



C-TICK TEST REPORT

Applicant : Wuxi Sans Electronic Co.,Ltd
Address: Industrial WuYi,DongGang Town Wuxi,Jiangsu P.R.China

The following test samples and the samples of information provided by the applicants and confirm it:

Sample name: Adapter
Model: SSLC180V54.6
Date Sample received: 20 October.2016
Sample Test Date: 21 October.2016 to 23 October.2016
Test Requirement: Customers Requirement
Test Basis: AS/NZS CISPR 14.1:2013

Test Results: Complies with The Requirements of The Above Specification

Authorized Signatories

Andy Lu



All applicable tests according to the above specified standard, See clauses tested of the test report. Test results are valid only for the tested samples. This report shall not be reproduced, except in full, without the written approval of the NEW-STANDARD laboratory.



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Report No : NSL-241016010103-R

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3.General Information

Report No: NSL-241016010103-R

Test by(Printed name and signature): **kiva Cai**

Approved by(Printed name and signature): **Andy Lu**

Total number of pages: 20

Client

Applicant name: Wuxi Sans Electronic Co.,Ltd

Address: Industrial WuYi,DongGang Town Wuxi,Jiangsu P.R.China

Manufacture name: Wuxi Sans Electronic Co.,Ltd

Address: Industrial WuYi,DongGang Town Wuxi,Jiangsu P.R.China

Factory name: Wuxi Sans Electronic Co.,Ltd

Address: Industrial WuYi,DongGang Town Wuxi,Jiangsu P.R.China

Test laboratory

Laboratory name: SUZHOU NEW-STANDART LABORATORY CO.,LTD

Address: NO,199,JINFENG ROAD,SUZHOU,215011 P.R.CHINA

Testing location: NO.1168,WUZHONG ROAD,SUZHOU,P.R.CHINA

Test Item

Product/Description: Adapter

Trade Mark: SANS

Model: SSLC180V54.6

Ratings: Input:

Output:



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Marking plate:

Draft Report



Test condition

Test voltage: 230V AC,50Hz

Ambient temperature: 22-25°C

Relative humidity: 35-45%

Atmospheric pressure: 102.1-102.9 kPa

General remark

“EUT” refer to equipment (sample) under test.

“CDN” refer to coupling and decoupling network. “LISN” refer to line impedance stabilization network.

Throughout this report a point is used as the decimal separator.

The measurements shown in this test report were made in accordance with the procedures given in AS/NZS CISPR 14:2013. When determining of test conclusion, measurement uncertainty of test has been considered. The measurement uncertainty represents an expanded uncertainty expressed at approximately the 95 % confidence level using a coverage factor of k=2. See below details.

