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 EN 55035:2017 EN 60601-1-2:2015
Product Description:	ITE Power Supply
Tested Model:	GT*961600P****,GT*961800P****.
Report No.:	STR18078316E
Tested Date:	2018-07-27 to 2018-08-10
Issued Date:	2018-08-14
Tested By:	Gan Li / Engineer
Reviewed By:	Silin Chen / EMC Manager
Approved & Authorized By:	Jandy So / PSQ Manager

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Note: This test report is limited to the above client company and the product model only. It may not be duplicated without prior permitted by Shenzhen SEM.Test Technology Co., Ltd.

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1. GENERAL INFORMATION

1.1 Product Description for Equipment Under Test (EUT)

Client Information

Applicant:	GlobTek, Inc.
Address of applicant:	186 Veterans Dr. Northvale, NJ 07647 USA
Manufacturer:	1.GlobTek, Inc. 2.GlobTek (Suzhou) Co., Ltd
Address of manufacturer:	1.186 Veterans Dr. Northvale, NJ 07647 USA 2.Building 4, No. 76, Jin Ling East Rd., Suzhou Industrial Park, Suzhou, JiangSu 215021, China

General Description of EUT	
Product Name:	ITE Power Supply
Trade Name:	GlobTek, Inc.
Model No.:	GT*961600P****,GT*961800P****.
	GT*961600P****,GT*961800P****. The 1st "*" part can be 'M' or '-' or 'H' for market identification and not related to safety. The 2nd "*" denotes the rated output wattage designation, which can be "01" to "180", with interval of 1W. The 3rd "*" denote the standard rated outputvoltage designation, which can be "12" to "54" or "12.0" to "54.0" in 0.1V increments. The 4th"*" =-T2 means desktop class II with C8 AC inlet =-T2A means desktop class II with C18 AC inlet =-T3 means desktop class I with C14 AC inlet =-T3A means desktop class I with C6 AC inlet =-TW means desktop with input wires without plug =-TP means desktop with power cord and plug. The last * denote any six character = 0-9 or A-Z or ()[] or – or blank for marketing purposes.
Adding Model(s):	/
Note: The test data is gathered from a production sample, provided by the manufacturer.	

Technical Characteristics of EUT	
Rated Voltage:	AC 100-240V
Rated Current:	2.2A
Rated Power:	180W Max
Power Adaptor Model:	/
Highest Internal Frequency:	Below 108MHz
Classification of Equipment:	Class B

1.2 Test Standards

The tests were performed according to following standards:

EN 55032:2015/AC:2016-07 Electromagnetic compatibility of multimedia equipment - Emission requirements

EN 55035:2017 Electromagnetic compatibility of multimedia equipment - Immunity requirements

EN 61000-3-2:2014 Electromagnetic compatibility (EMC) -- Part 3-2: Limits - Limits for harmonic current emissions (equipment input current up to and including 16 A per phase),

EN 61000-3-3:2013 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.

EN 60601-1-2:2015 Medical electrical equipment – Part 1-2: General requirements for basic safety and essential performance – Collateral standard: Electromagnetic compatibility – Requirements and tests

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 EN55035 for electromagnetic compatibility of multimedia equipment, and all related testing and measurement techniques intentional standards, and 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.: 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	Power Supply Mode
TM1	Connect to load	GTM961600P16012-T2* Output：12V	AC230V/50HZ
TM2	Connect to load	GTM961600P16012-T3* Output：12V	AC230V/50HZ
TM3	Connect to load	GTM961800P18024-T2* Output：24V	AC230V/50HZ
TM4	Connect to load	GTM961800P18024-T3* Output：24V	AC230V/50HZ
TM5	Connect to load	GTM961800P18054-T2* Output：54V	AC230V/50HZ
TM6	Connect to load	GTM961800P18054-T3* Output：54V	AC230V/50HZ
Note: The product is Measurement at two nominal voltages of 230V and 110V, using a frequency of 50Hz or 60Hz. This report is display the worst case with 230V/50Hz data.			

EUT Cable List and Details			
Cable Description	Length (m)	Shielded/Unshielded	With / Without Ferrite
DC Cable	0.8	Unshielded	Without Core

Special Cable List and Details			
Cable Description	Length (m)	Shielded/Unshielded	With / Without Ferrite
AC Cable	1.2	Unshielded	Without Core

Auxiliary Equipment List and Details			
Description	Manufacturer	Model	Serial Number
Multimeter	Fluke	15B	/

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
EN 55032 EN 61000-3-2 EN 61000-3-3 EN 55035 EN 60601-1-2	Conducted Emission	Compliant
	Radiated Emission	Compliant
	Harmonic Current Emission	Compliant
	Voltage Fluctuation and Flicker	Compliant
	Electrostatic Discharge Immunity in accordance with EN 61000-4-2	Compliant
	Continuous RF electromagnetic field Disturbances Immunity in accordance with EN 61000-4-3	Compliant
	Electrical Fast Transient/Burst Immunity in accordance with EN 61000-4-4	Compliant
	Surges Immunity in accordance with EN 61000-4-5	Compliant
	Continuous induced RF disturbances Immunity in accordance with EN 61000-4-6	Compliant
	Power-frequency Magnetic Fields Immunity in accordance With EN 61000-4-8	Compliant
	Voltage Dips/Interruptions Immunity in accordance with EN 61000-4-11	Compliant
	Broadband impulse noise disturbances, repetitive	N/A
	Broadband impulse noise disturbances, isolated	N/A

N/A: not applicable

3. Conducted Emission

3.1 Measurement Uncertainty

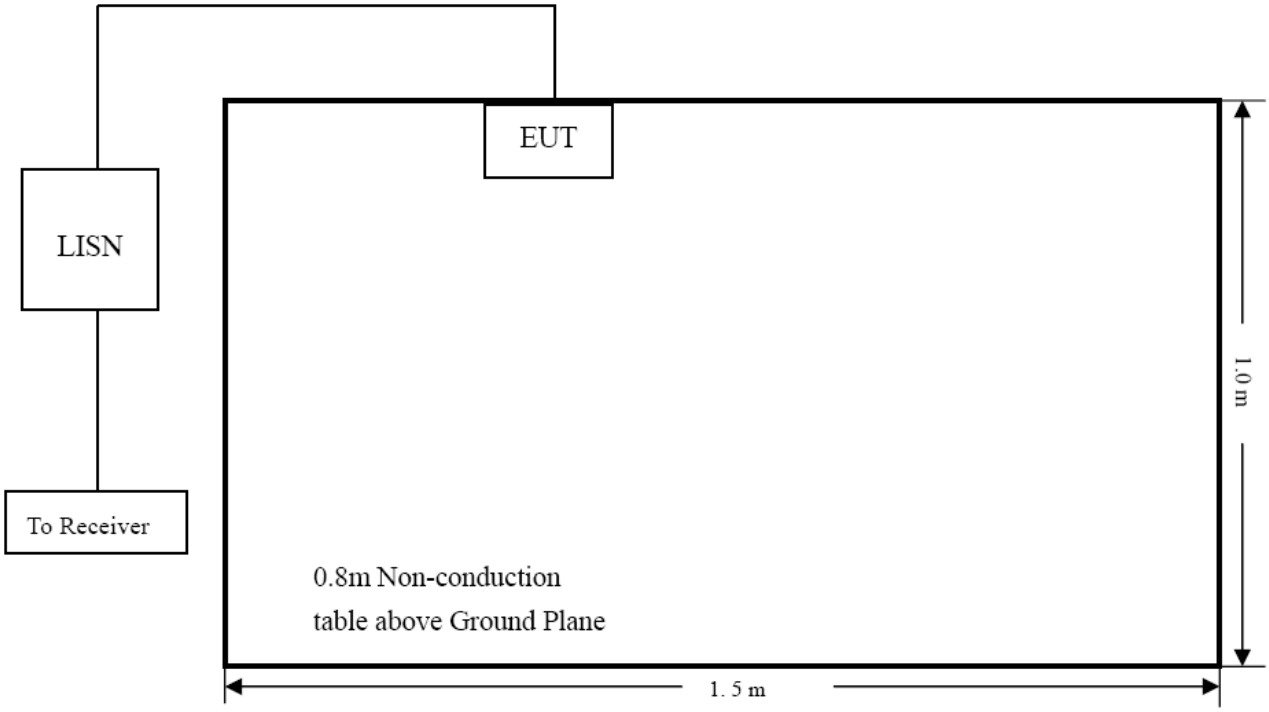
Base on NIS 81, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of any conducted emissions measurement

Measurement uncertainty		
Parameter	Conditions	Uncertainty
Conducted Emissions	Conducted	9-150kHz ±3.74dB
		0.15-30MHz ±3.34dB

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

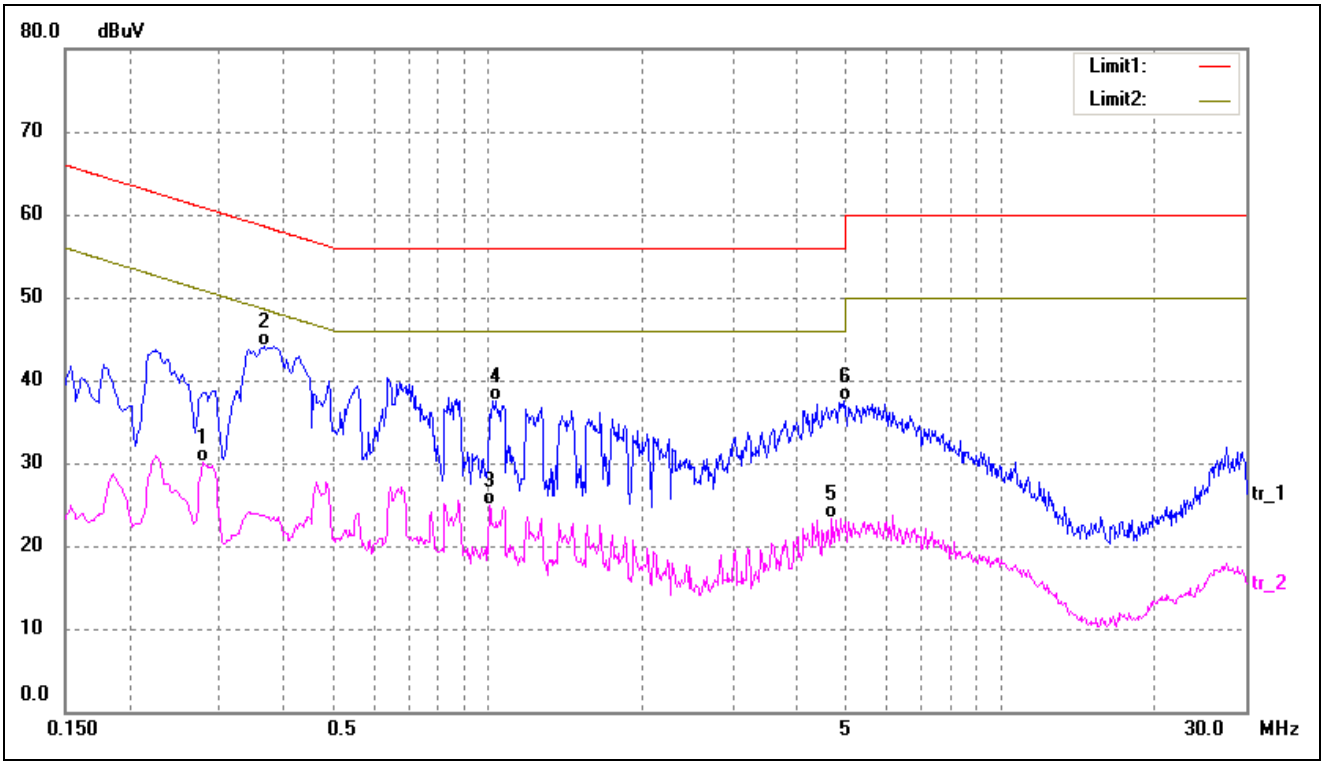
3.5 Summary of Test Results/Plots

According to the data in section 3.6, the EUT complied with the EN55032 / EN 60601-1-2 Conducted margin for a Class B device, with the *worst* margin reading of:

-2.19 dB at **0.5660 MHz** in the **Line** mode, **QP** detector, **TM6** mode, **0.15-30MHz**

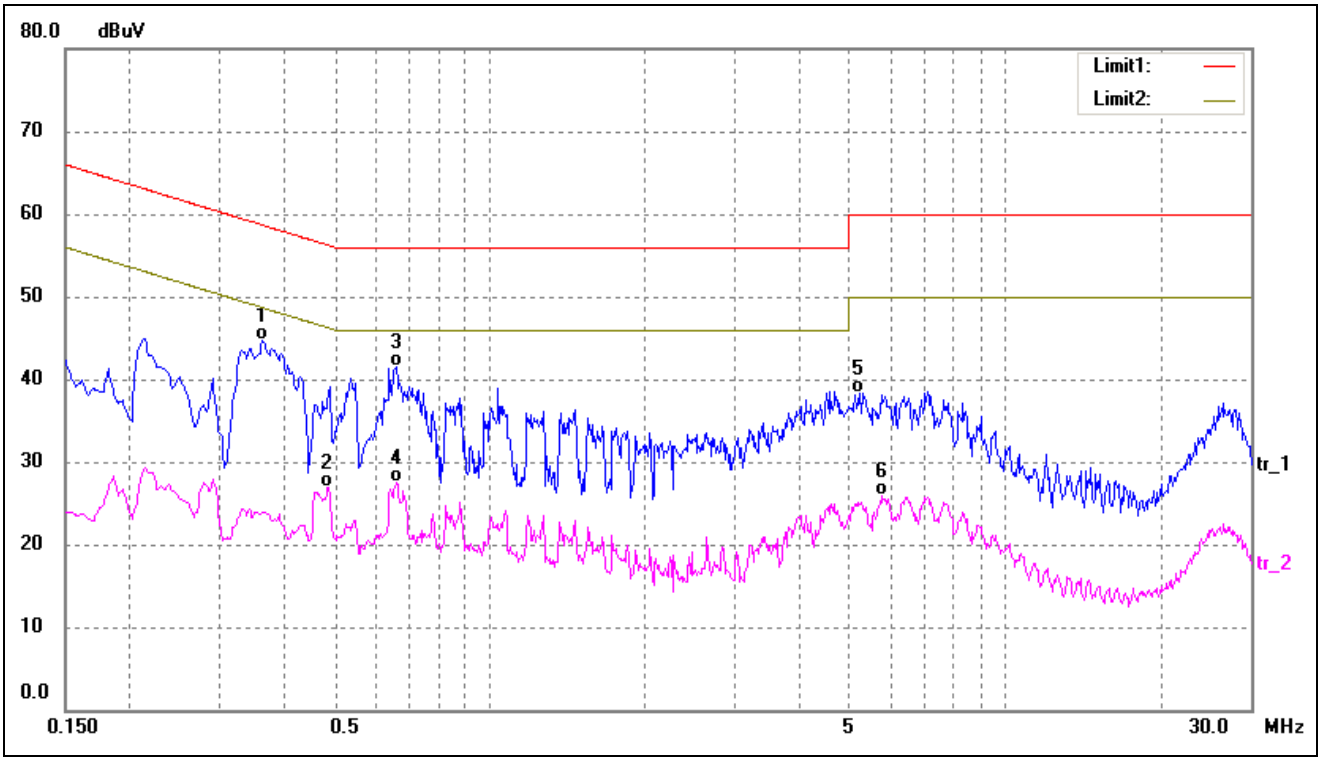
3.6 Conducted Emissions Test Data

Test mode:	TM1	Polarity:	Line



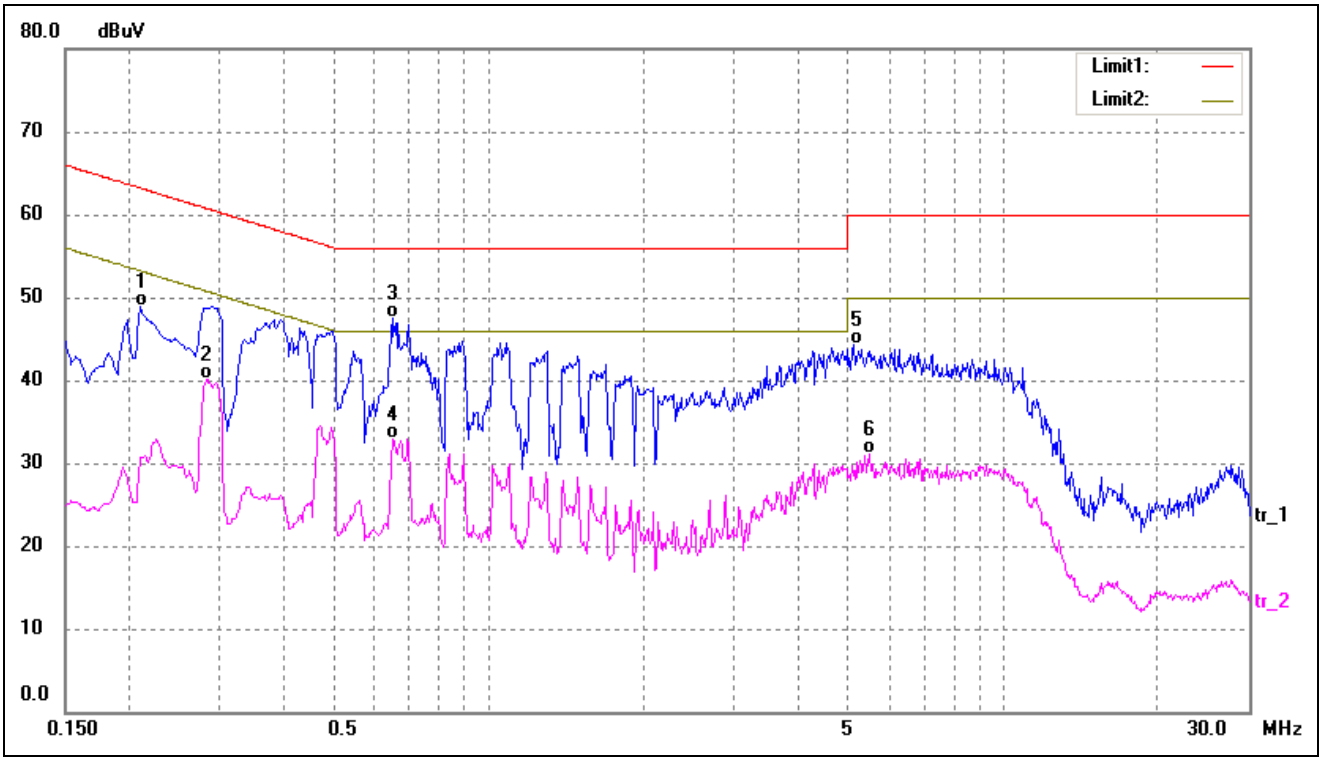
No.	Frequency	Reading	Correct	Result	Limit	Margin	Detector
	(MHz)	(dBuV)	(dB/m)	(dBuV)	(dBuV)	(dB)	
1	0.2100	30.36	9.80	40.16	63.21	-23.05	QP
2	0.2100	22.99	9.80	32.79	53.21	-20.42	AVG
3	0.6700	26.73	9.79	36.52	56.00	-19.48	QP
4	0.7780	13.48	9.78	23.26	46.00	-22.74	AVG
5	20.0460	21.11	9.68	30.79	50.00	-19.21	AVG
6*	20.4820	32.37	9.68	42.05	60.00	-17.95	QP

Test mode:	TM1	Polarity:	Neutral



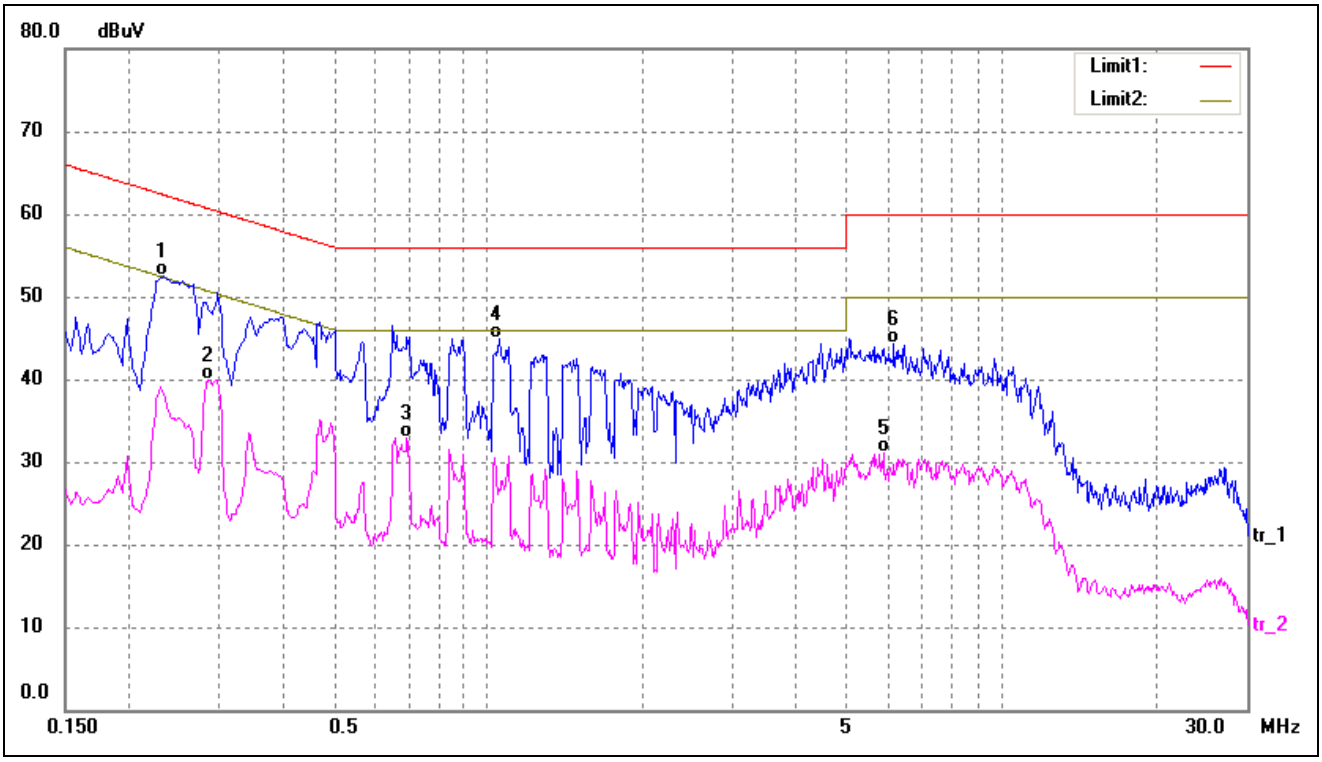
No.	Frequency	Reading	Correct	Result	Limit	Margin	Detector
	(MHz)	(dBuV)	(dB/m)	(dBuV)	(dBuV)	(dB)	
1*	0.3620	34.46	10.23	44.69	58.68	-13.99	QP
2	0.4860	16.67	10.28	26.95	46.24	-19.29	AVG
3	0.6580	31.05	10.37	41.42	56.00	-14.58	QP
4	0.6580	17.04	10.37	27.41	46.00	-18.59	AVG
5	5.2300	27.46	10.77	38.23	60.00	-21.77	QP
6	5.7700	15.08	10.79	25.87	50.00	-24.13	AVG

Test mode:	TM2	Polarity:	Line



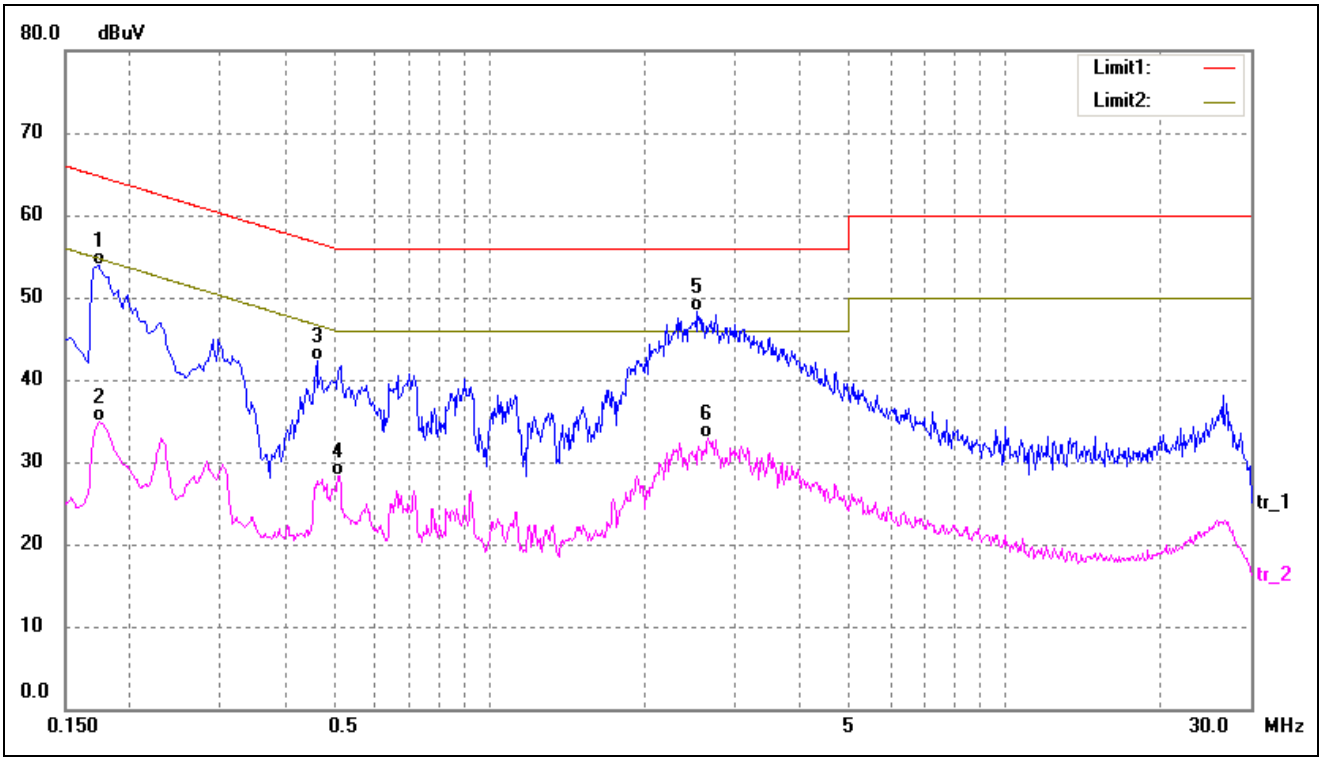
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.2100	38.76	10.13	48.89	63.20	-14.31	QP
2	0.2819	29.95	10.18	40.13	50.76	-10.63	AVG
3*	0.6500	37.11	10.36	47.47	56.00	-8.53	QP
4	0.6540	22.53	10.36	32.89	46.00	-13.11	AVG
5	5.1140	33.50	10.76	44.26	60.00	-15.74	QP
6	5.4860	20.30	10.78	31.08	50.00	-18.92	AVG

Test mode:	TM2	Polarity:	Neutral



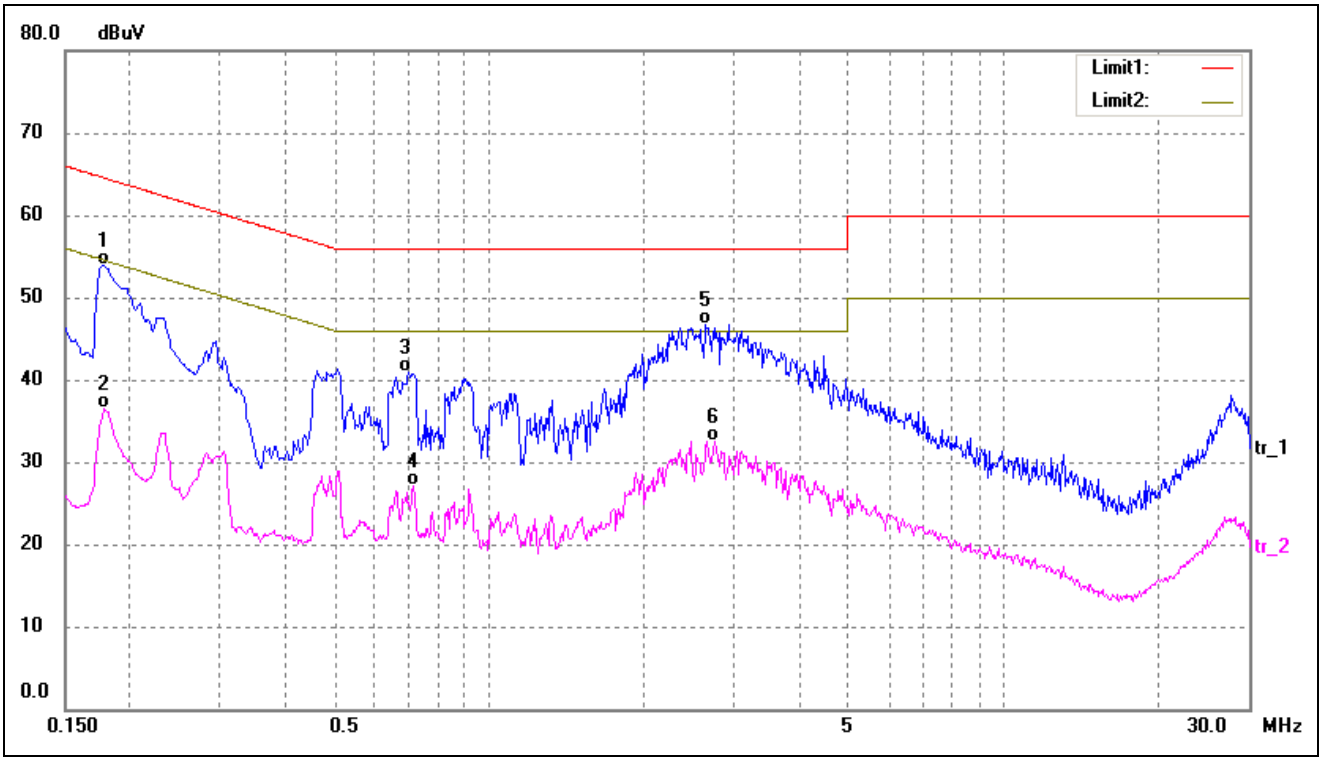
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1*	0.2340	42.33	10.14	52.47	62.30	-9.83	QP
2	0.2860	29.73	10.18	39.91	50.64	-10.73	AVG
3	0.6940	22.48	10.39	32.87	46.00	-13.13	AVG
4	1.0540	34.39	10.51	44.90	56.00	-11.10	QP
5	5.8820	20.37	10.80	31.17	50.00	-18.83	AVG
6	6.1579	33.48	10.81	44.29	60.00	-15.71	QP

