

TEST REPORT

FCC ID. :	2AYT3-PIONEERNA	
Test Report No..... :	TCT250612E031	
Date of issue..... :	Jul. 28, 2025	
Testing laboratory	SHENZHEN TONGCE TESTING LAB	
Testing location/ address:	2101 & 2201, Zhenchang Factory, Renshan Industrial Zone, Fuhai Subdistrict, Bao'an District, Shenzhen, Guangdong, 518103, People's Republic of China	
Applicant's name..... :	SHENZHEN POWEROAK NEWENER CO., LTD	
Address..... :	F19, BLD No.1, Kaidaer Tongsha Rd No.168, Xili Street, Nanshan, Shenzhen, China	
Manufacturer's name ... :	SHENZHEN POWEROAK NEWENER CO., LTD	
Address..... :	F19, BLD No.1, Kaidaer Tongsha Rd No.168, Xili Street, Nanshan, Shenzhen, China	
Standard(s)	FCC CFR Title 47 Part 15 Subpart C	
Product Name..... :	Portable Power Station	
Trade Mark	BLUETTI	
Model/Type reference..... :	Pioneer Na	
Rating(s)..... :	Refer to EUT description of page 3	
Date of receipt of test item	Jun. 12, 2025	
Date (s) of performance of test..... :	Jun. 12, 2025 ~ Jul. 28, 2025	
Tested by (+signature) ... :	Yannie ZHONG	
Check by (+signature).... :	Beryl ZHAO	
Approved by (+signature):	Tomsin	

General disclaimer:

This report shall not be reproduced except in full, without the written approval of SHENZHEN TONGCE TESTING LAB. This document may be altered or revised by SHENZHEN TONGCE TESTING LAB personnel only, and shall be noted in the revision section of the document. The test results in the report only apply to the tested sample.

Table of Contents

1. General Product Information	3
1.1. EUT description	3
1.2. Model(s) list.....	3
2. Test Result Summary	4
3. General Information.....	5
3.1. Test environment and mode.....	5
3.2. Description of Support Units	5
4. Facilities and Accreditations	6
4.1. Facilities	6
4.2. Location	6
5. Measurement Uncertainty	6
6. Test Results and Measurement Data	7
6.1. Antenna requirement	7
6.2. Conducted Emission.....	8
6.3. Radiated Spurious Emission Measurement	12
6.4. 20dB Bandwidth	21
Appendix A: Photographs of Test Setup	
Appendix B: Photographs of EUT	

1. General Product Information

1.1. EUT description

Product Name.....:	Portable Power Station
Model/Type reference.....:	Pioneer Na
Hardware Version.....:	V4.0
Software Version	2190-10
Sample Number.....:	TCT250612E030-0101
Operation Frequency	110.26kHz ~ 145.90kHz
Output power.....:	5W/7.5W/10W/15W
Modulation Technology	Load modulation
Antenna Type.....:	Inductive loop coil Antenna
Rating(s).....:	Battery Capacity: DC 30V, 30Ah, 900Wh AC Input: AC 120V, 50/60Hz, 15A Max. DC/PV Input: DC 12V-60V, 10A, 500W Max. AC Output: AC 120V, 50/60Hz, 1500W/1500VA Max. USB-A*2 Output: DC 5V, 3A, 15W Total (Two groups) USB-C Output: DC 5/9/12/15/20V, 3A/ DC 20V, 5A (With E-Marker chip built in) Wireless Charging Output: 5/7.5/10/15W Cigarette Lighter Port Output: DC 12V, 10A AC & DC Output: 1500W Total

1.2. Model(s) list

None.

2. Test Result Summary

Requirement	CFR 47 Section	Result
Antenna requirement	§15.203	PASS
AC Power Line Conducted Emission	§15.207	PASS
Spurious Emission	§15.209(a)(f)	PASS
20dB Bandwidth	§15.215(c)	PASS

Note:

1. PASS: Test item meets the requirement.
2. Fail: Test item does not meet the requirement.
3. N/A: Test case does not apply to the test object.
4. The test result judgment is decided by the limit of test standard.

3. General Information

3.1. Test environment and mode

Operating Environment:		
Condition	Conducted Emission	Radiated Emission
Temperature:	24.8 °C	24.8 °C
Humidity:	50 % RH	54 % RH
Atmospheric Pressure:	1010 mbar	1010 mbar
Test Mode:		
Mode 1	Charging + Wireless Output	
Mode 2	Wireless Output(15W)	
Remark	Mode 1 is recorded for Conducted emission test, Mode 2 is recorded for Radiated emission test.	
The sample was placed 0.8m for the measurement below above the ground plane of 3m chamber. Measurements in both horizontal and vertical polarities were performed. During the test, each emission was maximized by: having the EUT continuously working, investigated all operating modes, rotated about all 3 axis (X, Y & Z) and considered typical configuration to obtain worst position, manipulating interconnecting cables, rotating the turntable, varying antenna height from 1m to 4m in both horizontal and vertical polarizations. The emissions worst-case (Z axis) are shown in Test Results of the following pages.		

3.2. Description of Support Units

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Equipment	Model No.	Serial No.	FCC ID	Trade Name
Load	/	/	/	/

Note:

1. All the equipment/cables were placed in the worst-case configuration to maximize the emission during the test.
2. Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use.

4. Facilities and Accreditations

4.1. Facilities

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

- FCC - Registration No.: 645098

SHENZHEN TONGCE TESTING LAB

Designation Number: CN1205

The testing lab has been registered and fully described in a report with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files.

- A2LA-No.: 4320.01

SHENZHEN TONGCE TESTING LAB

The testing lab has been accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 General requirements for the competence of testing and calibration laboratories.

4.2. Location

SHENZHEN TONGCE TESTING LAB

Address: 2101 & 2201, Zhenchang Factory, Renshan Industrial Zone, Fuhai Subdistrict, Bao'an District, Shenzhen, Guangdong, 518103, People's Republic of China

TEL: +86-755-27673339

5. Measurement Uncertainty

The reported uncertainty of measurement $y \pm U$, where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of $k=2$, providing a level of confidence of approximately 95 %.