Conducted Emission uncertainty (9-150 kHz): 3.6 dB

Conducted Emission uncertainty (0.15-30 MHz): 3.5 dB

Radiated Emission uncertainty (30-1000 MHz): 4.0 dB

Model difference

Single model



4. Summary of Testing

4.1.Mains Terminals Disturbance Voltage: Pass

4.2.Disturbance Power: Pass

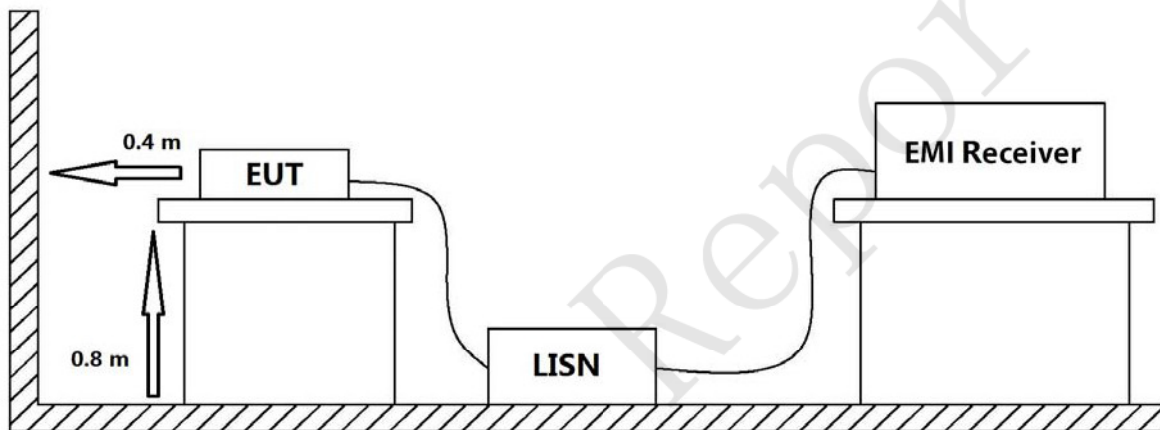
Draft Report

4.1. Mains Terminals Disturbance Voltage

4.1.1 Test procedure

1. The EUT was placed on a non-conductive table which was 0.8 m above the ground plane. The rear of
2. the EUT was 0.4 m from the vertical coupling plane and connected to the main power through a line impedance stabilization network (LISN). This set up provided 50 ohm / 50 μ H coupling impedance for the measuring equipment.
3. The conducted emissions were measured between the line phase and ground, and between the neutral phase and ground using an EMI Receiver.
4. The frequency range from 150 kHz to 30 MHz is checked.

4.1.2 Test setup



4.1.3 Measurement limits

If the limit for the measurement with the average detector is met when using a receiver with a quasi-peak detector, the equipment under test shall be deemed to meet both limits and the measurement using the receiver with an average detector need not be carried out

Table 1 – Terminal voltage limits for the frequency range 148,5 kHz to 30 MHz
(see Figures 1 and 2)

HOUSEHOLD APPLIANCES AND EQUIPMENT CAUSING SIMILAR DISTURBANCES
AND REGULATING CONTROLS INCORPORATING SEMICONDUCTOR DEVICES

Frequency range	At mains terminals		At load terminals and additional terminals	
	2	3	4	5
(MHz)	dB (μV) Quasi-peak	dB (μV) Average*	dB (μV) Quasi-peak	dB (μV) Average*
0,15 to 0,50	Decreasing linearly with the logarithm of the frequency from: 66 to 56		80	70
0,50 to 5	56	46	74	64
5 to 30	60	50	74	64

MAINS TERMINALS OF TOOLS

1	6	7	8	9	10	11
Frequency range	Rated motor power not exceeding 700 W		Rated motor power above 700 W and not exceeding 1 000 W		Rated motor power above 1 000 W	
(MHz)	dB (μV) Quasi-peak	dB (μV) Average*	dB (μV) Quasi-peak	dB (μV) Average*	dB (μV) Quasi-peak	dB (μV) Average*
0,15 to 0,35	Decreasing linearly with the logarithm of the frequency from:					
	66 to 59	59 to 49	70 to 63	63 to 53	76 to 69	69 to 59
0,35 to 5	59	49	63	53	69	59
5 to 30	64	54	68	58	74	64

