EMC TEST REPORT

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Report No.: 16070785-FCC-E

Supersede Report No.:N/A

Applicant	SHENZHEN BESTVIEW ELECTRONICS CO., LIMITED
Product Name	DVD/MP3G/CDG KARAOKE & BLUETOOTH MEDIA PLAYER
Model No.	GF842
Serial No.	GF829S;GF839.GF839S;GF840;GF840S;GF842S;GF845; GF846;GF847;GF848.GF755;GF756;GF758;GF758S;GF759; GP975;GP978;GP979;GP980
Test Standard	FCC Part 15 Subpart B Class B:2015, ANSI C63.4: 2014
Test Date	July 02 to 17, 2016
Issue Date	July 18, 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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1. Report Revision History

Report No.	Report Version	Description	Issue Date
16070785-FCC-E	NONE	Original	July 18, 2016

2. Customer information

Applicant Name	SHENZHEN BESTVIEW ELECTRONICS CO., LIMITED
Applicant Add	6th,1st Building,No.9 Shilong Road,No.2 Shuitian Industrial Zone, Shiyan Town ,Bao'an , Shenzhen,China
Manufacturer	SHENZHEN BESTVIEW ELECTRONICS CO., LIMITED
Manufacturer Add	6th,1st Building,No.9 Shilong Road,No.2 Shuitian Industrial Zone, Shiyan Town ,Bao'an , Shenzhen,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	Radiated Emission Program-To Shenzhen v2.0

4. Equipment under Test (EUT) Information

Description of EUT:	DVD/MP3G/CDG KARAOKE & BLUETOOTH MEDIA PLAYER
Main Model:	GF842
Serial Model:	GF829S;GF839.GF839S;GF840;GF840S;GF842S;GF845; GF846;GF847;GF848.GF755;GF756;GF758;GF758S;GF759; GP975;GP978;GP979;GP980
Equipment Category：	JBP
Date EUT received:	July 01, 2016
Test Date(s):	July 02 to 17, 2016
Antenna Gain:	0dBi
Antenna Type:	PCB antenna
Type of Modulation:	GFSK, π /4DQPSK,8DPSK
RF Operating Frequency (ies):	2402-2480 MHz
Number of Channels:	79CH
Input Power:	Power requirements: DC 12V/2A Power Consumption: 25 Watts Adapter: Model: RS18-SP1202000 Input: 100-240V~50/60Hz, 0.6Max Output: 12V,2000mA
Port:	USB Port, Power Port, Microphone Port,Headphone Port,SD Card Port,Audio Port,DISC Port,AUX IN,CD Port
Trade Name :	Karaoke USA

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

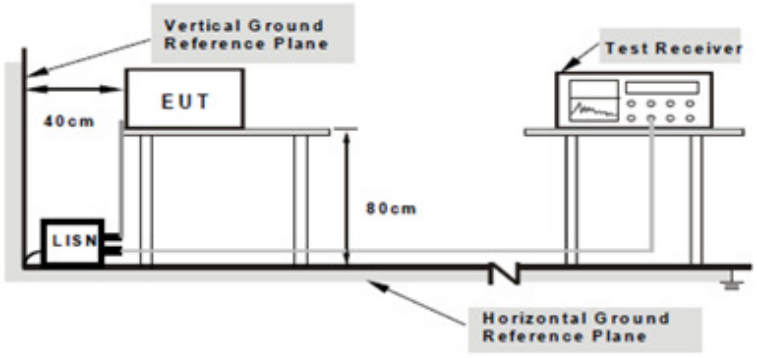
Emissions		
Test Item	**Description**	**Uncertainty**
Band Edge and Radiated Spurious Emissions	Confidence level of approximately 95% (in the case where distributions are normal), with a coverage factor of 2 (for EUTs < 0.5m X 0.5m X 0.5m)	+5.6dB/-4.5dB
-	-	-

6. Measurements, Examination And Derived Results

6.1 AC Power Line Conducted Emissions

Temperature	24℃
Relative Humidity	57%
Atmospheric Pressure	1015mbar
Test date :	July 15, 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

