TEST REPORT

Reference No.	:	WTX23X12271806E001
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	:	X-plore 8000 Multi-Unit Charger
Model No.	:	GT-93600SHG3050
Standards	:	**EN IEC 55014-1:2021** **EN IEC 55014-2:2021** **EN IEC 61000-3-2:2019+A1:2021** **EN 61000-3-3:2013+A2:2021**
Date of Receipt sample	:	2023-12-28
Date of Test	:	2023-12-28 to 2024-01-02
Date of Issue	:	2024-01-03
Test Report Form No.	:	WTX_EN IEC 55014_1_2021_A
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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Tested by:

Toby Zhang

Approved by:

Evan Cai

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Report version

Version No.	Date of issue	Description
Rev.00	2024-01-03	Original
/	/	/

1. GENERAL INFORMATION

1.1 Product Description for Equipment Under Test (EUT)

General Description of EUT	
Product Name:	X-plore 8000 Multi-Unit Charger
Trade Name:	Dräger GlobTek, Inc.
Model No.:	GT-93600SHG3050
Adding Model(s):	/
Note: The test data is gathered from a production sample, provided by the manufacturer.	

Technical Characteristics of EUT	
Rated Voltage:	AC 100-240V~, 50-60Hz
Rated Current:	1.5A MAX
Rated Power:	/
Power Adaptor Model:	/
Highest Clock Frequency:	Above 30MHz
Categories of Apparatus:	Category IV

1.2 Test Standards

The tests were performed according to following standards:

EN IEC 55014-1:2021: Electromagnetic compatibility - Requirements for household appliance,electric tools and similar apparatus--Part 1:Emission.

EN IEC 55014-2:2021: Electromagnetic compatibility - Requirements for household appliance,electric tools and similar apparatus--Part 2:Immunity.

EN IEC 61000-3-2:2019+A1:2021: 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+A2:2021: Electromagnetic compatibility (EMC) -- Part 3-3: Limits - Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current <= 16 A per phase and not subject to conditional connection.

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

1.3 Test Methodology

All measurements contained in this report were conducted with the standards EN IEC55014-1, EN IEC 61000-3-2, EN 61000-3-3 and EN IEC 55014-2 for household appliances, electric tools and similar apparatus, and all related testing and measurement techniques intentional standards.

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	The prototype works normally	AC 230V/50Hz
TM2	Working Mode	The prototype works normally	AC 120V/60Hz

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

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
/	/	/	/

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	ESPI	101611	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
EMI Test Software (Radiated Emission A)	Farad	EZ-EMC	RA-03A1 (1.1.4.2)	/	/
☐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
EMI Test Software (Radiated Emission A)	Farad	EZ-EMC	RA-03A1 (1.1.4.2)	/	/
☐Chamber B:Below 1GHz					
Trilog Broadband Antenna	Schwarz beck	VULB9163(B)	9163-635	2021-04-09	2024-04-08
Amplifier	Agilent	8447D	2944A10457	2023-02-25	2024-02-24
EMI Test Receiver	Rohde & Schwarz	ESPI	101391	2023-02-25	2024-02-24
EMI Test Software (Radiated Emission B)	Farad	EZ-EMC	RA-03A1 (1.1.4.2)	/	/
☐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
EMI Test Software (Radiated Emission C)	Farad	EZ-EMC	RA-03A1-2 (1.1.4.2)	/	/
☐Chamber C:Above 1GHz					
Horn Antenna	POAM	RTF-118A	1820	2023-03-10	2026-03-09
Amplifier	Tonscend	TAP01018050	AP22E806235	2023-02-25	2024-02-24
EMI Test Software (Radiated Emission C)	Farad	EZ-EMC	RA-03A1-2 (1.1.4.2)	/	/
☒Conducted Room 1#					
EMI Test Receiver	Rohde & Schwarz	ESCI	100525	2023-12-12	2024-12-11

Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100911	2023-02-25	2024-02-24
AC LISN	Schwarz beck	NSLK8126	8126-279	2023-02-25	2024-02-24
8-WIRE ISN	Schwarz beck	8158	CAT3-8158-0059	2023-02-25	2024-02-24
8-WIRE ISN	Schwarz beck	8158	CAT5-8158-0117	2023-02-25	2024-02-24
EMI Test Software (Conducted Emission Room 1#)	Farad	EZ-EMC	3A1*CE-RE 1.1.4.3	/	/
☐Conducted Room 2#					
EMI Test Receiver	Rohde & Schwarz	ESPI	101259	2023-02-25	2024-02-24
LISN	Rohde & Schwarz	ENV 216	100097	2023-02-25	2024-02-24
EMI Test Software (Conducted Emission Room 2#)	SKET	EMC-I	1.3.0.2	/	/
☒Disturbance Power					
EMI Test Receiver	Rohde & Schwarz	ESPI	101611	2023-02-25	2024-02-24
Clamp	Luthi	MDS21	3809	2022-02-27	2024-02-26
EMI Test Software (Disturbance Power 1#)	Farad	EZ-EMC	3A1*CE-RE 1.1.4.3	/	/
☒Harmonics &Flicker					
Digital Power Analyzer	California Instrument	CTS	72831	2023-02-25	2024-02-24
Power Source	California Instrument	5001IX-CTS-400	60077	2023-02-25	2024-02-24
Test Software (Harmonics &Flicker)	AMETEK	CTS4	4.30	/	/
☒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	836	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
Test Software (Radio frequency, Continuous conducted)	SKET	EMC-S	V1.4.0.16	/	/
☒Radio frequency electromagnetic Field (R/S)					
Signal Generator	HP	8665B	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	/	/
Power Meter	Agilent	E4419B	GB42420578	2023-02-25	2024-02-24
Test Software (Radio frequency electromagnetic Field)	EMtrace	EM3	V1.2.6.2	/	/

2. SUMMARY OF TEST RESULTS

Standards	Description of Test Item	Result
EN IEC55014-1	Terminal Voltages	Compliant
	Disturbance Power	Compliant
	Radiated Disturbances	Compliant
	Discontinuous Disturbance	N/A
EN IEC 61000-3-2	Harmonic Current Emission	Compliant
EN 61000-3-3	Voltage Fluctuation and Flicker	Compliant
EN IEC 55014-2	Electrostatic Discharge Immunity in accordance with EN 61000-4-2	Compliant
	Continuous RF electromagnetic field Disturbances Immunity in accordance with EN IEC 61000-4-3	Compliant
	Electrical Fast Transient/Burst Immunity in accordance with EN 61000-4-4	Compliant
	Surges Immunity in accordance with EN 61000-4-5	Compliant
	Continuous induced RF disturbances Immunity in accordance with EN 61000-4-6	Compliant
	Voltage Dips/Interruptions Immunity in accordance with EN IEC 61000-4-11	Compliant

N/A: not applicable

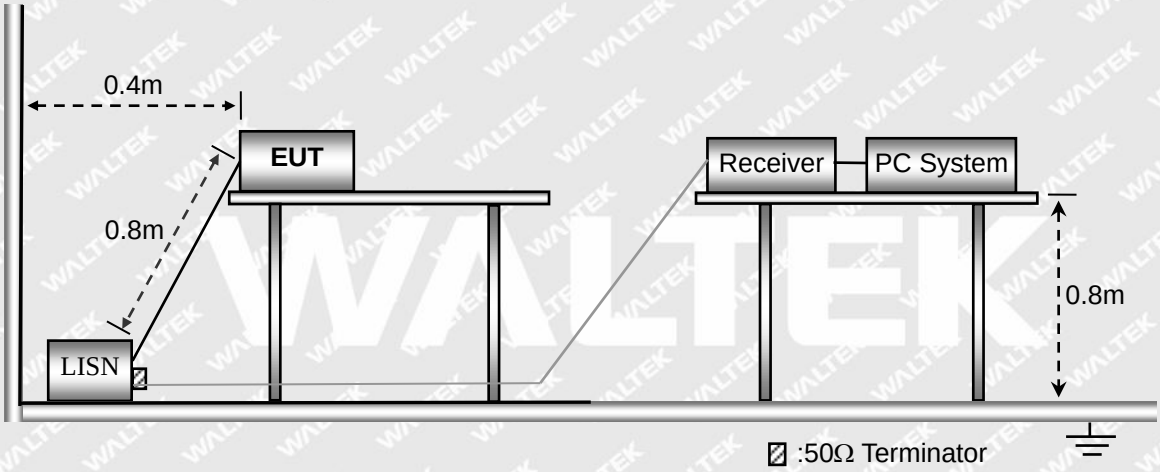
3. Conducted Emission

3.1 Measurement Uncertainty

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

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

3.2 Basic Test Setup Block Diagram



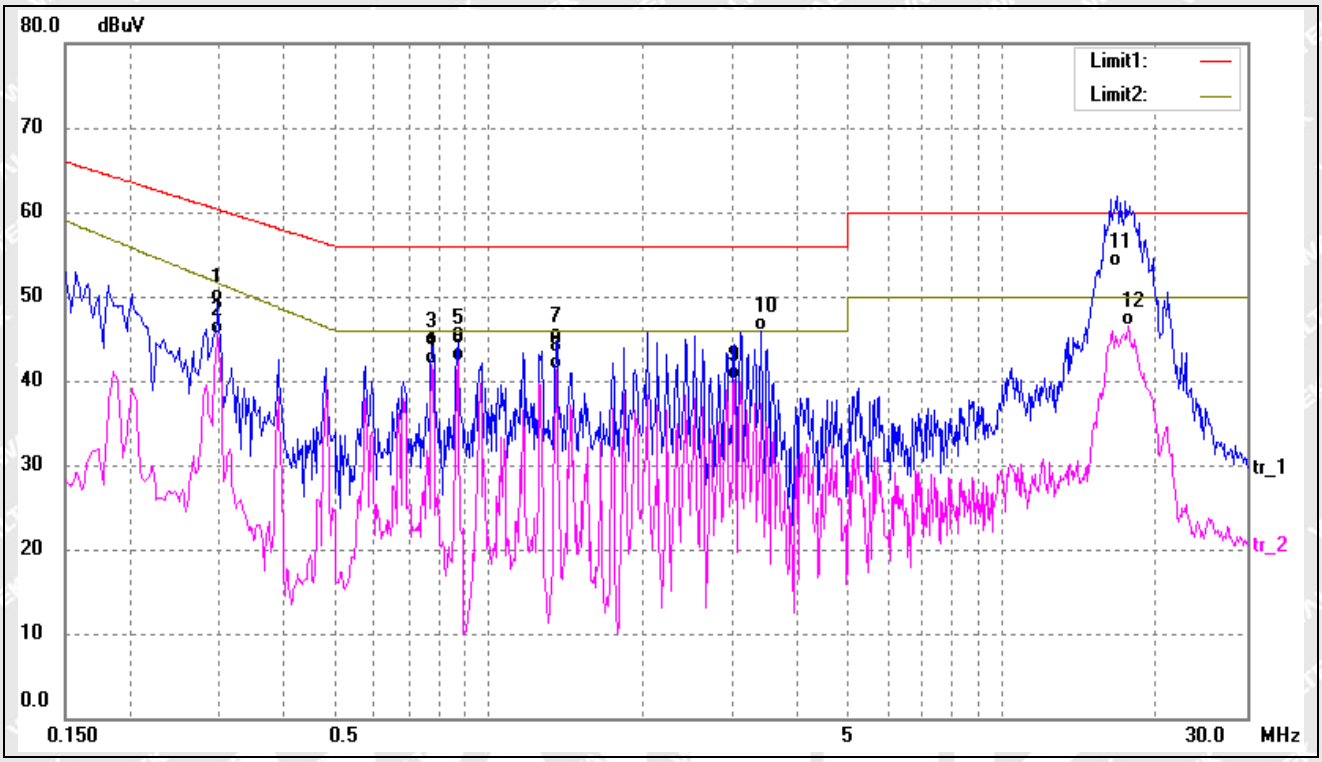
3.3 Environmental Conditions

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

3.4 Summary of Test Results

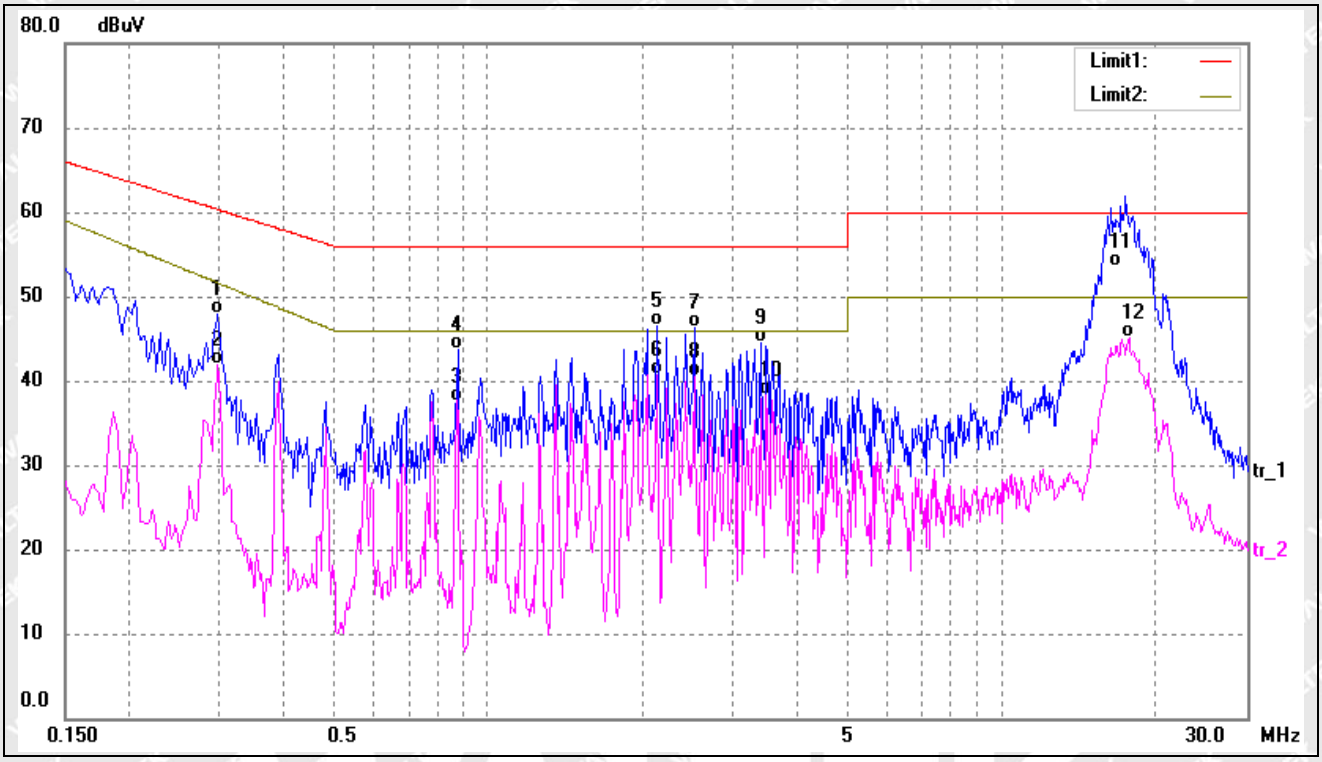
Please find the results below:

