

FCC

EMC

TEST REPORT

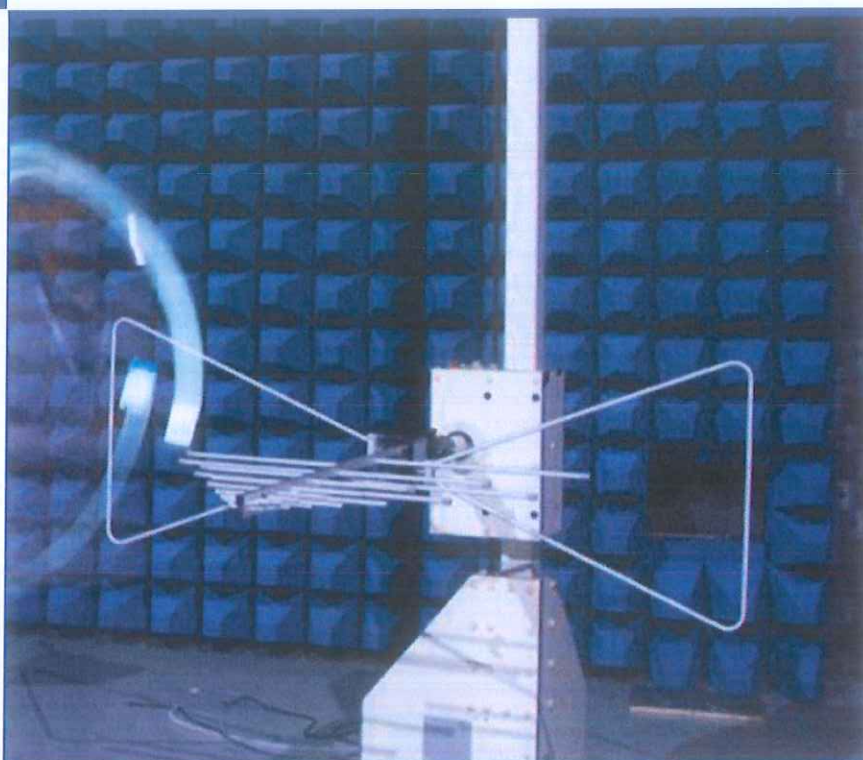
ISSUED BY
Shenzhen BALUN Technology Co., Ltd.



FOR
Tablet PC

ISSUED TO
AOC

14F-5, NO.258, Liancheng Rd., Zhonghe Dist., New Taipei
City, Taiwan



Tested by: Xia Long
Xia Long

(Engineer)

Date Jan. 15, 2018

Approved by: Wei Yanquan
Wei Yanquan

(Chief Engineer)

Date Jan. 15, 2018

Report No.: BL-SZ1760430-401

EUT Name: Tablet PC

Model Name: A831L-D

Brand Name: AOC

Test Standard: 47 CFR Part 15 Subpart B

FCC ID: 2AEB5-A831L-D

Test Conclusion: Pass

Test Date: Jul. 03, 2017 ~ Jul. 10, 2017

Date of Issue: Jan. 15, 2018

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. BALUN Laboratory. 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>Jan. 15, 2018</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	9
4.4	Test Configurations	10
4.5	Test Setups	11
4.6	Test Conditions	13
5	TEST ITEMS	14
5.1	Emission Tests	14
ANNEX A	TEST RESULTS	16

A.1	Radiated Emission	16
A.2	Conducted Emission	24
ANNEX B	TEST SETUP PHOTOS	28
ANNEX C	EUT EXTERNAL PHOTOS	28
ANNEX D	EUT INTERNAL PHOTOS	28

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	<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 v6.5.
- (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	AOC
Address	14F-5, NO.258, Liancheng Rd., Zhonghe Dist., New Taipei City, Taiwan

2.2 Manufacturer Information

Manufacturer	China Greatwall Technology Group Co., Ltd
Address	No. Great wall Computer Industrial Park, Bao Shi East Road, Bao'an Bistrict, Shenzhen, P. R. China

2.3 Factory Information

Factory	N/A
Address	N/A

2.4 General Description for Equipment under Test (EUT)

EUT Name	Tablet PC
Model Name Under Test	A831L-D
Series Model Name	A831L-D, A831L
Description of Model name differentiation	The equipment model A831L-D and A831L are the Tablet PC model, the electrical parameters and internal structure of circuit are same, only the OS, Memory and Flash is different.
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 2/5 4G Network FDD LTE Band 2/4/7/17 Bluetooth, WIFI, GPS, FM

2.5 Ancillary Equipment

Ancillary Equipment 1	Battery	
	Brand Name	N/A
	Model No.	EU 31104107PV
	Serial No.	N/A
	Capacitance	5000 mAh
	Rated Voltage	3.8 V
	Limit Charge Voltage	4.2 V
Ancillary Equipment 2	Adapter	
	Brand Name	N/A
	Model No.	SC/10WA050200US
	Serial No.	N/A
	Rated Input	100-240 V~, 0.5 A, 50/60 Hz
	Rated Output	5 V=, 2 A
Ancillary Equipment 3	USB Cable	
	Length (Approx.)	0.8 m

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 (10-1-16 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 3.8 V from Battery or DC 5 V from Laptop	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&SCHWARZ	ESRP	101036	2017.06.22	2018.06.21	<input checked="" type="checkbox"/>
Test Antenna-Bi-Log	SCHWARZBECK	VULB 9163	9163-977	2016.07.19	2018.07.18	<input checked="" type="checkbox"/>
Test Antenna-Horn	SCHWARZBECK	BBHA 9120D	9120D-1600	2016.07.12	2018.07.11	<input type="checkbox"/>
Anechoic Chamber	EMC Electronic Co., Ltd	20.10*11.60 *7.35m	N/A	2016.08.09	2018.08.08	<input checked="" type="checkbox"/>

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	<input checked="" type="checkbox"/>
Test Antenna-Bi-Log	SCHWARZBECK	VULB 9163	9163-624	2016.07.21	2018.07.20	<input type="checkbox"/>
Test Antenna-Horn	SCHWARZBECK	BBHA 9120D	9120D-1148	2016.07.21	2018.07.20	<input checked="" type="checkbox"/>
Anechoic Chamber	RAINFORD	9m*6m*6m	N/A	2017.02.21	2019.02.20	<input checked="" type="checkbox"/>

Conducted Emission Test						
Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due	Use
EMI Receiver	ROHDE&SCHWARZ	ESRP	101036	2017.06.22	2018.06.21	<input checked="" type="checkbox"/>
LISN	SCHWARZBECK	NSLK 8127	8127-687	2017.06.22	2018.06.21	<input checked="" type="checkbox"/>
LISN	SCHWARZBECK	NNLK 8129	8129-462	2016.09.14	2017.09.13	<input type="checkbox"/>
AMN	SCHWARZBECK	NNBM8124	8124-509	2017.06.22	2018.06.21	<input type="checkbox"/>
AMN	SCHWARZBECK	NNBM8124	8124-510	2017.06.22	2018.06.21	<input type="checkbox"/>
ISN	TESEQ	ISN T800	34449	2017.06.22	2018.06.21	<input type="checkbox"/>
Shielded Enclosure	ChangNing	CN-130701	130703	N/A	N/A	<input checked="" type="checkbox"/>

