

EMC

Measurement and Test Report

For

GlobTek, Inc.

186 Veterans Dr. Northvale, NJ 07647 USA

Test Standards:	EN 55032:2012+AC:2013 EN 61000-3-2:2014 EN 61000-3-3:2013 EN 55024:2010 <u>EN 60601-1-2:2015</u>
Product Description:	<u>ITE/Medical Power Supply</u>
Tested Model:	<u>GT**-*****</u>
Report No.:	<u>STR16108163E</u>
Tested Date:	<u>2016-10-31 to 2016-11-05</u>
Issued Date:	<u>2016-11-05</u>
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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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EMC 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:	ITE/Medical Power Supply
Trade Name:	
Model No.:	GT**-*****
Adding Model(s):	/
<i>Note: The test data is gathered from a production sample, provided by the manufacturer.</i> <i>GT**-*****</i> <i>The 1st “*” part can be ‘M’ or ‘-’ or ‘H’ for market identification and not related to safety.</i> <i>The 2nd”*” can be 91099 or 96600 for market identification</i> <i>The 3rd “*” denotes the rated output wattage designation, which can be “01” to “60”, with interval of 1.</i> <i>When the 2nd “*”=91099</i> <i>The 4th “*” denotes the standard rated output voltage designation, which can be “09”, “15”, “24”, “48”;</i> <i>The 5th “*”is optional deviation, subtracted from standard output voltage, which can be “-0.01” to “-23.9” with interval of 0.01, or blank to indicate no voltage different.</i> <i>The 4th “*” and 5th “*” together denote the output voltage, with a range of 5–48volts.</i> <i>When the 2nd “*”=96600</i> <i>The 4th”*” denote the standard rated output voltage designation, which can be “05” to “54” or “5.0” to “54.0” in 0.1V increments.</i> <i>The 5th”*”=Blank</i> <i>The 6th “*” =-T2 means desktop class II with C8 AC inlet</i> <i>=-T2A means desktop class II with C18 AC inlet</i> <i>=-T3 means desktop class I with C14 AC inlet</i> <i>=-T3A means desktop class I with C6 AC inlet</i> <i>=-T2L means desktop class II with C8 AC inlet and housing with a DC jack</i> <i>=-T2AL means desktop class II with C18 AC inlet and housing with a DC jack</i> <i>=-T3L means desktop class I with C14 AC inlet and housing with a DC jack</i> <i>=-T3AL means desktop class I with C6 AC inlet and housing with a DC jack</i> <i>=-R2 means hybrid desktop housing class II with C8 AC inlet</i> <i>=-R3A means hybrid desktop housing class I with C6 AC inlet</i>	

=-F means Open Frame class I

=-FW means Open Frame class II

=-P2 means Encapsulated class II

=-P3 means Encapsulated class I

The last * denote any six character = 0-9 or A-Z or ()[] or – or blank for marketing purposes.

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

1.2 Test Standards

The following report is prepared on behalf of the GlobTek, Inc. in accordance with EN 60601-1-2, Medical electrical equipment – Part 1-2: General requirements for basic safety and essential performance – Collateral standard: Electromagnetic compatibility – Requirements and tests

The objective of the manufacturer is to demonstrate compliance with the standards EN 60601-1-2 for Medical electrical 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 EN 60601-1-2 for Medical electrical equipment – Part 1-2: General requirements for basic safety and essential performance – Collateral standard: Electromagnetic compatibility – Requirements and tests.

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	Working	/

EUT Cable List and Details

Cable Description	Length (M)	Shielded/Unshielded	With Core/Without Core
DC Cable	1.6	Unshielded	With Core

Auxiliary Equipment List and Details

Description	Manufacturer	Model	Serial Number
/	/	/	/

Special Cable List and Details

Cable Description	Length (M)	Shielded/Unshielded	With Core/Without Core
AC Power Cable	1.0	Unshielded	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

No.	Description	Manufacturer	Model	Serial No.	Cal Date	Due. Date
SEMT-1031	Spectrum Analyzer	Rohde & Schwarz	FSP	836079/035	2016-06-04	2017-06-03
SEMT-1007	EMI Test Receiver	Rohde & Schwarz	ESVB	825471/005	2016-06-04	2017-06-03
SEMT-1008	Amplifier	Agilent	8447F	3113A06717	2016-06-04	2017-06-03
SEMT-1043	Amplifier	C&D	PAP-1G18	2002	2016-06-04	2017-06-03
SEMT-1011	Trilog Broadband Antenna	Schwarz beck	VULB9163	9163-333	2016-06-04	2017-06-03
SEMT-1068	Trilog Broadband Antenna	Schwarz beck	VULB9163(B)	9163-333	2016-06-04	2017-06-03
SEMT-1042	Horn Antenna	ETS	3117	00086197	2016-06-04	2017-06-03
SEMT-1069	Loop Antenna	Schwarz beck	FMZB 1516	9773	2016-06-04	2017-06-03
SEMT-1001	EMI Test Receiver	Rohde & Schwarz	ESPI	101611	2016-06-04	2017-06-03
SEMT-1066	EMI Test Receiver	Rohde & Schwarz	ESPI	101391	2016-06-04	2017-06-03
SEMT-1002	Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100911	2016-06-04	2017-06-03
SEMT-1003	AC LISN	Schwarz beck	NSLK8126	8126-224	2016-06-04	2017-06-03
SEMT-1060	DC LISN	Schwarz beck	NNBM8126D	279	2016-06-04	2017-06-03
SEMT-1061	DC LISN	Schwarz beck	NNBM8126D	280	2016-06-04	2017-06-03
SEMT-1085	8-WIRE LISN	Schwarz beck	8158	CAT3-8158-0059	2016-06-04	2017-06-03
SEMT-1086	8-WIRE LISN	Schwarz beck	8158	CAT5-8158-0117	2016-06-04	2017-06-03
SEMT-1005	Clamp	Schwarz beck	MDS21	3809	2016-06-04	2017-06-03
SEMT-1014	Loop Antenna	EVERFINE	LLA-2	711001	2016-06-04	2017-06-03
SEMT-1071	VDH Test Head	AFJ	VDH 30	SC022Z	2016-06-04	2017-06-03
SEMT-1056	Digital Power Analyzer	California Instrument	CTS	72831	2016-06-04	2017-06-03
SEMT-1057	Power Source	California Instrument	5001IX-CTS-400	25965	2016-06-04	2017-06-03
SEMT-1027	ESD Generator	TESQ AG	NSG 437	161	2016-06-04	2017-06-03
SEMT-1055	Signal Generator	HP	8648A	3642U01277	2016-06-04	2017-06-03
SEMT-1008	Amplifier	Agilent	8447F	3113A06717	2016-06-04	2017-06-03
SEMT-1067	Amplifier	Agilent	8447D	2944A10179	2016-06-04	2017-06-03
SEMT-1024	Transient 2000	EMC PARTNER	TRA2000	863	2016-06-04	2017-06-03
SEMT-1045	CS Immunity Tester	EMTEST	CWS500	0900-03	2016-06-04	2017-06-03

2. SUMMARY OF TEST RESULTS

Standards	Description of Test Item	Result
EN55032	Conducted Disturbance	Compliant
	Radiated Disturbance	Compliant
EN 61000-3-2 EN 61000-3-3	Harmonic Current Emission	Compliant
	Voltage Fluctuation and Flicker	Compliant
EN 55024 EN 60601-1-2	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 Disturbance

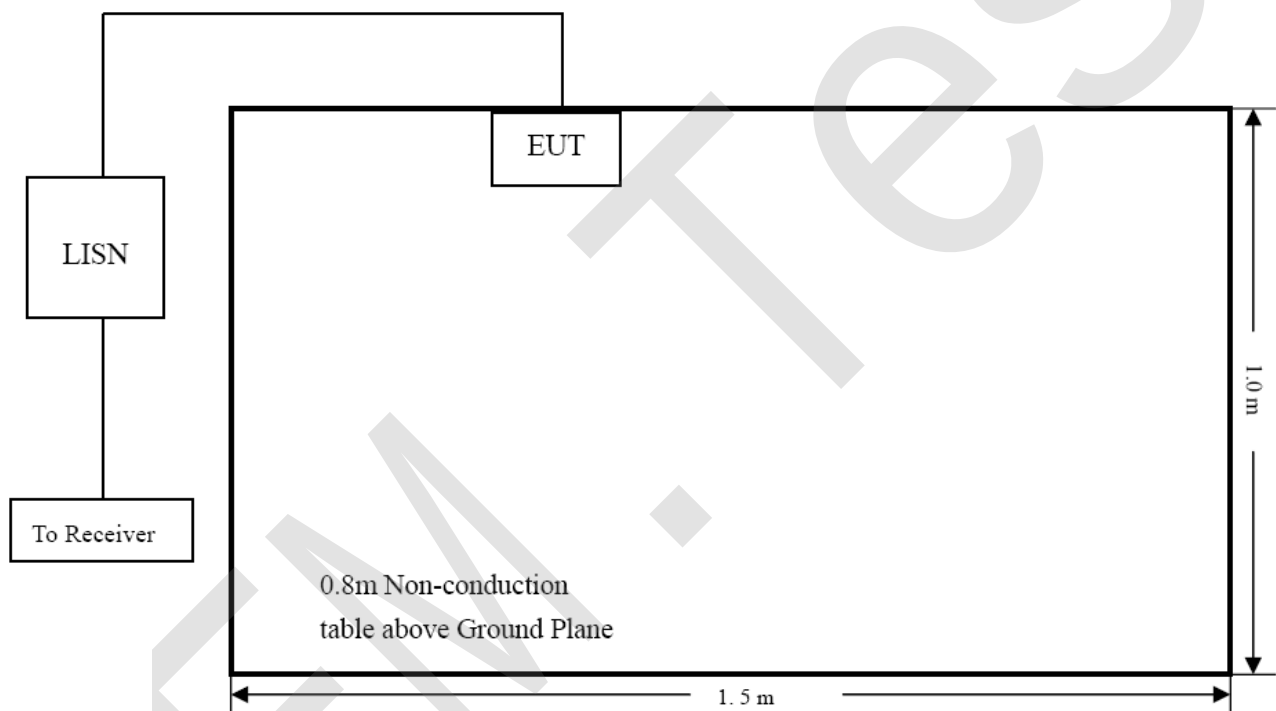
3.1 Measurement Uncertainty

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 Procedure

Test is conducting under the description of EN55022 Information technology equipment - Radio disturbance characteristics - Limits and methods of measurement.

3.3 Basic Test Setup Block Diagram



3.4 Environmental Conditions

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

3.5 Summary of Test Results/Plots

According to the data in section 3.6, the EUT complied with the EN 60601-1-2 Conducted margin for a Class B device, with the *worst* margin reading of:

-1.67 dB at 0.194 MHz in the Line mode, Peak detector, GTM91099-6048-T3A, 0.15-30MHz

3.6 Conducted Emissions Test Data

Plot of Conducted Emissions Test Data

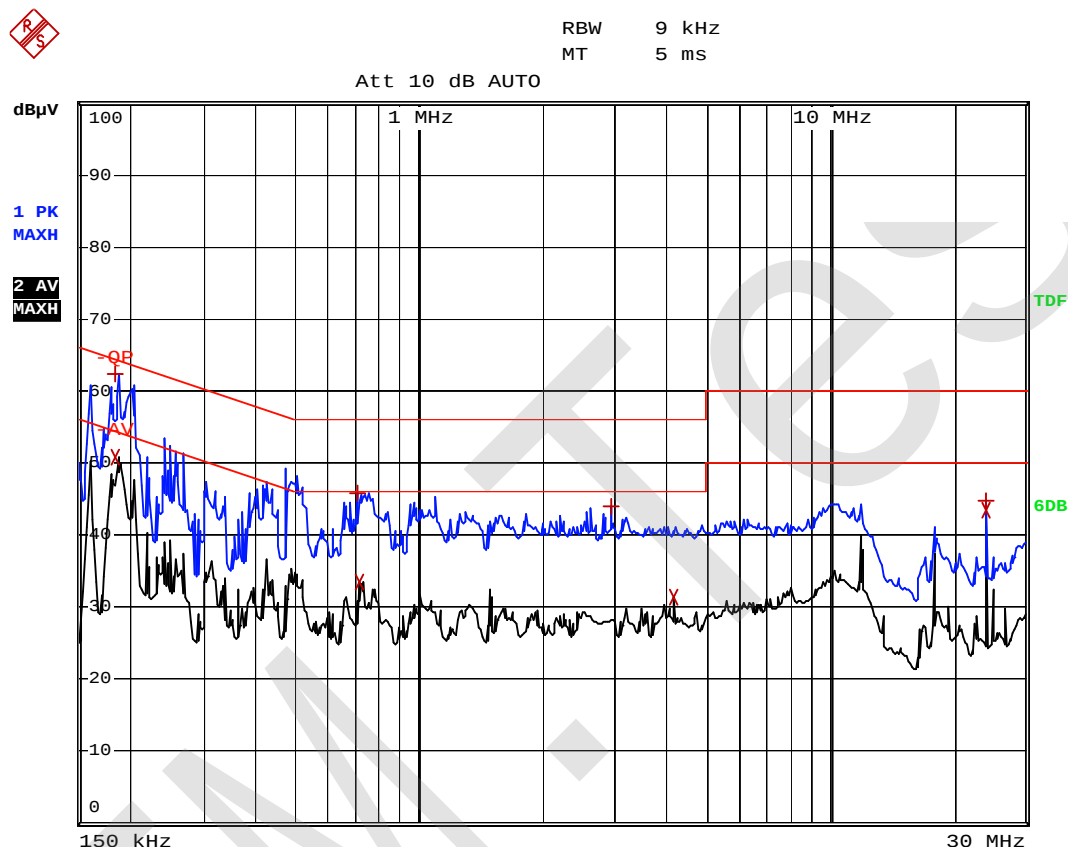
EUT: ITE/Medical Power Supply

Tested Model: GTM91099-6048-T3A

Operating Condition: TM1

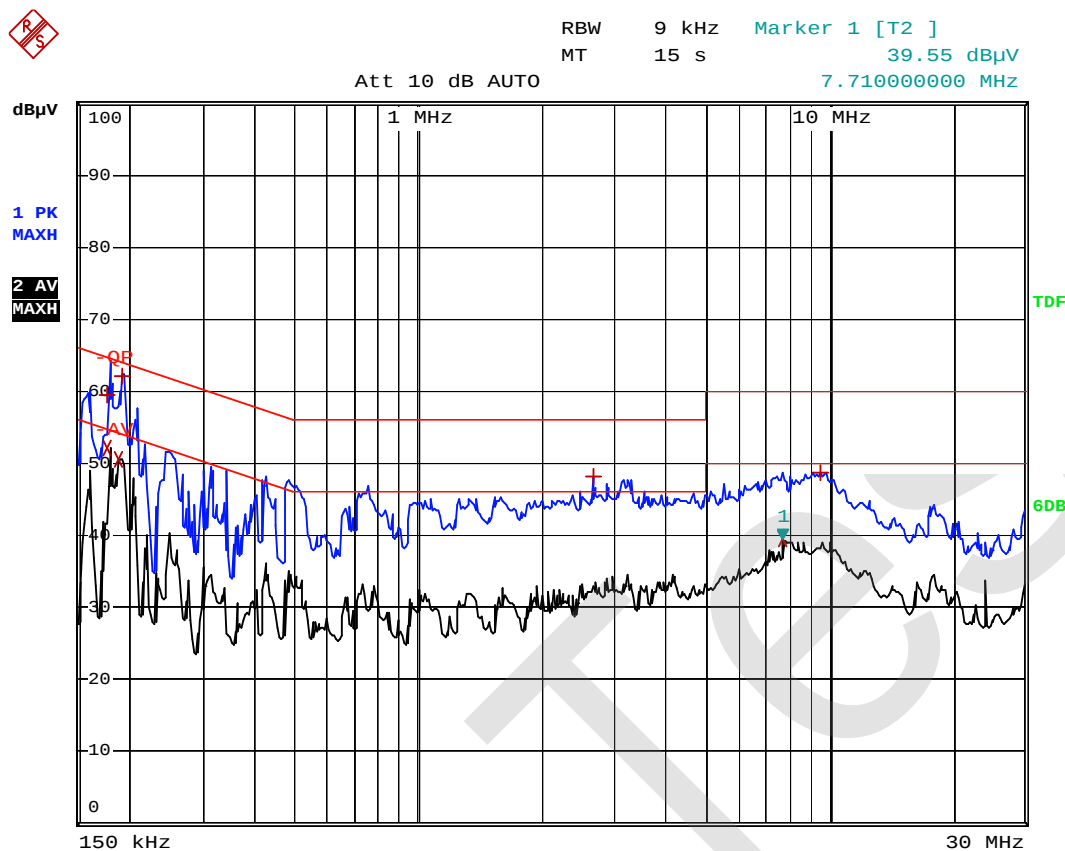
Comment: AC 230V/50Hz

Test Specification: Line



EDIT PEAK LIST (Prescan Results)				
Trace1:	-QP			
Trace2:	-AV			
Trace3:	---			
TRACE	FREQUENCY	LEVEL dBμV	DELTA LIMIT dB	
1 Max Peak	186 kHz	62.46	-1.74	
2 Average	186 kHz	50.72	-3.48	
1 Max Peak	710 kHz	45.88	-10.11	
2 Average	714 kHz	33.49	-12.50	
1 Max Peak	2.954 MHz	43.93	-12.06	
2 Average	4.154 MHz	31.41	-14.58	
1 Max Peak	23.982 MHz	44.76	-15.24	
2 Average	23.982 MHz	43.40	-6.59	

Test Specification: Neutral



EDIT PEAK LIST (Prescan Results)			
Trace1:	-QP		
Trace2:	-AV		
Trace3:	---		
TRACE	FREQUENCY	LEVEL dBμV	DELTA LIMIT dB
2 Average	178 kHz	51.99	-2.58
1 Quasi Peak	178 kHz	59.49	-5.08
2 Average	190 kHz	50.62	-3.41
1 Max Peak	194 kHz	62.18	-1.67
1 Max Peak	2.674 MHz	48.22	-7.77
2 Average	7.71 MHz	39.54	-10.45
1 Max Peak	9.55 MHz	48.81	-11.18

Plot of Conducted Emissions Test Data

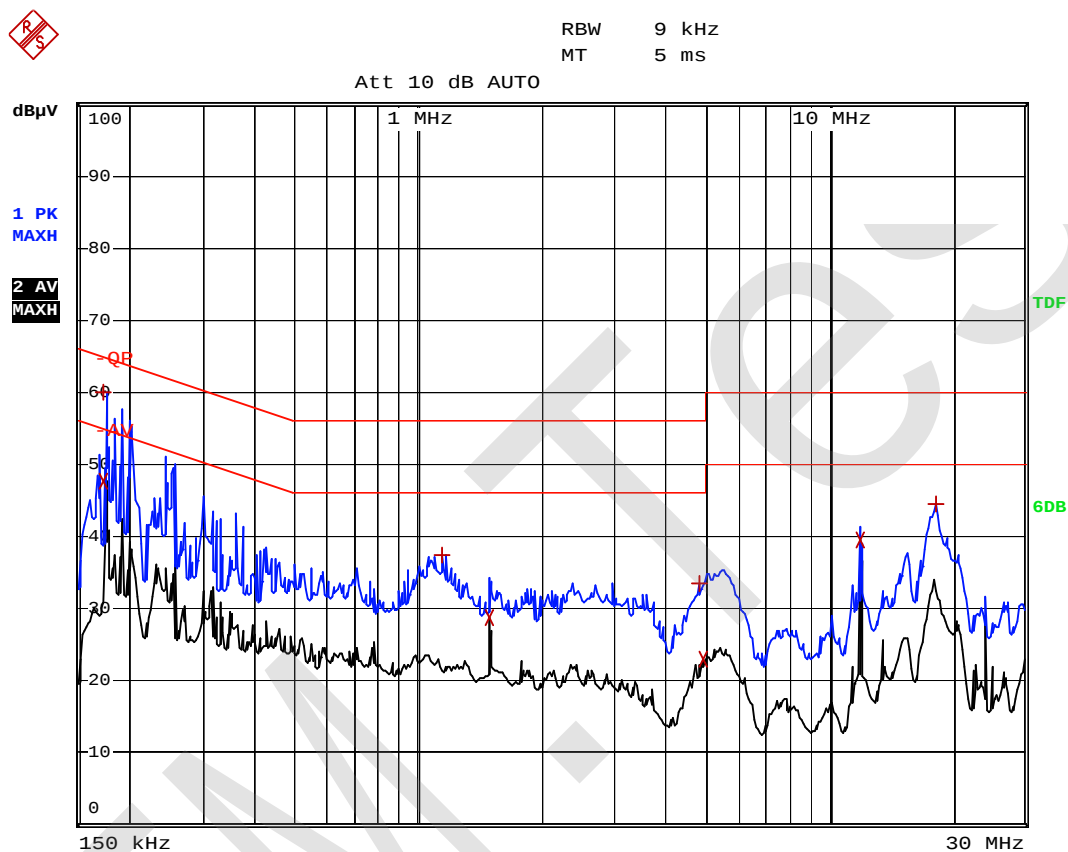
EUT: ITE/Medical Power Supply

Tested Model: GTM91099-6012-T2

Operating Condition: TM1

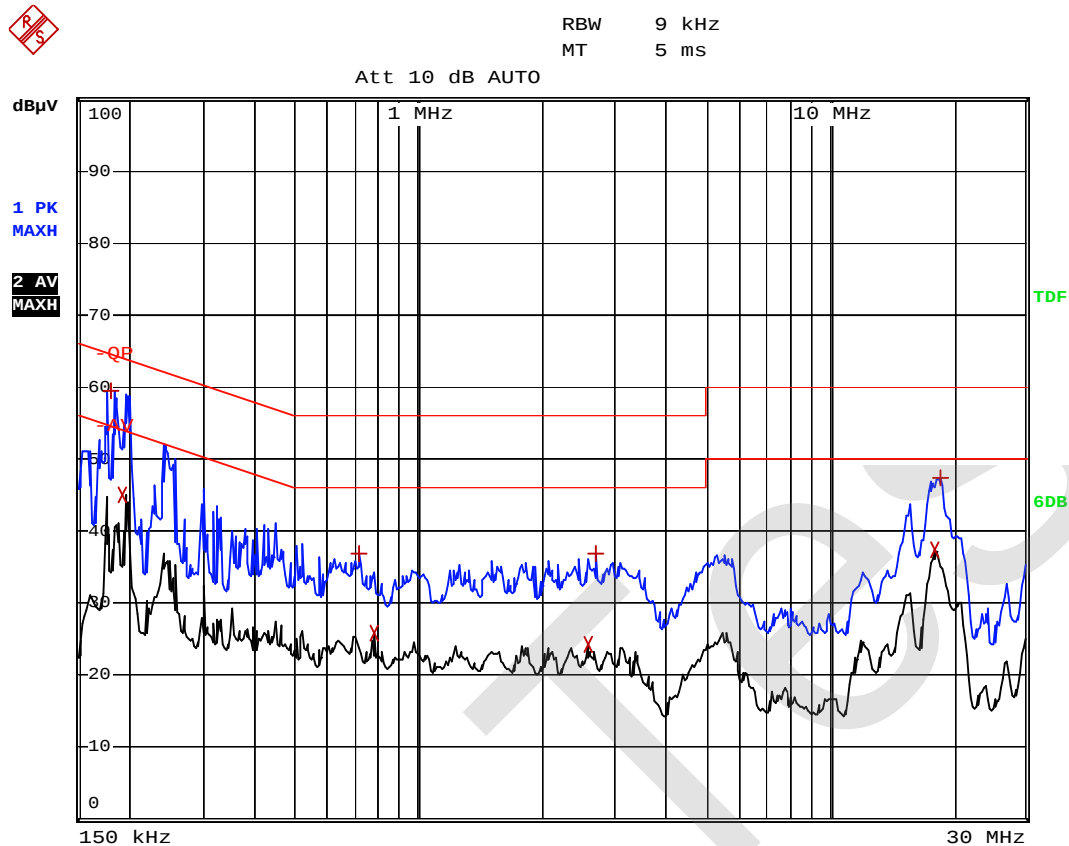
Comment: AC 230V/50Hz

Test Specification: Line



EDIT PEAK LIST (Prescan Results)				
Trace1:	-QP			
Trace2:	-AV			
Trace3:	---			
TRACE	FREQUENCY	LEVEL dBμV	DELTA LIMIT dB	
1 Max Peak	174 kHz	59.96	-4.80	
2 Average	174 kHz	47.57	-7.19	
1 Max Peak	1.138 MHz	37.50	-18.49	
2 Average	1.498 MHz	28.87	-17.12	
1 Max Peak	4.83 MHz	33.53	-22.46	
2 Average	4.974 MHz	22.92	-23.07	
2 Average	11.99 MHz	39.45	-10.55	
1 Max Peak	18.158 MHz	44.37	-15.62	

