


EMC TEST REPORT



Report No.: 17070190-FCC-E V1

Supersede Report No: N/A

Applicant	AOC	
Product Name	Tablet PC	
Model No.	A831L	
Serial No.	N/A	
Test Standard	FCC Part 15 Subpart B Class B:2016, ANSI C63.4: 2014	
Test Date	March 10 to April 04, 2017	
Issue Date	April 17, 2017	
Test Result	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail	
Equipment complied with the specification	<input checked="" type="checkbox"/>	
Equipment did not comply with the specification	<input type="checkbox"/>	
<i>Evans He</i>	<i>David Huang</i>	
Evans He Test Engineer	David Huang Checked By	
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Issued by:

SIEMIC (SHENZHEN-CHINA) LABORATORIES

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Laboratories Introduction

SIEMIC, headquartered in the heart of Silicon Valley, with superior facilities in US and Asia, is one of the leading independent testing and certification facilities providing customers with one-stop shop services for Compliance Testing and Global Certifications.



In addition to testing and certification, SIEMIC provides initial design reviews and compliance management throughout a project. Our extensive experience with China, Asia Pacific, North America, European, and International compliance requirements, assures the fastest, most cost effective way to attain regulatory compliance for the global markets.

Accreditations for Conformity Assessment

Country/Region	Scope
USA	EMC, RF/Wireless, SAR, Telecom
Canada	EMC, RF/Wireless, SAR, Telecom
Taiwan	EMC, RF, Telecom, SAR, Safety
Hong Kong	RF/Wireless, SAR, Telecom
Australia	EMC, RF, Telecom, SAR, Safety
Korea	EMI, EMS, RF, SAR, Telecom, Safety
Japan	EMI, RF/Wireless, SAR, Telecom
Singapore	EMC, RF, SAR, Telecom
Europe	EMC, RF, SAR, Telecom, Safety

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1. Report Revision History

Report No.	Report Version	Description	Issue Date
17070190-FCC-E	NONE	Original	April 05, 2017
17070190-FCC-E V1	V1	Added the test setup photos	April 17, 2017

2. Customer information

Applicant Name	AOC
Applicant Add	14F-5, NO.258, Liancheng Rd., Zhonghe Dist., New Taipei City, Taiwan
Manufacturer	China Great Wall Computer Shenzhen Co., Ltd
Manufacturer Add	No.Great wall Computer Industrial Park,Bao Shi East Road,Bao' an Bistrict,Shenzhen,P.R.China

3. Test site information

Lab performing tests	SIEMIC (Shenzhen-China) LABORATORIES
Lab Address	Zone A, Floor 1, Building 2 Wan Ye Long Technology Park South Side of Zhoushi Road, Bao' an District, Shenzhen, Guangdong China 518108
FCC Test Site No.	718246
IC Test Site No.	4842E-1
Test Software of Radiated Emission	Radiated Emission Program-To Shenzhen v2.0
Test Software of Conducted Emission	EZ-EMC(ver.lcp-03A1)

4. Equipment under Test (EUT) Information

Description of EUT:	Tablet PC
Main Model:	A831L
Serial Model:	N/A
Antenna Gain:	GSM850: -0.7dBi PCS1900: -0.8dBi UMTS-FDD Band V: -0.7dBi UMTS-FDD Band II: -0.8dBi LTE Band II: -0.8dBi LTE Band IV: -0.7dBi LTE Band VII: -1dBi LTE Band XVII: -0.7dBi WIFI: 1.18dBi Bluetooth/BLE: 1.18dBi GPS: 0.22dBi
Antenna Type:	PIFA antenna
Input Power:	Adapter: Model: SC/10WA050200US Input: AC100-240V~50/60Hz,0.5A Output: DC 5.0V,2A Battery : Spec: 3.8V,19Wh,5000mAh
Equipment Category :	JBC
Type of Modulation:	GSM / GPRS: GMSK EGPRS: GMSK,8PSK UMTS-FDD: QPSK LTE Band: QPSK, 16QAM 802.11b/g/n: DSSS, OFDM Bluetooth: GFSK, π /4DQPSK, 8DPSK BLE: GFSK GPS:BPSK

GSM850 TX: 824.2 ~ 848.8 MHz; RX: 869.2 ~ 893.8 MHz
 PCS1900 TX: 1850.2 ~ 1909.8 MHz; RX: 1930.2 ~ 1989.8 MHz
 UMTS-FDD Band V TX: 826.4 ~ 846.6 MHz; RX: 871.4 ~ 891.6 MHz
 UMTS-FDD Band II TX: 1852.4 ~ 1907.6 MHz;
 RX: 1932.4 ~ 1987.6 MHz
 LTE Band II TX: 1850.7 ~ 1909.3 MHz; RX : 1930.7 ~ 1989.3 MHz
 LTE Band IV TX: 1710.7 ~ 1754.3 MHz; RX : 2110.7 ~ 2154.3 MHz
 LTE Band VII TX: 2502.5 ~ 2567.5 MHz; RX : 2622.5 ~ 2687.5 MHz
 LTE Band XVII TX: 706.5 ~ 713.5 MHz; RX : 736.5 ~ 743.5 MHz
 WIFI: 802.11b/g/n(20M): 2412-2462 MHz
 WIFI: 802.11n(40M): 2422-2452 MHz
 Bluetooth& BLE: 2402-2480 MHz
 GPS: 1575.42 MHz

RF Operating Frequency (ies):

GSM 850: 124CH
 PCS1900: 299CH
 UMTS-FDD Band V : 102CH
 UMTS-FDD Band II : 277CH
 WIFI :802.11b/g/n(20M): 11CH
 WIFI :802.11n(40M): 7CH
 Bluetooth: 79CH
 BLE: 40CH
 GPS:1CH

Number of Channels:

Port: USB Port, Earphone Port

Trade Name : AOC

FCC ID: 2AEB5-A831L

Date EUT received: March 10, 2017

Test Date(s): March 10 to April 04, 2017

5. Test Summary

The product was tested in accordance with the following specifications.

All testing has been performed according to below product classification:

FCC Rules	Description of Test	Result
§15.107; ANSI C63.4: 2014	AC Power Line Conducted Emissions	Compliance
§15.109; ANSI C63.4: 2014	Radiated Emissions	Compliance

Measurement Uncertainty

Parameter	Uncertainty
AC Power Line Conducted Emissions (150kHz~30MHz)	±3.71dB
Radiated Emission(30MHz~1GHz)	±5.12dB
Radiated Emission(1GHz~6GHz)	±5.34dB

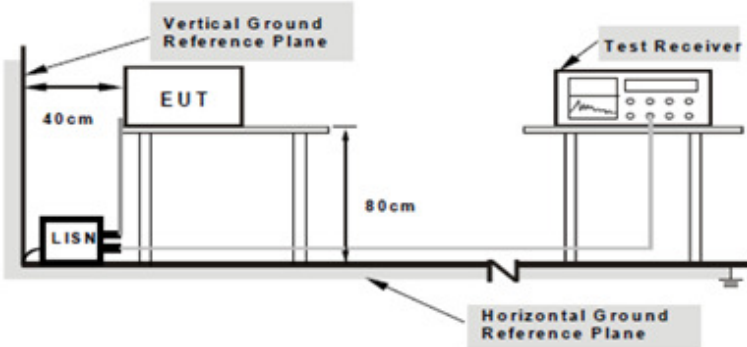
6. Measurements, Examination And Derived Results

6.1 AC Power Line Conducted Emissions

Temperature	23°C
Relative Humidity	57%
Atmospheric Pressure	1020mbar
Test date :	March 23, 2017
Tested By :	Evans He

Requirement(s):

Spec	Item	Requirement	Applicable														
47CFR§15.107	a)	<p>For Low-power radio-frequency devices that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table, as measured using a 50 [mu] H/50 ohms line impedance stabilization network (LISN). The lower limit applies at the boundary between the frequencies ranges.</p> <table border="1"> <thead> <tr> <th rowspan="2">Frequency ranges (MHz)</th> <th colspan="2">Limit (dBµV)</th> </tr> <tr> <th>QP</th> <th>Average</th> </tr> </thead> <tbody> <tr> <td>0.15 ~ 0.5</td> <td>66 – 56</td> <td>56 – 46</td> </tr> <tr> <td>0.5 ~ 5</td> <td>56</td> <td>46</td> </tr> <tr> <td>5 ~ 30</td> <td>60</td> <td>50</td> </tr> </tbody> </table>	Frequency ranges (MHz)	Limit (dBµV)		QP	Average	0.15 ~ 0.5	66 – 56	56 – 46	0.5 ~ 5	56	46	5 ~ 30	60	50	<input checked="" type="checkbox"/>
Frequency ranges (MHz)	Limit (dBµV)																
	QP	Average															
0.15 ~ 0.5	66 – 56	56 – 46															
0.5 ~ 5	56	46															
5 ~ 30	60	50															

Test Setup	 <p>Note: 1.Support units were connected to second LISN. 2.Both of LISNs (AMN) are 80cm from EUT and at least 80cm from other units and other metal planes support units.</p>
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Procedure	<ol style="list-style-type: none"> The EUT and supporting equipment were set up in accordance with the requirements of the standard on top of a 1.5m x 1m x 0.8m high, non-metallic table. The power supply for the EUT was fed through a 50Ω /50mH EUT LISN, connected to filtered mains.
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	<ol style="list-style-type: none"> 3. The RF OUT of the EUT LISN was connected to the EMI test receiver via a low-loss coaxial cable. 4. All other supporting equipment were powered separately from another main supply. 5. The EUT was switched on and allowed to warm up to its normal operating condition. 6. A scan was made on the NEUTRAL line (for AC mains) or Earth line (for DC power) over the required frequency range using an EMI test receiver. 7. High peaks, relative to the limit line, The EMI test receiver was then tuned to the selected frequencies and the necessary measurements made with a receiver bandwidth setting of 10 kHz. 8. Step 7 was then repeated for the LIVE line (for AC mains) or DC line (for DC power).
Remark	
Result	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail

Test Data Yes N/A

Test Plot Yes (See below) N/A

Test Mode 1 : USB Mode

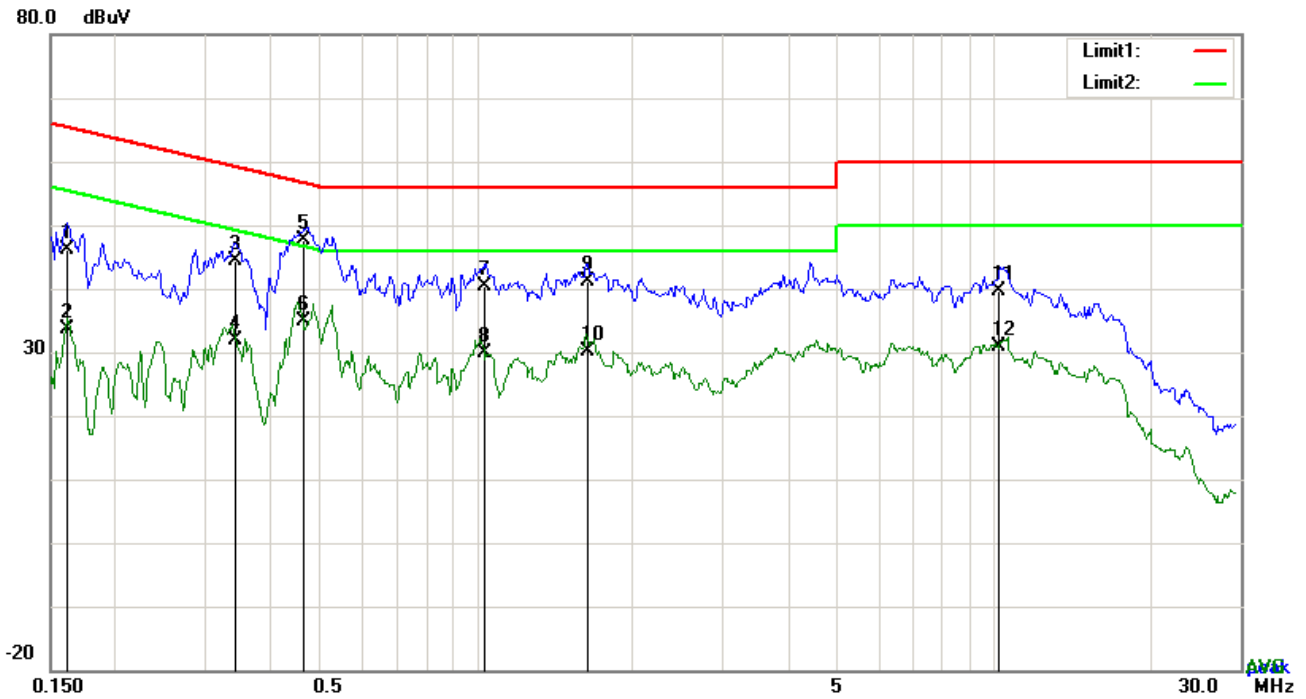
Test Mode 2 : MP4 Mode

Test Mode 3 : Camera Mode

Test Mode 4 : FM Mode

All modes were investigated. The results below show only the worst case.(USB mode, MP4 Mode)

