

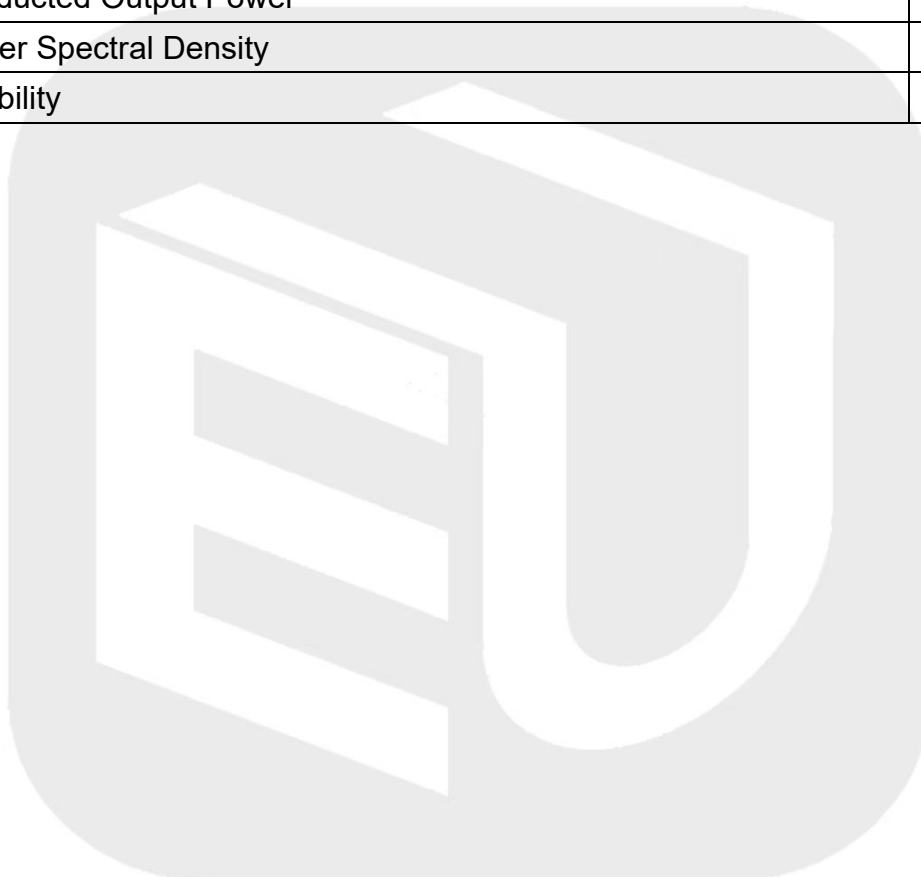
ANNEX F TEST DATA

For

Project No.:	8232EU012808W
Client:	Cheerlux (Shenzhen) Electronic Technology Co., Ltd.
Product Description:	Projector
Model No.:	E1
FCC ID:	2AYQQ-E1
Technology:	WiFi 5G
Test Engineer:	<i>Mikoy zhu</i>
Test Date:	2024-09-11

Test Summary

Item	Result
Duty Cycle	Pass
Bandwidth	Pass
Maximum Conducted Output Power	Pass
Maximum Power Spectral Density	Pass
Frequency Stability	Pass