Test Specification: Neutral

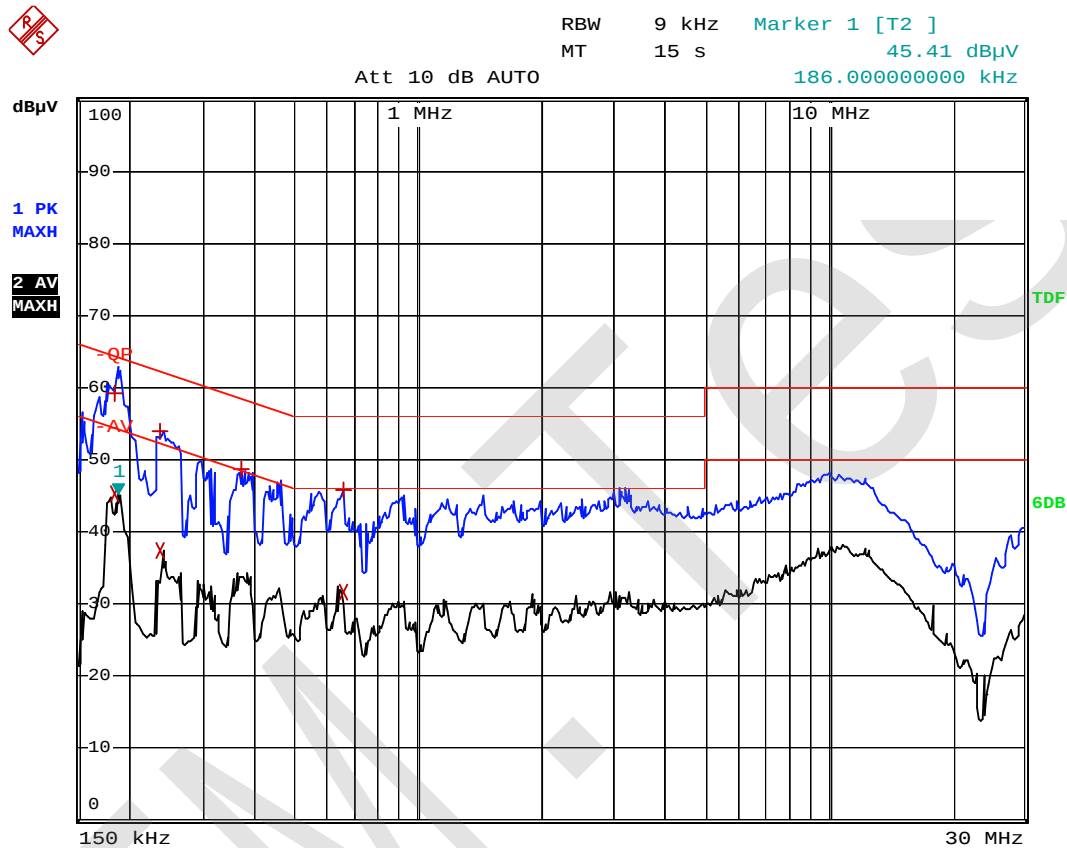


EDIT PEAK LIST (Prescan Results)			
Trace1:	-QP		
Trace2:	-AV		
Trace3:	---		
TRACE	FREQUENCY	LEVEL dBμV	DELTA LIMIT dB
1 Max Peak	182 kHz	59.55	-4.83
2 Average	194 kHz	44.95	-8.90
1 Max Peak	718 kHz	36.87	-19.12
2 Average	778 kHz	25.97	-20.02
2 Average	2.594 MHz	24.24	-21.75
1 Max Peak	2.71 MHz	36.93	-19.06
2 Average	18.078 MHz	37.40	-12.59
1 Max Peak	18.526 MHz	47.34	-12.65

Plot of Conducted Emissions Test Data

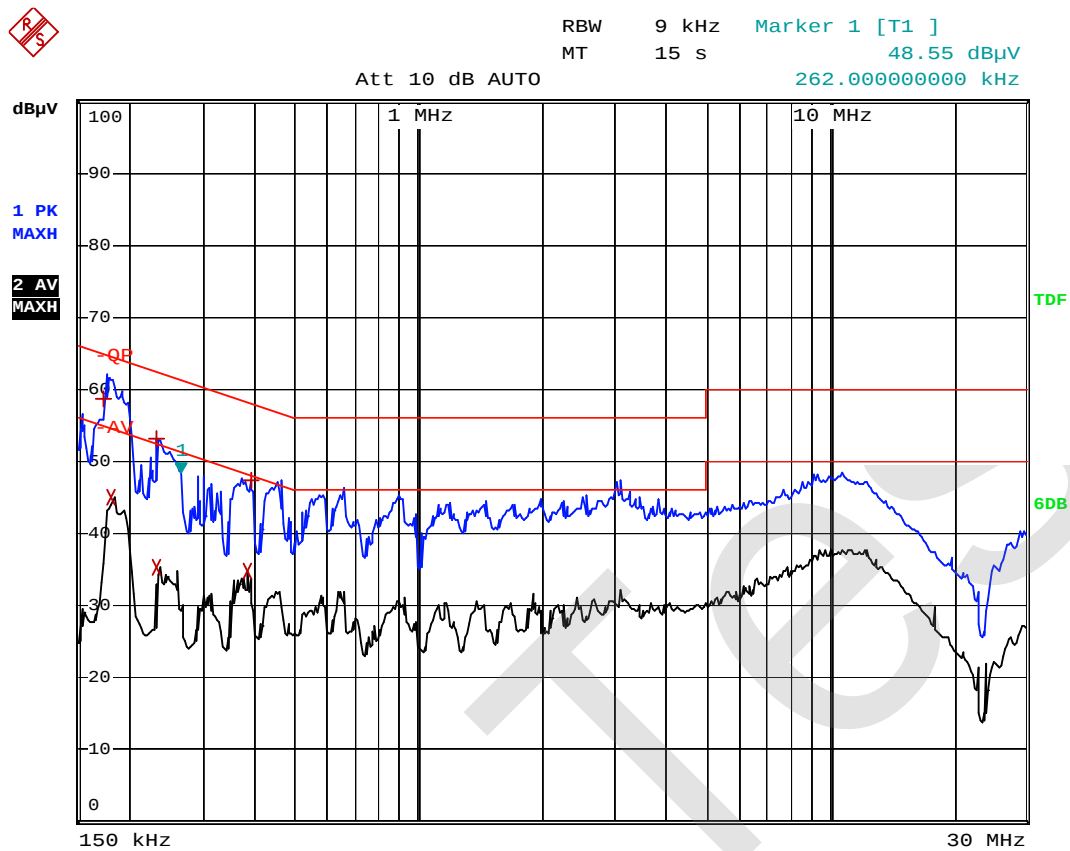
EUT: ITE/Medical Power Supply
Tested Model: GTM91099-6048-FW Class II 48V
Operating Condition: TM1
Comment: AC 230V/50Hz

Test Specification: Line



EDIT PEAK LIST (Prescan Results)			
Trace1:	-QP		
Trace2:	-AV		
Trace3:	---		
TRACE	FREQUENCY	LEVEL dBμV	DELTA LIMIT dB
1 Quasi Peak	186 kHz	59.09	-5.12
2 Average	186 kHz	45.40	-8.80
2 Average	238 kHz	37.39	-14.76
1 Max Peak	238 kHz	53.86	-8.29
1 Max Peak	370 kHz	48.62	-9.87
2 Average	654 kHz	31.72	-14.27
1 Max Peak	658 kHz	45.88	-10.11

Test Specification: Neutral

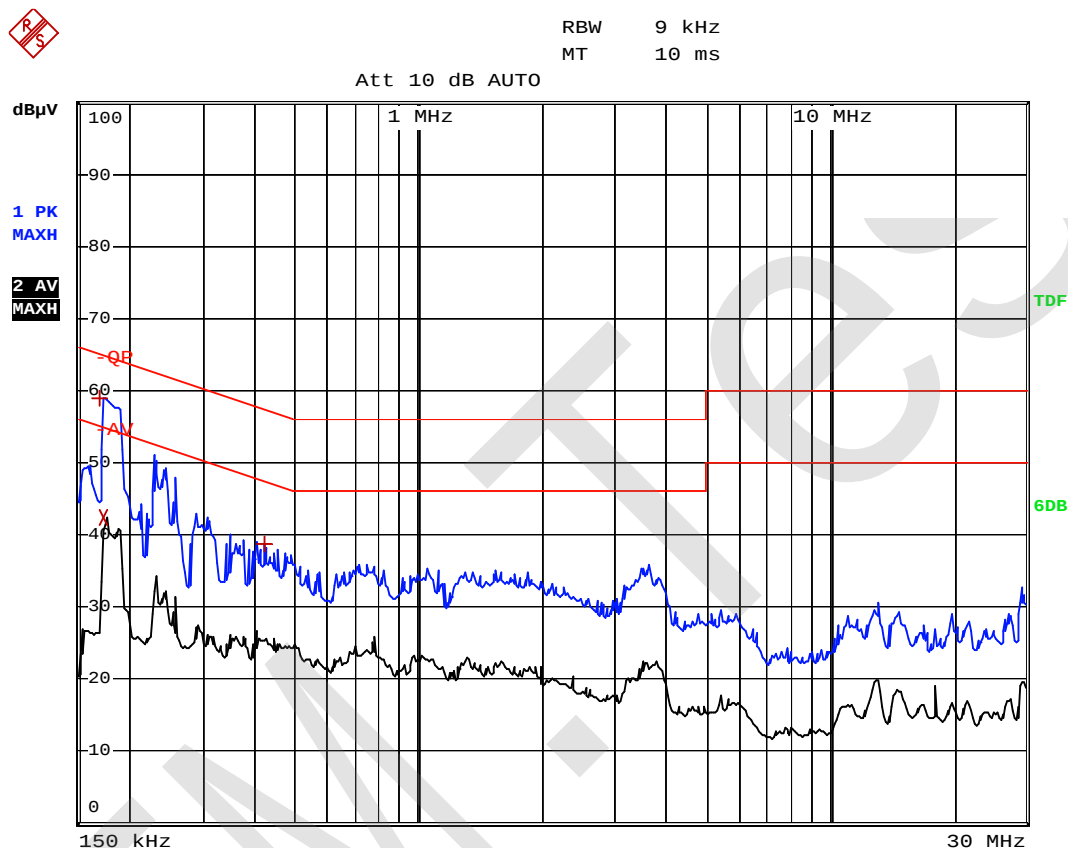


EDIT PEAK LIST (Prescan Results)			
Trace1:	-QP		
Trace2:	-AV		
Trace3:	---		
TRACE	FREQUENCY	LEVEL dBμV	DELTA LIMIT dB
1 Quasi Peak	174 kHz	58.67	-6.09
2 Average	182 kHz	45.12	-9.26
1 Max Peak	230 kHz	53.12	-9.32
2 Average	234 kHz	35.25	-17.04
2 Average	382 kHz	34.90	-13.33
1 Max Peak	390 kHz	47.49	-10.56

Plot of Conducted Emissions Test Data

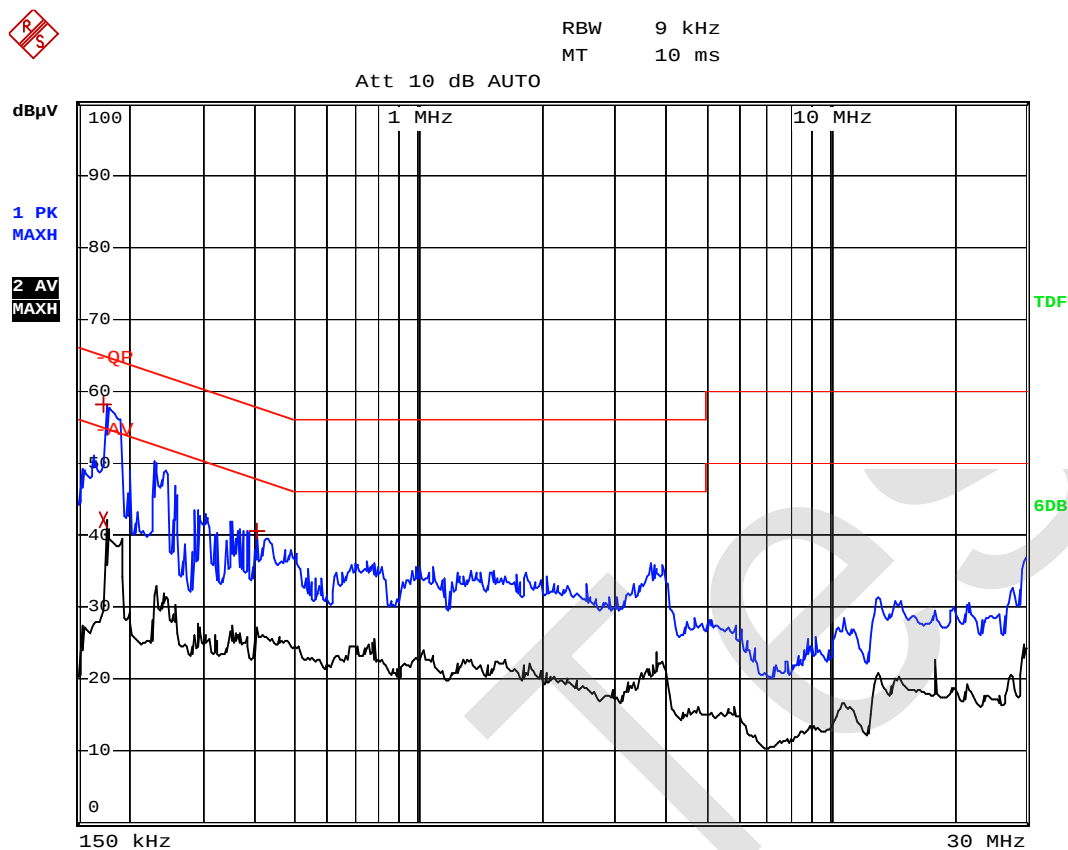
EUT: ITE/Medical Power Supply
Tested Model: GTM91099-3009-4.0-FW Class II 5V
Operating Condition: TM1
Comment: AC 230V/50Hz

Test Specification: Line



EDIT PEAK LIST (Prescan Results)			
Trace1:	-QP		
Trace2:	-AV		
Trace3:	---		
TRACE	FREQUENCY	LEVEL dBμV	DELTA LIMIT dB
1 Max Peak	170 kHz	59.04	-5.91
2 Average	174 kHz	42.38	-12.38
1 Max Peak	418 kHz	38.78	-18.70

Test Specification: Neutral

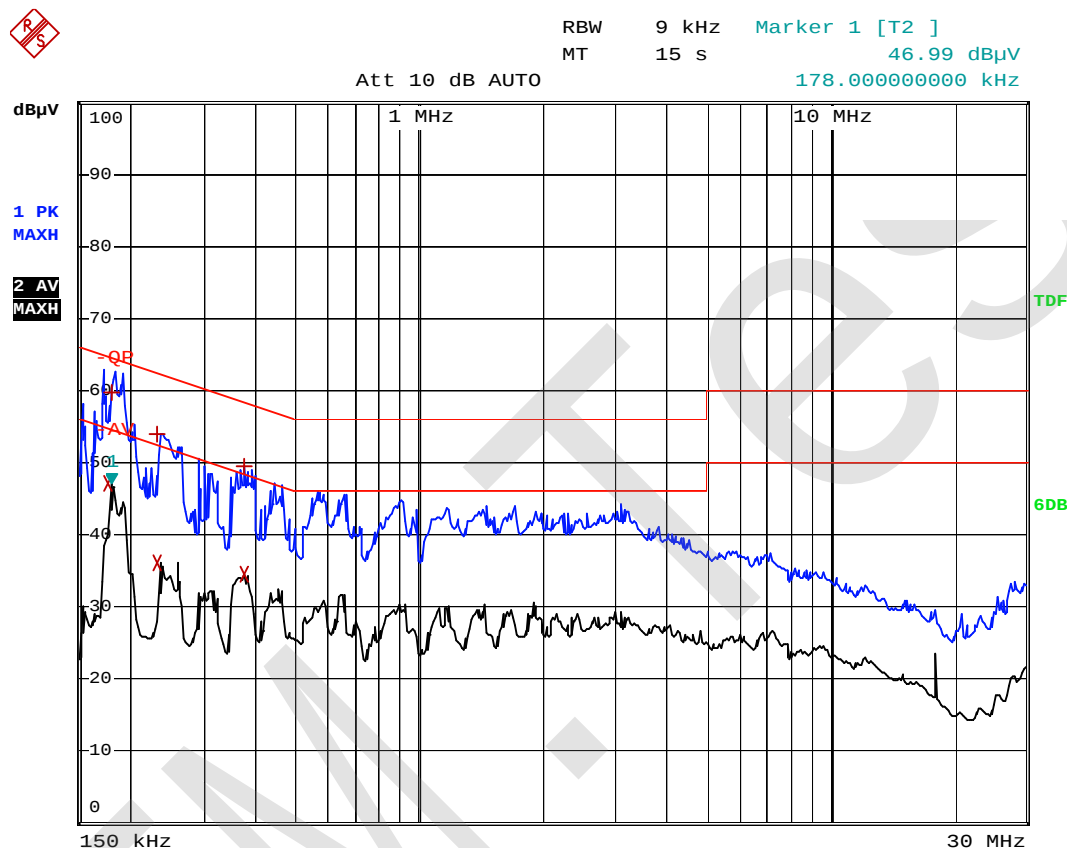


EDIT PEAK LIST (Prescan Results)			
Trace1:	-QP		
Trace2:	-AV		
Trace3:	---		
TRACE	FREQUENCY	LEVEL dBμV	DELTA LIMIT dB
1 Max Peak	174 kHz	58.05	-6.71
2 Average	174 kHz	42.18	-12.58
1 Max Peak	402 kHz	40.61	-17.19

Plot of Conducted Emissions Test Data

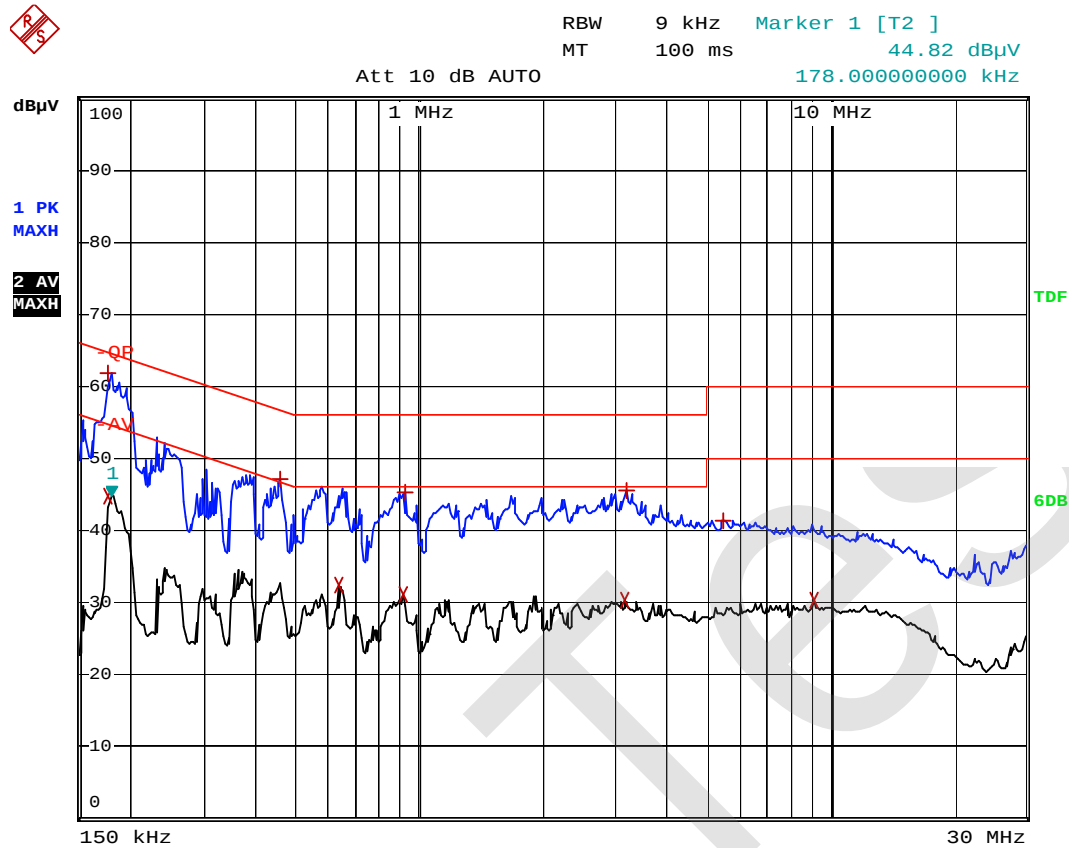
EUT: ITE/Medical Power Supply
Tested Model: GTM91099-6048-F Class I 48V
Operating Condition: TM1
Comment: AC 230V/50Hz

Test Specification: Line



EDIT PEAK LIST (Prescan Results)				
Trace1:	-QP			
Trace2:	-AV			
Trace3:	---			
TRACE	FREQUENCY	LEVEL dBμV	DELTA LIMIT dB	
2 Average	178 kHz	46.99	-7.58	
1 Quasi Peak	182 kHz	59.69	-4.69	
2 Average	234 kHz	36.05	-16.24	
1 Max Peak	234 kHz	53.98	-8.32	
2 Average	374 kHz	34.45	-13.95	
1 Max Peak	374 kHz	49.54	-8.86	

Test Specification: Neutral

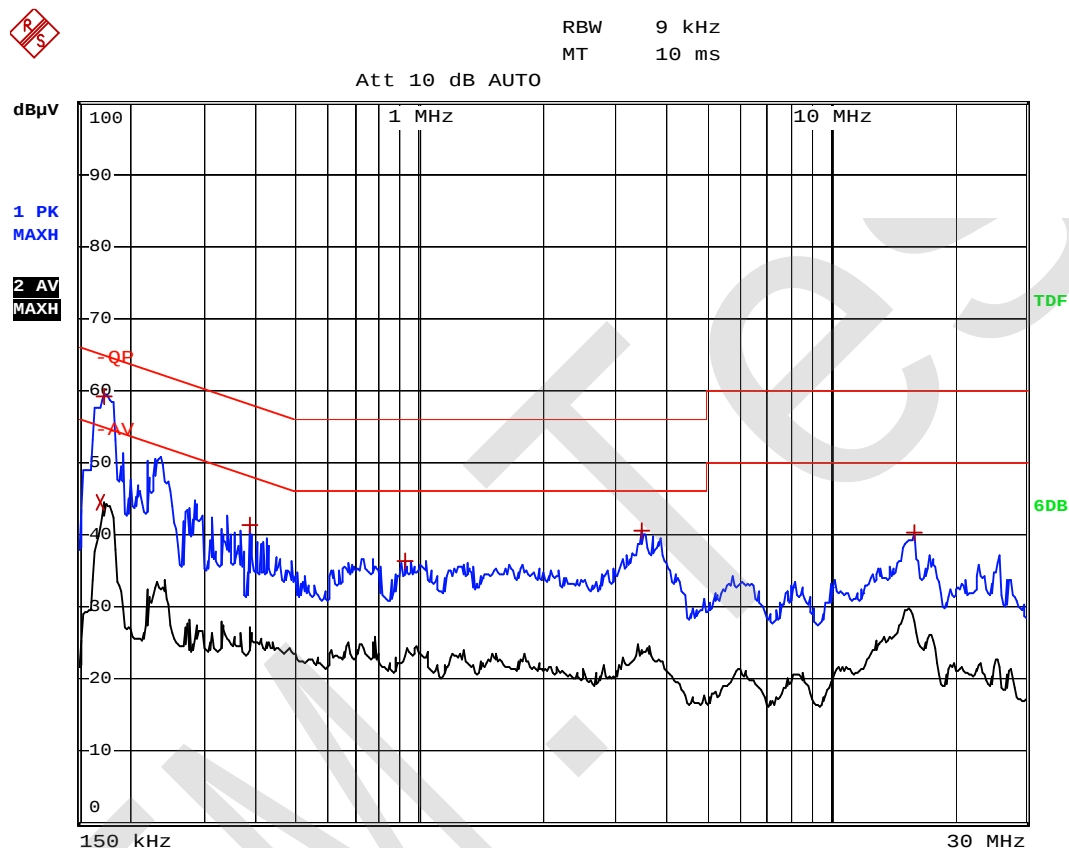


EDIT PEAK LIST (Prescan Results)			
Trace1:	-QP		
Trace2:	-AV		
Trace3:	---		
TRACE	FREQUENCY	LEVEL dBμV	DELTA LIMIT dB
1 Max Peak	178 kHz	61.87	-2.70
2 Average	178 kHz	44.81	-9.76
1 Max Peak	458 kHz	47.14	-9.58
2 Average	638 kHz	32.40	-13.59
2 Average	910 kHz	31.03	-14.96
1 Max Peak	926 kHz	45.28	-10.71
2 Average	3.154 MHz	30.33	-15.66
1 Max Peak	3.19 MHz	45.46	-10.53
1 Max Peak	5.526 MHz	41.45	-18.54
2 Average	9.19 MHz	30.37	-19.62

Plot of Conducted Emissions Test Data

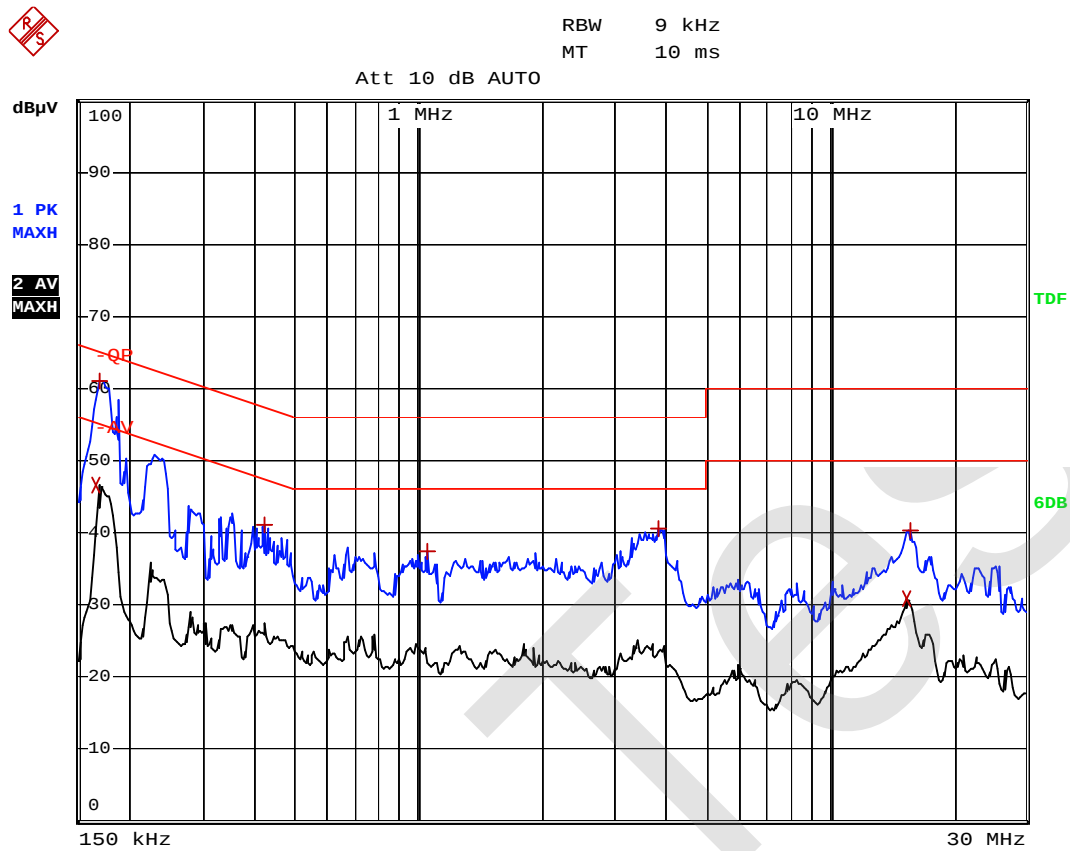
EUT: ITE/Medical Power Supply
Tested Model: GTM91099-3009-4.0-F Class I 5V
Operating Condition: TM1
Comment: AC 230V/50Hz

