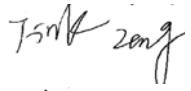


PSE
Measurement and Test Report
For
GlobTek, Inc
186 Veterans Dr. Northvale, NJ 07647 USA

Test Standard:	<u>J55022 (H22)</u>
Product Description:	<u>DC Power Supply Unit</u>
Tested Model:	<u>GT-41076-AABB-C.C</u>
Report No.:	<u>STR16038230E</u>
Tested Date:	<u>2016-03-24 to 2016-04-05</u>
Issued Date:	<u>2016-04-05</u>
Tested By:	<u>Tink Zeng/ Engineer</u> 
Reviewed By:	<u>Silin Chen / EMC Manager</u> 
Approved & Authorized By:	<u>Jandy so / PSQ Manager</u> 
Prepared By:	

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Note: This test report is limited to the above client company and the product model only. It may not be duplicated without prior permitted by Shenzhen SEM.Test Technology Co., Ltd.

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1.GENERAL INFORMATION

1.1 Product Description for Equipment Under Test (EUT)

Client Information

Applicant: GlobTek, Inc.
Address of applicant: 186 Veterans Dr. Northvale, NJ 07647 USA
Manufacturer: 1. GlobTek, Inc.
2. GlobTek (Suzhou) Co., Ltd
Address of manufacturer: 1. 186 Veterans Dr. Northvale, NJ 07647 USA
2. Building 4, No.76, Jin Ling East Rd., Suzhou Industrial Park ,Suzhou, JiangSu 215021,China

General Description of EUT	
Product Name:	DC Power Supply Unit
Trade Name:	
Model No.:	GT-41076-AABB-C.C
Adding Model(s):	/
<i>Note: The test data is gathered from a production sample, provided by the manufacturer.</i> <i>GT-41076-AABB-C.C</i> <i>Where “AA” stands for the output power in Watts, which can be “01” to “06”, with interval of 1;</i> <i>“BB” stands for the output voltage in Volts, which can be “03”, “05”, “09”, “12”, “15”, “18”, “20”, “24”;</i> <i>“-c.c” is optional for specifying output voltage deviation from standard model:</i> <i>subtracting C.C volts from standard output voltage in 0,1 V increments which can be “-0.1” to “-3.9” ;</i>	

Technical Characteristics of EUT	
Rated Voltage:	AC 100-240V, 50-60Hz
Rated Current:	Max 0.3A
Rated Power:	Max 6W
Power Adaptor Model:	/
Highest Internal Frequency:	Below 108MHz
Classification of ITE:	Class B

1.2 Test Standards

The following report is prepared on behalf of the GlobTek, Inc. in accordance with J55022, Information technology equipment - Radio disturbance characteristics - Limits and methods of measurement.

The objective of the manufacturer is to demonstrate compliance with the standards J55022 for Information Technology Equipment.

Maintenance of compliance is the responsibility of the manufacturer. Any modification of the product maybe which result in lowering the emission/immunity should be checked to ensure compliance has been maintained.

1.3 Test Methodology

All measurements contained in this report were conducted with the standards J55022 for Information Technology Equipment, and all related testing and measurement techniques intertional standards.

1.4 Test Facility

FCC – Registration No.: 934118

Shenzhen SEM.Test Technology 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 and the Registration is 934118.

Industry Canada (IC) Registration No.: 11464A

The 3m Semi-anechoic chamber of Shenzhen SEM.Test Technology Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 11464A.

CNAS Registration No.: L4062

Shenzhen SEM.Test Technology Co., Ltd. is a testing organization accredited by China National Accreditation Service for Conformity Assessment (CNAS) according to ISO/IEC 17025. The accreditation certificate number is L4062. All measurement facilities used to collect the measurement data are located at 1/F, Building A, Hongwei Industrial Park, Liuxian 2nd Road, Bao'an District, Shenzhen, P.R.C (518101).

1.5 EUT Setup and Operation Mode

The equipment under test (EUT) was configured to measure its highest possible emission/immunity level. The test modes were adapted according to the operation manual for use, more detailed description as follows:

Test Mode List:

Test Mode	Description	Remark
TM1	Running	Connect to Load

EUT Cable List and Details

Cable Description	Length (M)	Shielded/Unshielded	With Core/Without Core
DC Cable	1.8	Unshielded	With Core

Auxiliary Equipment List and Details

Description	Manufacturer	Model	Serial Number
/	/	/	/

Special Cable List and Details

Cable Description	Length (M)	Shielded/Unshielded	With Core/Without Core
/	/	/	/

1.6 Test Equipment List and Details

Description	Manufacturer	Model	Serial Number	Due. Date
Spectrum Analyzer	Rohde & Schwarz	FSP	836079/035	2016-06-16
EMI Test Receiver	Rohde & Schwarz	ESVB	825471/005	2016-06-16
Amplifier	Agilent	8447F	3113A06717	2016-06-16
Amplifier	C&D	PAP-1G18	2002	2016-06-16
Broadband Antenna	Schwarz beck	VULB9163	9163-333	2016-06-16
Horn Antenna	ETS	3117	00086197	2016-06-16
Loop Antenna	Schwarz beck	FMZB 1516	9773	2016-06-16
EMI Test Receiver	Rohde & Schwarz	ESPI	101611	2016-06-16
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100911	2016-06-16
AC LISN	Schwarz beck	NSLK8126	8126-224	2016-06-16
Clamp	Schwarz beck	MDS21	3809	2016-06-16
Loop Antenna	EVERFINE	LLA-2	711001	2016-06-16

2. SUMMARY OF TEST RESULTS

Standards	Description of Test Item	Result
J55022	Conducted Emission	Compliant
	Radiated Emission	Compliant

