FCC Part 15B
Measurement and Test Report

For

GlobTek, Inc.

186 Veterans Dr. Northvale, NJ 07647 USA

FCC Rule(s):	FCC Part 15 Subpart B
Product Description:	ITE Power Supply
Tested Model:	GT-43007-*** series
Report No.:	STR14128149E-3
Tested Date:	2014-12-16 to 2014-12-22
Issued Date:	2014-12-22
Tested By:	Ben Chen / Engineer
Reviewed By:	Lahm Peng / EMC Manager
Approved & Authorized By:	Jandy so / PSQ Manager

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:	ITE Power Supply
Trade Name:	GlobTek
Model No.:	GT-43007-*** series
Adding Model(s):	/
Note: The test data is gathered from a production sample, provided by the manufacturer. The 1st "" part denotes the rated output wattage designation, which can be "01" to "40", with interval of 1. The 2nd "*" part denotes the standard rated output voltage designation, which can be "12", "24", "36" and "48".* *The 3rd "*" part is optional, which can be "-0.1" to "-11.9" with interval of 0.1 to denote voltage deviation or blank to indicate no voltage different. The result by subtracting the deviation value from the standard rated output voltage denotes the rated output voltage, with a range of 12-48 volts.*	

Technical Characteristics of EUT	
Rated Voltage:	AC 100-240V, 50-60Hz
Rated Current:	1.0A
Rated Power:	Max.40W
Power Adapter Model:	/
Lowest Internal Frequency:	/
Highest Internal Frequency:	Below 108MHz
Classification of ITE:	Class B

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1.2 Test Standards

The following report is prepared on behalf of the GlobTek, Inc. in accordance with Part 2, Subpart J, and Part 15, Subparts A and B of the Federal Communication Commissions rules.

The objective is to determine compliance with FCC Part 15, Subpart B, and section 15.205, 15.107, and 15.109 rules.

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

1.3 Test Methodology

All measurements contained in this report were conducted with ANSI C63.4-2003, American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the range of 9 kHz to 40 GHz.

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).

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1.5 EUT Setup and Operation Mode

The equipment under test (EUT) was configured to measure its highest possible emission 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	Working	Link to the load

EUT Cable List and Details

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

Auxiliary Equipment List and Details

Description	Manufacturer	Model	Serial Number
Resistance*1	/	36W/4RJ,40W/57R6J	/

Special Cable List and Details

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

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2. SUMMARY OF TEST RESULTS

Description of Test	Result
§15.107 (a) Conducted Emission	Compliant
§15.109(a) Radiated Emission	Compliant

N/A: not applicable

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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.

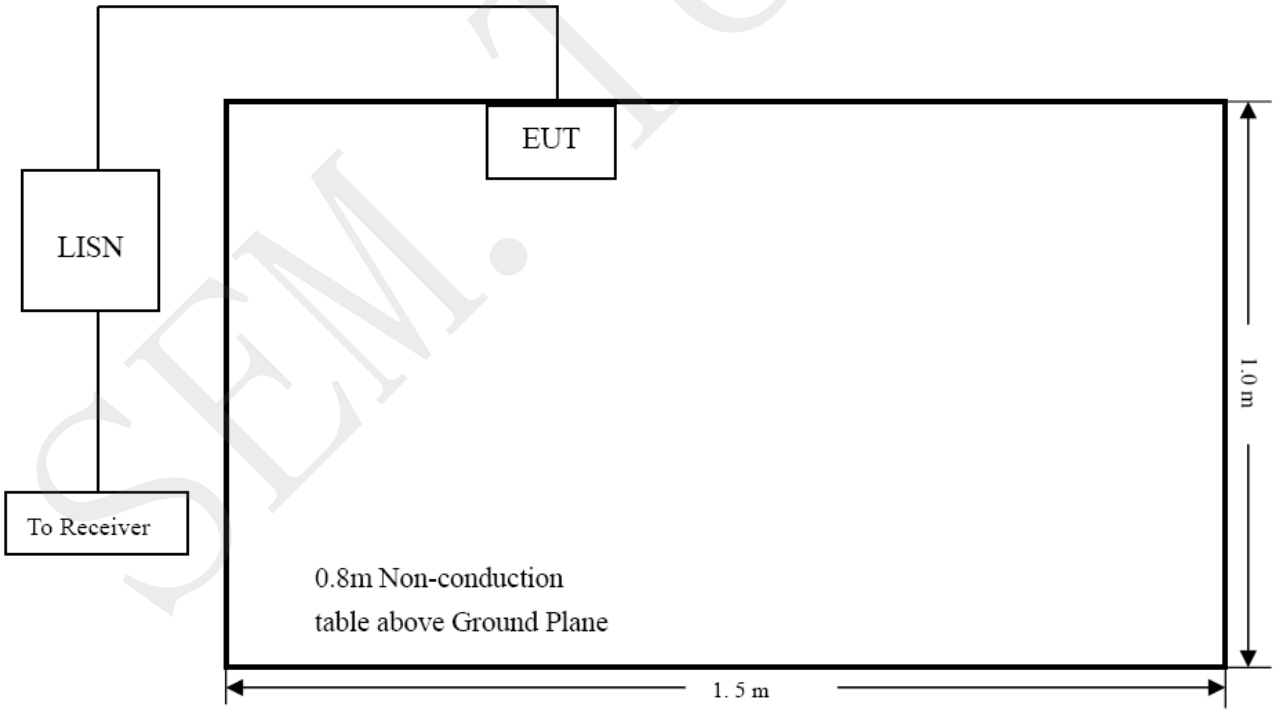
3.2 Test Equipment List and Details

Description	Manufacturer	Model	Serial Number	Cal. Date	Due. Date
EMI Test Receiver	Rohde & Schwarz	ESPI	101611	2014-05-28	2015-05-27
L.I.S.N	Schwarz beck	NSLK8126	8126-224	2014-05-28	2015-05-27
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100911	2014-05-28	2015-05-27

3.3 Test Procedure

Test is conducting under the description of ANSI C63.4-2003, American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the range of 9 kHz to 40 GHz.

3.4 Basic Test Setup Block Diagram



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3.5 Environmental Conditions

Temperature:	23 °C
Relative Humidity:	52%
ATM Pressure:	1011 mbar

3.6 Summary of Test Results/Plots

According to the data in section 3.7, the EUT complied with the FCC Part 15.107(a) Conducted margin for a Class B device, with the *worst* margin reading of:

-2.45 dB at **0.1980 MHz** in the **Neutral**, **Peak** detector, **GT-43007-3612** Mode, 0.15-30MHz

