

ANNEX E TEST DATA

For

Project No.:	8225EU010802W
Client:	Shenzhen Qianhai Runway Technology Co., LTD
Product Description:	Smart Pet Feeder
Model No.:	F17-C
FCC ID:	2AU2C-F17-C
Technology:	WiFi 5G
Test Engineer:	<i>Mikoy zhu</i>
Test Date:	2024-01-10

Test Summary

Item	Result
Duty Cycle	Pass
Bandwidth	Pass
Maximum Conducted Output Power	Pass
Maximum Power Spectral Density	Pass
Unwanted Emissions In Restricted Frequency Bands	Pass
Frequency Stability	Pass

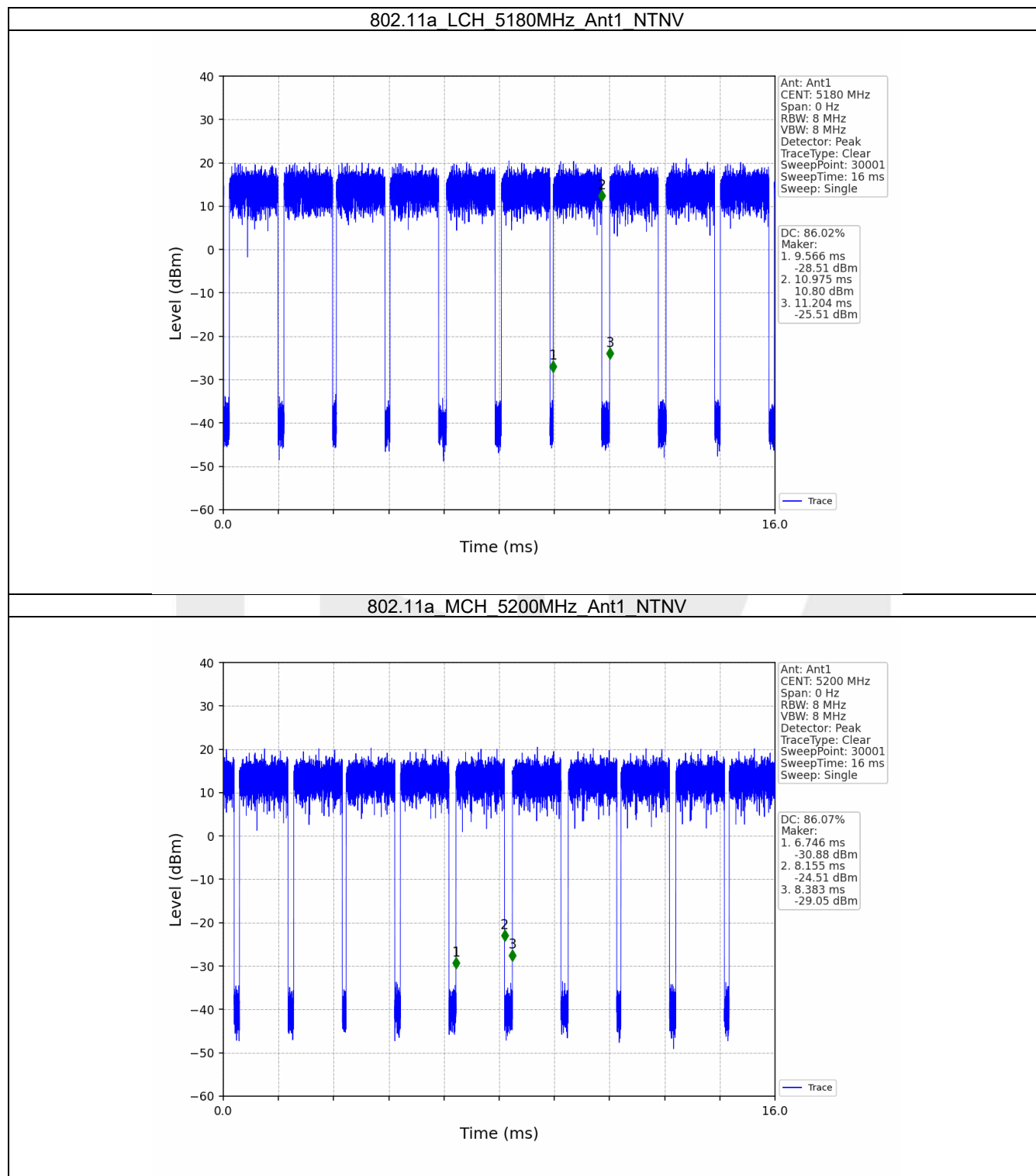
1. Duty Cycle

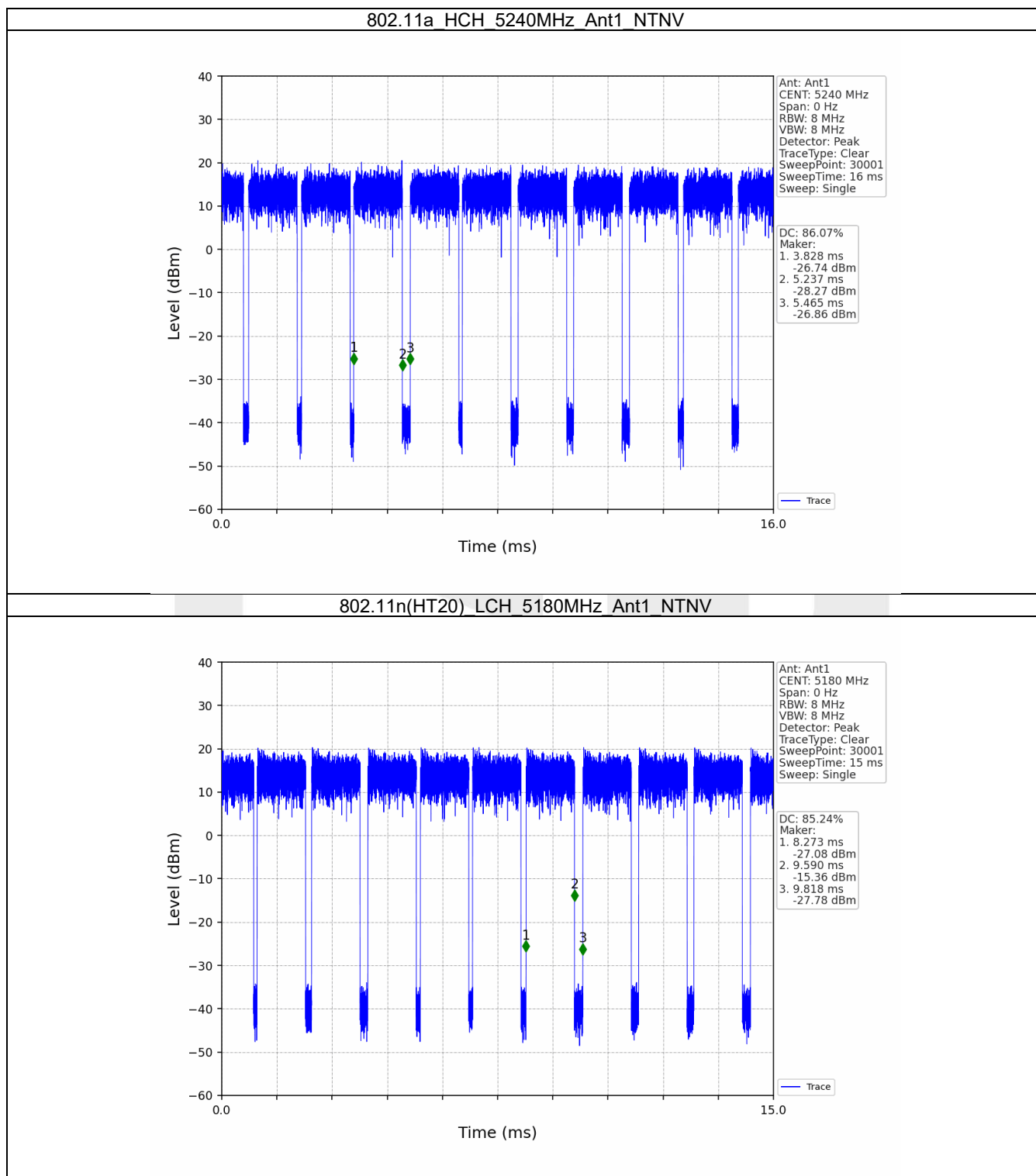
1.1 Ant1

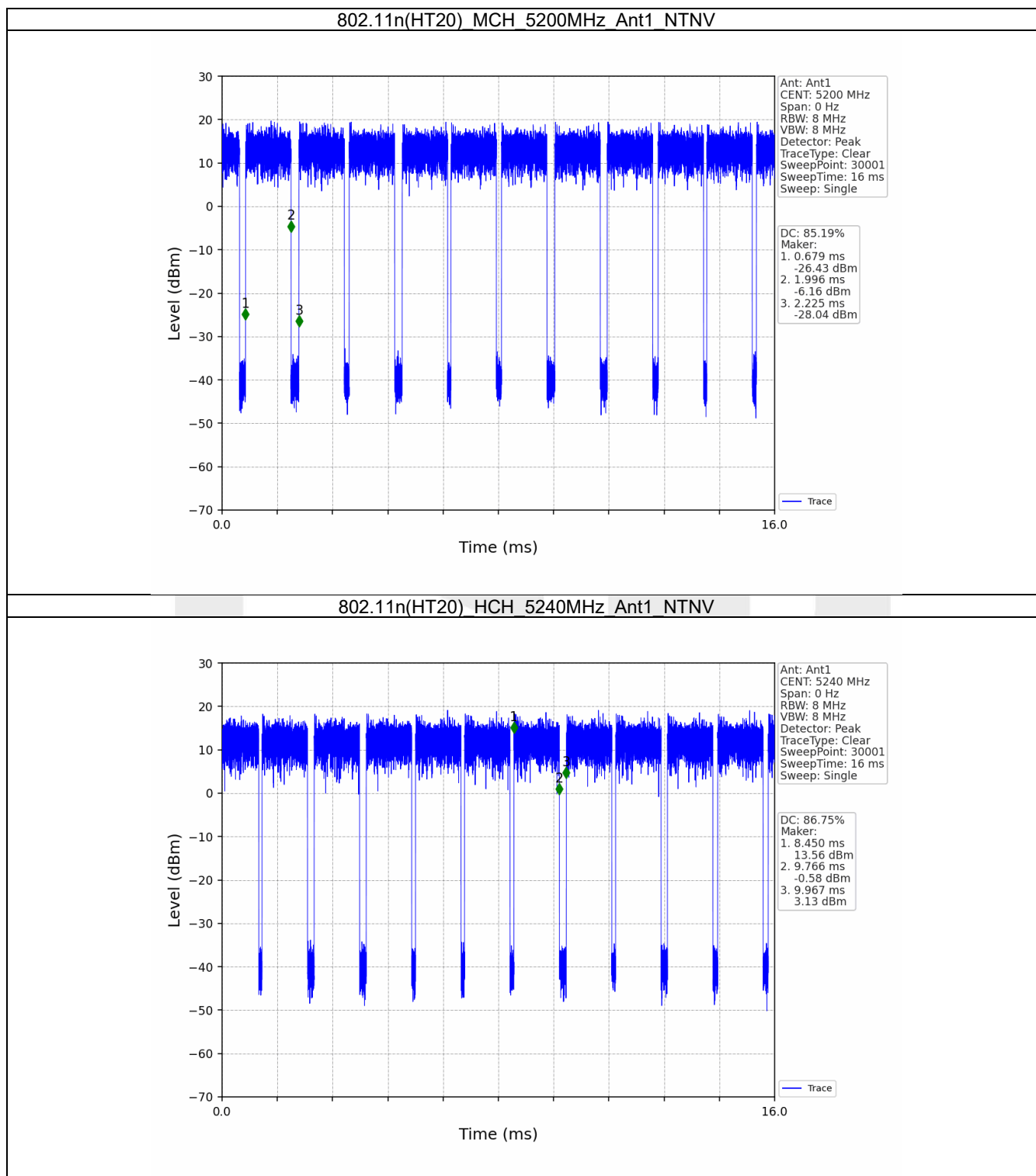
1.1.1 Test Result

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	1.409	1.638	86.02	0.65	7.77
		5200	1.409	1.637	86.07	0.65	6.62
		5240	1.409	1.637	86.07	0.65	7.17
802.11n (HT20)	SISO	5180	1.317	1.545	85.24	0.69	7.57
		5200	1.317	1.546	85.19	0.70	8.16
		5240	1.316	1.517	86.75	0.62	6.07

