TEST REPORT

Reference No.	:	WTX23X06126278E
Applicant	:	GlobTek, Inc.
Address	:	186 Veterans Dr. Northvale, NJ 07647 USA
Manufacturer	:	1: GlobTek, Inc. 2: GlobTek (Suzhou) Co., Ltd
Address	:	1: 186 Veterans Dr. Northvale, NJ 07647 USA 2: Building 4, No. 76, Jin Ling East Rd., Suzhou Industrial Park, Suzhou, JiangSu 215021, China
Product Name	:	Power Supply
Model No.	:	GT*961600P****, GT*961800P****
Standards	:	**EN 60601-1-2:2015+A1:2021**
Date of Receipt sample	:	2023-09-01
Date of Test	:	2023-09-01 to 2023-09-04
Date of Issue	:	2023-09-05
Test Report Form No.	:	WTX_EN 60601_1_2_2015_B
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 approver.

Prepared By:
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Approved by: Silin Chen

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Report version

Version No.	Date of issue	Description
Rev.00	2023-09-05	Original
/	/	/

1. GENERAL INFORMATION

1.1 Product Description for Equipment Under Test (EUT)

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

Technical Characteristics of EUT	
Rated Voltage/ Current:	Input: 100-240V~, 50-60Hz or 50/60Hz, 2.2A Output: 12-54VDC, Max.13.33A, Max. 180W
Rated Power:	180W
Power Adaptor Model:	/
Highest Internal Frequency:	Below 108MHz
Classification of Equipment:	Class B

1.2 Test Standards

The tests were performed according to following standards:

EN 60601-1-2:2015+A1:2021: Medical electrical equipment – Part 1-2: General requirements for basic safety and essential performance – Collateral standard: Electromagnetic compatibility – Requirements and tests.

Maintenance of compliance is the responsibility of the manufacturer. Any modification of the product maybe which result in lowering the emission/immunity should be checked to ensure compliance has been maintained.

1.3 Test Methodology

All measurements contained in this report were conducted with the standards IEC 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:

Test Mode List			
Test Mode	Description	Remark	Power Supply Mode
TM1	Working mode	Model: GTM961600P16012-T3(12V/160W)	AC 230V/50Hz
TM2	Working mode	Model: GTM961600P16012-T2(12V/160W)	AC 230V/50Hz
TM3	Working mode	Model: GTM961800P18054-T2(54V/180W)	AC 230V/50Hz
TM4	Working mode	Model: GTM961800P18054-T3(54V/3.33A)	AC 230V/50Hz
TM5	Working mode	Model: GTM961600P16012-T3(12V/160W)	AC 120V/60Hz
TM6	Working mode	Model: GTM961600P16012-T2(12V/160W)	AC 120V/60Hz
TM7	Working mode	Model: GTM961800P18054-T2(54V/180W)	AC 120V/60Hz
TM8	Working mode	Model: GTM961800P18054-T3(54V/3.33A)	AC 120V/60Hz

EUT Cable List and Details				
Cable Description	Length (m)	Shielded/Unshielded	With / Without Ferrite	With / Without Chip
DC Cable	1.55	Shielded	Without	Without

Special Cable List and Details				
Cable Description	Length (m)	Shielded/Unshielded	With / Without Ferrite	With / Without Chip
AC Cable	1.0	Unshielded	Without	Without

Auxiliary Equipment List and Details			
Description	Manufacturer	Model	Serial Number
Load	/	/	/

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.

1.6 Test Equipment List and Details

Description	Manufacturer	Model	Serial No.	Cal. Date	Due. Date
☒Chamber A:Below 1GHz					
Spectrum Analyzer	Rohde & Schwarz	FSP30	836079/035	2023-02-25	2024-02-24
EMI Test Receiver	Rohde & Schwarz	ESVB	825471/005	2023-02-25	2024-02-24
Trilog Broadband Antenna	Schwarz beck	VULB9163	9163-333	2023-03-20	2026-03-19
Loop Antenna	Schwarz beck	FMZB 1516	9773	2021-03-20	2024-03-19
Amplifier	HP	8447F	2805A03475	2023-02-25	2024-02-24
☐Chamber A:Above 1GHz					
Amplifier	C&D	PAP-1G18	2002	2023-02-25	2024-02-24
Horn Antenna	ETS	3117	00086197	2021-03-19	2024-03-18
☐Chamber B:Below 1GHz					
Trilog Broadband Antenna	Schwarz beck	VULB9163(B)	9163-635	2021-04-09	2024-04-08
Amplifier	Agilent	8447D	2944A10179	2023-02-25	2024-02-24
EMI Test Receiver	Rohde & Schwarz	ESPI	101391	2023-02-25	2024-02-24
☐Chamber C:Below 1GHz					
EMI Test Receiver	Rohde & Schwarz	ESIB 26	100401	2023-02-25	2024-02-24
Trilog Broadband Antenna	Schwarz beck	VULB 9168	1194	2021-05-28	2024-05-27
Amplifier	HP	8447F	2944A03869	2023-02-25	2024-02-24
☐Chamber C:Above 1GHz					
Horn Antenna	POAM	RTF-11A	LP228060221	2023-03-10	2026-03-09
Amplifier	Tonscend	TAP01018050	AP22E806235	2023-02-25	2024-02-24
☒Conducted Room 1#					
EMI Test Receiver	Rohde & Schwarz	ESPI	101611	2023-02-25	2024-02-24
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100911	2023-02-25	2024-02-24
AC LISN	Schwarz beck	NSLK8126	8126-224	2023-02-25	2024-02-24
8-WIRE LISN	Schwarz beck	8158	CAT3-8158-0059	2023-02-25	2024-02-24
8-WIRE LISN	Schwarz beck	8158	CAT5-8158-0117	2023-02-25	2024-02-24
☐Conducted Room 2#					
EMI Test Receiver	Rohde & Schwarz	ESPI	10129	2023-02-25	2024-02-24
LISN	Rohde & Schwarz	ENV 216	100097	2023-02-25	2024-02-24
☒Harmonics &Flicker					
Digital Power Analyzer	California Instrument	CTS	72831	2023-02-25	2024-02-24
Power Source	California Instrument	5001IX-CTS-400	25965	2023-02-25	2024-02-24
☒Electrostatic discharges					
ESD Generator	LIONCEL	ESD-203B	0170901	2023-03-14	2024-03-13

☒Power-frequency magnetic field (PFMF)					
PMF Generator	LIONCEL	PMF-801C-C	0171101	2023-02-25	2024-02-24
PMF Antenna	LIONCEL	PMF-801C-A	0180302	2023-02-25	2024-02-24
Instantaneous PMF Generator Module	LIONCEL	PMF-801C-T	0171001	2023-02-25	2024-02-24
☒Electronic fast transient(EFT)/Surges/Dips					
Transient 2000	EMC PARTNER	TRA2000	863	2023-02-25	2024-02-24
Couple Clamp	EMC PARTNER	CN-EFT1000	513	2023-02-25	2024-02-24
☒Radio frequency, continuous conducted (C/S)					
CONDUCTED IMMUNITY TEST SYSTEM	FRANKONIA	CIT-10/75	126B1247/2013	2023-02-25	2024-02-24
Attenuator	EMTEST	MA-5100/6BF2	1009	2023-02-25	2024-02-24
CDN	Luthi	L-801M2/M3	2665	2023-02-25	2024-02-24
CDN	LIONCEL	CDN-T8	0210401	2023-02-25	2024-02-24
EM Clamp	TESEQ	KEMZ801A	45028	2023-02-25	2024-02-24
☒Radio frequency electromagnetic Field (R/S)					
Signal Generator	HP	8688B	3438A00604	2023-02-25	2024-02-24
Power Sensor	Agilent	E9301A	MY52450001	2023-02-25	2024-02-24
Power Sensor	Agilent	E9304A	MY55081055	2023-02-25	2024-02-24
RF Power Amplifier	MicoTop	MPA-80-1000-250	MPA1906239	2023-02-25	2024-02-24
RF Power Amplifier	MicoTop	MPA-1000-6000-100	MPA1906238	2023-02-25	2024-02-24
Antenna	SCHWARZBECK	STLP 9129	9129 114	N/A	N/A
Power Meter	Agilent	E4419B	GB42420578	2023-02-25	2024-02-24

2. SUMMARY OF TEST RESULTS

Standards	Description of Test Item	Result
EN 60601-1-2	Conducted Disturbance	Compliant
	Radiated Disturbance	Compliant
	Harmonic Current Emission IEC 61000-3-2	Compliant
	Voltage Fluctuation and Flicker IEC 61000-3-3	Compliant
	Electrostatic Discharge Immunity in accordance with IEC 61000-4-2	Compliant
	Continuous Radiated Disturbances Immunity in accordance with IEC 61000-4-3	Compliant
	Electrical Fast Transient/Burst Immunity in accordance With IEC 61000-4-4	Compliant
	Surges Immunity in accordance with IEC 61000-4-5	Compliant
	Continuous Conducted Disturbances Immunity in accordance with IEC 61000-4-6	Compliant
	Power-frequency Magnetic Fields Immunity in accordance with IEC 61000-4-8	Compliant
	Voltage Dips/Interruptions Immunity in accordance with IEC 61000-4-11	Compliant

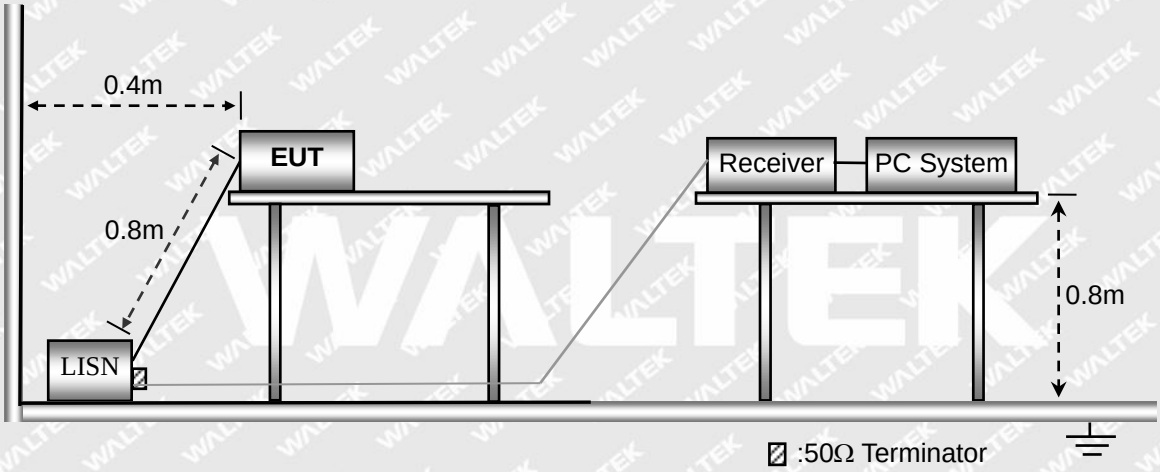
3. Conducted Emission

3.1 Measurement Uncertainty

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

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

3.2 Basic Test Setup Block Diagram



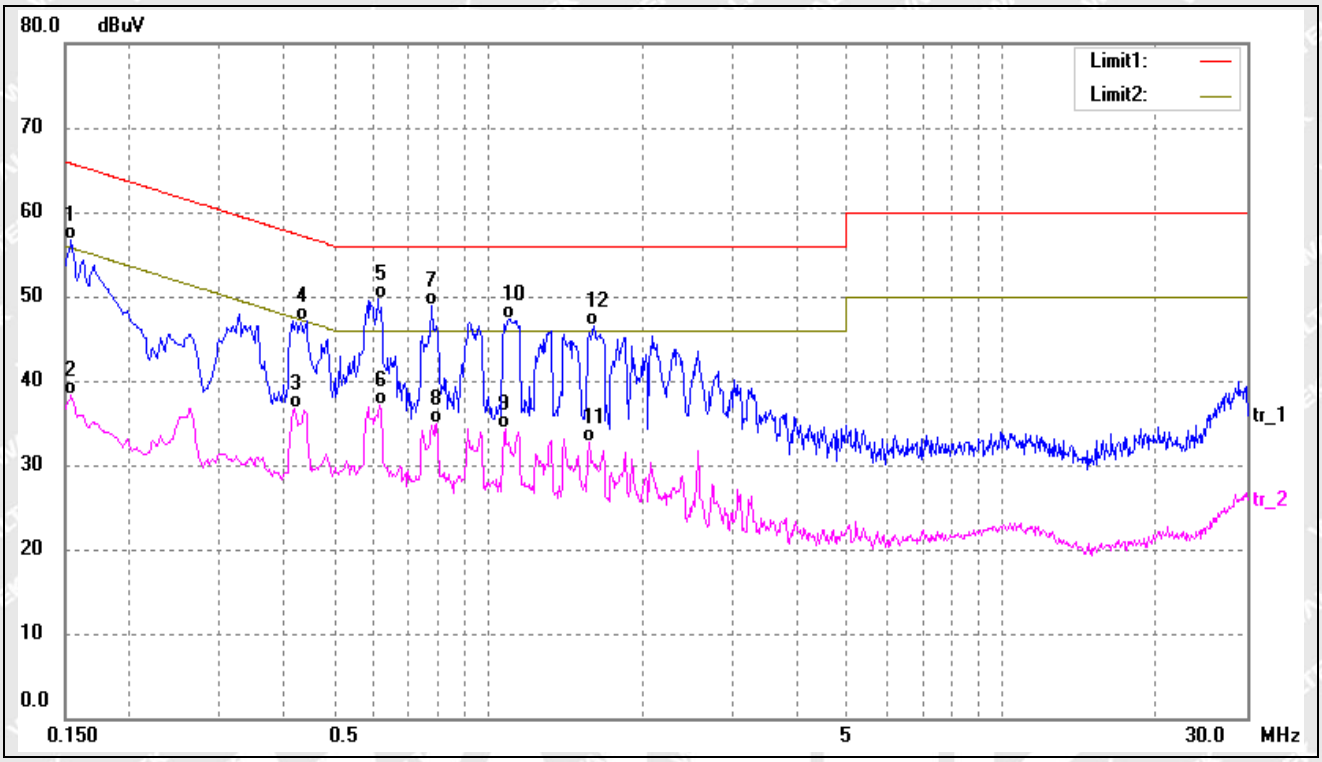
3.3 Environmental Conditions

Temperature:	23.5 °C
Relative Humidity:	54 %
ATM Pressure:	998 mbar

3.4 Summary of Test Results

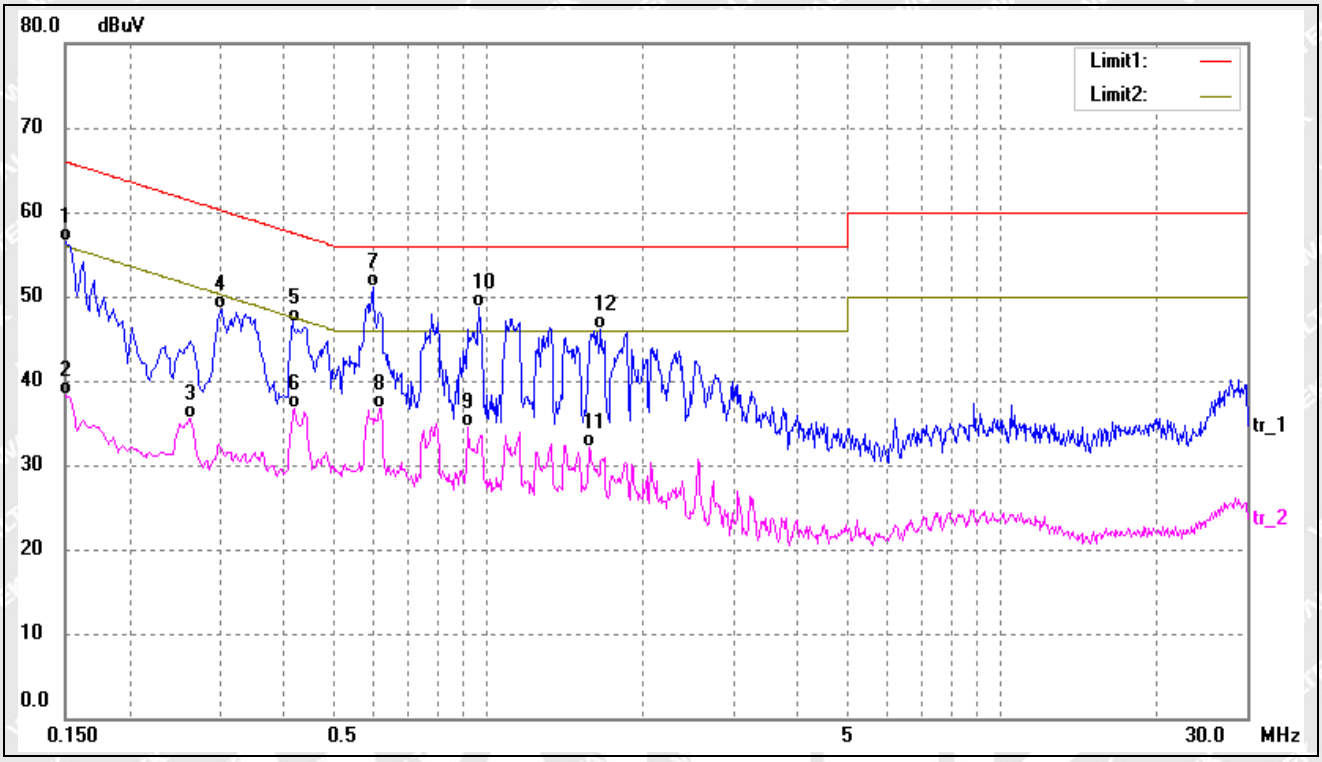
Please find the results below:

Test mode:	TM1	Polarity:	Line



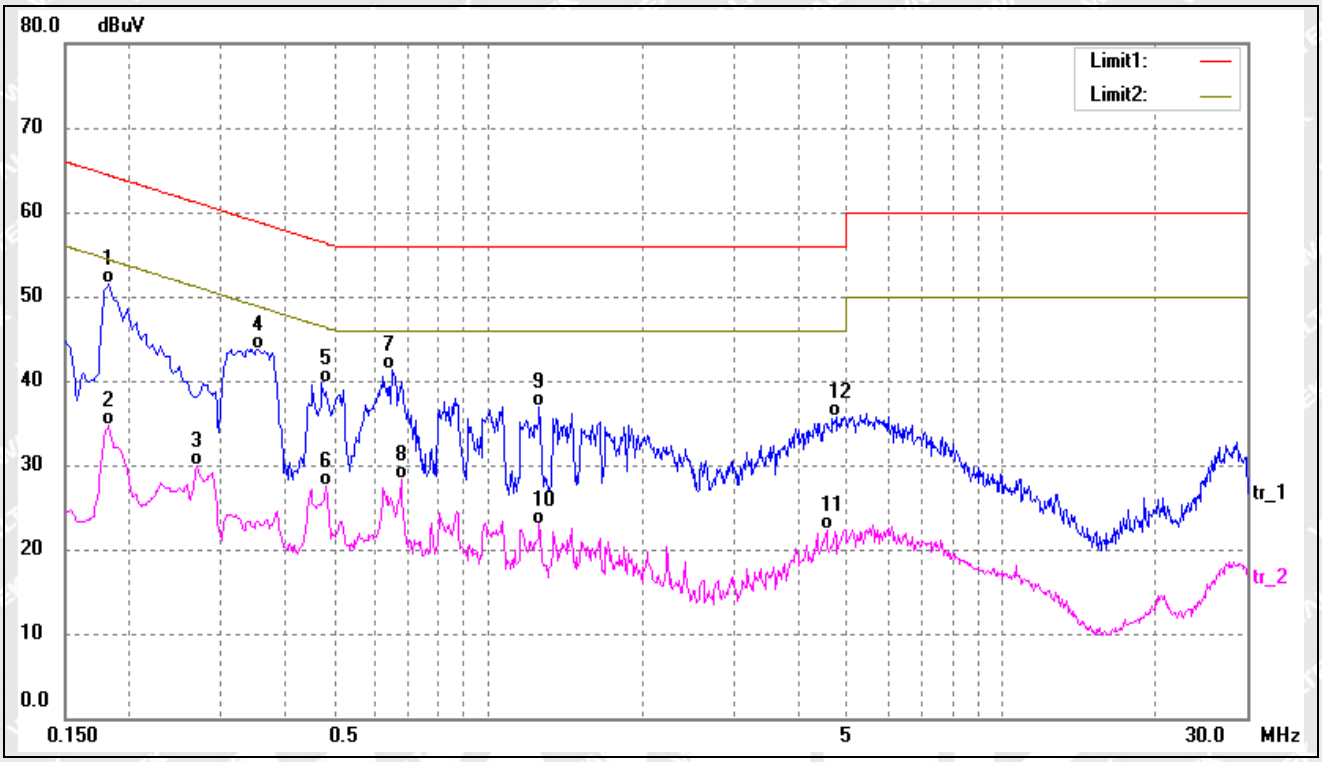
No.	Frequency	Reading	Correct	Result	Limit	Margin	Detector
	(MHz)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dB)	
1	0.1539	46.30	10.41	56.71	65.78	-9.07	QP
2	0.1539	27.91	10.41	38.32	55.78	-17.46	AVG
3	0.4180	26.42	10.26	36.68	47.49	-10.81	AVG
4	0.4420	36.87	10.25	47.12	57.02	-9.90	QP
5*	0.6100	39.52	10.22	49.74	56.00	-6.26	QP
6	0.6140	26.80	10.22	37.02	46.00	-8.98	AVG
7	0.7780	38.71	10.18	48.89	56.00	-7.11	QP
8	0.7940	24.79	10.18	34.97	46.00	-11.03	AVG
9	1.0780	24.16	10.16	34.32	46.00	-11.68	AVG
10	1.0980	37.11	10.16	47.27	56.00	-8.73	QP
11	1.5740	22.43	10.25	32.68	46.00	-13.32	AVG
12	1.6060	36.17	10.25	46.42	56.00	-9.58	QP

Test mode:	TM1	Polarity:	Neutral



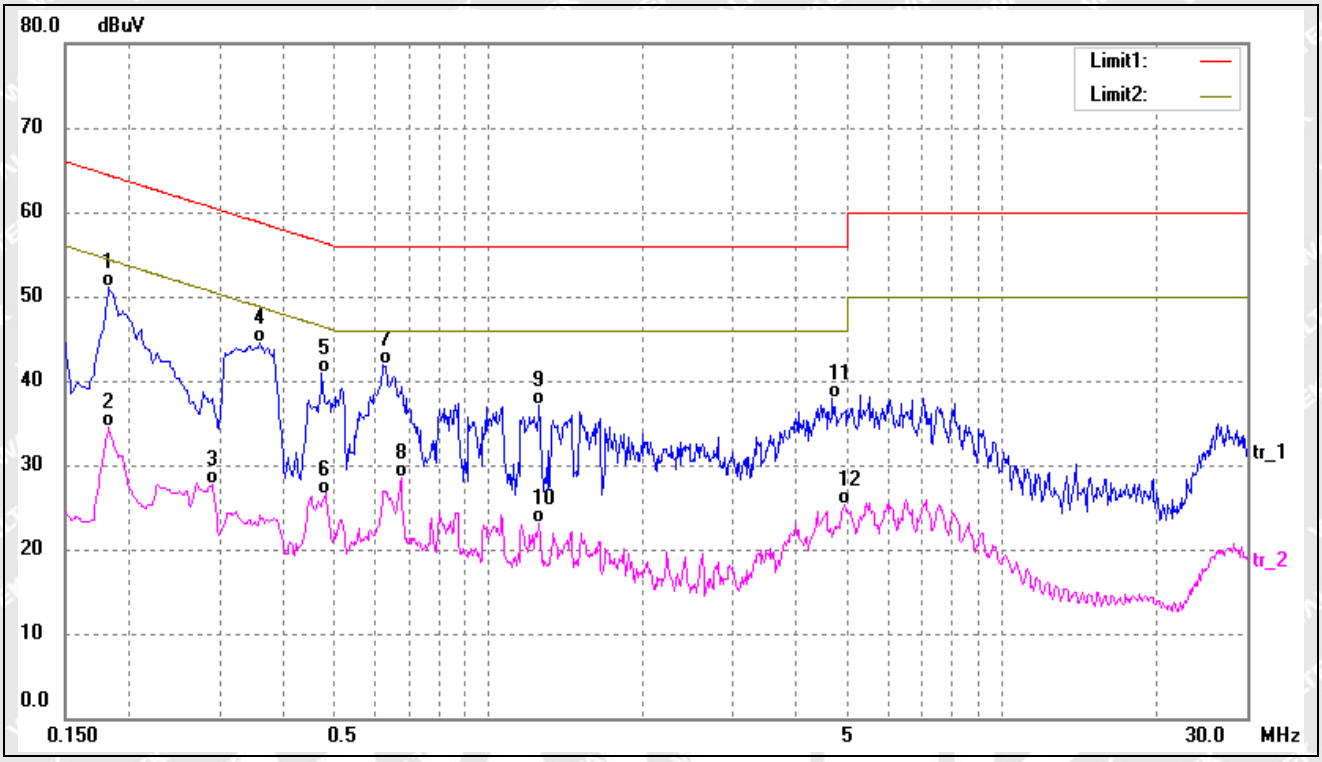
No.	Frequency	Reading	Correct	Result	Limit	Margin	Detector
	(MHz)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dB)	
1	0.1500	46.10	10.40	56.50	65.99	-9.49	QP
2	0.1500	27.87	10.40	38.27	55.99	-17.72	AVG
3	0.2620	25.23	10.34	35.57	51.36	-15.79	AVG
4	0.3020	38.12	10.30	48.42	60.19	-11.77	QP
5	0.4140	36.74	10.26	47.00	57.57	-10.57	QP
6	0.4180	26.41	10.26	36.67	47.49	-10.82	AVG
7*	0.5940	40.97	10.22	51.19	56.00	-4.81	QP
8	0.6180	26.44	10.21	36.65	46.00	-9.35	AVG
9	0.9140	24.41	10.15	34.56	46.00	-11.44	AVG
10	0.9620	38.48	10.15	48.63	56.00	-7.37	QP
11	1.5740	21.87	10.25	32.12	46.00	-13.88	AVG
12	1.6620	35.79	10.27	46.06	56.00	-9.94	QP

Test mode:	TM2	Polarity:	Line



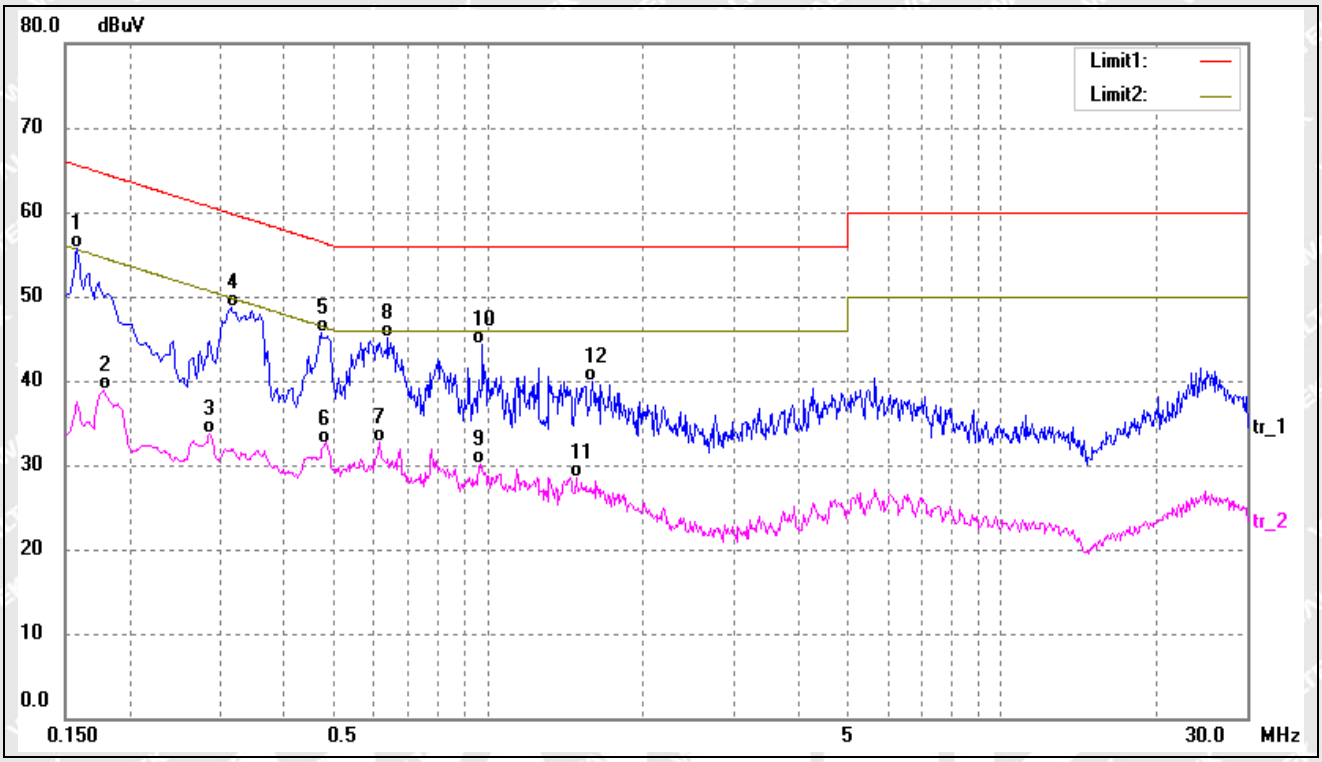
No.	Frequency	Reading	Correct	Result	Limit	Margin	Detector
	(MHz)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dB)	
1*	0.1819	41.09	10.39	51.48	64.39	-12.91	QP
2	0.1819	24.37	10.39	34.76	54.39	-19.63	AVG
3	0.2700	19.62	10.33	29.95	51.12	-21.17	AVG
4	0.3539	33.50	10.28	43.78	58.87	-15.09	QP
5	0.4739	29.46	10.24	39.70	56.45	-16.75	QP
6	0.4819	17.21	10.23	27.44	46.31	-18.87	AVG
7	0.6500	31.02	10.20	41.22	56.00	-14.78	QP
8	0.6780	18.03	10.20	28.23	46.00	-17.77	AVG
9	1.2620	26.77	10.19	36.96	56.00	-19.04	QP
10	1.2620	12.81	10.19	23.00	46.00	-23.00	AVG
11	4.5499	11.88	10.37	22.25	46.00	-23.75	AVG
12	4.7500	25.25	10.38	35.63	56.00	-20.37	QP

Test mode:	TM2	Polarity:	Neutral



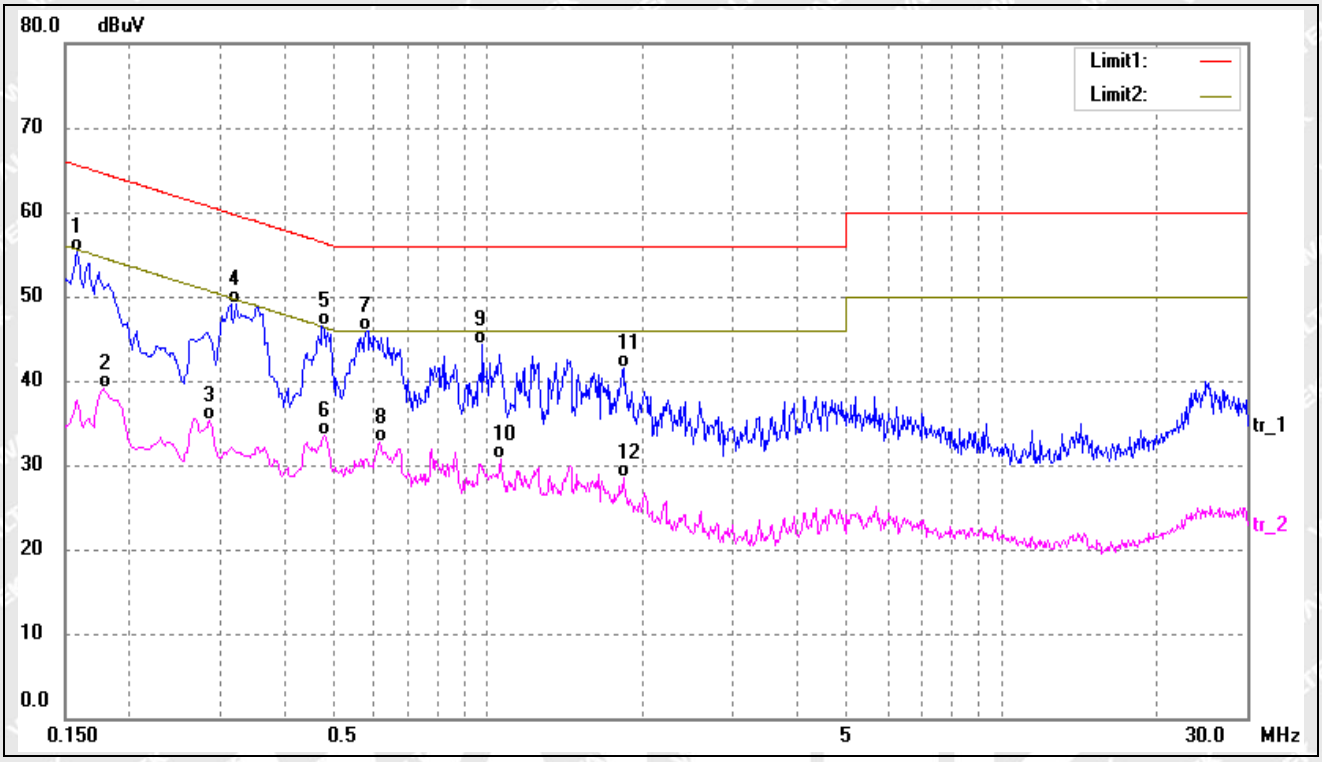
No.	Frequency	Reading	Correct	Result	Limit	Margin	Detector
	(MHz)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dB)	
1*	0.1819	40.64	10.39	51.03	64.39	-13.36	QP
2	0.1819	24.13	10.39	34.52	54.39	-19.87	AVG
3	0.2900	17.36	10.31	27.67	50.52	-22.85	AVG
4	0.3580	34.23	10.28	44.51	58.77	-14.26	QP
5	0.4740	30.57	10.25	40.82	56.44	-15.62	QP
6	0.4820	16.37	10.23	26.60	46.30	-19.70	AVG
7	0.6260	31.74	10.20	41.94	56.00	-14.06	QP
8	0.6780	18.36	10.20	28.56	46.00	-17.44	AVG
9	1.2579	26.97	10.19	37.16	56.00	-18.84	QP
10	1.2579	12.98	10.19	23.17	46.00	-22.83	AVG
11	4.6820	27.53	10.37	37.90	56.00	-18.10	QP
12	4.9420	14.98	10.38	25.36	46.00	-20.64	AVG

