Test Data for 5G_BAND2C

Product Name: RZBoard V2L

Test Model(HVIN): AES-RZB-V2L-SK-G

1. Bandwidth

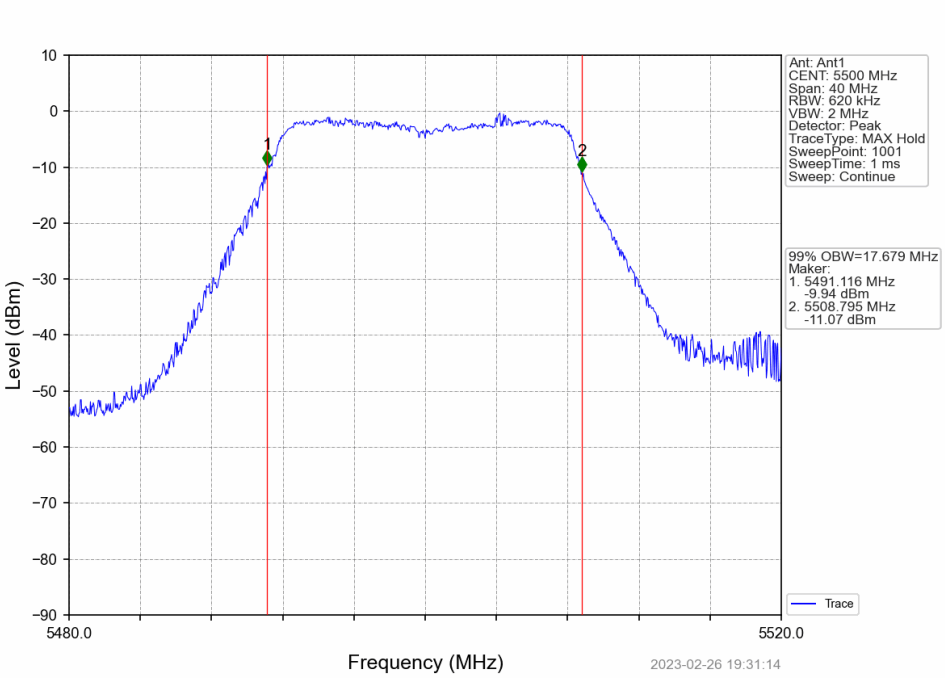
1.1 OBW

1.1.1 Test Result

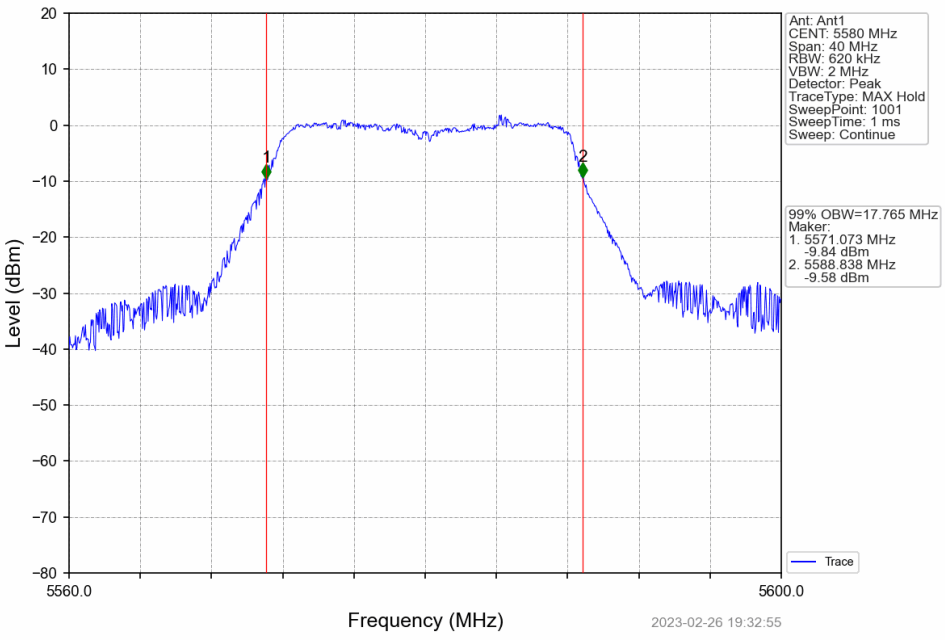
Mode	TX Type	Frequency (MHz)	ANT	99% Occupied Bandwidth (MHz) Result	Verdict
802.11a	SISO	5500	1	17.679	Pass
		5580	1	17.765	Pass
		5700	1	17.628	Pass
802.11n (HT20)	SISO	5500	1	18.518	Pass
		5580	1	18.529	Pass
		5700	1	18.440	Pass
802.11n (HT40)	SISO	5510	1	36.902	Pass
		5550	1	37.074	Pass
		5670	1	36.926	Pass
802.11ac (VHT20)	SISO	5500	1	18.394	Pass
		5580	1	18.453	Pass
		5700	1	18.346	Pass
802.11ac (VHT40)	SISO	5510	1	37.103	Pass
		5550	1	37.154	Pass
		5670	1	36.968	Pass
802.11ac (VHT80)	SISO	5530	1	76.493	Pass
		5610	1	76.573	Pass

