

Radio Test Report

Applicant's name : METASEE LLC
Address : 12 GREENWAY PLZ STE 1161A HOUSTON,TX 77046-1203
Manufacture's Name : CHIZHOU FANGXI TOY TECHNOLOGY CO.,LTD.
Address : No. 01,Jianshe Road,Matang Industrial Zone,Dingqiao Town, Qingyang
County, Chizhou City, Anhui Province,China

Product description

Trader mark : FanttikRide
Product Name: : Ride on car
Model and/or type reference : N10 Ultra+
Serial Model : N/A
Rating(s) : Rated Capacity: 2500mAh/27.75Wh
Nominal Voltage: 11.1V==
Nominal Charge Voltage: 12.6V==

Standards : 47 CFR Part 15.247

FCC ID : 2BMPX-N10ULTRA

The EUT described above has been tested by us with the listed standards and found in compliance with the FCC requirements. It is possible to use FCC marking to demonstrate the compliance with this FCC requirements.
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Date of Test

Date (s) of performance of tests : 2026-05-20 ~ 2026-07-09
Date of Issue : 2026-07-09
Test Result : **Pass**

Prepared by: 
Project Engineer
Reviewed by: 
Project Supervisor
Approved by: 
Technical Director



REPORT REVISE RECORD

Report Version	Revise Time	Issued Date	Valid Version	Notes
V1.0	/	2026-07-09	Valid	Initial Release



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1. TEST SUMMARY

No.	Test Item	Basic Standard	Requirement	Result
1	Antenna requirement	47 CFR Part 15.247	47 CFR 15.203	PASS
2	Conducted Emission at AC power line	47 CFR Part 15.247	47 CFR 15.207(a)	PASS
3	6dB Bandwidth	47 CFR Part 15.247	47 CFR 15.247(a)(2)	PASS
4	Maximum Conducted Output Power	47 CFR Part 15.247	47 CFR 15.247(b)(3)	PASS
5	Power Spectral Density	47 CFR Part 15.247	47 CFR 15.247(e)	PASS
6	Emissions in non-restricted frequency bands	47 CFR Part 15.247	47 CFR 15.247(d)	PASS
7	Band edge emissions (Radiated)	47 CFR Part 15.247	47 CFR 15.247(d), 15.209, 15.205	PASS
8	Emissions in frequency bands (below 1GHz)	47 CFR Part 15.247	47 CFR 15.247(d), 15.209, 15.205	PASS
9	Emissions in frequency bands (above 1GHz)	47 CFR Part 15.247	47 CFR 15.247(d), 15.209, 15.205	PASS

2. MEASUREMENT UNCERTAINTY

The report uncertainty of measurement $y \pm U$, where expanded 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	Uncertainty
1	Conducted Emission (150KHz - 30MHz)	$\pm 2.54\text{dB}$
2	Occupied Channel Bandwidth	$\pm 3.5\%$
3	RF output power, conducted	$\pm 1.19\text{dB}$
4	Power Spectral Density, Conducted	$\pm 0.72\text{dB}$
5	Unwanted Emissions, conducted	$\pm 2.988\text{dB}$
6	All emissions, radiated (1GHz - 18GHz)	$\pm 4.66\text{dB}$
7	All emissions, radiated (30MHz - 1GHz)	$\pm 3.94\text{dB}$
8	All emissions, radiated (18GHz - 40GHz)	$\pm 4.31\text{dB}$

3. TEST FACILITY

Shenzhen VOP Testing Technology Co., Ltd.

Add:103, Building 5, Wanyan Industrial Park Qiaotou Community, Fuhai Street, Baoan District Shenzhen, Guangdong
People's Republic of China

FCC :Designation Number:CN1438

Certificate Number: 7579.01

3.1. Deviation from Standard

None

3.2. Abnormalities from Standard Conditions

None



4. GENERAL INFORMATION

4.1. General Description of EUT

Manufacturer:	CHIZHOU FANGXI TOY TECHNOLOGY CO.,LTD.
Manufacturer Address:	No. 01,Jianshe Road,Matang Industrial Zone,Dingqiao Town, Qingyang County, Chizhou City, Anhui Province,China
EUT Name:	Ride on car
Model No:	N10 Ultra+
Serial Model:	N/A
Brand Name:	FanttikRide
Difference Description:	N/A
Operation Frequency:	2402MHz to 2480MHz
Data rate:	1Mbps
Number of channels:	40
Modulation Type:	GFSK
Antenna type:	PCB antenna
Antenna Gain:	-0.58dBi
Bluetooth Version:	N/A
Hardware Version:	3.1
Software Version:	5.1
Power Supply:	Input:120V~ 60Hz from adapter, Output: DC11V, 2.25A from adapter Rated Capacity: 2500mAh/27.75Wh Nominal Voltage: 11.1V== Nominal Charge Voltage: 12.6V==
Maximum Output Power:	-10.26dBm

Note:

- 1.For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.
- 2.The antenna information refer the manufacturer provide report, applicable only to the tested sample identified in the report. Due to the incorrect antenna information, a series of problems such as the accuracy of the test results will be borne by the customer.

3.Channel List

Channel	Frequency (MHz)	Channel	Frequency (MHz)
00	2402	20	2442
01	2404	21	2444
02	2406	22	2446

03	2408	23	2448
04	2410	24	2450
05	2412	25	2452
06	2414	26	2454
07	2416	27	2456
08	2418	28	2458
09	2420	29	2460
10	2422	30	2462
11	2424	31	2464
12	2426	32	2466
13	2428	33	2468
14	2430	34	2470
15	2432	35	2472
16	2434	36	2474
17	2436	37	2476
18	2438	38	2478
19	2440	39	2480

4.2. EUT Test Mode

TM1	TX mode
Test software Version	Test program: FCC assist1.0.4.exe
Frequency	2402MHz,2440MHz,2480MHz
Power Setting of Softwave	0
Note:All above mode have been measurement, only worst data was reported.	

4.3. Auxiliary Equipment Used During Test

No.	Equipment	Manufacturer	Model No.	Serial No.	Remark
1	HP laptop	HP	DESKTOP-G3N DKR3	N/A	N/A
2	Huawei Super Fast Charger	Huawei	HW-100225C00	N/A	N/A

Note:

EUT power supply mode: Power adapter/linear power supply conforming to EUT rated parameters is provided by the laboratory as auxiliary power supply equipment. The prototype is not equipped with the original adapter, and only the power supply line is connected to the test power supply.

Role of external power supply: auxiliary power supply equipment, providing rated working power for EUT, belongs to the test auxiliary equipment, not a part of EUT.

5. EQUIPMENTS LIST FOR ALL TEST ITEMS

Conducted Emission at AC power line						
No	Test Equipment	Manufacturer	Model No	Serial No	Cal. Date	Cal. Due Date
1	EMI test receiver ESCI	R&S	ESCI-3	100503	2026-03-17	2028-03-16
2	LISN	R&S	ENV216	103017	2025-09-10	2026-09-09
3	10dB limiter	Schwarzbeck	VTSD 9561	102834	2026-03-17	2028-03-16

6dB Bandwidth Maximum Conducted Output Power Power Spectral Density Emissions in non-restricted frequency bands						
No	Test Equipment	Manufacturer	Model No	Serial No	Cal. Date	Cal. Due Date
1	spectrum analyzer	Agilent	N9020A	MY51287427	2026-06-25	2028-06-24
2	RF automatic control unit	TST	CBOX-Full	2752539	2026-06-25	2028-06-24

Band edge emissions (Radiated) Emissions in frequency bands (above 1GHz)						
No	Test Equipment	Manufacturer	Model No	Serial No	Cal. Date	Cal. Due Date
1	preamplifier	QUANJUDA	LNA18	2503130032	2025-07-07	2027-07-06
2	High frequency antenna	Schwarzbeck	9120D-1141	03260	2025-10-19	2026-10-18
3	High-frequency horn antenna	Schwarzbeck	HA-018040L	25098408	2025-10-31	2026-10-30
4	preamplifier	HCT	HC180400-50 G25	25098401	2025-09-19	2026-09-18
5	spectrum analyzer	R&S	FSV40	101373	2025-12-24	2026-12-23

Emissions in frequency bands (below 1GHz)						
No	Test Equipment	Manufacturer	Model No	Serial No	Cal. Date	Cal. Due Date
1	EMI test receiver ESCI	R&S	ESPI-7	100754	2026-03-17	2028-03-16
2	Log periodic antenna	SCHWARZBECK	VULB9163	01790	2025-10-24	2026-10-23
3	preamplifier	SCHWARZBECK	8447D	2944A08081	2026-03-17	2028-03-16
4	Loop antenna	COM-POWER	FMZB 1519-60 C	00170	2026-03-17	2028-03-16

6. TEST RESULTS

6.1. 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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6.1.1. Conclusion:

The EUT antenna is PCB Antenna. It conforms to the standard requirements.



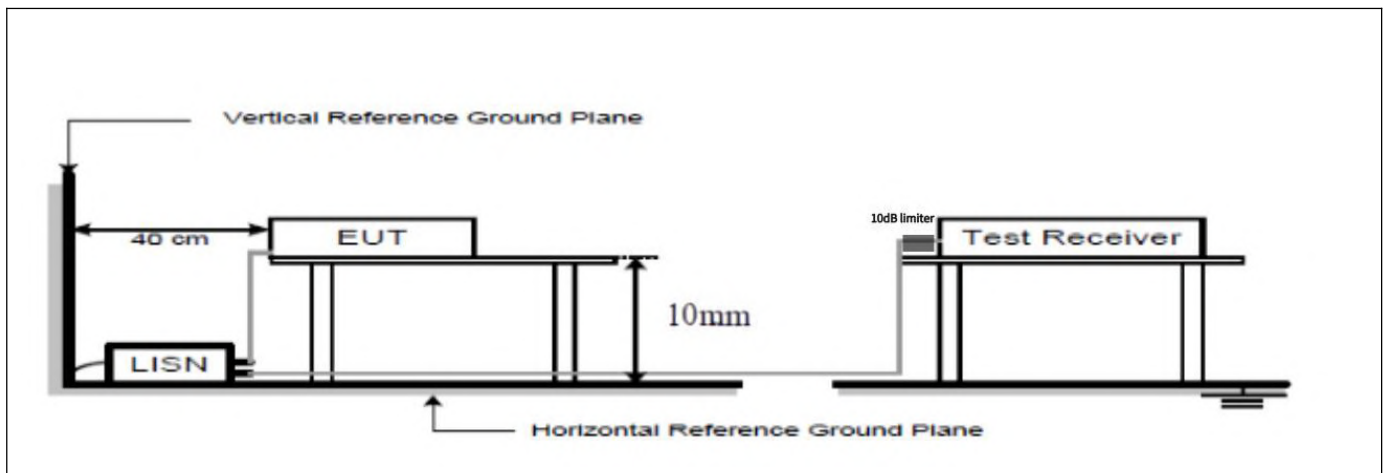
6.2. Conducted Emission at AC power line

Test Requirement:	Refer to 47 CFR 15.207(a), 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 + Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024 section 6.2		
Procedure:	Refer to ANSI C63.10-2020 + Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024 section 6.2, standard test method for ac power-line conducted emissions from unlicensed wireless devices		

6.2.1. EUT Operation

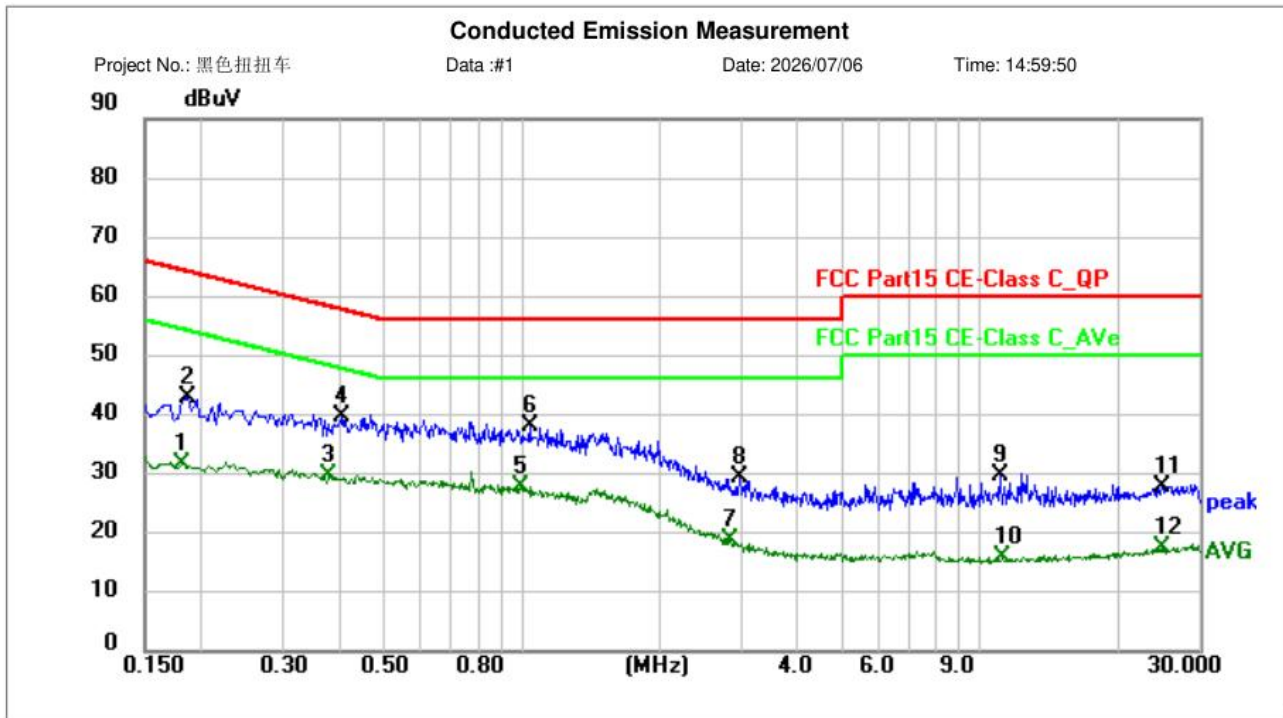
Operating Environment:					
Temperature:	21.5 °C	Humidity:	49.2 %	Atmospheric Pressure:	101.5 kPa
Pre test mode:	TM1				
Final test mode:	TM1				
Note: All operating modes have been pre-tested; only the worst-case mode test data are presented in this report.					

6.2.2. Test Setup Diagram:



6.2.3. Test Data

TM1 / Line: Line / Band: 2400-2483.5 MHz / BW: 1 / CH: L



Site LAB

Phase: L1

Temperature: 26 °C

Limit: FCC Part15 CE-Class C_QP

Power:

Humidity: 54 %RH

EUT:

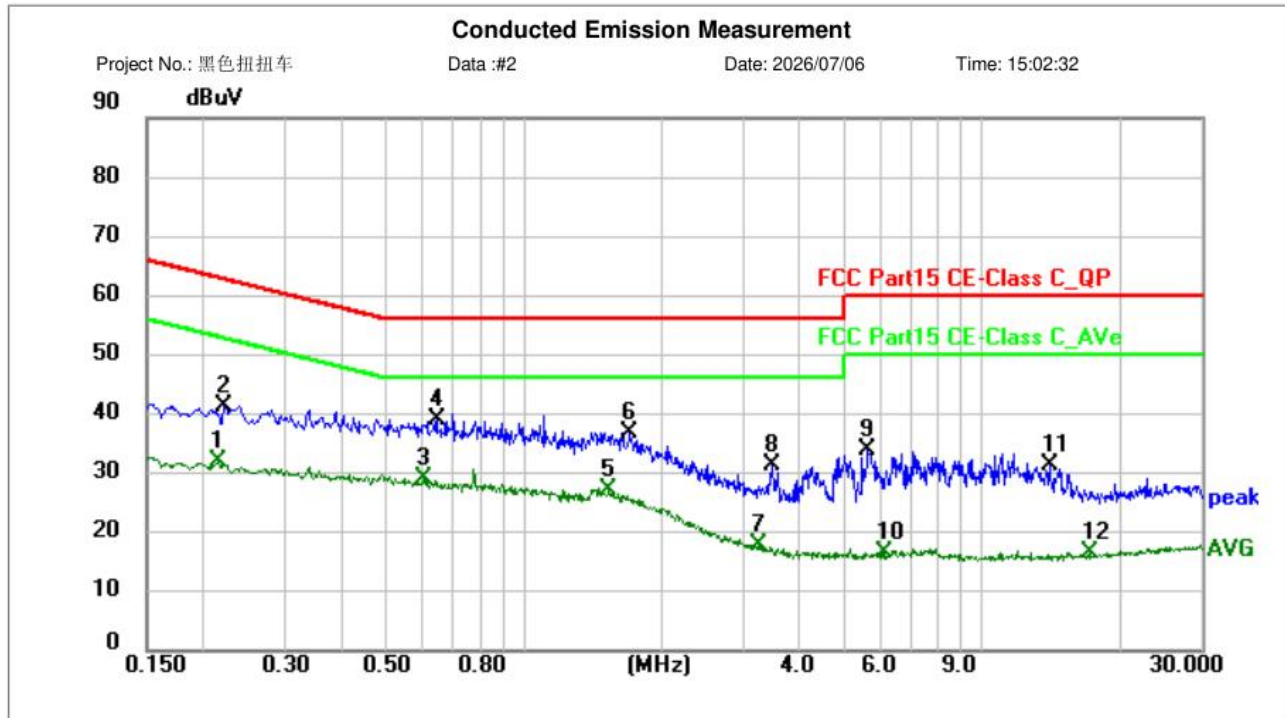
M/N: charging

Mode:

Note:

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F	Remark
1	0.1819	12.17	19.42	31.59	54.40	-22.81	AVG	P	
2	0.1860	23.56	19.42	42.98	64.21	-21.23	peak	P	
3	0.3780	10.30	19.46	29.76	48.32	-18.56	AVG	P	
4	0.4020	20.36	19.46	39.82	57.81	-17.99	peak	P	
5	0.9940	8.39	19.50	27.89	46.00	-18.11	AVG	P	
6 *	1.0380	18.74	19.50	38.24	56.00	-17.76	peak	P	
7	2.8420	-0.67	19.59	18.92	46.00	-27.08	AVG	P	
8	2.9860	9.91	19.60	29.51	56.00	-26.49	peak	P	
9	11.0659	9.48	20.24	29.72	60.00	-30.28	peak	P	
10	11.2220	-4.31	20.26	15.95	50.00	-34.05	AVG	P	
11	24.8900	6.27	21.42	27.69	60.00	-32.31	peak	P	
12	24.8900	-3.93	21.42	17.49	50.00	-32.51	AVG	P	

TM1 / Line: Neutral / Band: 2400-2483.5 MHz / BW: 1 / CH: L



Site LAB

Phase: N

Temperature: 26 °C

Limit: FCC Part15 CE-Class C_QP

Power:

Humidity: 54 %RH

EUT:

M/N: charging

Mode:

Note:

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F	Remark
1	0.2140	12.42	19.42	31.84	53.05	-21.21	AVG	P	
2	0.2220	21.89	19.42	41.31	62.74	-21.43	peak	P	
3 *	0.6060	9.51	19.47	28.98	46.00	-17.02	AVG	P	
4	0.6460	19.48	19.47	38.95	56.00	-17.05	peak	P	
5	1.5300	7.63	19.52	27.15	46.00	-18.85	AVG	P	
6	1.7020	17.17	19.52	36.69	56.00	-19.31	peak	P	
7	3.2580	-1.80	19.62	17.82	46.00	-28.18	AVG	P	
8	3.4820	11.67	19.63	31.30	56.00	-24.70	peak	P	
9	5.6420	14.13	19.80	33.93	60.00	-26.07	peak	P	
10	6.1420	-3.24	19.85	16.61	50.00	-33.39	AVG	P	
11	14.0460	10.62	20.56	31.18	60.00	-28.82	peak	P	
12	17.2260	-4.18	20.87	16.69	50.00	-33.31	AVG	P	

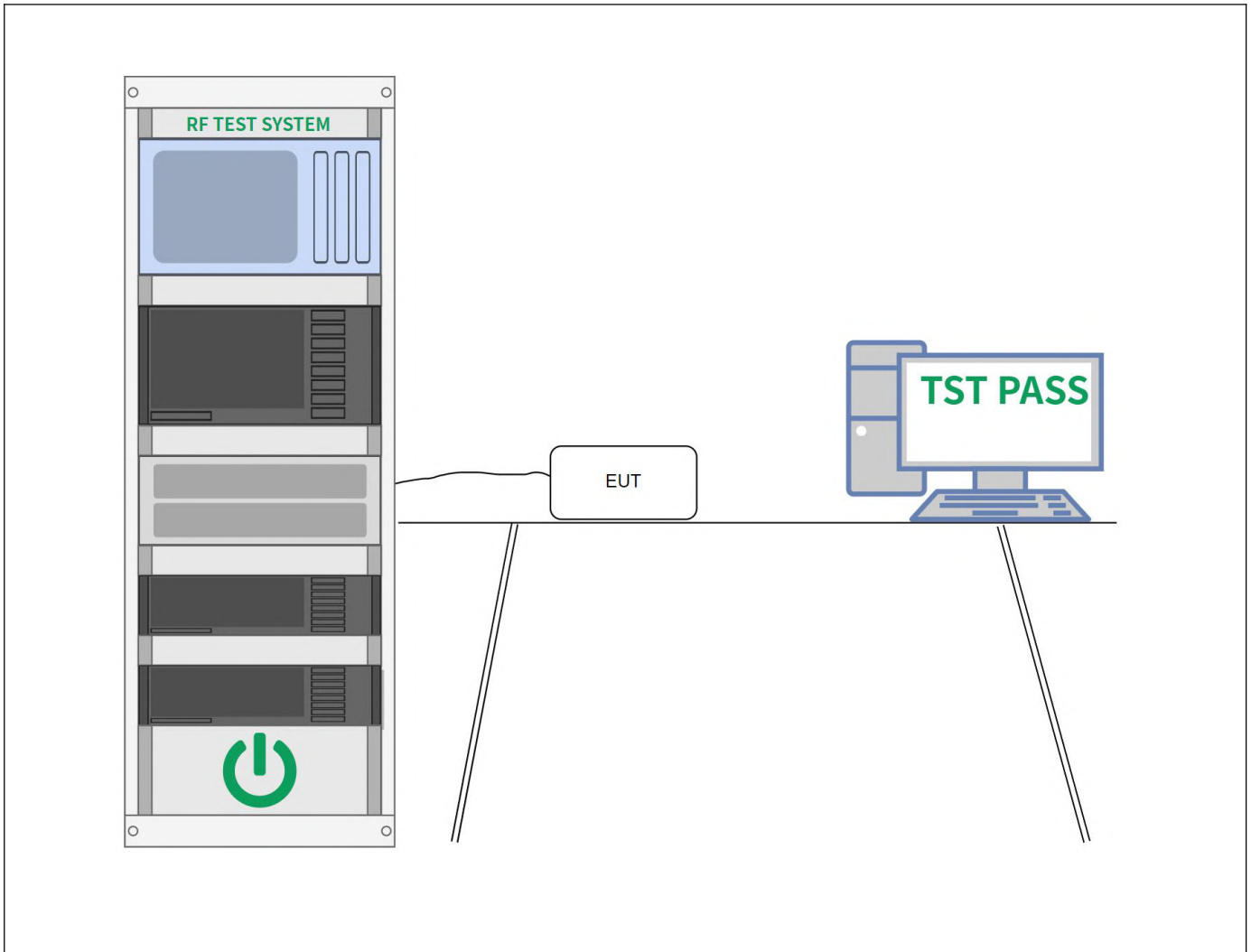
6.3. 6dB Bandwidth

Test Requirement:	47 CFR 15.247(a)(2)
Test Limit:	Refer to 47 CFR 15.247(a)(2), Systems using digital modulation techniques may operate in the 902-928 MHz, and 2400-2483.5 MHz bands. The minimum 6 dB bandwidth shall be at least 500 kHz.
Test Method:	ANSI C63.10-2020 + Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024, section 11.8
Procedure:	11.8.1 Option 1 The steps for the first option are as follows: a) Set RBW = shall be in the range of 1% to 5% of the OBW but not less than 100 kHz. b) Set the VBW $\geq [3 \times \text{RBW}]$. c) Detector = peak. d) Trace mode = max-hold. e) Sweep = No faster than coupled (auto) time. f) Allow the trace to stabilize. g) Measure the maximum width of the emission by placing two markers, one at the lowest frequency and the other at the highest frequency of the envelope of the spectral display, such that each marker is at or slightly below the “-6 dB down amplitude”. If a marker is below this “-6 dB down amplitude” value, then it shall be as close as possible to this value. 11.8.2 Option 2 The automatic bandwidth measurement capability of an instrument may be employed using the X dB bandwidth mode with X set to 6 dB, if the functionality described in 11.8.1 (i.e., RBW = 100 kHz, VBW $\geq 3 \times \text{RBW}$, and peak detector with maximum hold) is implemented by the instrumentation function. When using this capability, care shall be taken so that the bandwidth measurement is not influenced by any intermediate power nulls in the fundamental emission that might be ≥ 6 dB.