Test Mode 1 :	USB Mode
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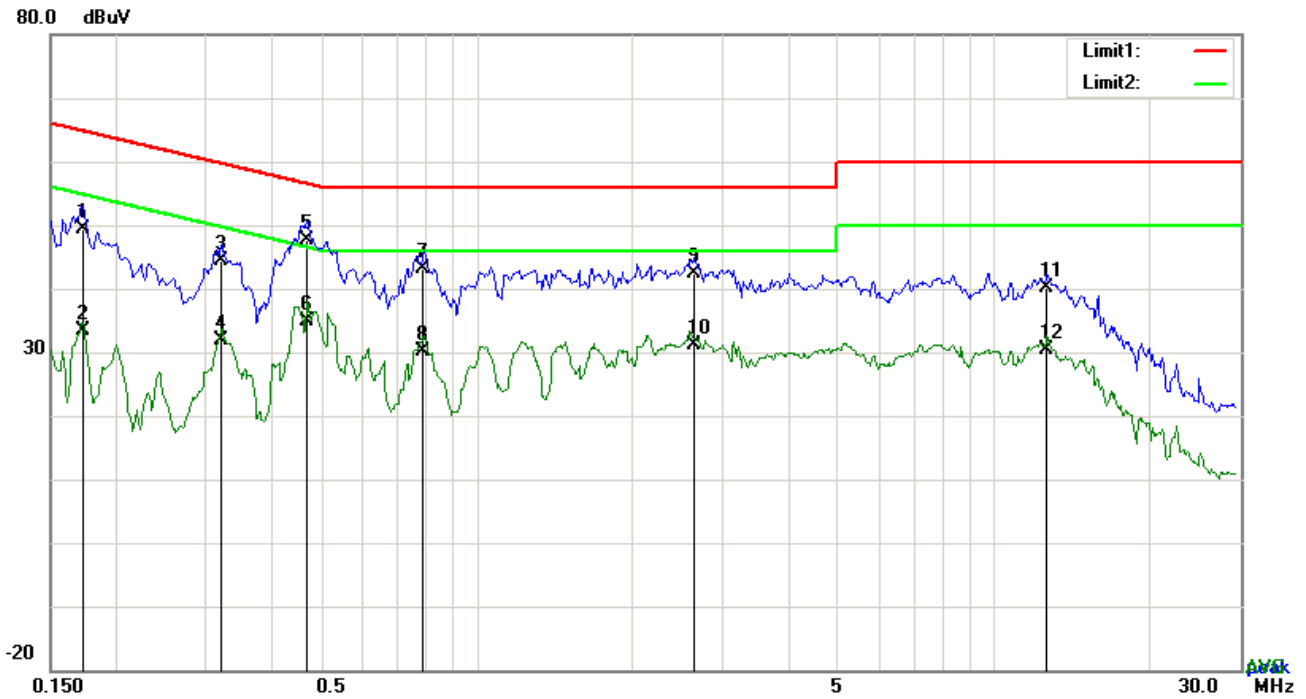


Test Data

Phase Line Plot at 120Vac, 60Hz

No.	P/L	Frequency	Reading	Detector	Corrected	Result	Limit	Margin
		(MHz)	(dBuV)		(dB)	(dBuV)	(dBuV)	(dB)
1	L1	0.1617	36.11	QP	10.03	46.14	65.38	-19.24
2	L1	0.1617	23.57	AVG	10.03	33.60	55.38	-21.78
3	L1	0.3411	34.27	QP	10.03	44.30	59.18	-14.88
4	L1	0.3411	21.76	AVG	10.03	31.79	49.18	-17.39
5	L1	0.4659	37.67	QP	10.03	47.70	56.59	-8.89
6	L1	0.4659	24.88	AVG	10.03	34.91	46.59	-11.68
7	L1	1.0392	30.23	QP	10.03	40.26	56.00	-15.74
8	L1	1.0392	19.91	AVG	10.03	29.94	46.00	-16.06
9	L1	1.6437	31.09	QP	10.04	41.13	56.00	-14.87
10	L1	1.6437	20.02	AVG	10.04	30.06	46.00	-15.94
11	L1	10.2813	29.58	QP	10.15	39.73	60.00	-20.27
12	L1	10.2813	20.72	AVG	10.15	30.87	50.00	-19.13

Test Mode 1:	USB Mode
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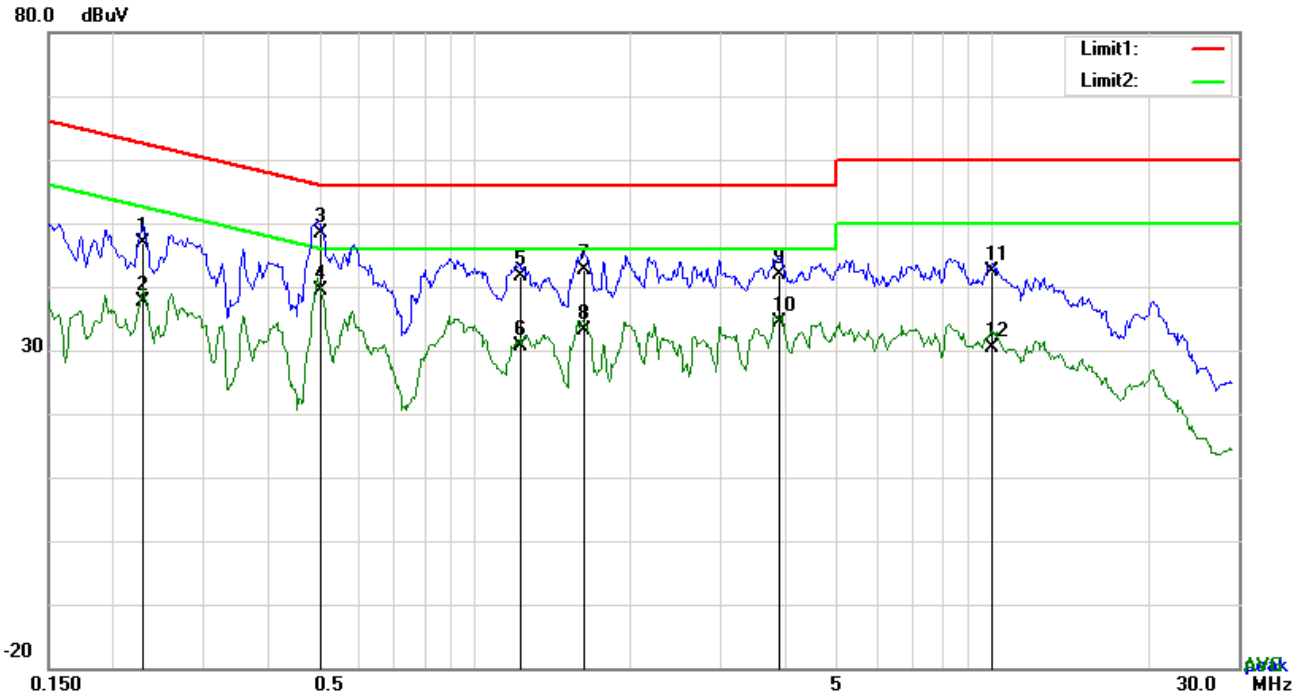


Test Data

Phase Neutral Plot at 120Vac, 60Hz

No.	P/L	Frequency (MHz)	Reading (dBuV)	Detector	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)
1	N	0.1734	39.27	QP	10.02	49.29	64.80	-15.51
2	N	0.1734	23.24	AVG	10.02	33.26	54.80	-21.54
3	N	0.3216	34.47	QP	10.02	44.49	59.67	-15.18
4	N	0.3216	21.74	AVG	10.02	31.76	49.67	-17.91
5	N	0.4698	37.67	QP	10.02	47.69	56.52	-8.83
6	N	0.4698	24.83	AVG	10.02	34.85	46.52	-11.67
7	N	0.7896	32.99	QP	10.03	43.02	56.00	-12.98
8	N	0.7896	20.03	AVG	10.03	30.06	46.00	-15.94
9	N	2.6304	32.28	QP	10.05	42.33	56.00	-13.67
10	N	2.6304	20.96	AVG	10.05	31.01	46.00	-14.99
11	N	12.6837	30.04	QP	10.17	40.21	60.00	-19.79
12	N	12.6837	20.12	AVG	10.17	30.29	50.00	-19.71

Test Mode 1: USB Mode

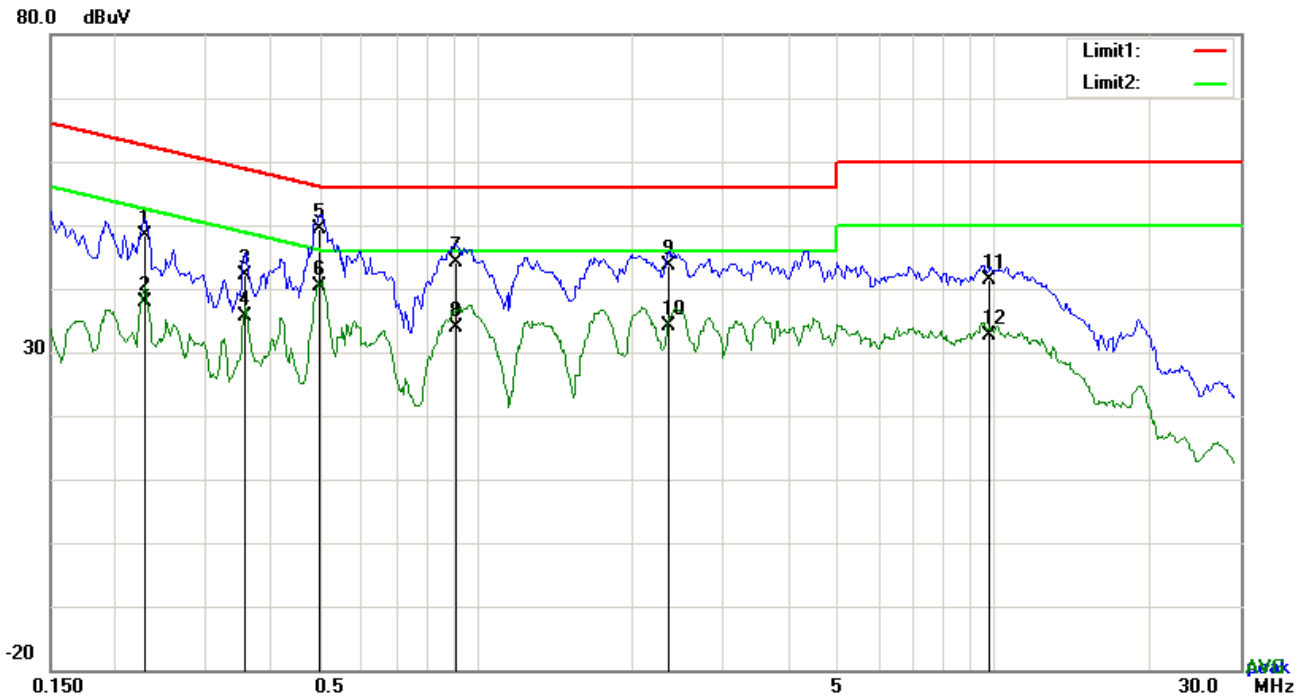


Test Data

Phase Line Plot at 240Vac, 60Hz

No.	P/L	Frequency	Reading	Detector	Corrected	Result	Limit	Margin
		(MHz)	(dBuV)		(dB}	(dBuV)	(dBuV)	(dB)
1	L1	0.2280	36.76	QP	10.03	46.79	62.52	-15.73
2	L1	0.2280	27.70	AVG	10.03	37.73	52.52	-14.79
3	L1	0.5049	38.36	QP	10.03	48.39	56.00	-7.61
4	L1	0.5049	29.43	AVG	10.03	39.46	46.00	-6.54
5	L1	1.2342	31.51	QP	10.03	41.54	56.00	-14.46
6	L1	1.2342	20.67	AVG	10.03	30.70	46.00	-15.30
7	L1	1.6320	32.51	QP	10.04	42.55	56.00	-13.45
8	L1	1.6320	23.21	AVG	10.04	33.25	46.00	-12.75
9	L1	3.8931	31.92	QP	10.07	41.99	56.00	-14.01
10	L1	3.8931	24.24	AVG	10.07	34.31	46.00	-11.69
11	L1	10.0707	32.25	QP	10.15	42.40	60.00	-17.60
12	L1	10.0707	20.26	AVG	10.15	30.41	50.00	-19.59

