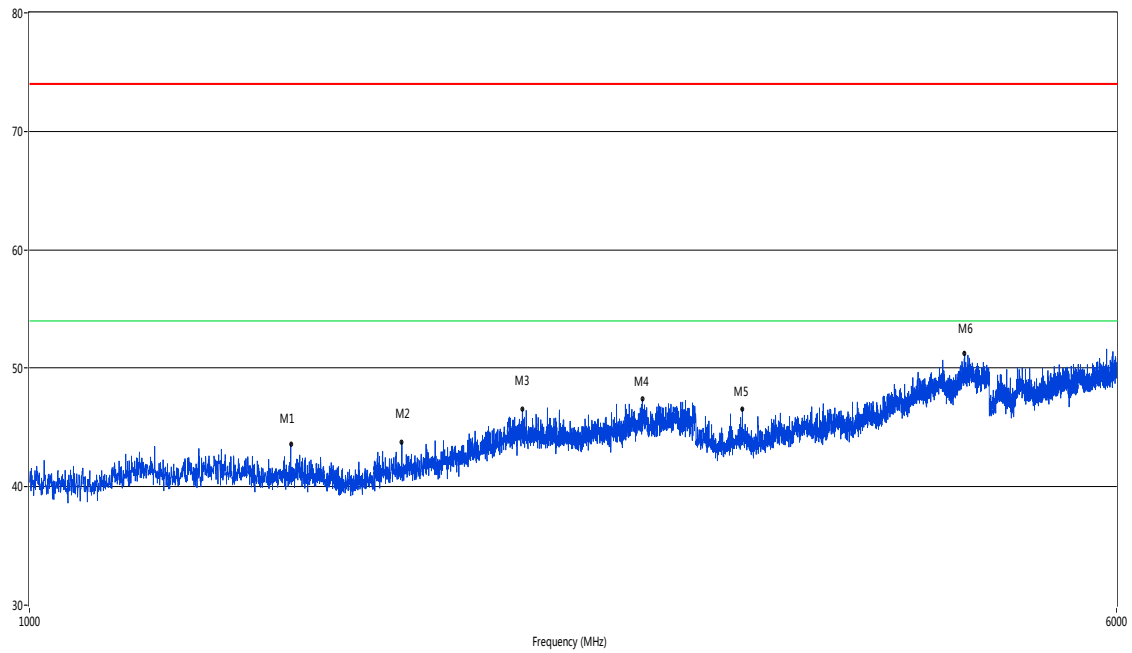
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	57.15	18.92	-21.07	40.0	21.08	Peak	358.50	100	Horizontal	Pass
2	138.37	20.19	-25.85	43.5	23.31	Peak	55.30	100	Horizontal	Pass
3	184.19	33.96	-24.26	43.5	9.54	Peak	45.40	100	Horizontal	Pass
4	358.51	38.12	-19.63	46.0	7.88	Peak	139.70	100	Horizontal	Pass
5	470.03	29.98	-17.90	46.0	16.02	Peak	229.70	100	Horizontal	Pass
6	768.47	30.25	-12.95	46.0	15.75	Peak	20.30	100	Horizontal	Pass

A.1.11 Test Antenna Vertical, 1 GHz – 6 GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	1535.37	43.38	-4.32	74.0	30.62	Peak	282.30	100	Vertical	Pass
2	2244.69	47.14	-0.22	74.0	26.86	Peak	340.90	100	Vertical	Pass
3	2419.15	46.78	-0.07	74.0	27.22	Peak	359.60	100	Vertical	Pass
4	2907.52	48.04	2.52	74.0	25.96	Peak	42.00	100	Vertical	Pass
5	4354.91	49.93	12.19	74.0	24.07	Peak	3.10	100	Vertical	Pass
6	4717.07	51.65	13.53	74.0	22.35	Peak	3.10	100	Vertical	Pass

A.1.12 Test Antenna Horizontal, 1 GHz – 6 GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	1538.37	43.56	-4.27	74.0	30.44	Peak	358.90	100	Horizontal	Pass
2	1847.29	43.78	-3.18	74.0	30.22	Peak	1.90	100	Horizontal	Pass
3	2253.69	46.54	-0.41	74.0	27.46	Peak	251.40	100	Horizontal	Pass
4	2746.06	47.39	1.55	74.0	26.61	Peak	276.50	100	Horizontal	Pass
5	3238.44	46.58	9.15	74.0	27.42	Peak	166.00	100	Horizontal	Pass
6	4671.33	51.22	13.11	74.0	22.78	Peak	226.50	100	Horizontal	Pass

