

Appendix RF test data for WIFI5G

1. Duty Cycle

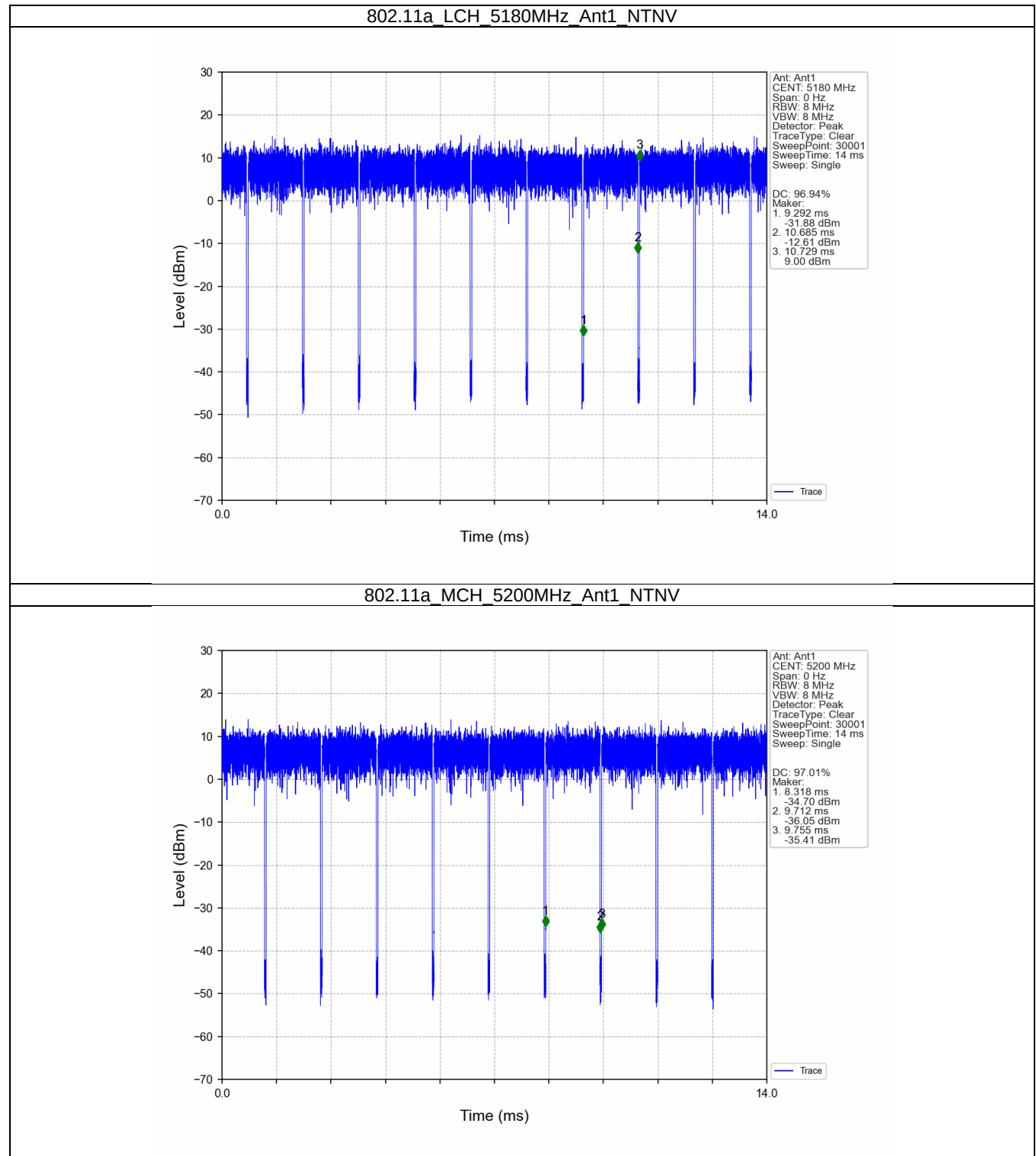
1.1 Test Result

1.1.1 Ant1

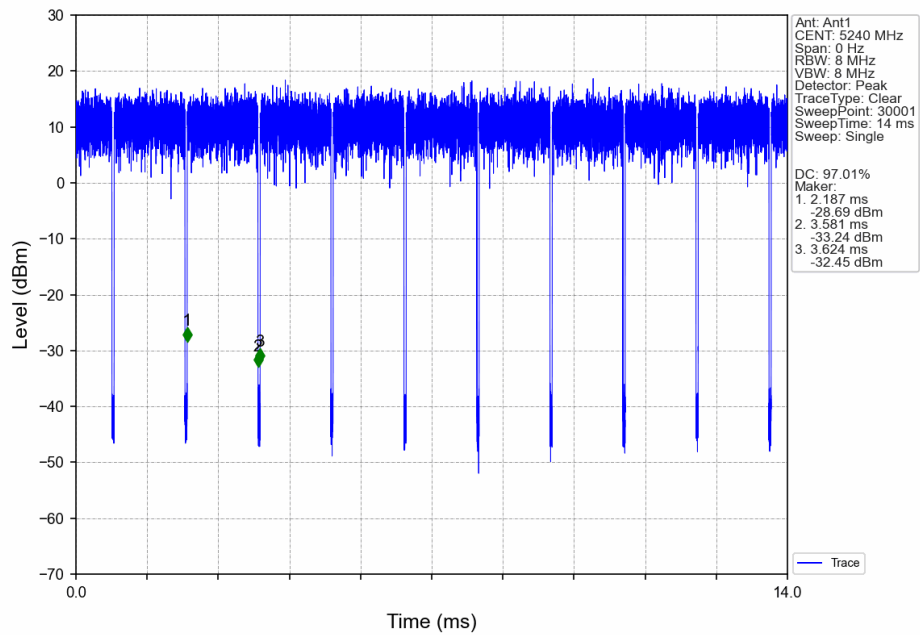
Ant1							
Mode	Tx Type	Frequency (MHz)	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
802.11a	SISO	5180	1.393	1.437	96.94	0.14	0.10
		5200	1.394	1.437	97.01	0.13	0.03
		5240	1.394	1.437	97.01	0.13	0.00
802.11n (HT20)	SISO	5180	1.302	1.345	96.80	0.14	0.04
		5200	1.302	1.345	96.80	0.14	0.07
		5240	1.300	1.344	96.73	0.14	0.14
802.11n (HT40)	SISO	5190	0.649	0.692	93.79	0.28	0.03
		5230	0.648	0.692	93.64	0.29	0.03
802.11ac (VHT20)	SISO	5180	1.314	1.356	96.90	0.14	0.00
		5200	1.312	1.357	96.68	0.15	0.03
		5240	1.313	1.356	96.83	0.14	0.03
802.11ac (VHT40)	SISO	5190	0.654	0.696	93.97	0.27	0.03
		5230	0.653	0.696	93.82	0.28	0.03
802.11ac (VHT80)	SISO	5210	0.326	0.368	88.59	0.53	0.04

