

TEST REPORT

Product Name : Pocket WiFi+LAN

Model Number : Pocket WiFi+LAN

Prepared for : SOLAX POWER NETWORK TECHNOLOGY (ZHEJIANG)
CO., LTD.

Address : No.288, Shizhu Road, Tonglu Economic Development
Zone, Tonglu City, Zhejiang Province 310000, P. R. China

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Report Number : ENB2301300046E00801R

Date(s) of Tests : January 30, 2023 to February 22, 2023

Date of issue : March 08, 2023



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APPENDIX I (Photos of EUT) (3 Pages)

TEST REPORT DESCRIPTION

Applicant : SOLAX POWER NETWORK TECHNOLOGY (ZHEJIANG) CO., LTD.
Manufacturer : SOLAX POWER NETWORK TECHNOLOGY (ZHEJIANG) CO., LTD.
Trade Mark : SolaX Power
EUT : Pocket WiFi+LAN
Model No. : Pocket WiFi+LAN
Power Supply : DC 5V (For USB)

Measurement Procedure Used:

AS/NZS CISPR 32:2015+AMD1:2020

The device described above is tested by EMTEK (NINGBO) CO., LTD. to determine the maximum emission levels emanating from the device and the severe levels of the device can endure and its performance criterion. The measurement results are contained in this test report and EMTEK (NINGBO) CO., LTD. is assumed full of responsibility for the accuracy and completeness of these measurements. Also, this report shows that the EUT (Equipment Under Test) is technically compliant with the AS/NZS CISPR 32 requirement.

This report applies to above tested sample only. This report shall not be reproduced in part without written approval of EMTEK (NINGBO) CO., LTD.

Date of Test : January 30, 2023 to February 22, 2023

Prepared by : 
June Gao/Engineer

Reviewer : 
Ade Wang/Supervisor

Approved & Authorized Signer : 
Tony Wei/Manager



Modified History

Version	Report No.	Revision date	Summary
	ENB2301300046E00801R	/	Original Report



1. SUMMARY OF TEST RESULT

EMISSION			
Description of Test Item	Standard	Limits	Results
Conducted emissions from the AC mains power ports	AS/NZS CISPR 32:2015+AMD1:2020	Class B, Table A.10	Pass
Asymmetric mode conducted emissions	Wired network ports	AS/NZS CISPR 32:2015+AMD1:2020	Class B, Table A.12
	Optical fibre ports	AS/NZS CISPR 32:2015+AMD1:2020	Class B, Table A.12
	Broadcast receiver tuner ports	AS/NZS CISPR 32:2015+AMD1:2020	Class B, Table A.12
	Antenna ports	AS/NZS CISPR 32:2015+AMD1:2020	Class B, Table A.12
Conducted differential voltage emissions	TV broadcast receiver tuner ports	AS/NZS CISPR 32:2015+AMD1:2020	Class B, Table A.13
	RF modulator output ports	AS/NZS CISPR 32:2015+AMD1:2020	Class B, Table A.13
	FM broadcast receiver tuner ports	AS/NZS CISPR 32:2015+AMD1:2020	Class B, Table A.13
Radiated emissions at frequencies up to 1 GHz	AS/NZS CISPR 32:2015+AMD1:2020	Class B, Table A.4	Pass
Radiated emissions at frequencies above 1 GHz	AS/NZS CISPR 32:2015+AMD1:2020	Class B, Table A.5	Pass
Radiated emissions from FM receivers	AS/NZS CISPR 32:2015+AMD1:2020	Table A.6	N/A
Outdoor units of home satellite receiving systems	AS/NZS CISPR 32:2015+AMD1:2020	Table A.7	N/A
Note: N/A is an abbreviation for Not Applicable.			

2. GENERAL INFORMATION

2.1. Description of Device (EUT)

EUT	: Pocket WiFi+LAN
Model Number	: Pocket WiFi+LAN
Test Voltage	: AC 240V/50Hz (For Support Device), DC 5V
Highest Frequency	: 2400 MHz
Sample Number	: ENB2301300046E008-1-1
Applicant	: SOLAX POWER NETWORK TECHNOLOGY (ZHEJIANG) CO., LTD.
Address	: No.288, Shizhu Road, Tonglu Economic Development Zone, Tonglu City, Zhejiang Province 310000, P. R. China
Manufacturer	: SOLAX POWER NETWORK TECHNOLOGY (ZHEJIANG) CO., LTD.
Address	: No.288, Shizhu Road, Tonglu Economic Development Zone, Tonglu City, Zhejiang Province 310000, P. R. China
Date of Received	: January 30, 2023
Date of Test	: January 30, 2023 to February 22, 2023

2.2. Input / Output Ports

Port #	Name	Type*	Cable Max. >3m	Cable Shielded	Comments
1	Enclosure	N/E	--	--	None
2	USB Port	DC	--	--	None

*Note: Use abbreviations:

AC= AC Power port

DC= DC Power port

N/E= Non-Electrical

A/D=Analogue/digital data port (signal/control port, antenna port, wired network port, broadcast receiver tuner port, optical fibre port)

2.3. Independent Operation Modes

- A. WIFI
- B. WIRED

2.4. Test Manner

Test Items	Test Voltage	Operation Modes	Worst case
Conducted emissions from the AC mains power ports	AC 240V/50Hz	Mode A Mode B	Mode A Mode B
Asymmetric mode conducted emissions	AC 240V/50Hz	Mode A Mode B	Mode A Mode B
Radiated emissions at frequencies up to 1 GHz	DC 5V	Mode A Mode B	Mode A Mode B
Radiated emissions at frequencies above 1 GHz	DC 5V	Mode A Mode B	Mode A Mode B

2.5. Description of Test Facility

Site Description
EMC Lab.

: **Accredited by CNAS**

The Certificate Registration Number is L6666.

The Laboratory has been assessed and proved to be in compliance with CNAS-CL01:2018 (identical to ISO/IEC 17025:2017)

Accredited by FCC

Designation Number: CN1302

Test Firm Registration Number: 436491

Accredited by A2LA

The certificate is valid until May 31, 2023

Accredited by Industry Canada

The Conformity Assessment Body Identifier is CN0114

Name of Firm : EMTEK (NINGBO) CO., LTD.

Site Location : No. 8, Building 8, Lane 216, Qingyi Road, Ningbo Hi-Tech Zone, Ningbo, Zhejiang, China

2.6. Test Software

Item	Software
Conducted Emission	: TS+ (Ver.4.0.0.0)
Radiated Emission	: TS+ (Ver.4.0.0.0)

2.7. Support Device

Notebook : Manufacturer: LENOVO
M/N: T430s
S/N: R9RK4YK

2.8. Measurement Uncertainty

Test Item	Uncertainty
Conducted Emission Uncertainty	2.08dB (9 k-150 kHz)
	2.40dB (150 k-30 MHz)
Radiated Emission Uncertainty (3m Chamber)	: 4.06 dB (Polarize: H) (30MHz-1000MHz)
	4.04 dB (Polarize: V) (30MHz-1000MHz)
	4.82 dB (Polarize: H) (1~18GHz)
	4.80 dB (Polarize: V) (1~18GHz)



3. MEASURING DEVICE AND TEST EQUIPMENT

3.1. For Power Line Conducted Emission Measurement

Equ. No.	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
ENE-002	EMI Test Receiver	Rohde & Schwarz	ESCI	101107	July 07, 2022	1 Year
ENE-158	L.I.S.N	Rohde & Schwarz	NNLK 8129	0373	Nov. 18, 2022	1 Year
ENE-004	L.I.S.N	Schwarzbeck	NSLK 8126	8126-462	July 07, 2022	1 Year
ENE-006	Pulse Limiter	MTS-systemtechnik	IMP-136	2611115-001-0033	July 07, 2022	1 Year
ENE-278	RF Switching unit	HTEC	HRSU	222101	August 22, 2022	1 Year
ENE-083	RF Cable	Hubber Suhner/Swiss	CBL-RE-3	/	April 07, 2022	1 Year

3.2. For Conducted Emissions at Telecommunications/network port Measurement

Equ. No.	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
ENE-002	EMI Test Receiver	Rohde & Schwarz	ESCI	101107	July 07, 2022	1 Year
ENE-067	I.S.N	Tsetq	ISNT8	51926	Dec. 29, 2022	1 Year
ENE-068	I.S.N	Tsetq	ISNT8-Cat 6	50583	Dec. 29, 2022	1 Year
ENE-159	Pulse Limiter	Schwarzbeck	VTSD 9561F-N	0929	Nov. 18, 2022	1 Year
ENE-278	RF Switching unit	HTEC	HRSU	222101	August 22, 2022	1 Year
ENE-162-1	RF Cable	TIMES	2M(N-N)	605236-0001	July 01, 2022	1 Year