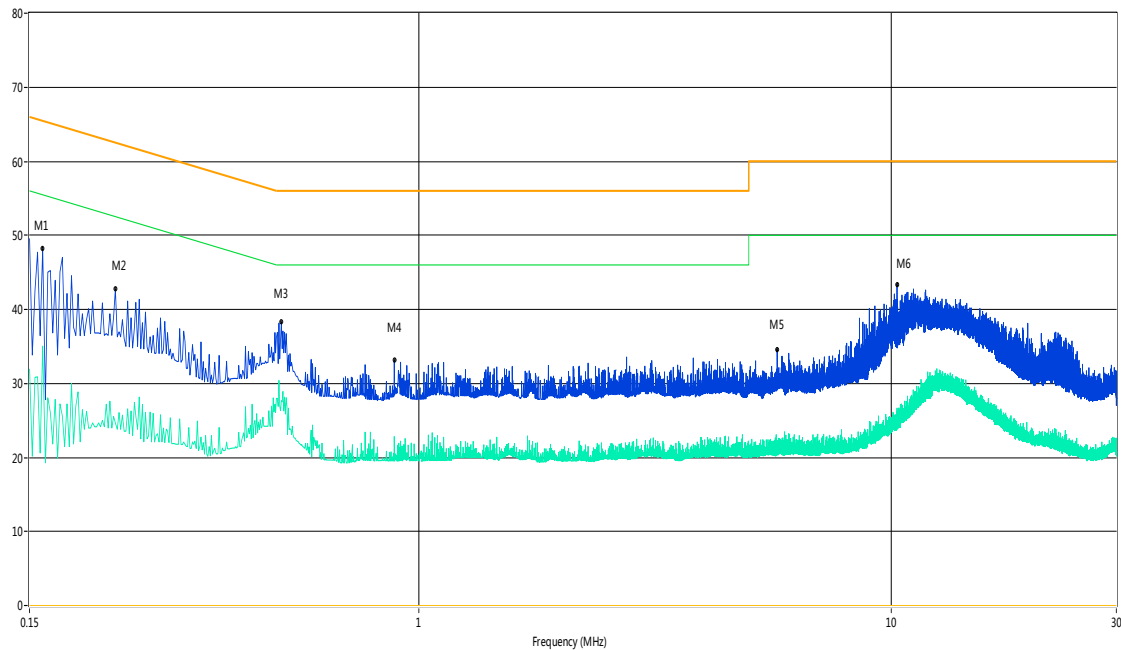
A.2 Conducted Emission

Test Data and Plots

The worst test mode: Video record test mode (Ten Pao)

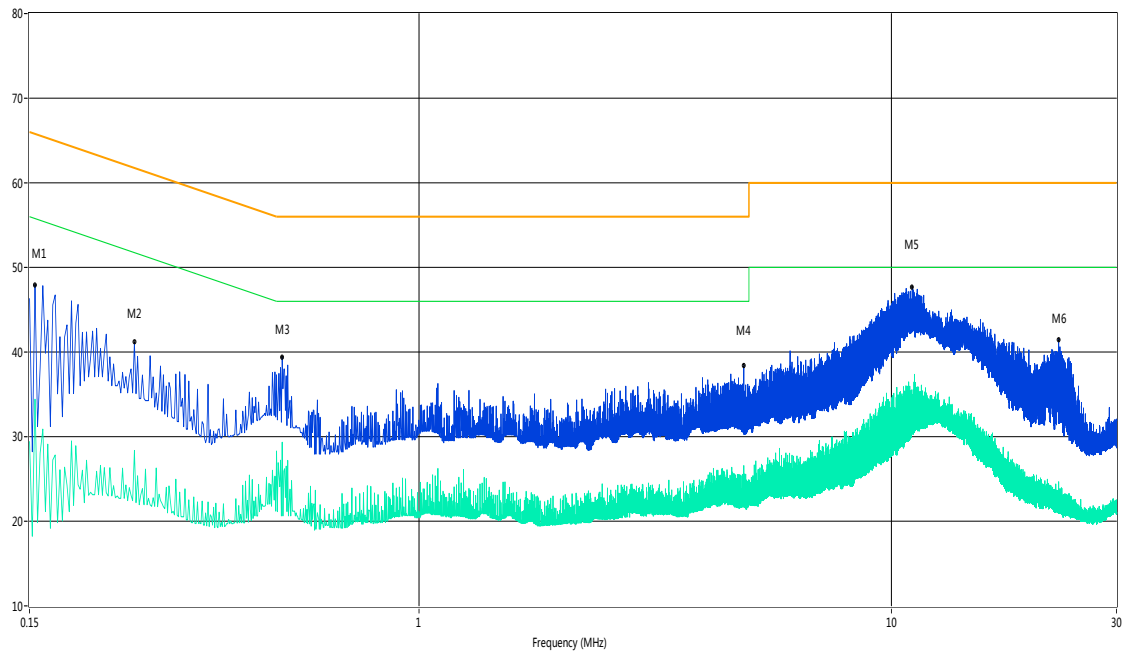
Note: Devices subject to Part 15 must be tested for all available U.S. voltages and frequencies (such as a nominal 120 VAC, 50/60 Hz and 240 VAC, 50/60 Hz) for which the device is capable of operation. So, The configuration 120 VAC, 60 Hz and 240 VAC, 50 Hz were tested respectively, but only the worst configuration (120 VAC, 60 Hz) shown here.

