

FCC Part 15B
Measurement and Test Report
For
Glob Tek, Inc.
186 Veterans Dr. Northvale, NJ 07647 USA

FCC Rule(s): FCC Part 15 Subpart B

Product Description: ITE POWER SUPPLY

Tested Model: GT*46401-*****

Report No.: STR7088317E-3

Tested Date: 2017-08-24 to 2017-08-25

Issued Date: 2017-08-25

Tested By: June Zheng / Engineer

Reviewed By: Silin Chen / EMC Manager

Approved & Authorized By: Jandy So / PSQ Manager

Prepared By:

June zheng

Silin chen

Jandyso

Shenzhen SEM.Test Technology Co., Ltd.

1/F, Building A, Hongwei Industrial Park, Liuxian 2nd Road,
Bao'an District, Shenzhen, P.R.C. (518101)

Tel.: +86-755-33663308 Fax.: +86-755-33663309 Website: www.semtest.com.cn

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.

TABLE OF CONTENTS

1. GENERAL INFORMATION	3
1.1 PRODUCT DESCRIPTION FOR EQUIPMENT UNDER TEST (EUT)	3
1.2 TEST STANDARDS	4
1.3 TEST METHODOLOGY	4
1.4 TEST FACILITY	4
1.5 EUT SETUP AND OPERATION MODE	5
1.6 MEASUREMENT UNCERTAINTY	5
1.7 TEST EQUIPMENT LIST AND DETAILS	6
2. SUMMARY OF TEST RESULTS	7
3. CONDUCTED EMISSIONS	8
3.1 TEST PROCEDURE	8
3.2 BASIC TEST SETUP BLOCK DIAGRAM	8
3.3 ENVIRONMENTAL CONDITIONS	8
3.4 SUMMARY OF TEST RESULTS/PLOTS	8
3.5 CONDUCTED EMISSIONS TEST DATA	9
4. RADIATED EMISSION	13
4.1 TEST PROCEDURE	13
4.2 TEST RECEIVER SETUP	13
4.3 CORRECTED AMPLITUDE & MARGIN CALCULATION	14
4.4 ENVIRONMENTAL CONDITIONS	14
4.5 SUMMARY OF TEST RESULTS/PLOTS	14
EXHIBIT 1 - PRODUCT LABELING	19
PROPOSED FCC LABEL FORMAT	19
PROPOSED LABEL LOCATION ON EUT	19
EXHIBIT 2 - EUT PHOTOGRAPHS	20
EXHIBIT 3 - TEST SETUP PHOTOGRAPHS	25
EXHIBIT 4 - USERS MANUAL	26


1. GENERAL INFORMATION

1.1 Product Description for Equipment Under Test (EUT)

Client Information

Applicant: Glob Tek, Inc.
 Address of applicant: 186 Veterans Dr. Northvale, NJ 07647 USA

 Manufacturer: 1.Glob Tek, Inc.
 2.Glob Tek (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:	
Model No.:	GT*46401-*****
Adding Model(s):	/
<p><i>Note: The test data is gathered from a production sample, provided by the manufacturer.</i></p> <p><i>GT*46401-*****</i></p> <p><i>The 1st "*" part can be 'M' or '-' or 'H' for market identification and not related to safety.</i></p> <p><i>The 2rd "*" denotes the rated output wattage designation, which can be "01" to "40".</i></p> <p><i>The 3th "*" denotes the standard rated output voltage designation, which can be "12", "15", "19", "24".</i></p> <p><i>The 4th "*" is optional deviation, subtracted from standard output voltage, which can be "-0.1" to "-4.9" with interval of 0.1, or blank to indicate no voltage different.</i></p> <p><i>The 5th to 10th each "*" denote any character means "0-9", "A-Z", "()", "[]", "-" or blank for marketing purposes.</i></p>	

Technical Characteristics of EUT	
Rated Voltage:	100-240Vac
Rated Current:	1.0A
Rated Power:	40W MAX.
Power Adapter Model:	/
Lowest Internal Frequency:	50Hz
Highest Internal Frequency:	60Hz
Classification of ITE:	Class B

1.2 Test Standards

The following report is prepared on behalf of the **Glob Tek, 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 C63.4-2014, 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.

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	Charging	GT-46401-4024
TM2	Charging	GT-46401-3612

EUT Cable List and Details

Cable Description	Length (M)	Shielded/Unshielded	With Core/Without Core
Power line	1.2	Shielded	With Core

Auxiliary Equipment List and Details

Description	Manufacturer	Model	Serial Number
Load	/	15R/100W	/
Load	/	4R/50W	/

Special Cable List and Details

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

1.6 Measurement Uncertainty

Measurement uncertainty		
Parameter	Conditions	Uncertainty
Conducted Emissions	Conducted	$\pm 2.88\text{dB}$
Transmitter Spurious Emissions	Radiated	$\pm 5.1\text{dB}$

1.7 Test Equipment List and Details

No.	Description	Manufacturer	Model	Serial No.	Cal Date	Due Date
SEMT-1072	Spectrum Analyzer	Agilent	E4407B	MY41440400	2017-06-12	2018-06-11
SEMT-1031	Spectrum Analyzer	Rohde & Schwarz	FSP30	836079/035	2017-06-12	2018-06-11
SEMT-1007	EMI Test Receiver	Rohde & Schwarz	ESVB	825471/005	2017-06-12	2018-06-11
SEMT-1008	Amplifier	Agilent	8447F	3113A06717	2017-06-12	2018-06-11
SEMT-1043	Amplifier	C&D	PAP-1G18	2002	2017-06-12	2018-06-11
SEMT-1011	Broadband Antenna	Schwarz beck	VULB9163	9163-333	2017-06-12	2018-06-11
SEMT-1042	Horn Antenna	ETS	3117	00086197	2017-06-12	2018-06-11
SEMT-1069	Loop Antenna	Schwarz beck	FMZB 1516	9773	2017-06-12	2018-06-11
SEMT-1001	EMI Test Receiver	Rohde & Schwarz	ESPI	101611	2017-06-12	2018-06-11
SEMT-1003	L.I.S.N	Schwarz beck	NSLK8126	8126-224	2017-06-12	2018-06-11
SEMT-1002	Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100911	2017-06-12	2018-06-11

