

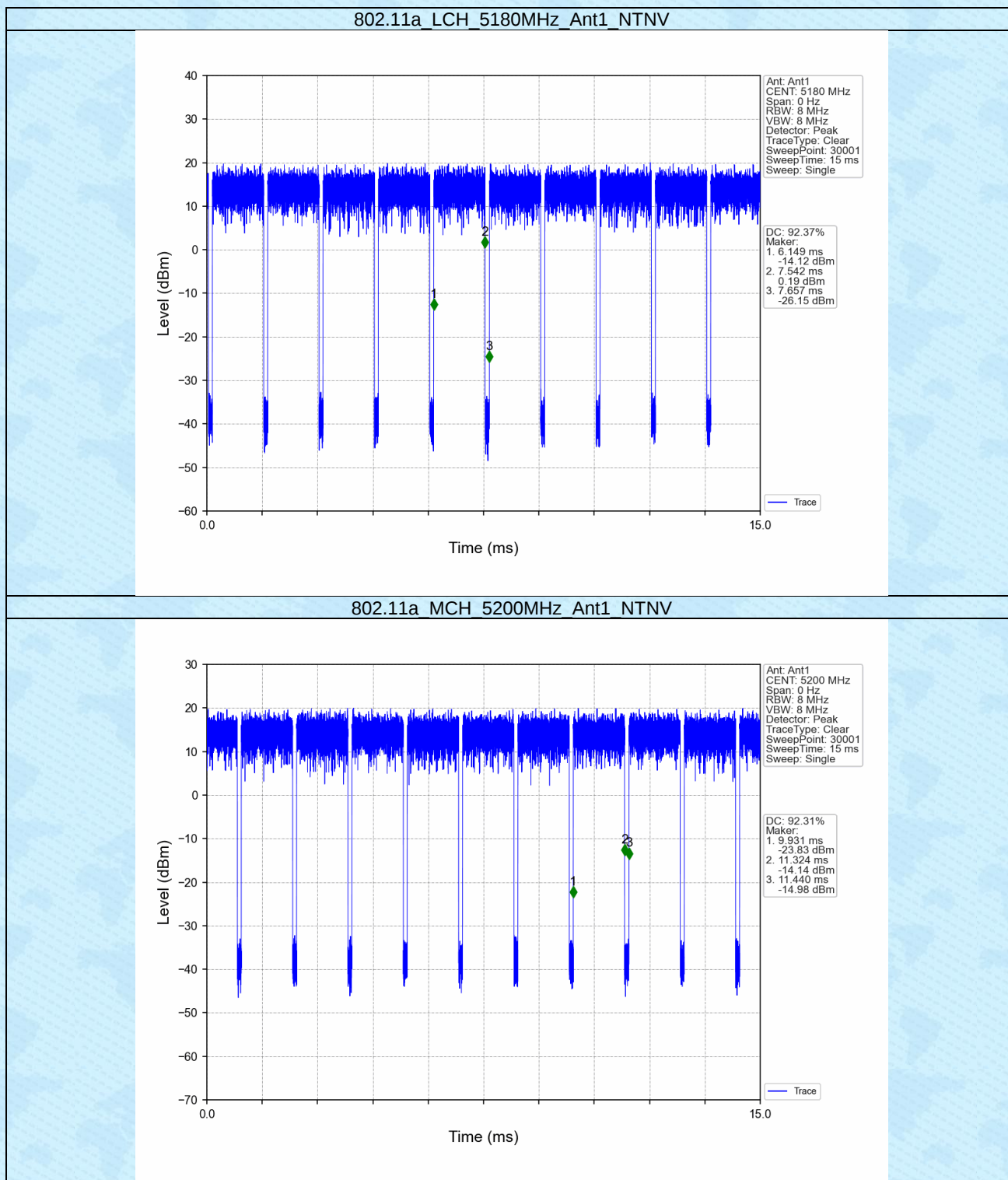
Appendix for 15.407

1. Duty Cycle

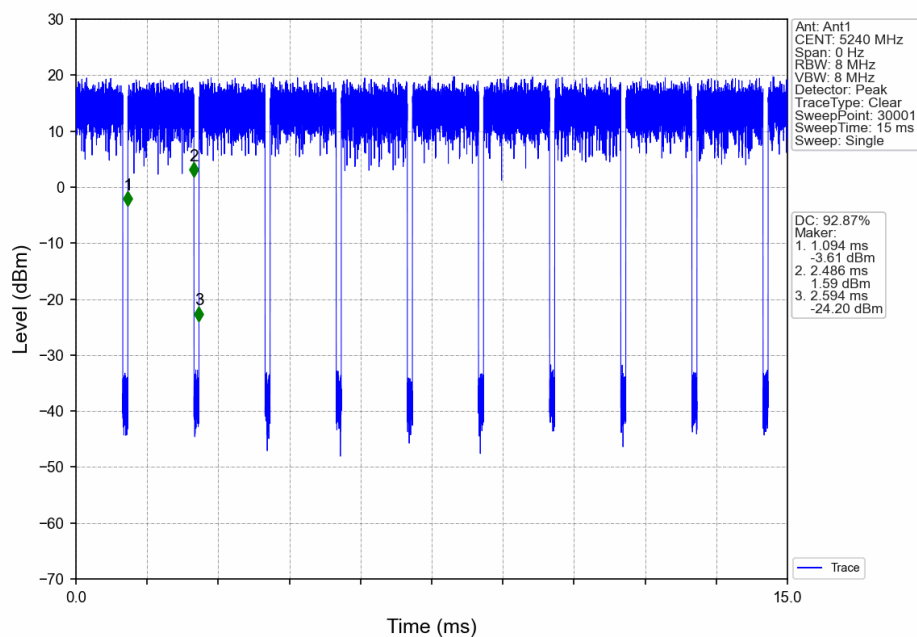
1.1 Test Result

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	1.393	1.508	92.37	0.34	0.59
		5200	1.393	1.509	92.31	0.35	0.59
		5240	1.393	1.500	92.87	0.32	0.03
802.11n (HT20)	SISO	5180	1.301	1.408	92.40	0.34	0.00
		5200	1.301	1.408	92.40	0.34	0.03
		5240	1.301	1.408	92.40	0.34	0.03
802.11n (HT40)	SISO	5190	0.648	0.755	85.83	0.66	0.04
		5230	0.648	0.755	85.83	0.66	0.04
802.11ac (VHT20)	SISO	5180	0.149	0.256	58.20	2.35	0.10
		5200	0.148	0.256	57.81	2.38	0.08
		5240	0.148	0.256	57.81	2.38	0.08
802.11ac (VHT40)	SISO	5190	0.089	0.304	29.28	5.33	16.13
		5230	0.088	0.267	32.96	4.82	12.29
802.11ac (VHT80)	SISO	5210	0.065	0.343	18.95	7.22	13.74

