



# TEST REPORT

Reference No..... : WTX21X06053486E-1  
Applicant..... : GlobTek, Inc.  
Address..... : 186 Veterans Dr. Northvale, NJ 07647 USA  
Product..... : ITE Power Supply  
Test Model..... : GT\*961600P\*\*\*\*, GT\*961800P\*\*\*\*  
Standards..... : EN 55032:2015+A11:2020  
EN 55035:2017+A11:2020  
EN IEC 61000-3-2:2019  
EN 61000-3-3:2013+A1:2019  
Date of Receipt sample ... : Jul. 27, 2018;Jun. 15, 2021  
Date of Test..... : Jul. 27, 2018 to Jul. 10, 2018; Jun. 15, 2021 to Jul. 19, 2021  
Date of Issue..... : Jul. 26, 2021  
Test Result..... : Pass

Remarks:

The results shown in this test report refer only to the sample(s) tested, this test report cannot be reproduced, except in full, without prior written permission of the company. The report would be invalid without specific stamp of test institute and the signatures of compiler and approver.

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## Revision History

Report No.	Version	Description	Issue Date	Note
STR18078316E	Original	1. Tested by: Gan li	2018-08-14	Valid
WTX21X06054676E-1	Re.1	1. Tested by: Make Chen 2. Change version for EN 55032, EN 55035,EN IEC 61000-3-2, EN 61000-3-3. 3. Add the new sample testing 4. Add the ground wire between the two Y capacitors 5. Ground wire add Chock 6. Wire contact Sec. chock	2021-07-26	Valid

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## 1. GENERAL INFORMATION

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### 1.1 Product Description for Equipment Under Test (EUT)

#### Client Information

Applicant:

Address of applicant:

GlobTek, Inc.

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

<b>General Description of EUT</b>	
Product Name:	ITE Power Supply
Trade Name:	 <b>GlobTek, Inc.</b>
Model No.:	GT*961600P****, GT*961800P****
Adding Model(s):	/
<p><i>Note: The test data is gathered from a production sample, provided by the manufacturer.</i></p> <p>GT*961600P****, GT*961800P****</p> <p>(The 1st “*” part can be ‘M’ or ‘-’ or ‘H’ for market identification and not related to safety.</p> <p>The 2nd “*” can be “01” to “180”, denotes the rated output wattage designation from 1W to 180W, with interval of 1W.</p> <p>The 3rd “*” can be “12” to “54” or “12.0” to “54.0”, denote the standard rated output voltage designation from 12V to 54V, with interval of 0.1V.</p> <p>The 4th“*”</p> <ul style="list-style-type: none"> <li>=T2 means desktop class II with C8 AC inlet</li> <li>=T2A means desktop class II with C18 AC inlet</li> <li>=T3 means desktop class I or class II with functional earth with C14 AC inlet</li> <li>=T3A means desktop class I or class II with functional earth with C6 AC inlet</li> <li>=TW means desktop with input wires without plug</li> <li>=TP means desktop with power cord and US plug</li> </ul> <p>The last * denote any six character = 0-9 or A-Z or ()[] or – or blank for marketing purposes.)</p>	

**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

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## 1.2 Test Standards

The tests were performed according to following standards:

**EN 55032:2015+A11:2020** Electromagnetic compatibility of multimedia equipment - Emission requirements.

**EN 55035:2017+A11:2020** Electromagnetic compatibility of multimedia equipment - Immunity requirements.

**EN IEC 61000-3-2:2019** 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+A1:2019** 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  $\leq 16$  A per phase and not subject to conditional connection.

**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 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:

<b>Test Mode List (STR18078316E)</b>			
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.

<b>Test Mode List (WTX21X06053486E-1)</b>			
Test Mode	Description	Remark	Power Supply Mode
TM1	Charging	GTM961600P12-T3A Output Port is connected to the Load(0.9R)	DC 12V(With an adapter input AC 230V/50Hz)
TM2	Charging	GTM961600P12-T3 Output Port is connected to the Load(0.9R)	DC 12V(With an adapter input AC 230V/50Hz)
TM3	Charging	GTM961800P54-T3 Output Port is connected to the Load(16.2R)	DC 54V(With an adapter input AC 230V/50Hz)
TM4	Charging	GTM961800P54-T3 (TR9CX3333T00-IMR6B) Output Port is connected to the Load(16.2R)	DC 54V(With an adapter input AC 230V/50Hz)
TM5	Charging	GTM961800P54-T3 (TR93333KP4F5IMR6B) Output Port is connected to the Load(16.2R)	DC 54V(With an adapter input AC 230V/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 (STR18078316E)**

Cable Description	Length (m)	Shielded/Unshielded	With / Without Ferrite
DC Cable	0.8	Unshielded	Without Core

**EUT Cable List and Details (WTX21X06053486E)**

Cable Description	Length (m)	Shielded/Unshielded	With / Without Ferrite	With / Without Core
DC Cable	1.05	Shielded	With	Without

**Special Cable List and Details (STR18078316E)**

Cable Description	Length (m)	Shielded/Unshielded	With / Without Ferrite
AC Cable	1.2	Unshielded	Without Core

**Special Cable List and Details (WTX21X06053486E)**

Cable Description	Length (m)	Shielded/Unshielded	With / Without Ferrite	With / Without Core
AC Cable	1.2	Unshielded	Without	Without

**Auxiliary Equipment List and Details (STR18078316E)**

Description	Manufacturer	Model	Serial Number
Multimeter	Fluke	15B	/

**Auxiliary Equipment List and Details (WTX21X06053486E)**

Description	Manufacturer	Model	Serial Number
Multimeter	Fluke	/	/



## 1.5 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 manufacturer. No change in operating state or loss of 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.

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## 1.6 Test Equipment List and Details

Description	Manufacturer	Model	Serial No.	Cal. Date	Due. Date
Spectrum Analyzer	Rohde & Schwarz	FSP	836079/035	2021-03-30	2022-03-29
EMI Test Receiver	Rohde & Schwarz	ESVB	825471/005	2021-04-12	2022-04-11
Amplifier	Agilent	8447F	3113A06717	2021-04-12	2022-04-11
Amplifier	C&D	PAP-1G18	2002	2021-04-12	2022-04-11
Trilog Broadband Antenna	Schwarz beck	VULB9163	9163-333	2021-03-20	2023-03-19
Horn Antenna	ETS	3117	00086197	2021-03-19	2023-03-18
Loop Antenna	Schwarz beck	FMZB 1516	9773	2021-03-20	2023-03-19
EMI Test Receiver	Rohde & Schwarz	ESPI	101391	2021-05-06	2022-05-05
Trilog Broadband Antenna	Schwarz beck	VULB9163(B)	9163-635	2021-04-09	2023-04-08
Amplifier	Agilent	8447D	2944A10179	2021-04-12	2022-04-11
EMI Test Receiver	Rohde & Schwarz	ESPI	101611	2021-04-12	2022-04-11
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100911	2021-04-15	2022-04-14
AC LISN	Schwarz beck	NSLK8126	8126-224	2021-04-12	2022-04-11
8-WIRE LISN	Schwarz beck	8158	CAT3-8158-0059	2021-04-12	2022-04-11
8-WIRE LISN	Schwarz beck	8158	CAT5-8158-0117	2021-04-12	2022-04-11
PMF Generator	LIONCEL	PMF-801C-C	0171101	2021-04-12	2022-04-11
PMF Antenna	LIONCEL	PMF-801C-A	0180302	2021-04-12	2022-04-11
Instantaneous PMF Generator Module	LIONCEL	PMF-801C-T	0171001	2021-04-12	2022-04-11
Digital Power Analyzer	California Instrument	CTS	72831	2021-04-12	2022-04-11
Power Source	California Instrument	5001IX-CTS-400	25965	2021-04-12	2022-04-11
ESD Generator	LIONCEL	ESD-203B	0170901	2021-04-16	2022-04-15
Transient 2000	EMC PARTNER	TRA2000	863	2021-04-12	2022-04-11
Couple Clamp	EMC PARTNER	CN-EFT1000	513	2021-04-12	2022-04-11
CONDUCTED IMMUNITY TEST SYSTEM	FRANKONIA	CIT-10/75	126B1247/2013	2021-01-08	2022-01-07
CDN	LIONCEL	CDN-T8	0210401	2021-05-06	2022-05-05
Attenuator	EMTEST	MA-5100/6BF2	1009	2021-03-30	2022-03-29
CDN	Luthi	L-801M2/M3	2665	2021-04-12	2022-04-11
Signal Generator	HP	8688B	3438A00604	2021-03-30	2022-03-29
Power Meter	KEITHLEY	3500	1162591	2021-03-27	2022-03-26
Power Meter	KEITHLEY	3500	1121428	2021-03-27	2022-03-26
RF Power Amplifier	MicoTop	MPA-80-1000-250	MPA1906239	2021-03-27	2022-03-26
RF Power Amplifier	MicoTop	MPA-80-1000-100	MPA1906238	2021-03-27	2022-03-26
Antenna	SCHWARZBECK	STLP 9129	9129 114	N/A	N/A



## 2. SUMMARY OF TEST RESULTS

Standards	Description of Test Item	Result
EN 55032	Conducted Emission	Compliant
	Radiated Emission	Compliant
EN IEC 61000-3-2	Harmonic Current Emission	Compliant
EN 61000-3-3	Voltage Fluctuation and Flicker	Compliant
EN 55035	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 IEC 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

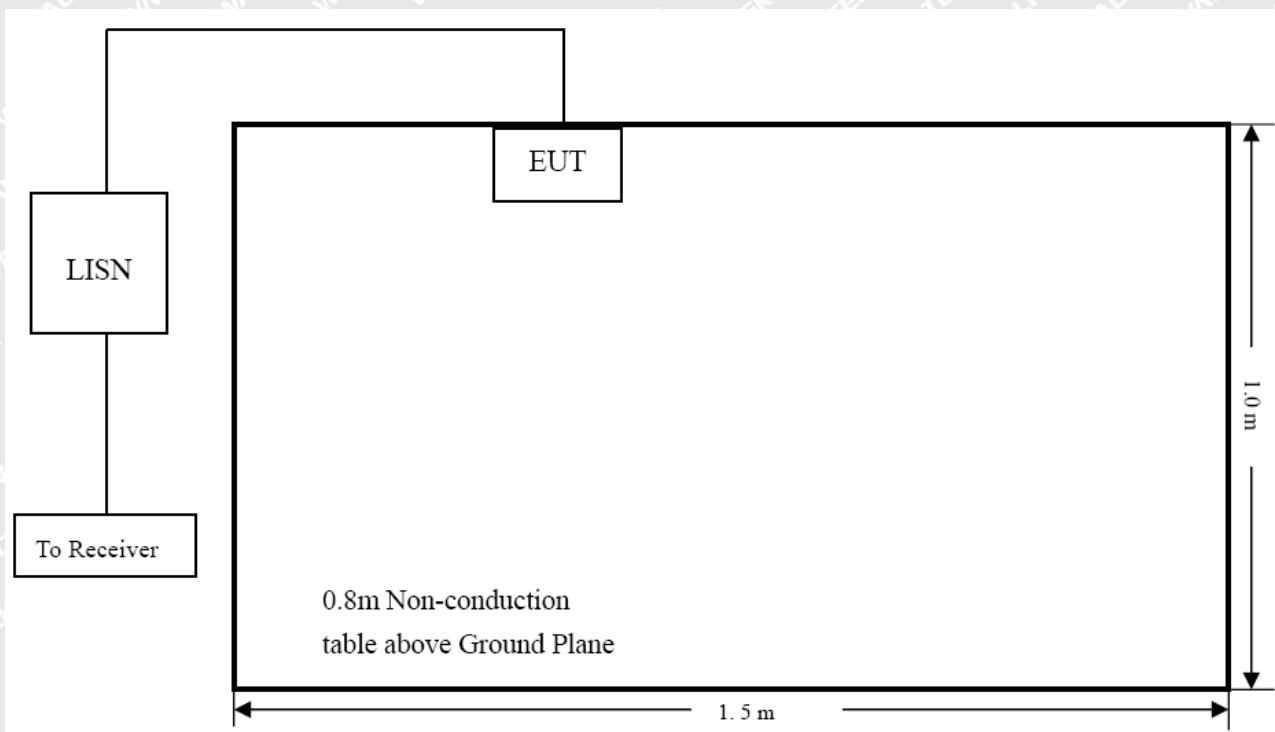
Base on NIS 81, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of any conducted emissions measurement

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

#### 3.2 Test Procedure

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

#### 3.3 Basic Test Setup Block Diagram





### 3.4 Environmental Conditions

Temperature:	23.5 ° C
Relative Humidity:	54 %
ATM Pressure:	1015 mbar

### 3.5 Summary of Test Results/Plots

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

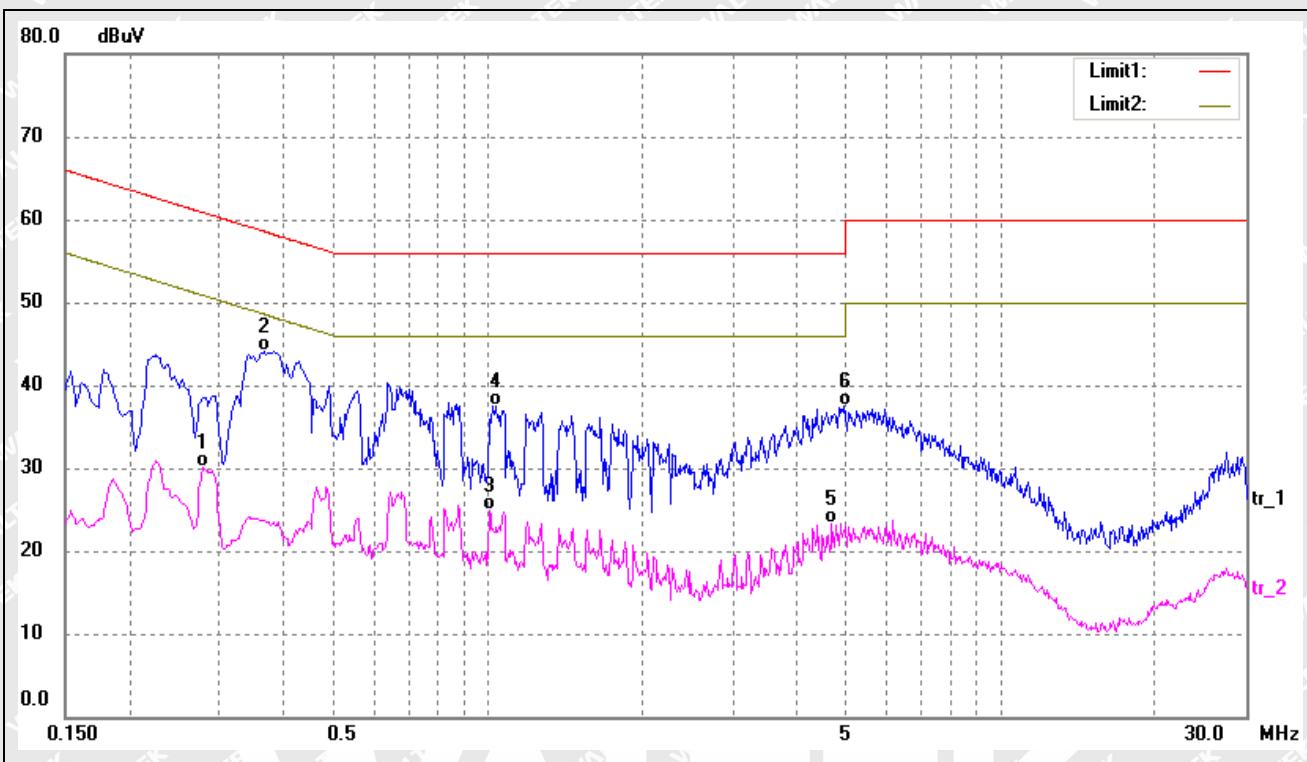
**-2.19 dB at 0.5660 MHz** in the **Line mode, QP detector, TM6 mode, 0.15-30MHz**

### 3.6 Conducted Emissions Test Data

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**STR18078316E**

Test mode:	TM1	Polarity:	Line
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No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
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

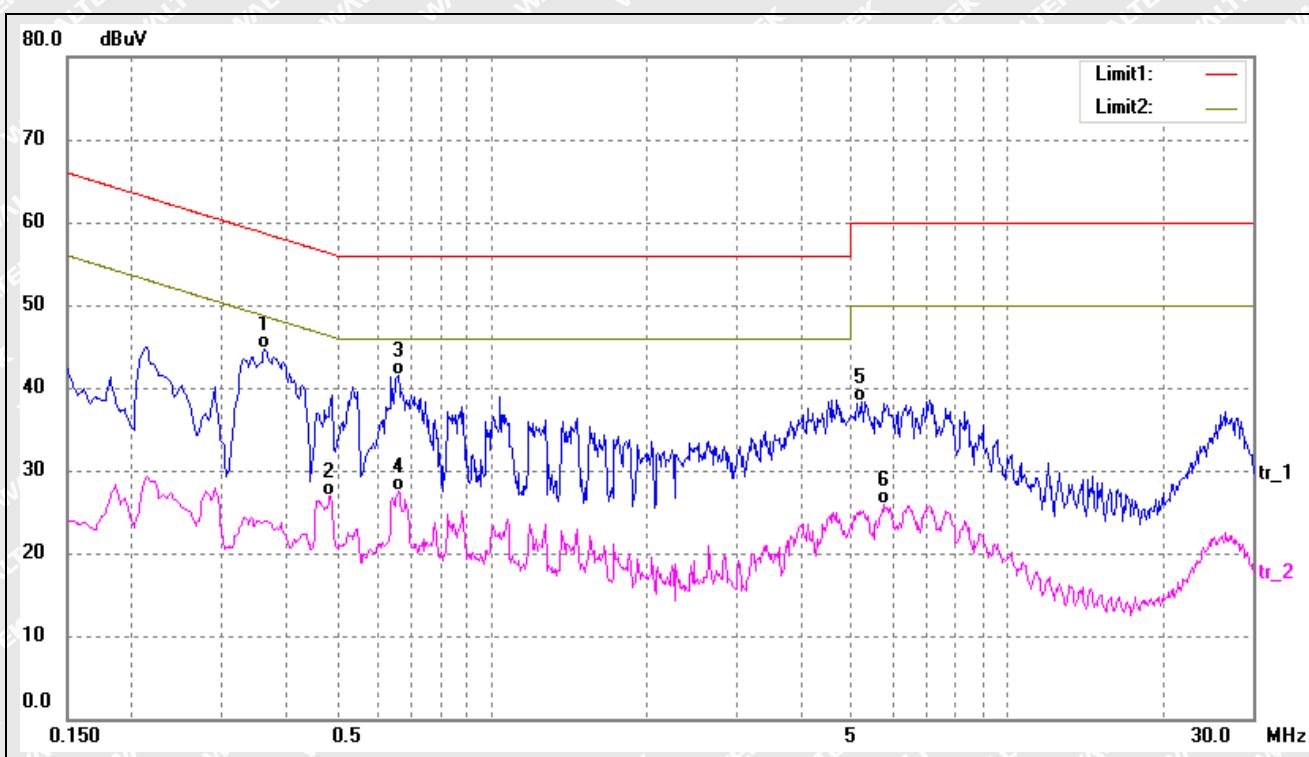


Test mode:

TM1

Polarity:

Neutral



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
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

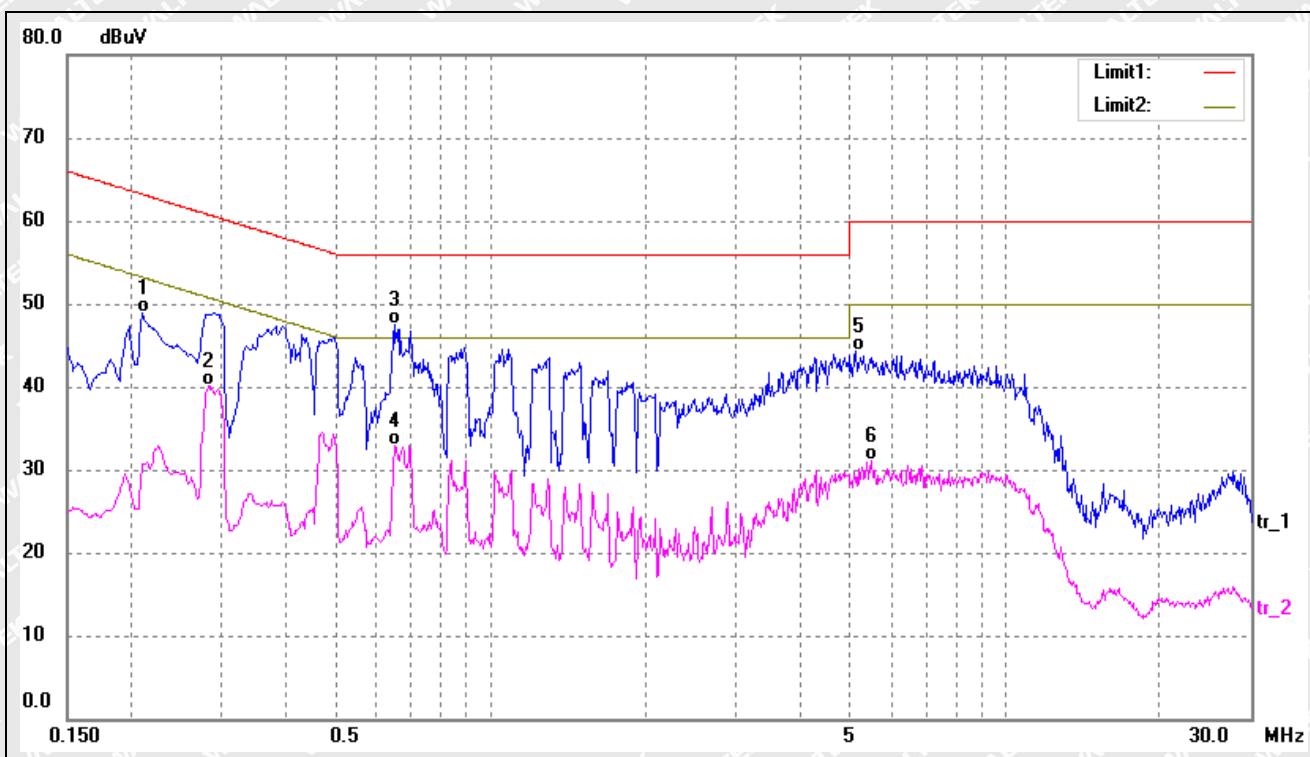


Test mode:

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

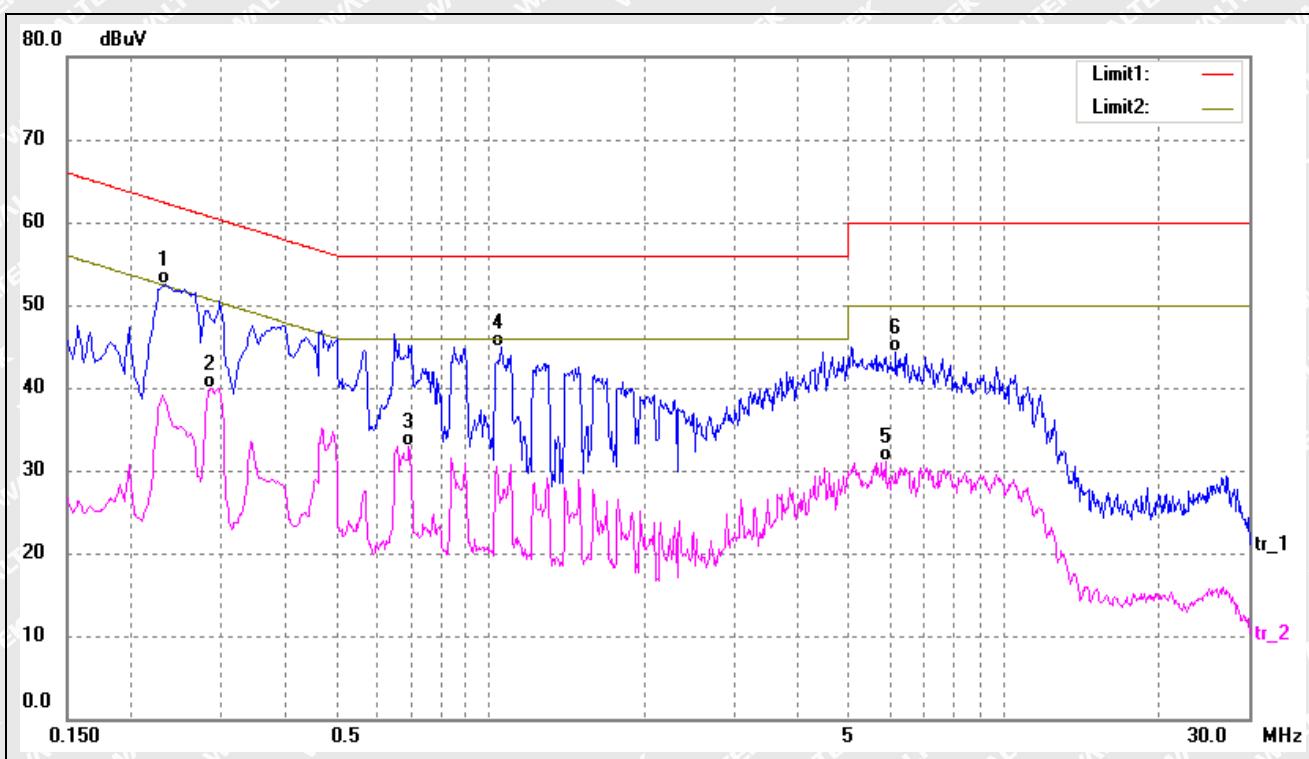


Test mode:

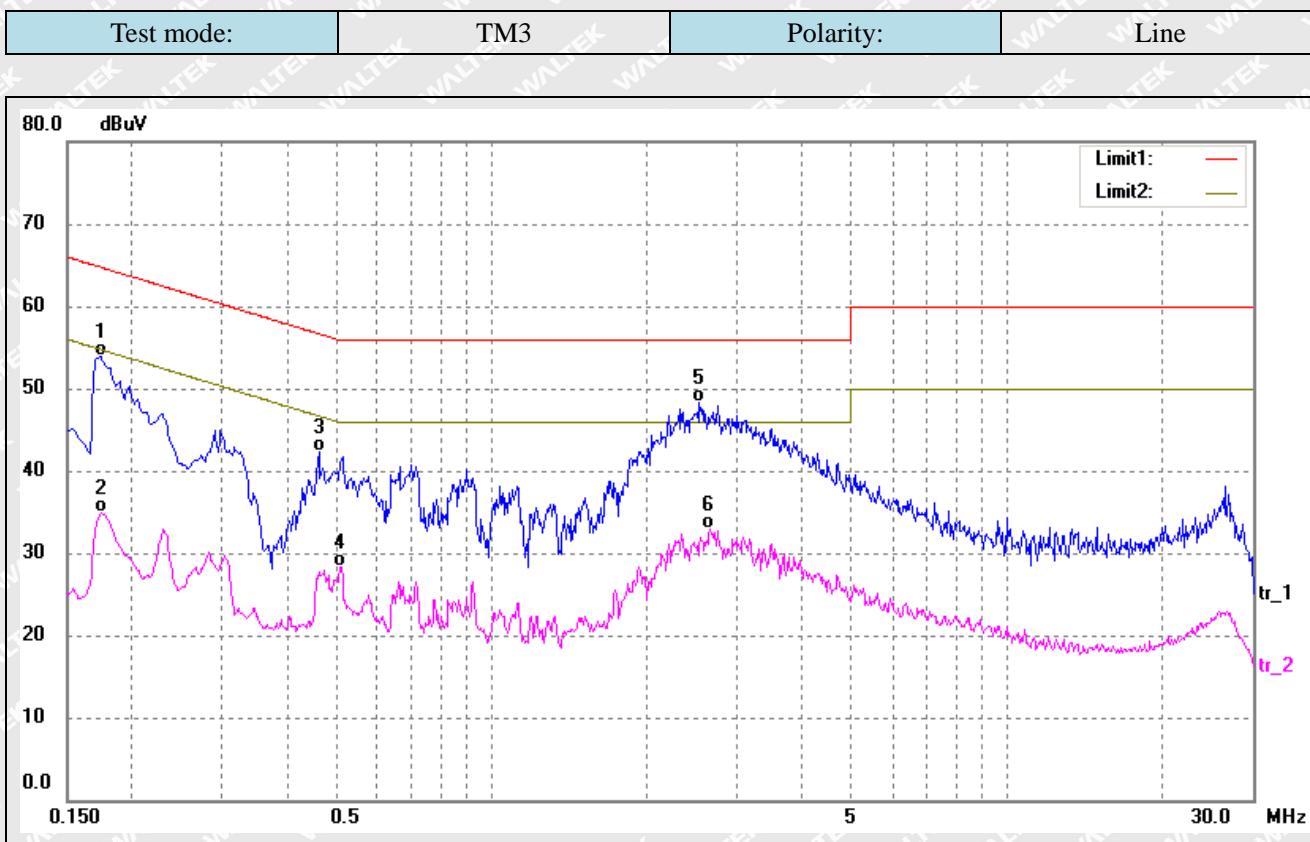
TM2

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



No.	Frequency	Reading	Correct	Result	Limit	Margin	Detector
	(MHz)	(dBuV)	(dB/m)	(dBuV)	(dBuV)	(dB)	
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

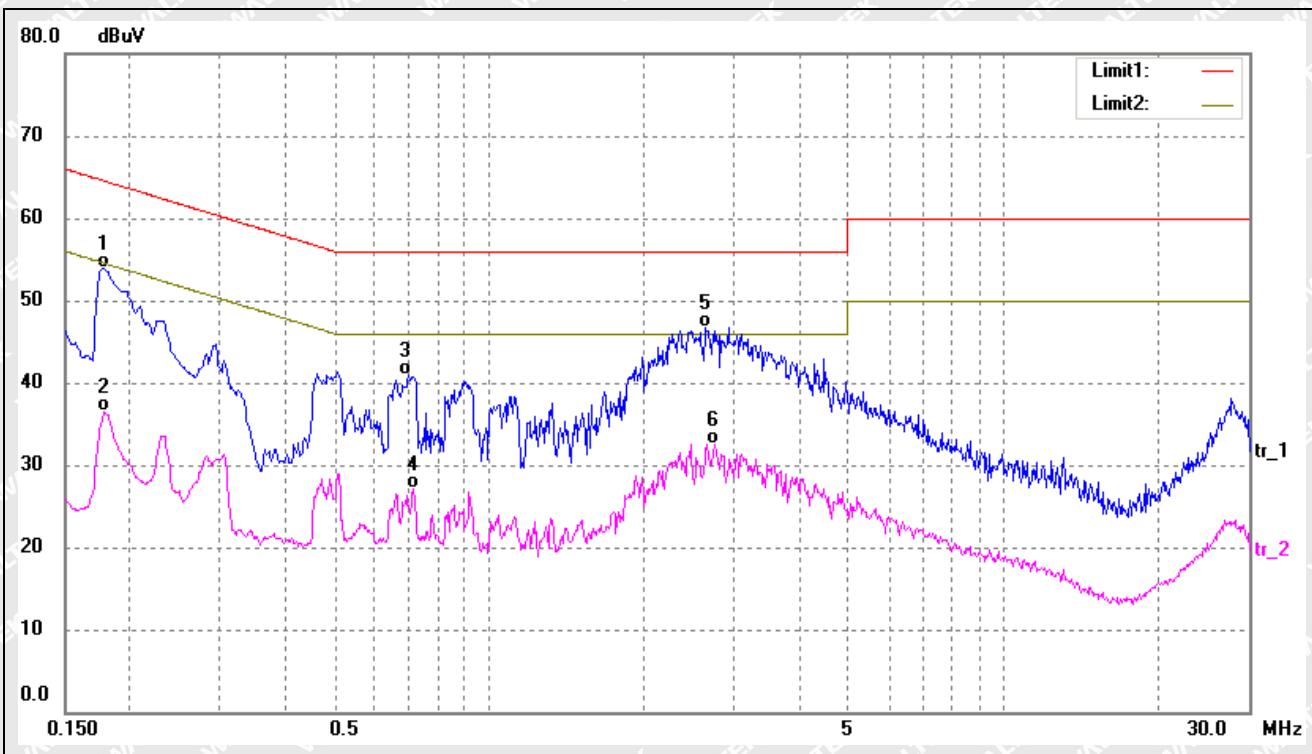


Test mode:

TM3

Polarity:

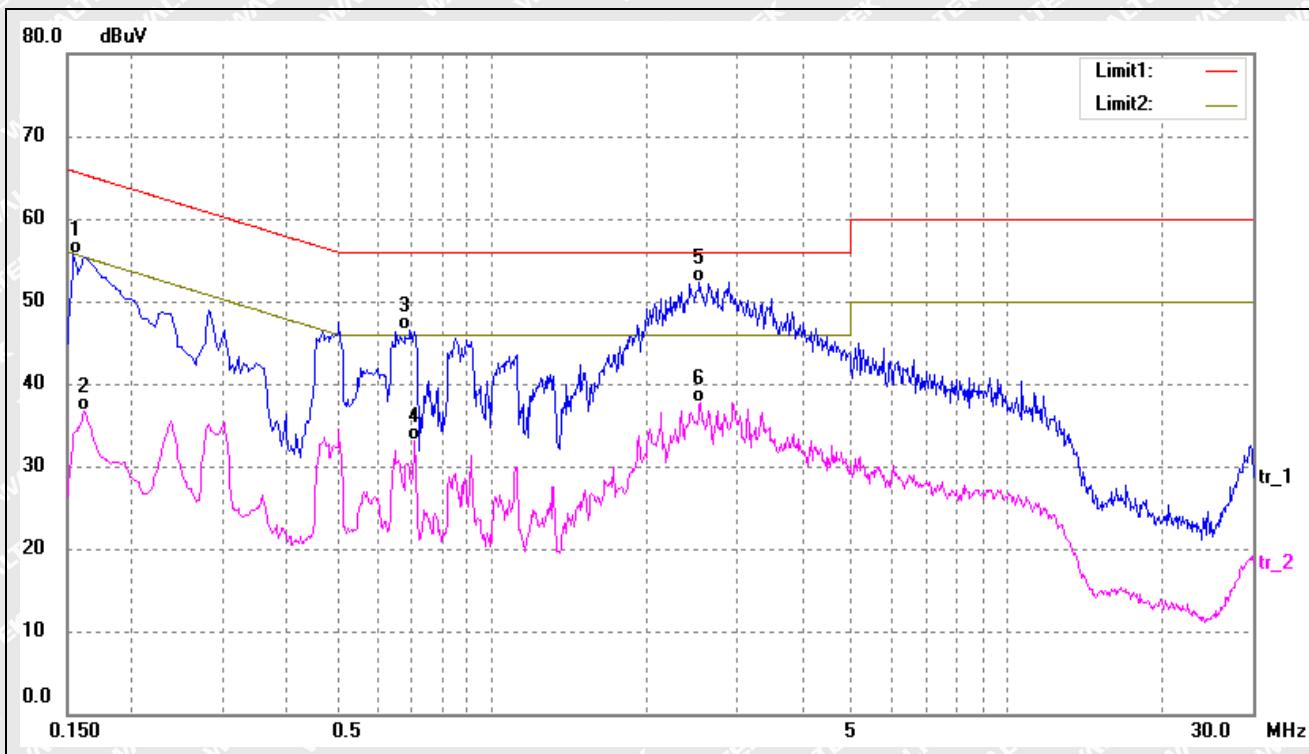
Neutral



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
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No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
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

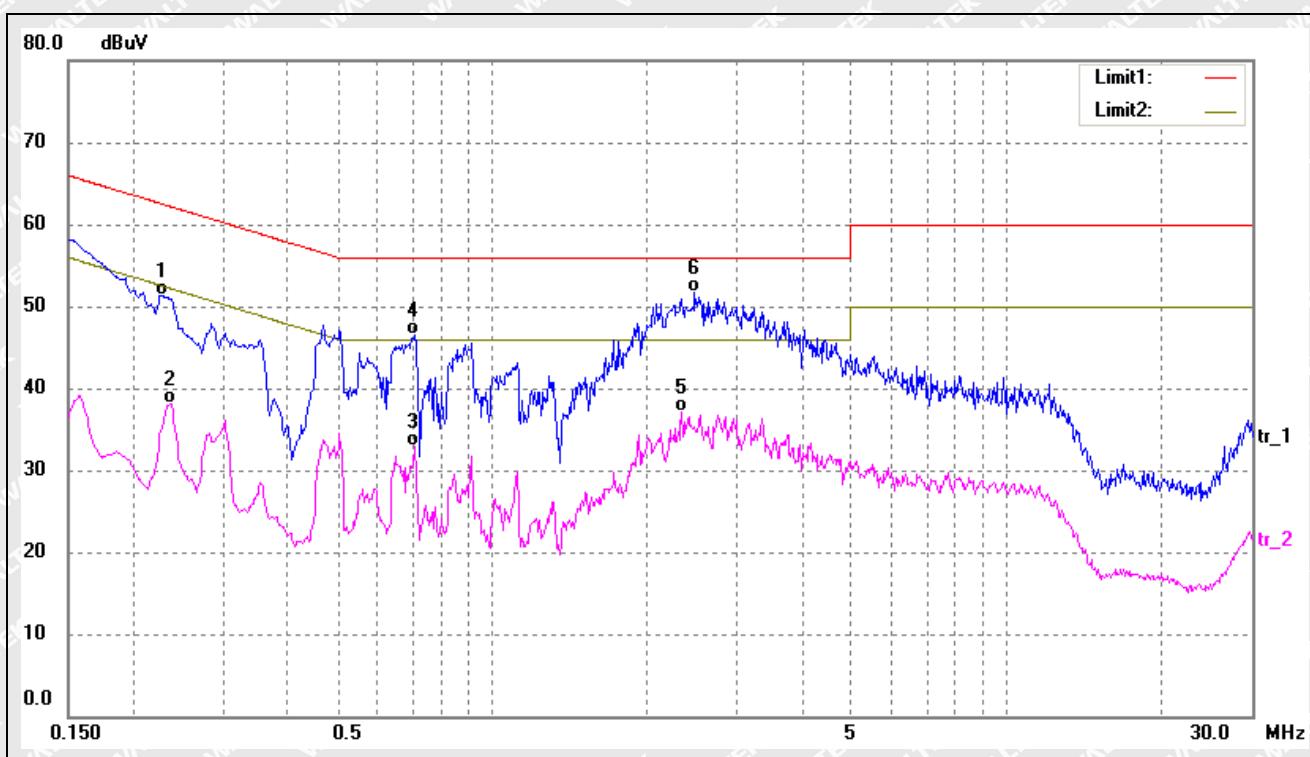


Test mode:

TM4

Polarity:

Neutral



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
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

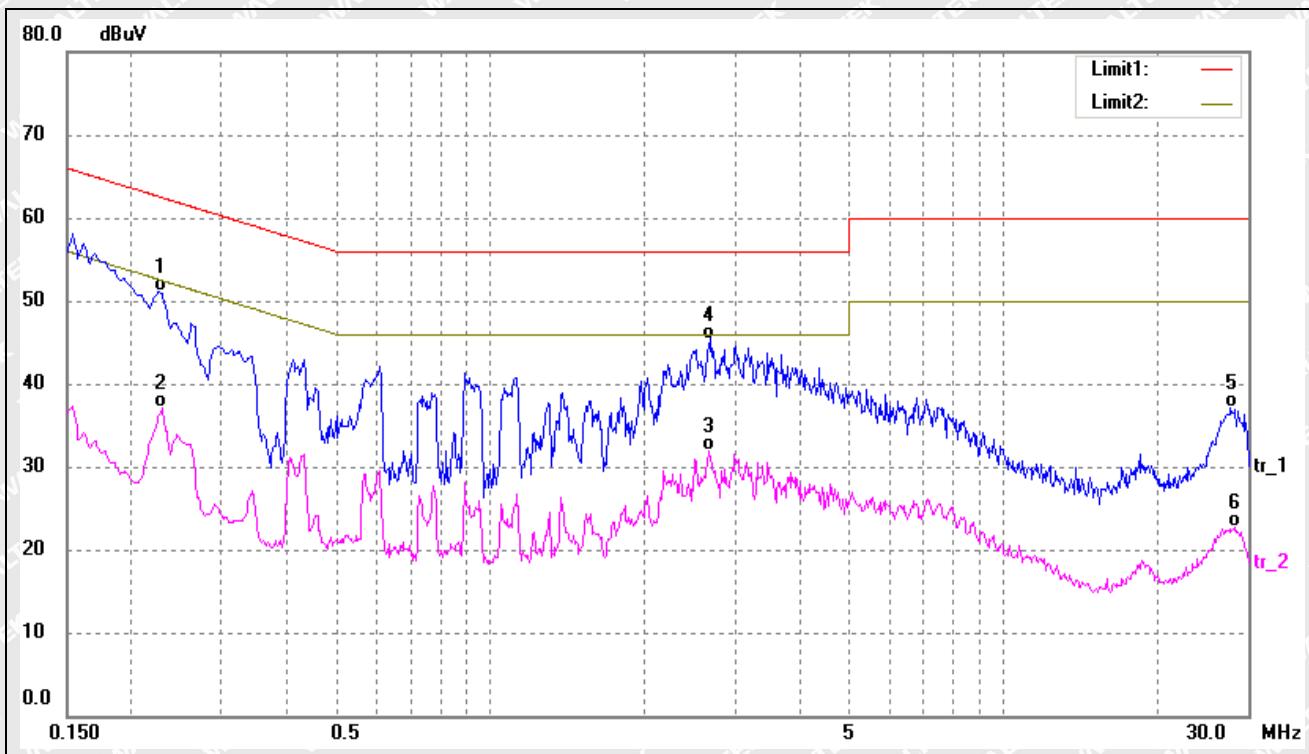


Test mode:

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

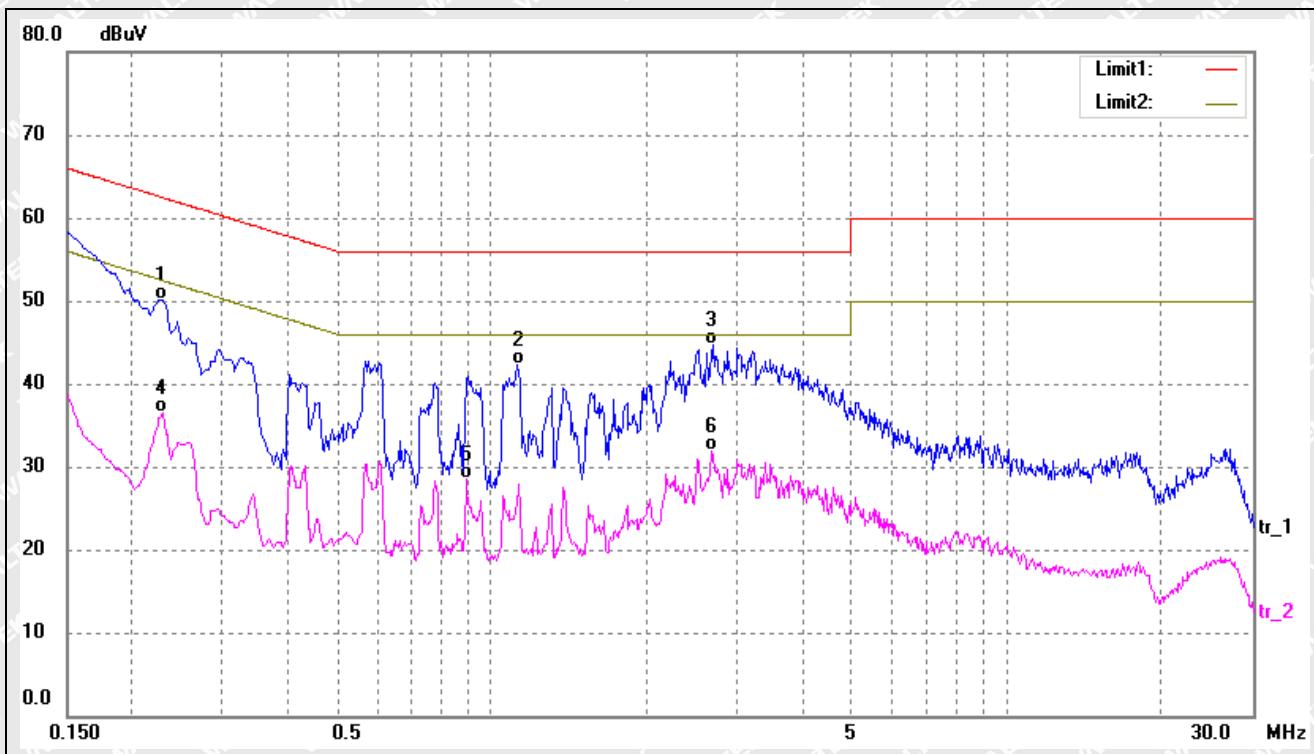


Test mode:

TM5

Polarity:

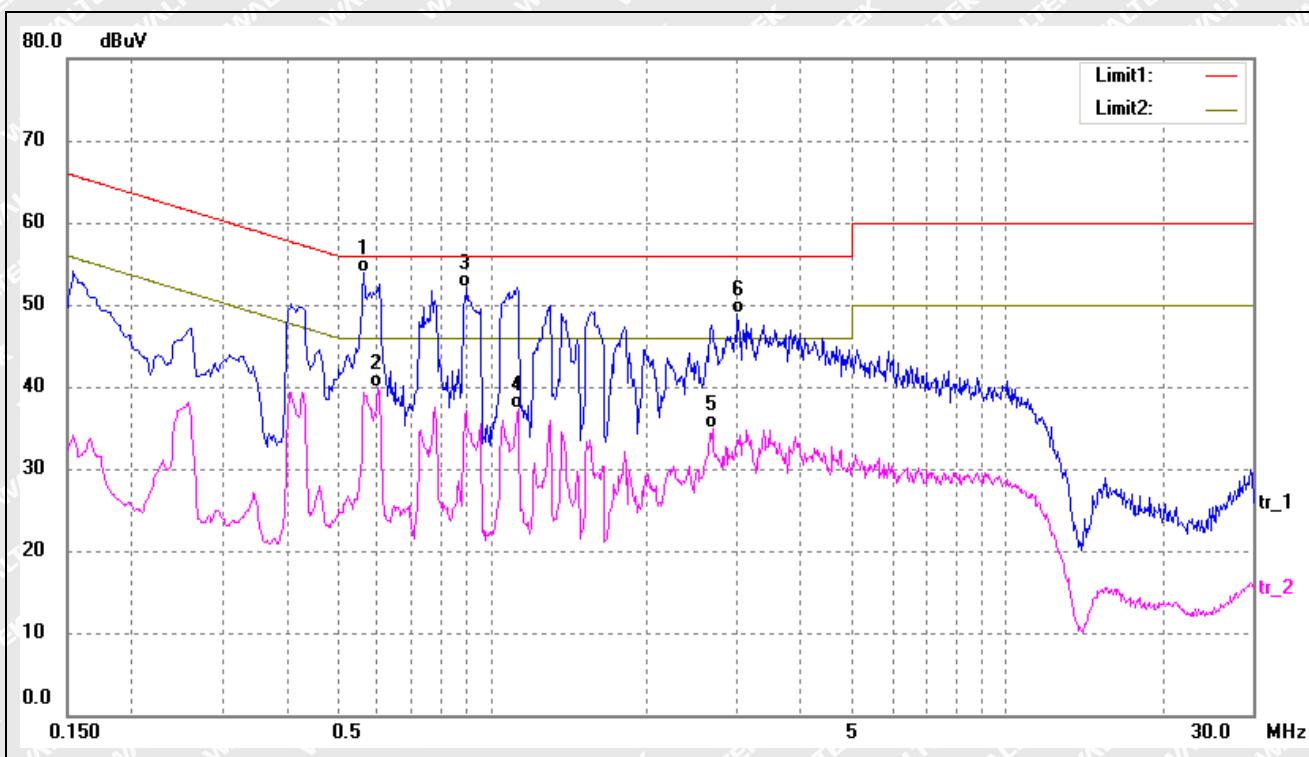
Neutral



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
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No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
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

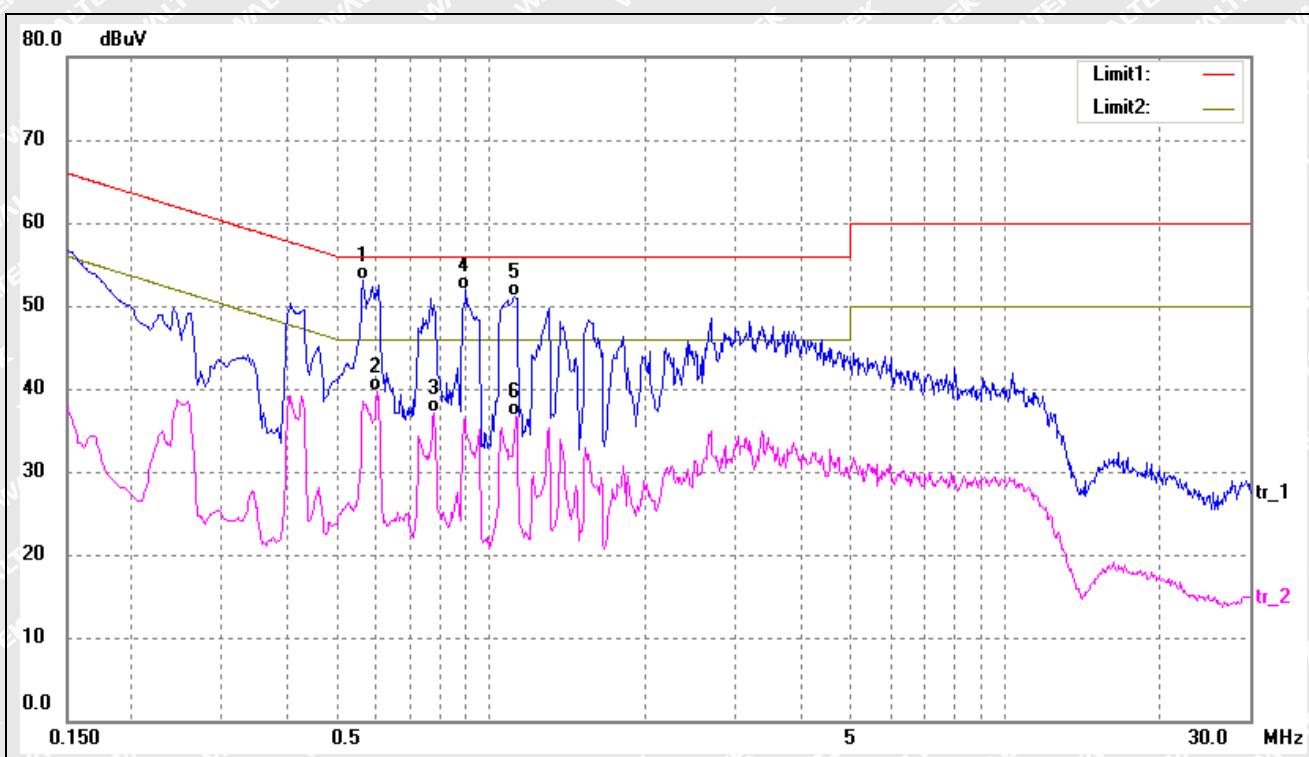


Test mode:

TM6

Polarity:

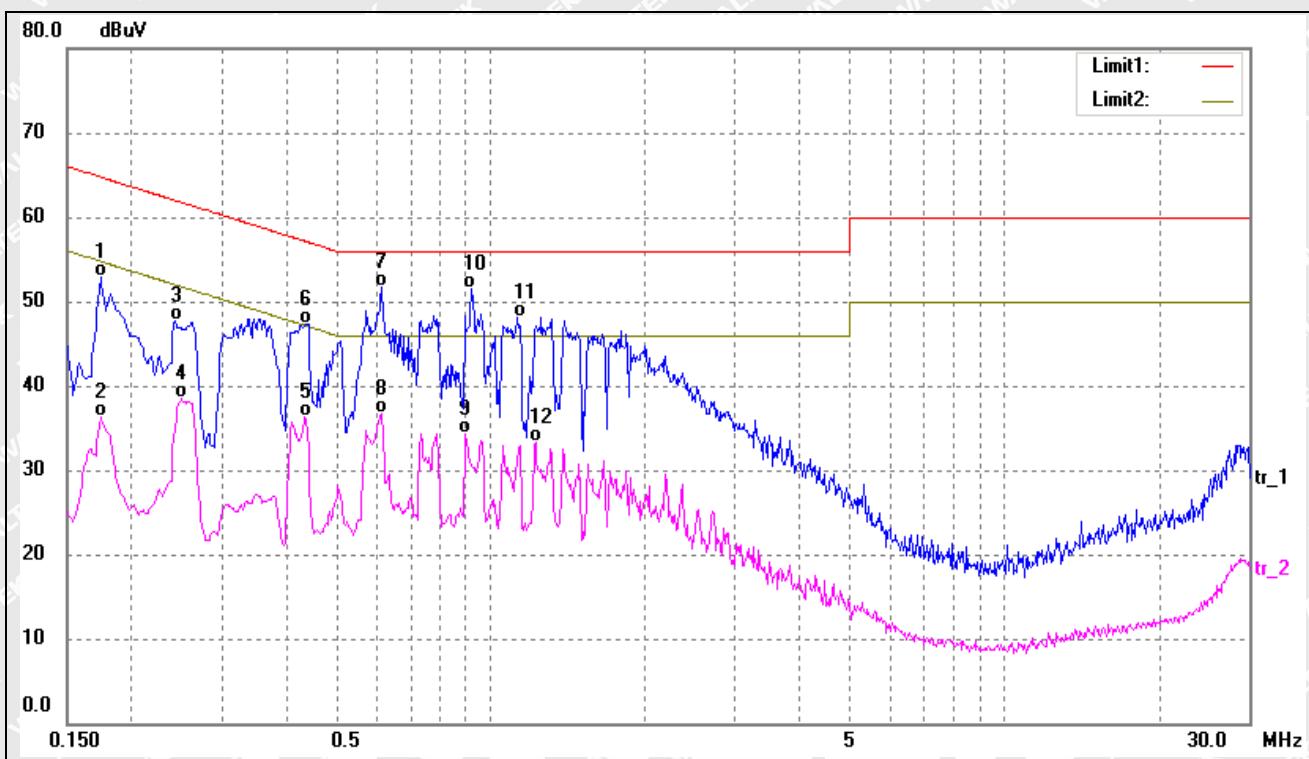
Neutral



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
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

**WTX21X06053486E-1**

Test mode:	TM1	Polarity:	Line
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No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1740	42.63	10.25	52.88	64.76	-11.88	QP
2	0.1740	26.07	10.25	36.32	54.76	-18.44	AVG
3	0.2420	37.51	10.26	47.77	62.02	-14.25	QP
4	0.2500	28.17	10.26	38.43	51.75	-13.32	AVG
5	0.4340	26.09	10.22	36.31	47.18	-10.87	AVG
6	0.4420	37.03	10.22	47.25	57.02	-9.77	QP
7	0.6140	41.52	10.20	51.72	56.00	-4.28	QP
8	0.6140	26.58	10.20	36.78	46.00	-9.22	AVG
9	0.8980	24.08	10.22	34.30	46.00	-11.70	AVG
10	0.9220	41.28	10.22	51.50	56.00	-4.50	QP
11	1.1340	37.93	10.21	48.14	56.00	-7.86	QP
12	1.2260	23.02	10.22	33.24	46.00	-12.76	AVG

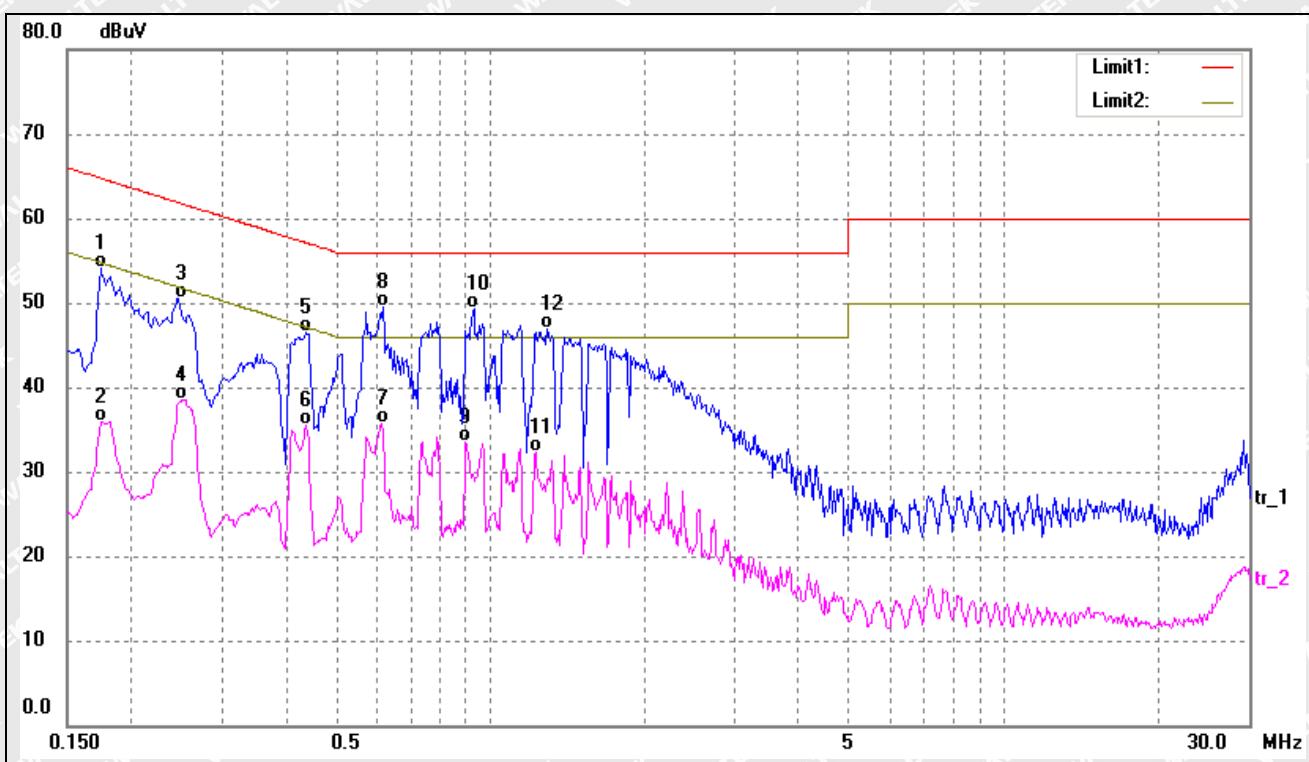


Test mode:

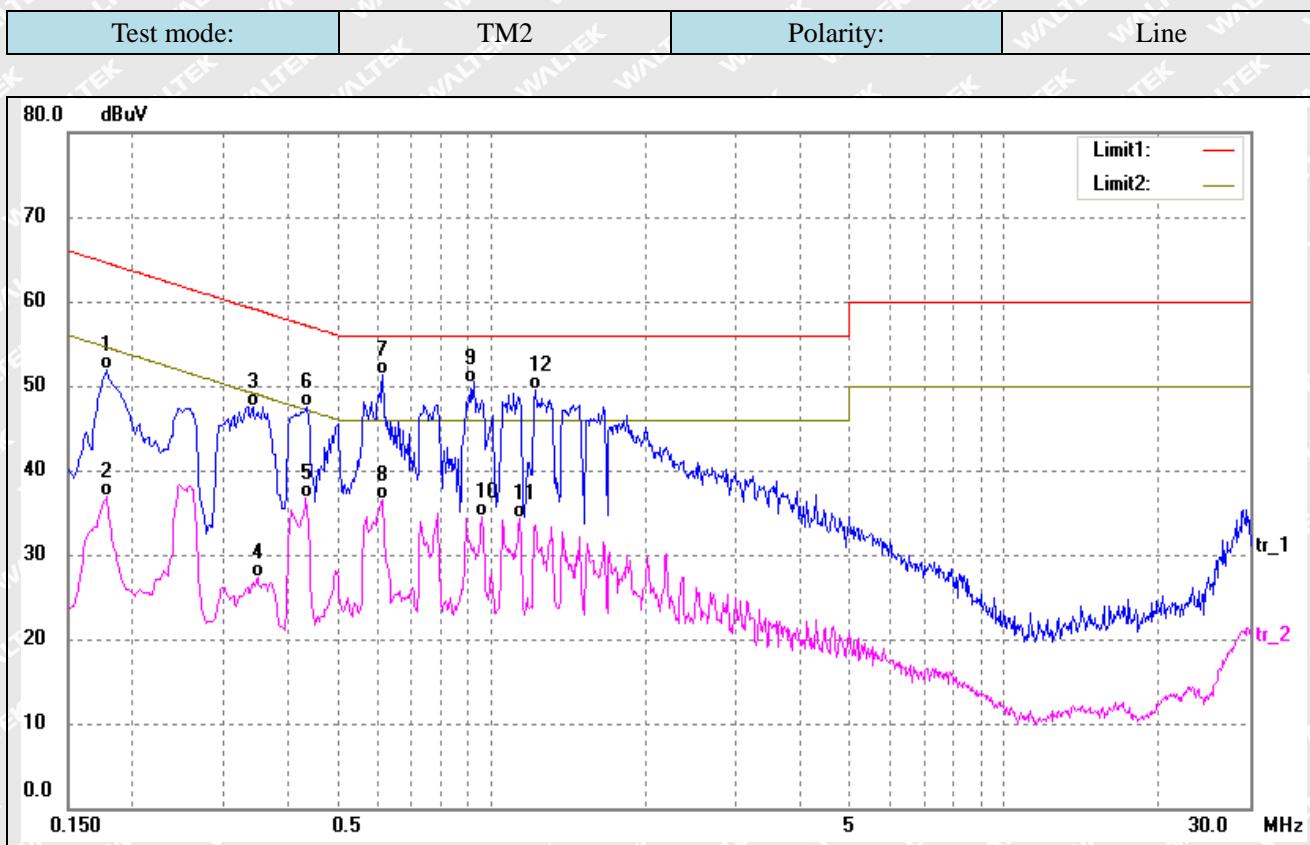
TM1

Polarity:

Neutral



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1740	43.94	10.25	54.19	64.76	-10.57	QP
2	0.1740	25.74	10.25	35.99	54.76	-18.77	AVG
3	0.2460	40.30	10.26	50.56	61.89	-11.33	QP
4	0.2500	28.18	10.26	38.44	51.75	-13.31	AVG
5	0.4380	36.31	10.22	46.53	57.10	-10.57	QP
6	0.4380	25.26	10.22	35.48	47.10	-11.62	AVG
7	0.6140	25.58	10.20	35.78	46.00	-10.22	AVG
8	0.6180	39.26	10.20	49.46	56.00	-6.54	QP
9	0.8980	23.37	10.22	33.59	46.00	-12.41	AVG
10	0.9300	39.11	10.22	49.33	56.00	-6.67	QP
11	1.2260	22.11	10.22	32.33	46.00	-13.67	AVG
12	1.2900	36.71	10.22	46.93	56.00	-9.07	QP



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1780	41.57	10.26	51.83	64.57	-12.74	QP
2	0.1780	26.63	10.26	36.89	54.57	-17.68	AVG
3	0.3420	37.31	10.26	47.57	59.15	-11.58	QP
4	0.3500	17.12	10.26	27.38	48.96	-21.58	AVG
5	0.4340	26.54	10.22	36.76	47.18	-10.42	AVG
6	0.4380	37.30	10.22	47.52	57.10	-9.58	QP
7*	0.6140	41.13	10.20	51.33	56.00	-4.67	QP
8	0.6140	26.32	10.20	36.52	46.00	-9.48	AVG
9	0.9260	40.18	10.22	50.40	56.00	-5.60	QP
10	0.9620	24.30	10.21	34.51	46.00	-11.49	AVG
11	1.1380	24.13	10.21	34.34	46.00	-11.66	AVG
12	1.2180	39.33	10.22	49.55	56.00	-6.45	QP

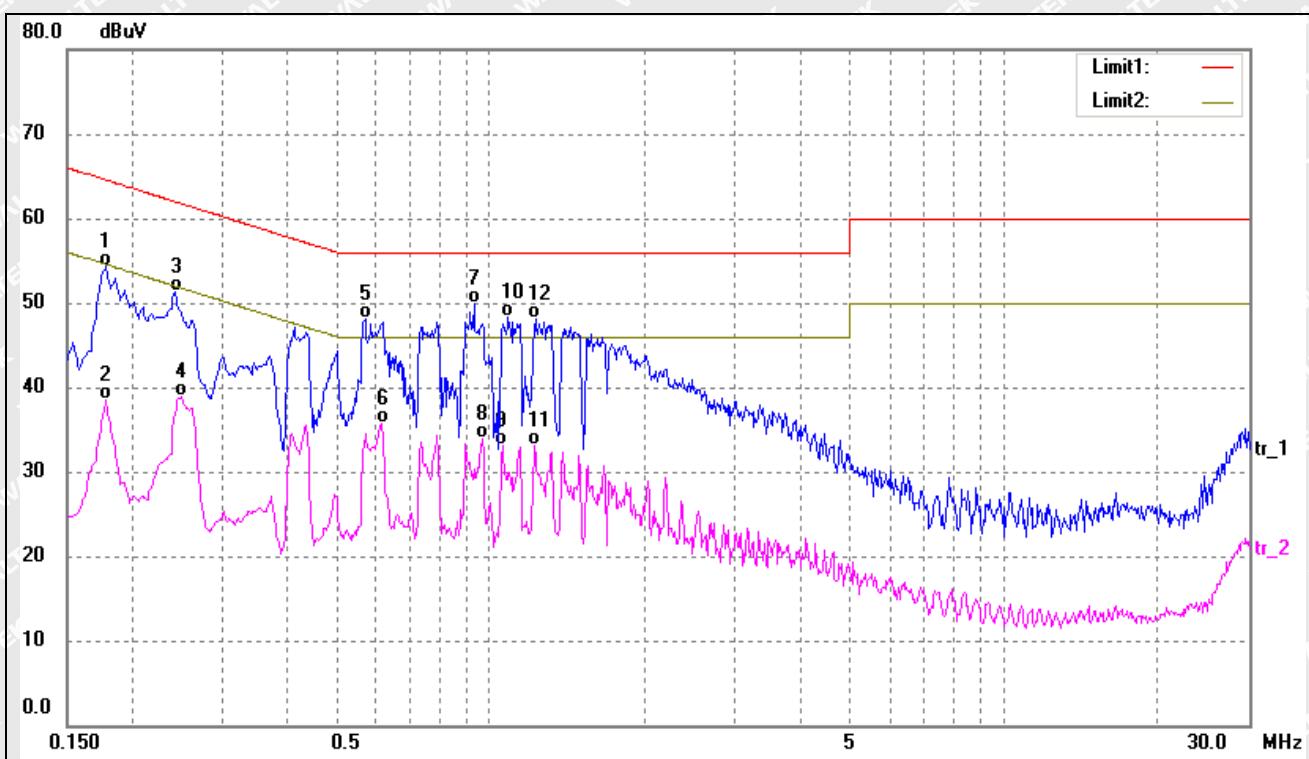


Test mode:

TM2

Polarity:

Neutral



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1780	44.02	10.26	54.28	64.57	-10.29	QP
2	0.1780	28.19	10.26	38.45	54.57	-16.12	AVG
3	0.2420	41.12	10.26	51.38	62.02	-10.64	QP
4	0.2500	28.61	10.26	38.87	51.75	-12.88	AVG
5	0.5700	37.97	10.21	48.18	56.00	-7.82	QP
6	0.6140	25.42	10.20	35.62	46.00	-10.38	AVG
7*	0.9300	39.76	10.22	49.98	56.00	-6.02	QP
8	0.9660	23.73	10.20	33.93	46.00	-12.07	AVG
9	1.0580	22.94	10.21	33.15	46.00	-12.85	AVG
10	1.0859	38.11	10.21	48.32	56.00	-7.68	QP
11	1.2220	22.91	10.22	33.13	46.00	-12.87	AVG
12	1.2260	37.83	10.22	48.05	56.00	-7.95	QP

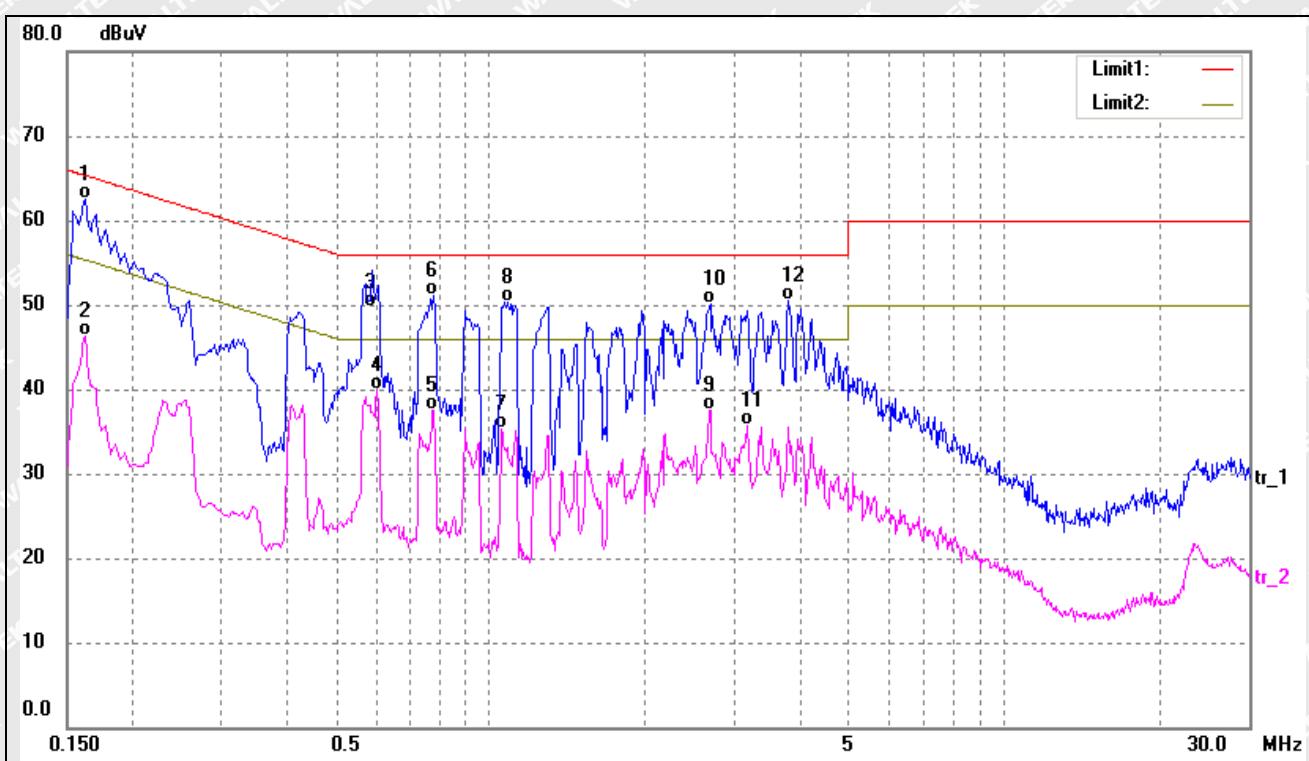


Test mode:

TM3

Polarity:

Line



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1620	52.13	10.26	62.36	65.36	-3.00	QP
2	0.1620	36.08	10.26	46.34	55.36	-9.02	AVG
3	0.5899	39.59	10.21	49.80	56.00	-6.20	QP
4	0.6020	29.77	10.21	39.98	46.00	-6.02	AVG
5	0.7740	27.34	10.17	37.51	46.00	-8.49	AVG
6	0.7780	40.95	10.18	51.13	56.00	-4.87	QP
7	1.0540	25.10	10.21	35.31	46.00	-10.69	AVG
8	1.0780	40.14	10.21	50.35	56.00	-5.65	QP
9	2.6780	27.23	10.28	37.51	46.00	-8.49	AVG
10	2.6819	39.81	10.28	50.09	56.00	-5.91	QP
11	3.1580	25.50	10.26	35.76	46.00	-10.24	AVG
12	3.8060	40.27	10.24	50.51	56.00	-5.49	QP

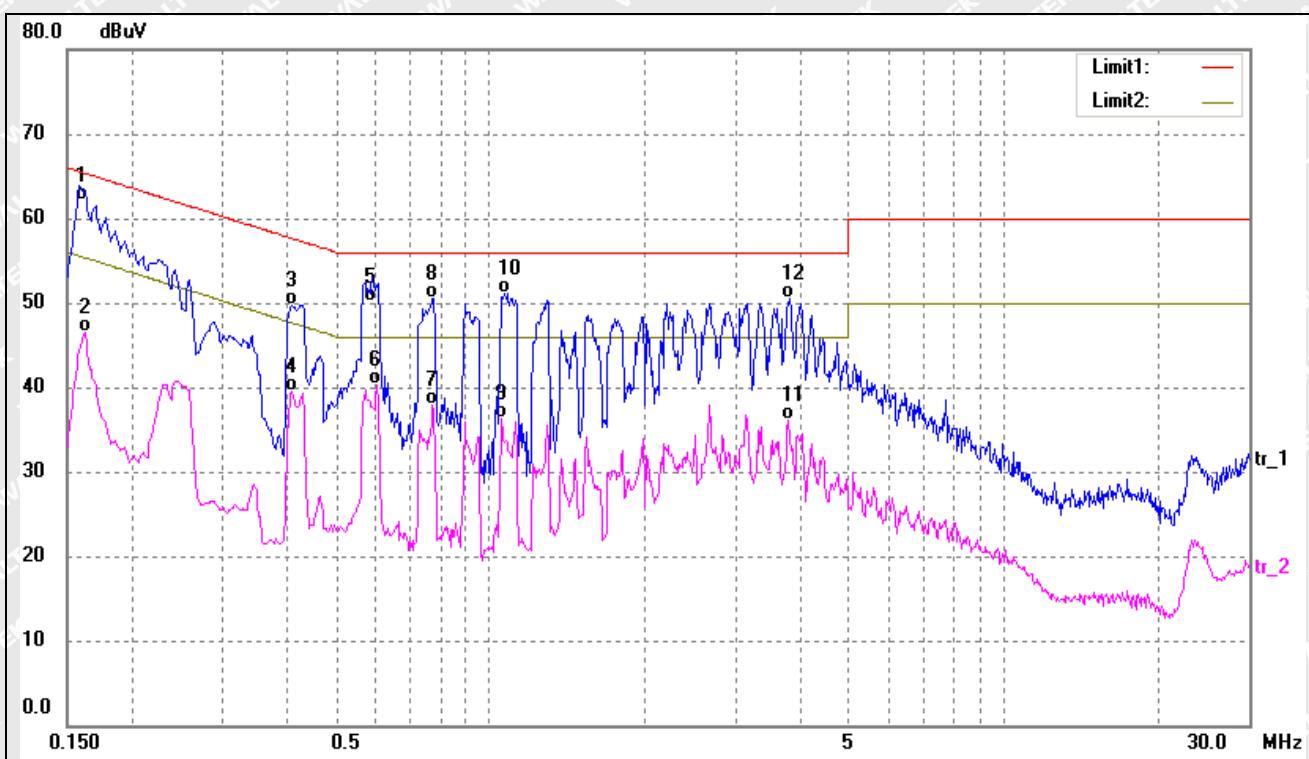


Test mode:

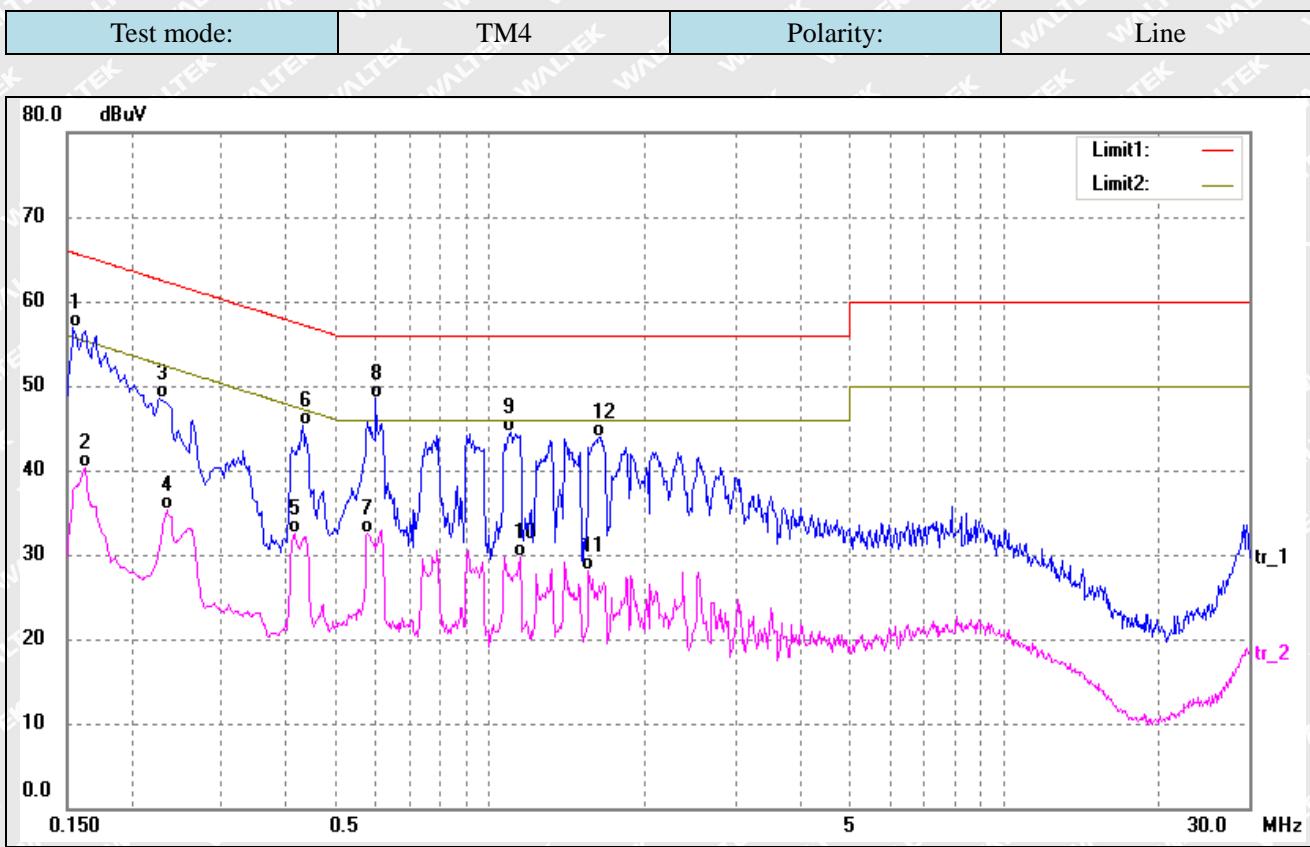
TM3

Polarity:

Neutral



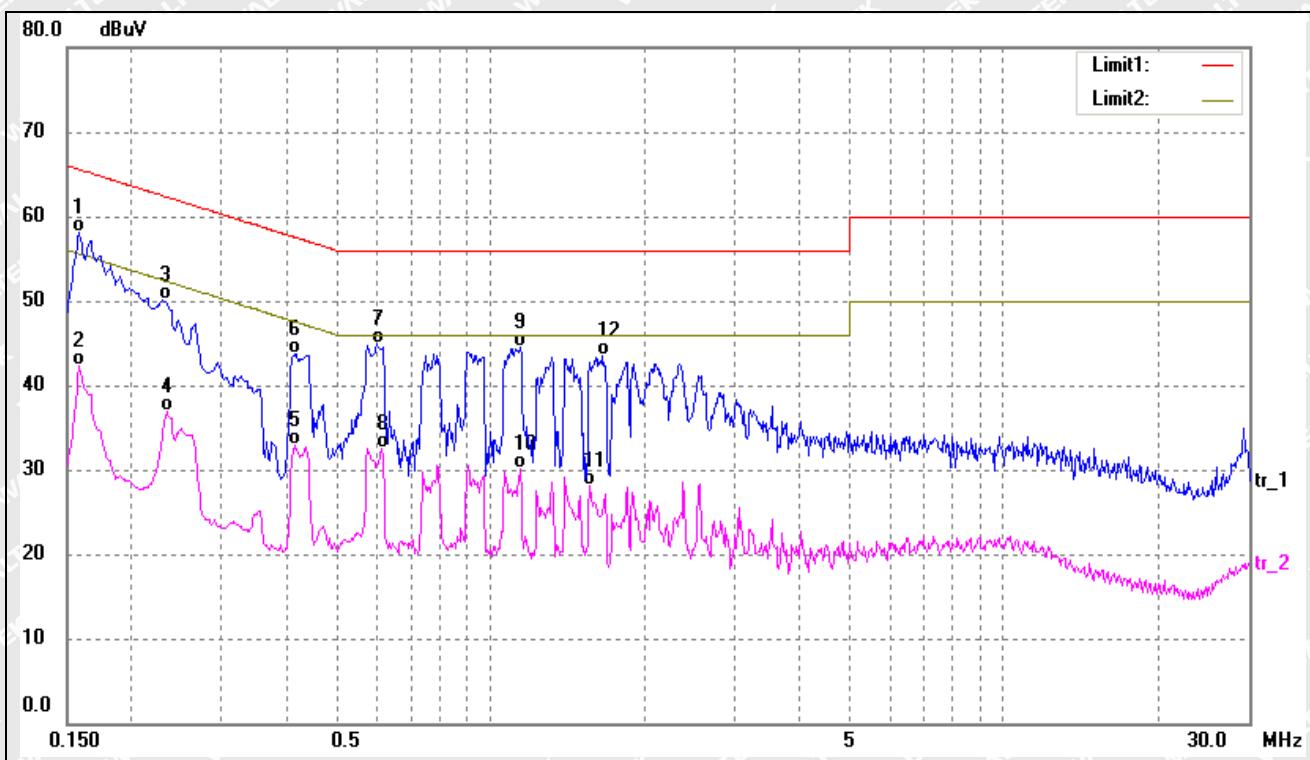
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1580	51.93	10.25	62.18	65.56	-3.38	QP
2	0.1620	36.21	10.26	46.47	55.36	-8.89	AVG
3	0.4100	39.49	10.23	49.72	57.65	-7.93	QP
4	0.4100	29.32	10.23	39.55	47.65	-8.10	AVG
5	0.5899	39.97	10.21	50.18	56.00	-5.82	QP
6	0.6020	30.10	10.21	40.31	46.00	-5.69	AVG
7	0.7740	27.81	10.17	37.98	46.00	-8.02	AVG
8	0.7780	40.42	10.18	50.60	56.00	-5.40	QP
9	1.0540	26.10	10.21	36.31	46.00	-9.69	AVG
10	1.0780	40.93	10.21	51.14	56.00	-4.86	QP
11	3.8020	25.85	10.24	36.09	46.00	-9.91	AVG
12	3.8300	40.28	10.24	50.52	56.00	-5.48	QP



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1539	46.74	10.25	56.99	65.78	-8.79	QP
2	0.1620	29.96	10.26	40.22	55.36	-15.14	AVG
3	0.2260	38.15	10.26	48.41	62.59	-14.18	QP
4	0.2340	25.04	10.26	35.30	52.30	-17.00	AVG
5	0.4139	22.23	10.23	32.46	47.57	-15.11	AVG
6	0.4299	35.13	10.22	45.35	57.25	-11.90	QP
7	0.5779	22.32	10.21	32.53	46.00	-13.47	AVG
8	0.5979	38.33	10.21	48.54	56.00	-7.46	QP
9	1.0980	34.37	10.21	44.58	56.00	-11.42	QP
10	1.1419	19.52	10.21	29.73	46.00	-16.27	AVG
11	1.5580	17.92	10.24	28.16	46.00	-17.84	AVG
12	1.6379	33.75	10.25	44.00	56.00	-12.00	QP



Test mode:	TM4	Polarity:	Neutral
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No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1580	47.80	10.25	58.05	65.56	-7.51	QP
2	0.1580	32.01	10.25	42.26	55.56	-13.30	AVG
3	0.2300	39.89	10.26	50.15	62.45	-12.30	QP
4	0.2340	26.73	10.26	36.99	52.30	-15.31	AVG
5	0.4140	22.65	10.23	32.88	47.57	-14.69	AVG
6	0.4180	33.40	10.23	43.63	57.49	-13.86	QP
7	0.6020	34.70	10.21	44.91	56.00	-11.09	QP
8	0.6140	22.26	10.20	32.46	46.00	-13.54	AVG
9	1.1460	34.35	10.21	44.56	56.00	-11.44	QP
10	1.1460	19.82	10.21	30.03	46.00	-15.97	AVG
11	1.5620	17.80	10.24	28.04	46.00	-17.96	AVG
12	1.6580	33.27	10.25	43.52	56.00	-12.48	QP

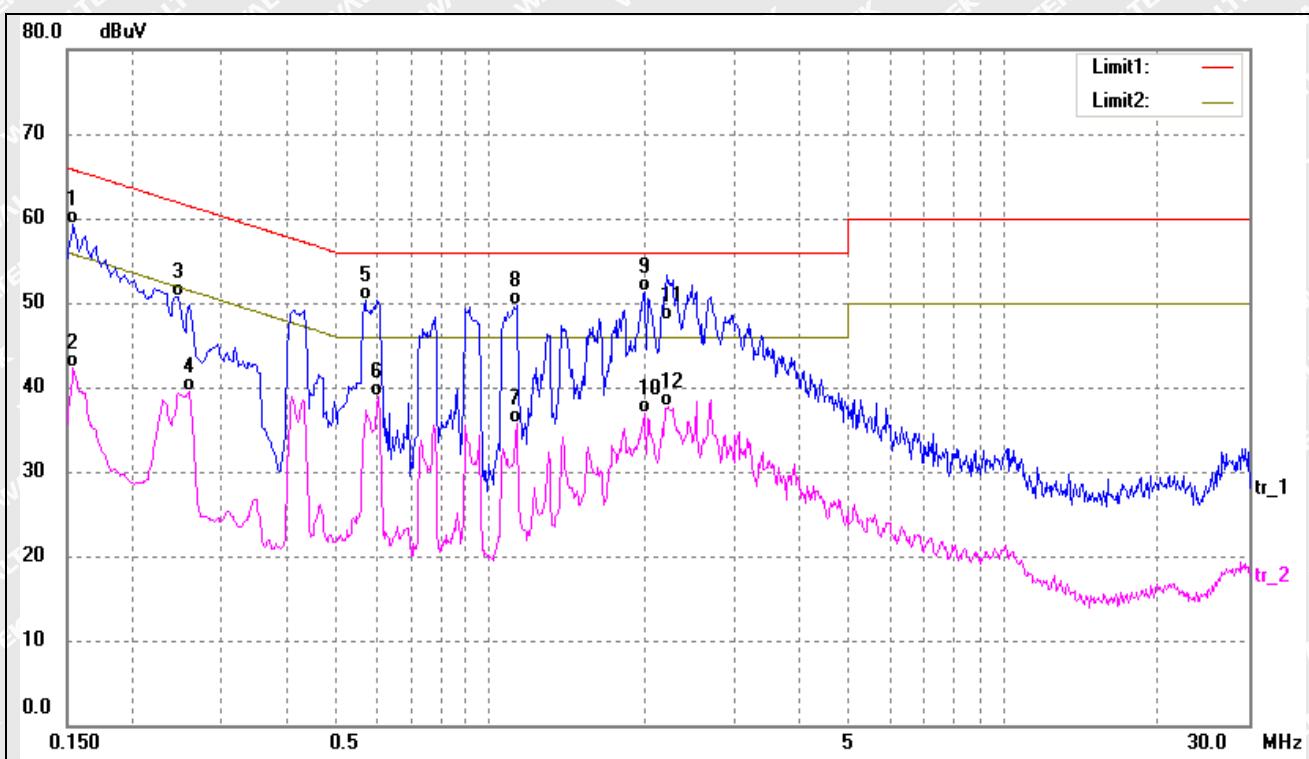


Test mode:

TM5

Polarity:

Line



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1539	48.97	10.25	59.22	65.78	-6.56	QP
2	0.1539	32.00	10.25	42.25	55.78	-13.53	AVG
3	0.2460	40.50	10.26	50.76	61.89	-11.13	QP
4	0.2580	29.15	10.26	39.41	51.49	-12.08	AVG
5	0.5700	40.12	10.21	50.33	56.00	-5.67	QP
6	0.6060	28.67	10.20	38.87	46.00	-7.13	AVG
7	1.1260	25.59	10.21	35.80	46.00	-10.20	AVG
8	1.1300	39.40	10.21	49.61	56.00	-6.39	QP
9*	1.9940	40.98	10.29	51.27	56.00	-4.73	QP
10	1.9940	26.70	10.29	36.99	46.00	-9.01	AVG
11	2.2020	37.71	10.29	48.00	56.00	-8.00	QP
12	2.2220	27.35	10.29	37.64	46.00	-8.36	AVG

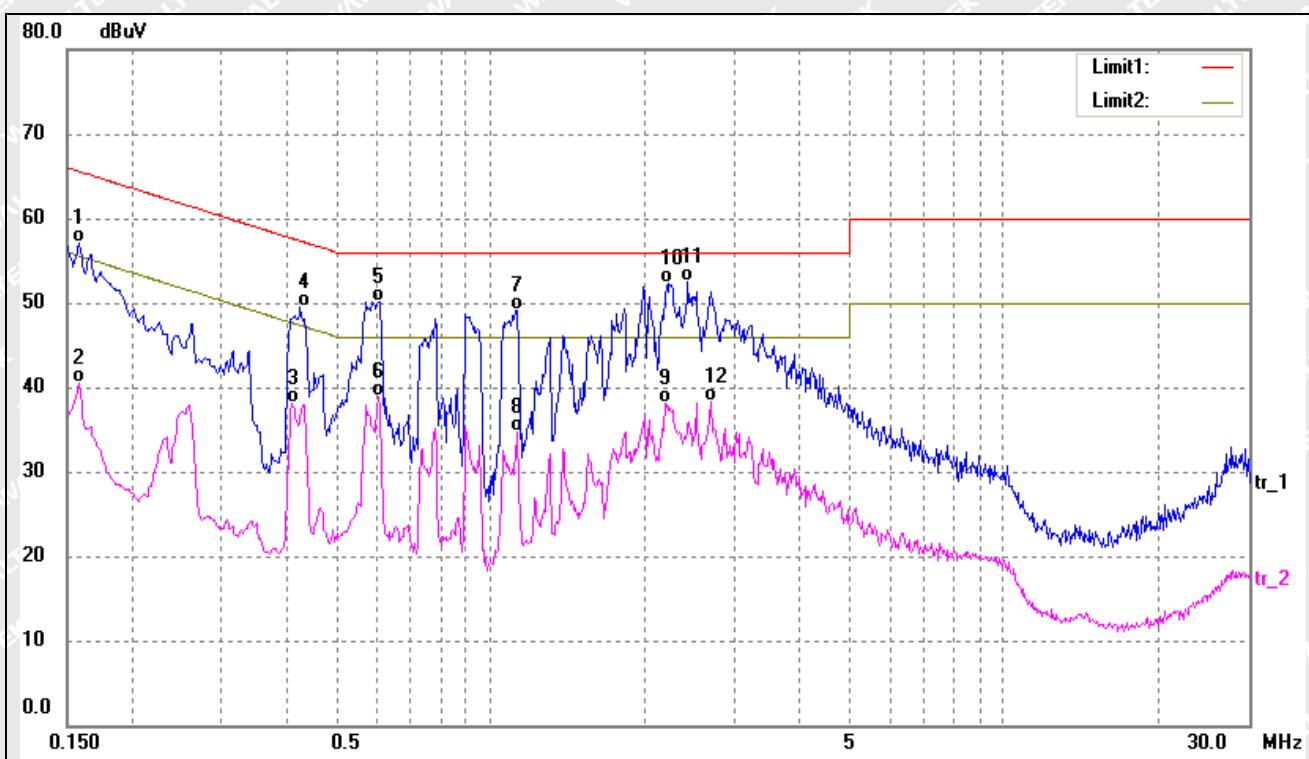


Test mode:

TM5

Polarity:

Neutral



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1580	46.79	10.25	57.04	65.56	-8.52	QP
2	0.1580	30.23	10.25	40.48	55.56	-15.08	AVG
3	0.4100	27.91	10.23	38.14	47.65	-9.51	AVG
4	0.4260	39.34	10.22	49.56	57.33	-7.77	QP
5	0.6060	39.99	10.20	50.19	56.00	-5.81	QP
6	0.6060	28.64	10.20	38.84	46.00	-7.16	AVG
7	1.1300	38.81	10.21	49.02	56.00	-6.98	QP
8	1.1300	24.55	10.21	34.76	46.00	-11.24	AVG
9	2.1980	27.90	10.29	38.19	46.00	-7.81	AVG
10	2.2260	42.03	10.29	52.32	56.00	-3.68	QP
11*	2.4340	42.16	10.30	52.46	56.00	-3.54	QP
12	2.6980	28.06	10.28	38.34	46.00	-7.66	AVG



## 4. Radiated Emission

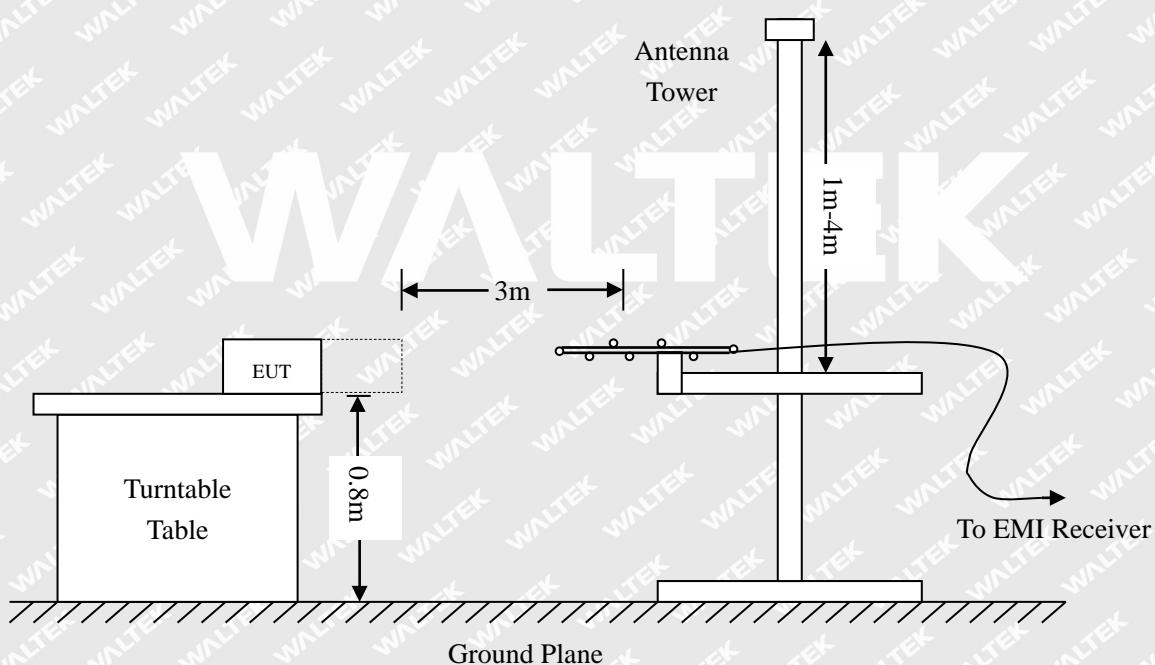
### 4.1 Measurement Uncertainty

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

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

### 4.2 Test Procedure

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





### 4.3 Corrected Amplitude & Margin Calculation

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

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

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

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

### 4.4 Environmental Conditions

Temperature:	23.5 ° C
Relative Humidity:	54 %
ATM Pressure:	1011 mbar

### 4.5 Summary of Test Results/Plots

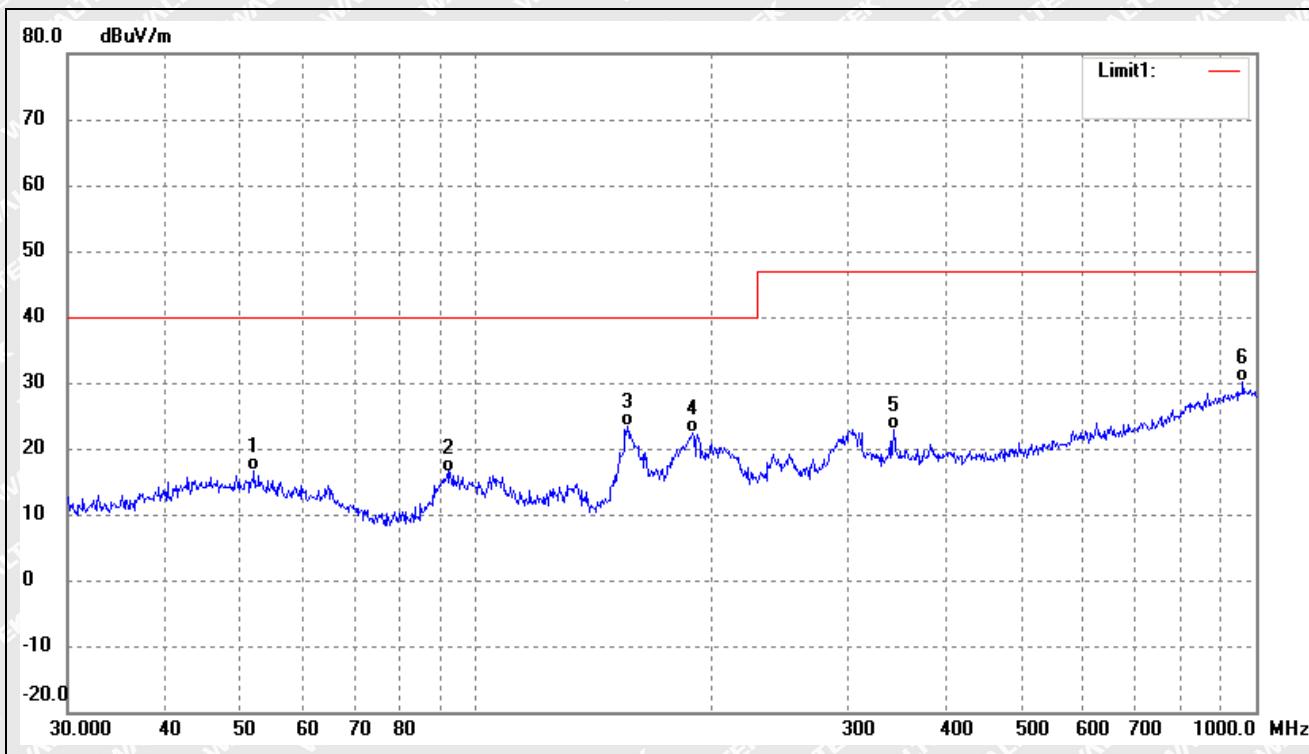
According to the data in section 4.5, the EUT complied with the EN55032 Class B standards, and had the worst margin is:

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



STR18078316E

Test mode:	TM1	Polarity:	Horizontal
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No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree	Height (cm)	Remark
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

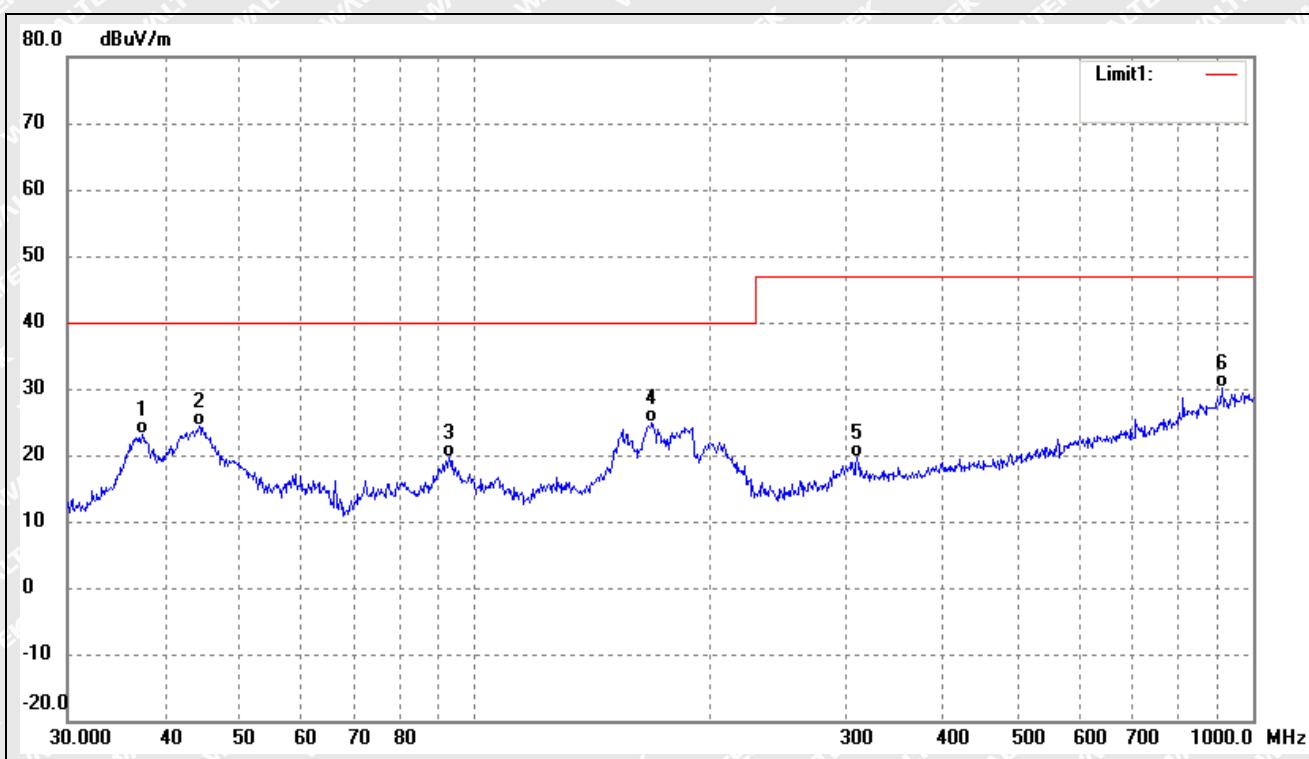


Test mode:

TM1

Polarity:

Vertical



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree	Height (cm)	Remark
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

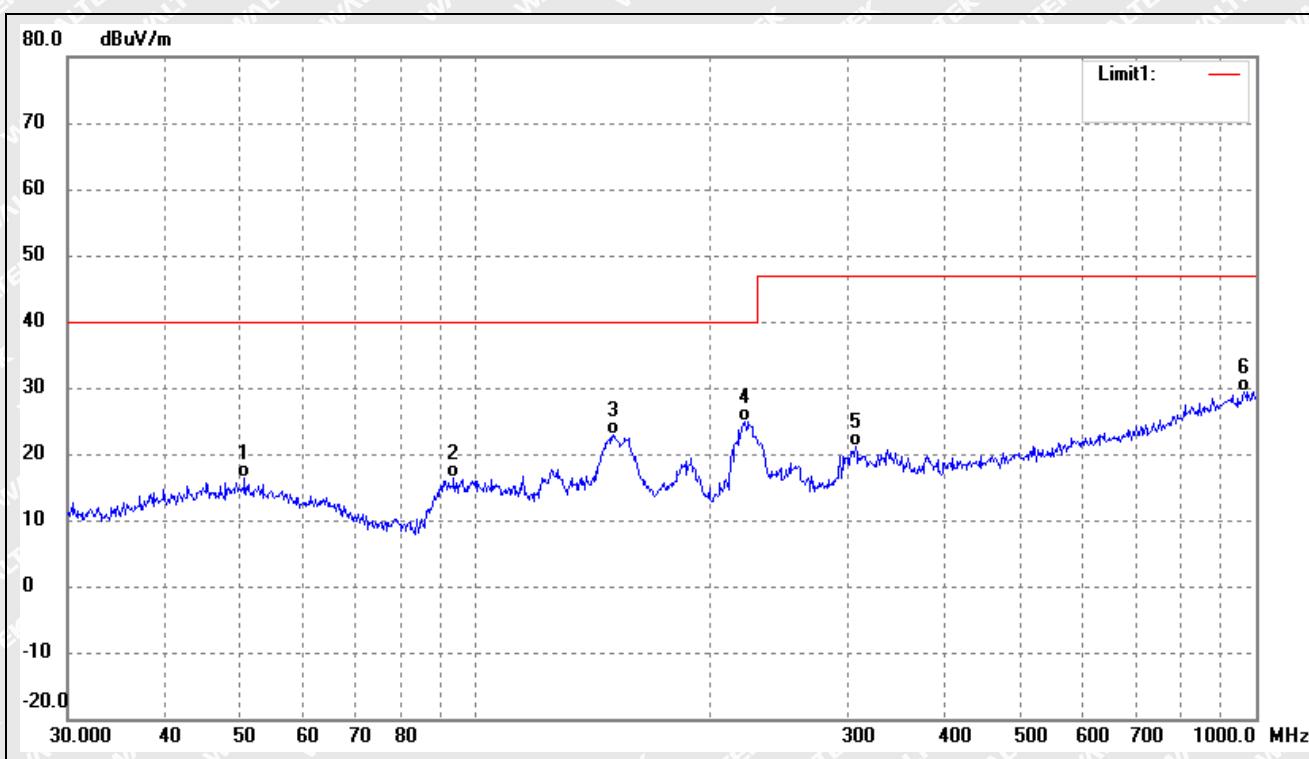


Test mode:

TM2

Polarity:

Horizontal



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree	Height (cm)	Remark
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

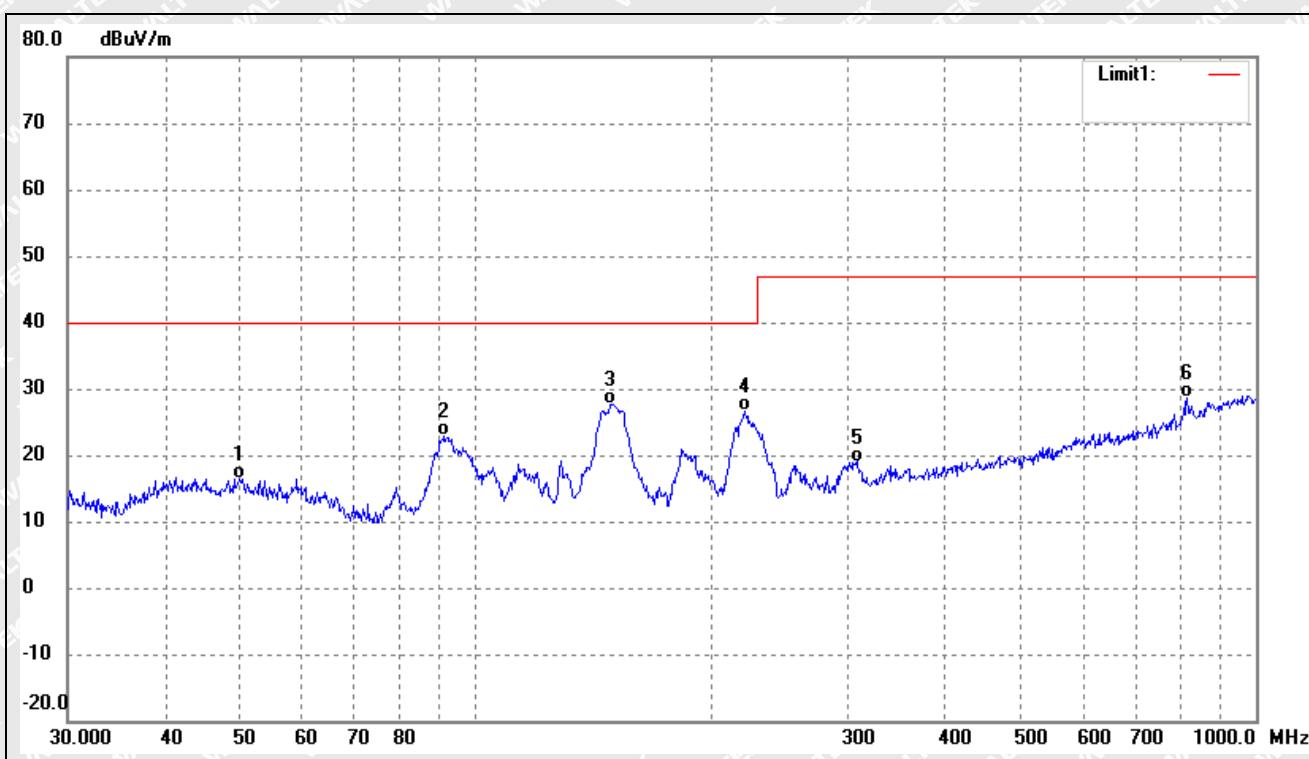


Test mode:

TM2

Polarity:

Vertical



No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( )	Height (cm)	Remark
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

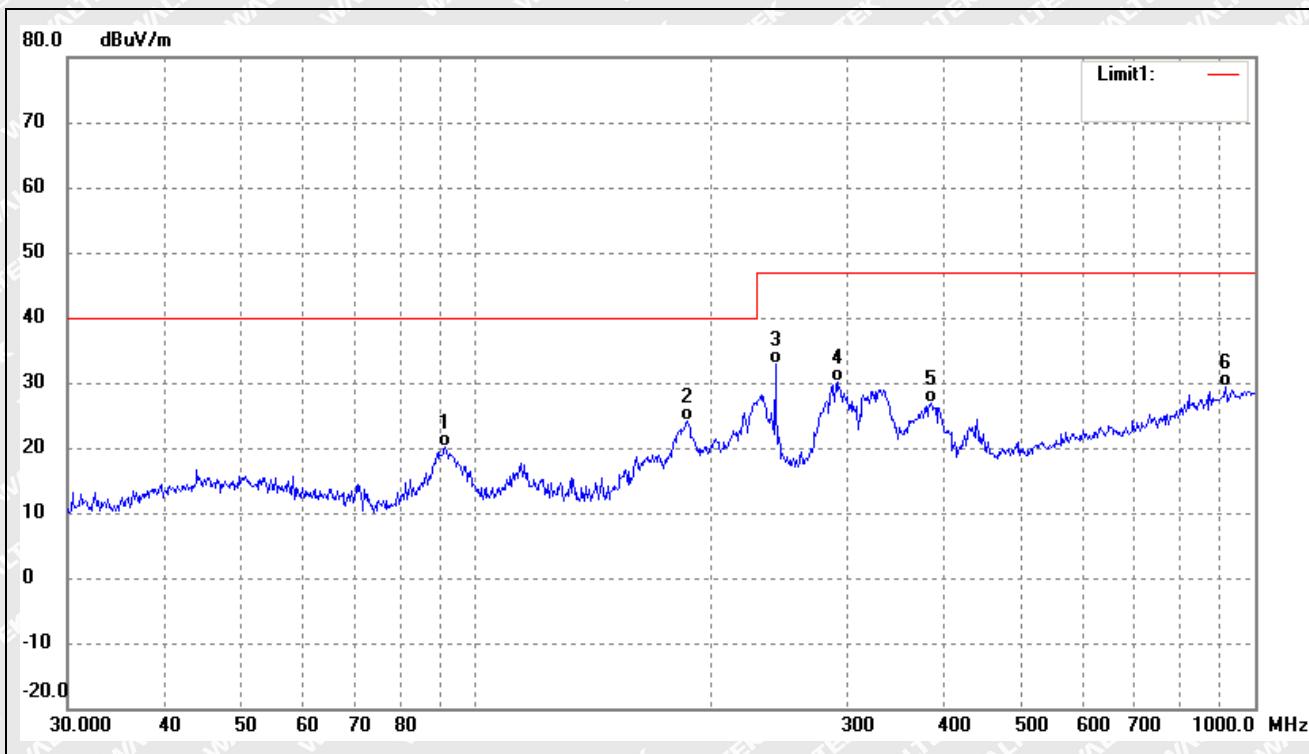


Test mode:

TM3

Polarity:

Horizontal



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree	Height (cm)	Remark
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

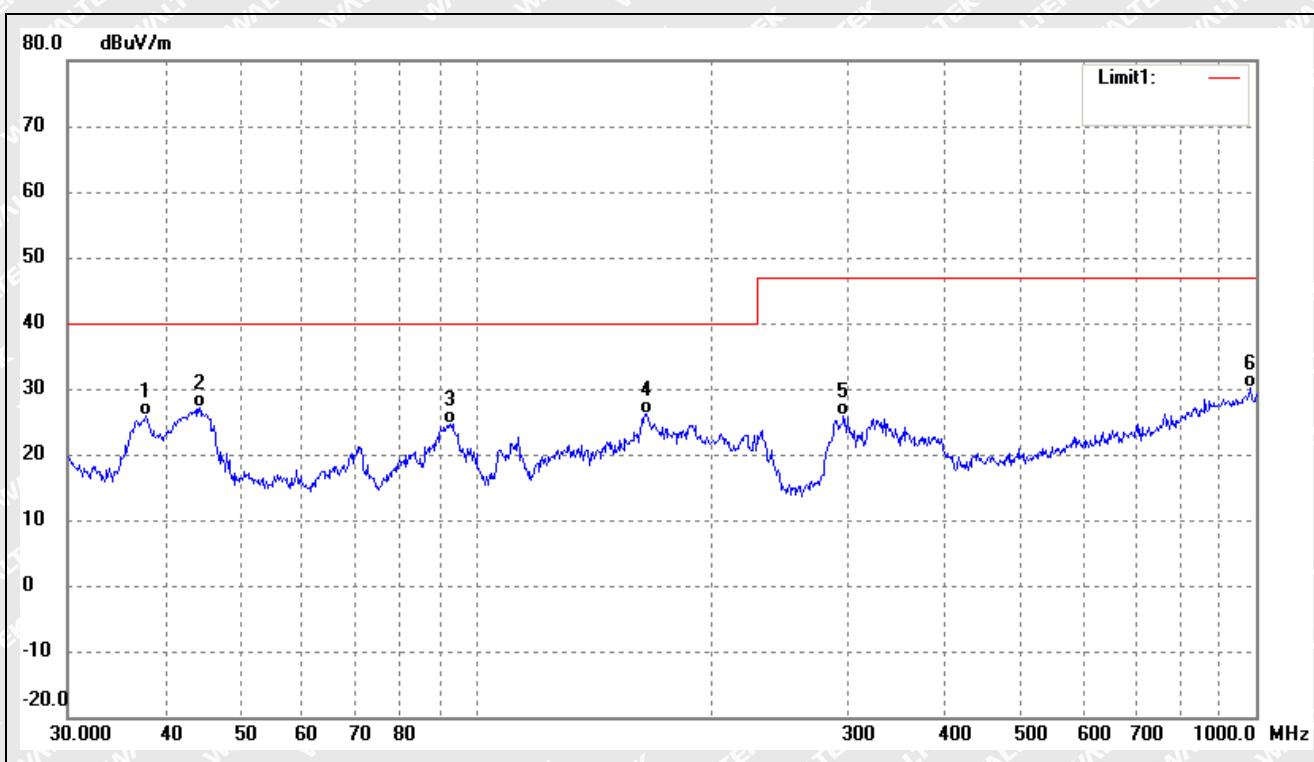


Test mode:

TM3

Polarity:

Vertical



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree	Height (cm)	Remark
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

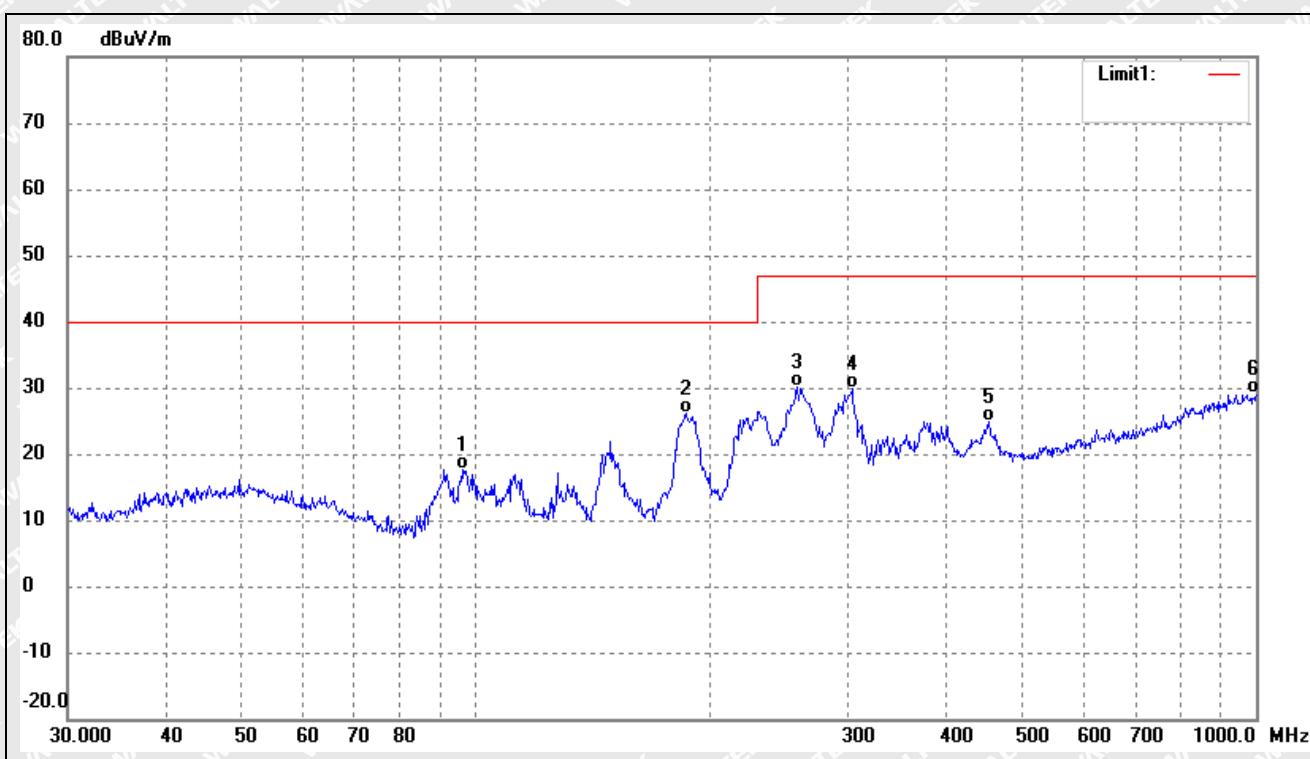


Test mode:

TM4

Polarity:

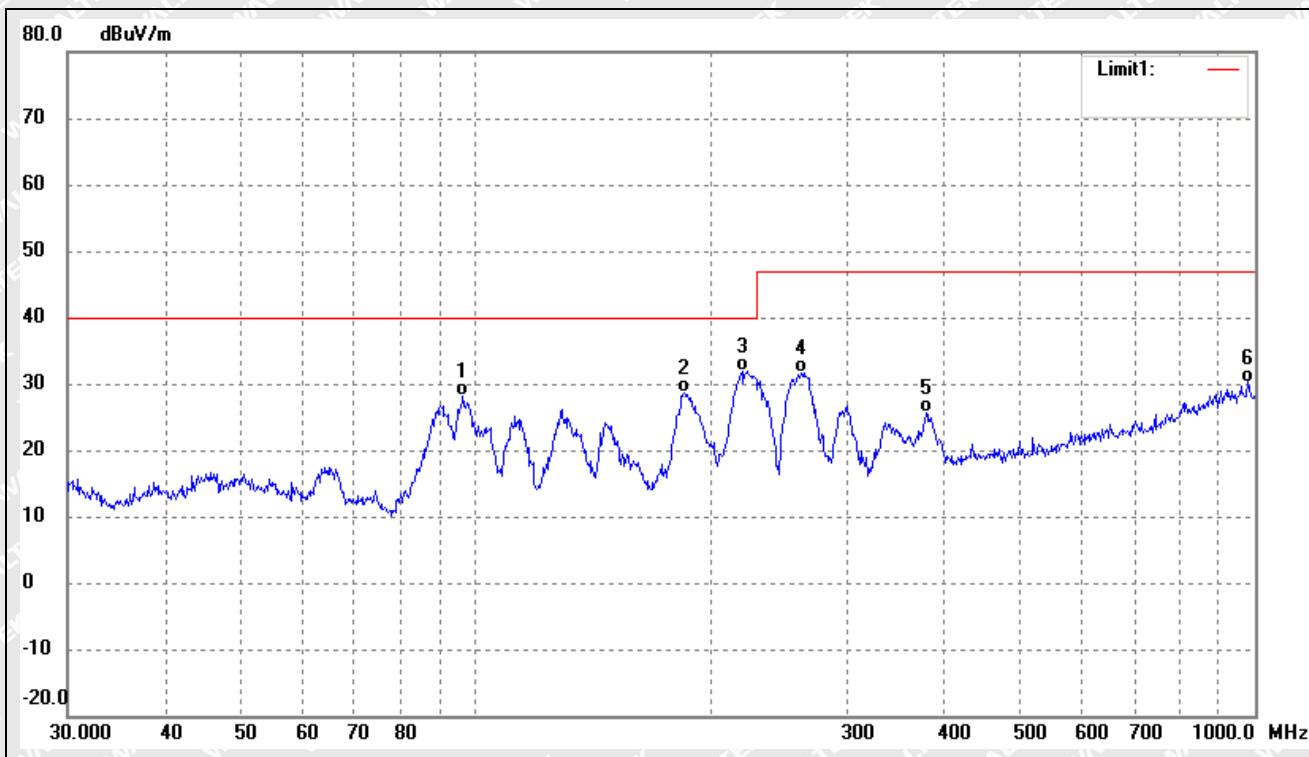
Horizontal



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree	Height (cm)	Remark
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
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No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree	Height (cm)	Remark
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 (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( )	Height (cm)	Remark
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

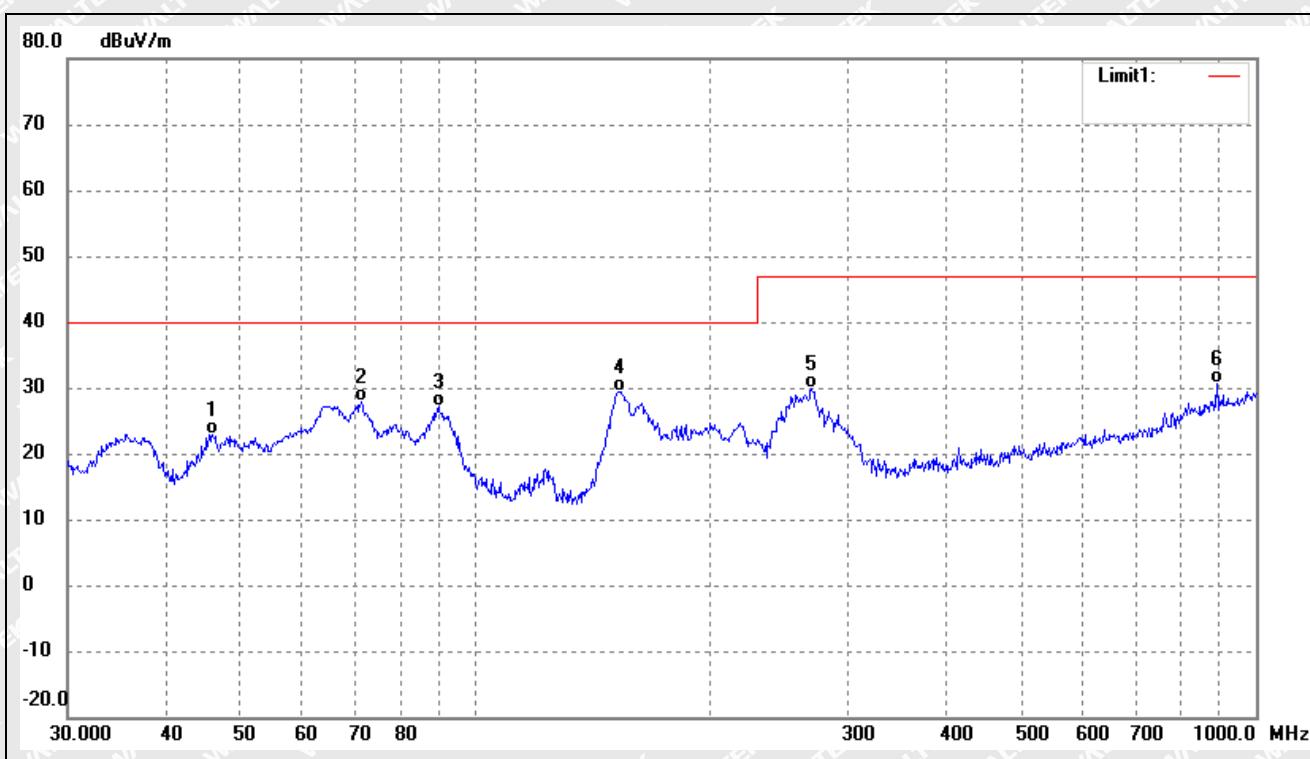


Test mode:

TM5

Polarity:

Vertical



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( )	Height (cm)	Remark
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
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No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree	Height (cm)	Remark
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

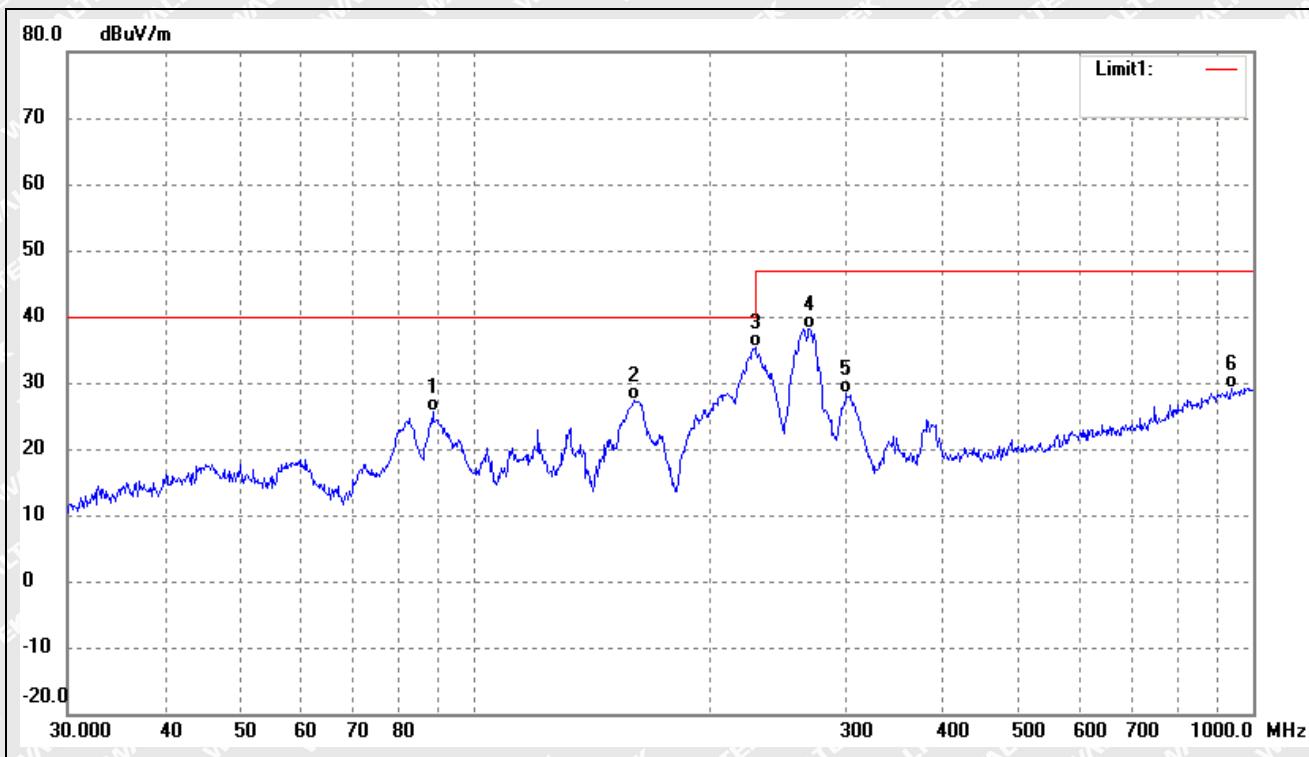


Test mode:

TM6

Polarity:

Vertical

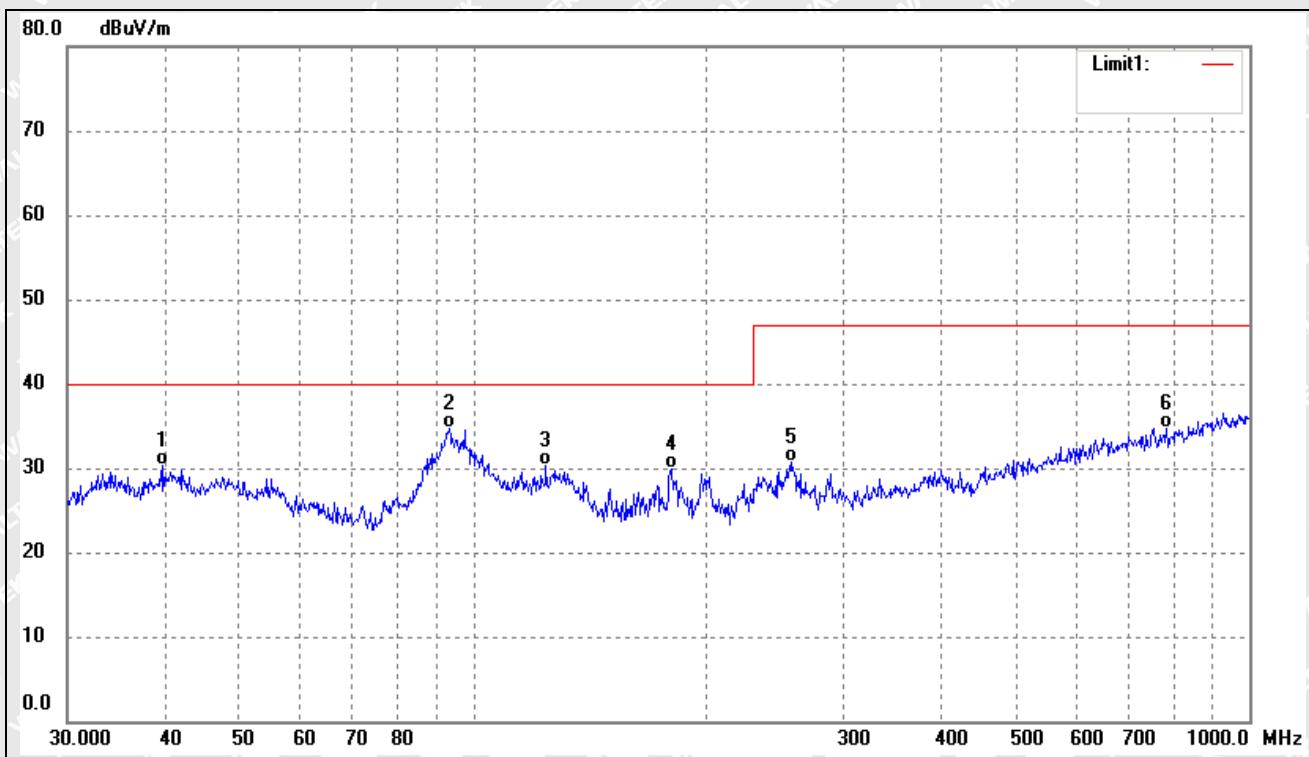


No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( )	Height (cm)	Remark
1	88.3421	40.32	-14.69	25.63	40.00	-14.37	136	100	QP
2	160.3457	43.89	-16.57	27.32	40.00	-12.68	26	100	QP
3	229.2931	47.60	-12.33	35.27	40.00	-4.73	345	100	QP
4	269.4284	49.27	-11.08	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



## WTX21X06053486E-1

Test mode:	TM1	Polarity:	Horizontal
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No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree	Height (cm)	Remark
1	39.8542	37.01	-6.63	30.38	40.00	-9.62	251	100	QP
2	93.1132	44.02	-9.26	34.76	40.00	-5.24	123	100	QP
3	124.1330	39.12	-8.90	30.22	40.00	-9.78	21	100	QP
4	180.0165	39.50	-9.68	29.82	40.00	-10.18	195	100	QP
5	256.5211	37.11	-6.34	30.77	47.00	-16.23	252	100	QP
6	782.3453	30.70	4.09	34.79	47.00	-12.21	101	100	QP

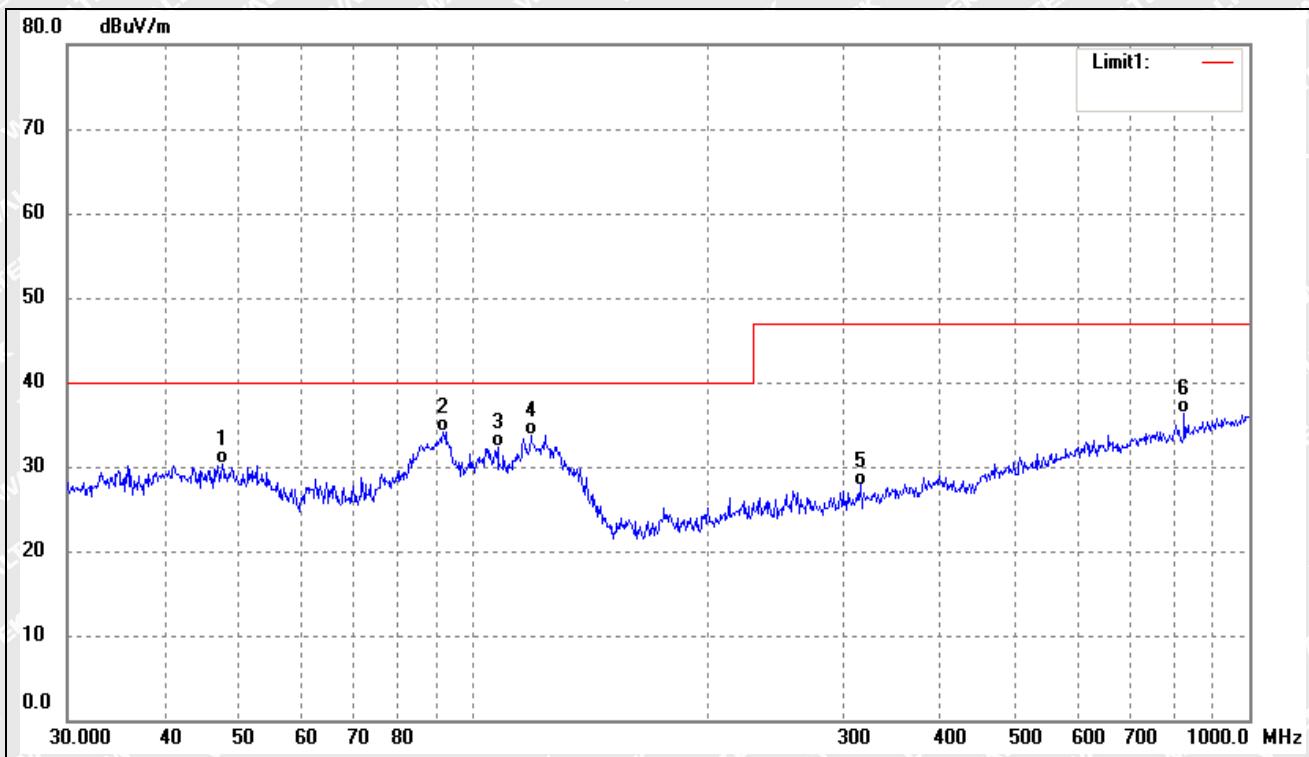


Test mode:

TM1

Polarity:

Vertical



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( )	Height (cm)	Remark
1	47.4918	37.07	-6.72	30.35	40.00	-9.65	32	100	QP
2	91.4949	43.90	-9.72	34.18	40.00	-5.82	123	100	QP
3	107.5101	39.69	-7.41	32.28	40.00	-7.72	263	100	QP
4	118.6014	41.82	-8.05	33.77	40.00	-6.23	355	100	QP
5	315.4808	32.45	-4.65	27.80	47.00	-19.20	104	100	QP
6	824.5968	31.54	4.68	36.22	47.00	-10.78	66	100	QP

