EMC TEST REPORT

Report No.: 16071279-FCC-E_V1

Supersede Report No: N/A

Applicant	BLU Products, Inc.
Product Name	Mobile Phone
Model No.	Vivo5 Mini
Serial No.	N/A
Test Standard	FCC Part 15 Subpart B Class B:2015, ANSI C63.4: 2014
Test Date	November 01 to 11, 2016
Issue Date	November 21, 2016
Test Result	☑ Pass ☐ Fail
Equipment complied with the specification	☑
Equipment did not comply with the specification	☐

Loren Luo	David Huang	
Loren Luo Test Engineer	David Huang Checked By	

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Test result presented in this test report is applicable to the tested sample only

Issued by:

SIEMIC (SHENZHEN-CHINA) LABORATORIES

Zone A, Floor 1, Building 2 Wan Ye Long Technology Park

South Side of Zhoushi Road, Bao' an District, Shenzhen, Guangdong China 518108

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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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CONTENTSD

1. Report Revision History

Report No.	Report Version	Description	Issue Date
16071279-FCC-E	NONE	Original (Obsolete)	November 11, 2016
16071279-FCC-E_V1	V1	Modifying the data of note 1 on Page 28/31/34	November 21, 2016

2. Customer information

Applicant Name	BLU Products, Inc.
Applicant Add	10814 NW 33rd St # 100 Doral, FL 33172
Manufacturer	BLU Products, Inc.
Manufacturer Add	10814 NW 33rd St # 100 Doral, FL 33172

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	Radiated Emission Program-To Shenzhen v2.0

4. Equipment under Test (EUT) Information

Description of EUT:	Mobile Phone
Main Model:	Vivo5 Mini
Serial Model:	N/A
Antenna Gain:	GSM850: -4.7dBi PCS1900: -3.0dBi UMTS-FDD Band V: -4.0dBi UMTS-FDD Band II: -3.5dBi UMTS-FDD Band IV: -3.5dBi Bluetooth/BLE/WIFI: -4.3dBi GPS: -4.0dBi
Antenna Type:	PIFA antenna
Input Power:	Adapter: Model: US-ZC-0600 Input: AC100-240V~50/60Hz,0.2A Output: DC 5.0V-600mA Battery: Model: C655339150L Voltage: 3.8V Battery Capacity: 1500mAh,5.7Wh
Equipment Category：	JBP
Type of Modulation:	GSM / GPRS: GMSK EGPRS: GMSK UMTS-FDD: QPSK 802.11b/g/n: DSSS, OFDM Bluetooth: GFSK, π /4DQPSK, 8DPSK BLE: GFSK GPS:BPSK

RF Operating Frequency (ies):	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 UMTS-FDD Band IV TX :1712.4 ~ 1752.6 MHz; RX : 2112.4 ~ 2152.6 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
Number of Channels:	GSM 850: 124CH PCS1900: 299CH UMTS-FDD Band V: 102CH UMTS-FDD Band II: 277CH UMTS-FDD Band IV: 202CH WIFI :802.11b/g/n(20M): 11CH WIFI :802.11n(40M): 7CH Bluetooth: 79CH BLE: 40CH GPS:1CH
Port:	Power Port, Earphone Port, USB Port
Trade Name :	BLU
FCC ID:	YHLBLUVIVO5MN
Date EUT received:	October 31, 2016
Test Date(s):	November 01 to 11, 2016

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

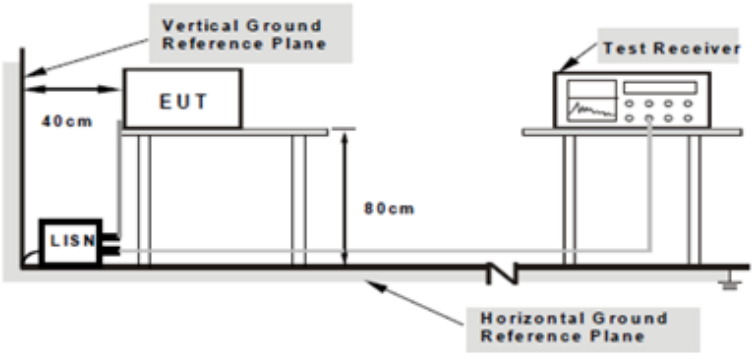
Emissions		
Test Item	**Description**	**Uncertainty**
Band Edge and Radiated Spurious Emissions	Confidence level of approximately 95% (in the case where distributions are normal), with a coverage factor of 2 (for EUTs < 0.5m X 0.5m X 0.5m)	+5.6dB/-4.5dB
-	-	-

6. Measurements, Examination And Derived Results

6.1 AC Power Line Conducted Emissions

Temperature	25℃
Relative Humidity	50%
Atmospheric Pressure	1008mbar
Test date :	November 08, 2016
Tested By :	Loren Luo

Requirement(s):

<table>
<tr><th>Spec</th><th>Item</th><th>Requirement</th><th>Applicable</th></tr>
<tr><td>47CFR§15.107</td><td>a)</td><td>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.
<table>
<tr><th rowspan="2">Frequency ranges (MHz)</th><th colspan="2">Limit (dBμV)</th></tr>
<tr><th>QP</th><th>Average</th></tr>
<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>
</table>
</td><td>☑</td></tr>
<tr><td>Test Setup</td><td colspan="3"> 

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.</td></tr>
<tr><td>Procedure</td><td colspan="3">1. 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.
2. The power supply for the EUT was fed through a 50Ω /50mH EUT LISN, connected to filtered mains.</td></tr>
</table>

	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	☑ Pass ☐ Fail

Test Data ☑ Yes ☐ N/A

Test Plot ☑ Yes (See below) ☐ N/A

Camera1+ memory 1

Test Mode 1:	USB Mode

Test Mode 2:	MP4 Mode

Test Mode 3:	Camera Mode

Test Mode 4:	SD Card Mode

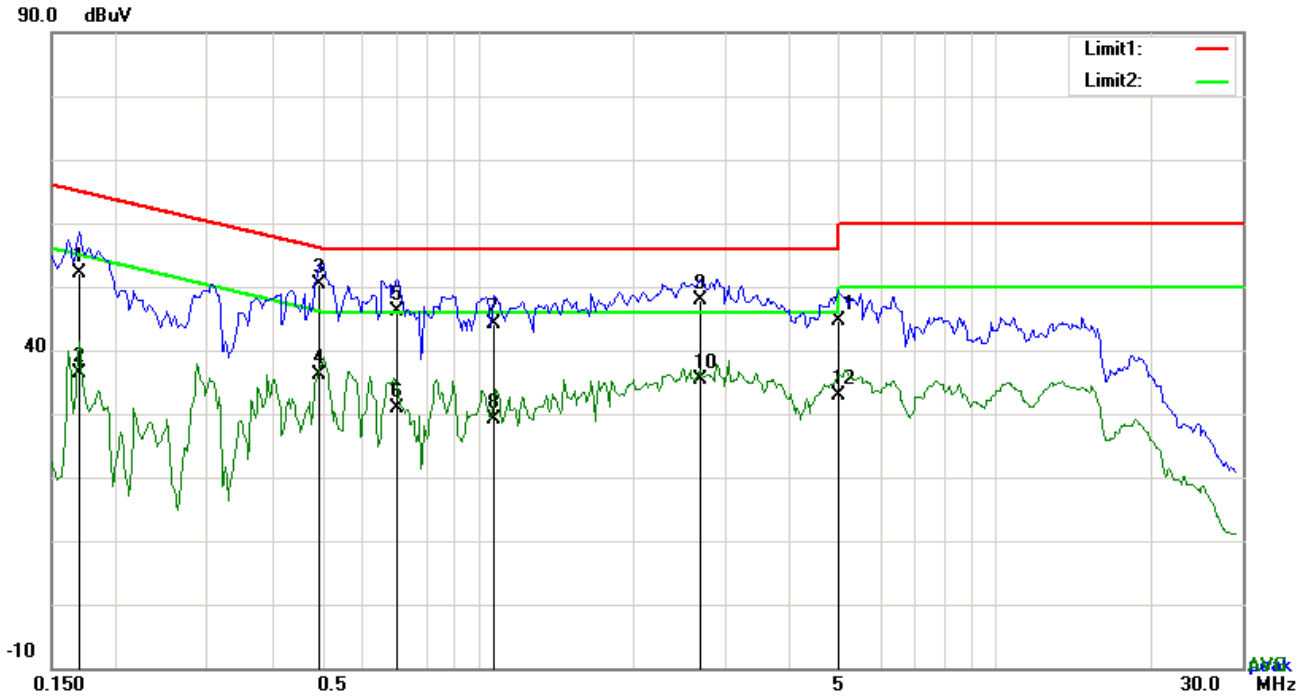
Note: All modes were investigated. But only show the worst result case: USB Mode

Camera 2+ memory 2

Test Mode 5:	USB Mode

Test Mode 6:	Camera Mode

Test Mode 1:	USB Mode

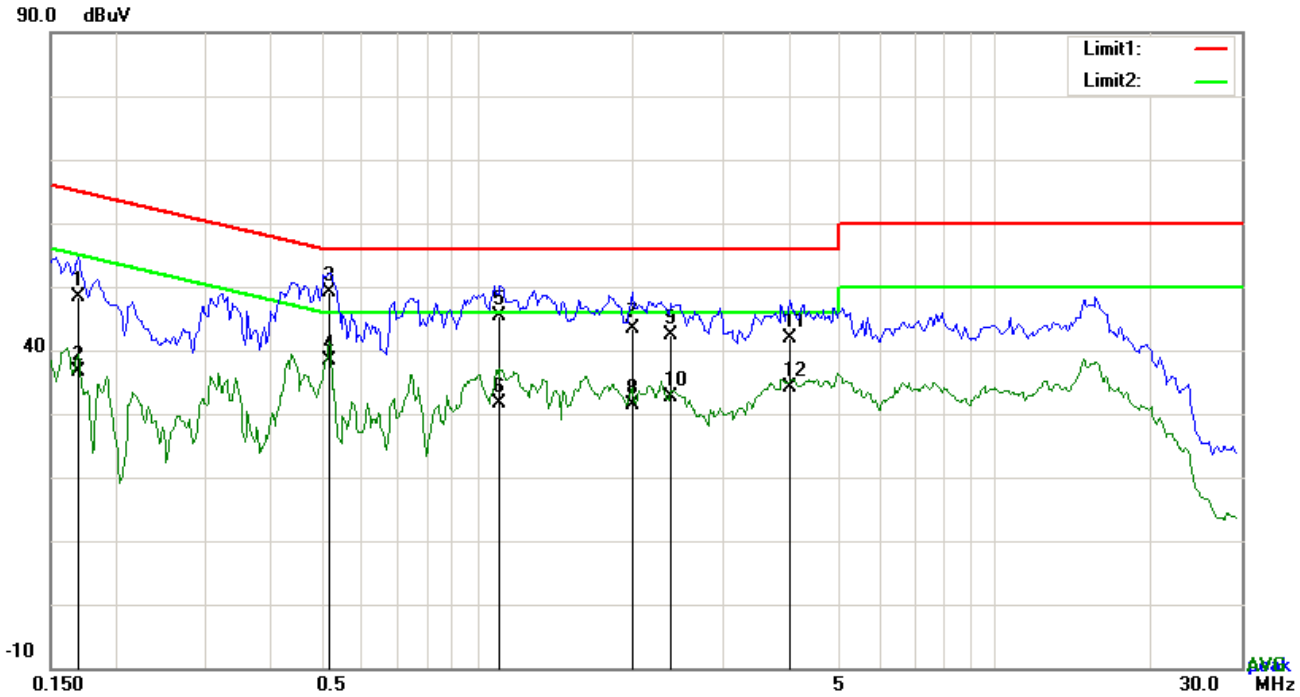


Test Data

Phase Line Plot at 120Vac, 60Hz

No.	P/L	Frequency	Reading	Detector	Corrected	Result	Limit	Margin
		(MHz)	(dBuV)		(dB}	(dBuV)	(dBuV)	(dB)
1	L1	0.1695	39.00	QP	13.13	52.13	64.98	-12.85
2	L1	0.1695	23.30	AVG	13.13	36.43	54.98	-18.55
3	L1	0.4932	38.46	QP	11.93	50.39	56.11	-5.72
4	L1	0.4932	24.09	AVG	11.93	36.02	46.11	-10.09
5	L1	0.6999	34.52	QP	11.70	46.22	56.00	-9.78
6	L1	0.6999	19.25	AVG	11.70	30.95	46.00	-15.05
7	L1	1.0743	32.74	QP	11.40	44.14	56.00	-11.86
8	L1	1.0743	17.80	AVG	11.40	29.20	46.00	-16.80
9	L1	2.6811	36.60	QP	11.40	48.00	56.00	-8.00
10	L1	2.6811	23.89	AVG	11.40	35.29	46.00	-10.71
11	L1	4.9656	33.13	QP	11.40	44.53	56.00	-11.47
12	L1	4.9656	21.41	AVG	11.40	32.81	46.00	-13.19