1.1.2 Test Graph

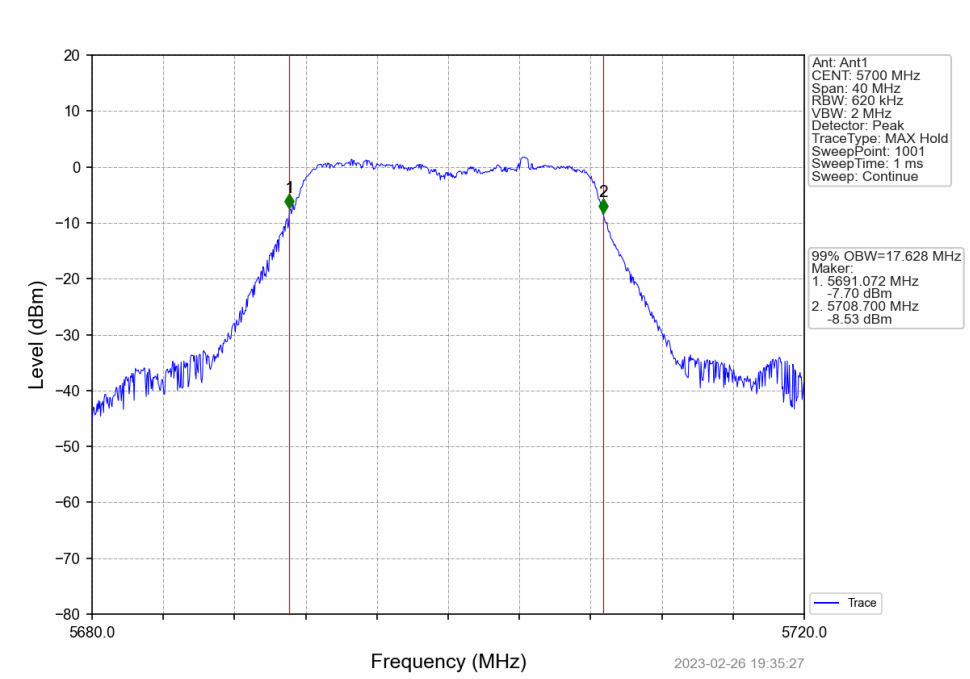
802.11a_LCH_5500MHz_Ant1_NTNV



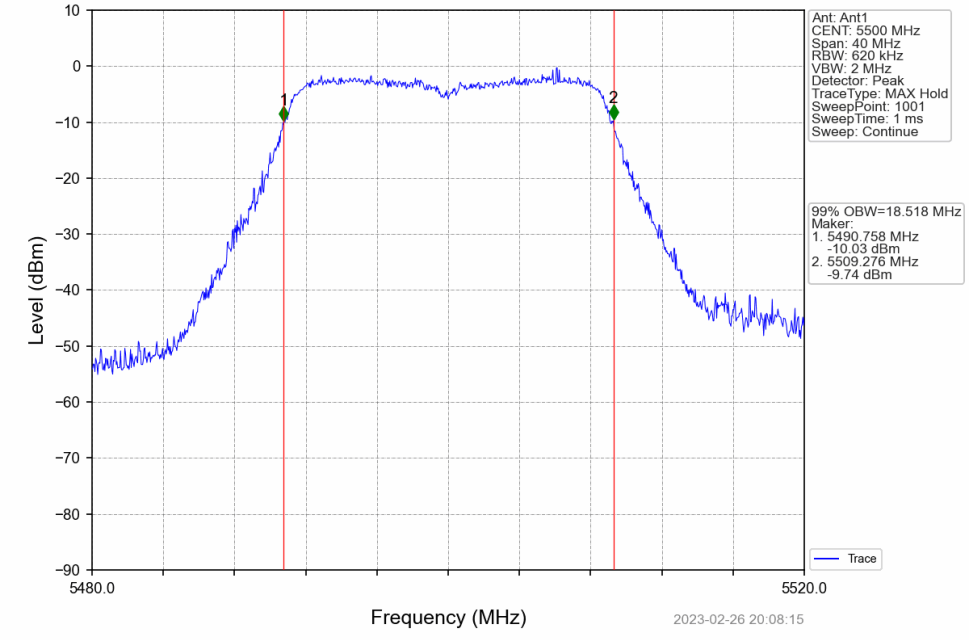
802.11a_MCH_5580MHz_Ant1_NTNV



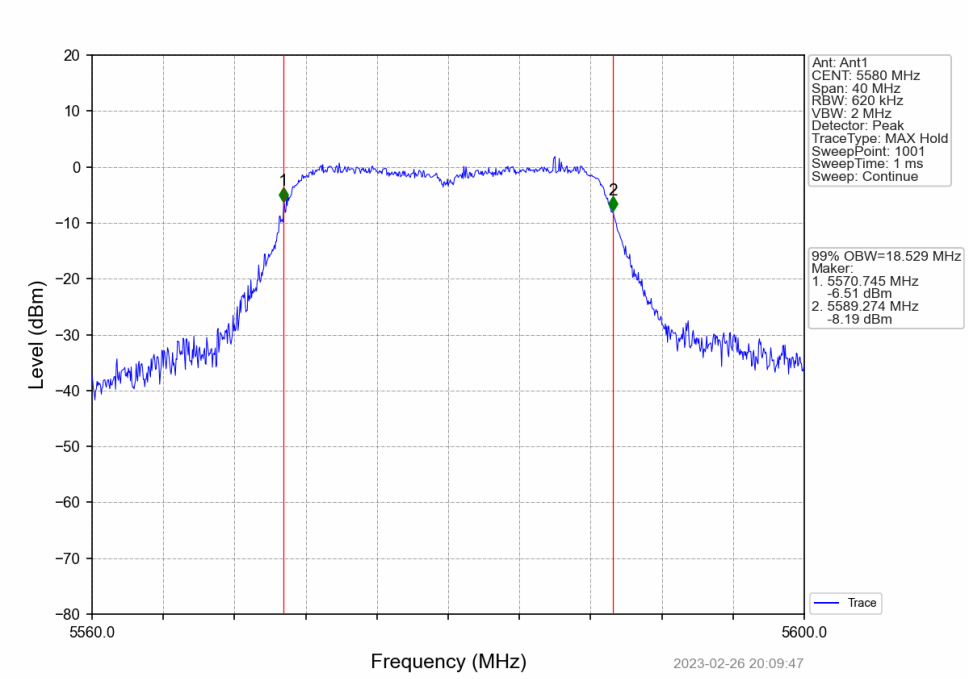
802.11a_HCH_5700MHz_Ant1_NTNV



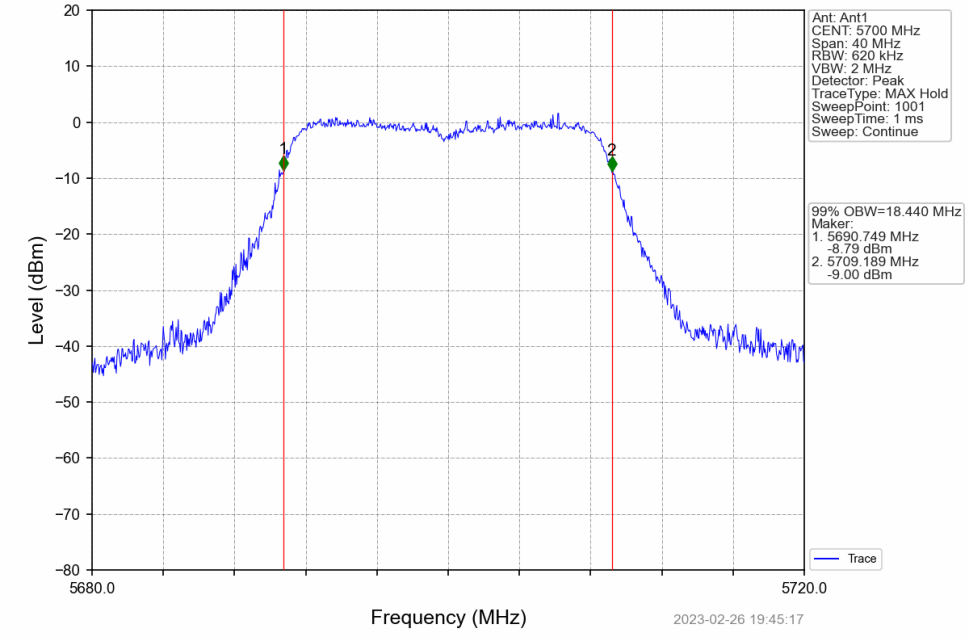
802.11n(HT20)_LCH_5500MHz_Ant1_NTNV



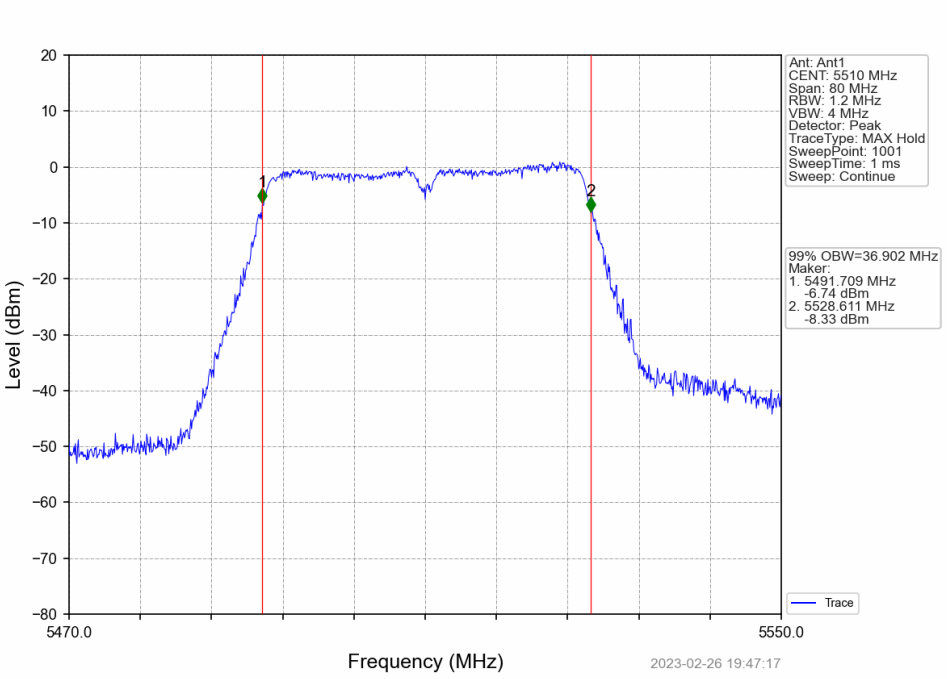
802.11n(HT20)_MCH_5580MHz_Ant1_NTNV



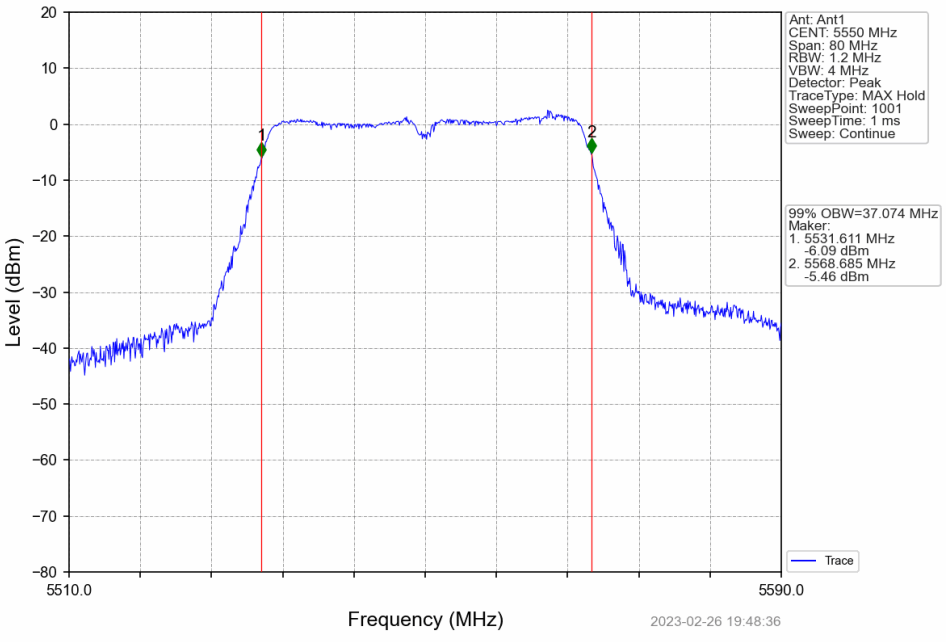
802.11n(HT20)_HCH_5700MHz_Ant1_NTNV



