TEST REPORT

Reference No.	:	WTS15S0324300E
FCC ID	:	2AFCX-CHEVYLINE
Applicant	:	Pelstar LLC
Address	:	9500 West 55th Street, McCook, Illinois, 60525, USA
Manufacturer	:	DongGuan Beaverite Industrial Company Limited
Address	:	Shui Ping Village,Da Lang Town, Dongguan City,China
Product Name	:	Chevy line
Model No	:	2650KL,2500KL,1100KL,2600KL,2101KL,2400KL,2000KL,2700KL, 3001KL
Standards	:	FCC PART15 SUBPART B: 2014
Date of Receipt sample	:	Mar,26, 2015
Date of Test	:	Apr.08, 2015 ~ Jun.16, 2015
Date of Issue	:	Jun.18, 2015
Test Result	:	**Pass**

Remarks:
The results shown in this test report refer only to the sample(s) tested, this test report cannot be reproduced, except in full, without prior written permission of the company.The report would be invalid without specific stamp of test institute and the signatures of compiler and approver.

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Compiled by:

Zero Zhou / Project Engineer

Approved by:

Philo Zhong / Manager

1 Test Summary

Test Item	Test Requirement	Class	Test Method	Test Result
Power Line Conducted Emission (150kHz to 30MHz)	FCC PART 15, SUBPART B: 2014	Class B	ANSI C63.4: 2003	Pass
Radiated Emission (30MHz to 1GHz)	FCC PART 15, SUBPART B: 2014	Class B	ANSI C63.4: 2003	Pass
Radiated Emission (Above 1GHz)	FCC PART 15, SUBPART B: 2014	Class B	ANSI C63.4: 2003	N/A

Remark:

Pass	Test item meets the requirement
Fail	Test item does not meet the requirement
N/A	Test case does not apply to the test object

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3 General Information

3.1 General Description of E.U.T.

Product Name	:	Chevy line
Model No.	:	2650KL,2500KL,1100KL,2600KL,2101KL,2400KL,2000KL, 2700KL,3001KL
Model Difference	:	Only the measure ranges are different

3.2 Details of E.U.T.

Technical Data	:	Battery 6*AA 1.5VDC DC 9V power by adapter
Adapter 1	:	Model：UE15WCP1-090050SPA Input:100-240V~ 50/60Hz,500mA Output:9.0V 0.5A
Adapter 2	:	Model: RHD090020 Input: AC 120V 60Hz 8W Output: DC 9V 200mA

3.3 Test Mode

Conducted Emissions	
TM1*	Working with PC+adapter
Radiated Emissions	
TM1*	Working with PC(battery operation)
TM2	Working with PC+adapter
“*” shows the worst case mode which were recorded in this report.	

3.4 Standards Applicable for Testing

The tests were performed according to following standards:

FCC PART 15, SUBPART B: Electronic Code of Federal Regulations- Unintentional Radiators 2014

3.5 Test Facility

The test facility has a test site registered with the following organizations:

- **IC – Registration No.: 7760A-1**

Waltek Services (Shenzhen) Co., Ltd. has been registered and fully described in a report filed with the Industry Canada. The acceptance letter from the Industry Canada is maintained in our files. Registration 7760A-1, July 12, 2012.

- **FCC Test Site 1# – Registration No.: 880581**

Waltek Services (Shenzhen) Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration 880581, April 29, 2014.

- **FCC Test Site 2# – Registration No.: 328995**

Waltek Services(Shenzhen) Co., Ltd. EMC Laboratory `has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration 328995, December 3, 2014.

3.6 Subcontracted

Whether parts of tests for the product have been subcontracted to other labs:

☐ Yes ☒ No

If Yes, list the related test items and lab information:

Test Lab: N/A

Lab address: N/A

Test items: N/A

3.7 Abnormalities from Standard Conditions

None.

4 Equipment Used during Test

4.1 Equipment List

Conducted Emissions Test Site 1#						
Item	**Equipment**	**Manufacturer**	**Model No.**	**Serial No.**	**Last Calibration Date**	**Calibration Due Date**
1.	EMI Test Receiver	R&S	ESCI	100947	Sep.15,2014	Sep.14,2015
2.	LISN	R&S	ENV216	101215	Sep.15,2014	Sep.14,2015
3.	Cable	Top	TYPE16(3.5M)	-	Sep.15,2014	Sep.14,2015
Conducted Emissions Test Site 2#						
Item	**Equipment**	**Manufacturer**	**Model No.**	**Serial No.**	**Last Calibration Date**	**Calibration Due Date**
1.	EMI Test Receiver	R&S	ESCI	101155	Sep.15,2014	Sep.14,2015
2.	LISN	SCHWARZBECK	NSLK 8128	8128-289	Sep.15,2014	Sep.14,2015
3.	Limiter	York	MTS-IMP-136	261115-001-0024	Sep.15,2014	Sep.14,2015
4.	Cable	LARGE	RF300	-	Sep.15,2014	Sep.14,2015
3m Semi-anechoic Chamber for Radiation Emissions Test site 1#						
Item	**Equipment**	**Manufacturer**	**Model No.**	**Serial No.**	**Last Calibration Date**	**Calibration Due Date**
1	EMC Analyzer	Agilent	E7405A	MY45114943	Sep.15,2014	Sep.14,2015
2	Active Loop Antenna	Beijing Dazhi	ZN30900A	-	Sep.15,2014	Sep.14,2015
3	Trilog Broadband Antenna	SCHWARZBECK	VULB9163	336	Apr.19,2014	Apr.18,2016
4	Coaxial Cable (below 1GHz)	Top	TYPE16(13M)	-	Sep.15,2014	Sep.14,2015
5	Broad-band Horn Antenna	SCHWARZBECK	BBHA 9120 D	667	Apr.19,2014	Apr.18,2016
6	Broad-band Horn Antenna	SCHWARZBECK	BBHA 9170	335	Apr.19,2014	Apr.18,2016
7	Broadband Preamplifier	COMPLIANCE DIRECTION	PAP-1G18	2004	Mar.17,2014	Mar.16,2016
8	Coaxial Cable (above 1GHz)	Top	1GHz-25GHz	EW02014-7	Apr.10,2014	Apr.09,2016
3m Semi-anechoic Chamber for Radiation Emissions Test site 2#						
Item	**Equipment**	**Manufacturer**	**Model No.**	**Serial No**	**Last Calibration Date**	**Calibration Due Date**
1	Test Receiver	R&S	ESCI	101296	Sep.15,2014	Sep.14,2015
2	Trilog Broadband Antenna	SCHWARZBECK	VULB9160	9160-3325	Sep.15,2014	Sep.14,2015
3	Amplifier	Compliance pirection systems inc	PAP-0203	22024	Sep.15,2014	Sep.14,2015
4	Cable	HUBER+SUHNER	CBL2	525178	Sep.15,2014	Sep.14,2015

4.2 Description of Support Units

Equipment	Manufacturer	Model No.	Series No.
Notebook	acer	570G	/

4.3 Measurement Uncertainty

Test Item	Frequency Range	Uncertainty	Note
Conduction disturbance	150kHz~30MHz	±3.64dB	(1)
Radiation Emission	30MHz~1000MHz	±5.03dB	(1)
	1GHz~6GHz	±5.47dB	(1)

