

EMC Measurement and Test Report

For

GlobTek, Inc.

186 Veterans Dr. Northvale, NJ 07647 USA

Test Standards:	EN 55032:2015/AC:2016-07 EN 61000-3-2:2014 EN 61000-3-3:2013 <u>EN 55024:2010/A1:2015</u>
Product Description:	<u>I.T.E. Power supply</u>
Tested Model:	<u>GT-81081-60x-y-a-CC</u>
Report No.:	<u>STR18058190E</u>
Tested Date:	<u>2014-11-28 to 2014-12-30;2018-06-18 to 2018-06-20</u>
Issued Date:	<u>2018-06-20</u>
Tested By:	<u>June Zheng / Engineer</u> <i>June zheng</i>
Reviewed By:	<u>Silin Chen / EMC Manager</u> <i>Silin chen</i>
Approved & Authorized By:	<u>Jandy So / PSQ Manager</u> <i>Jandyso</i>
Prepared By:	

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.....	4
1.1 PRODUCT DESCRIPTION FOR EQUIPMENT UNDER TEST (EUT).....	4
1.2 TEST STANDARDS.....	5
1.3 TEST METHODOLOGY	5
1.4 TEST FACILITY	5
1.5 EUT SETUP AND OPERATION MODE	6
1.6 PERFORMANCE CRITERIA FOR EMS	6
1.7 TEST EQUIPMENT LIST AND DETAILS	7
2. SUMMARY OF TEST RESULTS	8
3. CONDUCTED EMISSION.....	9
3.1 MEASUREMENT UNCERTAINTY	9
3.2 TEST PROCEDURE.....	9
3.3 BASIC TEST SETUP BLOCK DIAGRAM.....	9
3.4 ENVIRONMENTAL CONDITIONS	10
3.5 SUMMARY OF TEST RESULTS/PLOTS	10
3.6 CONDUCTED EMISSIONS TEST DATA.....	10
4. RADIATED EMISSION	19
4.1 MEASUREMENT UNCERTAINTY	19
4.2 TEST PROCEDURE.....	19
4.3 CORRECTED AMPLITUDE & MARGIN CALCULATION.....	20
4.4 ENVIRONMENTAL CONDITIONS	20
4.5 SUMMARY OF TEST RESULTS/PLOTS	20
5. HARMONIC CURRENT EMISSIONS	29
5.1 TEST PROCEDURE	29
5.2 TEST STANDARDS	29
5.3 HARMONIC CURRENT EMISSIONS TEST DATA.....	29
6. VOLTAGE FLUCTUATION FLICKER.....	50
6.1 TEST PROCEDURE	50
6.2 TEST STANDARDS	50
6.3 VOLTAGE FLUCTUATION AND FLICKER TEST DATA.....	50
7. ELECTROSTATIC DISCHARGES (ESD)	55
7.1 TEST PROCEDURE	55
7.2 ELECTROSTATIC DISCHARGE IMMUNITY TEST DATA	55
8. CONTINUOUS RADIATED DISTURBANCES (R/S)	60
8.1 TEST PROCEDURE	60
8.2 CONTINUOUS RADIATED DISTURBANCES TEST DATA	60
9. ELECTRICAL FAST TRANSIENTS (EFT)	62
9.1 TEST PROCEDURE	62
9.2 ELECTRICAL FAST TRANSIENTS TEST DATA	62
10. SURGES	65
10.1 TEST PROCEDURE	65
10.2 SURGE TEST DATA.....	65
11. CONTINUOUS CONDUCTED DISTURBANCES (C/S).....	67
11.1 TEST PROCEDURE	67
11.2 CONTINUOUS CONDUCTED DISTURBANCES TEST DATA	67
12. VOLTAGE DIPS AND INTERRUPTIONS.....	69
12.1 TEST PROCEDURE.....	69
12.2 VOLTAGE DIPS AND INTERRUPTIONS TEST DATA	69
EXHIBIT 1 - PRODUCT LABELING	71
PROPOSED CE LABEL FORMAT	71
PROPOSED LABEL LOCATION ON EUT	71

PROPOSED CE LABEL FORMAT	72
PROPOSED LABEL LOCATION ON EUT	72
PROPOSED CE LABEL FORMAT	73
PROPOSED LABEL LOCATION ON EUT	73
PROPOSED CE LABEL FORMAT	74
PROPOSED LABEL LOCATION ON EUT	74
EXHIBIT 2 - EUT PHOTOGRAPHS	75
EXHIBIT 3 - TEST SETUP PHOTOGRAPHS	89

SEM • Test

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:	I.T.E. Power supply
Trade Name:	
Model No.:	GT-81081-60x-y-a-CC
Adding Model(s):	/
<i>Note: The test data is gathered from a production sample, provided by the manufacturer.</i> <i>Part of the test data is cited the early report, Report Numbers is STR14128005E.</i> <i>“x” is the rated standard output voltage designation, which can be 12, 14, 15, 18, 19, 20, 22 or 24;</i> <i>“y” is minor adjusting variable to standard output voltage, which can be 0.1 - 2.9 in step of 0.1 or blank;</i> <i>“a” represents the inlet type, which can be T2 or T3 or T3A; T2 represents C8 inlet type (Class II construction) ,T3 represents C14 inlet type(Class I construction), T3A represents C6 inlet type(Class I construction);Combination “x” and “y”</i> <i>“-CC” is optional, the model name with suffix “-CC” means it has different control method of secondary voltage. The model GT-81081-60x-y-a is similar to GT-81081-60x-y-a-CC except the model number and the secondary voltage control method, the GT-81081-60x-y-a used U3, C17, R35 and D6 in secondary circuit to control the secondary voltage, and GT-81081-60x-y-a-CC used U2-A, U2-B, C13, C14, C15, C16, R27, R28, R29, R30, R32, R33 and R34 in secondary circuit to control the secondary voltage.</i>	

Technical Characteristics of EUT	
Rated Voltage:	AC 100-240V; 50/60Hz
Rated Current:	1.5A
Rated Power:	60W
Power Adaptor Model:	/
Highest Internal Frequency:	Below 108MHz
Classification of Equipment:	Class B

1.2 Test Standards

The following report is prepared on behalf of the GlobTek, Inc. in accordance with EN55032, Electromagnetic compatibility of multimedia equipment - Emission requirements, and EN61000-3-2, Electromagnetic compatibility (EMC) -- Part 3-2: Limits - Limits for harmonic current emissions (equipment input current up to and including 16 A per phase), and EN61000-3-3, Electromagnetic compatibility (EMC) -- Part 3-3: Limits - Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current ≤ 16 A per phase and not subject to conditional connection, and EN55024, Immunity characteristics Limits and methods of measurement.

The objective of the manufacturer is to demonstrate compliance with the standards EN55032, EN61000-3-2, EN61000-3-3, and EN55024 for multimedia 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 EN55032, EN61000-3-2, EN61000-3-3, and EN55024 for Information Technology Equipment, and all related testing and measurement techniques intentional standards.

1.4 Test Facility

FCC – Registration No.: 125990

Shenzhen SEM Test Technology Co., Ltd. Laboratory has been recognized to perform compliance testing on equipment subject to the Commissions Declaration Of Conformity (DOC). The Designation Number is CN5010, and Test Firm Registration Number is 125990.

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/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 power line	1.2	Shielded	With Core

Auxiliary Equipment List and Details

Description	Manufacturer	Model	Serial Number
Load	/	10R/100W	/
Multimeter	FLUKE	15B	/

Special Cable List and Details

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

1.6 Performance Criteria for EMS

All the test data has been collected, reduced, and analyzed within this report in accordance with Immunity requires the following as specific performance criteria:

- A. The apparatus shall continue to operate as intended during and after the test. The manufacturer specifies some minimum performance level. The performance level may be specified by the manufacturer as a permissible loss of performance.
- B. The apparatus shall continue to operate as intended after the test. This indicates that the EUT does not need to function at normal performance levels during the test, but must recover. Again some minimal performance is defined by the manufacture. No change in operating state or loss or data is permitted.
- C. Temporary loss of function is allowed. Operation of the EUT may stop as long as it is either automatically reset or can be manually restored by operation of the controls.

1.7 Test Equipment List and Details

Description	Manufacturer	Model	Serial No.	Cal. Date	Due. Date
Spectrum Analyzer	Rohde & Schwarz	FSP	836079/035	2018-05-22	2019-05-21
EMI Test Receiver	Rohde & Schwarz	ESVB	825471/005	2018-05-22	2019-05-21
Amplifier	Agilent	8447F	3113A06717	2018-05-22	2019-05-21
Amplifier	C&D	PAP-1G18	2002	2018-05-22	2019-05-21
Trilog Broadband Antenna	Schwarz beck	VULB9163	9163-333	2017-06-08	2020-06-07
Trilog Broadband Antenna	Schwarz beck	VULB9163(B)	9163-333	2017-06-08	2020-06-07
Horn Antenna	ETS	3117	00086197	2017-06-08	2020-06-07
Loop Antenna	Schwarz beck	FMZB 1516	9773	2017-06-08	2020-06-07
EMI Test Receiver	Rohde & Schwarz	ESPI	101611	2018-05-22	2019-05-21
EMI Test Receiver	Rohde & Schwarz	ESPI	101391	2018-05-22	2019-05-21
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100911	2018-05-22	2019-05-21
AC LISN	Schwarz beck	NSLK8126	8126-224	2018-05-22	2019-05-21
8-WIRE LISN	Schwarz beck	8158	CAT3-8158-0059	2018-05-22	2019-05-21
8-WIRE LISN	Schwarz beck	8158	CAT5-8158-0117	2018-05-22	2019-05-21
PMF Generator	LIONCEL	PMF-801C-C	0171101	2018-05-22	2019-05-21
PMF Antenna	LIONCEL	PMF-801C-A	0180302	2018-05-22	2019-05-21
Instantaneous PMF Generator Module	LIONCEL	PMF-801C-T	0171001	2018-05-22	2019-05-21
Digital Power Analyzer	California Instrument	CTS	72831	2018-05-22	2019-05-21
Power Source	California Instrument	5001IX-CTS-400	25965	2018-05-22	2019-05-21
ESD Generator	LIONCEL	ESD-203B	0170901	2018-05-28	2019-05-27
Amplifier	Agilent	8447D	2944A10179	2018-05-22	2019-05-21
Transient 2000	EMC PARTNER	TRA2000	863	2018-05-22	2019-05-21
Couple Clamp	EMC PARTNER	CN-EFT1000	513	2018-05-26	2019-05-25
CS Immunity Tester	SCHAFFNER	NSG2070	1123	2018-05-22	2019-05-21
Attenuator	EMTEST	MA-500	1009	2018-05-22	2019-05-21
CDN	Luthi	L-801M2/M3	2665	2018-05-22	2019-05-21
Signal Generator	R&S	SMB100A	105942	2017-09-11	2018-09-10
Power Meter	R&S	NRP2	102031	2017-09-11	2018-09-10
RF Power Amplifier	BONN Elektronik	BLWA0830-160/100/40D	128740	2017-09-11	2018-09-10
RF Power Amplifier	NJNT	NTWPAS-2560025	2560025	2017-09-11	2018-09-10
Antenna	SCHWARZBECK	STLP9128D	043	2017-09-11	2020-09-10
Antenna	SCHWARZBECK	BBHA 9120 D	667	2017-09-11	2020-09-10

2. SUMMARY OF TEST RESULTS

Standards	Description of Test Item	Result
EN55032	Conducted Emission	Compliant
	Radiated Emission	Compliant
EN61000-3-2	Harmonic Current Emission	Compliant
EN61000-3-3	Voltage Fluctuation and Flicker	Compliant
EN55024	Electrostatic Discharge Immunity in accordance with IEC 61000-4-2	Compliant
	Continuous Radiated Disturbances Immunity in accordance with IEC 61000-4-3	Compliant
	Electrical Fast Transient/Burst Immunity in accordance with IEC 61000-4-4	Compliant
	Surges Immunity in accordance with IEC 61000-4-5	Compliant
	Continuous Conducted Disturbances Immunity in accordance with IEC 61000-4-6	Compliant
	Power-frequency Magnetic Fields Immunity in accordance with IEC 61000-4-8	N/A
	Voltage Dips/Interruptions Immunity in accordance with IEC 61000-4-11	Compliant

N/A: not applicable

3. Conducted Emission

3.1 Measurement Uncertainty

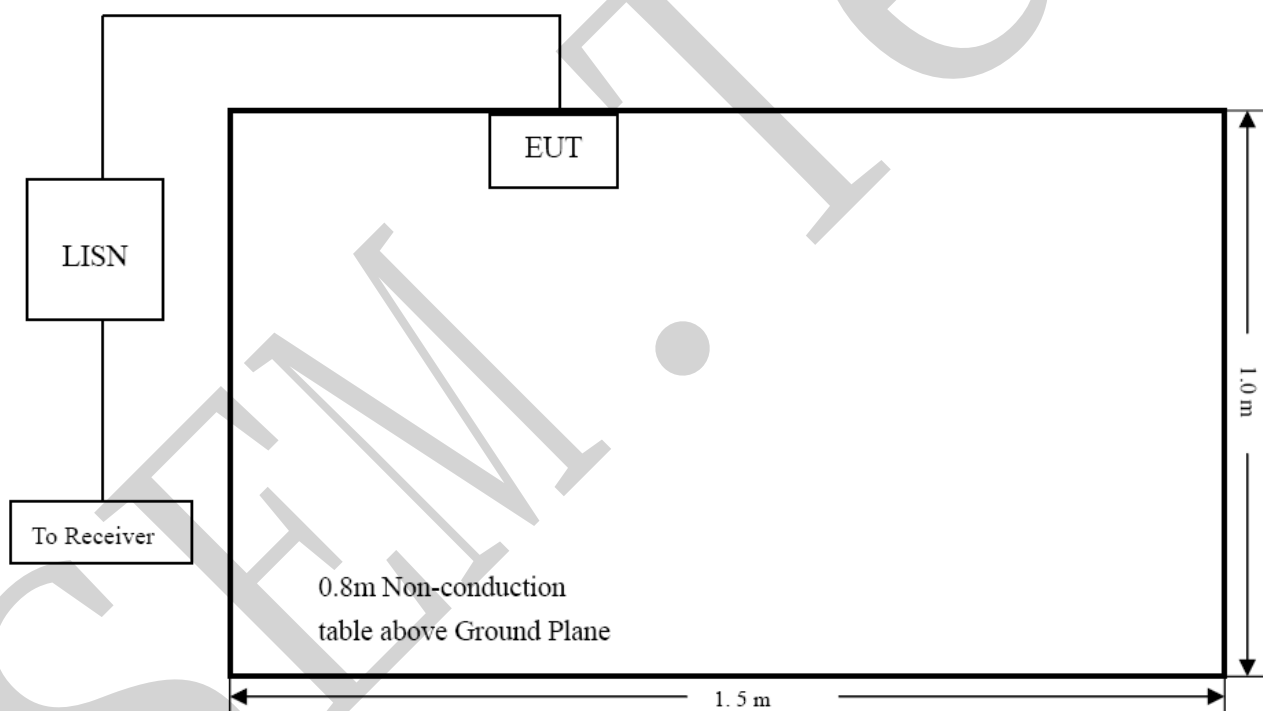
Base on NIS 81, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of any conducted emissions measurement

Measurement uncertainty		
Parameter	Conditions	Uncertainty
Conducted Emissions	Conducted	9-150kHz $\pm 3.74\text{dB}$
		0.15-30MHz $\pm 3.34\text{dB}$

3.2 Test Procedure

Test is conducting under the description of EN55032 Annex A.3.5.

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 EN55032 Conducted margin for a Class B device, with the *worst* margin reading of:

-4.59 dB at 19.5900 MHz in the Line mode, Average detector, GT-81081-6015-T3 Model, 0.15-30MHz

3.6 Conducted Emissions Test Data

Plot of Conducted Emissions Test Data

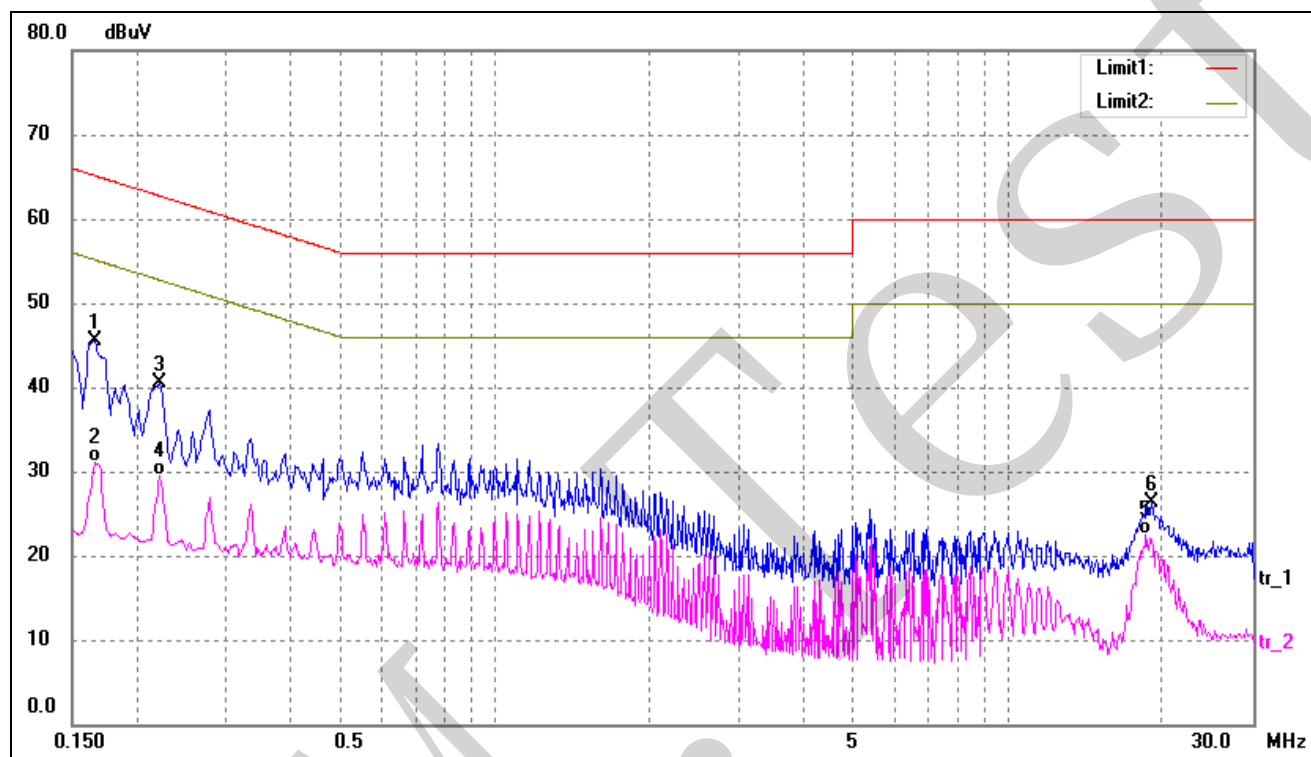
EUT: I.T.E. Power supply

Tested Model: GT-81081-6012-T2

Operating Condition: TM1

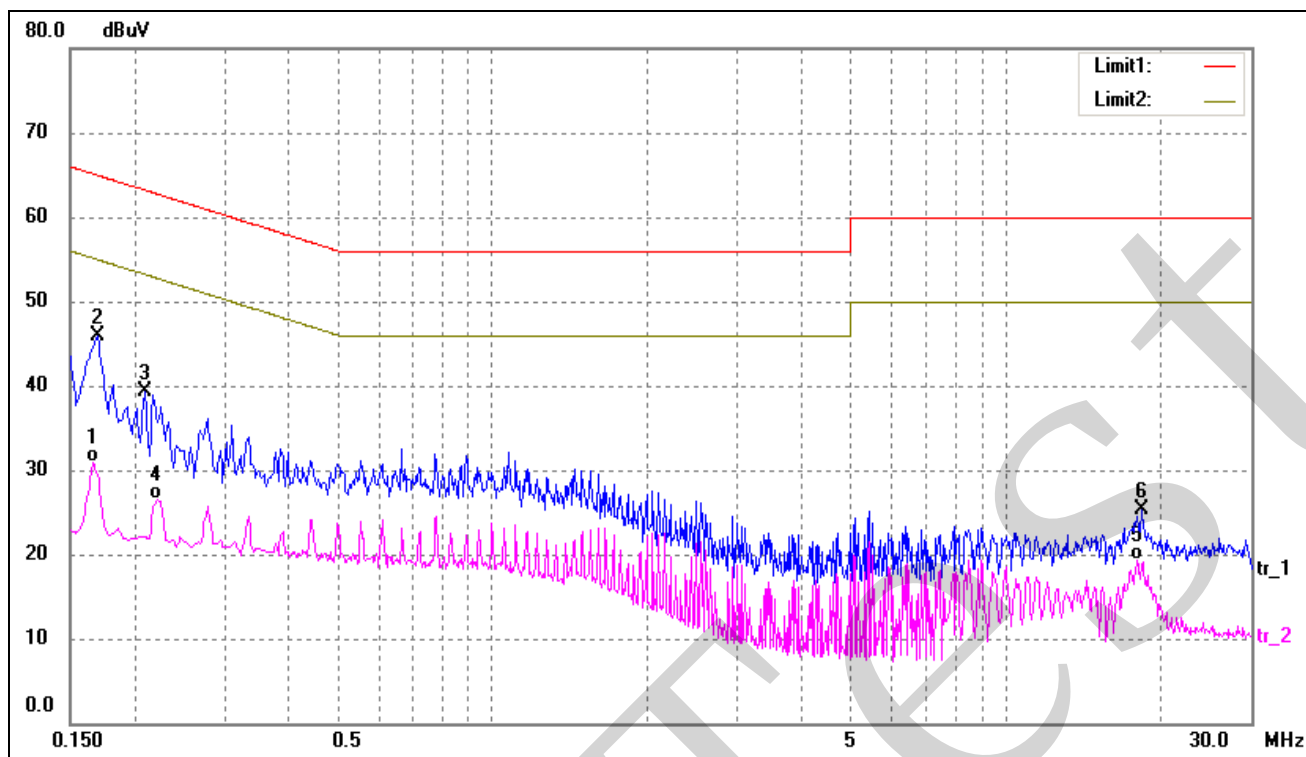
Comment: AC 230V/50Hz

Test Specification: Line



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1*	0.1660	36.01	9.50	45.51	65.16	-19.65	peak
2	0.1660	21.57	9.50	31.07	55.16	-24.09	AVG
3	0.2220	31.00	9.50	40.50	62.74	-22.24	peak
4	0.2220	20.02	9.50	29.52	52.74	-23.22	AVG
5	18.5300	10.70	11.71	22.41	50.00	-27.59	AVG
6	19.0300	14.55	11.81	26.36	60.00	-33.64	peak

Test Specification: Neutral



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1660	21.46	9.50	30.96	55.16	-24.20	AVG
2*	0.1700	36.42	9.50	45.92	64.96	-19.04	peak
3	0.2100	29.86	9.50	39.36	63.21	-23.85	peak
4	0.2220	16.98	9.50	26.48	52.74	-26.26	AVG
5	18.0060	7.76	11.60	19.36	50.00	-30.64	AVG
6	18.3380	13.56	11.67	25.23	60.00	-34.77	peak

Plot of Conducted Emissions Test Data

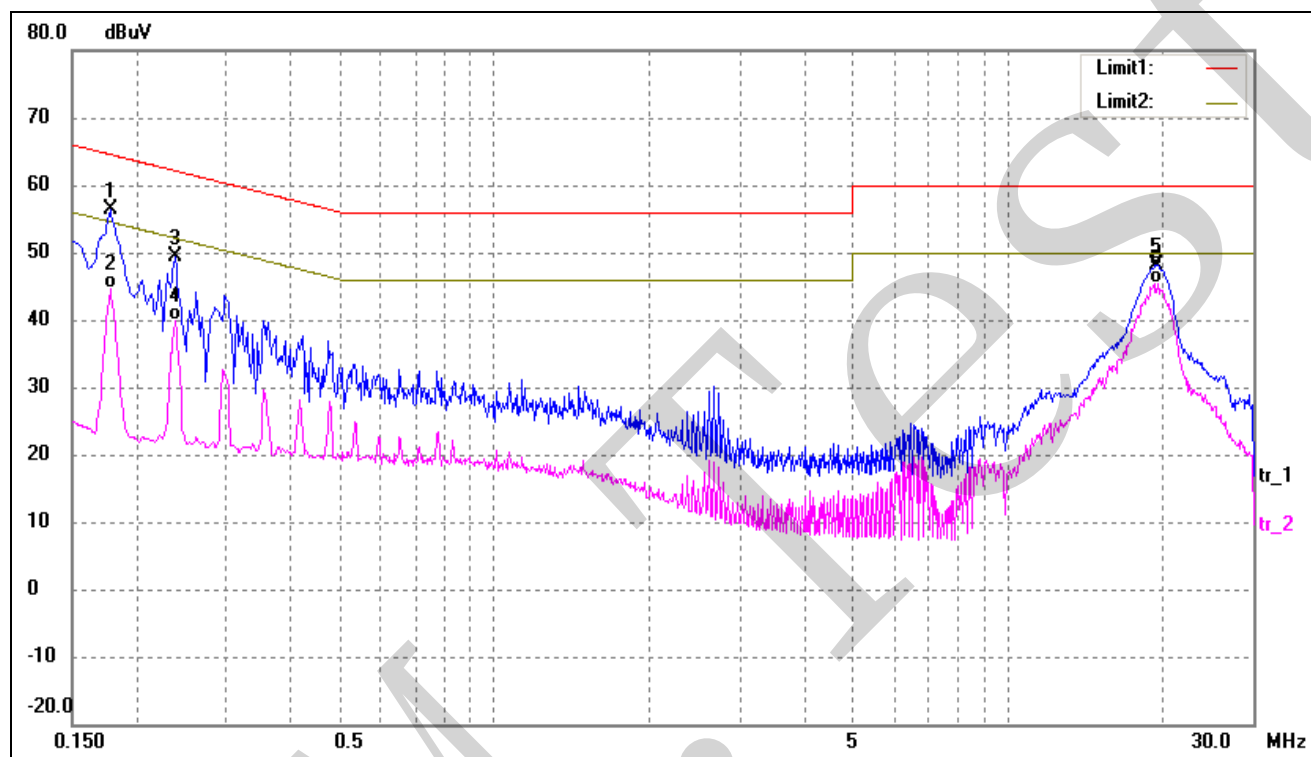
EUT: I.T.E. Power supply

Tested Model: GT-81081-6015-T3

Operating Condition: TM1

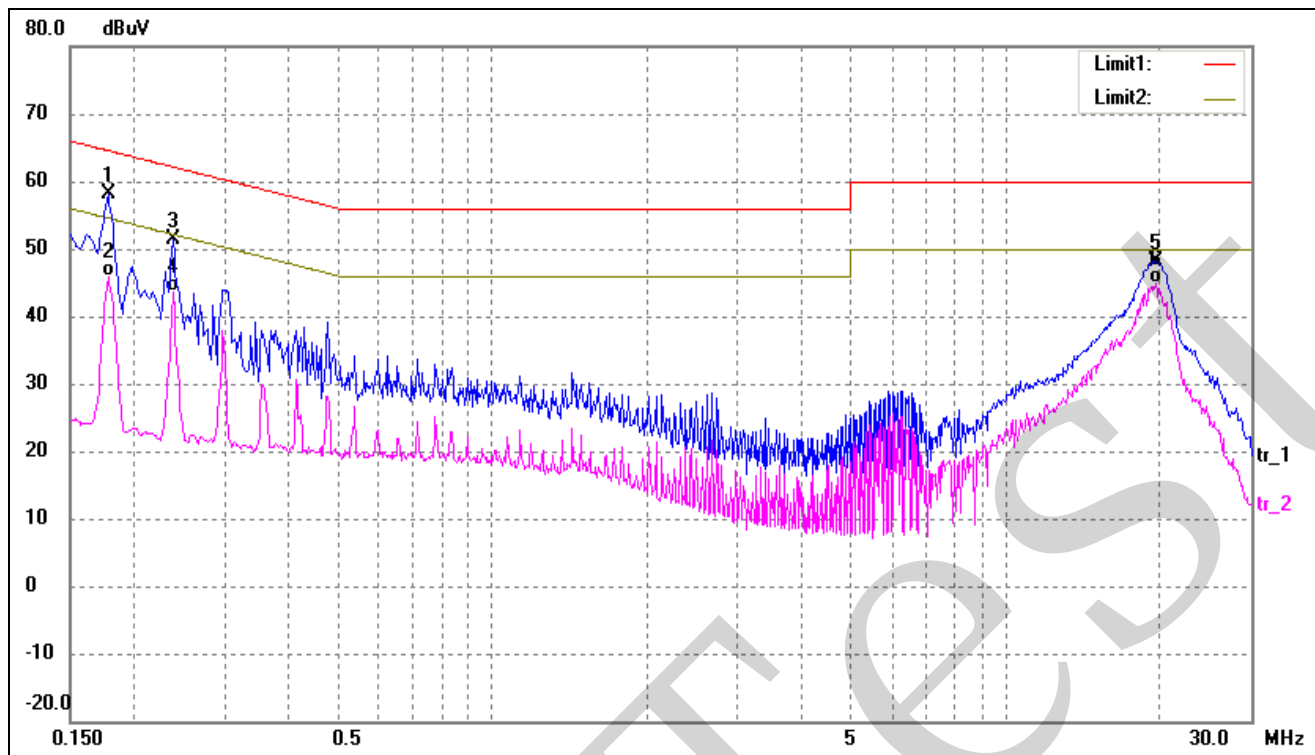
Comment: AC 230V/50Hz

Test Specification: Line



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1780	46.97	9.50	56.47	64.58	-8.11	peak
2	0.1780	35.03	9.50	44.53	54.58	-10.05	AVG
3	0.2380	39.83	9.50	49.33	62.17	-12.84	peak
4	0.2380	30.35	9.50	39.85	52.17	-12.32	AVG
5	19.4700	36.20	11.89	48.09	60.00	-11.91	peak
6*	19.5900	33.49	11.92	45.41	50.00	-4.59	AVG