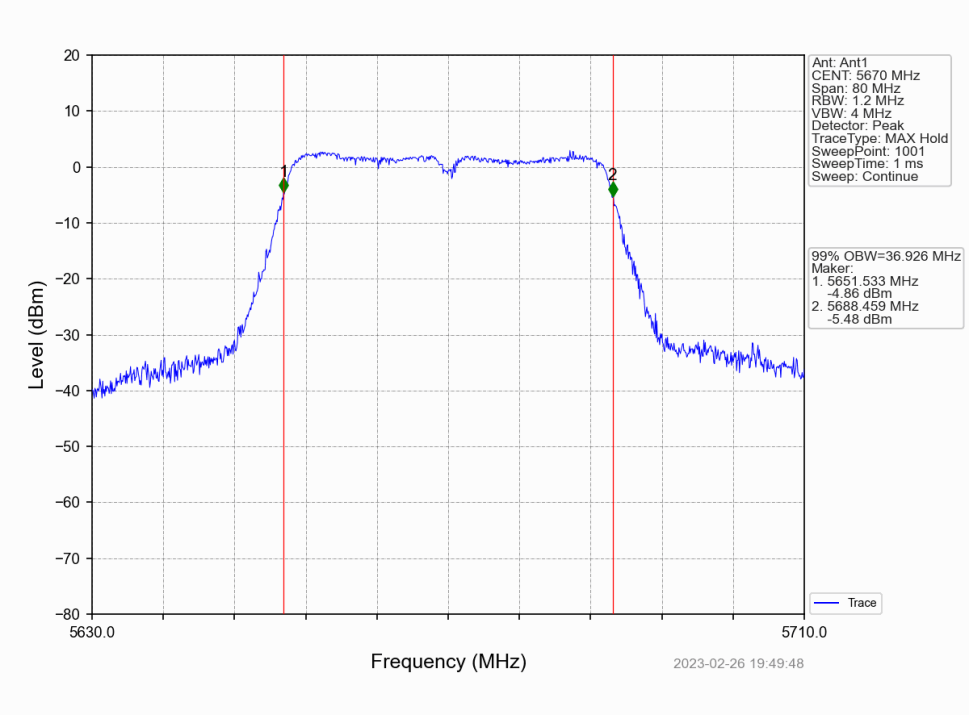
802.11n(HT40)_LCH_5510MHz_Ant1_NTNV



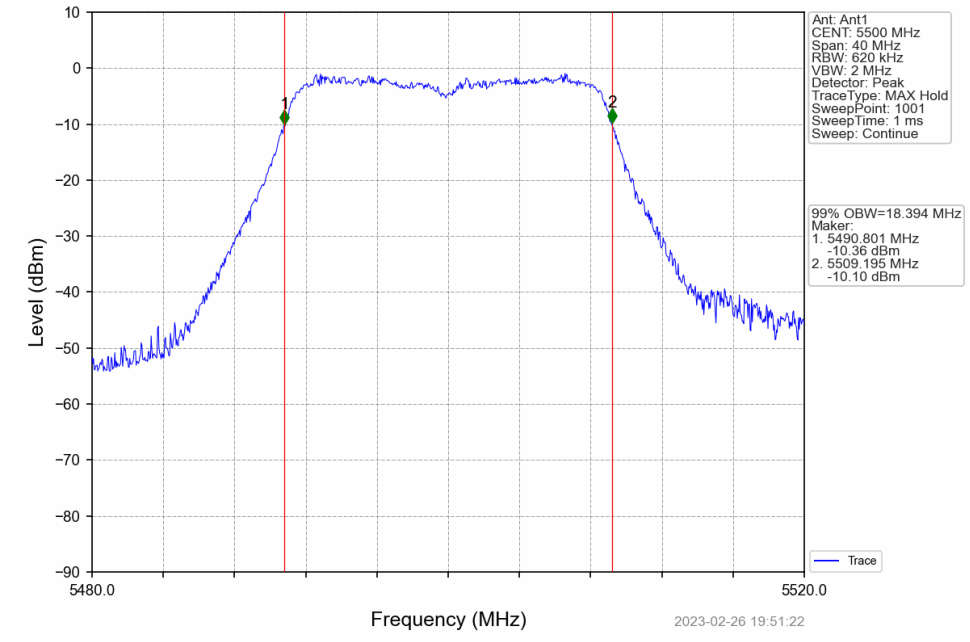
802.11n(HT40)_MCH_5550MHz_Ant1_NTNV



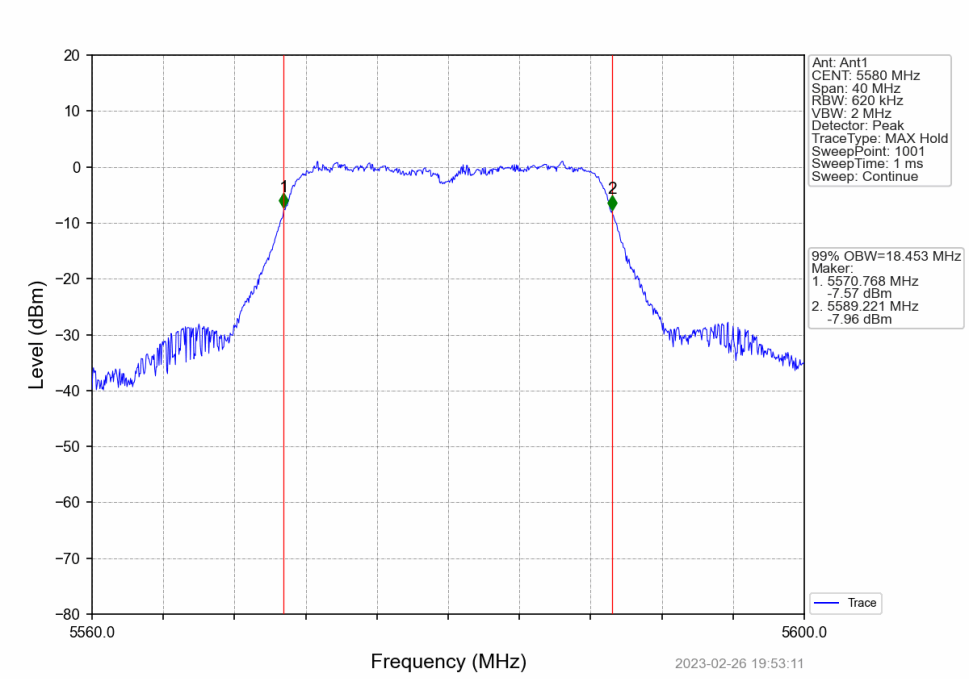
802.11n(HT40)_HCH_5670MHz_Ant1_NTNV



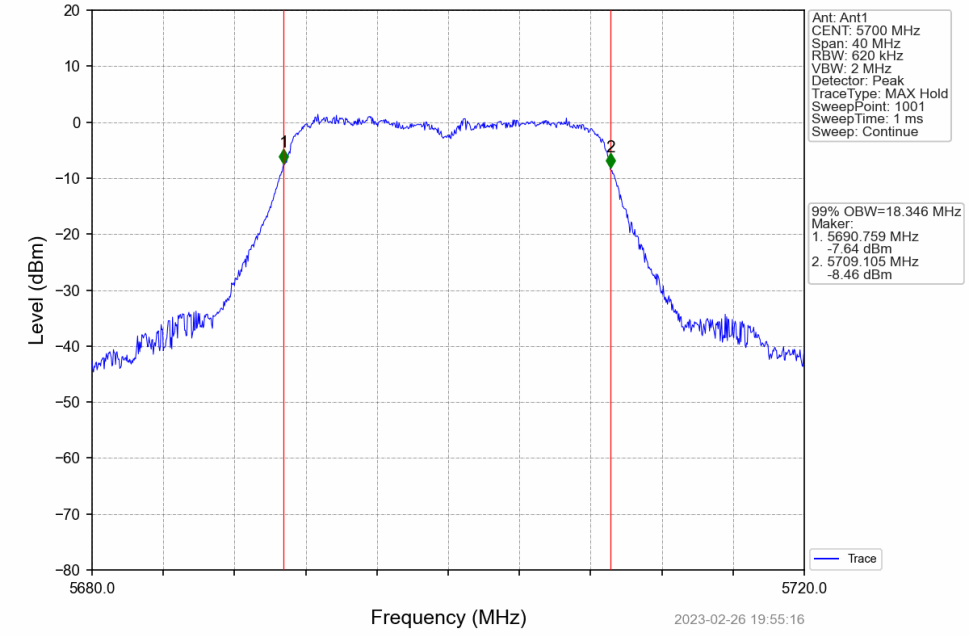
802.11ac(VHT20)_LCH_5500MHz_Ant1_NTNV



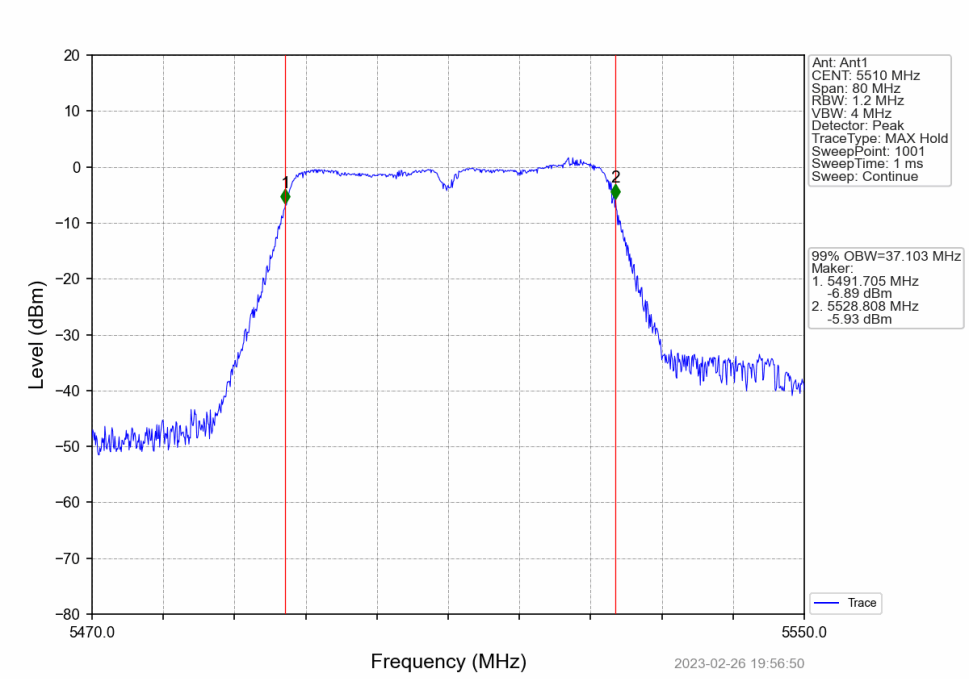
802.11ac(VHT20)_MCH_5580MHz_Ant1_NTNV



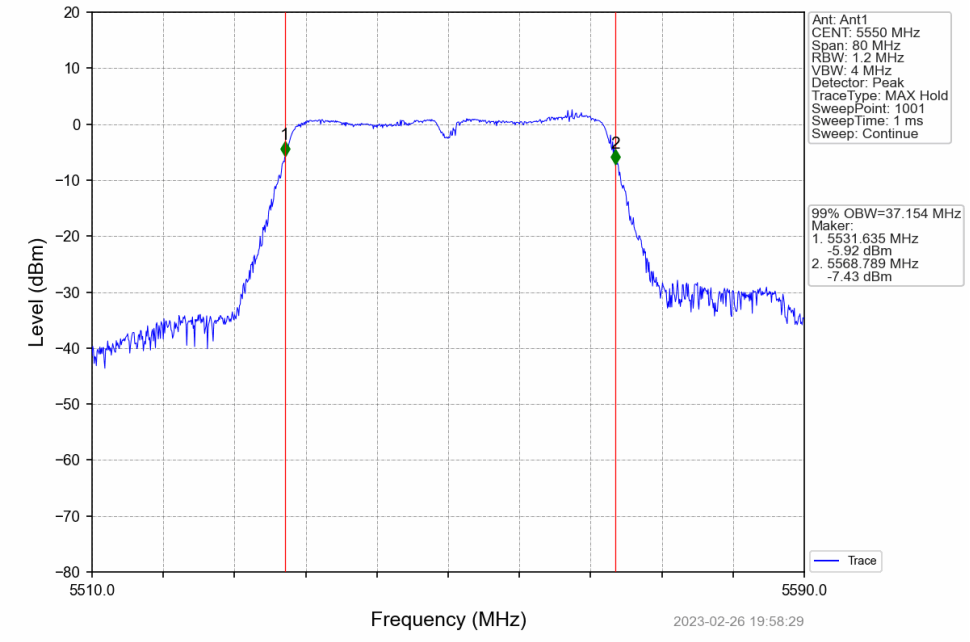
802.11ac(VHT20)_HCH_5700MHz_Ant1_NTNV



