

FCC Test Report

Applicant

: Shenzhen Nuotianxia Technology CO.,LTD

Address

: 21F, 3nod Building, 3388Binhai Avenue, Binhai community, YueHai street, Nanshan, Shenzhen, China

Product Name

: Portable Power Station

Report Date

: May 24, 2024

**Shenzhen Anbotek Compliance Laboratory Limited****Shenzhen Anbotek Compliance Laboratory Limited**Address: 1/F., Building D, Sogood Science and Technology Park, Sanwei Community, Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China.
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Report No.: 18360WC40005401

FCC ID: 2BE3Z-SN300X

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TEST REPORT

Applicant : Shenzhen Nuotianxia Technology CO.,LTD
Manufacturer : SHENZHEN 3NOD ELECTRONICS CO.,LTD.
Product Name : Portable Power Station
Test Model No. : SN-300X
Reference Model No. : N/A
Trade Mark : 
Rating(s) : Please refer to page 6
Test Standard(s) : 47 CFR Part 15.209
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 above listed standard(s) 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: Apr. 26, 2024

Date of Test: Apr. 28, 2024 to May 13, 2024

Prepared By:


(Ella Liang)

Approved & Authorized Signer:


(Edward Pan)

Shenzhen Anbotek Compliance Laboratory Limited

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Revision History

Report Version	Description	Issued Date
R00	Original Issue.	May 24, 2024

Shenzhen Anbotek Compliance Laboratory Limited

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1. General Information

1.1. Client Information

Applicant	:	Shenzhen Nuotianxia Technology CO.,LTD
Address	:	21F, 3nod Building, 3388Binhai Avenue, Binhai community, YueHai street, Nanshan, Shenzhen, China
Manufacturer	:	SHENZHEN 3NOD ELECTRONICS CO.,LTD.
Address	:	2F, No.74, Yangyong Road, Tangxiayong Community, Yanluo Street, Baoan, Shenzhen, Guangdong, China
Factory	:	SHENZHEN 3NOD ELECTRONICS CO.,LTD.
Address	:	2F, No.74, Yangyong Road, Tangxiayong Community, Yanluo Street, Baoan, Shenzhen, Guangdong, China

1.2. Description of Device (EUT)

Product Name	:	Portable Power Station
Test Model No.	:	SN-300X
Reference Model No.	:	N/A
Trade Mark	:	
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
Number of Channel	:	1 channel
Modulation Type	:	ASK
Antenna Type	:	Inductive loop coil Antenna
Antenna Gain(Peak)	:	0 dBi

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):**NODSOLEX**

PRODUCT ----- Portable Power Station
MODEL ----- SN-300X
CAPACITY ----- 249.6Wh
NOMINAL VOLTAGE ----- 12.8V
AC INPUT ----- 100-130V AC / 60Hz (200W Max)
XT60 INPUT ----- 12-28V DC, 8A (100W Max)
Type-C INPUT / OUTPUT ----- 5V ==3A, 9V ==3A
12V ==3A, 15V ==3A
20V ==5A (100W Max)
USB-A1/A2 OUTPUT ----- 5V ==3A, 9V ==2A
12V ==1.5A (18W Max)
Wireless Charge ----- 15W Max
AC OUTPUT ----- 120V AC / 60Hz, 300W Total
DC OUTPUT ----- 12V DC 10A, 120W Total
CHARGING TEMPERATURE ----- -0~40°C (32~104°F)
DISCHARGING TEMPERATURE ----- -10~40°C (14~104°F)
FCC ID: 2BE3Z-SN300X

CAUTION:

This device is not intended for use in a commercial repair facility. Risk of Electric Shock. Refer replacement to qualified service personnel. Do not remove cover. Risk of Injury To Persons. Do not use this product if the power cord or the battery cables are damaged in any way. Risk of Electric Shock. Connect only to properly grounded outlets.

WARNING:

Risk of Electric Shock and Risk of Fire. This device is not to be stored in a vehicle. 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.

FCC | UN38.3www.nodsolex.com

SN 0300G3VAAOGY00001

SHENZHEN 3NOD ELECTRONICS CO., LTD. MADE IN CHINA

Shenzhen Anbotek Compliance Laboratory Limited

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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
Adapter	Model: MDY-11-EX Input: 100-240V-0.7A, 50-60Hz USB-A output: 5V= 3A, 9V= 3A, 12V= 2.25A, 20V= 1.35A, 11V= 3A

1.4. Description of Test Modes

Pretest Modes	Descriptions
TM1	Adapter+WTP Mode (5W 1% Load)
TM2	Adapter+WTP Mode (5W 50% Load)
TM3	Adapter+WTP Mode (5W 99% Load)
TM4	Adapter+WTP Mode (7.5W 1% Load)
TM5	Adapter+WTP Mode (7.5W 50% Load)
TM6	Adapter+WTP Mode (7.5W 99% Load)
TM7	Adapter+WTP Mode (10W 1% Load)
TM8	Adapter+WTP Mode (10W 50% Load)
TM9	Adapter+WTP Mode (10W 99% Load)
TM10	Adapter+WTP Mode (15W 1% Load)
TM11	Adapter+WTP Mode (15W 50% Load)
TM12	Adapter+WTP Mode (15W 99% Load)



1.5. Measurement Uncertainty

Parameter	Uncertainty
Conducted emissions (AMN 150kHz~30MHz)	3.8dB
Radiated emissions (Below 30MHz)	3.53dB
Radiated spurious emissions (30MHz~1GHz)	Horizontal: 3.92dB; Vertical: 4.52dB
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.	

1.6. Test Summary

Test Items	Test Modes	Status
Antenna requirement	/	P
Conducted Emission at AC power line	Mode1	P
Emissions in frequency bands (below 30MHz)	Mode1	P
Emissions in frequency bands (30MHz - 1GHz)	Mode1	P
Note: P: Pass N: N/A, not applicable		

1.7. 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.

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1.8. 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.