4.3 Test Enclosure list

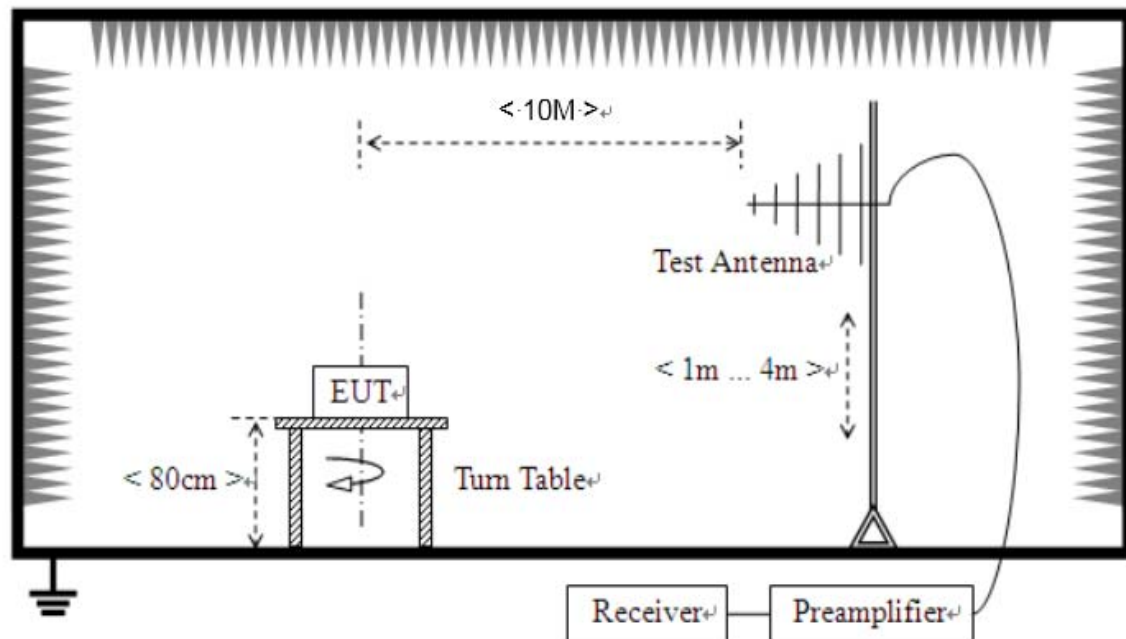
Description	Manufacturer	Model	Serial No.	Length	Description	Use
PC	Dell	015K3N	N/A	N/A	Special Handled	<input type="checkbox"/>
Laptop	Apple	A1465	N/A	N/A	N/A	<input checked="" type="checkbox"/>
Printer	HP	DESKJET 1000	N/A	N/A	N/A	<input type="checkbox"/>
Keyboard	Logitech	Y-BP62a	N/A	N/A	N/A	<input 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"/>
Bluetooth Earphone	SAMSUNG	Gear Circle	N/A	N/A	N/A	<input checked="" type="checkbox"/>
GPS/GLONASS Vector signal generator	R&S	N5172B EXG	N/A	N/A	N/A	<input checked="" type="checkbox"/>
WIFI Router	TP-LINK	TL-WDR7500	N/A	N/A	N/A	<input checked="" type="checkbox"/>
Earphone	N/A	OPPO	N/A	1.1 m	N/A	<input checked="" 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	ITECH	IT6863A	60001401068 7210006	N/A	N/A	<input type="checkbox"/>
LCD Monitor	SAMSUNG	UA32C4000P	N/A	N/A	N/A	<input type="checkbox"/>
LCD Monitor	Dell	U241HB	N/A	N/A	N/A	<input type="checkbox"/>
RJ45 Cable	N/A	N/A	N/A	1.5 m	Shielded with core	<input type="checkbox"/>

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 + Earphone + TF Card + BT Link + WIFI Link + GPS RX
TC02	<u>The EDGE 850 MHz Test Mode</u> EDGE 850 Link + Adapter + USB Cable + Battery + Earphone + TF Card + BT Link + WIFI Link + GPS RX
TC03	<u>The GSM 1900 MHz Test Mode</u> GSM 1900 Link + Adapter + USB Cable + Battery + Earphone + TF Card + BT Link + WIFI Link + GPS RX
TC04	<u>The EDGE 1900 MHz Test Mode</u> EDGE 1900 Link + Adapter + USB Cable + Battery + Earphone + TF Card + BT Link + WIFI Link + GPS RX
TC05	<u>The WCDMA Band 2 Test Mode</u> WCDMA Band 2 Link + Adapter + USB Cable + Battery + Earphone + TF Card + BT Link + WIFI Link + GPS RX
TC06	<u>The WCDMA Band 5 Test Mode</u> WCDMA Band 5 Link + Adapter + USB Cable + Battery + Earphone + TF Card + BT Link + WIFI Link + GPS RX
TC07	<u>The FDD LTE Band 2 Test Mode</u> LTE Band 2 Link + Adapter + USB Cable + Battery + Earphone + TF Card + BT Link + WIFI Link + GPS RX
TC08	<u>The FDD LTE Band 4 Test Mode</u> LTE Band 4 Link + Adapter + USB Cable + Battery + Earphone + TF Card + BT Link + WIFI Link + GPS RX
TC09	<u>The FDD LTE Band 7 Test Mode</u> LTE Band 7 Link + Adapter + USB Cable + Battery + Earphone + TF Card + BT Link + WIFI Link + GPS RX
TC10	<u>The FDD LTE Band 17 Test Mode</u> LTE Band 17 Link + Adapter + USB Cable + Battery + Earphone + TF Card + BT Link + WIFI Link + GPS RX
TC11	<u>The Idle Test Mode</u> GSM 850(Idle) + Adapter + USB Cable + Battery + Earphone + TF Card + FM RX
Amusement Test Mode	
TC12	<u>The USB Test Mode</u> EUT + USB Cable + Battery + Earphone + Laptop + TF Card
TC13	<u>The Video Record Test Mode</u> EUT + Adapter + USB Cable + Battery + Earphone + TF Card
TC14	<u>The Video Play Test Mode</u> EUT + Adapter + USB Cable + Battery + Earphone + TF Card