3.3. For Radiated Emission Measurement (Up to 1 GHz)

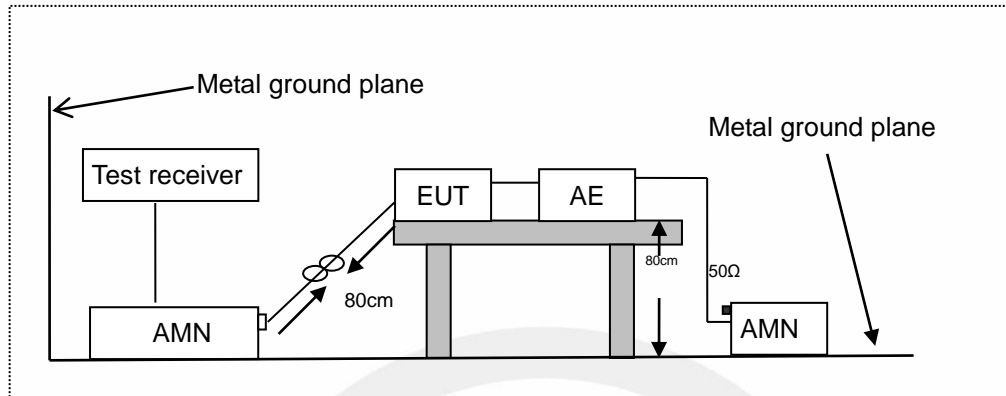
Equ. No.	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
ENE-185	EMI Test Receiver	R&S	ESR7	102480	May 18, 2022	1 Year
ENE-190	Antenna multiple	Schwarzbeck	VULB 9163	01499	May 21, 2022	2 Year
ENE-195	Pre-Amplifier	JS Denki	PA09K03-40	JSPA21019	May 18, 2022	1 Year
ENE-204	Low frequency notch filterRf switching	JS Denki	JSDSW-F	JSDSW2211 D02	May 27, 2022	1 Year
ENE-279-1	RF cable	Rosenberger	L17-C001-70 00	/	June 01, 2022	1 Year
ENE-279-2	RF cable	Rosenberger	L17-C001-35 00	/	June 01, 2022	1 Year
ENE-279-3	RF cable	Rosenberger	L17-C001-15 00	/	June 01, 2022	1 Year
ENE-279-4	RF cable	Rosenberger	/	/	June 01, 2022	1 Year
ENE-279-5	RF cable	Rosenberger	/	/	June 01, 2022	1 Year
ENE-279-6	RF cable	Rosenberger	L08-C446-15 00	/	June 01, 2022	1 Year

3.4. For Radiated Emission Measurement (Above 1 GHz)

Equ. No.	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
ENE-171	EXA Signal Analyzer	KEYSIGHT	N9010B	MY60242467	March 01, 2022	1 Year
ENE-191	Horn antenna	Schwarzbeck	BBHA 9120 D	02588	May 21, 2022	2 Year
ENE-198	Pre-amplifier	JS Denki	PA0118-50	JSPA21022	May 18, 2022	1 Year
ENE-193	Horn antenna	Schwarzbeck	BBHA 9170	01190	May 21, 2022	2 Year
ENE-199	Pre-amplifier	JS Denki	PA1840-55	JSPA21023	May 18, 2022	1 Year
ENE-281-1	RF cable	Rosenberger	LA2-C125-35 00	/	June 01, 2022	1 Year
ENE-281-2	RF cable	Rosenberger	LA2-C125-15 00	/	June 01, 2022	1 Year
ENE-281-3	RF cable	Rosenberger	LU7-C1511-1 200	/	June 01, 2022	1 Year
ENE-285-1	RF cable	Rosenberger	LA2-C199-65 00	/	June 01, 2022	1 Year
ENE-290-1	RF cable	Schwarzbeck	LA1-C006-40 00	/	June 01, 2022	1 Year
ENE-206	High frequency notch filterRf switching	JS Denki	JSDSW-F	202083582	May 27, 2022	1 Year

4. CONDUCTED EMISSIONS FROM THE AC MAINS POWER PORTS

4.1. Block Diagram of Test Setup



AMN: Artificial Mains Network
AE: Associated equipment
EUT: Equipment under test

4.2. Limits

AS/NZS CISPR 32:2015+AMD1:2020, Class B, Table A.10

Frequency (MHz)	Limit (dB μ V)	
	Quasi-peak Level	Average Level
0.15 ~ 0.50	66.0 ~ 56.0 *	56.0 ~ 46.0 *
0.50 ~ 5.00	56.0	46.0
5.00 ~ 30.00	60.0	50.0

NOTE1-The lower limit shall apply at the transition frequencies.
NOTE2-The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.50MHz.

4.3. Test Procedure

The EUT was placed on a desk 0.8 m height from the metal ground plane and 0.4 m from the conducting wall of the shielding room and it was kept at least 0.8 m from any other grounded conducting surface. The size of the table will nominally be 1.5 m x1.0 m.

The rear of the arrangement shall be flush with the back of the supporting tabletop unless that would not be possible or typical of normal use.

All units of equipment forming the system under test (includes the EUT as well as connected peripherals and associated equipment or devices) shall be arranged such that a nominal 0.1 m separation is achieved between the neighboring units.

Connect EUT to the power mains through a artificial mains network (AMN). Where the mains cable supplied by the manufacturer is longer than 1 m, the excess should be folded at the centre into a bundle no longer than 0.4 m, so that its length is shortened to 1 m.

All the support units are connecting to the other AMN.
The AMN provides 50 ohm coupling impedance for the measuring instrument.
The CISPR states that the AMN with 50 ohm and 50 microhenry should be used.
Both sides of AC line were checked for maximum conducted interference.

The frequency range from 150 kHz to 30 MHz was sweep.

Set the test-receiver system to quasi peak detect function and average detect function, and to measure the conducted emissions values.

Test results were obtained from the following equation:
Measurement (dB μ V) = Correct Factor (dB) + Reading (dB μ V)
Over (dB) = Measurement (dB μ V) - Limit (dB μ V)

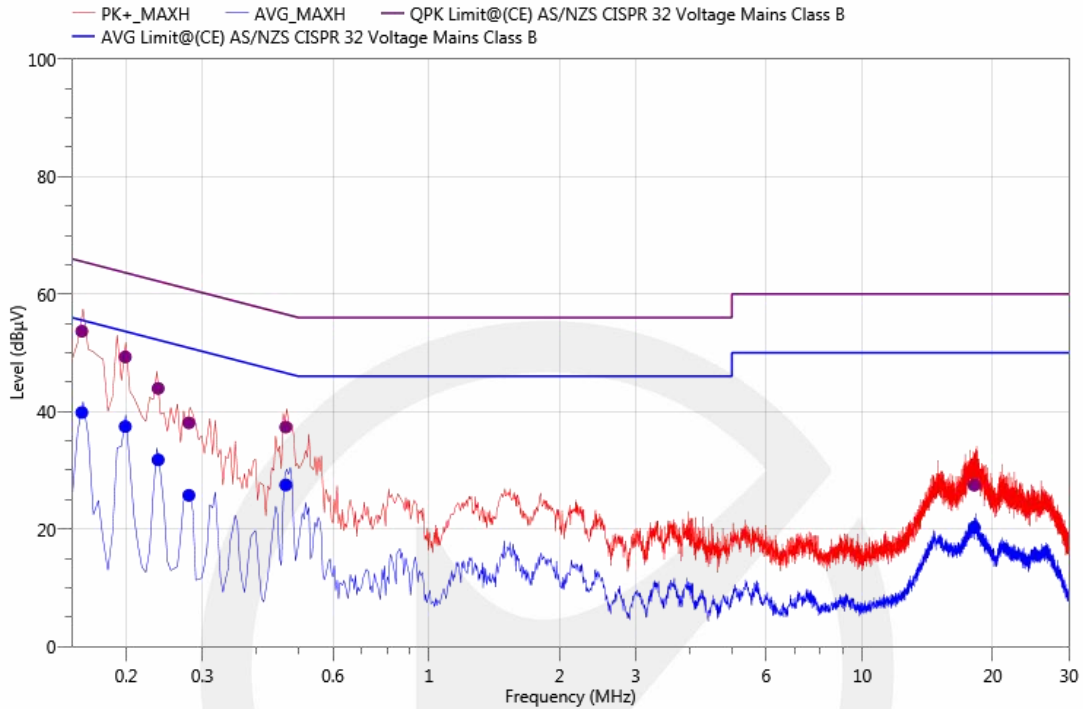
4.4. Measuring Results

Pass.

Please refer to the following pages.

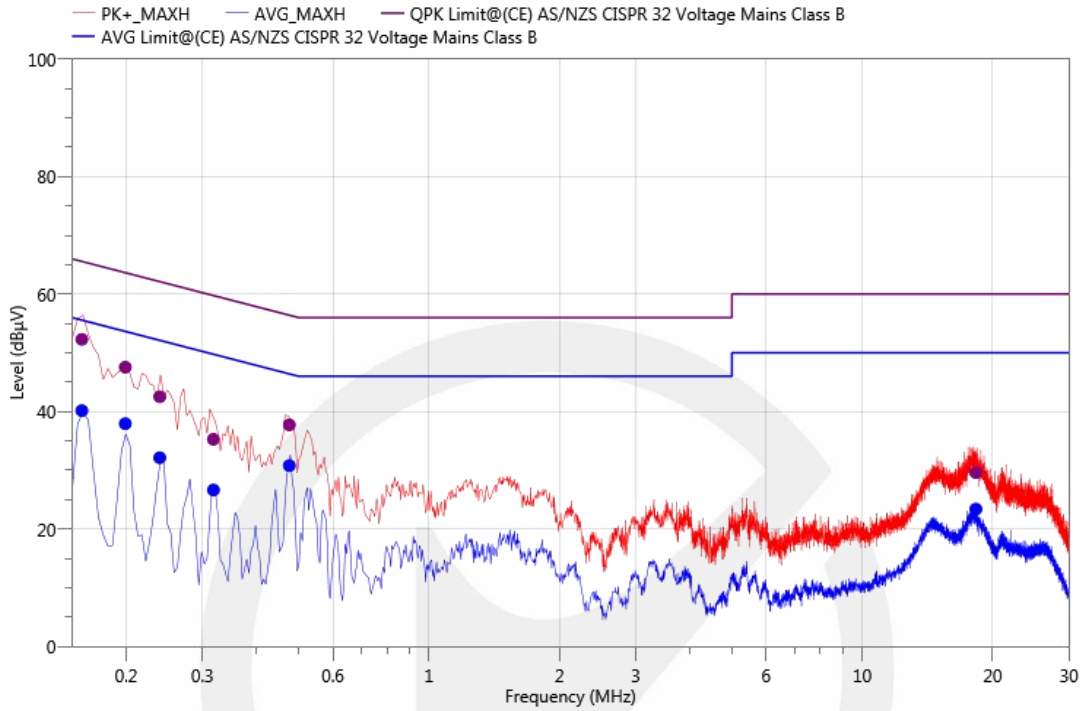


Project Information			
Mode:	WIFI	Voltage:	AC 240V/50Hz
Environment:	Temp: 25°C; Humi:52%	Engineer:	Allen Tang