Test Specification: Line



EDIT PEAK LIST (Prescan Results)				
Trace1:	-QP			
Trace2:	-AV			
Trace3:	---			
TRACE	FREQUENCY	LEVEL dBμV	DELTA LIMIT dB	
2 Average	170 kHz	44.50	-10.45	
1 Max Peak	174 kHz	59.28	-5.48	
1 Max Peak	386 kHz	41.31	-16.83	
1 Max Peak	926 kHz	36.45	-19.54	
1 Max Peak	3.474 MHz	40.44	-15.55	
1 Max Peak	15.97 MHz	40.19	-19.80	

Test Specification: Neutral



EDIT PEAK LIST (Prescan Results)				
Trace1:	-QP			
Trace2:	-AV			
Trace3:	---			
TRACE	FREQUENCY	LEVEL dBμV	DELTA LIMIT dB	
2 Average	166 kHz	46.53	-8.62	
1 Max Peak	170 kHz	60.97	-3.98	
1 Max Peak	418 kHz	41.10	-16.38	
1 Max Peak	1.05 MHz	37.28	-18.72	
1 Max Peak	3.846 MHz	40.47	-15.52	
2 Average	15.462 MHz	30.93	-19.06	
1 Max Peak	15.658 MHz	40.37	-19.62	

Plot of Conducted Emissions Test Data

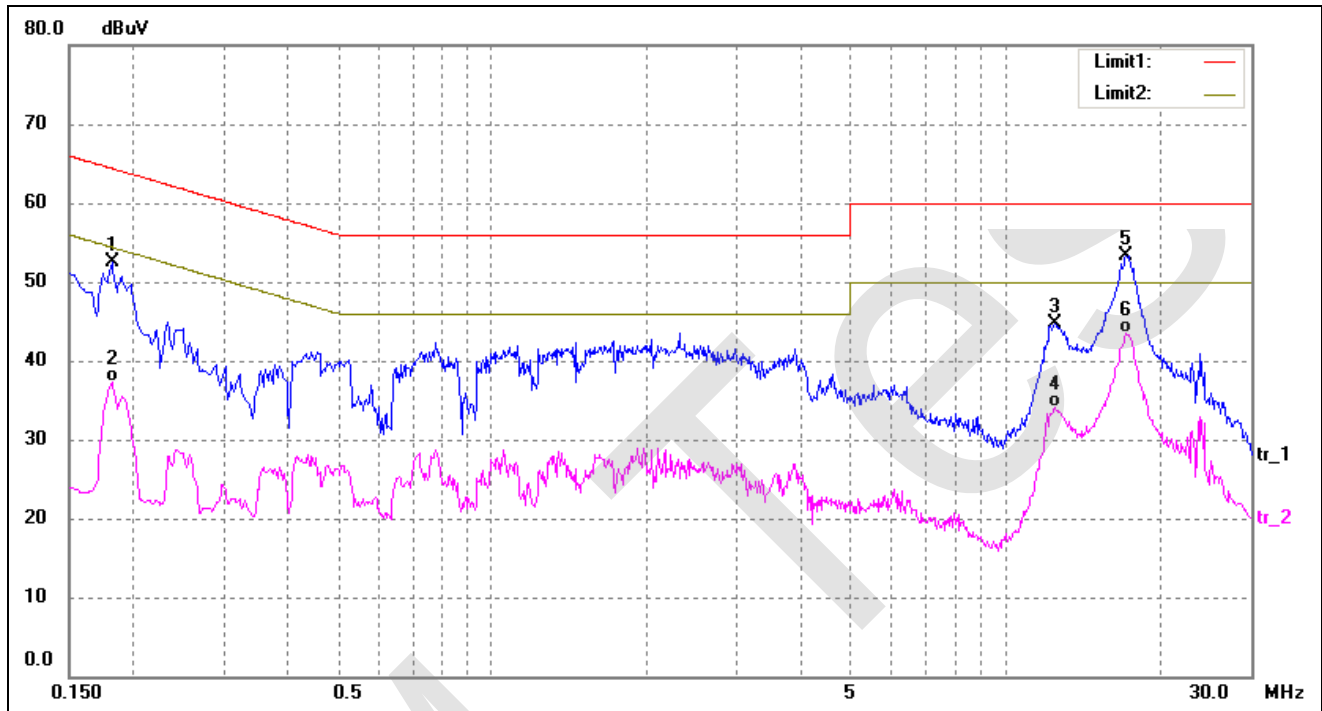
EUT: ITE/MEDICAL POWER SUPPLY

Tested Model: GTM91099-3009-4.0-T2

Operating Condition: TM1

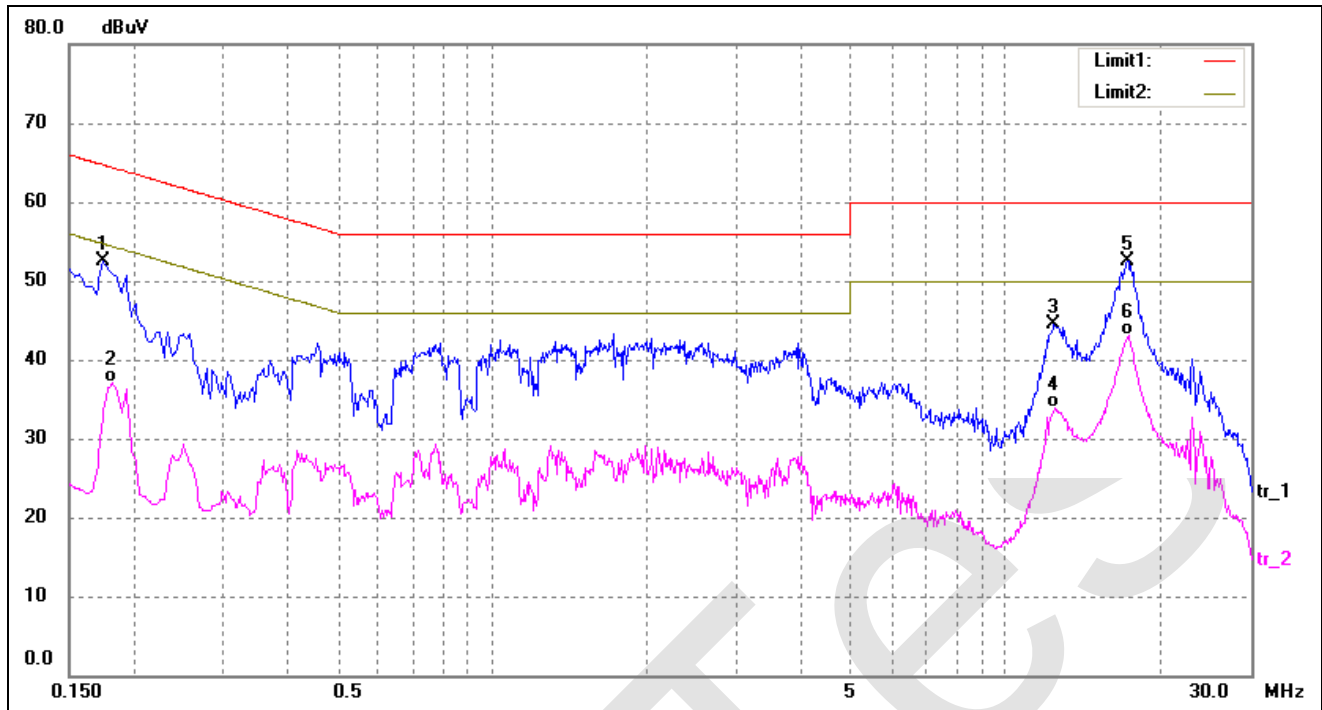
Comment: DC 5V

Test Specification: Neutral



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1819	42.95	9.50	52.45	64.39	-11.94	peak
2	0.1819	27.87	9.50	37.37	54.39	-17.02	AVG
3	12.5140	34.27	10.39	44.66	60.00	-15.34	peak
4	12.5140	23.79	10.39	34.18	50.00	-15.82	AVG
5	17.1780	42.88	10.44	53.32	60.00	-6.68	peak
6*	17.1780	33.15	10.44	43.59	50.00	-6.41	AVG

Test Specification: Line



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1740	43.08	9.50	52.58	64.76	-12.18	peak
2	0.1819	27.56	9.50	37.06	54.39	-17.33	AVG
3	12.3940	34.12	10.39	44.51	60.00	-15.49	peak
4	12.4620	23.60	10.39	33.99	50.00	-16.01	AVG
5	17.2260	42.02	10.44	52.46	60.00	-7.54	peak
6*	17.3420	32.64	10.44	43.08	50.00	-6.92	AVG

Plot of Conducted Emissions Test Data

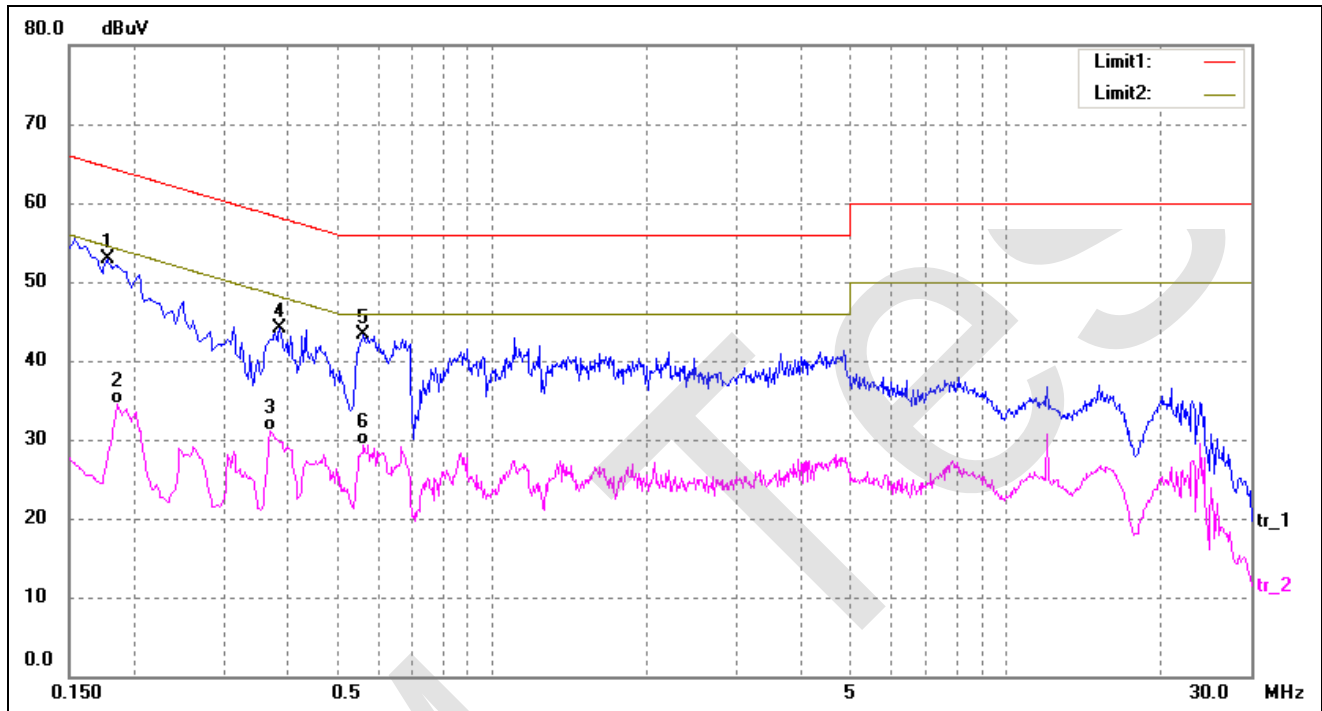
EUT: ITE/MEDICAL POWER SUPPLY

Tested Model: GTM91099-6048-T2

Operating Condition: TM1

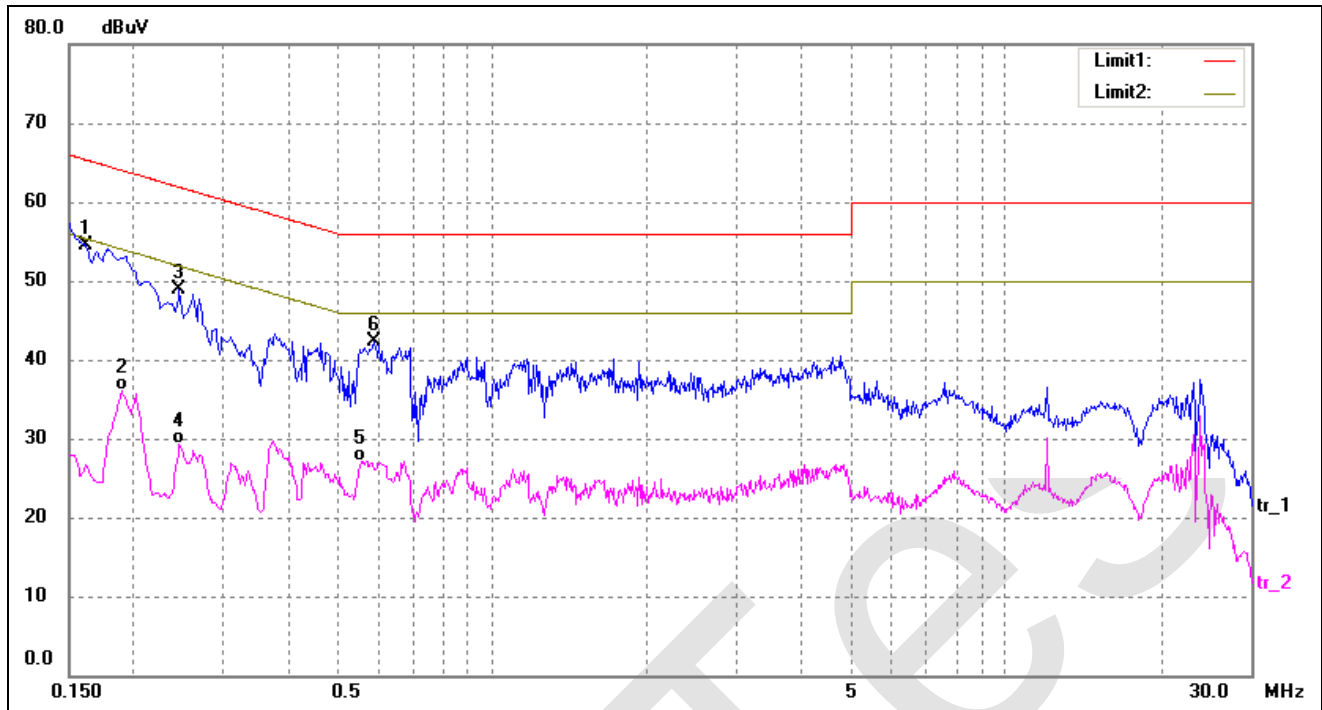
Comment: DC 48V

Test Specification: Neutral



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1*	0.1780	43.39	9.50	52.89	64.58	-11.69	peak
2	0.1860	25.07	9.50	34.57	54.21	-19.64	AVG
3	0.3700	21.55	9.50	31.05	48.50	-17.45	AVG
4	0.3860	34.66	9.50	44.16	58.15	-13.99	peak
5	0.5620	33.68	9.57	43.25	56.00	-12.75	peak
6	0.5620	19.73	9.57	29.30	46.00	-16.70	AVG

Test Specification: Line

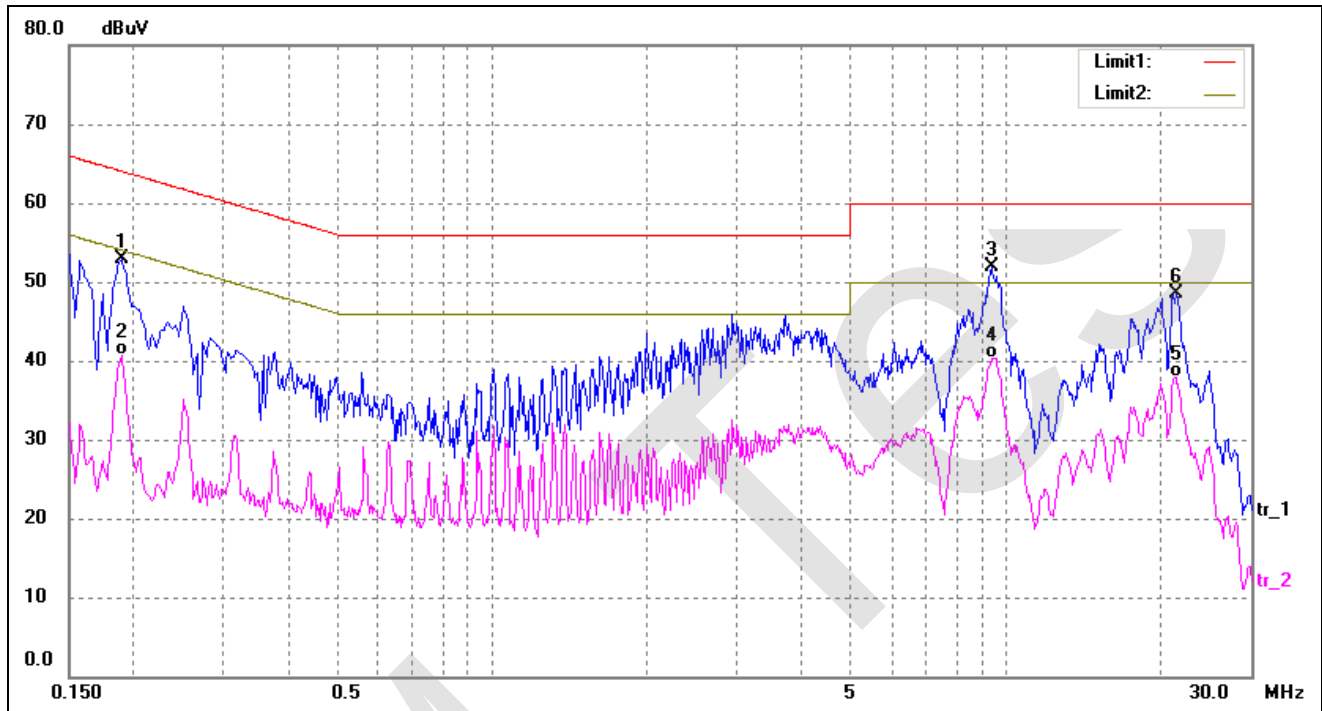


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1*	0.1620	44.98	9.50	54.48	65.36	-10.88	peak
2	0.1900	26.58	9.50	36.08	54.04	-17.96	AVG
3	0.2460	39.36	9.50	48.86	61.89	-13.03	peak
4	0.2460	19.79	9.50	29.29	51.89	-22.60	AVG
5	0.5580	17.59	9.57	27.16	46.00	-18.84	AVG
6	0.5900	32.78	9.58	42.36	56.00	-13.64	peak

Plot of Conducted Emissions Test Data

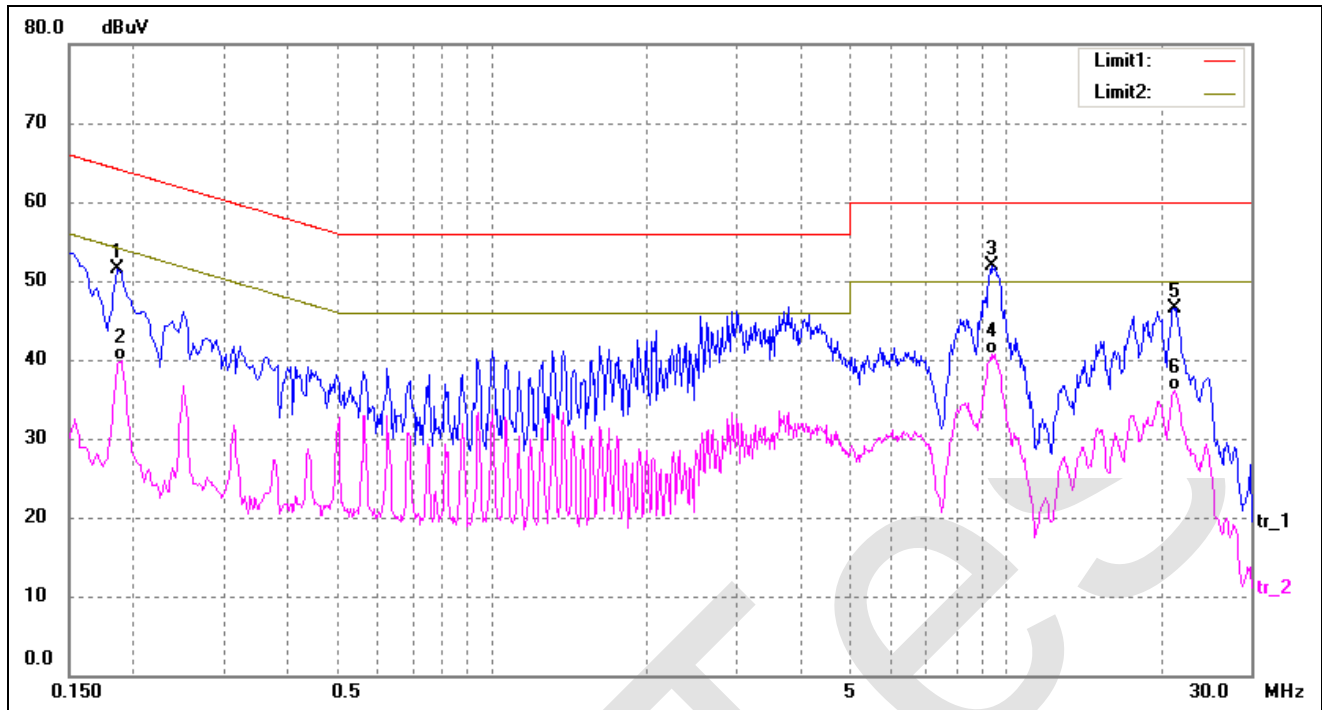
EUT: ITE/Medical Power Supply
Tested Model: GTM96600-4005-R3A
Operating Condition: TM1
Comment: AC 230V/50Hz

Test Specification: Line



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1900	43.19	9.81	53.00	64.03	-11.03	peak
2	0.1900	30.95	9.81	40.76	54.03	-13.27	AVG
3*	9.3540	42.44	9.54	51.98	60.00	-8.02	peak
4	9.3540	30.83	9.54	40.37	50.00	-9.63	AVG
5	21.3020	28.17	9.68	37.85	50.00	-12.15	AVG
6	21.4540	38.75	9.68	48.43	60.00	-11.57	peak

Test Specification: Neutral

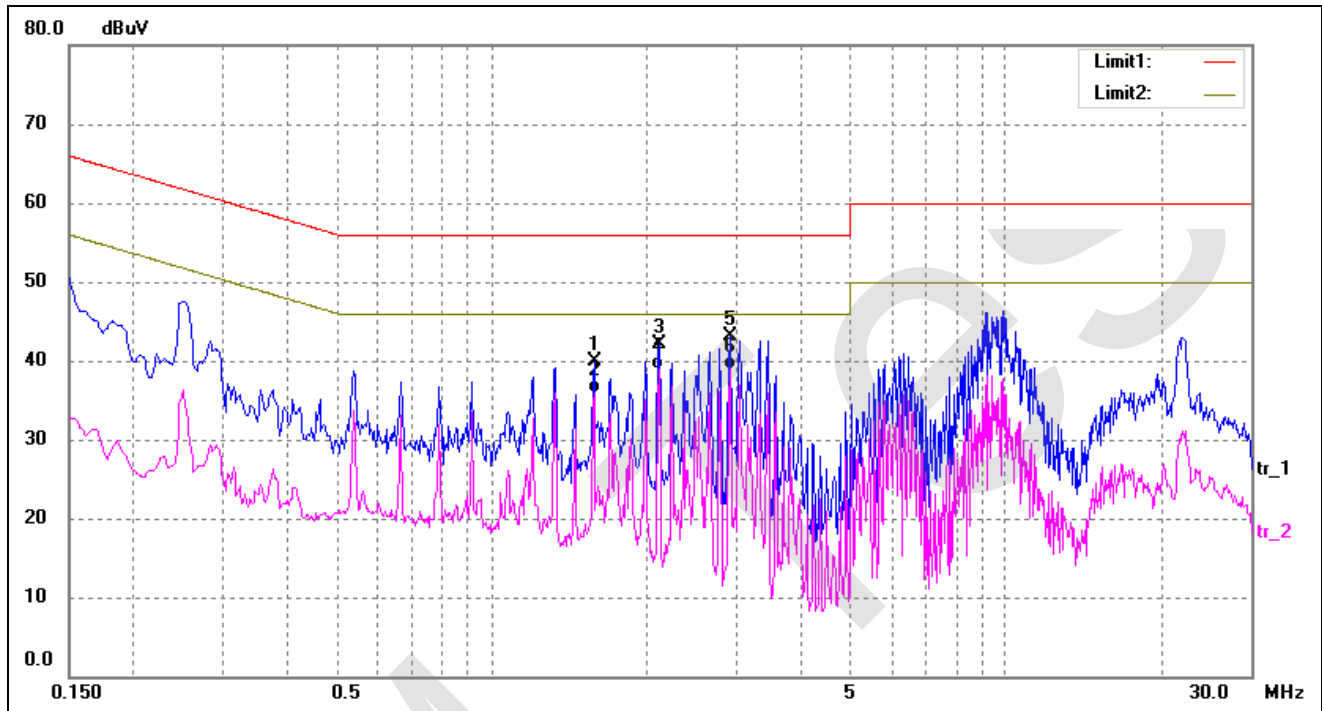


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1860	41.63	9.81	51.44	64.21	-12.77	peak
2	0.1900	30.09	9.81	39.90	54.04	-14.14	AVG
3*	9.3620	42.46	9.54	52.00	60.00	-8.00	peak
4	9.3620	31.21	9.54	40.75	50.00	-9.25	AVG
5	21.2740	36.91	9.68	46.59	60.00	-13.41	peak
6	21.2740	26.38	9.68	36.06	50.00	-13.94	AVG