Test Mode 1:	USB Mode

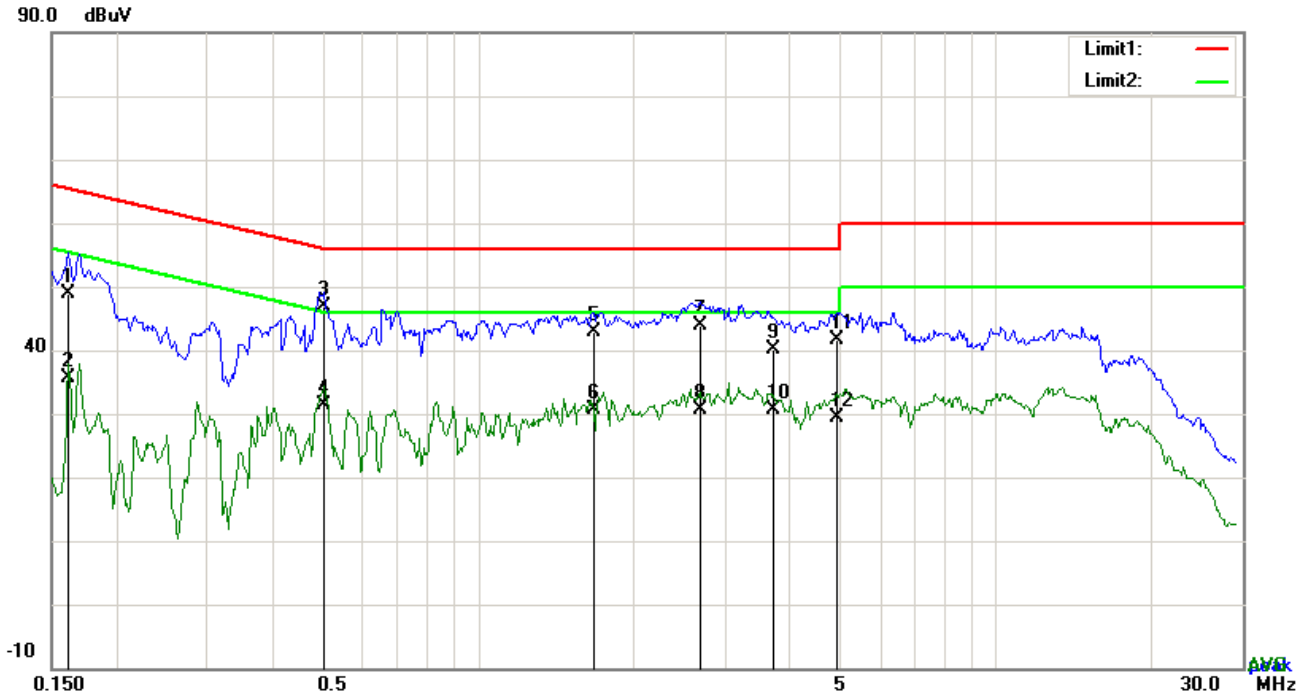


Test Data

Phase Neutral Plot at 120Vac, 60Hz

No.	P/L	Frequency	Reading	Detector	Corrected	Result	Limit	Margin
		(MHz)	(dBuV)		(dB}	(dBuV)	(dBuV)	(dB)
1	N	0.1695	35.36	QP	13.13	48.49	64.98	-16.49
2	N	0.1695	23.39	AVG	13.13	36.52	54.98	-18.46
3	N	0.5205	37.25	QP	11.88	49.13	56.00	-6.87
4	N	0.5205	26.54	AVG	11.88	38.42	46.00	-7.58
5	N	1.1094	34.09	QP	11.41	45.50	56.00	-10.50
6	N	1.1094	20.20	AVG	11.41	31.61	46.00	-14.39
7	N	1.9908	31.82	QP	11.52	43.34	56.00	-12.66
8	N	1.9908	19.79	AVG	11.52	31.31	46.00	-14.69
9	N	2.3613	30.77	QP	11.57	42.34	56.00	-13.66
10	N	2.3613	21.04	AVG	11.57	32.61	46.00	-13.39
11	N	4.0218	30.03	QP	11.78	41.81	56.00	-14.19
12	N	4.0218	22.41	AVG	11.78	34.19	46.00	-11.81

Test Mode 1:	USB Mode

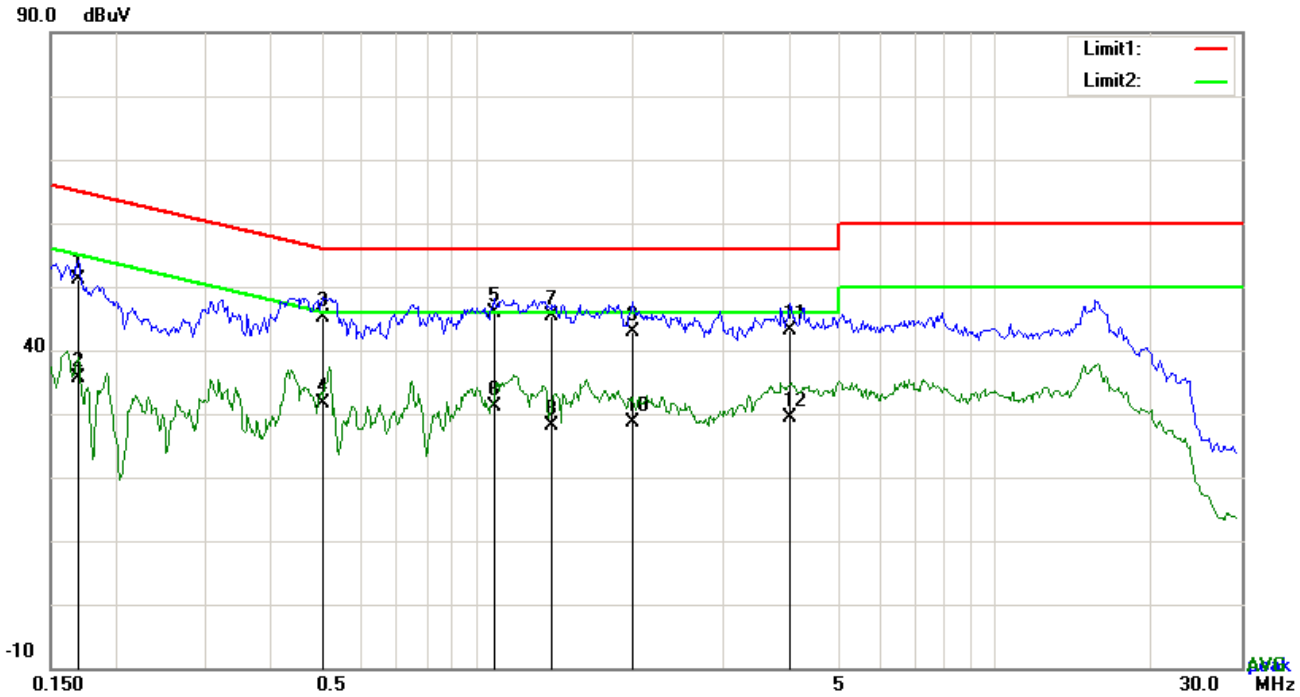


Test Data

Phase Line Plot at 240Vac, 60Hz

No.	P/L	Frequency	Reading	Detector	Corrected	Result	Limit	Margin
		(MHz)	(dBuV)		(dB}	(dBuV)	(dBuV)	(dB)
1	L1	0.1617	35.69	QP	13.16	48.85	65.38	-16.53
2	L1	0.1617	22.42	AVG	13.16	35.58	55.38	-19.80
3	L1	0.5049	35.06	QP	11.90	46.96	56.00	-9.04
4	L1	0.5049	19.52	AVG	11.90	31.42	46.00	-14.58
5	L1	1.6713	31.53	QP	11.40	42.93	56.00	-13.07
6	L1	1.6713	19.12	AVG	11.40	30.52	46.00	-15.48
7	L1	2.6811	32.57	QP	11.40	43.97	56.00	-12.03
8	L1	2.6811	19.28	AVG	11.40	30.68	46.00	-15.32
9	L1	3.7215	28.65	QP	11.40	40.05	56.00	-15.95
10	L1	3.7215	19.11	AVG	11.40	30.51	46.00	-15.49
11	L1	4.9257	30.30	QP	11.40	41.70	56.00	-14.30
12	L1	4.9257	17.96	AVG	11.40	29.36	46.00	-16.64

Test Mode 1:	USB Mode

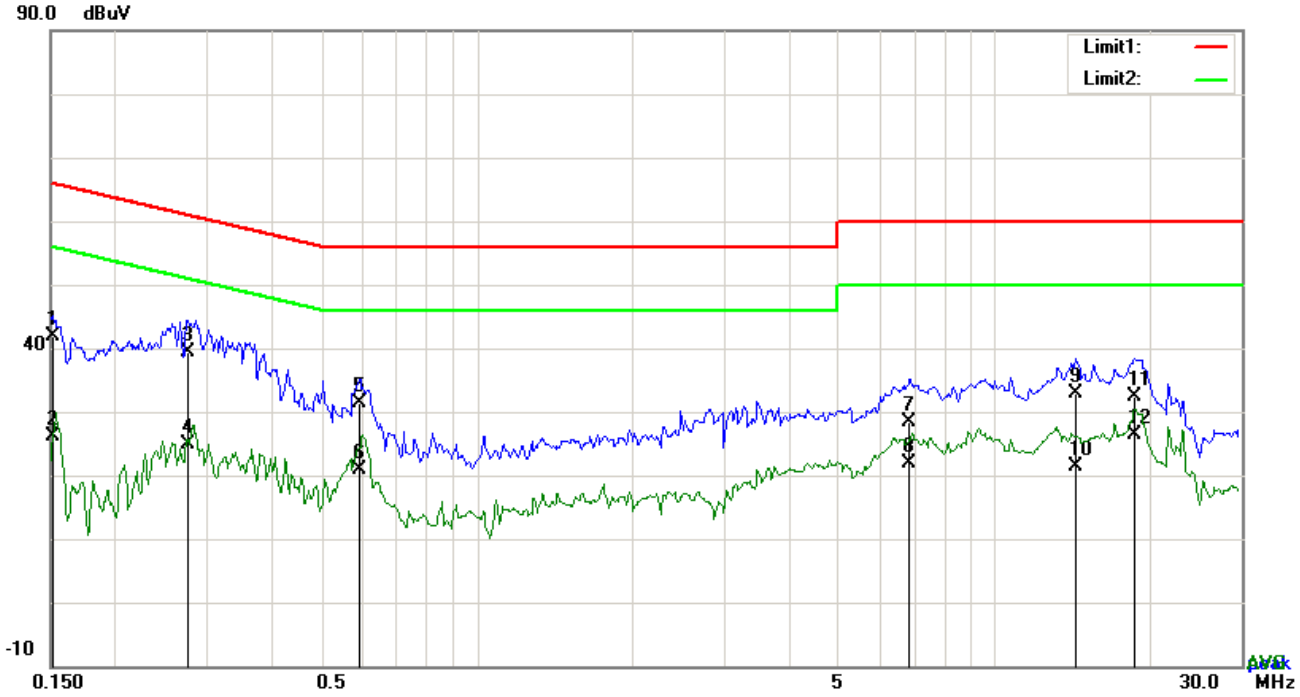


Test Data

Phase Neutral Plot at 240Vac, 60Hz

No.	P/L	Frequency	Reading	Detector	Corrected	Result	Limit	Margin
		(MHz)	(dBuV)		(dB}	(dBuV)	(dBuV)	(dB)
1	N	0.1695	38.12	QP	13.13	51.25	64.98	-13.73
2	N	0.1695	22.45	AVG	13.13	35.58	54.98	-19.40
3	N	0.5049	33.22	QP	11.90	45.12	56.00	-10.88
4	N	0.5049	19.77	AVG	11.90	31.67	46.00	-14.33
5	N	1.0782	34.44	QP	11.41	45.85	56.00	-10.15
6	N	1.0782	19.69	AVG	11.41	31.10	46.00	-14.90
7	N	1.3958	34.02	QP	11.45	45.47	56.00	-10.53
8	N	1.3958	16.62	AVG	11.45	28.07	46.00	-17.93
9	N	1.9908	31.47	QP	11.52	42.99	56.00	-13.01
10	N	1.9908	17.22	AVG	11.52	28.74	46.00	-17.26
11	N	4.0218	31.47	QP	11.78	43.25	56.00	-12.75
12	N	4.0218	17.64	AVG	11.78	29.42	46.00	-16.58