Test mode:	TM3	Polarity:	Line



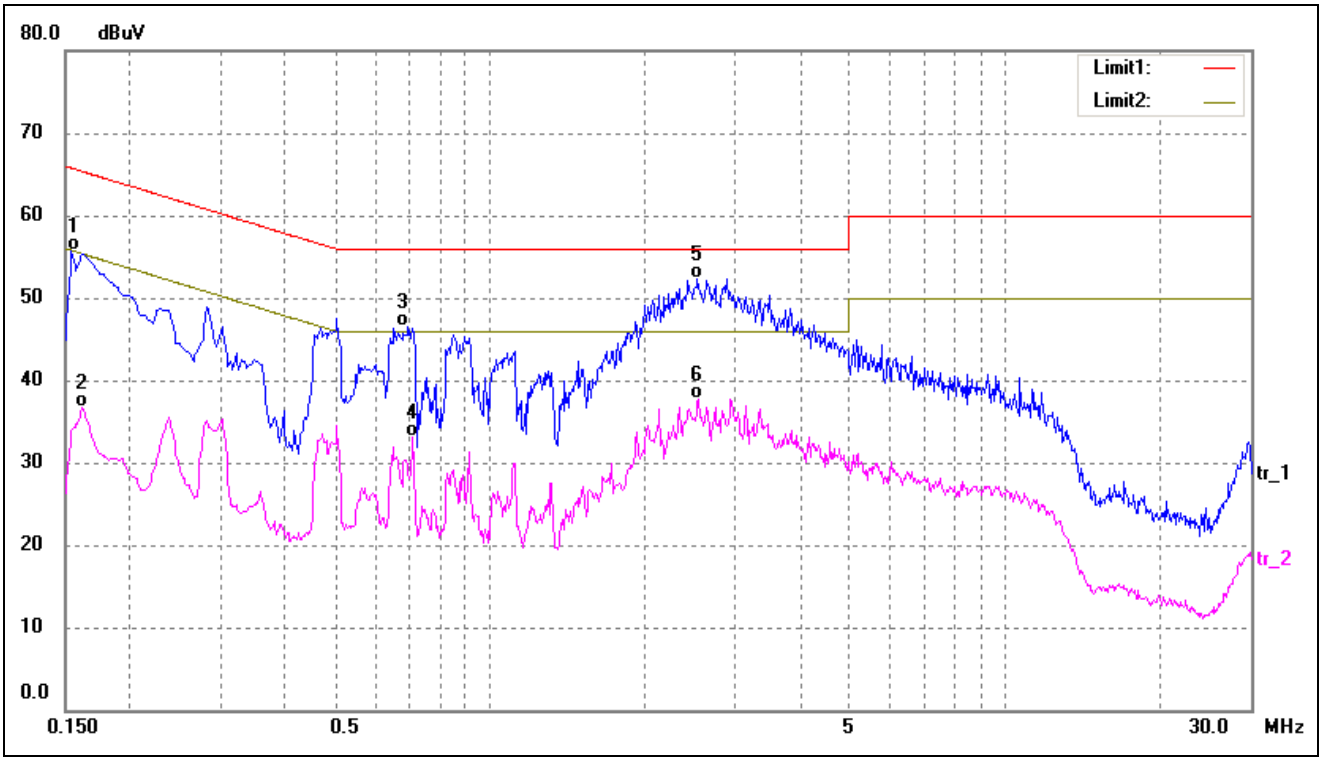
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1740	43.76	10.11	53.87	64.77	-10.90	QP
2	0.1740	24.84	10.11	34.95	54.77	-19.82	AVG
3	0.4620	32.12	10.27	42.39	56.66	-14.27	QP
4	0.5100	17.97	10.29	28.26	46.00	-17.74	AVG
5*	2.5380	37.59	10.64	48.23	56.00	-7.77	QP
6	2.6620	22.23	10.65	32.88	46.00	-13.12	AVG

Test mode:	TM3	Polarity:	Neutral



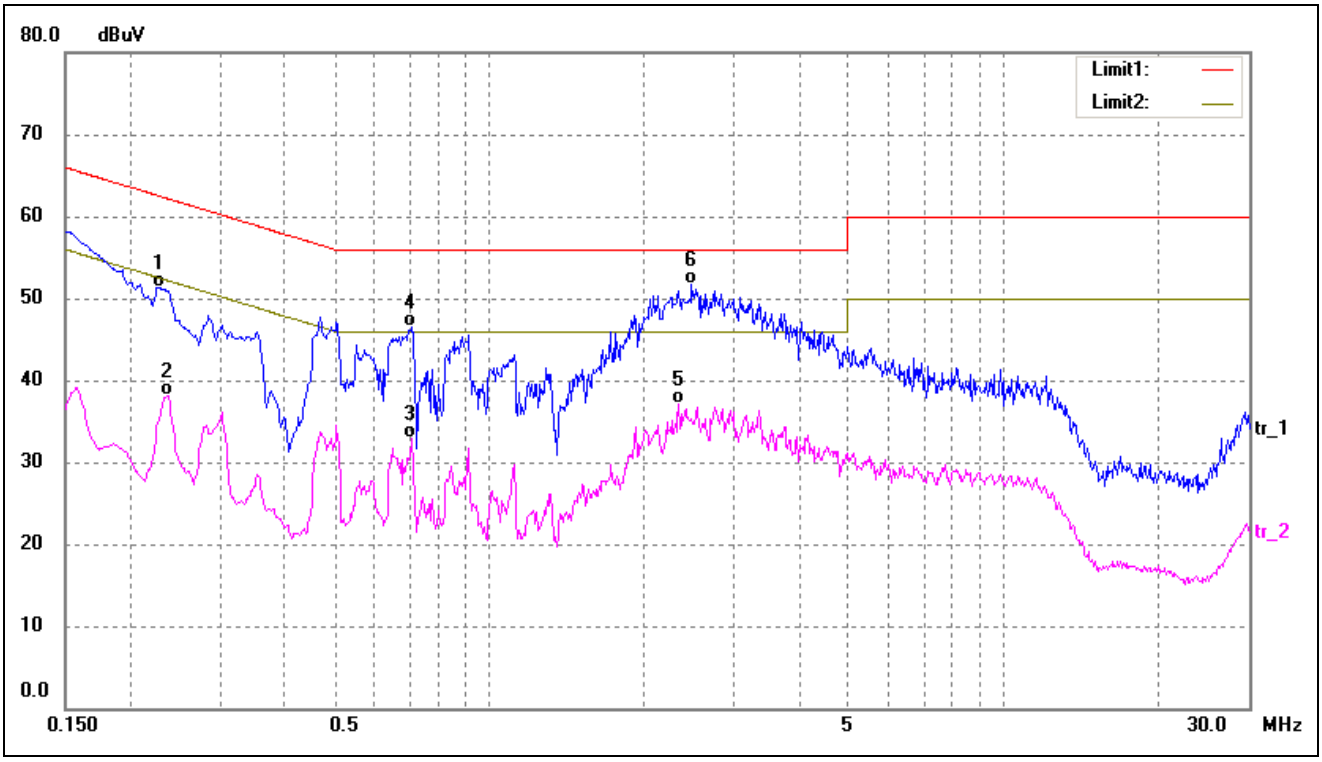
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1780	43.87	10.11	53.98	64.58	-10.60	QP
2	0.1780	26.31	10.11	36.42	54.58	-18.16	AVG
3	0.6980	30.42	10.39	40.81	56.00	-15.19	QP
4	0.7140	16.80	10.39	27.19	46.00	-18.81	AVG
5*	2.6420	36.09	10.65	46.74	56.00	-9.26	QP
6	2.7540	21.92	10.66	32.58	46.00	-13.42	AVG

Test mode:	TM4	Polarity:	Line



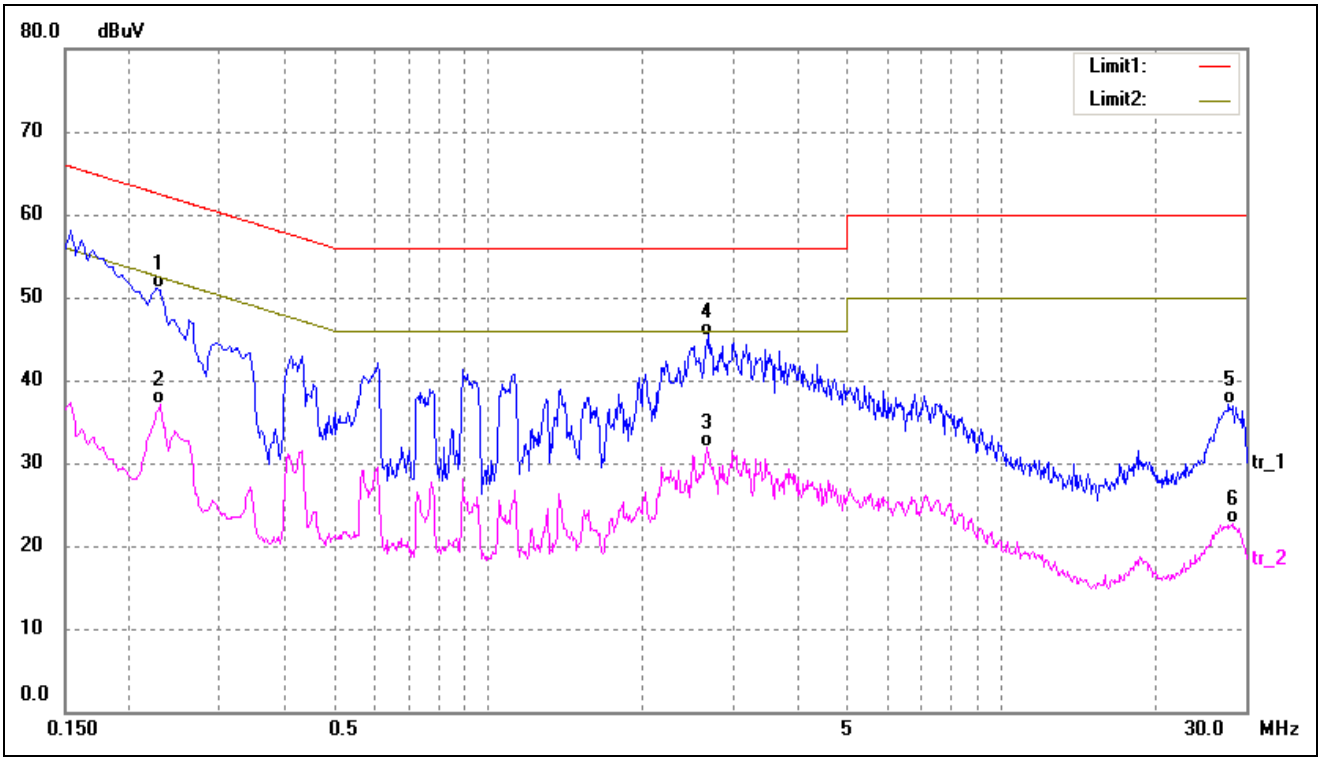
No.	Frequency	Reading	Correct	Result	Limit	Margin	Detector
	(MHz)	(dBuV)	(dB/m)	(dBuV)	(dBuV)	(dB)	
1	0.1540	45.64	10.10	55.74	65.78	-10.04	QP
2	0.1620	26.58	10.10	36.68	55.36	-18.68	AVG
3	0.6940	36.05	10.39	46.44	56.00	-9.56	QP
4	0.7100	22.77	10.39	33.16	46.00	-12.84	AVG
5*	2.5380	41.73	10.64	52.37	56.00	-3.63	QP
6	2.5420	27.10	10.64	37.74	46.00	-8.26	AVG

Test mode:	TM4	Polarity:	Neutral



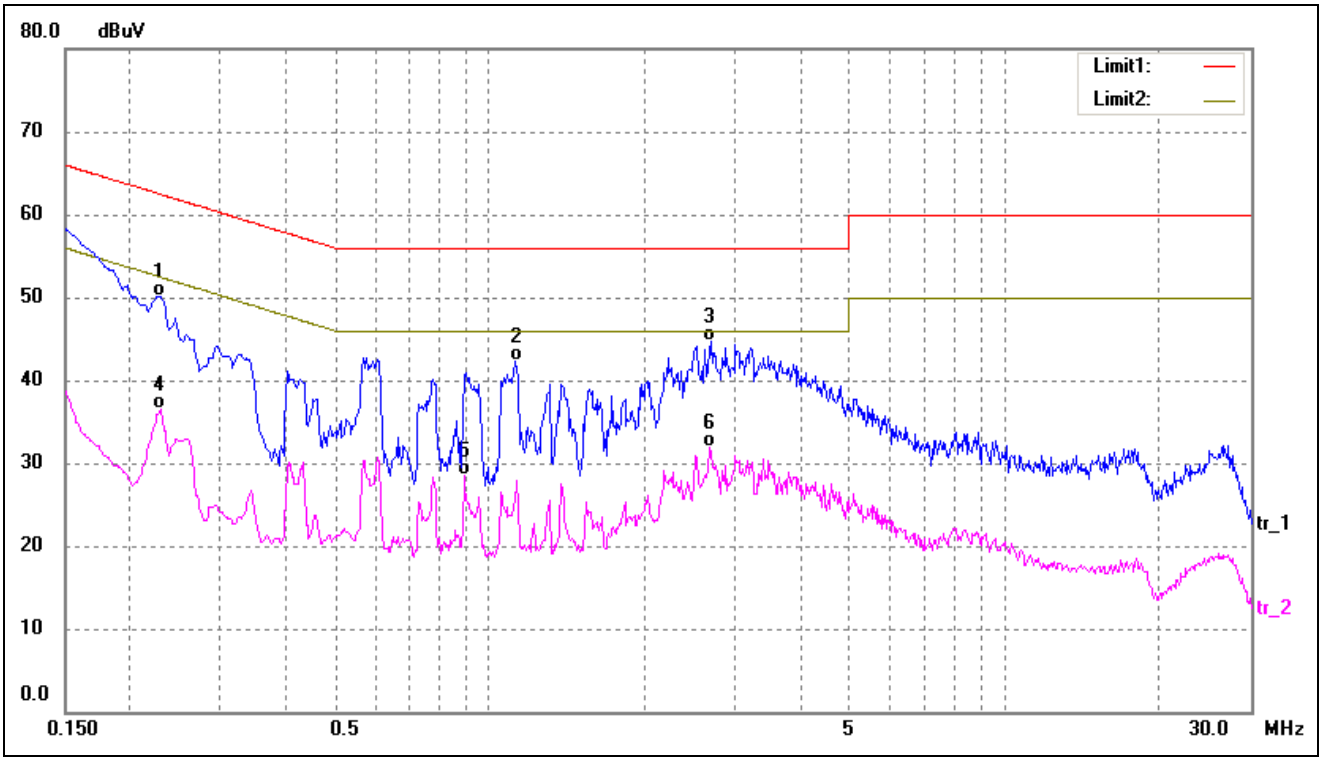
No.	Frequency	Reading	Correct	Result	Limit	Margin	Detector
	(MHz)	(dBuV)	(dB/m)	(dBuV)	(dBuV)	(dB)	
1	0.2260	41.14	10.14	51.28	62.60	-11.32	QP
2	0.2380	28.00	10.15	38.15	52.17	-14.02	AVG
3	0.7060	22.47	10.39	32.86	46.00	-13.14	AVG
4	0.7100	36.19	10.39	46.58	56.00	-9.42	QP
5	2.3380	26.47	10.63	37.10	46.00	-8.90	AVG
6*	2.4860	41.04	10.64	51.68	56.00	-4.32	QP

Test mode:	TM5	Polarity:	Line



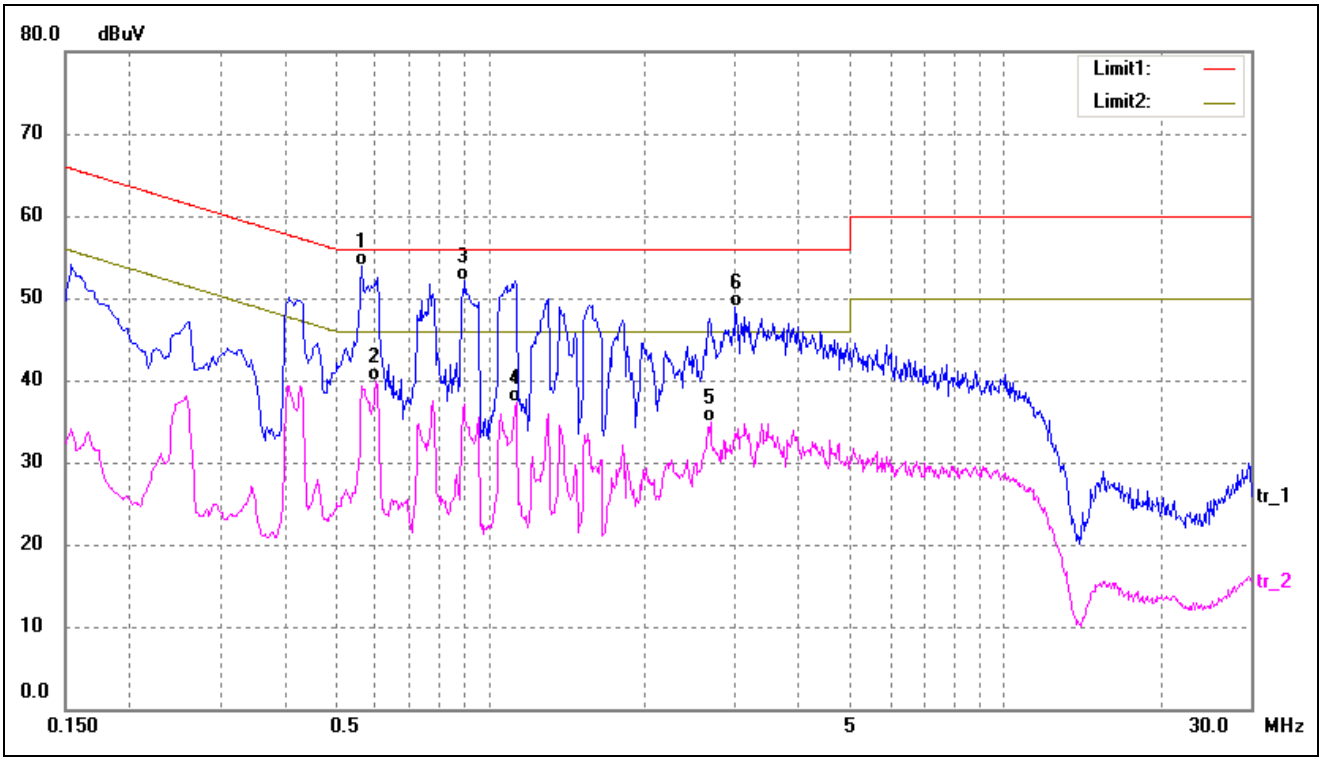
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.2260	41.01	10.14	51.15	62.60	-11.45	QP
2	0.2300	26.87	10.14	37.01	52.45	-15.44	AVG
3	2.6740	21.28	10.65	31.93	46.00	-14.07	AVG
4*	2.6980	34.75	10.65	45.40	56.00	-10.60	QP
5	27.8180	25.84	11.25	37.09	60.00	-22.91	QP
6	28.3620	11.51	11.25	22.76	50.00	-27.24	AVG

Test mode:	TM5	Polarity:	Neutral



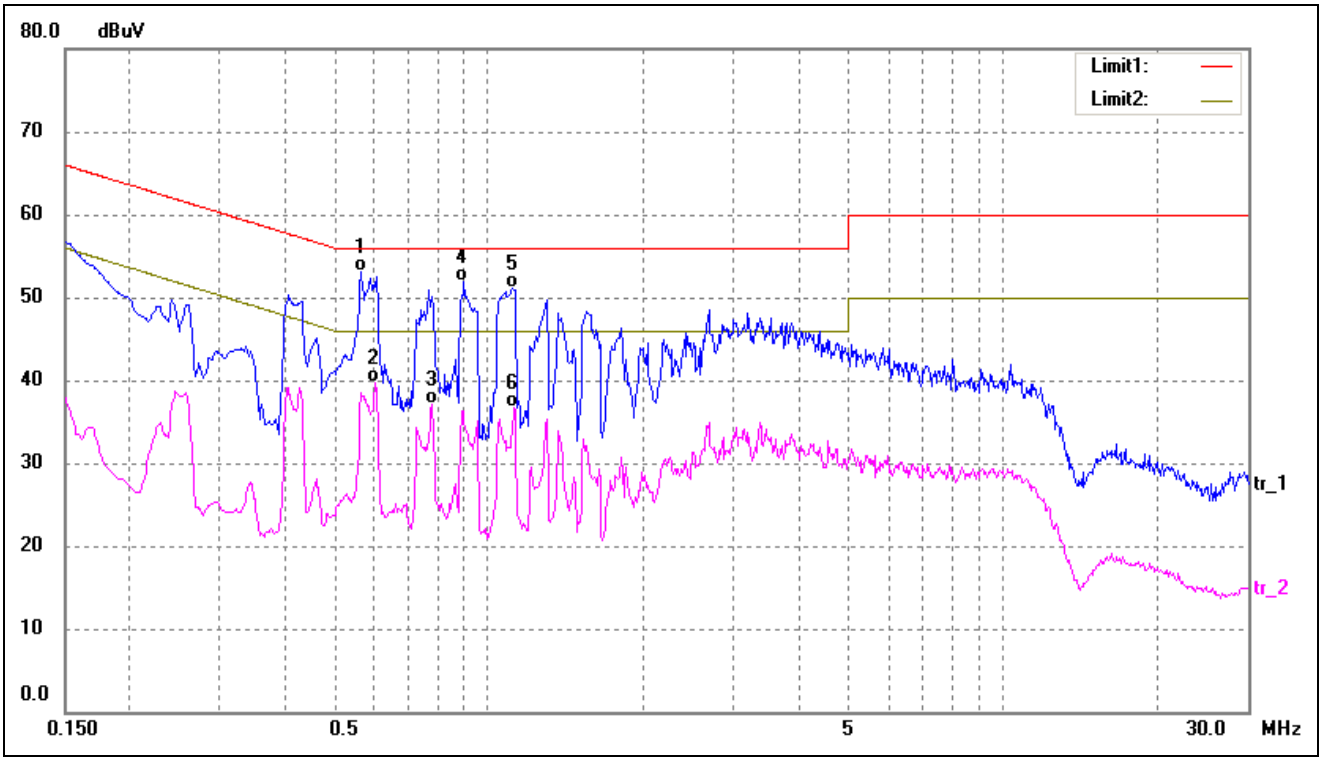
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.2260	40.05	10.14	50.19	62.59	-12.40	QP
2	1.1220	31.75	10.51	42.26	56.00	-13.74	QP
3*	2.7020	34.03	10.65	44.68	56.00	-11.32	QP
4	0.2300	26.43	10.14	36.57	52.45	-15.88	AVG
5	0.8940	18.09	10.46	28.55	46.00	-17.45	AVG
6	2.6740	21.33	10.65	31.98	46.00	-14.02	AVG

Test mode:	TM6	Polarity:	Line



No.	Frequency	Reading	Correct	Result	Limit	Margin	Detector
	(MHz)	(dBuV)	(dB/m)	(dBuV)	(dBuV)	(dB)	
1*	0.5660	43.49	10.32	53.81	56.00	-2.19	QP
2	0.6020	29.58	10.35	39.93	46.00	-6.07	AVG
3	0.8980	41.71	10.46	52.17	56.00	-3.83	QP
4	1.1260	26.83	10.52	37.35	46.00	-8.65	AVG
5	2.6820	24.32	10.65	34.97	46.00	-11.03	AVG
6	3.0020	38.25	10.68	48.93	56.00	-7.07	QP

Test mode:	TM6	Polarity:	Neutral



No.	Frequency	Reading	Correct	Result	Limit	Margin	Detector
	(MHz)	(dBuV)	(dB/m)	(dBuV)	(dBuV)	(dB)	
1*	0.5660	42.70	10.32	53.02	56.00	-2.98	QP
2	0.6020	29.35	10.35	39.70	46.00	-6.30	AVG
3	0.7780	26.76	10.42	37.18	46.00	-8.82	AVG
4	0.8980	41.47	10.46	51.93	56.00	-4.07	QP
5	1.1140	40.62	10.51	51.13	56.00	-4.87	QP
6	1.1220	26.18	10.51	36.69	46.00	-9.31	AVG

4. Radiated Emission

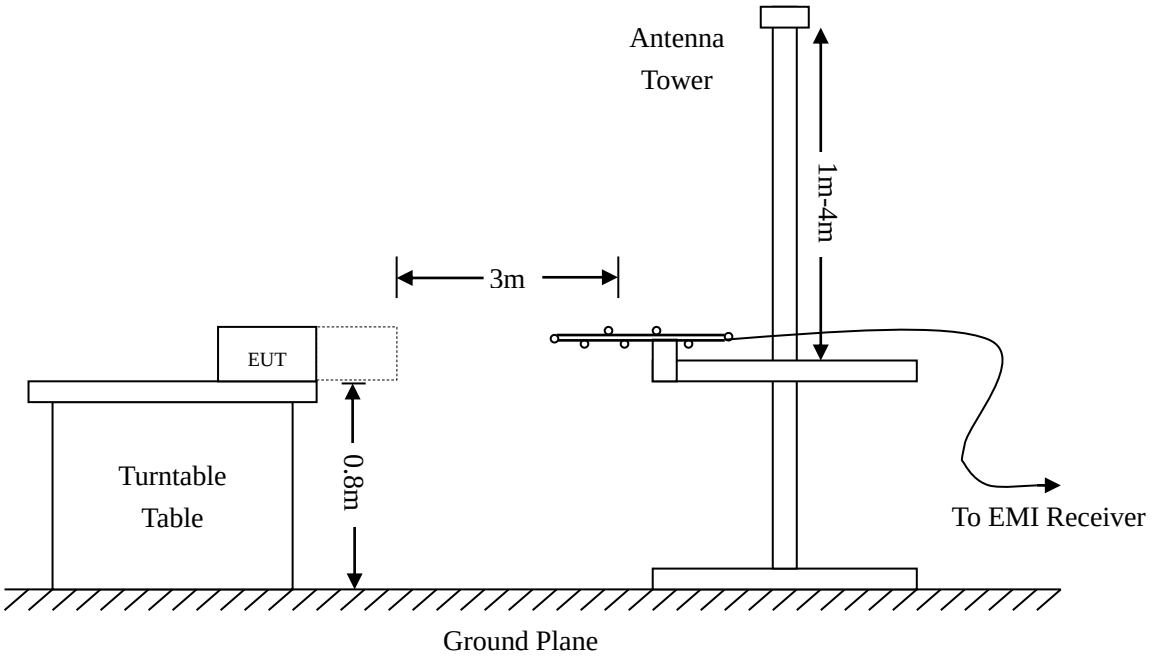
4.1 Measurement Uncertainty

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 ±4.52dB
		0.2-1GHz ±5.56dB
		1-6GHz ±3.84dB
		6-18GHz ±3.92dB

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:

Corr. Ampl. = Indicated Reading + Antenna Factor + Cable Factor - Amplifier Gain

The "**Margin**" column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of -6dBμV means the emission is 6dBμV below the maximum limit for Class B device. The equation for margin calculation is as follows:

Margin = Corr. Ampl. – EN55032 / EN 60601-1-2 Class B Limit

4.4 Environmental Conditions

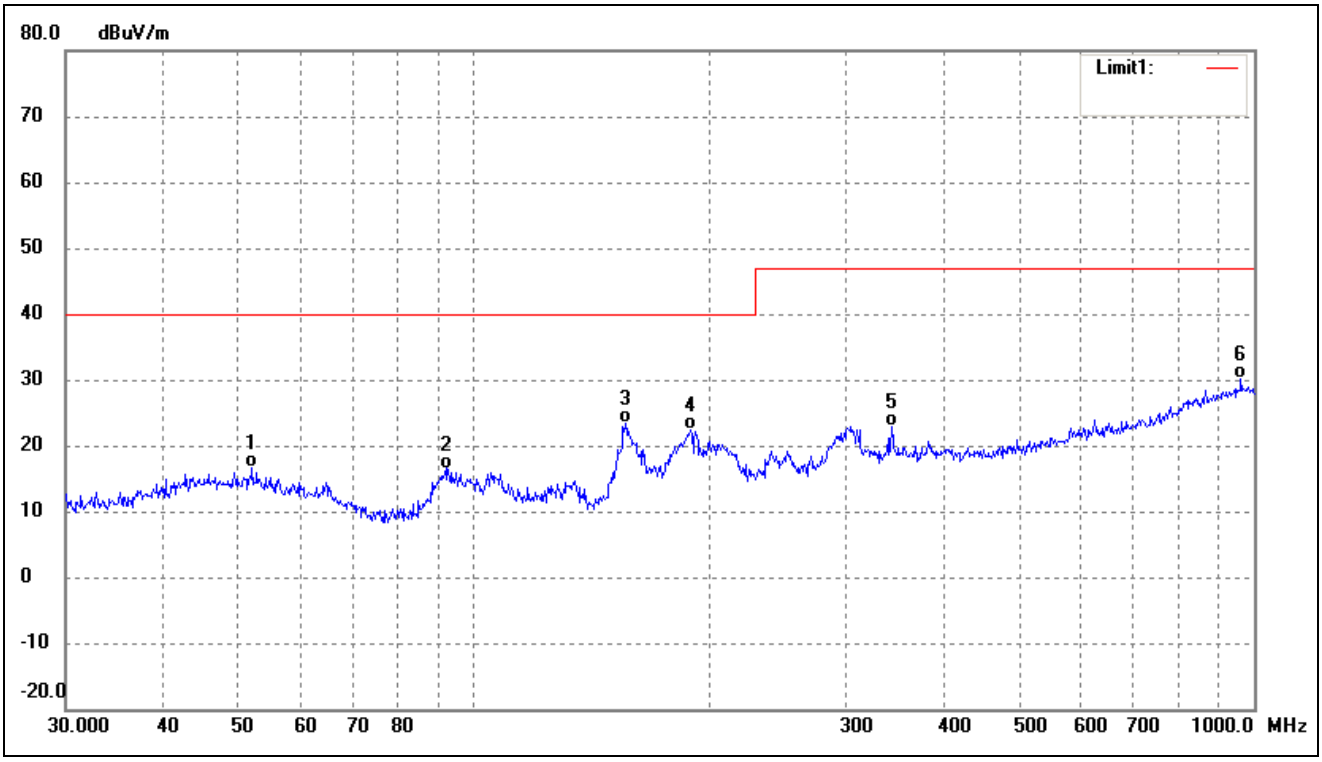
Temperature:	23° C
Relative Humidity:	53%
ATM Pressure:	1011 mbar

4.5 Summary of Test Results/Plots

According to the data in section 4.5, the EUT complied with the EN55032 / EN 60601-1-2 Class B standards, and had the worst margin is:

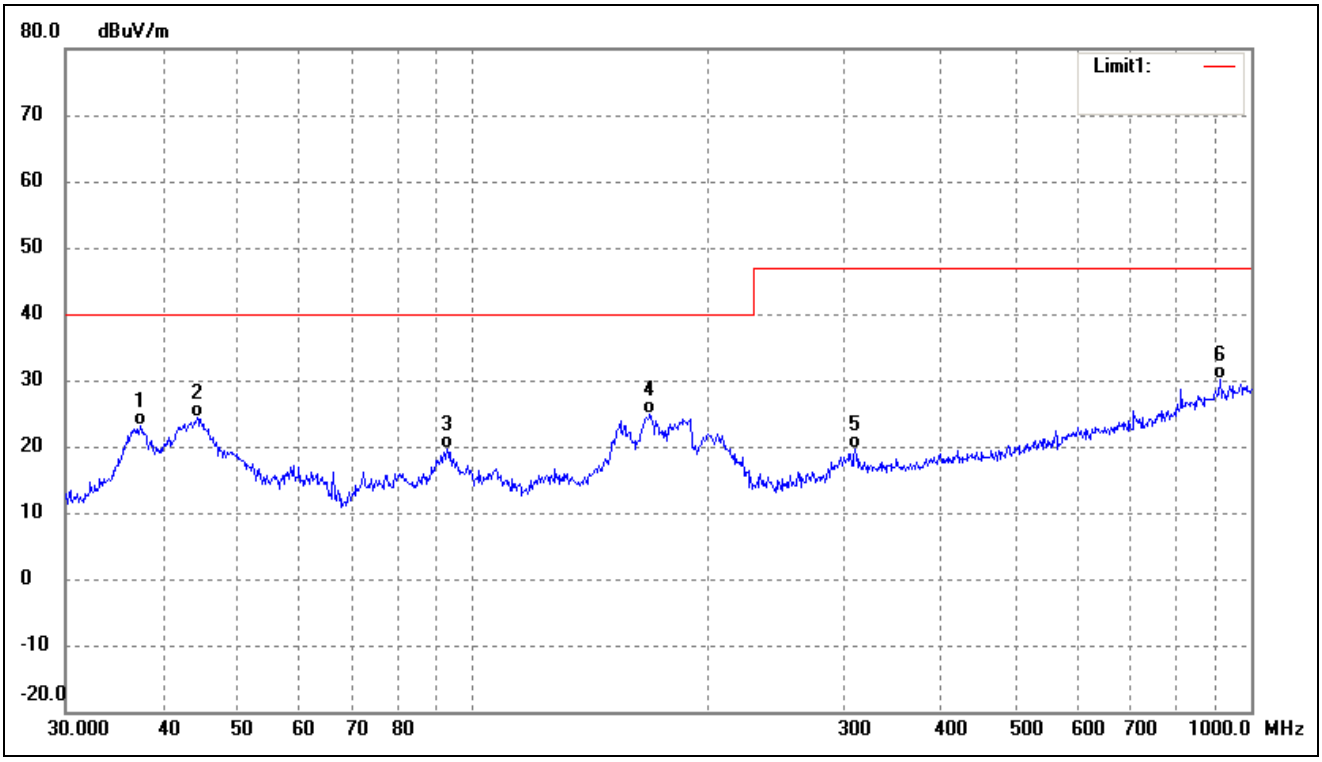
-4.73 dB at **229.2931 MHz** in the **Vertical** polarization, **TM6** mode, **30 MHz to 1 GHz, 3Meters**

