

TEST REPORT

Report No.....: AB25120059FE01

FCC ID: **2BTWN-A1**

Applicant.....: Shenzhen CND Technology Co., Ltd.

Address.....: 3rd&5th Floor, Building 7, Xinhua Industrial Building, Shekou,
Nanshan District, Shenzhen, Guangdong Province, China

Manufacturer.....: Shenzhen CND Technology Co., Ltd.

Address.....: 3rd&5th Floor, Building 7, Xinhua Industrial Building, Shekou,
Nanshan District, Shenzhen, Guangdong Province, China

Product Name.....: A1 Bi-Directional NDI Converter

Trade Mark.....: 

Model/Type reference.....: A1

Listed Model(s): A1 Plus, A1-s, A1 Pro

Standard.....: FCC Part 15 Subpart B

Date of Receipt.....: 2025.12.08

Date of Test Date.....: 2025.12.08-2025.12.23

Date of issue.....: 2025.12.23

Test result.....: Pass

Compiled by: Huaijie Li
(Printedname+signature)



Supervised by: David Huang
(Printedname+signature)



Approved by: Jay Liu
(Printedname+signature)



Testing Laboratory Name.....: Aibo Standard Technology (Shenzhen) Co., Ltd.

Address.....: 101, Building B, Tuori New Energy Industrial Park, High-tech
Park, Tianliao Community, Yutang Street, Guangming District,
Shenzhen City, Guangdong Province, China

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Aibo Standard Technology (Shenzhen) Co., Ltd.

101, Building B, Tuori New Energy Industrial Park, High-tech Park, Tianliao Community, Yutang Street,
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TEST REPORT

EUT.....	: A1 Bi-Directional NDI Converter
Test Model.....	: A1
Applicant.....	: Shenzhen CND Technology Co., Ltd.
Address.....	: 3rd&5th Floor, Building 7, Xinhua Industrial Building, Shekou, Nanshan District, Shenzhen, Guangdong Province, China
Manufacturer.....	: Shenzhen CND Technology Co., Ltd.
Address.....	: 3rd&5th Floor, Building 7, Xinhua Industrial Building, Shekou, Nanshan District, Shenzhen, Guangdong Province, China

Test Result	Positive
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The test report merely corresponds to the test sample.

It is not permitted to copy extracts of these test result without the written permission of the test laboratory.

TABLE OF CONTENTS

Page

1. TEST SUMMARY	4
1.1. TEST STANDARDS	4
1.2. REPORT VERSION	4
1.3. TEST DESCRIPTION	4
1.4. MEASUREMENT UNCERTAINTY	5
1.5. ENVIRONMENTAL CONDITIONS	5
1.6. DESCRIPTION OF TEST FACILITY	5
2. GENERAL INFORMATION	6
2.1. GENERAL DESCRIPTION OF EUT	6
2.2. DESCRIPTION OF SUPPORT EQUIPMENT	6
2.3. DESCRIPTION OF EXTERNAL I/O	7
2.4. DESCRIPTION OF TEST MODES	7
2.5. MEASUREMENT INSTRUMENTS LIST	8
2.6. TEST SOFTWARE	8
3. EMC EMISSION TEST	9
3.1. CONDUCTED EMISSION MEASUREMENT	9
3.2. RADIATED EMISSION MEASUREMENT	13
4. EUT TEST PHOTO	19
5. PHOTOGRAPHS OF EUT	20

1. TEST SUMMARY

1.1.Test Standards

The tests were performed according to following standards:

[47 CFR FCC Part 15 Subpart B](#): Unintentional Radiators.

[IEEE/ANSI C63.4-2014](#): American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40GHz.

1.2.Report version

Revised No.	Date of issue	Description
01	2025.12.23	Original

1.3.Test Description

Test procedures according to the technical standards:

Test	Standard	Class	Result	Test Engineer
Conducted Emission	FCC Part 15 Section 15.107	Class B	PASS	He Chen
Radiated Emission	FCC Part 15 Section 15.109	Class B	PASS	He Chen

1.4.Measurement Uncertainty

The measurement data show herein meets or exceeds the CISPR measurement uncertainty values specified in CISPR 16-4-2 and can be compared directly to specified limit to determine compliance.

Items	Measurement Uncertainty
Power Line Conducted Emission (9kHz~150kHz)	±3.62dB
Power Line Conducted Emission (150kHz~30MHz)	±3.40dB
Radiated Emission (9kHz~30MHz)	±3.10dB
Radiated Emission (30MHz~1GHz)	±4.90dB
Radiated Emission (1GHz~18GHz)	±3.88dB
Radiated Emission (8GHz~40GHz)	±5.32dB

Note: All measurement uncertainty values are shown with a coverage factor of $k = 2$ to indicate a 95 % level of confidence.

1.5.Environmental conditions

During the measurement the environmental conditions were within the listed ranges:

Normal Temperature:	+15°C ~ +35°C
Lative Humidity	20 % ~ 75 %
Air Pressure	98KPa ~ 101KPa

1.6.DESCRPTION OF TEST FACILITY

Test Lab: Aibo Standard Technology (Shenzhen) Co., Ltd.