A.2.1 L Phase



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.16	48.2	11.00	65.7	17.50	Peak	L Line	Pass
1**	0.16	35.0	11.00	55.7	20.70	AV	L Line	Pass
2	0.23	42.8	11.00	63.8	21.00	Peak	L Line	Pass
2**	0.23	24.7	11.00	53.8	29.10	AV	L Line	Pass
3	0.51	38.3	11.00	56.0	17.70	Peak	L Line	Pass
3**	0.51	27.7	11.00	46.0	18.30	AV	L Line	Pass
4	0.89	33.1	11.00	56.0	22.90	Peak	L Line	Pass
4**	0.89	22.8	11.00	46.0	23.20	AV	L Line	Pass
5	5.74	34.6	11.00	60.0	25.40	Peak	L Line	Pass
5**	5.74	22.2	11.00	50.0	27.80	AV	L Line	Pass
6	10.30	43.4	11.00	60.0	16.60	Peak	L Line	Pass
6**	10.30	26.6	11.00	50.0	23.40	AV	L Line	Pass

A.2.2 N Phase

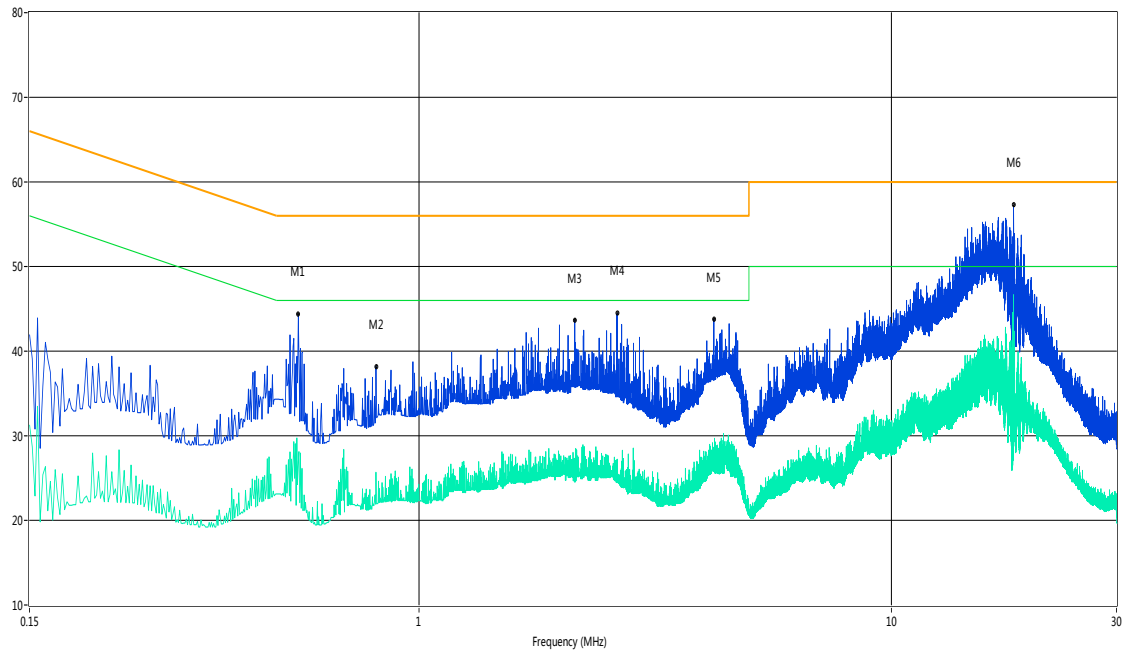


No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.15	48.0	11.00	65.9	17.90	Peak	N Line	Pass
1**	0.15	34.4	11.00	55.9	21.50	AV	N Line	Pass
2	0.25	41.2	11.00	63.1	21.90	Peak	N Line	Pass
2**	0.25	28.4	11.00	53.1	24.70	AV	N Line	Pass
3	0.51	39.4	11.00	56.0	16.60	Peak	N Line	Pass
3**	0.51	29.4	11.00	46.0	16.60	AV	N Line	Pass