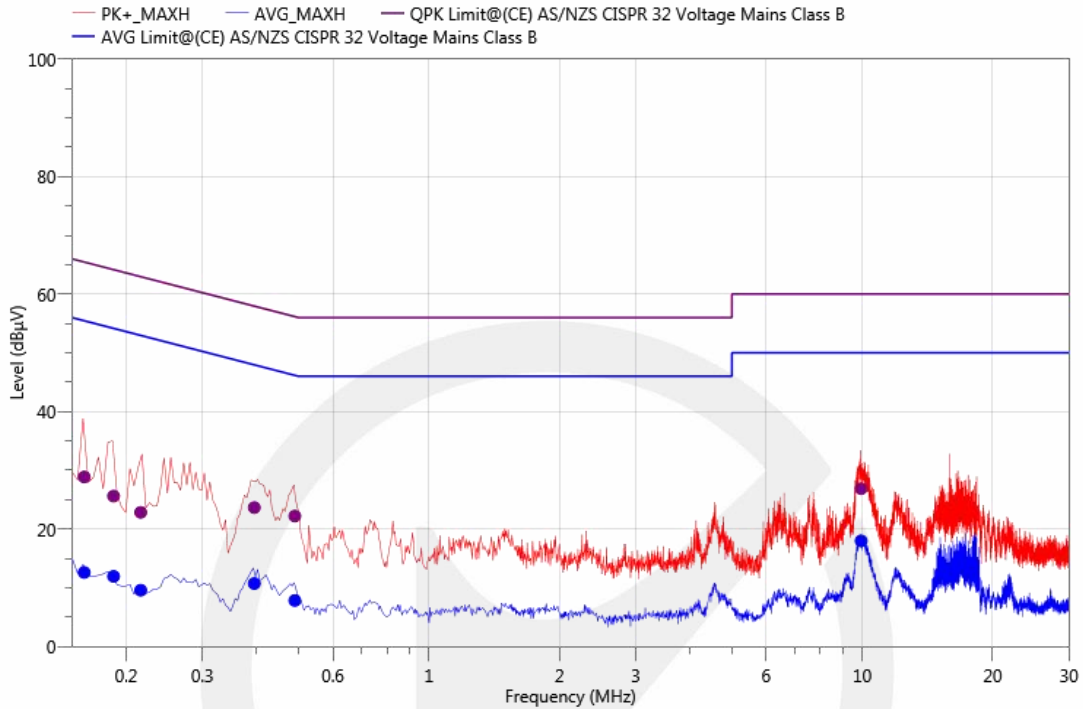
Freq. (MHz)	Reading (dBµV)	Meas. (dBµV)	Limit (dBµV)	Margin (dB)	Det.	Line	PE	Corr. (dB)	Verdict
0.16	43.60	53.68	65.57	11.89	QPK	N	GND	10.08	Pass
0.16	29.75	39.83	55.57	15.74	AVG	N	GND	10.08	Pass
0.20	39.19	49.31	63.65	14.34	QPK	N	GND	10.12	Pass
0.20	27.32	37.44	53.65	16.21	AVG	N	GND	10.12	Pass
0.24	33.81	43.94	62.20	18.26	QPK	N	GND	10.13	Pass
0.24	21.65	31.78	52.20	20.42	AVG	N	GND	10.13	Pass
0.28	27.92	38.07	60.85	22.78	QPK	N	GND	10.15	Pass
0.28	15.58	25.73	50.85	25.12	AVG	N	GND	10.15	Pass
0.47	27.25	37.35	56.57	19.22	QPK	N	GND	10.1	Pass
0.47	17.39	27.49	46.57	19.08	AVG	N	GND	10.1	Pass
18.13	16.34	27.47	60.00	32.53	QPK	N	GND	11.13	Pass
18.13	9.11	20.24	50.00	29.76	AVG	N	GND	11.13	Pass

Project Information			
Mode:	WIFI	Voltage:	AC 240V/50Hz
Environment:	Temp: 25°C; Humi:52%	Engineer:	Allen Tang



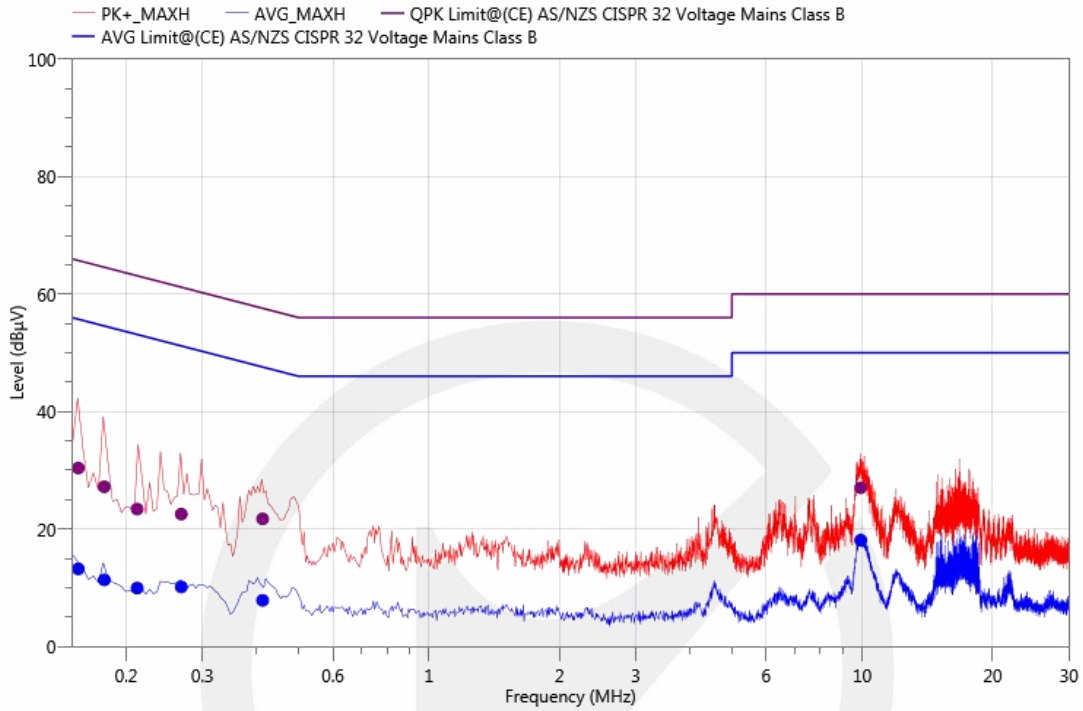
Freq. (MHz)	Reading (dBµV)	Meas. (dBµV)	Limit (dBµV)	Margin (dB)	Det.	Line	PE	Corr. (dB)	Verdict
0.16	42.24	52.30	65.57	13.27	QPK	L1	GND	10.06	Pass
0.16	30.10	40.16	55.57	15.41	AVG	L1	GND	10.06	Pass
0.20	37.42	47.55	63.65	16.1	QPK	L1	GND	10.13	Pass
0.20	27.80	37.93	53.65	15.72	AVG	L1	GND	10.13	Pass
0.24	32.40	42.52	62.13	19.61	QPK	L1	GND	10.12	Pass
0.24	22.01	32.13	52.13	20	AVG	L1	GND	10.12	Pass
0.32	25.08	35.28	59.76	24.48	QPK	L1	GND	10.2	Pass
0.32	16.44	26.64	49.76	23.12	AVG	L1	GND	10.2	Pass
0.48	27.53	37.73	56.41	18.68	QPK	L1	GND	10.2	Pass
0.48	20.59	30.79	46.41	15.62	AVG	L1	GND	10.2	Pass
18.29	18.57	29.60	60.00	30.4	QPK	L1	GND	11.03	Pass
18.29	12.36	23.39	50.00	26.61	AVG	L1	GND	11.03	Pass

Project Information			
Mode:	WIRED	Voltage:	AC 240V/50Hz
Environment:	Temp: 25°C; Humi:52%	Engineer:	Allen Tang



Freq. (MHz)	Reading (dBµV)	Meas. (dBµV)	Limit (dBµV)	Margin (dB)	Det.	Line	PE	Corr. (dB)	Verdict
0.16	18.80	28.86	65.46	36.6	QPK	L1	GND	10.06	Pass
0.16	2.53	12.59	55.46	42.87	AVG	L1	GND	10.06	Pass
0.19	15.49	25.60	64.17	38.57	QPK	L1	GND	10.11	Pass
0.19	1.82	11.93	54.17	42.24	AVG	L1	GND	10.11	Pass
0.22	12.70	22.83	62.97	40.14	QPK	L1	GND	10.13	Pass
0.22	-0.56	9.57	52.97	43.4	AVG	L1	GND	10.13	Pass
0.40	13.12	23.65	57.96	34.31	QPK	L1	GND	10.53	Pass
0.40	0.18	10.71	47.96	37.25	AVG	L1	GND	10.53	Pass
0.49	12.06	22.20	56.17	33.97	QPK	L1	GND	10.14	Pass
0.49	-2.32	7.82	46.17	38.35	AVG	L1	GND	10.14	Pass
9.94	16.15	26.87	60.00	33.13	QPK	L1	GND	10.72	Pass
9.94	7.26	17.98	50.00	32.02	AVG	L1	GND	10.72	Pass

