TEST REPORT

(Supplier's Declaration of conformity)
Under
FCC Part15, Subpart B

Report Reference No. ..... :	4788603417
Test Engineer (name + signature) .... :	Jack Xie 
Reviewed by (name + signature) ..... :	Shawn Wen 
Approved by (name + signature) ..... :	Stephen Guo 
Date of issue ..... :	January 3, 2019
Testing Laboratory ..... :	Dong Guan Anci Electronic Technology Co., Ltd
Address ..... :	1-2 Floor, Building A, No.11, Headquarters 2 Road, Songshan Lake Hi-tech Industrial Development Zone, Dongguan City, Guangdong Pr., China.
Applicant's name ..... :	Xinsu Global Electronic Co., Limited
Address ..... :	Unit 2508A, 25/F, Bank Of America Tower, 12 Harcourt Road Central, HONG KONG
Manufacturer ..... :	Xinsu Global Electronic Co., Limited
Address ..... :	Unit 2508A, 25/F, Bank Of America Tower, 12 Harcourt Road Central, HONG KONG
Test specification:	
EUT description ..... :	SWITCHING POWER SUPPLY/CHARGER
Trade Mark ..... :	Xinsu Global
Model/Type reference ..... :	XSGxxxyyyy L1, XSGxxxyyyyUS L1, XSExxxyyyy L1, XSExxxyyyyUS L1, XSECxxxyyyy L1, XSECxxxyyyyUS L1, (xxx and yyyy are variables, see model list for details)
Ratings ..... :	Input: 100-240VAC, 50/60Hz, 1.3A Max Output: 3.0-48.0Vdc, 0.1-5.0A, 40W Max

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1 GENERAL INFORMATION

1.1 CERTIFICATE

Testing Laboratory .....:	Dong Guan Anci Electronic Technology Co., Ltd.
Address.....:	1-2 Floor, Building A, No.11, Headquarters 2 Road, Songshan Lake Hi-tech Industrial Development Zone, Dongguan City, Guangdong Pr., China.
Applicant's name .....:	Xinsu Global Electronic Co., Limited
Address.....:	Unit 2508A, 25/F, Bank Of America Tower, 12 Harcourt Road Central, HONG KONG
Manufacturer.....:	Xinsu Global Electronic Co., Limited
Address……..:	Unit 2508A, 25/F, Bank Of America Tower, 12 Harcourt Road Central, HONG KONG
Factory……...:	Xinsu Global Electronic Co., Limited
Address……..:	3rd Floor, No. 1 Building A, Shenhuaye Bao'an Industrial Park, Xixiang Western Development Zone, Bao'an District, 518128 Shenzhen, PEOPLE'S REPUBLIC OF CHINA
Test specification:	
EUT description .....:	SWITCHING POWER SUPPLY/CHARGER
Trade Mark.....:	Xinsu Global
Model/Type reference .....:	XSGxxxyyyy L1, XSGxxxyyyyUS L1, XSExxxyyyy L1, XSExxxyyyyUS L1, XSECxxxyyyy L1, XSECxxxyyyyUS L1, (xxx and yyyy are variables, see model list for details)
Test Sample .....:	XSG0505000US L1, XSG1263000US L1, XSG2002000US L1, XSEC4800830 L1
Ratings.....:	Input: 100-240VAC, 50/60Hz, 1.3A Max Output: 3.0-48.0Vdc, 0.1-5.0A, 40W Max
Standards .....:	FCC Part15, Subpart B ANSI C63.4-2014

The device described above was tested by Dong Guan Anci Electronic Technology Co., Ltd. to determine the maximum emission levels emanated from the device and severity levels of the device endure and its performance criterion. The measurement results are contained in this test report and Dong Guan Anci Electronic Technology Co., Ltd. assumes full responsibility for the accuracy and completeness of these measurements. This report shows the EUT is technically compliance with the above official standards.

This report applies to the above sample only and shall not be reproduced in part without written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.

1.2 GENERAL PRODUCT INFORMATION

These SWITCHING POWER SUPPLY/CHARGER are direct plug-in or desktop equipment, class II construction, designed to supply power for information technology equipment, and for indoor used only.

Model Description:

1. All models in series are identical to each other except for the model name, output rating, plug type, secondary windings of transformer and some secondary components.
2. XSGxxxyyyyUS L1: Direct plug-in type with fixed plug, enclosure dimension: approximate 91.8mm x44.9mm x 33mm (Length x Width x Height);
3. XSGxxxyyyy L1, XSExxxyyyy L1: Direct plug-in type with detachable plug, enclosure dimension: approximate 91.8mm x 44.9mm x 33mm (Length x Width x Height);
4. XSECxxxyyyy L1, XSECxxxyyyyUS L1, XSExxxyyyyUS L1: Desk-top type, enclosure dimension: 99mm x 44mm x 31mm (Length x Width x Height).
5. The models XSGxxxyyyyUS L1 are identical to the models XSExxxyyyy L1, XSGxxxyyyy L1 except the plug portion.
6. All models in XSECxxxyyyyUS L1 series are identical to each other except for the model name, output rating, plug type, secondary windings of transformer and some secondary components.
7. The models XSExxxyyyyUS L1 are identical to the models XSECxxxyyyyUS L1 except the model name.
8. All models in XSECxxxyyyy L1 series are identical to each other except for the model name, output rating, secondary windings of transformer and some secondary components.
9. The models XSExxxyyyyUS L1, XSECxxxyyyyUS L1 are identical to the models XSECxxxyyyy L1 except the supply connecting.
10. Model list 1:

Model No.	Enclosure construction	Enclosure dimension (Length x Width x Height)	Supply connecting
XSGxxxyyyyUS L1	Direct plug-in type	91.8mm x44.9mm x 33mm	Fixed plug portion
XSGxxxyyyy L1, XSExxxyyyy L1	Direct plug-in type	91.8mm x44.9mm x 33mm	Detachable plug portion
XSECxxxyyyy L1	Desk-top type	99mm x 44mm x 31mm	Appliance inlet
XSECxxxyyyyUS L1, XSExxxyyyyUS L1	Desk-top type	99mm x 44mm x 31mm	Non-detachable power cord

11. Model list 2:

Model No.	Rated output voltage (VDC)	Rated output current (mA)	Maximum rated output power (W)	Transformer
XSGxxxyyyyUS L1, XSGxxxyyyy L1, XSExxxyyyy L1, XSECxxxyyyy L1, XSECxxxyyyyUS L1, XSExxxyyyyUS L1	3.0-7.9	100-5000	25.0	TR-036B-05A, TR-036B-05A XDH-E20-6672, TR-036B-05A PQ-20
	8.0-9.0	100-4000	36.0	TR-036B-12A, TR-036B-12A XDH-E20-6672, TR-036B-12A PQ-20
	9.1-12.6	100-3000	37.8	
	12.7-17.0	100-2500	39.6	
	17.1-30.0	100-2000	40.0	TR-036B-24A, TR-036B-24A XDH-E20-6672, TR-036B-24A PQ-20
	30.1-48.0	100-1320	40.0	TR-036B-36A, TR-036B-36A XDH-E20-6672, TR-036B-36A PQ-20
Remark: xxx=030-480 which stands for the rated output voltage 3.0VDC-48.0VDC, in step of 0.1V; yyyy=0100-5000 which stands for the rated output current 0.10A-5.00A, in step of 0.01A;				

12. There are two schematic and PCB layout versions for the SWITCHING POWER SUPPLY / CHARGER, only the traces of L/N before F1 and F1 two terminals, secondary circuit and layout are different.
- For models with rated output voltage 3.0-7.9VDC: Schematics and PCB layout version A;
- For models with rated output voltage 8.0-48.0VDC: Schematics and PCB layout version B.

Due to the similarities between models, the following models were selected for emission and immunity testing in order to represent the whole series and passed.

XSEC4800830 L1 (Output rating: 48.0VDC, 0.83A), maximum output voltage;
XSG2002000US L1, (Output rating: 20VDC, 2.00A), maximum output power;
XSG1263000US L1, (Output rating: 12.6VDC, 3.0A);
XSG0505000US L1, (Output rating: 5.0VDC, 5.00A), maximum output current;

Test data showing the worst mode in the report.
The EUT passed the test.

1.3. NORMATIVE REFERENCES

[1] ANSI C63.4:2014 American National Standard for Methods of Measuring of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz.

[2] FCC 47 CFR Part 2 General Rules and Regulations

[3] FCC 47 CFR Part 15 Radio Frequency Devices (Subpart B)

2. SUMMARY OF TEST RESULTS

Test procedures according to the technical standards:

Emission				
Standard	Test Item	Limit	Judgment	Remark
FCC Part15, Subpart B ANSI C63.4-2014	Conducted Emission	Class B	PASS	
	Radiated Emission Below 1 GHz	Class B	PASS	
	Radiated Emission Above 1 GHz	Class B	N/A	NOTE (1) NOTE (2)

NOTE:

(1) "N/A" denotes test is not applicable in this Test Report

(2) If the highest frequency of the internal sources of the EUT is less than 108 MHz, the measurement shall only be made up to 1 GHz. If the highest frequency of the internal sources of the EUT is between 108 MHz and 500 MHz, the measurement shall only be made up to 2GHz. If the highest frequency of the internal sources of the EUT is between 500 MHz and 1GHz, measurement shall only be made up to 5 GHz. If the highest frequency of the internal sources of the EUT is above 1 GHz, the measurement shall be made up to 5 times the highest frequency or 40 GHz, whichever is less.

2.1 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement **y** ± **U**, where expended uncertainty **U** is based on a standard uncertainty multiplied by a coverage factor of **k=2**, providing a level of confidence of approximately **95** %.

A. Conducted disturbance at mains terminals ports:

Test Site	Method	Measurement Frequency Range	U · (dB)	NOTE
C01	ANSI	150 KHz ~ 30MHz	3.19	

B. Radiated Emission Test :

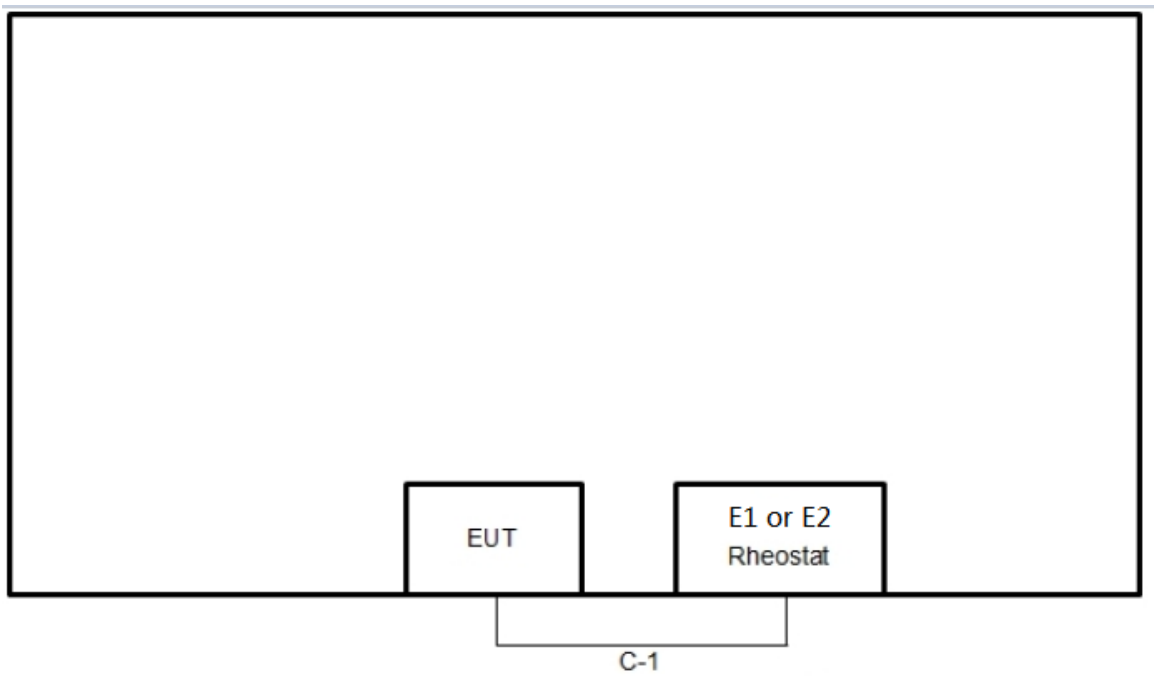
Test ite	Method	Measurement Frequency Range	Ant. H / V	U · (dB)	NOTE
S02	ANSI	30MHz ~ 200MHz	V	3.69	
S02	ANSI	30MHz ~ 200MHz	H	3.69	
S02	ANSI	200MHz ~ 1,000MHz	V	5.02	
S02	ANSI	200MHz ~ 1,000MHz	H	5.02	

2.2 DESCRIPTION OF TEST MODES

For Conducted Emission Test	
Test Mode	Description
Mode 1	Full Load

For Radiated Emission Test	
Test Mode	Description
Mode 1	Full Load

2.3 BLOCK DIGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED



The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Item	Equipment	Mfr/Brand	Model/Type No.	Specification	Series No.
E-1	Rheostat	N/A	BX7-12	8Ω 5A	N/A
E-2	Rheostat	N/A	BX7-11	200Ω 2A	N/A

Item	Type of cable	Shielded Type	Ferrite Core	Length
C-1	DC Cable	N/A	NO	＜2.0m

3. CONDUCTED EMISSION TEST

3.1 CONDUCTED EMISSION MEASUREMENT

3.1.1 LIMITS OF CONDUCTED EMISSION (MAINS PORT) (Frequency Range 150KHz-30MHz)

FREQUENCY (MHz)	Class A (dBuV)		Class B (dBuV)	
	Quasi-peak	Average	Quasi-peak	Average
0.15 -0.5	79.00	66.00	66 - 56 *	56 - 46 *
0.50 -5.0	73.00	60.00	56.00	46.00
5.0 -30.0	73.00	60.00	60.00	50.00

Note:

(1) The tighter limit applies at the band edges.

(2) The limit of " * " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

(3) The test result calculated as following:

Measurement Value = Reading Level + Correct Factor

Correct Factor = Insertion Loss + Cable Loss + Attenuator Factor (if use)

Margin Level = Measurement Value - Limit Value

The following table is the setting of the receiver

Receiver Parameters	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz

3.1.2 MEASUREMENT INSTRUMENTS LIST

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	EMI Test Receiver	ROHDE&SCHWARZ	ESPI	101144	2019-01-07
2	LISN	ROHDE&SCHWARZ	ENV216	101413	2019-01-07
3	Test Cable	N/A	N/A	5#	2019-05-23

Remark: ” N/A” denotes No Model No. , Serial No. or No Calibration specified.

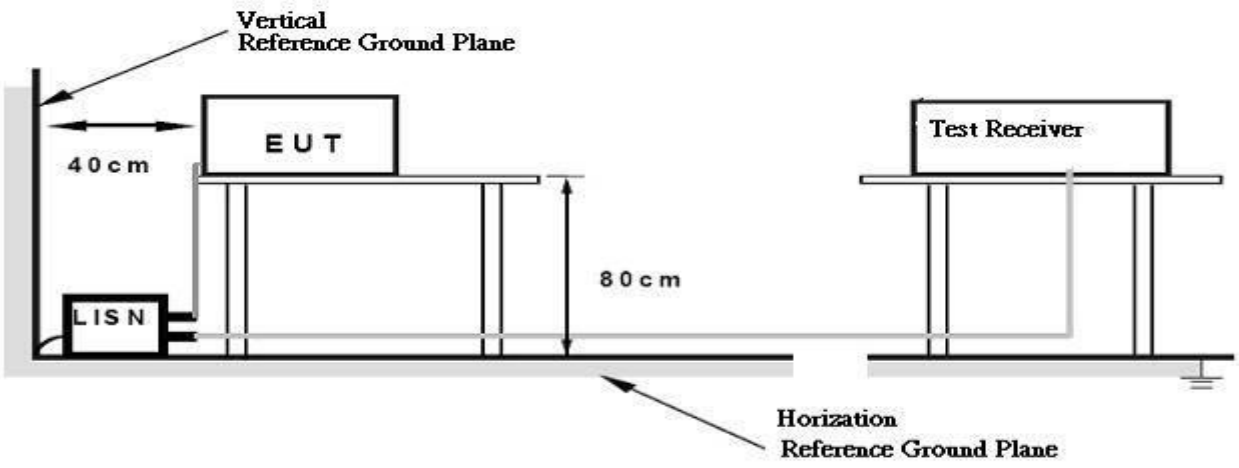
3.1.3 TEST PROCEDURE

a. The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipment powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
b. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
c. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
d. LISN at least 80 cm from nearest part of EUT chassis.
e. For the actual test configuration, please refer to the related Item: EUT Test Photos.

