



TEST REPORT

Reference No...... : WTX23X08183428E
Applicant : GlobTek, Inc.
Address : 186 Veterans Dr. Northvale, NJ 07647 USA
Manufacturer : 1: GlobTek, Inc. 2: GlobTek (Suzhou) Co., Ltd
1: 186 Veterans Dr. Northvale, NJ 07647 USA
Address : 2: Building 4, No. 76, Jin Ling East Rd., Suzhou Industrial Park, Suzhou,
JiangSu 215021, China
Product Name : X-plore 8000 Standard Charger
Model No...... : R59780
Standards : **AS/NZS CISPR 32:2015+Amd 1:2020**
Date of Receipt sample : 2023-08-25
Date of Test..... : 2023-08-25 to 2023-09-04
Date of Issue : 2023-09-08
Test Report Form No. : WTX_AS/NZS CISPR 32_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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Report version


Version No.	Date of issue	Description
Rev.00	2023-09-08	Original
/	/	/

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1. GENERAL INFORMATION

1.1 Product Description for Equipment Under Test (EUT)

General Description of EUT	
Product Name:	X-plore 8000 Standard Charger
Trade Name:	Dräger or 
Model No.:	R59780
Adding Model(s):	GT-93036SHG3380
<p><i>Note: The test data is gathered from a production sample, provided by the manufacturer. The appearance of others models listed in the report is different from main-test model R59780, but the circuit and the electronic construction do not change, declared by the manufacturer.</i></p>	

Technical Characteristics of EUT	
Rated Voltage:	100-240V~, 50-60Hz
Rated Current:	/
Rated Power:	/
Power Adaptor Model:	GTM96600-6016-R2 Input: 100-240V~, 50-60Hz, 1.5A Output: 16.0V-3.75A 60.0W
Highest Internal Frequency:	Below 108MHz
Classification of Equipment:	Class B



1.2 Test Standards

The tests were performed according to following standards:

AS/NZS CISPR 32:2015+Amd 1:2020:Electromagnetic compatibility of multimedia equipment - Emission requirements.

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 AS/NZS CISPR 32 for Electromagnetic compatibility of multimedia equipment, and all related testing and measurement techniques intentional standards.

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1.4 EUT Setup and Operation Mode

The equipment under test (EUT) was configured to measure its highest possible emission. 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	/	AC 240V/50Hz
TM2	Working mode	/	AC 120V/60Hz

EUT Cable List and Details				
Cable Description	Length (m)	Shielded/Unshielded	With / Without Ferrite	With / Without Chip
DC Cable	1.7	Shielded	With	Without

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

Auxiliary Equipment List and Details			
Description	Manufacturer	Model	Serial Number
Battery	/	ARSC-0107	/



1.5 Test Equipment List and Details

Description	Manufacturer	Model	Serial No.	Cal. Date	Due. Date
<input type="checkbox"/> 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
<input type="checkbox"/> 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
<input checked="" type="checkbox"/> 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
<input type="checkbox"/> 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
<input type="checkbox"/> 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
<input checked="" type="checkbox"/> 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
<input type="checkbox"/> 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



2. SUMMARY OF TEST RESULTS

Standards	Description of Test Item	Result
AS/NZS CISPR 32	Conducted Emission	Compliant
	Radiated Emission	Compliant

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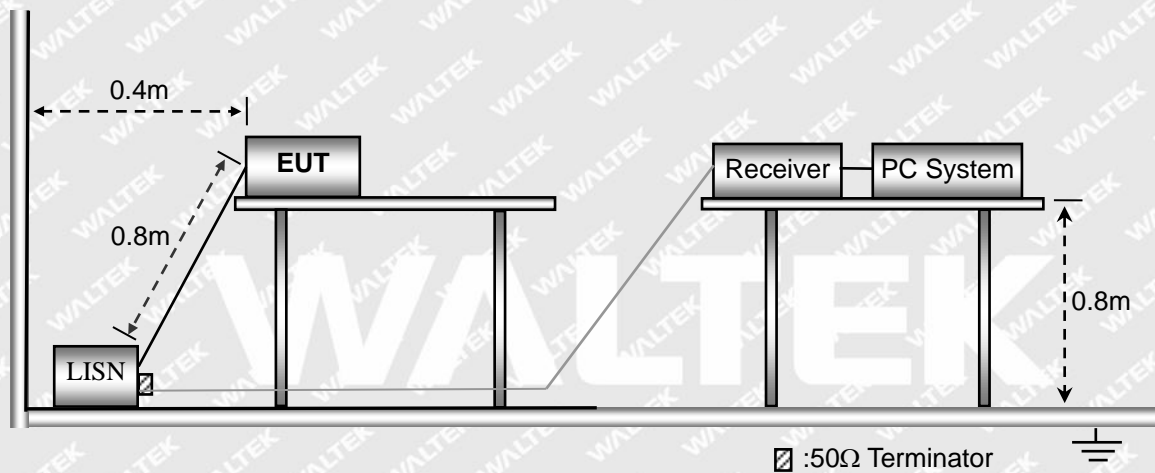
3. Conducted Emission

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 ± 3.74 dB
		0.15-30MHz ± 3.34 dB

