

FCC Test Report

Applicant : SHENZHEN 3NOD ELECTRONICS CO., LTD.

Address : 2F, No.74, Yangyong Road, Tangxiayong
Community, Yanluo Street, Baoan, Shenzhen,
China

Product Name : Portable Power Station

Report Date : Jul. 04, 2024

Shenzhen Anbotek Compliance Laboratory Limited



Contents

1. General Information	5
1.1. Client Information	5
1.2. Description of Device (EUT)	5
1.3. Auxiliary Equipment Used During Test	7
1.4. Description of Test Modes	7
1.5. Description Of Test Setup	8
1.6. Test Equipment List	9
1.7. Measurement Uncertainty	10
1.8. Description of Test Facility	10
1.9. Disclaimer	11
2. Summary of Test Results	12
3. Conducted Emission Test	13
3.1. Test Standard and Limit	13
3.2. Test Setup	13
3.3. Test Procedure	13
3.4. Test Data	13
4. Radiation Spurious Emission	16
4.1. Test Standard and Limit	16
4.2. Test Setup	16
4.3. Test Procedure	17
4.4. Test Data	17
5. Antenna Requirement	22
5.1. Test Standard and Requirement	22
5.2. Antenna Connected Construction	22
APPENDIX I -- TEST SETUP PHOTOGRAPH	25
APPENDIX II -- EXTERNAL PHOTOGRAPH	25
APPENDIX III -- INTERNAL PHOTOGRAPH	25



TEST REPORT

Applicant : SHENZHEN 3NOD ELECTRONICS CO., LTD.

Manufacturer : SHENZHEN 3NOD ELECTRONICS CO., LTD.

Product Name : Portable Power Station

Test Model No. : PPS3304

Reference Model No. : N/A

Trade Mark : N/A

Rating(s) : Please refer to page 6

Test Standard(s) : 47 CFR Part 15 Subpart C

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 47 CFR 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

Mar. 01, 2024

Date of Test

Mar. 01, 2024 to May 20, 2024

Prepared By

Tu Tu Hong

(TuTu Hong)

Approved & Authorized Signer

Edward Pan

(Edward Pan)



Revision History

Report Version	Description	Issued Date
R00	Original Issue.	Jul. 04, 2024



1. General Information

1.1. Client Information

Applicant	:	SHENZHEN 3NOD ELECTRONICS CO., LTD.
Address	:	2F, No.74, Yangyong Road, Tangxiayong Community, Yanluo Street, Baoan, Shenzhen, China
Manufacturer	:	SHENZHEN 3NOD ELECTRONICS CO., LTD.
Address	:	2F, No.74, Yangyong Road, Tangxiayong Community, Yanluo Street, Baoan, Shenzhen, China
Factory	:	SHENZHEN 3NOD ELECTRONICS CO., LTD.
Address	:	2F, No.74, Yangyong Road, Tangxiayong Community, Yanluo Street, Baoan, Shenzhen, China

1.2. Description of Device (EUT)

Product Name	:	Portable Power Station
Test Model No.	:	PPS3304
Reference Model No.	:	N/A
Trade Mark	:	N/A
Test Power Supply	:	AC 120V, 60Hz for adapter/DC 12.8V Battery inside/DC 12V
Test Sample No.	:	1-2-1(Normal Sample), 1-2-2(Engineering Sample)
Adapter	:	Model: NT-150300AU Input: 100-240~50/60Hz 1.0A Max Output: 15.0V= 3.0A 45.0W

RF Specification

Operation Frequency	:	115-205KHz
Modulation Type	:	ASK
Antenna Type	:	Inductive loop coil Antenna
Antenna Gain(Peak)	:	0 dBi (Provided by customer)

Remark: 1) All of the RF specification are provided by customer. 2) For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.



Rating(s):

PORTABLE POWER STATION

- Type: PPS3304
- Battery Capacity: 12.8V, 18Ah/230.4Wh
- DC/PV Input: 12V-26V~8A, 100W Max
- USB-C Input: 5V/9V/12V/15V/20V~3A, 20V~5A, 100W Max
- AC Output ×1: Pure Sine Wave 120V~60Hz, 300W
- DC Output ×2 + Cigarette Lighter Socket Output: Total 12V~10A
- USB-A Output ×1: 5V~3A, 9V~2A, 12V~1.5A, 18W Max
- USB-C Output ×1: 5V/9V~3A, 12V~2.5A, 30W Max
- USB-C Output ×1: 5V/9V/12V/15V/20V~3A, 20V~5A, 100W Max
- Wireless Charge: 10W
- Operating Temp: 14 to 104°F (-10 to 40°C)
- Charging Temp: 32 to 104°F (0 to 40°C)
- Manufacturer: Shenzhen 3NOD Electronics Co., Ltd.
- Date Code:

3.06.04.0701

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: 2BE7N-PPS3304

**UN38.3**

MADE IN CHINA

**⚠ WARNING!**

- Do not short-circuit the unit. To avoid short-circuiting, keep the unit away from all metal objects (e.g. coins, hair-pins, keys, etc.).
- Do not heat the unit, or dispose of it in fire, water or other liquids. Keep away from high temperatures.
- Do not expose the unit to direct sunlight. Keep away from high humidity, dusty places.
- Do not disassemble or reassemble this unit.
- Do not drop and place heavy objects on, or allow strong impact to this unit.
- This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.
- Children should be supervised to ensure that they do not play with the appliance.
- The unit may become hot when charging. This is normal. Be careful when handling.
- Use the unit properly to avoid electronic shock.
- The product is only used for emergency power station, it can not replace the standard DC or AC power of household appliances or digital products.
- Do not overcharge the internal battery. See Instruction Manual.

⚠ AVERTISSEMENT!