Test mode:	TM3	Polarity:	Line



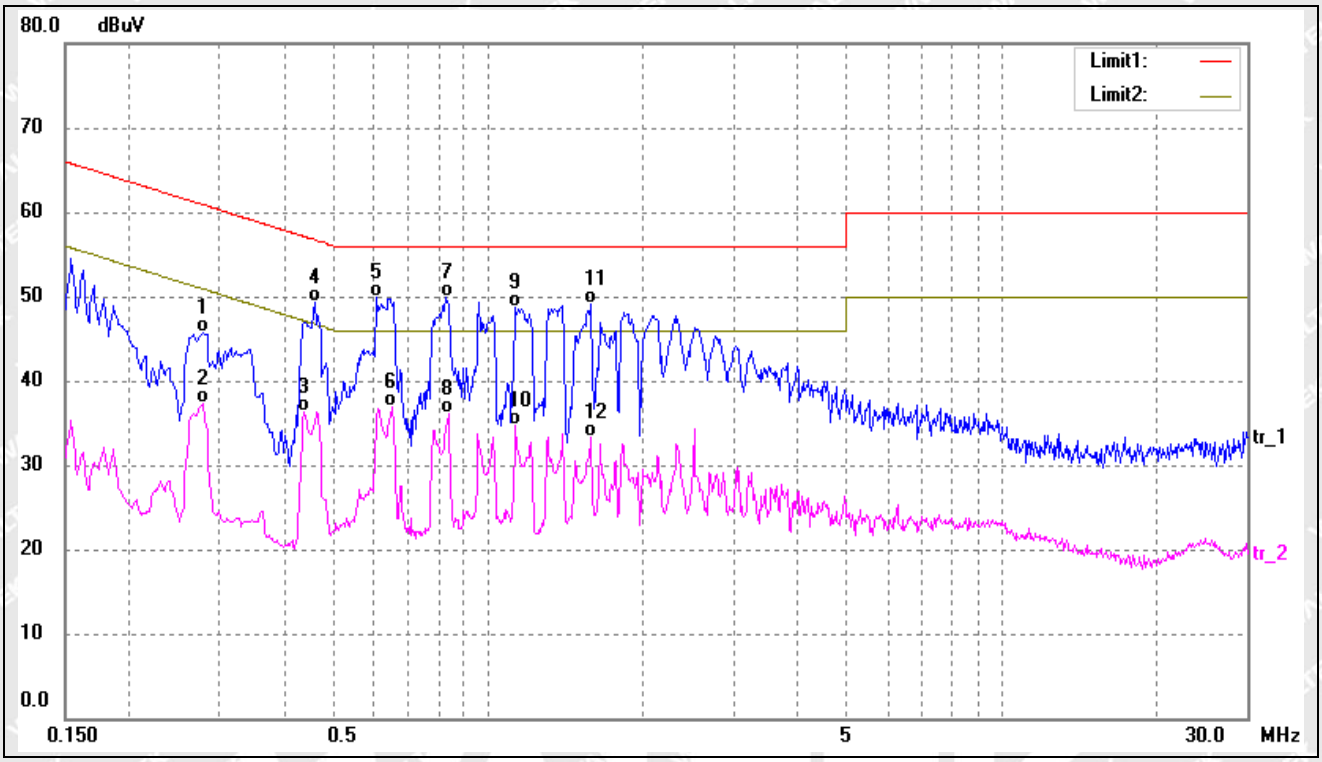
No.	Frequency	Reading	Correct	Result	Limit	Margin	Detector
	(MHz)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dB)	
1*	0.1580	45.29	10.40	55.69	65.56	-9.87	QP
2	0.1780	28.46	10.39	38.85	54.57	-15.72	AVG
3	0.2860	23.35	10.31	33.66	50.64	-16.98	AVG
4	0.3140	38.36	10.30	48.66	59.86	-11.20	QP
5	0.4700	35.48	10.25	45.73	56.51	-10.78	QP
6	0.4820	22.37	10.23	32.60	46.30	-13.70	AVG
7	0.6140	22.52	10.22	32.74	46.00	-13.26	AVG
8	0.6380	34.97	10.20	45.17	56.00	-10.83	QP
9	0.9660	19.92	10.14	30.06	46.00	-15.94	AVG
10	0.9740	34.26	10.14	44.40	56.00	-11.60	QP
11	1.4860	18.30	10.23	28.53	46.00	-17.47	AVG
12	1.5980	29.62	10.25	39.87	56.00	-16.13	QP

Test mode:	TM3	Polarity:	Neutral



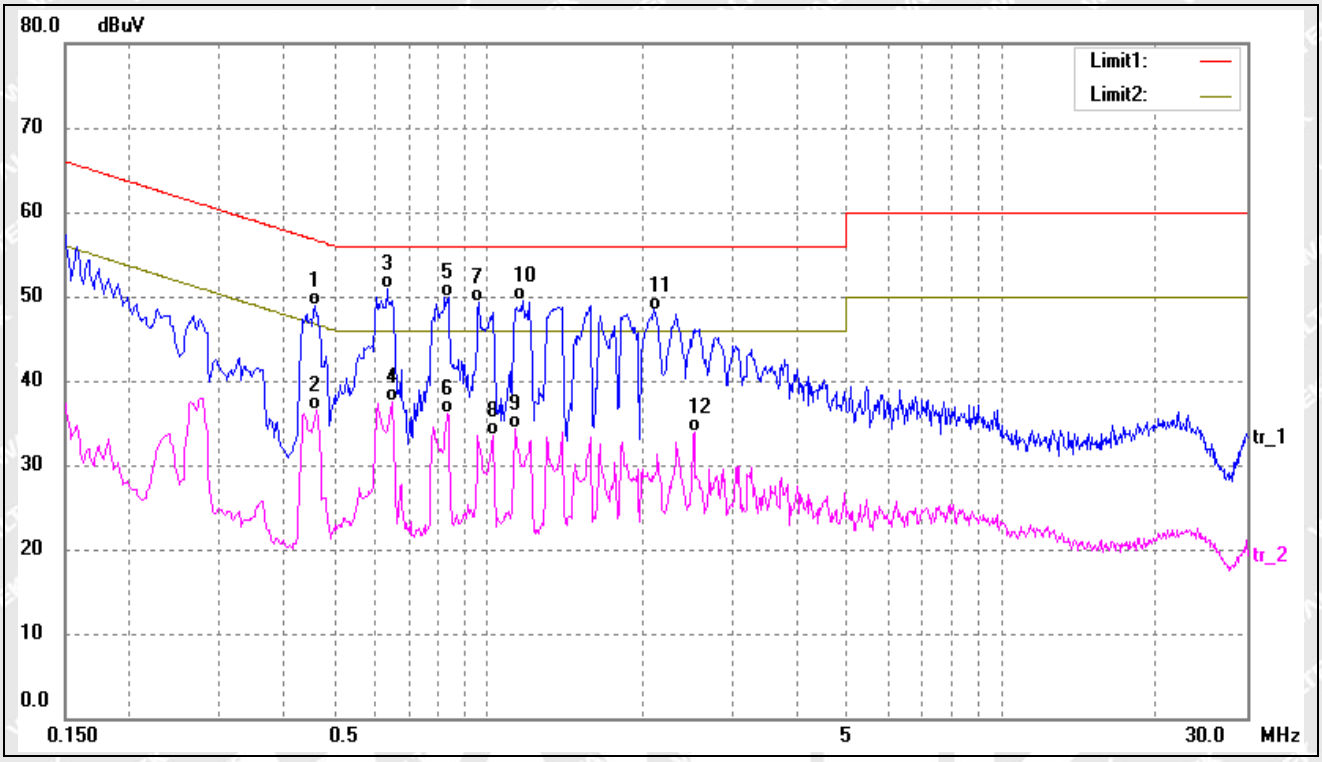
No.	Frequency	Reading	Correct	Result	Limit	Margin	Detector
	(MHz)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dB)	
1	0.1580	44.93	10.40	55.33	65.56	-10.23	QP
2	0.1780	28.71	10.39	39.10	54.57	-15.47	AVG
3	0.2860	25.08	10.31	35.39	50.64	-15.25	AVG
4	0.3220	38.80	10.30	49.10	59.65	-10.55	QP
5*	0.4740	36.31	10.25	46.56	56.44	-9.88	QP
6	0.4780	23.32	10.23	33.55	46.37	-12.82	AVG
7	0.5820	35.70	10.22	45.92	56.00	-10.08	QP
8	0.6140	22.44	10.22	32.66	46.00	-13.34	AVG
9	0.9780	34.20	10.14	44.34	56.00	-11.66	QP
10	1.0580	20.57	10.16	30.73	46.00	-15.27	AVG
11	1.8340	31.30	10.29	41.59	56.00	-14.41	QP
12	1.8340	18.19	10.29	28.48	46.00	-17.52	AVG

Test mode:	TM4	Polarity:	Line



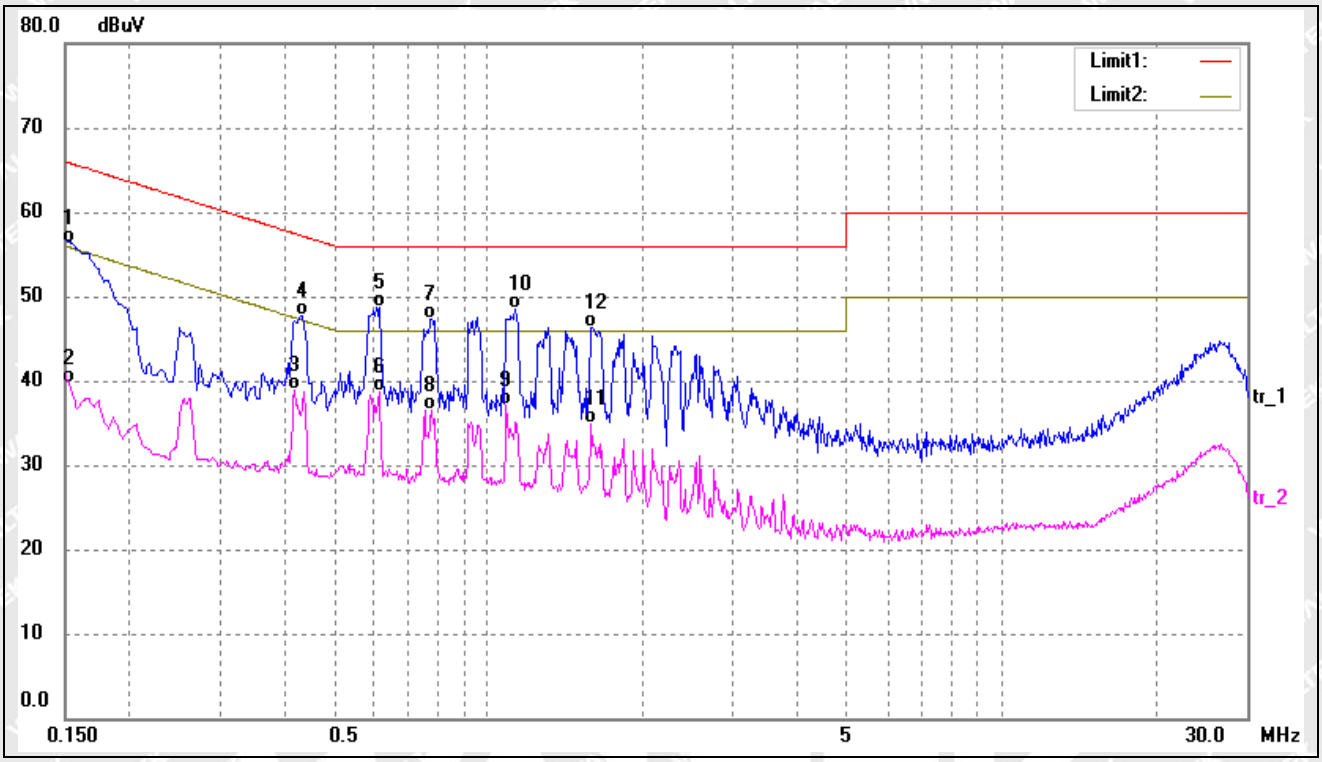
No.	Frequency	Reading	Correct	Result	Limit	Margin	Detector
	(MHz)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dB)	
1	0.2779	35.40	10.31	45.71	60.88	-15.17	QP
2	0.2779	27.09	10.31	37.40	50.88	-13.48	AVG
3	0.4380	26.12	10.25	36.37	47.10	-10.73	AVG
4	0.4580	39.09	10.25	49.34	56.73	-7.39	QP
5	0.6059	39.66	10.22	49.88	56.00	-6.12	QP
6	0.6500	26.62	10.20	36.82	46.00	-9.18	AVG
7*	0.8299	39.72	10.17	49.89	56.00	-6.11	QP
8	0.8379	25.84	10.17	36.01	46.00	-9.99	AVG
9	1.1298	38.61	10.16	48.77	56.00	-7.23	QP
10	1.1298	24.57	10.16	34.73	46.00	-11.27	AVG
11	1.5859	38.84	10.25	49.09	56.00	-6.91	QP
12	1.5859	22.98	10.25	33.23	46.00	-12.77	AVG

Test mode:	TM4	Polarity:	Neutral



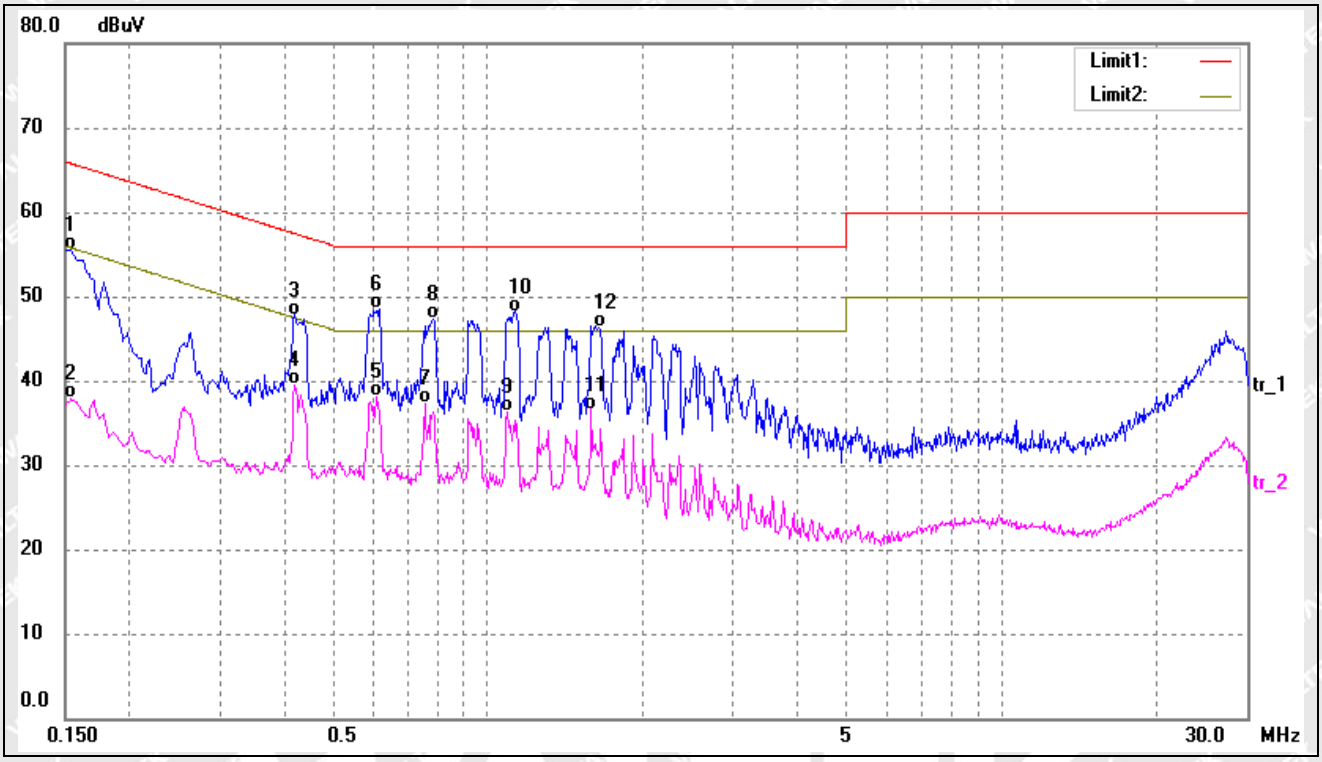
No.	Frequency	Reading	Correct	Result	Limit	Margin	Detector
	(MHz)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dB)	
1	0.4580	38.70	10.25	48.95	56.73	-7.78	QP
2	0.4620	26.30	10.25	36.55	46.66	-10.11	AVG
3*	0.6340	40.80	10.20	51.00	56.00	-5.00	QP
4	0.6500	27.28	10.20	37.48	46.00	-8.52	AVG
5	0.8259	39.75	10.17	49.92	56.00	-6.08	QP
6	0.8339	25.92	10.17	36.09	46.00	-9.91	AVG
7	0.9619	39.14	10.15	49.29	56.00	-6.71	QP
8	1.0220	23.42	10.14	33.56	46.00	-12.44	AVG
9	1.1298	24.20	10.16	34.36	46.00	-11.64	AVG
10	1.1659	39.38	10.17	49.55	56.00	-6.45	QP
11	2.1099	38.07	10.33	48.40	56.00	-7.60	QP
12	2.5139	23.58	10.34	33.92	46.00	-12.08	AVG

Test mode:	TM5	Polarity:	Line



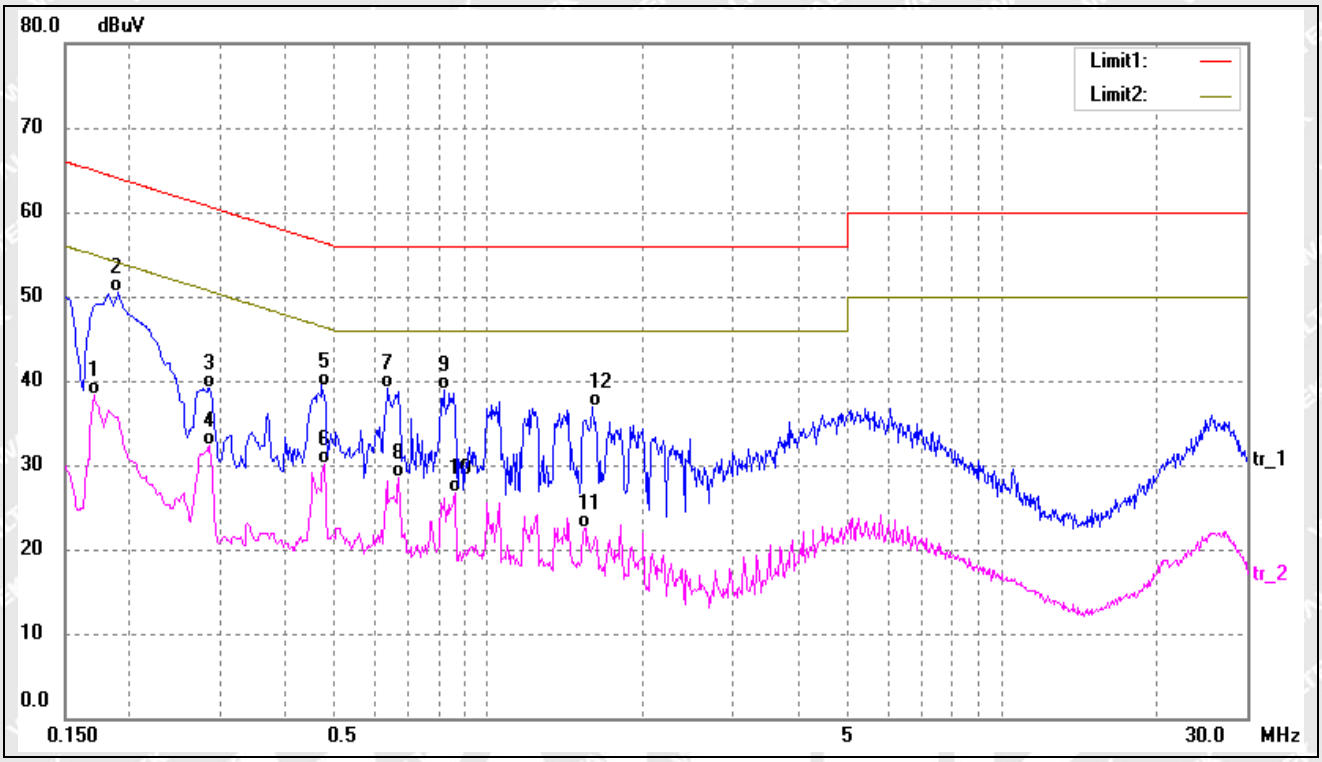
No.	Frequency	Reading	Correct	Result	Limit	Margin	Detector
	(MHz)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dB)	
1	0.1539	45.97	10.41	56.38	65.78	-9.40	QP
2	0.1539	29.34	10.41	39.75	55.78	-16.03	AVG
3	0.4180	28.62	10.26	38.88	47.49	-8.61	AVG
4	0.4300	37.46	10.25	47.71	57.25	-9.54	QP
5*	0.6140	38.47	10.22	48.69	56.00	-7.31	QP
6	0.6140	28.42	10.22	38.64	46.00	-7.36	AVG
7	0.7740	37.21	10.18	47.39	56.00	-8.61	QP
8	0.7780	26.36	10.18	36.54	46.00	-9.46	AVG
9	1.0859	26.86	10.16	37.02	46.00	-8.98	AVG
10	1.1260	38.34	10.16	48.50	56.00	-7.50	QP
11	1.5859	24.69	10.25	34.94	46.00	-11.06	AVG
12	1.5980	36.11	10.25	46.36	56.00	-9.64	QP

Test mode:	TM5	Polarity:	Neutral



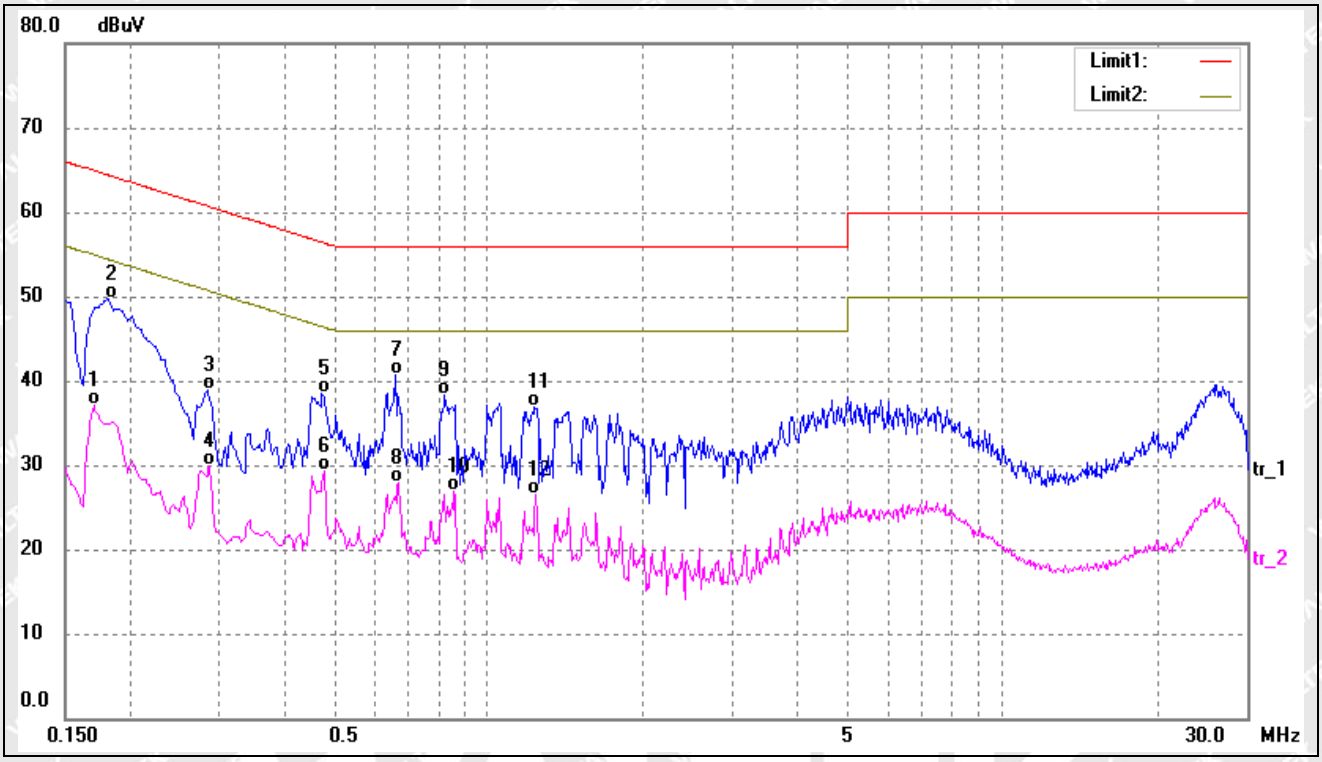
No.	Frequency	Reading	Correct	Result	Limit	Margin	Detector
	(MHz)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dB)	
1	0.1500	45.12	10.40	55.52	65.99	-10.47	QP
2	0.1539	27.43	10.41	37.84	55.78	-17.94	AVG
3	0.4180	37.54	10.26	47.80	57.49	-9.69	QP
4	0.4180	29.29	10.26	39.55	47.49	-7.94	AVG
5	0.6060	27.89	10.22	38.11	46.00	-7.89	AVG
6*	0.6140	38.34	10.22	48.56	56.00	-7.44	QP
7	0.7539	27.16	10.19	37.35	46.00	-8.65	AVG
8	0.7820	37.09	10.18	47.27	56.00	-8.73	QP
9	1.0900	26.19	10.16	36.35	46.00	-9.65	AVG
10	1.1300	38.04	10.16	48.20	56.00	-7.80	QP
11	1.5859	26.35	10.25	36.60	46.00	-9.40	AVG
12	1.6420	36.11	10.26	46.37	56.00	-9.63	QP

Test mode:	TM6	Polarity:	Line



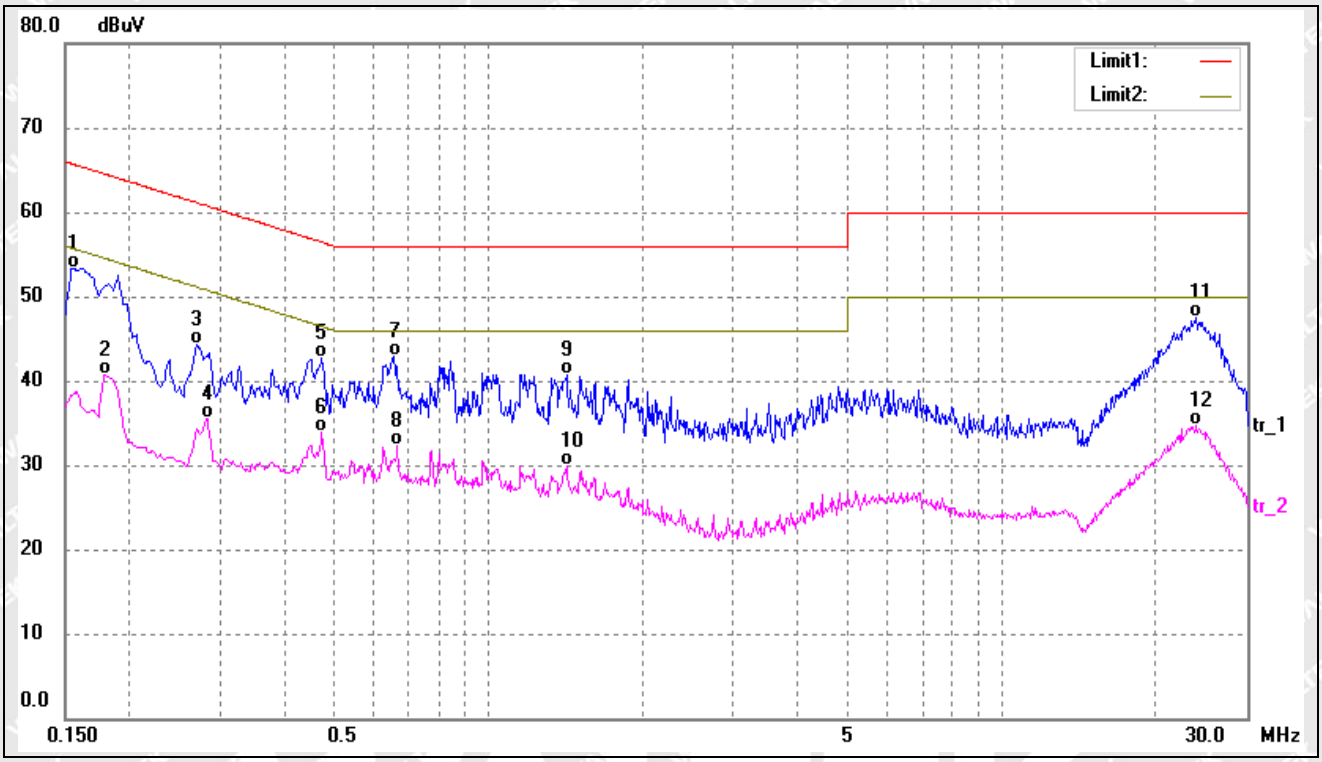
No.	Frequency	Reading	Correct	Result	Limit	Margin	Detector
	(MHz)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dB)	
1	0.1700	27.92	10.40	38.32	54.96	-16.64	AVG
2*	0.1900	40.03	10.39	50.42	64.03	-13.61	QP
3	0.2860	28.86	10.31	39.17	60.64	-21.47	QP
4	0.2860	21.95	10.31	32.26	50.64	-18.38	AVG
5	0.4740	29.16	10.24	39.40	56.44	-17.04	QP
6	0.4780	19.90	10.23	30.13	46.37	-16.24	AVG
7	0.6380	28.93	10.20	39.13	56.00	-16.87	QP
8	0.6700	18.37	10.20	28.57	46.00	-17.43	AVG
9	0.8180	28.64	10.18	38.82	56.00	-17.18	QP
10	0.8620	16.49	10.17	26.66	46.00	-19.34	AVG
11	1.5420	12.27	10.24	22.51	46.00	-23.49	AVG
12	1.5940	26.56	10.25	36.81	56.00	-19.19	QP

Test mode:	TM6	Polarity:	Neutral



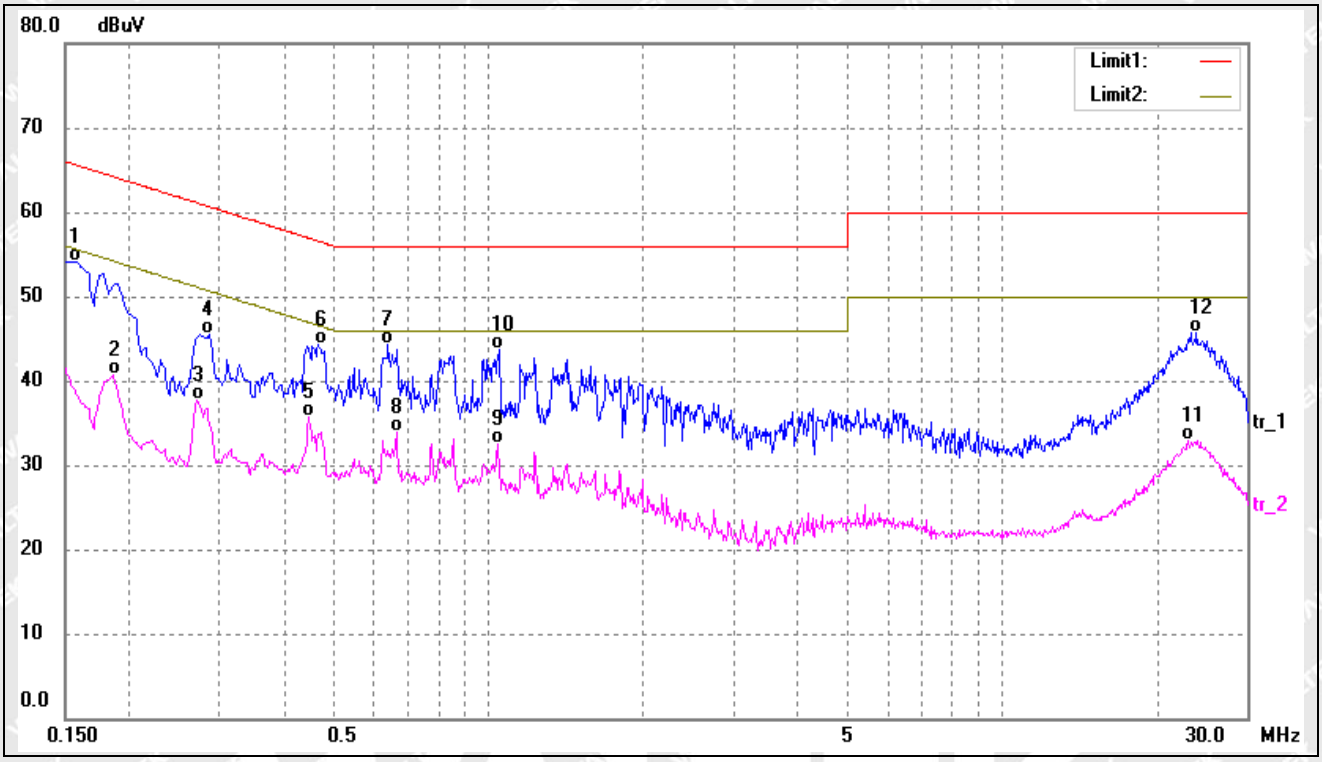
No.	Frequency	Reading	Correct	Result	Limit	Margin	Detector
	(MHz)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dB)	
1	0.1700	26.71	10.40	37.11	54.96	-17.85	AVG
2*	0.1819	39.34	10.39	49.73	64.39	-14.66	QP
3	0.2819	28.52	10.31	38.83	60.76	-21.93	QP
4	0.2859	19.63	10.31	29.94	50.64	-20.70	AVG
5	0.4739	28.25	10.24	38.49	56.45	-17.96	QP
6	0.4779	19.02	10.23	29.25	46.38	-17.13	AVG
7	0.6580	30.42	10.20	40.62	56.00	-15.38	QP
8	0.6700	17.69	10.20	27.89	46.00	-18.11	AVG
9	0.8219	28.20	10.18	38.38	56.00	-17.62	QP
10	0.8579	16.78	10.17	26.95	46.00	-19.05	AVG
11	1.2338	26.74	10.18	36.92	56.00	-19.08	QP
12	1.2419	16.32	10.18	26.50	46.00	-19.50	AVG

Test mode:	TM7	Polarity:	Line



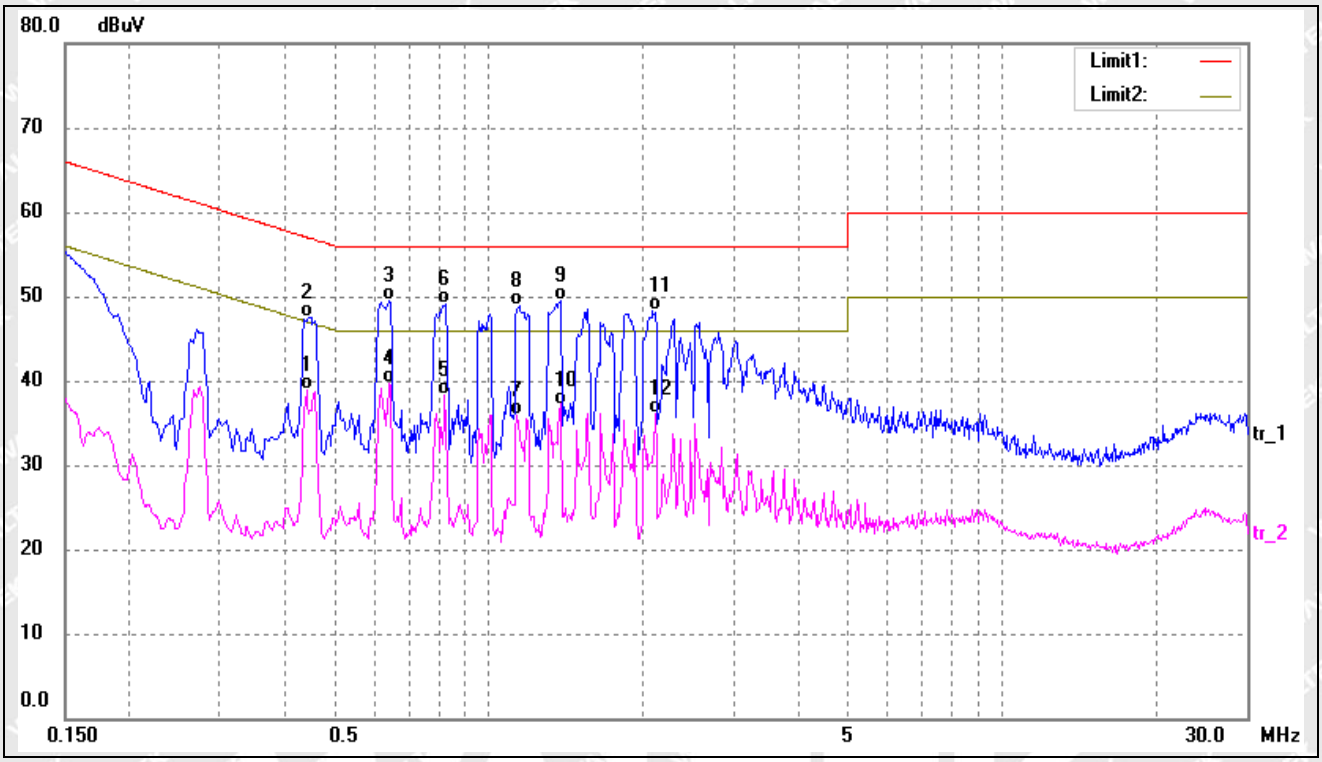
No.	Frequency	Reading	Correct	Result	Limit	Margin	Detector
	(MHz)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dB)	
1	0.1539	42.93	10.41	53.34	65.78	-12.44	QP
2	0.1780	30.38	10.39	40.77	54.57	-13.80	AVG
3	0.2700	33.98	10.33	44.31	61.12	-16.81	QP
4	0.2819	25.26	10.31	35.57	50.76	-15.19	AVG
5	0.4740	32.42	10.25	42.67	56.44	-13.77	QP
6	0.4740	23.63	10.25	33.88	46.44	-12.56	AVG
7	0.6540	32.70	10.20	42.90	56.00	-13.10	QP
8	0.6660	22.01	10.20	32.21	46.00	-13.79	AVG
9	1.4220	30.42	10.22	40.64	56.00	-15.36	QP
10	1.4220	19.66	10.22	29.88	46.00	-16.12	AVG
11*	23.9420	37.25	10.31	47.56	60.00	-12.44	QP
12	23.9420	24.37	10.31	34.68	50.00	-15.32	AVG