3.2 Basic Test Setup Block Diagram



3.3 Environmental Conditions

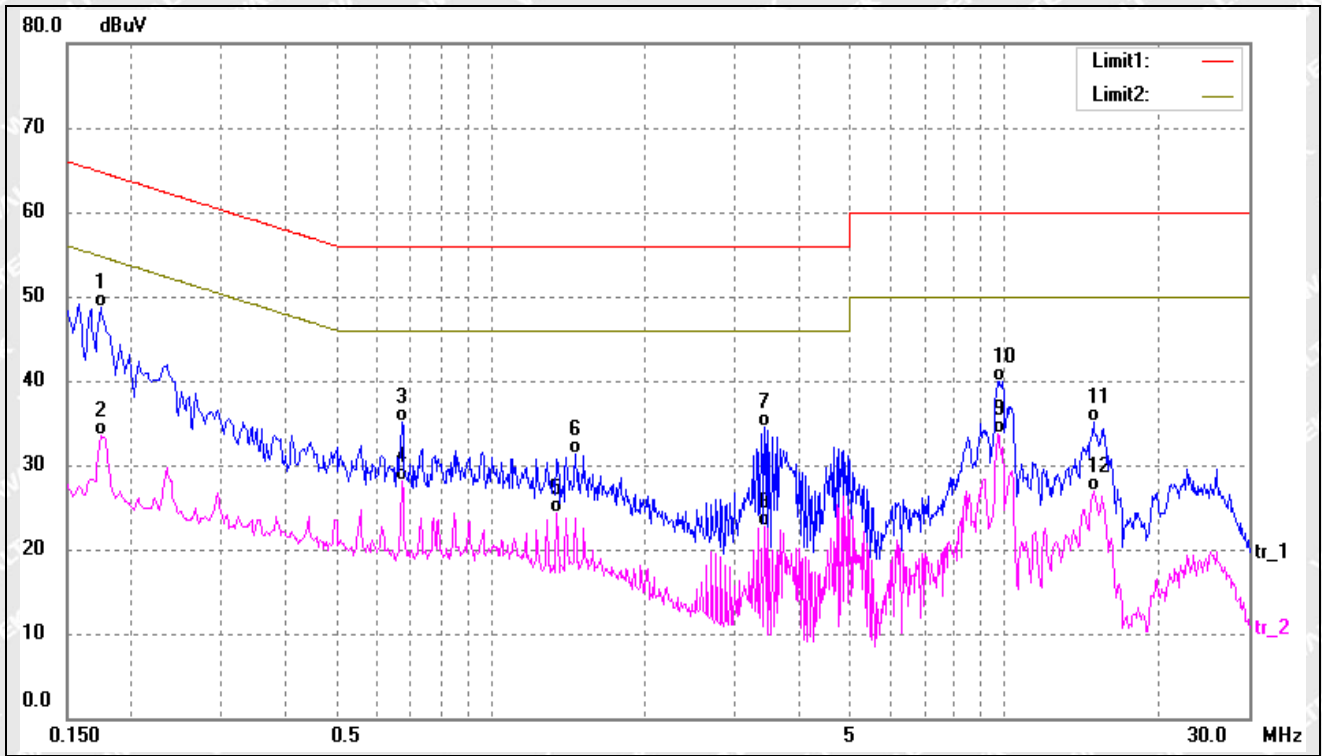
Temperature:	23.5 °C
Relative Humidity:	54 %
ATM Pressure:	997 mbar

3.4 Summary of Test Results

Please find the results below:



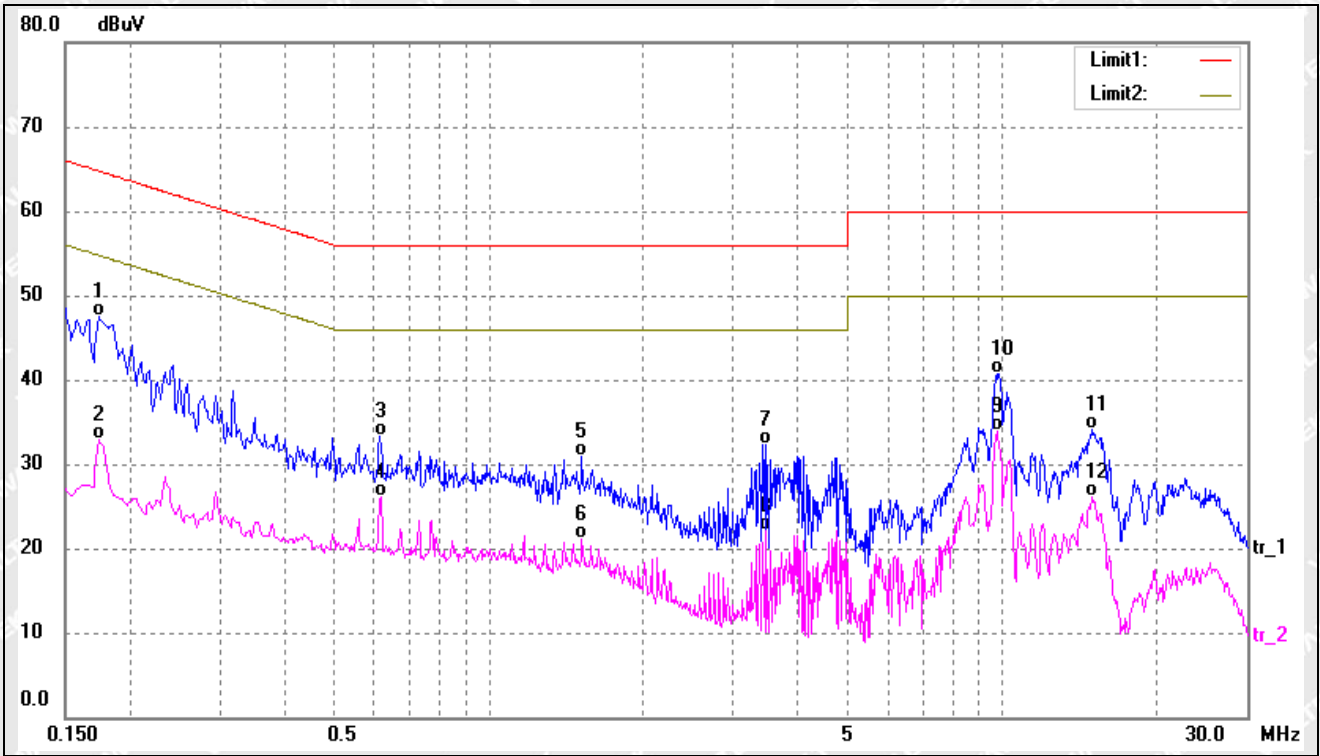
Test mode:	TM1	Polarity:	Line
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No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1*	0.1740	38.33	10.39	48.72	64.76	-16.04	QP
2	0.1740	23.20	10.39	33.59	54.76	-21.17	AVG
3	0.6740	24.99	10.20	35.19	56.00	-20.81	QP
4	0.6740	17.97	10.20	28.17	46.00	-17.83	AVG
5	1.3500	14.08	10.20	24.28	46.00	-21.72	AVG
6	1.4660	21.14	10.23	31.37	56.00	-24.63	QP
7	3.4300	24.11	10.35	34.46	56.00	-21.54	QP
8	3.4300	12.28	10.35	22.63	46.00	-23.37	AVG
9	9.7380	23.38	10.38	33.76	50.00	-16.24	AVG
10	9.7980	29.61	10.38	39.99	60.00	-20.01	QP
11	14.9220	24.80	10.22	35.02	60.00	-24.98	QP
12	14.9220	16.64	10.22	26.86	50.00	-23.14	AVG