Test Specification: Neutral

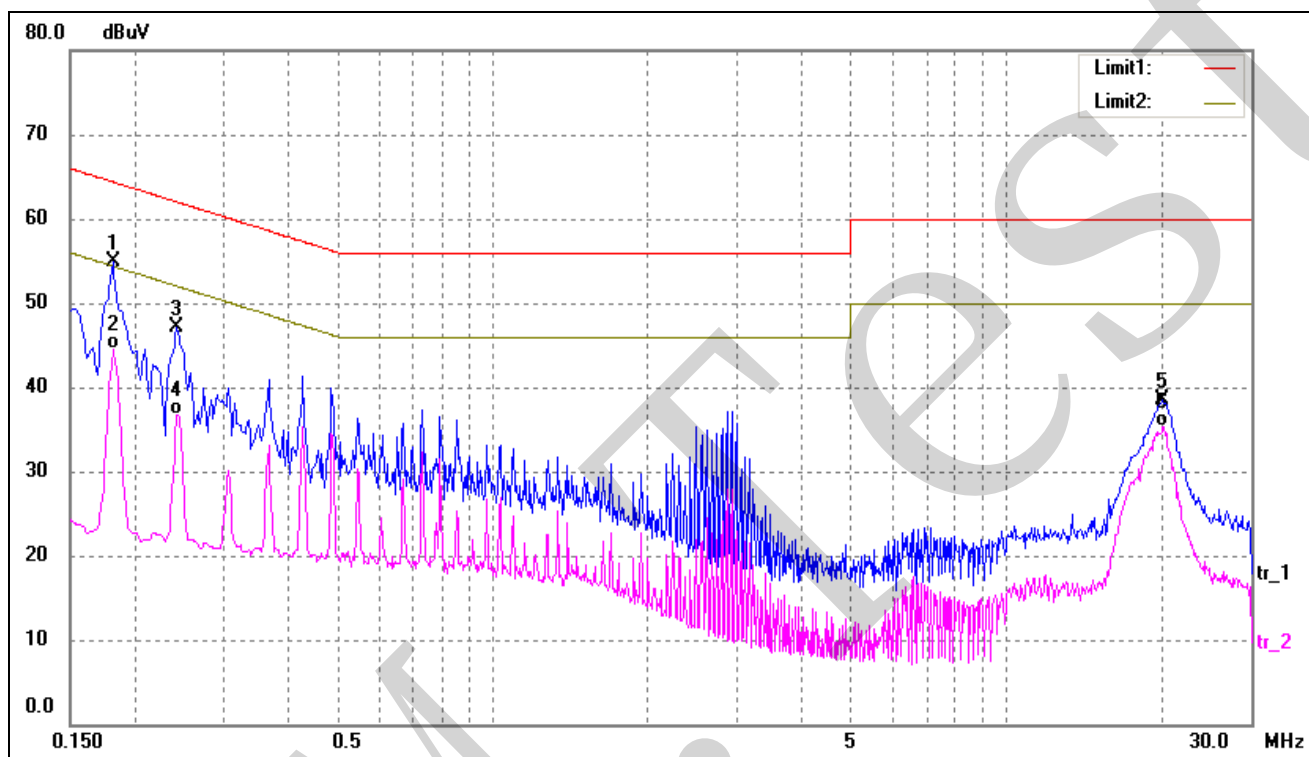


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1780	48.61	9.50	58.11	64.58	-6.47	peak
2	0.1780	36.48	9.50	45.98	54.58	-8.60	AVG
3	0.2380	41.94	9.50	51.44	62.17	-10.73	peak
4	0.2380	34.13	9.50	43.63	52.17	-8.54	AVG
5	19.5500	36.32	11.91	48.23	60.00	-11.77	peak
6*	19.5500	32.98	11.91	44.89	50.00	-5.11	AVG

Plot of Conducted Emissions Test Data

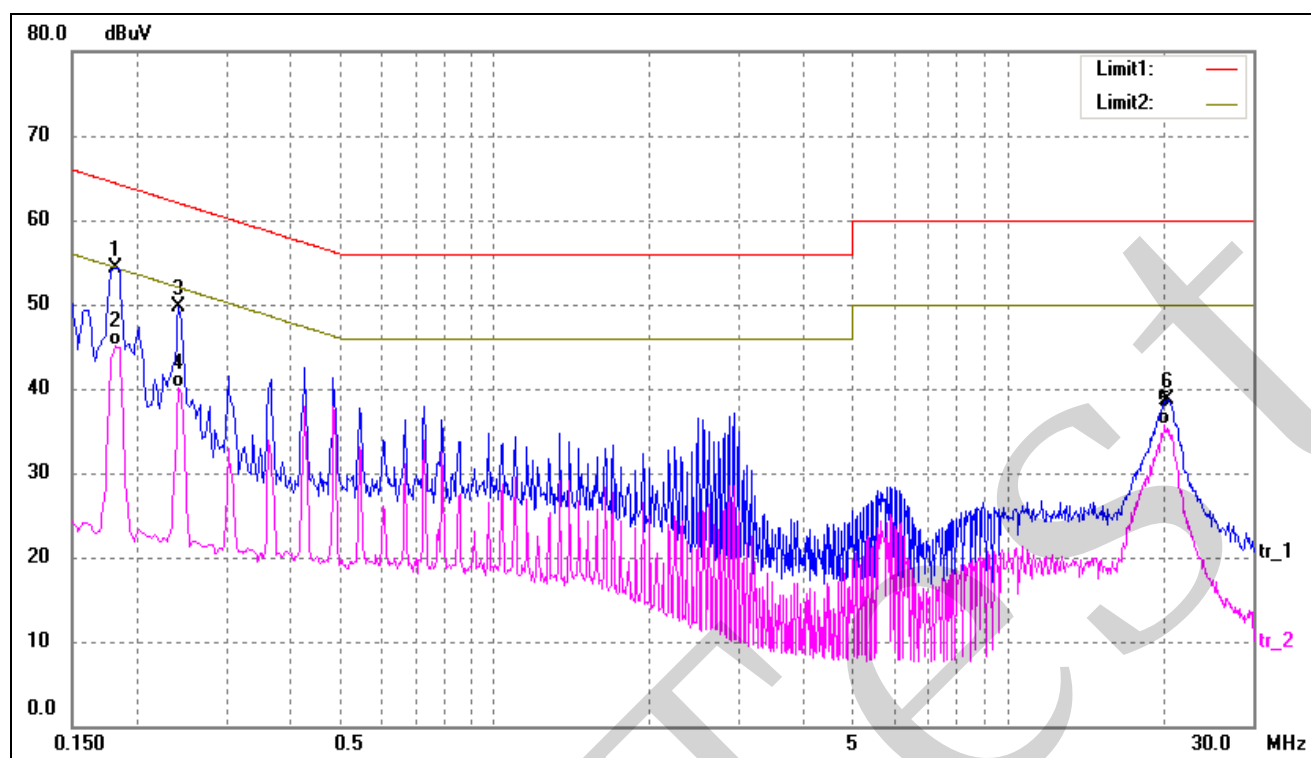
EUT: I.T.E. Power supply
Tested Model: GT-81081-6018-1.2-T3-CC
Operating Condition: TM1
Comment: AC 230V/50Hz

Test Specification: Line



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1*	0.1820	45.45	9.50	54.95	64.39	-9.44	peak
2	0.1820	34.99	9.50	44.49	54.39	-9.90	AVG
3	0.2420	37.60	9.50	47.10	62.03	-14.93	peak
4	0.2420	27.23	9.50	36.73	52.03	-15.30	AVG
5	20.1740	26.56	12.00	38.56	60.00	-21.44	peak
6	20.2940	23.26	12.00	35.26	50.00	-14.74	AVG

Test Specification: Neutral



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1820	44.84	9.50	54.34	64.39	-10.05	peak
2*	0.1820	35.55	9.50	45.05	54.39	-9.34	AVG
3	0.2420	40.20	9.50	49.70	62.03	-12.33	peak
4	0.2420	30.68	9.50	40.18	52.03	-11.85	AVG
5	20.2340	23.78	12.00	35.78	50.00	-14.22	AVG
6	20.4780	26.74	12.00	38.74	60.00	-21.26	peak

Plot of Conducted Emissions Test Data

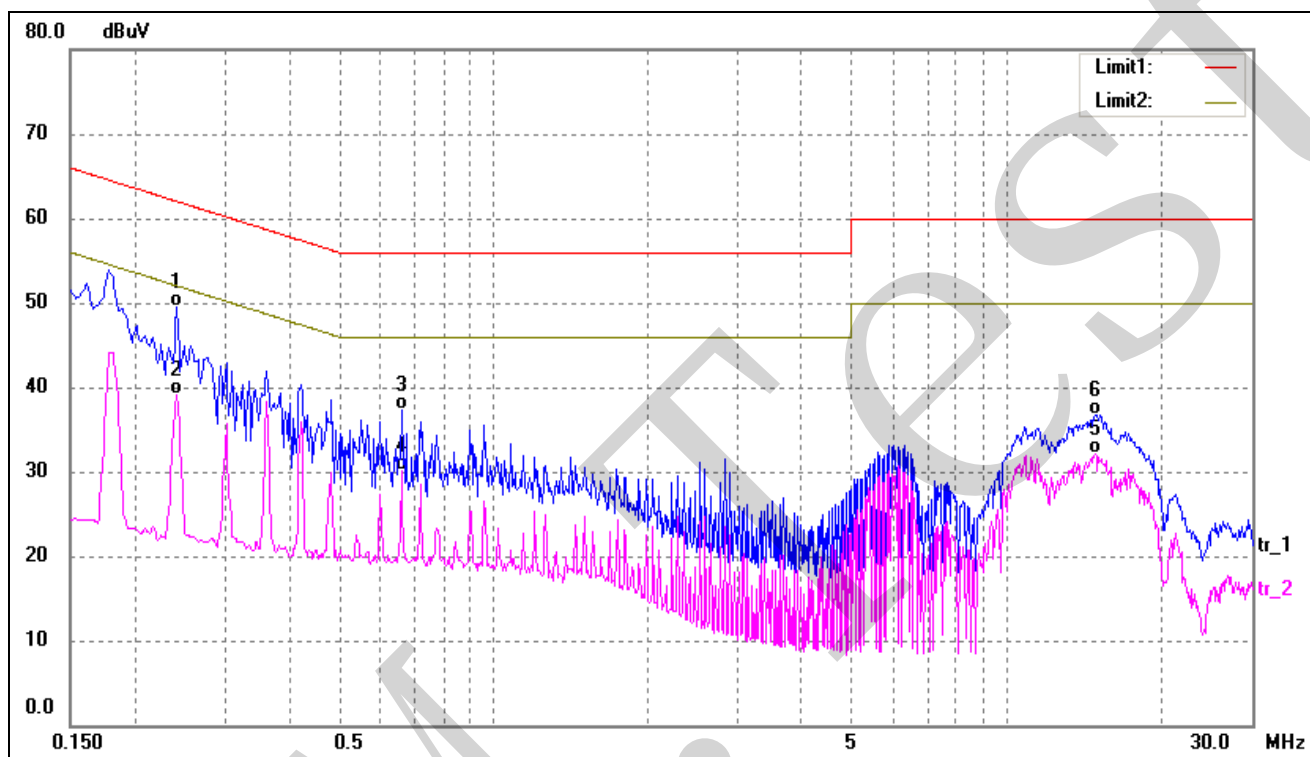
EUT: I.T.E. Power supply

Tested Model: GT-81081-6024-T3

Operating Condition: TM1

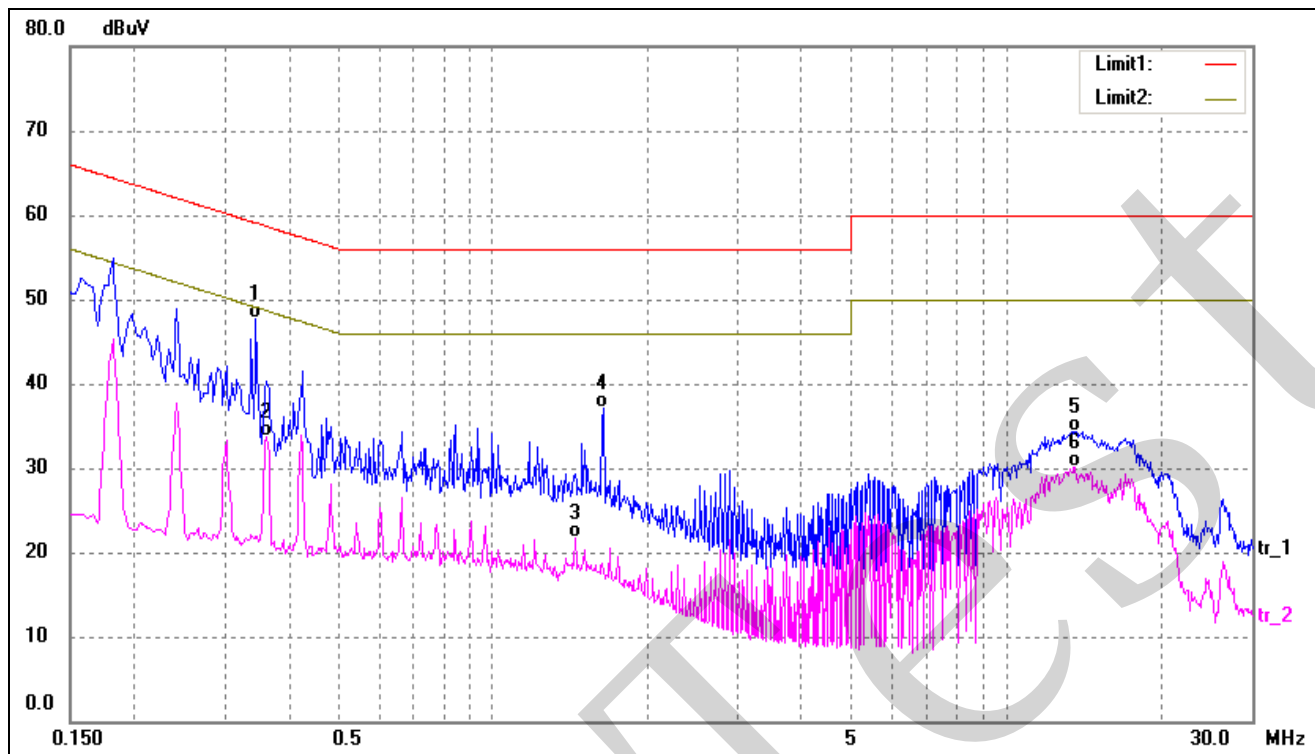
Comment: AC 230V/50Hz

Test Specification: Line



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1*	0.2420	39.30	10.15	49.45	62.03	-12.58	QP
2	0.2420	29.03	10.15	39.18	52.03	-12.85	AVG
3	0.6620	26.90	10.38	37.28	56.00	-18.72	QP
4	0.6620	19.81	10.38	30.19	46.00	-15.81	AVG
5	14.8780	21.17	11.03	32.20	50.00	-17.80	AVG
6	14.9980	25.76	11.03	36.79	60.00	-23.21	QP

Test Specification: Neutral



No.	Frequency	Reading	Correct	Result	Limit	Margin	Detector
	(MHz)	(dBuV)	(dB/m)	(dBuV)	(dBuV)	(dB)	
1*	0.3460	37.46	10.21	47.67	59.06	-11.39	QP
2	0.3620	23.48	10.23	33.71	48.68	-14.97	AVG
3	1.4460	11.11	10.55	21.66	46.00	-24.34	AVG
4	1.6380	26.58	10.57	37.15	56.00	-18.85	QP
5	13.5540	23.33	11.01	34.34	60.00	-25.66	QP
6	13.5540	19.01	11.01	30.02	50.00	-19.98	AVG

4. Radiated Emission

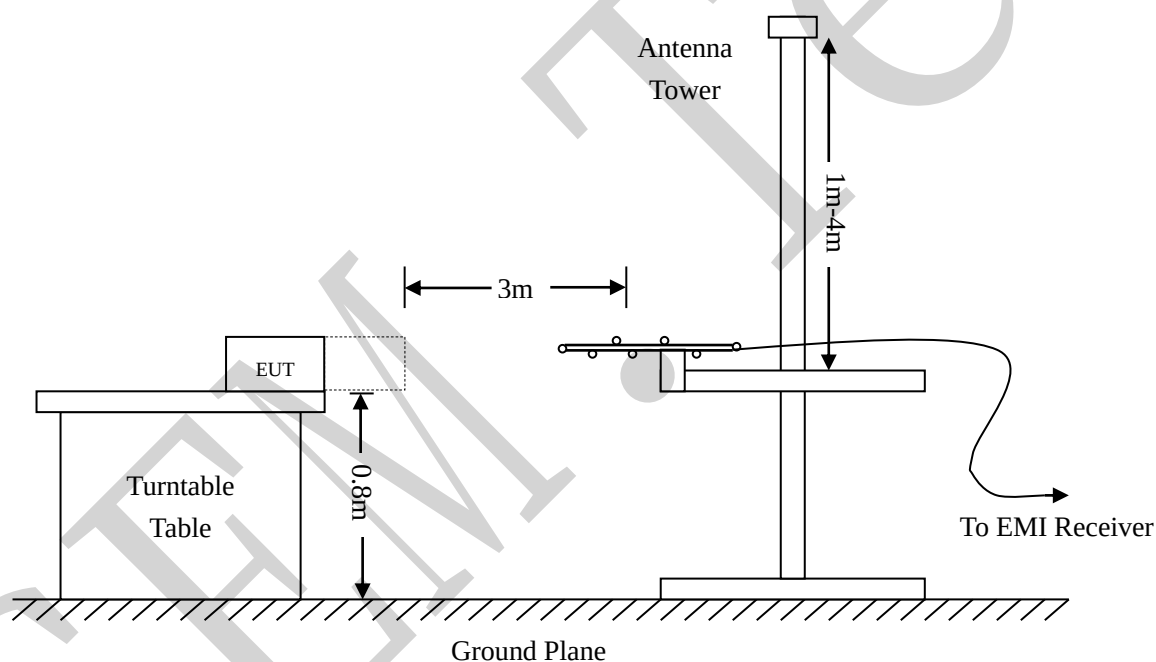
4.1 Measurement Uncertainty

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

Measurement uncertainty		
Parameter	Conditions	Uncertainty
Radiated Emissions	Radiated	30-200MHz $\pm 4.52\text{dB}$
		0.2-1GHz $\pm 5.56\text{dB}$
		1-6GHz $\pm 3.84\text{dB}$
		6-18GHz $\pm 3.92\text{dB}$

4.2 Test Procedure

Test is conducting under the description of EN55032 Annex C.2.2.4



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 -6dB μ V means the emission is 6dB μ V below the maximum limit for Class B device. The equation for margin calculation is as follows:

$$\text{Margin} = \text{Corr. Ampl.} - \text{EN55032 Class B Limit}$$

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 EN55032 Class B standards, and had the worst margin is:

**-2.01 dB at 125.8864 MHz in the Vertical polarization, GT-81081-6015-T3 Model, 30 MHz to 1 GHz,
3Meters**

Plot of Radiated Emissions Test Data

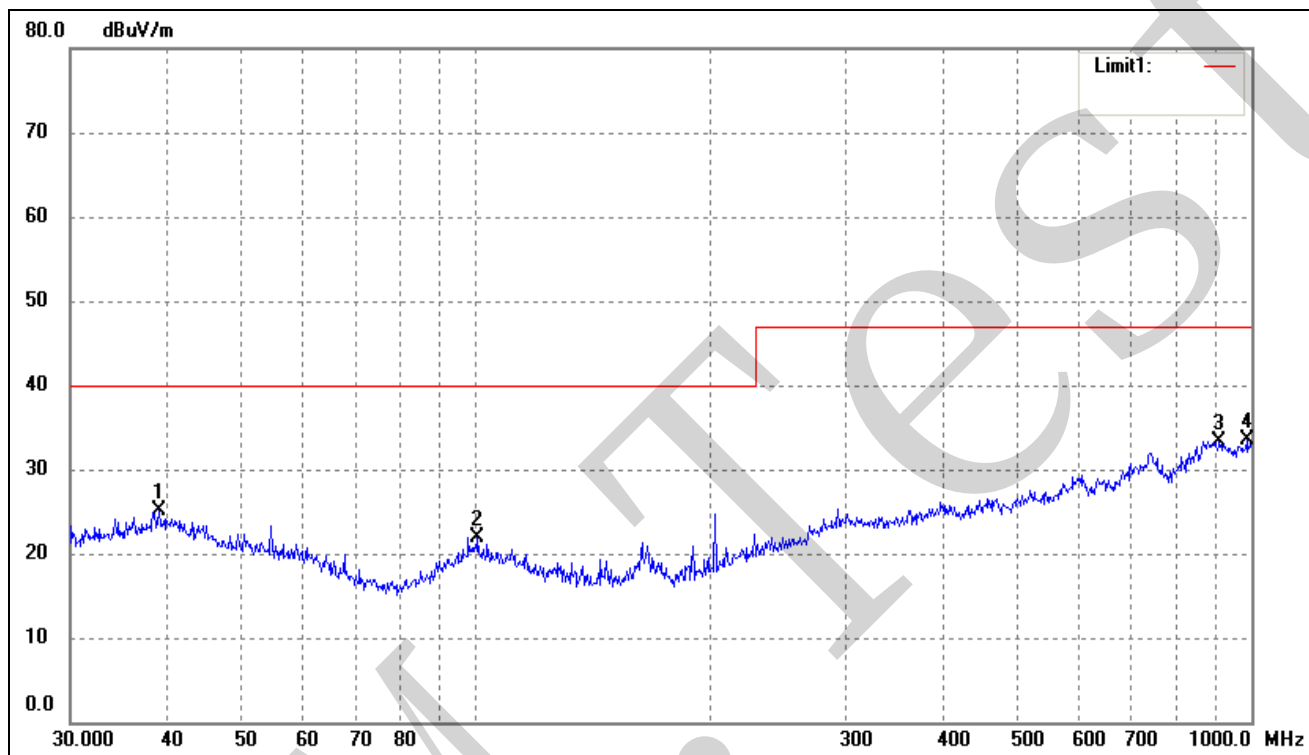
EUT: I.T.E. Power supply

Tested Model: GT-81081-6012-T2

Operating Condition: TM1

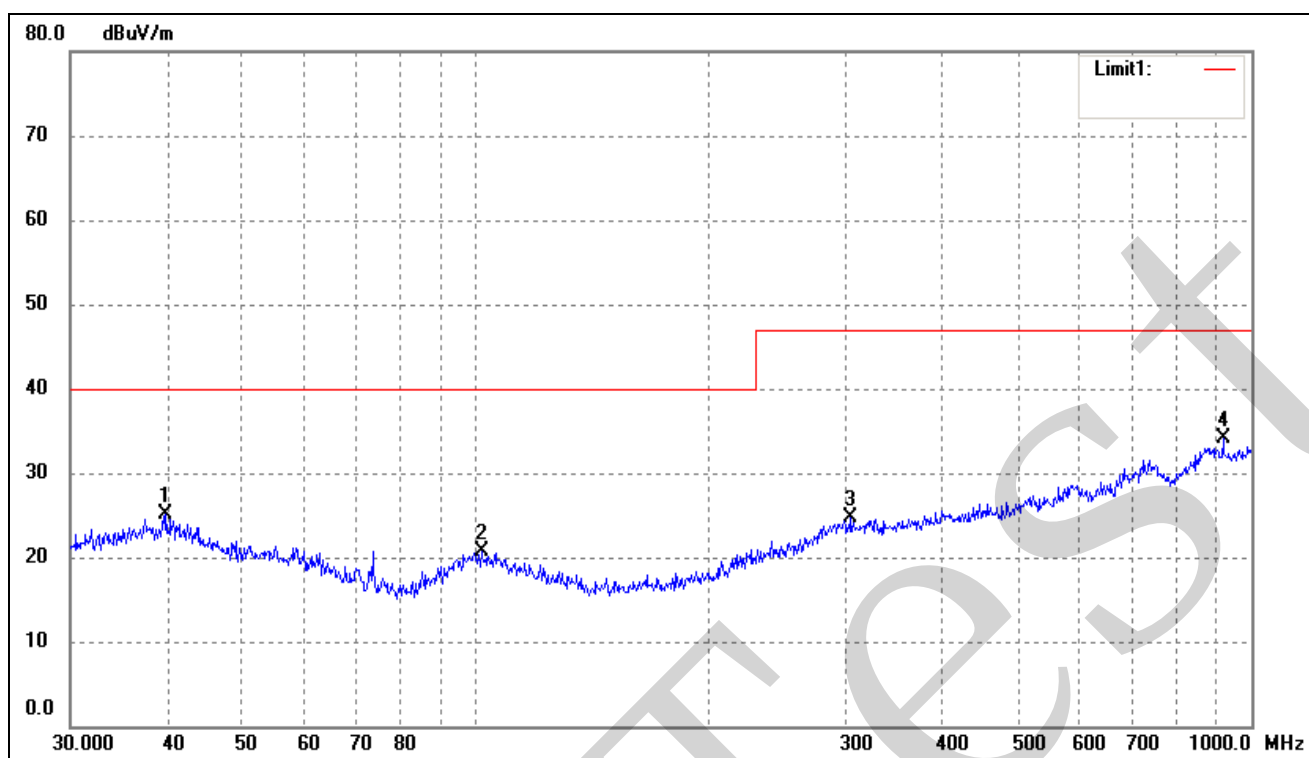
Comment: AC 230V/50Hz

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	39.0245	18.14	6.99	25.13	40.00	-14.87	134	100	peak
2	100.5806	15.82	6.07	21.89	40.00	-18.11	137	100	peak
3	909.6667	16.70	16.68	33.38	47.00	-13.62	128	100	peak
4	986.0717	16.58	16.90	33.48	47.00	-13.52	187	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	39.8542	15.96	9.23	25.19	40.00	-14.81	240	100	peak
2	101.6443	14.70	5.95	20.65	40.00	-19.35	138	100	peak
3	304.6100	15.47	9.19	24.66	47.00	-22.34	147	100	peak
4	919.2866	17.65	16.50	34.15	47.00	-12.85	199	100	peak