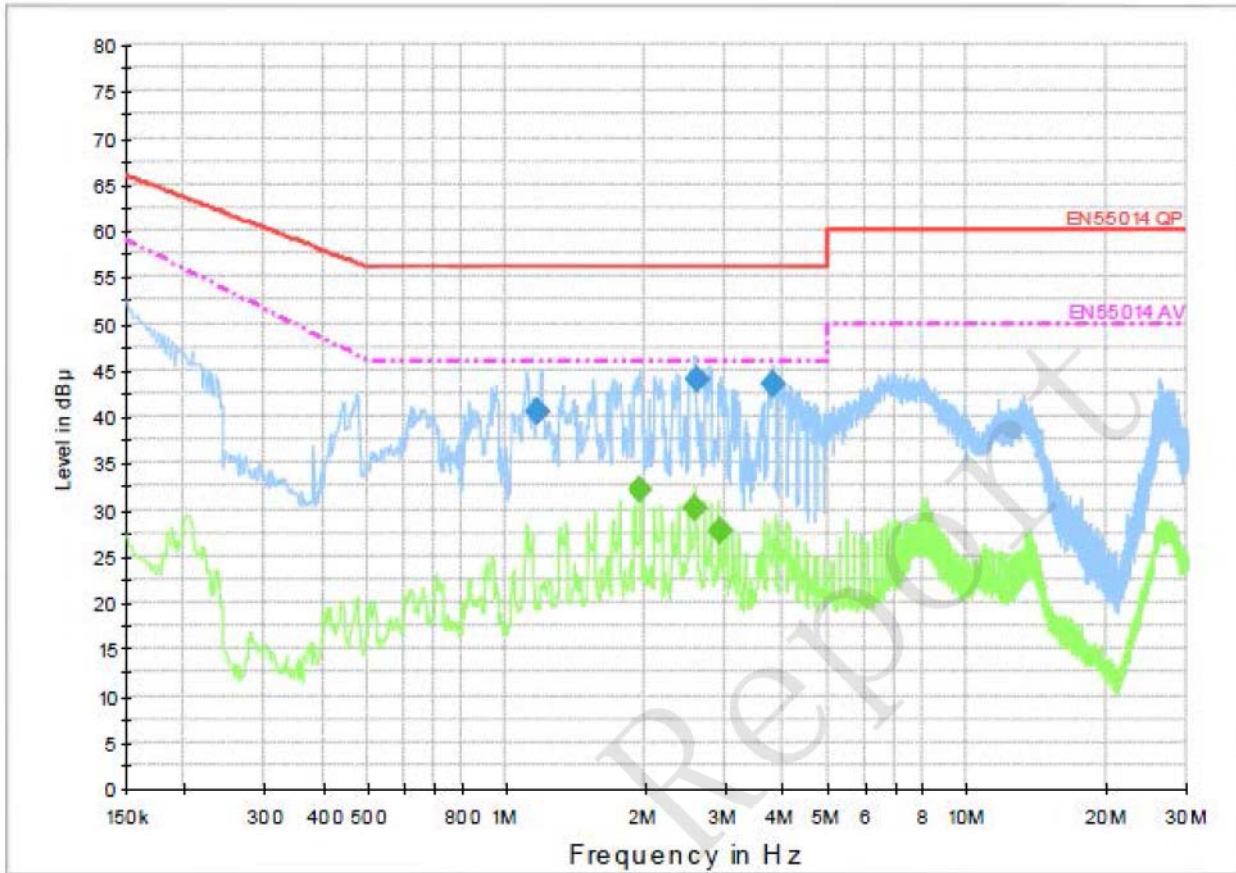
* If the limit for the measurement with the average detector is met when using a receiver with a quasi-peak detector, the equipment under test shall be deemed to meet both limits and the measurement using the receiver with an average detector need not be carried out.

NOTE The limits for the measurement with the average detector are tentative and may be modified after a period of experience.



4.1.4 Test Results

Phase:Line



Final Result 1

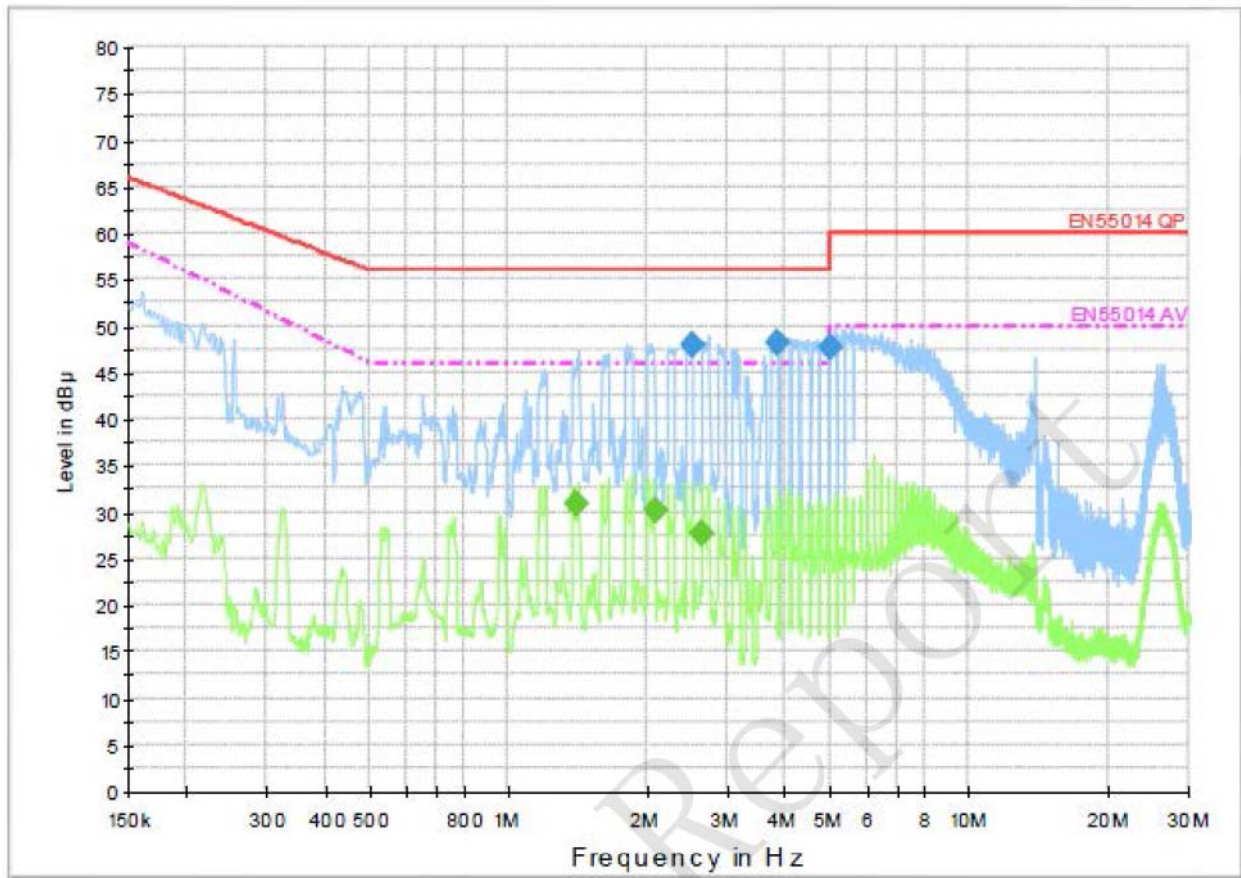
Frequency (MHz)	QuasiPeak (dB μ V)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)	Comment
1.174000	40.4	1000.0	9.000	Off	L1	10.8	15.6	56.0	
2.593000	44.0	1000.0	9.000	Off	L1	10.8	12.0	56.0	
3.825000	43.4	1000.0	9.000	Off	L1	10.8	12.6	56.0	