3.7 Conducted Emissions Test Data

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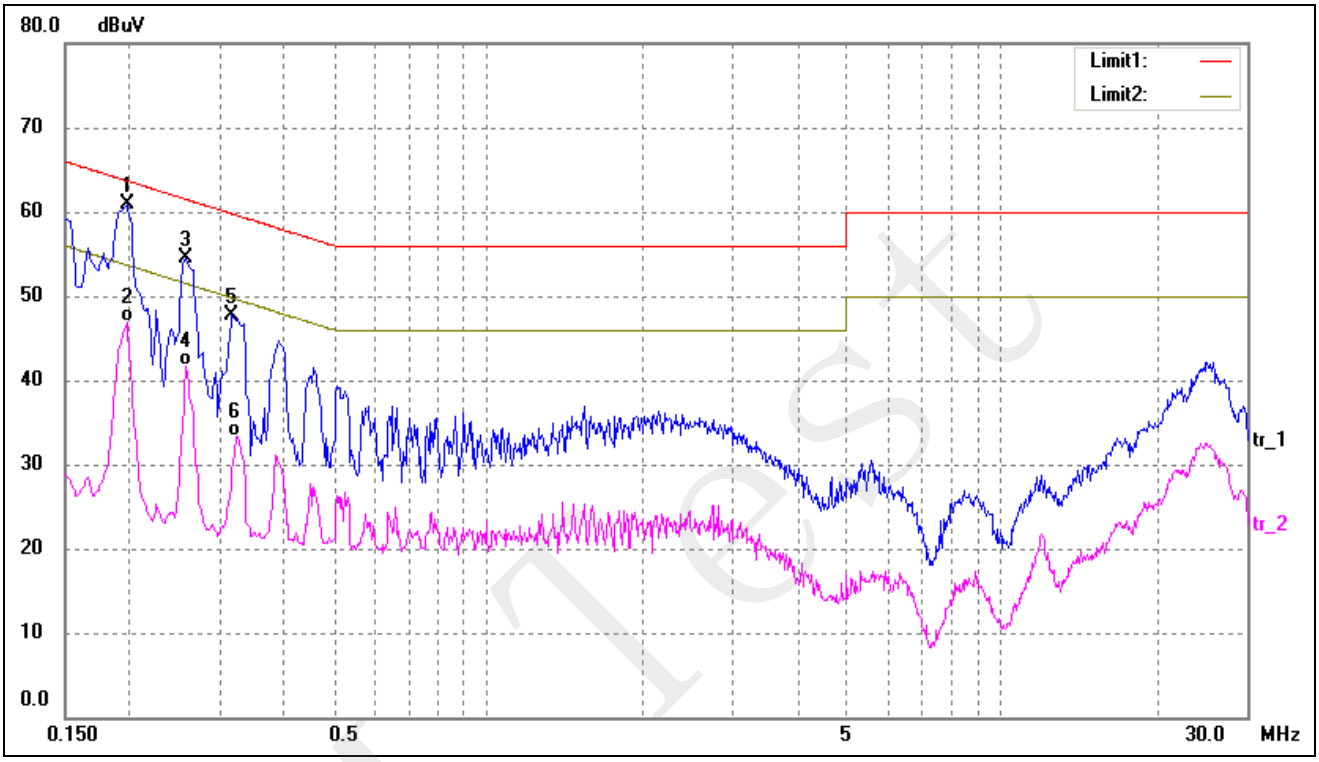
Plot of Conducted Emissions Test Data

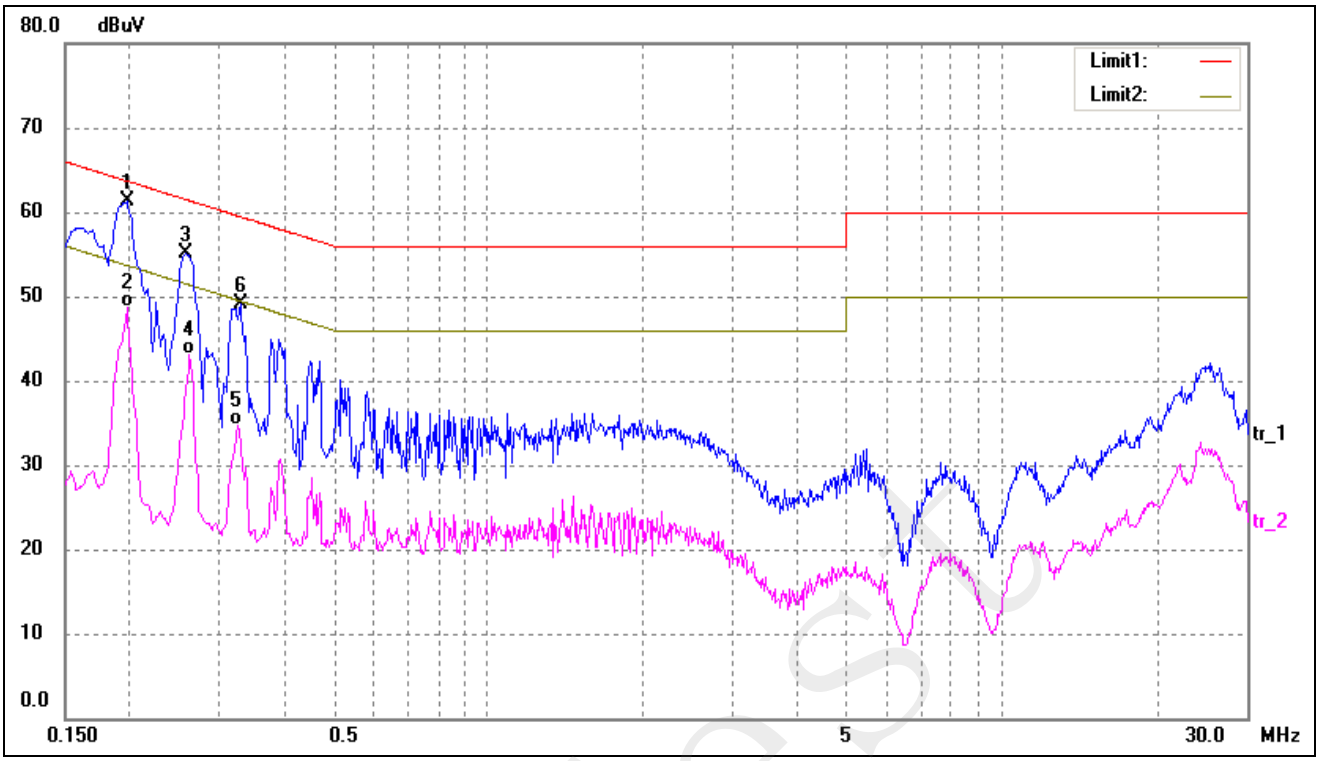
EUT: *ITE Power Supply*
Tested Model: *GT-43007-3612*
Operating Condition: *TM1*
Comment: *AC 120V/60Hz*

Test Specification: *Line*



No.	Frequency	Reading	Correct	Result	Limit	Margin	Detector
	(MHz)	(dBuV)	(dB/m)	(dBuV)	(dBuV)	(dB)	
1*	0.1980	51.40	9.50	60.90	63.69	-2.79	peak
2	0.1980	37.41	9.50	46.91	53.69	-6.78	AVG
3	0.2580	44.98	9.50	54.48	61.50	-7.02	peak
4	0.2580	32.19	9.50	41.69	51.50	-9.81	AVG
5	0.3180	38.30	9.50	47.80	59.76	-11.96	peak
6	0.3220	23.81	9.50	33.31	49.66	-16.35	AVG

Test Specification: *Neutral*



No.	Frequency	Reading	Correct	Result	Limit	Margin	Detector
	(MHz)	(dBuV)	(dB/m)	(dBuV)	(dBuV)	(dB)	
1*	0.1980	51.74	9.50	61.24	63.69	-2.45	peak
2	0.1980	39.26	9.50	48.76	53.69	-4.93	AVG
3	0.2580	45.53	9.50	55.03	61.50	-6.47	peak
4	0.2620	33.54	9.50	43.04	51.37	-8.33	AVG
5	0.3260	25.26	9.50	34.76	49.55	-14.79	AVG
6	0.3300	39.67	9.50	49.17	59.45	-10.28	peak

