

# **FCC Test Report**

Report No. : 1811C50044612501

Applicant : FUJIAN YANAN POWER CO.,LTD.

No.6, Shugang Road, Zhangwan Industrial

Address : Park, Dongqiao Economic Development

Zone, Ningde City, Fujian Province, China

Product Name : PORTABLE POWER STATION

Report Date : 2025-06-24

**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	10
2. Summary of Test Results	11
3. Conducted Emission Test	12
3.1. Test Standard and Limit	12
3.2. Test Setup	12
3.3. Test Procedure	12
3.4. Test Data	12
4. Radiation Spurious Emission Test	15
4.1. Test Standard and Limit	15
4.2. Test Setup	15
4.3. Test Procedure	16
4.4. Test Data	16
5. 20dB Occupy Bandwidth Test	21
5.1. Test Standard and Limit	21
5.2. Test Setup	21
5.3. Test Procedure	21
5.4. Test Data	21
6. Antenna Requirement	23
6.1. Test Standard and Requirement	23
6.2. Antenna Connected Construction	23
APPENDIX I TEST SETUP PHOTOGRAPH	24
APPENDIX II EXTERNAL PHOTOGRAPH	24
APPENDIX III INTERNAL PHOTOGRAPH	24





### TEST REPORT

Applicant : FUJIAN YANAN POWER CO.,LTD.

Manufacturer : FUJIAN YANAN POWER CO.,LTD.

Product Name : PORTABLE POWER STATION

Model No. : YN-2400Pro, YN-2400

Trade Mark :

SLG

Rating(s) : Please refer to the page 6.

Test Standard(s) : FCC Part15 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 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	2025-03-20
Date of Test	2025-03-20 to 2025-04-16
Prepared By	Cecilia Chen
	(Cecilia Chen)
Approved & Authorized Signer	Augo Chen
	(Hugo Chen)





### **Revision History**

Report Version	Description	Issued Date
R00	Original Issue.	2025-06-24



### 1. General Information

#### 1.1. Client Information

Applicant	:	FUJIAN YANAN POWER CO.,LTD.		
Address	:	No.6, Shugang Road, Zhangwan Industrial Park, Dongqiao Economic Development Zone, Ningde City, Fujian Province, China		
Manufacturer	:	FUJIAN YANAN POWER CO.,LTD.		
Address	:	No.6, Shugang Road, Zhangwan Industrial Park, Dongqiao Economic Development Zone, Ningde City, Fujian Province, China		
Factory	:	FUJIAN YANAN POWER CO.,LTD.		
Address	:	No.6, Shugang Road, Zhangwan Industrial Park, Dongqiao Economic Development Zone, Ningde City, Fujian Province, China		

### 1.2. Description of Device (EUT)

Product Name	:	PORTABLE POWER STATION			
		YN-2400Pro, YN-2400			
Model No.	:	(Note: All samples are the same except the model number and Output			
		Power, so we prepare "YN-2400Pro" for test only.)			
Trade Mark	:	SLF .			
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	:	125-205kHz			
Modulation Type	:	ASK			
Antenna Type	:	Inductive loop coil Antenna			
Remark: 1) All of the RF specification are provided by customer. 2) For a more detailed features					

**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.

Hotline 400-003-0500 www.anbotek.com



#### Rating(s):



- DC Output ×2 + Cigarette Lighter Socket Output: Total 12V=10A USB-A Output ×2: 5V=3A, 9V=2A, 12V=1.5A, 18W Max USB-C Output ×2: 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)
- Date Code:

3.06.04.0875

┙







#### **⚠ WARNING!**

- ⚠ 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.

- Ne court-circuitez pas l'appareil. Pour éviter tout court-circuit, éloignez l'appareil de tout objet mé tallique (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

- 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 concernts.

- d'experience et de connaissances, a 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

Title	Manufacturer Model No.		Serial No.
		15W Smart wireless	
Wireless load	BAECOAR	charger fixture	/
		wireless charging	

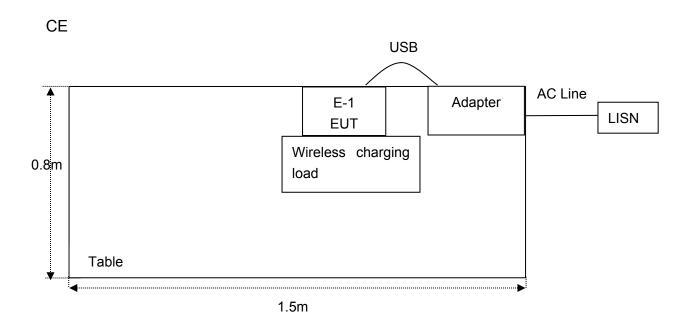
#### 1.4. Description of Test Modes

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.