SEMTE

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

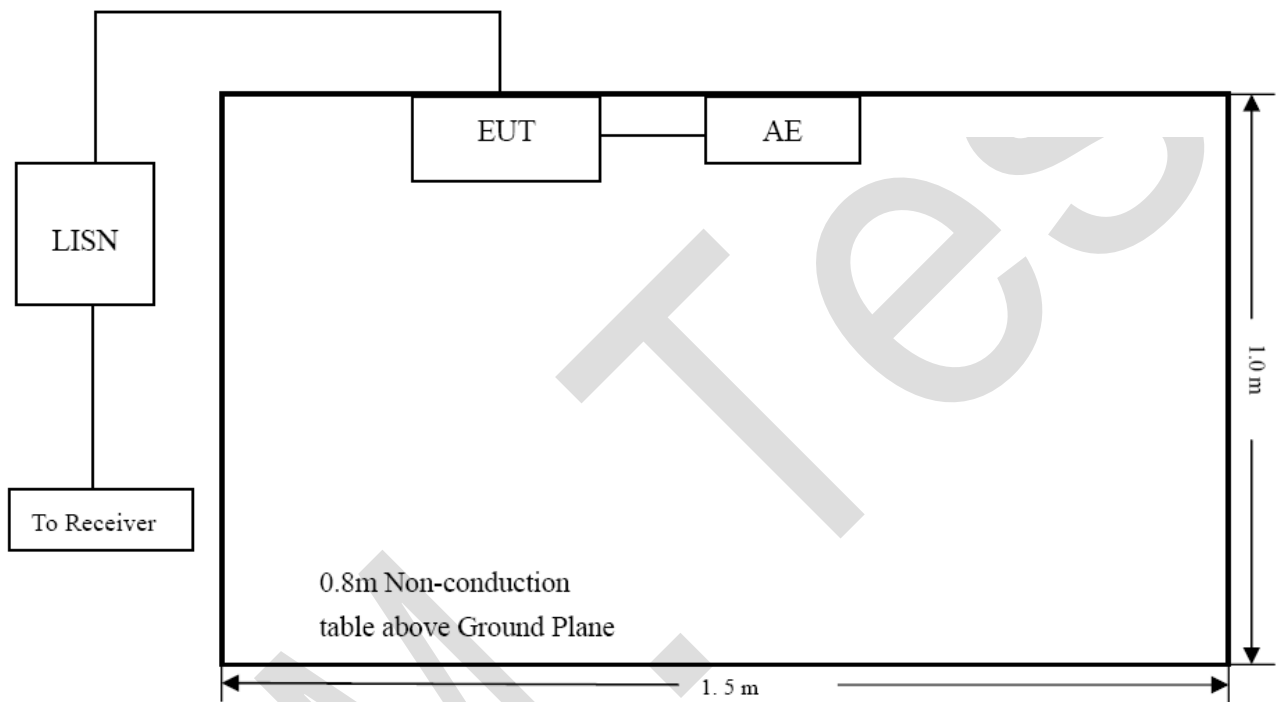
EM TEST

3. Conducted Emissions

3.1 Test Procedure

Test is conducting under the description of ANSI C63.4-2014, 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.

3.2 Basic Test Setup Block Diagram



3.3 Environmental Conditions

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

3.4 Summary of Test Results/Plots

According to the data in section 3.6, the EUT complied with the FCC Part 15.107(a) Conducted margin for a Class B device, with the *worst* margin reading of:

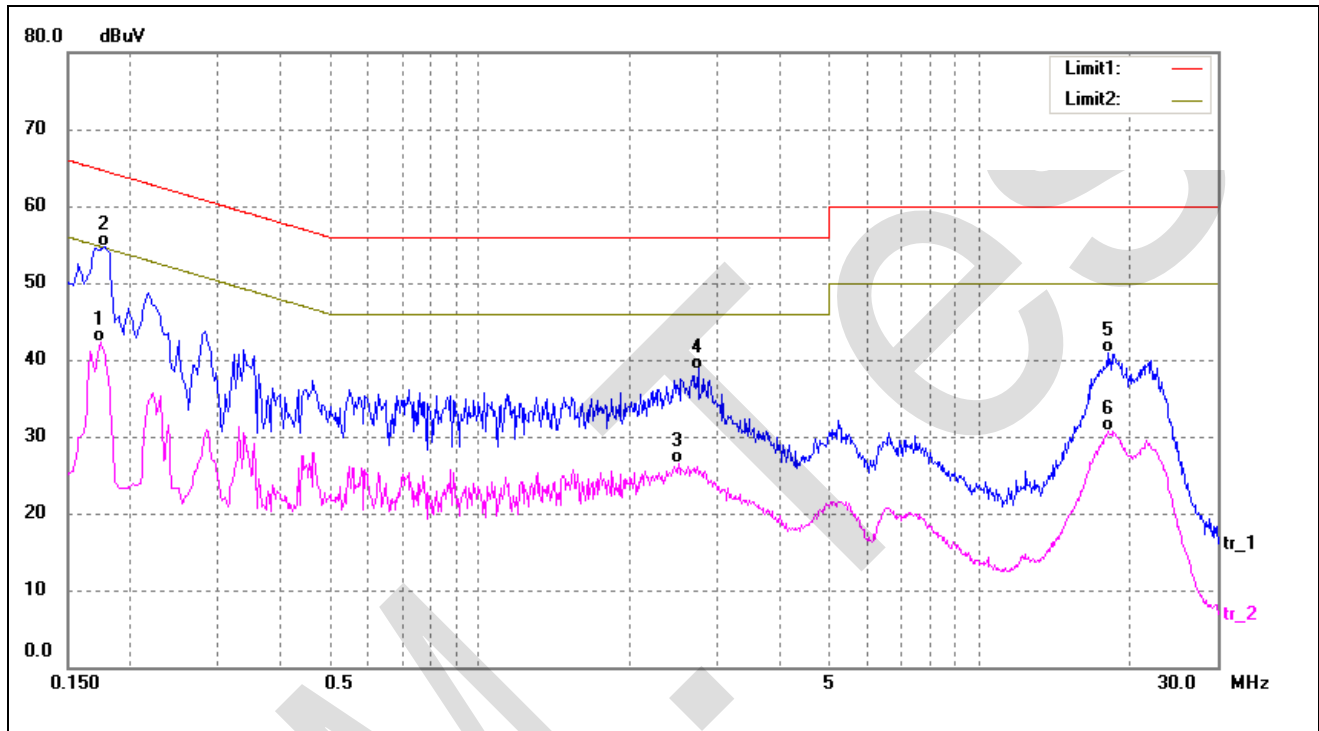
-6.99 dB at 0.1500 MHz in the Neutral, QP detector, 0.15-30MHz

