



Appendix A

RF Test Data for BT LE (Conducted Measurement)

Product Name: RGB Car LED Strip Light

Test Model: PAK544607

Environmental Conditions

Temperature:	23.8°C
Relative Humidity:	52.1%
ATM Pressure:	100.0 kPa
Test Engineer:	Jerry Chu
Supervised by:	Nick Peng



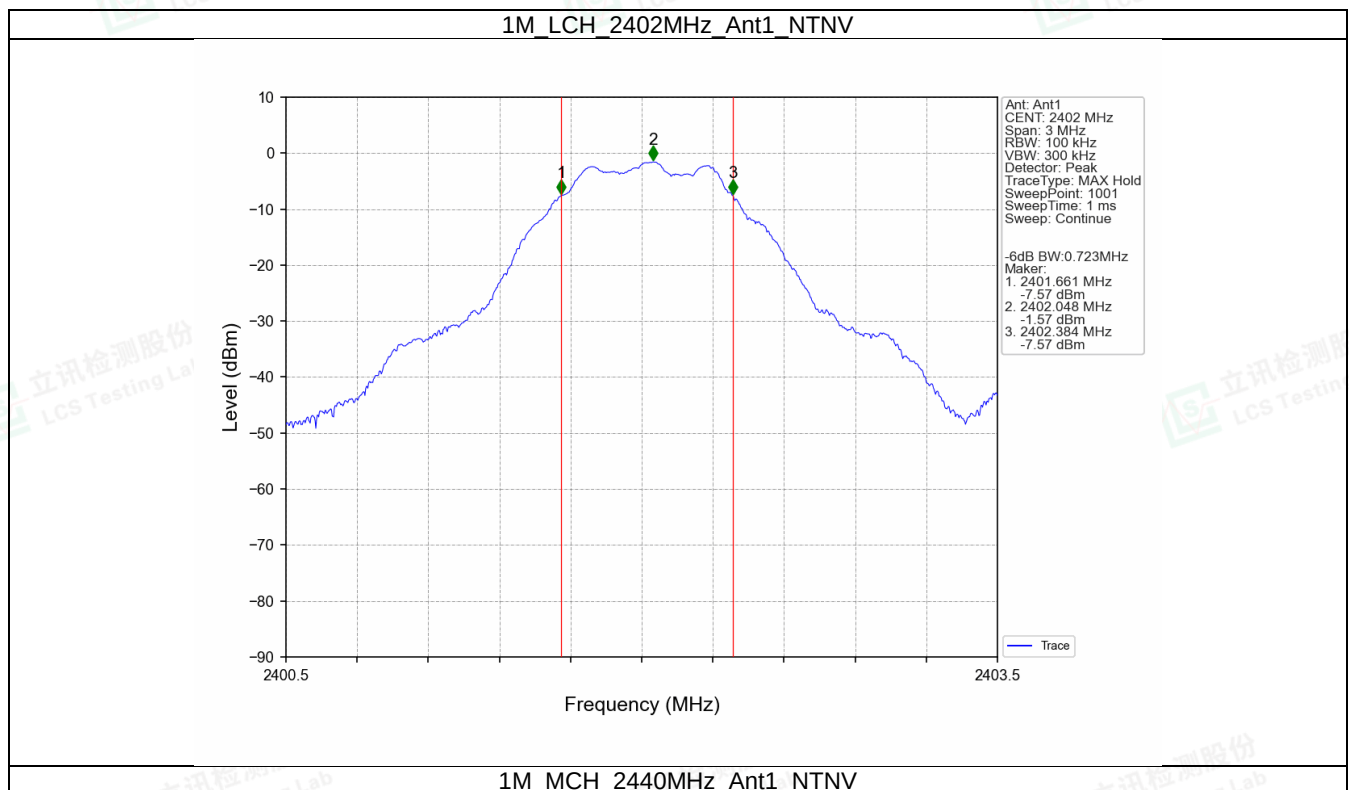


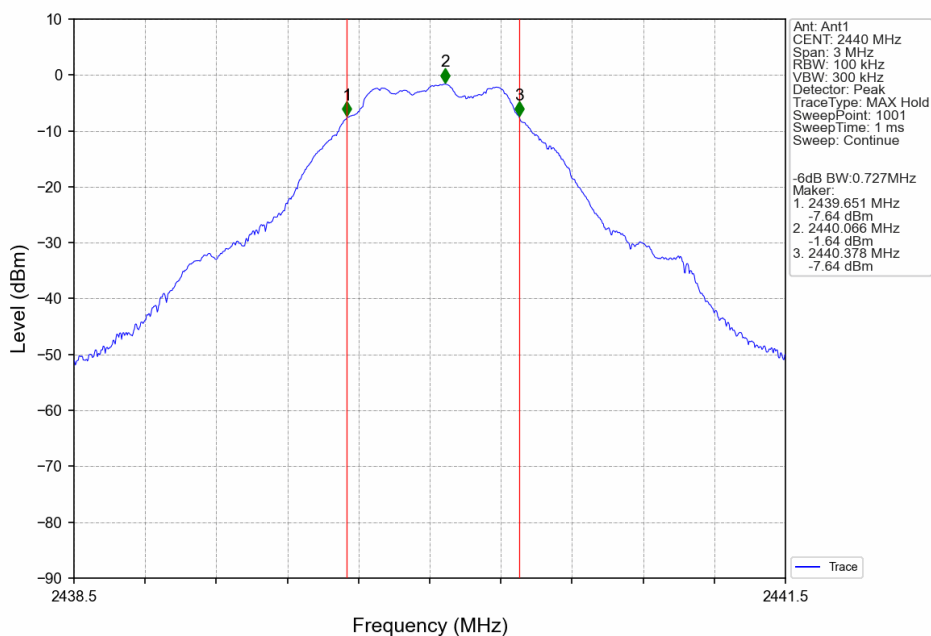
A.1 -6dB Bandwidth

Mode	TX Type	Frequency (MHz)	ANT	6dB Bandwidth (MHz)		Verdict
				Result	Limit	
1M	SISO	2402	1	0.723	>=0.5	Pass
		2440	1	0.727	>=0.5	Pass
		2480	1	0.725	>=0.5	Pass
2M	SISO	2402	1	1.166	>=0.5	Pass
		2440	1	1.260	>=0.5	Pass
		2480	1	1.176	>=0.5	Pass