Plot of Conducted Emissions Test Data

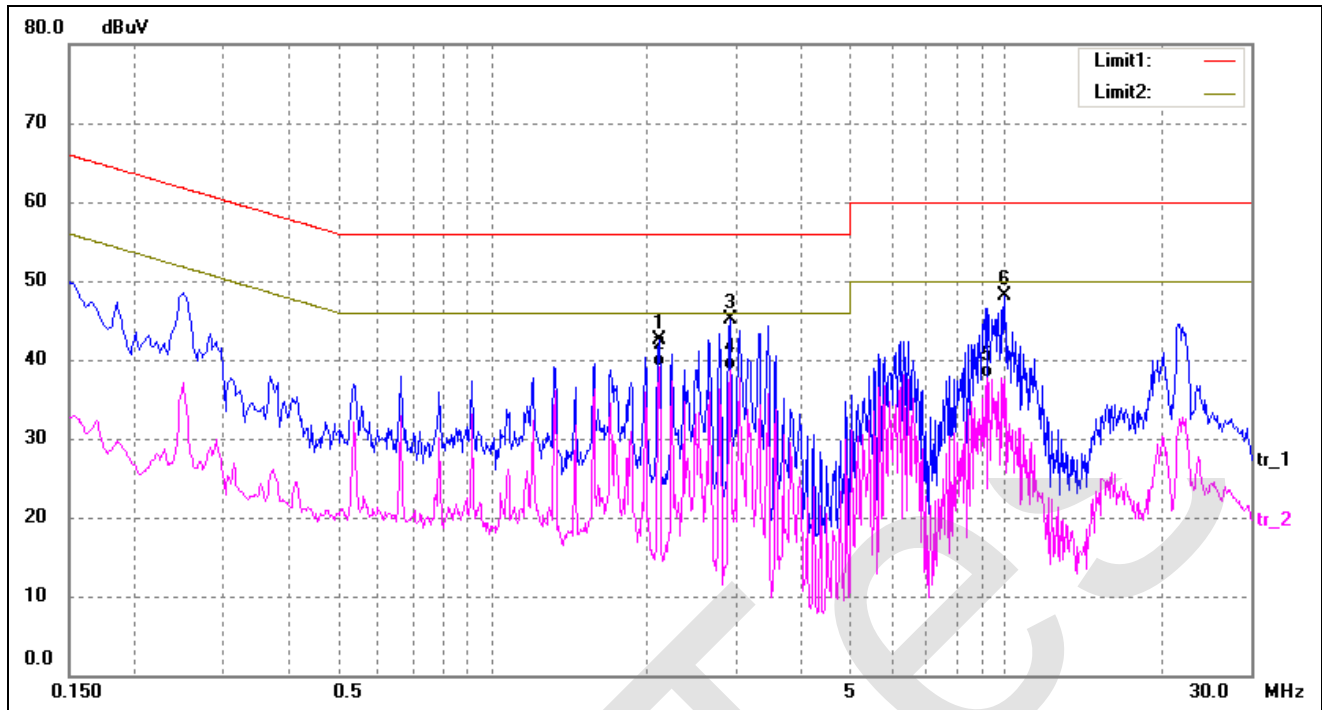
EUT: ITE/Medical Power Supply
Tested Model: GTM96600-6054-R2
Operating Condition: TM1
Comment: AC 230V/50Hz

Test Specification: Line



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	1.5780	30.23	9.75	39.98	56.00	-16.02	peak
2	1.5780	26.18	9.75	35.93	46.00	-10.07	AVG
3	2.1140	32.36	9.73	42.09	56.00	-13.91	peak
4	2.1140	29.12	9.73	38.85	46.00	-7.15	AVG
5	2.9020	33.36	9.71	43.07	56.00	-12.93	peak
6*	2.9020	29.24	9.71	38.95	46.00	-7.05	AVG

Test Specification: Neutral



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	2.1140	32.68	9.73	42.41	56.00	-13.59	peak
2*	2.1140	29.33	9.73	39.06	46.00	-6.94	AVG
3	2.9020	35.43	9.71	45.14	56.00	-10.86	peak
4	2.9020	28.99	9.71	38.70	46.00	-7.30	AVG
5	9.2500	28.17	9.54	37.71	50.00	-12.29	AVG
6	9.9180	38.49	9.52	48.01	60.00	-11.99	peak

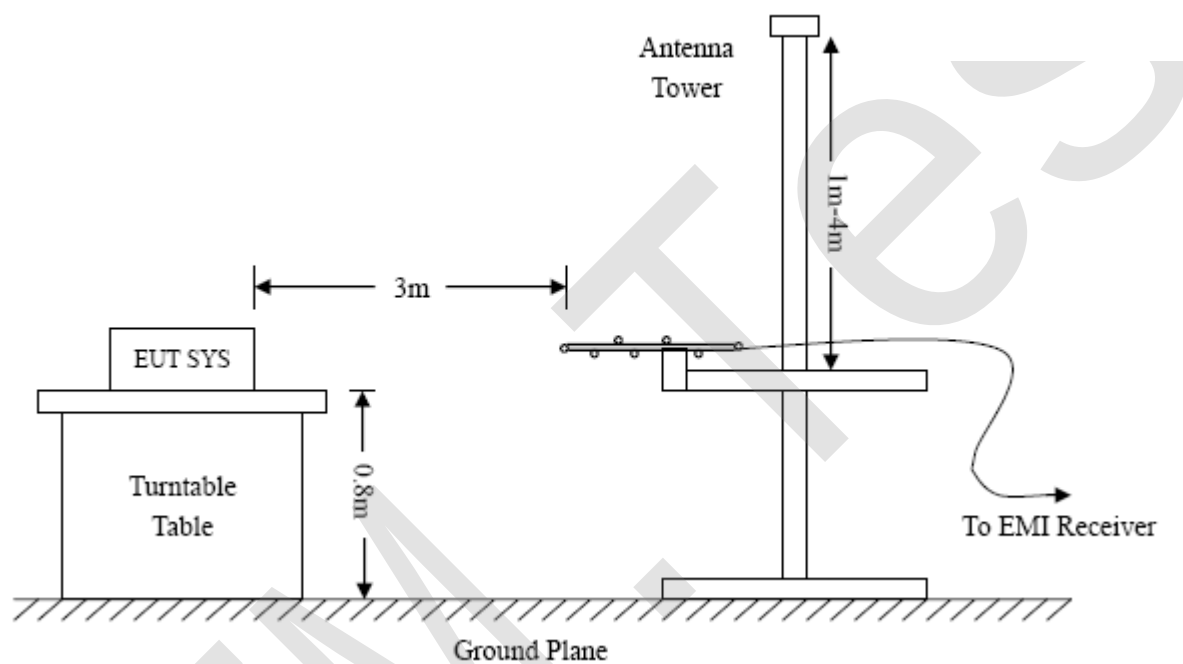
4. Radiated Disturbance

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 Procedure

Test is conducting under the description of EN55022 Information technology equipment - Radio disturbance characteristics - Limits and methods of measurement.



4.3 Corrected Amplitude & Margin Calculation

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

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

The “**Margin**” column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of -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:

$$\text{Margin} = \text{Corr. Ampl.} - \text{EN 60601-1-2 Class B Limit}$$

4.4 Environmental Conditions

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

4.5 Summary of Test Results/Plots

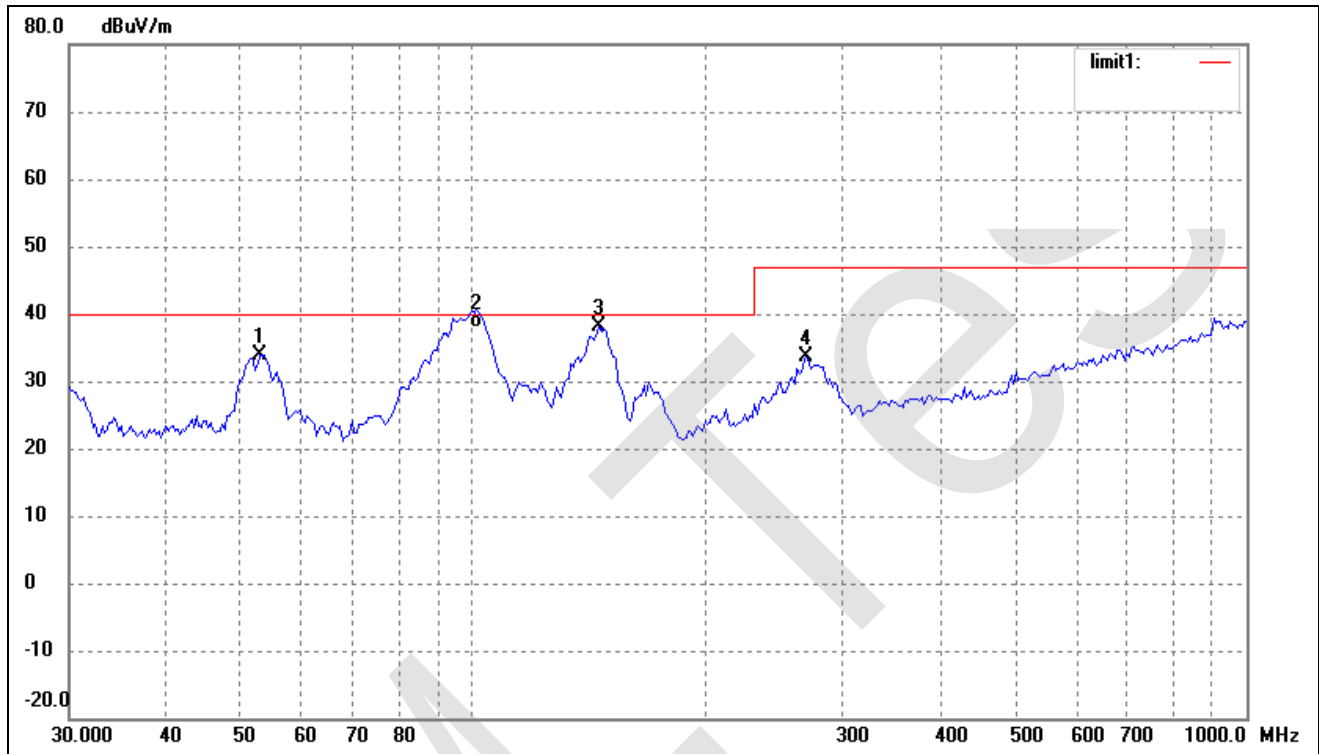
According to the data in section 4.5, the EUT complied with the EN 60601-1-2 Class B standards, and had the worst margin is:

-1.14 dB at 33.0950 MHz in the Vertical polarization, GTM91099-6048-FW Class II 48V Model, 30 MHz to 1 GHz, 3Meters

Plot of Radiated Emissions Test Data

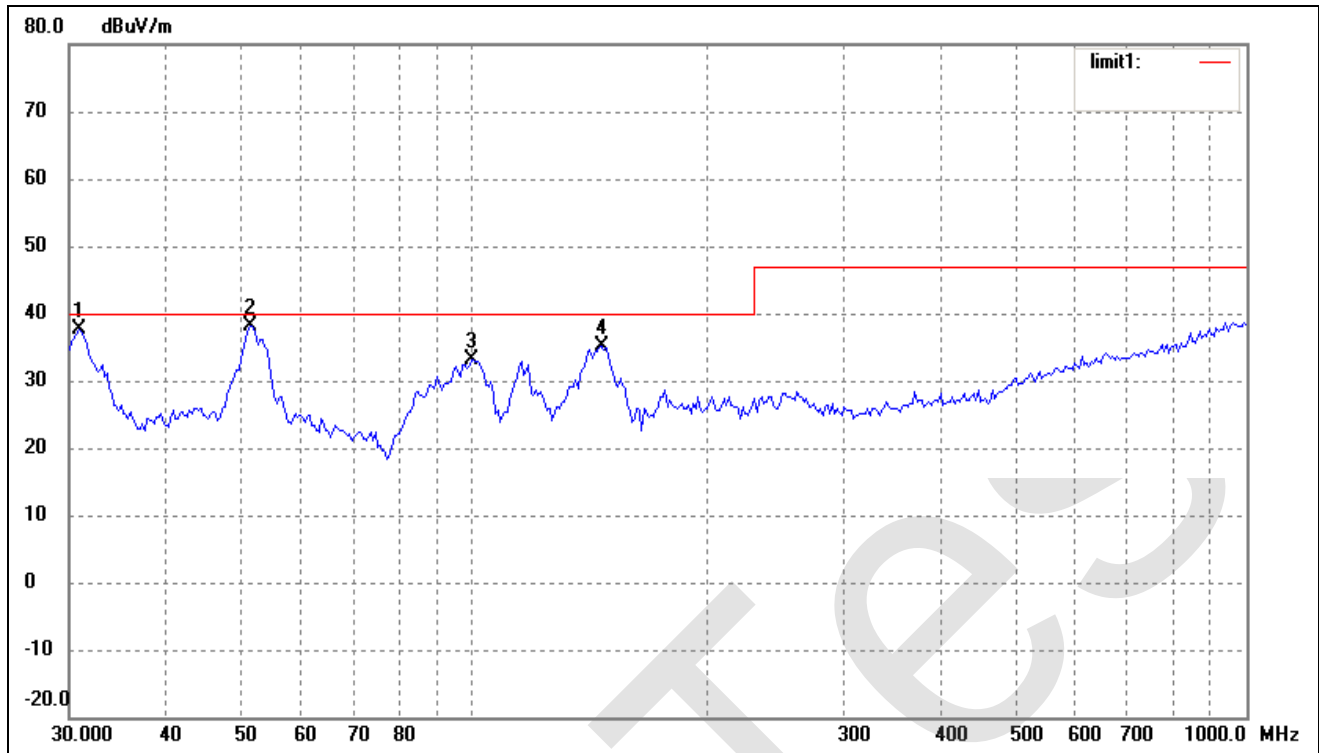
EUT: ITE/Medical Power Supply
 Tested Model: GTM91099-6048-T3A
 Operating Condition: TM1
 Comment: AC 230V/50Hz

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	52.9453	26.03	7.85	33.88	40.00	-6.12	359	200	peak
2	100.9340	29.60	8.34	37.94	40.00	-2.06	359	200	QP
3	145.3506	34.08	4.03	38.11	40.00	-1.89	359	200	peak
4	269.4284	24.50	9.22	33.72	47.00	-13.28	359	200	peak

Test Specification: Vertical

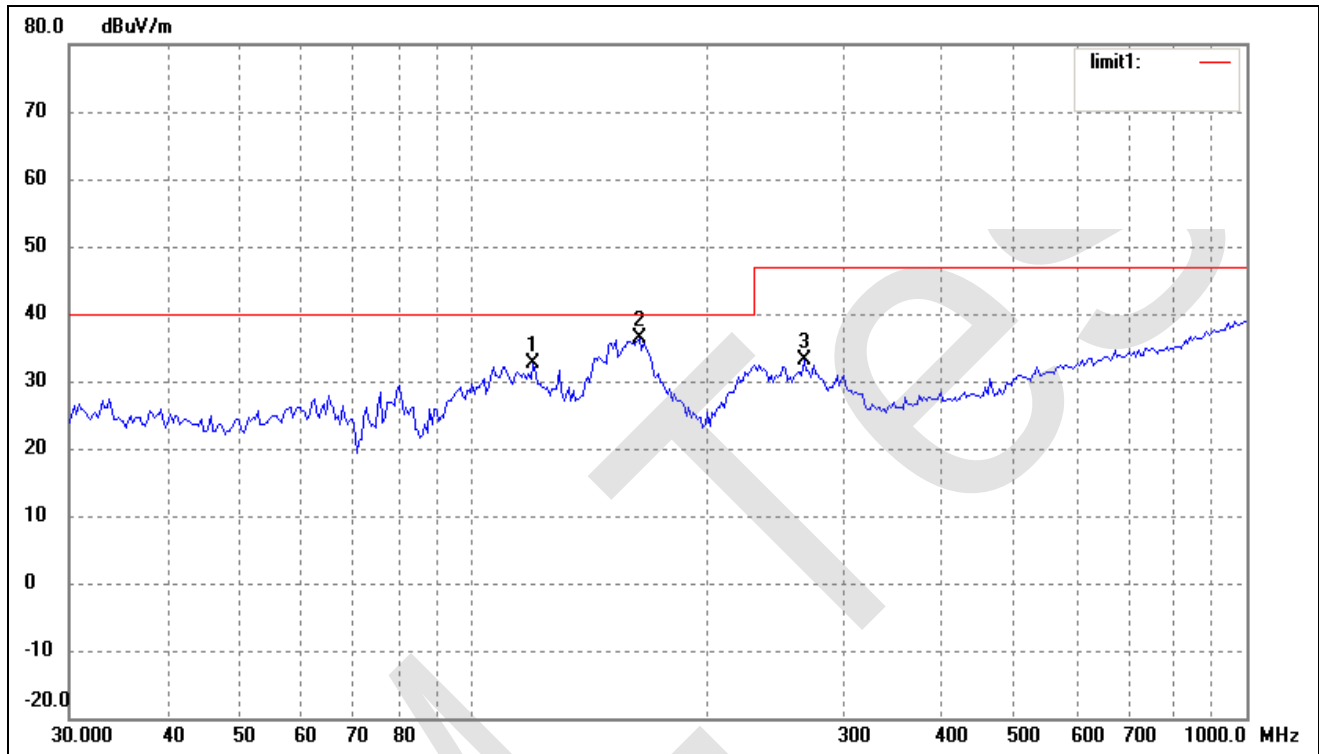


No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	30.8535	30.77	6.77	37.54	40.00	-2.46	359	100	peak
2	51.4807	30.25	7.91	38.16	40.00	-1.84	359	100	peak
3	99.5281	24.68	8.40	33.08	40.00	-6.92	359	200	peak
4	146.3735	31.14	4.04	35.18	40.00	-4.82	359	200	peak

Plot of Radiated Emissions Test Data

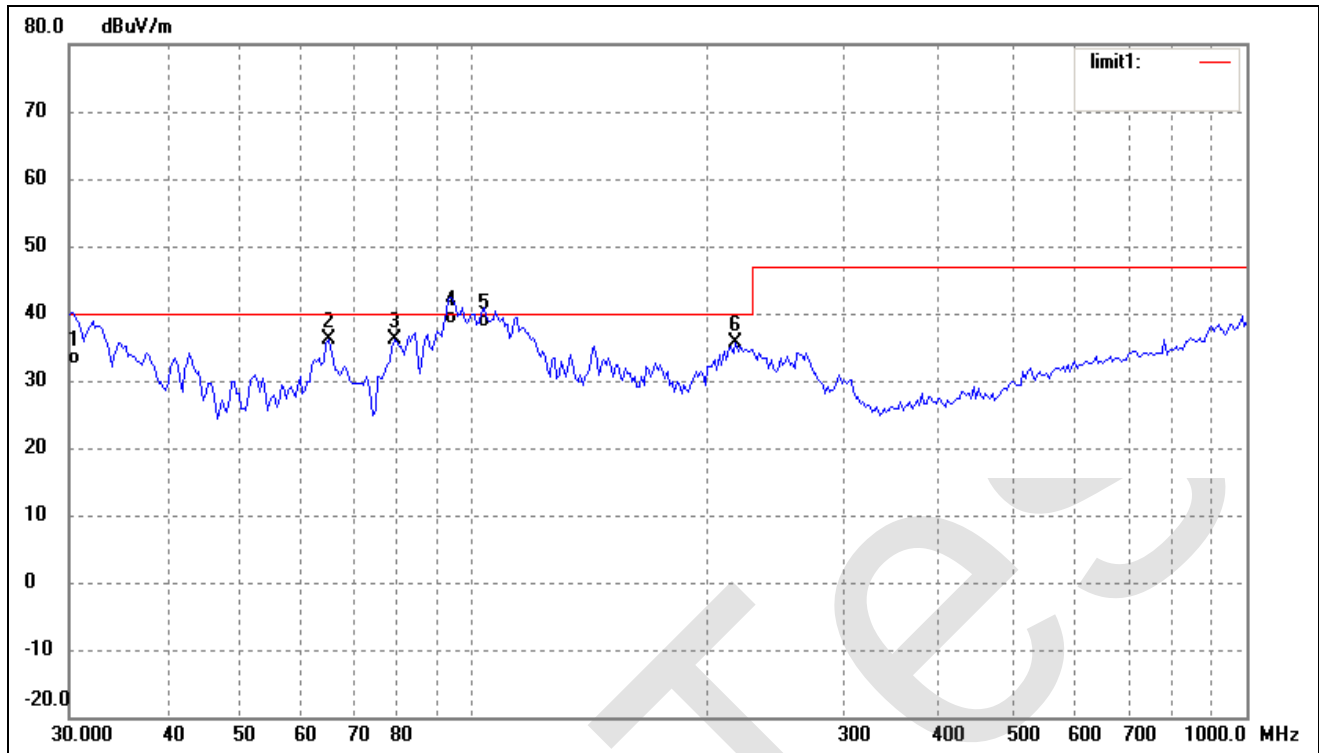
EUT: ITE/Medical Power Supply
 Tested Model: GTM91099-6012-T2
 Operating Condition: TM1
 Comment: AC 230V/50Hz

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	119.4361	26.57	6.04	32.61	40.00	-7.39	359	200	peak
2	163.7550	31.60	4.67	36.27	40.00	-3.73	359	200	peak
3	267.5455	23.95	9.17	33.12	47.00	-13.88	359	200	peak

Test Specification: Vertical

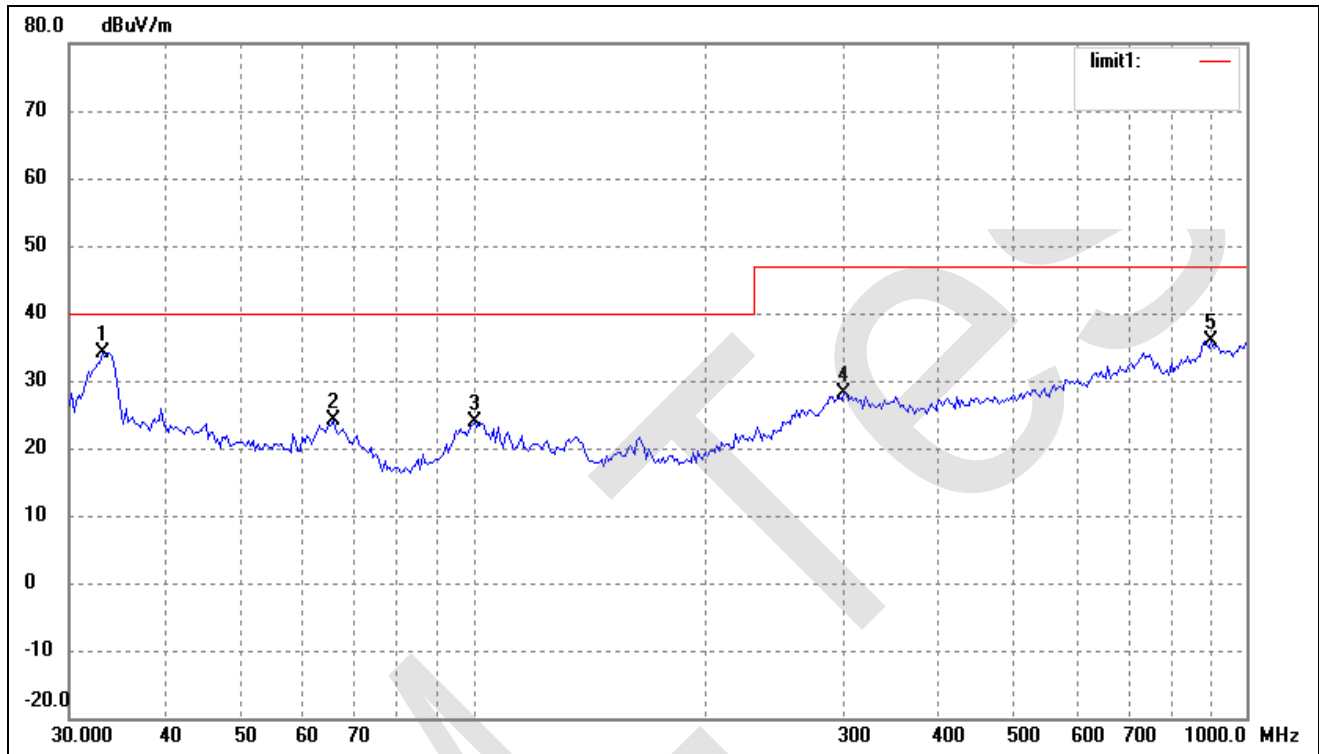


No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(°)	(cm)	
1	30.2111	25.60	6.77	32.37	40.00	-7.63	359	100	QP
2	64.8865	30.50	5.63	36.13	40.00	-3.87	359	100	peak
3	78.9652	32.76	3.46	36.22	40.00	-3.78	359	100	peak
4	93.4402	30.60	7.76	38.36	40.00	-1.64	359	100	QP
5	103.0800	29.80	8.18	37.98	40.00	-2.02	359	100	QP
6	218.3085	28.46	7.23	35.69	40.00	-4.31	359	100	peak

Plot of Radiated Emissions Test Data

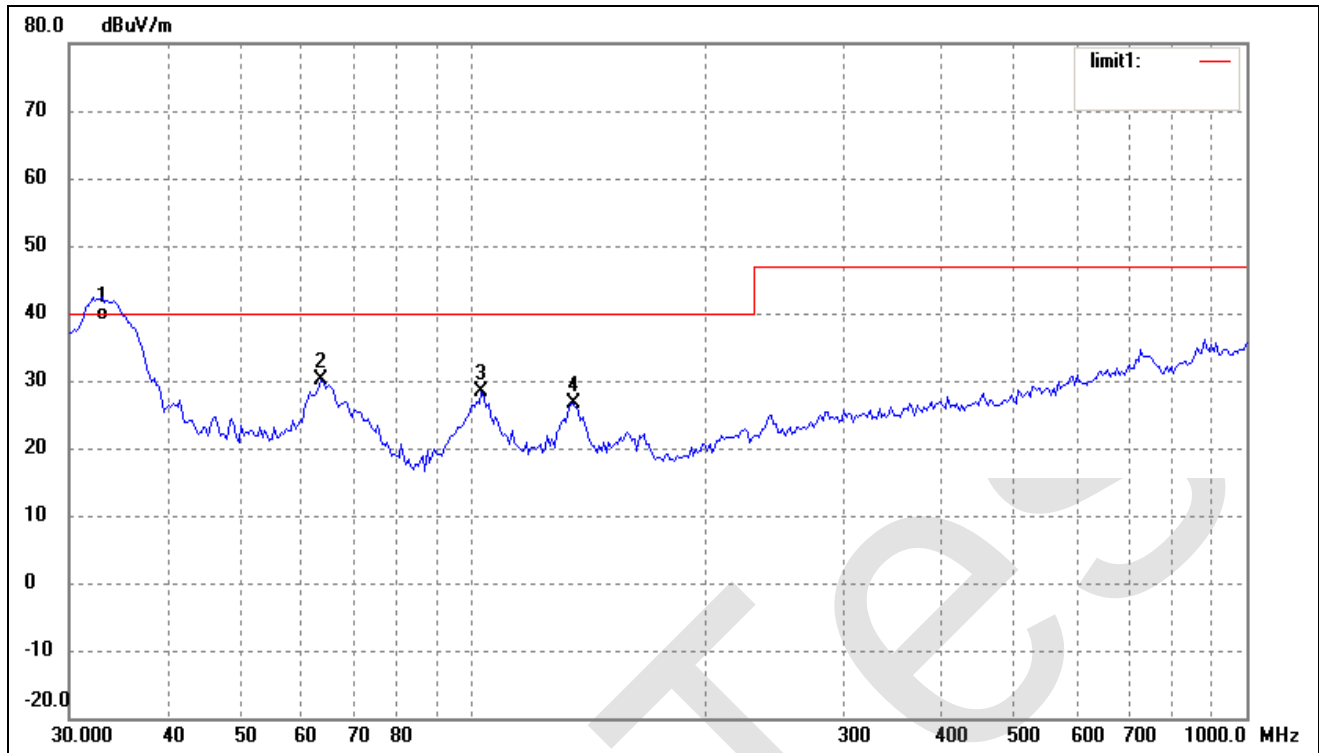
EUT: ITE/Medical Power Supply
 Tested Model: GTM91099-6048-FW Class II 48V
 Operating Condition: TM1
 Comment: AC 230V/50Hz

