SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd.

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TEST REPORT

Application No.:	SHEM1709005883HS
Applicant:	Shanghai Neo. Tec Electron Co., Ltd
Address of Applicant:	No. 22, 4501 Hu qing ping Highway Shanghai China
Manufacturer:	Shanghai Neo. Tec Electron Co., Ltd
Address of Manufacturer:	No. 22, 4501 Hu qing ping Highway Shanghai China
Factory:	Shanghai Neo. Tec Electron Co., Ltd
Address of Factory:	No. 22, 4501 Hu qing ping Highway Shanghai China
Equipment Under Test (EUT):	
EUT Name:	Ionic Air Purifier
Model No.:	AP-HC300A, AP-HC300B, AP-HC300C ¤
¤	Please refer to section 2 of this report which indicates which model was actually tested and which were electrically identical.
Standards:	EN 55014-1:2006 +A1:2009 +A2:2011 EN 61000-3-2:2014 EN 61000-3-3:2013 EN 55014-2:2015
Date of Receipt:	2017-09-04
Date of Test:	2017-09-05 to 2017-09-07
Date of Issue:	2018-04-23
Test Result :	**Pass***

* In the configuration tested, the EUT complied with the standards specified above.

The CE mark as shown below can be used, under the responsibility of the manufacturer, after completion of an EU Declaration of Conformity and compliance with all relevant EU Directives.

Parlam Zhan
E&E Section Manager

The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.
If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards. Any mention of SGS International Electrical Approvals or testing done by SGS International Electrical Approvals in connection with, distribution or use of the product described in this report must be approved by SGS International Electrical Approvals in writing.

Revision Record			
Version	**Description**	**Date**	**Remark**
00	Original	2018-04-23	/

Authorized for issue by:				
		 **Leo Xu /Project Engineer**		
		 **Zenger Zhang /Reviewer**		

2 Test Summary

Emission Part				
Item	**Standard**	**Method**	**Requirement**	**Result**
Conducted Emissions at Mains Terminals (150kHz-30MHz)	EN 55014-1:2006 +A1:2009 +A2:2011	CISPR 16-2-1	N/A	Pass
Disturbance Power	EN 55014-1:2006 +A1:2009 +A2:2011	CISPR 16-2-2	N/A	Pass
Harmonic Current Emission	EN 61000-3-2:2014	EN 61000-3-2:2014	Class A	N/A*
Voltage Fluctuations and Flicker	EN 61000-3-3:2013	EN 61000-3-3:2013	Clause 5 of EN 61000-3-3	Pass

N/A: Not applicable

N/A*: Please refer to Section 6.3 of this report for details.

Immunity Part				
Item	**Standard**	**Method**	**Requirement**	**Result**
Electrostatic Discharge	EN 55014-2:2015	EN 61000-4-2:2009	4kV Contact Discharge 8kV Air Discharge	Pass
Electrical Fast Transients/Burst at Power Port	EN 55014-2:2015	EN 61000-4-4:2012	1kV 5/50ns Tr/Td 5kHz Repetition Frequency	Pass
Surge at Power Port	EN 55014-2:2015	EN 61000-4-5:2014	1.2/50μs Tr/Td 1kV Line to Line 2kV Line to Ground	Pass
Voltage Dips and Interruptions	EN 55014-2:2015	EN 61000-4-11:2004	For 50Hz: 0 % UT for 0.5per 40 % UT for 10per 70 % UT for 25per For 60Hz: 0 % UT for 0.5per 40 % UT for 12per 70 % UT for 30per	Pass
Conducted Immunity at Power Port (150kHz-230MHz)	EN 55014-2:2015	EN 61000-4-6:2014	3Vrms (emf),80%,1kHz Amp. Mod.	Pass

N/A: Not applicable

Declaration of EUT Family Grouping:

There are series models mentioned in this report and they are the similar in electrical and electronic characters. Only the model AP-HC300A was tested since their differences are model number and appearance.

3 Contents

4 General Information

4.1 Details of E.U.T.

Power supply: AC220-240V, 50/60Hz, 45W
Test voltage: AC230V 50Hz
Cable: AC input cable 2m

4.2 Description of Support Units

The EUT has been tested as an independent unit.

4.3 Measurement Uncertainty

No.	Item	Measurement Uncertainty
1	Conducted Emission at mains port using AMN	3.2dB (9kHz to 150kHz)
		3.0dB (150kHz to 30MHz)
	Conducted Emission at mains port using VP	1.9 dB(9kHz to 30MHz)
	Conducted Emission at telecommunication port using AAN	2.4 dB(150kHz to 30MHz)
2	Radiated Power	3.5dB
3	Radiated emission	4.4dB (30MHz-1GHz)
		4.6dB (1GHz-6GHz)

Note: The measurement uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

4.4 Test Location

All tests were performed at:
SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. E&E Lab
588 West Jindu Road, Xinqiao, Songjiang, 201612 Shanghai, China

Tel: +86 21 6191 5666 Fax: +86 21 6191 5678

No tests were sub-contracted.

4.5 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

• **CNAS (No. CNAS L0599)**

CNAS has accredited SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. to ISO/IEC 17025:2005 General Requirements for the Competence of Testing and Calibration Laboratories (CNAS-CL01 Accreditation Criteria for the Competence of Testing and Calibration Laboratories) for the competence in the field of testing.

• **NVLAP (Certificate No. 201034-0)**

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. is accredited by the National Voluntary Laboratory Accreditation Program(NVLAP). Certificate No. 201034-0.

• **FCC –Designation Number: CN5033**

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. has been recognized as an accredited testing laboratory.

Designation Number: CN5033. Test Firm Registration Number: 479755.

• **Industry Canada (IC) – IC Assigned Code: 8617A**

The 3m Semi-anechoic chamber of SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 8617A-1.

• **VCCI (Member No.: 3061)**

The 3m Semi-anechoic chamber and Shielded Room of SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. has been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-3868,C-4336,T-12221,G-10830 respectively.

4.6 Deviation from Standards

None

4.7 Abnormalities from Standard Conditions

None

4.8 Monitoring of EUT for All Immunity Test

Visual: Working status

5 Equipment List

Conducted Emissions at Mains Terminals (150kHz-30MHz)					
Equipment	**Manufacturer**	**Model No**	**Inventory No**	**Cal Date**	**Cal Due Date**
EMI test receiver	Rohde & Schwarz	ESR7	SHEM162-1	2016-12-29	2017-12-28
Line impedance stabilization network	SCHWARZBECK	NSLK8127	SHEM061-1	2017-05-17	2018-05-16
Line impedance stabilization network	EMCO	3816/2	SHEM019-1	2016-12-29	2017-12-28
Pulse limiter	Rohde & Schwarz	ESH3-Z2	SHEM029-1	2017-08-01	2018-07-31
Shielding Room	ZHONGYU	8*4*3M	SHEM079-2	2016-12-29	2017-12-28

Disturbance Power					
Equipment	**Manufacturer**	**Model No**	**Inventory No**	**Cal Date**	**Cal Due Date**
EMI test receiver	Rohde & Schwarz	ESR7	SHEM162-1	2016-12-29	2017-12-28
Absorbing clamp	Liithi	MDS21	SHEM014-1	2017-02-24	2018-02-23
DE coupling clamp	LIITHI	FTC101	SHEM027-2	N/A	N/A
Shielding Room	ZHONGYU	8*4*3M	SHEM079-2	2016-12-29	2017-12-28
Attenuator	HUAXIANG	TS2-6dB	SHEM122-1	N/A	N/A

Voltage Fluctuations and Flicker					
Equipment	**Manufacturer**	**Model No**	**Inventory No**	**Cal Date**	**Cal Due Date**
Harmonic&Flicker analyzer	AMETEK	PACS-1	SHEM024-2	2017-08-22	2018-08-21
AC Power Source 5KVA	AMETEK	5001iX	SHEM025-2	2017-08-22	2018-08-21

Electrostatic Discharge					
Equipment	**Manufacturer**	**Model No**	**Inventory No**	**Cal Date**	**Cal Due Date**
Electrostatic Discharge Simulator	TESEQ	NSG 437	SHEM041-1	2016-12-29	2017-12-28