Address: 101, Building B, Tuori New Energy Industrial Park, High-tech Park, Tianliao Community, Yutang Street, Guangming District, Shenzhen City, Guangdong Province, China

Tel.: +86 755 85250797

E-mail: aibo@aibonorm.com

Website: www.aibonorm.com

The test facility is recognized, certified, or accredited by the following organizations:

A2LA-Lab Certificate No.: 7514.01

Aibo Standard Technology (Shenzhen) Co., Ltd. has been accredited by A2LA for technical competence in the field of electrical testing, and proved to be in compliance with ISO/IEC 17025 General Requirements for the Competence of Testing and Calibration Laboratories and any additional program requirements in the identified field of testing.

2. GENERAL INFORMATION

2.1.General Description of EUT

Product Name:	A1 Bi-Directional NDI Converter
Trade Mark:	
Model/Type reference:	A1
Listed Model(s)::	A1 Plus, A1-s, A1 Pro
Model Difference:	Power adapter plugs vary for different countries and regions.
Product Description	Based on the application, features, or specification exhibited in User's Manual, More details of EUT technical specification, please refer to the User's Manual.
Power Source	DC 12V/2A
Hardware version:	V1.0
Software version:	1.00.0020

NOTE:

- The EUT was powered by the following adapter:

Adapter	
BRAND:	
MODEL:	FX24U-120200K
INPUT:	100~240V 50/60Hz 0.6A
OUTPUT:	DC 12V 2A

2.2.DESCRPTION OF SUPPORT EQUIPMENT

Description	Manufacturer	Model	Serial Number	Supplied by
Notebook	Lenovo	B470	WB05067151	Applicant
computer monitor	Redmi	P24FBA-RA	ME5MAVF56048X NXX02990	Applicant
Router	NETGEAR	R6220	3XT56BBR00AC4	Applicant
earphones	ClearTone	CT-15	CT15220800154	Applicant
Mainunit	Lenovo	30GK	GMO83050	Applicant
USB flash drive	Samsung Electronics Co., Ltd.	MU-PC1T0H	S3J9NB0T1234567 A	Applicant
Fast Charger	Shenzhen ACT Industrial Co.,Ltd.	APS-KI015AWE-G	---	Applicant
Fast Charger	Shenzhen ACT Industrial Co.,Ltd.	APS-KI016AWE-G	---	Applicant

2.3.DESCRPTION OF EXTERNAL I/O

I/O Port Description	Quantity	Cable
HDMI Interface	3	1.5m, unshielded
RJ45 Ethernet Interface	2	1m,shielded

2.4.Description Of Test Modes

As the function of the EUT, test mode selected to test as below to conform this standard

Test Mode	Description	Test Voltage
1	HDMI 1 input + HDMI output +USB transmission+Mouse+LAN 1+ LAN 2 +Earphone	AC 120V/60Hz
2	HDMI 2 input + HDMI output +USB transmission+Mouse+LAN 1+ LAN 2 +Earphone	AC 120V/60Hz

Pre-scan above all test mode, found below test mode which it was worse case mode, so only show the test data for worse case mode on the test report.

Test item	Worse case operation Test mode
Conducted emission	1
Radiated emission(Above 1GHz)	1
Radiated emission(Below 1GHz)	1

2.5.Measurement Instruments List

Item	Test Equipment	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Until
1	Loop Antenna	Schwarzbeck	FMZB 1519	1519-025	02/19/2025	02/18/2026
2	Power Amplifier	HZEMC	HPA-9K0133	HYP A23029	02/19/2025	02/18/2026
3	Broadband Antenna	Schwarzbeck	VULB 9168	01763	02/19/2025	02/18/2026
4	Attenuator	PRM	ATT50-6-3	ATT50-6-3	01/20/2025	01/19/2026
5	Spectrum Analyzer	R&S	FSV40-N	101365	01/20/2025	01/19/2026
6	Horn Antenna	Schwarzbeck	BBHA 9120 D	02786	02/19/2025	02/18/2026
7	Horn Antenna	Schwarzbeck	ZLB7-18-40G-77	072410839	02/19/2025	02/18/2026
8	Power Amplifier	HZEMC	PA0118-43	HYP A23030	02/19/2025	02/18/2026
9	Power Amplifier	HZEMC	PA01840-45	HYP A23031	02/19/2025	02/18/2026
10	EMI Test Receiver	R&S	ESCI	101196	01/20/2025	01/19/2026
11	LISN	R&S	ENV216	102374	01/20/2025	01/19/2026
12	Pulse Limiter	Schwarzbeck	ESH3-Z2	0357.8810.54	01/20/2025	01/19/2026

2.6.Test software

Test Software		
Software name	Model	Version
Radiated Emission Measurement Software	FASLAB	V4.1
CONDUCTED EMISSION MEASUREMENT	FASLAB	V4.1