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	33.0950	25.63	8.56	34.19	40.00	-5.81	360	100	peak
2	65.8031	20.39	3.85	24.24	40.00	-15.76	360	100	peak
3	100.2286	17.03	6.81	23.84	40.00	-16.16	360	100	peak
4	301.4224	18.04	10.20	28.24	47.00	-18.76	360	100	peak
5	900.1474	16.61	19.38	35.99	47.00	-11.01	360	100	peak

Test Specification: Vertical

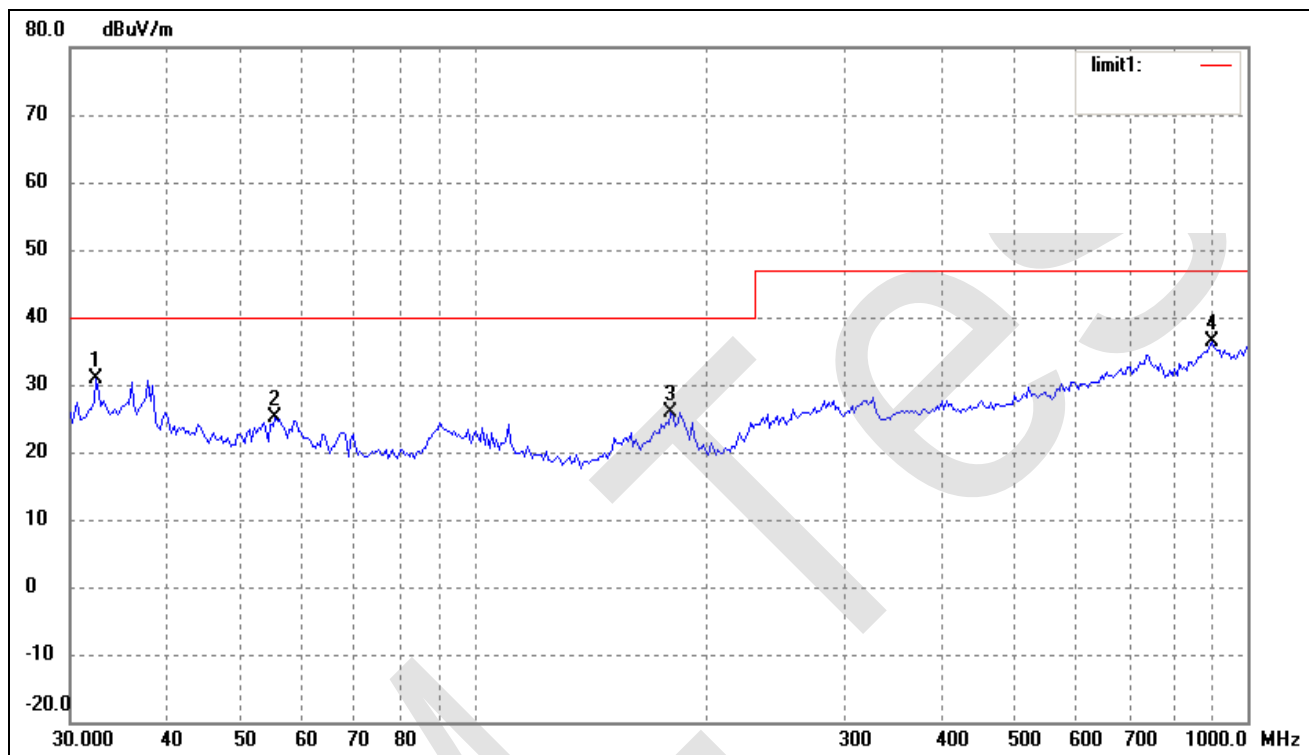


No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	33.0950	30.30	8.56	38.86	40.00	-1.14	360	100	QP
2	63.5356	25.48	4.57	30.05	40.00	-9.95	360	100	peak
3	102.3597	21.76	6.61	28.37	40.00	-11.63	360	100	peak
4	134.5592	22.95	3.78	26.73	40.00	-13.27	360	100	peak

Plot of Radiated Emissions Test Data

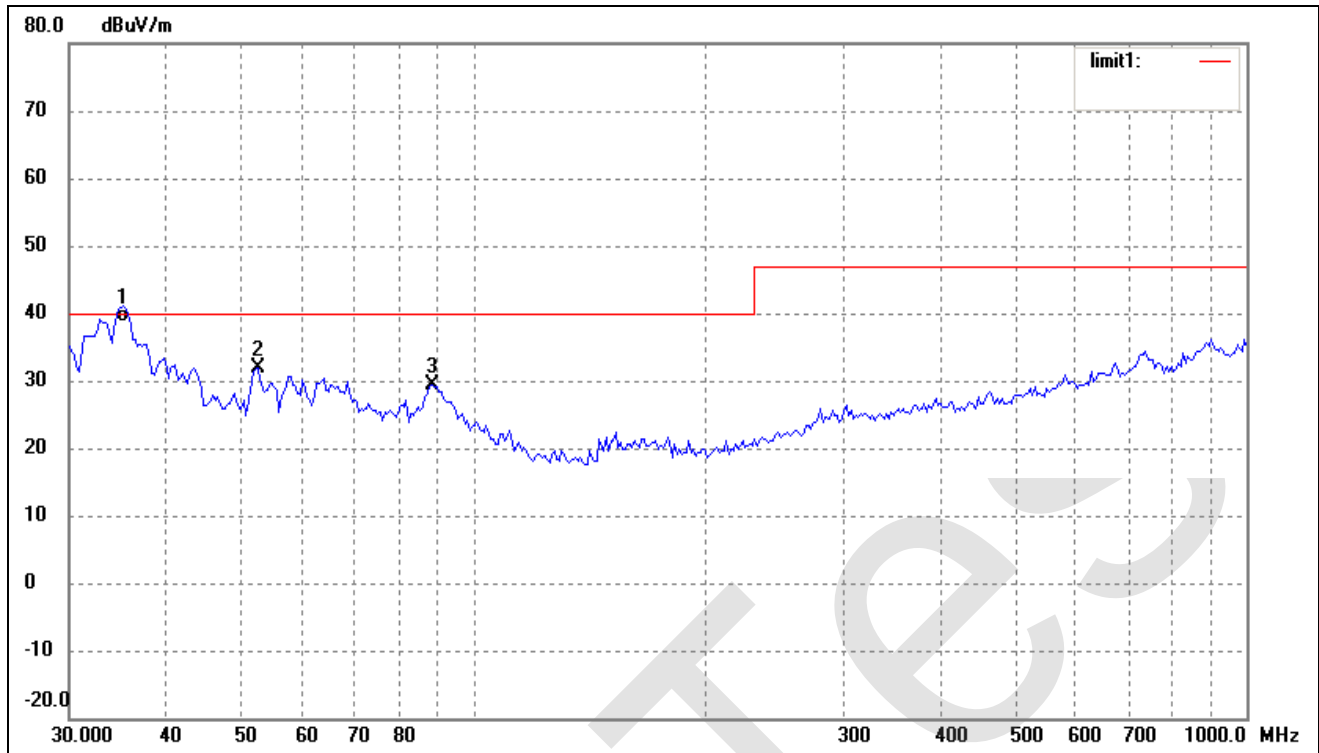
EUT: ITE/Medical Power Supply
 Tested Model: GTM91099-3009-4.0-FW Class II 5V
 Operating Condition: TM1
 Comment: AC 230V/50Hz

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	32.4059	22.39	8.44	30.83	40.00	-9.17	360	100	peak
2	55.2207	18.89	6.14	25.03	40.00	-14.97	360	100	peak
3	179.3864	22.24	3.74	25.98	40.00	-14.02	360	100	peak
4	900.1474	16.92	19.38	36.30	47.00	-10.70	360	100	peak

Test Specification: Vertical

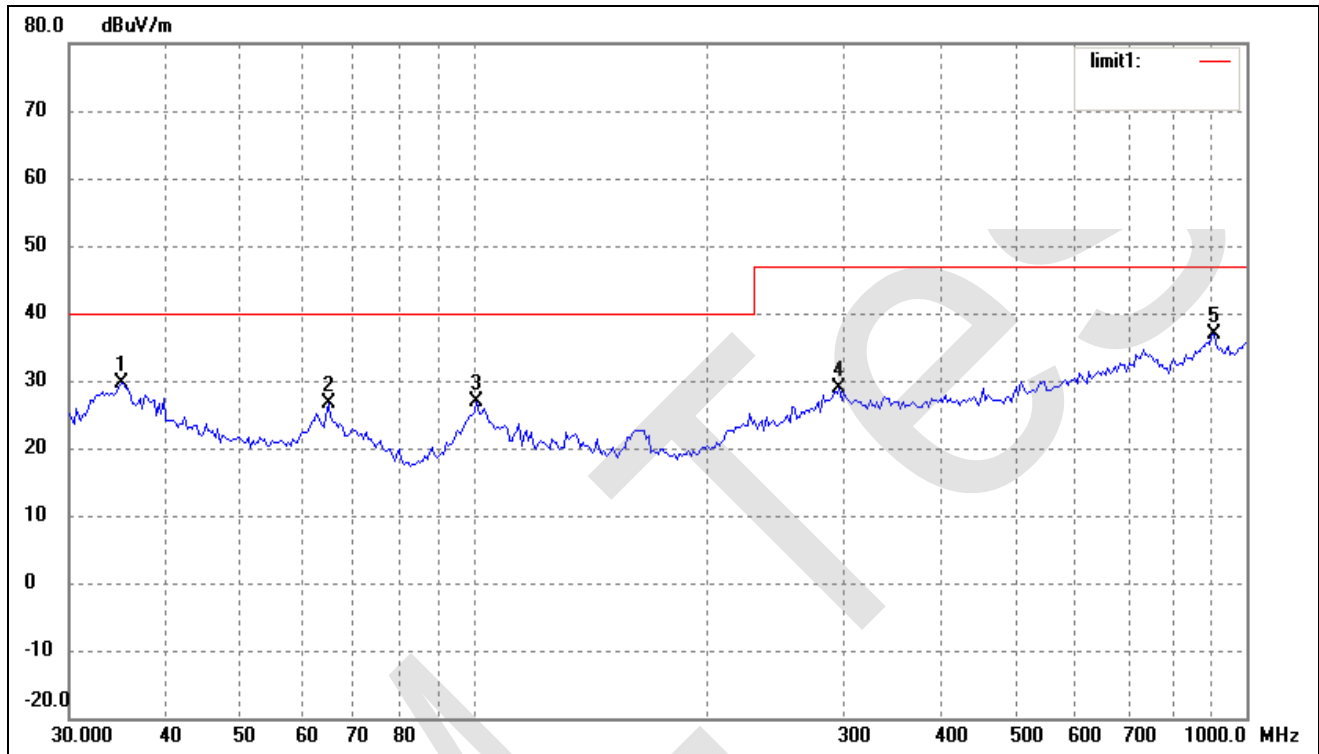


No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	35.2512	29.60	8.92	38.52	40.00	-1.48	360	100	QP
2	52.5753	25.50	6.38	31.88	40.00	-8.12	360	100	peak
3	88.3421	25.34	3.94	29.28	40.00	-10.72	360	100	peak

Plot of Radiated Emissions Test Data

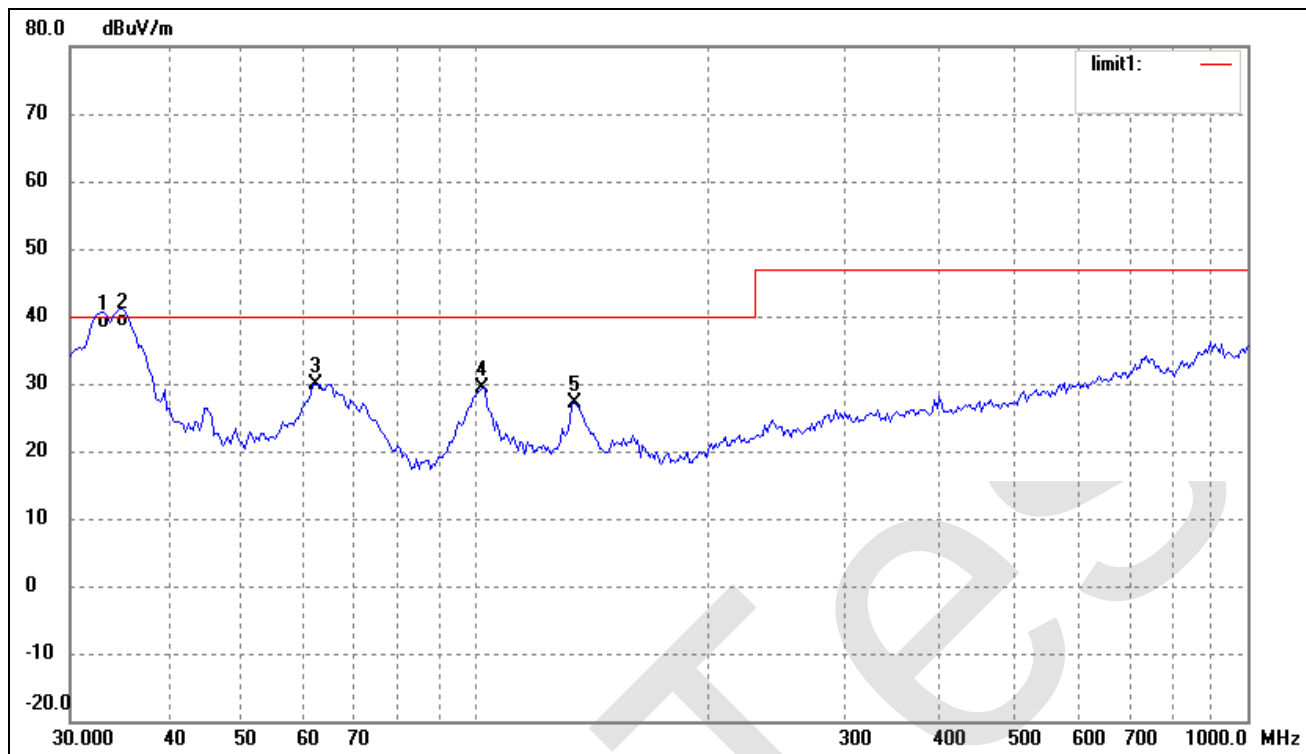
EUT: ITE/Medical Power Supply
 Tested Model: GTM91099-6048-F Class I 48V
 Operating Condition: TM1
 Comment: AC 230V/50Hz

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	35.0048	20.67	8.88	29.55	40.00	-10.45	360	100	peak
2	64.8865	22.45	4.15	26.60	40.00	-13.40	360	100	peak
3	100.9340	20.19	6.75	26.94	40.00	-13.06	360	100	peak
4	297.2241	18.93	10.04	28.97	47.00	-18.03	360	100	peak
5	906.4824	17.81	19.15	36.96	47.00	-10.04	360	100	peak

Test Specification: Vertical

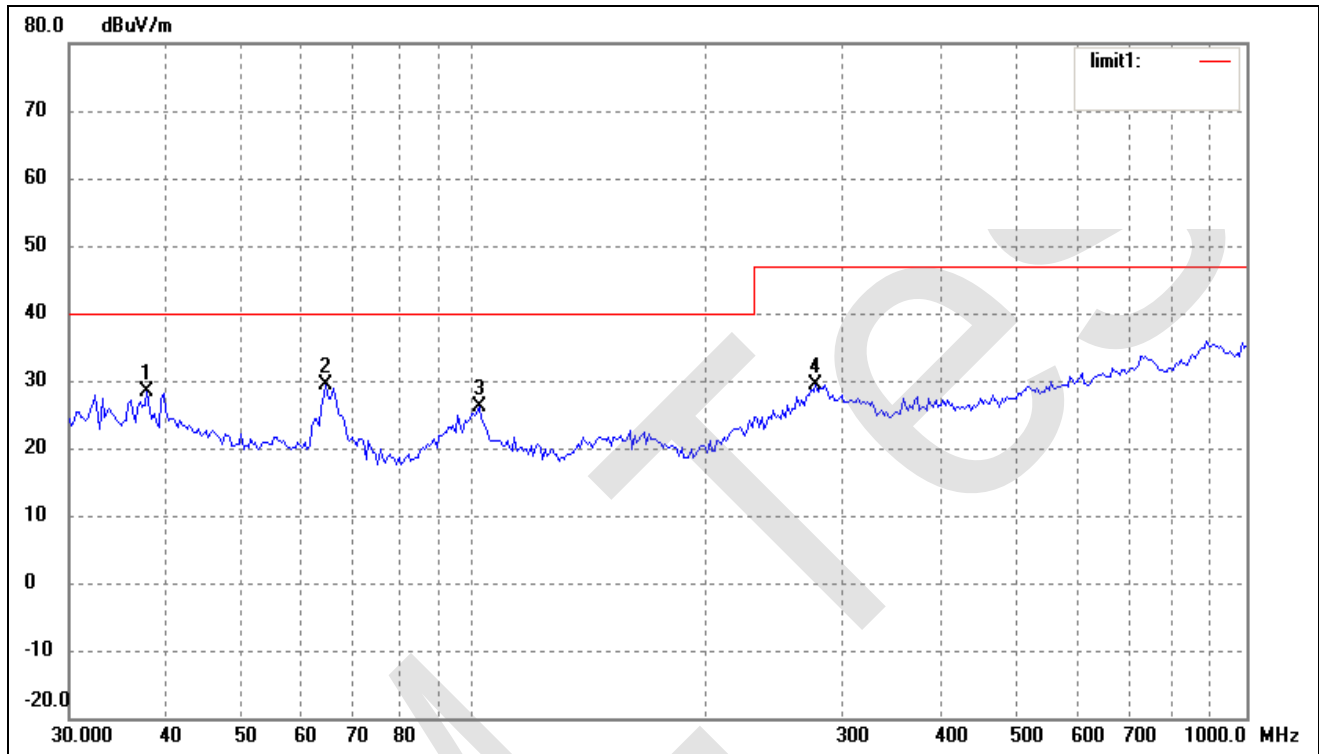


No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(°)	(cm)	
1	33.0950	29.50	8.56	38.06	40.00	-1.94	360	100	QP
2	35.0048	29.40	8.88	38.28	40.00	-1.72	360	100	QP
3	62.2128	25.00	4.99	29.99	40.00	-10.01	360	100	peak
4	102.3597	22.89	6.61	29.50	40.00	-10.50	360	100	peak
5	134.5592	23.25	3.78	27.03	40.00	-12.97	360	100	peak

Plot of Radiated Emissions Test Data

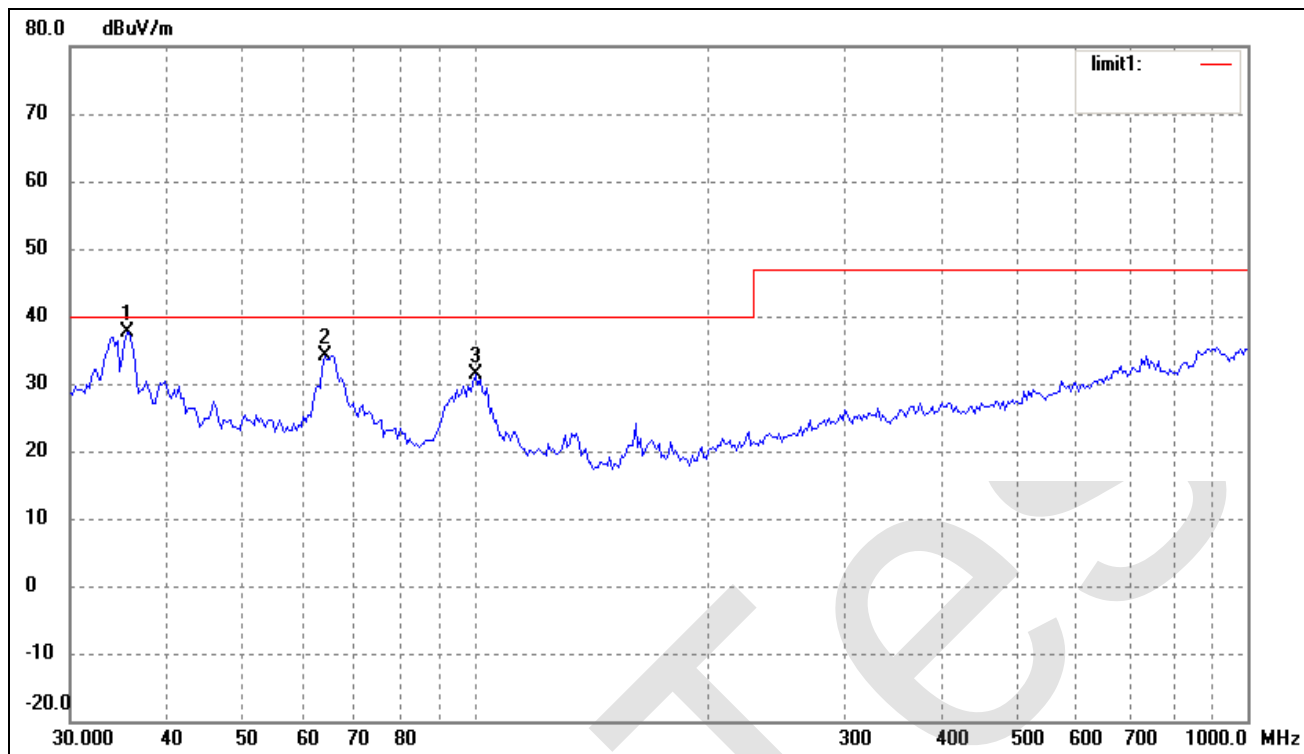
EUT: ITE/Medical Power Supply
 Tested Model: GTM91099-3009-4.0-F Class I 5V
 Operating Condition: TM1
 Comment: AC 230V/50Hz

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	37.8121	19.11	9.33	28.44	40.00	-11.56	360	100	peak
2	64.4331	25.07	4.29	29.36	40.00	-10.64	360	100	peak
3	101.6443	19.37	6.67	26.04	40.00	-13.96	360	100	peak
4	277.0935	20.37	9.01	29.38	47.00	-17.62	360	100	peak

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	35.4993	28.73	8.95	37.68	40.00	-2.32	360	100	peak
2	63.9828	29.77	4.44	34.21	40.00	-5.79	360	100	peak
3	100.2286	24.62	6.81	31.43	40.00	-8.57	360	100	peak

Plot of Radiated Emissions Test Data

EUT: ITE/MEDICAL POWER SUPPLY

Tested Model: GTM91099-3009-4.0-T2

Operating Condition: TM1

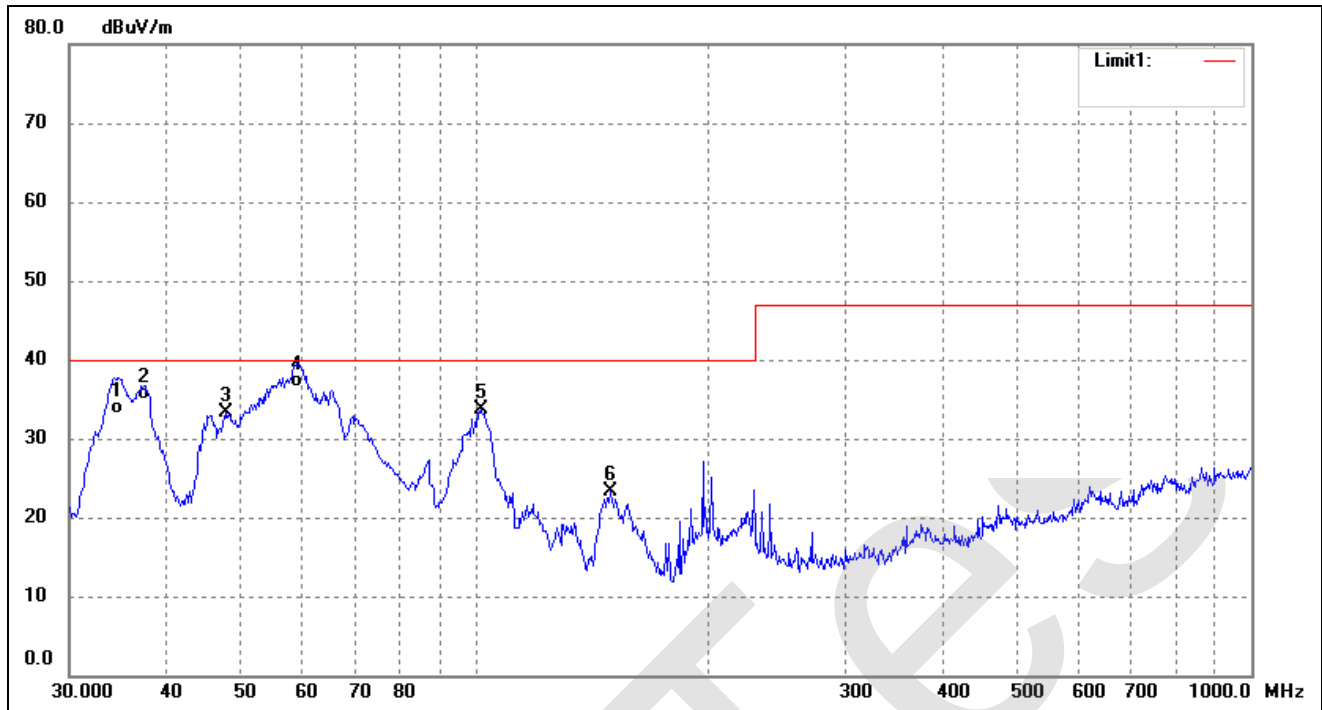
Comment: DC 5V

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	59.6493	38.00	-7.15	30.85	40.00	-9.15	100	100	peak
2	71.0803	37.50	-10.57	26.93	40.00	-13.07	100	100	peak
3	102.3597	29.91	-7.27	22.64	40.00	-17.36	100	100	peak
4	223.7334	33.28	-8.73	24.55	40.00	-15.45	100	100	peak
5	603.5392	28.48	0.66	29.14	47.00	-17.86	100	100	peak
6	747.4826	25.59	2.99	28.58	47.00	-18.42	100	100	peak