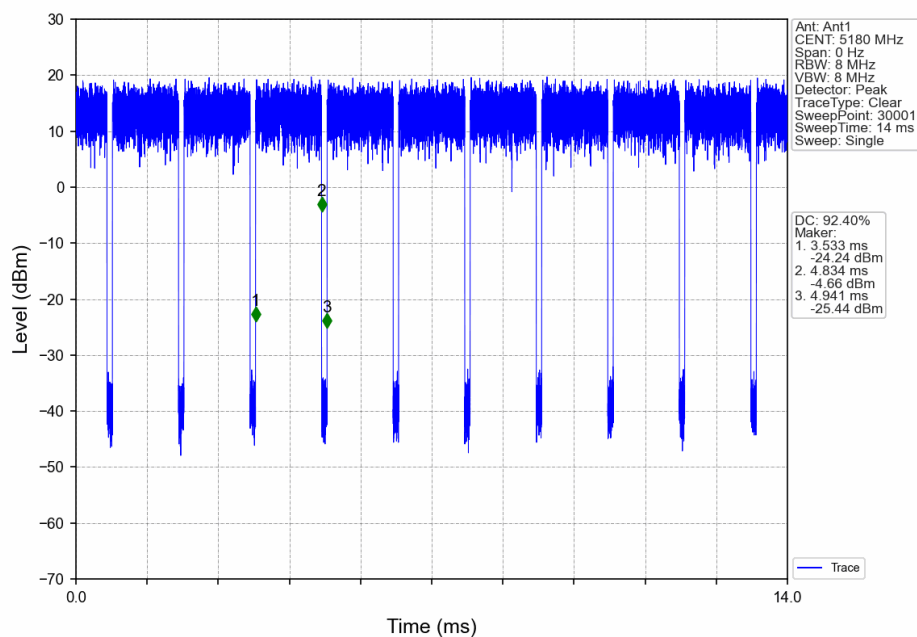
1.2 Test Graph



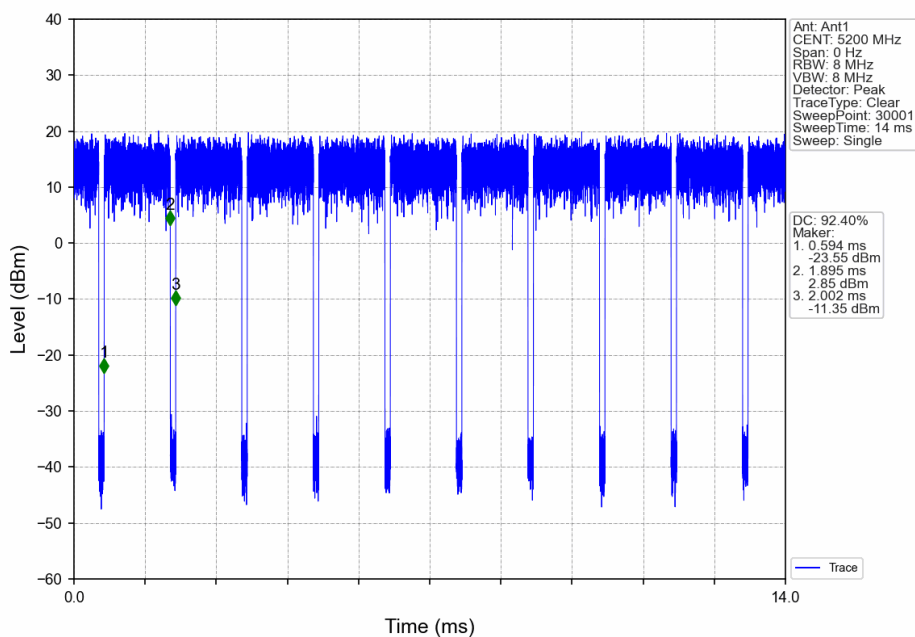
802.11a_HCH_5240MHz_Ant1_NTNV



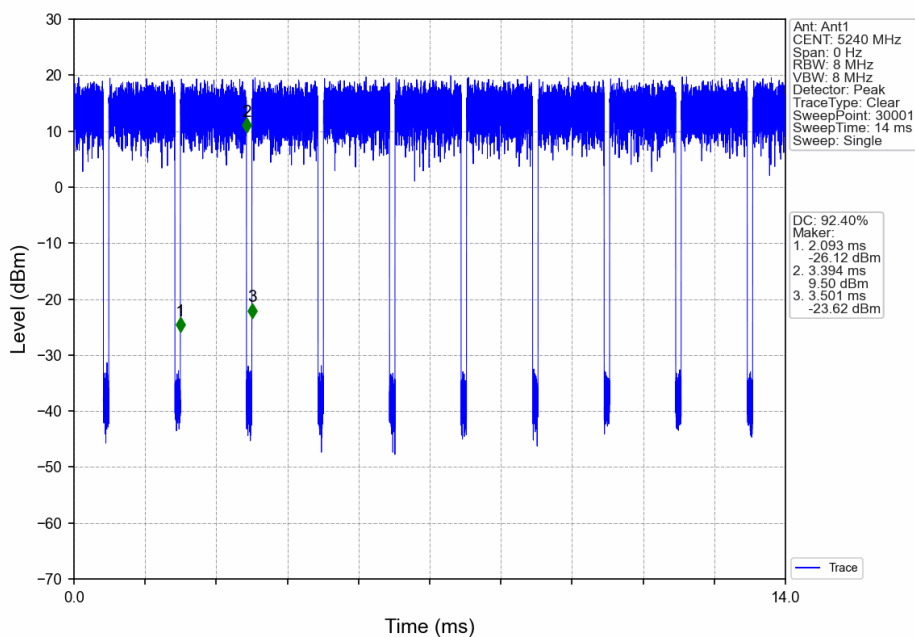
802.11n(HT20)_LCH_5180MHz_Ant1_NTNV



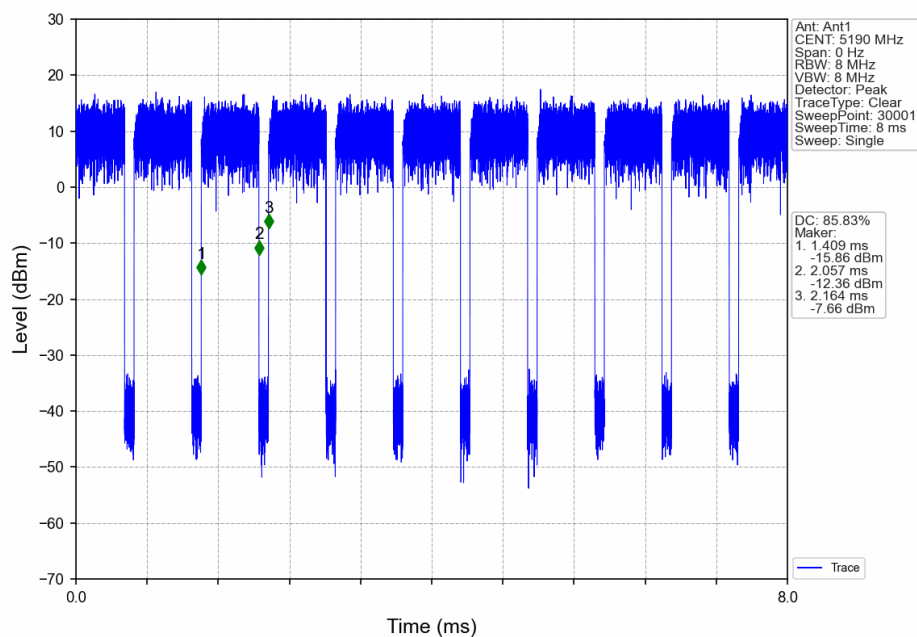
802.11n(HT20) MCH 5200MHz Ant1 NTN



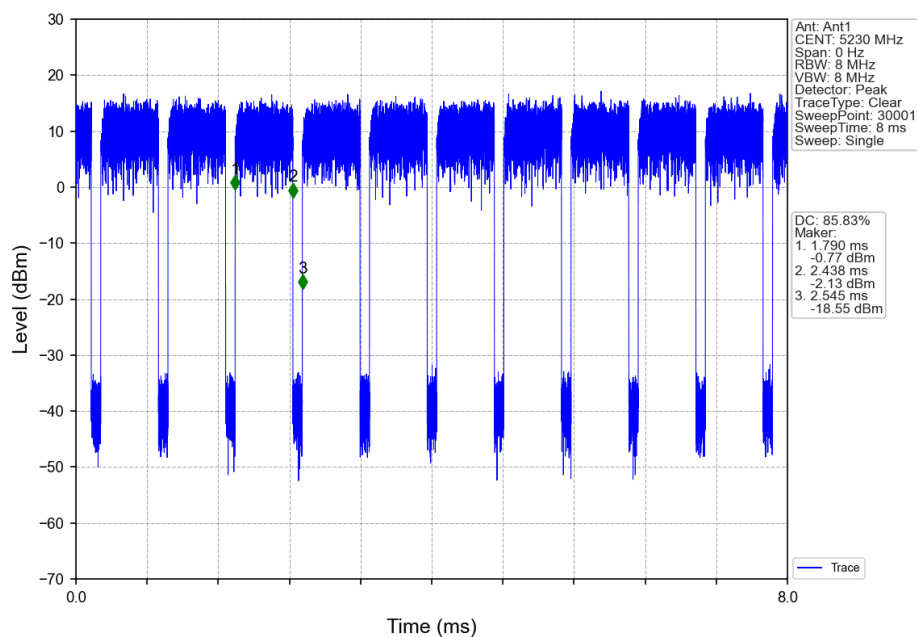
802.11n(HT20) HCH 5240MHz Ant1 NTN



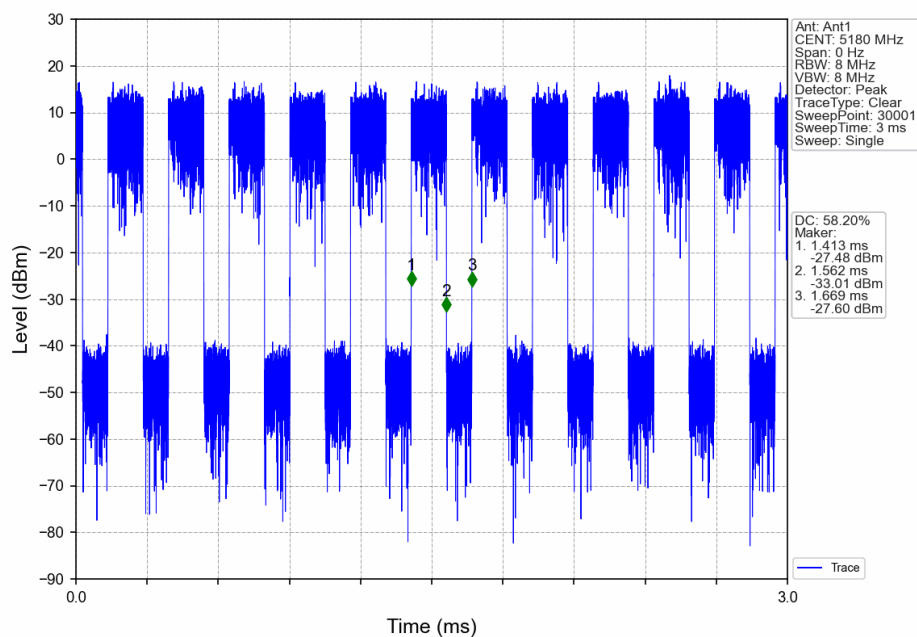
802.11n(HT40) LCH 5190MHz Ant1 NTN



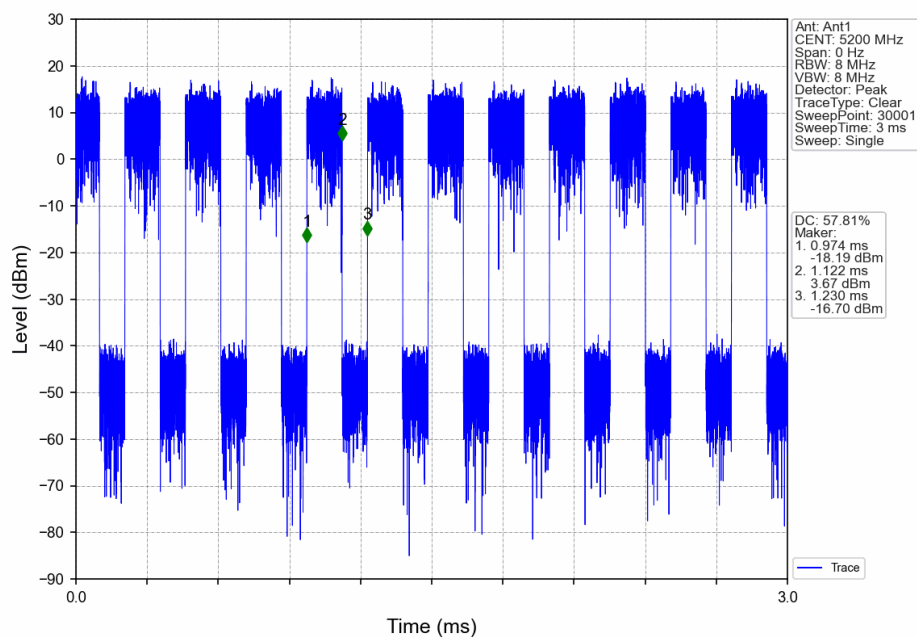
802.11n(HT40) HCH 5230MHz Ant1 NTN



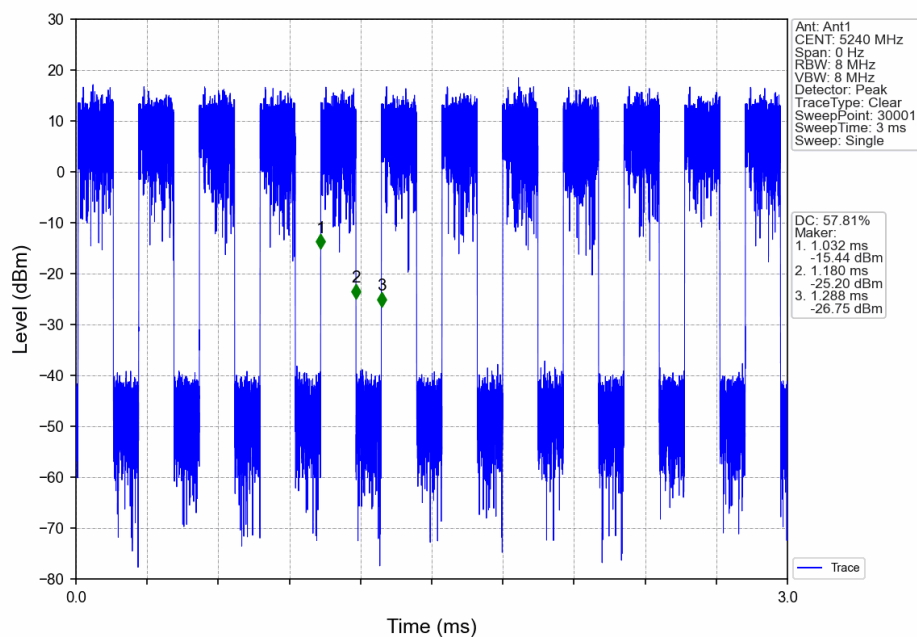
802.11ac(VHT20) LCH 5180MHz Ant1 NTN



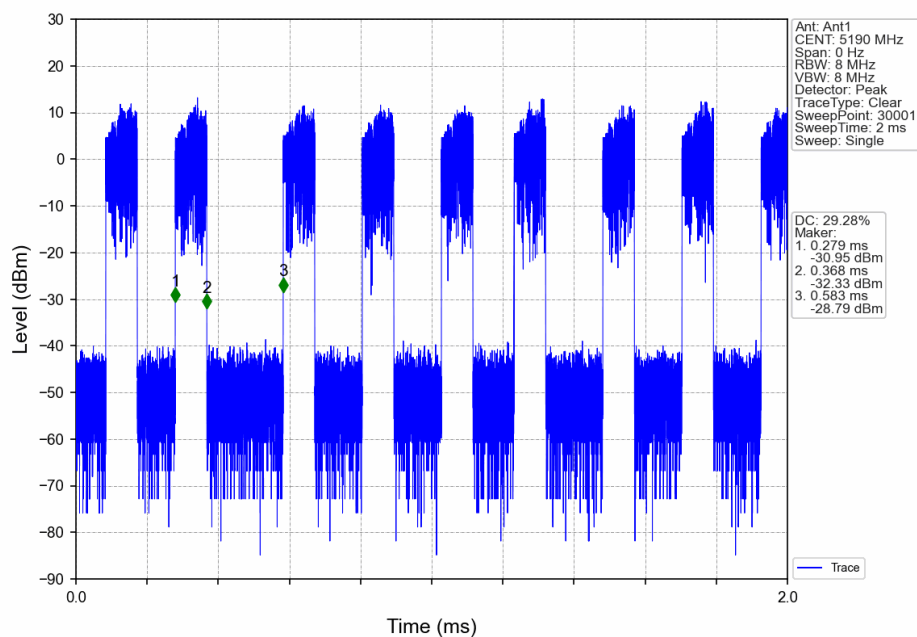
802.11ac(VHT20) MCH 5200MHz Ant1 NTN



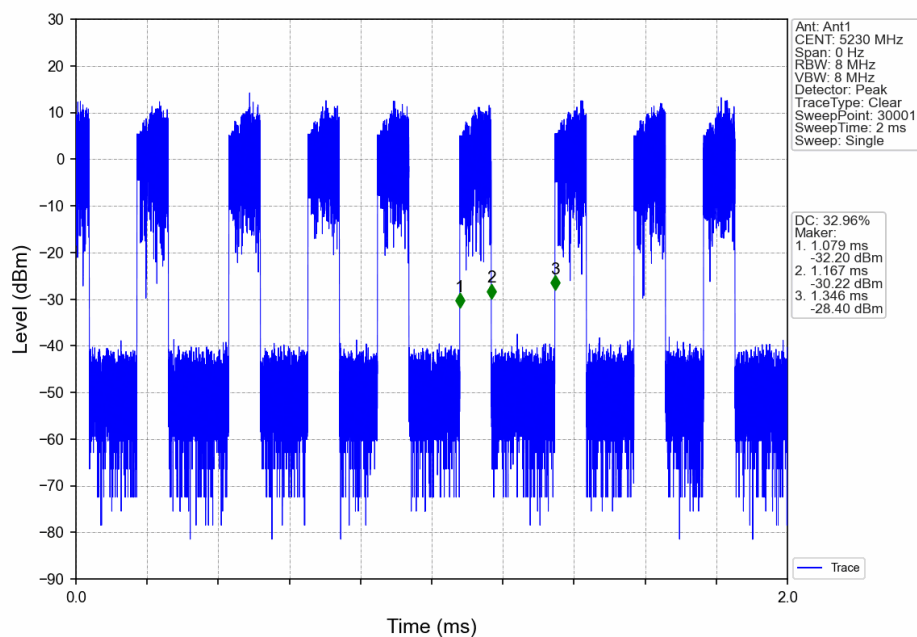
802.11ac(VHT20)_HCH_5240MHz_Ant1_NTNV