1.2 Test Graph

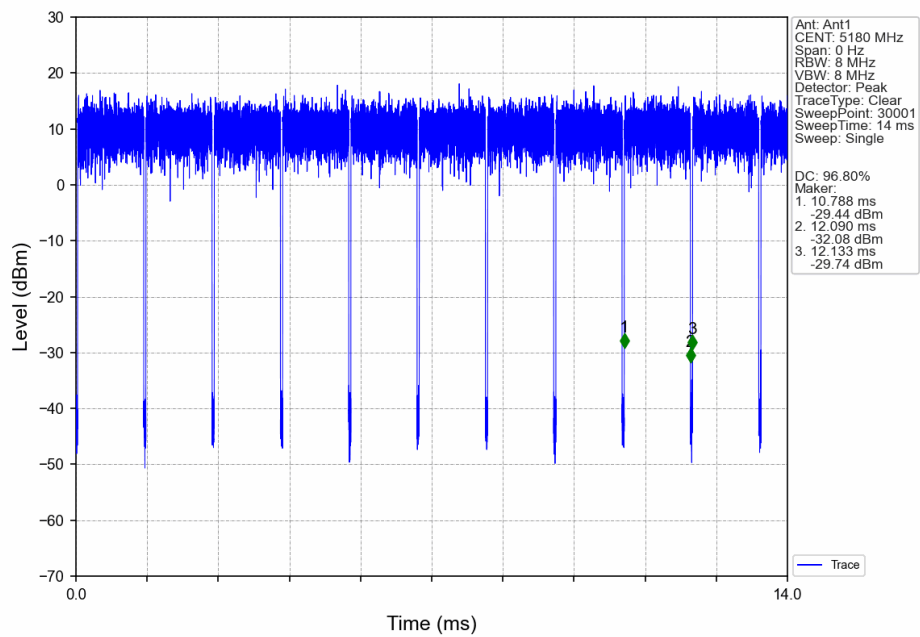
1.2.1 Ant1



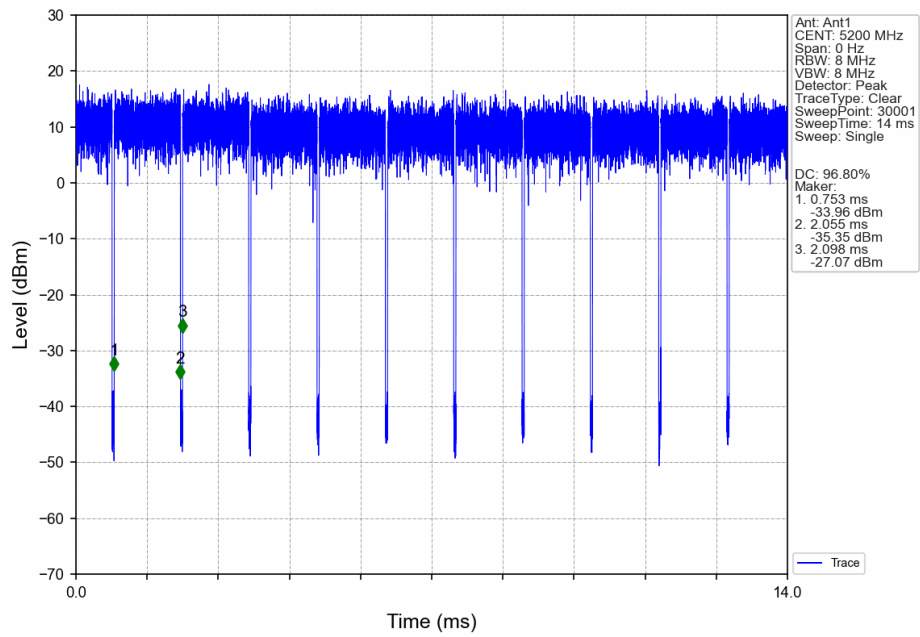
802.11a_HCH_5240MHz_Ant1_NTNV



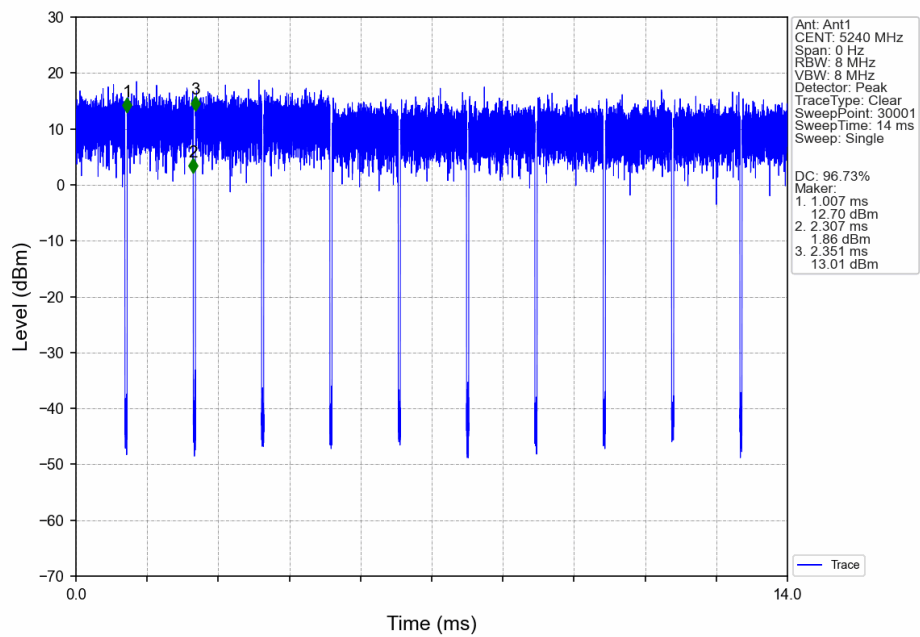
802.11n(HT20)_LCH_5180MHz_Ant1_NTNV



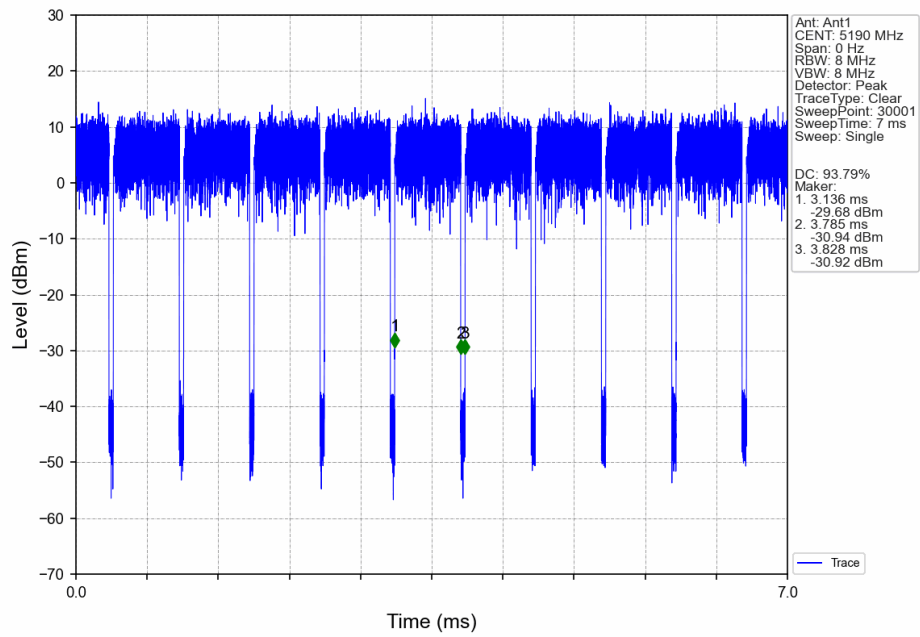
802.11n(HT20)_MCH_5200MHz_Ant1_NTNV



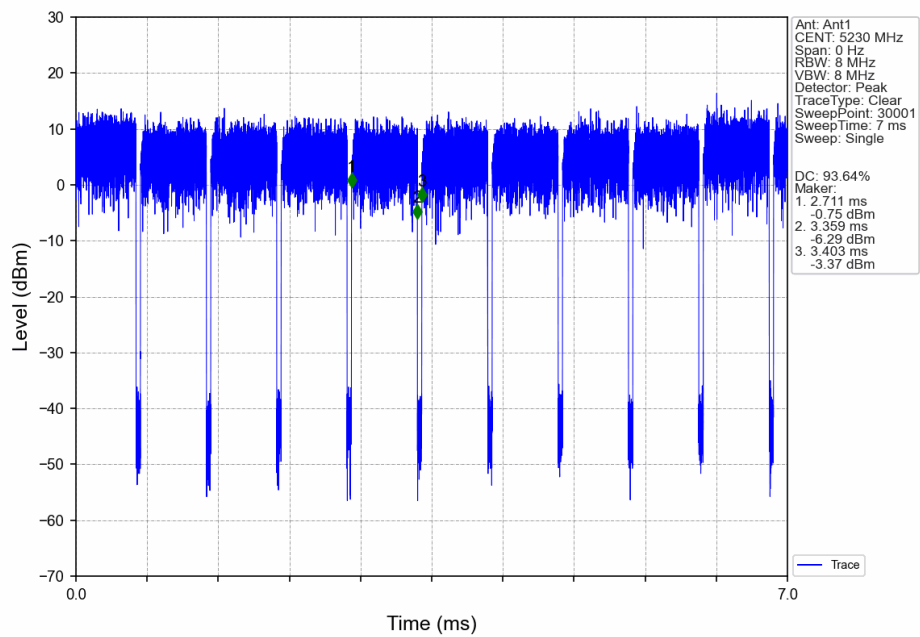
802.11n(HT20)_HCH_5240MHz_Ant1_NTNV



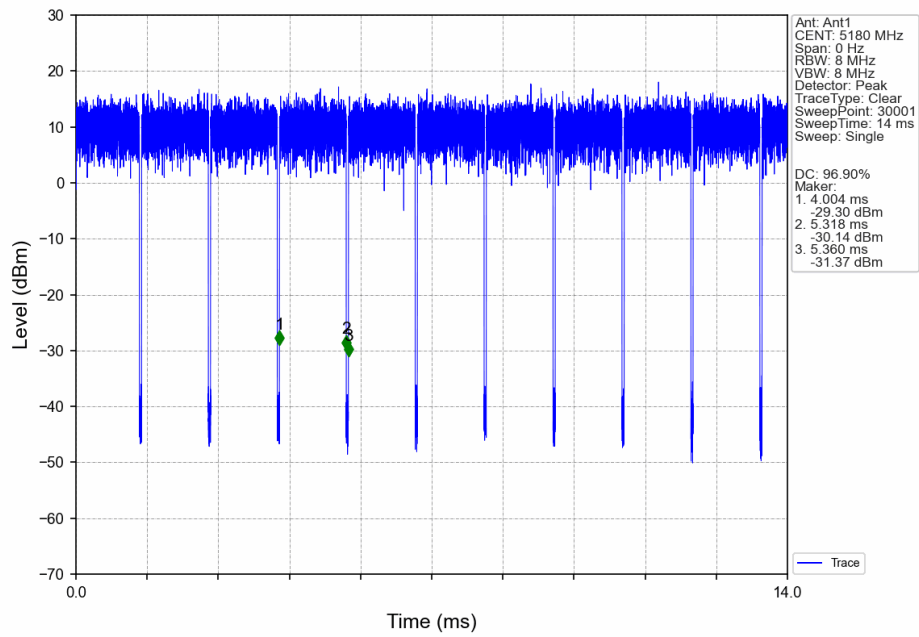
802.11n(HT40)_LCH_5190MHz_Ant1_NTNV



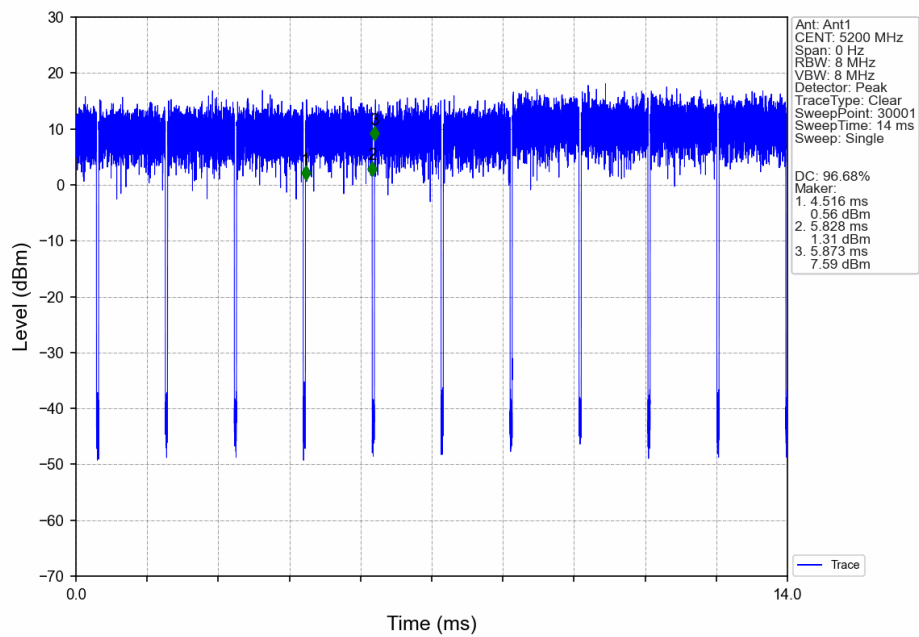
802.11n(HT40)_HCH_5230MHz_Ant1_NTNV



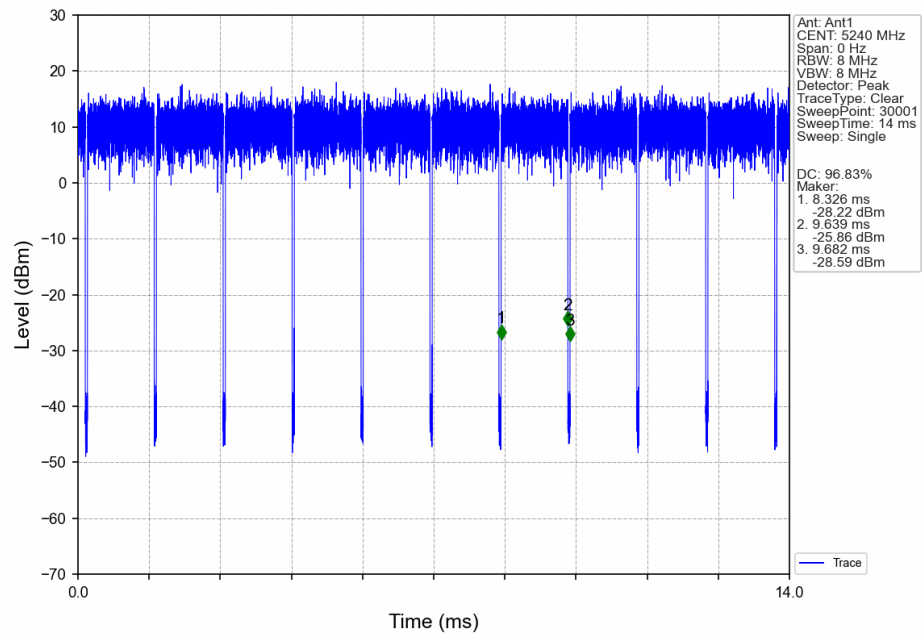
802.11ac(VHT20)_LCH_5180MHz_Ant1_NTNV



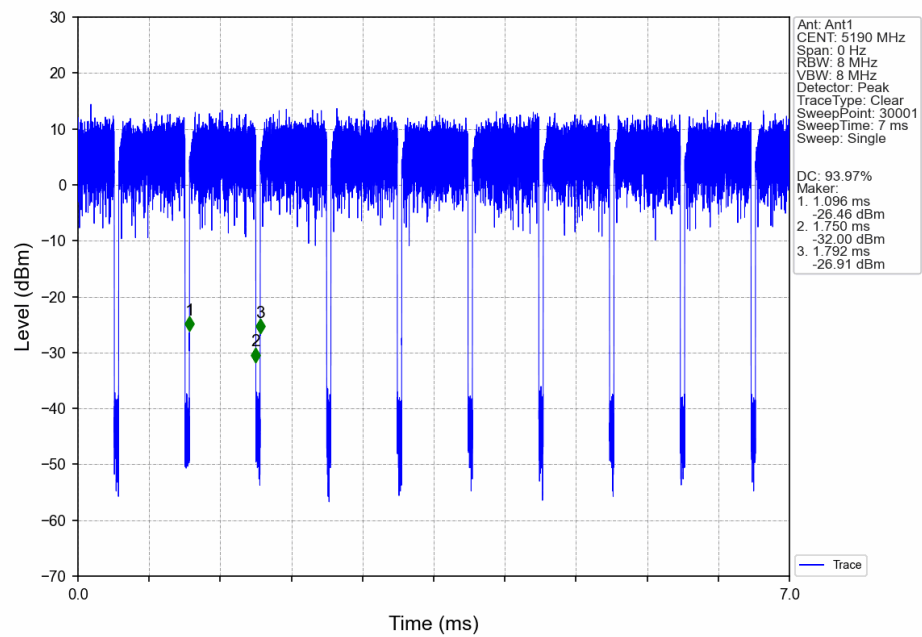
802.11ac(VHT20)_MCH_5200MHz_Ant1_NTNV



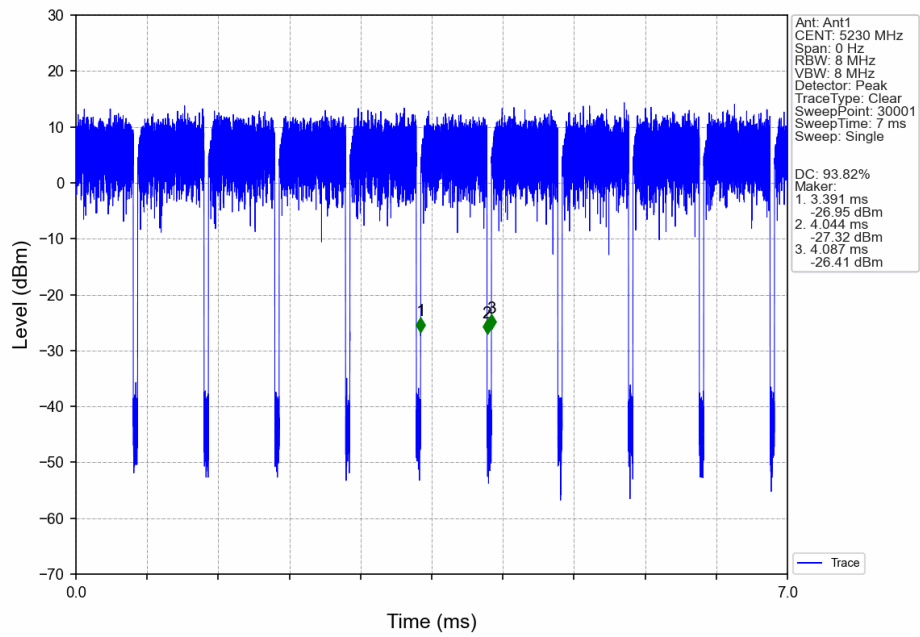
802.11ac(VHT20)_HCH_5240MHz_Ant1_NTNV



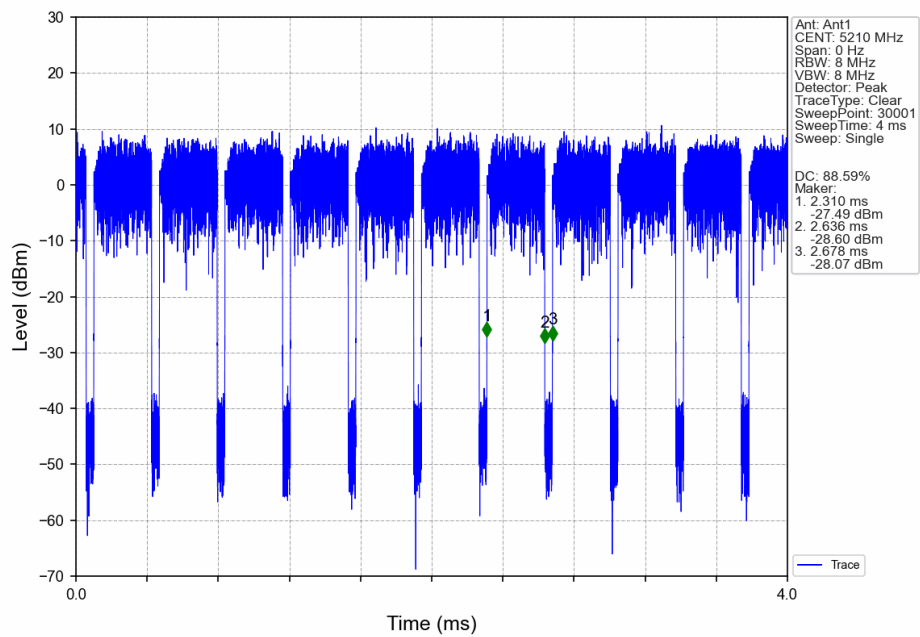
802.11ac(VHT40)_LCH_5190MHz_Ant1_NTNV



802.11ac(VHT40)_HCH_5230MHz_Ant1_NTNV



802.11ac(VHT80)_MCH_5210MHz_Ant1_NTNV



2. Bandwidth

2.1 Test Result

2.1.1 OBW

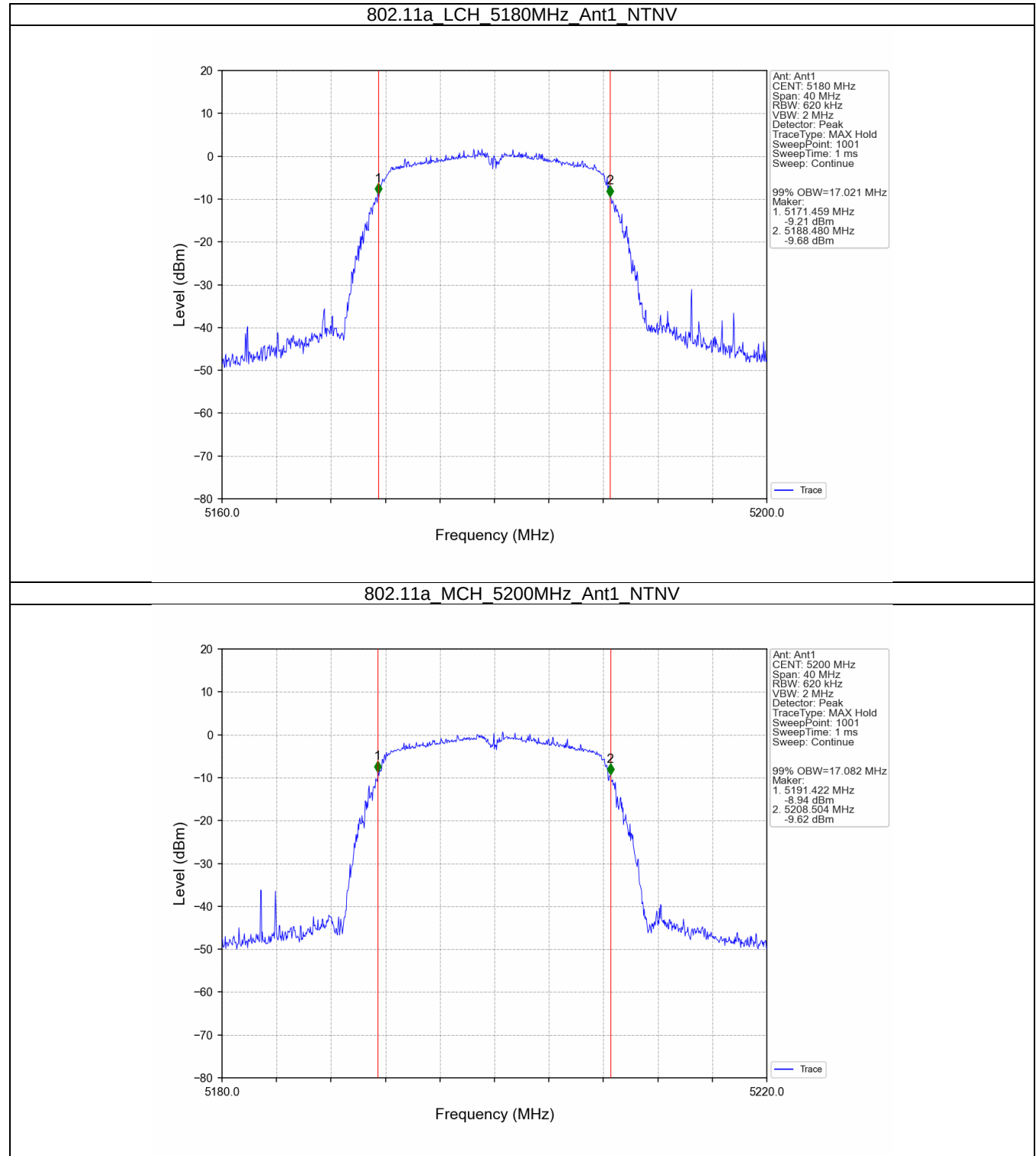