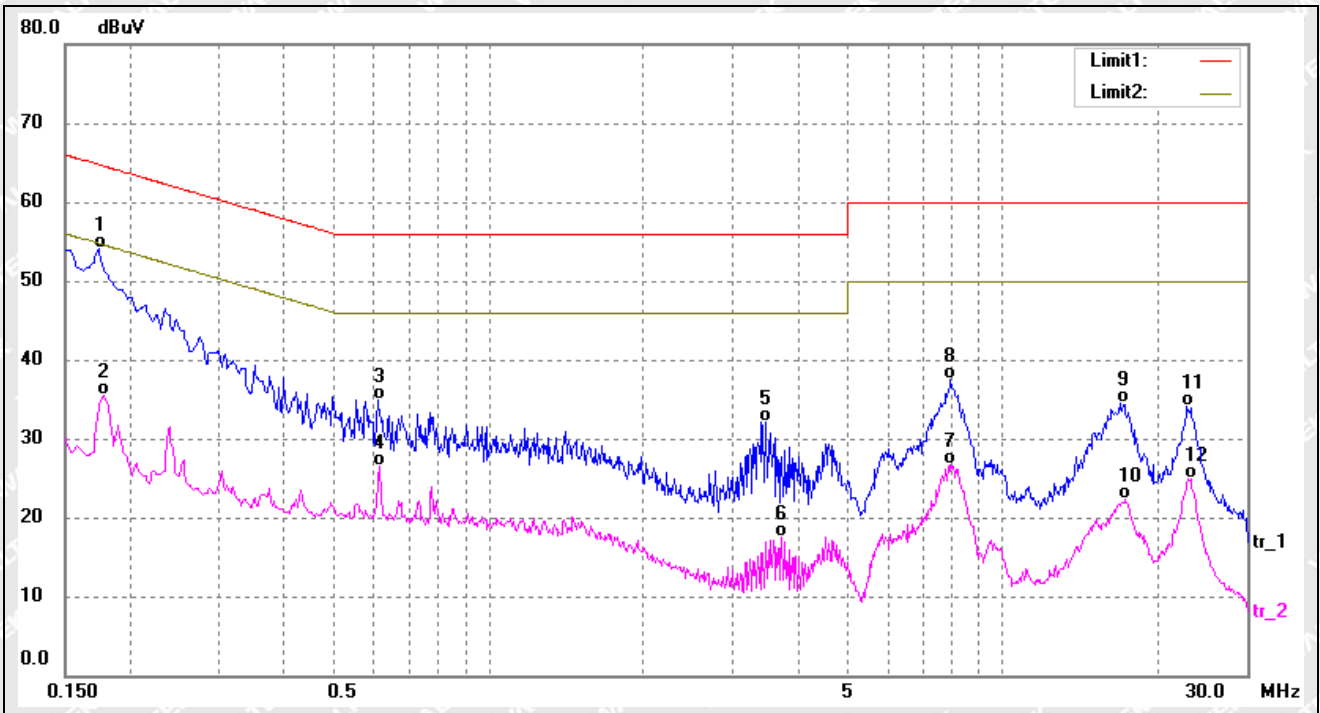
Test mode:	TM1	Polarity:	Neutral
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No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1740	37.13	10.39	47.52	64.76	-17.24	QP
2	0.1740	22.60	10.39	32.99	54.76	-21.77	AVG
3	0.6140	23.12	10.22	33.34	56.00	-22.66	QP
4	0.6180	15.92	10.21	26.13	46.00	-19.87	AVG
5	1.5260	20.69	10.24	30.93	56.00	-25.07	QP
6	1.5260	10.83	10.24	21.07	46.00	-24.93	AVG
7	3.4900	21.92	10.35	32.27	56.00	-23.73	QP
8	3.4900	11.82	10.35	22.17	46.00	-23.83	AVG
9*	9.7900	23.58	10.38	33.96	50.00	-16.04	AVG
10	9.9100	30.26	10.38	40.64	60.00	-19.36	QP
11	15.0380	23.87	10.22	34.09	60.00	-25.91	QP
12	15.0380	15.96	10.22	26.18	50.00	-23.82	AVG



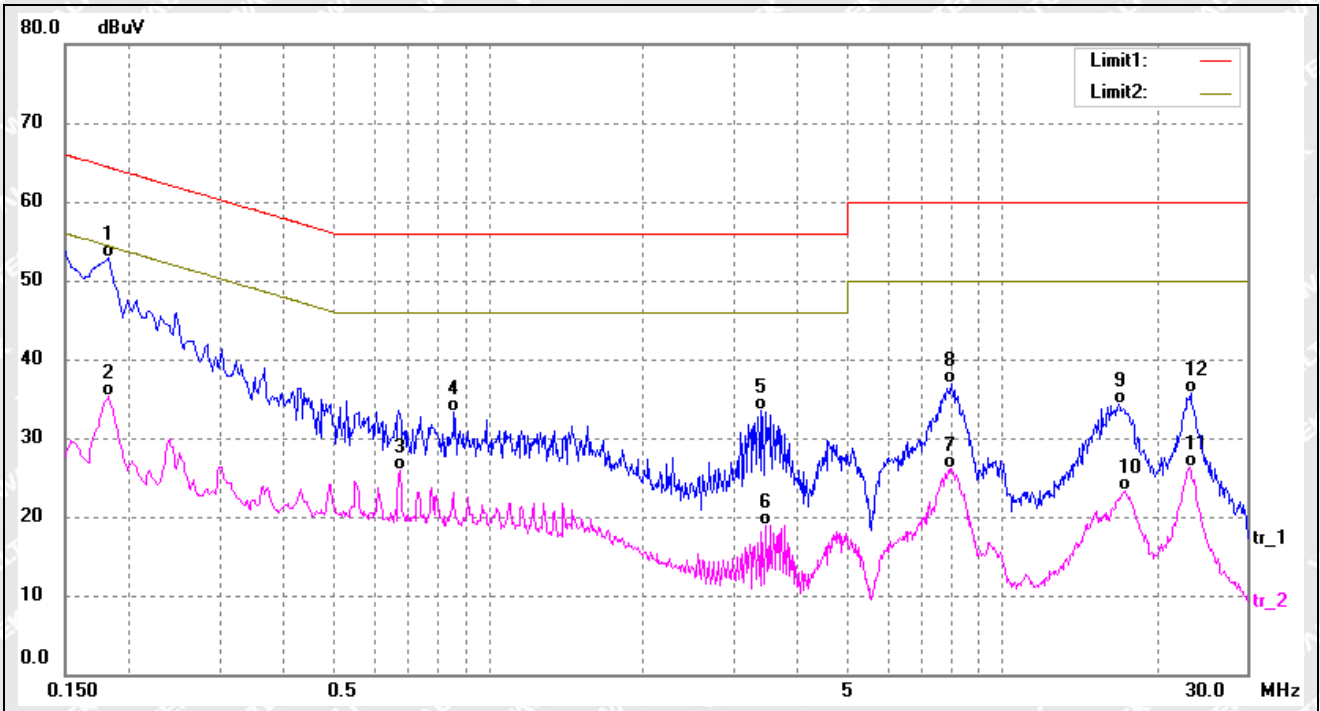
Test mode:	TM2	Polarity:	Line
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No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1*	0.1740	43.77	10.39	54.16	64.76	-10.60	QP
2	0.1780	25.16	10.39	35.55	54.57	-19.02	AVG
3	0.6100	24.72	10.22	34.94	56.00	-21.06	QP
4	0.6140	16.23	10.22	26.45	46.00	-19.55	AVG
5	3.4700	21.78	10.35	32.13	56.00	-23.87	QP
6	3.7260	7.06	10.36	17.42	46.00	-28.58	AVG
7	7.9180	16.36	10.38	26.74	50.00	-23.26	AVG
8	7.9700	27.11	10.38	37.49	60.00	-22.51	QP
9	16.9820	24.28	10.28	34.56	60.00	-25.44	QP
10	17.3900	11.94	10.30	22.24	50.00	-27.76	AVG
11	22.9540	23.87	10.33	34.20	60.00	-25.80	QP
12	23.2860	14.63	10.32	24.95	50.00	-25.05	AVG