Test Mode1 : USB Mode

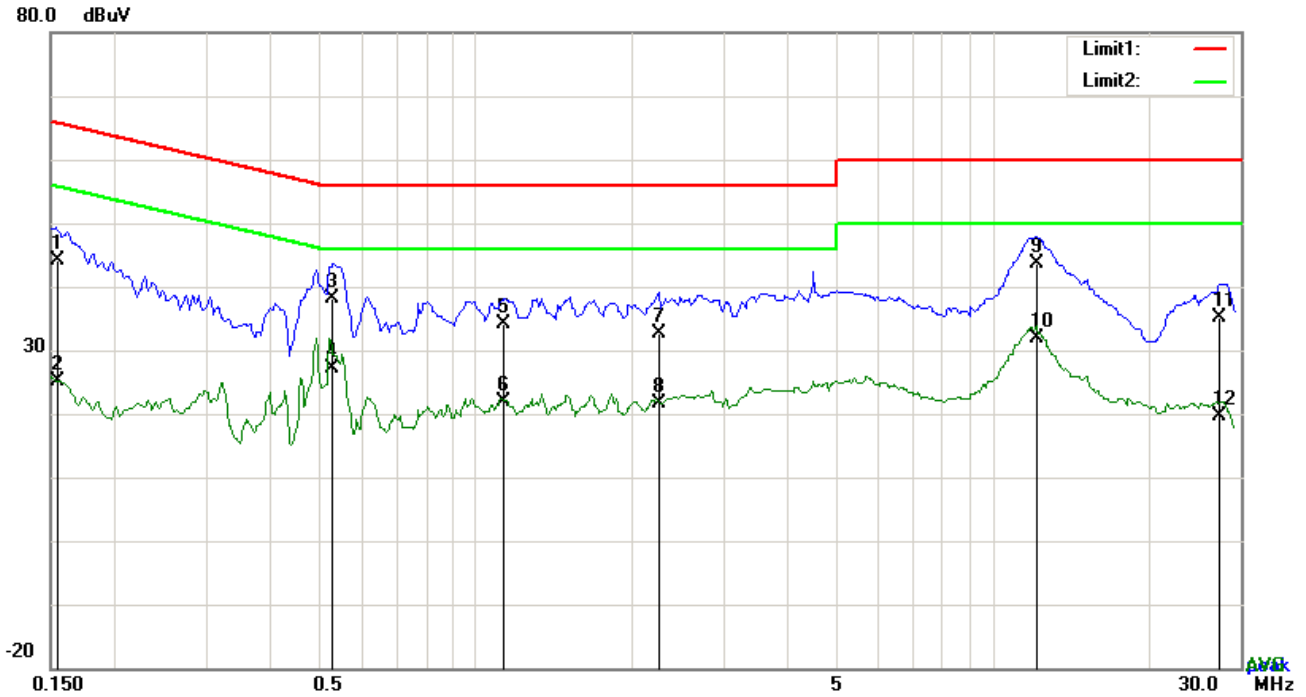


Test Data

Phase Neutral Plot at 240Vac, 60Hz

No.	P/L	Frequency	Reading	Detector	Corrected	Result	Limit	Margin
		(MHz)	(dBuV)		(dB}	(dBuV)	(dBuV)	(dB)
1	N	0.2280	38.43	QP	10.02	48.45	62.52	-14.07
2	N	0.2280	27.77	AVG	10.02	37.79	52.52	-14.73
3	N	0.3567	32.06	QP	10.02	42.08	58.80	-16.72
4	N	0.3567	25.63	AVG	10.02	35.65	48.80	-13.15
5	N	0.4971	39.37	QP	10.02	49.39	56.05	-6.66
6	N	0.4971	30.27	AVG	10.02	40.29	46.05	-5.76
7	N	0.9144	34.22	QP	10.03	44.25	56.00	-11.75
8	N	0.9144	23.75	AVG	10.03	33.78	46.00	-12.22
9	N	2.3574	33.49	QP	10.04	43.53	56.00	-12.47
10	N	2.3574	24.10	AVG	10.04	34.14	46.00	-11.86
11	N	9.8289	31.33	QP	10.14	41.47	60.00	-18.53
12	N	9.8289	22.40	AVG	10.14	32.54	50.00	-17.46

Test Mode 2 : MP4 Mode

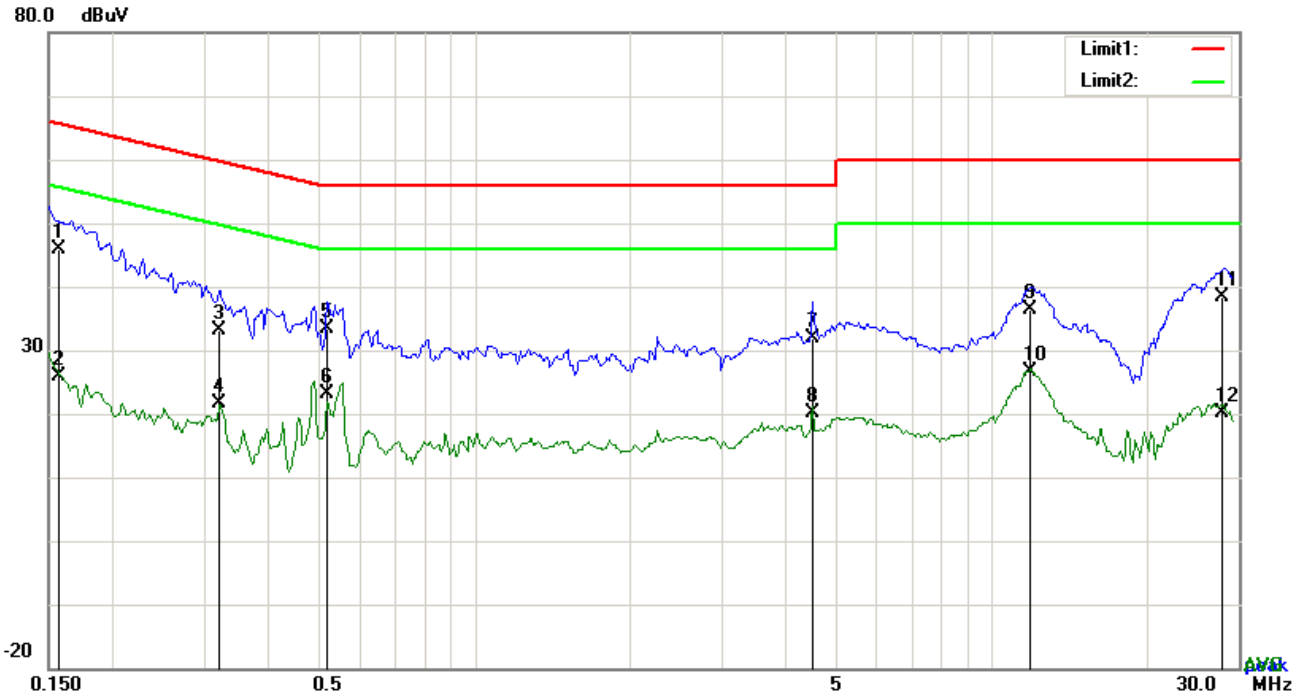


Test Data

Phase Line Plot at 120Vac, 60Hz

No.	P/L	Frequency	Reading	Detector	Corrected	Result	Limit	Margin
		(MHz)	(dBuV)		(dB)	(dBuV)	(dBuV)	(dB)
1	L1	0.1548	34.00	QP	10.03	44.03	65.74	-21.71
2	L1	0.1548	14.98	AVG	10.03	25.01	55.74	-30.73
3	L1	0.5283	28.00	QP	10.03	38.03	56.00	-17.97
4	L1	0.5283	17.00	AVG	10.03	27.03	46.00	-18.97
5	L1	1.1328	24.05	QP	10.03	34.08	56.00	-21.92
6	L1	1.1328	11.85	AVG	10.03	21.88	46.00	-24.12
7	L1	2.2521	22.60	QP	10.05	32.65	56.00	-23.35
8	L1	2.2521	11.59	AVG	10.05	21.64	46.00	-24.36
9	L1	12.0948	33.41	QP	10.18	43.59	60.00	-16.41
10	L1	12.0948	21.58	AVG	10.18	31.76	50.00	-18.24
11	L1	27.3555	24.79	QP	10.44	35.23	60.00	-24.77
12	L1	27.3555	9.23	AVG	10.44	19.67	50.00	-30.33

Test Mode 2 : MP4 Mode

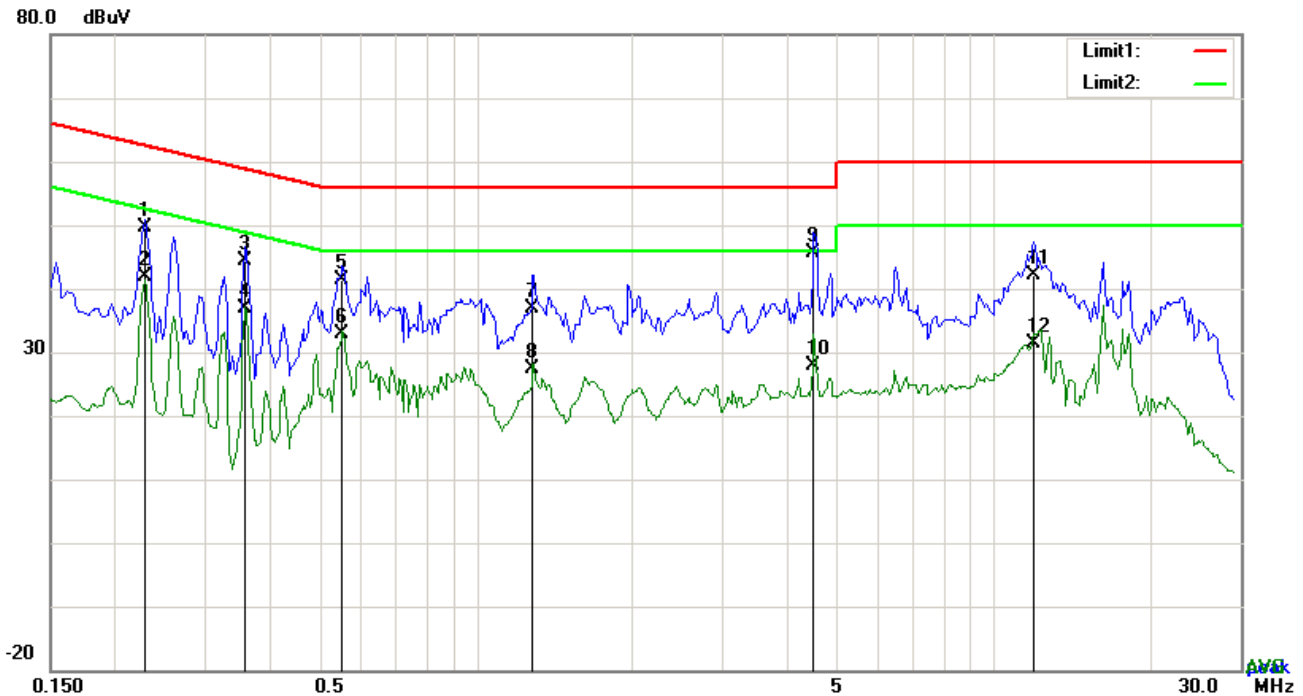


Test Data

Phase Neutral Plot at 120Vac, 60Hz

No.	P/L	Frequency	Reading	Detector	Corrected	Result	Limit	Margin
		(MHz)	(dBuV)		(dB)	(dBuV)	(dBuV)	(dB)
1	N	0.1578	35.78	QP	10.02	45.80	65.58	-19.78
2	N	0.1578	15.92	AVG	10.02	25.94	55.58	-29.64
3	N	0.3216	23.02	QP	10.02	33.04	59.67	-26.63
4	N	0.3216	11.73	AVG	10.02	21.75	49.67	-27.92
5	N	0.5205	23.41	QP	10.02	33.43	56.00	-22.57
6	N	0.5205	13.03	AVG	10.02	23.05	46.00	-22.95
7	N	4.5054	21.85	QP	10.07	31.92	56.00	-24.08
8	N	4.5054	9.95	AVG	10.07	20.02	46.00	-25.98
9	N	11.9271	26.13	QP	10.16	36.29	60.00	-23.71
10	N	11.9271	16.59	AVG	10.16	26.75	50.00	-23.25
11	N	27.8552	28.03	QP	10.39	38.42	60.00	-21.58
12	N	27.8552	9.66	AVG	10.39	20.05	50.00	-29.95