Plot of Radiated Emissions Test Data

EUT: I.T.E. Power supply

Tested Model: GT-81081-6015-T3

Operating Condition: TM1

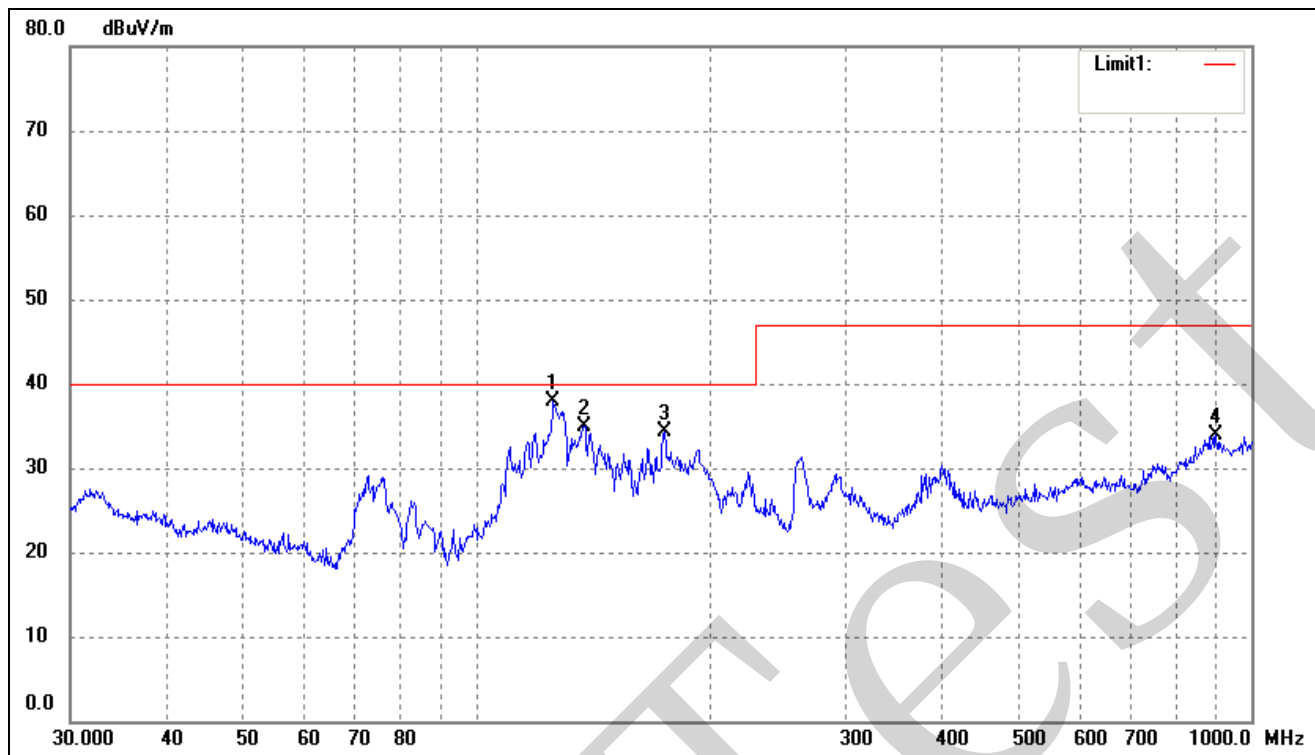
Comment: AC 230V/50Hz

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	126.3286	28.35	3.50	31.85	40.00	-8.15	45	100	peak
2	191.7450	34.62	3.29	37.91	40.00	-2.09	178	100	peak
3	292.0583	28.24	8.86	37.10	47.00	-9.90	123	100	peak
4	912.8620	17.65	16.62	34.27	47.00	-12.73	159	100	peak

Test Specification: Vertical

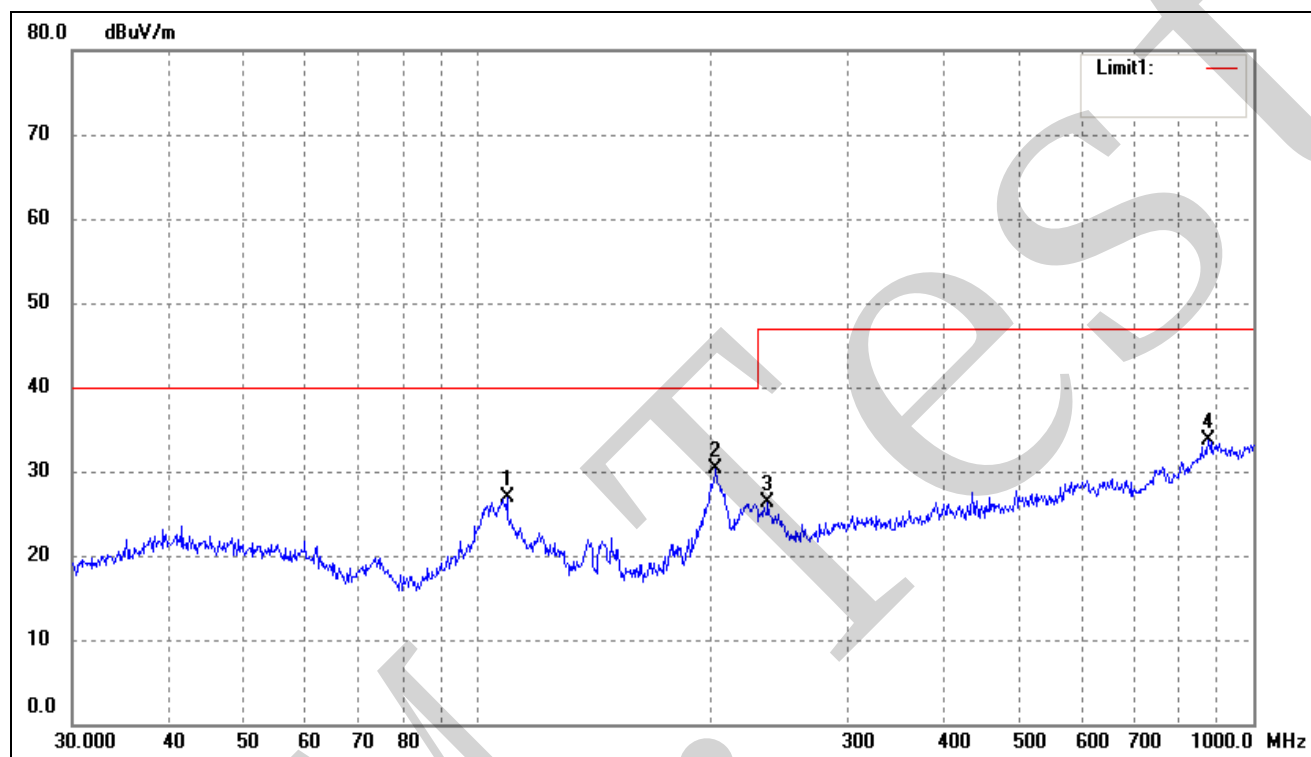


No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	125.8864	34.45	3.54	37.99	40.00	-2.01	124	100	peak
2	137.9029	32.38	2.58	34.96	40.00	-5.04	178	100	peak
3	175.0368	31.55	2.71	34.26	40.00	-5.74	254	100	peak
4	900.1474	17.13	16.85	33.98	47.00	-13.02	259	100	peak

Plot of Radiated Emissions Test Data

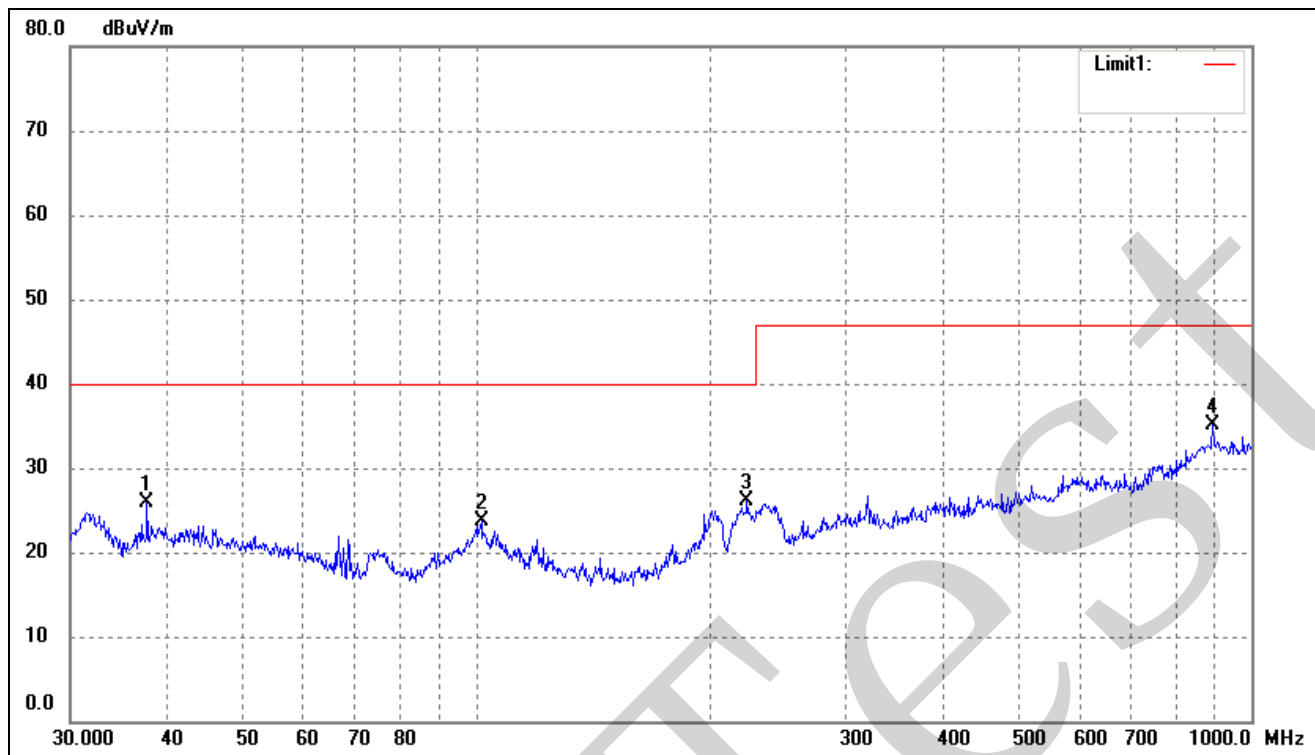
EUT: I.T.E. Power supply
Tested Model: GT-81081-6018-1.2-T3-CC
Operating Condition: TM1
Comment: AC 230V/50Hz

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	109.0286	21.63	5.18	26.81	40.00	-13.19	148	100	peak
2	202.8104	26.40	3.87	30.27	40.00	-9.73	169	100	peak
3	236.6447	20.12	6.13	26.25	47.00	-20.75	341	100	peak
4	875.2470	17.04	16.70	33.74	47.00	-13.26	248	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	37.6798	16.96	8.85	25.81	40.00	-14.19	124	100	peak
2	101.6443	17.84	5.95	23.79	40.00	-16.21	167	100	peak
3	223.7334	20.69	5.33	26.02	40.00	-13.98	189	100	peak
4	890.7278	18.18	16.84	35.02	47.00	-11.98	234	100	peak

Plot of Radiated Emissions Test Data

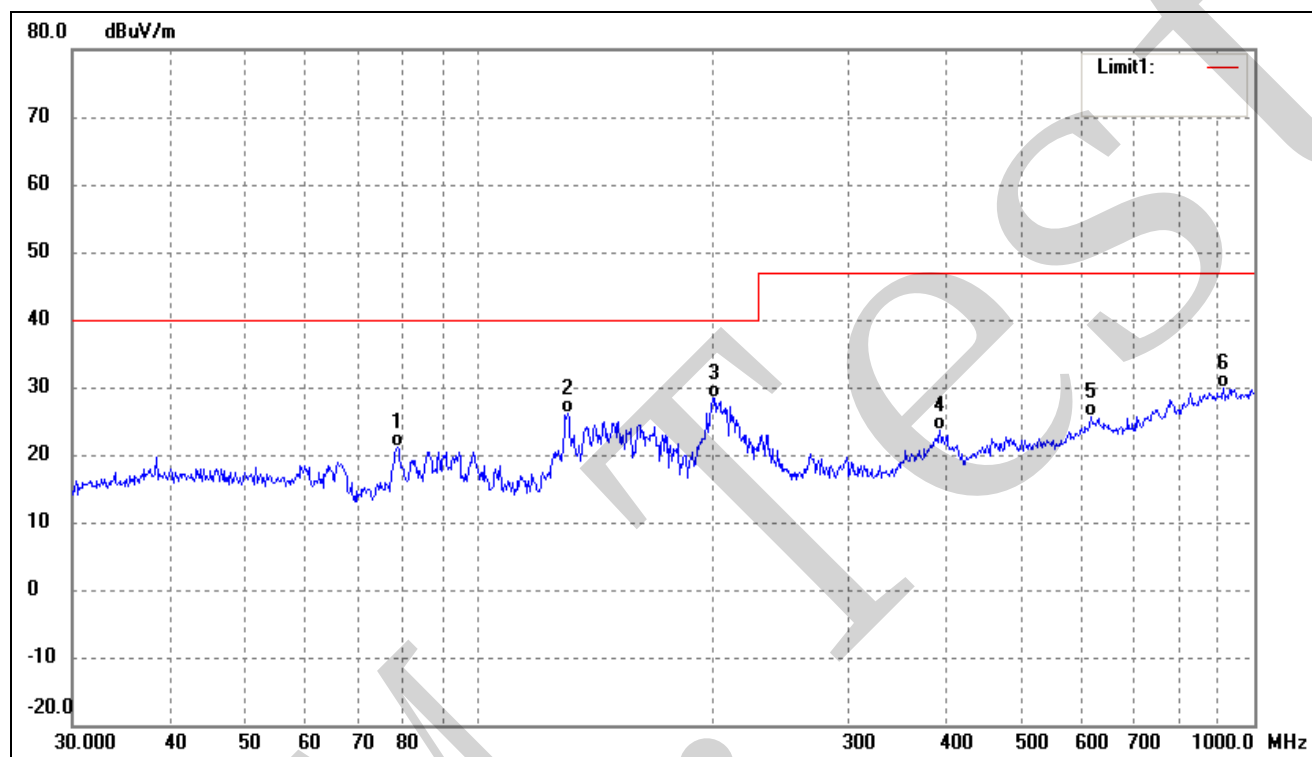
EUT: I.T.E. Power supply

Tested Model: GT-81081-6024-T3

Operating Condition: TM1

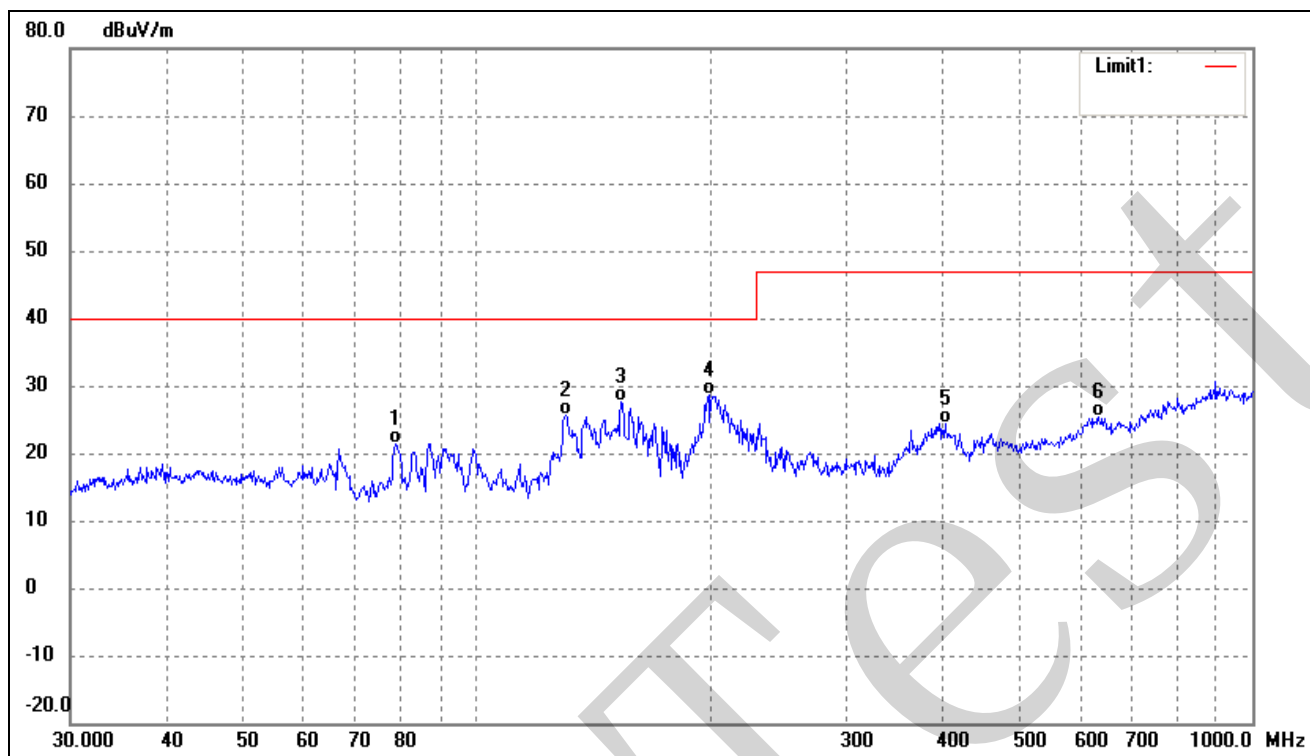
Comment: AC 230V/50Hz

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	78.6888	37.31	-16.07	21.24	40.00	-18.76	338	100	QP
2	130.3789	40.30	-14.25	26.05	40.00	-13.95	100	100	QP
3	201.3930	40.44	-12.05	28.39	40.00	-11.61	255	100	QP
4	393.4724	31.35	-7.84	23.51	47.00	-23.49	100	100	QP
5	616.3718	28.91	-3.33	25.58	47.00	-21.42	173	100	QP
6	912.8620	28.74	1.16	29.90	47.00	-17.10	255	100	QP

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	78.6888	39.04	-17.66	21.38	40.00	-18.62	315	100	QP
2	130.3789	39.84	-14.25	25.59	40.00	-14.41	179	100	QP
3	153.7385	42.77	-15.11	27.66	40.00	-12.34	77	100	QP
4	199.2855	40.74	-12.08	28.66	40.00	-11.34	108	100	QP
5	401.8385	32.50	-8.08	24.42	47.00	-22.58	93	100	QP
6	633.9073	28.72	-3.36	25.36	47.00	-21.64	321	100	QP

5. Harmonic Current Emissions

5.1 Test Procedure

Test is conducting under the description of EN61000-3-2.

5.2 Test Standards

EN61000-3-2, Clause 7.1 Limits for Class A equipment.

Environmental Conditions

Temperature:	22 °C
Relative Humidity:	48%
ATM Pressure:	1022 mbar

5.3 Harmonic Current Emissions Test Data

Harmonics – Class-A per Ed. 3.2 (Run time)

EUT: GT-81081-6012-T2

Tested by: Leo

Test category: Class-A per Ed. 3.2 (European limits)

Test Margin: 100

Test date: 2014-12-29

Start time: 02:07:41 PM

End time: 02:10:32 PM

Test duration (min): 2.5

Data file name: H-000535.cts_data

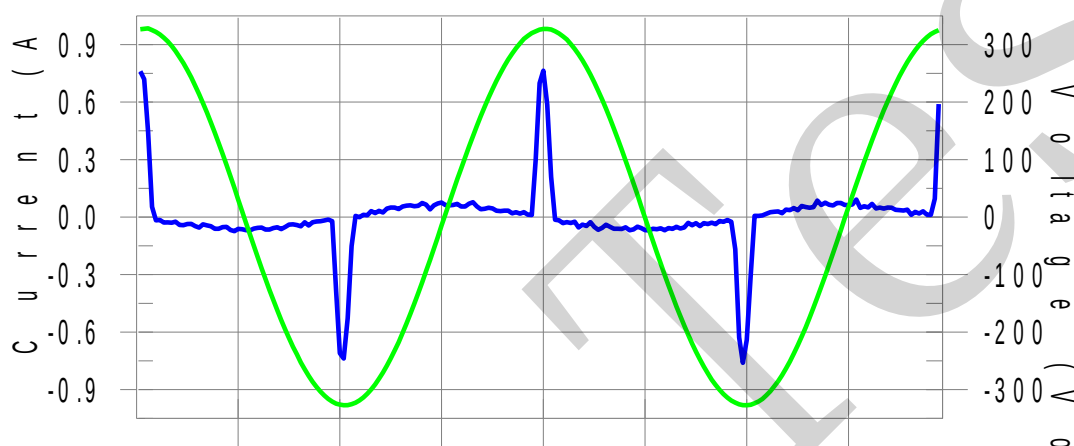
Comment: TM1

Customer: GlobTek, Inc.

Test Result: Pass

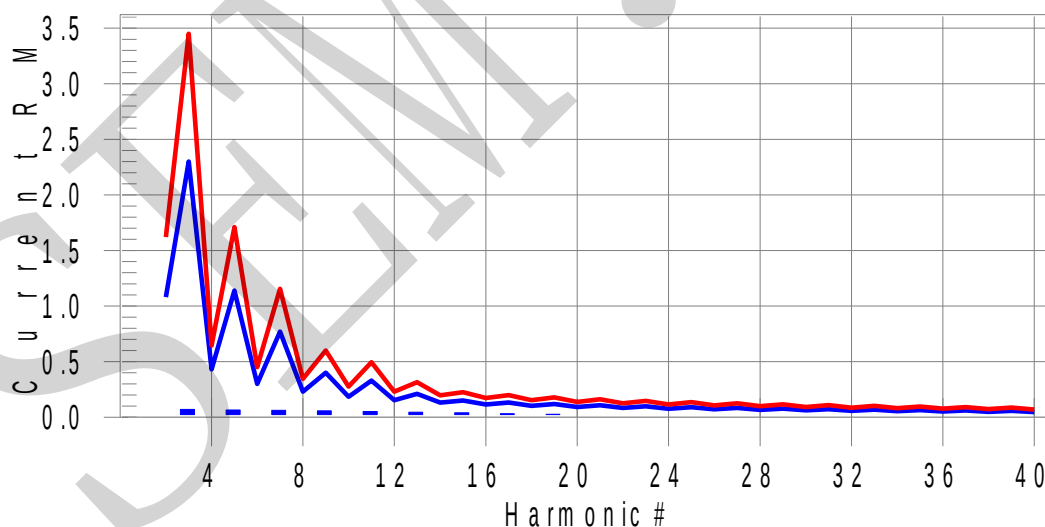
Source qualification: Normal

Current & voltage waveforms



Harmonics and Class A limit line

European Limits



Test result: Pass **Worst harmonic was #15 with 25.76% of the limit.**

Current Test Result Summary (Run time)

EUT: GT-81081-6012-T2

Tested by: Leo

Test category: Class-A per Ed. 3.2 (European limits)

Test Margin: 100

Test date: 2014-12-29

Start time: 02:07:41 PM

End time: 02:10:32 PM

Test duration (min): 2.5

Data file name: H-000535.cts_data

Comment: TM1

Customer: GlobTek, Inc.