Test Specification: Vertical



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	34.5173	43.90	-10.85	33.05	40.00	-6.95	100	100	QP
2	37.4165	45.20	-10.38	34.82	40.00	-5.18	100	100	QP
3	47.8260	43.22	-9.96	33.26	40.00	-6.74	100	100	peak
4	59.0251	46.50	-9.90	36.60	40.00	-3.40	100	100	QP
5	101.6443	43.99	-10.31	33.68	40.00	-6.32	100	100	peak
6	149.4857	35.76	-12.53	23.23	40.00	-16.77	100	100	peak

Plot of Radiated Emissions Test Data

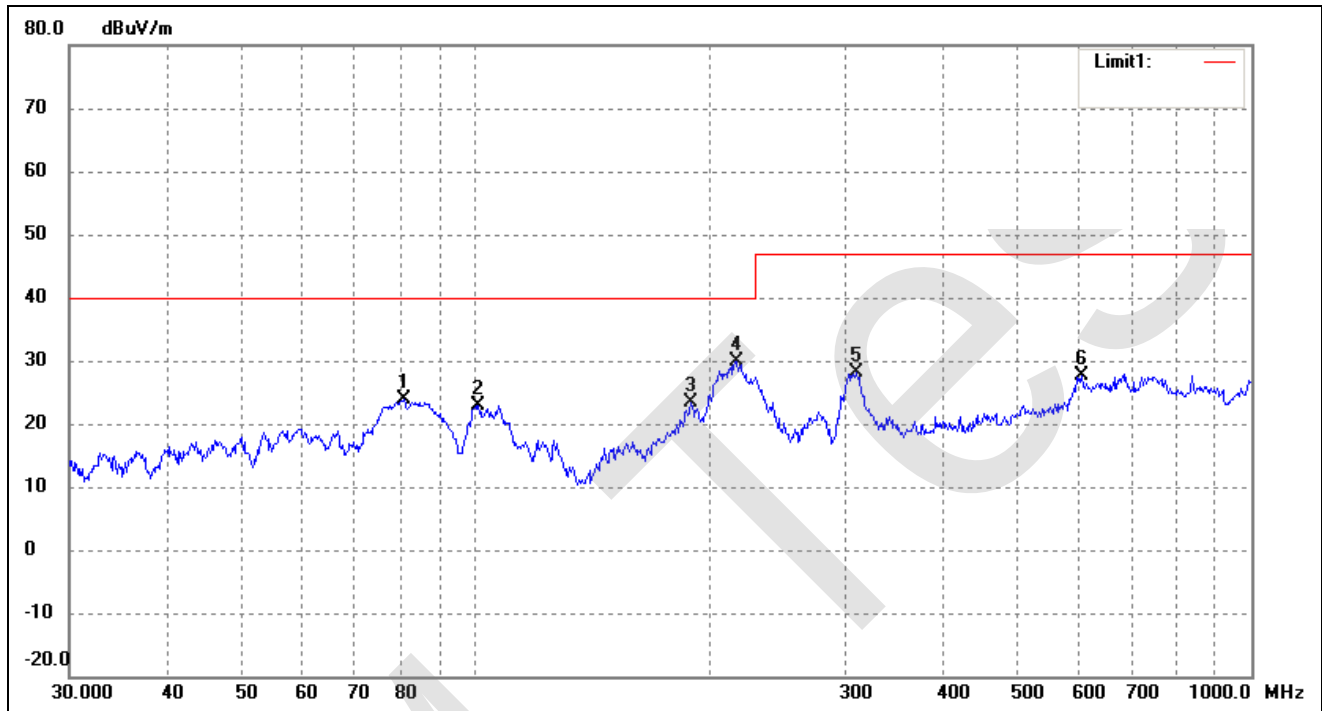
EUT: ITE/MEDICAL POWER SUPPLY

Tested Model: GTM91099-6048-T2

Operating Condition: TM1

Comment: DC 48V

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	80.9275	35.39	-11.60	23.79	40.00	-16.21	100	100	peak
2	100.9340	29.93	-7.10	22.83	40.00	-17.17	100	100	peak
3	189.7385	32.75	-9.47	23.28	40.00	-16.72	100	100	peak
4	216.7828	38.72	-8.83	29.89	40.00	-10.11	100	100	peak
5	309.9977	34.45	-6.35	28.10	47.00	-18.90	100	100	peak
6	605.6592	26.73	0.83	27.56	47.00	-19.44	100	100	peak

Test Specification: Vertical

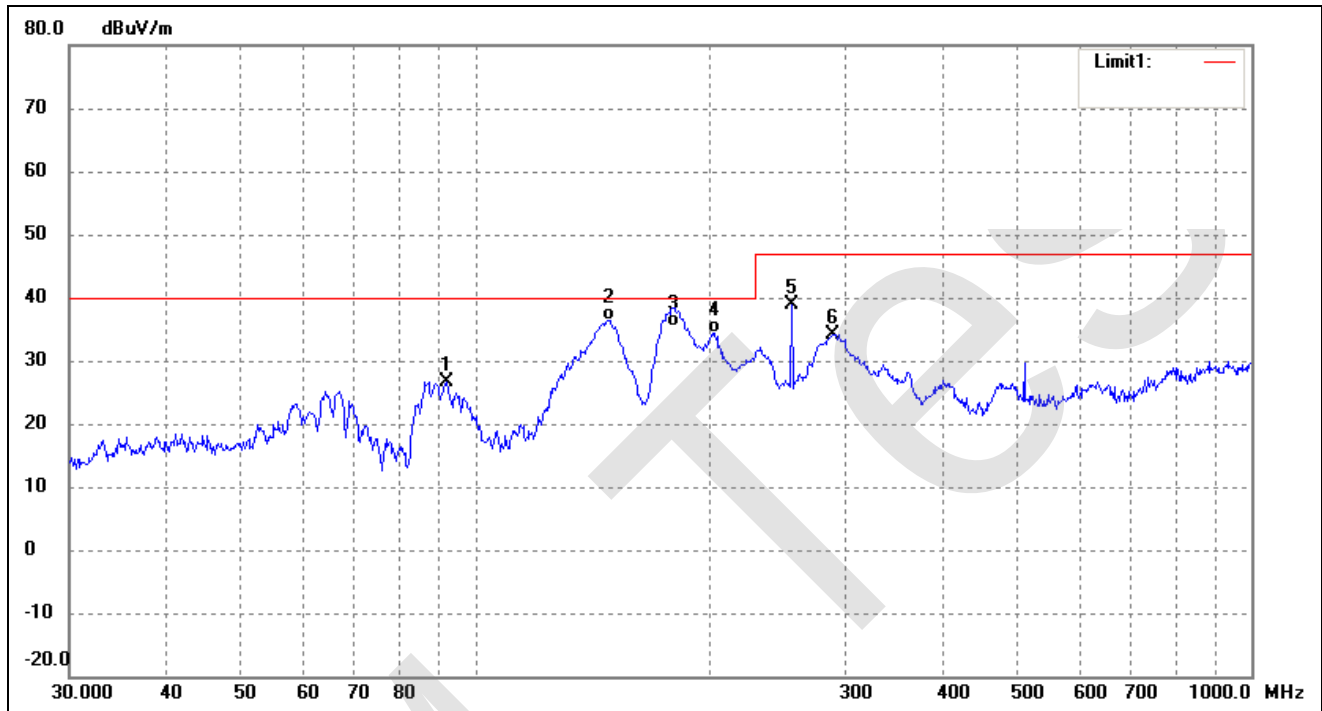


No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	33.4449	43.82	-11.01	32.81	40.00	-7.19	100	100	peak
2	36.6375	42.62	-10.51	32.11	40.00	-7.89	100	100	peak
3	59.8588	43.02	-9.89	33.13	40.00	-6.87	100	100	peak
4	77.3212	45.79	-13.01	32.78	40.00	-7.22	100	100	peak
5	100.5806	40.47	-10.30	30.17	40.00	-9.83	100	100	peak
6	214.5143	37.29	-8.83	28.46	40.00	-11.54	100	100	peak

Plot of Radiated Emissions Test Data

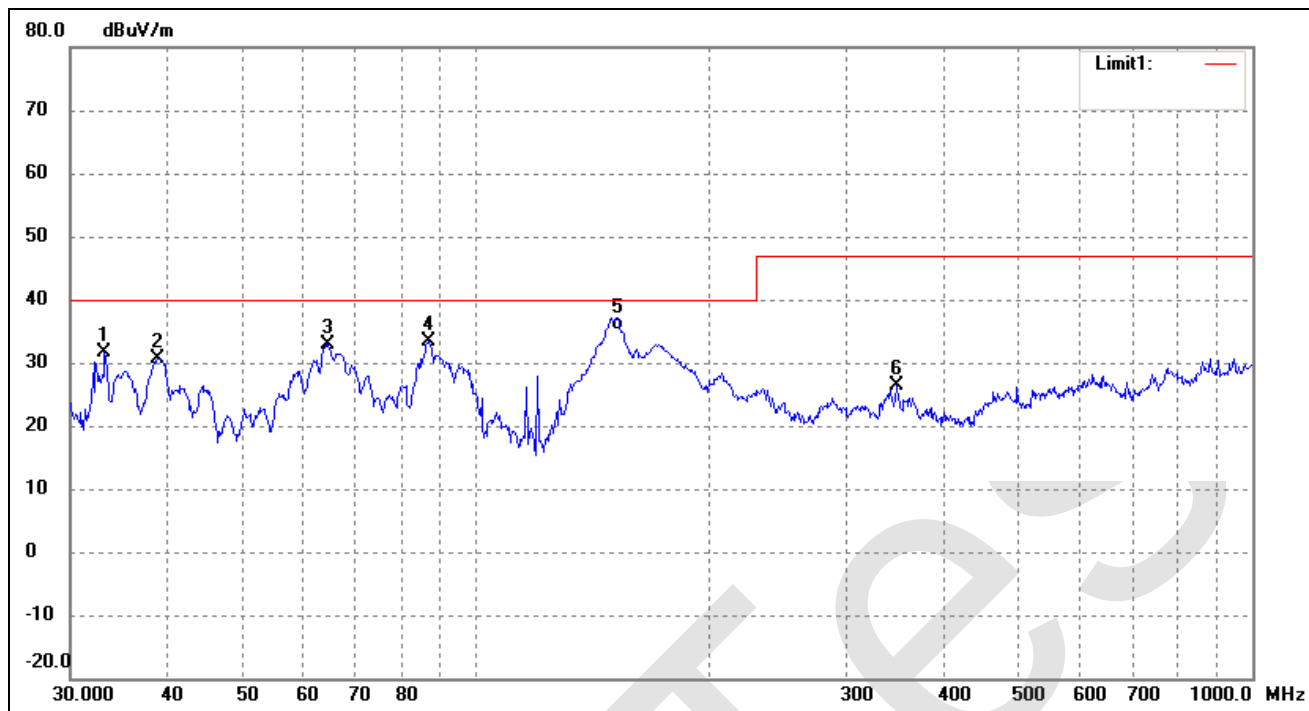
EUT: ITE/Medical Power Supply
 Tested Model: GTM96600-4005-R3A
 Operating Condition: TM1
 Comment: AC 230V/50Hz

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	91.8163	39.88	-13.22	26.66	40.00	-13.34	100	100	peak
2	148.4410	51.39	-14.93	36.46	40.00	-3.54	100	100	QP
3	180.0165	49.72	-14.22	35.50	40.00	-4.50	100	100	QP
4	203.5228	46.23	-11.76	34.47	40.00	-5.53	100	100	QP
5	255.6231	49.03	-10.26	38.77	47.00	-8.23	100	100	peak
6	289.0021	43.80	-9.62	34.18	47.00	-12.82	100	100	peak

Test Specification: Vertical

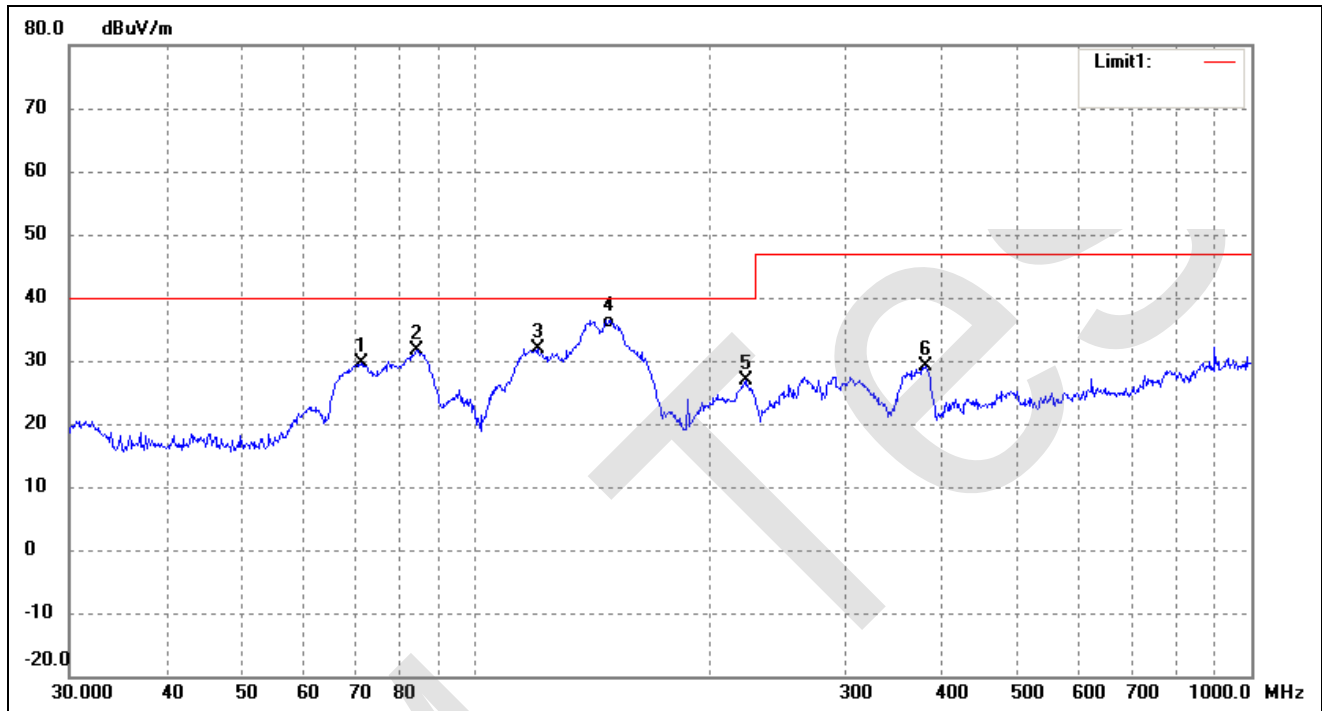


No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	()	(cm)	
1	33.2112	43.60	-11.96	31.64	40.00	-8.36	100	100	peak
2	38.8879	41.25	-10.66	30.59	40.00	-9.41	100	100	peak
3	64.4331	47.67	-14.82	32.85	40.00	-7.15	100	100	peak
4	86.8068	48.39	-15.07	33.32	40.00	-6.68	100	100	peak
5	152.1297	50.07	-14.97	35.10	40.00	-4.90	100	100	QP
6	348.0274	35.48	-9.04	26.44	47.00	-20.56	100	100	peak

Plot of Radiated Emissions Test Data

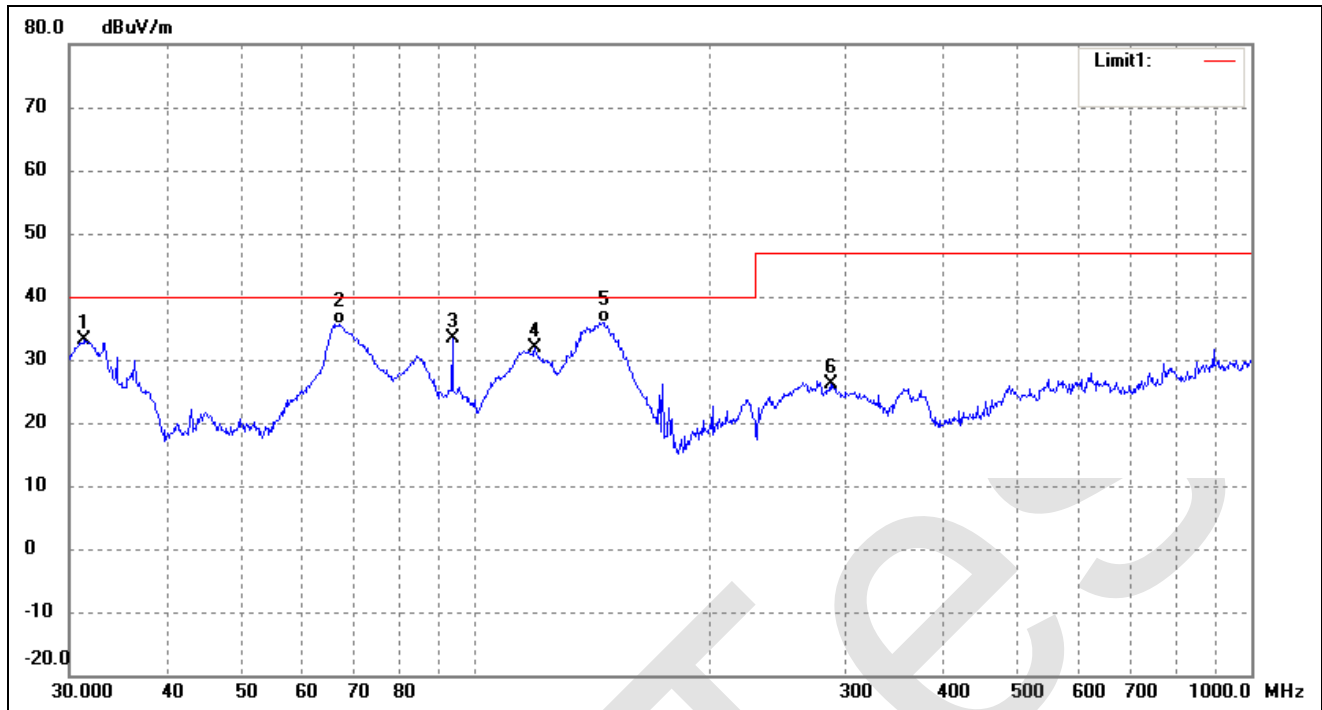
EUT: ITE/Medical Power Supply
 Tested Model: GTM96600-6054-R2
 Operating Condition: TM1
 Comment: AC 230V/50Hz

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	71.3300	44.67	-15.00	29.67	40.00	-10.33	100	100	peak
2	84.1100	46.95	-15.34	31.61	40.00	-8.39	100	100	peak
3	120.2766	45.49	-13.72	31.77	40.00	-8.23	100	100	peak
4	148.9625	50.13	-14.93	35.20	40.00	-4.80	100	100	QP
5	222.9502	39.06	-12.25	26.81	40.00	-13.19	100	100	peak
6	381.2487	36.20	-7.04	29.16	47.00	-17.84	100	100	peak

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	31.3992	45.49	-12.38	33.11	40.00	-6.89	100	100	peak
2	66.7325	51.16	-15.42	35.74	40.00	-4.26	100	100	QP
3	93.4402	46.12	-12.85	33.27	40.00	-6.73	100	100	peak
4	119.4361	45.49	-13.64	31.85	40.00	-8.15	100	100	peak
5	146.3735	50.78	-14.90	35.88	40.00	-4.12	100	100	QP
6	286.9823	35.67	-9.59	26.08	47.00	-20.92	100	100	peak

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 (2009)(Run time)

EUT: GTM91099-3009-4.0-T2

Tested by: Jeffry

Test category: Class-A per Ed. 3.2 (2009) (European limits) Test Margin: 100

Test date: 2016-8-15

Start time: 11:21:11 AM

End time: 11:24:03 AM

Test duration (min): 2.5

Data file name: H-000432.cts_data

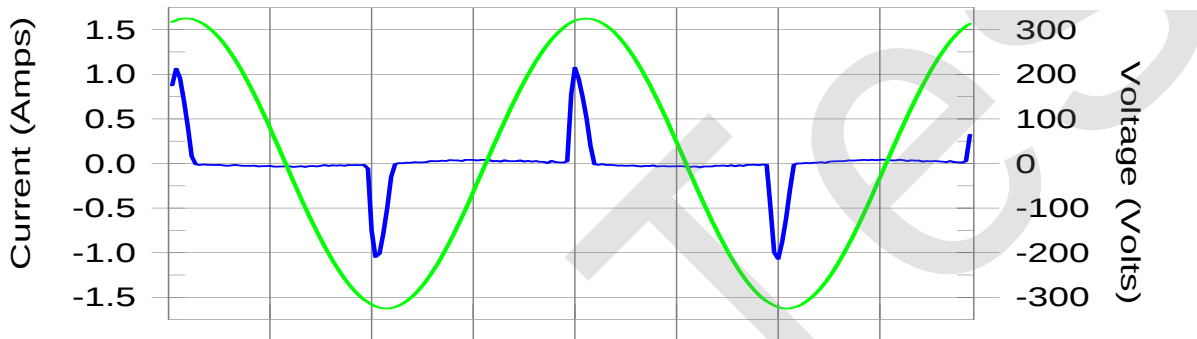
Comment: Working

Customer: GlobTek.Inc.

Test Result: Pass

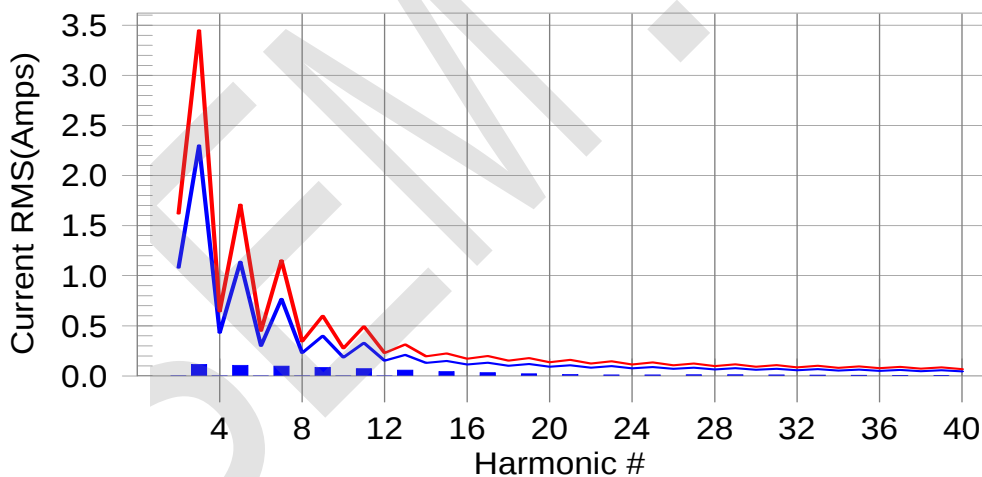
Source qualification: Normal

Current & voltage waveforms



Harmonics and Class A limit line

European Limits



Test result: Pass **Worst harmonic was #15 with 29.85% of the limit.**

Current Test Result Summary (Run time)

EUT: GTM91099-3009-4.0-T2 **Tested by:** Jeffry
Test category: Class-A per Ed. 3.2 (2009) (European limits) **Test Margin:** 100
Test date: 2016-8-15 **Start time:** 11:21:11 AM **End time:** 11:24:03 AM
Test duration (min): 2.5 **Data file name:** H-000432.cts_data
Comment: Working
Customer: GlobTek.Inc.

Test Result: Pass **Source qualification:** Normal
THC(A): 0.23 **I-THD(%):** 190.13 **POHC(A):** 0.032 **POHC Limit(A):** 0.256

Highest parameter values during test:

V_RMS (Volts): 229.88	Frequency(Hz): 50.00
I_Peak (Amps): 1.139	I_RMS (Amps): 0.266
I_Fund (Amps): 0.309	Crest Factor: 4.297
Power (Watts): 27.1	Power Factor: 0.447

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	0.114	2.300	5.0	0.115	3.450	3.34	Pass
4	0.001	0.430	0.0	0.002	0.645	0.24	Pass
5	0.107	1.140	9.4	0.108	1.710	6.29	Pass
6	0.001	0.300	0.0	0.001	0.450	0.27	Pass
7	0.098	0.770	12.7	0.098	1.155	8.48	Pass
8	0.001	0.230	0.0	0.001	0.345	0.34	Pass
9	0.086	0.400	21.4	0.086	0.600	14.35	Pass
10	0.001	0.184	0.0	0.001	0.276	0.44	Pass
11	0.072	0.330	21.9	0.073	0.495	14.71	Pass
12	0.001	0.153	0.0	0.001	0.230	0.46	Pass
13	0.058	0.210	27.8	0.059	0.315	18.72	Pass
14	0.001	0.131	0.0	0.001	0.197	0.52	Pass
15	0.045	0.150	29.8	0.045	0.225	20.17	Pass
16	0.001	0.115	0.0	0.001	0.173	0.52	Pass
17	0.032	0.132	24.4	0.033	0.199	16.50	Pass
18	0.001	0.102	0.0	0.001	0.153	0.53	Pass
19	0.022	0.118	18.3	0.022	0.178	12.51	Pass
20	0.000	0.092	0.0	0.001	0.138	0.55	Pass
21	0.014	0.107	13.3	0.015	0.161	9.11	Pass
22	0.000	0.084	0.0	0.001	0.125	0.56	Pass
23	0.011	0.098	11.2	0.011	0.147	7.62	Pass
24	0.000	0.077	0.0	0.001	0.115	0.57	Pass
25	0.011	0.090	12.4	0.011	0.135	8.34	Pass
26	0.000	0.071	0.0	0.001	0.106	0.53	Pass
27	0.012	0.083	14.5	0.012	0.125	9.71	Pass
28	0.000	0.066	0.0	0.001	0.099	0.55	Pass

29	0.012	0.078	15.6	0.012	0.116	10.53	Pass
30	0.000	0.061	0.0	0.001	0.092	0.55	Pass
31	0.011	0.073	15.3	0.011	0.109	10.38	Pass
32	0.000	0.058	0.0	0.000	0.086	0.55	Pass
33	0.009	0.068	13.7	0.010	0.102	9.37	Pass
34	0.000	0.054	0.0	0.000	0.081	0.50	Pass
35	0.007	0.064	11.0	0.007	0.096	7.61	Pass
36	0.000	0.051	0.0	0.000	0.077	0.47	Pass
37	0.005	0.061	8.0	0.005	0.091	5.60	Pass
38	0.000	0.048	0.0	0.000	0.073	0.49	Pass
39	0.003	0.058	0.0	0.004	0.087	4.09	Pass
40	0.000	0.046	0.0	0.000	0.069	0.55	Pass

EMC TEST

Voltage Source Verification Data (Run time)

EUT: GTM91099-3009-4.0-T2 **Tested by:** Jeffry
Test category: Class-A per Ed. 3.2 (2009) (European limits) **Test Margin:** 100
Test date: 2016-8-15 **Start time:** 11:21:11 AM **End time:** 11:24:03 AM
Test duration (min): 2.5 **Data file name:** H-000432.cts_data
Comment: Working
Customer: GlobTek.Inc.