Electrical Fast Transients/Burst at Power Port					
Equipment	**Manufacturer**	**Model No**	**Inventory No**	**Cal Date**	**Cal Due Date**
Immunity Test System	EMC PARTNER	TRA3000 F-S-D-V	SHEM163-1	2016-12-29	2017-12-28

Surge at Power Port					
Equipment	**Manufacturer**	**Model No**	**Inventory No**	**Cal Date**	**Cal Due Date**
Immunity Test System	EMC PARTNER	TRA3000 F-S-D-V	SHEM163-1	2016-12-29	2017-12-28

Voltage Dips and Interruptions					
Equipment	**Manufacturer**	**Model No**	**Inventory No**	**Cal Date**	**Cal Due Date**
Immunity Test System	EMC PARTNER	TRA3000 F-S-D-V	SHEM163-1	2016-12-29	2017-12-28

Conducted Immunity at Power Port (150kHz-230MHz)					
Equipment	**Manufacturer**	**Model No**	**Inventory No**	**Cal Date**	**Cal Due Date**
Signal generator	Rohde & Schwarz	SMJ100A	SHEM141-1	2016-10-29	2017-10-28
PAMP Conducted RF test system	HAEFFLY	PAMP250	SHEM023-1	2016-12-29	2017-12-28
6dB Attenuator	HUAXIANG	TST-150-761	SHEM151-1	N/A	N/A
CDN impedance and K-factor	LUTHI	L-801 M1	SHEM023-5	2016-12-29	2017-12-28
CDN impedance and K-factor	LUTHI	L-801 M2/M3	SHEM023-6	2016-12-29	2017-12-28
Shielding Room	ZHONGYU	5*5*3M	SHEM079-6	2016-12-29	2017-12-28

General used equipment					
Equipment	**Manufacturer**	**Model No**	**Inventory No**	**Cal Date**	**Cal Due Date**
Digital pressure meter	YONGZHI	DYM3-01	SHEM082-1	2017-03-03	2018-03-02
Temperature&humidity recorder	ShangHai weather meter work	ZJ 1-2B	SHEM042-1~6	2017-08-18	2018-08-17
Digital Multimeter	FLUKE	17B	SHEM043-5	2017-08-14	2018-08-13
Autoformer regulator	Guangzhou bao de	TDGC2-5KVA	SHEM150-1	N/A	N/A
Multi-purpose tong tester	FLUKE	316	SHEM001-1	2017-01-29	2018-01-28

6 Emission Test Results

6.1 Conducted Emissions at Mains Terminals (150kHz-30MHz)

Test Requirement:	EN 55014-1:2006 +A1:2009 +A2:2011
Test Method:	CISPR 16-2-1
Frequency Range:	150kHz to 30MHz
Limit:	
0.15M-0.5MHz	66dB(μV)-56dB(μV) quasi-peak, 59dB(μV)-46dB(μV) average
0.5M-5MHz	56dB(μV) quasi-peak, 46dB(μV) average
5M-30MHz	60dB(μV) quasi-peak, 50dB(μV) average
Detector:	Peak for pre-scan (9kHz resolution bandwidth) 0.15M to 30MHz

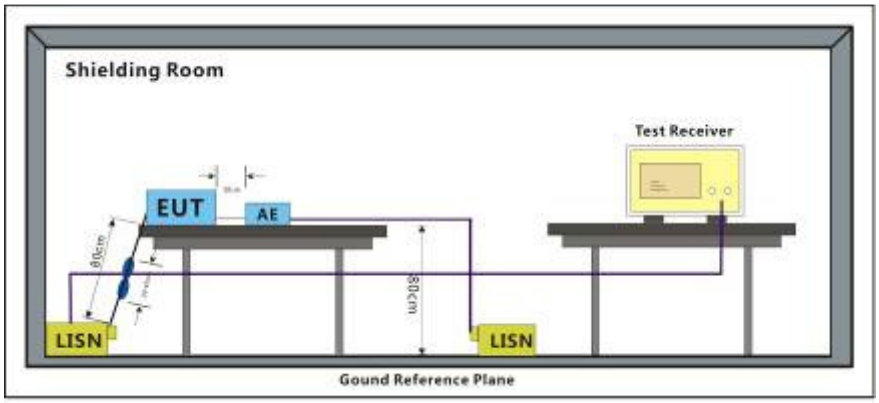
6.1.1 E.U.T. Operation

Operating Environment:

Temperature: 22 °C Humidity: 48 % RH Atmospheric Pressure: 1010 mbar

Test mode a:Keep EUT running.

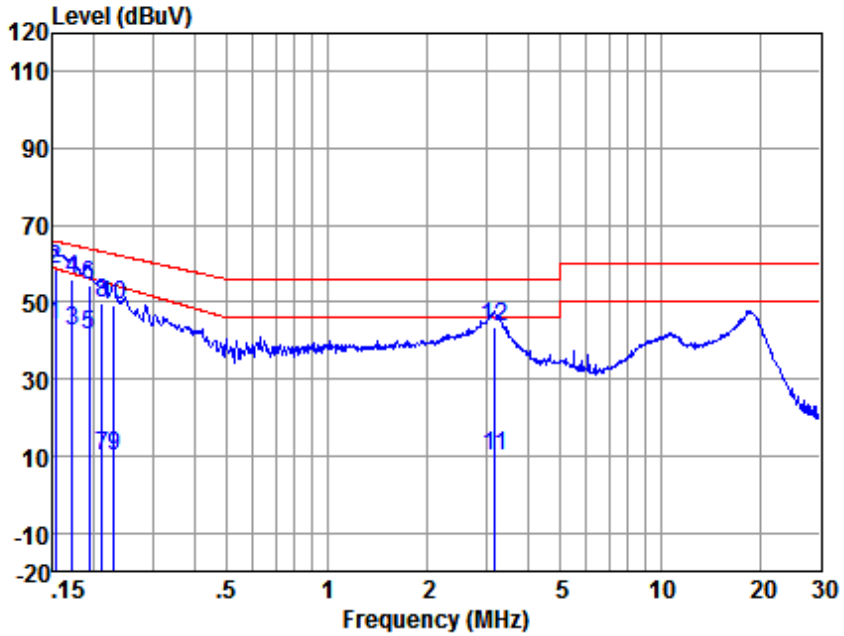
6.1.2 Test Setup Diagram



6.1.3 Measurement Data

An initial pre-scan was performed with peak detector.Quasi-Peak or Average measurement were performed at the frequencies with maximized peak emission were detected.

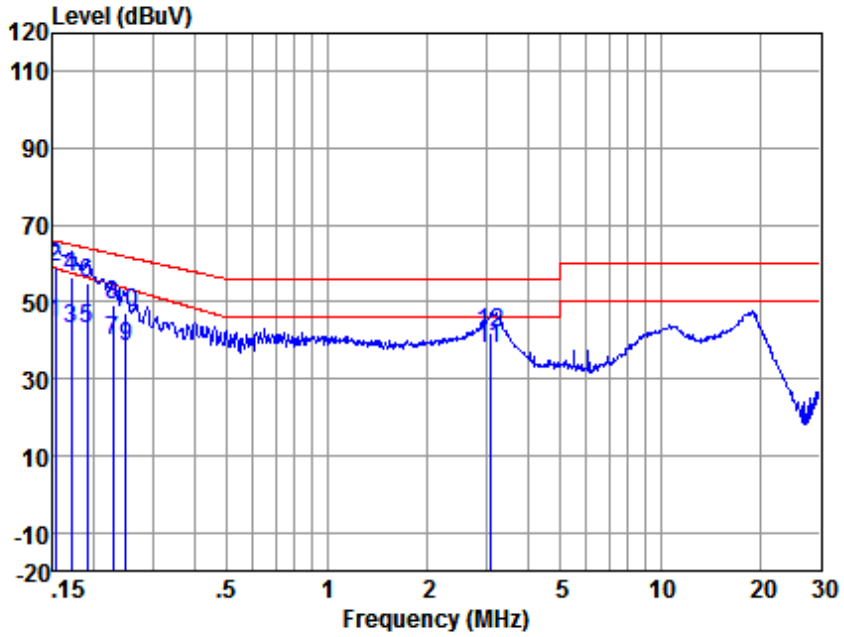
Mode:a; Line:Live Line



Site : chamber
Condition : LISN-L-2017
EUT/Project No: 5883HS
Test mode : a

	Freq	Read Level	LISN Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dB	dBuV	dBuV	dB	
1	0.152	33.98	0.11	9.81	43.90	58.83	-14.93	Average
2	0.152	48.76	0.11	9.81	58.68	65.87	-7.19	QP
3	0.172	32.39	0.11	9.81	42.31	57.51	-15.20	Average
4	0.172	45.97	0.11	9.81	55.89	64.86	-8.97	QP
5	0.192	31.75	0.11	9.81	41.67	56.31	-14.64	Average
6	0.192	44.28	0.11	9.81	54.20	63.93	-9.73	QP
7	0.211	0.00	0.11	9.81	9.92	55.34	-45.42	Average
8	0.211	40.00	0.11	9.81	49.92	63.18	-13.26	QP
9	0.229	0.00	0.11	9.81	9.92	54.42	-44.50	Average
10	0.229	39.50	0.11	9.81	49.42	62.48	-13.06	QP
11	3.190	0.00	0.12	9.85	9.97	46.00	-36.03	Average
12	3.190	33.58	0.12	9.85	43.55	56.00	-12.45	QP