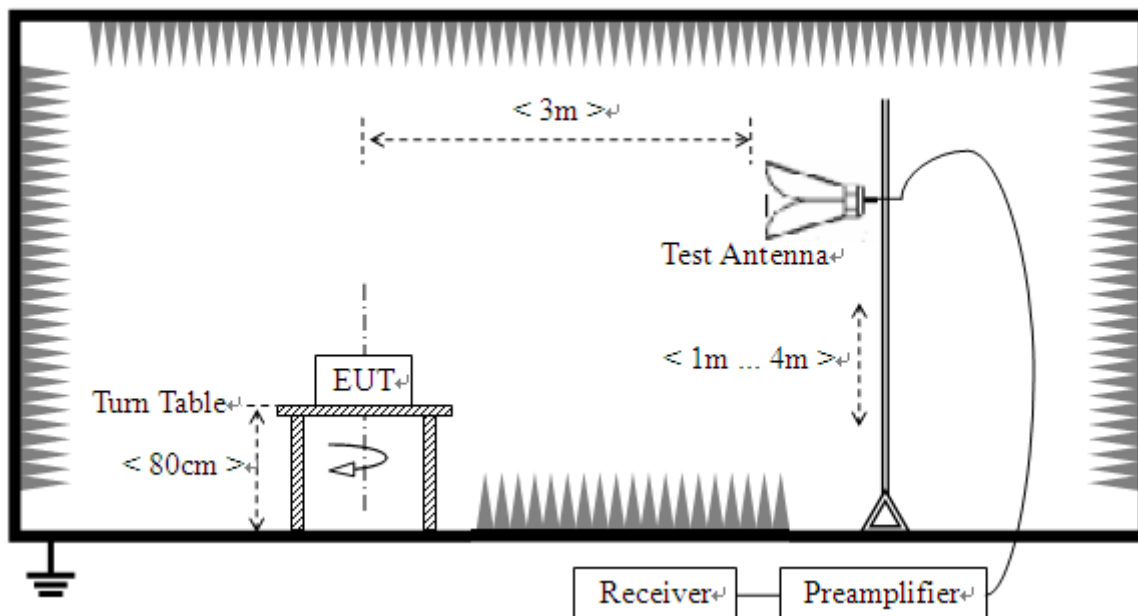
4.5 Test Setups

Test Setup 1



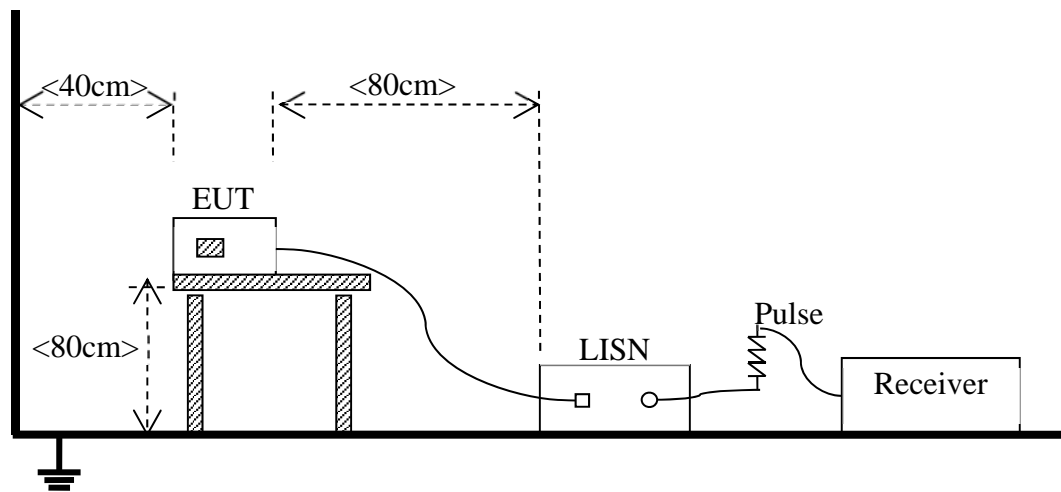
(For Radiated Emission Test (30 MHz-1 GHz))

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~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.

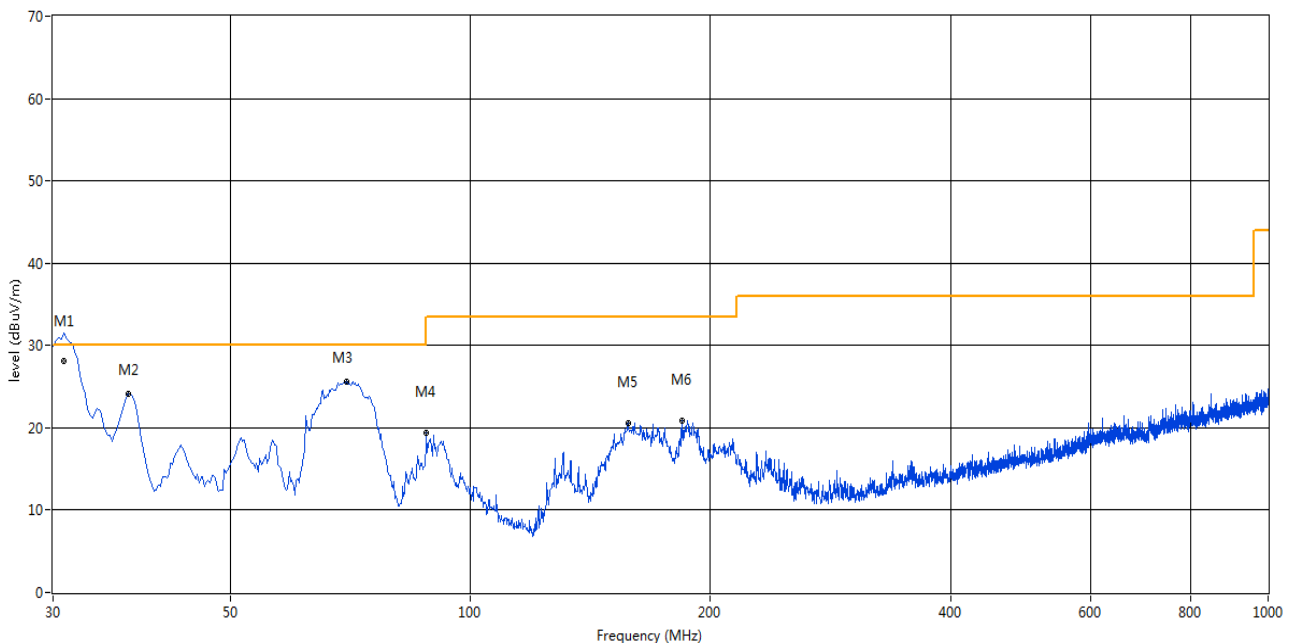
Note 2: For the test data above 1 GHz, according the ANSI C63.4-2014, where limits are specified for both average and peak (or quasi-peak) detector functions, if the peak (or quasi-peak) measured value complies with the average limit, it is unnecessary to perform an average measurement.

Note 3: This frequency which near 850 MHz with circle should be ignored because they are MS and SS carrier frequency, the marked spikes near 2400 MHz with circle should be ignored because they are Bluetooth or WIFI carrier frequency.

