
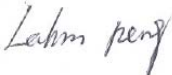



EMC Measurement and Test Report

For

GlobTek, Inc.

186 Veterans Dr. Northvale, NJ 07647 USA

Test Standard:	<u>AS/NZS CISPR 22:2009+A1:2010</u>
Product Description:	<u>ITE POWER SUPPLY</u>
Tested Model:	<u>GT-41080-WWVV-X.X series</u>
Report No.:	<u>STR15058013C</u>
Tested Date:	<u>2015-05-08 to 2015-05-09</u>
Issued Date:	<u>2015-05-09</u>
Tested By:	<u>Wen Wu / Engineer</u> 
Reviewed By:	<u>Lahm Peng / 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:	ITE POWER SUPPLY
Trade Name:	GlobTek
Model No.:	GT-41080-WWVV-X.X series
Adding Model(s):	/
<p><i>Note: The test data is gathered from a production sample, provided by the manufacturer.</i></p> <p><i>GT-41080-WWVV-X.X series</i></p> <p><i>WW is the rated output wattage designation, with a maximum value of "18".</i></p> <p><i>VV is the standard rated output voltage designation, with a maximum value of "48".</i></p> <p><i>-X.X is optional or blank and denotes the output voltage differentiator, subtracting or adding X.X volts from standard output voltage VV in 0.1V increments.</i></p> <p><i>VV-X.X together denote output voltage range 9-48Vdc.</i></p>	
Technical Characteristics of EUT	
Rated Voltage:	AC 100-240V/50-60Hz
Rated Current:	0.6A
Rated Power:	18W
Power Adaptor Model:	/
Highest Internal Frequency:	/
Classification of ITE:	/

1.2 Test Standards

The following report is prepared on behalf of the GlobTek, Inc. in accordance with AS/NZS CISPR 22, Information technology equipment - Radio disturbance characteristics - Limits and methods of measurement.

The objective of the manufacturer is to demonstrate compliance with the standards AS/NZS CISPR 22 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 AS/NZS CISPR 22 for Information Technology Equipment, and all related testing and measurement techniques intentional 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	Full Load	/

EUT Cable List and Details

Cable Description	Length (M)	Shielded/Unshielded	With Core/Without Core
DC Output Line (48V)	1.47M	Unshielded	Without Core
DC Output Line (9V)	1.54M	Unshielded	Without Core

Auxiliary Equipment List and Details

Description	Manufacturer	Model	Serial Number
LOAD	N/A	128R	N/A
LOAD	N/A	4R5	N/A

Special Cable List and Details

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

2. SUMMARY OF TEST RESULTS

Standards	Description of Test Item	Result
AS/NZS CISPR 22	Conducted Disturbance	Compliant
	Radiated Disturbance	Compliant

N/A: not applicable

SEM. Test

3. Conducted Disturbance

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 AS/NZS CISPR 22 Information technology equipment - Radio disturbance characteristics - Limits and methods of measurement.

3.4 Basic Test Setup Block Diagram



3.5 Environmental Conditions

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

3.6 Summary of Test Results/Plots

According to the data in section 3.7, the EUT complied with the AS/NZS CSIPR 22 Conducted margin for a Class B device, with the *worst* margin reading of:

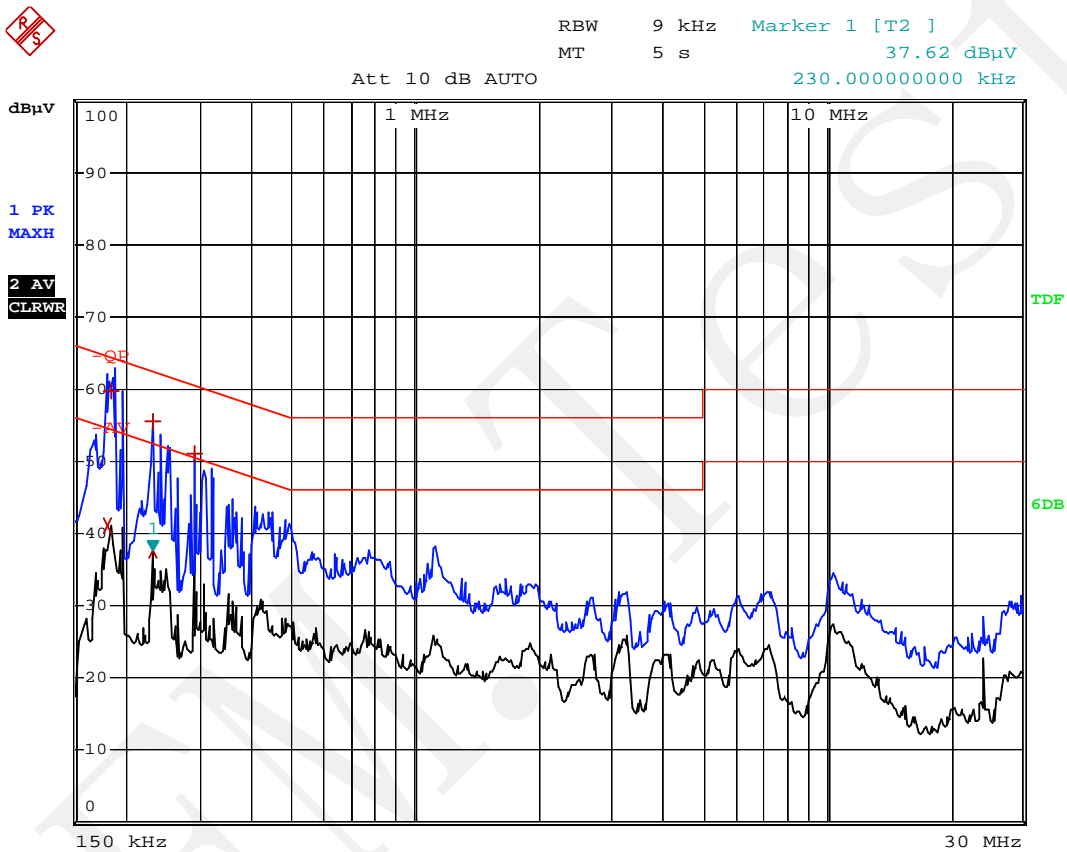
-4.42 dB μ V at 0.186 MHz in the Neutral mode, Model No.: GT-41080-1817.9-8.9, PK Detector 0.15-30MHz