Test Mode 5:	USB Mode

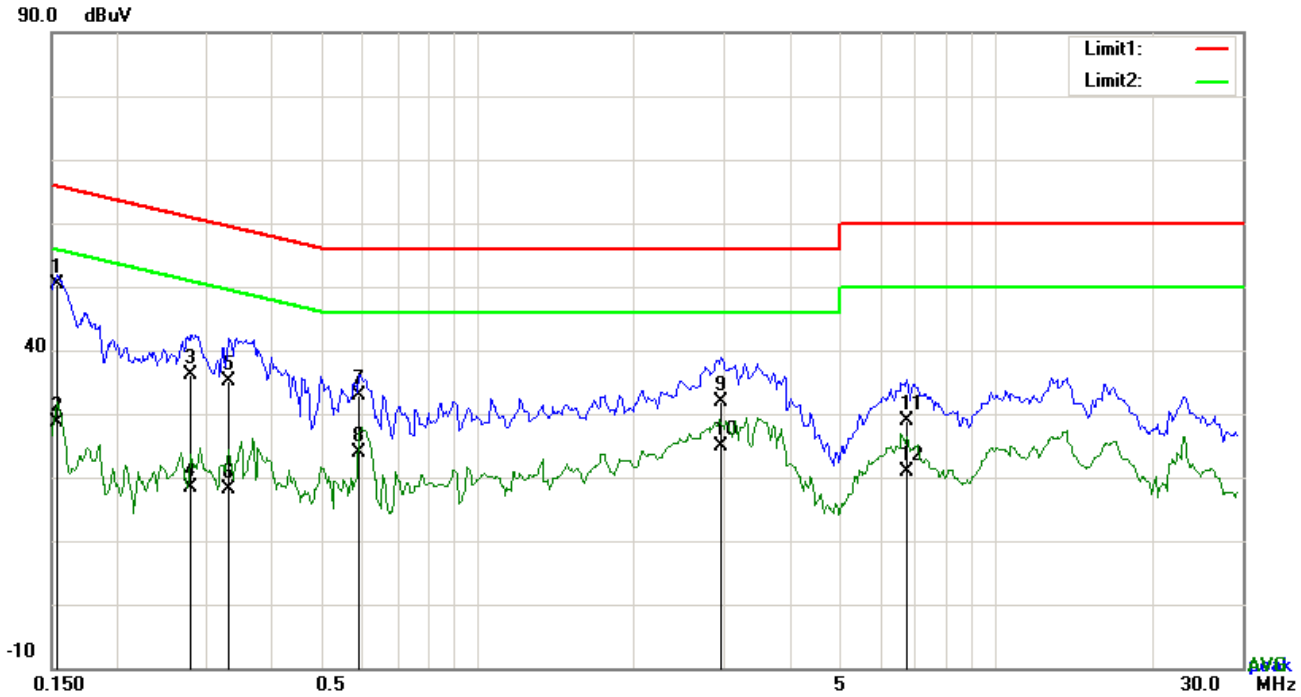


Test Data

Phase Line Plot at 120Vac, 60Hz

No.	P/L	Frequency	Reading	Detector	Corrected	Result	Limit	Margin
		(MHz)	(dBuV)		(dB}	(dBuV)	(dBuV)	(dB)
1	L1	0.1516	28.60	QP	13.19	41.79	65.91	-24.12
2	L1	0.1516	13.00	AVG	13.19	26.19	55.91	-29.72
3	L1	0.2759	26.71	QP	12.73	39.44	60.94	-21.50
4	L1	0.2759	12.07	AVG	12.73	24.80	50.94	-26.14
5	L1	0.5946	19.45	QP	11.81	31.26	56.00	-24.74
6	L1	0.5946	8.97	AVG	11.81	20.78	46.00	-25.22
7	L1	6.8766	16.32	QP	12.08	28.40	60.00	-31.60
8	L1	6.8766	9.82	AVG	12.08	21.90	50.00	-28.10
9	L1	14.3607	18.95	QP	14.03	32.98	60.00	-27.02
10	L1	14.3607	7.32	AVG	14.03	21.35	50.00	-28.65
11	L1	18.6221	17.63	QP	14.84	32.47	60.00	-27.53
12	L1	18.6221	11.43	AVG	14.84	26.27	50.00	-23.73

Test Mode 5:	USB Mode

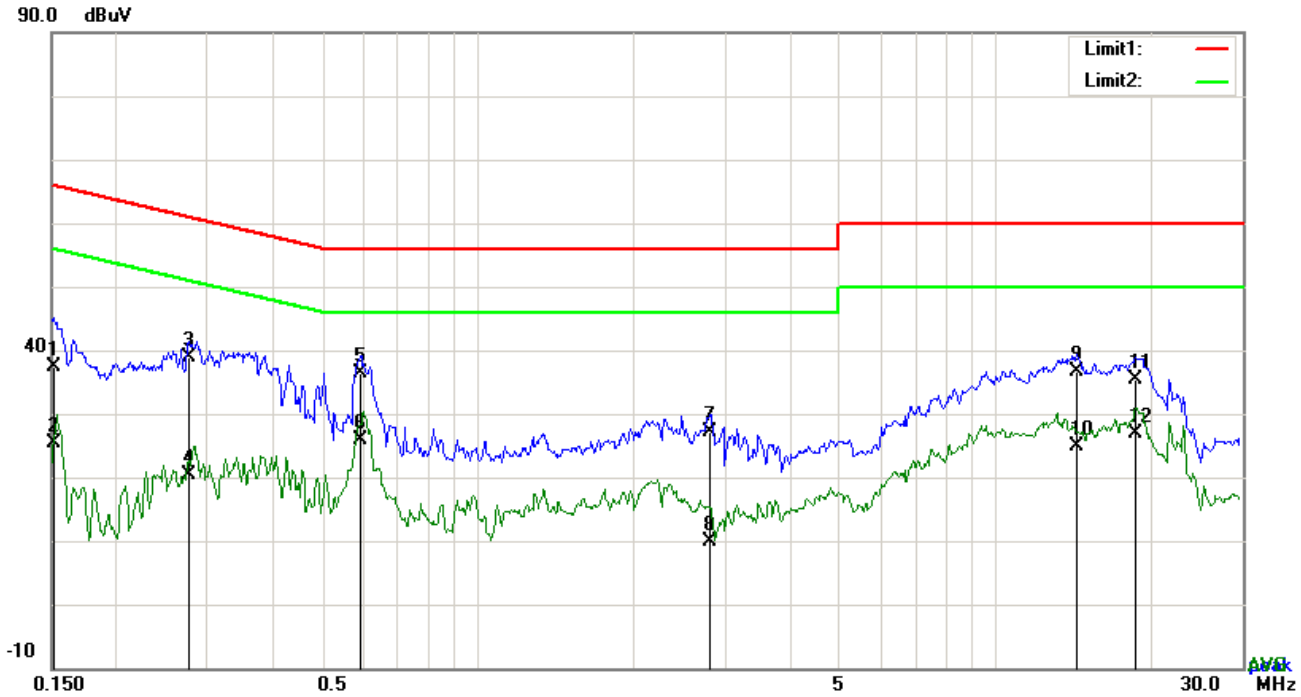


Test Data

Phase Neutral Plot at 120Vac, 60Hz

No.	P/L	Frequency	Reading	Detector	Corrected	Result	Limit	Margin
		(MHz)	(dBuV)		(dB}	(dBuV)	(dBuV)	(dB)
1	N	0.1539	37.07	QP	13.19	50.26	65.79	-15.53
2	N	0.1539	15.36	AVG	13.19	28.55	55.79	-27.24
3	N	0.2787	23.34	QP	12.72	36.06	60.85	-24.79
4	N	0.2787	5.74	AVG	12.72	18.46	50.85	-32.39
5	N	0.3303	22.61	QP	12.53	35.14	59.44	-24.30
6	N	0.3303	5.64	AVG	12.53	18.17	49.44	-31.27
7	N	0.5907	21.04	QP	11.81	32.85	56.00	-23.15
8	N	0.5907	12.08	AVG	11.81	23.89	46.00	-22.11
9	N	2.9541	20.24	QP	11.64	31.88	56.00	-24.12
10	N	2.9541	13.31	AVG	11.64	24.95	46.00	-21.05
11	N	6.7479	16.60	QP	12.35	28.95	60.00	-31.05
12	N	6.7479	8.47	AVG	12.35	20.82	50.00	-29.18

Test Mode 5:	USB Mode

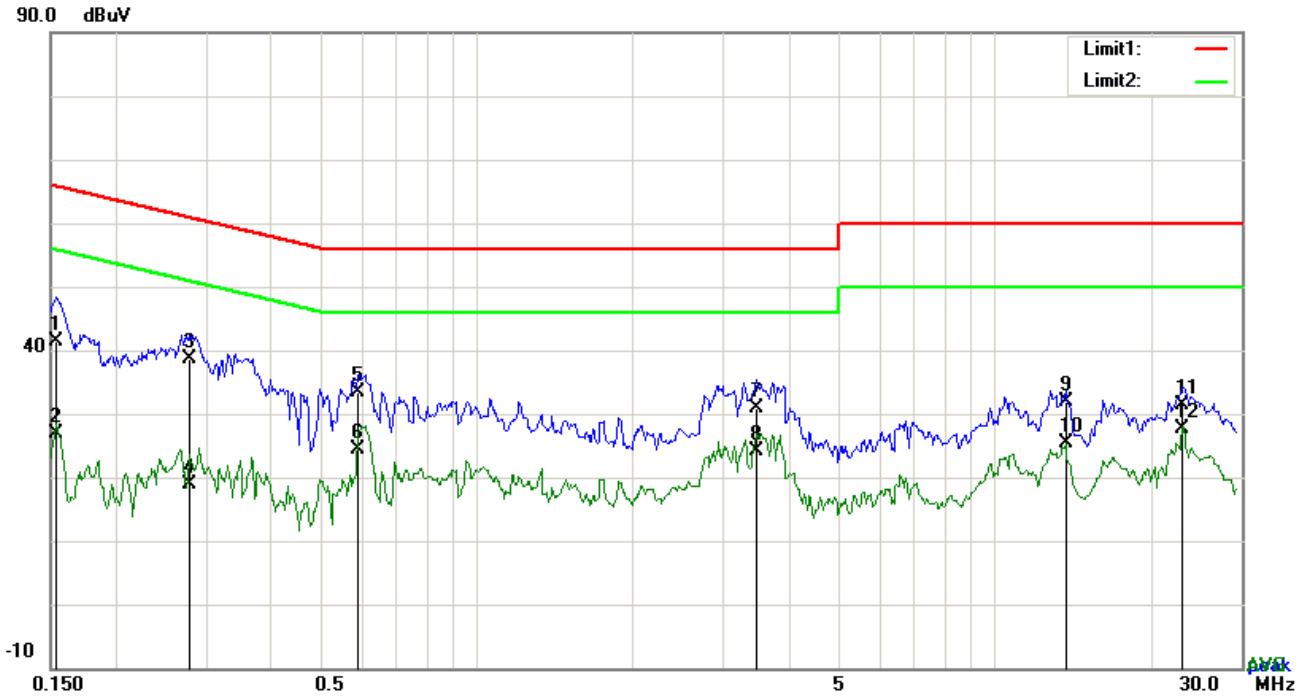


Test Data

Phase Line Plot at 240Vac, 60Hz

No.	P/L	Frequency	Reading	Detector	Corrected	Result	Limit	Margin
		(MHz)	(dBuV)		(dB}	(dBuV)	(dBuV)	(dB)
1	L1	0.1516	24.15	QP	13.19	37.34	65.91	-28.57
2	L1	0.1516	12.23	AVG	13.19	25.42	55.91	-30.49
3	L1	0.2759	26.08	QP	12.73	38.81	60.94	-22.13
4	L1	0.2759	7.74	AVG	12.73	20.47	50.94	-30.47
5	L1	0.5946	24.62	QP	11.81	36.43	56.00	-19.57
6	L1	0.5946	14.19	AVG	11.81	26.00	46.00	-20.00
7	L1	2.8215	15.70	QP	11.40	27.10	56.00	-28.90
8	L1	2.8215	-1.46	AVG	11.40	9.94	46.00	-36.06
9	L1	14.3607	22.63	QP	14.03	36.66	60.00	-23.34
10	L1	14.3607	10.76	AVG	14.03	24.79	50.00	-25.21
11	L1	18.6221	20.52	QP	14.84	35.36	60.00	-24.64
12	L1	18.6221	11.95	AVG	14.84	26.79	50.00	-23.21

Test Mode 5:	USB Mode

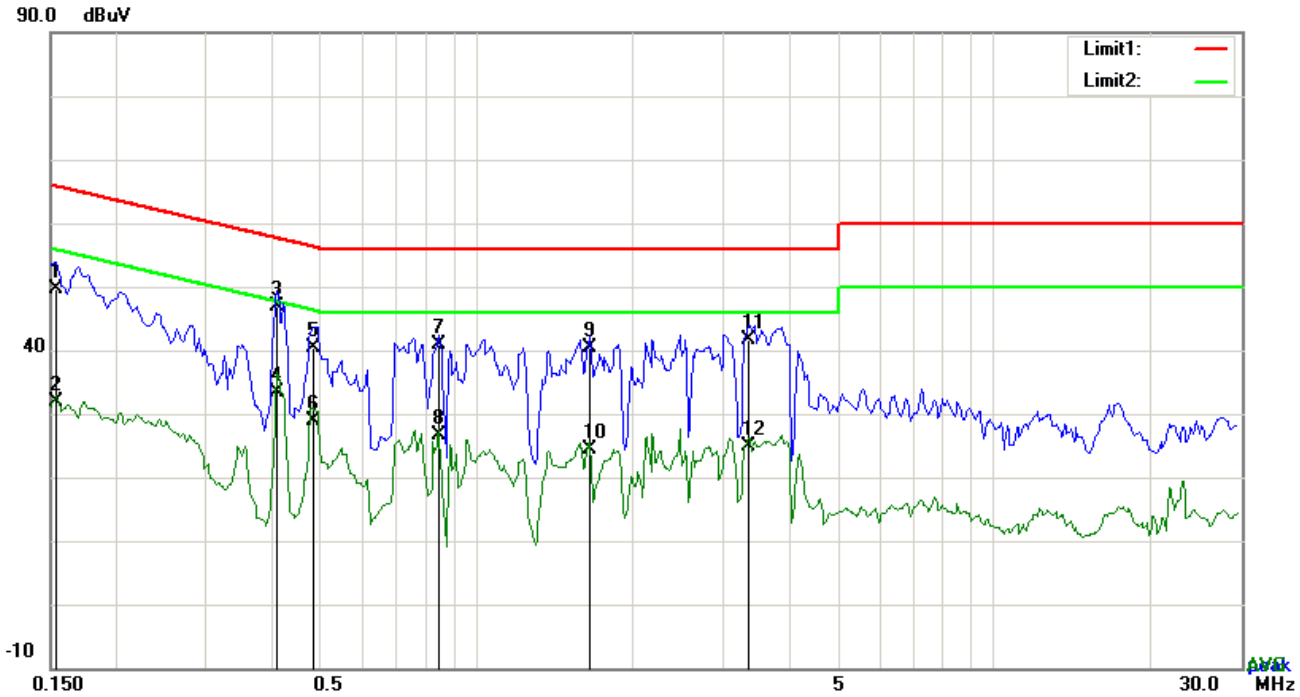


Test Data

Phase Neutral Plot at 240Vac, 60Hz

No.	P/L	Frequency	Reading	Detector	Corrected	Result	Limit	Margin
		(MHz)	(dBuV)		(dB}	(dBuV)	(dBuV)	(dB)
1	N	0.1539	28.24	QP	13.19	41.43	65.79	-24.36
2	N	0.1539	13.60	AVG	13.19	26.79	55.79	-29.00
3	N	0.2787	25.84	QP	12.72	38.56	60.85	-22.29
4	N	0.2787	6.18	AVG	12.72	18.90	50.85	-31.95
5	N	0.5907	21.46	QP	11.81	33.27	56.00	-22.73
6	N	0.5907	12.46	AVG	11.81	24.27	46.00	-21.73
7	N	3.4641	19.06	QP	11.71	30.77	56.00	-25.23
8	N	3.4641	12.49	AVG	11.71	24.20	46.00	-21.80
9	N	13.7172	18.04	QP	13.91	31.95	60.00	-28.05
10	N	13.7172	11.54	AVG	13.91	25.45	50.00	-24.55
11	N	23.1279	15.18	QP	16.29	31.47	60.00	-28.53
12	N	23.1279	11.25	AVG	16.29	27.54	50.00	-22.46