6.3.1. EUT Operation

Operating Environment:					
Temperature:	21.6 °C	Humidity:	48.2 %	Atmospheric Pressure:	101.5 kPa
Pre test mode:	TM1				
Final test mode:	TM1				

6.3.2. Test Setup Diagram:



6.3.3. Test Data

Please Refer to Appendix for Details.

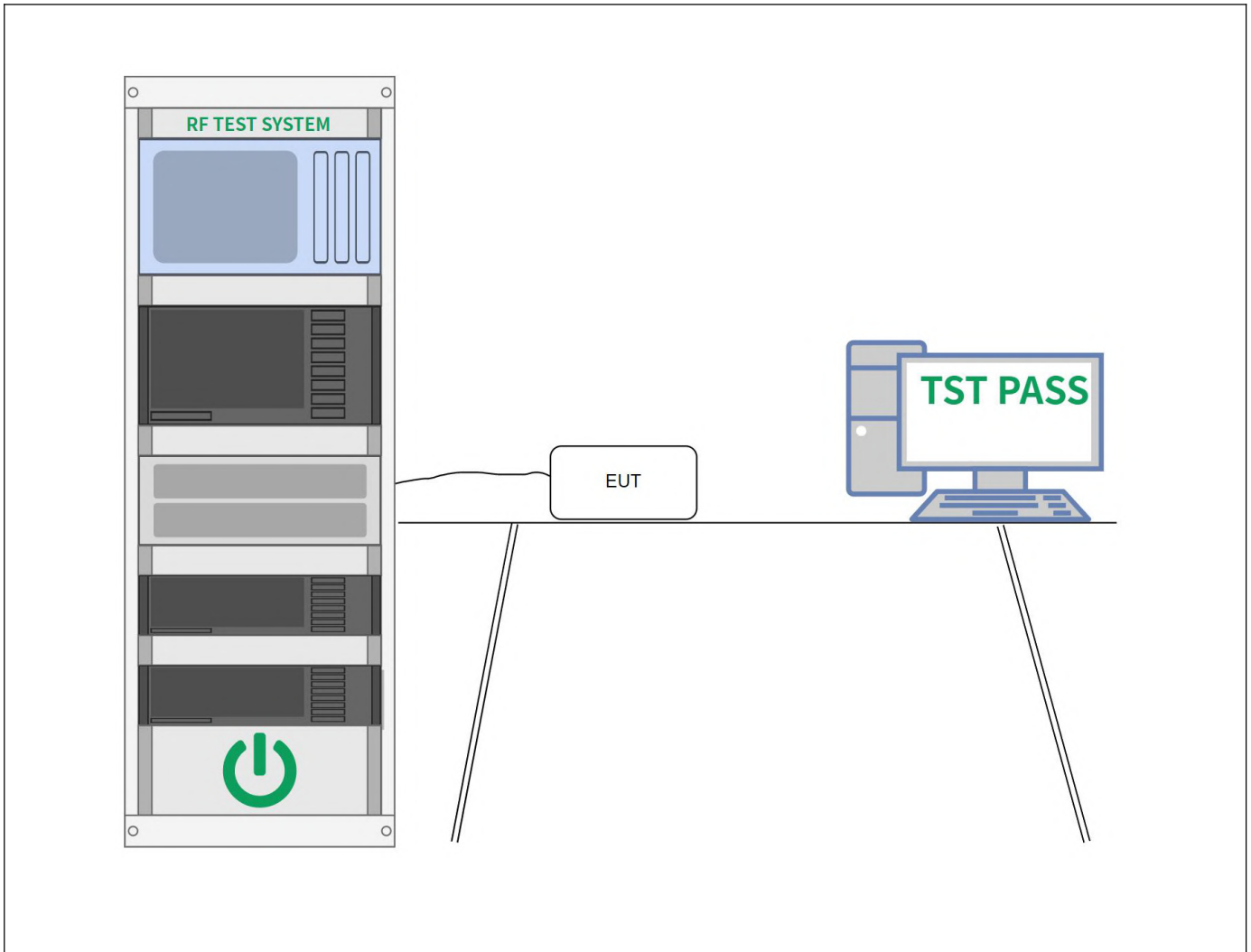
6.4. Maximum Conducted Output Power

Test Requirement:	47 CFR 15.247(b)(3)
Test Limit:	Refer to 47 CFR 15.247(b)(3), For systems using digital modulation in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands: 1 Watt. As an alternative to a peak power measurement, compliance with the one Watt limit can be based on a measurement of the maximum conducted output power. Maximum Conducted Output Power is defined as the total transmit power delivered to all antennas and antenna elements averaged across all symbols in the signaling alphabet when the transmitter is operating at its maximum power control level. Power must be summed across all antennas and antenna elements. The average must not include any time intervals during which the transmitter is off or is transmitting at a reduced power level. If multiple modes of operation are possible (e.g., alternative modulation methods), the maximum conducted output power is the highest total transmit power occurring in any mode.
Test Method:	ANSI C63.10-2020 + Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024 section 11.9.1
Procedure:	ANSI C63.10-2020 + Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024, section 11.9.1 Maximum peak conducted output power

6.4.1. EUT Operation

Operating Environment:					
Temperature:	22.9 °C	Humidity:	55 %	Atmospheric Pressure:	101.5 kPa
Pre test mode:	TM1				
Final test mode:	TM1				

6.4.2. Test Setup Diagram:



6.4.3. Test Data

Please Refer to Appendix for Details.

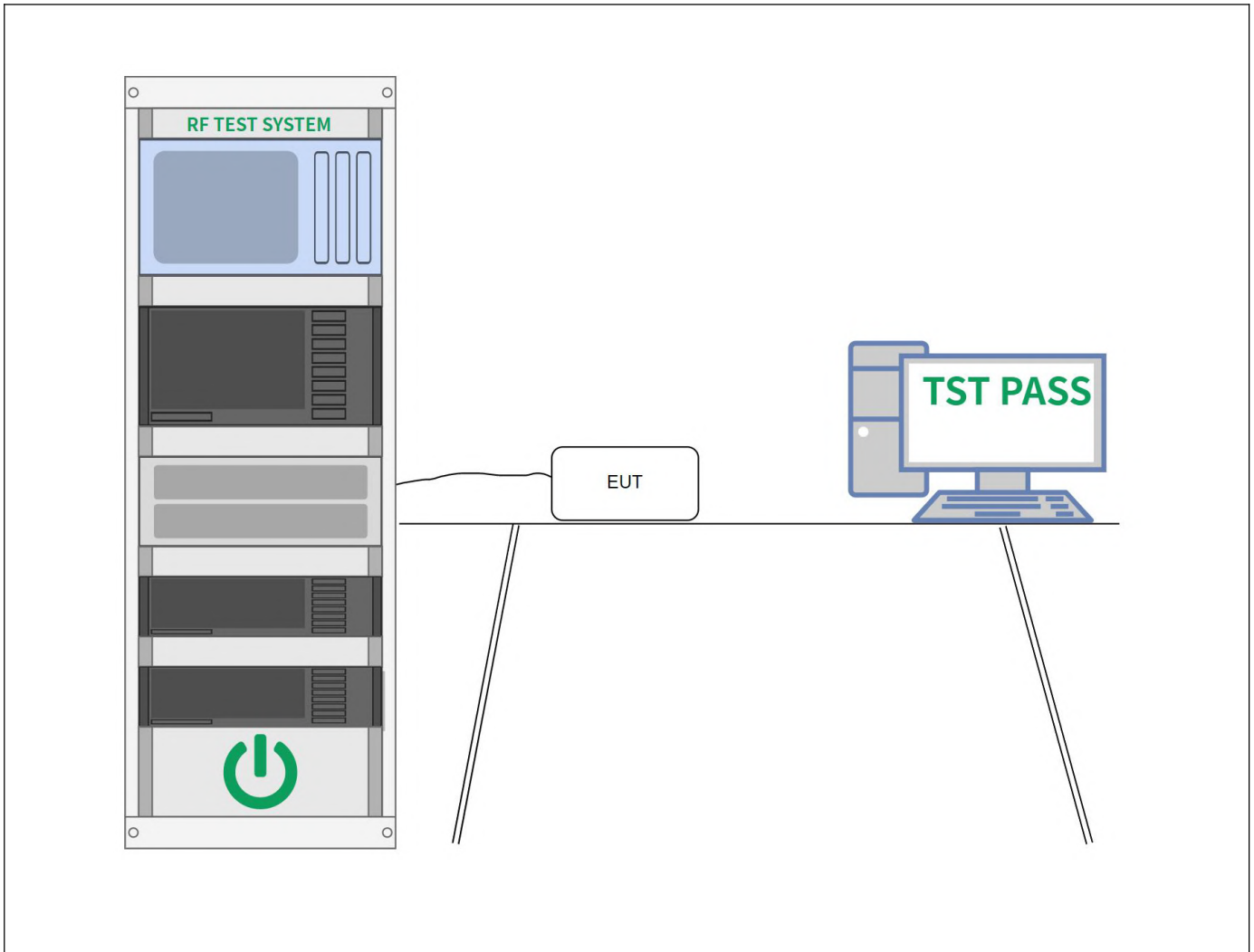
6.5. Power Spectral Density

Test Requirement:	47 CFR 15.247(e)
Test Limit:	Refer to 47 CFR 15.247(e), For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission. This power spectral density shall be determined in accordance with the provisions of paragraph (b) of this section. The same method of determining the conducted output power shall be used to determine the power spectral density.
Test Method:	ANSI C63.10-2020 + Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024, section 11.10
Procedure:	ANSI C63.10-2020 + Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024, section 11.10, Maximum power spectral density level in the fundamental emission

6.5.1. EUT Operation

Operating Environment:			
Temperature:	23.7 °C	Humidity:	53.8 %
Pre test mode:		TM1	
Final test mode:		TM1	

6.5.2. Test Setup Diagram:



6.5.3. Test Data

Please Refer to Appendix for Details.

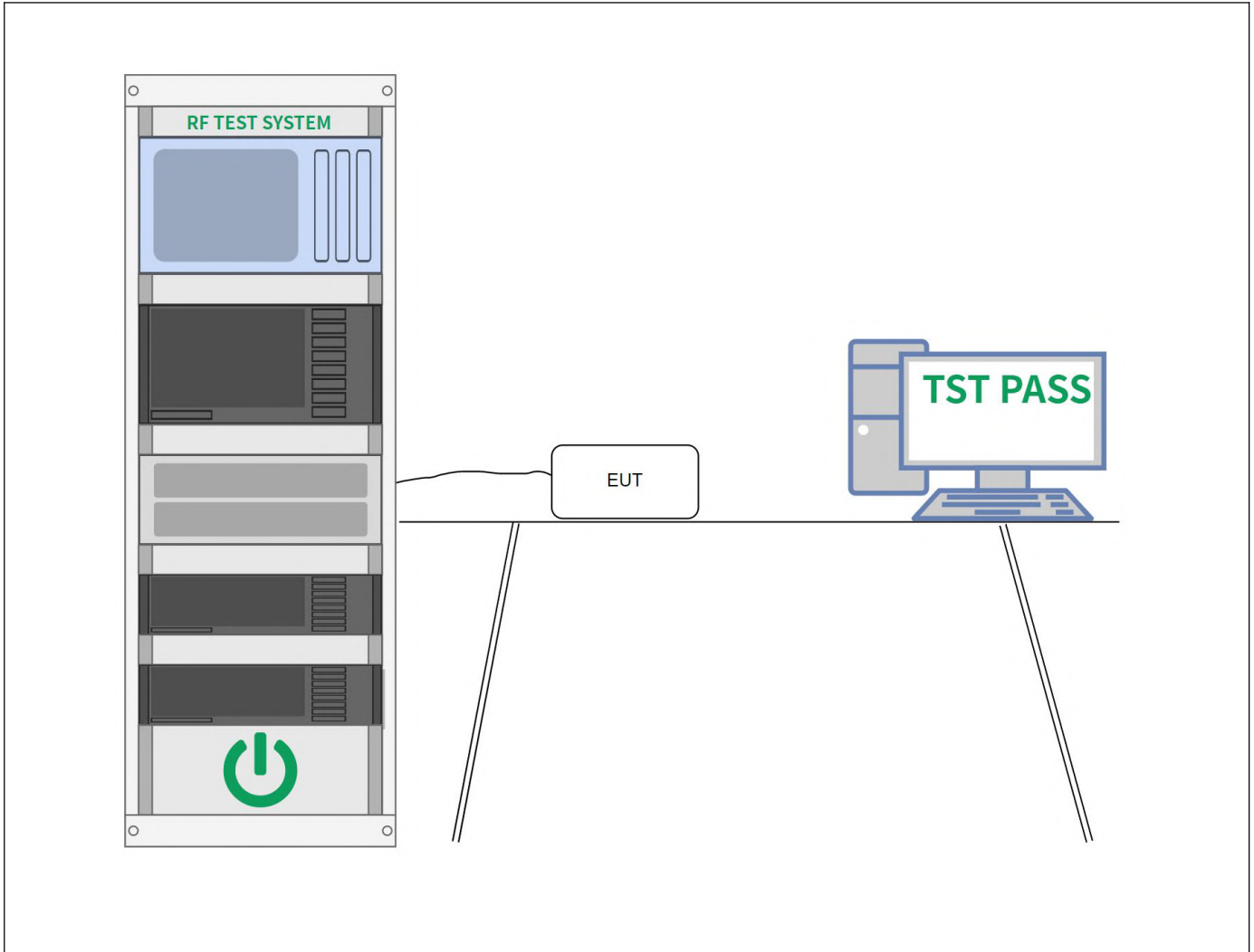
6.6. Emissions in non-restricted frequency bands

Test Requirement:	47 CFR 15.247(d)
Test Limit:	Refer to 47 CFR 15.247(d), In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in § 15.209(a) is not required.
Test Method:	ANSI C63.10-2020 + Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024 section 11.11
Procedure:	ANSI C63.10-2020 + Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024 Section 11.11.1, Section 11.11.2, Section 11.11.3

6.6.1. EUT Operation

Operating Environment:					
Temperature:	21.6 °C	Humidity:	47.7 %	Atmospheric Pressure:	101.5 kPa
Pre test mode:	TM1				
Final test mode:	TM1				

6.6.2. Test Setup Diagram:



6.6.3. Test Data

Please Refer to Appendix for Details.

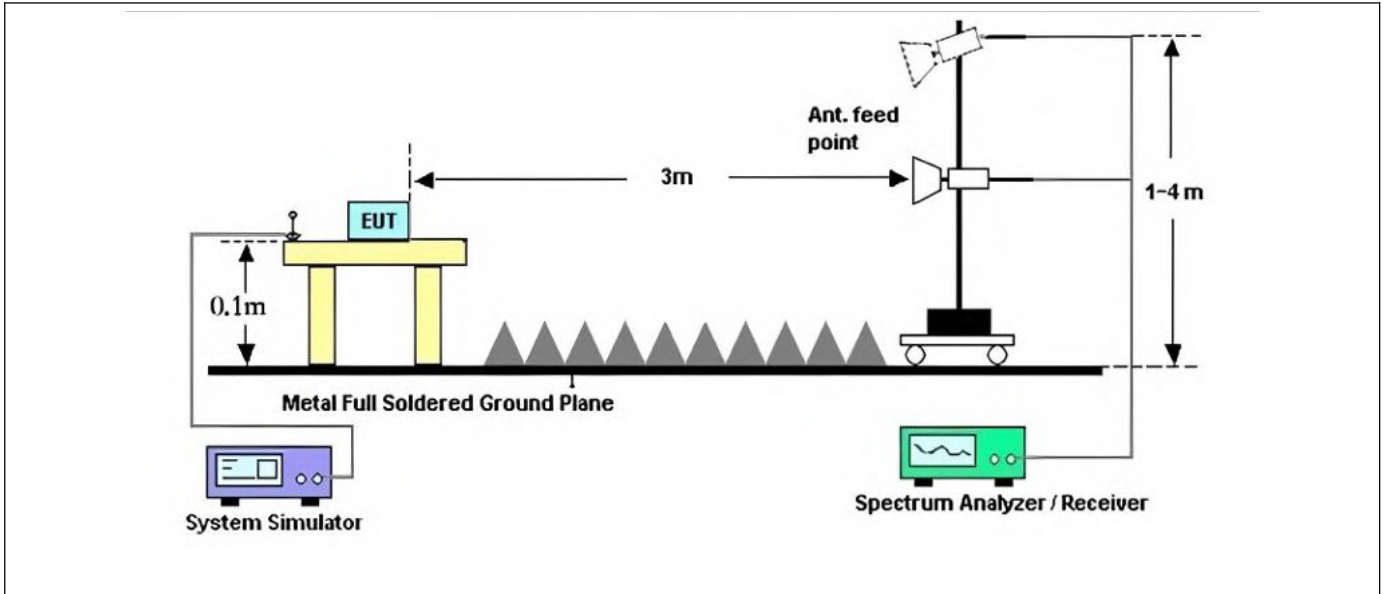
6.7. Band edge emissions (Radiated)

Test Requirement:	Refer to 47 CFR 15.247(d), In addition, radiated emissions which fall in the restricted bands, as defined in § 15.205(a), must also comply with the radiated emission limits specified in § 15.209(a)(see § 15.205(c)).		
Test Limit:	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
** 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. 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.			
Test Method:	ANSI C63.10-2020 + Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024 section 6.10		
Procedure:	ANSI C63.10-2020 + Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024 section 6.10.5.2		

6.7.1. EUT Operation

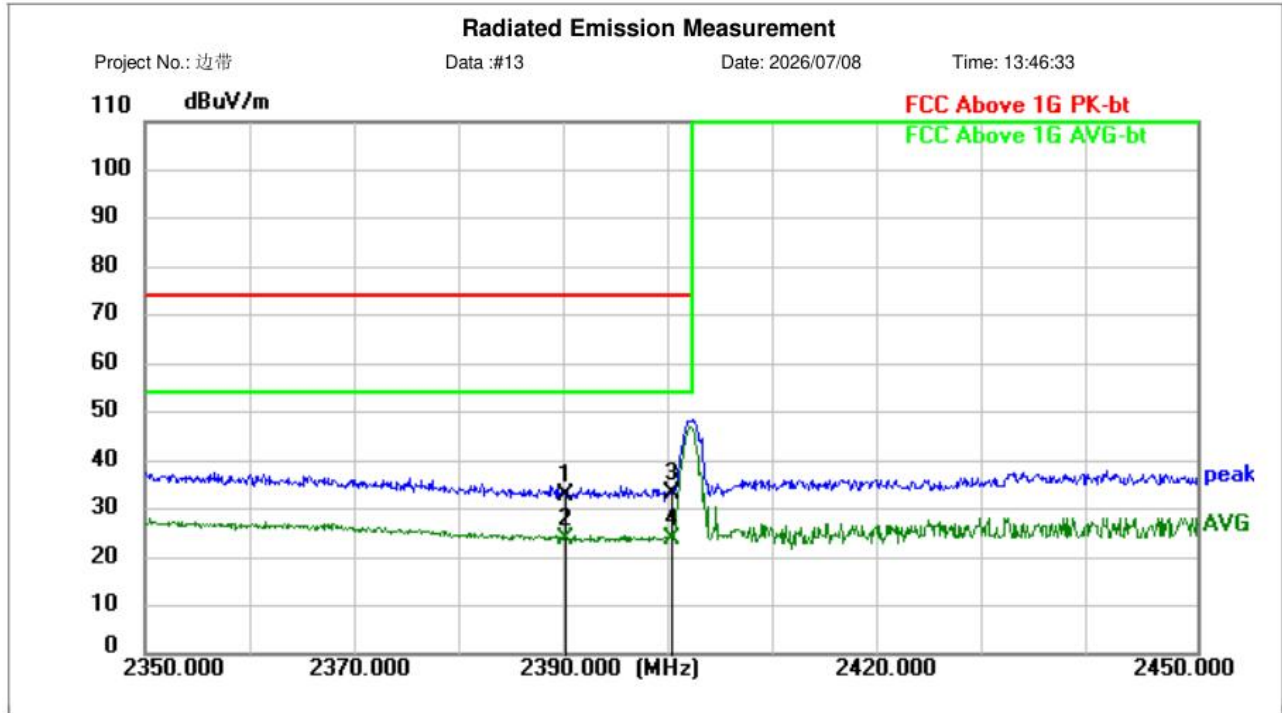
Operating Environment:			
Temperature:	21.2 °C	Humidity:	49.4 %
		Atmospheric Pressure:	101.5 kPa
Pre test mode:	TM1		
Final test mode:	TM1		