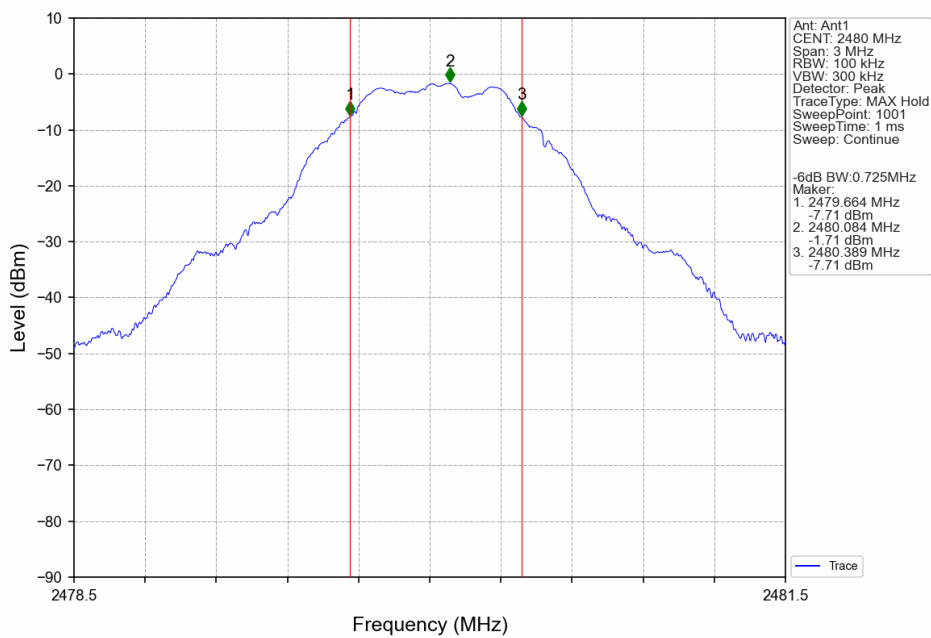
1.1 Test Graph

1.1.1 6dB BW



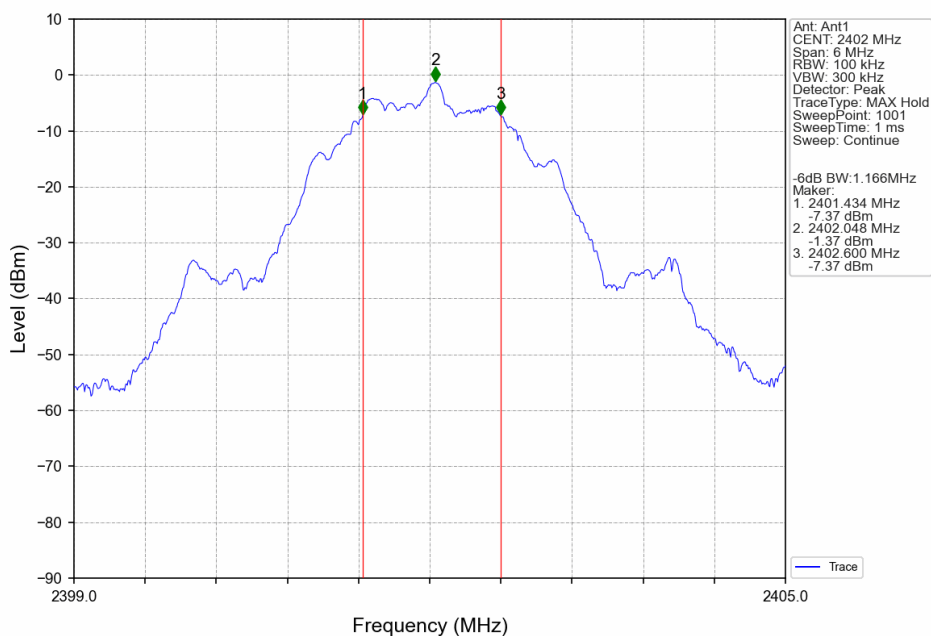


1M_HCH_2480MHz_Ant1_NTNV

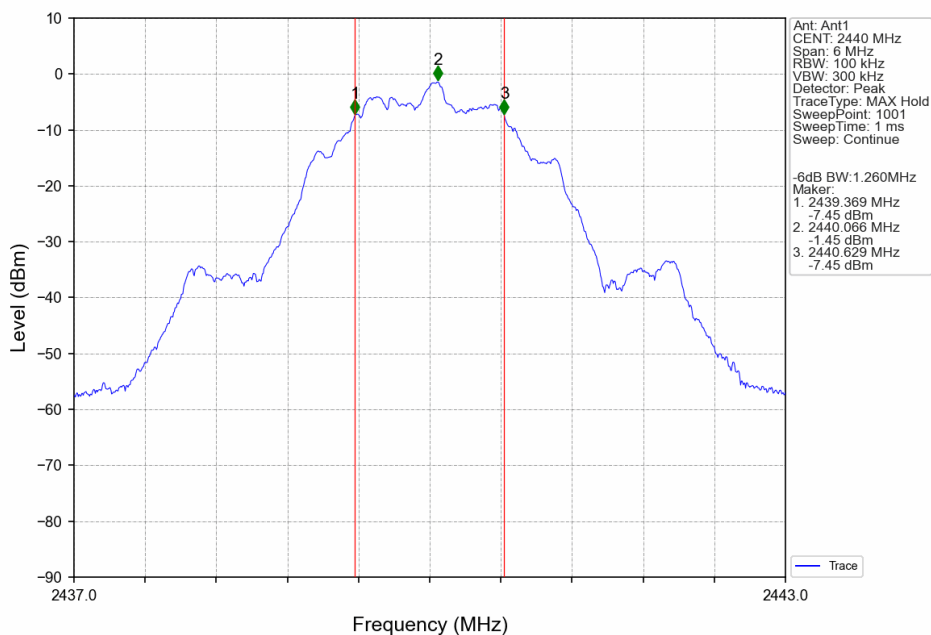


2M_LCH_2402MHz_Ant1_NTNV



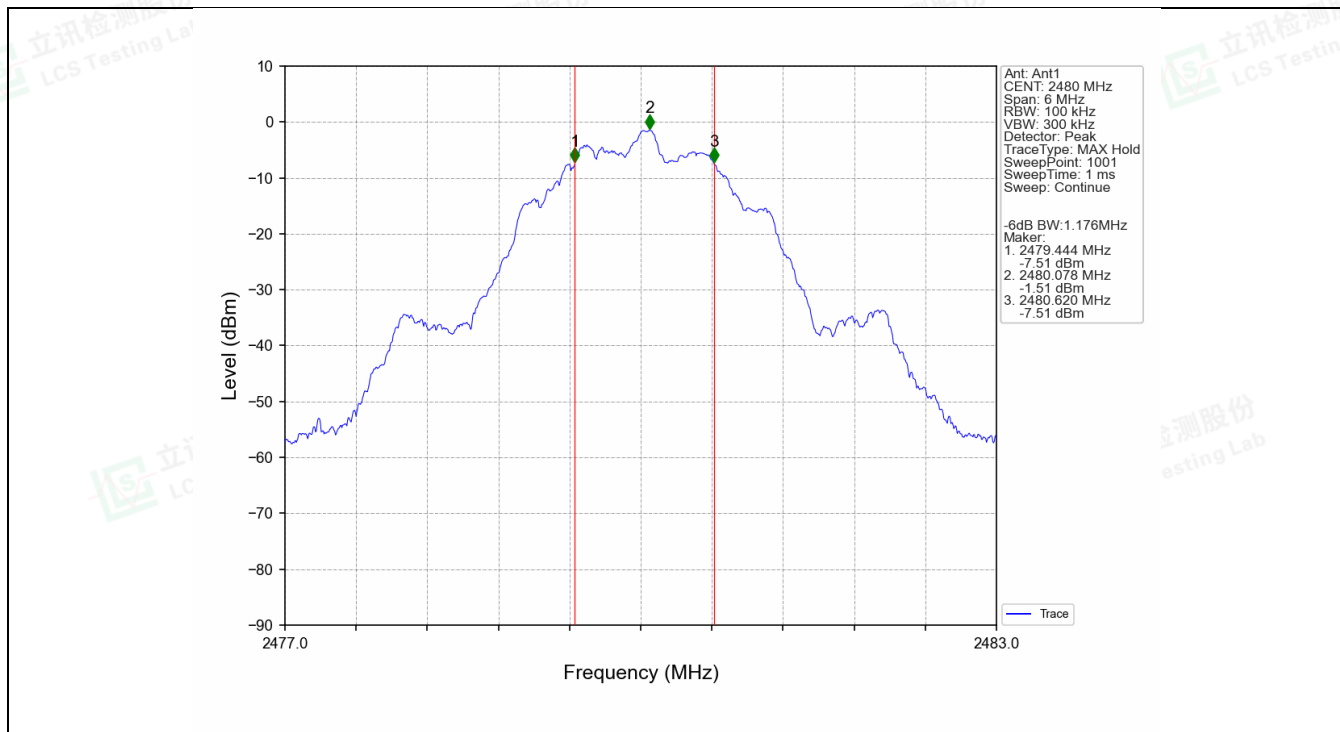


2M_MCH_2440MHz_Ant1_NTNV



2M_HCH_2480MHz_Ant1_NTNV







A.2 Maximum Peak Conducted Output Power

2.1 Test Result

2.1.1 Power

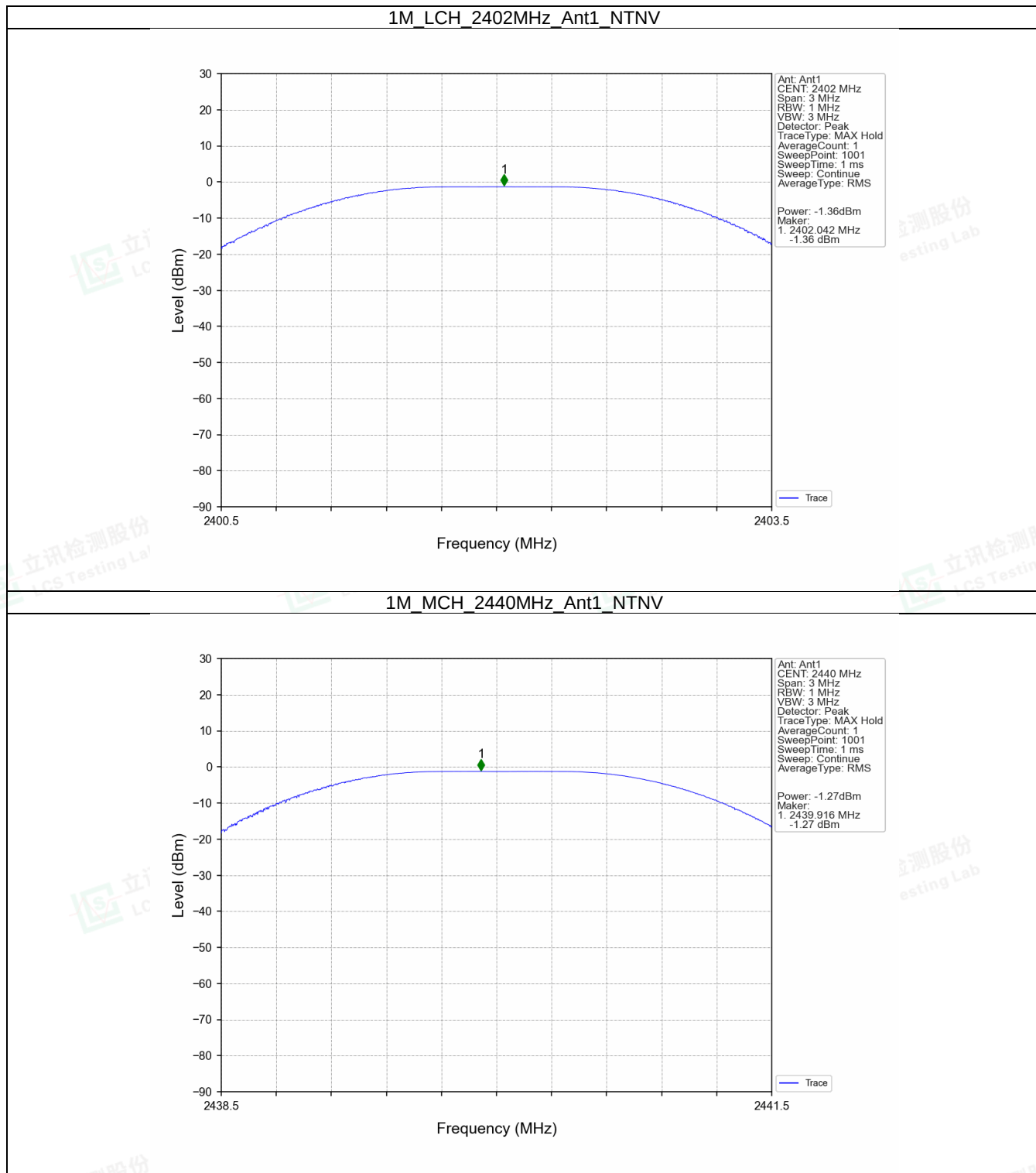
Mode	TX Type	Frequency (MHz)	Maximum Peak Conducted Output Power (dBm)		Verdict
			ANT1	Limit	
1M	SISO	2402	-1.36	≤ 30	Pass
		2440	-1.27	≤ 30	Pass
		2480	-1.34	≤ 30	Pass
2M	SISO	2402	-1.26	≤ 30	Pass
		2440	-1.15	≤ 30	Pass
		2480	-1.22	≤ 30	Pass





