

RF TEST REPORT

FCC ID: 2AGNTNESTWPT

Test Report No.....: RF251027002-02-001

Product(s) Name.....: WPT Module

Model(s).....: Nest WPT

Trade Mark.....: AUTEL ROBOTICS

Applicant.....: Autel Robotics Co., Ltd.

Address.....: 601,701,801,901, Block B1, Nanshan iPark, No. 1001 Xueyuan Avenue,
Nanshan District, Shenzhen, Guangdong, 518055, China

Receipt Date.....: 2025.10.07

Test Date.....: 2025.10.08~2025.11.10

Issued Date.....: 2025.11.10

Standards.....: 47 CFR FCC Part 15, Subpart C;
ANSI C63.10-2020

Testing Laboratory.....: Shenzhen Haiyun Standard Technical Co., Ltd.

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<i>Jason Huang</i>	<i>Black Ding</i>	<i>Tim Zhang</i>	

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History of this test report

Original Report Issue Date: 2025.11.10

☒ No additional attachment

☐ Additional attachments were issued following record

Attachment No.	Issue Date	Description

1. General Information

1.1 Applicant

Autel Robotics Co., Ltd.

601,701,801,901, Block B1, Nanshan iPark, No. 1001 Xueyuan Avenue, Nanshan District, Shenzhen, Guangdong, 518055, China

1.2 Manufacturer

Autel Robotics Co., Ltd.

601,701,801,901, Block B1, Nanshan iPark, No. 1001 Xueyuan Avenue, Nanshan District, Shenzhen, Guangdong, 518055, China

1.3 Basic Description of Equipment Under Test

Sample No.	POC251027002-S002
Product Name	WPT Module
Model Name	Nest WPT
Trade mark	AUTEL ROBOTICS
Power supply:	DC 48V
WPT Output Power:	-
Modulation type	ASK
Operating frequency	160k~205KHz
Antenna type	Coil Antenna
Antenna Gain	-

1.4 Application of Standard

47 CFR FCC Part 15, Subpart C and ANSI C63.10-2020

1.5 Independent Operation Modes

The basic operation modes are:

- A. On, Wireless charging(Wireless Charger)
- B. Standby
- C. Off

2. Summary of Test Results

2.1 Summary of Test Items

47 CFR FCC Part 15, Subpart C		
Test Item	FCC Clause	Results
AC Power Conducted Emission	15.207	Pass
Radiated Emission	15.209	Pass
Antenna Requirement	15.203	Pass
20dB Bandwidth	15.215(c)	Pass
Note: Pass: The EUT complies with the essential requirements in the standard.		

2.2 Special Accessories and Auxiliary Equipment

Description	Manufacturer	Model	S/N
UAV	AUTEL	-	-

2.3 Test Condition

Applicable to	Environmental conditions	Input Power	Tested by
AC Power Conducted Emission	23.4°C, 52 % RH	120Vac, 60Hz	Jason Huang
Radiated Emission	22.9°C, 50 % RH	120Vac, 60Hz	Jason Huang
20dB Bandwidth	23.4°C, 52 % RH	120Vac, 60Hz	Jason Huang

2.4 Principle of Configuration Selection

Emission: The equipment under test (EUT) was configured to measure its highest possible radiation level. The test modes were adapted accordingly in reference to the instructions for use.

Radio Spectrum: The equipment under test (EUT) was configured at its highest power output in order to measure its highest possible radiation and conducted level. The test modes were adapted accordingly in reference to the instructions for use.

2.5 Measurement Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT.

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

Uncertainty	
Parameter	Uncertainty
Occupied Channel Bandwidth	±102kHz
RF power conducted	±0.377dB
Power Spectral Density	±0.743dB
Conducted Spurious Emission	±1.328dB
Conducted emission(9kHz~30MHz) AC main	±2.68dB
Radiated emission(9kHz~30MHz)	±2.74dB
Radiated emission (30MHz~1GHz)	±4.22dB
Radiated emission (1GHz~18GHz)	±5.06dB
Radiated emission (18GHz~40GHz)	±4.98dB

2.6 Test Location

Company:	Shenzhen Haiyun Standard Technical CO., Ltd.
Address:	No. 110-113, 115, 116, Block B, Jinyuan Business Building, Bao'an District, Shenzhen, China
CNAS Registration Number:	CNAS L18252
CAB identifier	CN0145
A2LA Certificate Number	6823.01
Telephone:	0755-26024411