3.1.4 DEVIATION FROM TEST STANDARD

No deviation

3.1.5 TEST SETUP



3.1.6 EUT OPERATING CONDITIONS

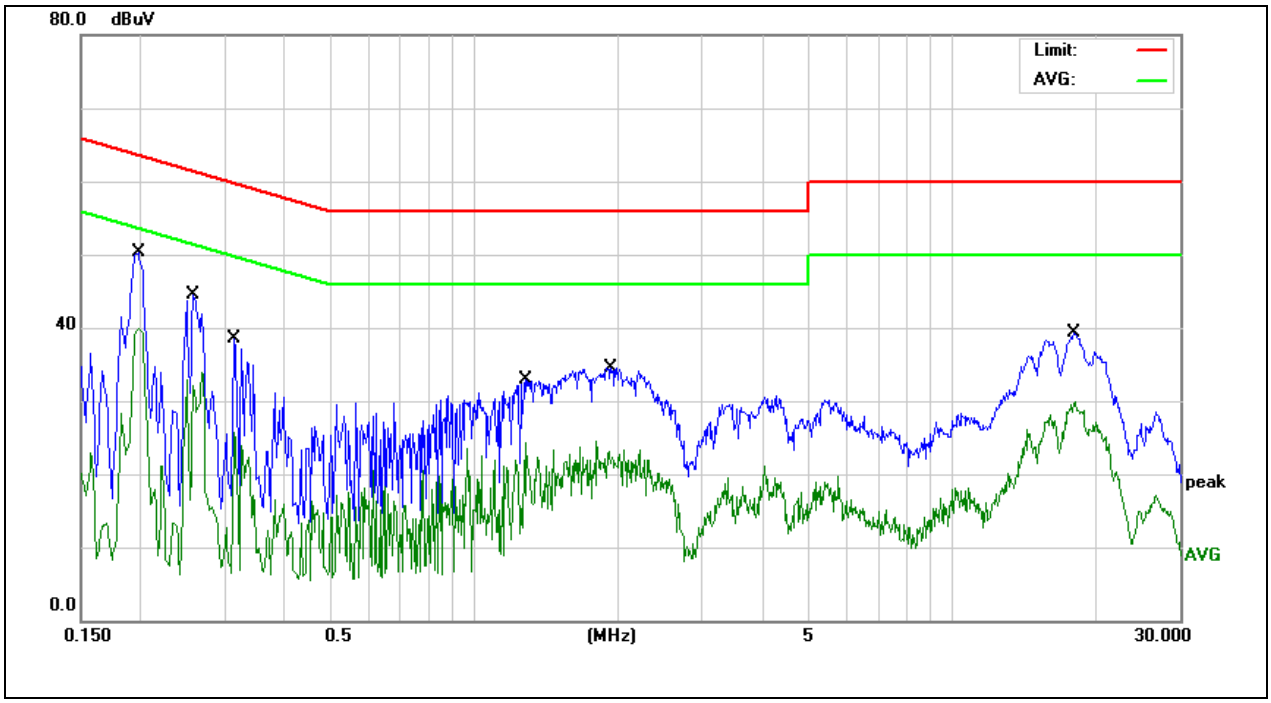
The EUT exercise program used during radiated and/or conducted emission measurement was designed to exercise the various system components in a manner similar to a typical use.

3.1.7 TEST RESULTS

EUT：	SWITCHING POWER SUPPLY/CHARGER	**Model No. ：**	XSG0505000US L1, XSG1263000US L1, XSG2002000US L1, XSEC4800830 L1
Temperature：	21℃	**Relative Humidity：**	55 %
Pressure：	1008 hPa	**Test Power ：**	AC 120V/60Hz
Test Mode ：	Full Load		

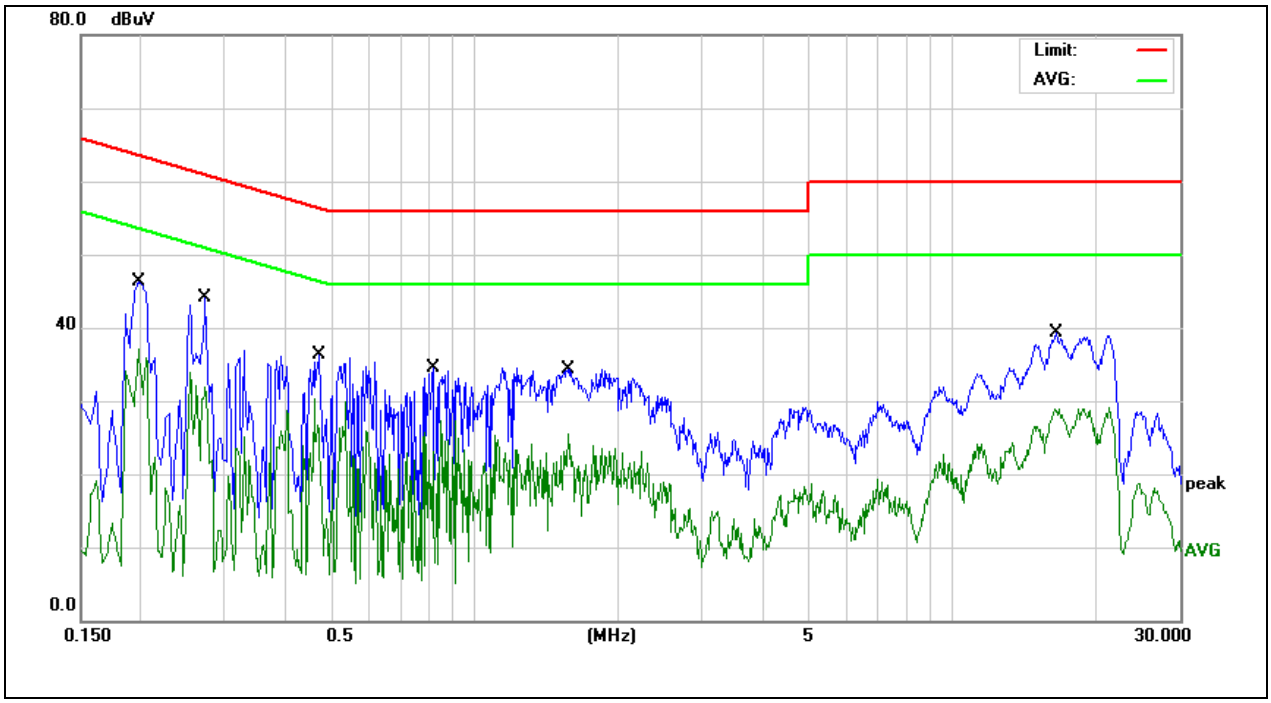
Remark

(1) Reading in which marked as QP means measurements by using Quasi-Peak Detector, and AV means measurements by using Average Detector.
(2) All readings are QP Mode value unless otherwise stated AVG in column of『Note』. If the QP Mode Measured value compliance with the QP Limits and lower than AVG Limits, the EUT shall be deemed to meet both QP & AVG Limits and then only QP Mode was measured, but AVG Mode didn't perform. In this case, a " * " marked in AVG Mode column of Interference Voltage Measured.
(3) Measuring frequency range from 150KHz to 30MHz.
(4) This test was carried out in conducted emission shielded room.



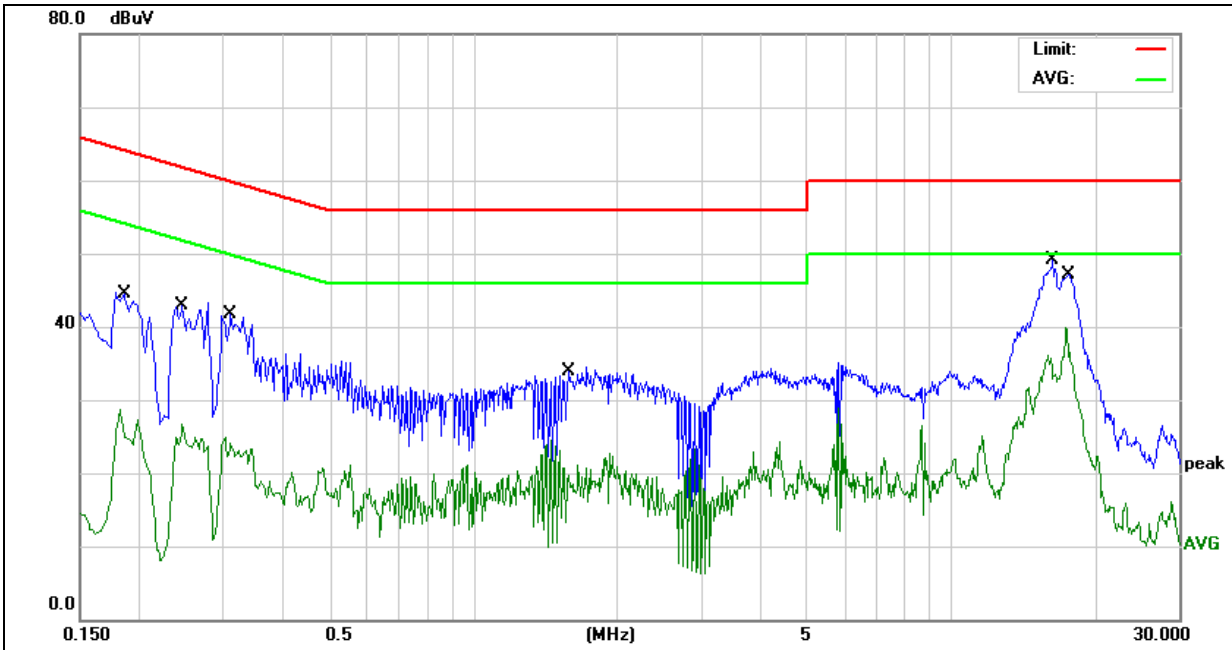
Site:	**843**	**Phase:N**	**Temperature(C):21(C)**
Limit:	**FCC Part 15 Class B Conduction(QP)**		**Humidity(%):55%**
EUT:	**SWITCHING POWER SUPPLY/CHARGER**	**Test Time:**	**2018-09-18**
M/N.:	**XSG0505000US L1**	**Power Rating:**	**AC 120V/60Hz**
Mode:	**Full Load**	**Test Engineer:**	**Jack**
Note:			

No.	Frequency (MHz)	Reading Level(dBuV)	Factor (dB)	Measure-ment(dBuV)	Limit (dBuV)	Over (dB)	Detector	Comment
1 *	0.1980	35.67	10.50	46.17	63.69	-17.52	QP	
2	0.1980	25.42	10.50	35.92	53.69	-17.77	AVG	
3	0.2580	29.27	10.49	39.76	61.49	-21.73	QP	
4	0.2580	17.13	10.49	27.62	51.49	-23.87	AVG	
5	0.3140	22.53	10.47	33.00	59.86	-26.86	QP	
6	0.3140	6.10	10.47	16.57	49.86	-33.29	AVG	
7	1.2820	19.96	10.45	30.41	56.00	-25.59	QP	
8	1.2820	8.14	10.45	18.59	46.00	-27.41	AVG	
9	1.9380	21.18	10.44	31.62	56.00	-24.38	QP	
10	1.9380	9.03	10.44	19.47	46.00	-26.53	AVG	
11	17.9740	24.70	10.65	35.35	60.00	-24.65	QP	
12	17.9740	16.78	10.65	27.43	50.00	-22.57	AVG	



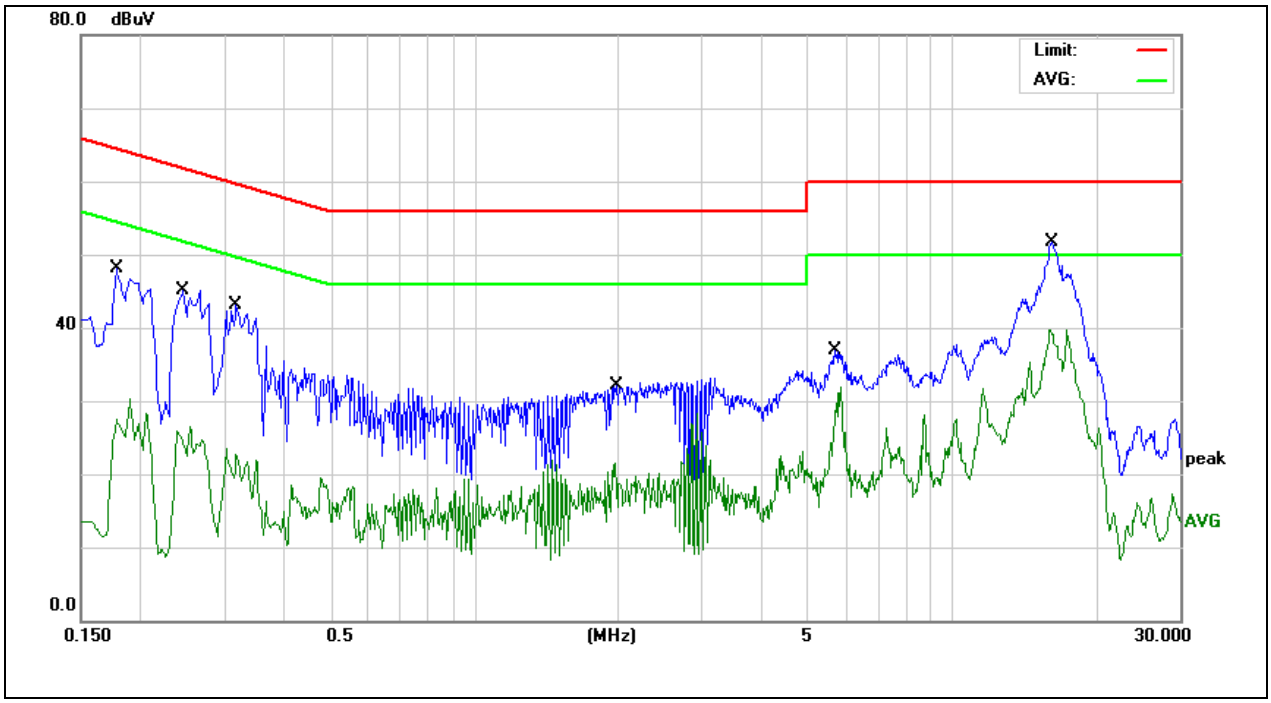
Site:	**843**	**Phase:L1**	**Temperature(C):21(C)**
Limit:	**FCC Part 15 Class B Conduction(QP)**		**Humidity(%):55%**
EUT:	**SWITCHING POWER SUPPLY/CHARGER**	**Test Time:**	**2018-09-18**
M/N.:	**XSG0505000US L1**	**Power Rating:**	**AC 120V/60Hz**
Mode:	**Full Load**	**Test Engineer:**	**Jack**
Note:			

No.	Frequency (MHz)	Reading Level(dBuV)	Factor (dB)	Measure-ment(dBuV)	Limit (dBuV)	Over (dB)	Detector	Comment
1 *	0.1980	34.10	10.50	44.60	63.69	-19.09	QP	
2	0.1980	24.03	10.50	34.53	53.69	-19.16	AVG	
3	0.2740	26.65	10.49	37.14	60.99	-23.85	QP	
4	0.2740	13.72	10.49	24.21	50.99	-26.78	AVG	
5	0.4740	23.80	10.46	34.26	56.44	-22.18	QP	
6	0.4740	14.58	10.46	25.04	46.44	-21.40	AVG	
7	0.8180	20.23	10.45	30.68	56.00	-25.32	QP	
8	0.8180	7.19	10.45	17.64	46.00	-28.36	AVG	
9	1.5740	21.19	10.44	31.63	56.00	-24.37	QP	
10	1.5740	8.62	10.44	19.06	46.00	-26.94	AVG	
11	16.4860	23.92	10.69	34.61	60.00	-25.39	QP	
12	16.4860	16.02	10.69	26.71	50.00	-23.29	AVG	



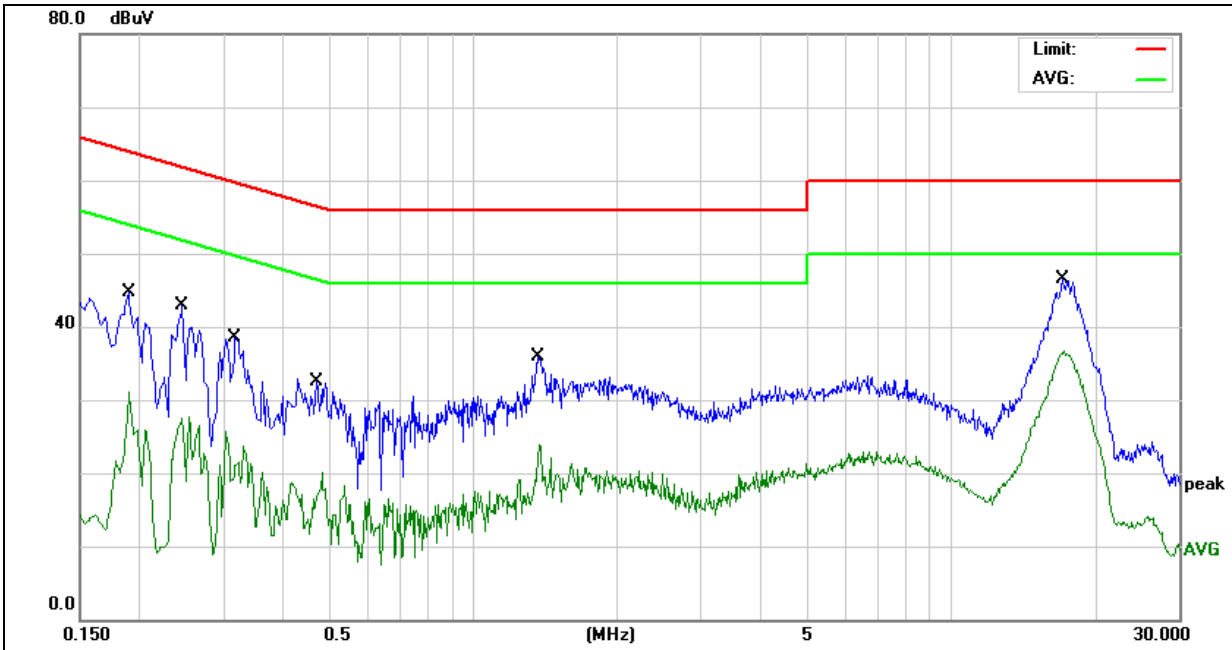
Site:	**843**	**Phase:N**	**Temperature(C):21(C)**
Limit:	**FCC Part 15 Class B Conduction(QP)**		**Humidity(%):55%**
EUT:	**SWITCHING POWER SUPPLY/CHARGER**	**Test Time:**	**2018-09-18**
M/N.:	**XSG1263000US L1**	**Power Rating:**	**AC 120V/60Hz**
Mode:	**Full Load**	**Test Engineer:**	**Jack**
Note:			