Test mode:	TM7	Polarity:	Neutral



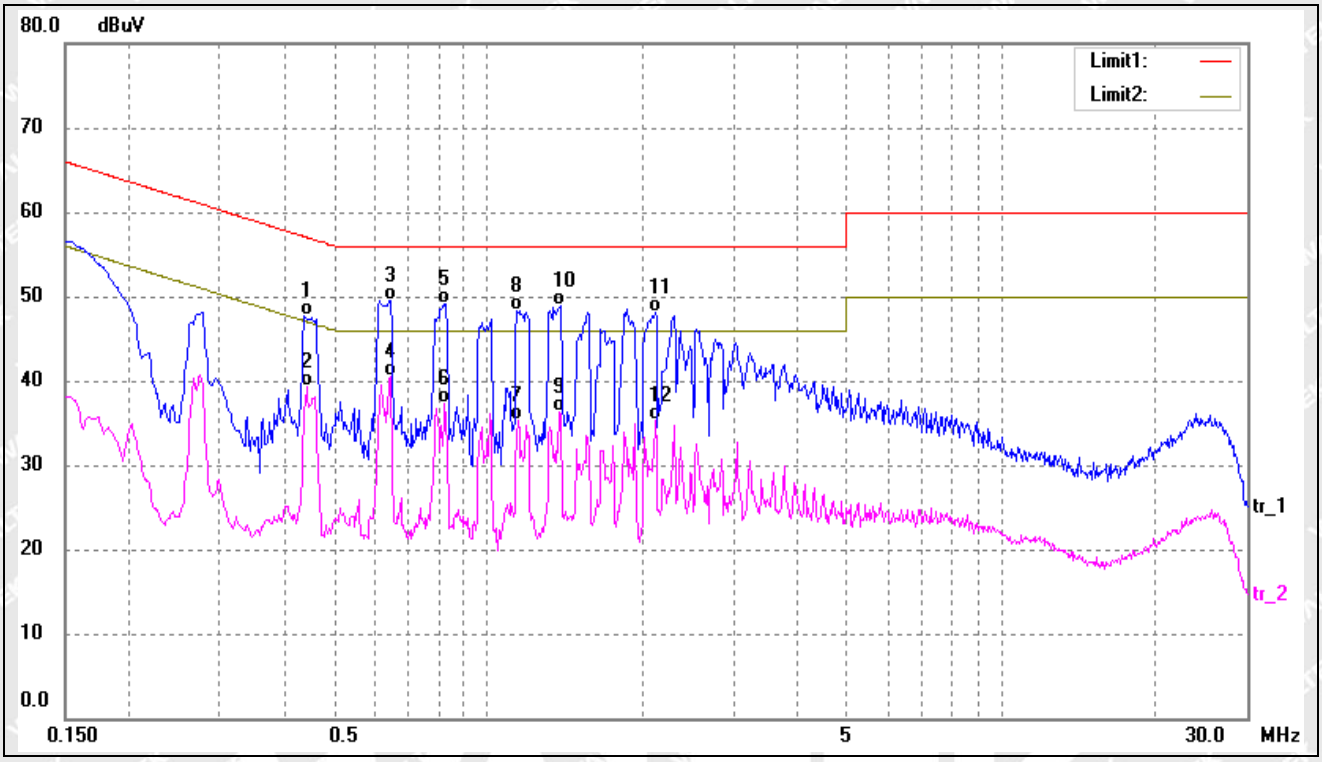
No.	Frequency	Reading	Correct	Result	Limit	Margin	Detector
	(MHz)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dB)	
1	0.1580	43.72	10.40	54.12	65.56	-11.44	QP
2	0.1860	30.26	10.40	40.66	54.21	-13.55	AVG
3	0.2700	27.38	10.33	37.71	51.12	-13.41	AVG
4	0.2860	35.21	10.31	45.52	60.64	-15.12	QP
5*	0.4460	25.44	10.25	35.69	46.95	-11.26	AVG
6	0.4660	34.11	10.25	44.36	56.58	-12.22	QP
7	0.6380	34.18	10.20	44.38	56.00	-11.62	QP
8	0.6620	23.74	10.20	33.94	46.00	-12.06	AVG
9	1.0460	22.46	10.14	32.60	46.00	-13.40	AVG
10	1.0500	33.55	10.14	43.69	56.00	-12.31	QP
11	23.1299	22.58	10.32	32.90	50.00	-17.10	AVG
12	23.9580	35.36	10.31	45.67	60.00	-14.33	QP

Test mode:	TM8	Polarity:	Line



No.	Frequency	Reading	Correct	Result	Limit	Margin	Detector
	(MHz)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dB)	
1	0.4420	28.59	10.25	38.84	47.02	-8.18	AVG
2	0.4460	37.34	10.25	47.59	56.95	-9.36	QP
3	0.6419	39.27	10.20	49.47	56.00	-6.53	QP
4*	0.6419	29.48	10.20	39.68	46.00	-6.32	AVG
5	0.8259	28.13	10.17	38.30	46.00	-7.70	AVG
6	0.8299	38.87	10.17	49.04	56.00	-6.96	QP
7	1.1379	25.66	10.16	35.82	46.00	-10.18	AVG
8	1.1499	38.82	10.16	48.98	56.00	-7.02	QP
9	1.3819	39.22	10.21	49.43	56.00	-6.57	QP
10	1.3819	26.99	10.21	37.20	46.00	-8.80	AVG
11	2.0979	37.92	10.33	48.25	56.00	-7.75	QP
12	2.1179	25.68	10.33	36.01	46.00	-9.99	AVG

Test mode:	TM8	Polarity:	Neutral



No.	Frequency	Reading	Correct	Result	Limit	Margin	Detector
	(MHz)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dB)	
1	0.4380	37.41	10.25	47.66	57.10	-9.44	QP
2	0.4420	29.07	10.25	39.32	47.02	-7.70	AVG
3	0.6460	39.31	10.20	49.51	56.00	-6.49	QP
4*	0.6460	30.23	10.20	40.43	46.00	-5.57	AVG
5	0.8179	39.02	10.18	49.20	56.00	-6.80	QP
6	0.8219	27.05	10.18	37.23	46.00	-8.77	AVG
7	1.1458	25.05	10.16	35.21	46.00	-10.79	AVG
8	1.1498	38.08	10.16	48.24	56.00	-7.76	QP
9	1.3779	26.00	10.21	36.21	46.00	-9.79	AVG
10	1.3819	38.60	10.21	48.81	56.00	-7.19	QP
11	2.1179	37.74	10.33	48.07	56.00	-7.93	QP
12	2.1179	24.92	10.33	35.25	46.00	-10.75	AVG

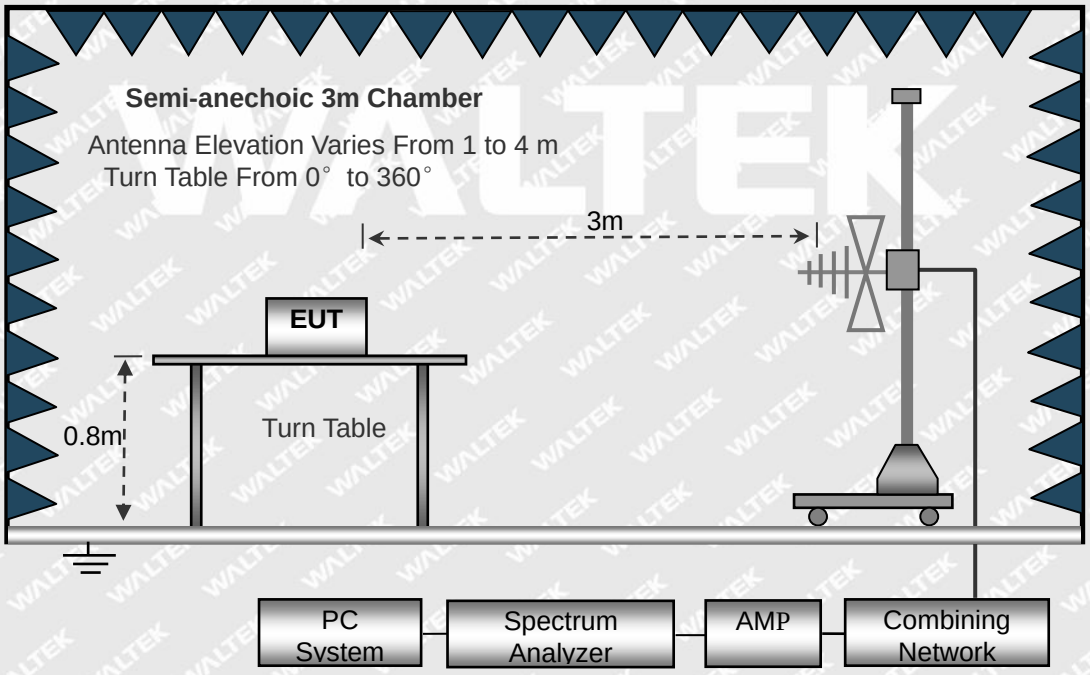
4. Radiated Emission

4.1 Measurement Uncertainty

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

Measurement uncertainty		
Parameter	Conditions	Uncertainty
Radiated Emissions	Radiated	30-200MHz ±4.52dB
		0.2-1GHz ±5.56dB
		1-6GHz ±3.84dB
		6-18GHz ±3.92dB

4.2 Basic Test Setup Block Diagram



4.3 Corrected Amplitude & Margin Calculation

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

Corr. Ampl. = Indicated Reading + Correct

Correct=Ant.Factor + Cable Loss - Ampl.Gain

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

Margin = Corr. Ampl. – CISPR 11 Class B Limit

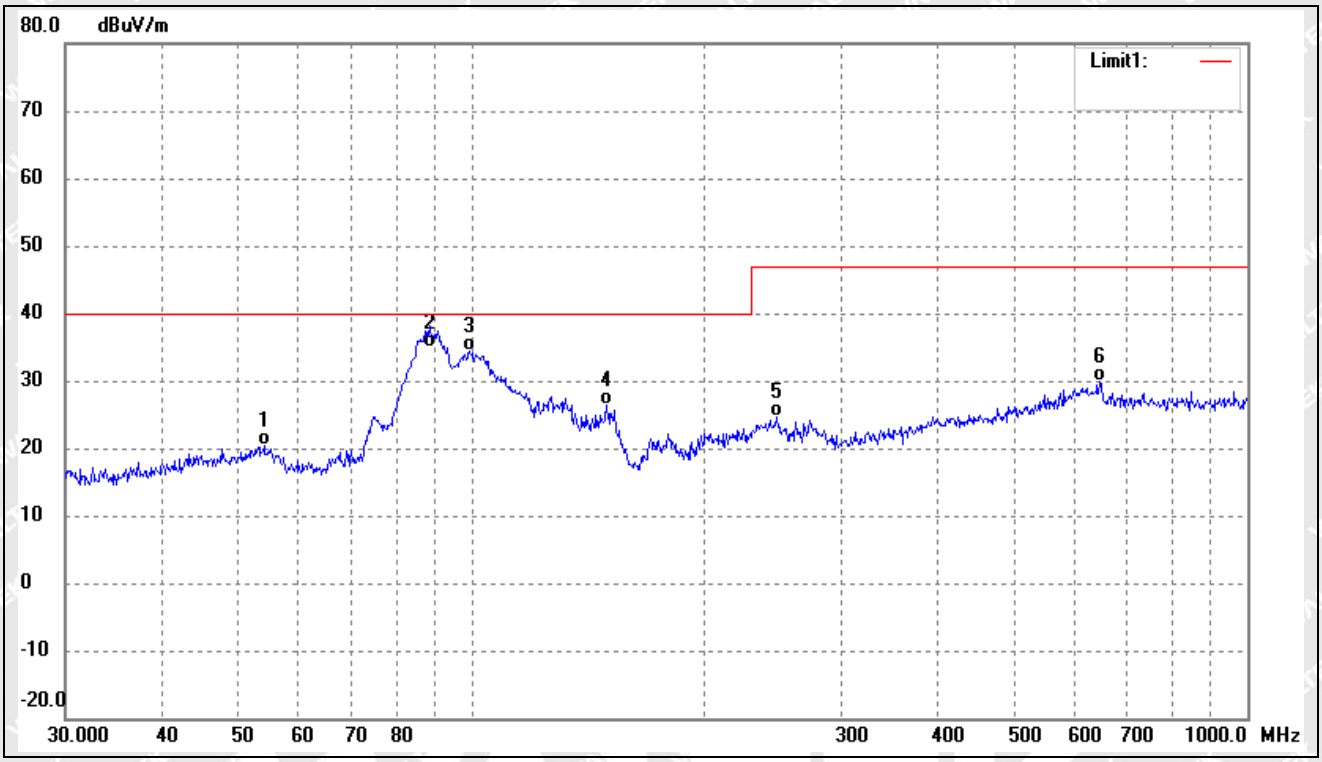
4.4 Environmental Conditions

Temperature:	22.5 °C
Relative Humidity:	54 %
ATM Pressure:	998 mbar

4.5 Summary of Test Results

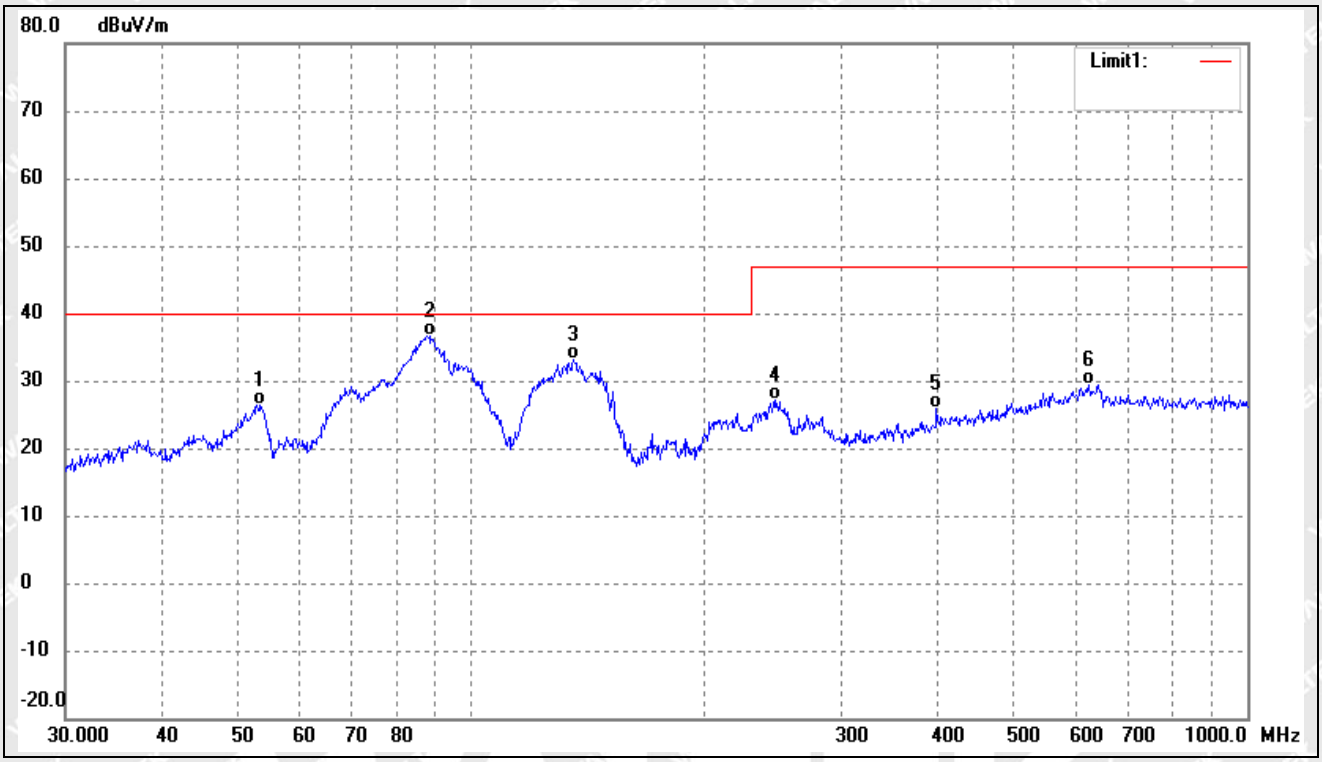
Please find the results below:

Test mode:	TM1	Polarity:	Horizontal



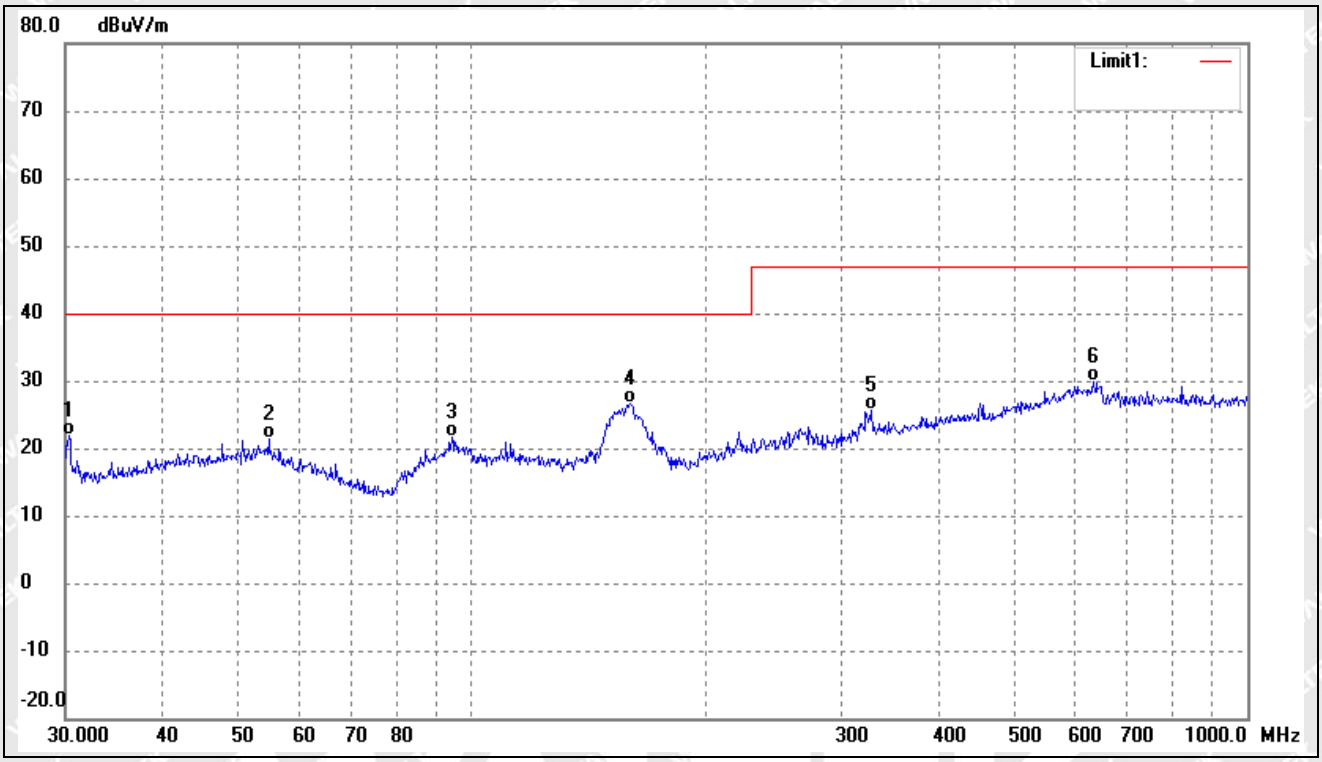
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	54.0711	27.78	-7.52	20.26	40.00	-19.74	QP
2	88.3421	46.21	-11.21	35.00	40.00	-5.00	QP
3	99.5279	43.09	-8.66	34.43	40.00	-5.57	QP
4	149.4857	38.12	-11.74	26.38	40.00	-13.62	QP
5	247.6819	31.14	-6.42	24.72	47.00	-22.28	QP
6	645.1195	28.01	1.94	29.95	47.00	-17.05	QP

Test mode:	TM1	Polarity:	Vertical



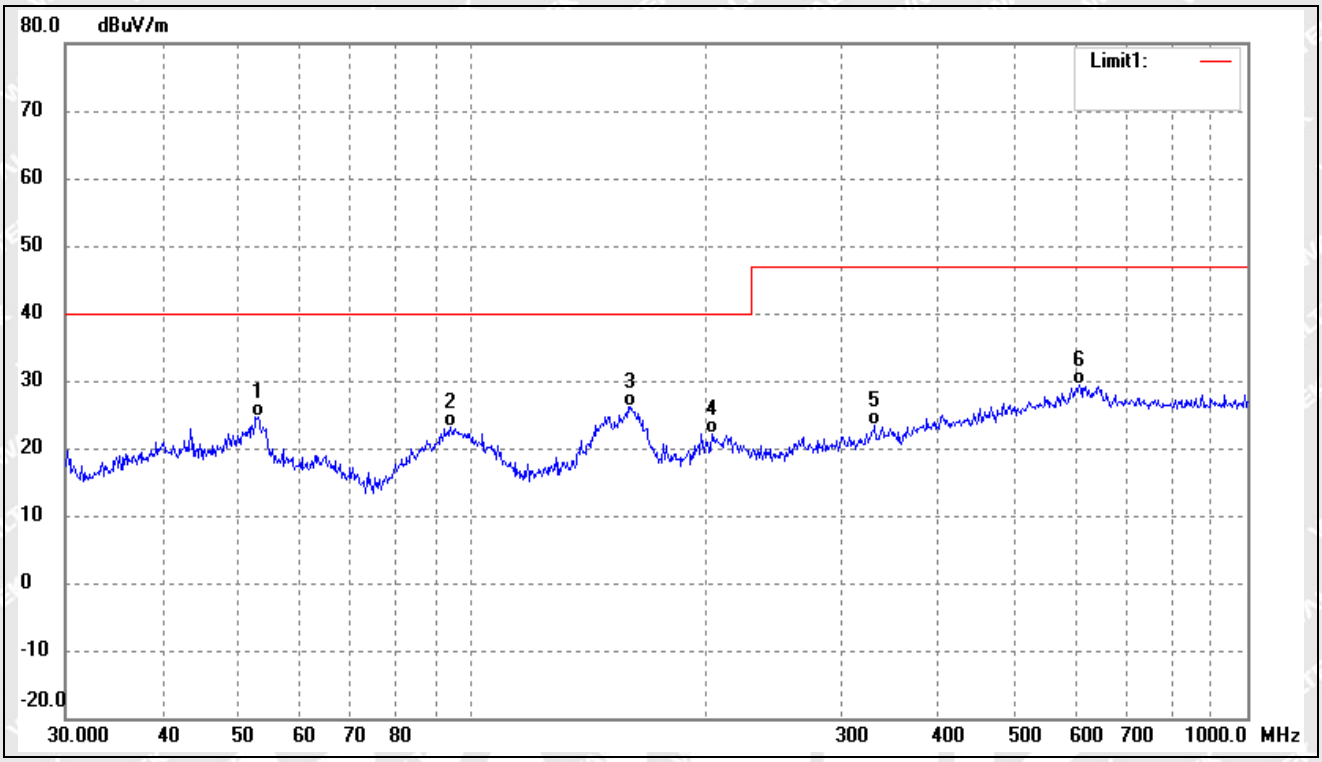
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	53.3179	33.81	-7.47	26.34	40.00	-13.66	QP
2	88.3421	47.84	-11.21	36.63	40.00	-3.37	QP
3	135.5062	44.71	-11.65	33.06	40.00	-6.94	QP
4	245.9508	33.48	-6.45	27.03	47.00	-19.97	QP
5	397.6333	28.46	-2.60	25.86	47.00	-21.14	QP
6	625.0779	27.95	1.50	29.45	47.00	-17.55	QP

Test mode:	TM2	Polarity:	Horizontal



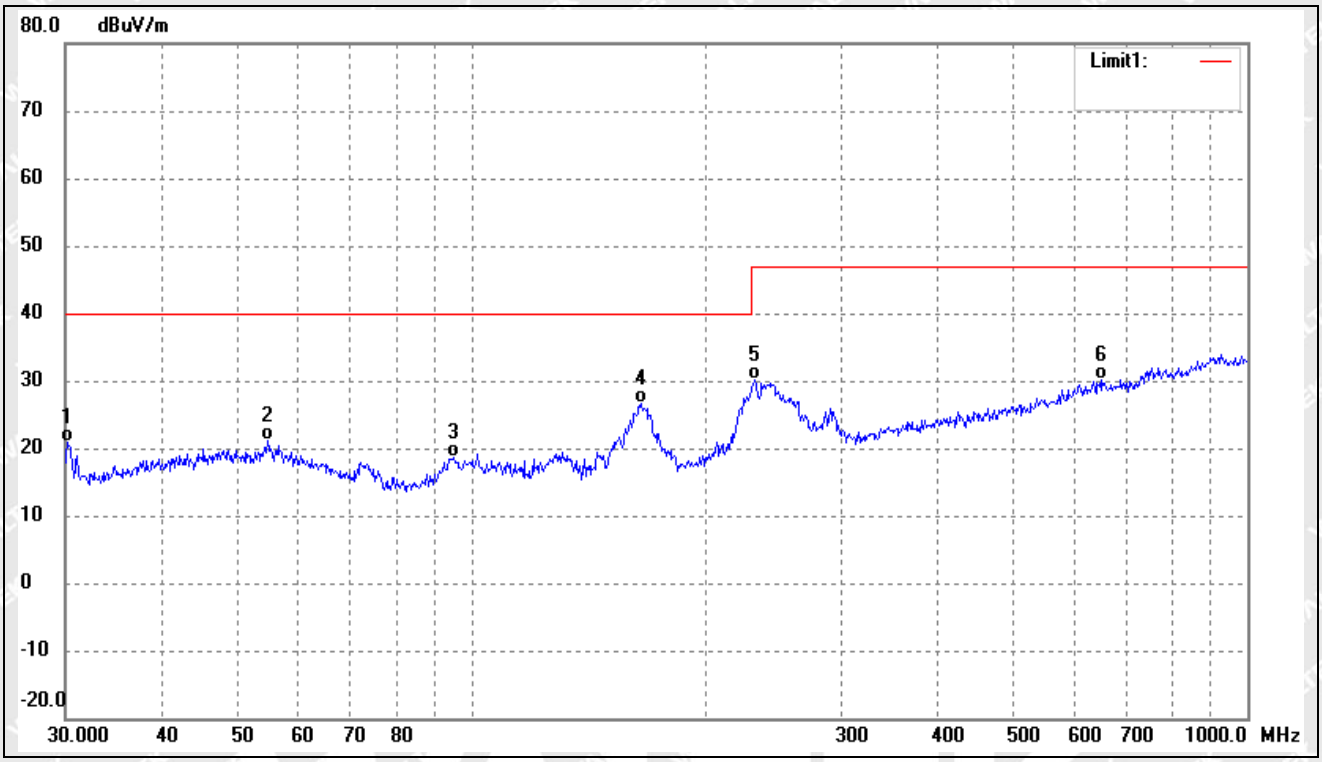
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	30.3172	32.64	-10.76	21.88	40.00	-18.12	QP
2	54.8348	29.01	-7.61	21.40	40.00	-18.60	QP
3	94.4283	31.34	-9.59	21.75	40.00	-18.25	QP
4	160.3456	37.88	-11.19	26.69	40.00	-13.31	QP
5	327.8872	29.67	-3.93	25.74	47.00	-21.26	QP
6	633.9072	28.20	1.63	29.83	47.00	-17.17	QP

Test mode:	TM2	Polarity:	Vertical



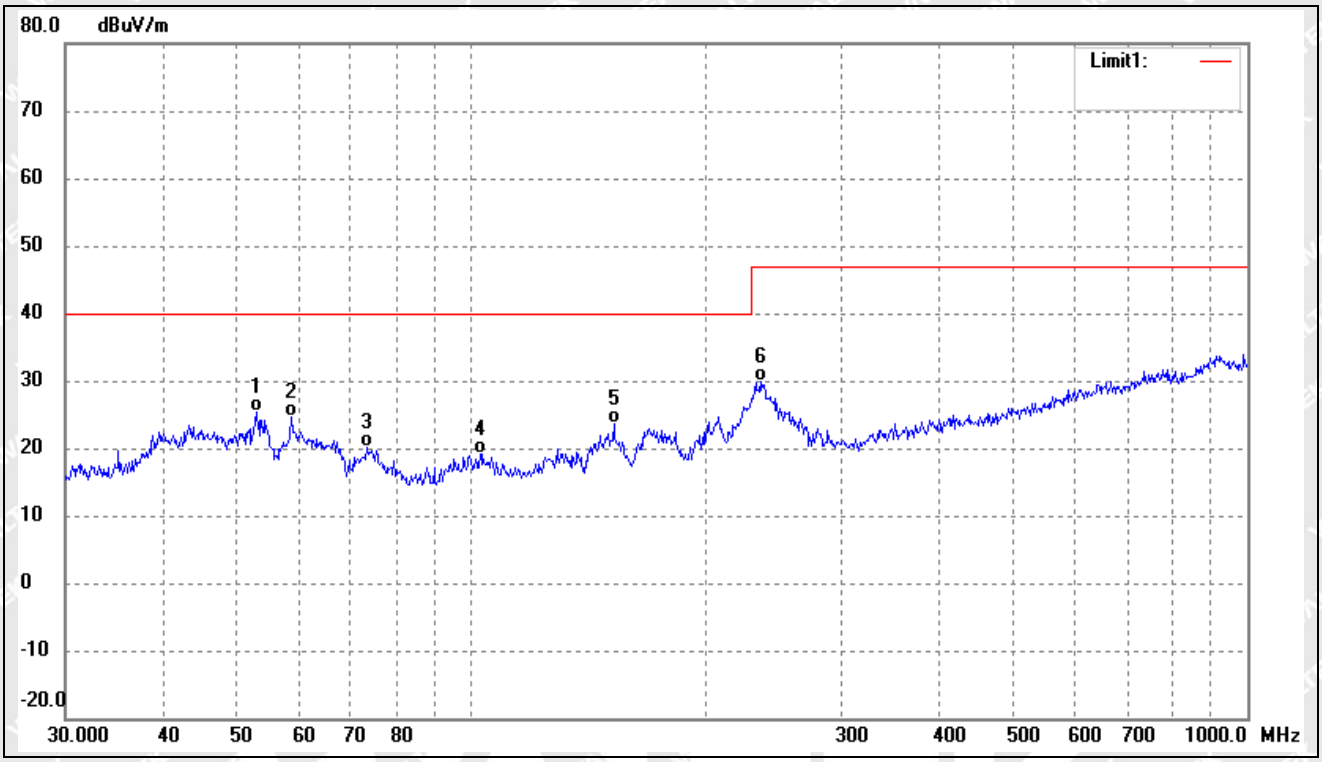
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	53.1313	32.17	-7.45	24.72	40.00	-15.28	QP
2	94.0978	32.80	-9.66	23.14	40.00	-16.86	QP
3	160.3456	37.44	-11.19	26.25	40.00	-13.75	QP
4	204.2376	30.23	-8.04	22.19	40.00	-17.81	QP
5	331.3546	27.06	-3.78	23.28	47.00	-23.72	QP
6	607.7866	27.91	1.52	29.43	47.00	-17.57	QP

Test mode:	TM3	Polarity:	Horizontal



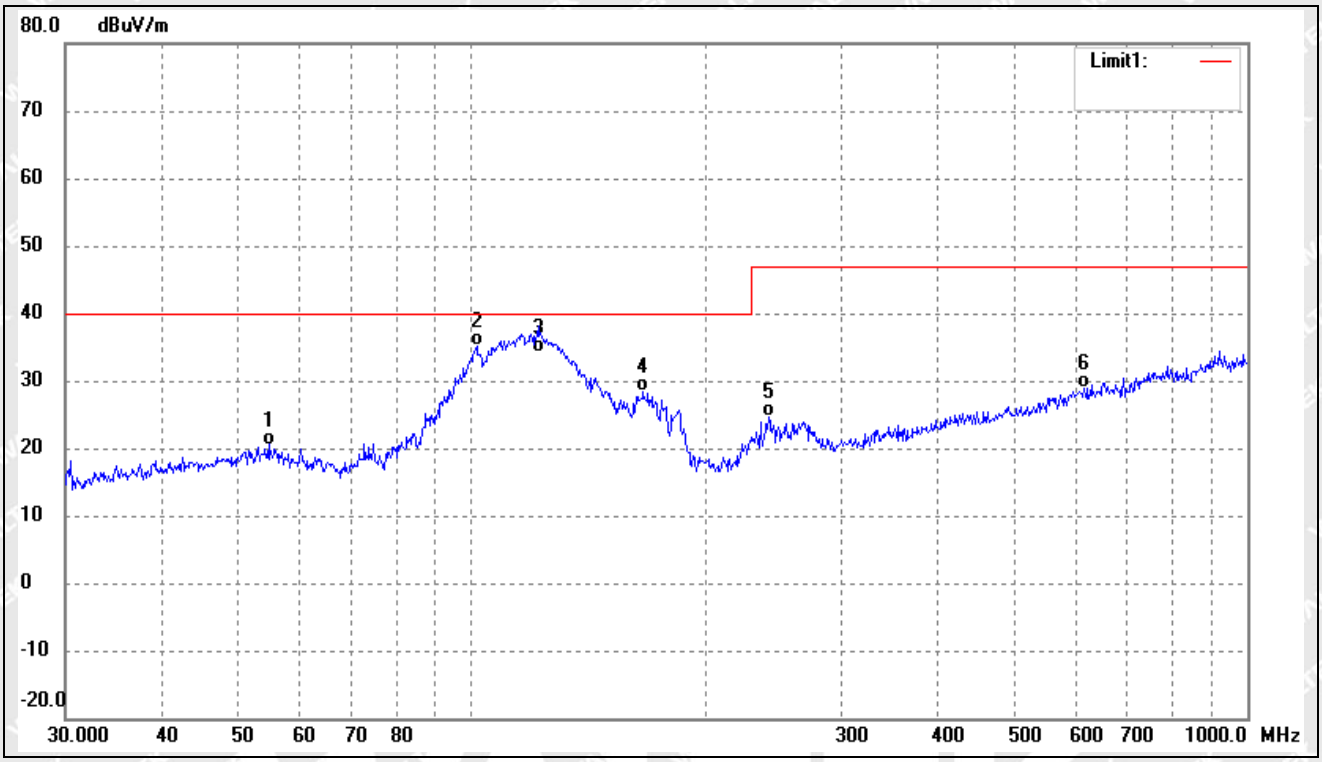
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	30.2110	31.71	-10.76	20.95	40.00	-19.05	QP
2	54.6428	28.74	-7.59	21.15	40.00	-18.85	QP
3	95.0930	27.99	-9.42	18.57	40.00	-21.43	QP
4	165.4866	37.41	-10.89	26.52	40.00	-13.48	QP
5	231.7178	37.20	-7.06	30.14	47.00	-16.86	QP
6	647.3855	28.07	1.99	30.06	47.00	-16.94	QP