Test Data and Plots

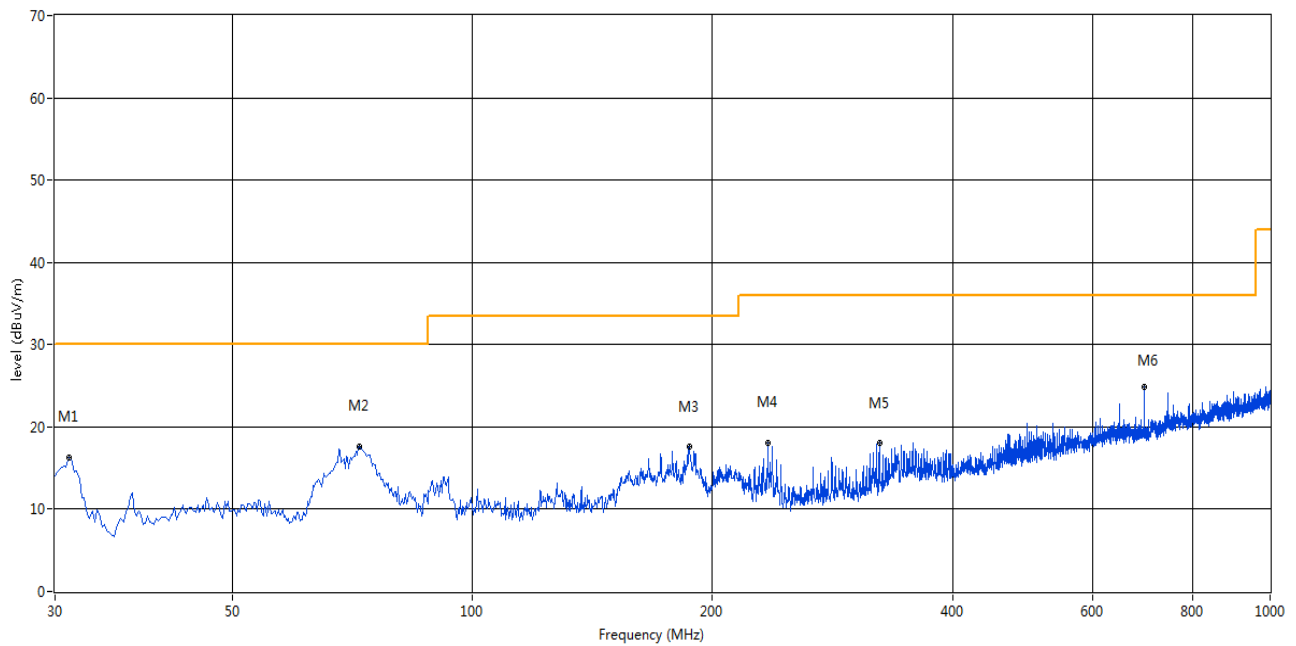
The GSM 850 MHz Test Mode

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



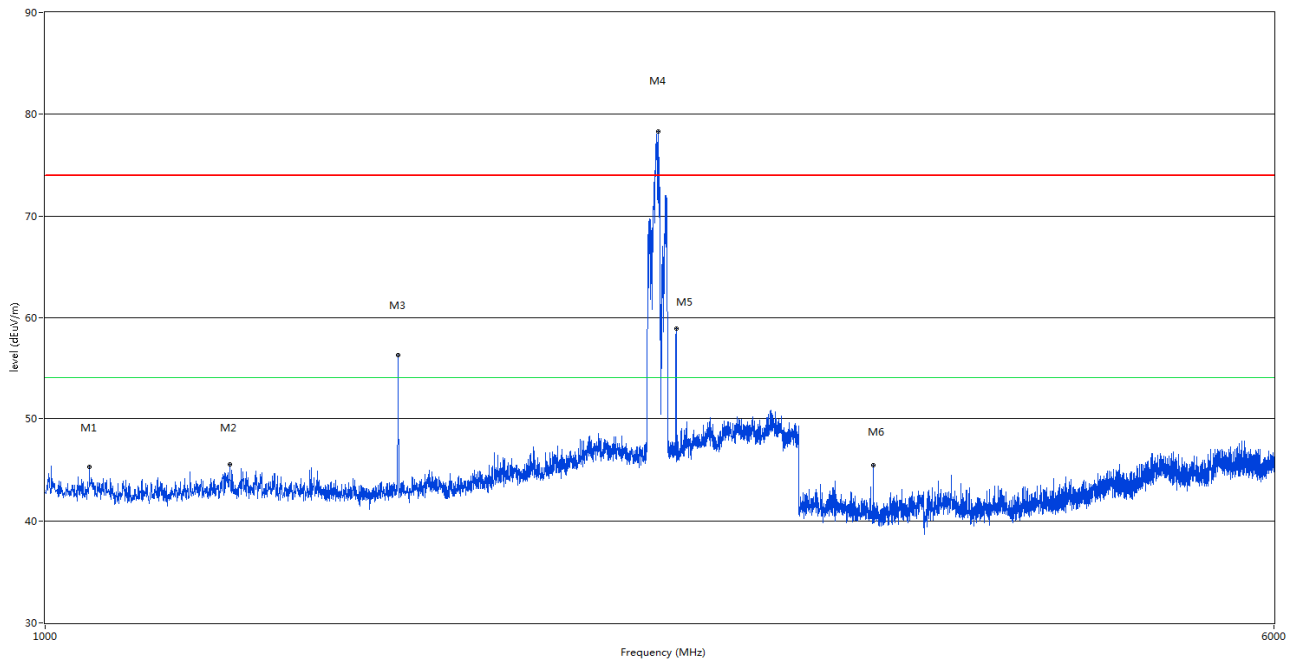
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	31.157	31.53	-16.82	30.0	-1.53	Peak	353.00	100.00	Vertical	N/A
1*	31.157	28.12	-16.82	30.0	3.08	QP	353.00	100.00	Vertical	Pass
2	37.273	24.11	-15.21	30.0	5.89	Peak	5.00	100	Vertical	Pass
3	70.002	25.67	-17.50	30.0	4.33	Peak	117.00	300	Vertical	Pass
4	88.185	19.41	-17.58	33.5	14.09	Peak	63.00	100	Vertical	Pass
5	157.766	20.54	-18.18	33.5	12.96	Peak	222.00	200	Vertical	Pass
6	184.191	20.91	-16.60	33.5	12.59	Peak	208.00	200	Vertical	Pass

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



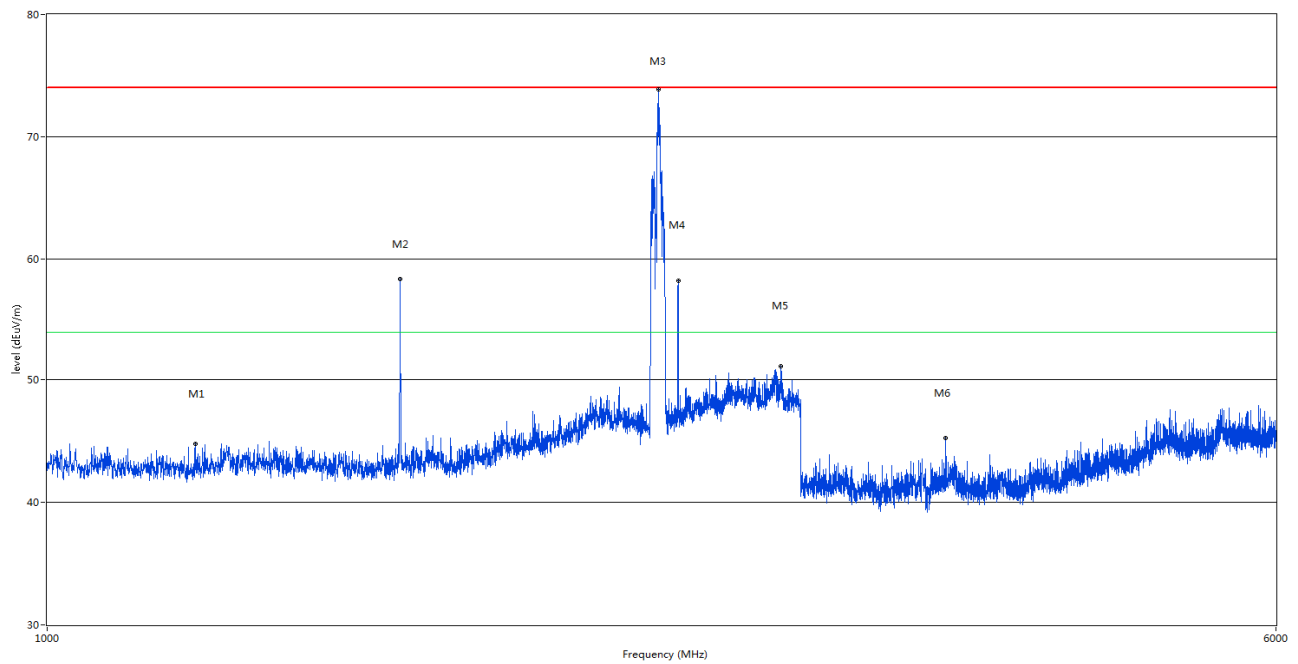
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	31.212	16.34	-16.84	30.0	13.66	Peak	280.00	400	Horizontal	Pass
2	72.184	17.65	-18.46	30.0	12.35	Peak	287.00	400	Horizontal	Pass
3	187.101	17.55	-16.19	33.5	15.95	Peak	291.00	400	Horizontal	Pass
4	234.861	18.02	-13.89	36.0	17.98	Peak	44.00	400	Horizontal	Pass
5	323.837	17.99	-11.66	36.0	18.01	Peak	92.00	400	Horizontal	Pass
6	695.981	24.89	-4.10	36.0	11.11	Peak	343.00	100	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	1066.500	45.33	-3.95	74.0	28.67	Peak	243.90	100	Vertical	Pass
2	1309.000	45.50	-3.11	74.0	28.50	Peak	189.80	100	Vertical	Pass
3	1673.000	56.24	-2.13	74.0	17.76	Peak	124.90	100	Vertical	N/A
4	2444.500	78.29	1.09	74.0	-4.29	Peak	359.10	100	Vertical	N/A
5	2509.500	58.91	2.09	74.0	15.09	Peak	17.80	100	Vertical	N/A
6	3346.500	45.44	5.96	74.0	28.56	Peak	12.70	100	Vertical	Pass