Test Mode 1:	DVD Mode

Test Mode 2:	USB Player Mode

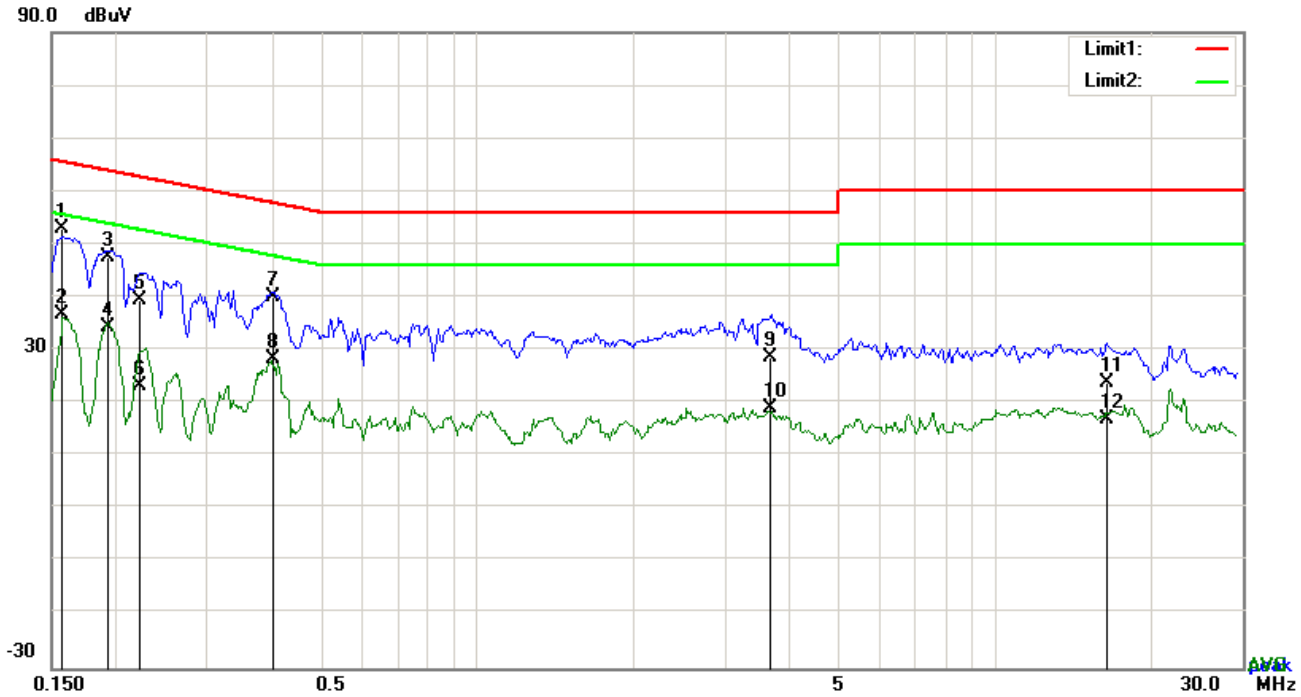
Test Mode 3:	SD Card Player Mode

Test Mode 4:	USB Mode

Test Mode 5:	AUX IN Mode

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

Test Mode 4 :	USB Mode

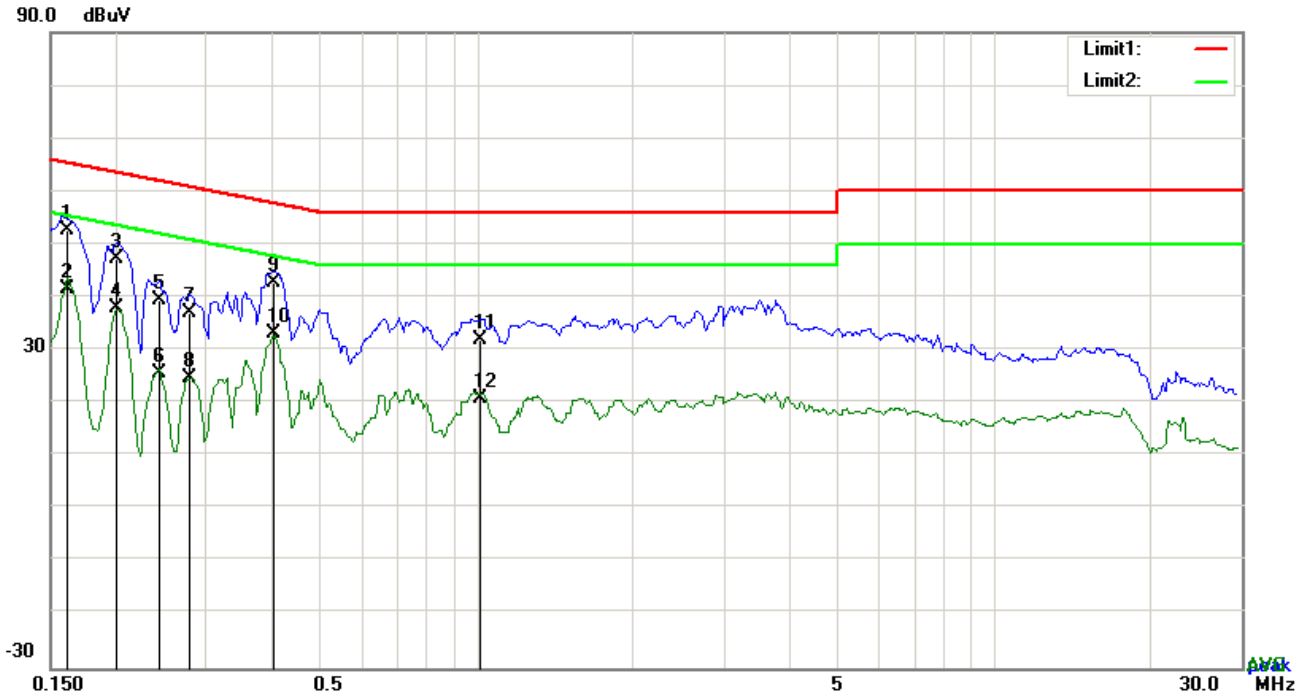


Test Data

Phase Line Plot at 120Vac, 60Hz

No.	P/L	Frequency	Reading	Detector	Corrected	Result	Limit	Margin
		(MHz)	(dBuV)		(dB}	(dBuV)	(dBuV)	(dB)
1	L1	0.1578	42.85	QP	10.03	52.88	65.58	-12.70
2	L1	0.1578	26.57	AVG	10.03	36.60	55.58	-18.98
3	L1	0.1929	37.65	QP	10.03	47.68	63.91	-16.23
4	L1	0.1929	24.29	AVG	10.03	34.32	53.91	-19.59
5	L1	0.2220	29.36	QP	10.03	39.39	62.74	-23.35
6	L1	0.2220	13.12	AVG	10.03	23.15	52.74	-29.59
7	L1	0.4035	30.01	QP	10.03	40.04	57.78	-17.74
8	L1	0.4035	18.23	AVG	10.03	28.26	47.78	-19.52
9	L1	3.6611	18.70	QP	10.06	28.76	56.00	-27.24
10	L1	3.6611	9.04	AVG	10.06	19.10	46.00	-26.90
11	L1	16.4082	13.66	QP	10.25	23.91	60.00	-36.09
12	L1	16.4082	6.56	AVG	10.25	16.81	50.00	-33.19

Test Mode 4 :	USB Mode

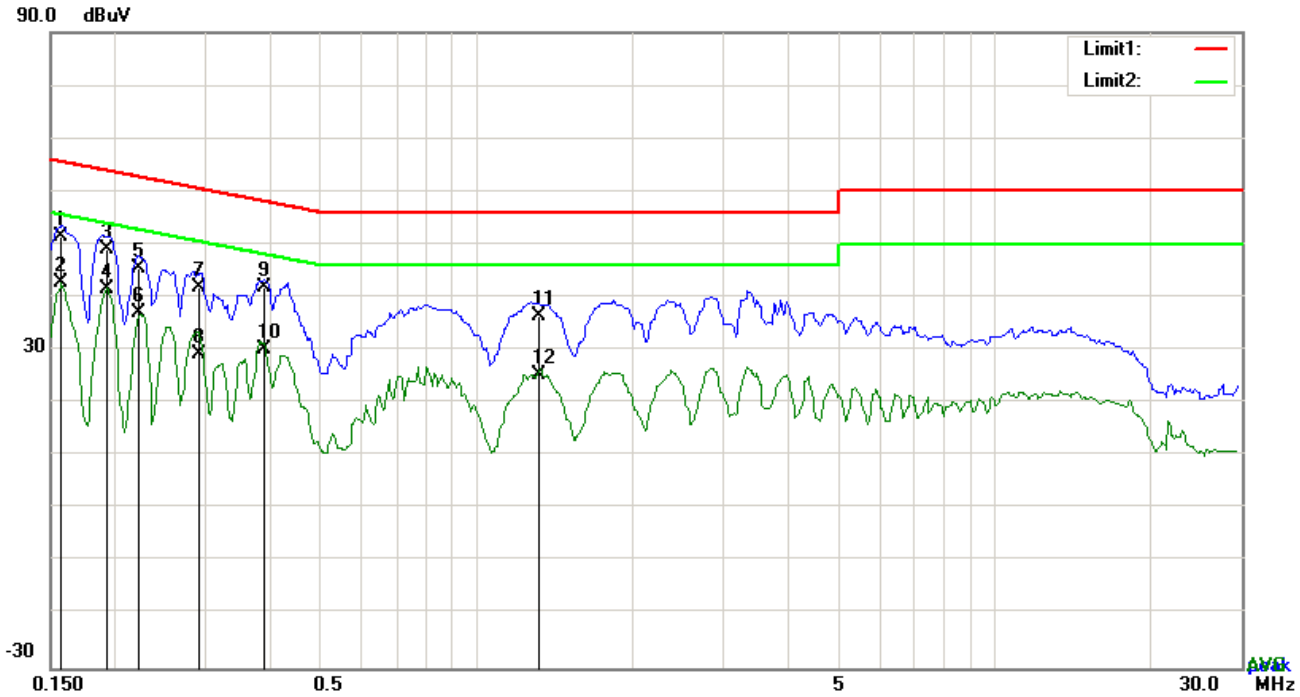


Test Data

Phase Neutral Plot at 120Vac, 60Hz

No.	P/L	Frequency	Reading	Detector	Corrected	Result	Limit	Margin
		(MHz)	(dBuV)		(dB}	(dBuV)	(dBuV)	(dB)
1	N	0.1617	42.50	QP	10.02	52.52	65.38	-12.86
2	N	0.1617	31.62	AVG	10.02	41.64	55.38	-13.74
3	N	0.2007	37.36	QP	10.02	47.38	63.58	-16.20
4	N	0.2007	28.00	AVG	10.02	38.02	53.58	-15.56
5	N	0.2436	29.39	QP	10.02	39.41	61.97	-22.56
6	N	0.2436	15.64	AVG	10.02	25.66	51.97	-26.31
7	N	0.2787	26.90	QP	10.02	36.92	60.85	-23.93
8	N	0.2787	14.85	AVG	10.02	24.87	50.85	-25.98
9	N	0.4040	32.88	QP	10.02	42.90	57.77	-14.87
10	N	0.4040	23.19	AVG	10.02	33.21	47.77	-14.56
11	N	1.0157	22.03	QP	10.03	32.06	56.00	-23.94
12	N	1.0157	10.95	AVG	10.03	20.98	46.00	-25.02

