FCC Test Report

Applicant	:	**Alliance Sports Group., LP**
Address	:	**700 Henrietta Creek Rd. Roanoke, TX 76262, Roanoke, Texas 76262 United States**
Product Name	:	**POWER STATION**
Report Date	:	**Sept. 26, 2023**

Shenzhen Anbotek Compliance Laboratory Limited

Contents

TEST REPORT

Applicant	:	Alliance Sports Group., LP
Manufacturer	:	Huizhou Intelligent Energy Co., Ltd.
Product Name	:	POWER STATION
Test Model No.	:	NP2400PS
Reference Model No.	:	N/A
Trade Mark	:	NEBO
Rating(s)	:	Please see page 6.

Test Standard(s)	**:**	**FCC Part15 Subpart C, Paragraph 15.209**
Test Method(s)	**:**	**ANSI C63.10: 2020**

The device described above is tested by Shenzhen Anbotek Compliance Laboratory Limited 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 Shenzhen Anbotek Compliance Laboratory Limited 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 FCC Part 15 Subpart C requirements.

This report applies to above tested sample only and shall not be reproduced in part without written approval of Shenzhen Anbotek Compliance Laboratory Limited.

Date of Receipt	Aug. 14, 2023
Date of Test	Aug. 14 ~ 30, 2023

Prepared By

Nian xiu Chen

(Nianxiu Chen)

Approved & Authorized Signer

Edward pan

(Edward Pan)

Revision History

Report Version	Description	Issued Date
R00	Original Issue.	Sept. 26, 2023

1. General Information

1.1. Client Information

Applicant	:	Alliance Sports Group., LP
Address	:	700 Henrietta Creek Rd. Roanoke, TX 76262, Roanoke, Texas 76262 United States
Manufacturer	:	Huizhou Intelligent Energy Co., Ltd.
Address	:	8-9/F, Bldg.E2, Qunyi Industrial Park, Sanhe Avenue, Tonghu Town, Zhongkai High-tech Zone, HuiZhou, China
Factory	:	Huizhou Intelligent Energy Co., Ltd.
Address	:	8-9/F, Bldg.E2, Qunyi Industrial Park, Sanhe Avenue, Tonghu Town, Zhongkai High-tech Zone, HuiZhou, China

1.2. Description of Device (EUT)

Product Name	:	POWER STATION
Test Model No.	:	NP2400PS
Reference Model No.	:	N/A
Trade Mark	:	NEBO
Test Power Supply	:	AC 120V, 60Hz
Test Sample No.	:	1-2-1(Normal Sample), 1-2-2(Engineering Sample)
Adapter	:	N/A
RF Specification		
Operation Frequency	:	110.1-205kHz
Modulation Type	:	ASK
Antenna Type	:	Inductive loop coil Antenna
Antenna Gain(Peak)	:	0 dBi (Provided by customer)
Remark: 1) For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.		

Rating(s):


NEBO PINNACLE™ 2400 POWER STATION
• Model: NP2400PS
• SKU: NEB-PST-0006
• Battery Energy: 1843.2Wh 51.2V
• Solar Input: 12-75VDC 25A 800W max
• AC Input: 100-130VAC/10A 60Hz, 1200W max
• Total AC and DC Input: 1200W max
• AC Socket(x4) Output: 120VAC 60Hz 2400W, Total: 2400W max
• USB-C(x2) Output: (5V/9V/12V/15V/20V) ⎓3A, 20V⎓5A 100W each port, Total: 200W
• USB-A(x2) Output: 5V⎓3A/9V⎓2A/12V⎓1.5A 18W each port, Total: 36W
• DC 5521(x2)+DC Power Socket 12V⎓10A, Total: 120W max
• LED lighting output: 5W max
• Wireless Output: 10W Total DC Output: 366W
• Total AC and DC Output: 2640W max
• Charge Temperature: 32-104°F(0-40°C)
• Discharge Temperature: 14-104°F(-10-40°C)
• Working Humidity: 10%~85%
• Date Code:
This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
FCC ID: 2BASYNP2400PS
MADE IN CHINA
Li-ion
Intertek
5027483
CONFORMS TO ANSI/CAN/UL STD.2743
⚠ CAUTION!
• Risk of electric shock. Do not remove cover.
• No user serviceable parts inside. Refer servicing to qualified service personnel.
• Risk of Injury to persons. Do not use this product if the power cord or the battery cables are damaged in any way.
• This device is not intended for use in a commercial repair facility.
WARNING!
• Do not overcharge the internal battery. See Instruction Manual.
• Do not smoke, strike a match, or cause a spark in the vicinity of the power pack.
• Only charge the internal battery in a well ventilated area.
• Risk of Electric shock and risk of fire.
DANGER!
• This device is intended to be used indoors only. Do not use outdoors.
⚠ MISE EN GARDE!
• Risque de décharge électrique. Ne pas enlever le couvercle.
• Aucune des pièces à l'inténeur ne peut être réparée par l'utilisateur. L'entretien courant doit être effectué par un personnel d'entretien qualifié.
• Risque de blessure aux personnes. Ne pas utiliser ce produit si le cordon d'alimentation ou les câbles de batterie sontendommagés de quelque façon.
• Le dispositif n'est pas destiné à être utilisé dans un atelier de réparation commercial.
AVERTISSEMENT!
• Ne pas surcharger la batterie interne. Consulter le manuel d'utilisation.
• Il ne faut pas fumer, allumer une allumette ou produire des étincelles à proximité du bloc d'alimentation.
• Charger la batterie uniquement dans un endroit bien aéré.
• Risques de déchargeélectrique et d'incendie.
DANGER!
• Le dispositif est destiné à être utilisé à l'intérieur seulement. Ne pas l'utiliser à l'extérieur.
H2400IM V1.0.03 / 3.06.04.0557