3.5 Conducted Emissions Test Data

Plot of Conducted Emissions Test Data

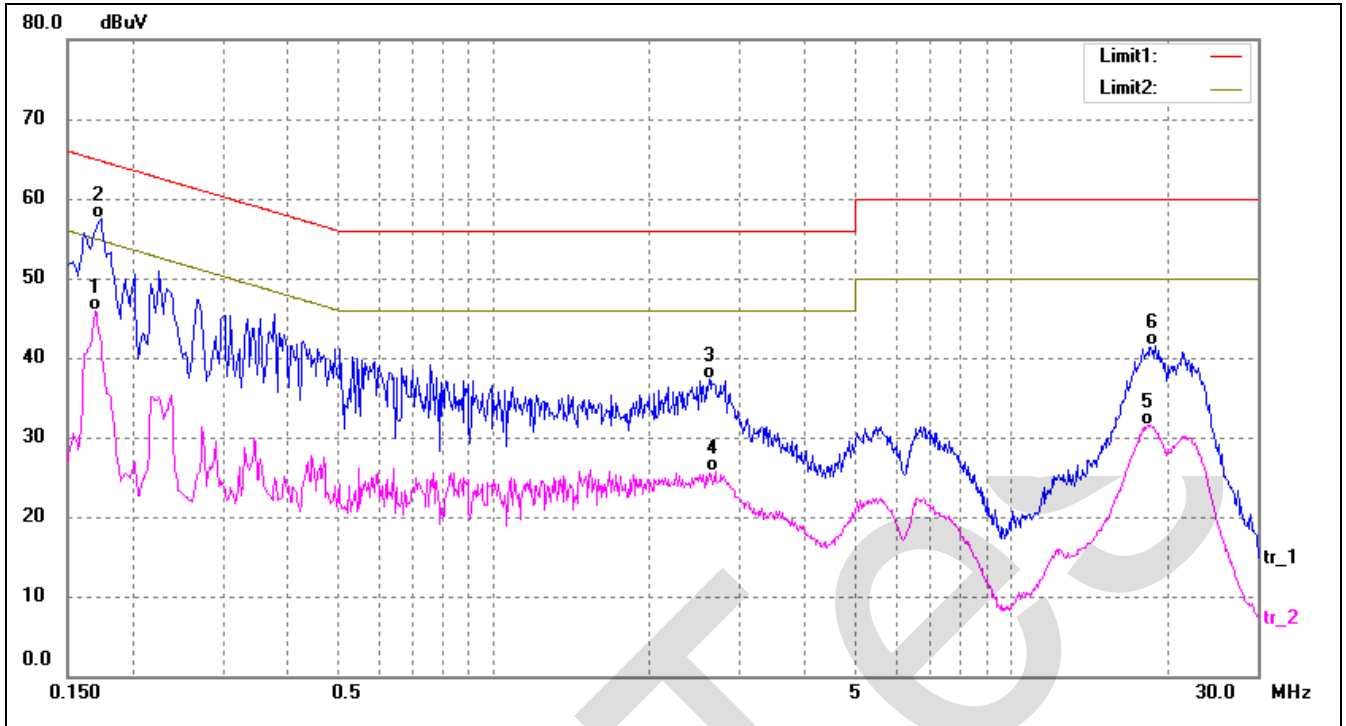
EUT: ITE POWER SUPPLY
 Tested Model: GT-46401-4024
 Operating Condition: TM1
 Comment: AC 120V/60Hz

Test Specification: Neutral



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1740	32.51	9.83	42.34	54.77	-12.43	AVG
2	0.1780	44.96	9.82	54.78	64.58	-9.80	QP
3	2.5100	16.84	9.72	26.56	46.00	-19.44	AVG
4	2.7420	29.08	9.72	38.80	56.00	-17.20	QP
5	18.1180	31.27	9.65	40.92	60.00	-19.08	QP
6	18.1900	21.12	9.65	30.77	50.00	-19.23	AVG

Test Specification: Line

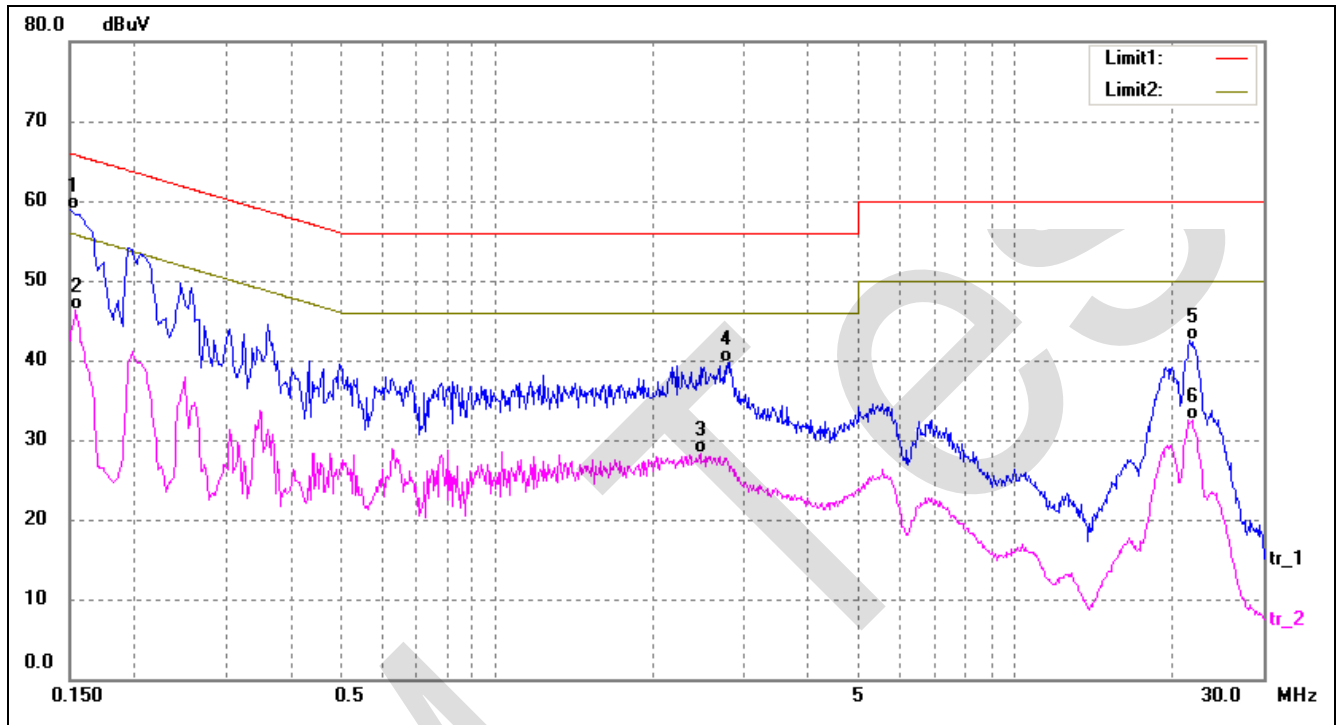


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1700	36.10	9.83	45.93	54.96	-9.03	AVG
2*	0.1740	47.76	9.83	57.59	64.77	-7.18	QP
3	2.6140	27.63	9.72	37.35	56.00	-18.65	QP
4	2.6860	16.04	9.72	25.76	46.00	-20.24	AVG
5	18.4980	21.92	9.66	31.58	50.00	-18.42	AVG
6	19.1020	31.89	9.67	41.56	60.00	-18.44	QP