Test mode:	TM3	Polarity:	Vertical



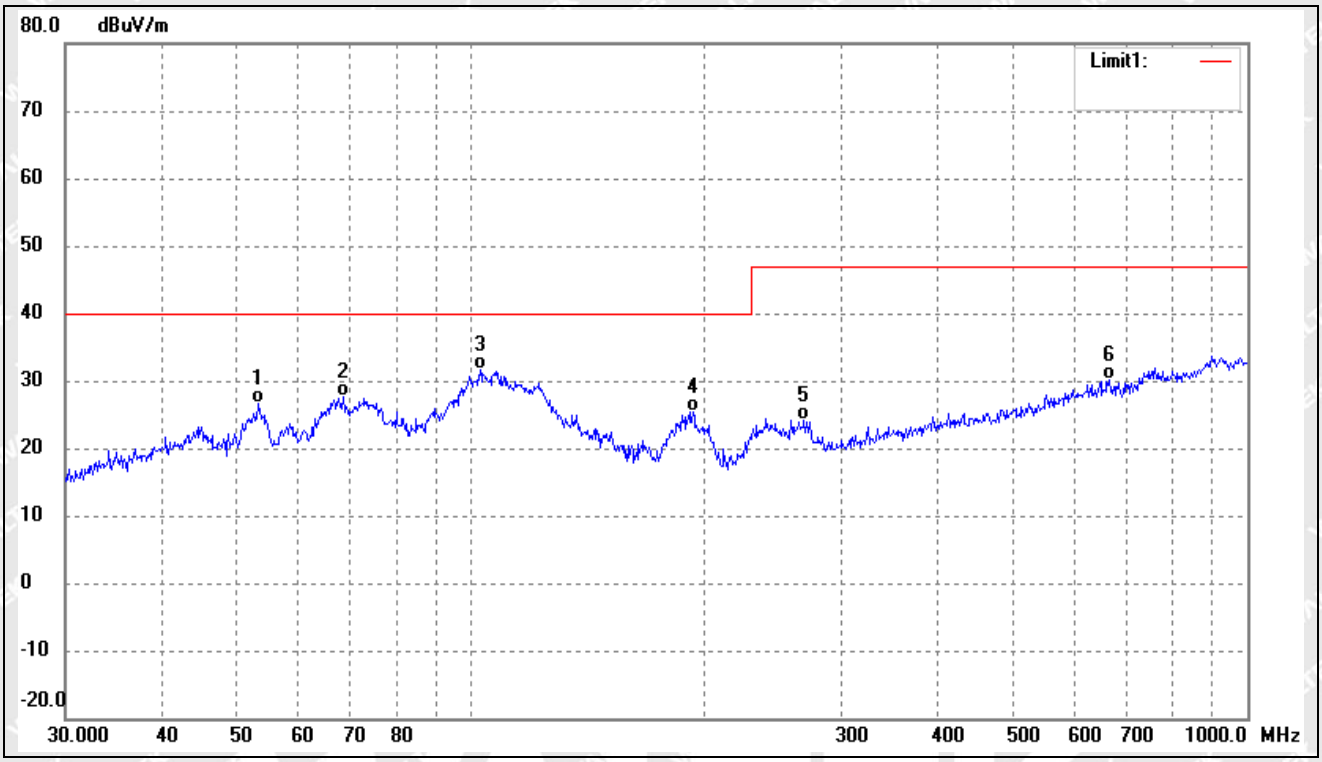
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	52.9453	32.82	-7.44	25.38	40.00	-14.62	QP
2	58.6126	32.73	-8.17	24.56	40.00	-15.44	QP
3	73.3593	32.43	-12.28	20.15	40.00	-19.85	QP
4	102.7192	27.65	-8.47	19.18	40.00	-20.82	QP
5	152.6640	35.16	-11.63	23.53	40.00	-16.47	QP
6	235.8163	36.77	-6.85	29.92	47.00	-17.08	QP

Test mode:	TM4	Polarity:	Horizontal



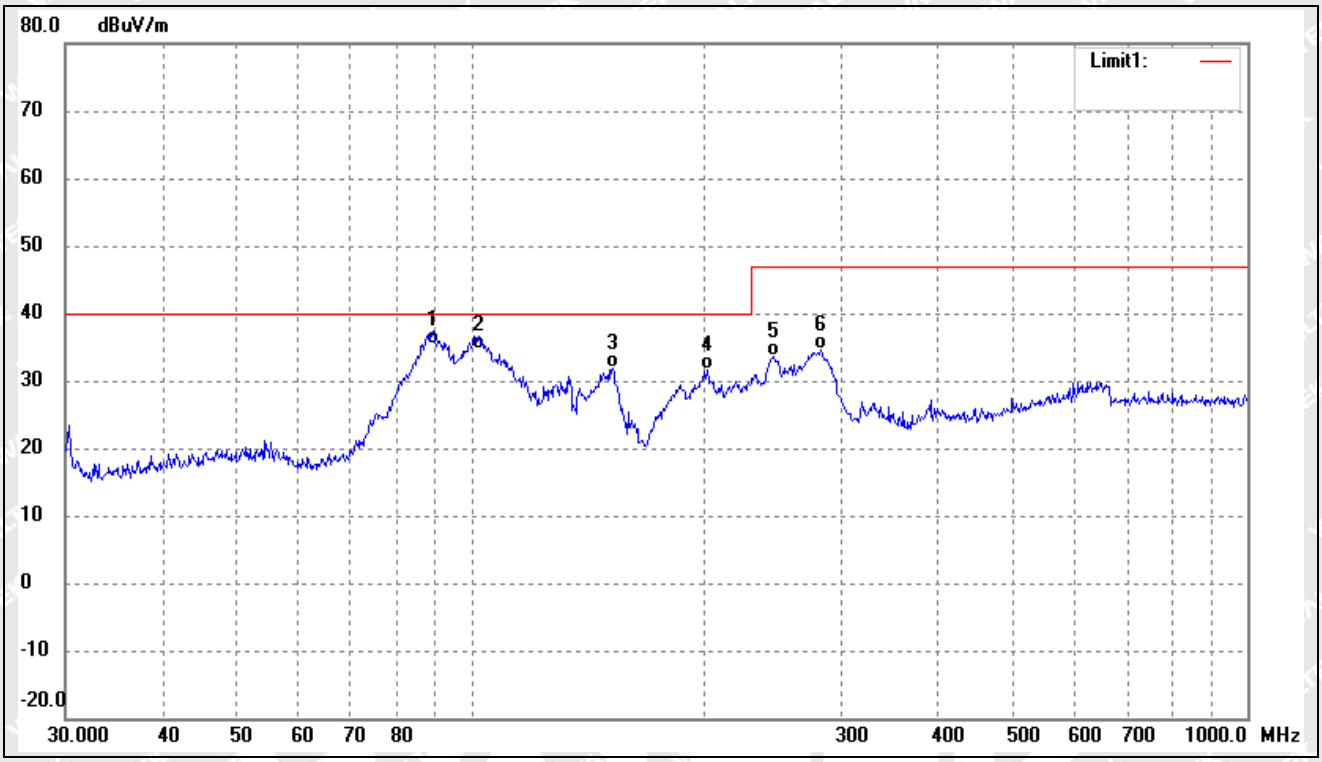
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	54.8348	28.11	-7.61	20.50	40.00	-19.50	QP
2	101.6443	43.69	-8.51	35.18	40.00	-4.82	QP
3	121.9755	44.63	-10.43	34.20	40.00	-5.80	QP
4	166.6514	39.16	-10.82	28.34	40.00	-11.66	QP
5	241.6763	31.21	-6.60	24.61	47.00	-22.39	QP
6	616.3718	27.44	1.48	28.92	47.00	-18.08	QP

Test mode:	TM4	Polarity:	Vertical



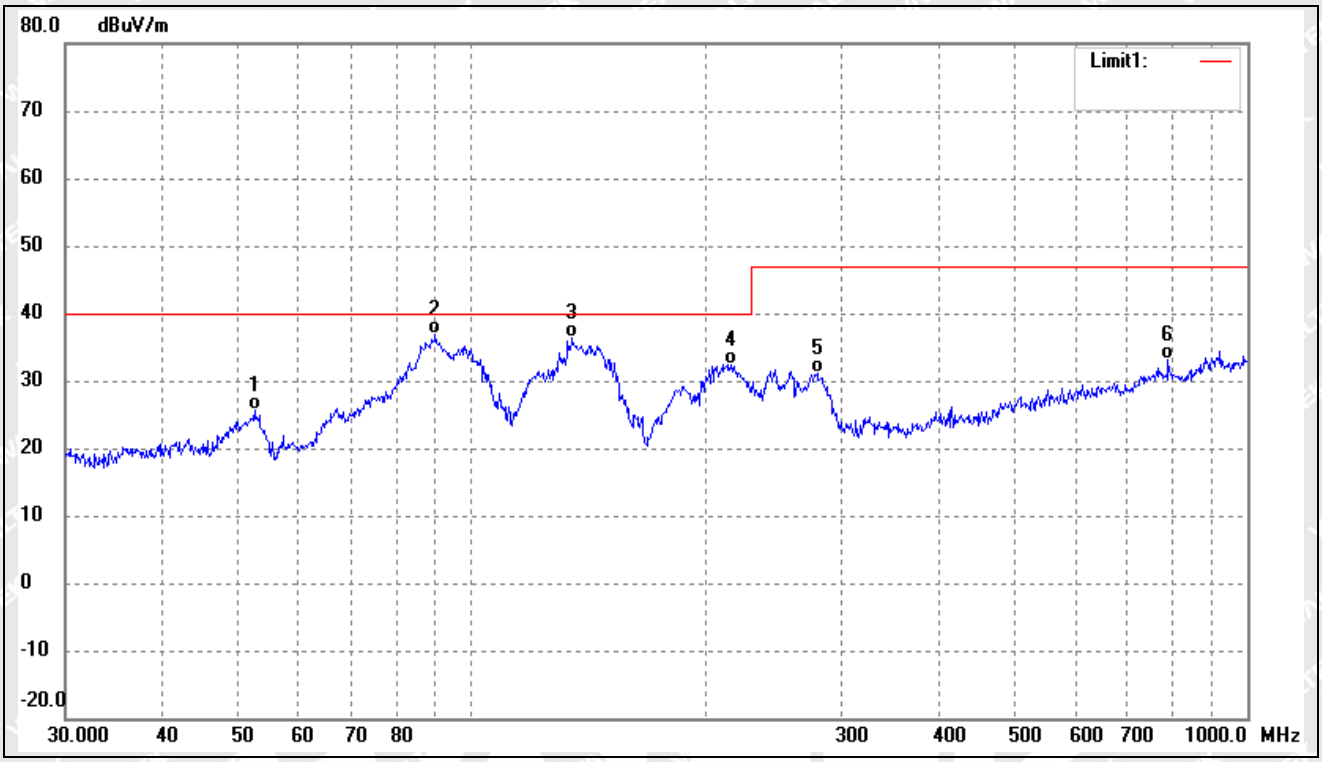
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	53.1313	34.12	-7.45	26.67	40.00	-13.33	QP
2	68.3907	38.57	-10.91	27.66	40.00	-12.34	QP
3	102.7192	40.03	-8.47	31.56	40.00	-8.44	QP
4	193.0945	33.84	-8.34	25.50	40.00	-14.50	QP
5	268.4852	30.15	-6.04	24.11	47.00	-22.89	QP
6	663.4728	27.94	2.10	30.04	47.00	-16.96	QP

Test mode:	TM5	Polarity:	Horizontal



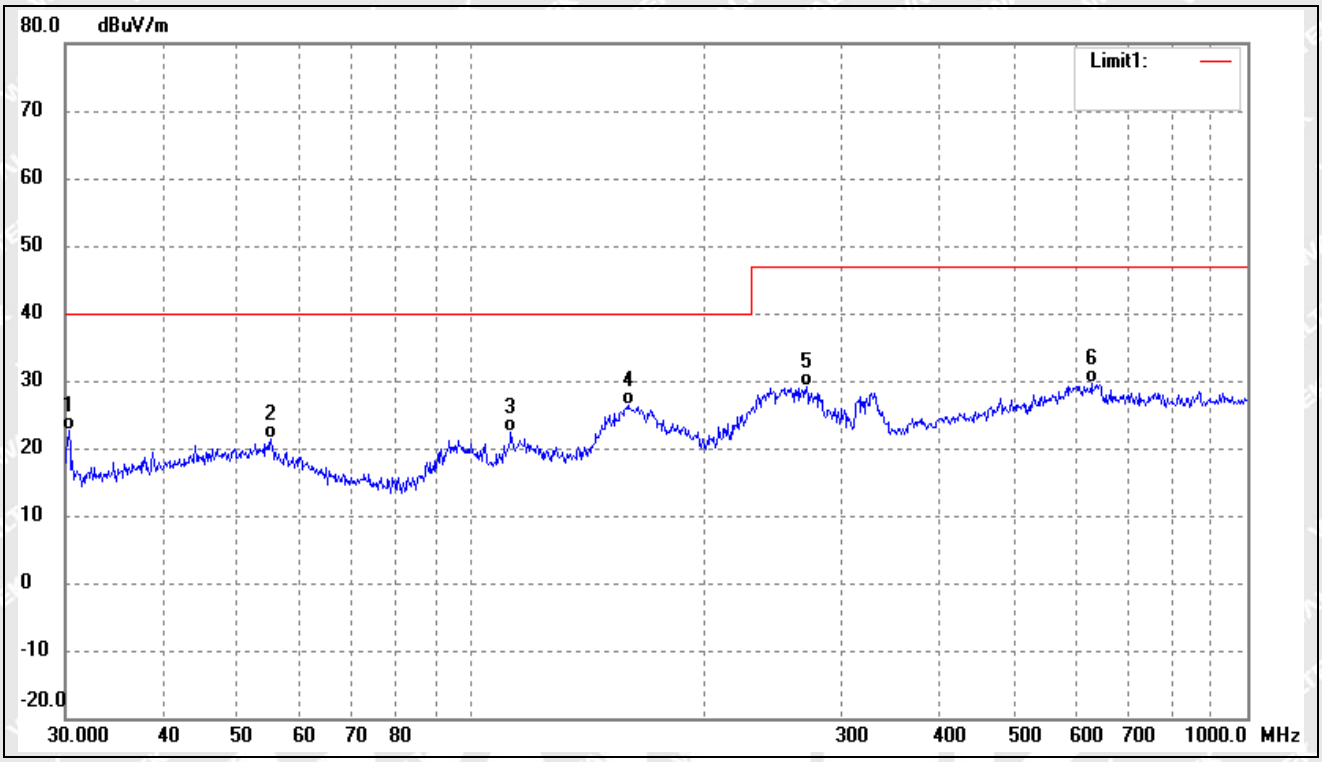
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	89.2764	46.35	-10.95	35.40	40.00	-4.60	QP
2	102.3597	43.18	-8.48	34.70	40.00	-5.30	QP
3	152.1297	43.58	-11.66	31.92	40.00	-8.08	QP
4	201.3930	39.54	-8.00	31.54	40.00	-8.46	QP
5	245.0900	40.20	-6.47	33.73	47.00	-13.27	QP
6	281.9945	39.89	-5.23	34.66	47.00	-12.34	QP

Test mode:	TM5	Polarity:	Vertical



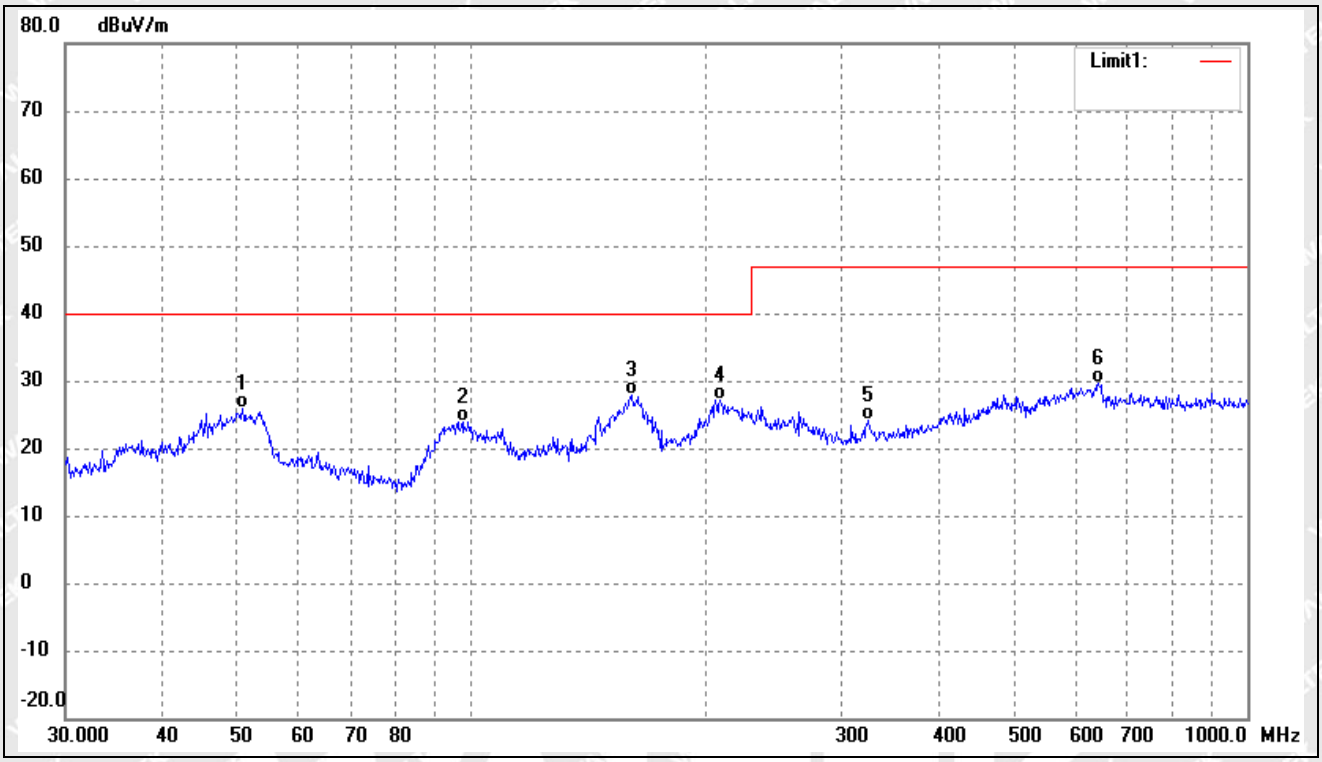
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	52.5753	33.04	-7.42	25.62	40.00	-14.38	QP
2	89.9047	47.57	-10.76	36.81	40.00	-3.19	QP
3	135.0319	48.06	-11.61	36.45	40.00	-3.55	QP
4	216.0240	40.24	-7.86	32.38	40.00	-7.62	QP
5	279.0436	36.42	-5.38	31.04	47.00	-15.96	QP
6	790.6188	54.09	-20.90	33.19	47.00	-13.81	QP

Test mode:	TM6	Polarity:	Horizontal



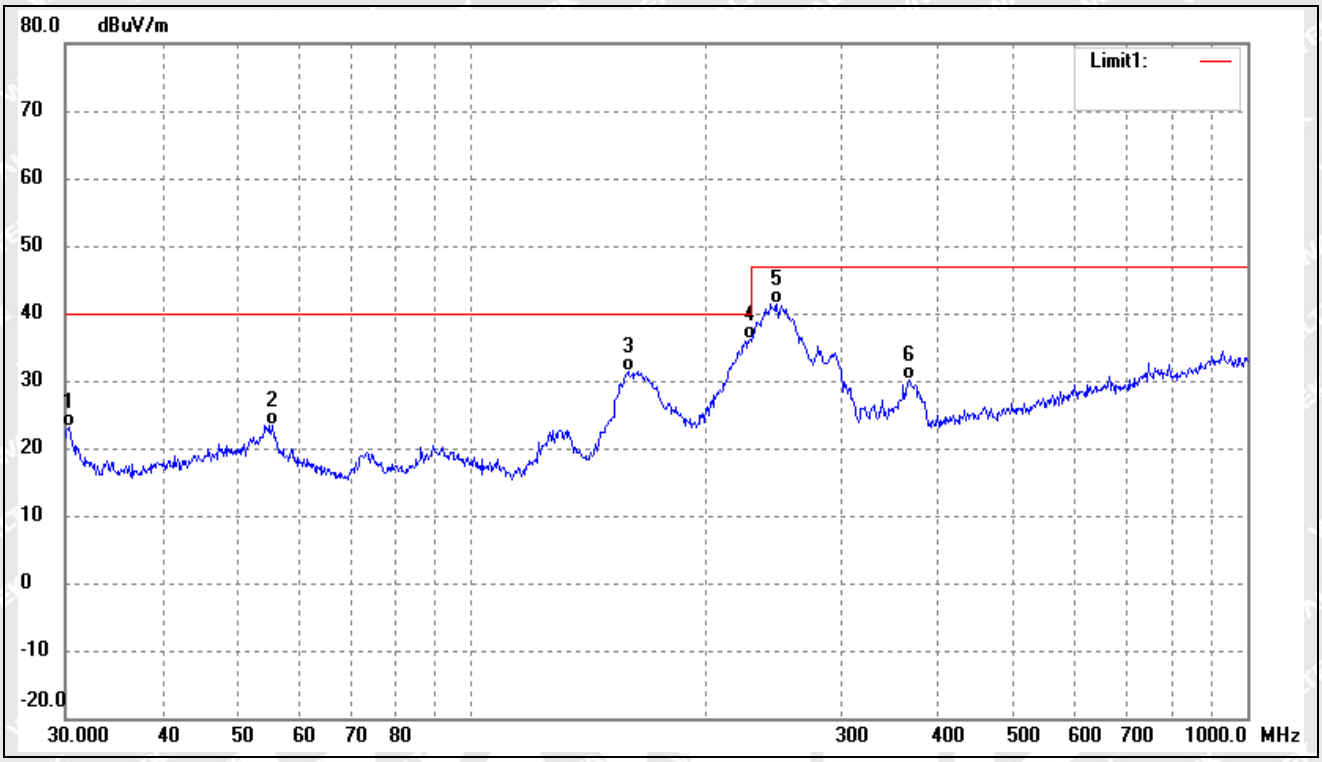
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	30.3172	33.27	-10.76	22.51	40.00	-17.49	QP
2	55.2207	28.99	-7.65	21.34	40.00	-18.66	QP
3	112.5243	31.42	-9.04	22.38	40.00	-17.62	QP
4	159.2250	37.52	-11.25	26.27	40.00	-13.73	QP
5	270.3747	34.97	-5.93	29.04	47.00	-17.96	QP
6	629.4772	28.20	1.53	29.73	47.00	-17.27	QP

Test mode:	TM6	Polarity:	Vertical



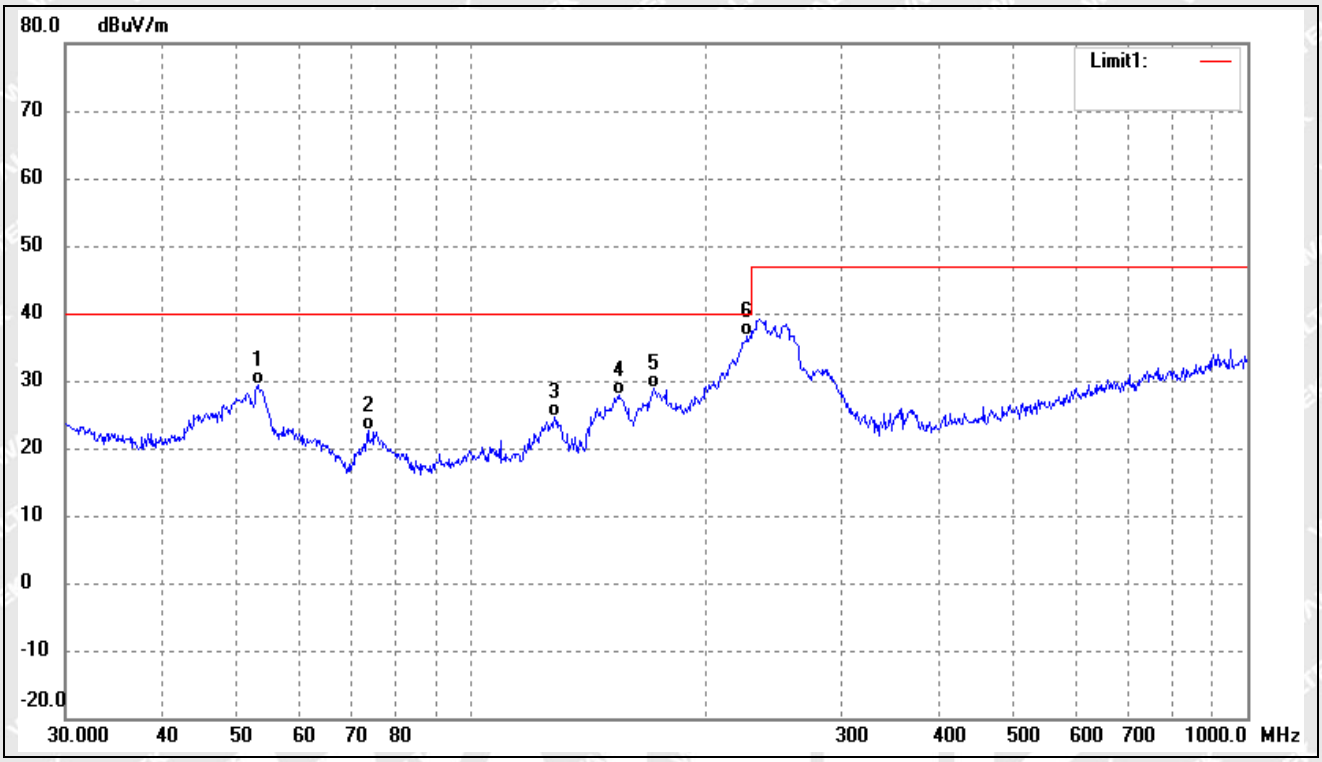
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	50.7637	33.21	-7.36	25.85	40.00	-14.15	QP
2	97.4560	32.96	-8.97	23.99	40.00	-16.01	QP
3	160.9088	39.03	-11.16	27.87	40.00	-12.13	QP
4	209.3129	35.21	-8.14	27.07	40.00	-12.93	QP
5	324.4560	28.12	-4.08	24.04	47.00	-22.96	QP
6	642.8613	27.72	1.86	29.58	47.00	-17.42	QP

Test mode:	TM7	Polarity:	Horizontal



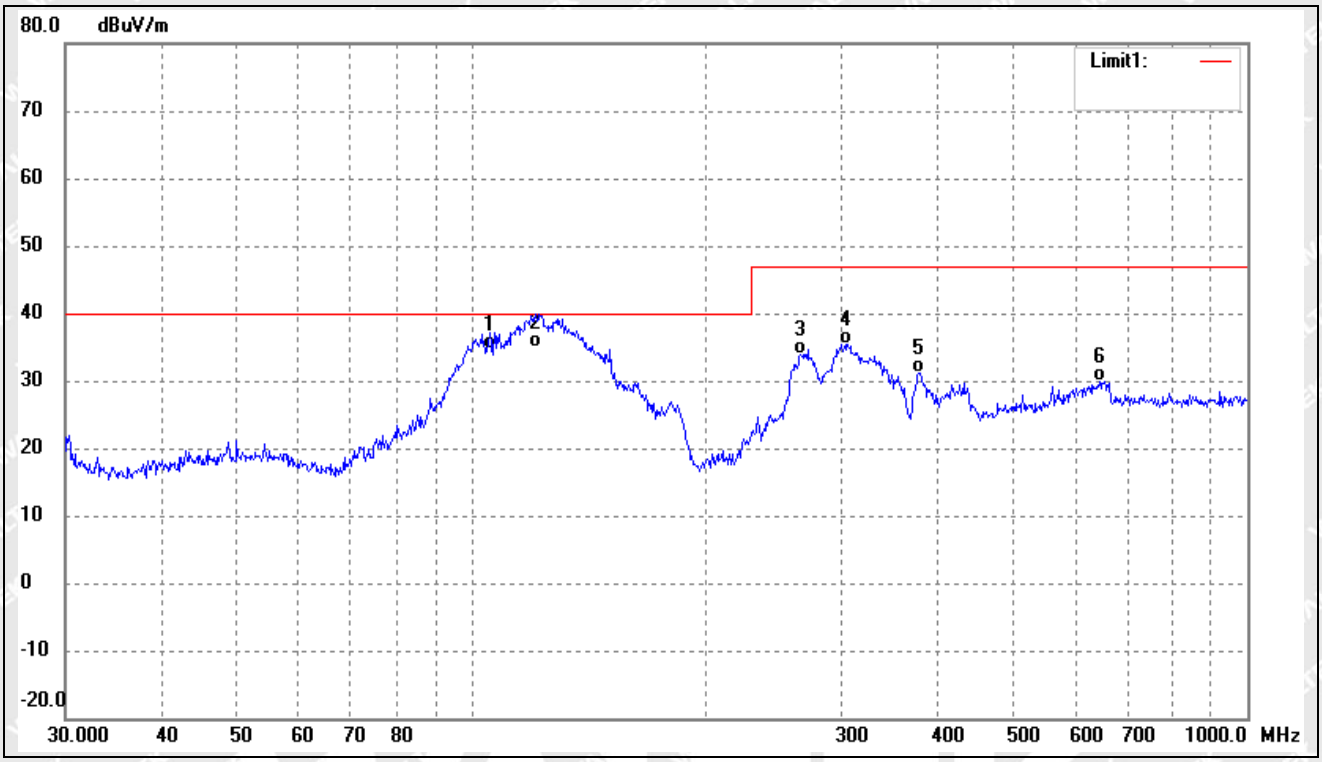
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	30.3172	33.81	-10.76	23.05	40.00	-16.95	QP
2	55.4147	31.06	-7.68	23.38	40.00	-16.62	QP
3	159.2250	42.67	-11.25	31.42	40.00	-8.58	QP
4	228.4902	43.30	-7.23	36.07	40.00	-3.93	QP
5	247.6819	47.83	-6.42	41.41	47.00	-5.59	QP
6	366.8231	33.44	-3.42	30.02	47.00	-16.98	QP

Test mode:	TM7	Polarity:	Vertical



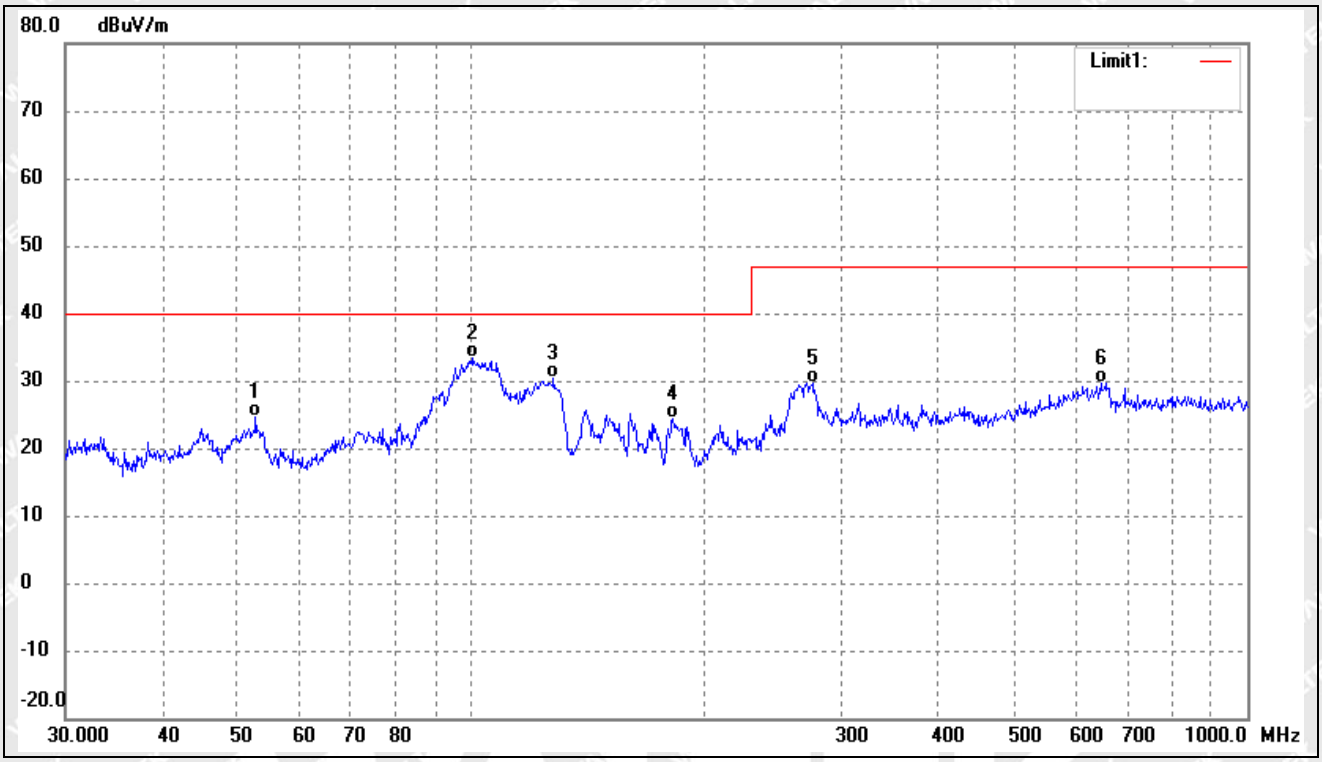
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	53.1313	36.84	-7.45	29.39	40.00	-10.61	QP
2	73.6170	34.89	-12.32	22.57	40.00	-17.43	QP
3	128.1129	35.74	-11.17	24.57	40.00	-15.43	QP
4	154.8204	39.34	-11.53	27.81	40.00	-12.19	QP
5	171.9945	39.31	-10.54	28.77	40.00	-11.23	QP
6	226.8934	43.92	-7.31	36.61	40.00	-3.39	QP

Test mode:	TM8	Polarity:	Horizontal



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	105.6415	43.05	-8.45	34.60	40.00	-5.40	QP
2	121.1231	45.29	-10.29	35.00	40.00	-5.00	QP
3	265.6757	40.16	-6.17	33.99	47.00	-13.01	QP
4	303.5437	40.01	-4.68	35.33	47.00	-11.67	QP
5	377.2591	34.16	-3.11	31.05	47.00	-15.95	QP
6	645.1195	27.90	1.94	29.84	47.00	-17.16	QP

Test mode:	TM8	Polarity:	Vertical



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	52.7599	32.02	-7.43	24.59	40.00	-15.41	QP
2	100.5806	41.99	-8.58	33.41	40.00	-6.59	QP
3	127.6645	41.43	-11.12	30.31	40.00	-9.69	QP
4	181.9201	34.06	-9.69	24.37	40.00	-15.63	QP
5	275.1569	35.18	-5.62	29.56	47.00	-17.44	QP
6	647.3855	27.68	1.99	29.67	47.00	-17.33	QP

5. Harmonic Current Emissions

5.1 Test Procedure

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

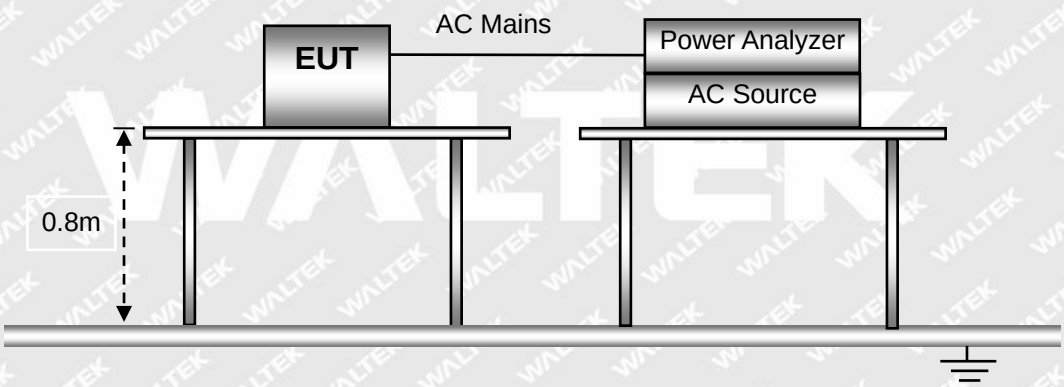
5.2 Test Standards

IEC 61000-3-2, Clause 7.2 Limits for Class A equipment.