Test Mode 6:	Camera Mode

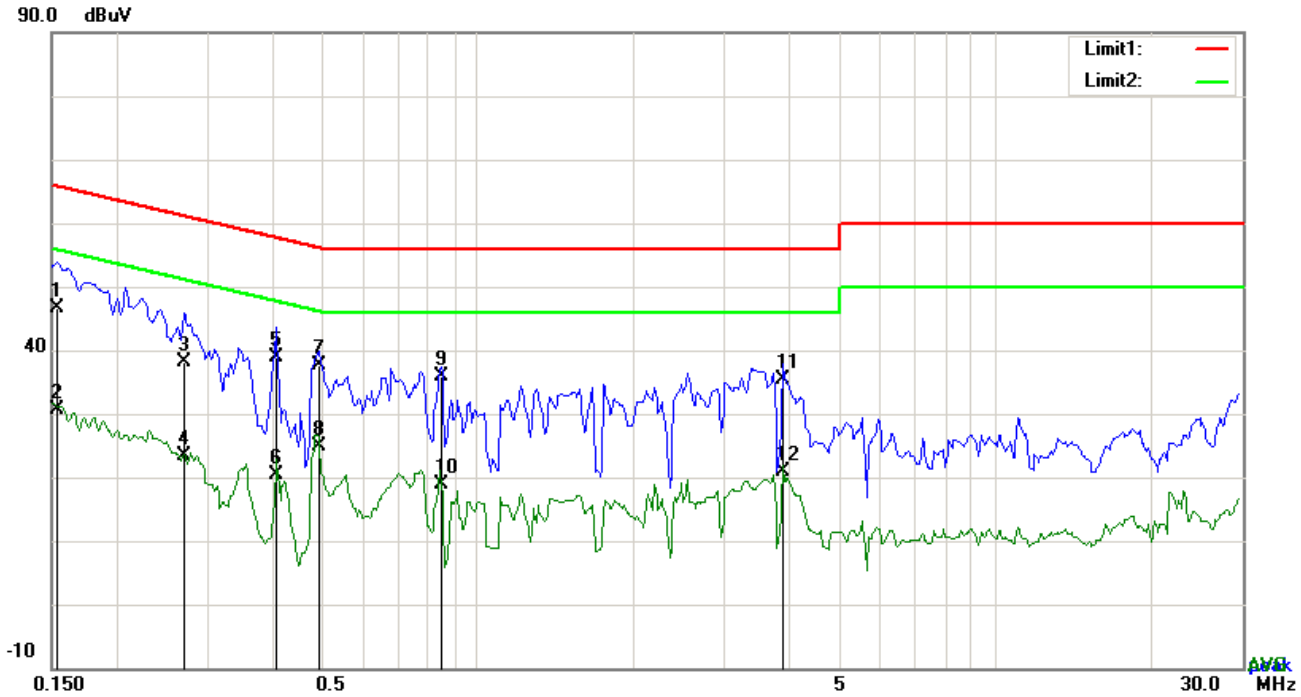


Test Data

Phase Line Plot at 120Vac, 60Hz

No.	P/L	Frequency	Reading	Detector	Corrected	Result	Limit	Margin
		(MHz)	(dBuV)		(dB}	(dBuV)	(dBuV)	(dB)
1	L1	0.1539	36.53	QP	13.19	49.72	65.79	-16.07
2	L1	0.1539	18.80	AVG	13.19	31.99	55.79	-23.80
3	L1	0.4113	34.76	QP	12.23	46.99	57.62	-10.63
4	L1	0.4113	21.03	AVG	12.23	33.26	47.62	-14.36
5	L1	0.4815	28.32	QP	11.97	40.29	56.31	-16.02
6	L1	0.4815	16.95	AVG	11.97	28.92	46.31	-17.39
7	L1	0.8481	29.40	QP	11.55	40.95	56.00	-15.05
8	L1	0.8481	14.98	AVG	11.55	26.53	46.00	-19.47
9	L1	1.6554	29.00	QP	11.40	40.40	56.00	-15.60
10	L1	1.6554	12.99	AVG	11.40	24.39	46.00	-21.61
11	L1	3.3627	30.11	QP	11.40	41.51	56.00	-14.49
12	L1	3.3627	13.57	AVG	11.40	24.97	46.00	-21.03

Test Mode 6:	Camera Mode

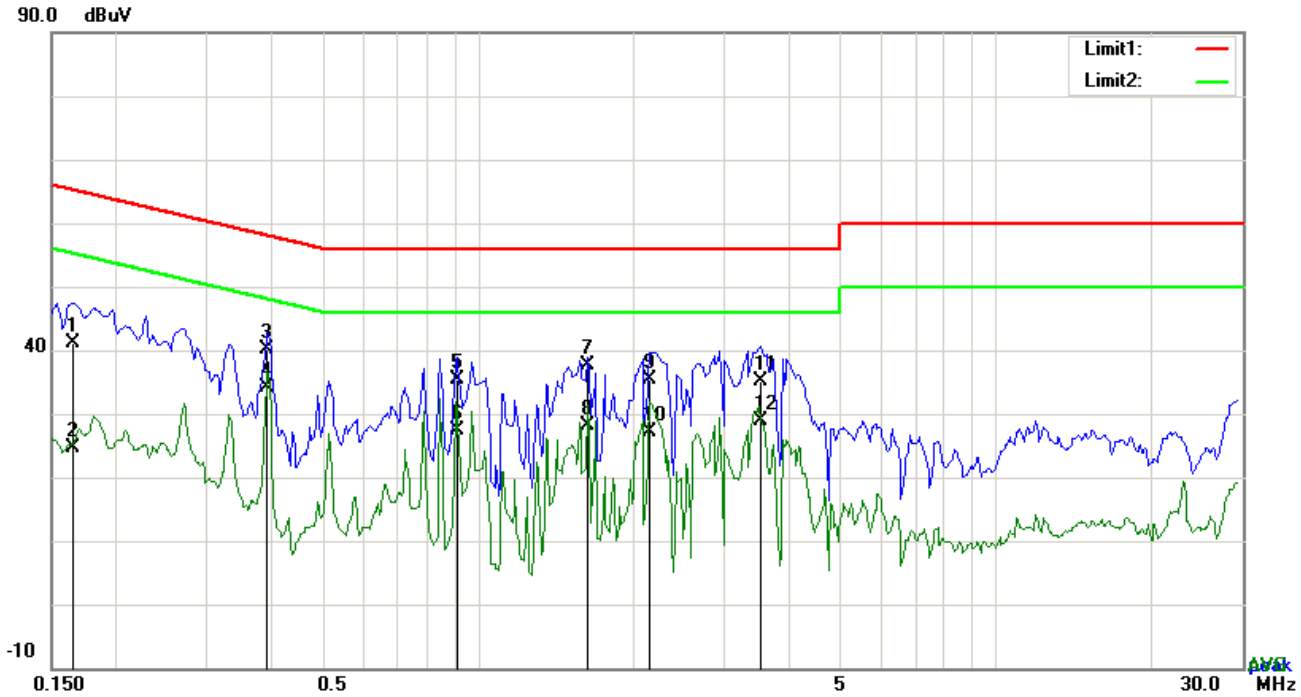


Test Data

Phase Neutral Plot at 120Vac, 60Hz

No.	P/L	Frequency	Reading	Detector	Corrected	Result	Limit	Margin
		(MHz)	(dBuV)		(dB}	(dBuV)	(dBuV)	(dB)
1	N	0.1539	33.51	QP	13.19	46.70	65.79	-19.09
2	N	0.1539	17.54	AVG	13.19	30.73	55.79	-25.06
3	N	0.2709	25.26	QP	12.75	38.01	61.09	-23.08
4	N	0.2709	10.68	AVG	12.75	23.43	51.09	-27.66
5	N	0.4074	26.68	QP	12.24	38.92	57.70	-18.78
6	N	0.4074	8.17	AVG	12.24	20.41	47.70	-27.29
7	N	0.4932	25.78	QP	11.93	37.71	56.11	-18.40
8	N	0.4932	12.86	AVG	11.93	24.79	46.11	-21.32
9	N	0.8520	24.24	QP	11.55	35.79	56.00	-20.21
10	N	0.8520	7.40	AVG	11.55	18.95	46.00	-27.05
11	N	3.8970	23.50	QP	11.76	35.26	56.00	-20.74
12	N	3.8970	9.21	AVG	11.76	20.97	46.00	-25.03

Test Mode 6:	Camera Mode

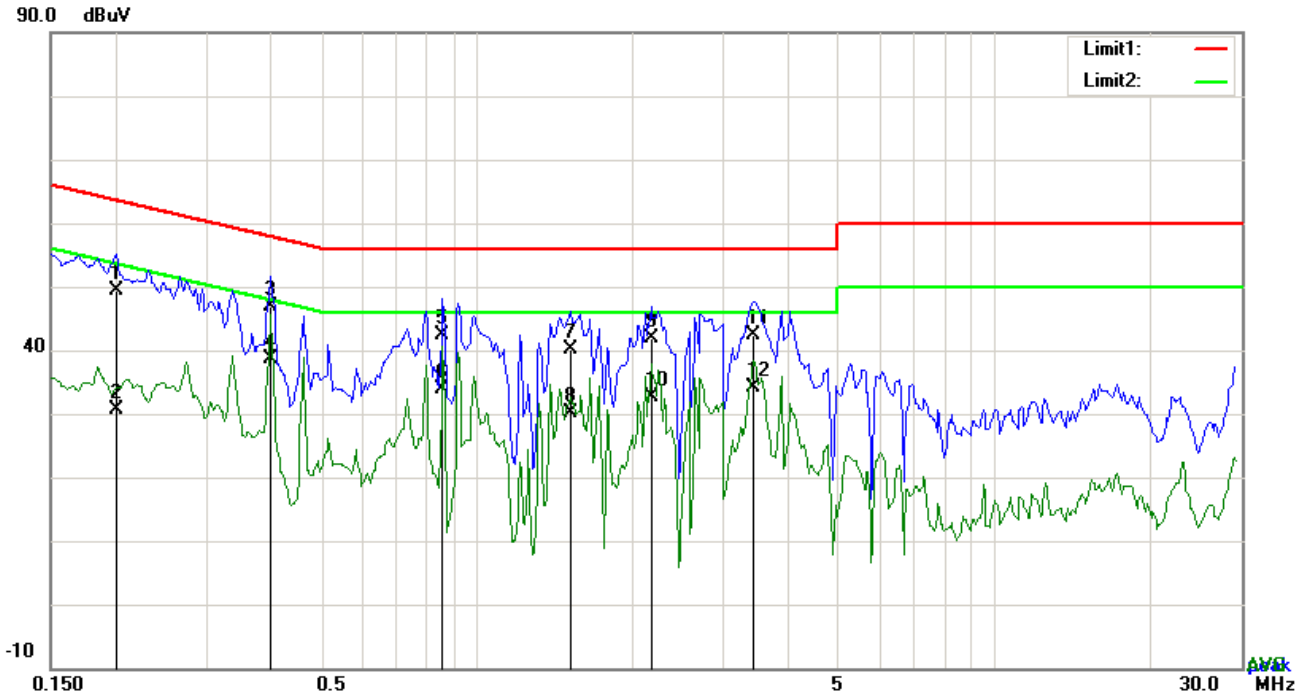


Test Data

Phase Line Plot at 240Vac, 60Hz

No.	P/L	Frequency	Reading	Detector	Corrected	Result	Limit	Margin
		(MHz)	(dBuV)		(dB}	(dBuV)	(dBuV)	(dB)
1	L1	0.1656	28.10	QP	13.14	41.24	65.18	-23.94
2	L1	0.1656	11.45	AVG	13.14	24.59	55.18	-30.59
3	L1	0.3918	27.91	QP	12.30	40.21	58.03	-17.82
4	L1	0.3918	21.88	AVG	12.30	34.18	48.03	-13.85
5	L1	0.9105	23.88	QP	11.49	35.37	56.00	-20.63
6	L1	0.9105	15.98	AVG	11.49	27.47	46.00	-18.53
7	L1	1.6320	26.30	QP	11.40	37.70	56.00	-18.30
8	L1	1.6320	16.65	AVG	11.40	28.05	46.00	-17.95
9	L1	2.1507	23.87	QP	11.40	35.27	56.00	-20.73
10	L1	2.1507	15.84	AVG	11.40	27.24	46.00	-18.76
11	L1	3.5109	23.82	QP	11.40	35.22	56.00	-20.78
12	L1	3.5109	17.44	AVG	11.40	28.84	46.00	-17.16