Plot of Conducted Emissions Test Data

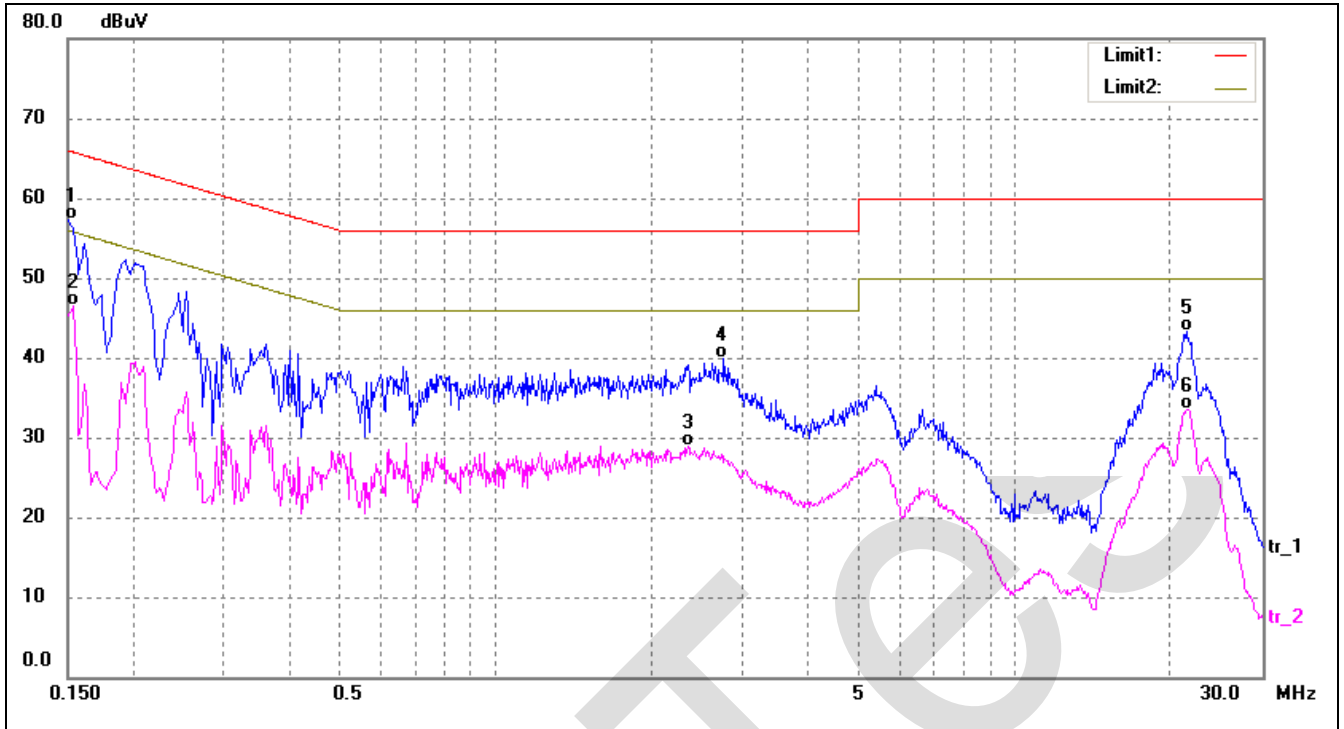
EUT: *ITE POWER SUPPLY*
 Tested Model: *GT-46401-3612*
 Operating Condition: *TM2*
 Comment: *AC 120V/60Hz*

Test Specification: *Neutral*



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1500	49.15	9.85	59.00	65.99	-6.99	QP
2	0.1539	36.39	9.85	46.24	55.78	-9.54	AVG
3	2.4700	18.62	9.72	28.34	46.00	-17.66	AVG
4	2.7900	30.05	9.72	39.77	56.00	-16.23	QP
5	21.6299	32.79	9.68	42.47	60.00	-17.53	QP
6	21.9460	22.83	9.68	32.51	50.00	-17.49	AVG

Test Specification: Line



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1500	47.48	9.85	57.33	66.00	-8.67	QP
2	0.1540	36.59	9.85	46.44	55.78	-9.34	AVG
3	2.3540	19.23	9.73	28.96	46.00	-17.04	AVG
4	2.7620	30.22	9.72	39.94	56.00	-16.06	QP
5	21.4260	33.67	9.68	43.35	60.00	-16.65	QP
6	21.4260	23.91	9.68	33.59	50.00	-16.41	AVG

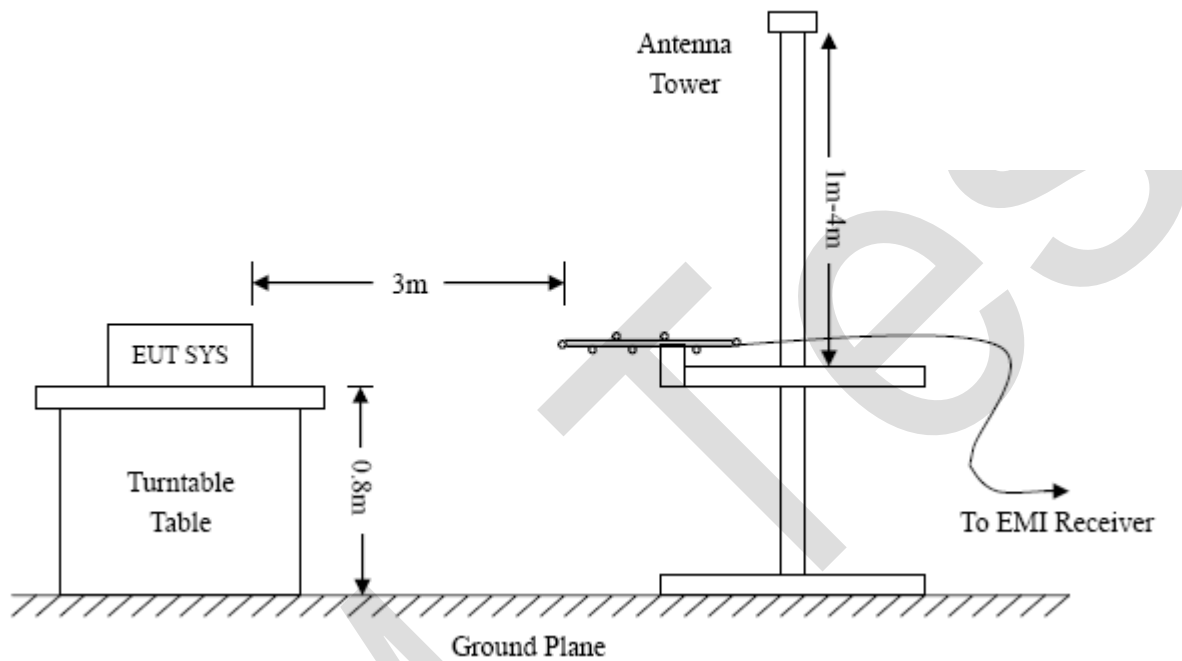
4. RADIATED EMISSION

4.1 Test Procedure

The setup of EUT is according with per ANSI C63.4-2014 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.