No.	Frequency (MHz)	Reading Level(dBuV)	Factor (dB)	Measure-ment(dBuV)	Limit (dBuV)	Over (dB)	Detector	Comment
1	0.1860	28.27	10.51	38.78	64.21	-25.43	QP	
2	0.1860	14.16	10.51	24.67	54.21	-29.54	AVG	
3	0.2460	26.52	10.49	37.01	61.89	-24.88	QP	
4	0.2460	13.33	10.49	23.82	51.89	-28.07	AVG	
5	0.3100	25.59	10.47	36.06	59.97	-23.91	QP	
6	0.3100	12.46	10.47	22.93	49.97	-27.04	AVG	
7	1.5859	19.84	10.44	30.28	56.00	-25.72	QP	
8	1.5859	8.89	10.44	19.33	46.00	-26.67	AVG	
9 *	16.3220	31.70	10.69	42.39	60.00	-17.61	QP	
10	16.3220	20.39	10.69	31.08	50.00	-18.92	AVG	
11	17.6299	31.56	10.66	42.22	60.00	-17.78	QP	
12	17.6299	21.34	10.66	32.00	50.00	-18.00	AVG	



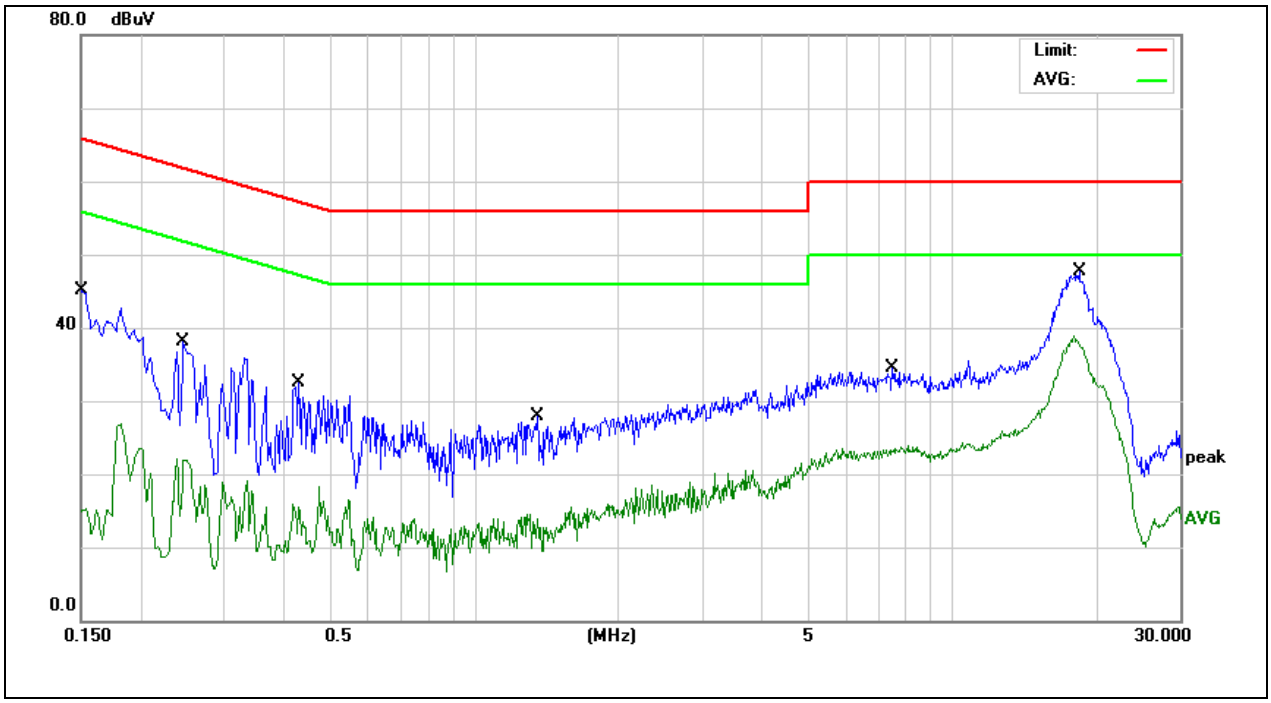
Site:	**843**	**Phase:L1**	**Temperature(C):21(C)**
Limit:	**FCC Part 15 Class B Conduction(QP)**		**Humidity(%):55%**
EUT:	**SWITCHING POWER SUPPLY/CHARGER**	**Test Time:**	**2018-09-18**
M/N.:	**XSG1263000US L1**	**Power Rating:**	**AC 120V/60Hz**
Mode:	**Full Load**	**Test Engineer:**	**Jack**
Note:			

No.	Frequency (MHz)	Reading Level(dBuV)	Factor (dB)	Measure-ment(dBuV)	Limit (dBuV)	Over (dB)	Detector	Comment
1	0.1780	31.84	10.51	42.35	64.57	-22.22	QP	
2	0.1780	12.95	10.51	23.46	54.57	-31.11	AVG	
3	0.2460	28.25	10.49	38.74	61.89	-23.15	QP	
4	0.2460	12.38	10.49	22.87	51.89	-29.02	AVG	
5	0.3180	26.00	10.47	36.47	59.76	-23.29	QP	
6	0.3180	9.03	10.47	19.50	49.76	-30.26	AVG	
7	1.9900	11.01	10.44	21.45	56.00	-34.55	QP	
8	1.9900	1.80	10.44	12.24	46.00	-33.76	AVG	
9	5.7100	10.07	10.29	20.36	60.00	-39.64	QP	
10	5.7100	3.90	10.29	14.19	50.00	-35.81	AVG	
11	16.1740	36.35	10.70	47.05	60.00	-12.95	QP	
12 *	16.1740	26.64	10.70	37.34	50.00	-12.66	AVG	



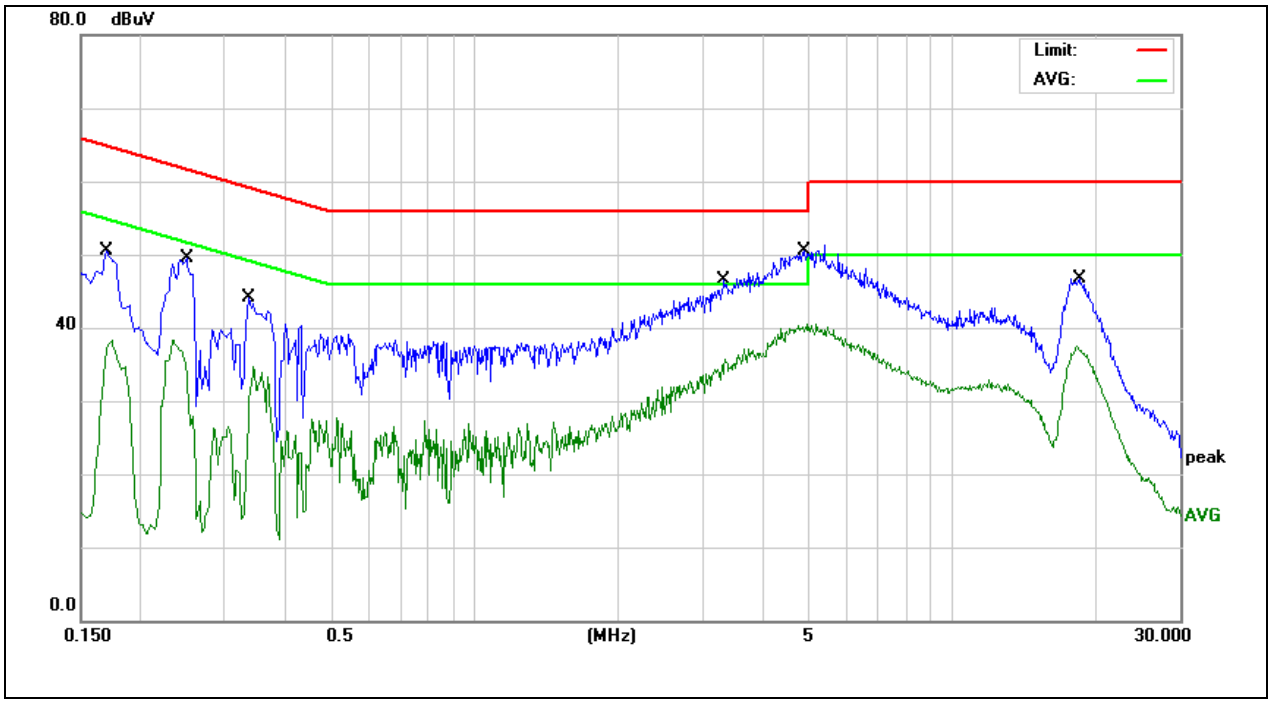
Site:	**843**	**Phase:N**	**Temperature(C):21(C)**
Limit:	**FCC Part 15 Class B Conduction(QP)**		**Humidity(%):55%**
EUT:	**SWITCHING POWER SUPPLY/CHARGER**	**Test Time:**	**2018-09-18**
M/N.:	**XSG2002000US L1**	**Power Rating:**	**AC 120V/60Hz**
Mode:	**Full Load**	**Test Engineer:**	**Jack**
Note:			

No.	Frequency (MHz)	Reading Level(dBuV)	Factor (dB)	Measure-ment(dBuV)	Limit (dBuV)	Over (dB)	Detector	Comment
1	0.1900	26.09	10.51	36.60	64.03	-27.43	QP	
2	0.1900	11.07	10.51	21.58	54.03	-32.45	AVG	
3	0.2460	25.83	10.49	36.32	61.89	-25.57	QP	
4	0.2460	12.79	10.49	23.28	51.89	-28.61	AVG	
5	0.3180	21.53	10.47	32.00	59.76	-27.76	QP	
6	0.3180	6.85	10.47	17.32	49.76	-32.44	AVG	
7	0.4700	16.58	10.46	27.04	56.51	-29.47	QP	
8	0.4700	6.45	10.46	16.91	46.51	-29.60	AVG	
9	1.3660	21.48	10.45	31.93	56.00	-24.07	QP	
10	1.3660	10.75	10.45	21.20	46.00	-24.80	AVG	
11	17.1980	29.96	10.68	40.64	60.00	-19.36	QP	
12 *	17.1980	24.81	10.68	35.49	50.00	-14.51	AVG	



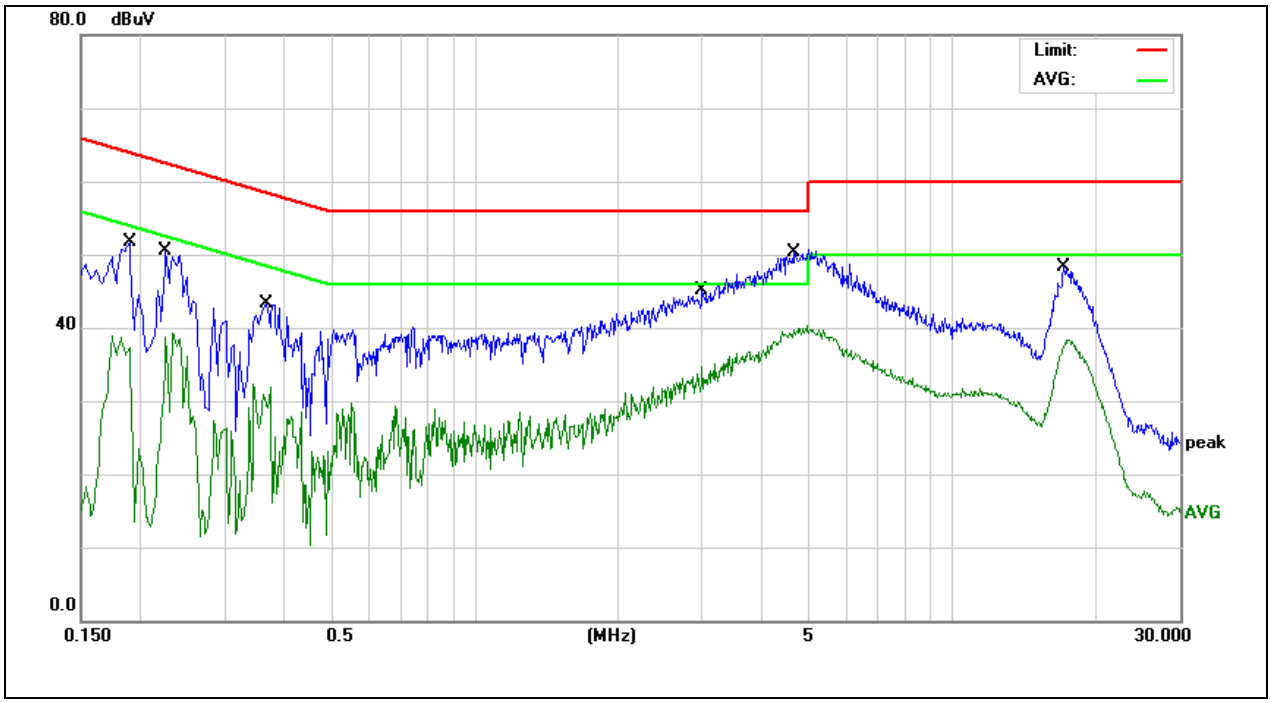
Site:	**843**	**Phase:L1**	**Temperature(C):21(C)**
Limit:	**FCC Part 15 Class B Conduction(QP)**		**Humidity(%):55%**
EUT:	**SWITCHING POWER SUPPLY/CHARGER**	**Test Time:**	**2018-09-18**
M/N.:	**XSG2002000US L1**	**Power Rating:**	**AC 120V/60Hz**
Mode:	**Full Load**	**Test Engineer:**	**Jack**
Note:			

No.	Frequency (MHz)	Reading Level(dBuV)	Factor (dB)	Measure-ment(dBuV)	Limit (dBuV)	Over (dB)	Detector	Comment
1	0.1500	26.09	10.53	36.62	65.99	-29.37	QP	
2	0.1500	2.82	10.53	13.35	55.99	-42.64	AVG	
3	0.2460	21.81	10.49	32.30	61.89	-29.59	QP	
4	0.2460	7.63	10.49	18.12	51.89	-33.77	AVG	
5	0.4300	13.13	10.46	23.59	57.25	-33.66	QP	
6	0.4300	0.88	10.46	11.34	47.25	-35.91	AVG	
7	1.3540	12.71	10.45	23.16	56.00	-32.84	QP	
8	1.3540	2.31	10.45	12.76	46.00	-33.24	AVG	
9	7.4900	17.78	10.28	28.06	60.00	-31.94	QP	
10	7.4900	11.88	10.28	22.16	50.00	-27.84	AVG	
11	18.4740	32.27	10.63	42.90	60.00	-17.10	QP	
12 *	18.4740	27.29	10.63	37.92	50.00	-12.08	AVG	



Site:	**843**	**Phase:N**	**Temperature(C):21(C)**
Limit:	**FCC Part 15 Class B Conduction(QP)**		**Humidity(%):55%**
EUT:	**SWITCHING POWER SUPPLY/CHARGER**	**Test Time:**	**2018-09-18**
M/N.:	**XSEC4800830 L1**	**Power Rating:**	**AC 120V/60Hz**
Mode:	**Full Load**	**Test Engineer:**	**Jack**
Note:			

No.	Frequency (MHz)	Reading Level(dBuV)	Factor (dB)	Measure-ment(dBuV)	Limit (dBuV)	Over (dB)	Detector	Comment
1	0.1700	32.88	10.52	43.40	64.96	-21.56	QP	
2	0.1700	22.59	10.52	33.11	54.96	-21.85	AVG	
3	0.2500	33.79	10.49	44.28	61.75	-17.47	QP	
4	0.2500	20.13	10.49	30.62	51.75	-21.13	AVG	
5	0.3379	30.68	10.47	41.15	59.25	-18.10	QP	
6	0.3379	18.30	10.47	28.77	49.25	-20.48	AVG	
7	3.3420	30.76	10.40	41.16	56.00	-14.84	QP	
8	3.3420	23.18	10.40	33.58	46.00	-12.42	AVG	
9	4.9020	36.04	10.31	46.35	56.00	-9.65	QP	
10 *	4.9020	29.61	10.31	39.92	46.00	-6.08	AVG	
11	18.4420	30.99	10.63	41.62	60.00	-18.38	QP	
12	18.4420	25.82	10.63	36.45	50.00	-13.55	AVG	



Site:	**843**	**Phase:L1**	**Temperature(C):21(C)**
Limit:	**FCC Part 15 Class B Conduction(QP)**		**Humidity(%):55%**
EUT:	**SWITCHING POWER SUPPLY/CHARGER**	**Test Time:**	**2018-09-18**
M/N.:	**XSEC4800830 L1**	**Power Rating:**	**AC 120V/60Hz**
Mode:	**Full Load**	**Test Engineer:**	**Jack**
Note:			

No.	Frequency (MHz)	Reading Level(dBuV)	Factor (dB)	Measure-ment(dBuV)	Limit (dBuV)	Over (dB)	Detector	Comment
1	0.1900	33.65	10.51	44.16	64.03	-19.87	QP	
2	0.1900	18.69	10.51	29.20	54.03	-24.83	AVG	
3	0.2260	35.70	10.49	46.19	62.59	-16.40	QP	
4	0.2260	24.05	10.49	34.54	52.59	-18.05	AVG	
5	0.3660	28.68	10.46	39.14	58.59	-19.45	QP	
6	0.3660	18.41	10.46	28.87	48.59	-19.72	AVG	
7	2.9940	29.61	10.41	40.02	56.00	-15.98	QP	
8	2.9940	21.58	10.41	31.99	46.00	-14.01	AVG	
9	4.6579	34.95	10.32	45.27	56.00	-10.73	QP	
10 *	4.6579	28.38	10.32	38.70	46.00	-7.30	AVG	
11	17.1500	30.43	10.68	41.11	60.00	-18.89	QP	
12	17.1500	24.92	10.68	35.60	50.00	-14.40	AVG	

3.2 RADIATED EMISSION MEASUREMENT

3.2.1 LIMITS OF RADIATED EMISSION MEASUREMENT (Below 1000MHz)

Frequency MHz	Class A (at 10m)		☒Class B (at 3m)	
	(uV/m) Field strength	(dBuV/m) Field strength	(uV/m) Field strength	(dBuV/m) Field strength
30 ~ 88	90	39	100	40
88 ~ 216	150	43.5	150	43.5
216 ~ 960	210	46.4	200	46
960 ~ 1000	300	49.5	500	54

Notes:

(1) The limit for radiated test was performed according to as following: FCC Part15, Subpart B

(2) The tighter limit applies at the band edges.