Test mode:	TM2	Polarity:	Neutral
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No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1*	0.1819	42.58	10.39	52.97	64.39	-11.42	QP
2	0.1819	24.83	10.39	35.22	54.39	-19.17	AVG
3	0.6740	15.65	10.20	25.85	46.00	-20.15	AVG
4	0.8580	23.20	10.17	33.37	56.00	-22.63	QP
5	3.4140	23.08	10.35	33.43	56.00	-22.57	QP
6	3.4780	8.65	10.35	19.00	46.00	-27.00	AVG
7	7.9100	15.77	10.38	26.15	50.00	-23.85	AVG
8	7.9780	26.45	10.38	36.83	60.00	-23.17	QP
9	16.9180	24.10	10.28	34.38	60.00	-25.62	QP
10	17.3620	13.02	10.30	23.32	50.00	-26.68	AVG
11	23.1980	15.93	10.32	26.25	50.00	-23.75	AVG
12	23.2660	25.31	10.32	35.63	60.00	-24.37	QP



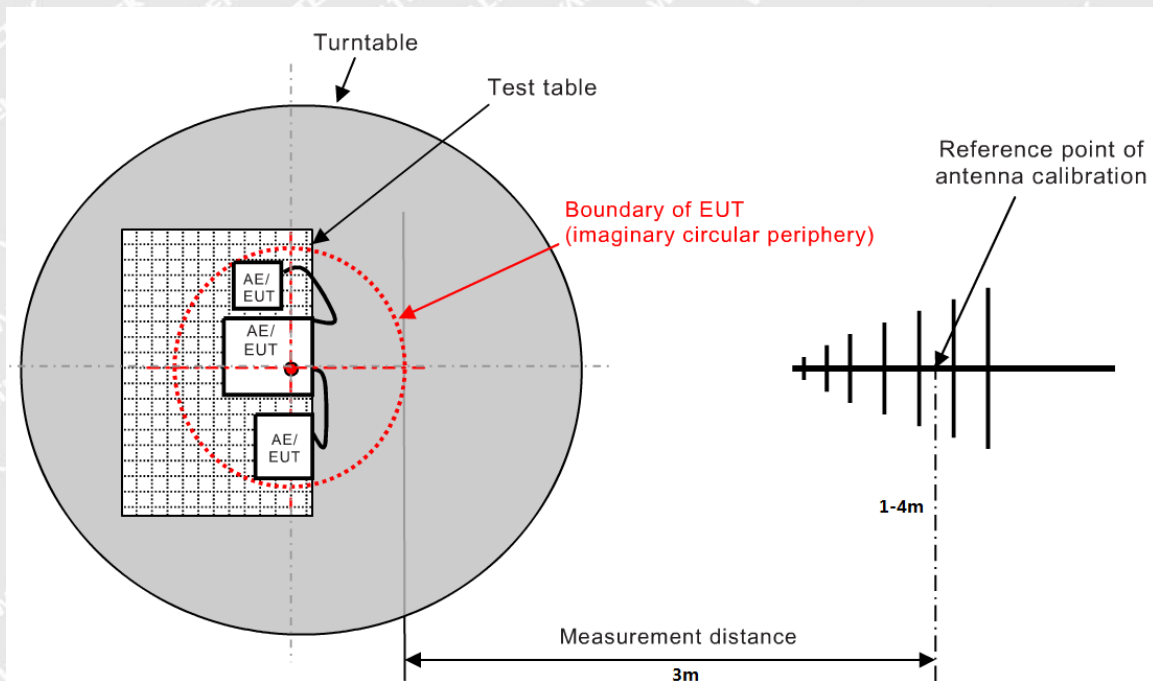
4. Radiated Emission

4.1 Measurement Uncertainty

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

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

4.2 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:

$$\text{Corr. Ampl.} = \text{Indicated Reading} + \text{Correct Correct} = \text{Ant. Factor} + \text{Cable Loss} - \text{Ampl. Gain}$$