3.7 Conducted Emissions Test Data

Plot of Conducted Emissions Test Data

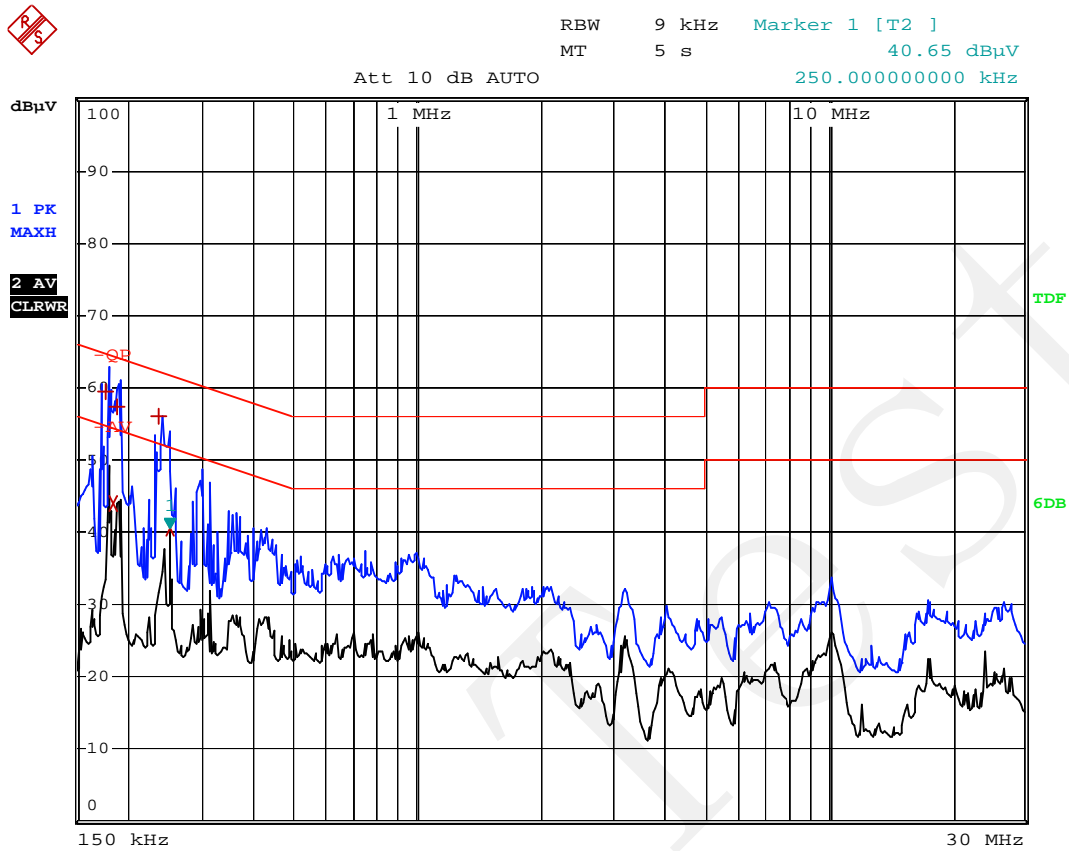
EUT: *ITE POWER SUPPLY*
 Tested Model: *GT-41080-1817.9-8.9*
 Operating Condition: *TM1*
 Comment: *AC 240V/50Hz*