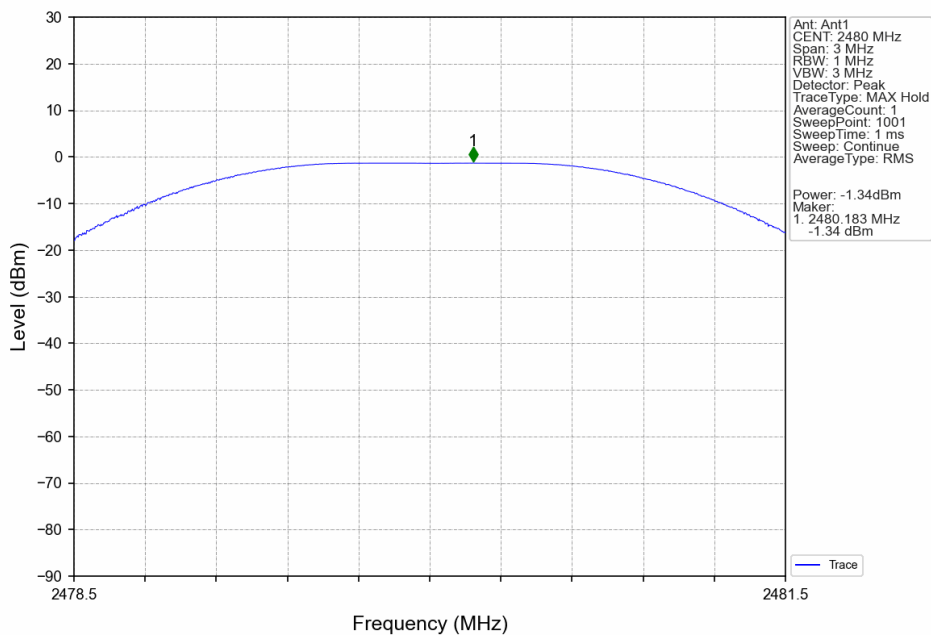
2.2 Test Graph

2.2.1 Power

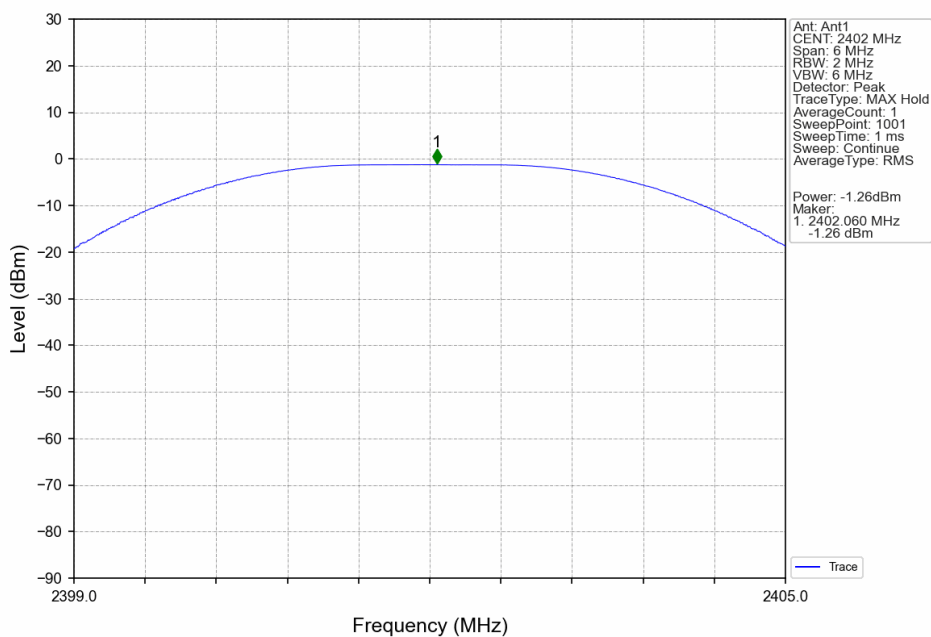




1M HCH 2480MHz Ant1 NTNV

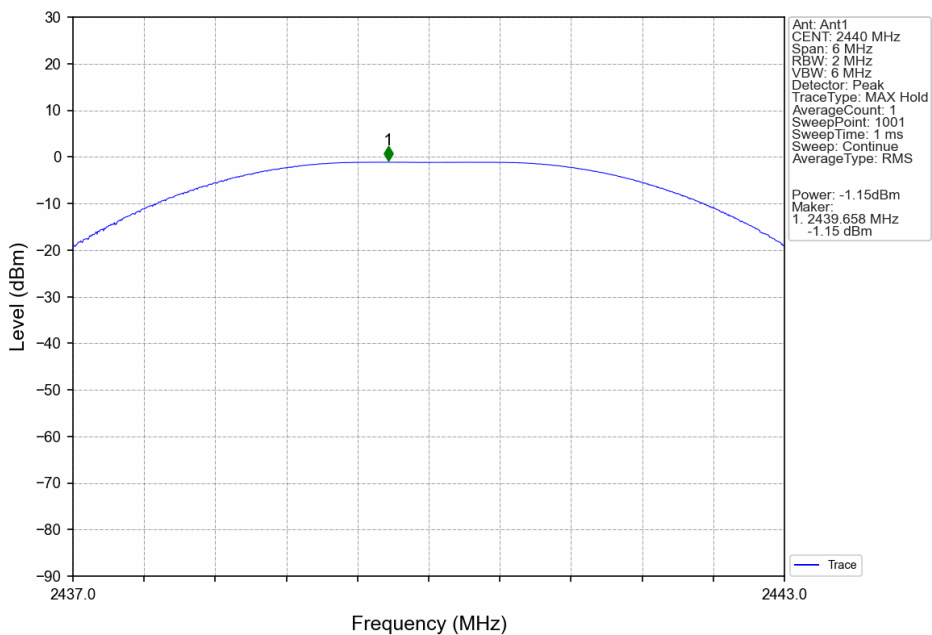


2M LCH 2402MHz Ant1 NTNV

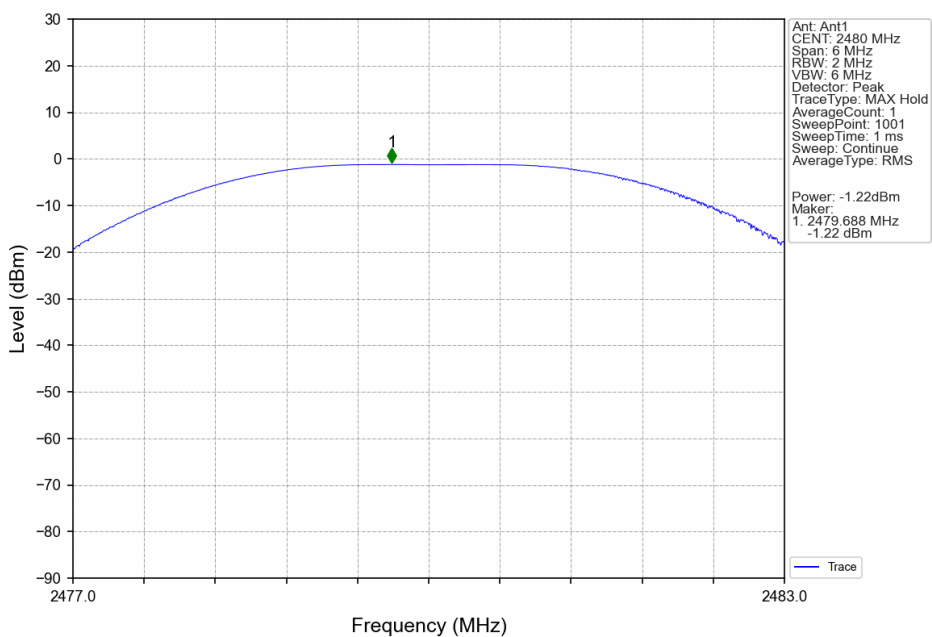




2M MCH 2440MHz Ant1 NTN



2M HCH 2480MHz Ant1 NTN





A.3 Maximum Power Spectral Density Level

3.1 Test Result

3.1.1 PSD

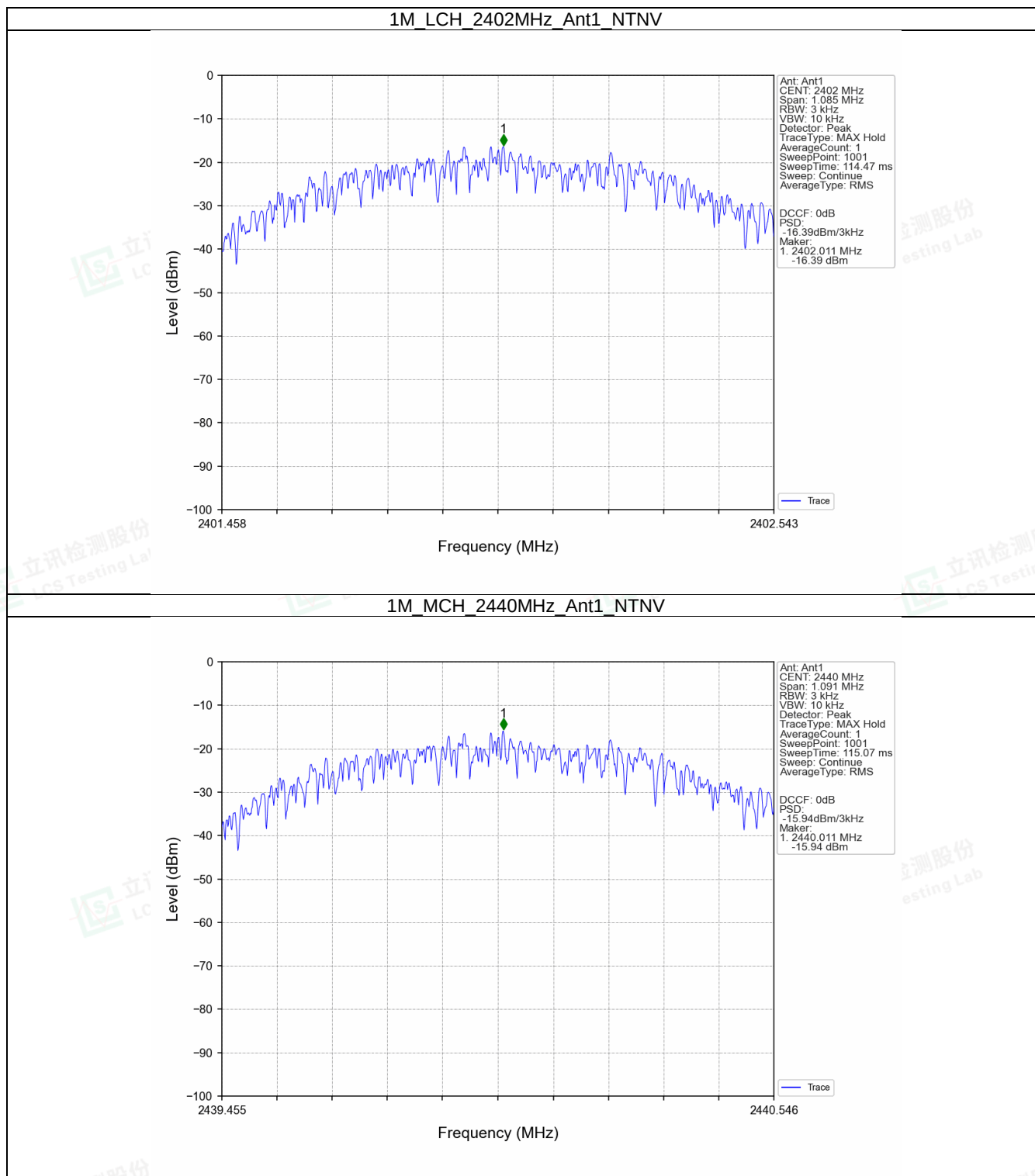
Mode	TX Type	Frequency (MHz)	Maximum PSD (dBm/3kHz)		Verdict
			ANT1	Limit	
1M	SISO	2402	-16.39	<=8	Pass
		2440	-15.94	<=8	Pass
		2480	-14.83	<=8	Pass
2M	SISO	2402	-19.50	<=8	Pass
		2440	-19.66	<=8	Pass
		2480	-18.84	<=8	Pass





3.2 Test Graph

3.2.1 PSD



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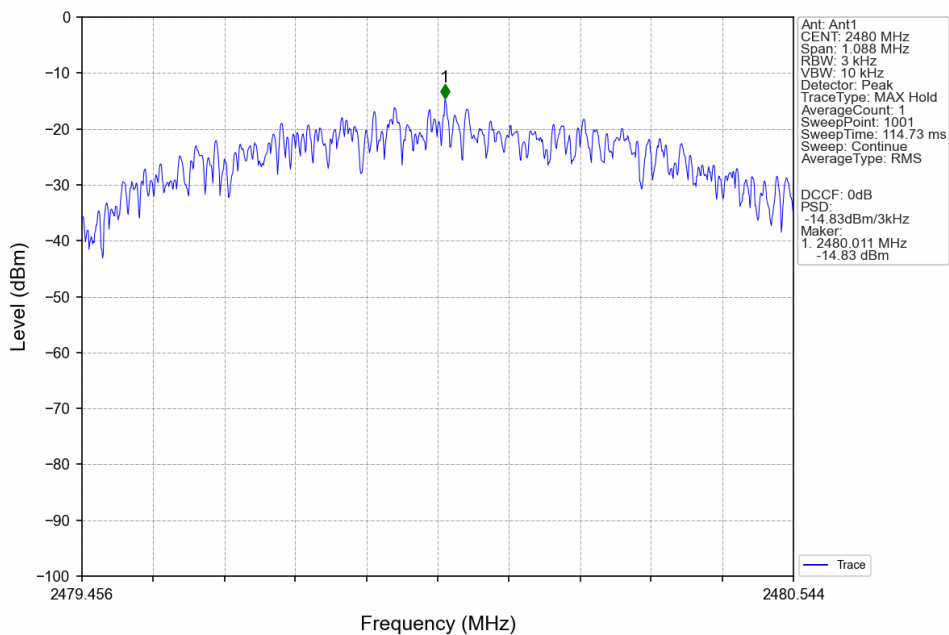
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com

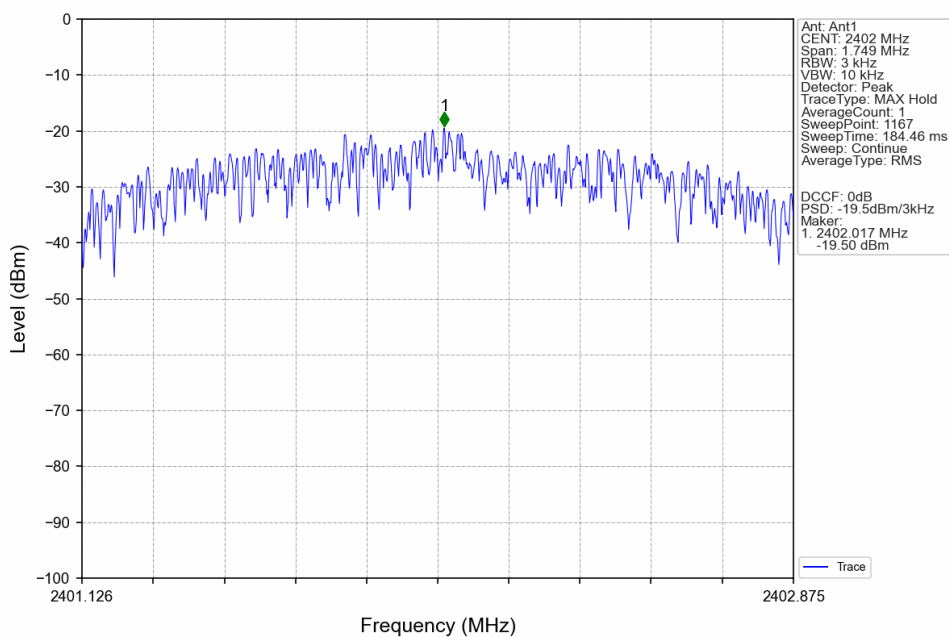
Scan code to check authenticity



1M HCH 2480MHz Ant1 NTV

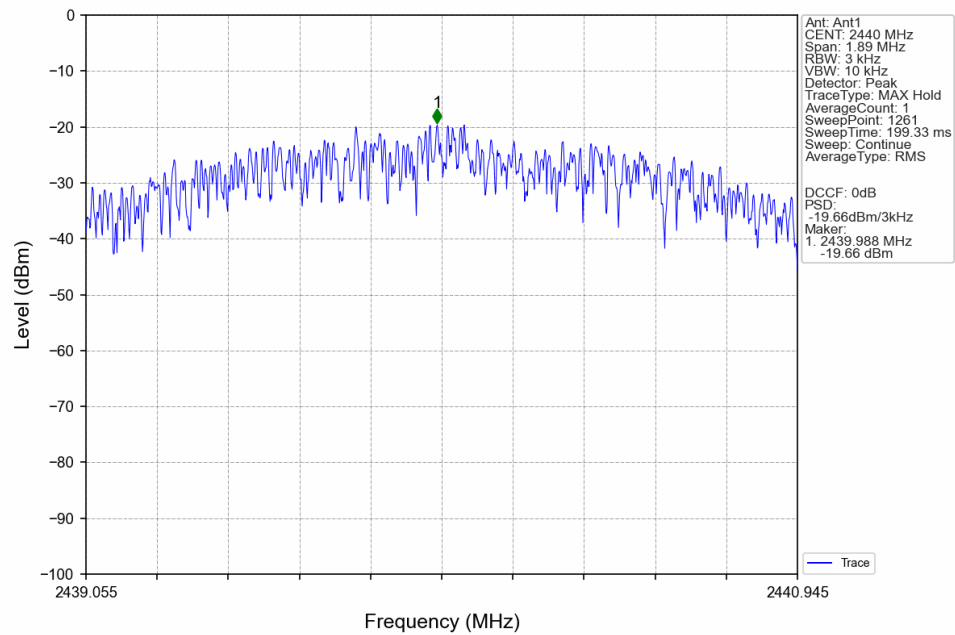


2M LCH 2402MHz Ant1 NTV

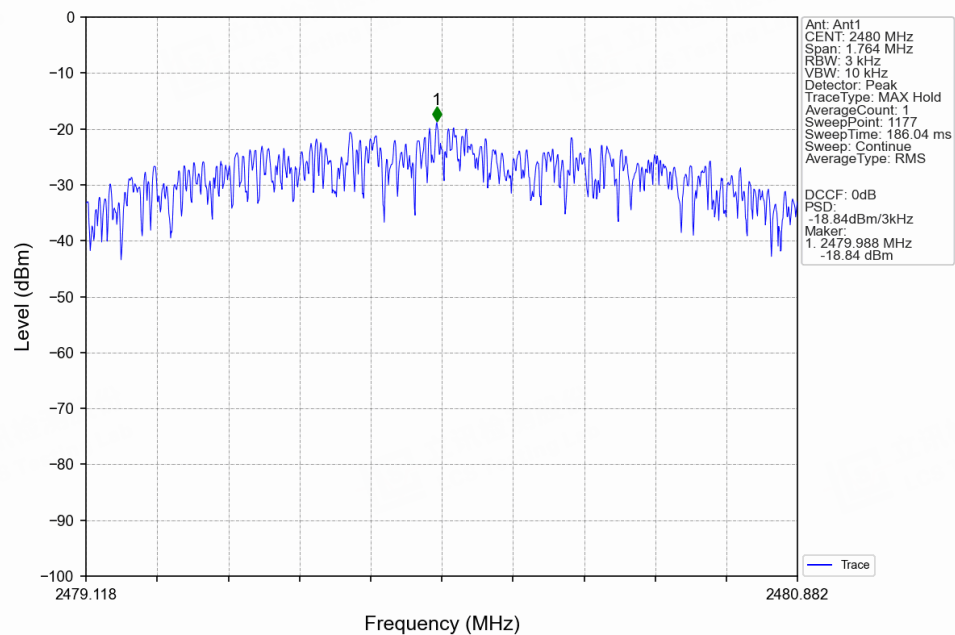




2M MCH 2440MHz Ant1 NTNV



2M HCH 2480MHz Ant1 NTNV





A.4 Band Edge

4.1 Test Result

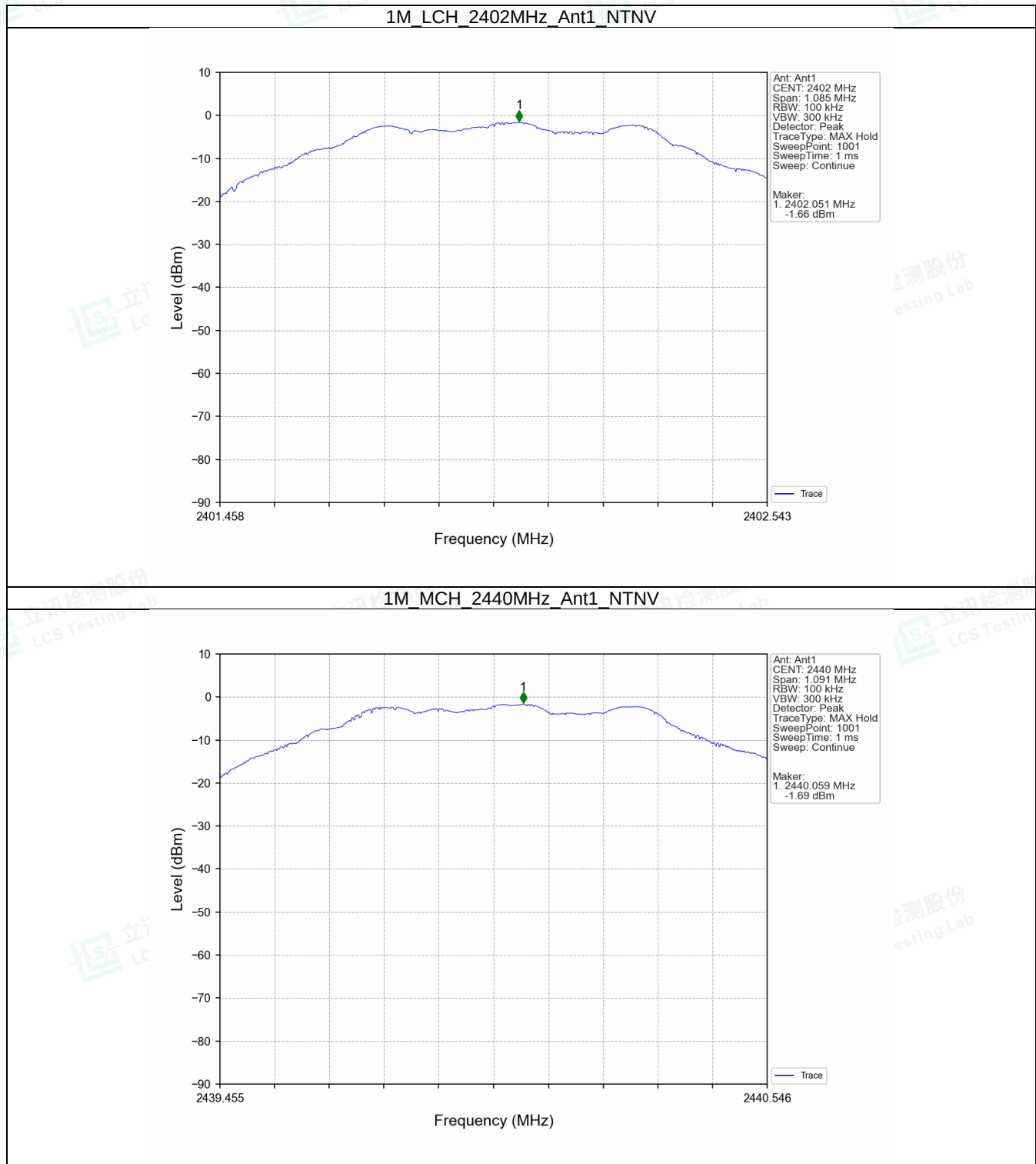
Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)	Limit (dBm)	Verdict
1M	SISO	2402	1	-1.66	-21.66	Pass
		2440	1	-1.66	-21.66	Pass
		2480	1	-1.66	-21.66	Pass
2M	SISO	2402	1	-1.62	-21.62	Pass
		2440	1	-1.62	-21.62	Pass
		2480	1	-1.62	-21.62	Pass