(1)This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

5 Emission Test Results

5.1 Power Line Conducted Emission, 150kHz to 30MHz

Test Requirement ..... : FCC PART 15, SUBPART B

Test Method ..... : ANSI C63.4

Test Result ..... : Pass

Frequency Range ..... : 150kHz to 30MHz

Class ..... : Class B

Limit ..... :

Frequency (MHz)	Limit (dBμV)	
	Quasi-peak	Average
0.15 to 0.5	66 to 56*	56 to 46*
0.5 to 5	56	46
5 t 30	60	50

5.1.1 E.U.T. Operation

Operating Environment:

Temperature ..... : 23°C

Humidity ..... : 53.6%RH

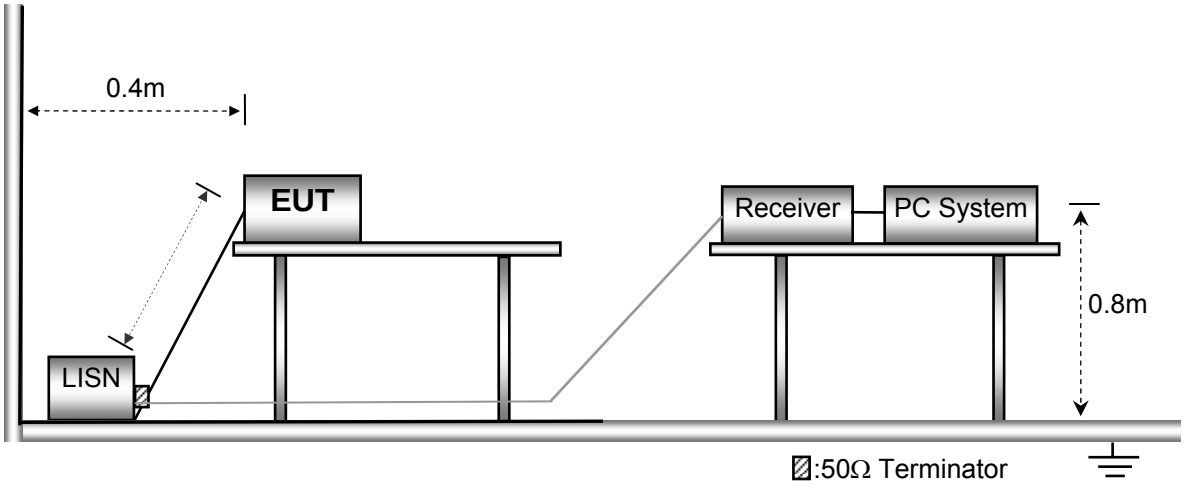
Atmospheric Pressure..... : 101kPa

EUT Operation:

Operating Mode ..... : Refer to clause 3.3.

5.1.2 Block Diagram of Test Setup

The Mains Terminals Disturbance Voltage tests were performed in accordance with the ANSI C63.4 .

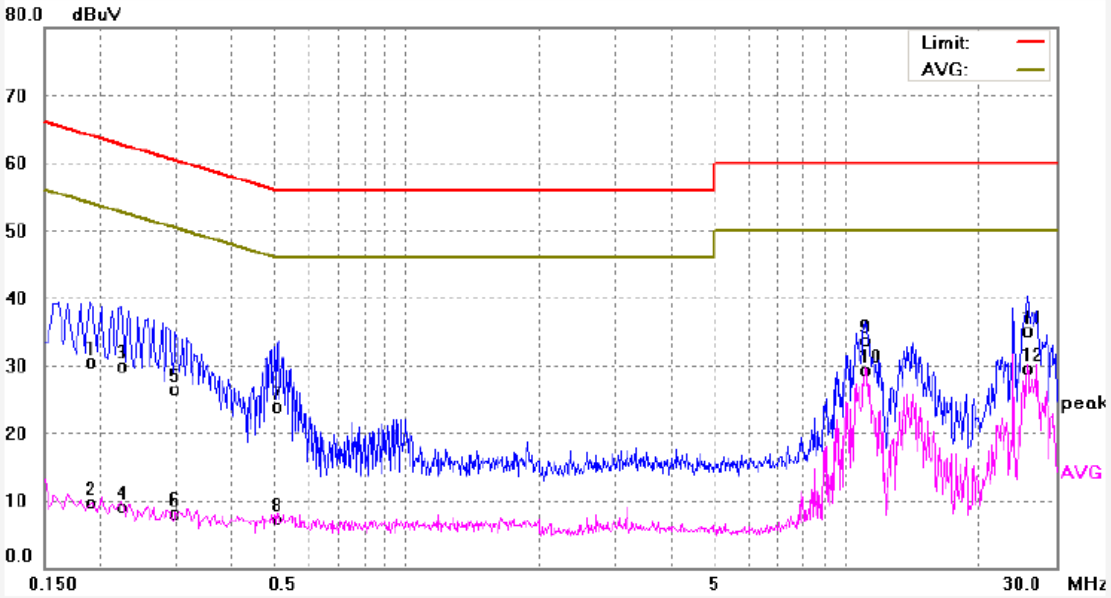


5.1.3 Measurement Data

The maximised peak emissions from the EUT was scanned and measured for both the Live and Neutral Lines. Quasi-peak & average measurements were performed if peak emissions were within 6dB of the average limit line. According to the data in section 5.1.4, the EUT complied with the FCC PART 15, SUBPART B standards.

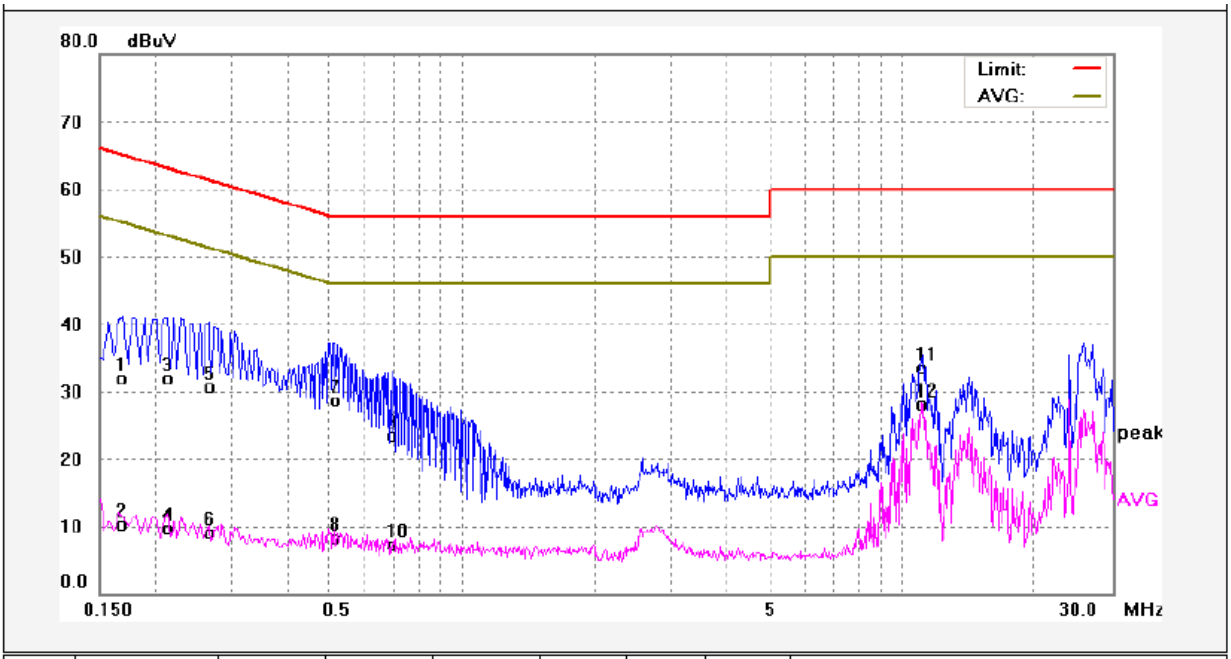
5.1.4 Power Line Conducted Emission Test Data