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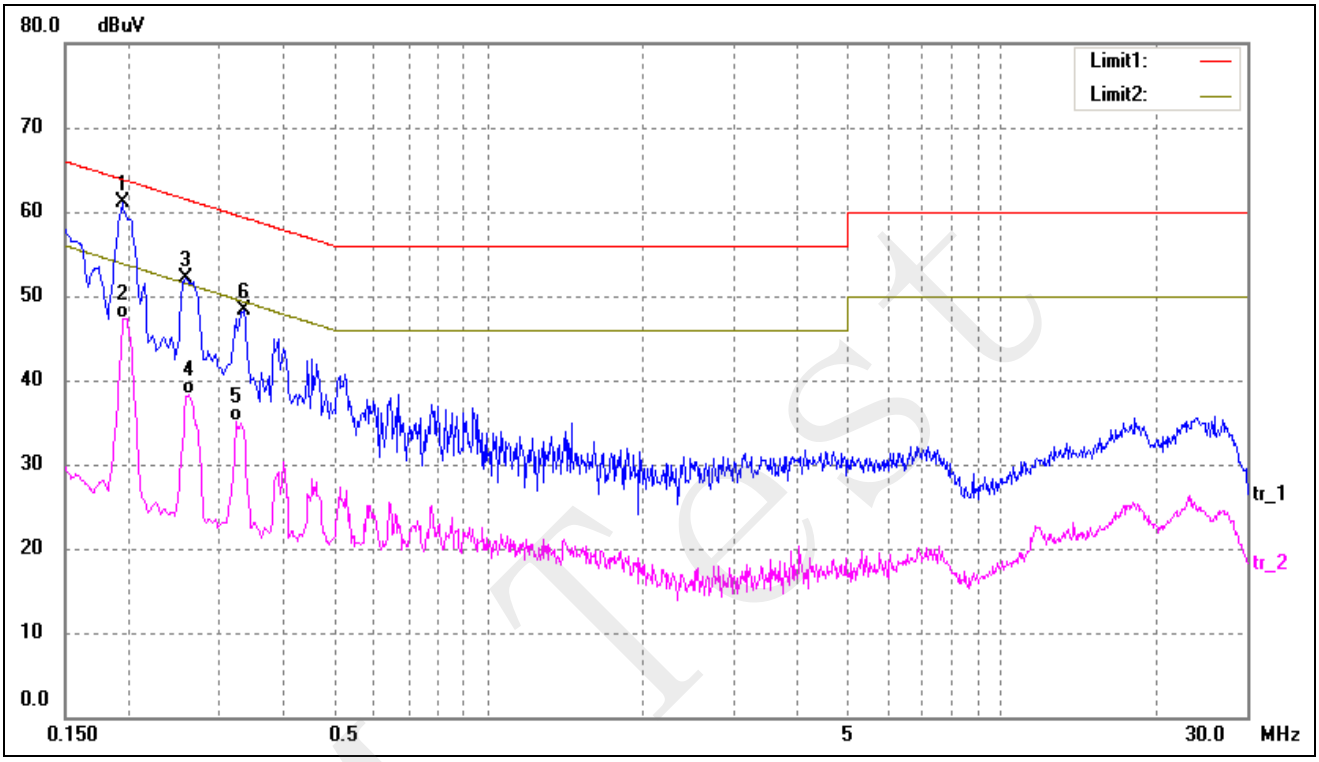
Plot of Conducted Emissions Test Data

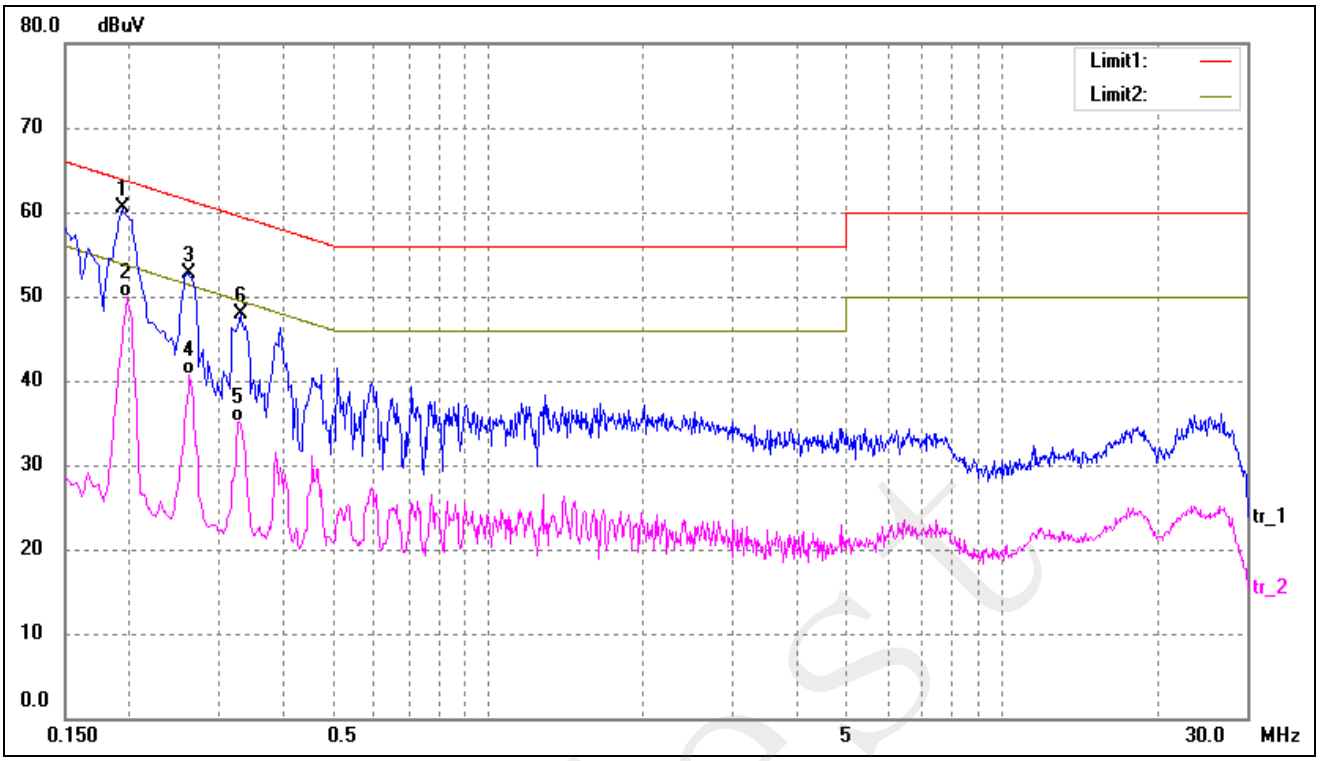
EUT: *ITE Power Supply*
Tested Model: *GT-43007-4048*
Operating Condition: *TM1*
Comment: *AC 120V/60Hz*

Test Specification: *Line*



No.	Frequency	Reading	Correct	Result	Limit	Margin	Detector
	(MHz)	(dBuV)	(dB/m)	(dBuV)	(dBuV)	(dB)	
1*	0.1940	51.52	9.50	61.02	63.86	-2.84	peak
2	0.1940	37.81	9.50	47.31	53.86	-6.55	AVG
3	0.2580	42.61	9.50	52.11	61.50	-9.39	peak
4	0.2620	28.85	9.50	38.35	51.37	-13.02	AVG
5	0.3220	25.64	9.50	35.14	49.66	-14.52	AVG
6	0.3340	38.73	9.50	48.23	59.35	-11.12	peak

Test Specification: *Neutral*



No.	Frequency	Reading	Correct	Result	Limit	Margin	Detector
	(MHz)	(dBuV)	(dB/m)	(dBuV)	(dBuV)	(dB)	
1*	0.1940	50.94	9.50	60.44	63.86	-3.42	peak
2	0.1980	40.50	9.50	50.00	53.69	-3.69	AVG
3	0.2620	43.11	9.50	52.61	61.37	-8.76	peak
4	0.2620	31.27	9.50	40.77	51.37	-10.60	AVG
5	0.3260	25.55	9.50	35.05	49.55	-14.50	AVG
6	0.3300	38.43	9.50	47.93	59.45	-11.52	peak