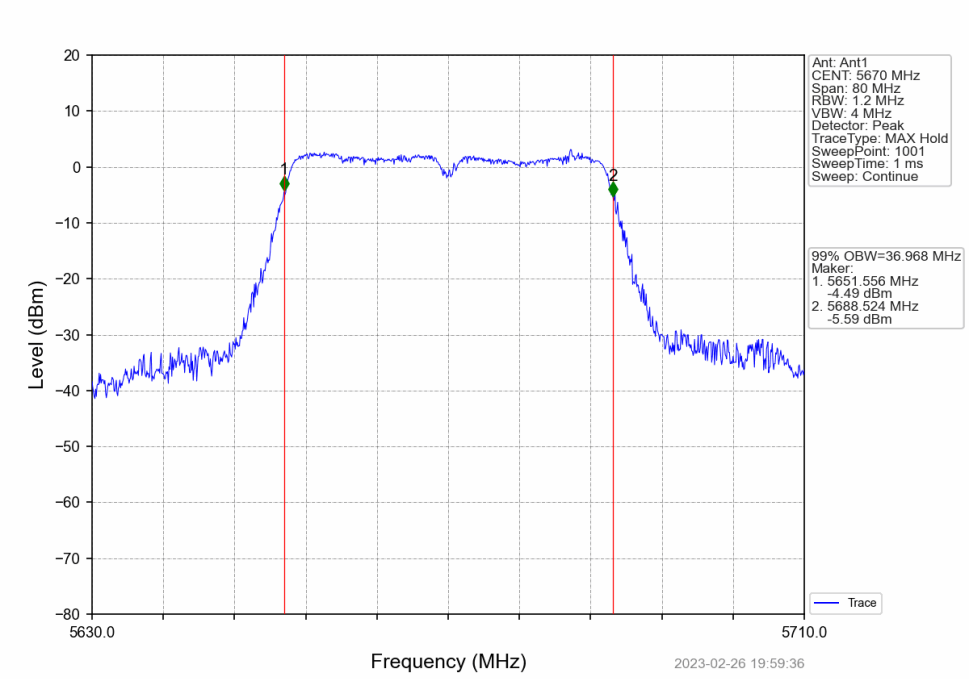
802.11ac(VHT40)_LCH_5510MHz_Ant1_NTNV



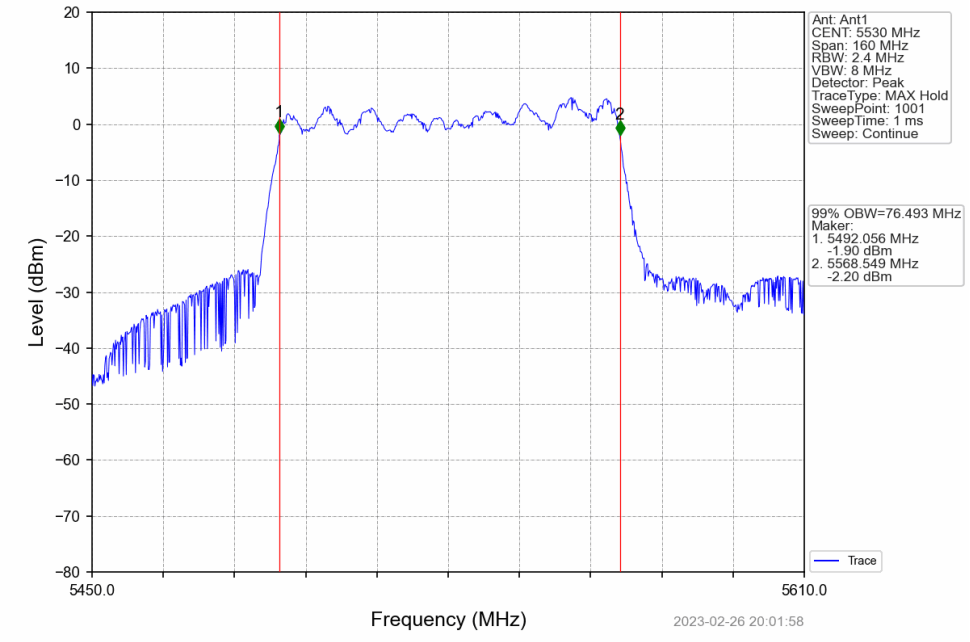
802.11ac(VHT40)_MCH_5550MHz_Ant1_NTNV



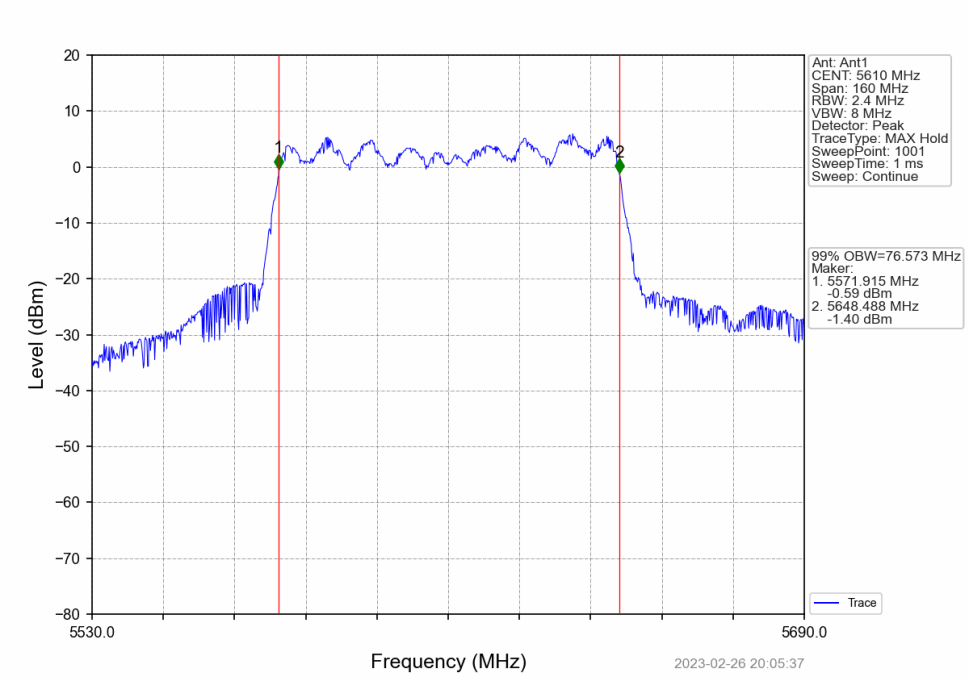
802.11ac(VHT40)_HCH_5670MHz_Ant1_NTNV



802.11ac(VHT80)_LCH_5530MHz_Ant1_NTNV



802.11ac(VHT80)_HCH_5610MHz_Ant1_NTNV



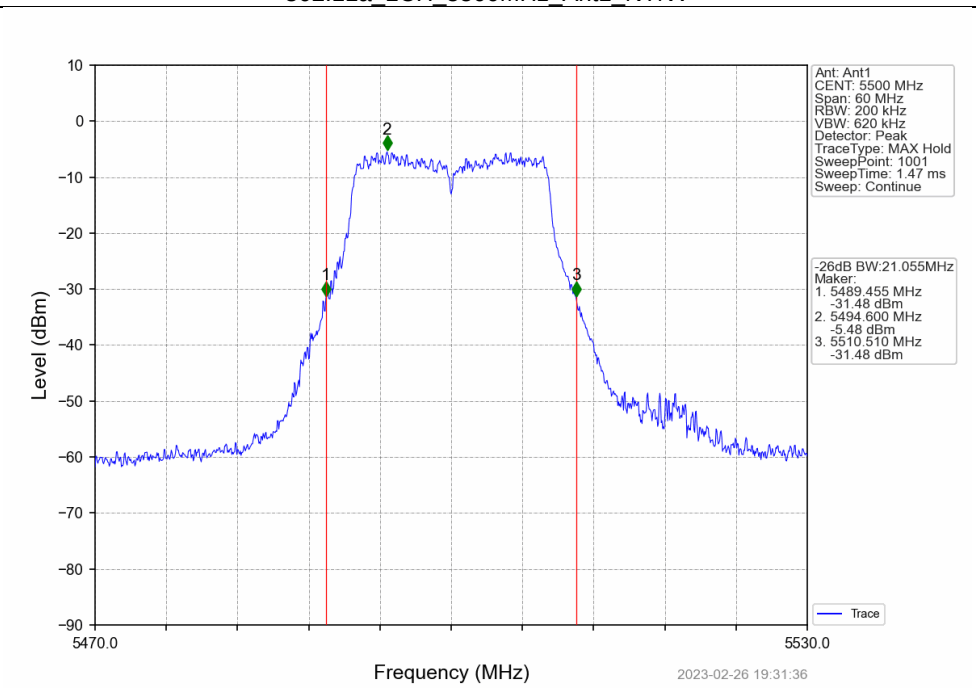
1.2 26dB BW

1.2.1 Test Result

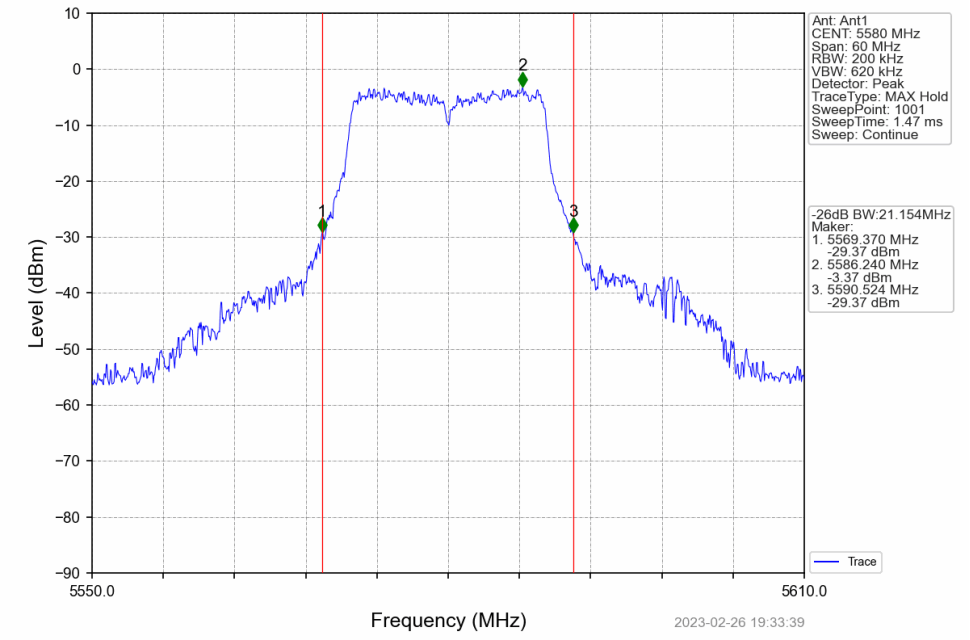
Mode	TX Type	Frequency (MHz)	ANT	26dB Bandwidth (MHz) Result	Verdict
802.11a	SISO	5500	1	21.055	Pass
		5580	1	21.154	Pass
		5700	1	20.892	Pass
802.11n (HT20)	SISO	5500	1	21.690	Pass
		5580	1	21.787	Pass
		5700	1	21.240	Pass
802.11n (HT40)	SISO	5510	1	42.400	Pass
		5550	1	42.362	Pass
		5670	1	43.240	Pass
802.11ac (VHT20)	SISO	5500	1	21.073	Pass
		5580	1	21.378	Pass
		5700	1	20.738	Pass
802.11ac (VHT40)	SISO	5510	1	41.927	Pass
		5550	1	42.263	Pass
		5670	1	42.289	Pass
802.11ac (VHT80)	SISO	5530	1	82.503	Pass
		5610	1	82.995	Pass