N/A: not applicable

3. CONDUCTED EMISSIONS

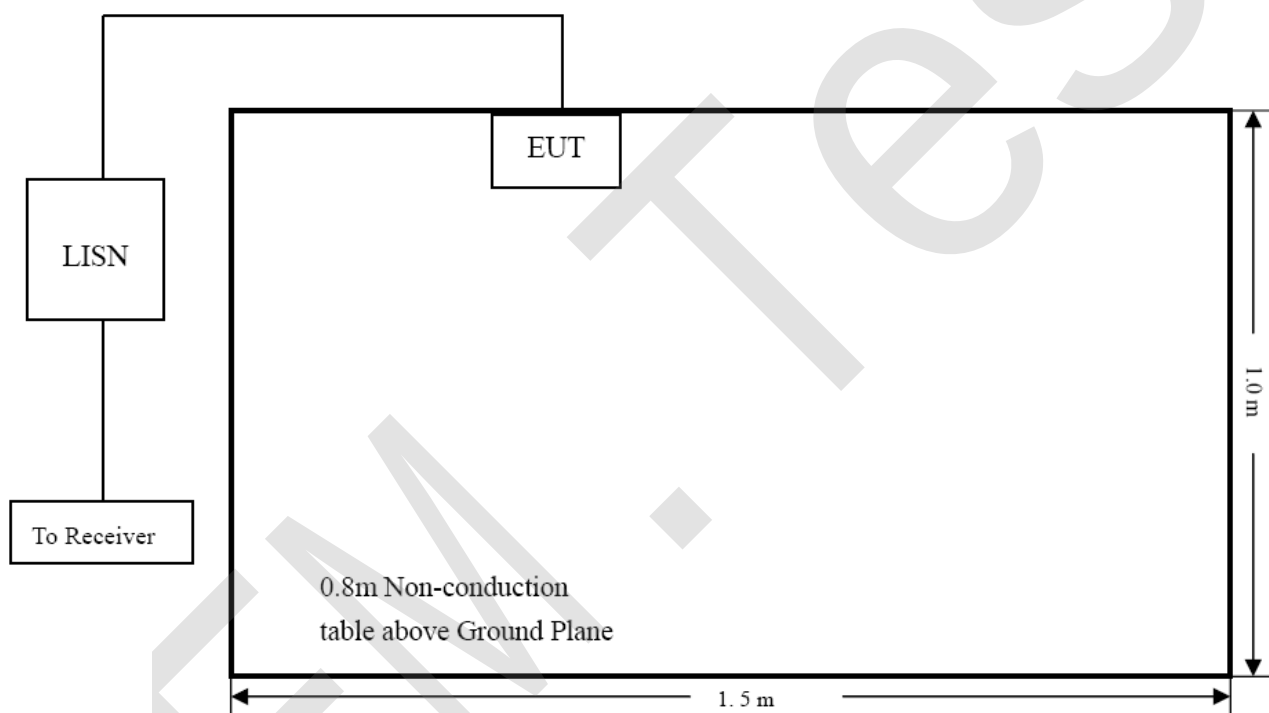
3.1 Measurement Uncertainty

Base on NIS 81, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of any conducted emissions measurement is ± 2.88 dB.

3.2 Test Procedure

Test is conducting under the description of J55022 Information technology equipment - Radio disturbance characteristics - Limits and methods of measurement.

3.3 Basic Test Setup Block Diagram



3.4 Environmental Conditions

Temperature:	22 ° C
Relative Humidity:	55 %
ATM Pressure:	1015 mbar

3.5 Summary of Test Results/Plots

According to the data in section 3.6, the EUT complied with the J55022 Conducted margin for a Class B device, with the *worst* margin reading of:

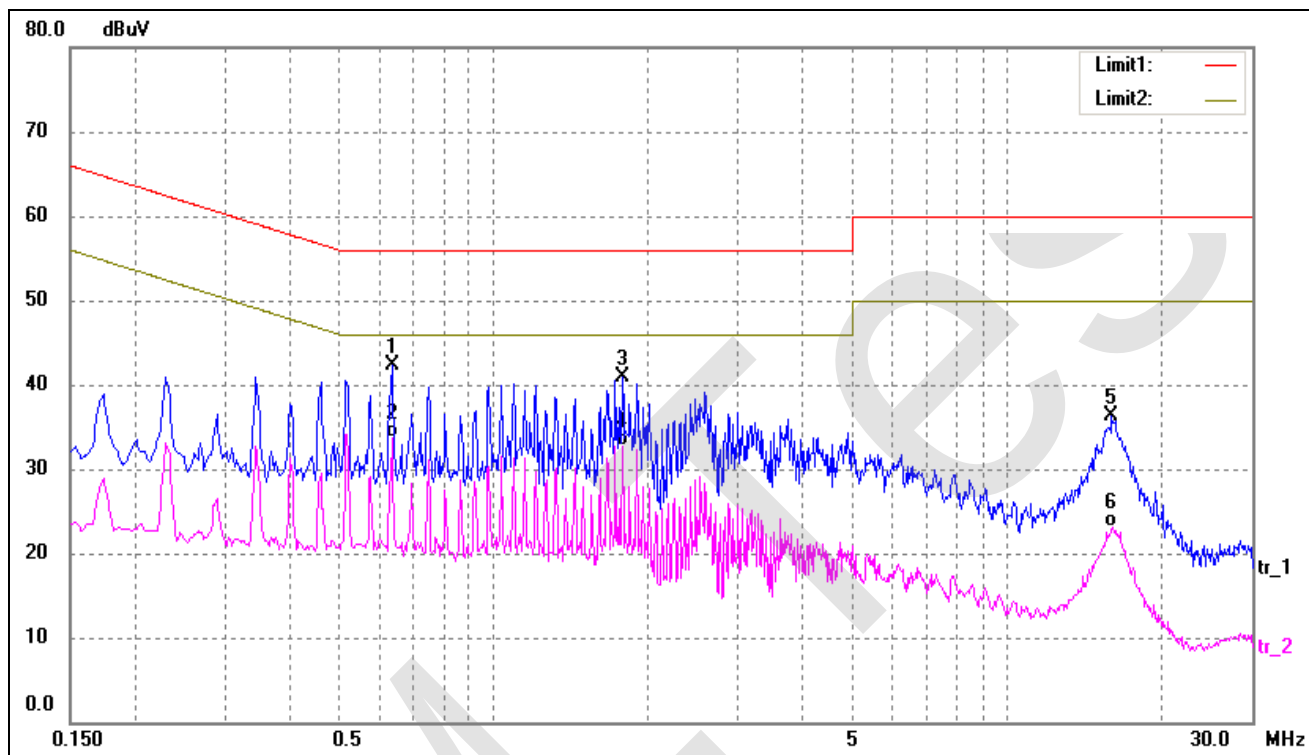
-12.20 dB at 0.6340 MHz in the Line mode, Average detector, 0.15-30MHz