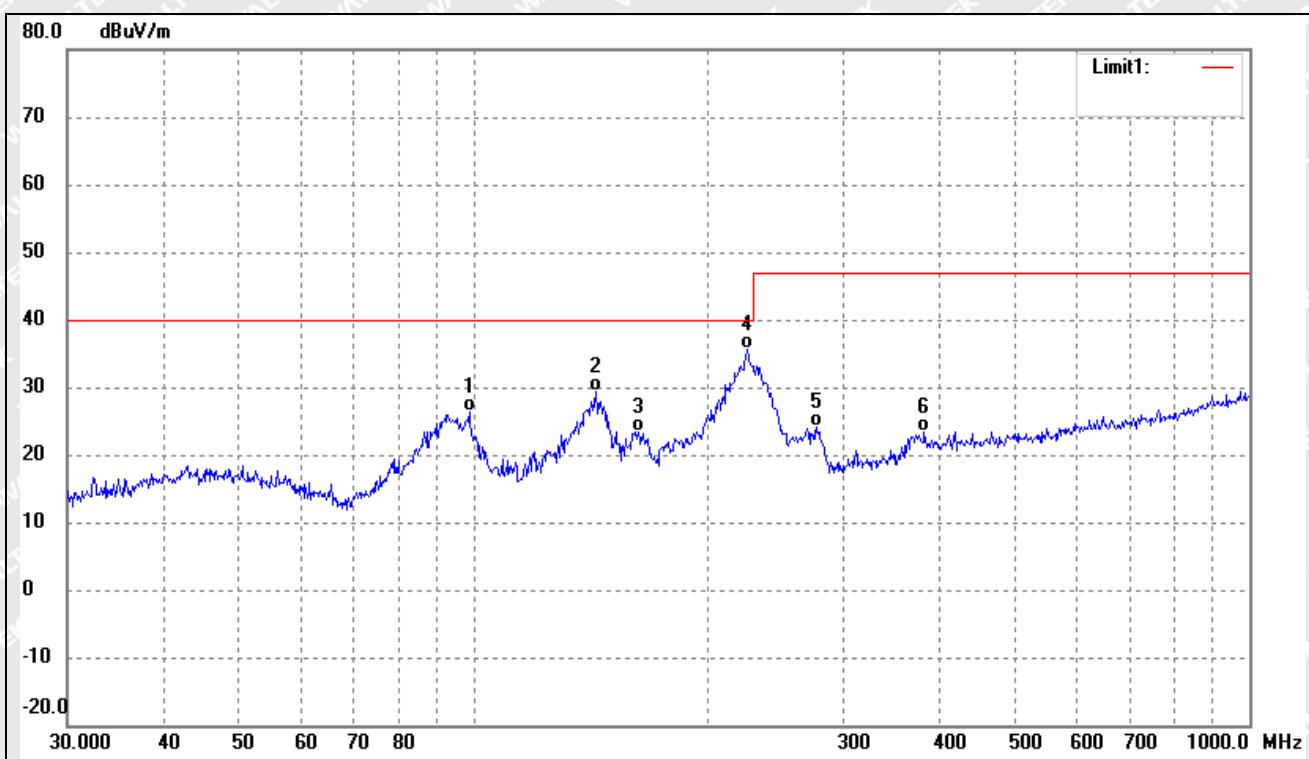


Test mode:

TM2

Polarity:

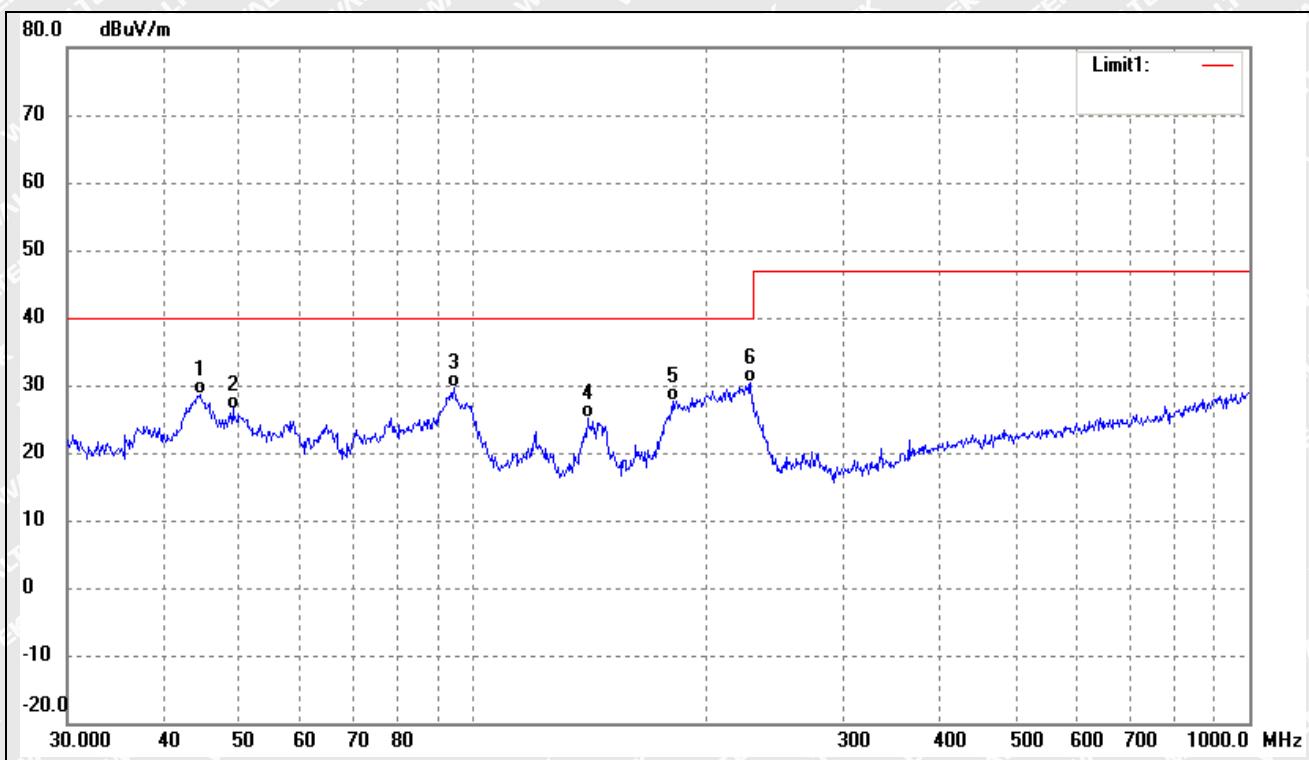
Horizontal



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree	Height (cm)	Remark
1	98.8326	38.57	-12.15	26.42	40.00	-13.58	312	100	QP
2	143.8295	44.63	-15.22	29.41	40.00	-10.59	25	100	QP
3	163.1818	38.16	-14.68	23.48	40.00	-16.52	105	100	QP
4	225.3080	47.36	-11.64	35.72	40.00	-4.28	196	100	QP
5	277.0935	34.09	-10.04	24.05	47.00	-22.95	241	100	QP
6	381.2487	30.02	-6.75	23.27	47.00	-23.73	152	100	QP



Test mode:	TM2	Polarity:	Vertical
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No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( )	Height (cm)	Remark
1	44.4308	39.50	-10.89	28.61	40.00	-11.39	345	100	QP
2	49.0145	37.39	-10.89	26.50	40.00	-13.50	127	100	QP
3	94.4284	42.09	-12.44	29.65	40.00	-10.35	52	100	QP
4	140.3421	40.25	-15.19	25.06	40.00	-14.94	166	100	QP
5	180.6488	41.65	-13.95	27.70	40.00	-12.30	210	100	QP
6	227.6906	41.93	-11.58	30.35	40.00	-9.65	288	100	QP

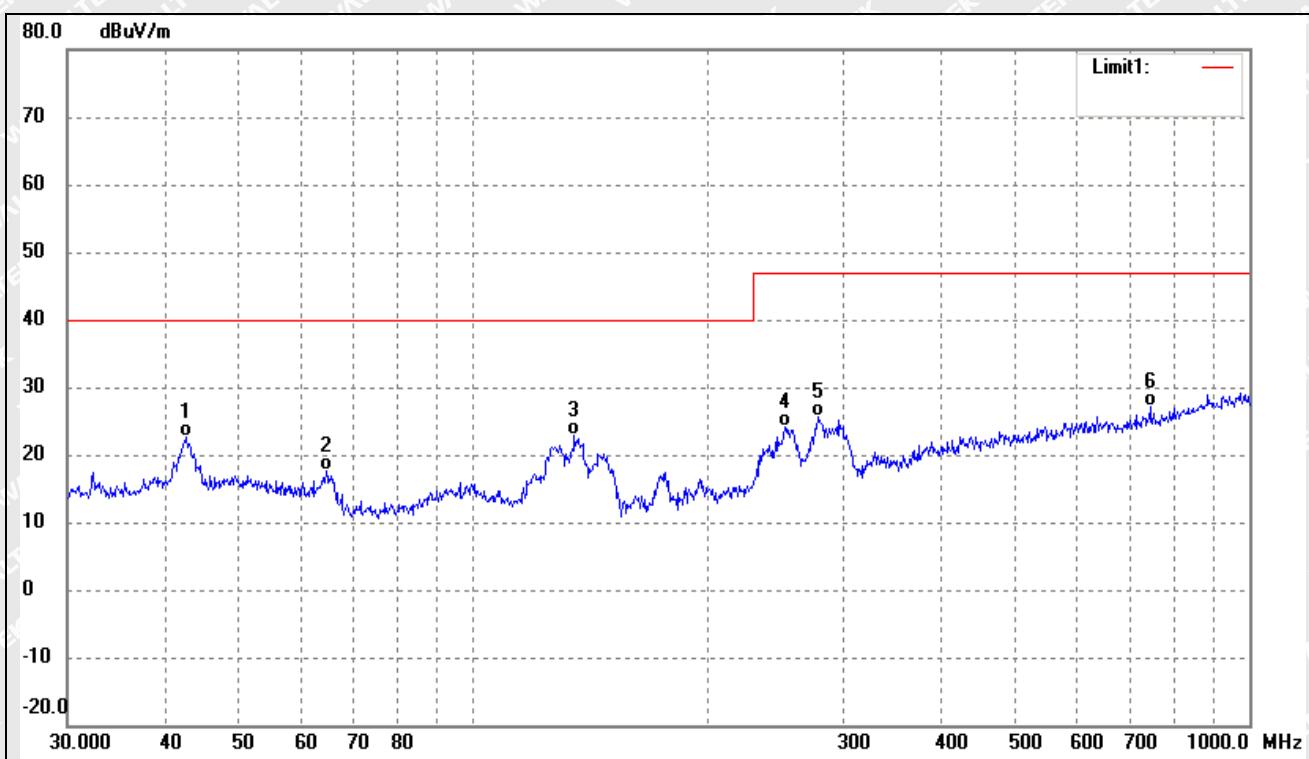


Test mode:

TM3

Polarity:

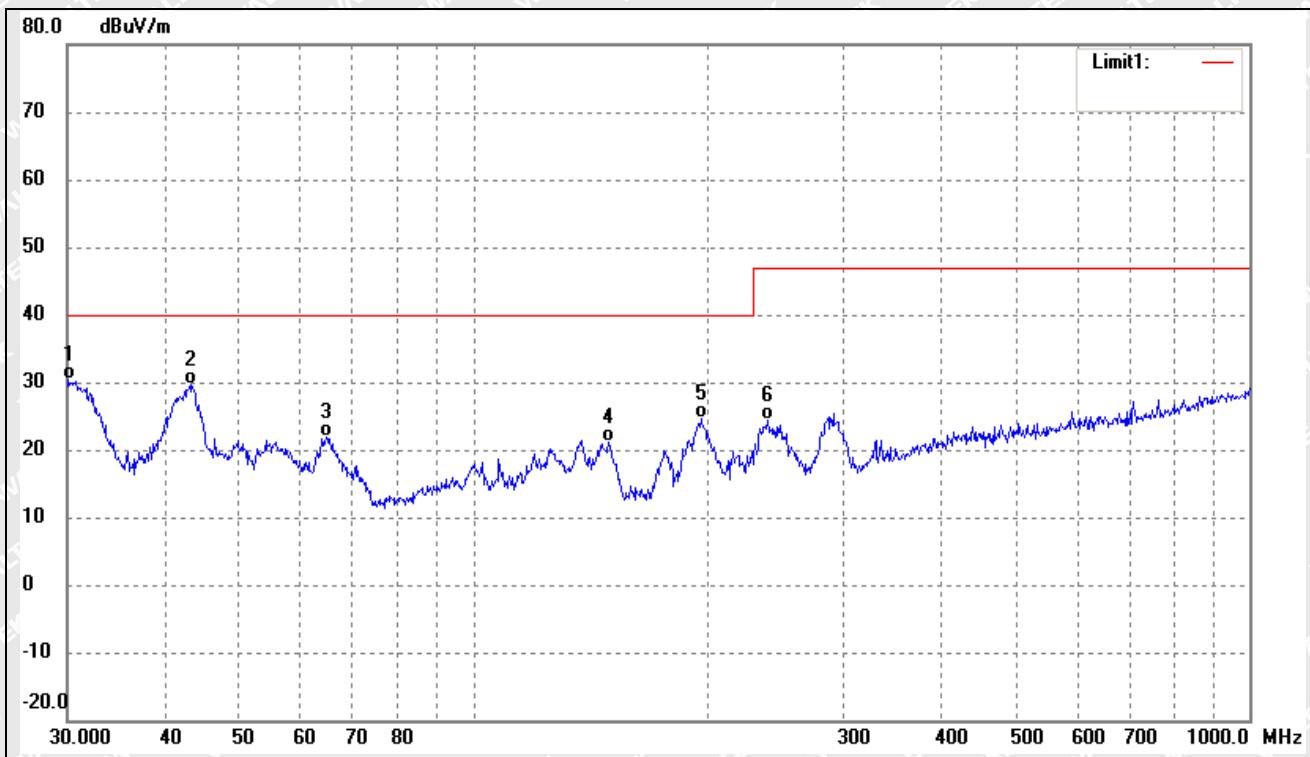
Horizontal



No.	Frequency (MHz)	Reading (dB <sub>uV/m</sub> )	Correct dB/m	Result (dB <sub>uV/m</sub> )	Limit (dB <sub>uV/m</sub> )	Margin (dB)	Degree	Height (cm)	Remark
1	42.7496	33.49	-10.90	22.59	40.00	-17.41	56	100	QP
2	64.6594	31.45	-13.89	17.56	40.00	-22.44	291	100	QP
3	135.0319	37.82	-14.99	22.83	40.00	-17.17	142	100	QP
4	252.0627	34.83	-10.82	24.01	47.00	-22.99	53	100	QP
5	278.0668	35.55	-10.01	25.54	47.00	-21.46	216	100	QP
6	744.8661	29.44	-2.23	27.21	47.00	-19.79	252	100	QP



Test mode:	TM3	Polarity:	Vertical
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No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( )	Height (cm)	Remark
1	30.1054	42.94	-12.66	30.28	40.00	-9.72	333	100	QP
2	43.2017	40.49	-10.90	29.59	40.00	-10.41	215	100	QP
3	64.6594	35.88	-13.89	21.99	40.00	-18.01	246	100	QP
4	149.4857	36.42	-15.29	21.13	40.00	-18.87	159	100	QP
5	196.5098	37.17	-12.53	24.64	40.00	-15.36	56	100	QP
6	239.9874	35.68	-11.21	24.47	47.00	-22.53	293	100	QP

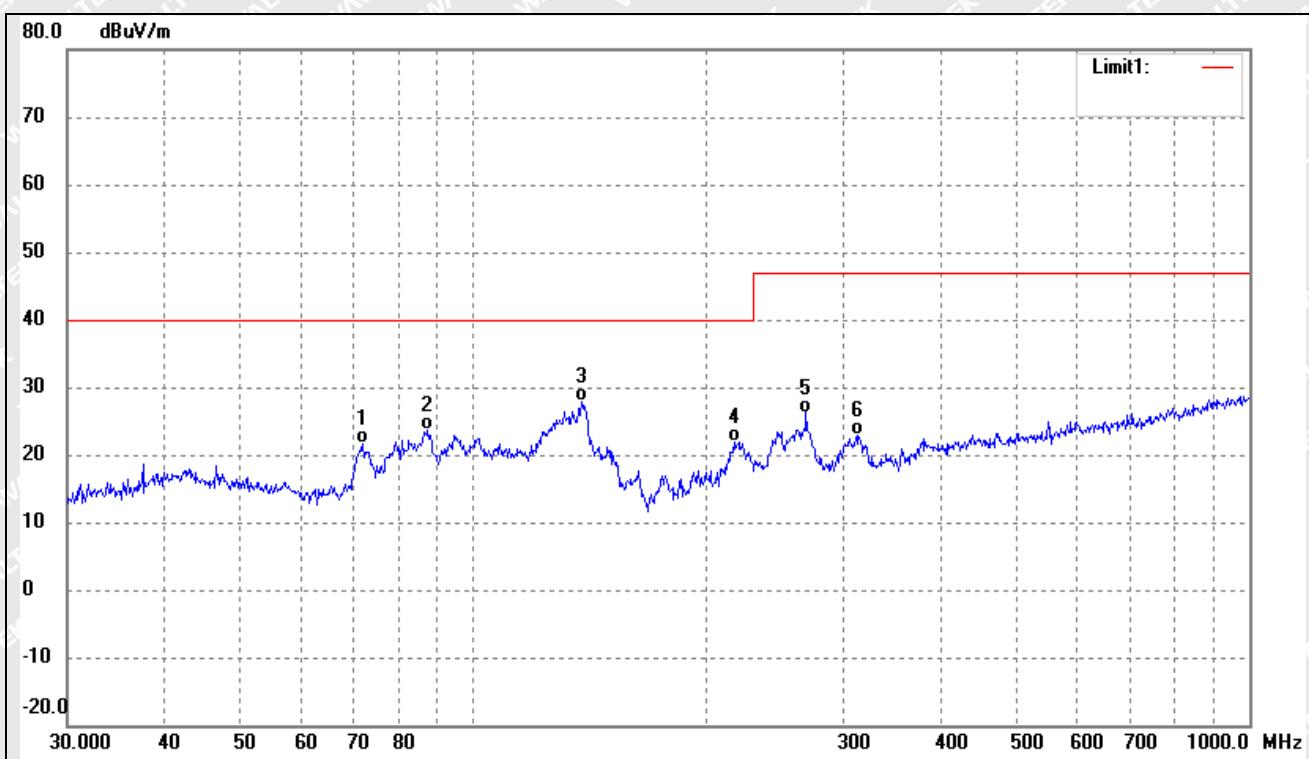


Test mode:

TM4

Polarity:

Horizontal



No.	Frequency (MHz)	Reading (dB <sub>UV</sub> /m)	Correct dB/m	Result (dB <sub>UV</sub> /m)	Limit (dB <sub>UV</sub> /m)	Margin (dB)	Degree ( )	Height (cm)	Remark
1	72.0843	36.99	-15.35	21.64	40.00	-18.36	91	100	QP
2	87.4177	37.16	-13.48	23.68	40.00	-16.32	152	100	QP
3	137.9028	42.98	-15.11	27.87	40.00	-12.13	241	100	QP
4	216.7828	33.87	-11.90	21.97	40.00	-18.03	325	100	QP
5	268.4853	36.55	-10.30	26.25	47.00	-20.75	231	100	QP
6	312.1794	31.80	-8.99	22.81	47.00	-24.19	102	100	QP

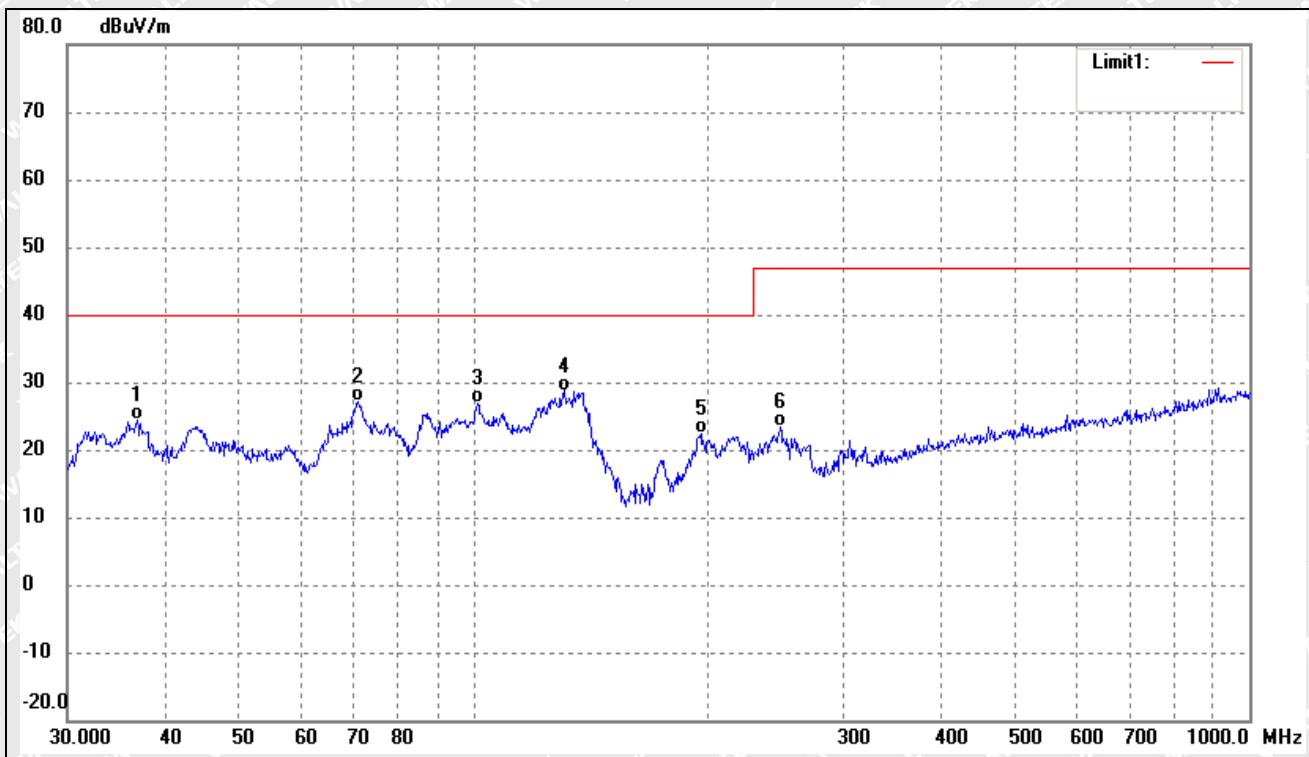


Test mode:

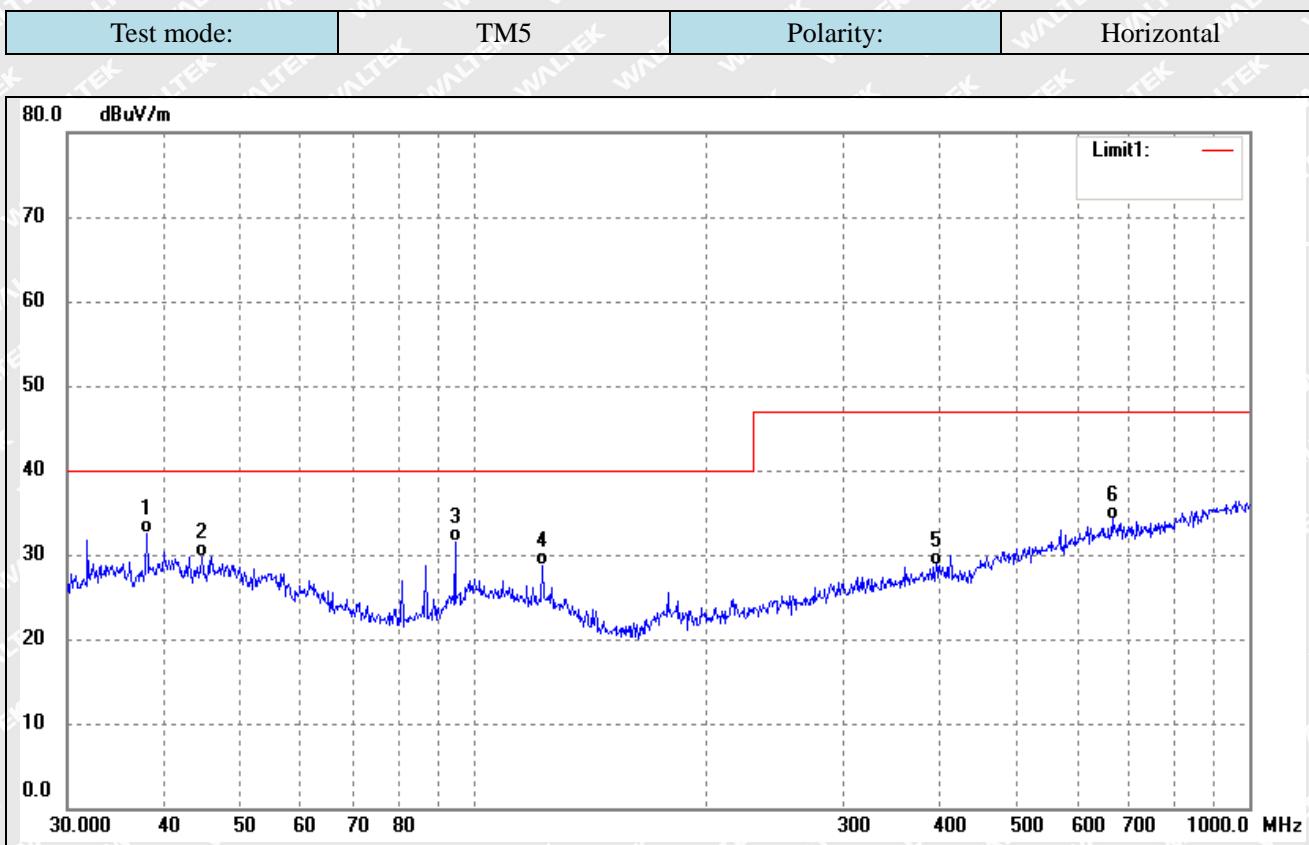
TM4

Polarity:

Vertical



No.	Frequency (MHz)	Reading (dB <sub>uV/m</sub> )	Correct dB/m	Result (dB <sub>uV/m</sub> )	Limit (dB <sub>uV/m</sub> )	Margin (dB)	Degree ( )	Height (cm)	Remark
1	36.8953	35.92	-11.46	24.46	40.00	-15.54	55	100	QP
2	71.0803	42.58	-15.42	27.16	40.00	-12.84	163	100	QP
3	101.2885	38.92	-12.15	26.77	40.00	-13.23	341	100	QP
4	131.2965	43.59	-14.84	28.75	40.00	-11.25	121	100	QP
5	196.5098	34.82	-12.53	22.29	40.00	-17.71	10	100	QP
6	248.5519	34.35	-10.93	23.42	47.00	-23.58	165	100	QP



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( )	Height (cm)	Remark
1	37.9450	39.54	-7.06	32.48	40.00	-7.52	91	100	QP
2	44.7433	36.42	-6.67	29.75	40.00	-10.25	241	100	QP
3	94.7601	40.38	-8.79	31.59	40.00	-8.41	156	100	QP
4	122.8340	37.33	-8.66	28.67	40.00	-11.33	243	100	QP
5	394.8545	31.42	-2.62	28.80	47.00	-18.20	319	100	QP
6	665.8035	31.56	2.64	34.20	47.00	-12.80	21	100	QP

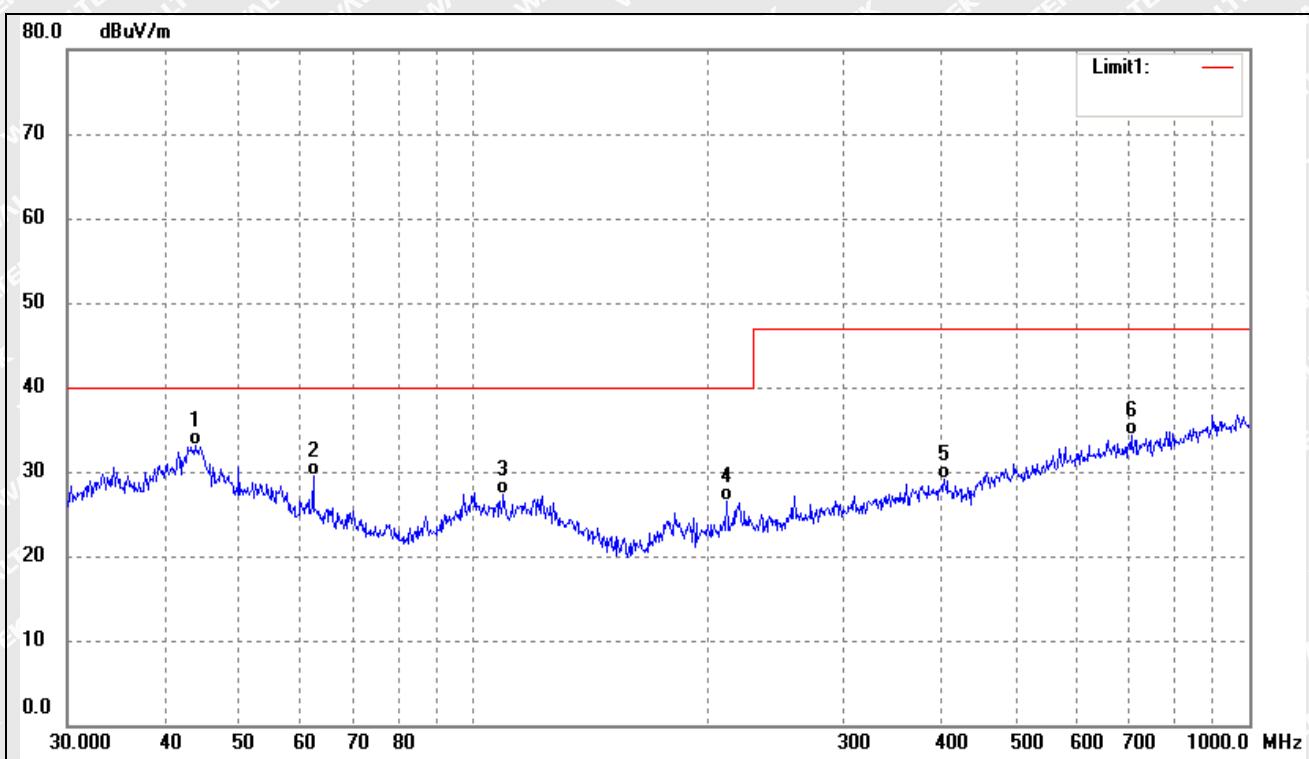


Test mode:

TM5

Polarity:

Vertical



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( )	Height (cm)	Remark
1	43.8119	39.74	-6.66	33.08	40.00	-6.92	358	100	QP
2	62.2128	38.31	-8.89	29.42	40.00	-10.58	196	100	QP
3	109.4116	34.75	-7.44	27.31	40.00	-12.69	256	100	QP
4	212.2695	34.10	-7.69	26.41	40.00	-13.59	218	100	QP
5	404.6665	31.66	-2.53	29.13	47.00	-17.87	141	100	QP
6	704.2261	31.12	3.18	34.30	47.00	-12.70	12	100	QP



## 5. Harmonic Current Emissions

### 5.1 Test Procedure

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

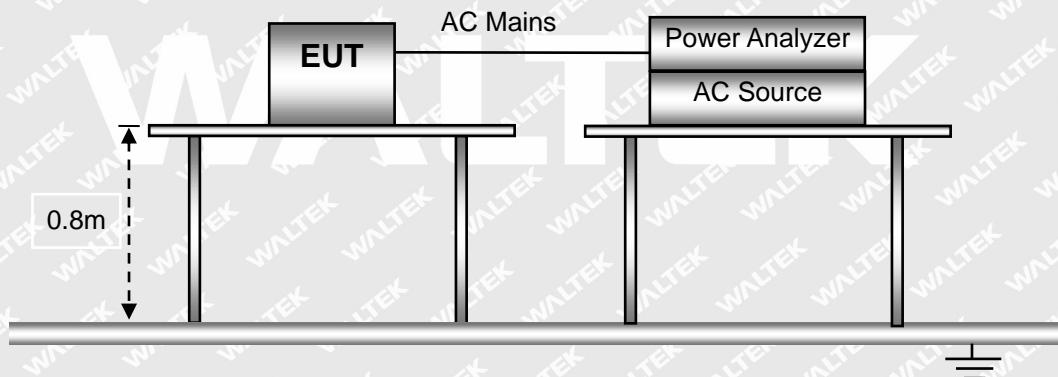
### 5.2 Test Standards

EN IEC 61000-3-2, Clause 7.1 Limits for Class A equipment.

### Environmental Conditions

Temperature:	23.5 °C
Relative Humidity:	54 %
ATM Pressure:	1022 mbar

### 5.4 Basic Test Setup Block Diagram



### 5.5 Harmonic Current Emissions Test Data



STR18078316E

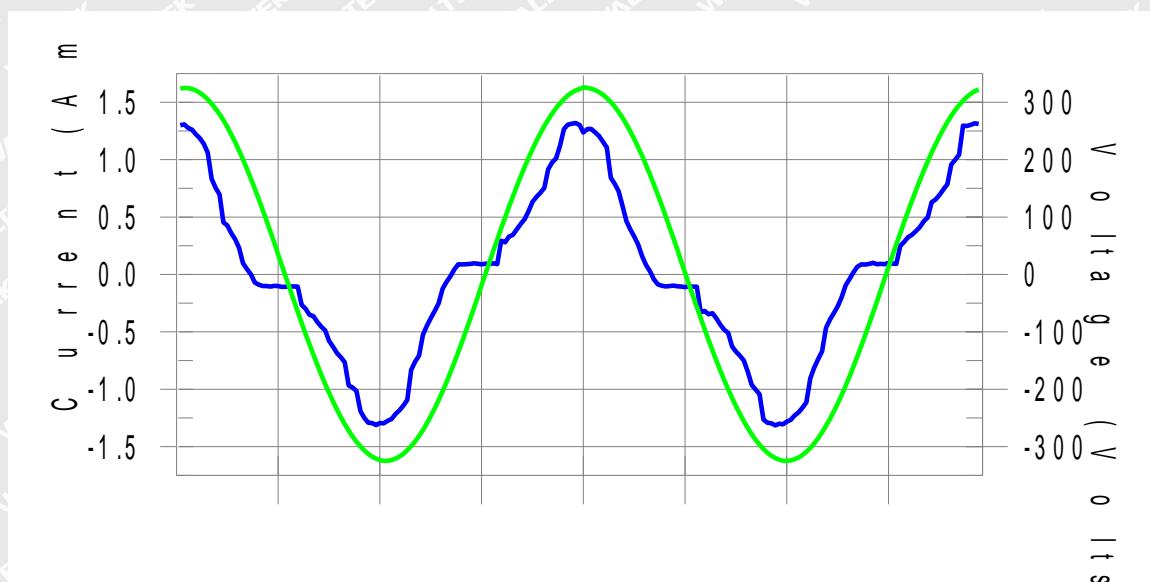
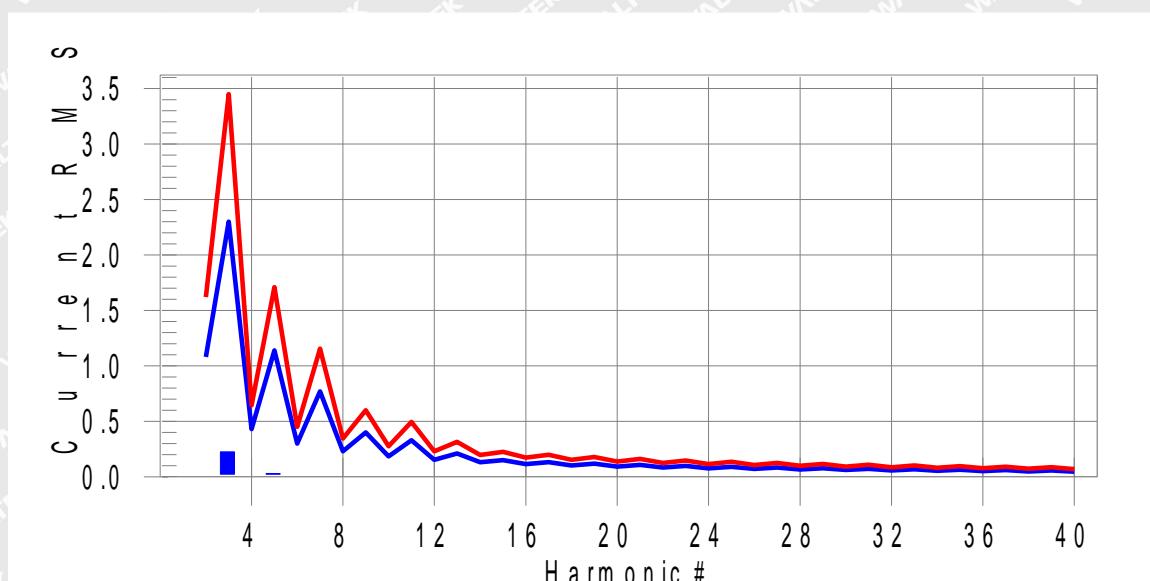
Test mode:

TM1

**Highest parameter values during test:**

V\_RMS (Volts): 229.95  
I\_Peak (Amps): 1.406  
I\_Fund (Amps): 0.720  
Power (Watts): 162.0

Frequency(Hz): 50.00  
I\_RMS (Amps): 0.755  
Crest Factor: 1.865  
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.**

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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

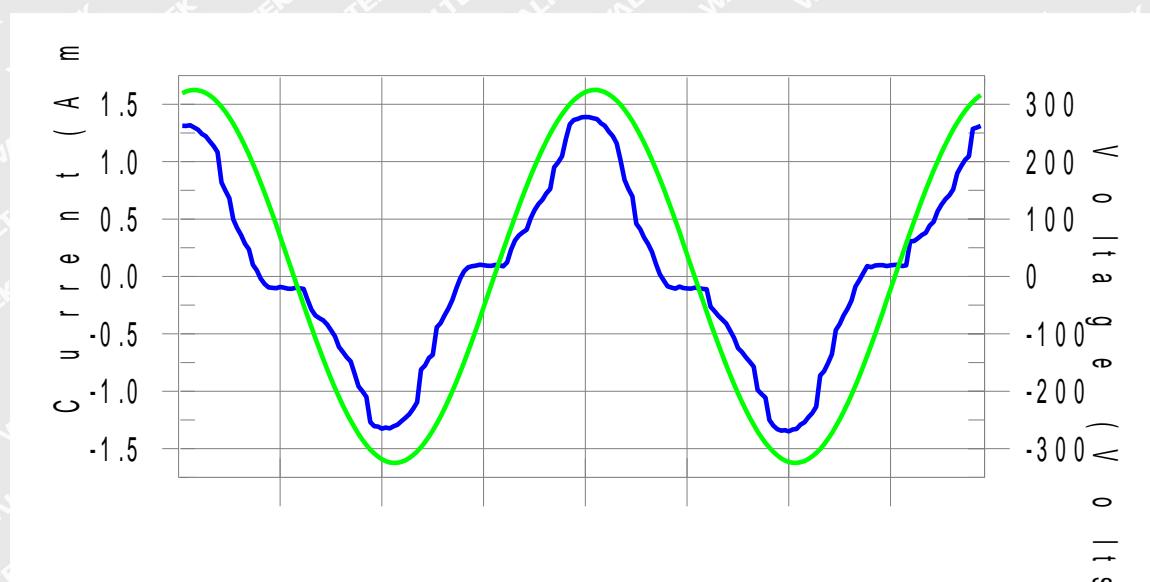
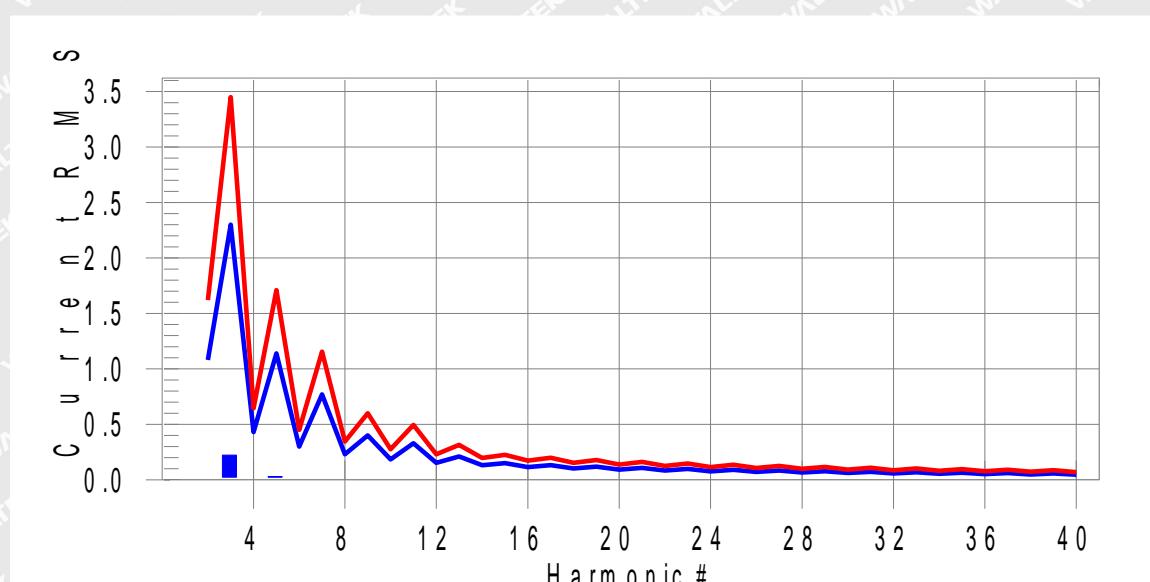
I\_RMS (Amps): 0.760

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.**

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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

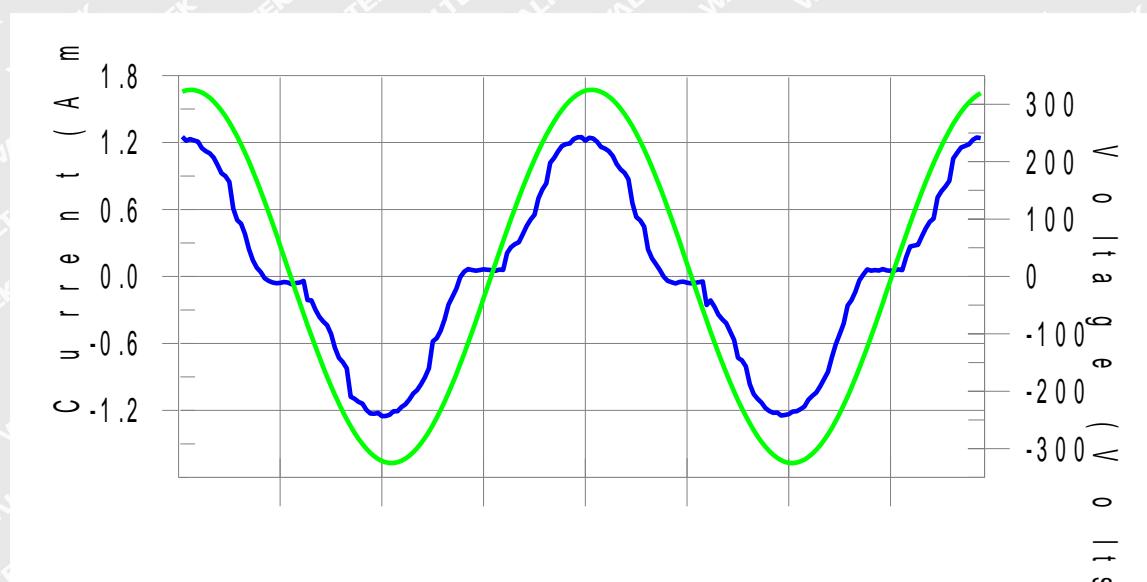
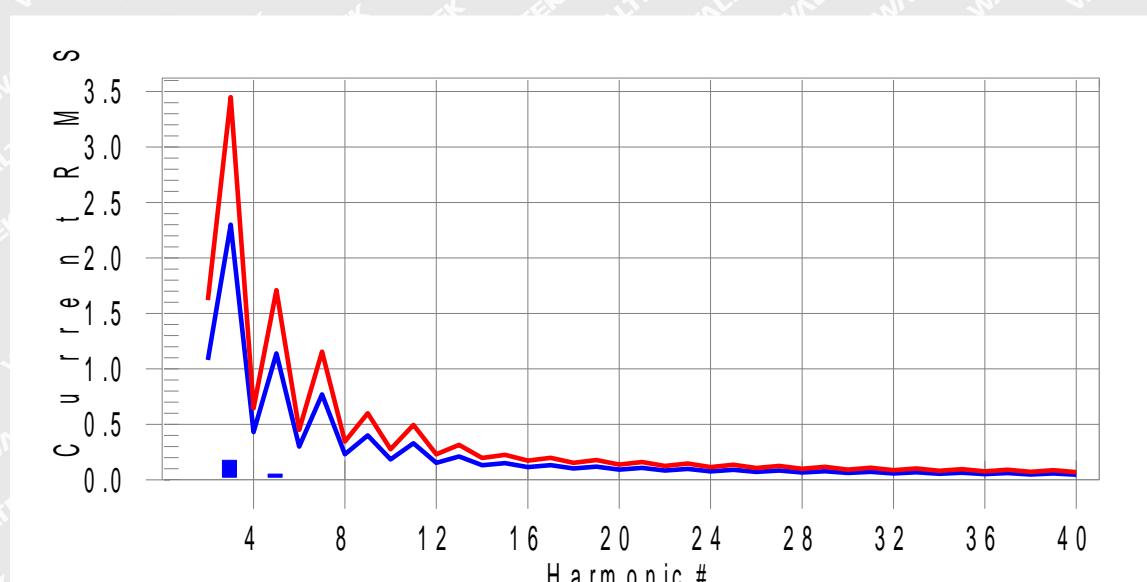
I\_RMS (Amps): 0.785

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**

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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