Mode:a; Line:Neutral Line



Site : chamber
Condition : LISN-N-2017
EUT/Project No: 5883HS
Test mode : a

	Freq	Read Level	LISN Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dB	dBuV	dBuV	dB	
1	0.152	34.79	0.12	9.81	44.72	58.83	-14.11	Average
2	0.152	49.05	0.12	9.81	58.98	65.87	-6.89	QP
3	0.170	33.22	0.12	9.81	43.15	57.63	-14.48	Average
4	0.170	46.46	0.12	9.81	56.39	64.94	-8.55	QP
5	0.190	33.33	0.12	9.81	43.26	56.43	-13.17	Average
6	0.190	45.20	0.12	9.81	55.13	64.02	-8.89	QP
7	0.227	29.86	0.11	9.81	39.78	54.54	-14.76	Average
8	0.227	39.40	0.11	9.81	49.32	62.57	-13.25	QP
9	0.248	28.34	0.11	9.81	38.26	53.57	-15.31	Average
10	0.248	37.31	0.11	9.81	47.23	61.82	-14.59	QP
11	3.090	27.70	0.13	9.85	37.68	46.00	-8.32	Average
12	3.090	32.11	0.13	9.85	42.09	56.00	-13.91	QP

6.2 Disturbance Power

Test Requirement:	EN 55014-1:2006 +A1:2009 +A2:2011
Test Method:	CISPR 16-2-2
Frequency Range:	30MHz to 300MHz
Limit:	
30MHz- 300MHz	45dB(pw)-55dB(pw) quasi-peak, 35dB(pw)-45dB(pw) average
Detector:	Peak for pre-scan (120kHz resolution bandwidth) 30M to 300MHz

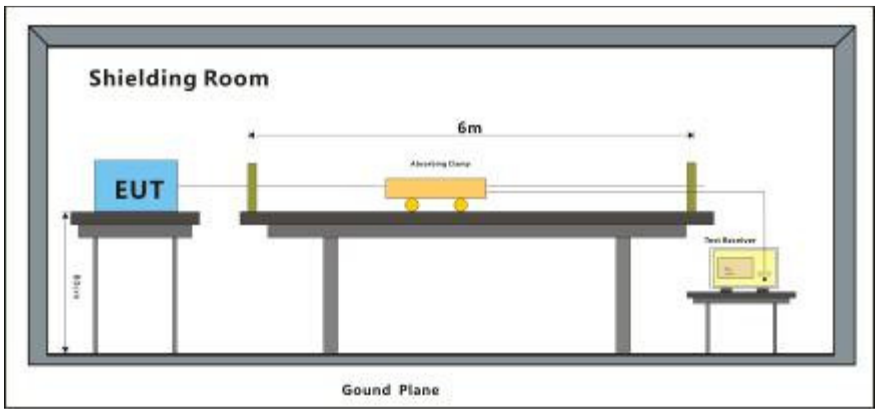
6.2.1 E.U.T. Operation

Operating Environment:

Temperature: 22 °C Humidity: 48 % RH Atmospheric Pressure: 1010 mbar

Test mode a:Keep EUT running.

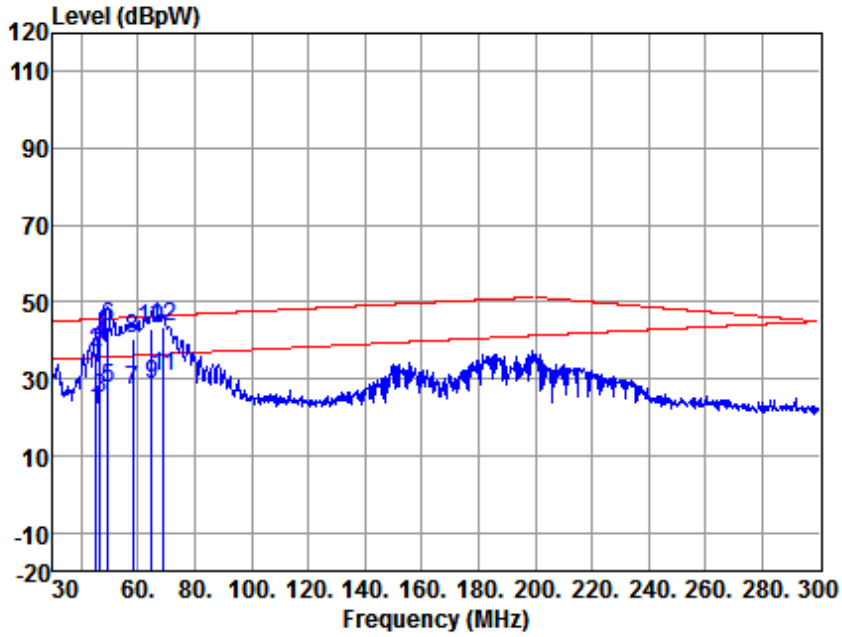
6.2.2 Test Setup Diagram



6.2.3 Measurement Data

An initial pre-scan was performed with peak detector.Quasi-Peak or Average measurement were performed at the frequencies with maximized peak emission were detected.

Mode:a



Site : chamber
Condition :
EUT/Project No: 5883HS
Test mode : a

	Freq	Read Level	Aux Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	dBpW	dB	dB	dBpW	dBpW	dB	
1	45.390	-5.21	20.41	6.85	22.05	35.58	-13.53	Average
2	45.390	9.44	20.41	6.85	36.70	45.58	-8.88	QP
3	46.740	-2.34	20.47	6.88	25.01	35.63	-10.62	Average
4	46.740	11.47	20.47	6.88	38.82	45.63	-6.81	QP
5	49.440	0.03	20.58	6.90	27.51	35.73	-8.22	Average
6	49.440	15.83	20.58	6.90	43.31	45.73	-2.42	QP
7	58.080	-0.45	20.26	7.00	26.81	36.05	-9.24	Average
8	58.080	13.33	20.26	7.00	40.59	46.05	-5.46	QP
9	64.830	1.86	19.72	7.08	28.66	36.30	-7.64	Average
10	64.830	16.28	19.72	7.08	43.08	46.30	-3.22	QP
11	68.880	3.92	19.54	7.09	30.55	36.45	-5.90	Average
12	68.880	16.95	19.54	7.09	43.58	46.45	-2.87	QP

6.3 Harmonic Current Emission

Test Requirement: EN 61000-3-2:2014
Test Method: EN 61000-3-2:2014
Frequency Range: 100Hz to 2kHz

There is no need for Harmonics test to be performed on this product (rated power is less than 75W) in accordance with EN 61000-3-2:2014.

For further details, please refer to Clause 7 of EN 61000-3-2 which states:

"For the following categories of equipment, limits are not specified in this standard.- equipment with a rated power of 75W or less, other than lighting equipment."