Mode	TX Type	Frequency (MHz)	ANT	99% Occupied Bandwidth (MHz)		Verdict
				Result	Limit	
802.11a	SISO	5180	1	17.021	/	Pass
		5200	1	17.082	/	Pass
		5240	1	17.169	/	Pass
802.11n (HT20)	SISO	5180	1	17.984	/	Pass
		5200	1	17.952	/	Pass
		5240	1	17.962	/	Pass
802.11n (HT40)	SISO	5190	1	36.208	/	Pass
		5230	1	36.107	/	Pass
802.11ac (VHT20)	SISO	5180	1	18.064	/	Pass
		5200	1	17.938	/	Pass
		5240	1	17.910	/	Pass
802.11ac (VHT40)	SISO	5190	1	36.136	/	Pass
		5230	1	36.161	/	Pass
802.11ac (VHT80)	SISO	5210	1	75.603	/	Pass

2.1.2 26dB BW

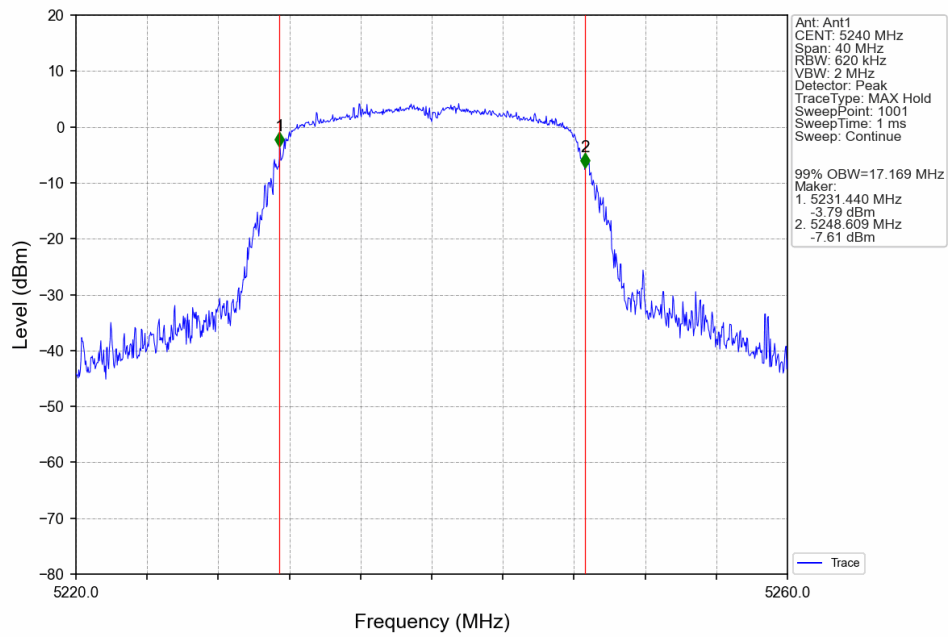
Mode	TX Type	Frequency (MHz)	ANT	26dB Bandwidth (MHz)		Verdict
				Result	Limit	
802.11a	SISO	5180	1	20.201	/	Pass
		5200	1	20.397	/	Pass
		5240	1	19.992	/	Pass
802.11n (HT20)	SISO	5180	1	20.572	/	Pass
		5200	1	20.435	/	Pass
		5240	1	20.330	/	Pass
802.11n (HT40)	SISO	5190	1	41.194	/	Pass
		5230	1	41.009	/	Pass
802.11ac (VHT20)	SISO	5180	1	20.647	/	Pass
		5200	1	20.507	/	Pass
		5240	1	20.553	/	Pass
802.11ac (VHT40)	SISO	5190	1	41.210	/	Pass
		5230	1	40.727	/	Pass
802.11ac (VHT80)	SISO	5210	1	81.458	/	Pass