- Ne court-circuisez pas l'appareil. Pour éviter tout court-circuit, éloignez l'appareil de tout objet métallique (par exemple, pièces de monnaie, épingles à cheveux, clés, etc.).
- Ne chauffez pas l'appareil et ne le jetez pas dans le feu, l'eau ou d'autres liquides. Tenir à l'écart des températures élevées. N'exposez pas l'appareil à la lumière directe du soleil.
- Tenir à l'écart des endroits humides et poussiéreux.
- Ne démontez pas et ne réassemblez pas cet appareil.
- Ne laissez pas tomber, ne placez pas d'objets lourds dessus et ne laissez pas de chocs violents sur cet appareil.
- Cet appareil n'est pas destiné à être utilisé par des personnes (y compris des enfants) ayant des capacités physiques, sensorielles ou mentales réduites, ou un manque d'expérience et de connaissances, à moins qu'elles n'aient reçu une supervision ou des instructions concernant.
- L'utilisation de l'appareil par une personne responsable de leur sécurité.
- Les enfants doivent être surveillés pour s'assurer qu'ils ne jouent pas avec l'appareil.
- L'appareil peut devenir chaud pendant la charge. C'est normal. Soyez prudent lors de la manipulation.
- Utilisez l'appareil correctement pour éviter les chocs électroniques. Le produit n'est utilisé que pour la centrale électrique de secours, il ne peut pas remplacer l'alimentation CC ou CA standard des appareils ménagers ou des produits numériques.
- Ne pas surcharger la batterie interne. Consulter le manuel d'utilisation.



1.3. Auxiliary Equipment Used During Test

Description	Rating(s)
Mobile Phone	iPhone 12

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	Charge+WPT Mode(AC 120V, 60Hz for adapter)
Mode 2	Charge+WPT Mode(DC 12V)
Mode 3	WPT Mode(DC 12.8V Battery inside)

For Conducted Emission	
Final Test Mode	Description
Mode 1	Charge+WPT Mode(AC 120V, 60Hz for adapter)
Mode 2	Charge+WPT Mode(DC 12V)

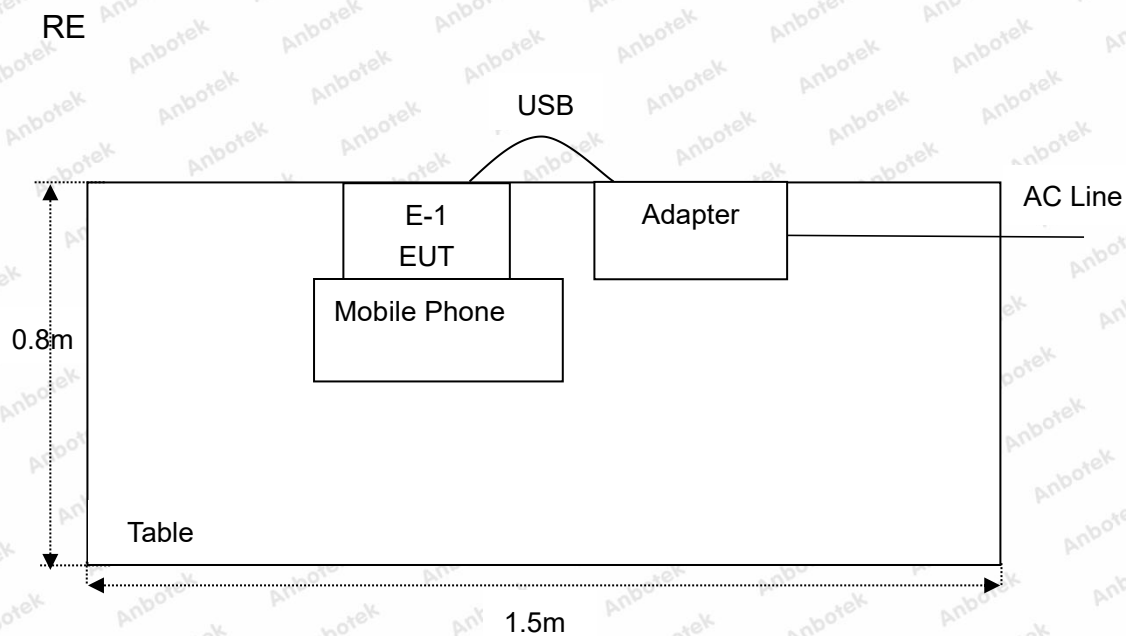
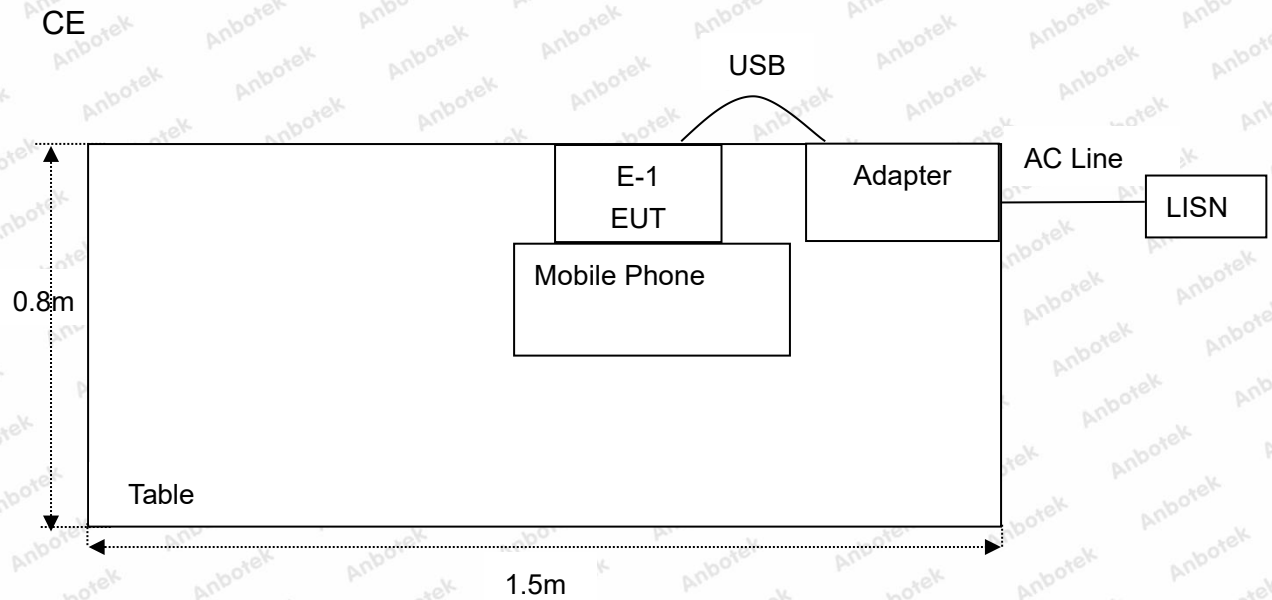
For Radiated Emission	
Final Test Mode	Description
Mode 1	Charge+WPT Mode(AC 120V, 60Hz for adapter)
Mode 2	Charge+WPT Mode(DC 12V)
Mode 3	WPT Mode(DC 12.8V Battery inside)