6.4 Voltage Fluctuations and Flicker

Test Requirement: EN 61000-3-3:2013

Test Method: EN 61000-3-3:2013

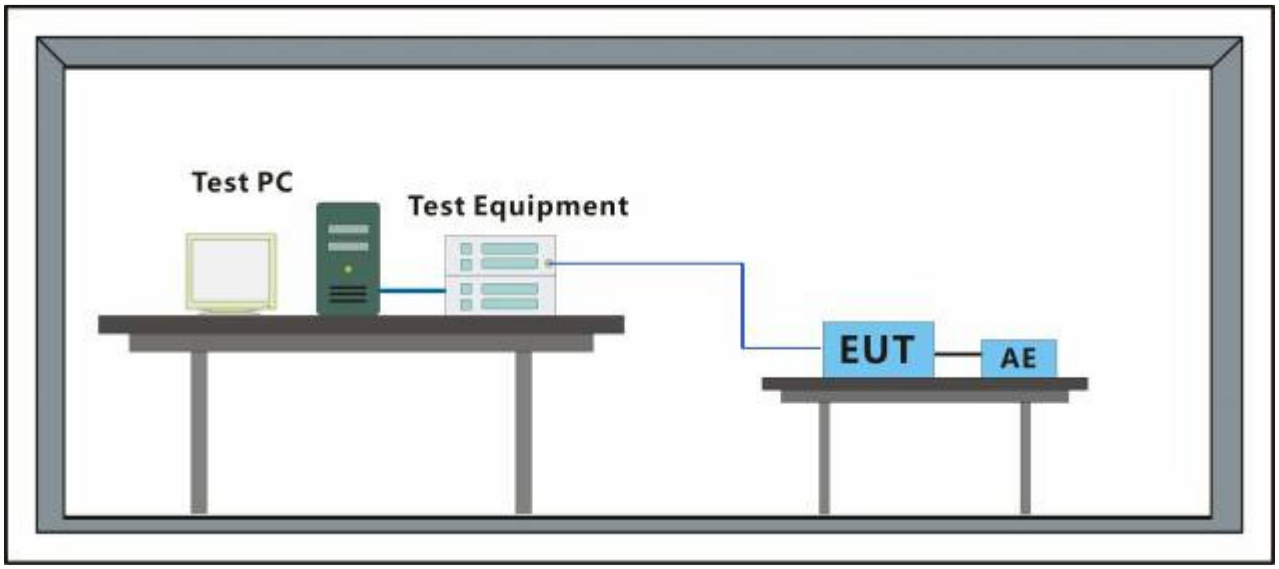
6.4.1 E.U.T. Operation

Operating Environment:

Temperature: 22 °C Humidity: 50 % RH Atmospheric Pressure: 1005 mbar

Test mode a:Keep EUT running.

6.4.2 Test Setup Diagram



6.4.3 Measurement Data

Mode:a

Parameter values recorded during the test:

Vrms at the end of test (Volt):	229.79			
T-max (mS):	0	Test limit (mS):	500.0	Pass
Highest dc (%):	0.48	Test limit (%):	3.30	Pass
Highest dmax (%):	0.70	Test limit (%):	4.00	Pass
Highest Pst (10 min. period):	0.262	Test limit:	1.000	Pass
Highest Plt (2 hr. period):	0.159	Test limit:	0.650	Pass

7 Immunity Test Results

7.1 Performance Criteria Description in EN 55014-2:2015

Criterion A The apparatus shall continue to operate as intended during the test. No degradation of performance or loss of function is allowed below a performance level (or permissible loss of performance) specified by the manufacturer, when the apparatus is used as intended. If the minimum performance level or the permissible performance loss is not specified by the manufacturer, then either of these may be derived from the product description and documentation, and from what the user may reasonably expect from the apparatus if used as intended.

Criterion B The apparatus shall continue to operate as intended after the test. No degradation of performance or loss of function is allowed below a performance level (or permissible loss of performance) specified by the manufacturer, when the apparatus is used as intended. During the test, degradation of performance is allowed, however. No change of actual operating state or stored data is allowed. If the minimum performance level or the permissible performance loss is not specified by the manufacturer, then either of these may be derived from the product description and documentation and from what the user may reasonably expect from the apparatus if used as intended.

Criterion C Temporary loss of function is allowed, provided the function is self recoverable or can be restored by the operation of the controls, or by any operation specified in the instructions for use.

7.2 Electrostatic Discharge

Test Requirement: EN 55014-2:2015
Test Method: EN 61000-4-2:2009
Performance Criterion: B
Discharge Impedance: 330Ω/150pF
Number of Discharge: Minimum 10 times at each test point
Discharge Mode: Single Discharge
Discharge Period: 1 second minimum

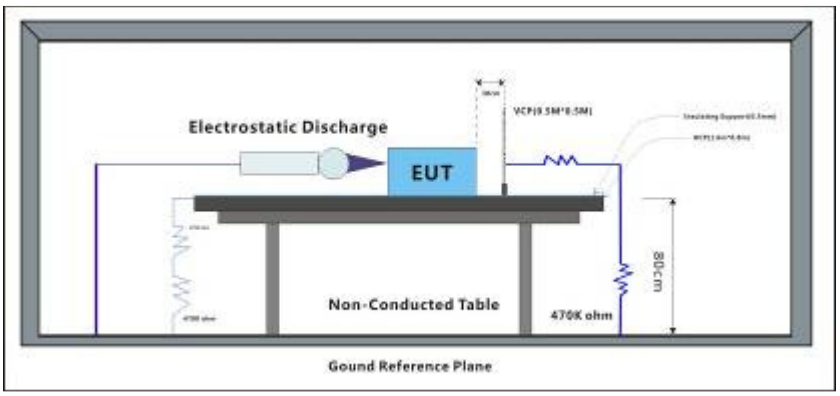
7.2.1 E.U.T. Operation

Operating Environment:

Temperature: 22 °C Humidity: 51 % RH Atmospheric Pressure: 1002 mbar

Test mode: a:Keep EUT running.

7.2.2 Test Setup Diagram



7.2.3 Test Results:

Observations: Test Point:

1. All insulated enclosure and seams.
2. All accessible metal parts of the enclosure.
3. All side

Discharge type	Level (kV)	Polarity	Test Point	Result / Observations
Air Discharge	8	+	1	A
Air Discharge	8	-	1	A
Vertical Coupling	4	+	3	A
Vertical Coupling	4	-	3	A

Results:

A: No degradation in the performance of the EUT was observed.

7.3 Electrical Fast Transients/Burst at Power Port

Test Requirement: EN 55014-2:2015
Test Method: EN 61000-4-4:2012
Performance Criterion: B
Repetition Frequency: 5kHz
Burst Period: 300ms
Test Duration: 2 minute per level & polarity

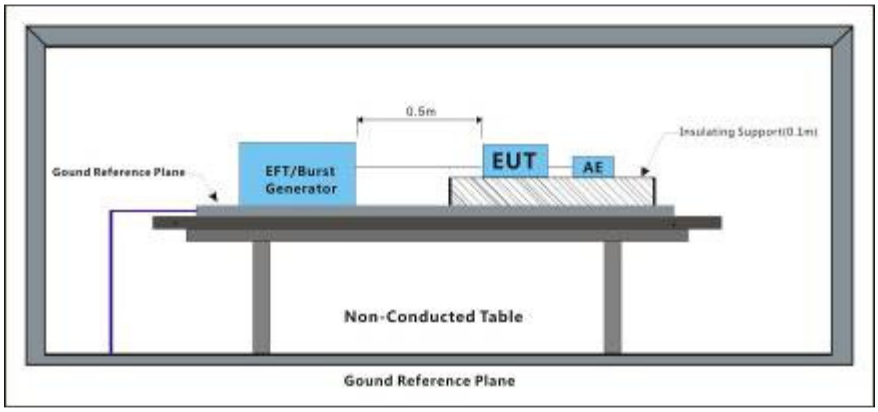
7.3.1 E.U.T. Operation

Operating Environment:

Temperature: 22 °C Humidity: 51 % RH Atmospheric Pressure: 1002 mbar

Test mode: a:Keep EUT running.

7.3.2 Test Setup Diagram



7.3.3 Test Results:

Test Line	Level (kV)	Polarity	CDN/Clamp	Result / Observations
AC power port	1	+	CDN	A
AC power port	1	-	CDN	A

Results:

A: No degradation in the performance of the EUT was observed.

7.4 Surge at Power Port

Test Requirement: EN 55014-2:2015
Test Method: EN 61000-4-5:2014
Performance Criterion: B
Interval: 60s between each surge
No. of surges: 5 positive at 90°, 5 negative at 270°.