(3) Emission level (dBuV/m)=20log Emission level (uV/m).

LIMITS OF RADIATED EMISSION MEASUREMENT (Above 1000MHz)

FREQUENCY (GHz)	☐Class A (dBuV/m) (at 3m)		☐Class B (dBuV/m) (at 3m)	
	PEAK	AVERAGE	PEAK	AVERAGE
Above 1000MHz	80	60	74	54

Notes:

(1) The limit for radiated test was performed according to FCC Part15, Subpart B.

(2) The tighter limit applies at the band edges.

(3) Emission level (dBuV/m)=20log Emission level (uV/m).

FREQUENCY RANGE OF RADIATED MEASUREMENT (For unintentional radiators)

Highest frequency generated or Upper frequency of measurement used in the device or on which the device operates or tunes (MHz)	Range (MHz)
Below 1.705	30
1.705 – 108	1000
108 – 500	2000
500 – 1000	5000
Above 1000	5th harmonic of the highest frequency or 40 GHz, whichever is lower

3.2.2 MEASUREMENT INSTRUMENTS LIST

3m Radiated Emission Measurement 30M-1G

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	EMI Test Receiver	Rohde & Schwarz	ESPI	100502	2019-01-07
2	Pre-Amplifier	HP	8447D	2727A06172	2019-01-07
3	Bilog Antenna	Schwarzbeck	VULB9163	VULB9163-588	2019-05-23
4	RF Cable	N/A	N/A	6#	2019-05-23
5	RF Cable	N/A	N/A	1-1#	2019-05-23

3m Radiated Emission Measurement 1G-18G

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	Agilent	E4407B	US40240623	2019-05-23
2	Low noise Amplifiers	A-INFO	LA1018N4009	J1013130524001	2019-05-23
3	Horn antenna	A-INFO	LB-10180-SF	J2031090612123	2019-05-11
4	RF Cable	N/A	N/A	1-2#	2019-05-23
5	RF Cable	N/A	N/A	7#	2019-05-23

Remark: ” N/A” denotes No Model No. / Serial No. and No Calibration specified.

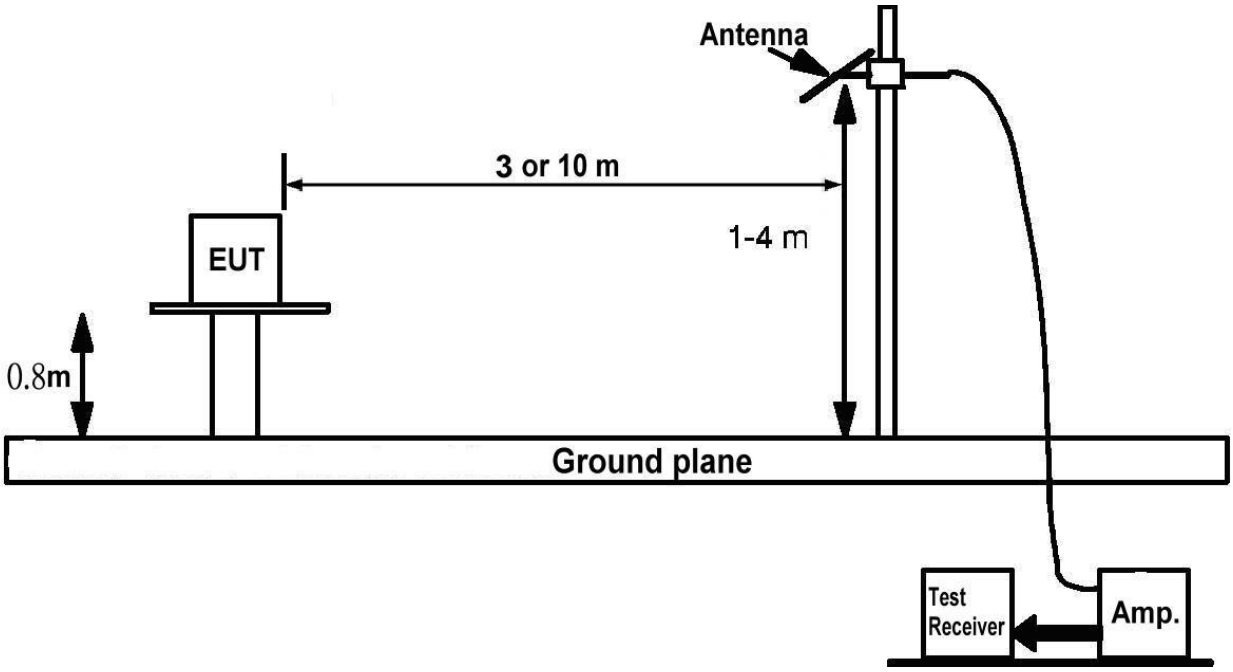
3.2.3 TEST PROCEDURE

a. The measuring distance of at 3 m shall be used for measurements at frequency up to 1GHz. For frequencies above 1GHz, any suitable measuring distance may be used.
b. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3m or 10 meter open area test site. The table was rotated 360 degrees to determine the position of the highest radiation.
c. The height of the equipment or of the substitution antenna shall be 0.8 m; the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
d. The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
e. If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed.
f. For the actual test configuration, please refer to the related Item –EUT Test Photos.

3.2.4 DEVIATION FROM TEST STANDARD

No deviation

3.2.5 TEST SETUP



3.2.6 EUT OPERATING CONDITIONS

The EUT tested system was configured as the statements of 3.1.6 Unless otherwise a special operating condition is specified in the follows during the testing.

3.2.7 TEST RESULTS

EUT：	SWITCHING POWER SUPPLY/CHARGER	**Model No. ：**	XSG0505000US L1, XSG1263000US L1, XSG2002000US L1, XSEC4800830 L1
Temperature：	22℃	**Relative Humidity：**	54 %
Pressure：	1008 hPa	**Test Power ：**	AC 120V/60Hz
Test Mode ：	Full Load		

Remark：

(1) Reading in which marked as QP or Peak means measurements by using are Quasi-Peak Detector or Peak Detector.

(2) All readings are Peak unless otherwise stated QP in column of 『Note』. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform.

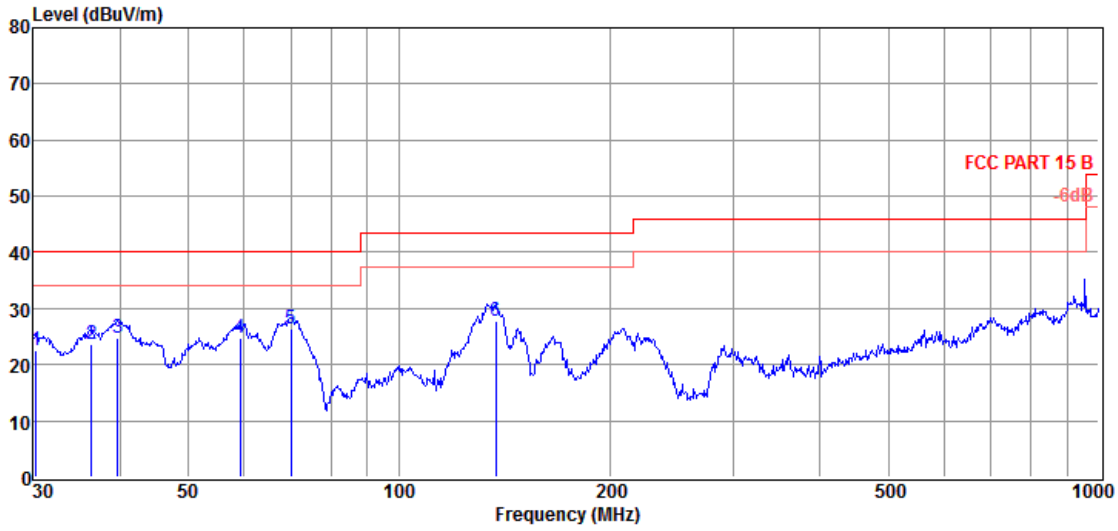
(3) Measuring frequency range from 30MHz to 1000MHz.

(4) If the peak scan value lower limit more than 20dB, then this signal data does not how in table.

(5) This test was carried out in 3m anechoic chamber..

Radiated Emission Test Result

Test Site	: 966 Chamber			
Test Date	: 2018-09-18	**Tested By**	: Jack	
EUT	: SWITCHING POWER SUPPLY/CHARGER	**Model Number**	: XSG0505000US	L1
Power Supply	: AC 120V/60Hz	**Test Mode**	: Full Load	
Condition	: Temp:22℃,Humi:54%	**Antenna/Distance**	: VULB9163-1/(3m)	
Memo	:			

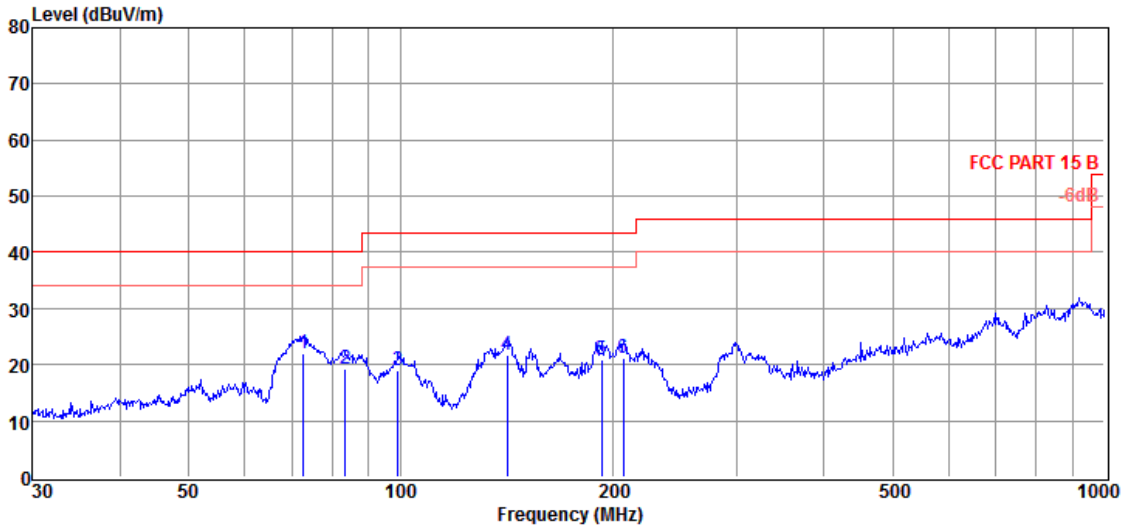


Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	30.32	36.73	10.82	26.19	1.14	22.50	40.00	-17.50	QP	VERTICAL
2	36.38	37.08	11.45	26.16	1.26	23.63	40.00	-16.37	QP	VERTICAL
3	39.58	37.26	12.20	26.14	1.31	24.63	40.00	-15.37	QP	VERTICAL
4	59.23	37.59	11.63	26.06	1.46	24.62	40.00	-15.38	QP	VERTICAL
5	70.09	42.35	8.68	26.03	1.45	26.45	40.00	-13.55	QP	VERTICAL
6	137.42	41.56	9.50	25.96	2.61	27.71	43.50	-15.79	QP	VERTICAL

Note: 1. Result Level = Read Level+ Antenna Factor+ Cable Loss- PRM Factor
2. If PK Result complies with QP limit, QP Result is deemed to comply with QP limit
3.RBW 120KHz

Radiated Emission Test Result

Test Site	: 966 Chamber			
Test Date	: 2018-09-18	**Tested By**	: Jack	
EUT	: SWITCHING POWER SUPPLY/CHARGER	**Model Number**	: XSG0505000US	L1
Power Supply	: AC 120V/60Hz	**Test Mode**	: Full Load	
Condition	: Temp:22℃,Humi:54%	**Antenna/Distance**	: VULB9163-1/(3m)	
Memo	:			

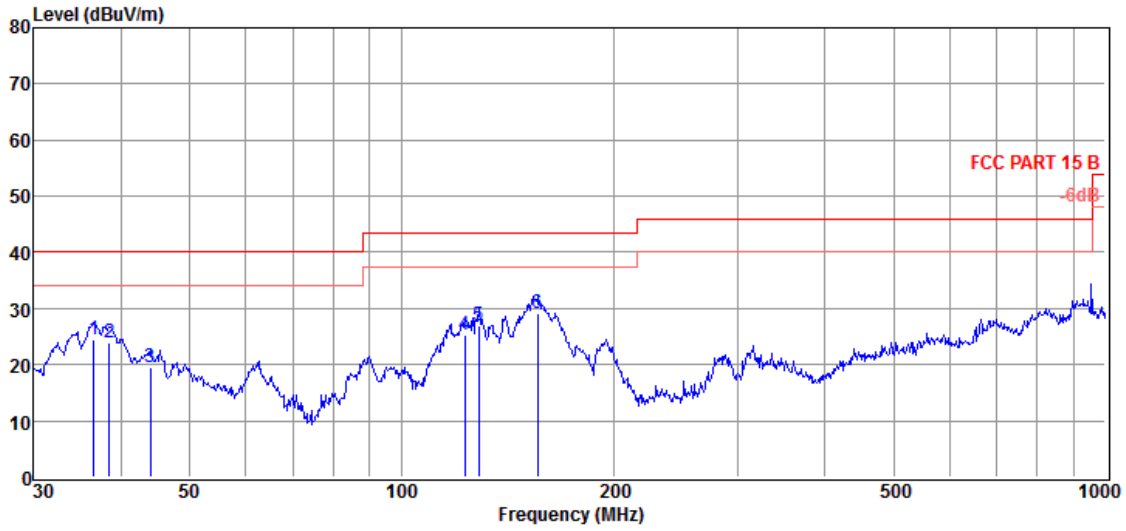


Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	72.85	38.49	8.06	26.02	1.53	22.06	40.00	-17.94	QP	HORIZONTAL
2	83.52	35.76	7.61	25.98	1.80	19.19	40.00	-20.81	QP	HORIZONTAL
3	99.18	30.45	12.21	25.90	2.14	18.90	43.50	-24.60	QP	HORIZONTAL
4	141.83	35.72	9.21	25.96	2.66	21.63	43.50	-21.87	QP	HORIZONTAL
5	193.09	33.55	10.19	26.02	3.10	20.82	43.50	-22.68	QP	HORIZONTAL
6	207.12	33.14	10.75	26.03	3.21	21.07	43.50	-22.43	QP	HORIZONTAL

Note: 1. Result Level = Read Level+ Antenna Factor+ Cable Loss- PRM Factor
2. If PK Result complies with QP limit, QP Result is deemed to comply with QP limit
3.RBW 120KHz

Radiated Emission Test Result

Test Site	: 966 Chamber			
Test Date	: 2018-09-18	**Tested By**	: Jack	
EUT	: SWITCHING POWER SUPPLY/CHARGER	**Model Number**	: XSG1263000US	L1
Power Supply	: AC 120V/60Hz	**Test Mode**	: Full Load	
Condition	: Temp:22℃,Humi:54%	**Antenna/Distance**	: VULB9163-1/(3m)	
Memo	:			

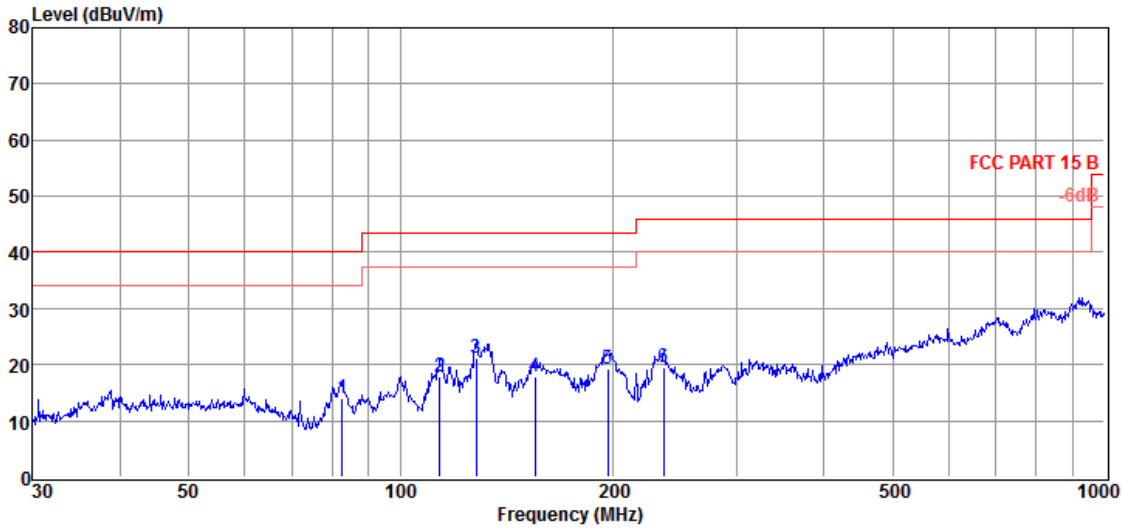


Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	36.51	37.79	11.48	26.16	1.26	24.37	40.00	-15.63	QP	VERTICAL
2	38.48	36.69	11.95	26.15	1.30	23.79	40.00	-16.21	QP	VERTICAL
3	43.97	32.17	12.22	26.12	1.38	19.65	40.00	-20.35	QP	VERTICAL
4	122.83	38.33	10.52	25.94	2.45	25.36	43.50	-18.14	QP	VERTICAL
5	128.56	40.35	10.11	25.95	2.52	27.03	43.50	-16.47	QP	VERTICAL
6	155.91	43.52	8.93	25.98	2.79	29.26	43.50	-14.24	QP	VERTICAL