3.6 Conducted Emissions Test Data

Plot of Conducted Emissions Test Data

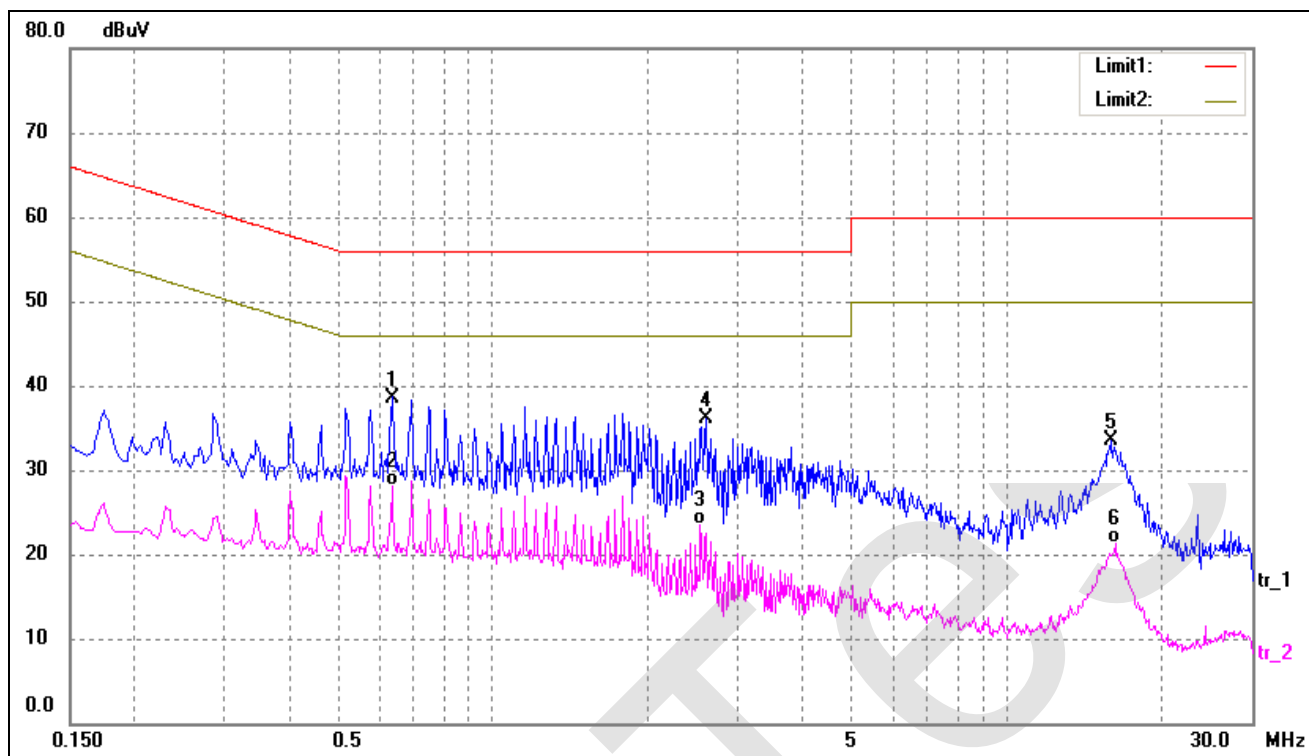
EUT: Power adapter
 Tested Model: GT-41076-AABB-C.C
 Operating Condition: TM1
 Comment: AC 100V/50Hz

Test Specification: Line



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.6340	32.80	9.59	42.39	56.00	-13.61	peak
2*	0.6340	24.21	9.59	33.80	46.00	-12.20	AVG
3	1.7860	31.07	9.79	40.86	56.00	-15.14	peak
4	1.7860	23.01	9.79	32.80	46.00	-13.20	AVG
5	16.0100	25.92	10.43	36.35	60.00	-23.65	peak
6	16.1060	12.66	10.43	23.09	50.00	-26.91	AVG

Test Specification: Neutral

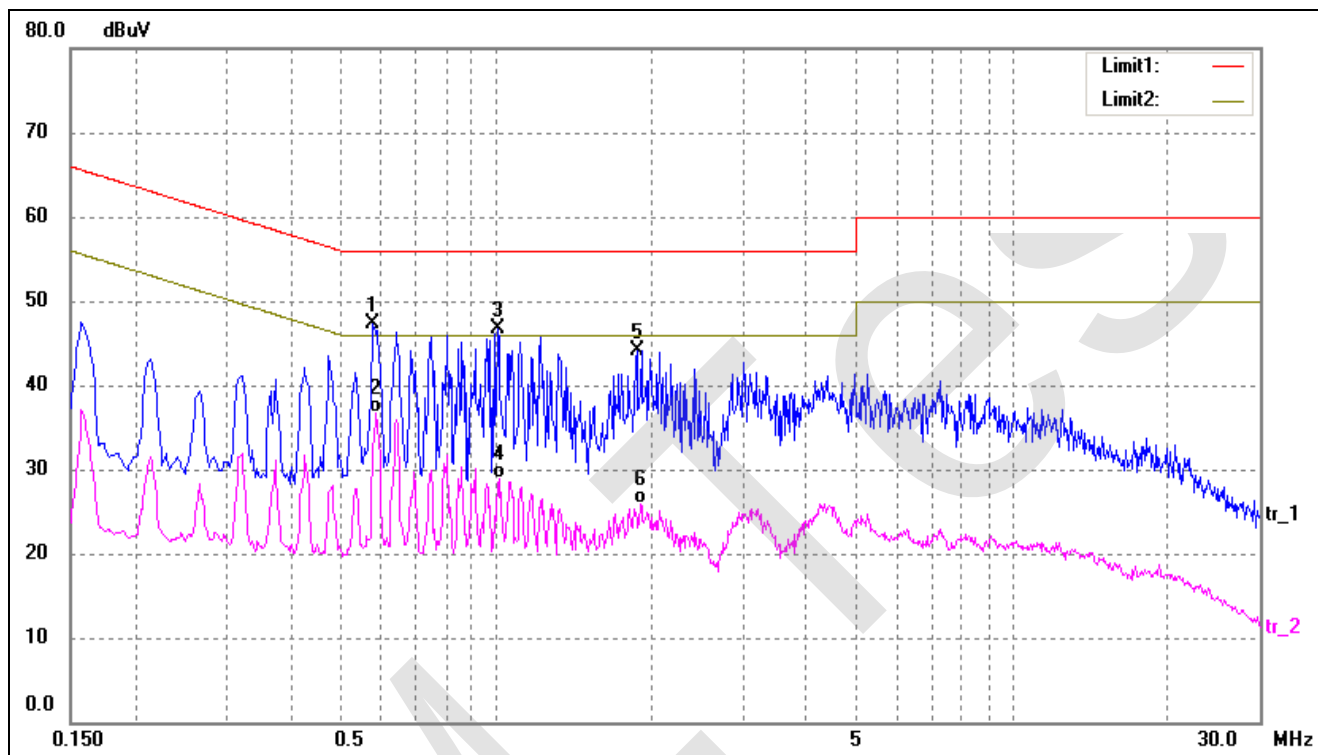


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1*	0.6340	29.01	9.59	38.60	56.00	-17.40	peak
2	0.6340	18.49	9.59	28.08	46.00	-17.92	AVG
3	2.5380	13.64	9.90	23.54	46.00	-22.46	AVG
4	2.5980	26.12	9.90	36.02	56.00	-19.98	peak
5	15.9940	23.00	10.43	33.43	60.00	-26.57	peak
6	16.3100	10.80	10.43	21.23	50.00	-28.77	AVG

