

FCC

EMC

TEST REPORT

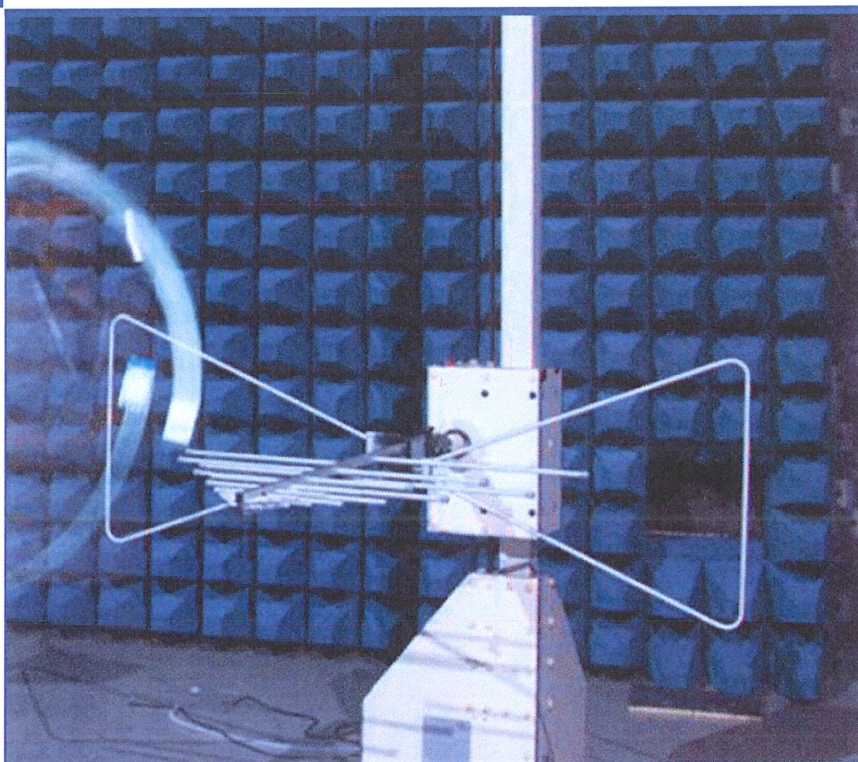
ISSUED BY
Shenzhen BALUN Technology Co., Ltd.



FOR
X1 LITE FDD-LTE Smartphone

ISSUED TO
TP-LINK Technologies Co., Ltd.

Building 24-1F/3F/4F/5F, 28-1F/2F/3F/4F Science and Technology
Park, Shennan Road, Nanshan District, Shenzhen City, Guangdong
Province, P.R. China



Tested by: Xia Long
Xia Long
(Engineer)

Date: Jun. 07, 2017

Approved by: Wei Yanquan
Wei Yanquan
(Chief Engineer)

Date: Jun. 07, 2017

Report No.: BL-SZ1640113-401

EUT Name: X1 LITE FDD-LTE Smartphone

Model Name: TP904C

Brand Name: neffos

Test Standard: 47 CFR Part 15 Subpart B

FCC ID: TE7X1LITEV1

Test Conclusion: Pass

Test Date: Apr. 20, 2017 ~ Apr. 22, 2017

Date of Issue: Jun. 07, 2017

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Revision History

Version	Issue Date	Revisions Content
<u>Rev. 01</u>	<u>Jun. 07, 2017</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

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 has been listed by US Federal Communications Commission to perform electromagnetic emission measurements. The recognition numbers of test site are 832625. 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~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 v6.4.
- (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	TP-LINK Technologies Co., Ltd.
Address	Building 24-1F/3F/4F/5F, 28-1F/2F/3F/4F Science and Technology Park, Shennan Road, Nanshan District, Shenzhen City, Guangdong Province, P.R. China

2.2 Manufacturer Information

Manufacturer	TP-LINK Technologies Co., Ltd.
Address	Building 24-1F/3F/4F/5F, 28-1F/2F/3F/4F Science and Technology Park, Shennan Road, Nanshan District, Shenzhen City, Guangdong Province, P.R. China

2.3 Factory Information

Factory	N/A
Address	N/A

2.4 General Description for Equipment under Test (EUT)

EUT Name	X1 LITE FDD-LTE Smartphone
Model Name Under Test	TP904C
Series Model Name	N/A
Description of Model name differentiation	N/A
Hardware Version	N/A
Software Version	N/A
Dimensions (Approx.)	N/A
Weight (Approx.)	N/A
Network and Wireless connectivity	2G Network GSM/GPRS/EDGE 850/1900 MHz 3G Network WCDMA/HSDPA/HSUPA + Band 2/4/5 4G Network FDD LTE Band 2/4/7 Bluetooth, WIFI, FM, GPS, GLONASS

2.5 Ancillary Equipment

Ancillary Equipment 1	Battery	
	Brand Name	neffos
	Model No.	NBL-38A2500
	Serial No.	N/A
	Capacitance	2500 mAh
	Rated Voltage	3.85 V
	Limit Charge Voltage	4.4 V
Ancillary Equipment 2	Adapter	
	Brand Name	neffos
	Model No.	N050100-2B3
	Serial No.	N/A
	Rated Input	100-240V~, 0.3A, 50/60 Hz
	Rated Output	5 V $\overline{=}$, 1 A
Ancillary Equipment 3	Earphone	
	Length (Approx.)	120 cm
Ancillary Equipment 4	USB Data Cable	
	Length (Approx.)	100 cm

2.6 Technical Information

Note: Not Applicable.

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)	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~26°C	AC 120 V/60 Hz or DC 3.85 V from Battery	50%-55%	100 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&SCHWA RZ	ESRP	101036	2016.07.05	2017.07.04	☒
Test Antenna- Bi-Log	SCHWARZBECK	VULB 9163	9163-977	2016.07.19	2018.07.18	☒
Test Antenna- Horn	SCHWARZBECK	BBHA 9120D	9120D-1600	2016.07.12	2018.07.11	☐
Anechoic Chamber	EMC Electronic Co., Ltd	20.10*11.60 *7.35m	N/A	2016.08.09	2018.08.08	☒

Radiated Emission Test For Frequency Above 1 GHz						
Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due	Use
EMI Receiver	KEYSIGHT	N9038A	MY53220118	2016.09.09	2017.09.08	☒
Test Antenna- Bi-Log	SCHWARZBECK	VULB 9163	9163-624	2015.07.22	2017.07.21	☐
Test Antenna- Horn	SCHWARZBECK	BBHA 9120D	9120D-1148	2015.07.22	2017.07.21	☒
Anechoic Chamber	RAINFORD	9m*6m*6m	N/A	2017.02.21	2019.02.20	☒

Conducted Emission Test						
Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due	Use
EMI Receiver	ROHDE&SCHWA RZ	ESRP	101036	2016.07.05	2017.07.04	☒
LISN	SCHWARZBECK	NSLK 8127	8127-687	2016.07.05	2017.07.04	☒
LISN	SCHWARZBECK	NNLK 8129	8129-462	2016.09.14	2017.09.13	☐
AMN	SCHWARZBECK	NNBM8124	8124-509	2016.07.05	2017.07.04	☐
AMN	SCHWARZBECK	NNBM8124	8124-510	2016.07.05	2017.07.04	☐
ISN	TESEQ	ISN T800	34449	2016.07.05	2017.07.04	☐
Shielded Enclosure	ChangNing	CN-130701	130703	N/A	N/A	☒