Test Mode 6:	Camera Mode



Test Data

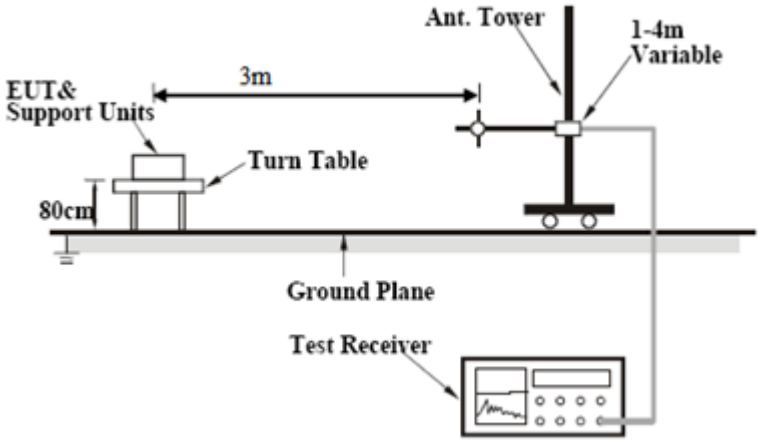
Phase Neutral Plot at 240Vac, 60Hz

No.	P/L	Frequency	Reading	Detector	Corrected	Result	Limit	Margin
		(MHz)	(dBuV)		(dB}	(dBuV)	(dBuV)	(dB)
1	N	0.2007	36.28	QP	13.01	49.29	63.58	-14.29
2	N	0.2007	17.52	AVG	13.01	30.53	53.58	-23.05
3	N	0.3996	34.69	QP	12.27	46.96	57.86	-10.90
4	N	0.3996	26.31	AVG	12.27	38.58	47.86	-9.28
5	N	0.8598	30.88	QP	11.54	42.42	56.00	-13.58
6	N	0.8598	22.23	AVG	11.54	33.77	46.00	-12.23
7	N	1.5189	28.62	QP	11.46	40.08	56.00	-15.92
8	N	1.5189	18.59	AVG	11.46	30.05	46.00	-15.95
9	N	2.1780	30.40	QP	11.55	41.95	56.00	-14.05
10	N	2.1780	21.02	AVG	11.55	32.57	46.00	-13.43
11	N	3.4329	30.76	QP	11.70	42.46	56.00	-13.54
12	N	3.4329	22.44	AVG	11.70	34.14	46.00	-11.86

6.2 Radiated Emissions

Temperature	25℃
Relative Humidity	50%
Atmospheric Pressure	1008mbar
Test date :	November 08, 2016
Tested By :	Loren Luo

Requirement(s):

<table>
<tr><th>Spec</th><th>Item</th><th>Requirement</th><th>Applicable</th></tr>
<tr><td>47CFR§15.109(d)</td><td>a)</td><td>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
<table>
<tr><th>Frequency range (MHz)</th><th>Field Strength (μV/m)</th></tr>
<tr><td>30 – 88</td><td>100</td></tr>
<tr><td>88 – 216</td><td>150</td></tr>
<tr><td>216 960</td><td>200</td></tr>
<tr><td>Above 960</td><td>500</td></tr>
</table></td><td>☑</td></tr>
<tr><td>Test Setup</td><td colspan="3"> 
</td></tr>
<tr><td>Procedure</td><td colspan="3">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:
a. Vertical or horizontal polarization (whichever gave the higher emission level over a full rotation of the EUT) was chosen.
b. The EUT was then rotated to the direction that gave the maximum</td></tr>
</table>

	emission. c. Finally, the antenna height was adjusted to the height that gave the maximum emission. 3. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120 kHz for Quasiy Peak detection at frequency below 1GHz. 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%) 5. Steps 2 and 3 were repeated for the next frequency point, until all selected frequency points were measured.
Remark	
Result	☑ Pass ☐ Fail

Test Data ☑ Yes ☐ N/A

Test Plot ☑ Yes (See below) ☐ N/A

Camera1+ memory 1

Test Mode 1:	USB Mode

Test Mode 2:	MP4 Mode

Test Mode 3:	Camera Mode

Test Mode 4:	SD Card Mode

All modes were investigated. But only show the worst result case: USB Mode

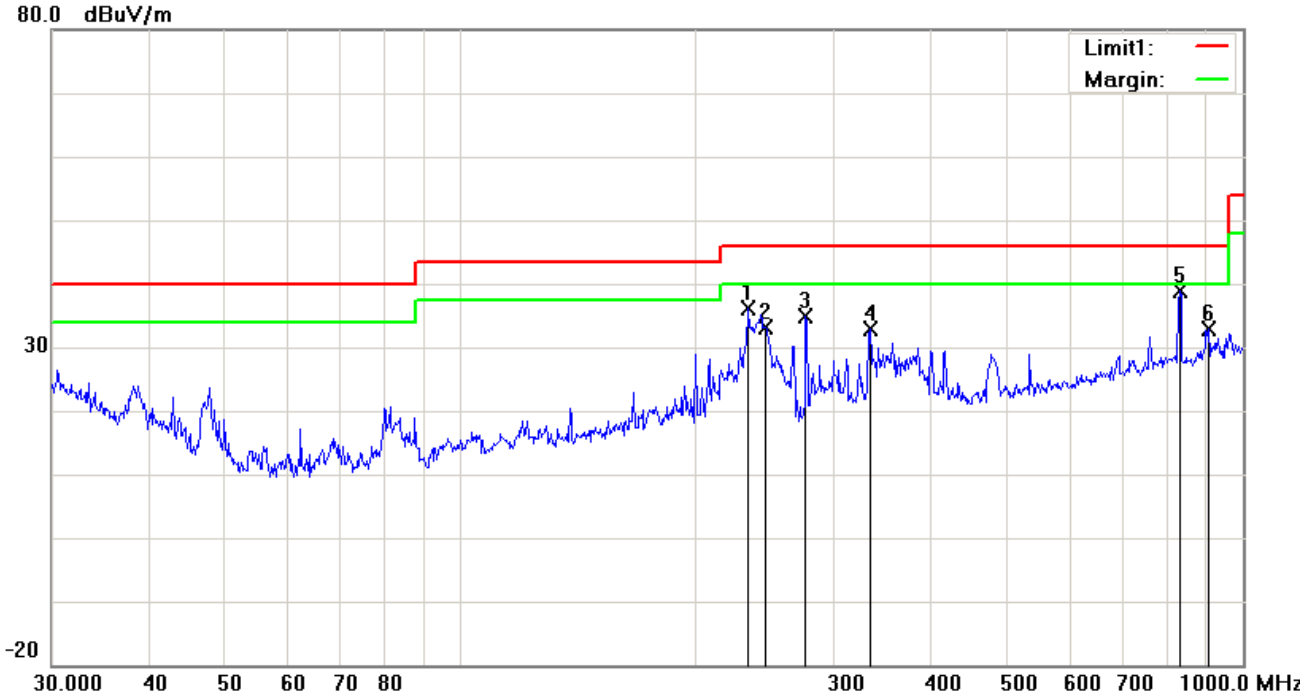
Camera 2+ memory 2

Test Mode 5:	USB Mode

Test Mode 6:	Camera Mode

Test Mode 1:	USB Mode

Below 1GHz

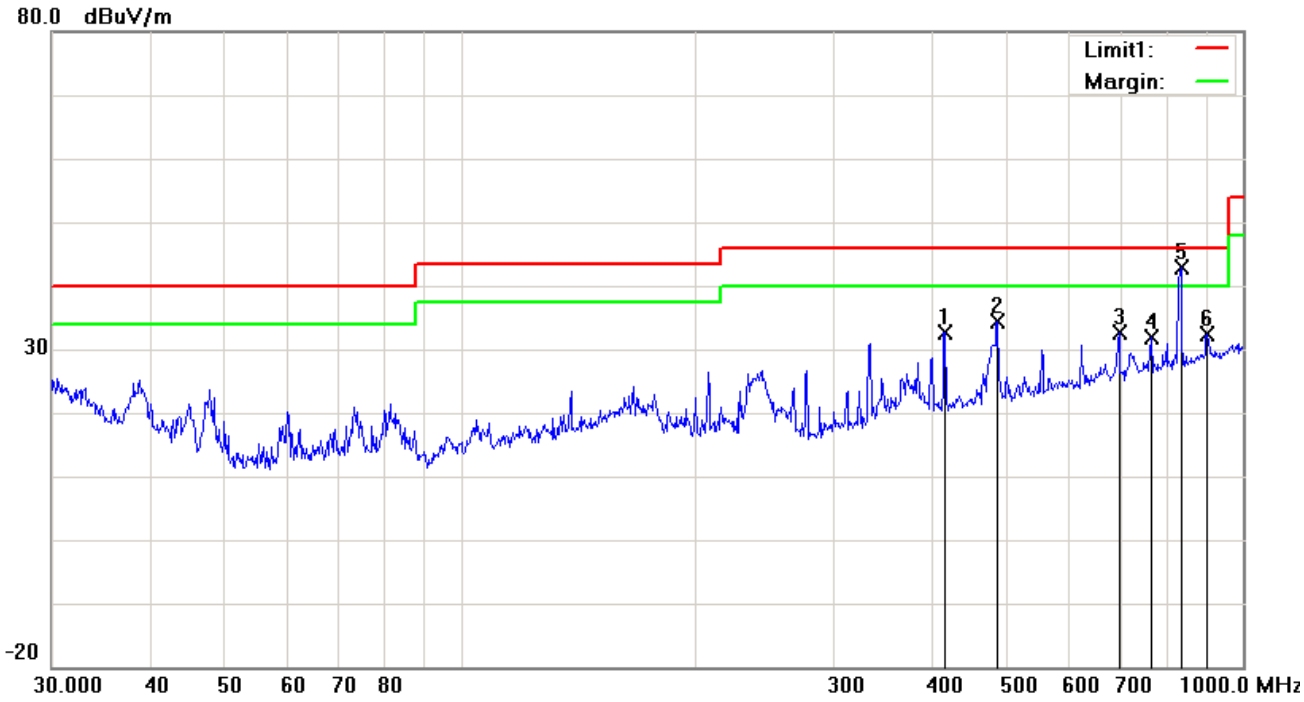


Test Data

Horizontal Polarity Plot @3m

No.	P/L	Frequency	Reading	Detector	Corrected	Result	Limit	Margin	Height	Degree
		(MHz)	(dBuV/m)		(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(°)
1	H	233.3487	45.05	peak	-9.04	36.01	46.00	-9.99	100	139
2	H	245.0900	42.38	peak	-9.15	33.23	46.00	-12.77	200	228
3	H	276.1236	42.78	peak	-7.99	34.79	46.00	-11.21	100	146
4	H	333.6867	38.71	peak	-5.93	32.78	46.00	-13.22	100	57
5	H	830.4002	35.26	peak	3.57	38.83	46.00	-7.17	100	231
6	H	903.3094	28.21	peak	4.73	32.94	46.00	-13.06	100	68

Below 1GHz



Test Data

Vertical Polarity Plot @3m

No.	P/L	Frequency	Reading	Detector	Corrected	Result	Limit	Margin	Height	Degree
		(MHz)	(dBuV/m)		(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(°)
1	V	416.1791	36.58	peak	-3.91	32.67	46.00	-13.33	100	47
2	V	485.6093	36.44	peak	-2.09	34.35	46.00	-11.65	100	135
3	V	694.4174	31.19	peak	1.32	32.51	46.00	-13.49	100	246
4	V	763.3757	29.38	peak	2.62	32.00	46.00	-14.00	100	198
5	V	833.3171	39.29	QP	3.61	42.90	46.00	-3.10	100	64
6	V	900.1474	27.66	peak	4.69	32.35	46.00	-13.65	100	113

Above 1GHz

Frequency (MHz)	Amplitude (dBμV/m)	Azimuth	Height (cm)	Polarity (H/V)	Factors (dB)	Limit (dBμV/m)	Margin (dB)	Detector (PK/AV)
1325.73	51.32	85	157	V	-22.21	74	-22.68	PK
1502.85	50.48	116	132	V	-22.85	74	-23.52	PK
2016.49	52.26	97	174	V	-21.36	74	-21.74	PK
1721.52	53.53	73	127	H	-21.07	74	-20.47	PK
2327.96	49.97	104	248	H	-21.49	74	-24.03	PK
1945.78	53.04	133	161	H	-22.18	74	-20.96	PK

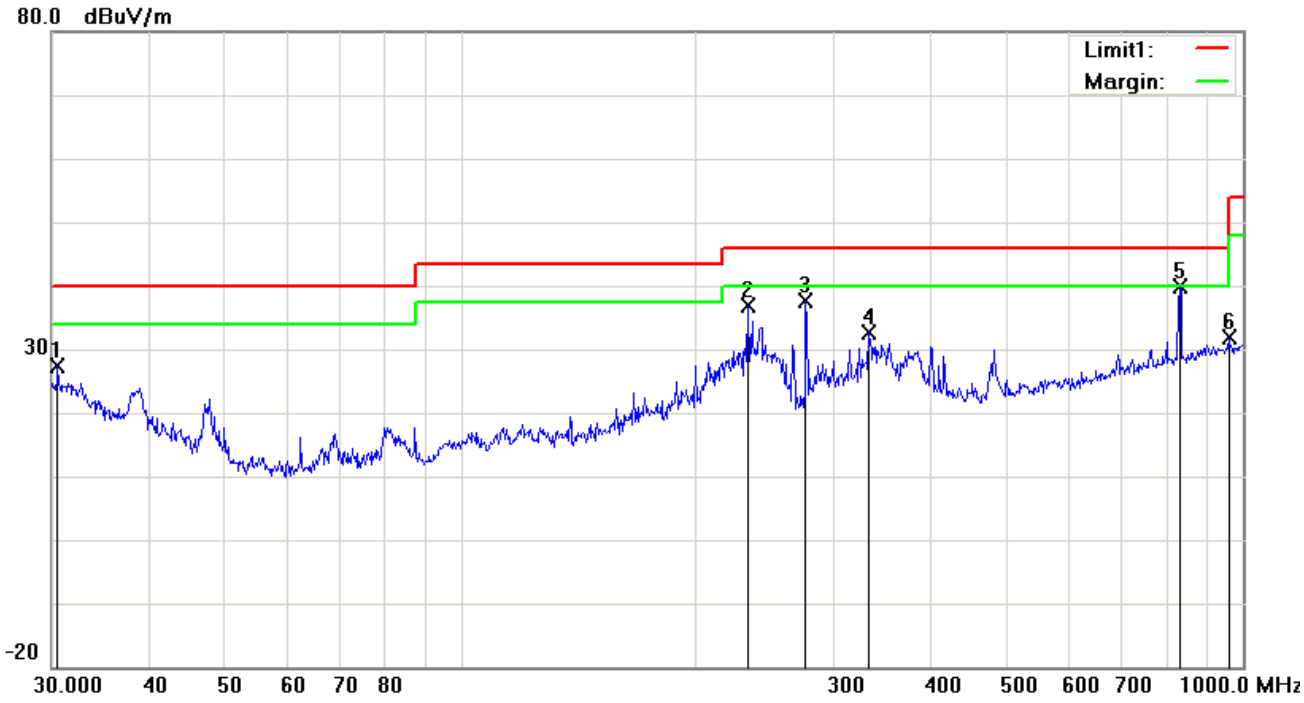
*Note1: The highest frequency of the EUT is 2480 MHz, so the testing has been conformed to 5*2480MHz=12,400MHz.*

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.