Note: 1. Result Level = Read Level+ Antenna Factor+ Cable Loss- PRM Factor
2. If PK Result complies with QP limit, QP Result is deemed to comply with QP limit
3.RBW 120KHz

Radiated Emission Test Result

Test Site	: 966 Chamber			
Test Date	: 2018-09-18	**Tested By**	: Jack	
EUT	: SWITCHING POWER SUPPLY/CHARGER	**Model Number**	: XSG1263000US	L1
Power Supply	: AC 120V/60Hz	**Test Mode**	: Full Load	
Condition	: Temp:22℃,Humi:54%	**Antenna/Distance**	: VULB9163-1/(3m)	
Memo	:			

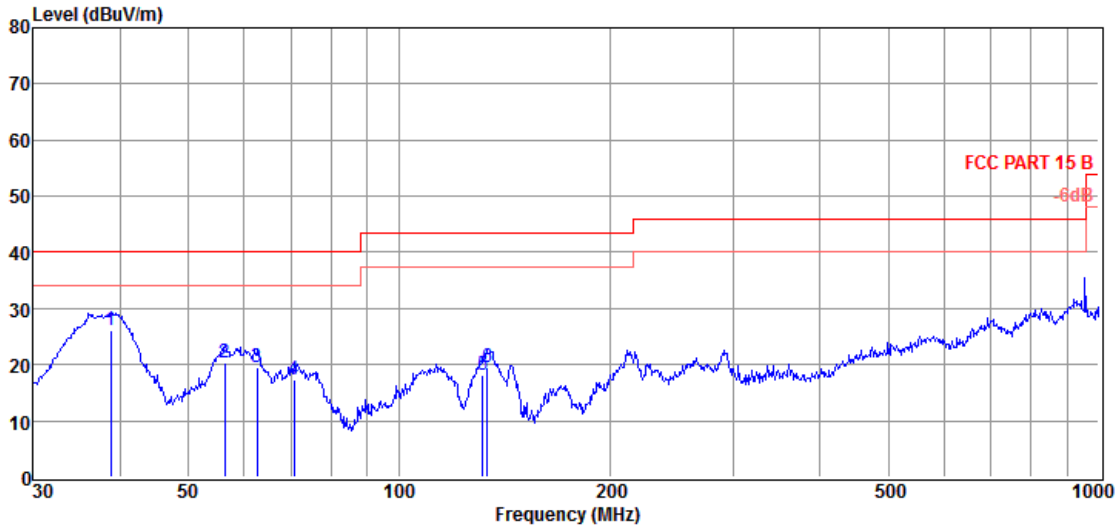


Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	82.65	30.59	7.56	25.99	1.78	13.94	40.00	-26.06	QP	HORIZONTAL
2	113.71	30.31	11.23	25.92	2.34	17.96	43.50	-25.54	QP	HORIZONTAL
3	128.11	34.49	10.14	25.95	2.51	21.19	43.50	-22.31	QP	HORIZONTAL
4	155.36	32.21	8.91	25.98	2.79	17.93	43.50	-25.57	QP	HORIZONTAL
5	197.20	31.95	10.32	26.02	3.13	19.38	43.50	-24.12	QP	HORIZONTAL
6	236.65	30.00	12.06	26.06	3.46	19.46	46.00	-26.54	QP	HORIZONTAL

Note: 1. Result Level = Read Level+ Antenna Factor+ Cable Loss- PRM Factor
2. If PK Result complies with QP limit, QP Result is deemed to comply with QP limit
3.RBW 120KHz

Radiated Emission Test Result

Test Site	: 966 Chamber			
Test Date	: 2018-09-18	**Tested By**	: Jack	
EUT	: SWITCHING POWER SUPPLY/CHARGER	**Model Number**	: XSG2002000US	L1
Power Supply	: AC 120V/60Hz	**Test Mode**	: Full Load	
Condition	: Temp:22℃,Humi:54%	**Antenna/Distance**	: VULB9163-1/(3m)	
Memo	:			

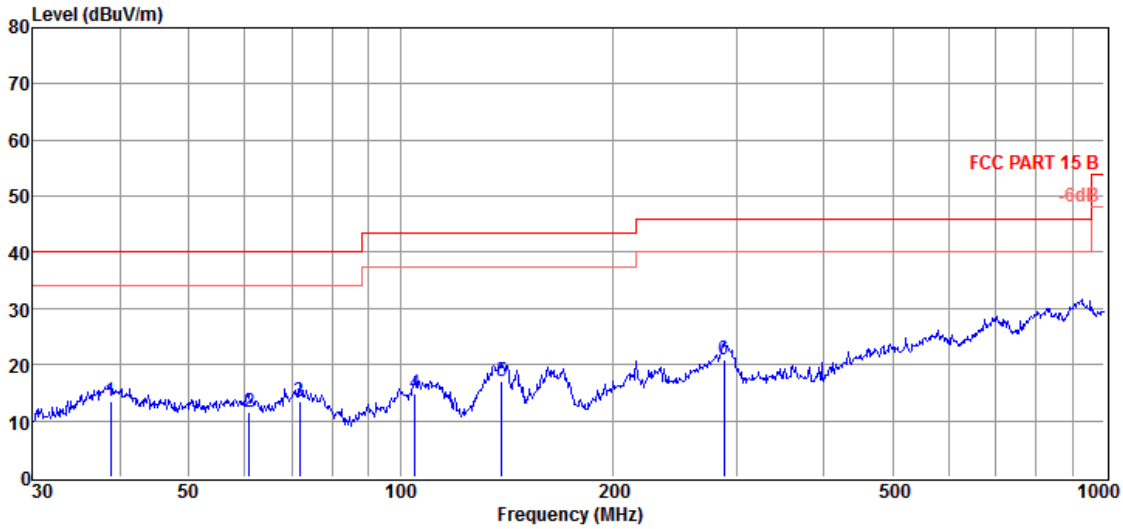


Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	38.75	38.92	12.02	26.15	1.30	26.09	40.00	-13.91	QP	VERTICAL
2	56.40	33.20	11.74	26.07	1.46	20.33	40.00	-19.67	QP	VERTICAL
3	62.65	33.71	10.41	26.05	1.46	19.53	40.00	-20.47	QP	VERTICAL
4	70.83	33.46	8.51	26.03	1.47	17.41	40.00	-22.59	QP	VERTICAL
5	131.76	31.77	9.88	25.95	2.55	18.25	43.50	-25.25	QP	VERTICAL
6	133.62	33.15	9.76	25.95	2.57	19.53	43.50	-23.97	QP	VERTICAL

Note: 1. Result Level = Read Level+ Antenna Factor+ Cable Loss- PRM Factor
2. If PK Result complies with QP limit, QP Result is deemed to comply with QP limit
3.RBW 120KHz

Radiated Emission Test Result

Test Site	: 966 Chamber			
Test Date	: 2018-09-18	**Tested By**	: Jack	
EUT	: SWITCHING POWER SUPPLY/CHARGER	**Model Number**	: XSG2002000US	L1
Power Supply	: AC 120V/60Hz	**Test Mode**	: Full Load	
Condition	: Temp:22℃,Humi:54%	**Antenna/Distance**	: VULB9163-1/(3m)	
Memo	:			

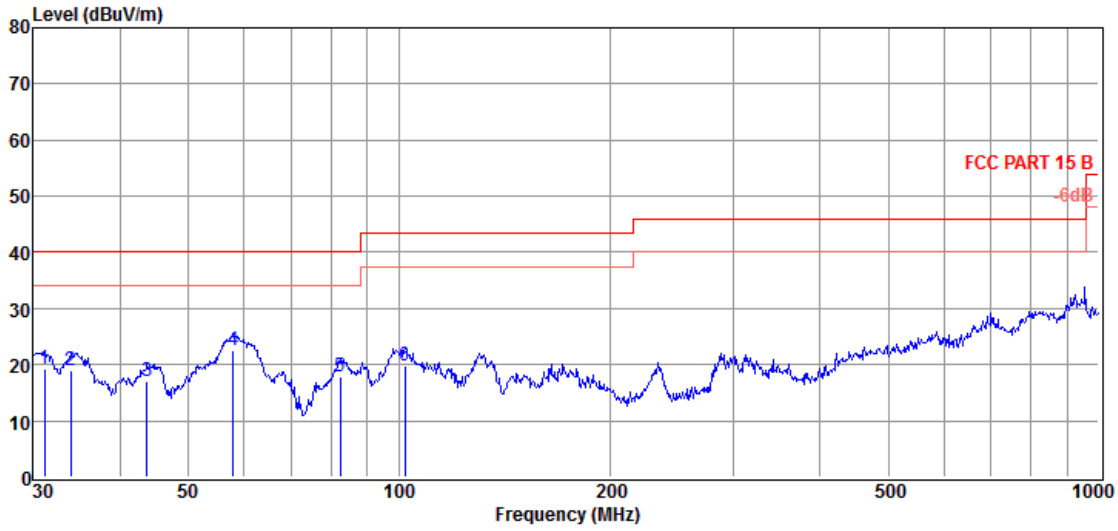


Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	38.75	26.34	12.02	26.15	1.30	13.51	40.00	-26.49	QP	HORIZONTAL
2	60.92	24.92	11.18	26.06	1.46	11.50	40.00	-28.50	QP	HORIZONTAL
3	71.83	29.74	8.29	26.02	1.50	13.51	40.00	-26.49	QP	HORIZONTAL
4	104.90	26.53	11.96	25.91	2.23	14.81	43.50	-28.69	QP	HORIZONTAL
5	139.36	30.95	9.37	25.96	2.63	16.99	43.50	-26.51	QP	HORIZONTAL
6	287.99	29.95	13.30	26.09	3.82	20.98	46.00	-25.02	QP	HORIZONTAL

Note: 1. Result Level = Read Level+ Antenna Factor+ Cable Loss- PRM Factor
2. If PK Result complies with QP limit, QP Result is deemed to comply with QP limit
3.RBW 120KHz

Radiated Emission Test Result

Test Site	: 966 Chamber			
Test Date	: 2018-09-18	**Tested By**	: Jack	
EUT	: SWITCHING POWER SUPPLY/CHARGER	**Model Number**	: XSEC4800830	L1
Power Supply	: AC 120V/60Hz	**Test Mode**	: Full Load	
Condition	: Temp:22℃,Humi:54%	**Antenna/Distance**	: VULB9163-1/(3m)	
Memo	:			

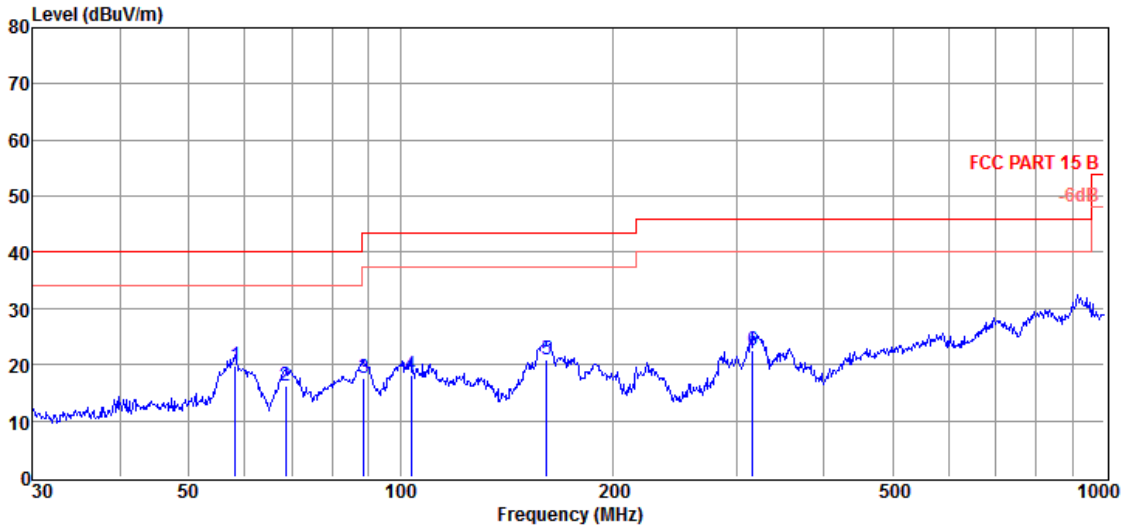


Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	31.18	33.36	10.88	26.19	1.16	19.21	40.00	-20.79	QP	VERTICAL
2	33.92	32.95	11.04	26.17	1.21	19.03	40.00	-20.97	QP	VERTICAL
3	43.66	29.58	12.23	26.13	1.38	17.06	40.00	-22.94	QP	VERTICAL
4	58.00	35.52	11.68	26.07	1.46	22.59	40.00	-17.41	QP	VERTICAL
5	82.36	34.54	7.54	25.99	1.77	17.86	40.00	-22.14	QP	VERTICAL
6	102.00	31.40	12.22	25.90	2.19	19.91	43.50	-23.59	QP	VERTICAL

Note: 1. Result Level = Read Level+ Antenna Factor+ Cable Loss- PRM Factor
2. If PK Result complies with QP limit, QP Result is deemed to comply with QP limit
3.RBW 120KHz

Radiated Emission Test Result

Test Site	: 966 Chamber		
Test Date	: 2018-09-18	**Tested By**	: Jack
EUT	: SWITCHING POWER SUPPLY/CHARGER	**Model Number**	: XSEC4800830 L1
Power Supply	: AC 120V/60Hz	**Test Mode**	: Full Load
Condition	: Temp:22℃,Humi:54%	**Antenna/Distance**	: VULB9163-1/(3m)
Memo	:		



Item (Mark)	Freq (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	58.20	32.61	11.67	26.07	1.46	19.67	40.00	-20.33	QP	HORIZONTAL
2	68.63	31.90	8.89	26.03	1.45	16.21	40.00	-23.79	QP	HORIZONTAL
3	88.65	32.11	9.61	25.95	1.92	17.69	43.50	-25.81	QP	HORIZONTAL
4	103.44	29.71	12.09	25.91	2.21	18.10	43.50	-25.40	QP	HORIZONTAL
5	161.47	34.97	9.14	25.99	2.84	20.96	43.50	-22.54	QP	HORIZONTAL
6	316.59	30.75	13.92	26.12	4.02	22.57	46.00	-23.43	QP	HORIZONTAL

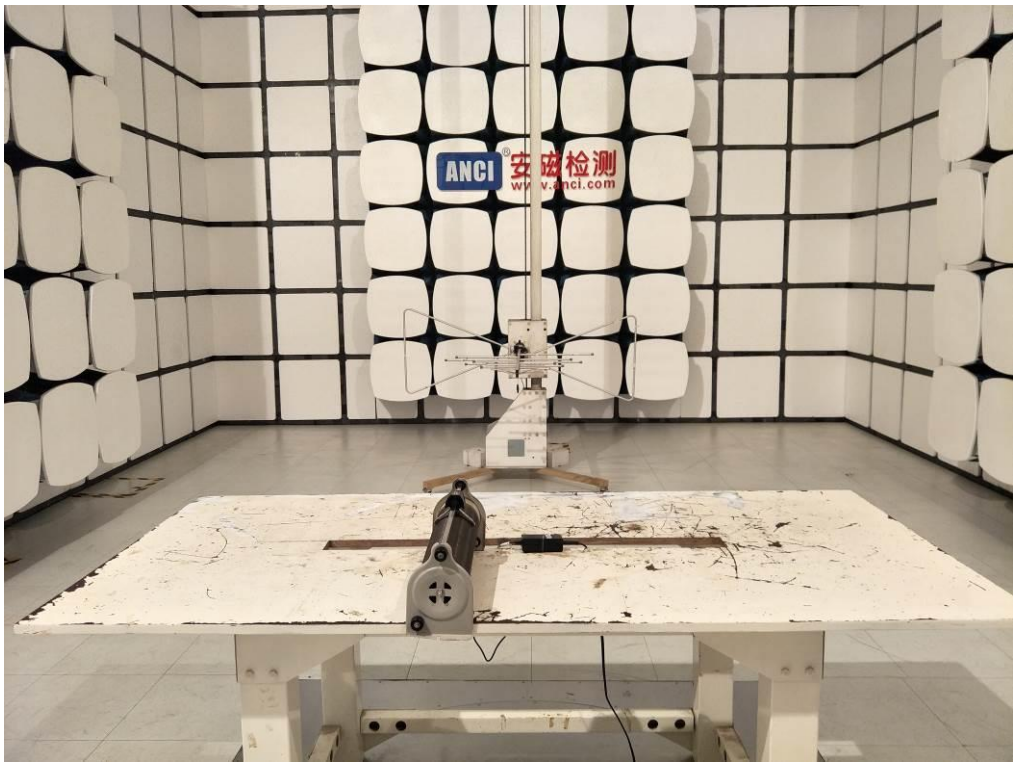
Note: 1. Result Level = Read Level+ Antenna Factor+ Cable Loss- PRM Factor
2. If PK Result complies with QP limit, QP Result is deemed to comply with QP limit
3.RBW 120KHz