Test mode:	TM1	Polarity:	Horizontal



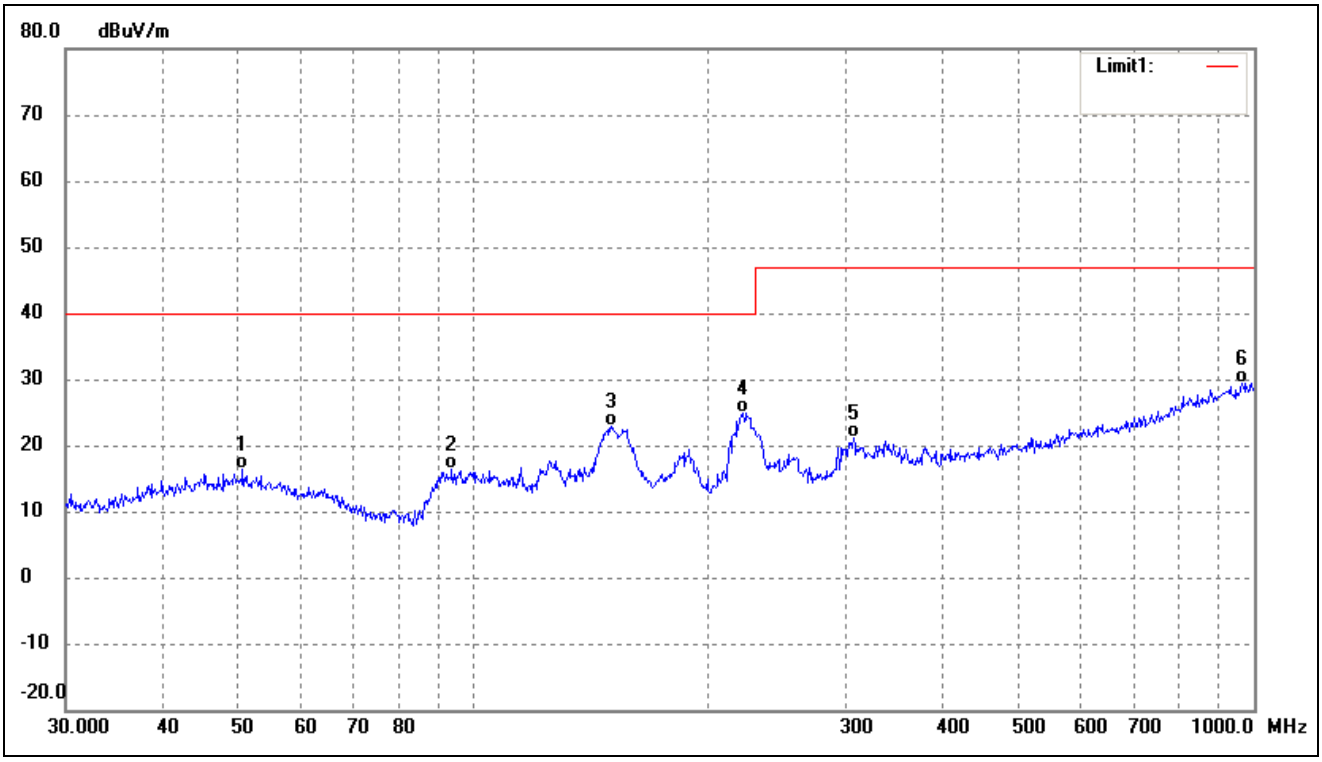
No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	( )	(cm)	
1	52.0251	28.23	-11.59	16.64	40.00	-23.36	251	100	QP
2	92.1388	30.33	-13.83	16.50	40.00	-23.50	123	100	QP
3	156.4578	40.07	-16.77	23.30	40.00	-16.70	21	100	QP
4	189.7385	36.76	-14.43	22.33	40.00	-17.67	195	100	QP
5	343.1800	32.09	-9.17	22.92	47.00	-24.08	252	100	QP
6	962.1623	28.17	1.84	30.01	47.00	-16.99	101	100	QP

Test mode:	TM1	Polarity:	Vertical



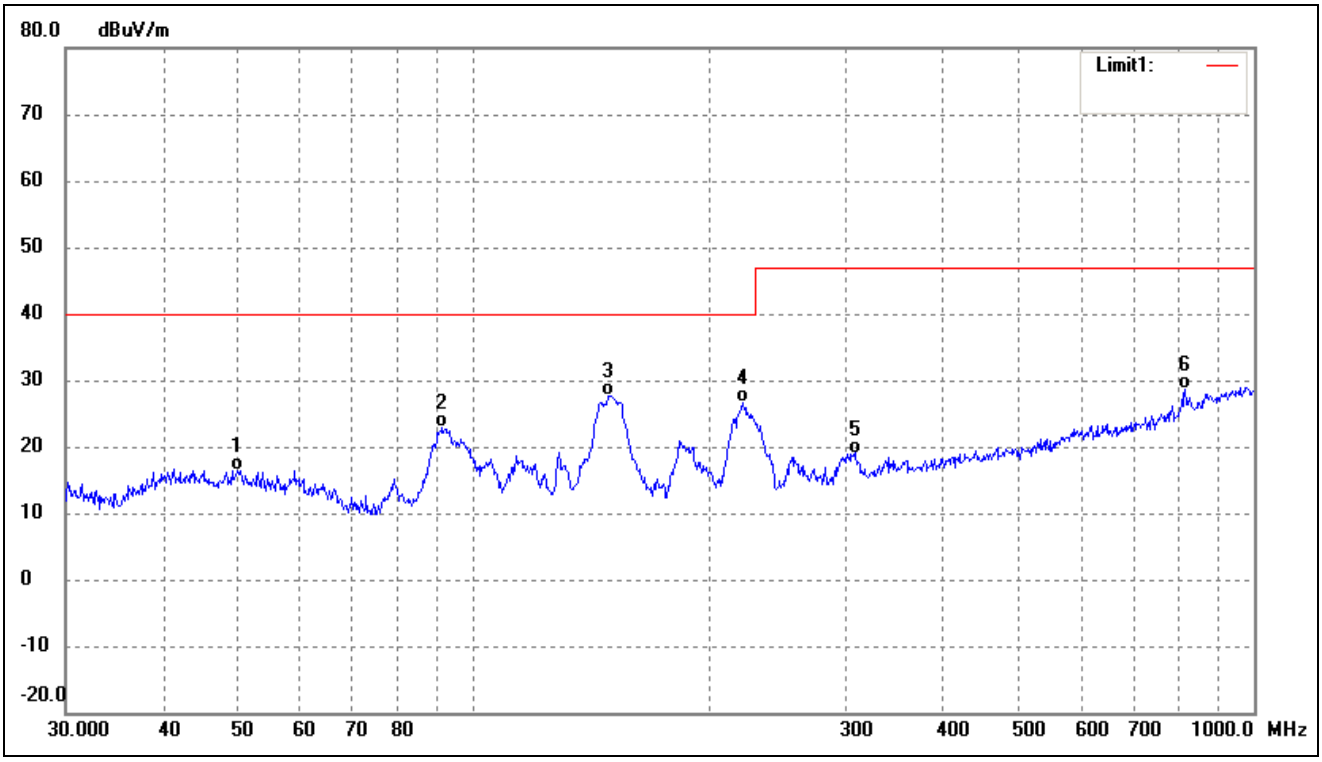
No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	( )	(cm)	
1	37.4165	36.48	-13.45	23.03	40.00	-16.97	32	100	QP
2	44.2752	36.32	-12.01	24.31	40.00	-15.69	123	100	QP
3	92.7872	33.49	-13.96	19.53	40.00	-20.47	263	100	QP
4	169.0054	41.17	-16.19	24.98	40.00	-15.02	355	100	QP
5	309.9977	29.96	-10.31	19.65	47.00	-27.35	104	100	QP
6	912.8620	28.84	1.37	30.21	47.00	-16.79	66	100	QP

Test mode:	TM2	Polarity:	Horizontal



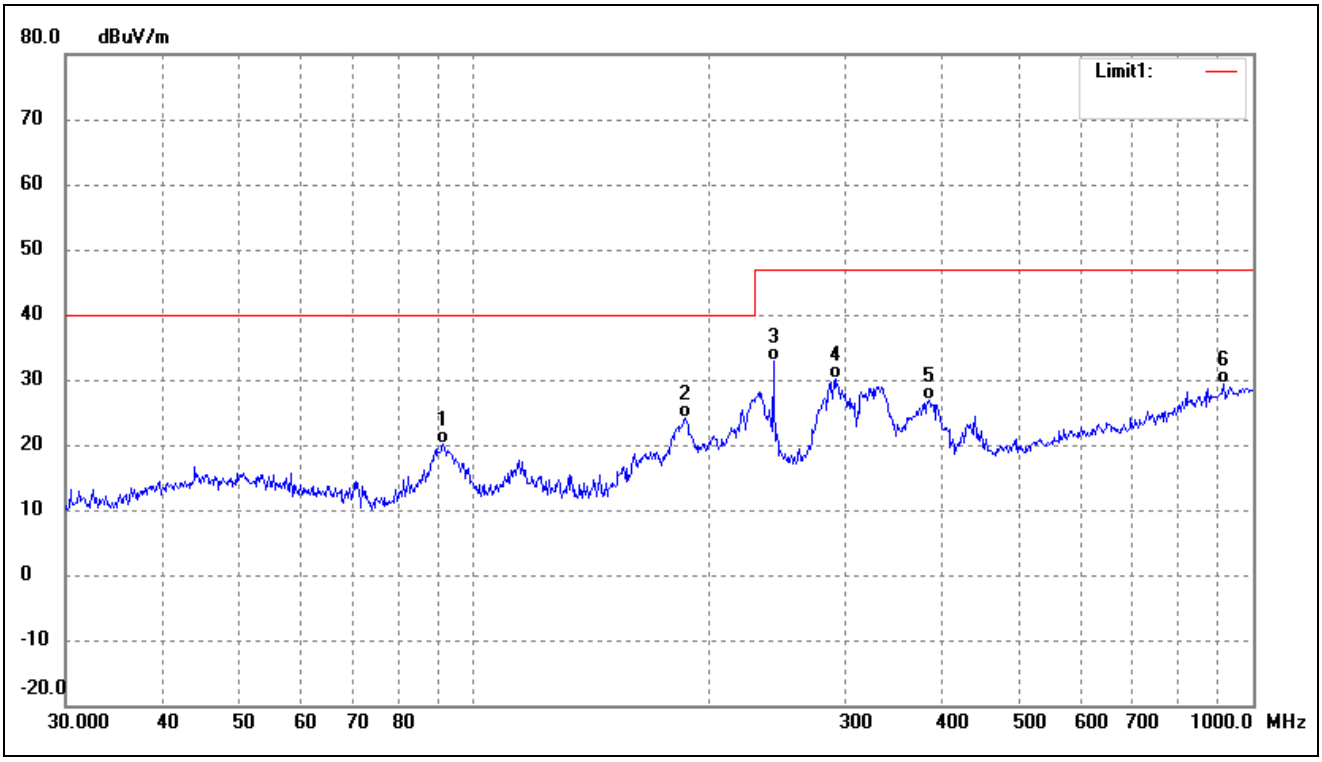
No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	( )	(cm)	
1	50.5860	28.04	-11.60	16.44	40.00	-23.56	312	100	QP
2	93.7685	30.60	-14.15	16.45	40.00	-23.55	25	100	QP
3	150.0108	40.37	-17.40	22.97	40.00	-17.03	105	100	QP
4	221.3921	37.88	-12.89	24.99	40.00	-15.01	196	100	QP
5	306.7537	31.33	-10.26	21.07	47.00	-25.93	241	100	QP
6	965.5421	27.58	1.85	29.43	47.00	-17.57	152	100	QP

Test mode:	TM2	Polarity:	Vertical



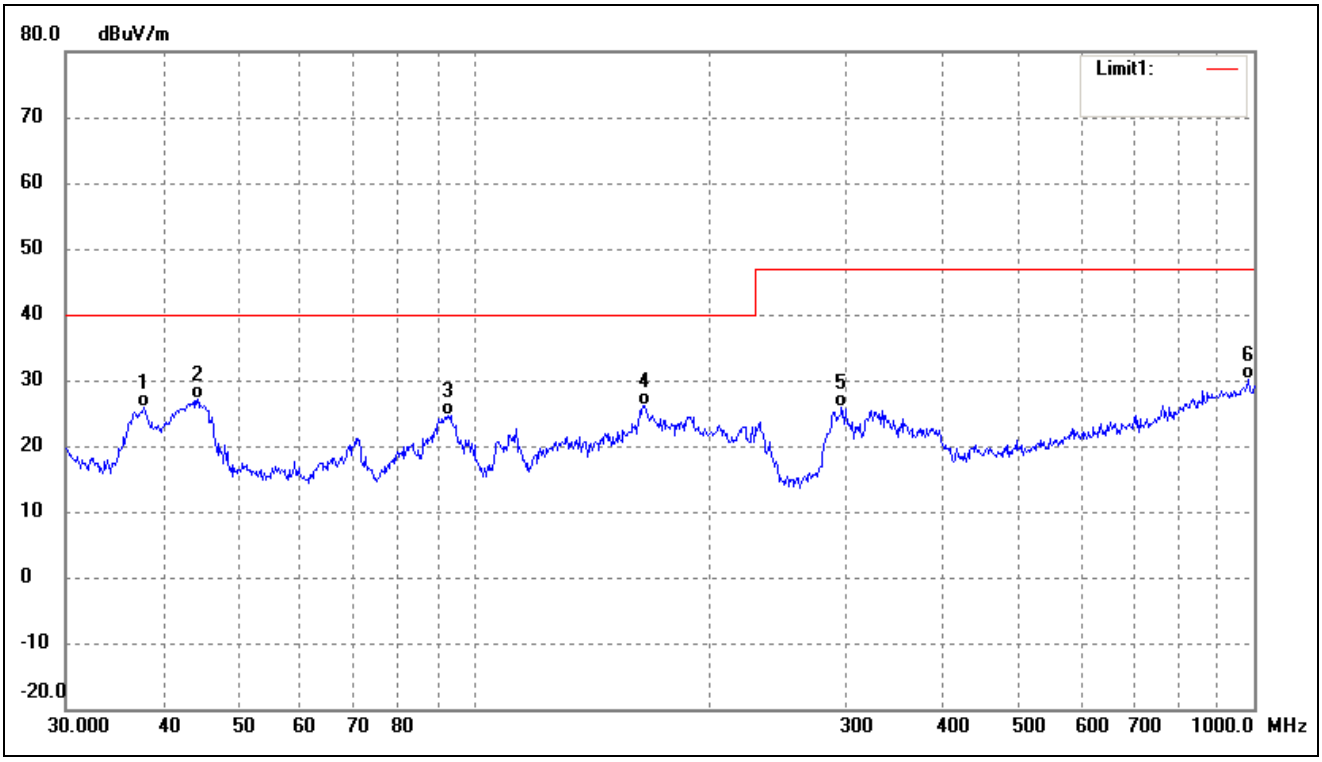
No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	( )	(cm)	
1	49.8814	28.06	-11.60	16.46	40.00	-23.54	345	100	QP
2	91.1746	36.56	-13.63	22.93	40.00	-17.07	127	100	QP
3	148.4410	45.17	-17.44	27.73	40.00	-12.27	52	100	QP
4	221.3921	39.53	-12.89	26.64	40.00	-13.36	166	100	QP
5	307.8313	29.28	-10.28	19.00	47.00	-28.00	210	100	QP
6	815.9678	28.96	-0.42	28.54	47.00	-18.46	288	100	QP

Test mode:	TM3	Polarity:	Horizontal



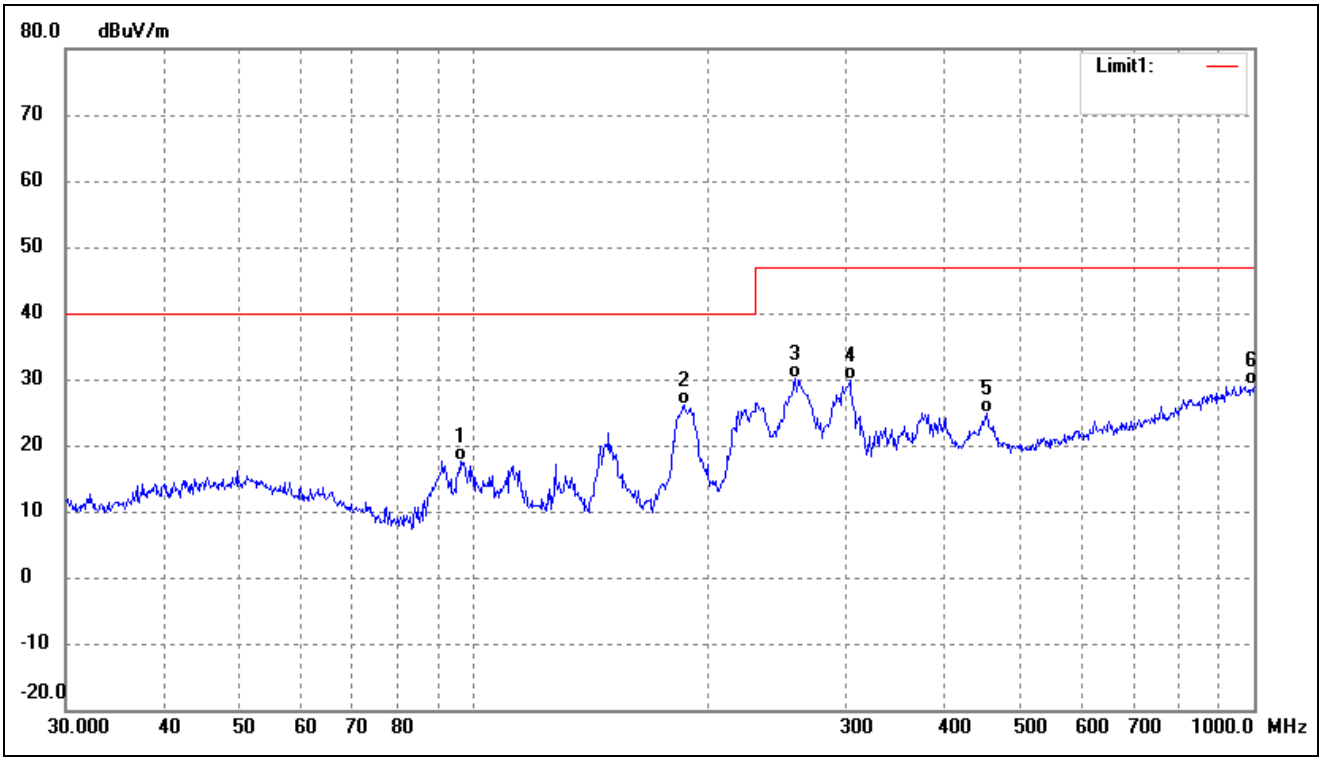
No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	( )	(cm)	
1	91.4949	33.74	-13.70	20.04	40.00	-19.96	56	100	QP
2	187.0958	38.93	-14.72	24.21	40.00	-15.79	291	100	QP
3	242.5253	44.72	-11.76	32.96	47.00	-14.04	142	100	QP
4	291.0360	40.52	-10.44	30.08	47.00	-16.92	53	100	QP
5	383.9318	35.89	-9.01	26.88	47.00	-20.12	216	100	QP
6	916.0687	27.99	1.37	29.36	47.00	-17.64	252	100	QP

Test mode:	TM3	Polarity:	Vertical



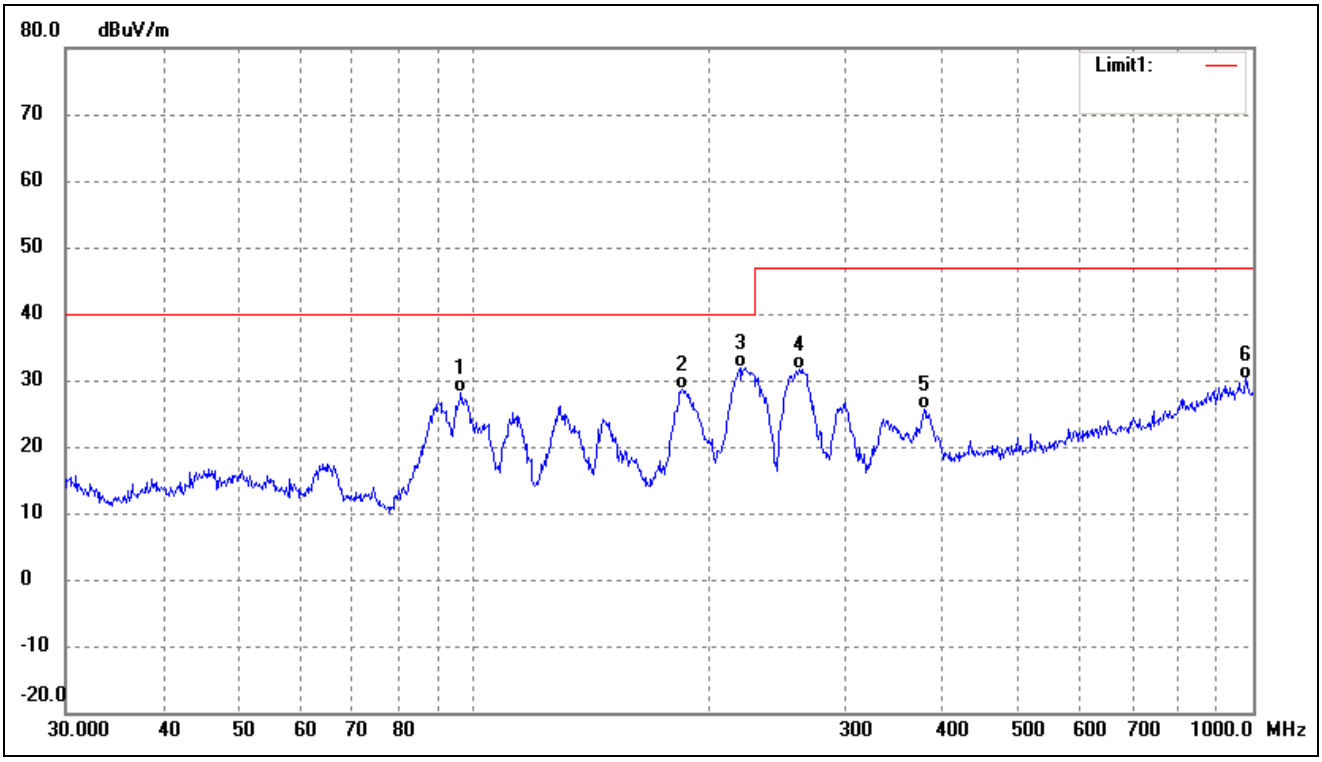
No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	( )	(cm)	
1	37.8121	39.12	-13.27	25.85	40.00	-14.15	333	100	QP
2	44.2752	39.14	-12.01	27.13	40.00	-12.87	215	100	QP
3	92.7872	38.71	-13.96	24.75	40.00	-15.25	246	100	QP
4	165.4867	42.32	-16.16	26.16	40.00	-13.84	159	100	QP
5	296.1836	35.95	-10.17	25.78	47.00	-21.22	56	100	QP
6	982.6200	27.97	2.23	30.20	47.00	-16.80	293	100	QP

Test mode:	TM4	Polarity:	Horizontal



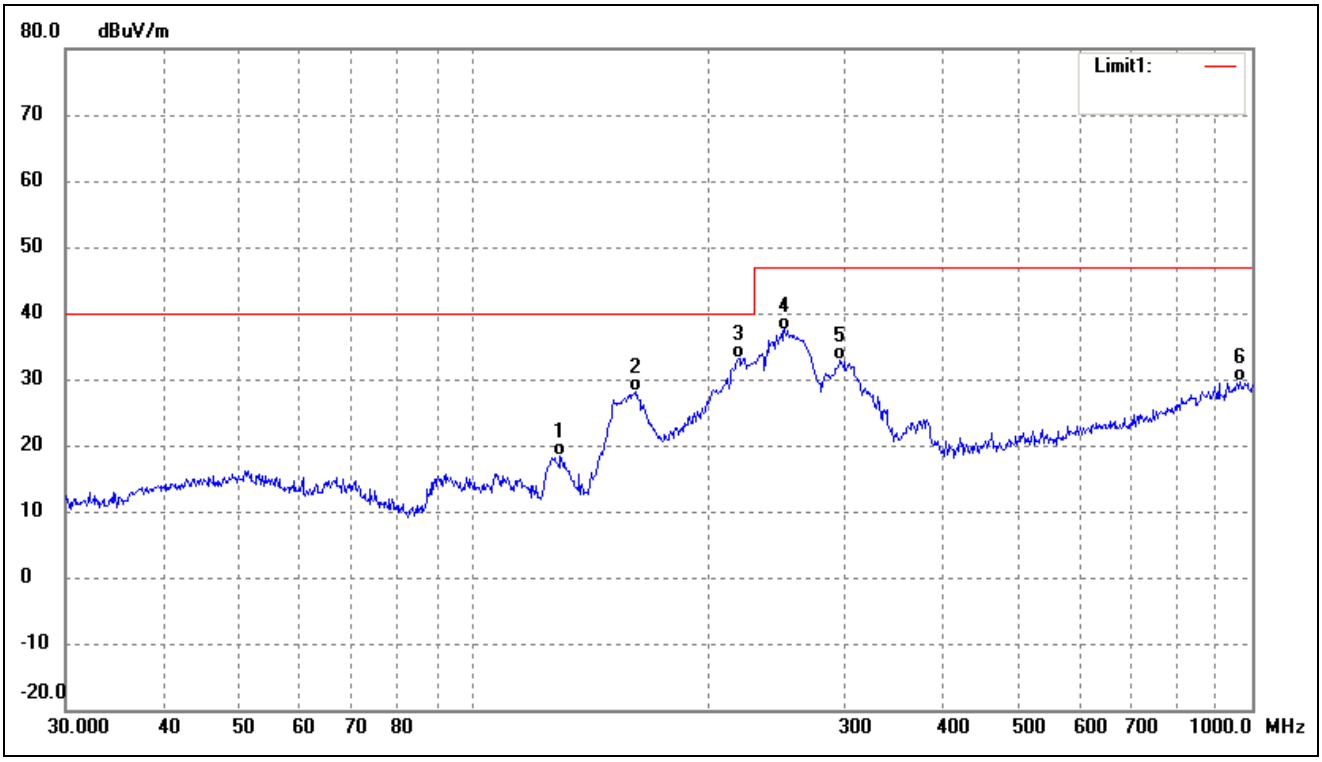
No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	( )	(cm)	
1	96.0986	31.89	-14.27	17.62	40.00	-22.38	91	100	QP
2	185.7882	41.07	-14.87	26.20	40.00	-13.80	152	100	QP
3	258.3264	41.46	-11.43	30.03	47.00	-16.97	241	100	QP
4	303.5437	40.02	-10.22	29.80	47.00	-17.20	325	100	QP
5	454.3100	33.05	-8.12	24.93	47.00	-22.07	231	100	QP
6	1000.0000	26.82	2.20	29.02	47.00	-17.98	102	100	QP

Test mode:	TM4	Polarity:	Vertical



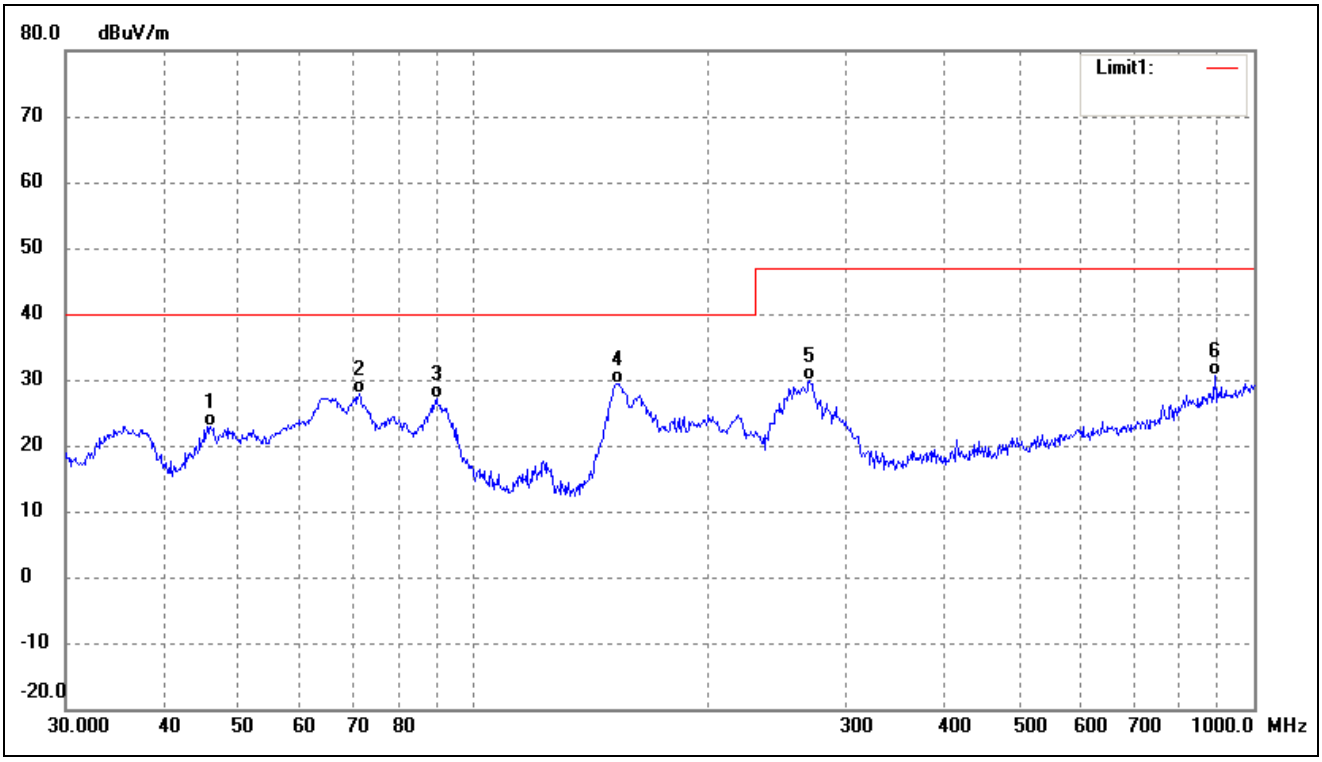
No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	( )	(cm)	
1	96.4362	42.32	-14.23	28.09	40.00	-11.91	55	100	QP
2	185.1379	43.61	-14.94	28.67	40.00	-11.33	163	100	QP
3	219.8449	44.95	-12.95	32.00	40.00	-8.00	341	100	QP
4	261.9753	42.78	-11.18	31.60	47.00	-15.40	121	100	QP
5	378.5843	34.58	-8.97	25.61	47.00	-21.39	10	100	QP
6	979.1804	28.01	2.24	30.25	47.00	-16.75	165	100	QP