Test Mode 5:	USB Mode

Below 1GHz

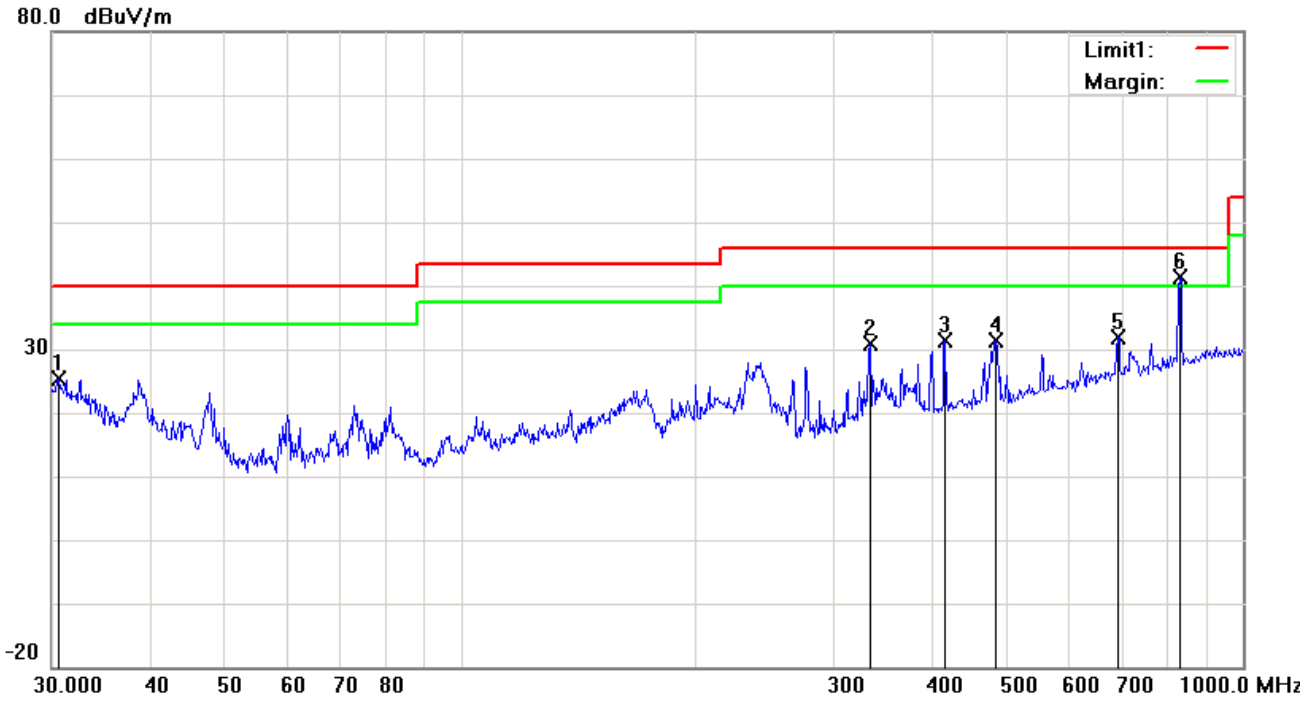


Test Data

Horizontal Polarity Plot @3m

No.	P/L	Frequency	Reading	Detector	Corrected	Result	Limit	Margin	Height	Degree
		(MHz)	(dBuV/m)		(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(°)
1	H	30.5306	28.13	peak	-0.66	27.47	40.00	-12.53	100	113
2	H	232.5318	45.88	peak	-9.04	36.84	46.00	-9.16	100	167
3	H	276.1236	45.57	peak	-7.99	37.58	46.00	-8.42	100	45
4	H	332.5187	38.52	peak	-5.97	32.55	46.00	-13.45	100	138
5	H	830.4002	36.30	QP	3.57	39.87	46.00	-6.13	100	259
6	H	958.7943	26.59	peak	5.24	31.83	46.00	-14.17	200	327

Below 1GHz



Test Data

Vertical Polarity Plot @3m

No.	P/L	Frequency	Reading	Detector	Corrected	Result	Limit	Margin	Height	Degree
		(MHz)	(dBuV/m)		(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(°)
1	V	30.6379	26.08	peak	-0.73	25.35	40.00	-14.65	100	177
2	V	333.6867	36.88	peak	-5.93	30.95	46.00	-15.05	200	46
3	V	416.1791	35.32	peak	-3.91	31.41	46.00	-14.59	100	51
4	V	483.9094	33.43	peak	-2.13	31.30	46.00	-14.70	100	85
5	V	691.9867	30.68	peak	1.28	31.96	46.00	-14.04	100	103
6	V	830.4002	37.78	QP	3.57	41.35	46.00	-4.65	100	268

Above 1GHz

Frequency (MHz)	Amplitude (dBμV/m)	Azimuth	Height (cm)	Polarity (H/V)	Factors (dB)	Limit (dBμV/m)	Margin (dB)	Detector (PK/AV)
1164.57	50.61	63	135	V	-22.35	74	-23.39	PK
1362.45	49.53	91	177	V	-23.12	74	-24.47	PK
1968.73	51.84	134	121	V	-21.41	74	-22.16	PK
1633.62	53.47	88	233	H	-20.67	74	-20.53	PK
2248.91	50.33	127	214	H	-21.54	74	-23.67	PK
1876.19	52.28	155	126	H	-22.36	74	-21.72	PK

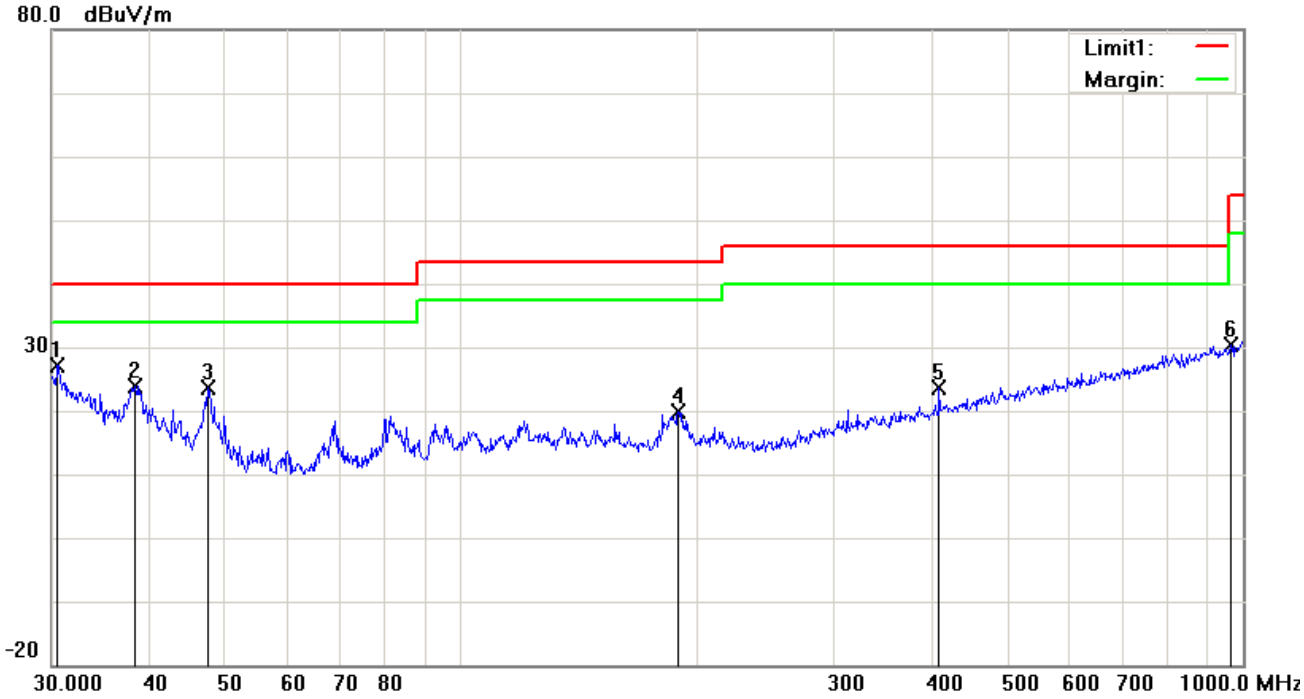
*Note1: The highest frequency of the EUT is 2480 MHz, so the testing has been conformed to 5*2480MHz=12,400MHz.*

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.

Test Mode 6:	Camera Mode

Below 1GHz

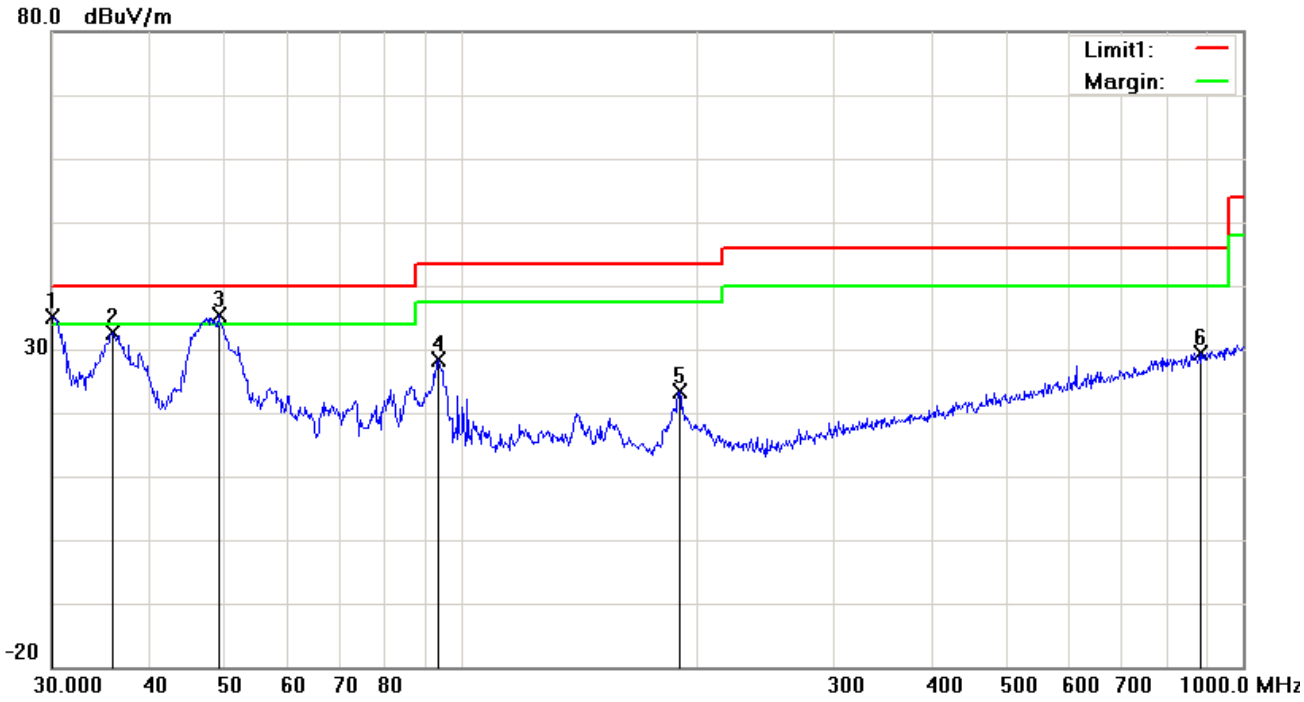


Test Data

Horizontal Polarity Plot @3m

No.	P/L	Frequency	Reading	Detector	Corrected	Result	Limit	Margin	Height	Degree
		(MHz)	(dBuV/m)		(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(°)
1	H	30.5306	27.77	peak	-0.66	27.11	40.00	-12.89	100	176
2	H	38.3462	30.28	peak	-6.38	23.90	40.00	-16.10	100	135
3	H	47.4918	35.62	peak	-12.06	23.56	40.00	-16.44	100	241
4	H	189.7385	29.01	peak	-9.23	19.78	43.50	-23.72	100	60
5	H	408.9460	27.65	peak	-4.08	23.57	46.00	-22.43	100	258
6	H	965.5421	24.94	peak	5.33	30.27	54.00	-23.73	100	97

Below 1GHz



Test Data

Vertical Polarity Plot @3m

No.	P/L	Frequency	Reading	Detector	Corrected	Result	Limit	Margin	Height	Degree
		(MHz)	(dBuV/m)		(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(°)
1	V	30.0000	35.46	QP	-0.26	35.20	40.00	-4.80	100	156
2	V	35.8747	37.11	peak	-4.58	32.53	40.00	-7.47	100	249
3	V	49.0145	48.05	QP	-12.74	35.31	40.00	-4.69	100	51
4	V	93.7685	40.72	peak	-12.44	28.28	43.50	-15.22	100	103
5	V	190.4050	32.66	peak	-9.21	23.45	43.50	-20.05	100	56
6	V	881.4067	24.95	peak	4.37	29.32	46.00	-16.68	100	78

Above 1GHz

Frequency (MHz)	Amplitude (dBμV/m)	Azimuth	Height (cm)	Polarity (H/V)	Factors (dB)	Limit (dBμV/m)	Margin (dB)	Detector (PK/AV)
1206.78	52.34	71	146	V	-22.44	74	-21.66	PK
2357.64	50.63	106	184	V	-23.31	74	-23.37	PK
1798.66	52.91	129	113	V	-21.58	74	-21.09	PK
1523.42	51.85	65	217	H	-20.76	74	-22.15	PK
2165.95	51.06	115	249	H	-21.63	74	-22.94	PK
1901.37	53.64	143	107	H	-22.22	74	-20.36	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.