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

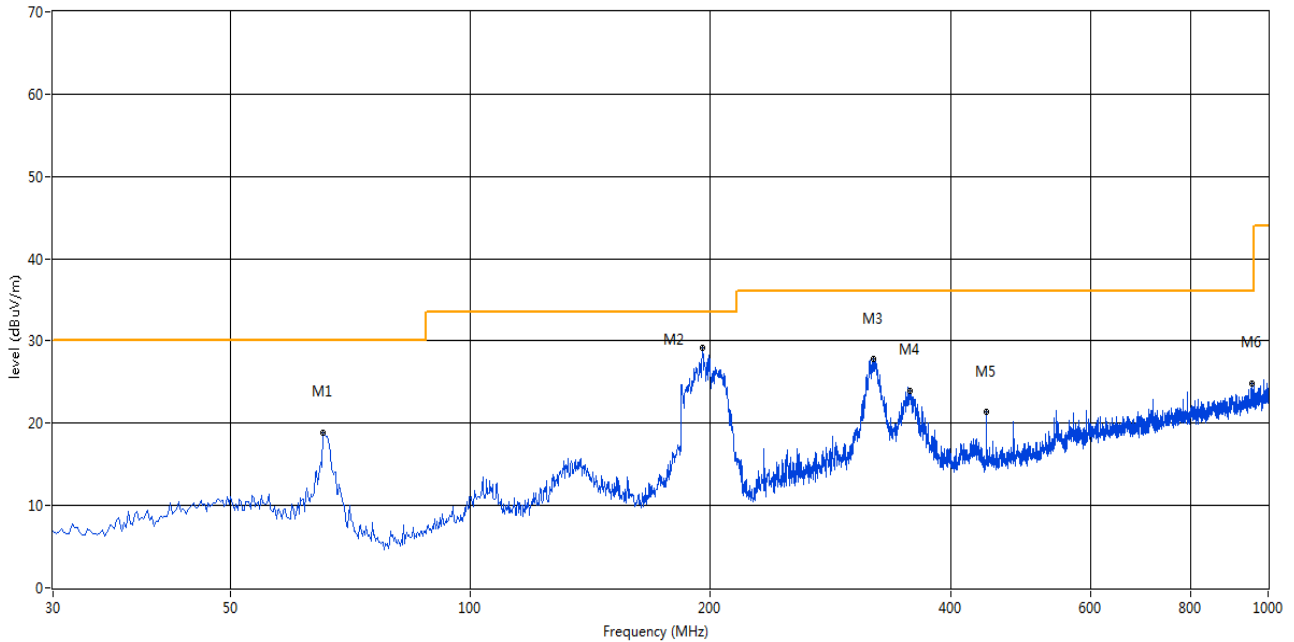


No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	1241.000	44.78	-3.88	74.0	29.22	Peak	340.20	100	Horizontal	Pass
2	1673.000	58.34	-2.13	74.0	15.66	Peak	344.80	100	Horizontal	N/A
3	2438.000	73.90	1.29	74.0	0.10	Peak	42.00	100	Horizontal	N/A
4	2509.500	58.23	2.09	74.0	15.77	Peak	0.40	100	Horizontal	N/A
5	2915.500	51.14	5.54	74.0	22.86	Peak	15.10	100	Horizontal	Pass
6	3707.250	45.23	7.92	74.0	28.77	Peak	226.60	100	Horizontal	Pass