5.3 Environmental Conditions

Temperature:	23.5 °C
Relative Humidity:	53 %
ATM Pressure:	998 mbar

5.4 Basic Test Setup Block Diagram



5.5 Harmonic Current Emissions Test Data

Test mode:	TM1

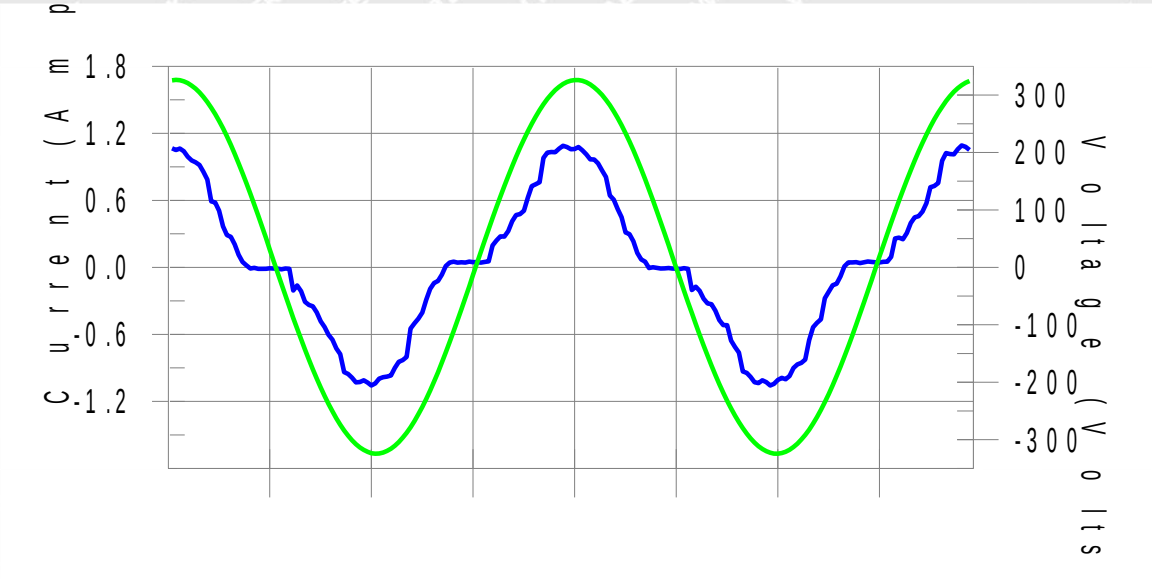
Harmonics – Class-A per IEC 61000-3-2:2018+AMD1:2020(Run time)

Comment: TM1

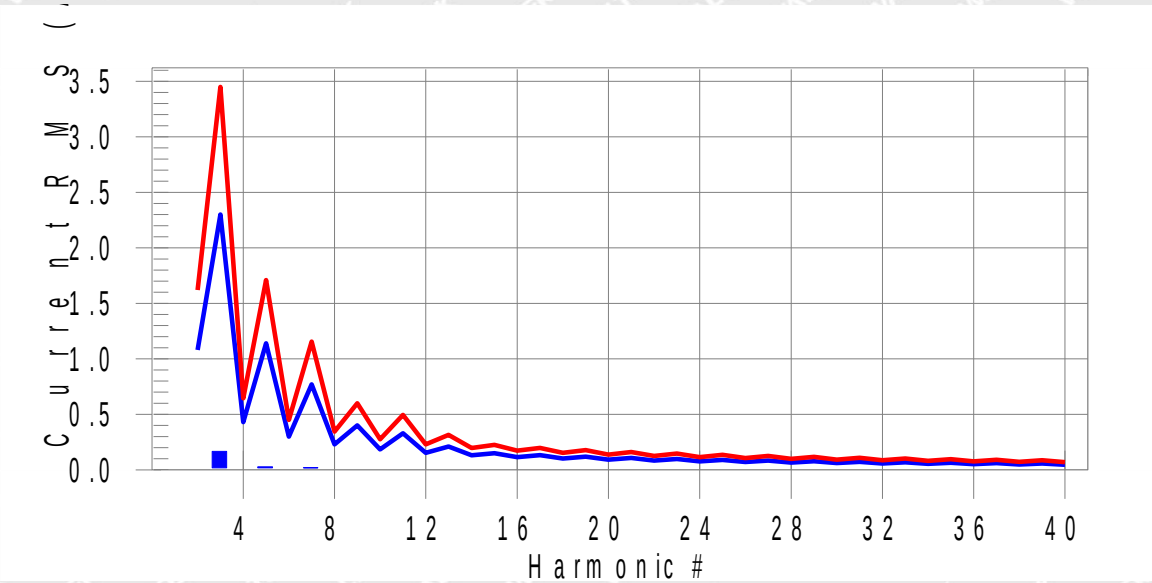
Customer: Customer information

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

Current & voltage waveforms



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



Test result: Pass **Worst harmonics H33-7.0% of 150% limit, H33-10.3% of 100% limit**

Current Test Result Summary (Run time)

Comment: TM1
Customer: Customer information

Test Result: Pass **Source qualification: Normal**
THC(A): 0.172 **I-THD(%): 27.7** **POHC(A): 0.016** **POHC Limit(A): 0.251**

Highest parameter values during test:

V_RMS (Volts):	230.15	Frequency(Hz):	50.00
I_Peak (Amps):	1.114	I_RMS (Amps):	0.644
I_Fund (Amps):	0.620	Crest Factor:	1.736
Power (Watts):	141.1	Power Factor:	0.953

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	0.166	2.300	7.2	0.167	3.450	4.9	Pass
4	0.001	0.430	N/A	0.001	0.645	N/A	Pass
5	0.028	1.140	2.4	0.028	1.710	1.6	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	0.016	0.400	3.9	0.016	0.600	2.6	Pass
10	0.000	0.184	N/A	0.000	0.276	N/A	Pass
11	0.003	0.330	N/A	0.004	0.495	N/A	Pass
12	0.000	0.153	N/A	0.000	0.230	N/A	Pass
13	0.004	0.210	N/A	0.004	0.315	N/A	Pass
14	0.000	0.131	N/A	0.000	0.197	N/A	Pass
15	0.008	0.150	5.6	0.009	0.225	3.8	Pass
16	0.000	0.115	N/A	0.000	0.173	N/A	Pass
17	0.004	0.132	N/A	0.004	0.198	N/A	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	0.004	0.107	N/A	0.004	0.161	N/A	Pass
22	0.000	0.084	N/A	0.000	0.125	N/A	Pass
23	0.008	0.098	8.3	0.008	0.147	5.7	Pass
24	0.000	0.077	N/A	0.000	0.115	N/A	Pass
25	0.005	0.090	5.8	0.006	0.135	4.1	Pass
26	0.000	0.071	N/A	0.000	0.107	N/A	Pass
27	0.006	0.083	6.8	0.006	0.125	4.6	Pass
28	0.000	0.066	N/A	0.000	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	5.5	Pass
32	0.000	0.058	N/A	0.000	0.086	N/A	Pass
33	0.007	0.068	10.3	0.007	0.102	7.0	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	0.003	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	0.003	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

Voltage Source Verification Data (Run time)

Comment: TM1
Customer: Customer information

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

Highest parameter values during test:

Voltage (Vrms):	230.15	Frequency(Hz):	50.00
I_Peak (Amps):	1.114	I_RMS (Amps):	0.644
I_Fund (Amps):	0.620	Crest Factor:	1.736
Power (Watts):	141.1	Power Factor:	0.953

Harm#	Harmonics V-rms	Limit V-rms	% of Limit	Status
2	0.056	0.460	12.25	OK
3	0.545	2.071	26.32	OK
4	0.077	0.460	16.70	OK
5	0.063	0.920	6.86	OK
6	0.037	0.460	8.09	OK
7	0.039	0.690	5.63	OK
8	0.015	0.460	3.16	OK
9	0.013	0.460	2.90	OK
10	0.013	0.460	2.84	OK
11	0.013	0.230	5.82	OK
12	0.010	0.230	4.44	OK
13	0.015	0.230	6.64	OK
14	0.007	0.230	2.83	OK
15	0.008	0.230	3.28	OK
16	0.008	0.230	3.53	OK
17	0.011	0.230	4.72	OK
18	0.012	0.230	5.04	OK
19	0.010	0.230	4.15	OK
20	0.015	0.230	6.53	OK
21	0.010	0.230	4.23	OK
22	0.003	0.230	1.35	OK
23	0.010	0.230	4.42	OK
24	0.003	0.230	1.50	OK
25	0.008	0.230	3.36	OK
26	0.003	0.230	1.37	OK
27	0.009	0.230	3.84	OK
28	0.004	0.230	1.83	OK
29	0.008	0.230	3.42	OK

30	**0.003**	**0.230**	**1.22**	**OK**
31	**0.010**	**0.230**	**4.18**	**OK**
32	**0.003**	**0.230**	**1.24**	**OK**
33	**0.011**	**0.230**	**4.90**	**OK**
34	**0.003**	**0.230**	**1.13**	**OK**
35	**0.005**	**0.230**	**2.24**	**OK**
36	**0.003**	**0.230**	**1.19**	**OK**
37	**0.007**	**0.230**	**3.14**	**OK**
38	**0.003**	**0.230**	**1.19**	**OK**
39	**0.008**	**0.230**	**3.65**	**OK**
40	**0.008**	**0.230**	**3.35**	**OK**

Test mode:	TM2

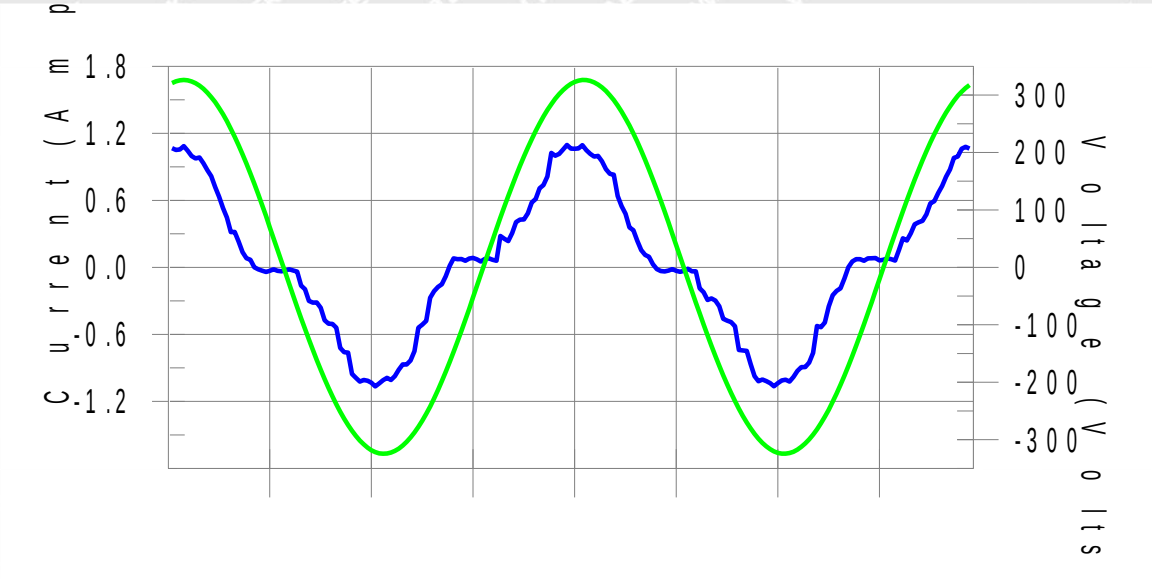
Harmonics – Class-A per IEC 61000-3-2:2018+AMD1:2020(Run time)

Comment: TM2

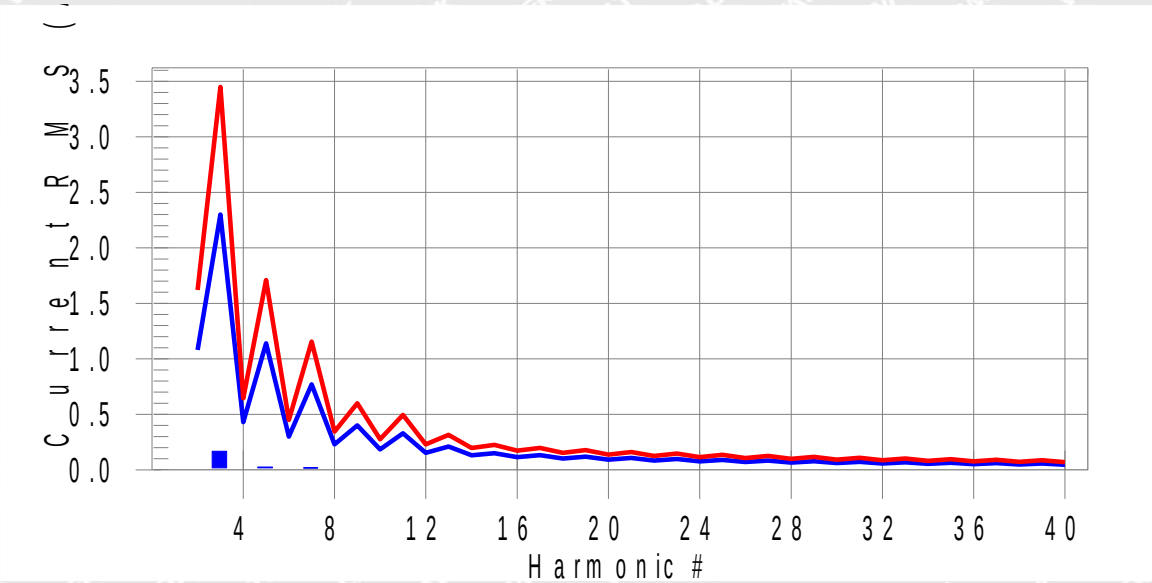
Customer: Customer information

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

Current & voltage waveforms



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



Test result: Pass **Worst harmonics H33-7.9% of 150% limit, H33-11.7% of 100% limit**

Current Test Result Summary (Run time)

Comment: TM2
Customer: Customer information

Test Result: Pass **Source qualification: Normal**
THC(A): 0.173 **I-THD(%): 28.1** **POHC(A): 0.016** **POHC Limit(A): 0.251**

Highest parameter values during test:

V_RMS (Volts):	230.15	Frequency(Hz):	50.00
I_Peak (Amps):	1.117	I_RMS (Amps):	0.640
I_Fund (Amps):	0.615	Crest Factor:	1.752
Power (Watts):	139.3	Power Factor:	0.947

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	0.168	2.300	7.3	0.169	3.450	4.9	Pass
4	0.001	0.430	N/A	0.001	0.645	N/A	Pass
5	0.026	1.140	2.2	0.026	1.710	1.5	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	0.017	0.400	4.3	0.017	0.600	2.9	Pass
10	0.000	0.184	N/A	0.000	0.276	N/A	Pass
11	0.002	0.330	N/A	0.002	0.495	N/A	Pass
12	0.000	0.153	N/A	0.000	0.230	N/A	Pass
13	0.004	0.210	N/A	0.004	0.315	N/A	Pass
14	0.000	0.131	N/A	0.000	0.197	N/A	Pass
15	0.009	0.150	5.7	0.009	0.225	3.9	Pass
16	0.000	0.115	N/A	0.000	0.173	N/A	Pass
17	0.004	0.132	N/A	0.004	0.198	N/A	Pass
18	0.000	0.102	N/A	0.000	0.153	N/A	Pass
19	0.003	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	0.002	0.107	N/A	0.002	0.161	N/A	Pass
22	0.000	0.084	N/A	0.000	0.125	N/A	Pass
23	0.009	0.098	9.5	0.009	0.147	6.4	Pass
24	0.000	0.077	N/A	0.000	0.115	N/A	Pass
25	0.001	0.090	N/A	0.001	0.135	N/A	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	0.008	0.078	10.0	0.008	0.116	6.8	Pass
30	0.000	0.061	N/A	0.000	0.092	N/A	Pass
31	0.002	0.073	N/A	0.002	0.109	N/A	Pass
32	0.000	0.058	N/A	0.001	0.086	N/A	Pass
33	0.008	0.068	11.7	0.008	0.102	7.9	Pass
34	0.000	0.054	N/A	0.000	0.081	N/A	Pass
35	0.002	0.064	N/A	0.002	0.096	N/A	Pass
36	0.000	0.051	N/A	0.000	0.077	N/A	Pass
37	0.001	0.061	N/A	0.001	0.091	N/A	Pass
38	0.000	0.048	N/A	0.000	0.073	N/A	Pass
39	0.005	0.058	9.4	0.006	0.087	6.4	Pass
40	0.000	0.046	N/A	0.000	0.069	N/A	Pass

Voltage Source Verification Data (Run time)

Comment: TM2
Customer: Customer information

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

Highest parameter values during test:

Voltage (Vrms):	230.15	Frequency(Hz):	50.00
I_Peak (Amps):	1.117	I_RMS (Amps):	0.640
I_Fund (Amps):	0.615	Crest Factor:	1.752
Power (Watts):	139.3	Power Factor:	0.947

Harm#	Harmonics V-rms	Limit V-rms	% of Limit	Status
2	0.062	0.460	13.45	OK
3	0.545	2.071	26.33	OK
4	0.076	0.460	16.50	OK
5	0.061	0.920	6.64	OK
6	0.037	0.460	7.96	OK
7	0.040	0.690	5.84	OK
8	0.014	0.460	3.12	OK
9	0.013	0.460	2.73	OK
10	0.012	0.460	2.68	OK
11	0.014	0.230	6.00	OK
12	0.012	0.230	5.02	OK
13	0.015	0.230	6.68	OK
14	0.006	0.230	2.61	OK
15	0.008	0.230	3.69	OK
16	0.008	0.230	3.33	OK
17	0.010	0.230	4.53	OK
18	0.011	0.230	4.97	OK
19	0.009	0.230	3.71	OK
20	0.015	0.230	6.49	OK
21	0.009	0.230	3.85	OK
22	0.003	0.230	1.25	OK
23	0.012	0.230	5.31	OK
24	0.003	0.230	1.41	OK
25	0.004	0.230	1.75	OK
26	0.003	0.230	1.43	OK
27	0.007	0.230	3.09	OK
28	0.004	0.230	1.77	OK
29	0.012	0.230	5.09	OK

30	**0.003**	**0.230**	**1.26**	**OK**
31	**0.005**	**0.230**	**2.27**	**OK**
32	**0.002**	**0.230**	**1.08**	**OK**
33	**0.013**	**0.230**	**5.45**	**OK**
34	**0.003**	**0.230**	**1.10**	**OK**
35	**0.006**	**0.230**	**2.42**	**OK**
36	**0.003**	**0.230**	**1.12**	**OK**
37	**0.005**	**0.230**	**2.00**	**OK**
38	**0.003**	**0.230**	**1.28**	**OK**
39	**0.012**	**0.230**	**5.19**	**OK**
40	**0.008**	**0.230**	**3.44**	**OK**

Test mode:	TM3

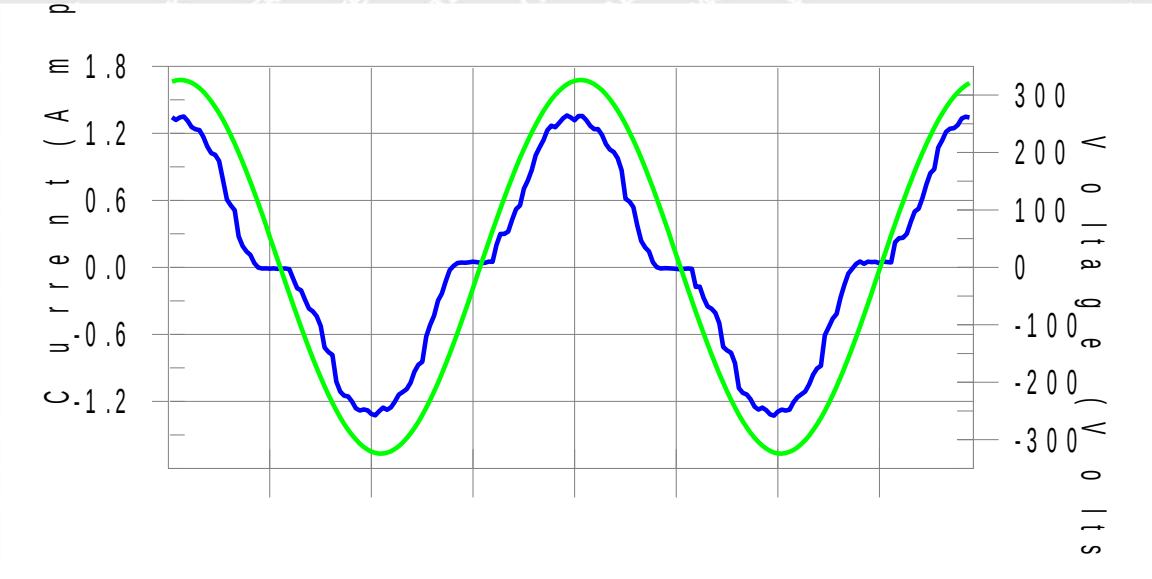
Harmonics – Class-A per IEC 61000-3-2:2018+AMD1:2020(Run time)

Comment: TM3

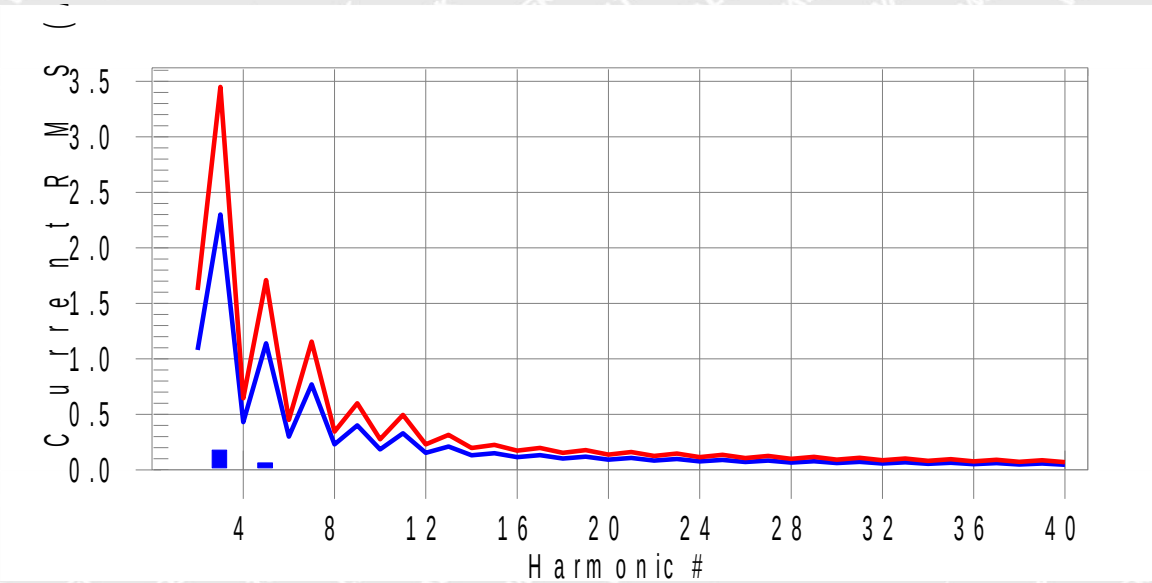
Customer: Customer information

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

Current & voltage waveforms



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



Test result: Pass **Worst harmonics H29-8.9% of 150% limit, H29-12.9% of 100% limit**

Current Test Result Summary (Run time)

Comment: TM3
Customer: Customer information

Test Result: Pass **Source qualification: Normal**
THC(A): 0.191 **I-THD(%): 23.3** **POHC(A): 0.018** **POHC Limit(A): 0.251**

Highest parameter values during test:

V_RMS (Volts):	230.13	Frequency(Hz):	50.00
I_Peak (Amps):	1.388	I_RMS (Amps):	0.843
I_Fund (Amps):	0.821	Crest Factor:	1.650
Power (Watts):	187.5	Power Factor:	0.967

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	0.178	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	0.062	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	0.017	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	2.7	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	3.3	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	0.004	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	6.6	0.009	0.198	4.5	Pass
18	0.000	0.102	N/A	0.000	0.153	N/A	Pass
19	0.003	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	7.1	0.008	0.161	4.8	Pass
22	0.000	0.084	N/A	0.000	0.125	N/A	Pass
23	0.003	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	7.0	0.007	0.135	5.0	Pass
26	0.000	0.071	N/A	0.000	0.107	N/A	Pass
27	0.006	0.083	7.7	0.007	0.125	5.5	Pass
28	0.000	0.066	N/A	0.000	0.099	N/A	Pass

29	0.010	0.078	12.9	0.010	0.116	8.9	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	0.000	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	0.004	0.064	N/A	0.004	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	0.004	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

Voltage Source Verification Data (Run time)

Comment: TM3
Customer: Customer information

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

Highest parameter values during test:

Voltage (Vrms):	230.13	Frequency(Hz):	50.00
I_Peak (Amps):	1.388	I_RMS (Amps):	0.843
I_Fund (Amps):	0.821	Crest Factor:	1.650
Power (Watts):	187.5	Power Factor:	0.967

Harm#	Harmonics V-rms	Limit V-rms	% of Limit	Status
2	0.057	0.460	12.43	OK
3	0.544	2.071	26.25	OK
4	0.075	0.460	16.20	OK
5	0.069	0.920	7.50	OK
6	0.038	0.460	8.28	OK
7	0.039	0.690	5.60	OK
8	0.015	0.460	3.31	OK
9	0.012	0.460	2.57	OK
10	0.013	0.460	2.89	OK
11	0.013	0.230	5.50	OK
12	0.011	0.230	4.68	OK
13	0.012	0.230	5.42	OK
14	0.007	0.230	3.16	OK
15	0.013	0.230	5.83	OK
16	0.008	0.230	3.53	OK
17	0.009	0.230	4.00	OK
18	0.011	0.230	4.86	OK
19	0.009	0.230	4.06	OK
20	0.015	0.230	6.58	OK
21	0.012	0.230	5.31	OK
22	0.003	0.230	1.41	OK
23	0.005	0.230	2.34	OK
24	0.003	0.230	1.51	OK
25	0.008	0.230	3.65	OK
26	0.003	0.230	1.38	OK
27	0.011	0.230	4.76	OK
28	0.005	0.230	2.00	OK
29	0.015	0.230	6.34	OK

30	**0.003**	**0.230**	**1.35**	**OK**
31	**0.006**	**0.230**	**2.45**	**OK**
32	**0.003**	**0.230**	**1.18**	**OK**
33	**0.009**	**0.230**	**4.06**	**OK**
34	**0.002**	**0.230**	**1.06**	**OK**
35	**0.008**	**0.230**	**3.33**	**OK**
36	**0.003**	**0.230**	**1.18**	**OK**
37	**0.006**	**0.230**	**2.63**	**OK**
38	**0.002**	**0.230**	**1.03**	**OK**
39	**0.011**	**0.230**	**4.62**	**OK**
40	**0.008**	**0.230**	**3.34**	**OK**

Test mode:	TM4

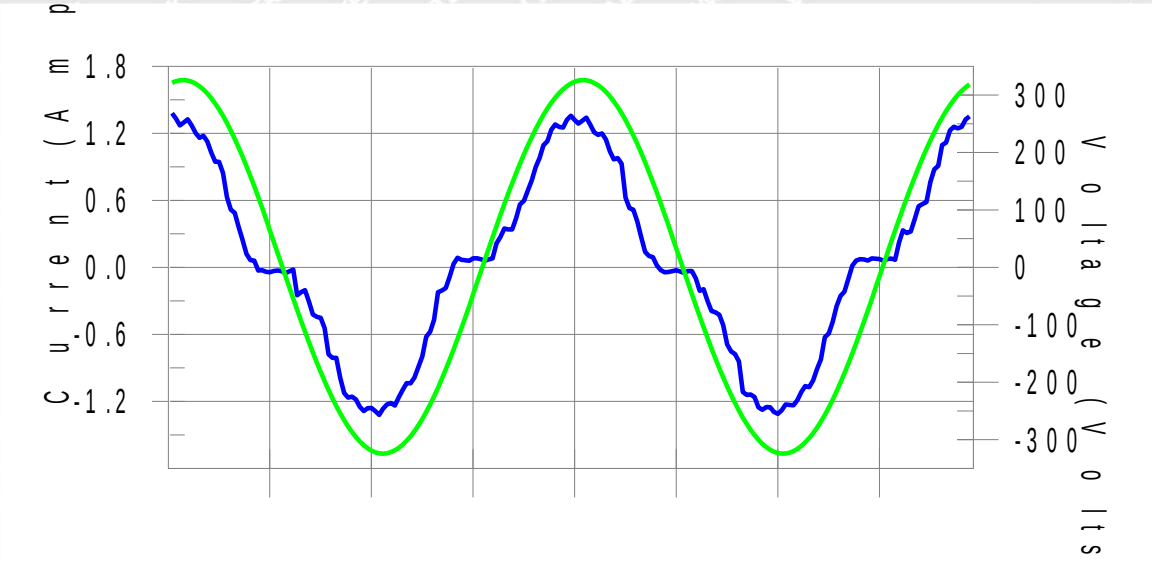
Harmonics – Class-A per IEC 61000-3-2:2018+AMD1:2020(Run time)

Comment: TM4

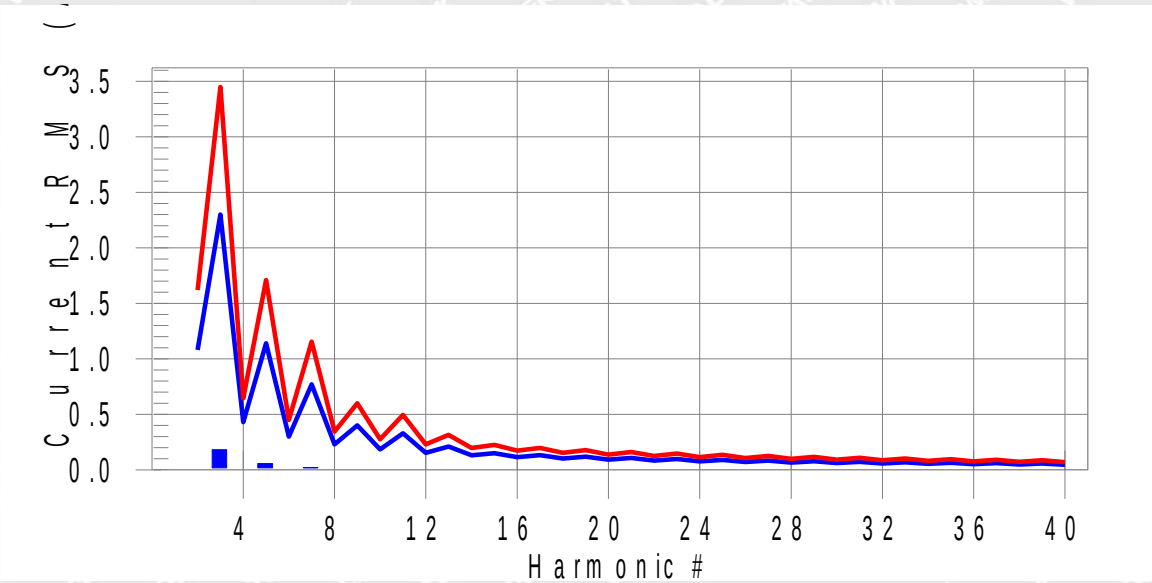
Customer: Customer information

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

Current & voltage waveforms



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



Test result: Pass **Worst harmonics H27-8.8% of 150% limit, H27-13% of 100% limit**

Current Test Result Summary (Run time)

Comment: TM4
Customer: Customer information

Test Result: Pass **Source qualification: Normal**
THC(A): 0.193 **I-THD(%): 24.1** **POHC(A): 0.018** **POHC Limit(A): 0.251**

Highest parameter values during test:

V_RMS (Volts):	230.13	Frequency(Hz):	50.00
I_Peak (Amps):	1.380	I_RMS (Amps):	0.823
I_Fund (Amps):	0.799	Crest Factor:	1.679
Power (Watts):	181.9	Power Factor:	0.962

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	0.182	2.300	7.9	0.183	3.450	5.3	Pass
4	0.001	0.430	N/A	0.001	0.645	N/A	Pass
5	0.056	1.140	4.9	0.057	1.710	3.3	Pass
6	0.000	0.300	N/A	0.000	0.450	N/A	Pass
7	0.020	0.770	2.6	0.020	1.155	1.8	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	1.5	Pass
10	0.000	0.184	N/A	0.000	0.276	N/A	Pass
11	0.012	0.330	3.6	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	0.004	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	0.008	0.132	6.0	0.008	0.198	4.0	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	N/A	0.005	0.161	N/A	Pass
22	0.000	0.084	N/A	0.000	0.125	N/A	Pass
23	0.006	0.098	6.5	0.006	0.147	4.4	Pass
24	0.000	0.077	N/A	0.000	0.115	N/A	Pass
25	0.001	0.090	N/A	0.001	0.135	N/A	Pass
26	0.000	0.071	N/A	0.000	0.107	N/A	Pass
27	0.011	0.083	13.0	0.011	0.125	8.8	Pass
28	0.000	0.066	N/A	0.001	0.099	N/A	Pass

29	0.003	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	8.1	0.006	0.109	5.5	Pass
32	0.000	0.058	N/A	0.001	0.086	N/A	Pass
33	0.003	0.068	N/A	0.003	0.102	N/A	Pass
34	0.000	0.054	N/A	0.000	0.081	N/A	Pass
35	0.006	0.064	9.4	0.006	0.096	6.5	Pass
36	0.000	0.051	N/A	0.000	0.077	N/A	Pass
37	0.004	0.061	N/A	0.004	0.091	N/A	Pass
38	0.000	0.048	N/A	0.000	0.073	N/A	Pass
39	0.005	0.058	9.2	0.005	0.087	6.3	Pass
40	0.000	0.046	N/A	0.000	0.069	N/A	Pass

Voltage Source Verification Data (Run time)

Comment: TM4
Customer: Customer information

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

Highest parameter values during test:

Voltage (Vrms):	230.13	Frequency(Hz):	50.00
I_Peak (Amps):	1.380	I_RMS (Amps):	0.823
I_Fund (Amps):	0.799	Crest Factor:	1.679
Power (Watts):	181.9	Power Factor:	0.962

Harm#	Harmonics V-rms	Limit V-rms	% of Limit	Status
2	0.067	0.460	14.55	OK
3	0.544	2.070	26.27	OK
4	0.076	0.460	16.46	OK
5	0.069	0.920	7.49	OK
6	0.039	0.460	8.41	OK
7	0.040	0.690	5.82	OK
8	0.016	0.460	3.39	OK
9	0.012	0.460	2.70	OK
10	0.013	0.460	2.80	OK
11	0.014	0.230	6.00	OK
12	0.011	0.230	4.82	OK
13	0.014	0.230	6.26	OK
14	0.008	0.230	3.29	OK
15	0.013	0.230	5.64	OK
16	0.007	0.230	3.18	OK
17	0.010	0.230	4.19	OK
18	0.011	0.230	4.67	OK
19	0.011	0.230	4.59	OK
20	0.015	0.230	6.54	OK
21	0.011	0.230	4.66	OK
22	0.003	0.230	1.38	OK
23	0.009	0.230	3.81	OK
24	0.004	0.230	1.65	OK
25	0.003	0.230	1.41	OK
26	0.003	0.230	1.43	OK
27	0.015	0.230	6.49	OK
28	0.005	0.230	2.28	OK
29	0.007	0.230	3.06	OK

30	**0.003**	**0.230**	**1.16**	**OK**
31	**0.010**	**0.230**	**4.33**	**OK**
32	**0.002**	**0.230**	**0.94**	**OK**
33	**0.006**	**0.230**	**2.62**	**OK**
34	**0.002**	**0.230**	**0.92**	**OK**
35	**0.010**	**0.230**	**4.32**	**OK**
36	**0.003**	**0.230**	**1.09**	**OK**
37	**0.007**	**0.230**	**3.03**	**OK**
38	**0.002**	**0.230**	**0.96**	**OK**
39	**0.011**	**0.230**	**4.85**	**OK**
40	**0.008**	**0.230**	**3.39**	**OK**

6. Voltage Fluctuation Flicker

6.1 Test Procedure

Test is conducted under the description of IEC 61000-3-3.

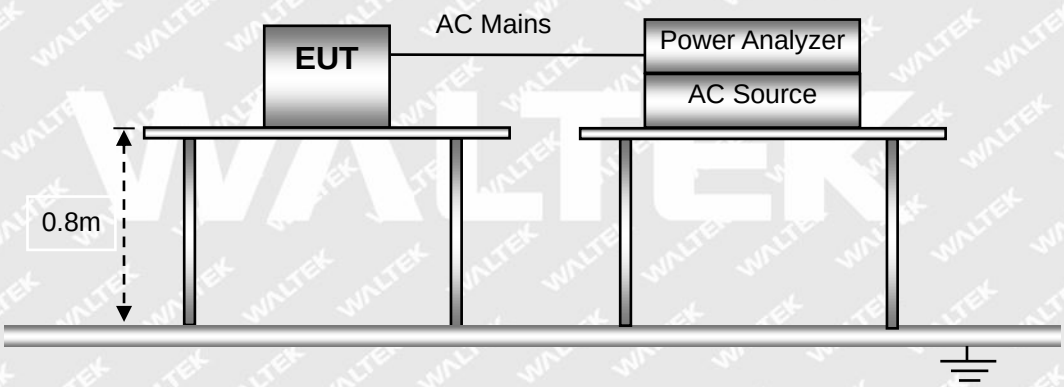
6.2 Test Standards

IEC 61000-3-3, Limit: Clause 5.