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4. RADIATED EMISSION

4.1 Measurement Uncertainty

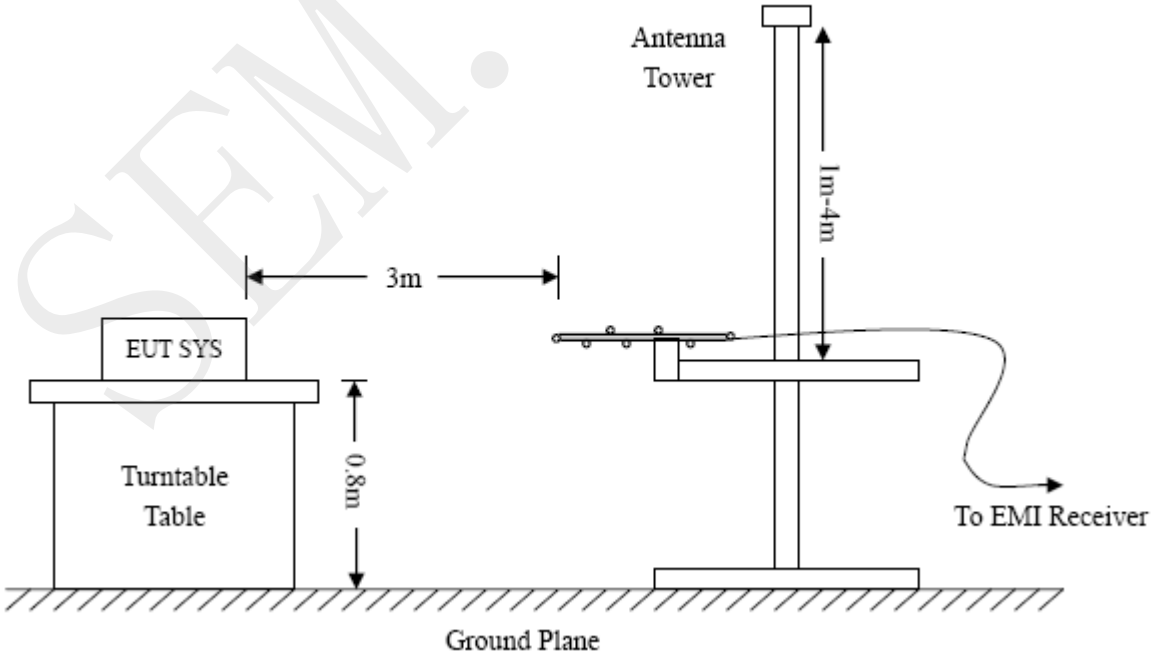
Base on NIS 81, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of any radiation emissions measurement is ± 5.10 dB.

4.2 Test Equipment List and Details

Description	Manufacturer	Model	Serial Number	Cal. Date	Due. Date
Spectrum Analyzer	R&S	FSP	836079/035	2014-05-28	2015-05-27
EMI Test Receiver	R&S	ESVB	825471/005	2014-05-28	2015-05-27
Pre-amplifier	Agilent	8447F	3113A06717	2014-05-28	2015-05-27
Pre-amplifier	Compliance Direction	PAP-0118	24002	2014-05-28	2015-05-27
Trilog Broadband Antenna	SCHWARZBECK	VULB9163	9163-333	2014-05-24	2015-05-23
Horn Antenna	ETS	3117	00086197	2014-05-24	2015-05-23
Loop Antenna	SCHWARZECK	HFRA 5165	9365	2014-05-24	2015-05-23

4.3 Test Procedure

The setup of EUT is according with per ANSI C63.4-2003 measurement procedure. The specification used was with the FCC Part 15.109 Limit.
The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle.
The spacing between the peripherals was 10 cm.



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4.4 Test Receiver Setup

Frequency :9kHz-30MHz	Frequency :30MHz-1GHz	Frequency :Above 1GHz
RBW=10KHz,	RBW=120KHz,	RBW=1MHz,
VBW =30KHz	VBW=300KHz	VBW=3MHz(Peak), 10Hz(AV)
Sweep time= Auto	Sweep time= Auto	Sweep time= Auto
Trace = max hold	Trace = max hold	Trace = max hold
Detector function = peak	Detector function = peak, QP	Detector function = peak, AV

4.5 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:

Corr. Ampl. = Indicated Reading – Corr. Factor

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 a Class B device. The equation for margin calculation is as follows:

Margin = Corr. Ampl. – FCC Part 15.109(a) Limit

4.6 Environmental Conditions

Temperature:	23 °C
Relative Humidity:	55 %
ATM Pressure:	1011 mbar

4.7 Summary of Test Results/Plots

According to the data, the EUT complied with the FCC Part 15.109(a) rule, and had the worst margin of:

-3.30 dB at **45.8553 MHz** in the **Vertical** polarization, **GT-43007-3612** Mode,
30 MHz to **1 GHz**, **3Meters**

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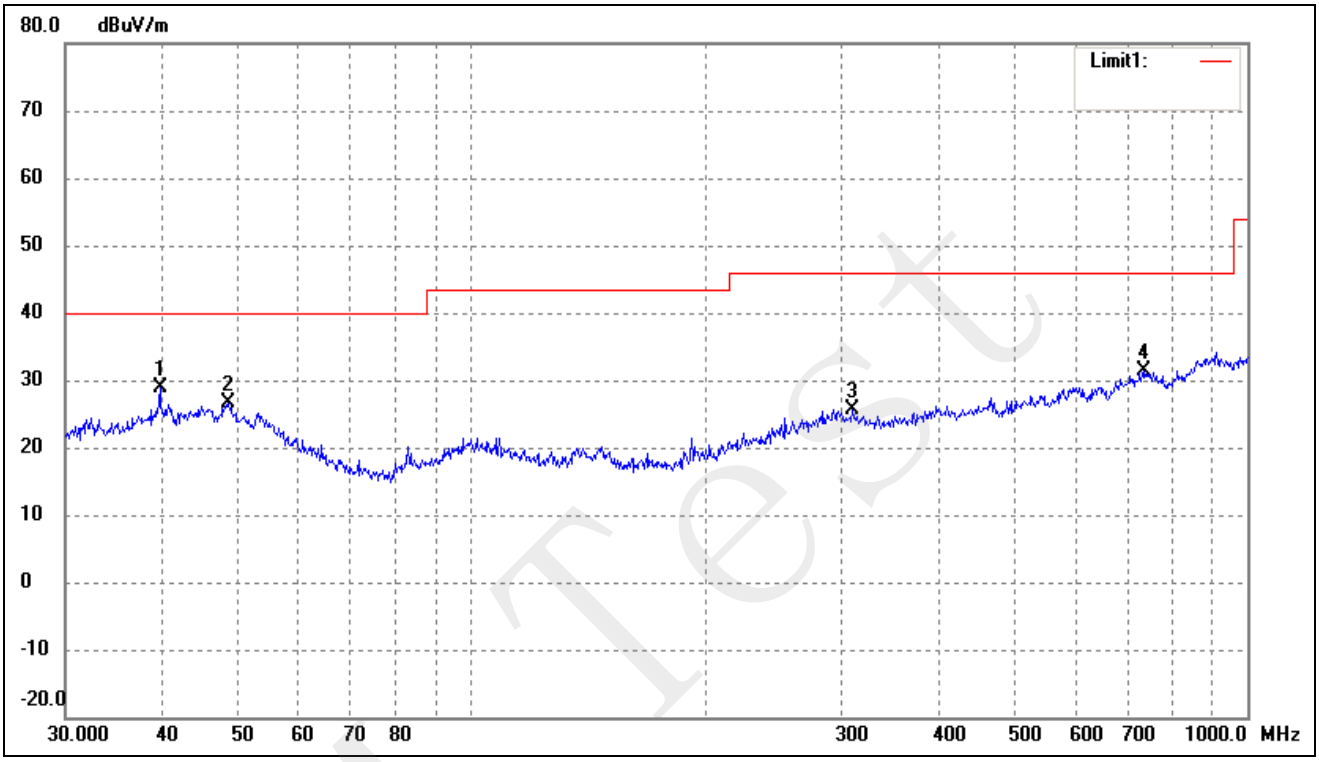
Plot of Radiated Emissions Test Data

EUT: *ITE Power Supply*
Tested Model: *GT-43007-3612*
Operating Condition: *TM1*
Comment: *AC 120V/60Hz*