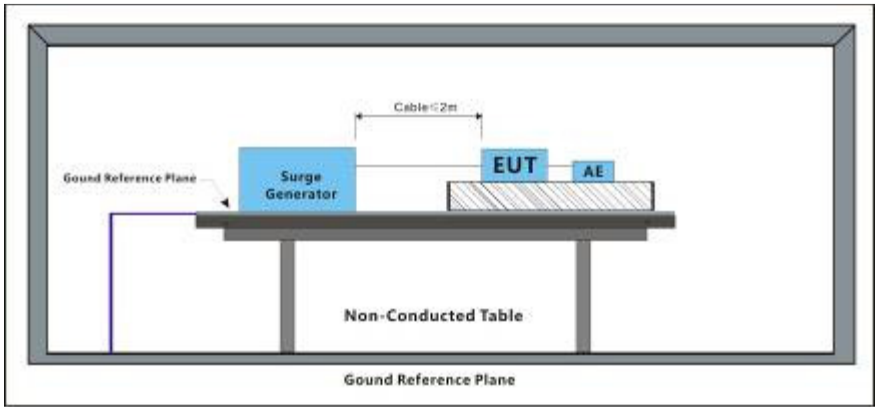
7.4.1 E.U.T. Operation

Operating Environment:

Temperature: 22 °C Humidity: 51 % RH Atmospheric Pressure: 1002 mbar

Test mode: a:Keep EUT running.

7.4.2 Test Setup Diagram



7.4.3 Test Results:

Test Line	Level (kV)	Polarity	Phase (deg)	Result / Observations
L-N	1	+	90°	A
L-N	1	-	270°	A

Results:

A: No degradation in the performance of the EUT was observed.

7.5 Voltage Dips and Interruptions

Test Requirement: EN 55014-2:2015

Test Method: EN 61000-4-11:2004

Performance Criterion: For 50Hz:
0% of UT (Rated Voltage) for 0.5 Cycle: C;
40% of UT for 10 Cycle: C;
70% of UT for 25 Cycle: C
For 60Hz:
0% of UT (Rated Voltage) for 0.5 Cycle: C;
40% of UT for 12 Cycle: C;
70% of UT for 30 Cycle: C

No. of Dips / Interruptions: 3 per Level

Time between dropout 10s

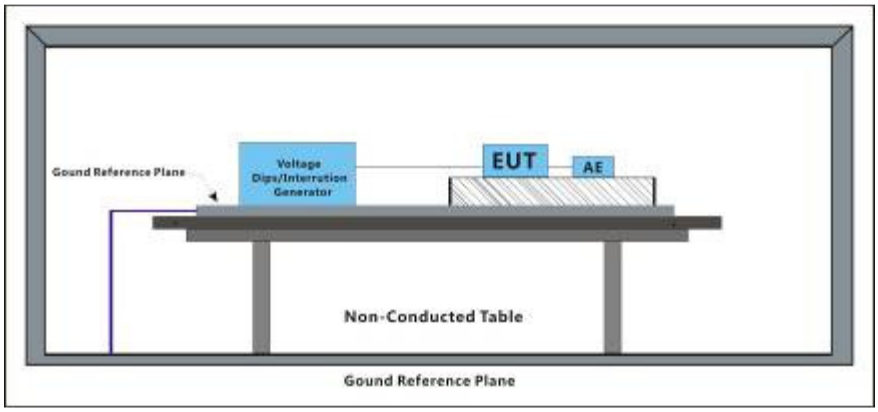
7.5.1 E.U.T. Operation

Operating Environment:

Temperature: 22 °C Humidity: 51 % RH Atmospheric Pressure: 1002 mbar

Test mode: a:Keep EUT running.

7.5.2 Test Setup Diagram



7.5.3 Test Results:

Level % UT	Phase (deg)	Duration	No. of Dips / Interruptions	Result / Observations
0	0°	0.5 Cycles	3	A
0	180°	0.5 Cycles	3	A
40	0°	10 Cycles	3	A
40	180°	10 Cycles	3	A
70	0°	25 Cycles	3	A
70	180°	25 Cycles	3	A

Results:

A: No degradation in the performance of the EUT was observed.

7.6 Conducted Immunity at Power Port (150kHz-230MHz)

Test Requirement: EN 55014-2:2015
Test Method: EN 61000-4-6:2014
Performance Criterion: A
Frequency Range: 0.15MHz to 230MHz
Modulation: 80%, 1kHz Amplitude Modulation
Step Size 1%

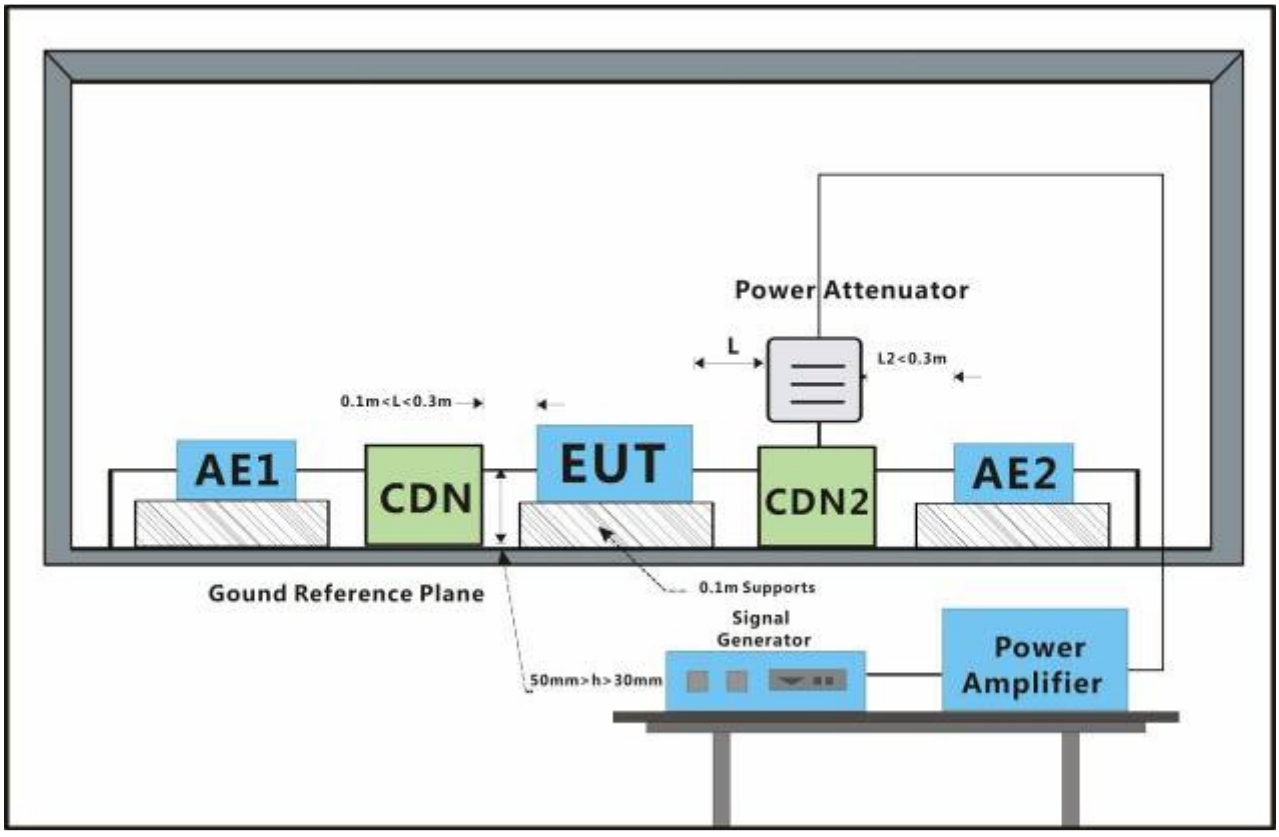
7.6.1 E.U.T. Operation

Operating Environment:

Temperature: 22 °C Humidity: 51 % RH Atmospheric Pressure: 1002 mbar

Test mode: a:Keep EUT running.

7.6.2 Test Setup Diagram



7.6.3 Test Results:

Cable port	Level (Vrms)	CDN/Clamp	Dwell time	Result / Observations
AC power port	3	CDN	2s	A

Results:

A: No degradation in the performance of the EUT was observed.