4. ATTACHMENT

4.1. EUT TEST PHOTO

Conducted Emission Measurement Photo

Radiated Measurement Photo



4.2. EUT PRODUCT PHOTO

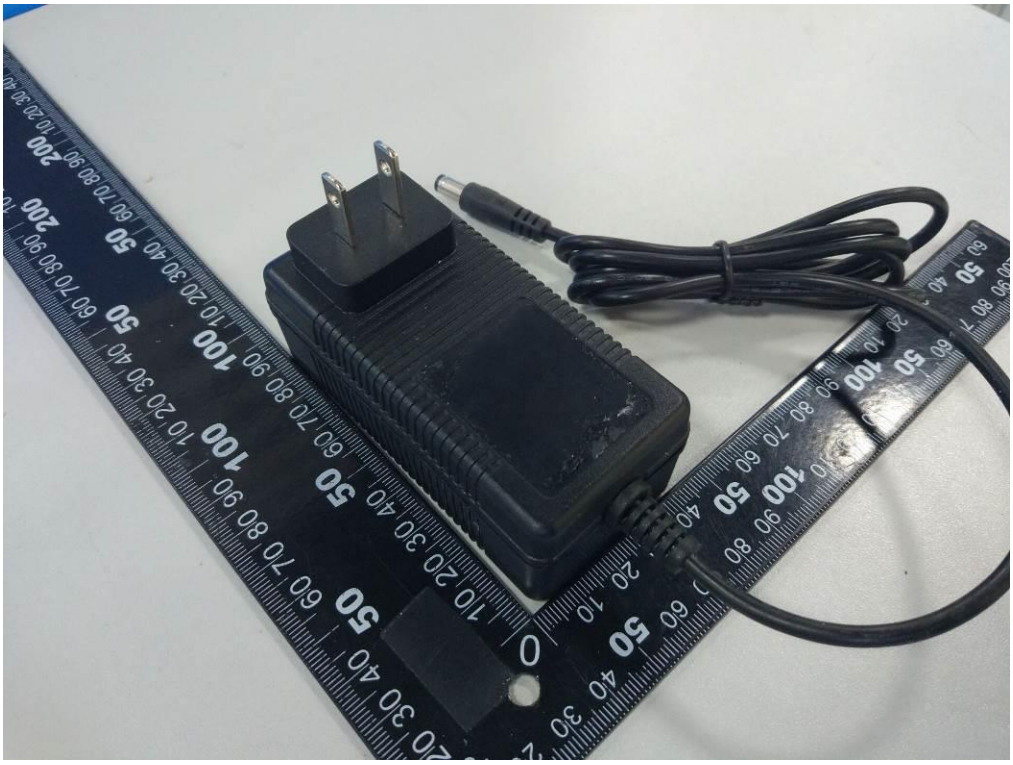


Figure 1. Overall view of unit (XSGxxxyyyyUS L1)

Figure 2. Overall view of unit (XSGxxxyyyyUS L1)

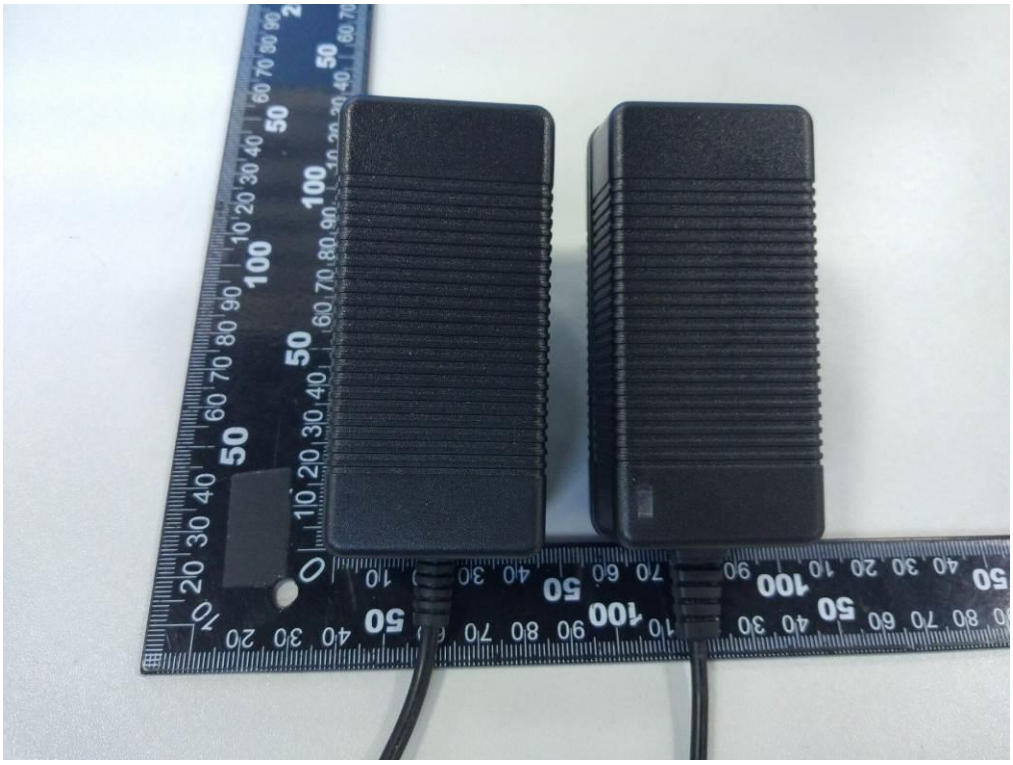


Figure 3. Overall view of unit (Top enclosure with LED or without LED)

Figure 4. Overall view of unit (XSGxxxyyyy L1, XSExxxyyyy L1 (miscellaneous plug))

Figure 5. Overall view of unit (XSGxxxyyyy L1, XSExxxyyyy L1 (miscellaneous plug))

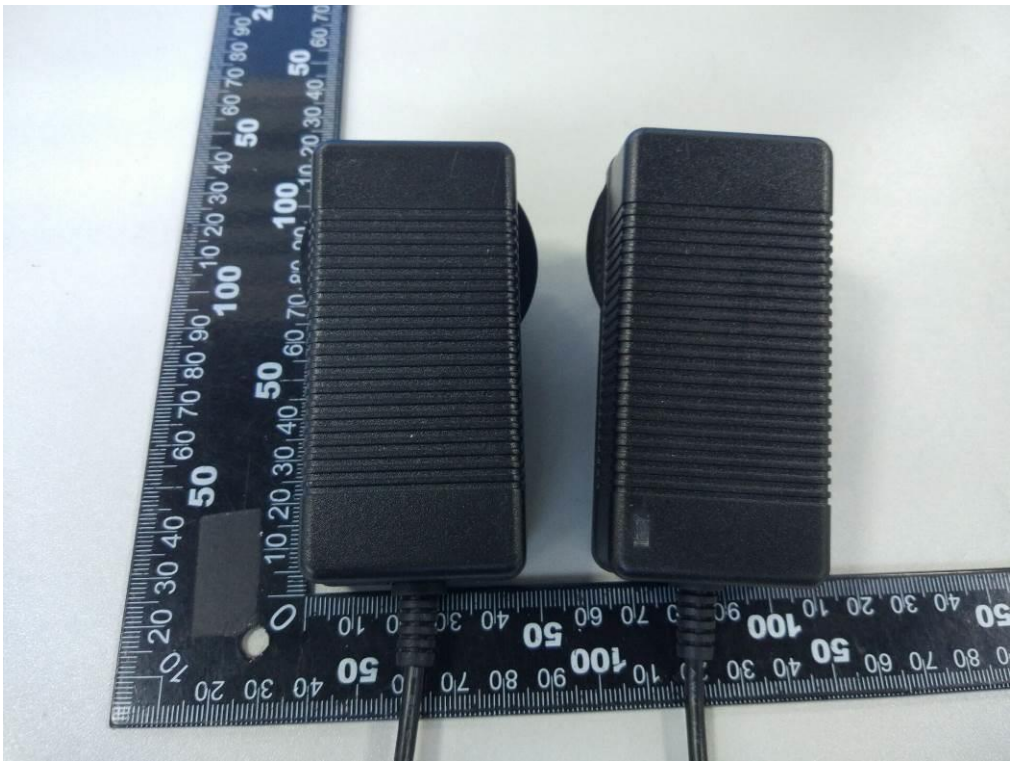


Figure 6. Overall view of unit (Top enclosure with LED or without LED)

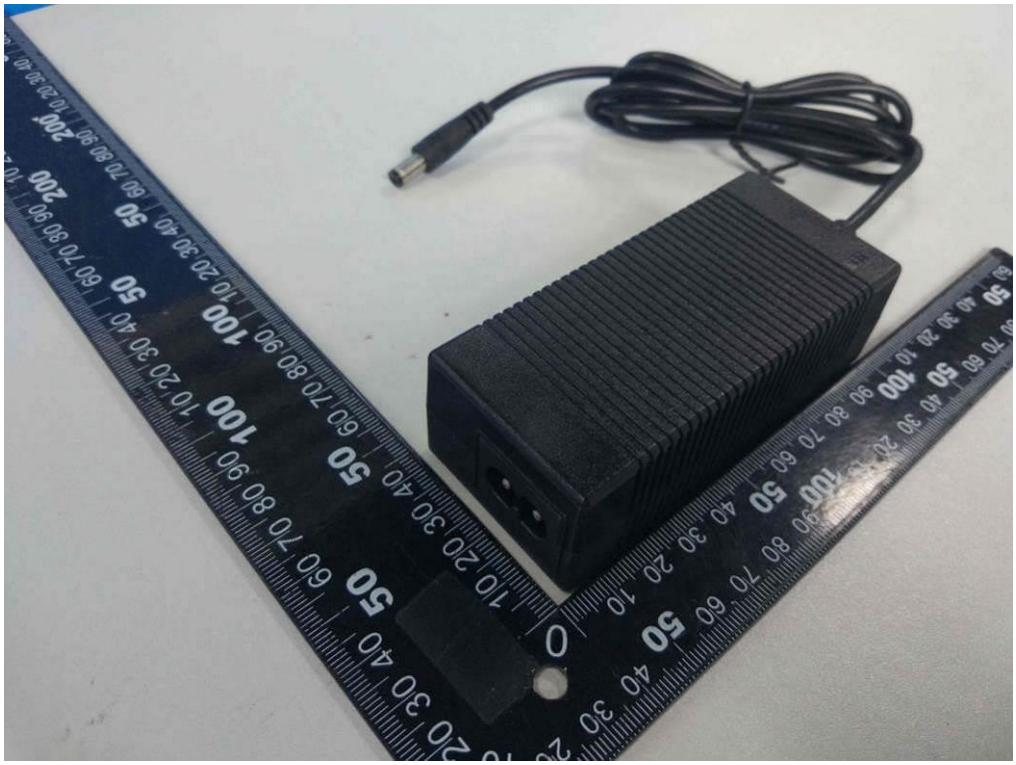


Figure 7. Overall view of unit (XSECxxxyyyy L1)

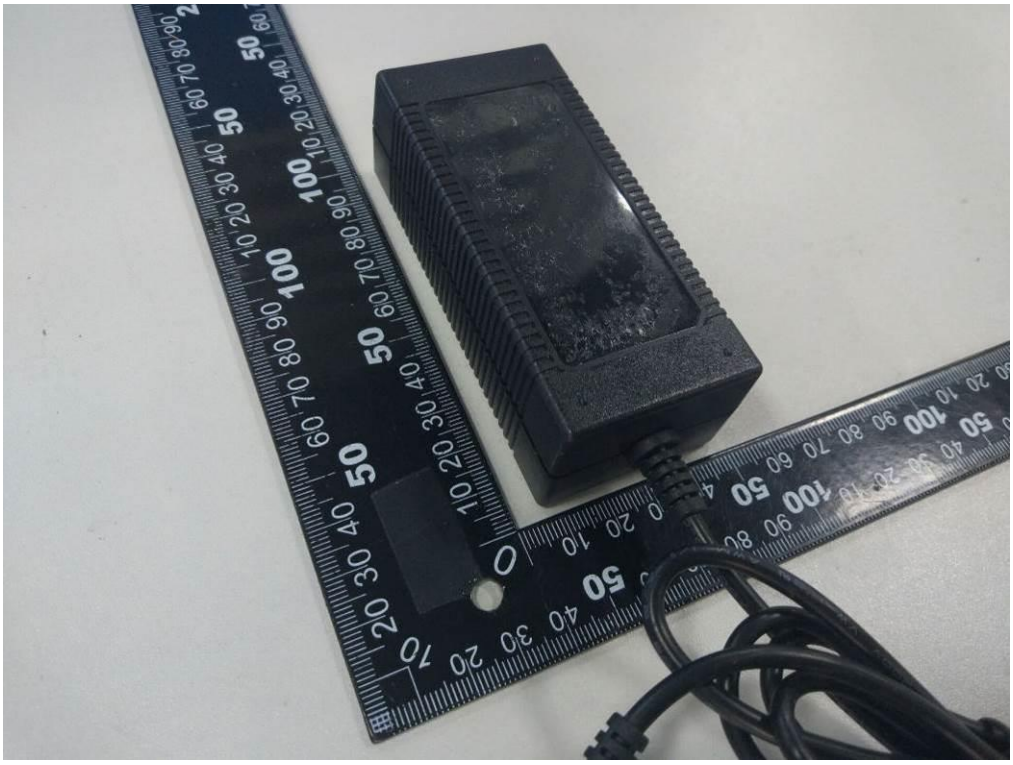


Figure 8. Overall view of unit (XSECxxxyyyy L1)

Figure 9. Overall view of unit (XSECxxxyyyyUS L1, XSExxxyyyyUS L1)

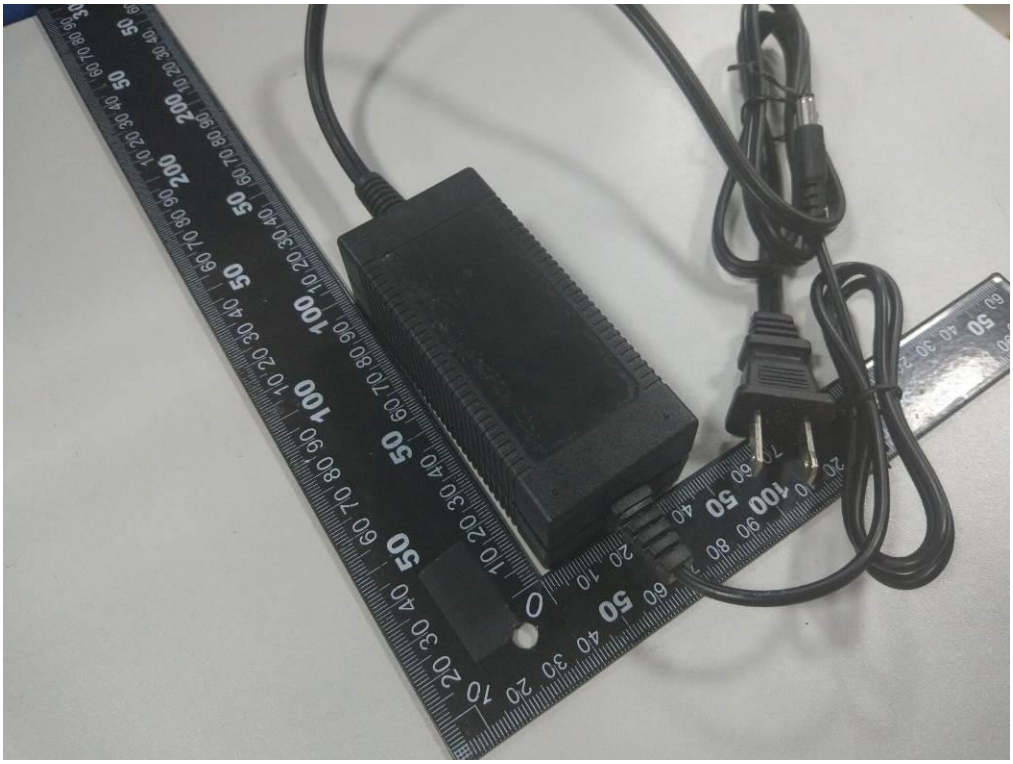


Figure 10. Overall view of unit (XSECxxxyyyyUS L1, XSExxxyyyyUS L1)

Figure 11. Inside view of unit (Direct plug-in with fixed plug)