Note:

(1) 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



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	Jan. 18, 2024	1 Year
2.	Three Phase V-type Artificial Power Network	CYBERTEK	EM5040DT	E215040DT001	Jan. 18, 2024	1 Year
3.	EMI Test Receiver	Rohde & Schwarz	ESCI	100627	Oct. 12, 2023	1 Year
4.	EMI Test Receiver	Rohde & Schwarz	ESR26	101481	Jan. 23, 2024	1 Year
5.	MXA Spectrum Analysis	Agilent	N9020A	MY51170037	Oct. 12, 2023	1 Year
6.	EMI Preamplifier	SKET Electronic	LNPA-0118G -45	SKET-PA-002	Jan. 17, 2024	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. 12, 2023	1 Year
10.	Horn Antenna	A-INFO	LB-180400- KF	J211060628	Oct. 12, 2023	1 Year
11.	Pre-amplifier	SONOMA	310N	186860	Jan. 17, 2024	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. 12, 2023	1 Year
14.	MXG RF Vector Signal Generator	Agilent	N5182A	MY48180656	Oct. 12, 2023	1 Year
15.	Signal Generator	Agilent	E4421B	MY41000743	Oct. 12, 2023	1 Year
16.	DC Power Supply	IVYTECH	IV3605	1804D360510	Oct. 20, 2023	1 Year
17.	Constant Temperature Humidity Chamber	ZHONGJIAN	ZJ-KHWS80 B	N/A	Oct. 16, 2023	1 Year
18.	Wideband Radio Communication Tester	Rohde & Schwarz	CMW500	104209	Oct. 12, 2023	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
Occupied Bandwidth	925Hz
The measurement uncertainty and decision risk evaluated according to AB/WI-RF-F-032. 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.: 434132

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. 434132.

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.



1.9. Disclaimer

1. The test report is invalid if not marked with the signatures of the persons responsible for preparing and approving the test report.
2. The test report is invalid if there is any evidence and/or falsification.
3. The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein.
4. This document may not be altered or revised in any way unless done so by Anbotech and all revisions are duly noted in the revisions section.
5. Content of the test report, in part or in full, cannot be used for publicity and/or promotional purposes without prior written approval from the laboratory.
6. The authenticity of the information provided by the customer is the responsibility of the customer and the laboratory is not responsible for its authenticity.

The laboratory is only responsible for the data released by the laboratory, except for the part provided by the applicant.