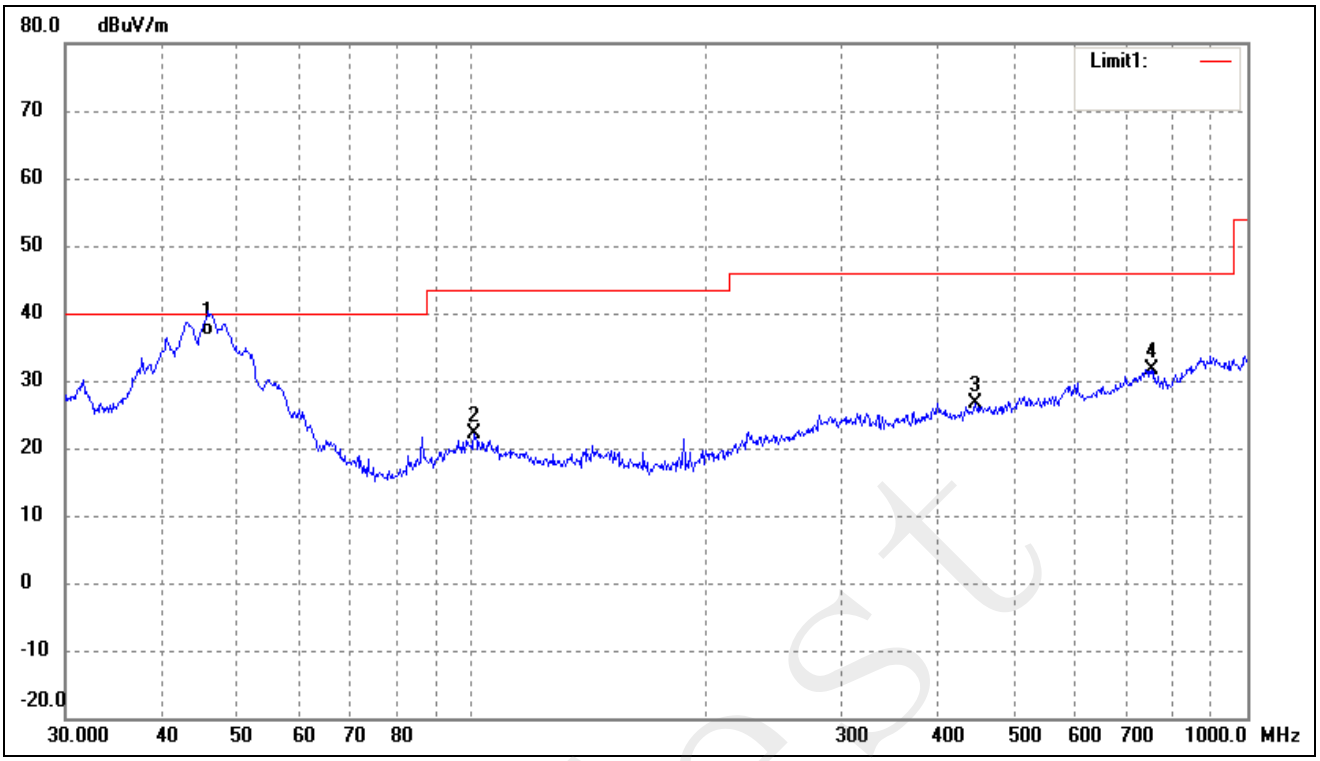
Test Specification: *Horizontal*



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	( )	(cm)	
1	39.7147	21.63	7.17	28.80	40.00	-11.20	100	100	peak
2	48.6719	20.28	6.39	26.67	40.00	-13.33	100	100	peak
3	309.9977	16.36	9.23	25.59	46.00	-20.41	100	100	peak
4	737.0714	18.08	13.37	31.45	46.00	-14.55	100	100	peak

Sample Test

Test Specification: *Vertical*



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	( )	(cm)	
1	45.8553	29.20	7.50	36.70	40.00	-3.30	100	100	QP
2	100.9340	16.06	6.03	22.09	43.50	-21.41	100	100	peak
3	446.4141	16.50	10.19	26.69	46.00	-19.31	100	100	peak
4	752.7432	16.56	14.98	31.54	46.00	-14.46	100	100	peak

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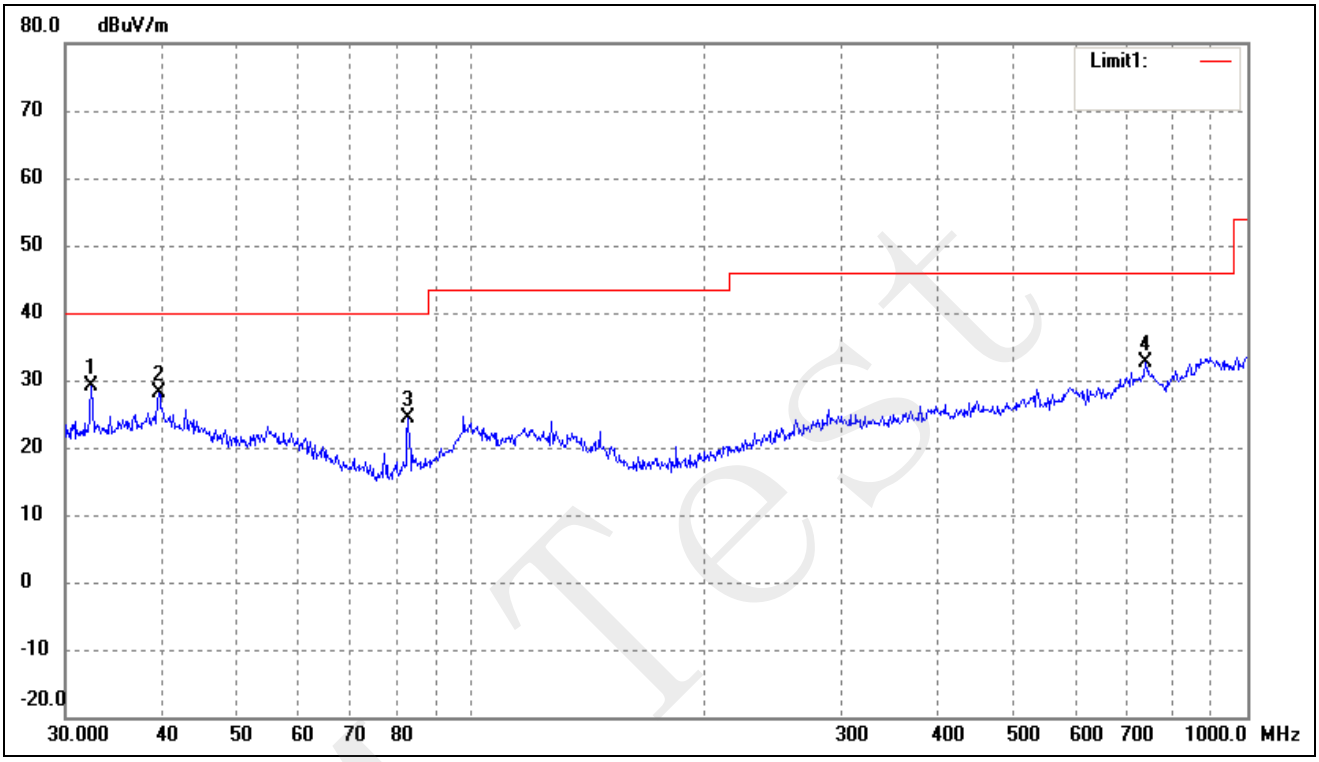
Plot of Radiated Emissions Test Data

EUT: *ITE Power Supply*
Tested Model: *GT-43007-4048*
Operating Condition: *TM1*
Comment: *AC 120V/60Hz*