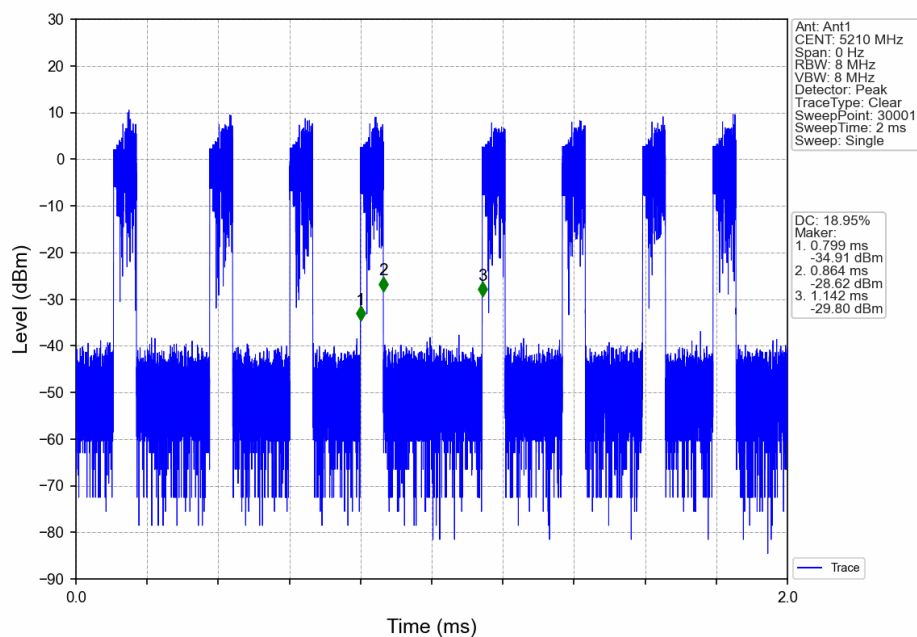
802.11ac(VHT40)_LCH_5190MHz_Ant1_NTNV



802.11ac(VHT40)_HCH_5230MHz_Ant1_NTNV



802.11ac(VHT80)_MCH_5210MHz_Ant1_NTNV



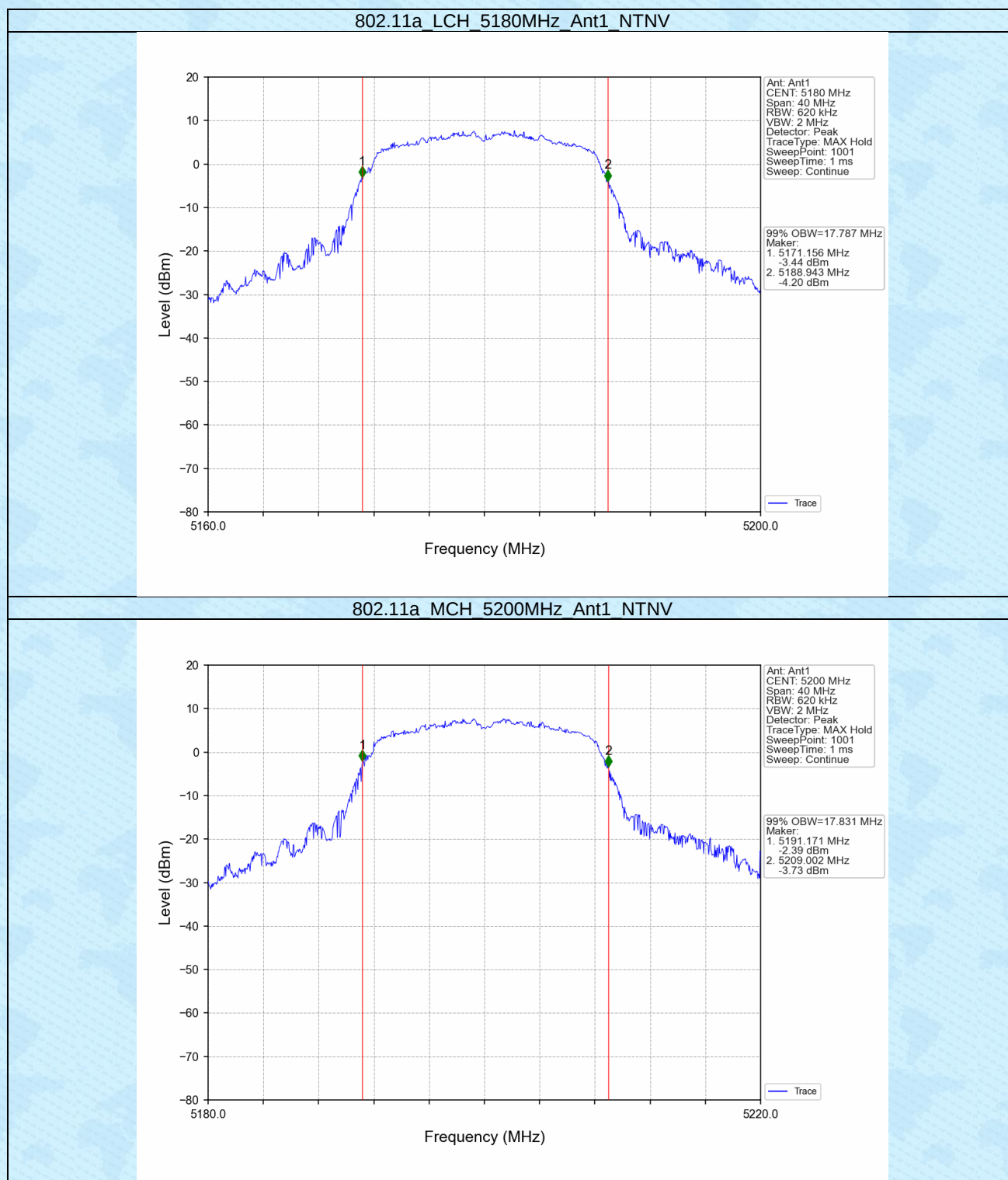
2. Bandwidth

2.1 OBW

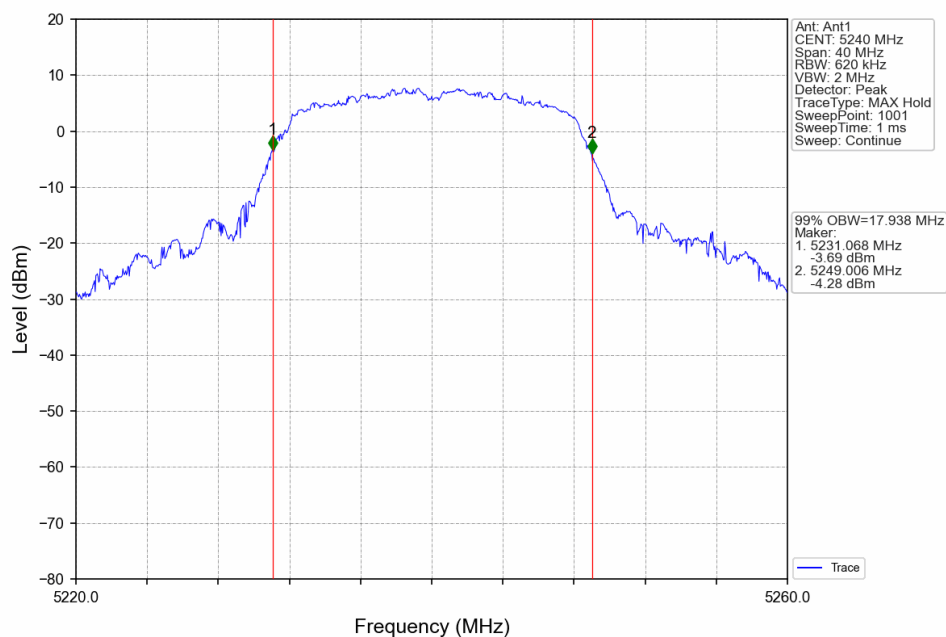
2.1.1 Test Result

Mode	TX Type	Frequency (MHz)	ANT	99% Occupied Bandwidth (MHz)	Verdict
				Result	
802.11a	SISO	5180	1	17.787	Pass
		5200	1	17.831	Pass
		5240	1	17.938	Pass
802.11n (HT20)	SISO	5180	1	18.376	Pass
		5200	1	18.461	Pass
		5240	1	18.473	Pass
802.11n (HT40)	SISO	5190	1	36.998	Pass
		5230	1	37.046	Pass
802.11ac (VHT20)	SISO	5180	1	18.064	Pass
		5200	1	18.118	Pass
		5240	1	18.152	Pass
802.11ac (VHT40)	SISO	5190	1	36.850	Pass
		5230	1	36.977	Pass
802.11ac (VHT80)	SISO	5210	1	76.696	Pass