3. EMC EMISSION TEST

3.1.CONDUCTED EMISSION MEASUREMENT

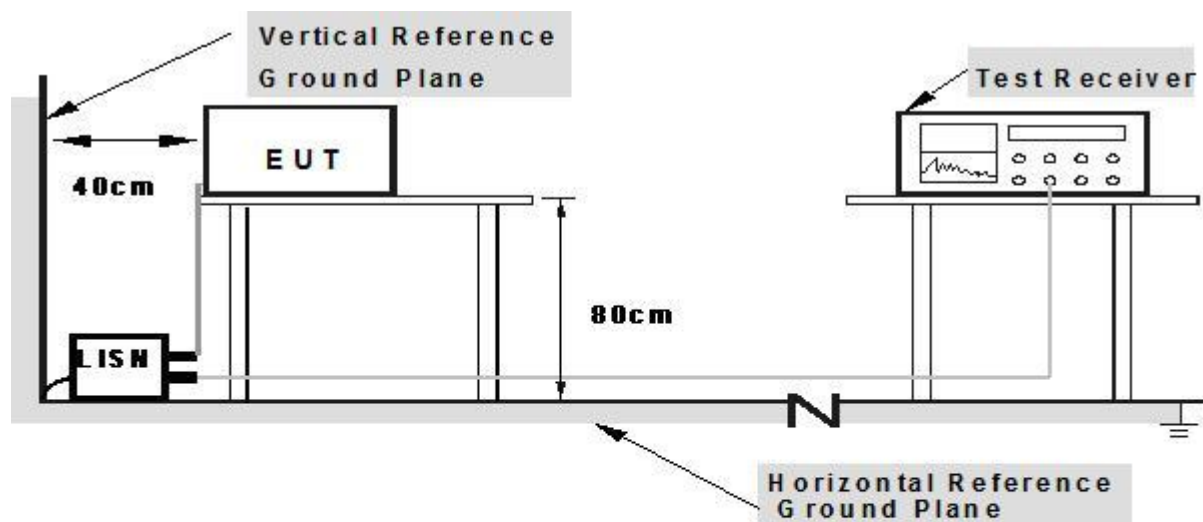
LIMIT

FCC CFR Title 47 Part 15 Subpart Section B 15.107/ IECS-003 Section 6.1

FREQUENCY (MHz)	Class A (dBuV)		Class B (dBuV)	
	Quasi-peak	Average	Quasi-peak	Average
0.15 -0.5	79.00	66.00	66 - 56 *	56 - 46 *
0.50 -5.0	73.00	60.00	56.00	46.00
5.0 -30.0	73.00	60.00	60.00	50.00

* Decreases with the logarithm of the frequency.

TEST SETUP



Note: 1.Support units were connected to second LISN.