4.3 Test Enclosure list

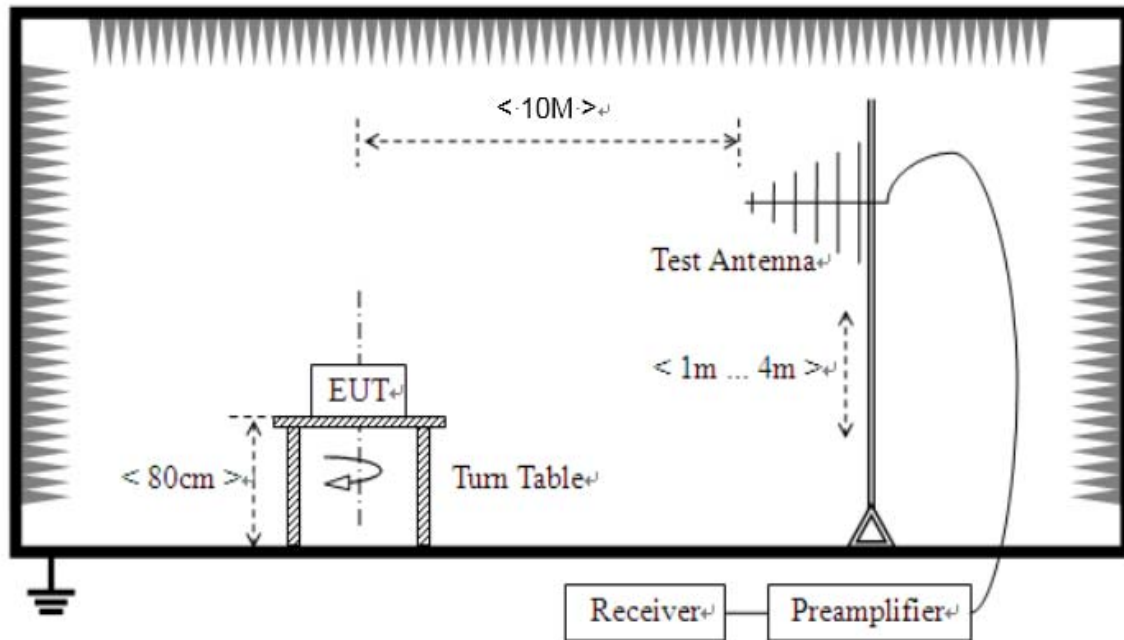
Description	Manufacturer	Model	Serial No.	Length	Description	Use
PC	Dell	015K3N	N/A	N/A	Special Handled	☐
Laptop	Apple	A1465	N/A	N/A	N/A	☒
Printer	HP	DESKJET 1000	N/A	N/A	N/A	☐
Keyboard	Logitech	Y-BP62a	N/A	N/A	N/A	☐
Mouse	Logitech	M100	N/A	N/A	N/A	☐
USB disk	Kingston	N/A	N/A	N/A	N/A	☐
TF Card	Kingston	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	☒
GPS/GLONASS Vector signal generator	R&S	N5172B EXG	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	☐
RJ45 Cable	N/A	N/A	N/A	1.5 m	Shielded with core	☐

4.4 Test Configurations

Test Configurations (TC) No.	Description
Traffic Test Mode	
TC01	<u>The GSM 850 MHz Test Mode</u> GSM 850 Link + Adapter + USB Cable + Battery + TF Card + Earphone + BT Link + WIFI Link(2.4G) + GPS RX
TC02	<u>The EDGE 850 MHz Test Mode</u> EDGE 850 Link + Adapter + USB Cable + Battery + TF Card + Earphone + BT Link + WIFI Link(5G) + GLONASS RX
TC03	<u>The GSM 1900 Test Mode</u> GSM 1900 Link + Adapter + USB Cable + Battery + TF Card + Earphone + BT Link + WIFI Link(2.4G) + GPS RX
TC04	<u>The EDGE 1900 MHz Test Mode</u> EDGE 1900 Link + Adapter + USB Cable + Battery + TF Card + Earphone + BT Link + WIFI Link(5G) + GLONASS RX
TC05	<u>The WCDMA Band 2 Test Mode</u> WCDMA Band 2 + Adapter + USB Cable + Battery + TF Card + Earphone + BT Link + WIFI Link(2.4G) + GPS RX
TC06	<u>The WCDMA Band 4 Test Mode</u> WCDMA Band 4 + Adapter + USB Cable + Battery + TF Card + Earphone + BT Link + WIFI Link(5G) + GLONASS RX
TC07	<u>The WCDMA Band 5 test mode</u> WCDMA Band 5 + Adapter + USB Cable + Battery + TF Card + Earphone + BT Link + WIFI Link(2.4G) + GPS RX
TC08	<u>The FDD LTE Band 2 Test Mode</u> LTE Band 2 Link + Adapter + USB Cable + Battery + TF Card + Earphone + BT Link + WIFI Link(5G) + GLONASS RX
TC09	<u>The FDD LTE Band 4 Test Mode</u> LTE Band 4 Link + Adapter + USB Cable + Battery + TF Card + Earphone + BT Link + WIFI Link(2.4G) + GPS RX
TC10	<u>The FDD LTE Band 7 Test Mode</u> LTE Band 7 Link + Adapter + USB Cable + Battery + TF Card + Earphone + BT Link + WIFI Link(5G) + GLONASS RX
TC11	<u>The Idle Test Mode</u> GSM 850(Idle) + Battery + TF Card + Adapter + USB Cable + Earphone + FM RX
Amusement Test Mode	
TC12	<u>The USB Test Mode</u> EUT + Battery + TF Card + Earphone + USB Cable + Laptop
TC13	<u>The Camera Test Mode</u> EUT + Battery + TF Card + Adapter + USB Cable + Earphone
TC14	<u>The Video Play Test Mode</u> EUT + Battery + TF Card + Adapter + USB Cable + Earphone