1.3. Auxiliary Equipment Used During Test

Description	Rating(s)
Wireless charging load	Manufacturer: Shenzhen Ouju Technology Co., Ltd. M/N: CD2577 Power: 5W/7.5W/10W/15W

1.4. Description of Test Modes

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

Pretest Mode	Description
Mode 1	Charging & Wireless Charging Mode

For Conducted Emission	
Final Test Mode	Description
Mode 1	Charging & Wireless Charging Mode

For Radiated Emission	
Final Test Mode	Description
Mode 1	Charging & Wireless Charging Mode

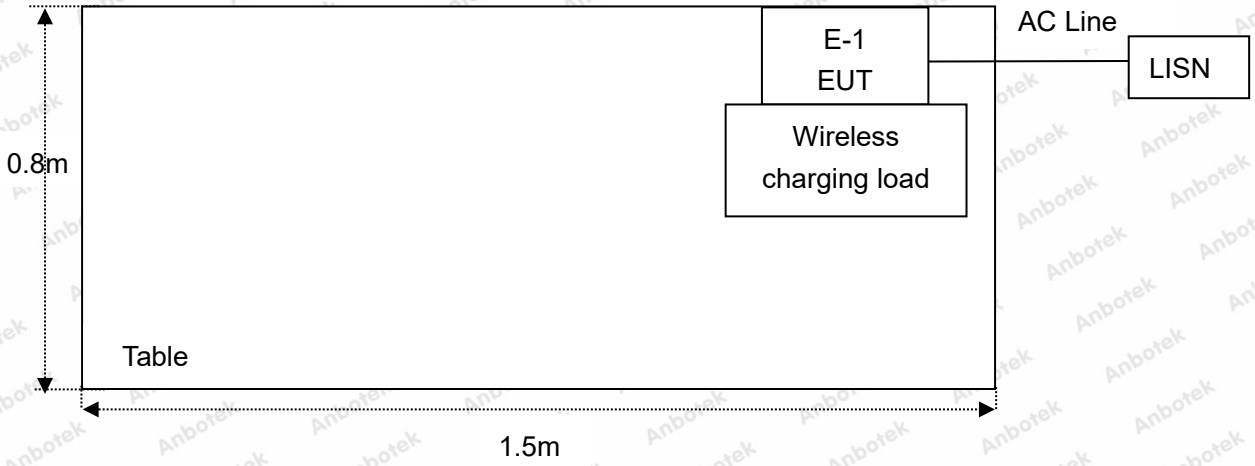
Note:

(1) Test channel is 0.1483MHz.

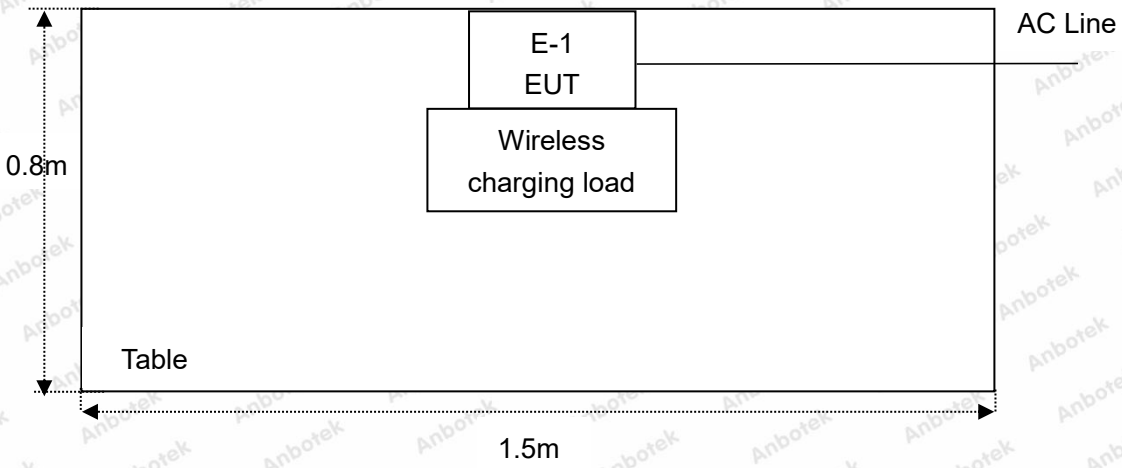
(2) All the situation(full load, half load and empty load) has been tested,only the worst situation (full load 10W) was recorded in the report.