2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes

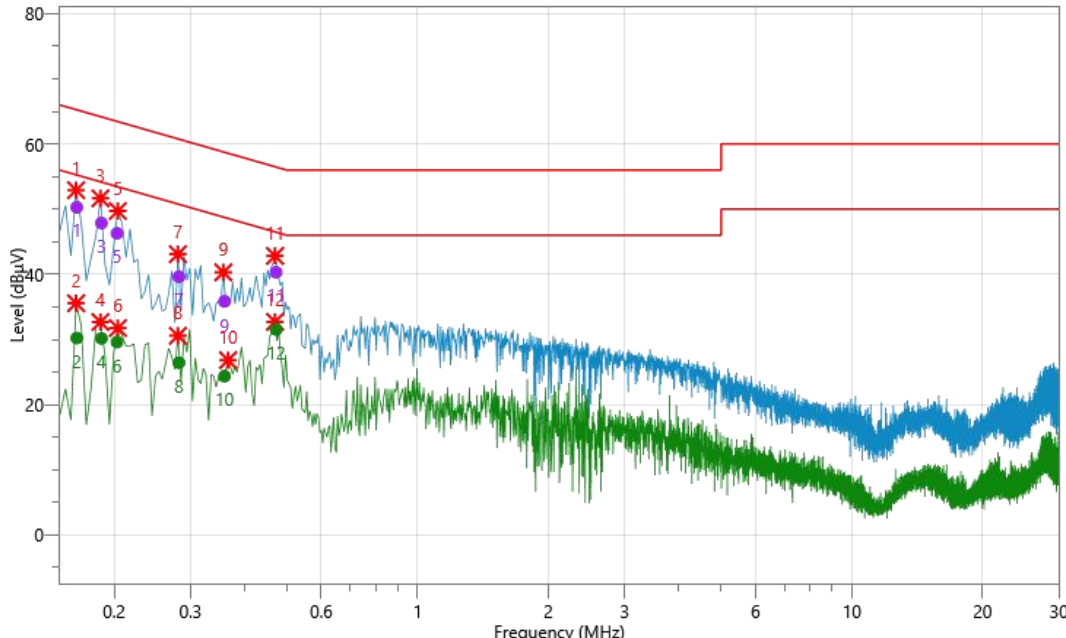
TEST PROCEDURE

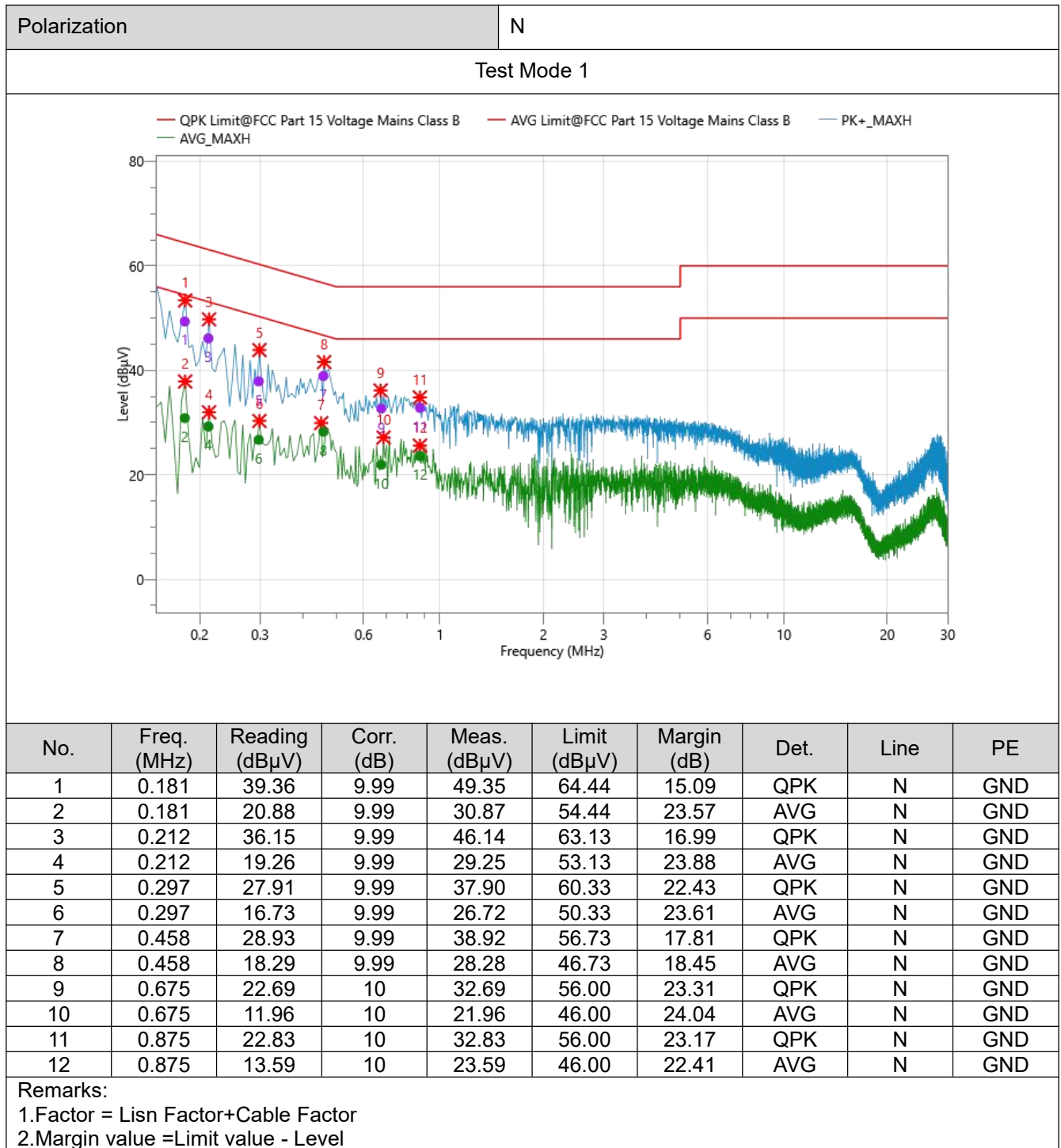
1. The EUT was setup according to ANSI C63.4-2014.
2. The EUT was placed on a platform of nominal size, 1 m by 1.5 m, raised 80 cm above the conducting ground plane. The vertical conducting plane was located 40 cm to the rear of the EUT. All other surfaces of EUT were at least 80 cm from any other grounded conducting surface.
3. The EUT and simulators are connected to the main power through a line impedance stabilization network (LISN). The LISN provides a 50 ohm /50uH coupling impedance for the measuring equipment.
4. The peripheral devices are also connected to the main power through a LISN. (Please refer to the block diagram of the test setup and photographs)
5. Each current-carrying conductor of the EUT power cord, except the ground (safety) conductor, was individually connected through a LISN to the input power source.
6. The excess length of the power cord between the EUT and the LISN receptacle were folded back and forth at the center of the lead to form a bundle not exceeding 40 cm in length.
7. Conducted emissions were investigated over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9 kHz.
8. During the above scans, the emissions were maximized by cable manipulation.

TEST MODE

Please refer to the clause 2.2

TEST RESULTS

Polarization					L				
Test Mode 1									
— QPK Limit@FCC Part 15 Voltage Mains Class B — AVG Limit@FCC Part 15 Voltage Mains Class B — PK+_MAXH — AVG_MAXH 									
No.	Freq. (MHz)	Reading (dBµV)	Corr. (dB)	Meas. (dBµV)	Limit (dBµV)	Margin (dB)	Det.	Line	PE
1	0.164	40.31	9.99	50.30	65.26	14.96	QPK	L1	GND
2	0.164	20.24	9.99	30.23	55.26	25.03	AVG	L1	GND
3	0.187	37.88	9.99	47.87	64.17	16.30	QPK	L1	GND
4	0.187	20.18	9.99	30.17	54.17	24.00	AVG	L1	GND
5	0.203	36.31	9.99	46.30	63.49	17.19	QPK	L1	GND
6	0.203	19.61	9.99	29.60	53.49	23.89	AVG	L1	GND
7	0.282	29.66	9.99	39.65	60.76	21.11	QPK	L1	GND
8	0.282	16.45	9.99	26.44	50.76	24.32	AVG	L1	GND
9	0.359	25.87	9.99	35.86	58.75	22.89	QPK	L1	GND
10	0.359	14.39	9.99	24.38	48.75	24.37	AVG	L1	GND
11	0.472	30.33	9.99	40.32	56.48	16.16	QPK	L1	GND
12	0.472	21.54	9.99	31.53	46.48	14.95	AVG	L1	GND
Remarks: 1.Factor = Lisen Factor+Cable Factor 2.Margin value =Limit value - Level									