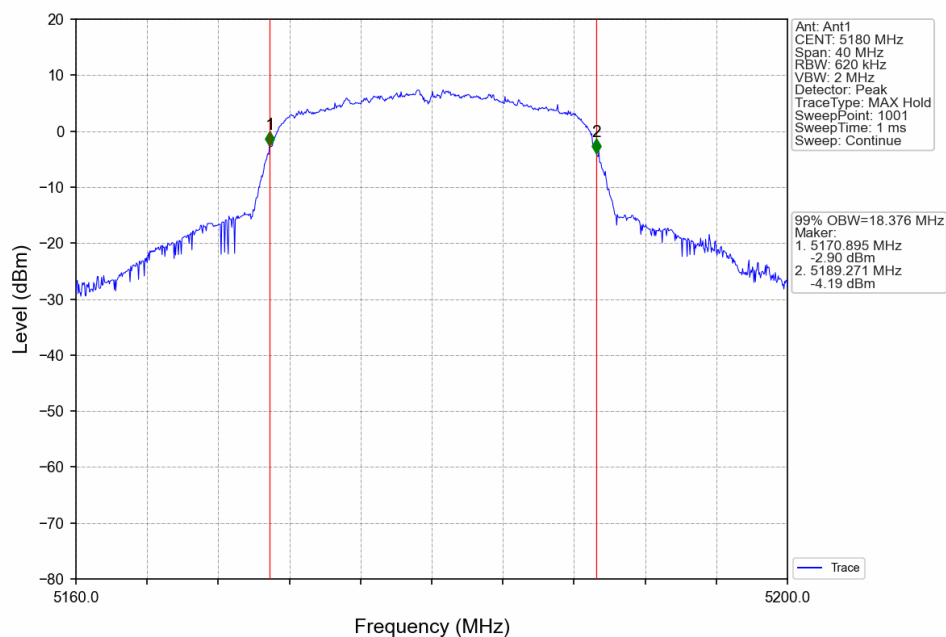
2.1.2 Test Graph



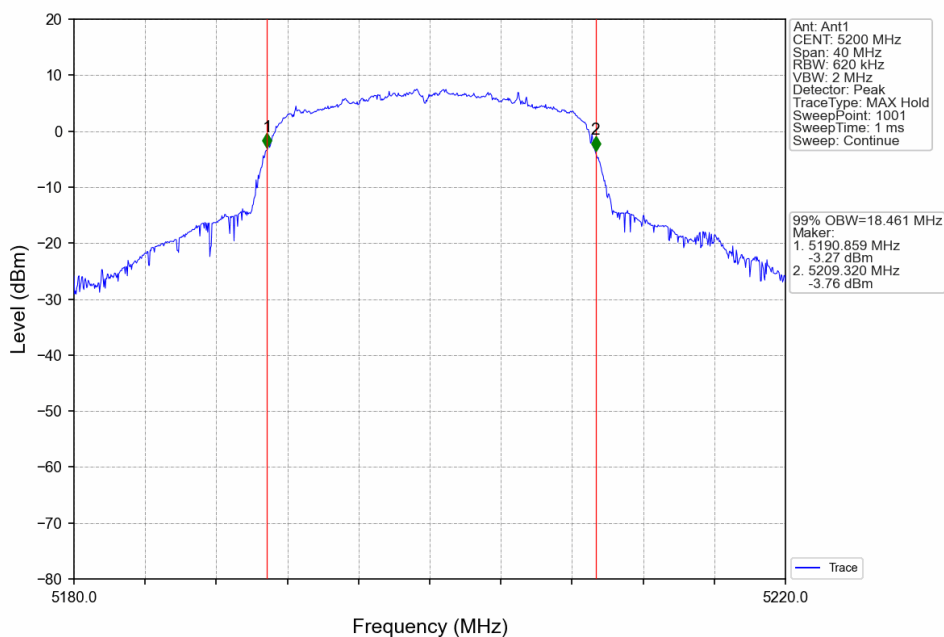
802.11a_HCH_5240MHz_Ant1_NTNV



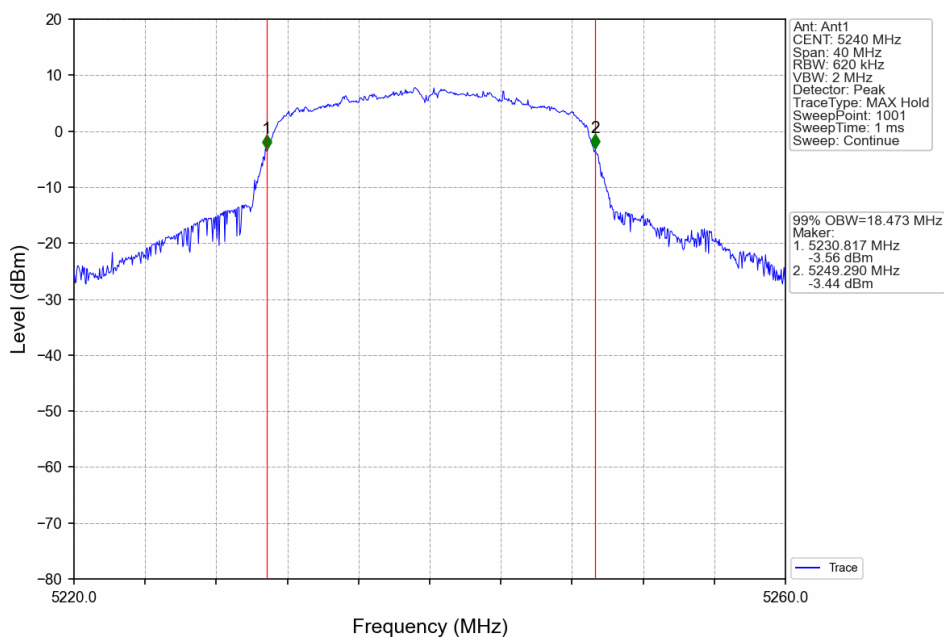
802.11n(HT20)_LCH_5180MHz_Ant1_NTNV



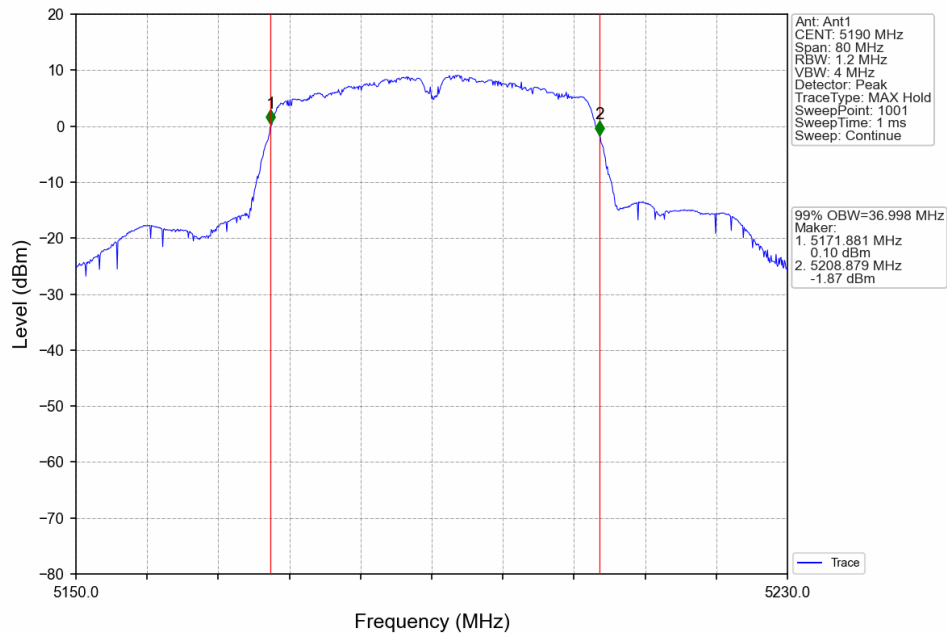
802.11n(HT20) MCH 5200MHz Ant1_NTNV



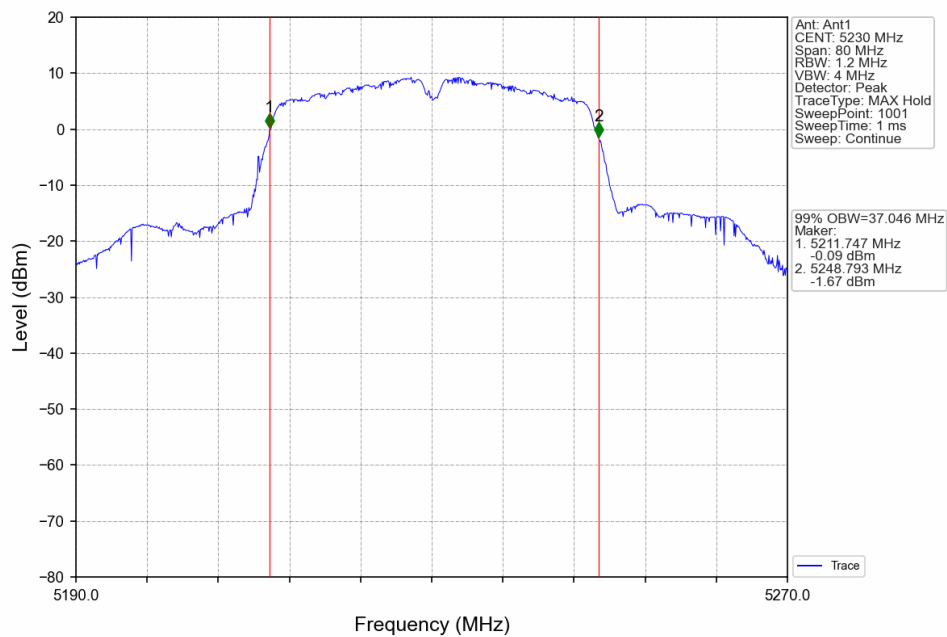
802.11n(HT20) HCH 5240MHz Ant1_NTNV



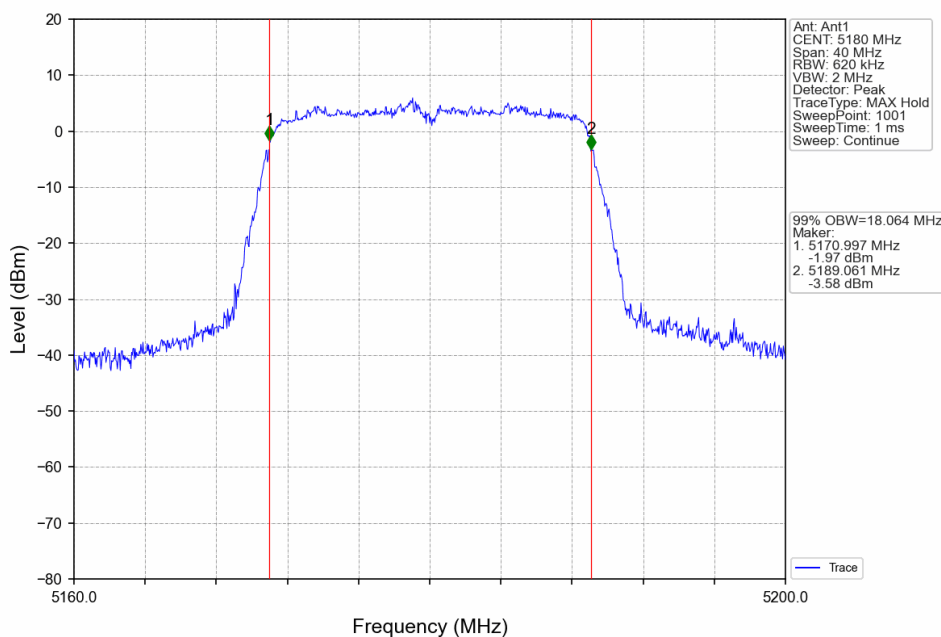
802.11n(HT40) LCH 5190MHz Ant1 NTN



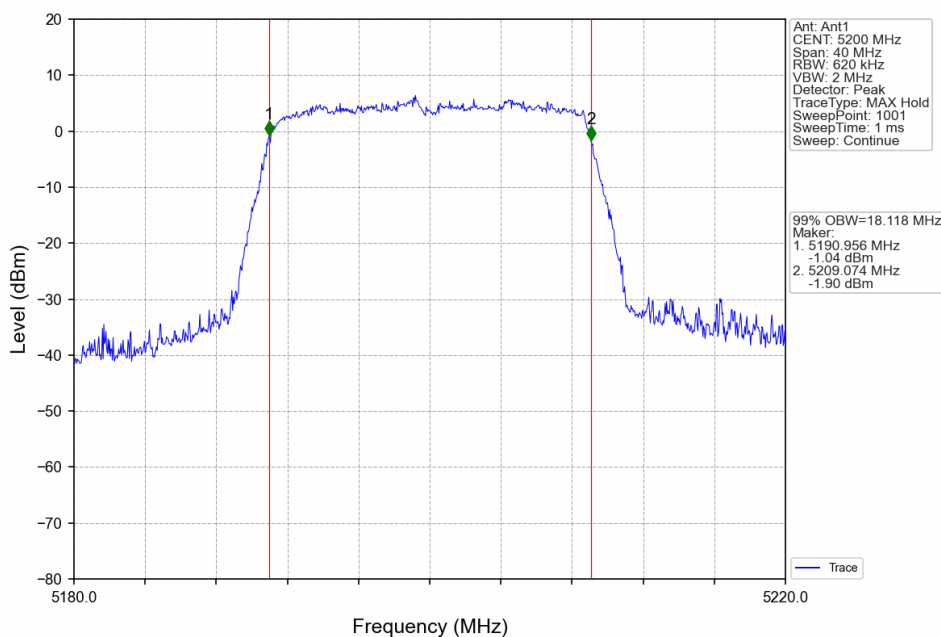
802.11n(HT40) HCH 5230MHz Ant1 NTN



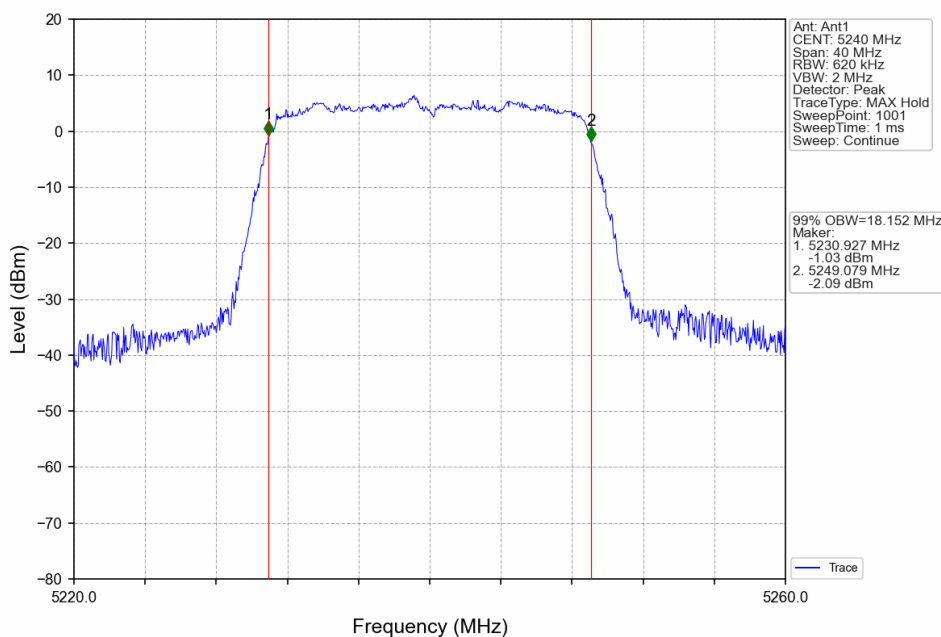
802.11ac(VHT20)_LCH_5180MHz_Ant1_NTNV



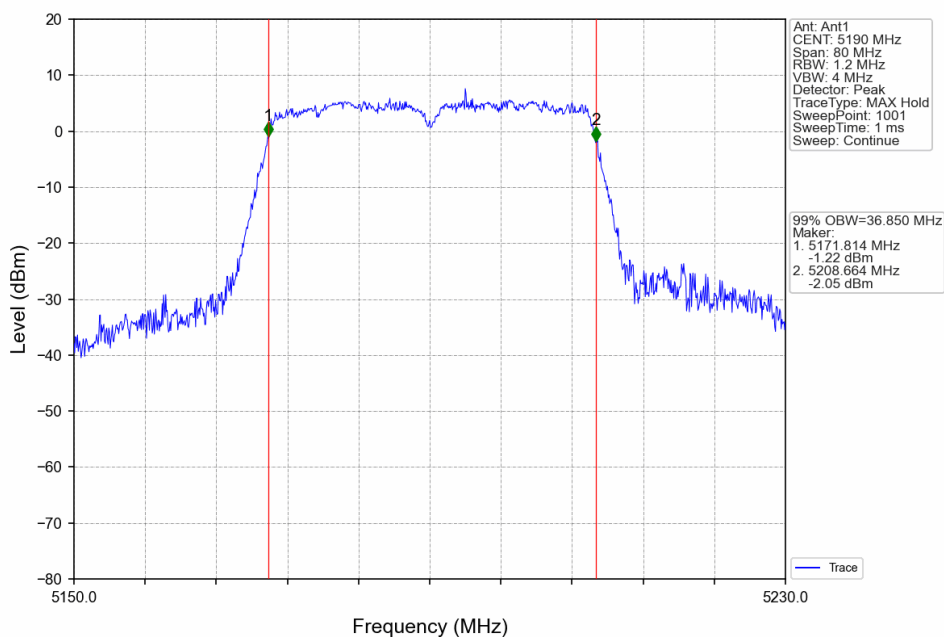
802.11ac(VHT20)_MCH_5200MHz_Ant1_NTNV



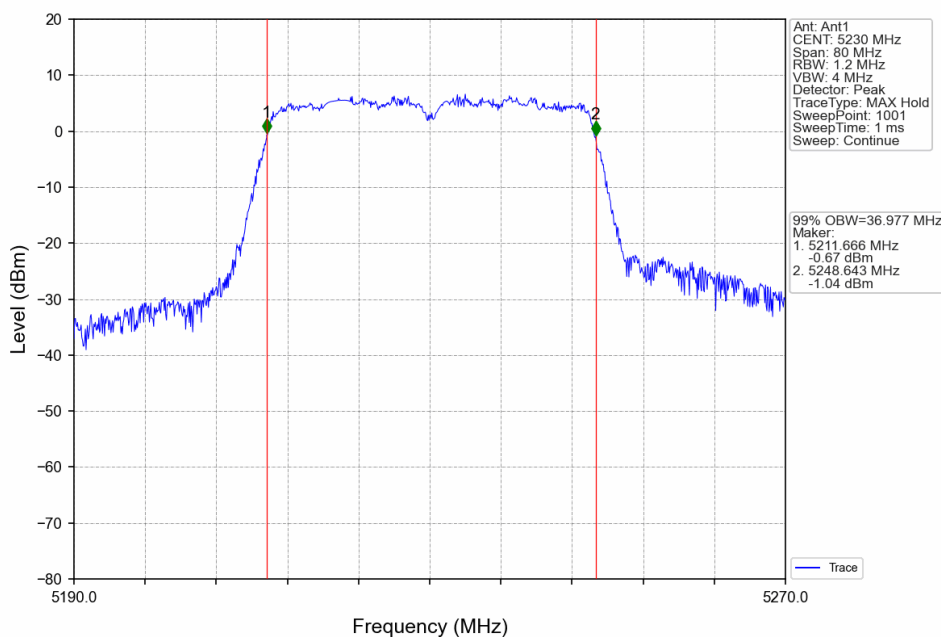
802.11ac(VHT20)_HCH_5240MHz_Ant1_NTNV