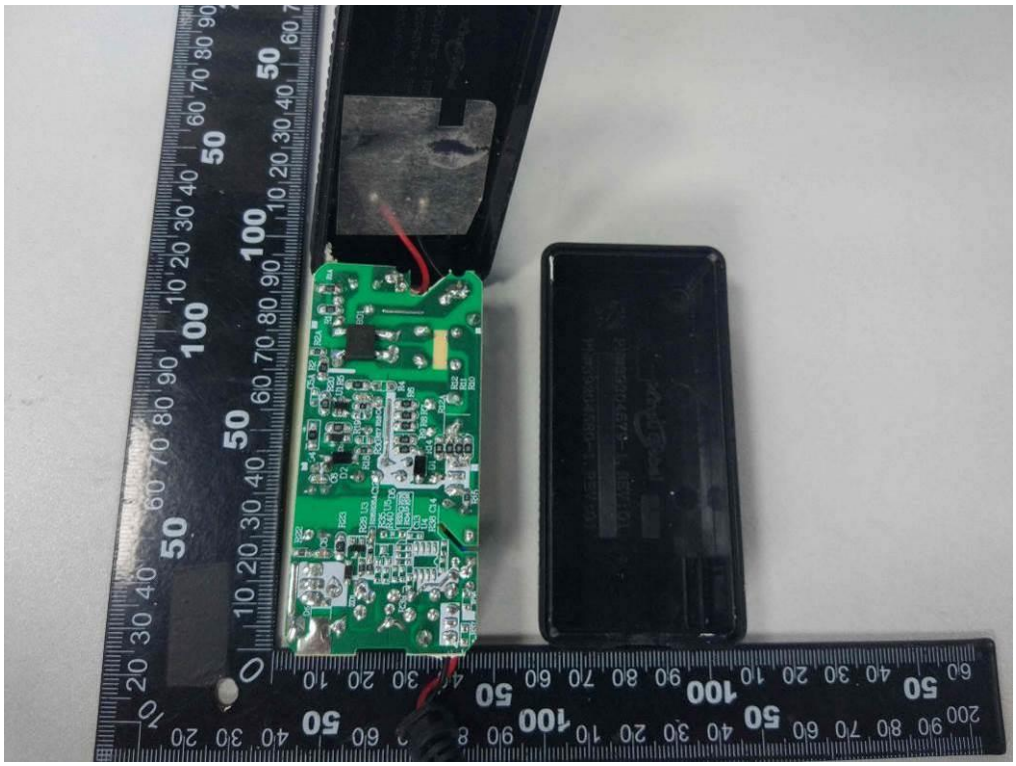


Figure 12. Inside view of unit (Direct plug-in with fixed plug)

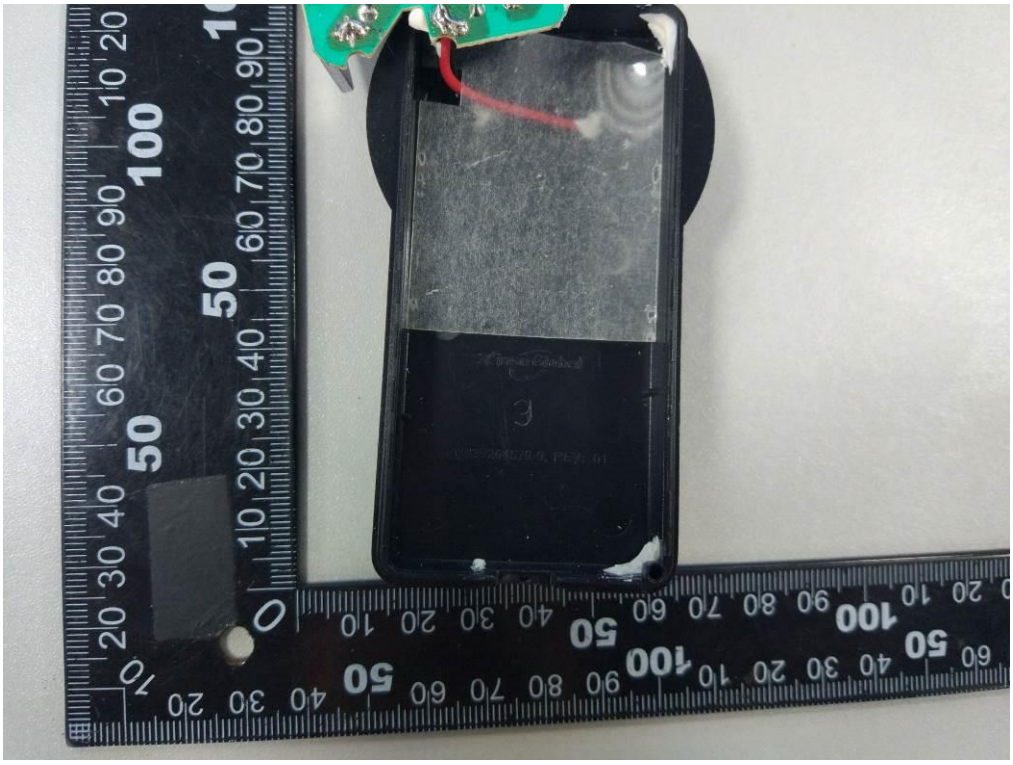


Figure 13. Inside view of unit (Direct plug-in with detachable plug)

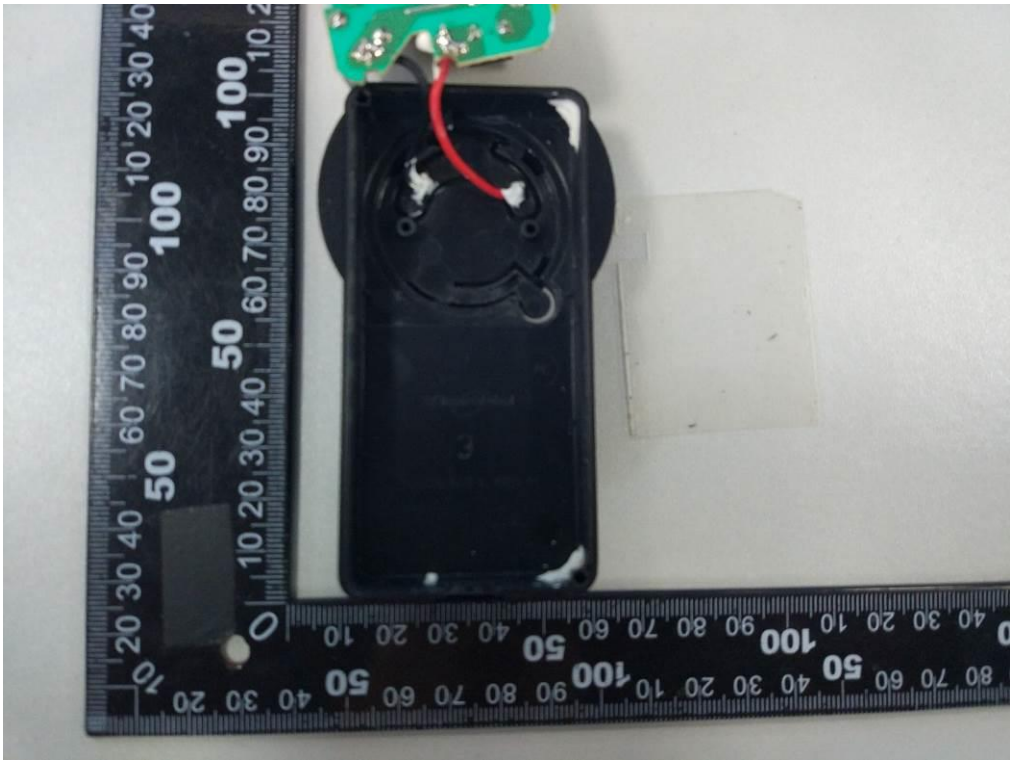


Figure 14. Inside view of unit (Direct plug-in with detachable plug)

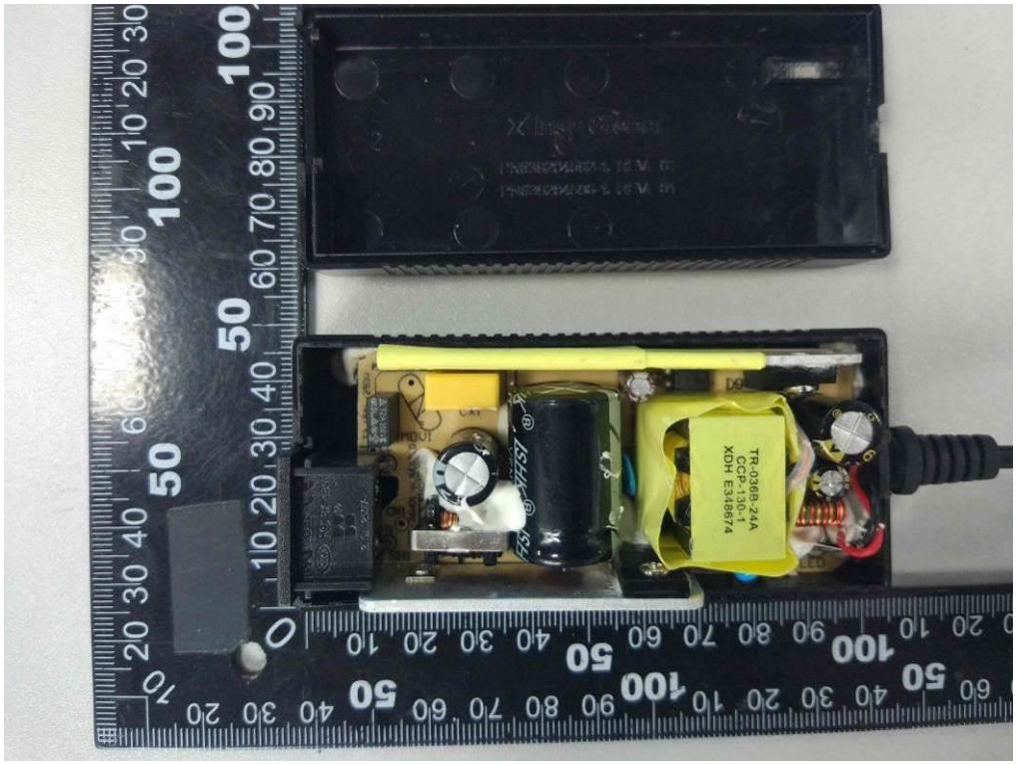


Figure 15. Inside view of unit (Desktop type with AC Inlet)

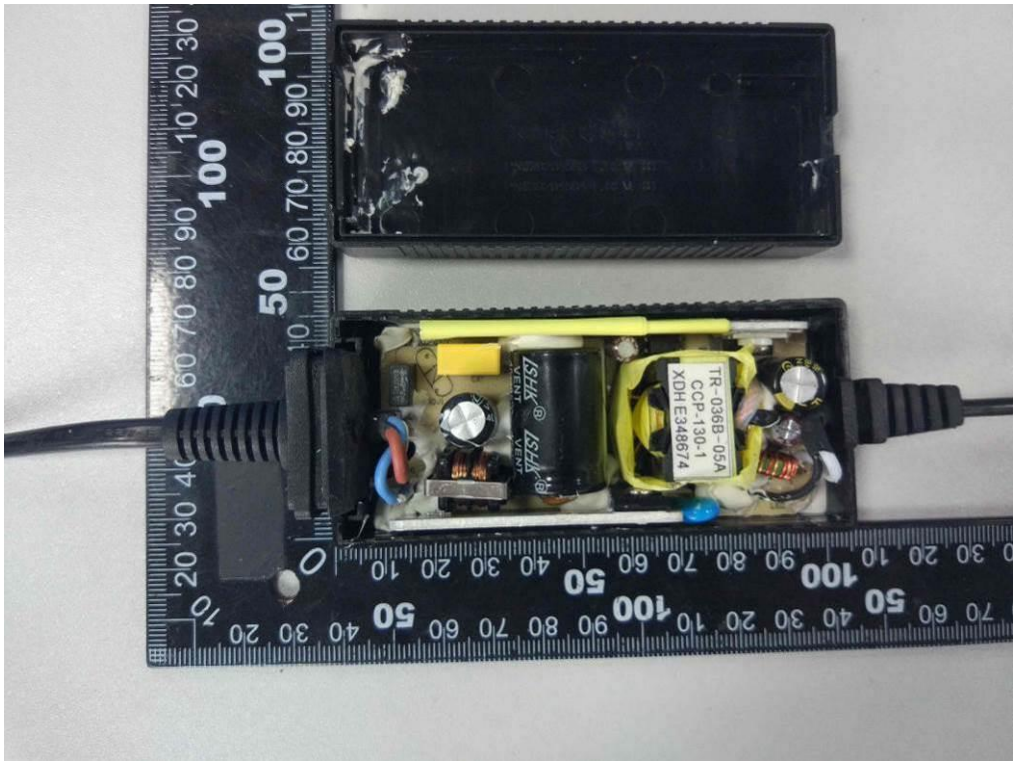


Figure 16. Inside view of unit (Desktop type with non-detachable power cord)

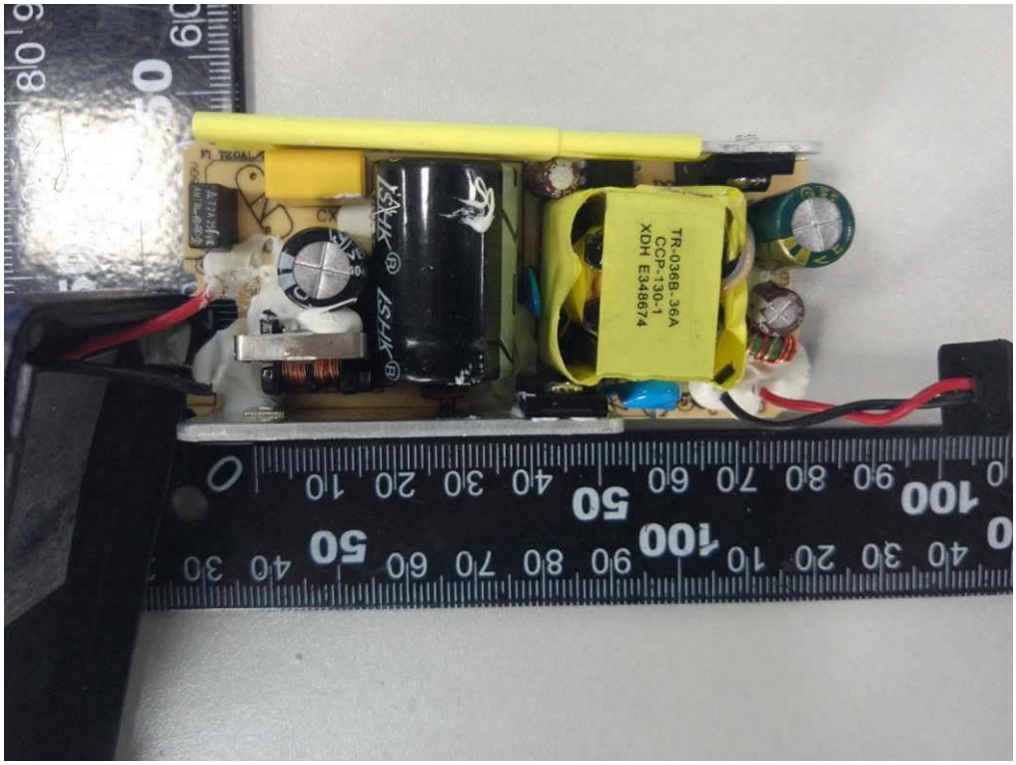


Figure 17. Top view of PCB

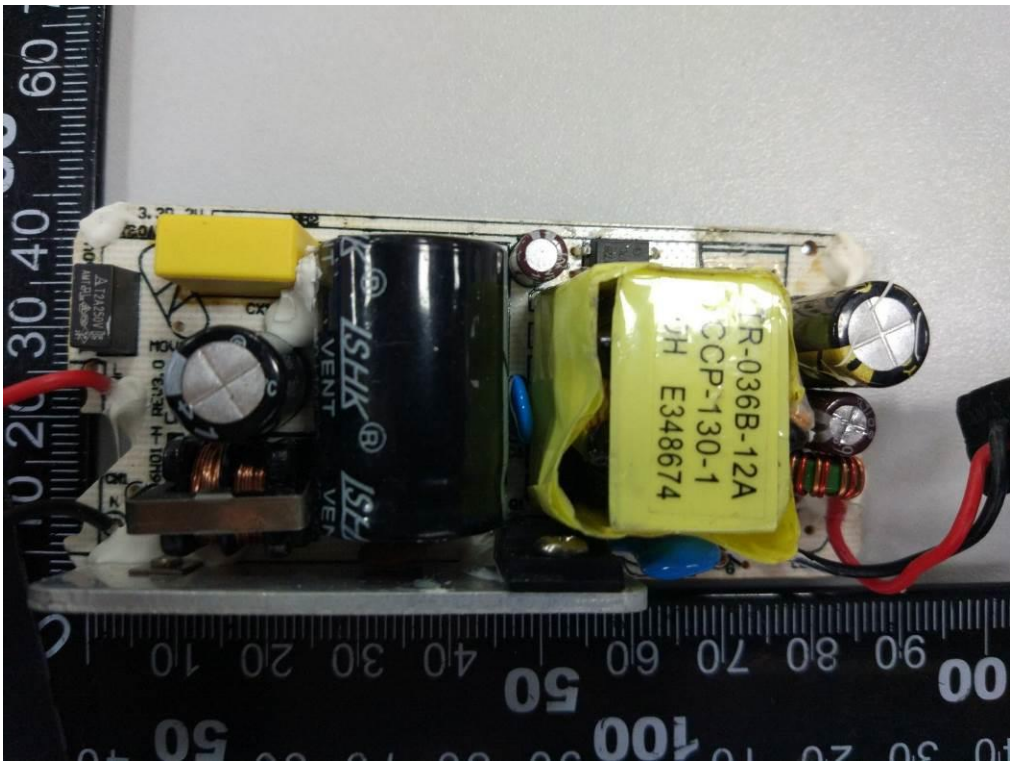


Figure 18. Top view of PCB (without SH2, D9)