Test Mode 2 :	MP4 Mode
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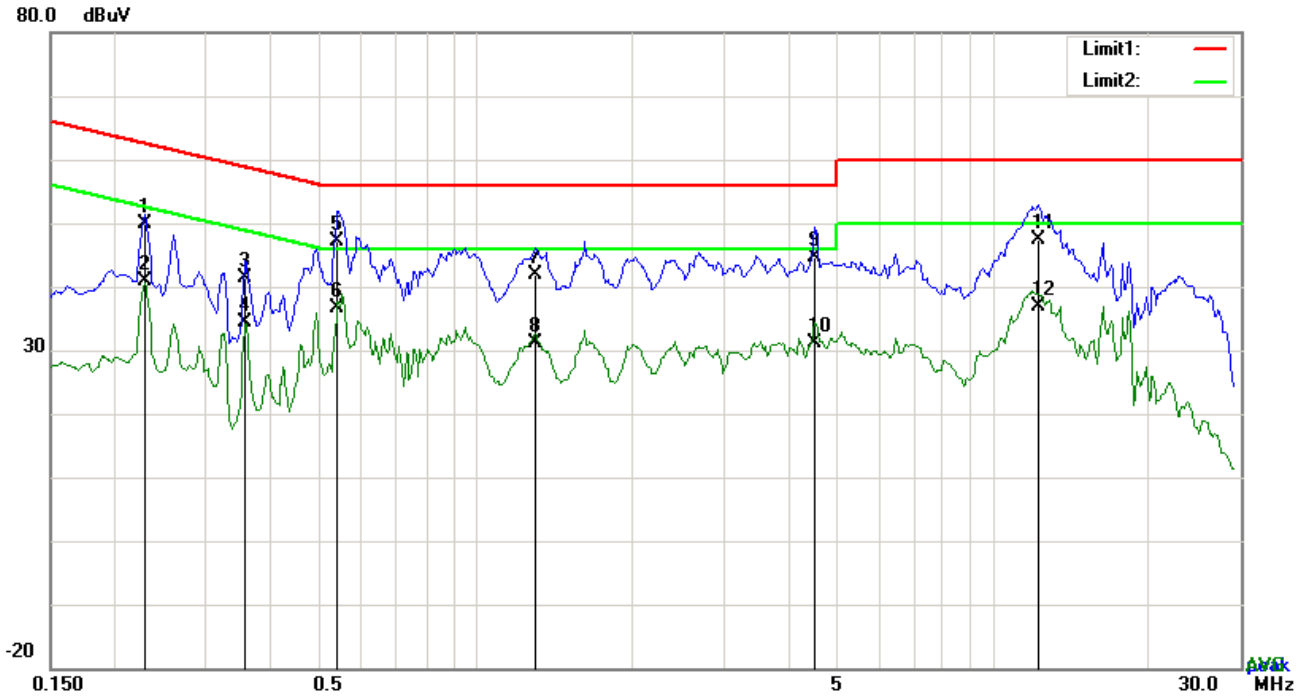


Test Data

Phase Line Plot at 240Vac, 60Hz

No.	P/L	Frequency	Reading	Detector	Corrected	Result	Limit	Margin
		(MHz)	(dBuV)		(dB}	(dBuV)	(dBuV)	(dB)
1	L1	0.2280	39.71	QP	10.03	49.74	62.52	-12.78
2	L1	0.2280	31.73	AVG	10.03	41.76	52.52	-10.76
3	L1	0.3567	34.35	QP	10.03	44.38	58.80	-14.42
4	L1	0.3567	26.81	AVG	10.03	36.84	48.80	-11.96
5	L1	0.5517	31.34	QP	10.03	41.37	56.00	-14.63
6	L1	0.5517	22.88	AVG	10.03	32.91	46.00	-13.09
7	L1	1.2888	26.88	QP	10.03	36.91	56.00	-19.09
8	L1	1.2888	17.43	AVG	10.03	27.46	46.00	-18.54
9	L1	4.4937	35.44	QP	10.07	45.51	56.00	-10.49
10	L1	4.4937	17.91	AVG	10.07	27.98	46.00	-18.02
11	L1	11.9544	32.04	QP	10.18	42.22	60.00	-17.78
12	L1	11.9544	21.12	AVG	10.18	31.30	50.00	-18.70

Test Mode 2 :	MP4 Mode
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Test Data

Phase Neutral Plot at 240Vac, 60Hz

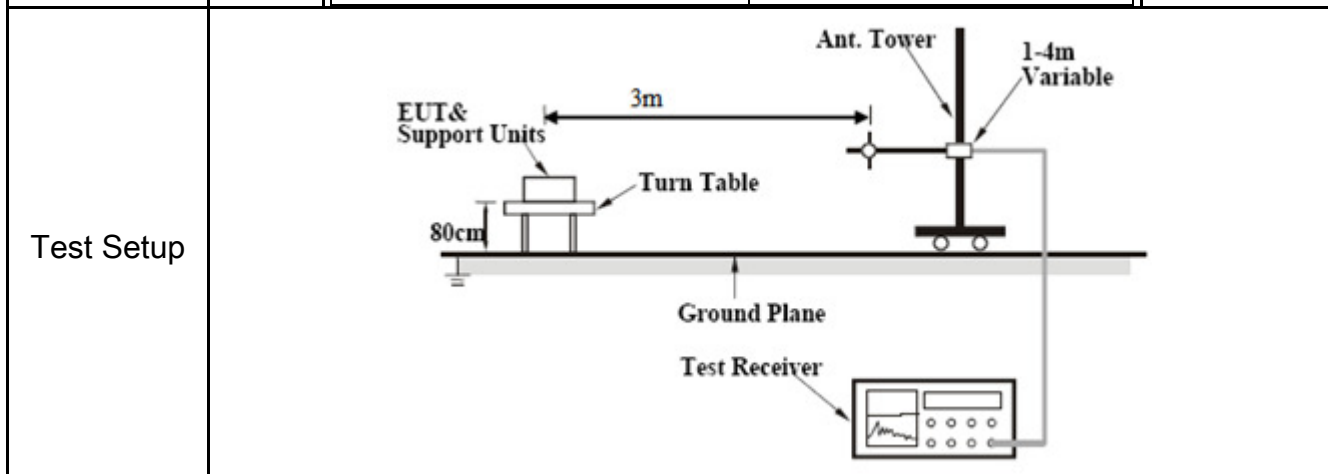
No.	P/L	Frequency	Reading	Detector	Corrected	Result	Limit	Margin
		(MHz)	(dBuV)		(dB}	(dBuV)	(dBuV)	(dB)
1	N	0.2280	39.85	QP	10.02	49.87	62.52	-12.65
2	N	0.2280	30.94	AVG	10.02	40.96	52.52	-11.56
3	N	0.3567	31.25	QP	10.02	41.27	58.80	-17.53
4	N	0.3567	24.46	AVG	10.02	34.48	48.80	-14.32
5	N	0.5400	37.06	QP	10.02	47.08	56.00	-8.92
6	N	0.5400	26.60	AVG	10.02	36.62	46.00	-9.38
7	N	1.3005	31.97	QP	10.03	42.00	56.00	-14.00
8	N	1.3005	21.22	AVG	10.03	31.25	46.00	-14.75
9	N	4.5171	34.46	QP	10.07	44.53	56.00	-11.47
10	N	4.5171	21.09	AVG	10.07	31.16	46.00	-14.84
11	N	12.2001	37.26	QP	10.17	47.43	60.00	-12.57
12	N	12.2001	26.74	AVG	10.17	36.91	50.00	-13.09

6.2 Radiated Emissions

Temperature	23°C
Relative Humidity	57%
Atmospheric Pressure	1020mbar
Test date :	March 23, 2017
Tested By :	Evans He

Requirement(s):

Spec	Item	Requirement	Applicable										
47CFR§15.109(d)	a)	Except higher limit as specified elsewhere in other section, the emissions from the low-power radio-frequency devices shall not exceed the field strength levels specified in the following table and the level of any unwanted emissions shall not exceed the level of the fundamental emission. The tighter limit applies at the band edges	<input checked="" type="checkbox"/>										
		<table border="1"> <thead> <tr> <th>Frequency range (MHz)</th> <th>Field Strength ($\mu\text{V}/\text{m}$)</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">30 – 88</td> <td style="text-align: center;">100</td> </tr> <tr> <td style="text-align: center;">88 – 216</td> <td style="text-align: center;">150</td> </tr> <tr> <td style="text-align: center;">216 - 960</td> <td style="text-align: center;">200</td> </tr> <tr> <td style="text-align: center;">Above 960</td> <td style="text-align: center;">500</td> </tr> </tbody> </table>		Frequency range (MHz)	Field Strength ($\mu\text{V}/\text{m}$)	30 – 88	100	88 – 216	150	216 - 960	200	Above 960	500
		Frequency range (MHz)		Field Strength ($\mu\text{V}/\text{m}$)									
		30 – 88		100									
		88 – 216		150									
216 - 960	200												
Above 960	500												



Procedure	<ol style="list-style-type: none"> 1. The EUT was switched on and allowed to warm up to its normal operating condition. 2. The test was carried out at the selected frequency points obtained from the EUT characterization. Maximization of the emissions, was carried out by rotating the EUT, changing the antenna polarization, and adjusting the antenna height in the following manner: <ol style="list-style-type: none"> a. Vertical or horizontal polarization (whichever gave the higher emission level
-----------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

	<p>over a full rotation of the EUT) was chosen.</p> <p>b. The EUT was then rotated to the direction that gave the maximum emission.</p> <p>c. Finally, the antenna height was adjusted to the height that gave the maximum emission.</p> <p>3. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120 kHz for Quasiy Peak detection at frequency below 1GHz.</p> <p>4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz with Peak detection for Peak measurement at frequency above 1GHz. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth with Peak detection for Average Measurement as below at frequency above 1GHz. ■ 1 kHz (Duty cycle < 98%) □ 10 Hz (Duty cycle > 98%)</p> <p>5. Steps 2 and 3 were repeated for the next frequency point, until all selected frequency points were measured.</p>
Remark	
Result	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail

Test Data Yes N/A

Test Plot Yes (See below) N/A

Test Mode 1 : USB Mode

Test Mode 2 : MP4 Mode

Test Mode 3 : Camera Mode

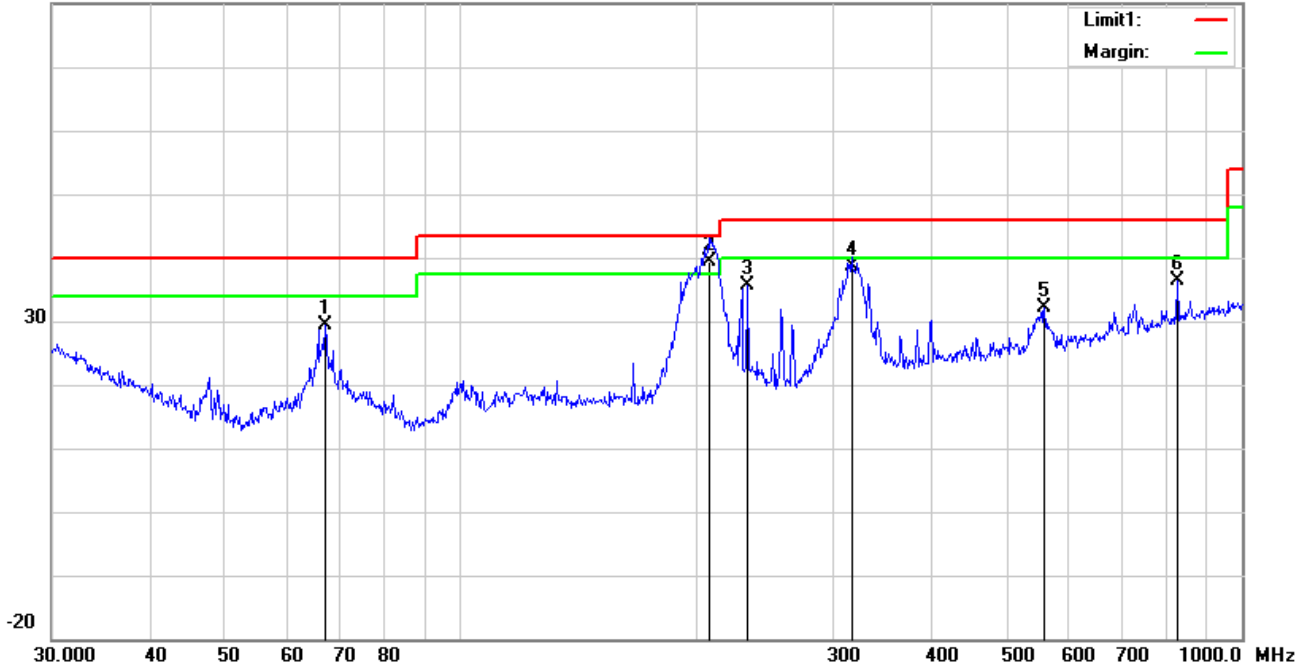
Test Mode 4 : FM Mode

All modes were investigated. The results below show only the worst case(USB mode)