2.7 Test Instruments

Radiated Emissions							
No.	Equipment	Manufacturer	Type No.	Serial No.	Inventory No.	Cal. date (yyyy/mm/dd)	Cal. Due date (yyyy/mm/dd)
1	Test receiver	Rohde&Schwarz	ESU	100184	JLE011	2025/3/1	2026/2/28
2	Log periodic antenna	Schwarzbeck	VULB 9168	1151	JLE012	2025/4/12	2026/4/11
3	Low frequency amplifier	/	LNA 0920N	2014	JLE023	2025/3/1	2026/2/28
4	High frequency amplifier	Schwarzbeck	BBV 9718	9718-284	JLE024	2025/3/1	2026/2/28
5	Horn Antenna	SCHWARZBEC K	BBHA 9120 D	02670	JLE028	2025/4/12	2026/4/11
6	Temp&Humid ity Recorder	Meideshi	JR900	/	JLE021	2025/4/15	2026/4/14
7	Horn Antenna	SCHWARZBEC K	BBHA 9170	9170#685	JLE029	2024/7/15	2027/7/14
8	Loop Antenna	SCHWARZBEC K	FMZB15 19B	00029	JLE030	2024/7/15	2027/7/14
9	Broadband preamplifier	Schwarzbeck	BBV9721	9721-019	JLE025	2025/3/1	2026/2/28
10	Test software	Farad Technology Co., Ltd	EZ-EMC Ver.TW-03A2				
RF Conducted Emission							
1	MXA Signal Analyzer	Keysight	N9021B	MY60080 169	JLE050	2025/3/1	2026/2/28
2	RF Control Unit	dsusoft	JS0806-2	21G8060 449	JLE053	2025/3/1	2026/2/28
3	power supply unit	dsusoft	JS0806-4 ADC	N/A	JLE055	2025/3/1	2026/2/28
4	VXG Signal Generator	Keysight	N5182B	MY59100 855	JLE068	2025/4/15	2026/4/14
5	EXG Analog Signal Generator	Keysight	N5173B	MY59101 282	JLE052	2025/3/1	2026/2/28
6	Wideband Radio Communicati on Tester	Rohde&Schwarz	CMW500	1201.000 2K50-116 064-Dt	JLE054	2025/3/1	2026/2/28
7	Test software	dsusoft	JS1120-3 Ver.3.2.22.0				
Conducted Emission							
1	LISN	Rohde&Schwarz	ENV216	100075	JLE002	2025/3/1	2026/2/28
2	ISN	Schwarzbeck	CATE 5 8158	#171	JLE003	2025/2/21	2026/2/20
3	Test receiver	Rohde&Schwarz	ESCI	100718	JLE010	2025/3/1	2026/2/28
4	Pulse limiter	Rohde&Schwarz	ESH3-Z2	102299	JLE047	2025/3/1	2026/2/28
5	Temp&Humid ity Recorder	Meideshi	JR900	/	JLE020	2025/4/15	2026/4/14
6	Test software	Farad Technology Co., Ltd	EZ-EMC Ver.TW-03A2				

3. Test Procedure And Results

3.1 AC Power Line Conducted Emission

3.1.1 Limit

FREQUENCY (MHz)	Class A (dBuV)		Class B (dBuV)	
	Quasi-peak	Average	Quasi-peak	Average
0.15 ~ 0.50	79	66	66 - 56	56 - 46
0.50 ~ 5.00	73	60	56	46
5.00 ~ 30.0	73	60	60	50

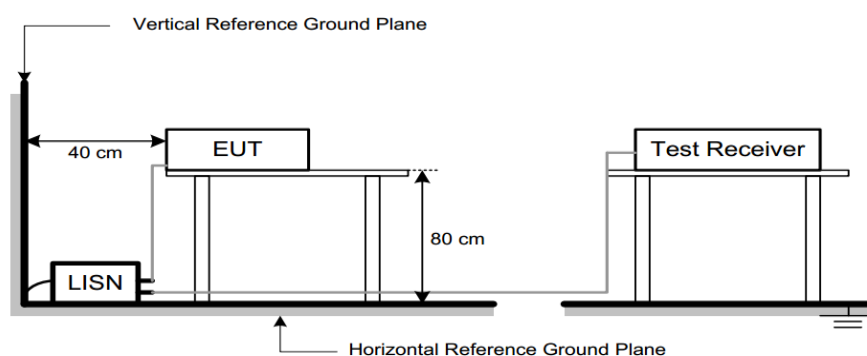
Note:

1. The lower limit shall apply at the transition frequencies.
2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50 MHz.
3. All emanations from a class A/B digital device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified above.

3.1.2 Test Procedure

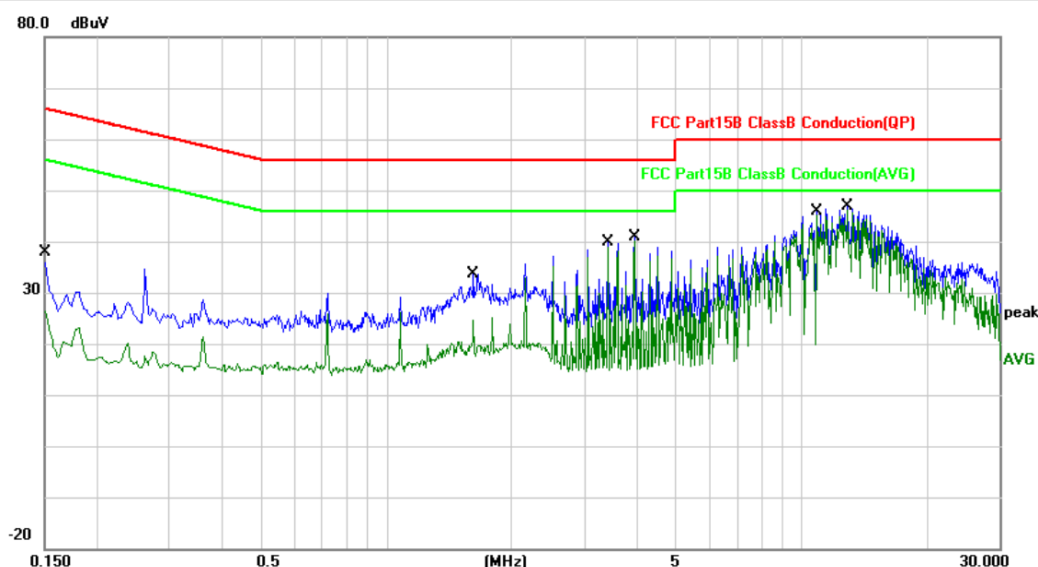
- a) The EUT was placed 0.8 m from the horizontal ground plane and 0.4 m from the vertical ground plane with EUT being connected to the power mains through a line impedance stabilization network (AMN). All other support equipment powered from additional AMN. The AMN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- b) Interconnecting cables that hang closer than 0.4 m to the ground plane shall be folded back and forth in the center forming a bundle 0.3 m to 0.4 m long.
- c) The frequency range from 150 kHz to 30 MHz was searched.
- d) Actual test configuration, please refer to the related Item – EUT Test Photos.
- e) The thickness of the insulation shall not be more than 150 mm.