Test Specification: *Neutral*



EDIT PEAK LIST (Prescan Results)			
Trace1:	-QP		
Trace2:	-AV		
Trace3:	---		
TRACE	FREQUENCY	LEVEL dBµV	DELTA LIMIT dB
2 Average	182 kHz	41.14	-13.25
1 Quasi Peak	186 kHz	59.79	-4.42
2 Average	230 kHz	37.62	-14.82
1 Max Peak	230 kHz	55.59	-6.85
1 Max Peak	290 kHz	50.97	-9.54

Test Specification: Line

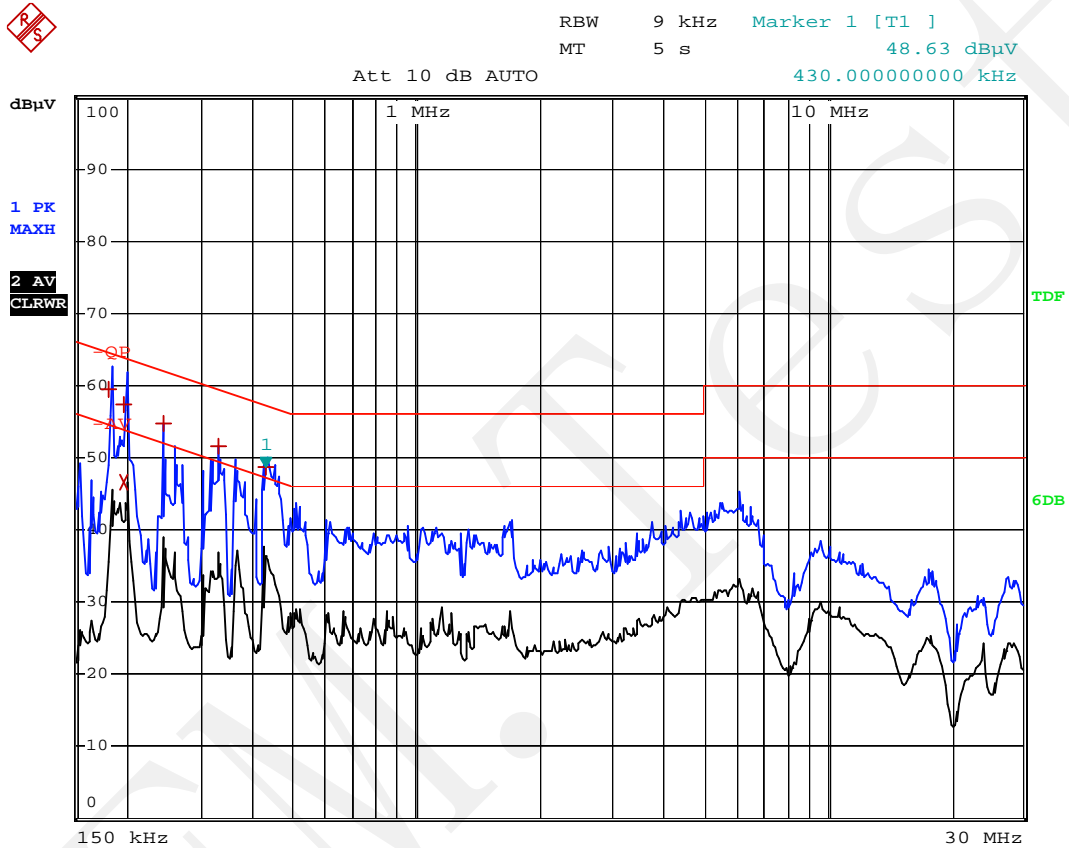


EDIT PEAK LIST (Prescan Results)			
Trace1:		-QP	
Trace2:		-AV	
Trace3:		---	
TRACE	FREQUENCY	LEVEL dBµV	DELTA LIMIT dB
1 Quasi Peak	178 kHz	59.45	-5.12
2 Average	186 kHz	43.98	-10.23
1 Quasi Peak	190 kHz	57.22	-6.80
1 Max Peak	238 kHz	55.98	-6.18
2 Average	250 kHz	40.64	-11.11