Test mode:	TM5	Polarity:	Horizontal



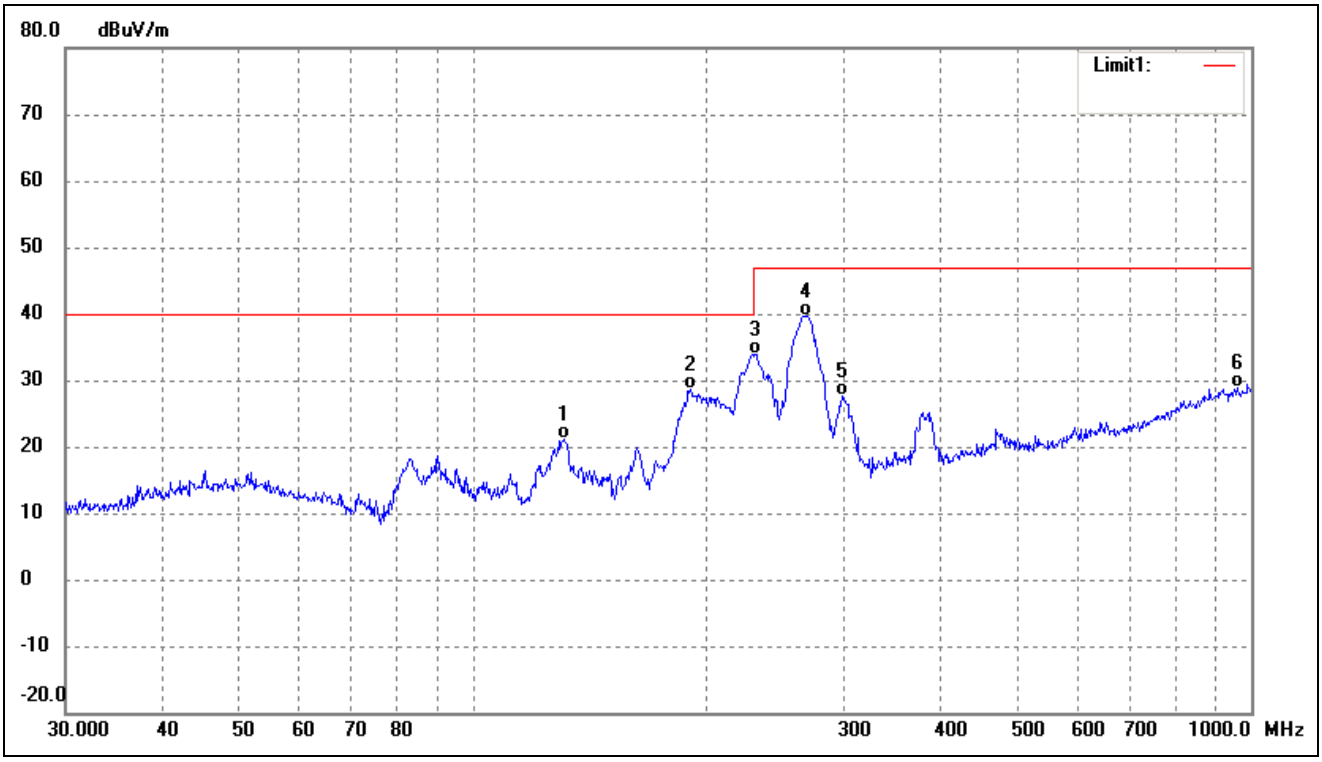
No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	( )	(cm)	
1	129.4678	35.23	-16.85	18.38	40.00	-21.62	91	100	QP
2	162.0414	44.43	-16.42	28.01	40.00	-11.99	241	100	QP
3	219.0753	46.21	-13.01	33.20	40.00	-6.80	156	100	QP
4	251.1804	49.25	-11.75	37.50	47.00	-9.50	243	100	QP
5	296.1836	42.98	-10.17	32.81	47.00	-14.19	319	100	QP
6	965.5421	27.85	1.85	29.70	47.00	-17.30	21	100	QP

Test mode:	TM5	Polarity:	Vertical



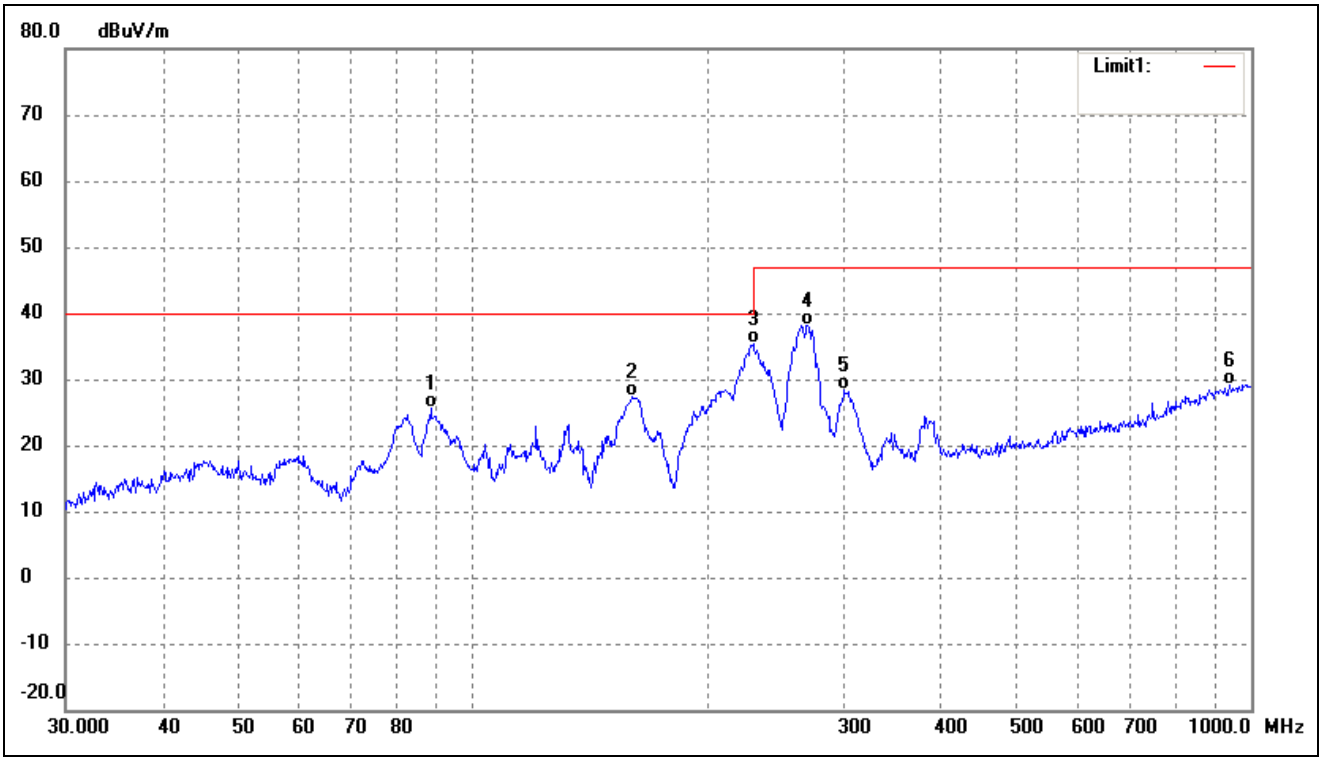
No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	( )	(cm)	
1	46.0164	34.81	-11.81	23.00	40.00	-17.00	358	100	QP
2	71.3300	43.89	-16.13	27.76	40.00	-12.24	196	100	QP
3	89.5900	40.89	-13.72	27.17	40.00	-12.83	256	100	QP
4	153.2004	46.52	-17.05	29.47	40.00	-10.53	218	100	QP
5	269.4284	40.97	-11.08	29.89	47.00	-17.11	141	100	QP
6	890.7278	29.97	0.64	30.61	47.00	-16.39	12	100	QP

Test mode:	TM6	Polarity:	Horizontal



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	( )	(cm)	
1	130.8369	38.00	-16.95	21.05	40.00	-18.95	49	100	QP
2	190.4050	42.94	-14.35	28.59	40.00	-11.41	160	100	QP
3	230.9068	46.21	-12.24	33.97	47.00	-13.03	255	100	QP
4	267.5455	50.73	-11.01	39.72	47.00	-7.28	105	100	QP
5	298.2681	37.72	-10.16	27.56	47.00	-19.44	236	100	QP
6	958.7943	27.10	1.80	28.90	47.00	-18.10	121	100	QP

Test mode:	TM6	Polarity:	Vertical



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	( )	(cm)	
1	88.3421	40.32	-14.69	25.63	40.00	-14.37	136	100	QP
2	160.3457	43.89	-16.57	27.32	40.00	-12.68	26	100	QP
3	229.2931	47.60	-12.33	35.27	40.00	-4.73	345	100	QP
4	269.4284	49.27	-11.08	38.19	47.00	-8.81	216	100	QP
5	300.3673	38.43	-10.15	28.28	47.00	-18.72	259	100	QP
6	938.8326	27.74	1.40	29.14	47.00	-17.86	112	100	QP

5. Harmonic Current Emissions

5.1 Test Procedure

Test is conducting under the description of EN 61000-3-2.

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

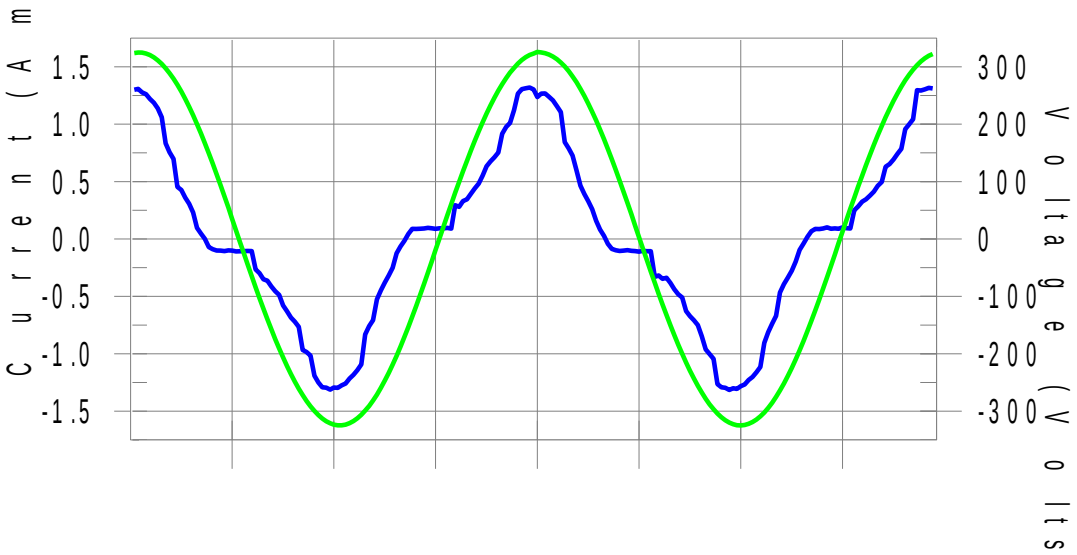
5.3 Harmonic Current Emissions Test Data

Test mode:	TM1

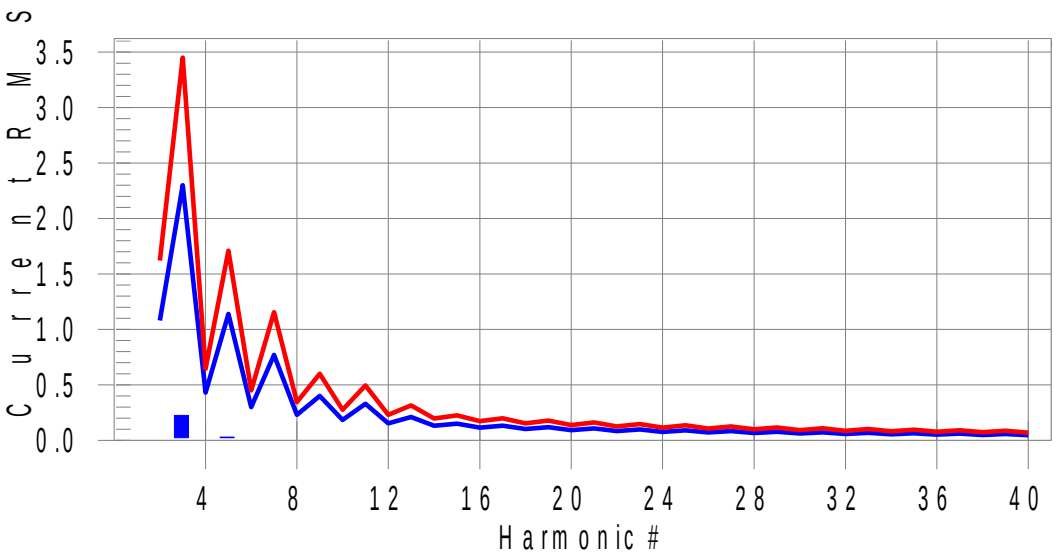
Highest parameter values during test:

V_RMS (Volts):	**229.95**	**Frequency(Hz):**	**50.00**
I_Peak (Amps):	**1.406**	**I_RMS (Amps):**	**0.755**
I_Fund (Amps):	**0.720**	**Crest Factor:**	**1.865**
Power (Watts):	**162.0**	**Power Factor:**	**0.934**

Current & voltage waveforms



Harmonics and Class A limit line **European Limits**



Test result: Pass Worst harmonic was #27 with 14.26% of the limit.

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	0.223	2.300	9.7	0.224	3.450	6.49	Pass
4	0.001	0.430	0.0	0.001	0.645	0.12	Pass
5	0.029	1.140	2.5	0.029	1.710	1.68	Pass
6	0.000	0.300	0.0	0.000	0.450	0.08	Pass
7	0.016	0.770	2.1	0.016	1.155	1.42	Pass
8	0.000	0.230	0.0	0.000	0.345	0.10	Pass
9	0.017	0.400	4.4	0.018	0.600	2.95	Pass
10	0.000	0.184	0.0	0.000	0.276	0.11	Pass
11	0.012	0.330	3.6	0.012	0.495	2.42	Pass
12	0.000	0.153	0.0	0.000	0.230	0.09	Pass
13	0.012	0.210	5.6	0.012	0.315	3.78	Pass
14	0.000	0.131	0.0	0.000	0.197	0.09	Pass
15	0.007	0.150	4.8	0.007	0.225	3.24	Pass
16	0.000	0.115	0.0	0.000	0.173	0.15	Pass
17	0.005	0.132	4.0	0.005	0.199	2.70	Pass
18	0.000	0.102	0.0	0.000	0.153	0.14	Pass
19	0.003	0.118	0.0	0.003	0.178	1.73	Pass
20	0.000	0.092	0.0	0.000	0.138	0.20	Pass
21	0.008	0.107	7.3	0.008	0.161	4.93	Pass
22	0.000	0.084	0.0	0.000	0.125	0.17	Pass
23	0.009	0.098	9.4	0.009	0.147	6.31	Pass
24	0.000	0.077	0.0	0.000	0.115	0.31	Pass
25	0.006	0.090	6.3	0.006	0.135	4.38	Pass
26	0.000	0.071	0.0	0.000	0.106	0.40	Pass
27	0.012	0.083	14.3	0.012	0.125	9.62	Pass
28	0.000	0.066	0.0	0.000	0.099	0.35	Pass
29	0.007	0.078	9.4	0.007	0.116	6.37	Pass
30	0.000	0.061	0.0	0.000	0.092	0.31	Pass
31	0.005	0.073	0.0	0.005	0.109	4.47	Pass
32	0.000	0.058	0.0	0.000	0.086	0.53	Pass
33	0.003	0.068	0.0	0.003	0.102	2.55	Pass
34	0.000	0.054	0.0	0.000	0.081	0.44	Pass
35	0.007	0.064	11.2	0.007	0.096	7.58	Pass
36	0.000	0.051	0.0	0.000	0.077	0.27	Pass
37	0.006	0.061	10.5	0.006	0.091	7.11	Pass
38	0.000	0.048	0.0	0.000	0.073	0.42	Pass
39	0.002	0.058	0.0	0.003	0.087	2.88	Pass
40	0.000	0.046	0.0	0.000	0.069	0.56	Pass

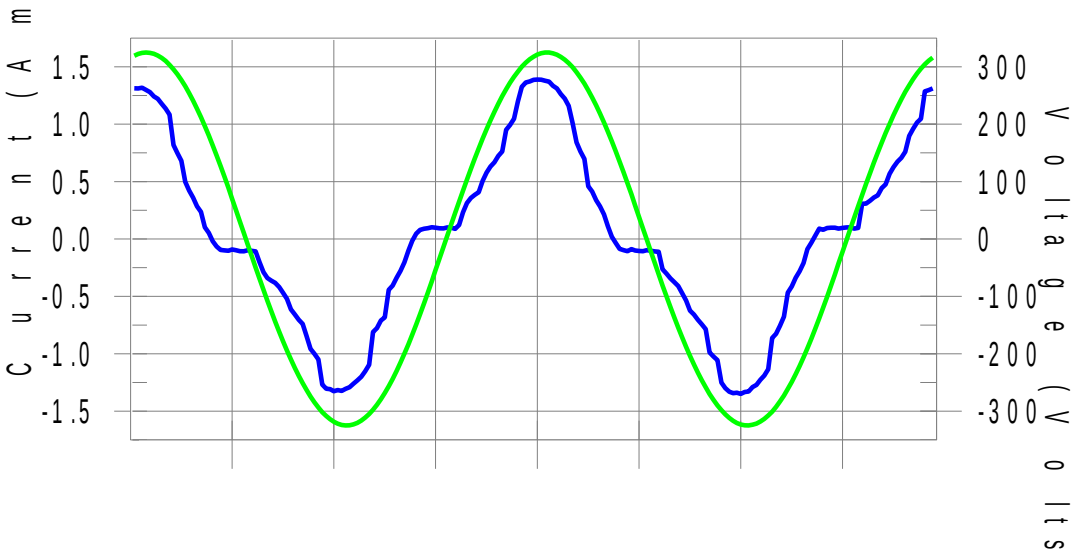
Harm#	Harmonics V-rms	Limit V-rms	% of Limit	Status
2	0.047	0.460	10.24	OK
3	0.594	2.069	28.70	OK
4	0.063	0.460	13.78	OK
5	0.061	0.920	6.61	OK
6	0.039	0.460	8.46	OK
7	0.029	0.690	4.26	OK
8	0.015	0.460	3.20	OK
9	0.016	0.460	3.51	OK
10	0.010	0.460	2.15	OK
11	0.023	0.230	10.01	OK
12	0.009	0.230	4.04	OK
13	0.011	0.230	4.57	OK
14	0.005	0.230	2.14	OK
15	0.009	0.230	3.82	OK
16	0.009	0.230	3.88	OK
17	0.008	0.230	3.60	OK
18	0.010	0.230	4.44	OK
19	0.009	0.230	3.81	OK
20	0.015	0.230	6.66	OK
21	0.013	0.230	5.53	OK
22	0.006	0.230	2.50	OK
23	0.012	0.230	5.29	OK
24	0.003	0.230	1.09	OK
25	0.008	0.230	3.35	OK
26	0.003	0.230	1.36	OK
27	0.017	0.230	7.34	OK
28	0.003	0.230	1.27	OK
29	0.012	0.230	5.30	OK
30	0.003	0.230	1.47	OK
31	0.008	0.230	3.52	OK
32	0.002	0.230	0.68	OK
33	0.004	0.230	1.92	OK
34	0.002	0.230	0.92	OK
35	0.012	0.230	5.19	OK
36	0.002	0.230	0.80	OK
37	0.012	0.230	5.10	OK
38	0.002	0.230	0.83	OK
39	0.007	0.230	2.89	OK
40	0.008	0.230	3.44	OK

Test mode:	TM2

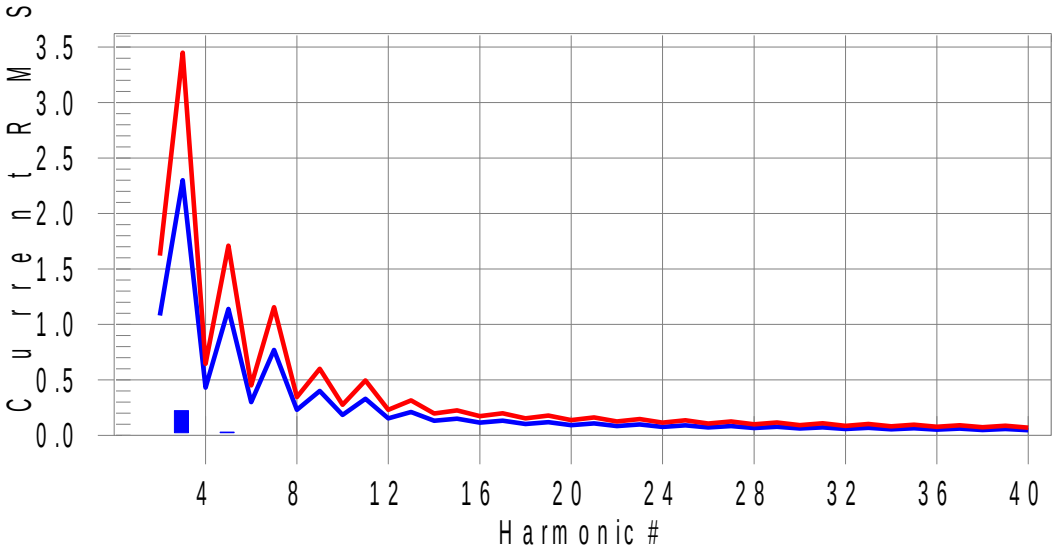
Highest parameter values during test:

V_RMS (Volts):	**229.97**	**Frequency(Hz):**	**50.00**
I_Peak (Amps):	**1.395**	**I_RMS (Amps):**	**0.760**
I_Fund (Amps):	**0.721**	**Crest Factor:**	**1.849**
Power (Watts):	**162.4**	**Power Factor:**	**0.935**

Current & voltage waveforms



Harmonics and Class A limit line **European Limits**



Test result: Pass Worst harmonic was #27 with 14.69% of the limit.

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	0.221	2.300	9.6	0.222	3.450	6.44	Pass
4	0.001	0.430	0.0	0.001	0.645	0.12	Pass
5	0.028	1.140	2.5	0.028	1.710	1.65	Pass
6	0.000	0.300	0.0	0.000	0.450	0.09	Pass
7	0.016	0.770	2.1	0.016	1.155	1.42	Pass
8	0.000	0.230	0.0	0.000	0.345	0.10	Pass
9	0.017	0.400	4.3	0.017	0.600	2.91	Pass
10	0.000	0.184	0.0	0.000	0.276	0.11	Pass
11	0.012	0.330	3.8	0.012	0.495	2.52	Pass
12	0.000	0.153	0.0	0.000	0.230	0.09	Pass
13	0.011	0.210	5.3	0.011	0.315	3.58	Pass
14	0.000	0.131	0.0	0.000	0.197	0.10	Pass
15	0.008	0.150	5.2	0.008	0.225	3.49	Pass
16	0.000	0.115	0.0	0.000	0.173	0.16	Pass
17	0.006	0.132	4.7	0.006	0.199	3.20	Pass
18	0.000	0.102	0.0	0.000	0.153	0.16	Pass
19	0.003	0.118	0.0	0.003	0.178	1.94	Pass
20	0.000	0.092	0.0	0.000	0.138	0.20	Pass
21	0.009	0.107	8.4	0.009	0.161	5.77	Pass
22	0.000	0.084	0.0	0.000	0.125	0.21	Pass
23	0.009	0.098	8.9	0.009	0.147	5.99	Pass
24	0.000	0.077	0.0	0.000	0.115	0.32	Pass
25	0.004	0.090	0.0	0.004	0.135	2.83	Pass
26	0.000	0.071	0.0	0.000	0.106	0.37	Pass
27	0.012	0.083	14.7	0.012	0.125	9.89	Pass
28	0.000	0.066	0.0	0.000	0.099	0.38	Pass
29	0.006	0.078	8.4	0.007	0.116	5.73	Pass
30	0.000	0.061	0.0	0.000	0.092	0.33	Pass
31	0.004	0.073	0.0	0.004	0.109	3.99	Pass
32	0.000	0.058	0.0	0.000	0.086	0.51	Pass
33	0.004	0.068	0.0	0.004	0.102	3.66	Pass
34	0.000	0.054	0.0	0.000	0.081	0.43	Pass
35	0.008	0.064	11.7	0.008	0.096	7.97	Pass
36	0.000	0.051	0.0	0.000	0.077	0.30	Pass
37	0.006	0.061	9.4	0.006	0.091	6.45	Pass
38	0.000	0.048	0.0	0.000	0.073	0.49	Pass
39	0.002	0.058	0.0	0.002	0.087	2.82	Pass
40	0.000	0.046	0.0	0.000	0.069	0.52	Pass

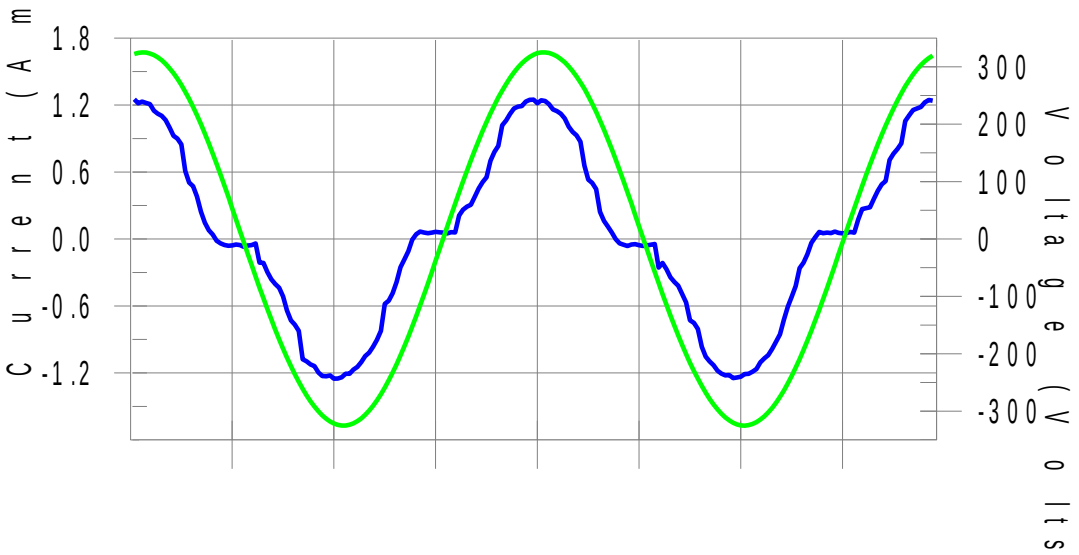
Harm#	Harmonics V-rms	Limit V-rms	% of Limit	Status
2	0.051	0.460	11.04	OK
3	0.590	2.069	28.50	OK
4	0.062	0.460	13.42	OK
5	0.059	0.920	6.37	OK
6	0.038	0.460	8.21	OK
7	0.027	0.690	3.94	OK
8	0.013	0.460	2.93	OK
9	0.014	0.460	3.15	OK
10	0.009	0.460	1.87	OK
11	0.021	0.230	9.31	OK
12	0.009	0.230	3.75	OK
13	0.009	0.230	3.87	OK
14	0.004	0.230	1.94	OK
15	0.008	0.230	3.46	OK
16	0.009	0.230	3.80	OK
17	0.007	0.230	3.05	OK
18	0.009	0.230	4.13	OK
19	0.008	0.230	3.41	OK
20	0.015	0.230	6.38	OK
21	0.013	0.230	5.66	OK
22	0.006	0.230	2.41	OK
23	0.010	0.230	4.55	OK
24	0.003	0.230	1.28	OK
25	0.006	0.230	2.46	OK
26	0.003	0.230	1.23	OK
27	0.017	0.230	7.42	OK
28	0.003	0.230	1.39	OK
29	0.011	0.230	4.98	OK
30	0.004	0.230	1.55	OK
31	0.007	0.230	3.02	OK
32	0.002	0.230	0.78	OK
33	0.006	0.230	2.57	OK
34	0.003	0.230	1.10	OK
35	0.012	0.230	5.33	OK
36	0.002	0.230	0.95	OK
37	0.010	0.230	4.44	OK
38	0.002	0.230	0.85	OK
39	0.006	0.230	2.71	OK
40	0.008	0.230	3.54	OK

Test mode:	TM3

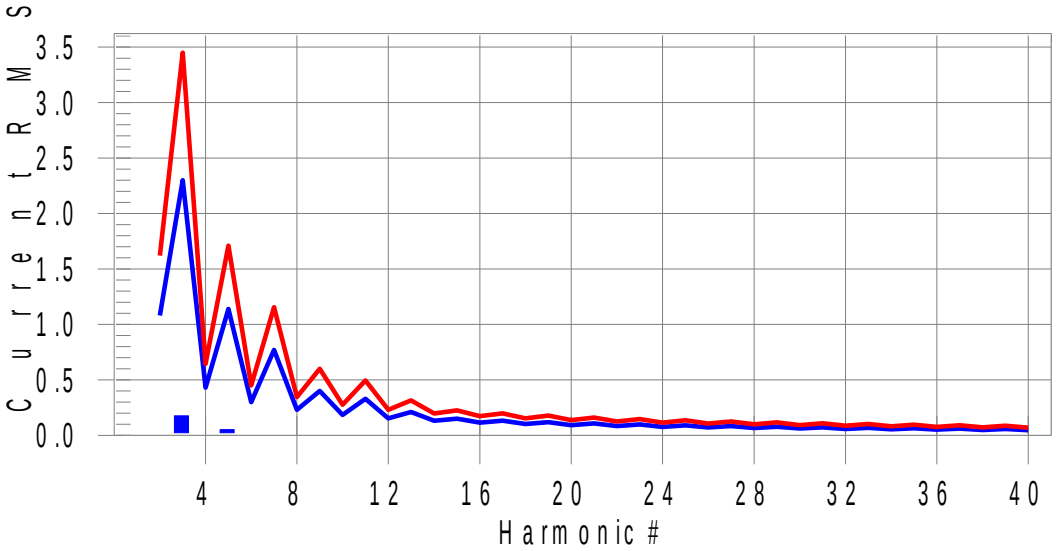
Highest parameter values during test:

V_RMS (Volts):	**230.01**	**Frequency(Hz):**	**50.00**
I_Peak (Amps):	**1.278**	**I_RMS (Amps):**	**0.785**
I_Fund (Amps):	**0.762**	**Crest Factor:**	**1.642**
Power (Watts):	**173.3**	**Power Factor:**	**0.960**

Current & voltage waveforms



Harmonics and Class A limit line **European Limits**



Test result: Pass **Worst harmonics H27-9.3% of 150% limit, H27-13.6% of 100% limit**

Harm#	Harms(avg)	100%Limit	%of Limit	Harms(max)	150%Limit	%of Limit	Status
2	0.001	1.080	N/A	0.001	1.620	N/A	Pass
3	0.177	2.300	7.7	0.179	3.450	5.2	Pass
4	0.001	0.430	N/A	0.001	0.645	N/A	Pass
5	0.052	1.140	4.5	0.054	1.710	3.1	Pass
6	0.000	0.300	N/A	0.000	0.450	N/A	Pass
7	0.020	0.770	2.7	0.021	1.155	1.8	Pass
8	0.000	0.230	N/A	0.000	0.345	N/A	Pass
9	0.008	0.400	2.0	0.008	0.600	1.4	Pass
10	0.000	0.184	N/A	0.000	0.276	N/A	Pass
11	0.010	0.330	3.1	0.010	0.495	2.1	Pass
12	0.000	0.153	N/A	0.000	0.230	N/A	Pass
13	0.002	0.210	N/A	0.003	0.315	N/A	Pass
14	0.000	0.131	N/A	0.000	0.197	N/A	Pass
15	0.005	0.150	3.5	0.006	0.225	2.5	Pass
16	0.000	0.115	N/A	0.000	0.173	N/A	Pass
17	0.008	0.132	6.1	0.009	0.198	4.3	Pass
18	0.000	0.102	N/A	0.000	0.153	N/A	Pass
19	0.006	0.118	4.8	0.006	0.178	3.4	Pass
20	0.000	0.092	N/A	0.000	0.138	N/A	Pass
21	0.004	0.107	N/A	0.005	0.161	N/A	Pass
22	0.000	0.084	N/A	0.000	0.125	N/A	Pass
23	0.007	0.098	7.1	0.007	0.147	4.8	Pass
24	0.000	0.077	N/A	0.000	0.115	N/A	Pass
25	0.002	0.090	N/A	0.004	0.135	N/A	Pass
26	0.000	0.071	N/A	0.000	0.107	N/A	Pass
27	0.011	0.083	13.6	0.012	0.125	9.3	Pass
28	0.001	0.066	N/A	0.001	0.099	N/A	Pass
29	0.001	0.078	N/A	0.003	0.116	N/A	Pass
30	0.000	0.061	N/A	0.000	0.092	N/A	Pass
31	0.006	0.073	7.7	0.006	0.109	5.6	Pass
32	0.001	0.058	N/A	0.001	0.086	N/A	Pass
33	0.004	0.068	N/A	0.005	0.102	N/A	Pass
34	0.000	0.054	N/A	0.000	0.081	N/A	Pass
35	0.004	0.064	N/A	0.005	0.096	N/A	Pass
36	0.000	0.051	N/A	0.000	0.077	N/A	Pass
37	0.005	0.061	N/A	0.005	0.091	N/A	Pass
38	0.000	0.048	N/A	0.000	0.073	N/A	Pass
39	0.003	0.058	N/A	0.004	0.087	N/A	Pass
40	0.000	0.046	N/A	0.000	0.069	N/A	Pass