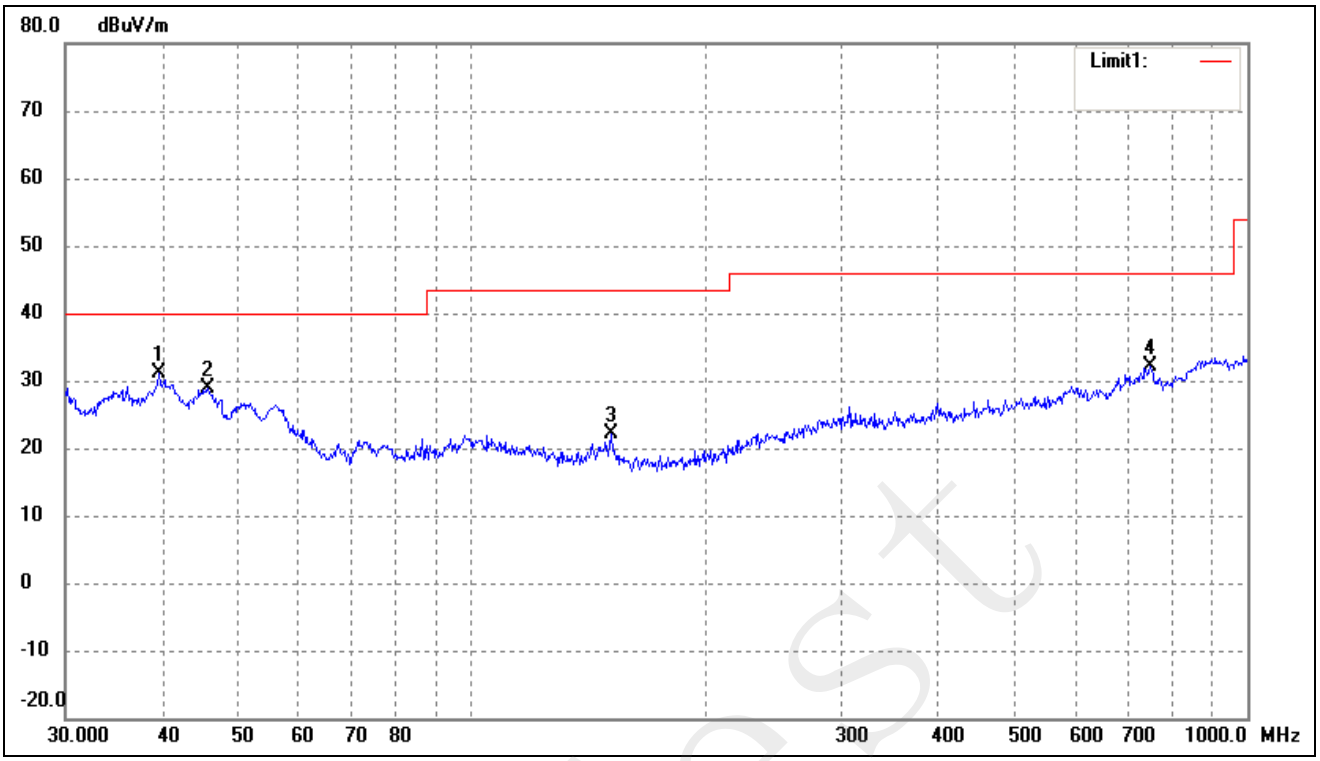
Test Specification: *Horizontal*



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	( )	(cm)	
1	32.4059	23.93	5.24	29.17	40.00	-10.83	100	100	peak
2	39.5757	20.96	7.13	28.09	40.00	-11.91	100	100	peak
3	82.9385	22.54	1.77	24.31	40.00	-15.69	100	100	peak
4	739.6605	18.98	13.53	32.51	46.00	-13.49	100	100	peak

Sample Test

Test Specification: *Vertical*



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	( )	(cm)	
1	39.5757	21.99	9.18	31.17	40.00	-8.83	100	100	peak
2	45.6948	21.40	7.55	28.95	40.00	-11.05	100	100	peak
3	151.5972	19.57	2.53	22.10	43.50	-21.40	100	100	peak
4	750.1083	16.93	15.09	32.02	46.00	-13.98	100	100	peak

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EXHIBIT 1 - PRODUCT LABELING

Proposed FCC Label Format

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Specifications: Text is Black in color and is justified. Labels are printed in indelible ink on permanent adhesive backing or silk-screened onto the EUT or shall be affixed at a conspicuous location on the EUT. Where the EUT is constructed in two or more sections connected by wires and marketed together, the above statement is required to be affixed only to the main control unit. When the EUT is so small or for such use that it is not practicable to place the statement on it, the above information shall be placed in a prominent location in the instruction manual or pamphlet supplied to the user or, alternatively, shall be placed on the container in which the device is marketed.

Proposed Label Location on EUT

FCC Label Location

Tested Model: GT-43007-3612

FCC Label Location

Tested Model: GT-43007-4048

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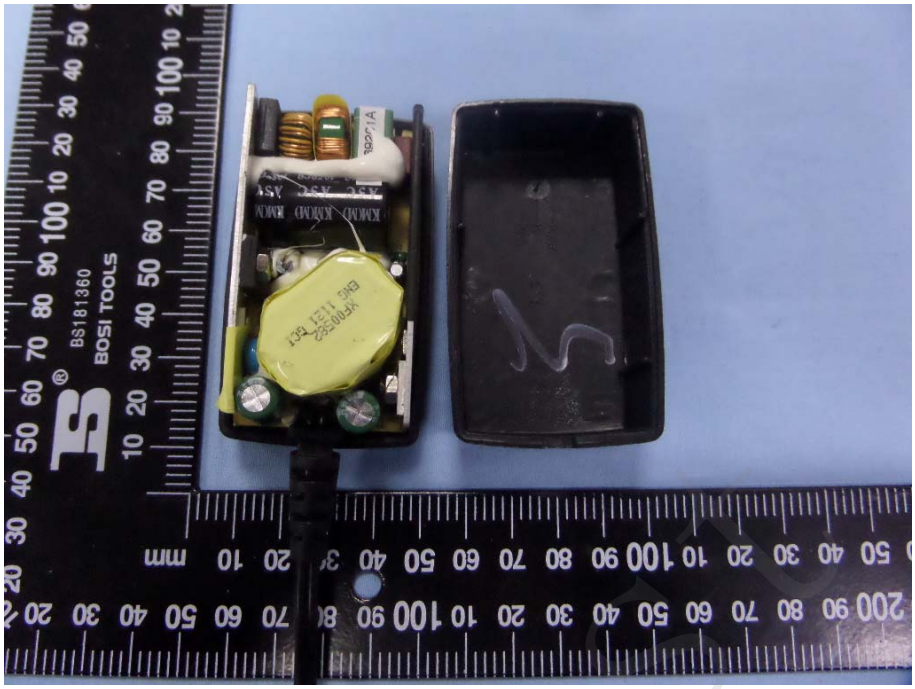
EXHIBIT 2 - EUT PHOTOGRAPHS