Plot of Conducted Emissions Test Data

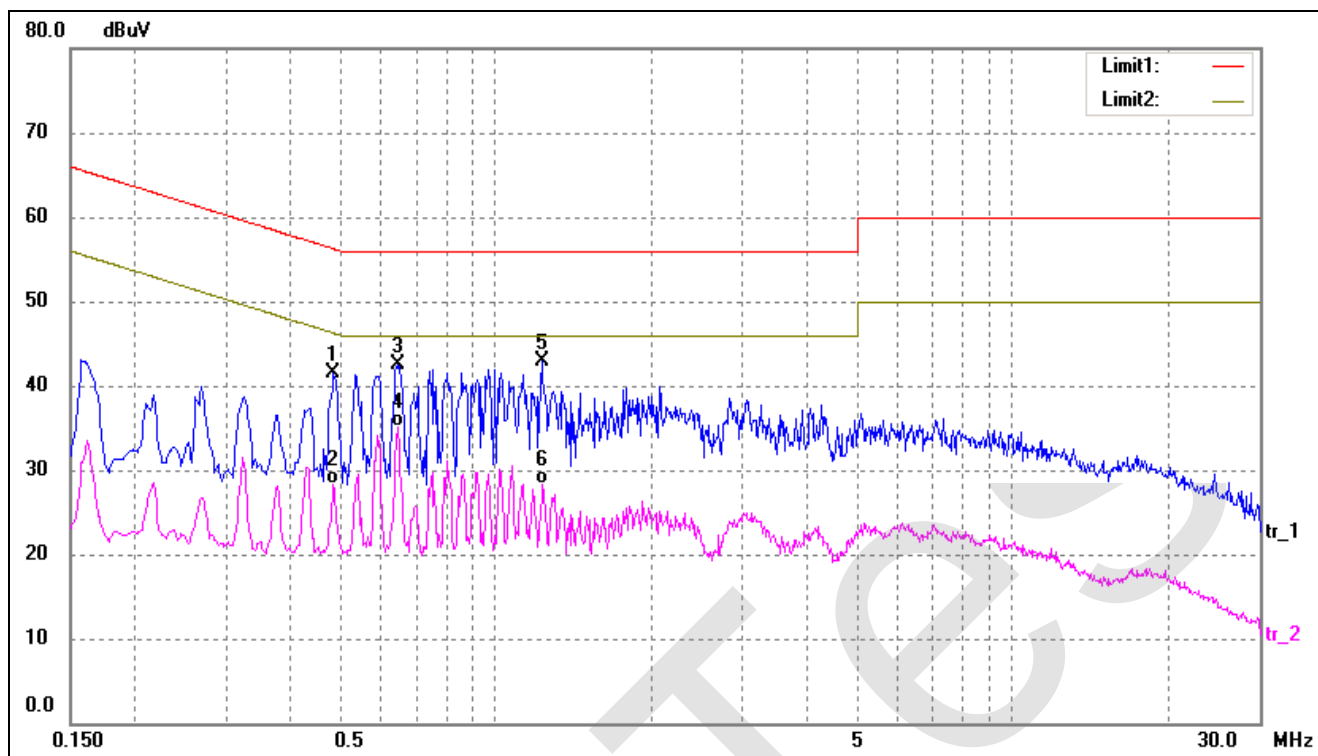
EUT: Power adapter
Tested Model: GT-41076-AABB-C.C
Operating Condition: TM1
Comment: AC 100V/60Hz

Test Specification: Line



No.	Frequency	Reading	Correct	Result	Limit	Margin	Detector
	(MHz)	(dBuV)	(dB/m)	(dBuV)	(dBuV)	(dB)	
1*	0.5780	37.79	9.58	47.37	56.00	-8.63	peak
2	0.5860	27.08	9.58	36.66	46.00	-9.34	AVG
3	1.0100	37.04	9.68	46.72	56.00	-9.28	peak
4	1.0180	19.24	9.68	28.92	46.00	-17.08	AVG
5	1.8700	34.28	9.80	44.08	56.00	-11.92	peak
6	1.9020	16.02	9.81	25.83	46.00	-20.17	AVG

Test Specification: Neutral



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.4860	31.93	9.55	41.48	56.24	-14.76	peak
2	0.4860	18.67	9.55	28.22	46.24	-18.02	AVG
3	0.6460	32.93	9.60	42.53	56.00	-13.47	peak
4*	0.6460	25.54	9.60	35.14	46.00	-10.86	AVG
5	1.2260	33.27	9.71	42.98	56.00	-13.02	peak
6	1.2340	18.56	9.71	28.27	46.00	-17.73	AVG