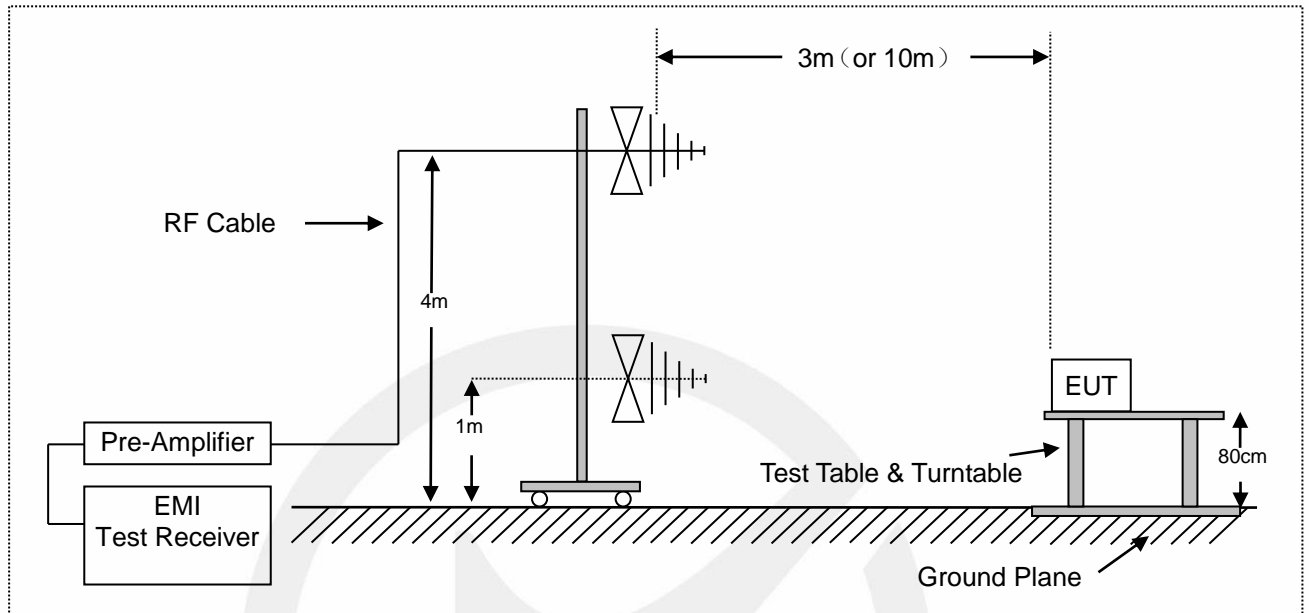
Project Information			
Mode:	WIRED	Voltage:	AC 240V/50Hz
Environment:	Temp: 25°C; Humi:52%	Engineer:	Allen Tang



Freq. (MHz)	Reading (dBµV)	Meas. (dBµV)	Limit (dBµV)	Margin (dB)	Det.	Line	PE	Corr. (dB)	Verdict
0.16	20.30	30.38	65.73	35.35	QPK	N	GND	10.08	Pass
0.16	3.13	13.21	55.73	42.52	AVG	N	GND	10.08	Pass
0.18	17.09	27.19	64.58	37.39	QPK	N	GND	10.1	Pass
0.18	1.23	11.33	54.58	43.25	AVG	N	GND	10.1	Pass
0.21	13.27	23.39	63.13	39.74	QPK	N	GND	10.12	Pass
0.21	-0.19	9.93	53.13	43.2	AVG	N	GND	10.12	Pass
0.27	12.39	22.54	61.18	38.64	QPK	N	GND	10.15	Pass
0.27	-0.02	10.13	51.18	41.05	AVG	N	GND	10.15	Pass
0.41	11.63	21.73	57.59	35.86	QPK	N	GND	10.1	Pass
0.41	-2.25	7.85	47.59	39.74	AVG	N	GND	10.1	Pass
9.92	16.25	27.02	60.00	32.98	QPK	N	GND	10.77	Pass
9.92	7.31	18.08	50.00	31.92	AVG	N	GND	10.77	Pass

5. RADIATED EMISSION MEASUREMENT (UP TO 1GHz)

5.1. Block Diagram of Test Setup



5.2. Radiated Emission Limits

AS/NZS CISPR 32:2015+AMD1:2020, Class B, Table A.4

Frequency range MHz	Measurement			Class B limits dB(μ V/m)
	Facility	Distance (m)	Detector type / bandwidth	
30 to 230	OATS/SAC	10	Quasi Peak / 120 kHz	30
230 to 1 000				37
30 to 230	OATS/SAC	3		40
230 to 1 000				47

5.3. Test Procedure

The EUT was placed on a non-conductive table whose total height equaled 80cm. All units of equipment forming the system under test (includes the EUT as well as connected peripherals and associated equipment or devices) shall be arranged such that a nominal 0.1 m separation is achieved between the neighboring units. Where the mains cable supplied by the manufacturer is longer than 1 m, the excess should be folded at the centre into a bundle no longer than 0.4 m, so that its length is shortened to 1 m.

The EUT was set 3 meters (or 10 meters) away from the receiving antenna that was mounted on a non-conductive mast. The antenna can move up and down between 1 to 4 meters to find out the maximum emission level.

The turntable can rotate 360 degree to determine the position of the maximum emission level.

The initial testing identified the frequency that has the highest disturbance relative to the limit while operating the EUT in typical modes of operation and cable positions in a test setup representative of typical system configuration.

The identification of the frequency of highest emission with respect to the limit was found by investigating emissions at a number of significant frequencies. The probable frequency of maximum emission had been found and that the associated cable and EUT configuration and mode of operation had been identified.

The bandwidth of the Receiver is set at 120 kHz.

Test results were obtained from the following equation:

Measurement (dB μ V) = Correct Factor (dB) + Reading (dB μ V)

Over (dB) = Measurement (dB μ V) - Limit (dB μ V)

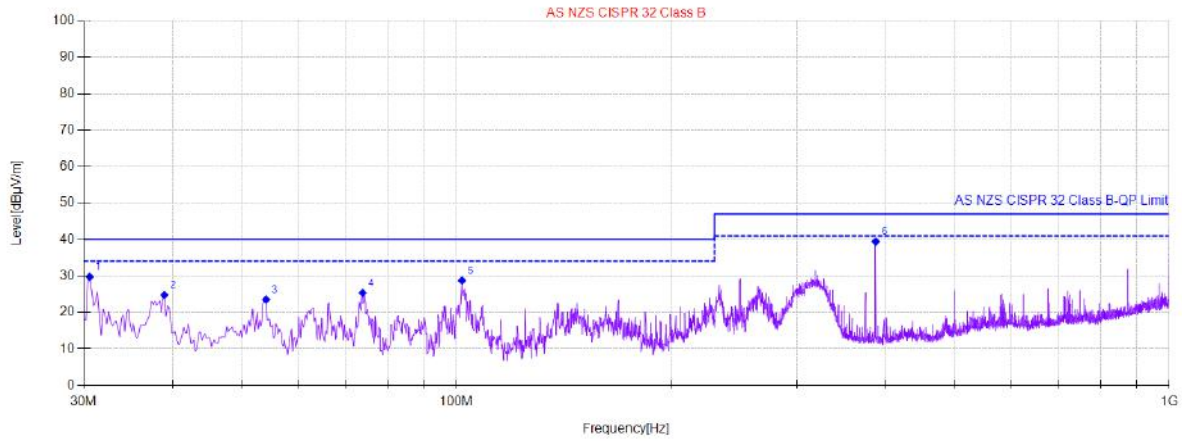
5.4. Measuring Results

Pass.

Please refer to the following pages.

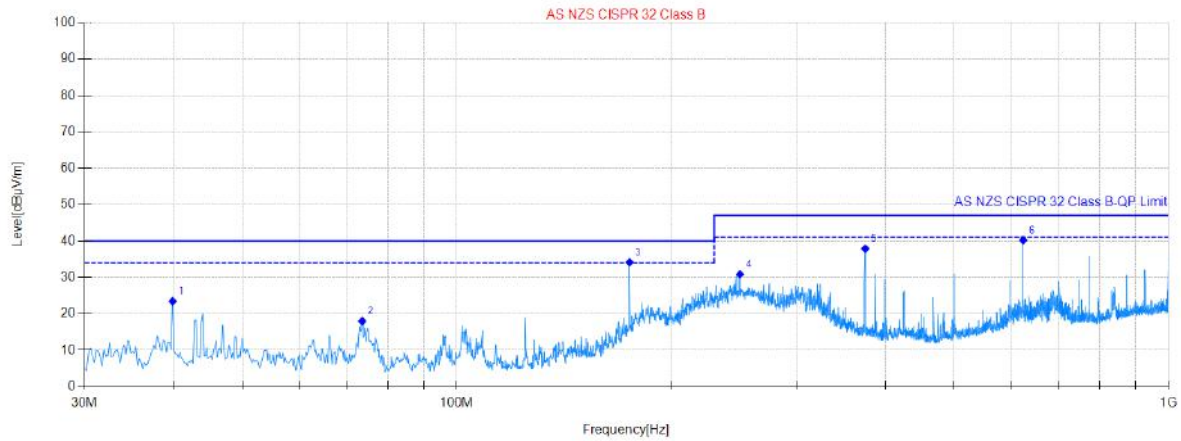


Project Information			
Mode:	WIFI	Voltage:	DC 5V
Environment:	Temp: 16°C Humi:58%	Engineer:	Jackson Xue