Plot of Conducted Emissions Test Data

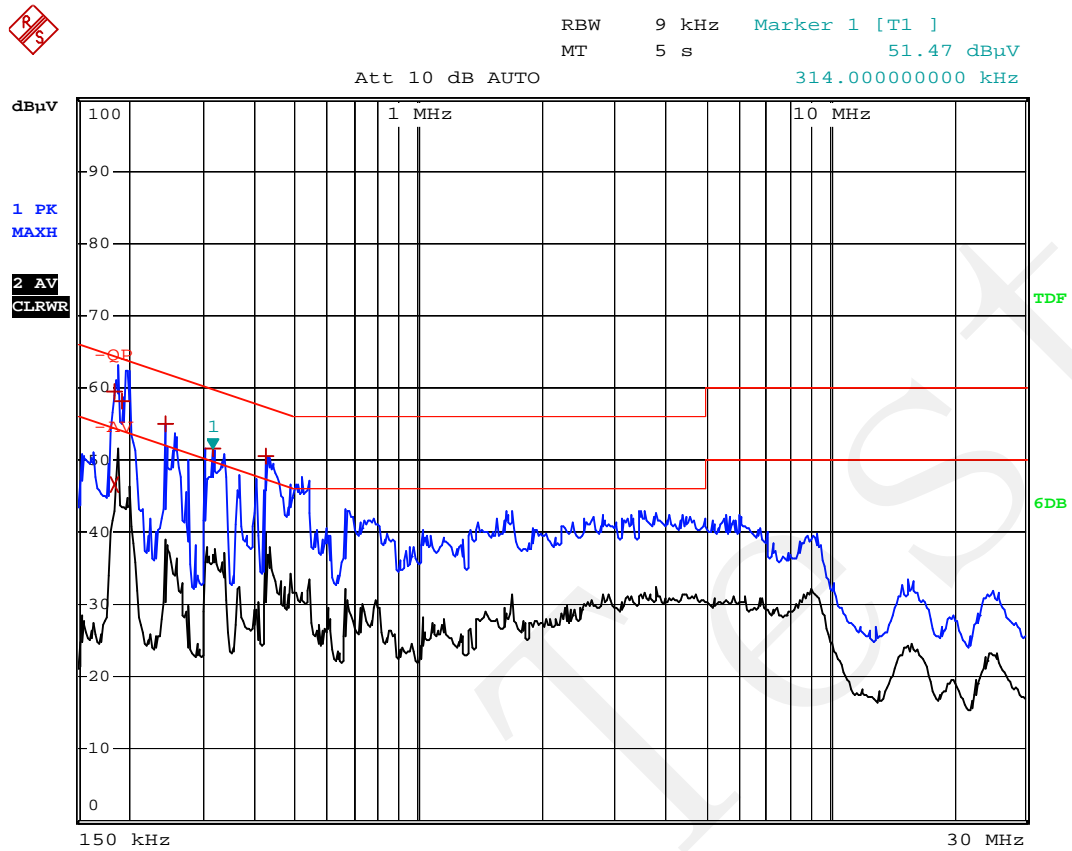
EUT: ITE POWER SUPPLY
 Tested Model: GT-41080-1848
 Operating Condition: TMI
 Comment: AC 240V/50Hz

Test Specification: Neutral



EDIT PEAK LIST (Prescan Results)			
TRACE	FREQUENCY	LEVEL dBµV	DELTA LIMIT dB
Trace1:	-QP		
Trace2:	-AV		
Trace3:	---		
1 Quasi Peak	182 kHz	59.54	-4.84
2 Average	198 kHz	46.60	-7.09
1 Quasi Peak	198 kHz	57.36	-6.32
1 Max Peak	242 kHz	54.75	-7.27
1 Max Peak	330 kHz	51.47	-7.97
1 Max Peak	430 kHz	48.62	-8.62

Test Specification: Line



EDIT PEAK LIST (Final Measurement Results)			
TRACE	FREQUENCY	LEVEL dBµV	DELTA LIMIT dB
Trace1:	-QP		
Trace2:	-AV		
Trace3:	---		
1 Quasi Peak	186 kHz	59.47	-4.73
2 Average	186 kHz	46.61	-7.59
1 Quasi Peak	194 kHz	58.24	-5.61
1 Max Peak	242 kHz	54.96	-7.05
1 Max Peak	314 kHz	51.46	-8.39
1 Max Peak	426 kHz	50.53	-6.79