1.5. Description Of Test Setup

CE



RE



1.6. Test Equipment List

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	L.I.S.N. Artificial Mains Network	Rohde & Schwarz	ENV216	100055	Oct. 23, 2022	1 Year
2.	Three Phase V-type Artificial Power Network	CYBERTEK	EM5040DT	E215040DT001	Jul. 05, 2023	1 Year
3.	EMI Test Receiver	Rohde & Schwarz	ESCI	100627	Oct. 13, 2022	1 Year
4.	EMI Test Receiver	Rohde & Schwarz	ESR26	101481	Oct. 23, 2022	1 Year
5.	MXA Spectrum Analysis	Agilent	N9020A	MY51170037	Oct. 13, 2022	1 Year
6.	EMI Preamplifier	SKET Electronic	LNPA-0118G-45	SKET-PA-002	Oct. 13, 2022	1 Year
7.	Double Ridged Horn Antenna	SCHWARZBECK	BBHA 9120D	02555	Oct. 16, 2022	3 Year
8.	Bilog Broadband Antenna	Schwarzbeck	VULB9163	345	Oct. 23, 2022	3 Year
9.	Loop Antenna	Schwarzbeck	FMZB1519B	00053	Oct. 23, 2022	1 Year
10.	Horn Antenna	A-INFO	LB-180400-KF	J211060628	Oct. 23, 2022	1 Year
11.	Pre-amplifier	SONOMA	310N	186860	Oct. 23, 2022	1 Year
12.	EMI Test Software EZ-EMC	SHURPLE	N/A	N/A	N/A	N/A
13.	MXA Spectrum Analysis	KEYSIGHT	N9020A	MY53280032	Oct. 13, 2022	1 Year
14.	MXG RF Vector Signal Generator	Agilent	N5182A	MY48180656	Oct. 13, 2022	1 Year
15.	Signal Generator	Agilent	E4421B	MY41000743	Oct. 13, 2022	1 Year
16.	DC Power Supply	IVYTECH	IV3605	1804D360510	Oct. 22, 2022	1 Year
17.	Constant Temperature Humidity Chamber	ZHONGJIAN	ZJ-KHWS80B	N/A	Oct. 19, 2022	1 Year
18.	Power Meter	Agilent	N1914A	MY50001102	Oct.26, 2022	1 Year

1.7. Measurement Uncertainty

Parameter	Uncertainty
Conducted emissions (AMN 150kHz~30MHz)	3.8dB
Radiated spurious emissions (Below 30MHz)	3.53dB
Radiated spurious emissions (30MHz~1GHz)	Horizontal: 3.92dB; Vertical: 4.52dB
This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.	

1.8. Description of Test Facility

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

FCC-Registration No.: 184111

Shenzhen Anbotek Compliance Laboratory Limited, EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration No. 184111.

ISED-Registration No.: 8058A

Shenzhen Anbotek Compliance Laboratory Limited, EMC Laboratory has been registered and fully described in a report filed with the (ISED) Innovation, Science and Economic Development Canada. The acceptance letter from the ISED is maintained in our files. Registration 8058A.

Test Location

Shenzhen Anbotek Compliance Laboratory Limited.
1/F, Building D, Sogood Science and Technology Park, Sanwei community, Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China.518102

2. Summary of Test Results

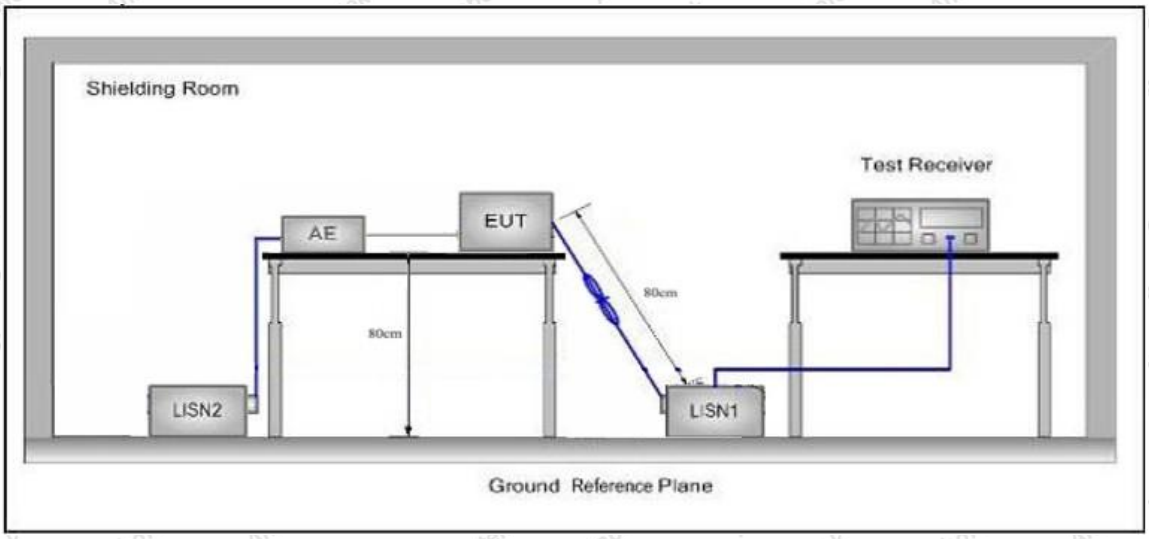
Standard Section	Test Item	Result
15.203	Antenna Requirement	PASS
15.207	Conducted Emission Test	PASS
15.205/15.209	Spurious Emission	PASS

3. Conducted Emission Test

3.1. Test Standard and Limit

Test Standard	FCC Part15 Section 15.207		
Test Limit	Frequency	Maximum RF Line Voltage (dBuV)	
		Quasi-peak Level	Average Level
	150kHz~500kHz	66 ~ 56 *	56 ~ 46 *
	500kHz~5MHz	56	46
	5MHz~30MHz	60	50
Remark: (1) *Decreasing linearly with logarithm of the frequency. (2) The lower limit shall apply at the transition frequency.			