Live Line:
Adapter Model:UE15WCP1-090050SPA



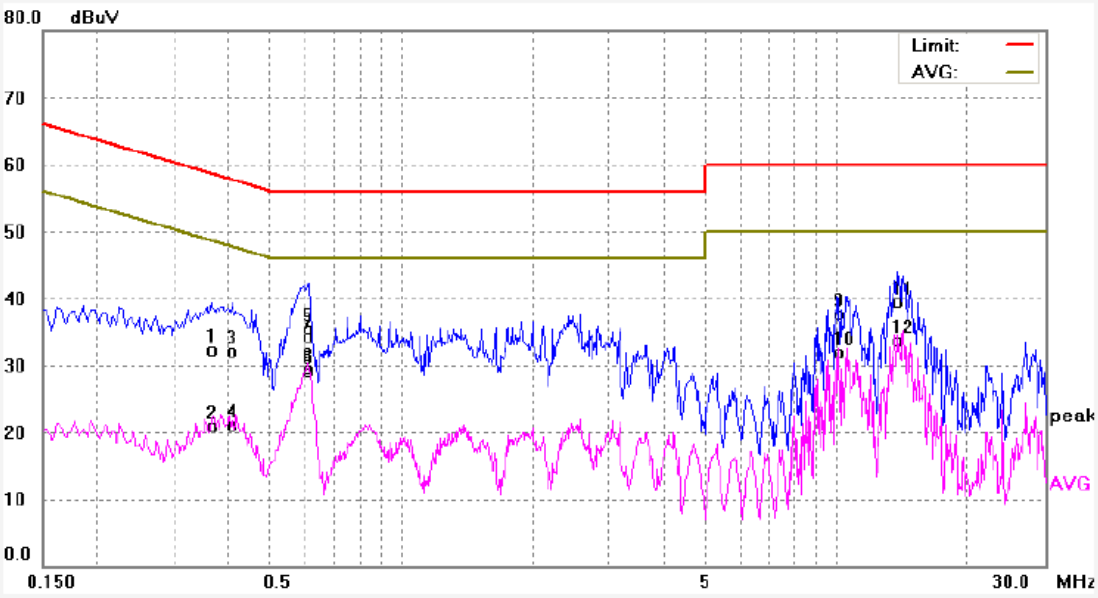
No.	Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit dBuV	Margin (dB)	Detector	Remark
1	0.1900	20.41	10.15	30.56	64.03	-33.47	QP	
2	0.1900	-0.50	10.15	9.65	54.03	-44.38	AVG	
3	0.2260	19.66	10.15	29.81	62.59	-32.78	QP	
4	0.2260	-0.98	10.15	9.17	52.59	-43.42	AVG	
5	0.2987	16.33	10.16	26.49	60.28	-33.79	QP	
6	0.2987	-2.05	10.16	8.11	50.28	-42.17	AVG	
7	0.5140	13.76	10.19	23.95	56.00	-32.05	QP	
8	0.5140	-2.83	10.19	7.36	46.00	-38.64	AVG	
9	11.0300	23.07	10.60	33.67	60.00	-26.33	QP	
10	11.0300	18.73	10.60	29.33	50.00	-20.67	AVG	
11	25.7820	23.97	11.10	35.07	60.00	-24.93	QP	
12	25.7820	18.41	11.10	29.51	50.00	-20.49	AVG	

Neutral Line:



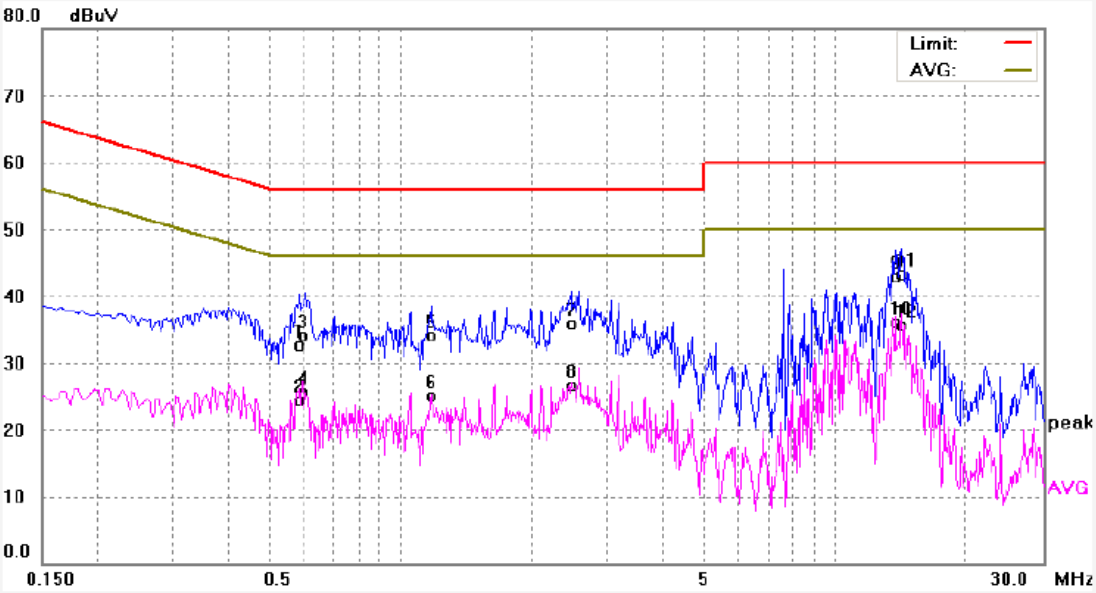
No.	Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit dBuV	Margin (dB)	Detector	Remark
1	0.1700	21.71	10.14	31.85	64.96	-33.11	QP	
2	0.1700	0.17	10.14	10.31	54.96	-44.65	AVG	
3	0.2140	21.70	10.15	31.85	63.04	-31.19	QP	
4	0.2140	-0.42	10.15	9.73	53.04	-43.31	AVG	
5	0.2660	20.46	10.16	30.62	61.24	-30.62	QP	
6	0.2660	-1.02	10.16	9.14	51.24	-42.10	AVG	
7	0.5140	18.44	10.19	28.63	56.00	-27.37	QP	
8	0.5140	-1.94	10.19	8.25	46.00	-37.75	AVG	
9	0.6900	13.33	10.21	23.54	56.00	-32.46	QP	
10	0.6900	-2.89	10.21	7.32	46.00	-38.68	AVG	
11	11.1420	22.90	10.60	33.50	60.00	-26.50	QP	
12	11.1420	17.41	10.60	28.01	50.00	-21.99	AVG	