8 Photographs

8.1 Conducted Emissions at Mains Terminals (150kHz-30MHz) Test Setup

8.2 Disturbance Power Test Setup

8.3 Voltage Fluctuations and Flicker Test Setup

8.4 Electrostatic Discharge Test Setup

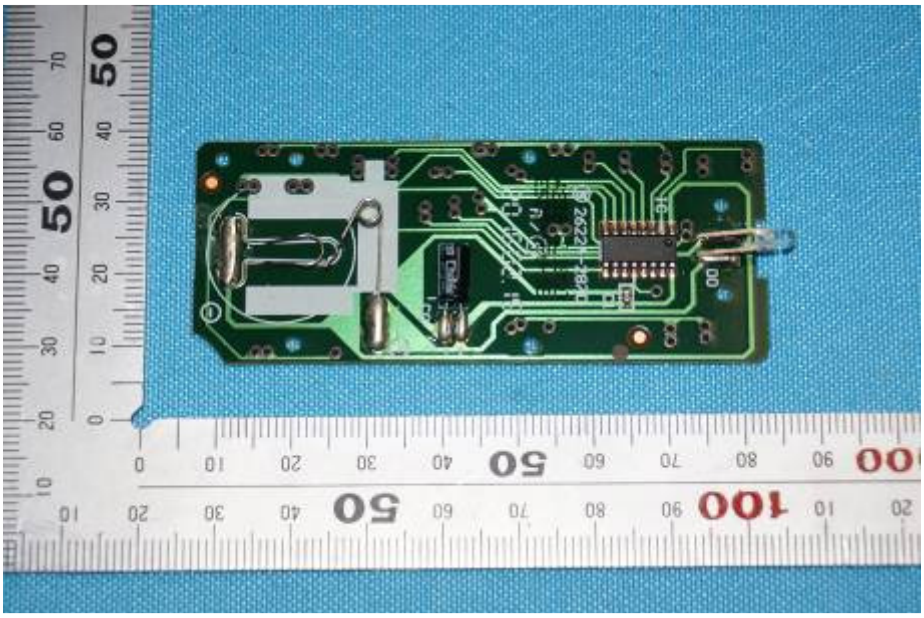
8.5 Electrical Fast Transients/Burst at Power Port Test Setup

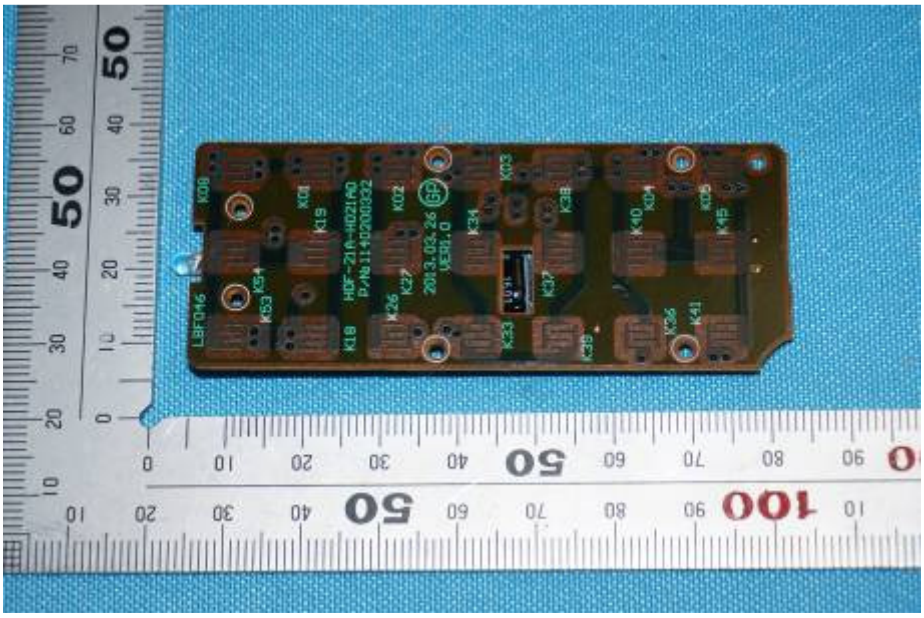
8.6 Surge at Power Port Test Setup

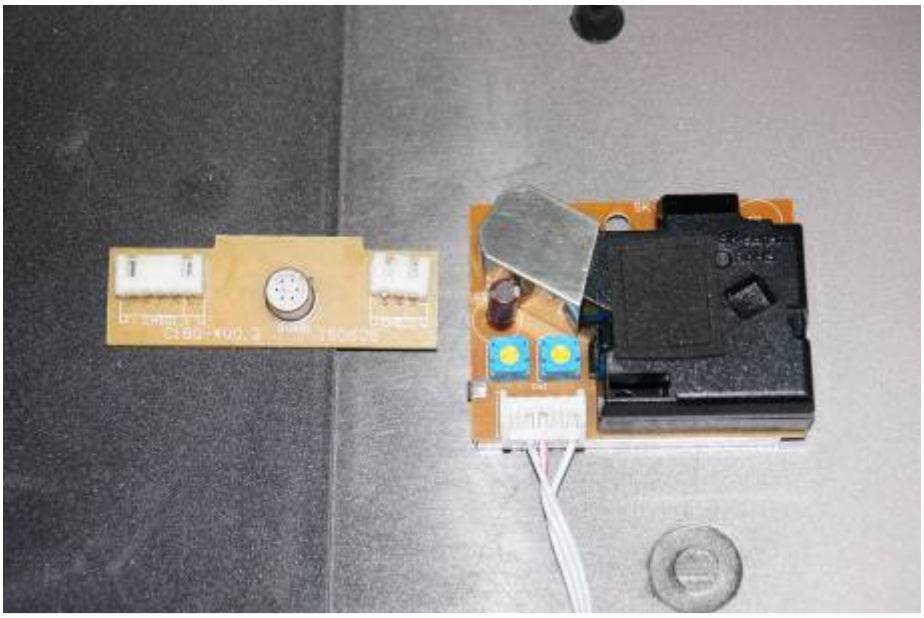
8.7 Voltage Dips and Interruptions Test Setup

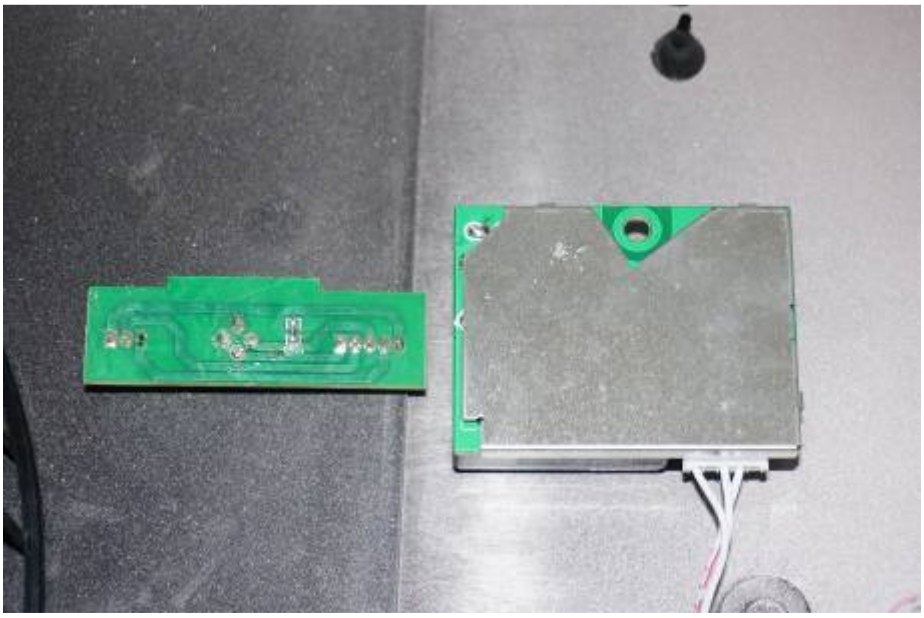
8.8 Conducted Immunity at Power Port (150kHz-230MHz) Test Setup