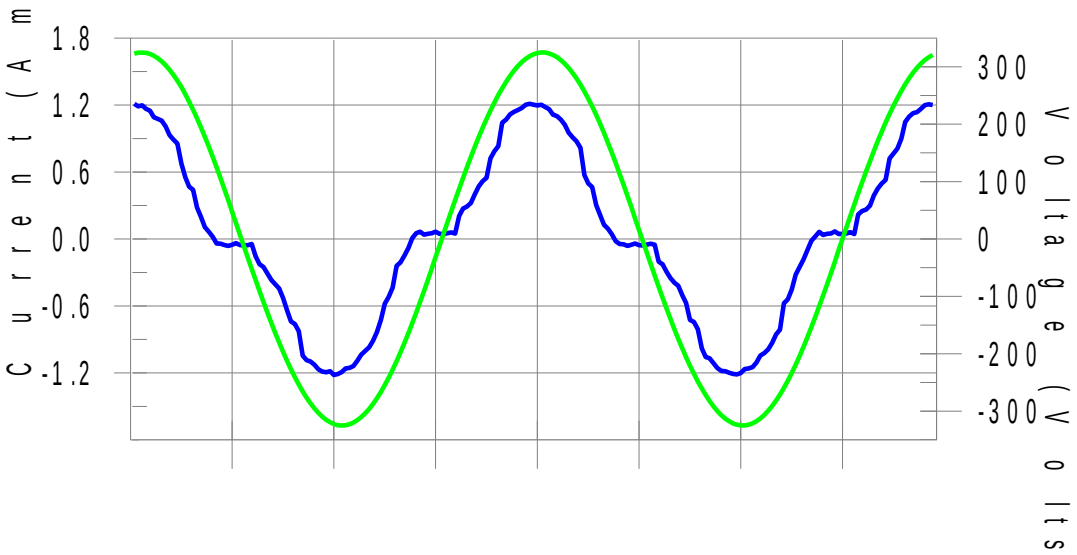
Harm#	Harmonics V-rms	Limit V-rms	% of Limit	Status
2	0.053	0.460	11.46	OK
3	0.571	2.070	27.61	OK
4	0.066	0.460	14.45	OK
5	0.077	0.920	8.42	OK
6	0.038	0.460	8.26	OK
7	0.041	0.690	5.90	OK
8	0.017	0.460	3.65	OK
9	0.019	0.460	4.22	OK
10	0.013	0.460	2.72	OK
11	0.018	0.230	7.80	OK
12	0.013	0.230	5.62	OK
13	0.014	0.230	5.95	OK
14	0.005	0.230	2.36	OK
15	0.011	0.230	4.73	OK
16	0.009	0.230	3.85	OK
17	0.010	0.230	4.55	OK
18	0.013	0.230	5.58	OK
19	0.013	0.230	5.50	OK
20	0.015	0.230	6.58	OK
21	0.012	0.230	5.07	OK
22	0.003	0.230	1.37	OK
23	0.012	0.230	5.14	OK
24	0.004	0.230	1.69	OK
25	0.006	0.230	2.82	OK
26	0.004	0.230	1.58	OK
27	0.017	0.230	7.27	OK
28	0.006	0.230	2.51	OK
29	0.006	0.230	2.55	OK
30	0.003	0.230	1.20	OK
31	0.011	0.230	4.75	OK
32	0.003	0.230	1.26	OK
33	0.009	0.230	3.72	OK
34	0.002	0.230	1.03	OK
35	0.009	0.230	3.83	OK
36	0.003	0.230	1.46	OK
37	0.010	0.230	4.18	OK
38	0.003	0.230	1.17	OK
39	0.009	0.230	4.04	OK
40	0.008	0.230	3.55	OK

Test mode:	TM4

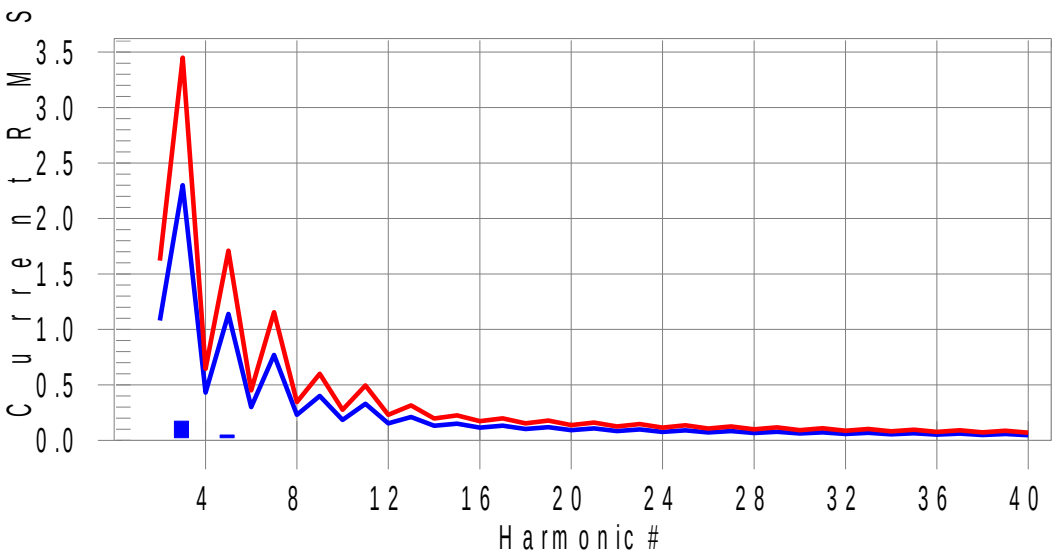
Highest parameter values during test:

V_RMS (Volts):	**230.01**	**Frequency(Hz):**	**50.00**
I_Peak (Amps):	**1.234**	**I_RMS (Amps):**	**0.756**
I_Fund (Amps):	**0.733**	**Crest Factor:**	**1.642**
Power (Watts):	**166.6**	**Power Factor:**	**0.959**

Current & voltage waveforms



Harmonics and Class A limit line **European Limits**



Test result: Pass **Worst harmonics H27-8.3% of 150% limit, H27-12.1% of 100% limit**

Harm#	Harms(avg)	100%Limit	%of Limit	Harms(max)	150%Limit	%of Limit	Status
2	0.001	1.080	N/A	0.001	1.620	N/A	Pass
3	0.173	2.300	7.5	0.175	3.450	5.1	Pass
4	0.001	0.430	N/A	0.001	0.645	N/A	Pass
5	0.048	1.140	4.2	0.049	1.710	2.9	Pass
6	0.000	0.300	N/A	0.000	0.450	N/A	Pass
7	0.021	0.770	2.7	0.021	1.155	1.8	Pass
8	0.000	0.230	N/A	0.000	0.345	N/A	Pass
9	0.008	0.400	2.0	0.008	0.600	1.4	Pass
10	0.000	0.184	N/A	0.000	0.276	N/A	Pass
11	0.011	0.330	3.3	0.011	0.495	2.2	Pass
12	0.000	0.153	N/A	0.000	0.230	N/A	Pass
13	0.002	0.210	N/A	0.003	0.315	N/A	Pass
14	0.000	0.131	N/A	0.000	0.197	N/A	Pass
15	0.005	0.150	N/A	0.005	0.225	N/A	Pass
16	0.000	0.115	N/A	0.000	0.173	N/A	Pass
17	0.007	0.132	5.6	0.008	0.198	3.8	Pass
18	0.000	0.102	N/A	0.000	0.153	N/A	Pass
19	0.005	0.118	4.3	0.005	0.178	3.0	Pass
20	0.000	0.092	N/A	0.000	0.138	N/A	Pass
21	0.003	0.107	N/A	0.003	0.161	N/A	Pass
22	0.000	0.084	N/A	0.000	0.125	N/A	Pass
23	0.006	0.098	6.2	0.006	0.147	4.3	Pass
24	0.000	0.077	N/A	0.000	0.115	N/A	Pass
25	0.005	0.090	N/A	0.005	0.135	N/A	Pass
26	0.000	0.071	N/A	0.000	0.107	N/A	Pass
27	0.010	0.083	12.1	0.010	0.125	8.3	Pass
28	0.001	0.066	N/A	0.001	0.099	N/A	Pass
29	0.002	0.078	N/A	0.003	0.116	N/A	Pass
30	0.000	0.061	N/A	0.000	0.092	N/A	Pass
31	0.004	0.073	N/A	0.005	0.109	N/A	Pass
32	0.001	0.058	N/A	0.001	0.086	N/A	Pass
33	0.006	0.068	8.6	0.006	0.102	6.0	Pass
34	0.000	0.054	N/A	0.000	0.081	N/A	Pass
35	0.003	0.064	N/A	0.003	0.096	N/A	Pass
36	0.000	0.051	N/A	0.000	0.077	N/A	Pass
37	0.006	0.061	10.2	0.006	0.091	7.0	Pass
38	0.000	0.048	N/A	0.000	0.073	N/A	Pass
39	0.002	0.058	N/A	0.003	0.087	N/A	Pass
40	0.000	0.046	N/A	0.000	0.069	N/A	Pass

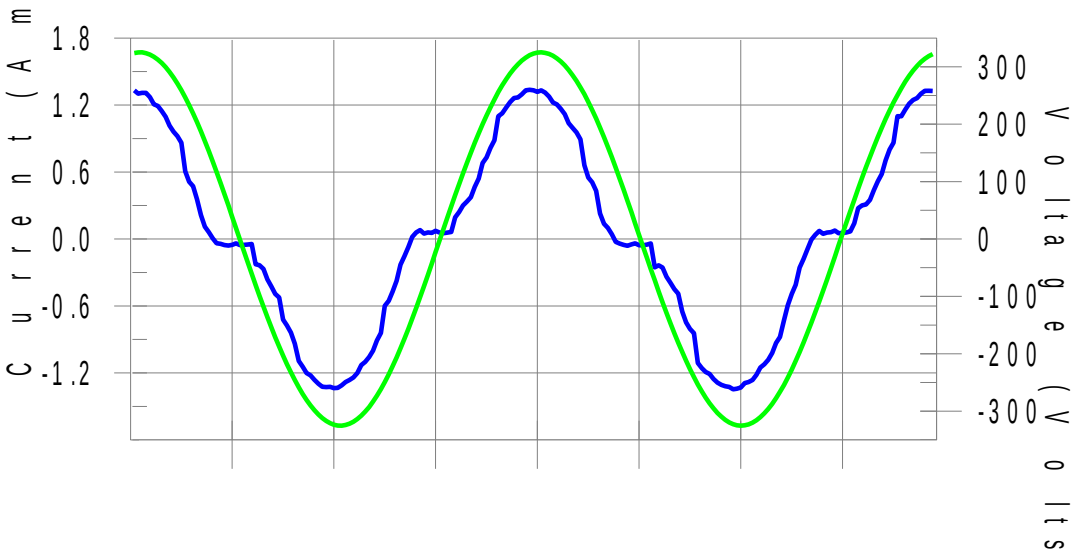
Harm#	Harmonics V-rms	Limit V-rms	% of Limit	Status
2	0.050	0.460	10.90	OK
3	0.572	2.069	27.66	OK
4	0.068	0.460	14.86	OK
5	0.077	0.920	8.37	OK
6	0.038	0.460	8.31	OK
7	0.038	0.690	5.51	OK
8	0.016	0.460	3.39	OK
9	0.019	0.460	4.08	OK
10	0.012	0.460	2.68	OK
11	0.017	0.230	7.23	OK
12	0.012	0.230	5.09	OK
13	0.013	0.230	5.84	OK
14	0.004	0.230	1.93	OK
15	0.010	0.230	4.26	OK
16	0.009	0.230	3.75	OK
17	0.009	0.230	3.87	OK
18	0.012	0.230	5.15	OK
19	0.010	0.230	4.37	OK
20	0.014	0.230	6.28	OK
21	0.009	0.230	3.85	OK
22	0.003	0.230	1.26	OK
23	0.009	0.230	4.12	OK
24	0.003	0.230	1.47	OK
25	0.007	0.230	3.04	OK
26	0.003	0.230	1.26	OK
27	0.015	0.230	6.46	OK
28	0.006	0.230	2.47	OK
29	0.007	0.230	2.87	OK
30	0.003	0.230	1.23	OK
31	0.008	0.230	3.67	OK
32	0.003	0.230	1.13	OK
33	0.010	0.230	4.31	OK
34	0.002	0.230	1.04	OK
35	0.006	0.230	2.80	OK
36	0.003	0.230	1.18	OK
37	0.010	0.230	4.50	OK
38	0.002	0.230	1.04	OK
39	0.008	0.230	3.37	OK
40	0.008	0.230	3.55	OK

Test mode:	TM5

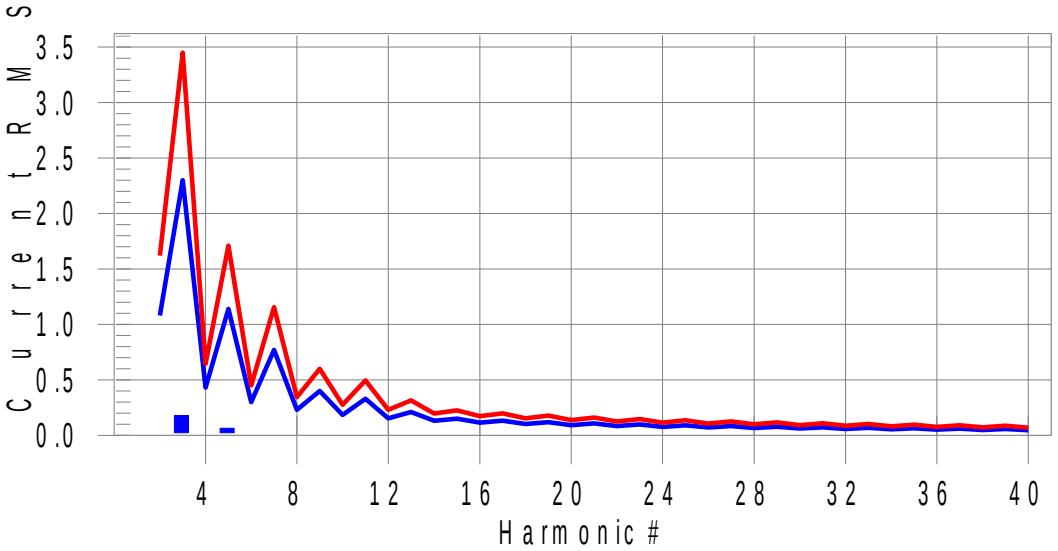
Highest parameter values during test:

V_RMS (Volts):	**230.01**	**Frequency(Hz):**	**50.00**
I_Peak (Amps):	**1.369**	**I_RMS (Amps):**	**0.846**
I_Fund (Amps):	**0.823**	**Crest Factor:**	**1.620**
Power (Watts):	**187.4**	**Power Factor:**	**0.964**

Current & voltage waveforms



Harmonics and Class A limit line **European Limits**



Test result: Pass **Worst harmonics H29-9.3% of 150% limit, H29-13.6% of 100% limit**

Harm#	Harms(avg)	100%Limit	%of Limit	Harms(max)	150%Limit	%of Limit	Status
2	0.001	1.080	N/A	0.001	1.620	N/A	Pass
3	0.179	2.300	7.8	0.181	3.450	5.2	Pass
4	0.001	0.430	N/A	0.001	0.645	N/A	Pass
5	0.064	1.140	5.6	0.064	1.710	3.7	Pass
6	0.000	0.300	N/A	0.000	0.450	N/A	Pass
7	0.018	0.770	2.3	0.018	1.155	1.5	Pass
8	0.000	0.230	N/A	0.000	0.345	N/A	Pass
9	0.011	0.400	2.9	0.012	0.600	1.9	Pass
10	0.000	0.184	N/A	0.000	0.276	N/A	Pass
11	0.011	0.330	3.2	0.011	0.495	2.2	Pass
12	0.000	0.153	N/A	0.000	0.230	N/A	Pass
13	0.002	0.210	N/A	0.002	0.315	N/A	Pass
14	0.000	0.131	N/A	0.000	0.197	N/A	Pass
15	0.003	0.150	N/A	0.004	0.225	N/A	Pass
16	0.000	0.115	N/A	0.000	0.173	N/A	Pass
17	0.009	0.132	6.7	0.009	0.198	4.5	Pass
18	0.000	0.102	N/A	0.000	0.153	N/A	Pass
19	0.004	0.118	N/A	0.004	0.178	N/A	Pass
20	0.000	0.092	N/A	0.000	0.138	N/A	Pass
21	0.008	0.107	7.2	0.008	0.161	4.9	Pass
22	0.000	0.084	N/A	0.000	0.125	N/A	Pass
23	0.003	0.098	N/A	0.003	0.147	N/A	Pass
24	0.000	0.077	N/A	0.000	0.115	N/A	Pass
25	0.007	0.090	7.6	0.007	0.135	5.2	Pass
26	0.000	0.071	N/A	0.000	0.107	N/A	Pass
27	0.005	0.083	6.4	0.006	0.125	4.6	Pass
28	0.001	0.066	N/A	0.001	0.099	N/A	Pass
29	0.011	0.078	13.6	0.011	0.116	9.3	Pass
30	0.000	0.061	N/A	0.000	0.092	N/A	Pass
31	0.001	0.073	N/A	0.001	0.109	N/A	Pass
32	0.001	0.058	N/A	0.001	0.086	N/A	Pass
33	0.005	0.068	N/A	0.005	0.102	N/A	Pass
34	0.000	0.054	N/A	0.000	0.081	N/A	Pass
35	0.003	0.064	N/A	0.003	0.096	N/A	Pass
36	0.000	0.051	N/A	0.000	0.077	N/A	Pass
37	0.003	0.061	N/A	0.003	0.091	N/A	Pass
38	0.000	0.048	N/A	0.000	0.073	N/A	Pass
39	0.004	0.058	N/A	0.004	0.087	N/A	Pass
40	0.000	0.046	N/A	0.000	0.069	N/A	Pass

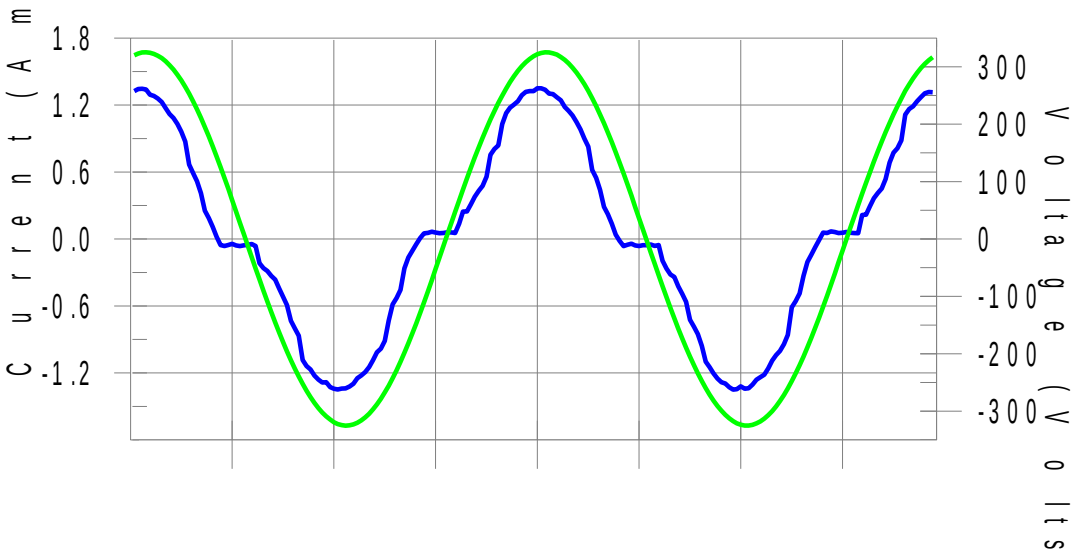
Harm#	Harmonics V-rms	Limit V-rms	% of Limit	Status
2	0.053	0.460	11.48	OK
3	0.575	2.069	27.80	OK
4	0.062	0.460	13.41	OK
5	0.083	0.920	9.04	OK
6	0.038	0.460	8.20	OK
7	0.038	0.690	5.52	OK
8	0.014	0.460	3.06	OK
9	0.022	0.460	4.80	OK
10	0.013	0.460	2.74	OK
11	0.019	0.230	8.46	OK
12	0.012	0.230	5.07	OK
13	0.013	0.230	5.67	OK
14	0.005	0.230	2.25	OK
15	0.013	0.230	5.55	OK
16	0.009	0.230	3.92	OK
17	0.010	0.230	4.24	OK
18	0.011	0.230	4.95	OK
19	0.009	0.230	4.06	OK
20	0.015	0.230	6.62	OK
21	0.013	0.230	5.63	OK
22	0.003	0.230	1.16	OK
23	0.006	0.230	2.56	OK
24	0.003	0.230	1.34	OK
25	0.009	0.230	3.86	OK
26	0.003	0.230	1.30	OK
27	0.010	0.230	4.47	OK
28	0.005	0.230	2.28	OK
29	0.014	0.230	6.28	OK
30	0.003	0.230	1.44	OK
31	0.005	0.230	2.36	OK
32	0.003	0.230	1.21	OK
33	0.009	0.230	4.05	OK
34	0.002	0.230	1.01	OK
35	0.007	0.230	3.19	OK
36	0.003	0.230	1.31	OK
37	0.007	0.230	3.15	OK
38	0.003	0.230	1.15	OK
39	0.011	0.230	4.77	OK
40	0.008	0.230	3.37	OK

Test mode:	TM6

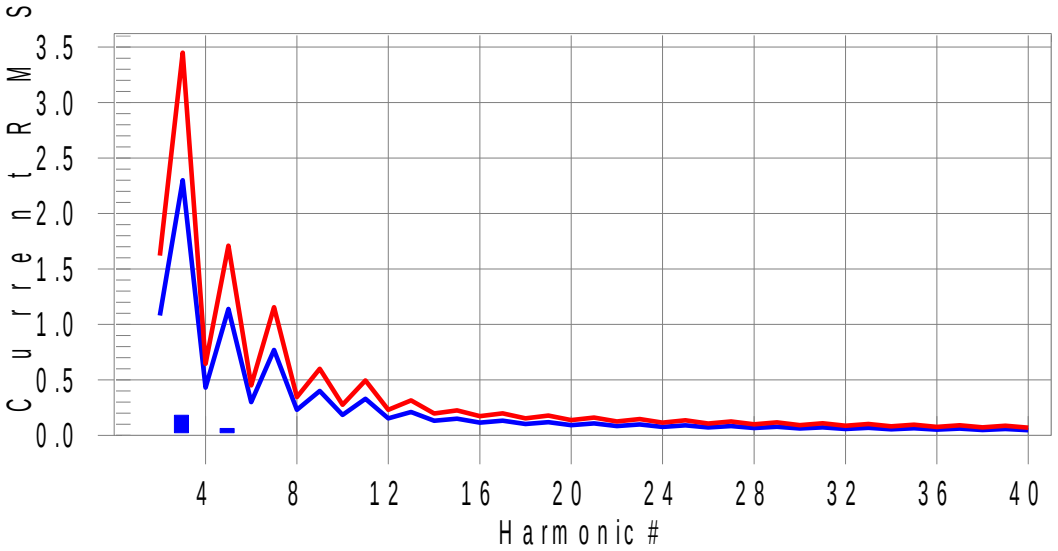
Highest parameter values during test:

V_RMS (Volts):	**230.01**	**Frequency(Hz):**	**50.00**
I_Peak (Amps):	**1.375**	**I_RMS (Amps):**	**0.852**
I_Fund (Amps):	**0.829**	**Crest Factor:**	**1.618**
Power (Watts):	**188.8**	**Power Factor:**	**0.965**

Current & voltage waveforms



Harmonics and Class A limit line **European Limits**



Test result: Pass **Worst harmonics H29-8.1% of 150% limit, H29-11.8% of 100% limit**

Harm#	Harms(avg)	100%Limit	%of Limit	Harms(max)	150%Limit	%of Limit	Status
2	0.001	1.080	N/A	0.001	1.620	N/A	Pass
3	0.181	2.300	7.9	0.182	3.450	5.3	Pass
4	0.000	0.430	N/A	0.001	0.645	N/A	Pass
5	0.063	1.140	5.5	0.063	1.710	3.7	Pass
6	0.000	0.300	N/A	0.000	0.450	N/A	Pass
7	0.018	0.770	2.3	0.018	1.155	1.6	Pass
8	0.000	0.230	N/A	0.000	0.345	N/A	Pass
9	0.011	0.400	2.8	0.011	0.600	1.9	Pass
10	0.000	0.184	N/A	0.000	0.276	N/A	Pass
11	0.011	0.330	3.4	0.011	0.495	2.3	Pass
12	0.000	0.153	N/A	0.000	0.230	N/A	Pass
13	0.002	0.210	N/A	0.002	0.315	N/A	Pass
14	0.000	0.131	N/A	0.000	0.197	N/A	Pass
15	0.003	0.150	N/A	0.003	0.225	N/A	Pass
16	0.000	0.115	N/A	0.000	0.173	N/A	Pass
17	0.008	0.132	6.3	0.008	0.198	4.2	Pass
18	0.000	0.102	N/A	0.000	0.153	N/A	Pass
19	0.003	0.118	N/A	0.003	0.178	N/A	Pass
20	0.000	0.092	N/A	0.000	0.138	N/A	Pass
21	0.007	0.107	6.4	0.007	0.161	4.3	Pass
22	0.000	0.084	N/A	0.000	0.125	N/A	Pass
23	0.004	0.098	N/A	0.004	0.147	N/A	Pass
24	0.000	0.077	N/A	0.000	0.115	N/A	Pass
25	0.006	0.090	6.4	0.006	0.135	4.4	Pass
26	0.000	0.071	N/A	0.000	0.107	N/A	Pass
27	0.007	0.083	9.0	0.008	0.125	6.2	Pass
28	0.001	0.066	N/A	0.001	0.099	N/A	Pass
29	0.009	0.078	11.8	0.009	0.116	8.1	Pass
30	0.000	0.061	N/A	0.000	0.092	N/A	Pass
31	0.003	0.073	N/A	0.003	0.109	N/A	Pass
32	0.001	0.058	N/A	0.001	0.086	N/A	Pass
33	0.004	0.068	N/A	0.004	0.102	N/A	Pass
34	0.000	0.054	N/A	0.000	0.081	N/A	Pass
35	0.005	0.064	N/A	0.005	0.096	N/A	Pass
36	0.000	0.051	N/A	0.000	0.077	N/A	Pass
37	0.003	0.061	N/A	0.003	0.091	N/A	Pass
38	0.000	0.048	N/A	0.000	0.073	N/A	Pass
39	0.005	0.058	N/A	0.005	0.087	N/A	Pass
40	0.000	0.046	N/A	0.000	0.069	N/A	Pass

Harm#	Harmonics V-rms	Limit V-rms	% of Limit	Status
2	0.059	0.460	12.84	OK
3	0.582	2.070	28.09	OK
4	0.060	0.460	12.96	OK
5	0.084	0.920	9.14	OK
6	0.038	0.460	8.23	OK
7	0.037	0.690	5.34	OK
8	0.015	0.460	3.32	OK
9	0.020	0.460	4.42	OK
10	0.012	0.460	2.57	OK
11	0.019	0.230	8.11	OK
12	0.011	0.230	4.81	OK
13	0.013	0.230	5.75	OK
14	0.006	0.230	2.43	OK
15	0.012	0.230	5.19	OK
16	0.009	0.230	3.95	OK
17	0.009	0.230	4.13	OK
18	0.013	0.230	5.59	OK
19	0.008	0.230	3.61	OK
20	0.015	0.230	6.41	OK
21	0.011	0.230	4.86	OK
22	0.003	0.230	1.23	OK
23	0.007	0.230	3.00	OK
24	0.003	0.230	1.36	OK
25	0.008	0.230	3.37	OK
26	0.003	0.230	1.19	OK
27	0.012	0.230	5.26	OK
28	0.005	0.230	2.33	OK
29	0.013	0.230	5.63	OK
30	0.004	0.230	1.52	OK
31	0.007	0.230	3.02	OK
32	0.003	0.230	1.46	OK
33	0.008	0.230	3.31	OK
34	0.002	0.230	0.91	OK
35	0.010	0.230	4.17	OK
36	0.003	0.230	1.36	OK
37	0.006	0.230	2.82	OK
38	0.003	0.230	1.16	OK
39	0.013	0.230	5.49	OK
40	0.008	0.230	3.54	OK

6. Voltage Fluctuation Flicker

6.1 Test Procedure

Test is conducting under the description of EN 61000-3-3.

6.2 Test Standards

EN61000-3-3, Limit: Clause 5.