Live Line:
Adapter Model:RHD090020



No.	Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit dBuV	Margin (dB)	Detector	Remark
1	0.3660	22.14	10.17	32.31	58.59	-26.28	QP	
2	0.3660	10.78	10.17	20.95	48.59	-27.64	AVG	
3	0.4100	21.90	10.18	32.08	57.65	-25.57	QP	
4	0.4100	10.93	10.18	21.11	47.65	-26.54	AVG	
5	0.6020	25.32	10.20	35.52	56.00	-20.48	QP	
6	0.6020	18.85	10.20	29.05	46.00	-16.95	AVG	
7	0.6140	24.13	10.20	34.33	56.00	-21.67	QP	
8	0.6140	19.27	10.20	29.47	46.00	-16.53	AVG	
9	9.9740	27.06	10.58	37.64	60.00	-22.36	QP	
10	9.9740	21.23	10.58	31.81	50.00	-18.19	AVG	
11	13.7300	28.84	10.65	39.49	60.00	-20.51	QP	
12	13.7300	23.01	10.65	33.66	50.00	-16.34	AVG	

Neutral Line:



No.	Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit dBuV	Margin (dB)	Detector	Remark
1	0.5780	22.59	10.20	32.79	56.00	-23.21	QP	
2	0.5780	14.26	10.20	24.46	46.00	-21.54	AVG	
3	0.6060	24.00	10.20	34.20	56.00	-21.80	QP	
4	0.6060	15.60	10.20	25.80	46.00	-20.20	AVG	
5	1.1740	23.85	10.23	34.08	56.00	-21.92	QP	
6	1.1740	14.87	10.23	25.10	46.00	-20.90	AVG	
7	2.4620	25.61	10.26	35.87	56.00	-20.13	QP	
8	2.4620	16.42	10.26	26.68	46.00	-19.32	AVG	
9	13.7260	32.34	10.65	42.99	60.00	-17.01	QP	
10	13.7260	25.37	10.65	36.02	50.00	-13.98	AVG	
11	14.1940	32.56	10.66	43.22	60.00	-16.78	QP	
12	14.1940	25.07	10.66	35.73	50.00	-14.27	AVG	

5.2 Radiation Emission, 30MHz ~ 1000MHz

Test Requirement ..... : FCC PART 15, SUBPART B

Test Method ..... : ANSI C63.4

Test Result ..... : Pass

Frequency Range ..... : 30MHz to 1000MHz

Class. ..... : Class B

Limit..... :

Frequency (MHz)	Field Strength		Field Strength Limit at 3m Measurement Dist	
	uV/m	Distance (m)	uV/m	dBuV/m
30 ~ 88	100	3	100	$20\log^{(100)}$
88 ~ 216	150	3	150	$20\log^{(150)}$
216 ~ 960	200	3	200	$20\log^{(200)}$
Above 960	500	3	500	$20\log^{(500)}$

5.2.1 E.U.T. Operation

Operating Environment:

Temperature ..... : 23°C

Humidity ..... : 54.1%RH

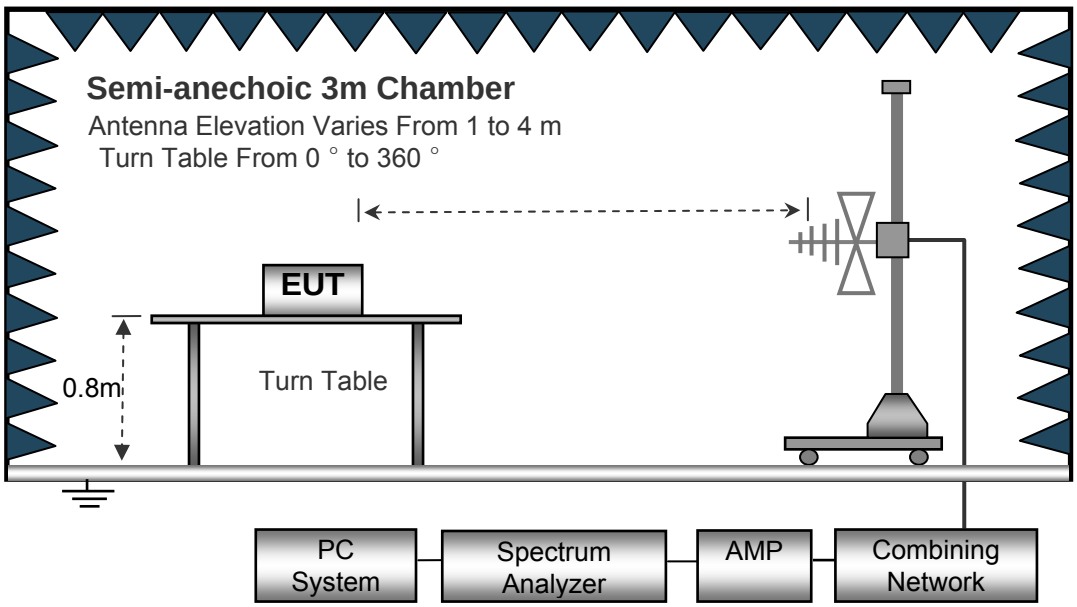
Atmospheric Pressure..... : 101kPa

EUT Operation:

Operating Mode ..... : Refer to clause 3.3.

5.2.2 Block Diagram of Test Setup

The radiated emission tests were performed in the 3m Semi- Anechoic Chamber test site, using the setup accordance with the ANSI C63.4.



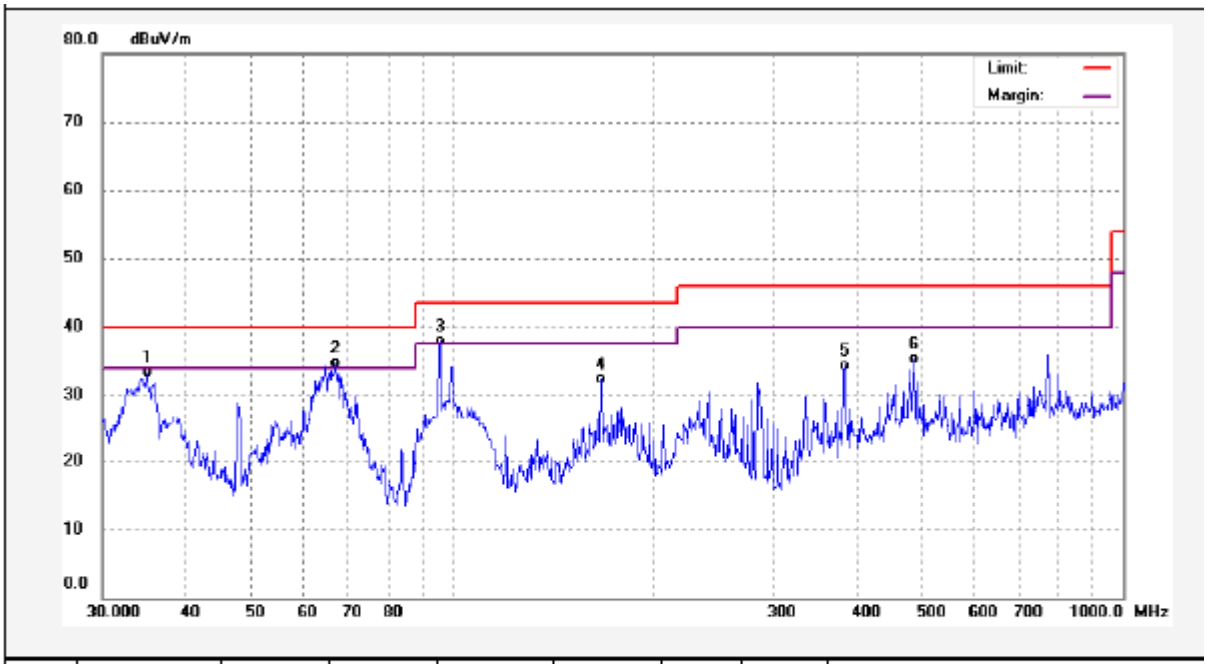
5.2.3 Measurement Data

The maximised peak emissions from the EUT was scanned and measured for both the Antenna Vertical Polarization and Antenna Horizontal Polarization. Quasi-peak measurements were performed if peak emissions were within 6dB of the Quasi-peak limit line.