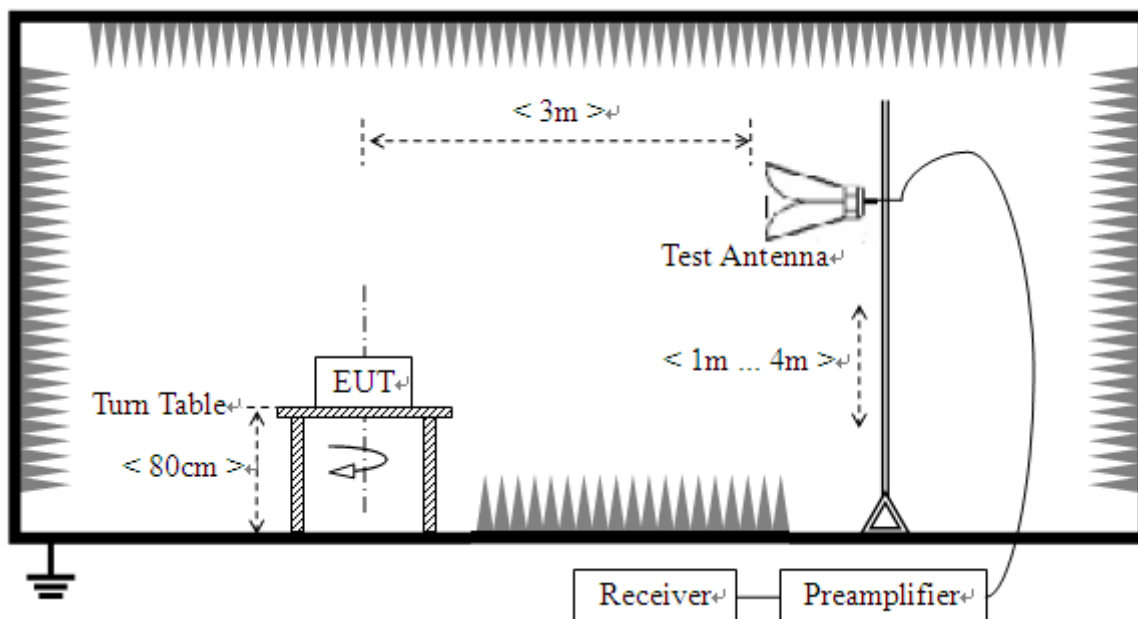
4.5 Test Setups

Test Setup 1



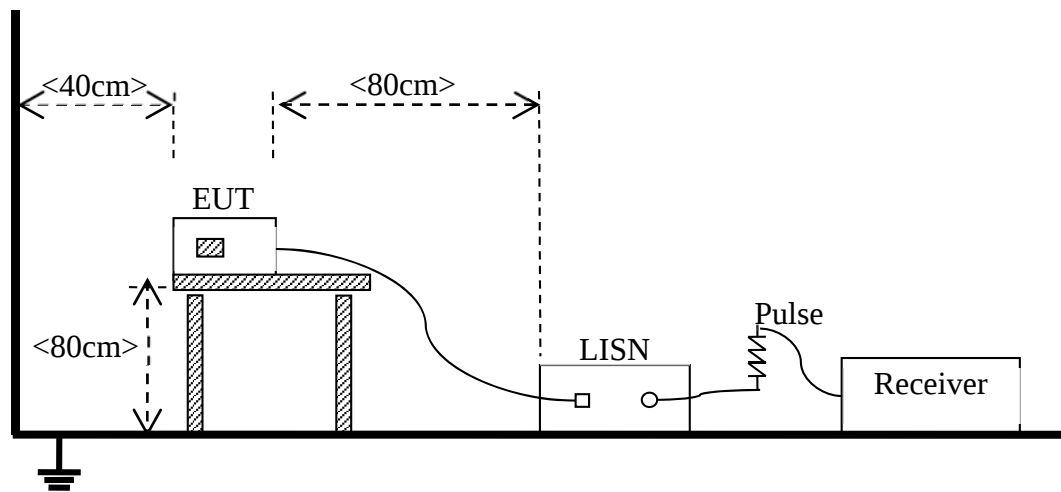
(For Radiated Emission Test (30 MHz-1 GHz))

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~TC14 ^{Note}
Conducted Emission, AC Ports	Test Env.	NTNV
	Test Setup	Test Setup 3
	Test Configuration	TC01~TC14 ^{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 GSM 850 MHz 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 10 m)		Class A (at 10 m)	
	Field Strength ($\mu\text{V/m}$)	Field Strength (dB $\mu\text{V/m}$)	Field Strength ($\mu\text{V/m}$)	Field Strength (dB $\mu\text{V/m}$)
30 - 88	100	30	90	39
88 - 216	150	33.5	150	43.5
216 - 960	200	36	210	46.4
Above 960	500	44	300	49.5

NOTE:

- 1) Field Strength (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.

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.

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.

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.

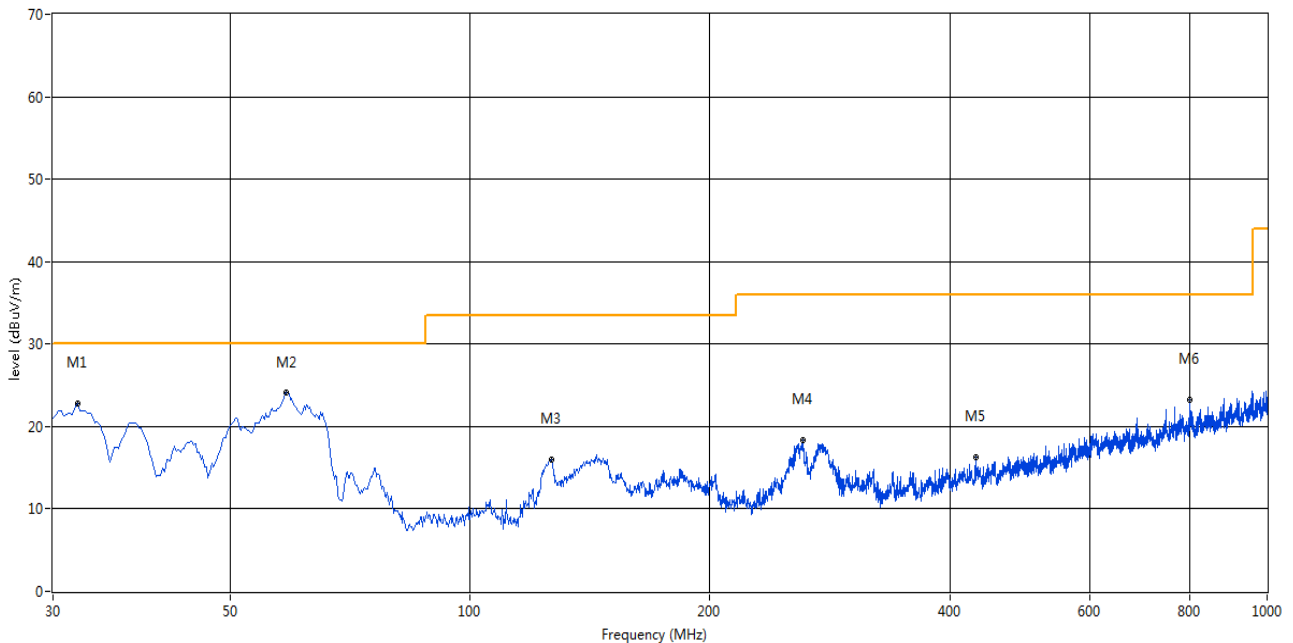
Note 2: For the test data above 1 GHz, according the ANSI C63.4-2014, where limits are specified for both average and peak (or quasi-peak) detector functions, if the peak (or quasi-peak) measured value complies with the average limit, it is unnecessary to perform an average measurement.

Note 3: This frequency which remake N/A should be ignored because they are MS and SS carrier frequency, Bluetooth or WIFI carrier frequency.