1. Duty Cycle

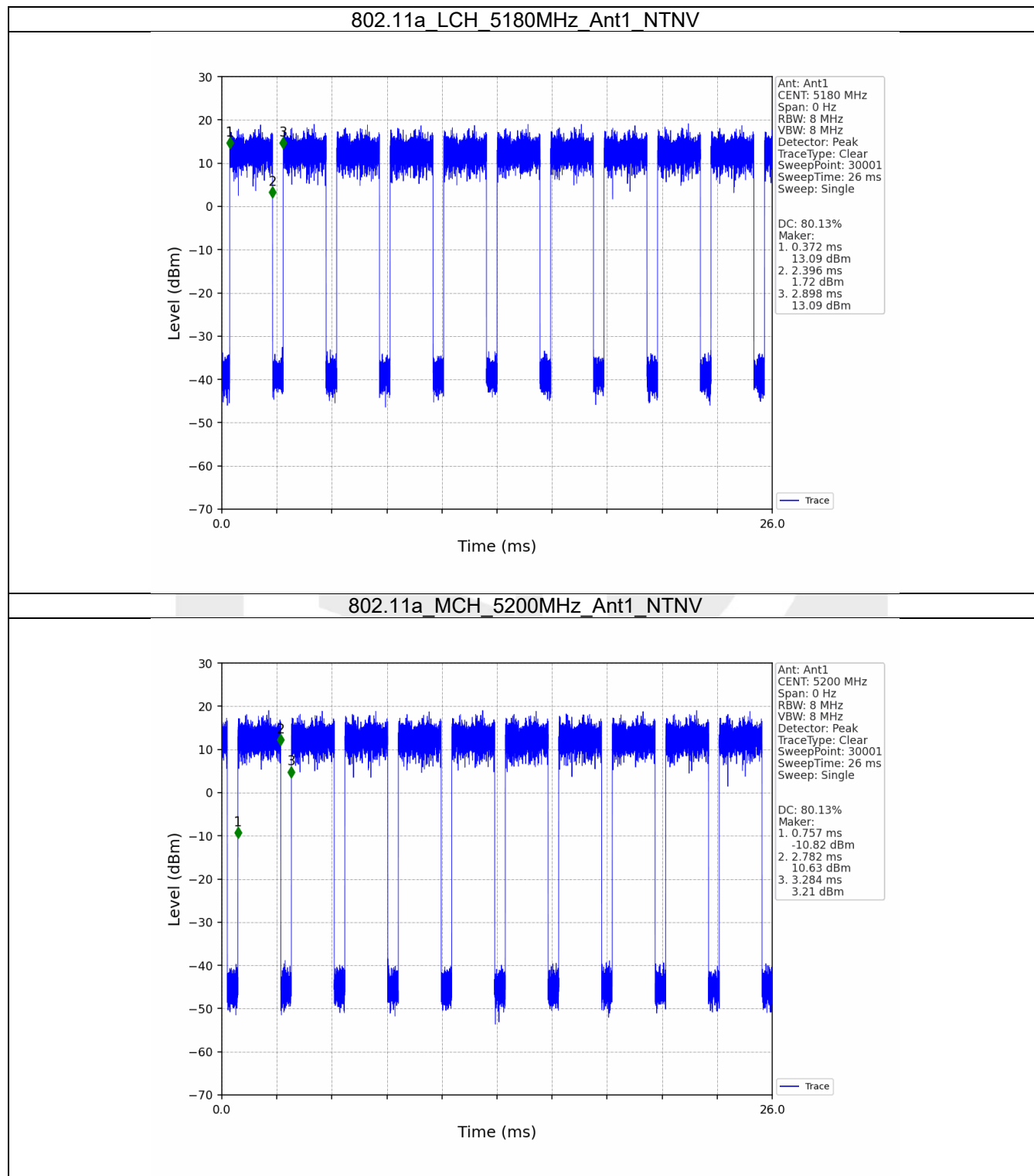
1.1 Test Result

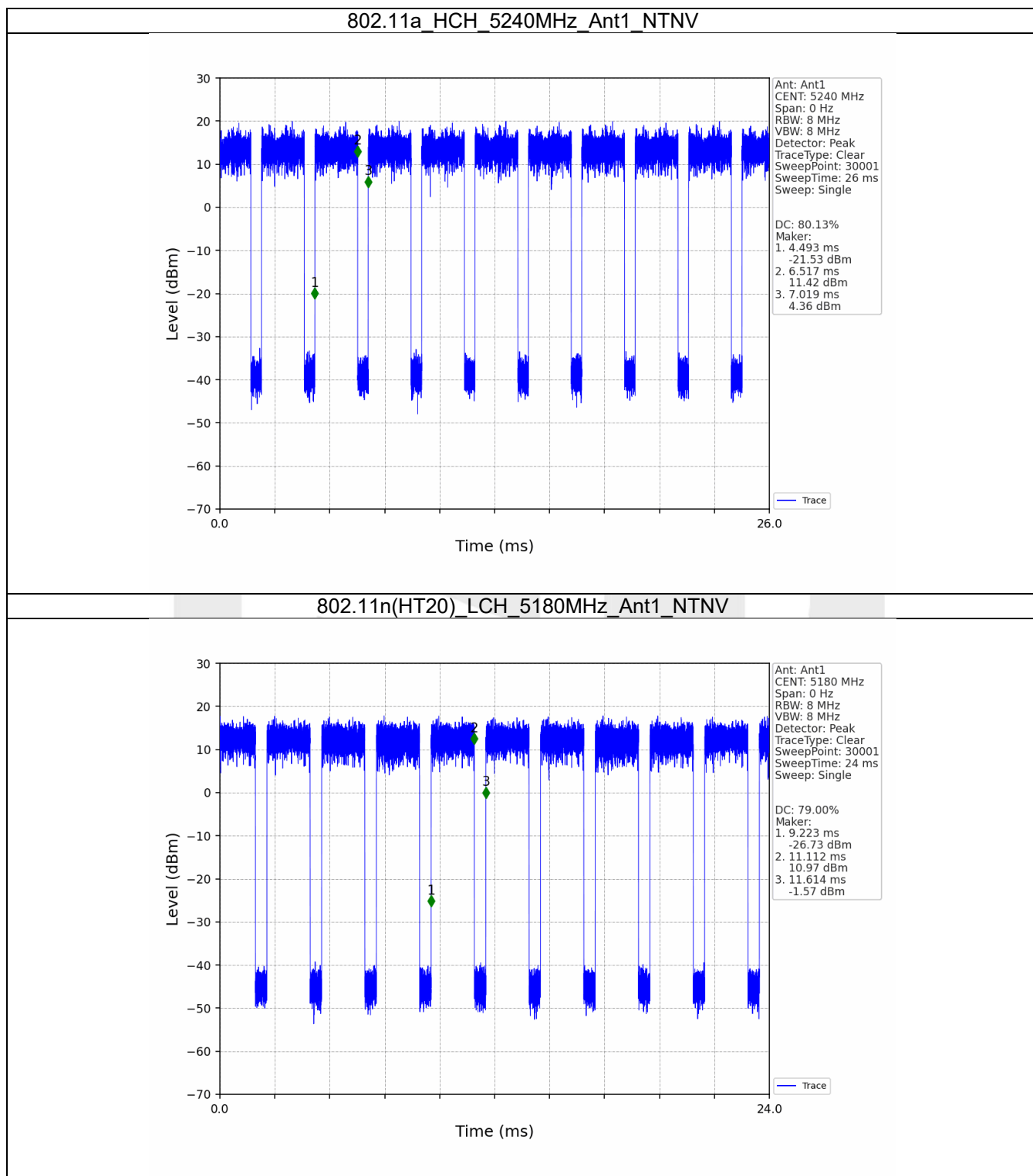
1.1.1 Ant1

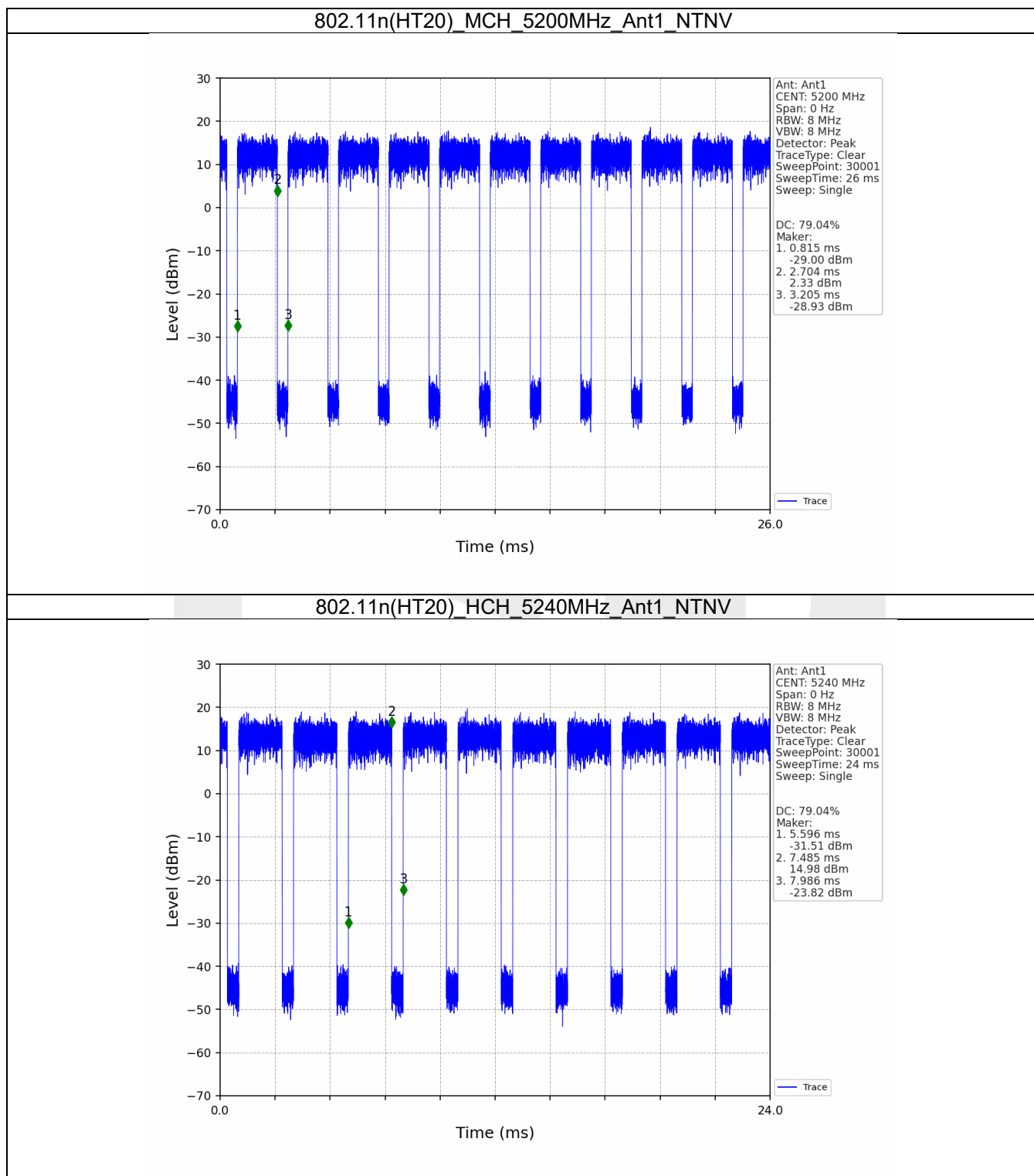
Ant1							
Mode	TX Type	Frequency (MHz)	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
802.11a	SISO	5180	2.024	2.526	80.13	0.96	0.03
		5200	2.025	2.527	80.13	0.96	0.03
		5240	2.024	2.526	80.13	0.96	0.03
802.11n (HT20)	SISO	5180	1.889	2.391	79.00	1.02	0.03
		5200	1.889	2.390	79.04	1.02	0.00
		5240	1.889	2.390	79.04	1.02	0.03
802.11n (HT40)	SISO	5190	0.929	1.431	64.92	1.88	0.03
		5230	0.928	1.430	64.90	1.88	0.01

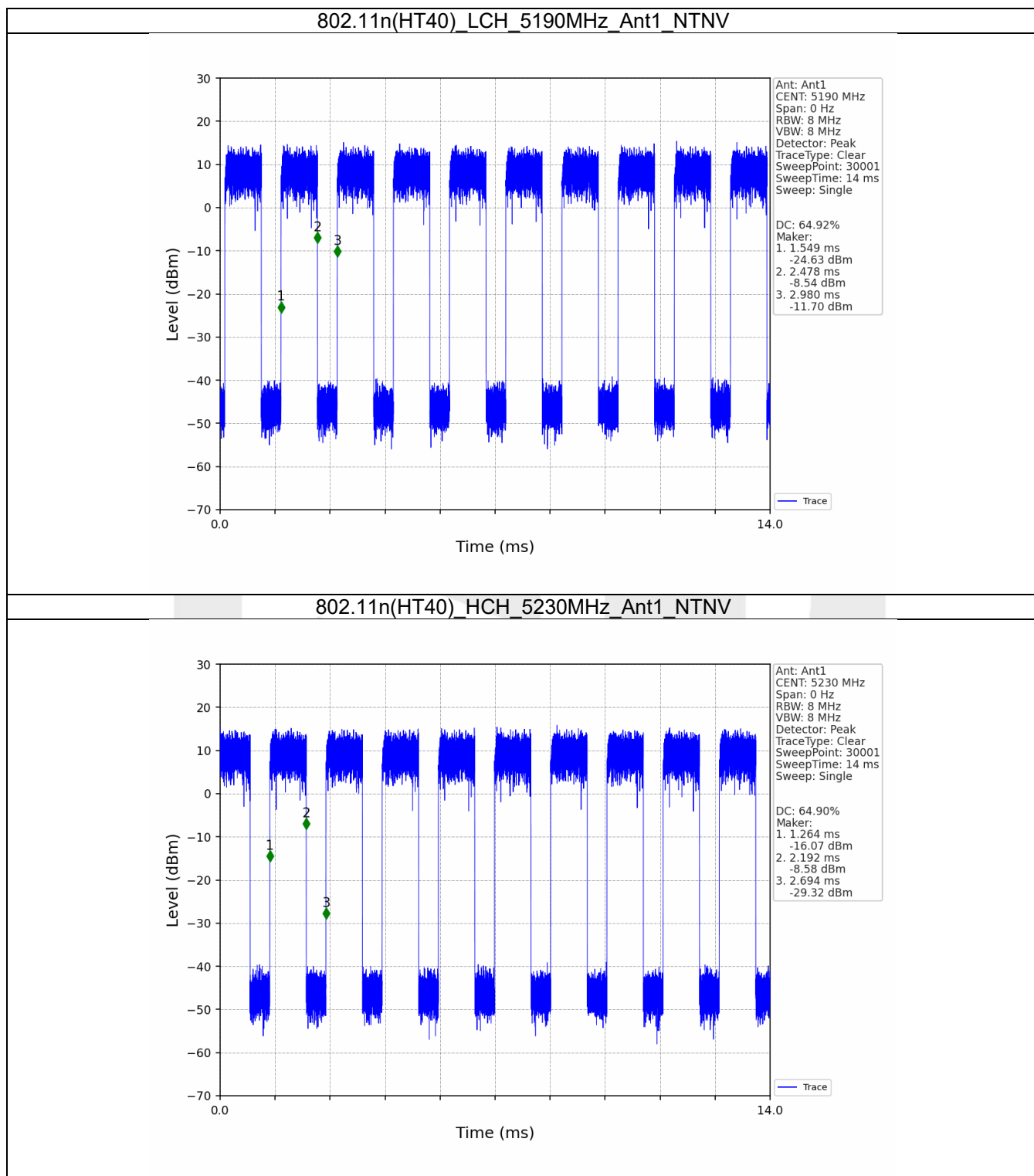
1.2 Test Graph

1.2.1 Ant1









2. Bandwidth

2.1 Test Result

2.1.1 OBW

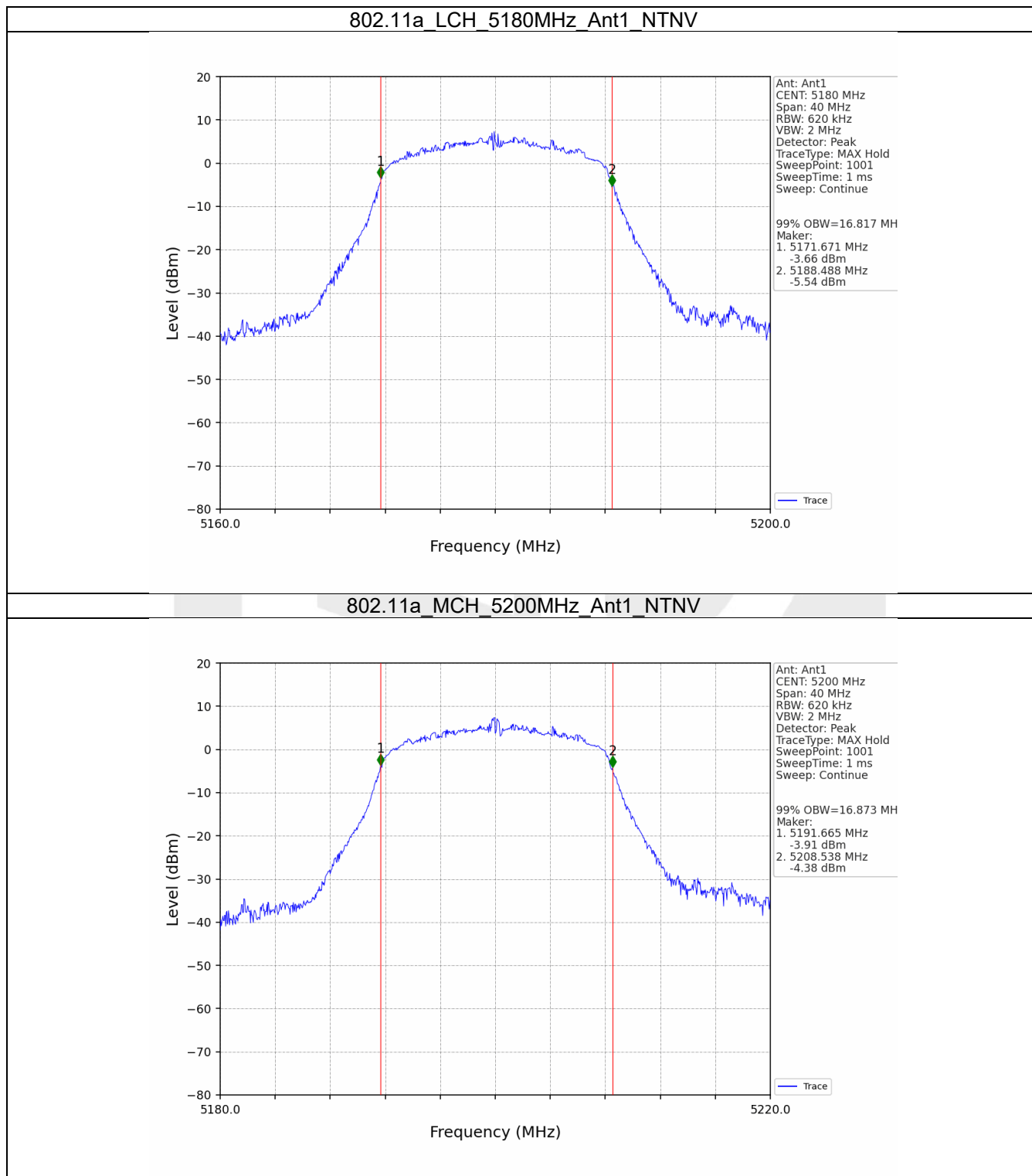
Mode	TX Type	Frequency (MHz)	ANT	99% Occupied Bandwidth (MHz)		Verdict
				Result	Limit	
802.11a	SISO	5180	1	16.817	/	Pass
		5200	1	16.873	/	Pass
		5240	1	16.749	/	Pass
802.11n (HT20)	SISO	5180	1	17.974	/	Pass
		5200	1	18.007	/	Pass
		5240	1	17.862	/	Pass
802.11n (HT40)	SISO	5190	1	35.324	/	Pass
		5230	1	35.218	/	Pass