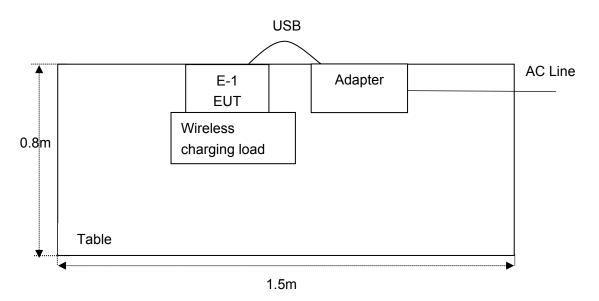
Pretest Modes	Descriptions		
TM1	WTP Mode (10W 1% Load)		
TM2	WTP Mode (10W 50% Load)		
TM3	WTP Mode (10W 99% Load)		
TM4 Standby Mode			



### 1.5. Description Of Test Setup



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	2024-09-09	1 Year
2.	Three Phase V- type Artificial Power Network	CYBERTEK	EM5040DT	E215040DT00	2025-01-13	1 Year
3.	EMI Test Receiver	Rohde & Schwarz	ESCI	100627	2025-01-13	1 Year
4.	EMI Test Receiver	Rohde & Schwarz	ESR26	101481	2025-01-14	1 Year
5.	MXA Spectrum Analysis	Agilent	N9020A	MY51170037	2024-09-09	1 Year
6.	EMI Preamplifier	SKET Electronic	LNPA-0118G- 45	SKET-PA-002	2025-01-13	1 Year
7.	Double Ridged Horn Antenna	SCHWARZBECK	BBHA 9120D	02555	2022-10-16	3 Year
8.	Bilog Broadband Antenna	Schwarzbeck	VULB9163	345	2022-10-23	3 Year
9.	Loop Antenna(9K- 30M)	Schwarzbeck	FMZB1519B	00053	2024-09-12	1 Year
10.	Horn Antenna	A-INFO	LB-180400-KF	J211060628	2024-01-22	3 Year
11.	Pre-amplifier	SONOMA	310N	186860	2025-01-14	1 Year
12.	EMI Test Software EZ-EMC	SHURPLE	N/A	N/A	N/A	N/A
13.	MXA Spectrum Analysis	KEYSIGHT	N9020A	MY53280032	2024-09-09	1 Year
14.	MXG RF Vector Signal Generator	Agilent	N5182A	MY47420822	2025-02-21	1 Year
15.	Signal Generator	gnal Generator Agilent E4421B MY41000743		2025-02-21	1 Year	
16.	DC Power Supply	IVYTECH	IV3605	1804D360510	2024-09-09	1 Year
17.	Constant Temperature Humidity Chamber	ZHONGJIAN	ZJ-KHWS80B	N/A	2024-10-14	1 Year
18.	Spectrum Analyzer	Rohde & Schwarz	FSV40-N	102150	2025-05-06	1 Year





#### 1.7. Measurement Uncertainty

Uncertainty			
3.2dB			
925Hz			
3.26dB			
Horizontal: 3.70dB; Vertical: 4.42dB			

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.: 279531

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. 279531.

#### **Test Location**

Shenzhen Anbotek Compliance Laboratory Limited.

Sogood Industrial Zone Laboratory & 1/F. of Building D, Sogood Science and Technology Park, Sanwei Community, Hangcheng Subdistrict, 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 Anbotek 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.
- 7. The data in this report will be synchronized with the corresponding national market supervision and management departments and cross-border e-commerce platforms as required by regulatory agencies.

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
15.215(c)	20dB Occupy Bandwidth	PASS

Note: N/A" denotes test is not applicable in this Test Report



#### 3. Conducted Emission Test

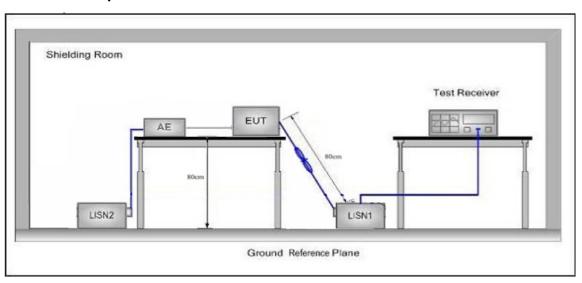
#### 3.1. Test Standard and Limit

Test Standard	FCC Part15 Section 15.207				
	Fraguanay	Maximum RF Line Voltage (dBuV)			
Test Limit	Frequency	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

#### **PASS**

During the test, pre-scan all modes, only the worst case is recorded in the report. Please to see the following pages.