6.3 Environmental Conditions

Temperature:	23.5 °C
Relative Humidity:	53 %
ATM Pressure:	998 mbar

6.4 Basic Test Setup Block Diagram



6.5 Voltage Fluctuation and Flicker Test Data

Test mode:	TM1

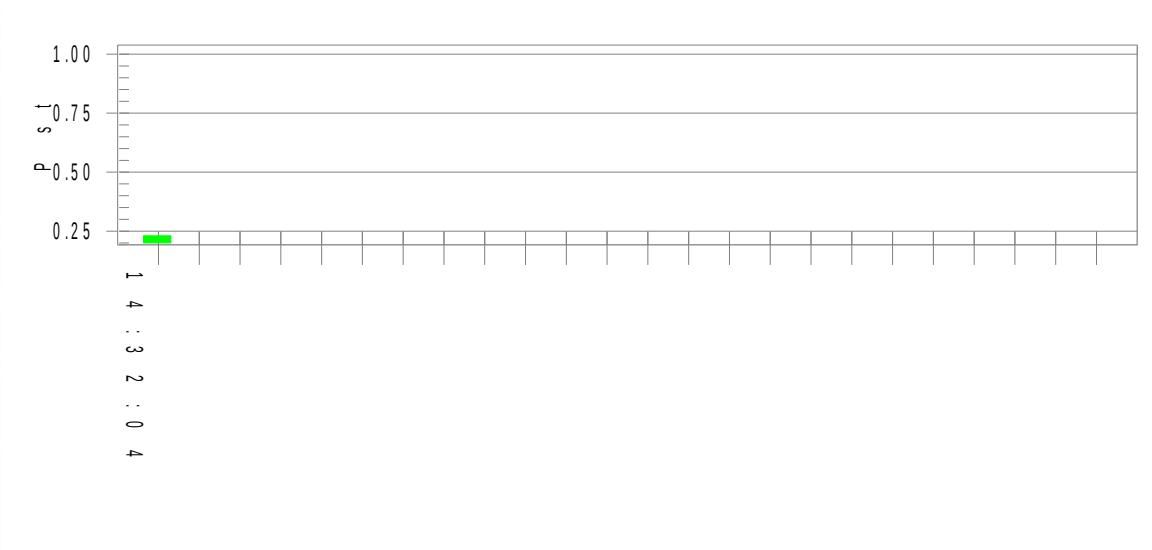
Flicker Test Summary per IEC61000-3-3:2013+AMD2:2021 (Run time)

Comment: TM1

Customer: Customer information

Test Result: Pass **Status: Test Completed**

Pst and limit line **European Limits**



Plt and limit line

Parameter values recorded during the test:

Vrms at the end of test (Volt):	**230.11**			
Highest dt (%):		**Test limit (%):**		
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):	**0.230**	**Test limit:**	**1.000**	**Pass**
Highest Plt (2 hr. period):	**0.101**	**Test limit:**	**0.650**	**Pass**

Test mode:	TM2

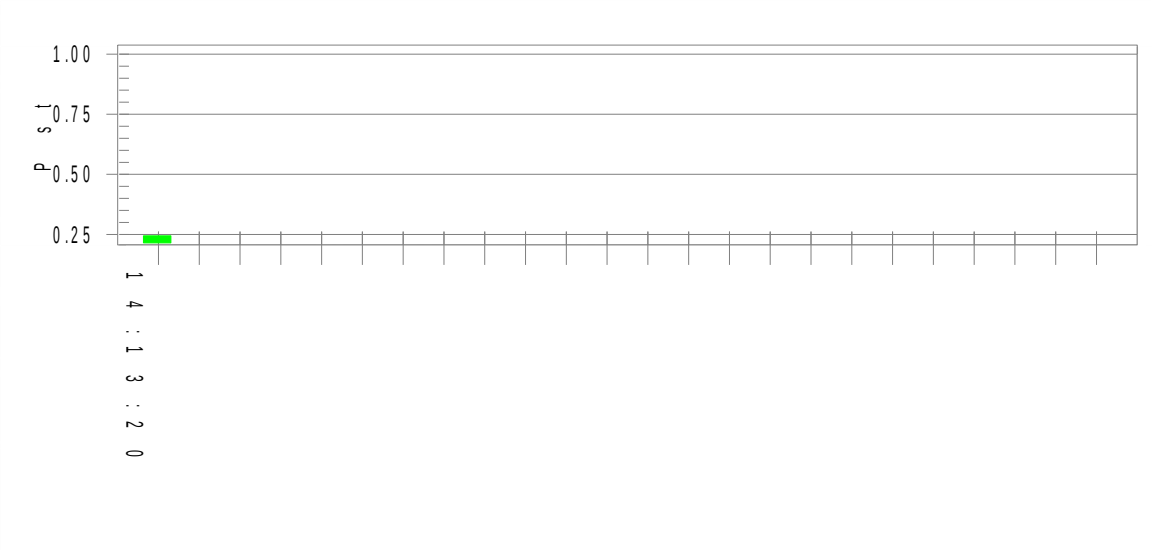
Flicker Test Summary per IEC61000-3-3:2013+AMD2:2021 (Run time)

Comment: TM2

Customer: Customer information

Test Result: Pass **Status: Test Completed**

Pst and limit line **European Limits**



Plt and limit line

Parameter values recorded during the test:

Vrms at the end of test (Volt):	**230.09**			
Highest dt (%):		**Test limit (%):**		
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):	**0.244**	**Test limit:**	**1.000**	**Pass**
Highest Plt (2 hr. period):	**0.107**	**Test limit:**	**0.650**	**Pass**

Test mode:	TM3

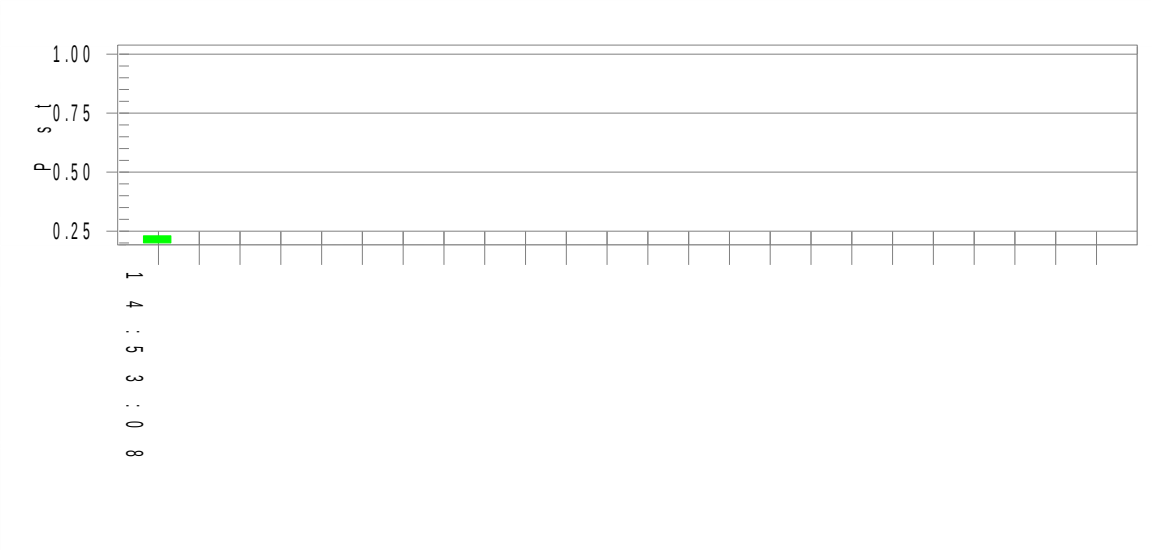
Flicker Test Summary per IEC61000-3-3:2013+AMD2:2021 (Run time)

Comment: TM3

Customer: Customer information

Test Result: Pass **Status: Test Completed**

Pst and limit line **European Limits**



Plt and limit line

Parameter values recorded during the test:

Vrms at the end of test (Volt):	**230.10**			
Highest dt (%):		**Test limit (%):**		
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):	**0.230**	**Test limit:**	**1.000**	**Pass**
Highest Plt (2 hr. period):	**0.101**	**Test limit:**	**0.650**	**Pass**

Test mode:	TM4

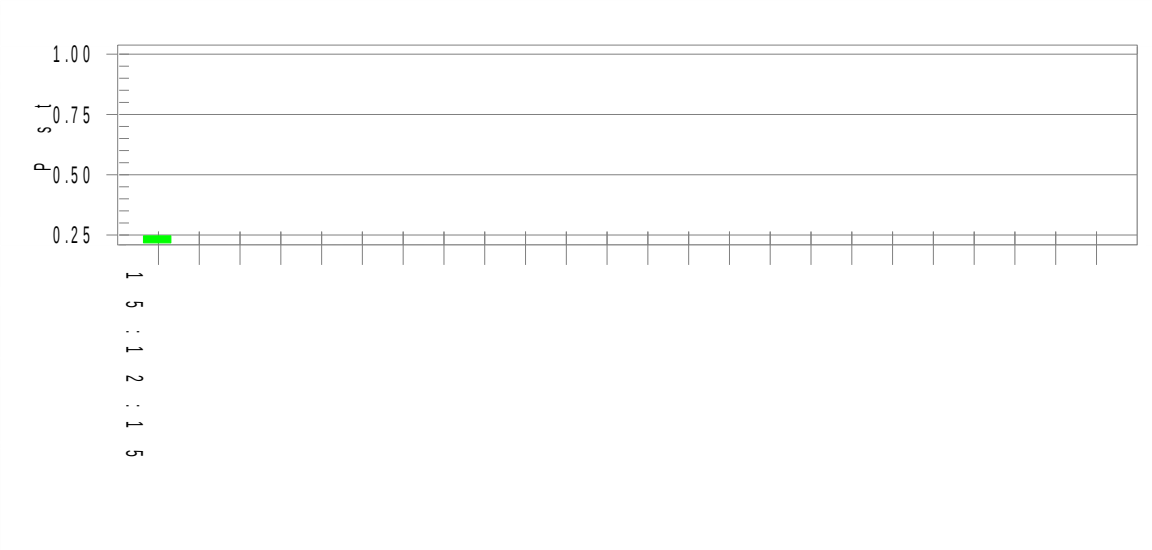
Flicker Test Summary per IEC61000-3-3:2013+AMD2:2021 (Run time)

Comment: TM4

Customer: Customer information

Test Result: Pass **Status: Test Completed**

Pst and limit line **European Limits**



Plt and limit line

Parameter values recorded during the test:

Vrms at the end of test (Volt):	**230.06**			
Highest dt (%):		**Test limit (%):**		
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):	**0.247**	**Test limit:**	**1.000**	**Pass**
Highest Plt (2 hr. period):	**0.108**	**Test limit:**	**0.650**	**Pass**

7. Electrostatic Discharges (ESD)

7.1 Test Procedure

Test is conducted under the description of IEC 61000-4-2.

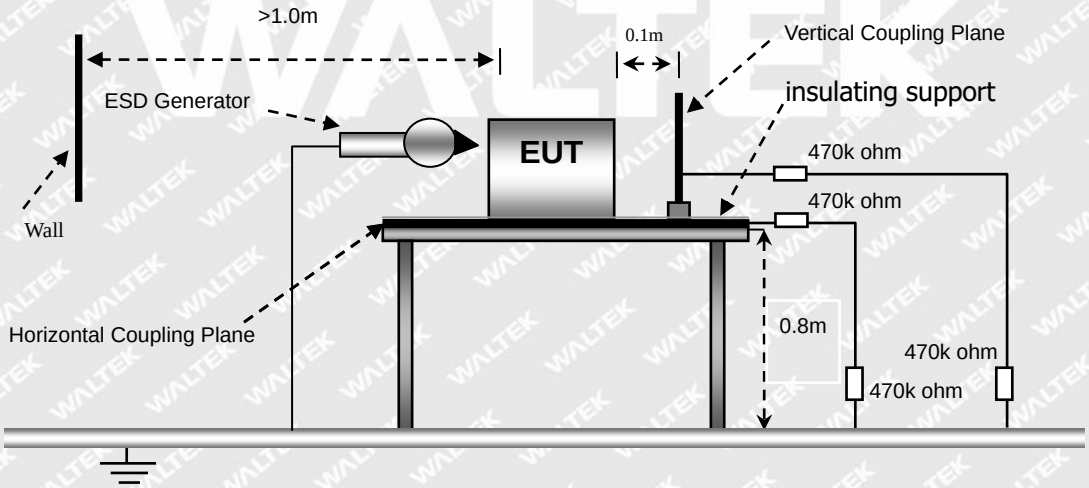
7.2 Test Performance

Performance Criterion: B

7.3 Environmental Conditions

Temperature:	23.5 °C
Relative Humidity:	53 %
ATM Pressure:	998 mbar

7.4 Basic Test Setup Block Diagram



7.5 Electrostatic Discharge Immunity Test Data

Table 1: Electrostatic Discharge Immunity (Air Discharge)

IEC 61000-4-2	Test Voltage (kV)									
Test Points	-2	+2	-4	+4	-8	+8	-15	+15	-18	+18
Shell edge crack	A	A	A	A	A	A	A	A	A	A
Pilot lamp	A	A	A	A	A	A	A	A	A	A

Table 2: Electrostatic Discharge Immunity (Direct Contact)

IEC 61000-4-2	Test Voltage (kV)									
Test Points	-2	+2	-4	+4	-8	+8	-15	+15	-18	+18
/	/	/	/	/	/	/	/	/	/	/

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

IEC 61000-4-2	Test Voltage (kV)									
Test Points	-2	+2	-4	+4	-6	+6	-8	+8	-10	+10
HCP (6 Sides)	A	A	A	A	A	A	A	A	A	A
VCP (4 Sides)	A	A	A	A	A	A	A	A	A	A

Test Result: Pass

8. Continuous RF Electromagnetic Field Disturbances (RS)

8.1 Test Procedure

Test is conducted under the description of IEC 61000-4-3.

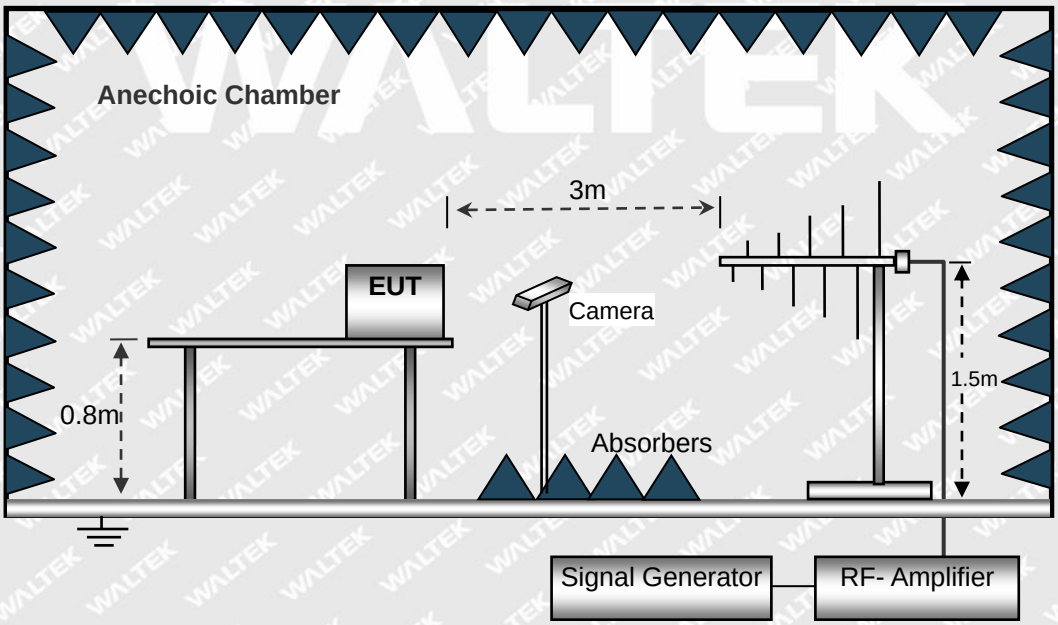
8.2 Test Performance

Performance Criterion: A

8.3 Environmental Conditions

Temperature:	23.5 °C
Relative Humidity:	53 %
ATM Pressure:	998 mbar

8.4 Basic Test Setup Block Diagram



8.5 Continuous Radiated Disturbances Test Data

Frequency step: 1% of fundamental
Dwell time: 1 second
Modulation: AM by 1kHz sine wave with 80% modulation depth

Frequency Range(MHz)	Field (V/m)	Front		Rear		Left Side		Right Side	
		VERT	HORI	VERT	HORI	VERT	HORI	VERT	HORI
80-2700	10	A	A	A	A	A	A	A	A

Test Result: Pass

9. Electrical Fast Transients (EFT)

9.1 Test Procedure

Test is conducted under the description of IEC 61000-4-4.

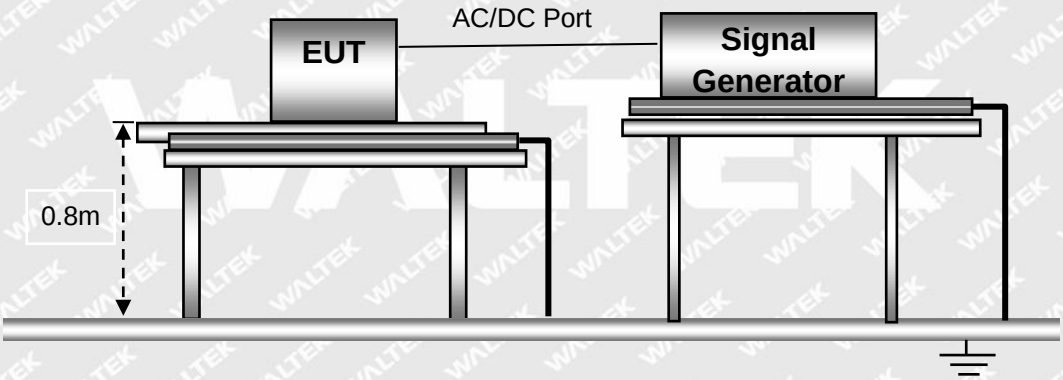
9.2 Test Performance

Performance Criterion: B

9.3 Environmental Conditions

Temperature:	23.5 °C
Relative Humidity:	53 %
ATM Pressure:	998 mbar

9.4 Basic Test Setup Block Diagram



9.5 Electrical Fast Transients Test Data

Repetition frequency 100 kHz

GTM961600P16012-T3, GTM961800P18054-T3

IEC 61000-4-4 Test Points		Test Voltage (kV)							
		+0.5	-0.5	+1.0	-1.0	+2.0	-2.0	+4.0	-4.0
Power Supply Power Port of EUT	L	/	/	/	/	A	A	A	A
	N	/	/	/	/	A	A	A	A
	PE	/	/	/	/	A	A	A	A
	L+N	/	/	/	/	A	A	A	A
	L+PE	/	/	/	/	A	A	A	A
	N+PE	/	/	/	/	A	A	A	A
	L+N+PE	/	/	/	/	A	A	A	A
Signal ports	RJ45	/	/	/	/	/	/	/	/

GTM961600P16012-T2, GTM961800P18054-T2

IEC 61000-4-4 Test Points		Test Voltage (kV)							
		+0.5	-0.5	+1.0	-1.0	+2.0	-2.0	+4.0	-4.0
Power Supply Power Port of EUT	L	/	/	/	/	A	A	A	A
	N	/	/	/	/	A	A	A	A
	PE	/	/	/	/	/	/	/	/
	L+N	/	/	/	/	A	A	A	A
	L+PE	/	/	/	/	/	/	/	/
	N+PE	/	/	/	/	/	/	/	/
	L+N+PE	/	/	/	/	/	/	/	/
Signal ports	RJ45	/	/	/	/	/	/	/	/

Test Result: Pass

10. Surges

10.1 Test Procedure

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

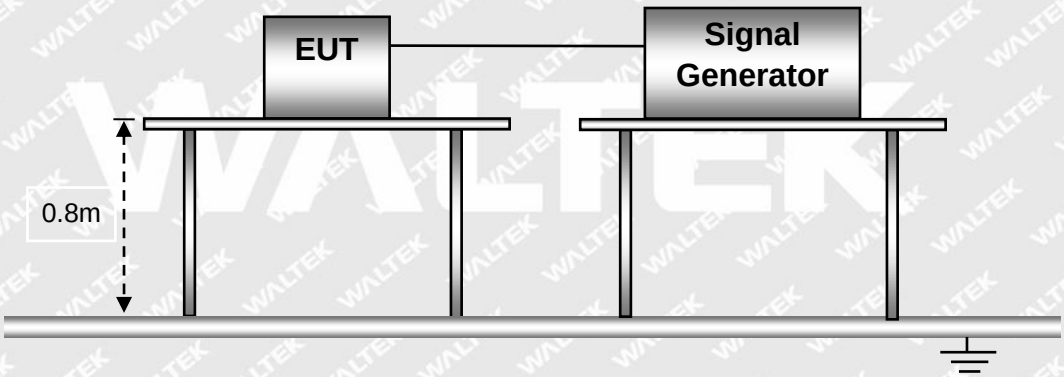
10.2 Test Performance

Performance Criterion: B

10.3 Environmental Conditions

Temperature:	23.5 °C
Relative Humidity:	53 %
ATM Pressure:	998 mbar

10.4 Basic Test Setup Block Diagram



10.5 Surge Test Data

GTM961600P16012-T3, GTM961800P18054-T3

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

GTM961600P16012-T2, GTM961800P18054-T2

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

Test Result: Pass

11. Continuous Induced RF Disturbances (C/S)

11.1 Test Procedure

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

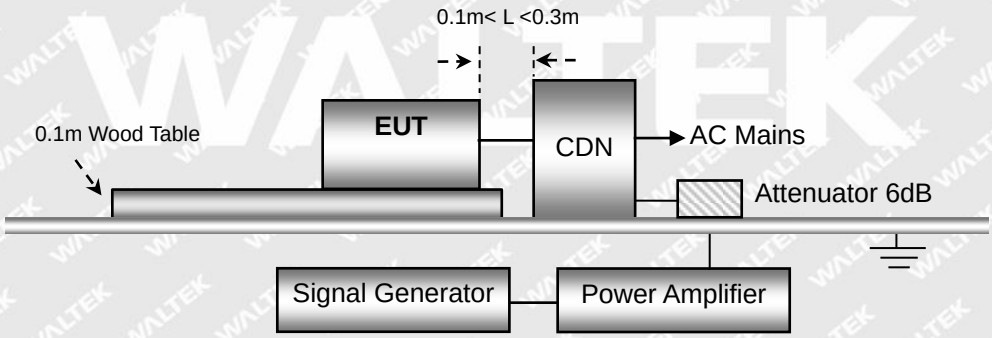
11.2 Test Performance

Performance Criterion: A

11.3 Environmental Conditions

Temperature:	23.5 °C
Relative Humidity:	53 %
ATM Pressure:	998 mbar

11.4 Basic Test Setup Block Diagram



11.5 Continuous Conducted Disturbances Test Data

Sweep frequency range: 0.15 MHz to 80 MHz
Frequency step: 1% of fundamental
Dwell time: 1 second

AC Port

Frequency MHz	Injected Position	Voltage level (e.m.f.)	Observations (Performance Criterion)	Result
0.15-80	AC Mains	1V	/	Pass
0.15-80	AC Mains	3V	/	Pass
0.15-80	AC Mains	6V	A	Pass

Test Result: Pass

12. Power-Frequency Magnetic Fields (PFMF)

12.1 Test Procedure

Test is conducted under the description of IEC 61000-4-8.

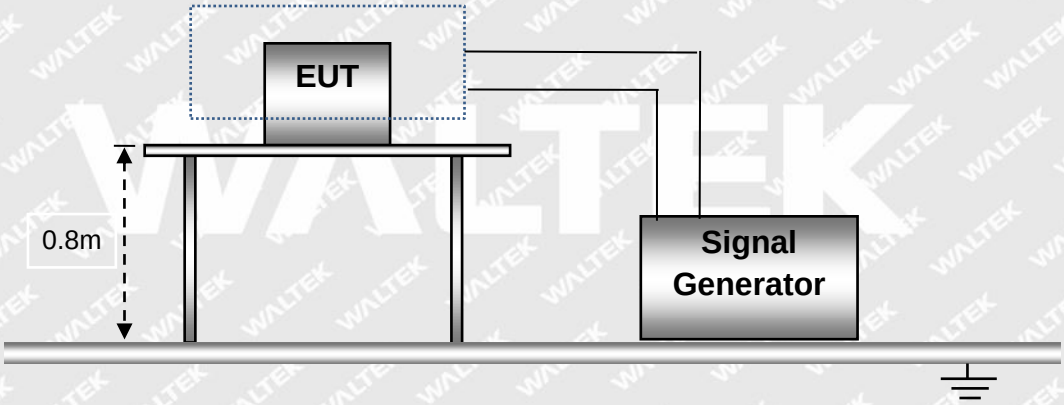
12.2 Test Performance

Performance Criterion: A

12.3 Environmental Conditions

Temperature:	23.5 °C
Relative Humidity:	53 %
ATM Pressure:	998 mbar

12.4 Basic Test Setup Block Diagram



12.5 Power-Frequency Magnetic Field Test Data

Level	Magnetic Field Strength (r.m.s) A/m	Frequency Hz	Induction Coil Postion	Pass	Fail
1	1	50/60	X, Y, Z	/	/
2	3	50/60	X, Y, Z	/	/
3	10	50/60	X, Y, Z	/	/
4	30	50/60	X, Y, Z	A	/

Test Result: Pass

13. Voltage Dips and Interruptions

13.1 Test Procedure

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

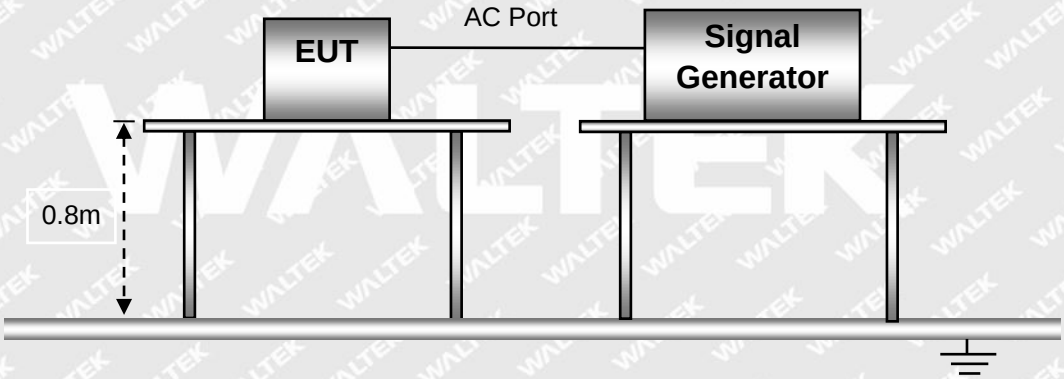
13.2 Test Performance

Performance Criterion: B/C

13.3 Environmental Conditions

Temperature:	23.5 °C
Relative Humidity:	53 %
ATM Pressure:	998 mbar

13.4 Basic Test Setup Block Diagram



13.5 Voltage Dips And Interruptions Test Data

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

T: Test duration

Input AC 240V/50Hz

Level	U	T	Phase Angle	N	Pass	Fail
1	100%	10ms	0°/45°/90°/135°/180°,225°/270°/315°	3	A	/
2	100%	20ms	0°/45°/90°/135°/180°,225°/270°/315°	3	A	/
3	70%	500ms	0°/45°/90°/135°/180°,225°/270°/315°	3	B	/
4	100%	5000ms	0°/45°/90°/135°/180°,225°/270°/315°	3	B	/

Input AC 100V/60Hz

Level	U	T	Phase Angle	N	Pass	Fail
1	100%	10ms	0°/45°/90°/135°/180°,225°/270°/315°	3	A	/
2	100%	20ms	0°/45°/90°/135°/180°,225°/270°/315°	3	A	/
3	70%	600ms	0°/45°/90°/135°/180°,225°/270°/315°	3	B	/
4	100%	6000ms	0°/45°/90°/135°/180°,225°/270°/315°	3	B	/

Test Result: Pass

EXHIBIT 1 - PRODUCT LABELING

Proposed CE Label Format

Power Supply
Model: GT*961600P****, GT*961800P****
Brand: GlobTek, Inc.
Importer Name: XXX
Importer Address: XXX
1: GlobTek, Inc. 2: GlobTek (Suzhou) Co., Ltd
1: 186 Veterans Dr. Northvale, NJ 07647 USA
2: Building 4, No. 76, Jin Ling East Rd., Suzhou Industrial Park, Suzhou, JiangSu 215021, China

Specifications: Text is Black in color and is justified. Labels are printed in indelible ink on permanent adhesive backing or silk-screened onto the EUT or shall be affixed at a conspicuous location on the EUT. The 'CE' marking must be affixed to the EUT or to its data plate. Where this is not possible or not warranted on account of the nature of the apparatus, it must be affixed to the packaging, if any, and to the accompanying documents. The 'CE' marking must have a height of at least 5 mm. If the 'CE' marking is reduced or enlarged the proportions given in the above graduated drawing must be respected. The Importer name, address and Manufacturer name and address should indicate on marking label or packaging or in a document accompanying.