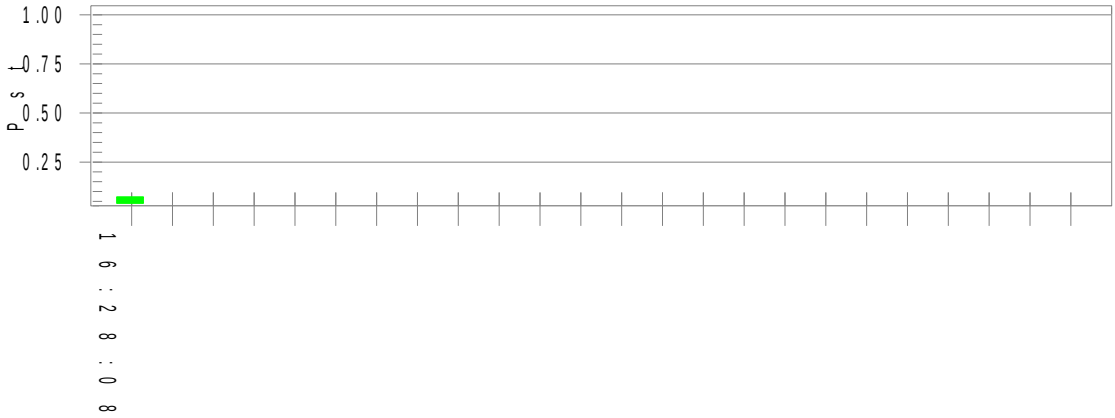
Environmental Conditions

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

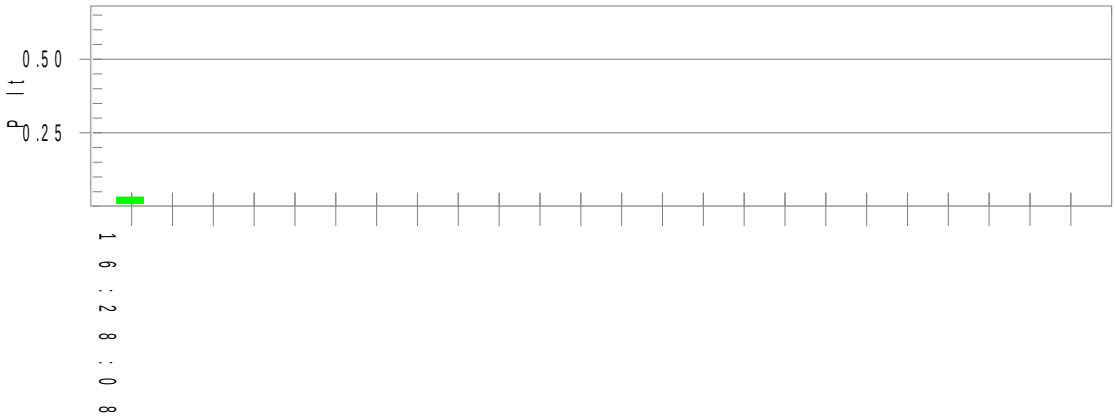
6.3 Voltage Fluctuation and Flicker Test Data

Test mode:	TM1

Pst and limit line **European Limits**



Plt and limit line

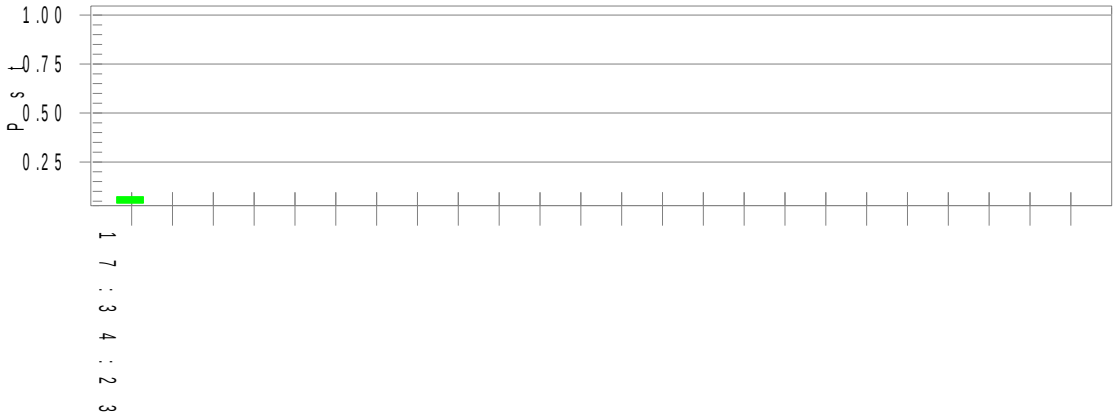


Parameter values recorded during the test:

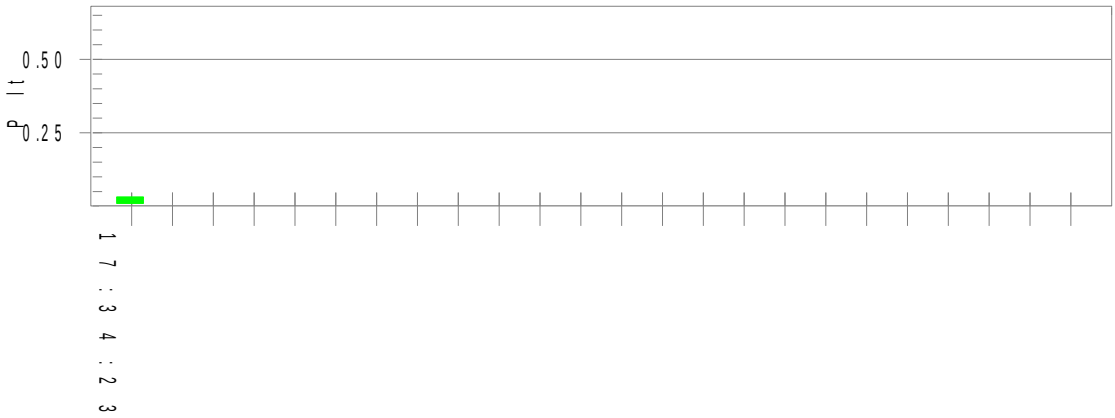
Vrms at the end of test (Volt):	**229.80**			
T-max (mS):	**0**	**Test limit (mS):**	**500.0**	**Pass**
Highest dc (%):	**0.00**	**Test limit (%):**	**3.30**	**Pass**
Highest dmax (%):	**0.27**	**Test limit (%):**	**4.00**	**Pass**
Highest Pst (10 min. period):	**0.073**	**Test limit:**	**1.000**	**Pass**
Highest Plt (2 hr. period):	**0.032**	**Test limit:**	**0.650**	**Pass**

Test mode:	TM2

Pst and limit line **European Limits**



Plt and limit line

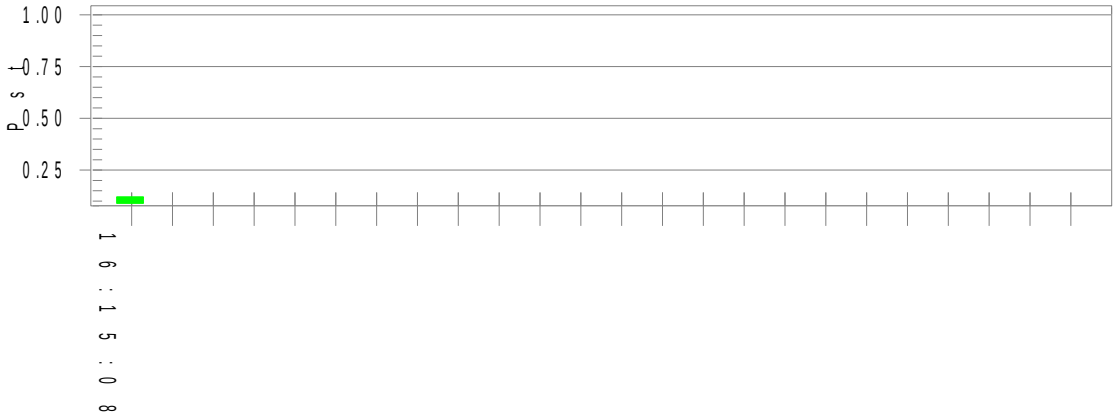


Parameter values recorded during the test:

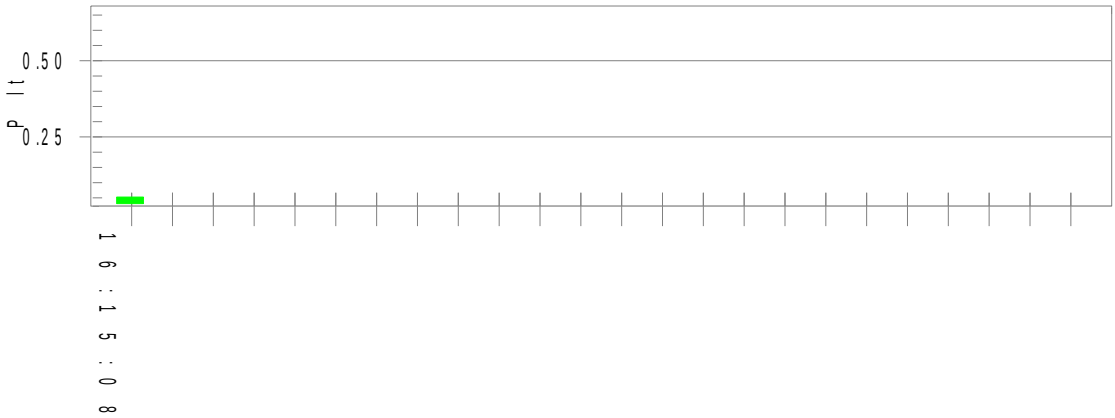
Vrms at the end of test (Volt):	**230.01**			
T-max (mS):	**0**	**Test limit (mS):**	**500.0**	**Pass**
Highest dc (%):	**0.00**	**Test limit (%):**	**3.30**	**Pass**
Highest dmax (%):	**0.00**	**Test limit (%):**	**4.00**	**Pass**
Highest Pst (10 min. period):	**0.073**	**Test limit:**	**1.000**	**Pass**
Highest Plt (2 hr. period):	**0.032**	**Test limit:**	**0.650**	**Pass**

Test mode:	TM3

Pst and limit line **European Limits**



Plt and limit line

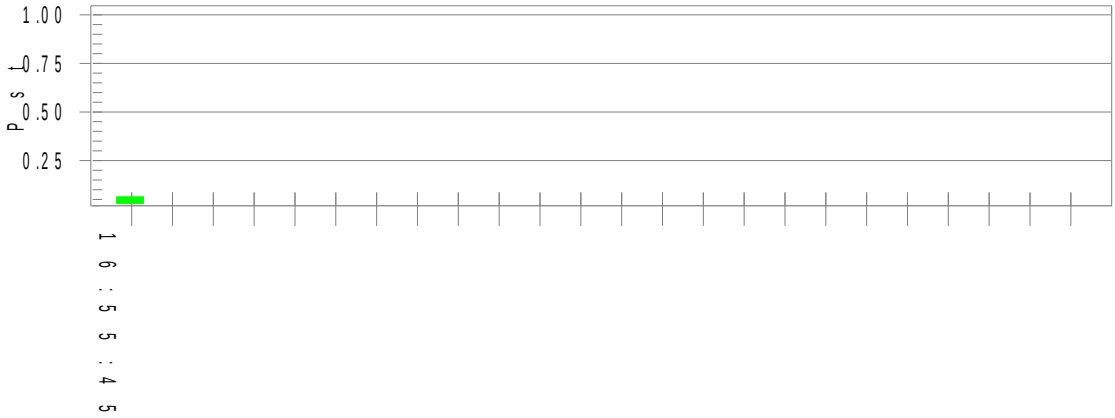


Parameter values recorded during the test:

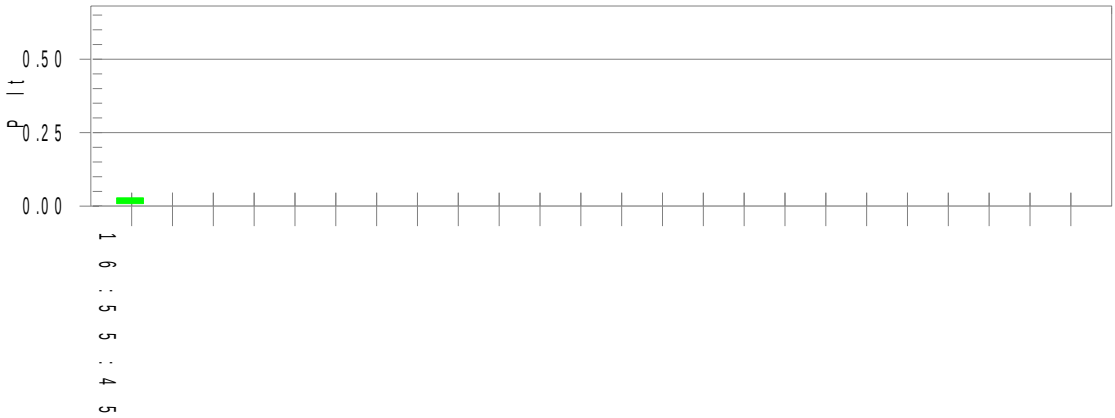
Vrms at the end of test (Volt):	**229.66**			
T-max (mS):	**0**	**Test limit (mS):**	**500.0**	**Pass**
Highest dc (%):	**0.00**	**Test limit (%):**	**3.30**	**Pass**
Highest dmax (%):	**1.50**	**Test limit (%):**	**4.00**	**Pass**
Highest Pst (10 min. period):	**0.121**	**Test limit:**	**1.000**	**Pass**
Highest Plt (2 hr. period):	**0.053**	**Test limit:**	**0.650**	**Pass**

Test mode:	TM4

Pst and limit line **European Limits**



Plt and limit line

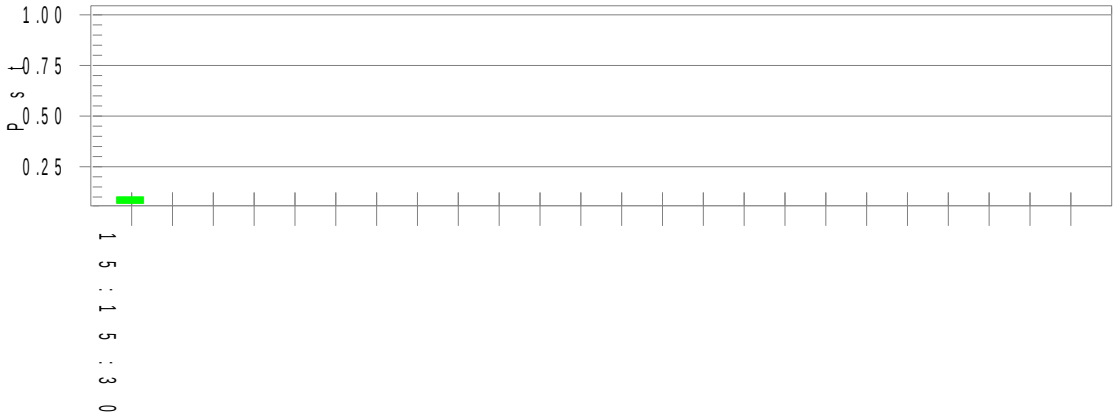


Parameter values recorded during the test:

Vrms at the end of test (Volt):	**229.70**			
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**

Test mode:	TM5

Pst and limit line **European Limits**



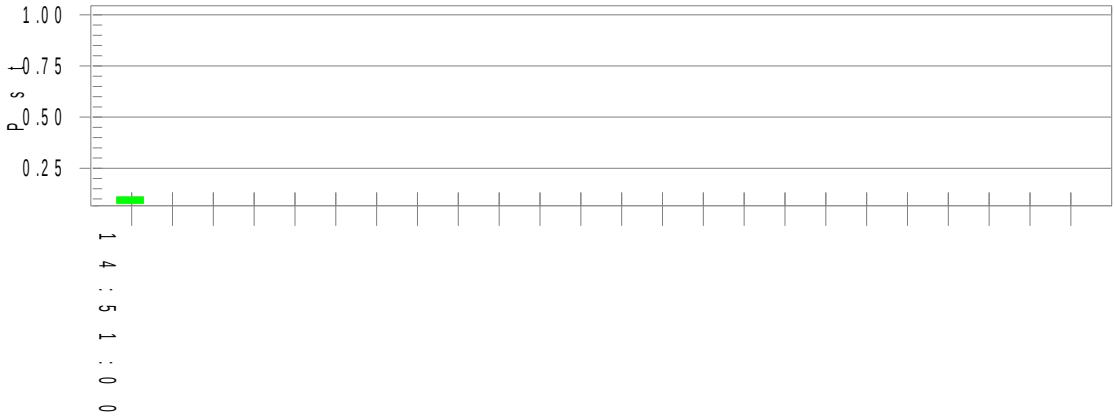
Plt and limit line

Parameter values recorded during the test:

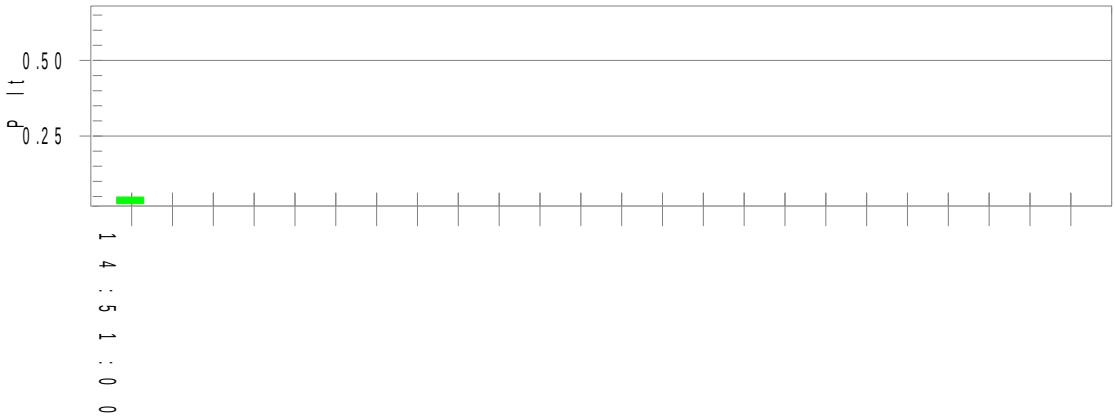
Vrms at the end of test (Volt):	**229.62**			
T-max (mS):	**0**	**Test limit (mS):**	**500.0**	**Pass**
Highest dc (%):	**0.00**	**Test limit (%):**	**3.30**	**Pass**
Highest dmax (%):	**0.41**	**Test limit (%):**	**4.00**	**Pass**
Highest Pst (10 min. period):	**0.102**	**Test limit:**	**1.000**	**Pass**
Highest Plt (2 hr. period):	**0.044**	**Test limit:**	**0.650**	**Pass**

Test mode:	TM6

Pst and limit line **European Limits**



Plt and limit line



Parameter values recorded during the test:

Vrms at the end of test (Volt):	**229.61**			
T-max (mS):	**0**	**Test limit (mS):**	**500.0**	**Pass**
Highest dc (%):	**0.00**	**Test limit (%):**	**3.30**	**Pass**
Highest dmax (%):	**-1.80**	**Test limit (%):**	**4.00**	**Pass**
Highest Pst (10 min. period):	**0.111**	**Test limit:**	**1.000**	**Pass**
Highest Plt (2 hr. period):	**0.048**	**Test limit:**	**0.650**	**Pass**

7. Electrostatic Discharges (ESD)

7.1 Test Procedure

Test is conducting under the description of EN 61000-4-2.

Test Performance

Performance Criterion: B

Environmental Conditions

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

7.2 Electrostatic Discharge Immunity Test Data

EN 55035
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
Gap	A	A	A	A	A	A	A	A	/	/
Surface	A	A	A	A	A	A	A	A	/	/
AC 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
HCP (6 Sides)	A	A	A	A	/	/	/	/	/	/
VCP (4 Sides)	A	A	A	A	/	/	/	/	/	/

Table 3: Electrostatic Discharge Immunity (Indirect Contact HCP & VCP)

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

EN 60601-1-2

Table 1: Electrostatic Discharge Immunity (Air Discharge)

EN 61000-4-2	Test Levels (kV)											
Test Points	-8	+8	-10	+10	-12	+12	-14	+14	-16	+16	-18	+18
Gap	A	A	A	A	A	A	A	A	A	A	A	A
Surface	A	A	A	A	A	A	A	A	A	A	A	A
AC Port	A	A	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	-10	+10	-12	+12
HCP (6 Sides)	A	A	A	A	A	A	A	A	A	A	/	/
VCP (4 Sides)	A	A	A	A	A	A	A	A	A	A	/	/

Table 3: Electrostatic Discharge Immunity (Indirect Contact HCP & VCP)

EN 61000-4-2	Test Levels (kV)											
Test Points	-2	+2	-4	+4	-6	+6	-8	+8	-10	+10	-12	+12
HCP (6 Sides)	A	A	A	A	A	A	A	A	A	A	/	/
VCP (4 Sides)	A	A	A	A	A	A	A	A	A	A	/	/

Test Result: Pass

8. Continuous RF electromagnetic field Disturbances (RS)

8.1 Test Procedure

Test is conducting under the description of EN 61000-4-3, EN 61000-4-20, EN 61000-4-21.

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

EN 55035

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

Spot frequencies (MHz)	Field (V/m)	Front		Rear		Left Side		Right Side	
		VERT	HORI	VERT	HORI	VERT	HORI	VERT	HORI
1800	3	A	A	A	A	A	A	A	A
2600	3	A	A	A	A	A	A	A	A
3500	3	A	A	A	A	A	A	A	A
5000	3	A	A	A	A	A	A	A	A

EN 60601-1-2

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
80-2700	10	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 EN 61000-4-4.

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 55035

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	/	/	/	/
	L2	/	/	A	A	/	/	/	/
	PE	/	/	A	A	/	/	/	/
	L1+L2	/	/	A	A	/	/	/	/
	L1 + PE	/	/	A	A	/	/	/	/
	L2 + PE	/	/	A	A	/	/	/	/
	L1+L2+PE	/	/	A	A	/	/	/	/
Signal ports	/	/	/	/	/	/	/	/	/

EN 60601-1-2

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	A	A
	L2	/	/	A	A	A	A	A	A
	PE	/	/	A	A	A	A	A	A
	L1+L2	/	/	A	A	A	A	A	A
	L1 + PE	/	/	A	A	A	A	A	A
	L2 + PE	/	/	A	A	A	A	A	A
	L1+L2+PE	/	/	A	A	A	A	A	A
Signal ports	/	/	/	/	/	/	/	/	/

Test Result: Pass

10. Surges

10.1 Test Procedure

Test is conducting under the description of EN 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

EN 55035

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

EN 60601-1-2

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-N,L-PE, N-PE	A	/
4	4kV	±	L-PE, N-PE	A	/

Test Result: Pass

11. Continuous induced RF disturbances (C/S)

11.1 Test Procedure

Test is conducting under the description of EN 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: 0,15 MHz to 10 MHz 3 V; 10 MHz to 30 MHz 3 V to 1 V;30 MHz to 80 MHz 1V
Frequency step: 1% of fundamental
Dwell time: 1 second

EN 55035

Frequency MHz	Injected Position	Level	Observations (Performance Criterion)	Result
0.15-10	AC Mains	3Vrms	A	Pass
10-30	AC Mains	3-1Vrms	A	Pass
30-80	AC Mains	1Vrms	A	Pass

EN 60601-1-2

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. Power-Frequency Magnetic Fields (PFMF)

12.1 Test Procedure

Test is conducting under the description of EN 61000-4-8.

Test Performance

Performance Criterion: A

Environmental Conditions

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

12.2 Power-Frequency Magnetic Field Test Data

EN 55035

Level	Magnetic Field Strength (r.m.s) A/m	Frequency Hz	Induction Coil Postion	Pass	Fail
1	1	50	X, Y, Z	A	/
2	3	50	X, Y, Z	/	/
3	10	50	X, Y, Z	/	/
X	Special	/		/	/

EN 60601-1-2

Level	Magnetic Field Strength (r.m.s) A/m	Frequency Hz	Induction Coil Postion	Pass	Fail
1	1	50	X, Y, Z	/	/
2	10	50	X, Y, Z	/	/
3	30	50	X, Y, Z	A	/
X	Special	/		/	/

Test Result: Pass

13. Voltage Dips and Interruptions

13.1 Test Procedure

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

Test Performance

Performance Criterion: B/C

Environmental Conditions

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

13.2 Voltage Dips And Interruptions Test Data

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

EN 55035

Level	U	T	Phase Angle	N	Pass	Fail
1	100%	0.5P	0/90/180/270	3	B	/
2	30%	25P	0/90/180/270	3	B	/
3	100%	250P	0/90/180/270	3	B	/

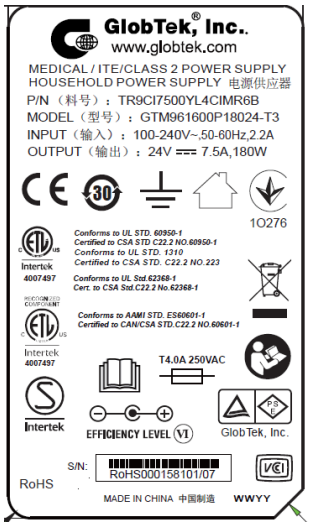
EN 60601-1-2

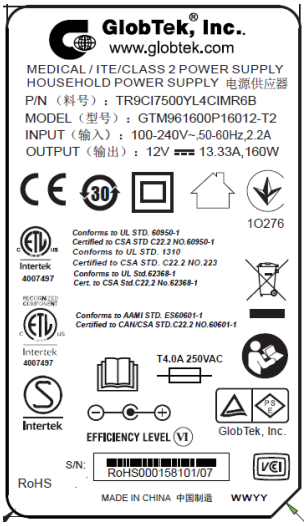
Level	U	T	Phase Angle	N	Pass	Fail
1	100%	0.5P	0/90/180/270	3	B	/
2	60%	5P	0/90/180/270	3	B	/
3	100%	250P	0/90/180/270	3	B	/
4	70%	25P	0/90/180/270	3	B	/

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 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