5.2.4 Radiated Emission Test Data

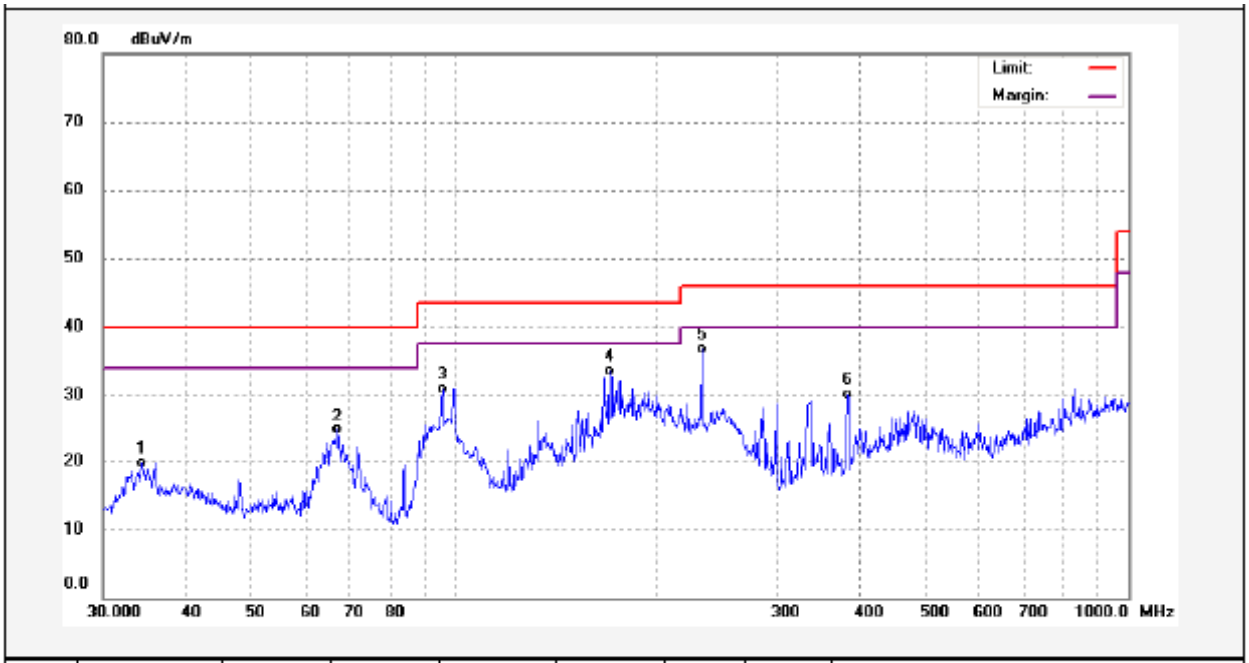
Antenna Polarization: Vertical

Adapter Model:UE15WCP1-090050SPA



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Remark
1	35.0048	47.63	-14.28	33.35	40.00	-6.65	QP	
2	66.7325	52.73	-17.94	34.79	40.00	-5.21	QP	
3	95.7622	53.47	-15.63	37.84	43.50	-5.66	QP	
4	166.0680	48.99	-16.71	32.28	43.50	-11.22	QP	
5	383.9318	45.05	-10.79	34.26	46.00	-11.74	QP	
6	487.3151	44.43	-9.13	35.30	46.00	-10.70	QP	

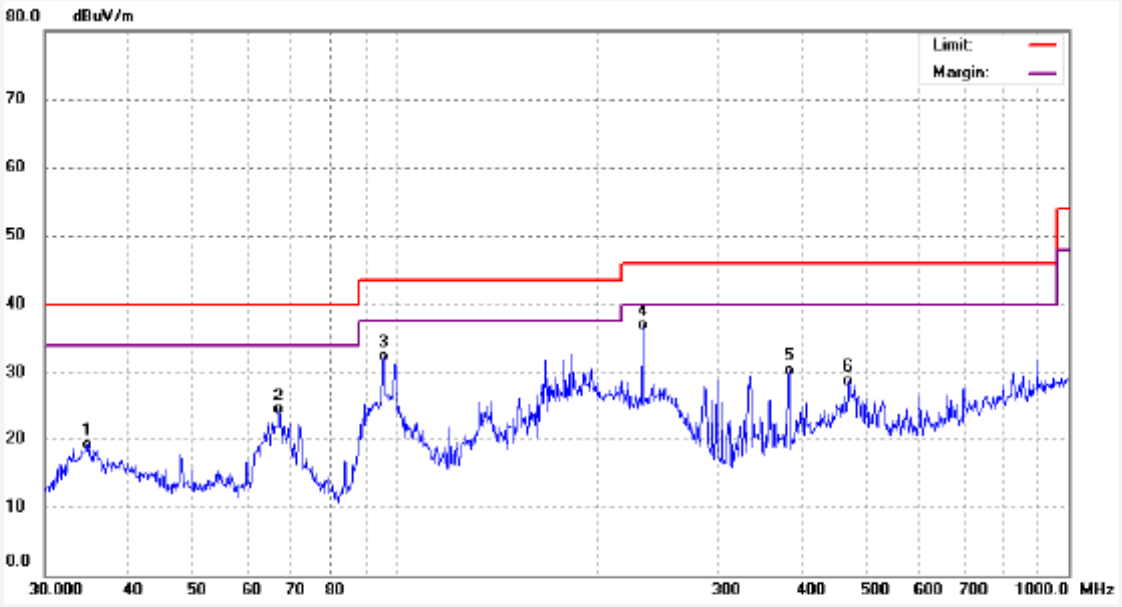
Antenna Polarization: Horizontal



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Remark
1	34.2760	34.16	-14.40	19.76	40.00	-20.24	QP	
2	66.9669	42.62	-17.97	24.65	40.00	-15.35	QP	
3	95.7622	46.60	-15.63	30.97	43.50	-12.53	QP	
4	169.5990	50.24	-16.74	33.50	43.50	-10.00	QP	
5	232.5318	50.23	-13.48	36.75	46.00	-9.25	QP	
6	382.5879	40.96	-10.79	30.17	46.00	-15.83	QP	