3.2. Test Setup



3.3. Test Procedure

The EUT system is connected to the power mains through a line impedance stabilization network (L.I.S.N.). This provides a 50ohm coupling impedance for the EUT system. Please refer the block diagram of the test setup and photographs. Both sides of AC line are checked to find out the maximum conducted emission. In order to find the maximum emission levels, the relative positions of equipment and all of the interface cables shall be changed according to FCC ANSI C63.10: 2020 on Conducted Emission Measurement.

The bandwidth of test receiver (ESCI) set at 9kHz.

The frequency range from 150kHz to 30MHz is checked.

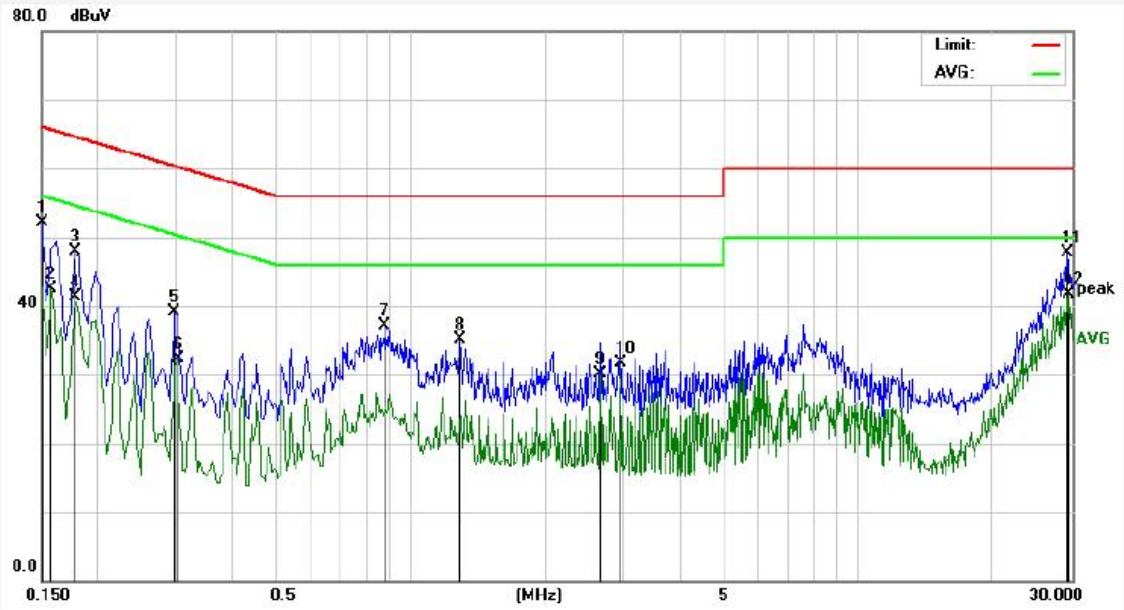
3.4. Test Data

AC conducted emission pre-test at both at AC 120V/60Hz and AC 240V/60Hz modes, recorded worst case AC 120V/60Hz.

Please to see the following pages.

Conducted Emission Test Data

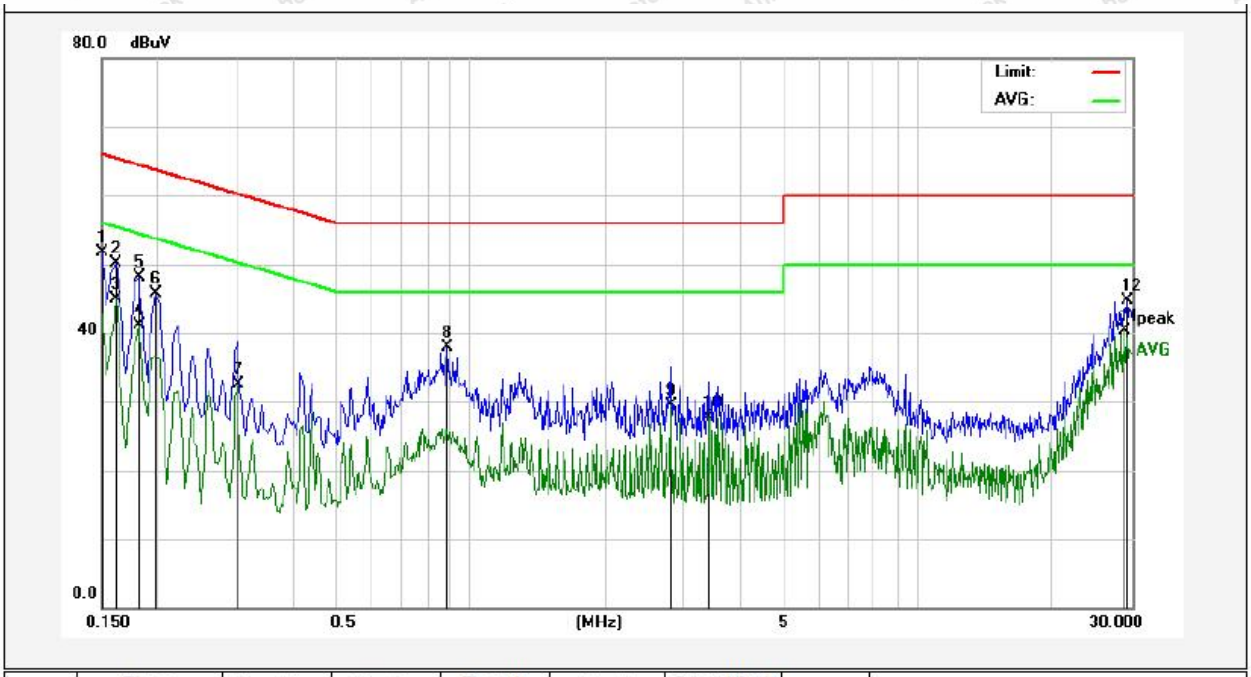
Test Site:	1# Shielded Room
Operating Condition:	Mode 1
Test Specification:	AC 120V, 60Hz
Comment:	Live Line
Temp.(℃)/Hum.(%RH):	20.4℃/57%RH