1.1.2 Test Graph







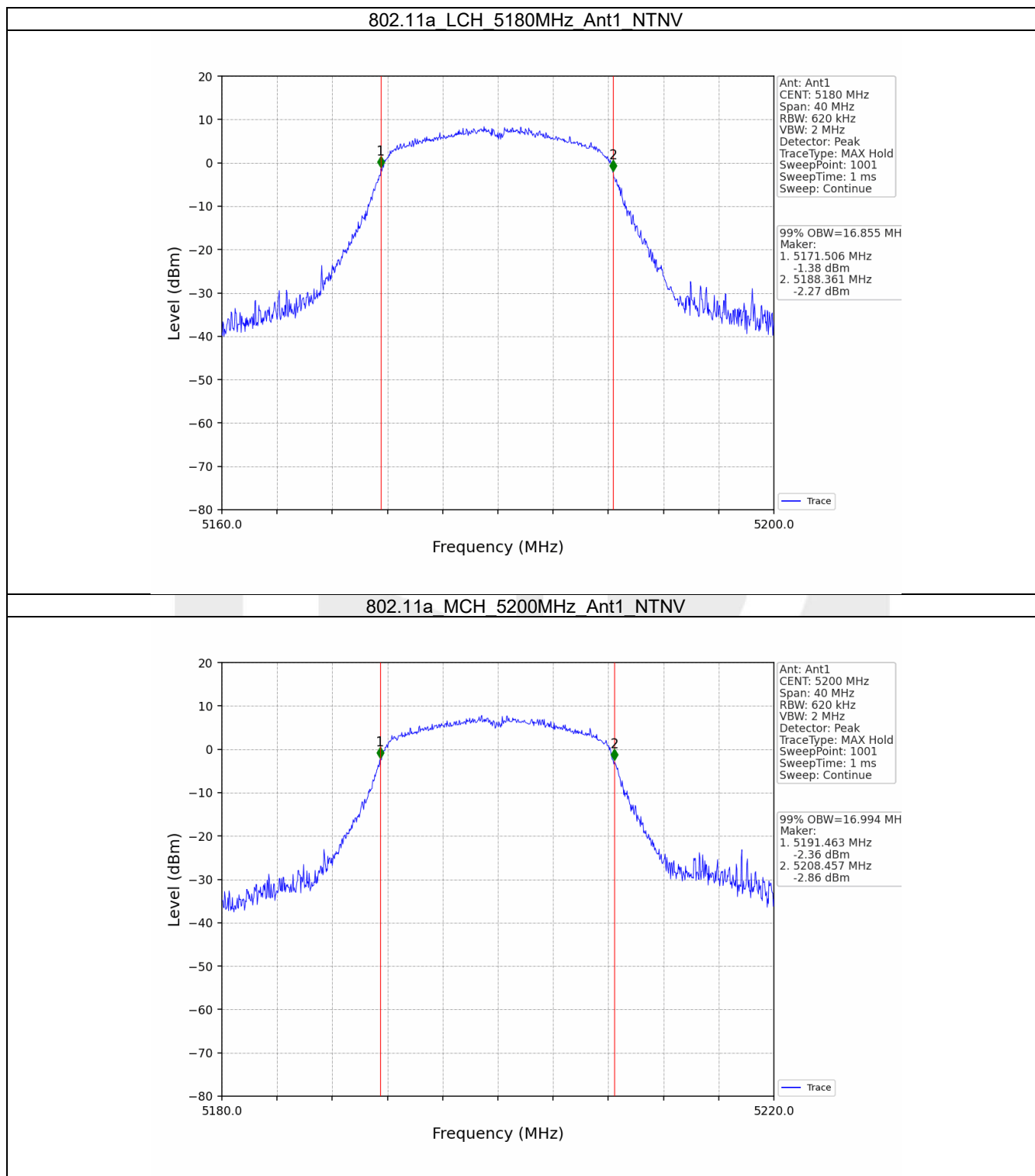
2. Bandwidth

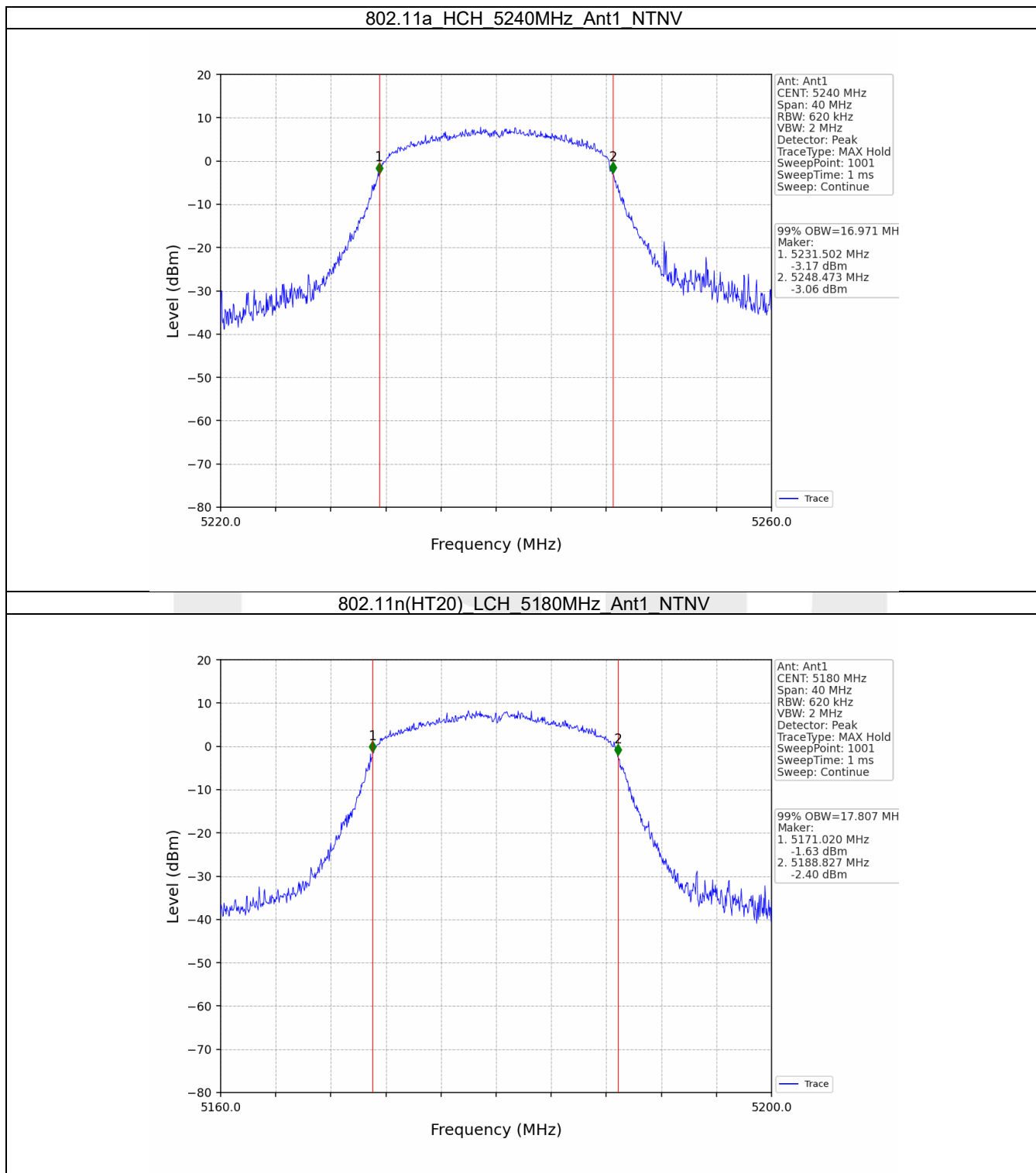
2.1 OBW

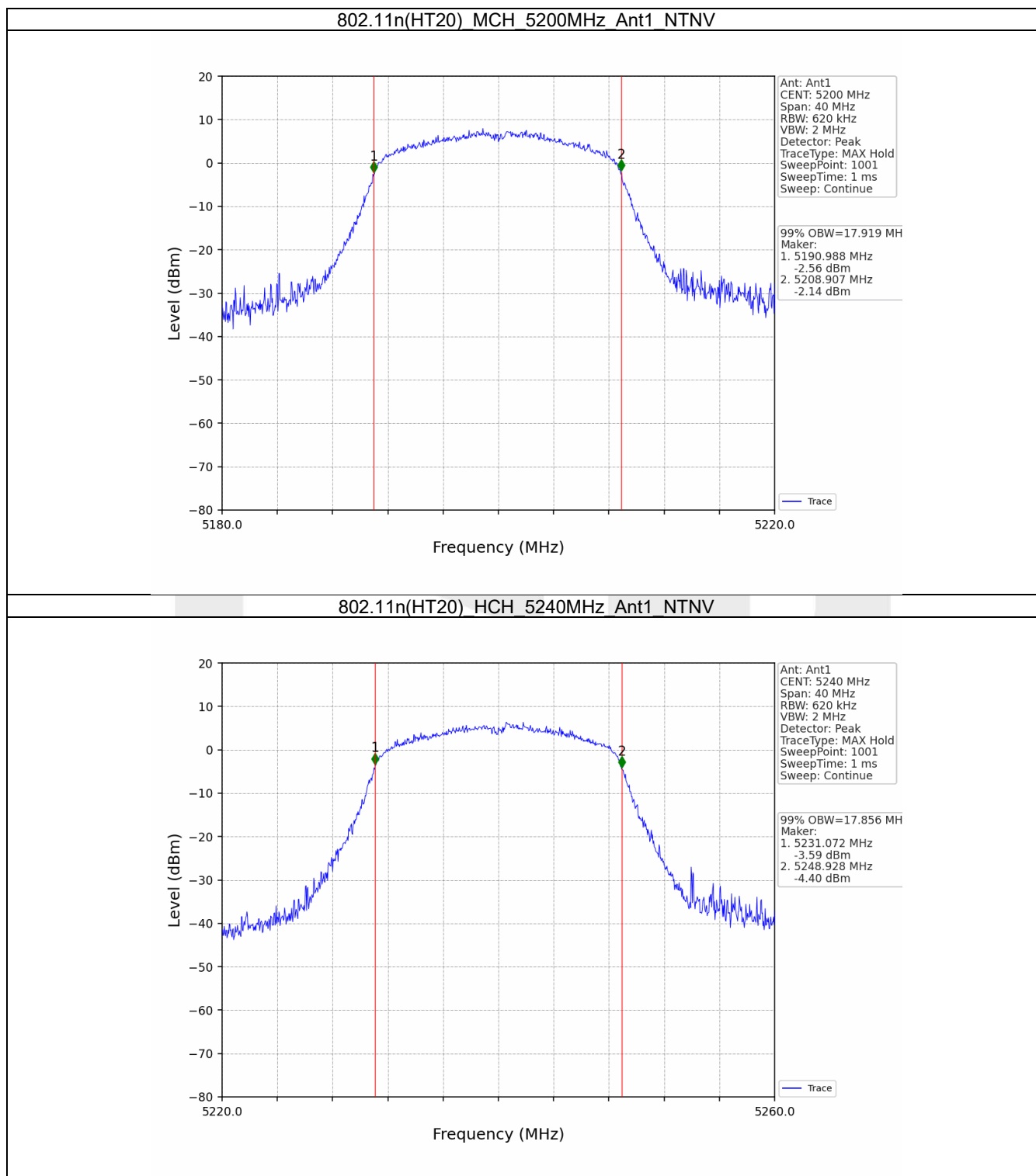
2.1.1 Test Result

Mode	TX Type	Frequency (MHz)	ANT	99% Occupied Bandwidth (MHz)	Verdict
				Result	
802.11a	SISO	5180	1	16.855	Pass
		5200	1	16.994	Pass
		5240	1	16.971	Pass
802.11n (HT20)	SISO	5180	1	17.807	Pass
		5200	1	17.919	Pass
		5240	1	17.856	Pass