Test Data and Plots

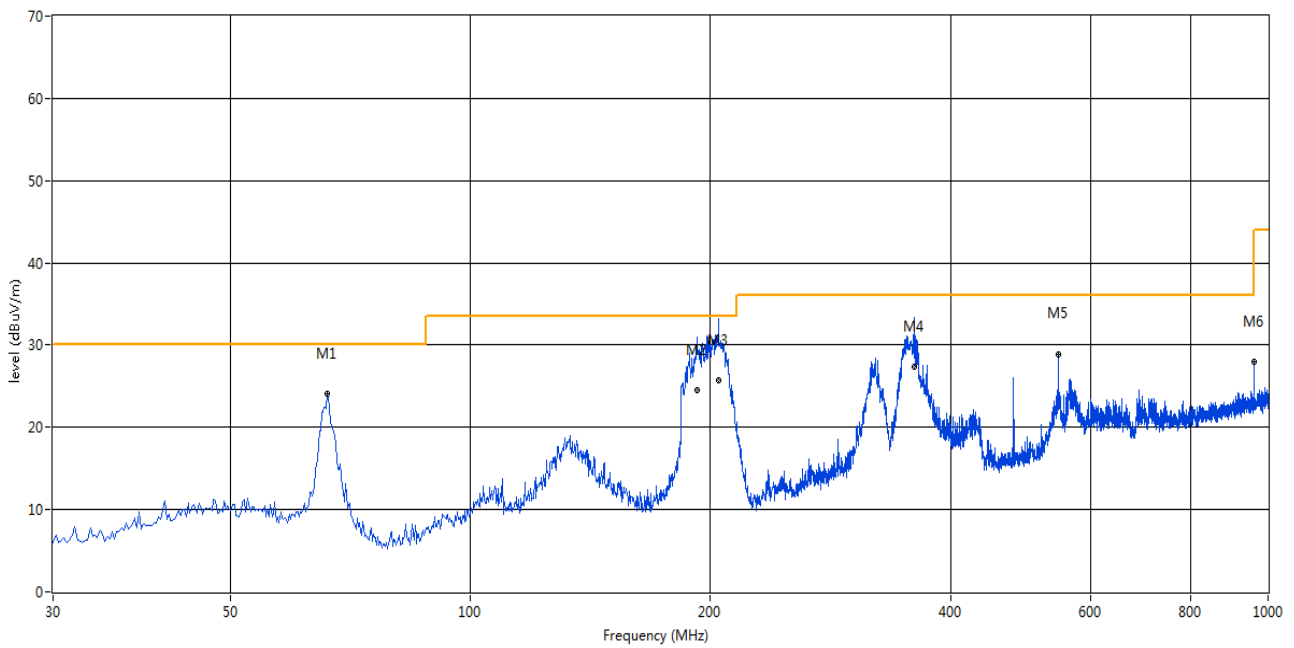
The USB Test Mode

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



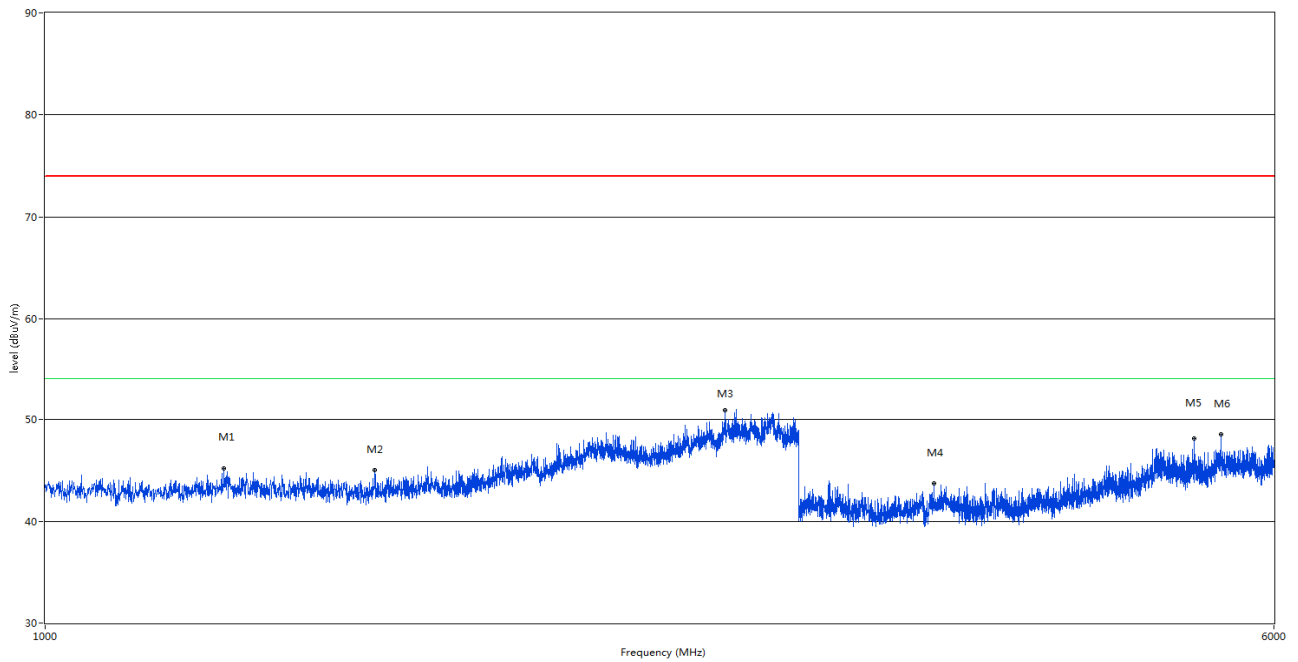
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	65.396	18.90	-15.84	30.0	11.10	Peak	76.00	300	Vertical	Pass
2	195.344	29.18	-15.31	33.5	4.32	Peak	104.00	100	Vertical	Pass
3	319.715	27.88	-11.78	36.0	8.12	Peak	182.00	100	Vertical	Pass
4	356.323	23.96	-10.58	36.0	12.04	Peak	227.00	100	Vertical	Pass
5	443.602	21.37	-8.96	36.0	14.63	Peak	92.00	200	Vertical	Pass
6	955.391	24.89	-0.88	36.0	11.11	Peak	49.00	300	Vertical	Pass

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



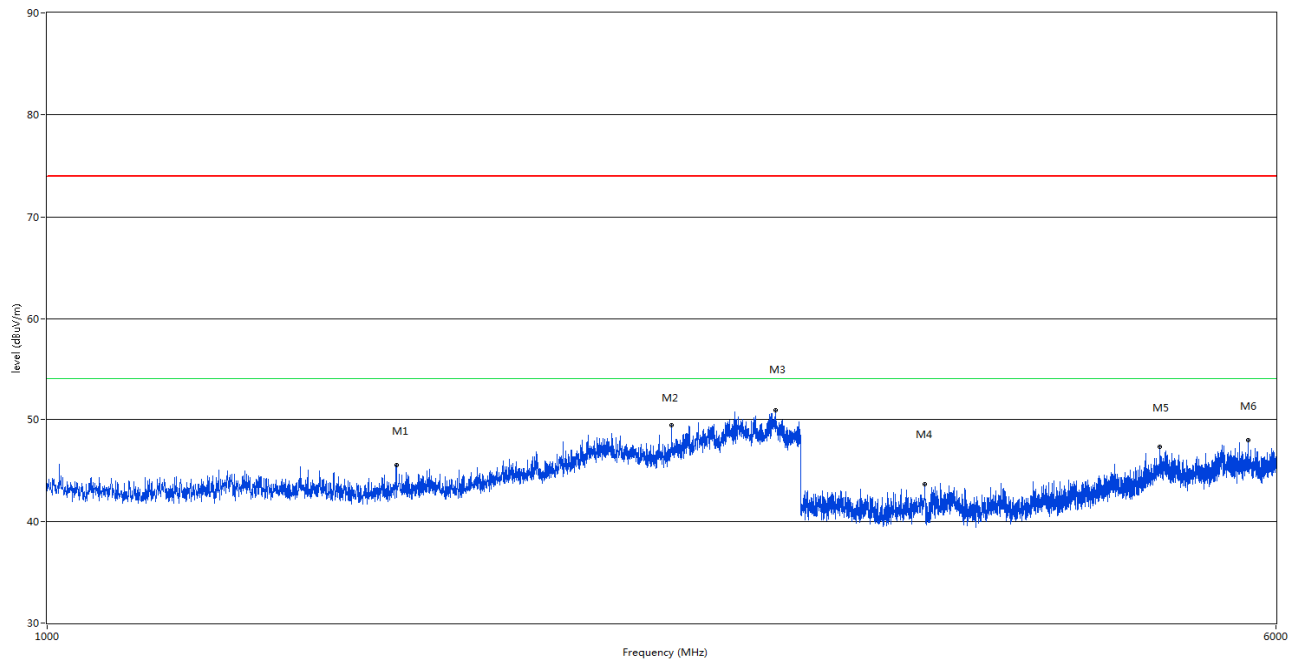
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	66.123	24.03	-16.02	30.0	5.97	Peak	342.00	100	Horizontal	Pass
2	192.732	31.13	-15.66	33.5	2.37	Peak	15.000	374.00	Horizontal	N/A
2*	192.732	24.52	-15.66	33.5	8.98	QP	15.000	374.00	Horizontal	Pass
3	204.958	31.99	-14.99	33.5	1.51	Peak	0.000	364.00	Horizontal	N/A
3*	204.958	25.77	-14.99	33.5	7.73	QP	0.000	364.00	Horizontal	Pass
4	360.189	33.36	-10.54	36.0	2.64	Peak	59.000	291.00	Horizontal	N/A
4*	360.189	27.38	-10.54	36.0	8.62	QP	59.000	291.000	Horizontal	Pass
5	545.669	28.86	-6.92	36.0	7.14	Peak	213.00	200	Horizontal	Pass
6	959.755	27.95	-0.58	36.0	8.05	Peak	249.00	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	1297.500	45.17	-2.98	74.0	28.83	Peak	307.80	100	Vertical	Pass
2	1617.500	45.04	-2.91	74.0	28.96	Peak	268.60	100	Vertical	Pass
3	2694.500	50.95	4.75	74.0	23.05	Peak	0.00	100	Vertical	Pass
4	3655.500	43.69	7.66	74.0	30.31	Peak	130.00	100	Vertical	Pass
5	5343.750	48.18	11.31	74.0	25.82	Peak	283.80	100	Vertical	Pass
6	5551.500	48.58	11.98	74.0	25.42	Peak	182.60	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	1664.000	45.55	-2.31	74.0	28.45	Peak	57.20	100	Horizontal	Pass
2	2485.500	49.43	1.89	74.0	24.57	Peak	127.90	100	Horizontal	Pass
3	2893.500	50.93	5.77	74.0	23.07	Peak	185.40	100	Horizontal	Pass
4	3596.250	43.69	7.18	74.0	30.31	Peak	116.80	100	Horizontal	Pass
5	5067.750	47.32	10.93	74.0	26.68	Peak	178.90	100	Horizontal	Pass
6	5764.500	47.99	11.75	74.0	26.01	Peak	357.50	100	Horizontal	Pass