6.7.2. Test Setup Diagram:



6.7.3. Test Data

TM1 / Polarization: Horizontal / Band: 2400-2483.5 MHz / BW: 1 / CH: L



Site LAB

Limit: FCC Above 1G PK-bt

EUT:

M/N: 2402

Mode: 1M

Note:

Polarization: **Horizontal**

Power:

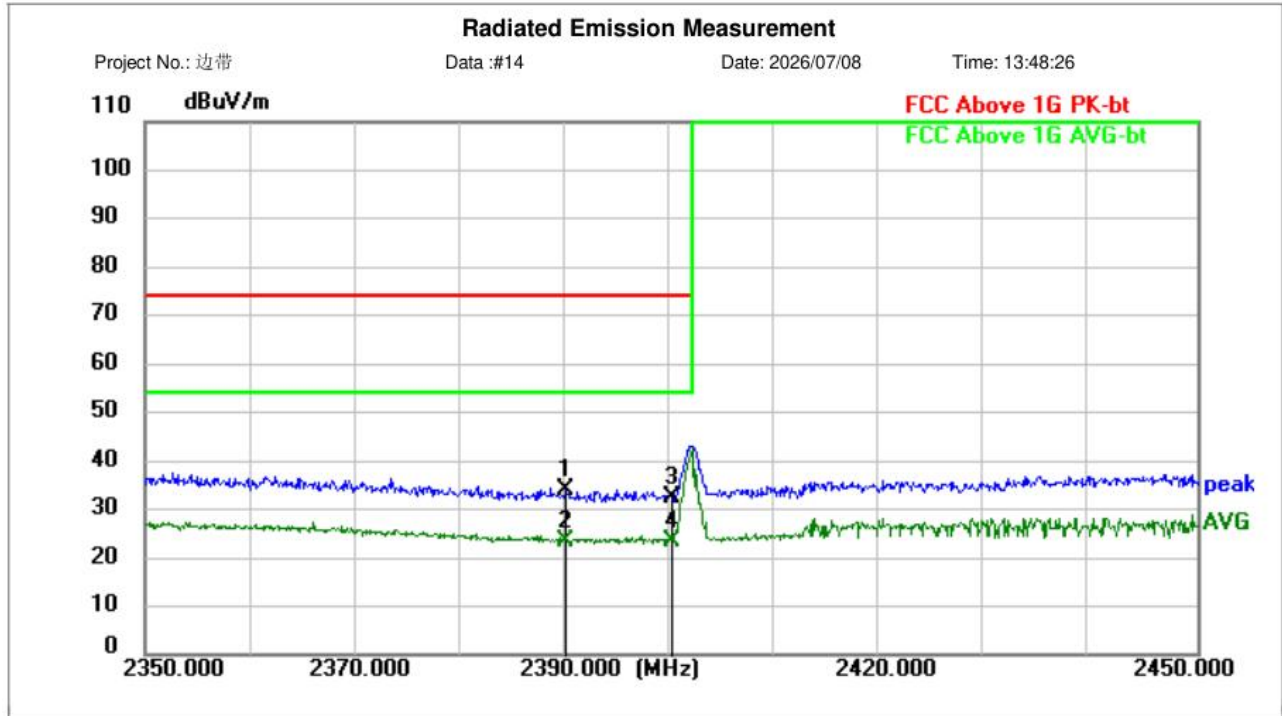
Distance: 3m

Temperature: 26 °C

Humidity: 54 %RH

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	2390.0000	57.90	-25.27	32.63	74.00	-41.37	peak	150	0	P	
2	2390.0000	48.93	-25.27	23.66	54.00	-30.34	AVG	150	0	P	
3	2400.0000	59.17	-25.87	33.30	74.00	-40.70	peak	150	0	P	
4 *	2400.0000	49.73	-25.87	23.86	54.00	-30.14	AVG	150	0	P	

TM1 / Polarization: Vertical / Band: 2400-2483.5 MHz / BW: 1 / CH: L



Site LAB

Polarization: **Vertical**

Temperature: 26 °C

Limit: FCC Above 1G PK-bt

Power:

Humidity: 54 %RH

EUT:

Distance: 3m

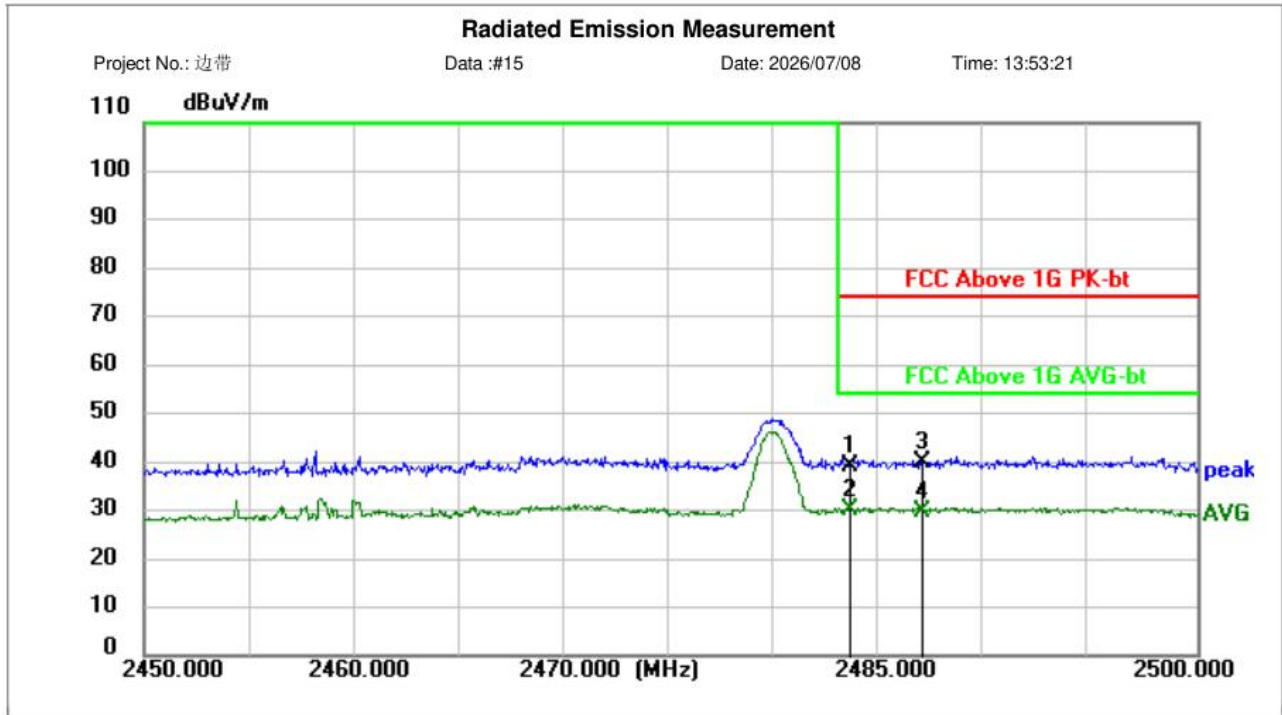
M/N: 2402

Mode: 1M

Note:

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	2390.0000	56.65	-22.71	33.94	74.00	-40.06	peak	150	0	P	
2 *	2390.0000	46.16	-22.71	23.45	54.00	-30.55	AVG	150	0	P	
3	2400.0000	54.89	-22.67	32.22	74.00	-41.78	peak	150	0	P	
4	2400.0000	46.05	-22.67	23.38	54.00	-30.62	AVG	150	0	P	

TM1 / Polarization: Horizontal / Band: 2400-2483.5 MHz / BW: 1 / CH: H



Site LAB

Limit: FCC Above 1G PK-bt

EUT:

M/N: 2480

Mode: 1M

Note:

Polarization: **Horizontal**

Power:

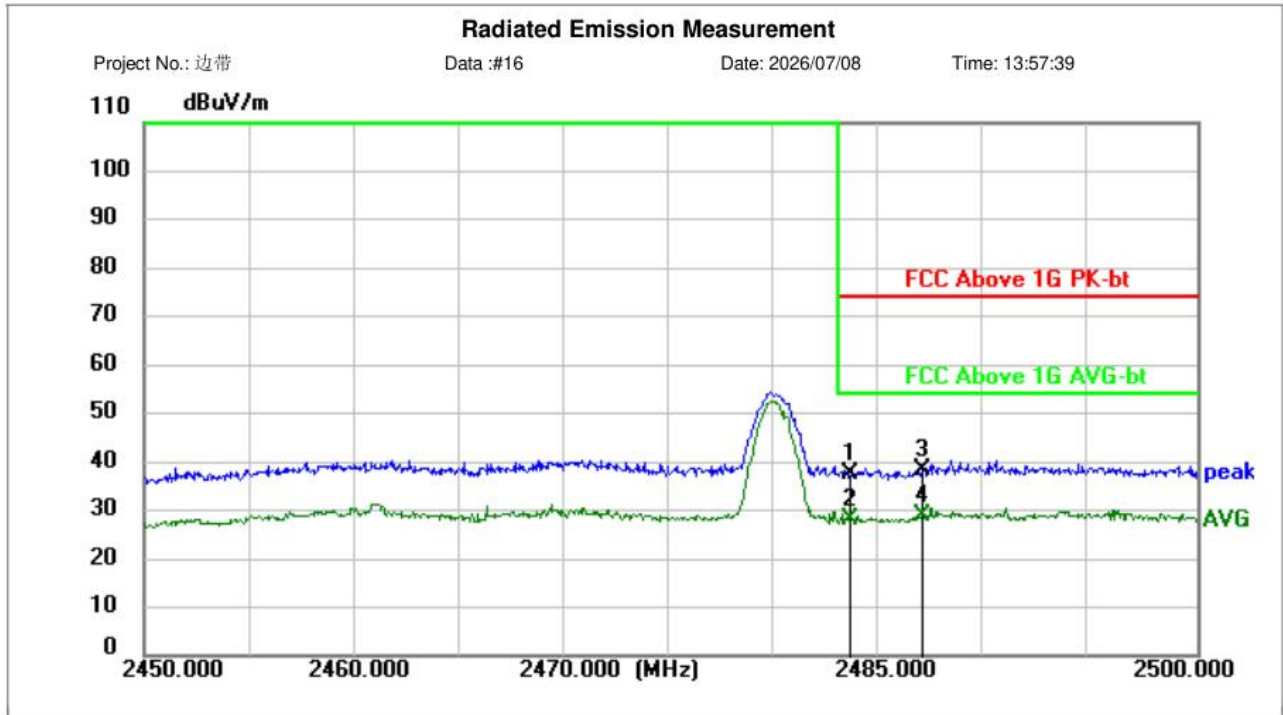
Distance: 3m

Temperature: 26 °C

Humidity: 54 %RH

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	2483.5000	61.83	-22.81	39.02	74.00	-34.98	peak			P	
2 *	2483.5000	52.97	-22.81	30.16	54.00	-23.84	AVG			P	
3	2487.0000	62.85	-22.78	40.07	74.00	-33.93	peak			P	
4	2487.0000	52.53	-22.78	29.75	54.00	-24.25	AVG			P	

TM1 / Polarization: Vertical / Band: 2400-2483.5 MHz / BW: 1 / CH: H



Site LAB

Limit: FCC Above 1G PK-bt

EUT:

M/N: 2480

Mode: 1M

Note:

Polarization: **Vertical**

Power:

Distance: 3m

Temperature: 26 °C

Humidity: 54 %RH

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	2483.5000	59.78	-22.27	37.51	74.00	-36.49	peak			P	
2	2483.5000	50.40	-22.27	28.13	54.00	-25.87	AVG			P	
3	2487.0000	60.49	-22.26	38.23	74.00	-35.77	peak			P	
4 *	2487.0000	51.15	-22.26	28.89	54.00	-25.11	AVG			P	

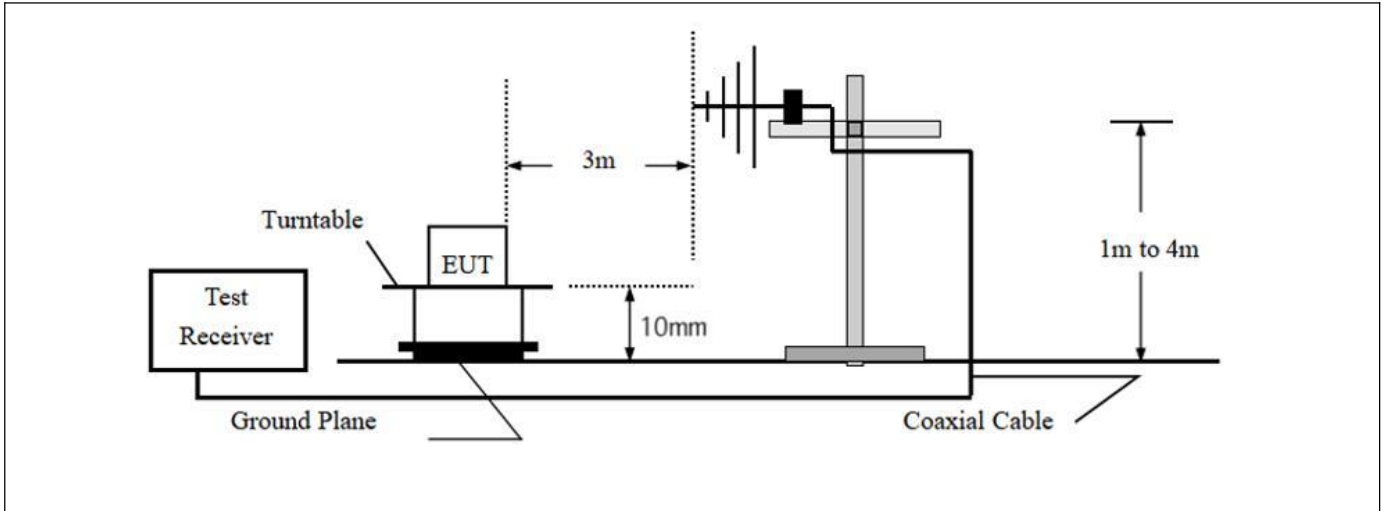
6.8. Emissions in frequency bands (below 1GHz)

Test Requirement:	Refer to 47 CFR 15.247(d), In addition, radiated emissions which fall in the restricted bands, as defined in § 15.205(a), must also comply with the radiated emission limits specified in § 15.209(a)(see § 15.205(c)).		
Test Limit:	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
** 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. 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.			
Test Method:	ANSI C63.10-2020 + Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024 section 6.5.4		
Procedure:	ANSI C63.10-2020 + Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024 section 6.5.4		

6.8.1. EUT Operation

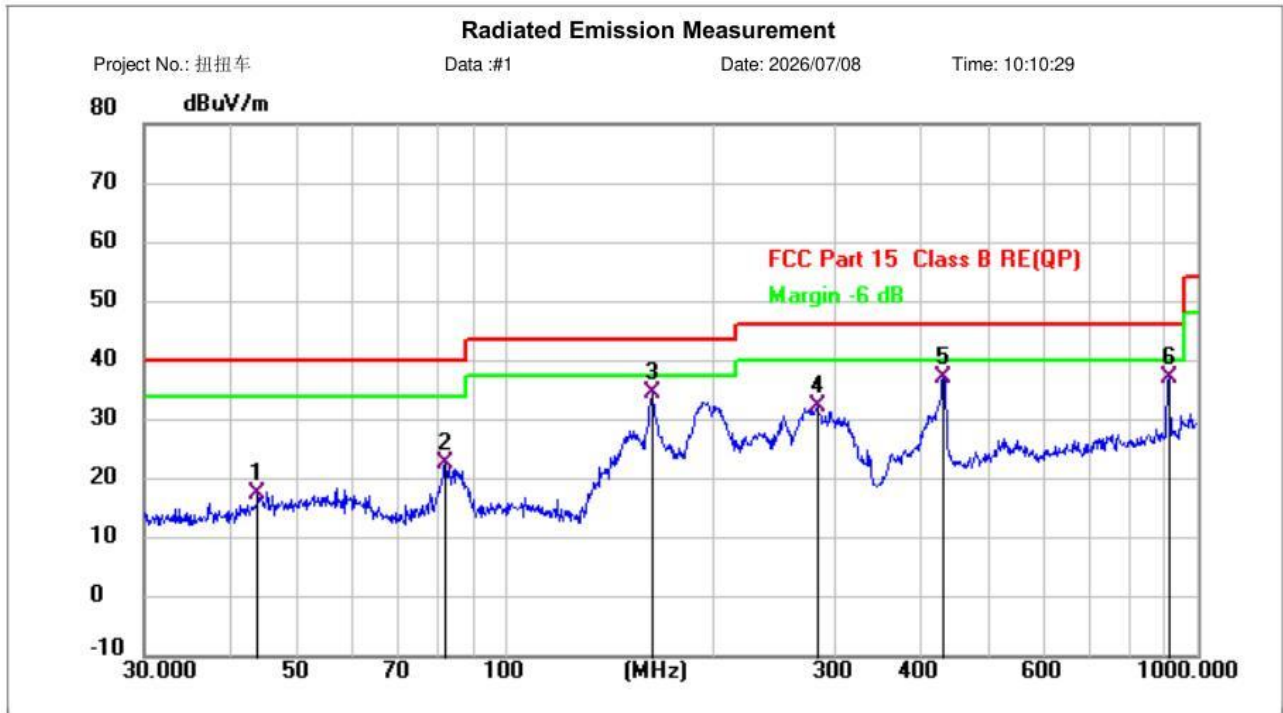
Operating Environment:					
Temperature:	23.9 °C	Humidity:	49.5 %	Atmospheric Pressure:	101.5 kPa
Pre test mode:		TM1			
Final test mode:		TM1			
Note: Pre-scan was performed for 9 kHz-30 MHz. The measured emissions are well below the required limits. Only test data from 30 MHz upwards are presented in this section. All operating modes have been pre-tested; only the worst-case mode test data are presented in this report.					

6.8.2. Test Setup Diagram:



6.8.3. Test Data

TM1 / Polarization: Horizontal / Band: 2400-2483.5 MHz / BW: 1 / CH: L



Site LAB

Limit: FCC Part 15 Class B RE(QP)

EUT:

M/N: working

Mode:

Note:

Polarization: **Horizontal**

Power:

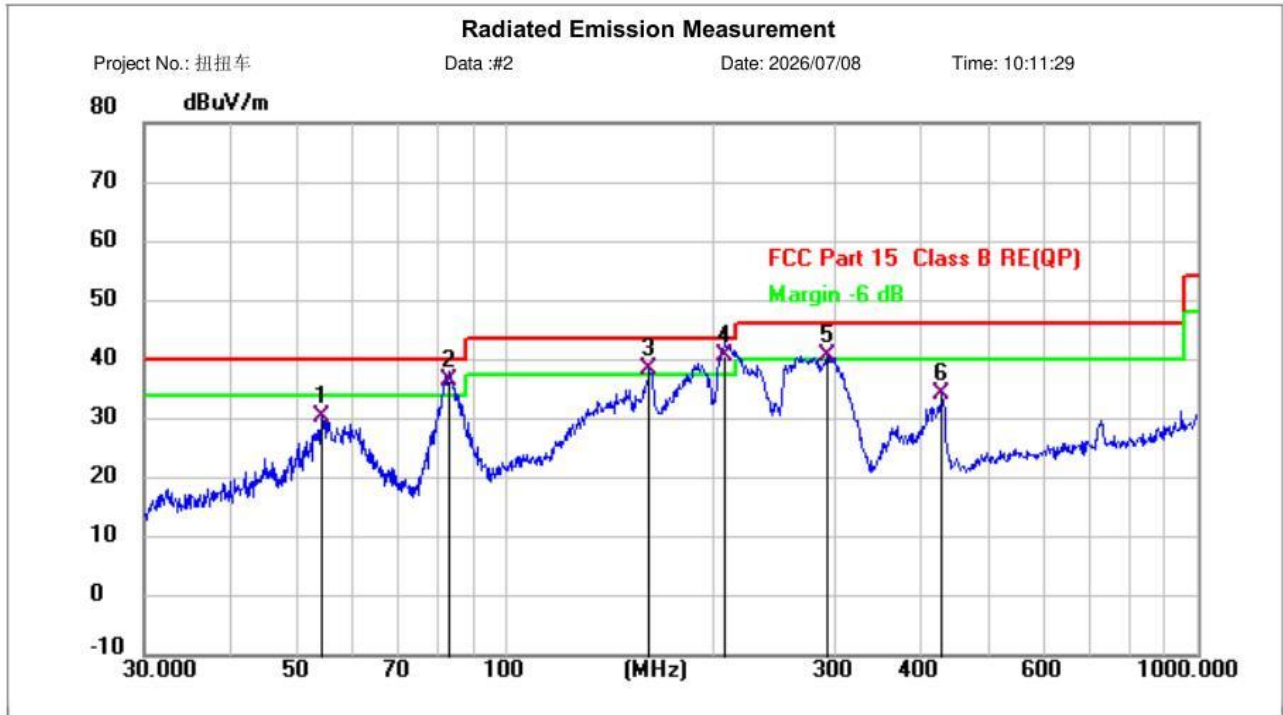
Distance: 3m

Temperature: 26 °C

Humidity: 54 %RH

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	43.8120	28.56	-10.97	17.59	40.00	-22.41	QP			P	
2	82.0705	36.39	-13.74	22.65	40.00	-17.35	QP			P	
3	162.6105	47.65	-13.28	34.37	43.50	-9.13	QP			P	
4	281.9945	40.55	-8.28	32.27	46.00	-13.73	QP			P	
5 *	429.5228	42.22	-5.15	37.07	46.00	-8.93	QP			P	
6	909.6666	35.76	1.23	36.99	46.00	-9.01	QP			P	

TM1 / Polarization: Vertical / Band: 2400-2483.5 MHz / BW: 1 / CH: L



Site LAB

Polarization: **Vertical**

Temperature: 26 °C

Limit: FCC Part 15 Class B RE(QP)

Power:

Humidity: 54 %RH

EUT:

Distance: 3m

M/N: working

Mode:

Note:

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	54.0710	40.94	-10.62	30.32	40.00	-9.68	QP			P	
2 !	82.6482	50.18	-13.68	36.50	40.00	-3.50	QP	100	360	P	
3 !	161.4740	51.57	-13.33	38.24	43.50	-5.26	QP			P	
4 *	207.8501	51.35	-10.85	40.50	43.50	-3.00	QP	100	360	P	
5 !	292.0583	48.51	-7.93	40.58	46.00	-5.42	QP			P	
6	428.0192	39.25	-5.18	34.07	46.00	-11.93	QP			P	