Final Result 2

Frequency (MHz)	CAverage (dB μ V)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)	Comment
1.954000	32.0	1000.0	9.000	Off	L1	10.9	14.0	46.0	
2.573000	30.2	1000.0	9.000	Off	L1	10.8	15.8	46.0	
2.910000	27.7	1000.0	9.000	Off	L1	10.8	18.3	46.0	



Phase:Neutral



Final Result 1

Frequency (MHz)	QuasiPeak (dB;IV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dB;IV)	Comment
2.510000	48.0	1000.0	9.000	Off	N	10.8	8.0	56.0	
3.841000	48.1	1000.0	9.000	Off	N	10.8	7.9	56.0	
4.997000	47.7	1000.0	9.000	Off	N	10.8	8.3	56.0	

Final Result 2

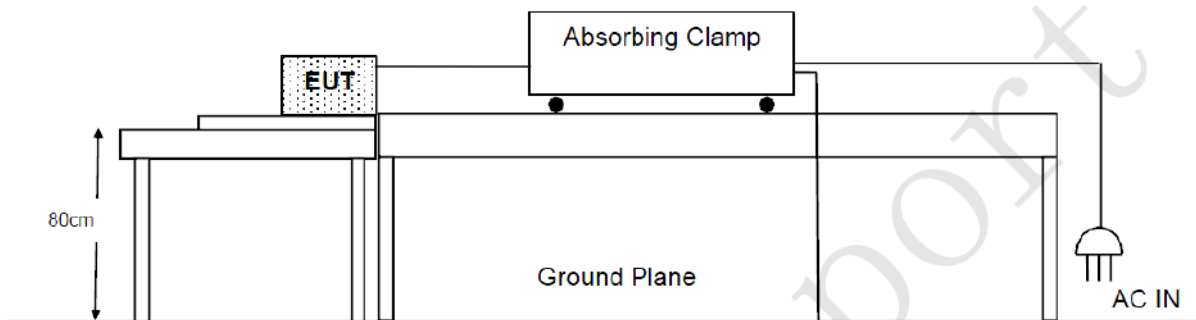
Frequency (MHz)	CAverage (dB;IV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dB;IV)	Comment
1.403000	31.0	1000.0	9.000	Off	N	10.7	15.0	46.0	
2.098000	30.1	1000.0	9.000	Off	N	10.8	15.9	46.0	
2.637000	27.7	1000.0	9.000	Off	N	10.8	18.3	46.0	

4.2 Disturbance Power

4.2.1 Test Procedure

1. The EUT was placed on a non-conductive table which was 0.8 m above the ground plane. The straight portion of main lead would put on 6 m long testing bench, if main lead is shorter than 6 m it should be extended.
2. The absorbing clamp is positioned for maximum indication at each test frequency range from 30 MHz to 300 MHz, that means is clamp moved along the main lead until the maximum emission value is found.
3. The test result of the worst-case condition was recorded.