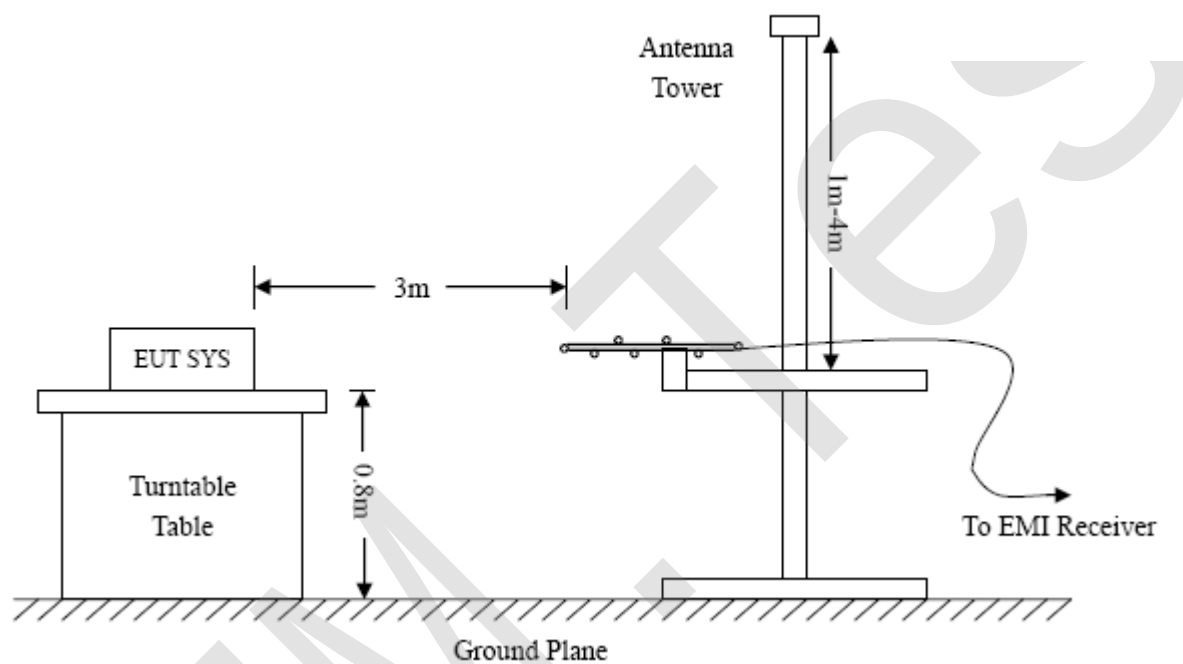
4. RADIATED EMISSION

4.1 Measurement Uncertainty

Base on NIS 81, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of any radiation emissions measurement is ± 5.10 dB.

4.2 Test Procedure

Test is conducting under the description of J55022 Information technology equipment - Radio disturbance characteristics - Limits and methods of measurement.



4.3 Corrected Amplitude & Margin Calculation

The Corrected Amplitude is calculated by adding the Antenna Factor and the Cable Factor, and subtracting the Amplifier Gain from the Amplitude reading. The basic equation is as follows:

$$\text{Corr. Ampl.} = \text{Indicated Reading} + \text{Antenna Factor} + \text{Cable Factor} - \text{Amplifier Gain}$$

The “**Margin**” column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of -6dBμV means the emission is 6dBμV below the maximum limit for Class B device. The equation for margin calculation is as follows:

$$\text{Margin} = \text{Corr. Ampl.} - \text{J55022 Class B Limit}$$

4.4 Environmental Conditions

Temperature:	23° C
Relative Humidity:	53%
ATM Pressure:	1011 mbar

4.5 Summary of Test Results/Plots

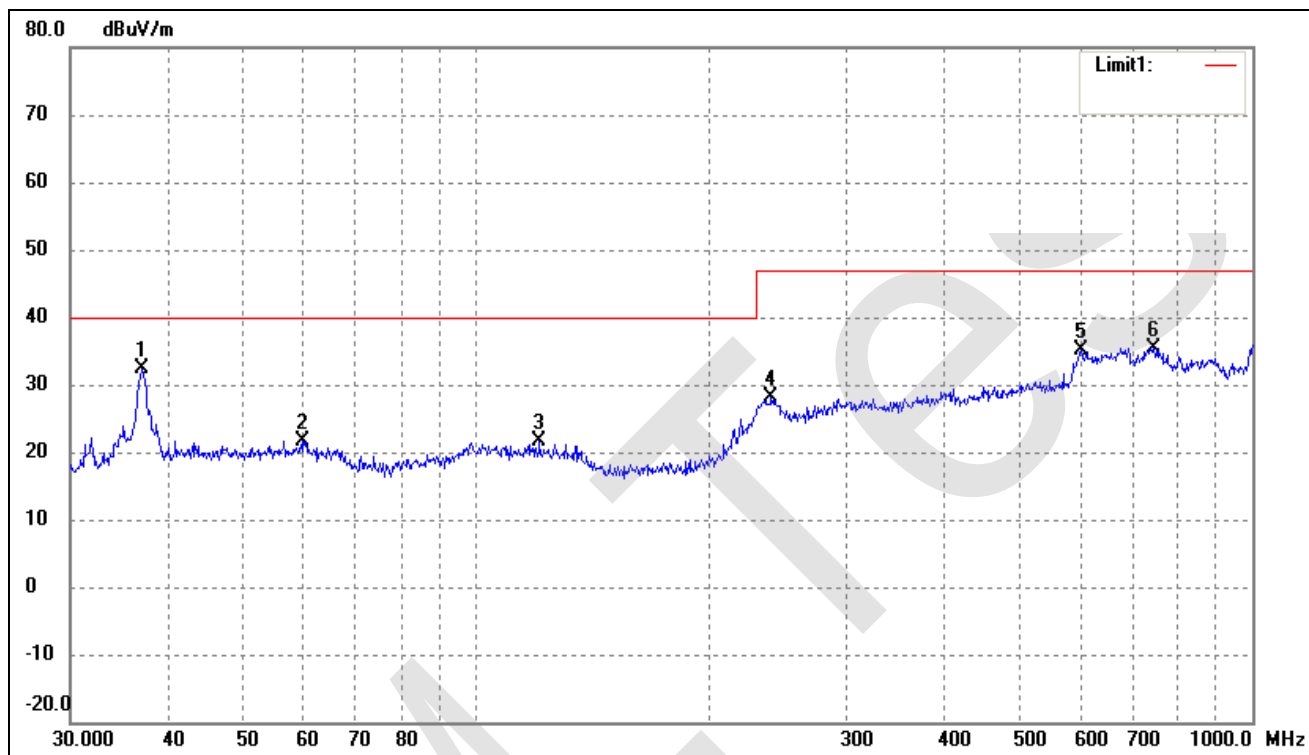
According to the data in section 4.5, the EUT complied with the J55022 Class B standards, and had the worst margin is:

-7.64 dB at 37.1550 MHz in the Horizontal polarization 30 MHz to 1 GHz, 3Meters

Plot of Radiated Emissions Test Data

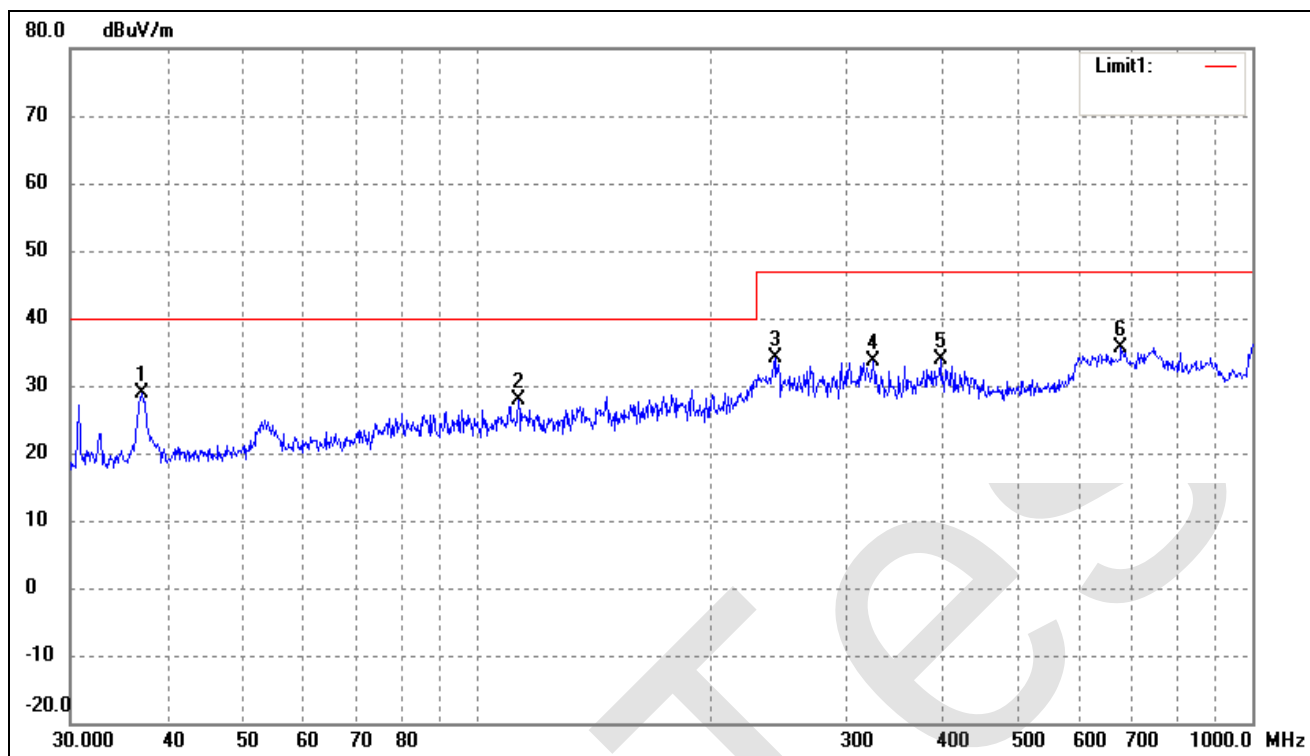
EUT: Power adapter
 Tested Model: GT-41076-AABB-C.C
 Operating Condition: TM1
 Comment: AC 100V/50Hz

Test Specification: Horizontal



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	37.1550	27.60	4.76	32.36	40.00	-7.64	0	100	peak
2	59.8588	16.16	5.38	21.54	40.00	-18.46	0	100	peak
3	120.6991	16.64	4.96	21.60	40.00	-18.40	0	100	peak
4	239.9874	18.69	9.33	28.02	47.00	-18.98	0	100	peak
5	601.4265	15.79	19.22	35.01	47.00	-11.99	0	100	peak
6	747.4825	16.28	19.20	35.48	47.00	-11.52	0	100	peak

Test Specification: Vertical

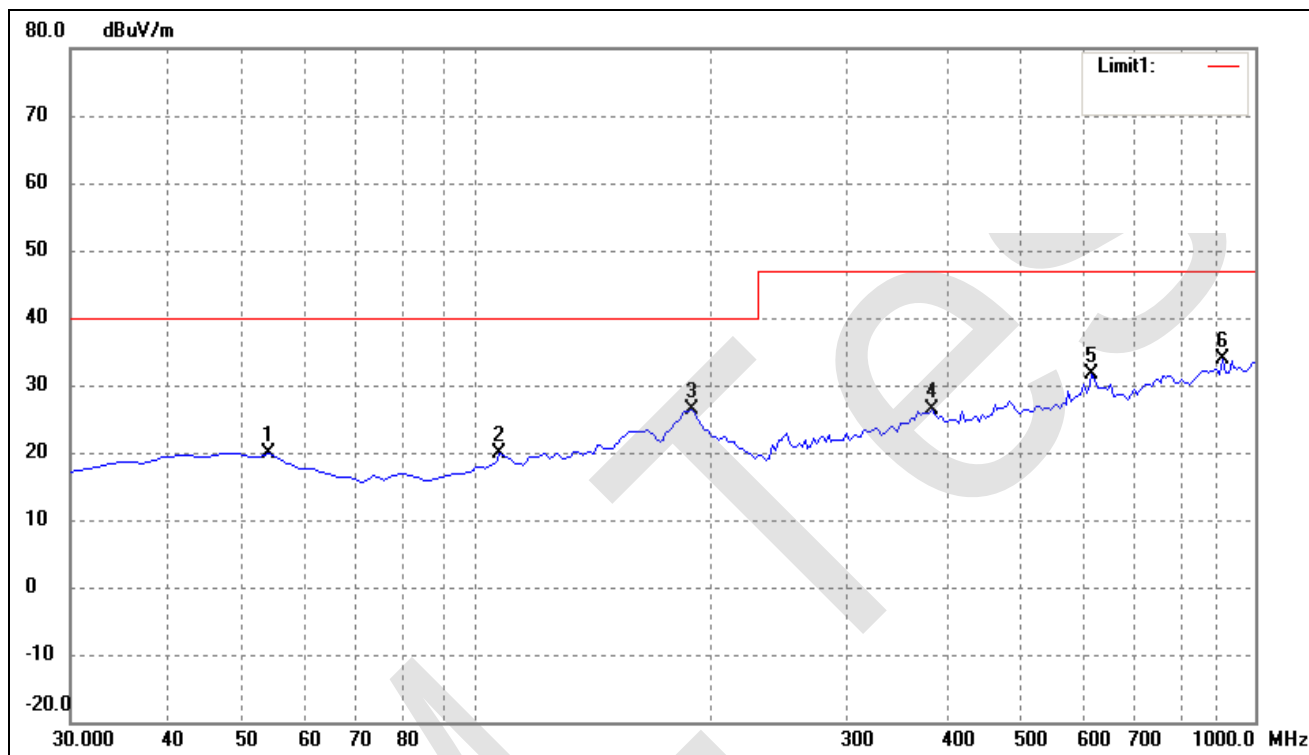


No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	37.1550	24.00	4.76	28.76	40.00	-11.24	0	100	peak
2	113.3163	22.84	5.06	27.90	40.00	-12.10	0	100	peak
3	242.5253	24.58	9.43	34.01	47.00	-12.99	0	100	peak
4	324.4561	21.38	12.16	33.54	47.00	-13.46	0	100	peak
5	396.2415	20.81	12.95	33.76	47.00	-13.24	0	100	peak
6	677.5798	16.39	19.13	35.52	47.00	-11.48	0	100	peak