No.	Item	MU
1	Conducted Emission	± 3.10 dB
2	RF power, conducted	± 0.12 dB
3	Spurious emissions, conducted	± 0.11 dB
4	All emissions, radiated(<1 GHz)	± 4.56 dB
5	All emissions, radiated(1 GHz - 18 GHz)	± 4.22 dB
6	All emissions, radiated(18 GHz- 40 GHz)	± 4.36 dB

6. Test Results and Measurement Data

6.1. Antenna requirement

Standard requirement:

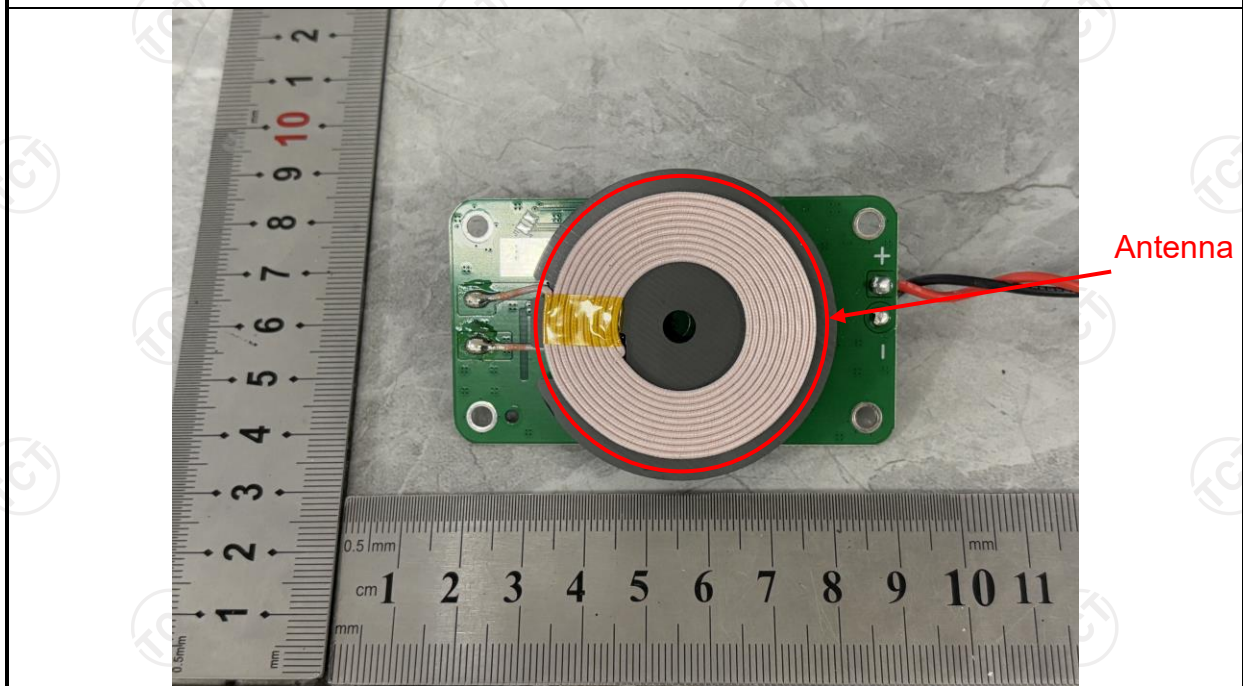
FCC Part15 C Section 15.203

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.

E.U.T Antenna:

The antennas are inductive loop coil antenna which permanently attached.



6.2. Conducted Emission

6.2.1. Test Specification

Test Requirement:	FCC Part15 C Section 15.207														
Test Method:	ANSI C63.10:2020														
Frequency Range:	150 kHz to 30 MHz														
Receiver setup:	RBW=9 kHz, VBW=30 kHz, Sweep time=auto														
Limits:	<table><tr><th rowspan="2">Frequency range (MHz)</th><th colspan="2">Limit (dBuV)</th></tr><tr><th>Quasi-peak</th><th>Average</th></tr><tr><td>0.15-0.5</td><td>66 to 56*</td><td>56 to 46*</td></tr><tr><td>0.5-5</td><td>56</td><td>46</td></tr><tr><td>5-30</td><td>60</td><td>50</td></tr></table>	Frequency range (MHz)	Limit (dBuV)		Quasi-peak	Average	0.15-0.5	66 to 56*	56 to 46*	0.5-5	56	46	5-30	60	50
Frequency range (MHz)	Limit (dBuV)														
	Quasi-peak	Average													
0.15-0.5	66 to 56*	56 to 46*													
0.5-5	56	46													
5-30	60	50													
Test Setup:	Reference Plane 40cm E.U.T AC power 80cm LISN Filter AC power EMI Receiver Test table/Insulation plane Remark: E.U.T: Equipment Under Test LISN: Line Impedance Stabilization Network Test table height=0.8m														
Test Mode:	Refer to item 3.1														
Test Procedure:	1. The E.U.T is connected to an adapter through a line impedance stabilization network (L.I.S.N.). This provides a 50ohm/50uH coupling impedance for the measuring equipment. 2. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm/50uH coupling impedance with 50ohm termination. (Please refer to the block diagram of the test setup and photographs). 3. Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10: 2020 on conducted measurement.														
Test Result:	PASS														