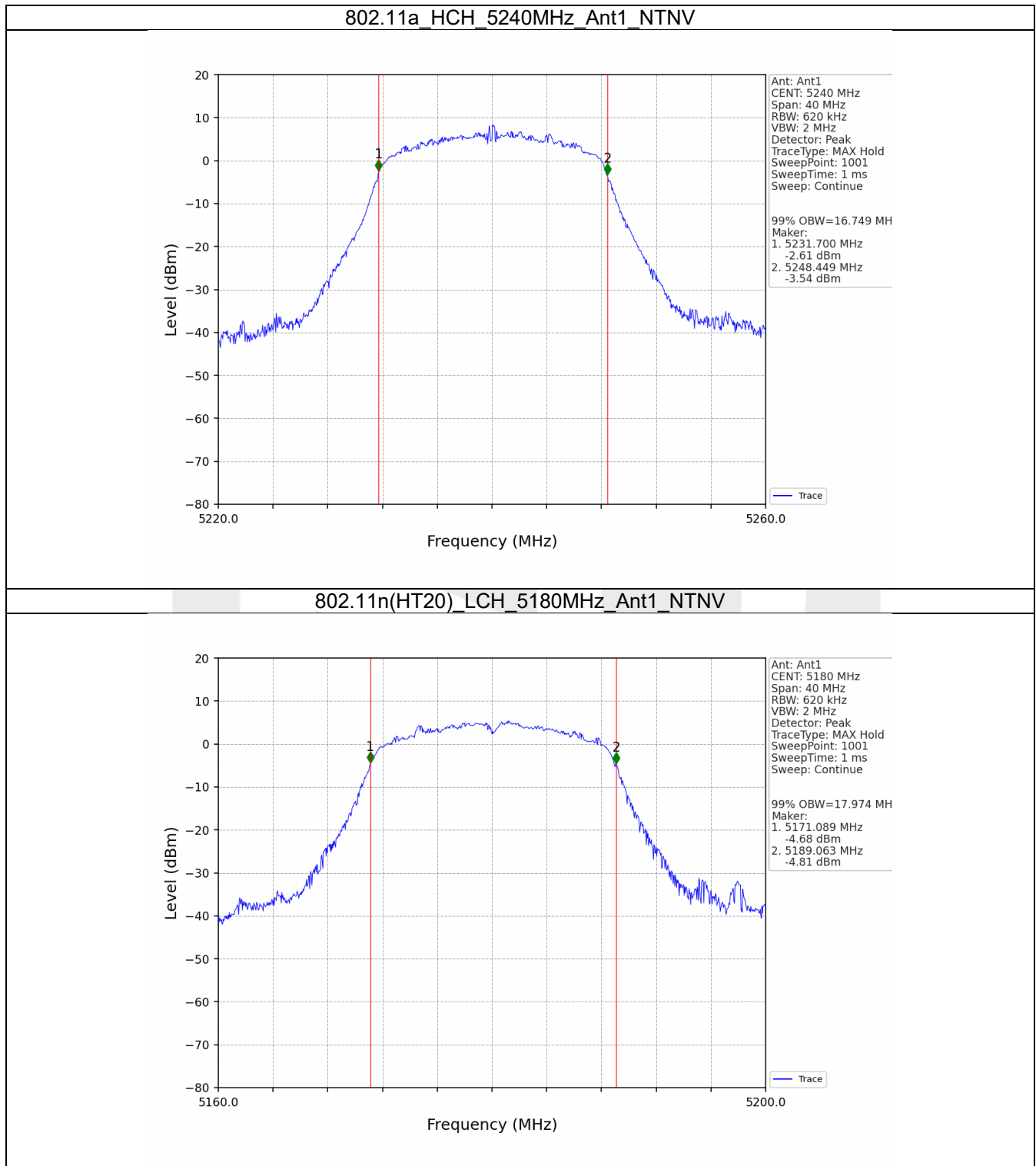
2.1.2 26dB BW

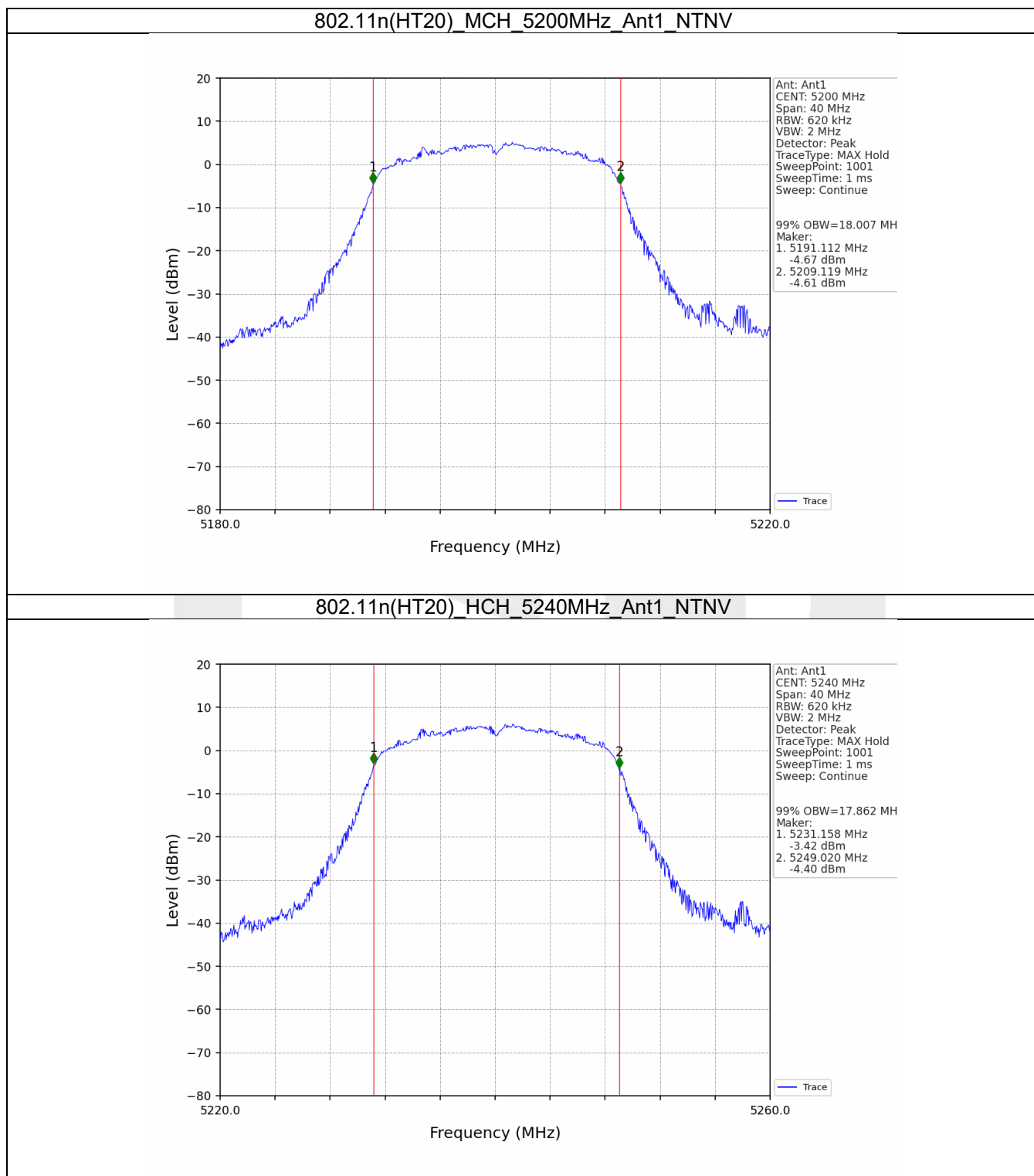
Mode	TX Type	Frequency (MHz)	ANT	26dB Bandwidth (MHz)		Verdict
				Result	Limit	
802.11a	SISO	5180	1	19.352	/	Pass
		5200	1	19.549	/	Pass
		5240	1	19.177	/	Pass
802.11n (HT20)	SISO	5180	1	20.335	/	Pass
		5200	1	20.654	/	Pass
		5240	1	20.168	/	Pass
802.11n (HT40)	SISO	5190	1	38.204	/	Pass
		5230	1	38.254	/	Pass