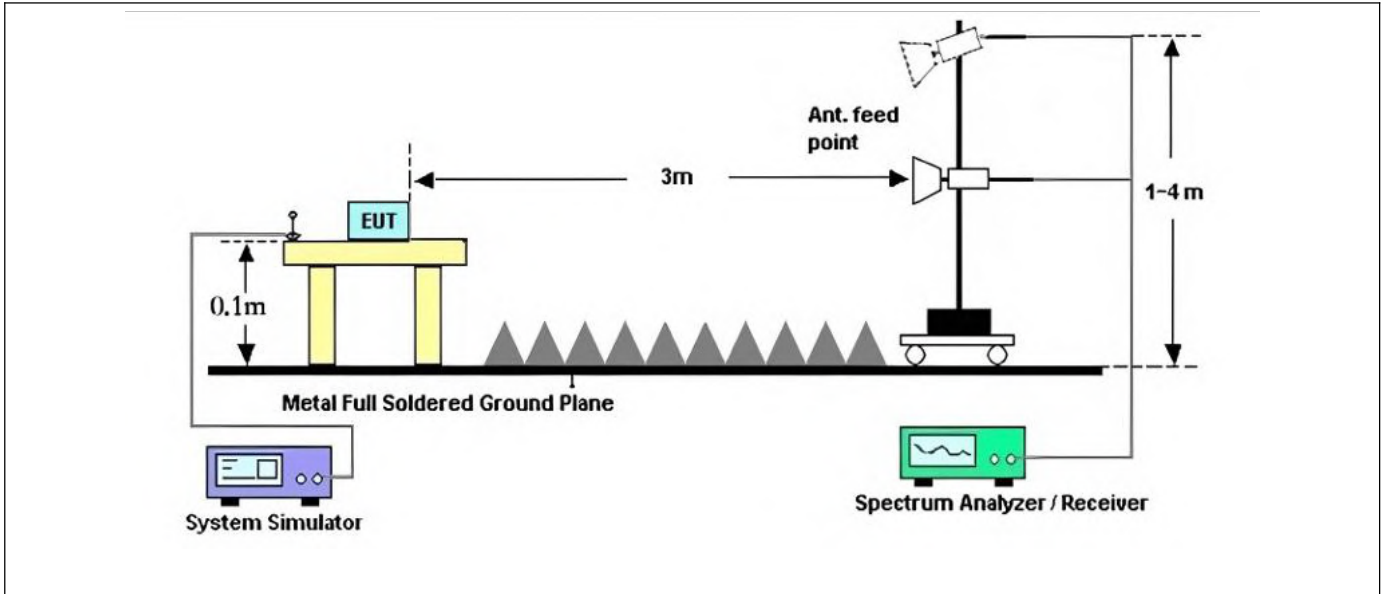
6.9. Emissions in frequency bands (above 1GHz)

Test Requirement:	Refer to 47 CFR 15.247(d), in addition, radiated emissions which fall in the restricted bands, as defined in § 15.205(a), must also comply with the radiated emission limits specified in § 15.209(a)(see § 15.205(c)).		
Test Limit:	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
** 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. 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.			
Test Method:	ANSI C63.10-2020 + Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024 section 6.5.4		
Procedure:	ANSI C63.10-2020 + Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024 section 6.5.4		

6.9.1. EUT Operation

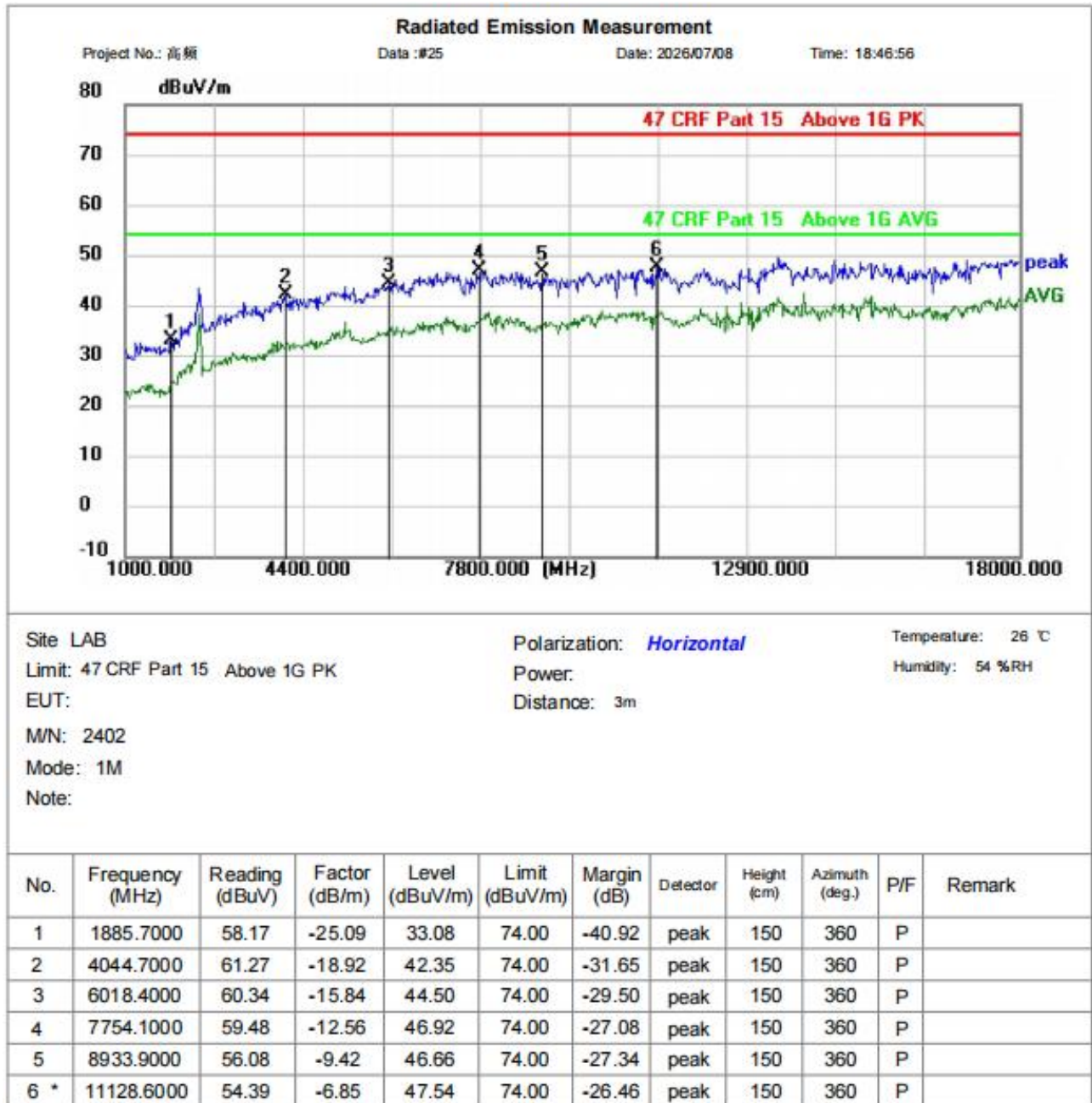
Operating Environment:					
Temperature:	21.2 °C	Humidity:	50.7 %	Atmospheric Pressure:	101.5 kPa
Pre test mode:		TM1			
Final test mode:		TM1			

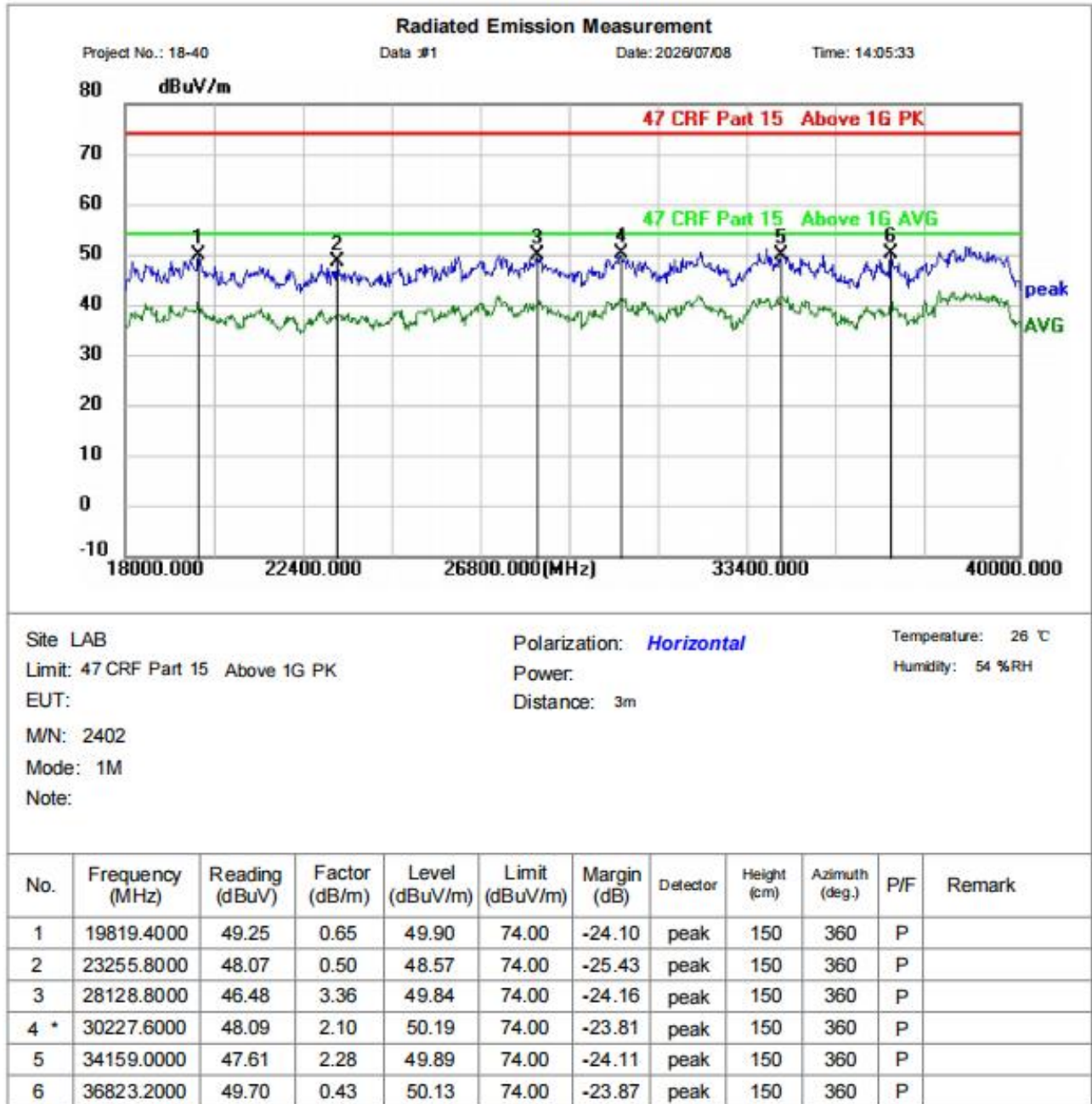
6.9.2. Test Setup Diagram:



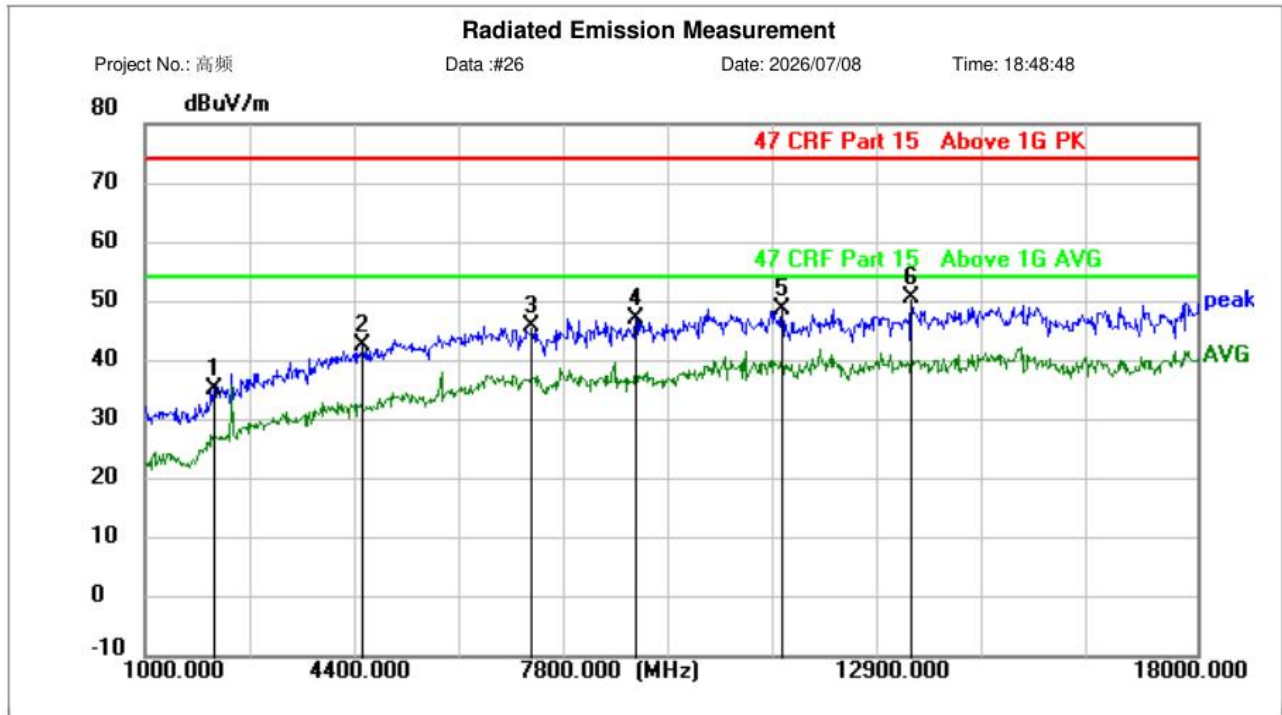
6.9.3. Test Data

TM1 / Polarization: Horizontal / Band: 2400-2483.5 MHz / BW: 1 / CH: L





TM1 / Polarization: Vertical / Band: 2400-2483.5 MHz / BW: 1 / CH: L



Site LAB

Polarization: **Vertical**

Temperature: 26 °C

Limit: 47 CRF Part 15 Above 1G PK

Power:

Humidity: 54 %RH

EUT:

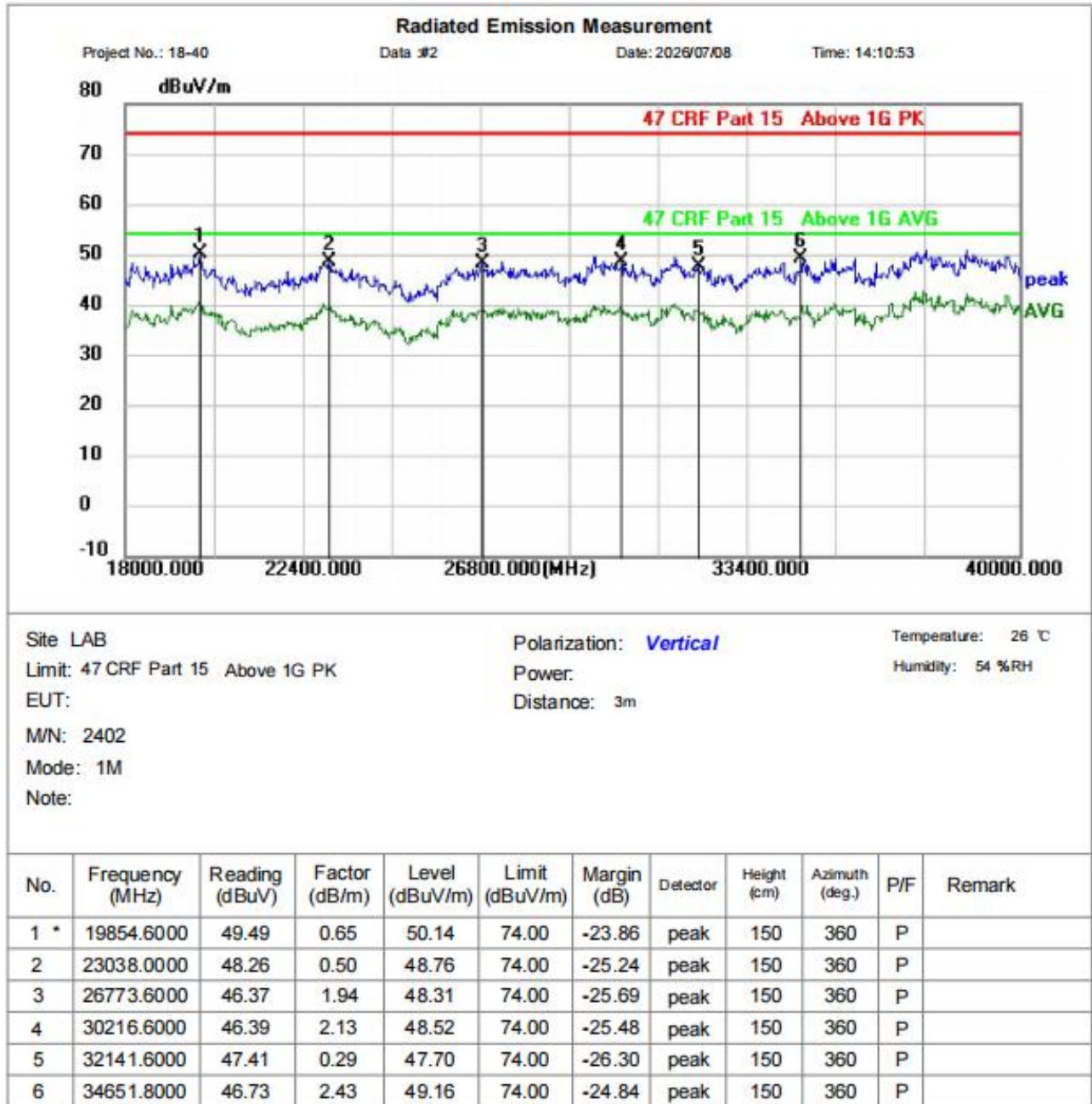
Distance: 3m

M/N: 2402

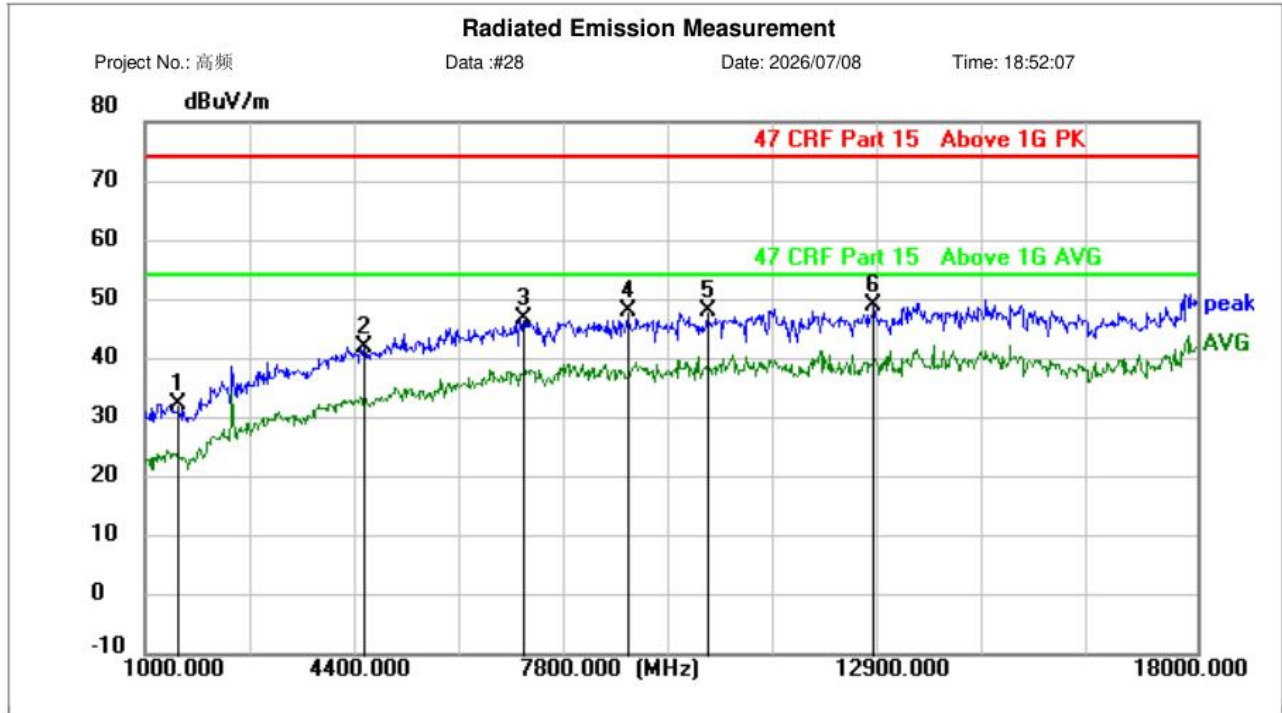
Mode: 1M

Note:

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	2115.2000	58.47	-23.26	35.21	74.00	-38.79	peak	150	360	P	
2	4520.7000	60.61	-18.18	42.43	74.00	-31.57	peak	150	360	P	
3	7267.9000	58.66	-12.86	45.80	74.00	-28.20	peak	150	360	P	
4	8913.5000	56.33	-9.27	47.06	74.00	-26.94	peak	150	360	P	
5	11303.7000	54.90	-6.36	48.54	74.00	-25.46	peak	150	360	P	
6 *	13410.0000	59.65	-9.10	50.55	74.00	-23.45	peak	150	360	P	



TM1 / Polarization: Horizontal / Band: 2400-2483.5 MHz / BW: 1 / CH: M



Site LAB

Polarization: **Horizontal**

Temperature: 26 °C

Limit: 47 CRF Part 15 Above 1G PK

Power:

Humidity: 54 %RH

EUT:

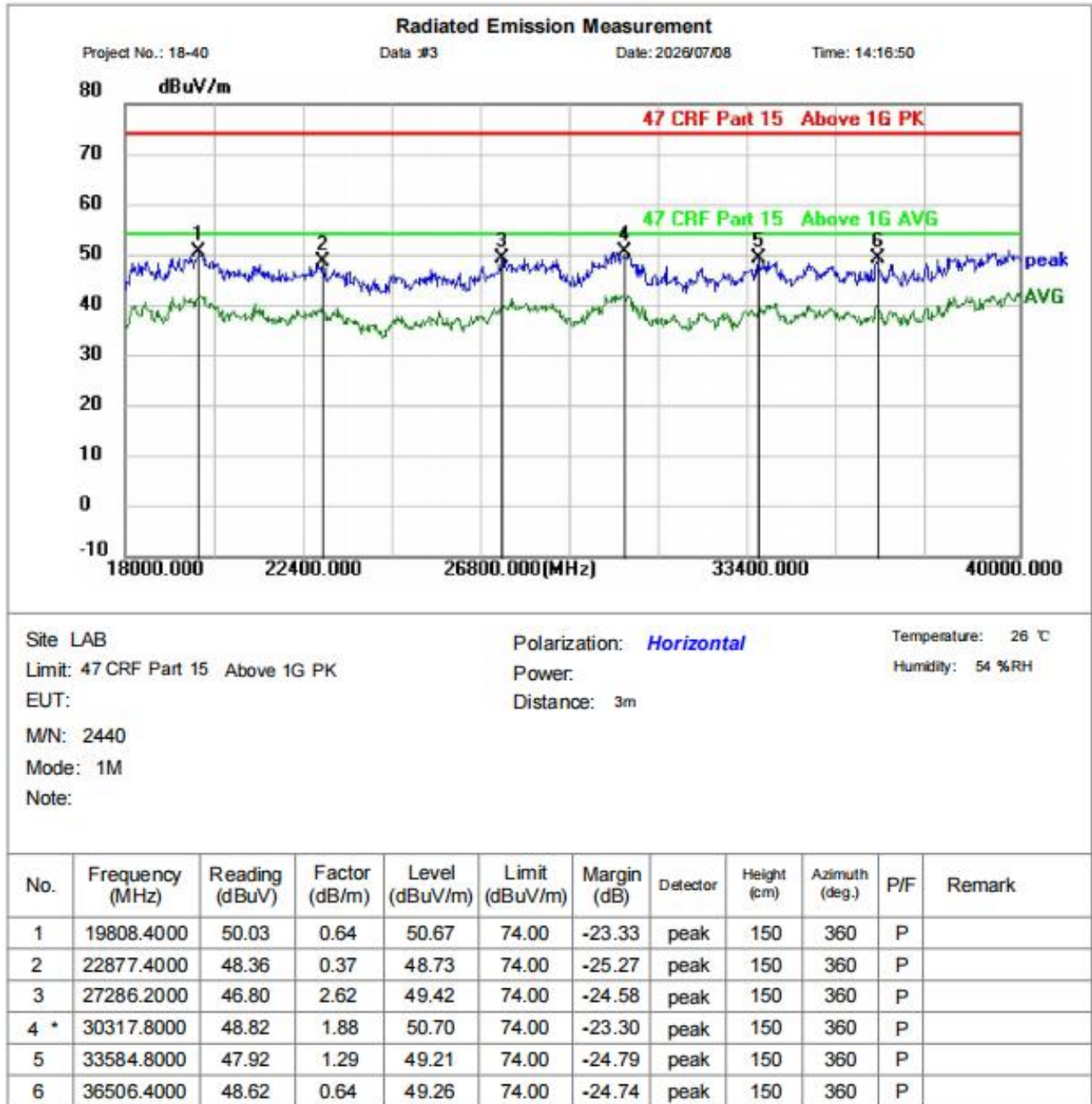
Distance: 3m

M/N: 2440

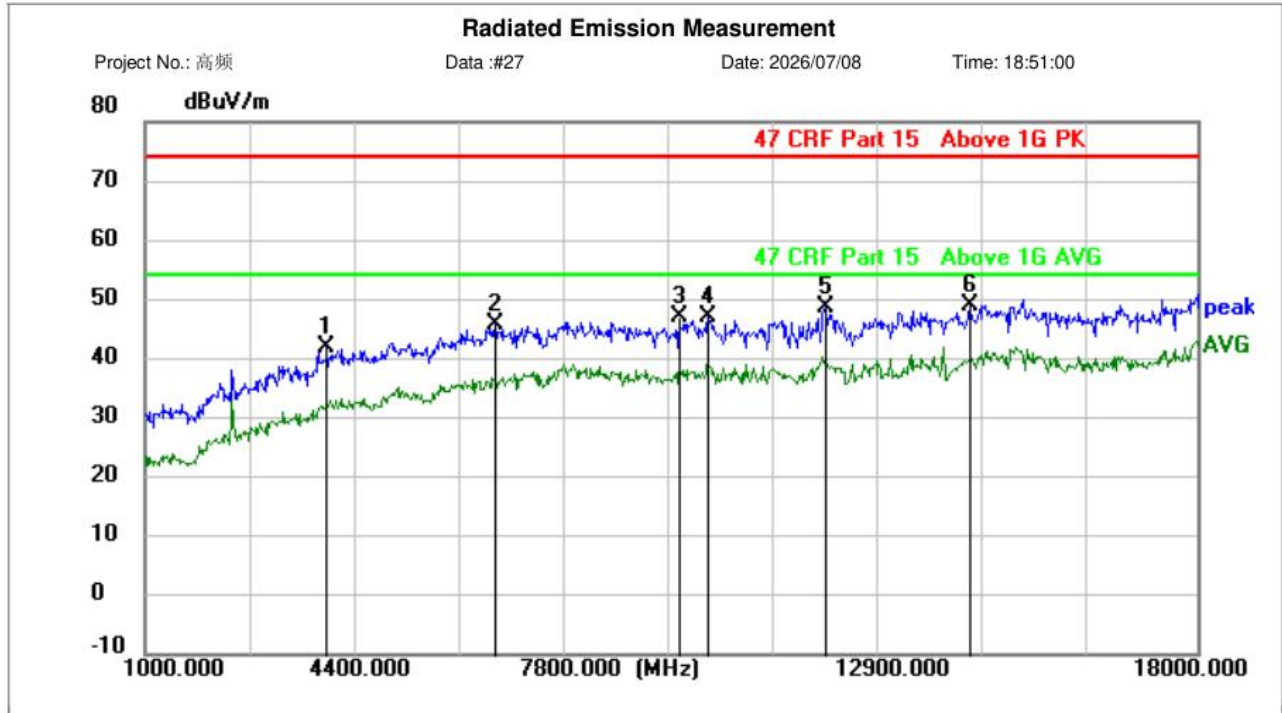
Mode: 1M

Note:

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	1542.3000	58.06	-25.68	32.38	74.00	-41.62	peak	150	360	P	
2	4564.9000	60.25	-18.26	41.99	74.00	-32.01	peak	150	360	P	
3	7152.3000	59.63	-12.78	46.85	74.00	-27.15	peak	150	360	P	
4	8818.3000	57.79	-9.77	48.02	74.00	-25.98	peak	150	360	P	
5	10101.8000	56.44	-8.56	47.88	74.00	-26.12	peak	150	360	P	
6 *	12798.0000	57.73	-8.82	48.91	74.00	-25.09	peak	150	360	P	



TM1 / Polarization: Vertical / Band: 2400-2483.5 MHz / BW: 1 / CH: M



Site LAB

Polarization: **Vertical**

Temperature: 26 °C

Limit: 47 CRF Part 15 Above 1G PK

Power:

Humidity: 54 %RH

EUT:

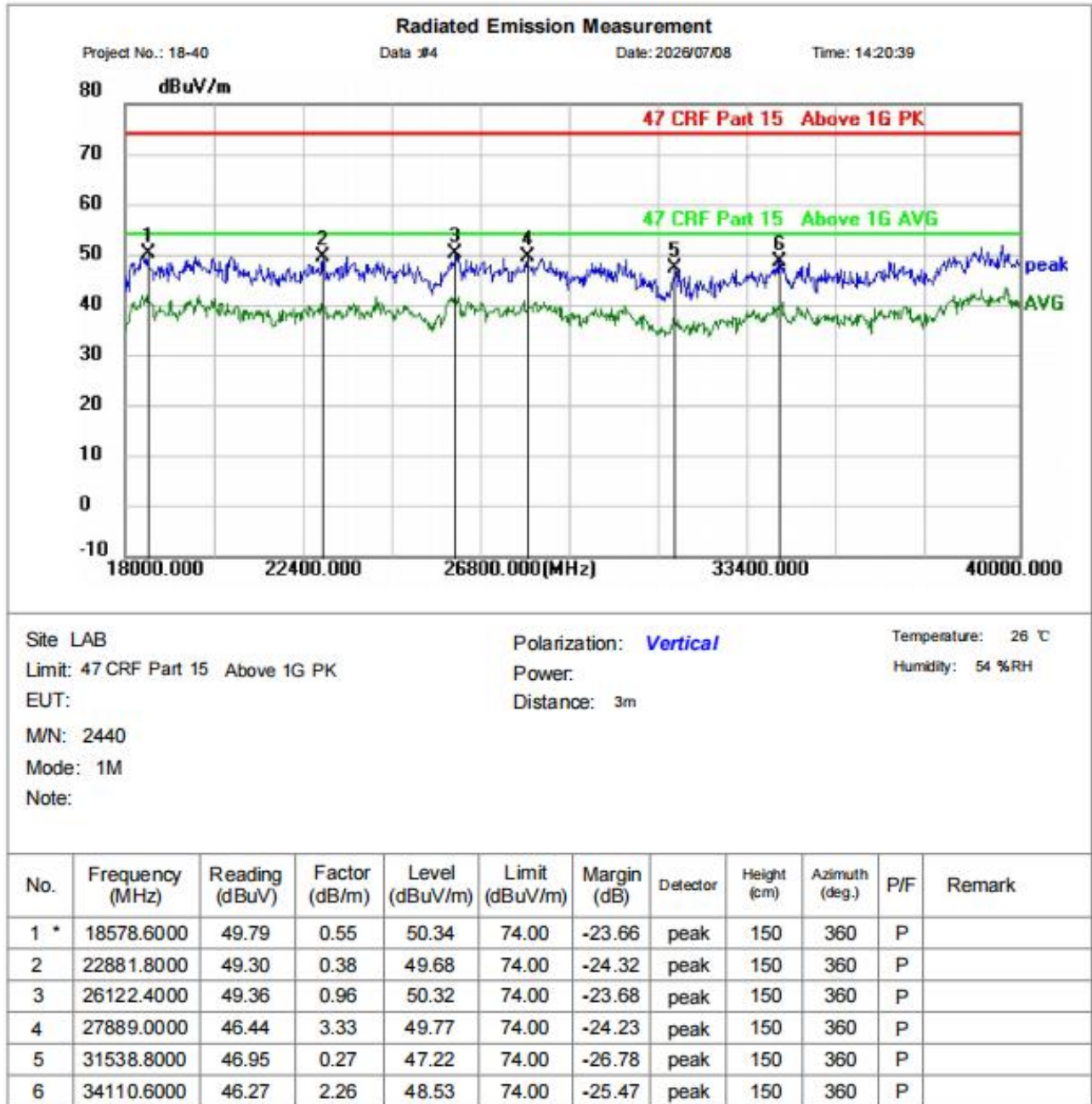
Distance: 3m

M/N: 2440

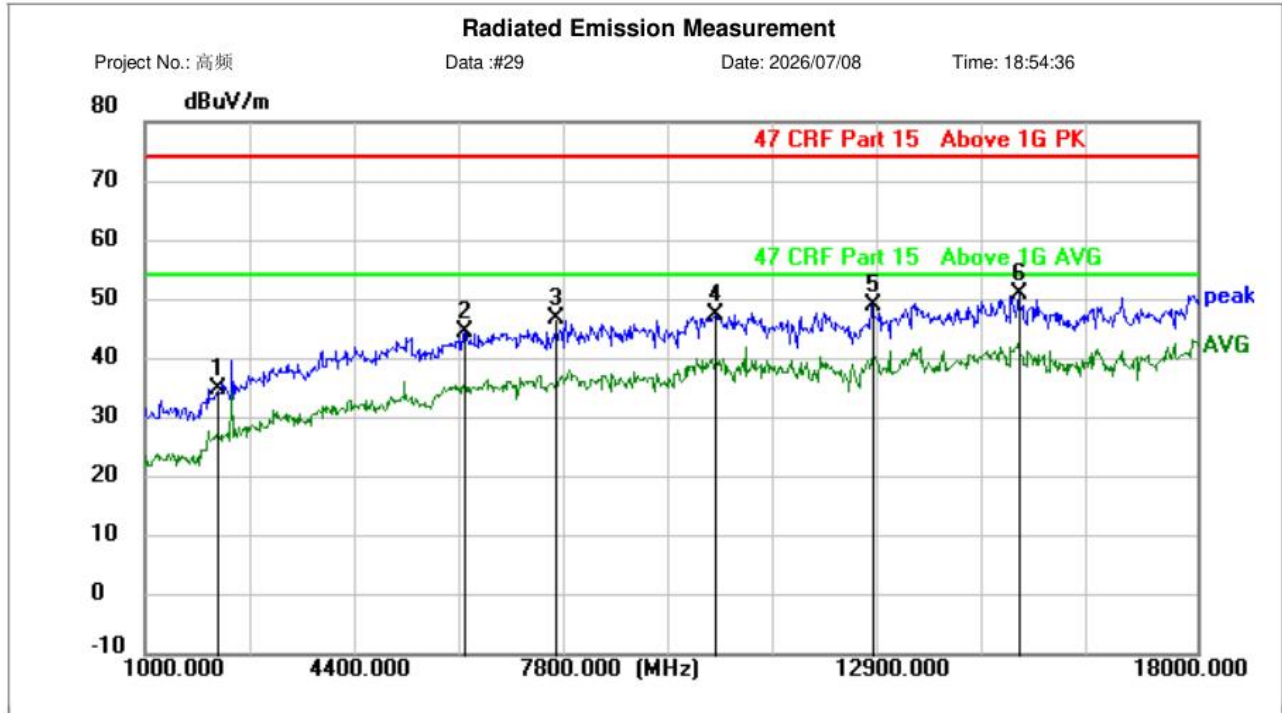
Mode: 1M

Note:

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	3952.9000	60.87	-19.01	41.86	74.00	-32.14	peak	150	360	P	
2	6674.6000	59.70	-13.82	45.88	74.00	-28.12	peak	150	360	P	
3	9653.0000	55.94	-8.82	47.12	74.00	-26.88	peak	150	360	P	
4	10083.1000	55.49	-8.43	47.06	74.00	-26.94	peak	150	360	P	
5	12010.9000	55.97	-7.41	48.56	74.00	-25.44	peak	150	360	P	
6 *	14314.4000	58.22	-9.32	48.90	74.00	-25.10	peak	150	360	P	



TM1 / Polarization: Horizontal / Band: 2400-2483.5 MHz / BW: 1 / CH: H



Site LAB

Polarization: **Horizontal**

Temperature: 26 °C

Limit: 47 CRF Part 15 Above 1G PK

Power:

Humidity: 54 %RH

EUT:

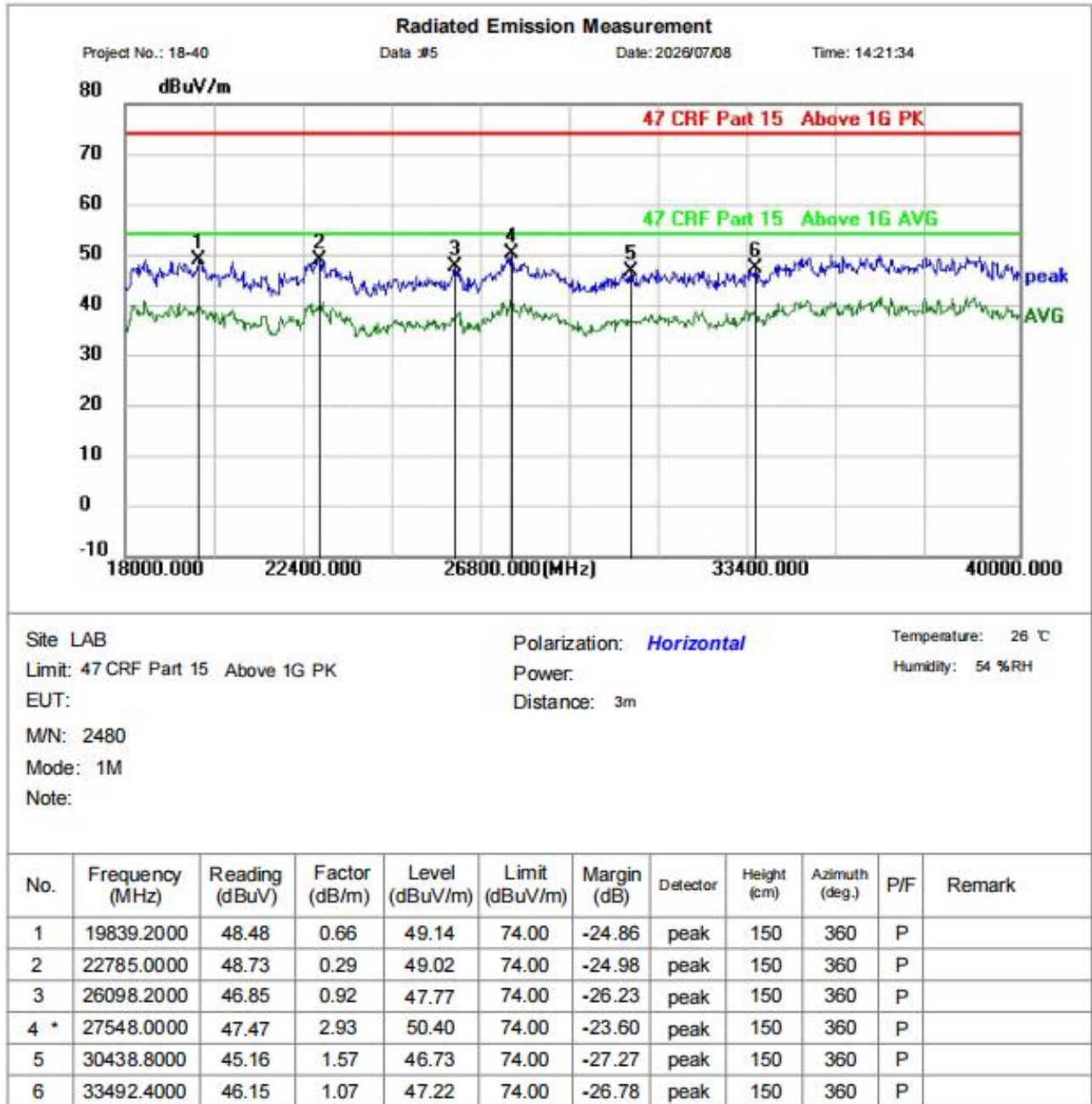
Distance: 3m

M/N: 2480

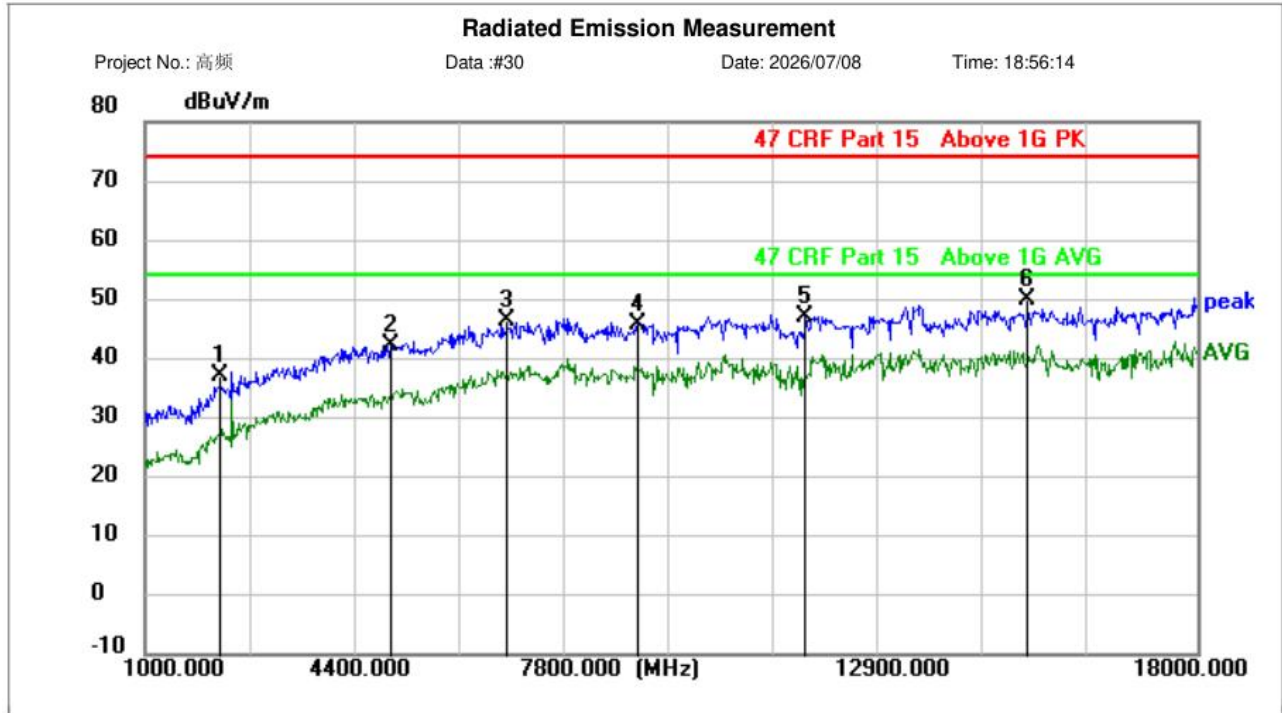
Mode: 1M

Note:

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	2186.6000	58.09	-23.13	34.96	74.00	-39.04	peak	150	360	P	
2	6181.6000	60.26	-15.67	44.59	74.00	-29.41	peak	150	360	P	
3	7643.6000	60.02	-13.22	46.80	74.00	-27.20	peak	150	360	P	
4	10203.8000	56.00	-8.47	47.53	74.00	-26.47	peak	150	360	P	
5	12779.3000	57.82	-8.80	49.02	74.00	-24.98	peak	150	360	P	
6 *	15140.6000	59.46	-8.41	51.05	74.00	-22.95	peak	150	360	P	



TM1 / Polarization: Vertical / Band: 2400-2483.5 MHz / BW: 1 / CH: H



Site LAB

Polarization: **Vertical**

Temperature: 26 °C

Limit: 47 CRF Part 15 Above 1G PK

Power:

Humidity: 54 %RH

EUT:

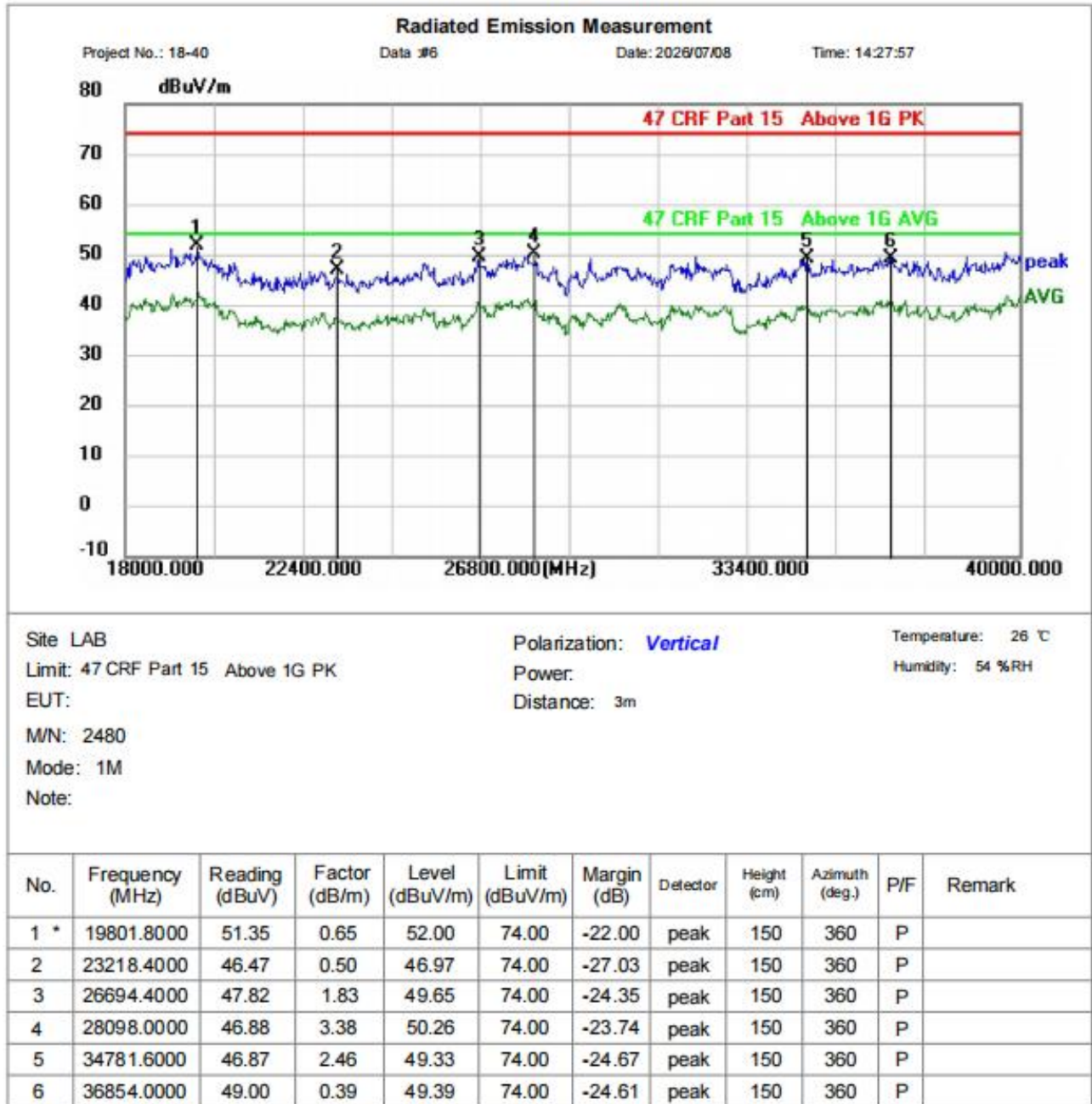
Distance: 3m

M/N: 2480

Mode: 1M

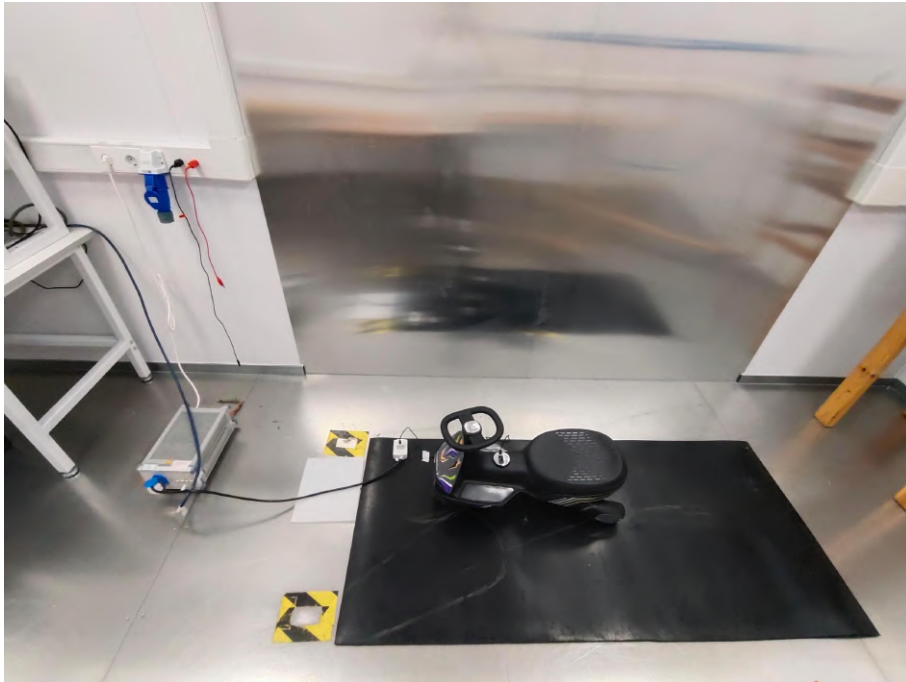
Note:

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	2218.9000	60.08	-23.09	36.99	74.00	-37.01	peak	150	360	P	
2	4993.3000	59.27	-17.07	42.20	74.00	-31.80	peak	150	360	P	
3	6846.3000	60.13	-13.70	46.43	74.00	-27.57	peak	150	360	P	
4	8983.2000	54.94	-9.02	45.92	74.00	-28.08	peak	150	360	P	
5	11679.4000	54.29	-7.18	47.11	74.00	-26.89	peak	150	360	P	
6 *	15254.5000	58.33	-8.43	49.90	74.00	-24.10	peak	150	360	P	

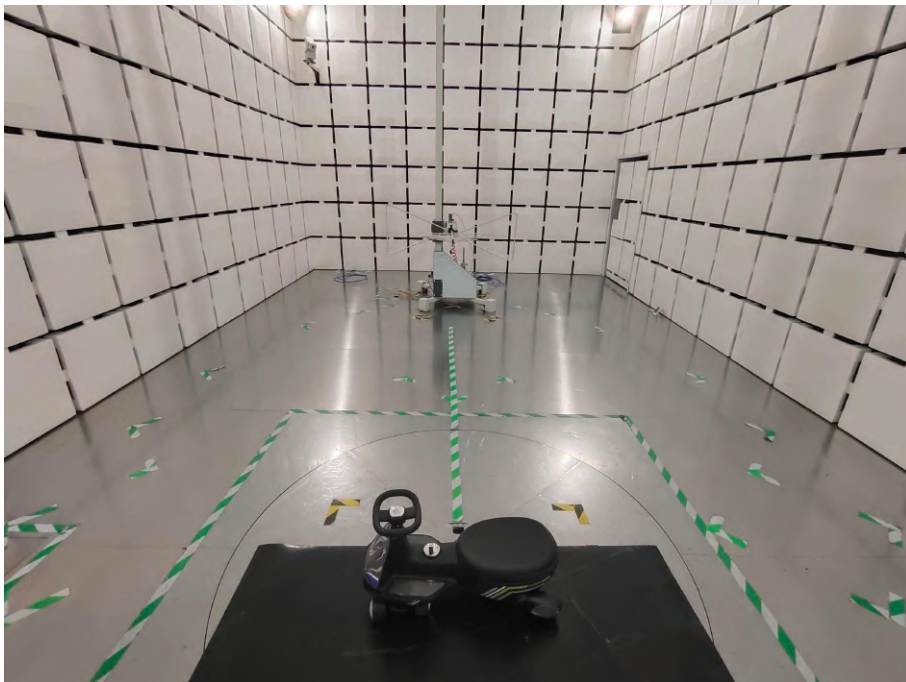


7. TEST SETUP PHOTOS

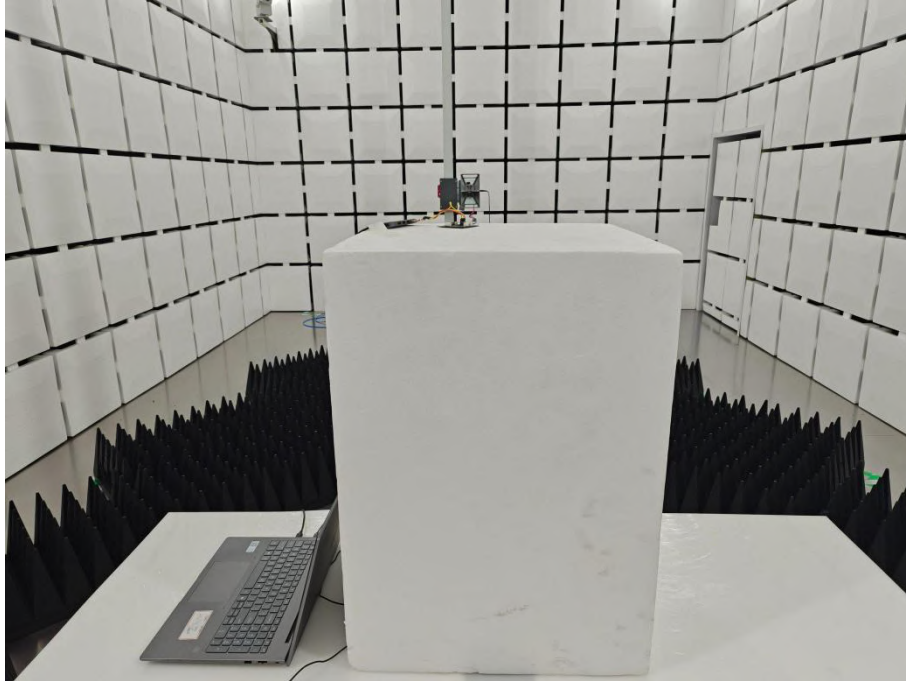
Conducted Emission at AC power line



Emissions in frequency bands (below 1GHz)



Emissions in frequency bands (above 1GHz)



Conducted RF test



8. Appendix Report

1. . Duty Cycle

1.1 Test Result

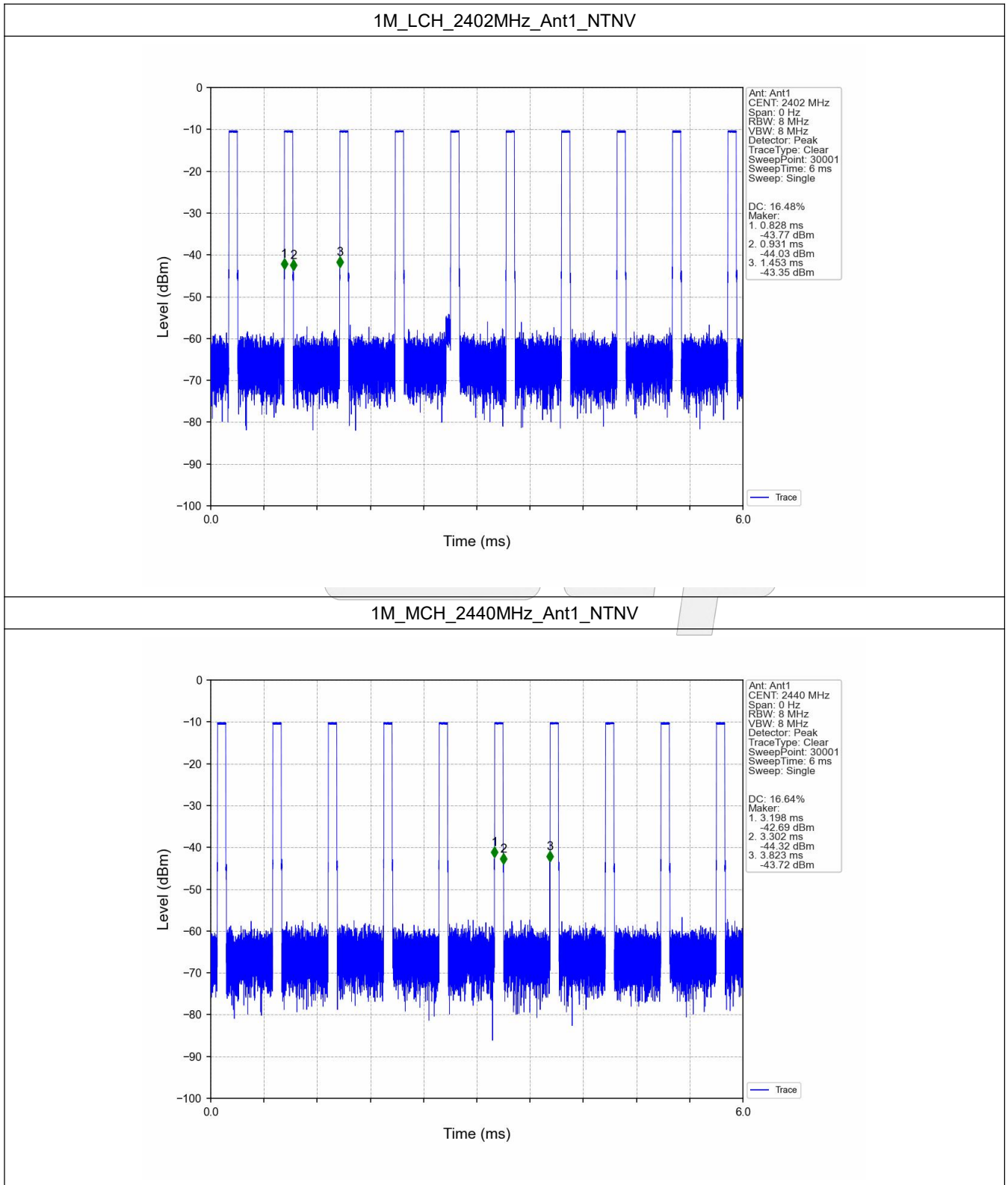
1.1.1 Ant1

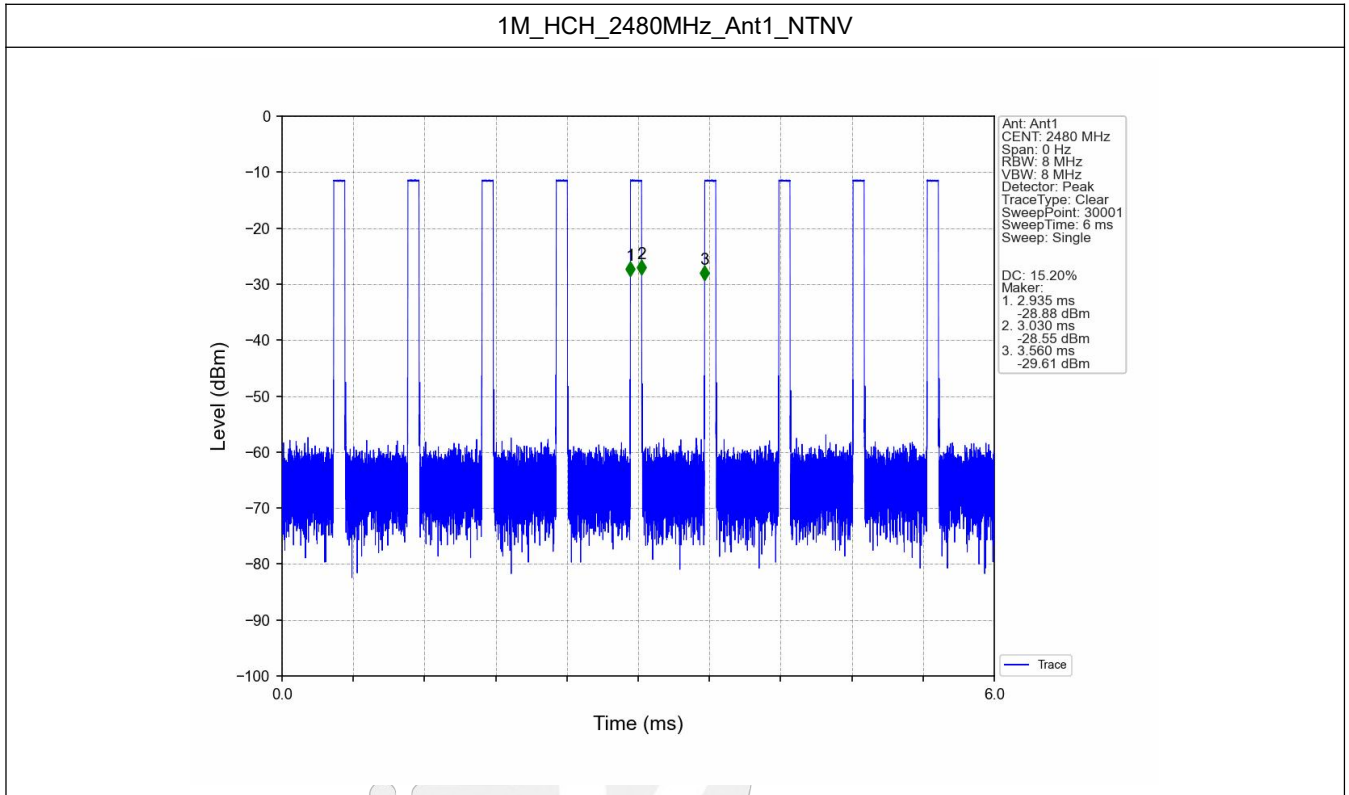
Ant1							
Mode	TX Type	Frequency (MHz)	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
1M	SISO	2402	0.103	0.625	16.48	7.83	0.03
		2440	0.104	0.625	16.64	7.79	0.03
		2480	0.095	0.625	15.20	8.18	0.03



1.2 Test Graph

1.2.1 Ant1





2. Bandwidth

2.1 Test Result

2.1.1 OBW

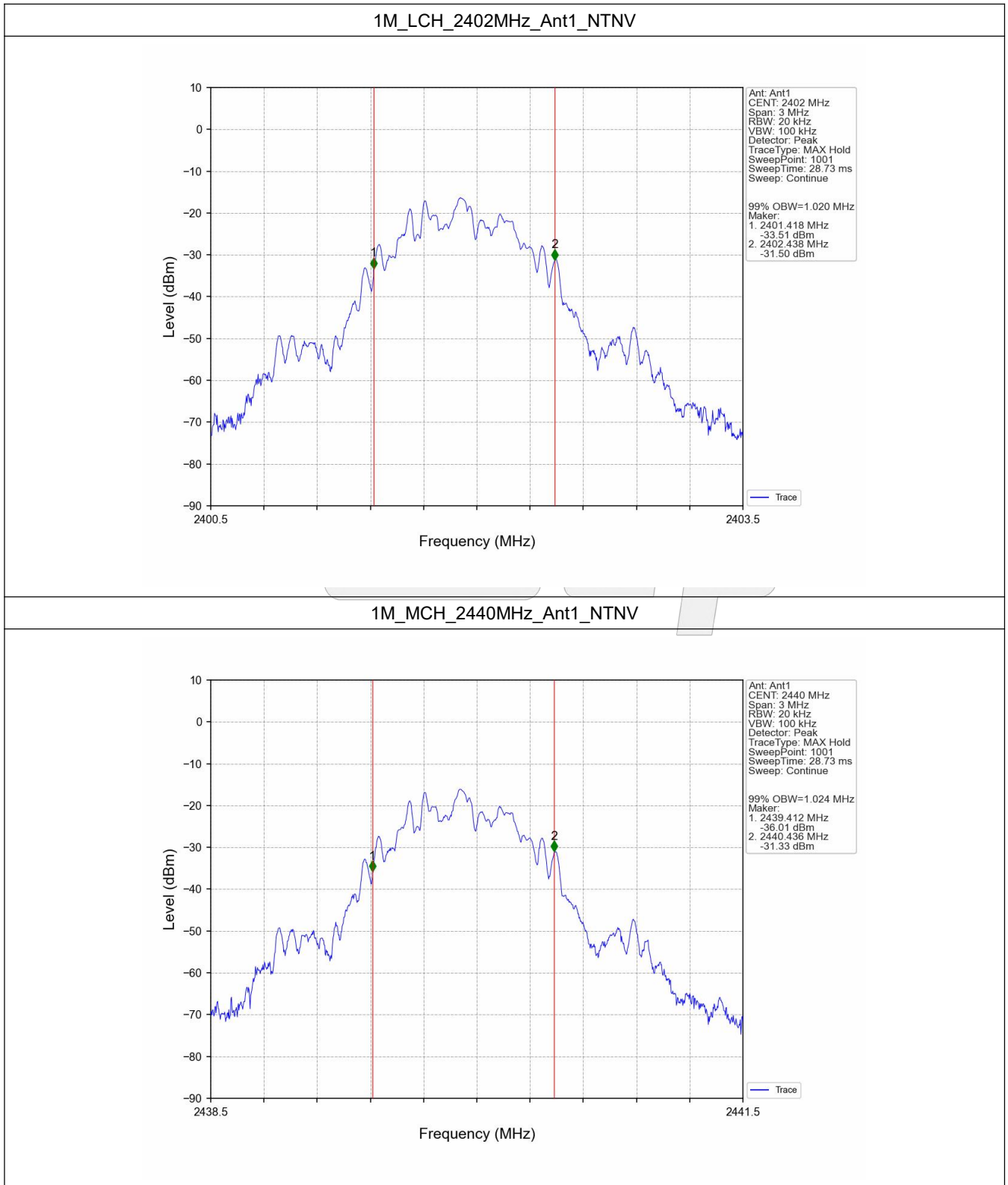
Mode	TX Type	Frequency (MHz)	ANT	99% Occupied Bandwidth (MHz)		Verdict
				Result	Limit	
1M	SISO	2402	1	1.020	/	Pass
		2440	1	1.024	/	Pass
		2480	1	1.027	/	Pass