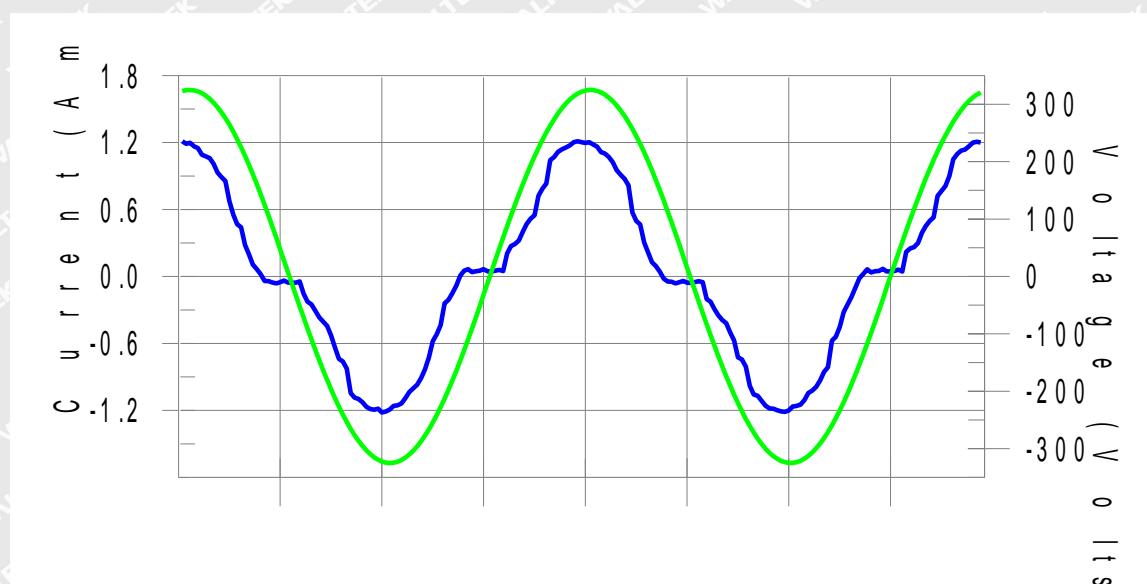
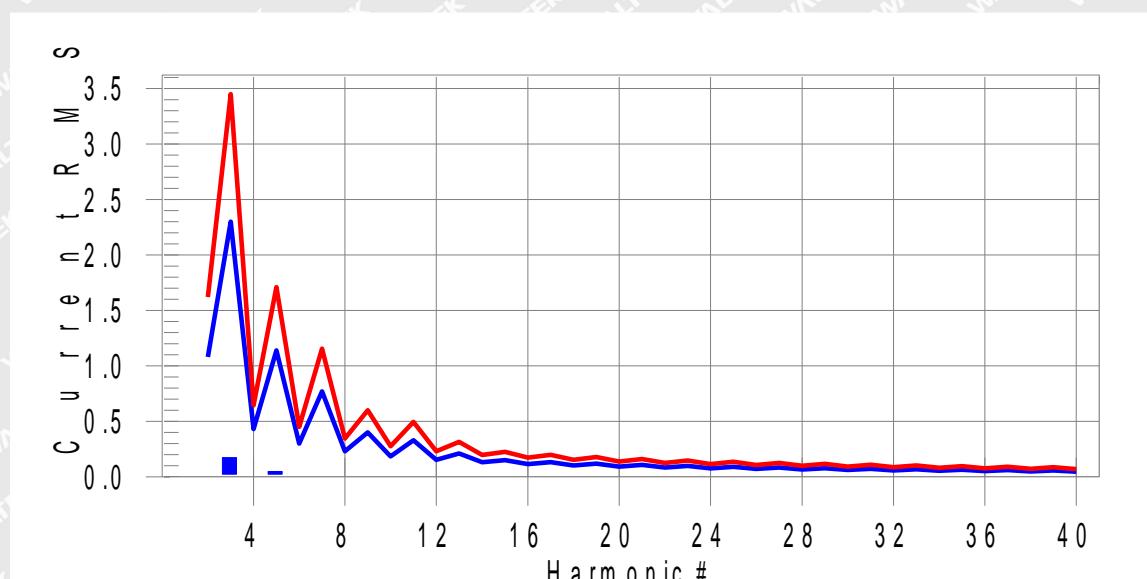
I\_RMS (Amps): 0.756

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**

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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

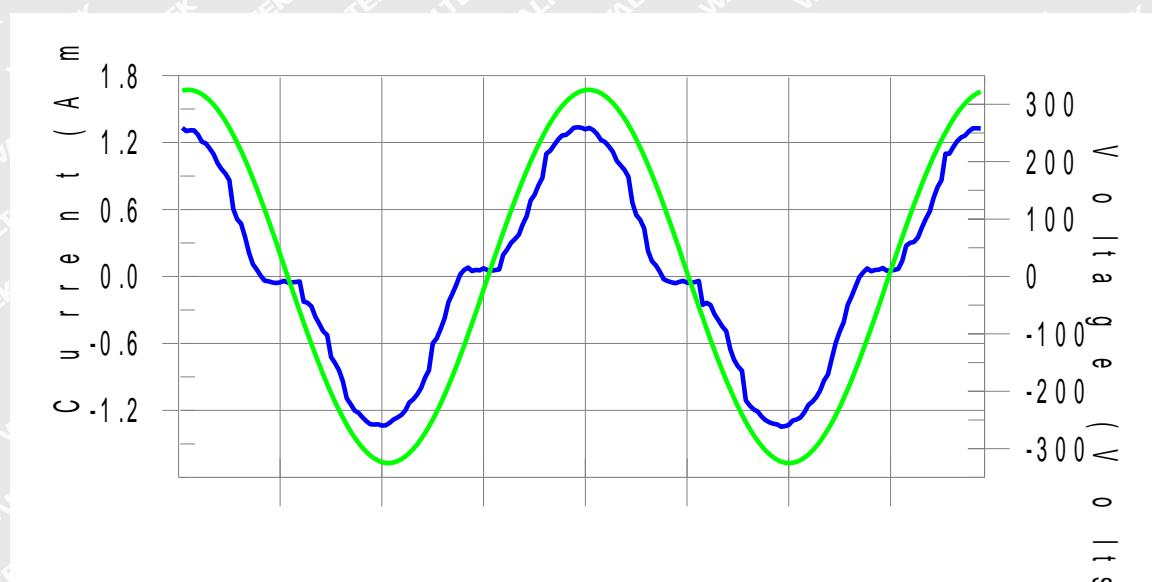
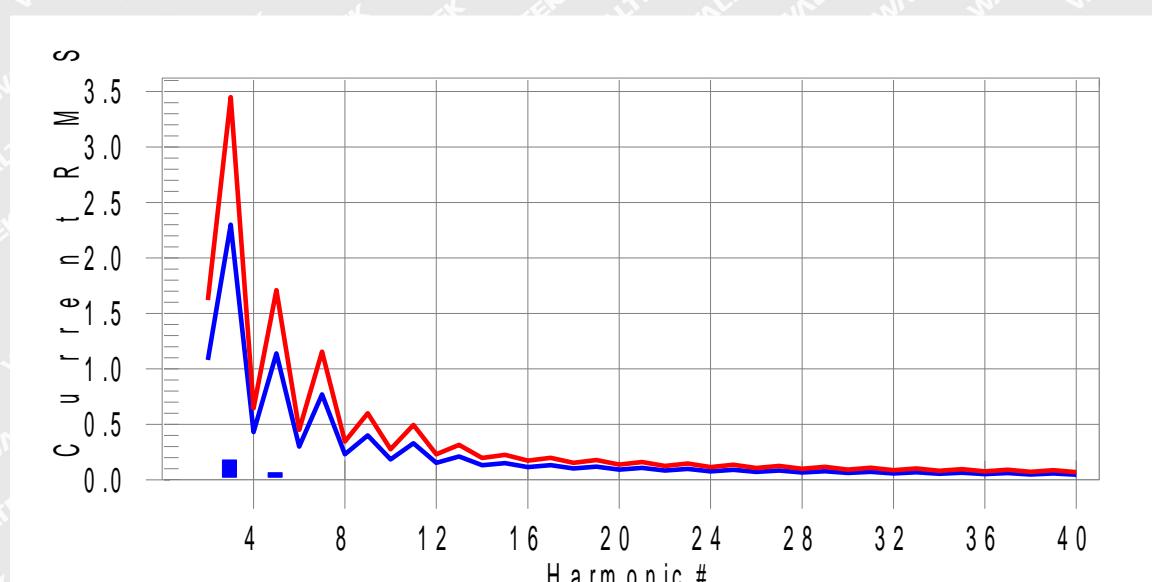
I\_RMS (Amps): 0.846

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**

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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

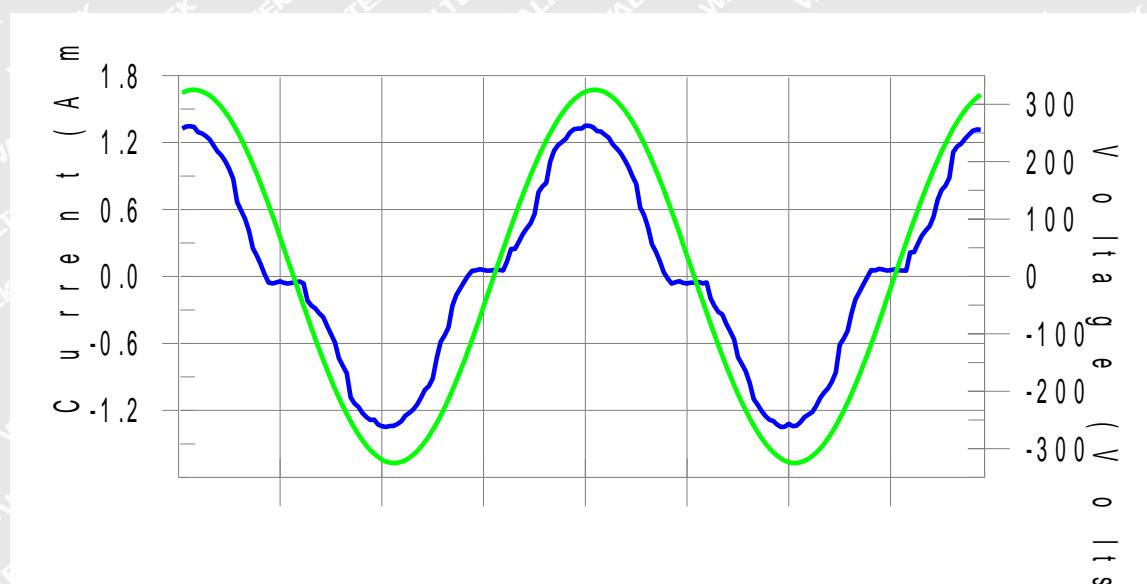
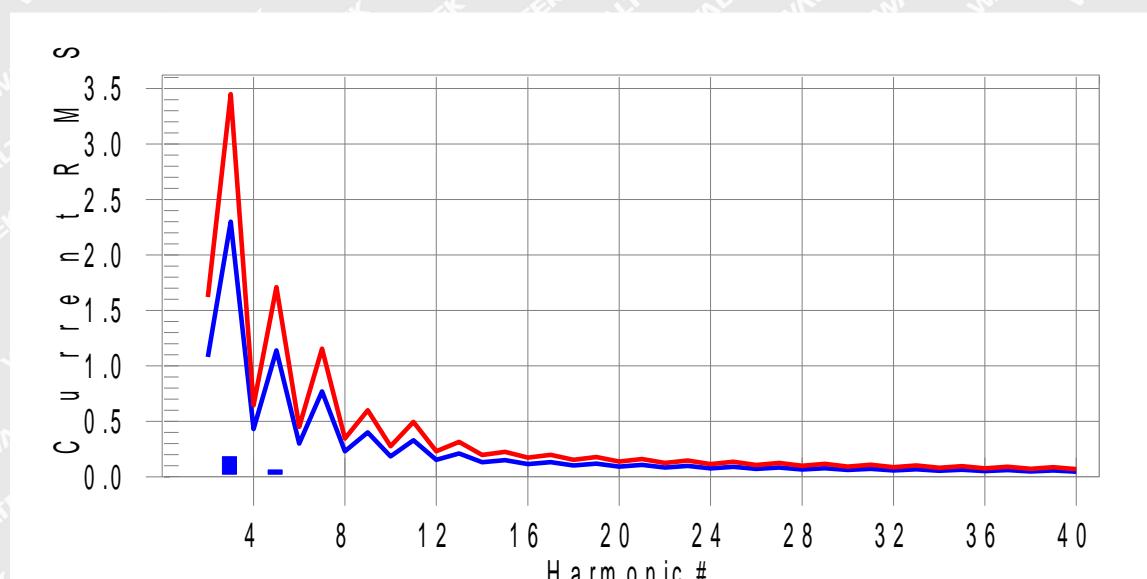
I\_RMS (Amps): 0.852

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**

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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



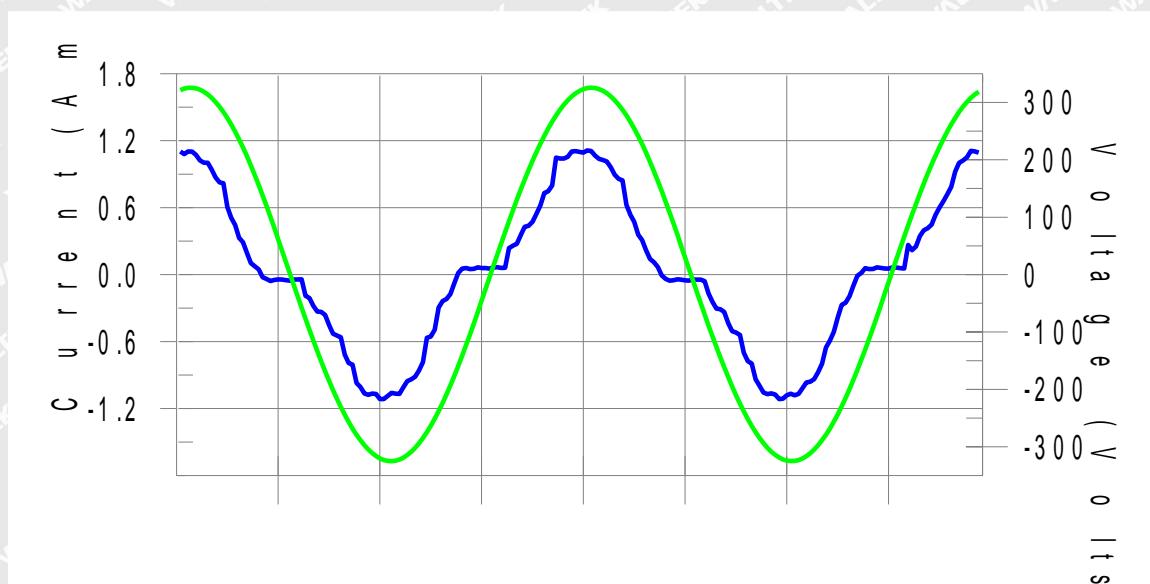
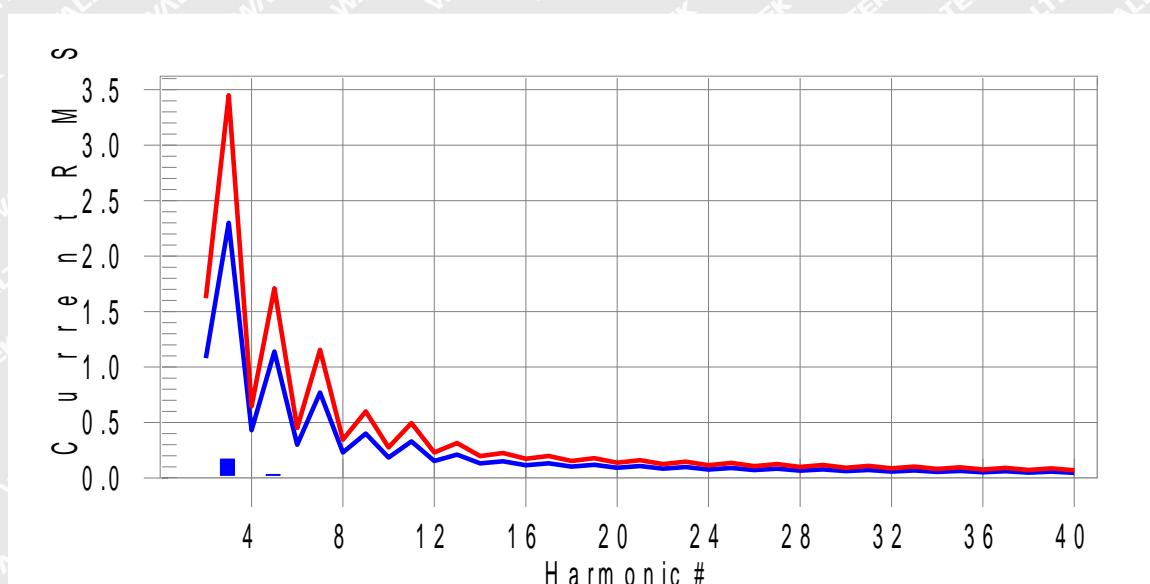
Harm#	Harmonics V-rms	Limit V-rms	% of Limit	Status
2	0.059	0.460	12.84	OK
3	0.582	2.070	28.09	OK
4	0.060	0.460	12.96	OK
5	0.084	0.920	9.14	OK
6	0.038	0.460	8.23	OK
7	0.037	0.690	5.34	OK
8	0.015	0.460	3.32	OK
9	0.020	0.460	4.42	OK
10	0.012	0.460	2.57	OK
11	0.019	0.230	8.11	OK
12	0.011	0.230	4.81	OK
13	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



WTX21X06053486E-1

Test mode:

TM1

**Harmonics – Class-A per Ed. Ed. 5.0 (2018)(Run time)****Test Result: Pass****Source qualification: Normal****Current & voltage waveforms****Harmonics and Class A limit line****European Limits****Test result: Pass****Worst harmonics H31-6.8% of 150% limit, H31-10% of 100% limit**



### Current Test Result Summary (Run time)

Test Result: Pass

Source qualification: Normal

THC(A): 0.177

I-THD(%): 27.2

POHC(A): 0.015

POHC Limit(A): 0.251

**Highest parameter values during test:**

V_RMS (Volts):	230.14	Frequency(Hz):	50.00
I_Peak (Amps):	1.148	I_RMS (Amps):	0.677
I_Fund (Amps):	0.652	Crest Factor:	1.700
Power (Watts):	148.0	Power Factor:	0.951

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	0.171	2.300	7.4	0.172	3.450	5.0	Pass
4	0.001	0.430	N/A	0.001	0.645	N/A	Pass
5	0.031	1.140	2.8	0.032	1.710	1.9	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	1.9	Pass
8	0.000	0.230	N/A	0.000	0.345	N/A	Pass
9	0.015	0.400	3.8	0.016	0.600	2.6	Pass
10	0.000	0.184	N/A	0.000	0.276	N/A	Pass
11	0.006	0.330	2.0	0.007	0.495	1.3	Pass
12	0.000	0.153	N/A	0.000	0.230	N/A	Pass
13	0.006	0.210	2.8	0.006	0.315	1.9	Pass
14	0.000	0.131	N/A	0.000	0.197	N/A	Pass
15	0.007	0.150	5.0	0.008	0.225	3.4	Pass
16	0.000	0.115	N/A	0.000	0.173	N/A	Pass
17	0.006	0.132	4.2	0.006	0.198	2.9	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	0.003	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	0.005	0.098	5.5	0.006	0.147	3.8	Pass
24	0.000	0.077	N/A	0.000	0.115	N/A	Pass
25	0.007	0.090	7.7	0.007	0.135	5.2	Pass
26	0.000	0.071	N/A	0.000	0.107	N/A	Pass
27	0.004	0.083	N/A	0.004	0.125	N/A	Pass
28	0.000	0.066	N/A	0.001	0.099	N/A	Pass
29	0.002	0.078	N/A	0.002	0.116	N/A	Pass
30	0.000	0.061	N/A	0.000	0.092	N/A	Pass
31	0.007	0.073	10.0	0.007	0.109	6.8	Pass
32	0.000	0.058	N/A	0.001	0.086	N/A	Pass



33	<b>0.005</b>	<b>0.068</b>	<b>7.6</b>	<b>0.005</b>	<b>0.102</b>	<b>5.2</b>	<b>Pass</b>
34	<b>0.000</b>	<b>0.054</b>	<b>N/A</b>	<b>0.000</b>	<b>0.081</b>	<b>N/A</b>	<b>Pass</b>
35	<b>0.006</b>	<b>0.064</b>	<b>9.0</b>	<b>0.006</b>	<b>0.096</b>	<b>6.3</b>	<b>Pass</b>
36	<b>0.000</b>	<b>0.051</b>	<b>N/A</b>	<b>0.000</b>	<b>0.077</b>	<b>N/A</b>	<b>Pass</b>
37	<b>0.004</b>	<b>0.061</b>	<b>N/A</b>	<b>0.004</b>	<b>0.091</b>	<b>N/A</b>	<b>Pass</b>
38	<b>0.000</b>	<b>0.048</b>	<b>N/A</b>	<b>0.000</b>	<b>0.073</b>	<b>N/A</b>	<b>Pass</b>
39	<b>0.002</b>	<b>0.058</b>	<b>N/A</b>	<b>0.002</b>	<b>0.087</b>	<b>N/A</b>	<b>Pass</b>
40	<b>0.000</b>	<b>0.046</b>	<b>N/A</b>	<b>0.000</b>	<b>0.069</b>	<b>N/A</b>	<b>Pass</b>

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## Voltage Source Verification Data (Run time)

**Test Result: Pass**

**Source qualification: Normal**

**Highest parameter values during test:**

Voltage (Vrms):	230.14	Frequency(Hz):	50.00
I_Peak (Amps):	1.148	I_RMS (Amps):	0.677
I_Fund (Amps):	0.652	Crest Factor:	1.700
Power (Watts):	148.0	Power Factor:	0.951

Harm#	Harmonics V-rms	Limit V-rms	% of Limit	Status
2	0.053	0.460	11.44	OK
3	0.553	2.071	26.68	OK
4	0.070	0.460	15.22	OK
5	0.065	0.920	7.06	OK
6	0.033	0.460	7.22	OK
7	0.036	0.690	5.15	OK
8	0.018	0.460	4.01	OK
9	0.021	0.460	4.61	OK
10	0.012	0.460	2.53	OK
11	0.019	0.230	8.36	OK
12	0.010	0.230	4.30	OK
13	0.013	0.230	5.80	OK
14	0.005	0.230	1.96	OK
15	0.008	0.230	3.57	OK
16	0.009	0.230	3.77	OK
17	0.014	0.230	6.00	OK
18	0.010	0.230	4.25	OK
19	0.011	0.230	4.78	OK
20	0.015	0.230	6.66	OK
21	0.011	0.230	4.67	OK
22	0.003	0.230	1.44	OK
23	0.009	0.230	3.98	OK
24	0.003	0.230	1.47	OK
25	0.011	0.230	4.87	OK
26	0.002	0.230	1.01	OK
27	0.009	0.230	3.79	OK
28	0.005	0.230	1.99	OK
29	0.006	0.230	2.61	OK
30	0.002	0.230	0.90	OK
31	0.012	0.230	5.14	OK
32	0.002	0.230	1.04	OK
33	0.009	0.230	3.98	OK



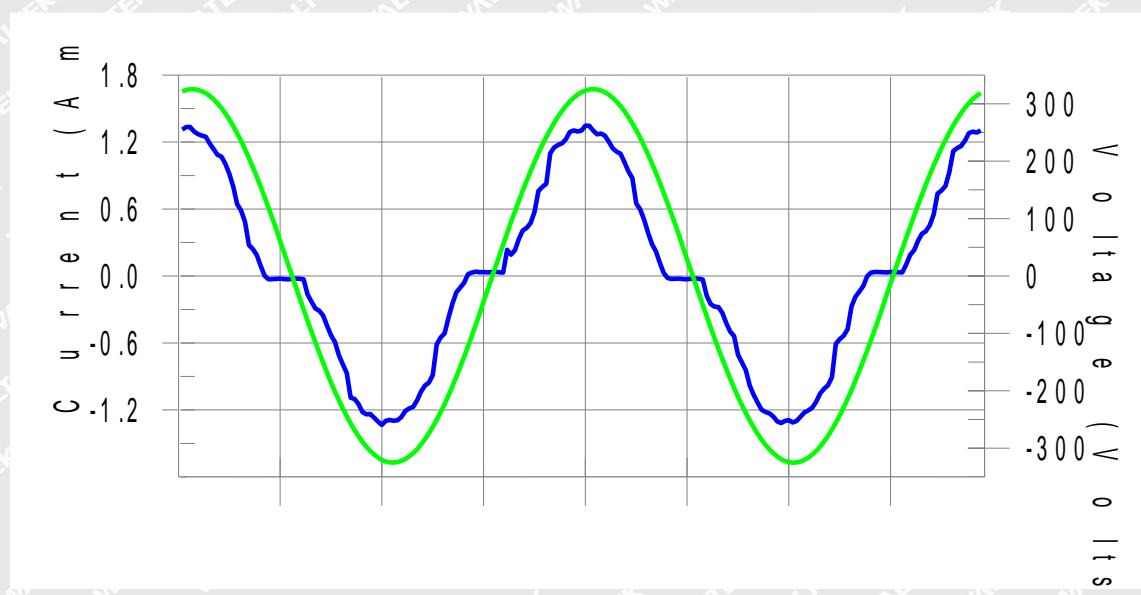
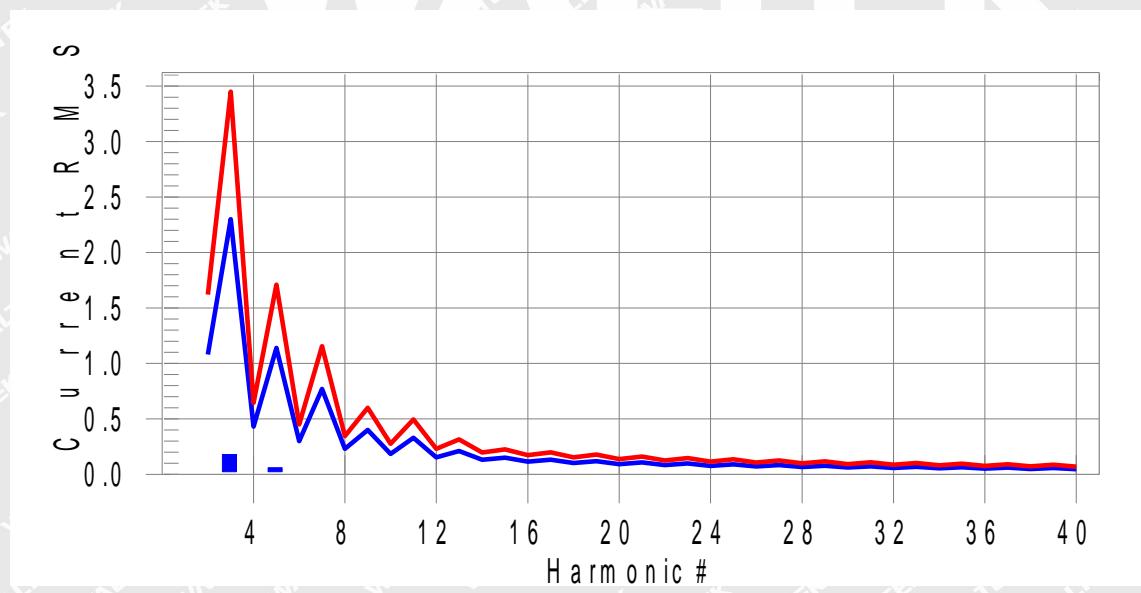
34		0.002	0.230	0.87	OK
35		0.010	0.230	4.18	OK
36		0.002	0.230	0.90	OK
37		0.009	0.230	3.88	OK
38		0.002	0.230	0.87	OK
39		0.006	0.230	2.54	OK
40		0.008	0.230	3.43	OK

# WALTEK



Test mode:

TM2

**Harmonics – Class-A per Ed. Ed. 5.0 (2018)(Run time)****Test Result: Pass****Source qualification: Normal****Current & voltage waveforms****Harmonics and Class A limit line****European Limits****Test result: Pass****Worst harmonics H27-8.1% of 150% limit, H27-11.8% of 100% limit**



### Current Test Result Summary (Run time)

**Test Result: Pass**

THC(A): 0.191

**Source qualification: Normal**

I-THD(%): 23.6

POHC(A): 0.018

POHC Limit(A): 0.251

**Highest parameter values during test:**

V_RMS (Volts):	230.14	Frequency(Hz):	50.00
I_Peak (Amps):	1.360	I_RMS (Amps):	0.833
I_Fund (Amps):	0.810	Crest Factor:	1.636
Power (Watts):	185.1	Power Factor:	0.966

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	0.180	3.450	5.2	Pass
4	0.001	0.430	N/A	0.001	0.645	N/A	Pass
5	0.059	1.140	5.2	0.059	1.710	3.5	Pass
6	0.000	0.300	N/A	0.000	0.450	N/A	Pass
7	0.019	0.770	2.4	0.019	1.155	1.6	Pass
8	0.000	0.230	N/A	0.000	0.345	N/A	Pass
9	0.010	0.400	2.4	0.010	0.600	1.6	Pass
10	0.000	0.184	N/A	0.000	0.276	N/A	Pass
11	0.012	0.330	3.5	0.012	0.495	2.4	Pass
12	0.000	0.153	N/A	0.000	0.230	N/A	Pass
13	0.001	0.210	N/A	0.001	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	4.3	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	0.006	0.107	5.7	0.006	0.161	4.0	Pass
22	0.000	0.084	N/A	0.000	0.125	N/A	Pass
23	0.006	0.098	6.1	0.006	0.147	4.2	Pass
24	0.000	0.077	N/A	0.000	0.115	N/A	Pass
25	0.004	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	0.010	0.083	11.8	0.010	0.125	8.1	Pass
28	0.000	0.066	N/A	0.000	0.099	N/A	Pass
29	0.007	0.078	8.5	0.007	0.116	6.2	Pass
30	0.000	0.061	N/A	0.000	0.092	N/A	Pass
31	0.005	0.073	7.2	0.005	0.109	5.0	Pass
32	0.000	0.058	N/A	0.000	0.086	N/A	Pass



33	<b>0.002</b>	<b>0.068</b>	N/A	<b>0.002</b>	<b>0.102</b>	N/A	Pass
34	<b>0.000</b>	<b>0.054</b>	N/A	<b>0.000</b>	<b>0.081</b>	N/A	Pass
35	<b>0.006</b>	<b>0.064</b>	9.6	<b>0.006</b>	<b>0.096</b>	6.5	Pass
36	<b>0.000</b>	<b>0.051</b>	N/A	<b>0.000</b>	<b>0.077</b>	N/A	Pass
37	<b>0.002</b>	<b>0.061</b>	N/A	<b>0.002</b>	<b>0.091</b>	N/A	Pass
38	<b>0.000</b>	<b>0.048</b>	N/A	<b>0.000</b>	<b>0.073</b>	N/A	Pass
39	<b>0.005</b>	<b>0.058</b>	9.3	<b>0.005</b>	<b>0.087</b>	6.3	Pass
40	<b>0.000</b>	<b>0.046</b>	N/A	<b>0.000</b>	<b>0.069</b>	N/A	Pass

A large, semi-transparent watermark-style logo where the word "WALTEK" is repeated in a staggered pattern across the page.



## Voltage Source Verification Data (Run time)

**Test Result: Pass**

**Source qualification: Normal**

**Highest parameter values during test:**

Voltage (Vrms):	230.14	Frequency(Hz):	50.00
I_Peak (Amps):	1.360	I_RMS (Amps):	0.833
I_Fund (Amps):	0.810	Crest Factor:	1.636
Power (Watts):	185.1	Power Factor:	0.966

Harm#	Harmonics V-rms	Limit V-rms	% of Limit	Status
2	0.063	0.460	13.64	OK
3	0.554	2.071	26.73	OK
4	0.066	0.460	14.24	OK
5	0.071	0.920	7.71	OK
6	0.032	0.460	7.01	OK
7	0.032	0.690	4.66	OK
8	0.017	0.460	3.78	OK
9	0.016	0.460	3.38	OK
10	0.010	0.460	2.24	OK
11	0.017	0.230	7.40	OK
12	0.008	0.230	3.67	OK
13	0.010	0.230	4.39	OK
14	0.004	0.230	1.94	OK
15	0.010	0.230	4.38	OK
16	0.008	0.230	3.52	OK
17	0.010	0.230	4.35	OK
18	0.009	0.230	4.05	OK
19	0.009	0.230	3.95	OK
20	0.015	0.230	6.53	OK
21	0.012	0.230	5.11	OK
22	0.003	0.230	1.12	OK
23	0.007	0.230	3.07	OK
24	0.003	0.230	1.09	OK
25	0.006	0.230	2.65	OK
26	0.002	0.230	0.71	OK
27	0.014	0.230	5.95	OK
28	0.005	0.230	1.97	OK
29	0.010	0.230	4.40	OK
30	0.002	0.230	0.99	OK
31	0.008	0.230	3.54	OK
32	0.002	0.230	0.68	OK
33	0.003	0.230	1.43	OK



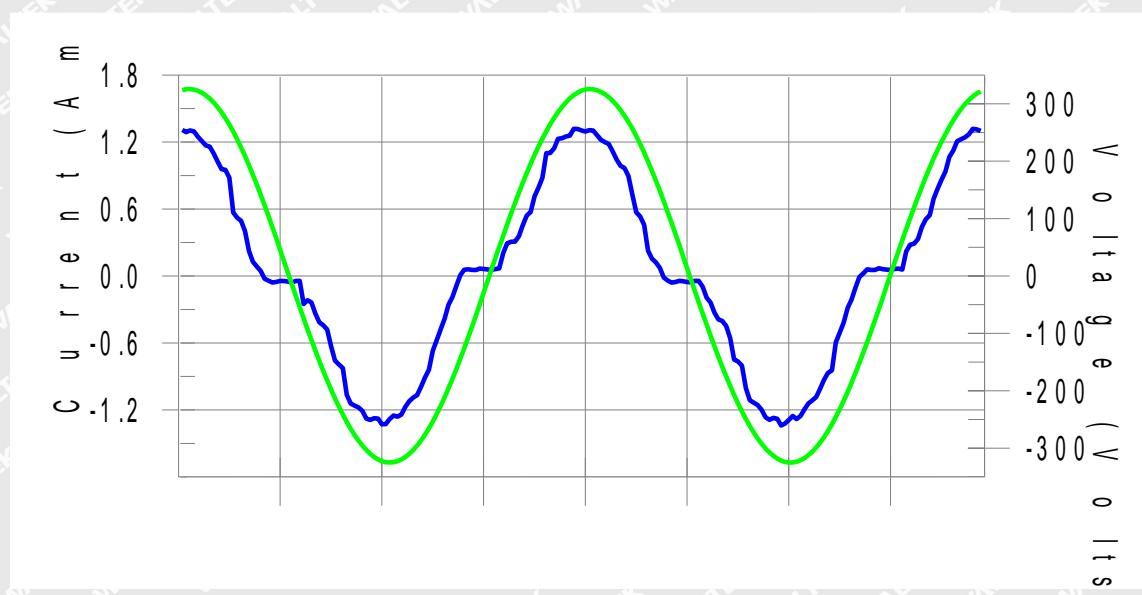
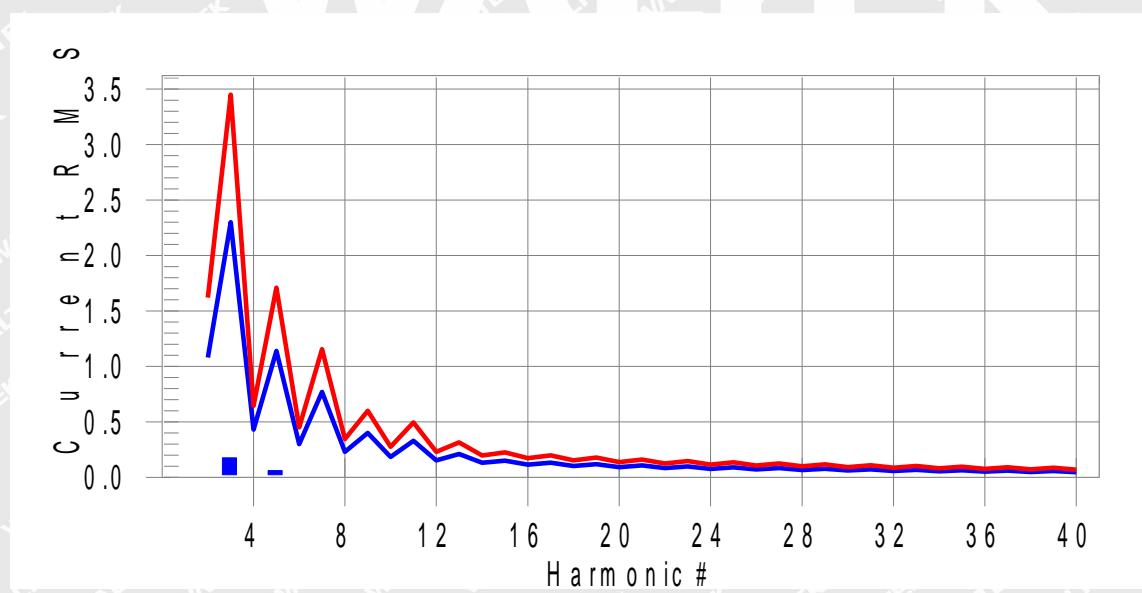
34		0.002	0.230	0.67	OK
35		0.010	0.230	4.40	OK
36		0.002	0.230	0.92	OK
37		0.003	0.230	1.15	OK
38		0.002	0.230	0.74	OK
39		0.011	0.230	4.87	OK
40		0.008	0.230	3.28	OK

# WALTEK



Test mode:

TM3

**Harmonics – Class-A per Ed. Ed. 5.0 (2018)(Run time)****Test Result: Pass****Source qualification: Normal****Current & voltage waveforms****Harmonics and Class A limit line****European Limits****Test result: Pass****Worst harmonics H29-8.5% of 150% limit, H29-12.4% of 100% limit**



### Current Test Result Summary (Run time)

Test Result: Pass

Source qualification: Normal

THC(A): 0.189

I-THD(%): 23.4

POHC(A): 0.018

POHC Limit(A): 0.251

**Highest parameter values during test:**

V_RMS (Volts):	230.14	Frequency(Hz):	50.00
I_Peak (Amps):	1.361	I_RMS (Amps):	0.833
I_Fund (Amps):	0.810	Crest Factor:	1.638
Power (Watts):	184.6	Power Factor:	0.964

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	0.178	3.450	5.1	Pass
4	0.001	0.430	N/A	0.001	0.645	N/A	Pass
5	0.061	1.140	5.4	0.062	1.710	3.6	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	2.6	0.011	0.600	1.8	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	0.002	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	0.009	0.132	6.6	0.009	0.198	4.4	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	0.007	0.107	6.6	0.007	0.161	4.6	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	0.006	0.090	6.4	0.006	0.135	4.5	Pass
26	0.000	0.071	N/A	0.000	0.107	N/A	Pass
27	0.007	0.083	8.1	0.007	0.125	5.7	Pass
28	0.000	0.066	N/A	0.001	0.099	N/A	Pass
29	0.010	0.078	12.4	0.010	0.116	8.5	Pass
30	0.000	0.061	N/A	0.000	0.092	N/A	Pass
31	0.002	0.073	N/A	0.003	0.109	N/A	Pass
32	0.000	0.058	N/A	0.001	0.086	N/A	Pass



33	<b>0.004</b>	<b>0.068</b>	<b>N/A</b>	<b>0.005</b>	<b>0.102</b>	<b>N/A</b>	<b>Pass</b>
34	<b>0.000</b>	<b>0.054</b>	<b>N/A</b>	<b>0.000</b>	<b>0.081</b>	<b>N/A</b>	<b>Pass</b>
35	<b>0.004</b>	<b>0.064</b>	<b>N/A</b>	<b>0.004</b>	<b>0.096</b>	<b>N/A</b>	<b>Pass</b>
36	<b>0.000</b>	<b>0.051</b>	<b>N/A</b>	<b>0.000</b>	<b>0.077</b>	<b>N/A</b>	<b>Pass</b>
37	<b>0.003</b>	<b>0.061</b>	<b>N/A</b>	<b>0.003</b>	<b>0.091</b>	<b>N/A</b>	<b>Pass</b>
38	<b>0.000</b>	<b>0.048</b>	<b>N/A</b>	<b>0.000</b>	<b>0.073</b>	<b>N/A</b>	<b>Pass</b>
39	<b>0.005</b>	<b>0.058</b>	<b>N/A</b>	<b>0.005</b>	<b>0.087</b>	<b>N/A</b>	<b>Pass</b>
40	<b>0.000</b>	<b>0.046</b>	<b>N/A</b>	<b>0.000</b>	<b>0.069</b>	<b>N/A</b>	<b>Pass</b>

A large, faint watermark-style logo for 'WALTEK' is centered on the page. The letters are bold and outlined in black.