4.2.2 Test Setup



4.2.3 Measurement limits

Table 2a – Disturbance power limits for the frequency range 30 MHz to 300 MHz

1	Household and similar appliances		Tools					
	2	3	4	5	6	7	8	9
Frequency range			Rated motor power not exceeding 700 W		Rated motor power above 700 W and not exceeding 1 000 W		Rated motor power above 1 000 W	
(MHz)	dB (pW) Quasi-peak	dB (pW) Average ^a	dB (pW) Quasi-peak	dB (pW) Average ^a	dB (pW) Quasi-peak	dB (pW) Average ^a	dB (pW) Quasi-peak	dB (pW) Average ^a
30 to 300	Increasing linearly with the frequency from:							
	45 to 55	35 to 45	45 to 55	35 to 45	49 to 59	39 to 49	55 to 65	45 to 55

^a If the limit for the measurement with the average detector is met when using a receiver with a quasi-peak detector, the equipment under test shall be deemed to meet both limits and the measurement using the receiver with an average detector need not be carried out.

Table 2b – Margin when performing disturbance power measurement in the frequency range 30 MHz to 300 MHz

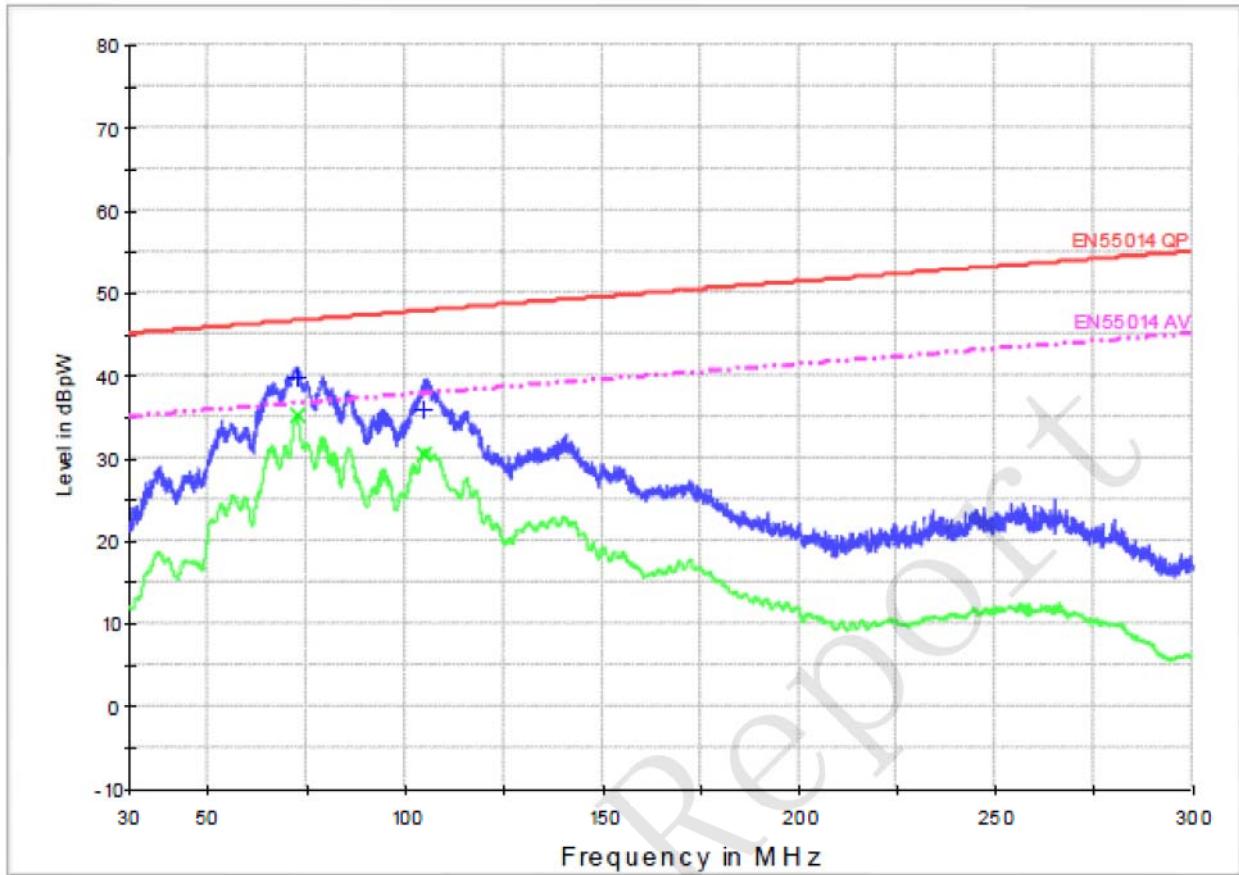
1	Household and similar appliances		Tools					
	2	3	4	5	6	7	8	9
Frequency range			Rated motor power not exceeding 700 W		Rated motor power above 700 W and not exceeding 1 000 W		Rated motor power above 1 000 W	
(MHz)	dB (pW) Quasi-peak	dB (pW) Average	dB (pW) Quasi-peak	dB (pW) Average	dB (pW) Quasi-peak	dB (pW) Average	dB (pW) Quasi-peak	dB (pW) Average
	Increasing linearly with the frequency from:							
200 to 300	0 to 10 dB	-	0 to 10 dB	-	0 to 10 dB	-	0 to 10 dB	-