Note1: Refer to FCC Part 15.247 (d) and ANSI C63.10-2013, the channel contains the maximum PSD level was used to establish the reference level.



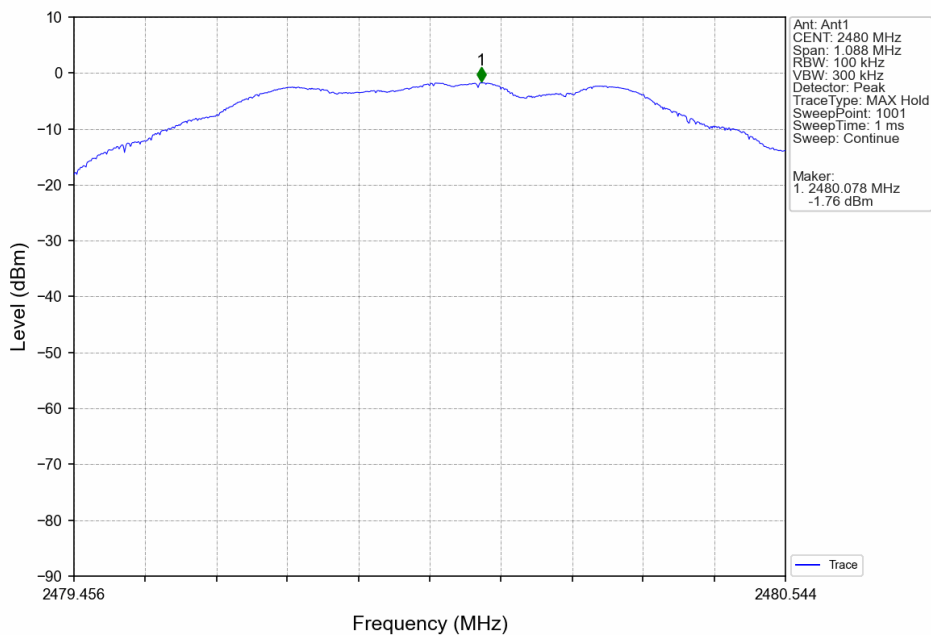


4.1.1 Ref

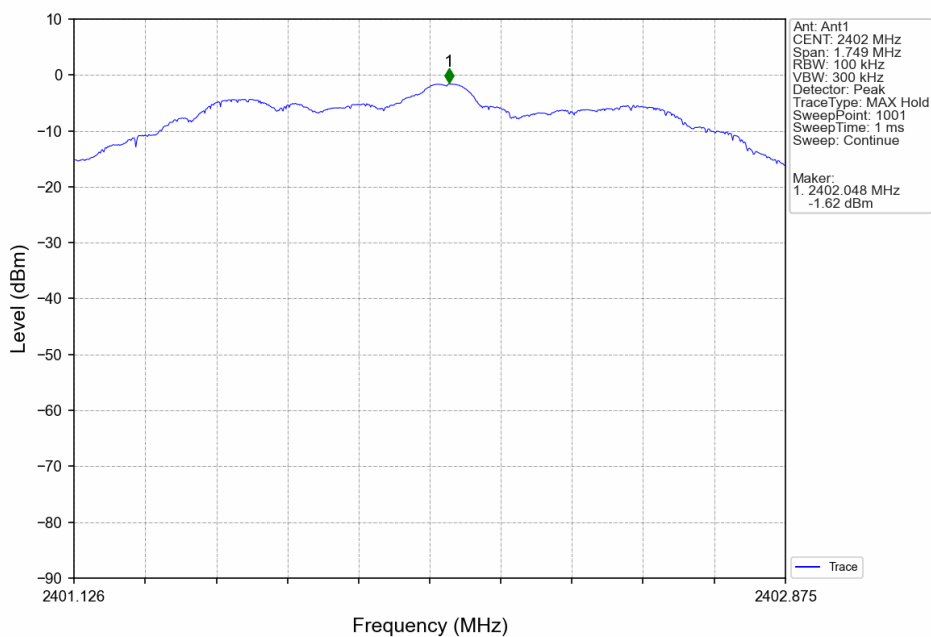




1M HCH 2480MHz Ant1 NTV

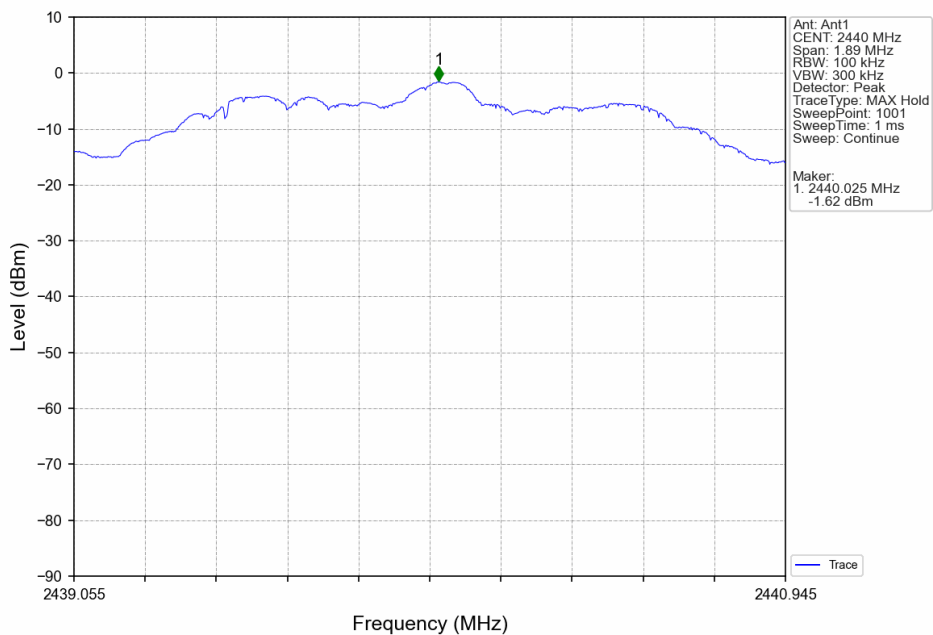


2M LCH 2402MHz Ant1 NTV

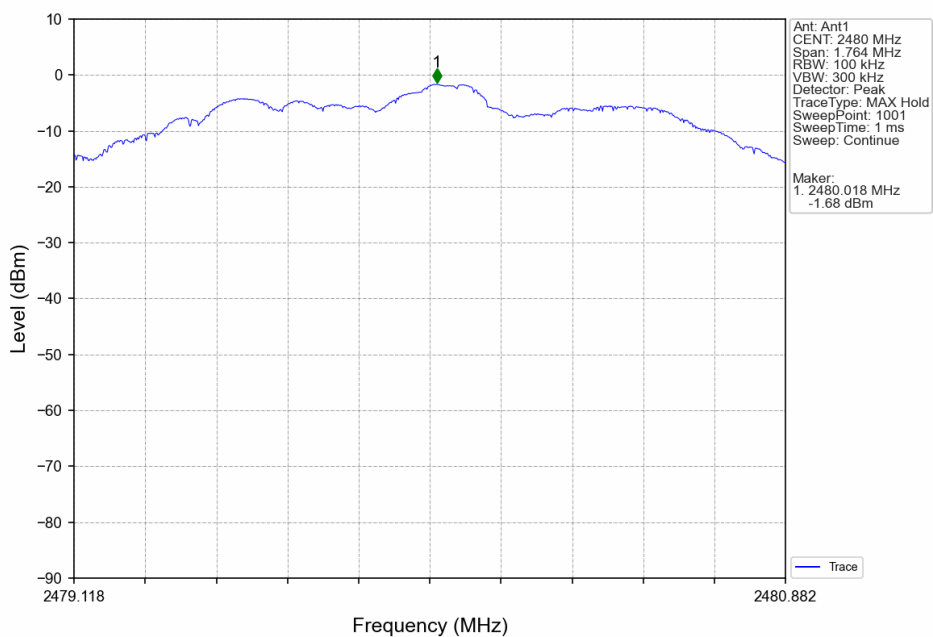




2M MCH 2440MHz Ant1 NTV

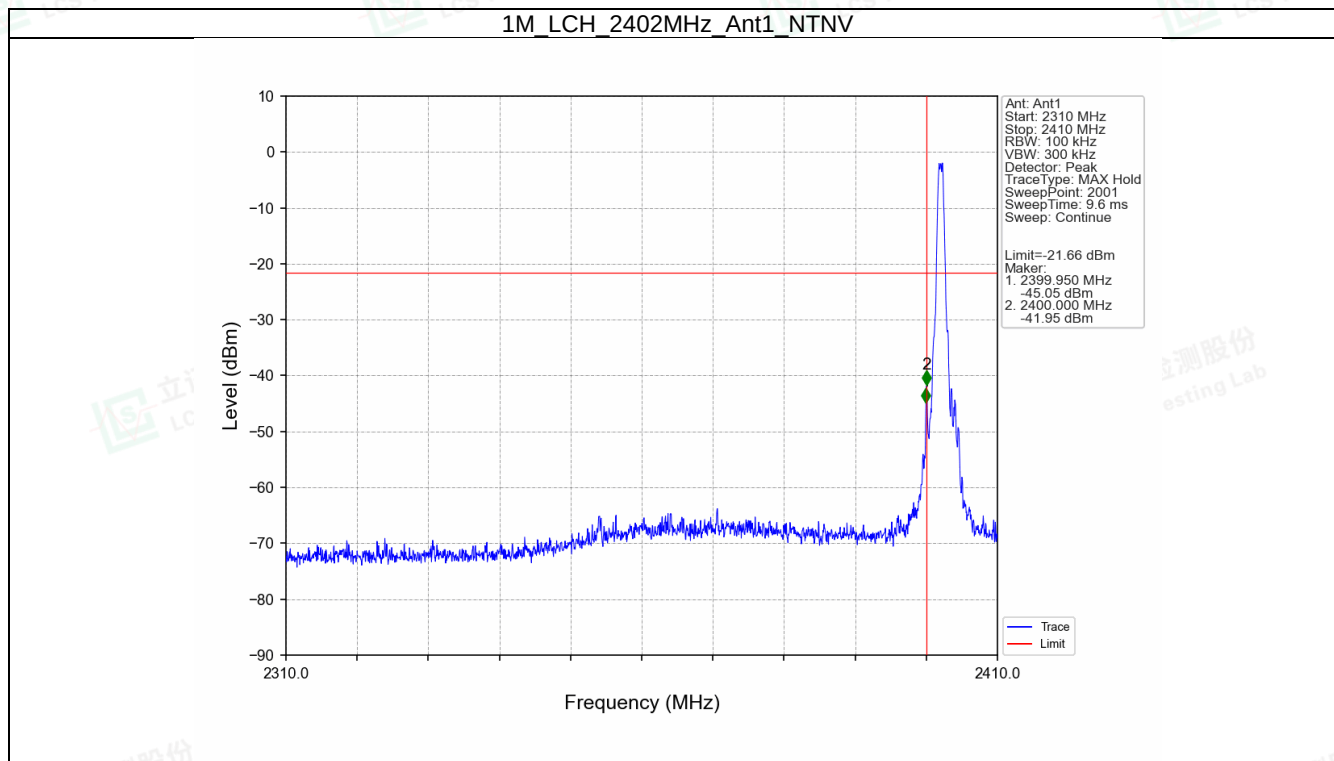


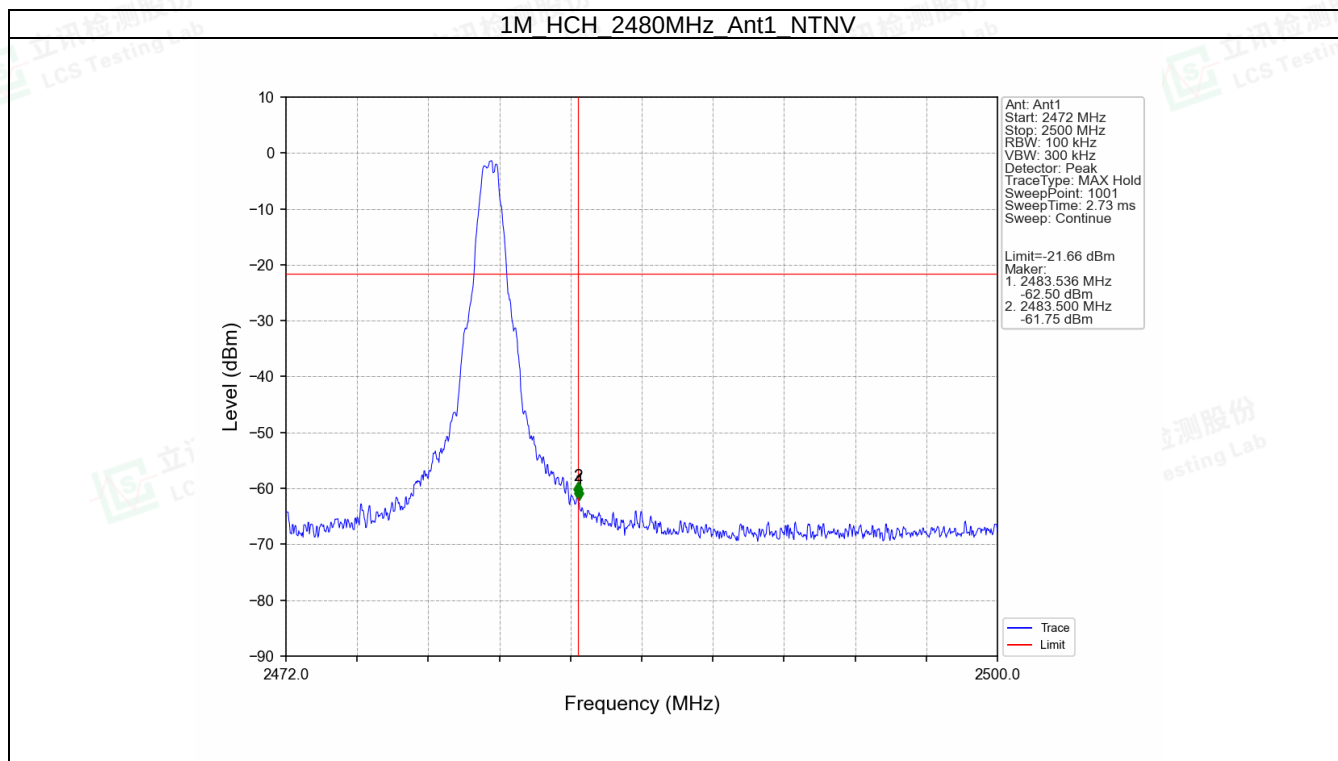
2M HCH 2480MHz Ant1 NTV