## Voltage Source Verification Data (Run time)

**Test Result: Pass**

**Source qualification: Normal**

**Highest parameter values during test:**

Voltage (Vrms):	230.14	Frequency(Hz):	50.00
I_Peak (Amps):	1.361	I_RMS (Amps):	0.833
I_Fund (Amps):	0.810	Crest Factor:	1.638
Power (Watts):	184.6	Power Factor:	0.964

Harm#	Harmonics V-rms	Limit V-rms	% of Limit	Status
2	0.064	0.460	14.00	OK
3	0.557	2.071	26.92	OK
4	0.068	0.460	14.86	OK
5	0.073	0.920	7.93	OK
6	0.033	0.460	7.22	OK
7	0.035	0.690	5.01	OK
8	0.018	0.460	3.95	OK
9	0.018	0.460	3.85	OK
10	0.012	0.460	2.58	OK
11	0.021	0.230	8.99	OK
12	0.010	0.230	4.50	OK
13	0.011	0.230	4.85	OK
14	0.005	0.230	2.14	OK
15	0.013	0.230	5.57	OK
16	0.009	0.230	3.76	OK
17	0.013	0.230	5.50	OK
18	0.010	0.230	4.36	OK
19	0.011	0.230	4.72	OK
20	0.015	0.230	6.63	OK
21	0.013	0.230	5.67	OK
22	0.003	0.230	1.21	OK
23	0.006	0.230	2.57	OK
24	0.003	0.230	1.33	OK
25	0.010	0.230	4.22	OK
26	0.002	0.230	0.91	OK
27	0.013	0.230	5.68	OK
28	0.004	0.230	1.93	OK
29	0.014	0.230	6.12	OK
30	0.002	0.230	0.98	OK
31	0.006	0.230	2.57	OK
32	0.002	0.230	0.77	OK
33	0.008	0.230	3.57	OK



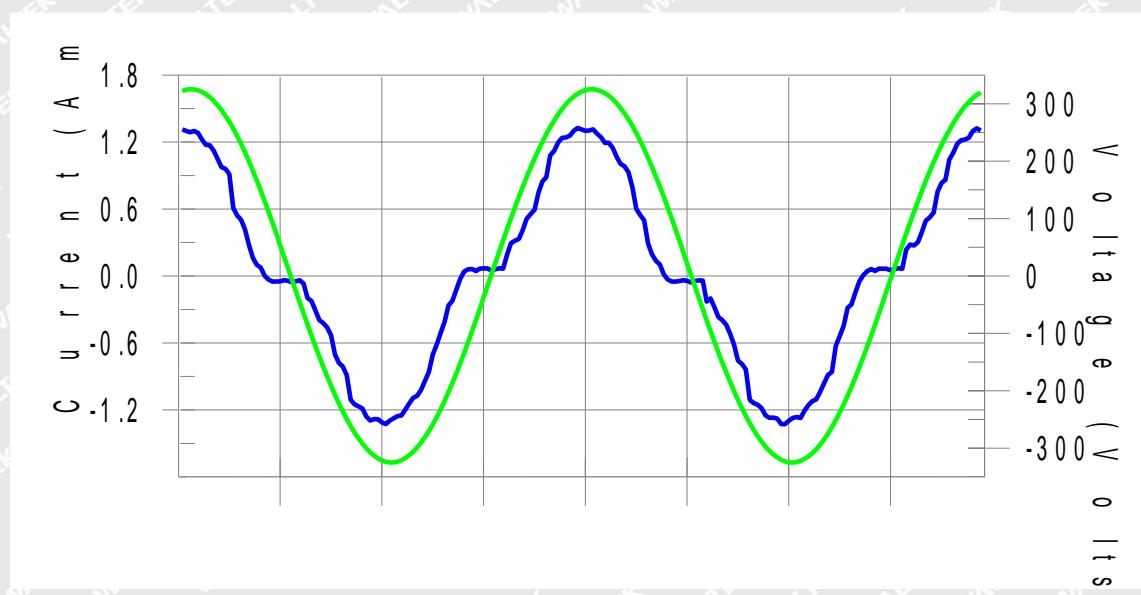
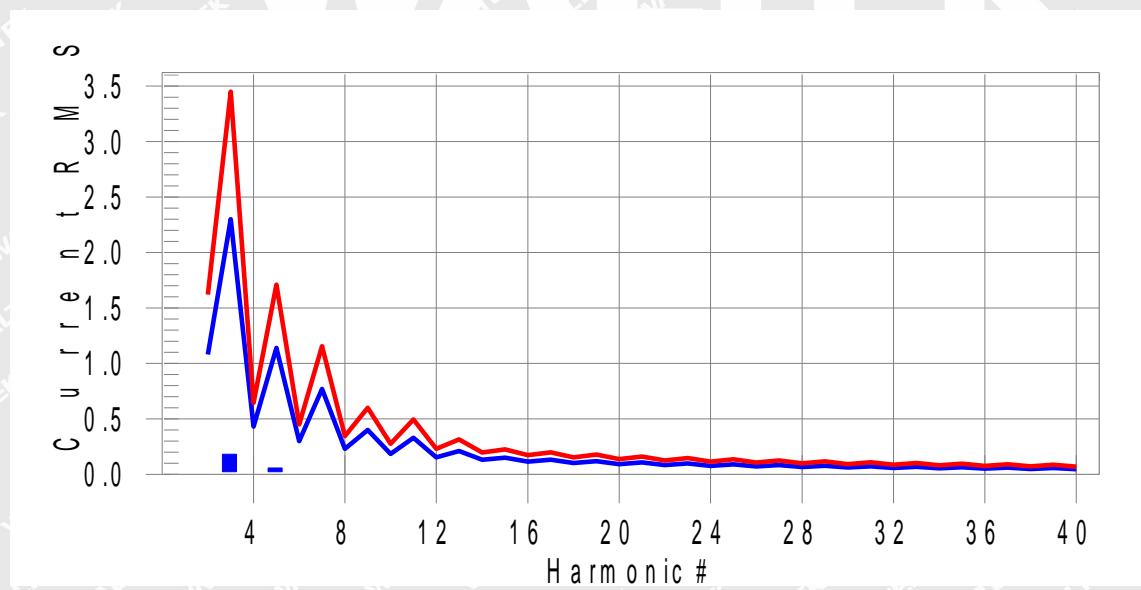
34		0.002	0.230	0.66	OK
35		0.009	0.230	3.80	OK
36		0.002	0.230	0.83	OK
37		0.007	0.230	2.92	OK
38		0.002	0.230	0.74	OK
39		0.011	0.230	4.82	OK
40		0.008	0.230	3.29	OK

# WALTEK



Test mode:

TM4

**Harmonics – Class-A per Ed. Ed. 5.0 (2018)(Run time)****Test Result: Pass****Source qualification: Normal****Current & voltage waveforms****Harmonics and Class A limit line****European Limits****Test result: Pass****Worst harmonics H27-8.2% of 150% limit, H27-12.2% of 100% limit**



### Current Test Result Summary (Run time)

Test Result: Pass

Source qualification: Normal

THC(A): 0.192

I-THD(%): 23.8

POHC(A): 0.018

POHC Limit(A): 0.251

**Highest parameter values during test:**

V_RMS (Volts):	230.14	Frequency(Hz):	50.00
I_Peak (Amps):	1.360	I_RMS (Amps):	0.829
I_Fund (Amps):	0.806	Crest Factor:	1.646
Power (Watts):	183.5	Power Factor:	0.963

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	0.001	0.430	N/A	0.001	0.645	N/A	Pass
5	0.057	1.140	5.0	0.058	1.710	3.4	Pass
6	0.000	0.300	N/A	0.000	0.450	N/A	Pass
7	0.019	0.770	2.5	0.020	1.155	1.7	Pass
8	0.000	0.230	N/A	0.000	0.345	N/A	Pass
9	0.009	0.400	2.3	0.009	0.600	1.6	Pass
10	0.000	0.184	N/A	0.000	0.276	N/A	Pass
11	0.012	0.330	3.7	0.012	0.495	2.5	Pass
12	0.000	0.153	N/A	0.000	0.230	N/A	Pass
13	0.001	0.210	N/A	0.001	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	6.2	0.008	0.198	4.2	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	0.005	0.107	4.8	0.005	0.161	3.3	Pass
22	0.000	0.084	N/A	0.000	0.125	N/A	Pass
23	0.005	0.098	5.5	0.005	0.147	3.7	Pass
24	0.000	0.077	N/A	0.000	0.115	N/A	Pass
25	0.002	0.090	N/A	0.002	0.135	N/A	Pass
26	0.000	0.071	N/A	0.000	0.107	N/A	Pass
27	0.010	0.083	12.2	0.010	0.125	8.2	Pass
28	0.001	0.066	N/A	0.001	0.099	N/A	Pass
29	0.005	0.078	N/A	0.005	0.116	N/A	Pass
30	0.000	0.061	N/A	0.000	0.092	N/A	Pass
31	0.006	0.073	7.9	0.006	0.109	5.4	Pass
32	0.000	0.058	N/A	0.001	0.086	N/A	Pass



33	<b>0.002</b>	<b>0.068</b>	N/A	<b>0.002</b>	<b>0.102</b>	N/A	Pass
34	<b>0.000</b>	<b>0.054</b>	N/A	<b>0.000</b>	<b>0.081</b>	N/A	Pass
35	<b>0.007</b>	<b>0.064</b>	10.3	<b>0.007</b>	<b>0.096</b>	6.9	Pass
36	<b>0.000</b>	<b>0.051</b>	N/A	<b>0.000</b>	<b>0.077</b>	N/A	Pass
37	<b>0.002</b>	<b>0.061</b>	N/A	<b>0.003</b>	<b>0.091</b>	N/A	Pass
38	<b>0.000</b>	<b>0.048</b>	N/A	<b>0.000</b>	<b>0.073</b>	N/A	Pass
39	<b>0.006</b>	<b>0.058</b>	10.8	<b>0.006</b>	<b>0.087</b>	7.3	Pass
40	<b>0.000</b>	<b>0.046</b>	N/A	<b>0.000</b>	<b>0.069</b>	N/A	Pass

# WALTEK



## Voltage Source Verification Data (Run time)

**Test Result: Pass**

**Source qualification: Normal**

**Highest parameter values during test:**

Voltage (Vrms):	230.14	Frequency(Hz):	50.00
I_Peak (Amps):	1.360	I_RMS (Amps):	0.829
I_Fund (Amps):	0.806	Crest Factor:	1.646
Power (Watts):	183.5	Power Factor:	0.963

Harm#	Harmonics V-rms	Limit V-rms	% of Limit	Status
2	0.061	0.460	13.15	OK
3	0.556	2.071	26.83	OK
4	0.065	0.460	14.23	OK
5	0.069	0.920	7.54	OK
6	0.032	0.460	6.96	OK
7	0.033	0.690	4.76	OK
8	0.017	0.460	3.66	OK
9	0.016	0.460	3.43	OK
10	0.011	0.460	2.32	OK
11	0.018	0.230	7.63	OK
12	0.009	0.230	3.81	OK
13	0.010	0.230	4.33	OK
14	0.005	0.230	2.02	OK
15	0.010	0.230	4.48	OK
16	0.008	0.230	3.64	OK
17	0.011	0.230	4.77	OK
18	0.010	0.230	4.19	OK
19	0.009	0.230	3.79	OK
20	0.015	0.230	6.73	OK
21	0.011	0.230	4.63	OK
22	0.003	0.230	1.17	OK
23	0.007	0.230	3.00	OK
24	0.003	0.230	1.09	OK
25	0.005	0.230	2.13	OK
26	0.002	0.230	0.67	OK
27	0.015	0.230	6.33	OK
28	0.005	0.230	2.05	OK
29	0.008	0.230	3.59	OK
30	0.002	0.230	0.94	OK
31	0.009	0.230	3.78	OK
32	0.002	0.230	0.66	OK
33	0.003	0.230	1.23	OK



34		0.001	0.230	0.57	OK
35		0.011	0.230	4.69	OK
36		0.002	0.230	0.89	OK
37		0.003	0.230	1.32	OK
38		0.002	0.230	0.67	OK
39		0.013	0.230	5.44	OK
40		0.007	0.230	3.19	OK

# WALTEK



## 6. Voltage Fluctuation Flicker

### 6.1 Test Procedure

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

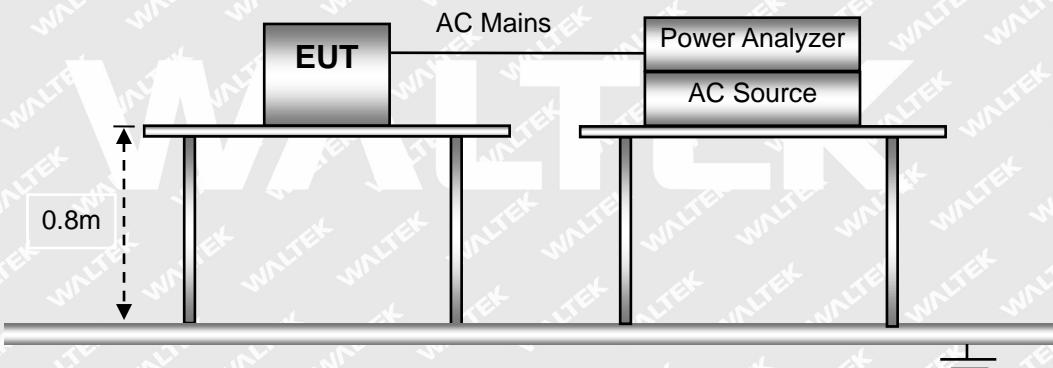
### 6.2 Test Standards

EN61000-3-3, Limit: Clause 5.

### Environmental Conditions

Temperature:	23.5 °C
Relative Humidity:	54 %
ATM Pressure:	1022 mbar

### 6.4 Basic Test Setup Block Diagram



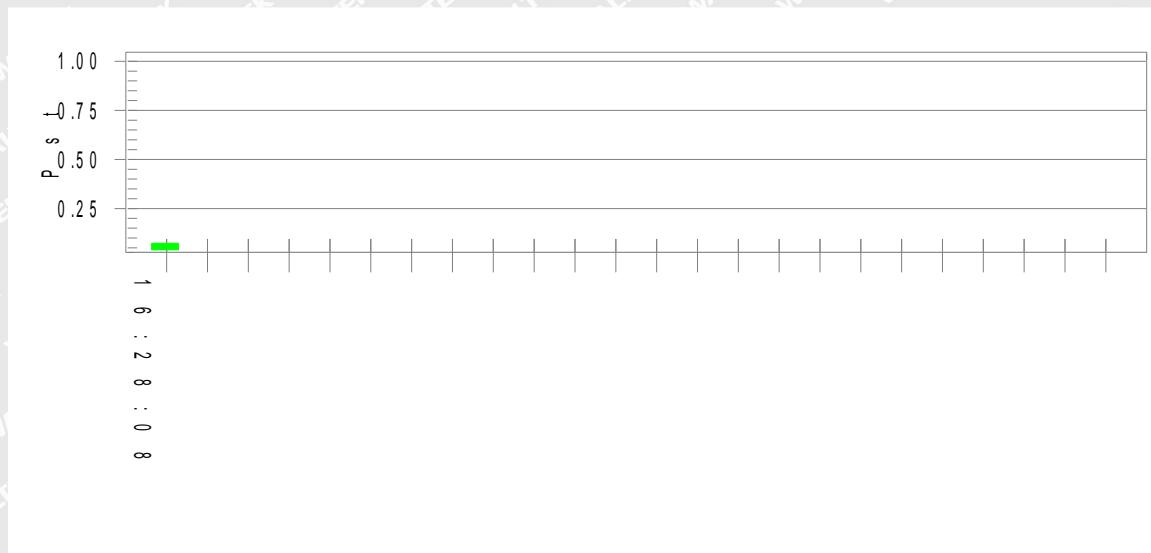
### 6.5 Voltage Fluctuation and Flicker Test Data



STR18078316E

Test mode:

TM1

Pst and limit lineEuropean LimitsPlt 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:

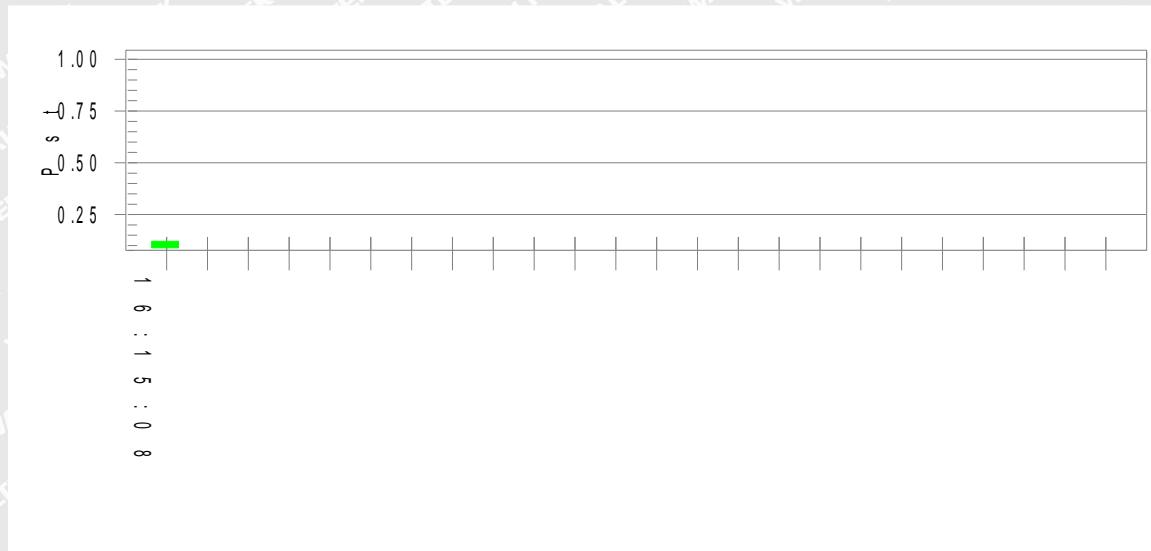
TM2

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



Test mode:

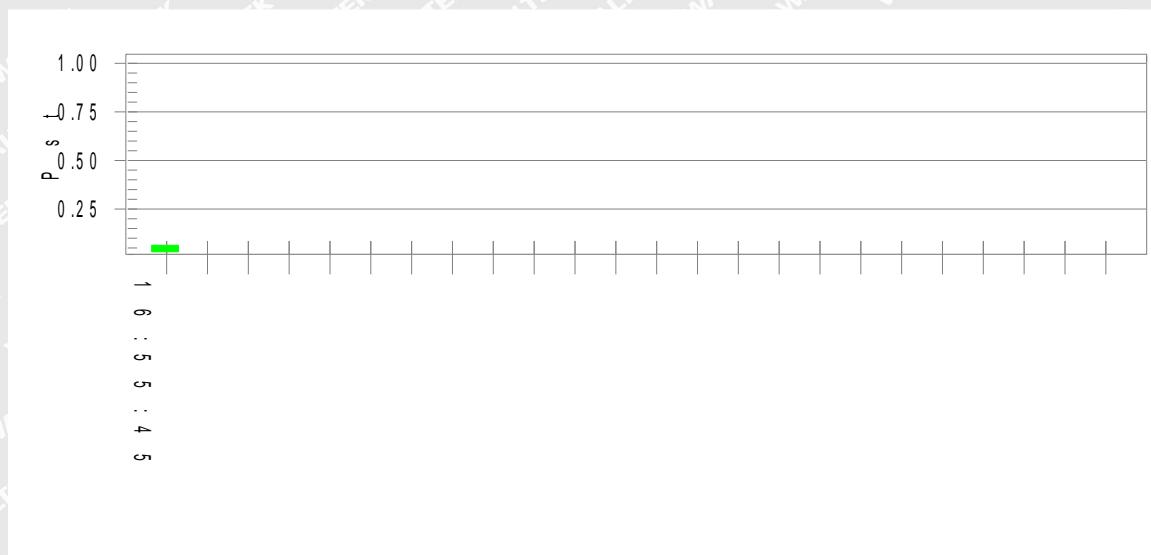
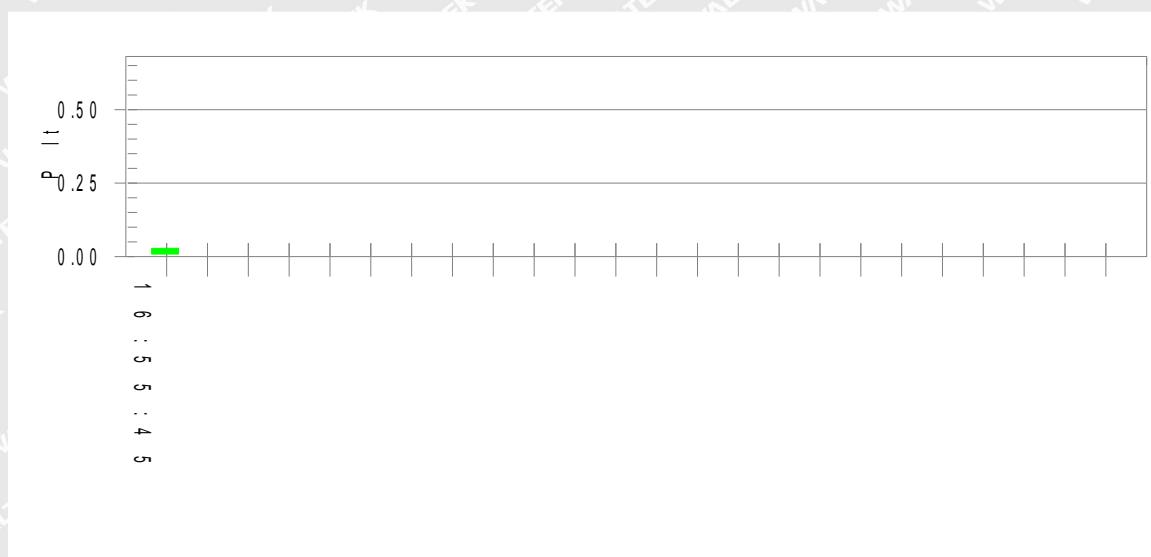
TM3

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



Test mode:

TM4

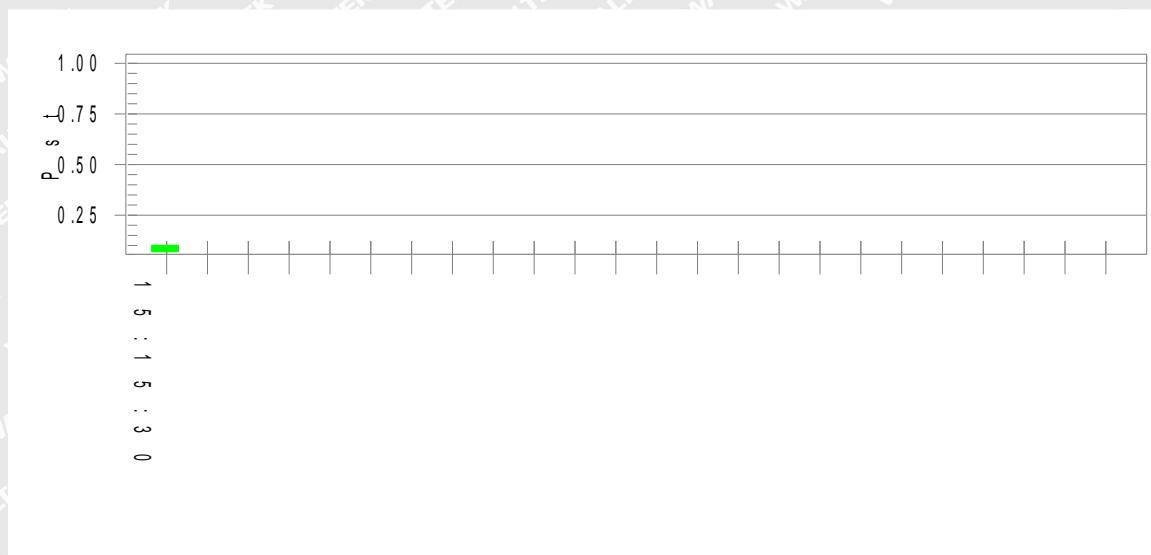
Pst and limit lineEuropean LimitsPlt and limit line**Parameter values recorded during the test:****Vrms at the end of test (Volt): 229.70**

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 lineEuropean LimitsPlt and limit line**Parameter values recorded during the test:****Vrms at the end of test (Volt): 229.62**

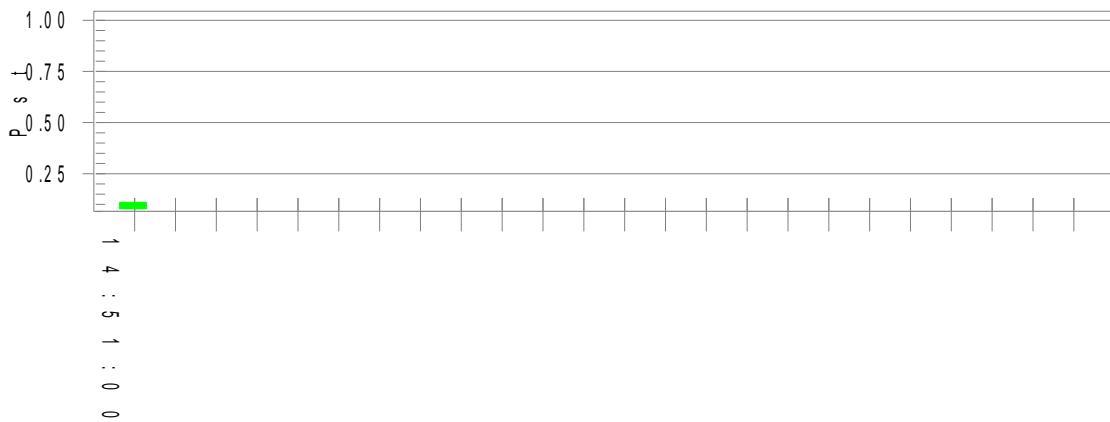
T-max (mS):	0
Highest dc (%):	0.00
Highest dmax (%):	0.41
Highest Pst (10 min. period):	0.102
Highest Plt (2 hr. period):	0.044

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



Test mode:

TM6

Pst and limit lineEuropean LimitsPlt and limit line

## Parameter values recorded during the test:

Vrms at the end of test (Volt): 229.61

T-max (mS): 0

Highest dc (%): 0.00

Highest dmax (%): -1.80

Highest Pst (10 min. period): 0.111

Highest Plt (2 hr. period): 0.048

Test limit (mS): 500.0 Pass

Test limit (%): 3.30 Pass

Test limit (%): 4.00 Pass

Test limit: 1.000 Pass

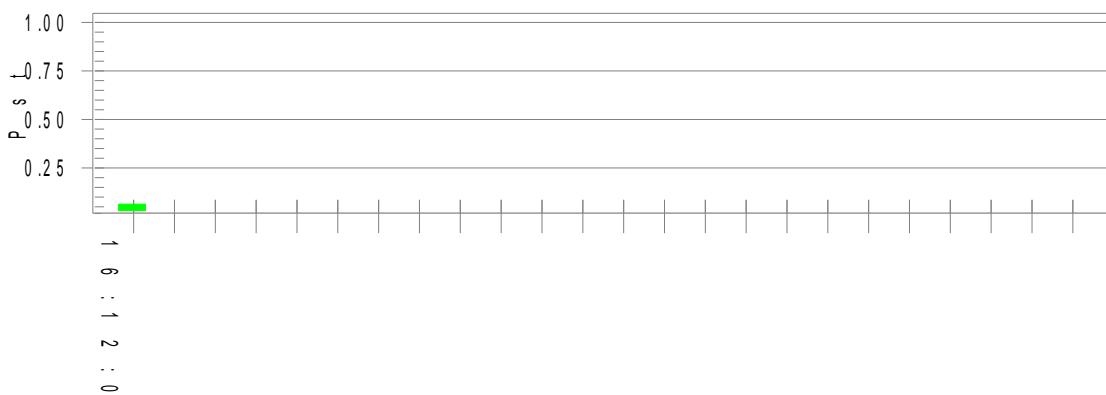
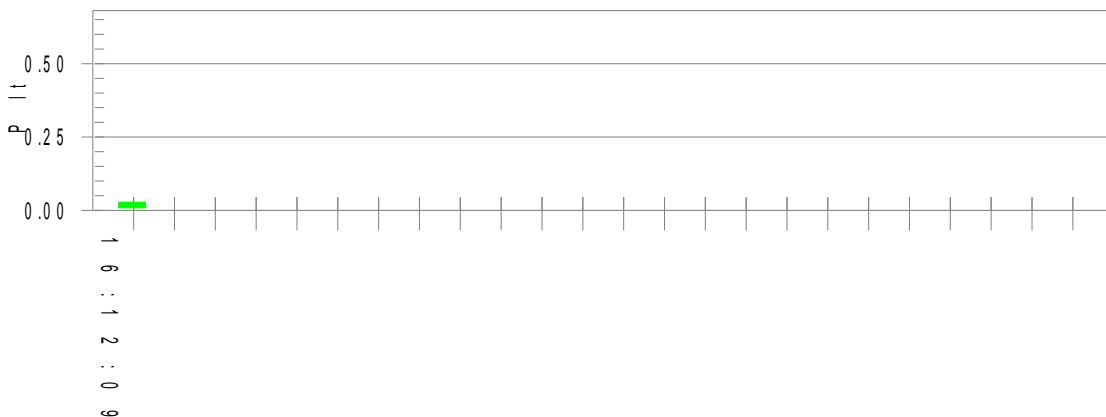
Test limit: 0.650 Pass



WTX21X06053486E-1

Test mode:

TM1

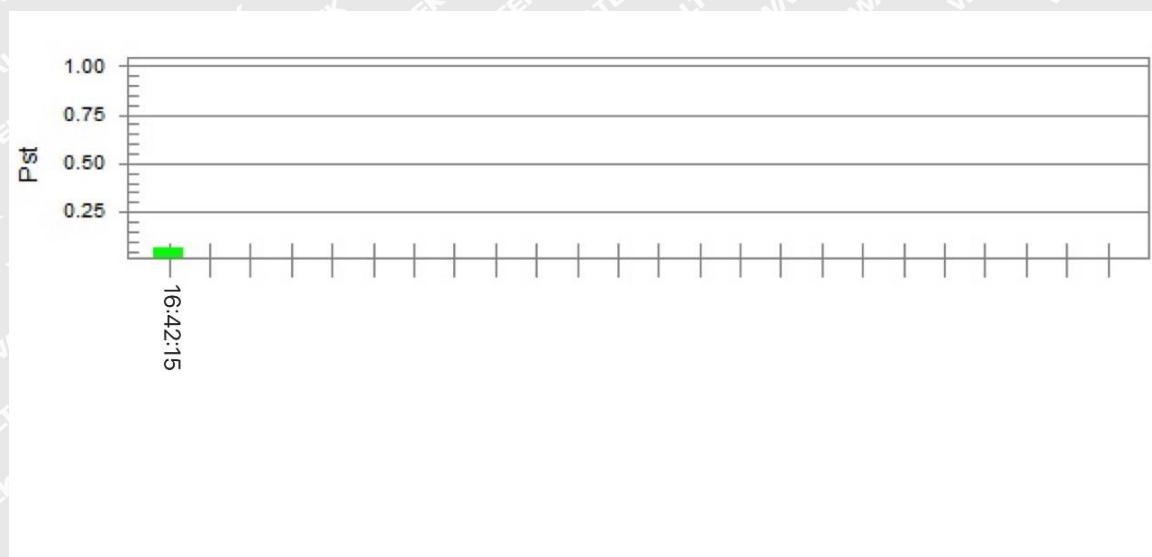
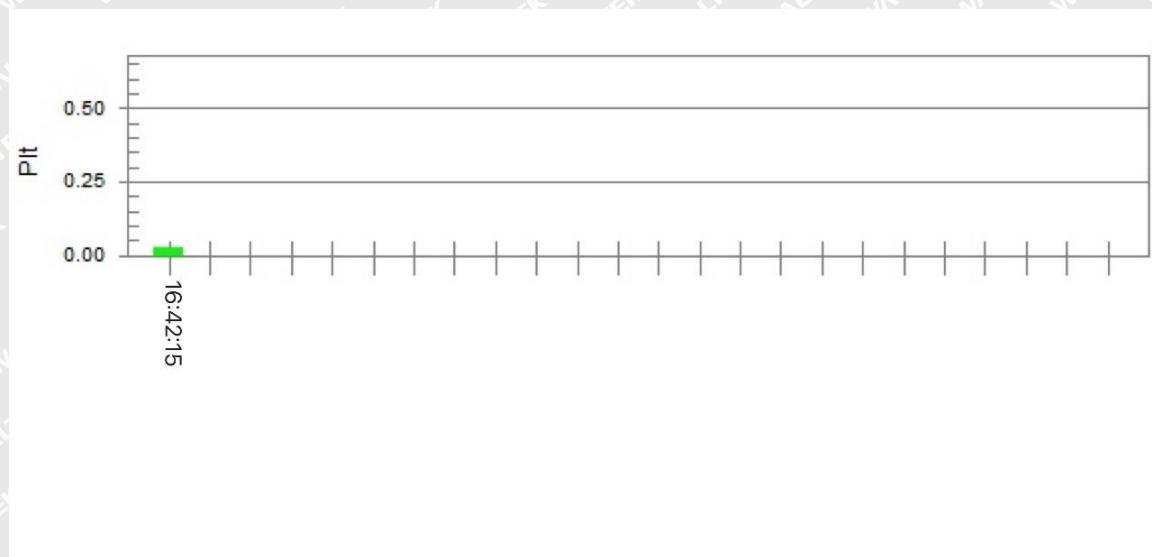
**Flicker Test Summary per EN/IEC61000-3-3 Ed. 3.0 (2013) (Run time)****Test Result: Pass****Status: Test Completed****Pst and limit line****European Limits****Plt and limit line****Parameter values recorded during the test:****Vrms at the end of test (Volt): 229.87**

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



Test mode:

TM2

**Flicker Test Summary per EN/IEC61000-3-3 Ed. 3.0 (2013) (Run time)****Test Result: Pass****Status: Test Completed****Pst and limit line****European Limits****Plt and limit line****Parameter values recorded during the test:**

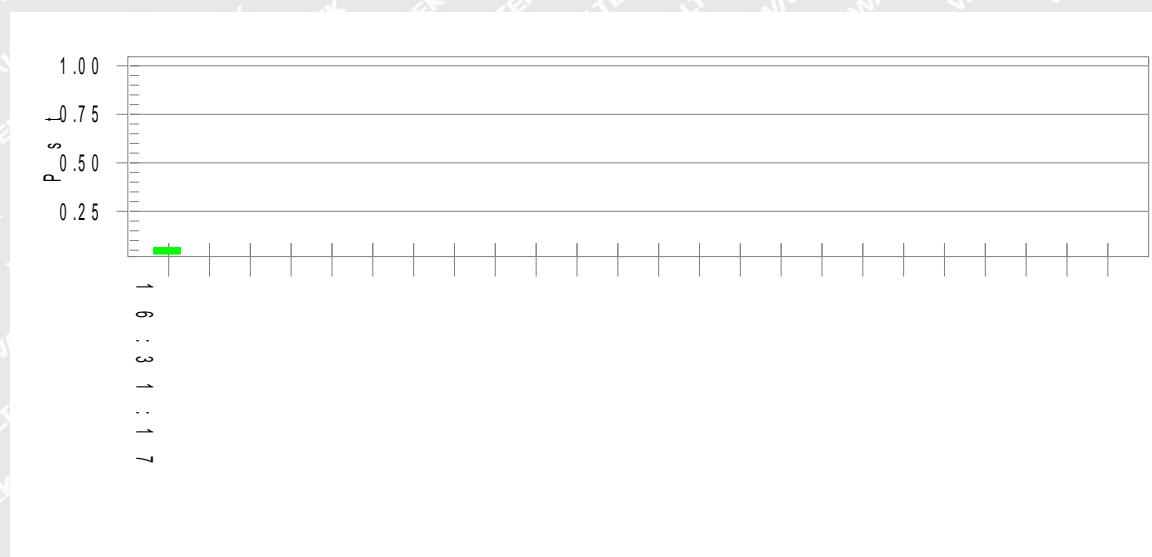
Vrms at the end of test (Volt): 229.81

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:

TM3

**Flicker Test Summary per EN/IEC61000-3-3 Ed. 3.0 (2013) (Run time)****Test Result: Pass****Status: Test Completed****Pst<sub>1</sub> and limit line****European Limits****Plt and limit line****Parameter values recorded during the test:**

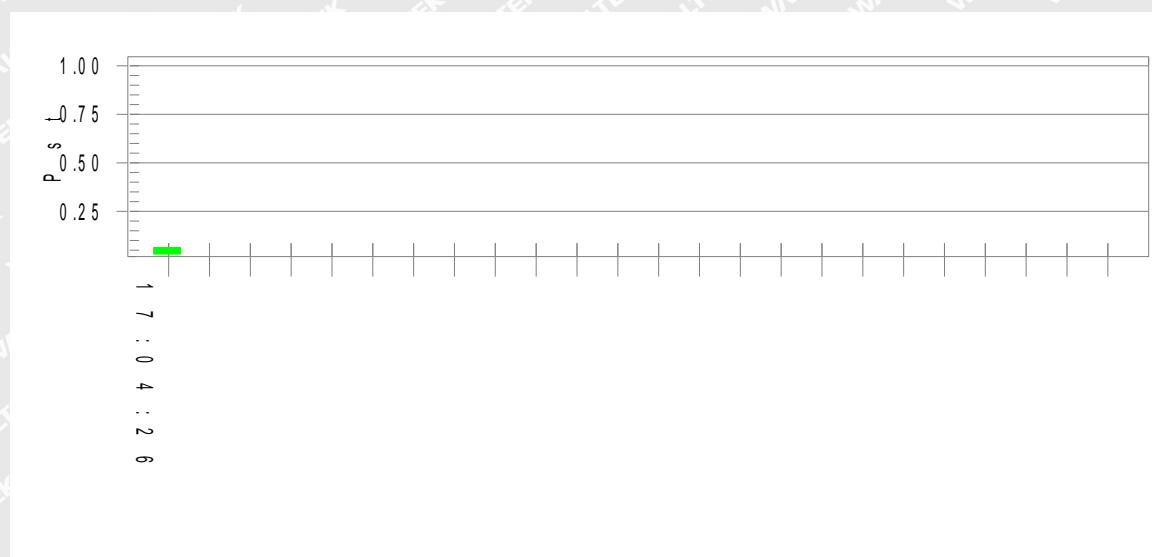
Vrms at the end of test (Volt): 229.81

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:

TM4

**Flicker Test Summary per EN/IEC61000-3-3 Ed. 3.0 (2013) (Run time)****Test Result: Pass****Status: Test Completed****Pst<sub>i</sub> and limit line****European Limits****Plt and limit line****Parameter values recorded during the test:****Vrms at the end of test (Volt): 229.82**

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



## 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 (STR18078316E)

Table 1: Electrostatic Discharge Immunity (Air Discharge)

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

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

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

Test Result: Pass



EN 55035 (WTX21X06053486E-1)

Table 1: Electrostatic Discharge Immunity (Air Discharge)

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

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

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



## 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 (STR18078316E)

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 55035 (WTX21X06053486E-1)

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

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:	23.5 °C
Relative Humidity:	54 %
ATM Pressure:	1011 mbar

### 9.2 Electrical Fast Transients Test Data

EN 55035 (STR18078316E)

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	L1	/	/	A	A	/	/	/	/
	L2	/	/	A	A	/	/	/	/
	PE	/	/	A	A	/	/	/	/
	L1+L2	/	/	A	A	/	/	/	/
	L1 + PE	/	/	A	A	/	/	/	/
	L2 + PE	/	/	A	A	/	/	/	/
Power Port of EUT	L1+L2+PE	/	/	A	A	/	/	/	/
	Signal ports	/	/	/	/	/	/	/	/



EN 55035 (WTX21X06053486E-1)

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	/	/	/	/	/	/	/	/	/

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:	23.5 °C
Relative Humidity:	54 %
ATM Pressure:	1011 mbar

### 10.2 Surge Test Data

EN 55035 (**STR18078316E**)

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

EN 55035 (**WTX21X06053486E-1**)

Test Voltage (kV)	Poll	Path	Pass	Fail
0.5kV	±	L-N	/	/
1kV	±	L-N	A	/
2kV	±	L-PE, N-PE	A	/
4kV	±	L-N, L-PE, N-PE	/	/

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:	23.5 °C
Relative Humidity:	54 %
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 (STR18078316E)

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 55035 (WTX21X06053486E-1)

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

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:	23.5 °C
Relative Humidity:	54 %
ATM Pressure:	1011 mbar

### 12.2 Power-Frequency Magnetic Field Test Data

EN 55035 (STR18078316E)

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 55035 (WTX21X06053486E-1)

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	/		/	/

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:	23.5 °C
Relative Humidity:	54 %
ATM Pressure:	1011 mbar

### 13.2 Voltage Dips And Interruptions Test Data

U: Voltage dips in % U<sub>T</sub> (U<sub>T</sub> is rated voltage for the EUT)

T: Test duration

#### EN 55035 (STR18078316E)

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 55035 (WTX21X06053486E-1)

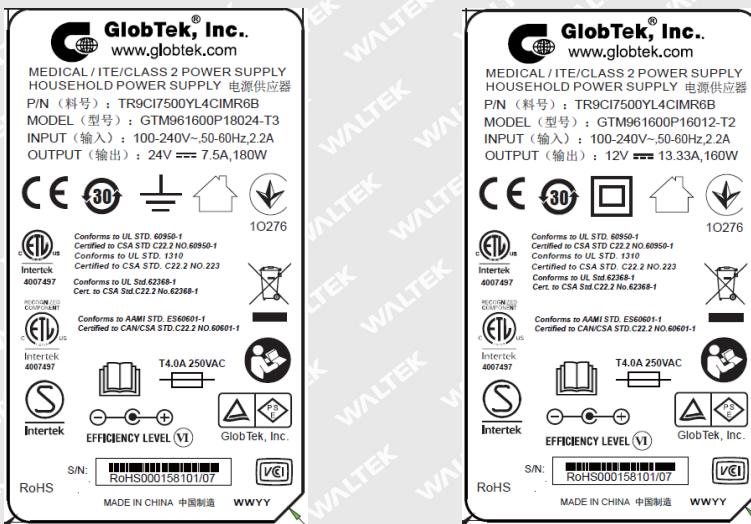
Level	U	T	Phase Angle	N	Pass	Fail
1	100%	10ms	0/90/180/270	3	B	/
2	30%	500ms	0/90/180/270	3	B	/
3	100%	5000ms	0/90/180/270	3	B	/

Test Result: Pass



## EXHIBIT 1 - PRODUCT LABELING

### Proposed CE Label Format



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





## EXHIBIT 2 - EUT PHOTOGRAPHS

GTM961800P18054-T2\* (STR18078316E)

EUT View 1



EUT View 2





**EUT View 3**



**EUT View 4**





**EUT View 5**



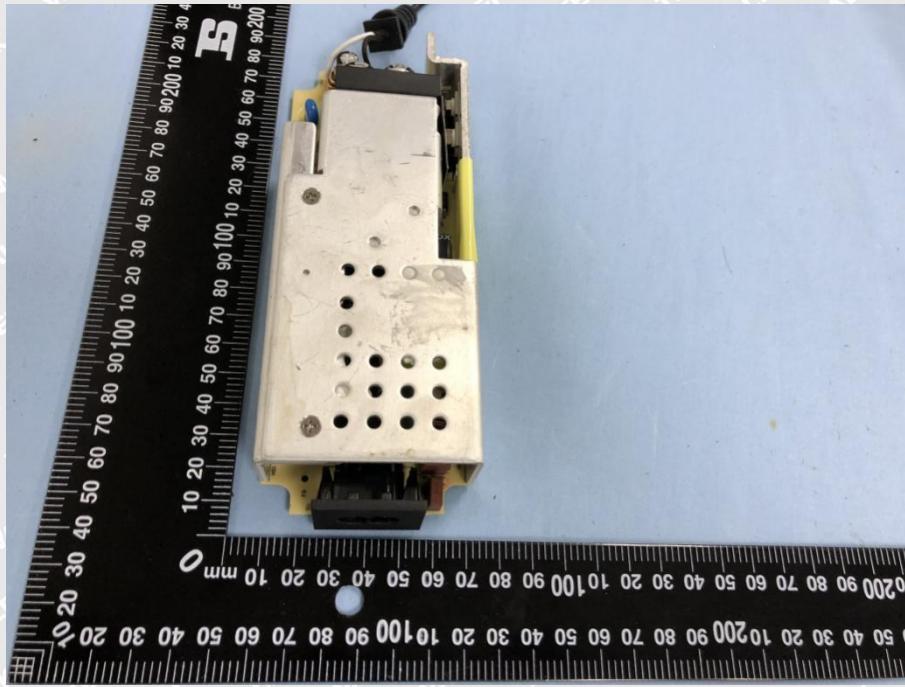
**WALTEK**



### EUT Housing and Board View 1



### Solder Board-Component View 2





### Solder Board-Component View 3



**WALTEK**



**GTM961800P18054-T3\* (STR18078316E)**

**EUT View 1**



**EUT View 2**





**EUT View 3**



**EUT View 4**

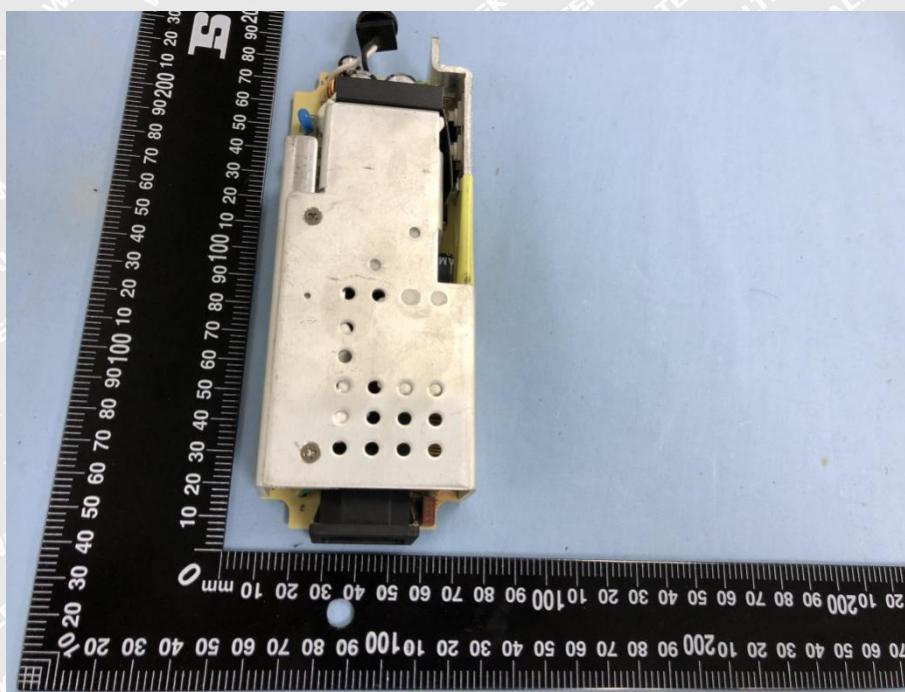




**EUT View 5**

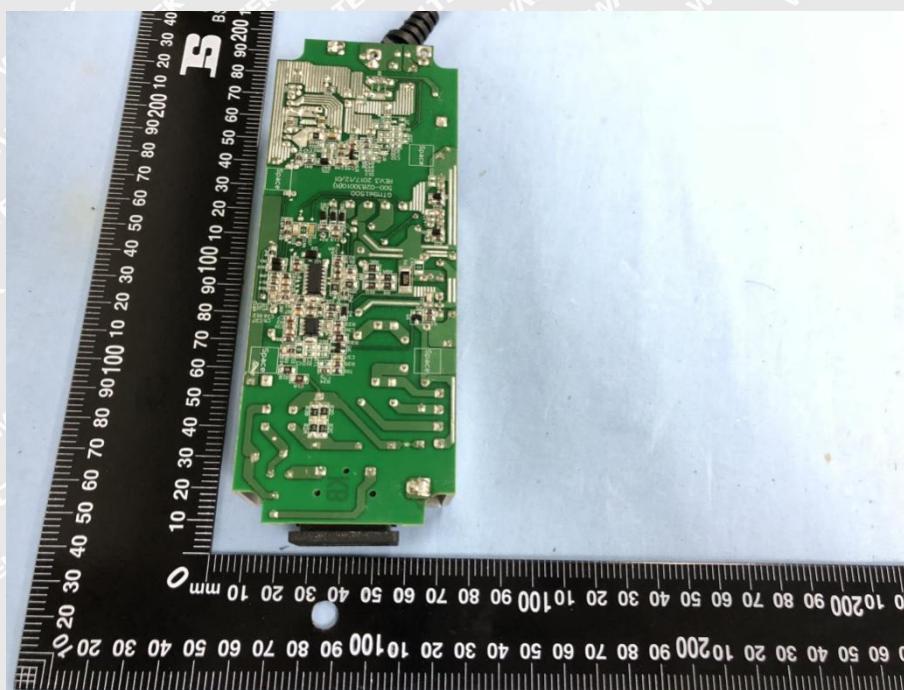


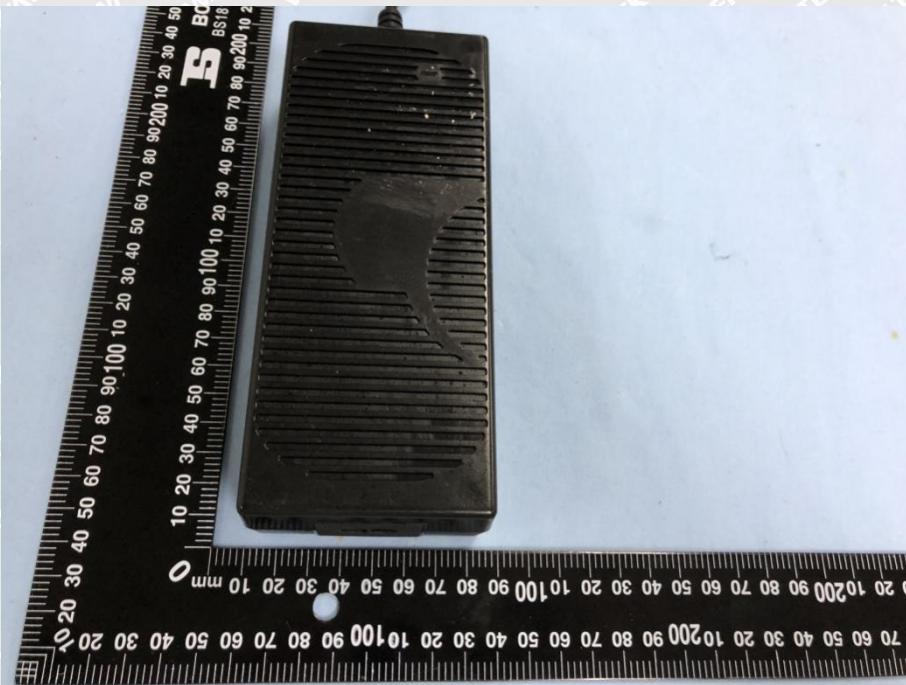
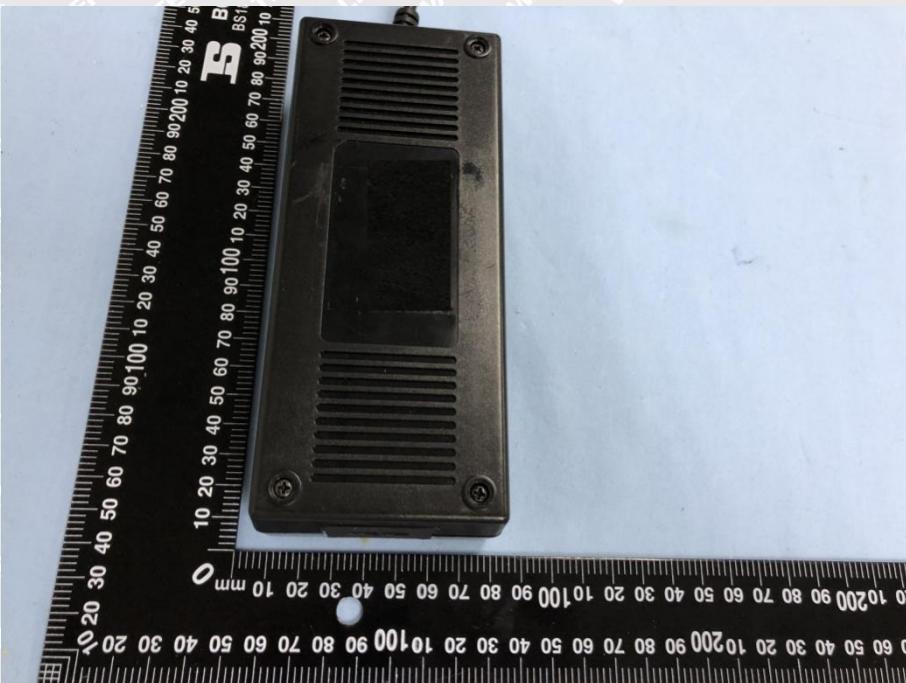
**WALTEK**