2.2 Test Graph

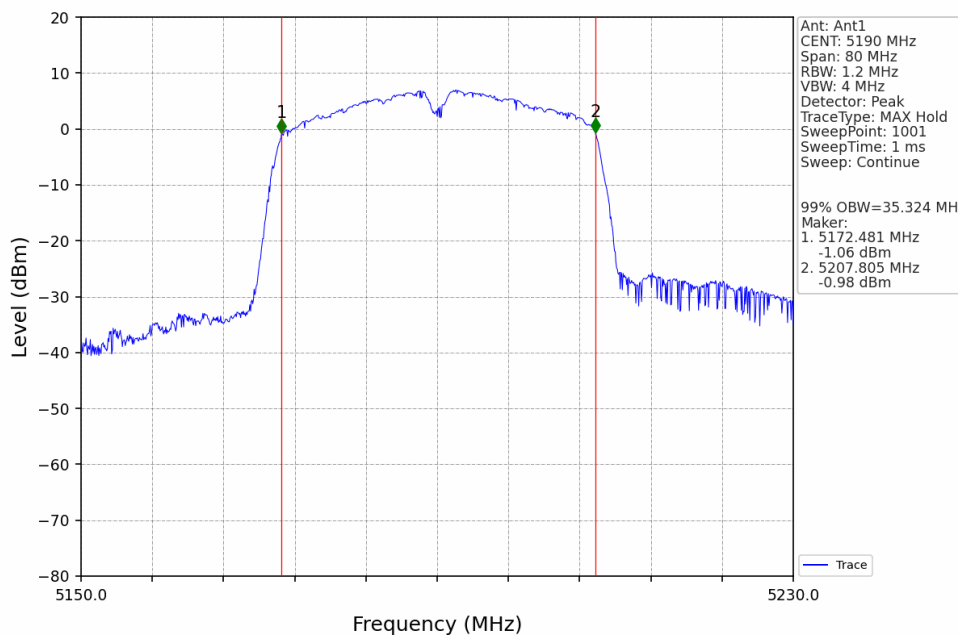
2.2.1 OBW



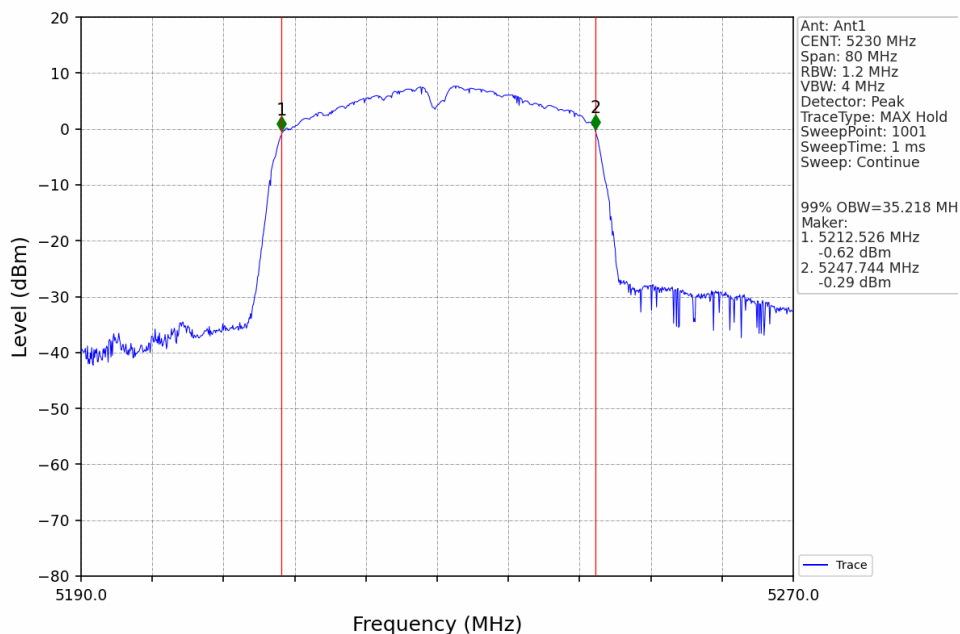




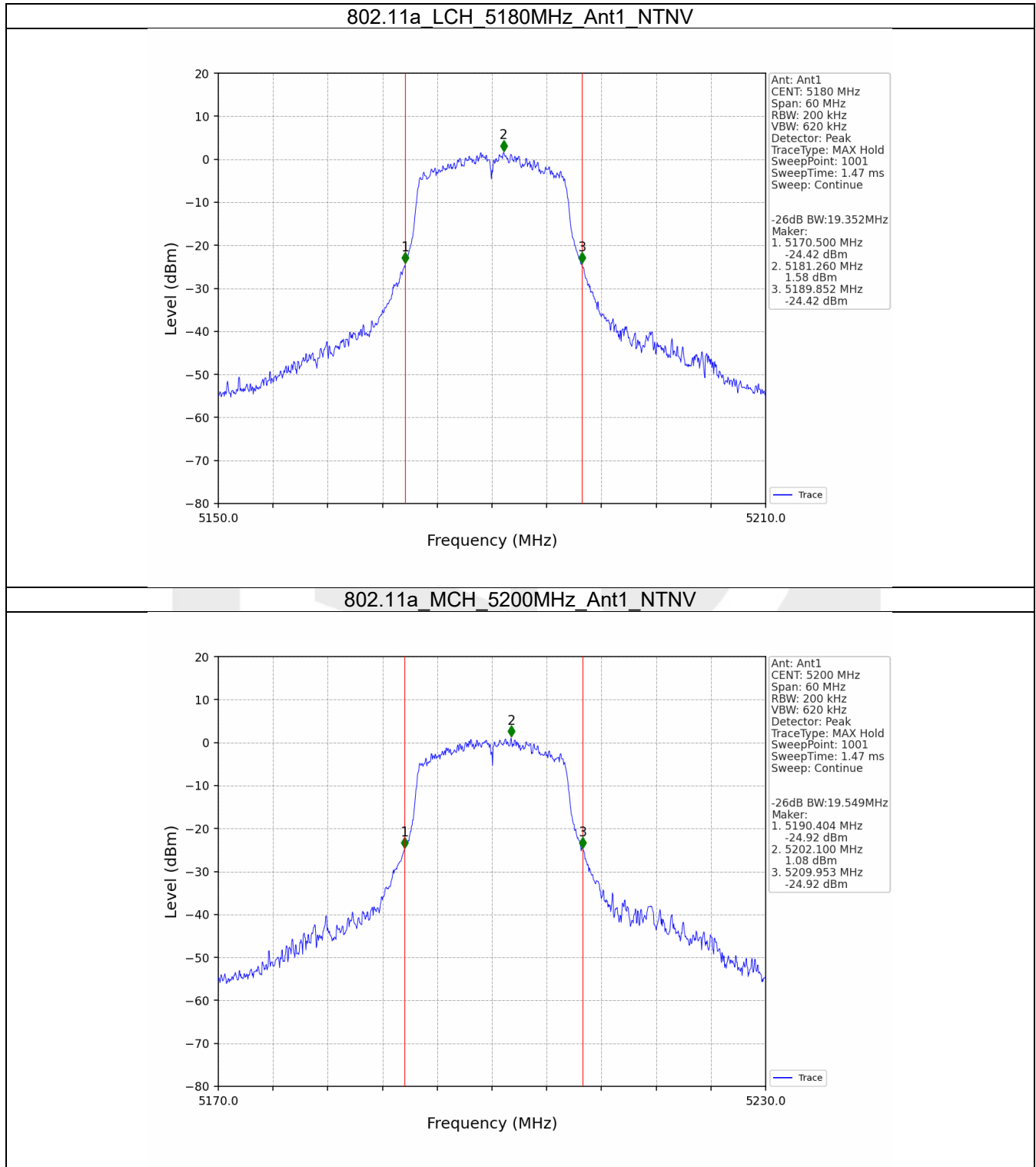
802.11n(HT40)_LCH_5190MHz_Ant1_NTNV

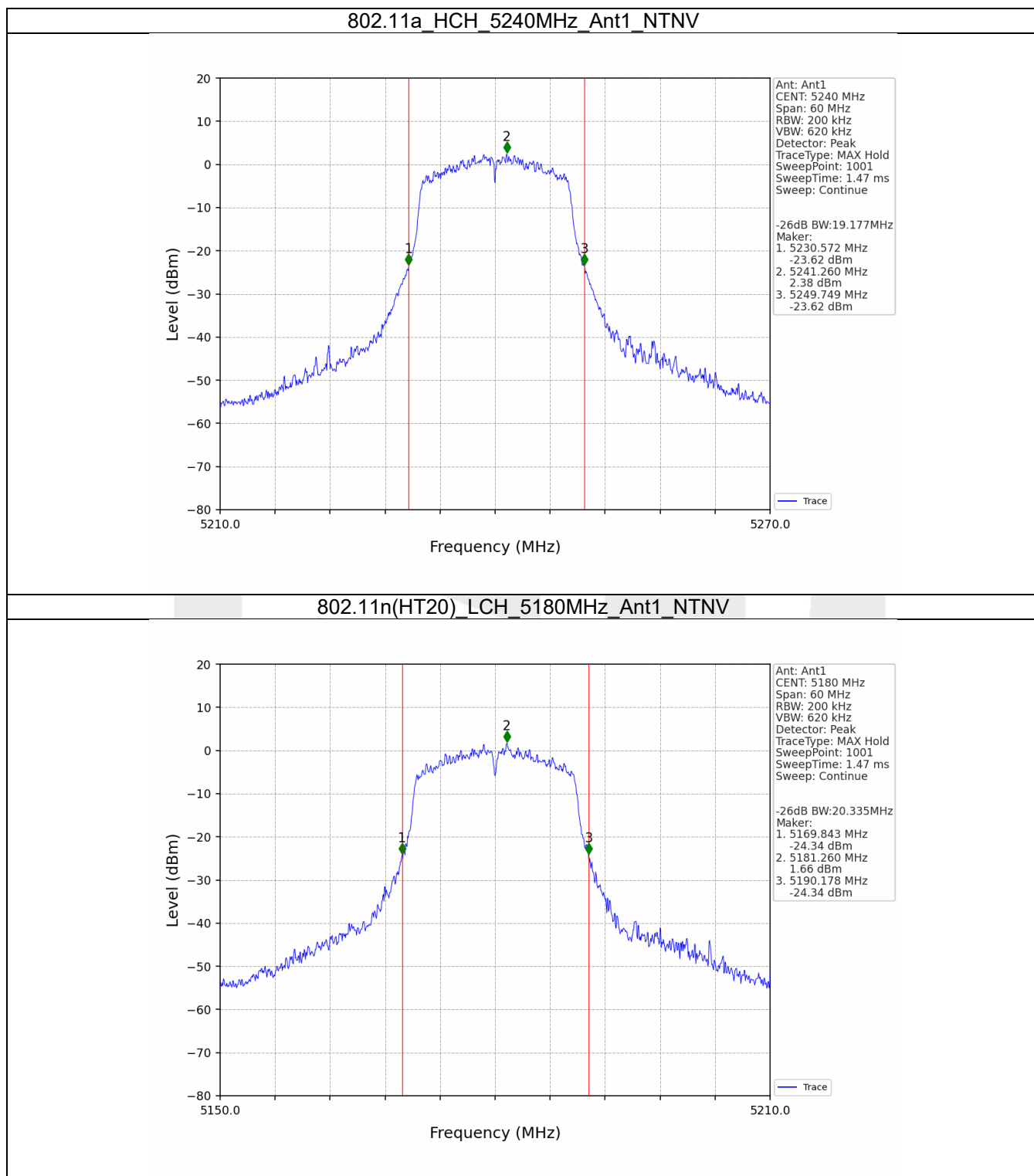


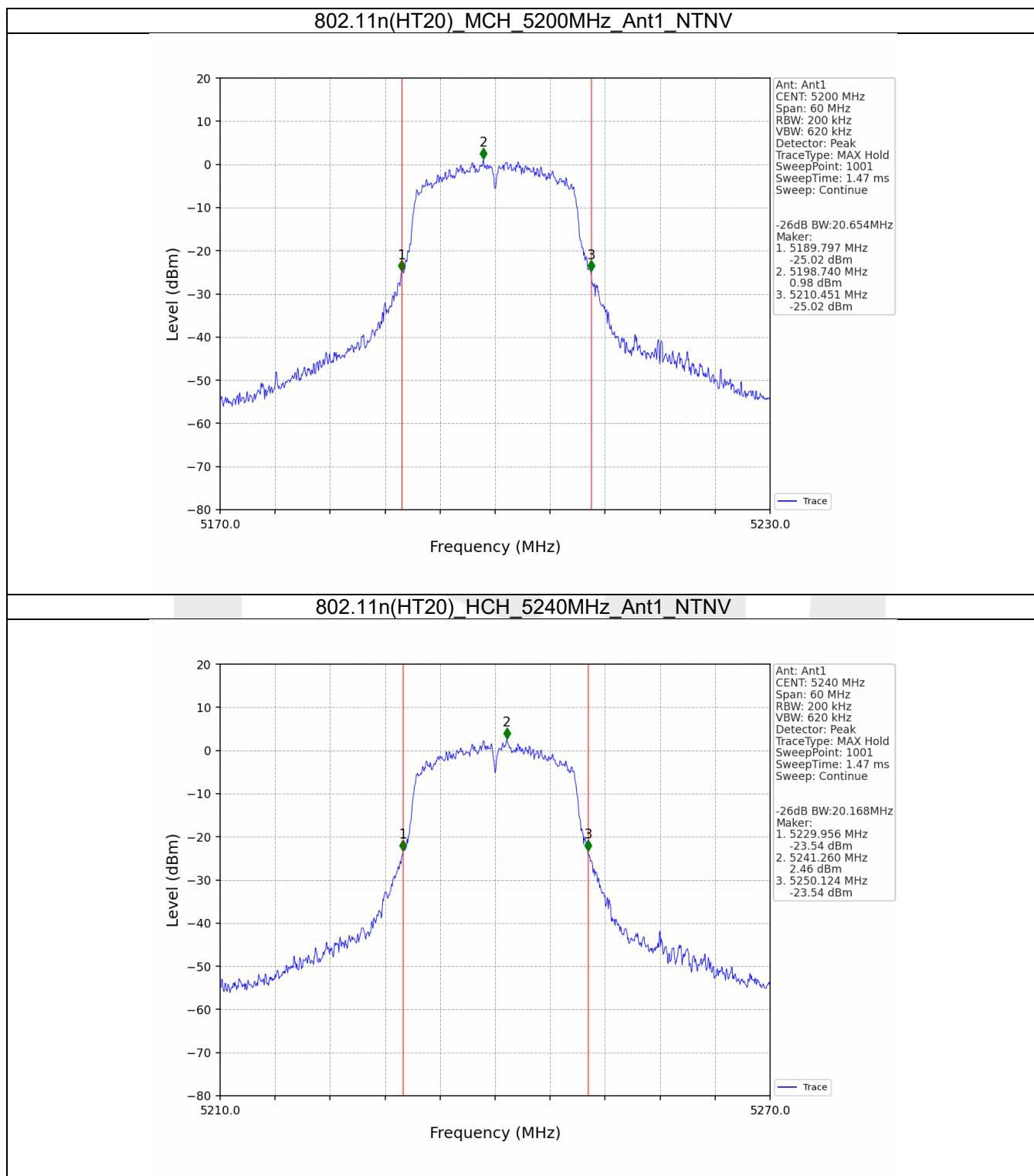
802.11n(HT40)_HCH_5230MHz_Ant1_NTNV