Test Data and Plots

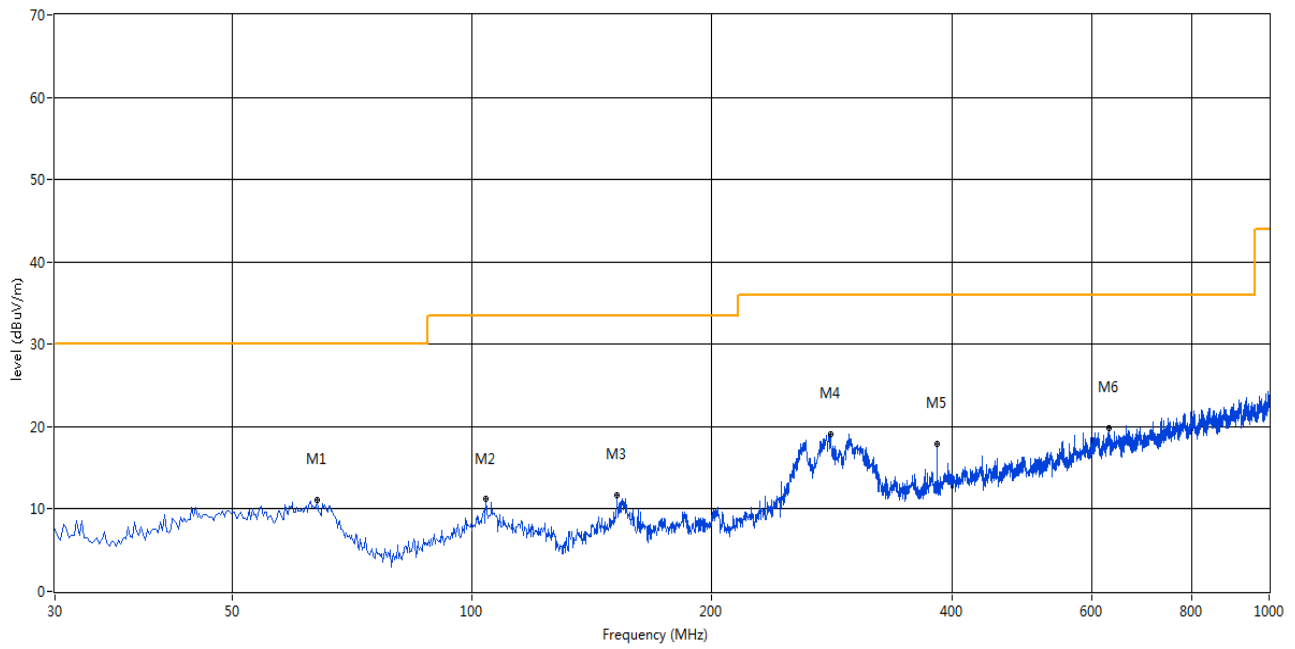
The GSM 850 MHz Test Mode

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



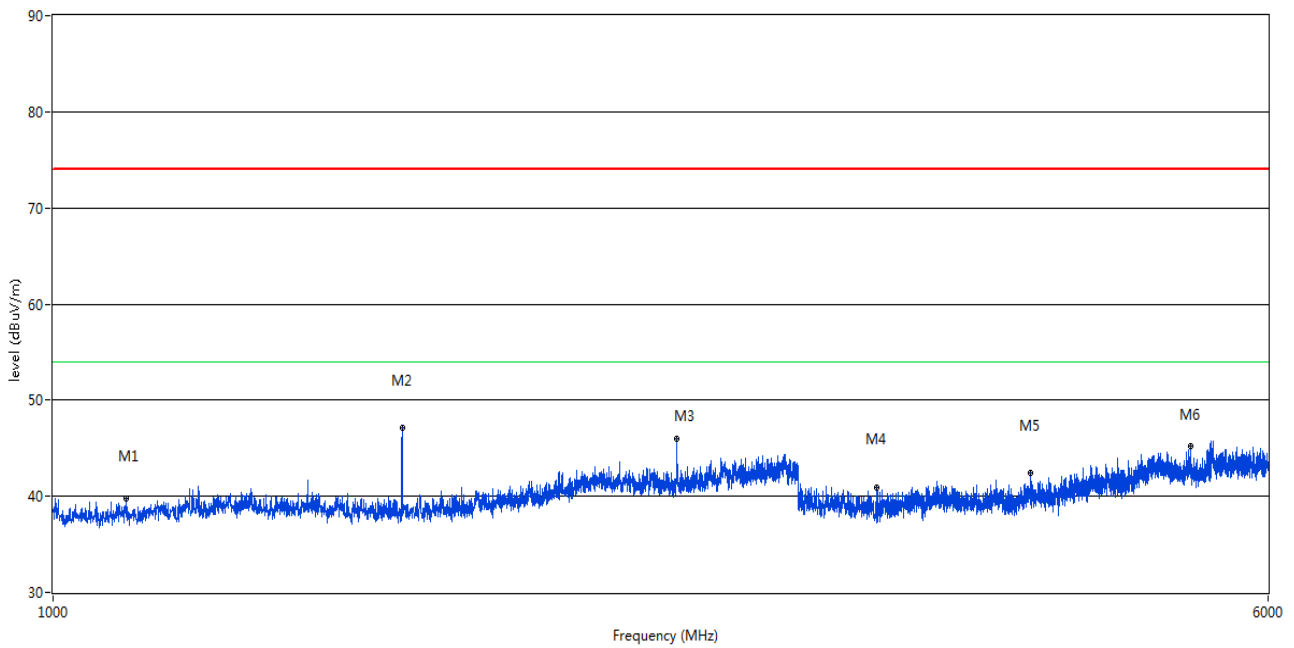
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	32.182	22.78	-16.85	30.0	7.22	Peak	49.00	100	Vertical	Pass
2	58.850	24.10	-14.80	30.0	5.90	Peak	107.00	300	Vertical	Pass
3	126.733	16.05	-18.19	33.5	17.45	Peak	186.00	100	Vertical	Pass
4	261.772	18.32	-13.15	36.0	17.68	Peak	214.00	100	Vertical	Pass
5	430.752	16.33	-8.98	36.0	19.67	Peak	338.00	200	Vertical	Pass
6	800.957	23.28	-2.46	36.0	12.72	Peak	149.00	100	Vertical	Pass

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



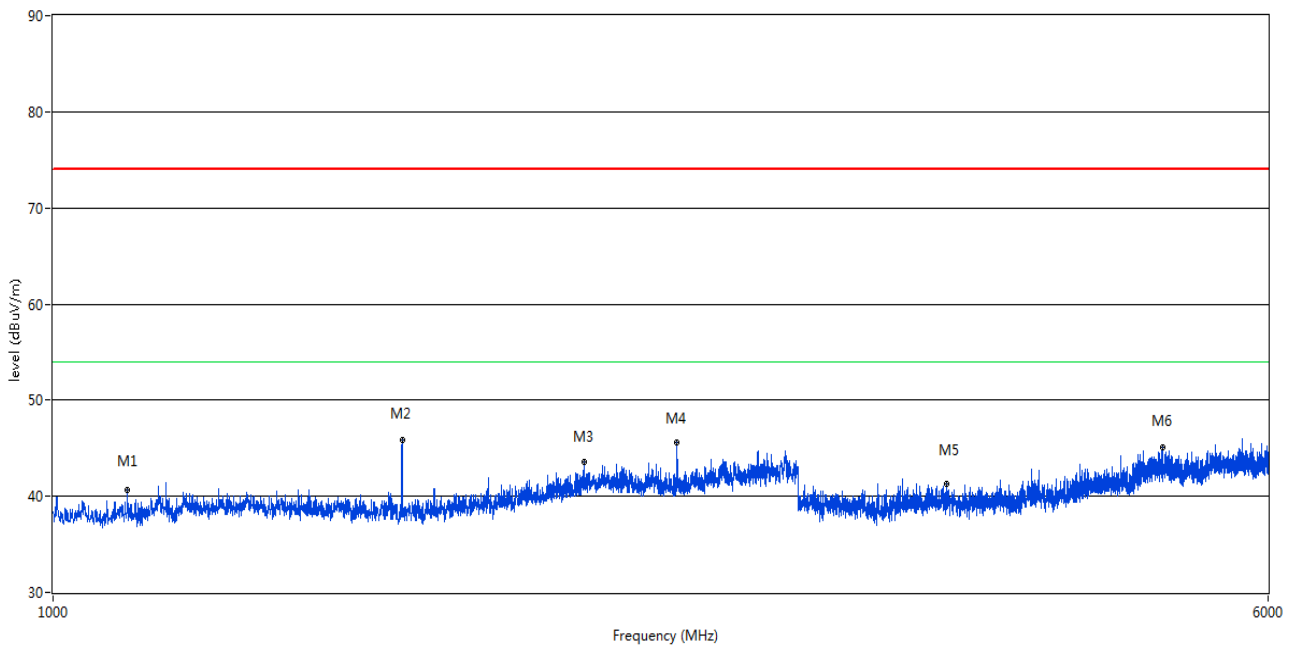
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	63.942	11.11	-15.47	30.0	18.89	Peak	321.00	300	Horizontal	Pass
2	104.186	11.20	-15.06	33.5	22.30	Peak	360.00	300	Horizontal	Pass
3	152.189	11.67	-18.61	33.5	21.83	Peak	59.00	200	Horizontal	Pass
4	281.652	19.05	-12.67	36.0	16.95	Peak	106.00	300	Horizontal	Pass
5	383.477	17.87	-10.23	36.0	18.13	Peak	107.00	200	Horizontal	Pass
6	628.825	19.85	-4.90	36.0	16.15	Peak	360.00	300	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	1113.000	39.78	-7.57	74.0	34.22	Peak	219.90	100	Vertical	Pass
2	1673.000	47.10	-6.04	74.0	26.90	Peak	28.30	100	Vertical	N/A
3	2509.500	46.00	-2.50	74.0	28.00	Peak	345.90	100	Vertical	N/A
4	3371.250	40.92	5.47	74.0	33.08	Peak	19.00	100	Vertical	Pass
5	4225.500	42.40	7.93	74.0	31.60	Peak	3.20	100	Vertical	Pass
6	5354.250	45.18	10.11	74.0	28.82	Peak	256.30	100	Vertical	Pass