Plot of Radiated Emissions Test Data

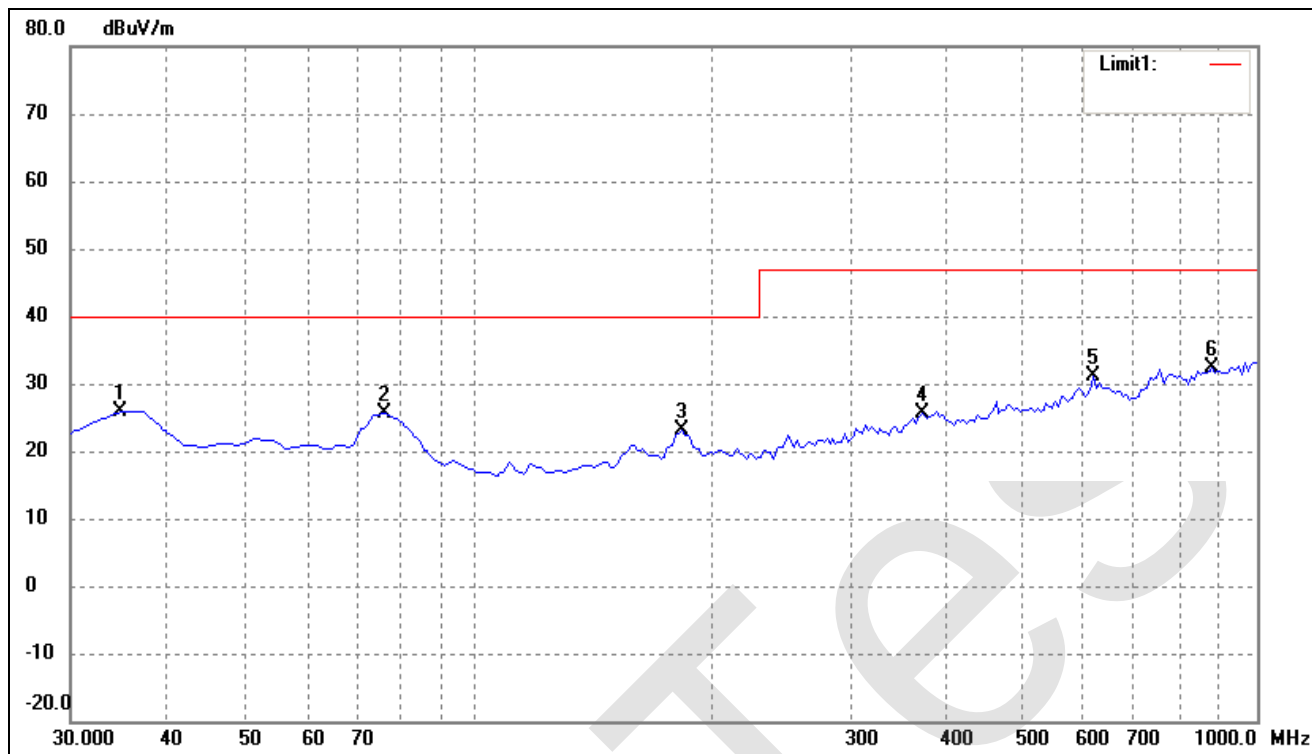
EUT: Power adapter
Tested Model: GT-41076-AABB-C.C
Operating Condition: TM1
Comment: AC 100V/60Hz

Test Specification: Horizontal



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	54.2500	28.70	-8.86	19.84	40.00	-20.16	0	100	peak
2	107.6000	30.86	-11.10	19.76	40.00	-20.24	0	100	peak
3	190.0500	36.33	-9.99	26.34	40.00	-13.66	0	100	peak
4	386.4750	28.87	-2.44	26.43	47.00	-20.57	0	100	peak
5	619.2750	30.37	1.19	31.56	47.00	-15.44	0	100	peak
6	912.7000	30.37	3.47	33.84	47.00	-13.16	0	100	peak

Test Specification: Vertical



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	34.8500	35.00	-9.08	25.92	40.00	-14.08	0	100	peak
2	76.0750	37.99	-12.32	25.67	40.00	-14.33	0	100	peak
3	182.7750	34.20	-10.98	23.22	40.00	-16.78	0	100	peak
4	374.3500	28.15	-2.42	25.73	47.00	-21.27	0	100	peak
5	621.7000	29.85	1.19	31.04	47.00	-15.96	0	100	peak
6	883.6000	29.17	3.14	32.31	47.00	-14.69	0	100	peak