Test Result: Pass

Source qualification: Normal

THC(A): 0.16

I-THD(%): 187.77

POHC(A): 0.027

POHC Limit(A): 0.275

Highest parameter values during test:

V_RMS (Volts): 231.55

Frequency(Hz): 50.00

I_Peak (Amps): 0.824

I_RMS (Amps): 0.179

I_Fund (Amps): 0.084

Crest Factor: 4.635

Power (Watts): 16.1

Power Factor: 0.396

Harm#	Harms(avg)	100%Limit	%of Limit	Harms(max)	150%Limit	%of Limit	Status
2	0.001	1.080	0.0	0.002	1.620	0.10	Pass
3	0.068	2.300	2.9	0.069	3.450	2.01	Pass
4	0.001	0.430	0.0	0.001	0.645	0.22	Pass
5	0.065	1.140	5.7	0.066	1.710	3.84	Pass
6	0.001	0.300	0.0	0.001	0.450	0.26	Pass
7	0.061	0.770	8.0	0.062	1.155	5.36	Pass
8	0.001	0.230	0.0	0.001	0.345	0.28	Pass
9	0.057	0.400	14.2	0.057	0.600	9.52	Pass
10	0.001	0.184	0.0	0.001	0.276	0.36	Pass
11	0.051	0.330	15.5	0.052	0.495	10.44	Pass
12	0.001	0.153	0.0	0.001	0.230	0.42	Pass
13	0.045	0.210	21.5	0.046	0.315	14.51	Pass
14	0.001	0.131	0.0	0.001	0.197	0.47	Pass
15	0.039	0.150	25.8	0.039	0.225	17.48	Pass
16	0.001	0.115	0.0	0.001	0.173	0.45	Pass
17	0.032	0.132	24.3	0.033	0.199	16.48	Pass
18	0.000	0.102	0.0	0.001	0.153	0.47	Pass
19	0.026	0.118	21.6	0.026	0.178	14.85	Pass
20	0.000	0.092	0.0	0.001	0.138	0.45	Pass
21	0.019	0.107	18.2	0.020	0.161	12.72	Pass
22	0.000	0.084	0.0	0.001	0.125	0.44	Pass
23	0.014	0.098	14.1	0.015	0.147	10.02	Pass
24	0.000	0.077	0.0	0.000	0.115	0.38	Pass
25	0.009	0.090	9.9	0.010	0.135	7.20	Pass
26	0.000	0.071	0.0	0.000	0.106	0.37	Pass
27	0.005	0.083	5.7	0.006	0.125	4.45	Pass

28	0.000	0.066	0.0	0.000	0.099	0.44	Pass
29	0.002	0.078	0.0	0.003	0.116	2.16	Pass
30	0.000	0.061	0.0	0.000	0.092	0.46	Pass
31	0.002	0.073	0.0	0.003	0.109	2.87	Pass
32	0.000	0.058	0.0	0.000	0.086	0.47	Pass
33	0.004	0.068	0.0	0.004	0.102	4.38	Pass
34	0.000	0.054	0.0	0.000	0.081	0.51	Pass
35	0.005	0.064	7.8	0.005	0.096	5.56	Pass
36	0.000	0.051	0.0	0.000	0.077	0.52	Pass
37	0.005	0.061	8.6	0.005	0.091	5.92	Pass
38	0.000	0.048	0.0	0.000	0.073	0.49	Pass
39	0.005	0.058	8.7	0.005	0.087	6.00	Pass
40	0.000	0.046	0.0	0.000	0.069	0.51	Pass

Voltage Source Verification Data (Run time)

EUT: GT-81081-6012-T2

Tested by: Leo

Test category: Class-A per Ed. 3.2 (European limits)

Test Margin: 100

Test date: 2014-12-29

Start time: 02:07:41 PM

End time: 02:10:32 PM

Test duration (min): 2.5

Data file name: H-000535.cts_data

Comment: TM1

Customer: GlobTek, Inc.

Test Result: Pass

Source qualification: Normal

Highest parameter values during test:

Voltage (Vrms): 231.55

Frequency(Hz): 50.00

I_Peak (Amps): 0.824

I_RMS (Amps): 0.179

I_Fund (Amps): 0.084

Crest Factor: 4.635

Power (Watts): 16.1

Power Factor: 0.396

Harm#	Harmonics V-rms	Limit V-rms	% of Limit	Status
2	0.056	0.463	12.19	OK
3	0.566	2.083	27.18	OK
4	0.067	0.463	14.36	OK
5	0.070	0.926	7.53	OK
6	0.040	0.463	8.63	OK
7	0.040	0.694	5.71	OK
8	0.019	0.463	4.04	OK
9	0.039	0.463	8.46	OK
10	0.013	0.463	2.79	OK
11	0.035	0.232	15.32	OK
12	0.017	0.232	7.20	OK
13	0.040	0.231	17.13	OK
14	0.010	0.232	4.51	OK
15	0.037	0.231	15.83	OK
16	0.011	0.231	4.76	OK
17	0.039	0.231	16.89	OK
18	0.014	0.232	6.18	OK
19	0.037	0.231	15.79	OK
20	0.018	0.231	7.70	OK
21	0.034	0.232	14.88	OK
22	0.009	0.231	4.04	OK
23	0.024	0.231	10.20	OK
24	0.009	0.231	3.84	OK
25	0.022	0.231	9.45	OK
26	0.010	0.231	4.32	OK
27	0.014	0.231	6.10	OK

28	0.011	0.231	4.82	OK
29	0.016	0.231	6.90	OK
30	0.010	0.232	4.16	OK
31	0.014	0.232	6.04	OK
32	0.011	0.231	4.76	OK
33	0.017	0.231	7.54	OK
34	0.010	0.231	4.51	OK
35	0.022	0.232	9.39	OK
36	0.009	0.231	4.08	OK
37	0.017	0.231	7.56	OK
38	0.008	0.231	3.32	OK
39	0.021	0.231	8.95	OK
40	0.012	0.231	5.05	OK

Harmonics – Class-A per Ed. 3.2 (Run time)

EUT: GT-81081-6015-T3

Tested by: Leo

Test category: Class-A per Ed. 3.2 (European limits)

Test Margin: 100

Test date: 2014-12-29

Start time: 02:18:06 PM

End time: 02:20:57 PM

Test duration (min): 2.5

Data file name: H-000537.cts_data

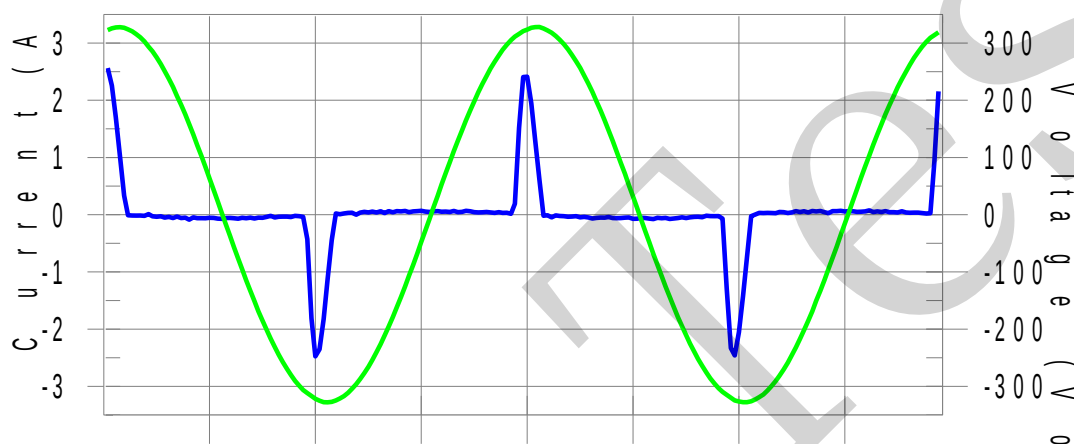
Comment: TM1

Customer: GlobTek, Inc.

Test Result: Pass

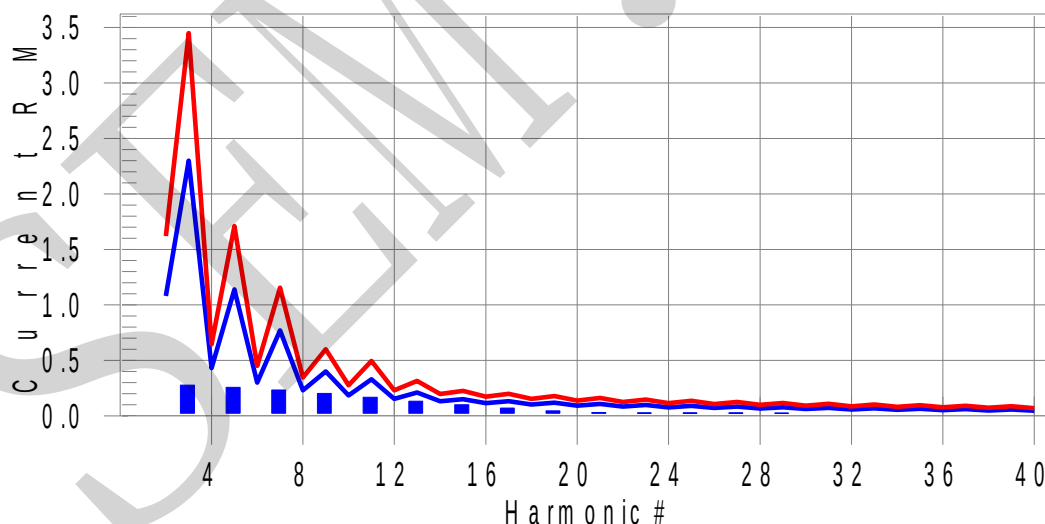
Source qualification: Normal

Current & voltage waveforms



Harmonics and Class A limit line

European Limits



Test result: Pass **Worst harmonic was #15 with 62.37% of the limit.**

Current Test Result Summary (Run time)

EUT: GT-81081-6015-T3

Tested by: Leo

Test category: Class-A per Ed. 3.2 (European limits)

Test Margin: 100

Test date: 2014-12-29

Start time: 02:18:06 PM

End time: 02:20:57 PM

Test duration (min): 2.5

Data file name: H-000537.cts_data

Comment: TM1

Customer: GlobTek, Inc.

Test Result: Pass

Source qualification: Normal

THC(A): 0.54

I-THD(%): 185.55

POHC(A): 0.063

POHC Limit(A): 0.251

Highest parameter values during test:

V_RMS (Volts): 231.51

Frequency(Hz): 50.00

I_Peak (Amps): 2.562

I_RMS (Amps): 0.625

I_Fund (Amps): 0.295

Crest Factor: 4.102

Power (Watts): 65.6

Power Factor: 0.470

Harm#	Harms(avg)	100%Limit	%of Limit	Harms(max)	150%Limit	%of Limit	Status
2	0.001	1.080	0.0	0.002	1.620	0.11	Pass
3	0.277	2.300	12.0	0.278	3.450	8.05	Pass
4	0.001	0.430	0.0	0.002	0.645	0.28	Pass
5	0.257	1.140	22.6	0.258	1.710	15.11	Pass
6	0.001	0.300	0.0	0.002	0.450	0.39	Pass
7	0.231	0.770	30.0	0.233	1.155	20.14	Pass
8	0.002	0.230	0.0	0.002	0.345	0.53	Pass
9	0.199	0.400	49.7	0.202	0.600	33.65	Pass
10	0.002	0.184	0.0	0.002	0.276	0.69	Pass
11	0.164	0.330	49.6	0.168	0.495	33.89	Pass
12	0.002	0.153	0.0	0.002	0.230	0.84	Pass
13	0.128	0.210	60.8	0.133	0.315	42.12	Pass
14	0.001	0.131	0.0	0.002	0.197	0.90	Pass
15	0.094	0.150	62.4	0.099	0.225	44.03	Pass
16	0.001	0.115	0.0	0.002	0.173	0.91	Pass
17	0.064	0.132	48.3	0.069	0.199	34.76	Pass
18	0.001	0.102	0.0	0.001	0.153	0.90	Pass
19	0.041	0.118	34.4	0.045	0.178	25.43	Pass
20	0.001	0.092	0.0	0.001	0.138	0.87	Pass
21	0.027	0.107	25.6	0.030	0.161	18.64	Pass
22	0.001	0.084	0.0	0.001	0.125	0.81	Pass
23	0.025	0.098	25.2	0.025	0.147	17.06	Pass
24	0.001	0.077	0.0	0.001	0.115	0.74	Pass
25	0.026	0.090	28.9	0.027	0.135	19.79	Pass
26	0.001	0.071	0.0	0.001	0.106	0.74	Pass
27	0.026	0.083	31.4	0.027	0.125	21.21	Pass

28	0.001	0.066	0.0	0.001	0.099	0.78	Pass
29	0.024	0.078	30.5	0.024	0.116	21.09	Pass
30	0.000	0.061	0.0	0.001	0.092	0.70	Pass
31	0.019	0.073	26.3	0.020	0.109	18.77	Pass
32	0.000	0.058	0.0	0.001	0.086	0.66	Pass
33	0.013	0.068	19.7	0.015	0.102	15.01	Pass
34	0.000	0.054	0.0	0.000	0.081	0.61	Pass
35	0.008	0.064	12.7	0.010	0.096	10.05	Pass
36	0.000	0.051	0.0	0.000	0.077	0.60	Pass
37	0.005	0.061	8.8	0.006	0.091	6.52	Pass
38	0.000	0.048	0.0	0.000	0.073	0.64	Pass
39	0.006	0.058	10.7	0.008	0.087	8.76	Pass
40	0.000	0.046	0.0	0.000	0.069	0.61	Pass

Voltage Source Verification Data (Run time)

EUT: GT-81081-6015-T3

Tested by: Leo

Test category: Class-A per Ed. 3.2 (European limits)

Test Margin: 100

Test date: 2014-12-29

Start time: 02:18:06 PM

End time: 02:20:57 PM

Test duration (min): 2.5

Data file name: H-000537.cts_data

Comment: TM1

Customer: GlobTek, Inc.

Test Result: Pass

Source qualification: Normal

Highest parameter values during test:

Voltage (Vrms): 231.51

Frequency(Hz): 50.00

I_Peak (Amps): 2.562

I_RMS (Amps): 0.625

I_Fund (Amps): 0.295

Crest Factor: 4.102

Power (Watts): 65.6

Power Factor: 0.470

Harm#	Harmonics V-rms	Limit V-rms	% of Limit	Status
2	0.049	0.463	10.66	OK
3	0.602	2.083	28.88	OK
4	0.067	0.463	14.48	OK
5	0.087	0.926	9.45	OK
6	0.037	0.463	7.96	OK
7	0.104	0.694	14.92	OK
8	0.019	0.463	4.09	OK
9	0.107	0.463	23.10	OK
10	0.012	0.463	2.68	OK
11	0.108	0.231	46.81	OK
12	0.015	0.231	6.47	OK
13	0.092	0.231	39.96	OK
14	0.011	0.231	4.69	OK
15	0.083	0.231	35.66	OK
16	0.011	0.231	4.95	OK
17	0.059	0.231	25.54	OK
18	0.013	0.231	5.80	OK
19	0.052	0.231	22.32	OK
20	0.022	0.231	9.44	OK
21	0.040	0.231	17.29	OK
22	0.009	0.231	3.85	OK
23	0.035	0.231	14.98	OK
24	0.009	0.231	3.99	OK
25	0.042	0.231	18.18	OK
26	0.010	0.231	4.39	OK
27	0.046	0.231	19.80	OK

28	0.011	0.231	4.67	OK
29	0.038	0.231	16.28	OK
30	0.011	0.231	4.70	OK
31	0.034	0.231	14.62	OK
32	0.010	0.231	4.48	OK
33	0.031	0.231	13.38	OK
34	0.011	0.231	4.83	OK
35	0.022	0.231	9.46	OK
36	0.010	0.231	4.23	OK
37	0.019	0.231	8.25	OK
38	0.009	0.231	3.84	OK
39	0.025	0.231	10.66	OK
40	0.012	0.231	5.02	OK

Harmonics – Class-A per Ed. 3.2 (Run time)

EUT: GT-81081-6018-1.2-T3-CC

Tested by: Leo

Test category: Class-A per Ed. 3.2 (European limits)

Test Margin: 100

Test date: 2014-12-29

Start time: 02:24:40 PM

End time: 02:27:31 PM

Test duration (min): 2.5

Data file name: H-000538.cts_data

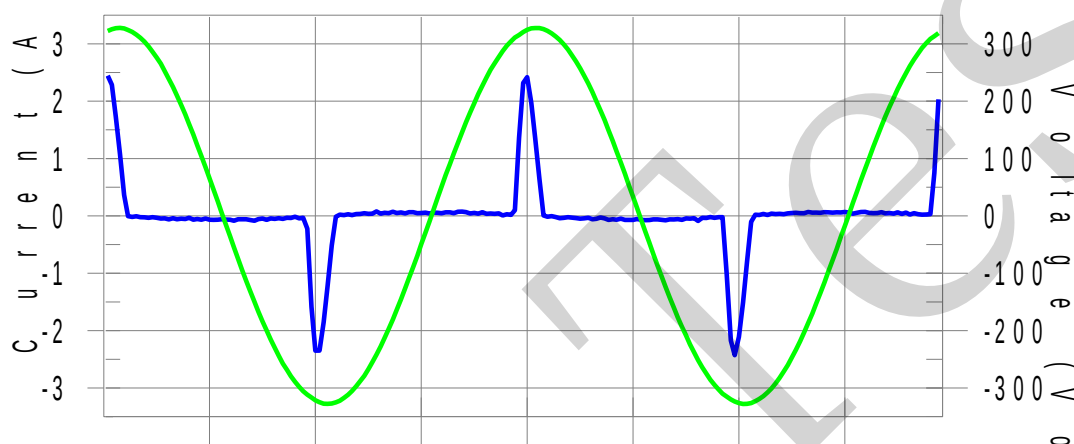
Comment: TM1

Customer: GlobTek, Inc.

Test Result: Pass

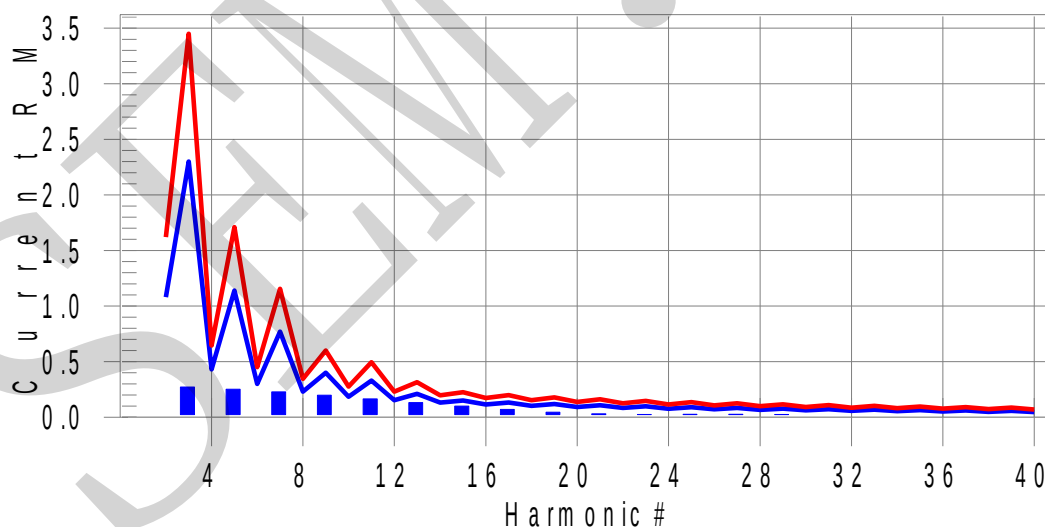
Source qualification: Normal

Current & voltage waveforms



Harmonics and Class A limit line

European Limits



Test result: Pass **Worst harmonic was #15 with 63.41% of the limit.**

Current Test Result Summary (Run time)

EUT: GT-81081-6018-1.2-T3-CC

Tested by: Leo

Test category: Class-A per Ed. 3.2 (European limits)

Test Margin: 100

Test date: 2014-12-29

Start time: 02:24:40 PM

End time: 02:27:31 PM

Test duration (min): 2.5

Data file name: H-000538.cts_data

Comment: TM1

Customer: GlobTek, Inc.

Test Result: Pass

Source qualification: Normal

THC(A): 0.54

I-THD(%): 186.56

POHC(A): 0.064

POHC Limit(A): 0.251

Highest parameter values during test:

V_RMS (Volts): 231.57

Frequency(Hz): 50.00

I_Peak (Amps): 2.521

I_RMS (Amps): 0.611

I_Fund (Amps): 0.293

Crest Factor: 4.132

Power (Watts): 64.3

Power Factor: 0.463

Harm#	Harms(avg)	100%Limit	%of Limit	Harms(max)	150%Limit	%of Limit	Status
2	0.001	1.080	0.0	0.002	1.620	0.10	Pass
3	0.270	2.300	11.7	0.271	3.450	7.85	Pass
4	0.001	0.430	0.0	0.002	0.645	0.24	Pass
5	0.251	1.140	22.0	0.252	1.710	14.73	Pass
6	0.001	0.300	0.0	0.002	0.450	0.33	Pass
7	0.226	0.770	29.4	0.227	1.155	19.67	Pass
8	0.001	0.230	0.0	0.001	0.345	0.42	Pass
9	0.196	0.400	49.0	0.198	0.600	32.99	Pass
10	0.001	0.184	0.0	0.002	0.276	0.58	Pass
11	0.162	0.330	49.2	0.165	0.495	33.35	Pass
12	0.001	0.153	0.0	0.002	0.230	0.72	Pass
13	0.128	0.210	61.0	0.131	0.315	41.71	Pass
14	0.001	0.131	0.0	0.001	0.197	0.76	Pass
15	0.095	0.150	63.4	0.099	0.225	43.94	Pass
16	0.001	0.115	0.0	0.001	0.173	0.83	Pass
17	0.066	0.132	50.0	0.070	0.199	35.07	Pass
18	0.001	0.102	0.0	0.001	0.153	0.91	Pass
19	0.043	0.118	36.2	0.046	0.178	25.96	Pass
20	0.001	0.092	0.0	0.001	0.138	0.85	Pass
21	0.029	0.107	26.6	0.030	0.161	18.94	Pass
22	0.001	0.084	0.0	0.001	0.125	0.76	Pass
23	0.024	0.098	24.9	0.025	0.147	16.94	Pass
24	0.001	0.077	0.0	0.001	0.115	0.73	Pass
25	0.025	0.090	28.3	0.026	0.135	19.28	Pass
26	0.000	0.071	0.0	0.001	0.106	0.63	Pass
27	0.026	0.083	31.3	0.026	0.125	21.05	Pass

28	0.000	0.066	0.0	0.001	0.099	0.69	Pass
29	0.024	0.078	31.3	0.025	0.116	21.32	Pass
30	0.000	0.061	0.0	0.001	0.092	0.64	Pass
31	0.020	0.073	27.9	0.021	0.109	19.39	Pass
32	0.000	0.058	0.0	0.001	0.086	0.67	Pass
33	0.015	0.068	21.9	0.016	0.102	15.82	Pass
34	0.000	0.054	0.0	0.000	0.081	0.60	Pass
35	0.010	0.064	14.9	0.011	0.096	11.19	Pass
36	0.000	0.051	0.0	0.000	0.077	0.56	Pass
37	0.006	0.061	9.6	0.006	0.091	7.06	Pass
38	0.000	0.048	0.0	0.000	0.073	0.58	Pass
39	0.006	0.058	9.8	0.007	0.087	7.56	Pass
40	0.000	0.046	0.0	0.000	0.069	0.59	Pass

Voltage Source Verification Data (Run time)

EUT: GT-81081-6018-1.2-T3-CC

Tested by: Leo

Test category: Class-A per Ed. 3.2 (European limits)

Test Margin: 100

Test date: 2014-12-29

Start time: 02:24:40 PM

End time: 02:27:31 PM

Test duration (min): 2.5

Data file name: H-000538.cts_data

Comment: TM1

Customer: GlobTek, Inc.

Test Result: Pass

Source qualification: Normal

Highest parameter values during test:

Voltage (Vrms): 231.57

Frequency(Hz): 50.00

I_Peak (Amps): 2.521

I_RMS (Amps): 0.611

I_Fund (Amps): 0.293

Crest Factor: 4.132

Power (Watts): 64.3

Power Factor: 0.463

Harm#	Harmonics V-rms	Limit V-rms	% of Limit	Status
2	0.053	0.463	11.53	OK
3	0.600	2.084	28.78	OK
4	0.073	0.463	15.75	OK
5	0.089	0.926	9.64	OK
6	0.040	0.463	8.68	OK
7	0.100	0.695	14.35	OK
8	0.020	0.463	4.37	OK
9	0.108	0.463	23.35	OK
10	0.013	0.463	2.75	OK
11	0.107	0.232	46.05	OK
12	0.016	0.232	7.01	OK
13	0.093	0.232	40.05	OK
14	0.013	0.232	5.45	OK
15	0.083	0.231	36.01	OK
16	0.012	0.232	5.12	OK
17	0.059	0.232	25.49	OK
18	0.014	0.232	6.18	OK
19	0.053	0.231	23.05	OK
20	0.020	0.232	8.51	OK
21	0.040	0.231	17.39	OK
22	0.009	0.232	4.05	OK
23	0.036	0.231	15.47	OK
24	0.009	0.232	4.09	OK
25	0.040	0.232	17.09	OK
26	0.011	0.232	4.76	OK
27	0.045	0.232	19.24	OK

28	0.010	0.232	4.30	OK
29	0.037	0.231	15.96	OK
30	0.010	0.232	4.21	OK
31	0.036	0.232	15.40	OK
32	0.010	0.232	4.25	OK
33	0.033	0.231	14.22	OK
34	0.010	0.231	4.40	OK
35	0.023	0.231	10.02	OK
36	0.009	0.232	4.06	OK
37	0.020	0.232	8.71	OK
38	0.008	0.232	3.31	OK
39	0.022	0.232	9.58	OK
40	0.011	0.232	4.92	OK

Harmonics – Class-A per Ed. 4.0 (2014)(Run time)

EUT: GT-81081-6024-T3

Tested by: Alan

Test category: Class-A per Ed. 4.0 (2014) (European limits)

Test Margin: 100

Test date: 2018-6-15

Start time: 02:15:28 PM

End time: 02:18:10 PM

Test duration (min): 2.5

Data file name: H-000084.cts_data

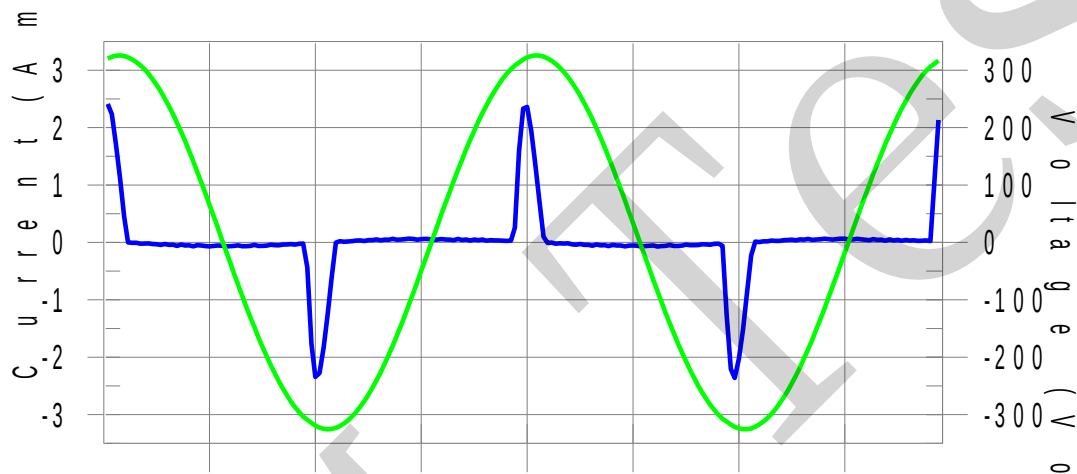
Comment: TM1

Customer: GlobTek, Inc.