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

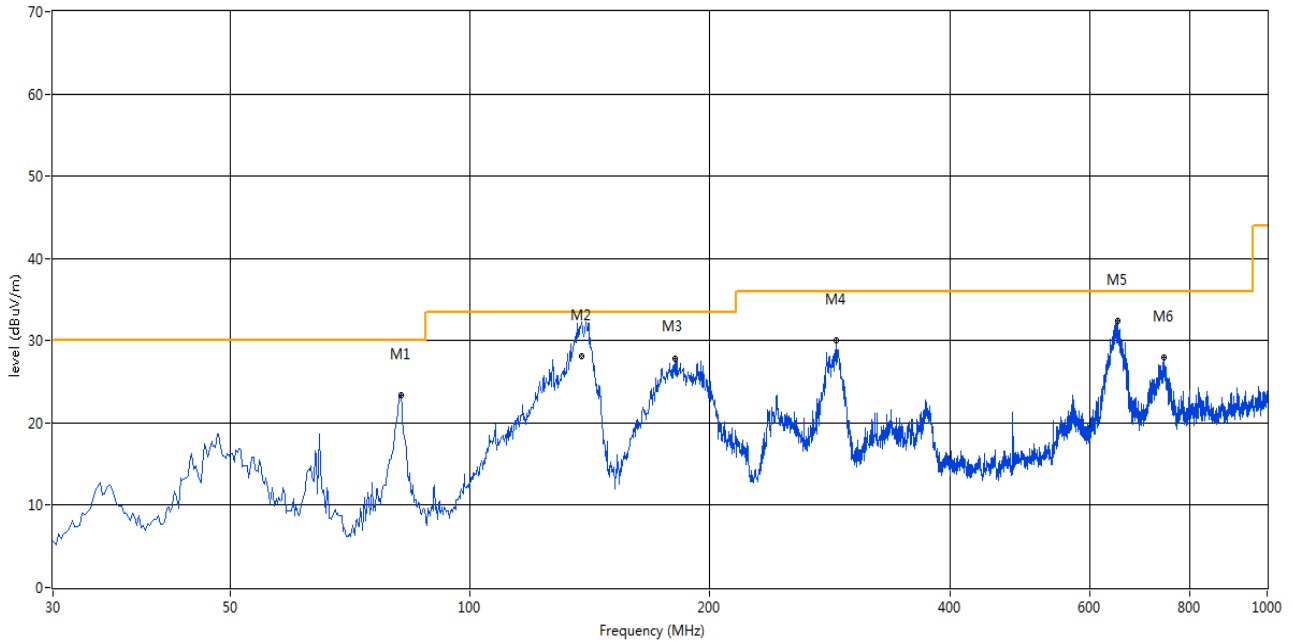


No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	1116.500	40.68	-7.51	74.0	33.32	Peak	93.00	100	Horizontal	Pass
2	1673.500	45.83	-6.07	74.0	28.17	Peak	21.60	100	Horizontal	N/A
3	2187.000	43.61	-3.02	74.0	30.39	Peak	357.90	100	Horizontal	Pass
4	2510.000	45.58	-2.48	74.0	28.42	Peak	356.00	100	Horizontal	N/A
5	3733.500	41.31	6.72	74.0	32.69	Peak	0.10	100	Horizontal	Pass
6	5136.750	45.11	9.98	74.0	28.89	Peak	297.00	100	Horizontal	Pass