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



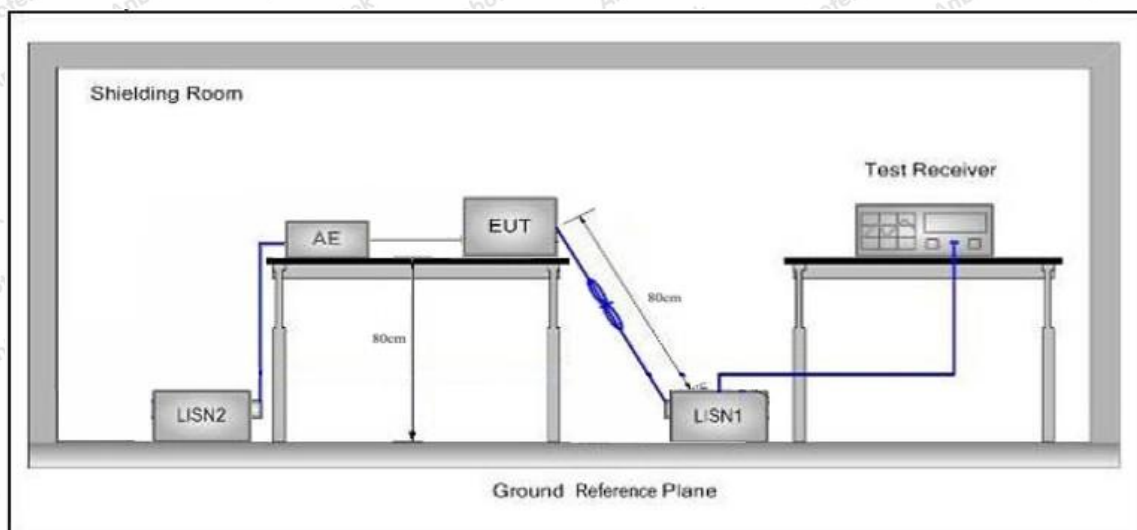
3. Conducted Emission Test

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

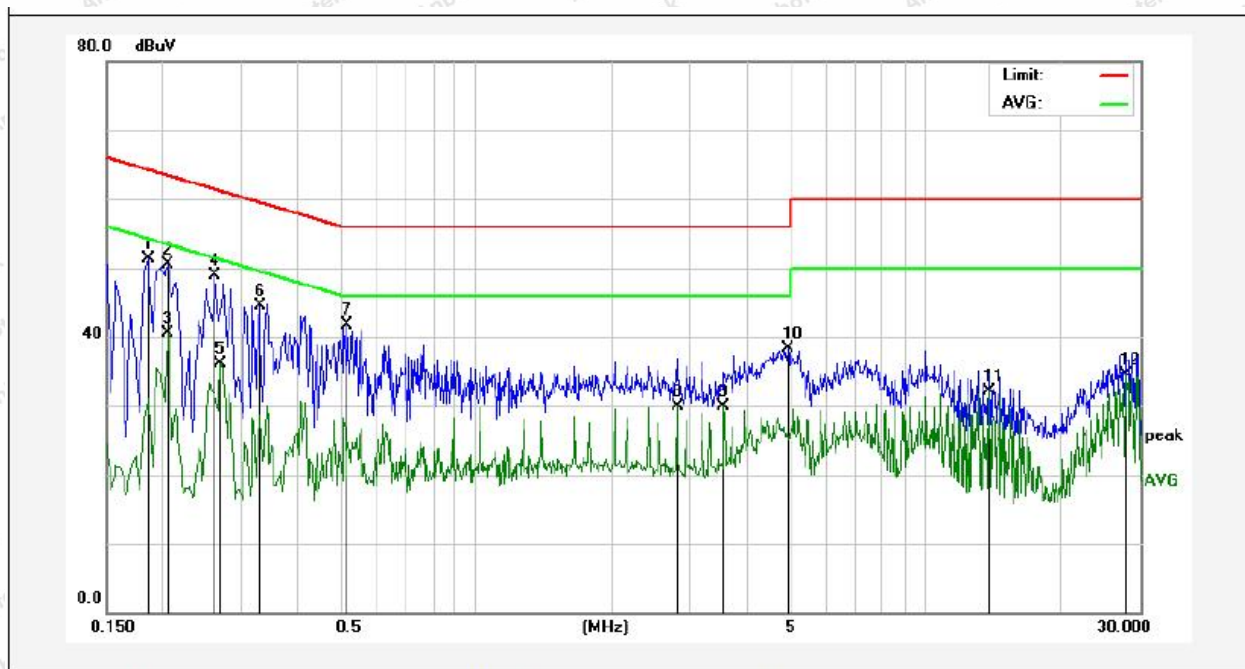
AC conducted emission pre-test at both at AC 120V/60Hz and AC 240V/60Hz modes, recorded worst case AC 120V/60Hz.

Please to see the following pages.



Conducted Emission Test Data

Test Site: 1# Shielded Room
Operating Condition: Mode 1
Test Specification: AC 120V, 60Hz for adapter
Comment: Live Line
Temp.(°C)/Hum.(%RH): 22.1°C/52%RH

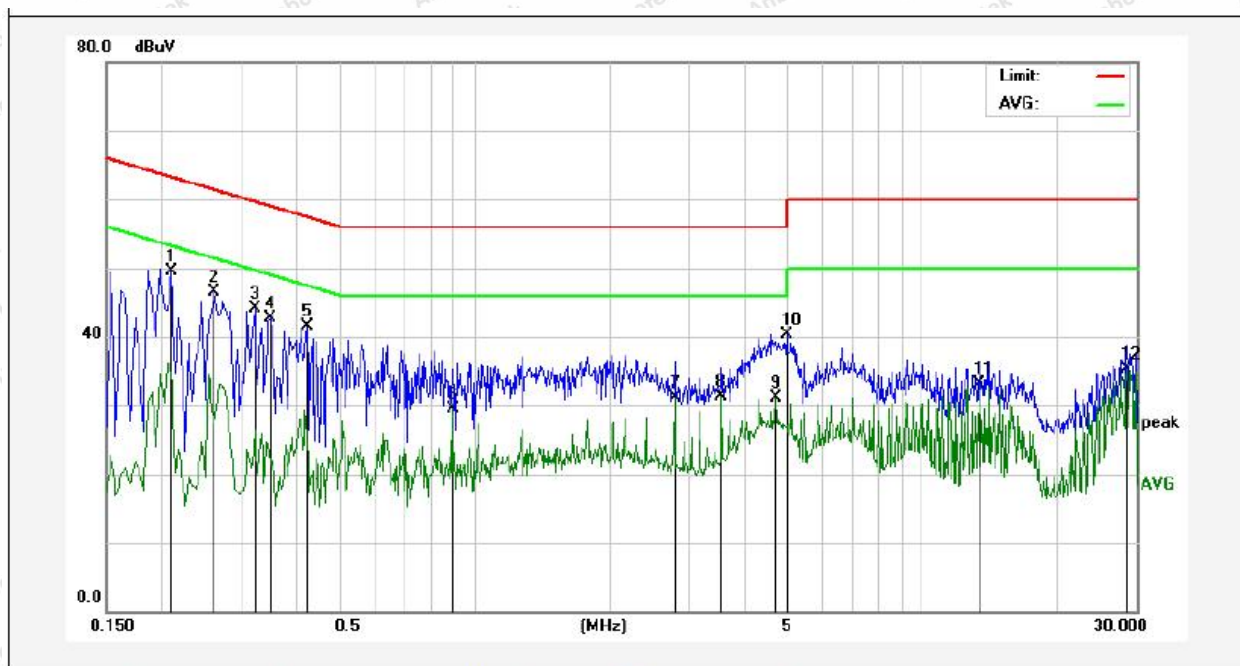


No.	Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit (dBuV)	Over Limit (dB)	Detector	Remark
1	0.1860	32.36	18.96	51.32	64.21	-12.89	QP	
2	0.2060	31.51	18.95	50.46	63.36	-12.90	QP	
3	0.2060	21.53	18.95	40.48	53.36	-12.88	AVG	
4	0.2620	29.84	19.03	48.87	61.36	-12.49	QP	
5	0.2700	17.04	19.05	36.09	51.12	-15.03	AVG	
6	0.3300	25.43	19.07	44.50	59.45	-14.95	QP	
7	0.5180	22.67	19.08	41.75	56.00	-14.25	QP	
8	2.8020	10.89	19.01	29.90	46.00	-16.10	AVG	
9	3.5620	10.93	18.97	29.90	46.00	-16.10	AVG	
10	4.9300	19.40	18.82	38.22	56.00	-17.78	QP	
11	13.8660	13.23	18.84	32.07	50.00	-17.93	AVG	
12	28.0020	15.45	18.96	34.41	50.00	-15.59	AVG	