Test Result: Pass

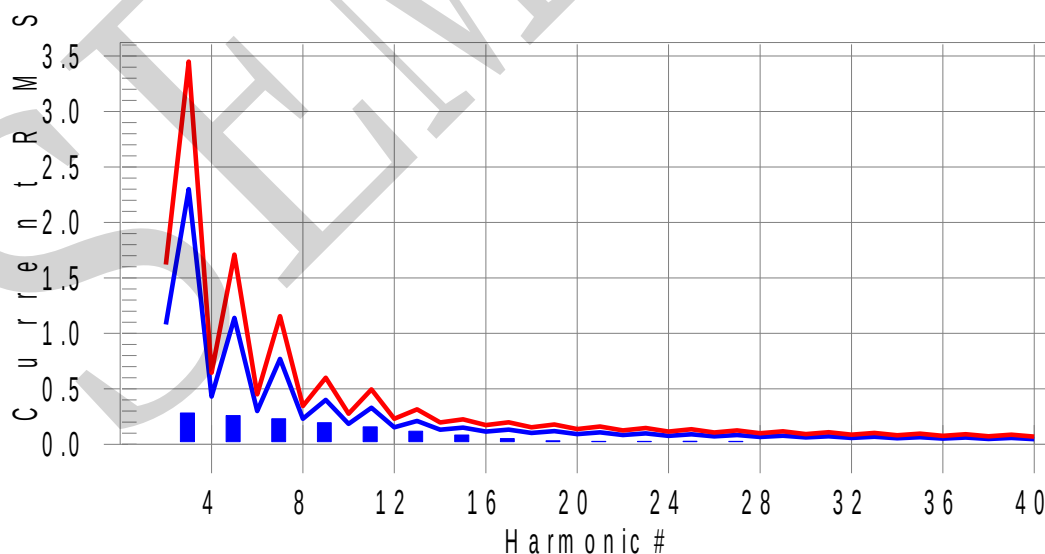
Source qualification: Normal

Current & voltage waveforms



Harmonics and Class A limit line

European Limits



Test result: Pass Worst harmonics H13-38.7% of 150% limit, H13-56% of 100% limit

Current Test Result Summary (Run time)

EUT: GT-81081-6024-T3 Tested by: Alan
Test category: Class-A per Ed. 4.0 (2014) (European limits) Test Margin: 100
Test date: 2018-6-15 Start time: 02:15:28 PM End time: 02:18:10 PM
Test duration (min): 2.5 Data file name: H-000084.cts_data
Comment: TM1
Customer: GlobTek, Inc.

Test Result: Pass Source qualification: Normal
THC(A): 0.538 I-THD(%): 177.8 POHC(A): 0.062 POHC Limit(A): 0.251

Highest parameter values during test:

V_RMS (Volts): 229.97 Frequency(Hz): 50.00
I_Peak (Amps): 2.426 I_RMS (Amps): 0.619
I_Fund (Amps): 0.303 Crest Factor: 3.918
Power (Watts): 67.3 Power Factor: 0.486

Harm#	Harms(avg)	100%Limit	%of Limit	Harms(max)	150%Limit	%of Limit	Status
2	0.001	1.080	N/A	0.002	1.620	N/A	Pass
3	0.281	2.300	12.2	0.283	3.450	8.2	Pass
4	0.001	0.430	N/A	0.002	0.645	N/A	Pass
5	0.259	1.140	22.8	0.260	1.710	15.2	Pass
6	0.001	0.300	N/A	0.001	0.450	N/A	Pass
7	0.230	0.770	29.8	0.231	1.155	20.0	Pass
8	0.001	0.230	N/A	0.001	0.345	N/A	Pass
9	0.194	0.400	48.6	0.197	0.600	32.8	Pass
10	0.001	0.184	N/A	0.002	0.276	N/A	Pass
11	0.156	0.330	47.3	0.160	0.495	32.2	Pass
12	0.001	0.153	N/A	0.002	0.230	N/A	Pass
13	0.118	0.210	56.0	0.122	0.315	38.7	Pass
14	0.001	0.131	N/A	0.001	0.197	N/A	Pass
15	0.082	0.150	54.9	0.087	0.225	38.7	Pass
16	0.001	0.115	N/A	0.001	0.173	N/A	Pass
17	0.053	0.132	40.0	0.057	0.198	29.0	Pass
18	0.001	0.102	N/A	0.001	0.153	N/A	Pass
19	0.033	0.118	27.7	0.036	0.178	20.3	Pass
20	0.001	0.092	N/A	0.001	0.138	N/A	Pass
21	0.025	0.107	23.7	0.026	0.161	16.3	Pass
22	0.000	0.084	N/A	0.001	0.125	N/A	Pass
23	0.027	0.098	27.1	0.028	0.147	18.9	Pass
24	0.000	0.077	N/A	0.001	0.115	N/A	Pass
25	0.028	0.090	31.0	0.028	0.135	20.8	Pass
26	0.000	0.071	N/A	0.001	0.107	N/A	Pass

27	0.026	0.083	31.5	0.027	0.125	21.6	Pass
28	0.000	0.066	N/A	0.001	0.099	N/A	Pass
29	0.022	0.078	28.2	0.023	0.116	19.9	Pass
30	0.000	0.061	N/A	0.001	0.092	N/A	Pass
31	0.016	0.073	21.9	0.018	0.109	16.1	Pass
32	0.000	0.058	N/A	0.000	0.086	N/A	Pass
33	0.010	0.068	14.6	0.012	0.102	11.2	Pass
34	0.000	0.054	N/A	0.000	0.081	N/A	Pass
35	0.007	0.064	10.2	0.007	0.096	7.7	Pass
36	0.000	0.051	N/A	0.000	0.077	N/A	Pass
37	0.007	0.061	11.5	0.009	0.091	10.2	Pass
38	0.000	0.048	N/A	0.000	0.073	N/A	Pass
39	0.009	0.058	14.8	0.010	0.087	11.1	Pass
40	0.000	0.046	N/A	0.000	0.069	N/A	Pass

Voltage Source Verification Data (Run time)

EUT: GT-81081-6024-T3

Tested by: Alan

Test category: Class-A per Ed. 4.0 (2014) (European limits) Test Margin: 100

Test date: 2018-6-15

Start time: 02:15:28 PM

End time: 02:18:10 PM

Test duration (min): 2.5

Data file name: H-000084.cts_data

Comment: TM1

Customer: GlobTek, Inc.

Test Result: Pass

Source qualification: Normal

Highest parameter values during test:

Voltage (Vrms): 229.97

Frequency(Hz): 50.00

I_Peak (Amps): 2.426

I_RMS (Amps): 0.619

I_Fund (Amps): 0.303

Crest Factor: 3.918

Power (Watts): 67.3

Power Factor: 0.486

Harm#	Harmonics V-rms	Limit V-rms	% of Limit	Status
2	0.045	0.460	9.81	OK
3	0.563	2.070	27.22	OK
4	0.064	0.460	14.02	OK
5	0.084	0.919	9.17	OK
6	0.034	0.460	7.50	OK
7	0.095	0.690	13.71	OK
8	0.016	0.460	3.53	OK
9	0.105	0.460	22.77	OK
10	0.011	0.460	2.30	OK
11	0.103	0.230	44.87	OK
12	0.011	0.230	4.80	OK
13	0.086	0.230	37.55	OK
14	0.006	0.230	2.49	OK
15	0.070	0.230	30.46	OK
16	0.009	0.230	3.91	OK
17	0.045	0.230	19.58	OK
18	0.010	0.230	4.26	OK
19	0.039	0.230	16.82	OK
20	0.015	0.230	6.70	OK
21	0.027	0.230	11.68	OK
22	0.003	0.230	1.47	OK
23	0.030	0.230	13.11	OK
24	0.003	0.230	1.26	OK
25	0.034	0.230	14.89	OK
26	0.003	0.230	1.31	OK
27	0.038	0.230	16.63	OK

28	0.003	0.230	1.40	OK
29	0.030	0.230	13.18	OK
30	0.003	0.230	1.25	OK
31	0.026	0.230	11.52	OK
32	0.002	0.230	0.90	OK
33	0.019	0.230	8.26	OK
34	0.002	0.230	1.03	OK
35	0.013	0.230	5.66	OK
36	0.003	0.230	1.33	OK
37	0.017	0.230	7.30	OK
38	0.002	0.230	0.85	OK
39	0.018	0.230	7.78	OK
40	0.007	0.230	3.26	OK

6. Voltage Fluctuation Flicker

6.1 Test Procedure

Test is conducting under the description of EN61000-3-3.

6.2 Test Standards

EN61000-3-3, Limit: Clause 5.

Environmental Conditions

Temperature:	22 °C
Relative Humidity:	48%
ATM Pressure:	1022 mbar

6.3 Voltage Fluctuation and Flicker Test Data

Flicker Test Summary per EN/IEC61000-3-3 (Run time)

EUT: GT-81081-6012-T2

Tested by: Leo

Test category: All parameters (European limits)

Test Margin: 100

Test date: 2014-12-6

Start time: 02:57:49 PM

End time: 03:08:10 PM

Test duration (min): 10

Data file name: F-000402.cts_data

Comment: TM1

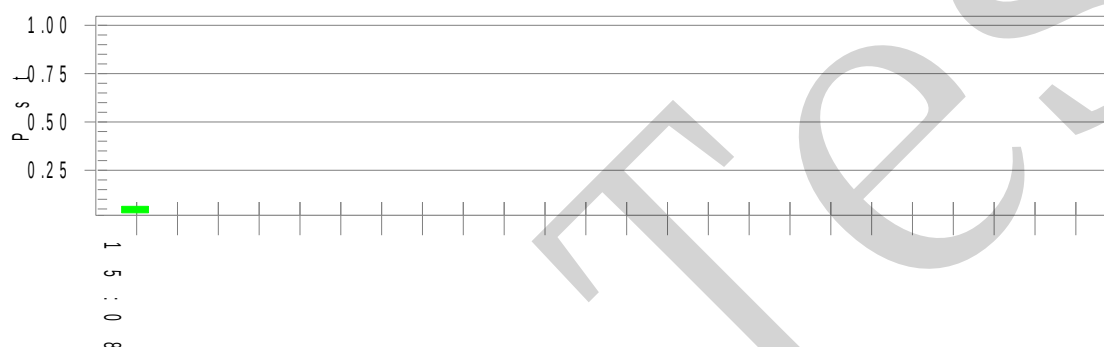
Customer: GlobTek, Inc.

Test Result: Pass

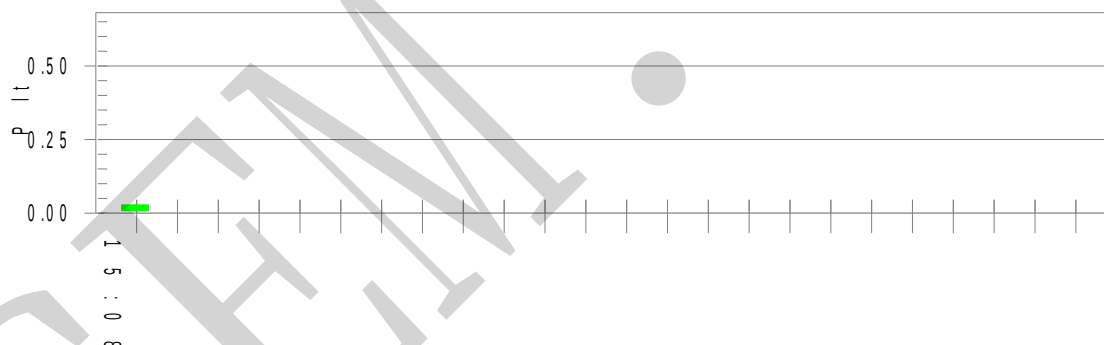
Status: Test Completed

Pst_i and limit line

European Limits



Plt and limit line



Parameter values recorded during the test:

Vrms at the end of test (Volt): 231.03

Highest dt (%):	0.00	Test limit (%):	3.30	Pass
Time(mS) > dt:	0.0	Test limit (mS):	500.0	Pass
Highest dc (%):	0.00	Test limit (%):	3.30	Pass
Highest dmax (%):	0.00	Test limit (%):	4.00	Pass
Highest Pst (10 min. period):	0.064	Test limit:	1.000	Pass
Highest Plt (2 hr. period):	0.028	Test limit:	0.650	Pass

Flicker Test Summary per EN/IEC61000-3-3 (Run time)

EUT: GT-81081-6015-T3

Tested by: Leo

Test category: All parameters (European limits)

Test Margin: 100

Test date: 2014-12-6

Start time: 02:41:25 PM

End time: 02:51:46 PM

Test duration (min): 10

Data file name: F-000401.cts_data

Comment: TM1

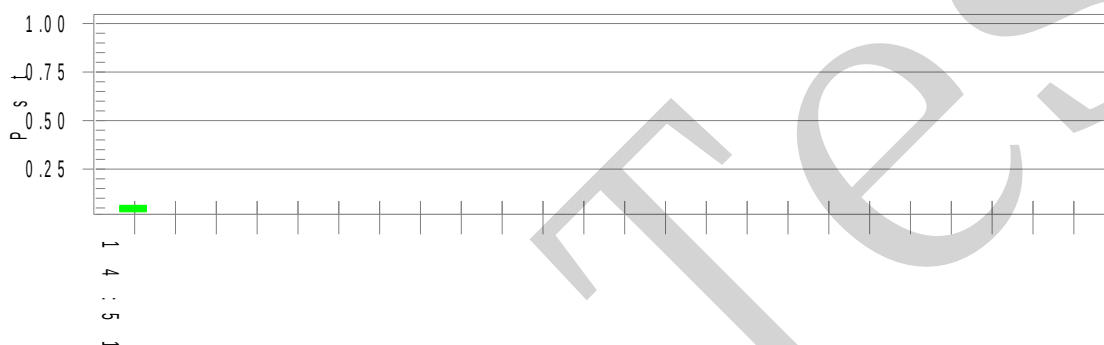
Customer: GlobTek, Inc.

Test Result: Pass

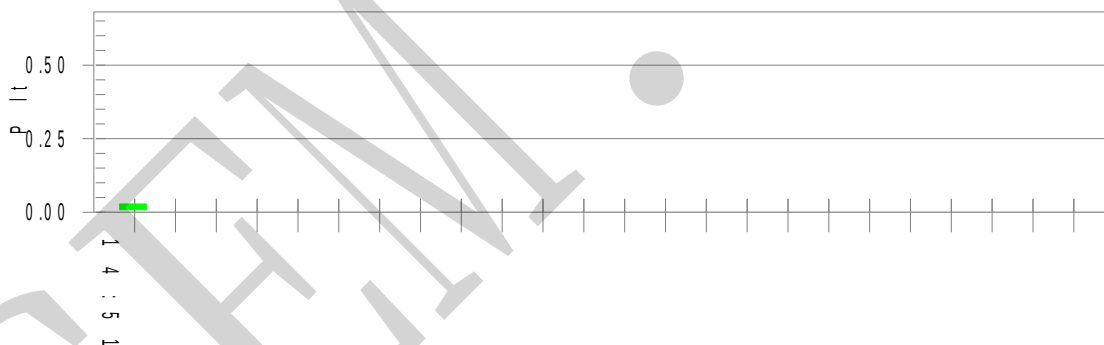
Status: Test Completed

Pst_i and limit line

European Limits



Plt and limit line



Parameter values recorded during the test:

Vrms at the end of test (Volt): 231.23

Highest dt (%):	0.00	Test limit (%):	3.30	Pass
Time(mS) > dt:	0.0	Test limit (mS):	500.0	Pass
Highest dc (%):	0.00	Test limit (%):	3.30	Pass
Highest dmax (%):	0.00	Test limit (%):	4.00	Pass
Highest Pst (10 min. period):	0.064	Test limit:	1.000	Pass
Highest Plt (2 hr. period):	0.028	Test limit:	0.650	Pass

Flicker Test Summary per EN/IEC61000-3-3 (Run time)

EUT: GT-81081-6018-1.2-T3-CC

Tested by: Leo

Test category: All parameters (European limits)

Test Margin: 100

Test date: 2014-12-6

Start time: 01:57:49 PM

End time: 02:08:10 PM

Test duration (min): 10

Data file name: F-000400.cts_data

Comment: TM1

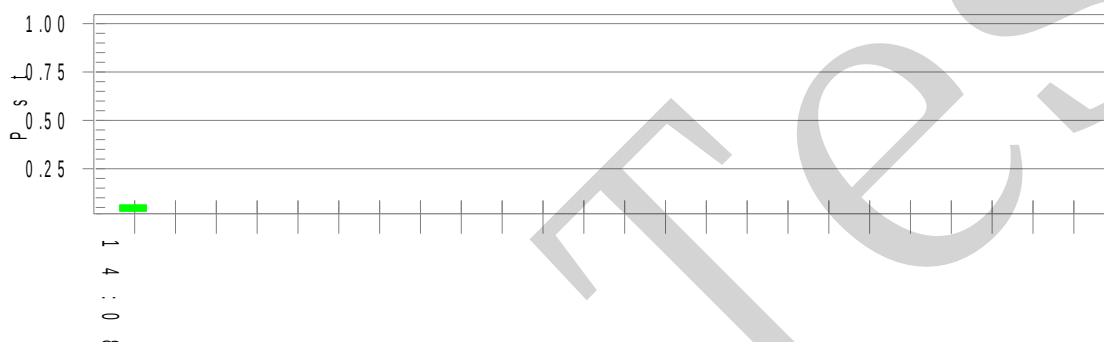
Customer: GlobTek, Inc.

Test Result: Pass

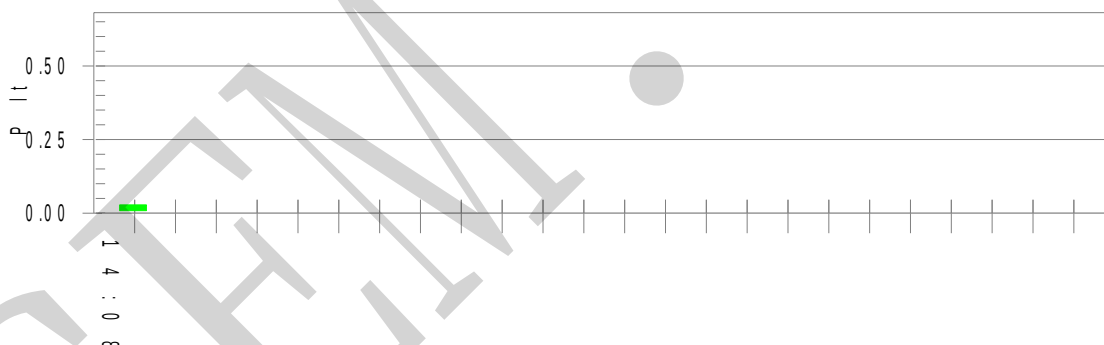
Status: Test Completed

Pst_i and limit line

European Limits



Plt and limit line



Parameter values recorded during the test:

Vrms at the end of test (Volt): 231.39

Highest dt (%):	0.00	Test limit (%):	3.30	Pass
Time(mS) > dt:	0.0	Test limit (mS):	500.0	Pass
Highest dc (%):	0.00	Test limit (%):	3.30	Pass
Highest dmax (%):	0.00	Test limit (%):	4.00	Pass
Highest Pst (10 min. period):	0.064	Test limit:	1.000	Pass
Highest Plt (2 hr. period):	0.028	Test limit:	0.650	Pass

Flicker Test Summary per EN/IEC61000-3-3 Ed. 3.0 (2013) (Run time)

EUT: GT-81081-6024-T3

Tested by: Alan

Test category: All parameters (European limits)

Test Margin: 100

Test date: 2018-6-15

Start time: 02:22:46 PM

End time: 02:33:13 PM

Test duration (min): 10

Data file name: F-000085.cts_data

Comment: TM1

Customer: GlobTek, Inc.

Test Result: Pass

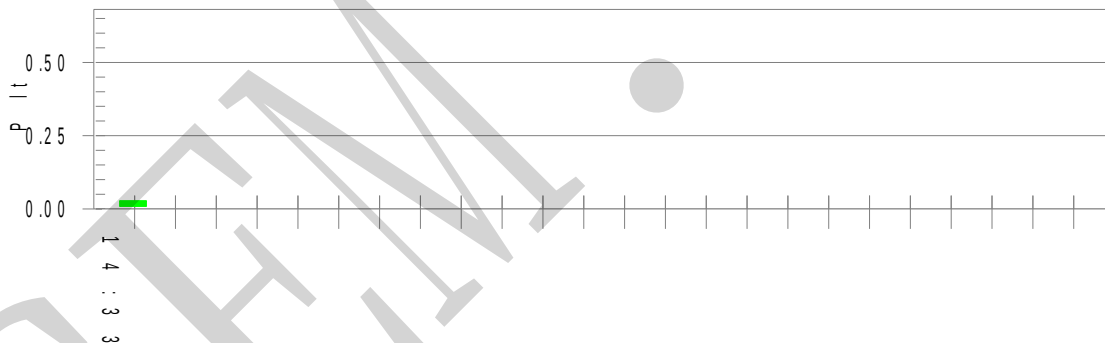
Status: Test Completed

Pst_i and limit line

European Limits



Plt and limit line



Parameter values recorded during the test:

Vrms at the end of test (Volt): 229.85

T-max (mS):	0	Test limit (mS):	500.0	Pass
Highest dc (%):	0.00	Test limit (%):	3.30	Pass
Highest dmax (%):	0.00	Test limit (%):	4.00	Pass
Highest Pst (10 min. period):	0.064	Test limit:	1.000	Pass
Highest Plt (2 hr. period):	0.028	Test limit:	0.650	Pass

7. Electrostatic Discharges (ESD)

7.1 Test Procedure

Test is conducting under the description of IEC61000-4-2.

Test Performance

Performance Criterion: B

Environmental Conditions

Temperature:	26 °C
Relative Humidity:	55%
ATM Pressure:	1011 mbar

7.2 Electrostatic Discharge Immunity Test Data

Tested Model: GT-81081-6012-T2

Table 1: Electrostatic Discharge Immunity (Air Discharge)

EN 61000-4-2	Test Levels (kV)									
Test Points	-2	+2	-4	+4	-6	+6	-8	+8	-15	+15
Surface	A	A	A	A	A	A	A	A	/	/
DC port	A	A	A	A	A	A	A	A	/	/

Table 2: Electrostatic Discharge Immunity (Direct Contact)

EN 61000-4-2	Test Levels (kV)									
Test Points	-2	+2	-4	+4	-6	+6	-8	+8	-15	+15
VCP	A	A	A	A	/	/	/	/	/	/
HCP	A	A	A	A	/	/	/	/	/	/

Table 3: Electrostatic Discharge Immunity (Indirect Contact HCP)

EN 61000-4-2	Test Levels (kV)									
Test Points	-2	+2	-4	+4	-6	+6	-8	+8	-15	+15
Front Side	A	A	A	A	/	/	/	/	/	/
Top Side	A	A	A	A	/	/	/	/	/	/
Back Side	A	A	A	A	/	/	/	/	/	/
Left Side	A	A	A	A	/	/	/	/	/	/
Right Side	A	A	A	A	/	/	/	/	/	/

Table 4: Electrostatic Discharge Immunity (Indirect Contact VCP)

EN 61000-4-2	Test Levels (kV)									
Test Points	-2	+2	-4	+4	-6	+6	-8	+8	-15	+15
Front Side	A	A	A	A	/	/	/	/	/	/
Top Side	A	A	A	A	/	/	/	/	/	/
Back Side	A	A	A	A	/	/	/	/	/	/
Left Side	A	A	A	A	/	/	/	/	/	/
Right Side	A	A	A	A	/	/	/	/	/	/

Tested Model: GT-81081-6015-T3

Table 1: Electrostatic Discharge Immunity (Air Discharge)

EN 61000-4-2	Test Levels (kV)									
Test Points	-2	+2	-4	+4	-6	+6	-8	+8	-15	+15
Surface	A	A	A	A	A	A	A	A	/	/
DC port	A	A	A	A	A	A	A	A	/	/

Table 2: Electrostatic Discharge Immunity (Direct Contact)

EN 61000-4-2	Test Levels (kV)									
Test Points	-2	+2	-4	+4	-6	+6	-8	+8	-15	+15
VCP	A	A	A	A	/	/	/	/	/	/
HCP	A	A	A	A	/	/	/	/	/	/

Table 3: Electrostatic Discharge Immunity (Indirect Contact HCP)

EN 61000-4-2	Test Levels (kV)									
Test Points	-2	+2	-4	+4	-6	+6	-8	+8	-15	+15
Front Side	A	A	A	A	/	/	/	/	/	/
Top Side	A	A	A	A	/	/	/	/	/	/
Back Side	A	A	A	A	/	/	/	/	/	/
Left Side	A	A	A	A	/	/	/	/	/	/
Right Side	A	A	A	A	/	/	/	/	/	/

Table 4: Electrostatic Discharge Immunity (Indirect Contact VCP)

EN 61000-4-2	Test Levels (kV)									
Test Points	-2	+2	-4	+4	-6	+6	-8	+8	-15	+15
Front Side	A	A	A	A	/	/	/	/	/	/
Top Side	A	A	A	A	/	/	/	/	/	/
Back Side	A	A	A	A	/	/	/	/	/	/
Left Side	A	A	A	A	/	/	/	/	/	/
Right Side	A	A	A	A	/	/	/	/	/	/

Tested Model: GT-81081-6018-1.2-T3-CC

Table 1: Electrostatic Discharge Immunity (Air Discharge)

EN 61000-4-2	Test Levels (kV)									
Test Points	-2	+2	-4	+4	-6	+6	-8	+8	-15	+15
Surface	A	A	A	A	A	A	A	A	/	/
DC port	A	A	A	A	A	A	A	A	/	/

Table 2: Electrostatic Discharge Immunity (Direct Contact)

EN 61000-4-2	Test Levels (kV)									
Test Points	-2	+2	-4	+4	-6	+6	-8	+8	-15	+15
VCP	A	A	A	A	/	/	/	/	/	/
HCP	A	A	A	A	/	/	/	/	/	/

Table 3: Electrostatic Discharge Immunity (Indirect Contact HCP)

EN 61000-4-2	Test Levels (kV)									
Test Points	-2	+2	-4	+4	-6	+6	-8	+8	-15	+15
Front Side	A	A	A	A	/	/	/	/	/	/
Top Side	A	A	A	A	/	/	/	/	/	/
Back Side	A	A	A	A	/	/	/	/	/	/
Left Side	A	A	A	A	/	/	/	/	/	/
Right Side	A	A	A	A	/	/	/	/	/	/

Table 4: Electrostatic Discharge Immunity (Indirect Contact VCP)

EN 61000-4-2	Test Levels (kV)									
Test Points	-2	+2	-4	+4	-6	+6	-8	+8	-15	+15
Front Side	A	A	A	A	/	/	/	/	/	/
Top Side	A	A	A	A	/	/	/	/	/	/
Back Side	A	A	A	A	/	/	/	/	/	/
Left Side	A	A	A	A	/	/	/	/	/	/
Right Side	A	A	A	A	/	/	/	/	/	/

Tested Model: GT-81081-6024-T3

Table 1: Electrostatic Discharge Immunity (Air Discharge)

EN 61000-4-2	Test Levels (kV)									
Test Points	-2	+2	-4	+4	-6	+6	-8	+8	-15	+15
Power port	B	B	B	B	B	B	B	B	/	/
Surface	A	A	A	A	A	A	A	A	/	/

Table 2: Electrostatic Discharge Immunity (Direct Contact)

EN 61000-4-2	Test Levels (kV)									
Test Points	-2	+2	-4	+4	-6	+6	-8	+8	-15	+15
Power port	B	B	B	B	/	/	/	/	/	/

Table 3: Electrostatic Discharge Immunity (Indirect Contact HCP)

EN 61000-4-2	Test Levels (kV)									
Test Points	-2	+2	-4	+4	-6	+6	-8	+8	-15	+15
Front Side	A	A	A	A	/	/	/	/	/	/
Top Side	A	A	A	A	/	/	/	/	/	/
Back Side	A	A	A	A	/	/	/	/	/	/
Left Side	A	A	A	A	/	/	/	/	/	/
Right Side	A	A	A	A	/	/	/	/	/	/

Table 4: Electrostatic Discharge Immunity (Indirect Contact VCP)

EN 61000-4-2	Test Levels (kV)									
Test Points	-2	+2	-4	+4	-6	+6	-8	+8	-15	+15
Front Side	A	A	A	A	/	/	/	/	/	/
Top Side	A	A	A	A	/	/	/	/	/	/
Back Side	A	A	A	A	/	/	/	/	/	/
Left Side	A	A	A	A	/	/	/	/	/	/
Right Side	A	A	A	A	/	/	/	/	/	/

Test Result: Pass

8. Continuous Radiated Disturbances (R/S)

8.1 Test Procedure

Test is conducting under the description of IEC61000-4-3.