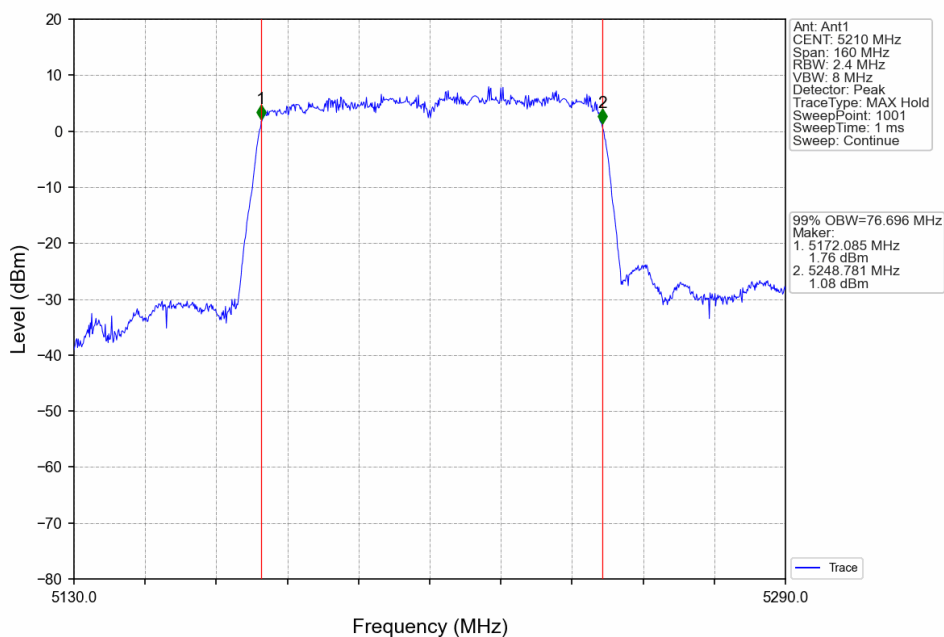
802.11ac(VHT40)_LCH_5190MHz_Ant1_NTNV



802.11ac(VHT40)_HCH_5230MHz_Ant1_NTNV



802.11ac(VHT80)_MCH_5210MHz_Ant1_NTNV

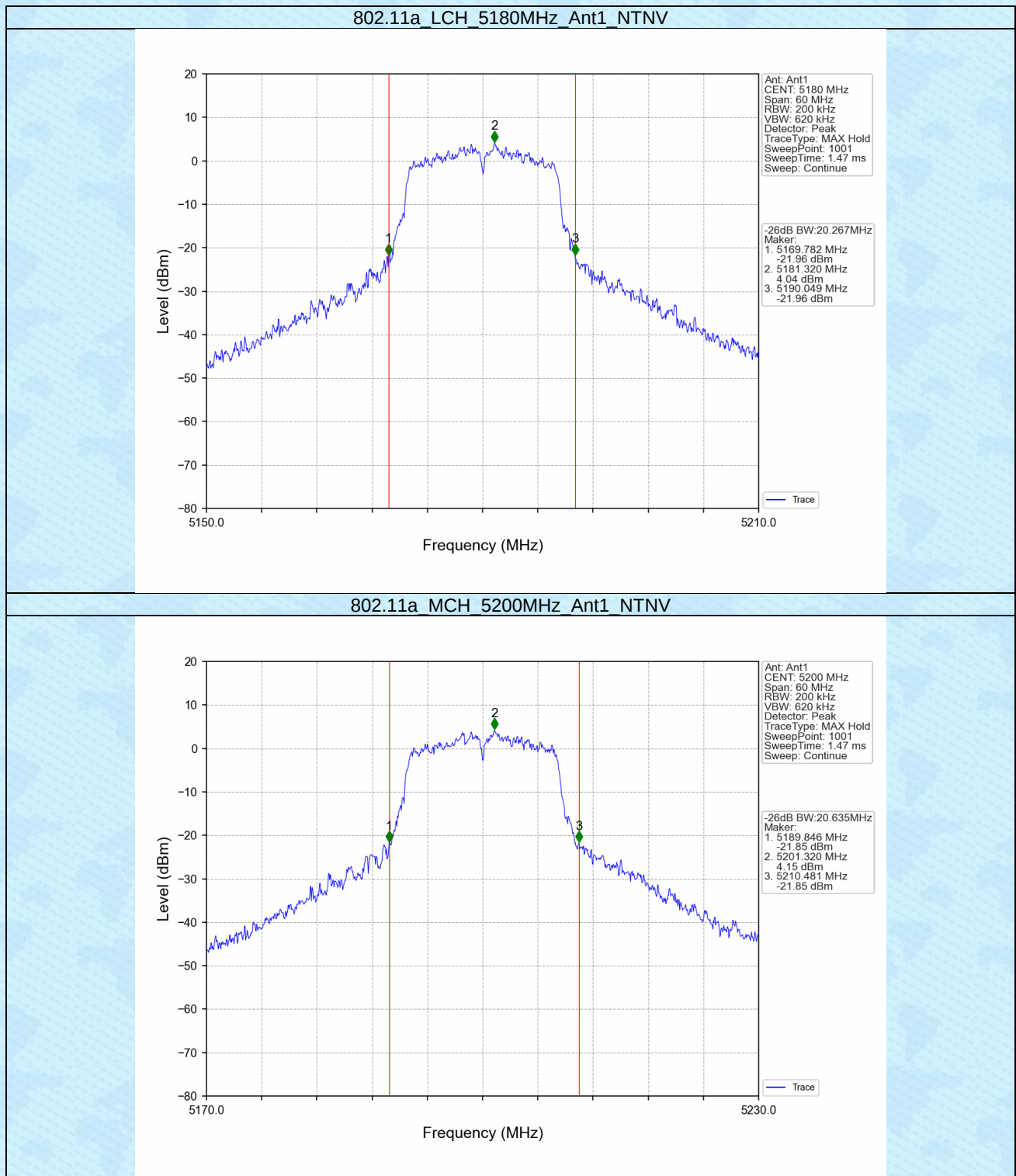


2.2 26dB BW

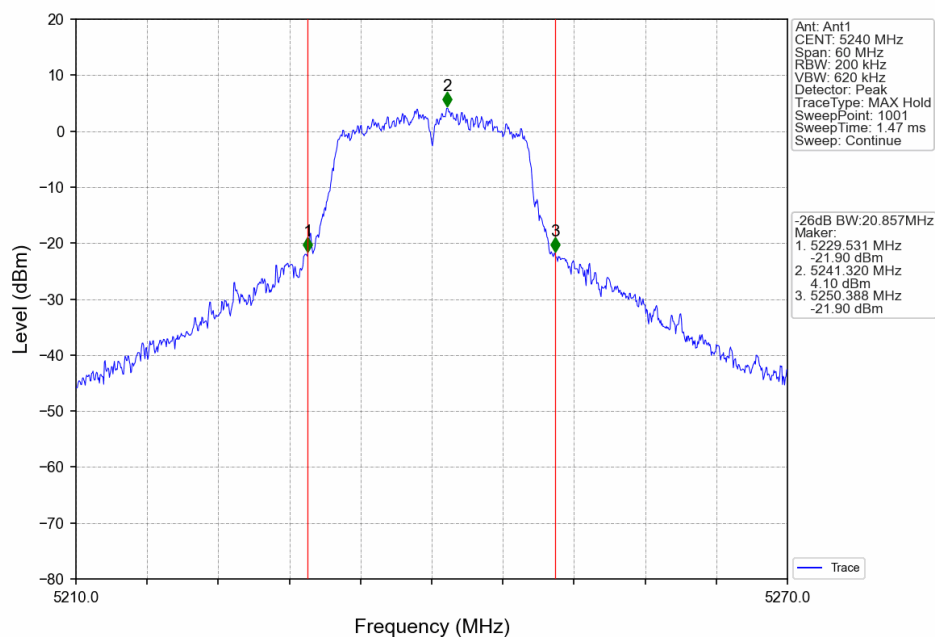
2.2.1 Test Result

Mode	TX Type	Frequency (MHz)	ANT	26dB Bandwidth (MHz)	Verdict
				Result	
802.11a	SISO	5180	1	20.267	Pass
		5200	1	20.635	Pass
		5240	1	20.857	Pass
802.11n (HT20)	SISO	5180	1	20.167	Pass
		5200	1	20.330	Pass
		5240	1	20.720	Pass
802.11n (HT40)	SISO	5190	1	49.856	Pass
		5230	1	52.949	Pass
802.11ac (VHT20)	SISO	5180	1	20.200	Pass
		5200	1	20.144	Pass
		5240	1	20.154	Pass
802.11ac (VHT40)	SISO	5190	1	40.883	Pass
		5230	1	40.963	Pass
802.11ac (VHT80)	SISO	5210	1	81.256	Pass