4	4.88	38.4	11.00	56.0	17.60	Peak	N Line	Pass
4**	4.88	26.6	11.00	46.0	19.40	AV	N Line	Pass
5	11.08	47.7	11.00	60.0	12.30	Peak	N Line	Pass
5**	11.08	34.9	11.00	50.0	15.10	AV	N Line	Pass
6	22.63	41.5	11.00	60.0	18.50	Peak	N Line	Pass
6**	22.63	24.7	11.00	50.0	25.30	AV	N Line	Pass

Test Data and Plots

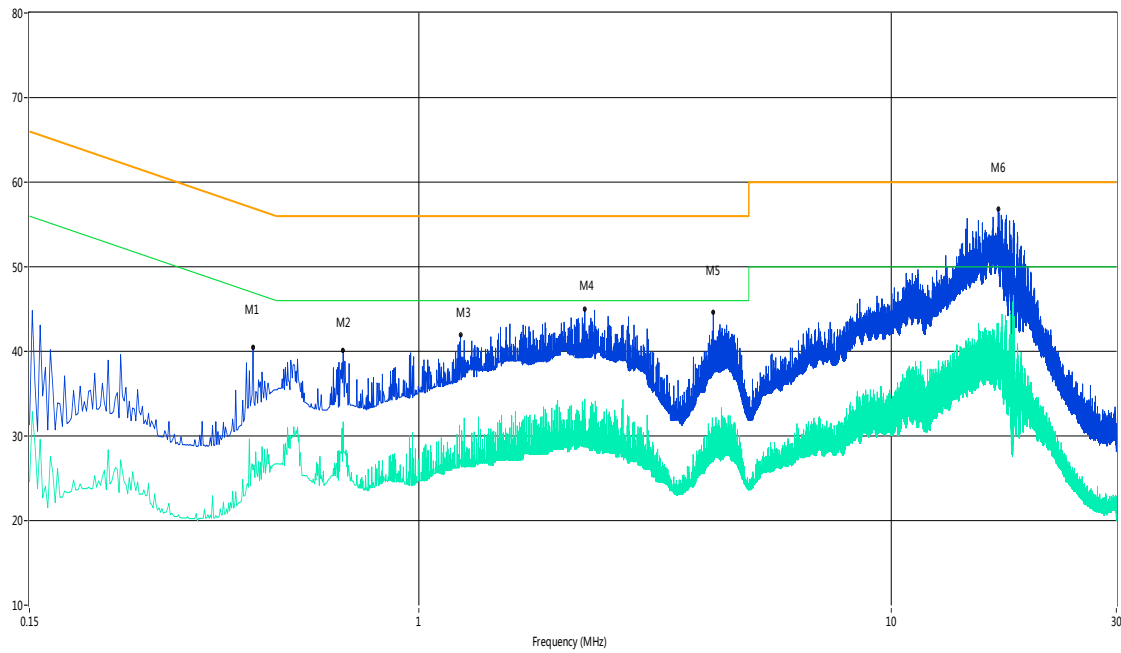
The worst test mode: Video record test mode (AO HAI)

A.2.3 L Phase



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.56	44.4	11.00	56.0	11.60	Peak	L Line	Pass
1**	0.56	27.0	11.00	46.0	19.00	AV	L Line	Pass
2	0.81	38.2	11.00	56.0	17.80	Peak	L Line	Pass
2**	0.81	25.7	11.00	46.0	20.30	AV	L Line	Pass
3	2.14	43.7	11.00	56.0	12.30	Peak	L Line	Pass
3**	2.14	27.2	11.00	46.0	18.80	AV	L Line	Pass
4	2.63	44.5	11.00	56.0	11.50	Peak	L Line	Pass
4**	2.63	27.2	11.00	46.0	18.80	AV	L Line	Pass
5	4.22	43.8	11.00	56.0	12.20	Peak	L Line	Pass
5**	4.22	28.4	11.00	46.0	17.60	AV	L Line	Pass
6	18.17	57.3	11.00	60.0	2.70	Peak	L Line	Pass
6**	18.17	46.7	11.00	50.0	3.30	AV	L Line	Pass