#### **Conducted Emission Test Data**

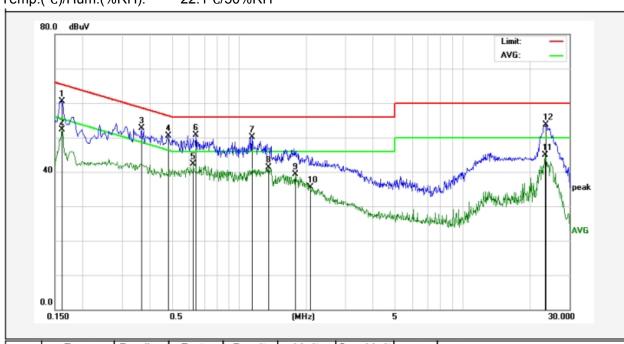
Test Site: 1# Shielded Room

Operating Condition: TM1

Test Specification: AC 120V/60Hz

Comment: Live Line

Temp.(°C)/Hum.(%RH): 22.1°C/50%RH



No.	Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit (dBuV)	Over Limit (dB)	Detector	Remark
1	0.1620	42.75	17.83	60.58	65.36	-4.78	QP	
2	0.1620	34.47	17.83	52.30	55.36	-3.06	AVG	
3	0.3660	34.88	17.82	52.70	58.59	-5.89	QP	
4	0.4820	32.61	17.85	50.46	56.30	-5.84	QP	
5	0.6260	24.35	17.87	42.22	46.00	-3.78	AVG	
6	0.6419	32.89	17.87	50.76	56.00	-5.24	QP	
7	1.1460	32.16	17.86	50.02	56.00	-5.98	QP	
8	1.3580	23.44	17.86	41.30	46.00	-4.70	AVG	
9	1.7820	21.35	17.86	39.21	46.00	-6.79	AVG	
10	2.0940	17.70	17.85	35.55	46.00	-10.45	AVG	
11	23.2740	26.39	18.42	44.81	50.00	-5.19	AVG	
12	23.5660	35.37	18.43	53.80	60.00	-6.20	QP	

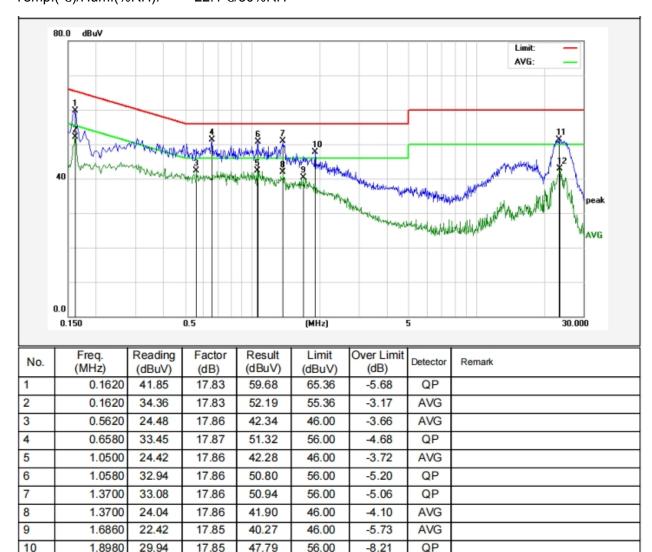


#### **Conducted Emission Test Data**

Test Site: 1# Shielded Room

Operating Condition: TM1

Test Specification: AC 120V/60Hz
Comment: Neutral Line
Temp.(°C)/Hum.(%RH): 22.1°C/50%RH



Note:

11

12

Result( $dB\mu V$ ) = Reading( $dB\mu V$ ) + Factor(dB); Over Limit(dB) = Result( $dB\mu V$ ) - Limit( $dB\mu V$ )

32.88

24.41

Code:AB-RF-05-b



23.3860

23.5380

18,42

18.43

51.30

42.84

60.00

60.00

-8.70

-17.16

QP

QP



### 4. Radiation Spurious Emission Test

#### 4.1. Test Standard and Limit

Test Standard	andard FCC Part15 C Section 15.209 and 15.205								
	Frequency	Field strength	Limit	Remark	Measurement				
	(MHz)	(microvolt/meter)	(dBuV/m)	Remark	distance (m)				
	0.009MHz~0.490MHz	2400/F(kHz)	-	-	300				
	0.490MHz-1.705MHz	24000/F(kHz)	-	-	30				
	1.705MHz-30MHz	30	-	-	30				
Test Limit	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				
	Above 1000IVITZ	-	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