Test Result: Pass **Source qualification:** Normal

Highest parameter values during test:

Voltage (Vrms): 229.88	Frequency(Hz): 50.00
I_Peak (Amps): 1.139	I_RMS (Amps): 0.266
I_Fund (Amps): 0.309	Crest Factor: 4.297
Power (Watts): 27.1	Power Factor: 0.447

Harm#	Harmonics V-rms	Limit V-rms	% of Limit	Status
2	0.061	0.460	13.33	OK
3	0.568	2.068	27.45	OK
4	0.072	0.460	15.68	OK
5	0.059	0.919	6.43	OK
6	0.034	0.460	7.46	OK
7	0.041	0.689	5.98	OK
8	0.019	0.460	4.23	OK
9	0.051	0.460	11.03	OK
10	0.013	0.460	2.78	OK
11	0.051	0.230	22.06	OK
12	0.012	0.230	5.08	OK
13	0.043	0.230	18.57	OK
14	0.005	0.230	2.36	OK
15	0.039	0.230	17.06	OK
16	0.009	0.230	4.10	OK
17	0.025	0.230	11.02	OK
18	0.011	0.230	4.83	OK
19	0.029	0.230	12.83	OK
20	0.017	0.230	7.23	OK
21	0.018	0.230	8.03	OK
22	0.005	0.230	2.37	OK
23	0.015	0.230	6.65	OK
24	0.006	0.230	2.59	OK
25	0.014	0.230	6.26	OK
26	0.006	0.230	2.61	OK
27	0.021	0.230	9.10	OK

28	0.006	0.230	2.69	OK
29	0.015	0.230	6.57	OK
30	0.006	0.230	2.74	OK
31	0.017	0.230	7.30	OK
32	0.005	0.230	2.25	OK
33	0.015	0.230	6.45	OK
34	0.005	0.230	2.09	OK
35	0.013	0.230	5.83	OK
36	0.005	0.230	2.24	OK
37	0.011	0.230	4.71	OK
38	0.004	0.230	1.90	OK
39	0.010	0.230	4.48	OK
40	0.011	0.230	4.62	OK

Harmonics – Class-A per Ed. 3.2 (2009)(Run time)

EUT: GTM91099-6048-T2

Tested by: Jeffry

Test category: Class-A per Ed. 3.2 (2009) (European limits)

Test Margin: 100

Test date: 2016-8-15

Start time: 10:50:07 AM

End time: 10:52:59 AM

Test duration (min): 2.5

Data file name: H-000430.cts_data

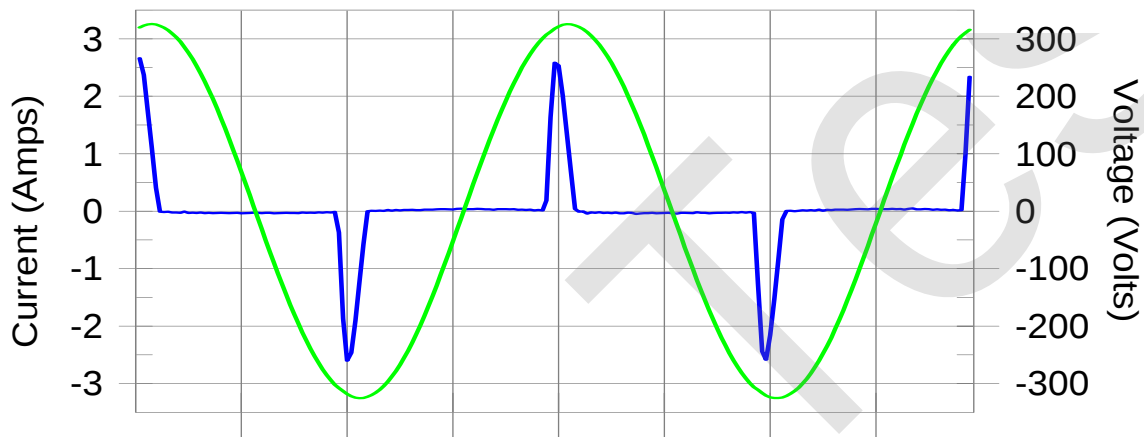
Comment: Working

Customer: GlobTek.Inc.

Test Result: Pass

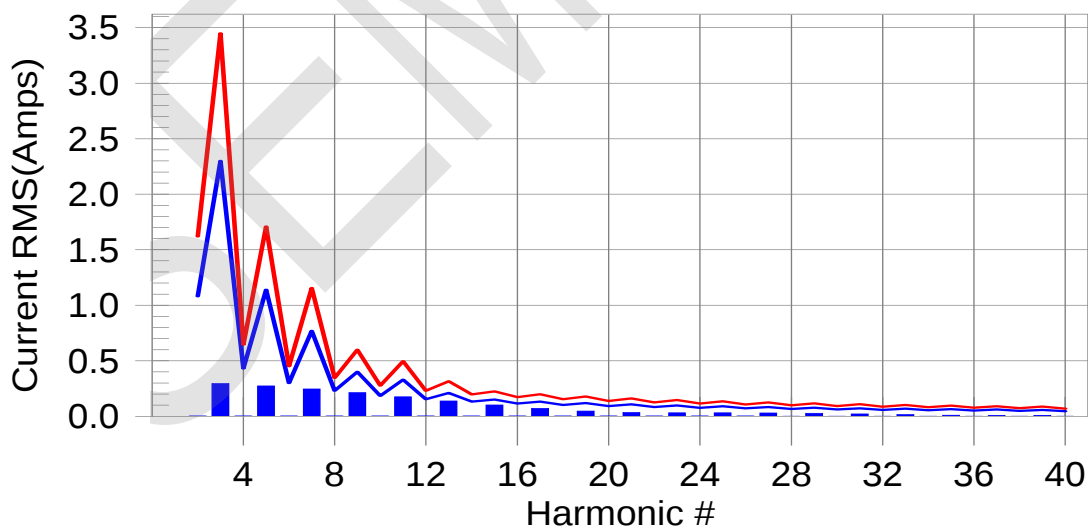
Source qualification: Normal

Current & voltage waveforms



Harmonics and Class A limit line

European Limits



Test result: Pass Worst harmonic was #15 with 66.41% of the limit.

Current Test Result Summary (Run time)

EUT: GTM91099-6048-T2 **Tested by:** Jeffry
Test category: Class-A per Ed. 3.2 (2009) (European limits) **Test Margin:** 100
Test date: 2016-8-15 **Start time:** 10:50:07 AM **End time:** 10:52:59 AM
Test duration (min): 2.5 **Data file name:** H-000430.cts_data
Comment: Working
Customer: GlobTek.Inc.

Test Result: Pass **Source qualification:** Normal
THC(A): 0.58 **I-THD(%):** 187.81 **POHC(A):** 0.073 **POHC Limit(A):** 0.251

Highest parameter values during test:

V_RMS (Volts): 229.87	Frequency(Hz): 50.00
I_Peak (Amps): 2.675	I_RMS (Amps): 0.659
I_Fund (Amps): 0.309	Crest Factor: 4.066
Power (Watts): 69.3	Power Factor: 0.462

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	0.15	Pass
3	0.293	2.300	12.8	0.294	3.450	8.53	Pass
4	0.002	0.430	0.0	0.003	0.645	0.43	Pass
5	0.273	1.140	24.0	0.274	1.710	16.00	Pass
6	0.002	0.300	0.0	0.003	0.450	0.57	Pass
7	0.245	0.770	31.8	0.246	1.155	21.26	Pass
8	0.002	0.230	0.0	0.003	0.345	0.79	Pass
9	0.211	0.400	52.7	0.212	0.600	35.31	Pass
10	0.002	0.184	0.0	0.003	0.276	1.03	Pass
11	0.173	0.330	52.5	0.175	0.495	35.32	Pass
12	0.002	0.153	0.0	0.003	0.230	1.18	Pass
13	0.135	0.210	64.4	0.137	0.315	43.57	Pass
14	0.002	0.131	0.0	0.003	0.197	1.30	Pass
15	0.100	0.150	66.4	0.102	0.225	45.21	Pass
16	0.002	0.115	0.0	0.002	0.173	1.33	Pass
17	0.069	0.132	52.2	0.071	0.199	35.64	Pass
18	0.001	0.102	0.0	0.002	0.153	1.31	Pass
19	0.046	0.118	38.7	0.048	0.178	26.72	Pass
20	0.001	0.092	0.0	0.002	0.138	1.25	Pass
21	0.033	0.107	31.0	0.034	0.161	21.25	Pass
22	0.001	0.084	0.0	0.001	0.125	1.14	Pass
23	0.030	0.098	30.9	0.031	0.147	20.79	Pass
24	0.001	0.077	0.0	0.001	0.115	1.04	Pass
25	0.031	0.090	34.1	0.031	0.135	22.85	Pass
26	0.001	0.071	0.0	0.001	0.106	0.98	Pass
27	0.030	0.083	35.8	0.030	0.125	24.05	Pass

28	0.001	0.066	0.0	0.001	0.099	0.94	Pass
29	0.026	0.078	34.0	0.027	0.116	23.13	Pass
30	0.001	0.061	0.0	0.001	0.092	0.96	Pass
31	0.021	0.073	28.9	0.022	0.109	19.78	Pass
32	0.000	0.058	0.0	0.001	0.086	0.99	Pass
33	0.015	0.068	21.7	0.015	0.102	15.13	Pass
34	0.000	0.054	0.0	0.001	0.081	0.95	Pass
35	0.009	0.064	14.5	0.010	0.096	10.26	Pass
36	0.000	0.051	0.0	0.001	0.077	0.96	Pass
37	0.007	0.061	11.2	0.007	0.091	7.60	Pass
38	0.000	0.048	0.0	0.001	0.073	0.96	Pass
39	0.008	0.058	13.3	0.008	0.087	9.32	Pass
40	0.000	0.046	0.0	0.001	0.069	0.90	Pass

EMC TEST

Voltage Source Verification Data (Run time)

EUT: GTM91099-6048-T2

Tested by: Jeffry

Test category: Class-A per Ed. 3.2 (2009) (European limits) Test Margin: 100

Test date: 2016-8-15

Start time: 10:50:07 AM

End time: 10:52:59 AM

Test duration (min): 2.5

Data file name: H-000430.cts_data

Comment: Working

Customer: GlobTek.Inc.

Test Result: Pass

Source qualification: Normal

Highest parameter values during test:

Voltage (Vrms): 229.87

Frequency(Hz): 50.00

I_Peak (Amps): 2.675

I_RMS (Amps): 0.659

I_Fund (Amps): 0.309

Crest Factor: 4.066

Power (Watts): 69.3

Power Factor: 0.462

Harm#	Harmonics V-rms	Limit V-rms	% of Limit	Status
2	0.062	0.460	13.40	OK
3	0.601	2.068	29.04	OK
4	0.074	0.460	16.18	OK
5	0.086	0.919	9.33	OK
6	0.035	0.460	7.53	OK
7	0.098	0.689	14.23	OK
8	0.021	0.460	4.51	OK
9	0.110	0.460	23.87	OK
10	0.014	0.460	2.98	OK
11	0.111	0.230	48.34	OK
12	0.012	0.230	5.41	OK
13	0.093	0.230	40.53	OK
14	0.007	0.230	2.95	OK
15	0.083	0.230	35.97	OK
16	0.010	0.230	4.54	OK
17	0.056	0.230	24.37	OK
18	0.009	0.230	3.83	OK
19	0.048	0.230	20.95	OK
20	0.018	0.230	7.70	OK
21	0.035	0.230	15.20	OK
22	0.006	0.230	2.42	OK
23	0.035	0.230	15.18	OK
24	0.006	0.230	2.77	OK
25	0.038	0.230	16.70	OK
26	0.005	0.230	2.31	OK
27	0.042	0.230	18.32	OK

28	0.006	0.230	2.69	OK
29	0.036	0.230	15.70	OK
30	0.006	0.230	2.47	OK
31	0.032	0.230	14.13	OK
32	0.005	0.230	2.39	OK
33	0.025	0.230	10.86	OK
34	0.005	0.230	2.15	OK
35	0.018	0.230	7.73	OK
36	0.005	0.230	2.38	OK
37	0.016	0.230	6.81	OK
38	0.005	0.230	2.14	OK
39	0.016	0.230	7.17	OK
40	0.009	0.230	3.75	OK

Harmonics – Class-A per Ed. 3.2 (2009)(Run time)

EUT: GTM96600-4005-R3A

Tested by: Jeffry

Test category: Class-A per Ed. 3.2 (2009) (European limits) Test Margin: 100

Test date: 2016-10-31

Start time: 07:37:43 PM

End time: 07:40:35 PM

Test duration (min): 2.5

Data file name: H-000345.cts_data

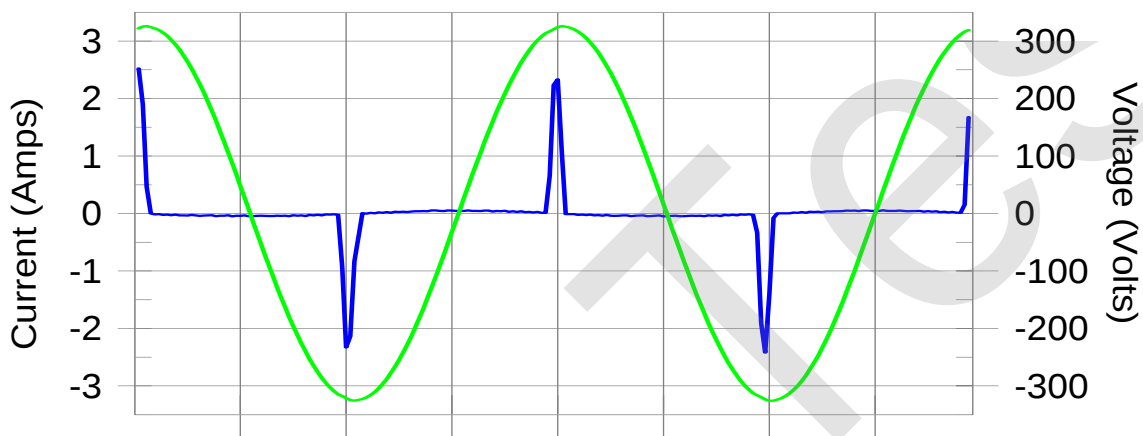
Comment: Working

Customer: Globtek,Inc.

Test Result: Pass

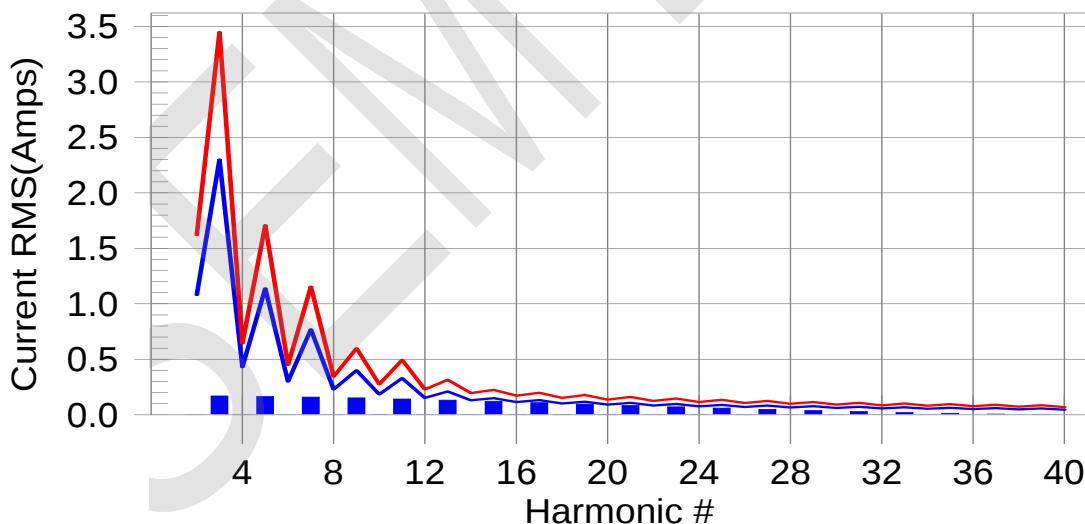
Source qualification: Normal

Current & voltage waveforms



Harmonics and Class A limit line

European Limits



Test result: Pass **Worst harmonic was #17 with 81.91% of the limit.**

Current Test Result Summary (Run time)

EUT: GTM96600-4005-R3A **Tested by:** Jeffry
Test category: Class-A per Ed. 3.2 (2009) (European limits) **Test Margin:** 100
Test date: 2016-10-31 **Start time:** 07:37:43 PM **End time:** 07:40:35 PM
Test duration (min): 2.5 **Data file name:** H-000345.cts_data
Comment: Working
Customer: Globtek,Inc.

Test Result: Pass **Source qualification:** Normal
THC(A): 0.44 **I-THD(%):** 251.31 **POHC(A):** 0.144 **POHC Limit(A):** 0.256

Highest parameter values during test:

V_RMS (Volts): 229.86	Frequency(Hz): 50.00
I_Peak (Amps): 2.558	I_RMS (Amps): 0.481
I_Fund (Amps): 0.178	Crest Factor: 5.324
Power (Watts): 39.2	Power Factor: 0.356

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	0.12	Pass
3	0.168	2.300	7.3	0.170	3.450	4.94	Pass
4	0.001	0.430	0.0	0.002	0.645	0.28	Pass
5	0.164	1.140	14.4	0.166	1.710	9.69	Pass
6	0.001	0.300	0.0	0.002	0.450	0.41	Pass
7	0.158	0.770	20.5	0.160	1.155	13.82	Pass
8	0.002	0.230	0.0	0.002	0.345	0.60	Pass
9	0.150	0.400	37.6	0.152	0.600	25.35	Pass
10	0.002	0.184	0.0	0.002	0.276	0.86	Pass
11	0.141	0.330	42.9	0.143	0.495	28.91	Pass
12	0.002	0.153	0.0	0.003	0.230	1.10	Pass
13	0.131	0.210	62.5	0.133	0.315	42.15	Pass
14	0.002	0.131	0.0	0.003	0.197	1.34	Pass
15	0.120	0.150	80.0	0.122	0.225	54.02	Pass
16	0.002	0.115	0.0	0.003	0.173	1.58	Pass
17	0.108	0.132	81.9	0.110	0.199	55.08	Pass
18	0.002	0.102	0.0	0.003	0.153	1.80	Pass
19	0.096	0.118	80.9	0.097	0.178	54.63	Pass
20	0.002	0.092	0.0	0.003	0.138	1.95	Pass
21	0.083	0.107	77.9	0.085	0.161	52.64	Pass
22	0.002	0.084	0.0	0.003	0.125	2.07	Pass
23	0.071	0.098	72.7	0.072	0.147	49.24	Pass
24	0.002	0.077	0.0	0.002	0.115	2.12	Pass
25	0.059	0.090	65.8	0.060	0.135	44.77	Pass
26	0.002	0.071	0.0	0.002	0.106	2.12	Pass
27	0.048	0.083	57.6	0.049	0.125	39.31	Pass

28	0.002	0.066	0.0	0.002	0.099	2.09	Pass
29	0.038	0.078	48.5	0.039	0.116	33.31	Pass
30	0.001	0.061	0.0	0.002	0.092	1.91	Pass
31	0.028	0.073	38.9	0.029	0.109	26.76	Pass
32	0.001	0.058	0.0	0.002	0.086	1.80	Pass
33	0.020	0.068	29.4	0.021	0.102	20.40	Pass
34	0.001	0.054	0.0	0.001	0.081	1.52	Pass
35	0.013	0.064	20.3	0.014	0.096	14.24	Pass
36	0.001	0.051	0.0	0.001	0.077	1.23	Pass
37	0.008	0.061	12.4	0.008	0.091	8.76	Pass
38	0.000	0.048	0.0	0.001	0.073	1.02	Pass
39	0.004	0.058	0.0	0.004	0.087	4.85	Pass
40	0.000	0.046	0.0	0.001	0.069	0.86	Pass

Voltage Source Verification Data (Run time)

EUT: GTM96600-4005-R3A

Tested by: Jeffry

Test category: Class-A per Ed. 3.2 (2009) (European limits) Test Margin: 100

Test date: 2016-10-31

Start time: 07:37:43 PM

End time: 07:40:35 PM

Test duration (min): 2.5

Data file name: H-000345.cts_data

Comment: Working

Customer: Globtek,Inc.

Test Result: Pass

Source qualification: Normal

Highest parameter values during test:

Voltage (Vrms): 229.86

Frequency(Hz): 50.00

I_Peak (Amps): 2.558

I_RMS (Amps): 0.481

I_Fund (Amps): 0.178

Crest Factor: 5.324

Power (Watts): 39.2

Power Factor: 0.356

Harm#	Harmonics V-rms	Limit V-rms	% of Limit	Status
2	0.052	0.460	11.29	OK
3	0.573	2.068	27.73	OK
4	0.065	0.460	14.13	OK
5	0.059	0.919	6.41	OK
6	0.033	0.460	7.12	OK
7	0.065	0.689	9.49	OK
8	0.015	0.460	3.26	OK
9	0.081	0.460	17.70	OK
10	0.012	0.460	2.62	OK
11	0.090	0.230	39.27	OK
12	0.011	0.230	4.86	OK
13	0.092	0.230	40.13	OK
14	0.005	0.230	2.36	OK
15	0.093	0.230	40.48	OK
16	0.006	0.230	2.63	OK
17	0.089	0.230	38.95	OK
18	0.012	0.230	5.43	OK
19	0.099	0.230	43.30	OK
20	0.016	0.230	6.77	OK
21	0.090	0.230	39.00	OK
22	0.005	0.230	2.36	OK
23	0.083	0.230	36.08	OK
24	0.005	0.230	1.97	OK
25	0.072	0.230	31.24	OK
26	0.005	0.230	2.10	OK
27	0.061	0.230	26.44	OK

28	0.005	0.230	2.10	OK
29	0.055	0.230	23.96	OK
30	0.004	0.230	1.61	OK
31	0.043	0.230	18.64	OK
32	0.004	0.230	1.91	OK
33	0.033	0.230	14.18	OK
34	0.002	0.230	1.08	OK
35	0.023	0.230	9.95	OK
36	0.002	0.230	1.05	OK
37	0.014	0.230	5.95	OK
38	0.002	0.230	0.90	OK
39	0.006	0.230	2.78	OK
40	0.008	0.230	3.32	OK

6. Voltage Fluctuation and 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: GTM91099-3009-4.0-T2

Tested by: Jeffry

Test category: All parameters (European limits)

Test Margin: 100

Test date: 2016-8-15

Start time: 11:25:31 AM

End time: 11:35:52 AM

Test duration (min): 10

Data file name: F-000433.cts_data

Comment: Working

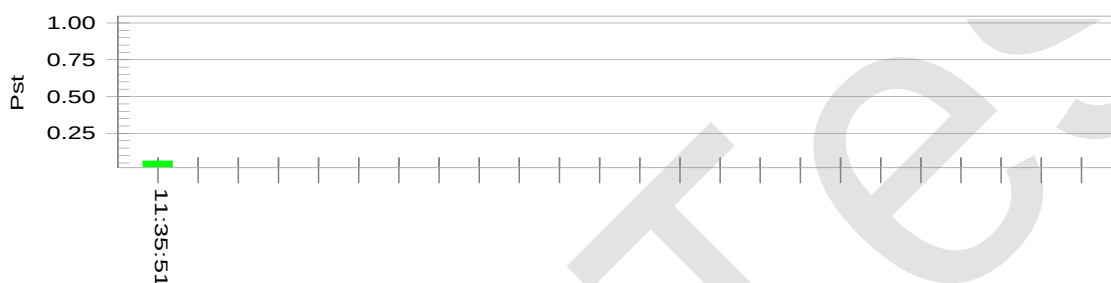
Customer: GlobTek.Inc.