2.2 Test Graph

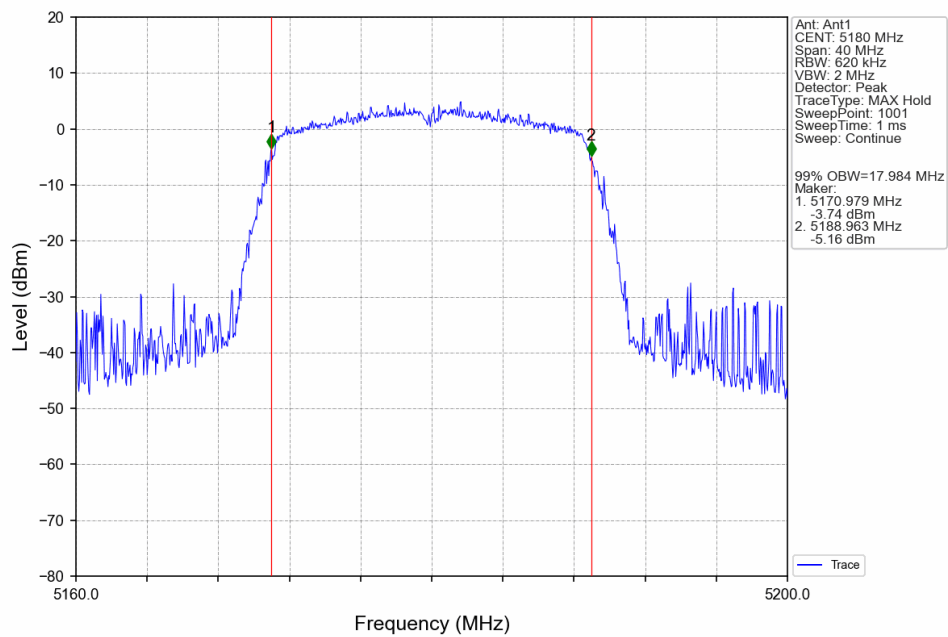
2.2.1 OBW



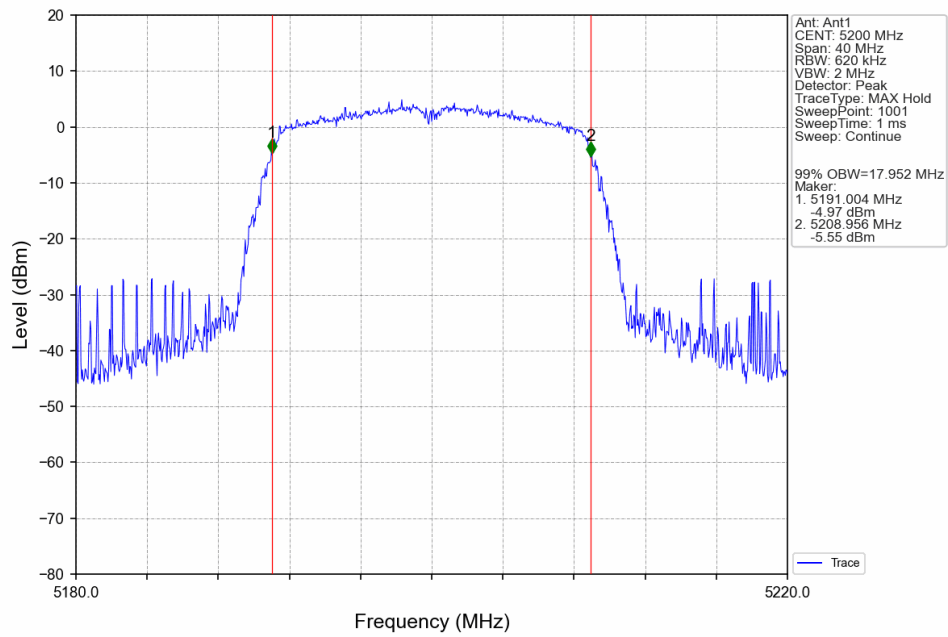
802.11a_HCH_5240MHz_Ant1_NTNV



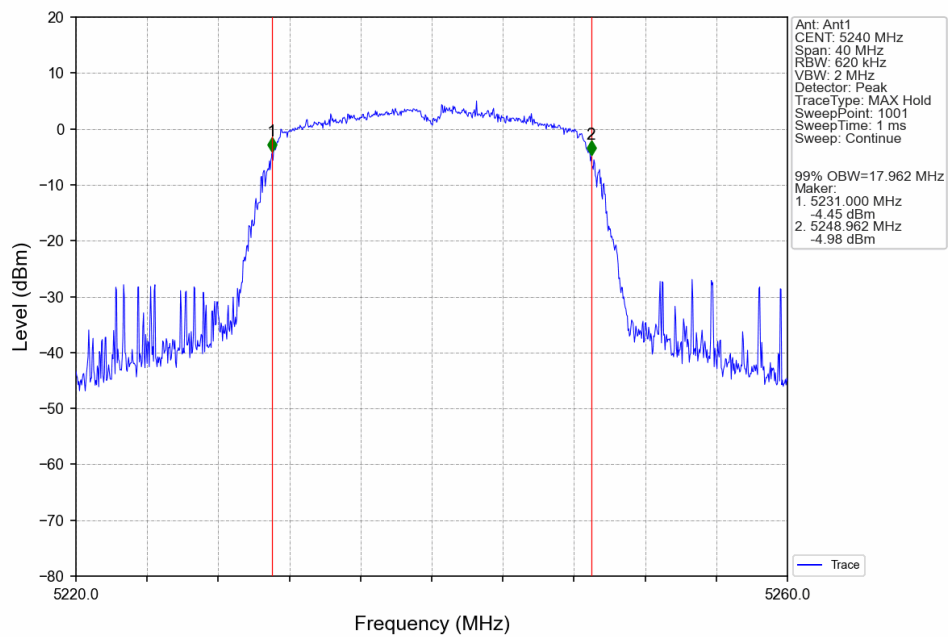
802.11n(HT20)_LCH_5180MHz_Ant1_NTNV



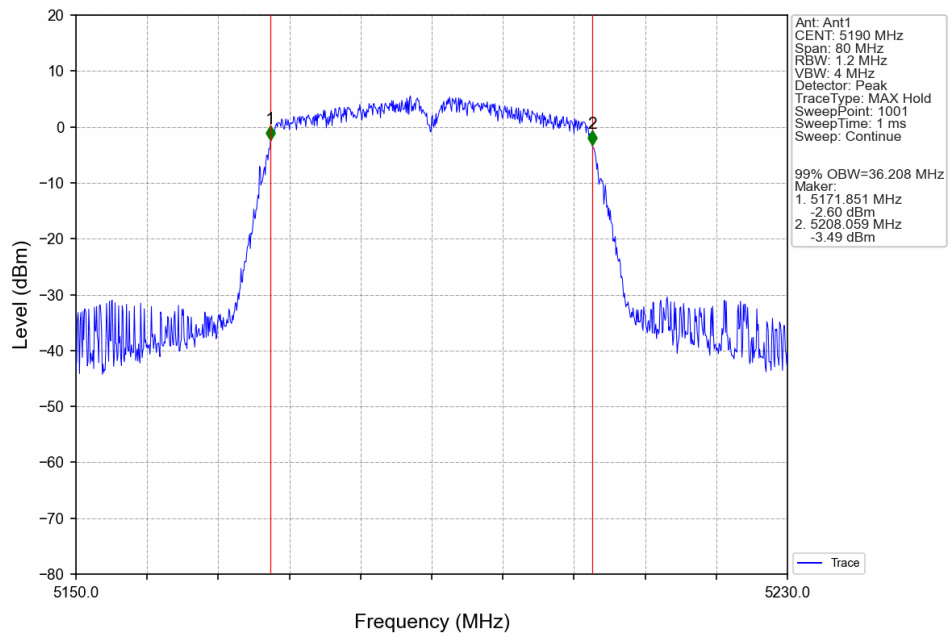
802.11n(HT20)_MCH_5200MHz_Ant1_NTNV



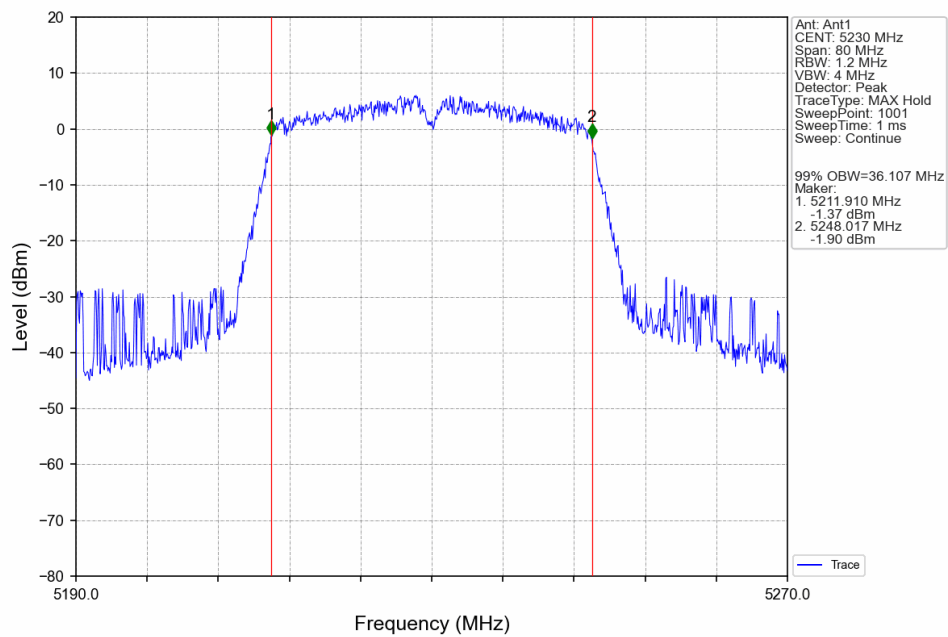
802.11n(HT20)_HCH_5240MHz_Ant1_NTNV



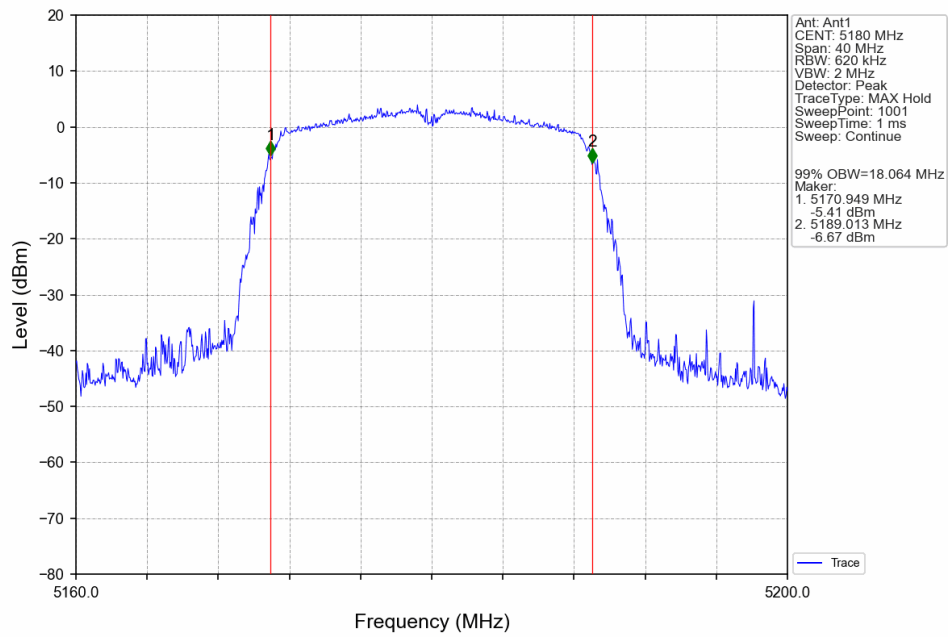
802.11n(HT40)_LCH_5190MHz_Ant1_NTNV



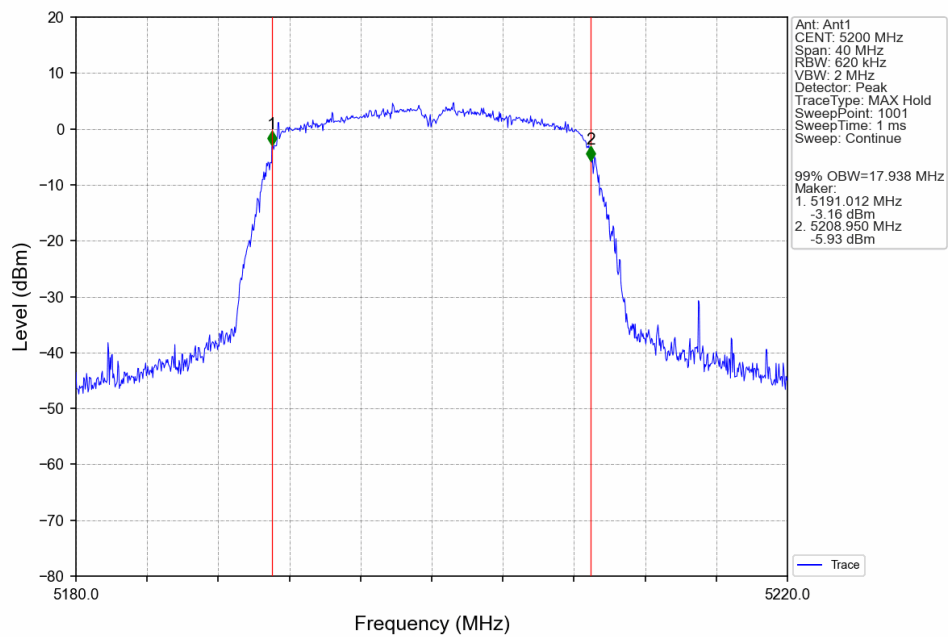
802.11n(HT40)_HCH_5230MHz_Ant1_NTNV



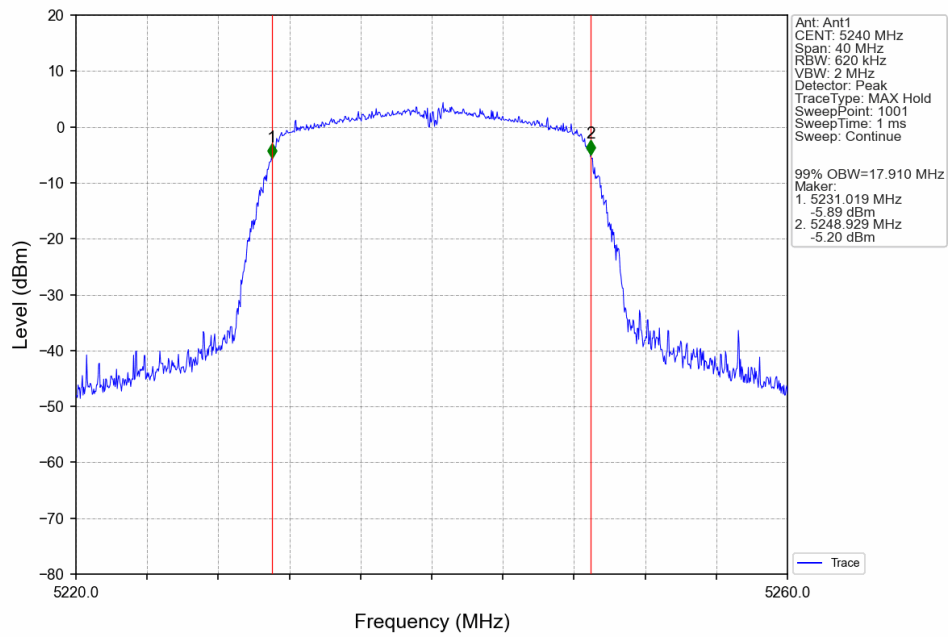
802.11ac(VHT20)_LCH_5180MHz_Ant1_NTNV



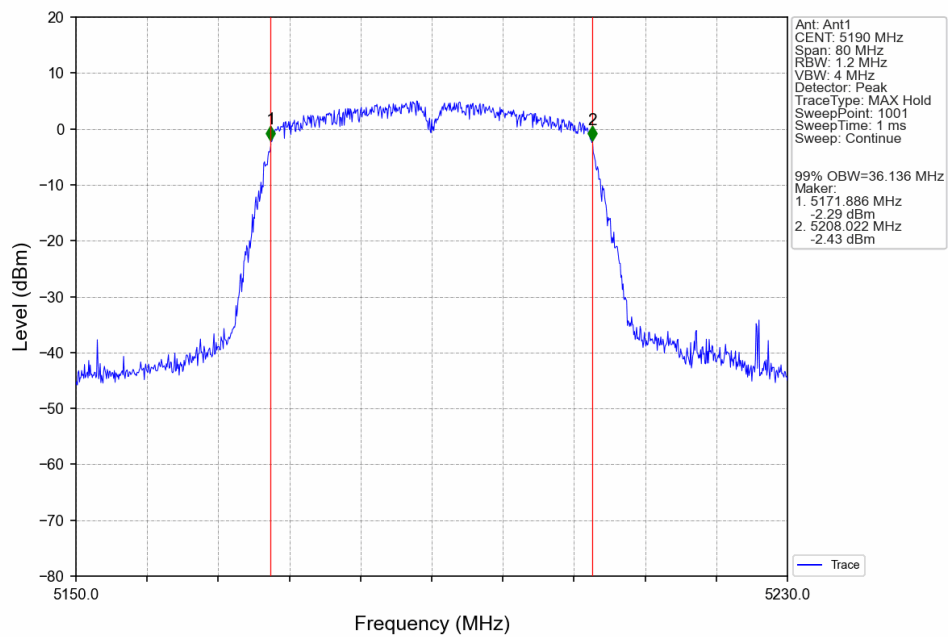
802.11ac(VHT20)_MCH_5200MHz_Ant1_NTNV



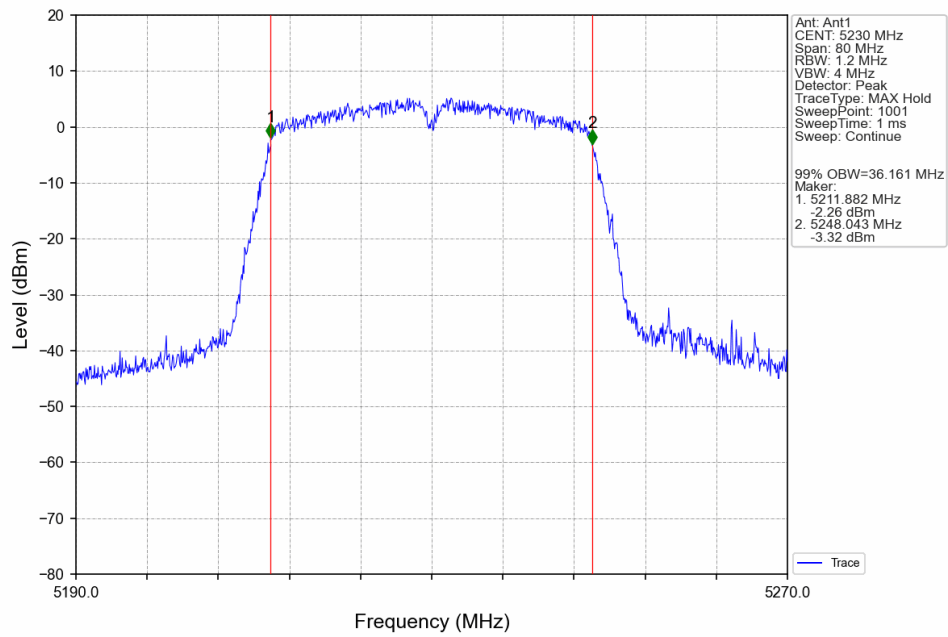
802.11ac(VHT20)_HCH_5240MHz_Ant1_NTNV



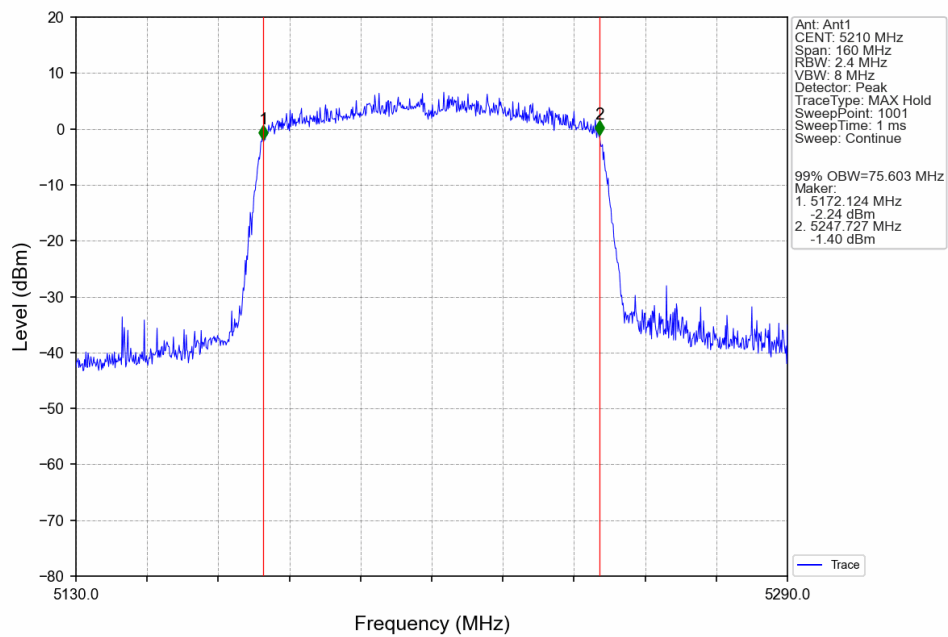
802.11ac(VHT40)_LCH_5190MHz_Ant1_NTNV



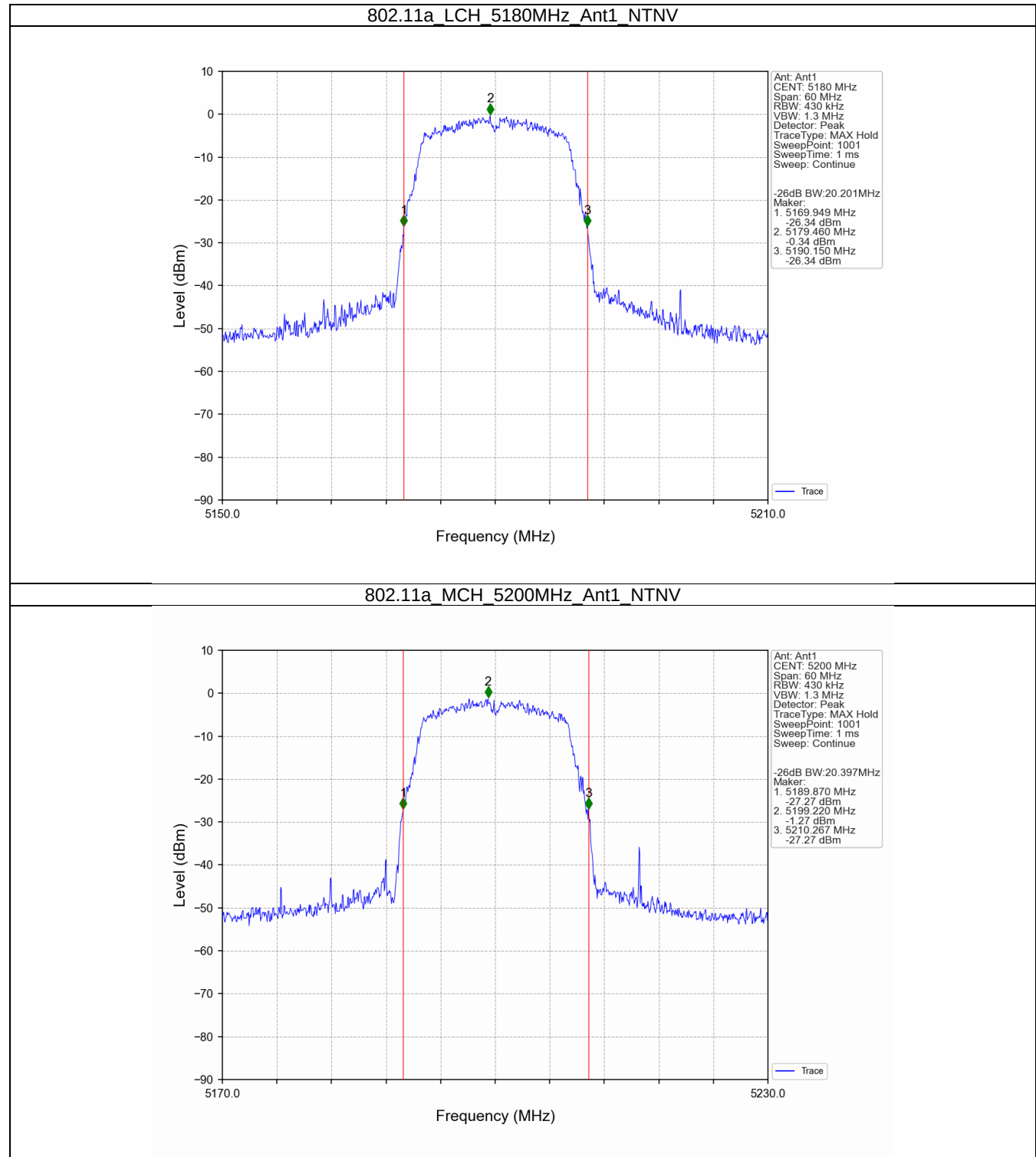