Test Performance

Performance Criterion: A

Environmental Conditions

Temperature:	25 °C
Relative Humidity:	52%
ATM Pressure:	1010 mbar

8.2 Continuous Radiated Disturbances Test Data

Frequency step: 1% of fundamental

Dwell time: 1 second

Modulation: AM by 1kHz sine wave with 80% modulation depth

Tested Model: GT-81081-6012-T2

Frequency Range(MHz)	Field (V/m)	Front		Rear		Left Side		Right Side	
		VERT	HORI	VERT	HORI	VERT	HORI	VERT	HORI
80-1000	3	A	A	A	A	A	A	A	A

Tested Model: GT-81081-6015-T3

Frequency Range(MHz)	Field (V/m)	Front		Rear		Left Side		Right Side	
		VERT	HORI	VERT	HORI	VERT	HORI	VERT	HORI
80-1000	3	A	A	A	A	A	A	A	A

Tested Model: GT-81081-6018-1.2-T3-CC

Frequency Range(MHz)	Field (V/m)	Front		Rear		Left Side		Right Side	
		VERT	HORI	VERT	HORI	VERT	HORI	VERT	HORI
80-1000	3	A	A	A	A	A	A	A	A

Tested Model: GT-81081-6024-T3

Frequency Range(MHz)	Field (V/m)	Front		Rear		Left Side		Right Side	
		VERT	HORI	VERT	HORI	VERT	HORI	VERT	HORI
80-1000	3	A	A	A	A	A	A	A	A

Test Result: Pass

9. Electrical Fast Transients (EFT)

9.1 Test Procedure

Test is conducting under the description of IEC61000-4-4.

Test Performance

Performance Criterion: B

Environmental Conditions

Temperature:	22 °C
Relative Humidity:	53%
ATM Pressure:	1011 mbar

9.2 Electrical Fast Transients Test Data

Tested Model: GT-81081-6012-T2

EN 61000-4-4 Test Points		Test Levels (kV)							
		+0.5	-0.5	+1.0	-1.0	+2.0	-2.0	+4.0	-4.0
Power Supply Power Port of EUT	L1	A	A	A	A	/	/	/	/
	L2	A	A	A	A	/	/	/	/
	PE	A	A	A	A	/	/	/	/
	L1+L2	A	A	A	A	/	/	/	/
	L1 + PE	A	A	A	A	/	/	/	/
	L2 + PE	A	A	A	A	/	/	/	/
	L1+L2+PE	A	A	A	A	/	/	/	/
Signal ports	RJ45	/	/	/	/	/	/	/	/

Tested Model: GT-81081-6015-T3

EN 61000-4-4		Test Levels (kV)							
Test Points		+0.5	-0.5	+1.0	-1.0	+2.0	-2.0	+4.0	-4.0
Power Supply Power Port of EUT	L1	A	A	A	A	/	/	/	/
	L2	A	A	A	A	/	/	/	/
	PE	A	A	A	A	/	/	/	/
	L1+L2	A	A	A	A	/	/	/	/
	L1 + PE	A	A	A	A	/	/	/	/
	L2 + PE	A	A	A	A	/	/	/	/
	L1+L2+PE	A	A	A	A	/	/	/	/
Signal ports		/	/	/	/	/	/	/	/

Tested Model: GT-81081-6018-1.2-T3-CC

EN 61000-4-4		Test Levels (kV)							
Test Points		+0.5	-0.5	+1.0	-1.0	+2.0	-2.0	+4.0	-4.0
Power Supply Power Port of EUT	L1	A	A	A	A	/	/	/	/
	L2	A	A	A	A	/	/	/	/
	PE	A	A	A	A	/	/	/	/
	L1+L2	A	A	A	A	/	/	/	/
	L1 + PE	A	A	A	A	/	/	/	/
	L2 + PE	A	A	A	A	/	/	/	/
	L1+L2+PE	A	A	A	A	/	/	/	/
Signal ports		/	/	/	/	/	/	/	/

Tested Model: GT-81081-6024-T3

EN 61000-4-4 Test Points		Test Levels (kV)							
		+0.5	-0.5	+1.0	-1.0	+2.0	-2.0	+4.0	-4.0
Power Supply Power Port of EUT	L1	A	A	A	A	/	/	/	/
	L2	A	A	A	A	/	/	/	/
	PE	A	A	A	A	/	/	/	/
	L1+L2	A	A	A	A	/	/	/	/
	L1 + PE	A	A	A	A	/	/	/	/
	L2 + PE	A	A	A	A	/	/	/	/
	L1+L2+PE	A	A	A	A	/	/	/	/
Signal ports		/	/	/	/	/	/	/	/

Test Result: Pass

10. Surges

10.1 Test Procedure

Test is conducting under the description of IEC 61000-4-5.

Test Performance

Performance Criterion: B

Environmental Conditions

Temperature:	25 °C
Relative Humidity:	53%
ATM Pressure:	1011 mbar

10.2 Surge Test Data

Tested Model: GT-81081-6012-T2

Level	Voltage	Poll	Path	Pass	Fail
1	0.5kV	±	L-N, L-PE, N-PE	A	/
2	1kV	±	L-N, L-PE, N-PE	A	/
3	2kV	±	L-PE, N-PE	A	/
4	4kV	±	L-N, L-PE, N-PE	/	/

Tested Model: GT-81081-6015-T3

Level	Voltage	Poll	Path	Pass	Fail
1	0.5kV	±	L-N, L-PE, N-PE	A	/
2	1kV	±	L-N, L-PE, N-PE	A	/
3	2kV	±	L-PE, N-PE	A	/
4	4kV	±	L-N, L-PE, N-PE	/	/

Tested Model: GT-81081-6018-1.2-T3-CC

Level	Voltage	Poll	Path	Pass	Fail
1	0.5kV	±	L-N, L-PE, N-PE	A	/
2	1kV	±	L-N, L-PE, N-PE	A	/
3	2kV	±	L-PE, N-PE	A	/
4	4kV	±	L-N, L-PE, N-PE	/	/

Tested Model: GT-81081-6024-T3

Level	Voltage	Poll	Path	Pass	Fail
1	0.5kV	±	L-N, L-PE, N-PE	A	/
2	1kV	±	L-N, L-PE, N-PE	A	/
3	2kV	±	L-PE, N-PE	A	/
4	4kV	±	L-N, L-PE, N-PE	/	/

Test Result: Pass

11. Continuous Conducted Disturbances (C/S)

11.1 Test Procedure

Test is conducting under the description of IEC 61000-4-6.

Test Performance

Performance Criterion: A

Environmental Conditions

Temperature:	25 °C
Relative Humidity:	53%
ATM Pressure:	1011 mbar

11.2 Continuous Conducted Disturbances Test Data

Sweep frequency range: 150kHz~80MHz

Frequency step: 1% of fundamental

Dwell time: 1 second

Tested Model: GT-81081-6012-T2

Level	Voltage Level (e.m.f.) U_0	Modulation:	Pass	Fail
1	1	AM 80%, 1kHz sinewave	/	/
2	3	AM 80%, 1kHz sinewave	A	/
3	10	AM 80%, 1kHz sinewave	/	/
X	Special	/	/	/

Tested Model: GT-81081-6015-T3

Level	Voltage Level (e.m.f.) U_0	Modulation:	Pass	Fail
1	1	AM 80%, 1kHz sinewave	/	/
2	3	AM 80%, 1kHz sinewave	A	/
3	10	AM 80%, 1kHz sinewave	/	/
X	Special	/	/	/

Tested Model: GT-81081-6018-1.2-T3-CC

Level	Voltage Level (e.m.f.) U_0	Modulation:	Pass	Fail
1	1	AM 80%, 1kHz sinewave	/	/
2	3	AM 80%, 1kHz sinewave	A	/
3	10	AM 80%, 1kHz sinewave	/	/
X	Special	/	/	/

Tested Model: GT-81081-6024-T3

Level	Voltage Level (e.m.f.) U_0	Modulation:	Pass	Fail
1	1	AM 80%, 1kHz sinewave	/	/
2	3	AM 80%, 1kHz sinewave	A	/
3	10	AM 80%, 1kHz sinewave	/	/
X	Special	/	/	/

Test Result: Pass

12. Voltage Dips and Interruptions

12.1 Test Procedure

Test is conducting under the description of IEC 61000-4-11.

Test Performance

Performance Criterion: B/C

Environmental Conditions

Temperature:	25 °C
Relative Humidity:	50%
ATM Pressure:	1011 mbar

12.2 Voltage Dips And Interruptions Test Data

U: Vlotage dips in % U_T (U_T is rated voltage for the EUT)

T: Test duration

Tested Model: GT-81081-6012-T2

Level	U	T	Phase Angle	N	Pass	Fail
1	100%	10ms	0/90/180/270	3	A	/
2	30%	500ms	0/90/180/270	3	B	/
3	100%	5000ms	0/90/180/270	3	B	/

Tested Model: GT-81081-6015-T3

Level	U	T	Phase Angle	N	Pass	Fail
1	100%	10ms	0/90/180/270	3	A	/
2	30%	500ms	0/90/180/270	3	B	/
3	100%	5000ms	0/90/180/270	3	B	/

Tested Model: GT-81081-6018-1.2-T3-CC

Level	U	T	Phase Angle	N	Pass	Fail
1	100%	10ms	0/90/180/270	3	A	/
2	30%	500ms	0/90/180/270	3	B	/
3	100%	5000ms	0/90/180/270	3	B	/

Tested Model: GT-81081-6024-T3

Level	U	T	Phase Angle	N	Pass	Fail
1	100%	10ms	0/90/180/270	3	A	/
2	30%	500ms	0/90/180/270	3	B	/
3	100%	5000ms	0/90/180/270	3	B	/

Test Result: Pass

EXHIBIT 1 - PRODUCT LABELING

Proposed CE Label Format

I.T.E. Power supply

Model: GT-81081-6012-T2

Brand: GlobTek

Importer Name: XXX

Importer Address: XXX

1. GlobTek, Inc.

2. GlobTek (Suzhou) Co., Ltd

3. 186 Veterans Dr. Northvale, NJ 07647 USA

2. Building 4, No. 76, Jin Ling East Rd., Suzhou
Industrial Park, Suzhou, JiangSu 215021, China

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 'CE' marking must be affixed to the EUT or to its data plate. Where this is not possible or not warranted on account of the nature of the apparatus, it must be affixed to the packaging, if any, and to the accompanying documents. The 'CE' marking is allowed less than 5 mm but must clear. If the 'CE' marking is reduced or enlarged the proportions given in the above graduated drawing must be respected. The Importer name, address and Manufacturer name and address should indicate on marking label or packaging or in a document accompanying

Proposed Label Location on EUT

CE Label Location



Proposed CE Label Format

I.T.E. Power supply

Model: GT-81081-6015-T3

Brand: GlobTek

Importer Name: XXX

Importer Address: XXX

1. GlobTek, Inc.

2. GlobTek (Suzhou) Co., Ltd

1. 186 Veterans Dr. Northvale, NJ 07647 USA

2. Building 4, No. 76, Jin Ling East Rd., Suzhou Industrial Park, Suzhou, JiangSu 215021, China



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 'CE' marking must be affixed to the EUT or to its data plate. Where this is not possible or not warranted on account of the nature of the apparatus, it must be affixed to the packaging, if any, and to the accompanying documents. The 'CE' marking is allowed less than 5 mm but must clear. If the 'CE' marking is reduced or enlarged the proportions given in the above graduated drawing must be respected. The Importer name, address and Manufacturer name and address should indicate on marking label or packaging or in a document accompanying

Proposed Label Location on EUT

CE Label Location



Proposed CE Label Format

I.T.E. Power supply

Model: GT-81081-6018-1.2-T3-CC

Brand: GlobTek

Importer Name: XXX

Importer Address: XXX



1. GlobTek, Inc.

2. GlobTek (Suzhou) Co., Ltd

3. 186 Veterans Dr. Northvale, NJ 07647 USA

2. Building 4, No. 76, Jin Ling East Rd., Suzhou
Industrial Park, Suzhou, JiangSu 215021, China

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 'CE' marking must be affixed to the EUT or to its data plate. Where this is not possible or not warranted on account of the nature of the apparatus, it must be affixed to the packaging, if any, and to the accompanying documents. The 'CE' marking is allowed less than 5 mm but must clear. If the 'CE' marking is reduced or enlarged the proportions given in the above graduated drawing must be respected. The Importer name, address and Manufacturer name and address should indicate on marking label or packaging or in a document accompanying

Proposed Label Location on EUT

CE Label Location



Proposed CE Label Format

I.T.E. Power supply

Model: GT-81081-6024-T3

Brand: GlobTek

Importer Name: XXX

Importer Address: XXX

1. GlobTek, Inc.

2. GlobTek (Suzhou) Co., Ltd

3. 186 Veterans Dr. Northvale, NJ 07647 USA

2. Building 4, No. 76, Jin Ling East Rd., Suzhou

Industrial Park, Suzhou, JiangSu 215021, China



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 'CE' marking must be affixed to the EUT or to its data plate. Where this is not possible or not warranted on account of the nature of the apparatus, it must be affixed to the packaging, if any, and to the accompanying documents. The 'CE' marking is allowed less than 5 mm but must clear. If the 'CE' marking is reduced or enlarged the proportions given in the above graduated drawing must be respected. The Importer name, address and Manufacturer name and address should indicate on marking label or packaging or in a document accompanying

Proposed Label Location on EUT

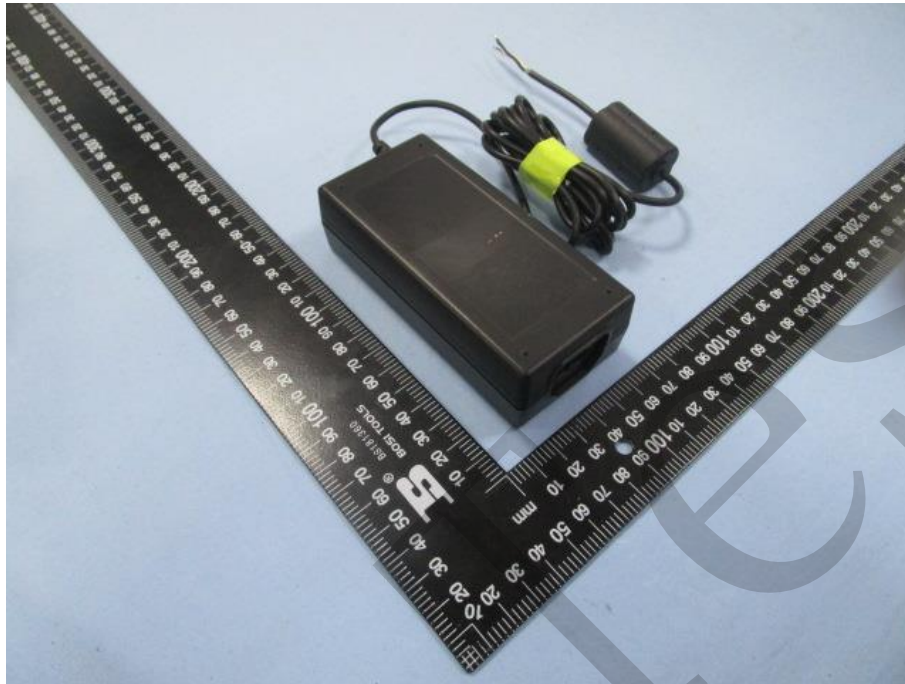
CE Label Location



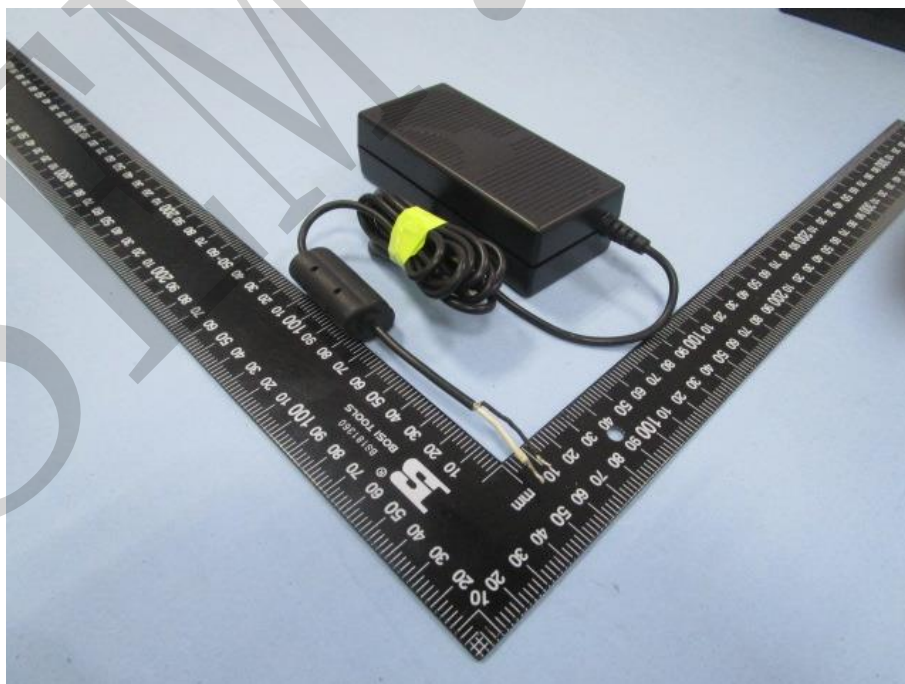
EXHIBIT 2 - EUT PHOTOGRAPHS

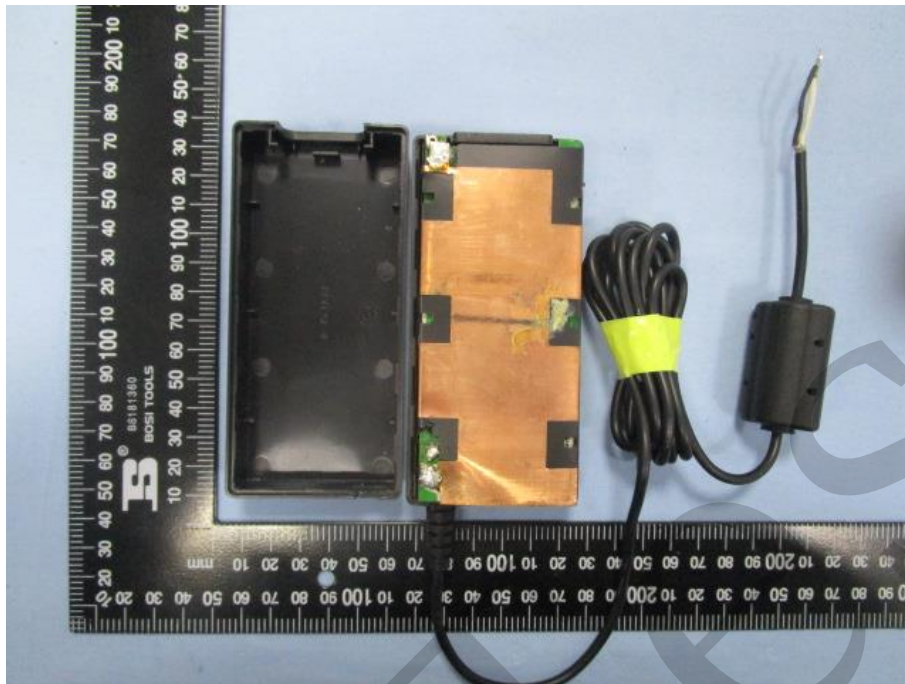
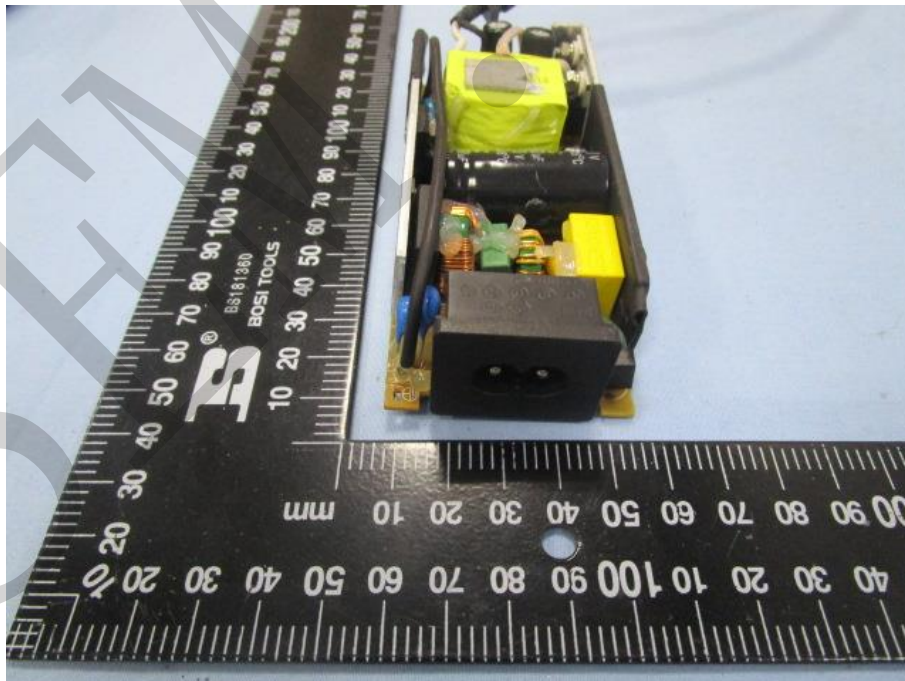
Tested Model: GT-81081-6012-T2

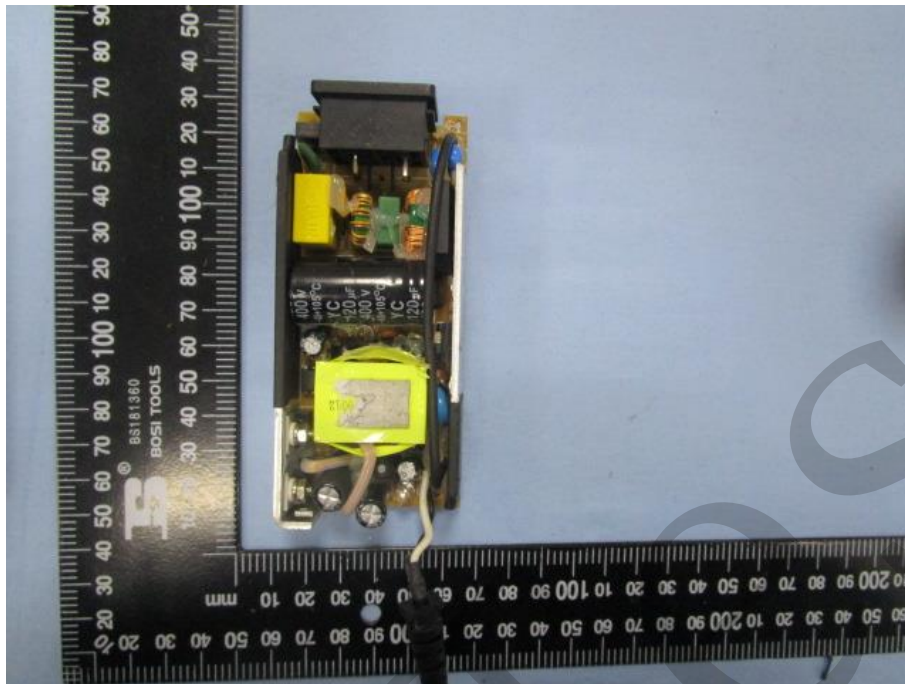
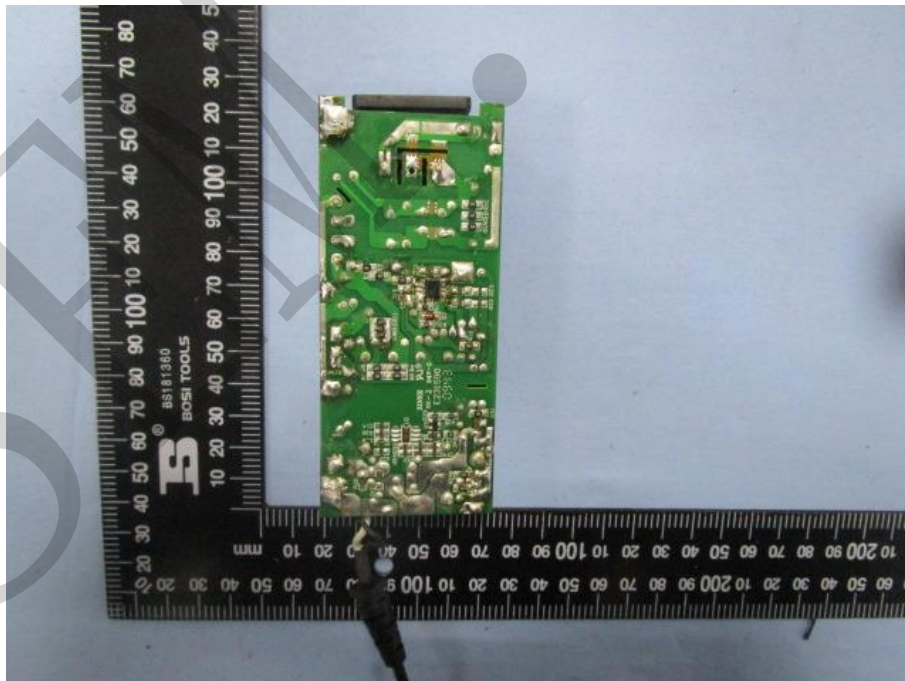
EUT View 1