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): 229.75

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: GTM91099-6048-T2

Tested by: Jeffry

Test category: All parameters (European limits)

Test Margin: 100

Test date: 2016-8-15

Start time: 10:56:13 AM

End time: 11:06:34 AM

Test duration (min): 10

Data file name: F-000431.cts_data

Comment: Working

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): 229.67

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: ITE/Medical Power Supply

Tested by: Vigoss Xiong

Test category: All parameters (European limits)

Test Margin: 100

Test date: 2012-03-17

Start time: 05:01:56 PM

End time: 05:12:12 PM

Test duration (min): 10

Data file name: F-000039.cts_data

Comment: Full load

Customer: GlobTek, Inc

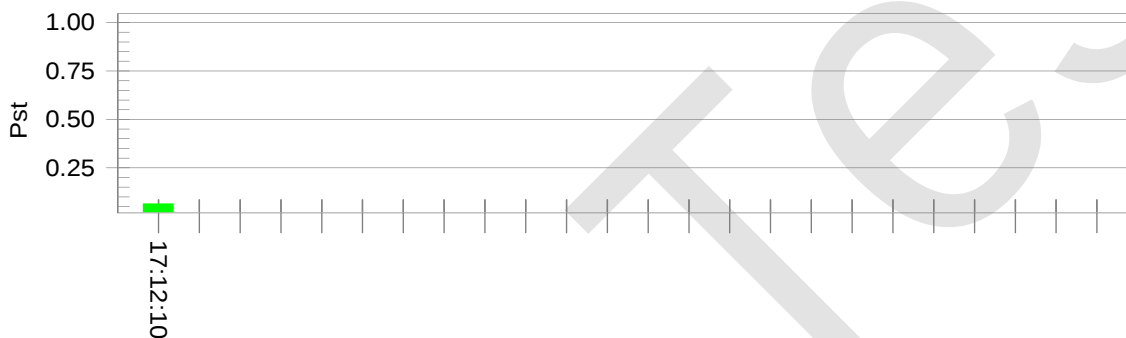
EUT Model: GTM91099-6048-T3A

Test Result: Pass

Status: Test Completed

Pst and limit line

European Limits



Plt and limit line



Parameter values recorded during the test:

Vrms at the end of test (Volt): 230.27

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: ITE/Medical Power Supply

Tested by: Vigoss Xiong

Test category: All parameters (European limits)

Test Margin: 100

Test date: 2012-03-17

Start time: 04:44:07 PM

End time: 04:54:23 PM

Test duration (min): 10

Data file name: F-000038.cts_data

Comment: Full load

Customer: GlobTek, Inc

EUT Model: GTM91099-6012-T2

Test Result: Pass

Status: Test Completed

Pst and limit line**European Limits****Plt and limit line****Parameter values recorded during the test:**

Vrms at the end of test (Volt): 230.28

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: GTM91099-6048-FW Class II 48V

Tested by: JACK

Test category: All parameters (European limits)

Test Margin: 100

Test date: 2012-11-21

Start time: 04:19:18 PM

End time: 04:29:32 PM

Test duration (min): 10

Data file name: F-000515.cts_data

Comment: Full load

Customer: GlobTek

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): 231.02

Highest dt (%): 0.00

Time(mS) > dt: 0.0

Highest dc (%): 0.00

Highest dmax (%): 0.00

Highest Pst (10 min. period): 0.064

Highest Plt (2 hr. period): 0.028

Test limit (%): 3.30 Pass

Test limit (mS): 500.0 Pass

Test limit (%): 3.30 Pass

Test limit (%): 4.00 Pass

Test limit: 1.000 Pass

Test limit: 0.650 Pass

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

EUT: GTM91099-3009-4.0-FW Class II 5V

Tested by: Jack

Test category: All parameters (European limits)

Test Margin: 100

Test date: 2012-11-22

Start time: 08:49:48 PM

End time: 09:00:02 PM

Test duration (min): 10

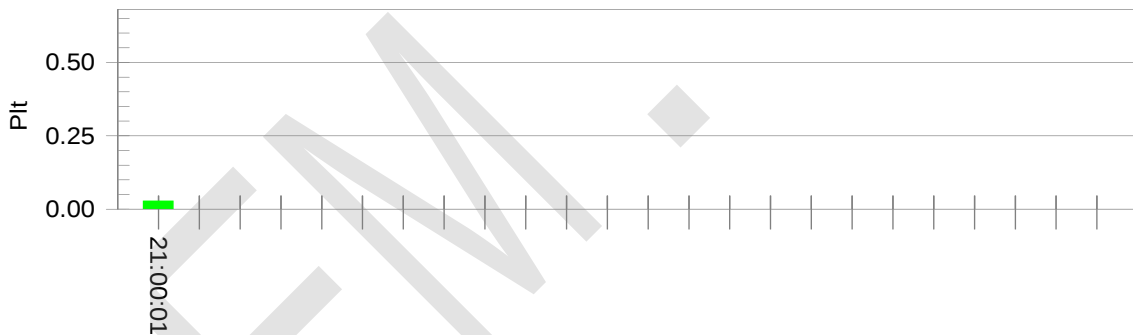
Data file name: F-000528.cts_data

Comment: Full load

Customer: GlobTek

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): 231.16

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: GTM91099-6048-F Class I 48V

Tested by: Jack

Test category: All parameters (European limits)

Test Margin: 100

Test date: 2012-11-22

Start time: 08:01:57 PM

End time: 08:12:11 PM

Test duration (min): 10

Data file name: F-000526.cts_data

Comment: Full load

Customer: GlobTek

Test Result: Pass

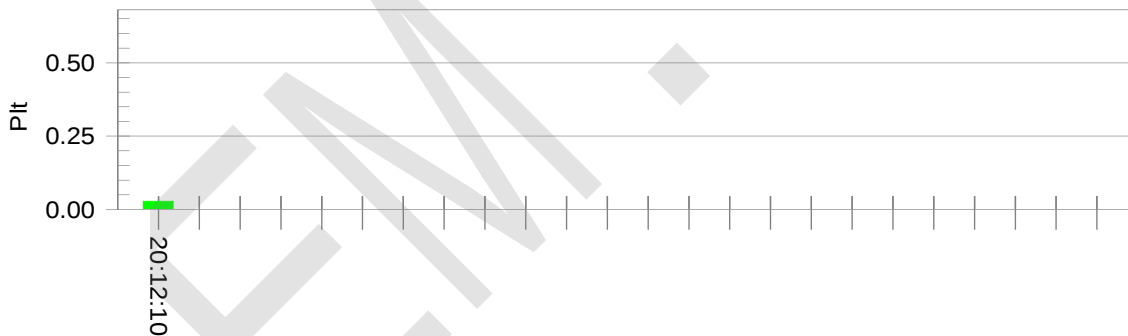
Status: Test Completed

Pst_i and limit line

European Limits



Plt and limit line



Parameter values recorded during the test:

Vrms at the end of test (Volt): 230.80

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: GTM91099-3009-4.0-F Class I 5V

Tested by: Jack

Test category: All parameters (European limits)

Test Margin: 100

Test date: 2012-11-22

Start time: 08:19:25 PM

End time: 08:29:39 PM

Test duration (min): 10

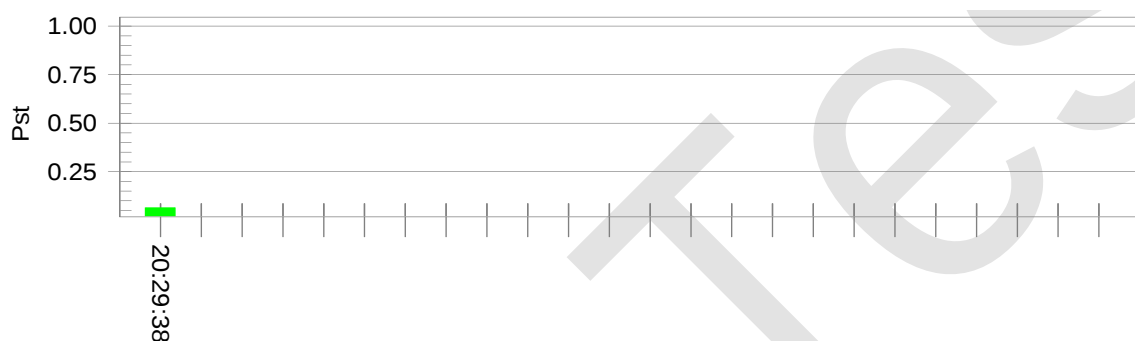
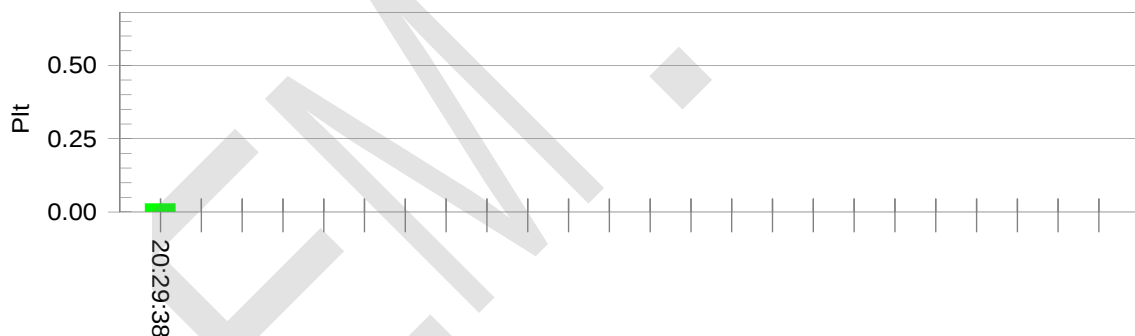
Data file name: F-000527.cts_data

Comment: Full load

Customer: GlobTek

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): 231.20

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: GTM96600-4005-R3A

Tested by: Jeffry

Test category: All parameters (European limits)

Test Margin: 100

Test date: 2016-10-31

Start time: 07:42:17 PM

End time: 07:52:38 PM

Test duration (min): 10

Data file name: F-000346.cts_data

Comment: Working

Customer: GlobTek,Inc.

Test Result: Pass

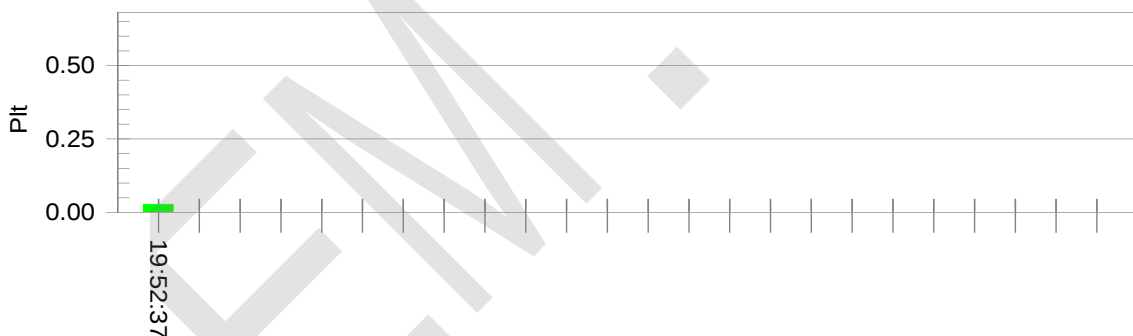
Status: Test Completed

Pst_i and limit line

European Limits



Plt and limit line



Parameter values recorded during the test:

Vrms at the end of test (Volt): 229.79

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: GTM96600-6054-R2

Tested by: Jeffry

Test category: All parameters (European limits)

Test Margin: 100

Test date: 2016-10-31

Start time: 08:12:10 PM

End time: 08:22:31 PM

Test duration (min): 10

Data file name: F-000350.cts_data

Comment: Charging

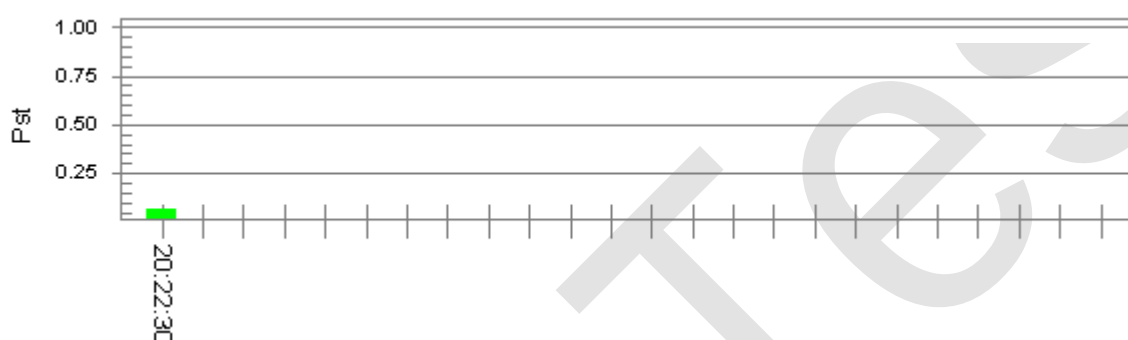
Customer: GlobTek,Inc.

Test Result: Pass

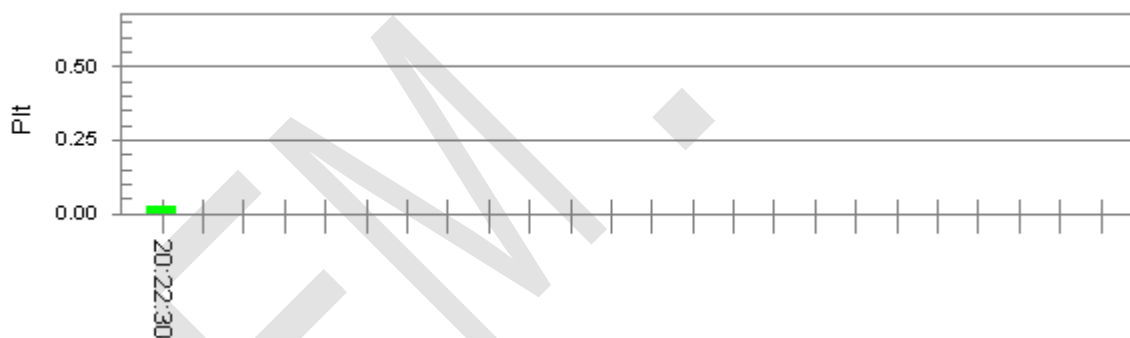
Status: Test Completed

Pst_i and limit line

European Limits



Plt and limit line



Parameter values recorded during the test:

Vrms at the end of test (Volt): 229.74

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

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

Model: GTM91099-3009-4.0-T2, GTM91099-6048-T2, GTM91099-6048-T3A, GTM91099-6012-T2,
GTM96600-4005-R3A, GTM96600-6054-R2

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
Slots	A	A	A	A	A	A	A	A	A	A
Surface	A	A	A	A	A	A	A	A	A	A
LED	A	A	A	A	A	A	A	A	A	A
Power port	A	A	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	A	A	A	A	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						

Model: GTM91099-6048-FW Class II 48V, GTM91099-3009-4.0-FW Class II 5V,
GTM91099-6048-F Class I 48V, GTM91099-3009-4.0-F Class I 5V

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
Slots	/	/	/	/	/	/	/	/	/	/
Surface	/	/	/	/	/	/	/	/	/	/
LED	/	/	/	/	/	/	/	/	/	/
Power port	/	/	/	/	/	/	/	/	/	/

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	/	/	/	/	/	/	/	/		

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

Frequency Range(MHz)	Field (V/m)	Front		Rear		Left Side		Right Side	
		VERT	HORI	VERT	HORI	VERT	HORI	VERT	HORI
80-2700	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

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
ITE/Medical Power Supply Power Port of EUT	L1	A	A	A	A	A	A	/	/
	L2	A	A	A	A	A	A	/	/
	PE	/	/	/	/	/	/	/	/
	L1+L2	A	A	A	A	A	A	/	/
	L1 + PE	/	/	/	/	/	/	/	/
	L2 + PE	/	/	/	/	/	/	/	/
	L1+L2+PE	/	/	/	/	/	/	/	/
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

Model: GTM91099-3009-4.0-T2, GTM91099-6048-T2, GTM91099-6012-T2, GTM96600-6054-R2
GTM91099-6048-FW Class II 48V, GTM91099-3009-4.0-FW Class II 5V,

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

Model: GTM91099-6048-T3A, GTM91099-6048-F Class I 48V, GTM91099-3009-4.0-F Class I 5V,
GTM96600-4005-R3A

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

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)

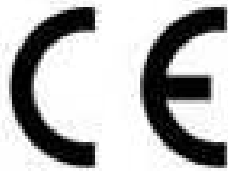
T: Test duration

Level	U	T	Phase Angle	N	Pass	Fail
1	100%	10ms	0/90/180/270	3	A	/
2	100%	20ms	0/90/180/270	3	B	/
3	30%	500ms	0/90/180/270	3	B	/
4	100%	5000ms	0/90/180/270	3	C	/

Test Result: Pass

EXHIBIT 1 - PRODUCT LABELING

Proposed CE 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 '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 must have a height of at least 5 mm. If the 'CE' marking is reduced or enlarged the proportions given in the above graduated drawing must be respected.

Proposed Label Location on EUT

CE Label Location



EXHIBIT 2 - EUT PHOTOGRAPHS

EUT Model: GTM91099-3009-4.0-T2

EUT View 1



EUT View 2

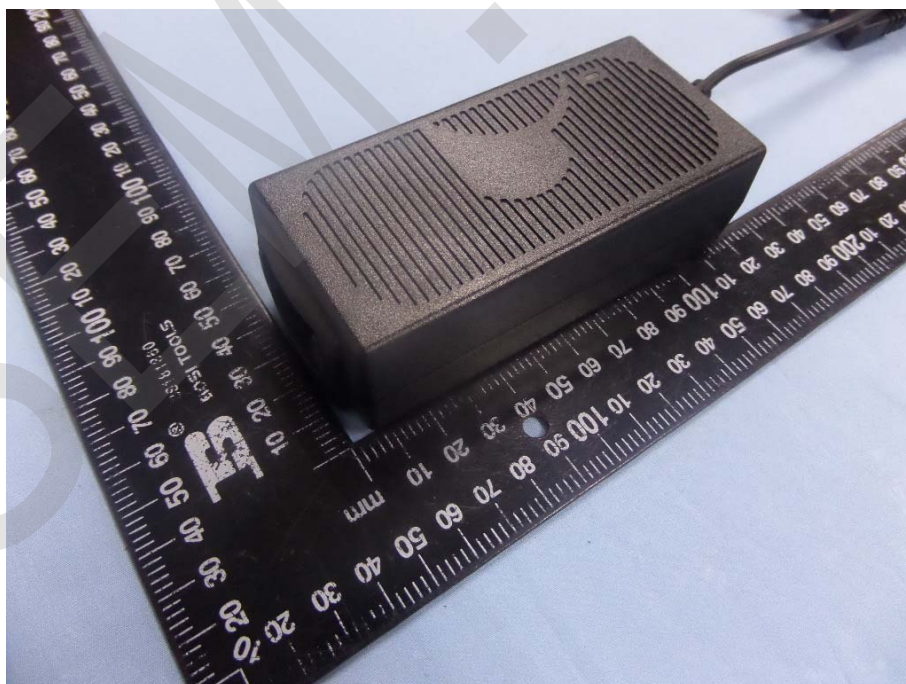
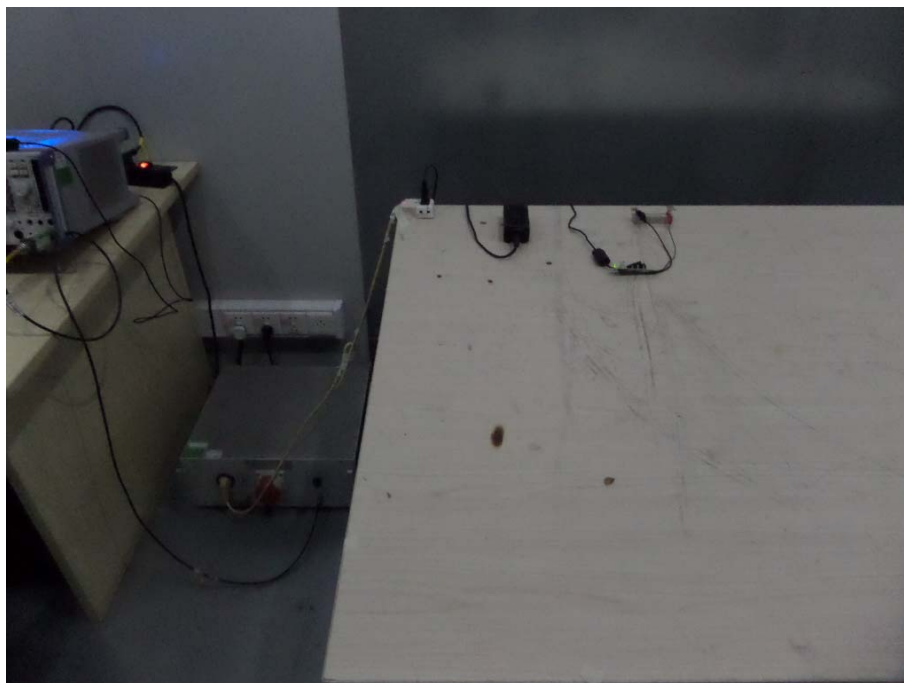
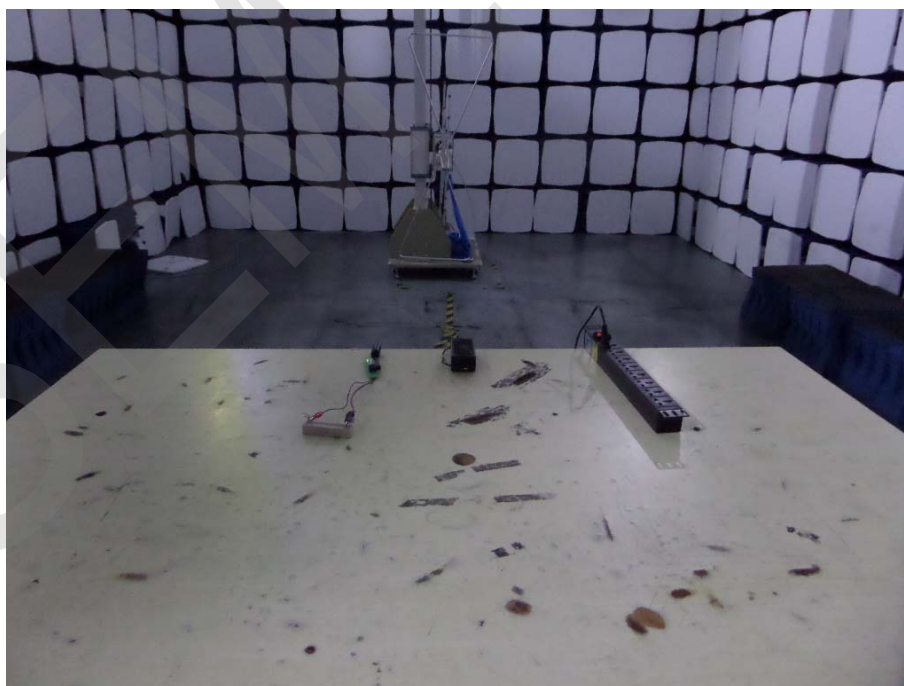


EXHIBIT 3 - TEST SETUP PHOTOGRAPHS

Conduction Emission Test View



Radiation Emission Test View

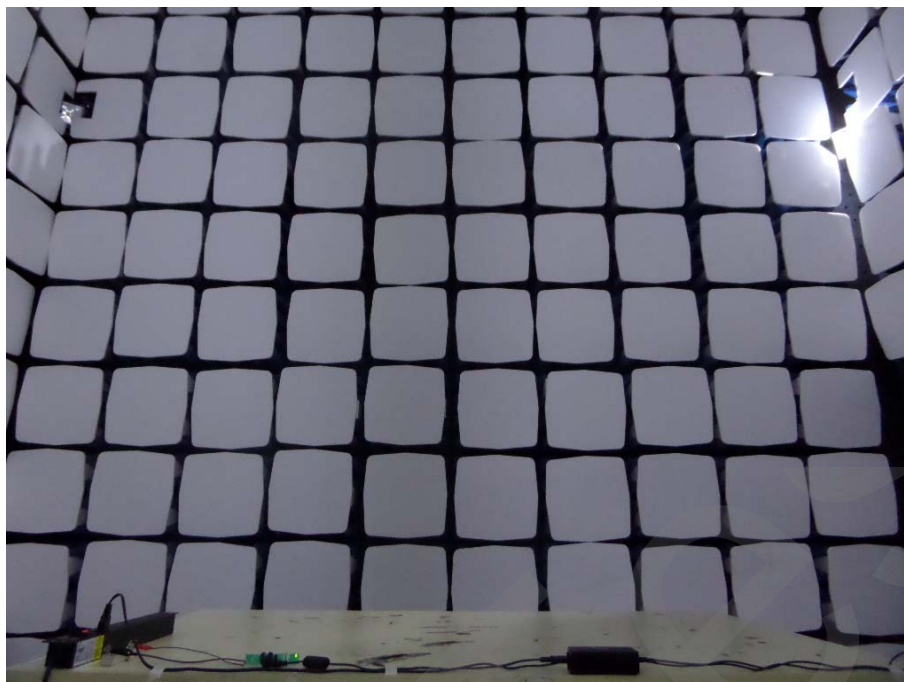


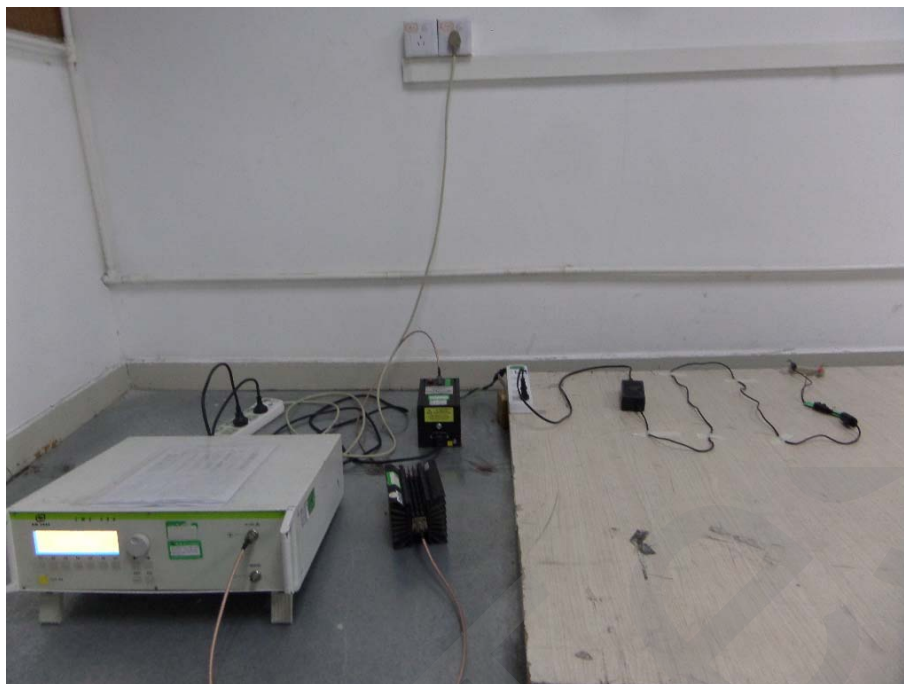
Harmonic/Flicker Test View



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 *****