3.1.3 Test Setup



3.1.4 Test Result

Test Frequency range:	150kHz~30MHz
Test mode:	A
Test voltage:	AC 120V/60Hz
Phase	Line

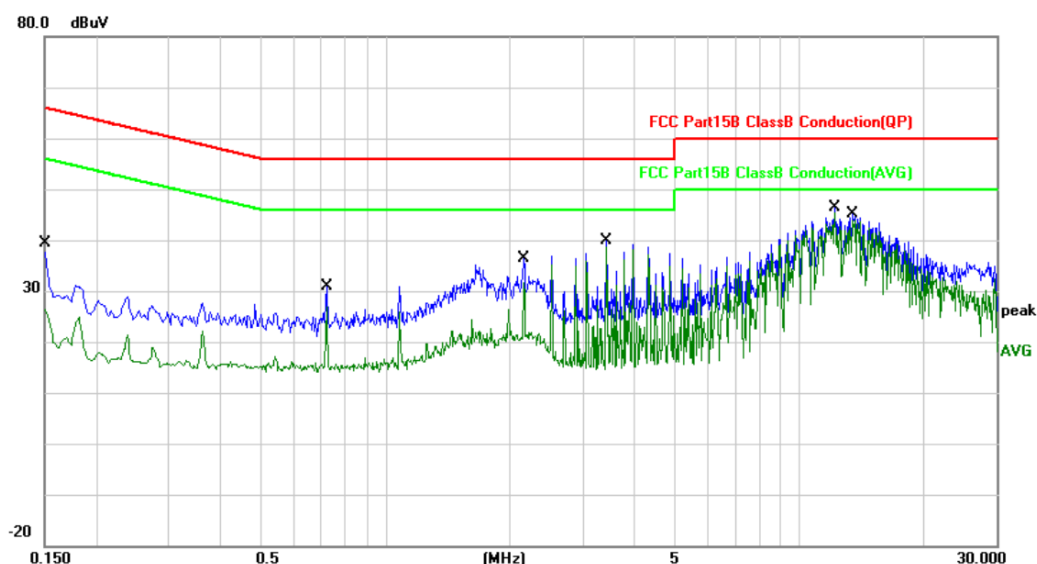


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector
1		0.1500	18.24	19.52	37.76	66.00	-28.24	QP
2		0.1500	7.83	19.52	27.35	56.00	-28.65	AVG
3		1.6220	14.06	19.62	33.68	56.00	-22.32	QP
4		1.6220	4.92	19.62	24.54	46.00	-21.46	AVG
5		3.4260	19.97	19.82	39.79	56.00	-16.21	QP
6		3.4260	18.94	19.82	38.76	46.00	-7.24	AVG
7		3.9660	21.09	19.84	40.93	56.00	-15.07	QP
8		3.9660	20.23	19.84	40.07	46.00	-5.93	AVG
9		10.9500	25.54	20.27	45.81	60.00	-14.19	QP
10		10.9500	24.77	20.27	45.04	50.00	-4.96	AVG
11		12.9340	26.59	20.40	46.99	60.00	-13.01	QP
12 *		12.9340	25.73	20.40	46.13	50.00	-3.87	AVG

Note:

1. Correct Factor = LISN Factor + Cable Loss + Pulse Limiter Factor, the value was added to Original Receiver Reading by the software automatically.
2. Measurement = Reading Level + Correct Factor.
3. Over = Measurement - Limit

Test Frequency range:	150kHz~30MHz
Test mode:	A
Test voltage:	AC 120V/60Hz
Phase	Neutral



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector
		MHz	dBuV	dB	dBuV	dBuV	dB	
1		0.1500	19.97	19.51	39.48	66.00	-26.52	QP
2		0.1500	7.38	19.51	26.89	56.00	-29.11	AVG
3		0.7220	11.42	19.46	30.88	56.00	-25.12	QP
4		0.7220	7.37	19.46	26.83	46.00	-19.17	AVG
5		2.1660	16.62	19.72	36.34	56.00	-19.66	QP
6		2.1660	11.94	19.72	31.66	46.00	-14.34	AVG
7		3.4300	20.02	19.82	39.84	56.00	-16.16	QP
8		3.4300	18.82	19.82	38.64	46.00	-7.36	AVG
9		12.1900	25.99	20.32	46.31	60.00	-13.69	QP
10	*	12.1900	24.94	20.32	45.26	50.00	-4.74	AVG
11		13.4540	24.75	20.41	45.16	60.00	-14.84	QP
12		13.4540	23.39	20.41	43.80	50.00	-6.20	AVG

Note:

1. Correct Factor = LISN Factor + Cable Loss + Pulse Limiter Factor, the value was added to Original Receiver Reading by the software automatically.
2. Measurement = Reading Level + Correct Factor.
3. Over = Measurement - Limit

3.2 Radiated Emissions

3.2.1 Limit

Emissions radiated outside of the specified bands, shall be according to the general radiated limits as following:

Frequencies (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

Note: (1) The lower limit shall apply at the transition frequencies.

(2) Emission level (dBuV/m) = 20 log Emission level (uV/m).

(3) As shown in 15.35(b), for frequencies above 1000MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20dB under any condition of modulation.