Test Mode 4:	USB Mode

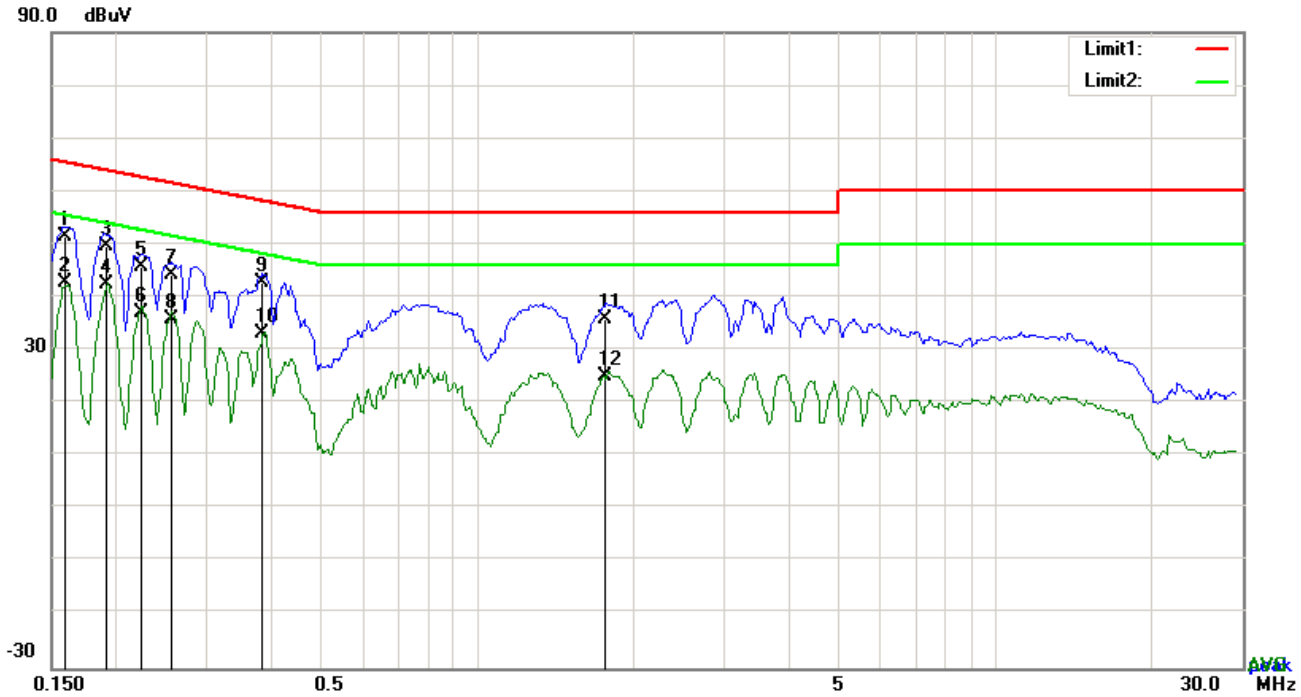


Test Data

Phase Line Plot at 240Vac, 60Hz

No.	P/L	Frequency	Reading	Detector	Corrected	Result	Limit	Margin
		(MHz)	(dBuV)		(dB}	(dBuV)	(dBuV)	(dB)
1	L1	0.1578	41.37	QP	10.03	51.40	65.58	-14.18
2	L1	0.1578	32.70	AVG	10.03	42.73	55.58	-12.85
3	L1	0.1929	38.91	QP	10.03	48.94	63.91	-14.97
4	L1	0.1929	31.54	AVG	10.03	41.57	53.91	-12.34
5	L1	0.2220	35.39	QP	10.03	45.42	62.74	-17.32
6	L1	0.2220	26.91	AVG	10.03	36.94	52.74	-15.80
7	L1	0.2909	31.97	QP	10.03	42.00	60.50	-18.50
8	L1	0.2909	19.37	AVG	10.03	29.40	50.50	-21.10
9	L1	0.3879	31.68	QP	10.03	41.71	58.11	-16.40
10	L1	0.3879	19.98	AVG	10.03	30.01	48.11	-18.10
11	L1	1.3168	26.51	QP	10.03	36.54	56.00	-19.46
12	L1	1.3168	15.37	AVG	10.03	25.40	46.00	-20.60

Test Mode 4:	USB Mode



Test Data

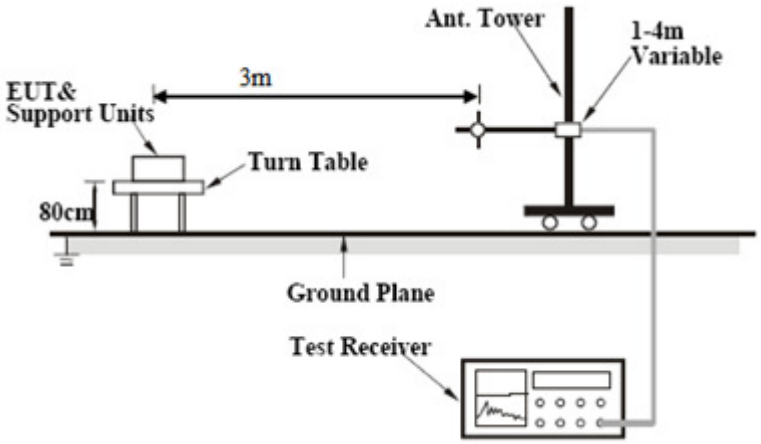
Phase Neutral Plot at 240Vac, 60Hz

No.	P/L	Frequency	Reading	Detector	Corrected	Result	Limit	Margin
		(MHz)	(dBuV)		(dB}	(dBuV)	(dBuV)	(dB)
1	N	0.1590	41.56	QP	10.02	51.58	65.52	-13.94
2	N	0.1590	32.61	AVG	10.02	42.63	55.52	-12.89
3	N	0.1914	39.78	QP	10.02	49.80	63.98	-14.18
4	N	0.1914	32.29	AVG	10.02	42.31	53.98	-11.67
5	N	0.2241	35.88	QP	10.02	45.90	62.67	-16.77
6	N	0.2241	27.07	AVG	10.02	37.09	52.67	-15.58
7	N	0.2553	34.31	QP	10.02	44.33	61.58	-17.25
8	N	0.2553	25.77	AVG	10.02	35.79	51.58	-15.79
9	N	0.3840	32.77	QP	10.02	42.79	58.19	-15.40
10	N	0.3840	23.04	AVG	10.02	33.06	48.19	-15.13
11	N	1.7685	25.77	QP	10.04	35.81	56.00	-20.19
12	N	1.7685	14.91	AVG	10.04	24.95	46.00	-21.05

6.2 Radiated Emissions

Temperature	24℃
Relative Humidity	57%
Atmospheric Pressure	1015mbar
Test date :	July 15, 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</td></tr>
</table>

	over a full rotation of the EUT) was chosen. b. The EUT was then rotated to the direction that gave the maximum 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