Tested Model: GT-43007-3612

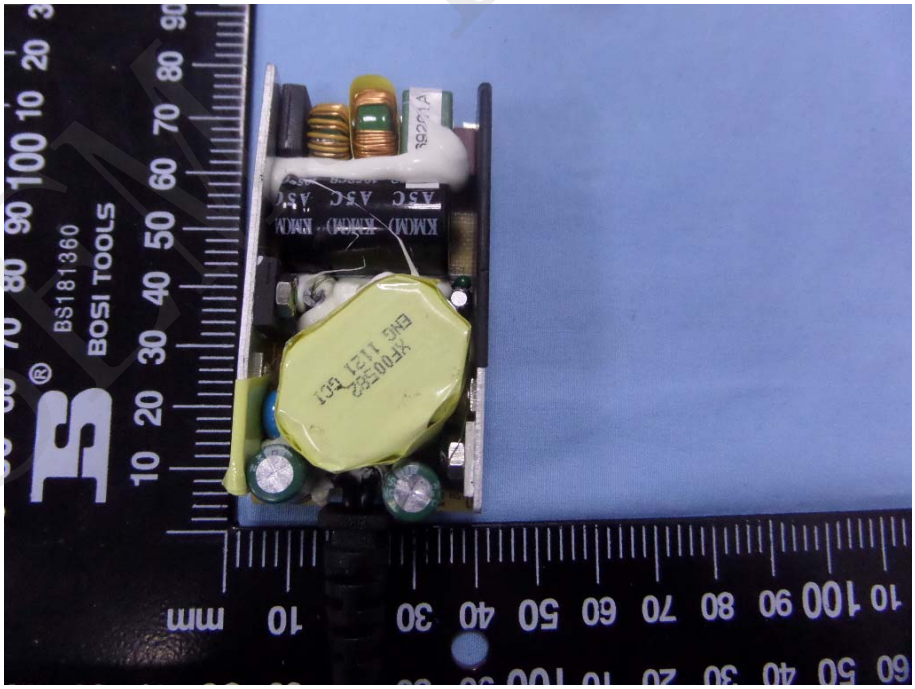
EUT View 1

EUT View 2

EUT Housing and Board View 1



Solder Board-Component View 1



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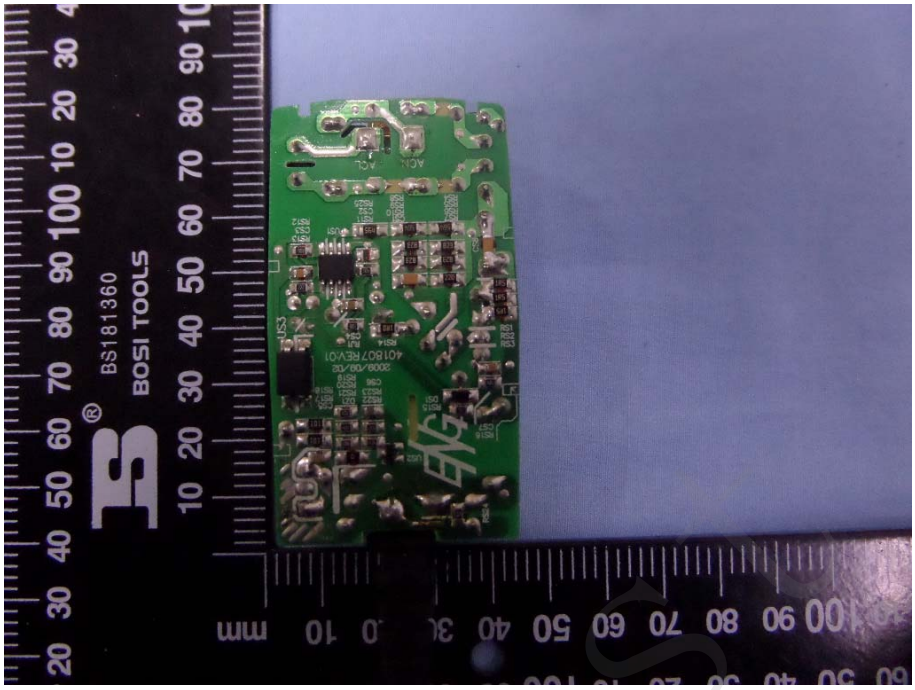
Solder Board-Component View 2