No.	Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit (dBuV)	Over Limit (dB)	Detector	Remark
1	0.1500	35.38	16.65	52.03	65.99	-13.96	QP	
2	0.1580	25.76	16.67	42.43	55.56	-13.13	AVG	
3	0.1780	31.21	16.68	47.89	64.57	-16.68	QP	
4	0.1780	24.60	16.68	41.28	54.57	-13.29	AVG	
5	0.2980	21.98	17.04	39.02	60.30	-21.28	QP	
6	0.3020	15.31	17.04	32.35	50.19	-17.84	AVG	
7	0.8780	19.55	17.52	37.07	56.00	-18.93	QP	
8	1.2940	17.52	17.57	35.09	56.00	-20.91	QP	
9	2.6580	12.55	17.60	30.15	46.00	-15.85	AVG	
10	2.9539	14.16	17.63	31.79	46.00	-14.21	AVG	
11	29.3420	29.64	18.14	47.78	60.00	-12.22	QP	
12	29.6380	23.54	18.17	41.71	50.00	-8.29	AVG	

Conducted Emission Test Data

Test Site: 1# Shielded Room
Operating Condition: Mode 1
Test Specification: AC 120V, 60Hz
Comment: Neutral Line
Temp.(℃)/Hum.(%RH): 20.4℃/57%RH



No.	Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit (dBuV)	Over Limit (dB)	Detector	Remark
1	0.1499	34.98	16.65	51.63	66.00	-14.37	QP	
2	0.1620	33.50	16.67	50.17	65.36	-15.19	QP	
3	0.1620	28.14	16.67	44.81	55.36	-10.55	AVG	
4	0.1819	24.49	16.69	41.18	54.39	-13.21	AVG	
5	0.1819	31.38	16.69	48.07	64.39	-16.32	QP	
6	0.1980	29.02	16.70	45.72	63.69	-17.97	QP	
7	0.3020	15.47	17.04	32.51	50.19	-17.68	AVG	
8	0.8860	20.32	17.53	37.85	56.00	-18.15	QP	
9	2.8020	11.93	17.61	29.54	46.00	-16.46	AVG	
10	3.3860	10.08	17.58	27.66	46.00	-18.34	AVG	
11	29.0140	22.09	18.13	40.22	50.00	-9.78	AVG	
12	29.3100	26.58	18.14	44.72	60.00	-15.28	QP	

4. Radiation Spurious Emission

4.1. Test Standard and Limit

Test Standard	FCC Part15 C Section 15.209 and 15.205				
Test Limit	Frequency (MHz)	Field strength (microvolt/meter)	Limit (dBuV/m)	Remark	Measurement distance (m)
	0.009MHz~0.490MHz	2400/F(kHz)	-	-	300
	0.490MHz-1.705MHz	24000/F(kHz)	-	-	30
	1.705MHz-30MHz	30	-	-	30
	30MHz~88MHz	100	40.0	Quasi-peak	3
	88MHz~216MHz	150	43.5	Quasi-peak	3
	216MHz~960MHz	200	46.0	Quasi-peak	3
	960MHz~1000MHz	500	54.0	Quasi-peak	3
	Above 1000MHz	500	54.0	Average	3
		-	74.0	Peak	3

Remark:
(1)The lower limit shall apply at the transition frequency.
(2) 15.35(b), Unless otherwise specified, the limit on peak radio frequency emissions is 20dB above the maximum permitted average emission limit applicable to the equipment under test. This peak limit applies to the total peak emission level radiated by the device.