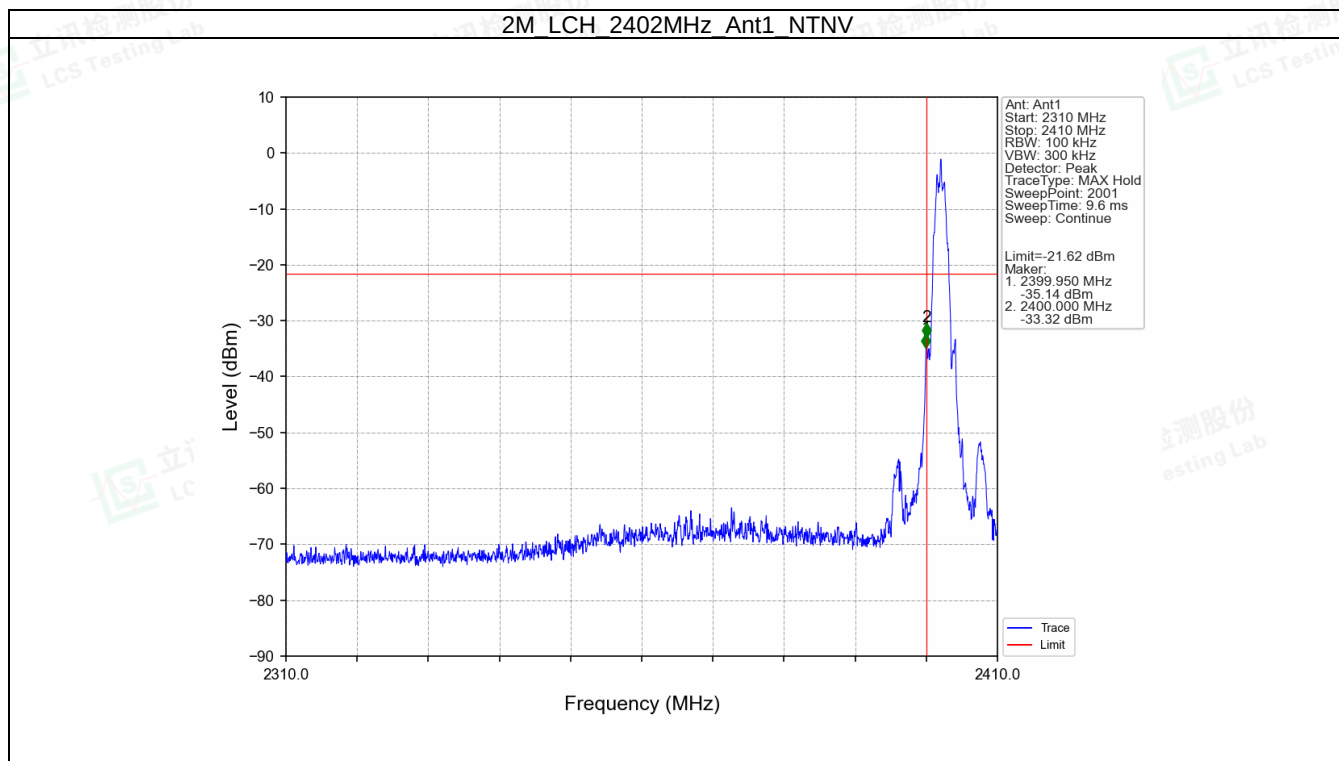


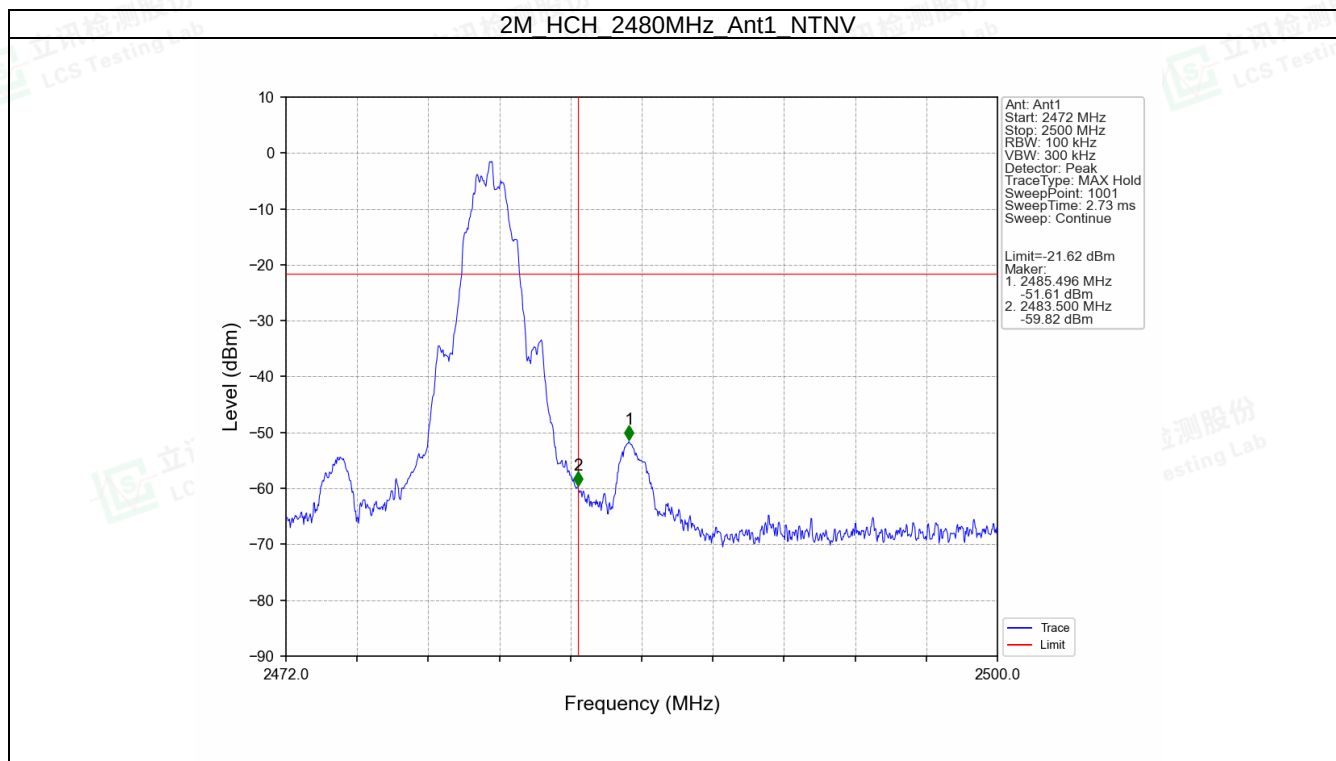


4.1.2 Band Edge











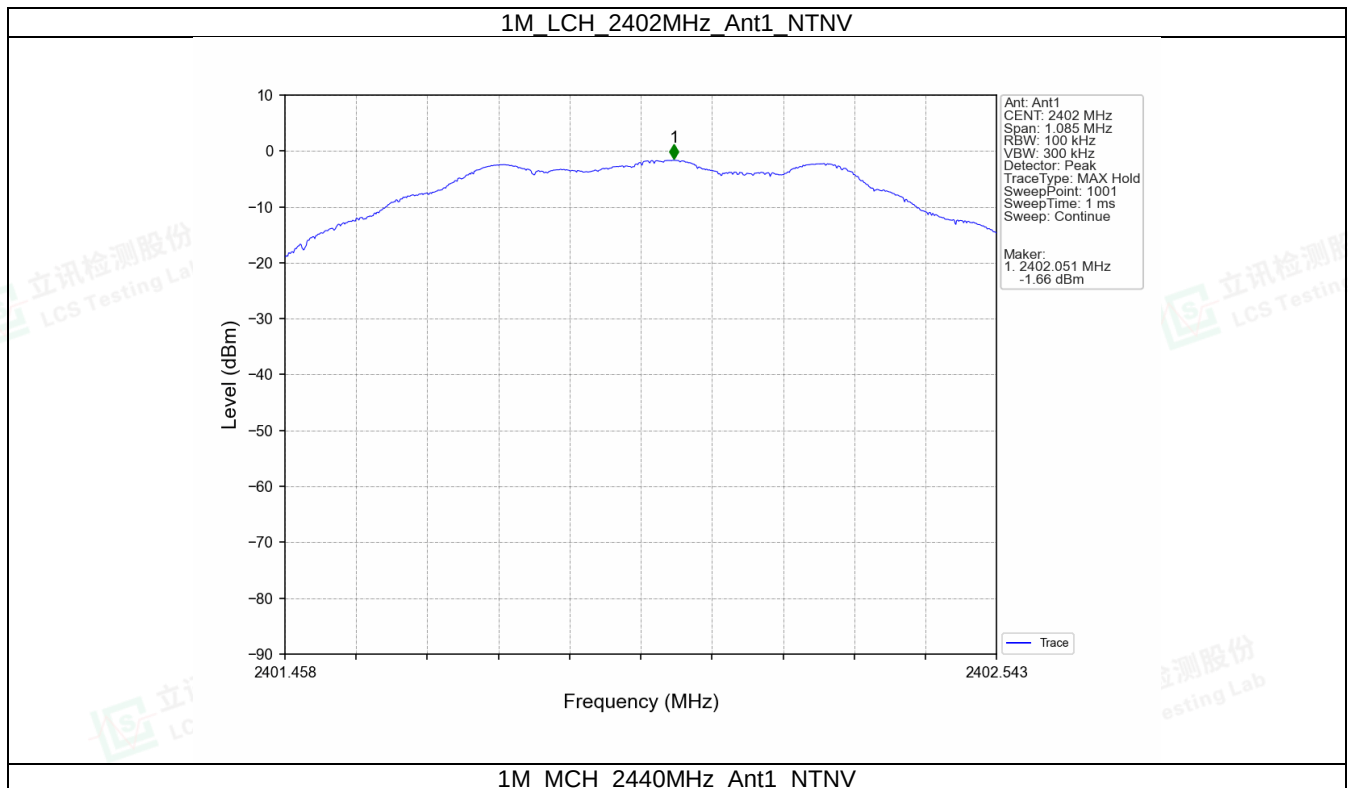
A.5 Conducted RF Spurious Emission

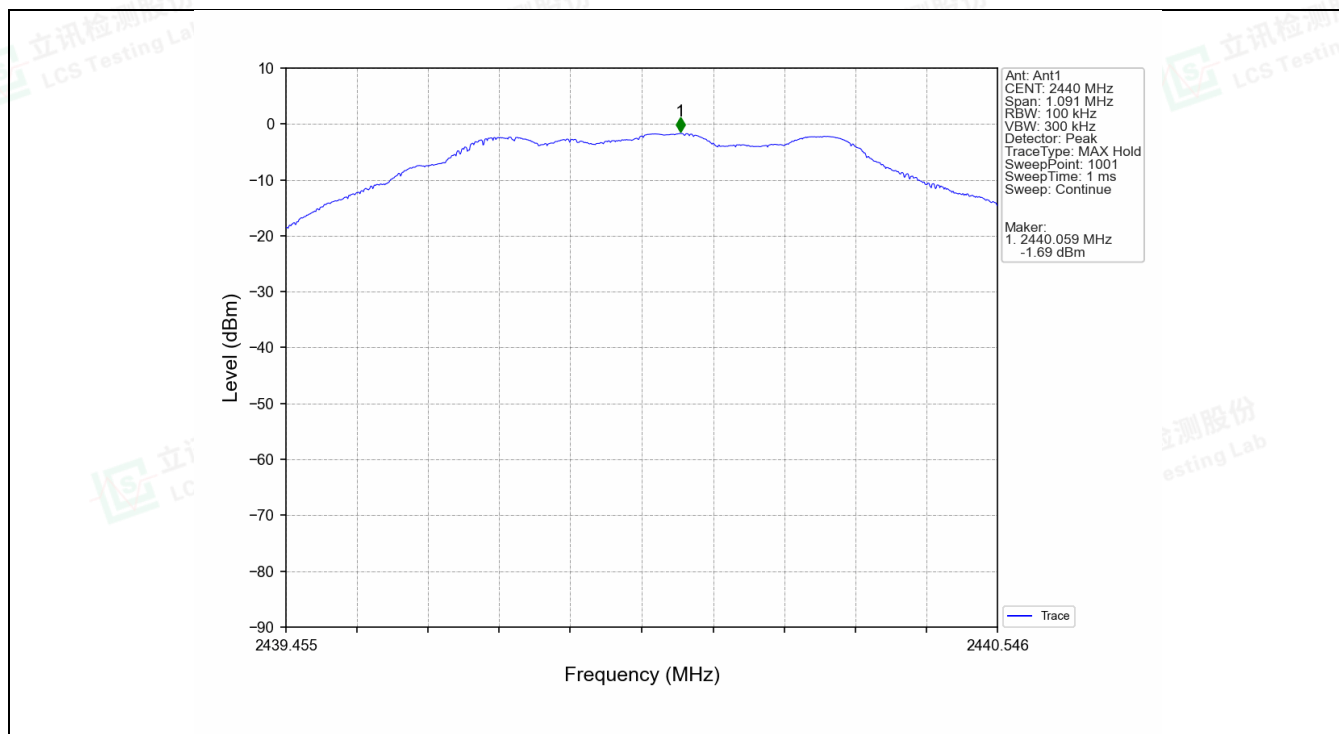
5.1 Test Result

Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)
1M	SISO	2402	1	-1.66
		2440	1	-1.69
		2480	1	-1.76
2M	SISO	2402	1	-1.62
		2440	1	-1.62
		2480	1	-1.68

Note1: Refer to FCC Part 15.247 (d) and ANSI C63.10-2013, the channel contains the maximum PSD level was used to establish the reference level.