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

$$\text{Margin} = \text{Corr. Ampl.} - \text{AS/NZS CISPR 32 Class B Limit}$$

4.4 Environmental Conditions

Temperature:	23.5 °C
Relative Humidity:	54 %
ATM Pressure:	997 mbar

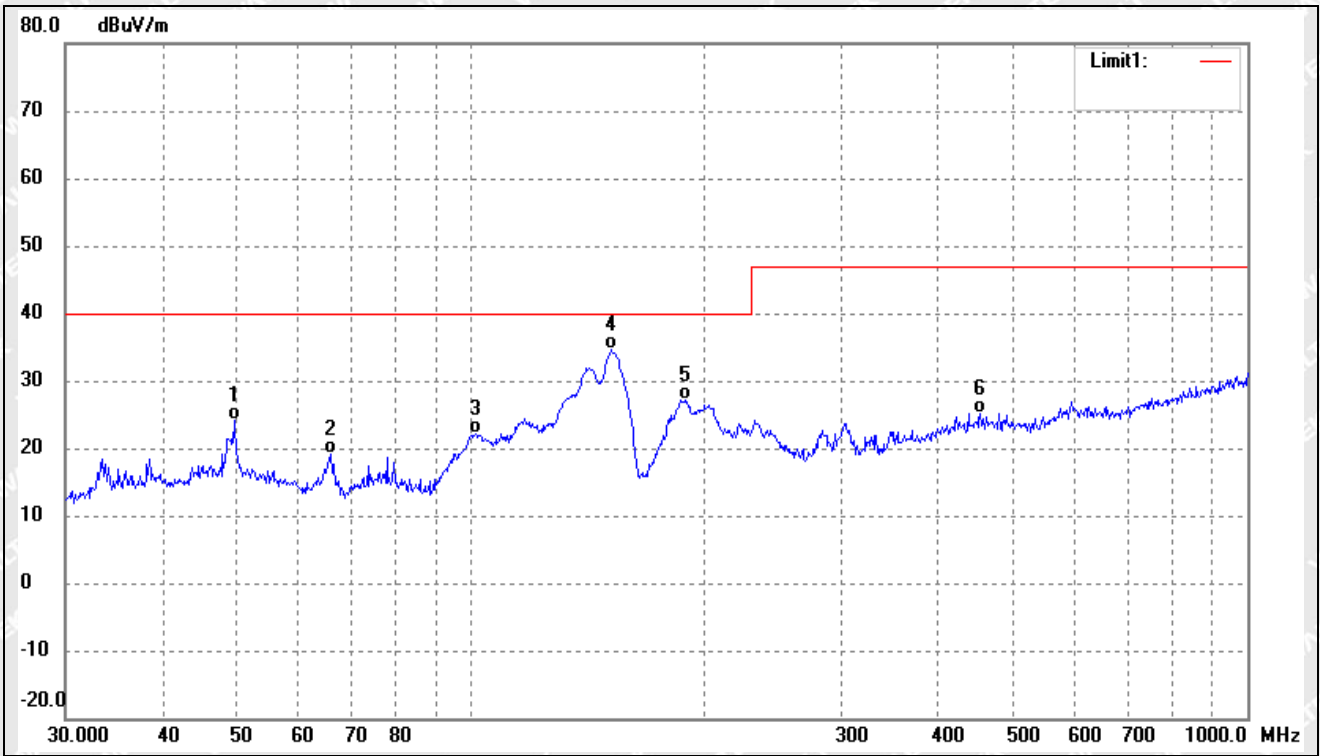
4.5 Summary of Test Results

Please find the results below:

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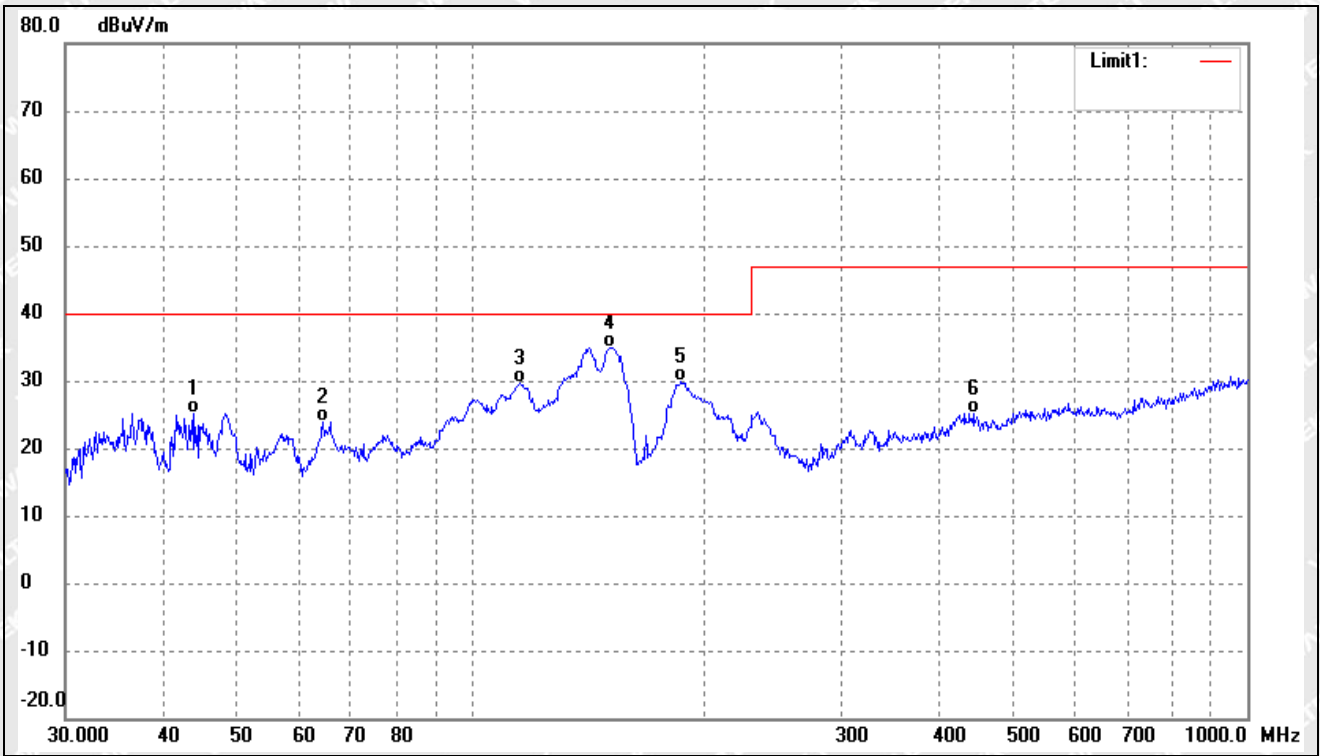
Test mode:	TM1	Polarity:	Horizontal
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No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	49.5328	34.44	-10.23	24.21	40.00	-15.79	QP
2	66.0340	32.38	-13.24	19.14	40.00	-20.86	QP
3	101.2883	34.42	-12.36	22.06	40.00	-17.94	QP
4	151.5971	49.39	-14.77	34.62	40.00	-5.38	QP
5	188.4123	39.42	-12.25	27.17	40.00	-12.83	QP
6	452.7196	29.80	-4.66	25.14	47.00	-21.86	QP