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



1.9. Test Equipment List

Conducted Emission at AC power line						
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal.Due Date
1	L.I.S.N. Artificial Mains Network	Rohde & Schwarz	ENV216	100055	2024-01-18	2025-01-17
2	Three Phase V-type Artificial Power Network	CYBERTEK	EM5040DT	E215040D T001	2024-01-17	2025-01-16
3	EMI Test Receiver	Rohde & Schwarz	ESCI	100627	2024-01-17	2025-01-16
4	Software Name EZ-EMC	Farad Technology	ANB-03A	N/A	/	/

Emissions in frequency bands (below 30MHz)						
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal.Due Date
1	EMI Test Receiver	Rohde & Schwarz	ESR26	101481	2024-01-23	2025-01-22
2	Pre-amplifier	SONOMA	310N	186860	2024-01-17	2025-01-16
3	Loop Antenna (9K-30M)	Schwarzbeck	FMZB1519 B	00053	2023-10-12	2024-10-11
4	Software Name EZ-EMC	Farad Technology	ANB-03A	N/A	/	/

Emissions in frequency bands (30MHz - 1GHz)						
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal.Due Date
1	EMI Test Receiver	Rohde & Schwarz	ESR26	101481	2024-01-23	2025-01-22
2	Pre-amplifier	SONOMA	310N	186860	2024-01-17	2025-01-16
3	Bilog Broadband Antenna	Schwarzbeck	VULB9163	345	2022-10-23	2025-10-22
4	Loop Antenna (9K-30M)	Schwarzbeck	FMZB1519 B	00053	2023-10-12	2024-10-11
5	EMI Test Software EZ-EMC	SHURPLE	N/A	N/A	/	/



2. Antenna requirement

Test Requirement:	Refer to 47 CFR Part 15.203, 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 shall be considered sufficient to comply with the provisions of this section.
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2.1. Conclusion

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



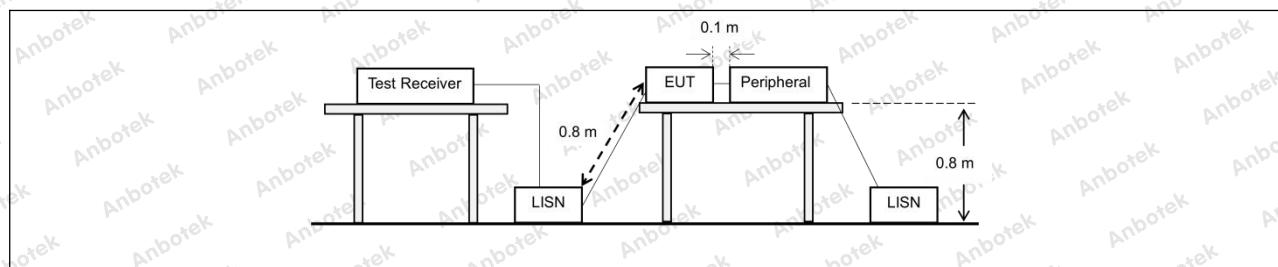
3. Conducted Emission at AC power line

Test Requirement:	Except as shown in paragraphs (b) and (c) of this section, for an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table, as measured using a 50 μ H/50 ohms line impedance stabilization network (LISN).			
Test Limit:	Frequency of emission (MHz)		Conducted limit (dB μ V)	
	Quasi-peak		Average	
	0.15-0.5	66 to 56*	56 to 46*	
	0.5-5	56	46	
5-30		60	50	
*Decreases with the logarithm of the frequency.				
Test Method:	ANSI C63.10-2020 section 6.2			
Procedure:	Refer to ANSI C63.10-2020 section 6.2, standard test method for ac power-line conducted emissions from unlicensed wireless devices			

3.1. EUT Operation

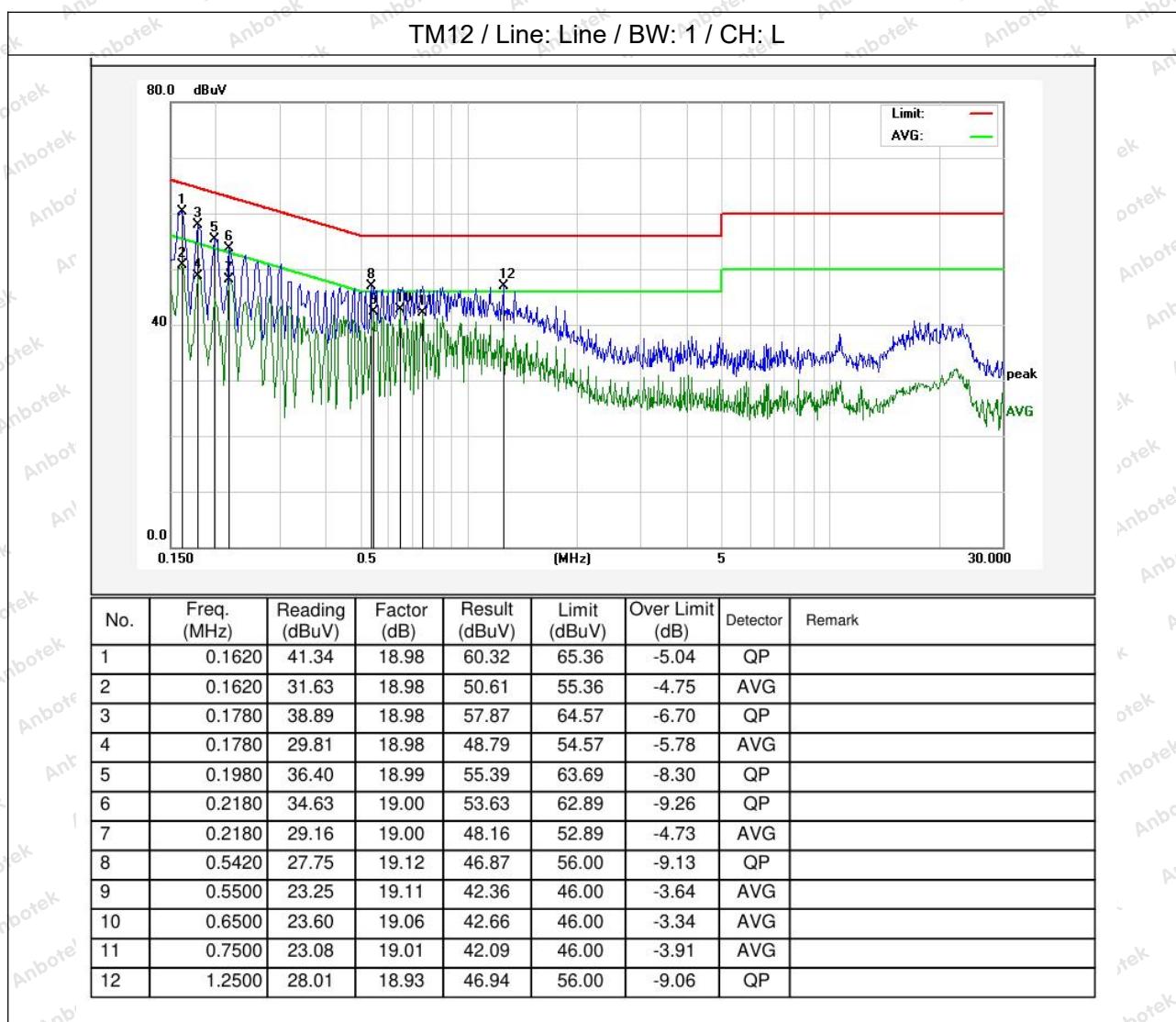
Operating Environment:		
Test mode:	TM1	Adapter+WTP Mode (5W 1% Load)
	TM2	Adapter+WTP Mode (5W 50% Load)
	TM3	Adapter+WTP Mode (5W 100% Load)
	TM4	Adapter+WTP Mode (7.5W 1% Load)
	TM5	Adapter+WTP Mode (7.5W 50% Load)
	TM6	Adapter+WTP Mode (7.5W 100% Load)
	TM7	Adapter+WTP Mode (10W 1% Load)
	TM8	Adapter+WTP Mode (10W 50% Load)
	TM9	Adapter+WTP Mode (10W 100% Load)
	TM10	Adapter+WTP Mode (15W 1% Load)
	TM11	Adapter+WTP Mode (15W 50% Load)
	TM12	Adapter+WTP Mode (15W 100% Load)