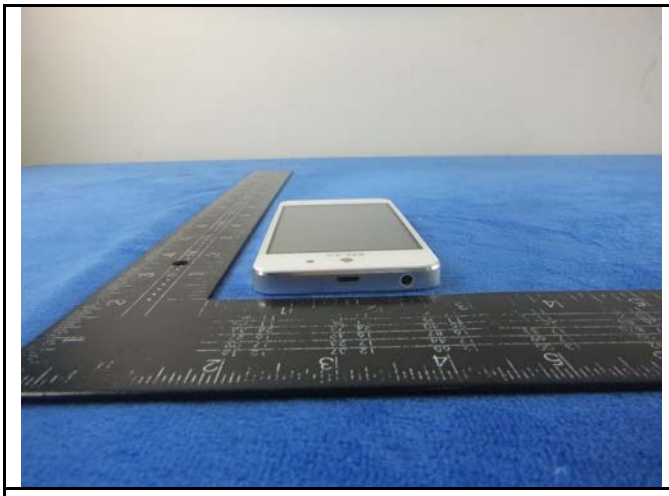
Annex A. TEST INSTRUMENT

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

Annex B. EUT And Test Setup Photographs

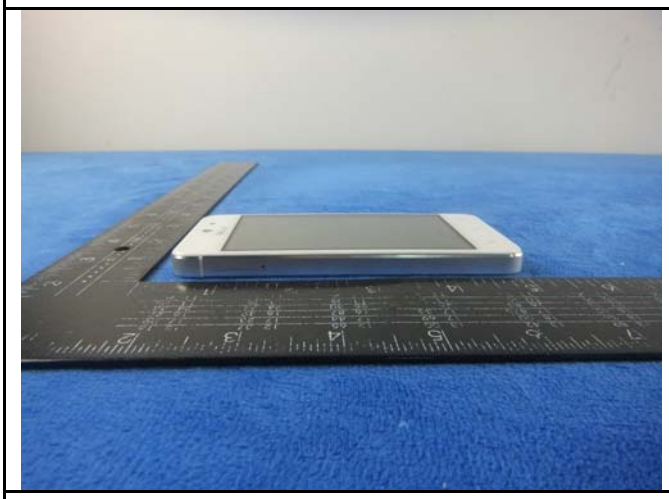
Annex B.i. Photograph: EUT External Photo

<table>
<tr><td>  </td><td>  </td></tr>
<tr><td>Whole Package View</td><td>Adapter - Front View</td></tr>
<tr><td>  </td><td>  </td></tr>
<tr><td>EUT - Front View</td><td>EUT - Rear View</td></tr>
</table>

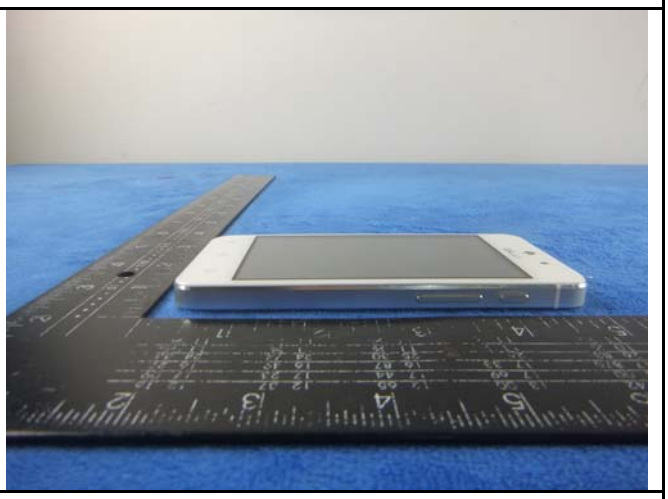


EUT - Top View

EUT - Bottom View

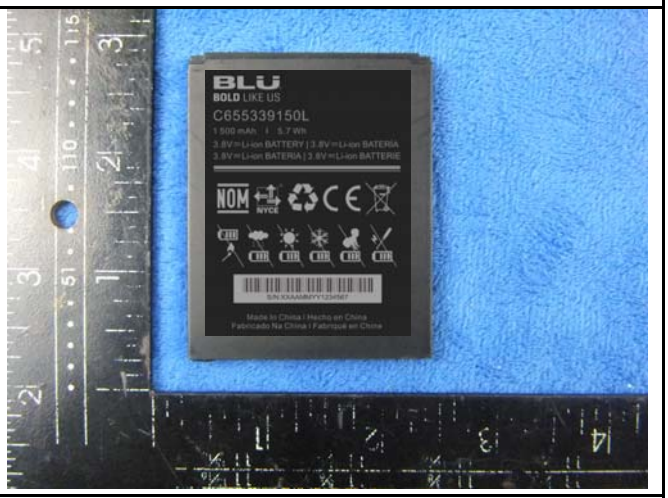
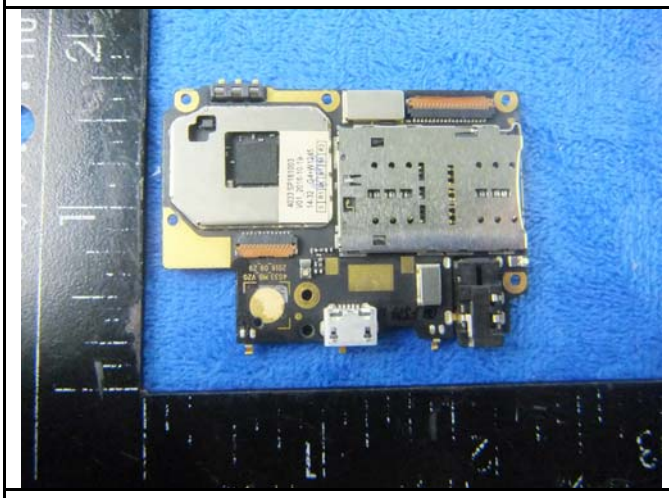
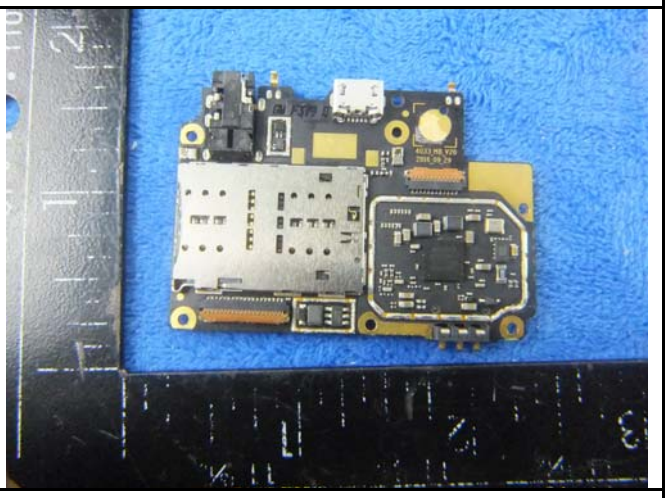