Test Mode 1:	USB Mode
---------------------	-----------------

Below 1GHz

80.0 dBuV/m

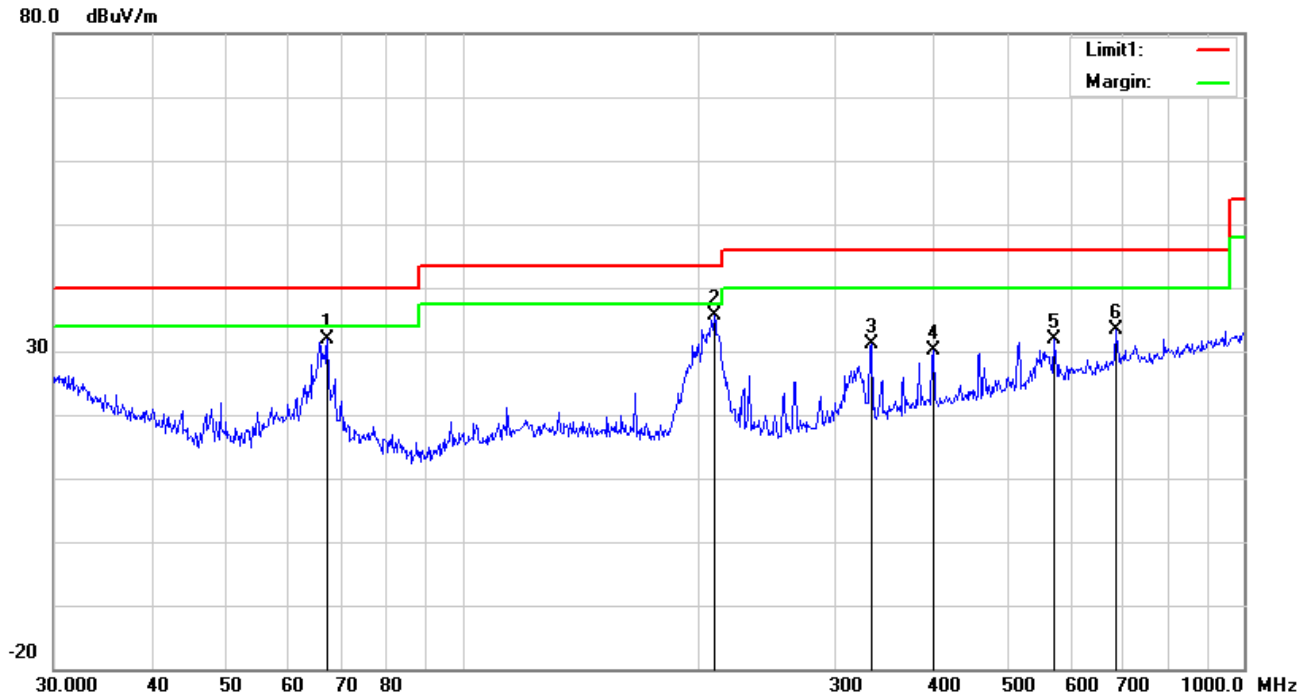


Test Data

Horizontal Polarity Plot @3m

No.	P/L	Frequency (MHz)	Reading (dBuV/m)	Detector	Ant_F (dB/m)	PA_G (dB)	Cab_L (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (°)
1	H	67.2022	43.31	peak	7.66	22.39	0.92	29.50	40.00	-10.50	100	88
2	H	207.8501	48.11	QP	11.99	22.37	1.57	39.30	43.50	-4.20	100	308
3	H	233.3487	44.59	peak	11.63	22.32	1.65	35.55	46.00	-10.45	100	166
4	H	316.5890	45.02	QP	13.95	22.24	1.87	38.60	46.00	-7.40	200	271
5	H	558.7302	32.68	peak	18.52	21.67	2.48	32.01	46.00	-13.99	100	312
6	H	827.4934	32.85	peak	21.70	21.08	2.91	36.38	46.00	-9.62	100	153

Below 1GHz



Test Data

Vertical Polarity Plot @3m

No.	P/L	Frequency	Reading	Detector	Ant_F	PA_G	Cab_L	Result	Limit	Margin	Height	Degree
		(MHz)	(dBuV/m)		(dB/m)	(dB)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(°)
1	V	67.2022	45.73	peak	7.66	22.39	0.92	31.92	40.00	-8.08	100	250
2	V	210.0482	44.56	peak	11.96	22.36	1.57	35.73	43.50	-7.77	100	22
3	V	333.6867	37.03	peak	14.31	22.20	1.96	31.10	46.00	-14.90	100	256
4	V	400.4319	34.35	peak	15.71	22.01	2.01	30.06	46.00	-15.94	100	171
5	V	570.6100	32.40	peak	18.69	21.65	2.48	31.92	46.00	-14.08	100	311
6	V	684.7454	32.20	peak	20.03	21.39	2.57	33.41	46.00	-12.59	100	221

Above 1GHz

Frequency (MHz)	Read_level (dB μ V/m)	Azimuth	Height (cm)	Polarity (H/V)	Level (dB μ V/m)	Factors (dB)	Limit (dB μ V/m)	Margin (dB)	Detector (PK/AV)
1306.45	68.51	66	200	V	49.13	-19.38	74	-24.87	PK
1899.86	69.24	273	100	V	53.28	-15.96	74	-20.72	PK
2318.71	68.61	195	100	V	54.43	-14.18	74	-19.57	PK
1511.37	69.34	167	200	H	50.82	-18.52	74	-23.18	PK
2500.64	68.37	98	100	H	54.69	-13.68	74	-19.31	PK
1798.32	69.81	311	100	H	53.06	-16.75	74	-20.94	PK

*Note1: The highest frequency of the EUT is 2480 MHz, so the testing has been conformed to 5*2480MHz=12,400MHz.*

Note2: The frequency that above 3GHz is mainly from the environment noise.

Note3: The AV measurement performed, more than 20dB below limit so AV test data was not presented.

Annex A. TEST INSTRUMENT

Instrument	Model	Serial #	Cal Date	Cal Due	In use
AC Line Conducted Emissions					
EMI test receiver	ESCS30	8471241027	09/16/2016	09/15/2017	<input checked="" type="checkbox"/>
Line Impedance Stabilization Network	LI-125A	191106	09/24/2016	09/23/2017	<input checked="" type="checkbox"/>
Line Impedance Stabilization Network	LI-125A	191107	09/24/2016	09/23/2017	<input checked="" type="checkbox"/>
LISN	ISN T800	34373	09/24/2016	09/23/2017	<input checked="" type="checkbox"/>
Transient Limiter	LIT-153	531118	08/31/2016	08/30/2017	<input checked="" type="checkbox"/>
Radiated Emissions					
EMI test receiver	ESL6	100262	09/16/2016	09/15/2017	<input checked="" type="checkbox"/>
OPT 010 AMPLIFIER (0.1-1300MHz)	8447E	2727A02430	08/31/2016	08/30/2017	<input checked="" type="checkbox"/>
Microwave Preamplifier (1 ~ 26.5GHz)	8449B	3008A02402	03/23/2017	03/22/2018	<input checked="" type="checkbox"/>
Bilog Antenna (30MHz~6GHz)	JB6	A110712	09/20/2016	09/19/2017	<input checked="" type="checkbox"/>
Double Ridge Horn Antenna	AH-118	71259	09/23/2016	09/22/2017	<input checked="" type="checkbox"/>