3.2. Test Setup

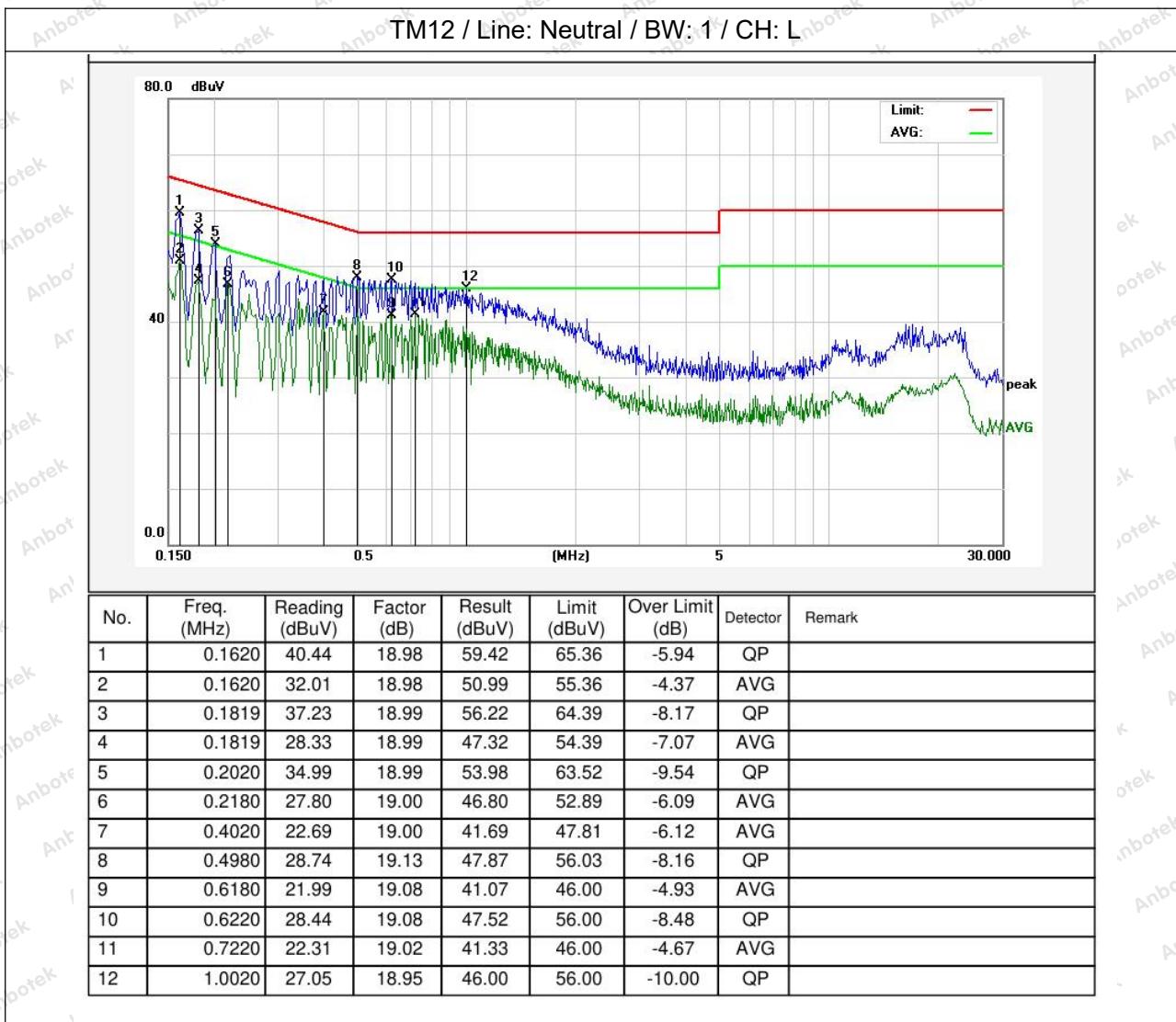


3.3. Test Data

Temperature:	23.4 °C	Humidity:	51 %	Atmospheric Pressure:	101 kPa
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Temperature:	23.4 °C	Humidity:	51 %	Atmospheric Pressure:	101 kPa
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Note: During the test, pre-scan all modes, only the worst case is recorded in the report.