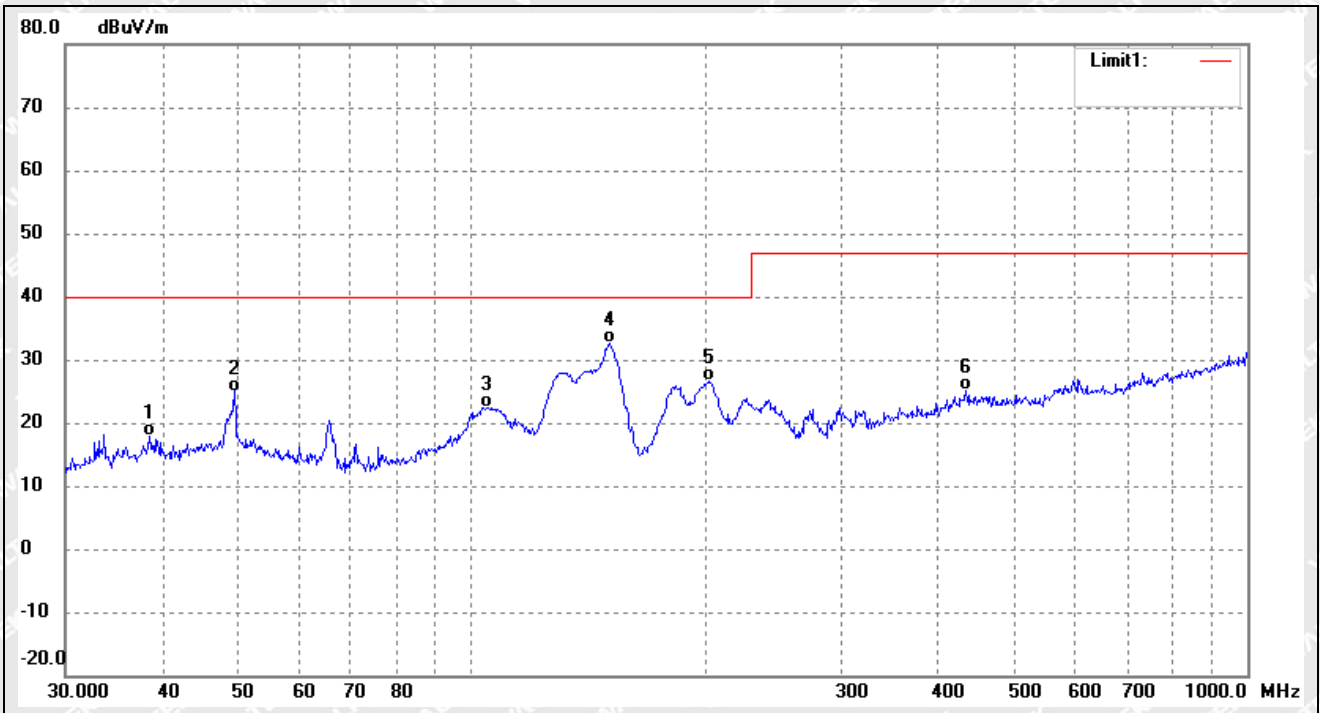
Test mode:	TM1	Polarity:	Vertical
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No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	43.9658	35.92	-10.81	25.11	40.00	-14.89	QP
2	64.4330	36.88	-12.94	23.94	40.00	-16.06	QP
3	115.3204	42.33	-12.73	29.60	40.00	-10.40	QP
4	150.5378	49.80	-14.81	34.99	40.00	-5.01	QP
5	186.4408	42.29	-12.50	29.79	40.00	-10.21	QP
6	443.2943	29.62	-4.46	25.16	47.00	-21.84	QP



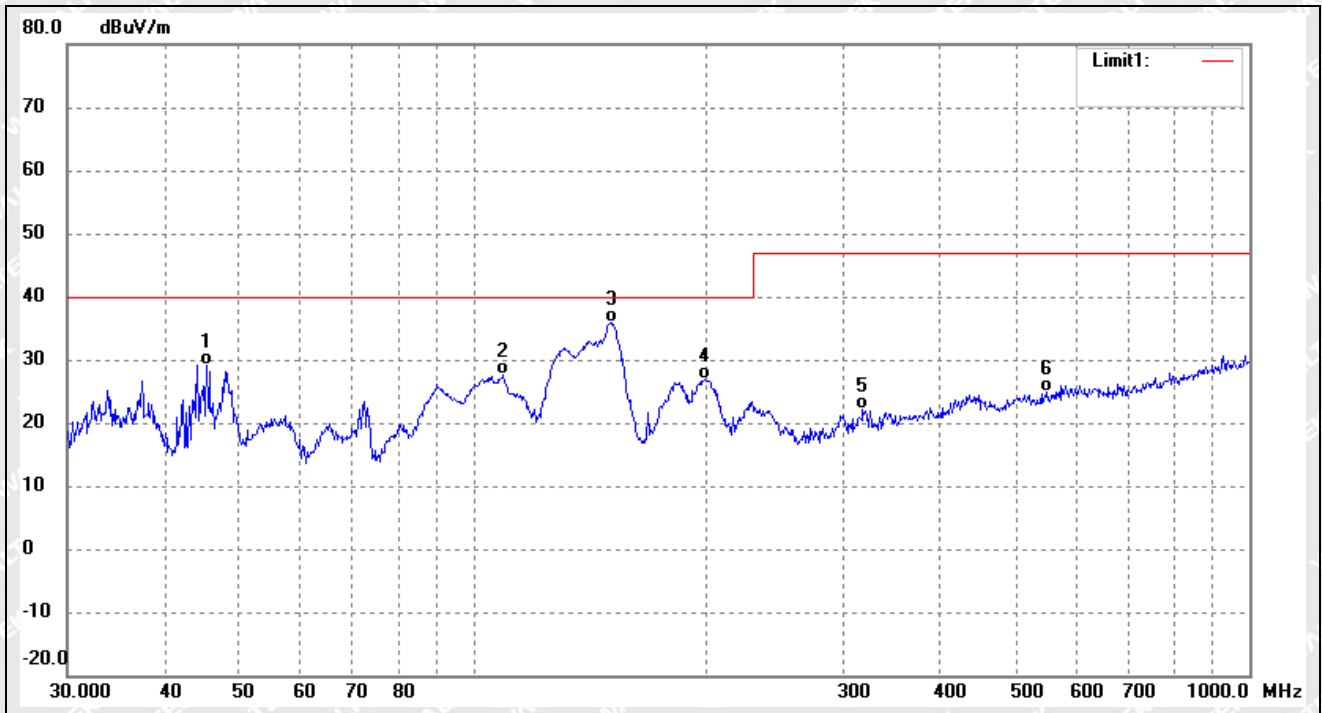
Test mode:	TM1	Polarity:	Horizontal
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No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	38.4809	29.84	-12.01	17.83	40.00	-22.17	QP
2	49.5328	35.23	-10.23	25.00	40.00	-15.00	QP
3	104.5361	34.65	-12.27	22.38	40.00	-17.62	QP
4	151.0666	47.34	-14.79	32.55	40.00	-7.45	QP
5	202.1005	37.77	-11.25	26.52	40.00	-13.48	QP
6	434.0651	29.64	-4.40	25.24	47.00	-21.76	QP



Test mode:	TM1	Polarity:	Vertical
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No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	45.3755	39.79	-10.54	29.25	40.00	-10.75	QP
2	109.4116	39.87	-12.17	27.70	40.00	-12.30	QP
3	150.5378	50.76	-14.81	35.95	40.00	-4.05	QP
4	198.5879	38.19	-11.41	26.78	40.00	-13.22	QP
5	317.7010	29.51	-7.35	22.16	47.00	-24.84	QP
6	549.0193	28.60	-3.82	24.78	47.00	-22.22	QP



EXHIBIT 1 - PRODUCT LABELING

Proposed RCM Label Format



Specifications: Text is Black in colour 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 supplier code number is needed which it is registered and DoC by the supplier.