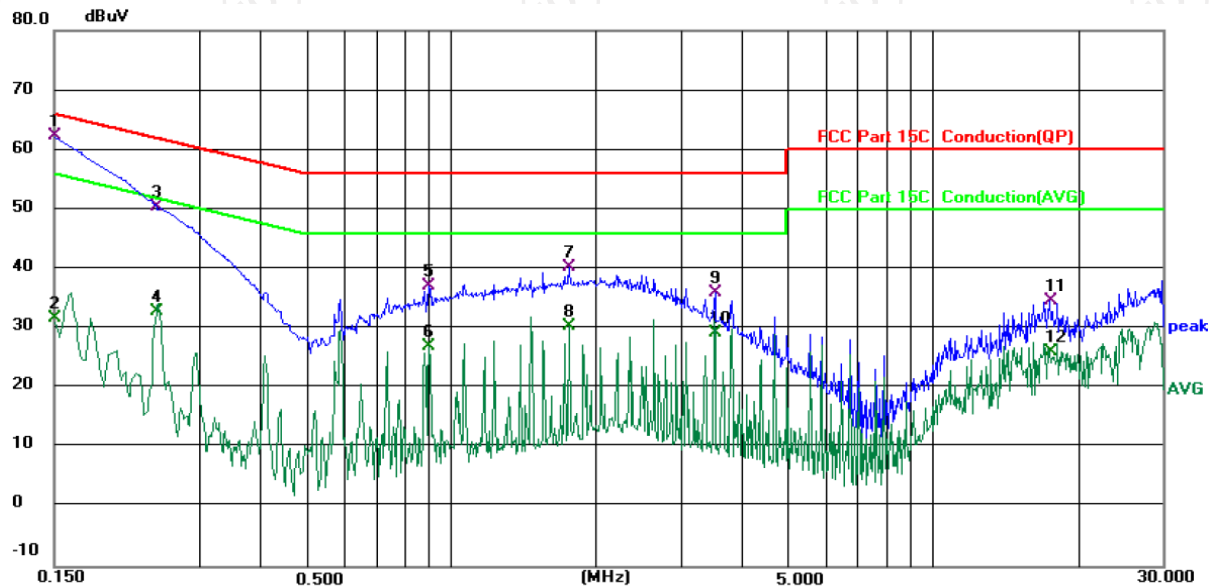
6.2.2. Test Instruments

Conducted Emission Shielding Room Test Site (843)					
Equipment	Manufacturer	Model	Serial Number	Date of Cal.	Due Date
EMI Test Receiver	R&S	ESCI3	100898	Jun. 26, 2025	Jun. 25, 2026
LISN	Schwarzbeck	NSLK 8126	8126453	Jan. 21, 2025	Jan. 20, 2026
Attenuator	N/A	10dB	164080	Jun. 26, 2025	Jun. 25, 2026
Line-5	TCT	CE-05	/	Jun. 26, 2025	Jun. 25, 2026
EMI Test Software	EZ_EMG	EMEC-3A1	1.1.4.2	/	/

6.2.3. Test data

Please refer to following diagram for individual

Conducted Emission on Line Terminal of the power line (150 kHz to 30MHz)



Site 844 Shielding Room

Phase: L1

Temperature: 24.8 (°C)

Humidity: 50 %

Limit: FCC Part 15C Conduction(QP)

Power: AC 120 V/60 Hz

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1	*	0.1500	52.28	9.96	62.24	66.00	-3.76	QP	
2		0.1500	21.70	9.96	31.66	56.00	-24.34	AVG	
3		0.2442	40.41	9.93	50.34	61.95	-11.61	QP	
4		0.2442	22.92	9.93	32.85	51.95	-19.10	AVG	
5		0.9020	27.28	9.93	37.21	56.00	-18.79	QP	
6		0.9020	17.16	9.93	27.09	46.00	-18.91	AVG	
7		1.7620	30.27	10.00	40.27	56.00	-15.73	QP	
8		1.7620	20.36	10.00	30.36	46.00	-15.64	AVG	
9		3.5300	25.85	10.10	35.95	56.00	-20.05	QP	
10		3.5300	19.21	10.10	29.31	46.00	-16.69	AVG	
11		17.5540	24.08	10.53	34.61	60.00	-25.39	QP	
12		17.5540	15.65	10.53	26.18	50.00	-23.82	AVG	

Note:

Freq. = Emission frequency in MHz

Reading level (dBuV) = Receiver reading

Corr. Factor (dB) = LISN factor + Cable loss

Measurement (dBuV) = Reading level (dBuV) + Corr. Factor (dB)

Limit (dBuV) = Limit stated in standard

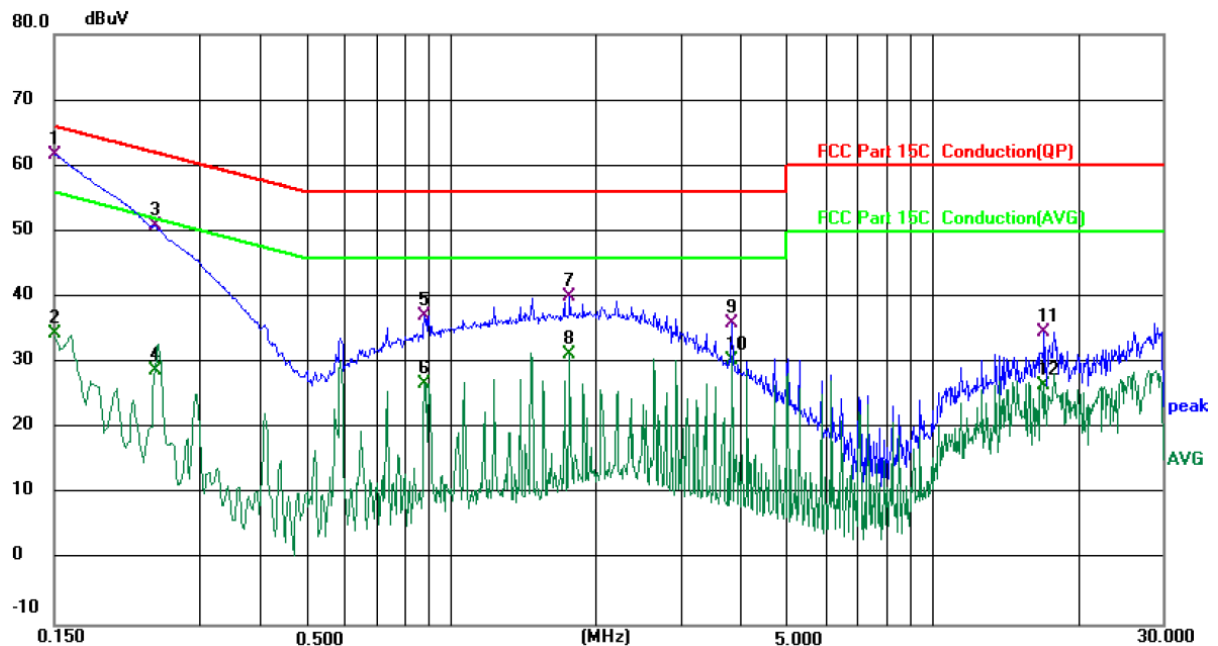
Margin (dB) = Measurement (dBuV) – Limits (dBuV)

Q.P. =Quasi-Peak

AVG =average

* is meaning the worst frequency has been tested in the frequency range 150 kHz to 30MHz

Conducted Emission on Neutral Terminal of the power line (150 kHz to 30MHz)



Site 844 Shielding Room

Phase: **N**

Temperature: 24.8 (°C)

Humidity: 50 %

Limit: FCC Part 15C Conduction(QP)