4. Emissions in frequency bands (below 30MHz)

Test Requirement:	47 CFR Part 15.209			
	Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)	
	0.009-0.490	2400/F(kHz)	300	
	0.490-1.705	24000/F(kHz)	30	
	1.705-30.0	30	30	
	30-88	100 **	3	
	88-216	150 **	3	
	216-960	200 **	3	
	Above 960	500	3	
Test Limit:	<p>** Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this part, e.g., §§ 15.231 and 15.241.</p> <p>In the emission table above, the tighter limit applies at the band edges. The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except 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.</p> <p>As shown in § 15.35(b), for frequencies above 1000 MHz, the field strength limits in paragraphs (a) and (b) of this section are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. For point-to-point operation under paragraph (b) of this section, the peak field strength shall not exceed 2500 millivolts/meter at 3 meters along the antenna azimuth.</p>			
Test Method:	ANSI C63.10-2020 section 6.4			
Procedure:	ANSI C63.10-2020 section 6.4			

4.1. EUT Operation

Operating Environment:		
Test mode:	TM1	Adapter+WTP Mode (5W 1% Load)
	TM2	Adapter+WTP Mode (5W 50% Load)
	TM3	Adapter+WTP Mode (5W 100% Load)
	TM4	Adapter+WTP Mode (7.5W 1% Load)
	TM5	Adapter+WTP Mode (7.5W 50% Load)
	TM6	Adapter+WTP Mode (7.5W 100% Load)
	TM7	Adapter+WTP Mode (10W 1% Load)
	TM8	Adapter+WTP Mode (10W 50% Load)
	TM9	Adapter+WTP Mode (10W 100% Load)
	TM10	Adapter+WTP Mode (15W 1% Load)
	TM11	Adapter+WTP Mode (15W 50% Load)
	TM12	Adapter+WTP Mode (15W 100% Load)

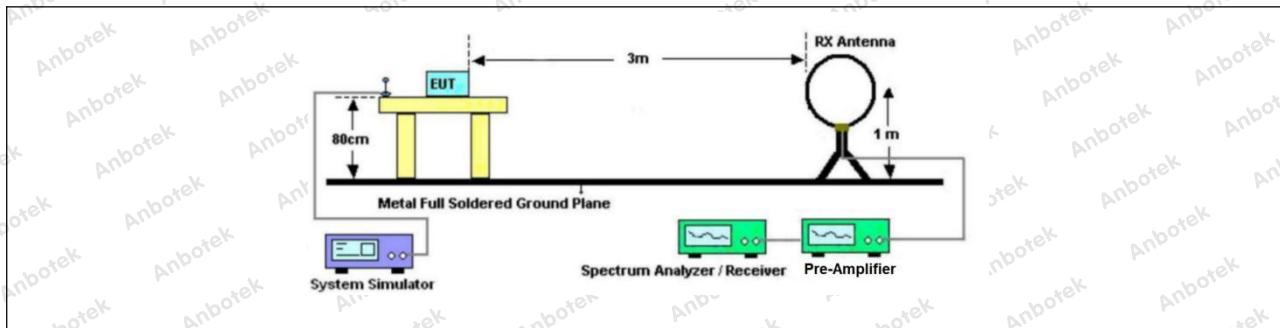
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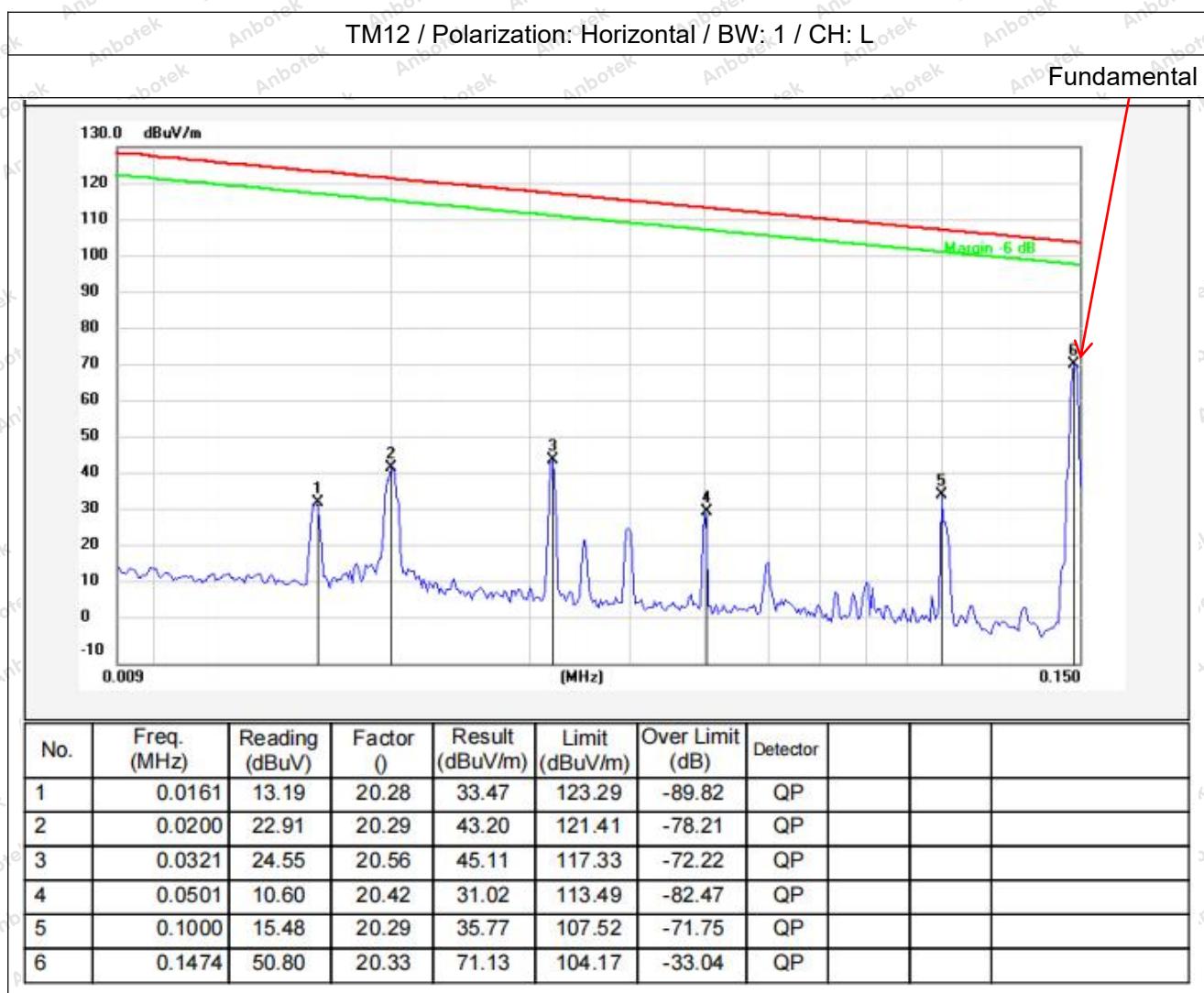