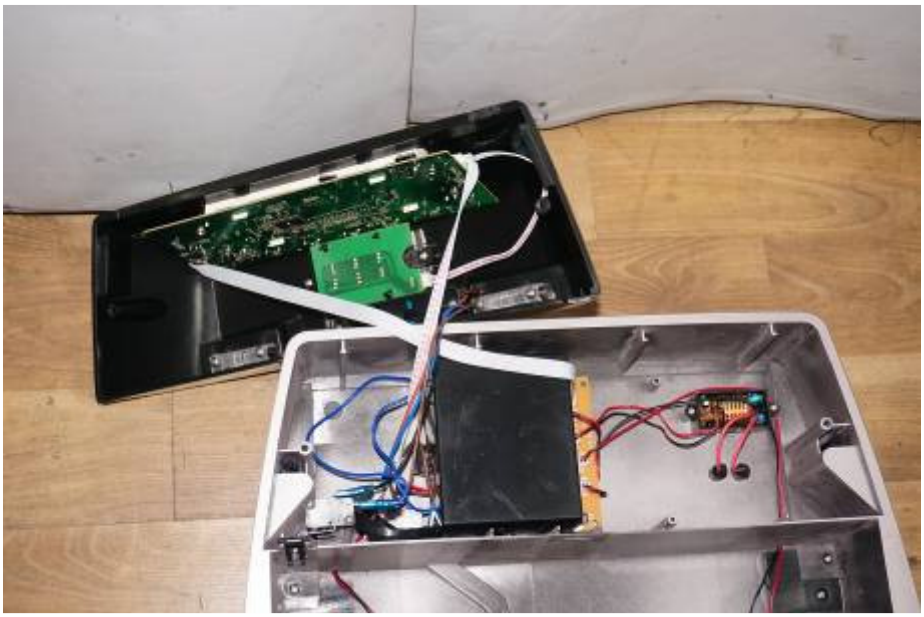
8.9 EUT Constructional Details

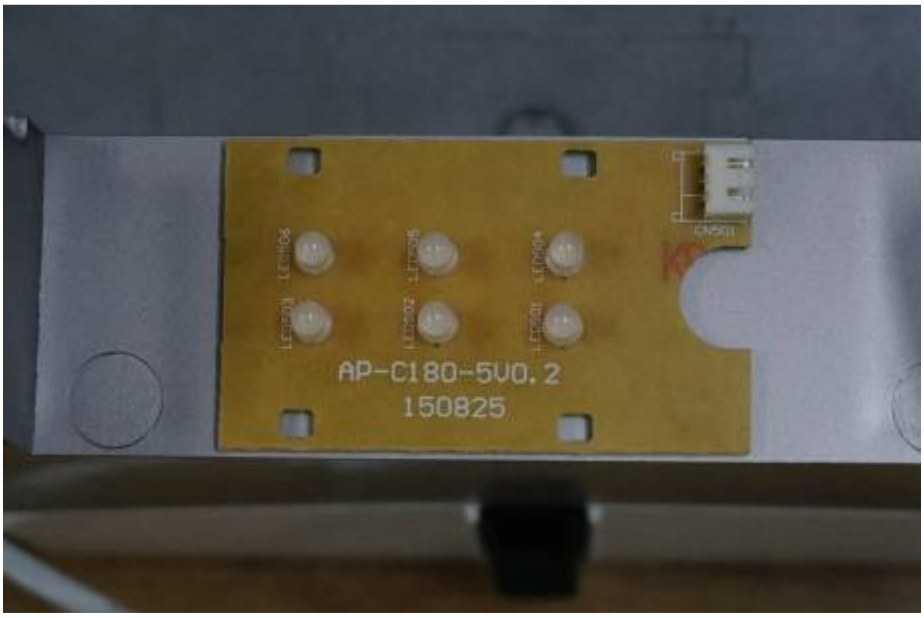


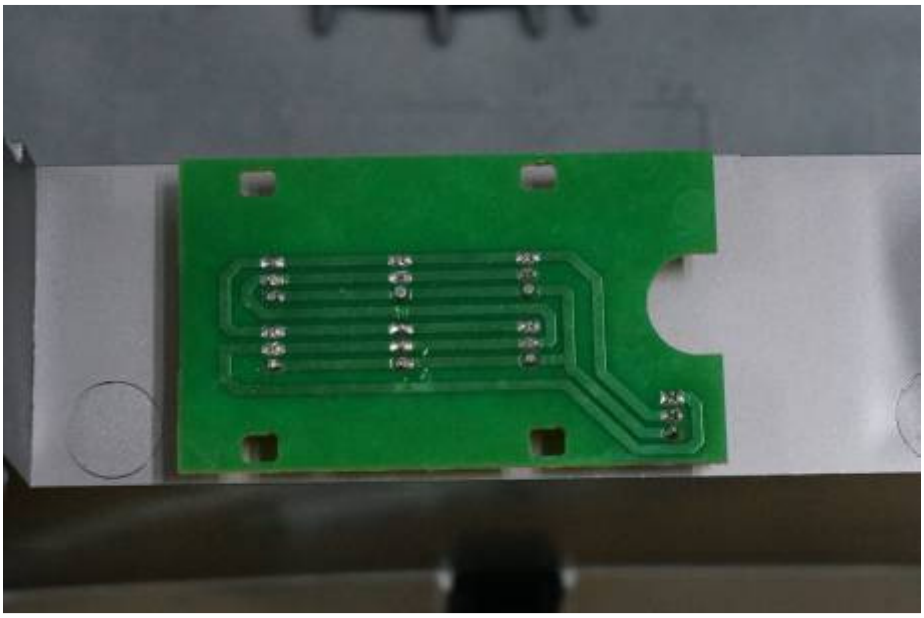


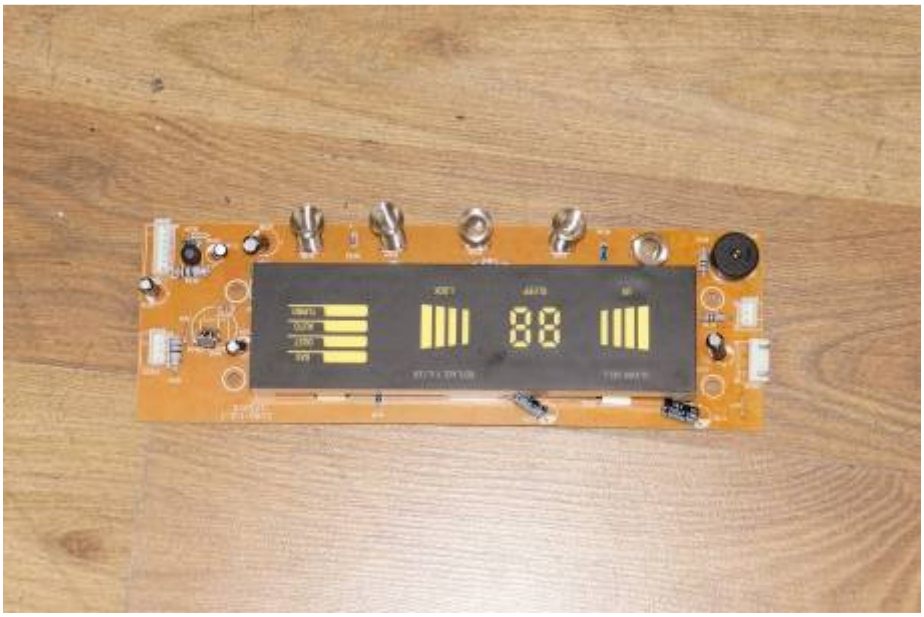


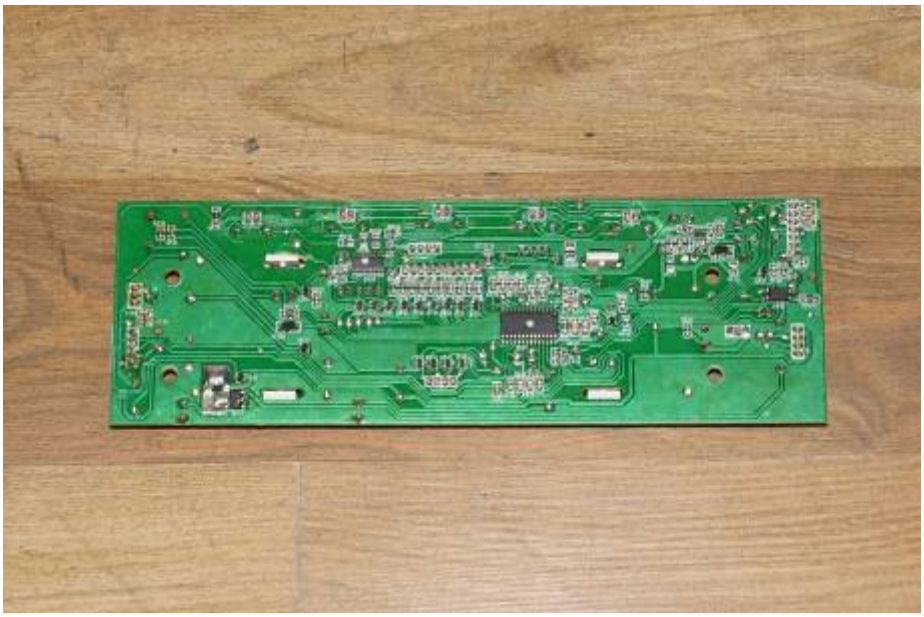