4. Radiated Disturbance

4.1 Measurement Uncertainty

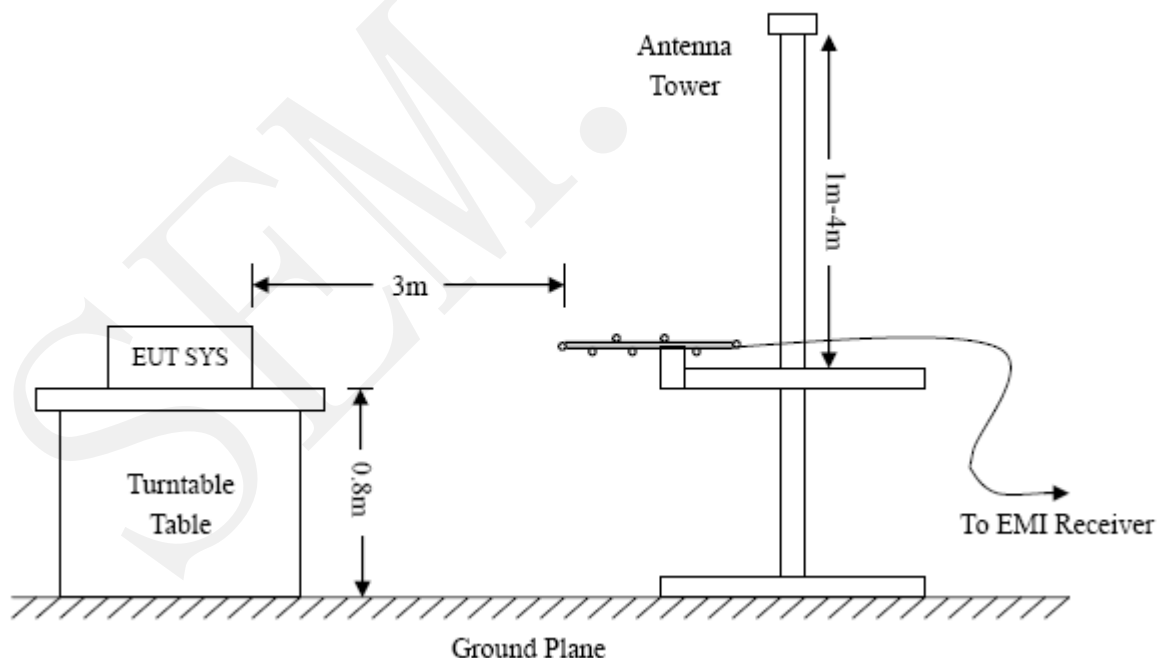
Base on NIS 81, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of any radiation emissions measurement is ± 5.10 dB.

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

4.3 Test Procedure

Test is conducting under the description of AS/NZS CISPR 22 Information technology equipment - Radio disturbance characteristics - Limits and methods of measurement.



4.4 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:

$$\text{Margin} = \text{Corr. Ampl.} - \text{AS/NZS CISPR 22 Class B Limit}$$

4.5 Environmental Conditions

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

4.6 Summary of Test Results/Plots

According to the data in section 4.6, the EUT complied with the AS/NZS CISPR 22 Class B standards, and had the worst margin is:

**-2.07 dBμV at 43.9658 MHz in the Vertical polarization, Model No.: GT-41080-1848, 30 MHz to 1 GHz,
3Meters**

Plot of Radiated Emissions Test Data

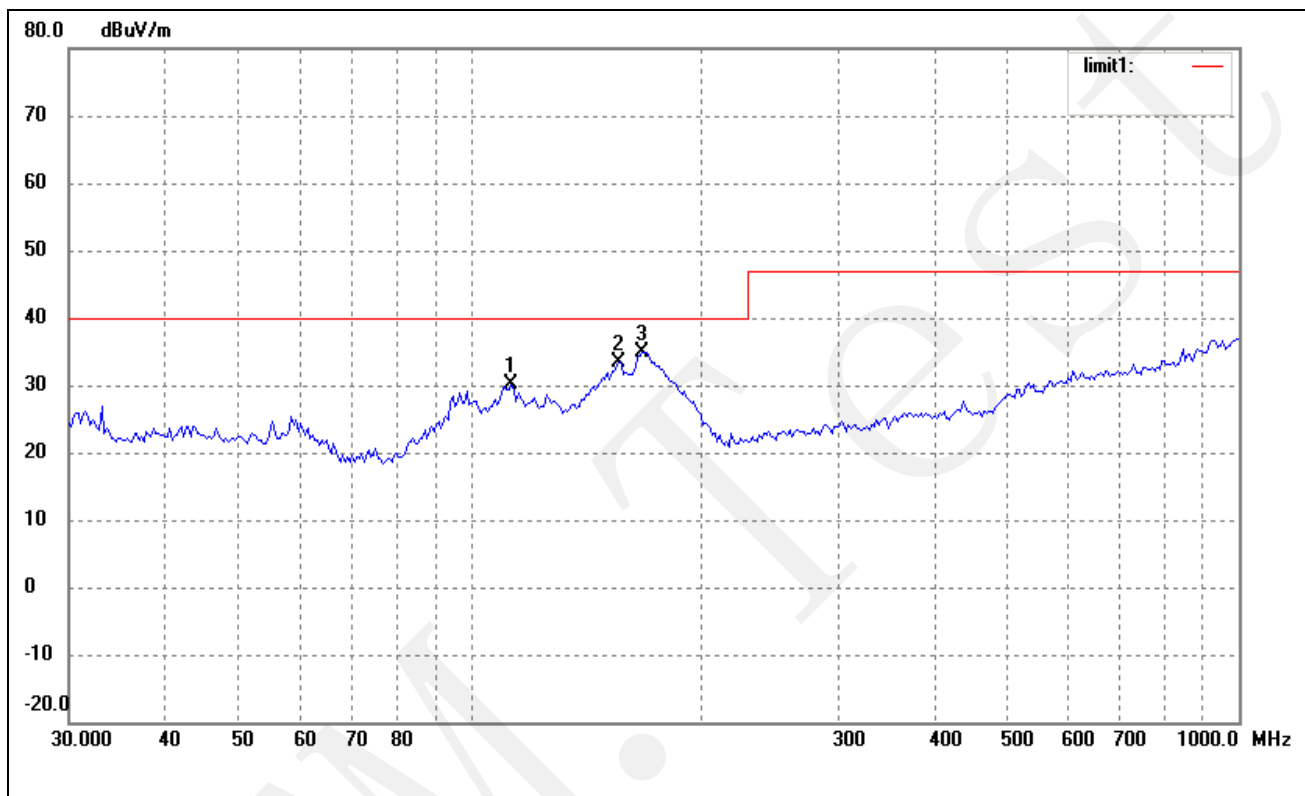
EUT: ITE POWER SUPPLY

Tested Model: GT-41080-1817.9-8.9

Operating Condition: TM1

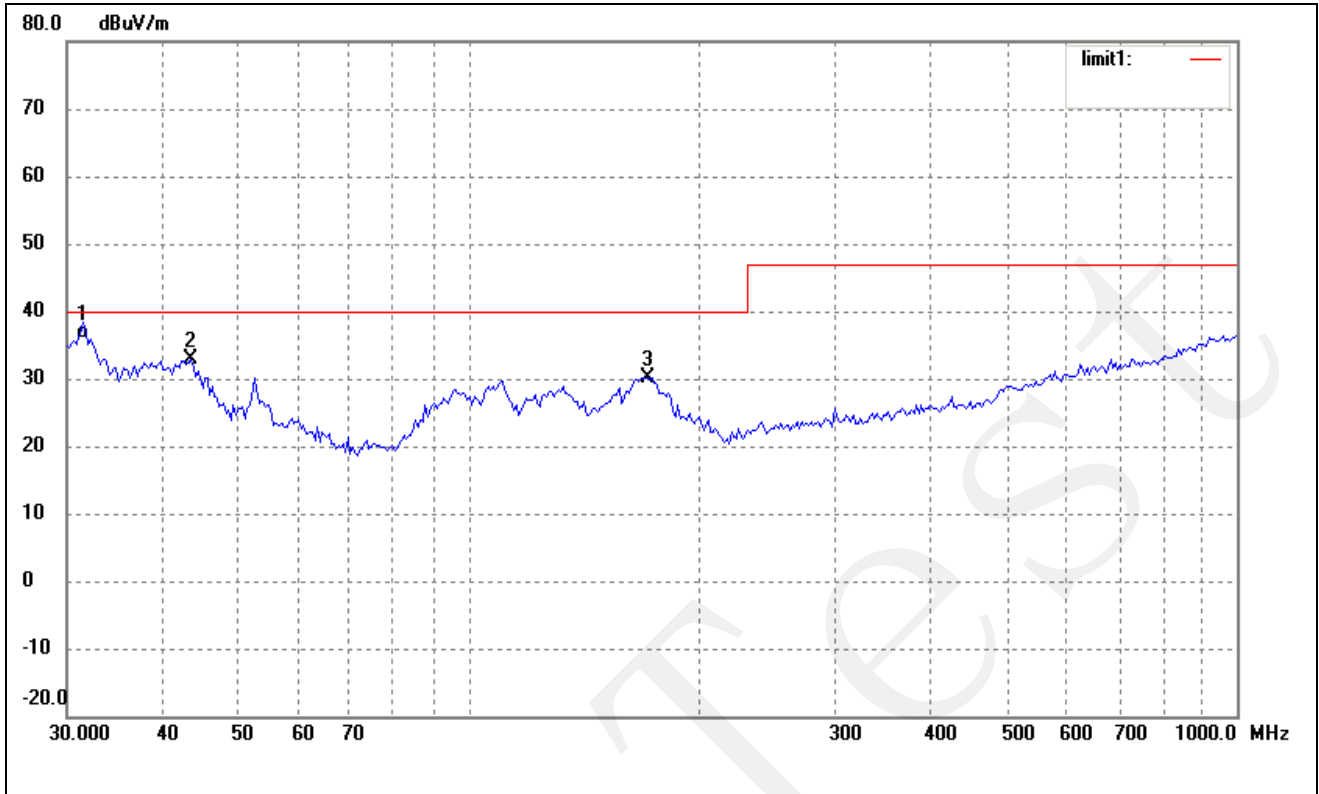
Comment: AC 240V/50Hz

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	112.9196	23.58	6.45	30.03	40.00	-9.97	360	100	peak
2	155.9101	29.94	3.56	33.50	40.00	-6.50	360	100	peak
3	167.2368	30.85	3.97	34.82	40.00	-5.18	360	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	31.4875	29.18	6.62	35.80	40.00	-4.20	360	100	QP
2	43.5057	25.02	7.97	32.99	40.00	-7.01	360	100	peak
3	170.7926	26.12	4.12	30.24	40.00	-9.76	360	100	peak