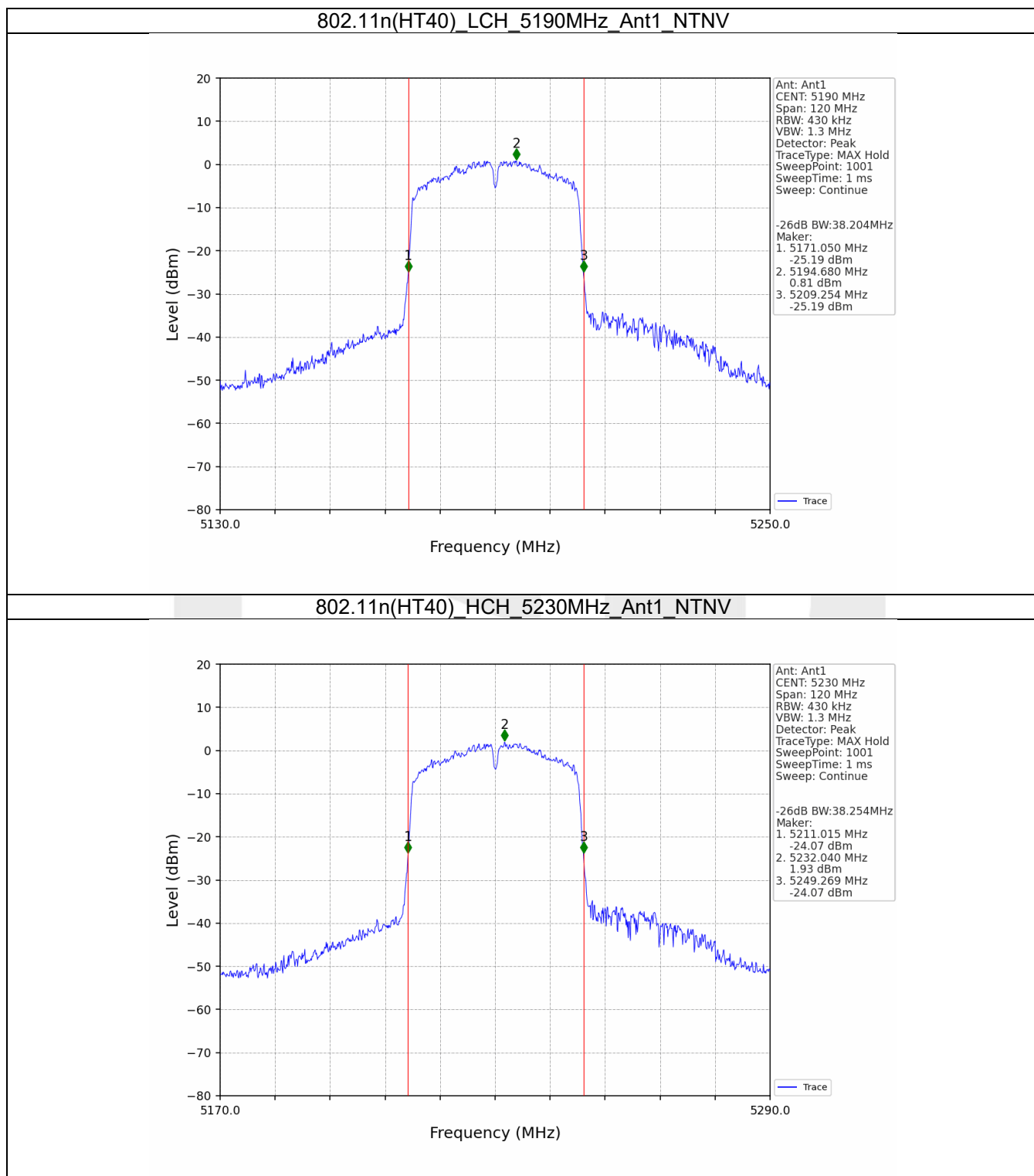


2.2.2 26dB BW









3. Maximum Conducted Output Power

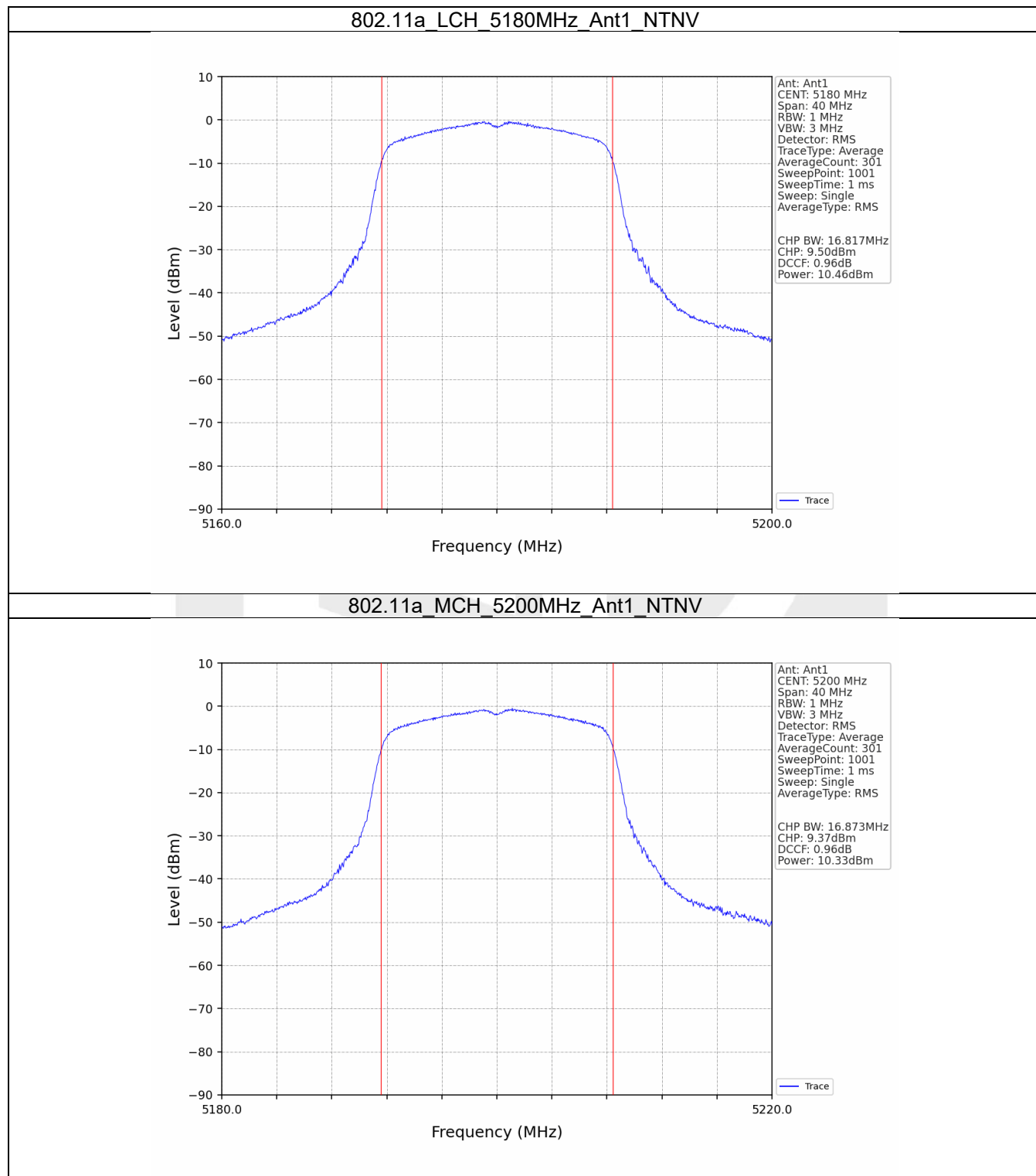
3.1 Test Result

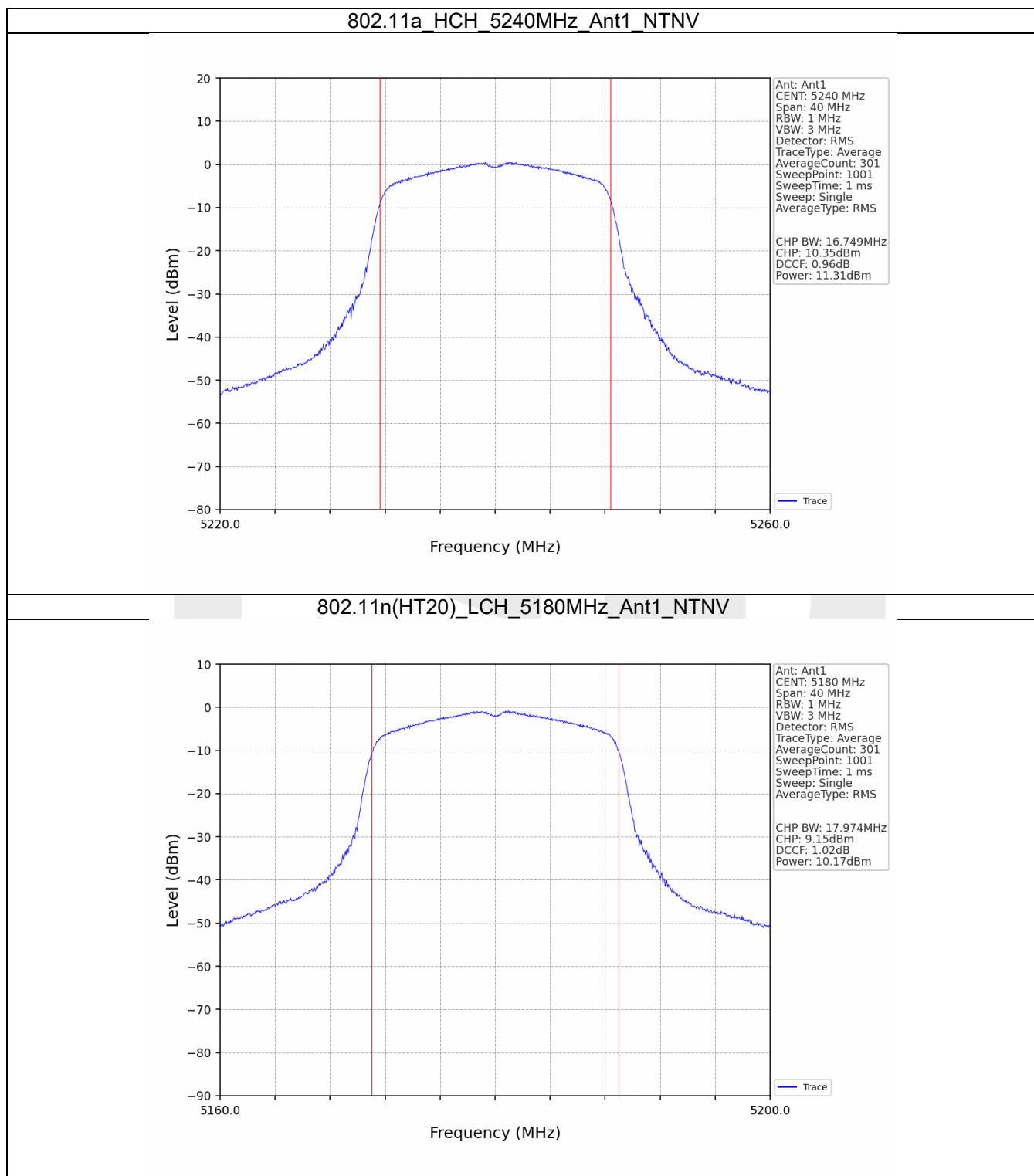
3.1.1 Power

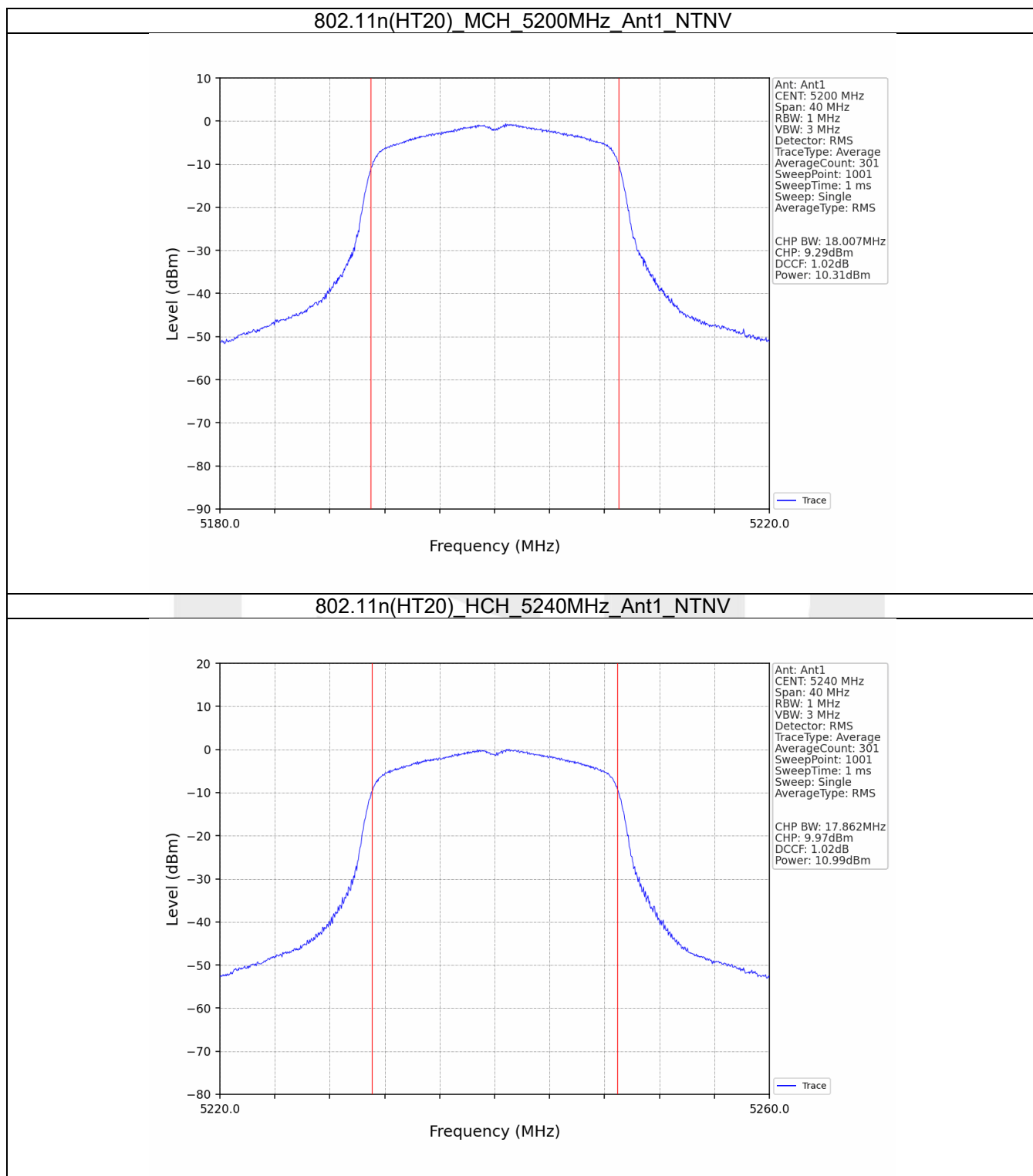
Mode	TX Type	Frequency (MHz)	Maximum Average Conducted Output Power (dBm)		Verdict
			ANT1	Limit	
802.11a	SISO	5180	10.46	≤ 23.98	Pass
		5200	10.33	≤ 23.98	Pass
		5240	11.31	≤ 23.98	Pass
802.11n (HT20)	SISO	5180	10.17	≤ 23.98	Pass
		5200	10.31	≤ 23.98	Pass
		5240	10.99	≤ 23.98	Pass
802.11n (HT40)	SISO	5190	10.33	≤ 23.98	Pass
		5230	10.70	≤ 23.98	Pass