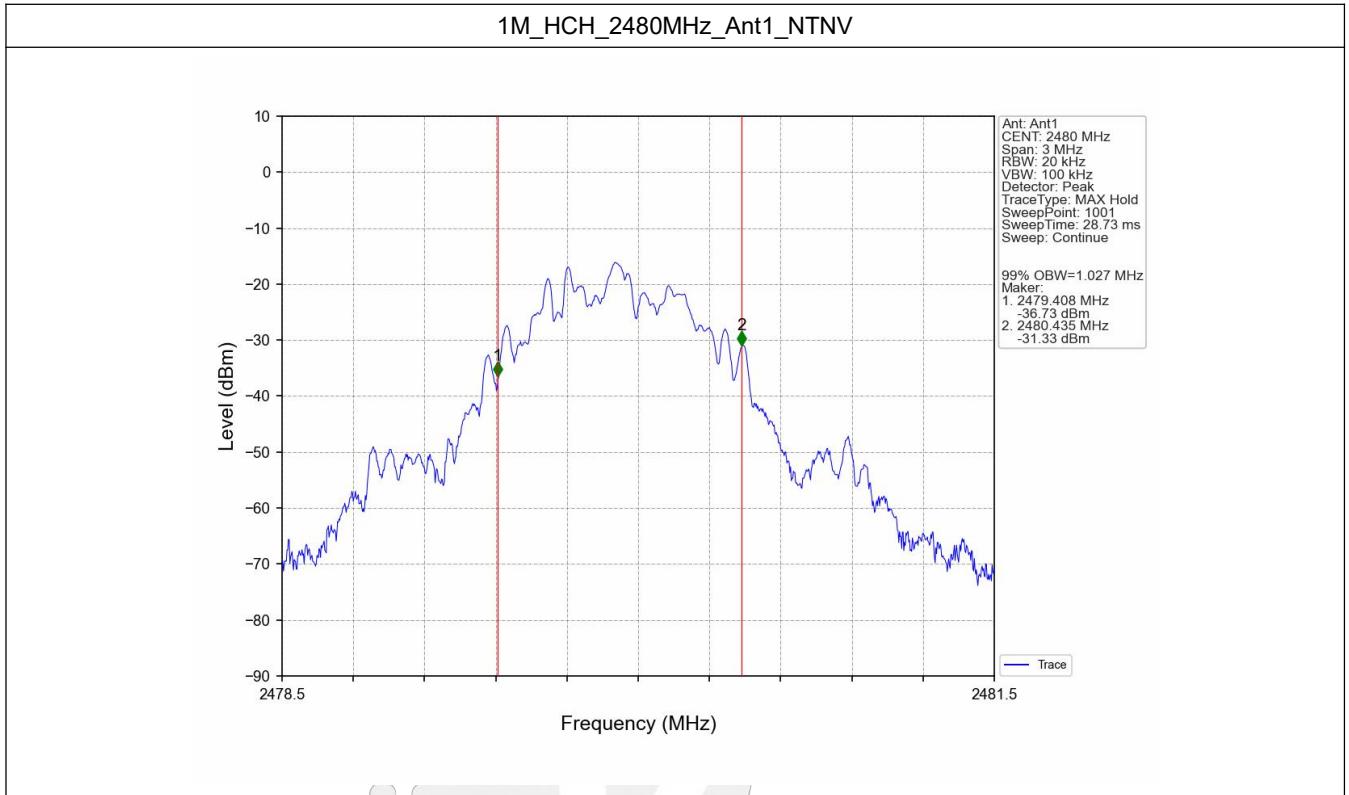
2.1.2 6dB BW

Mode	TX Type	Frequency (MHz)	ANT	6dB Bandwidth (MHz)		Verdict
				Result	Limit	
1M	SISO	2402	1	0.672	≥ 0.5	Pass
		2440	1	0.673	≥ 0.5	Pass
		2480	1	0.676	≥ 0.5	Pass

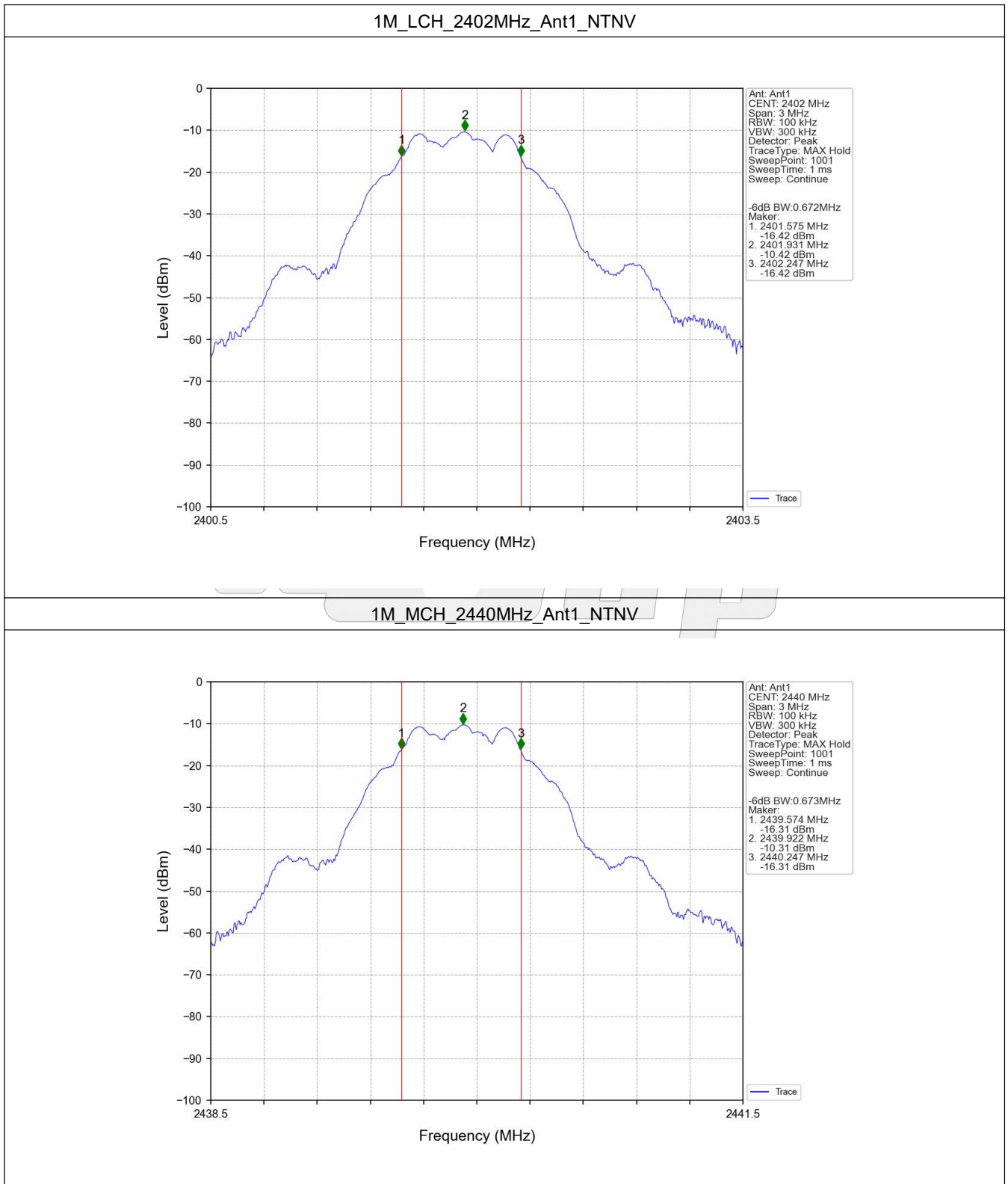
2.2 Test Graph

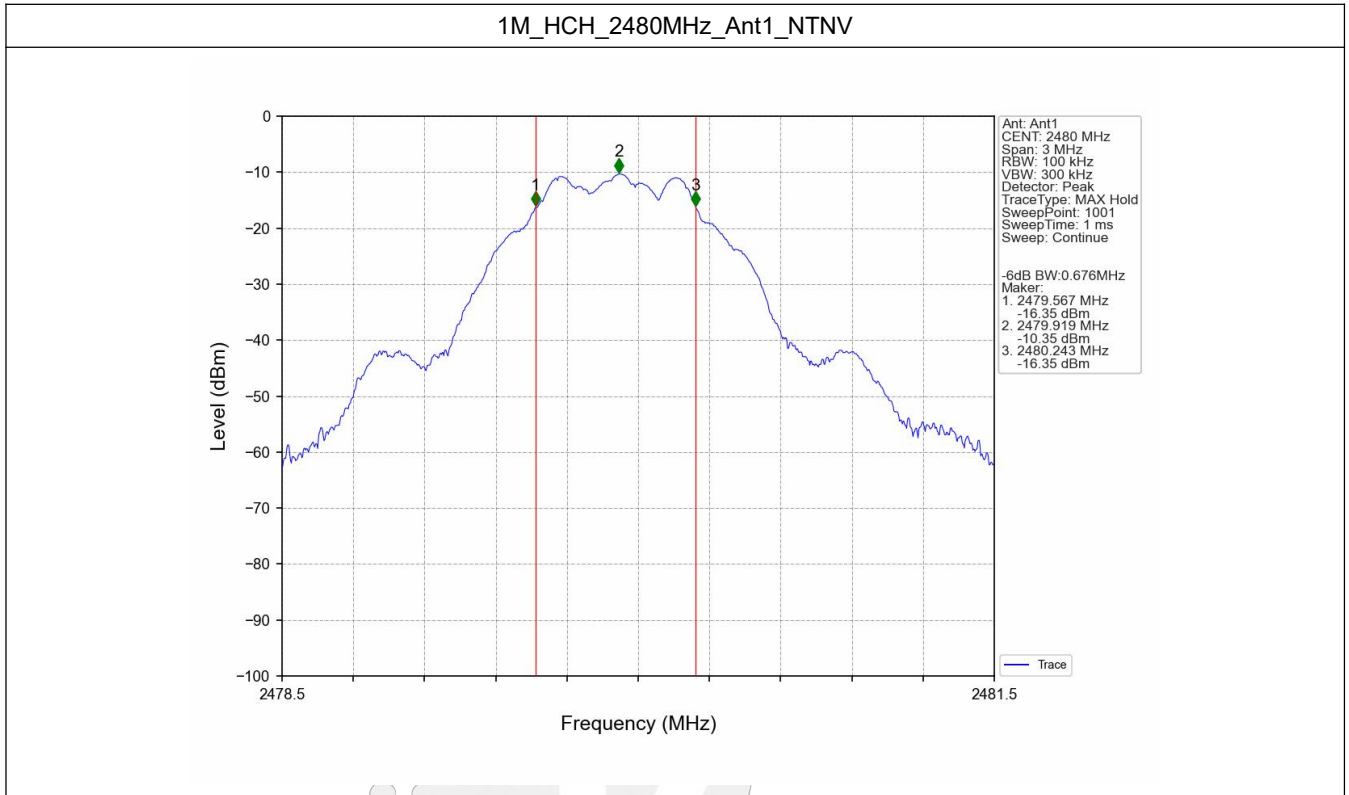
2.2.1 OBW





2.2.2 6dB BW





3. Maximum Conducted Output Power

3.1 Test Result

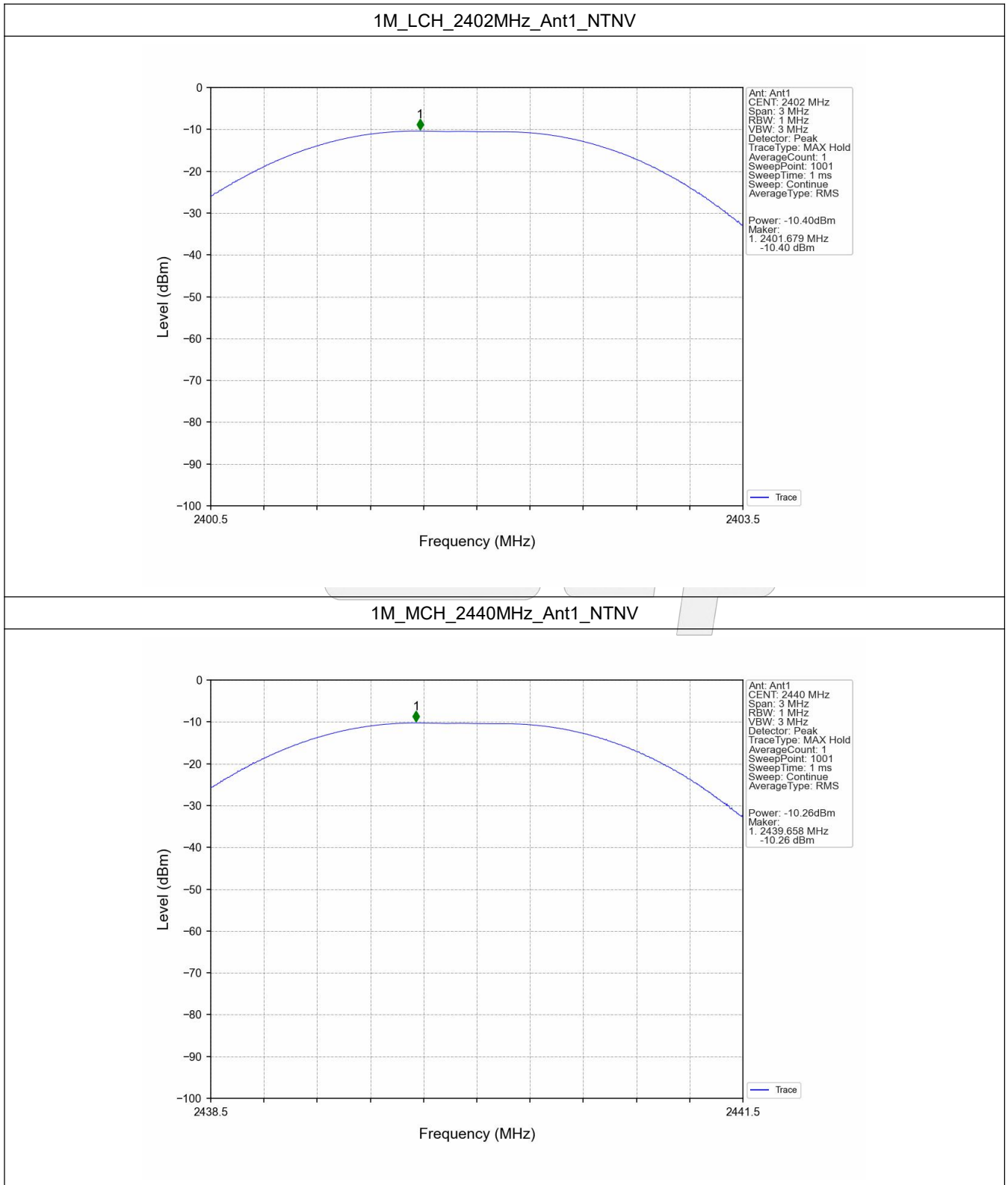
3.1.1 Power

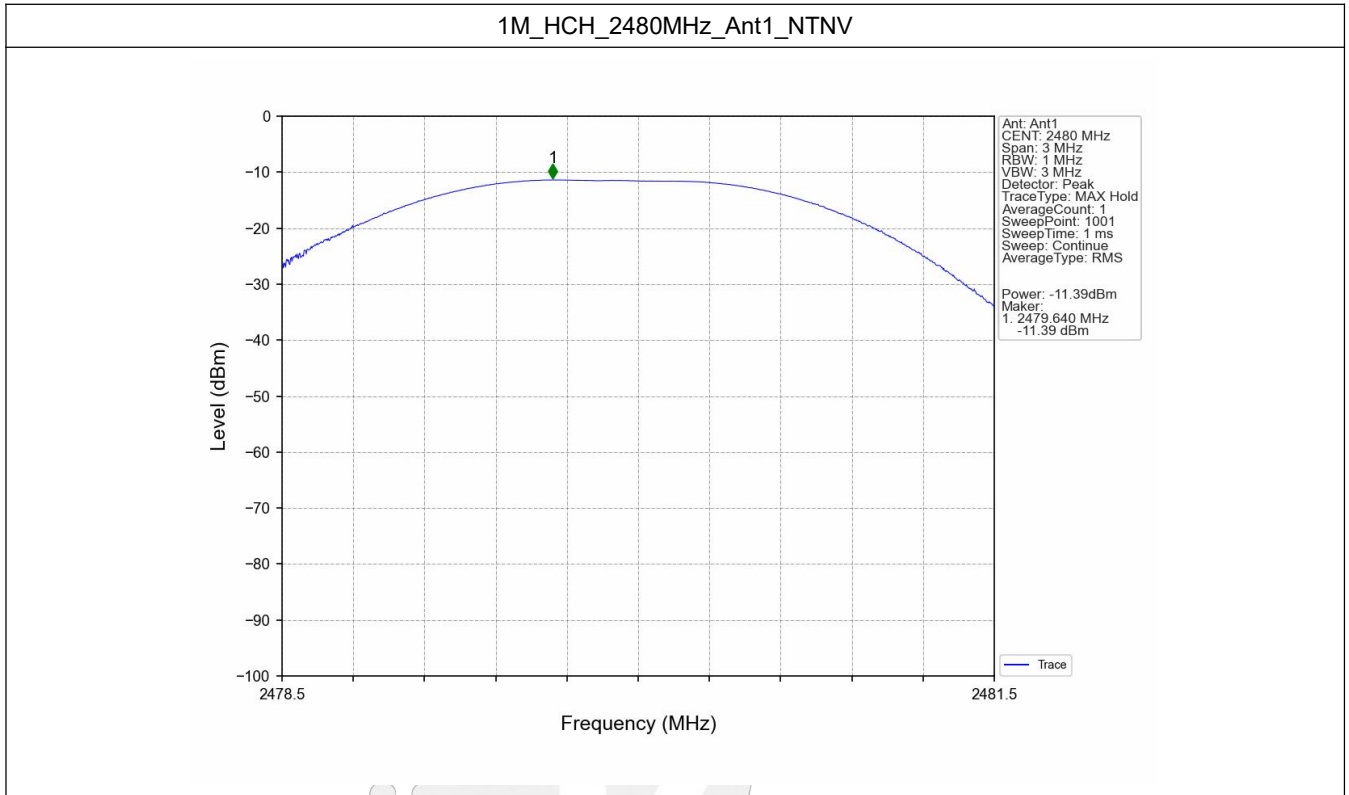
Mode	TX Type	Frequency (MHz)	Maximum Peak Conducted Output Power (dBm)		Verdict
			ANT1	Limit	
1M	SISO	2402	-10.40	<=30	Pass
		2440	-10.26	<=30	Pass
		2480	-11.39	<=30	Pass
Note1: Antenna Gain: Ant1: -0.58dBi;					