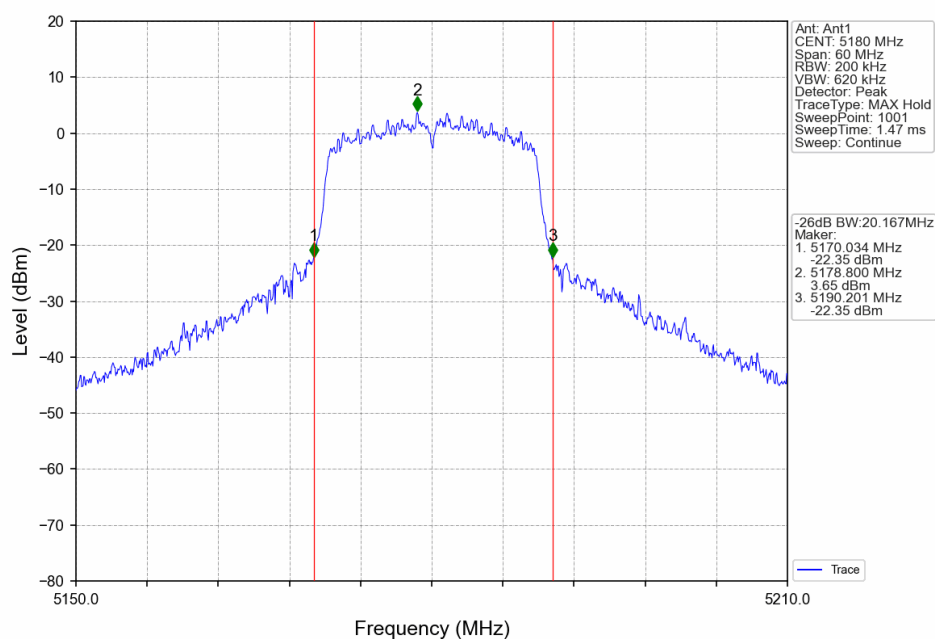
2.2.2 Test Graph



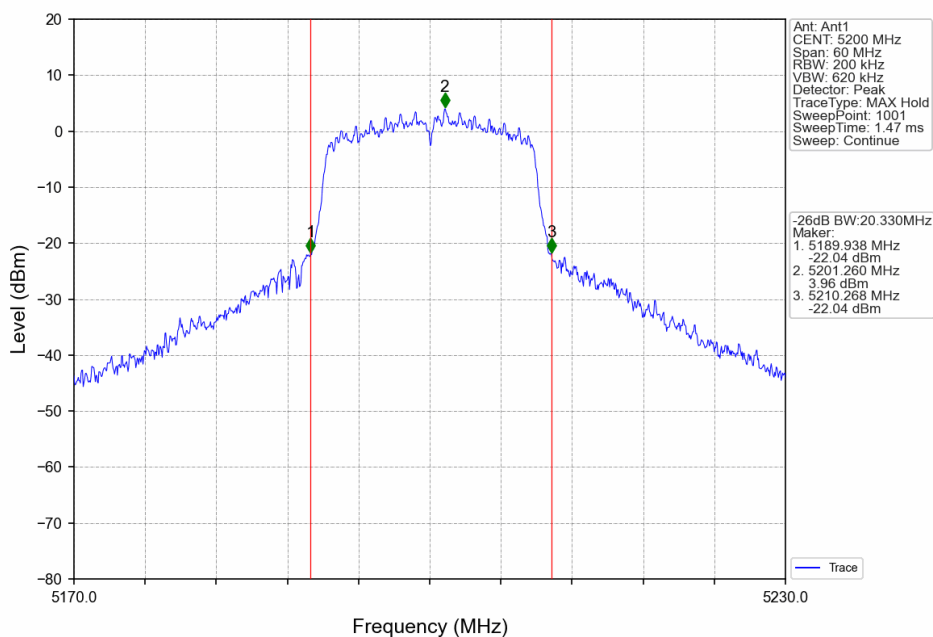
802.11a_HCH_5240MHz_Ant1_NTNV



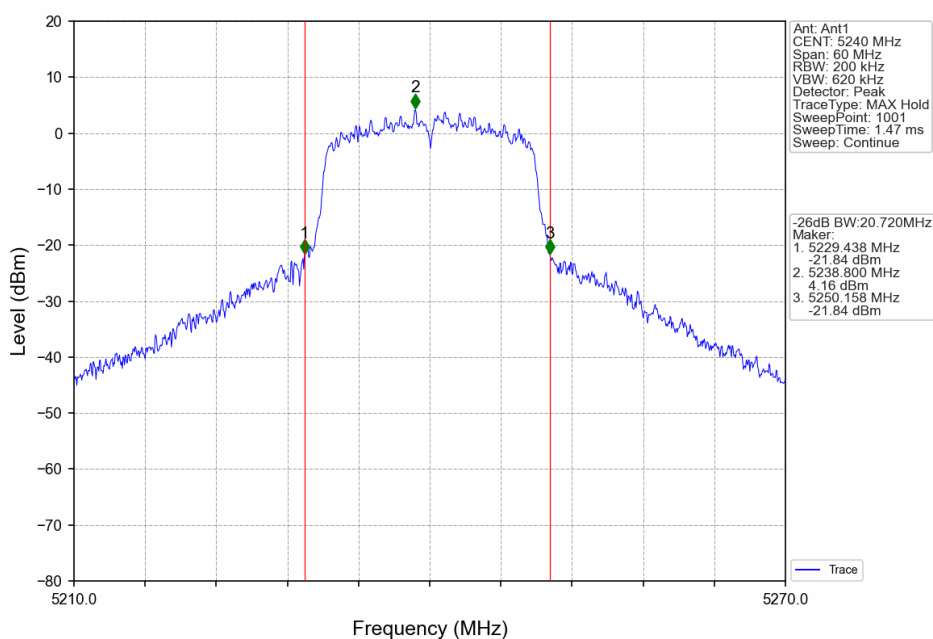
802.11n(HT20)_LCH_5180MHz_Ant1_NTNV



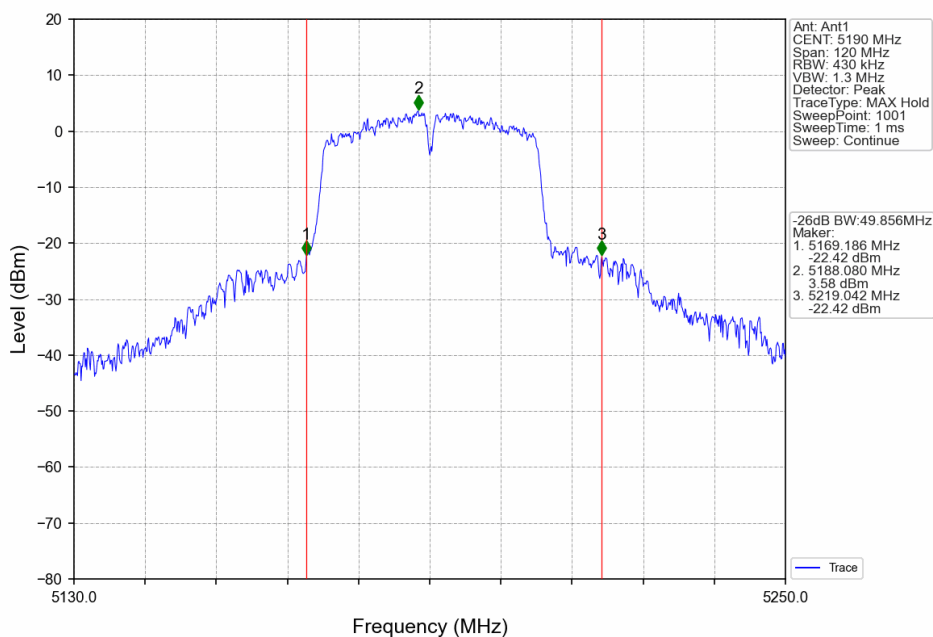
802.11n(HT20) MCH 5200MHz Ant1_NTNV



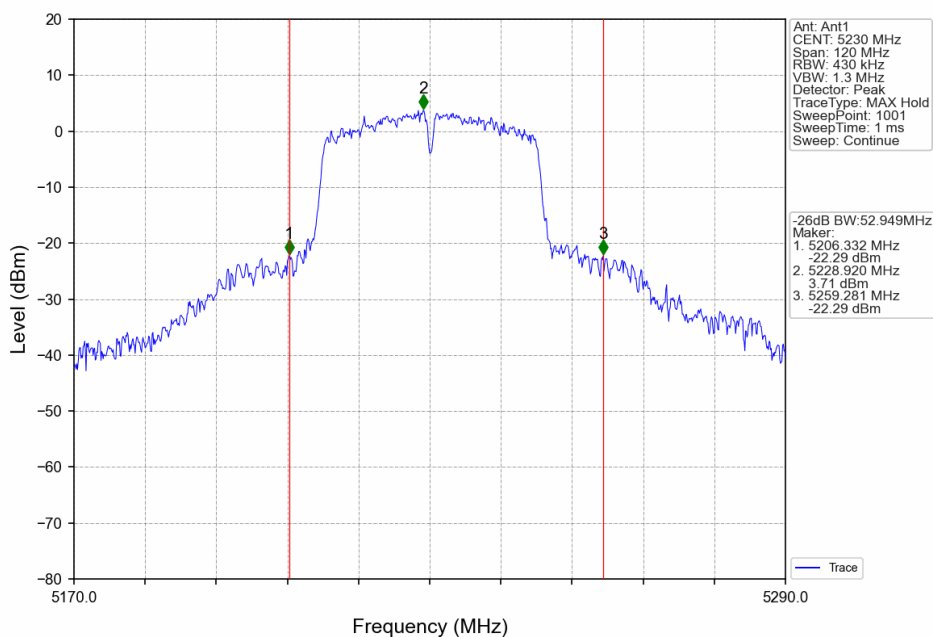
802.11n(HT20) HCH 5240MHz Ant1_NTNV



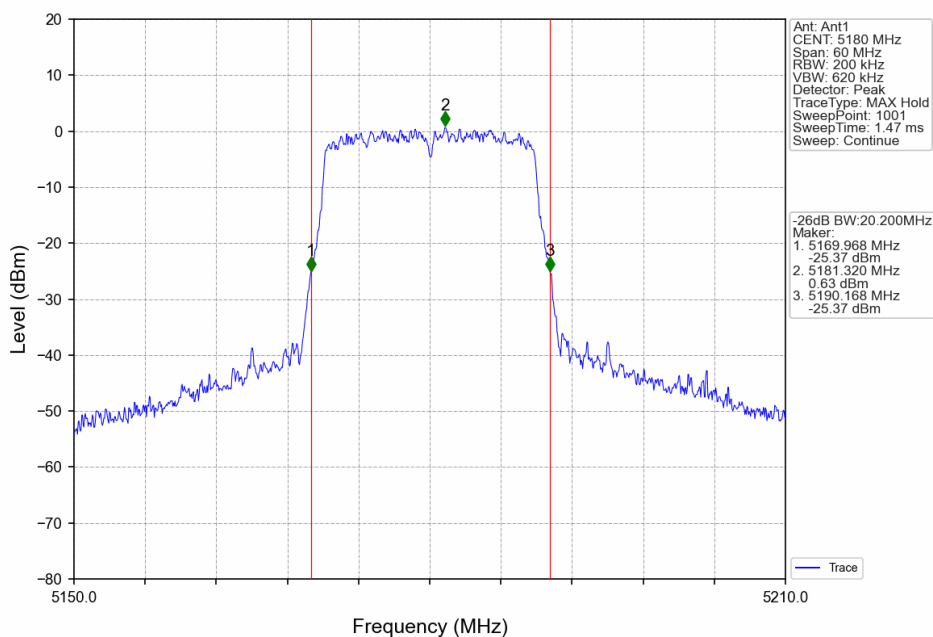
802.11n(HT40) LCH 5190MHz Ant1_NTNV



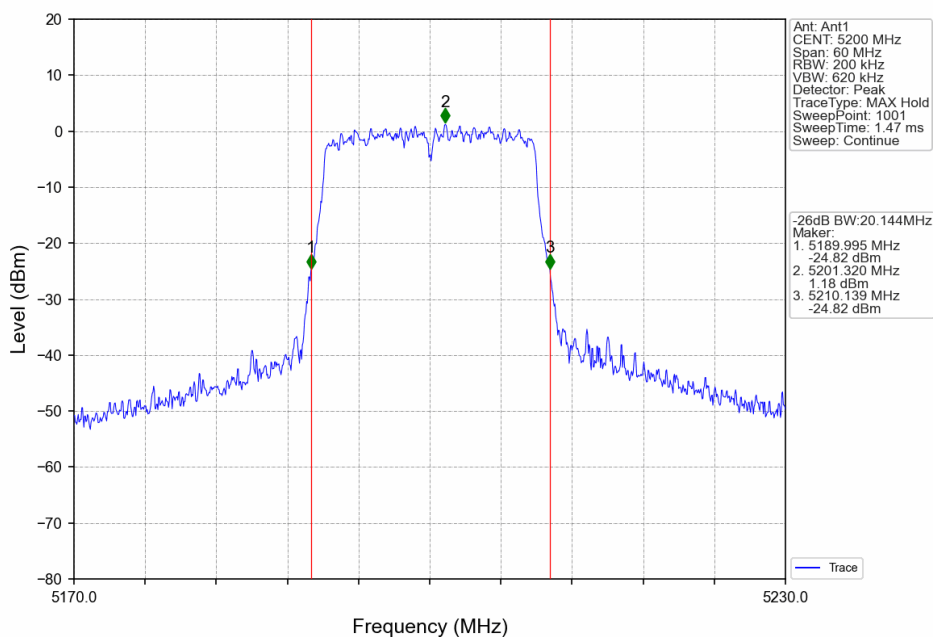
802.11n(HT40) HCH 5230MHz Ant1_NTNV



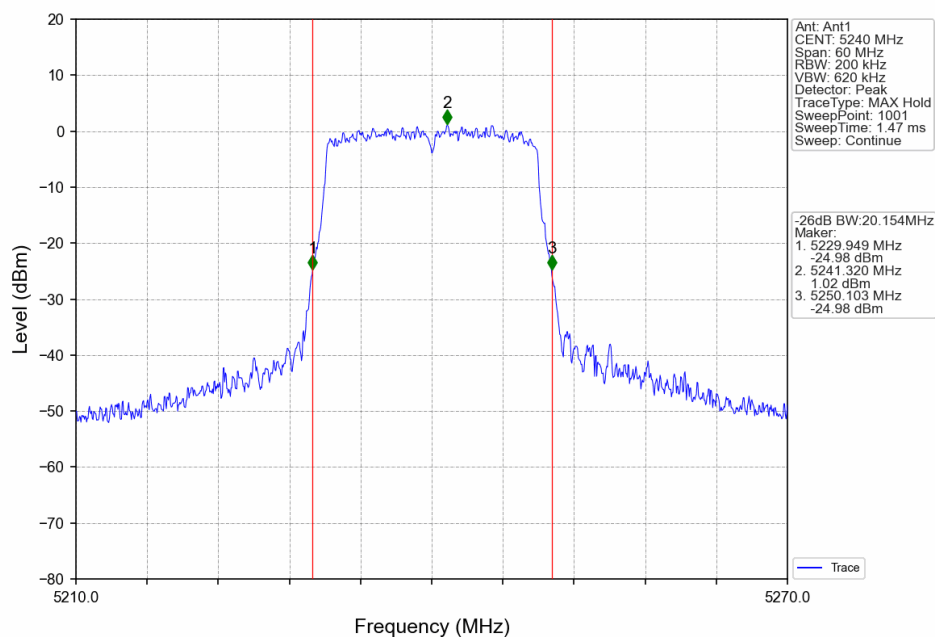
802.11ac(VHT20)_LCH_5180MHz_Ant1_NTNV



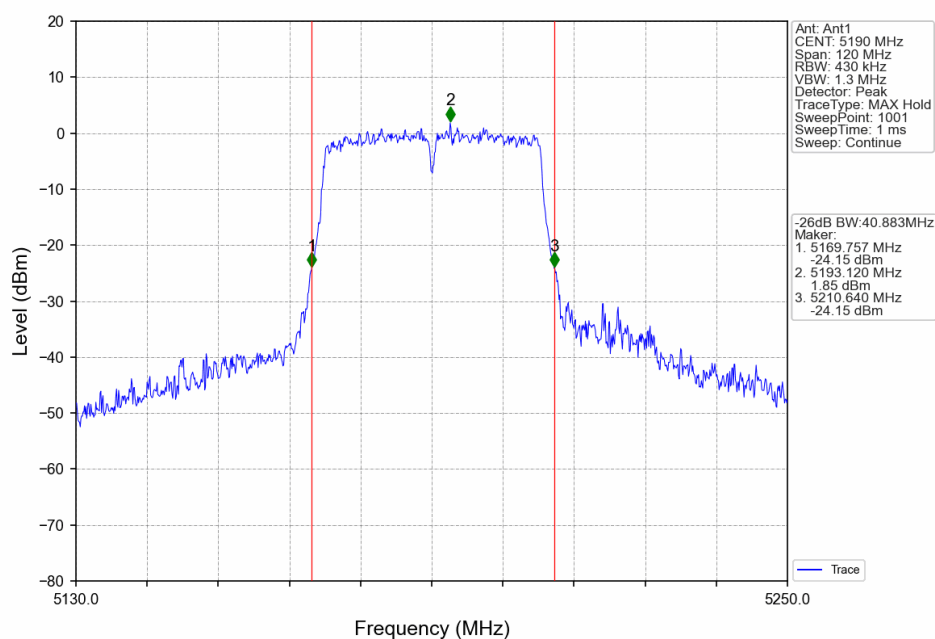
802.11ac(VHT20)_MCH_5200MHz_Ant1_NTNV



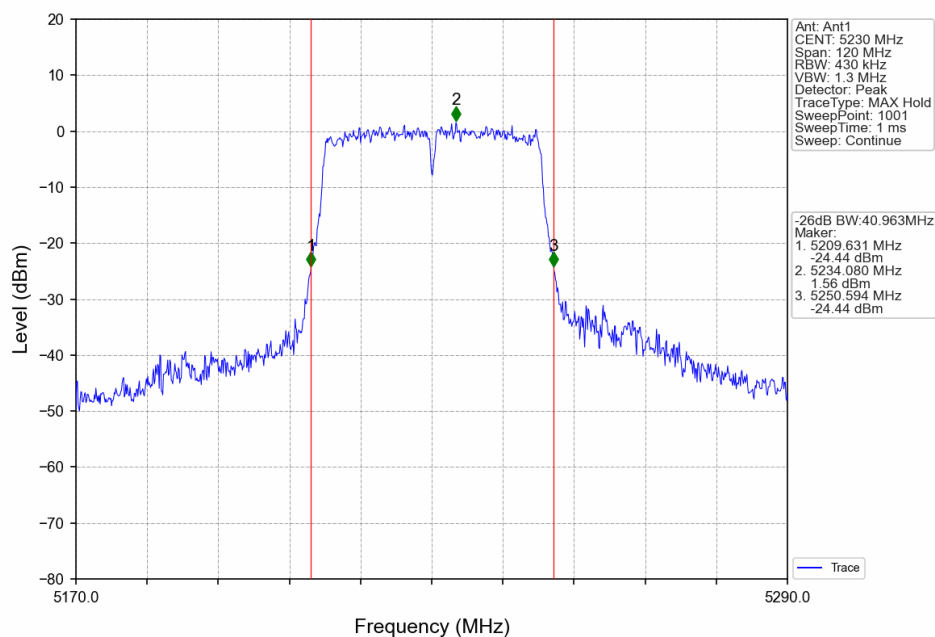
802.11ac(VHT20)_HCH_5240MHz_Ant1_NTNV



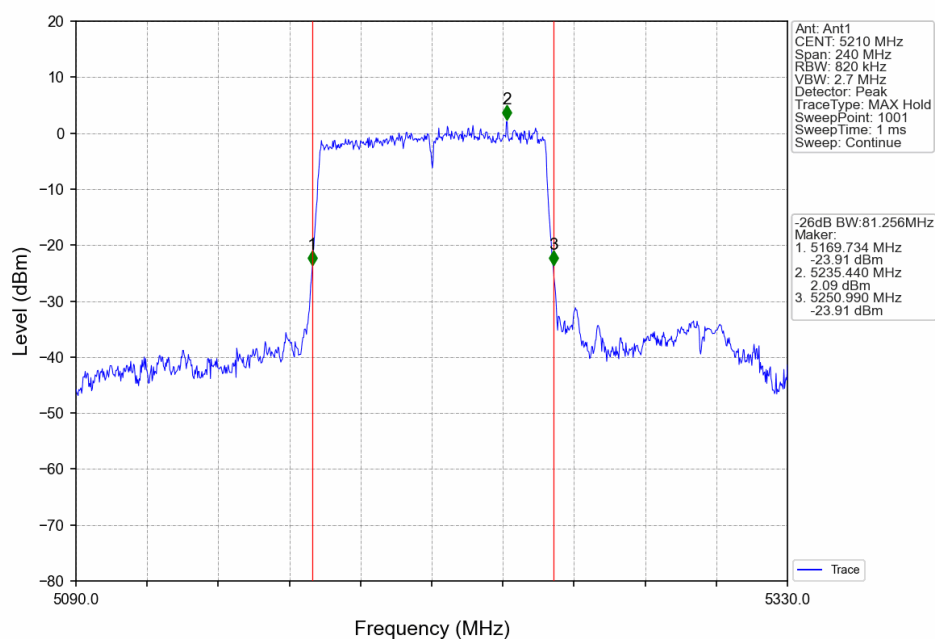
802.11ac(VHT40)_LCH_5190MHz_Ant1_NTNV



802.11ac(VHT40)_HCH_5230MHz_Ant1_NTNV



802.11ac(VHT80)_MCH_5210MHz_Ant1_NTNV



3. Maximum Conducted Output Power

3.1 Test Result

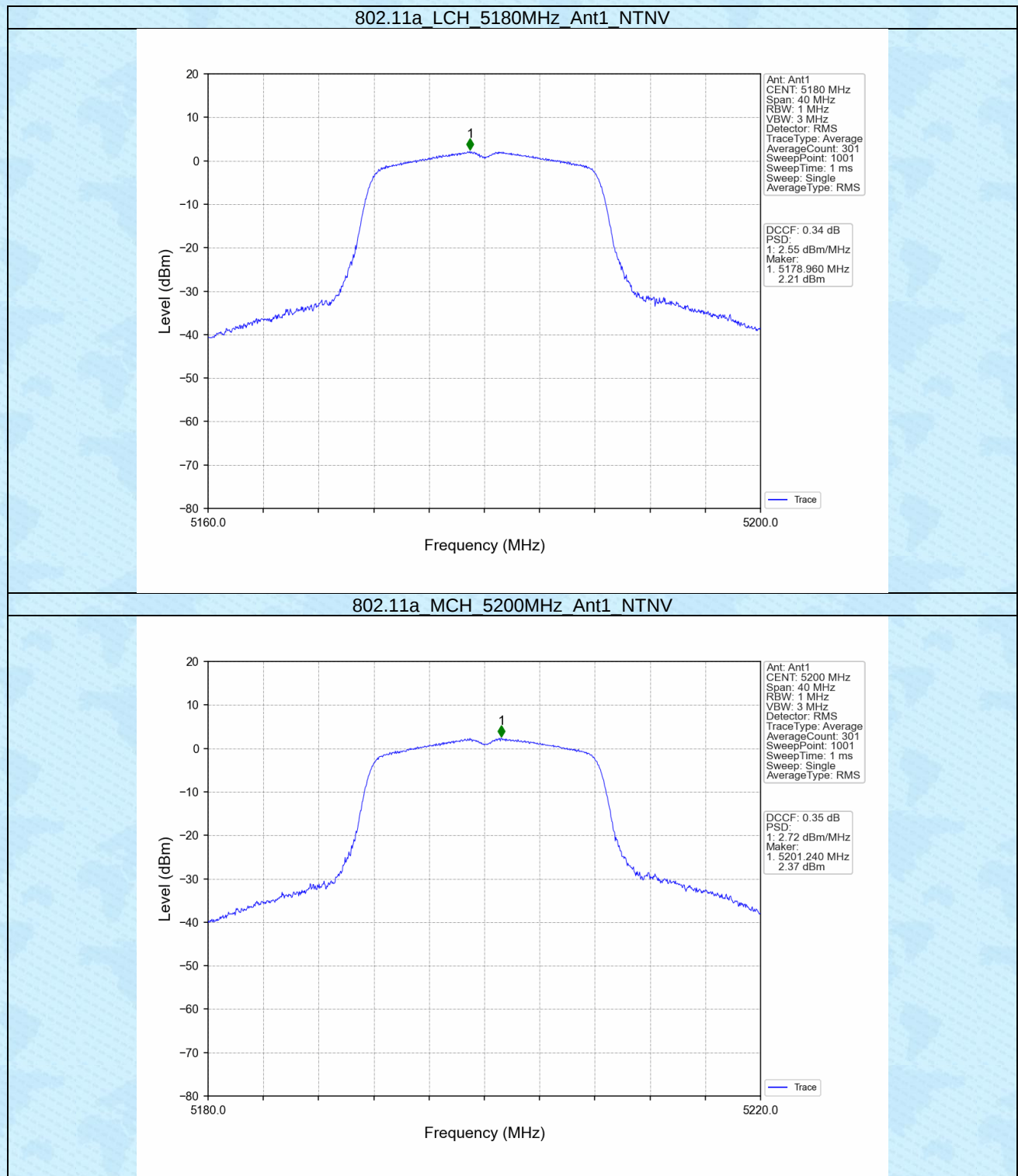
Mode	TX Type	Frequency (MHz)	Maximum Average Conducted Output Power (dBm)		Verdict
			ANT1	Limit	
802.11a	SISO	5180	12.63	≤ 23.98	Pass
		5200	12.91	≤ 23.98	Pass
		5240	13.00	≤ 23.98	Pass
802.11n (HT20)	SISO	5180	12.43	≤ 23.98	Pass
		5200	12.71	≤ 23.98	Pass
		5240	12.91	≤ 23.98	Pass
802.11n (HT40)	SISO	5190	12.99	≤ 23.98	Pass
		5230	13.16	≤ 23.98	Pass
802.11ac (VHT20)	SISO	5180	10.39	≤ 23.98	Pass
		5200	10.65	≤ 23.98	Pass
		5240	10.78	≤ 23.98	Pass
802.11ac (VHT40)	SISO	5190	11.15	≤ 23.98	Pass
		5230	11.30	≤ 23.98	Pass
802.11ac (VHT80)	SISO	5210	11.28	≤ 23.98	Pass