802.11ac(VHT40)_HCH_5230MHz_Ant1_NTNV



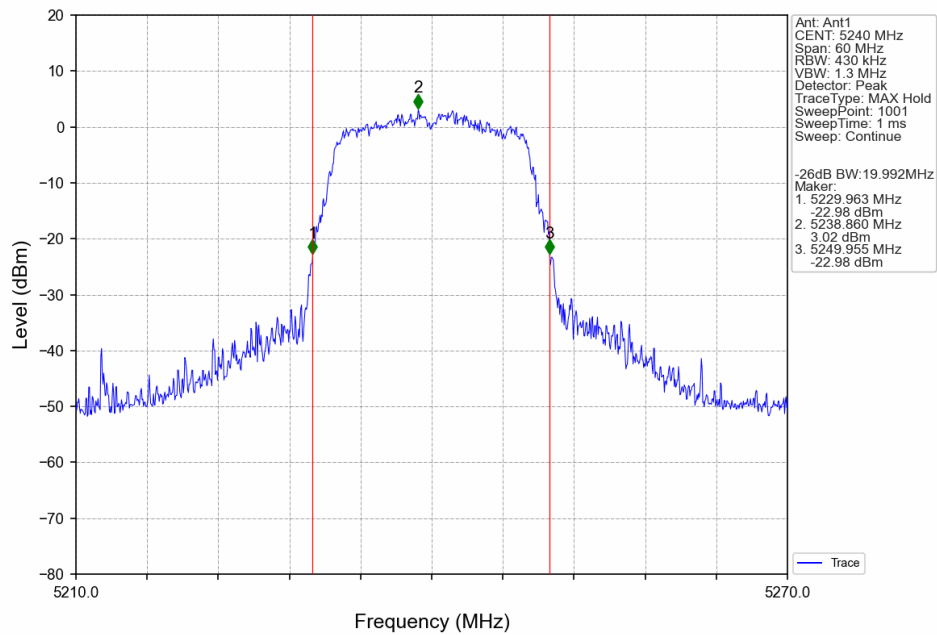
802.11ac(VHT80)_MCH_5210MHz_Ant1_NTNV



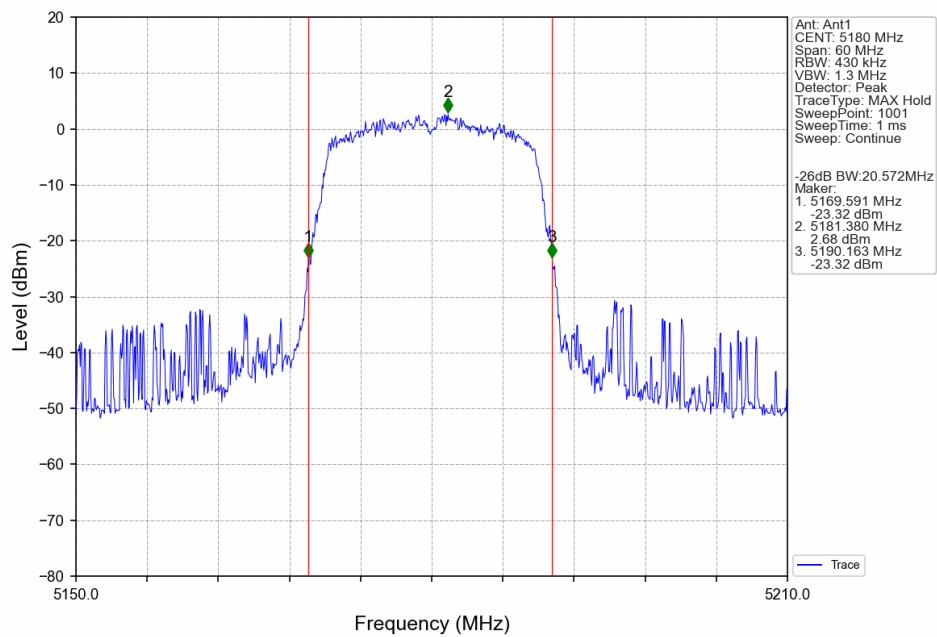
2.2.2 26dB BW



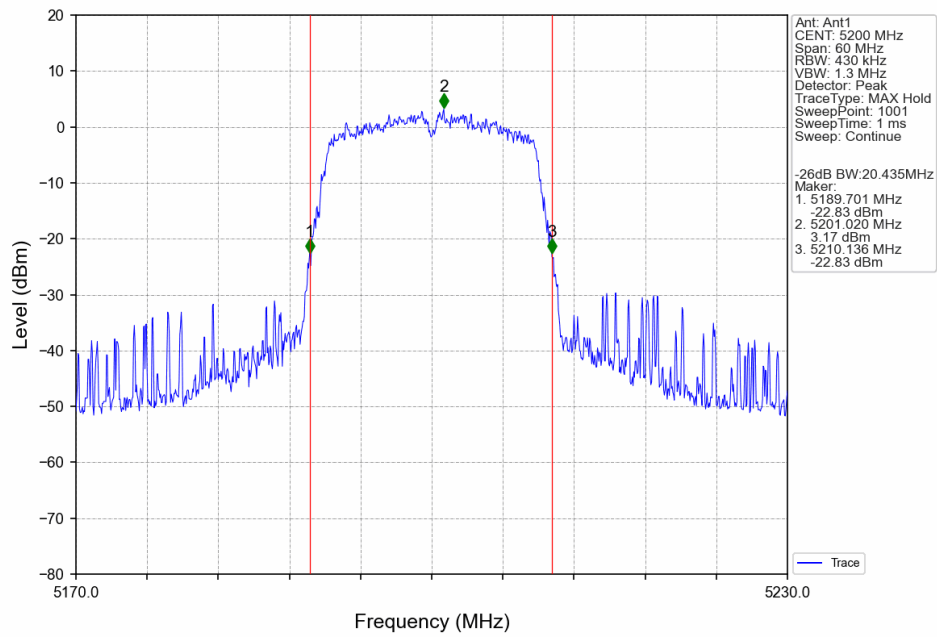
802.11a_HCH_5240MHz_Ant1_NTNV



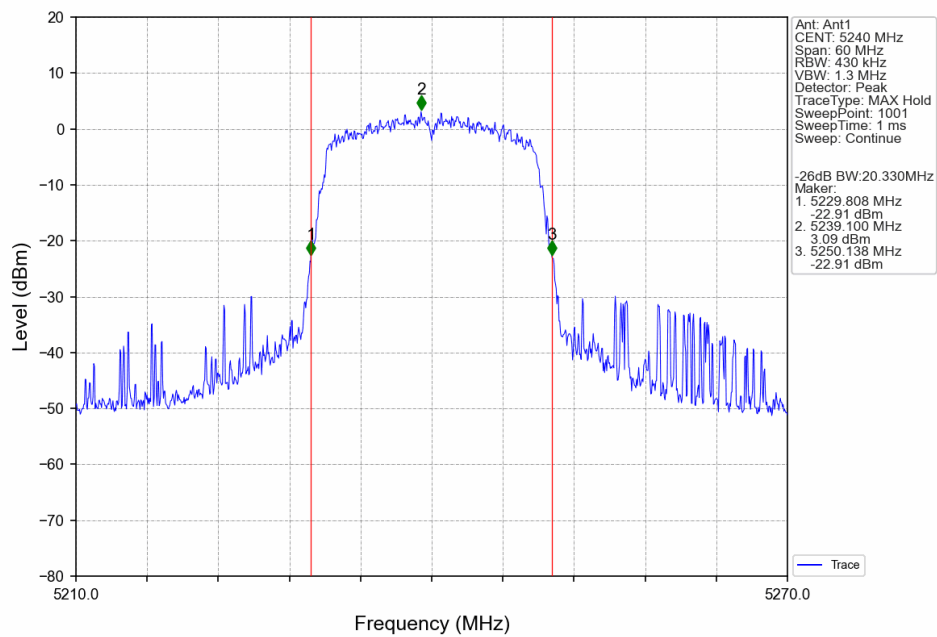
802.11n(HT20)_LCH_5180MHz_Ant1_NTNV



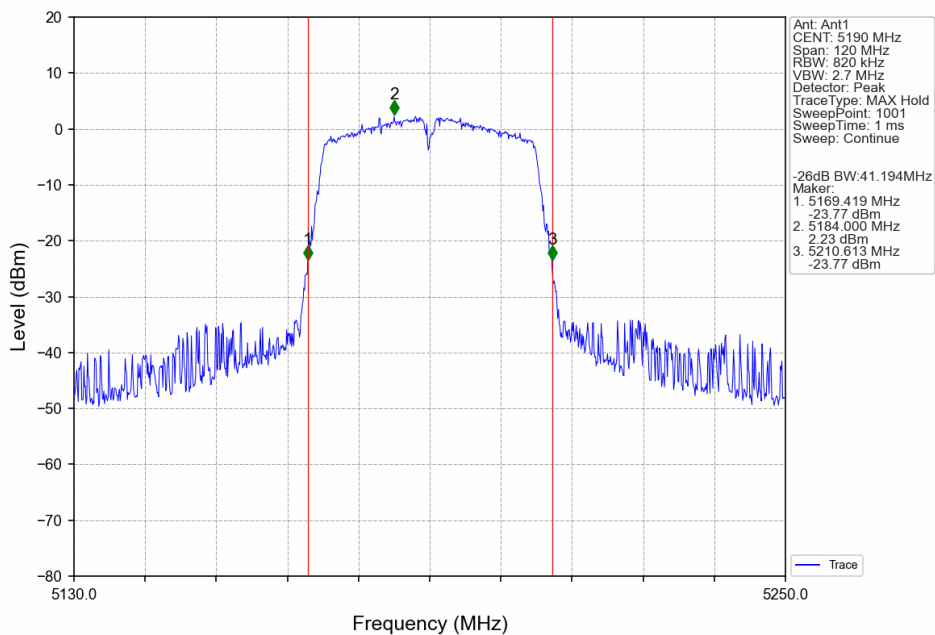
802.11n(HT20)_MCH_5200MHz_Ant1_NTNV



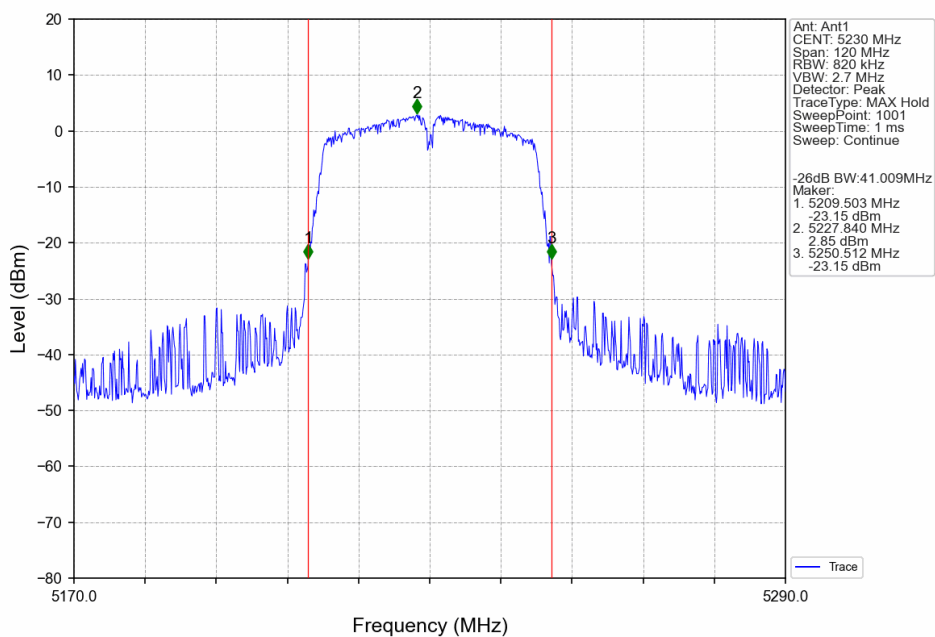
802.11n(HT20)_HCH_5240MHz_Ant1_NTNV



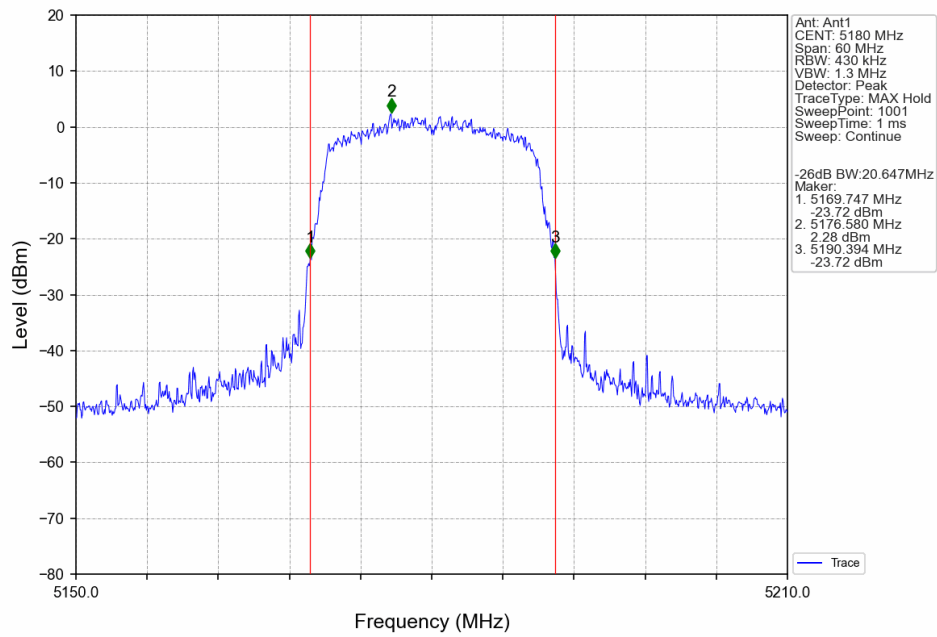
802.11n(HT40)_LCH_5190MHz_Ant1_NTNV



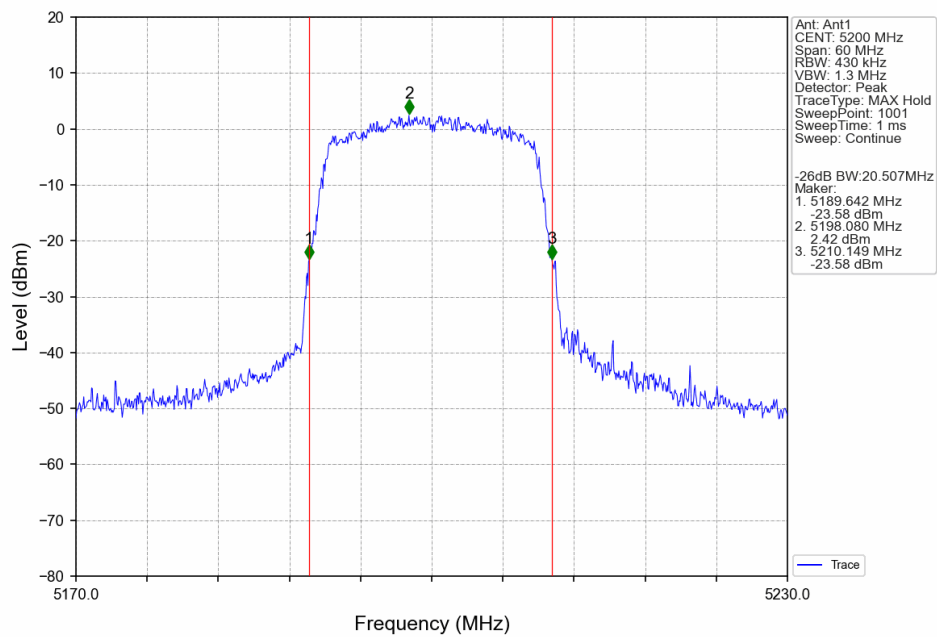
802.11n(HT40)_HCH_5230MHz_Ant1_NTNV



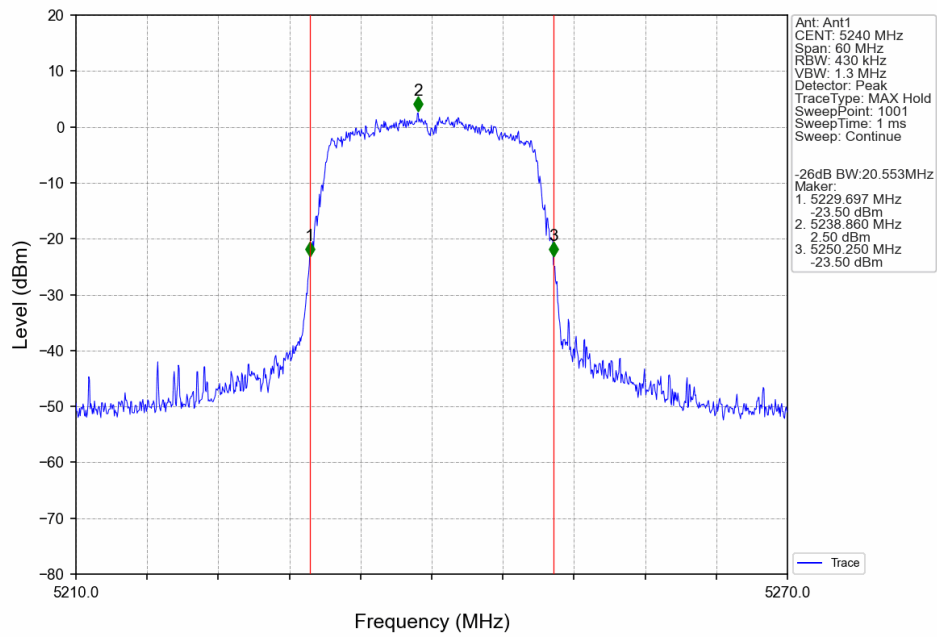
802.11ac(VHT20)_LCH_5180MHz_Ant1_NTNV



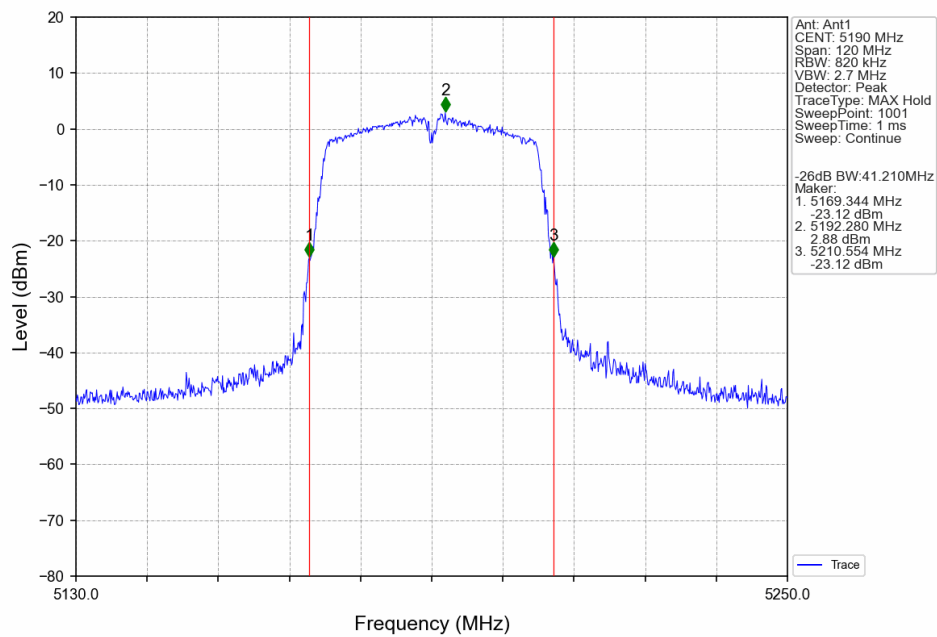
802.11ac(VHT20)_MCH_5200MHz_Ant1_NTNV



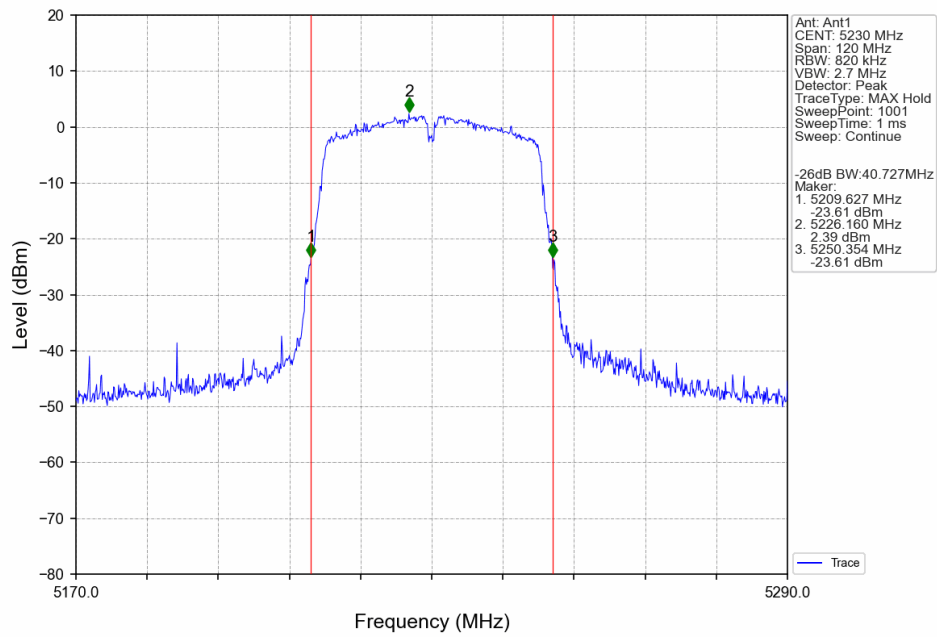