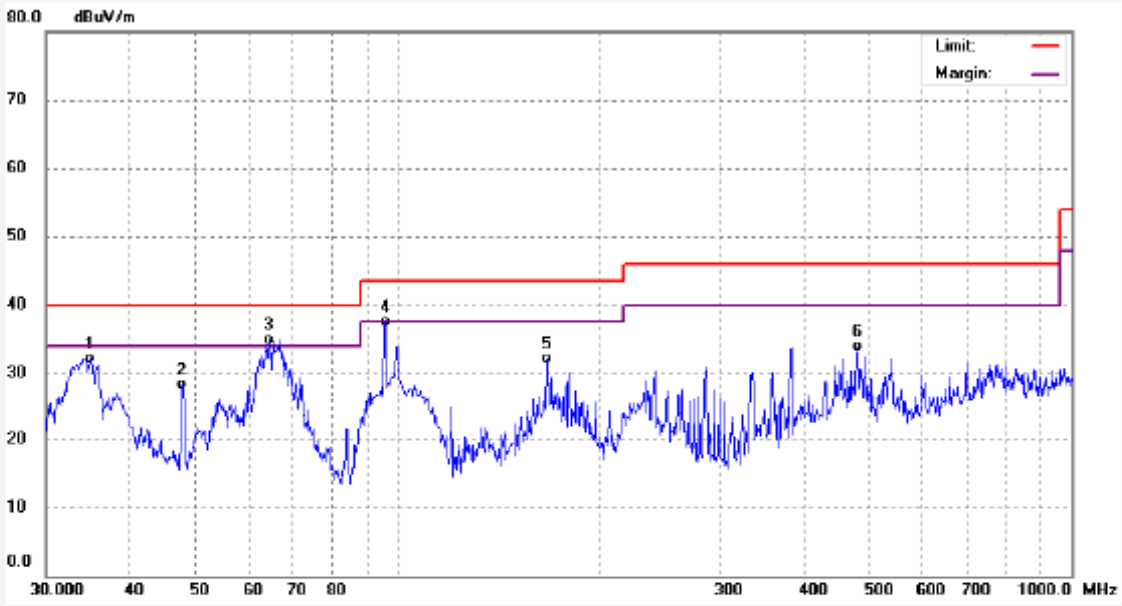
Antenna Polarization: Vertical

Adapter Model:RHD090020



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Remark
1	34.7602	33.38	-14.32	19.06	40.00	-20.94	QP	
2	66.9669	42.23	-17.97	24.26	40.00	-15.74	QP	
3	95.7622	47.85	-15.63	32.22	43.50	-11.28	QP	
4	233.3487	50.36	-13.50	36.86	46.00	-9.14	QP	
5	383.9318	41.15	-10.79	30.36	46.00	-15.64	QP	
6	470.5232	37.68	-8.95	28.73	46.00	-17.27	QP	

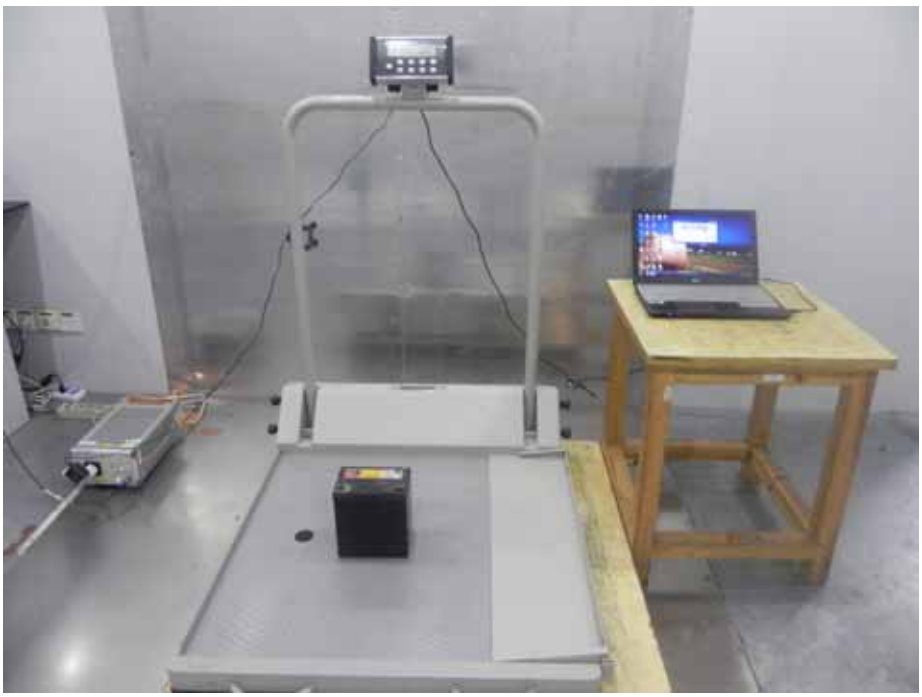
Antenna Polarization: Horizontal



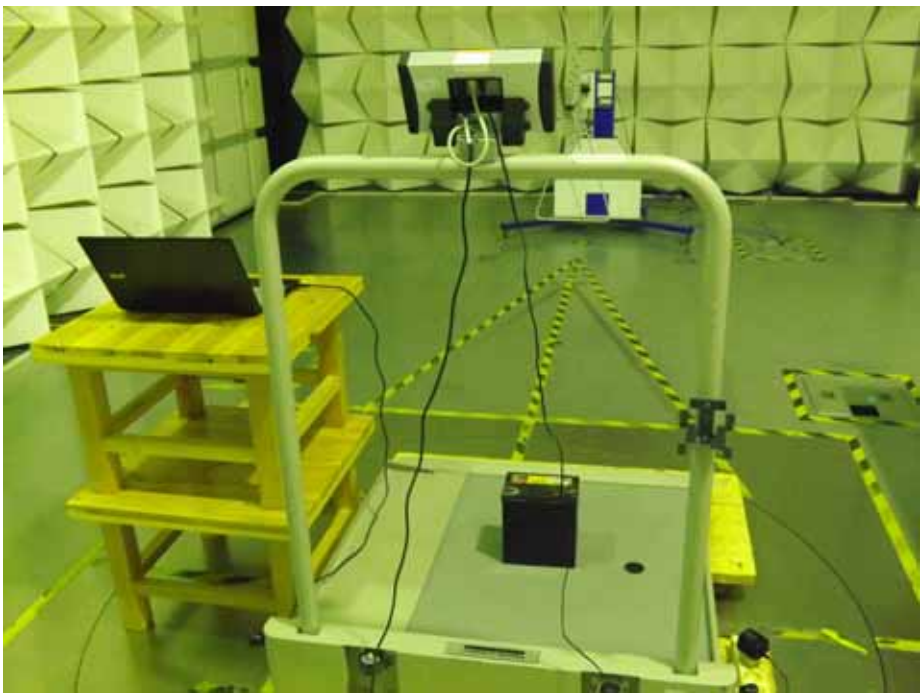
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Remark
1	34.8823	46.48	-14.30	32.18	40.00	-7.82	QP	
2	47.8260	43.38	-15.05	28.33	40.00	-11.67	QP	
3	64.4331	52.49	-17.58	34.91	40.00	-5.09	QP	
4	95.7622	53.05	-15.63	37.42	43.50	-6.08	QP	
5	166.6514	48.77	-16.72	32.05	43.50	-11.45	QP	
6	480.5276	42.91	-9.06	33.85	46.00	-12.15	QP	