Plot of Radiated Emissions Test Data

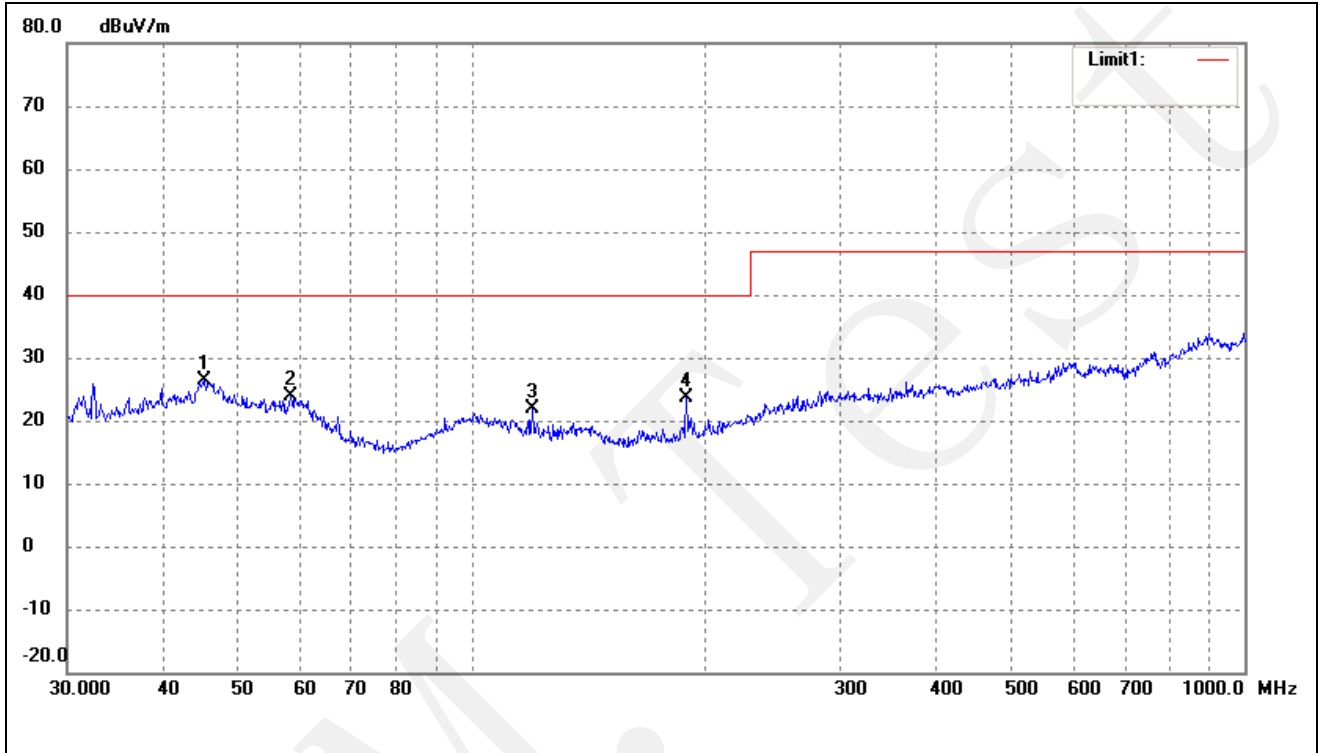
EUT: ITE POWER SUPPLY

Tested Model: GT-41080-1848

Operating Condition: TM2

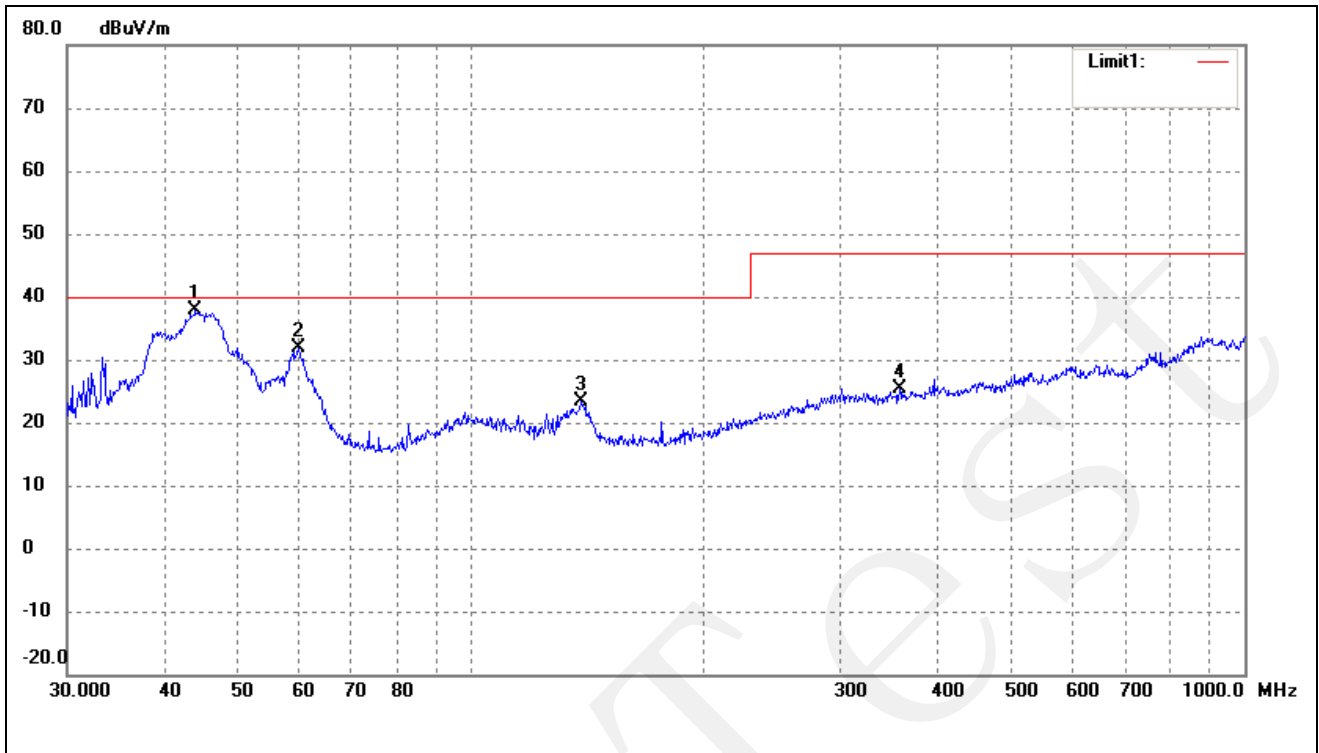
Comment: AC 240V/50Hz

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	45.0583	18.74	7.75	26.49	40.00	-13.51			peak
2	58.4074	16.50	7.35	23.85	40.00	-16.15			peak
3	119.8556	17.92	4.04	21.96	40.00	-18.04			peak
4	189.7385	20.41	3.20	23.61	40.00	-16.39			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	43.9658	30.46	7.47	37.93	40.00	-2.07			peak