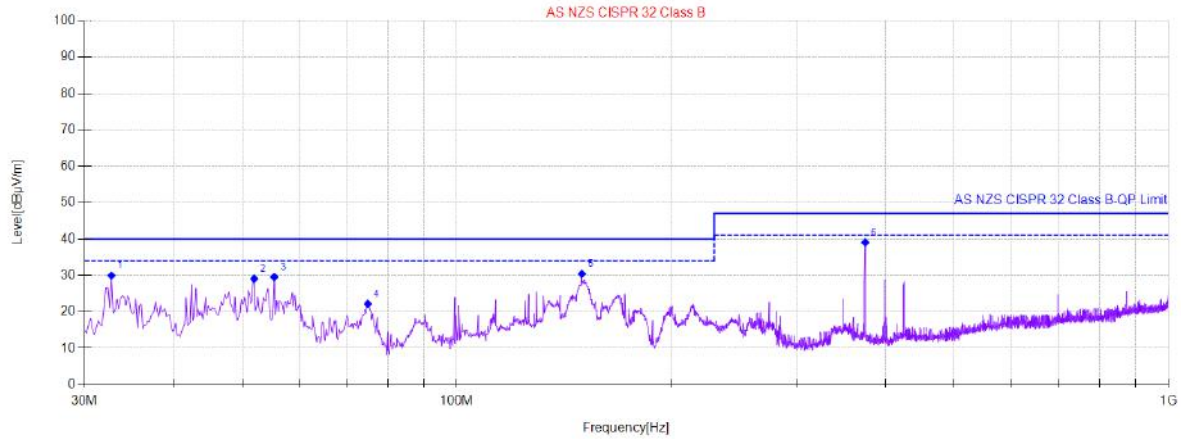
Final Data List										
NO.	Freq. [MHz]	QP Reading [dBµV/m]	Factor [dB]	QP Value [dBµV/m]	QP Limit [dBµV/m]	QP Margin [dB]	Height [cm]	Angle [°]	Polarity	Verdict
1	30.5821	61.09	-31.35	29.74	40.00	10.26	100	339	Vertical	Pass
2	38.9258	55.46	-30.68	24.78	40.00	15.22	100	10	Vertical	Pass
3	54.0608	54.40	-30.89	23.51	40.00	16.49	100	227	Vertical	Pass
4	73.8528	58.38	-33.03	25.35	40.00	14.65	100	292	Vertical	Pass
5	101.794	60.20	-31.46	28.74	40.00	11.26	100	136	Vertical	Pass
6	387.419	65.92	-26.50	39.42	47.00	7.58	100	156	Vertical	Pass

Project Information			
Mode:	WIFI	Voltage:	DC 5V
Environment:	Temp: 16°C Humi:58%	Engineer:	Jackson Xue



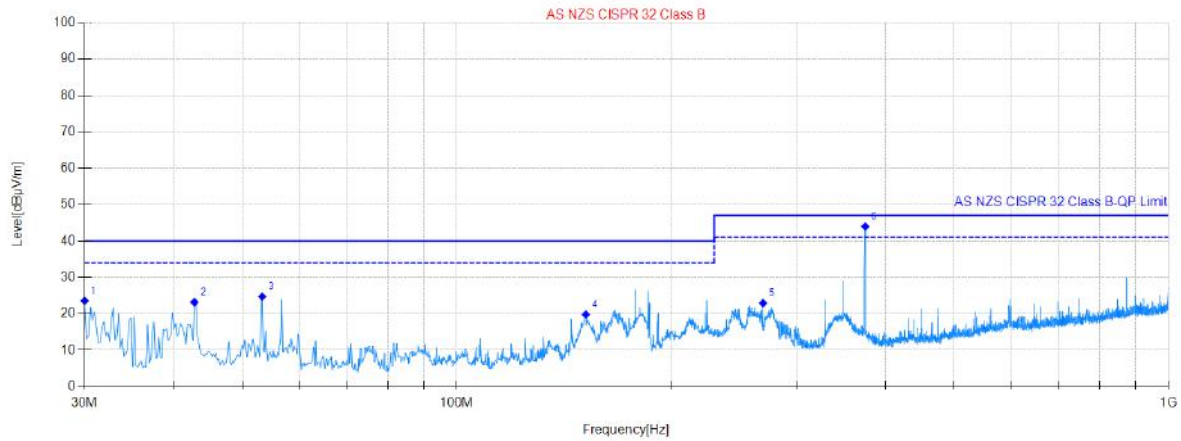
Final Data List										
NO.	Freq. [MHz]	QP Reading [dBµV/m]	Factor [dB]	QP Value [dBµV/m]	QP Limit [dBµV/m]	QP Margin [dB]	Height [cm]	Angle [°]	Polarity	Verdict
1	39.896	54.03	-30.60	23.43	40.00	16.57	100	234	Horizontal	Pass
2	73.6587	50.99	-33.04	17.95	40.00	22.05	100	18	Horizontal	Pass
3	174.947	66.49	-32.32	34.17	40.00	5.83	100	64	Horizontal	Pass
4	250.04	59.62	-28.77	30.85	47.00	16.15	100	269	Horizontal	Pass
5	375.001	64.17	-26.28	37.89	47.00	9.11	100	290	Horizontal	Pass
6	625.117	61.31	-21.08	40.23	47.00	6.77	100	121	Horizontal	Pass

Project Information			
Mode:	WIRED	Voltage:	DC 5V
Environment:	Temp: 16°C Humi:58%	Engineer:	Jackson Xue



Final Data List										
NO.	Freq. [MHz]	QP Reading [dBµV/m]	Factor [dB]	QP Value [dBµV/m]	QP Limit [dBµV/m]	QP Margin [dB]	Height [cm]	Angle [°]	Polarity	Verdict
1	32.7165	61.11	-31.18	29.93	40.00	10.07	100	207	Vertical	Pass
2	51.9264	59.59	-30.52	29.07	40.00	10.93	100	251	Vertical	Pass
3	55.4191	60.65	-31.12	29.53	40.00	10.47	100	152	Vertical	Pass
4	75.017	55.21	-33.02	22.19	40.00	17.81	100	227	Vertical	Pass
5	149.916	63.39	-32.97	30.42	40.00	9.58	100	336	Vertical	Pass
6	375.001	65.34	-26.28	39.06	47.00	7.94	100	264	Vertical	Pass

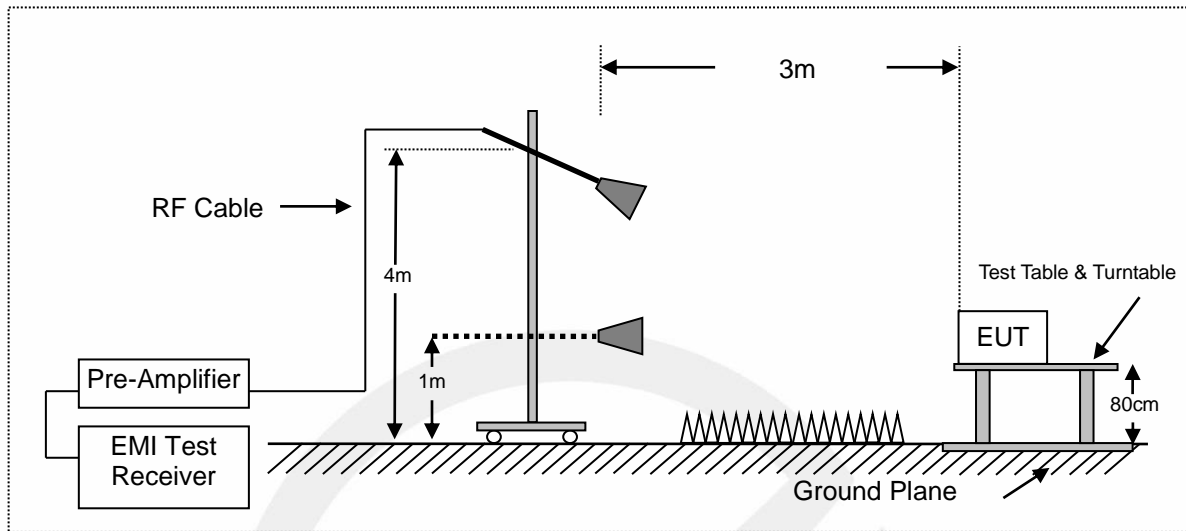
Project Information			
Mode:	WIRED	Voltage:	DC 5V
Environment:	Temp: 16°C Humi:58%	Engineer:	Jackson Xue



Final Data List										
NO.	Freq. [MHz]	QP Reading [dBµV/m]	Factor [dB]	QP Value [dBµV/m]	QP Limit [dBµV/m]	QP Margin [dB]	Height [cm]	Angle [°]	Polarity	Verdict
1	30	54.95	-31.40	23.55	40.00	16.45	100	258	Horizontal	Pass
2	42.8066	53.50	-30.31	23.19	40.00	16.81	100	242	Horizontal	Pass
3	53.2847	55.46	-30.75	24.71	40.00	15.29	100	73	Horizontal	Pass
4	151.856	52.76	-32.97	19.79	40.00	20.21	100	305	Horizontal	Pass
5	269.443	51.77	-28.85	22.92	47.00	24.08	100	204	Horizontal	Pass
6	375.001	70.28	-26.28	44.00	47.00	3.00	100	336	Horizontal	Pass

6. RADIATED EMISSION MEASUREMENT (ABOVE 1GHz)

6.1. Block Diagram of Test Setup



6.2. Radiated Limit

AS/NZS CISPR 32:2015+AMD1:2020, Class B, Table A.5

Frequency range (MHz)	Measurement			Class B limits dB(μ V/m)
	Facility	Distance (m)	Detector type/ bandwidth	
1000 to 3000	FSOATS	3	Average / 1 MHz	50
3000 to 6000				54
1000 to 3000			Peak / 1 MHz	70
3000 to 6000				74

Note: The highest internal source of an EUT is defined as the highest frequency generated or used within the EUT or on which the EUT operates or tunes. If the highest frequency of the internal sources of the EUT is less than 108 MHz, the measurement shall only be made up to 1 GHz. If the highest frequency of the internal sources of the EUT is between 108 MHz and 500 MHz the measurement shall only be made up to 2 GHz. If the highest frequency of the internal sources of the EUT is between 500 MHz and 1 GHz, the measurement shall only be made up to 5 GHz. If the highest frequency of the internal sources of the EUT is above 1 GHz, the measurement shall be made up to 5 times the highest frequency or 6 GHz, whichever is less.