4. Maximum Power Spectral Density

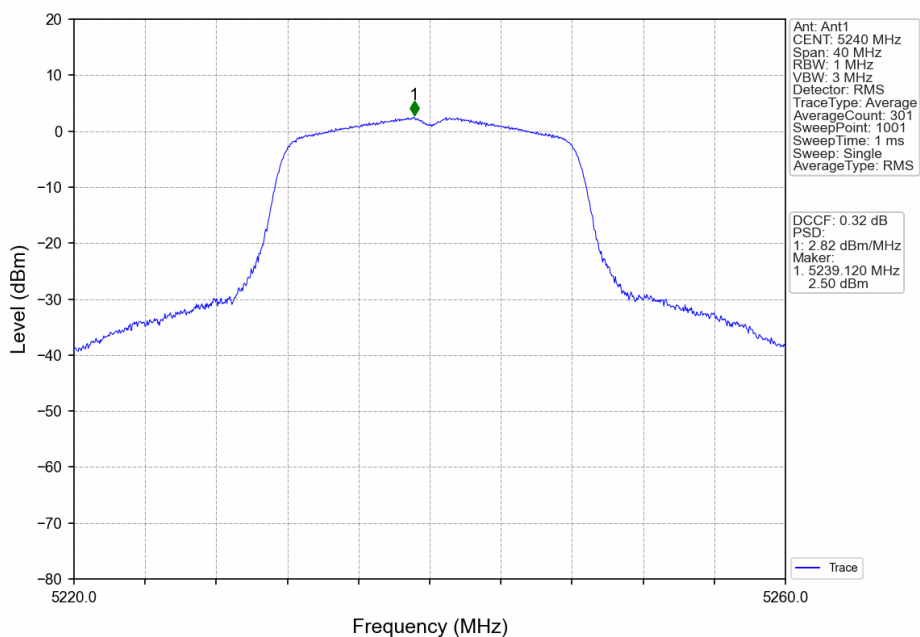
4.1 Test Result

Mode	TX Type	Frequency (MHz)	Maximum PSD (dBm/MHz)		Verdict
			ANT1	Limit	
802.11a	SISO	5180	2.55	≤ -11	Pass
		5200	2.72	≤ -11	Pass
		5240	2.82	≤ -11	Pass
802.11n (HT20)	SISO	5180	2.14	≤ -11	Pass
		5200	2.48	≤ -11	Pass
		5240	2.80	≤ -11	Pass
802.11n (HT40)	SISO	5190	-0.15	≤ -11	Pass
		5230	-0.03	≤ -11	Pass
802.11ac (VHT20)	SISO	5180	-0.68	≤ -11	Pass
		5200	-0.42	≤ -11	Pass
		5240	-0.26	≤ -11	Pass
802.11ac (VHT40)	SISO	5190	-3.05	≤ -11	Pass
		5230	-2.99	≤ -11	Pass
802.11ac (VHT80)	SISO	5210	-5.71	≤ -11	Pass