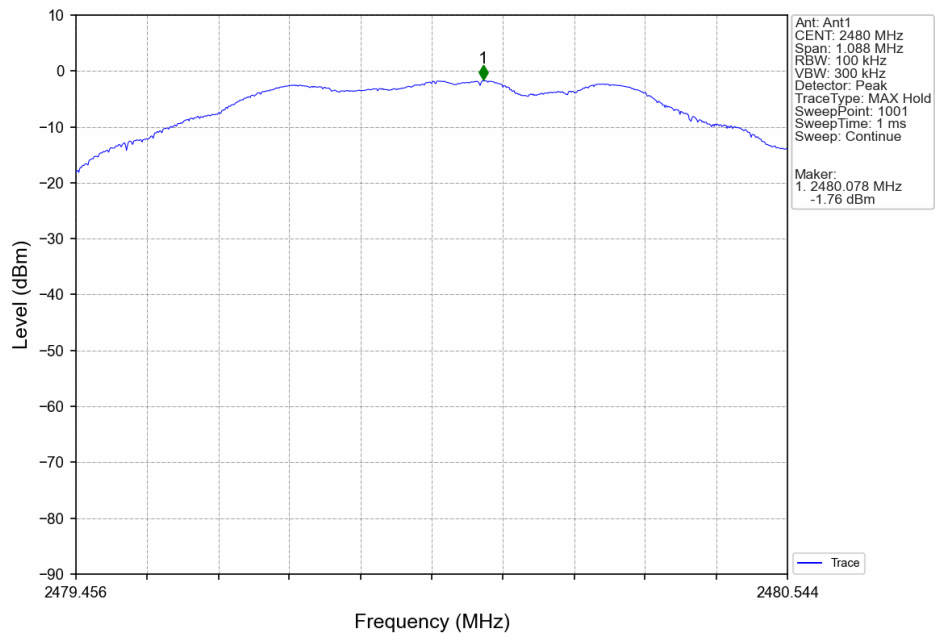
5.1.1 Ref



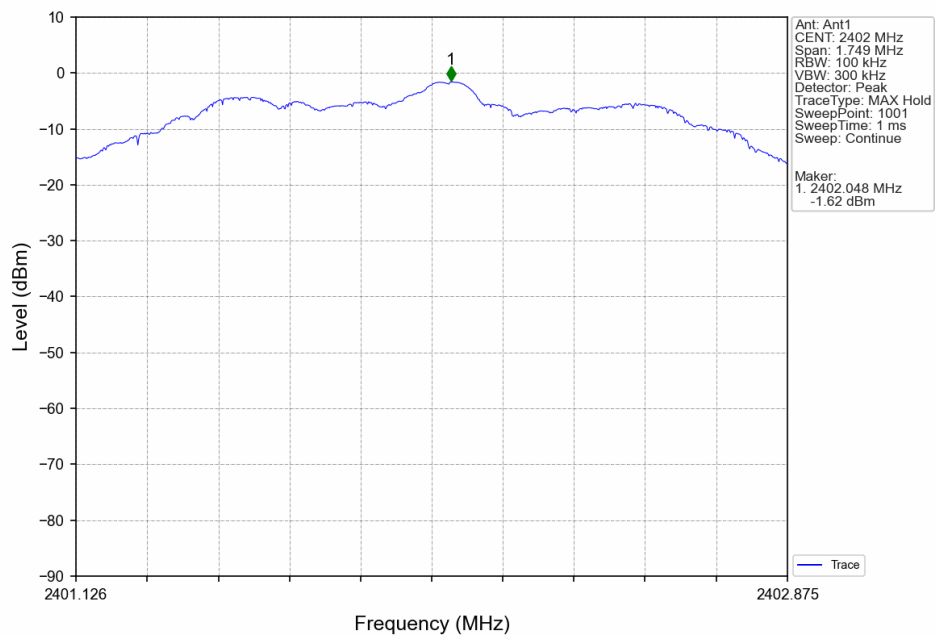




1M HCH 2480MHz Ant1 NTV

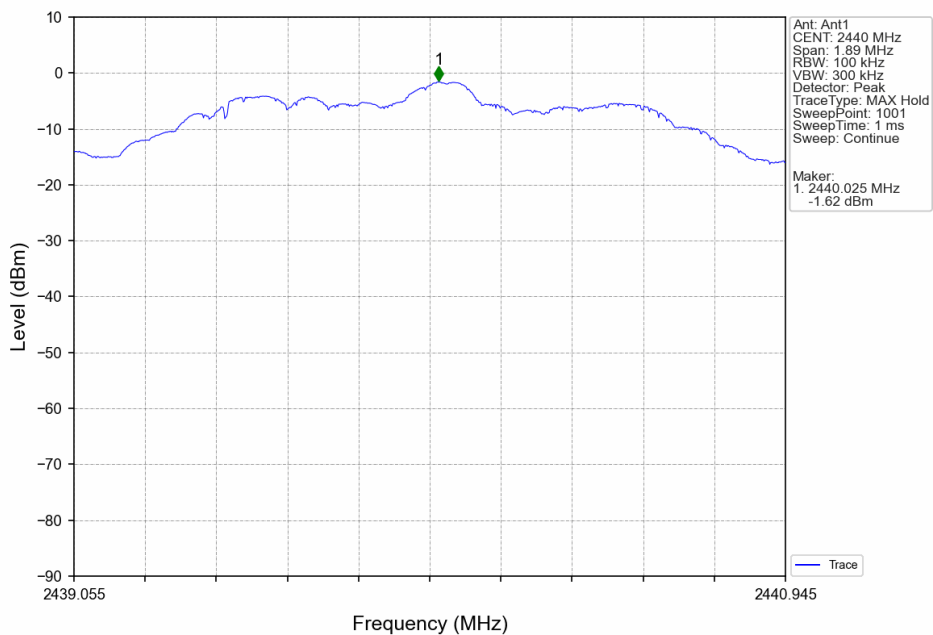


2M LCH 2402MHz Ant1 NTV

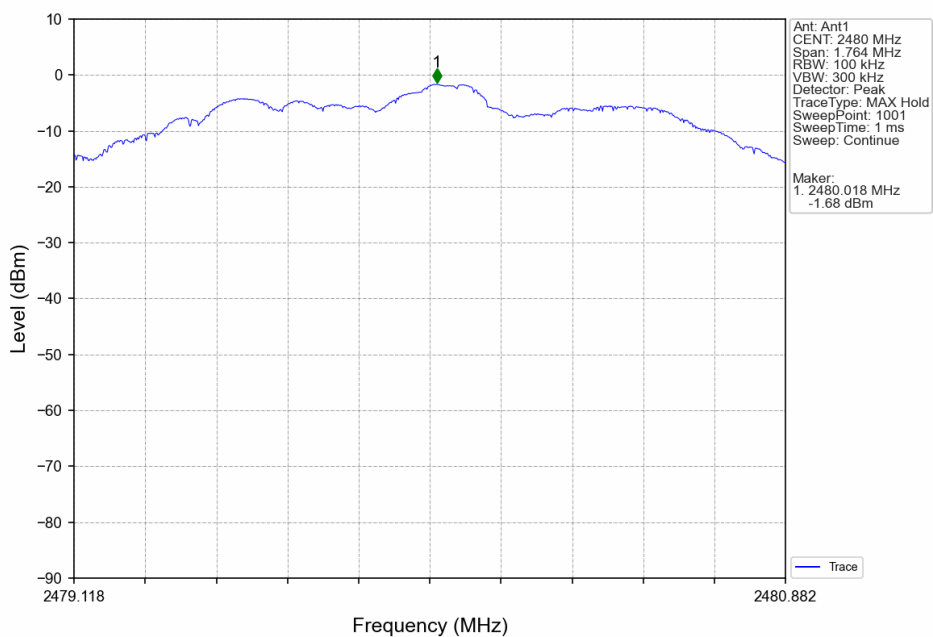




2M MCH 2440MHz Ant1 NTV

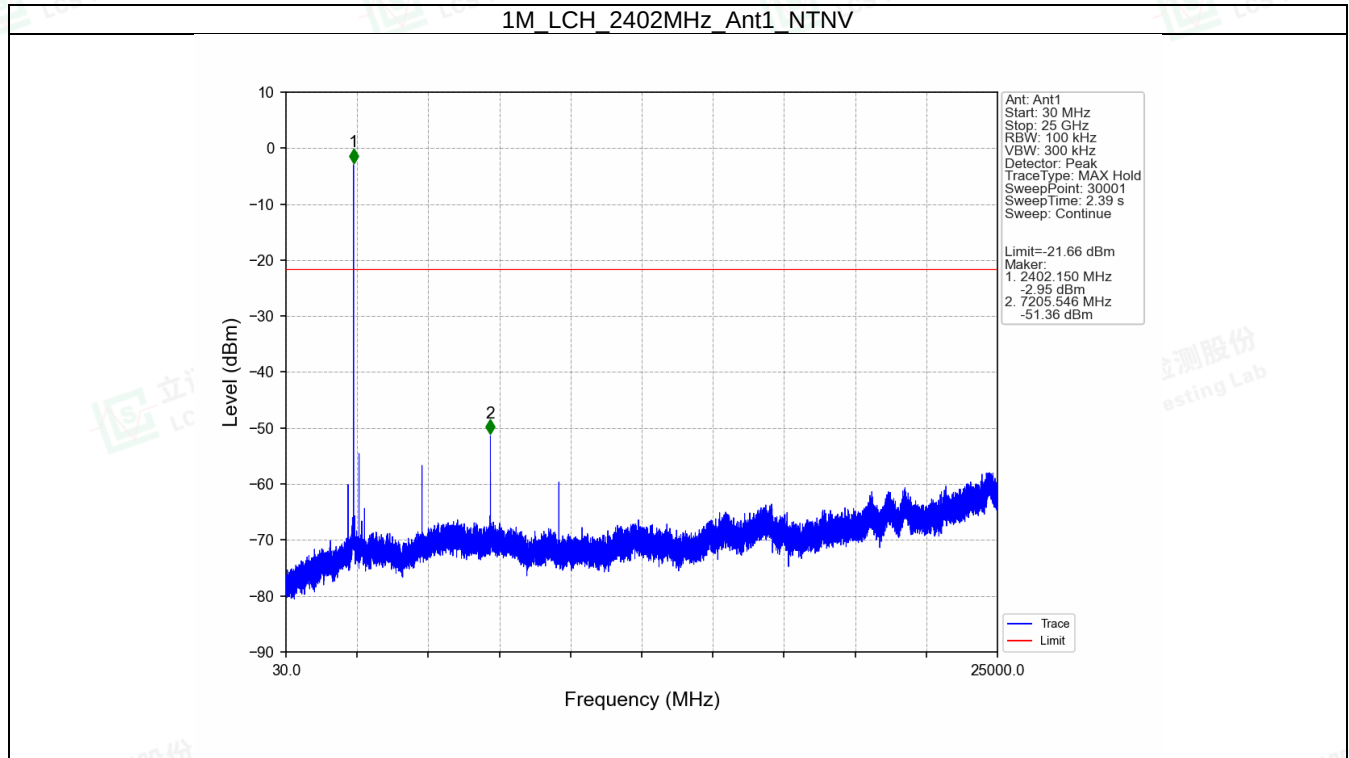


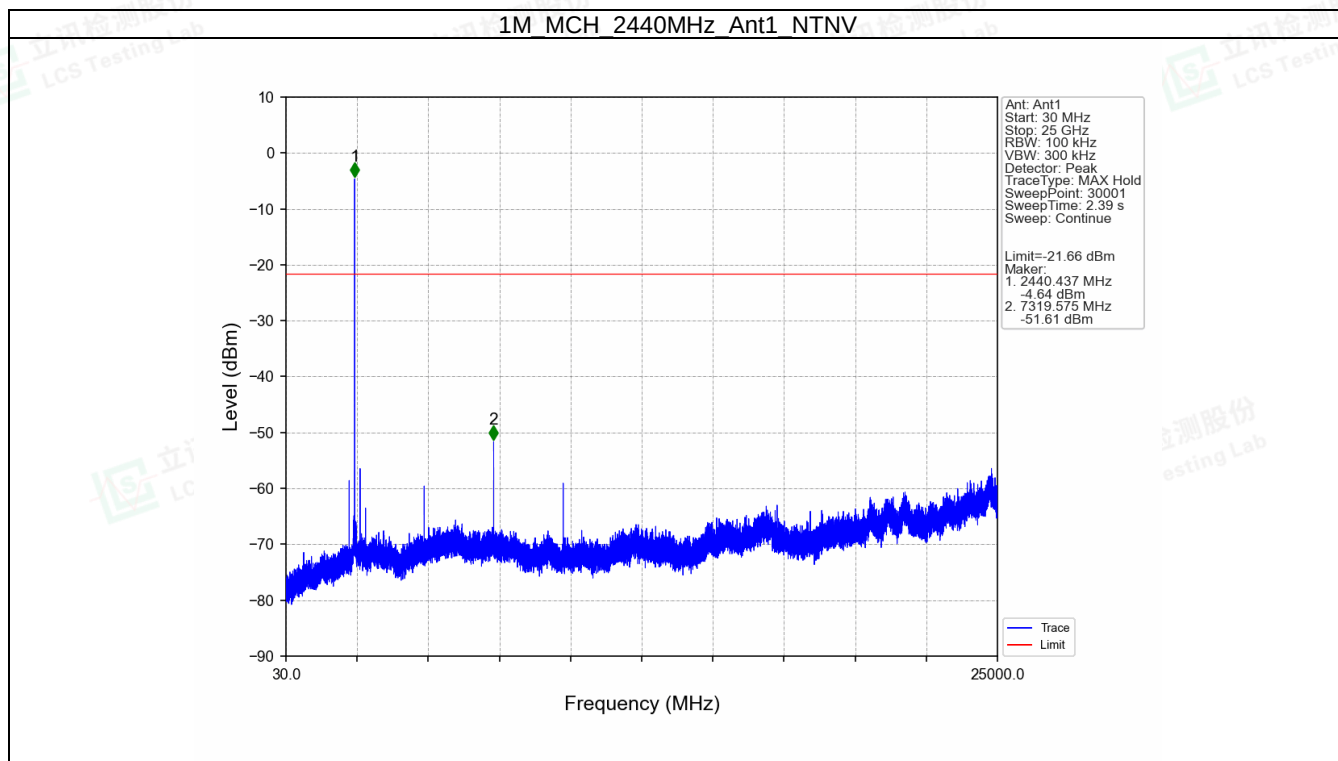
2M HCH 2480MHz Ant1 NTV

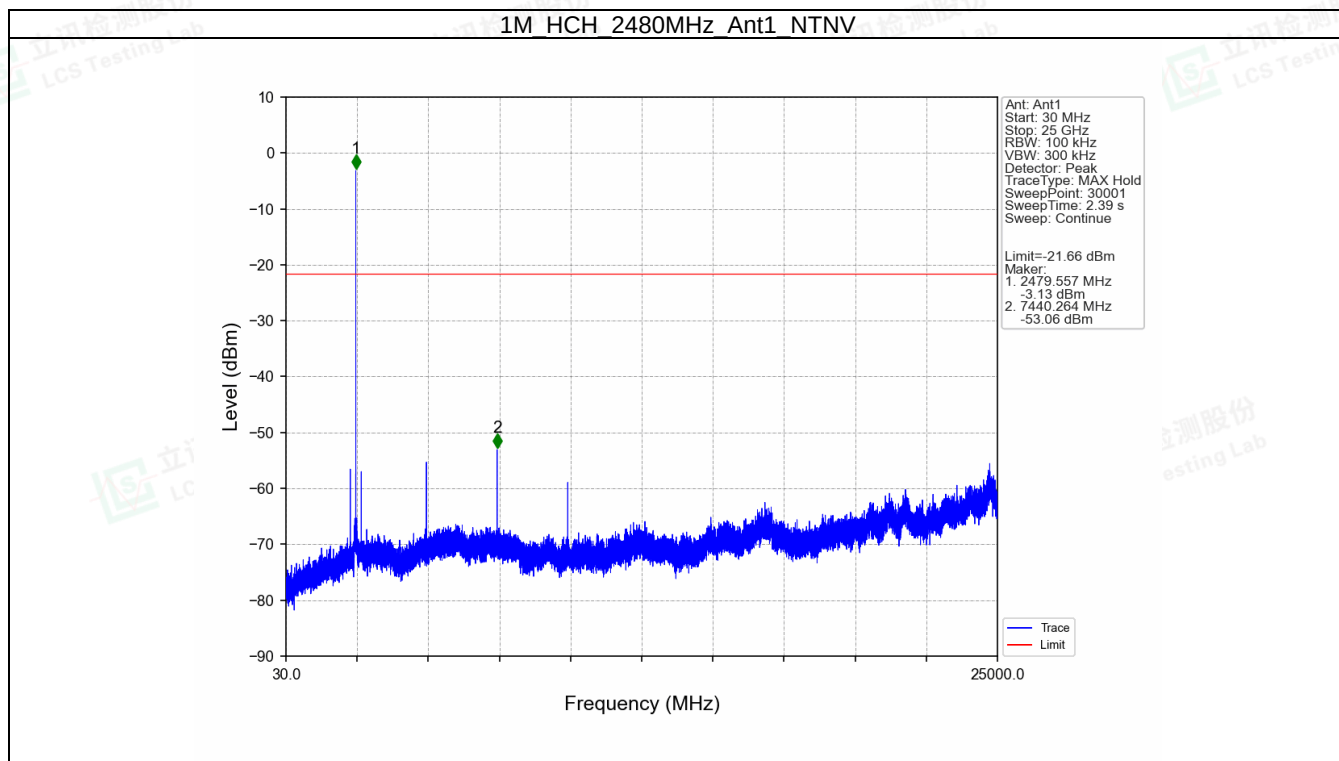




5.1.2 Conducted RF Spurious Emission

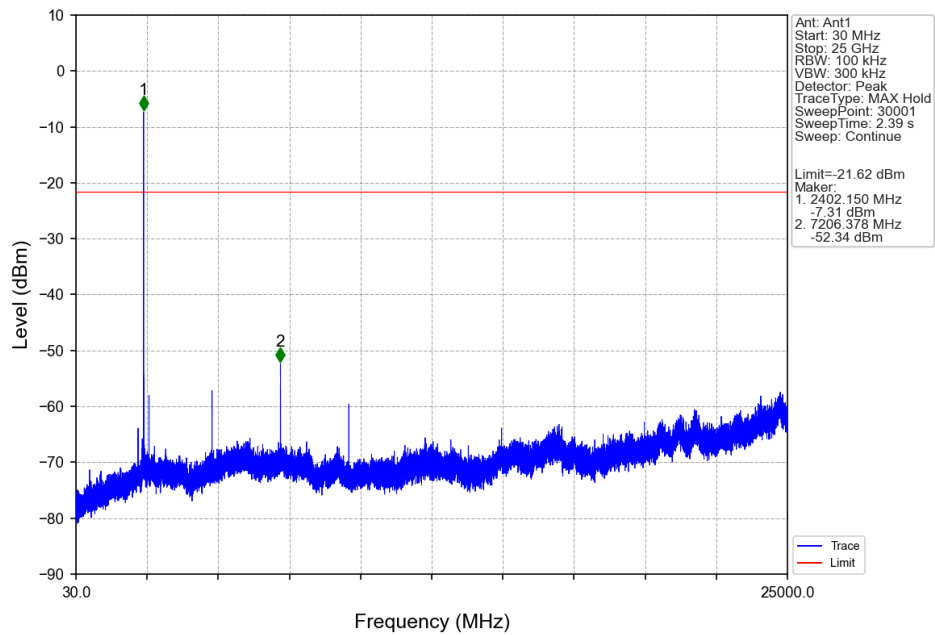




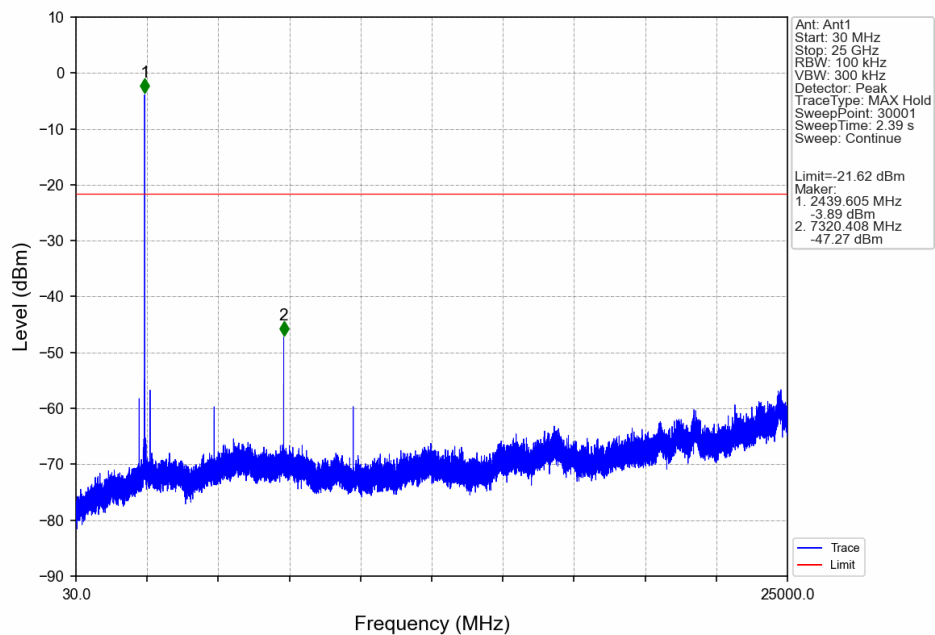


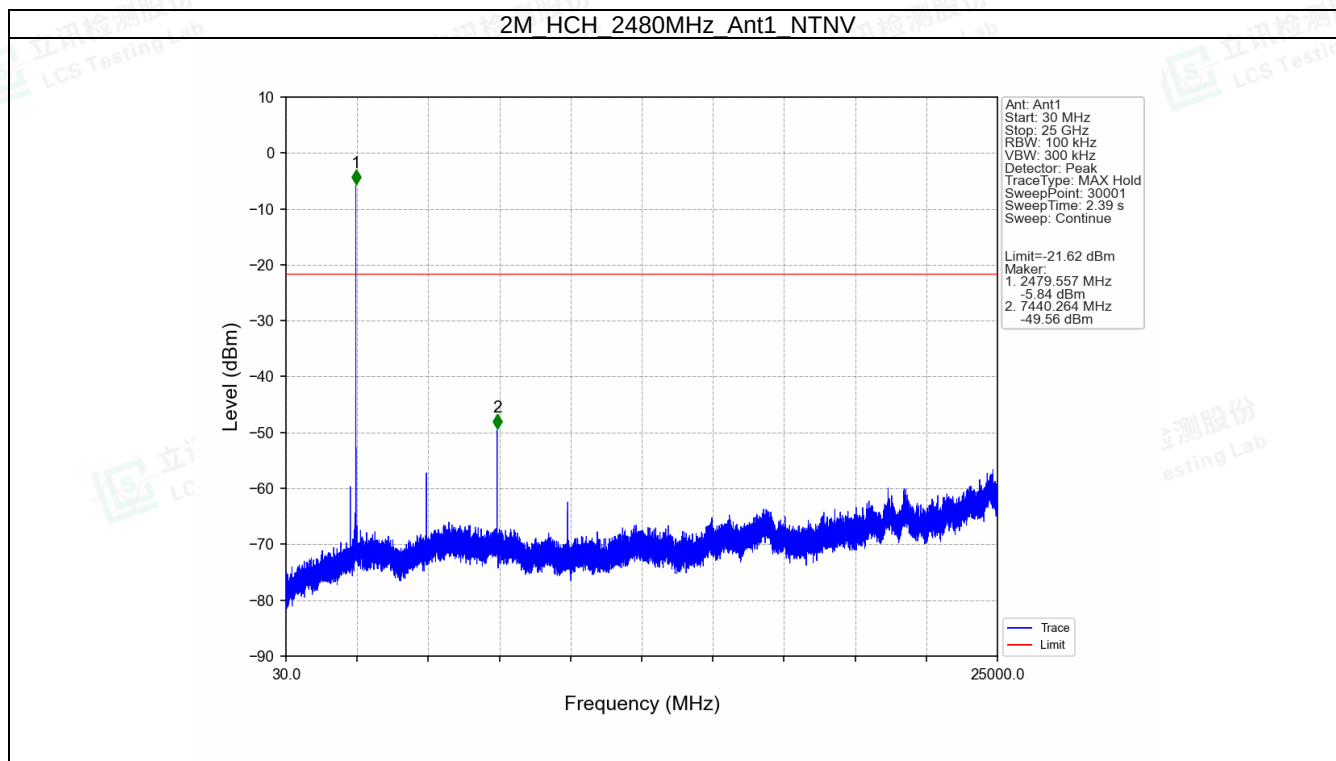


2M LCH 2402MHz Ant1 NTN



2M MCH 2440MHz Ant1 NTN







A.6 Duty Cycle

6.1 Test Result

6.1.1 Ant1

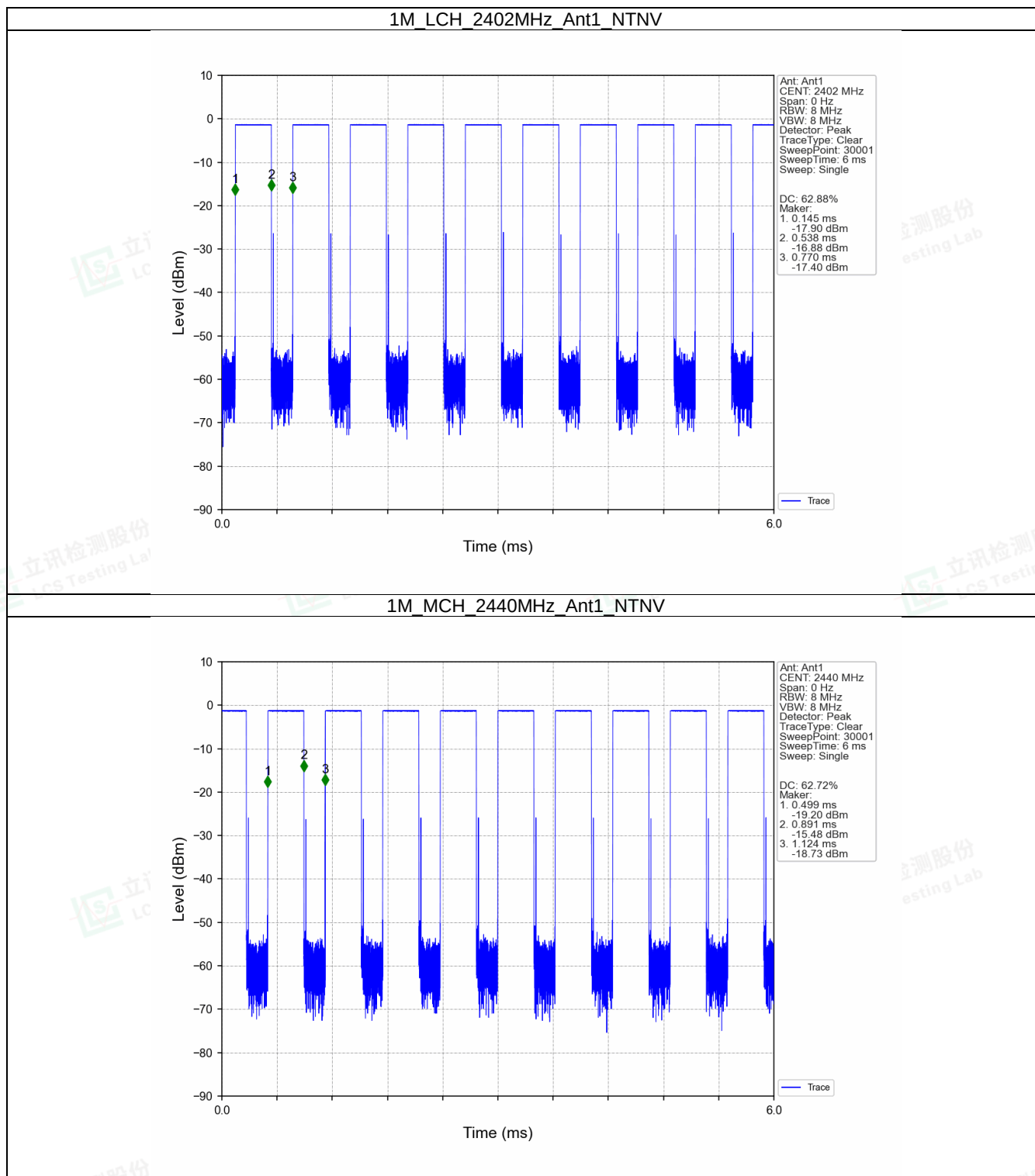
Ant1							
Mode	TX Type	Frequency (MHz)	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
1M	SISO	2402	0.393	0.625	62.88	2.01	0.00
		2440	0.392	0.625	62.72	2.03	0.00
		2480	0.392	0.625	62.72	2.03	0.03
2M	SISO	2402	0.208	0.625	33.28	4.78	0.03
		2440	0.209	0.625	33.44	4.76	0.00
		2480	0.209	0.625	33.44	4.76	0.03





6.2 Test Graph

6.2.1 Ant1