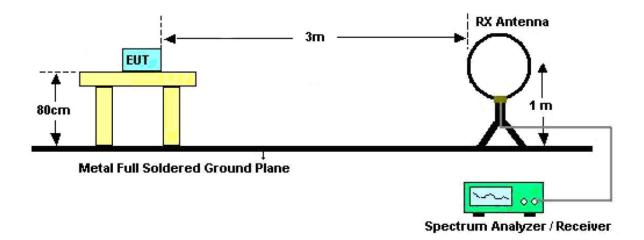


Figure 1. Below 30MHz



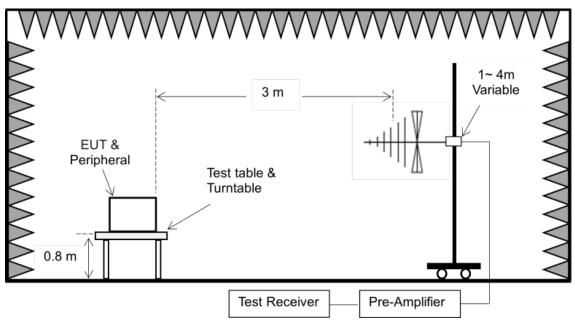


Figure 2. 30MHz to 1GHz

#### 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 modes, only the worst case is recorded in the report.

Please to see the following pages.





#### Test Results (Between 9KHz - 150KHz)

Test Mode: TM1 Distance: 3m

Power Source: AC 120V/60Hz

Polarization: X

Temp.(°C)/Hum.(%RH): 25.1°C/51%RH

Fundamental



No.	Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector	Remark
1	0.0097	18.18	20.10	38.28	127.66	-89.38	peak	
2	0.0129	16.80	20.15	36.95	125.20	-88.25	peak	
3	0.0171	12.76	20.14	32.90	122.77	-89.87	peak	
4	0.0223	15.11	20.34	35.45	120.47	-85.02	peak	
5	0.0458	13.11	20.46	33.57	114.26	-80.69	peak	
6	0.1280	26.77	20.34	47.11	105.39	-58.28	peak	



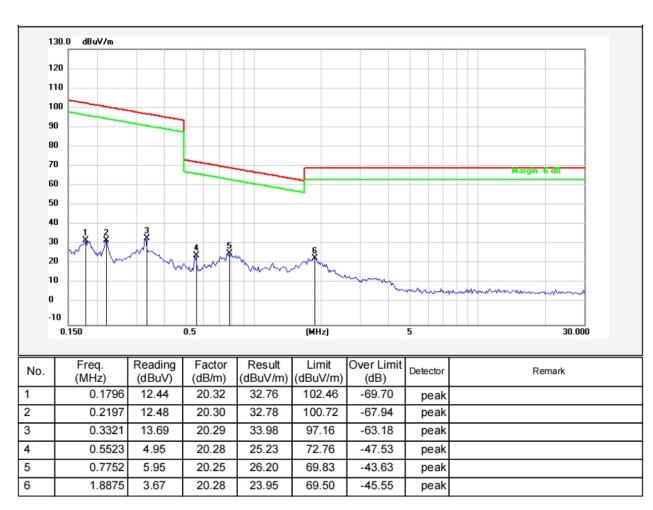
#### Test Results (Between 0.15MHz - 30MHz)

Test Mode: TM1
Distance: 3m

Power Source: AC 120V/60Hz

Polarization: X

Temp.(°C)/Hum.(%RH): 25.1°C/51%RH



**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.





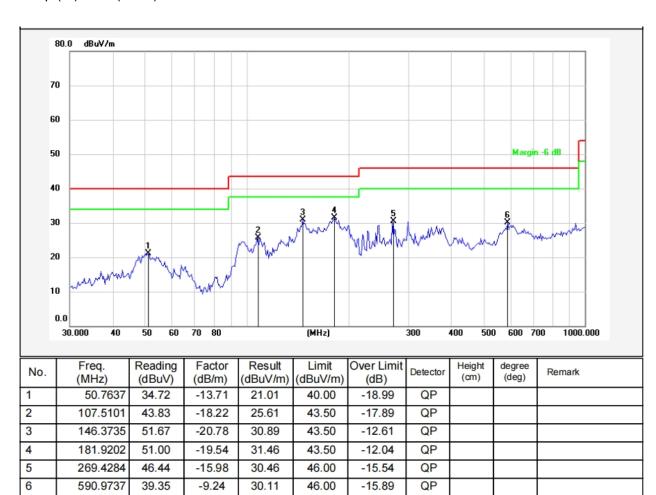
#### Test Results (Between 30MHz -1000 MHz)