2.1.2 Test Graph





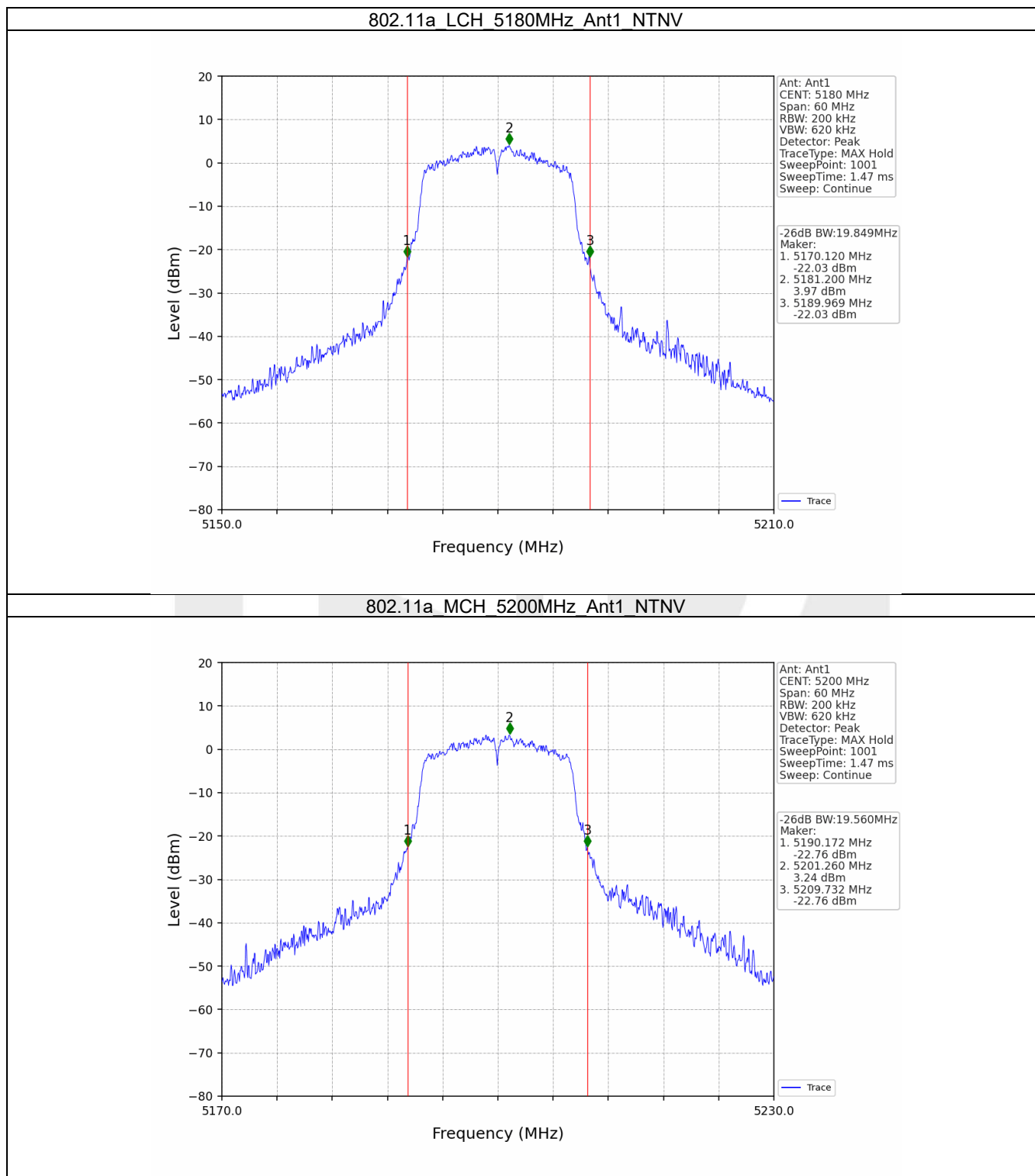


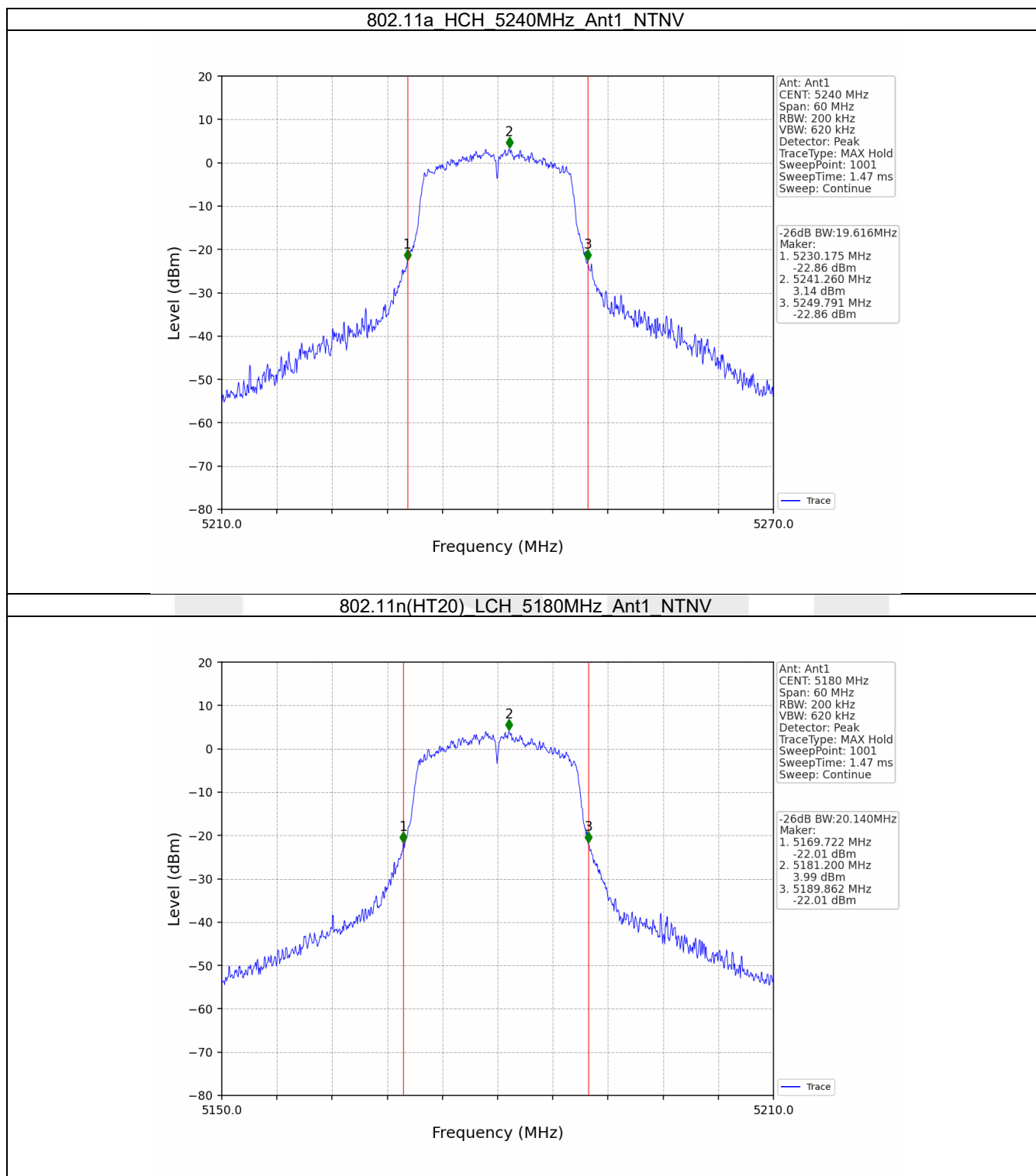
2.2 26dB BW

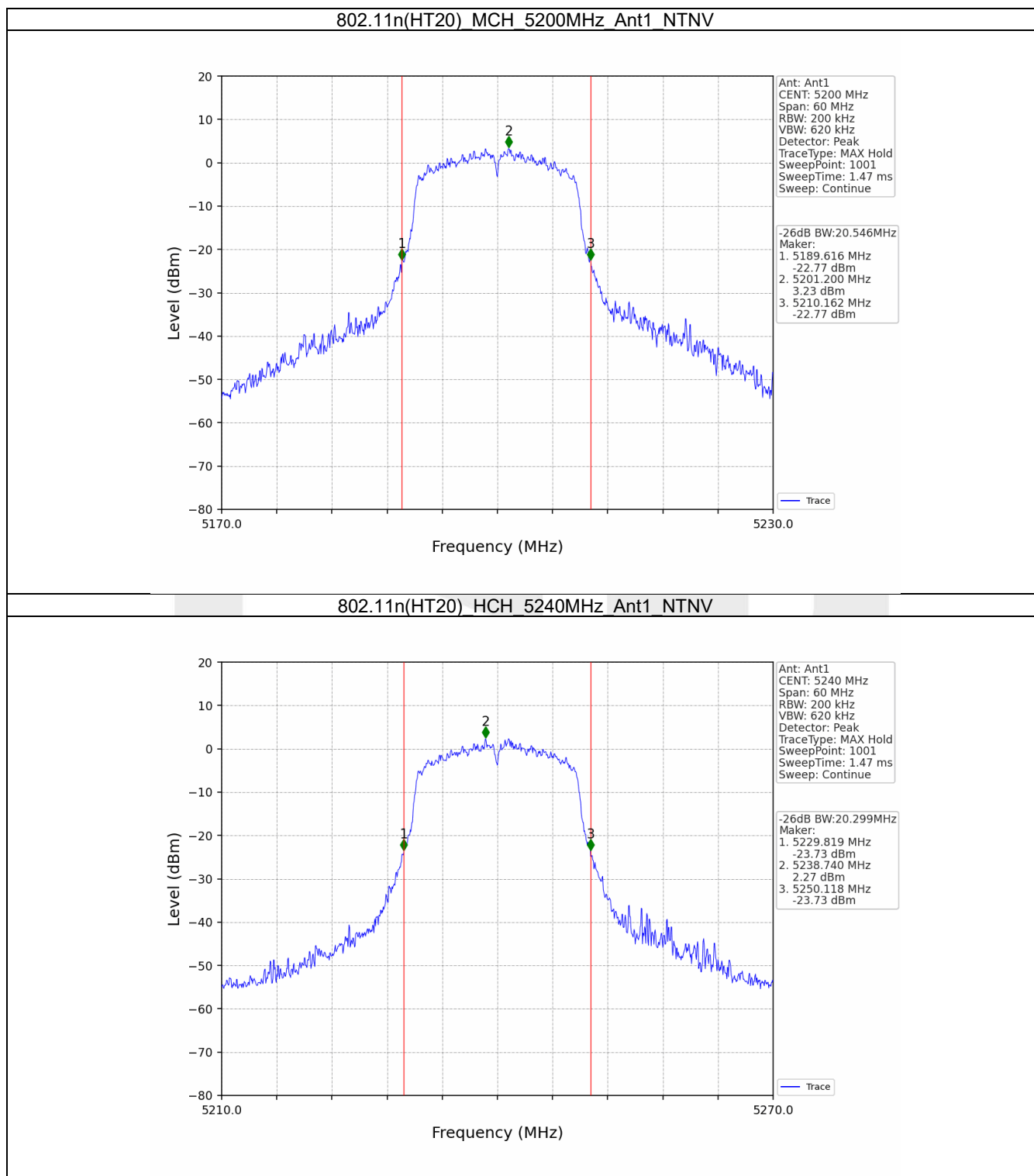
2.2.1 Test Result

Mode	TX Type	Frequency (MHz)	ANT	26dB Bandwidth (MHz)	Verdict
				Result	
802.11a	SISO	5180	1	19.849	Pass
		5200	1	19.560	Pass
		5240	1	19.616	Pass
802.11n (HT20)	SISO	5180	1	20.140	Pass
		5200	1	20.546	Pass
		5240	1	20.299	Pass