6 Photographs – Test Setup

6.1 Photograph –Power Line Conducted Emission Test Setup at Test Site 1#



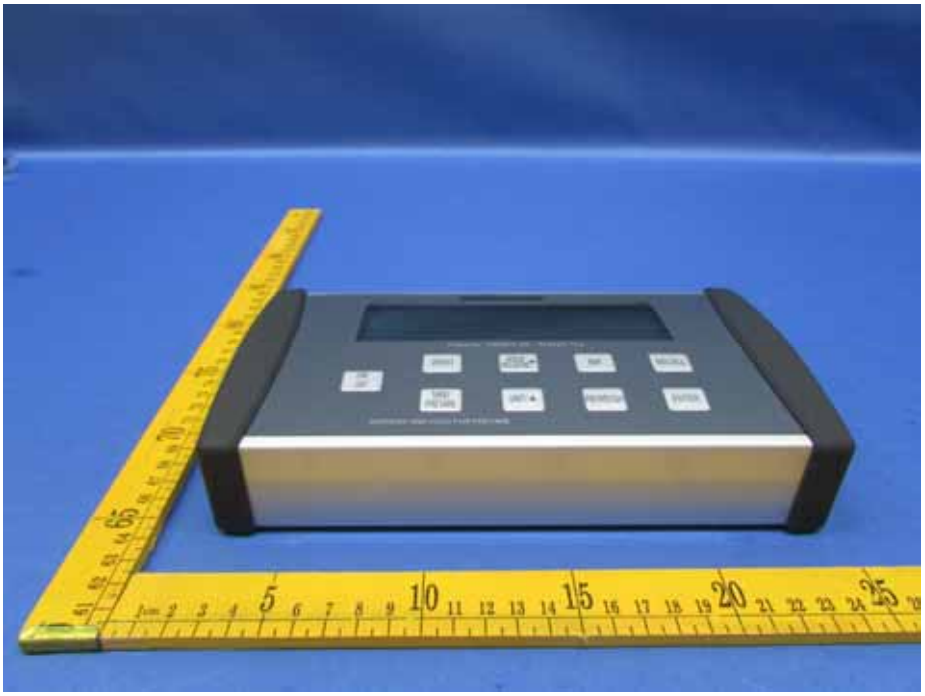
6.2 Photograph – Radiated Emission Test Setup for 30MHz ~ 1000MHz at Test Site 2#