NOTE 1 This table only applies if specified in 4.1.2.3.2.

NOTE 2 The measured result at a particular frequency shall be less than the relevant limit minus the corresponding margin (at that frequency).



4.2.4 Test Result



Limit and Margin-AV

Frequency (MHz)	QuasiPeak (dBpW)	Average (dBpW)	Meas. Time (ms)	Bandwidth (kHz)	Slide bar position (cm)	Corr. (dB)	Margin - AVG (dB)	Limit - AVG (dBpW)	Comment
72.420000	39.6	35.3	1000.0	120.000	0.00	7.5	1.2	36.6	
104.760000	35.8	30.7	1000.0	120.000	0.00	6.5	7.1	37.8	

Limit and Margin-QP

Frequency (MHz)	QuasiPeak (dBpW)	Average (dBpW)	Meas. Time (ms)	Bandwidth (kHz)	Slide bar position (cm)	Corr. (dB)	Margin - QPK (dB)	Limit - QPK (dBpW)	Comment
72.420000	39.6	35.3	1000.0	120.000	0.00	7.5	7.0	46.6	
104.760000	35.8	30.7	1000.0	120.000	0.00	6.5	12.0	47.8	



5. Test Equipment List

Equipment Name	Manufacturer	Model No.	Cal. Date
EMI Test Receiver	ROHDE & SCHWARZ	ESCI	2016-01-05
EMI Test Receiver	ROHDE & SCHWARZ	ESU8	2016-01-05
LISN	ROHDE & SCHWARZ	ESH3-z5	2016-01-05
LISN	ROHDE & SCHWARZ	ESH3-z6	2016-01-05
LISN	ROHDE & SCHWARZ	ENV26	2016-01-05
Pulse Limiter	ROHDE & SCHWARZ	ESH3-z2	2016-01-05
Voltage Probe	Schwarzbeck	TK9146	2016-01-05
Broadband Test Antenna	Schwarzbeck	VULB9163	2016-01-05
Horn Antenna	ROHDE & SCHWARZ	HF906	2016-01-05
Bilog Antenna	Schwarzbeck	VULB9163	2016-01-05
Compliance Test System	CI	5001ix	2016-01-05
EMC Test System	KeyTek	ECAT	2016-01-05
ESD Generator	Teseq	NSG437	2016-01-05
Signal Generator	ROHDE & SCHWARZ	SML02	2016-01-05
Power Amplifier	Amplifier Research	150W1000	2016-01-05
Power Amplifier	Amplifier Research	75A250M	2016-01-05
Field Monitor	Amplifier Research	FM5004	2016-01-05
Shield Room	Nanbo Tech	Site 1	2016-01-05
Anechoic Chamber	Albatross	SAC-3	2016-01-05
Anechoic Chamber	Albatross	H-249	2016-01-05
CDN	EM Test	M2/M3	2016-01-05
Ultra compact Simulator	EM Test	UCS500N5	2016-01-05
Capacitive Clamp	EM Test	HFK	2016-01-05
EM Injection Clamp	FCC	F-203I	2016-01-05
Absorbing Clamp	ROHDE & SCHWARZ	MDS21	2016-01-05
Magnetic Field Tester	HAEFELY	MAG100	2016-01-05
Power Source	iDRC	CIF-3000A	2016-01-05