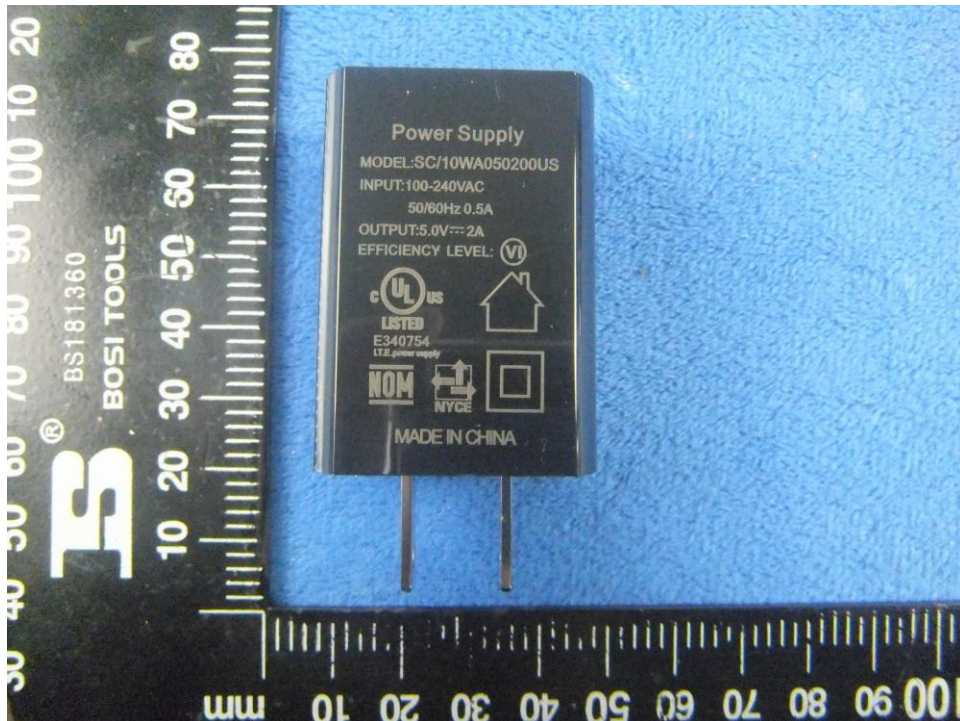
Annex B. EUT And Test Setup Photographs

Annex B.i. Photograph: EUT External Photo

Whole Package View



Adapter - Label View



EUT - Front View



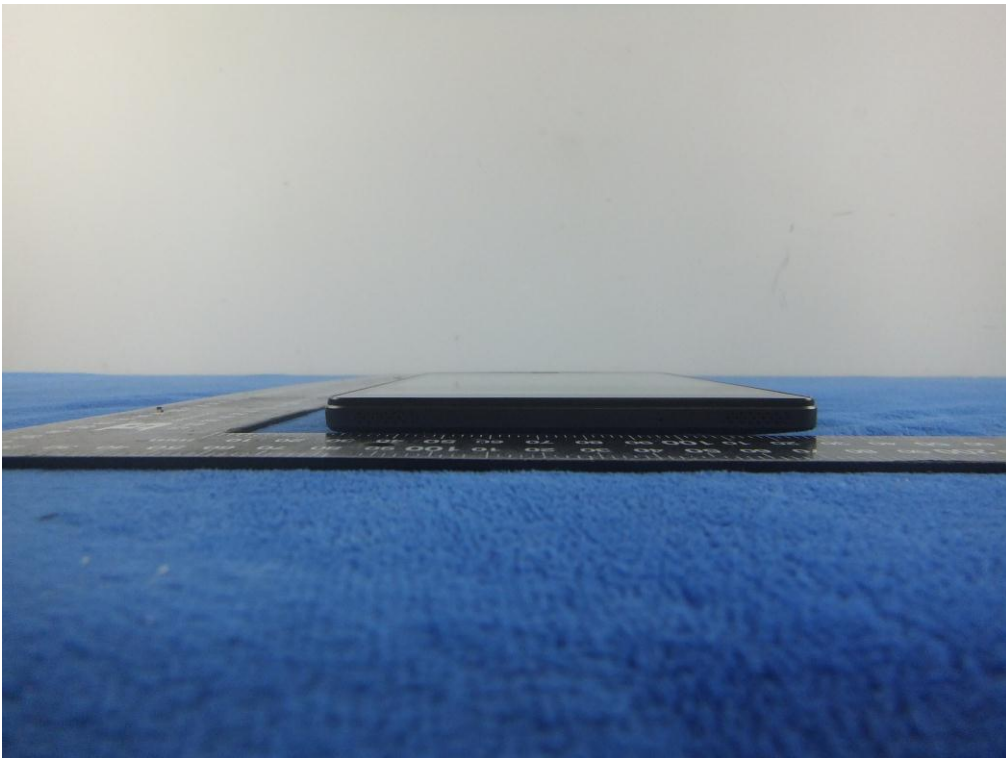
EUT - Rear View



EUT - Top View



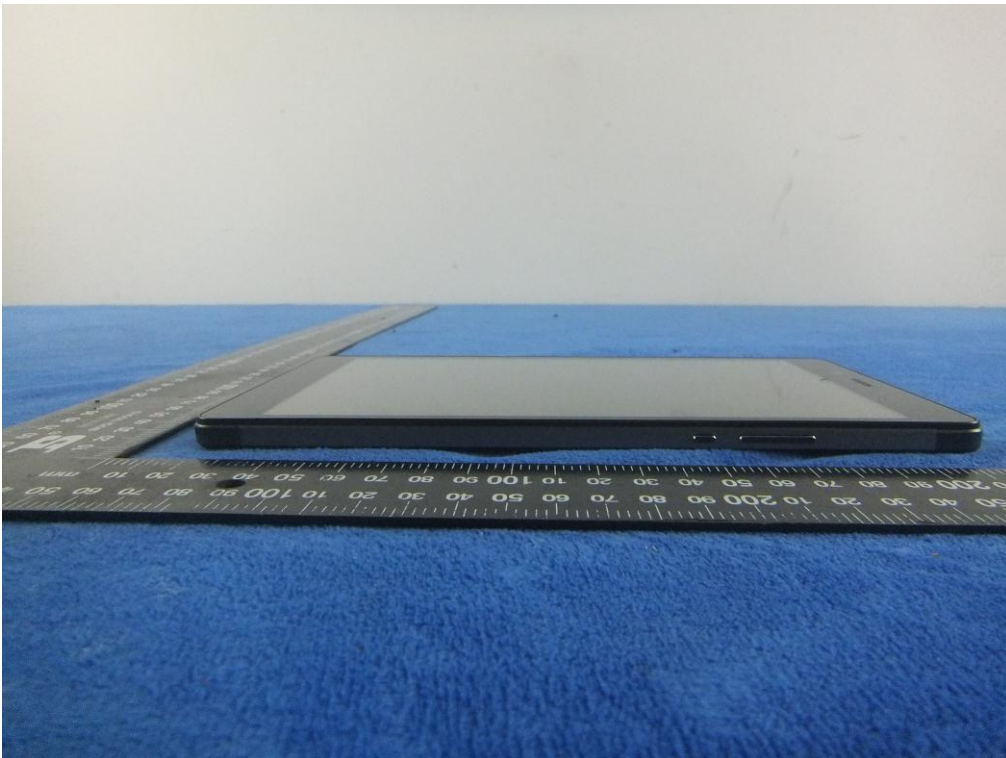
EUT - Bottom View



EUT - Left View



EUT - Right View



Annex B.ii. Photograph: EUT Internal Photo

Cover Off - Top View 1



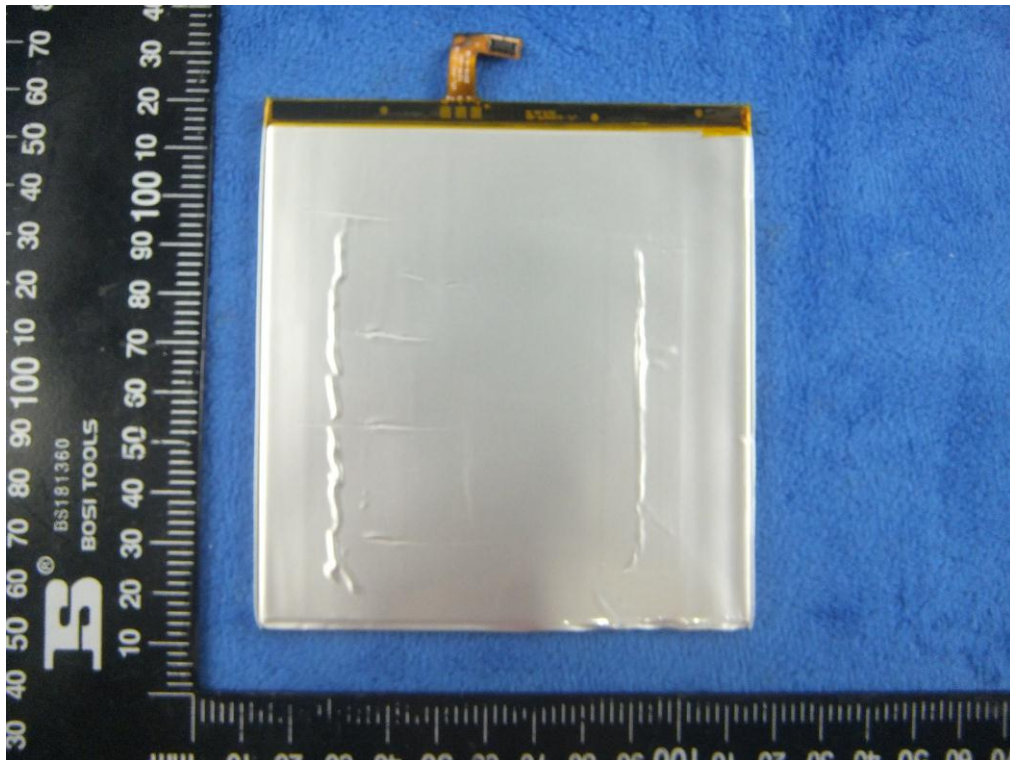
Cover Off - Top View 2



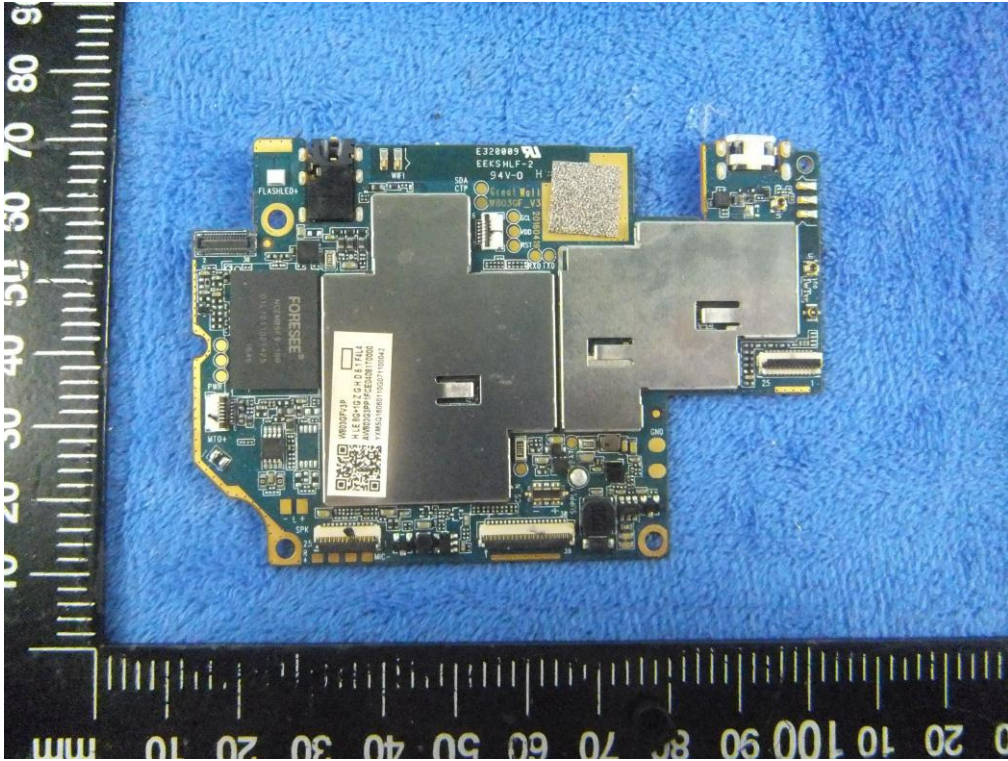
Battery - Front View



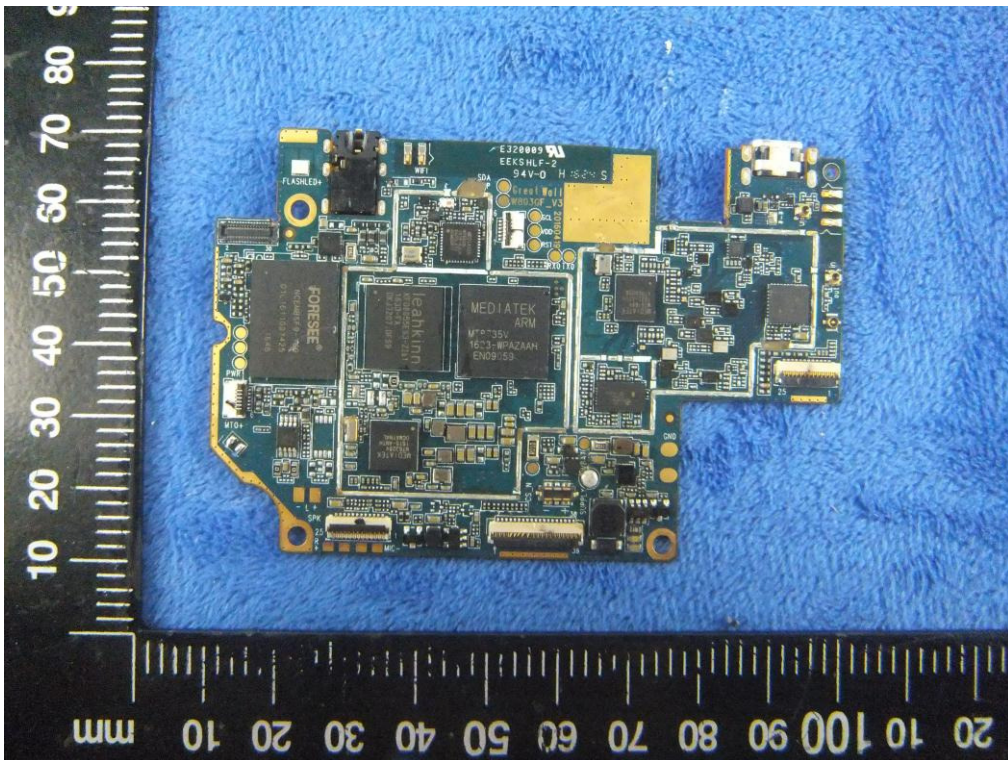
Battery - Rear View



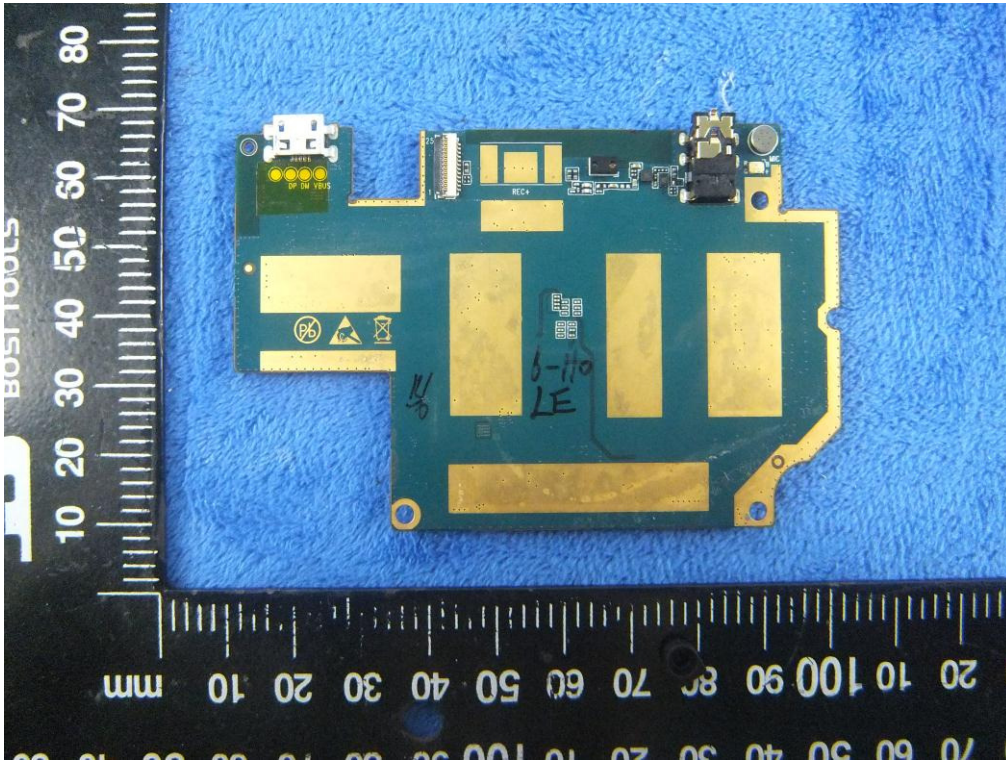
Mainboard with Shielding - Front View



Mainboard without Shielding - Front View