(4) The measured field strength was extrapolated to distance 30 meters, using the formula that the limit of field strength varies as the inverse distance square (40dB per decade of distance)

3.2.2 Test Procedure

Below 30MHz

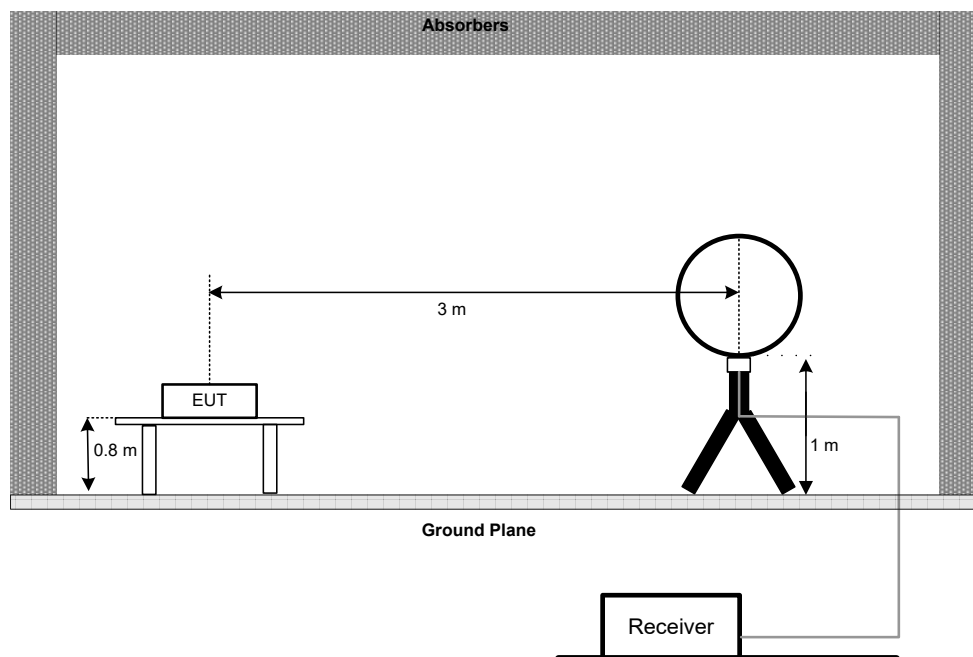
- The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter Semi-anechoic chamber room. The table was rotated 360 degrees to determine the position of the highest radiation.
- The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.

30MHz~1GHz

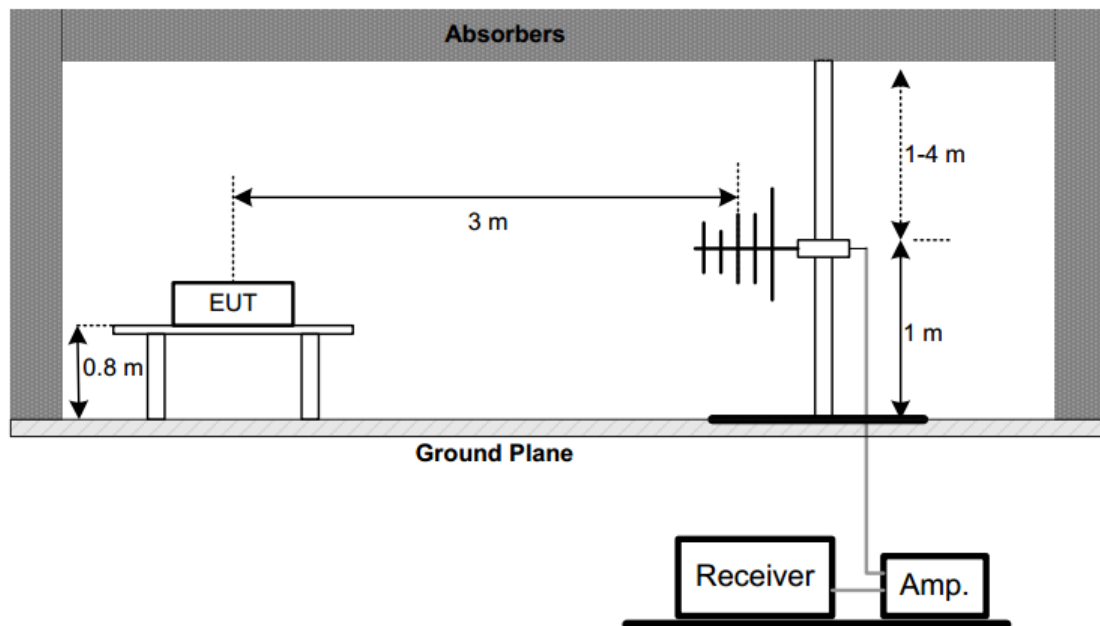
- The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meters semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- The antenna is a broadband antenna, and its height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

3.2.3 Test Setup

(A) Radiated Emission Test Set-Up Frequency Below 30MHz



(B) Radiated Emission Test Set-Up Frequency Below 1 GHz



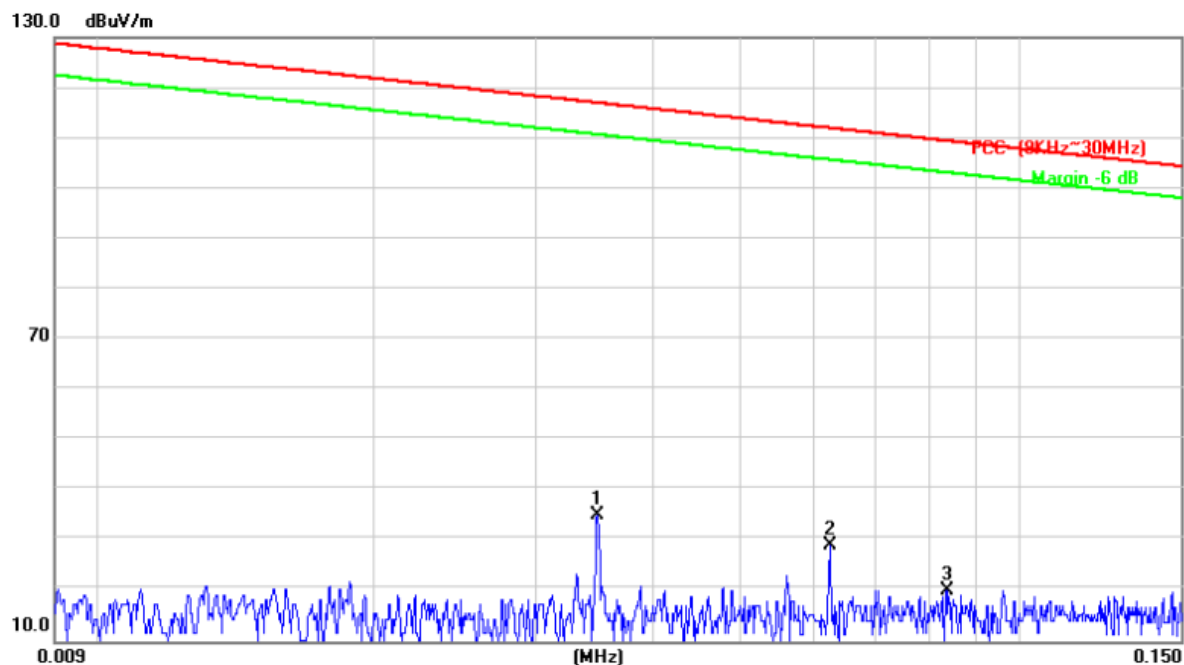
3.2.4 Test Result

The worst measurement data as follows:

Below 30MHz

Test mode: A

Parallel

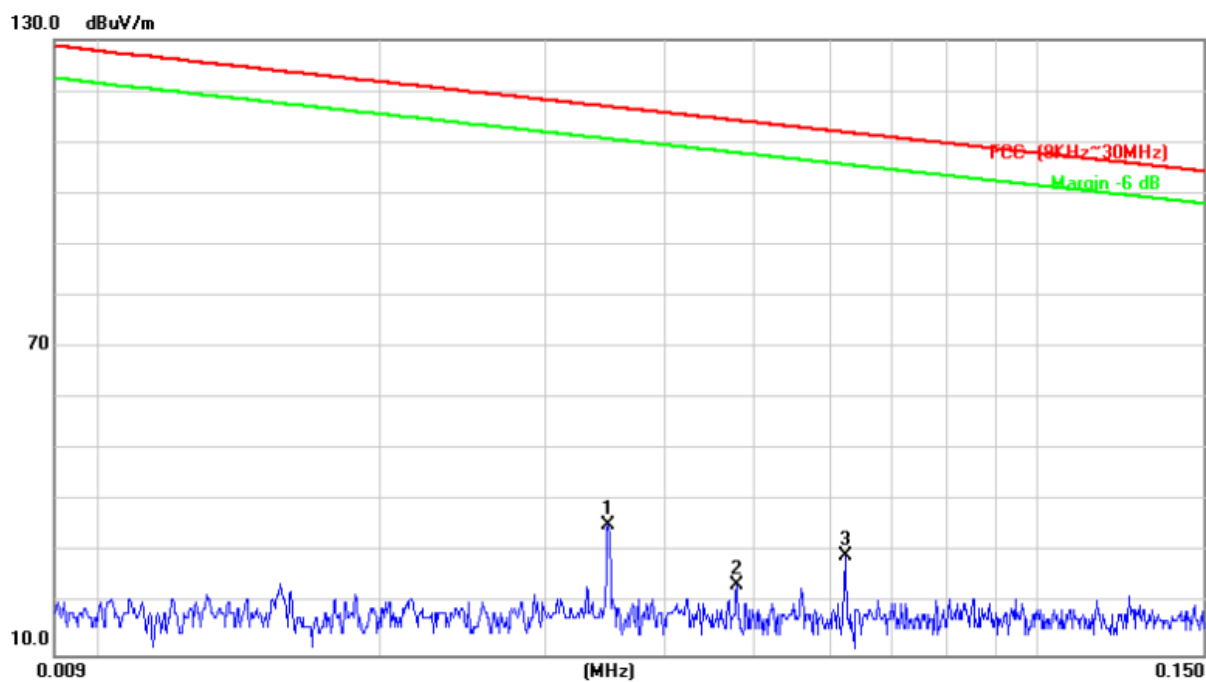


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	cm	degree
1	*	0.0350	45.30	-10.34	34.96	116.66	-81.70	peak		
2		0.0624	39.56	-10.52	29.04	111.65	-82.61	peak		
3		0.0834	30.55	-10.41	20.14	109.14	-89.00	peak		