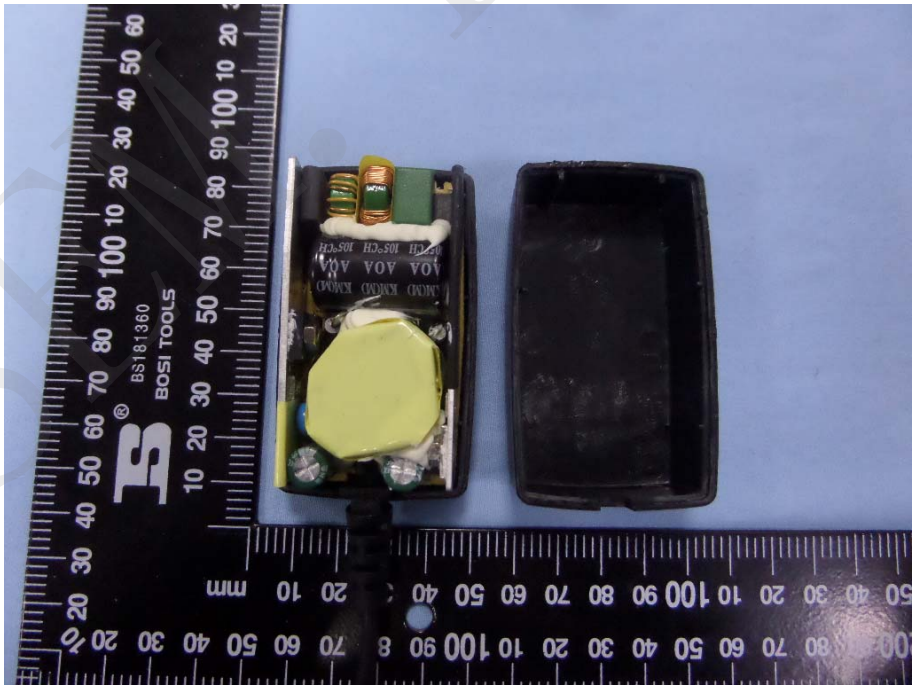


Tested Model: GT-43007-4048

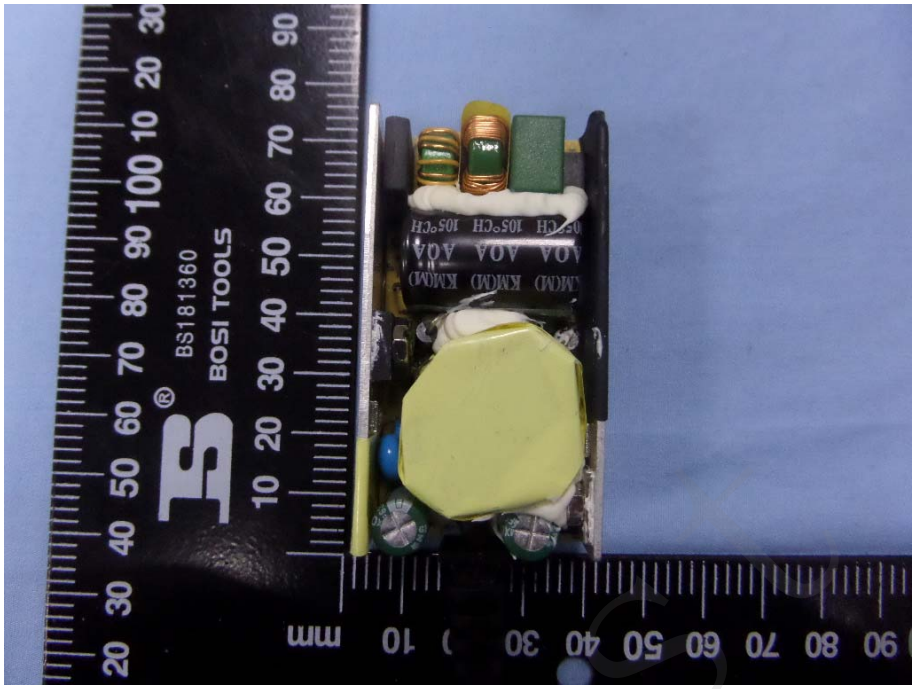
EUT View 1

EUT View 2

EUT Housing and Board View 1



Solder Board-Component View 1



Solder Board-Component View 2

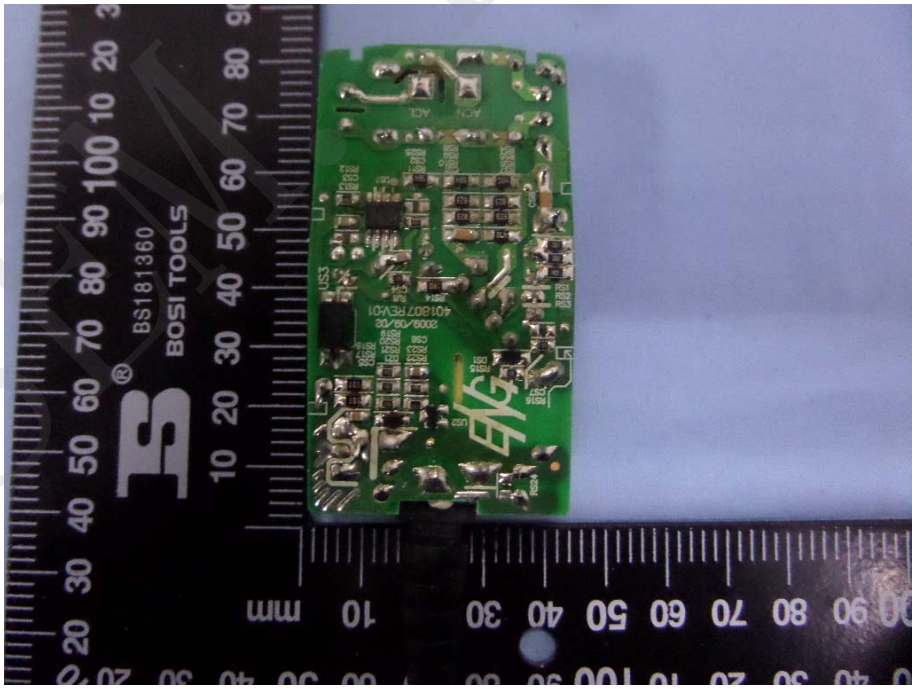


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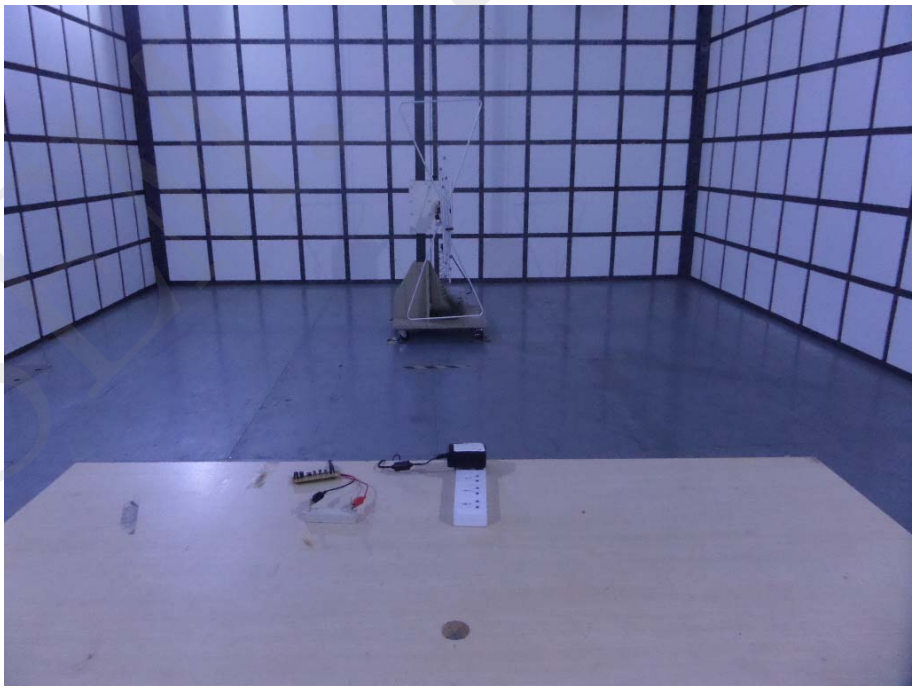
EXHIBIT 3 - TEST SETUP PHOTOGRAPHS

Tested Model: GT-43007-3612

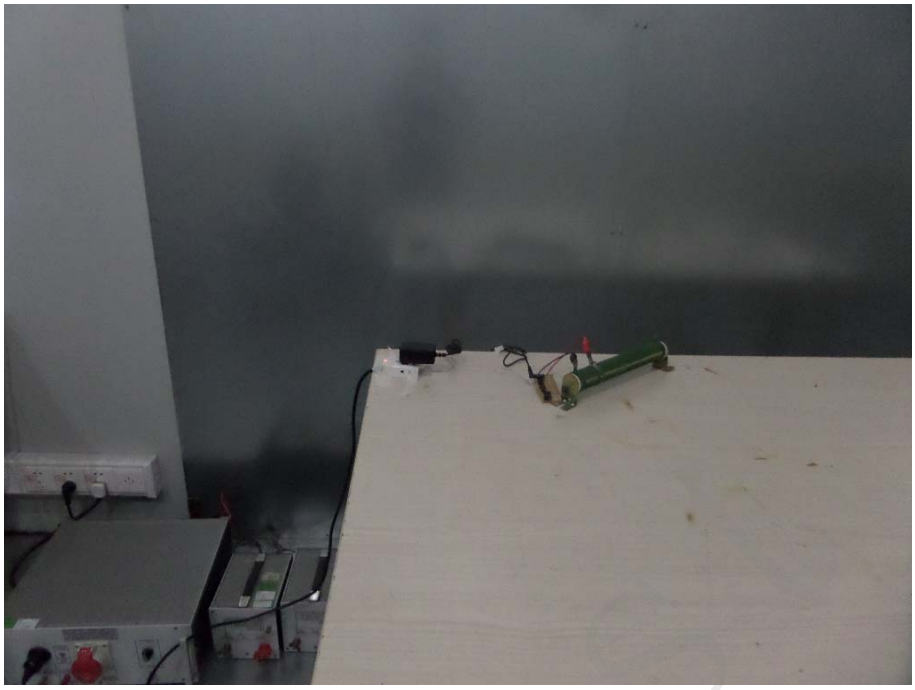
Conduction Emission View

Radiation Emission View



Tested Model: GT-43007-4048

Conduction Emission View



Radiation Emission View

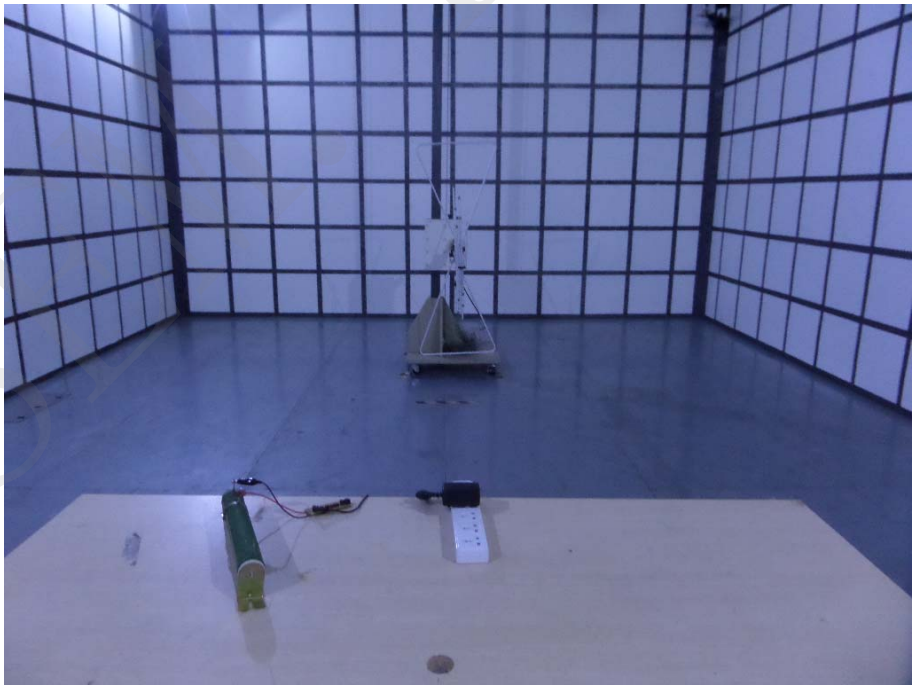


EXHIBIT 4 - USERS MANUAL

Information to Users

According to the FCC Part 15.19, 15.21 rules, for this EUT, the instructions or operation manual furnished the user shall include the following or similar statement, placed in a prominent location in the text of the manual:

FCC Caution

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE: Any changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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

SEM. Test