Test mode:	TM1	Polarity:	Line



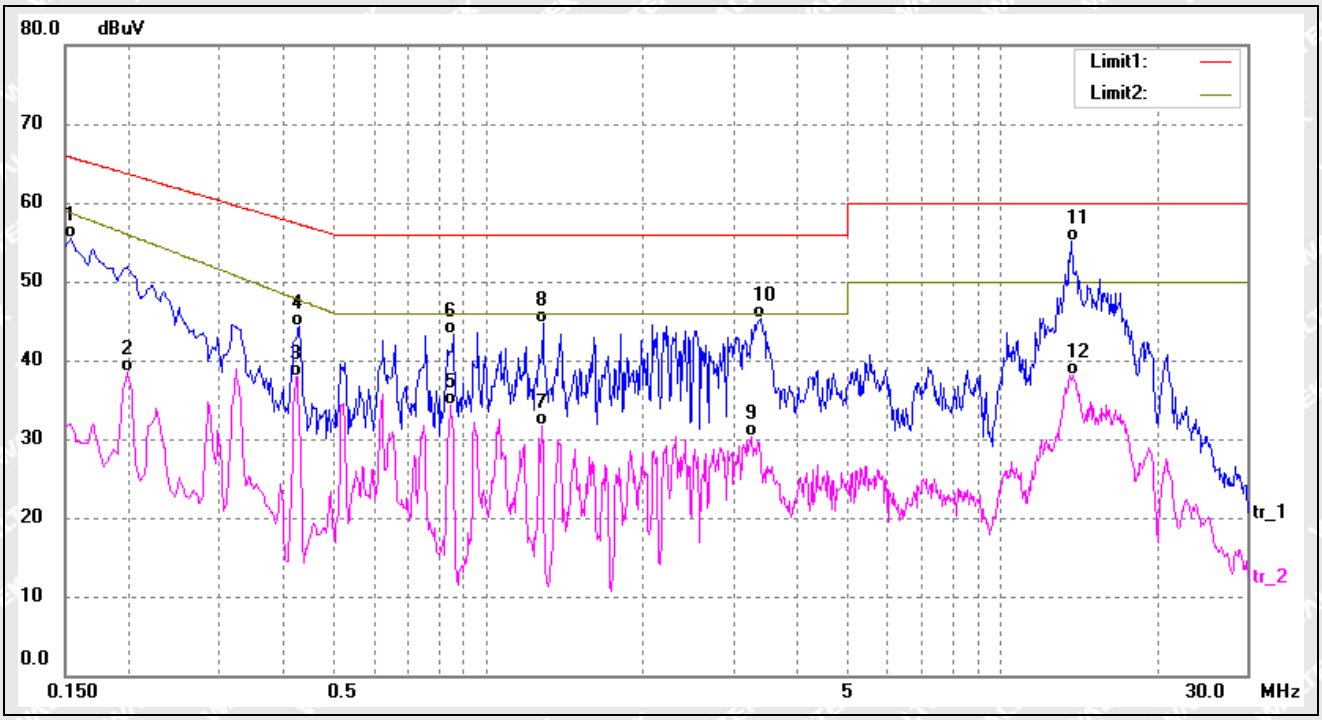
No.	Frequency	Reading	Correct	Result	Limit	Margin	Detector
	(MHz)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dB)	
1	0.2980	39.00	10.30	49.30	60.30	-11.00	QP
2	0.2980	35.11	10.30	45.41	51.58	-6.17	AVG
3	0.7780	33.84	10.18	44.02	56.00	-11.98	QP
4	0.7780	31.65	10.18	41.83	46.00	-4.17	AVG
5	0.8740	34.38	10.16	44.54	56.00	-11.46	QP
6	0.8740	32.09	10.16	42.25	46.00	-3.75	AVG
7	1.3580	34.58	10.08	44.66	56.00	-11.34	QP
8	1.3580	31.20	10.08	41.28	46.00	-4.72	AVG
9	3.0100	29.94	10.11	40.05	46.00	-5.95	AVG
10	3.3980	35.72	10.16	45.88	56.00	-10.12	QP
11	16.7900	43.29	10.28	53.57	60.00	-6.43	QP
12*	17.5860	36.25	10.30	46.55	50.00	-3.45	AVG

Test mode:	TM1	Polarity:	Neutral



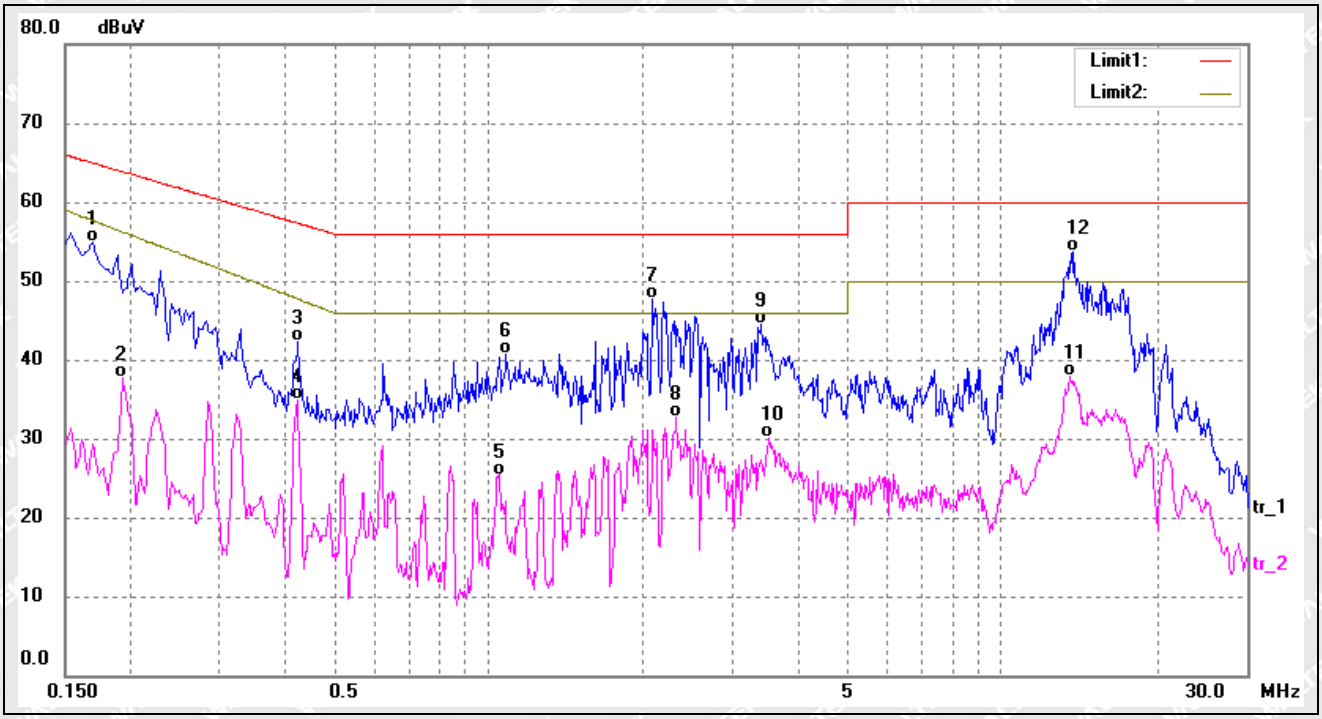
No.	Frequency	Reading	Correct	Result	Limit	Margin	Detector
	(MHz)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dB)	
1	0.2980	37.67	10.30	47.97	60.30	-12.33	QP
2	0.2980	31.64	10.30	41.94	51.58	-9.64	AVG
3	0.8700	27.43	10.17	37.60	46.00	-8.40	AVG
4	0.8740	33.59	10.16	43.75	56.00	-12.25	QP
5	2.1300	36.53	9.99	46.52	56.00	-9.48	QP
6	2.1300	30.72	9.99	40.71	46.00	-5.29	AVG
7	2.5180	36.22	10.04	46.26	56.00	-9.74	QP
8	2.5180	30.54	10.04	40.58	46.00	-5.42	AVG
9	3.3900	34.33	10.16	44.49	56.00	-11.51	QP
10	3.4860	28.17	10.17	38.34	46.00	-7.66	AVG
11	16.7900	43.29	10.28	53.57	60.00	-6.43	QP
12*	17.6660	34.72	10.30	45.02	50.00	-4.98	AVG

Test mode:	TM2	Polarity:	Line



No.	Frequency	Reading	Correct	Result	Limit	Margin	Detector
	(MHz)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dB)	
1	0.1539	45.13	10.41	55.54	65.78	-10.24	QP
2	0.1980	28.09	10.39	38.48	56.00	-17.52	AVG
3	0.4220	27.69	10.26	37.95	47.83	-9.88	AVG
4	0.4300	34.10	10.25	44.35	57.25	-12.90	QP
5	0.8460	24.12	10.17	34.29	46.00	-11.71	AVG
6	0.8540	33.18	10.17	43.35	56.00	-12.65	QP
7	1.2740	21.54	10.09	31.63	46.00	-14.37	AVG
8	1.2780	34.70	10.09	44.79	56.00	-11.21	QP
9	3.2620	20.22	10.14	30.36	46.00	-15.64	AVG
10	3.4100	35.20	10.16	45.36	56.00	-10.64	QP
11*	13.6700	44.83	10.27	55.10	60.00	-4.90	QP
12	13.8300	27.86	10.25	38.11	50.00	-11.89	AVG

Test mode:	TM2	Polarity:	Neutral



No.	Frequency	Reading	Correct	Result	Limit	Margin	Detector
	(MHz)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dB)	
1	0.1700	44.55	10.40	54.95	64.96	-10.01	QP
2	0.1940	27.34	10.39	37.73	56.22	-18.49	AVG
3	0.4260	31.99	10.25	42.24	57.33	-15.09	QP
4	0.4260	24.62	10.25	34.87	47.73	-12.86	AVG
5	1.0500	15.27	10.13	25.40	46.00	-20.60	AVG
6	1.0859	30.65	10.13	40.78	56.00	-15.22	QP
7	2.0980	37.80	9.98	47.78	56.00	-8.22	QP
8	2.3260	22.74	10.02	32.76	46.00	-13.24	AVG
9	3.4060	34.32	10.16	44.48	56.00	-11.52	QP
10	3.5140	19.83	10.18	30.01	46.00	-15.99	AVG
11	13.5700	27.58	10.27	37.85	50.00	-12.15	AVG
12*	13.7740	43.44	10.25	53.69	60.00	-6.31	QP

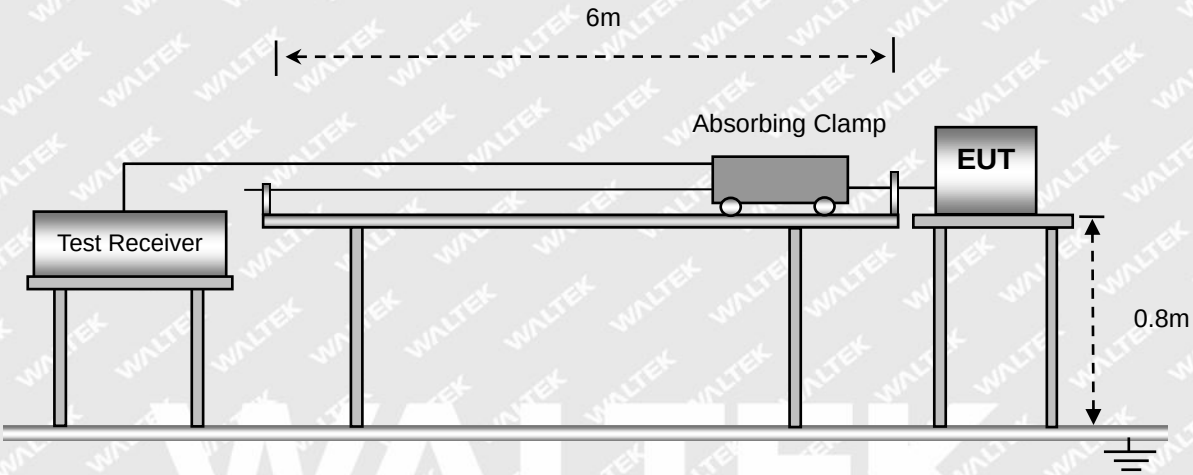
4. Disturbance Power

4.1 Measurement Uncertainty

Base on NIS 81, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of any conducted emissions measurement is ± 4.10 dB.

4.2 Basic Test Setup Block Diagram

The Disturbance Power test was performed in accordance with the EN IEC 55014-1.