2	59.8588	24.56	7.36	31.92	40.00	-8.08			peak
3	138.8735	20.82	2.51	23.33	40.00	-16.67			peak
4	357.9287	16.22	9.20	25.42	47.00	-21.58			peak

EXHIBIT 1 - PRODUCT LABELING

Proposed RCM Label Format



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. The supplier code number is needed which it is registered and DoC by the supplier.

Proposed Label Location on EUT

RCM Label Location

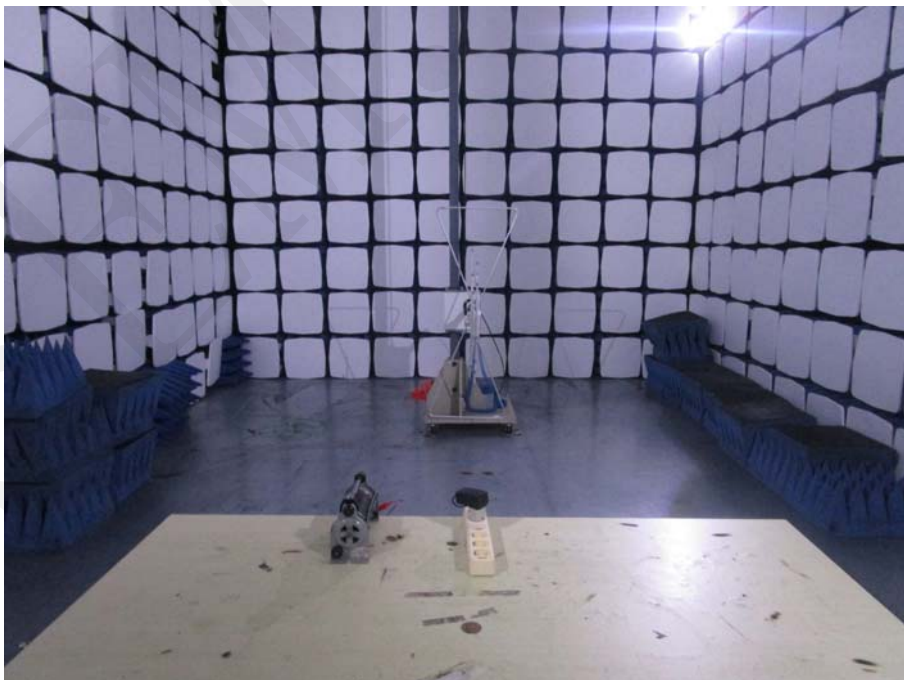


EXHIBIT 3 - TEST SETUP PHOTOGRAPHS

Conduction Emission Test View



Radiation Emission Test View



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