6.3. Test Procedure

The EUT was placed on a non-conductive table whose total height equaled 80cm. All units of equipment forming the system under test (includes the EUT as well as connected peripherals and associated equipment or devices) shall be arranged such that a nominal 0.1 m separation is achieved between the neighboring units. Where the mains cable supplied by the manufacturer is longer than 1 m, the excess should be folded at the centre into a bundle no longer than 0.4 m, so that its length is shortened to 1 m.

The EUT was set 3 meters away from the receiving antenna that was mounted on a non-conductive mast. The antenna can move up and down between 1 to 4 meters to find out the maximum emission level.

The turntable can rotate 360 degree to determine the position of the maximum emission level.

The initial testing identified the frequency that has the highest disturbance relative to the limit while operating the EUT in typical modes of operation and cable positions in a test setup representative of typical system configuration.

The identification of the frequency of highest emission with respect to the limit was found by investigating emissions at a number of significant frequencies. The probable frequency of maximum emission had been found and that the associated cable and EUT configuration and mode of operation had been identified.

The frequency range above 1 GHz the measuring instrument use RBW=1 MHz and VBW=3 MHz.

Test results were obtained from the following equation:

Measurement (dB μ V) =Correct Factor (dB) + Reading (dB μ V)

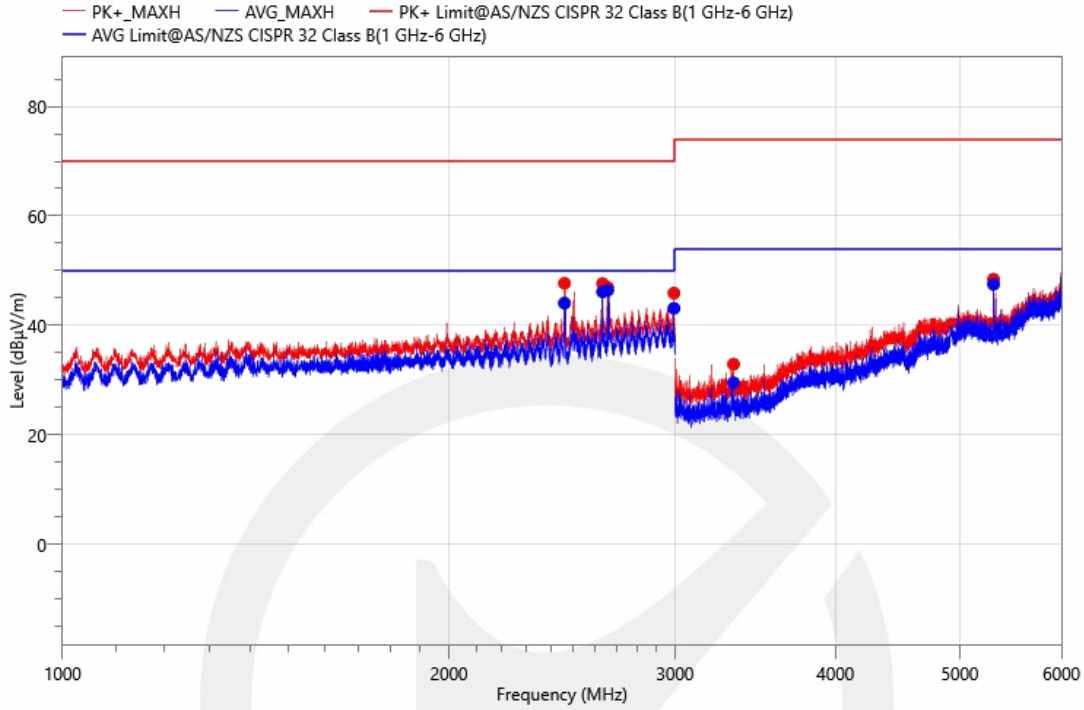
Over (dB) = Measurement (dB μ V) - Limit (dB μ V)

6.4. Measuring Results

Pass.

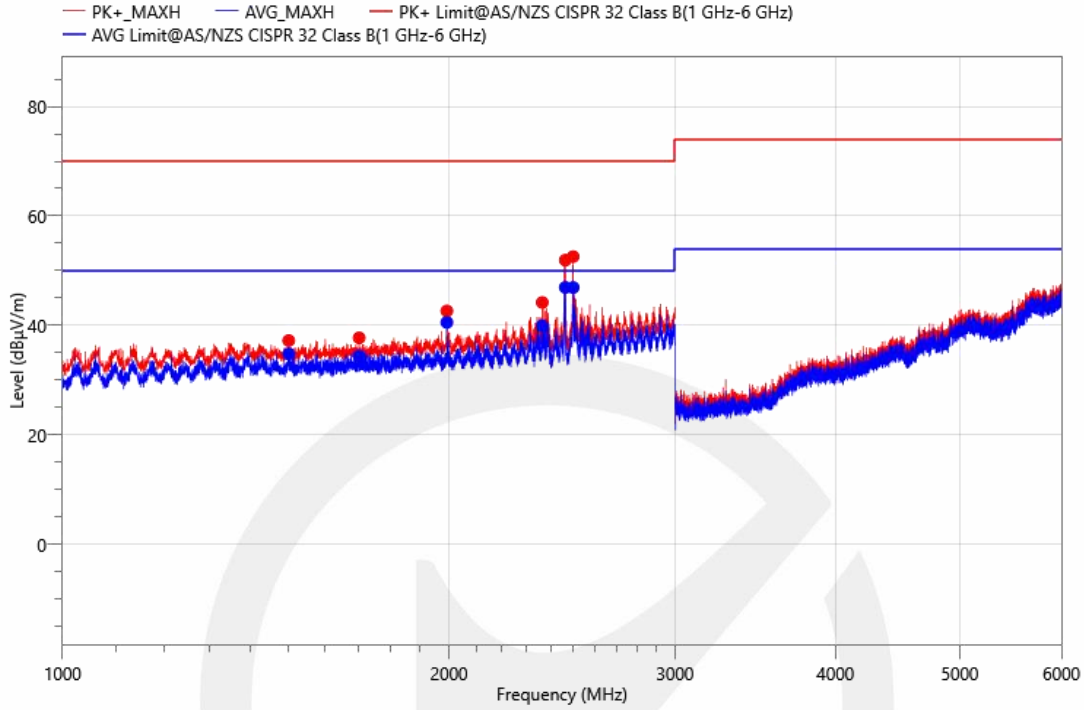
Please refer to the following pages.

Project Information			
Mode:	WIFI	Voltage:	DC 5V
Environment:	Temp: 16°C; Humi:48%	Engineer:	Jackson Xue



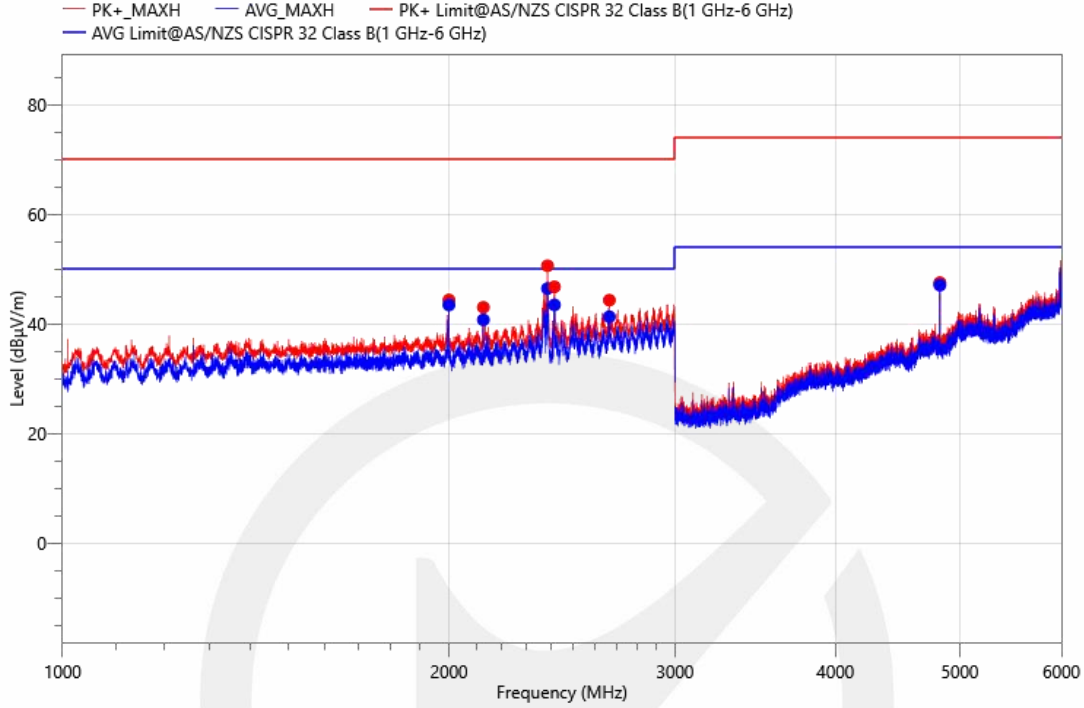
Freq. (MHz)	Reading (dBµV)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dBµV/m)	Det.	Height (cm)	Pol.	Azimuth (deg)	Corr. (dB)	Verdict
2460.00	57.11	47.71	74.00	26.29	PK+	100.0	V	0.0	-9.4	Pass
2460.00	53.47	44.07	54.00	9.93	AVG	100.0	V	0.0	-9.4	Pass
2634.20	56.85	47.66	74.00	26.34	PK+	100.0	V	0.0	-9.19	Pass
2634.20	56.33	47.14	54.00	6.86	AVG	100.0	V	0.0	-9.19	Pass
2658.00	56.10	46.96	74.00	27.04	PK+	100.0	V	0.0	-9.14	Pass
2658.00	55.55	46.41	54.00	7.59	AVG	100.0	V	0.0	-9.14	Pass
2993.80	53.16	45.90	74.00	28.1	PK+	100.0	V	0.0	-7.26	Pass
2993.80	50.38	43.12	54.00	10.88	AVG	100.0	V	0.0	-7.26	Pass
3331.80	45.21	32.91	74.00	41.09	PK+	100.0	V	0.0	-12.3	Pass
3331.80	41.82	29.52	54.00	24.48	AVG	100.0	V	0.0	-12.3	Pass
5311.20	54.52	48.44	74.00	25.56	PK+	100.0	V	0.0	-6.08	Pass
5311.20	53.58	47.50	54.00	6.5	AVG	100.0	V	0.0	-6.08	Pass