3.2.RADIATED EMISSION MEASUREMENT

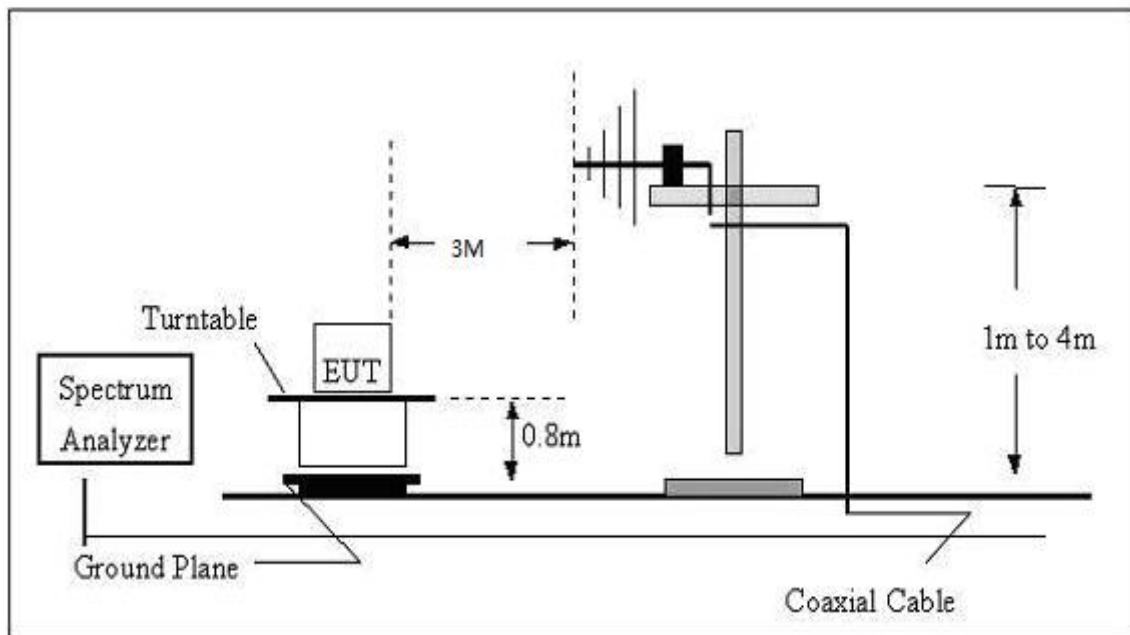
LIMIT

FCC CFR Title 47 Part 15 Subpart B Section 15.109/ IECS-003 Section 6.2:

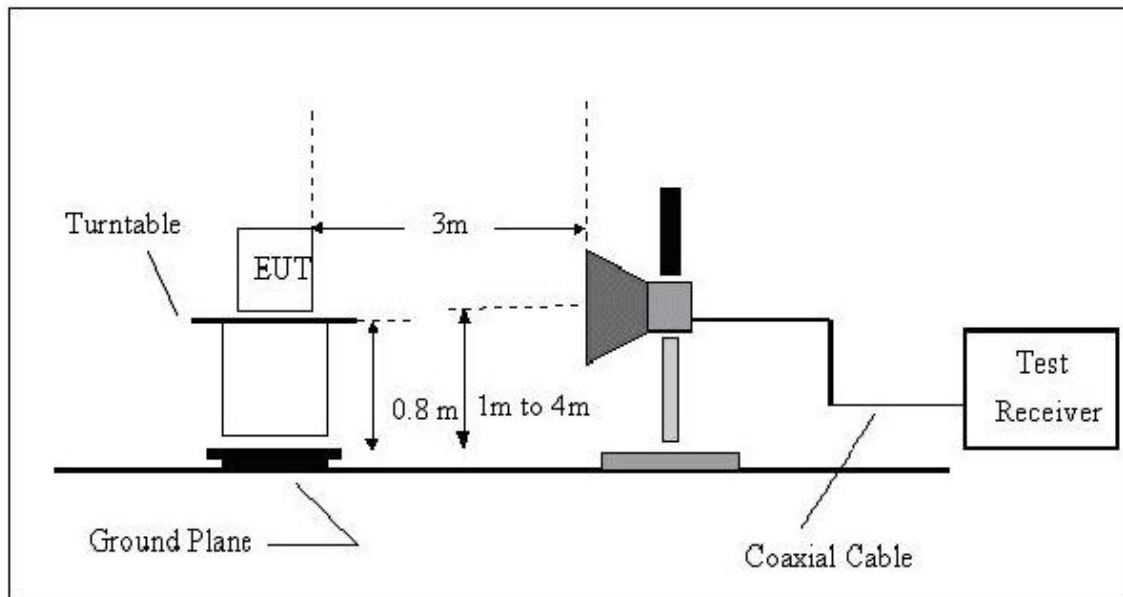
FREQUENCY (MHz)	Class A (at 10m)	Class B (at 3m)	Value
	dBuV/m	dBuV/m	
30 ~ 88	39.0	40.0	Quasi-peak
88 ~ 216	43.5	43.5	Quasi-peak
216 ~ 960	46.5	46.0	Quasi-peak
960 ~1000	49.5	54.0	Quasi-peak
Above 1000	69.5	74	Peak
	49.5	54	Average