4.2 Test Receiver Setup

Frequency :9kHz-30MHz

RBW=10KHz,

VBW =30KHz

Sweep time= Auto

Trace = max hold

Detector function = peak

Frequency :30MHz-1GHz

RBW=120KHz,

VBW=300KHz

Sweep time= Auto

Trace = max hold

Detector function = peak, QP

Frequency :Above 1GHz

RBW=1MHz,

VBW=3MHz(Peak), 10Hz(AV)

Sweep time= Auto

Trace = max hold

Detector function = peak, AV

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:

$$\text{Corr. Ampl.} = \text{Indicated Reading} - \text{Corr. Factor}$$

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

$$\text{Margin} = \text{Corr. Ampl.} - \text{FCC Part 15.109(a) Limit}$$

4.4 Environmental Conditions

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

4.5 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:

-13.94 dB at 38.3462 MHz in the Vertical polarization, 30 MHz to 1 GHz, 3Meters

Plot of Radiated Emissions Test Data

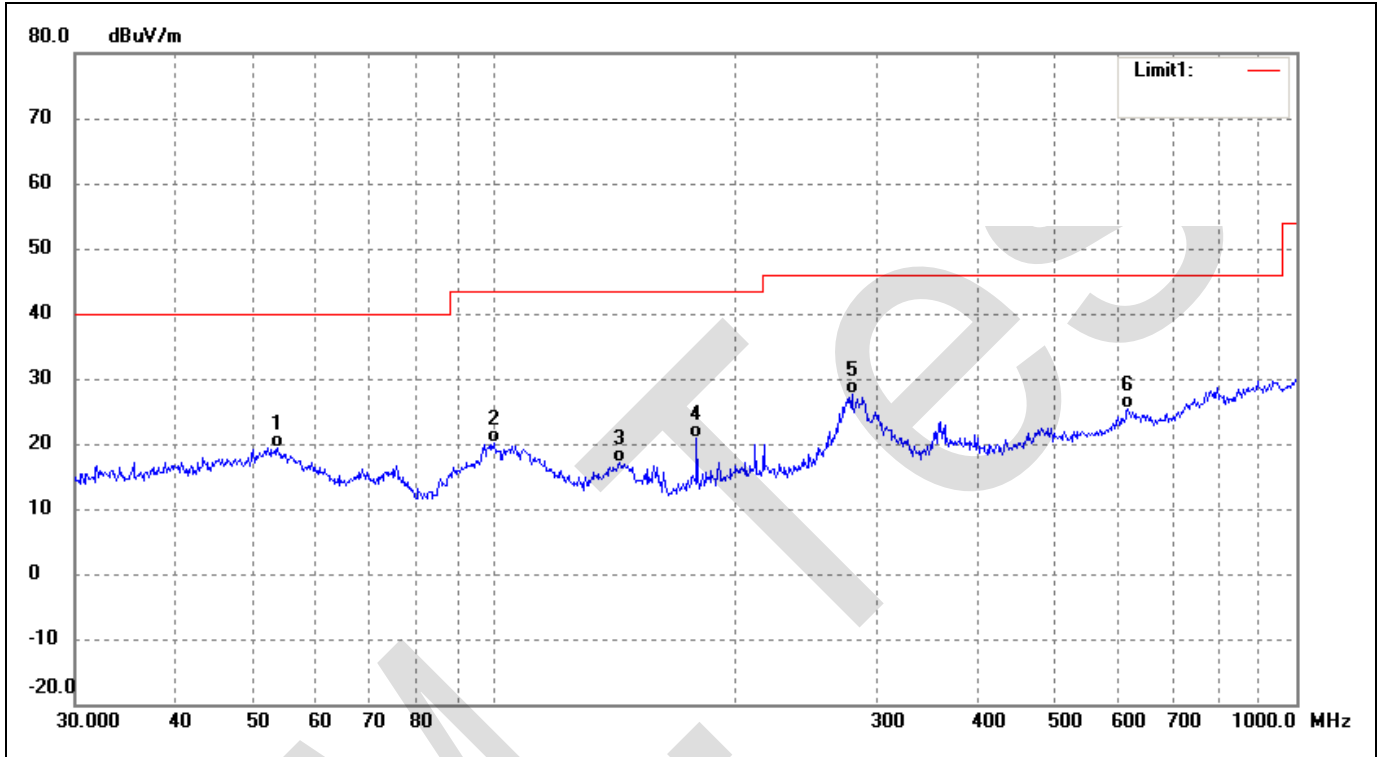
EUT: ITE POWER SUPPLY

Tested Model: GT-46401-4024

Operating Condition: TM1

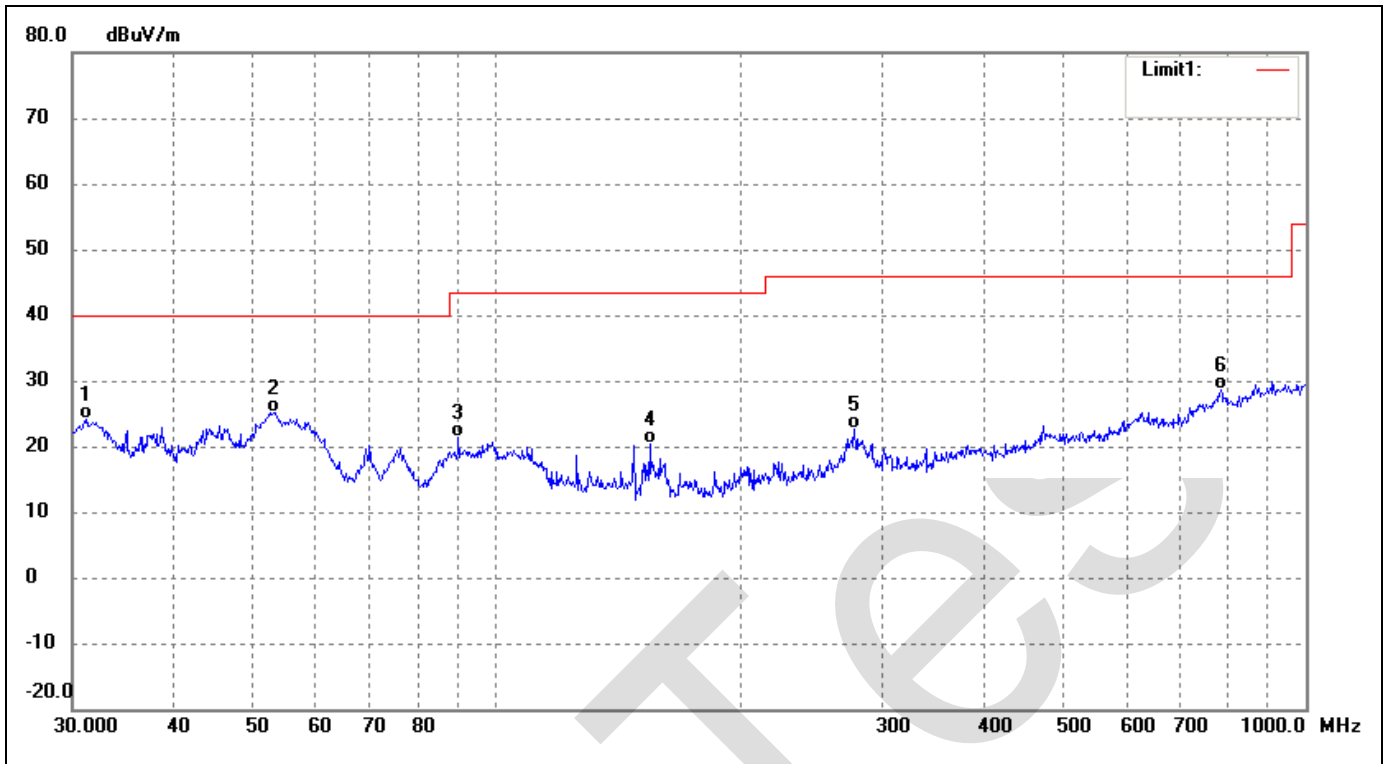
Comment: AC 120V/60Hz

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	53.6932	30.45	-11.10	19.35	40.00	-20.65	123	100	QP
2	99.8777	31.61	-11.43	20.18	43.50	-23.32	56	100	QP
3	143.3261	31.93	-14.85	17.08	43.50	-26.42	215	100	QP
4	178.7584	35.26	-14.27	20.99	43.50	-22.51	296	100	QP
5	279.0436	37.08	-9.53	27.55	46.00	-18.45	323	100	QP
6	616.3718	28.33	-3.07	25.26	46.00	-20.74	169	100	QP

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	31.1798	36.53	-12.43	24.10	40.00	-15.90	256	100	QP
2	53.1313	36.60	-11.42	25.18	40.00	-14.82	166	100	QP
3	89.9047	34.93	-13.66	21.27	43.50	-22.23	300	100	QP
4	154.8205	35.37	-14.99	20.38	43.50	-23.12	102	100	QP
5	277.0935	32.32	-9.59	22.73	46.00	-23.27	55	100	QP
6	785.0935	28.17	0.40	28.57	46.00	-17.43	264	100	QP