Test Mode 1:	**DVD Mode**

Test Mode 2:	**USB Player Mode**

Test Mode 3:	**SD Card Player Mode**

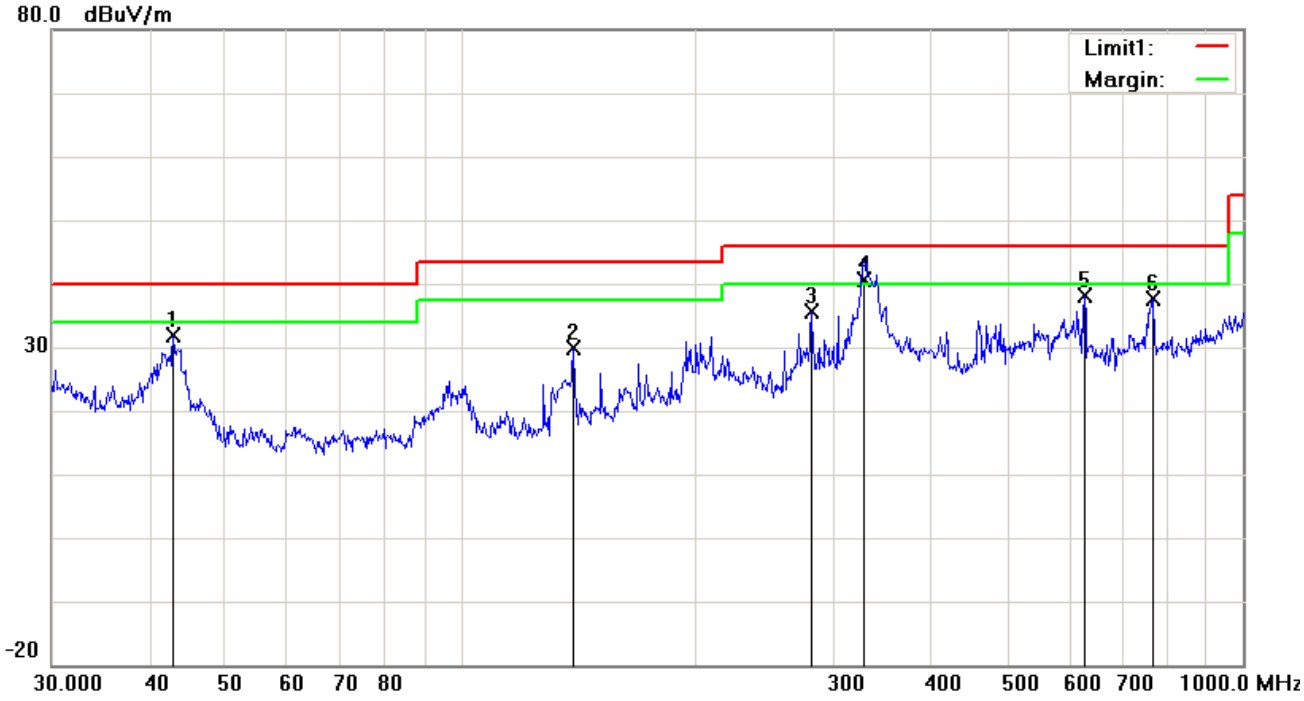
Test Mode 4:	**USB Mode**

Test Mode 5:	AUX IN Mode

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

Test Mode 4:	USB Mode

Below 1GHz

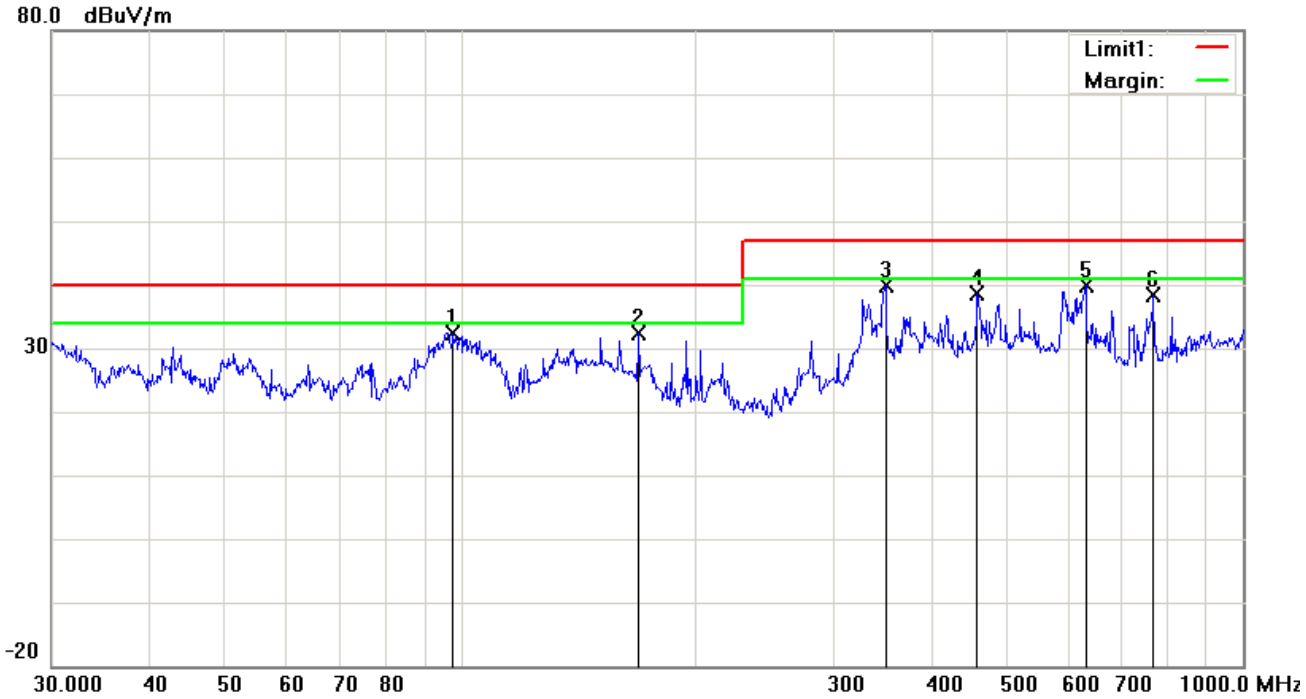


Test Data

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	42.8998	41.31	peak	-9.53	31.78	40.00	-8.22	100	134
2	H	139.3613	38.34	peak	-8.50	29.84	43.50	-13.66	100	159
3	H	281.0075	43.32	peak	-7.77	35.55	46.00	-10.45	100	176
4	H	327.8873	46.74	QP	-6.09	40.65	46.00	-5.35	100	251
5	H	627.2738	37.66	peak	0.45	38.11	46.00	-7.89	100	89
6	H	766.0572	35.06	peak	2.67	37.73	46.00	-8.27	100	60

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	97.7983	43.87	peak	-11.39	32.48	40.00	-7.52	100	253
2	V	169.0054	41.32	peak	-9.02	32.30	40.00	-7.70	100	129
3	V	349.2500	45.24	peak	-5.48	39.76	47.00	-7.24	100	341
4	V	457.5073	41.40	peak	-2.87	38.53	47.00	-8.47	100	157
5	V	629.4772	39.35	peak	0.47	39.82	47.00	-7.18	100	169
6	V	768.7482	35.58	peak	2.70	38.28	47.00	-8.72	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)
1552.36	49.25	50	120	V	-21.48	74	-24.75	PK
2037.82	50.31	135	110	V	-22.35	74	-23.69	PK
1662.43	49.64	87	170	V	-21.44	74	-24.36	PK
2184.26	50.82	63	180	H	-22.63	74	-23.18	PK
2874.45	49.76	120	120	H	-22.12	74	-24.24	PK
1856.33	49.47	48	160	H	-22.74	74	-24.53	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	09/17/2015	09/16/2016	☑
Line Impedance Stabilization Network	LI-125A	191106	09/25/2015	09/24/2016	☑
Line Impedance Stabilization Network	LI-125A	191107	09/25/2015	09/24/2016	☑
LISN	ISN T800	34373	09/25/2015	09/24/2016	☑
Transient Limiter	LIT-153	531118	09/01/2015	08/31/2016	☑
Radiated Emissions					
EMI test receiver	ESL6	100262	09/17/2015	09/16/2016	☑
OPT 010 AMPLIFIER (0.1-1300MHz)	8447E	2727A02430	09/01/2015	08/31/2016	☑
Microwave Preamplifier (1 ~ 26.5GHz)	8449B	3008A02402	03/24/2016	03/23/2017	☑
Bilog Antenna (30MHz~6GHz)	JB6	A110712	09/21/2015	09/20/2016	☑
Double Ridge Horn Antenna	AH-118	71259	09/24/2015	09/23/2016	☑