4.2. Test Setup

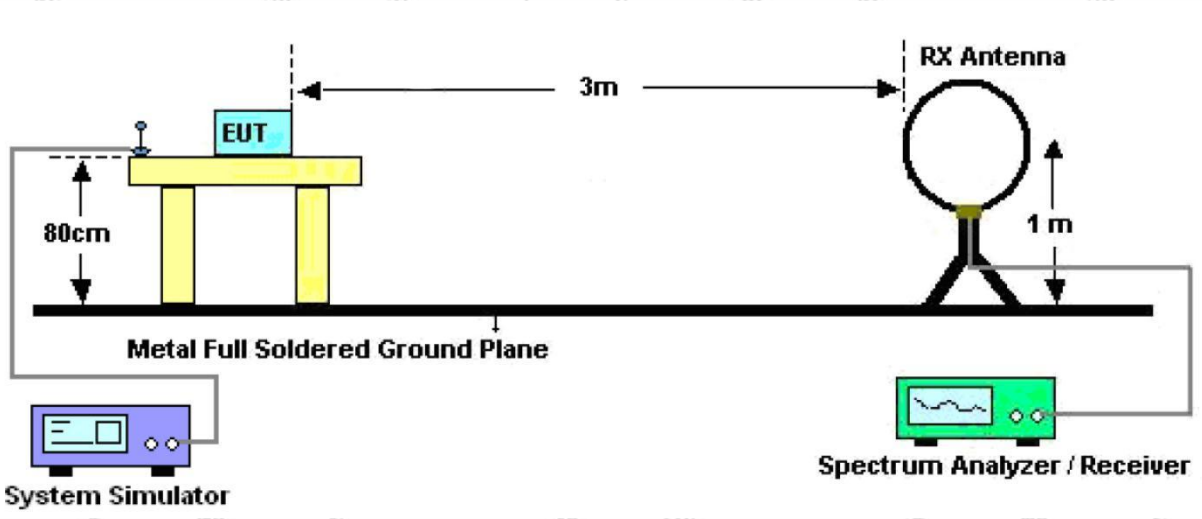


Figure 1. Below 30MHz

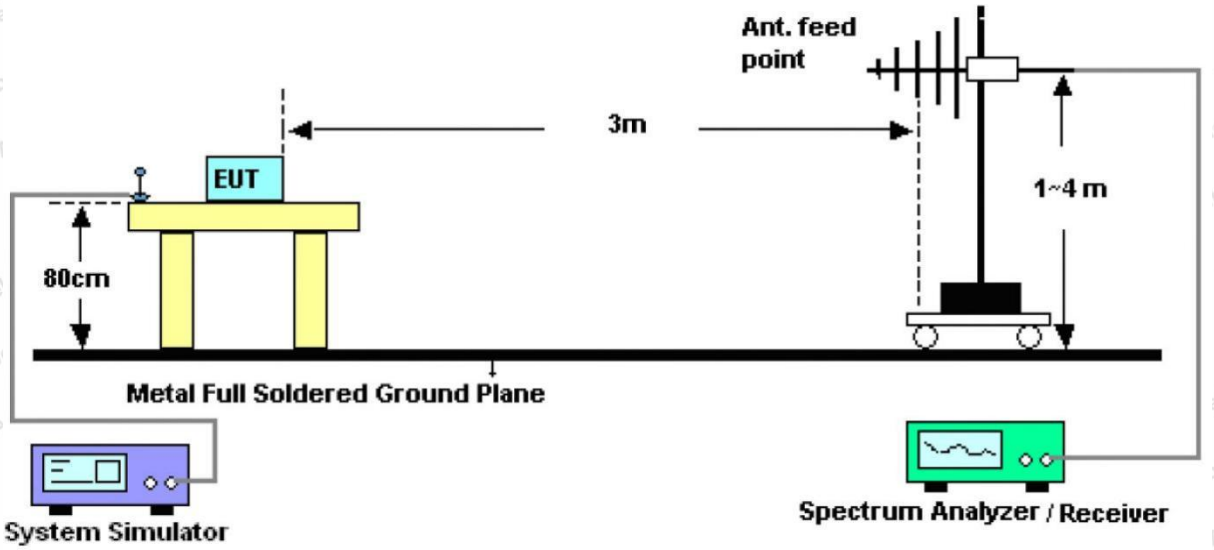


Figure 2. 30MHz to 1GHz

4.3. Test Procedure

For below 1GHz: The EUT is placed on a turntable, which is 0.8m above the ground plane.
The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT is set 3 meters away from the receiving antenna which is mounted on a antenna tower. The antenna can be moved up and down from 1 to 4 meters to find out the maximum emission level. Rotated the EUT through three orthogonal axes to determine the maximum emissions, both horizontal and vertical polarization of the antenna are set on test. The EUT is tested in 9*6*6 Chamber. The device is evaluated in xyz orientation.

For 9kHz to 150kHz, Set the spectrum analyzer as:
RBW = 200Hz, VBW =1kHz, Detector= Quasi-Peak, Trace mode= Max hold, Sweep- auto couple.

For 150kHz to 30MHz, Set the spectrum analyzer as:
RBW = 9kHz, VBW =30kHz, Detector= Quasi-Peak, Trace mode= Max hold, Sweep- auto couple.

For 30MHz to 1000MHz, Set the spectrum analyzer as:
RBW = 100kHz, VBW =300kHz, Detector= Quasi-Peak, Trace mode= Max hold, Sweep- auto couple.