Plot of Radiated Emissions Test Data

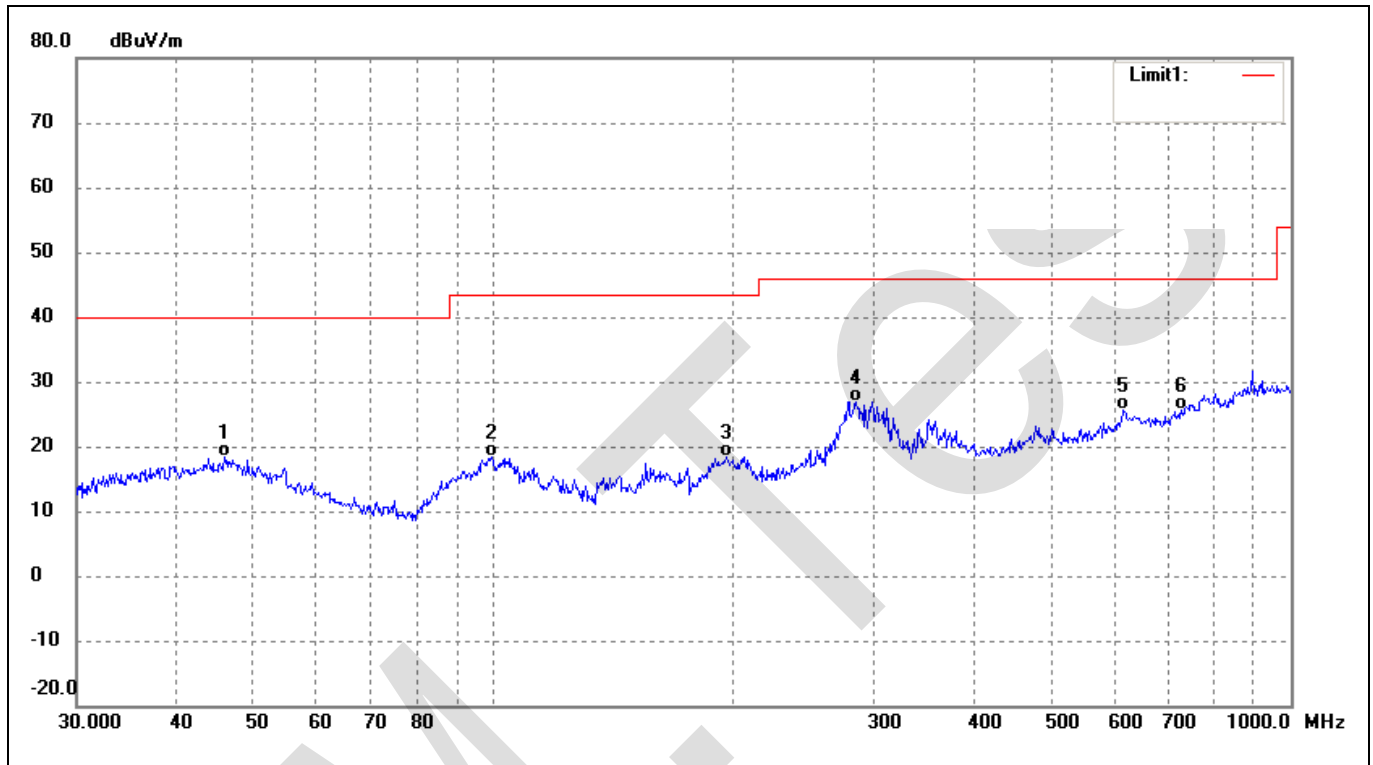
EUT: ITE POWER SUPPLY

Tested Model: GT-46401-3612

Operating Condition: TM2

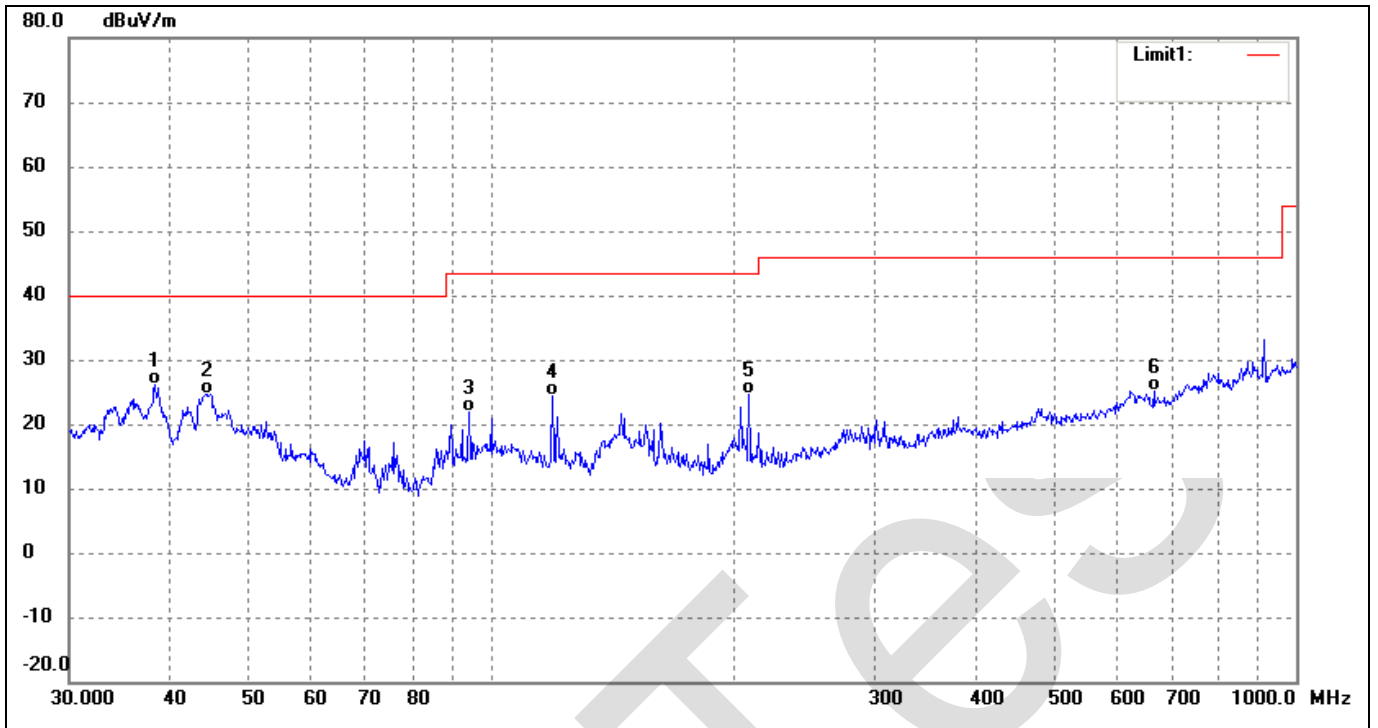
Comment: AC 120V/60Hz

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	46.0164	28.91	-10.62	18.29	40.00	-21.71	148	100	QP
2	99.5281	29.79	-11.50	18.29	43.50	-25.21	203	100	QP
3	195.8220	30.64	-12.15	18.49	43.50	-25.01	126	100	QP
4	284.9767	36.52	-9.57	26.95	46.00	-19.05	222	100	QP
5	616.3718	28.73	-3.07	25.66	46.00	-20.34	350	100	QP
6	729.3583	27.38	-1.70	25.68	46.00	-20.32	78	100	QP