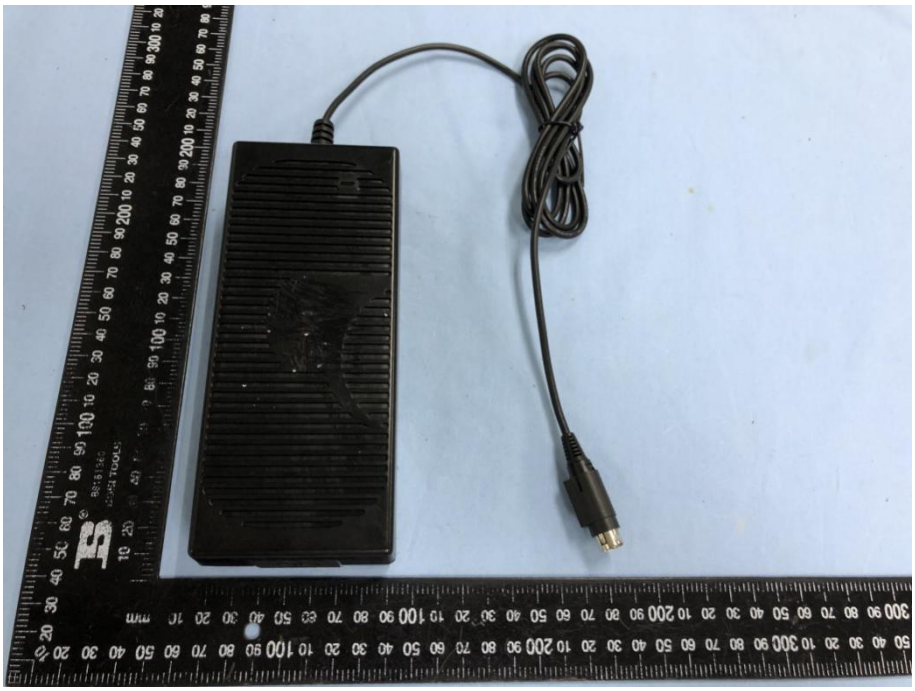
Proposed Label Location on EUT

CE Label Location

EXHIBIT 2 - EUT PHOTOGRAPHS

GTM961800P18054-T2*

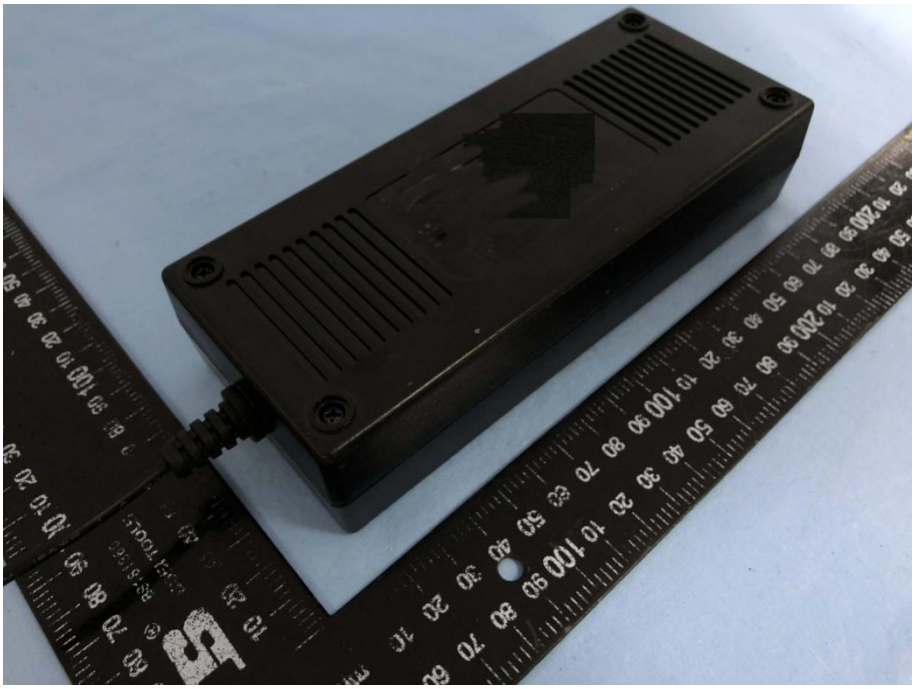
EUT View 1



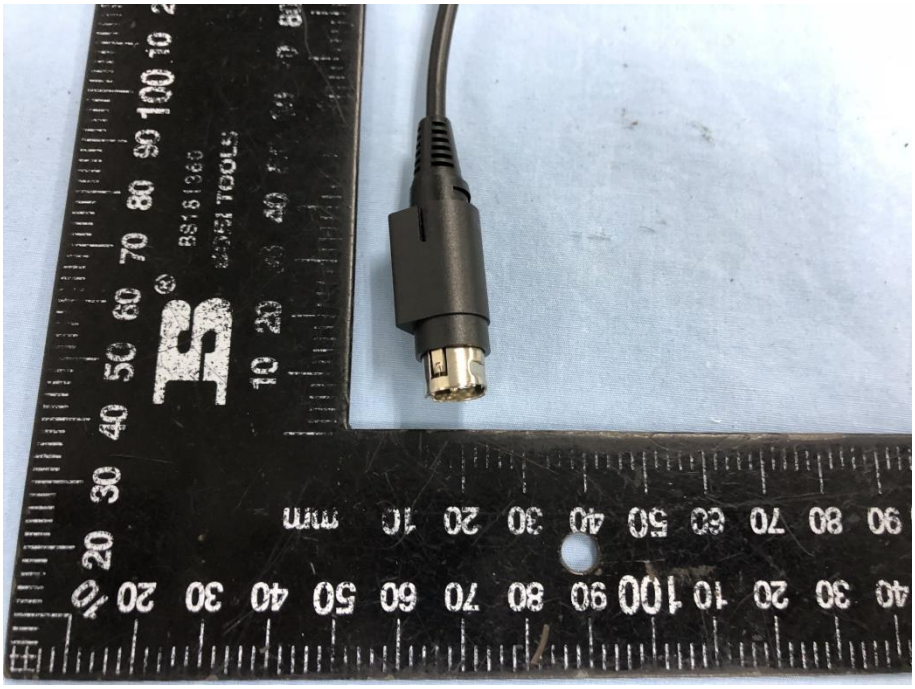
EUT View 2

EUT View 3

EUT View 4

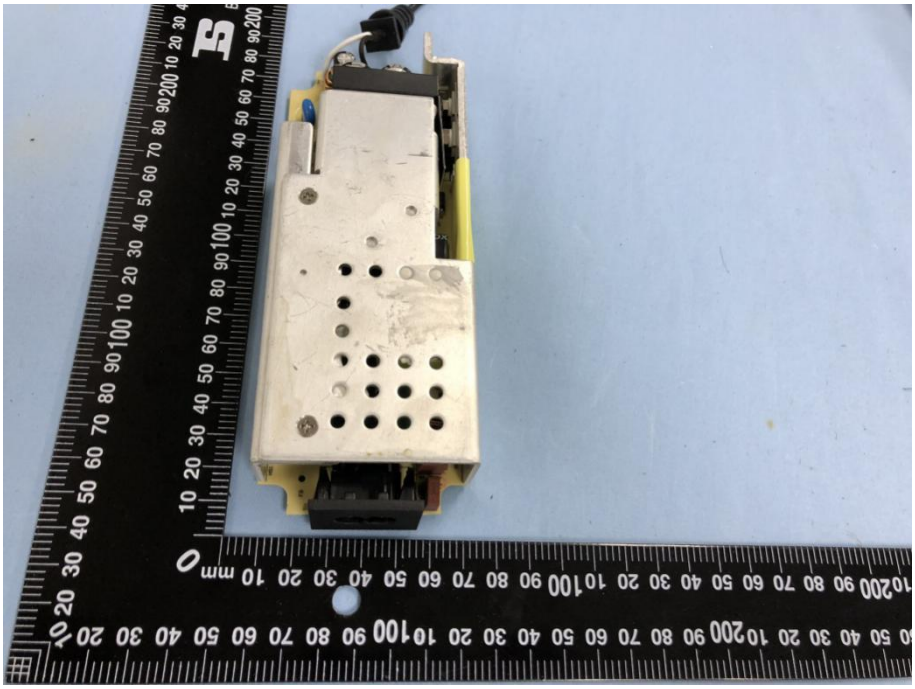


EUT View 5

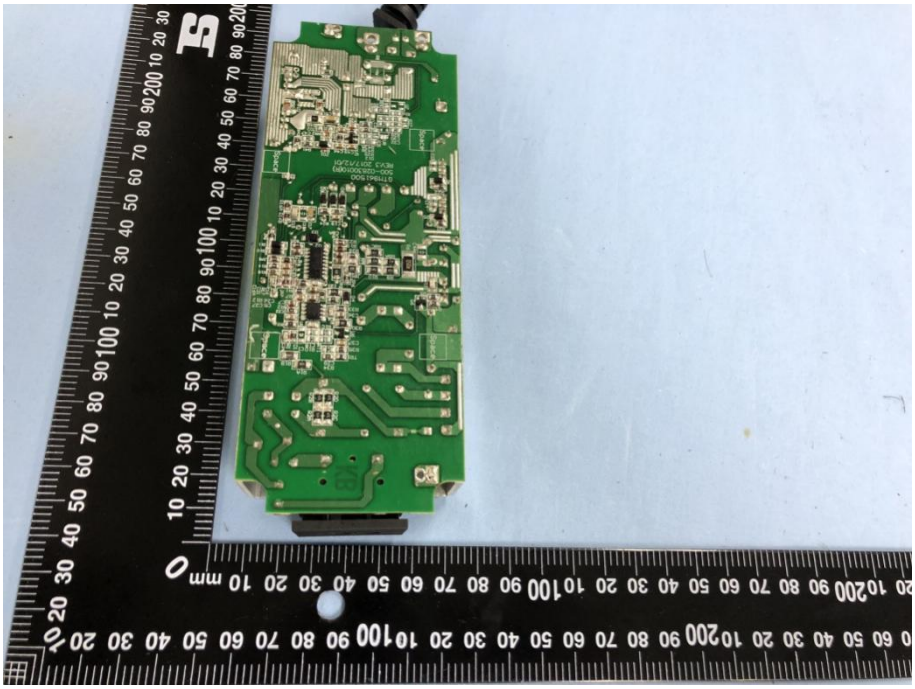


EUT Housing and Board View 1

Solder Board-Component View 1



Solder Board-Component View 2



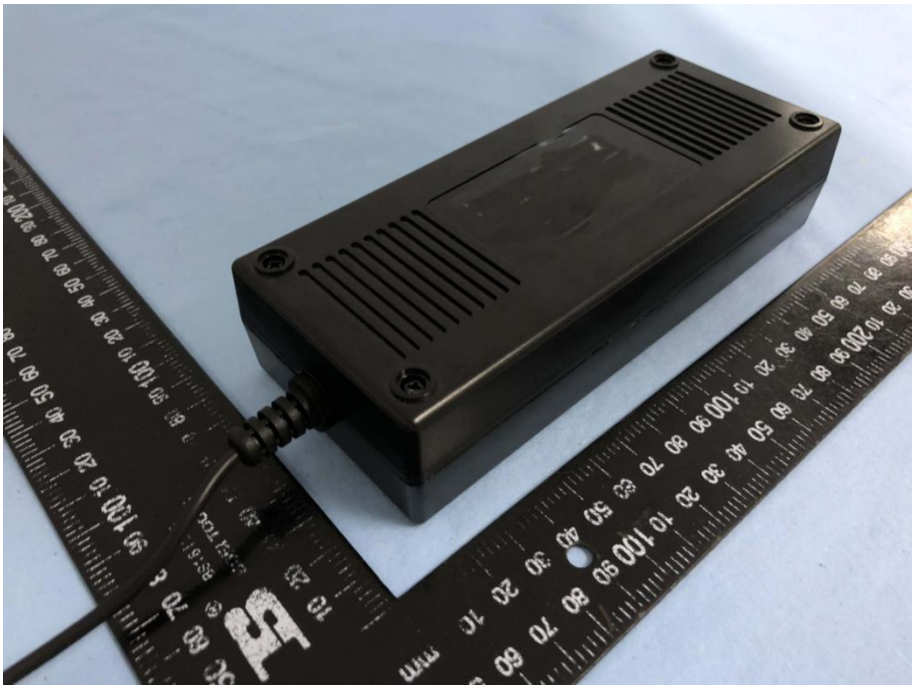
GTM961800P18054-T3*

EUT View 1

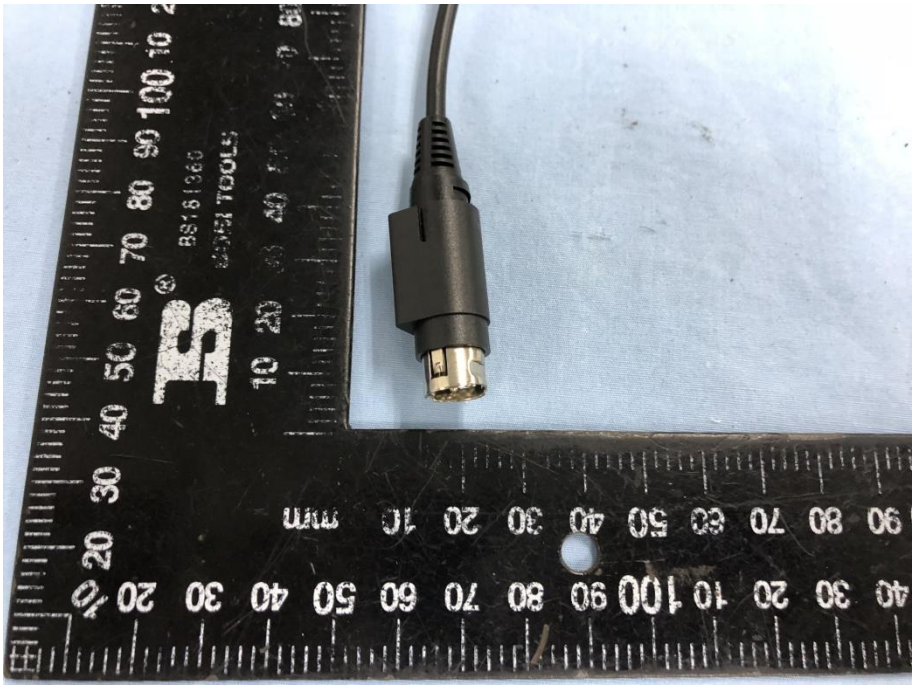
EUT View 2

EUT View 3

EUT View 4

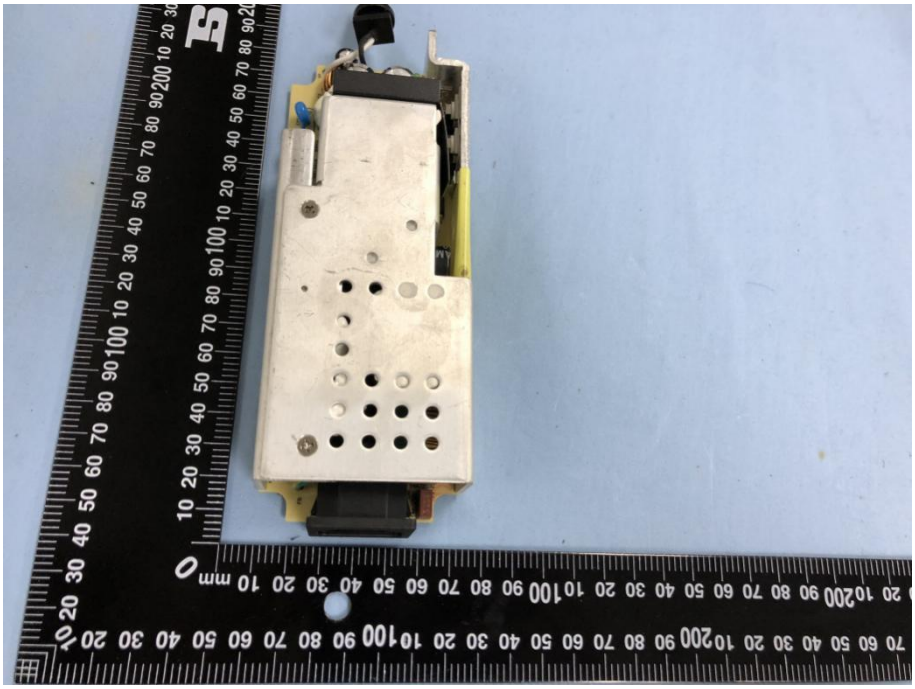


EUT View 5

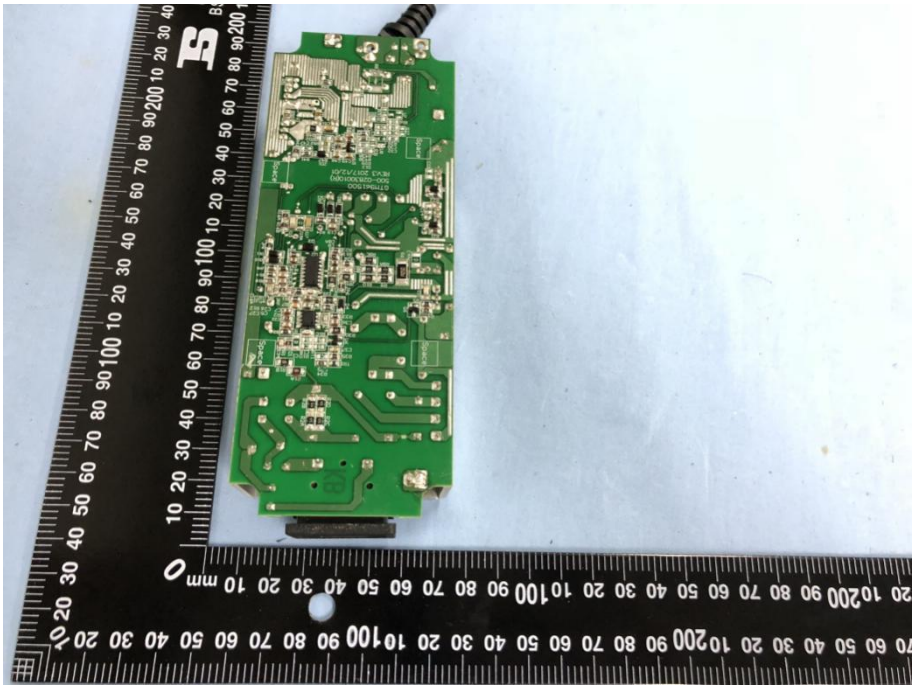


EUT Housing and Board View 1

Solder Board-Component View 1

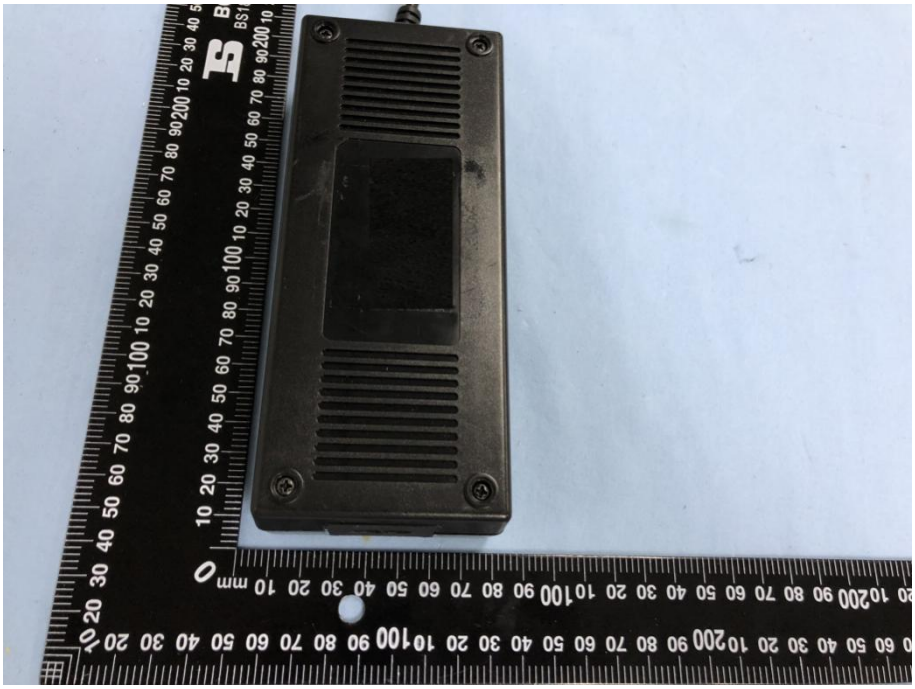


Solder Board-Component View 2

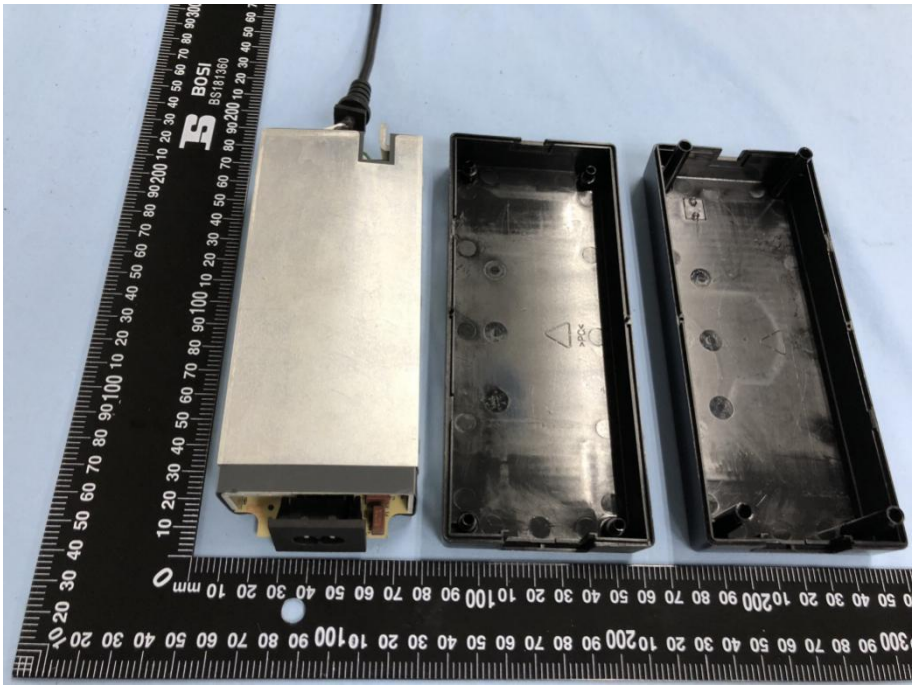


Adding Model:
GTM961600P16012-T2*
EUT View 1

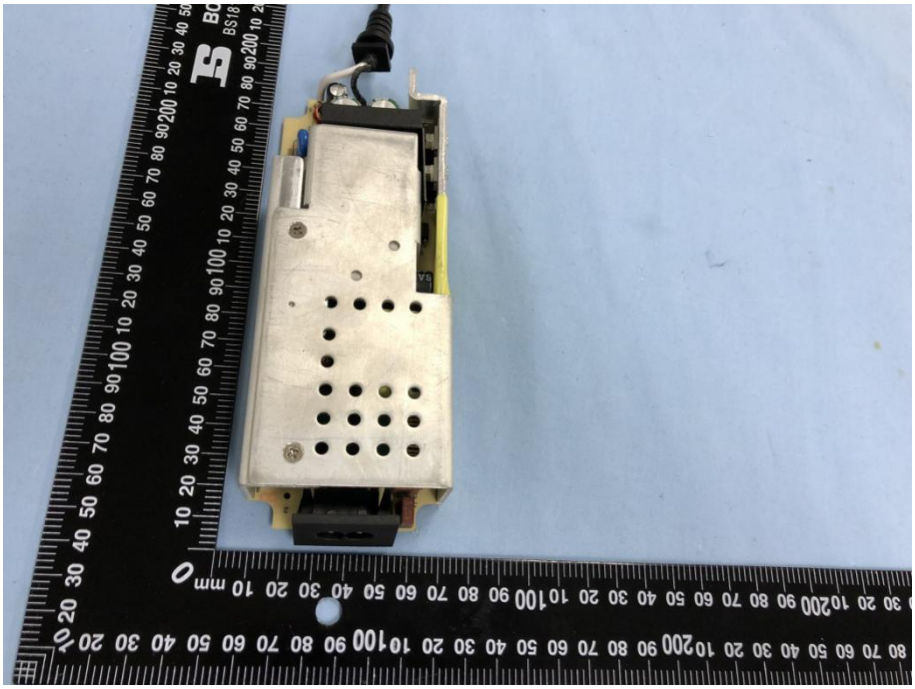
EUT View 2



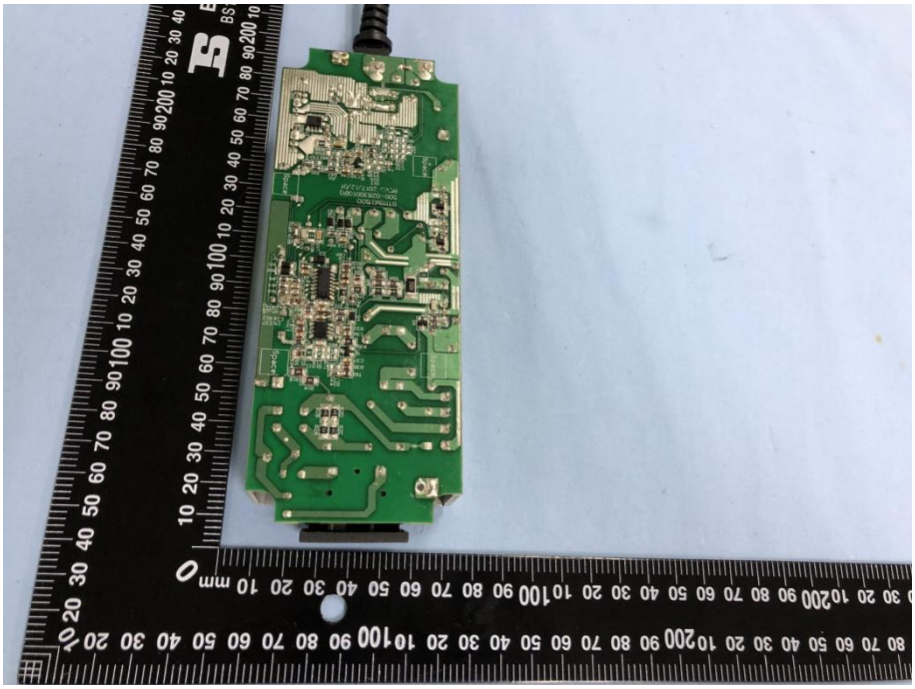
EUT Housing and Board View 1



Solder Board-Component View 1



Solder Board-Component View 2

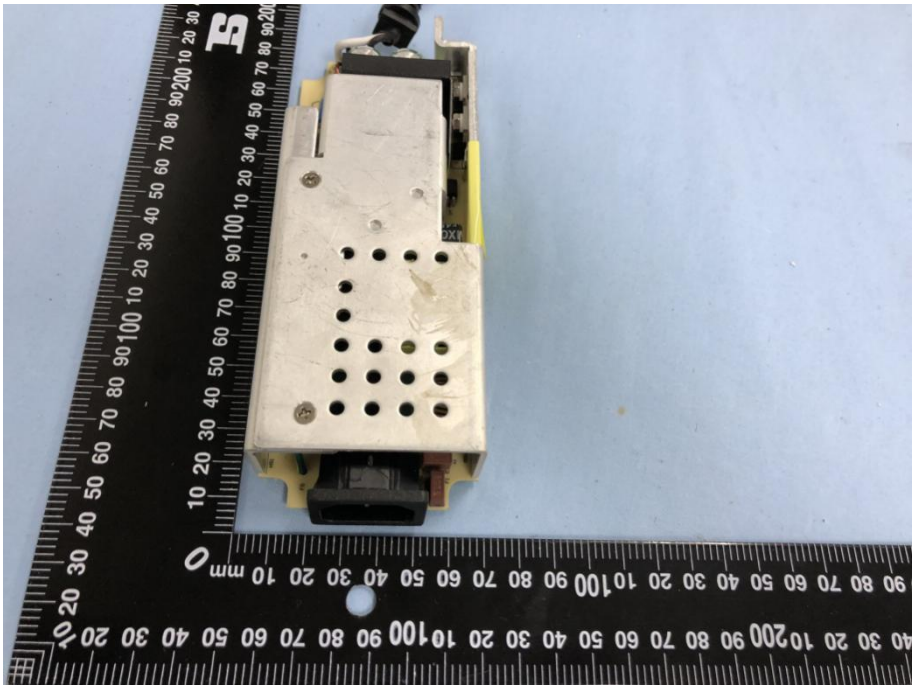


GTM961600P16012-T3*
EUT View 1

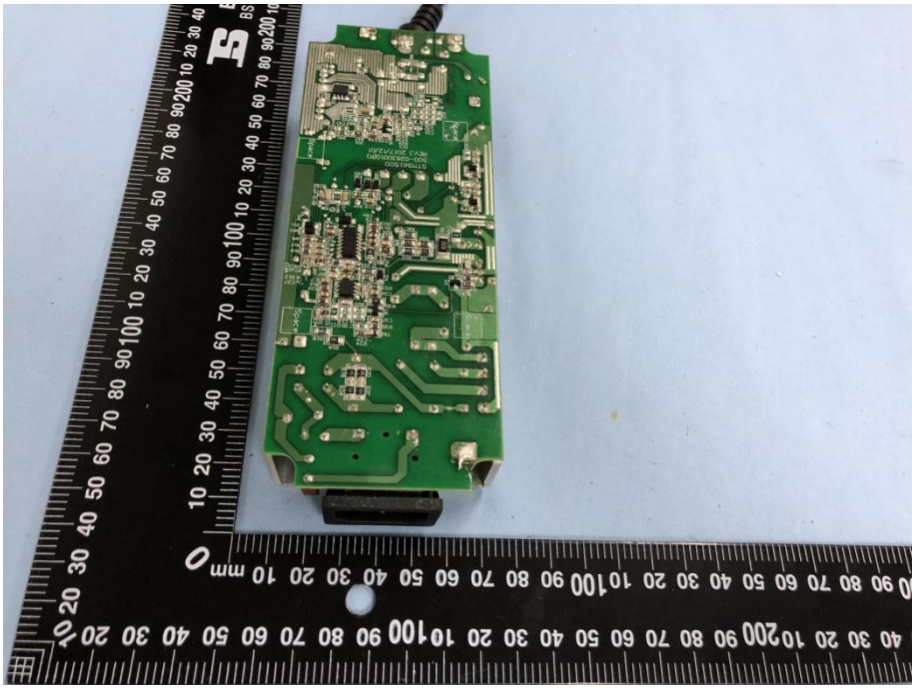
EUT View 2

EUT Housing and Board View 1

Solder Board-Component View 1



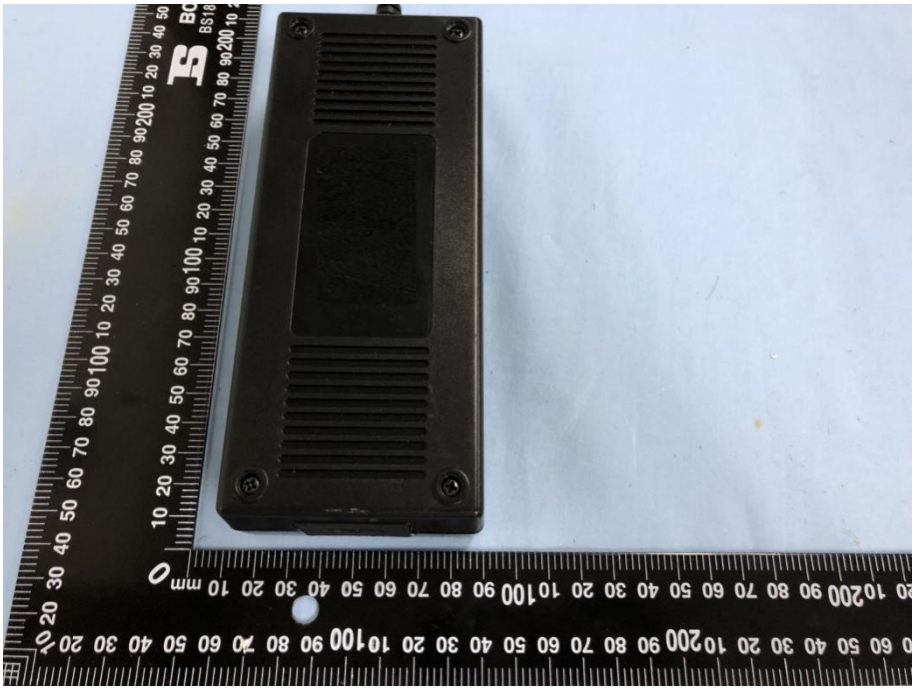
Solder Board-Component View 2



GTM961800P18024-T2*

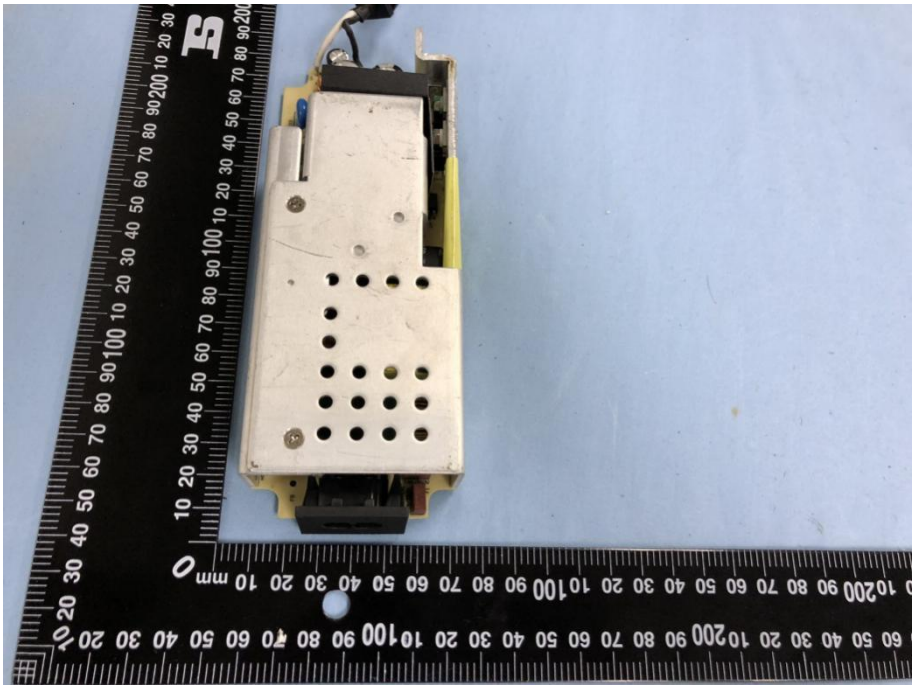
EUT View 1

EUT View 2

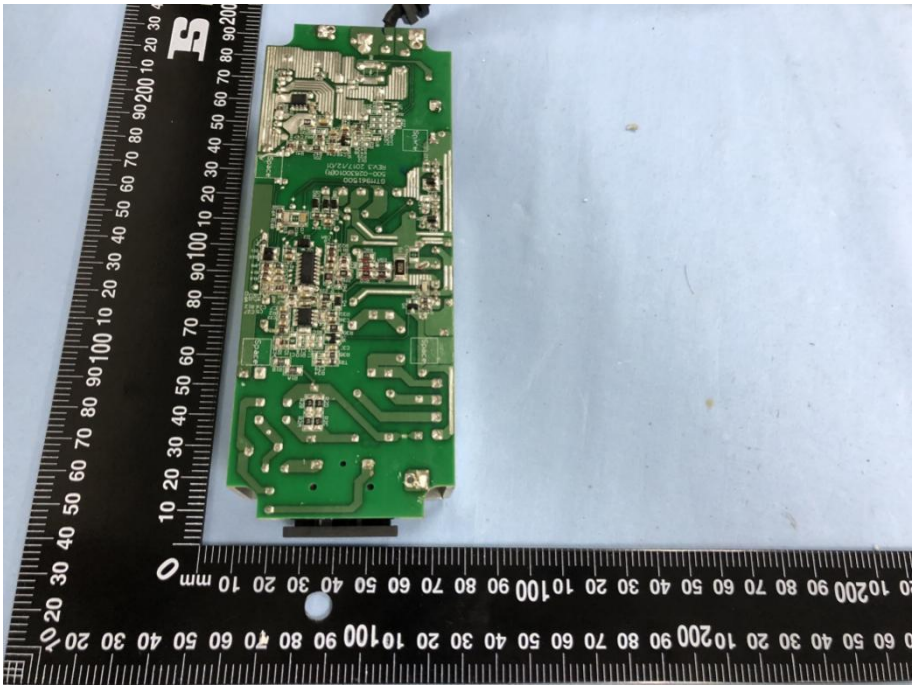