Project Information			
Mode:	WIFI	Voltage:	DC 5V
Environment:	Temp: 16°C; Humi:48%	Engineer:	Jackson Xue



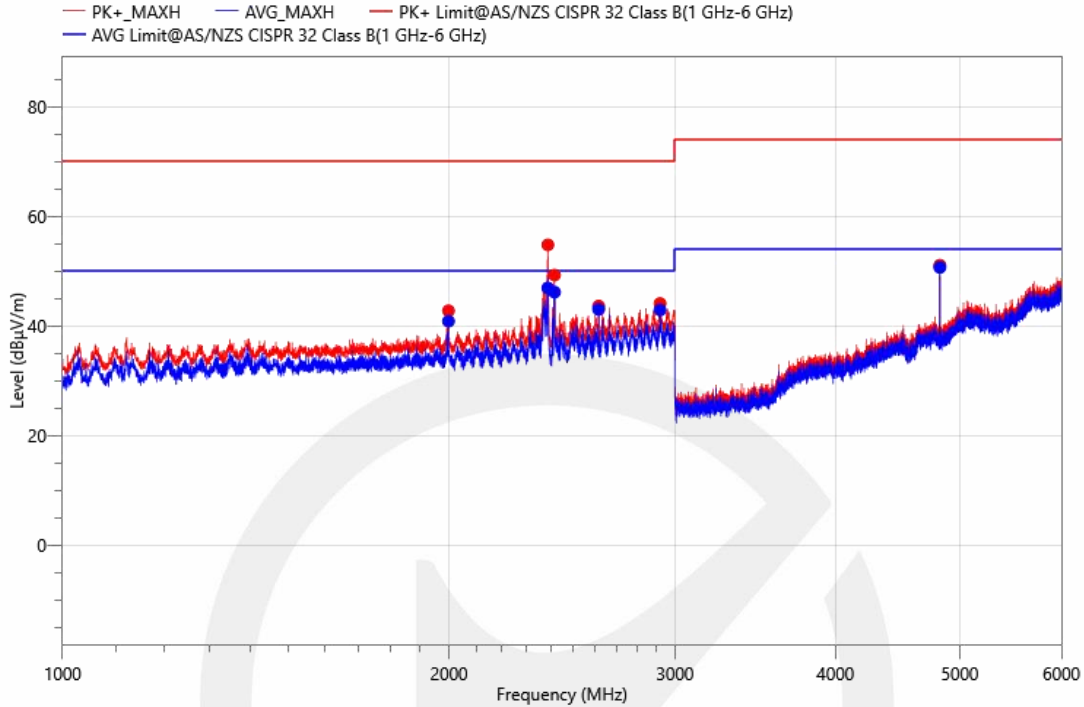
Freq. (MHz)	Reading (dBµV)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dBµV/m)	Det.	Height (cm)	Pol.	Azimuth (deg)	Corr. (dB)	Verdict
1702.20	50.29	37.73	70.00	32.27	PK+	100.0	H	232.1	-12.56	Pass
1702.20	46.98	34.42	50.00	15.58	AVG	100.0	H	232.1	-12.56	Pass
1500.20	50.26	37.23	70.00	32.77	PK+	100.0	H	232.1	-13.03	Pass
1500.20	47.83	34.80	50.00	15.2	AVG	100.0	H	232.1	-13.03	Pass
1992.20	54.12	42.64	70.00	27.36	PK+	100.0	H	232.1	-11.48	Pass
1992.20	52.04	40.56	50.00	9.44	AVG	100.0	H	232.1	-11.48	Pass
2364.00	54.18	44.19	70.00	25.81	PK+	100.0	H	232.1	-9.99	Pass
2364.00	49.94	39.95	50.00	10.05	AVG	100.0	H	232.1	-9.99	Pass
2464.00	61.31	51.93	70.00	18.07	PK+	100.0	H	232.1	-9.38	Pass
2464.00	56.32	46.94	50.00	3.06	AVG	100.0	H	232.1	-9.38	Pass
2498.60	61.83	52.58	70.00	17.42	PK+	100.0	H	232.1	-9.25	Pass
2498.60	56.18	46.93	50.00	3.07	AVG	100.0	H	232.1	-9.25	Pass

Project Information			
Mode:	WIRED	Voltage:	DC 5V
Environment:	Temp: 16°C; Humi:50%	Engineer:	Jackson Xue



Freq. (MHz)	Reading (dBµV)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dBµV/m)	Det.	Height (cm)	Pol.	Azimuth (deg)	Corr. (dB)	Verdict
1999.60	55.81	44.35	70.00	25.65	PK+	150.0	V	0.0	-11.46	Pass
1999.60	54.89	43.43	50.00	6.57	AVG	150.0	V	0.0	-11.46	Pass
2127.00	54.21	43.01	70.00	26.99	PK+	150.0	V	0.0	-11.2	Pass
2127.00	51.93	40.73	50.00	9.27	AVG	150.0	V	0.0	-11.2	Pass
2386.40	60.28	50.59	70.00	19.41	PK+	150.0	V	0.0	-9.69	Pass
2386.40	56.12	46.43	50.00	3.57	AVG	150.0	V	0.0	-9.69	Pass
2416.20	56.35	46.75	70.00	23.25	PK+	150.0	V	0.0	-9.6	Pass
2416.20	53.05	43.45	50.00	6.55	AVG	150.0	V	0.0	-9.6	Pass
2666.40	53.39	44.31	70.00	25.69	PK+	150.0	V	0.0	-9.08	Pass
2666.40	50.37	41.29	50.00	8.71	AVG	150.0	V	0.0	-9.08	Pass
4823.70	54.94	47.51	74.00	26.49	PK+	150.0	V	0.0	-7.43	Pass
4823.70	54.48	47.05	54.00	6.95	AVG	150.0	V	0.0	-7.43	Pass

Project Information			
Mode:	WIRED	Voltage:	DC 5V
Environment:	Temp: 16°C; Humi:50%	Engineer:	Jackson Xue