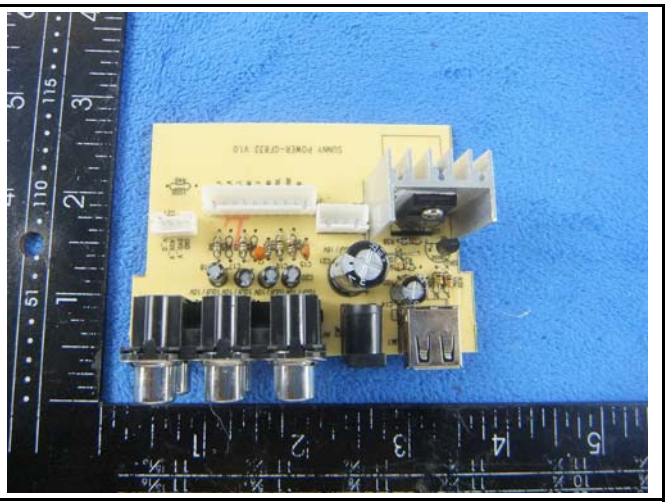
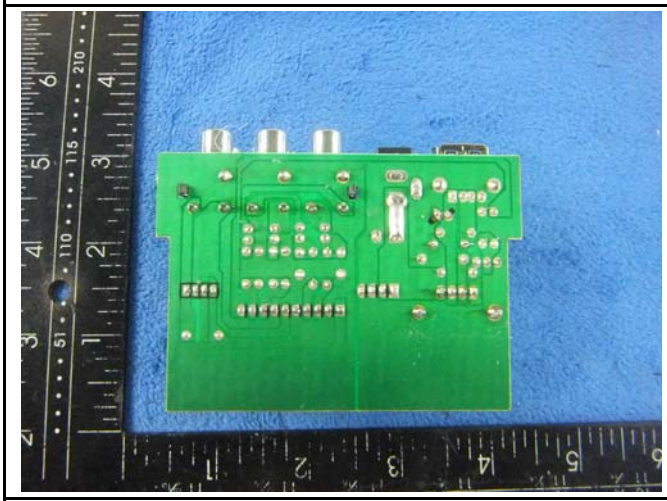
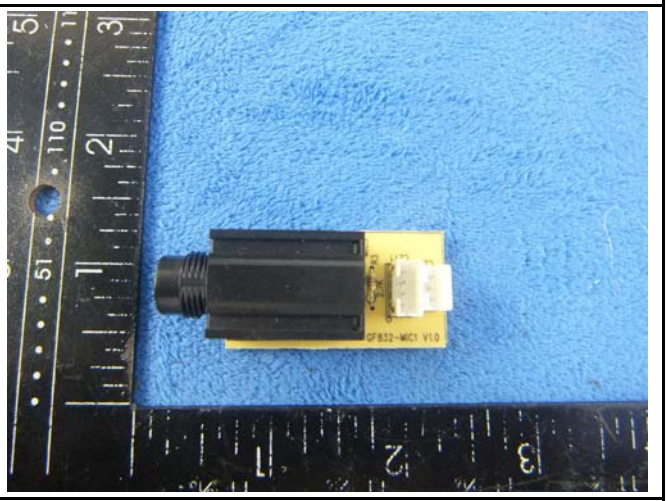
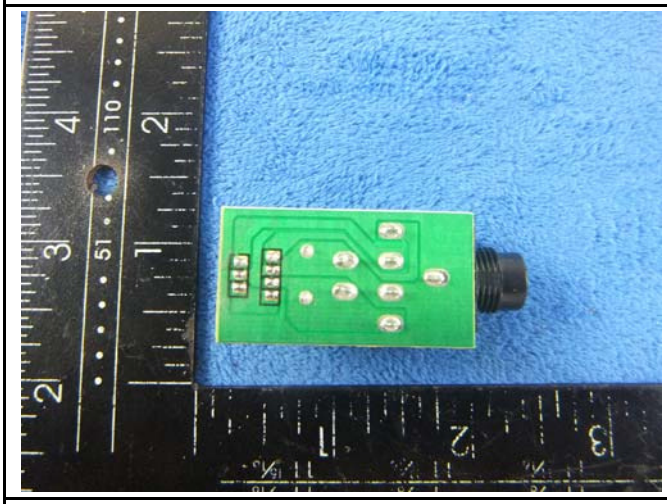
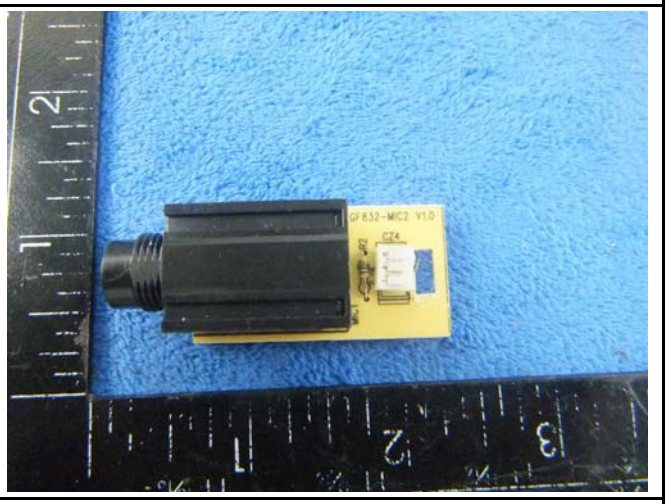
Annex B. EUT And Test Setup Photographs

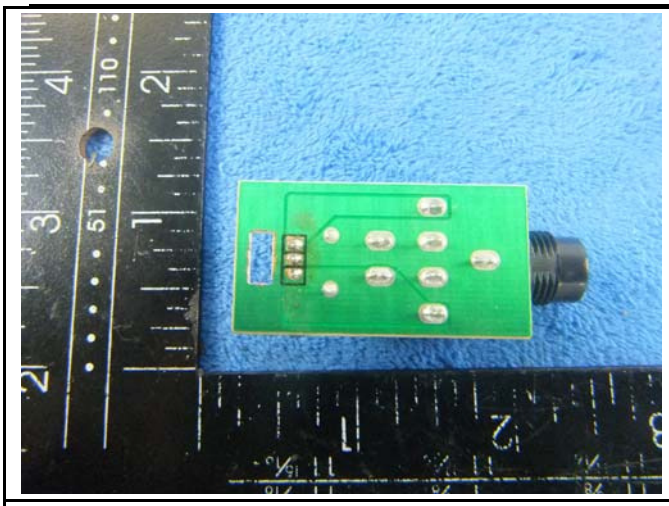
Annex B.i. Photograph: EUT External Photo