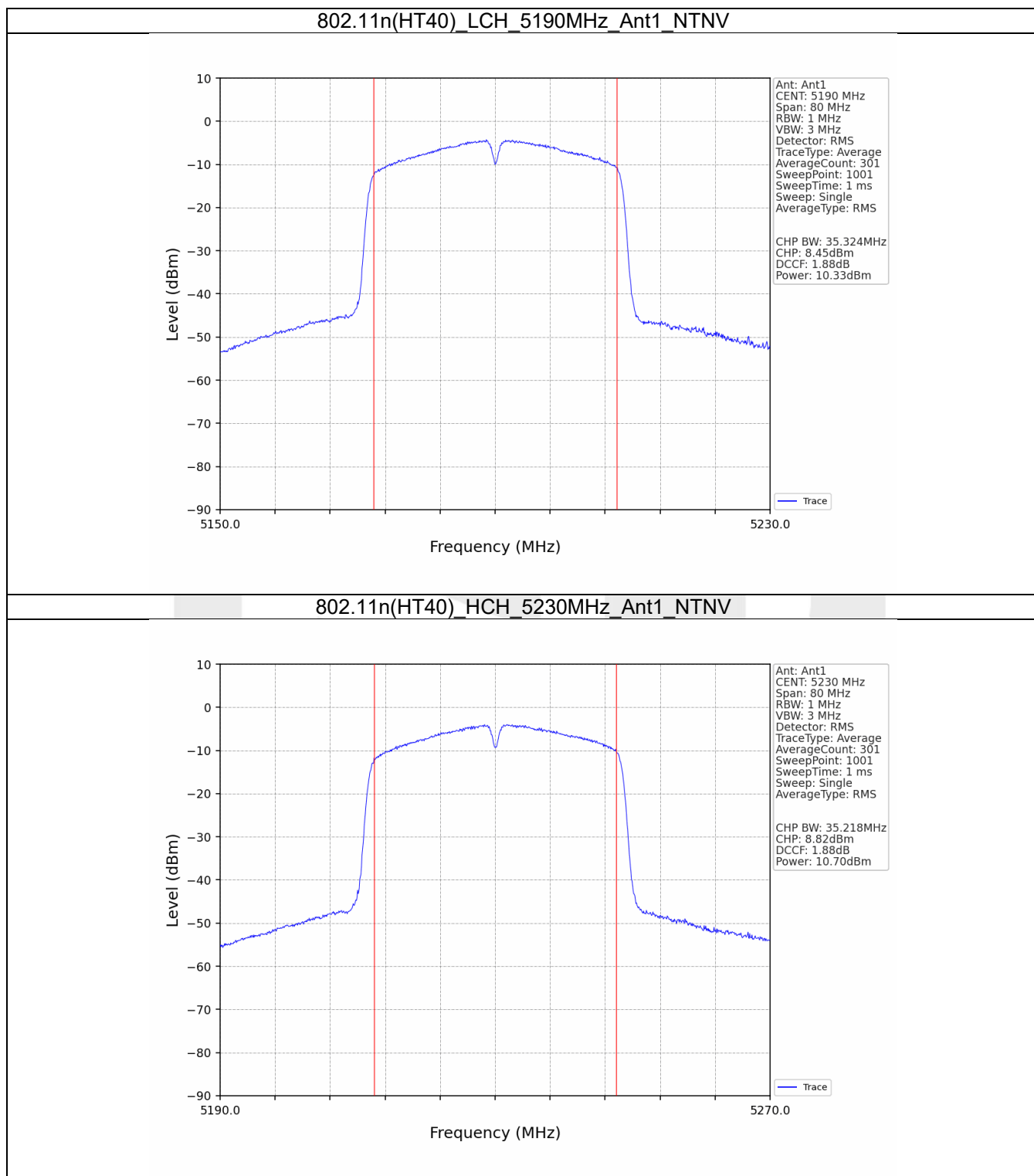
3.2 Test Graph

3.2.1 Power









4. Maximum Power Spectral Density

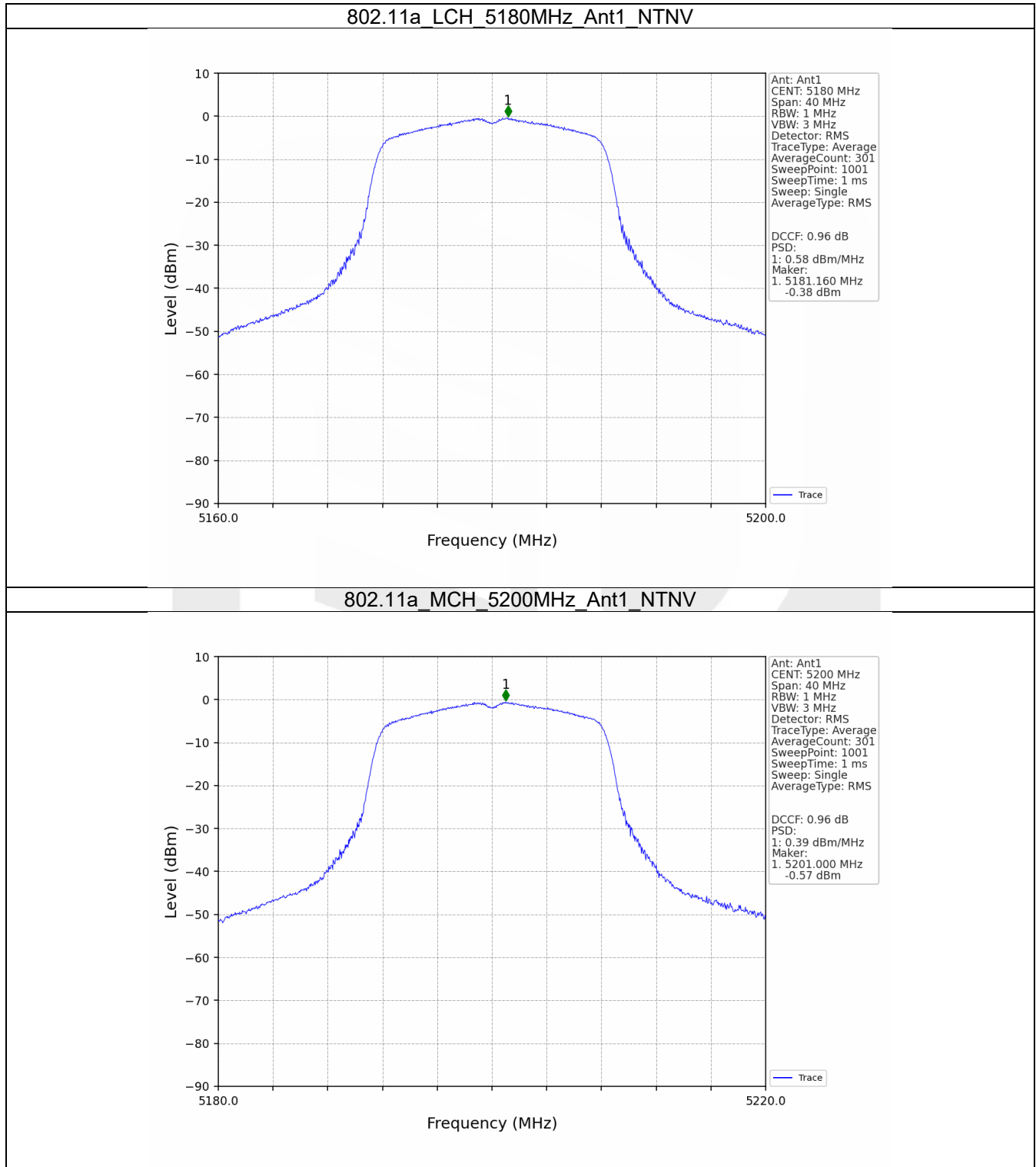
4.1 Test Result

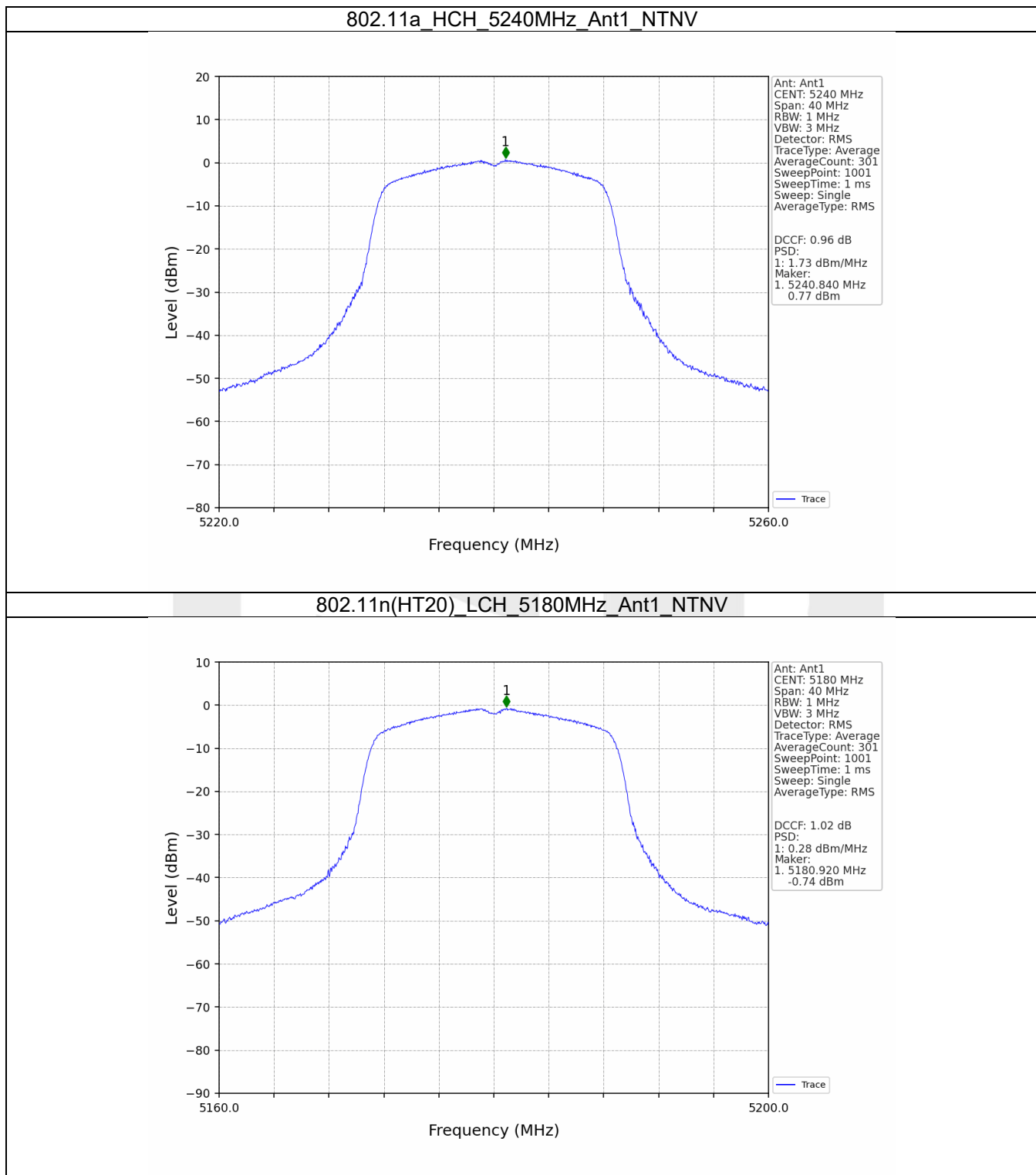
4.1.1 PSD

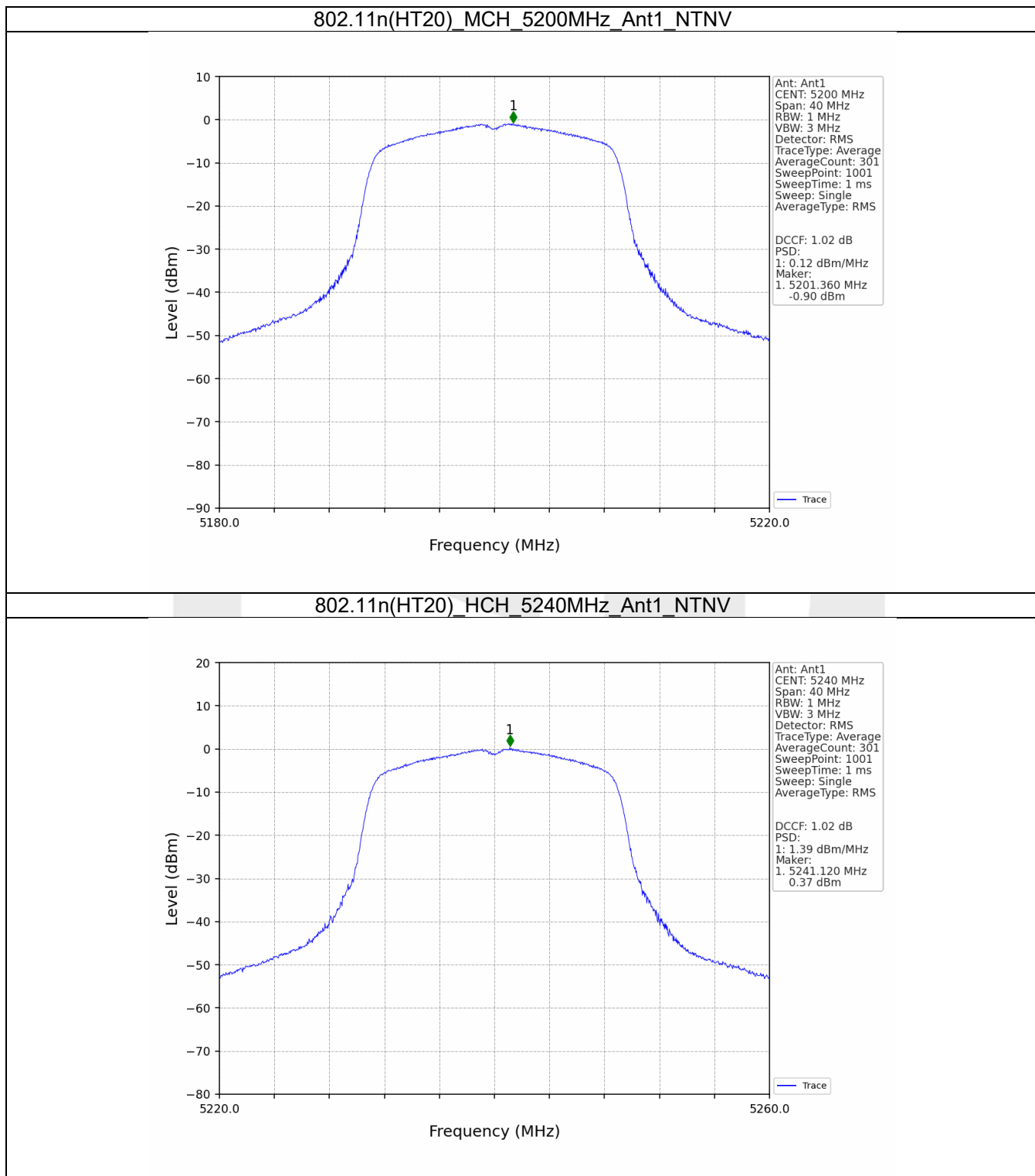
Mode	TX Type	Frequency (MHz)	Maximum PSD (dBm/MHz)		Verdict
			ANT1	Limit	
802.11a	SISO	5180	0.58	≤ 11	Pass
		5200	0.39	≤ 11	Pass
		5240	1.73	≤ 11	Pass
802.11n (HT20)	SISO	5180	0.28	≤ 11	Pass
		5200	0.12	≤ 11	Pass
		5240	1.39	≤ 11	Pass
802.11n (HT40)	SISO	5190	-2.27	≤ 11	Pass
		5230	-2.16	≤ 11	Pass

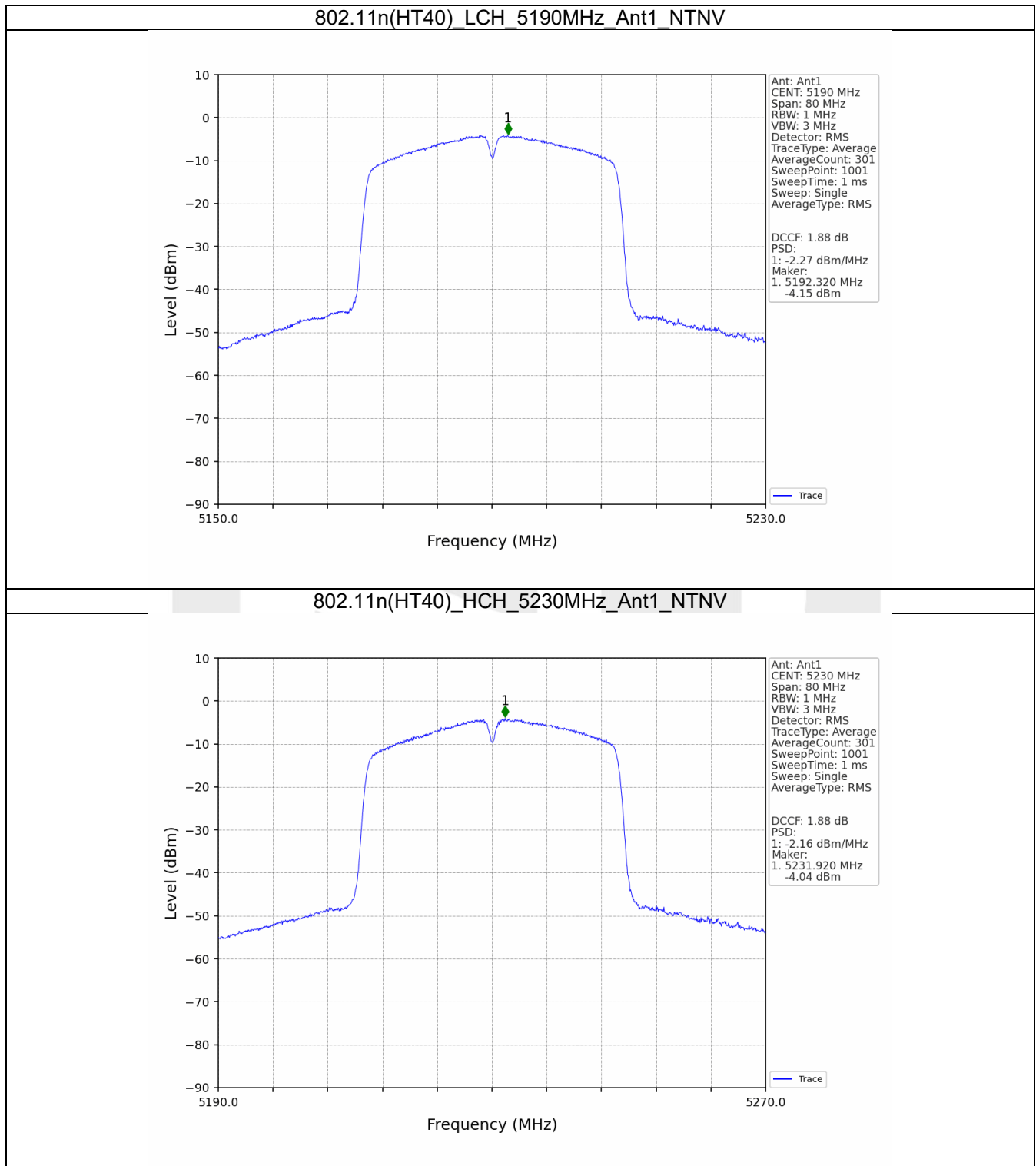
4.2 Test Graph

4.2.1 PSD









5. Frequency Stability

5.1 Test Result

5.1.1 Ant1

Ant1							
Mode	Tx Type	Frequency (MHz)	Temperature (°C)	Voltage (VAC)	Measured Frequency (MHz)	Limit (MHz)	Verdict
Carrier Wave	SISO	5180	20	102	5179.968	5150 to 5250	Pass
				120	5179.968	5150 to 5250	Pass
				138	5179.967	5150 to 5250	Pass
			-30	120	5179.967	5150 to 5250	Pass
			-20	120	5179.967	5150 to 5250	Pass
			-10	120	5179.967	5150 to 5250	Pass
			0	120	5179.967	5150 to 5250	Pass
			10	120	5179.967	5150 to 5250	Pass
			30	120	5179.967	5150 to 5250	Pass
			40	120	5179.967	5150 to 5250	Pass
			50	120	5179.967	5150 to 5250	Pass
		5200	20	102	5199.967	5150 to 5250	Pass
				120	5199.967	5150 to 5250	Pass
				138	5199.967	5150 to 5250	Pass
			-30	120	5199.967	5150 to 5250	Pass
			-20	120	5199.967	5150 to 5250	Pass
			-10	120	5199.967	5150 to 5250	Pass