2.2.2 Test Graph







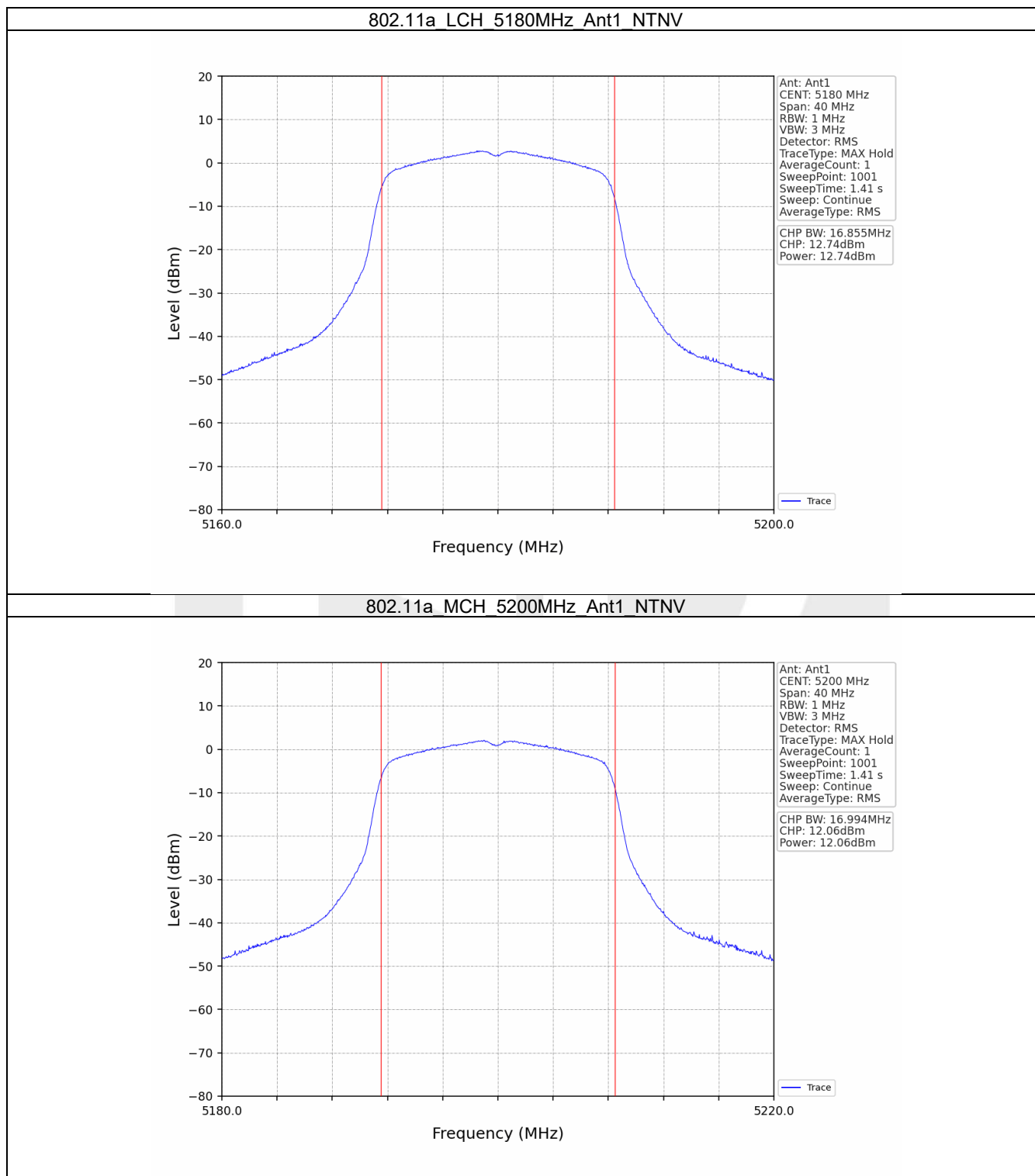
3. Maximum Conducted Output Power

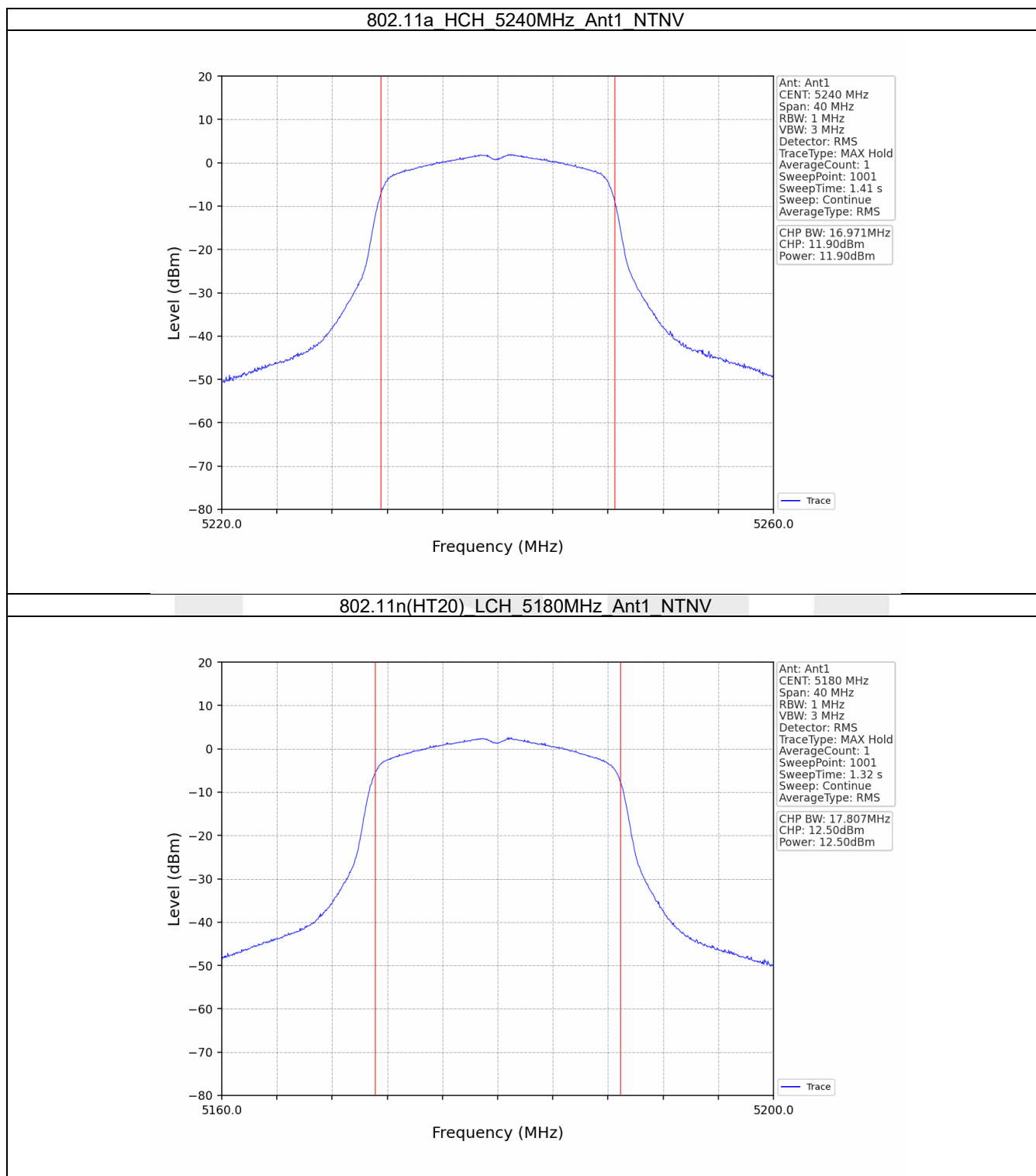
3.1 Power

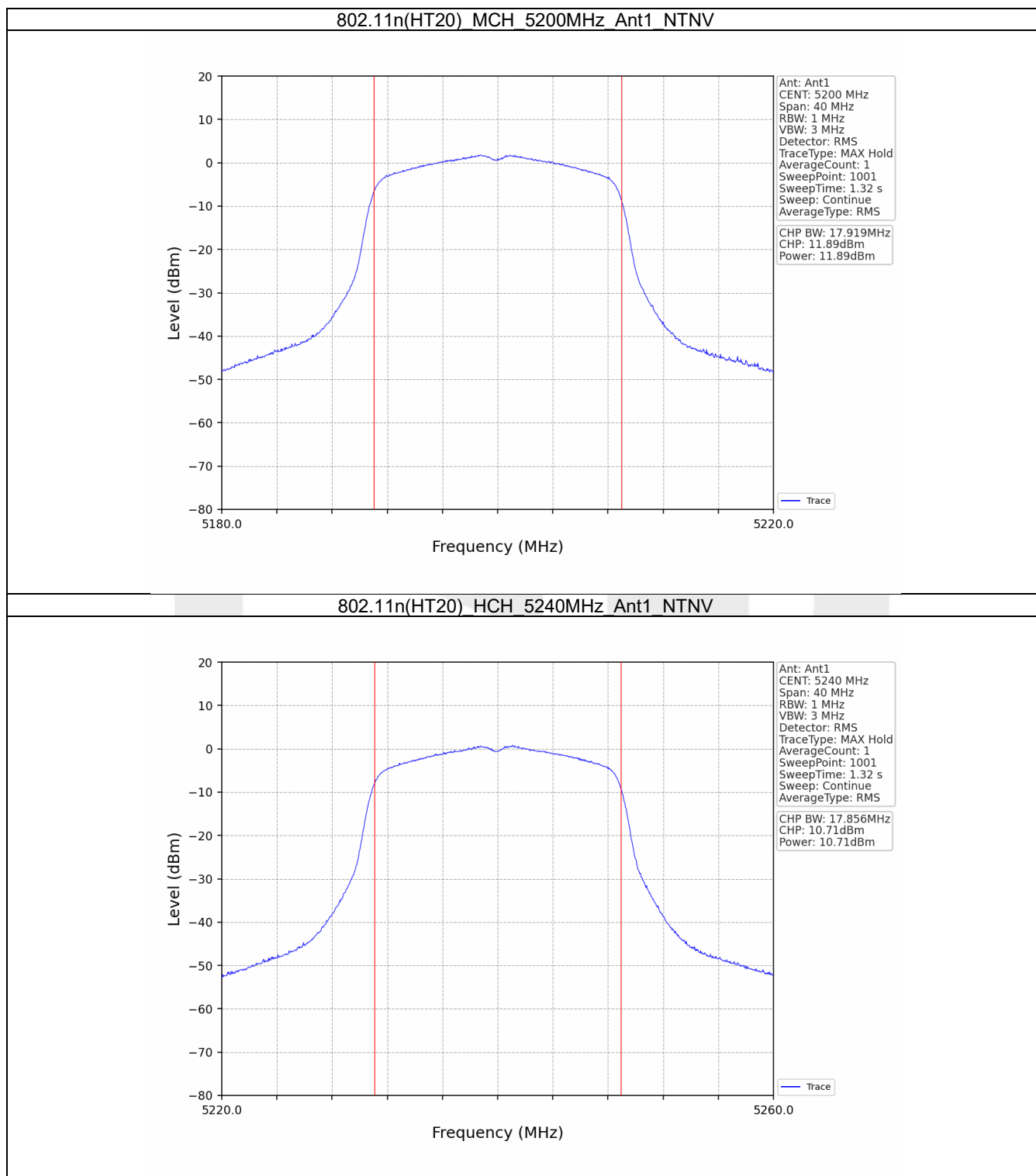
3.1.1 Test Result

Mode	TX Type	Frequency (MHz)	Maximum Average Conducted Output Power (dBm)		Verdict
			ANT1	Limit	
802.11a	SISO	5180	12.74	≤ 23.98	Pass
		5200	12.06	≤ 23.98	Pass
		5240	11.90	≤ 23.98	Pass
802.11n (HT20)	SISO	5180	12.50	≤ 23.98	Pass
		5200	11.89	≤ 23.98	Pass
		5240	10.71	≤ 23.98	Pass