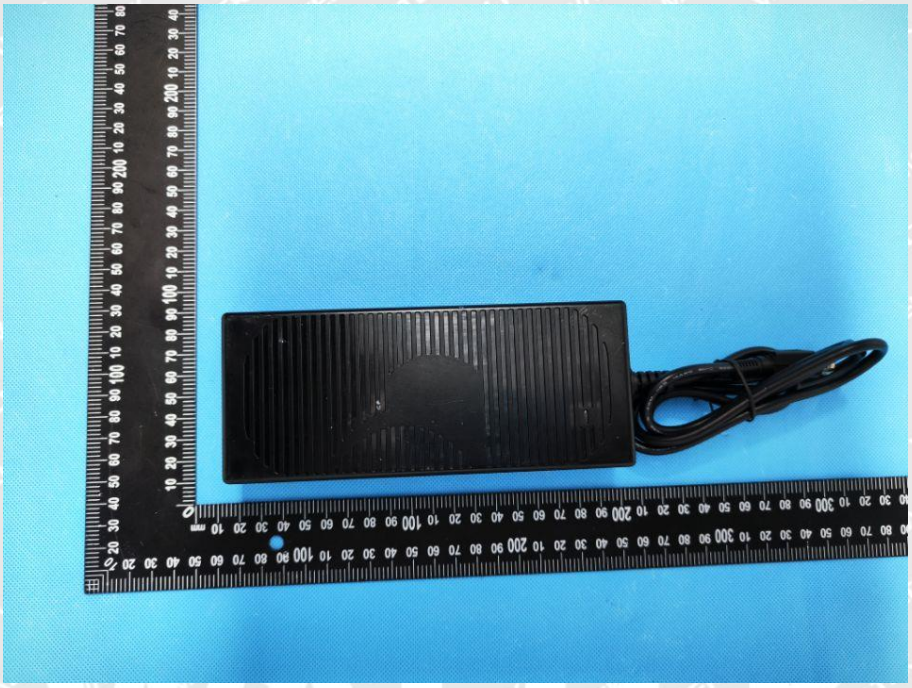
Proposed Label Location on EUT

CE Label Location

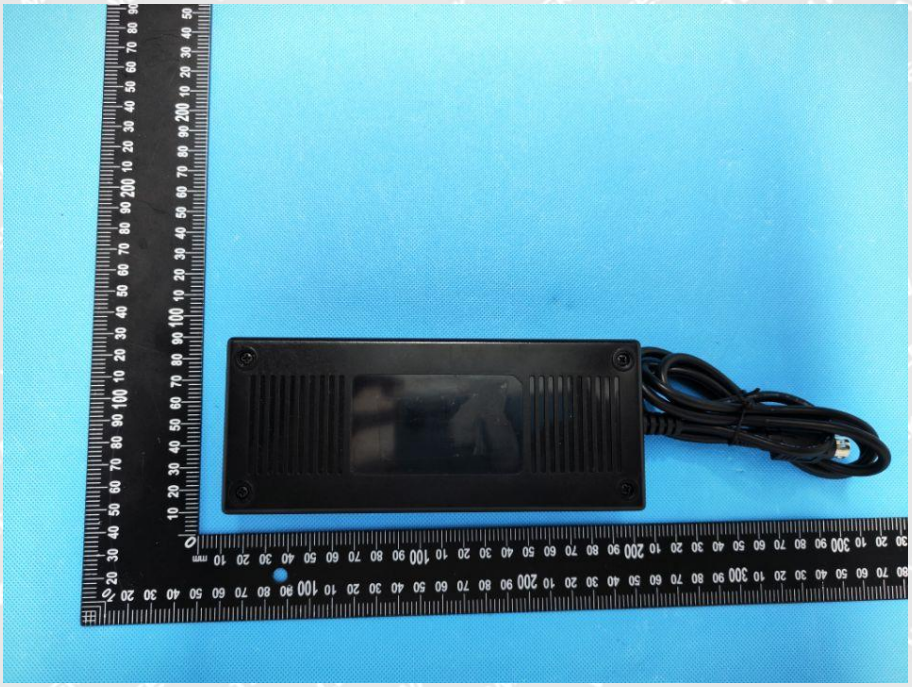
EXHIBIT 2 - EUT PHOTOGRAPHS

GTM961600P16012-T3

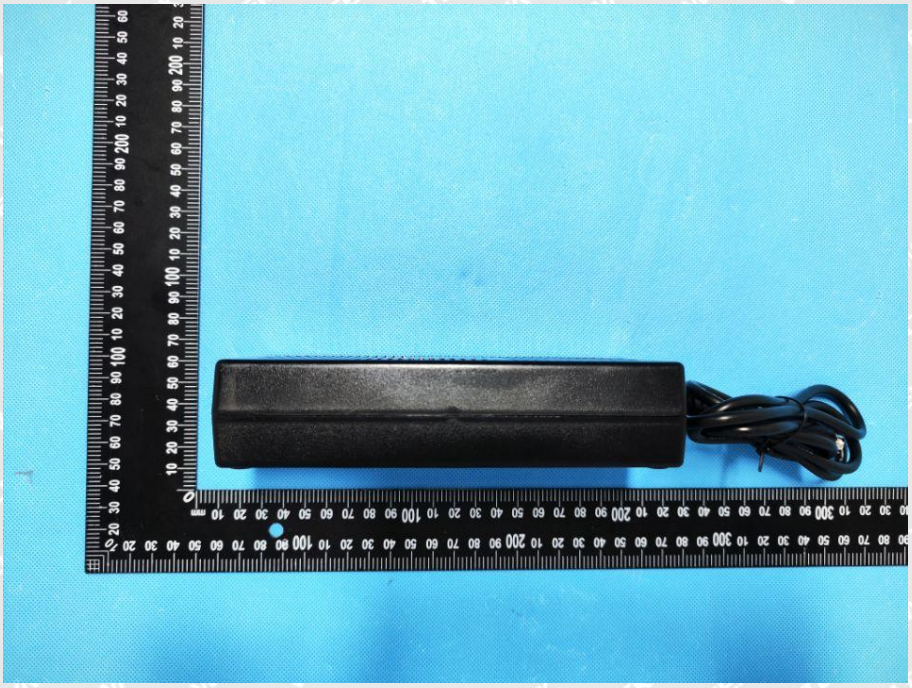
EUT View 1



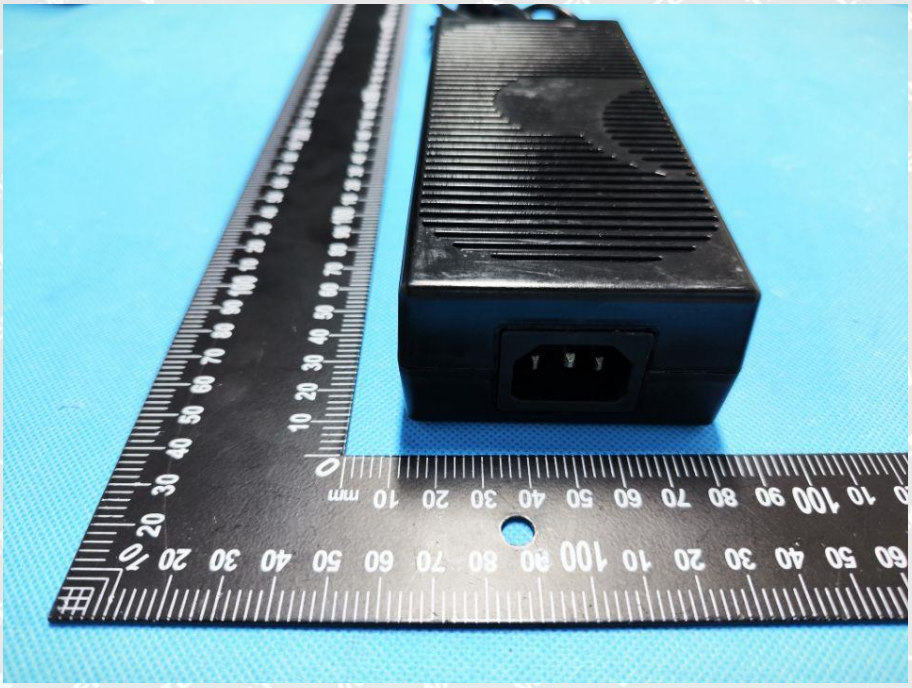
EUT View 2



EUT View 3



EUT View 4



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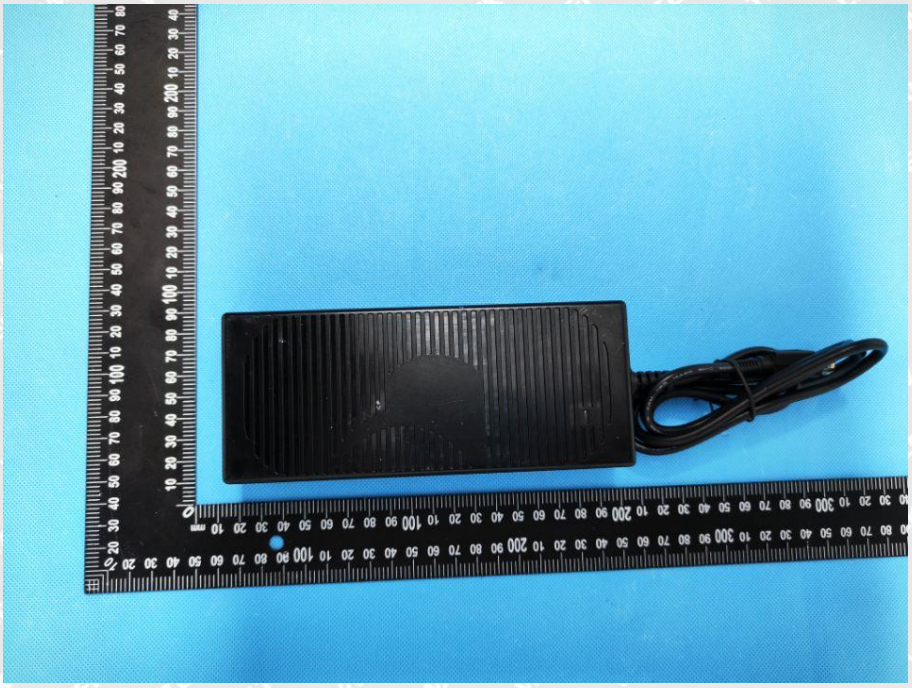
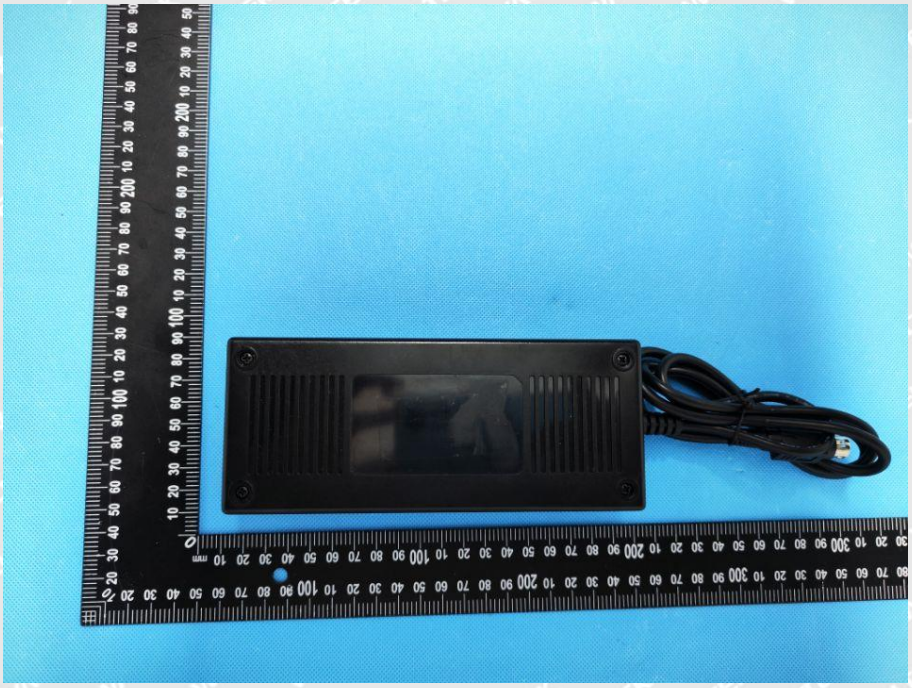
EUT View 5

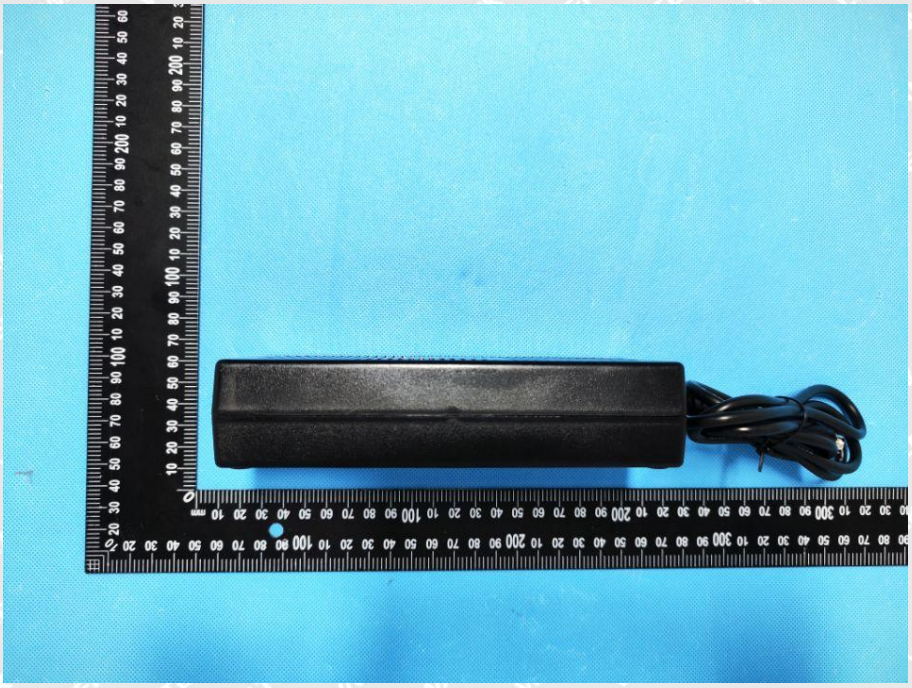
EUT View 6



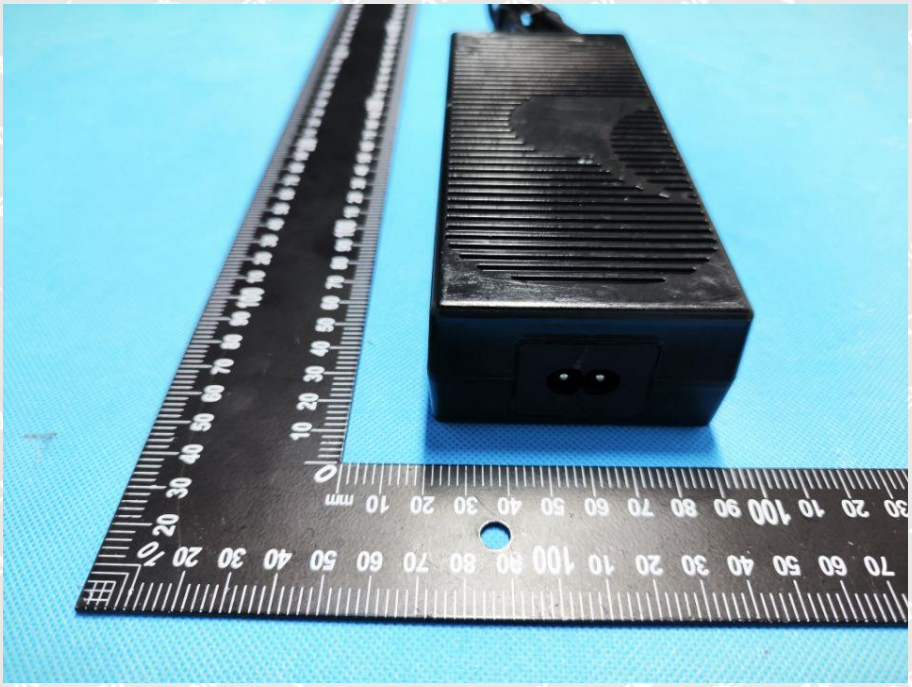
EUT View 7



EUT View 8

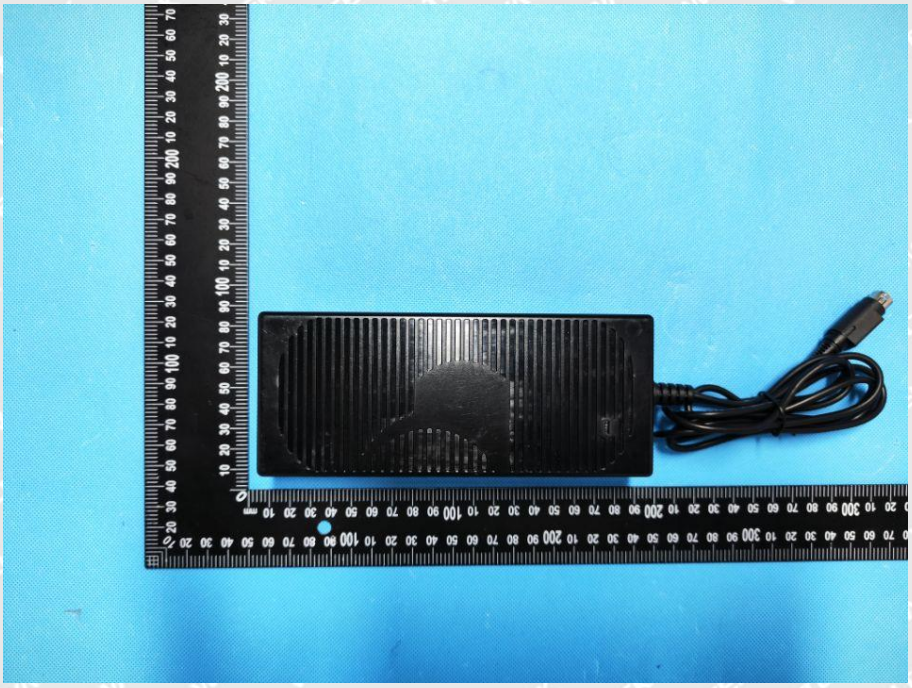


EUT View 9

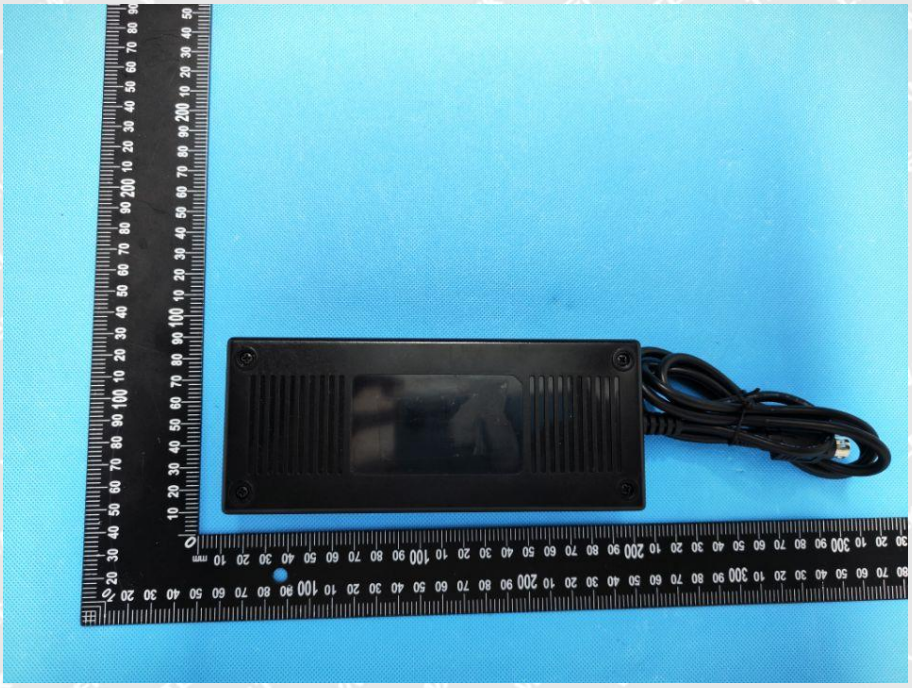


GTM961800P18054-T2
EUT View 10

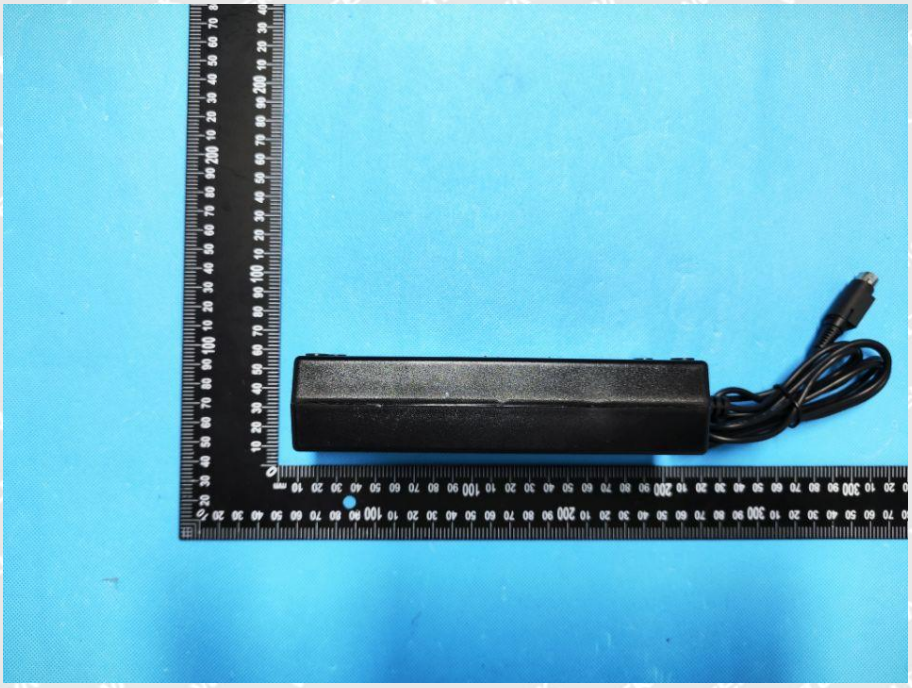
EUT View 11



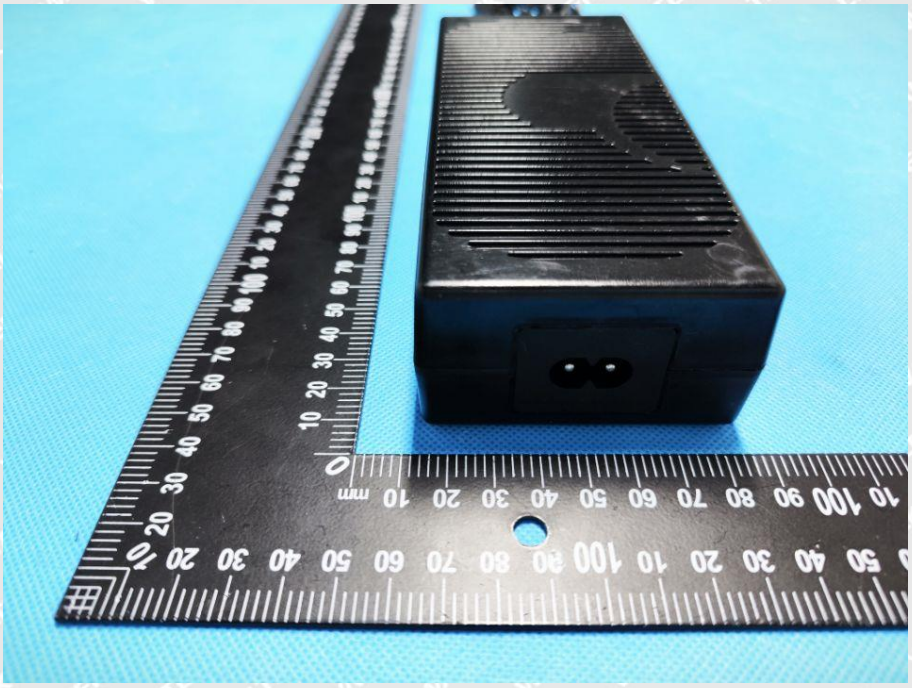
EUT View 12



EUT View 13



EUT View 14



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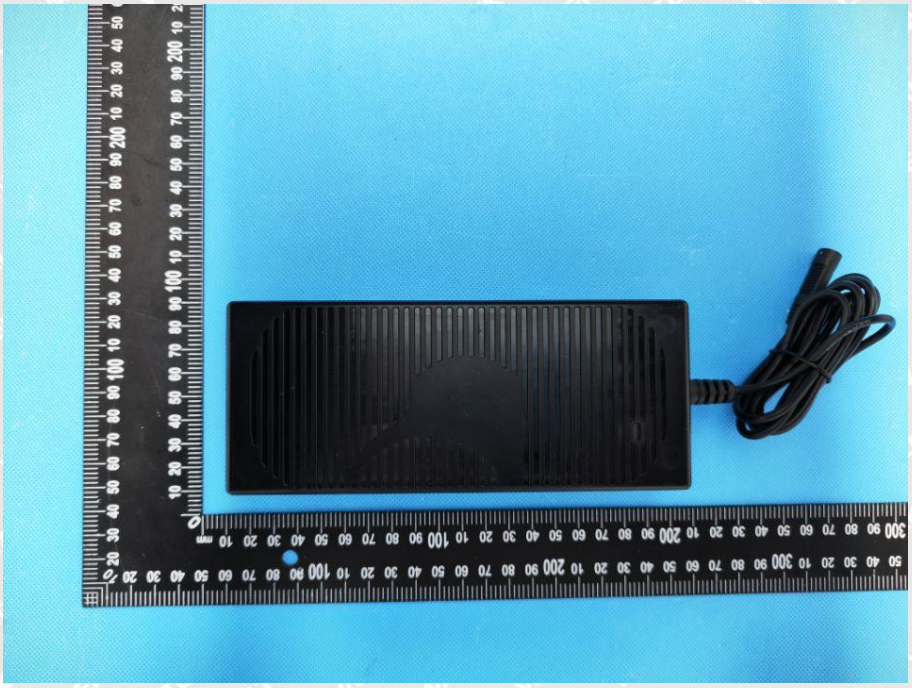
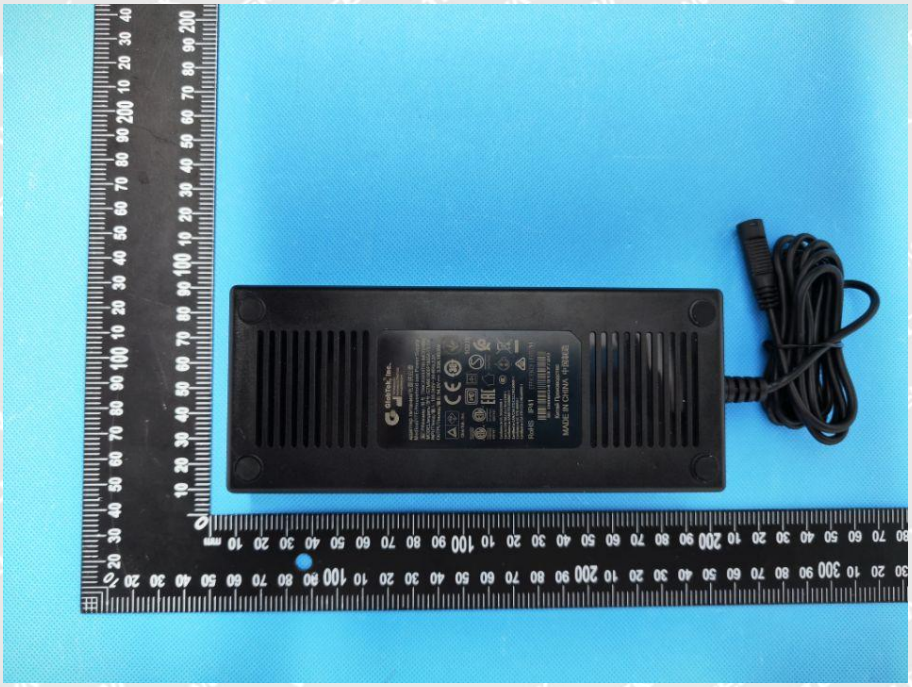
EUT View 15