A.2.4 N Phase

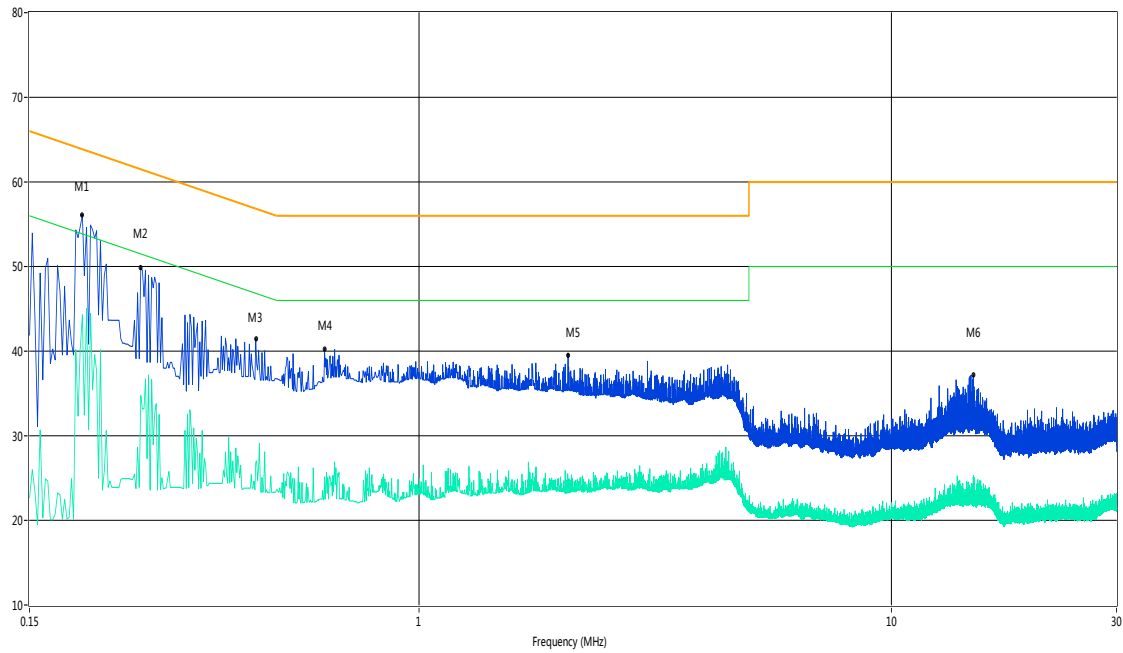


No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.45	40.5	11.00	57.5	17.00	Peak	N Line	Pass
1**	0.45	26.0	11.00	47.5	21.50	AV	N Line	Pass
2	0.69	40.1	11.00	56.0	15.90	Peak	N Line	Pass
2**	0.69	31.7	11.00	46.0	14.30	AV	N Line	Pass
3	1.23	42.0	11.00	56.0	14.00	Peak	N Line	Pass
3**	1.23	27.2	11.00	46.0	18.80	AV	N Line	Pass
4	2.25	44.9	11.00	56.0	11.10	Peak	N Line	Pass
4**	2.25	34.4	11.00	46.0	11.60	AV	N Line	Pass
5	4.21	44.6	11.00	56.0	11.40	Peak	N Line	Pass
5**	4.21	31.1	11.00	46.0	14.90	AV	N Line	Pass
6	16.87	56.9	11.00	60.0	3.10	Peak	N Line	Pass
6**	16.87	43.3	11.00	50.0	6.70	AV	N Line	Pass