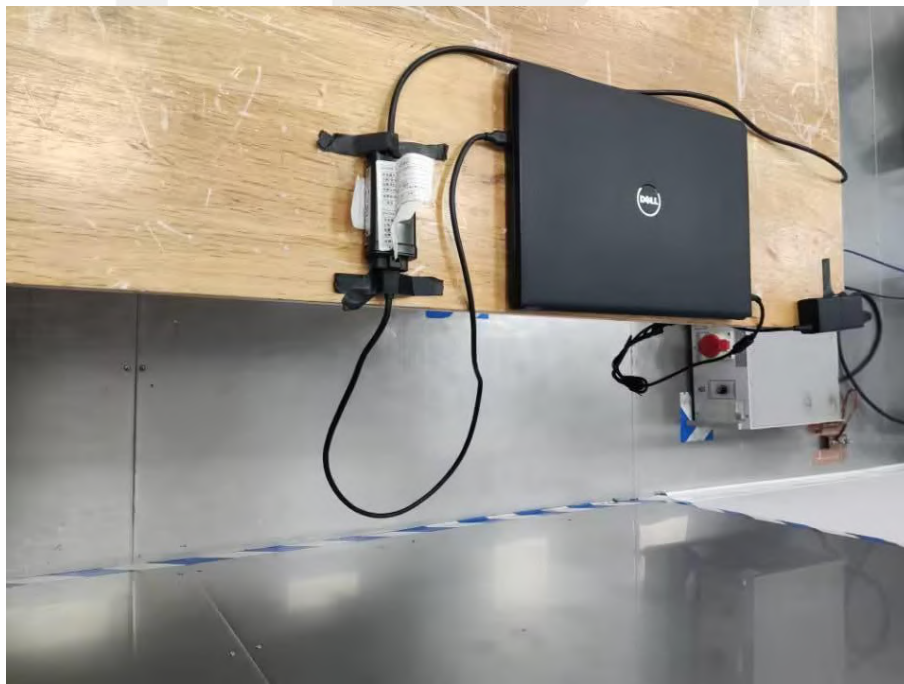
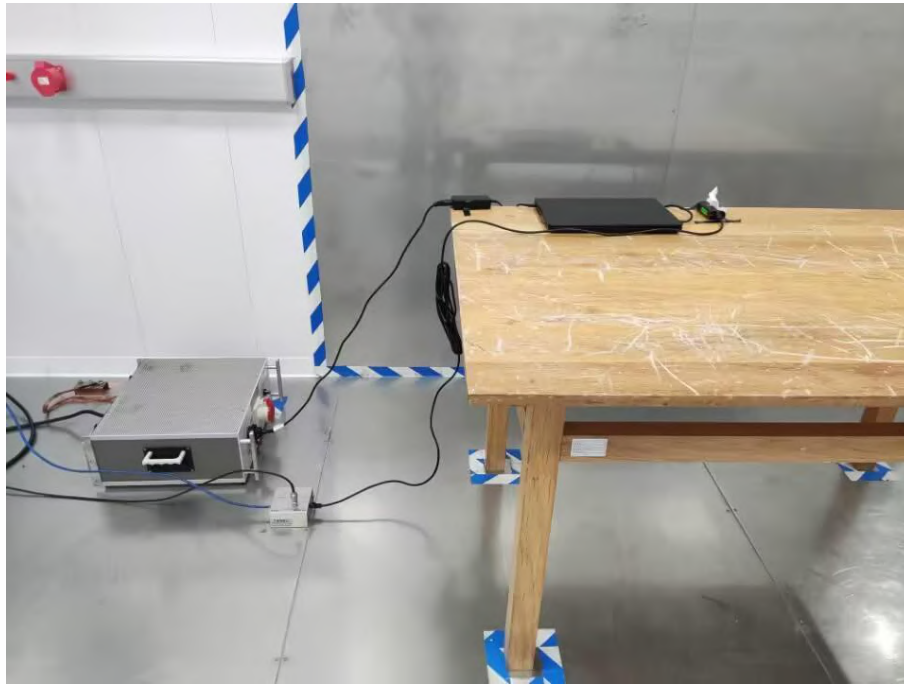
Freq. (MHz)	Reading (dBµV)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dBµV/m)	Det.	Height (cm)	Pol.	Azimuth (deg)	Corr. (dB)	Verdict
1998.00	54.21	42.75	70.00	27.25	PK+	150.0	H	0.2	-11.46	Pass
1998.00	52.30	40.84	50.00	9.16	AVG	150.0	H	0.2	-11.46	Pass
2387.80	64.46	54.77	70.00	15.23	PK+	150.0	H	0.2	-9.69	Pass
2387.80	56.59	46.90	50.00	3.1	AVG	150.0	H	0.2	-9.69	Pass
2416.40	58.85	49.25	70.00	20.75	PK+	150.0	H	0.2	-9.6	Pass
2416.40	55.74	46.14	50.00	3.86	AVG	150.0	H	0.2	-9.6	Pass
2615.60	52.75	43.61	70.00	26.39	PK+	150.0	H	0.2	-9.14	Pass
2615.60	52.13	42.99	50.00	7.01	AVG	150.0	H	0.2	-9.14	Pass
2920.20	51.57	44.08	70.00	25.92	PK+	150.0	H	0.2	-7.49	Pass
2920.20	50.38	42.89	50.00	7.11	AVG	150.0	H	0.2	-7.49	Pass
4824.00	58.48	51.06	74.00	22.94	PK+	150.0	H	0.2	-7.42	Pass
4824.00	58.07	50.65	54.00	3.35	AVG	150.0	H	0.2	-7.42	Pass

7. PHOTOGRAPH

7.1. Photos of Conducted Emissions from the AC Mains Power Ports



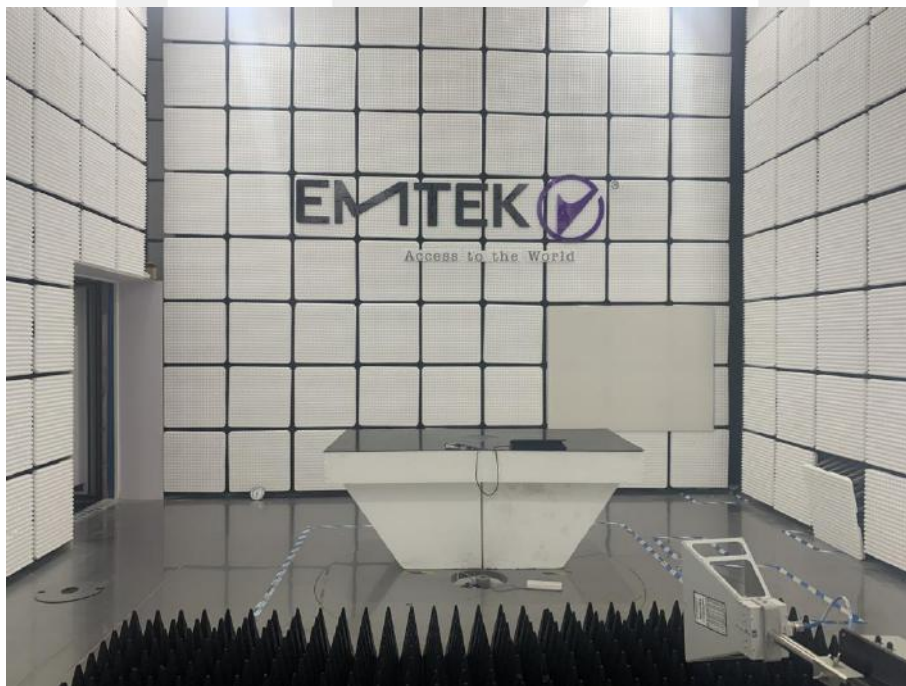
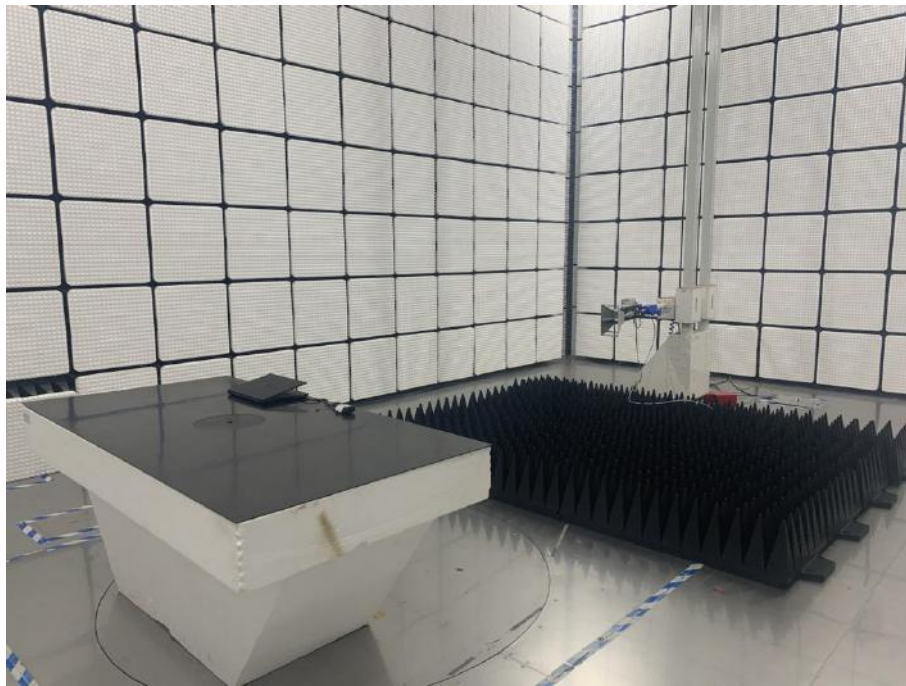
7.2. Photo of Conducted Emissions at Telecommunications/network port Measurement



7.3. Photo of Radiation Emission Measurement (UP TO 1GHz)



7.4. Photo of Radiation Emission Measurement (Above 1GHz)

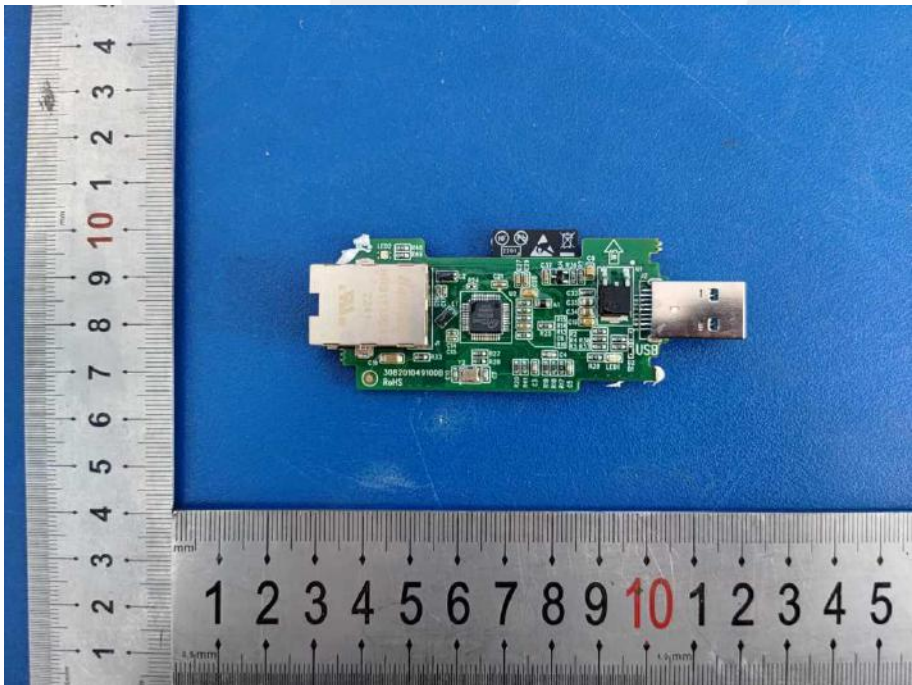




APPENDIX I (Photos of EUT)







*** End of Report ***

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