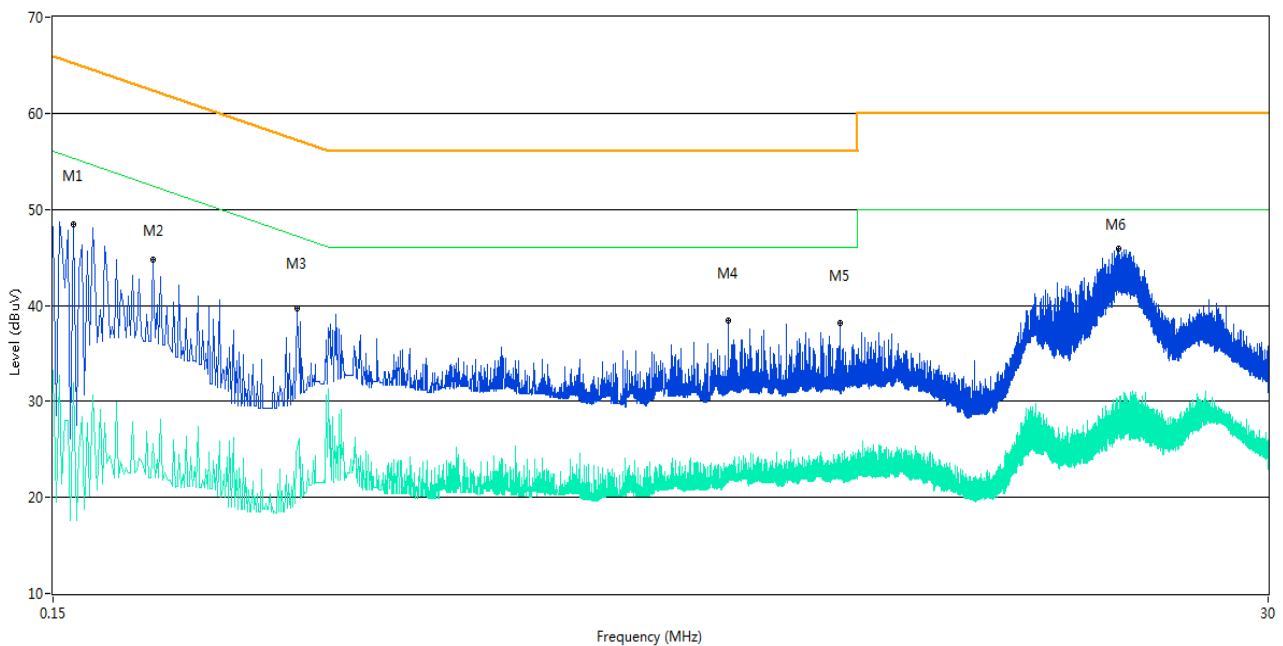
A.2 Conducted Emission

Test Data and Plots

The GSM 850 MHz Test Mode

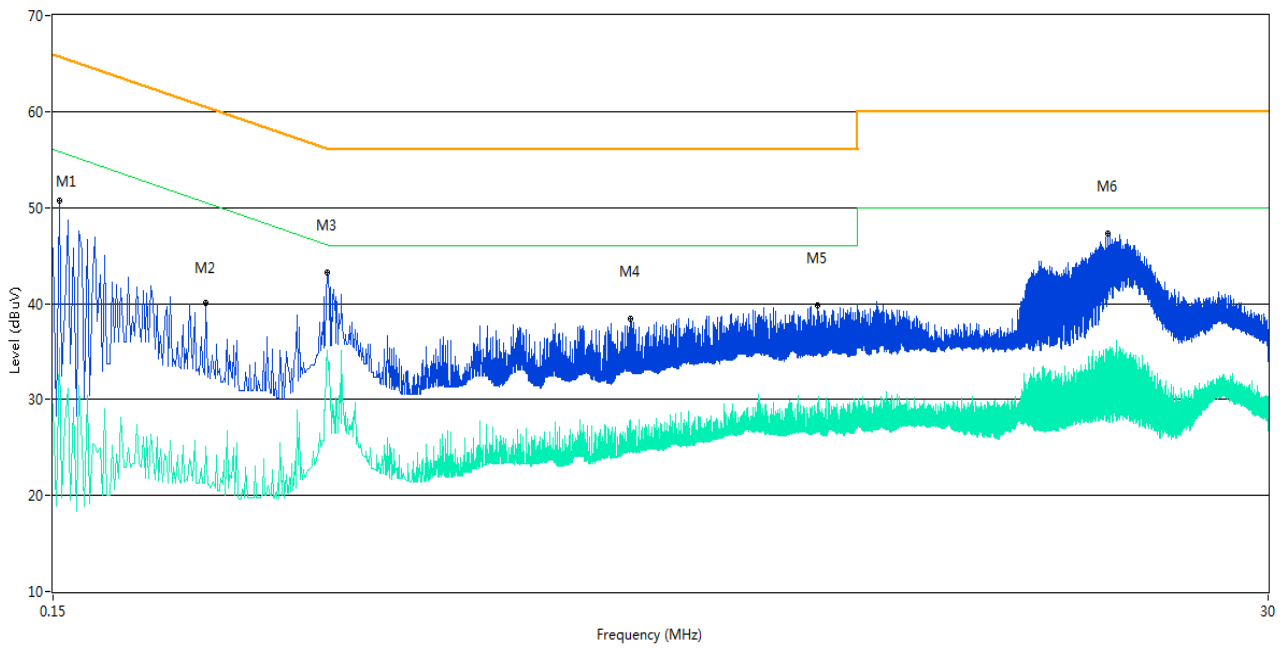
Note: Devices subject to Part 15 must be tested for all available U.S. voltages and frequencies (such as a nominal 120 VAC, 50/60 Hz and 240 VAC, 50/60 Hz) for which the device is capable of operation. So, The configuration 120 VAC, 60 Hz and 240 VAC, 50 Hz were tested respectively, but only the worst 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	0.164	48.4	9.41	65.3	16.90	Peak	L Line	Pass
1**	0.164	31.9	9.41	55.3	23.40	AV	L Line	Pass
2	0.232	44.8	10.13	62.4	17.60	Peak	L Line	Pass
2**	0.232	25.6	10.13	52.4	26.80	AV	L Line	Pass
3	0.434	39.7	10.14	57.2	17.50	Peak	L Line	Pass
3**	0.434	25.1	10.14	47.2	22.10	AV	L Line	Pass
4	2.852	38.4	10.60	56.0	17.60	Peak	L Line	Pass
4**	2.852	23.2	10.60	46.0	22.80	AV	L Line	Pass
5	4.634	38.1	10.13	56.0	17.90	Peak	L Line	Pass
5**	4.634	24.3	10.13	46.0	21.70	AV	L Line	Pass
6	15.620	45.8	11.39	60.0	14.20	Peak	L Line	Pass
6**	15.620	29.0	11.39	50.0	21.00	AV	L Line	Pass