1.2.2 Test Graph

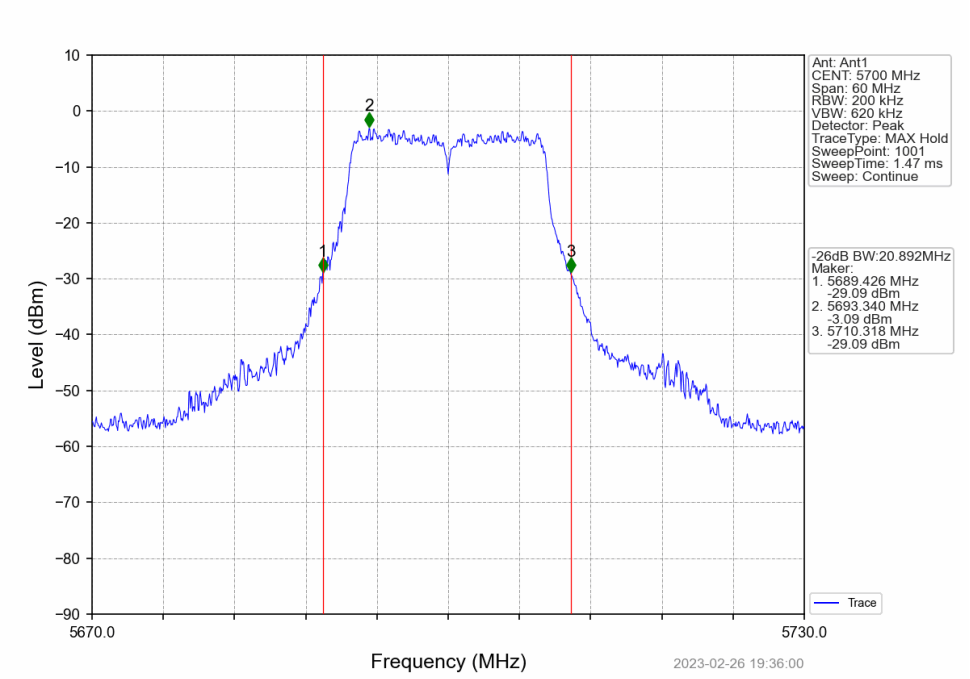
802.11a_LCH_5500MHz_Ant1_NTNV



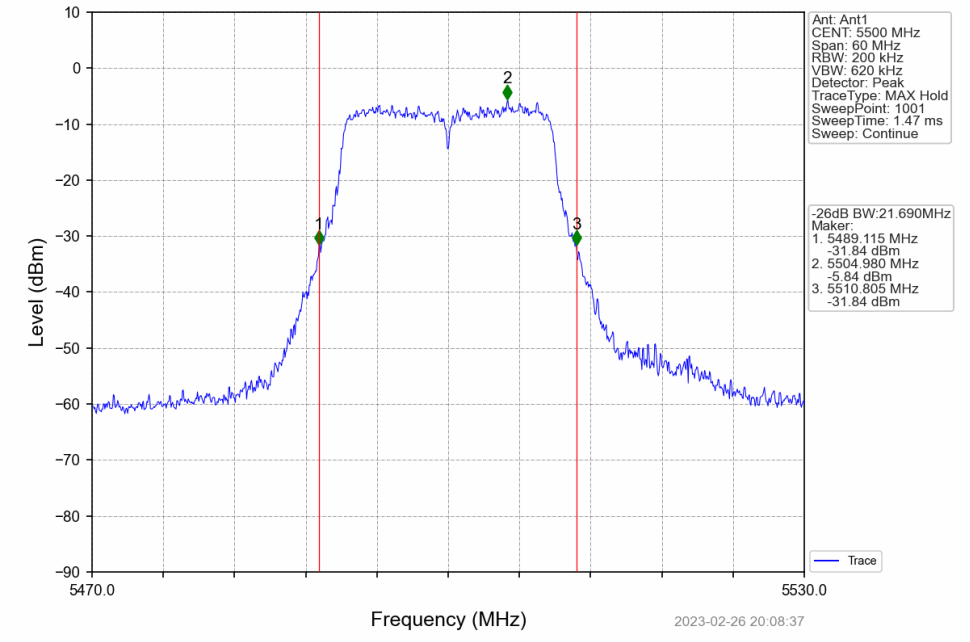
802.11a_MCH_5580MHz_Ant1_NTNV



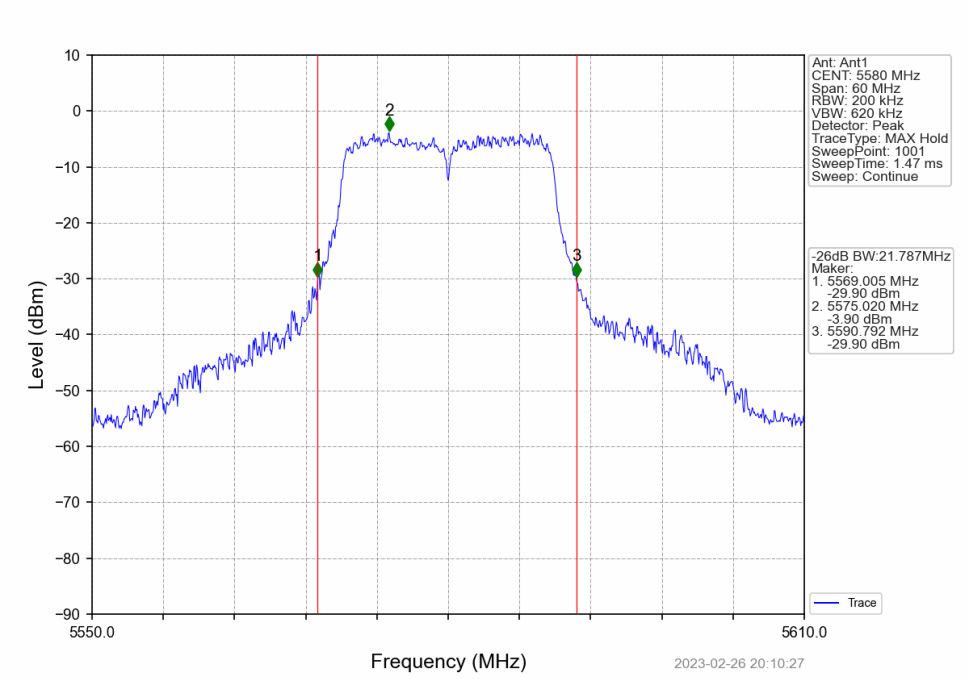
802.11a_HCH_5700MHz_Ant1_NTNV



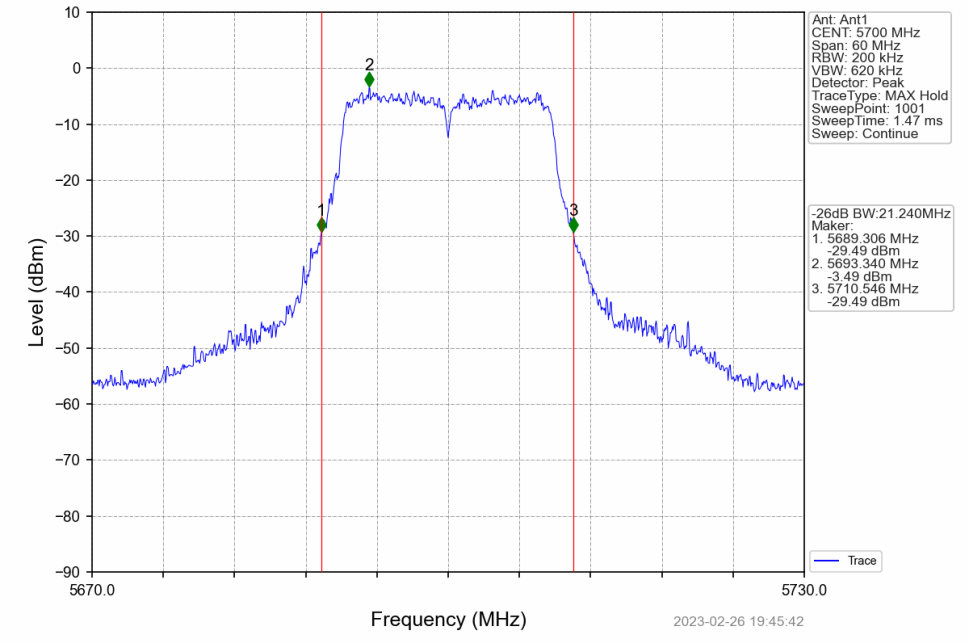
802.11n(HT20)_LCH_5500MHz_Ant1_NTNV



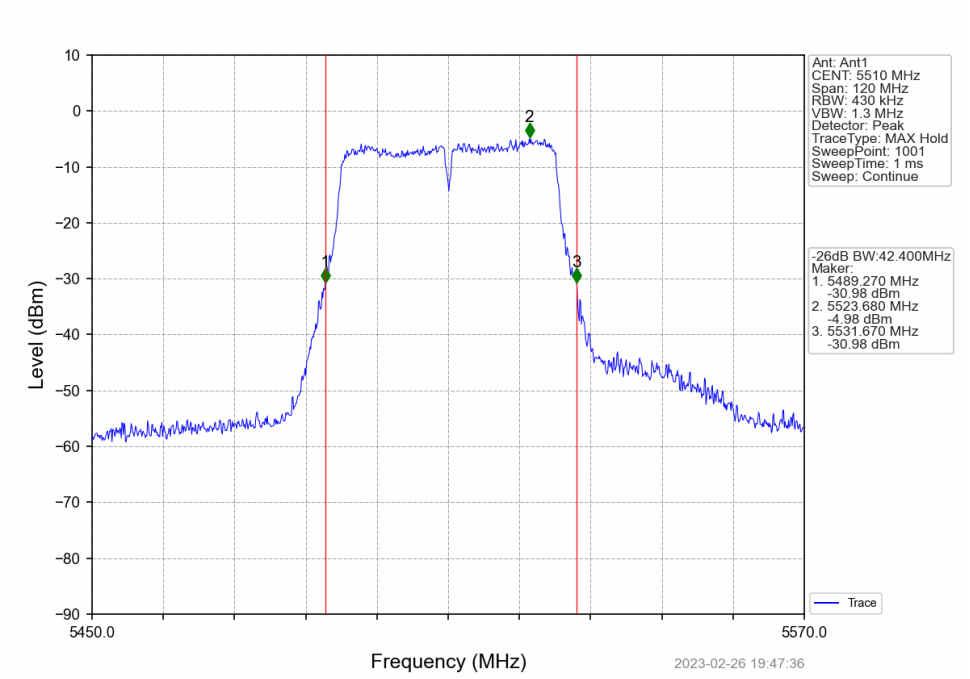
802.11n(HT20)_MCH_5580MHz_Ant1_NTNV



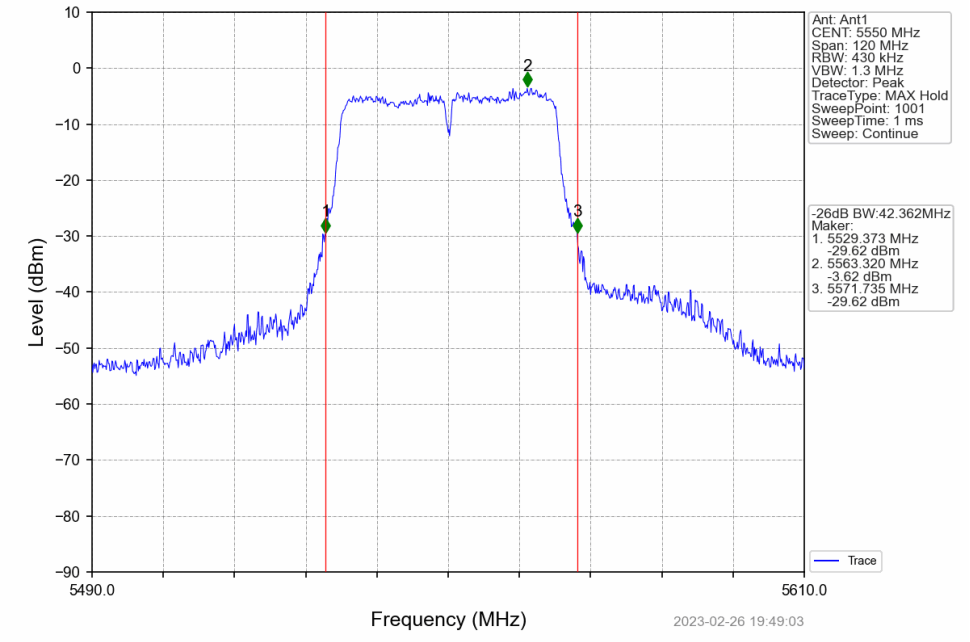
802.11n(HT20)_HCH_5700MHz_Ant1_NTNV



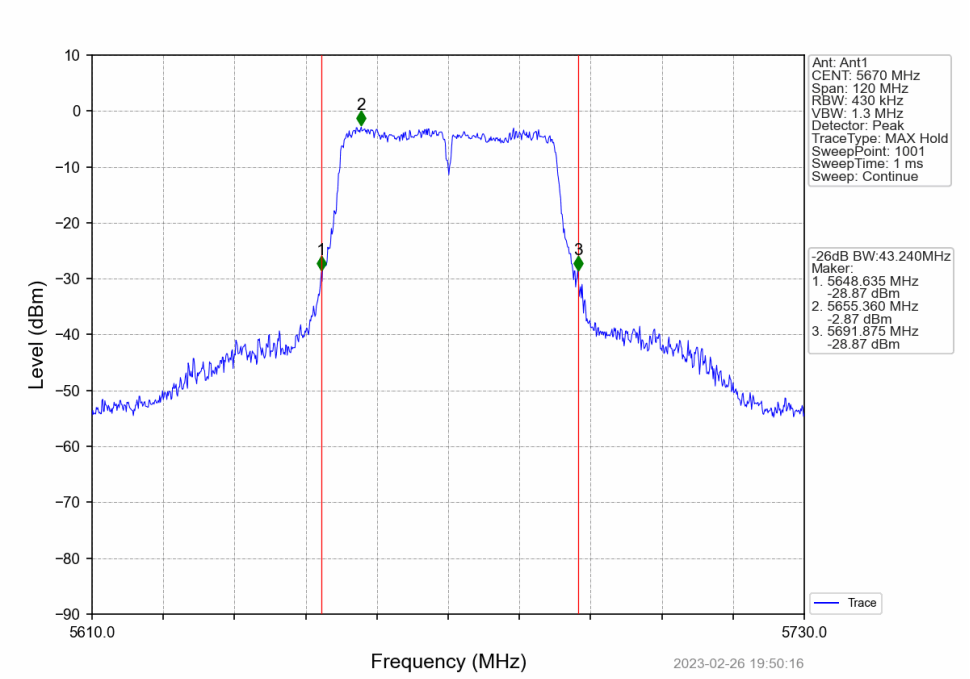
802.11n(HT40)_LCH_5510MHz_Ant1_NTNV



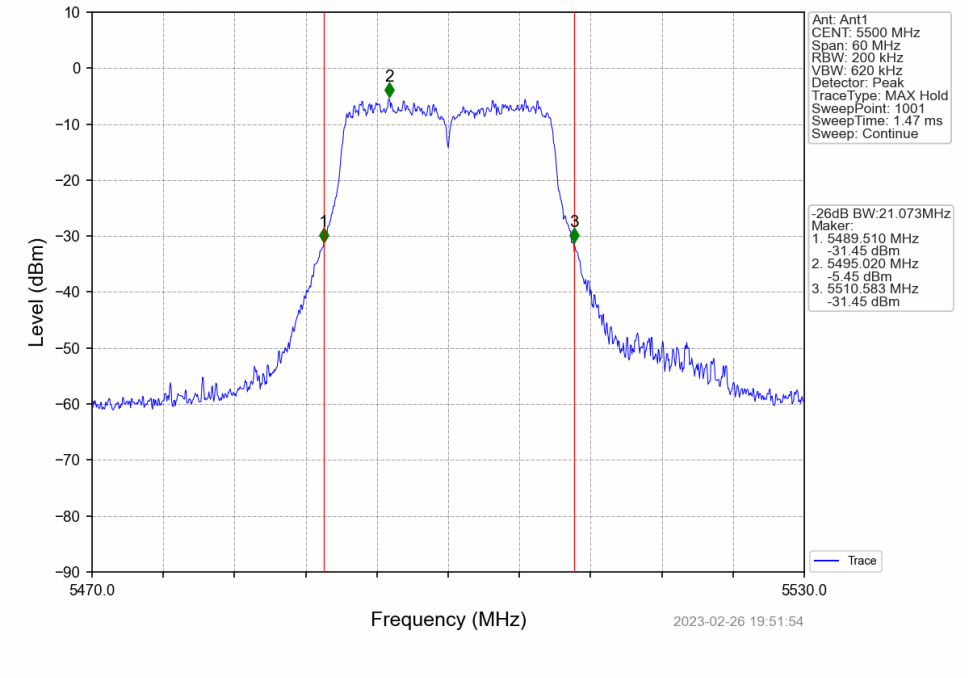
802.11n(HT40)_MCH_5550MHz_Ant1_NTNV



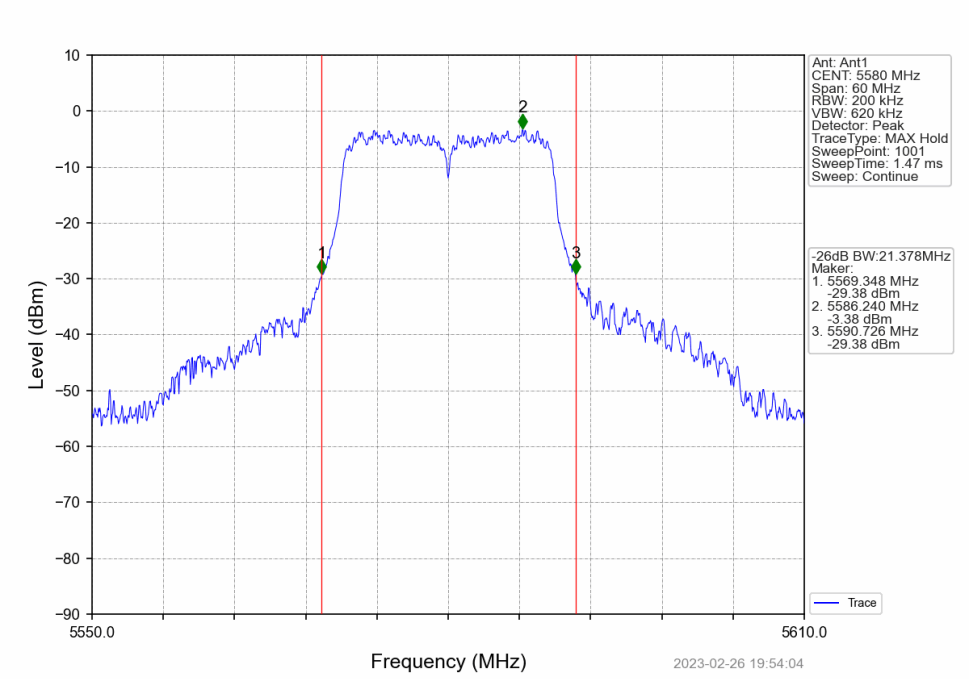