Mainboard – Rear View



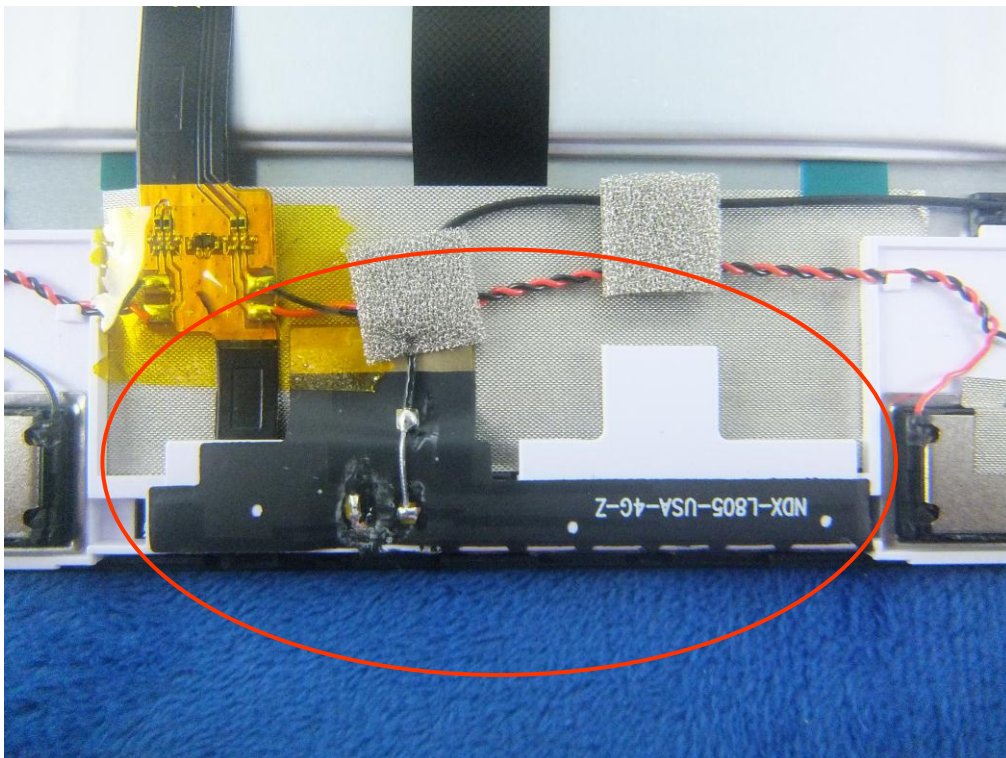
LCD – Front View



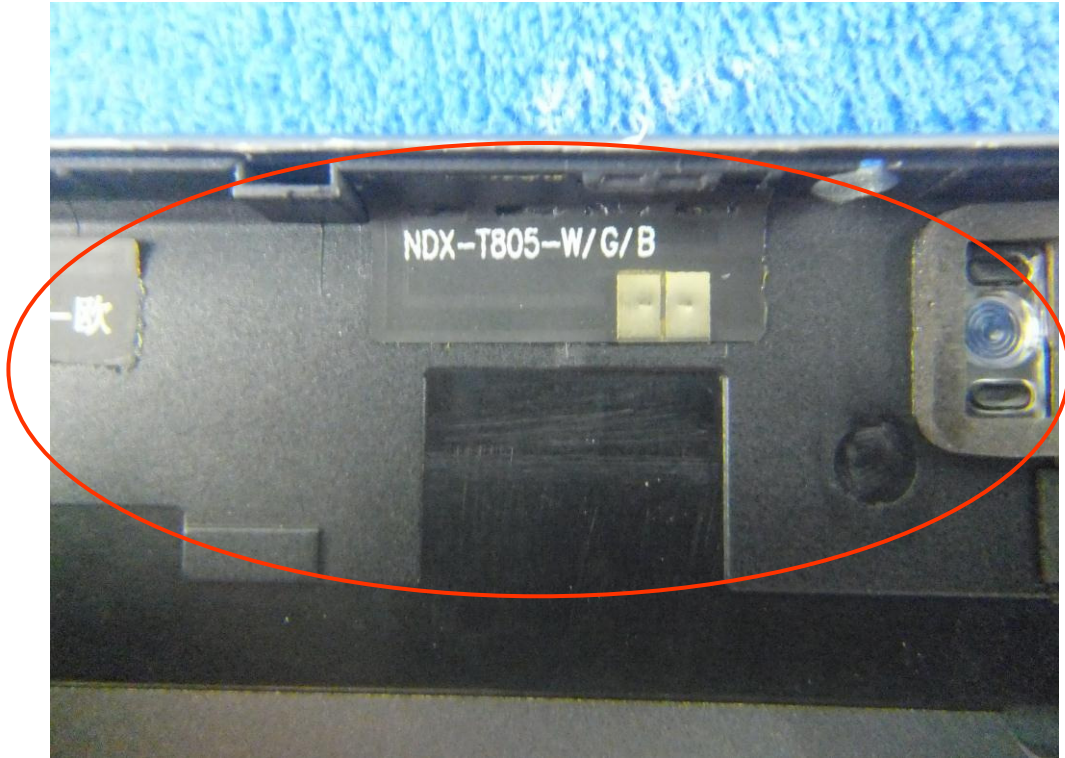
LCD – Rear View



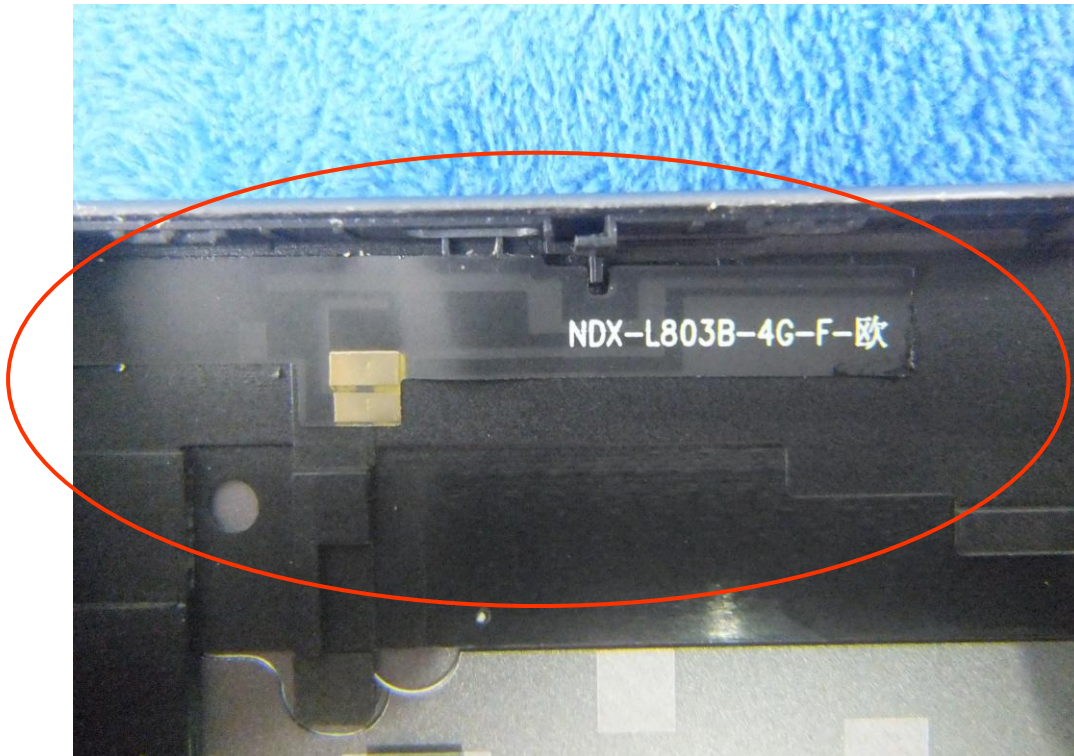
GSM/PCS/UMTS-FDD Antenna View



WIFI/BT/BLE - Antenna View



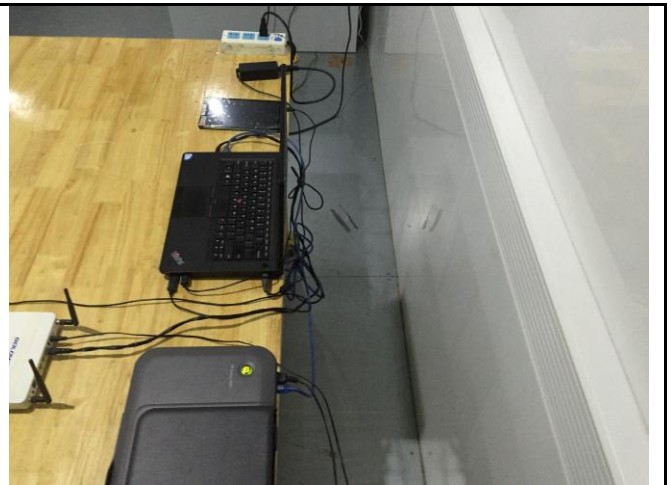
LTE - Antenna View



Annex B.iii. Photograph: Test Setup Photo



Conducted Emissions Test Setup – Front View
(USB mode)



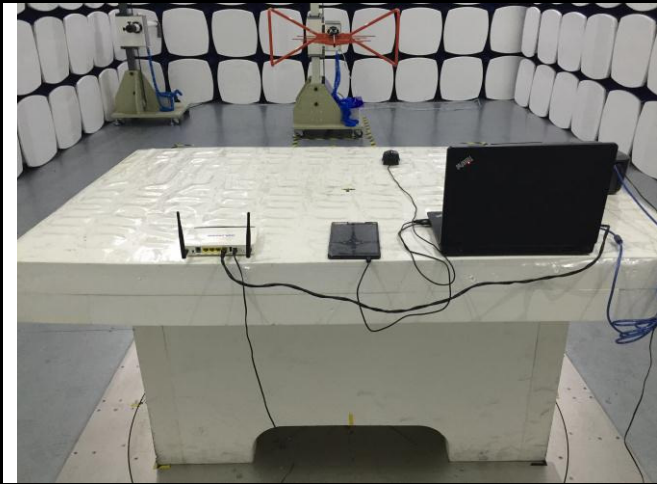
Conducted Emissions Test Setup – Side View
(USB mode)



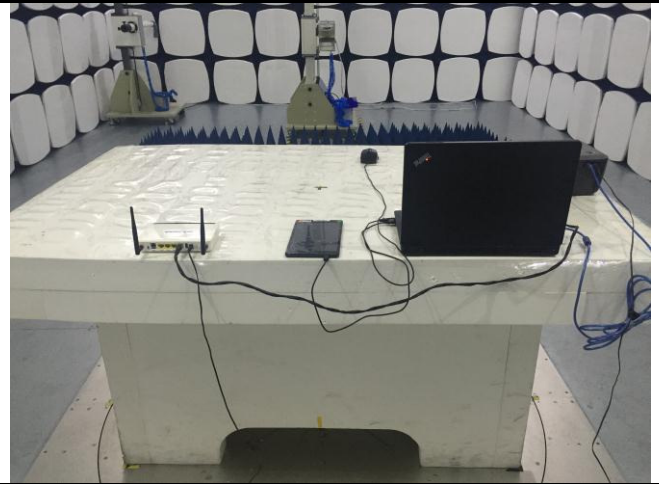
Conducted Emissions Test Setup – Front View
(MP4 mode)



Conducted Emissions Test Setup – Side View
(MP4 mode)



Radiated Emissions Test Setup Below 1GHz
(USB mode)