4.3 Test Receiver Setup

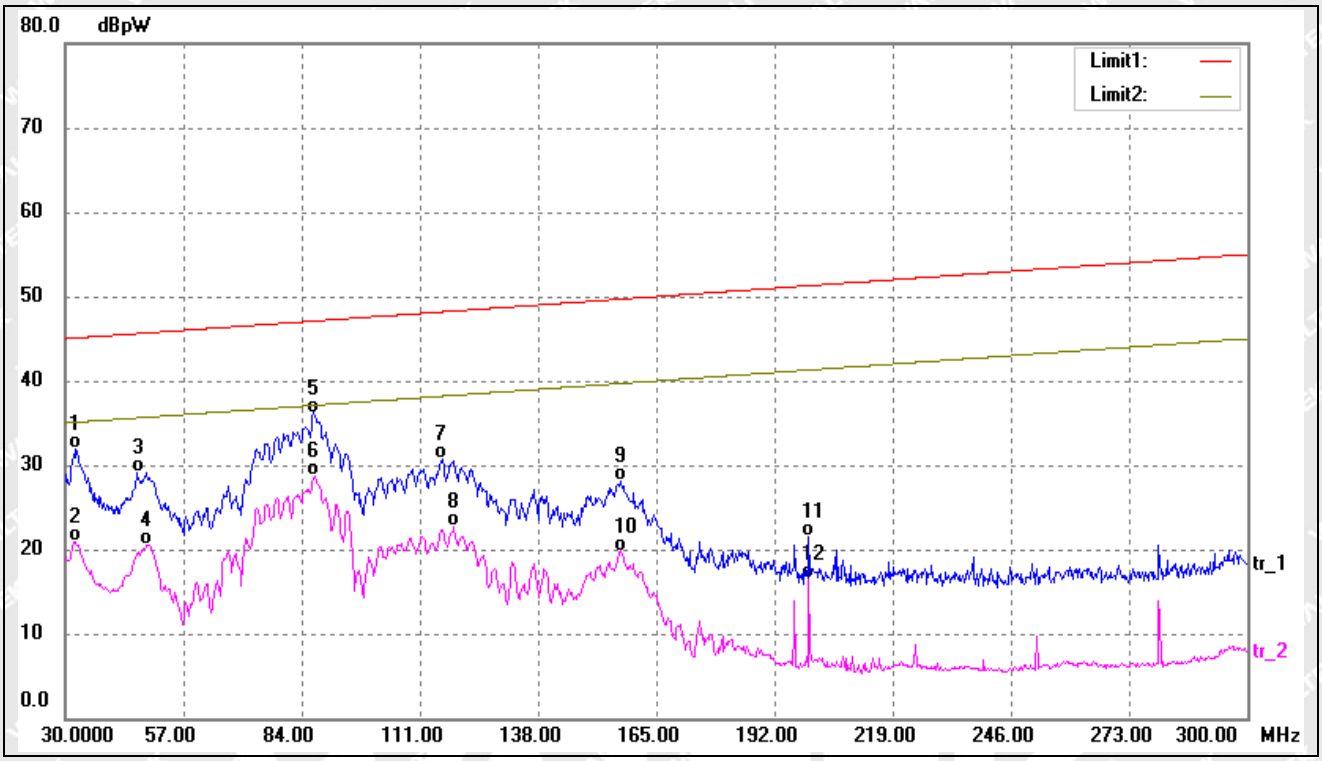
During the conducted emission test, the test receiver was set with the following configurations:

Start Frequency..... 30 MHz
Stop Frequency..... 300 MHz
Sweep Speed..... Auto
IF Bandwidth ..... 10 kHz
Quasi-Peak Adapter Bandwidth ..... 120 kHz
Quasi-Peak Adapter Mode ..... Normal

4.4 Summary of Test Results

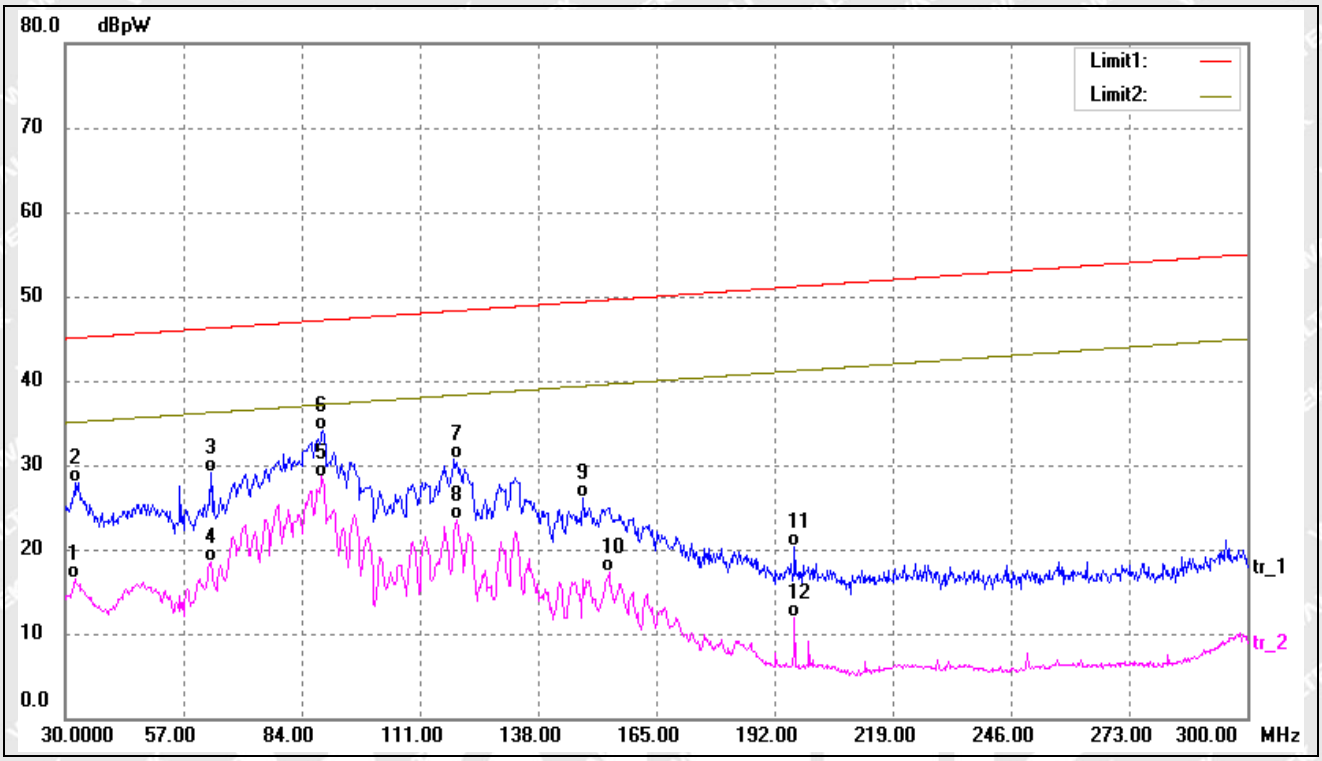
Please find the results below:

Test mode:	TM1	Port:	AC Line



No.	Frequency	Reading	Correct	Result	Limit	Margin	Detector
	(MHz)	(dBpW)	(dB)	(dBpW)	(dBpW)	(dB)	
1	32.4400	11.08	20.90	31.98	45.09	-13.11	QP
2	32.4400	-0.06	20.90	20.84	35.09	-14.25	AVG
3	46.4000	10.38	18.77	29.15	45.61	-16.46	QP
4	49.1200	1.67	18.88	20.55	35.71	-15.16	AVG
5	86.9600	17.77	18.43	36.20	47.11	-10.91	QP
6*	87.1200	10.18	18.43	28.61	37.12	-8.51	AVG
7	116.2000	13.11	17.62	30.73	48.19	-17.46	QP
8	118.9200	5.10	17.63	22.73	38.29	-15.56	AVG
9	156.9600	11.84	16.32	28.16	49.70	-21.54	QP
10	156.9600	3.48	16.32	19.80	39.70	-19.90	AVG
11	200.0000	6.15	15.35	21.50	51.30	-29.80	QP
12	200.0000	1.12	15.35	16.47	41.30	-24.83	AVG

Test mode:	TM1	Port:	AC Line



No.	Frequency	Reading	Correct	Result	Limit	Margin	Detector
	(MHz)	(dBpW)	(dB)	(dBpW)	(dBpW)	(dB)	
1	32.3200	-4.44	20.91	16.47	35.09	-18.62	AVG
2	33.0800	7.16	20.83	27.99	45.11	-17.12	QP
3	63.2800	11.71	17.41	29.12	46.23	-17.11	QP
4	63.2800	1.19	17.41	18.60	36.23	-17.63	AVG
5*	88.7600	10.20	18.40	28.60	37.18	-8.58	AVG
6	88.9600	15.75	18.40	34.15	47.18	-13.03	QP
7	119.0800	13.04	17.63	30.67	48.30	-17.63	QP
8	119.4000	5.79	17.63	23.42	38.31	-14.89	AVG
9	148.5200	9.70	16.41	26.11	49.39	-23.28	QP
10	154.2400	0.86	16.37	17.23	39.60	-22.37	AVG
11	196.6000	4.81	15.54	20.35	51.17	-30.82	QP
12	196.6000	-3.73	15.54	11.81	41.17	-29.36	AVG

5. Radiated Emission

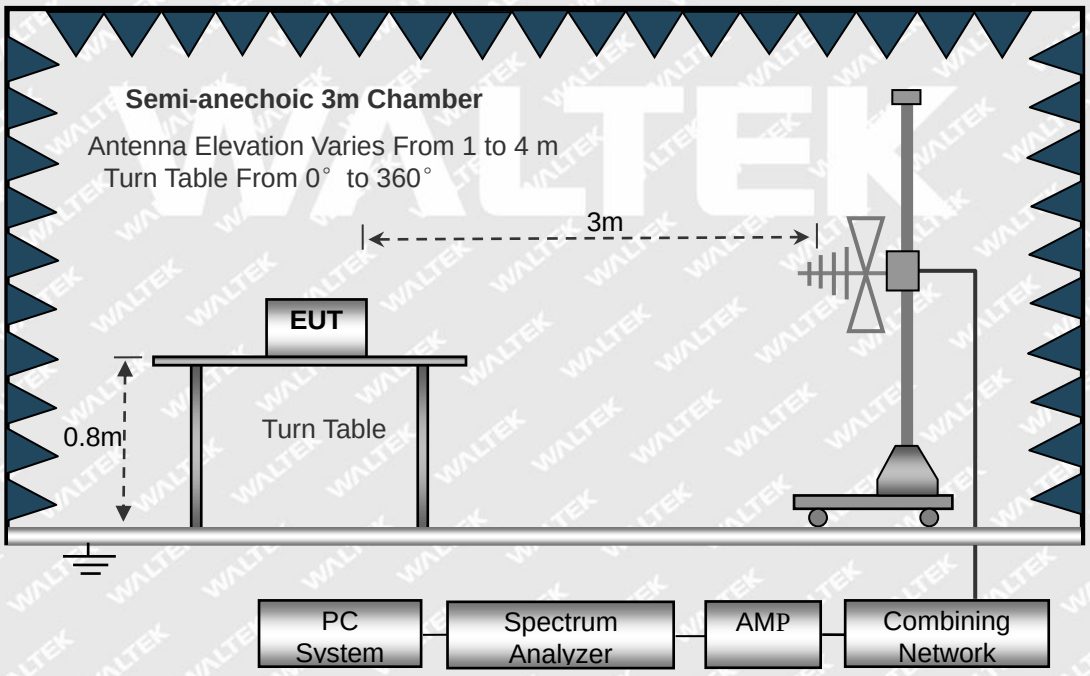
5.1 Measurement Uncertainty

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

5.2 Basic Test Setup Block Diagram

The Radiation emission tests were performed in the 3m Semi- Anechoic Chamber test site, using the setup accordance with the EN IEC 55014-1.



5.3 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 a household device. The equation for margin calculation is as follows:

Margin = Corr. Ampl. – EN IEC 55014-1 Limit

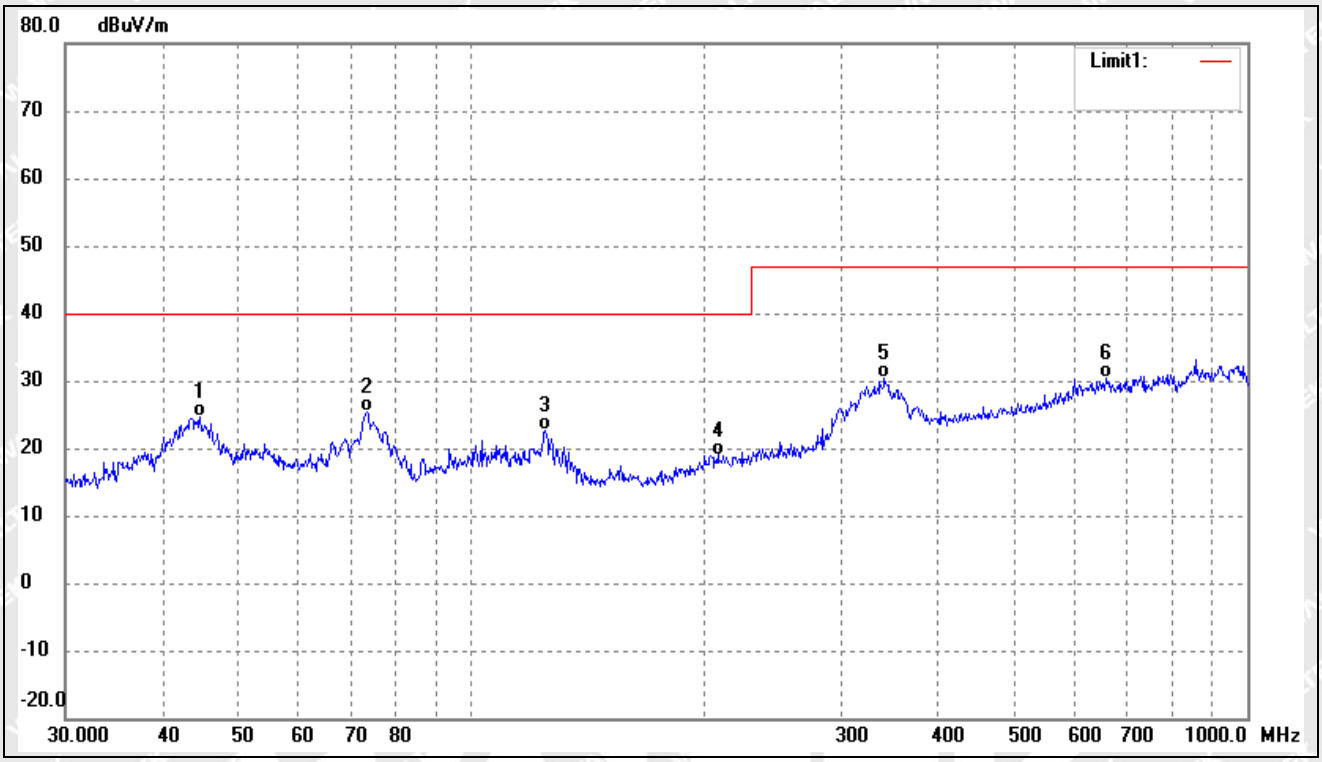
5.4 Environmental Conditions

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

5.5 Summary of Test Results

Please find the results below:

Test mode:	TM1	Polarity:	Horizontal

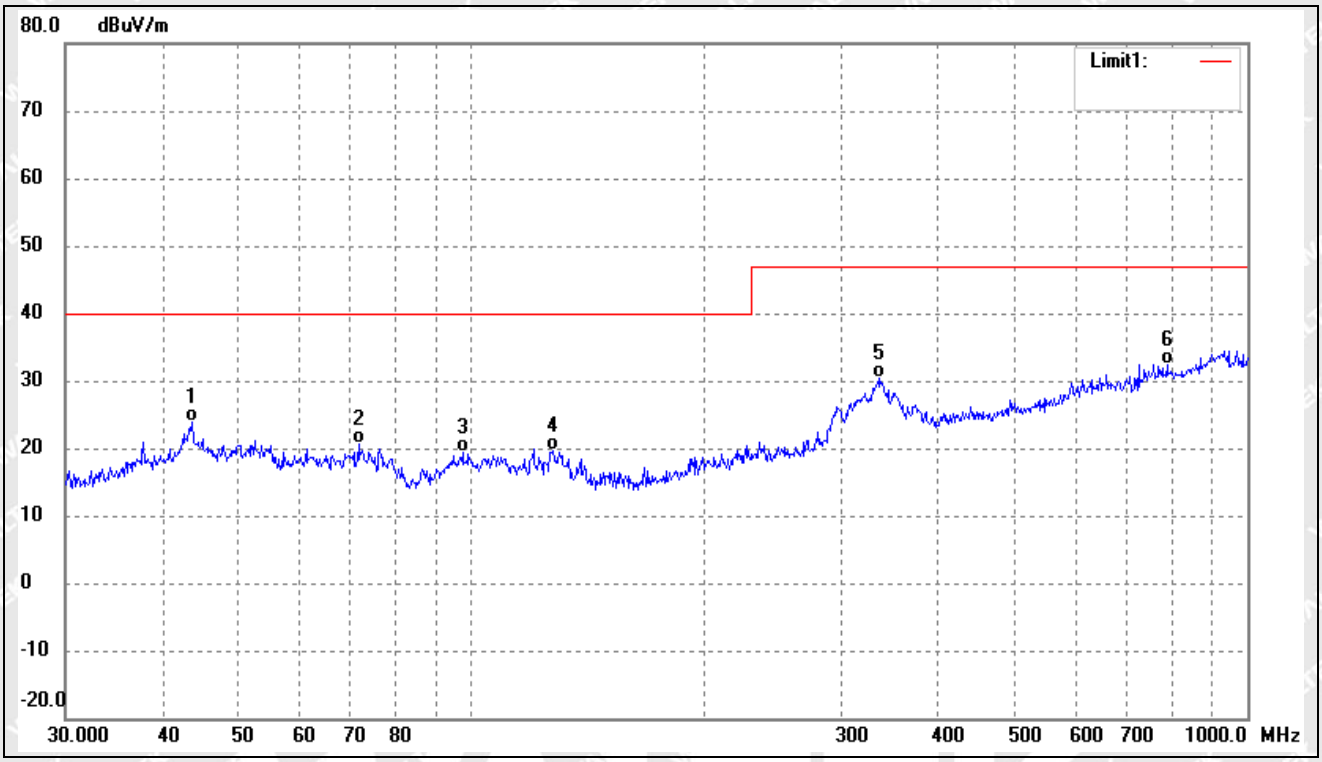


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	44.7433	33.08	-8.37	24.71	40.00	-15.29	QP
2	73.3593	38.11	-12.72	25.39	40.00	-14.61	QP
3	124.5690	33.40	-10.88	22.52	40.00	-17.48	QP
4	207.8501	27.30	-8.30	19.00	40.00	-21.00	QP
5	340.7817	33.84	-3.57	30.27	47.00	-16.73	QP
6	658.8362	28.39	1.92	30.31	47.00	-16.69	QP

Test mode:	TM1	Polarity:	Vertical

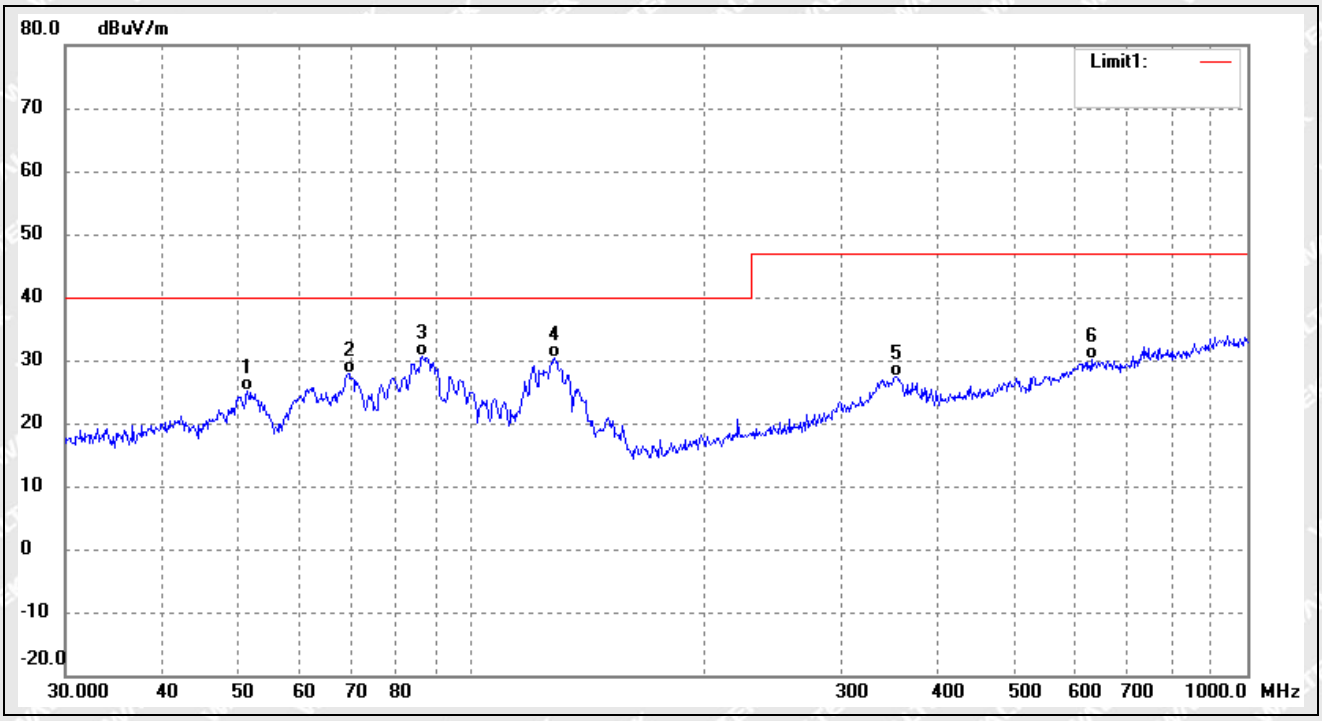
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	39.9942	35.12	-9.23	25.89	40.00	-14.11	QP
2	82.3588	45.07	-12.94	32.13	40.00	-7.87	QP
3	124.1330	45.05	-10.83	34.22	40.00	-5.78	QP
4	359.1860	31.47	-3.70	27.77	47.00	-19.23	QP
5	663.4729	28.93	1.95	30.88	47.00	-16.12	QP
6	793.3960	53.03	-21.08	31.95	47.00	-15.05	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	43.6584	32.34	-8.55	23.79	40.00	-16.21	QP
2	71.5806	32.95	-12.31	20.64	40.00	-19.36	QP
3	97.4560	28.57	-9.10	19.47	40.00	-20.53	QP
4	127.6645	30.96	-11.24	19.72	40.00	-20.28	QP
5	334.8589	34.29	-3.81	30.48	47.00	-16.52	QP
6	787.8513	53.43	-21.11	32.32	47.00	-14.68	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	51.4807	33.09	-7.96	25.13	40.00	-14.87	QP
2	69.6005	39.69	-11.75	27.94	40.00	-12.06	QP
3	86.5029	42.57	-12.02	30.55	40.00	-9.45	QP
4	128.1130	41.73	-11.28	30.45	40.00	-9.55	QP
5	352.9433	31.01	-3.60	27.41	47.00	-19.59	QP
6	629.4772	28.80	1.39	30.19	47.00	-16.81	QP

6. Harmonic Current Emissions

6.1 Test Procedure

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

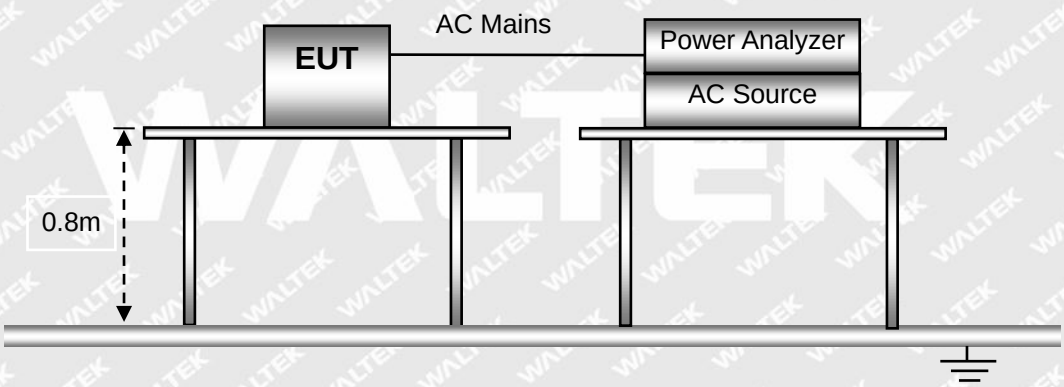
6.2 Test Standards

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

6.3 Environmental Conditions

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

6.4 Basic Test Setup Block Diagram



6.5 Harmonic Current Emissions Test Data

Test mode:	TM1

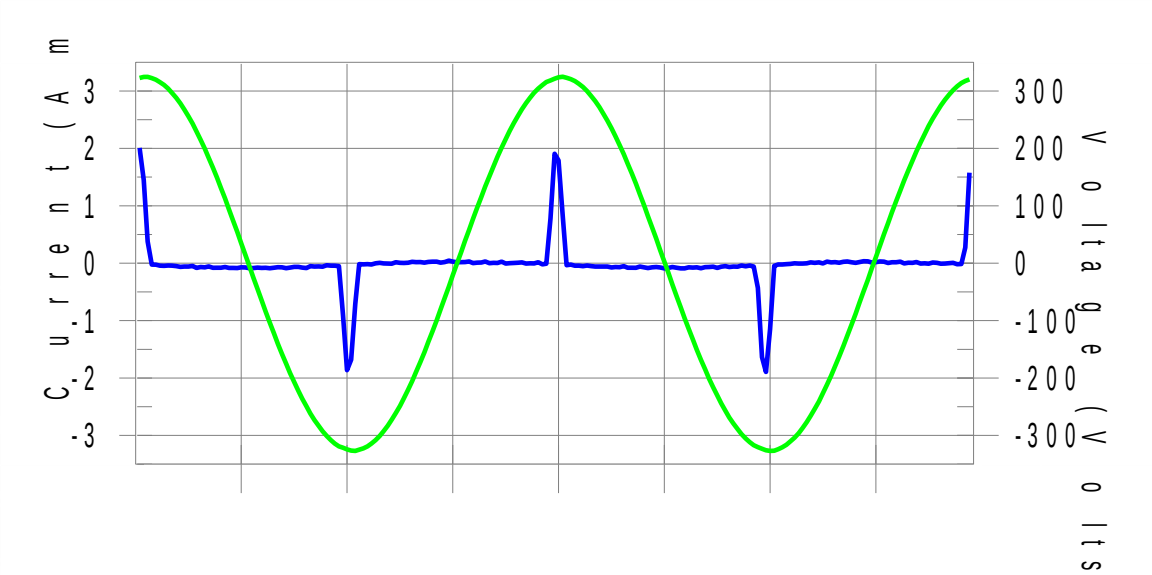
Harmonics – Class-A per IEC 61000-3-2:2018+AMD1:2020(Run time)

Comment: TM1

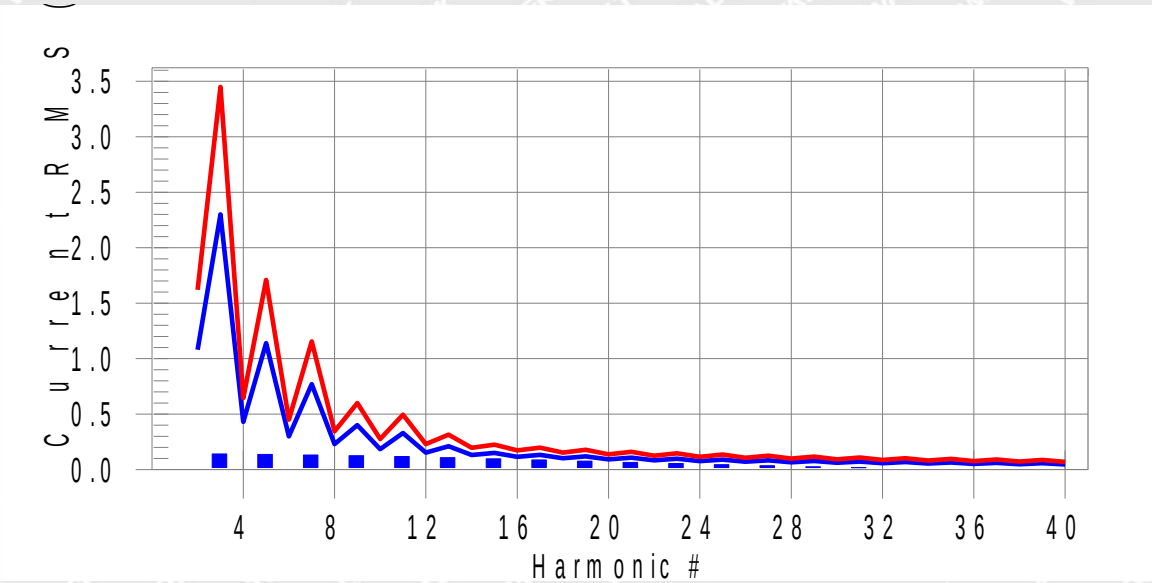
Customer: Customer information

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

Current & voltage waveforms



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



Test result: Pass **Worst harmonics H17-44.2% of 150% limit, H17-65.7% of 100% limit**

Current Test Result Summary (Run time)

Comment: TM1
Customer: Customer information

Test Result: Pass **Source qualification: Normal**
THC(A): 0.362 **I-THD(%): 240.1** **POHC(A): 0.107** **POHC Limit(A): 0.251**

Highest parameter values during test:

V_RMS (Volts):	230.01	Frequency(Hz):	50.00
I_Peak (Amps):	2.021	I_RMS (Amps):	0.397
I_Fund (Amps):	0.151	Crest Factor:	5.111
Power (Watts):	33.1	Power Factor:	0.365