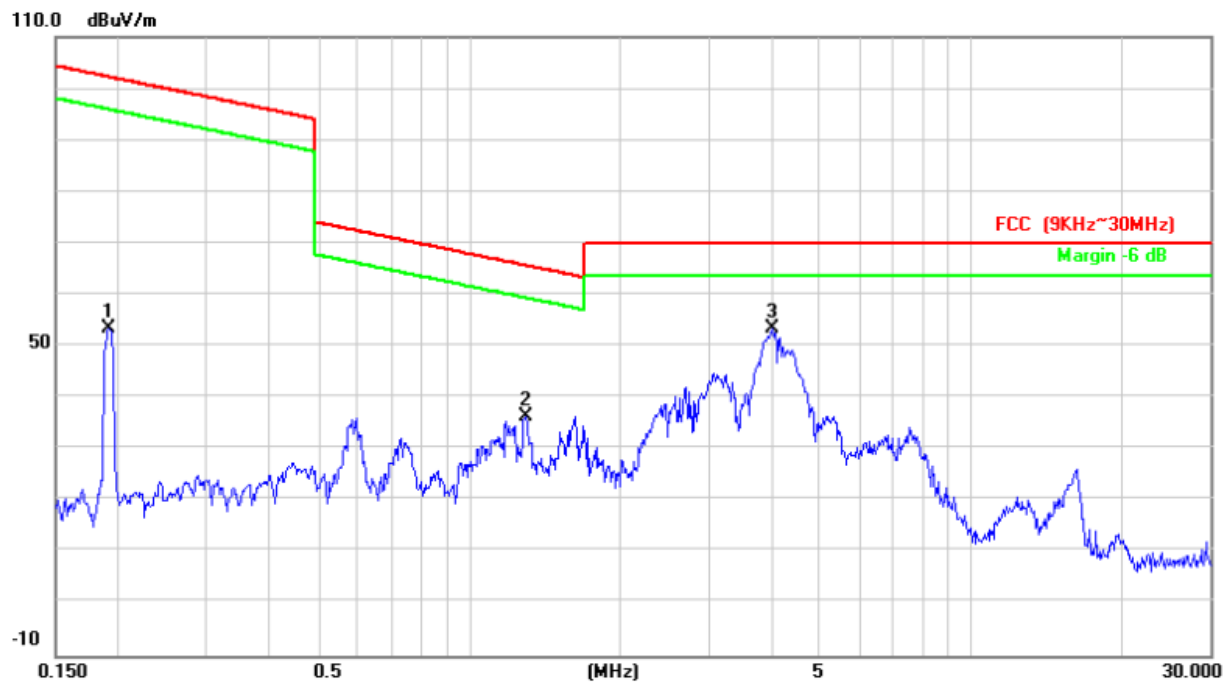


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	cm	degree
1		0.1912	68.49	-10.78	57.71	101.93	-44.22	peak		
2		1.5935	47.66	-9.81	37.85	63.56	-25.71	peak		
3	*	4.0062	62.91	-9.82	53.09	69.54	-16.45	peak		

Perpendicular

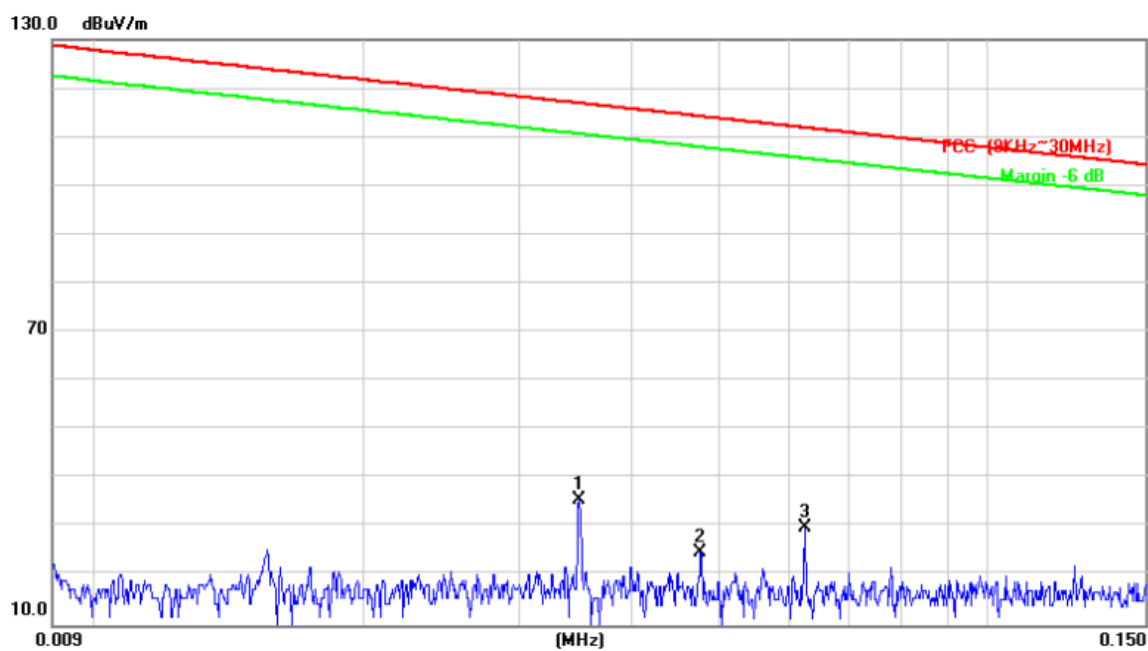


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	degree	Comment
1	*	0.0350	45.62	-10.34	35.28	116.59	-81.31	peak		
2		0.0478	34.06	-10.48	23.58	113.90	-90.32	peak		
3		0.0624	39.81	-10.52	29.29	111.60	-82.31	peak		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	degree	Comment
1		0.1912	64.19	-10.78	53.41	101.93	-48.52	peak		
2		1.2960	46.25	-9.82	36.43	65.35	-28.92	peak		
3	*	4.0275	63.39	-9.82	53.57	69.54	-15.97	peak		

Ground- parallel



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	cm	degree
1	*	0.0350	45.93	-10.34	35.59	116.59	-81.00	peak		
2		0.0477	35.19	-10.48	24.71	113.92	-89.21	peak		
3		0.0624	40.41	-10.52	29.89	111.60	-81.71	peak		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	cm	degree
1		0.1923	73.02	-10.77	62.25	101.88	-39.63	peak		
2		1.2688	46.47	-9.82	36.65	65.54	-28.89	peak		
3	*	4.0275	64.22	-9.82	54.40	69.54	-15.14	peak		