3.1.2 Test Graph







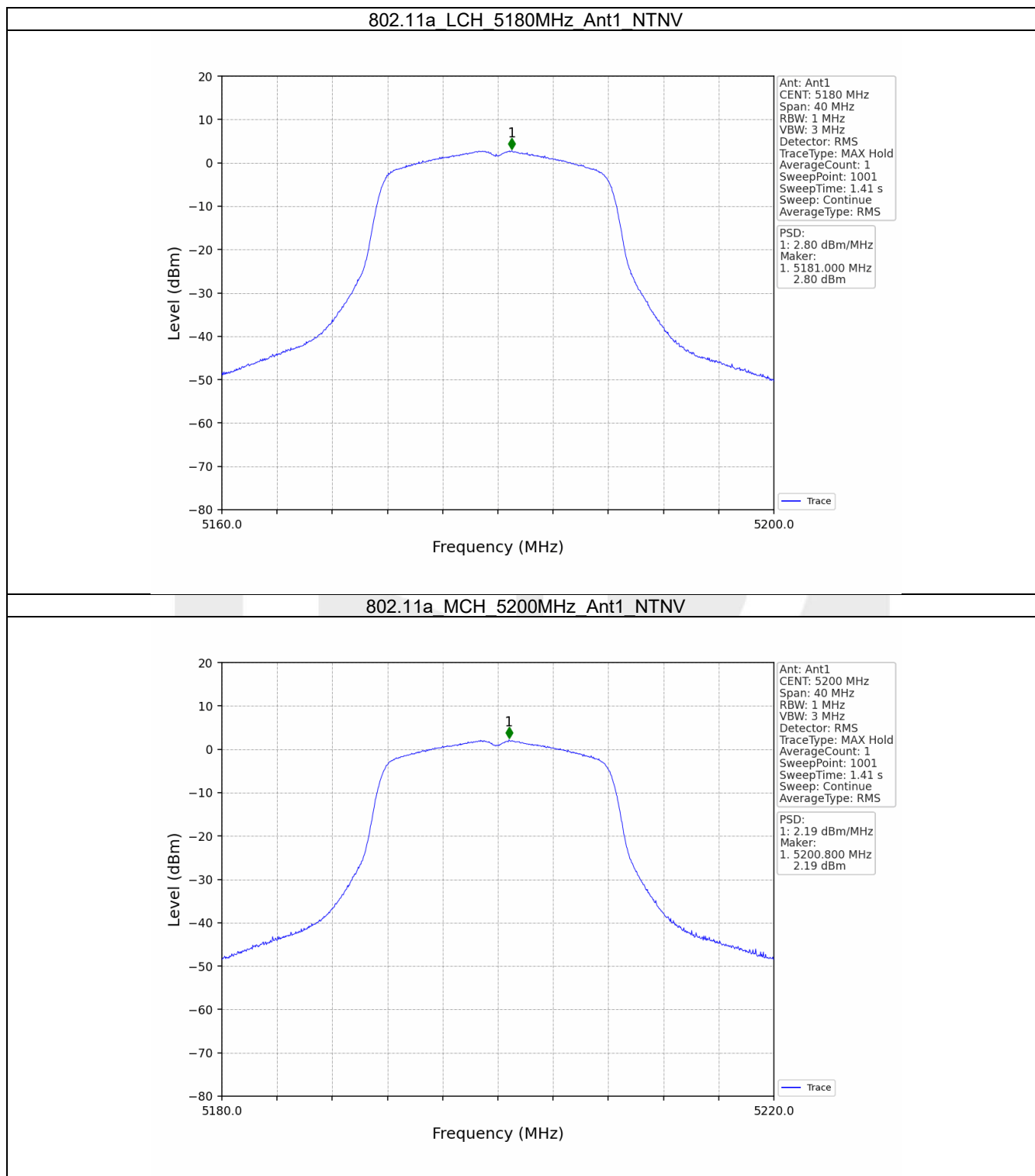
4. Maximum Power Spectral Density

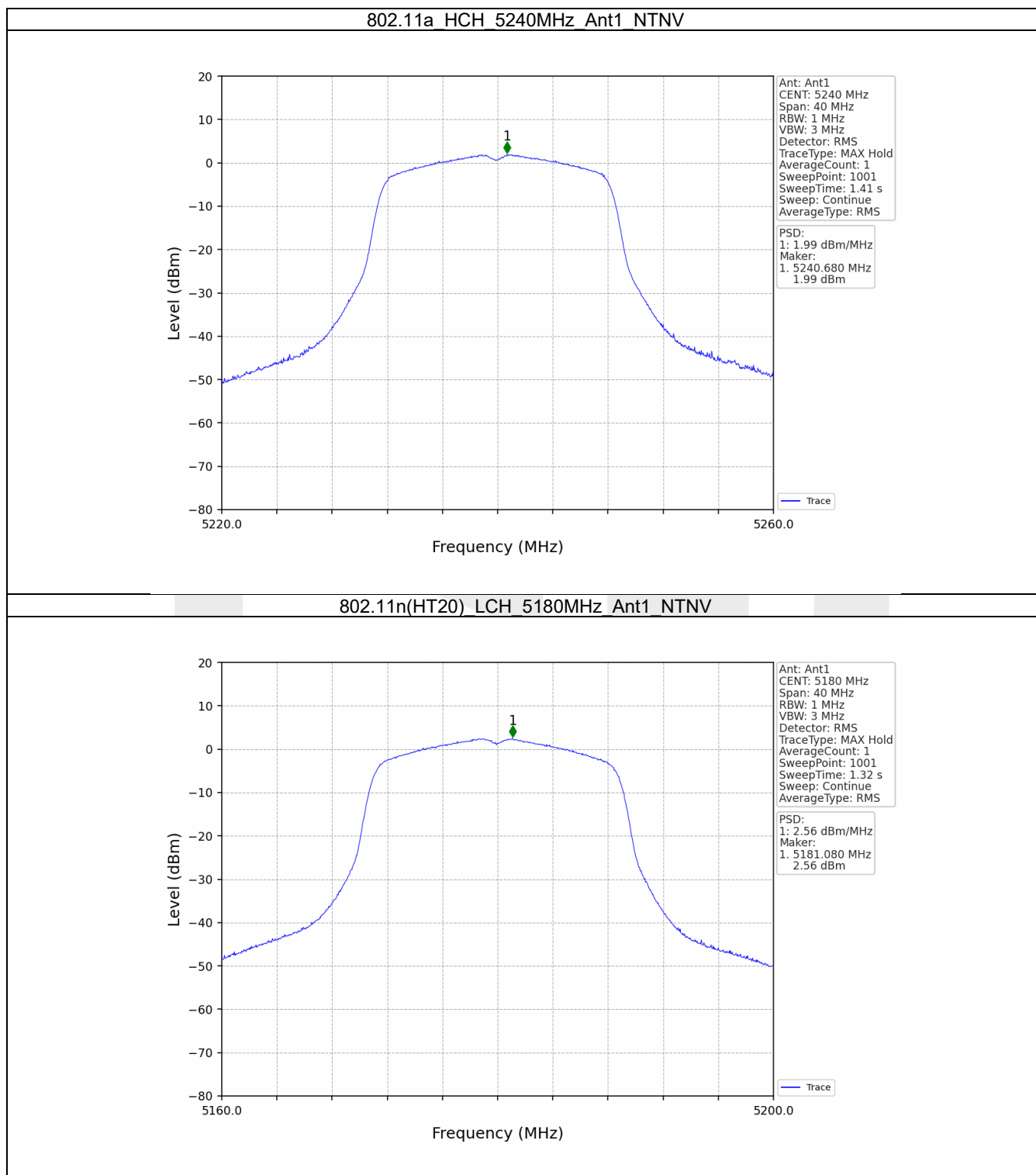
4.1 PSD

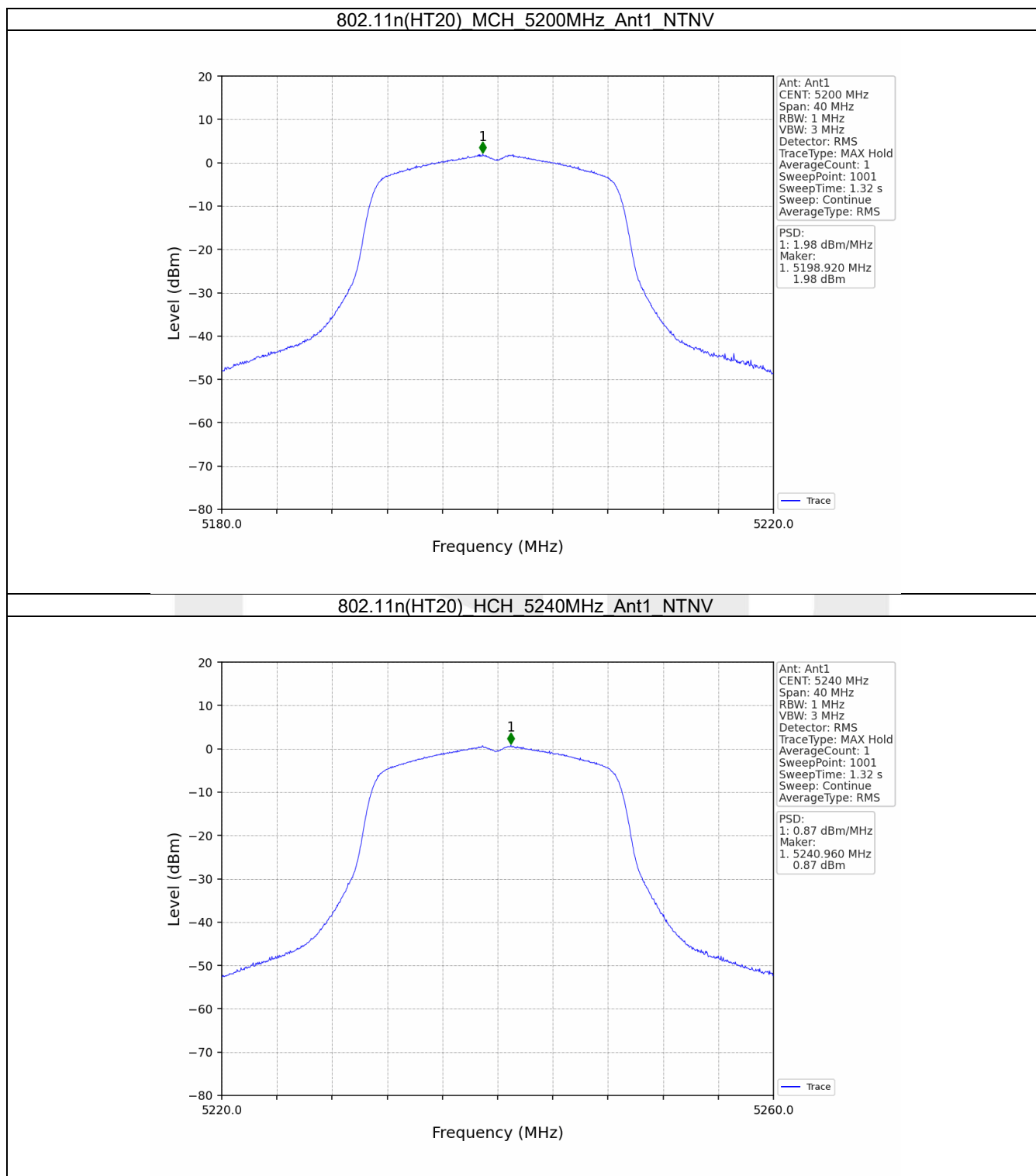
4.1.1 Test Result

Mode	TX Type	Frequency (MHz)	Maximum PSD (dBm/MHz)		Verdict
			ANT1	Limit	
802.11a	SISO	5180	2.80	<=11	Pass
		5200	2.19	<=11	Pass
		5240	1.99	<=11	Pass
802.11n (HT20)	SISO	5180	2.56	<=11	Pass
		5200	1.98	<=11	Pass
		5240	0.87	<=11	Pass