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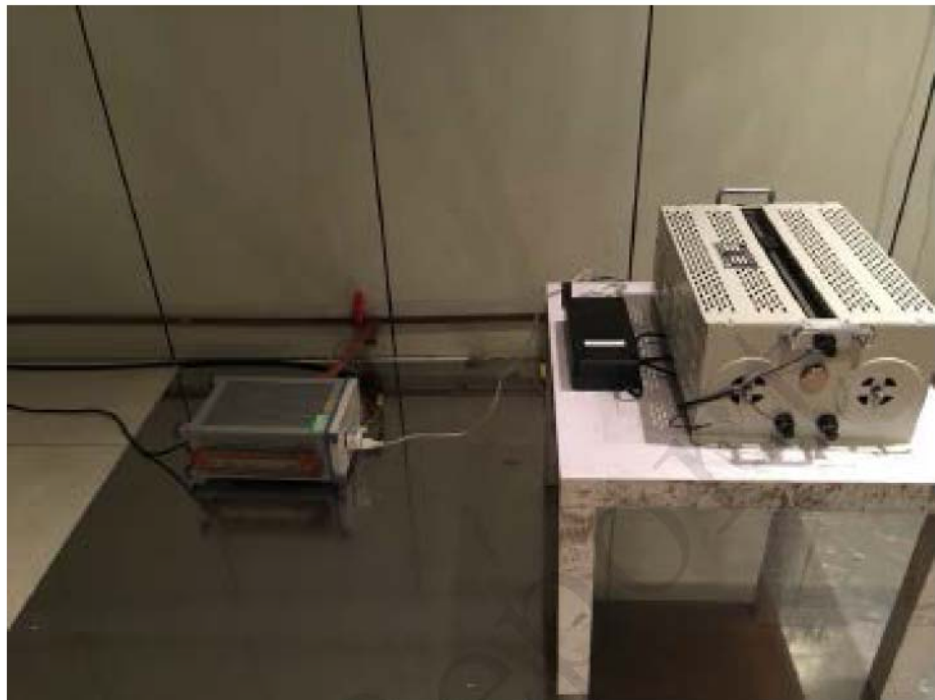
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6. Photographs of The Test Setup

No.1

Test No.4.1

Test No.4.2



No.2

Test No.4.1

Test No.4.2



7. Photographs of EUT

No.1

<ul style="list-style-type: none"><input checked="" type="checkbox"/> General<input type="checkbox"/> Appearance<input type="checkbox"/> Label<input type="checkbox"/> Internal<input type="checkbox"/> PCB board<input type="checkbox"/> Transformer<input type="checkbox"/> Motor<input type="checkbox"/> Other:	
---	---

No.2

<ul style="list-style-type: none"><input type="checkbox"/> General<input checked="" type="checkbox"/> Appearance<input type="checkbox"/> Label<input type="checkbox"/> Internal<input type="checkbox"/> PCB board<input type="checkbox"/> Transformer<input type="checkbox"/> Motor<input type="checkbox"/> Other:	
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No.3

<ul style="list-style-type: none"><input type="checkbox"/> General<input checked="" type="checkbox"/> Appearance<input type="checkbox"/> Label<input type="checkbox"/> Internal<input type="checkbox"/> PCB board<input type="checkbox"/> Transformer<input type="checkbox"/> Motor<input type="checkbox"/> Other:	
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No.4

<ul style="list-style-type: none"><input type="checkbox"/> General<input checked="" type="checkbox"/> Appearance<input type="checkbox"/> Label<input type="checkbox"/> Internal<input type="checkbox"/> PCB board<input type="checkbox"/> Transformer<input type="checkbox"/> Motor<input type="checkbox"/> Other:	
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No.5

- General
- Appearance
- Label
- Internal
- PCB board
- Transformer
- Motor
- Other:



No.6

- General
- Appearance
- Label
- Internal
- PCB board
- Transformer
- Motor
- Other:



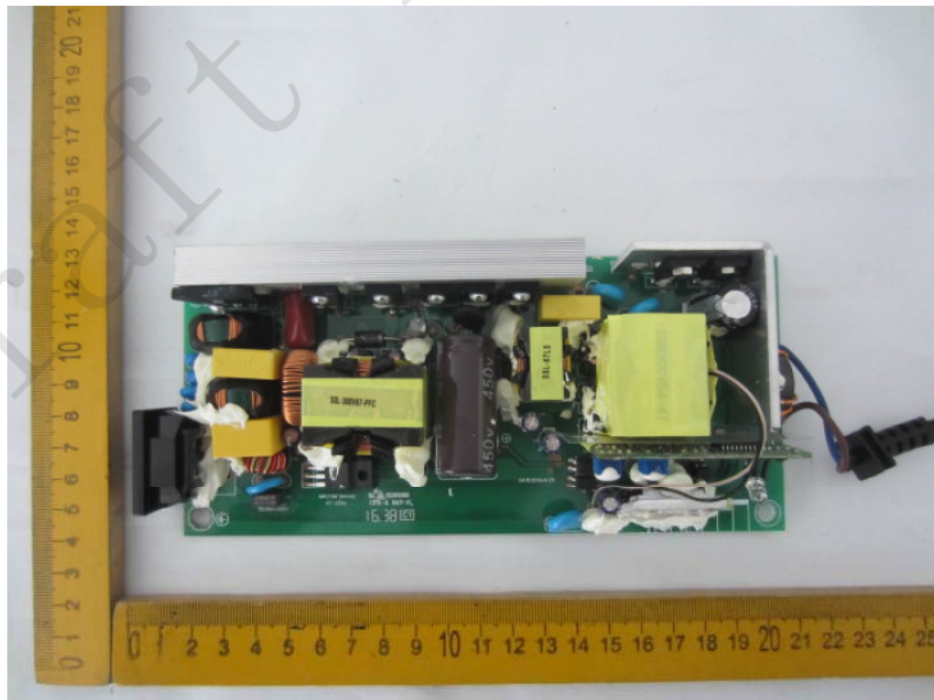
No.7

- General
- Appearance
- Label
- Internal
- PCB board
- Transformer
- Motor
- Other:



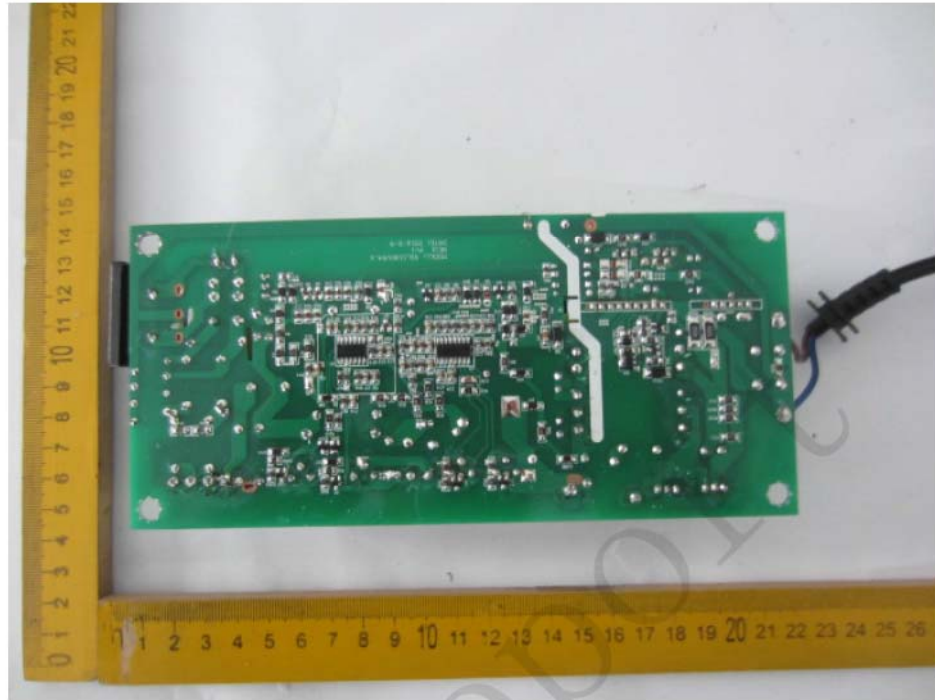
No.8

- General
- Appearance
- Label
- Internal
- PCB board
- Transformer
- Motor
- Other:





- General
- Appearance
- Label
- Internal
- PCB board
- Transformer
- Motor
- Other:



.....End of Report.....