EXHIBIT 1 - EUT PHOTOGRAPHS

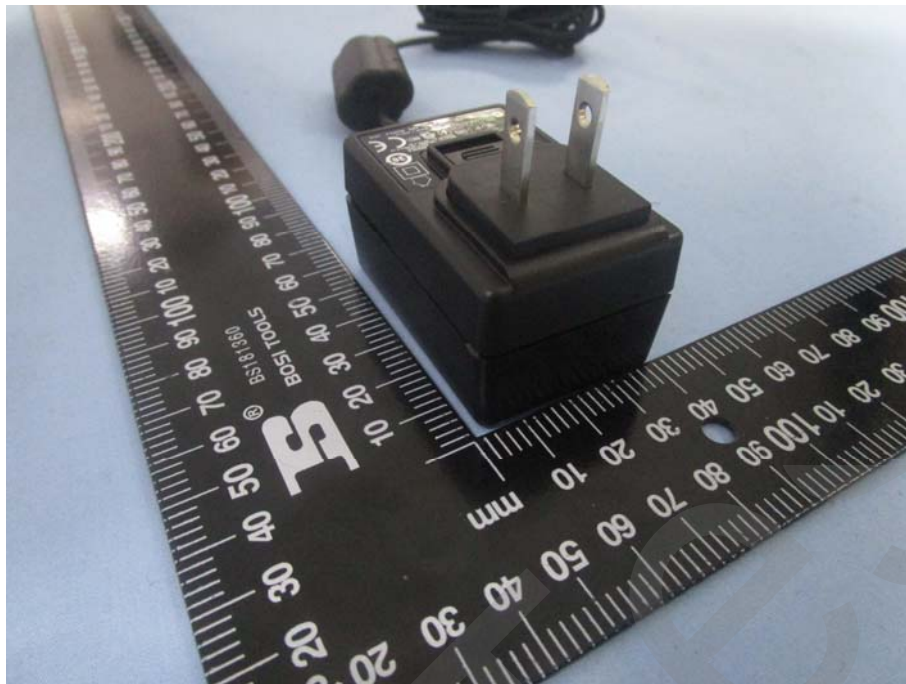
EUT View 1



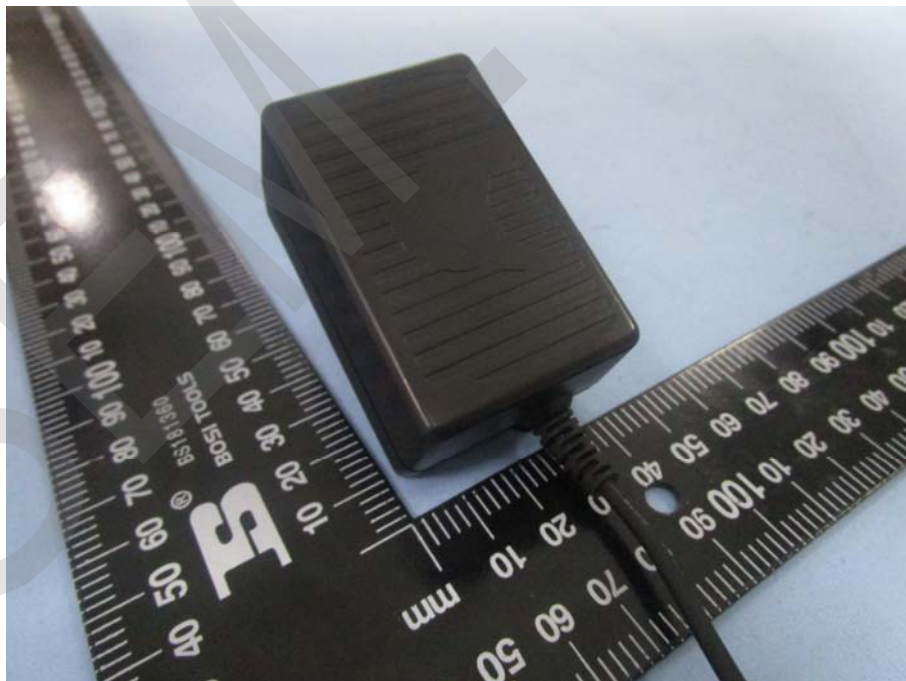
EUT View 2



EUT View 3



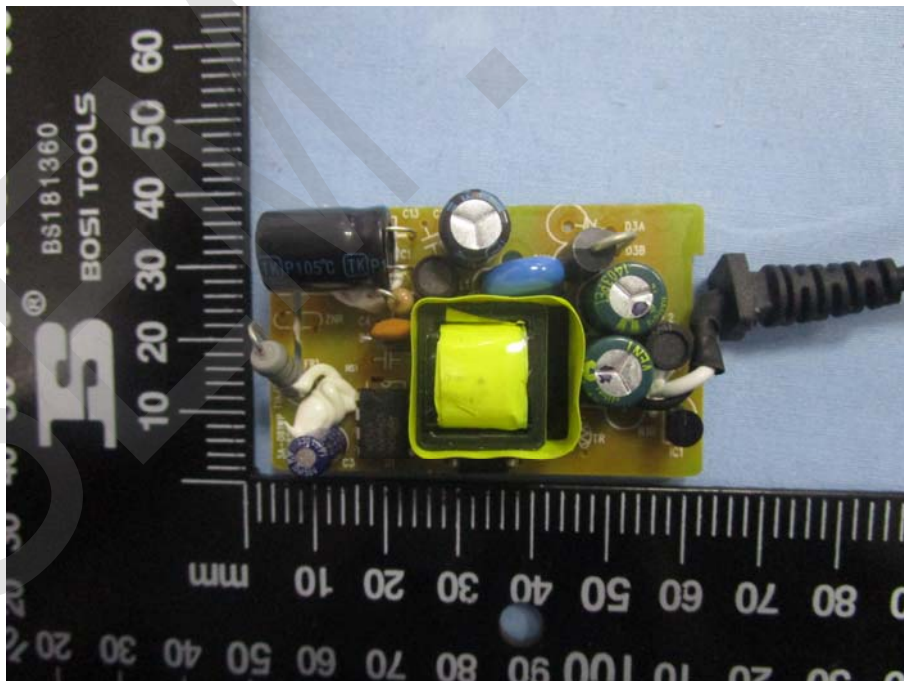
EUT View 4



EUT Housing and Board View 1



Solder Board-Component View 1



Solder Board-Component View 2

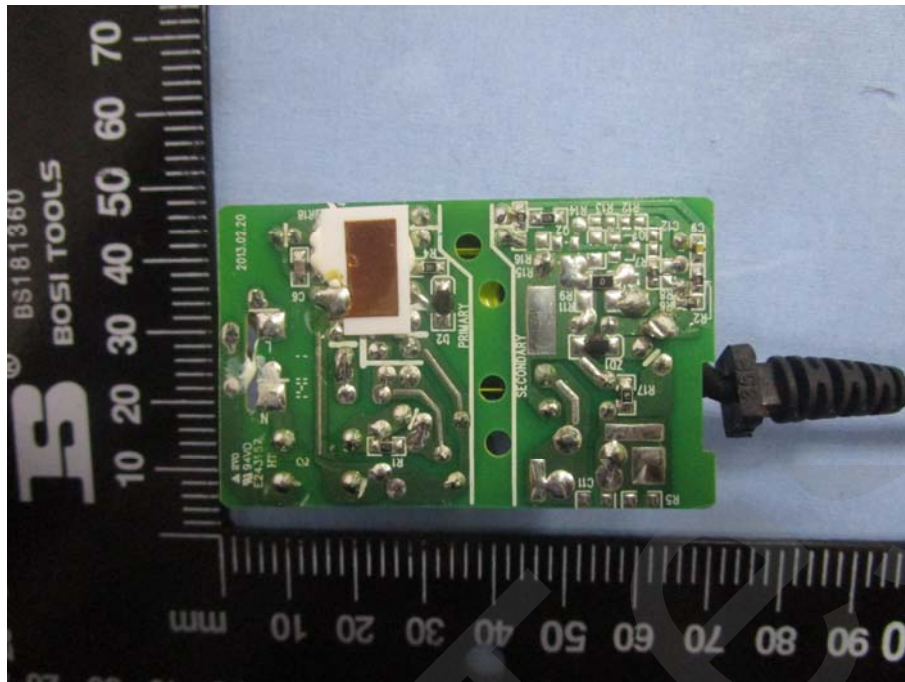


EXHIBIT 2 - TEST SETUP PHOTOGRAPHS

Conduction Emission Test View



Radiation Emission Test View



***** END OF REPORT *****