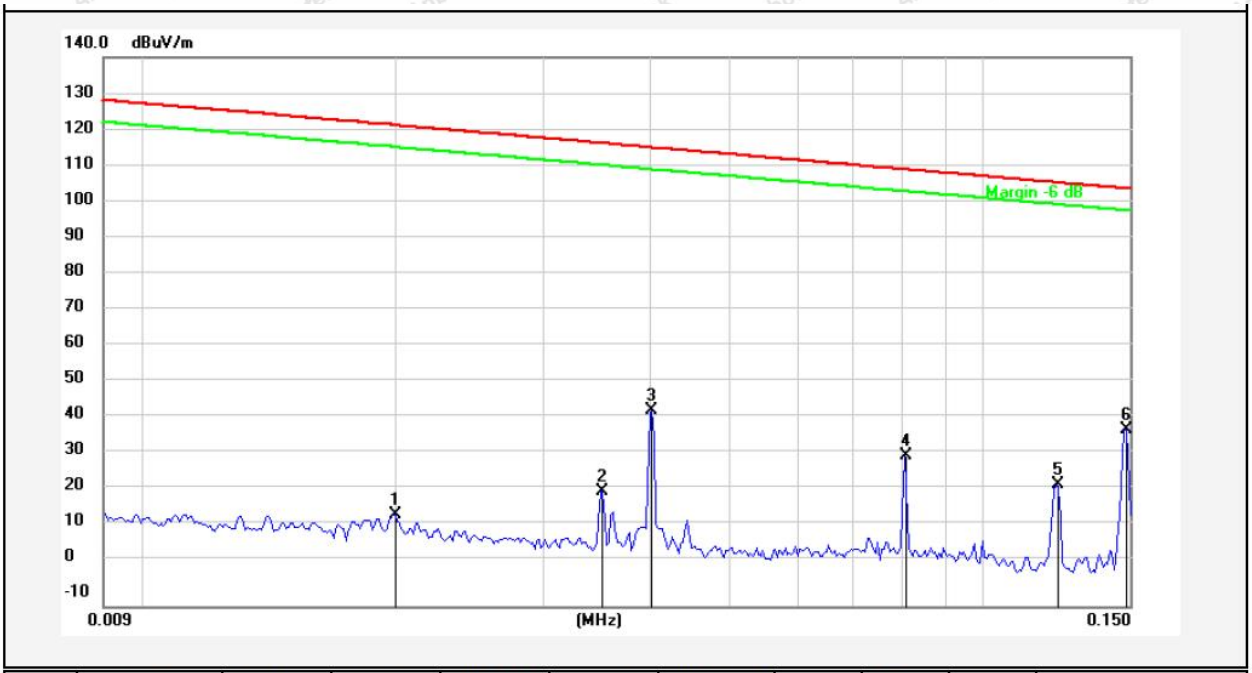
4.4. Test Data

PASS

During the test, Pre-scan all kind of the place mode (X-axis, Y-axis, Z-axis), and found the X-axis is the worst case.

Test Results (Between 9kHz – 150kHz)

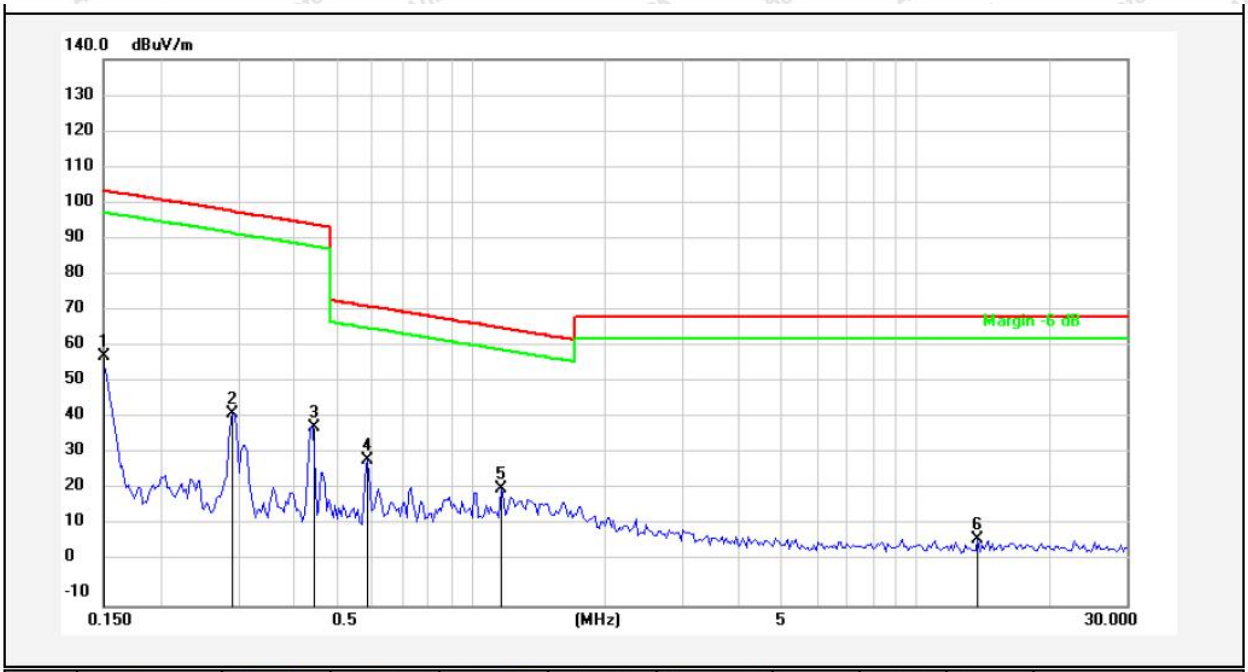
Test Mode:	Mode 1
Distance:	3m
Power Source:	AC 120V, 60Hz
Temp.(℃)/Hum.(%RH):	24.5℃/53%RH



No.	Freq. (MHz)	Reading (dBuV)	Factor ()	Result (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	0.0200	-5.30	20.29	14.99	121.41	-106.42	QP			
2	0.0353	0.81	20.47	21.28	116.51	-95.23	QP			
3	0.0404	22.91	20.43	43.34	115.34	-72.00	QP			
4	0.0808	10.71	20.36	31.07	109.36	-78.29	QP			
5	0.1225	2.70	20.34	23.04	105.77	-82.73	QP			
6	0.1483	17.95	20.33	38.28	104.12	-65.84	QP			

Test Results (Between 0.15MHz – 30MHz)

Test Mode:	Mode 1
Distance:	3m
Power Source:	AC 120V, 60Hz
Temp.(℃)/Hum.(%RH):	24.5℃/53%RH