Test Mode: TM1 Distance: 3m

Power Source: AC 120V/60Hz

Polarization: Horizontal

Temp.(°C)/Hum.(%RH): 25.1°C/49%RH



Hotline 400-003-0500 www.anbotek.com

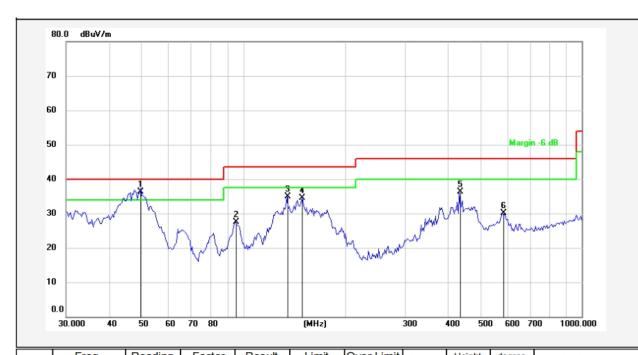


Test Mode: TM1 Distance: 3m

Power Source: AC 120V/60Hz

Polarization: Vertical

Temp.(°C)/Hum.(%RH): 25.1°C/49%RH



No.	Freq. (MHz)	(dBuV)	(dB/m)	(dBuV/m)	Limit (dBuV/m)	(dB)	Detector	Height (cm)	degree (deg)	Remark
1	49.7068	49.82	-13.51	36.31	40.00	-3.69	QP			
2	94.7601	45.42	-17.96	27.46	43.50	-16.04	QP			
3	134.5592	56.80	-21.82	34.98	43.50	-8.52	QP			
4	149.4857	55.10	-20.53	34.57	43.50	-8.93	QP			
5	434.0651	48.69	-12.39	36.30	46.00	-9.70	QP			
6	582.7425	39.47	-9.43	30.04	46.00	-15.96	QP			

### 5. 20dB Occupy Bandwidth Test

#### 5.1. 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.

#### 5.2. Test Setup



#### 5.3. Test Procedure

The bandwidth of the fundamental frequency was measured by spectrum analyzer with RBW=1%-5%OBW, VBW≥3\*RBW. The 20dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 20dB.

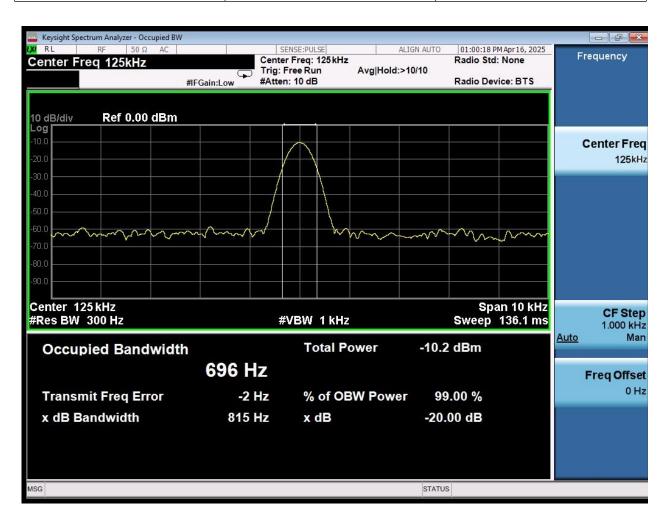
#### 5.4. Test Data

Temperature:	25.7 °C	Humidity:	56 %	Atmospheric Pressure:	101 kPa
--------------	---------	-----------	------	-----------------------	---------





Freq. (MHz)	Bandwidth (kHz)	Results	
0.125	0.815	PASS	



Note: The measured signal is Cw-like, adjusting the RBW per C63.10 would not be practical since measurement bandwidth will always follow the RBW. The RBW is set to 300Hz to perform the occupied bandwidth test.



### 6. Antenna Requirement

### 6.1. Test Standard and Requirement

Test Standard	FCC Part15 Section 15.203
	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
Requirement	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.

#### 6.2. Antenna Connected Construction

The antenna is a Inductive loop coil Antenna which permanently attached. 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	