Power: AC 120 V/60 Hz

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1	*	0.1500	51.73	9.94	61.67	66.00	-4.33	QP	
2		0.1500	24.56	9.94	34.50	56.00	-21.50	AVG	
3		0.2419	40.97	9.93	50.90	62.03	-11.13	QP	
4		0.2419	18.82	9.93	28.75	52.03	-23.28	AVG	
5		0.8820	27.26	9.96	37.22	56.00	-18.78	QP	
6		0.8820	16.82	9.96	26.78	46.00	-19.22	AVG	
7		1.7660	29.97	10.01	39.98	56.00	-16.02	QP	
8		1.7660	21.37	10.01	31.38	46.00	-14.62	AVG	
9		3.8260	25.85	10.10	35.95	56.00	-20.05	QP	
10		3.8260	20.36	10.10	30.46	46.00	-15.54	AVG	
11		17.0620	24.22	10.55	34.77	60.00	-25.23	QP	
12		17.0620	16.00	10.55	26.55	50.00	-23.45	AVG	

Note:

Freq. = Emission frequency in MHz

Reading level (dBμV) = Receiver reading

Corr. Factor (dB) = LISN factor + Cable loss

Measurement (dBμV) = Reading level (dBμV) + Corr. Factor (dB)

Limit (dBμV) = Limit stated in standard

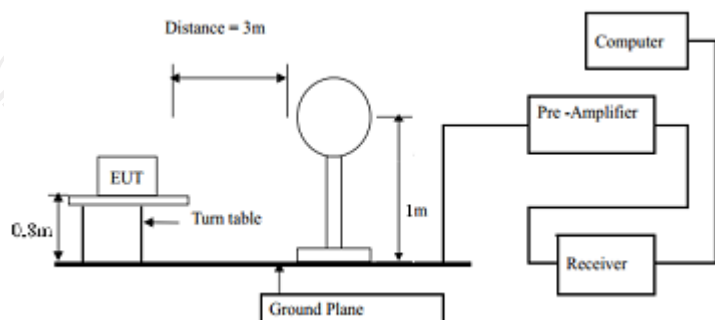
Margin (dB) = Measurement (dBμV) – Limits (dBμV)

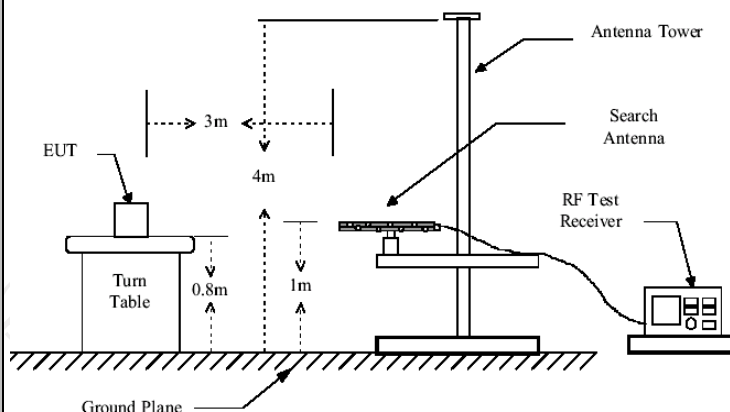
Q.P. =Quasi-Peak AVG =average

* is meaning the worst frequency has been tested in the frequency range 150 kHz to 30MHz

6.3. Radiated Spurious Emission Measurement

6.3.1. Test Specification

Test Requirement:	FCC Part15 C Section 15.209																												
Test Method:	ANSI C63.10: 2020																												
Frequency Range:	9 kHz to 25 GHz																												
Measurement Distance:	3 m																												
Antenna Polarization:	Horizontal & Vertical																												
Operation mode:	Refer to item 3.1																												
Receiver Setup:	<table><tr><td>Frequency</td><td>Detector</td><td>RBW</td><td>VBW</td><td>Remark</td></tr><tr><td>9kHz- 150kHz</td><td>Quasi-peak</td><td>200Hz</td><td>1kHz</td><td>Quasi-peak Value</td></tr><tr><td>150kHz- 30MHz</td><td>Quasi-peak</td><td>9kHz</td><td>30kHz</td><td>Quasi-peak Value</td></tr><tr><td>30MHz-1GHz</td><td>Quasi-peak</td><td>120KHz</td><td>300KHz</td><td>Quasi-peak Value</td></tr></table>					Frequency	Detector	RBW	VBW	Remark	9kHz- 150kHz	Quasi-peak	200Hz	1kHz	Quasi-peak Value	150kHz- 30MHz	Quasi-peak	9kHz	30kHz	Quasi-peak Value	30MHz-1GHz	Quasi-peak	120KHz	300KHz	Quasi-peak Value				
	Frequency	Detector	RBW	VBW	Remark																								
	9kHz- 150kHz	Quasi-peak	200Hz	1kHz	Quasi-peak Value																								
	150kHz- 30MHz	Quasi-peak	9kHz	30kHz	Quasi-peak Value																								
	30MHz-1GHz	Quasi-peak	120KHz	300KHz	Quasi-peak Value																								
Limit:	<table><tr><td>Frequency</td><td>Field Strength (microvolts/meter)</td><td>Measurement Distance (meters)</td></tr><tr><td>0.009-0.490</td><td>2400/F(KHz)</td><td>300</td></tr><tr><td>0.490-1.705</td><td>24000/F(KHz)</td><td>30</td></tr><tr><td>1.705-30</td><td>30</td><td>30</td></tr><tr><td>30-88</td><td>100</td><td>3</td></tr><tr><td>88-216</td><td>150</td><td>3</td></tr><tr><td>216-960</td><td>200</td><td>3</td></tr><tr><td>Above 960</td><td>500</td><td>3</td></tr></table>					Frequency	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	30	30	30-88	100	3	88-216	150	3	216-960	200	3	Above 960	500	3
	Frequency	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	30	30																										
	30-88	100	3																										
	88-216	150	3																										
	216-960	200	3																										
	Above 960	500	3																										
Test setup:	For radiated emissions below 30MHz																												
																													
	30MHz to 1GHz																												



Test Procedure:

1. For the radiated emission test below 1GHz:
The EUT was placed on a turntable with 0.8 meter above ground. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high PASS filter are used for the test in order to get better signal level.
2. Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level
3. For measurement below 1GHz, If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported.
4. Use the following spectrum analyzer settings:
 - (1) Span shall wide enough to fully capture the emission being measured;
 - (2) Set RBW=120 kHz for $f < 1$ GHz; VBW $\geq$ RBW; Sweep = auto; Detector function = peak; Trace = max hold;
 - (3) Set RBW = 1 MHz, VBW= 3MHz for $f \geq 1$ GHz for peak measurement.