TEST SETUP

A Radiated Emission Test Set-Up Frequency below 1 GHz



B Radiated Emission Test Set-Up Frequency above 1GHz



TEST PROCEDURE

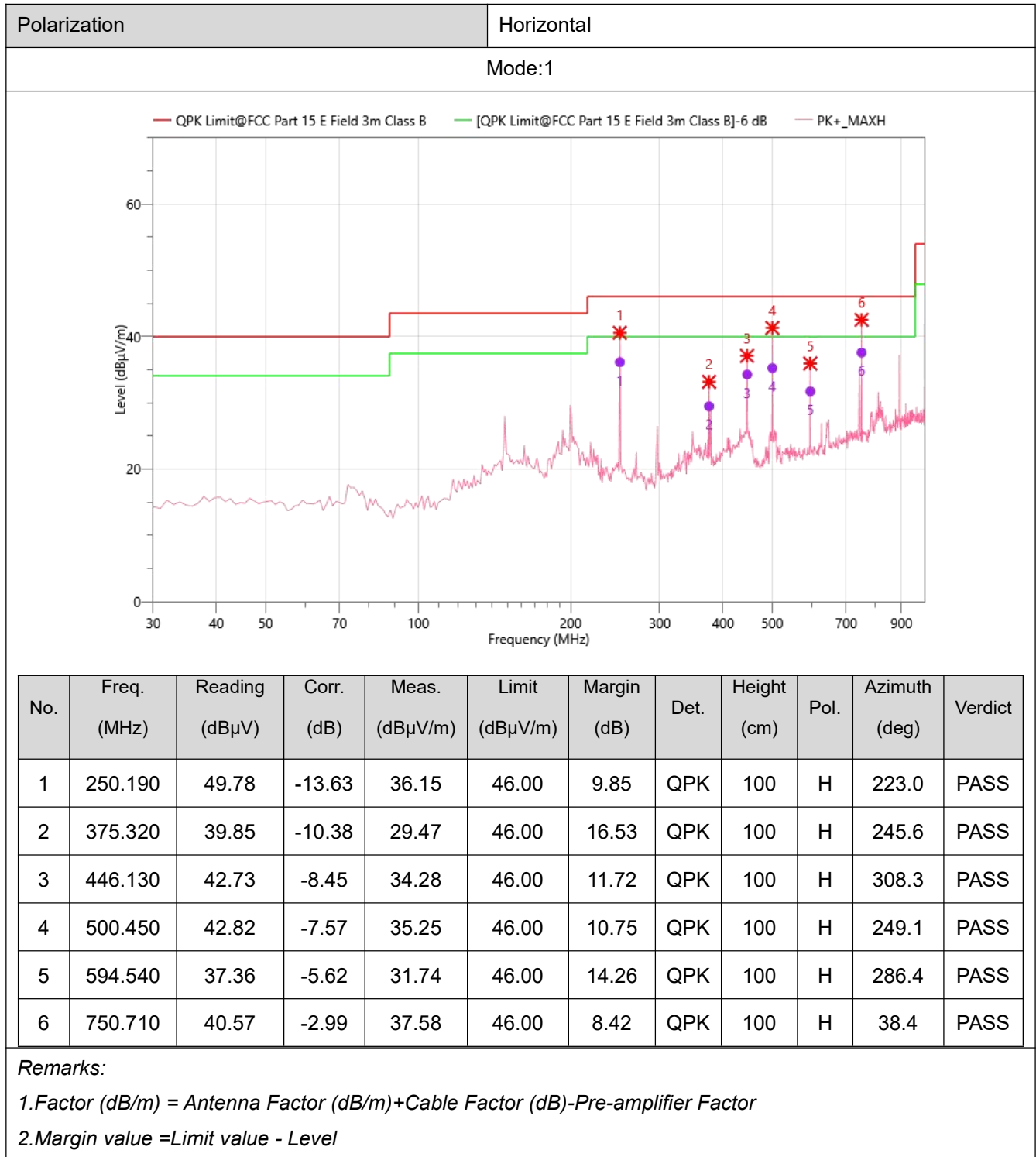
1. The EUT was tested according to ANSI C63.4:2014.
2. The EUT is placed on a turn table which is 0.8 meter above ground. The turn table is rotated 360 degrees to determine the position of the maximum emission level.
3. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.
4. The antenna is scanned from 1 meter to 4 meters to find out the maximum emission level. This is repeated for both horizontal and vertical polarization of the antenna.
5. The initial step in collecting radiated emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured, above 1G Average detector mode will be instead.
6. If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP(AV) Limits and then no additional QP Mode measurement performed.
7. For the actual test configuration, please refer to the related Item –EUT Test Photos.