Test Data and Plots

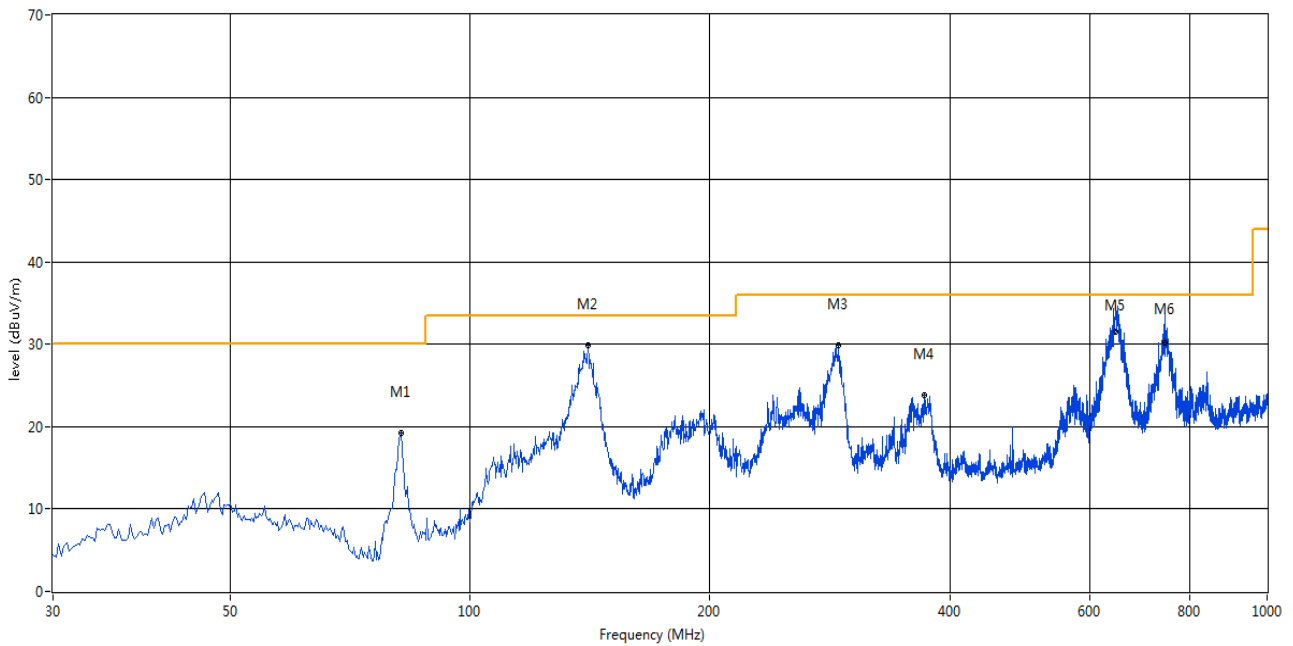
The USB Test Mode

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



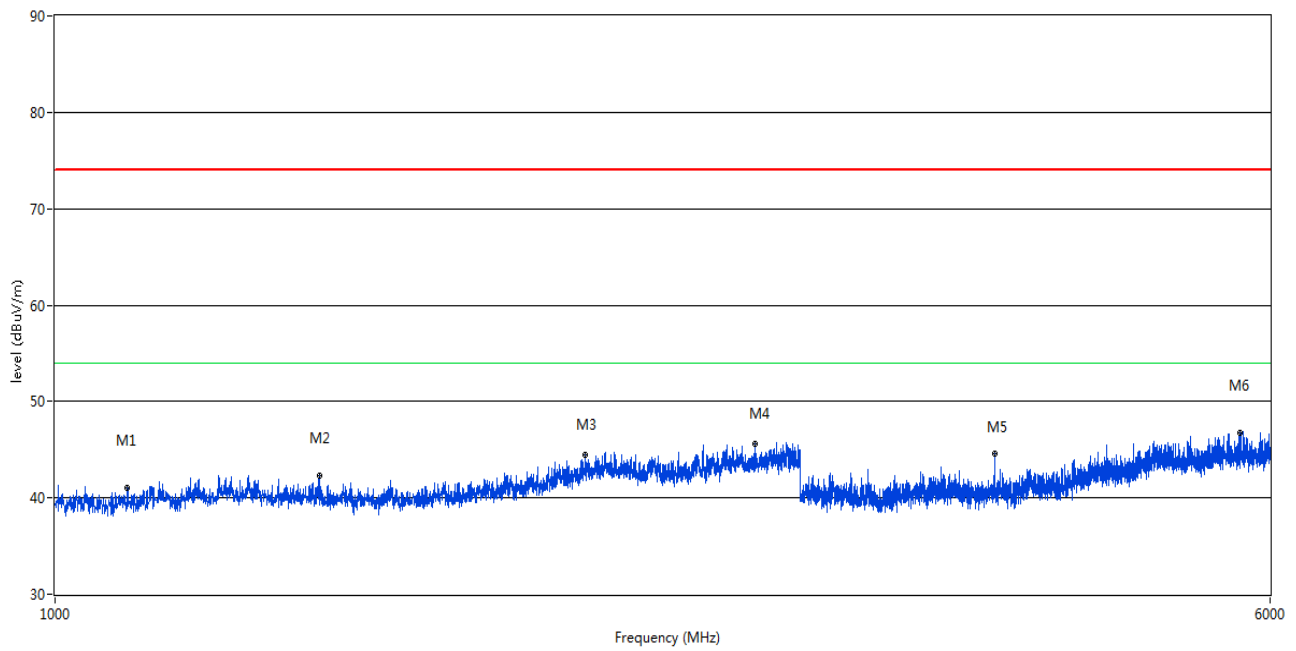
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	81.882	23.46	-19.16	30.0	6.54	Peak	360.00	200	Vertical	Pass
2	137.503	33.92	-18.82	33.5	-0.42	Peak	63.00	156.00	Vertical	N/A
2*	137.503	28.12	-18.82	33.5	5.38	QP	63.00	156.00	Vertical	Pass
3	181.040	27.78	-16.85	33.5	5.72	Peak	360.00	200	Vertical	Pass
4	287.956	30.08	-12.50	36.0	5.92	Peak	97.00	100	Vertical	Pass
5	649.433	32.48	-4.87	36.0	3.52	Peak	311.00	300	Vertical	Pass
6	743.014	27.95	-3.11	36.0	8.05	Peak	311.00	300	Vertical	Pass

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



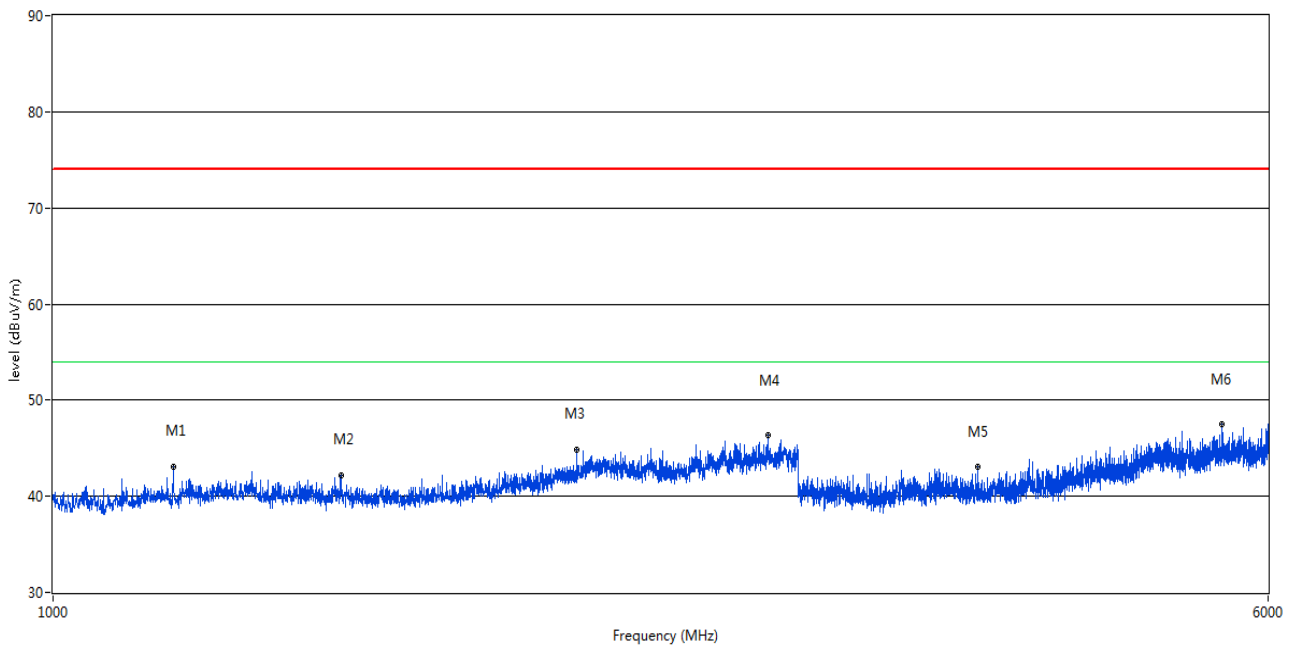
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	81.882	19.30	-19.16	30.0	10.70	Peak	360.00	200	Horizontal	Pass
2	140.552	29.89	-18.84	33.5	3.61	Peak	0.00	300	Horizontal	Pass
3	290.137	29.87	-12.47	36.0	6.13	Peak	20.00	200	Horizontal	Pass
4	371.840	23.87	-10.39	36.0	12.13	Peak	226.00	200	Horizontal	Pass
5	646.075	37.18	-5.01	36.0	-1.18	Peak	120.00	184.00	Horizontal	N/A
5*	646.075	31.54	-5.01	36.0	4.46	QP	120.00	184.00	Horizontal	Pass
6	744.000	35.67	-3.04	36.0	0.33	Peak	217.00	115.00	Horizontal	N/A
6*	744.000	30.25	-3.04	36.0	5.75	QP	217.00	115.00	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	1112.000	41.02	-7.56	74.0	32.98	Peak	26.00	100	Vertical	Pass
2	1476.000	42.36	-6.35	74.0	31.64	Peak	157.90	100	Vertical	Pass
3	2184.500	44.41	-2.84	74.0	29.59	Peak	59.10	100	Vertical	Pass
4	2806.000	45.58	-0.47	74.0	28.42	Peak	333.30	100	Vertical	Pass
5	3999.750	44.57	7.13	74.0	29.43	Peak	235.90	100	Vertical	Pass
6	5738.250	46.72	10.10	74.0	27.28	Peak	120.50	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	1193.500	43.04	-7.25	74.0	30.96	Peak	138.30	100	Horizontal	Pass
2	1528.500	42.22	-5.94	74.0	31.78	Peak	2.40	100	Horizontal	Pass
3	2164.000	44.85	-3.46	74.0	29.15	Peak	51.30	100	Horizontal	Pass
4	2869.500	46.33	0.91	74.0	27.67	Peak	183.00	100	Horizontal	Pass
5	3912.000	43.02	6.96	74.0	30.98	Peak	289.00	100	Horizontal	Pass
6	5604.000	47.55	10.03	74.0	26.45	Peak	211.20	100	Horizontal	Pass