EUT View 2



EUT Housing and Board View 1**Solder Board-Component View 1**

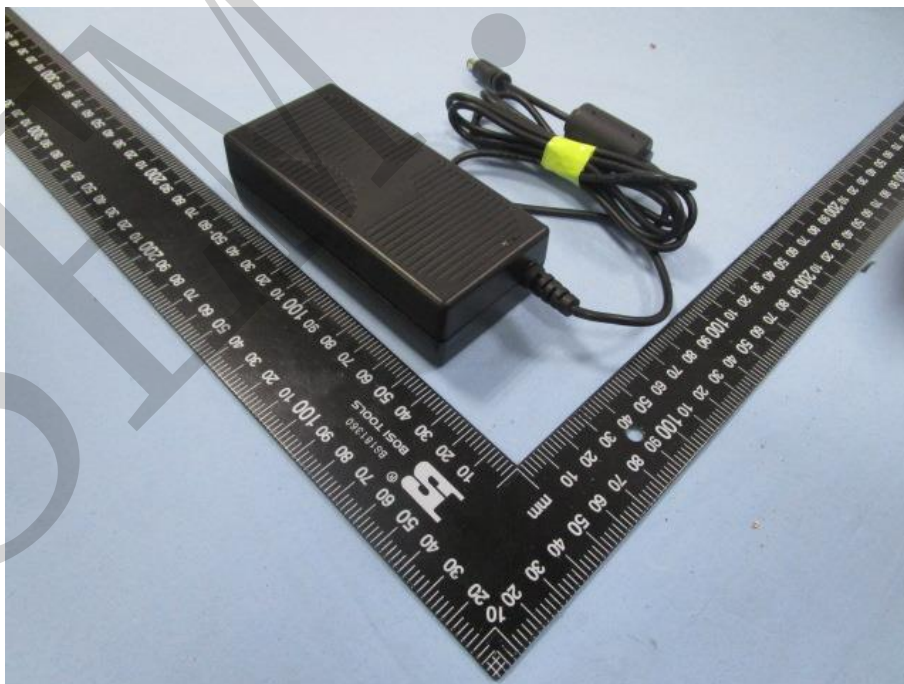
Solder Board-Component View 2**Solder Board-Component View 3**

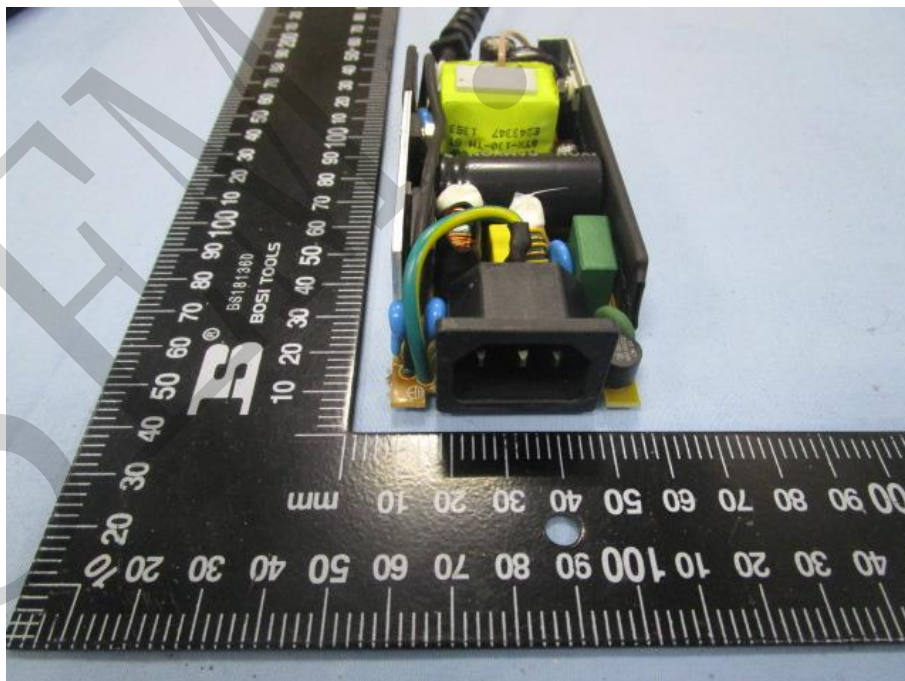
Tested Model: GT-81081-6015-T3

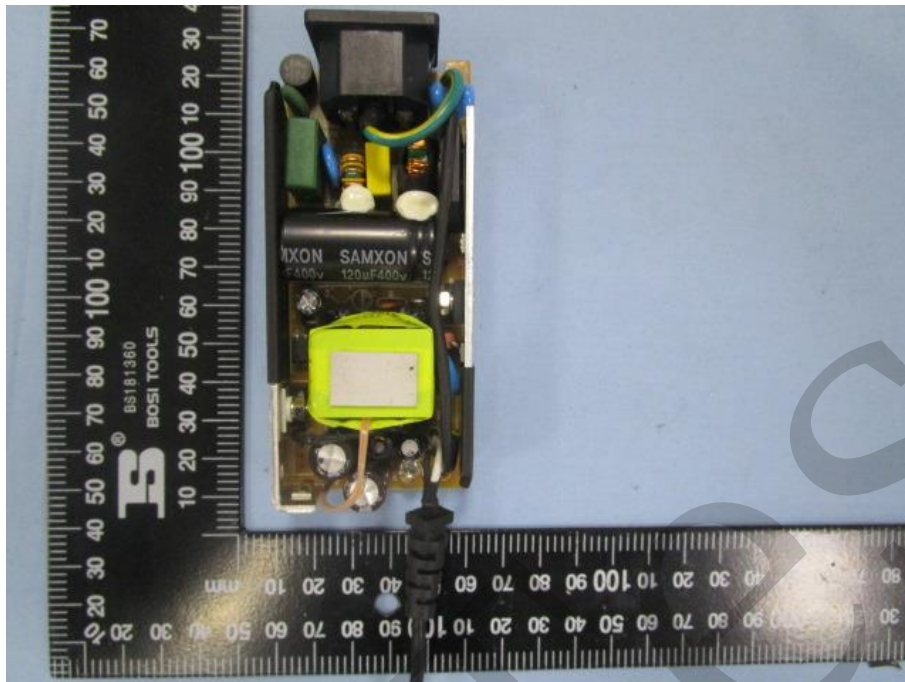
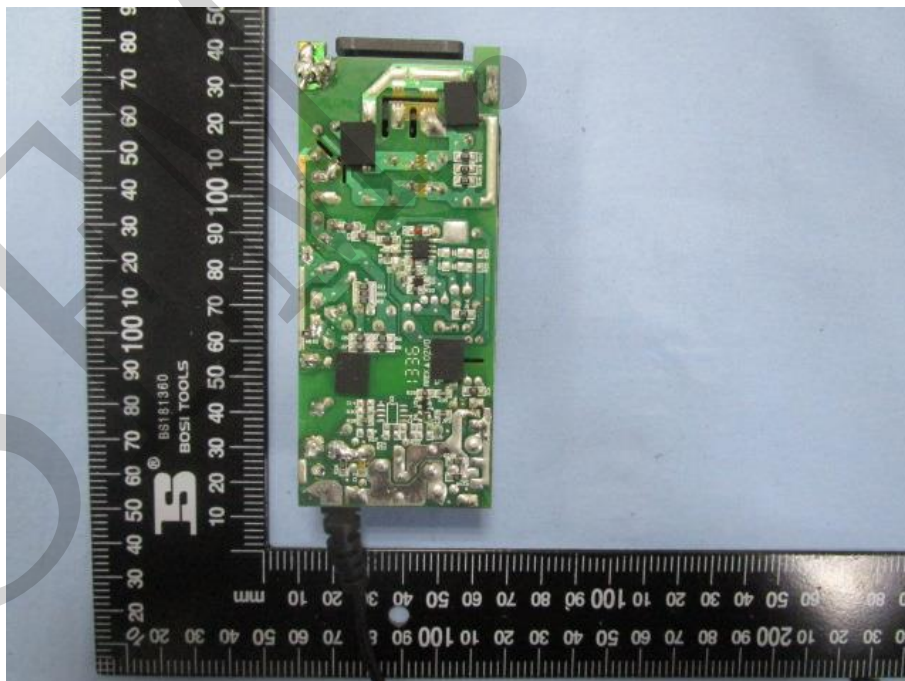
EUT View 1



EUT View 2



EUT Housing and Board View 1**Solder Board-Component View 1**

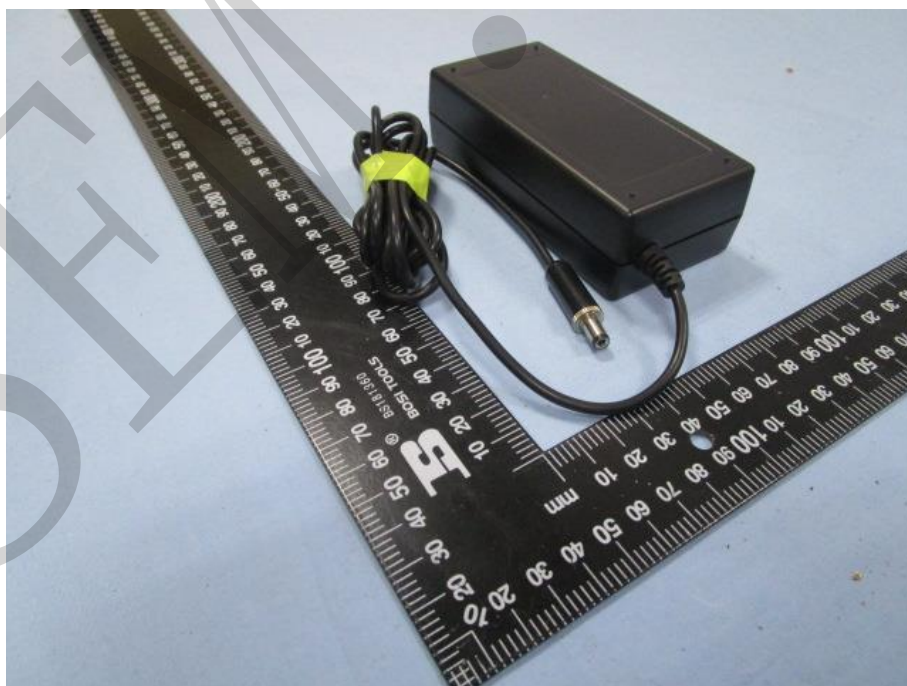
Solder Board-Component View 2**Solder Board-Component View 3**

Tested Model: GT-81081-6018-1.2-T3-CC

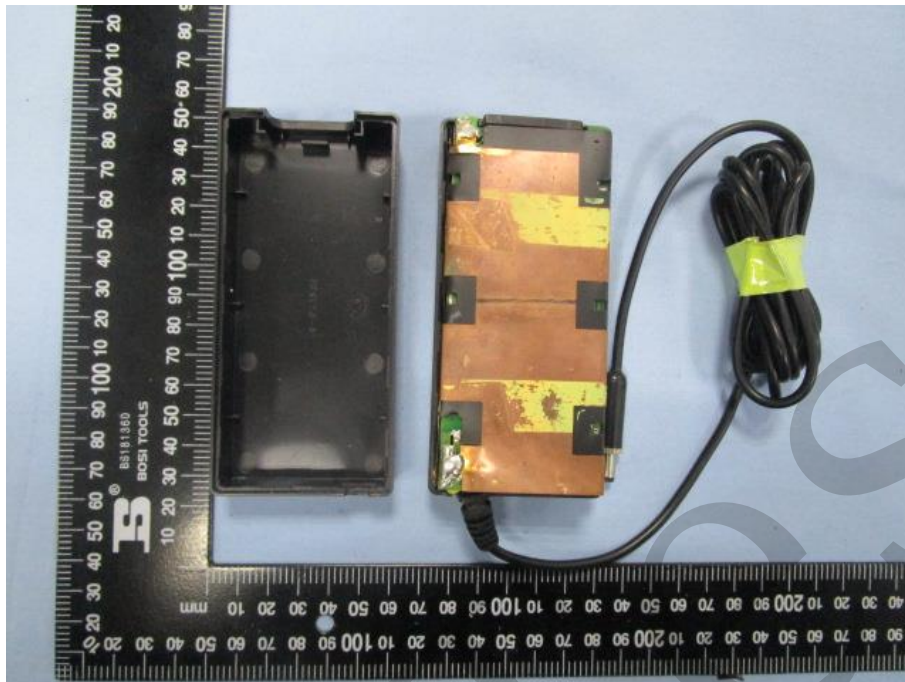
EUT View 1



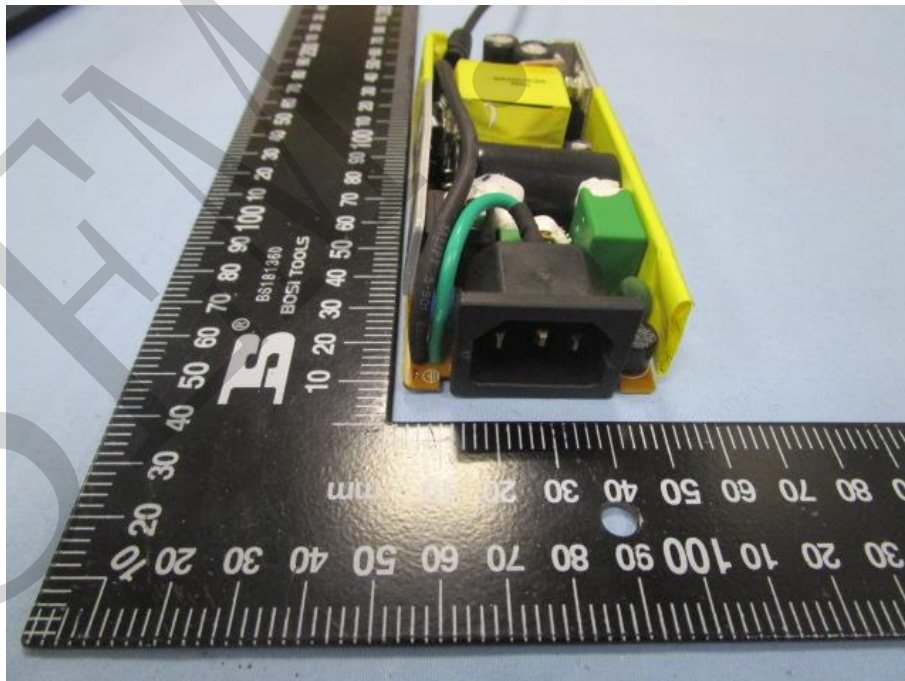
EUT View 2

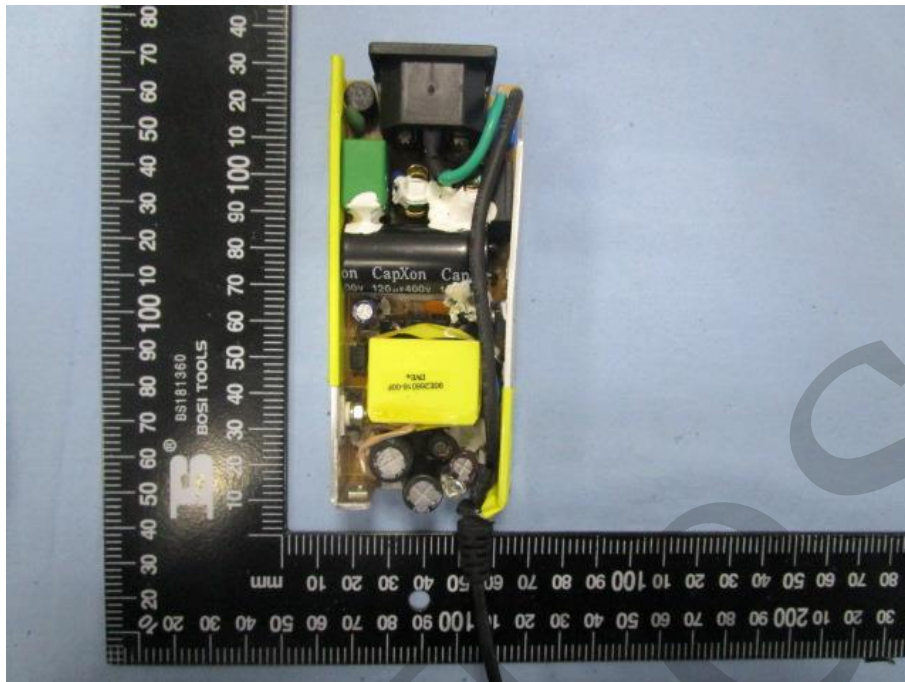
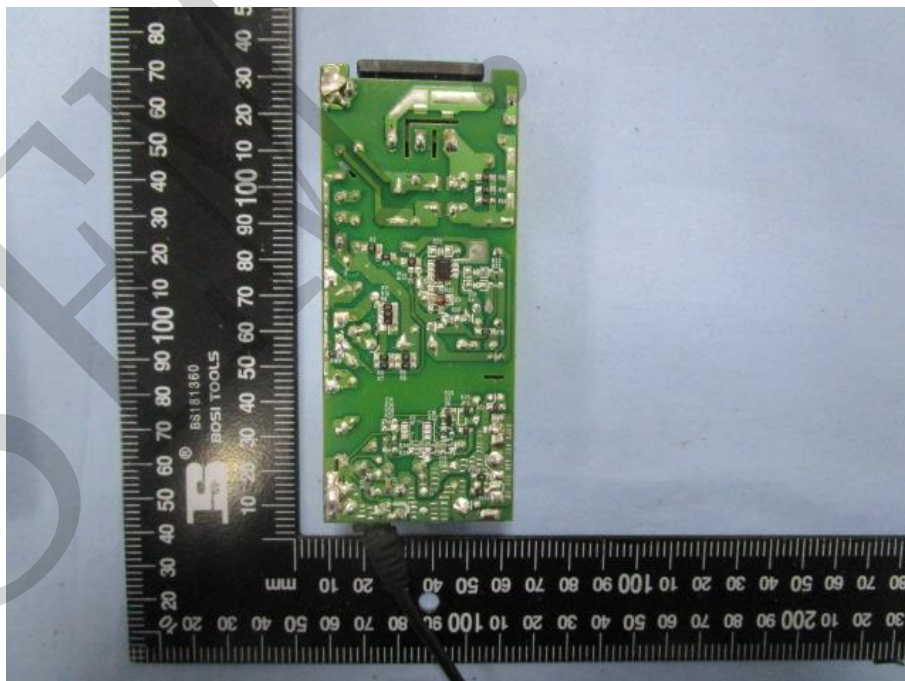


EUT Housing and Board View 1



Solder Board-Component View 1



Solder Board-Component View 2**Solder Board-Component View 3**

Tested Model: GT-81081-6024-T3

EUT View 1



EUT View 2



EUT View 3



EUT View 4

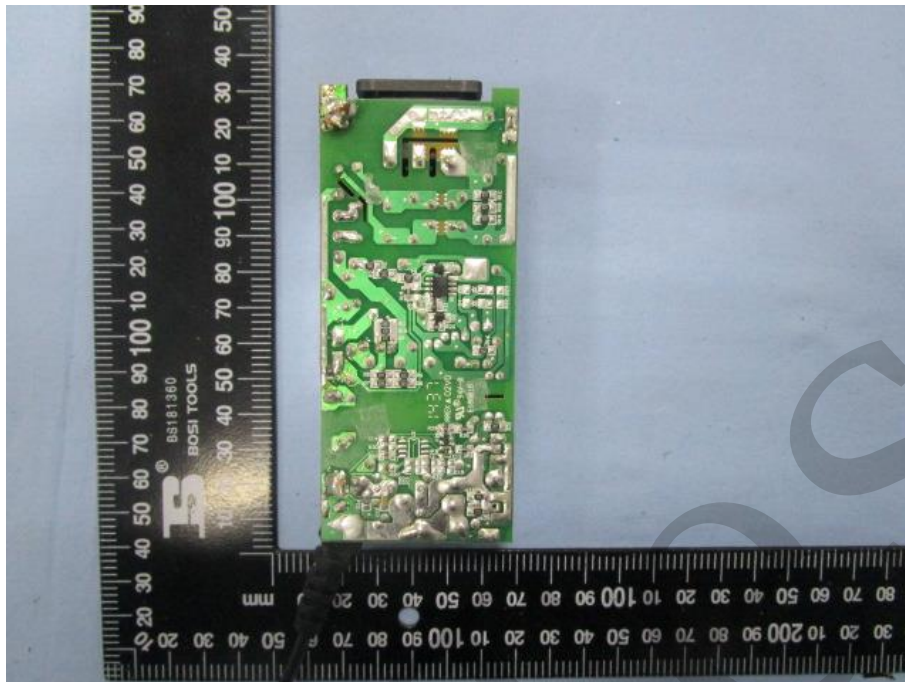
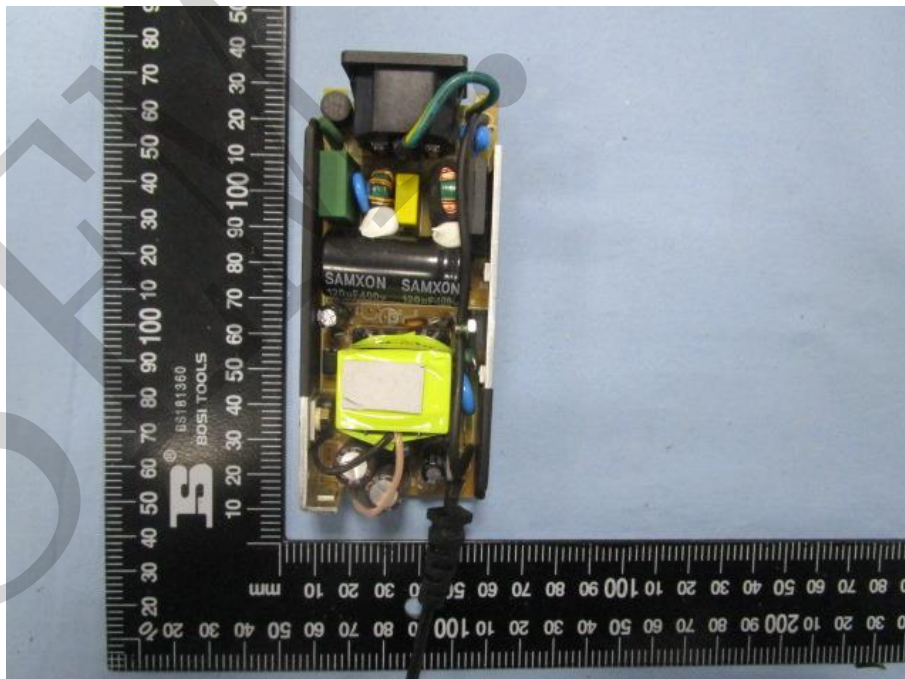


EUT View 5



EUT Housing and Board View 1



Solder Board-Component View 1**Solder Board-Component View 2**

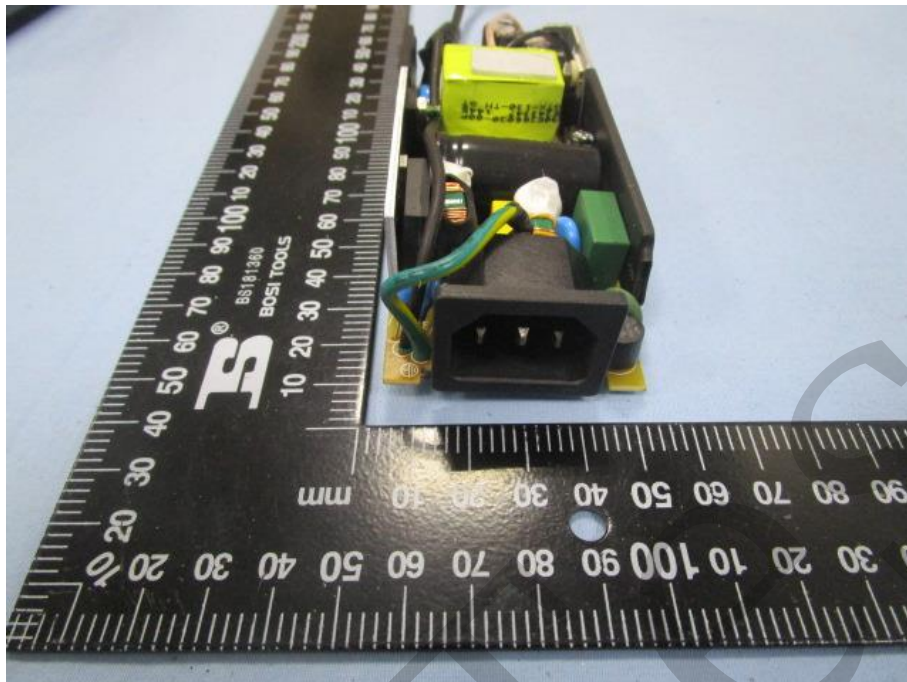
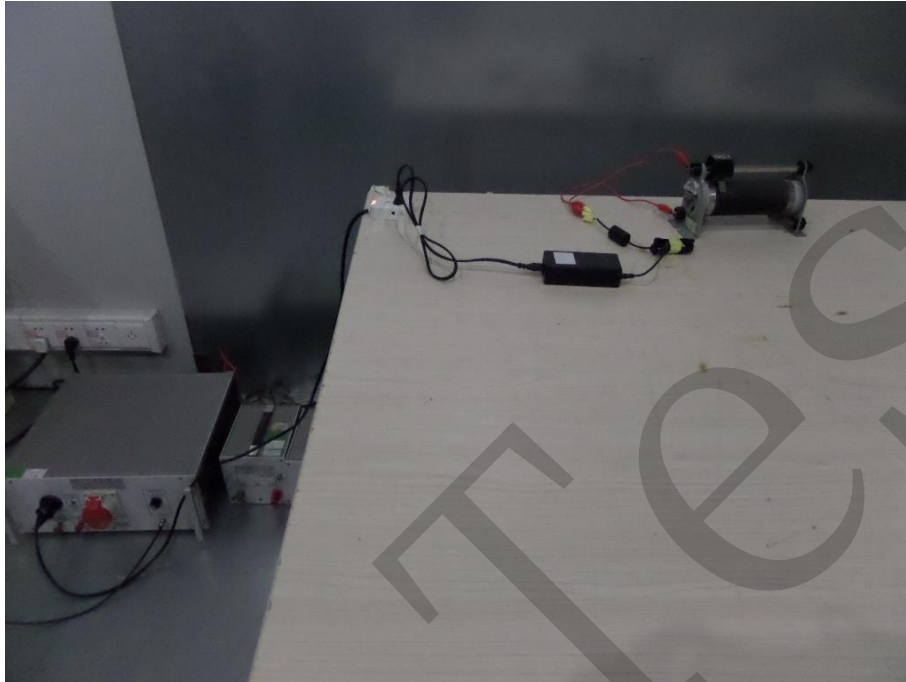
Solder Board-Component View 3