Proposed Label Location on EUT

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 View 7



EUT View 8





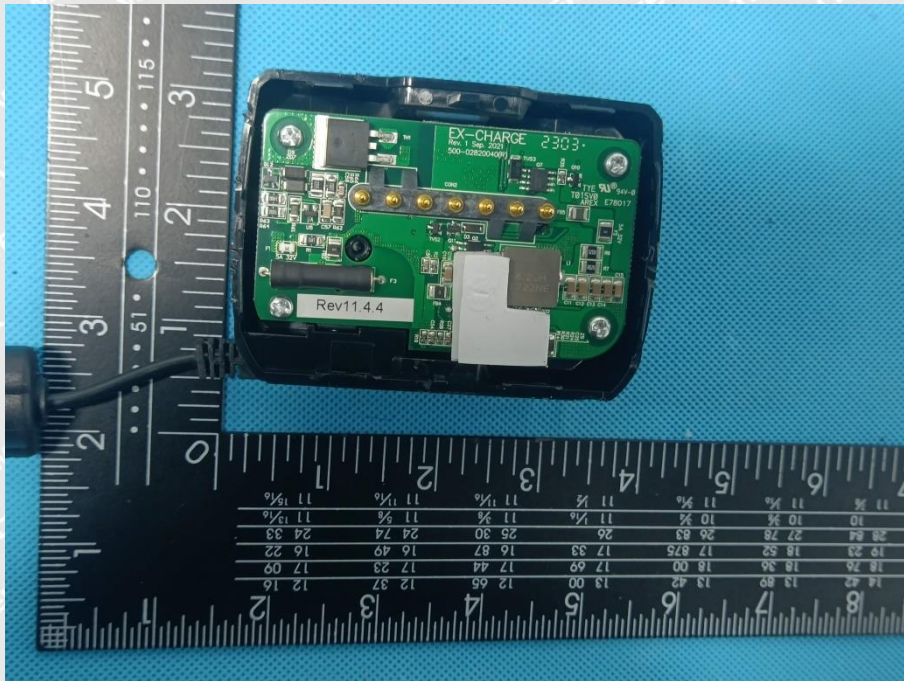
EUT View 9



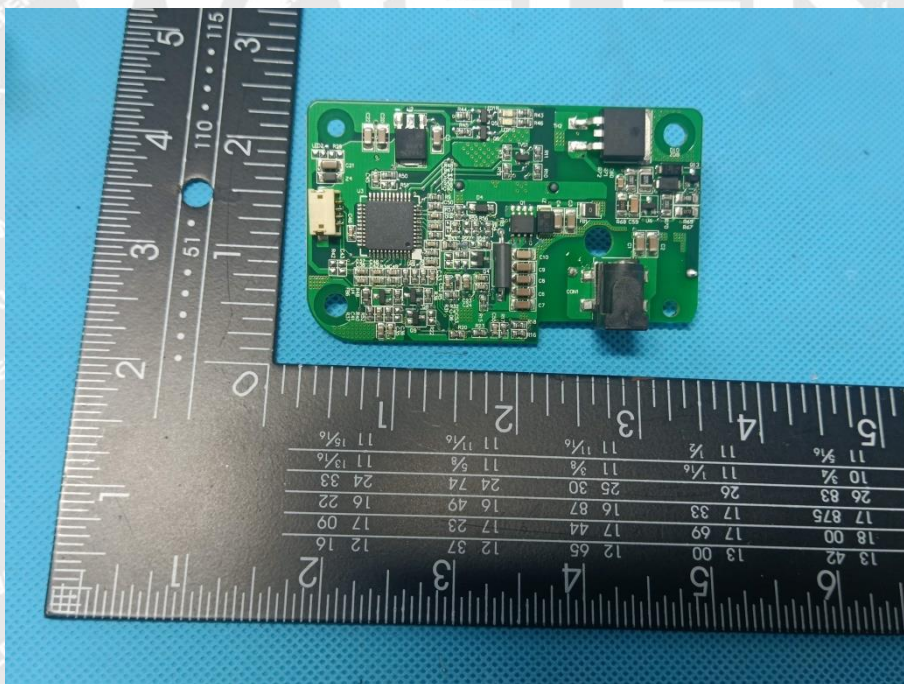
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EUT Housing and Board View 1