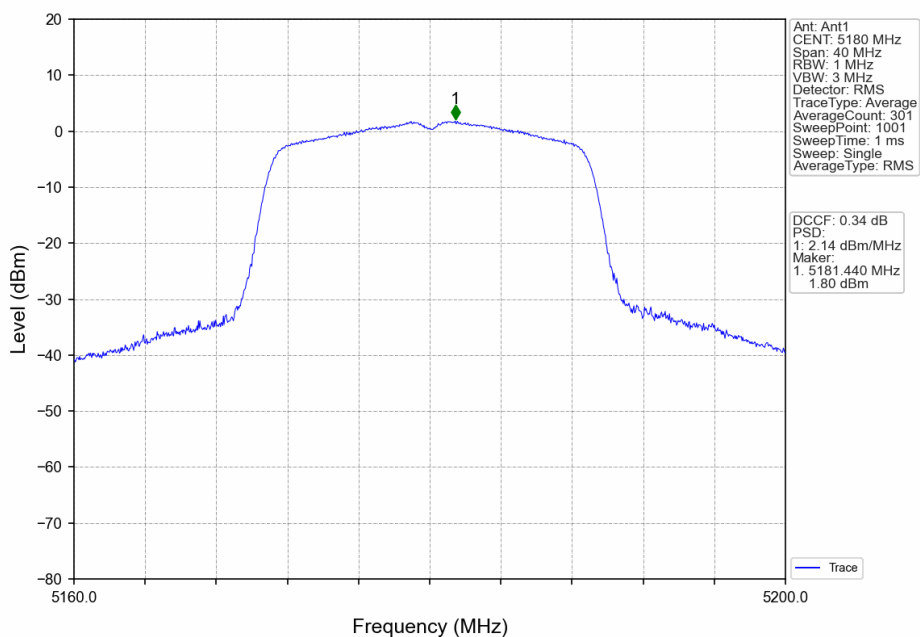
4.2 Test Graph



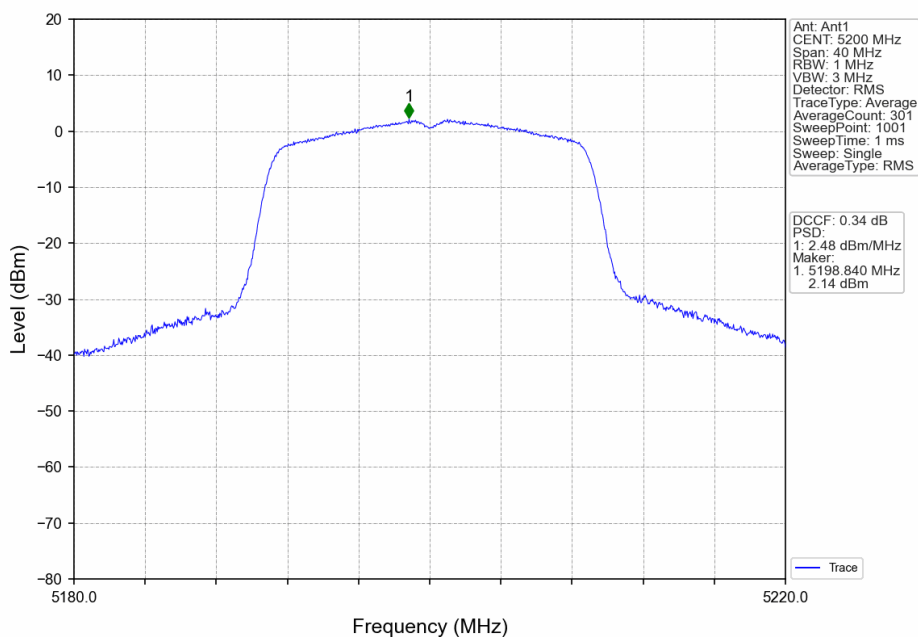
802.11a_HCH_5240MHz_Ant1_NTNV



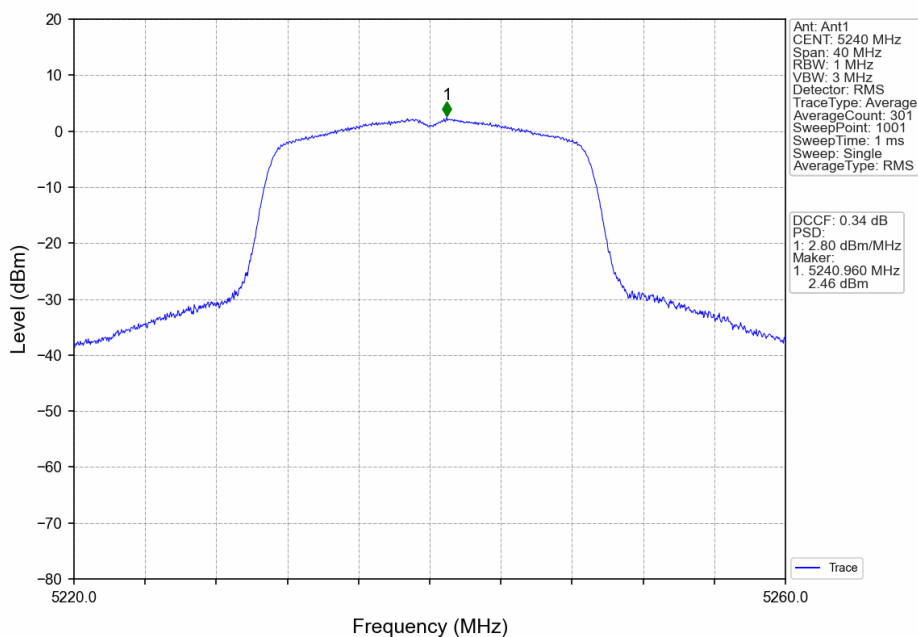
802.11n(HT20)_LCH_5180MHz_Ant1_NTNV



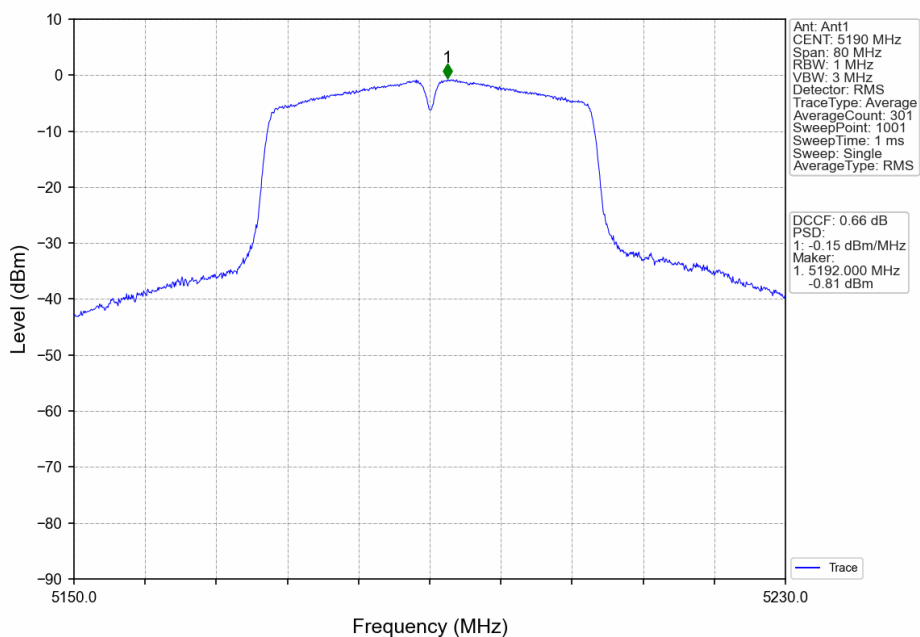
802.11n(HT20) MCH 5200MHz Ant1 NTN



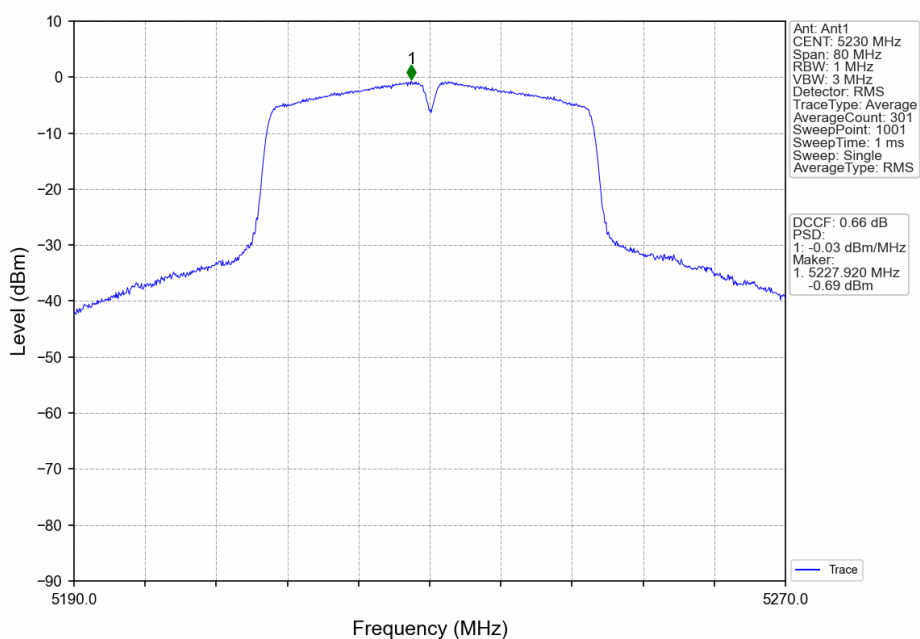
802.11n(HT20) HCH 5240MHz Ant1 NTN



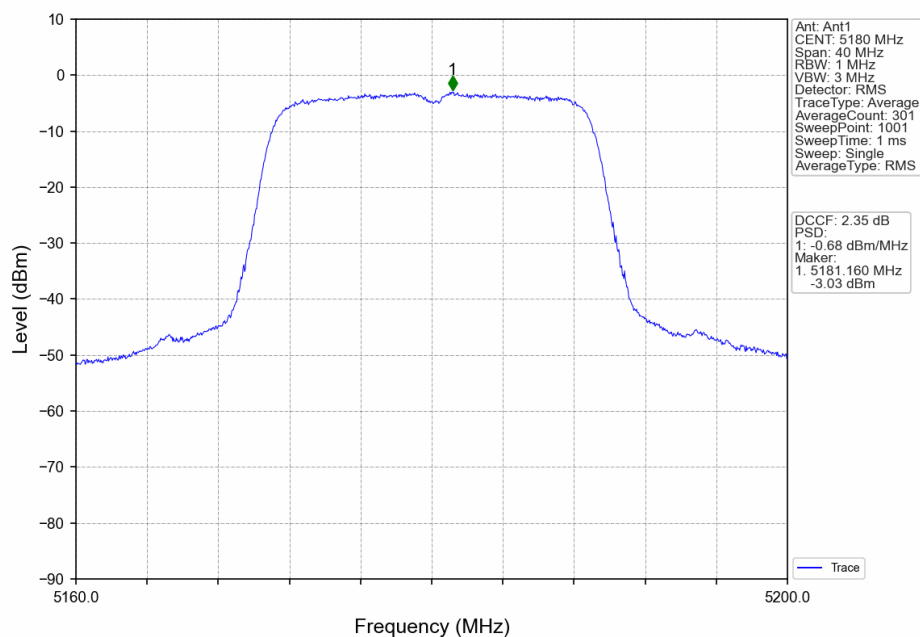
802.11n(HT40) LCH 5190MHz Ant1 NTN



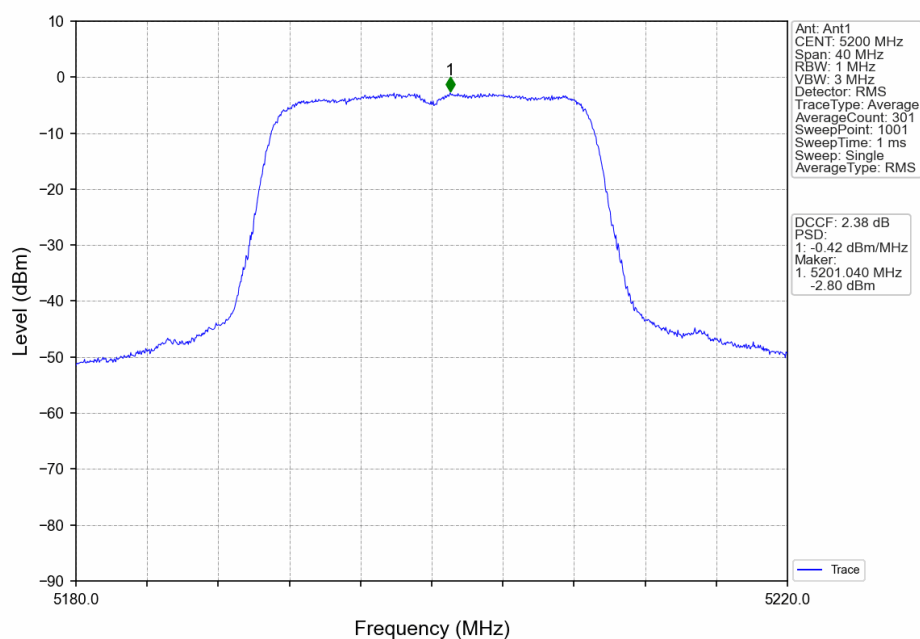
802.11n(HT40) HCH 5230MHz Ant1 NTN



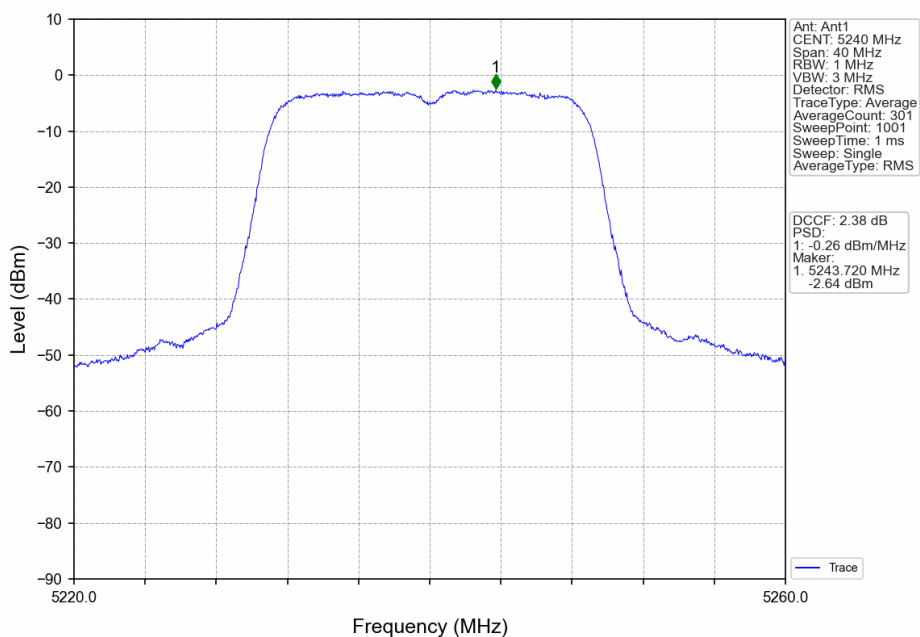
802.11ac(VHT20) LCH 5180MHz Ant1 NTN



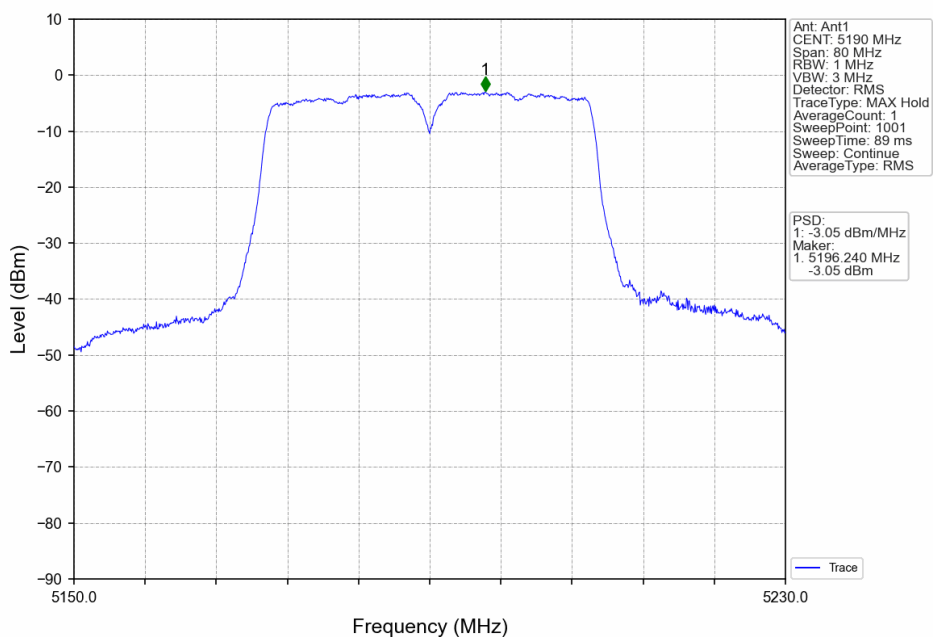
802.11ac(VHT20) MCH 5200MHz Ant1 NTN



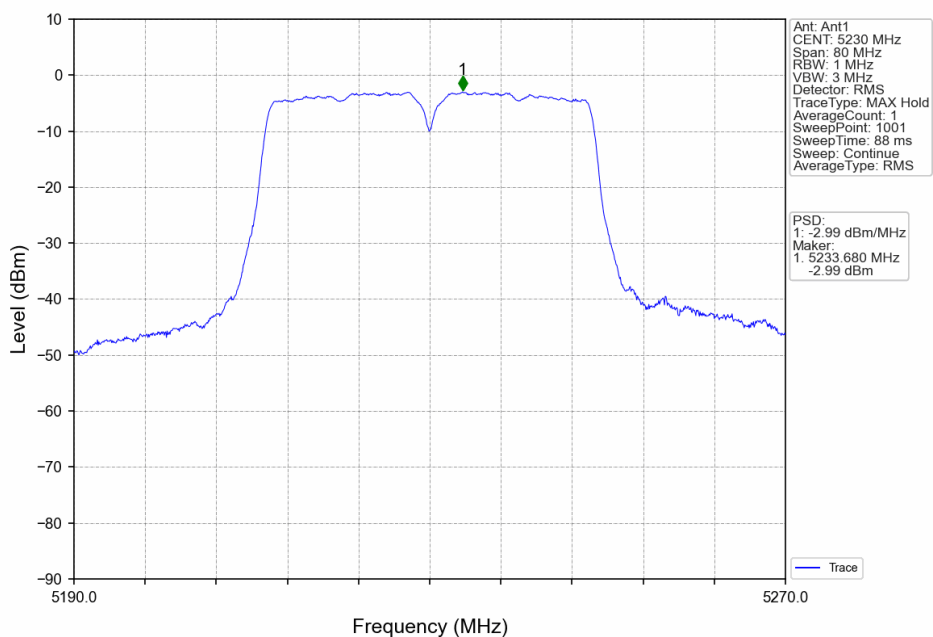
802.11ac(VHT20)_HCH_5240MHz_Ant1_NTNV



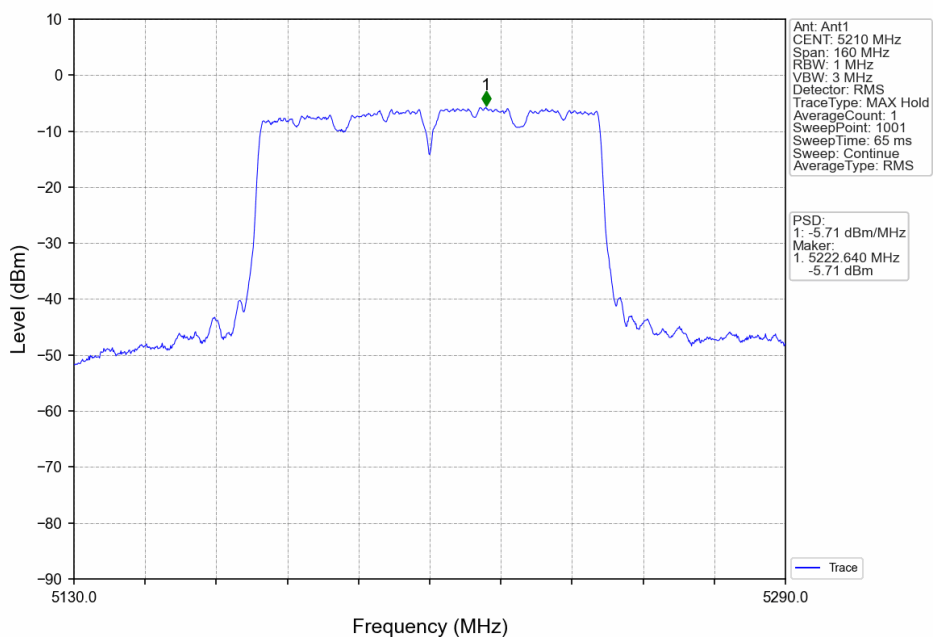
802.11ac(VHT40)_LCH_5190MHz_Ant1_NTNV



802.11ac(VHT40)_HCH_5230MHz_Ant1_NTNV



802.11ac(VHT80)_MCH_5210MHz_Ant1_NTNV



5. Frequency Stability

5.1 Test Result

Mode	TX Type	Frequency (MHz)	Temperature (°C)	Ant1		Limit (MHz)	Verdict
				Voltage (VAC)	Measured Frequency (MHz)		
Carrier	SISO	5180	20	102	5180.000	5150 to 5250	Pass
				120	5180.000	5150 to 5250	Pass
				138	5180.040	5150 to 5250	Pass
			-30	120	5180.020	5150 to 5250	Pass
			-20	120	5180.020	5150 to 5250	Pass
			-10	120	5180.040	5150 to 5250	Pass
			0	120	5180.000	5150 to 5250	Pass
			10	120	5180.020	5150 to 5250	Pass
			30	120	5180.040	5150 to 5250	Pass
			40	120	5180.020	5150 to 5250	Pass
			50	120	5180.000	5150 to 5250	Pass
		5200	20	102	5200.040	5150 to 5250	Pass
				120	5200.020	5150 to 5250	Pass
				138	5200.060	5150 to 5250	Pass
			-30	120	5200.020	5150 to 5250	Pass
			-20	120	5200.020	5150 to 5250	Pass
			-10	120	5200.000	5150 to 5250	Pass
			0	120	5200.040	5150 to 5250	Pass
			10	120	5200.040	5150 to 5250	Pass
			30	120	5200.020	5150 to 5250	Pass
			40	120	5200.040	5150 to 5250	Pass
			50	120	5200.040	5150 to 5250	Pass
		5240	20	102	5240.000	5150 to 5250	Pass
				120	5240.020	5150 to 5250	Pass
				138	5240.000	5150 to 5250	Pass
			-30	120	5240.060	5150 to 5250	Pass
			-20	120	5240.040	5150 to 5250	Pass
			-10	120	5240.060	5150 to 5250	Pass
			0	120	5240.020	5150 to 5250	Pass
			10	120	5240.000	5150 to 5250	Pass
			30	120	5240.060	5150 to 5250	Pass
			40	120	5240.040	5150 to 5250	Pass
			50	120	5240.020	5150 to 5250	Pass
		5190	20	102	5190.120	5150 to 5250	Pass
				120	5190.160	5150 to 5250	Pass
				138	5190.160	5150 to 5250	Pass
			-30	120	5190.080	5150 to 5250	Pass
			-20	120	5190.120	5150 to 5250	Pass
			-10	120	5190.200	5150 to 5250	Pass
			0	120	5190.080	5150 to 5250	Pass
			10	120	5190.120	5150 to 5250	Pass
			30	120	5190.040	5150 to 5250	Pass
			40	120	5190.160	5150 to 5250	Pass
			50	120	5190.120	5150 to 5250	Pass
		5230	20	102	5230.120	5150 to 5250	Pass
				120	5230.120	5150 to 5250	Pass
				138	5230.080	5150 to 5250	Pass
			-30	120	5230.040	5150 to 5250	Pass
			-20	120	5230.120	5150 to 5250	Pass
			-10	120	5230.080	5150 to 5250	Pass
			0	120	5230.120	5150 to 5250	Pass
			10	120	5230.080	5150 to 5250	Pass
			30	120	5230.080	5150 to 5250	Pass
			30	120	5230.080	5150 to 5250	Pass

			40	120	5230.120	5150 to 5250	Pass
			50	120	5230.080	5150 to 5250	Pass
		5210	20	102	5210.075	5150 to 5250	Pass
				120	5210.225	5150 to 5250	Pass
				138	5210.150	5150 to 5250	Pass
			-30	120	5210.150	5150 to 5250	Pass
			-20	120	5210.150	5150 to 5250	Pass
			-10	120	5210.225	5150 to 5250	Pass
			0	120	5210.150	5150 to 5250	Pass
			10	120	5210.075	5150 to 5250	Pass
			30	120	5210.225	5150 to 5250	Pass
			40	120	5210.225	5150 to 5250	Pass
			50	120	5210.150	5150 to 5250	Pass

-----End-----