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	38.3462	36.84	-10.78	26.06	40.00	-13.94	212	100	QP
2	44.4308	35.10	-10.45	24.65	40.00	-15.35	154	100	QP
3	94.0979	34.54	-12.71	21.83	43.50	-21.67	319	100	QP
4	119.4361	37.93	-13.64	24.29	43.50	-19.21	141	100	QP
5	209.3129	36.57	-12.01	24.56	43.50	-18.94	85	100	QP
6	665.8035	28.74	-3.64	25.10	46.00	-20.90	233	100	QP

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



EXHIBIT 2 - EUT PHOTOGRAPHS

(GT-46401-3612)

EUT View 1



EUT View 2

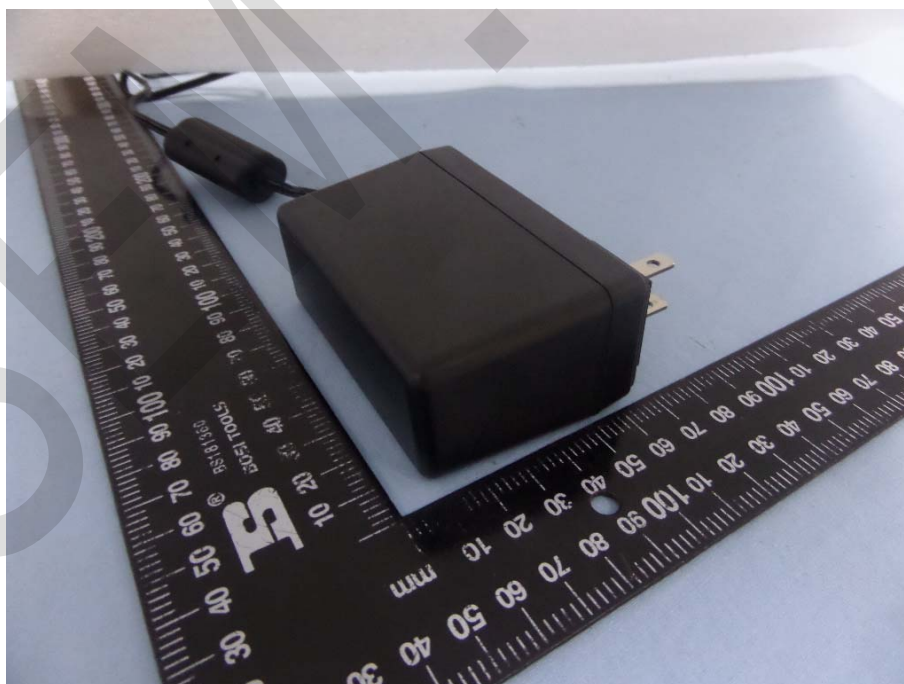


(GT-46401-4024)