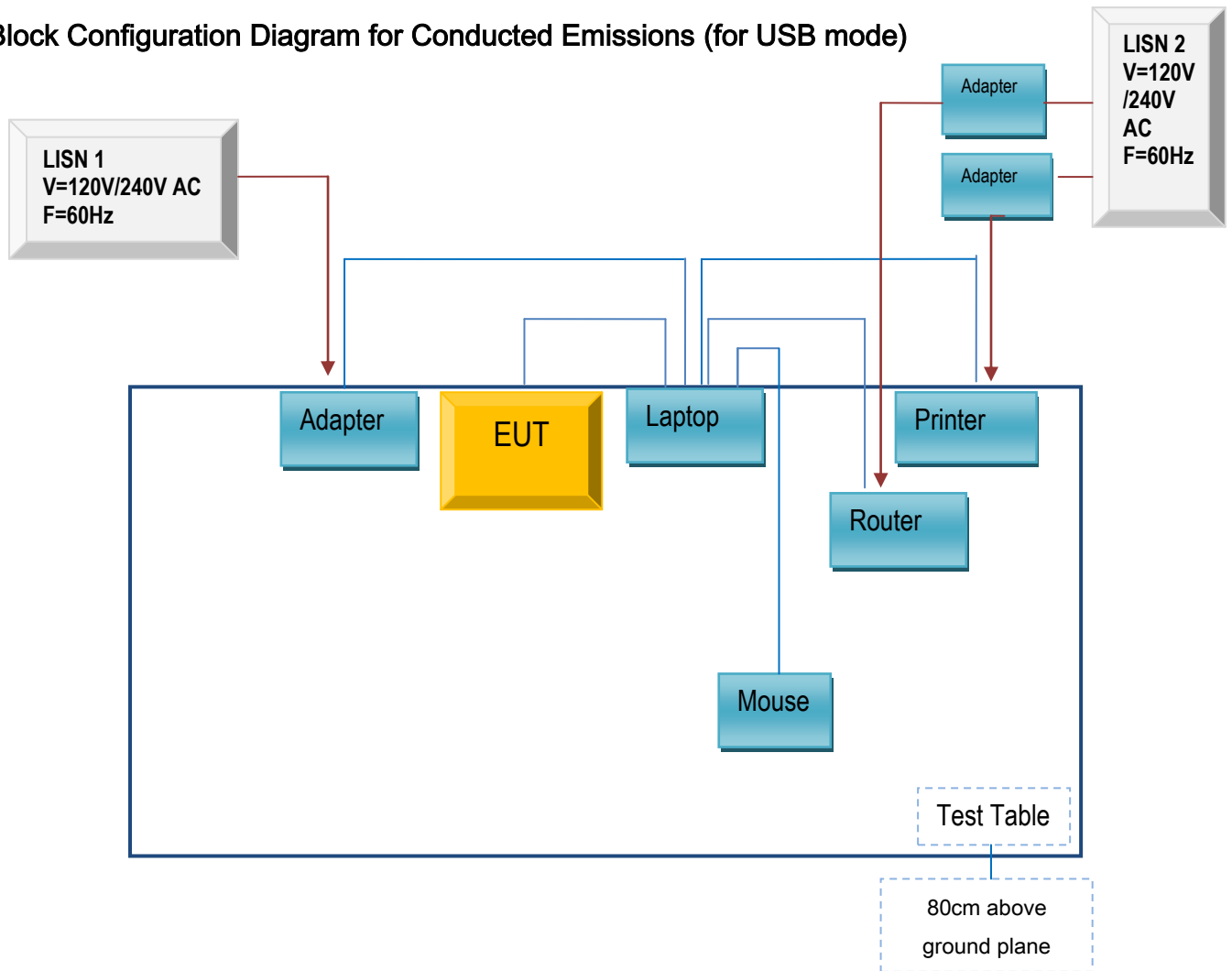


Radiated Emissions Test Setup Above 1GHz
(USB mode)

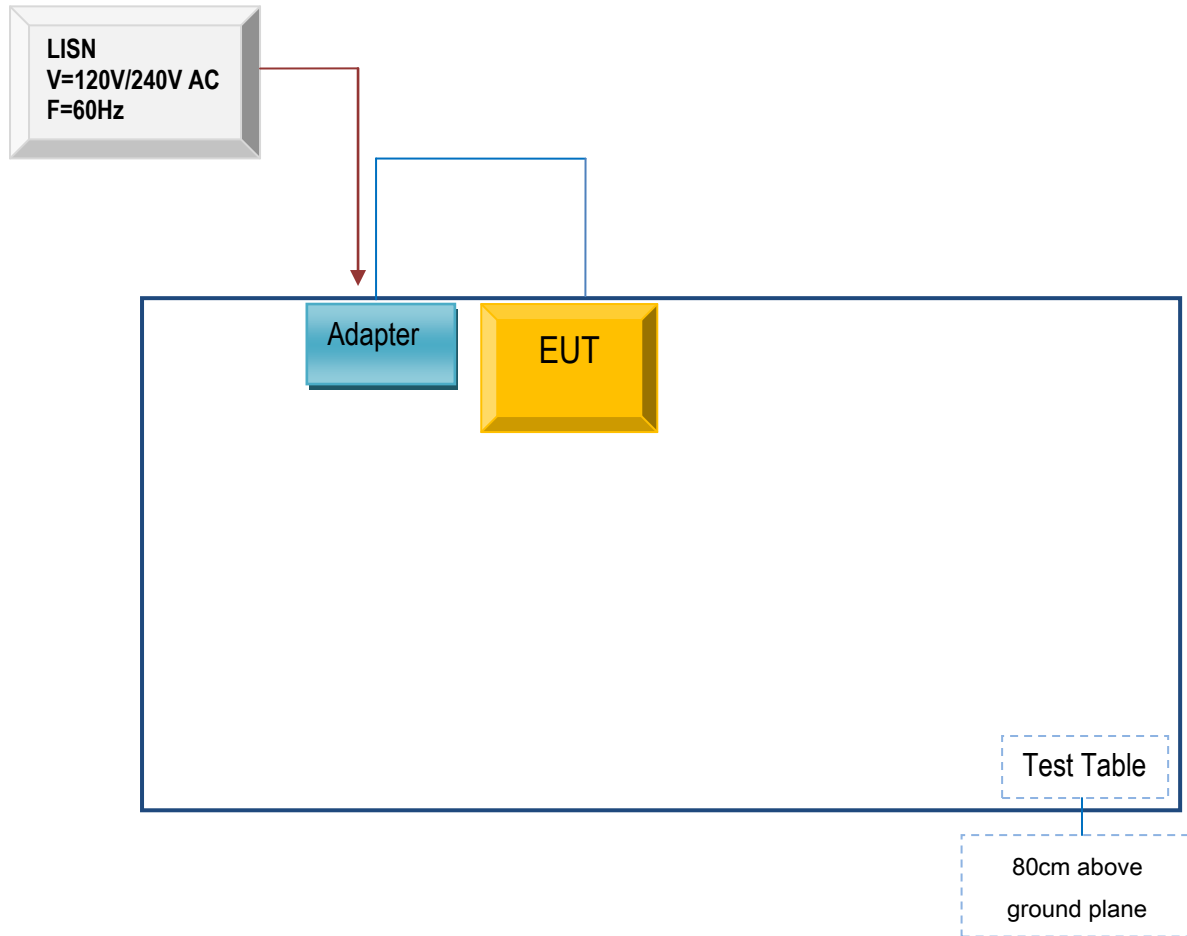
Annex C. TEST SETUP AND SUPPORTING EQUIPMENT

Annex C.ii. TEST SET UP BLOCK

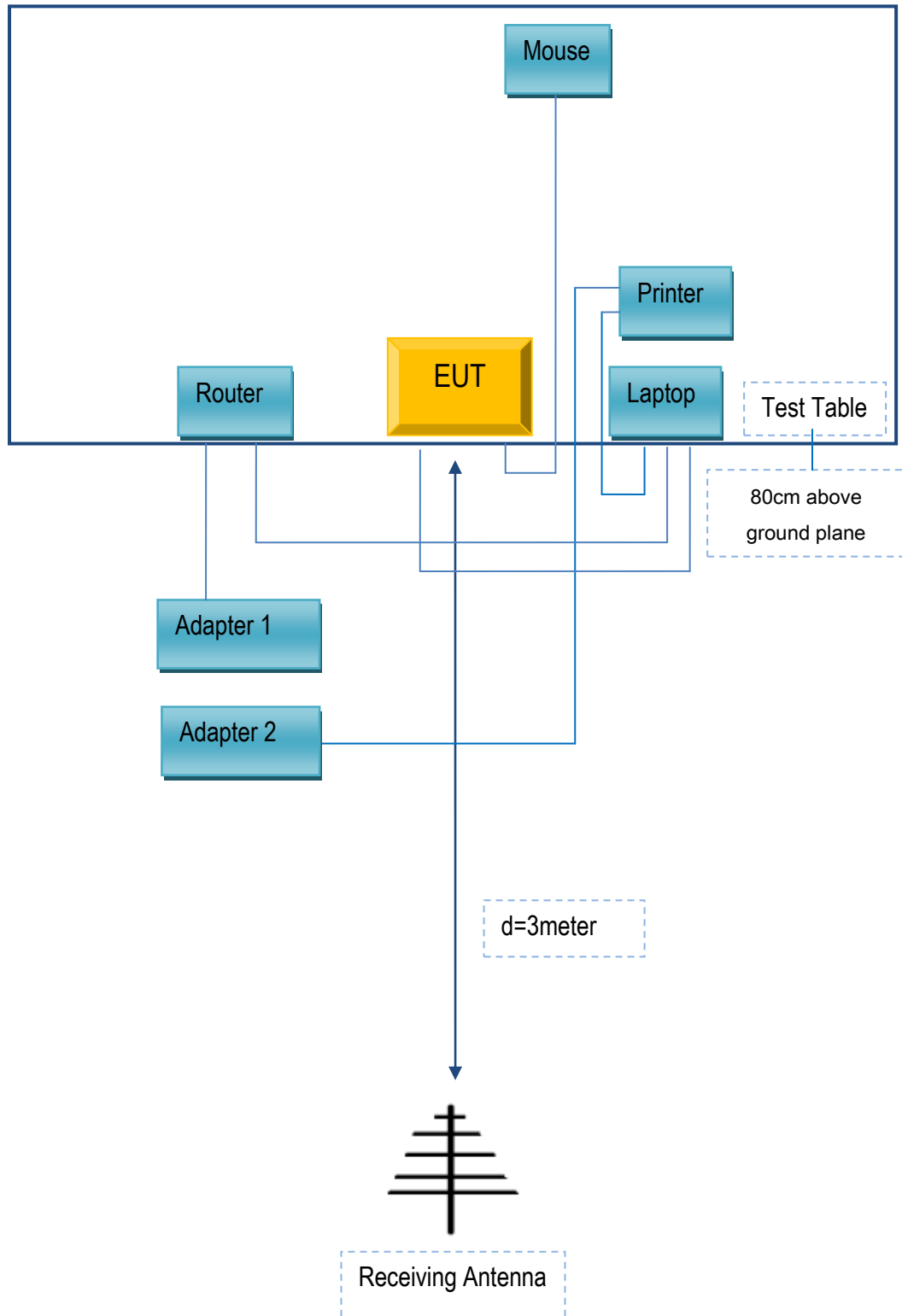
Block Configuration Diagram for Conducted Emissions (for USB mode)



Block Configuration Diagram for Conducted Emissions (for MP4 mode)



Block Configuration Diagram for Radiated Emissions (for USB mode)



Annex C. ii. SUPPORTING EQUIPMENT DESCRIPTION

The following is a description of supporting equipment and details of cables used with the EUT.

Supporting Equipment:

Manufacturer	Equipment Description	Model	Serial No
Lenovo	Laptop	E40	LR-1EHRX
GOLDWEB	Router	R102	1202032094
Lenovo	AC Adapter	42T4416	21D9JU
HP	Printer	VCVRA-1003	CN36M19JWX
DELL	Mouse	E100	912NMTUT41481
BULL	Socket	GN-403	GN201203

Supporting Cable:

Cable type	Shield Type	Ferrite Core	Length	Serial No
USB Cable	Un-shielding	No	2m	JX120051274
USB Cable	Un-shielding	No	2m	CBA3000AH0C1
RJ45 Cable	Un-shielding	No	2m	KX156327541
Router Power cable	Un-shielding	No	2m	13274630Z
Printer Power cable	Un-shielding	No	2m	127581031
Power Cable	Un-shielding	No	0.8m	GT211032

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Annex D. User Manual / Block Diagram / Schematics / Partlist

Please see the attachment

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Annex E. DECLARATION OF SIMILARITY

N/A