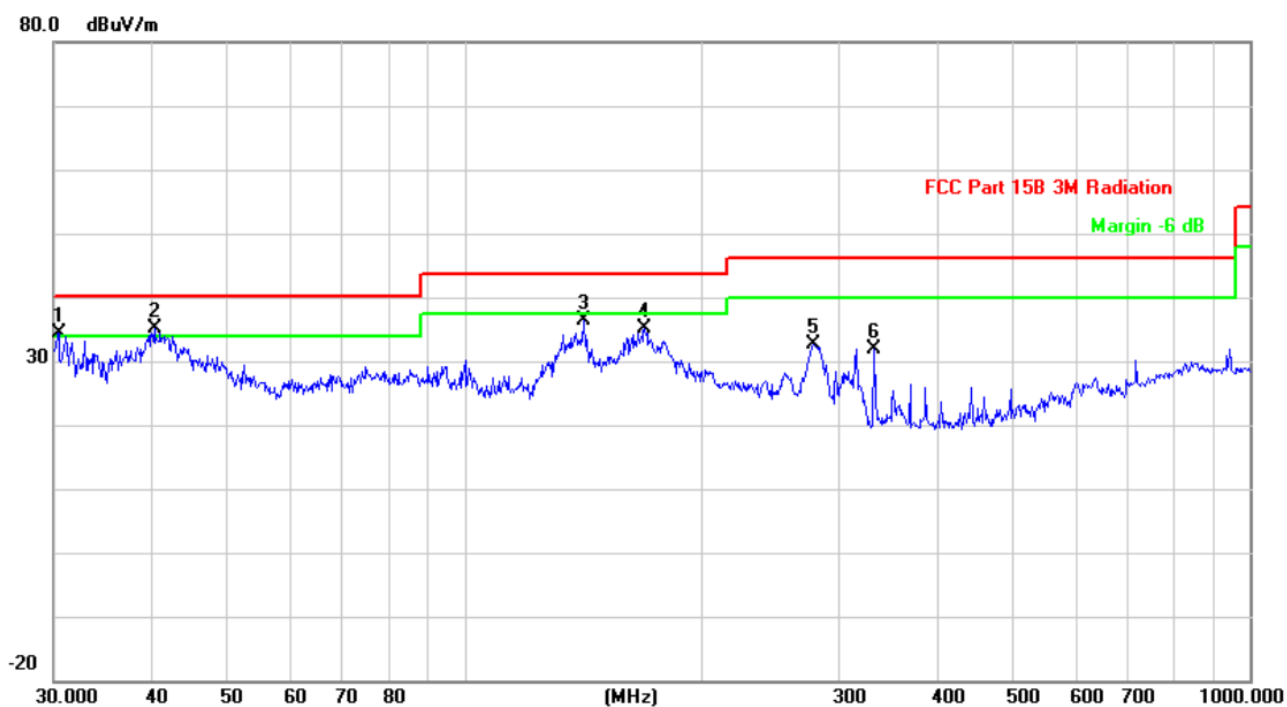
Note:

1. Correct Factor = Antenna Factor + Cable Loss - Amplifier Gain, the value was added to Original Receiver Reading by the software automatically.
2. Level = Reading + Correct Factor.
3. Margin = Level - Limit

30MHz~1GHz

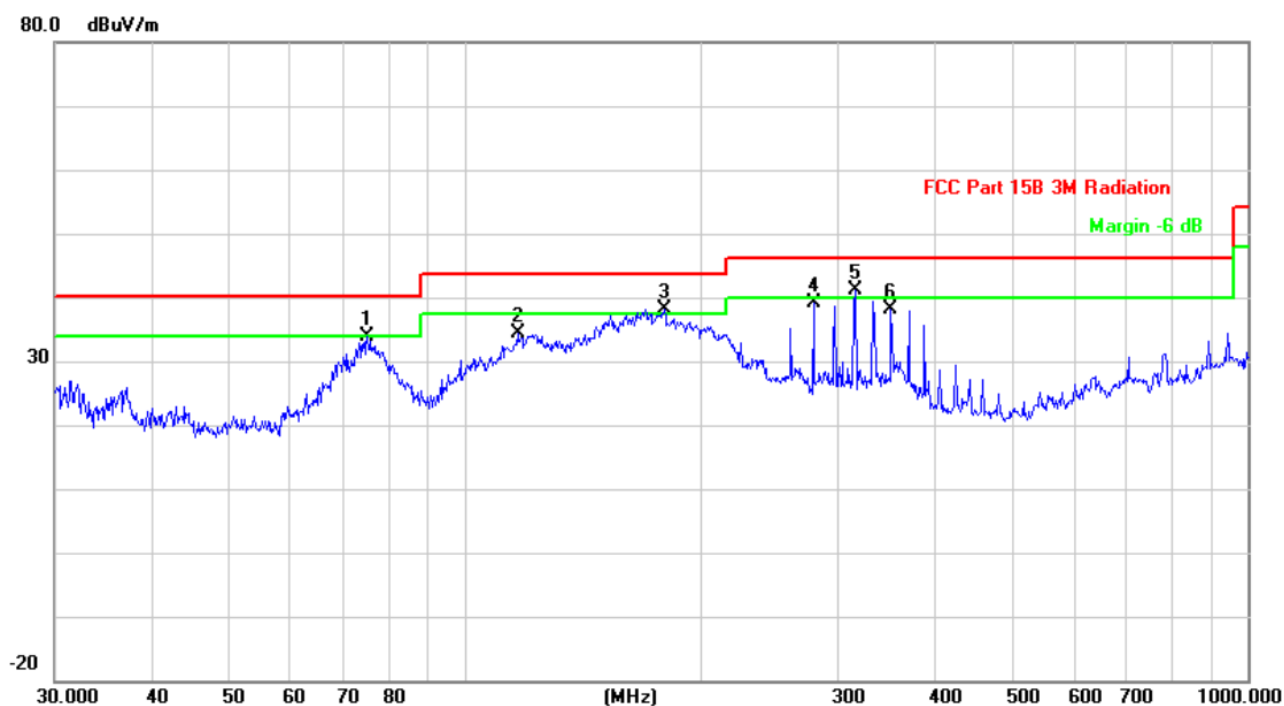
Test mode: A

Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	!	30.4238	45.24	-10.88	34.36	40.00	-5.64	QP
2	*	40.2757	45.27	-10.09	35.18	40.00	-4.82	QP
3		141.8262	46.21	-9.95	36.26	43.50	-7.24	QP
4		169.5990	45.24	-10.22	35.02	43.50	-8.48	QP
5		278.0668	43.65	-10.91	32.74	46.00	-13.26	QP
6		332.5187	40.93	-9.10	31.83	46.00	-14.17	QP

Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		75.1822	47.29	-13.52	33.77	40.00	-6.23	QP
2		116.9495	45.94	-11.68	34.26	43.50	-9.24	QP
3	!	180.0165	50.70	-12.54	38.16	43.50	-5.34	QP
4		279.0436	50.07	-10.82	39.25	46.00	-6.75	QP
5	*	315.4808	51.46	-10.29	41.17	46.00	-4.83	QP
6		350.4768	47.48	-9.39	38.09	46.00	-7.91	QP