Harm#	Harms(avg)	100%Limit	%of Limit	Harms(max)	150%Limit	%of Limit	Status
2	0.001	1.080	N/A	0.003	1.620	N/A	Pass
3	0.141	2.300	6.1	0.143	3.450	4.1	Pass
4	0.002	0.430	N/A	0.003	0.645	N/A	Pass
5	0.137	1.140	12.0	0.138	1.710	8.1	Pass
6	0.002	0.300	N/A	0.003	0.450	N/A	Pass
7	0.132	0.770	17.1	0.133	1.155	11.5	Pass
8	0.002	0.230	N/A	0.003	0.345	N/A	Pass
9	0.125	0.400	31.2	0.126	0.600	21.0	Pass
10	0.002	0.184	N/A	0.003	0.276	N/A	Pass
11	0.117	0.330	35.4	0.118	0.495	23.8	Pass
12	0.002	0.153	N/A	0.004	0.230	N/A	Pass
13	0.107	0.210	51.2	0.108	0.315	34.4	Pass
14	0.002	0.131	N/A	0.004	0.197	N/A	Pass
15	0.097	0.150	64.9	0.098	0.225	43.6	Pass
16	0.002	0.115	N/A	0.004	0.173	N/A	Pass
17	0.087	0.132	65.7	0.087	0.198	44.2	Pass
18	0.002	0.102	N/A	0.004	0.153	N/A	Pass
19	0.076	0.118	64.1	0.077	0.178	43.1	Pass
20	0.002	0.092	N/A	0.004	0.138	N/A	Pass
21	0.065	0.107	60.6	0.065	0.161	40.7	Pass
22	0.002	0.084	N/A	0.003	0.125	N/A	Pass
23	0.054	0.098	55.4	0.055	0.147	37.2	Pass
24	0.002	0.077	N/A	0.003	0.115	N/A	Pass
25	0.044	0.090	48.9	0.044	0.135	32.8	Pass
26	0.002	0.071	N/A	0.003	0.107	N/A	Pass
27	0.034	0.083	41.3	0.035	0.125	27.7	Pass
28	0.001	0.066	N/A	0.002	0.099	N/A	Pass

29	0.026	0.078	33.1	0.026	0.116	22.3	Pass
30	0.001	0.061	N/A	0.002	0.092	N/A	Pass
31	0.018	0.073	24.7	0.018	0.109	16.8	Pass
32	0.001	0.058	N/A	0.001	0.086	N/A	Pass
33	0.011	0.068	16.6	0.012	0.102	11.4	Pass
34	0.001	0.054	N/A	0.001	0.081	N/A	Pass
35	0.006	0.064	9.2	0.006	0.096	6.4	Pass
36	0.000	0.051	N/A	0.001	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	0.001	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	0.001	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):	230.01	Frequency(Hz):	50.00
I_Peak (Amps):	2.021	I_RMS (Amps):	0.397
I_Fund (Amps):	0.151	Crest Factor:	5.111
Power (Watts):	33.1	Power Factor:	0.365

Harm#	Harmonics V-rms	Limit V-rms	% of Limit	Status
2	0.049	0.460	10.68	OK
3	0.527	2.070	25.46	OK
4	0.084	0.460	18.22	OK
5	0.045	0.920	4.89	OK
6	0.031	0.460	6.66	OK
7	0.062	0.690	8.96	OK
8	0.018	0.460	3.91	OK
9	0.073	0.460	15.96	OK
10	0.010	0.460	2.23	OK
11	0.077	0.230	33.48	OK
12	0.014	0.230	6.02	OK
13	0.087	0.230	37.69	OK
14	0.006	0.230	2.41	OK
15	0.078	0.230	33.94	OK
16	0.006	0.230	2.63	OK
17	0.081	0.230	35.11	OK
18	0.013	0.230	5.53	OK
19	0.080	0.230	34.99	OK
20	0.014	0.230	6.30	OK
21	0.075	0.230	32.43	OK
22	0.006	0.230	2.52	OK
23	0.065	0.230	28.29	OK
24	0.006	0.230	2.45	OK
25	0.056	0.230	24.33	OK
26	0.006	0.230	2.43	OK
27	0.043	0.230	18.85	OK
28	0.004	0.230	1.78	OK
29	0.042	0.230	18.35	OK

30	**0.004**	**0.230**	**1.95**	**OK**
31	**0.029**	**0.230**	**12.76**	**OK**
32	**0.004**	**0.230**	**1.62**	**OK**
33	**0.021**	**0.230**	**8.93**	**OK**
34	**0.003**	**0.230**	**1.30**	**OK**
35	**0.012**	**0.230**	**5.15**	**OK**
36	**0.003**	**0.230**	**1.24**	**OK**
37	**0.007**	**0.230**	**3.08**	**OK**
38	**0.002**	**0.230**	**1.07**	**OK**
39	**0.006**	**0.230**	**2.62**	**OK**
40	**0.008**	**0.230**	**3.35**	**OK**

7. Voltage Fluctuation Flicker

7.1 Test Procedure

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

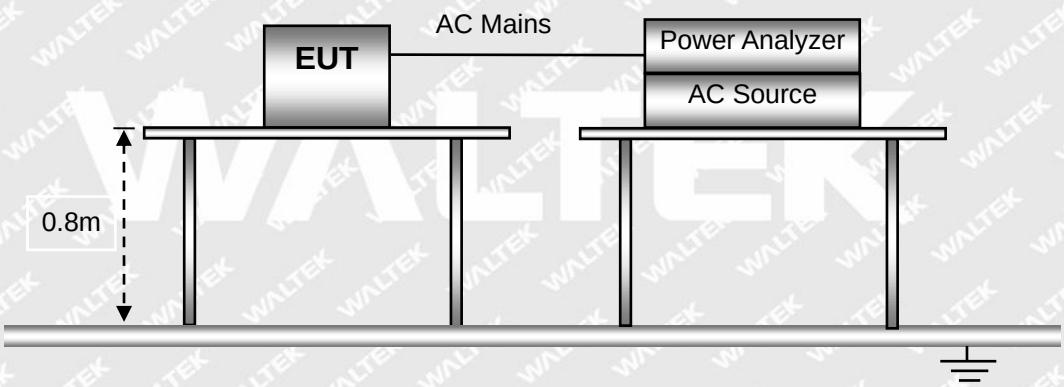
7.2 Test Standards

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

7.3 Environmental Conditions

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

7.4 Basic Test Setup Block Diagram



7.5 Voltage Fluctuation and Flicker Test Data

Test mode:	TM1

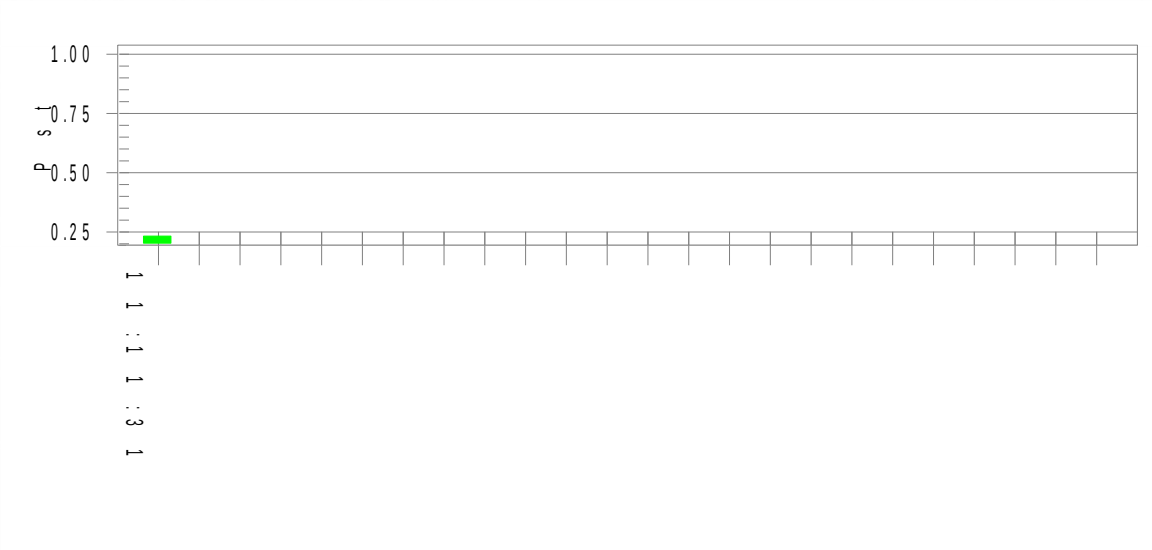
Flicker Test Summary per IEC61000-3-3:2013+AMD2:2021 (Run time)

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):	**229.84**			
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):	**0.233**	**Test limit:**	**1.000**	**Pass**
Highest Plt (2 hr. period):	**0.102**	**Test limit:**	**0.650**	**Pass**

8. Electrostatic Discharges (ESD)

8.1 Test Procedure

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

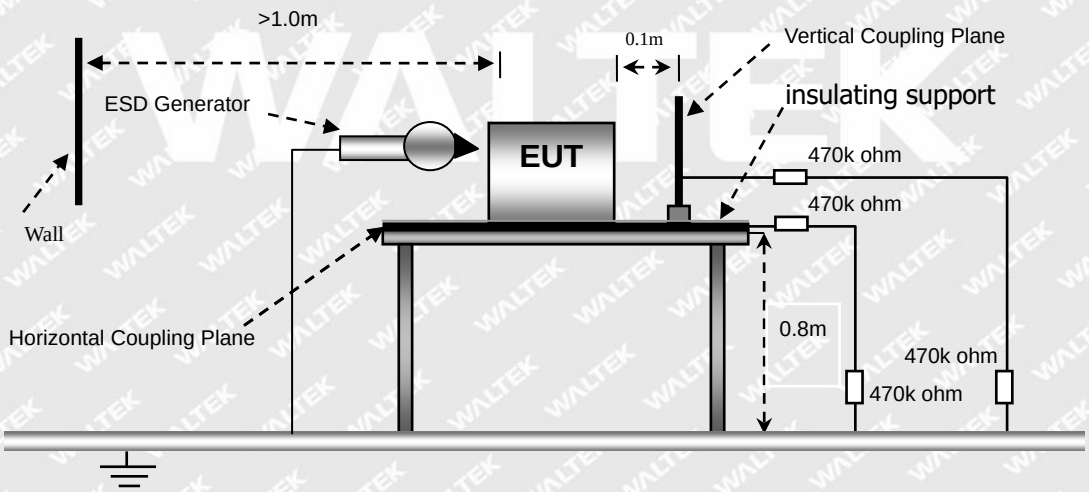
8.2 Test Performance

Performance Criterion: B

8.3 Environmental Conditions

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

8.4 Basic Test Setup Block Diagram



8.5 Electrostatic Discharge Immunity Test Data

Table 1: Electrostatic Discharge Immunity (Air Discharge)

EN 61000-4-2	Test Voltage (kV)									
Test Points	-2	+2	-4	+4	-6	+6	-8	+8	-15	+15
Shell edge crack	A	A	A	A	A	A	A	A	/	/
Pilot lamp	A	A	A	A	A	A	A	A	/	/

Table 2: Electrostatic Discharge Immunity (Direct Contact)

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

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

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

Test Result: Pass

9. Continuous RF Electromagnetic Field Disturbances (RS)

9.1 Test Procedure

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

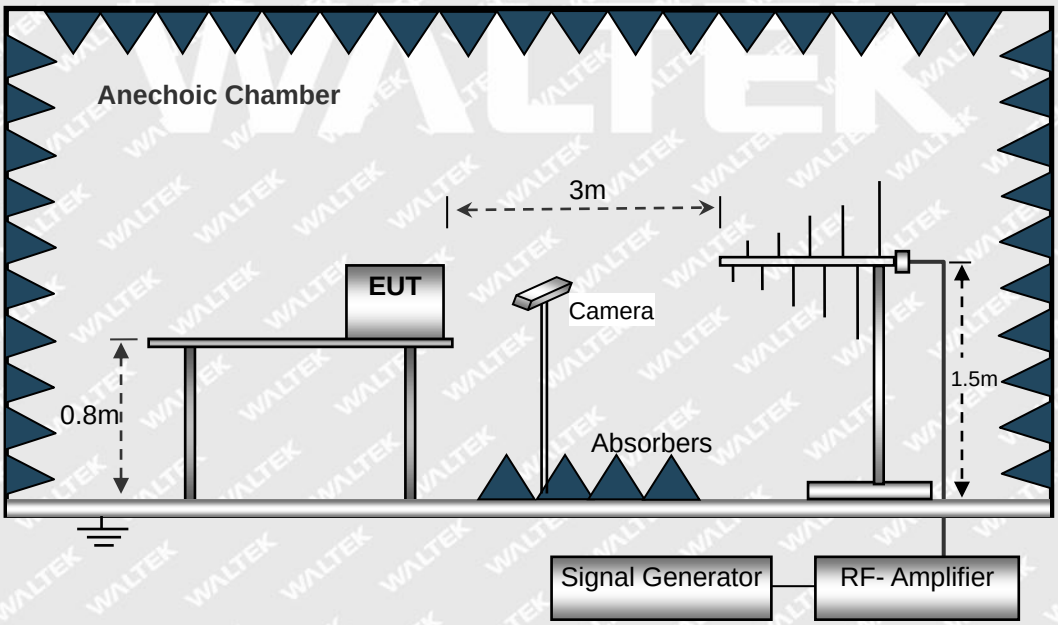
9.2 Test Performance

Performance Criterion: A

9.3 Environmental Conditions

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

9.4 Basic Test Setup Block Diagram



9.5 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
80-1000	3	A	A	A	A	A	A	A	A

Test Result: Pass

10. Electrical Fast Transients (EFT)

10.1 Test Procedure

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

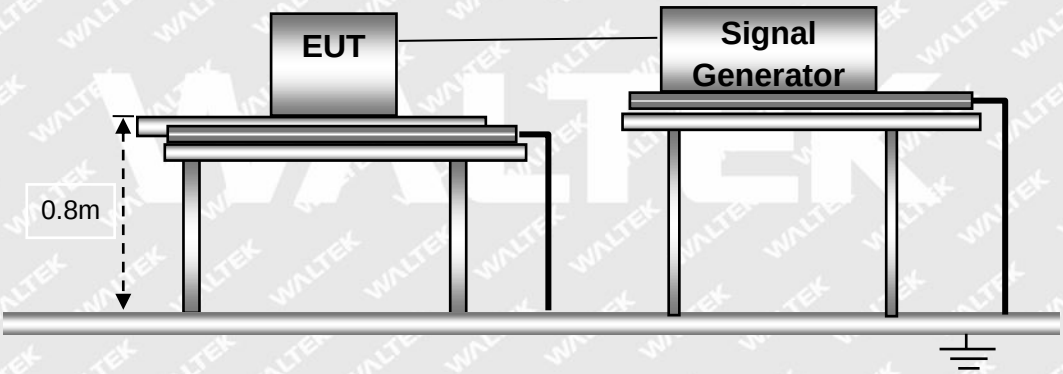
10.2 Test Performance

Performance Criterion: B

10.3 Environmental Conditions

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

10.4 Basic Test Setup Block Diagram



10.5 Electrical Fast Transients Test Data

EN 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	/	/	/	/
	N	/	/	A	A	/	/	/	/
	PE	/	/	A	A	/	/	/	/
	L+N	/	/	A	A	/	/	/	/
	L+PE	/	/	A	A	/	/	/	/
	N+PE	/	/	A	A	/	/	/	/
	L+N+PE	/	/	A	A	/	/	/	/
Signal ports	RJ45	/	/	/	/	/	/	/	/