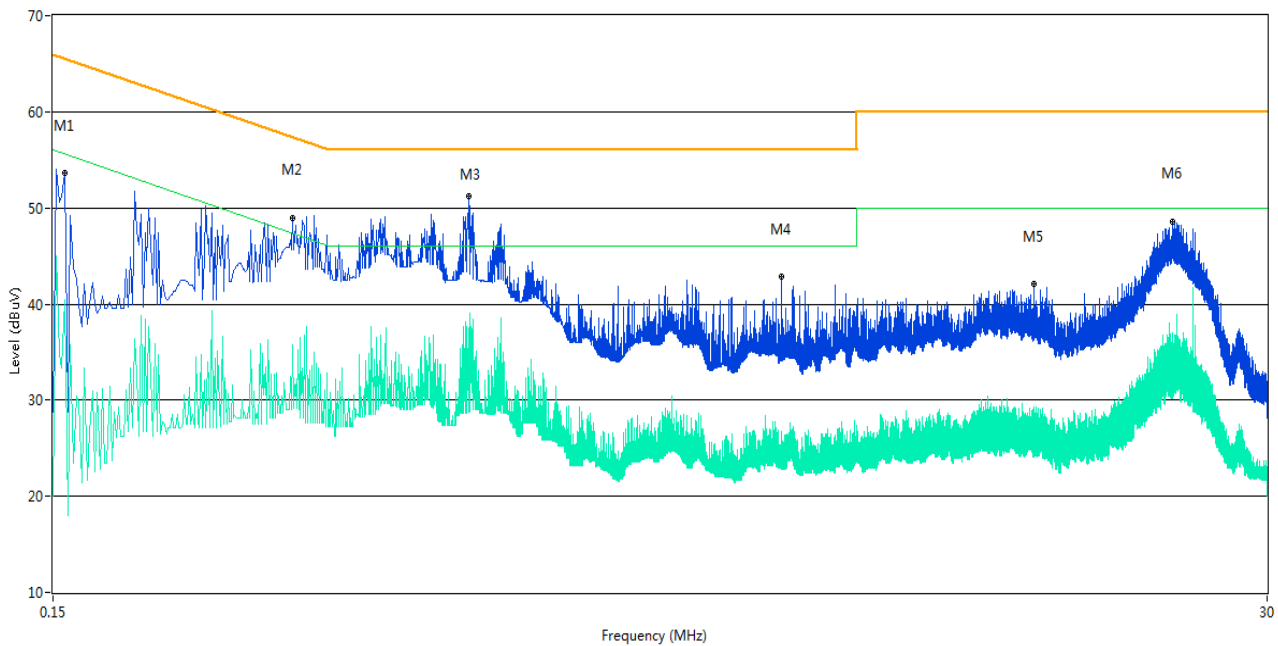
A.2 Conducted Emission

Test Data and Plots

The GSM 850 MHz Test Mode

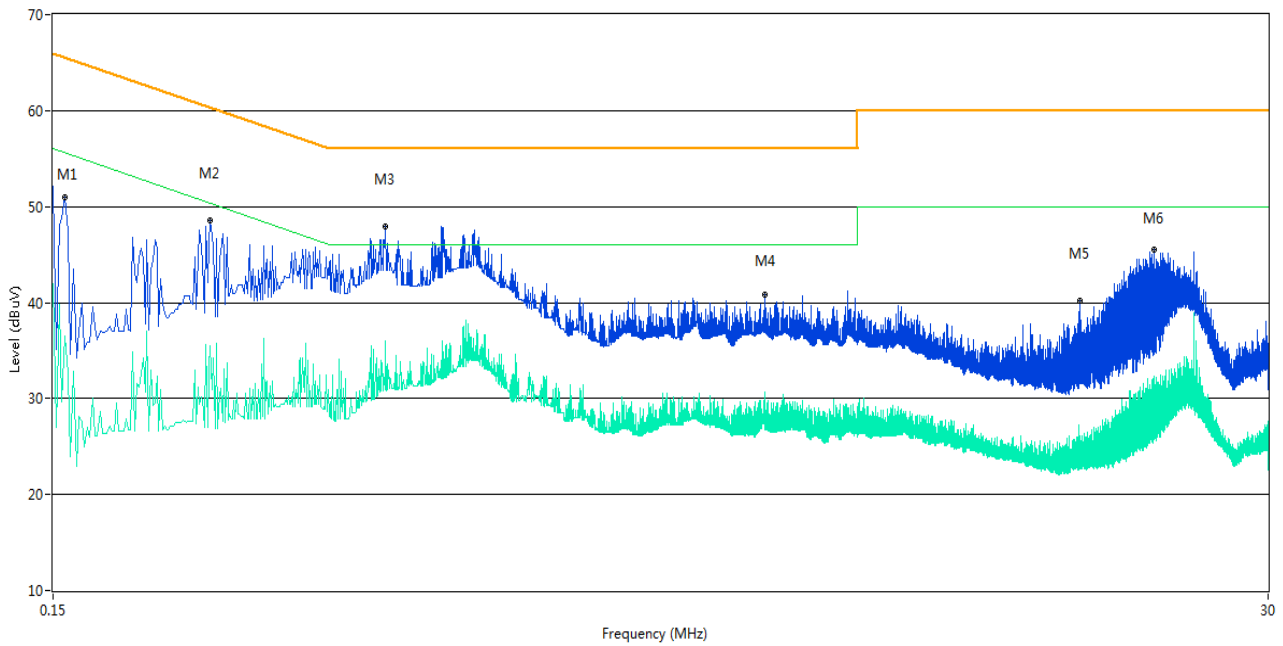
Note: Devices subject to Part 15 must be tested for all available U.S. voltages and frequencies (such as a nominal 120 VAC, 50/60 Hz and 240 VAC, 50/60 Hz) for which the device is capable of operation. So, The configuration 120 VAC, 60 Hz and 240 VAC, 50 Hz were tested respectively, but only the worst 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	0.158	53.6	10.41	65.6	12.00	Peak	L Line	Pass
1**	0.158	40.4	10.41	55.6	15.20	AV	L Line	Pass
2	0.426	49.0	8.69	57.3	8.30	Peak	L Line	Pass
2**	0.426	35.8	8.69	47.3	11.50	AV	L Line	Pass
3	0.920	51.3	9.62	56.0	4.70	Peak	L Line	Pass
3**	0.920	37.5	9.62	46.0	8.50	AV	L Line	Pass
4	3.610	42.8	10.85	56.0	13.20	Peak	L Line	Pass
4**	3.610	26.7	10.85	46.0	19.30	AV	L Line	Pass
5	10.858	42.1	10.34	60.0	17.90	Peak	L Line	Pass
5**	10.858	28.8	10.34	50.0	21.20	AV	L Line	Pass
6	19.892	48.6	10.84	60.0	11.40	Peak	L Line	Pass
6**	19.892	34.3	10.84	50.0	15.70	AV	L Line	Pass