802.11ac(VHT20)_HCH_5240MHz_Ant1_NTNV



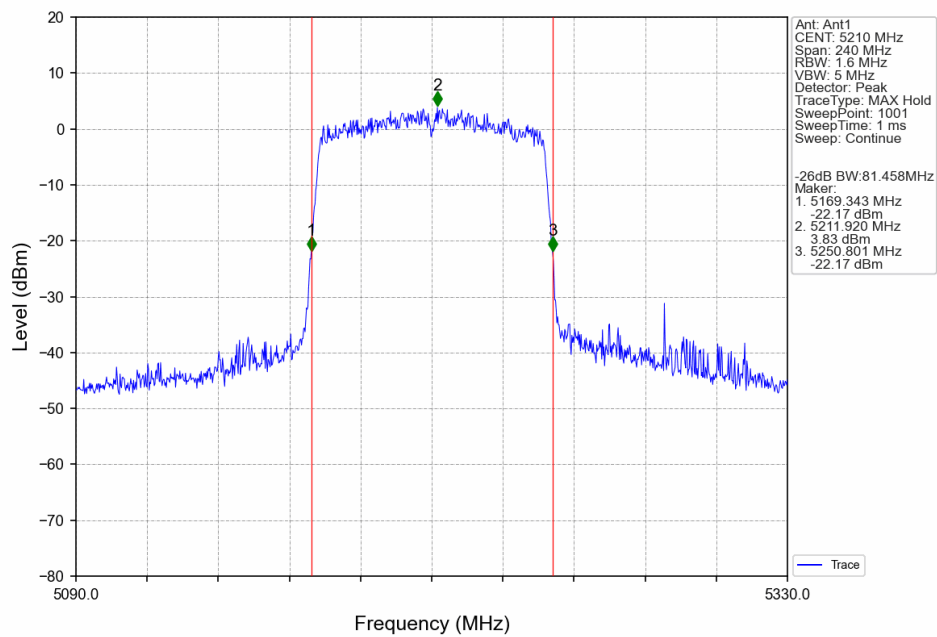
802.11ac(VHT40)_LCH_5190MHz_Ant1_NTNV



802.11ac(VHT40)_HCH_5230MHz_Ant1_NTNV



802.11ac(VHT80)_MCH_5210MHz_Ant1_NTNV



3. Maximum Conducted Output Power

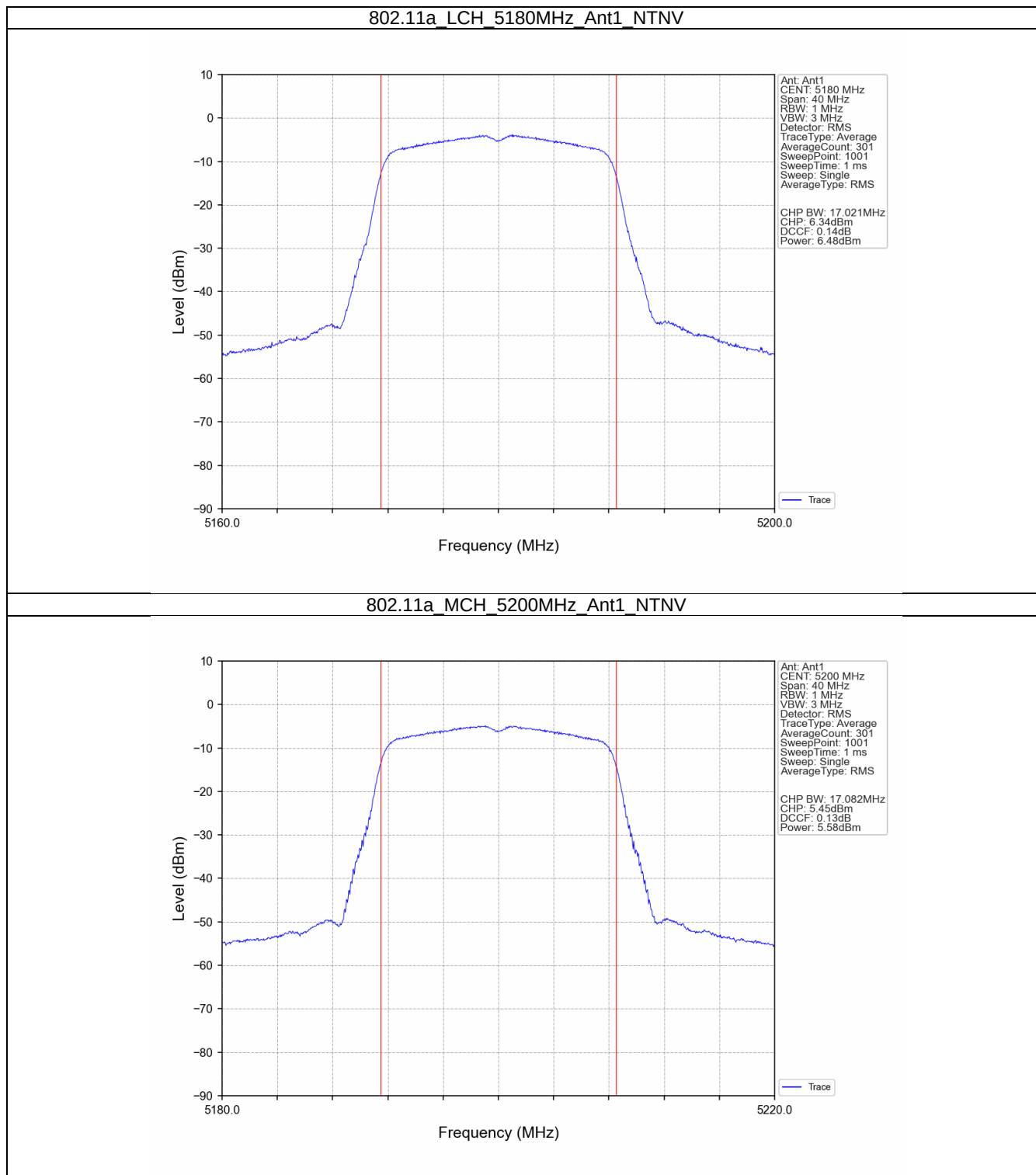
3.1 Test Result

3.1.1 Power

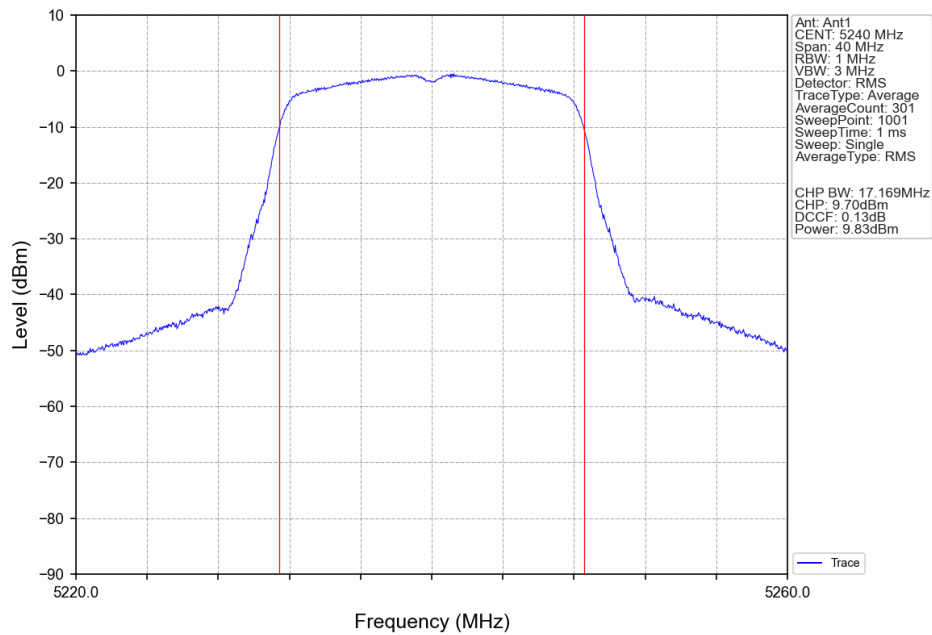
Mode	TX Type	Frequency (MHz)	Maximum Average Conducted Output Power (dBm)		Verdict
			ANT1	Limit	
802.11a	SISO	5180	6.48	≤ 23.98	Pass
		5200	5.58	≤ 23.98	Pass
		5240	9.83	≤ 23.98	Pass
802.11n (HT20)	SISO	5180	9.42	≤ 23.98	Pass
		5200	9.46	≤ 23.98	Pass
		5240	9.28	≤ 23.98	Pass
802.11n (HT40)	SISO	5190	9.23	≤ 23.98	Pass
		5230	9.37	≤ 23.98	Pass
802.11ac (VHT20)	SISO	5180	9.10	≤ 23.98	Pass
		5200	9.30	≤ 23.98	Pass
		5240	9.15	≤ 23.98	Pass
802.11ac (VHT40)	SISO	5190	9.31	≤ 23.98	Pass
		5230	9.22	≤ 23.98	Pass
802.11ac (VHT80)	SISO	5210	8.98	≤ 23.98	Pass