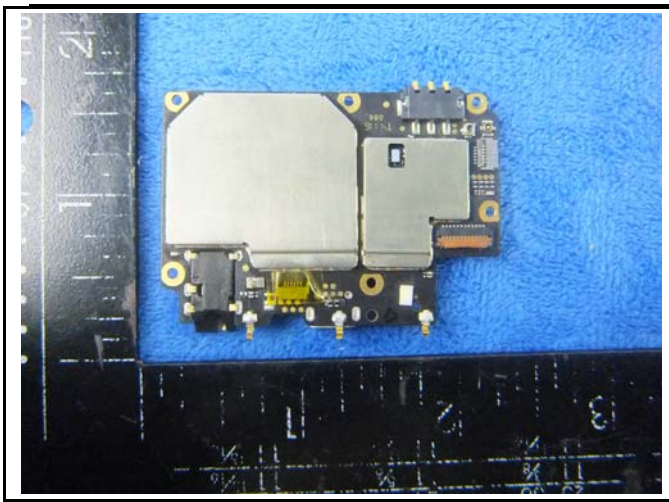
EUT - Left View



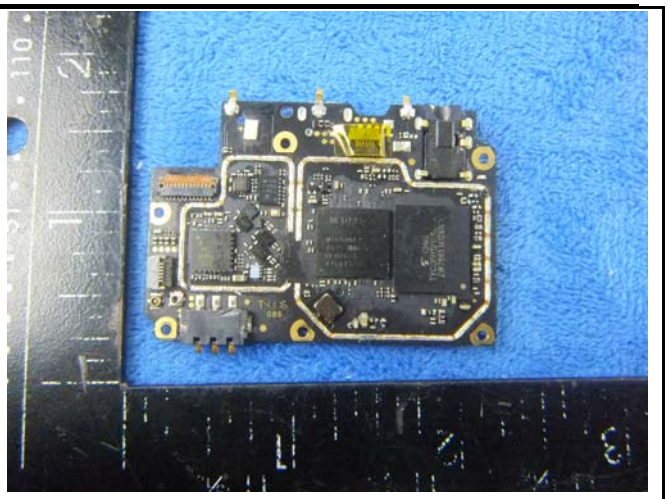
EUT - Right View

Annex B.ii. Photograph: EUT Internal Photo

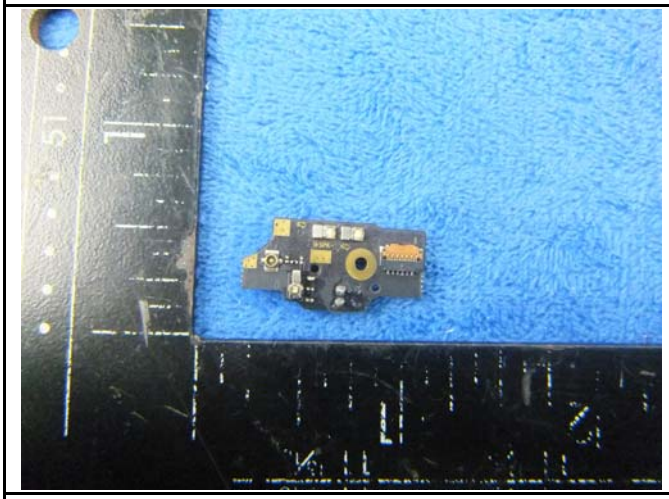
	
Cover Off - Top View 1	Cover Off - Top View 2
	
Battery - Front View	Battery - Rear View
	
Mainboard with Shielding - Front View	Mainboard without Shielding - Front View



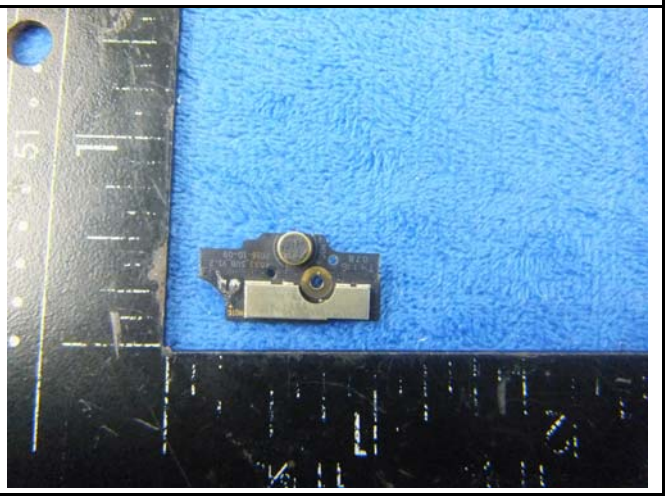
Mainboard with Shielding - Rear View



Mainboard without Shielding - Rear View

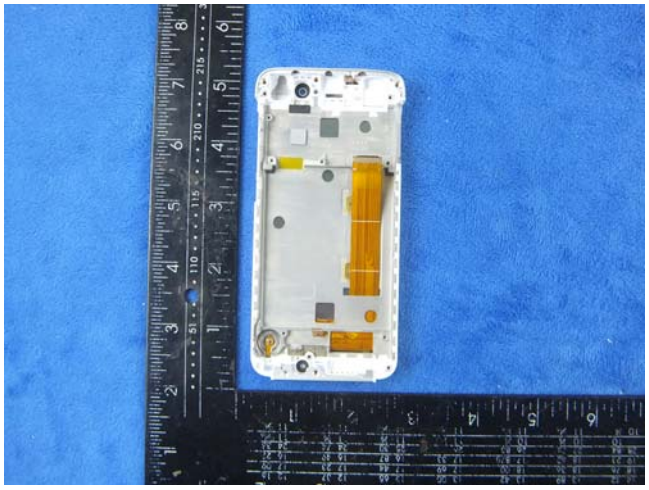


Smallboard - Front View

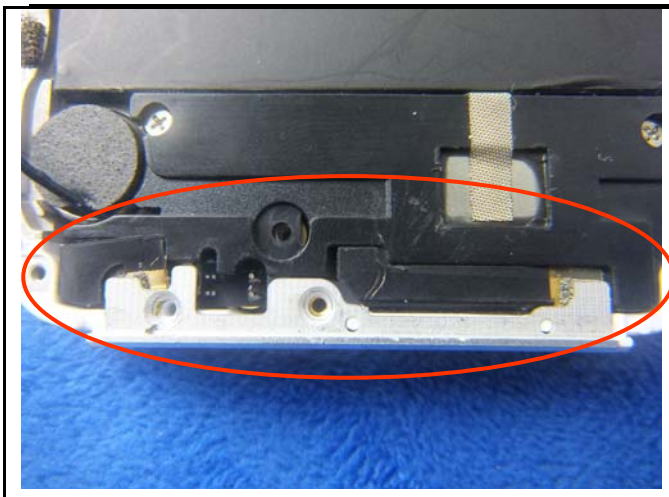


Smallboard - Rear View

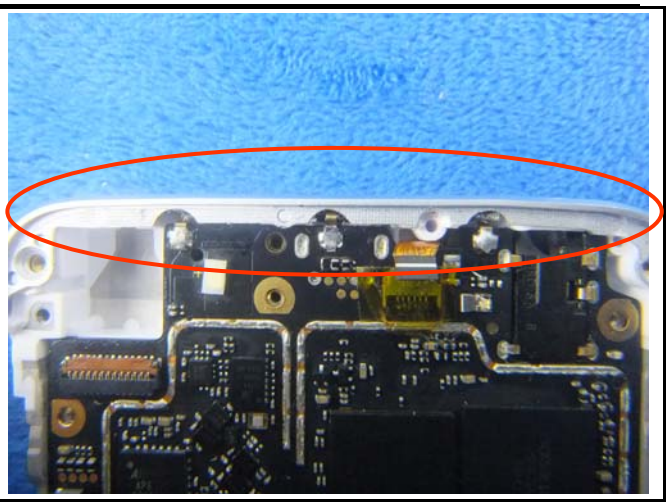
LCD – Front View



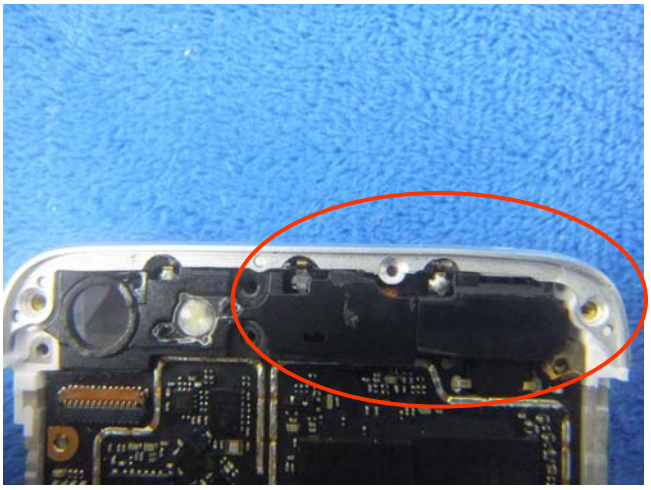
LCD – Rear View



GSM/PCS/UMTS-FDD Antenna View

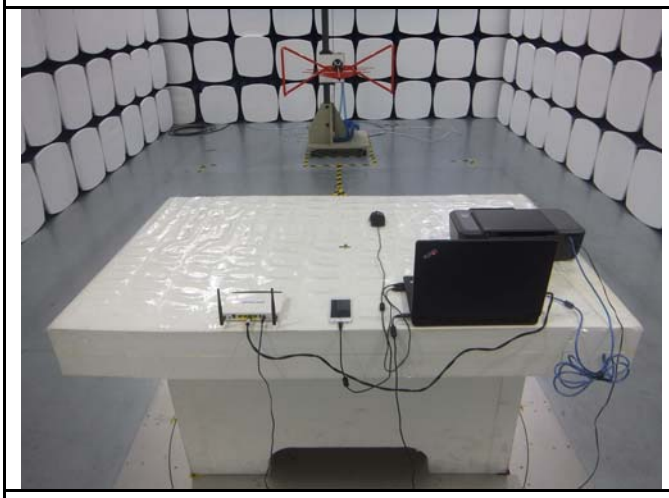
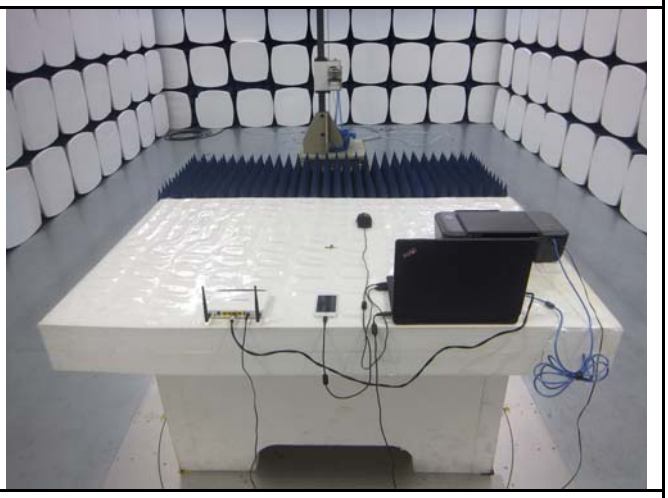


WIFI/BT/BLE - Antenna View



GPS - Antenna View

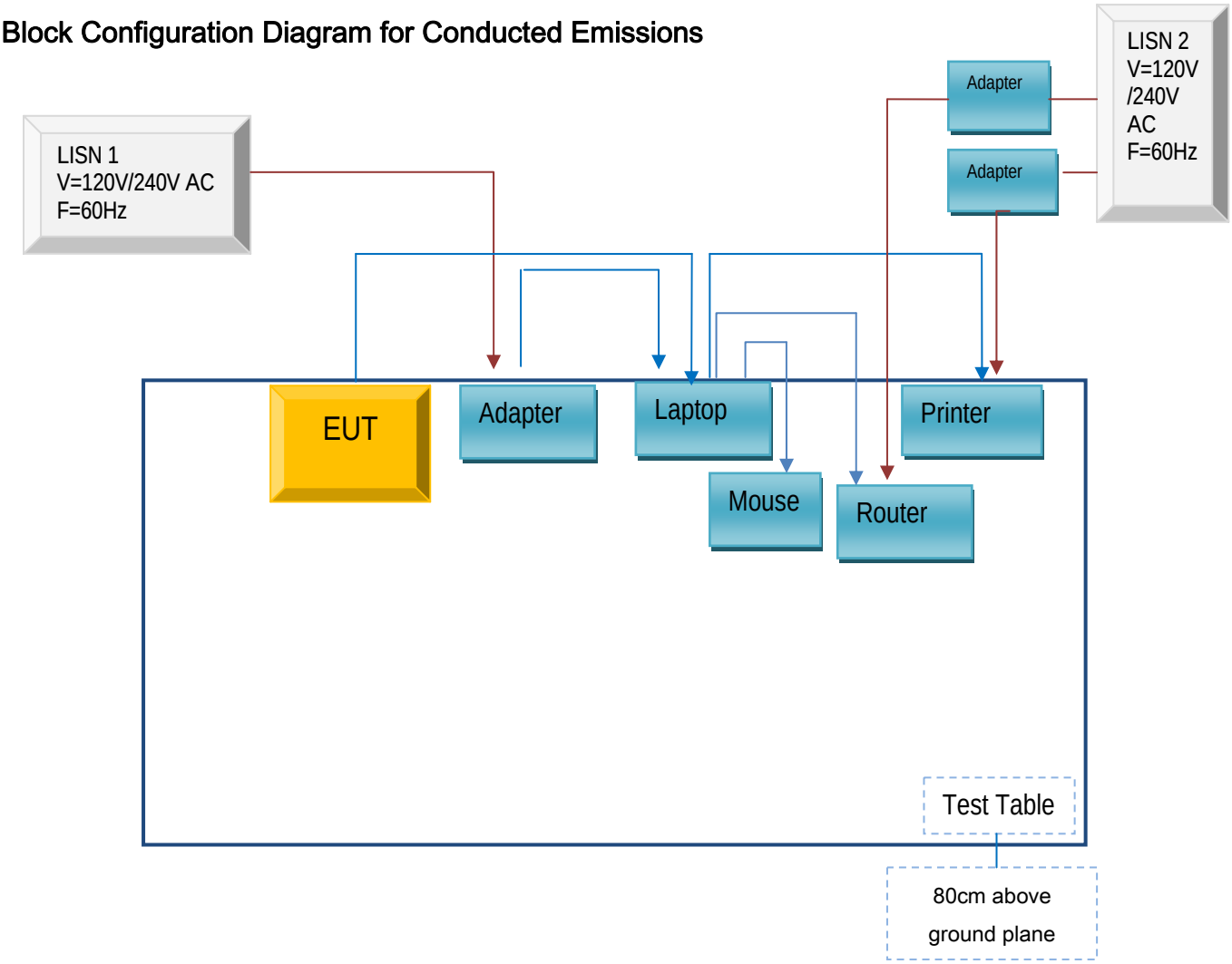
Annex B.iii. Photograph: Test Setup Photo

	
Conducted Emissions Test Setup – Front View	Conducted Emissions Test Setup – Side View
	
Radiated Emissions Test Setup Below 1GHz	Radiated Emissions Test Setup Above 1GHz

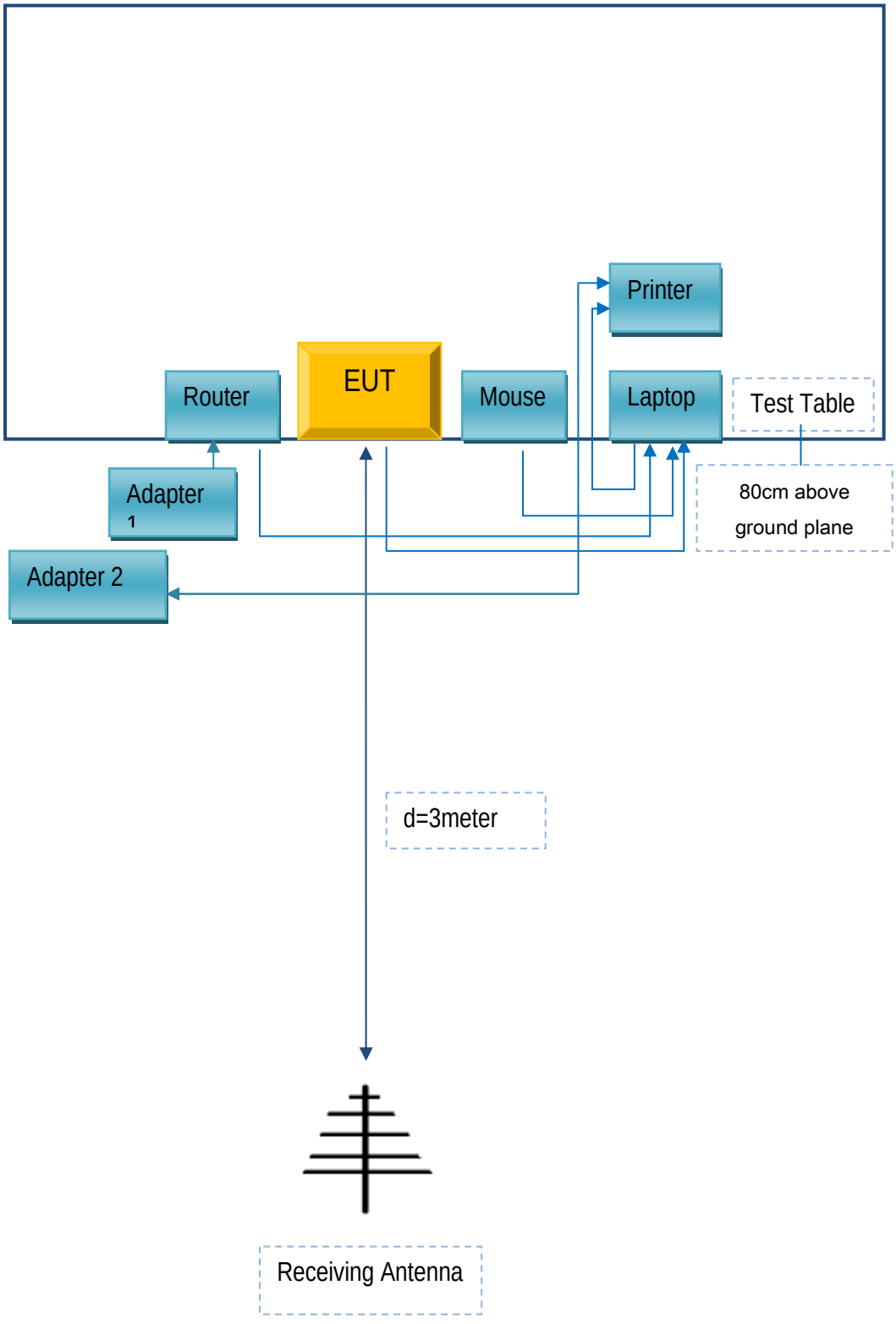
Annex C. TEST SETUP AND SUPPORTING EQUIPMENT

Annex C.ii. TEST SET UP BLOCK

Block Configuration Diagram for Conducted Emissions



Block Configuration Diagram for Radiated Emissions



Annex C. il. 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
SMT TELECOMM HK LIMITED	Adapter	PC488	D2156273
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

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

Please see the attachment

Annex E. DECLARATION OF SIMILARITY

N/A