A.2.2 N Phase

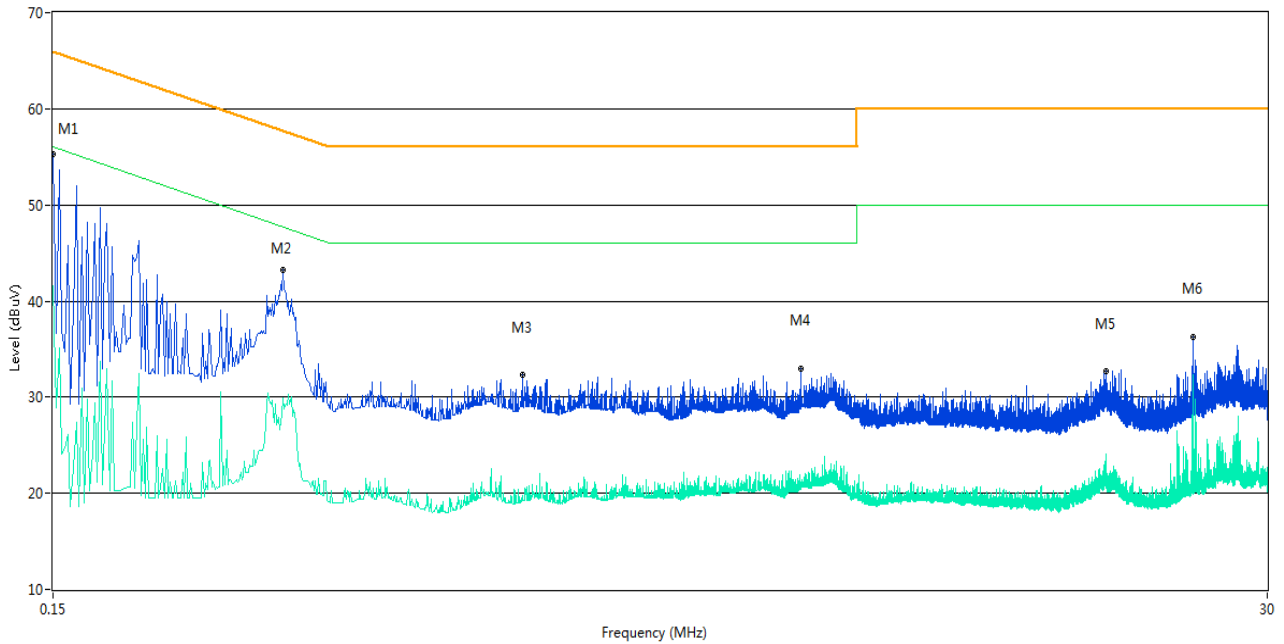


No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.158	51.0	10.41	65.6	14.60	Peak	N Line	Pass
1**	0.158	36.5	10.41	55.6	19.10	AV	N Line	Pass
2	0.298	48.6	9.20	60.3	11.70	Peak	N Line	Pass
2**	0.298	35.4	9.20	50.3	14.90	AV	N Line	Pass
3	0.640	48.0	10.76	56.0	8.00	Peak	N Line	Pass
3**	0.640	36.0	10.76	46.0	10.00	AV	N Line	Pass
4	3.336	40.9	10.88	56.0	15.10	Peak	N Line	Pass
4**	3.336	27.3	10.88	46.0	18.70	AV	N Line	Pass
5	13.178	40.2	10.97	60.0	19.80	Peak	N Line	Pass
5**	13.178	26.1	10.97	50.0	23.90	AV	N Line	Pass
6	18.238	45.5	11.06	60.0	14.50	Peak	N Line	Pass
6**	18.238	28.1	11.06	50.0	21.90	AV	N Line	Pass

Test Data and Plots

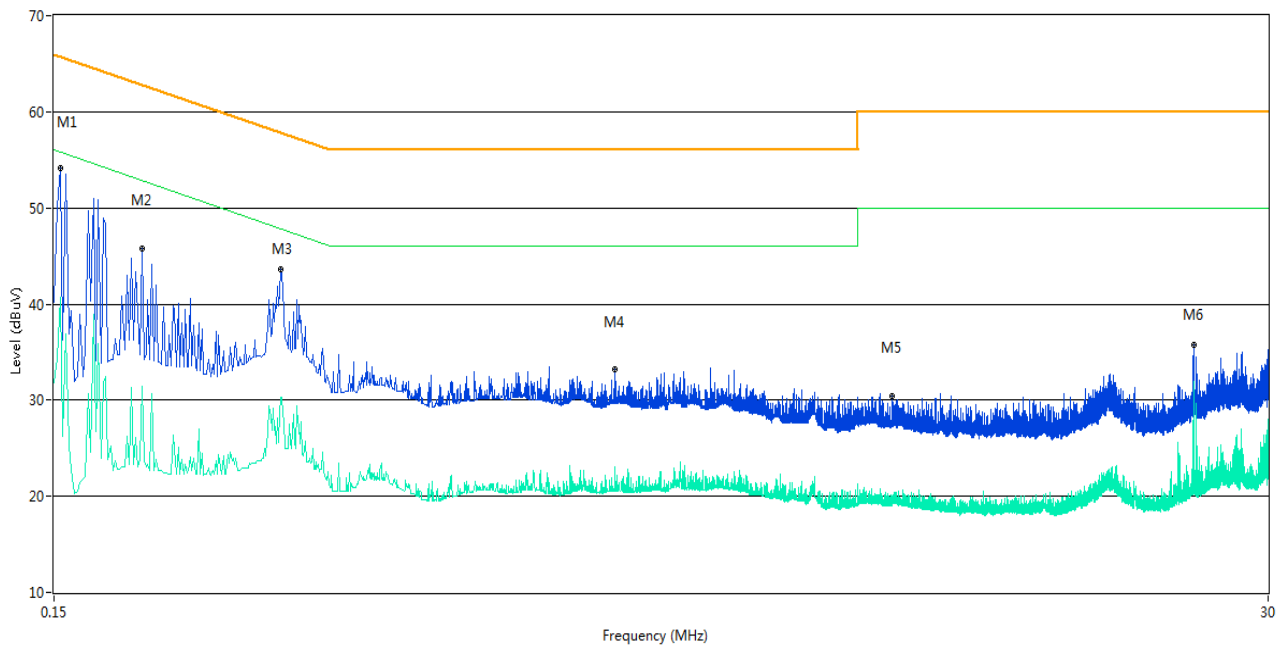
The USB Test Mode

A.2.3 L Phase



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.150	55.2	9.70	66.0	10.80	Peak	L Line	Pass
1**	0.150	41.6	9.70	56.0	14.40	AV	L Line	Pass
2	0.410	43.2	10.36	57.6	14.40	Peak	L Line	Pass
2**	0.410	30.0	10.36	47.6	17.60	AV	L Line	Pass
3	1.162	32.3	9.77	56.0	23.70	Peak	L Line	Pass
3**	1.162	19.6	9.77	46.0	26.40	AV	L Line	Pass
4	3.912	32.9	10.04	56.0	23.10	Peak	L Line	Pass
4**	3.912	20.0	10.04	46.0	26.00	AV	L Line	Pass
5	14.838	32.7	11.37	60.0	27.30	Peak	L Line	Pass
5**	14.838	21.5	11.37	50.0	28.50	AV	L Line	Pass
6	21.660	36.2	11.00	60.0	23.80	Peak	L Line	Pass
6**	21.660	32.3	11.00	50.0	17.70	AV	L Line	Pass

A.2.4 N Phase



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.154	54.2	9.99	65.8	11.60	Peak	N Line	Pass
1**	0.154	40.7	9.99	55.8	15.10	AV	N Line	Pass
2	0.220	45.8	11.35	62.8	17.00	Peak	N Line	Pass
2**	0.220	31.4	11.35	52.8	21.40	AV	N Line	Pass
3	0.404	43.7	10.22	57.8	14.10	Peak	N Line	Pass
3**	0.404	30.3	10.22	47.8	17.50	AV	N Line	Pass
4	1.734	33.2	10.15	56.0	22.80	Peak	N Line	Pass
4**	1.734	23.0	10.15	46.0	23.00	AV	N Line	Pass
5	5.802	30.5	10.01	60.0	29.50	Peak	N Line	Pass
5**	5.802	20.0	10.01	50.0	30.00	AV	N Line	Pass
6	21.660	35.7	11.00	60.0	24.30	Peak	N Line	Pass
6**	21.660	32.0	11.00	50.0	18.00	AV	N Line	Pass

ANNEX B TEST SETUP PHOTOS

Please refer the document “BL-SZ1740113-AE.PDF”.

ANNEX C EUT EXTERNAL PHOTOS

Please refer the document “BL-SZ1740113-AW.PDF”.

ANNEX D EUT INTERNAL PHOTOS

Please refer the document “BL-SZ1740113-AI.PDF”.

--END OF REPORT--