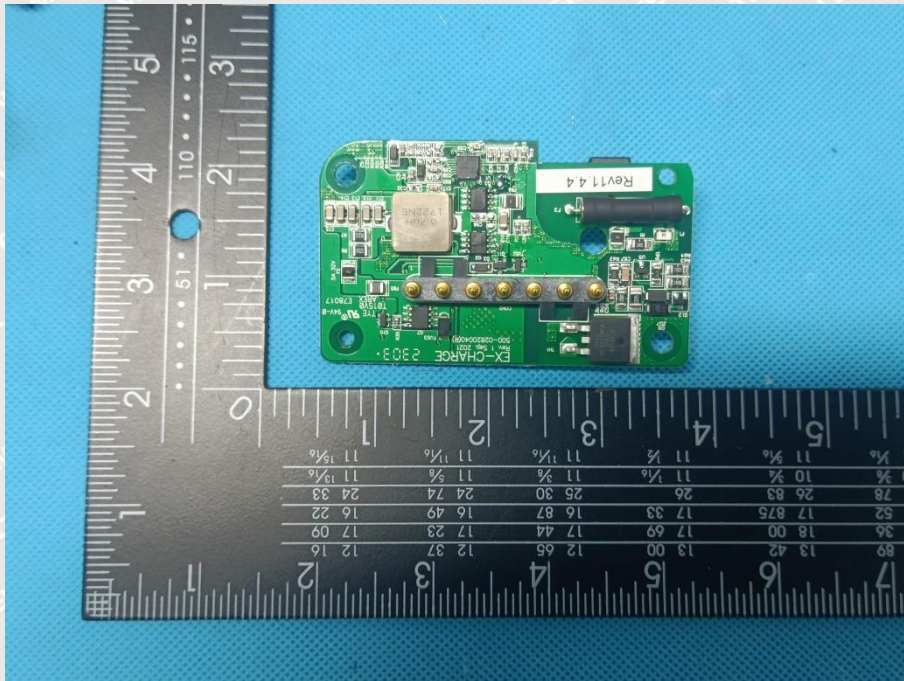


Solder Board-Component View 2

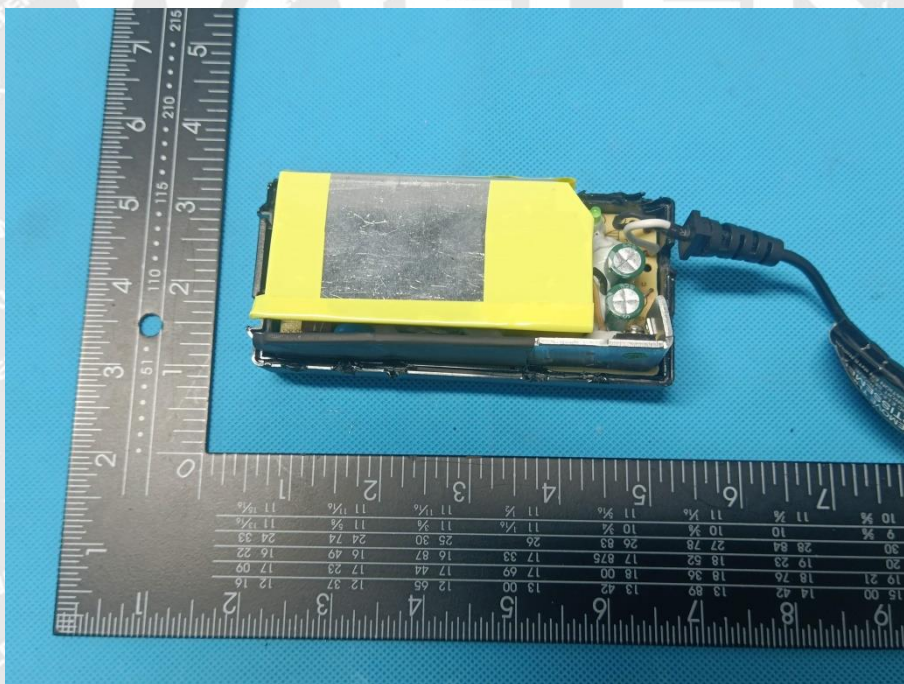




Solder Board-Component View 3

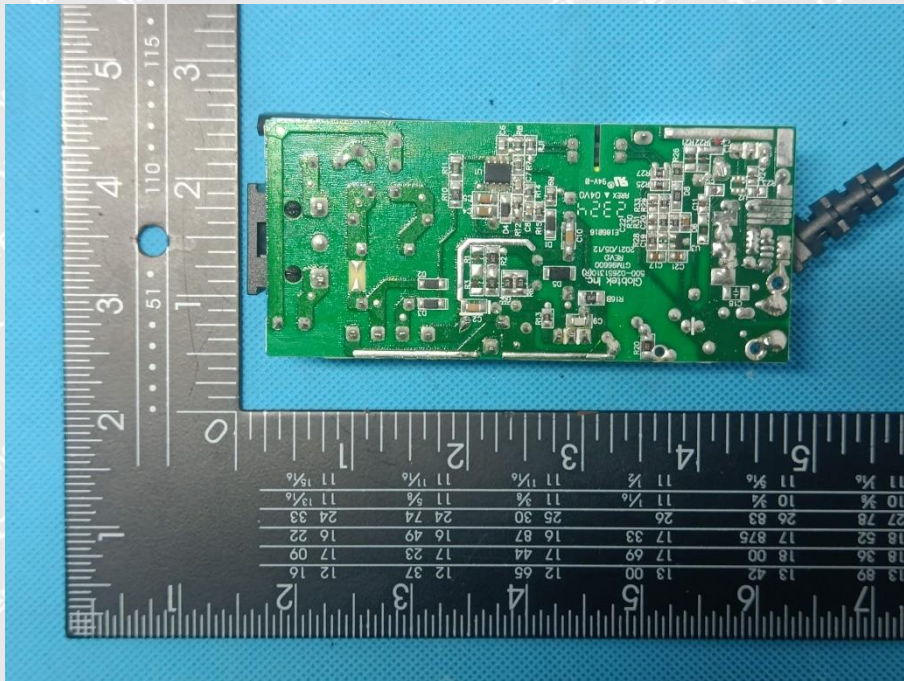


Solder Board-Component View 4





Solder Board-Component View 5



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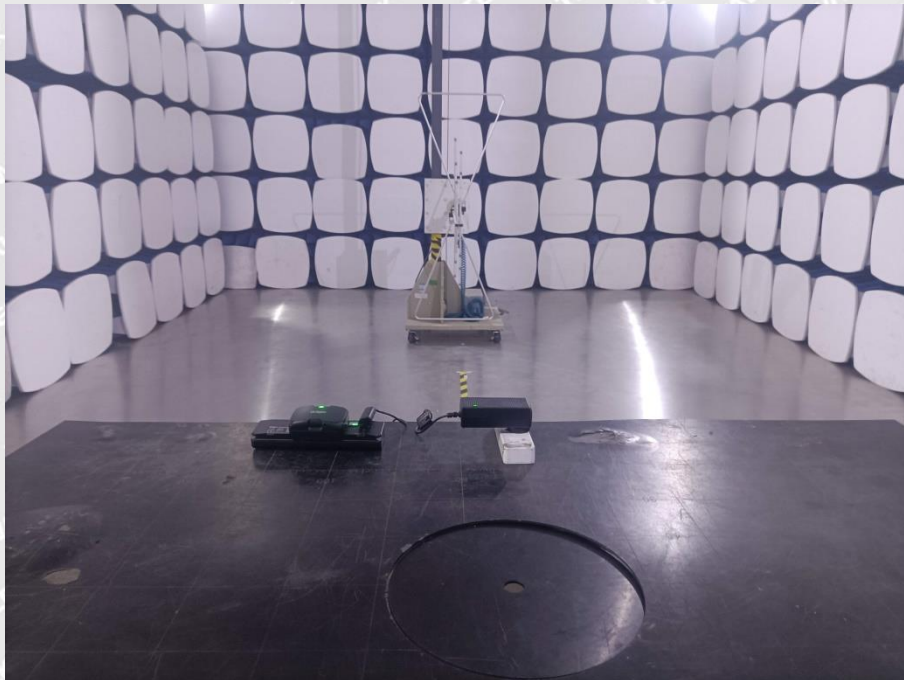


EXHIBIT 3 - TEST SETUP PHOTOGRAPHS

Conduction Emission Test View



Radiation Emission Test View



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