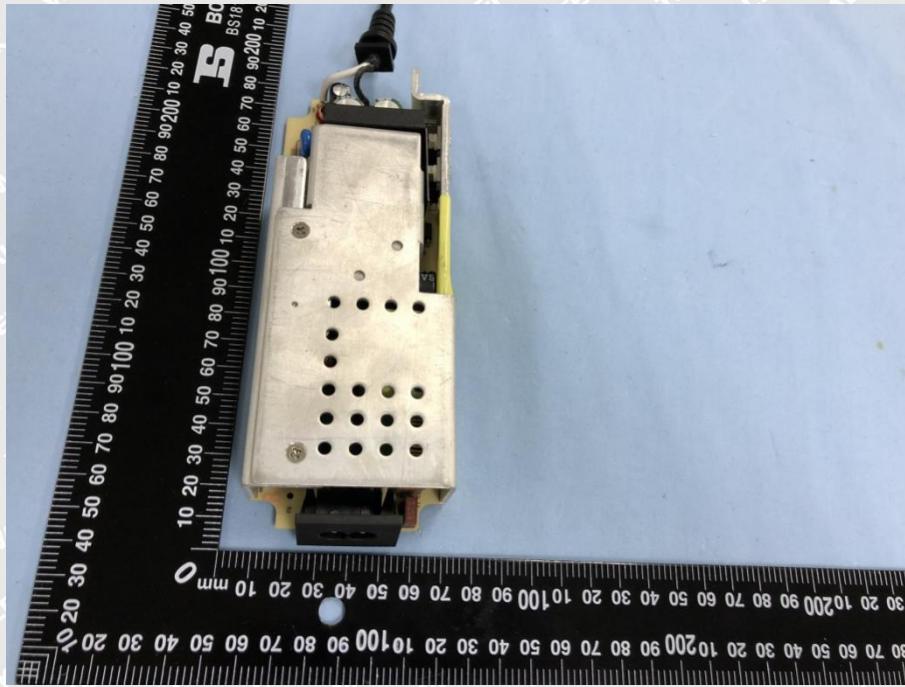
**EUT Housing and Board View 1****Solder Board-Component View 2**



### Solder Board-Component View 3

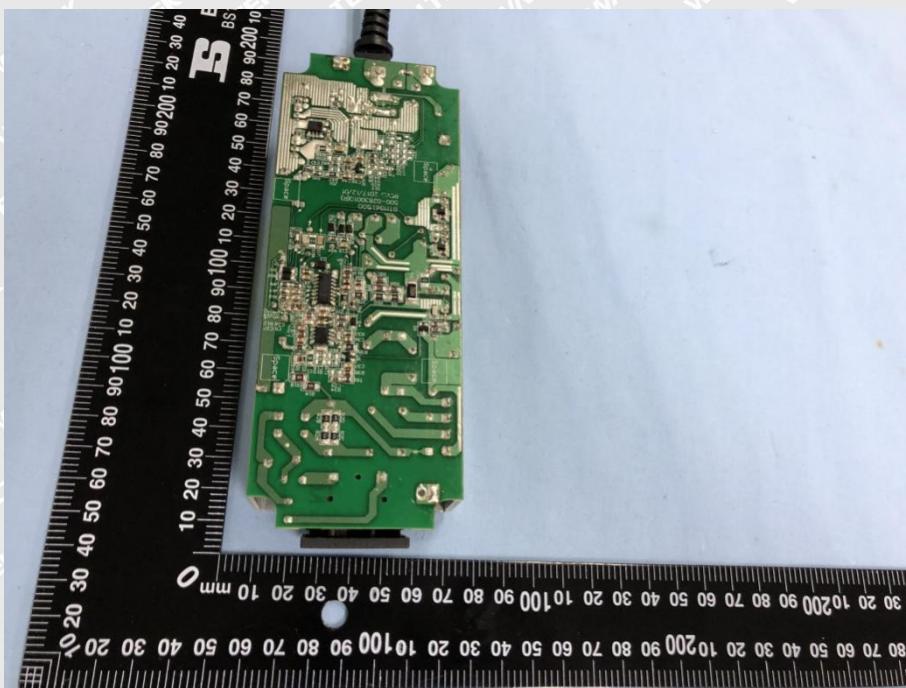


**Adding Model:****GTM961600P16012-T2\* (STR18078316E)****EUT View 1****EUT View 2**

**EUT Housing and Board View 1****Solder Board-Component View 2**



### Solder Board-Component View 3



**WALTEK**

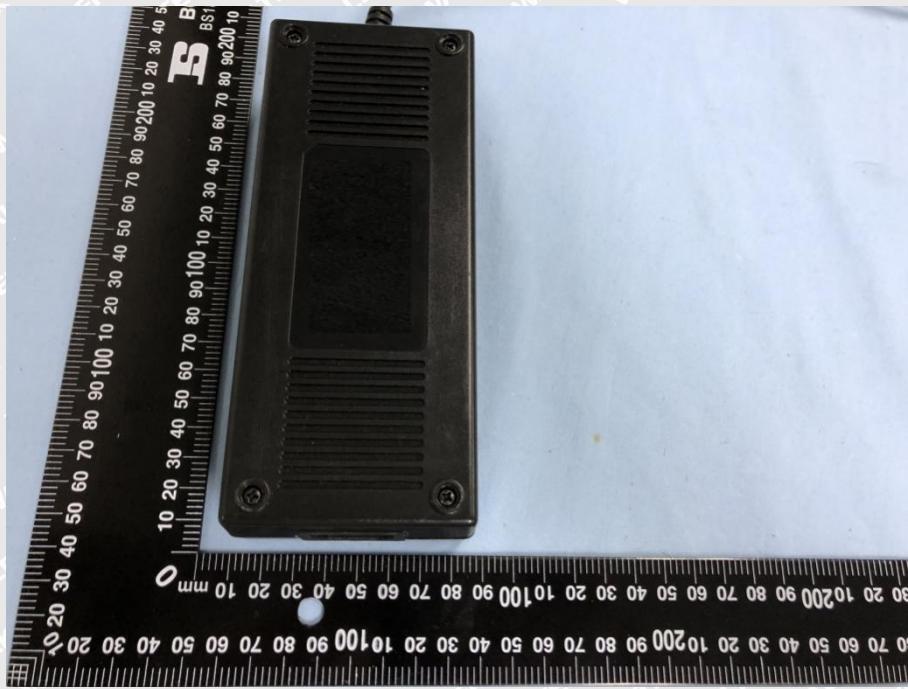


GTM961600P16012-T3\* (STR18078316E)

EUT View 1



EUT View 2

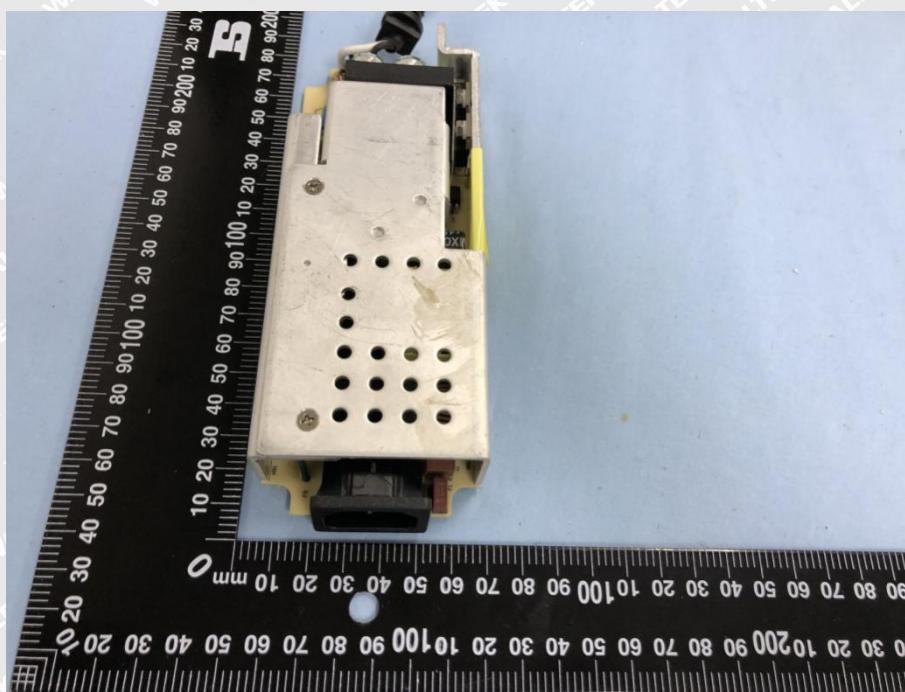




### EUT Housing and Board View 1

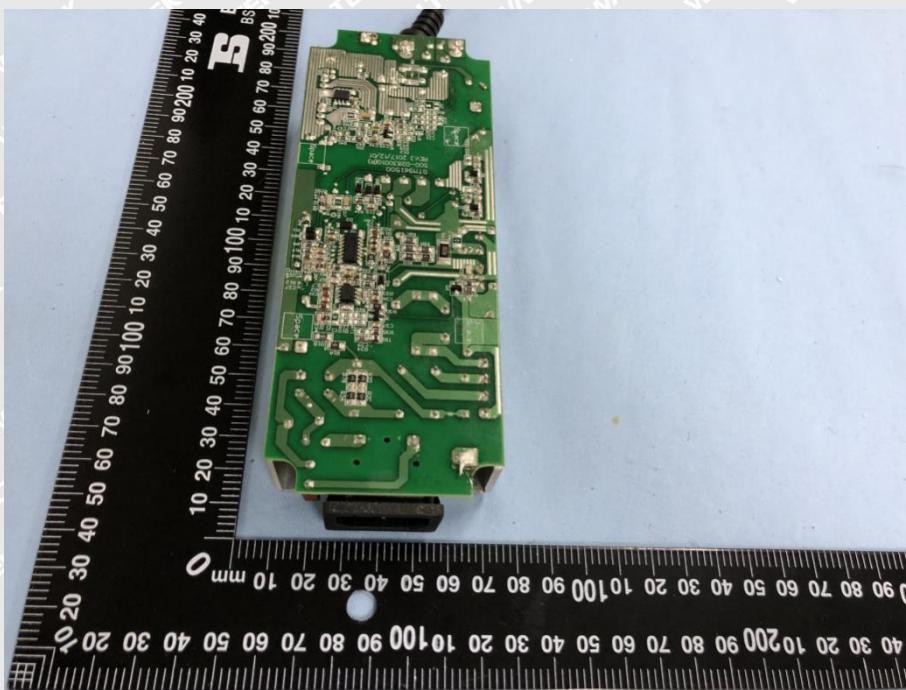


### Solder Board-Component View 2





### Solder Board-Component View 3



**WALTEK**

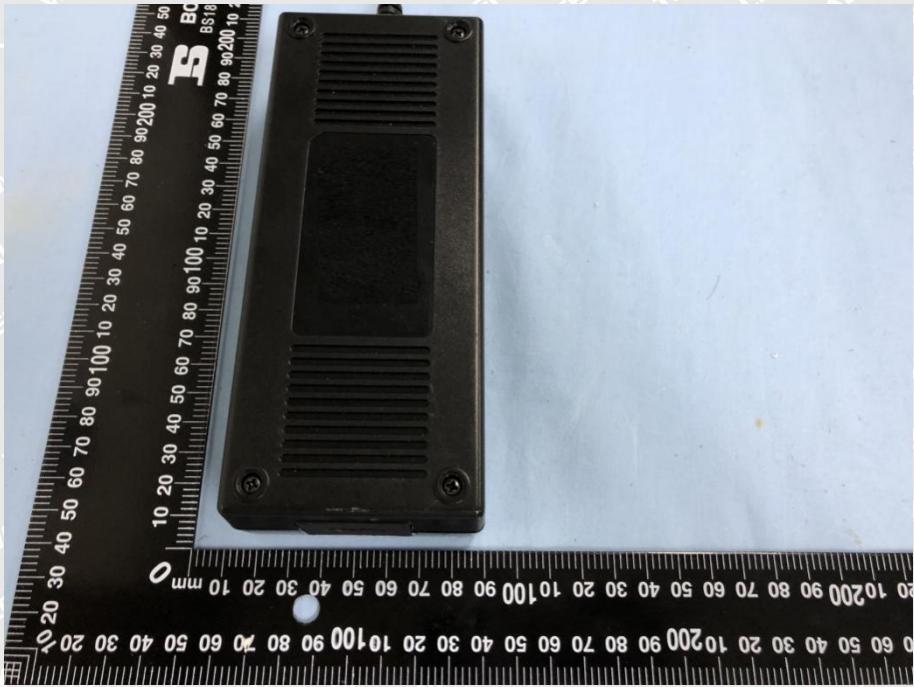


**GTM961800P18024-T2\* (STR18078316E)**

**EUT View 1**



**EUT View 2**

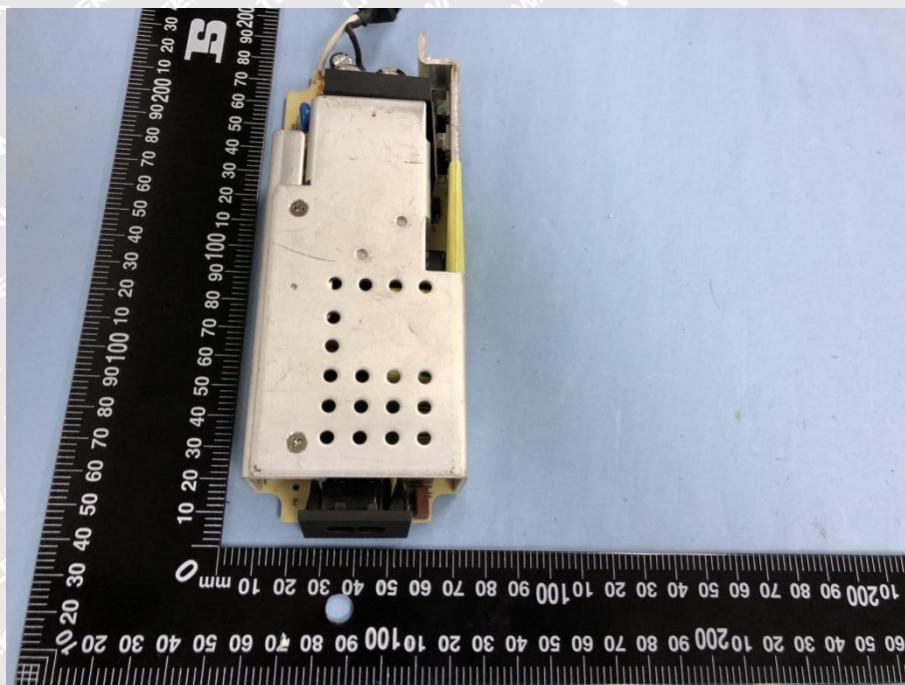




### EUT Housing and Board View 1

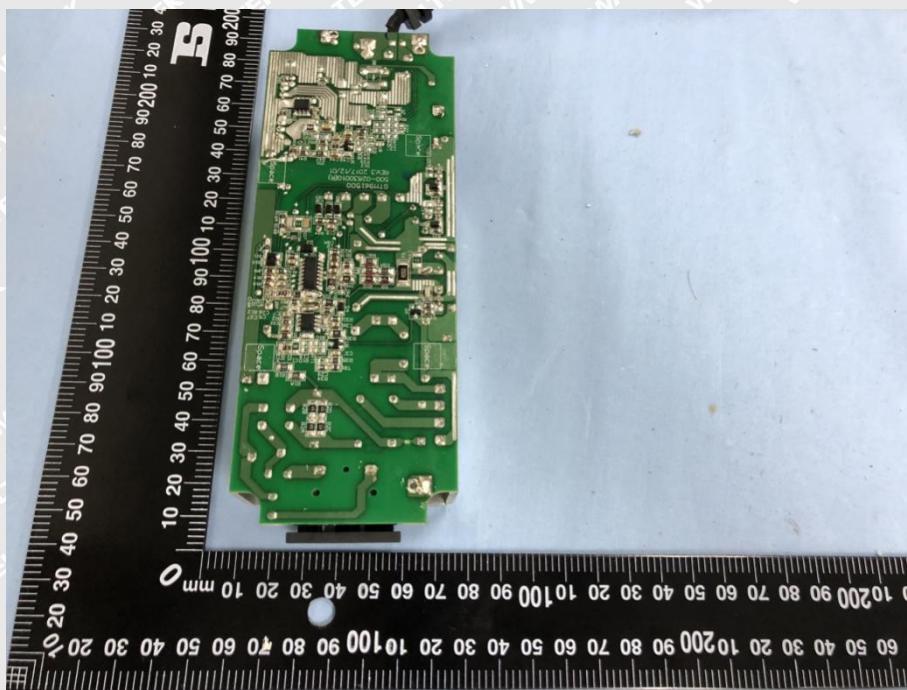


### Solder Board-Component View 2





### Solder Board-Component View 3



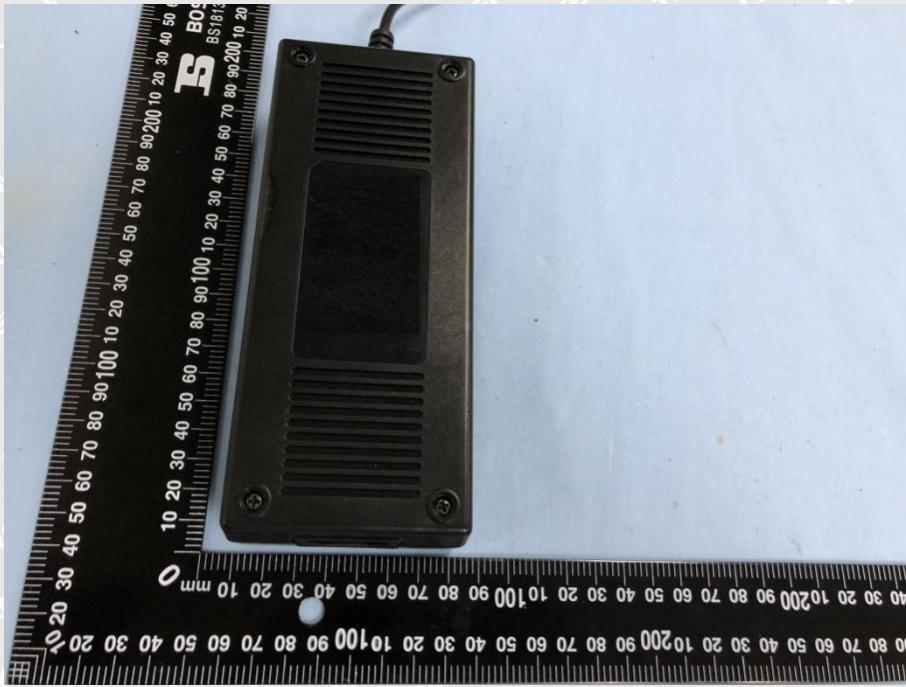


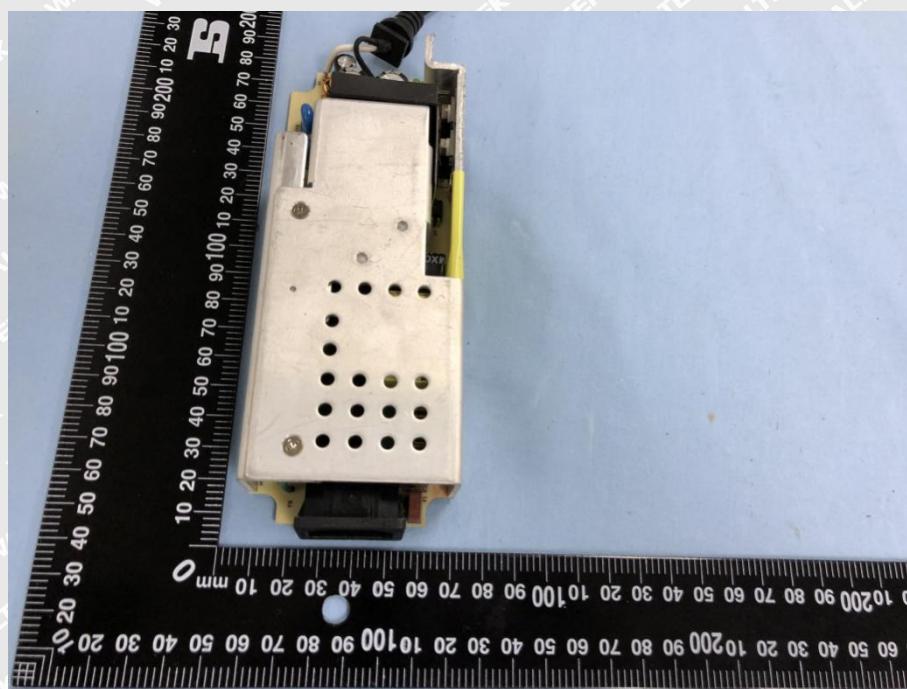
**GTM961800P18024-T3\* (STR18078316E)**

**EUT View 1**



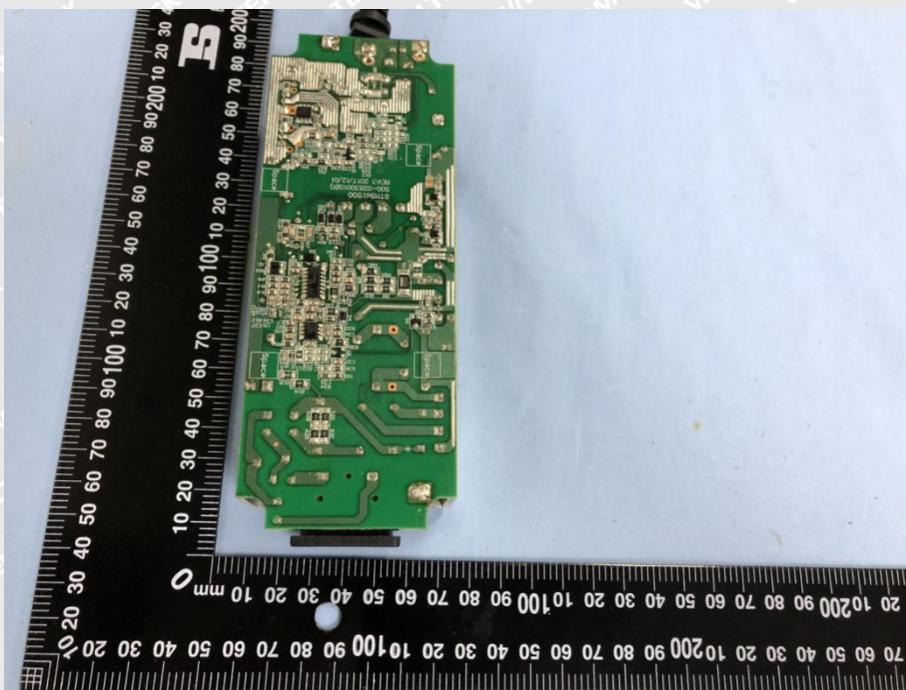
**EUT View 2**



**EUT Housing and Board View 1****Solder Board-Component View 2**

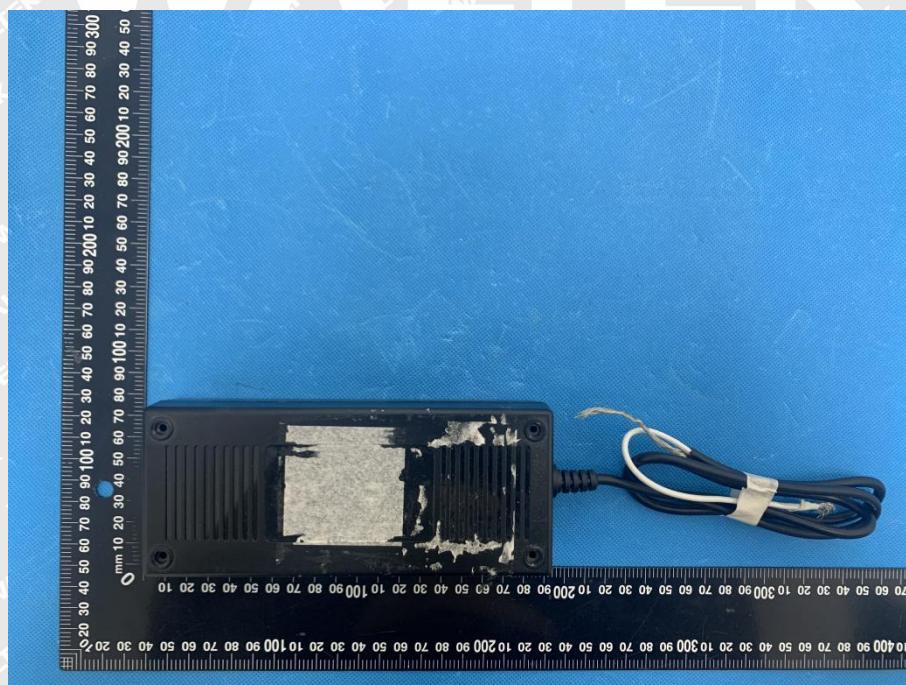


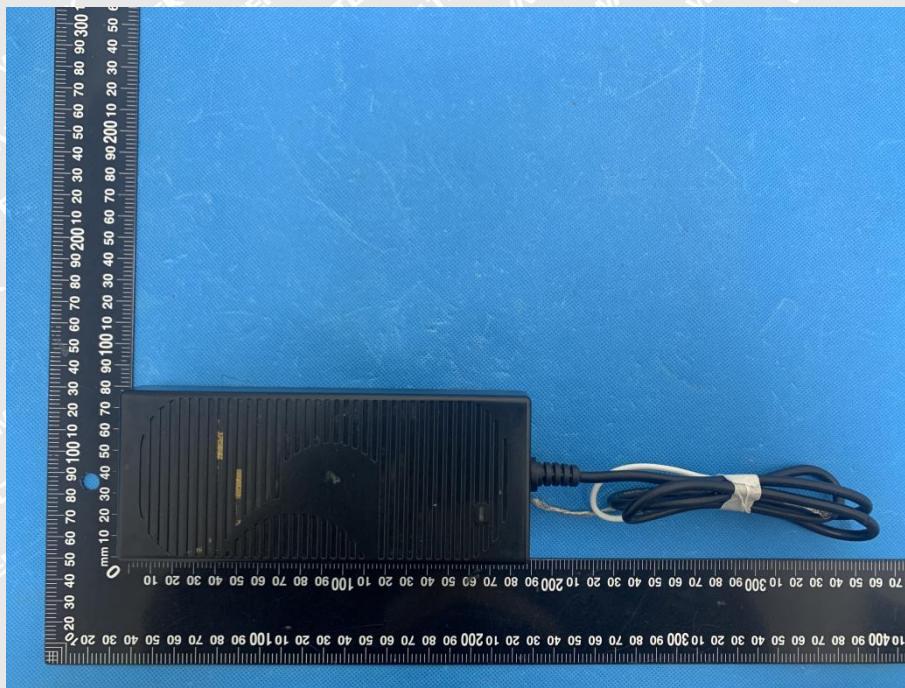
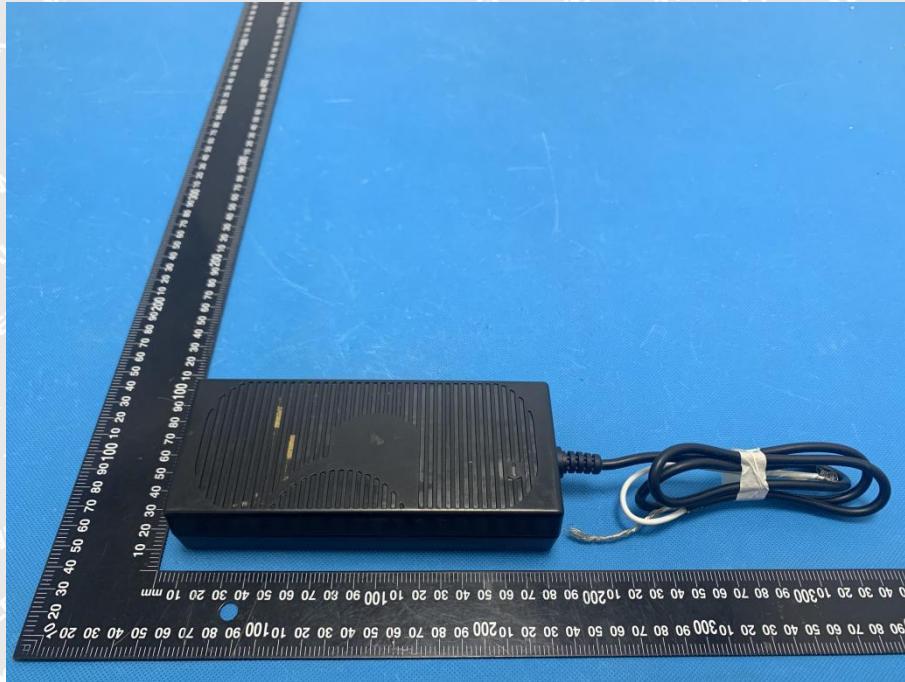
### Solder Board-Component View 3



**WALTEK**

A large, semi-transparent watermark of the word "WALTEK" is centered over the image, with each letter having a distinct drop shadow effect.

**GTM961600P16012-T3A (WTX21X06053486E-1)****EUT View 1****EUT View 2**

**EUT View 3****EUT View 4**



**EUT View 5**



**EUT View 6**



**WTX21X06053486E-1****GTM961800P16012-T3 (Connect the ground cable to the output inductor)****EUT View 1****EUT View 2**



**EUT View 3**



**EUT View 4**

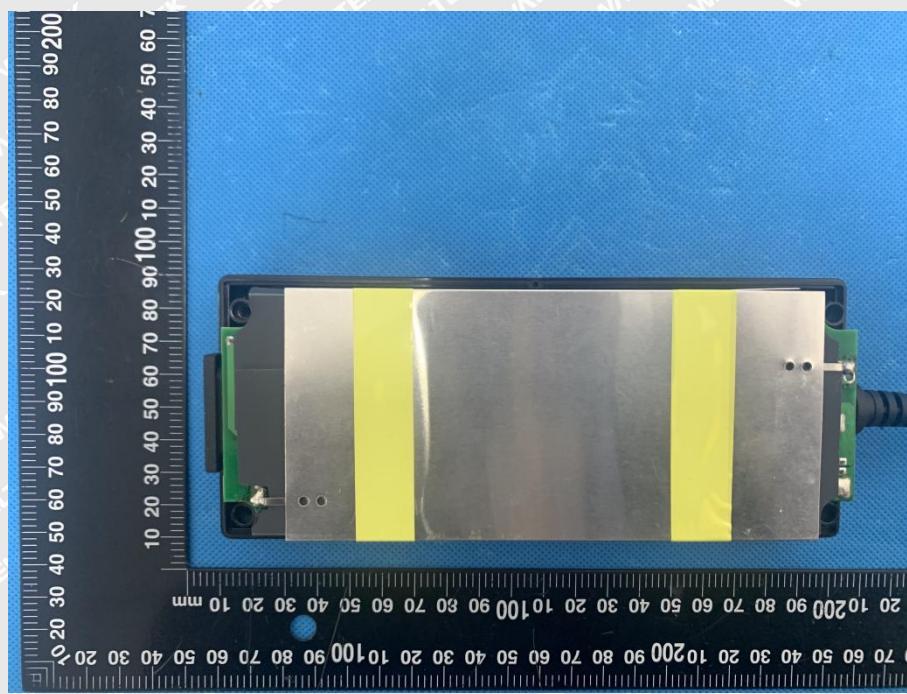
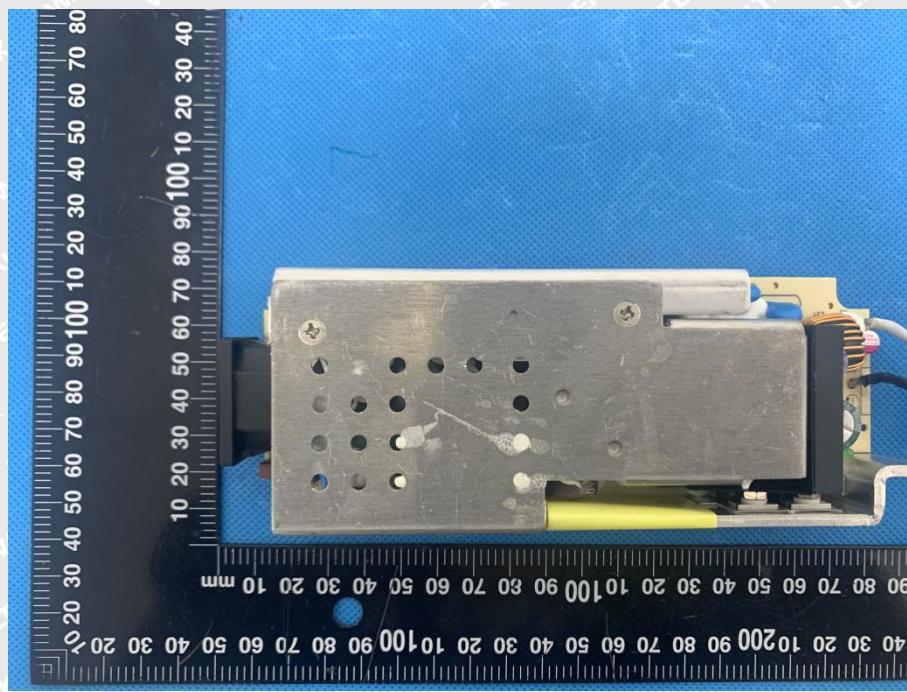




**EUT View 5**

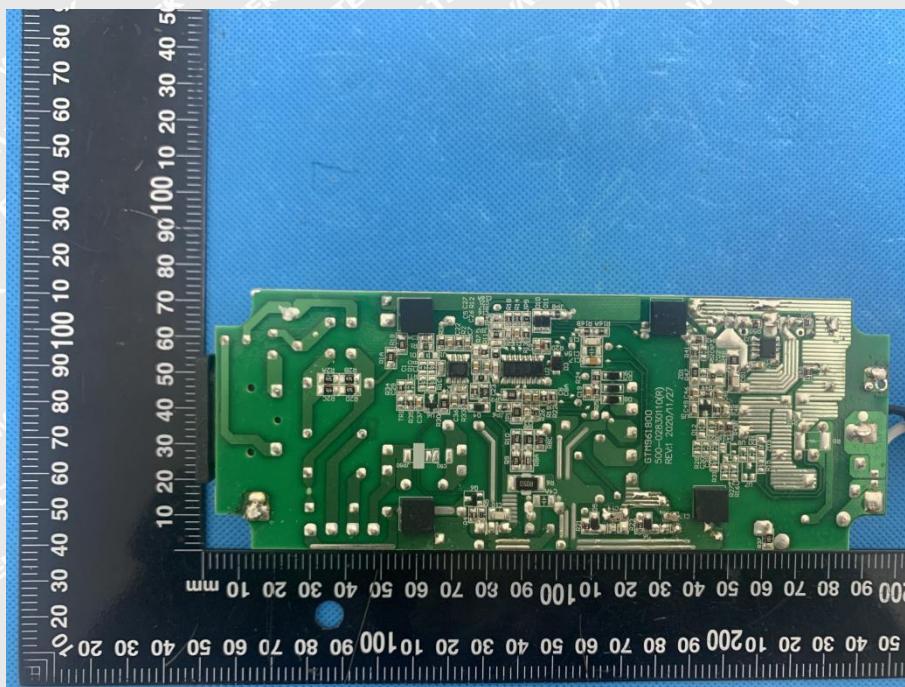


**WALTEK**

**EUT Housing and Board View 1****Solder Board-Component View 2**



### Solder Board-Component View 3



**WALTEK**

**GTM961800P18054-T3 (WTX21X06053486E-1)****EUT View 1****EUT View 2**

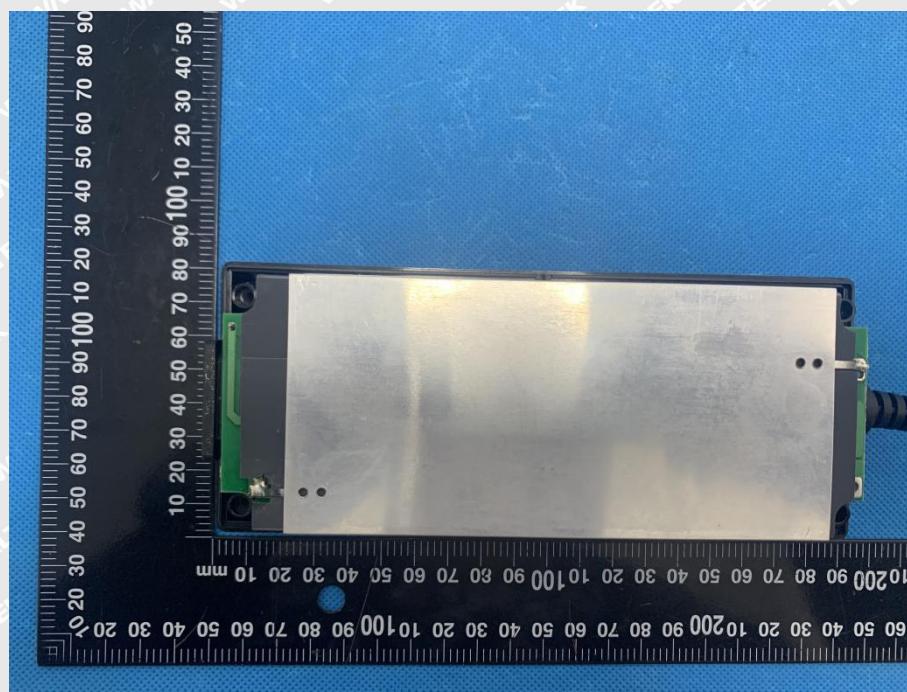
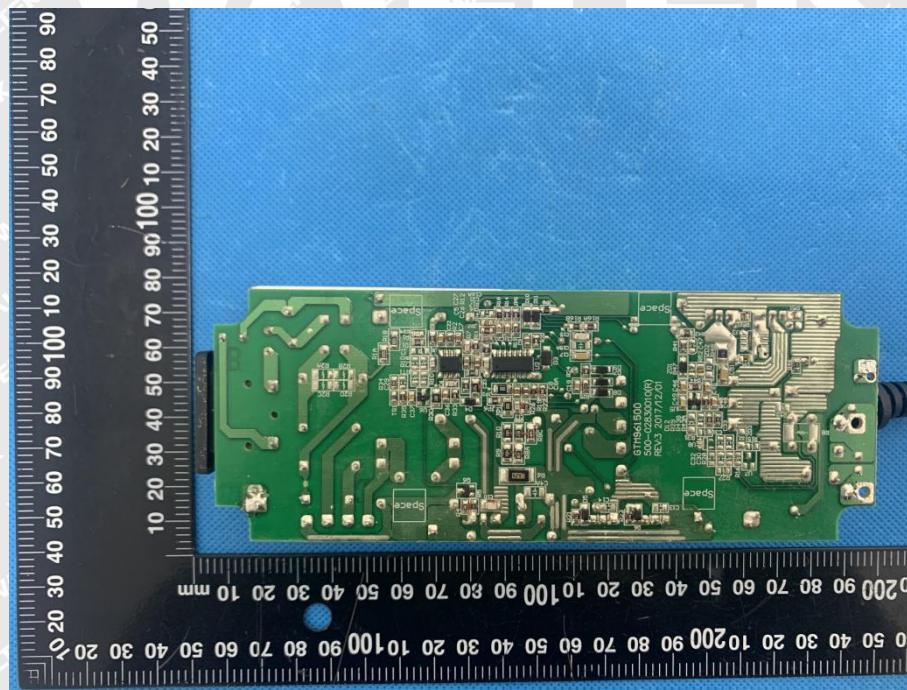
**EUT View 3****EUT View 4**



**EUT View 5**

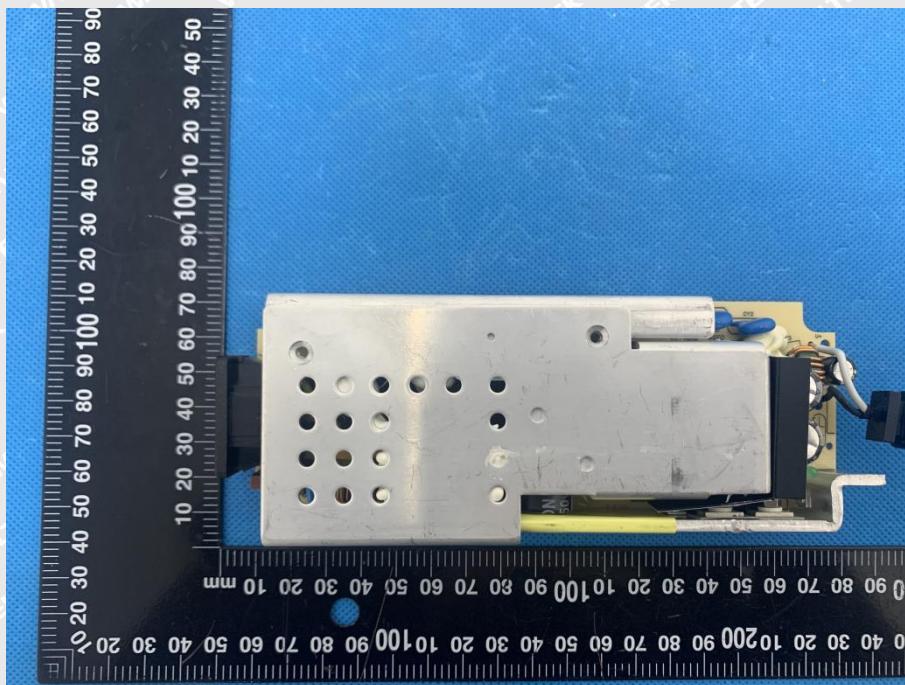


**WALTEK**

**EUT Housing and Board View 1****Solder Board-Component View 2**



### Solder Board-Component View 3



**WALTEK**

**GTM961800P18054-T3 (WTX21X06053486E-1)F2 接地方式****EUT View 1****EUT View 2**

**EUT View 3****EUT View 4**

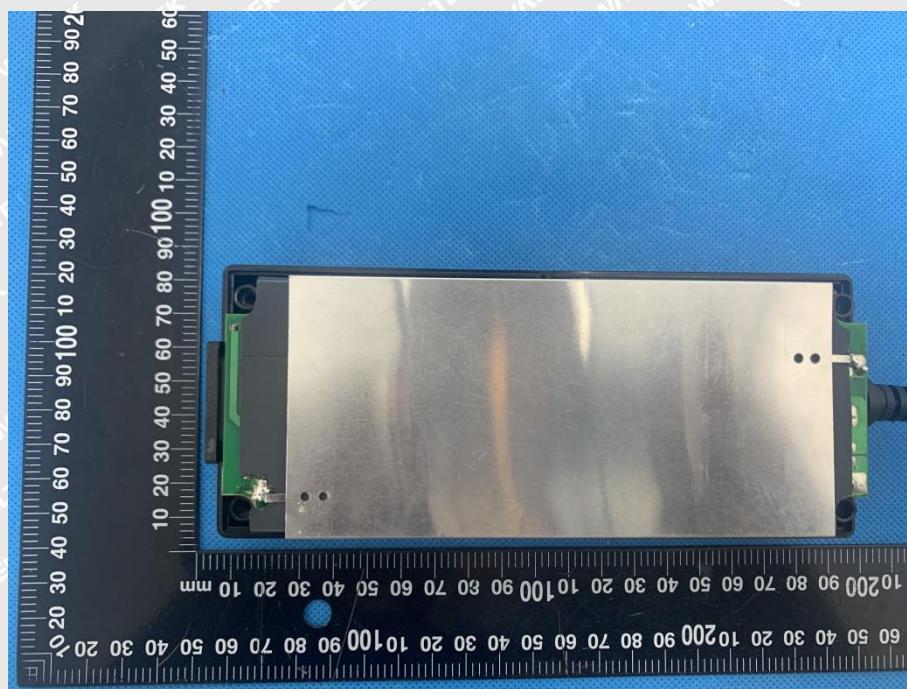
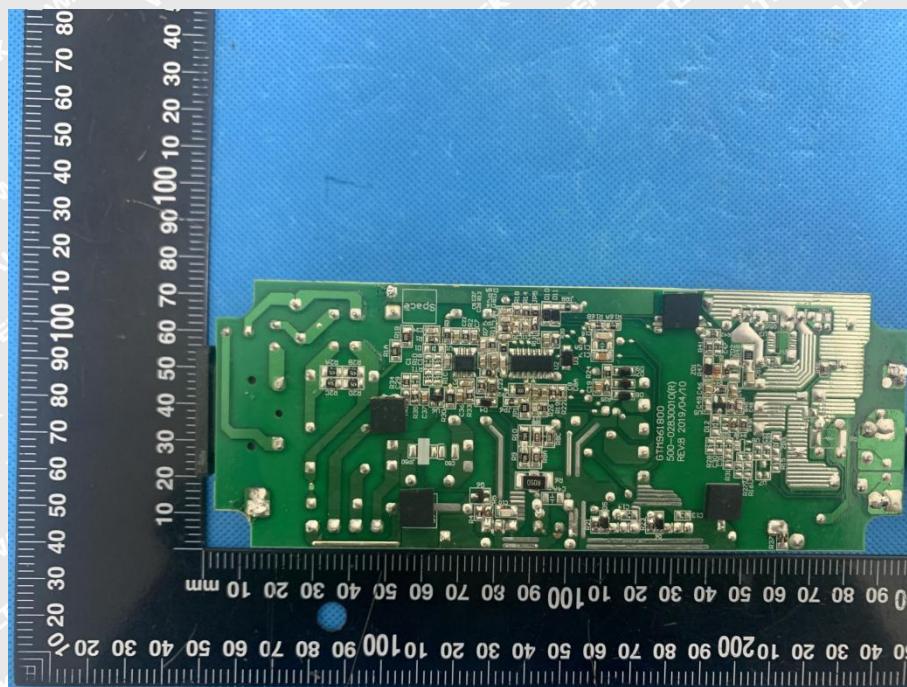
**EUT View 5****EUT View 6**