No.	Freq. (MHz)	Reading (dBuV)	Factor ()	Result (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	0.1500	38.25	20.33	58.58	104.02	-45.44	QP			
2	0.2924	22.44	20.30	42.74	98.26	-55.52	QP			
3	0.4421	18.84	20.27	39.11	94.69	-55.58	QP			
4	0.5885	9.66	20.27	29.93	72.21	-42.28	QP			
5	1.1719	1.89	20.26	22.15	66.25	-44.10	QP			
6	13.8411	-12.41	20.53	8.12	69.50	-61.38	QP			

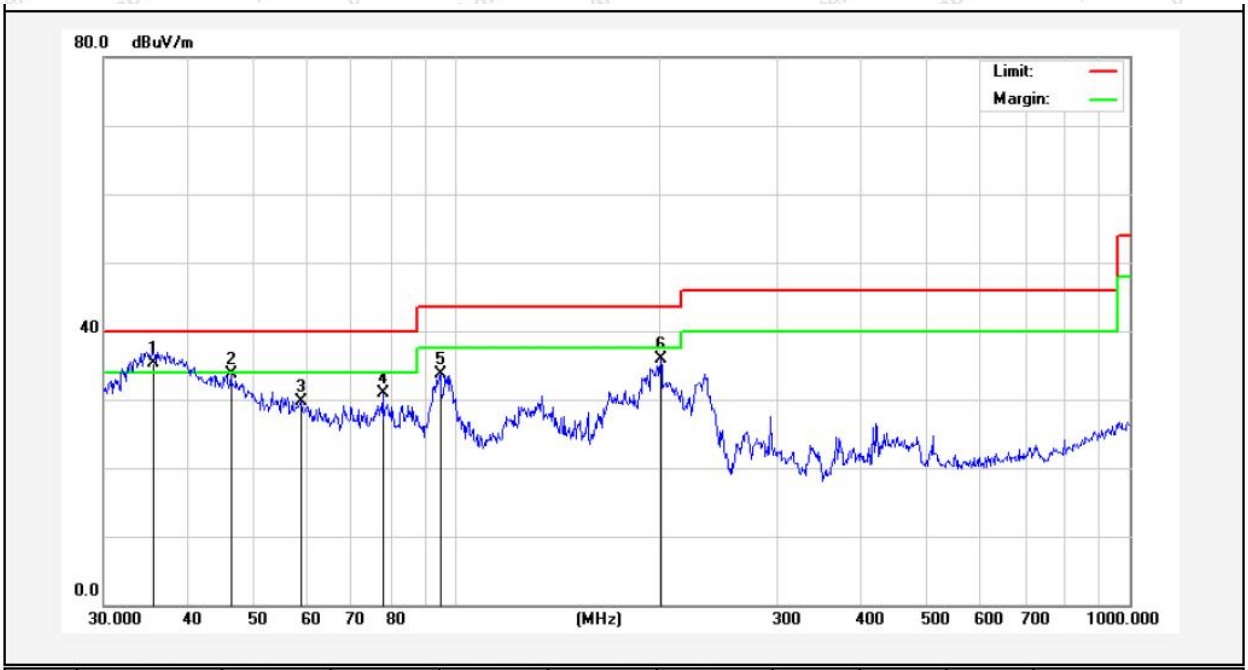
Remark: According to FCC PART 15.209 (d), the emission limits for the frequency bands 9–90 kHz, 110–490 kHz and above 1000 MHz, Radiated emission limits in these three bands are based on measurements employing an average detector.

Test Results (Between 30MHz –1000 MHz)

Test Mode:	Mode 1
Distance:	3m
Power Source:	AC 120V, 60Hz
Polarization:	Horizontal
Temp.(℃)/Hum.(%RH):	23.5℃/62%RH

No.	Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	35.0048	44.79	-18.45	26.34	40.00	-13.66	QP			
2	59.4405	41.85	-17.50	24.35	40.00	-15.65	QP			
3	201.3930	56.64	-22.31	34.33	43.50	-9.17	QP			
4	219.0753	60.02	-22.01	38.01	46.00	-7.99	QP			
5	242.5253	56.80	-21.62	35.18	46.00	-10.82	QP			
6	285.9778	48.07	-18.37	29.70	46.00	-16.30	QP			

Test Mode: Mode 1
Distance: 3m
Power Source: AC 120V, 60Hz
Polarization: Vertical
Temp.(℃)/Hum.(%RH): 23.5℃/62%RH



No.	Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	35.4040	52.29	-16.93	35.36	40.00	-4.64	QP			
2	46.3402	48.87	-15.24	33.63	40.00	-6.37	QP			
3	59.0251	47.28	-17.52	29.76	40.00	-10.24	QP			
4	77.8654	50.36	-19.55	30.81	40.00	-9.19	QP			
5	94.7601	50.88	-17.23	33.65	43.50	-9.85	QP			
6	201.3930	55.43	-19.62	35.81	43.50	-7.69	QP			

5. Antenna Requirement

5.1. Test Standard and Requirement

Test Standard	FCC Part15 Section 15.203
Requirement	1) 15.203 requirement: An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

5.2. Antenna Connected Construction

The antenna is a Inductive loop coil Antenna which permanently attached, and the best case gain of the antenna is 0 dBi. It complies with the standard requirement.

APPENDIX I -- TEST SETUP PHOTOGRAPH

Please refer to separated files Appendix I -- Test Setup Photograph_RF

APPENDIX II -- EXTERNAL PHOTOGRAPH

Please refer to separated files Appendix II -- External Photograph

APPENDIX III -- INTERNAL PHOTOGRAPH

Please refer to separated files Appendix III -- Internal Photograph

---------- End of Report ----------