4.2. Test Setup

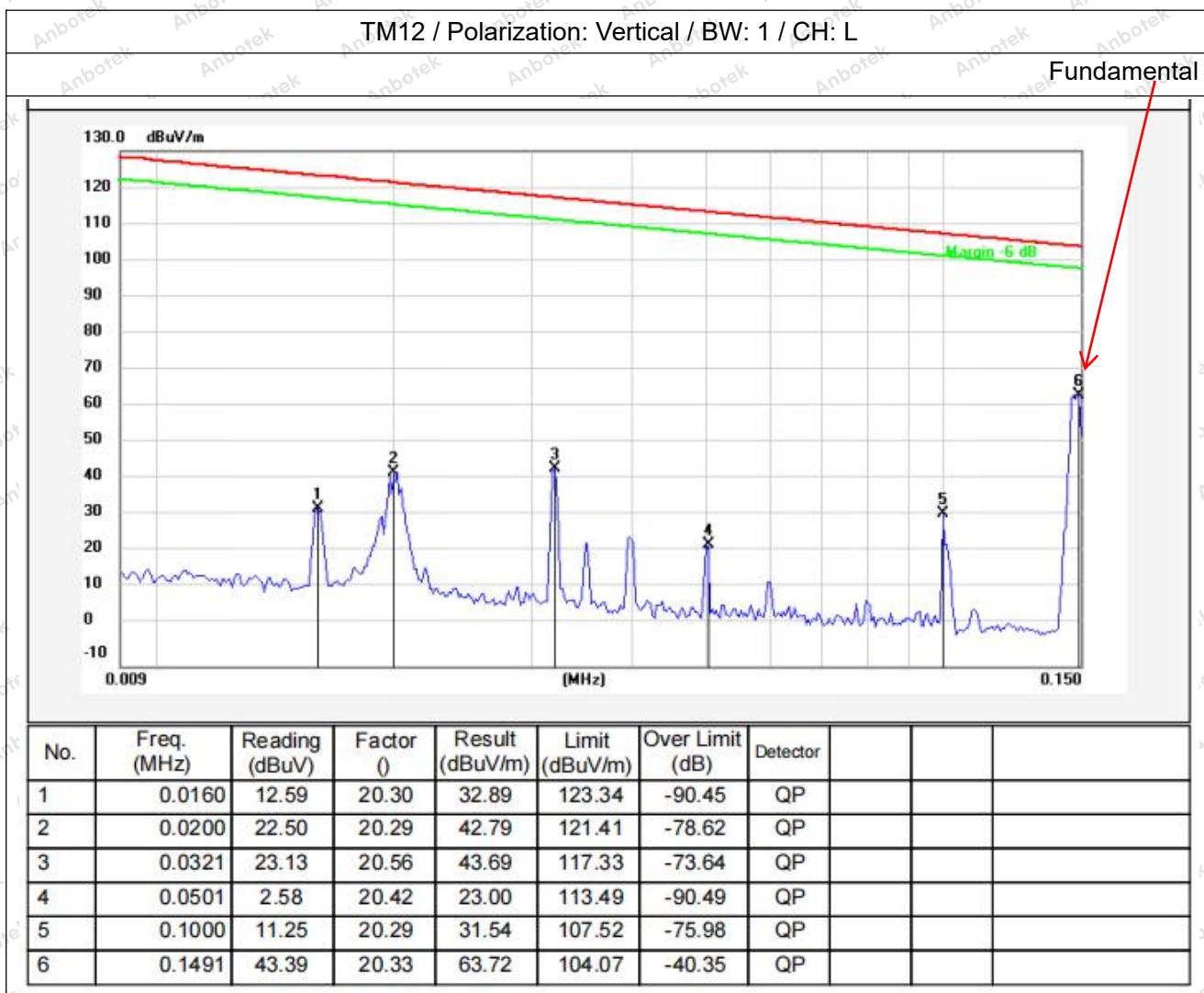


4.3. Test Data

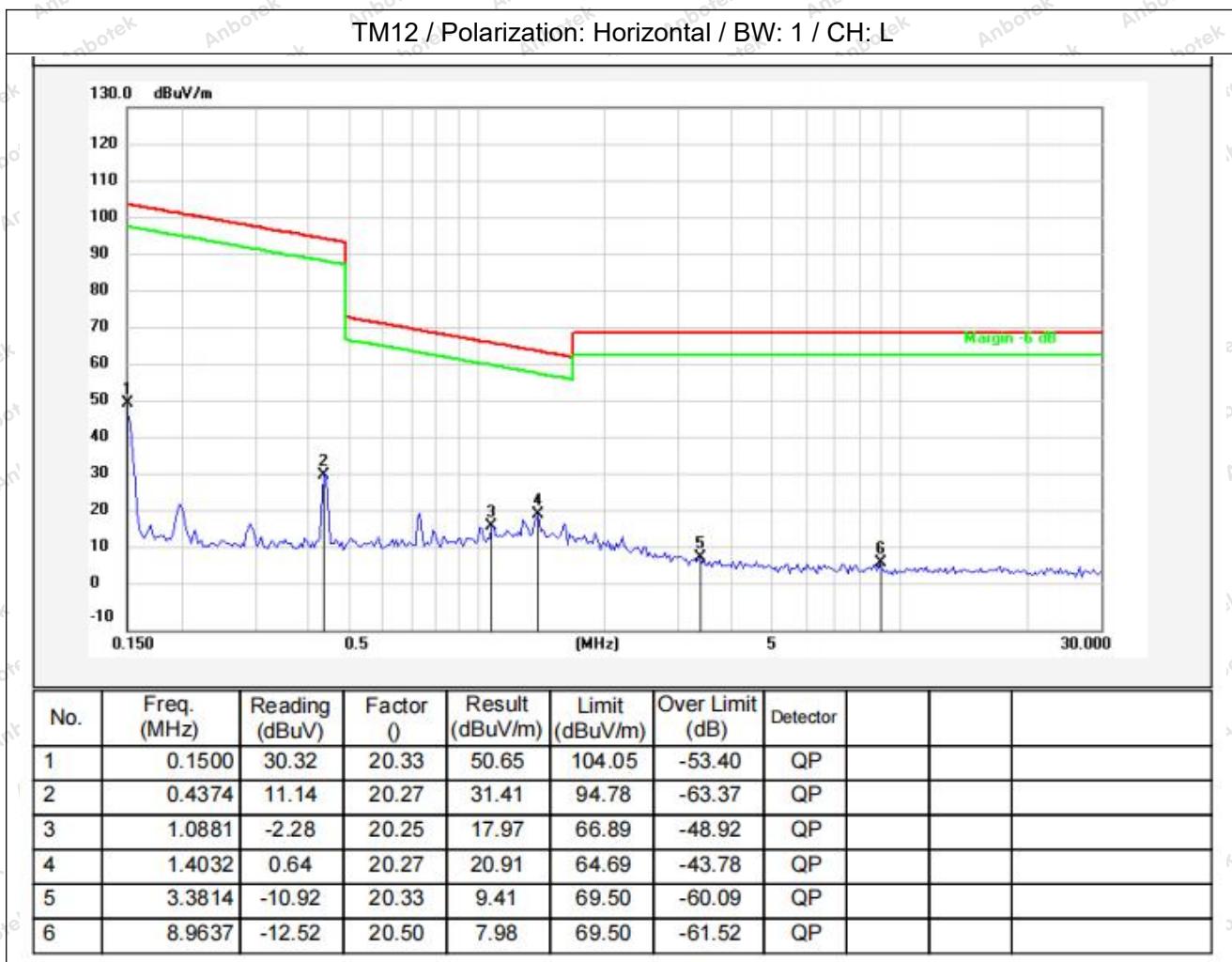
Temperature:	23.5 °C	Humidity:	49 %	Atmospheric Pressure:	101 kPa
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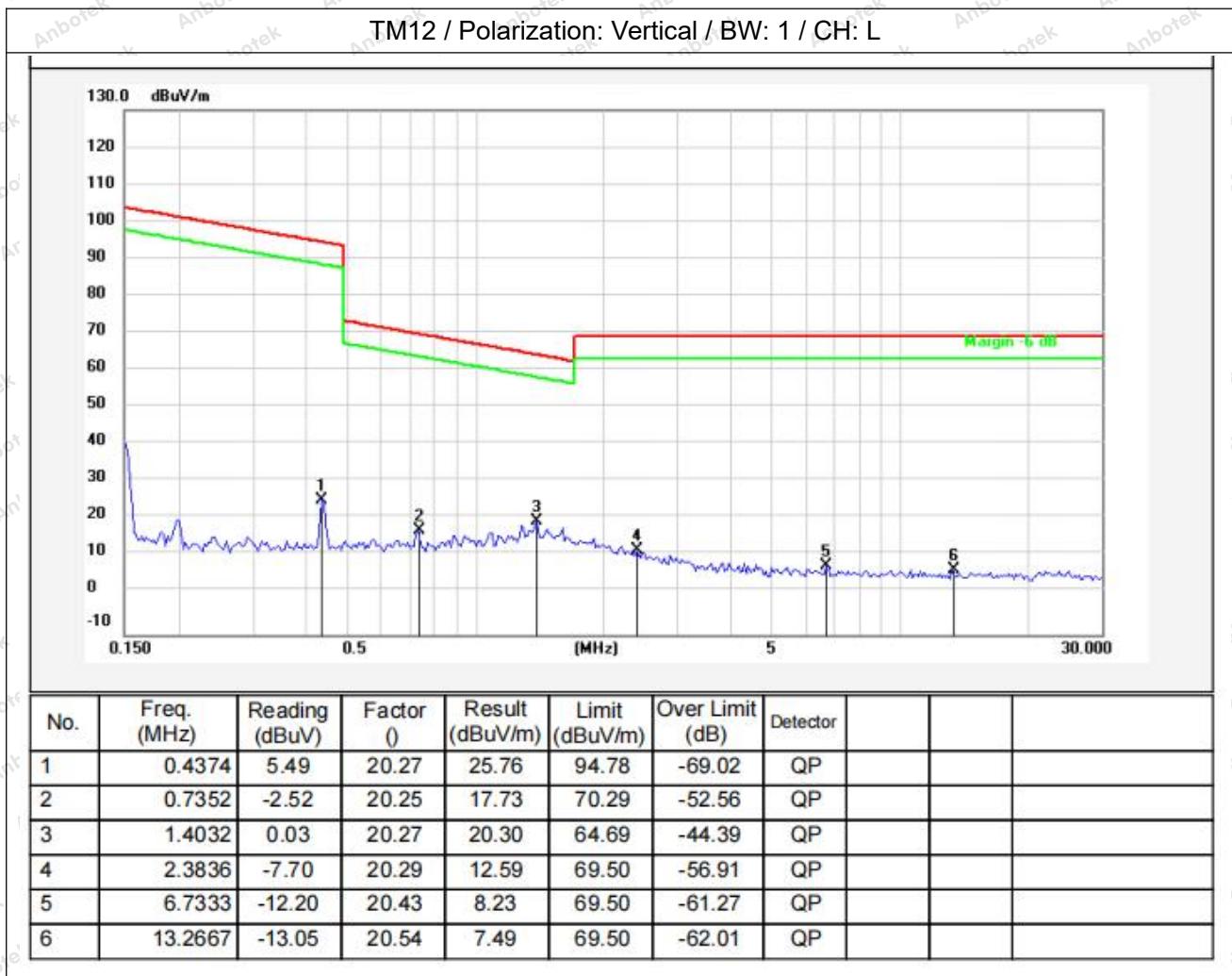
Temperature:	23.5 °C	Humidity:	49 %	Atmospheric Pressure:	101 kPa
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Temperature:	23.5 °C	Humidity:	49 %	Atmospheric Pressure:	101 kPa
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Temperature:	23.5 °C	Humidity:	49 %	Atmospheric Pressure:	101 kPa
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Note: During the test, pre-scan all modes, only the worst case is recorded in the report.