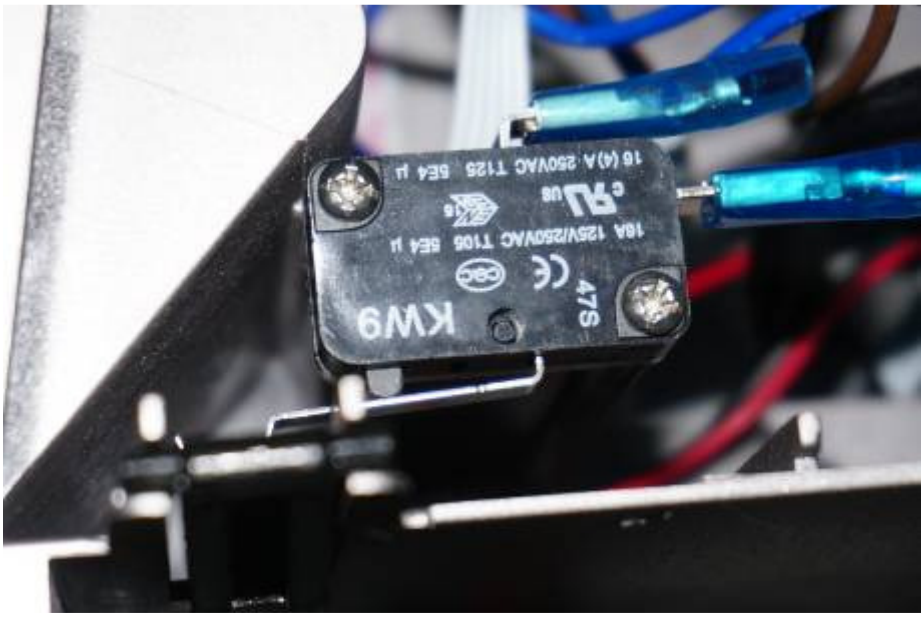


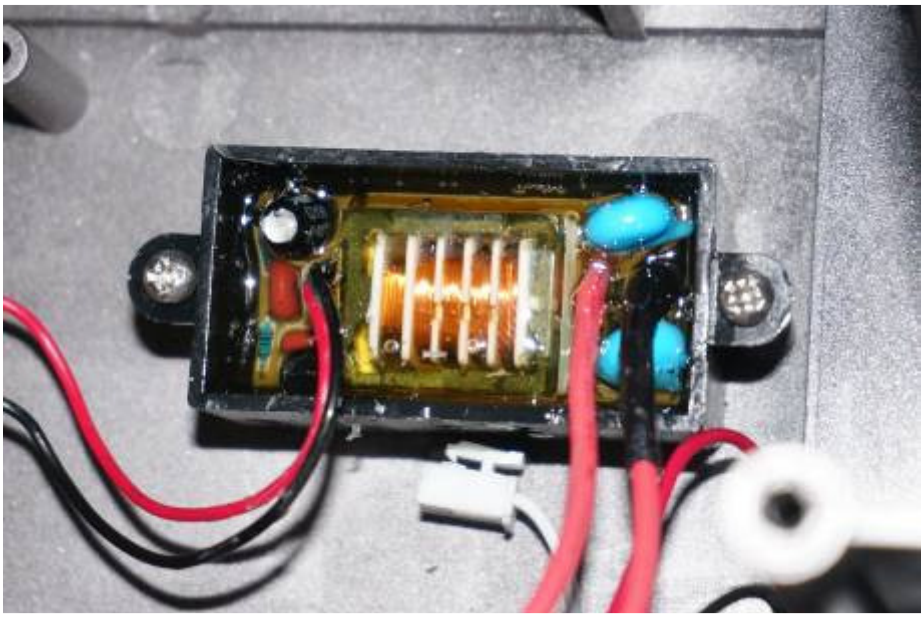


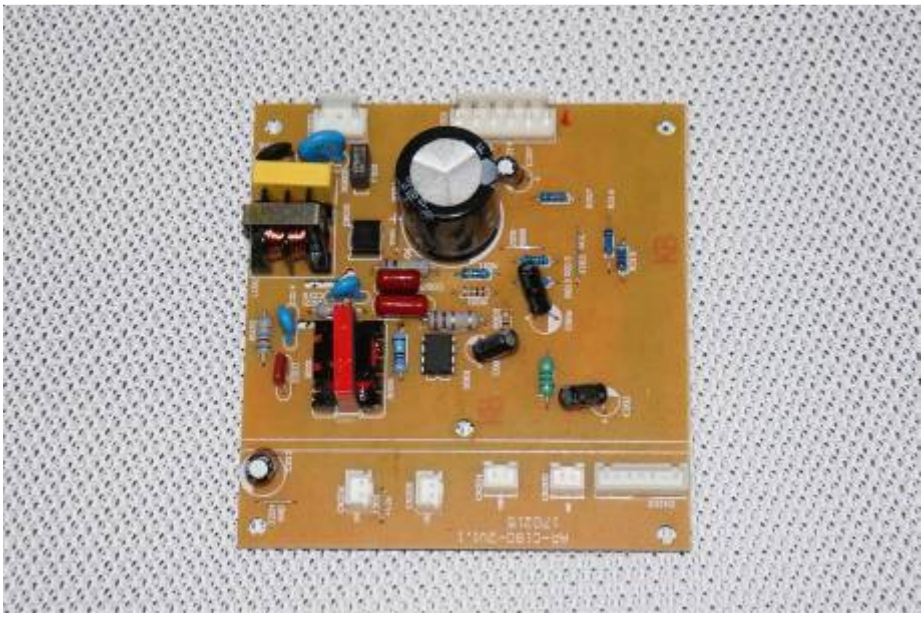


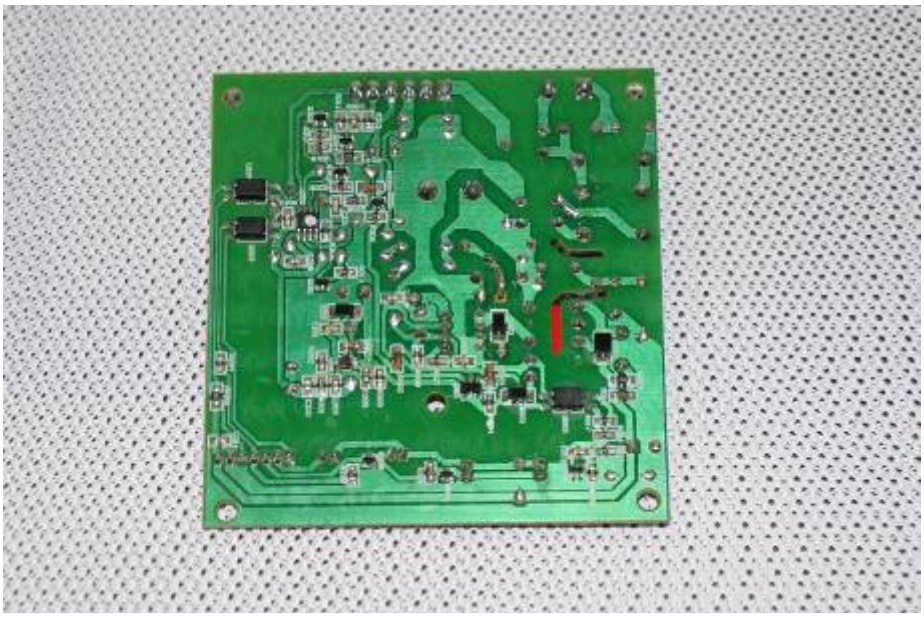












--End of the Report--