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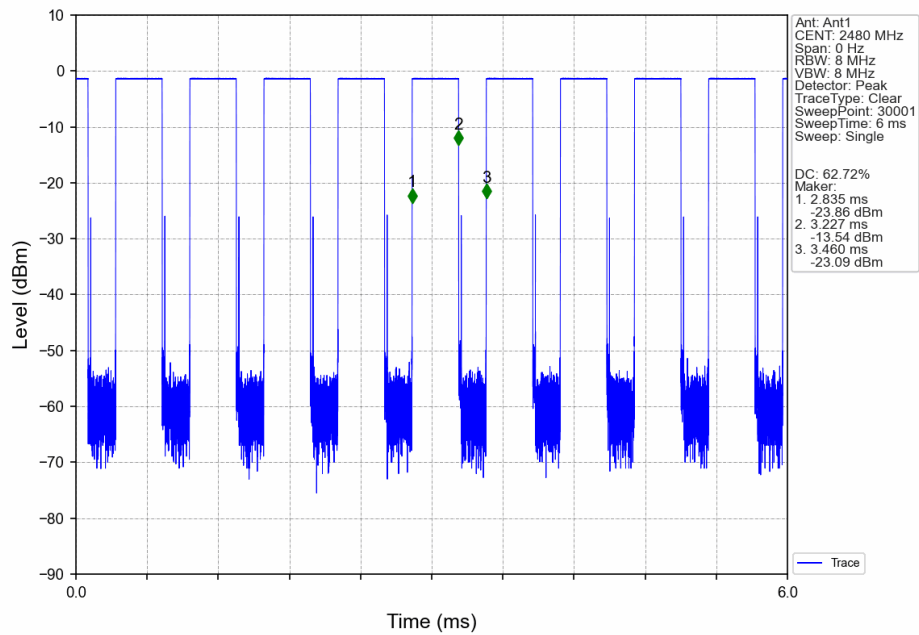
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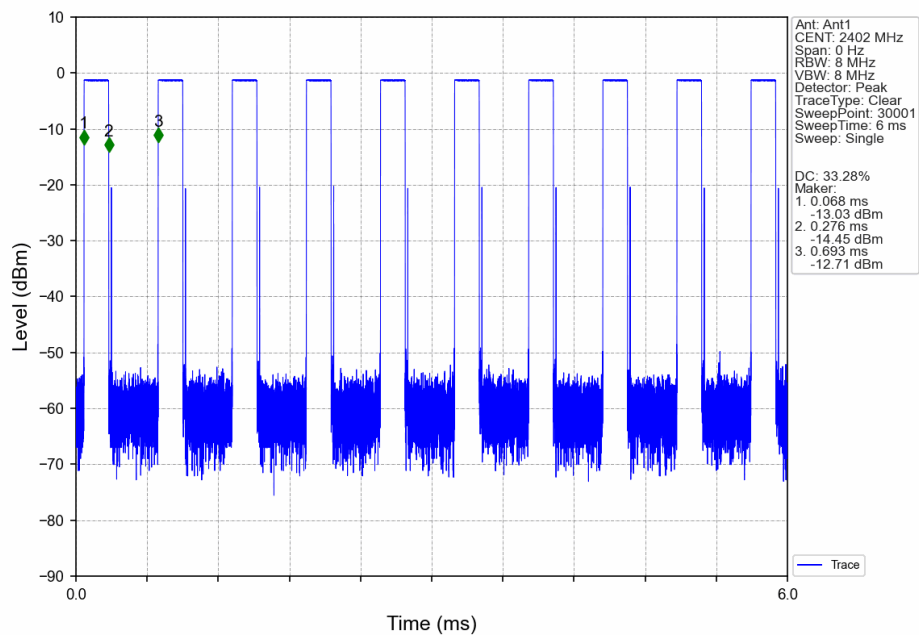
Scan code to check authenticity



1M HCH 2480MHz Ant1 NTNV

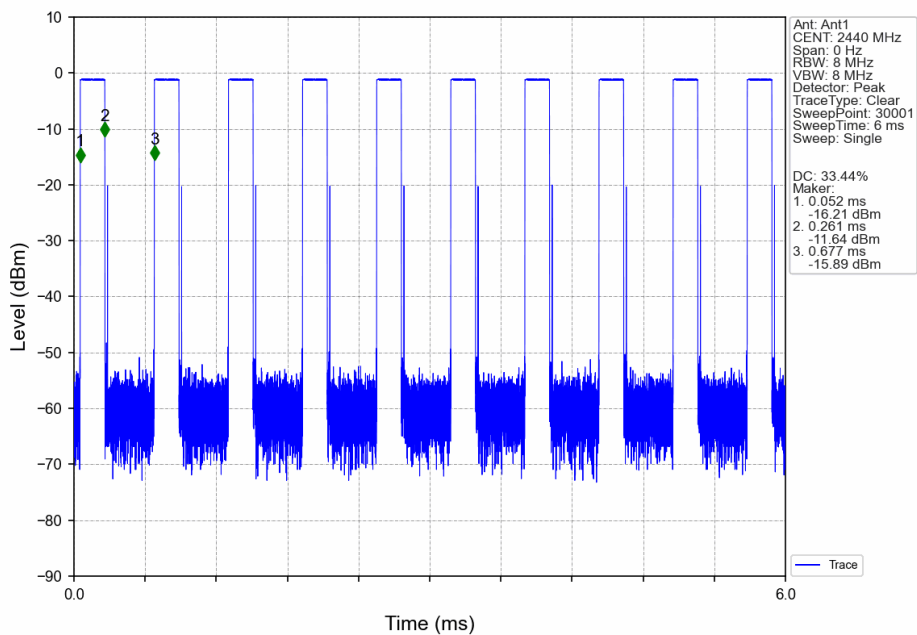


2M LCH 2402MHz Ant1 NTNV

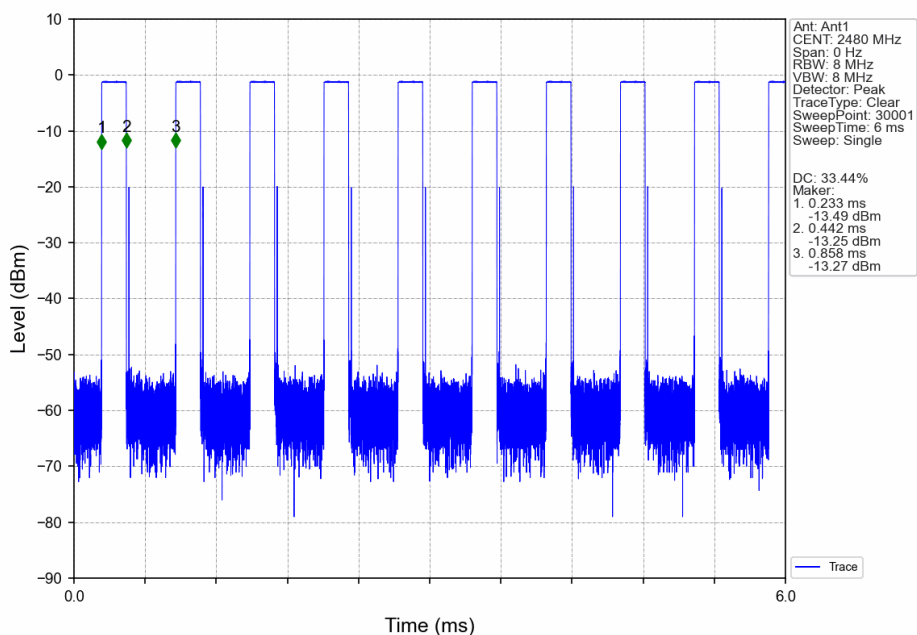




2M MCH 2440MHz Ant1 NTVN



2M HCH 2480MHz Ant1 NTVN





A.7 Restrict Band

Condition	Mode	Frequency (MHz)	Antenna	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	Duty Factor (dB)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	BLE 1M	2402	Ant1	2310	-49.59	2.499	-	48.169	Peak	74	Pass
NVNT	BLE 1M	2402	Ant1	2310	-58.87	2.499	2.01	40.899	Average	54	Pass
NVNT	BLE 1M	2402	Ant1	2385.84	-48.12	2.499	-	49.639	Peak	74	Pass
NVNT	BLE 1M	2402	Ant1	2372.496	-58.33	2.499	2.01	41.439	Average	54	Pass
NVNT	BLE 1M	2402	Ant1	2390	-50.53	2.499	-	47.229	Peak	74	Pass
NVNT	BLE 1M	2402	Ant1	2390	-58.72	2.499	2.01	41.049	Average	54	Pass
NVNT	BLE 1M	2480	Ant1	2483.5	-49.6	2.499	-	48.159	Peak	74	Pass
NVNT	BLE 1M	2480	Ant1	2483.5	-57.74	2.499	2.03	42.049	Average	54	Pass