Note:

1. Correct Factor = Antenna Factor + Cable Loss - Amplifier Gain, the value was added to Original Receiver Reading by the software automatically.
2. Measure-ment = Reading Level + Correct Factor.
3. Over = Measure-ment – Limit

3.3 20dB bandwidth measurement

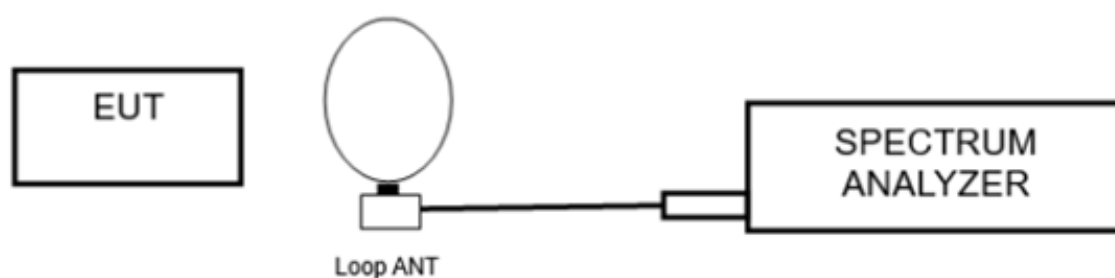
3.3.1 Test standard

FCC Part 15.215(c)

3.3.2 Test Procedure

Test Method	
☒ Conducted Measurement	☐ Radiated Measurement
Environmental Conditions	
☒ Normal	☐ Normal and Extreme
Note: ● : Test ○ : No Test	

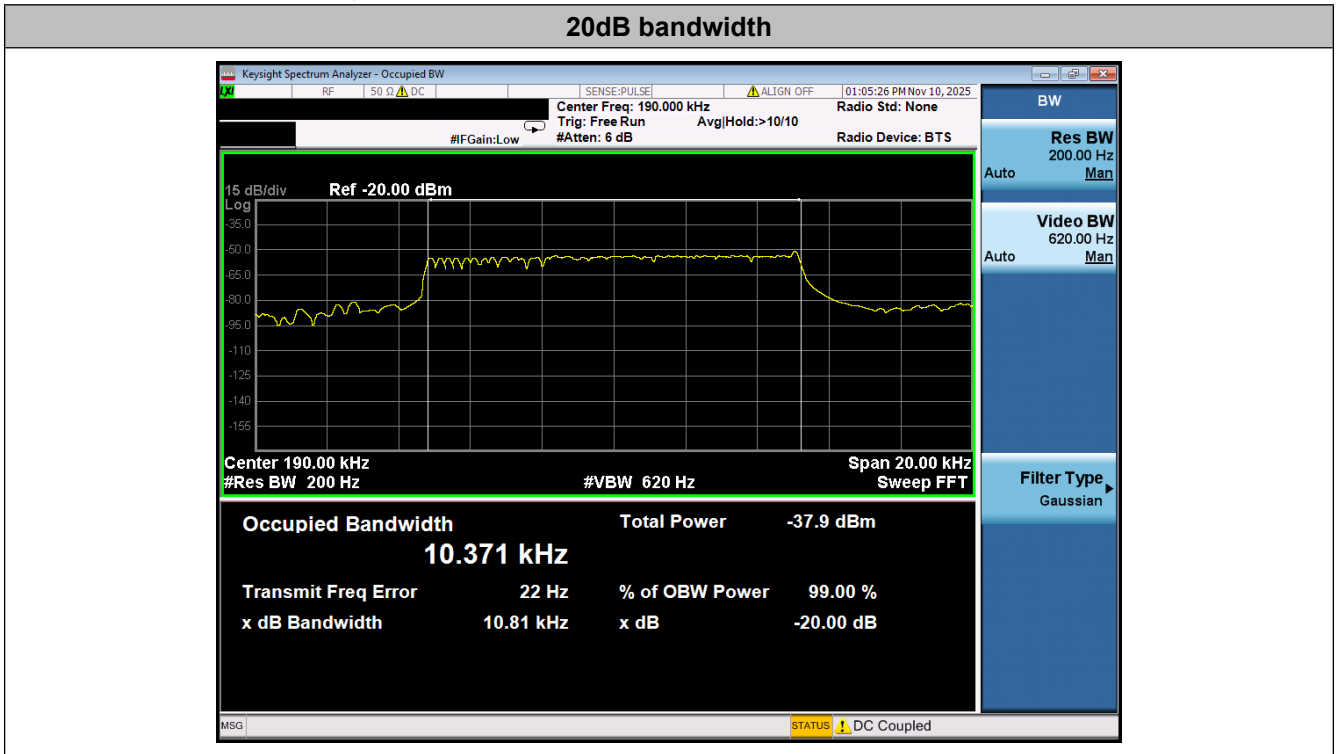
3.3.3 Test Setup



3.3.4 Test results

Test mode	20dB bandwidth (kHz)
A	10.81

For details refer to following test result.



4. Antenna Requirement

Test Specification

Test standard : Part 15.203

According to the manufacturer declared, the EUT has a Coil antenna, and the antenna is permanent attachment and no consideration of replacement. Therefore the EUT is considered sufficient to comply with the provision.

Refer to EUT Photo for further details.

Statement

1. The report is invalid without the official seal or special seal of Shenzhen Haiyun Standard Technical Co., Ltd. (hereinafter referred to as the unit).
2. The report is invalid without the signature of the approver.
3. The report is invalid if altered arbitrarily.
4. The report shall not be partially copied without the written approval of the unit.
5. The reported test results are only valid for the tested samples.
6. If there is any objection to the test report, it shall be submitted to the test unit within 15 days from the date of receiving the report, and the overdue shall not be accepted.

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(END OF REPORT)