Test Result: Pass

11. Surges

11.1 Test Procedure

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

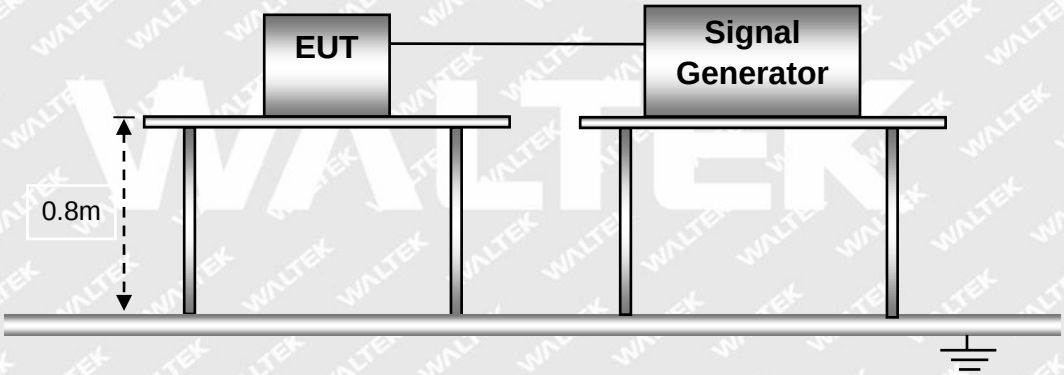
11.2 Test Performance

Performance Criterion: B

11.3 Environmental Conditions

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

11.4 Basic Test Setup Block Diagram



11.5 Surge Test Data

Test Voltage	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

12. Continuous Induced RF Disturbances (C/S)

12.1 Test Procedure

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

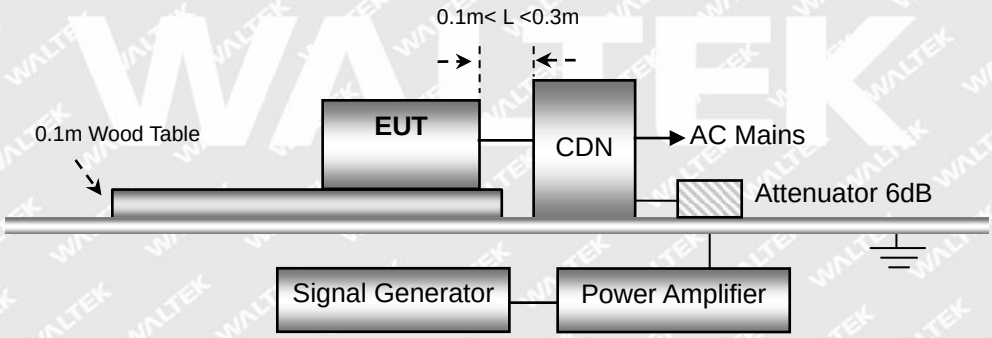
12.2 Test Performance

Performance Criterion: A

12.3 Environmental Conditions

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

12.4 Basic Test Setup Block Diagram



12.5 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	/	/
0.15-80	AC Mains	3V	A	Pass
0.15-80	AC Mains	10V	/	/

Test Result: Pass

13. Voltage Dips And Interruptions

13.1 Test Procedure

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

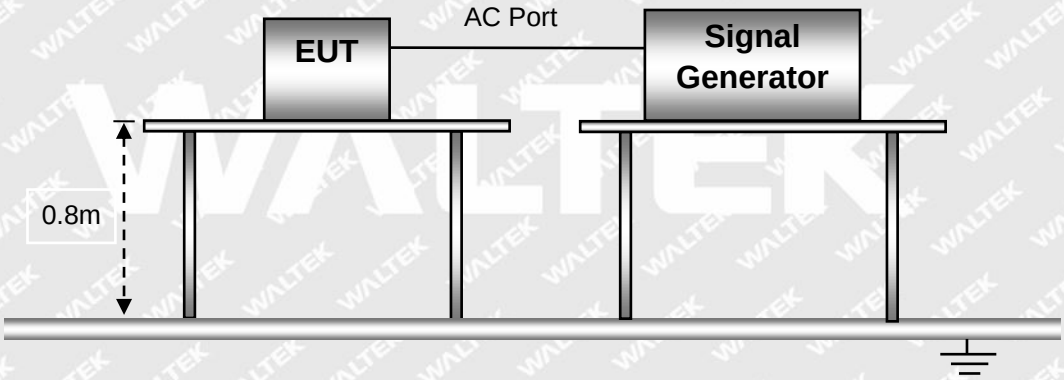
13.2 Test Performance

Performance Criterion: C

13.3 Environmental Conditions

Temperature:	23.5 °C
Relative Humidity:	54 %
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

Level	U	T	Phase Angle	N	Pass	Fail
1	100%	10ms	0/90/180/270	3	A	/
2	60%	200ms	0/90/180/270	3	B	/
3	30%	500ms	0/90/180/270	3	B	/

Test Result: Pass

EXHIBIT 1 - PRODUCT LABELING

Proposed CE Label Format

X-plore 8000 Multi-Unit Charger
Model: GT-93600SHG3050
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

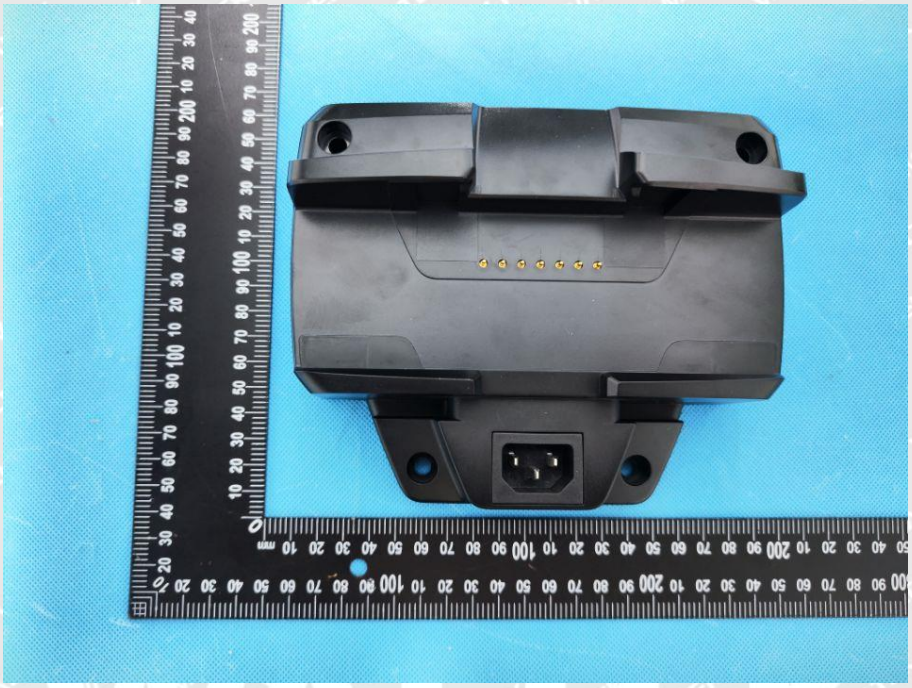
Specifications: Text is Black in color and is justified. Labels are printed in indelible ink on permanent adhesive backing or silk-screened onto the EUT or shall be affixed at a conspicuous location on the EUT. The 'CE' marking must be affixed to the EUT or to its data plate. Where this is not possible 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