	
Whole Package View	EUT - Front View
	
EUT - Rear View	EUT – Top View

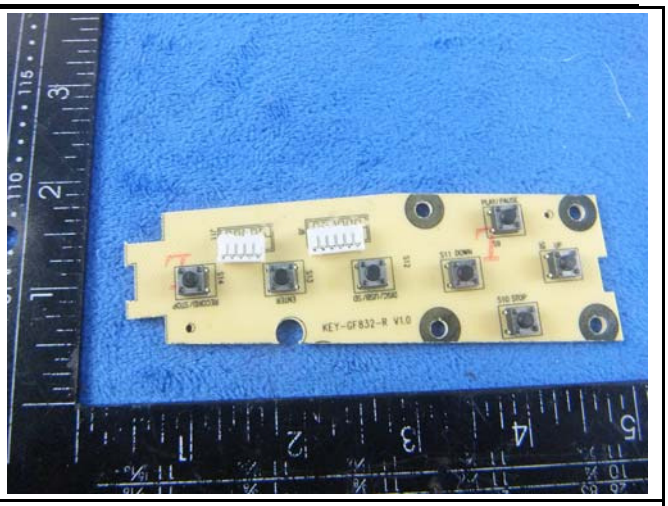
	
EUT - Bottom View	EUT - Left View
	
EUT - Right View	Adapter View

Annex B.ii. Photograph: EUT Internal Photo

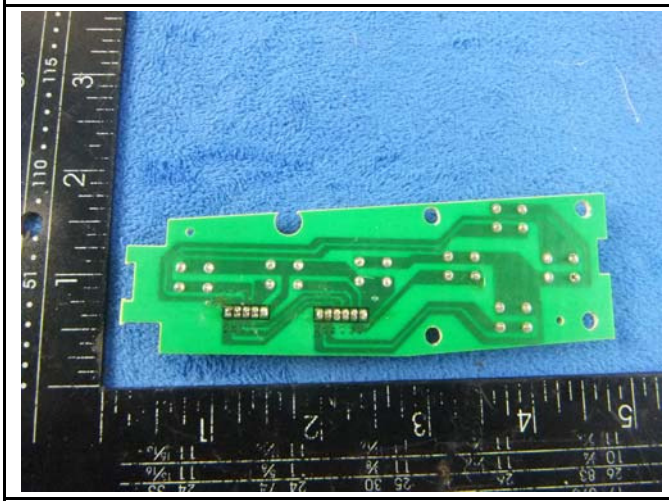
	
Cover Off - Top View	RCA Board - Front View
	
RCA Board - Rear View	MIC 1 - Front View
	
MIC 1- Rear View	MIC 2 - Front View



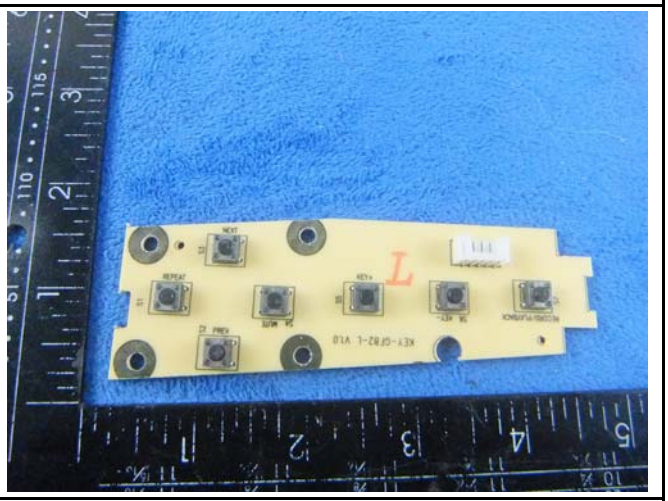
MIC 2- Rear View



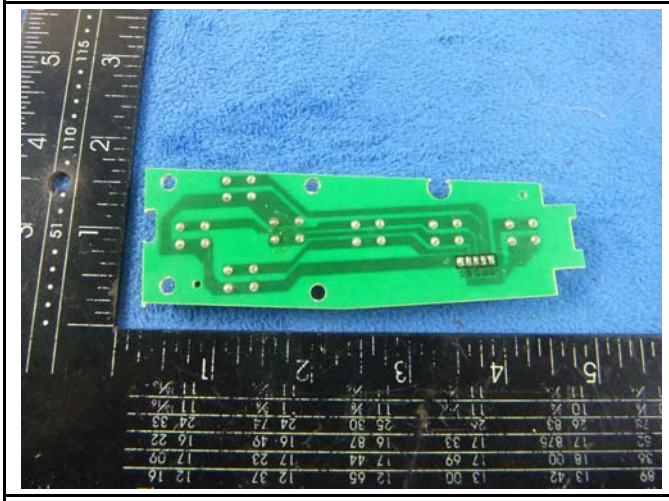
Key Board 1- Front View



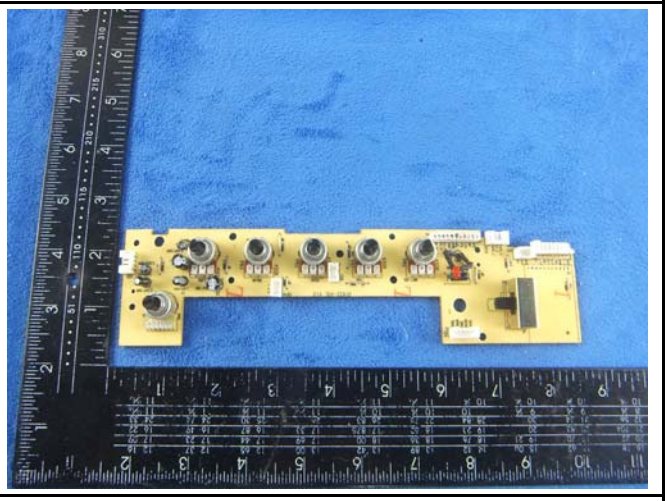
Key Board 1 - Rear View



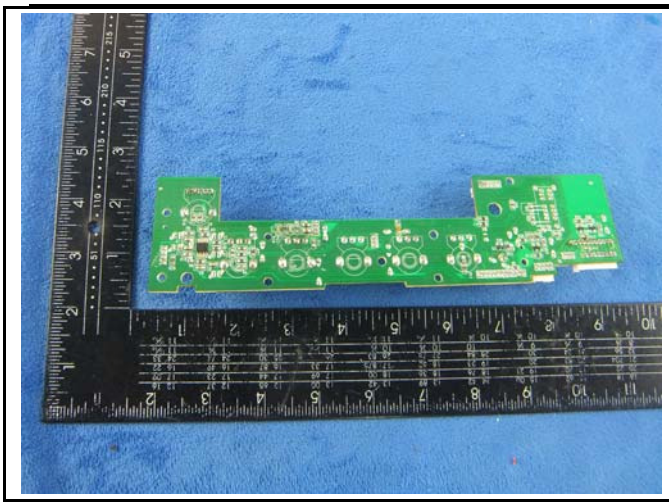
Key Board 2- Front View



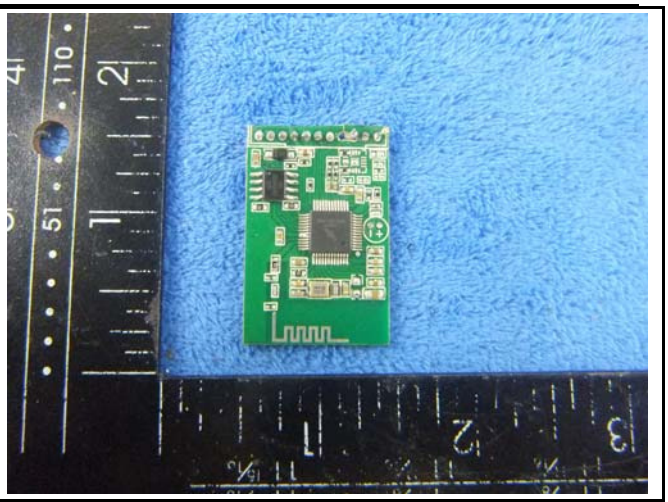
Key Board 2 - Rear View



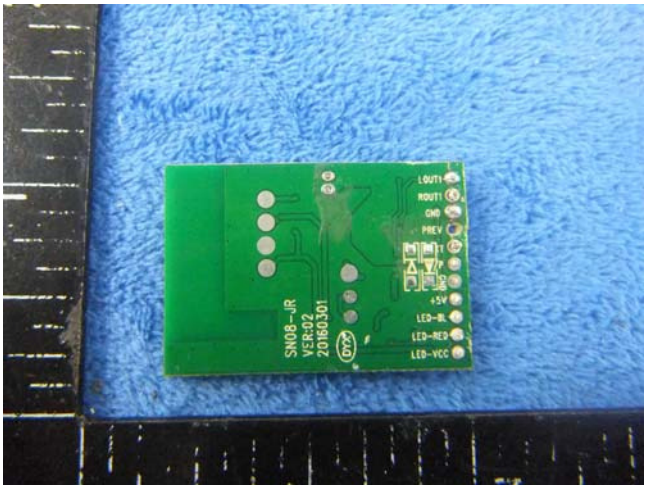
Key Board 3- Front View



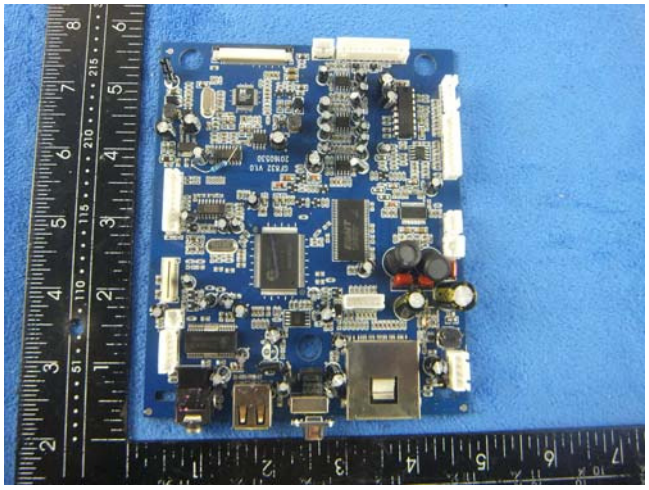
Key Board 3 - Rear View



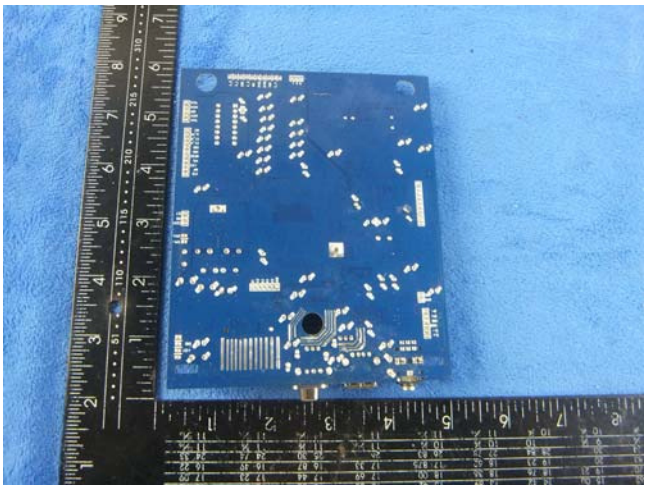
Antenna board - Front View



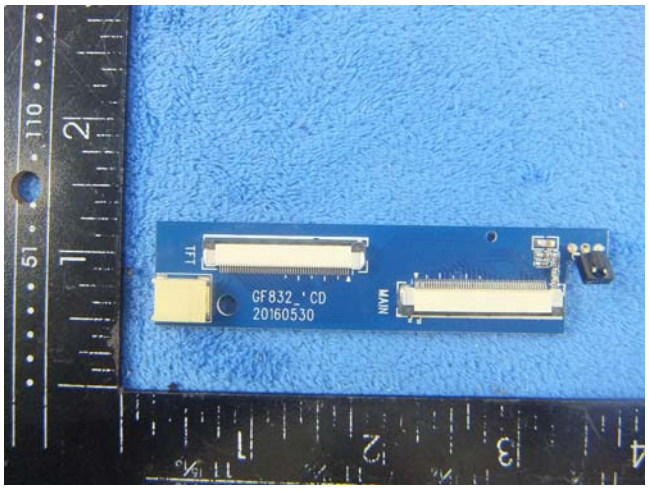
Antenna board - Rear View



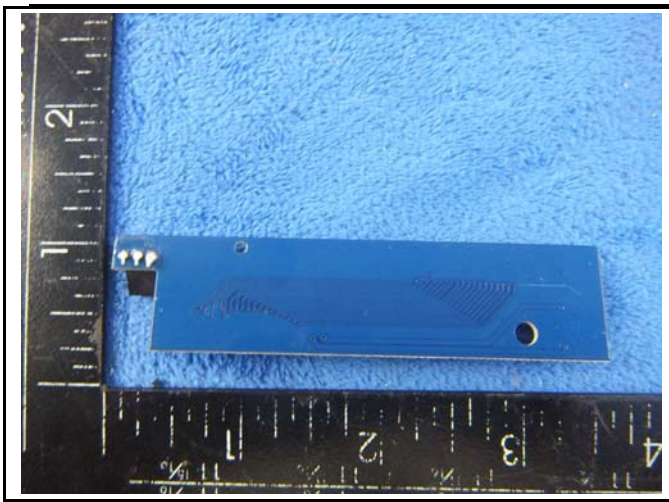
Main board- Front View



Main board- Rear View

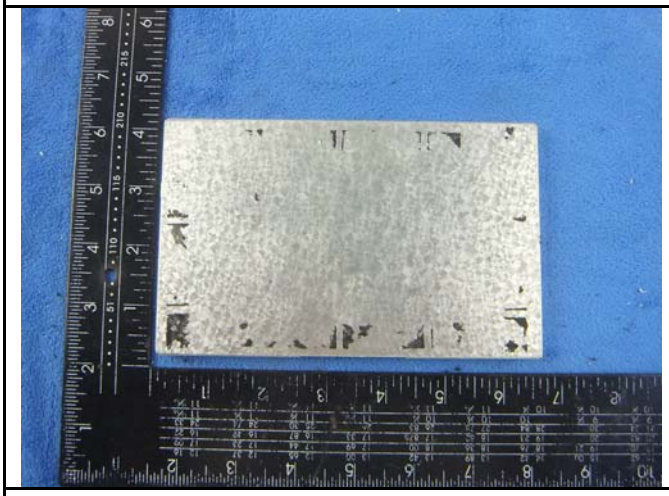