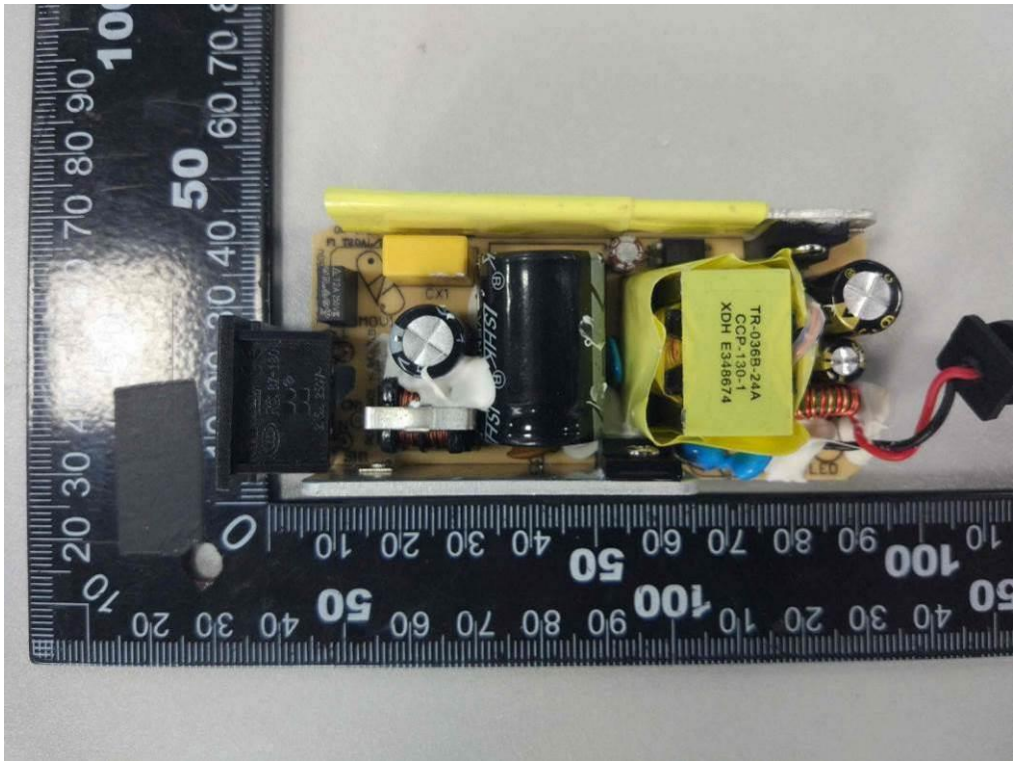


Figure 19. Top view of PCB

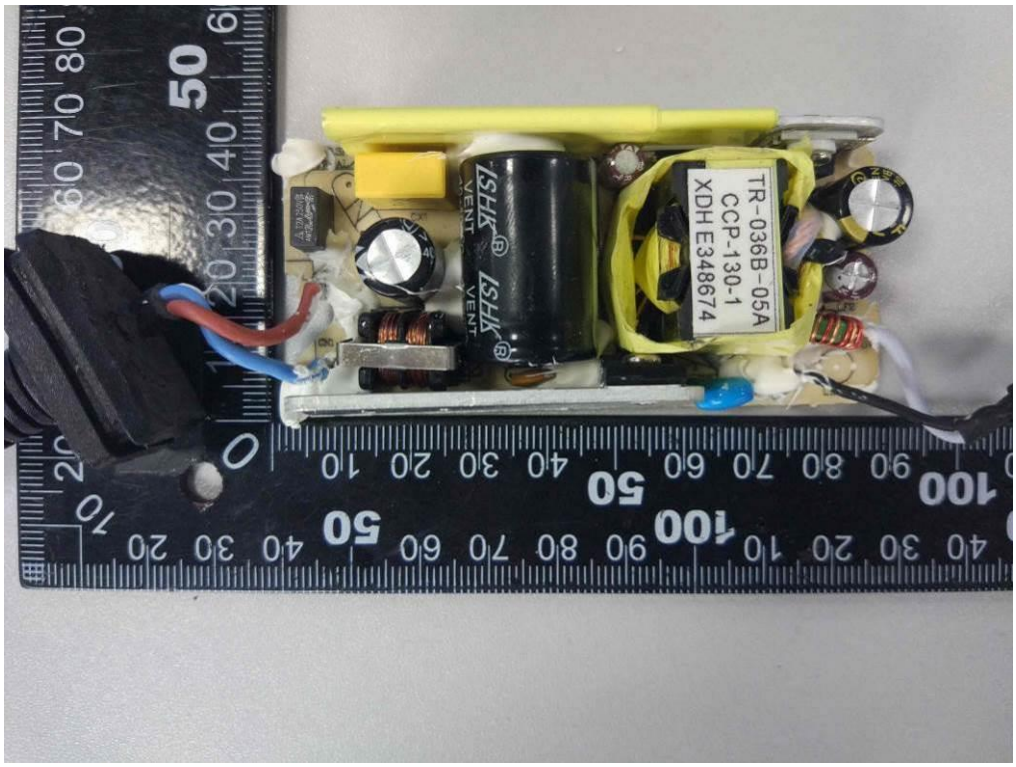


Figure 20. Top view of PCB

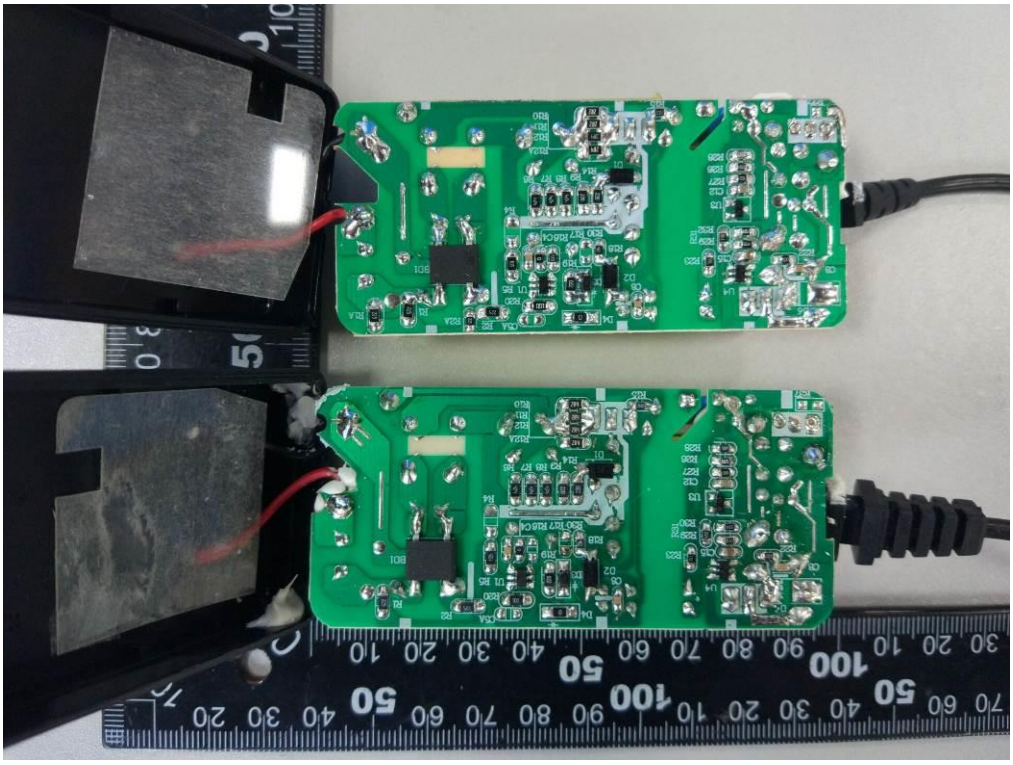


Figure 21. Bottom view of PCB

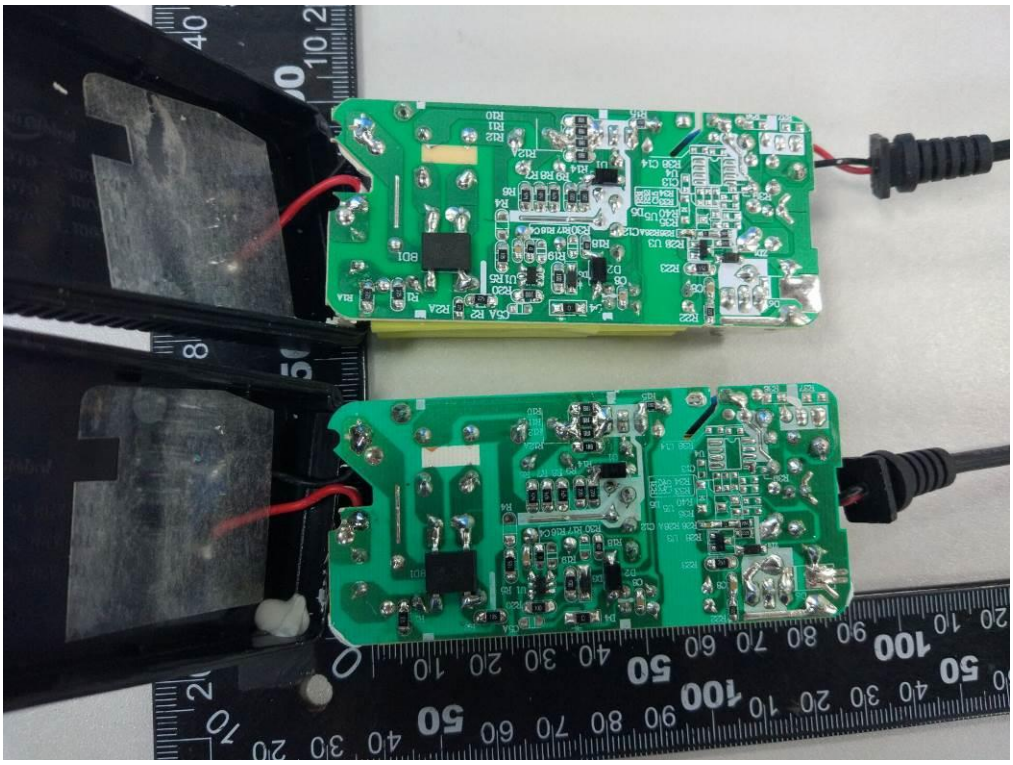


Figure 22. Bottom view of PCB

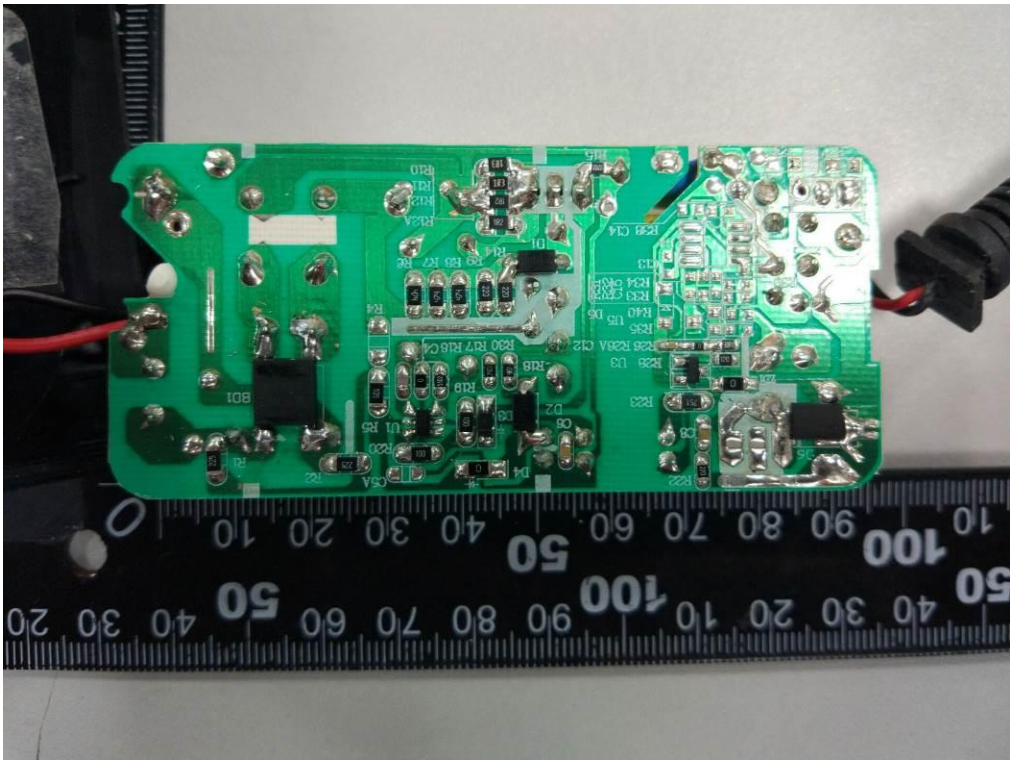


Figure 23. Bottom view of PCB (with D6)

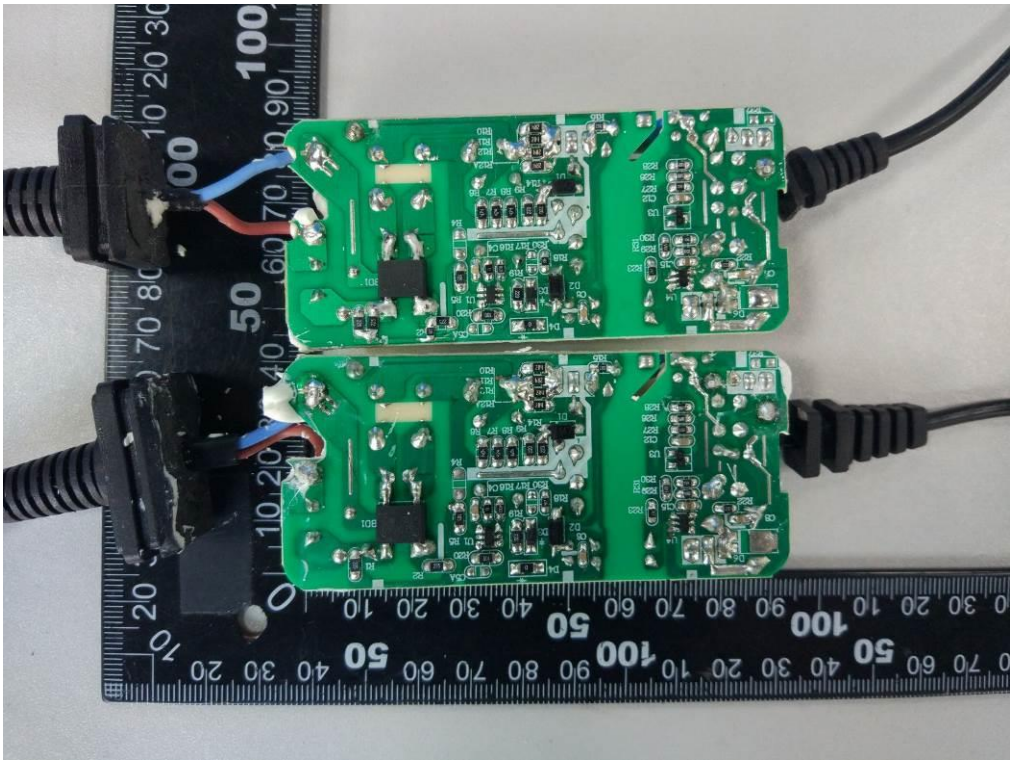


Figure 24. Bottom view of PCB

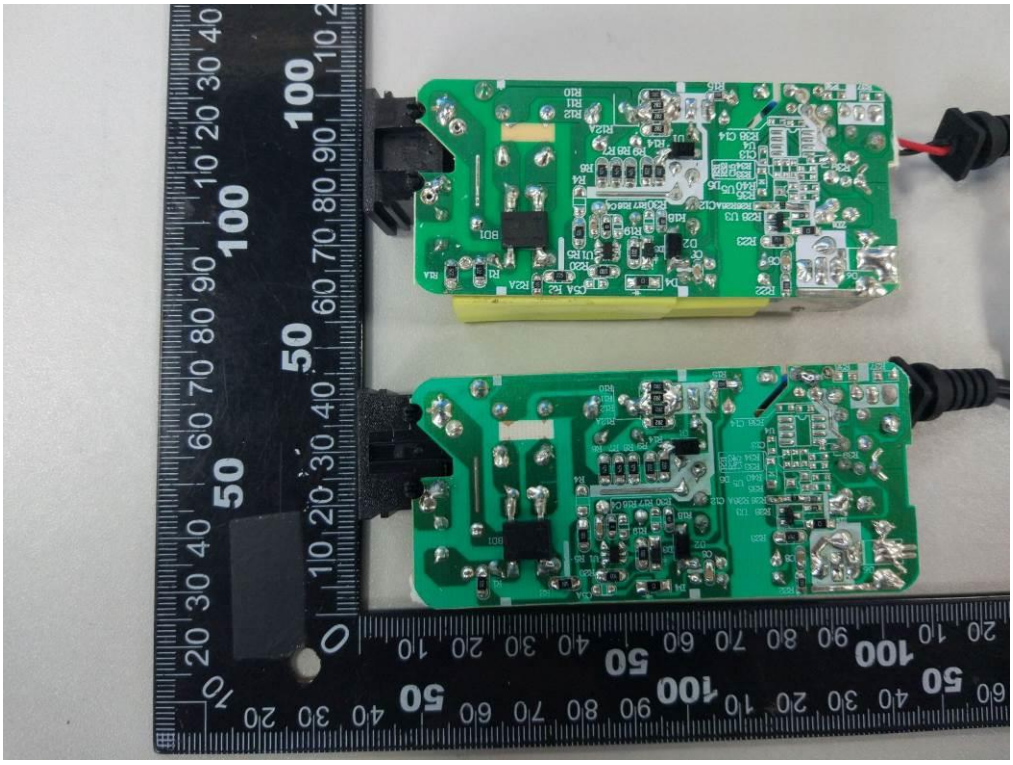


Figure 25. Bottom view of PCB