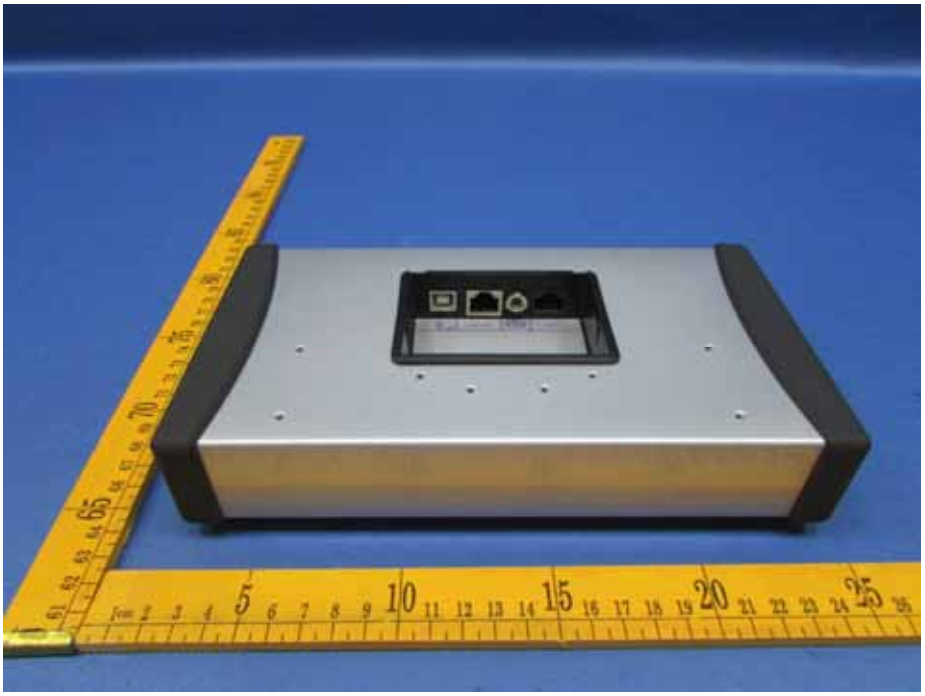


7 Photographs – Constructional Details

7.1 EUT – Appearance View


ZERO
RECALL
ENTER



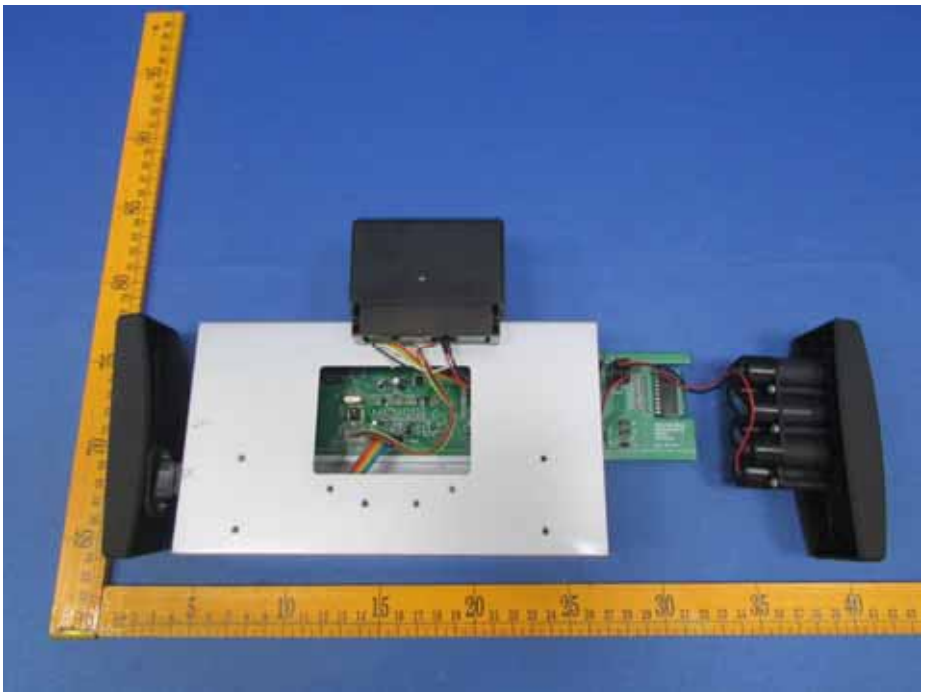


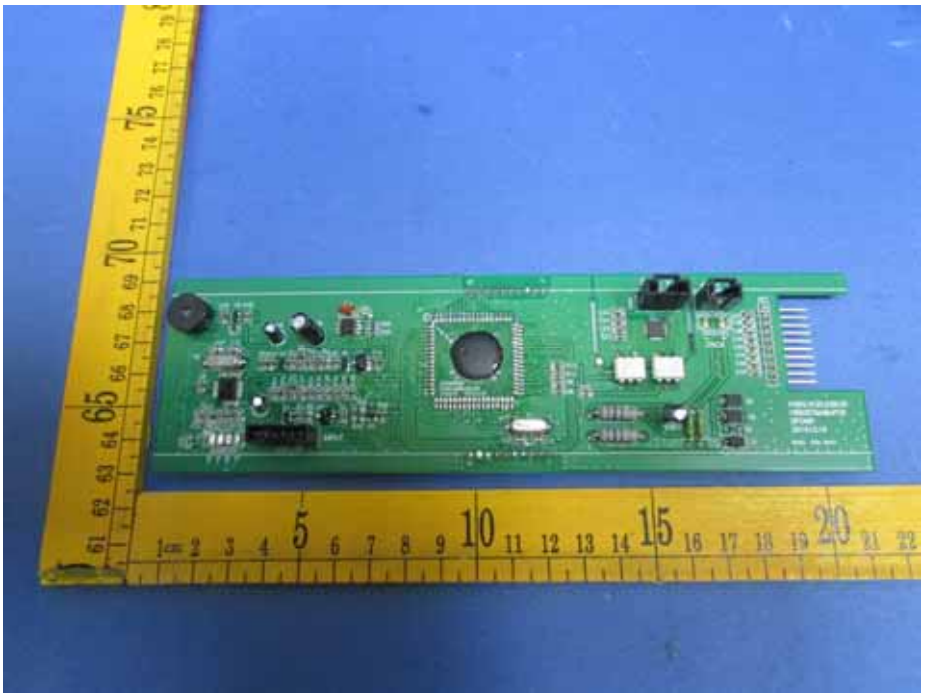
Adapter Model:UE15WCP1-090050SPA

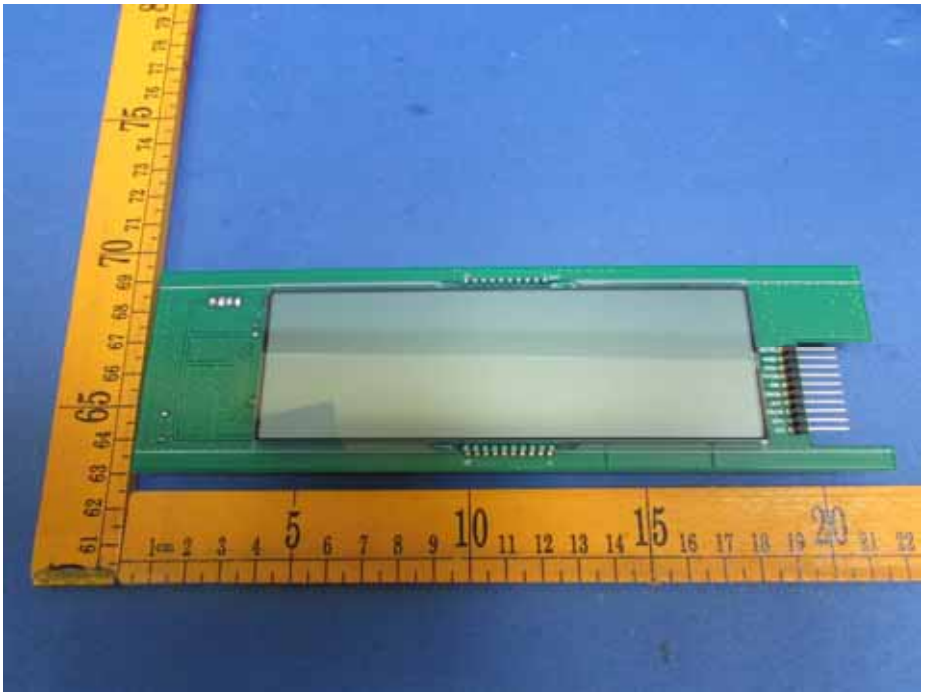
Adapter Model:RHD090020

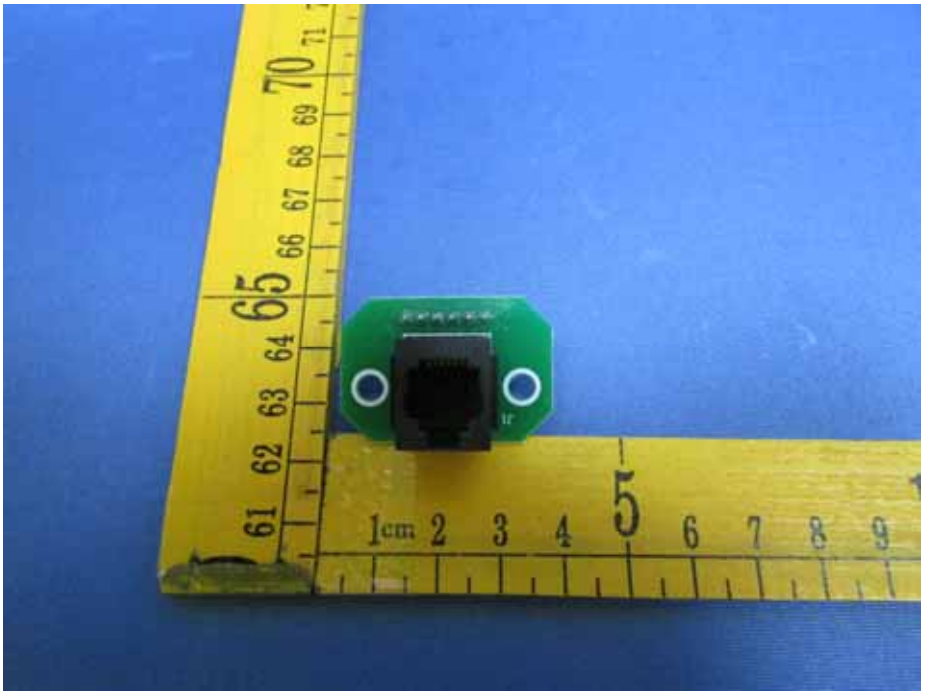

AC/DC ADPT40
Class 2 power unit
MODEL :RHD090020
INPUT:AC 120V 60Hz 8W
OUTPUT:DC 9V 200mA
LISTED
E245640
31YH
MADE IN CHINA
1114

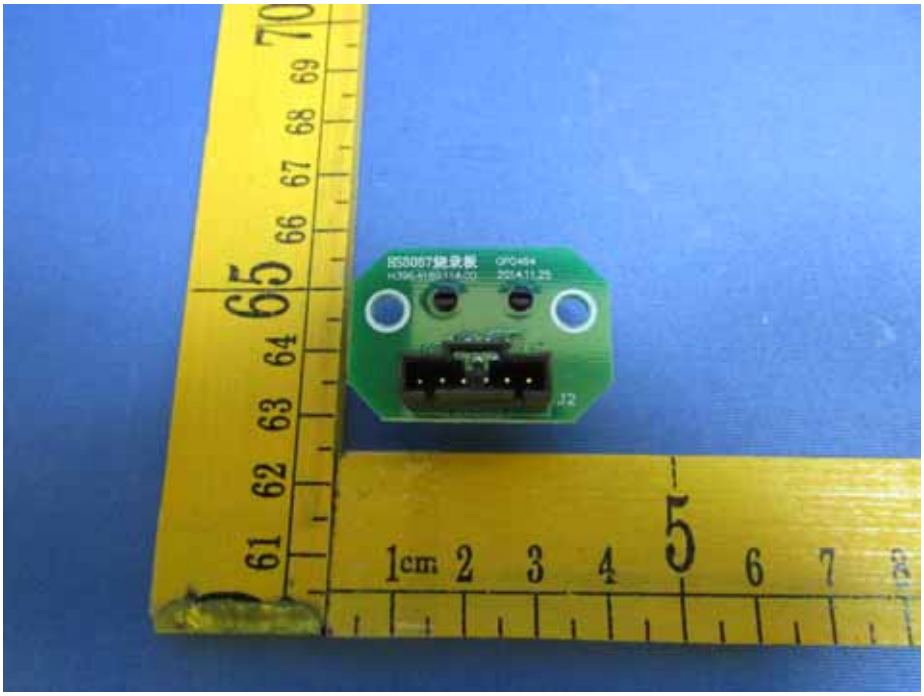
7.2 EUT – Open View











======End of Report======