Conducted Emission Test Data

Test Site: 1# Shielded Room
Operating Condition: Mode 1
Test Specification: AC 120V, 60Hz for adapter
Comment: Neutral Line
Temp.(°C)/Hum.(%RH): 22.1°C/52%RH



No.	Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit (dBuV)	Over Limit (dB)	Detector	Remark
1	0.2100	30.48	18.96	49.44	63.20	-13.76	QP	
2	0.2620	27.51	19.03	46.54	61.36	-14.82	QP	
3	0.3220	25.01	19.09	44.10	59.65	-15.55	QP	
4	0.3500	23.59	19.08	42.67	58.96	-16.29	QP	
5	0.4220	22.42	19.06	41.48	57.41	-15.93	QP	
6	0.8900	10.52	19.00	29.52	46.00	-16.48	AVG	
7	2.7980	12.15	19.01	31.16	46.00	-14.84	AVG	
8	3.5580	12.26	18.97	31.23	46.00	-14.77	AVG	
9	4.7060	12.18	18.84	31.02	46.00	-14.98	AVG	
10	4.9580	21.57	18.81	40.38	56.00	-15.62	QP	
11	13.3500	14.33	18.83	33.16	50.00	-16.84	AVG	
12	28.4660	16.41	18.97	35.38	50.00	-14.62	AVG	



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

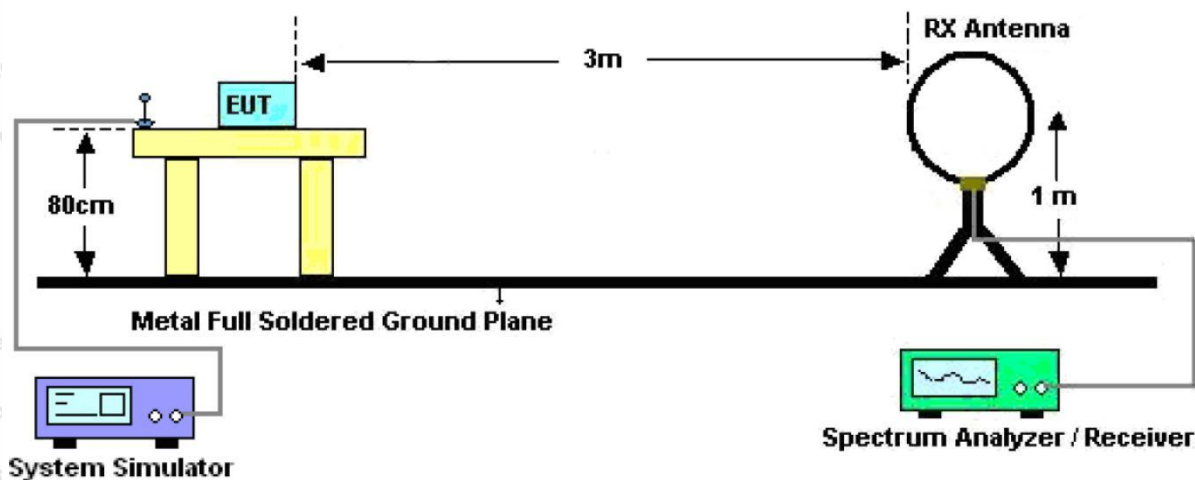


Figure 1. Below 30MHz



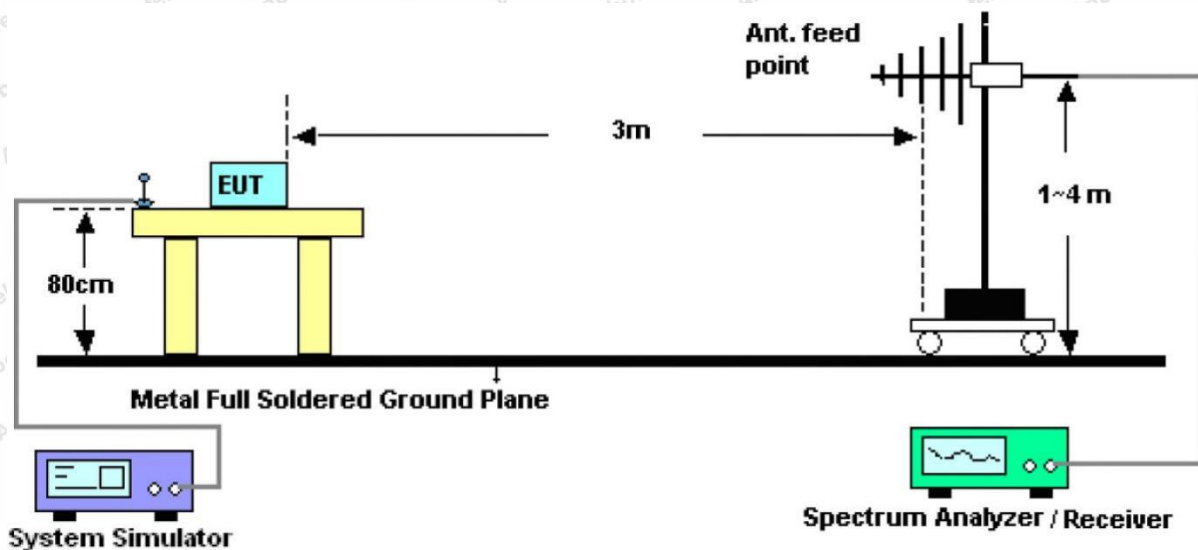


Figure 2. 30MHz to 1GHz

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.