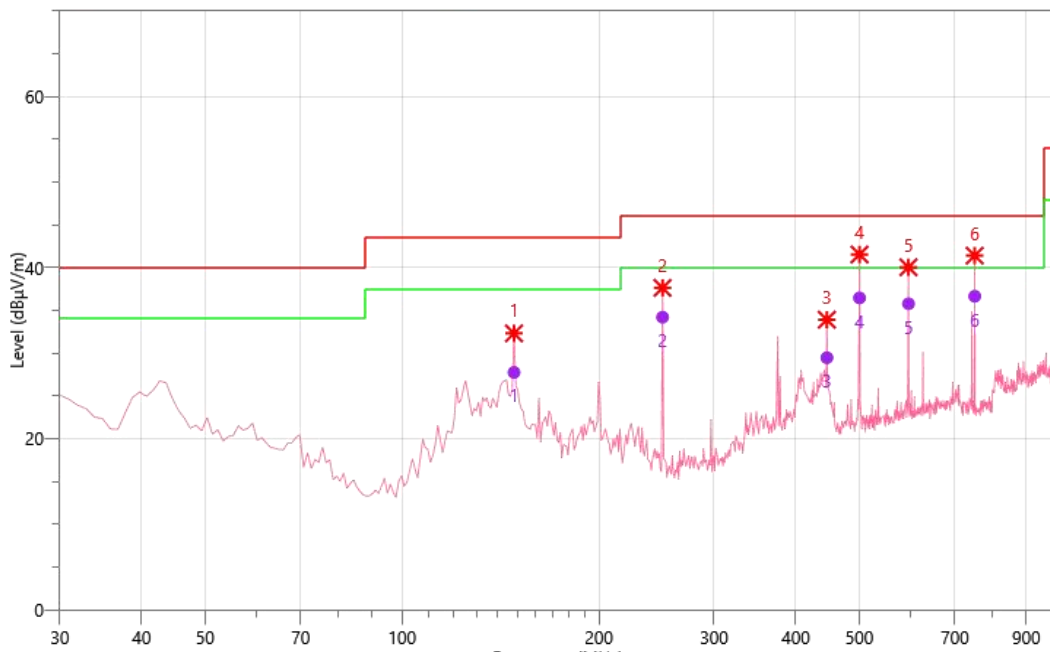
TEST MODE

Please refer to the clause 2.2

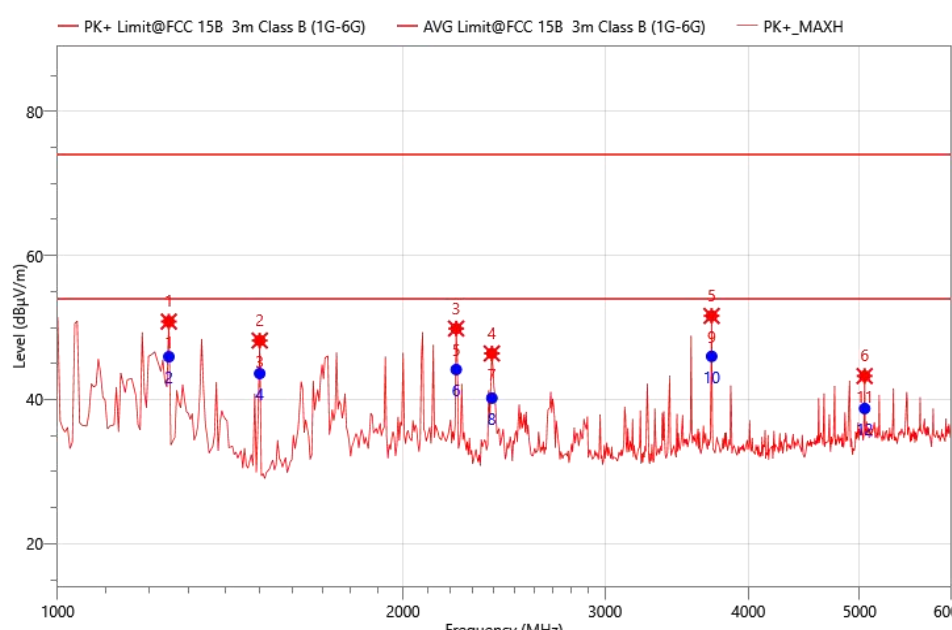
TEST RESULT

30MHz-1GHz



Polarization					Vertical						
Mode:1											
— QPK Limit@FCC Part 15 E Field 3m Class B — [QPK Limit@FCC Part 15 E Field 3m Class B]-6 dB — PK+_MAXH 											
No.	Freq. (MHz)	Reading (dBµV)	Corr. (dB)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Det.	Height (cm)	Pol.	Azimuth (deg)	Verdict
1	148.340	39.80	-12.05	27.75	43.50	15.75	QPK	100	V	144.0	PASS
2	250.190	47.84	-13.63	34.21	46.00	11.79	QPK	100	V	306.8	PASS
3	446.130	37.92	-8.45	29.47	46.00	16.53	QPK	100	V	360.0	PASS
4	500.450	44.04	-7.57	36.47	46.00	9.53	QPK	100	V	137.0	PASS
5	594.540	41.40	-5.62	35.78	46.00	10.22	QPK	100	V	0.0	PASS
6	750.710	39.65	-2.99	36.66	46.00	9.34	QPK	100	V	181.4	PASS
Remarks: 1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor 2.Margin value =Limit value - Level											