NVNT	BLE 1M	2480	Ant1	2486.152	-43.45	2.499	-	54.309	Peak	74	Pass
NVNT	BLE 1M	2480	Ant1	2483.584	-57.59	2.499	2.03	42.199	Average	54	Pass
NVNT	BLE 1M	2480	Ant1	2500	-49.61	2.499	-	48.149	Peak	74	Pass
NVNT	BLE 1M	2480	Ant1	2500	-58.14	2.499	2.03	41.649	Average	54	Pass
NVNT	BLE 2M	2402	Ant1	2310	-51.83	2.499	-	45.929	Peak	74	Pass
NVNT	BLE 2M	2402	Ant1	2310	-59.21	2.499	4.78	43.329	Average	54	Pass
NVNT	BLE 2M	2402	Ant1	2381.712	-46.11	2.499	-	51.649	Peak	74	Pass
NVNT	BLE 2M	2402	Ant1	2384.112	-57.94	2.499	4.78	44.599	Average	54	Pass
NVNT	BLE 2M	2402	Ant1	2390	-50.15	2.499	-	47.609	Peak	74	Pass
NVNT	BLE 2M	2402	Ant1	2390	-58.35	2.499	4.78	44.189	Average	54	Pass
NVNT	BLE 2M	2480	Ant1	2483.5	-48.67	2.499	-	49.089	Peak	74	Pass
NVNT	BLE 2M	2480	Ant1	2483.5	-57.77	2.499	4.76	44.749	Average	54	Pass
NVNT	BLE 2M	2480	Ant1	2484.88	-45.25	2.499	-	52.509	Peak	74	Pass
NVNT	BLE 2M	2480	Ant1	2494.84	-57.07	2.499	4.76	45.449	Average	54	Pass
NVNT	BLE 2M	2480	Ant1	2500	-48.49	2.499	-	49.269	Peak	74	Pass
NVNT	BLE 2M	2480	Ant1	2500	-58.72	2.499	4.76	43.799	Average	54	Pass