Report No.: 18360WC40002601

FCC ID: 2BE7N-PPS3304

Page 18 of 25

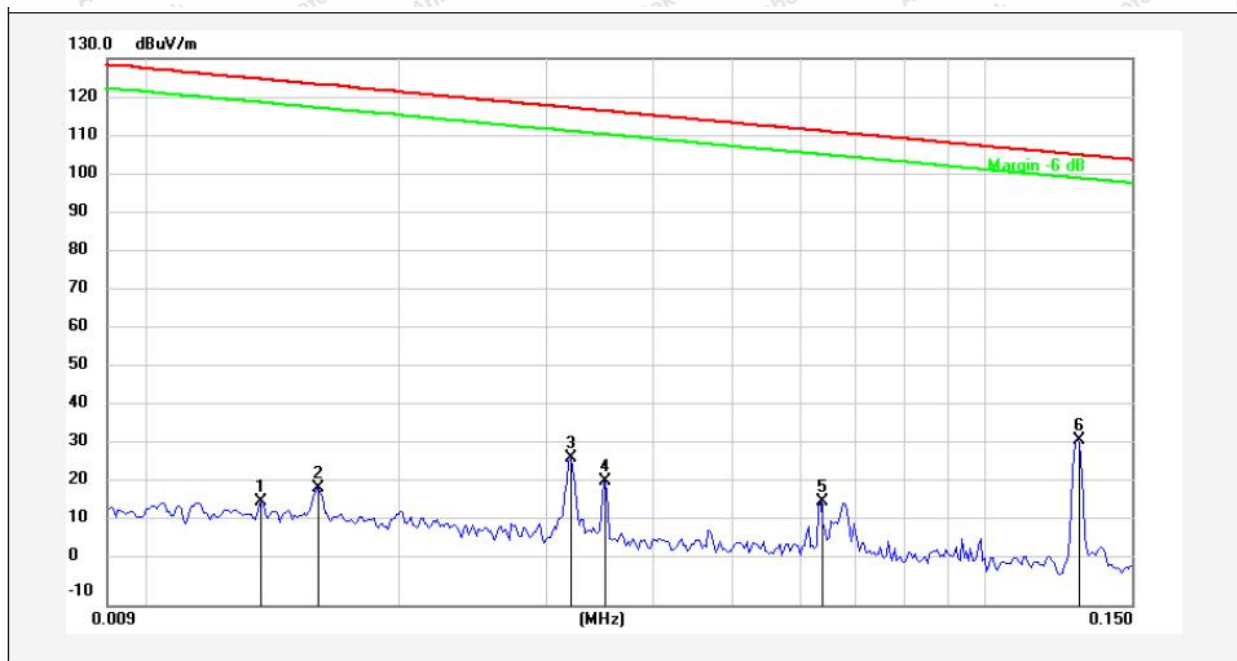
Test Results (Between 9KHz – 150KHz)

Test Mode: Mode 1

Distance: 3m

Power Source: AC 120V, 60Hz for adapter

Temp.(°C)/Hum.(%RH): 22.5°C/50%RH



No.	Freq. (MHz)	Reading (dBuV)	Factor ()	Result (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector			
1	0.0137	-3.89	20.17	16.28	124.68	-108.40	Peak			
2	0.0160	-0.23	20.30	20.07	123.34	-103.27	Peak			
3	0.0321	6.96	20.56	27.52	117.33	-89.81	Peak			
4	0.0353	1.31	20.47	21.78	116.51	-94.73	Peak			
5	0.0638	-3.93	20.38	16.45	111.40	-94.95	Peak			
6	0.1289	11.73	20.34	32.07	105.33	-73.26	AVG			



Report No.: 18360WC40002601

FCC ID: 2BE7N-PPS3304

Page 19 of 25

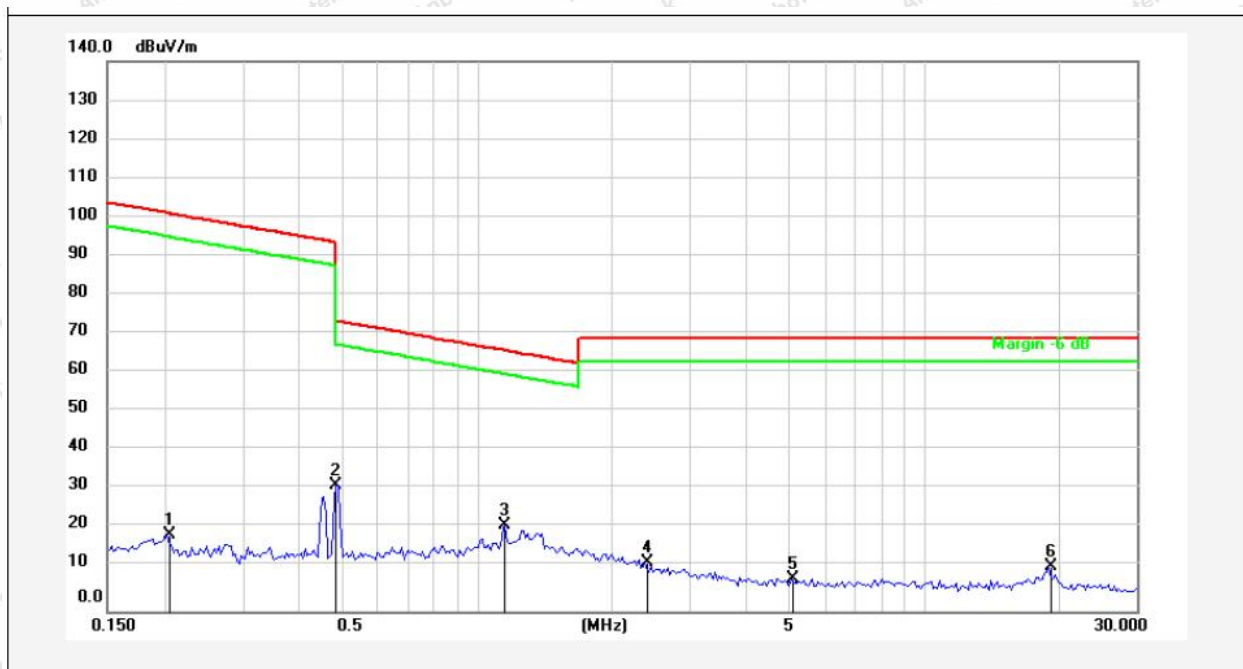
Test Results (Between 0.15MHz – 30MHz)