5. Emissions in frequency bands (30MHz - 1GHz)

Test Requirement:	47 CFR Part 15.209			
	Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)	
	0.009-0.490	2400/F(kHz)	300	
	0.490-1.705	24000/F(kHz)	30	
	1.705-30.0	30	30	
	30-88	100 **	3	
	88-216	150 **	3	
	216-960	200 **	3	
	Above 960	500	3	
Test Limit:	<p>** Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this part, e.g., §§ 15.231 and 15.241.</p> <p>In the emission table above, the tighter limit applies at the band edges. The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except 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.</p> <p>As shown in § 15.35(b), for frequencies above 1000 MHz, the field strength limits in paragraphs (a) and (b) of this section are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. For point-to-point operation under paragraph (b) of this section, the peak field strength shall not exceed 2500 millivolts/meter at 3 meters along the antenna azimuth.</p>			
Test Method:	ANSI C63.10-2020 section 6.5			
Procedure:	ANSI C63.10-2020 section 6.5			

5.1. EUT Operation

Operating Environment:		
Test mode:	TM1	Adapter+WTP Mode (5W 1% Load)
	TM2	Adapter+WTP Mode (5W 50% Load)
	TM3	Adapter+WTP Mode (5W 100% Load)
	TM4	Adapter+WTP Mode (7.5W 1% Load)
	TM5	Adapter+WTP Mode (7.5W 50% Load)
	TM6	Adapter+WTP Mode (7.5W 100% Load)
	TM7	Adapter+WTP Mode (10W 1% Load)
	TM8	Adapter+WTP Mode (10W 50% Load)
	TM9	Adapter+WTP Mode (10W 100% Load)
	TM10	Adapter+WTP Mode (15W 1% Load)
	TM11	Adapter+WTP Mode (15W 50% Load)
	TM12	Adapter+WTP Mode (15W 100% Load)

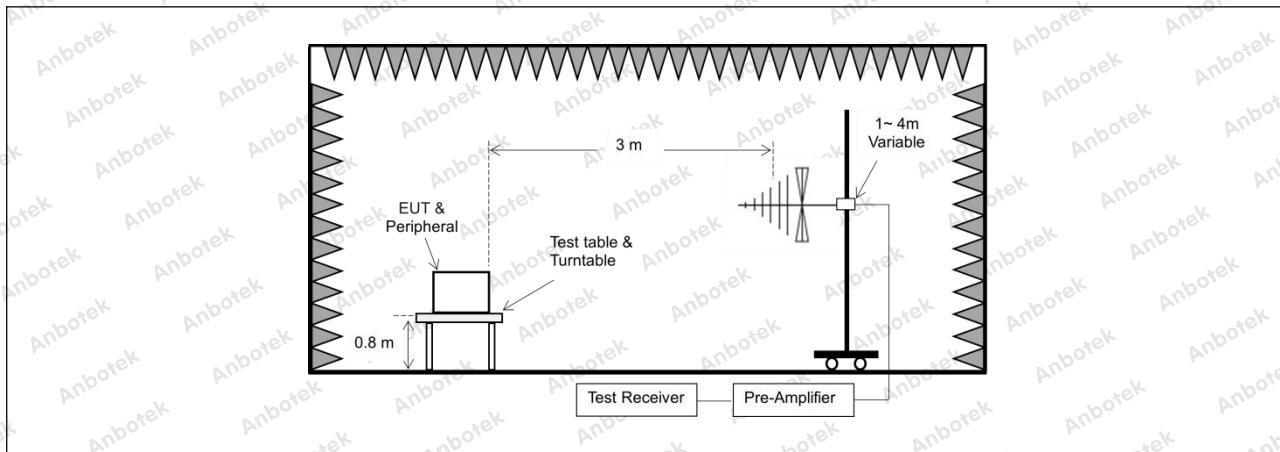
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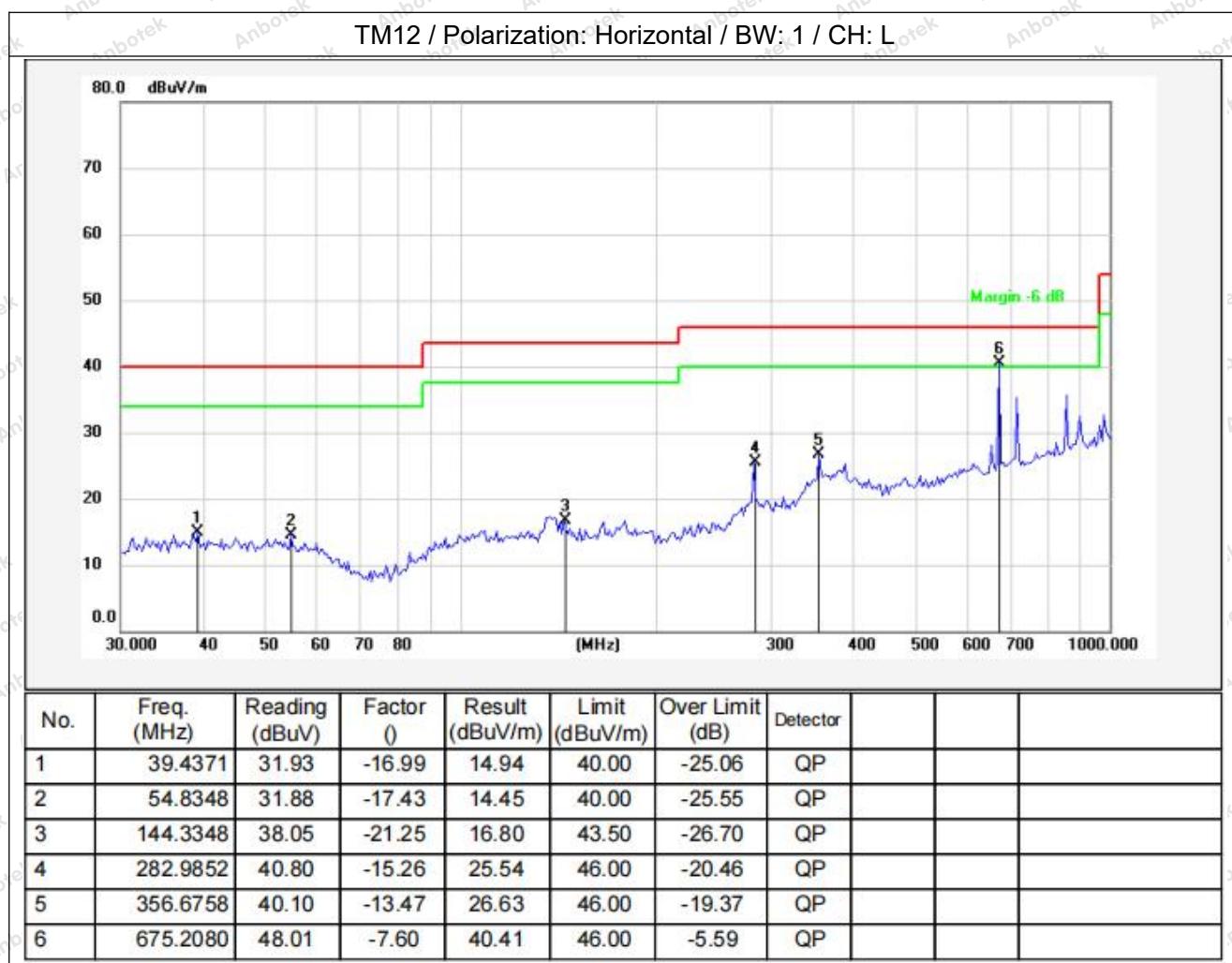