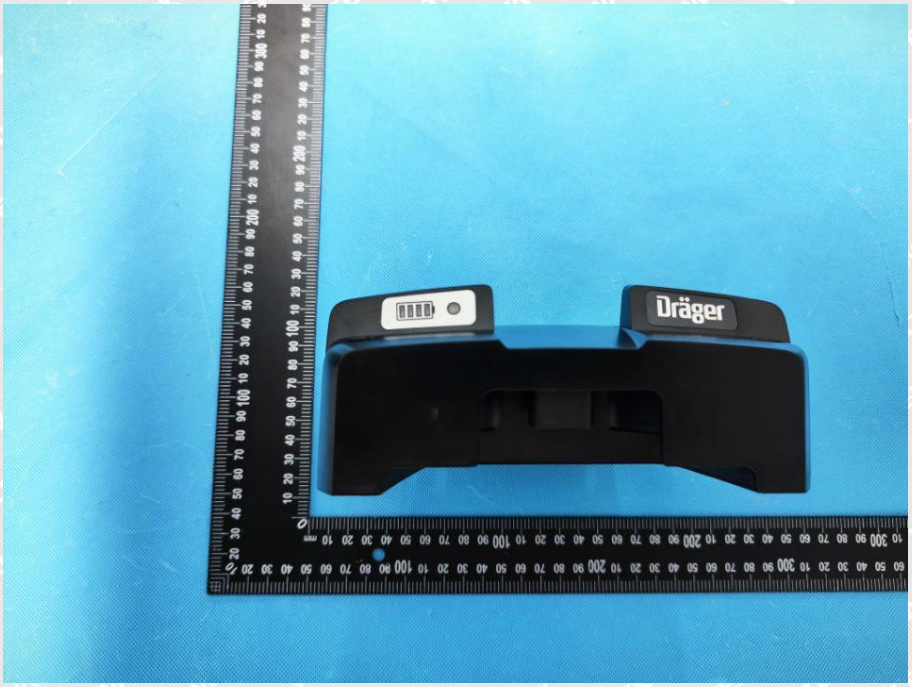
EXHIBIT 2 - EUT PHOTOGRAPHS

EUT View 1

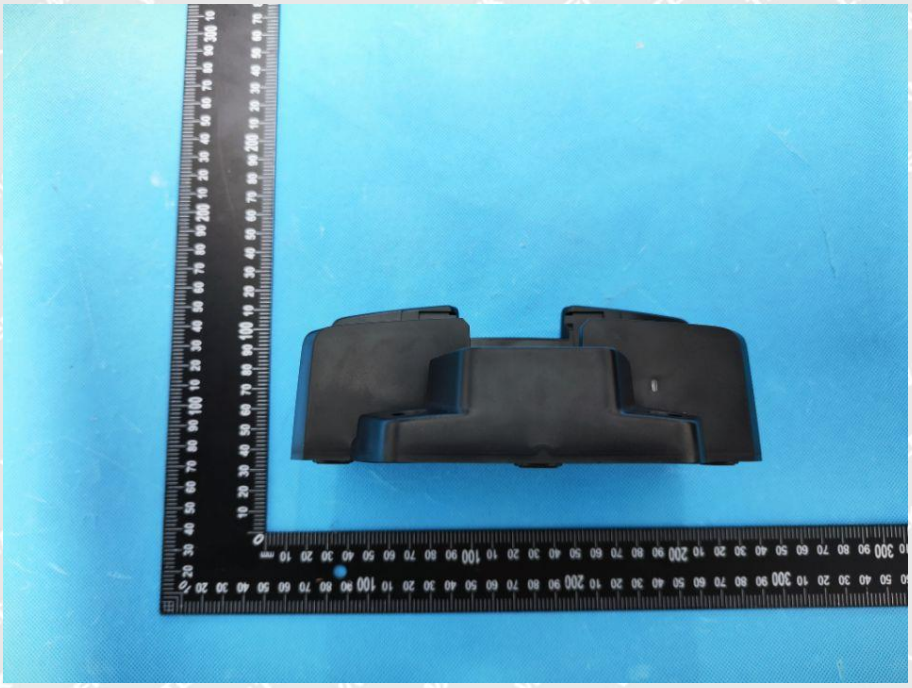


EUT View 2

EUT View 3

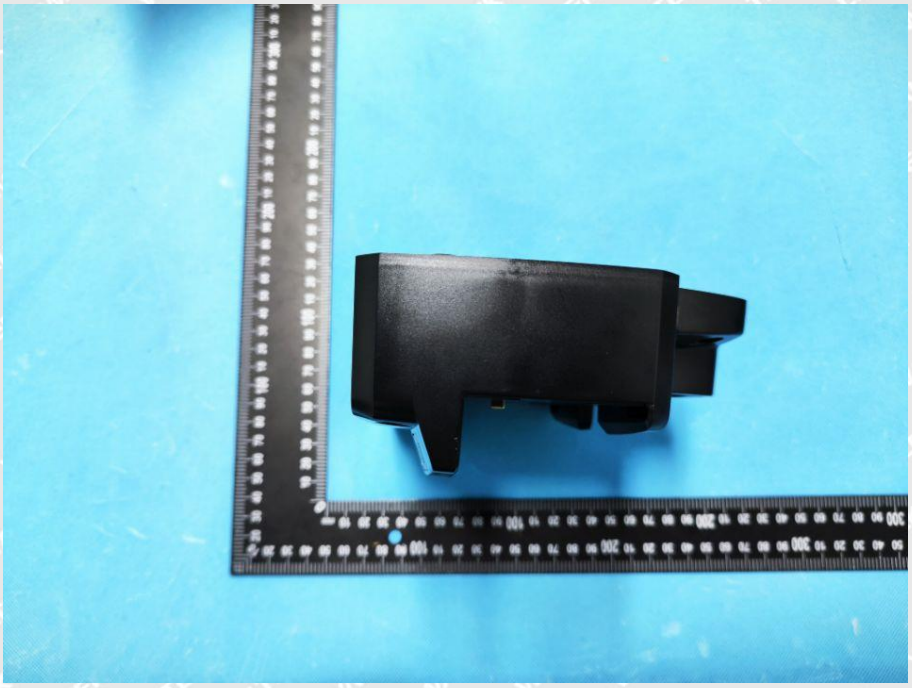


EUT View 4

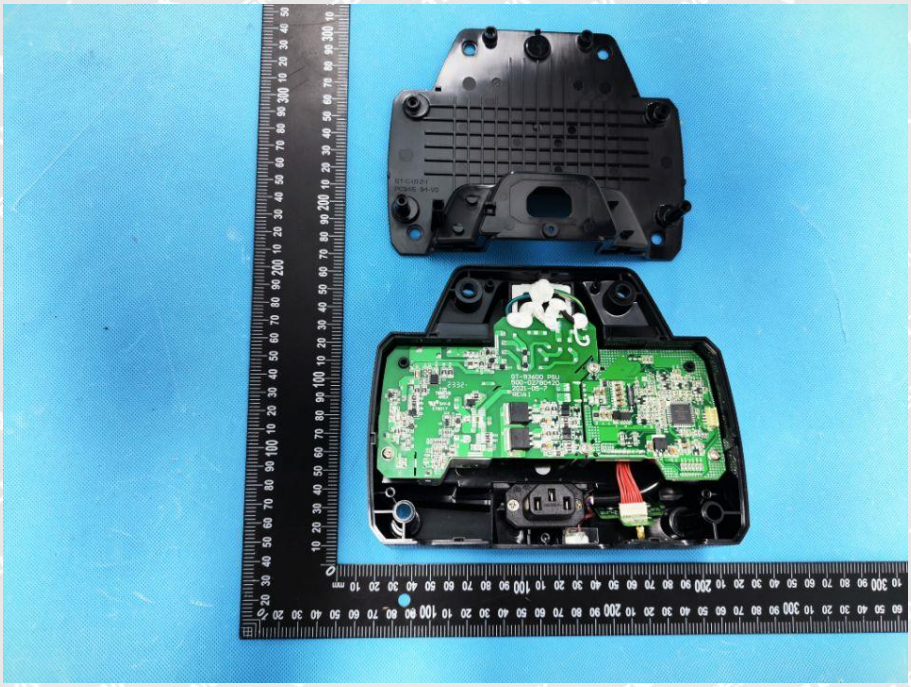


EUT View 5

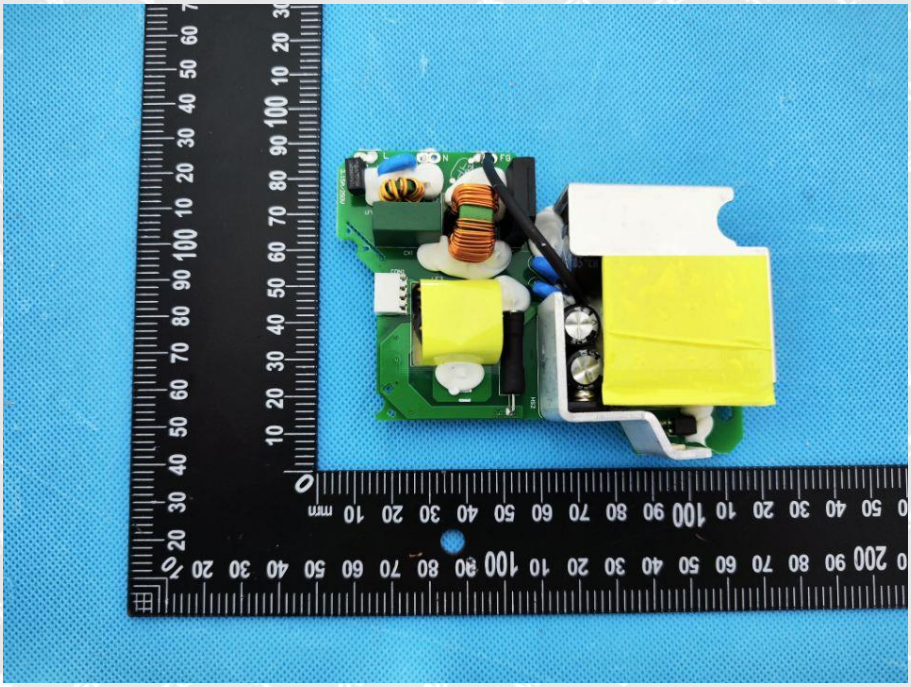
EUT View 6



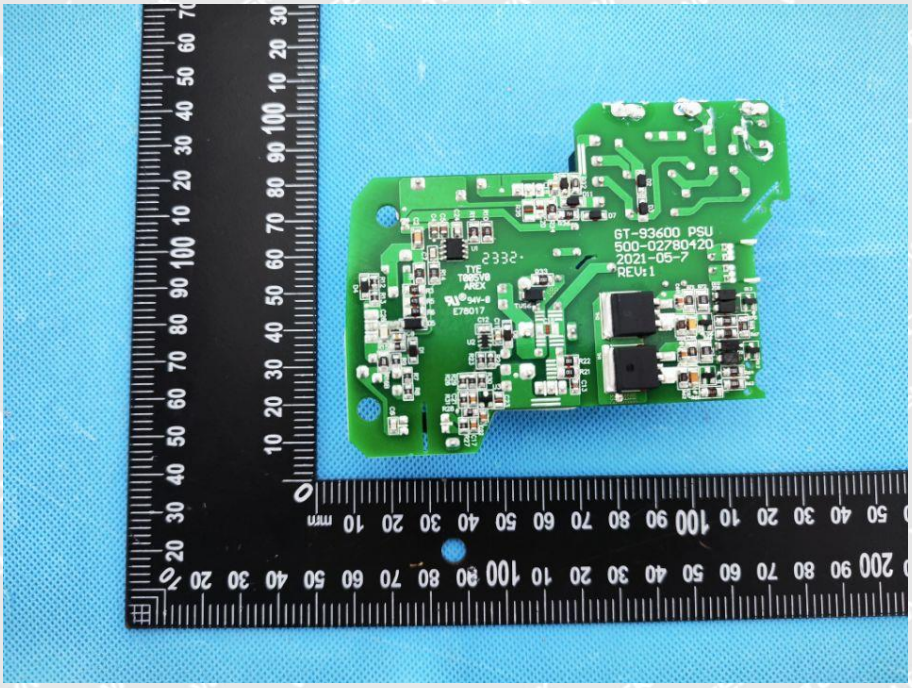
EUT Housing and Board View 1



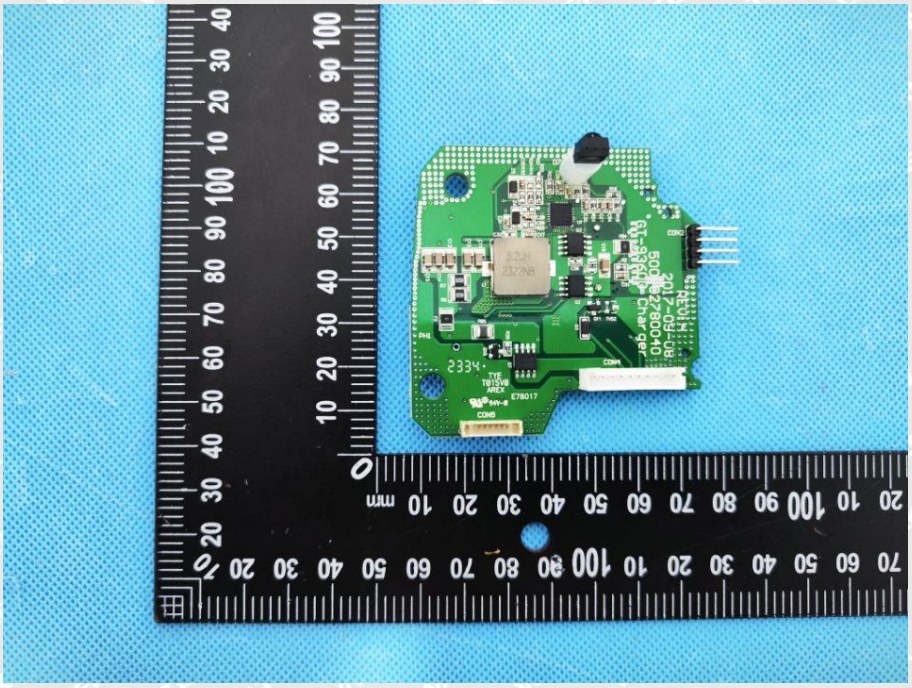
Solder Board-Component View 2



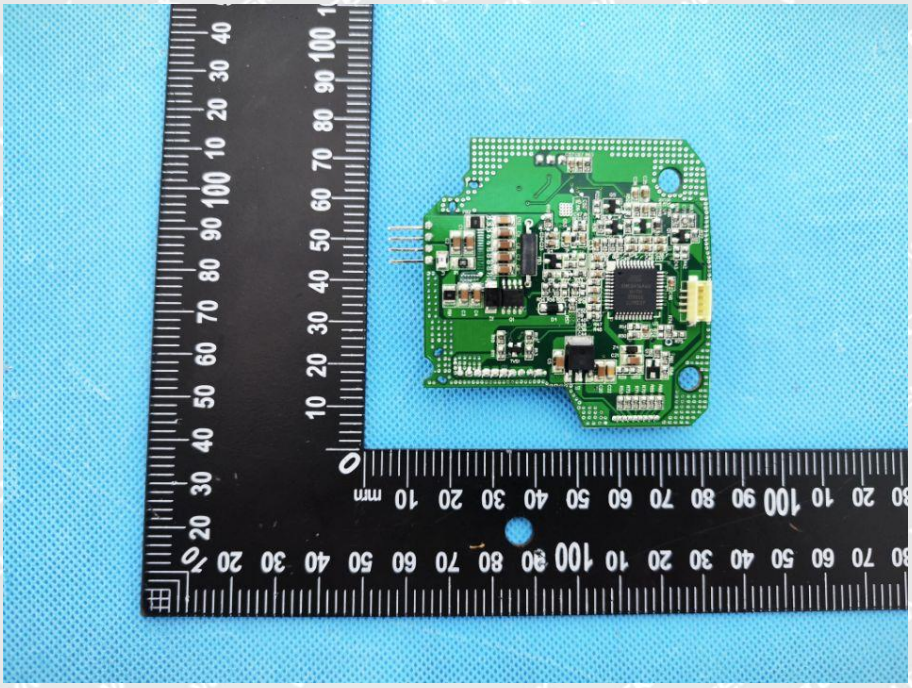
Solder Board-Component View 3



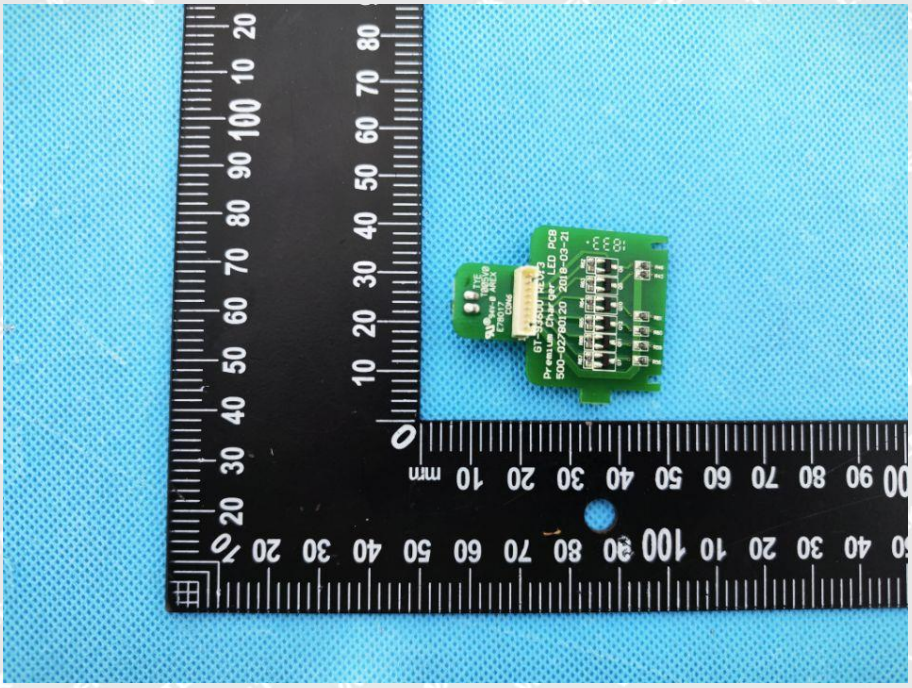
Solder Board-Component View 4



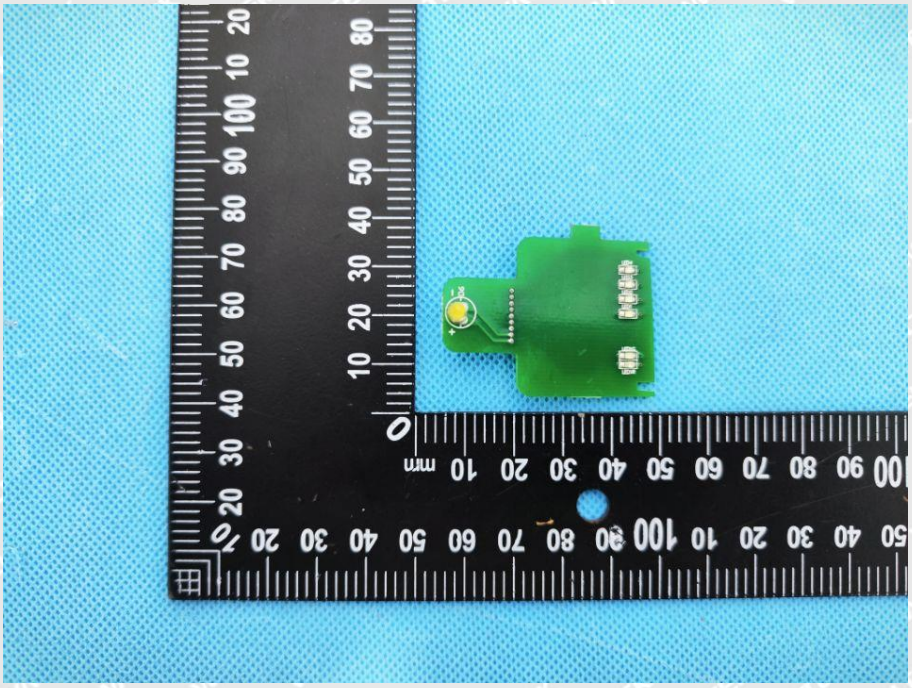
Solder Board-Component View 5



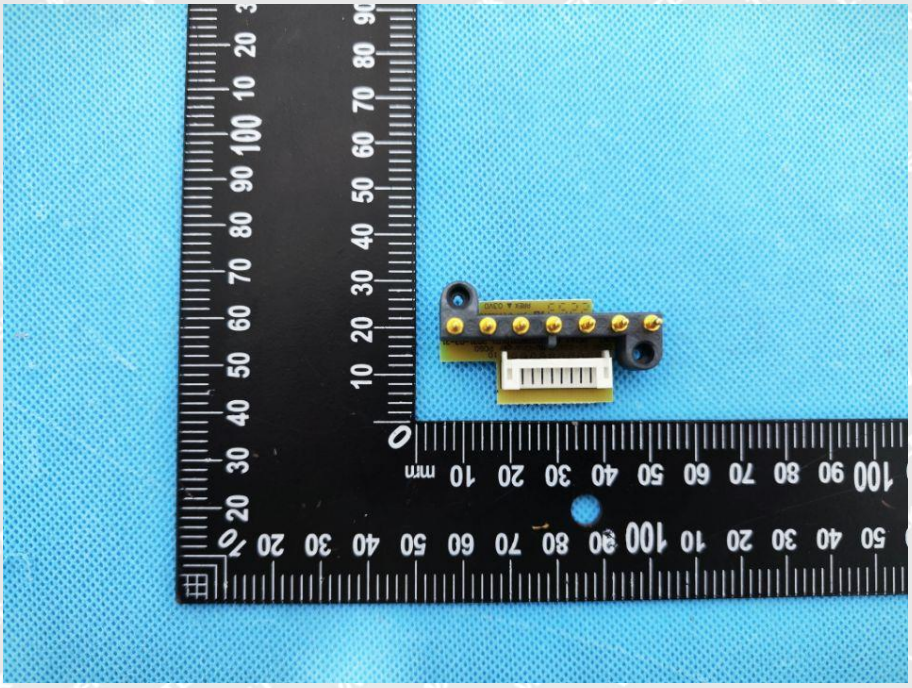
Solder Board-Component View 6