Test Mode: Mode 1

Distance: 3m

Power Source: AC 120V, 60Hz for adapter

Temp.(°C)/Hum.(%RH): 22.5°C/50%RH



No.	Freq. (MHz)	Reading (dBuV)	Factor ()	Result (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector			
1	0.2040	-0.93	20.31	19.38	101.36	-81.98	AVG			
2	0.4863	11.89	20.27	32.16	93.87	-61.71	AVG			
3	1.1595	1.56	20.26	21.82	66.34	-44.52	Peak			
4	2.3836	-7.89	20.29	12.40	69.50	-57.10	Peak			
5	5.0580	-12.12	20.41	8.29	69.50	-61.21	Peak			
6	19.0210	-9.32	20.58	11.26	69.50	-58.24	Peak			

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.



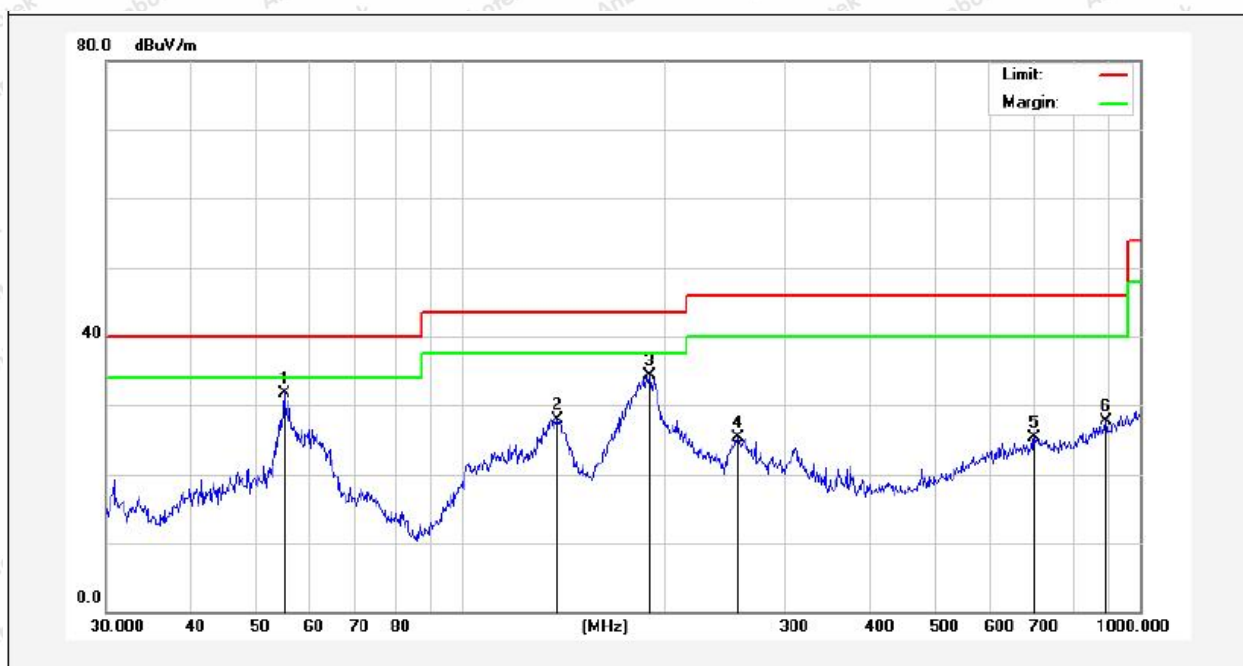
Report No.: 18360WC40002601

FCC ID: 2BE7N-PPS3304

Page 20 of 25

Test Results (Between 30MHz –1000 MHz)

Test Mode: Mode 1
Distance: 3m
Power Source: AC 120V, 60Hz for adapter
Polarization: Horizontal
Temp.(°C)/Hum.(%RH): 22.5°C/50%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	54.8348	49.36	-17.56	31.80	40.00	-8.20	QP			
2	138.3873	50.98	-22.98	28.00	43.50	-15.50	QP			
3	189.7385	56.99	-22.77	34.22	43.50	-9.28	QP			
4	255.6231	46.37	-21.01	25.36	46.00	-20.64	QP			
5	699.3046	35.30	-9.92	25.38	46.00	-20.62	QP			
6	890.7278	34.15	-6.46	27.69	46.00	-18.31	QP			