**EUT View 7**

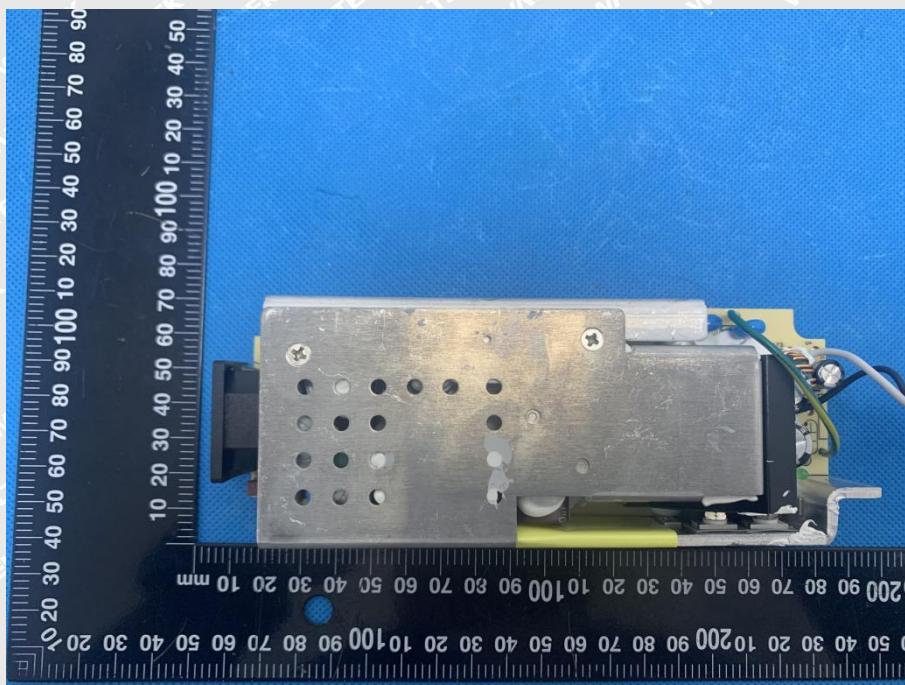


**WALTEK**

**EUT Housing and Board View 1****Solder Board-Component View 2**



### Solder Board-Component View 3



**WALTEK**

**WTX21X06053486E-1****GTM961800P18054-T3(Ground inductance)****EUT View 1****EUT View 2**

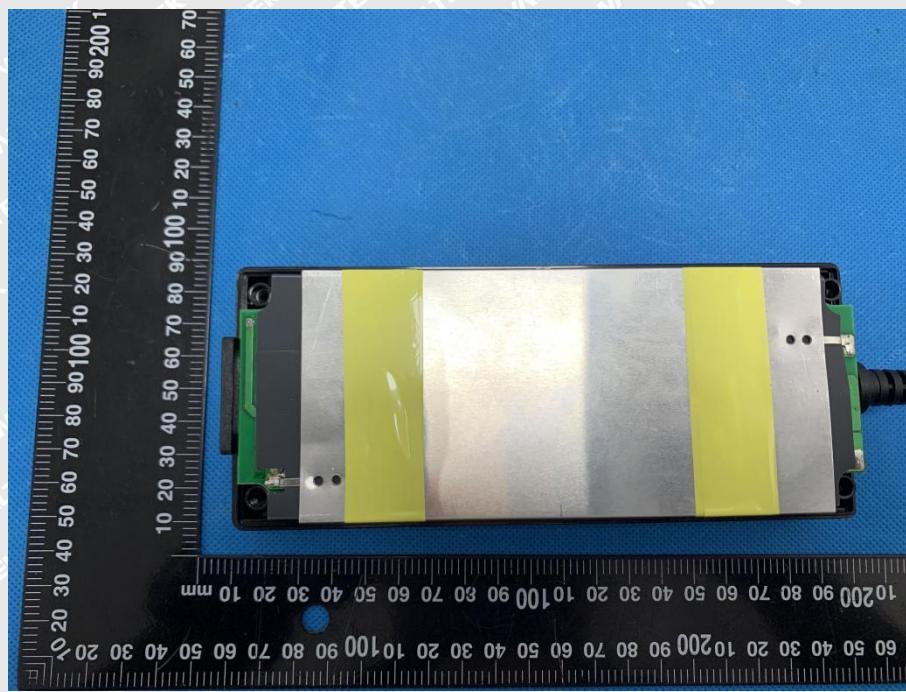
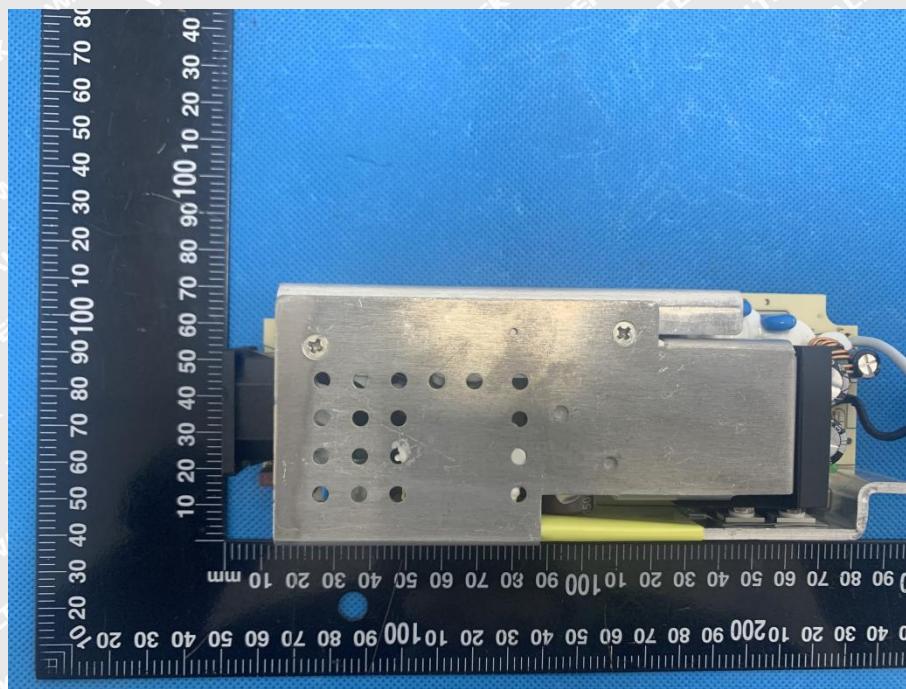
**EUT View 3****EUT View 4**



**EUT View 5**

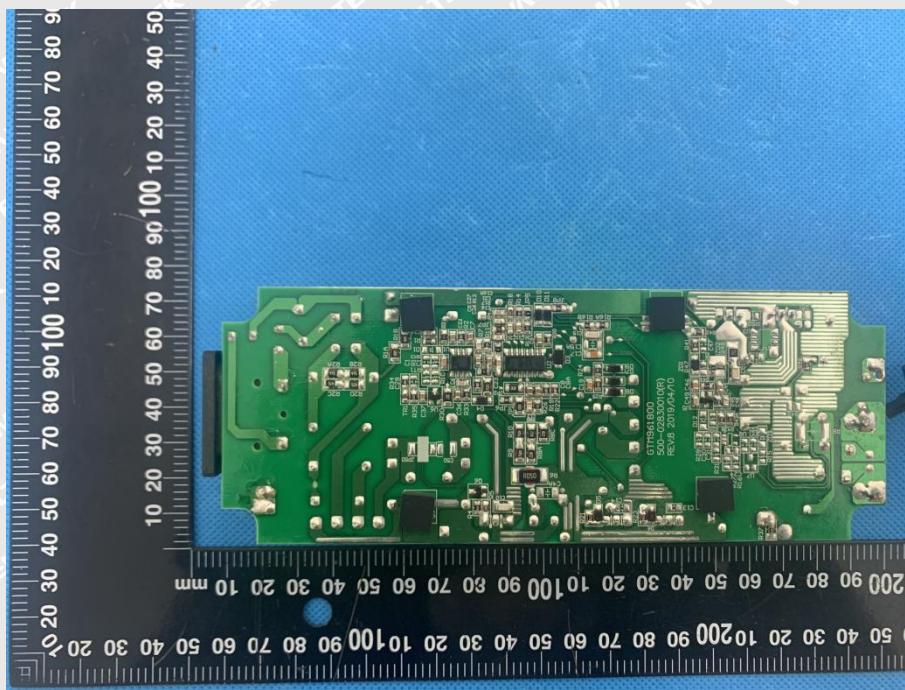


**WALTEK**

**EUT Housing and Board View 1****Solder Board-Component View 2**



### Solder Board-Component View 3



**WALTEK**

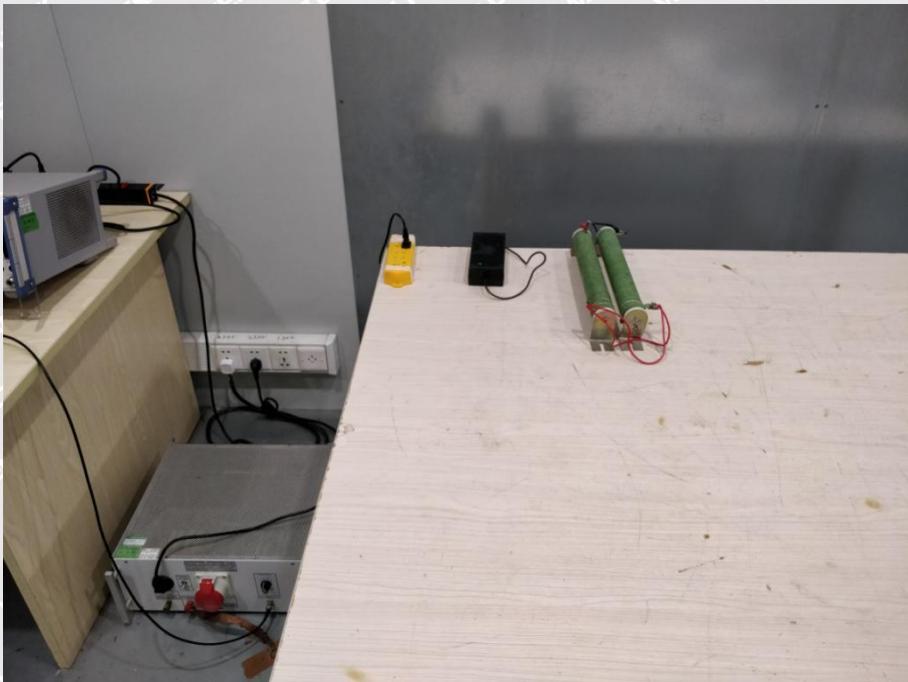
The word "WALTEK" is printed in large, bold, white letters across the center of the page, partially overlapping the image of the PCB.



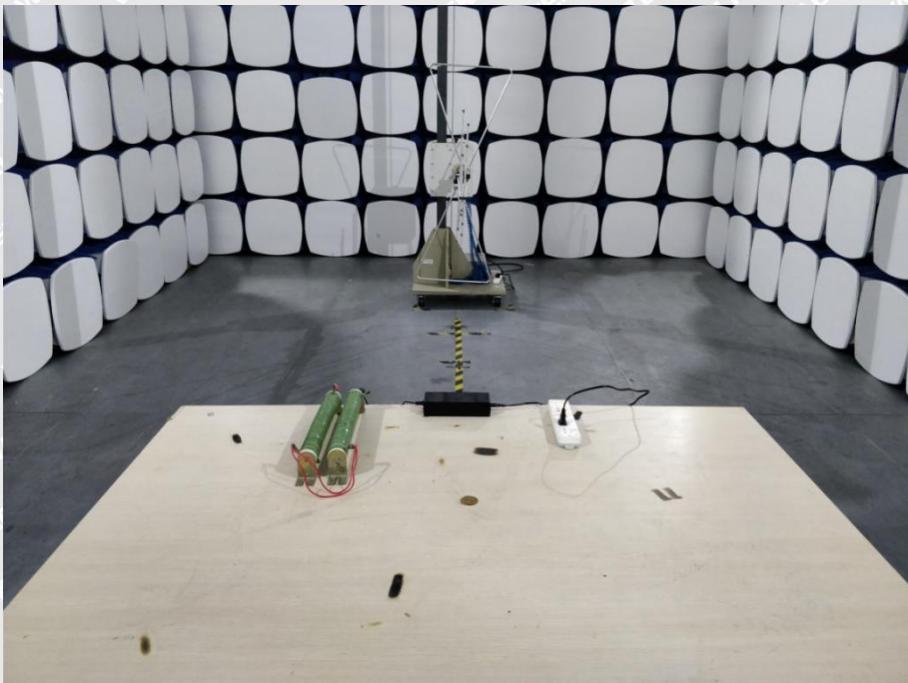
## EXHIBIT 3 - TEST SETUP PHOTOGRAPHS

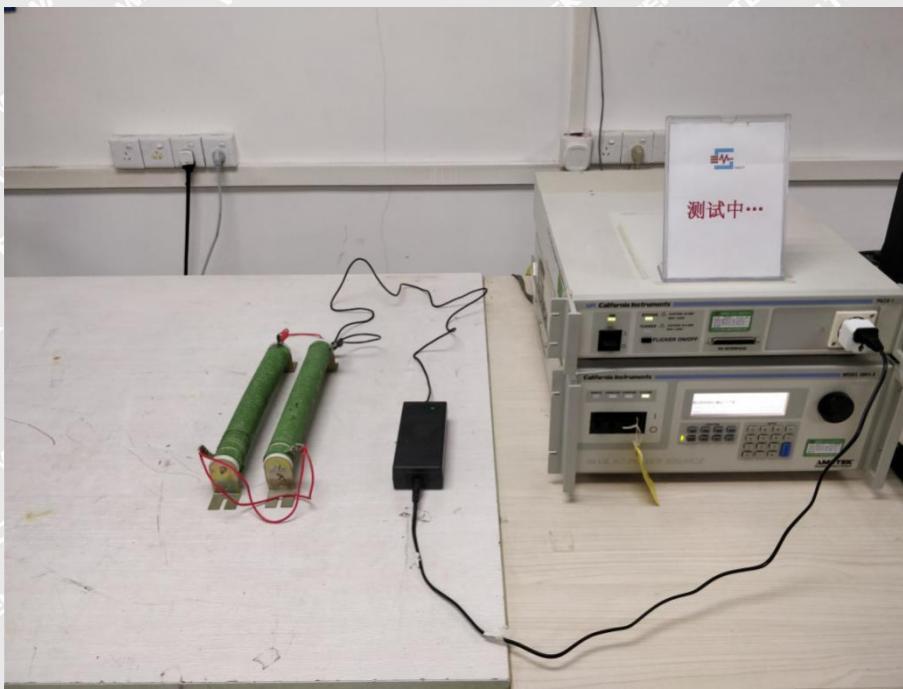
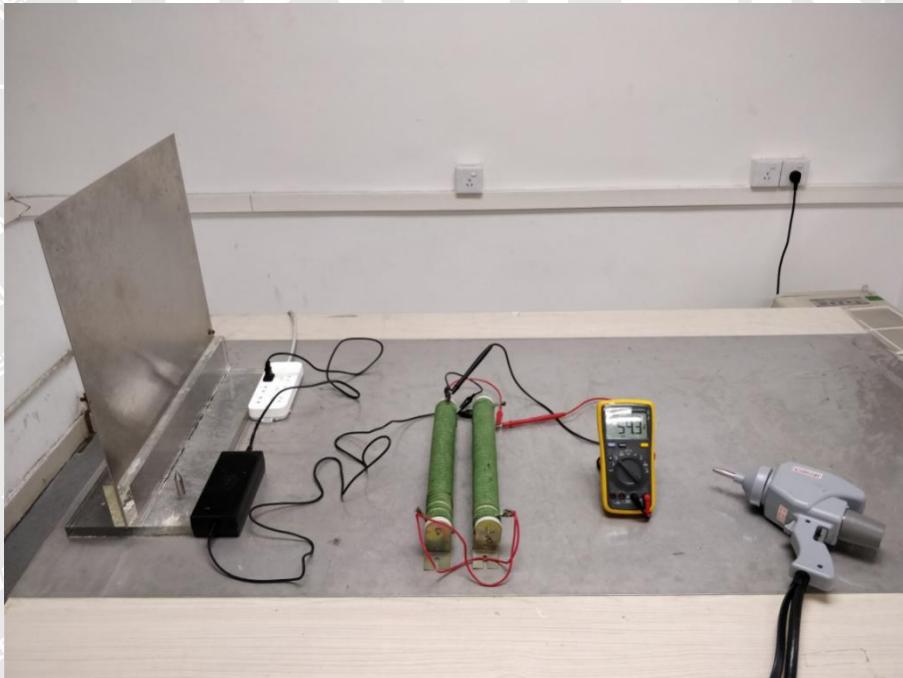
GTM961800P18054-T2\* (STR18078316E)

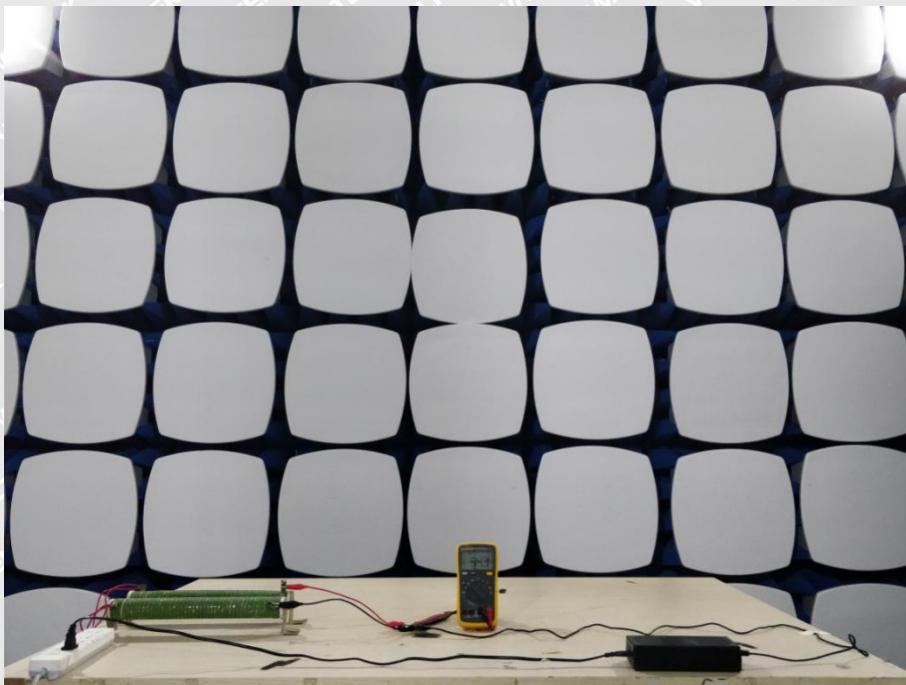
Conduction Emission Test View



Radiation Emission Test View

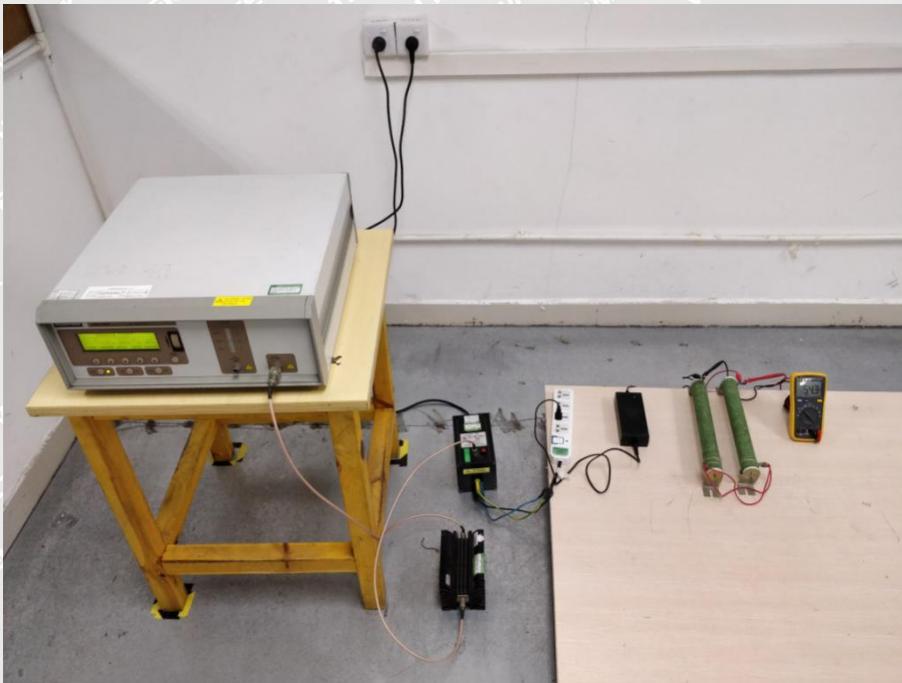


**Harmonic/Flicker Test View****EN 61000-4-2 Test View**

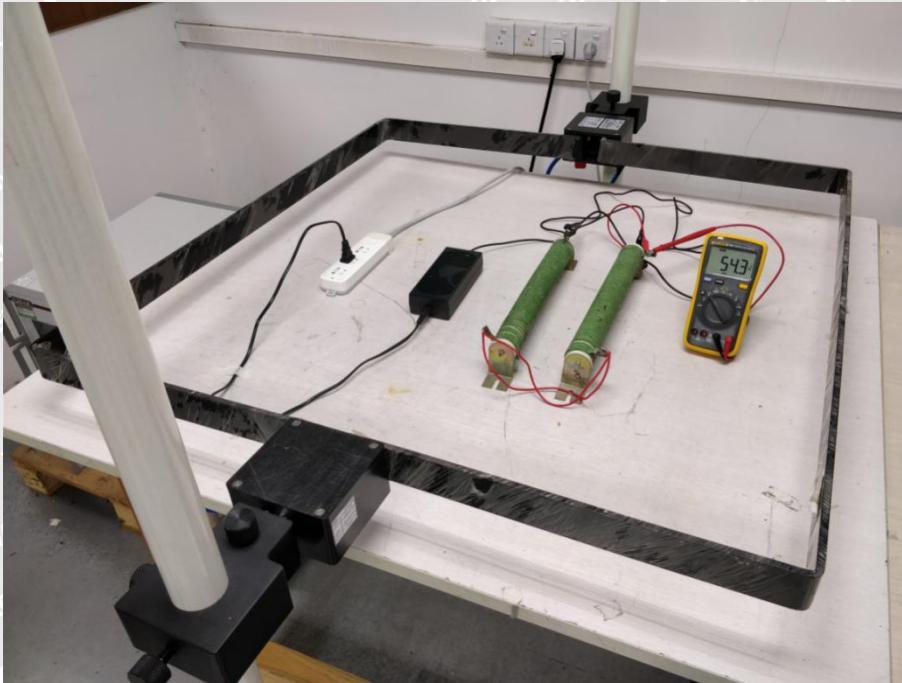
**EN 61000-4-3 Test View****EN 61000-4-4/5/11 Test View**



**EN 61000-4-6 Test View**



**EN 61000-4-8 Test View**



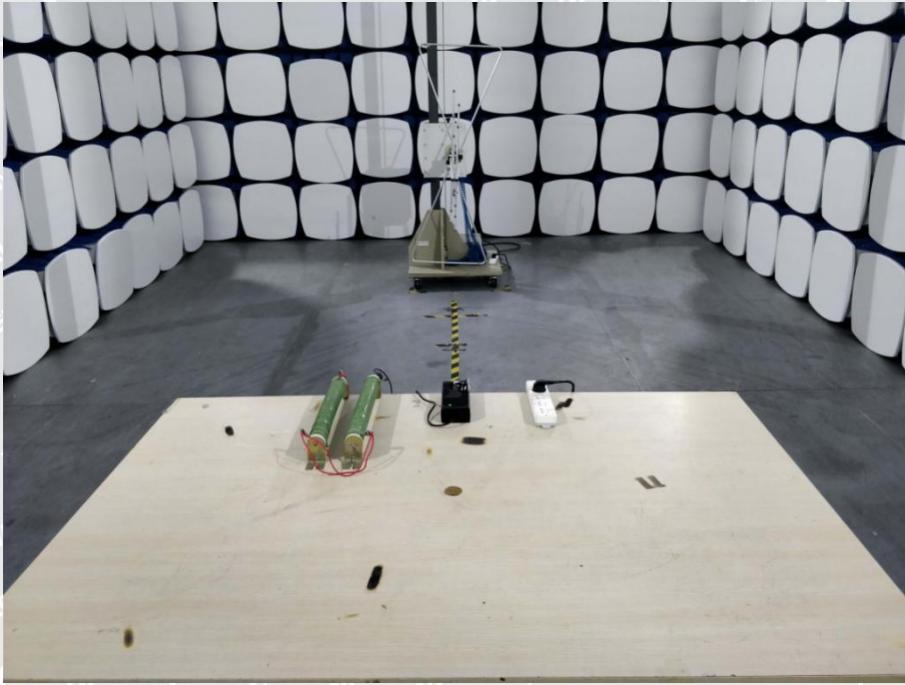


**GTM961800P18054-T3\* (STR18078316E)**

**Conduction Emission Test View**



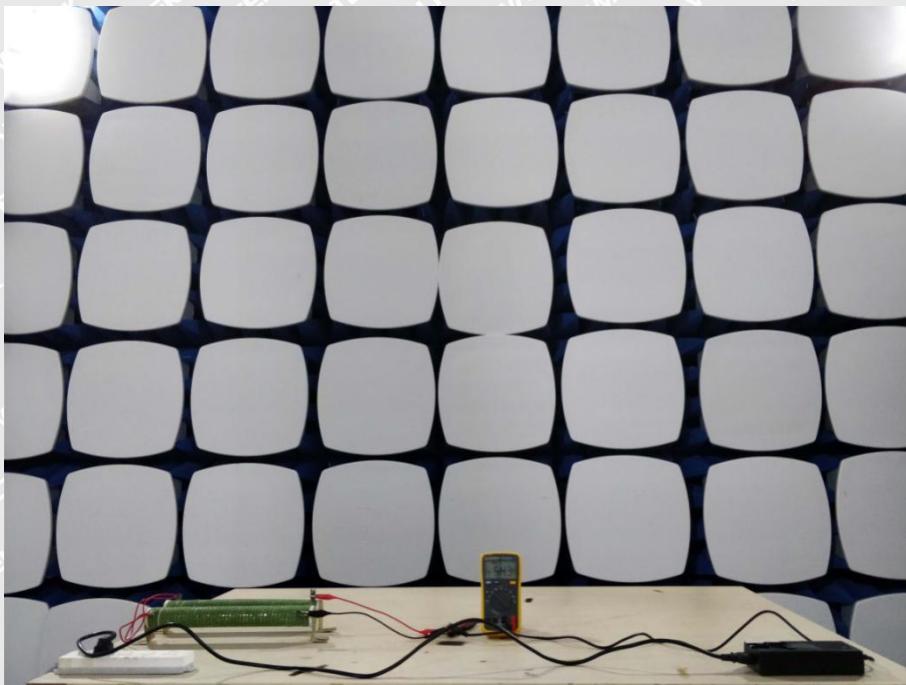
**Radiation Emission Test View**



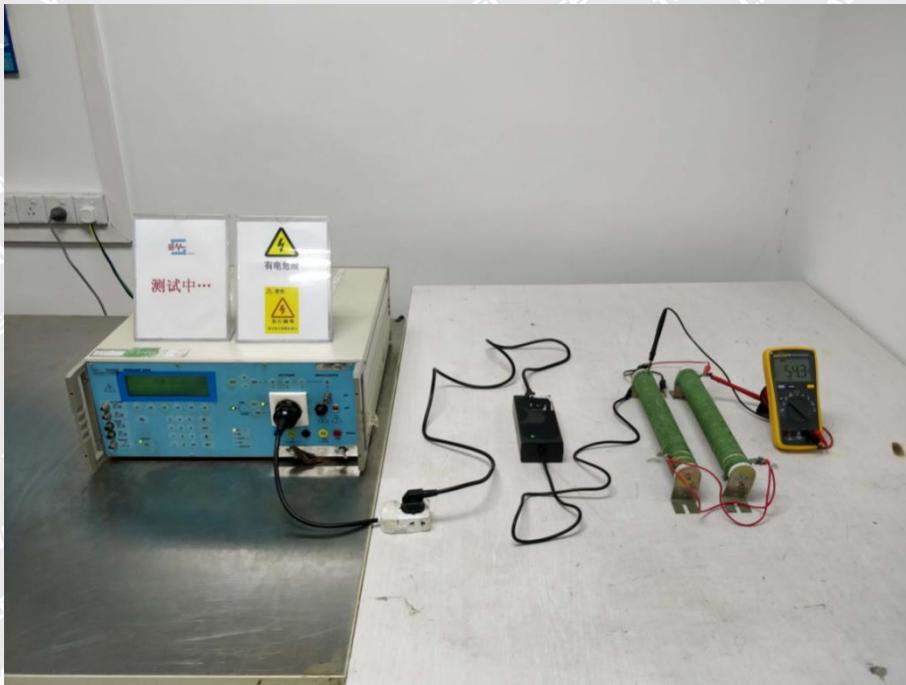
**Harmonic/Flicker Test View****EN 61000-4-2 Test View**



**EN 61000-4-3 Test View**

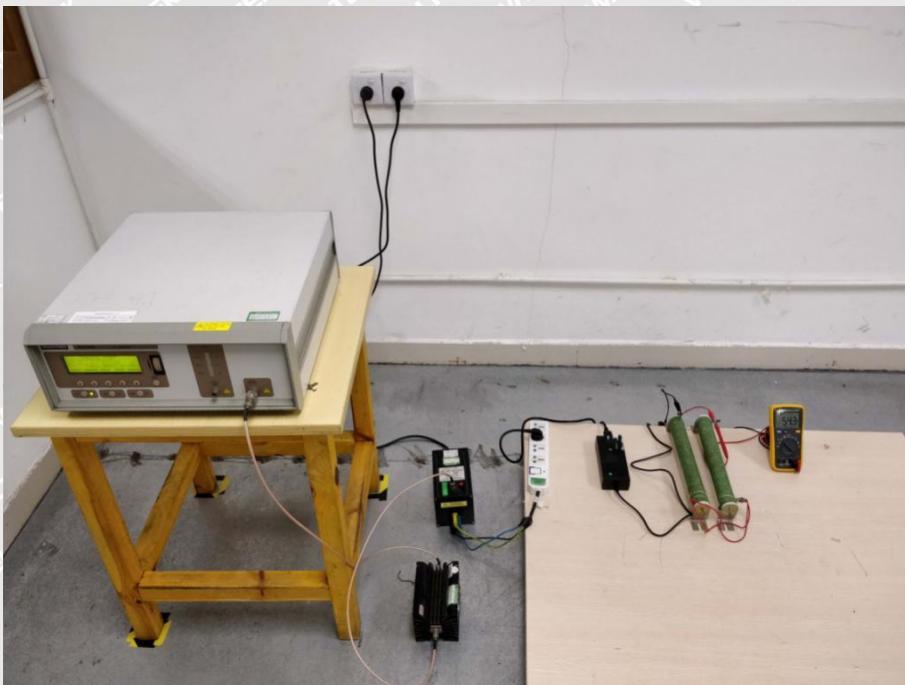


**EN 61000-4-4/5/11 Test View**

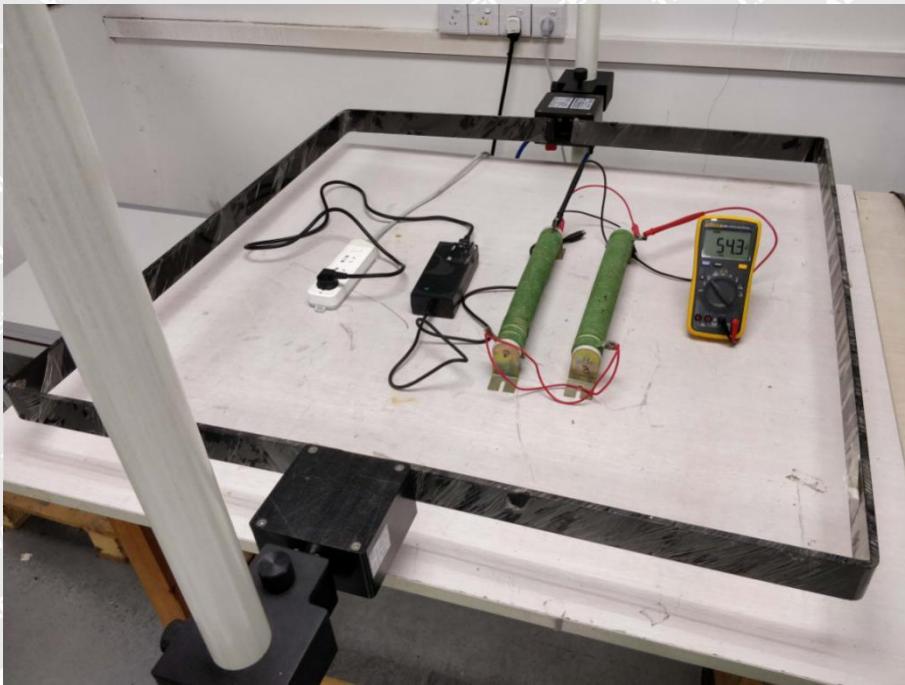


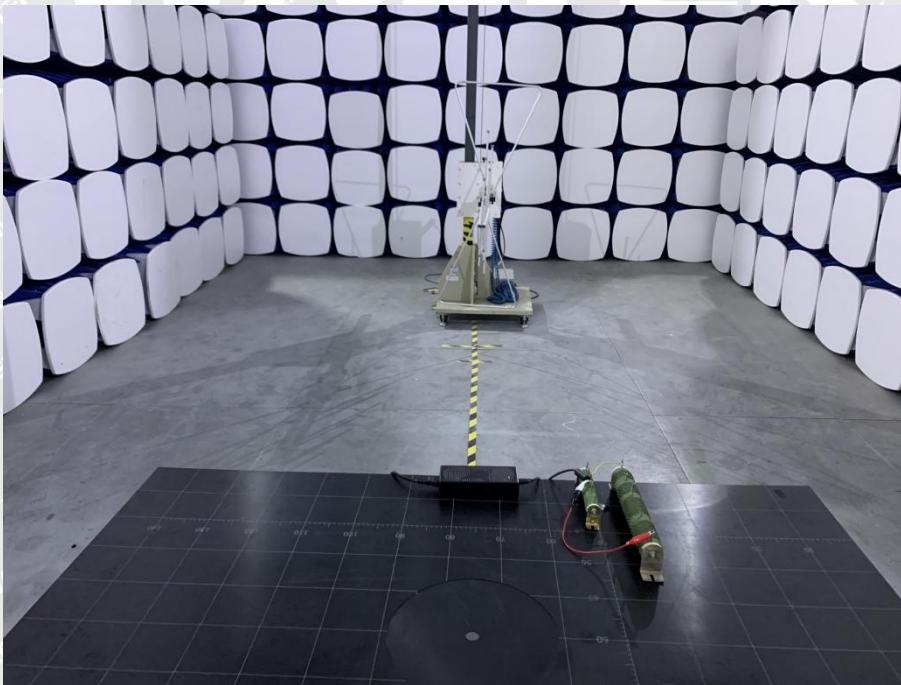


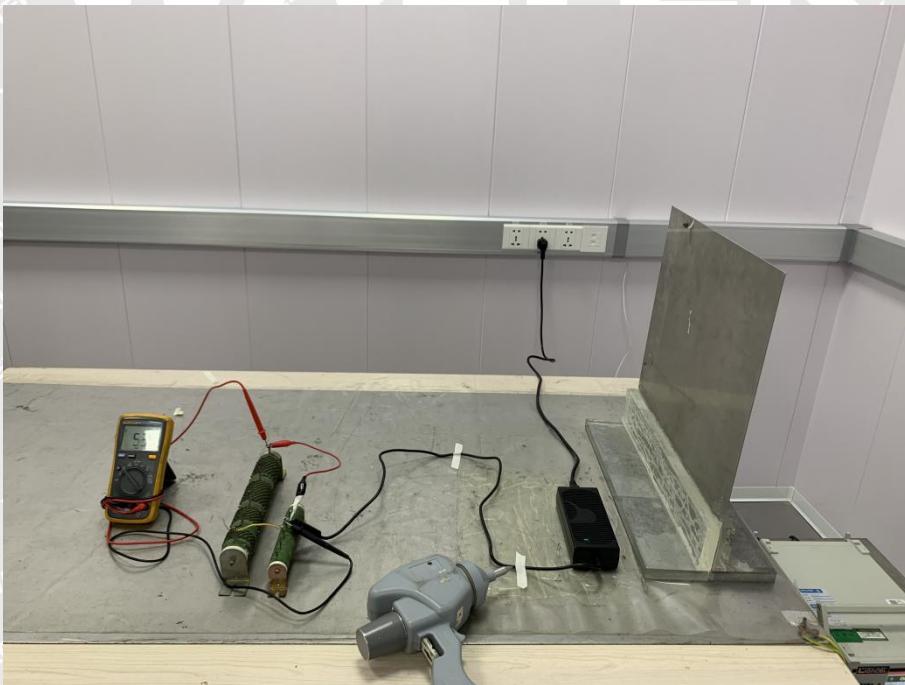
**EN 61000-4-6 Test View**

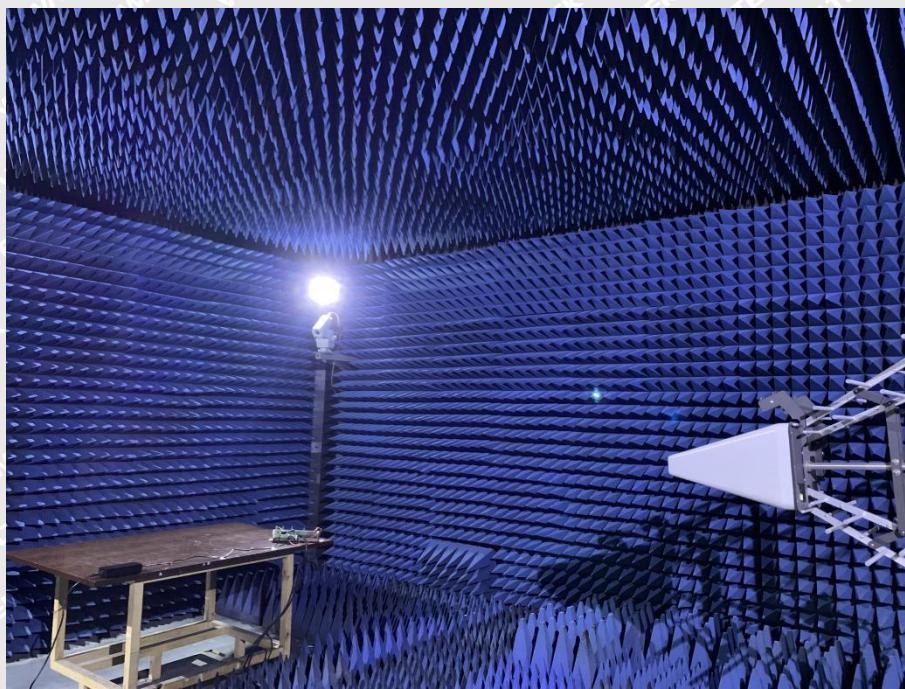
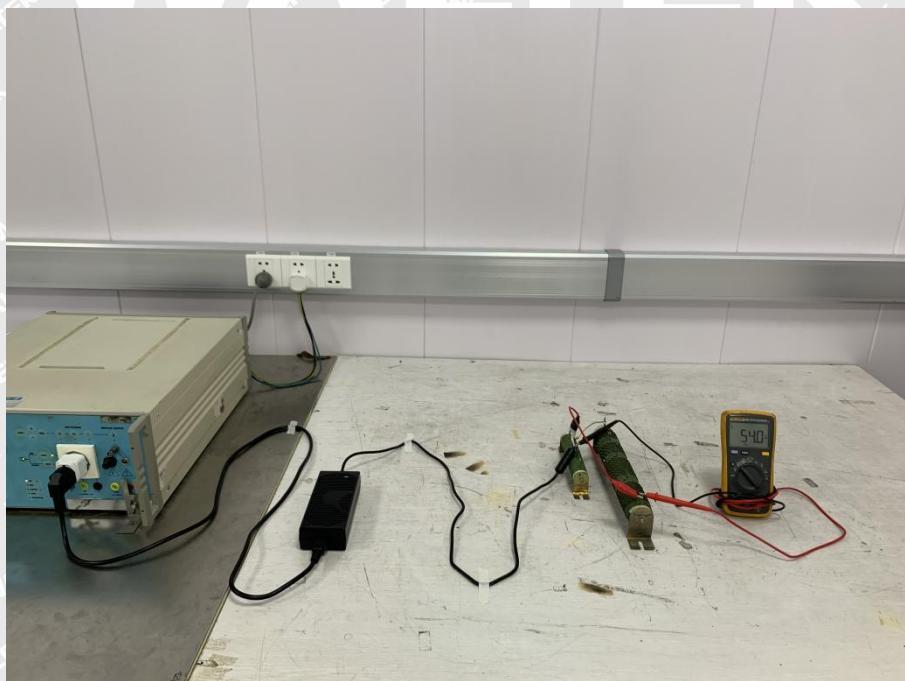


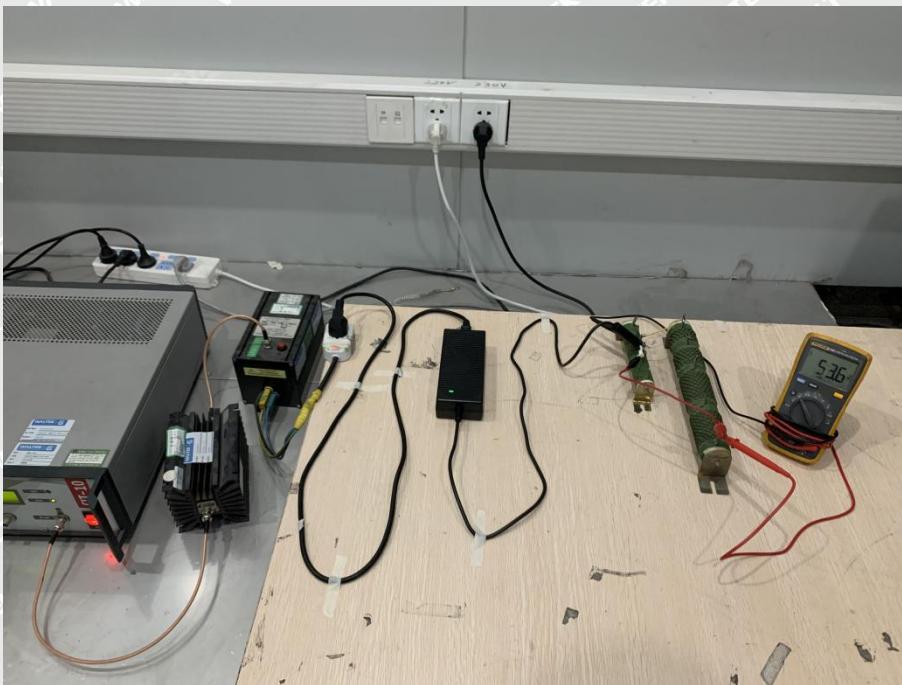
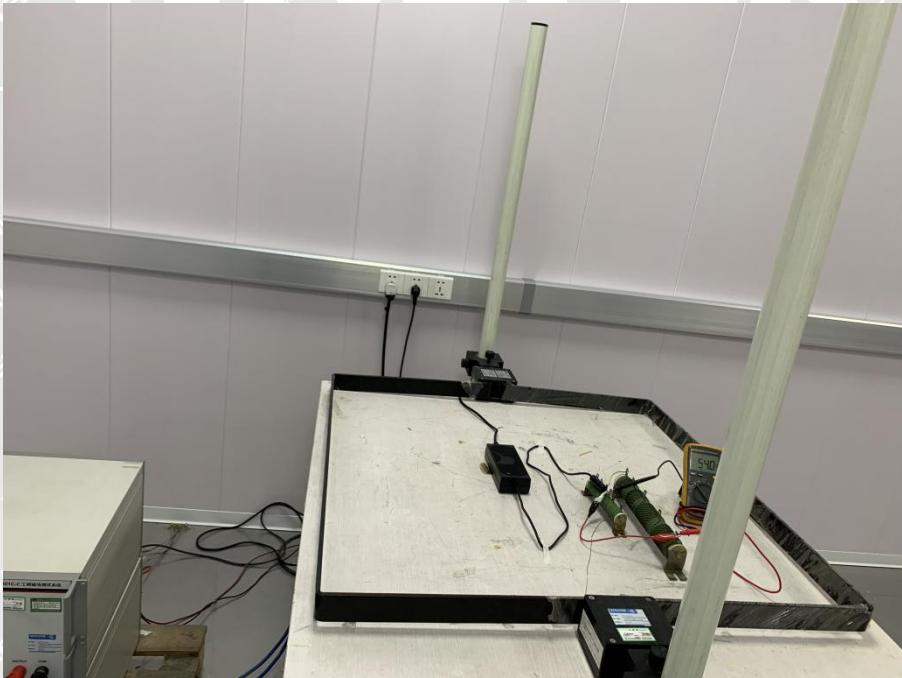
**EN 61000-4-8 Test View**



**(WTX21X06053486E-1)****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 \*\*\*\*\*