3.2 Test Graph

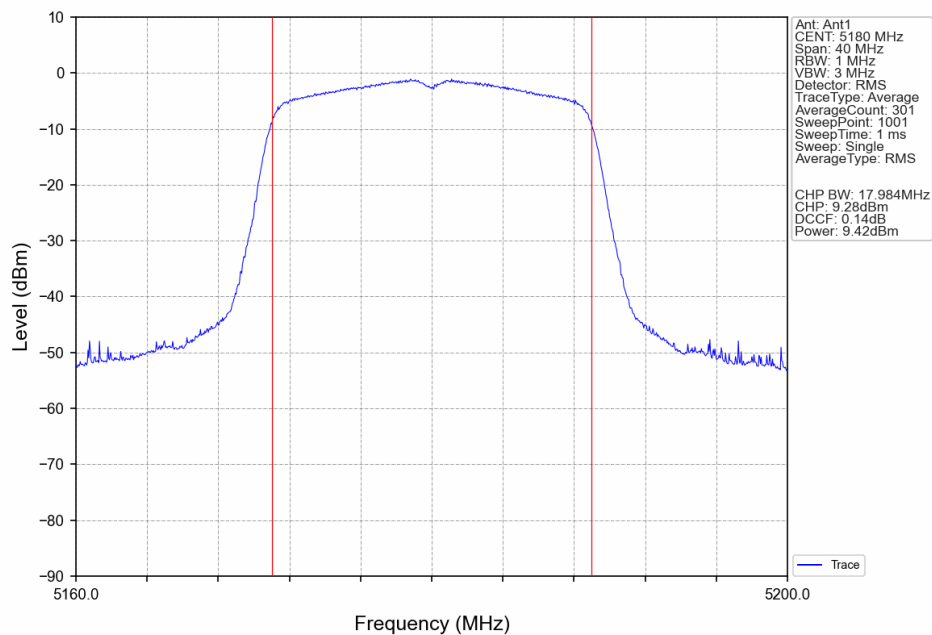
3.2.1 Power



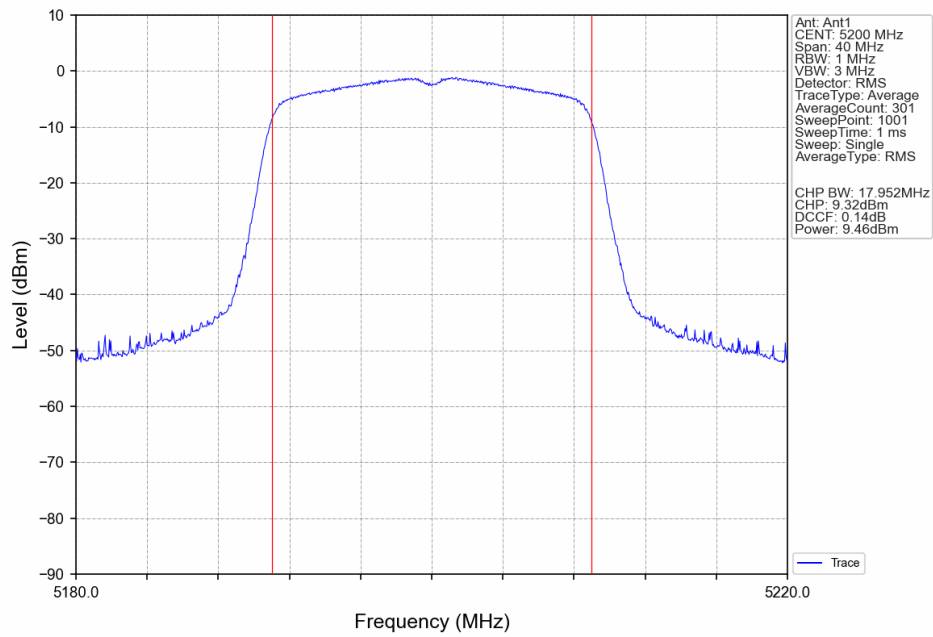
802.11a_HCH_5240MHz_Ant1_NTNV



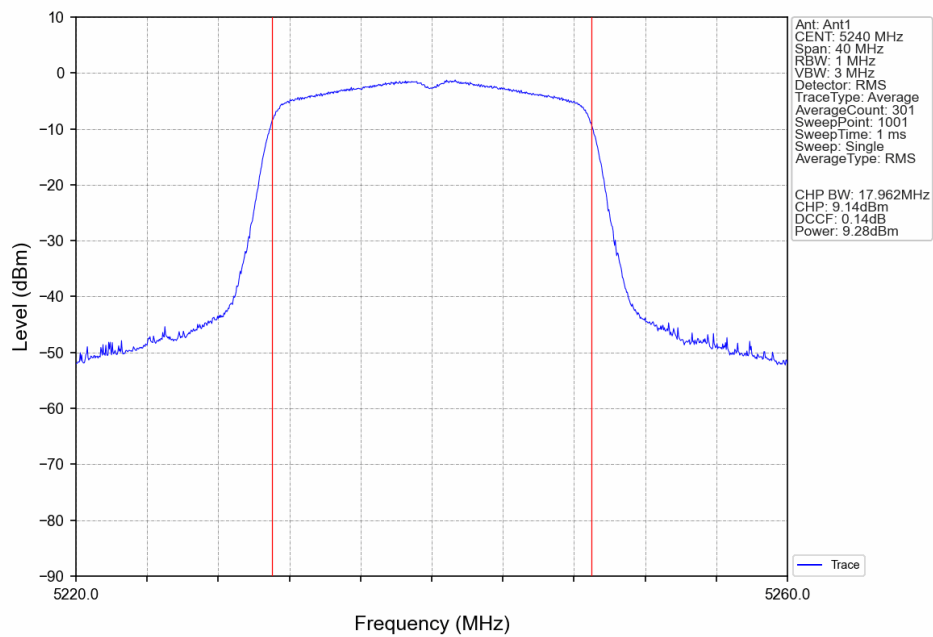
802.11n(HT20)_LCH_5180MHz_Ant1_NTNV



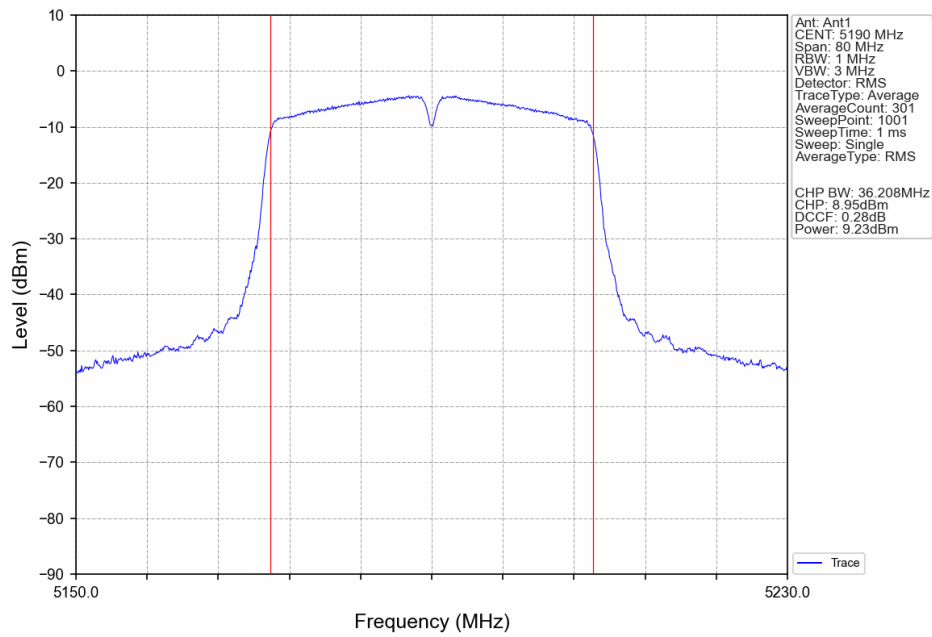
802.11n(HT20)_MCH_5200MHz_Ant1_NTNV



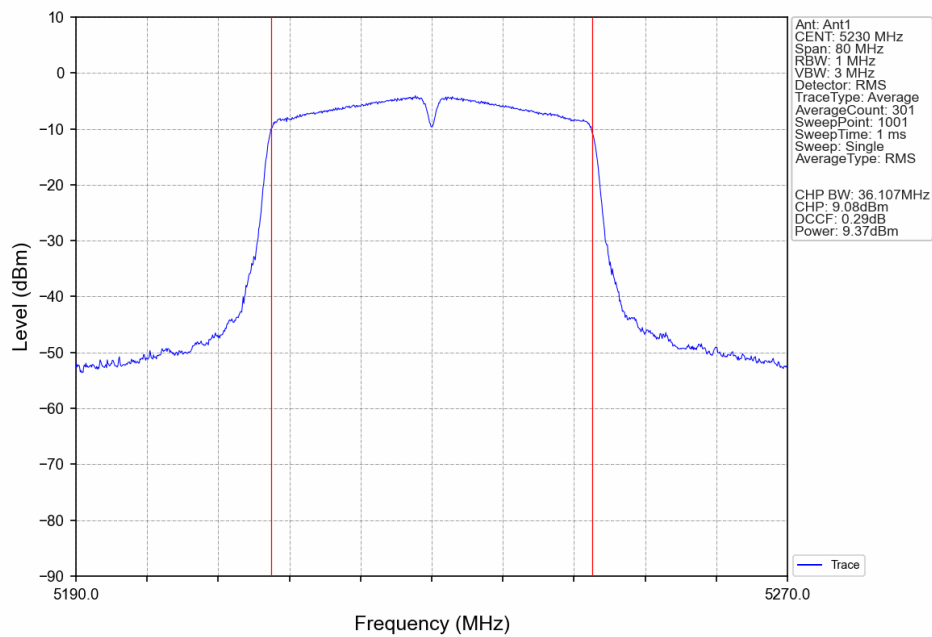
802.11n(HT20)_HCH_5240MHz_Ant1_NTNV



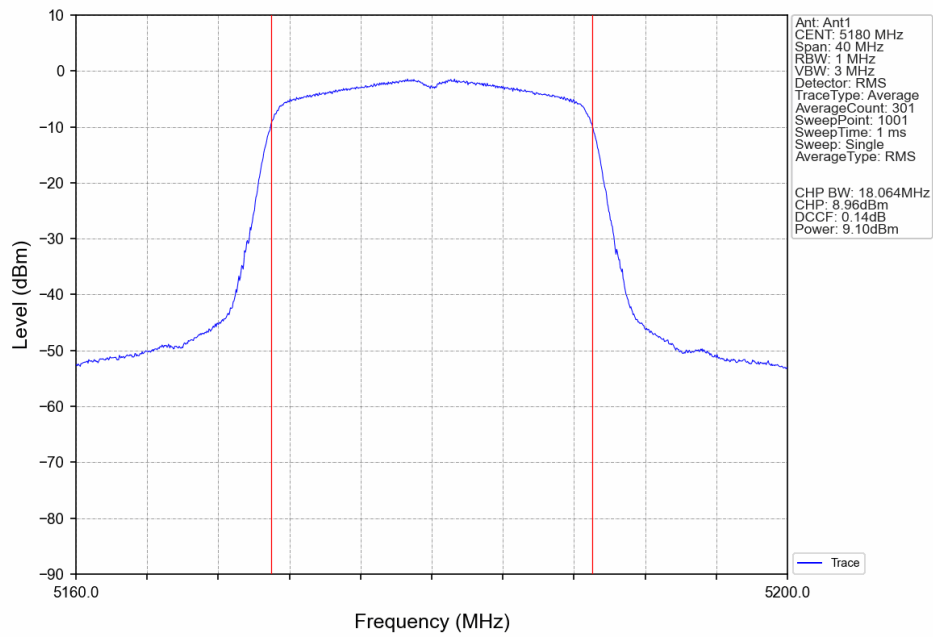
802.11n(HT40)_LCH_5190MHz_Ant1_NTNV



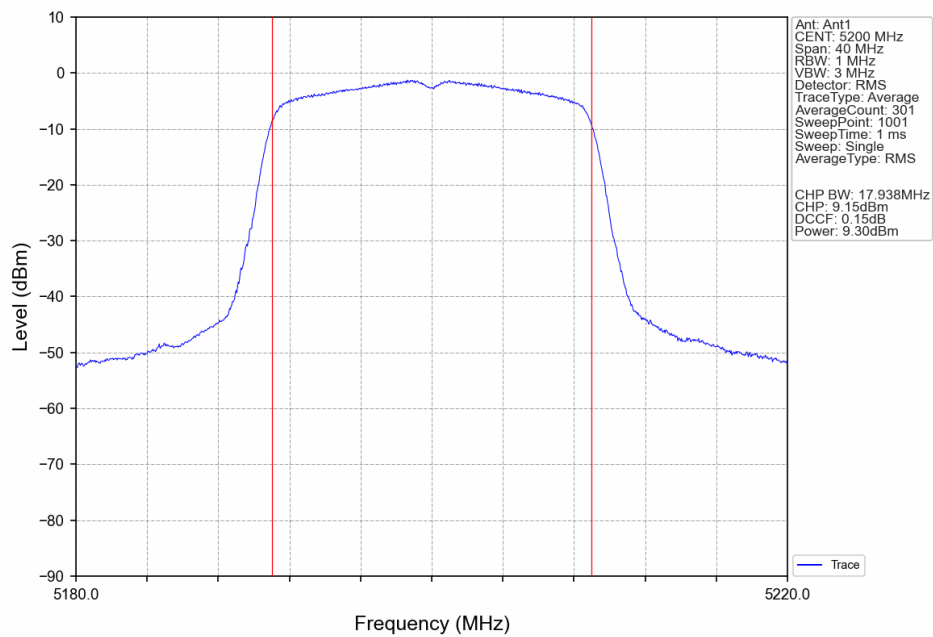
802.11n(HT40)_HCH_5230MHz_Ant1_NTNV



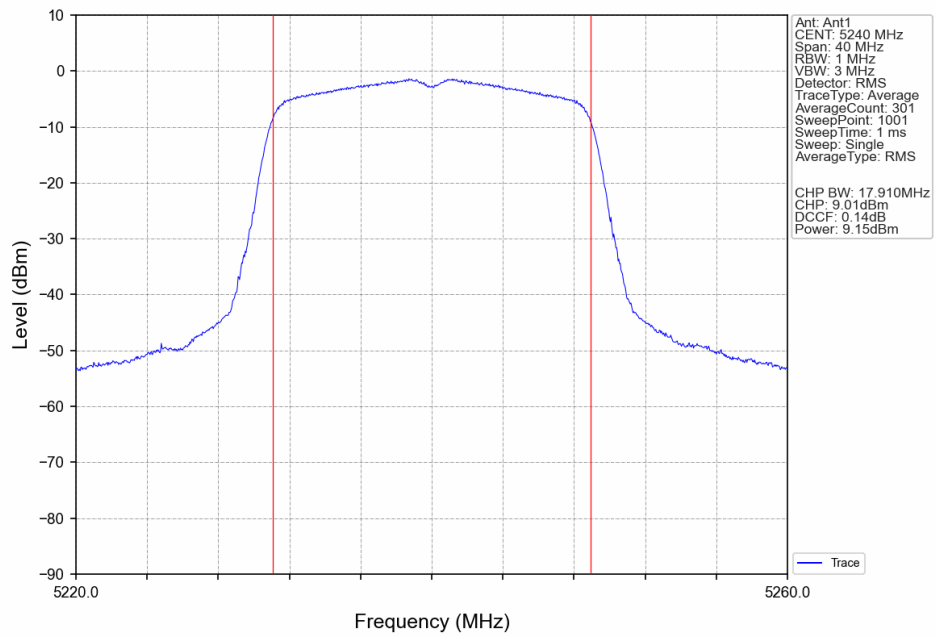
802.11ac(VHT20)_LCH_5180MHz_Ant1_NTNV



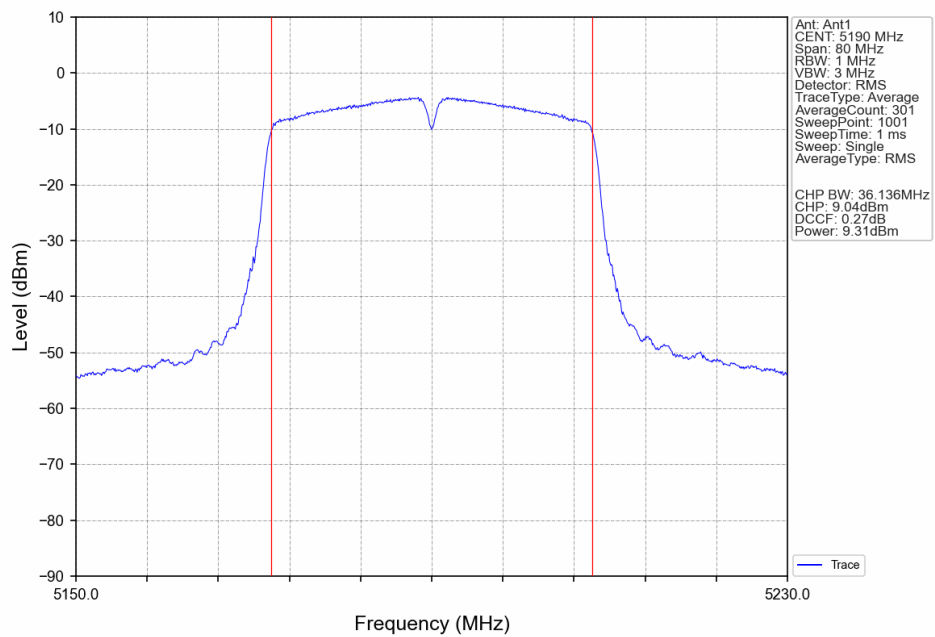
802.11ac(VHT20)_MCH_5200MHz_Ant1_NTNV



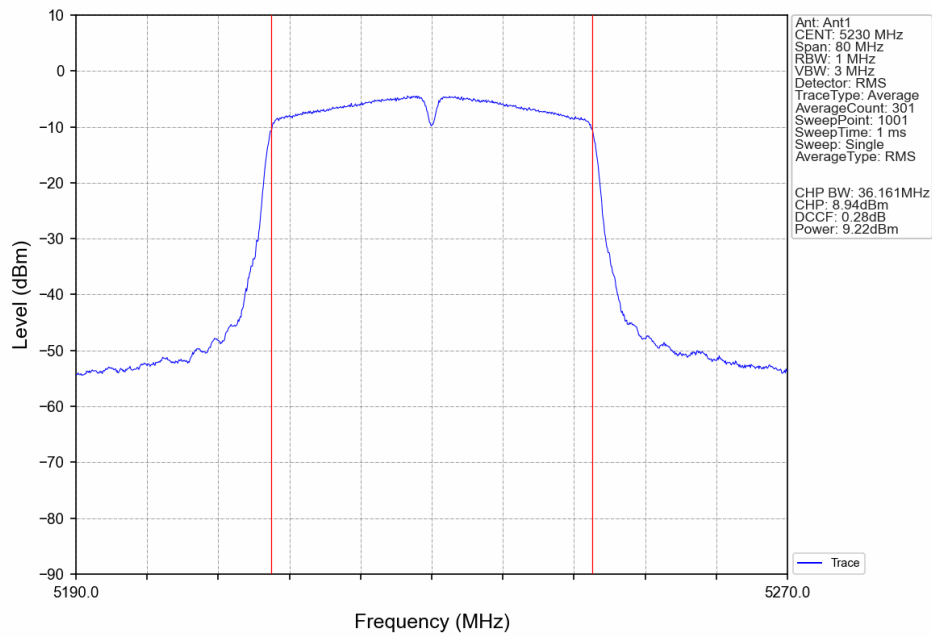
802.11ac(VHT20)_HCH_5240MHz_Ant1_NTNV



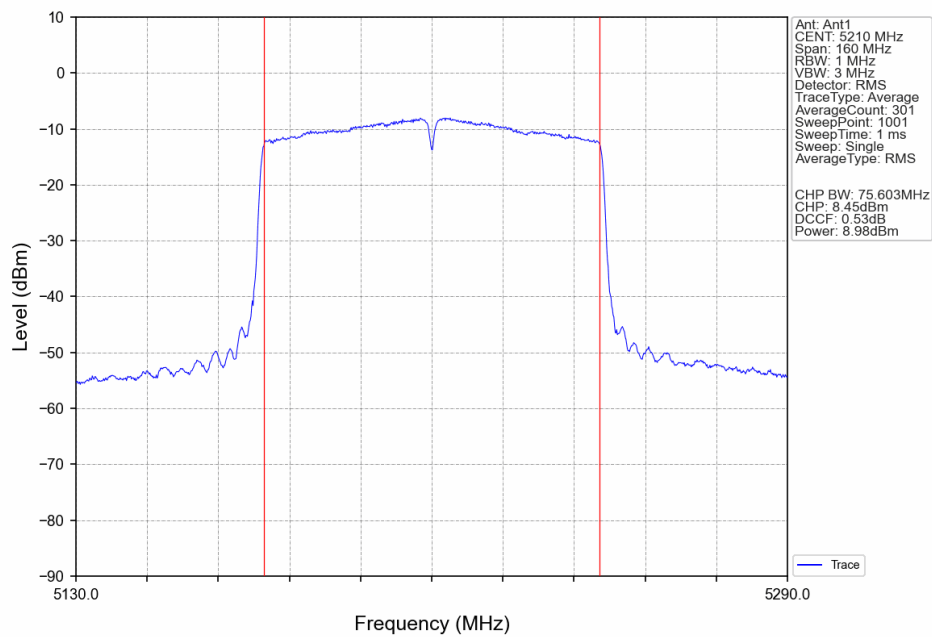
802.11ac(VHT40)_LCH_5190MHz_Ant1_NTNV



802.11ac(VHT40)_HCH_5230MHz_Ant1_NTNV



802.11ac(VHT80)_MCH_5210MHz_Ant1_NTNV



4. Maximum Power Spectral Density

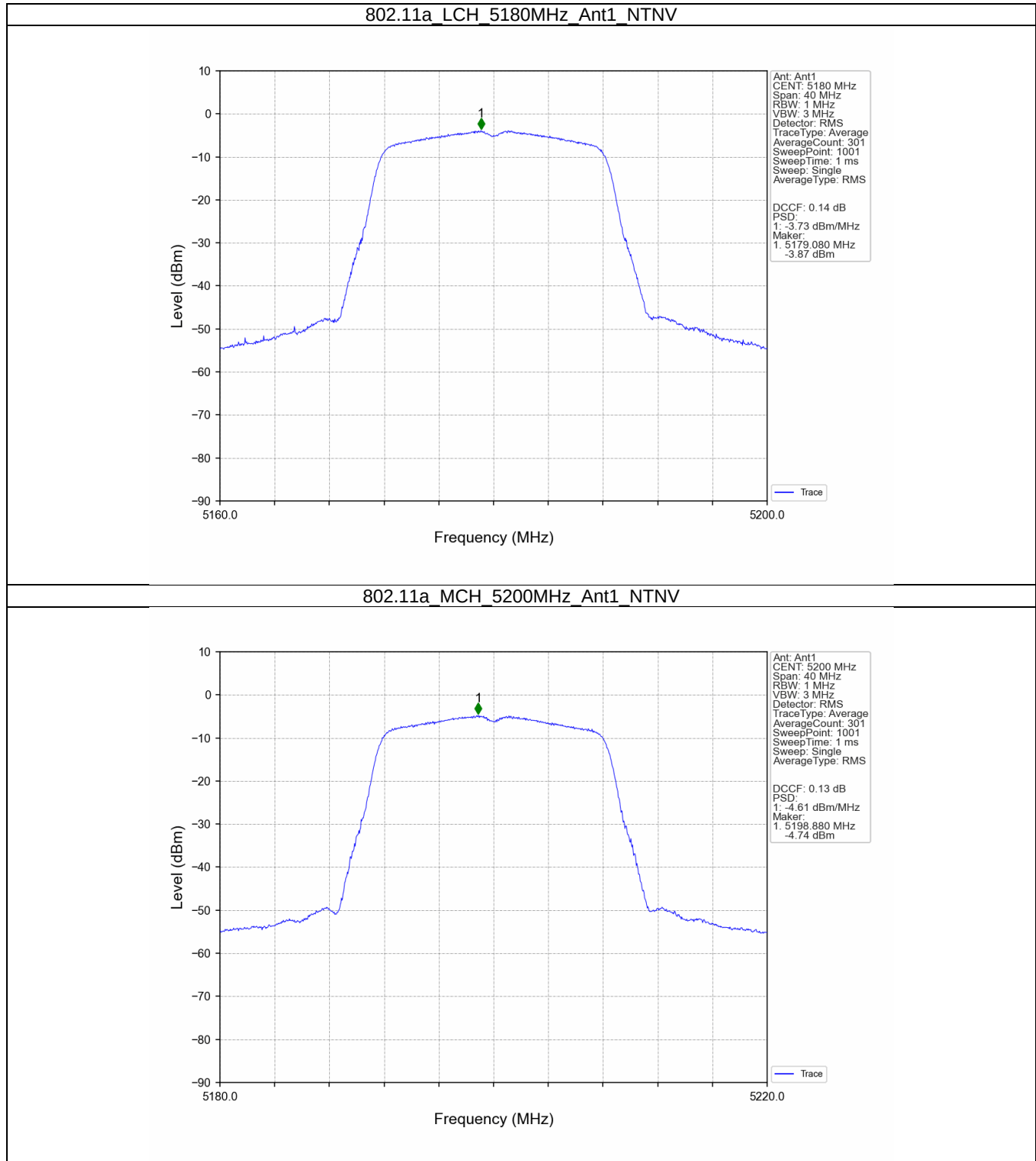
4.1 Test Result

4.1.1 PSD

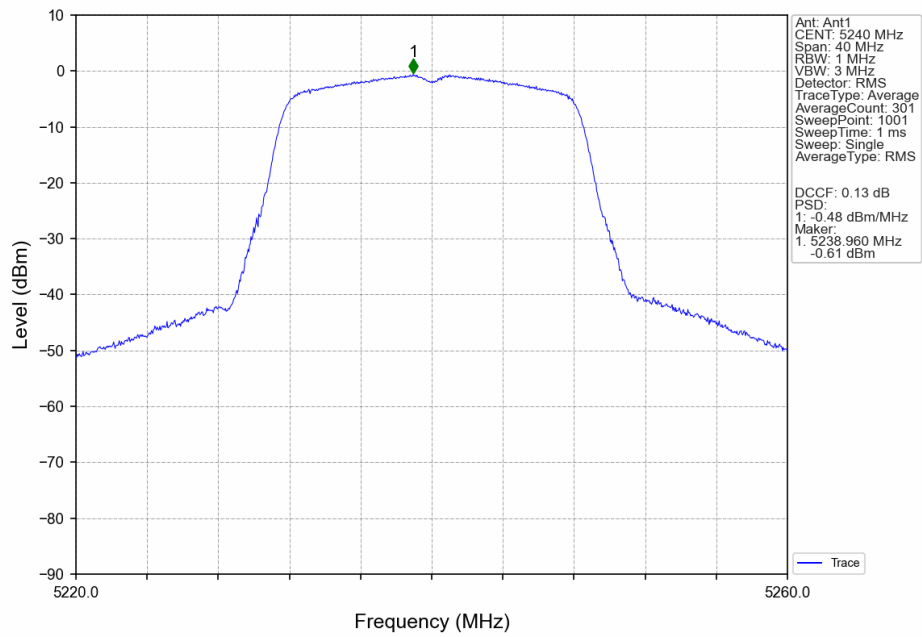
Mode	TX Type	Frequency (MHz)	Maximum PSD (dBm/MHz)		Verdict
			ANT1	Limit	
802.11a	SISO	5180	-3.73	<=11	Pass
		5200	-4.61	<=11	Pass
		5240	-0.48	<=11	Pass
802.11n (HT20)	SISO	5180	-0.90	<=11	Pass
		5200	-0.90	<=11	Pass
		5240	-1.14	<=11	Pass
802.11n (HT40)	SISO	5190	-4.12	<=11	Pass
		5230	-3.92	<=11	Pass
802.11ac (VHT20)	SISO	5180	-1.26	<=11	Pass
		5200	-1.25	<=11	Pass
		5240	-1.24	<=11	Pass
802.11ac (VHT40)	SISO	5190	-4.05	<=11	Pass
		5230	-3.91	<=11	Pass
802.11ac (VHT80)	SISO	5210	-7.38	<=11	Pass