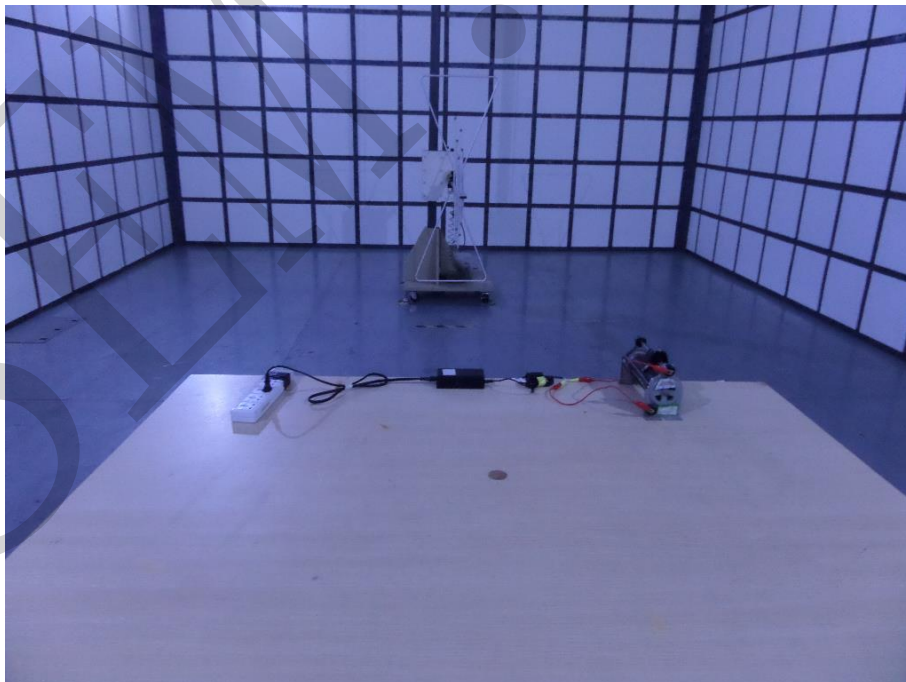
EXHIBIT 3 - TEST SETUP PHOTOGRAPHS

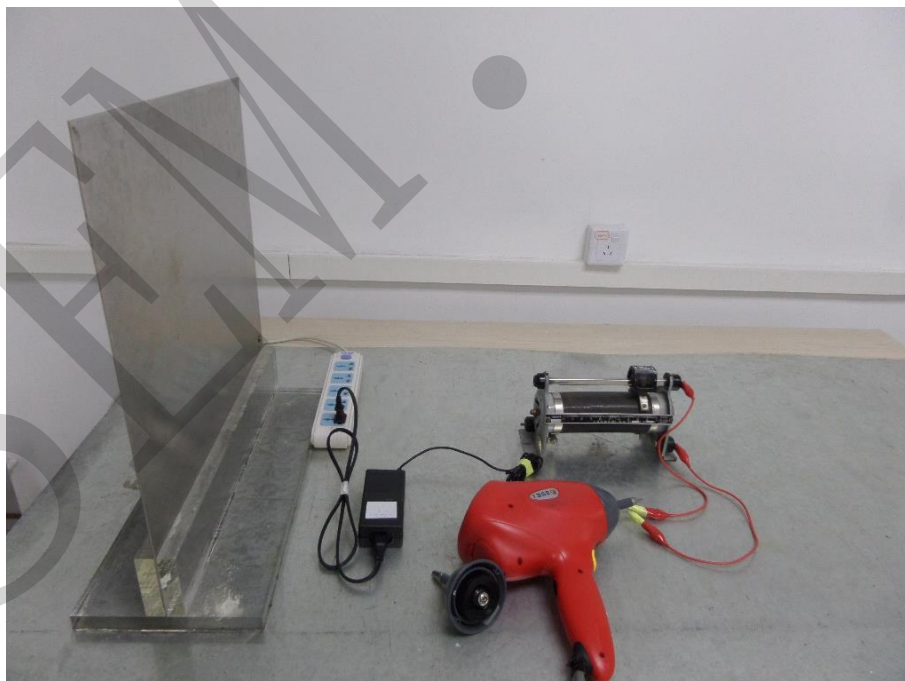
Tested Model: GT-81081-6012-T2

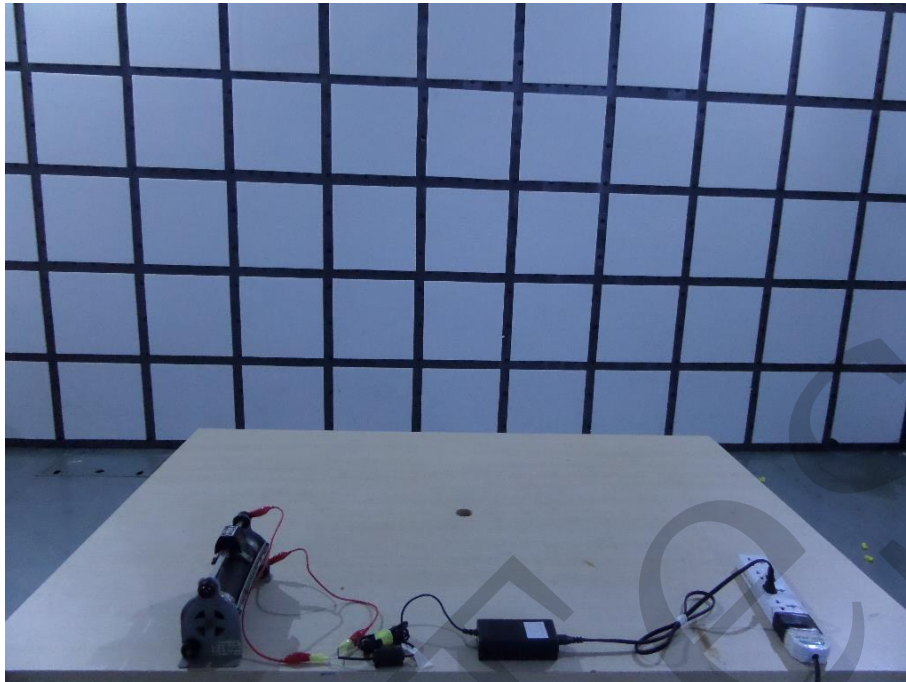
Conduction Emission Test View



Radiation Emission Test View



Harmonic/Flicker Test View**IEC61000-4-2 Test View**

IEC61000-4-3 Test View**IEC61000-4-4/5/11 Test View**

IEC61000-4-6 Test View

Tested Model: GT-81081-6015-T3

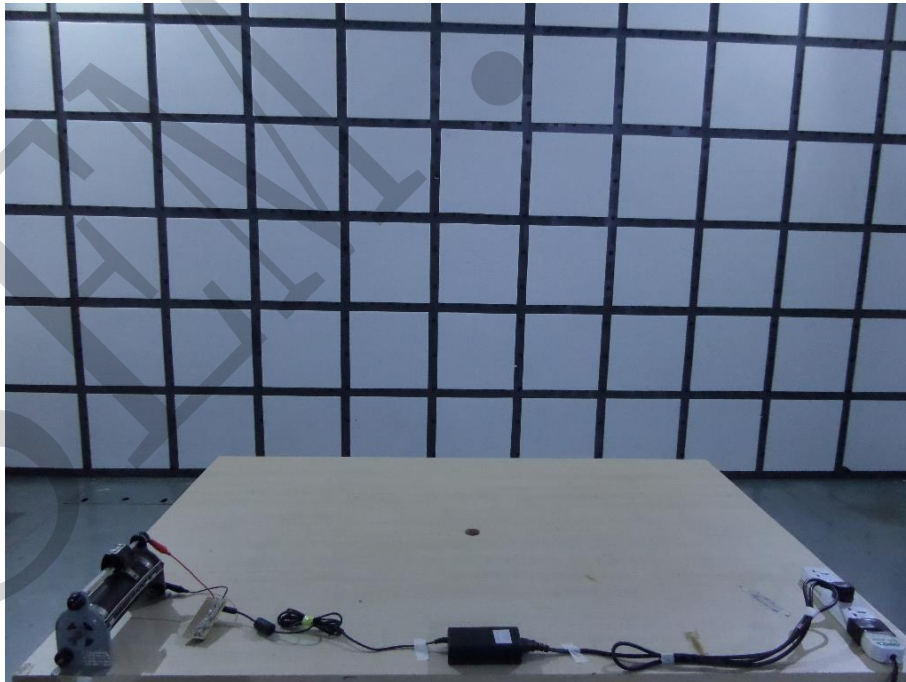
Conduction Emission Test View

Radiation Emission Test View



Harmonic/Flicker Test View

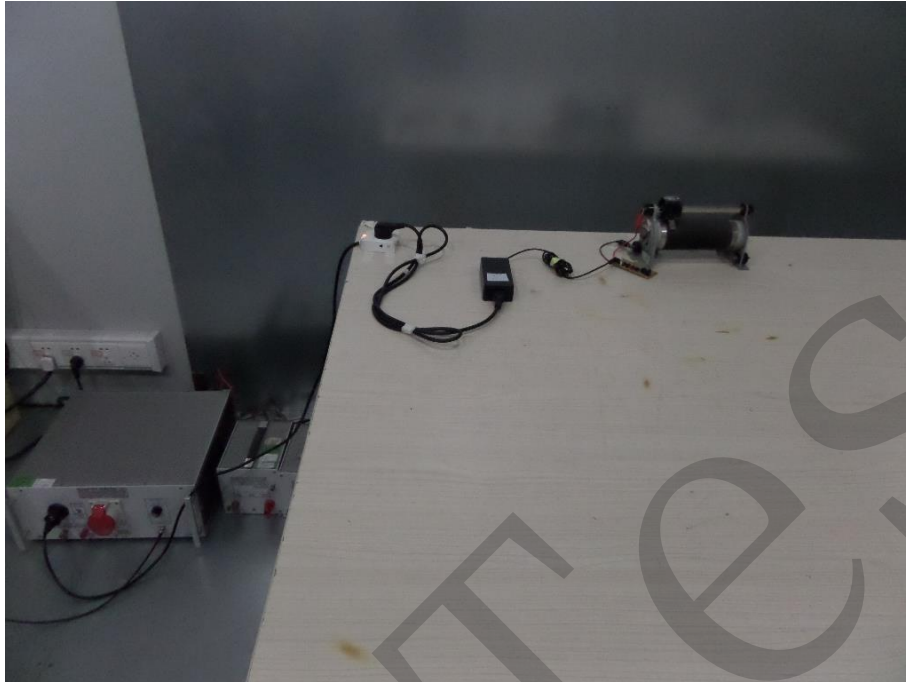


IEC61000-4-2 Test View**IEC61000-4-3 Test View**

IEC61000-4-4/5/11 Test View**IEC61000-4-6 Test View**

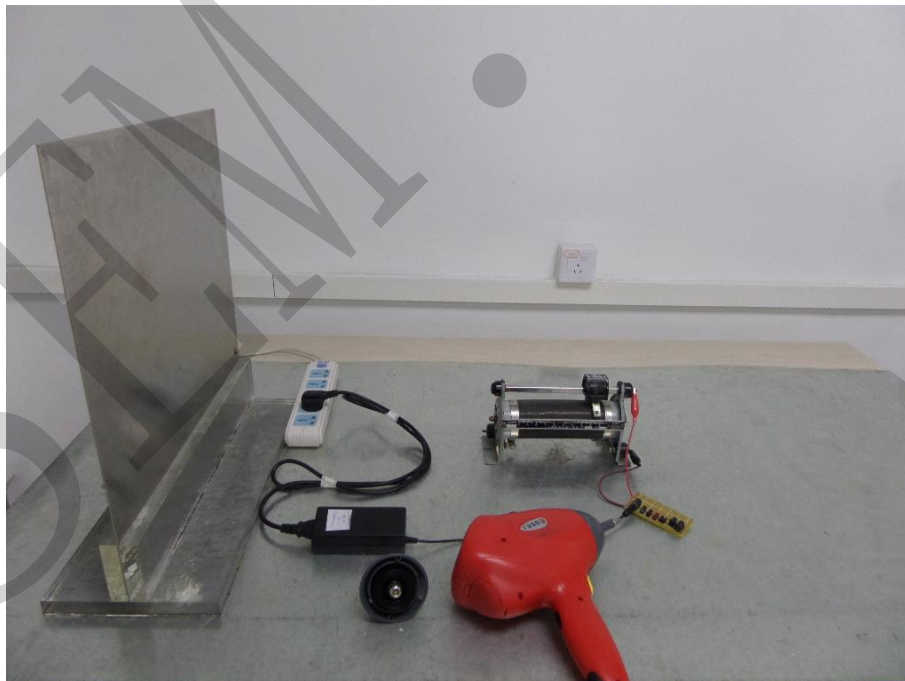
Tested Model: GT-81081-6018-1.2-T3-CC

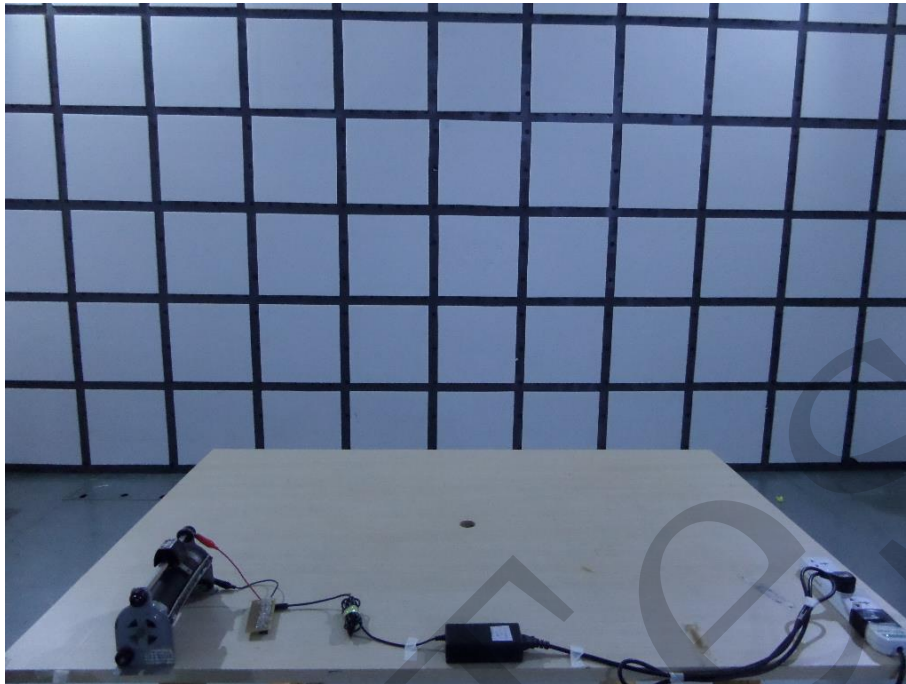
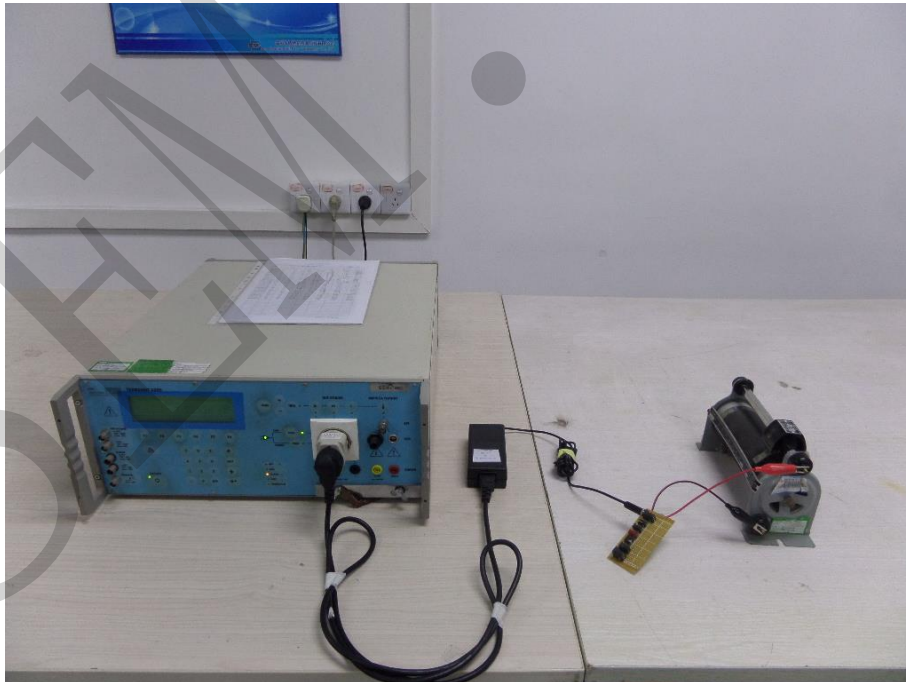
Conduction Emission Test View



Radiation Emission Test View

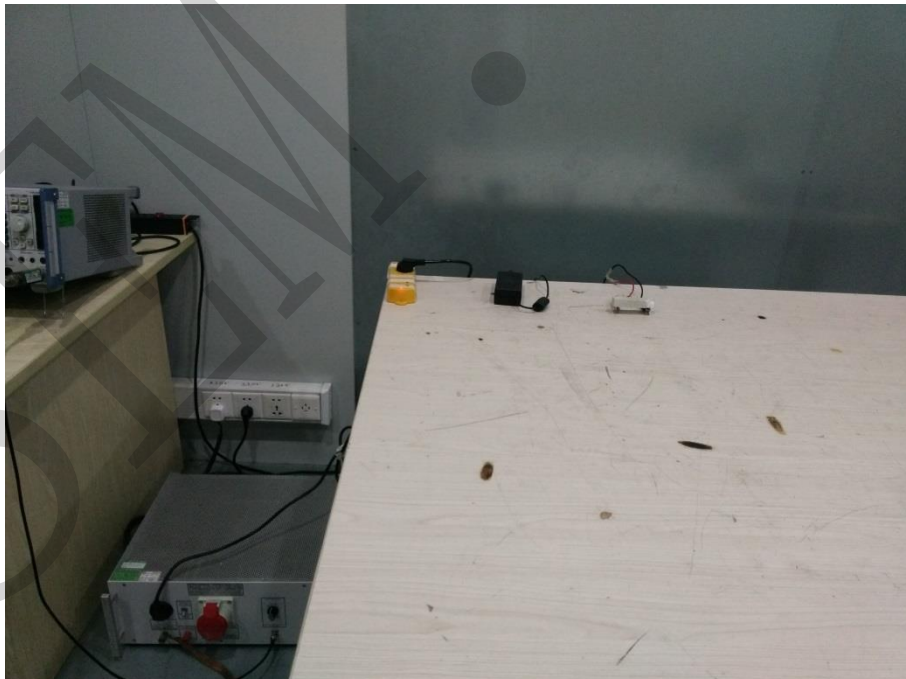


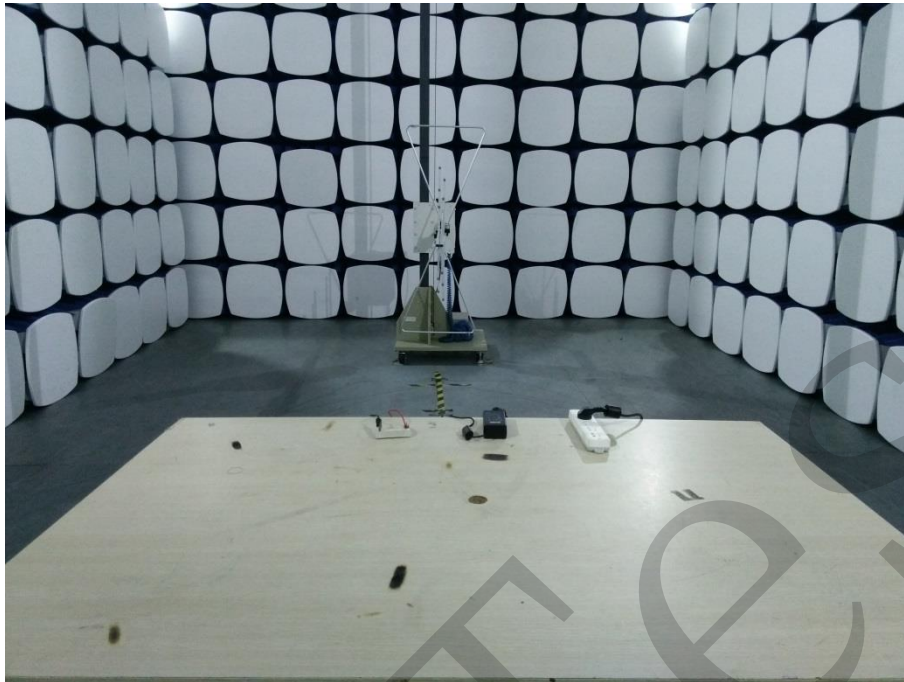
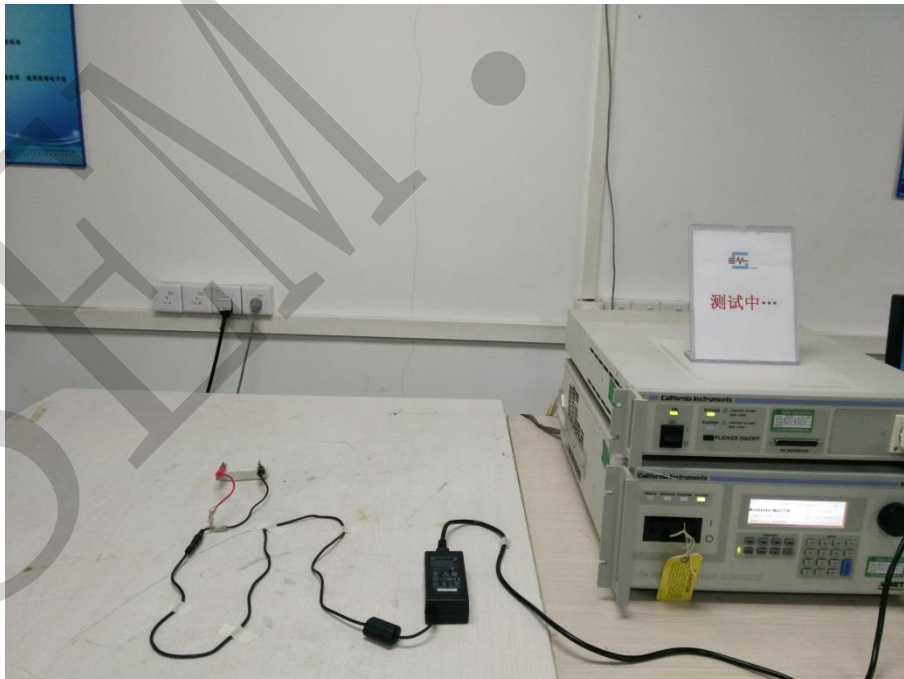
Harmonic/Flicker Test View**IEC61000-4-2 Test View**

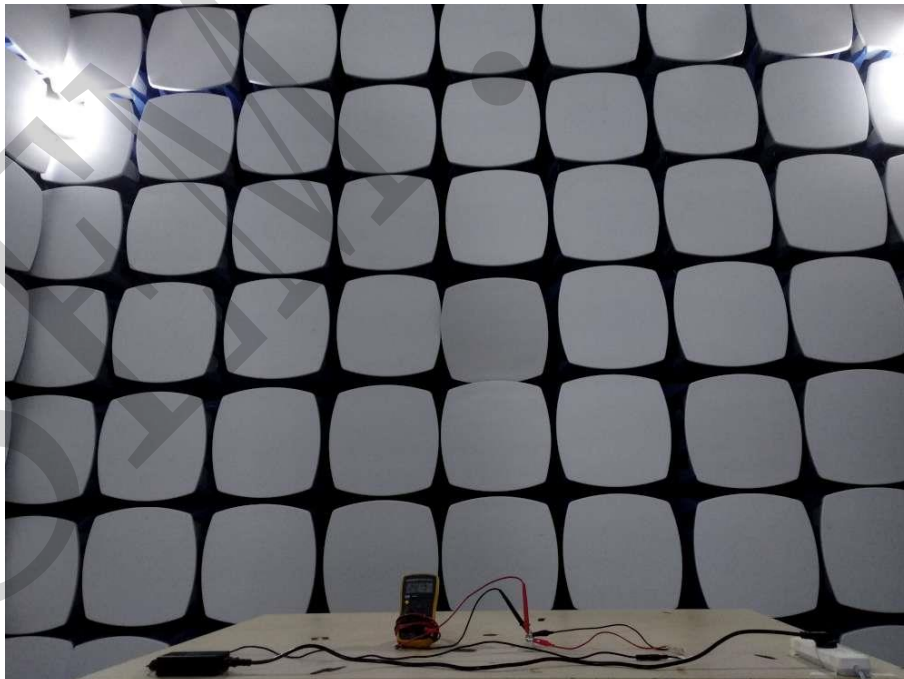
IEC61000-4-3 Test View**IEC61000-4-4/5/11 Test View**

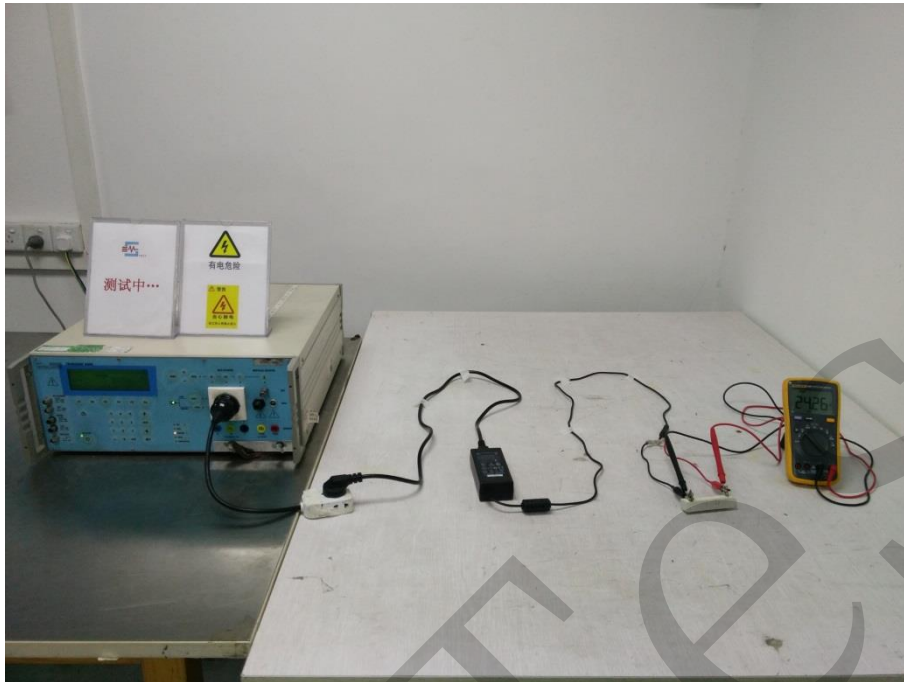


Conduction Emission Test View



Radiation Emission Test View**Harmonic/Flicker Test View**

IEC61000-4-2 Test View**IEC61000-4-3 Test View**

IEC61000-4-4/5/11 Test View**IEC61000-4-6 Test View**

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