For average measurement: VBW = 10 Hz, when duty cycle is no less than 98 percent. VBW $\geq 1/T$, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.

Test mode:

Refer to section 3.1 for details

Test results:

PASS

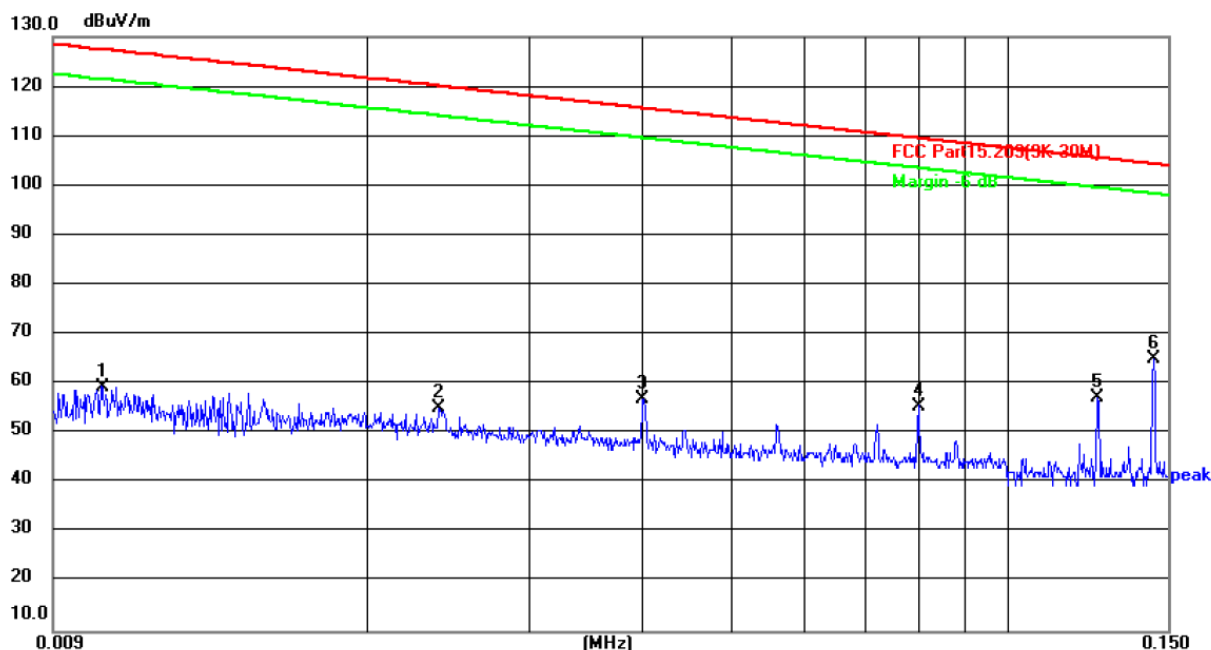
6.3.2. Test Instruments

Radiated Emission Test Site (966)					
Equipment	Manufacturer	Model	Serial Number	Date of Cal.	Due Date
EMI Test Receiver	R&S	ESCI7	100529	Jan. 21, 2025	Jan. 20, 2026
Spectrum Analyzer	R&S	FSQ40	200061	Jun. 26, 2025	Jun. 25, 2026
Pre-amplifier	SKET	LNPA_0118G-45	SK2021012102	Jan. 21, 2025	Jan. 20, 2026
Pre-amplifier	SKET	LNPA_1840G-50	SK202109203500	Apr. 11, 2025	Apr. 10, 2026
Pre-amplifier	HP	8447D	2727A05017	Jun. 26, 2025	Jun. 25, 2026
Loop antenna	Schwarzbeck	FMZB1519B	00191	Jun. 30, 2025	Jun. 29, 2026
Broadband Antenna	Schwarzbeck	VULB9163	340	Jun. 29, 2025	Jun. 28, 2026
Horn Antenna	Schwarzbeck	BBHA 9120D	631	Jun. 29, 2025	Jun. 28, 2026
Horn Antenna	Schwarzbeck	BBHA 9170	00956	Jan. 24, 2025	Jan. 23, 2026
Coaxial cable	SKET	RE-03-D	/	Jun. 27, 2025	Jun. 26, 2026
Coaxial cable	SKET	RE-03-M	/	Jun. 27, 2025	Jun. 26, 2026
Coaxial cable	SKET	RE-03-L	/	Jun. 27, 2025	Jun. 26, 2026
Coaxial cable	SKET	RE-04-D	/	Jun. 27, 2025	Jun. 26, 2026
Coaxial cable	SKET	RE-04-M	/	Jun. 27, 2025	Jun. 26, 2026
Coaxial cable	SKET	RE-04-L	/	Jun. 27, 2025	Jun. 26, 2026
Antenna Mast	Keleto	RE-AM	/	/	/
EMI Test Software	EZ_EMG	FA-03A2 RE+	1.1.4.2	/	/

6.3.3. Test Data

Please refer to following diagram for individual
9KHz-30MHz

9KHz-150KHz:



Site: 3m Anechoic Chamber

Polarization: **Coaxial**

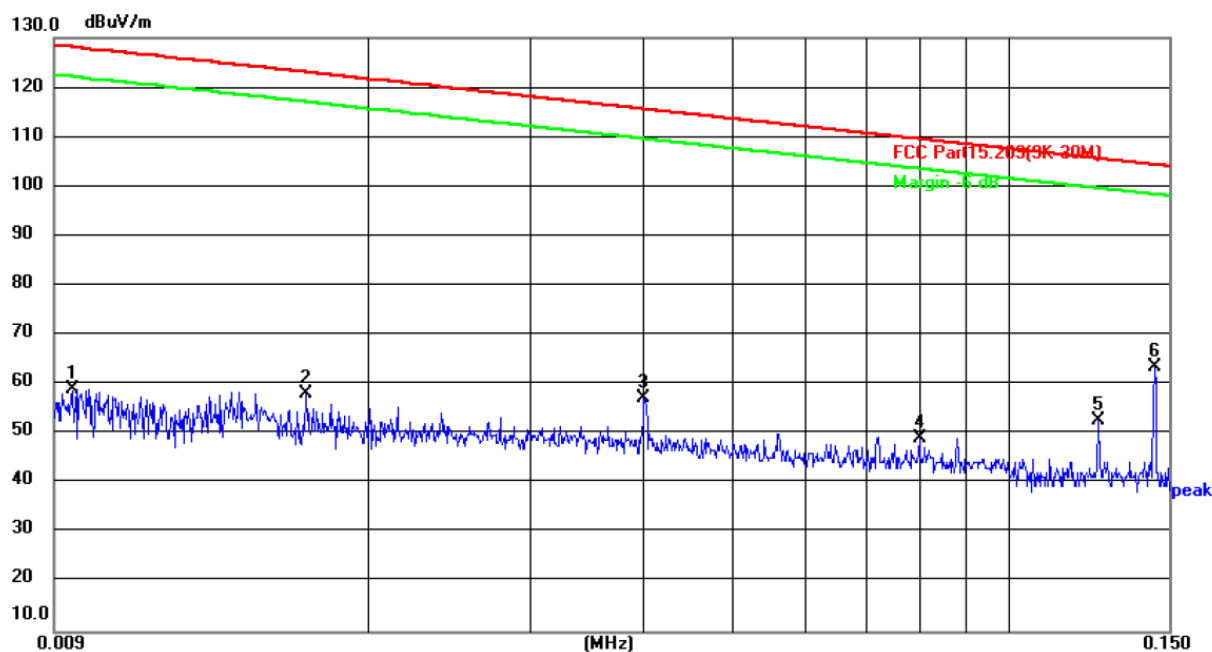
Temperature: 24.3(°C)

Humidity: 52 %

Limit: FCC Part 15.209(9K-30M)

Power: DC 30 V

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	0.0102	38.77	20.53	59.30	127.43	-68.13	peak	P	
2	0.0238	34.53	20.56	55.09	120.07	-64.98	peak	P	
3	0.0400	36.58	20.45	57.03	115.56	-58.53	peak	P	
4	0.0800	35.26	20.34	55.60	109.54	-53.94	peak	P	
5	0.1257	36.58	20.57	57.15	105.62	-48.47	peak	P	
6 *	0.1449	44.26	20.68	64.94	104.38	-39.44	peak	P	



Site: 3m Anechoic Chamber

Polarization: **Coplanar**

Temperature: 24.3(°C)

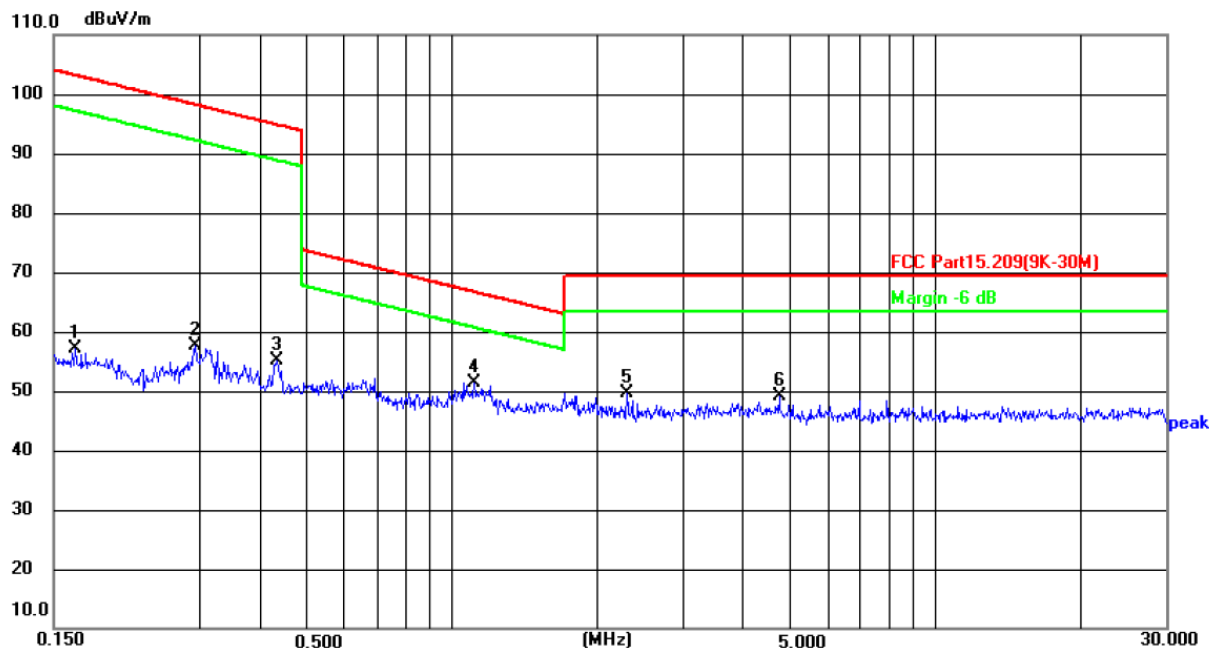
Humidity: 52 %

Limit: FCC Part15.209(9K-30M)

Power:DC 30 V

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	0.0094	38.63	20.51	59.14	128.14	-69.00	peak	P	
2	0.0170	37.72	20.55	58.27	123.00	-64.73	peak	P	
3	0.0400	36.71	20.45	57.16	115.56	-58.40	peak	P	
4	0.0800	28.73	20.34	49.07	109.54	-60.47	peak	P	
5	0.1255	32.09	20.57	52.66	105.63	-52.97	peak	P	
6 *	0.1448	42.93	20.68	63.61	104.39	-40.78	peak	P	

150KHz-30MHz:



Site: 3m Anechoic Chamber

Polarization: **Coaxial**

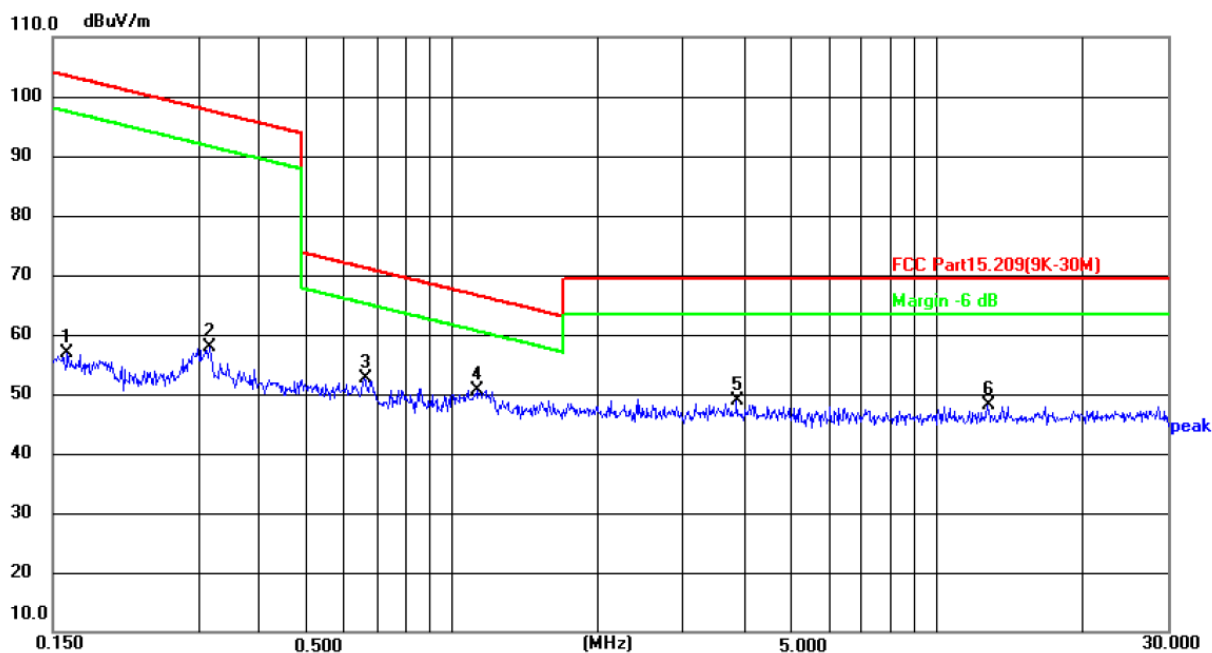
Temperature: 24.3(°C)

Humidity: 52 %

Limit: FCC Part15.209(9K-30M)

Power:DC 30 V

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	0.1660	36.40	20.76	57.16	103.20	-46.04	peak	P	
2	0.2952	36.71	21.00	57.71	98.20	-40.49	peak	P	
3	0.4353	33.82	21.25	55.07	94.83	-39.76	peak	P	
4 *	1.1149	28.83	22.59	51.42	66.68	-15.26	peak	P	
5	2.3077	24.57	25.07	49.64	69.50	-19.86	peak	P	
6	4.7538	19.07	30.03	49.10	69.50	-20.40	peak	P	



Site: 3m Anechoic Chamber

Polarization: **Coplanar**

Temperature: 24.3(°C)

Humidity: 52 %

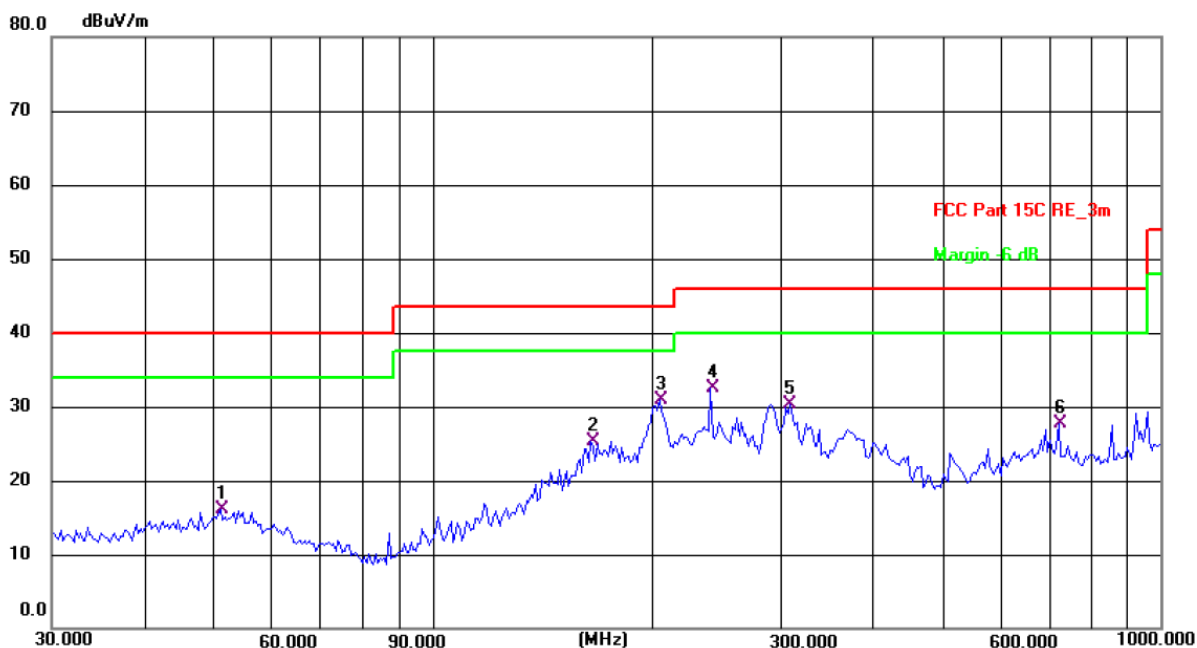
Limit: FCC Part15.209(9K-30M)

Power:DC 30 V

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	0.1615	36.19	20.75	56.94	103.44	-46.50	peak	P	
2	0.3159	36.86	21.03	57.89	97.61	-39.72	peak	P	
3	0.6595	30.99	21.68	52.67	71.23	-18.56	peak	P	
4 *	1.1304	28.08	22.63	50.71	66.56	-15.85	peak	P	
5	3.8705	20.54	28.25	48.79	69.50	-20.71	peak	P	
6	12.7633	2.23	45.94	48.17	69.50	-21.33	peak	P	

30MHz-1GHz

Horizontal:



Site: 3m Anechoic Chamber1

Polarization: **Horizontal**

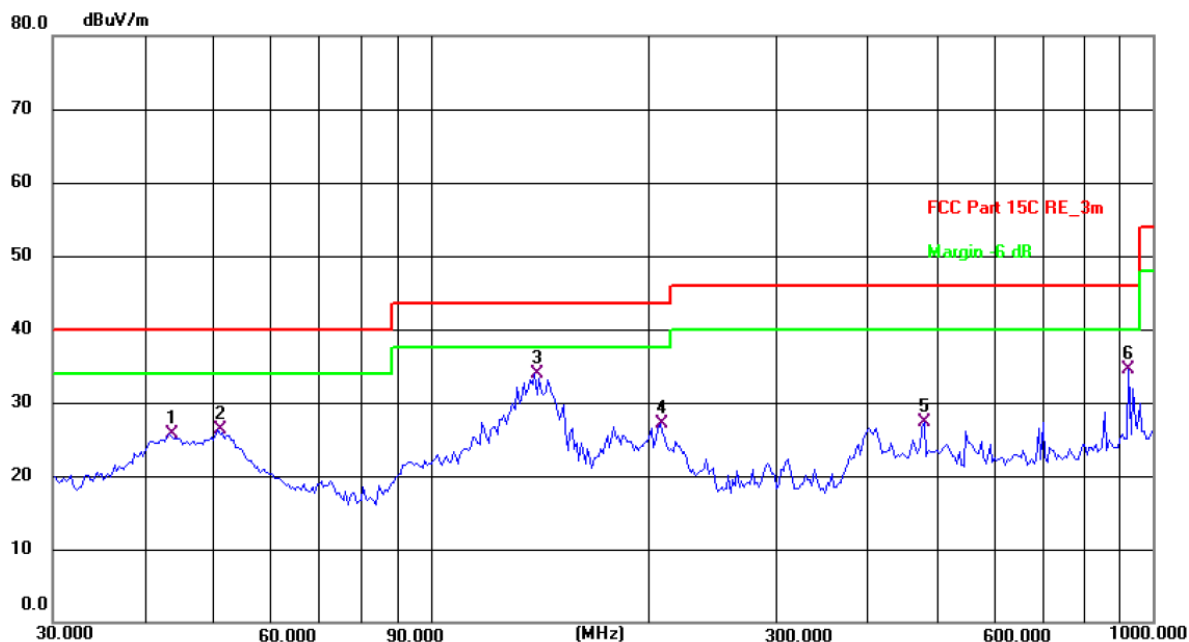
Temperature: 24.8(C) Humidity: 54 %

Limit: FCC Part 15C RE_3m

Power: DC 30 V

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	51.1209	28.53	-12.38	16.15	40.00	-23.85	QP	P	
2	164.9074	36.78	-11.44	25.34	43.50	-18.16	QP	P	
3 *	204.9551	45.93	-15.11	30.82	43.50	-12.68	QP	P	
4	240.8303	46.31	-13.88	32.43	46.00	-13.57	QP	P	
5	309.9977	41.10	-10.82	30.28	46.00	-15.72	QP	P	
6	724.2610	31.75	-3.97	27.78	46.00	-18.22	QP	P	

Vertical:



Site: 3m Anechoic Chamber1

Polarization: **Vertical**

Temperature: 24.8(C)

Humidity: 54 %

Limit: FCC Part 15C RE_3m

Power: DC 30 V

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	43.5057	37.93	-12.27	25.66	40.00	-14.34	QP	P	
2	50.7636	38.65	-12.35	26.30	40.00	-13.70	QP	P	
3 *	139.3613	45.95	-12.08	33.87	43.50	-9.63	QP	P	
4	207.8501	42.30	-15.15	27.15	43.50	-16.35	QP	P	
5	482.2155	35.29	-7.91	27.38	46.00	-18.62	QP	P	
6	925.7562	35.20	-0.77	34.43	46.00	-11.57	QP	P	

Note:

Emission Level=Peak Reading + Correction Factor; Correction Factor= Antenna Factor + Cable loss – Pre-amplifier

6.4. 20dB Bandwidth

6.4.1. Test Specification

Test Requirement:	§15.215(c)
Test Method:	ANSI C63.10: 2020
Limit:	N/A
Test Setup:	 Spectrum Analyzer EUT
Test Mode:	Transmitting mode with modulation
Test Procedure:	1. The transmitter shall be operated at its maximum carrier power measured under normal test conditions. 2. The span of the analyzer shall be set to capture all products of the modulation process, including the emission skirts. 3. The resolution bandwidth (RBW) shall be in the range of 1% to 5% of the occupied bandwidth (OBW) and video bandwidth (VBW) shall be approximately 3x RBW. Sweep = auto; Detector function = peak; Trace = max hold. 4. Measure and record the results in the test report.
Test Result:	PASS

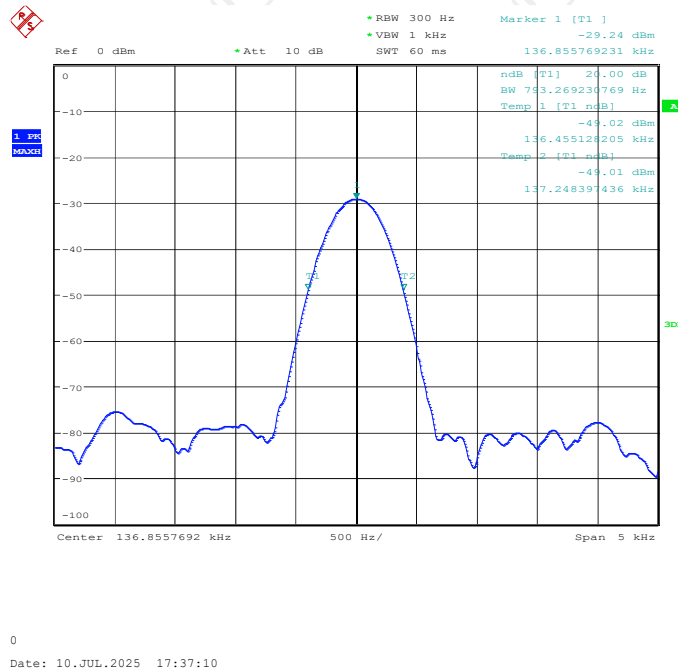
6.4.2. Test Instruments

Equipment	Manufacturer	Model No.	Serial Number	Date of Cal.	Due Date
Spectrum Analyzer	R&S	FSU	200054	Jun. 26, 2025	Jun. 25, 2026

6.4.3. Test data

Frequency (kHz)	20dB Bandwidth (kHz)	Conclusion
136.86	0.79	PASS

Test plots as follows:



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 and VBW is set to 1kHz to perform the occupied bandwidth test.

Appendix A: Photographs of Test Setup

Please refer to document Appendix No.: TCT250612E030-A

Appendix B: Photographs of EUT

Please refer to document Appendix No.: TCT250612E030-B & TCT250612E030-C

*******END OF REPORT*******