4.2 Test Graph

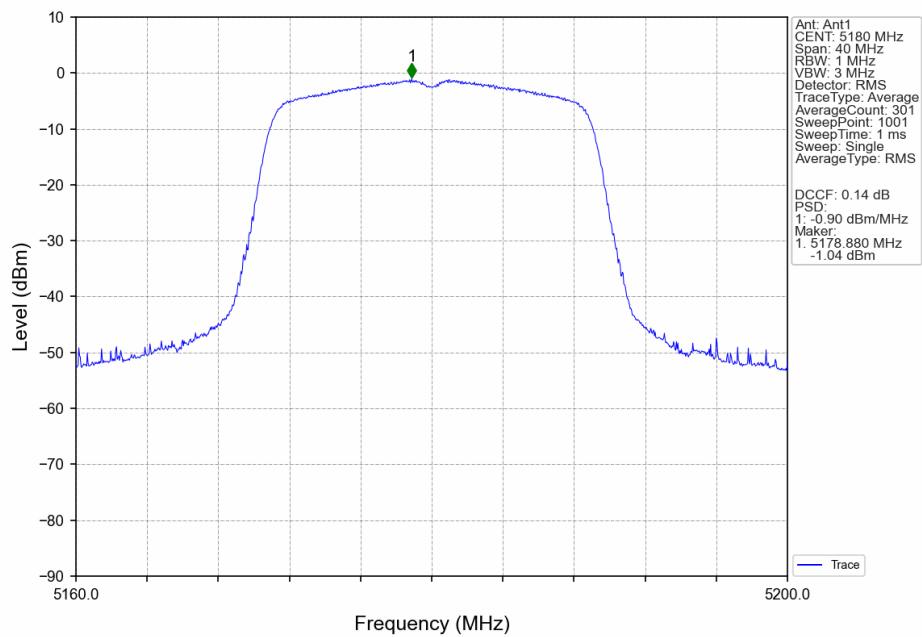
4.2.1 PSD



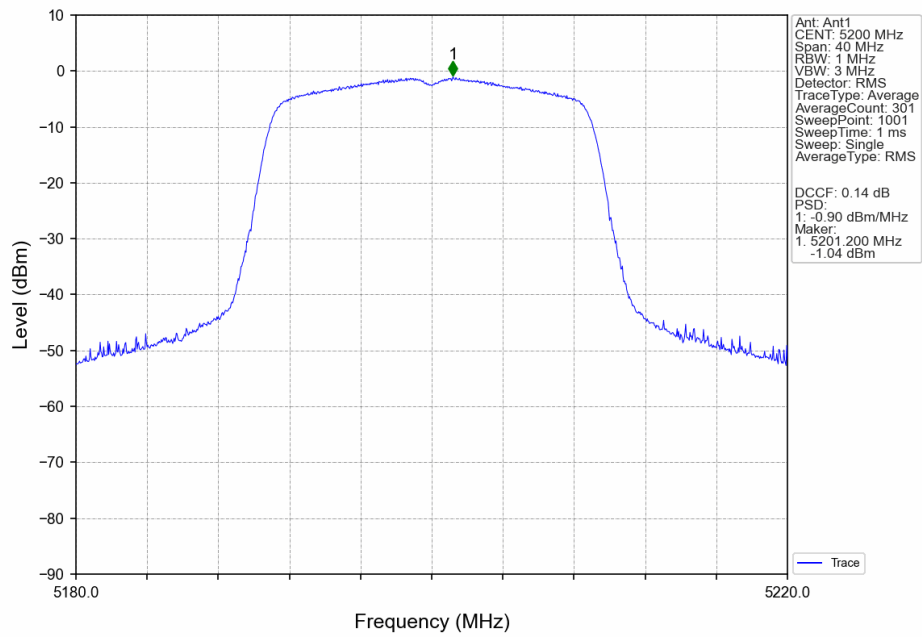
802.11a_HCH_5240MHz_Ant1_NTNV



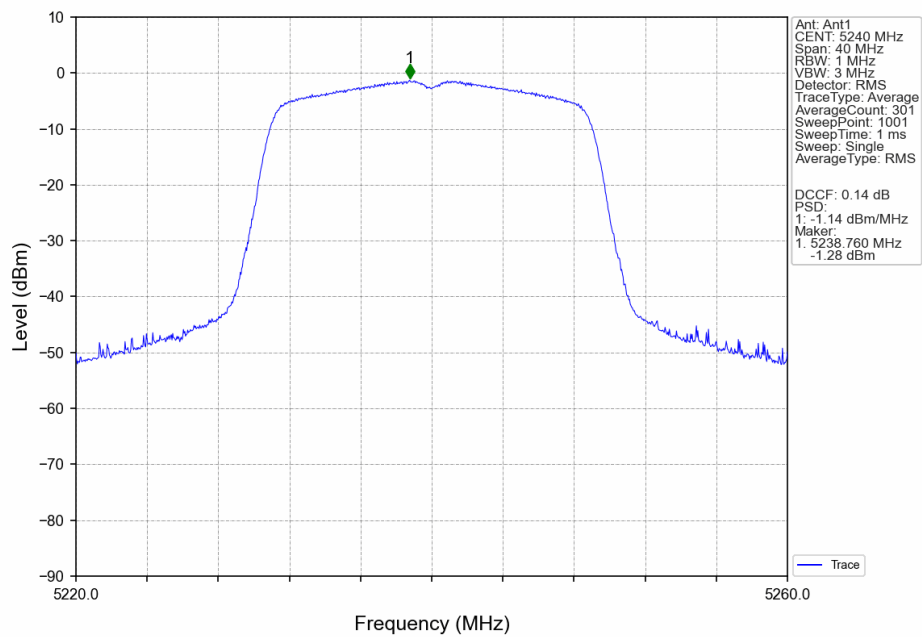
802.11n(HT20)_LCH_5180MHz_Ant1_NTNV



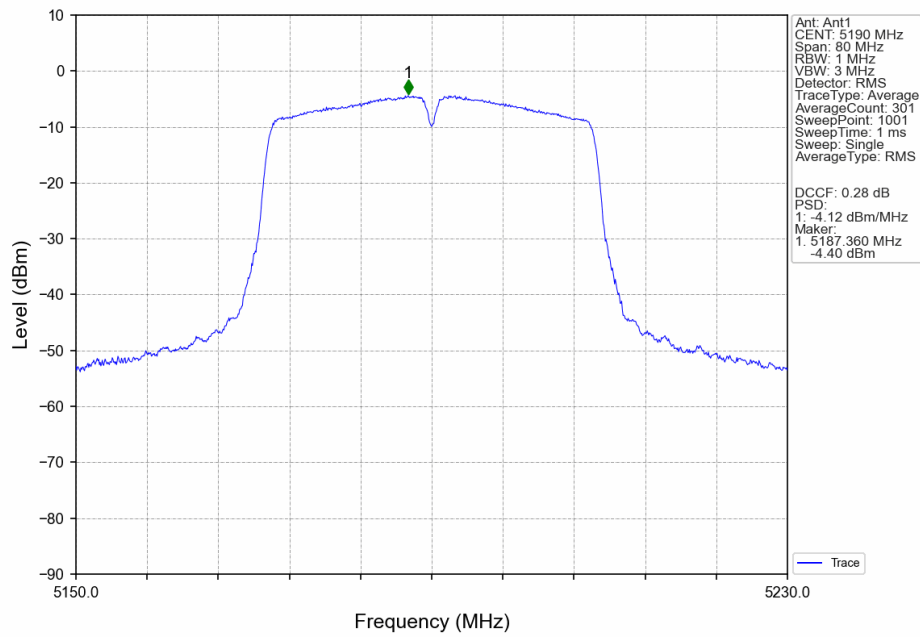
802.11n(HT20)_MCH_5200MHz_Ant1_NTNV



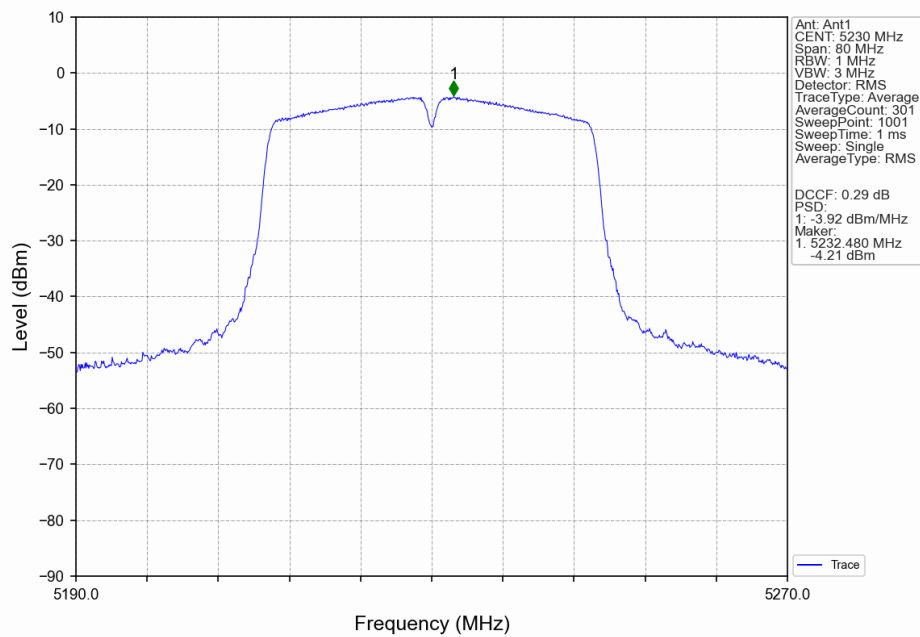
802.11n(HT20)_HCH_5240MHz_Ant1_NTNV



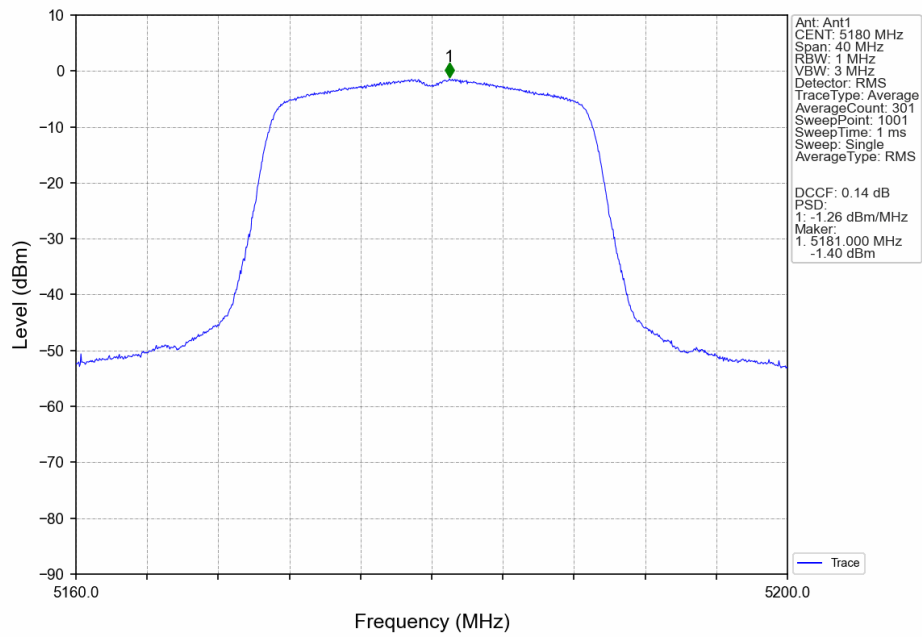
802.11n(HT40)_LCH_5190MHz_Ant1_NTNV



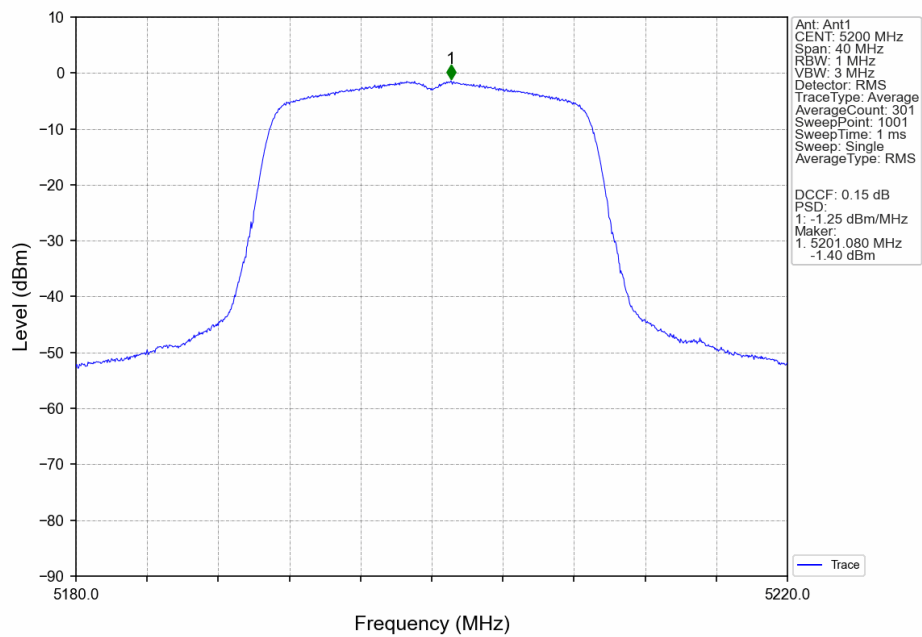
802.11n(HT40)_HCH_5230MHz_Ant1_NTNV



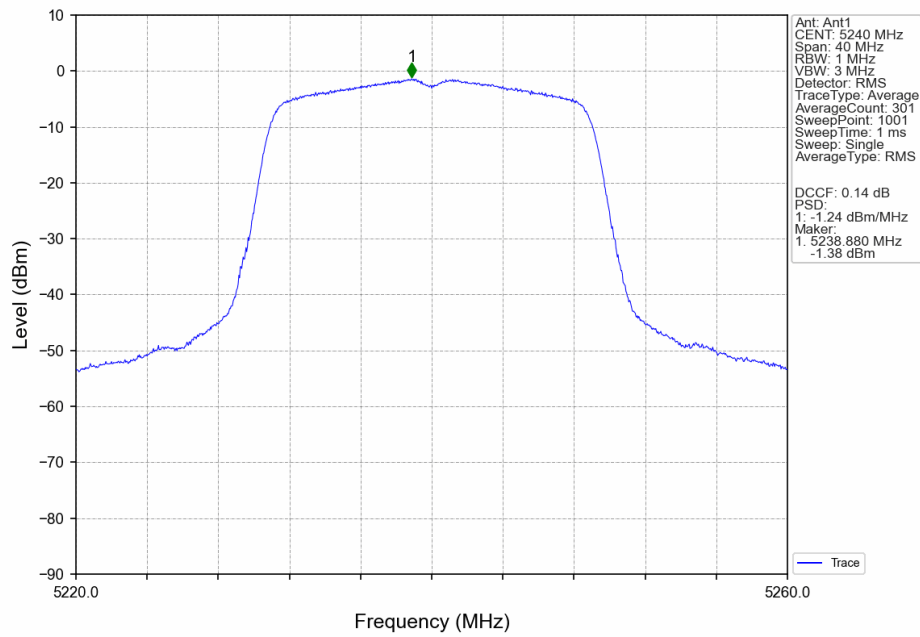
802.11ac(VHT20)_LCH_5180MHz_Ant1_NTNV



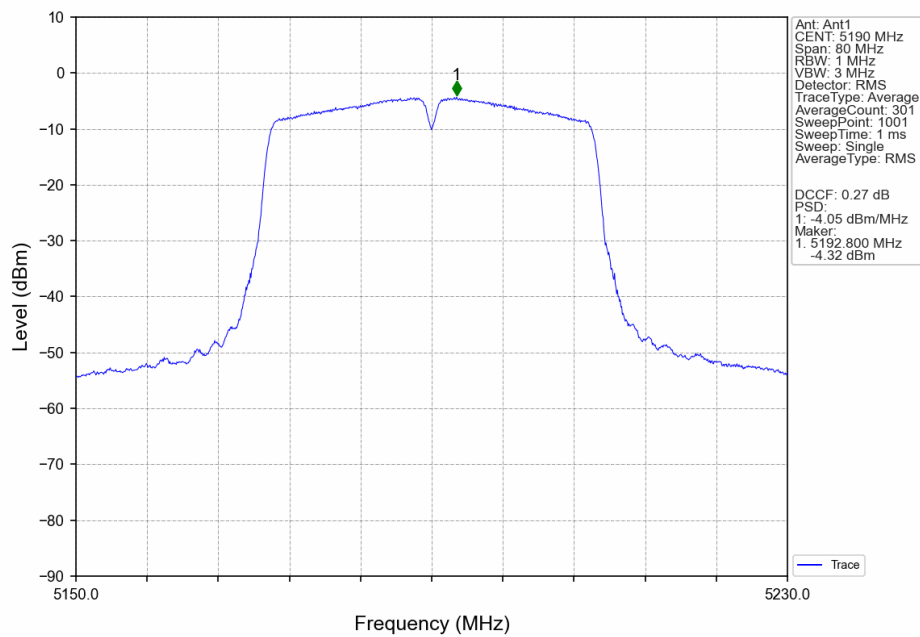
802.11ac(VHT20)_MCH_5200MHz_Ant1_NTNV



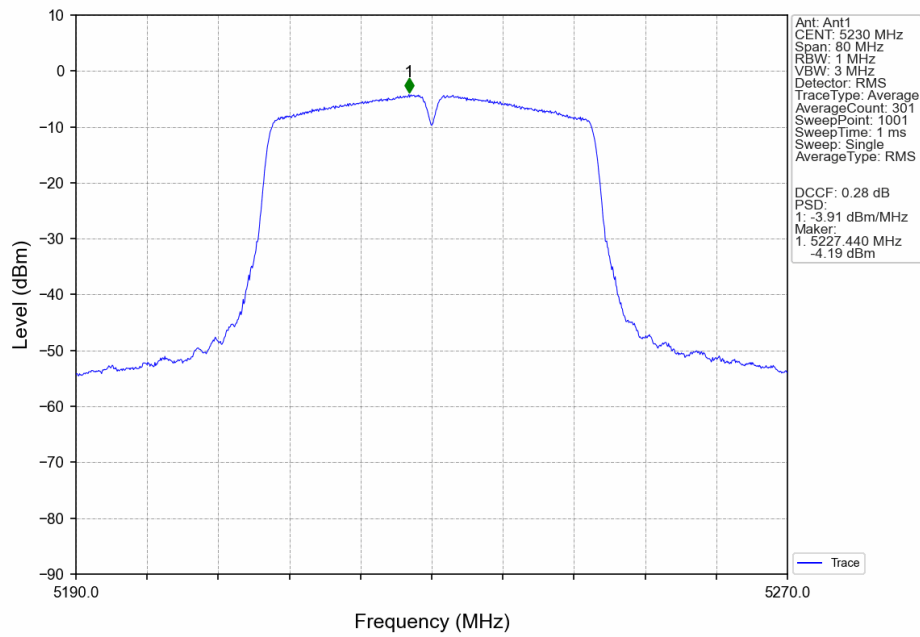
802.11ac(VHT20)_HCH_5240MHz_Ant1_NTNV



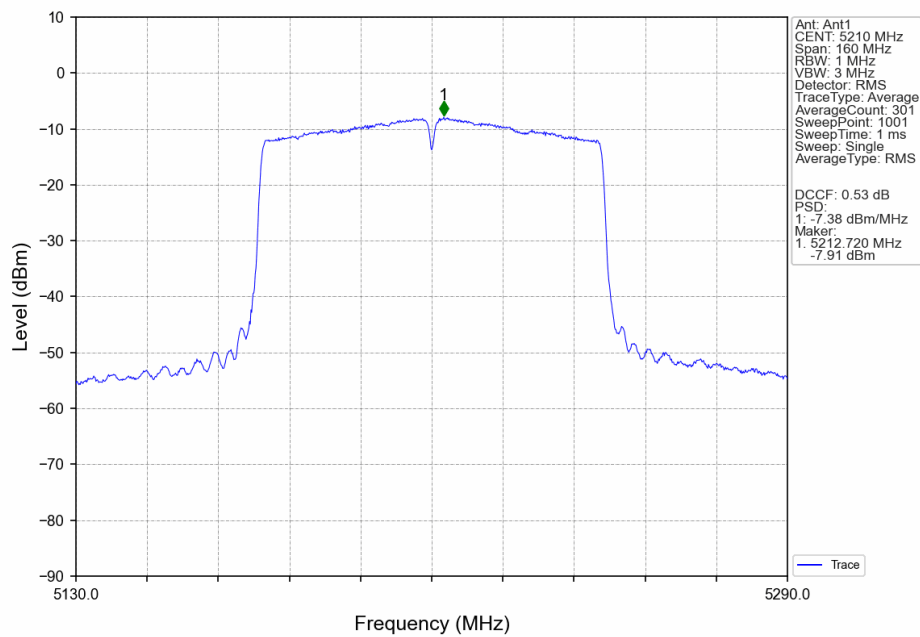
802.11ac(VHT40)_LCH_5190MHz_Ant1_NTNV



802.11ac(VHT40)_HCH_5230MHz_Ant1_NTNV



802.11ac(VHT80)_MCH_5210MHz_Ant1_NTNV



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	5179.981	5150 to 5250	Pass
				120	5179.981	5150 to 5250	Pass
				138	5179.980	5150 to 5250	Pass
			-30	120	5179.980	5150 to 5250	Pass
			-20	120	5179.979	5150 to 5250	Pass
			-10	120	5179.979	5150 to 5250	Pass
			0	120	5179.979	5150 to 5250	Pass
			10	120	5179.979	5150 to 5250	Pass
			30	120	5179.978	5150 to 5250	Pass
			40	120	5179.978	5150 to 5250	Pass
			50	120	5179.978	5150 to 5250	Pass
		5200	20	102	5199.975	5150 to 5250	Pass
				120	5199.975	5150 to 5250	Pass
				138	5199.975	5150 to 5250	Pass
			-30	120	5199.975	5150 to 5250	Pass
			-20	120	5199.975	5150 to 5250	Pass
			-10	120	5199.975	5150 to 5250	Pass
			0	120	5199.975	5150 to 5250	Pass
			10	120	5199.858	5150 to 5250	Pass
			30	120	5200.156	5150 to 5250	Pass
			40	120	5200.309	5150 to 5250	Pass
			50	120	5199.500	5150 to 5250	Pass
		5240	20	102	5239.977	5150 to 5250	Pass
				120	5239.977	5150 to 5250	Pass
				138	5239.977	5150 to 5250	Pass
			-30	120	5239.977	5150 to 5250	Pass
			-20	120	5239.976	5150 to 5250	Pass
			-10	120	5239.976	5150 to 5250	Pass
			0	120	5239.976	5150 to 5250	Pass
			10	120	5239.976	5150 to 5250	Pass
			30	120	5239.976	5150 to 5250	Pass
			40	120	5239.976	5150 to 5250	Pass
			50	120	5239.975	5150 to 5250	Pass
		5190	20	102	5189.969	5150 to 5250	Pass
				120	5189.969	5150 to 5250	Pass
				138	5189.969	5150 to 5250	Pass
			-30	120	5189.969	5150 to 5250	Pass
			-20	120	5189.969	5150 to 5250	Pass
			-10	120	5189.969	5150 to 5250	Pass
			0	120	5189.969	5150 to 5250	Pass
			10	120	5189.969	5150 to 5250	Pass
			30	120	5189.969	5150 to 5250	Pass
			40	120	5189.969	5150 to 5250	Pass
			50	120	5189.969	5150 to 5250	Pass
		5230	20	102	5229.969	5150 to 5250	Pass
				120	5229.969	5150 to 5250	Pass



				138	5229.969	5150 to 5250	Pass
			-30	120	5229.969	5150 to 5250	Pass
			-20	120	5229.969	5150 to 5250	Pass
			-10	120	5229.969	5150 to 5250	Pass
			0	120	5229.969	5150 to 5250	Pass
			10	120	5229.969	5150 to 5250	Pass
			30	120	5229.969	5150 to 5250	Pass
			40	120	5229.969	5150 to 5250	Pass
			50	120	5229.969	5150 to 5250	Pass
		5210	20	102	5209.969	5150 to 5250	Pass
				120	5209.969	5150 to 5250	Pass
				138	5209.969	5150 to 5250	Pass
			-30	120	5209.969	5150 to 5250	Pass
			-20	120	5209.969	5150 to 5250	Pass
			-10	120	5209.895	5150 to 5250	Pass
			0	120	5210.220	5150 to 5250	Pass
			10	120	5209.595	5150 to 5250	Pass
			30	120	5210.408	5150 to 5250	Pass
			40	120	5209.977	5150 to 5250	Pass
			50	120	5210.095	5150 to 5250	Pass

6. Form731

6.1 Test Result

6.1.1 Form731

Lower Freq (MHz)	High Freq (MHz)	MAX Power (W)	MAX Power (dBm)
5180	5240	0.0096	9.83
5190	5230	0.0086	9.37
5210	5210	0.0079	8.98

***** End of Report *****