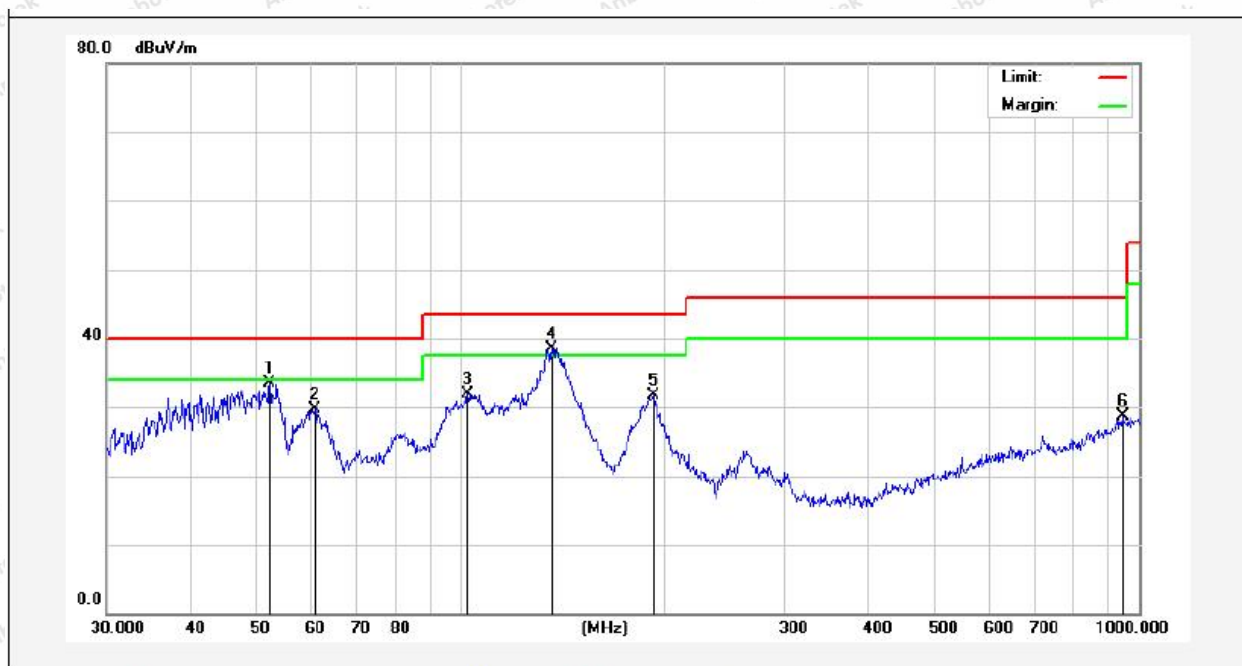


Report No.: 18360WC40002601

FCC ID: 2BE7N-PPS3304

Page 21 of 25

Test Mode: Mode 1
Distance: 3m
Power Source: AC 120V, 60Hz for adapter
Polarization: Vertical
Temp.(°C)/Hum.(%RH): 22.5°C/50%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	52.2079	50.09	-16.59	33.50	40.00	-6.50	QP			
2	60.9176	47.49	-17.82	29.67	40.00	-10.33	QP			
3	102.3597	48.95	-16.95	32.00	43.50	-11.50	QP			
4	135.9822	60.38	-21.89	38.49	43.50	-5.01	QP			
5	192.4185	51.73	-20.02	31.71	43.50	-11.79	QP			
6	945.4398	34.39	-5.69	28.70	46.00	-17.30	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.

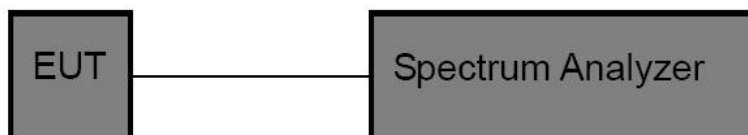


6. 20dB Occupy Bandwidth Test

6.1. Test Standard and Limit

Test Standard	FCC Part15 C Section 15.215(c)
Test Limit	Intentional radiators operating under the alternative provisions to the general emission limits, as contained in § § 15.217 through 15.257 and in subpart E of this part, must be designed to ensure that the 20 dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific rule section under which the equipment operates, is contained within the frequency band designated in the rule section under which the equipment is operated.

6.2. Test Setup



6.3. Test Procedure

1. Place the EUT on the table and set it in the continuously transmitting mode.
2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.
3. Set the spectrum analyzer as:
RBW = 220Hz
VBW= 680Hz
Span= 10KHz
Detector= Peak
Trace mode= Max hold.
Sweep- auto couple.
4. Mark the peak frequency and -20dB (upper and lower) frequency.
5. Repeat until all the rest channels are investigated.

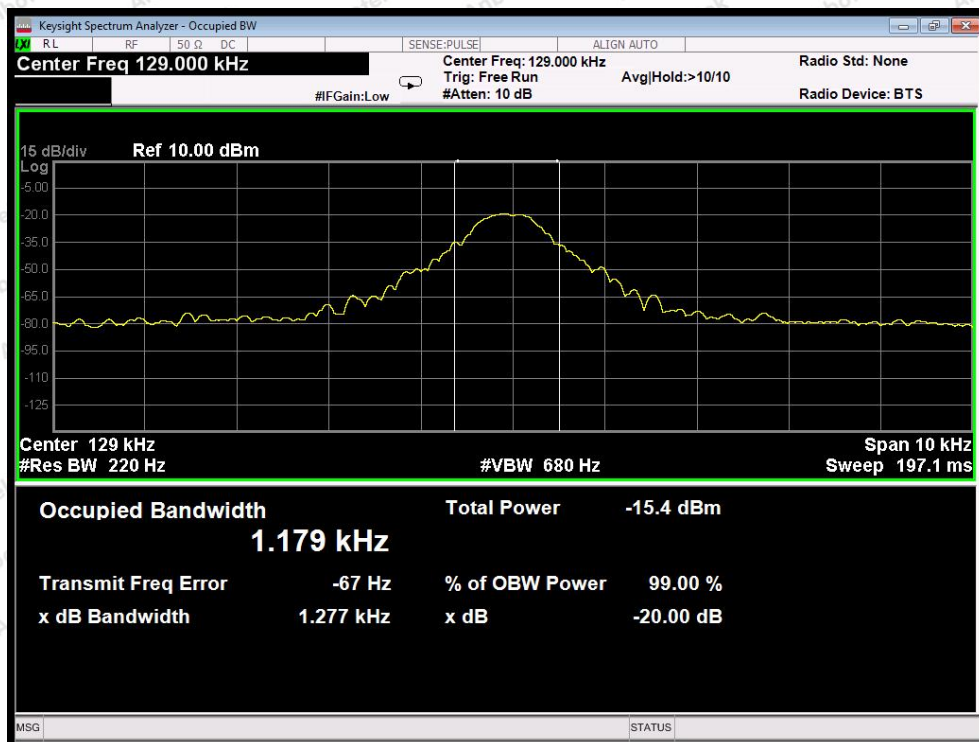
6.4. Test Data

Test Item	: 20dB Bandwidth	Test Mode	: Mode 1
Test Voltage	: AC 120V, 60Hz for adapter	Temperature	: 22.7℃
Test Result	: PASS	Humidity	: 55%RH



Mode	Freq. (KHz)	20DB Bandwidth (kHz)	Results
TX Mode	129.0	1.277	PASS

20DB Bandwidth



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 -----