Test Data and Plots

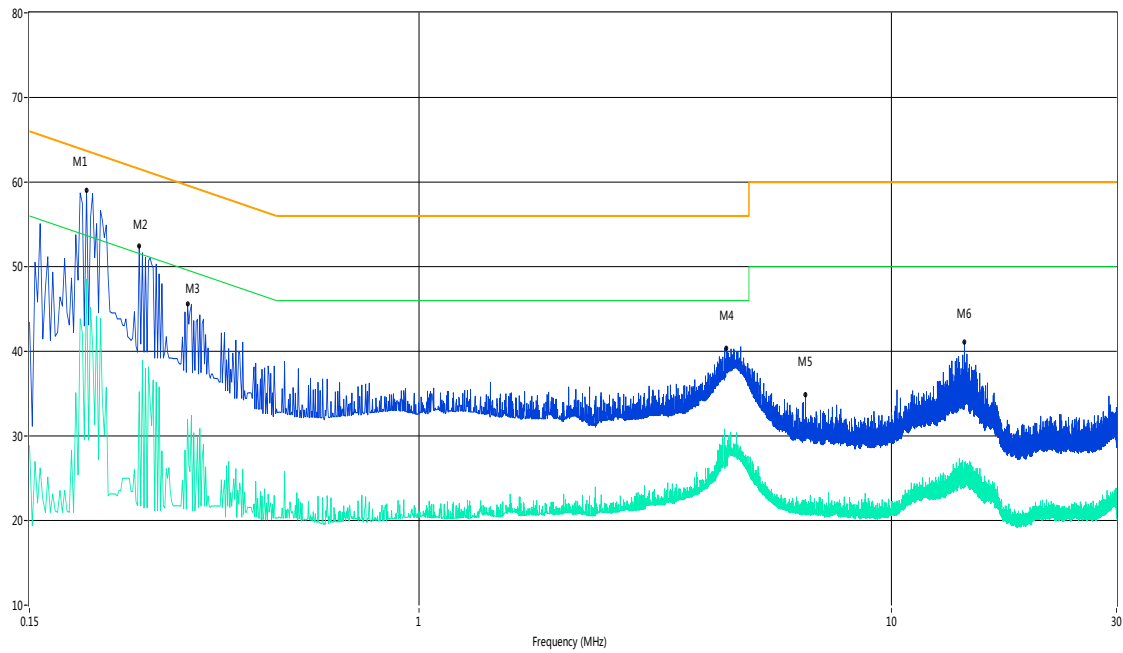
Download test mode

A.2.5 L Phase



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.19	56.1	11.00	64.7	8.60	Peak	L Line	Pass
1**	0.19	44.3	11.00	54.7	10.40	AV	L Line	Pass
2	0.26	49.9	11.00	62.9	13.00	Peak	L Line	Pass
2**	0.26	34.8	11.00	52.9	18.10	AV	L Line	Pass
3	0.45	41.4	11.00	57.4	16.00	Peak	L Line	Pass
3**	0.45	26.9	11.00	47.4	20.50	AV	L Line	Pass
4	0.63	40.2	11.00	56.0	15.80	Peak	L Line	Pass
4**	0.63	25.2	11.00	46.0	20.80	AV	L Line	Pass
5	2.07	39.5	11.00	56.0	16.50	Peak	L Line	Pass
5**	2.07	22.9	11.00	46.0	23.10	AV	L Line	Pass
6	14.93	37.2	11.00	60.0	22.80	Peak	L Line	Pass
6**	14.93	25.1	11.00	50.0	24.90	AV	L Line	Pass

A.2.6 N Phase



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.20	59.0	11.00	64.6	5.60	Peak	N Line	Pass
1**	0.20	48.5	11.00	54.6	6.10	AV	N Line	Pass
2	0.26	52.4	11.00	63.0	10.60	Peak	N Line	Pass
2**	0.26	35.2	11.00	53.0	17.80	AV	N Line	Pass
3	0.32	45.6	11.00	61.0	15.40	Peak	N Line	Pass
3**	0.32	32.0	11.00	51.0	19.00	AV	N Line	Pass
4	4.48	40.4	11.00	56.0	15.60	Peak	N Line	Pass
4**	4.48	28.1	11.00	46.0	17.90	AV	N Line	Pass
5	6.59	34.9	11.00	60.0	25.10	Peak	N Line	Pass
5**	6.59	21.5	11.00	50.0	28.50	AV	N Line	Pass
6	14.29	41.1	11.00	60.0	18.90	Peak	N Line	Pass
6**	14.29	26.8	11.00	50.0	23.20	AV	N Line	Pass

ANNEX B TEST SETUP PHOTOS

Please refer the document “BL-SZ1660207-AE.PDF”.

ANNEX C EUT EXTERNAL PHOTOS

Please refer the document “BL-SZ1660207-AW.PDF”.

ANNEX D EUT INTERNAL PHOTOS

Please refer the document “BL-SZ1660207-AI.PDF”.

--END OF REPORT--