4.1.2 Test Graph







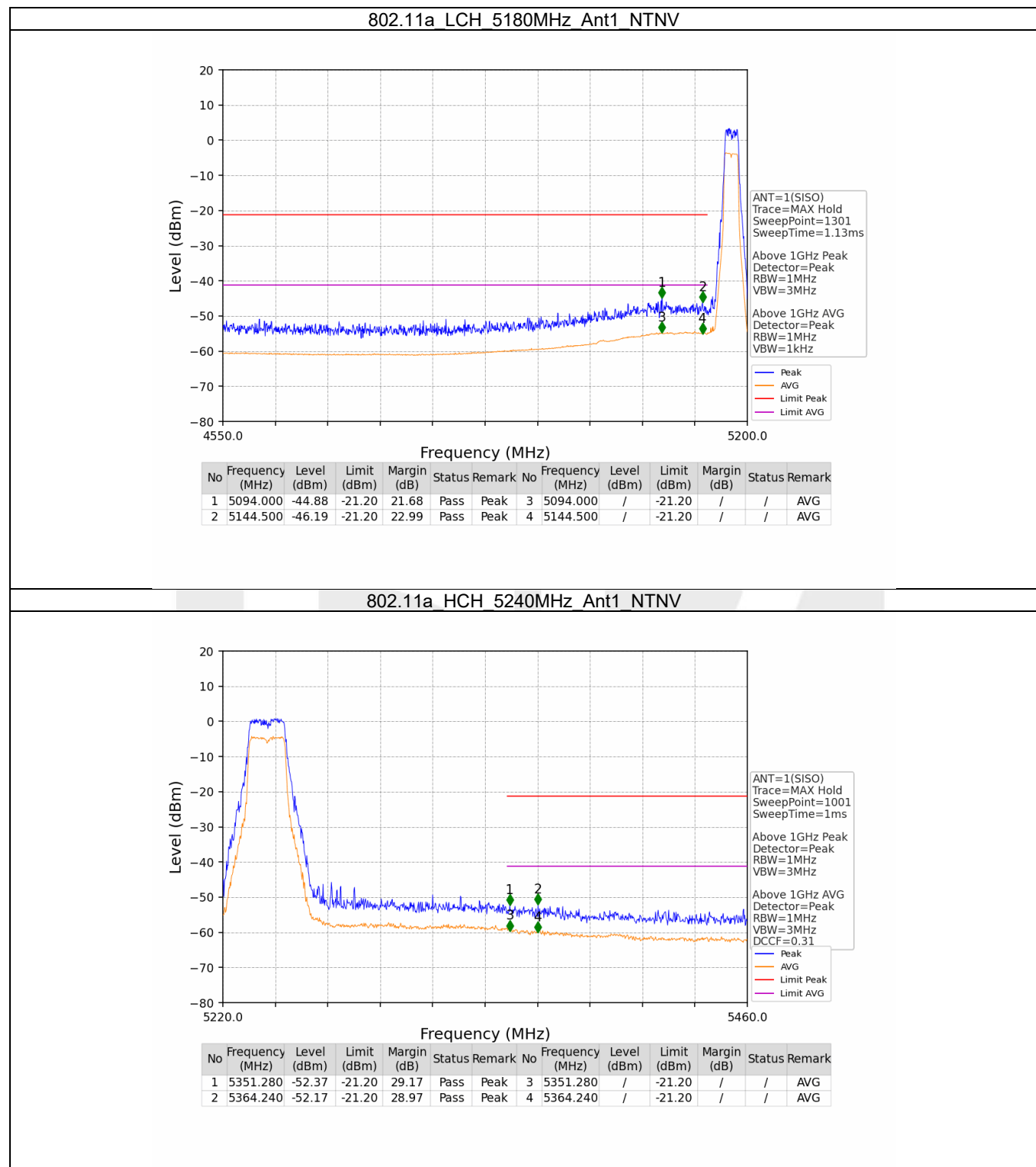
5. Unwanted Emissions In Restricted Frequency Bands

5.1. RSE

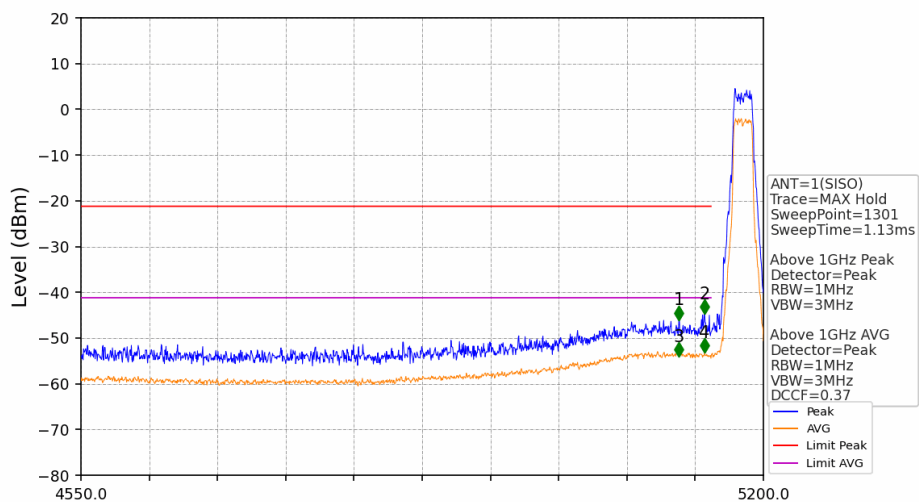
5.1.1 Test Result

Mode	TX Type	Frequency (MHz)	ANT	Level of Unwanted Emissions (dBm)		Verdict
				Result	Limit	
802.11a	SISO	5180	1	Refer To Test Graph		Pass
		5240	1	Refer To Test Graph		Pass
802.11n (HT20)	SISO	5180	1	Refer To Test Graph		Pass
		5240	1	Refer To Test Graph		Pass

5.1.2 Test Graph

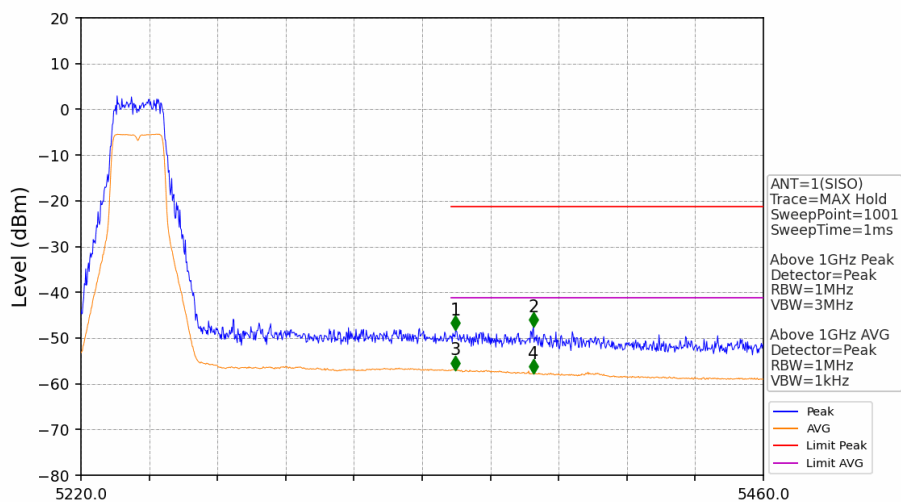


802.11n(HT20) LCH 5180MHz Ant1 NTNV



No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark	No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark
1	5119.500	-46.07	-21.20	22.87	Pass	Peak	3	5119.500	/	-21.20	/	/	AVG
2	5144.000	-44.76	-21.20	21.56	Pass	Peak	4	5144.000	/	-21.20	/	/	AVG

802.11n(HT20) HCH 5240MHz Ant1 NTNV



No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark	No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark
1	5351.760	-48.32	-21.20	25.12	Pass	Peak	3	5351.760	/	-21.20	/	/	AVG
2	5379.120	-47.54	-21.20	24.34	Pass	Peak	4	5379.120	/	-21.20	/	/	AVG

6. Frequency Stability

6.1 Ant1

6.1.1 Test Result

Mode	TX Type	Frequency (MHz)	Temperature (°C)	Ant1		Limit (MHz)	Verdict
				Voltage (VAC)	Measured Frequency (MHz)		
Carrier Wave	SISO	5180	20	102	5180.228	5150 to 5250	Pass
				120	5179.667	5150 to 5250	Pass
				138	5180.204	5150 to 5250	Pass
			-30	120	5179.546	5150 to 5250	Pass
			-20	120	5180.241	5150 to 5250	Pass
			-10	120	5179.668	5150 to 5250	Pass
			0	120	5180.218	5150 to 5250	Pass
			10	120	5180.294	5150 to 5250	Pass
			30	120	5180.168	5150 to 5250	Pass
			40	120	5180.170	5150 to 5250	Pass
			50	120	5180.168	5150 to 5250	Pass
		5200	20	102	5199.610	5150 to 5250	Pass
				120	5200.175	5150 to 5250	Pass
				138	5200.296	5150 to 5250	Pass
			-30	120	5200.200	5150 to 5250	Pass
			-20	120	5199.665	5150 to 5250	Pass
			-10	120	5199.542	5150 to 5250	Pass
			0	120	5199.608	5150 to 5250	Pass
			10	120	5199.668	5150 to 5250	Pass
			30	120	5199.665	5150 to 5250	Pass
			40	120	5199.542	5150 to 5250	Pass
			50	120	5199.591	5150 to 5250	Pass
		5240	20	102	5239.544	5150 to 5250	Pass
				120	5240.163	5150 to 5250	Pass
				138	5240.223	5150 to 5250	Pass
			-30	120	5240.165	5150 to 5250	Pass
			-20	120	5240.170	5150 to 5250	Pass
			-10	120	5240.289	5150 to 5250	Pass
			0	120	5240.242	5150 to 5250	Pass
			10	120	5239.666	5150 to 5250	Pass
			30	120	5240.293	5150 to 5250	Pass
			40	120	5240.291	5150 to 5250	Pass
			50	120	5239.671	5150 to 5250	Pass

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