Small board - Front View

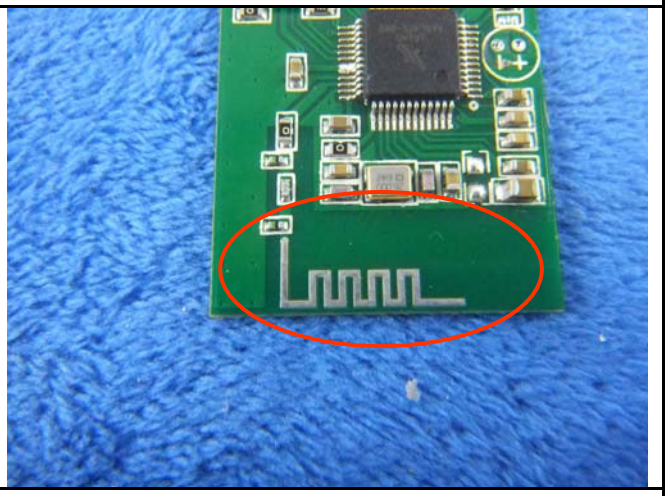


Small board- Rear View

LCD - Front View



LCD - Rear View



BT – Antenna View

Annex B.iii. Photograph: Test Setup Photo

<table>
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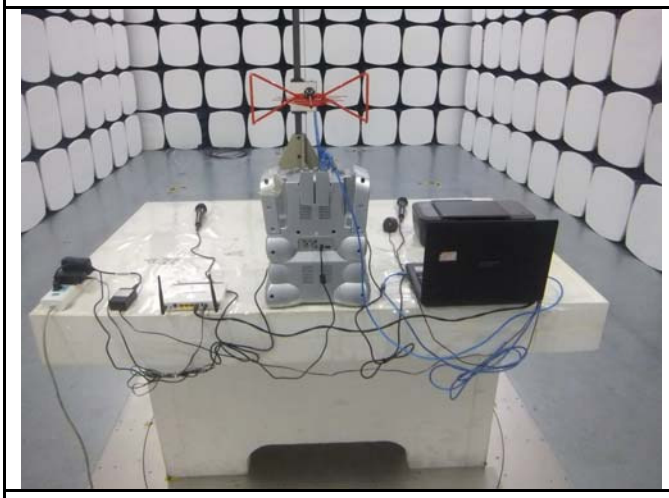
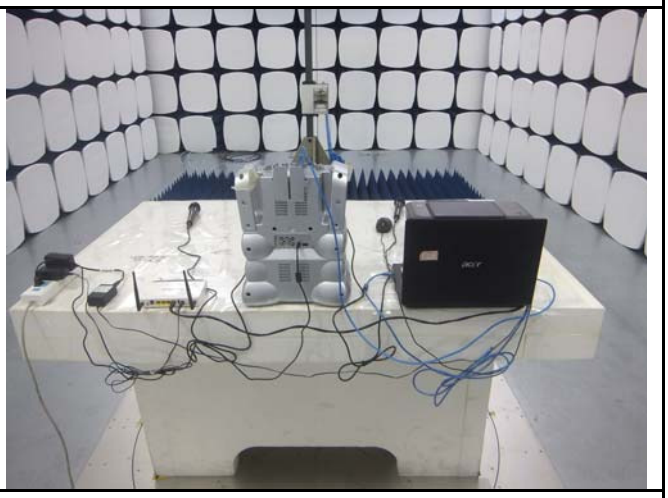
<tr><td>Conducted Emissions Test Setup – Front View</td><td>Conducted Emissions Test Setup – Side View</td></tr>
<tr><td>  </td><td>  </td></tr>
<tr><td>Radiated Spurious Emissions Test Setup Below 1GHz</td><td>Radiated Spurious Emissions Test Setup Above 1GHz</td></tr>
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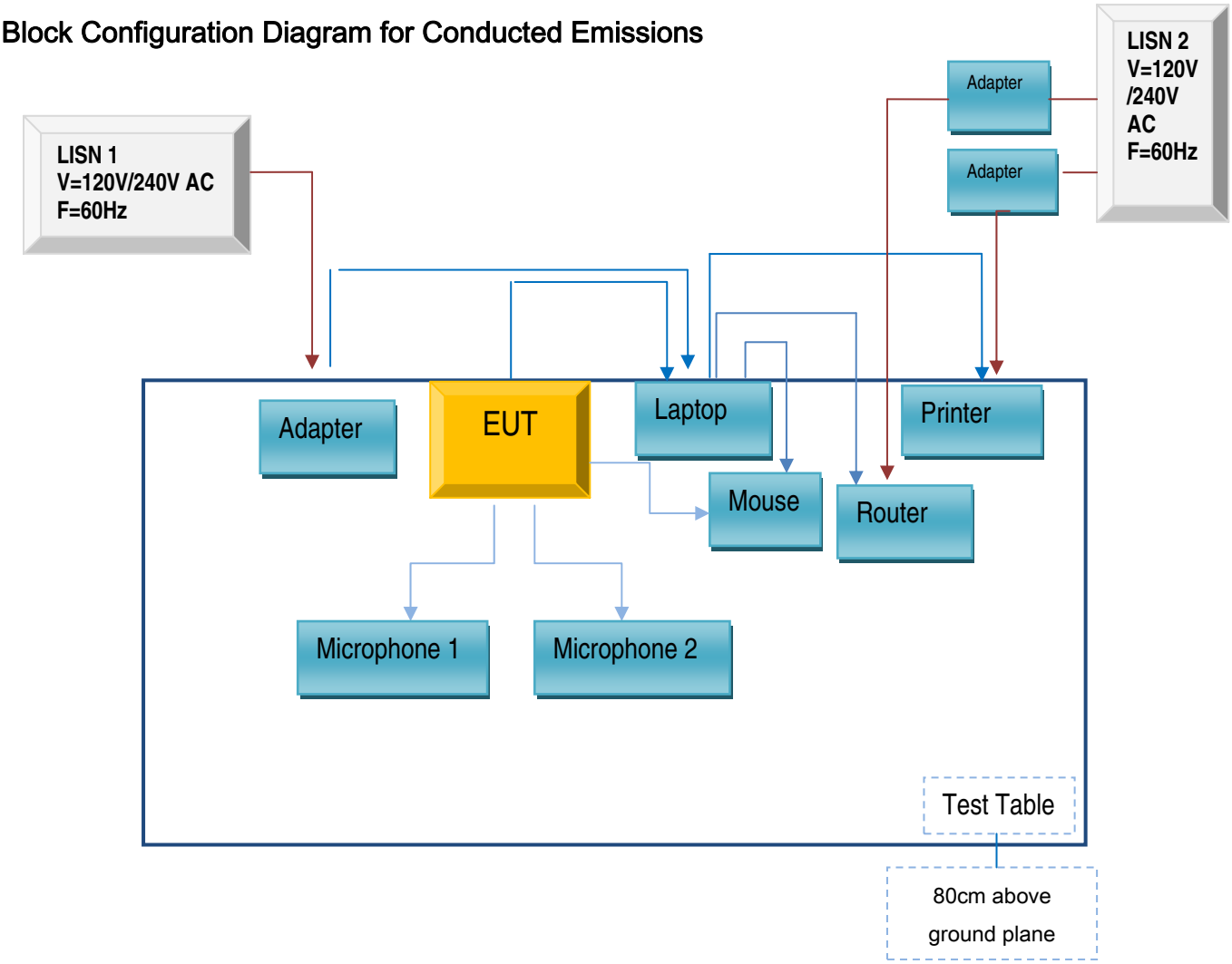
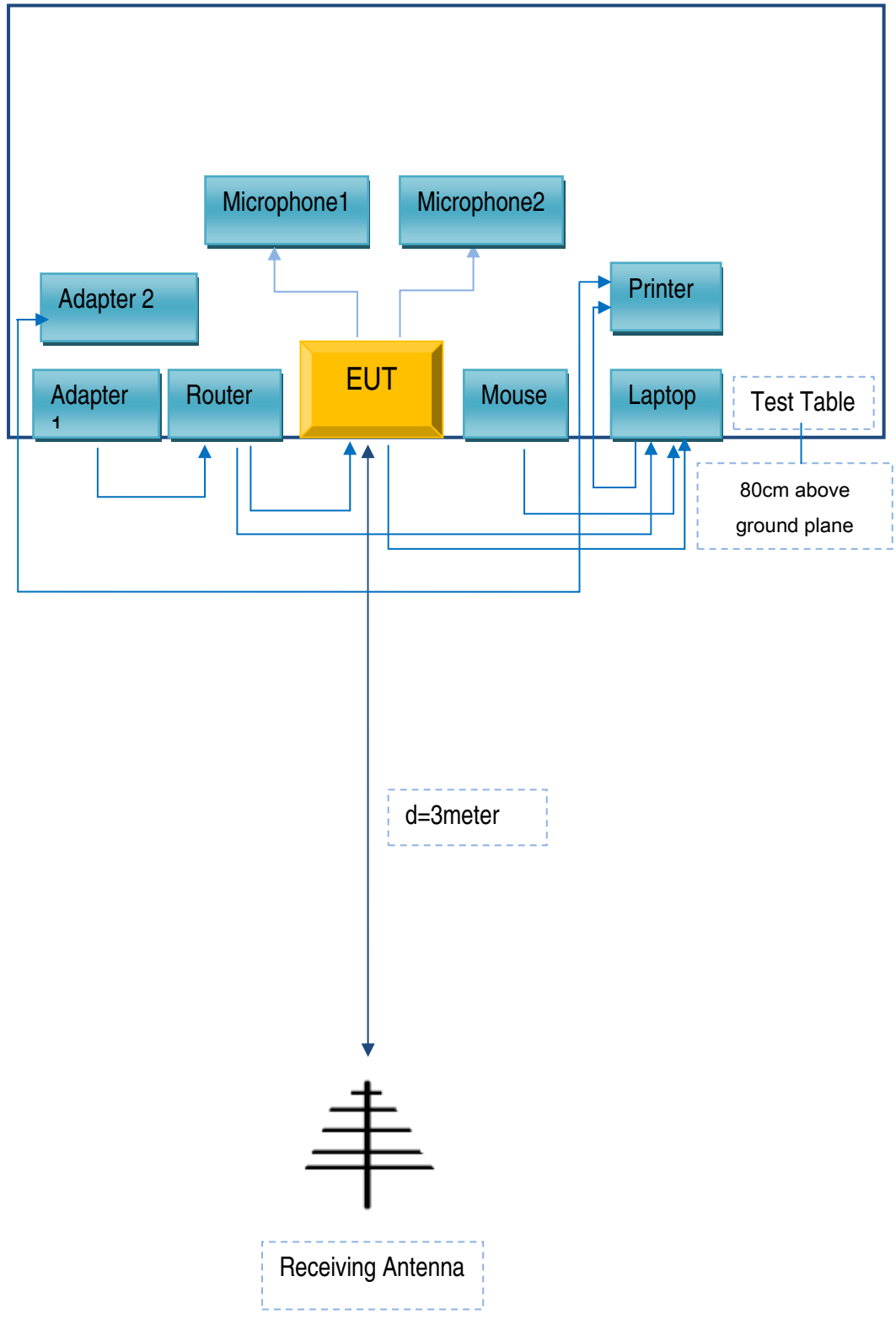
Annex C. TEST SETUP AND SUPPORTING EQUIPMENT

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
SHENZHEN BESTVIEW ELECTRONICS CO., LIMITED	Adapter	RS18-SP1202000	CC00001
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
RCA Cable	Un-shielding	No	0.8m	TX01123
Power Cable	Un-shielding	No	2m	S11021
MIC Cable	Un-shielding	No	2m	TX021131
MIC Cable	Un-shielding	No	2m	TX021131