3.2 Test Graph

3.2.1 Power





4. Maximum Power Spectral Density

4.1 Test Result

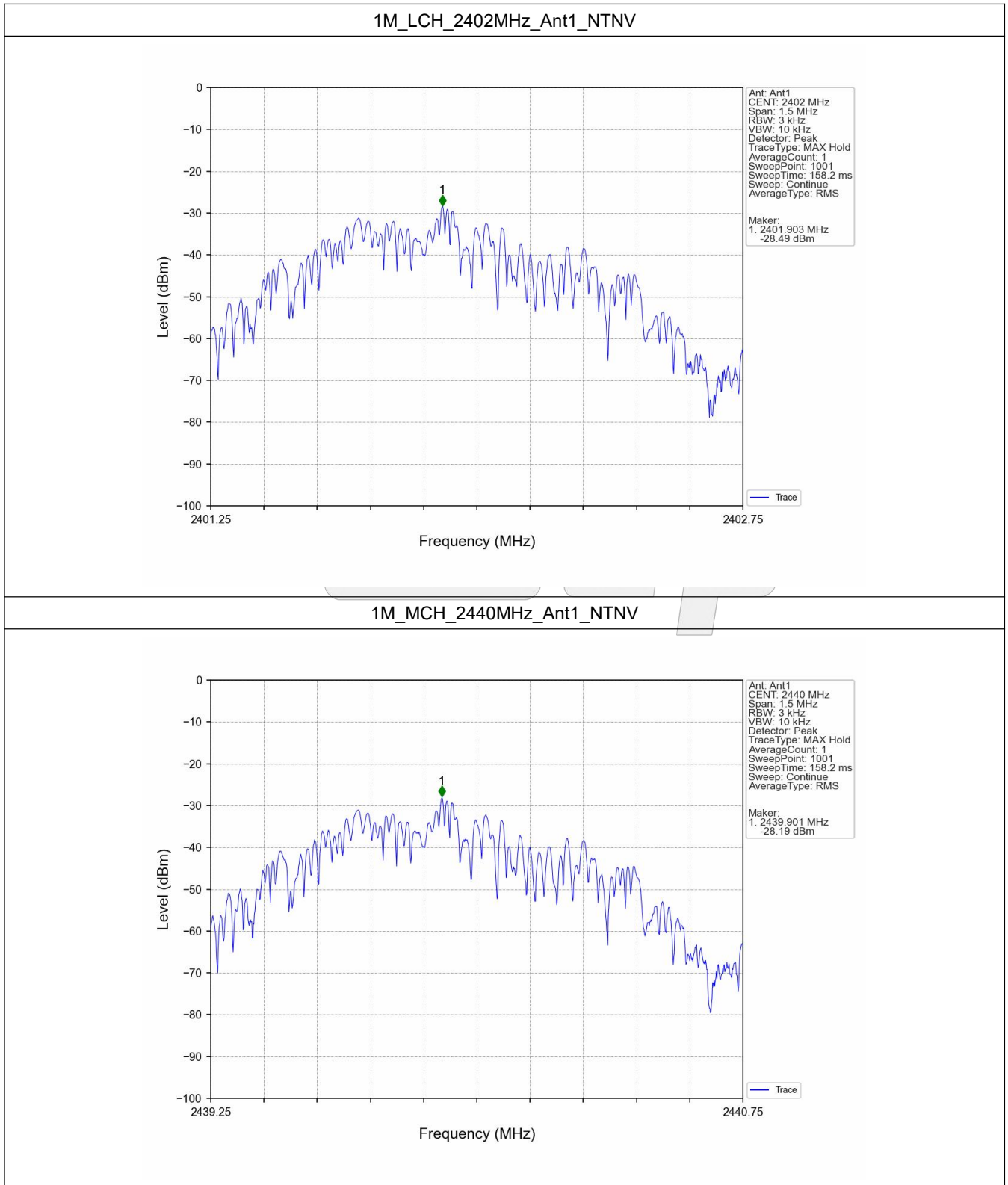
4.1.1 PSD

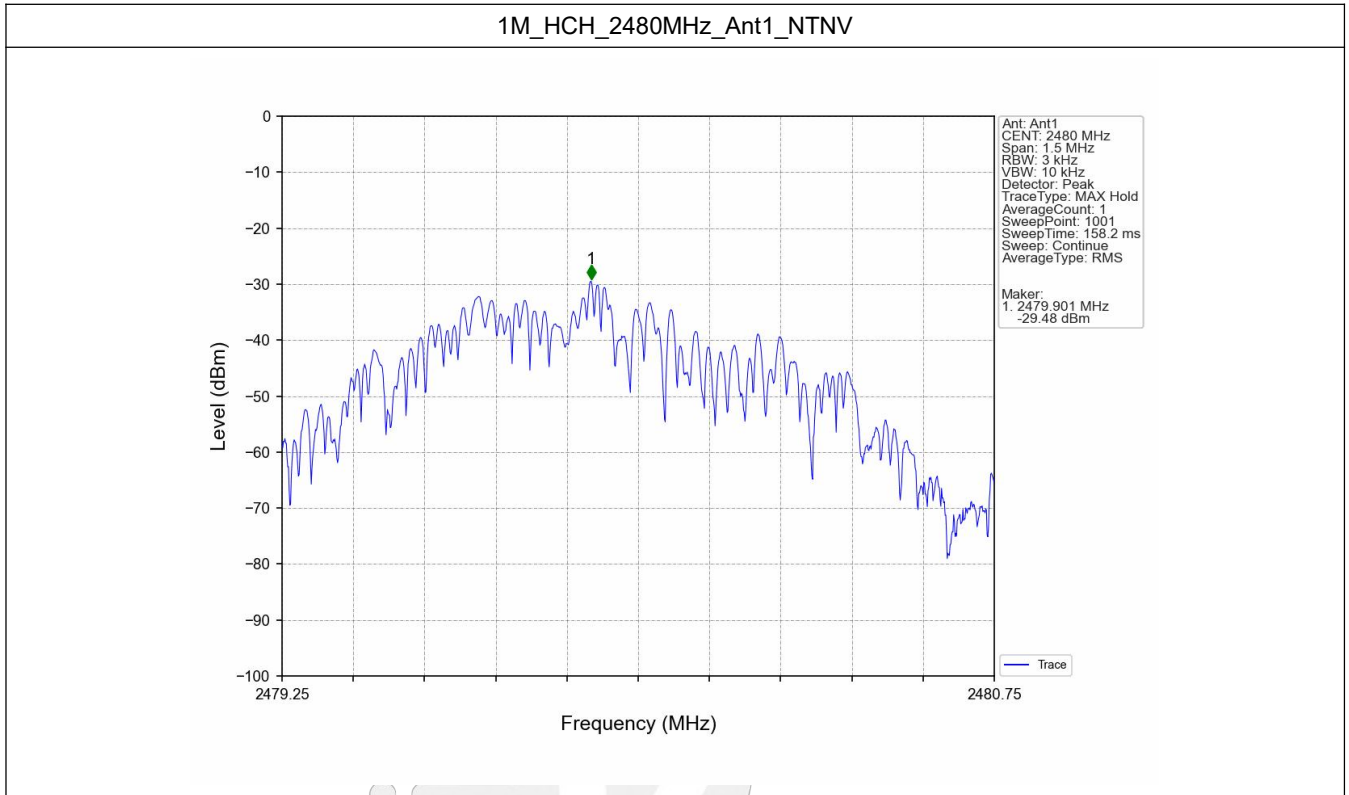
Mode	TX Type	Frequency (MHz)	Maximum PSD (dBm)		Verdict
			ANT1	Limit(dBm/3kHz)	
1M	SISO	2402	-28.49dBm/3kHz	<=8	Pass
		2440	-28.19dBm/3kHz	<=8	Pass
		2480	-29.48dBm/3kHz	<=8	Pass
Note1: Antenna Gain: Ant1: -0.58dBi;					



4.2 Test Graph

4.2.1 PSD





5. Unwanted Emissions In Non-restricted Frequency Bands

5.1 Test Result

5.1.1 Ref

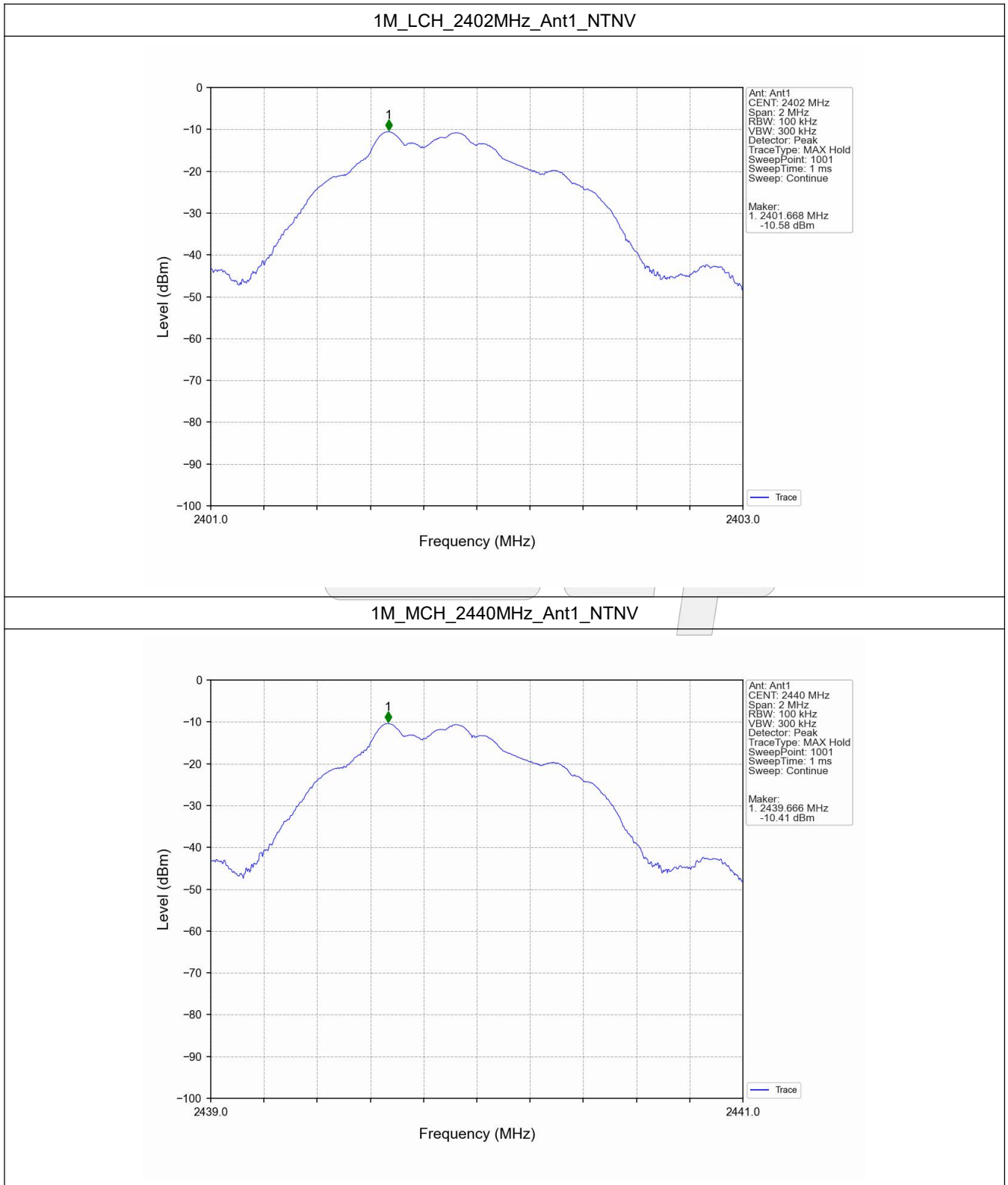
Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)
1M	SISO	2402	1	-10.58
		2440	1	-10.41
		2480	1	-11.55

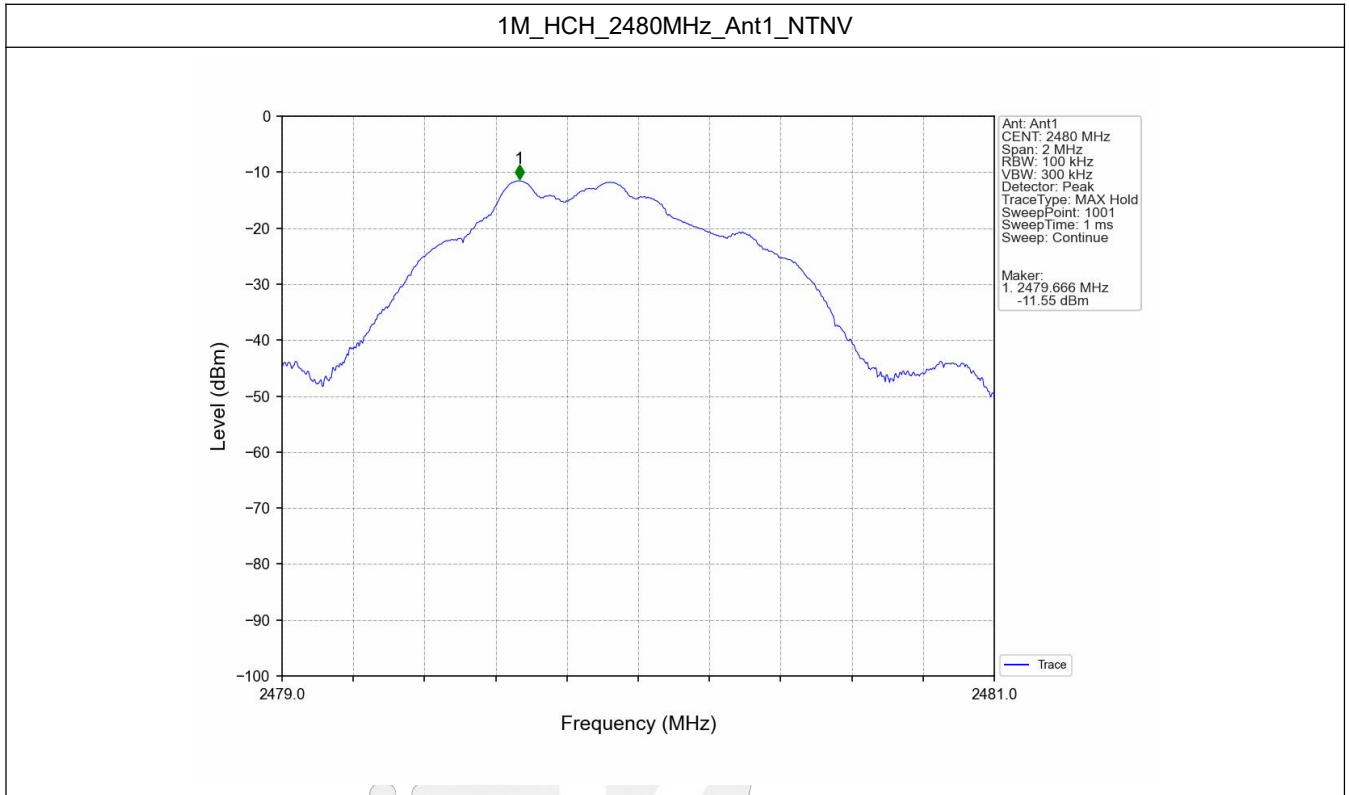
5.1.2 CSE

Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)	Limit (dBm)	Verdict
1M	SISO	2402	1	-10.58	-30.58	Pass
		2440	1	-10.41	-30.41	Pass
		2480	1	-11.55	-31.55	Pass

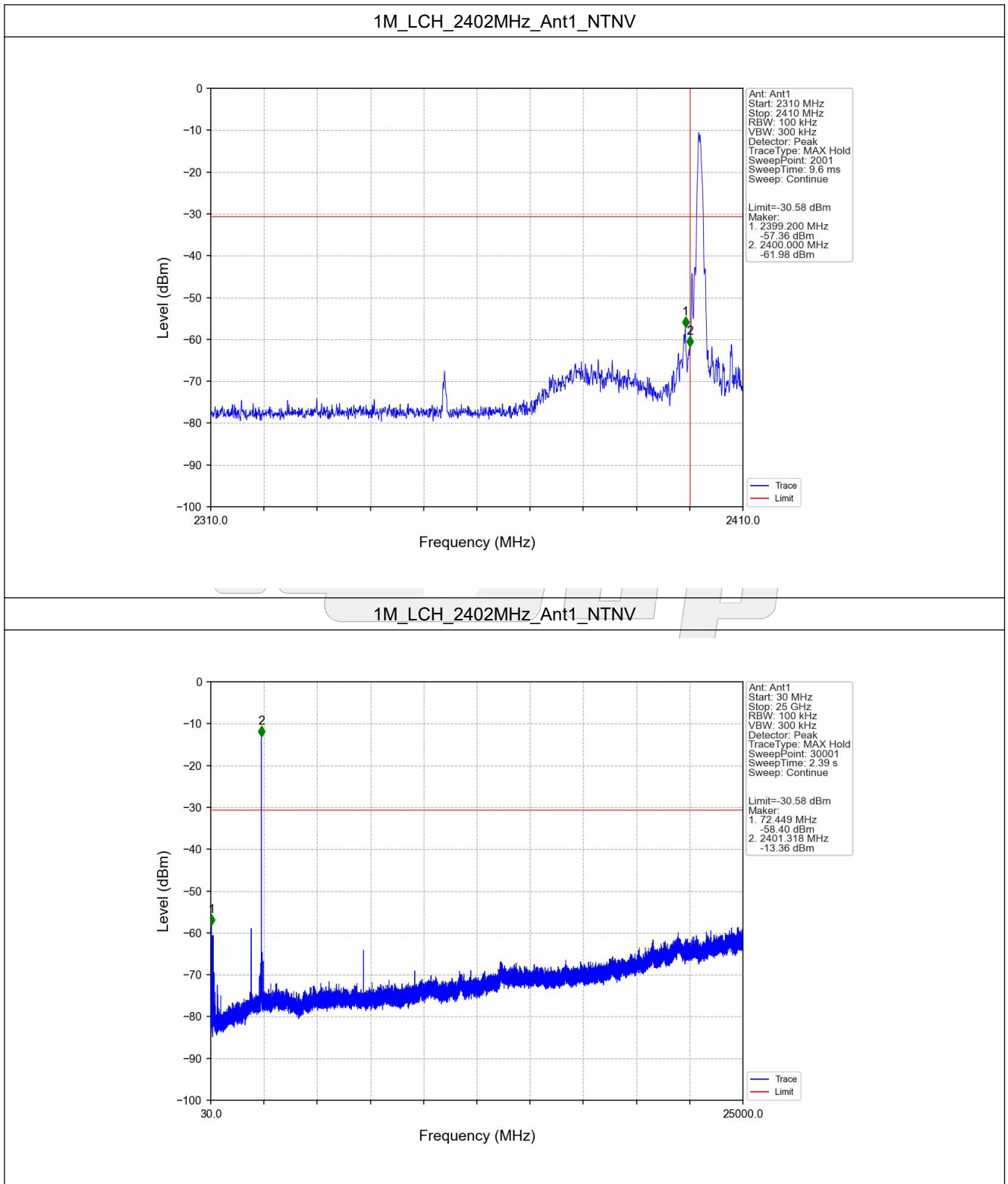
5.2 Test Graph

5.2.1 Ref

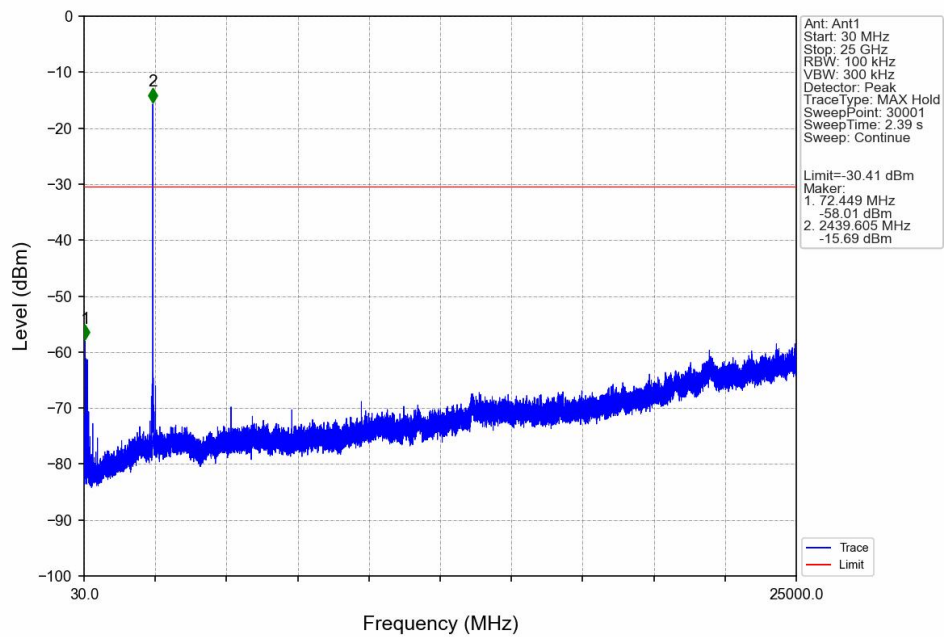




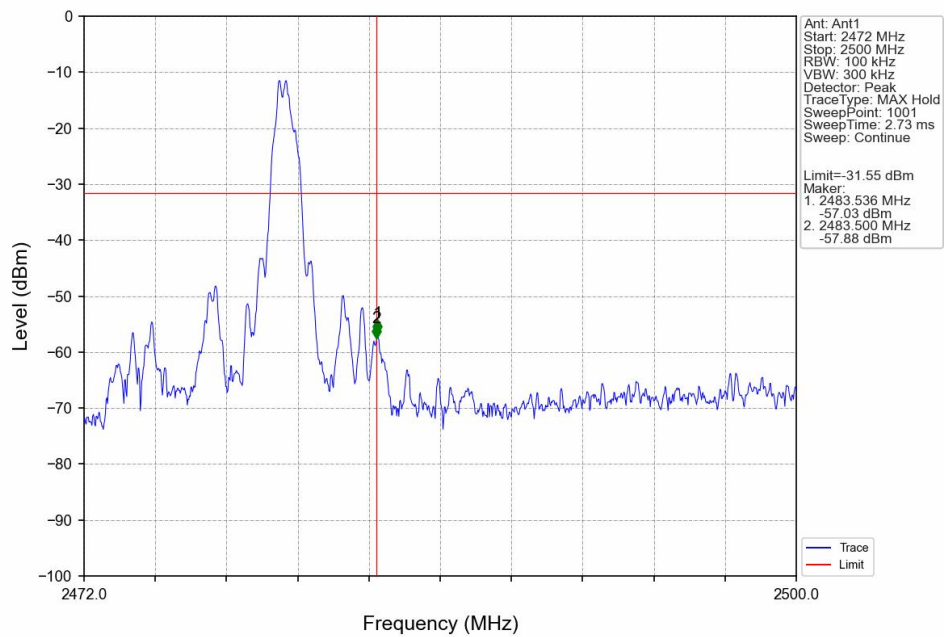
5.2.2 CSE

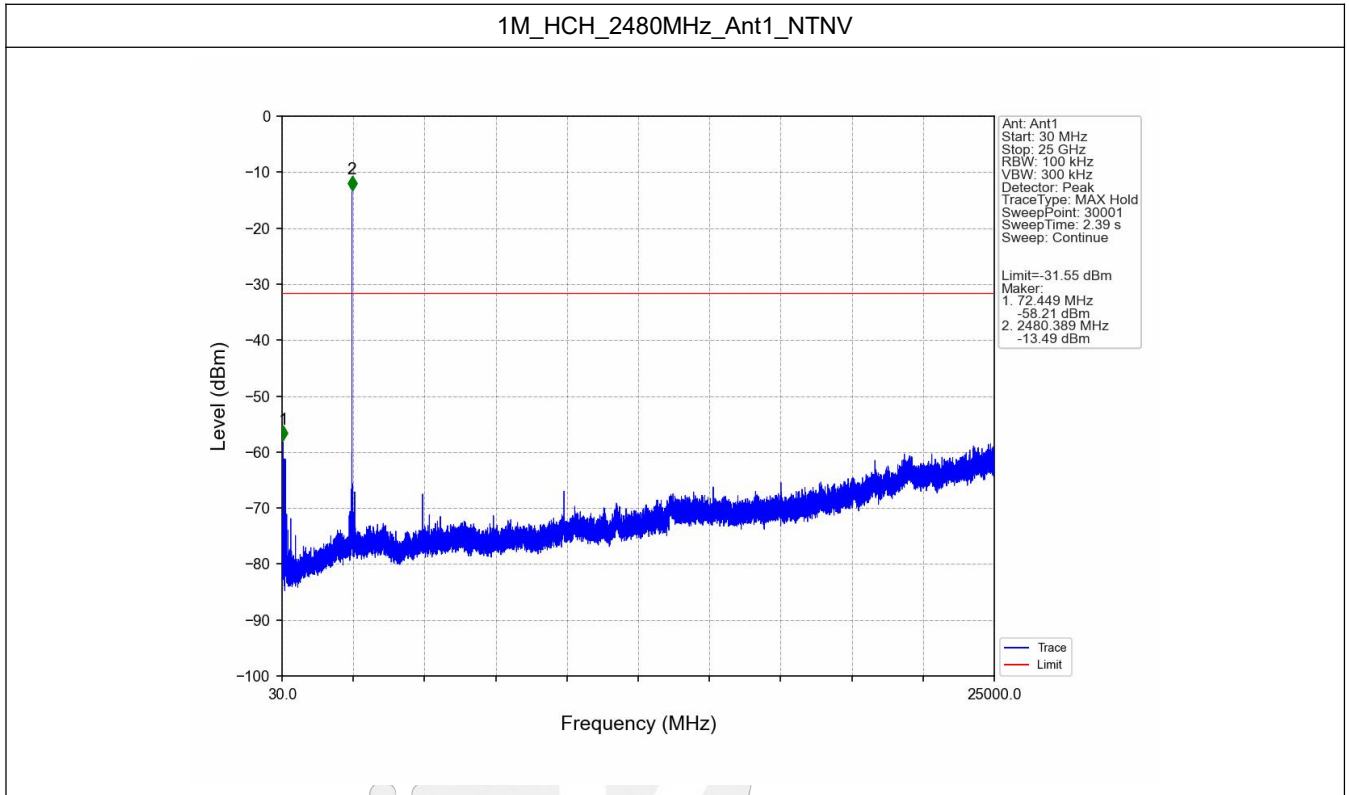


1M_MCH_2440MHz_Ant1_NTNV



1M_HCH_2480MHz_Ant1_NTNV





6. Form731

6.1 Test Result

6.1.1 Form731

Lower Freq (MHz)	High Freq (MHz)	MAX Power (W)	MAX Power (dBm)
2402	2480	0.000094	-10.26

****End of the report****