5.2. Test Setup

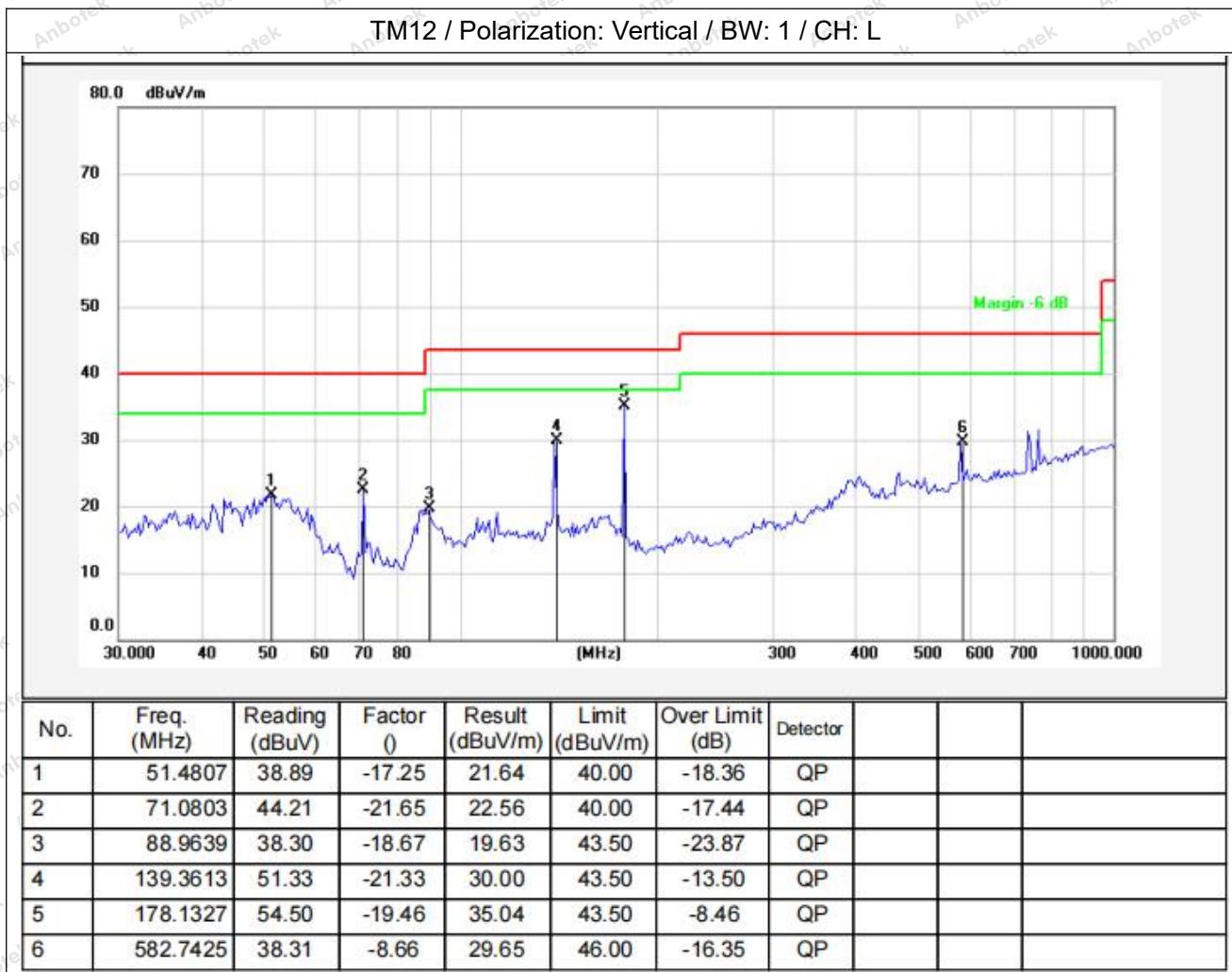


5.3. Test Data

Temperature:	23.5 °C	Humidity:	49 %	Atmospheric Pressure:	101 kPa
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Temperature:	23.5 °C	Humidity:	49 %	Atmospheric Pressure:	101 kPa
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Note: During the test, pre-scan all modes, only the worst case is recorded in the report.



Report No.: 18360WC40005401

FCC ID: 2BE3Z-SN300X

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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 -----