RJ45 Cable	Un-shielding	No	2m	KX156327541
Router Power cable	Un-shielding	No	2m	13274630Z
Printer Power cable	Un-shielding	No	2m	127581031
USB Cable	Un-shielding	No	2m	JX120051274
USB Cable	Un-shielding	No	2m	JX110725002

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

N/A

Annex E. DECLARATION OF SIMILARITY

BESTVIEW ELECTRONICS Technology Corp.

To：SIEMIC ,775 Montague Expressway, Milpitas, CA 95035,USA

Declaration Letter

Dear Sir，

For our business issue and marketing requirement, we would like to list 2 model numbers on the **Fcc id and CE notify body** certificates and reports, as following:

Model No.: GF842

We declare that the difference of these is listed as below:

Main Model No	Serial Model No	Difference
GF842	GF829S;GF839.GF839S;GF840;GF840S; GF842S;GF845;GF846;GF847;GF848.GF755;GF756;GF758;GF758S;GF759;GP975; GP978;GP979;GP980	Model and color difference pcb layout all same inside.

Thank you!

Signature: Jake Jiang

Printed name/title: Jake Jiang
Tel: 0755-29839666-806
Fax: 0755-29839080
Address: 6th,1st Building,No.9 Shilong Road,No.2 Shuitian Industrial Zone, Shiyan Town ,Bao'an , Shenzhen,China