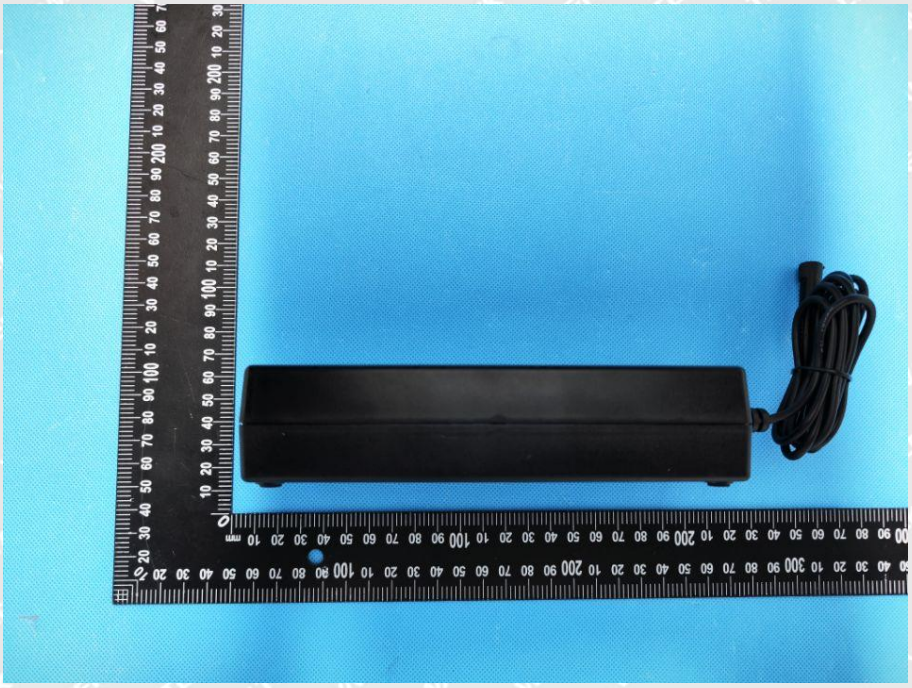
EUT View 16



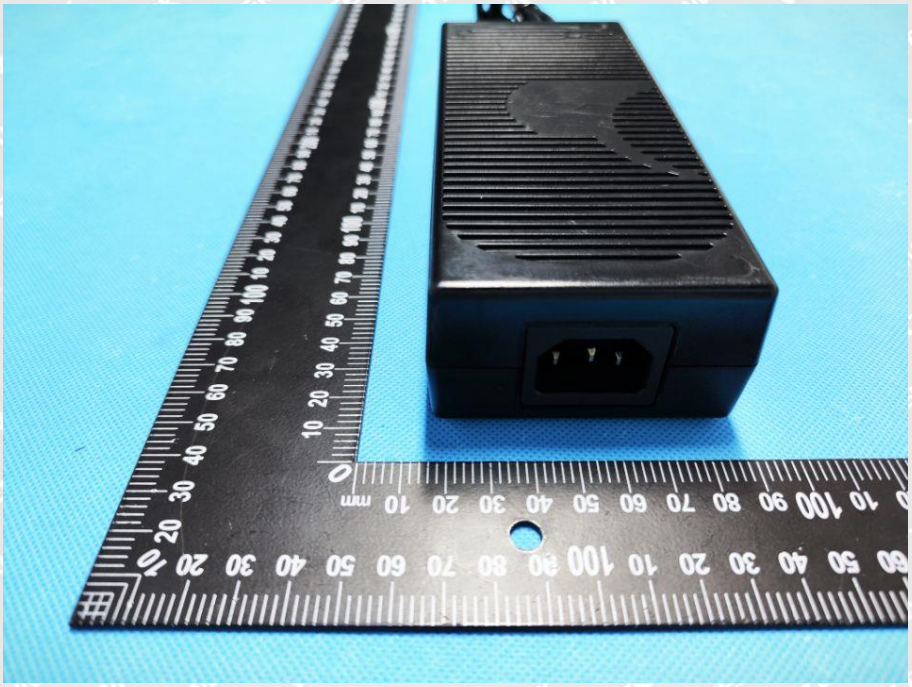
EUT View 17



EUT View 18

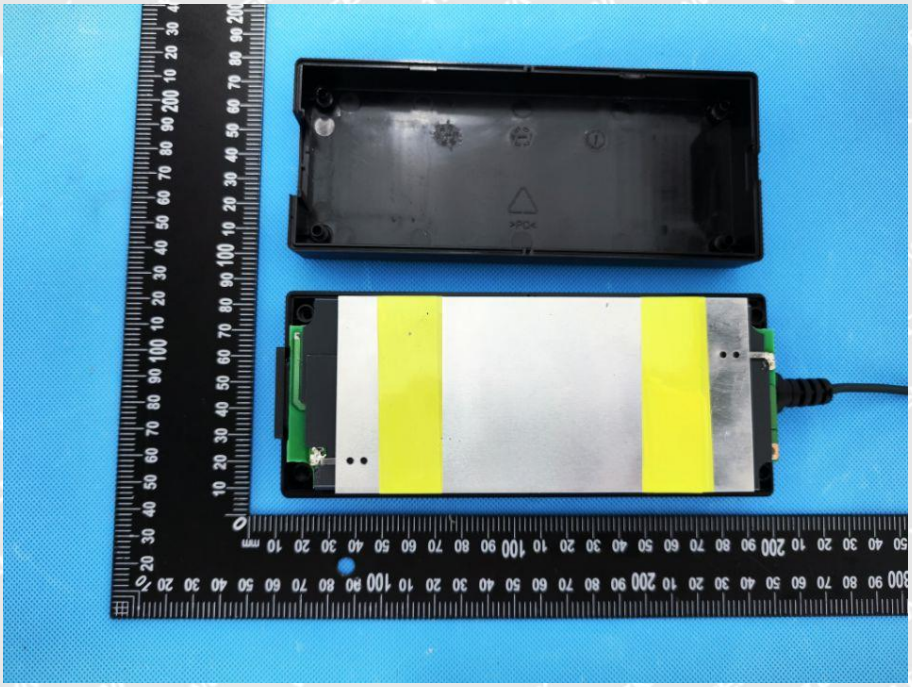


EUT View 19

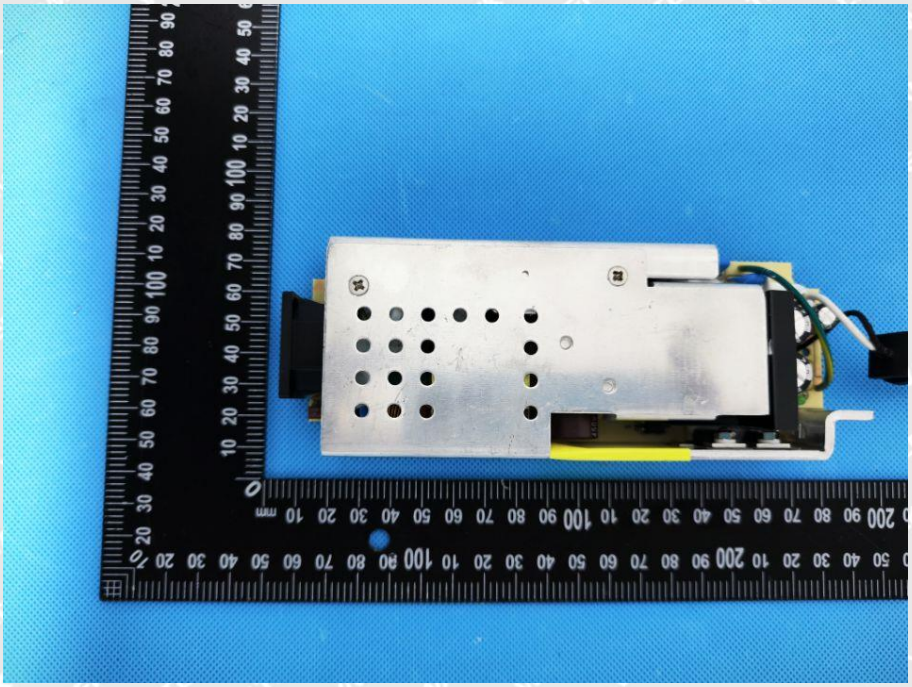


GTM961600P16012-T3

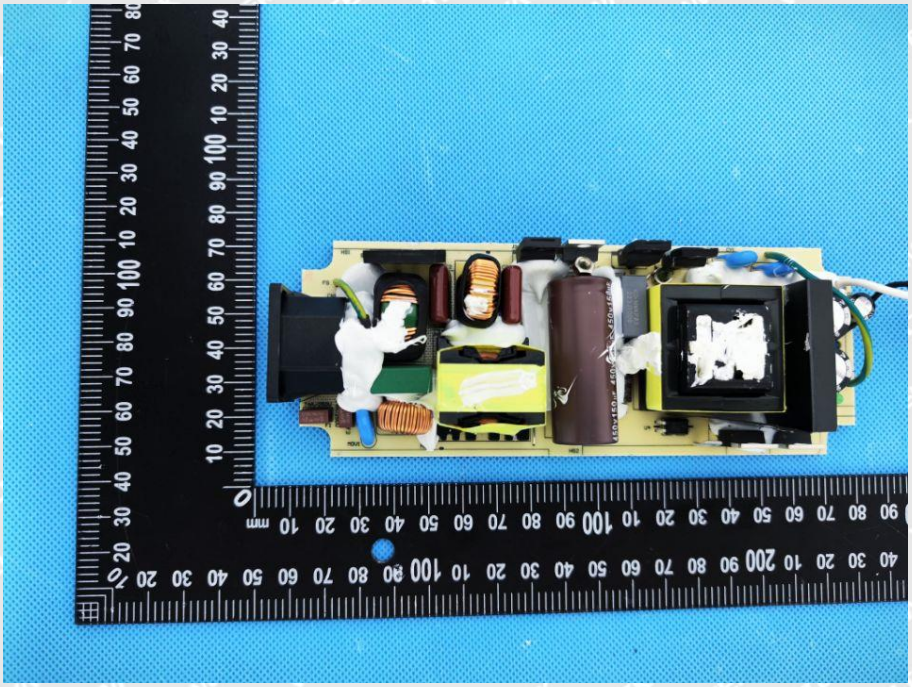
EUT Housing and Board View 1



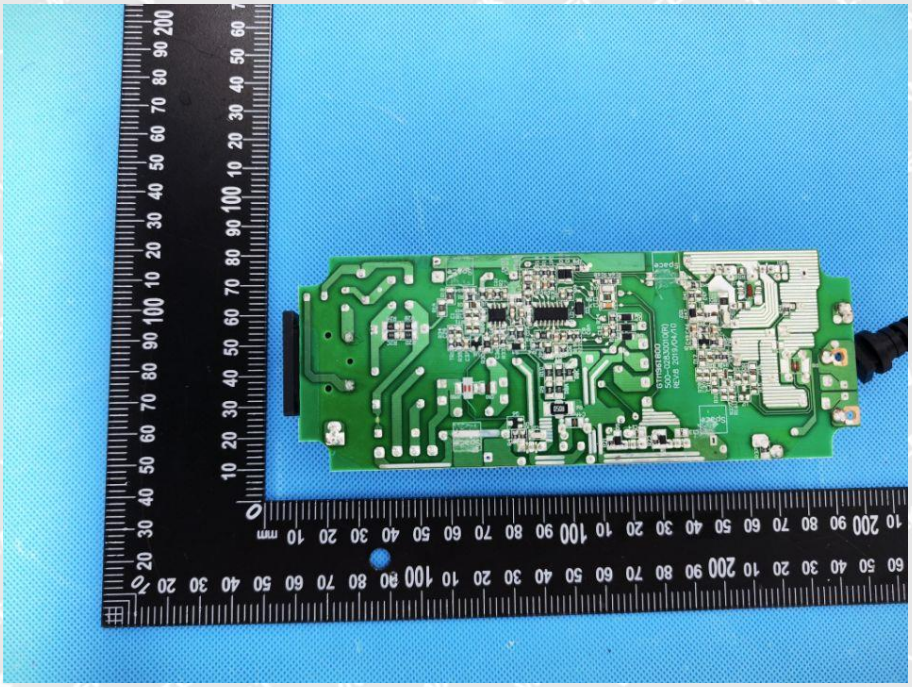
Solder Board-Component View 2



Solder Board-Component View 3

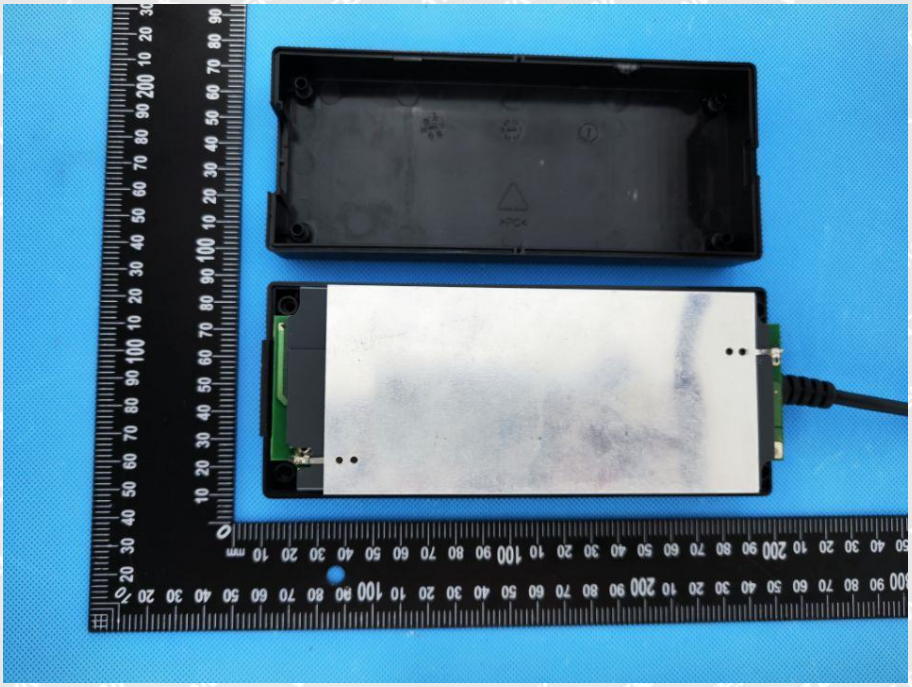


Solder Board-Component View 4

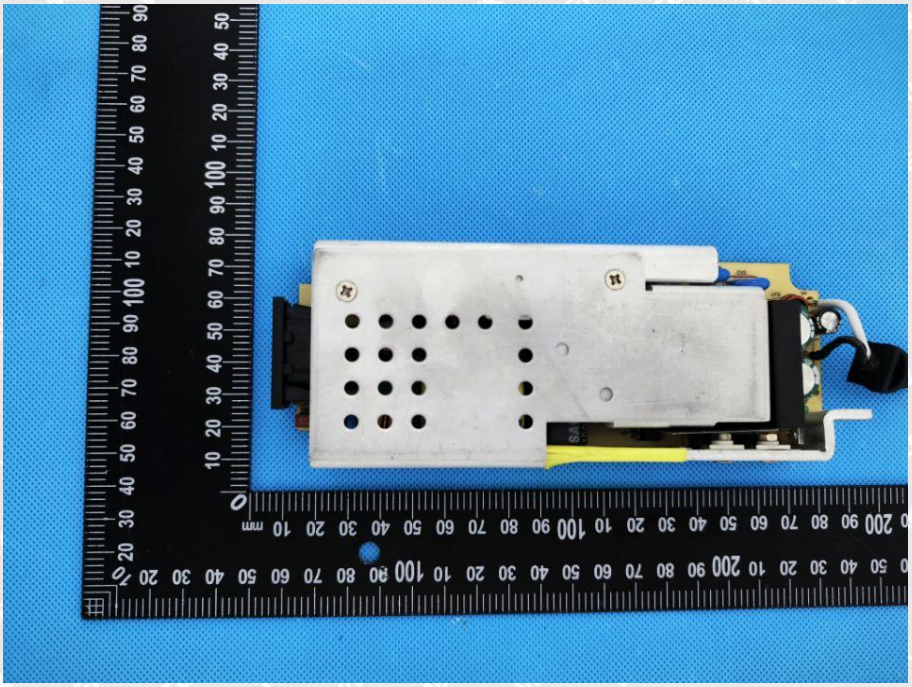


GTM961600P16012-T2

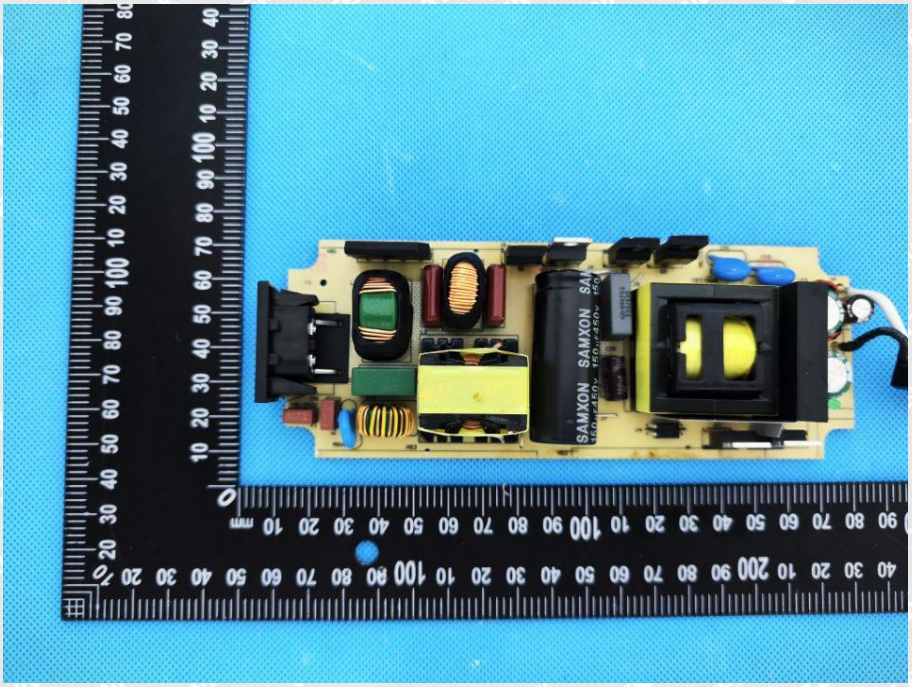
EUT Housing and Board View 5



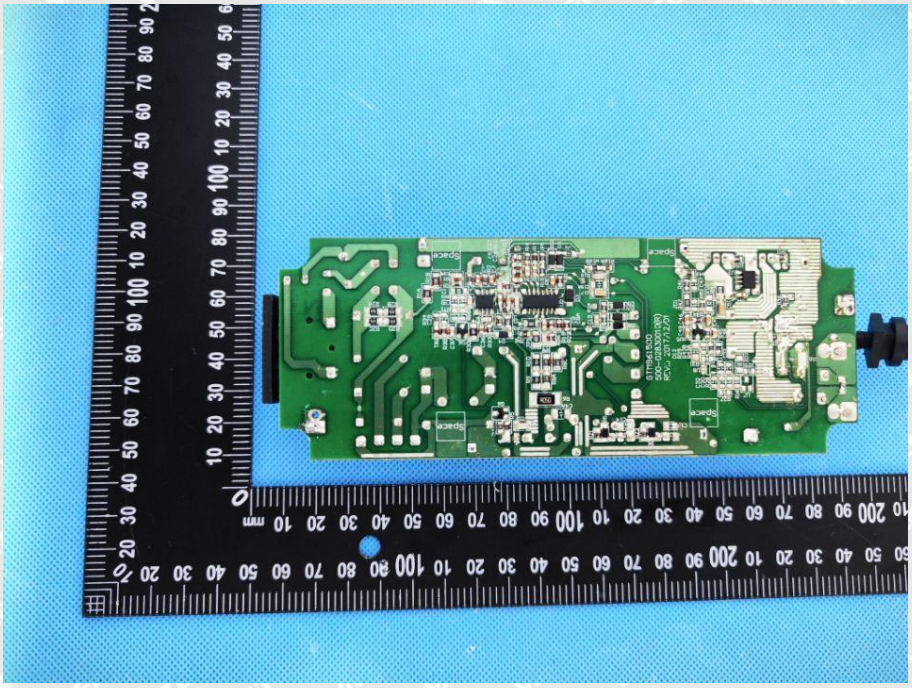
Solder Board-Component View 6



Solder Board-Component View 7

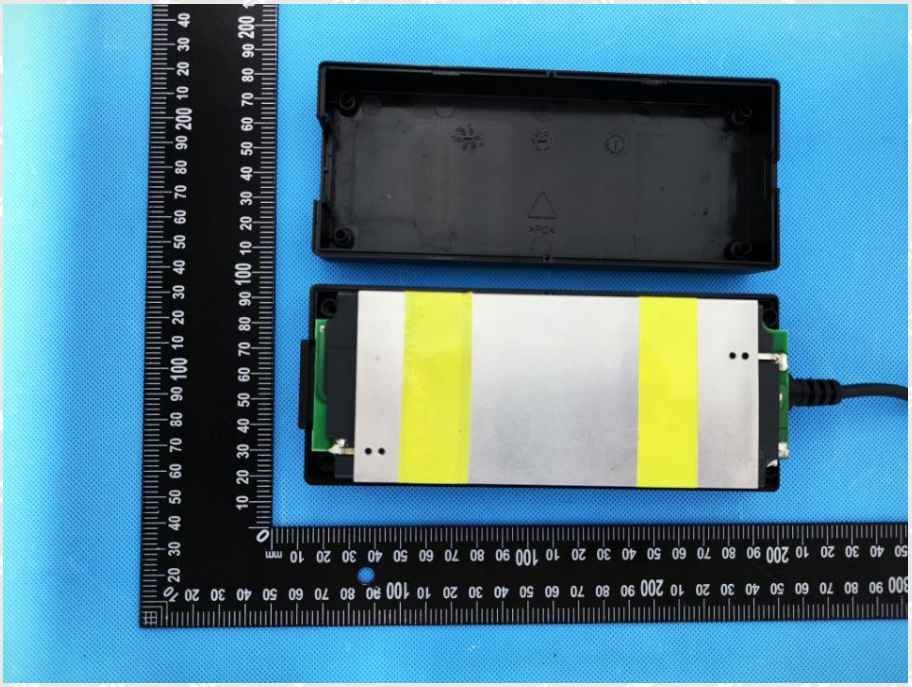


Solder Board-Component View 8

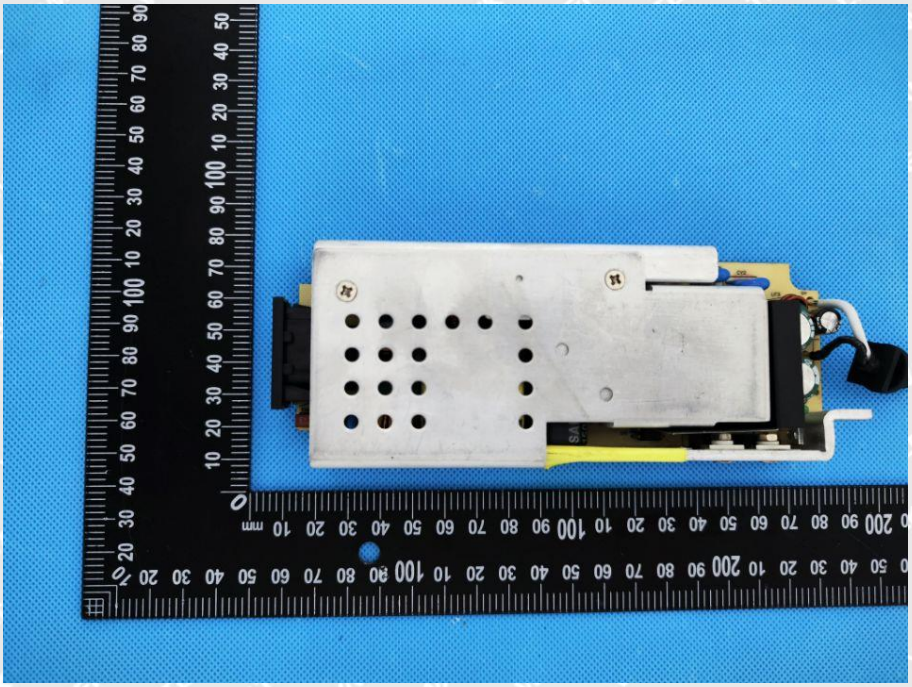


GTM961800P18054-T2

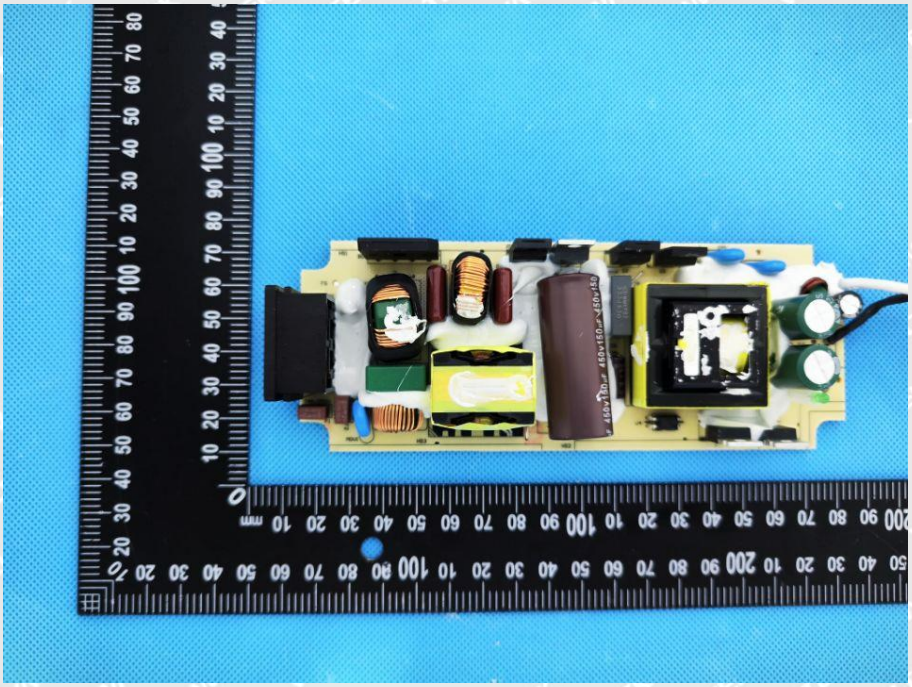
EUT Housing and Board View 9



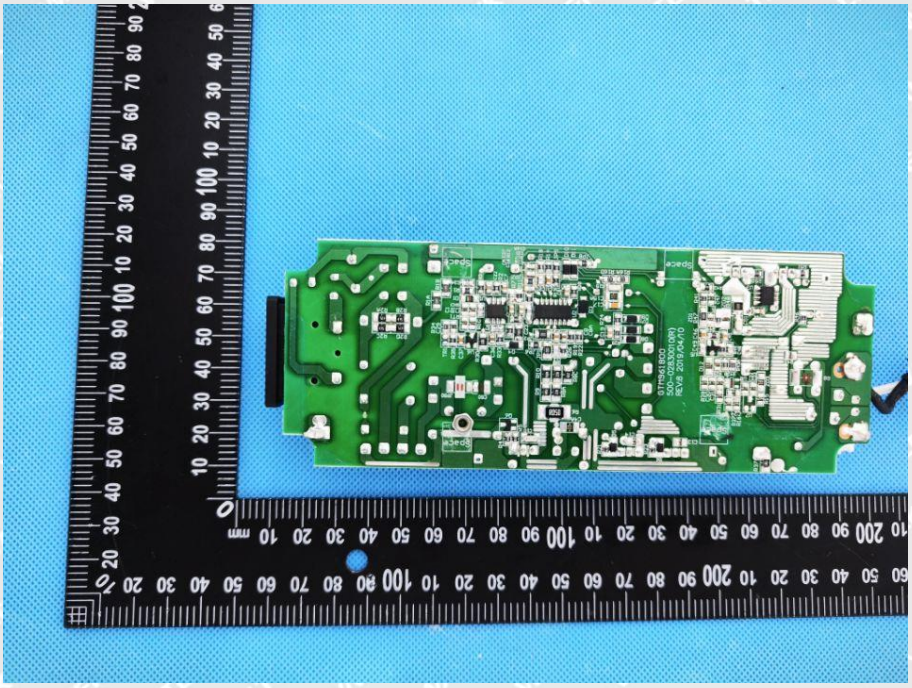
Solder Board-Component View 10



Solder Board-Component View 11



Solder Board-Component View 12



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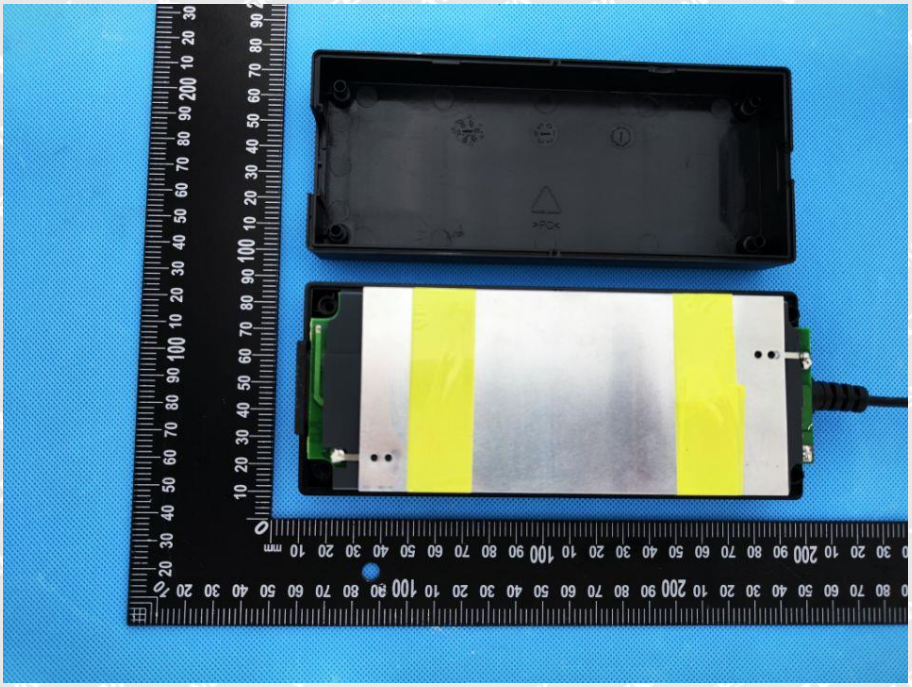
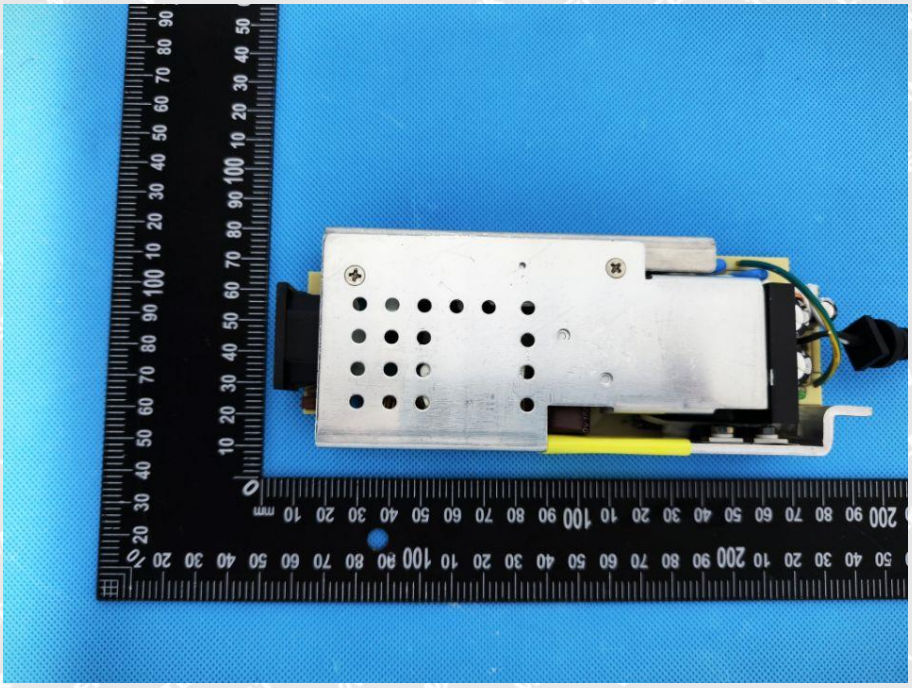
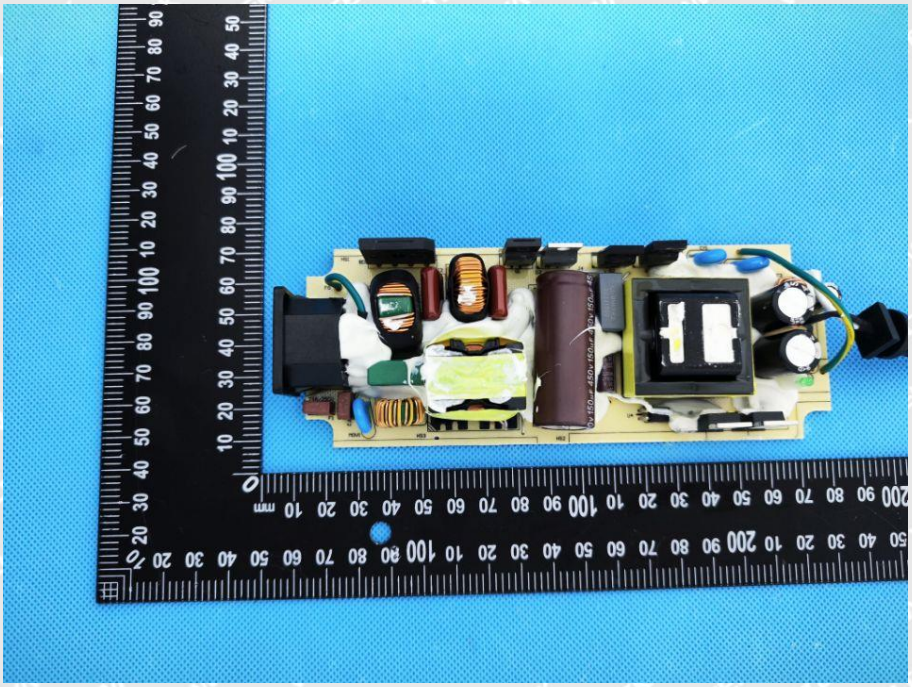
EUT Housing and Board View 13



Solder Board-Component View 14



Solder Board-Component View 15



Solder Board-Component View 16

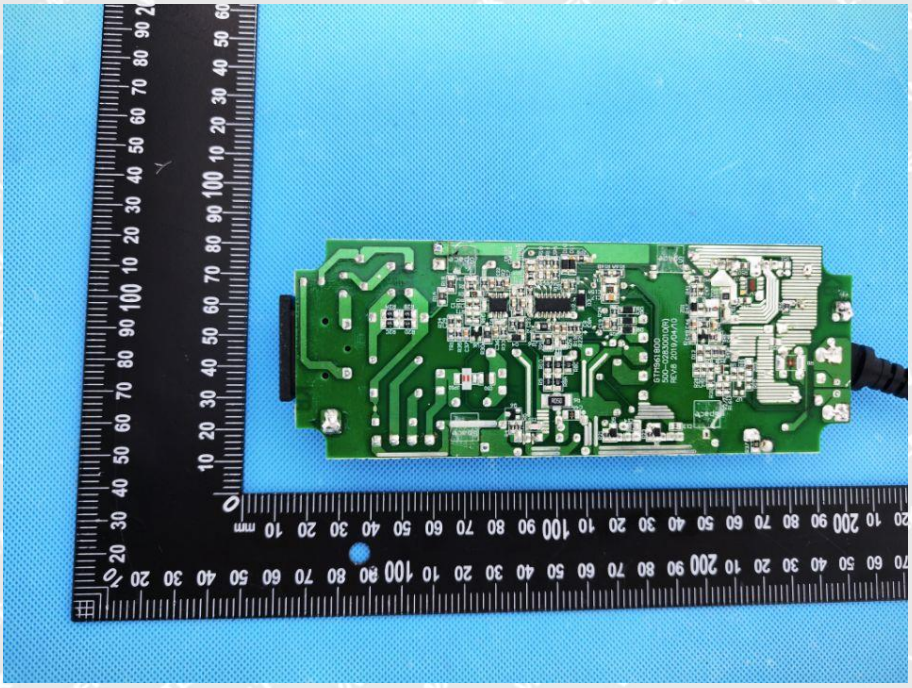
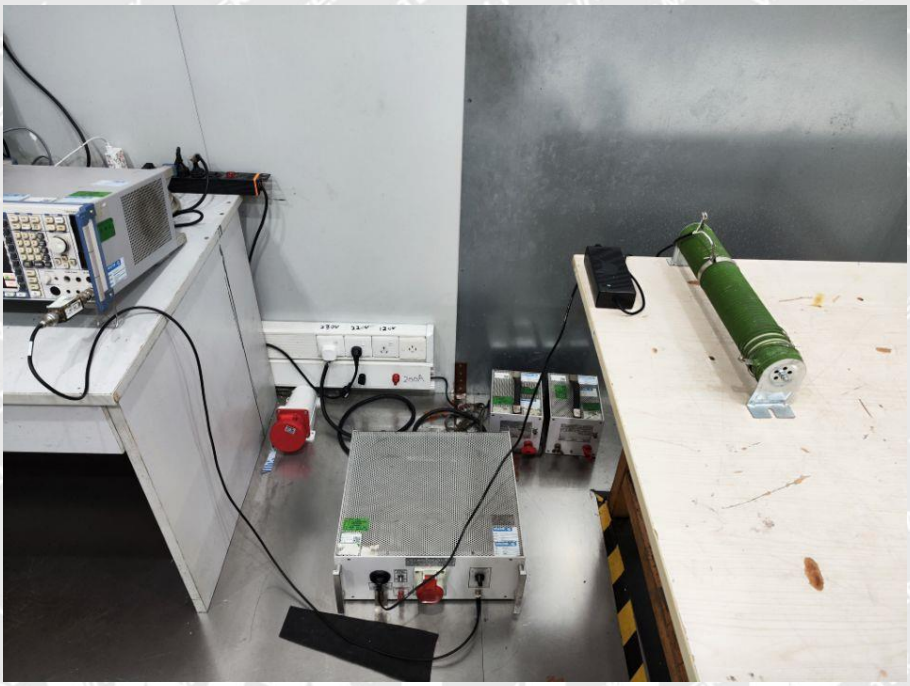
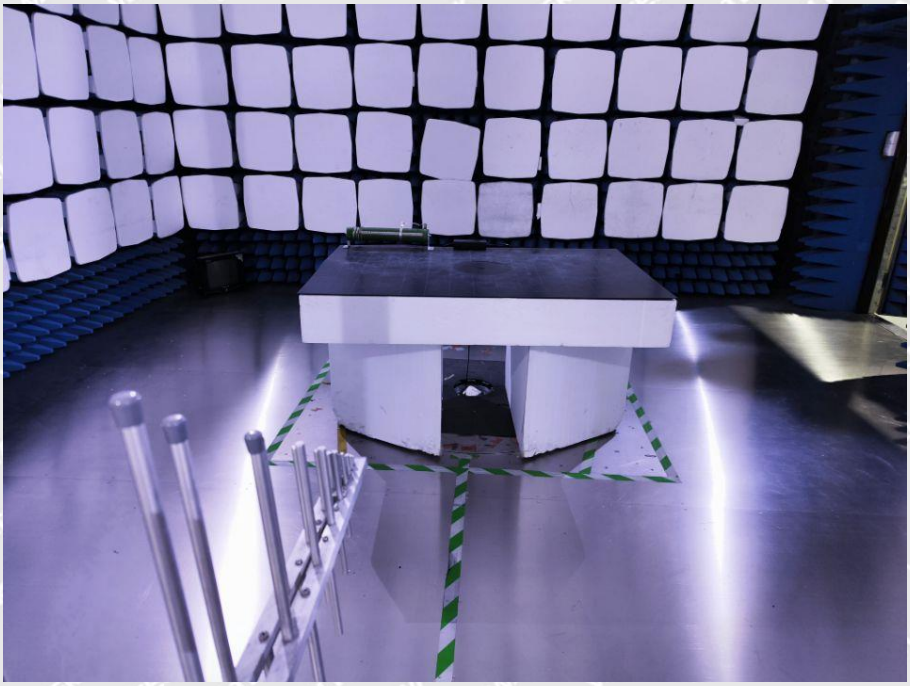


EXHIBIT 3 - TEST SETUP PHOTOGRAPHS

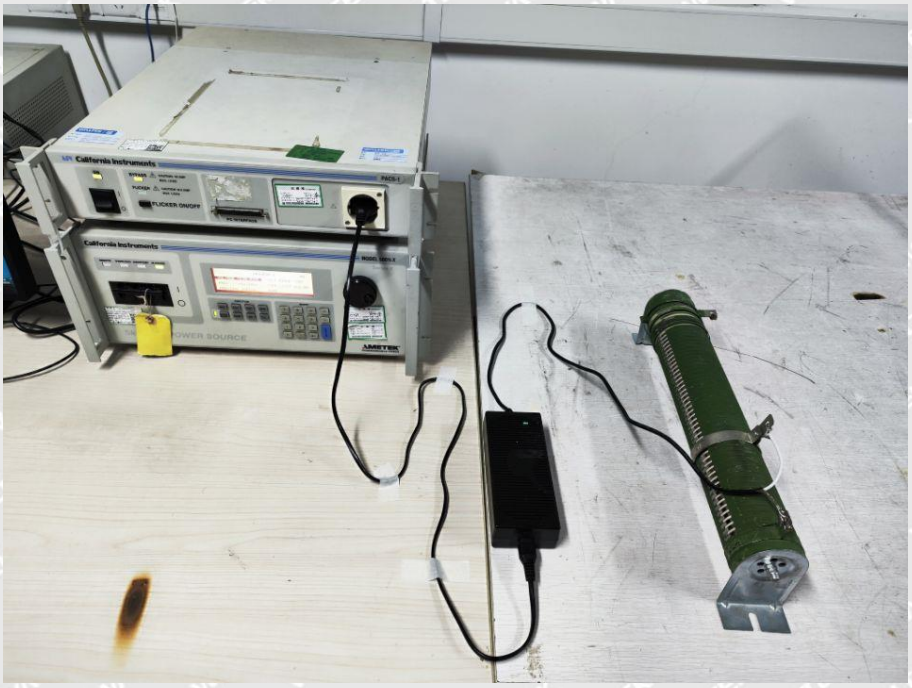
Conduction Emission Test View



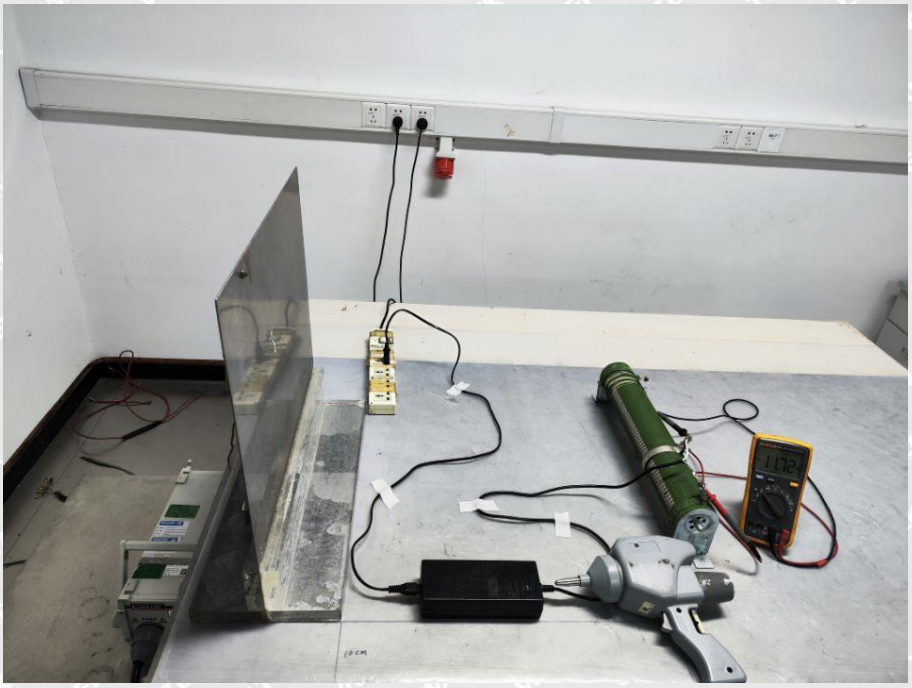
Radiation Emission Test View



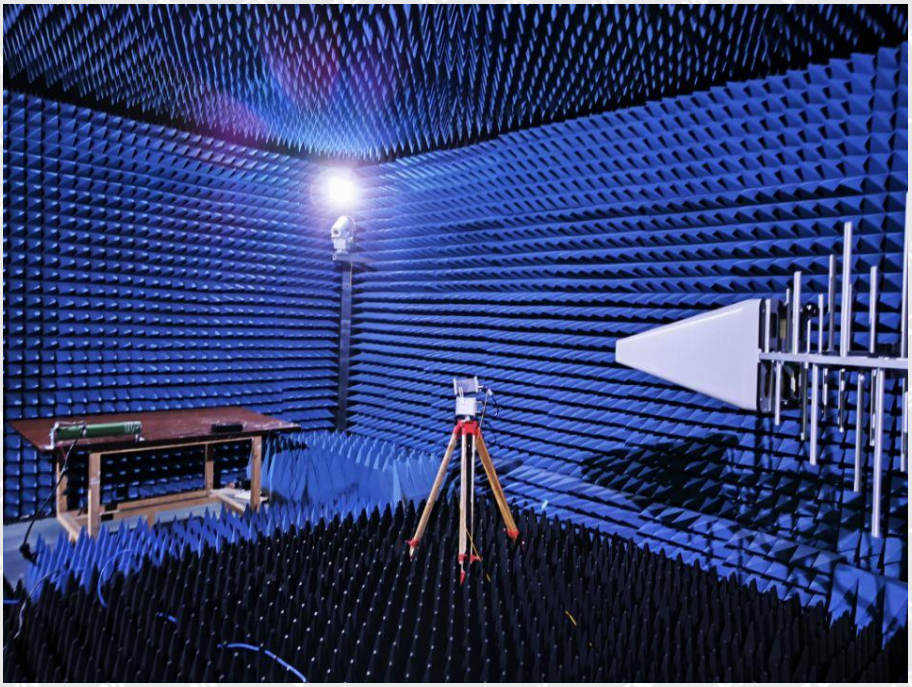
Harmonic/Flicker Test View



IEC 61000-4-2 Test View

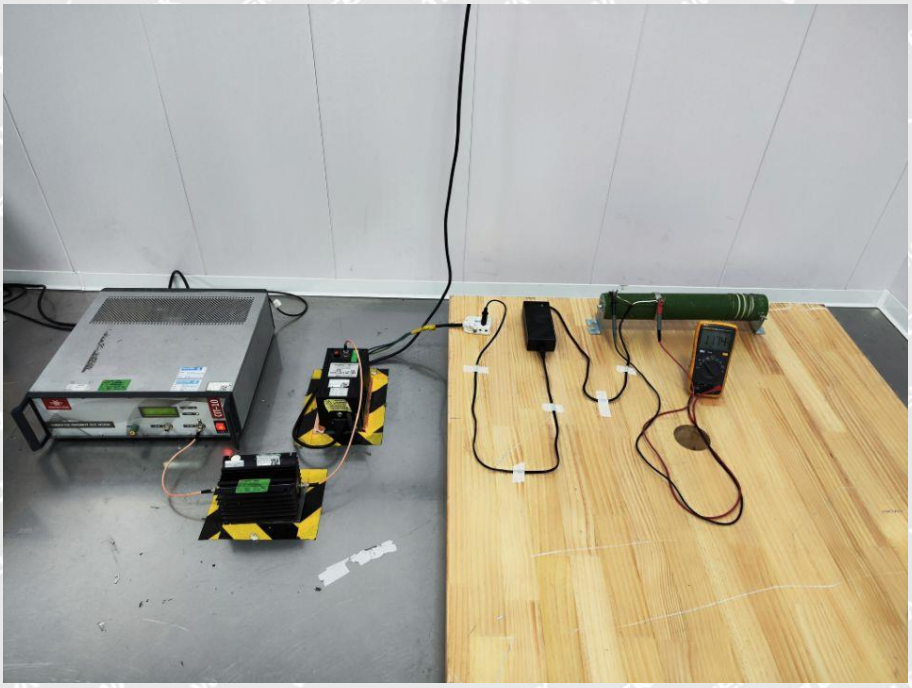


IEC 61000-4-3 Test View

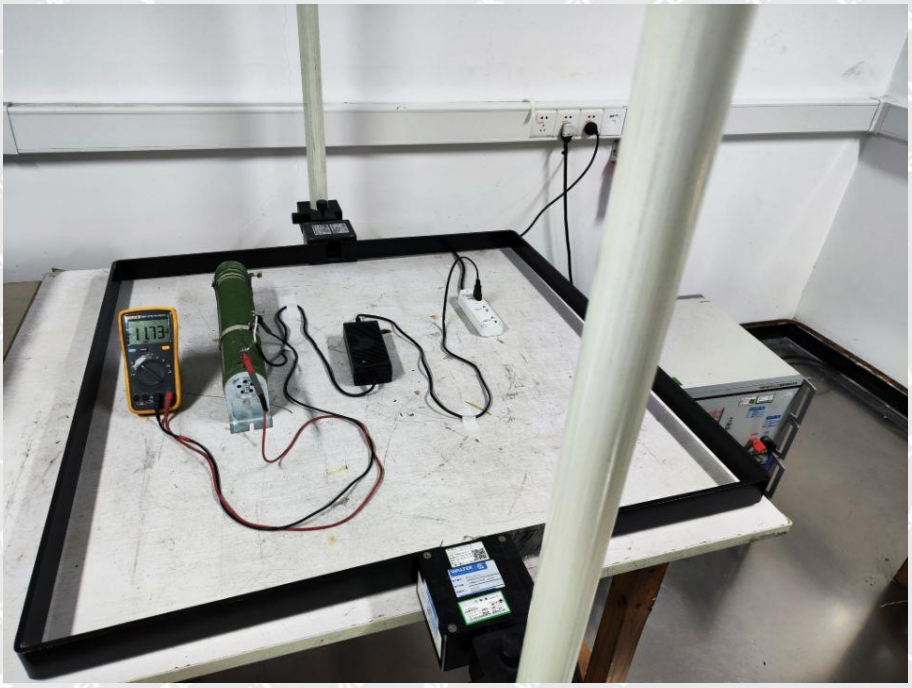


IEC 61000-4-4/5/11 Test View

IEC 61000-4-6 Test View



IEC 61000-4-8 Test View



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