A.2.2 N Phase

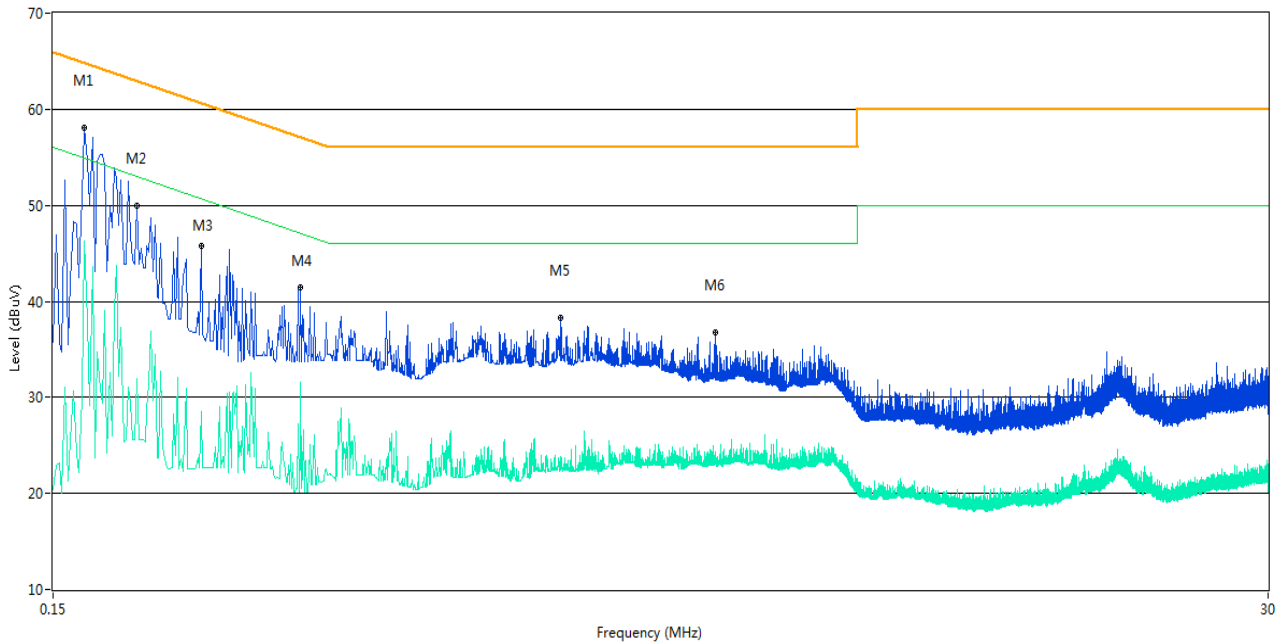


No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.154	50.7	9.99	65.8	15.10	Peak	N Line	Pass
1**	0.154	35.4	9.99	55.8	20.40	AV	N Line	Pass
2	0.292	40.1	9.85	60.5	20.40	Peak	N Line	Pass
2**	0.292	25.2	9.85	50.5	25.30	AV	N Line	Pass
3	0.496	43.2	9.79	56.1	12.90	Peak	N Line	Pass
3**	0.496	35.1	9.79	46.1	11.00	AV	N Line	Pass
4	1.856	38.4	10.37	56.0	17.60	Peak	N Line	Pass
4**	1.856	26.6	10.37	46.0	19.40	AV	N Line	Pass
5	4.210	39.8	10.47	56.0	16.20	Peak	N Line	Pass
5**	4.210	27.3	10.47	46.0	18.70	AV	N Line	Pass
6	14.936	47.3	11.40	60.0	12.70	Peak	N Line	Pass
6**	14.936	34.9	11.40	50.0	15.10	AV	N Line	Pass

Test Data and Plots

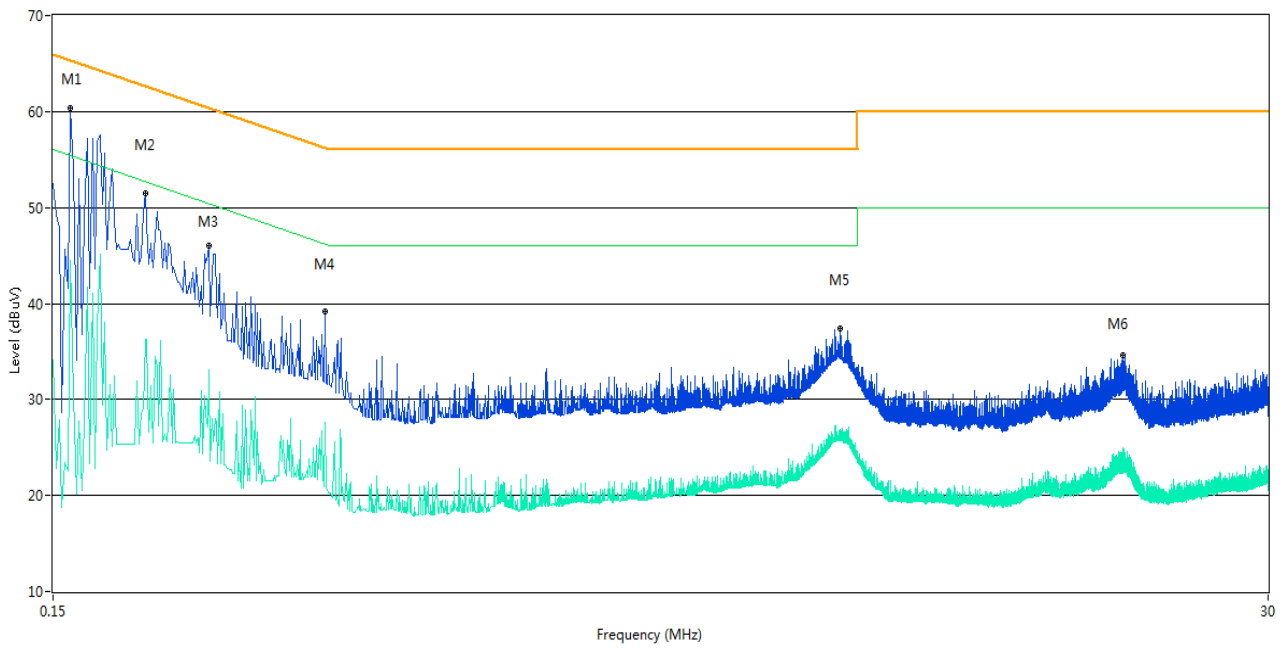
The USB Test Mode

A.2.3 L Phase



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.172	58.0	9.39	64.9	6.90	Peak	L Line	Pass
1**	0.172	46.3	9.39	54.9	8.60	AV	L Line	Pass
2	0.216	49.9	10.82	63.0	13.10	Peak	L Line	Pass
2**	0.216	31.9	10.82	53.0	21.10	AV	L Line	Pass
3	0.286	45.8	9.08	60.6	14.80	Peak	L Line	Pass
3**	0.286	28.5	9.08	50.6	22.10	AV	L Line	Pass
4	0.442	41.4	10.54	57.0	15.60	Peak	L Line	Pass
4**	0.442	31.6	10.54	47.0	15.40	AV	L Line	Pass
5	1.374	38.3	10.11	56.0	17.70	Peak	L Line	Pass
5**	1.374	22.6	10.11	46.0	23.40	AV	L Line	Pass
6	2.690	36.7	10.78	56.0	19.30	Peak	L Line	Pass
6**	2.690	24.3	10.78	46.0	21.70	AV	L Line	Pass

A.2.4 N Phase



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.162	60.4	9.85	65.4	5.00	Peak	N Line	Pass
1**	0.162	44.5	9.85	55.4	10.90	AV	N Line	Pass
2	0.224	51.5	10.30	62.7	11.20	Peak	N Line	Pass
2**	0.224	36.2	10.30	52.7	16.50	AV	N Line	Pass
3	0.296	46.1	9.65	60.4	14.30	Peak	N Line	Pass
3**	0.296	33.1	9.65	50.4	17.30	AV	N Line	Pass
4	0.492	39.2	9.99	56.1	16.90	Peak	N Line	Pass
4**	0.492	27.7	9.99	46.1	18.40	AV	N Line	Pass
5	4.650	37.4	10.16	56.0	18.60	Peak	N Line	Pass
5**	4.650	26.4	10.16	46.0	19.60	AV	N Line	Pass
6	15.938	34.6	11.38	60.0	25.40	Peak	N Line	Pass
6**	15.938	23.7	11.38	50.0	26.30	AV	N Line	Pass

ANNEX B TEST SETUP PHOTOS

Please refer the document “BL-SZ1760430-AE.PDF”.

ANNEX C EUT EXTERNAL PHOTOS

Please refer the document “BL-SZ1760430-AW.PDF”.

ANNEX D EUT INTERNAL PHOTOS

Please refer the document “BL-SZ1760430-AI.PDF”.

--END OF REPORT--