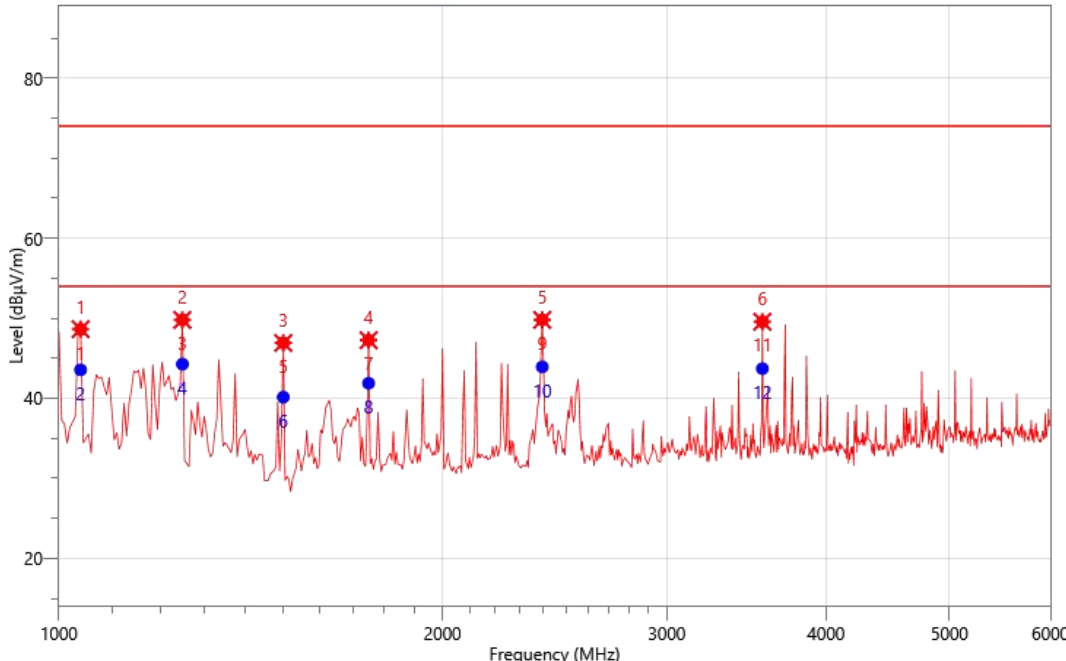
1GHz-6GHz

Polarization					Horizontal						
Test mode 1											
PK+ Limit@FCC 15B 3m Class B (1G-6G) AVG Limit@FCC 15B 3m Class B (1G-6G) PK+_MAXH 											
No.	Freq. (MHz)	Reading (dBµV)	Corr. (dB)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Det.	Height (cm)	Pol.	Azimuth (deg)	Verdict
1	1250.000	75.98	-25.15	50.83	74.00	23.17	PK+	100	H	157.5	PASS
2	1250.000	71.10	-25.15	45.95	54.00	8.05	AVG	100	H	157.5	PASS
3	1500.000	73.14	-24.94	48.20	74.00	25.80	PK+	100	H	359.2	PASS
4	1500.000	68.56	-24.94	43.62	54.00	10.38	AVG	100	H	359.2	PASS
5	2225.000	71.24	-21.38	49.86	74.00	24.14	PK+	100	H	159.6	PASS
6	2225.000	65.55	-21.38	44.17	54.00	9.83	AVG	100	H	159.6	PASS
7	2390.000	68.24	-21.83	46.41	74.00	27.59	PK+	100	H	72.9	PASS
8	2390.000	62.04	-21.83	40.21	54.00	13.79	AVG	100	H	72.9	PASS
9	3715.000	69.47	-17.86	51.61	74.00	22.39	PK+	100	H	197.7	PASS
10	3715.000	63.86	-17.86	46.00	54.00	8.00	AVG	100	H	197.7	PASS
11	5050.000	56.59	-13.32	43.27	74.00	30.73	PK+	100	H	136.4	PASS
12	5050.000	52.08	-13.32	38.76	54.00	15.24	AVG	100	H	136.4	PASS

Remarks:

1.Factor = Antenna Factor +Cable Factor-Pre-amplifier Factor

2.Margin value =Limit value - Level

Polarization					Vertical						
Test mode 1											
— PK+ Limit@FCC 15B 3m Class B (1G-6G) — AVG Limit@FCC 15B 3m Class B (1G-6G) — PK+_MAXH 											
No.	Freq. (MHz)	Reading (dBµV)	Corr. (dB)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Det.	Height (cm)	Pol.	Azimuth (deg)	Verdict
1	1040.000	74.95	-26.31	48.64	74.00	25.36	PK+	100	V	0.6	PASS
2	1040.000	69.87	-26.31	43.56	54.00	10.44	AVG	100	V	0.6	PASS
3	1250.000	74.94	-25.15	49.79	74.00	24.21	PK+	100	V	308.2	PASS
4	1250.000	69.42	-25.15	44.27	54.00	9.73	AVG	100	V	308.2	PASS
5	1500.000	71.86	-24.94	46.92	74.00	27.08	PK+	100	V	129.9	PASS
6	1500.000	65.09	-24.94	40.15	54.00	13.85	AVG	100	V	129.9	PASS
7	1750.000	71.81	-24.55	47.26	74.00	26.74	PK+	100	V	177.2	PASS
8	1750.000	66.43	-24.55	41.88	54.00	12.12	AVG	100	V	177.2	PASS
9	2395.000	71.63	-21.83	49.80	74.00	24.20	PK+	100	V	273.0	PASS
10	2395.000	65.75	-21.83	43.92	54.00	10.08	AVG	100	V	273.0	PASS
11	3565.000	68.41	-18.84	49.57	74.00	24.43	PK+	100	V	261.7	PASS
12	3565.000	62.55	-18.84	43.71	54.00	10.29	AVG	100	V	261.7	PASS
Remarks:											
1.Factor = Antenna Factor +Cable Factor-Pre-amplifier Factor											
2.Margin value =Limit value - Level											

4. EUT TEST PHOTO

Please refer to separated files Appendix A for Photographs of The TEST PHOTO.

5. PHOTOGRAPHS OF EUT

Please refer to separated files Appendix B and Appendix C for Photographs of The EUT.

*****THE END*****