EUT Housing and Board View 1

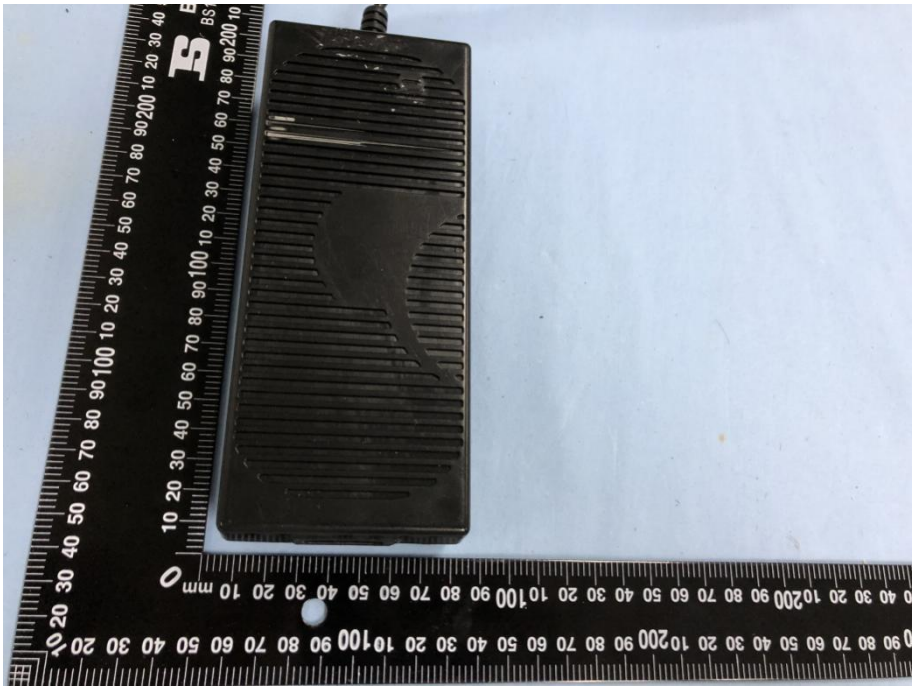
Solder Board-Component View 1



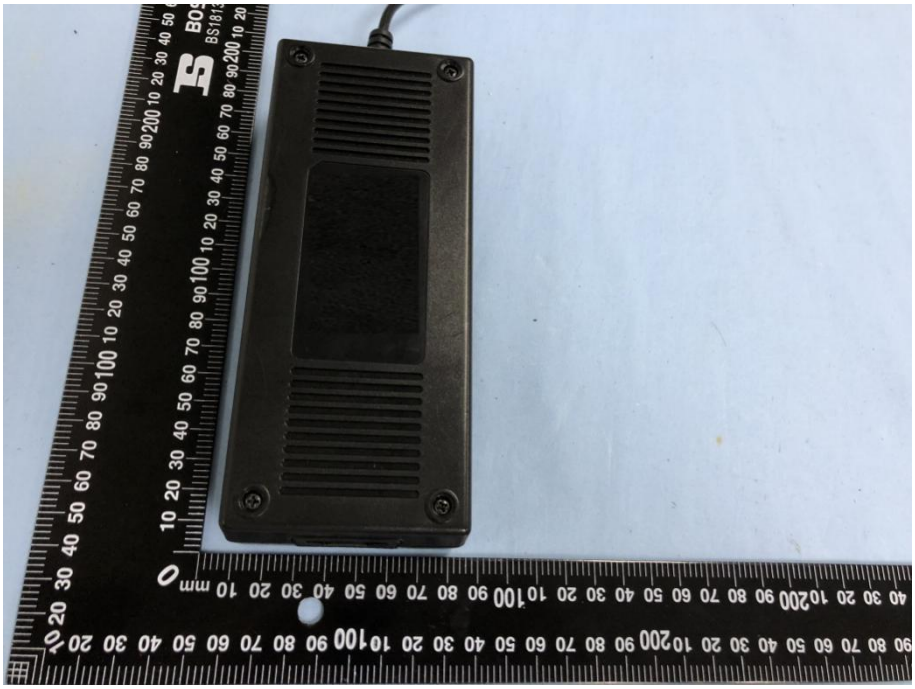
Solder Board-Component View 2



GTM961800P18024-T3*
EUT View 1

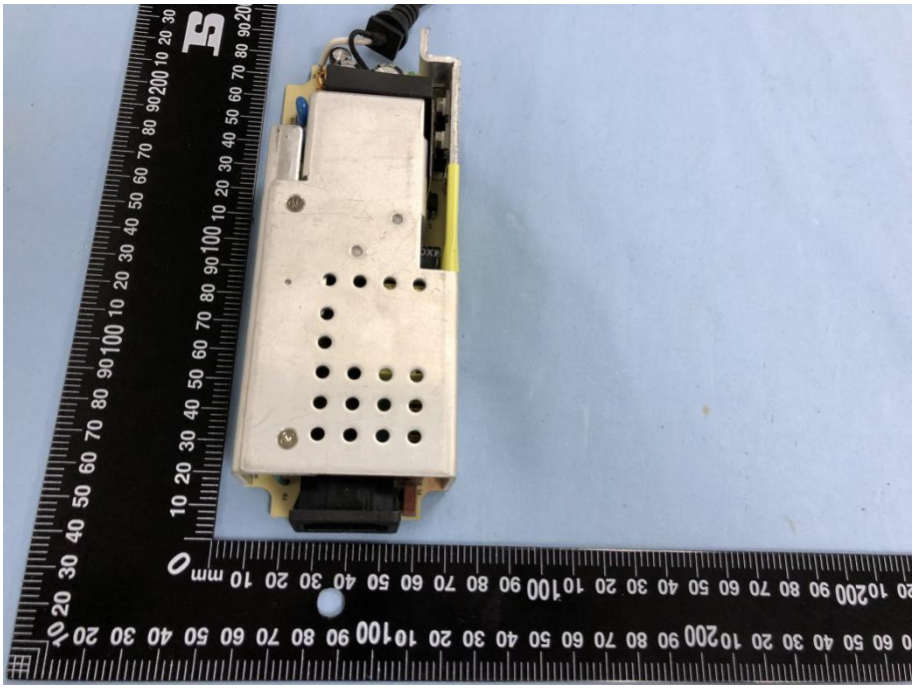


EUT View 2



EUT Housing and Board View 1

Solder Board-Component View 1



Solder Board-Component View 1

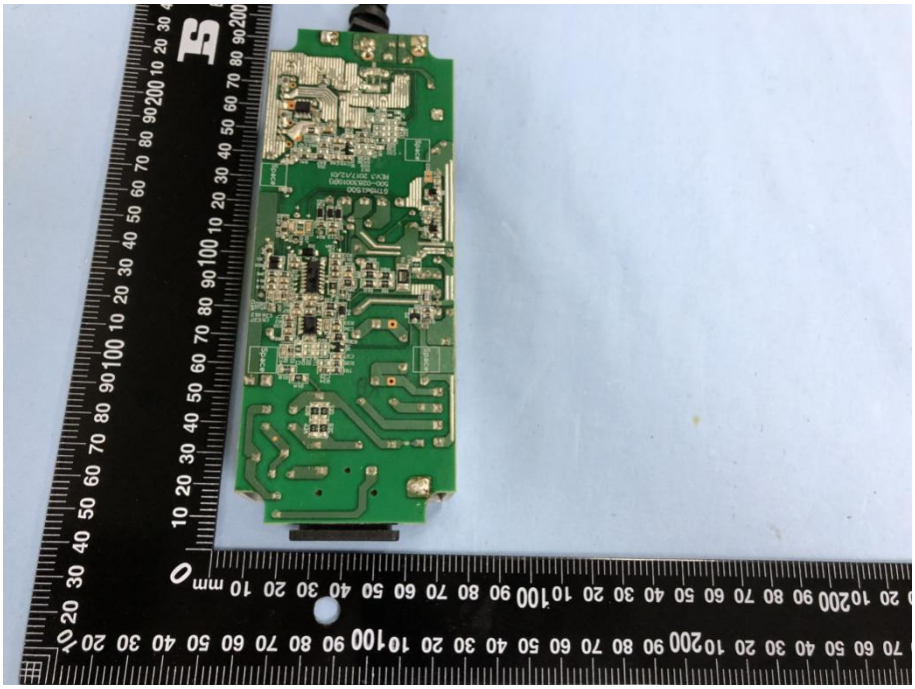
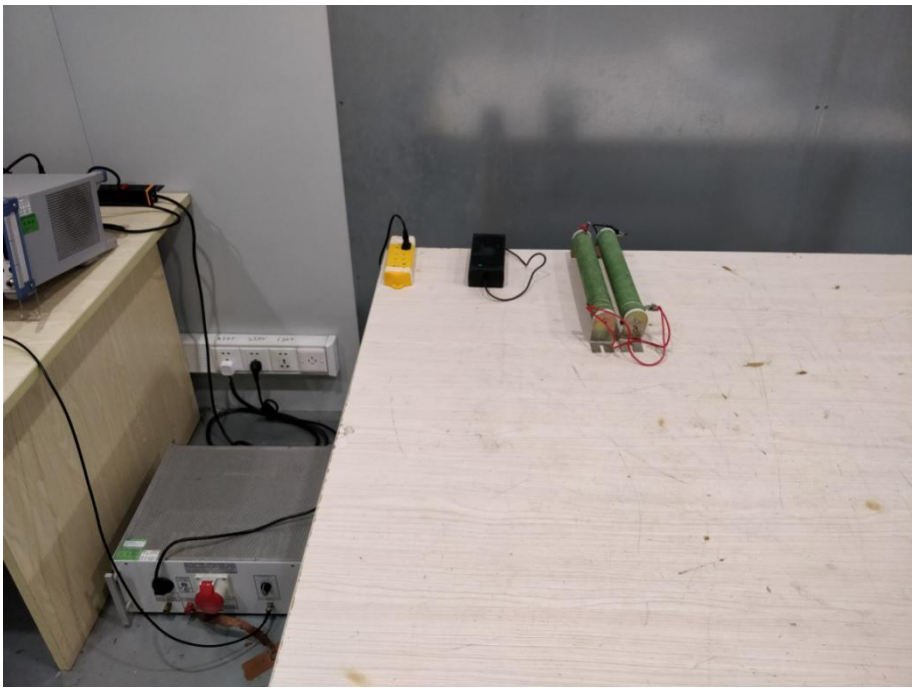
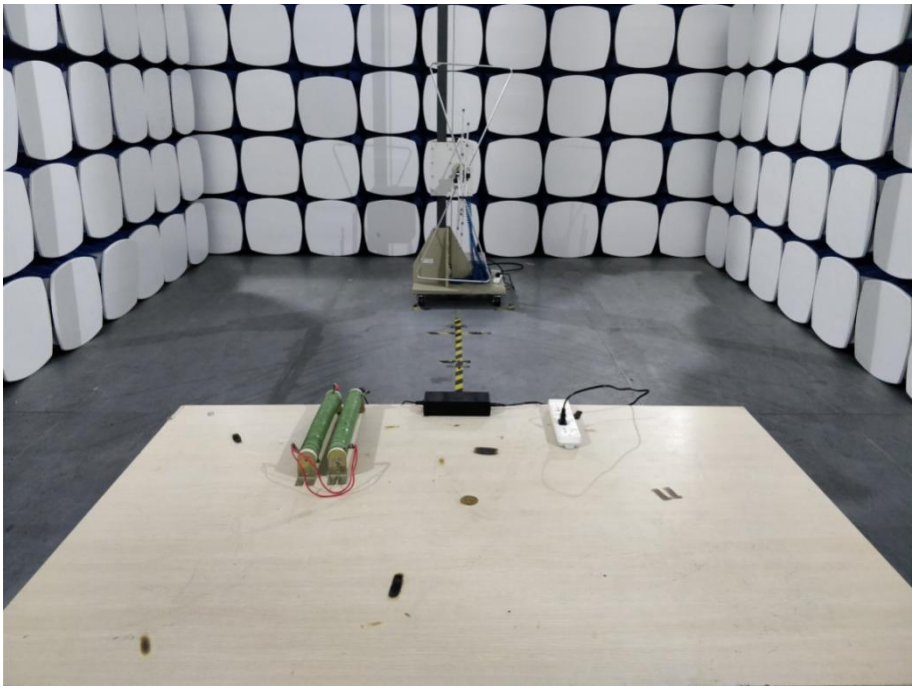


EXHIBIT 3 - TEST SETUP PHOTOGRAPHS

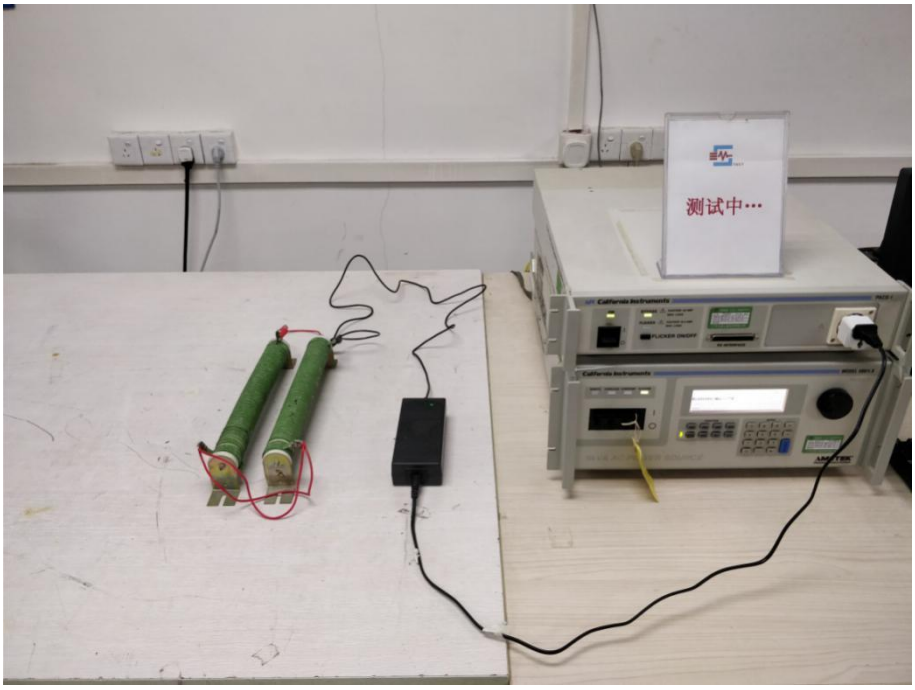
GTM961800P18054-T2*
Conduction Emission Test View



Radiation Emission Test View

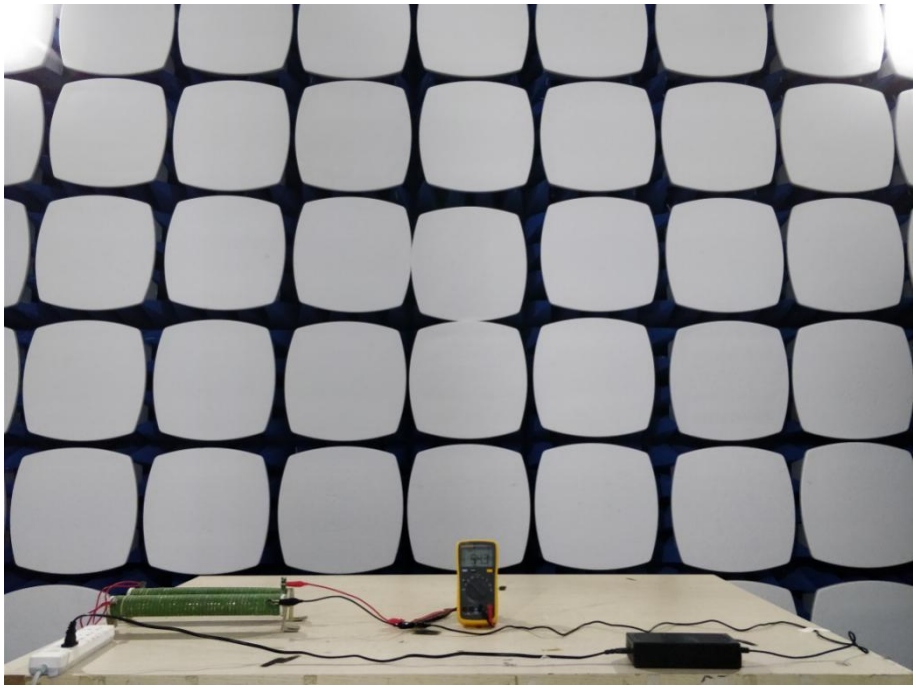


Harmonic/Flicker Test View

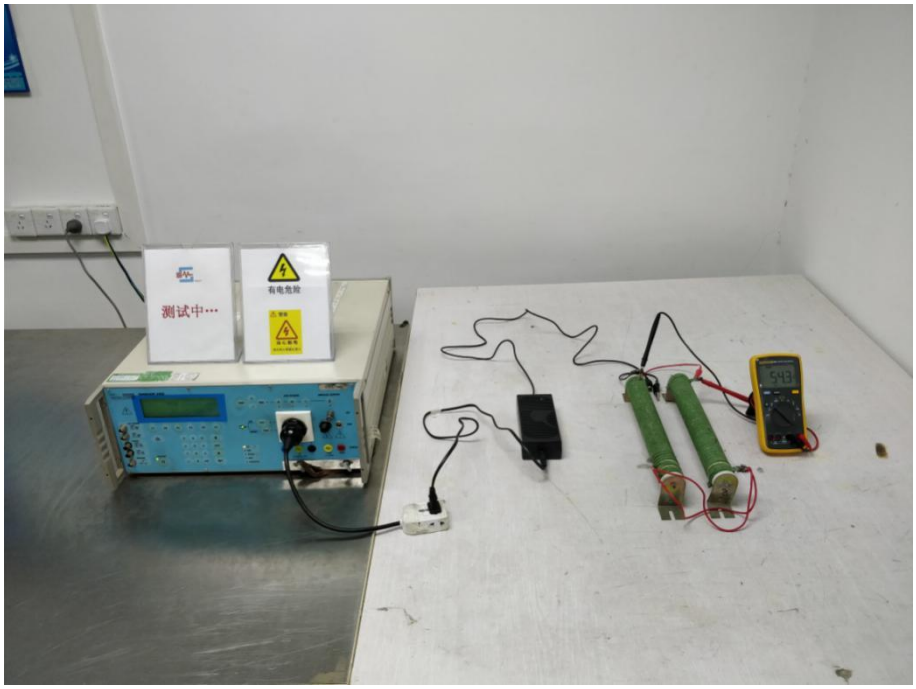


EN 61000-4-2 Test View

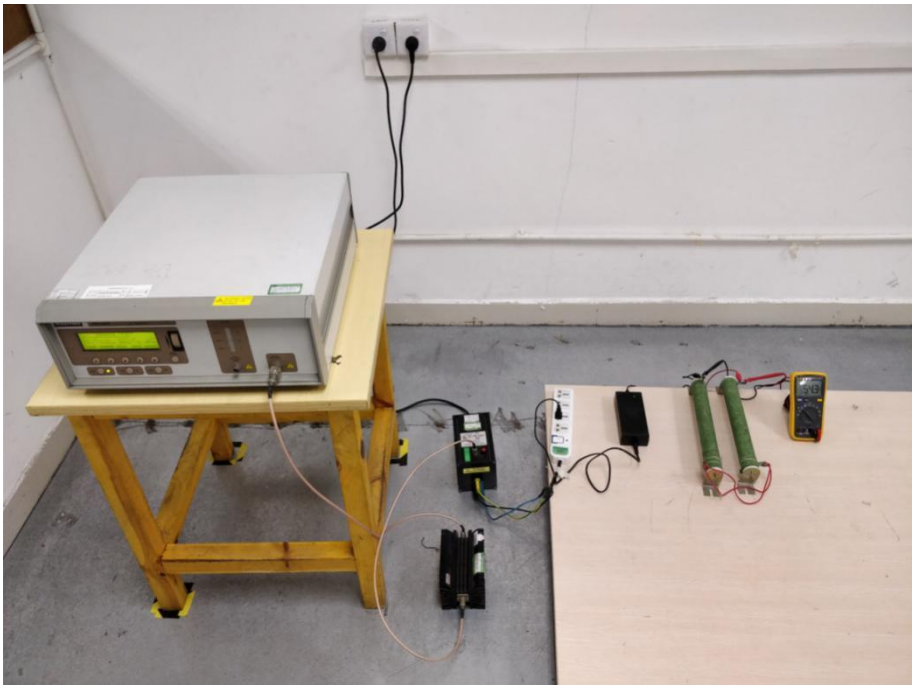
EN 61000-4-3 Test View



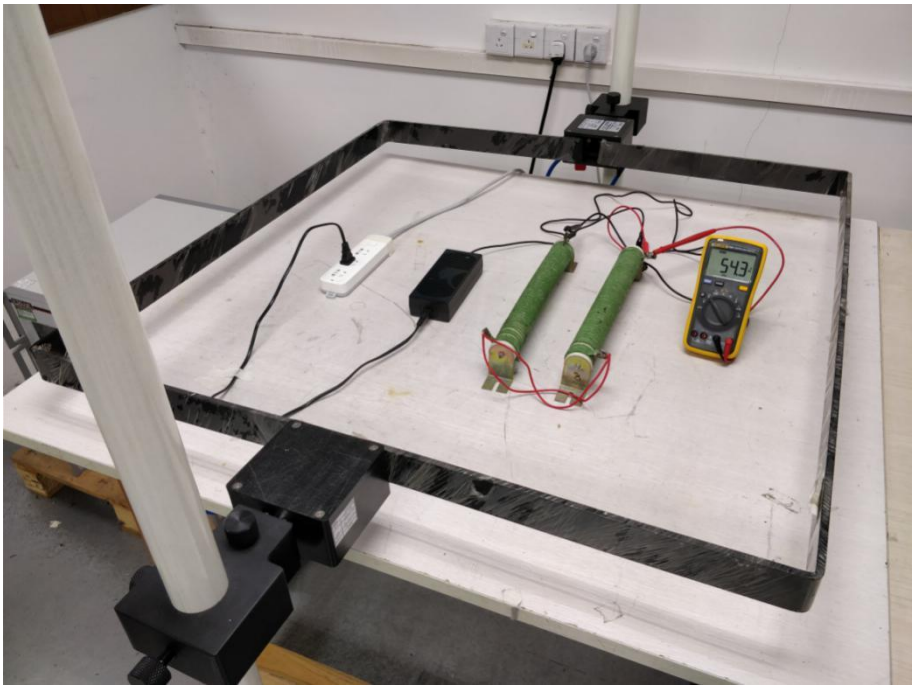
EN 61000-4-4/5/11 Test View



EN 61000-4-6 Test View

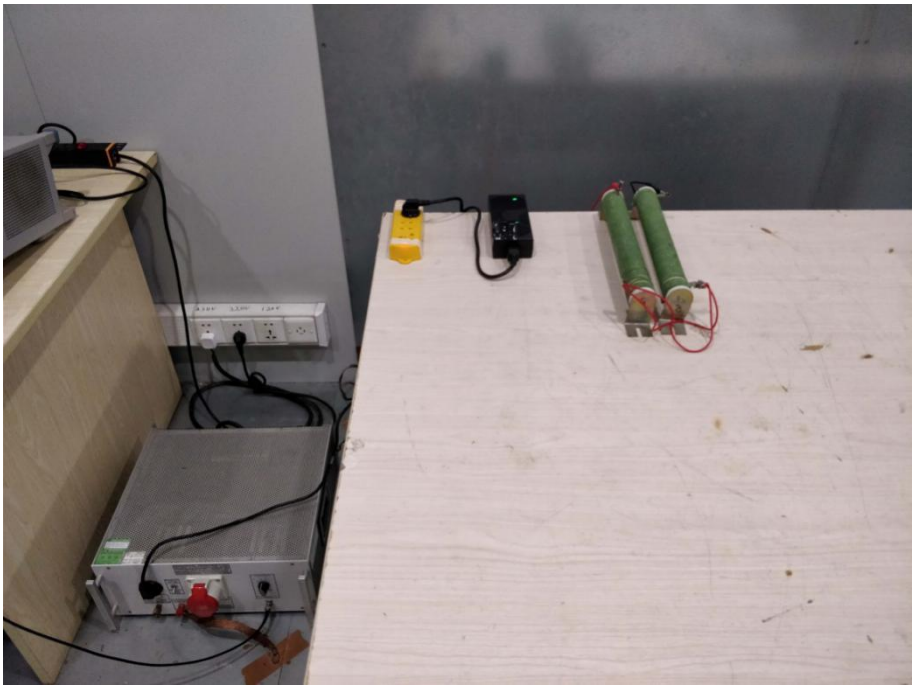


EN 61000-4-8 Test View

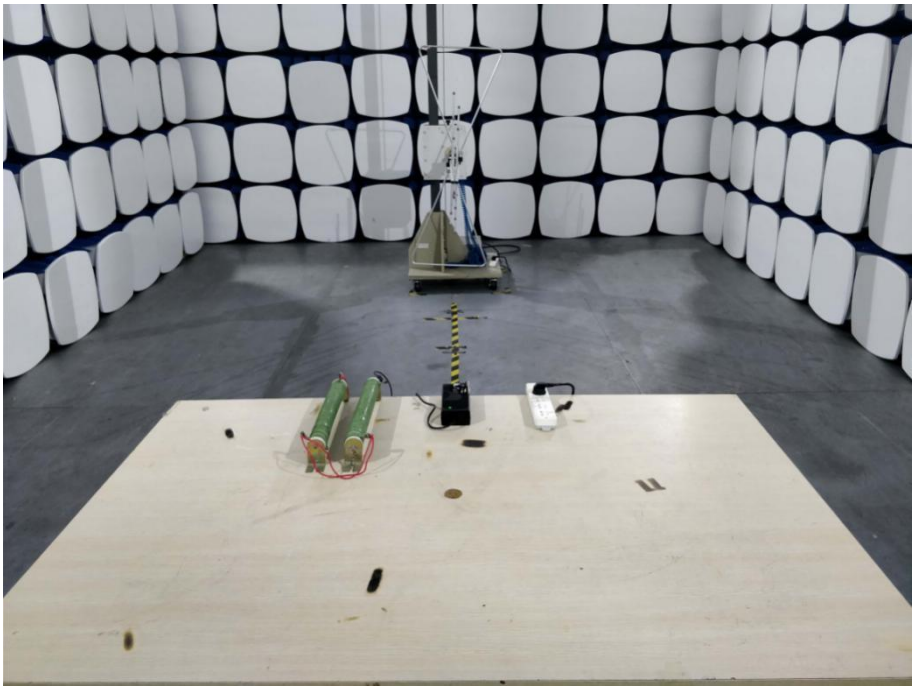


GTM961800P18054-T3*

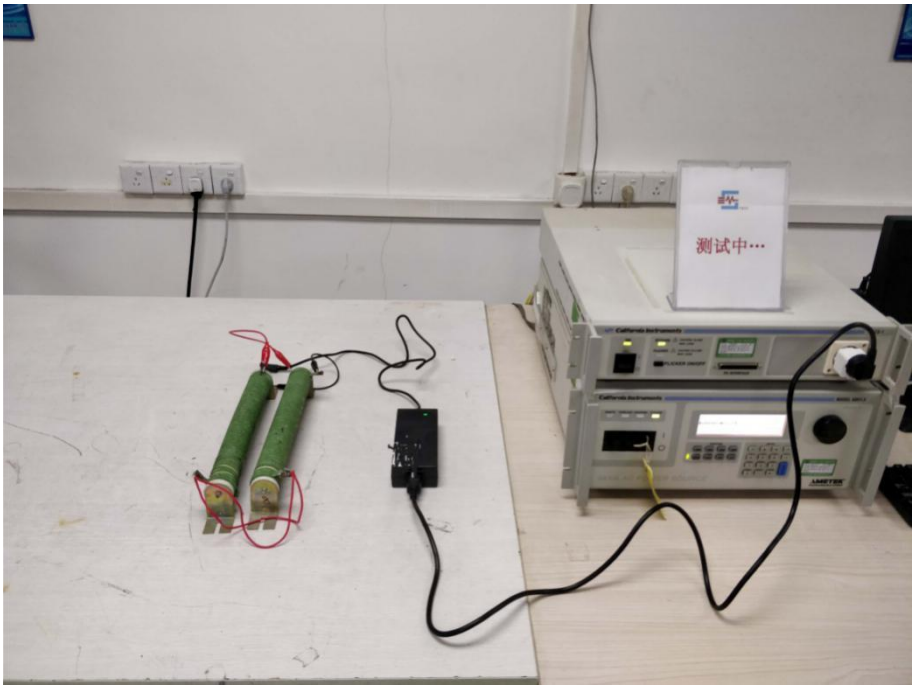
Conduction Emission Test View



Radiation Emission Test View

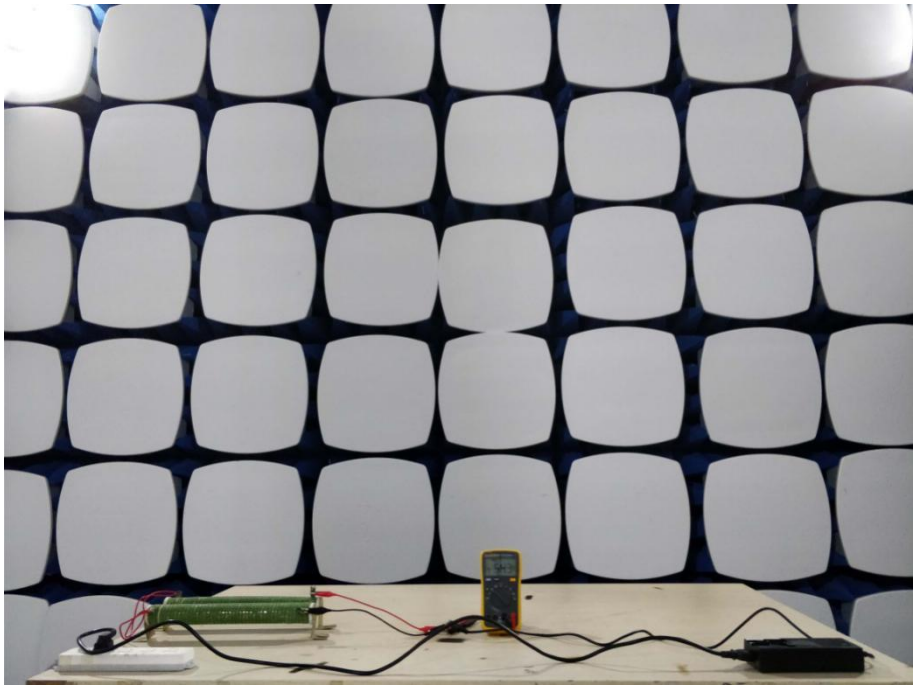


Harmonic/Flicker Test View



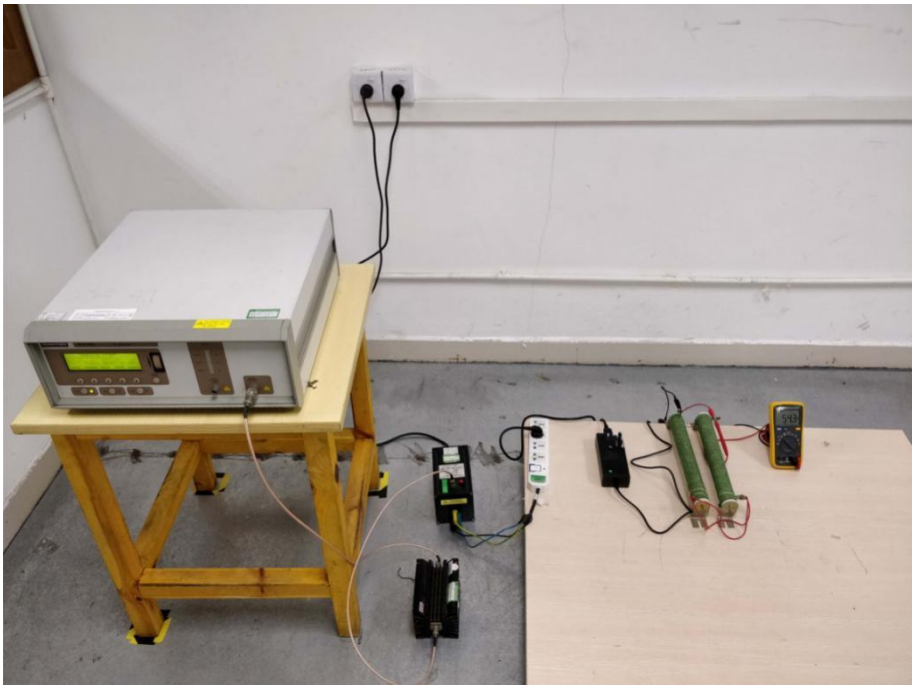
EN 61000-4-2 Test View

EN 61000-4-3 Test View

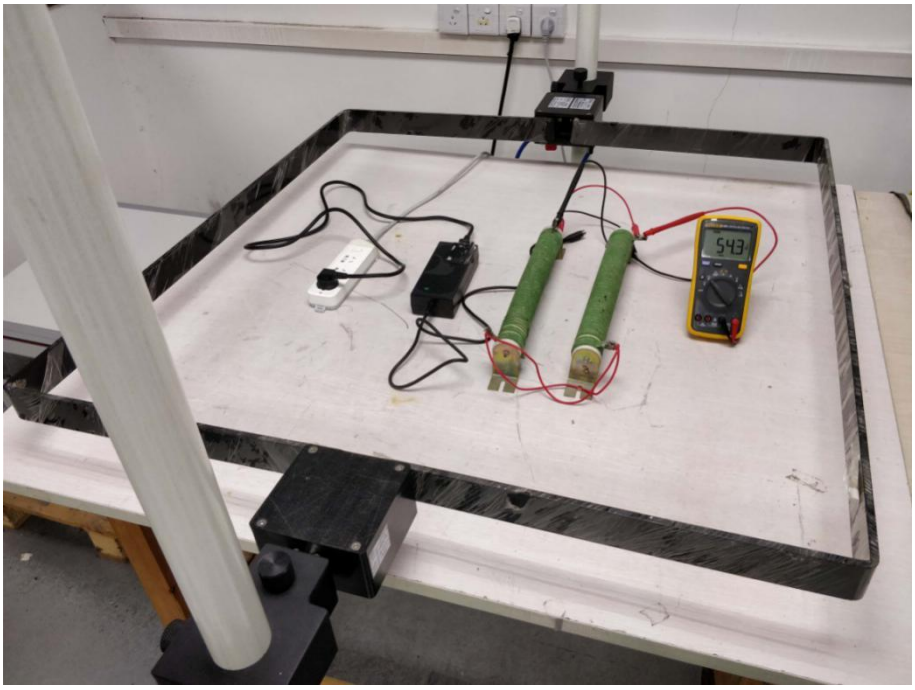


EN 61000-4-4/5/11 Test View

EN 61000-4-6 Test View



EN 61000-4-8 Test View



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