			0	120	5199.967	5150 to 5250	Pass
			10	120	5199.967	5150 to 5250	Pass
			30	120	5199.967	5150 to 5250	Pass
			40	120	5199.967	5150 to 5250	Pass
			50	120	5199.967	5150 to 5250	Pass
		5240	20	102	5239.967	5150 to 5250	Pass
				120	5239.967	5150 to 5250	Pass
				138	5239.967	5150 to 5250	Pass
			-30	120	5239.967	5150 to 5250	Pass
			-20	120	5239.967	5150 to 5250	Pass
			-10	120	5239.967	5150 to 5250	Pass
			0	120	5239.967	5150 to 5250	Pass
			10	120	5239.967	5150 to 5250	Pass
			30	120	5239.967	5150 to 5250	Pass
			40	120	5239.967	5150 to 5250	Pass
			50	120	5239.967	5150 to 5250	Pass
		5190	20	102	5189.967	5150 to 5250	Pass
				120	5189.967	5150 to 5250	Pass
				138	5189.967	5150 to 5250	Pass
			-30	120	5189.967	5150 to 5250	Pass
			-20	120	5189.967	5150 to 5250	Pass
			-10	120	5189.967	5150 to 5250	Pass
			0	120	5189.967	5150 to 5250	Pass
			10	120	5189.967	5150 to 5250	Pass

			30	120	5189.967	5150 to 5250	Pass
			40	120	5189.967	5150 to 5250	Pass
			50	120	5189.967	5150 to 5250	Pass
		5230	20	102	5229.967	5150 to 5250	Pass
				120	5229.967	5150 to 5250	Pass
				138	5229.967	5150 to 5250	Pass
			-30	120	5229.967	5150 to 5250	Pass
			-20	120	5229.967	5150 to 5250	Pass
			-10	120	5229.967	5150 to 5250	Pass
			0	120	5229.967	5150 to 5250	Pass
			10	120	5229.967	5150 to 5250	Pass
			30	120	5229.967	5150 to 5250	Pass
			40	120	5229.967	5150 to 5250	Pass
			50	120	5229.967	5150 to 5250	Pass

----- End of Report -----