Solder Board-Component View 7



Solder Board-Component View 8



Solder Board-Component View 9

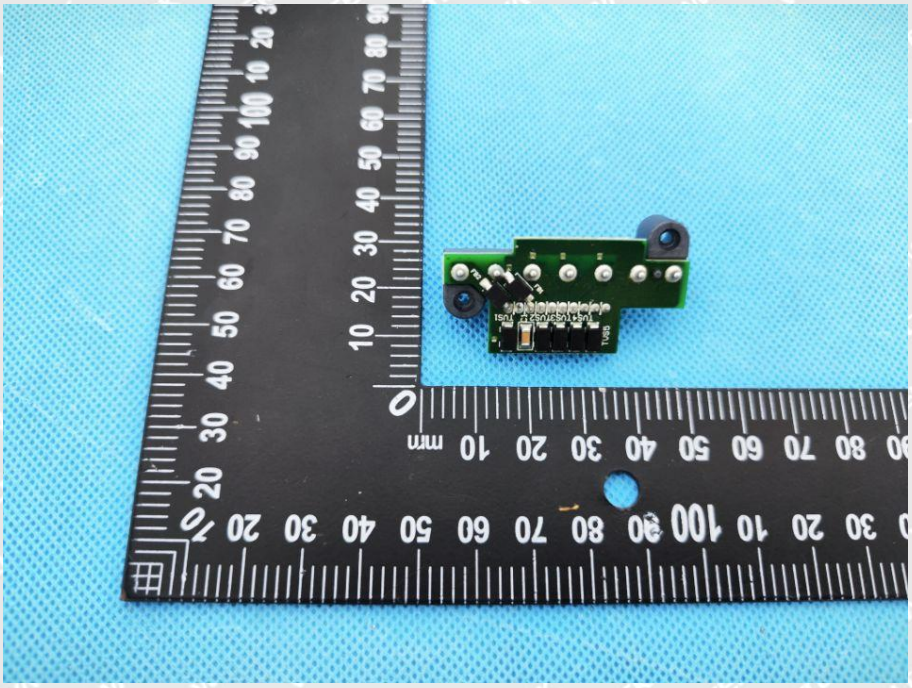
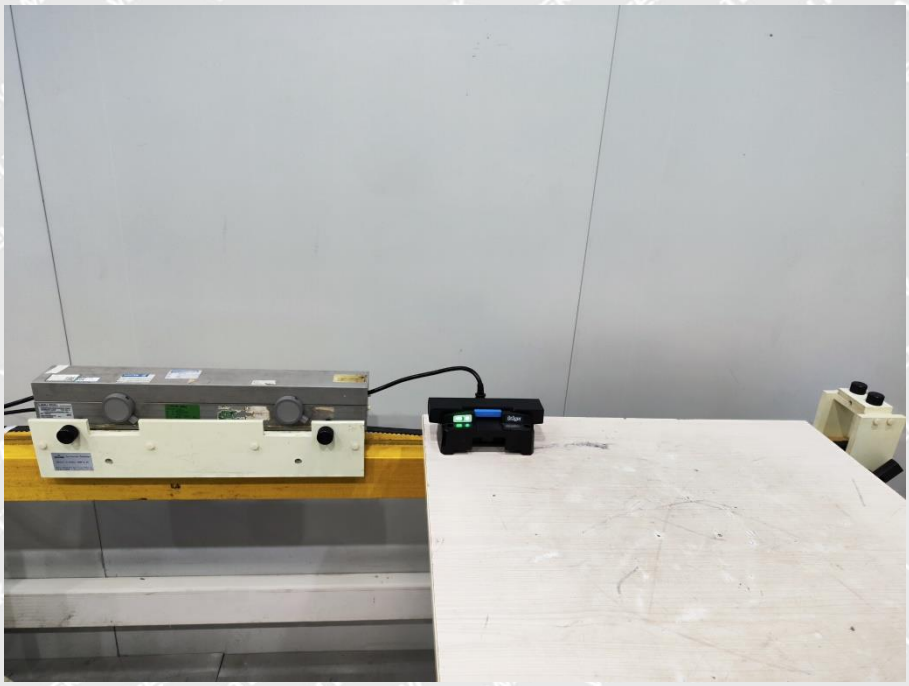


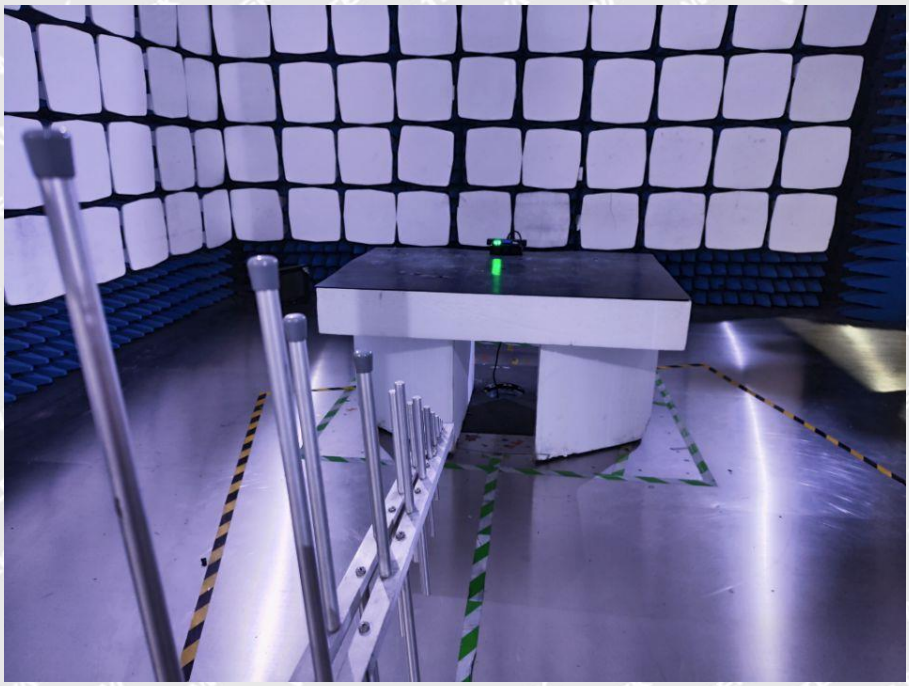
EXHIBIT 3 - TEST SETUP PHOTOGRAPHS

Conduction Emission Test View

Disturbance Power Test View

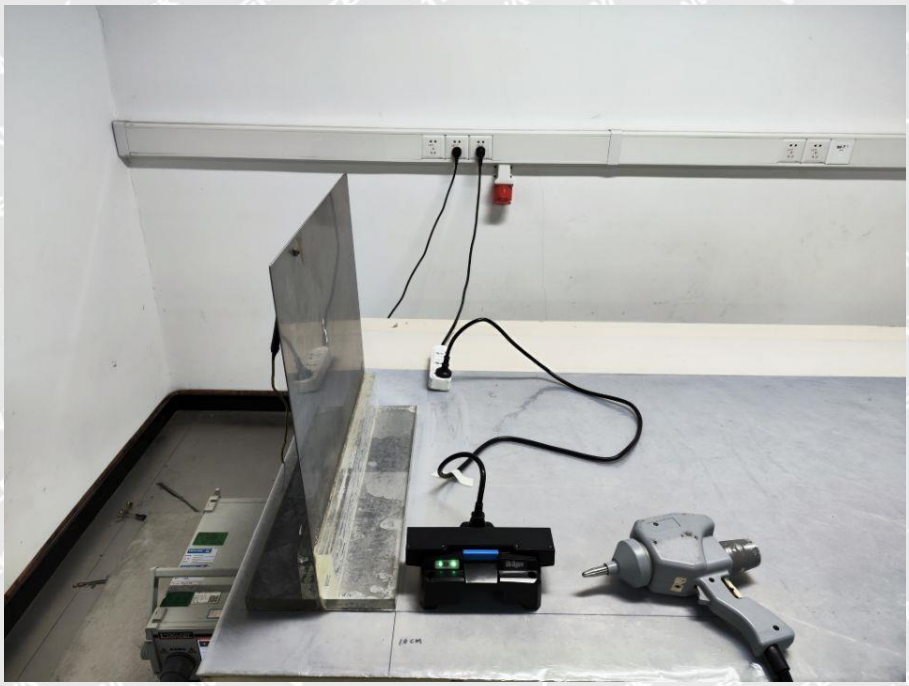


Radiation Emission Test View

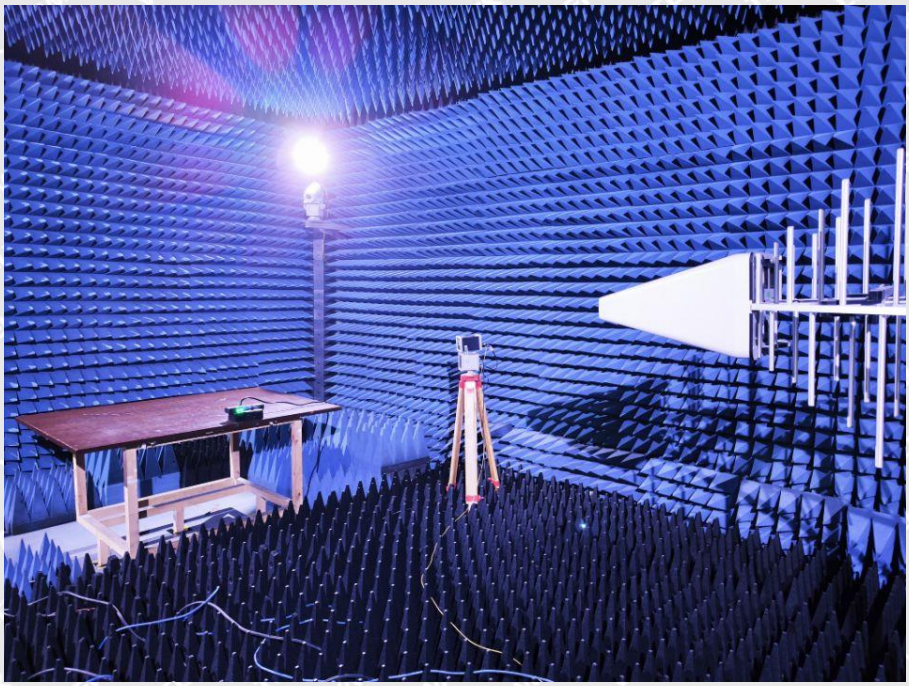


Harmonic/Flicker Test View

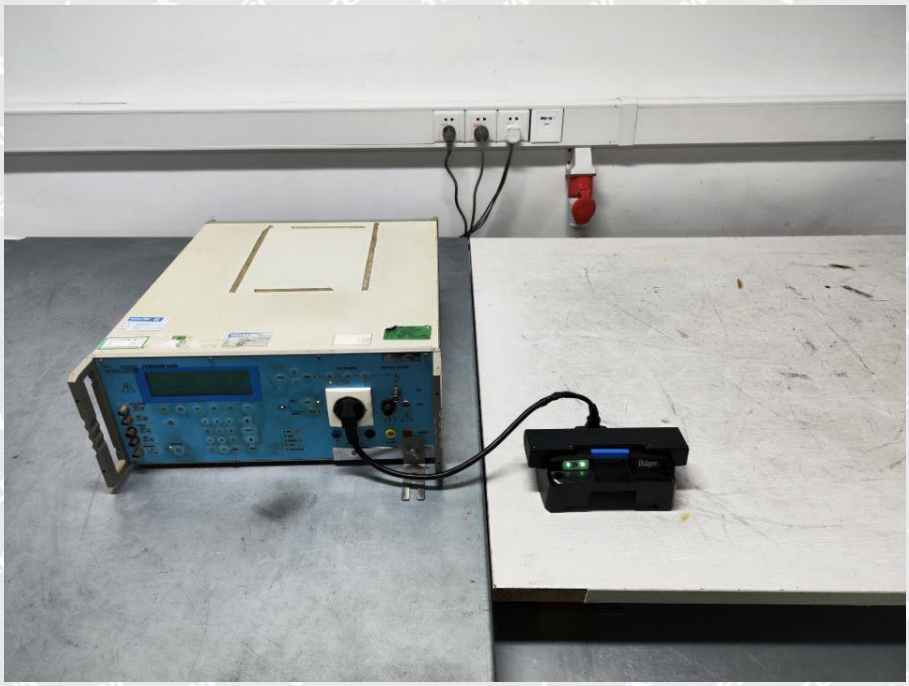
EN 61000-4-2 Test View



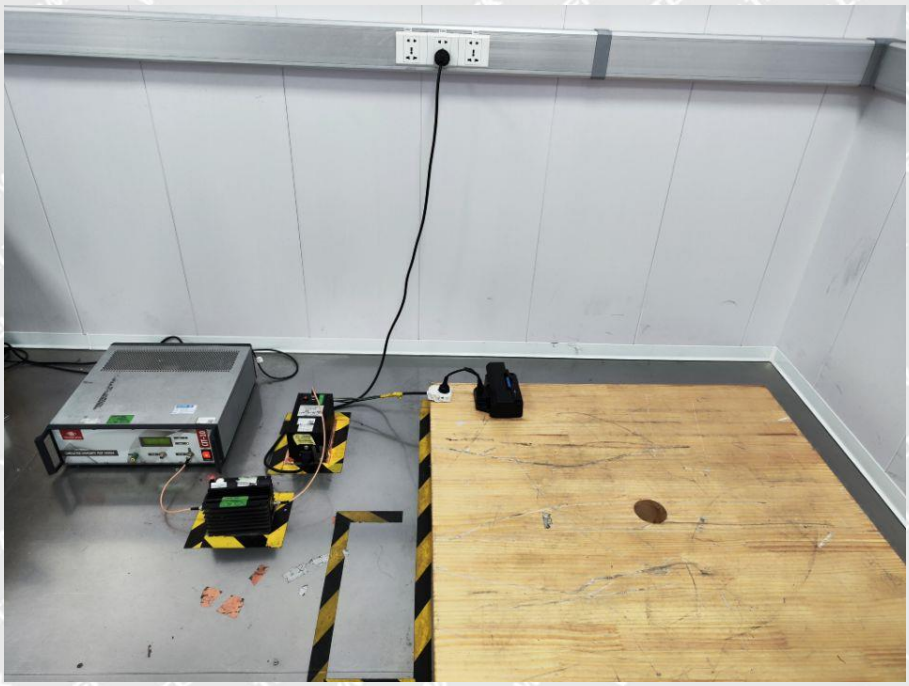
EN 61000-4-3 Test View



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



EN 61000-4-6 Test View



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