EUT View 1



EUT View 2



EUT View 3



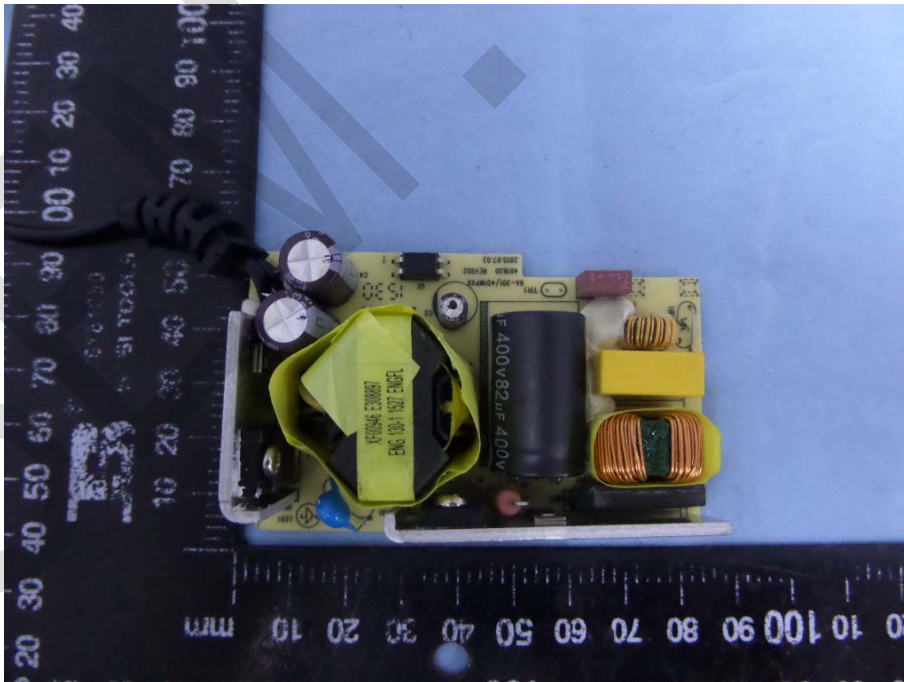
EUT View 4



EUT Housing and Board View



Solder Board-Component View 1



Solder Board-Component View 2

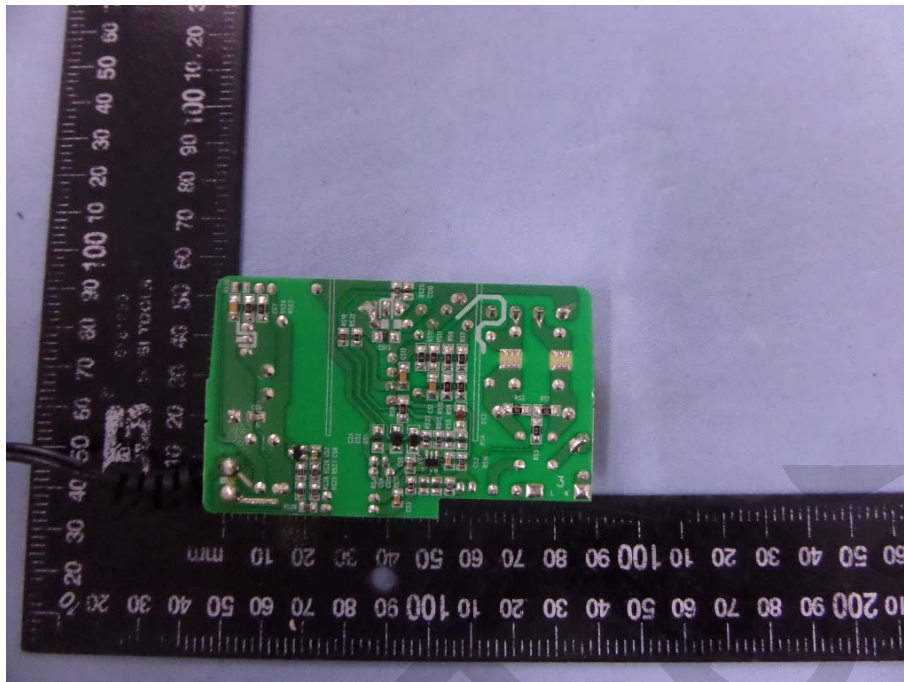


EXHIBIT 3 - TEST SETUP PHOTOGRAPHS

Conducted Emission Test Setup



Radiation Emission View

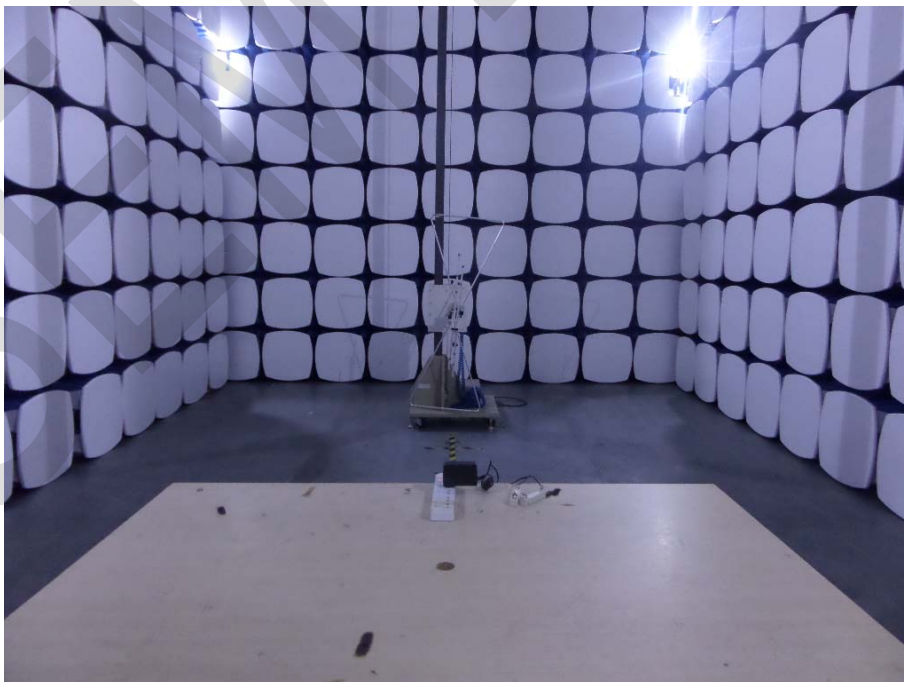


EXHIBIT 4 - USERS MANUAL

Information to Users

According to the FCC Part 15.19, 15.21, and 15.105 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 1: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

NOTE 2: 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 *****