802.11n(HT40)_HCH_5670MHz_Ant1_NTNV



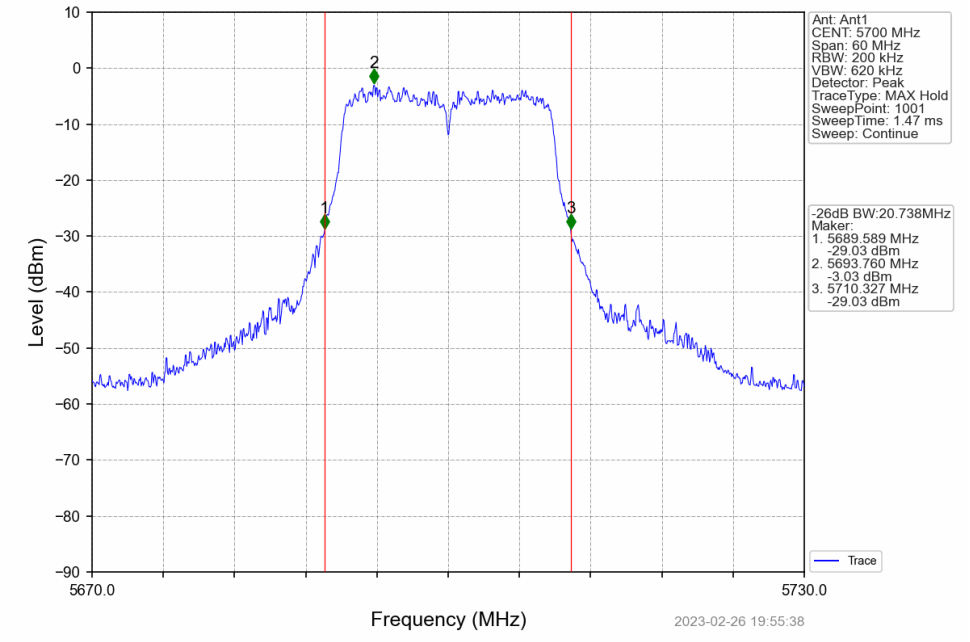
802.11ac(VHT20)_LCH_5500MHz_Ant1_NTNV



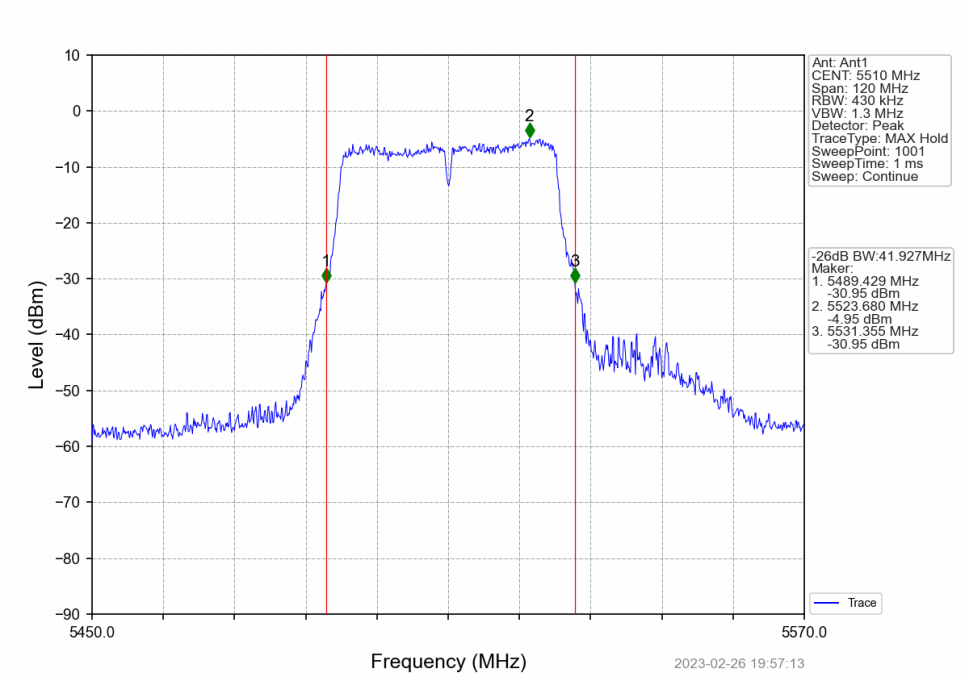
802.11ac(VHT20)_MCH_5580MHz_Ant1_NTNV



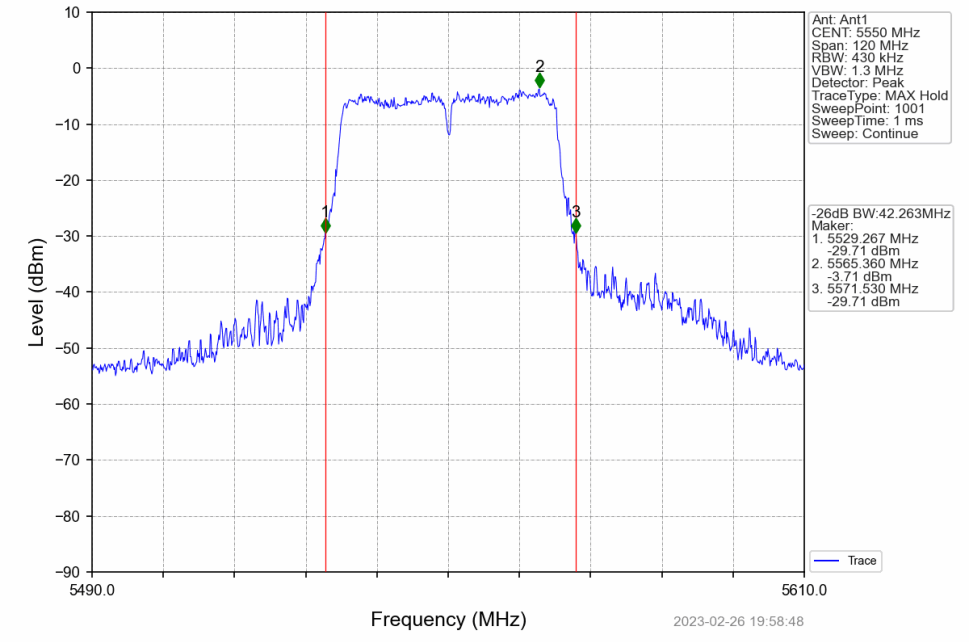
802.11ac(VHT20)_HCH_5700MHz_Ant1_NTNV



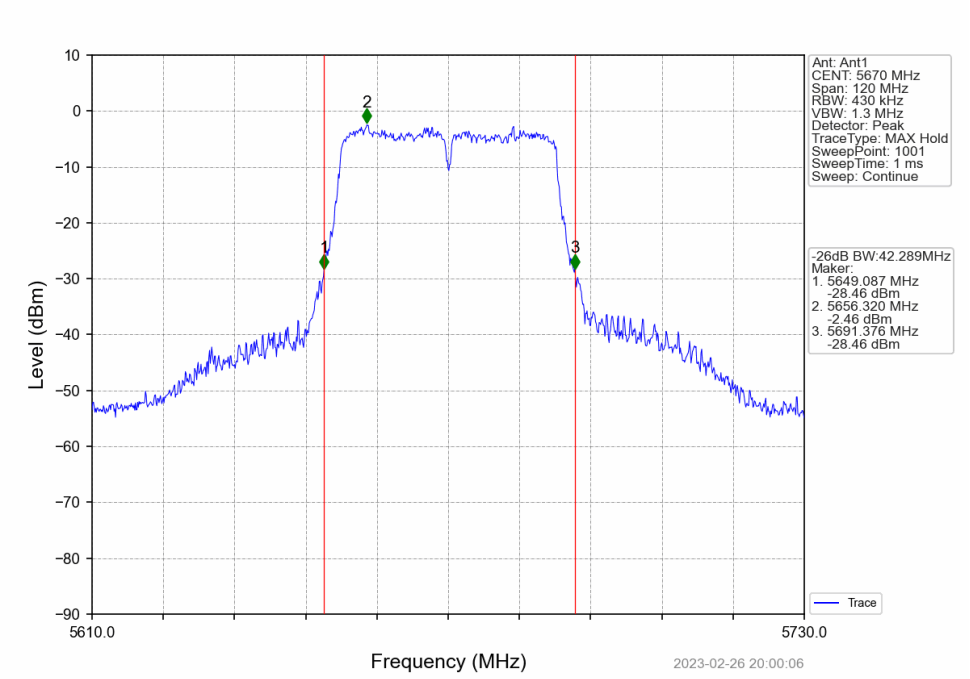
802.11ac(VHT40)_LCH_5510MHz_Ant1_NTNV



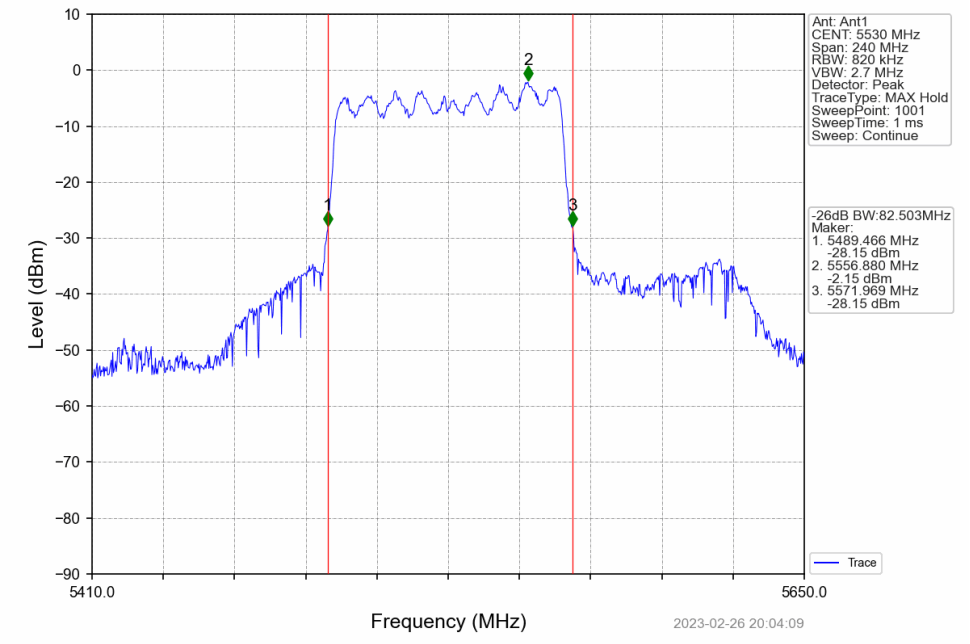
802.11ac(VHT40)_MCH_5550MHz_Ant1_NTNV



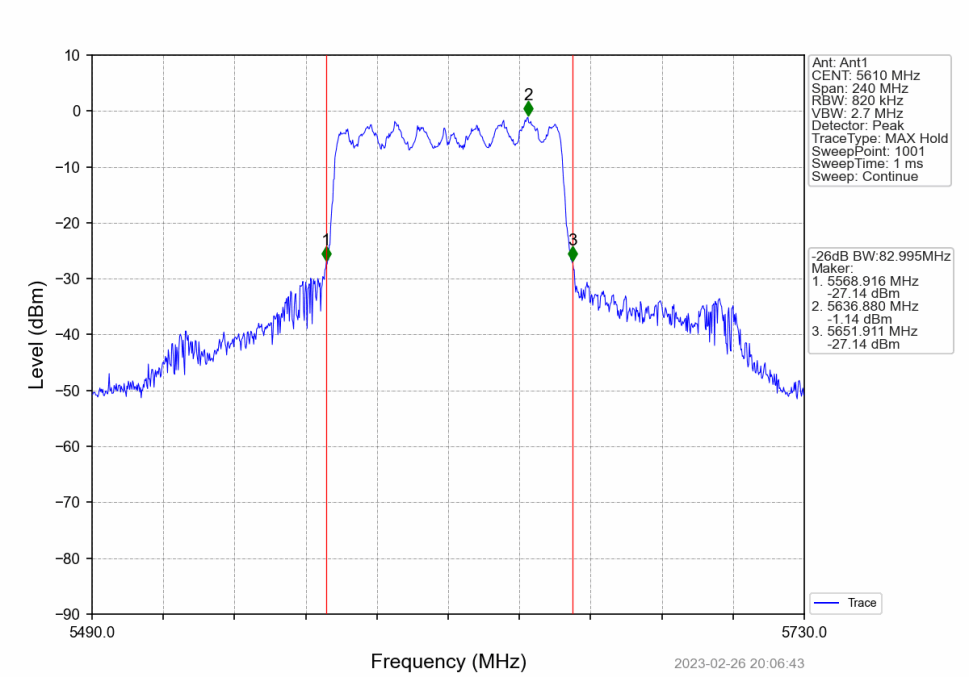
802.11ac(VHT40)_HCH_5670MHz_Ant1_NTNV



802.11ac(VHT80)_LCH_5530MHz_Ant1_NTNV



802.11ac(VHT80)_HCH_5610MHz_Ant1_NTNV



2. Maximum Conducted Output Power

2.1 Power

2.1.1 Test Result

Mode	TX Type	Frequency (MHz)	Maximum Average Conducted Output Power (dBm)					Verdict
			AVG Conducted Power (dBm)	Limit	Duty Cycle Factor(dB)	EIRP	Limit	
802.11a	SISO	5500	11.28	<=23.98	0.00	15.53	<=30	Pass
		5580	13.41	<=23.98	0.00	17.66	<=30	Pass
		5700	13.39	<=23.98	0.00	17.64	<=30	Pass
802.11n (HT20)	SISO	5500	11.13	<=23.98	0.00	15.38	<=30	Pass
		5580	12.87	<=23.98	0.00	17.12	<=30	Pass
		5700	12.85	<=23.98	0.00	17.10	<=30	Pass
802.11n (HT40)	SISO	5510	11.97	<=23.98	0.00	16.22	<=30	Pass
		5550	12.95	<=23.98	0.00	17.20	<=30	Pass
		5670	13.50	<=23.98	0.00	17.75	<=30	Pass
802.11ac (VHT20)	SISO	5500	11.02	<=23.98	0.00	15.27	<=30	Pass
		5580	12.48	<=23.98	0.00	16.73	<=30	Pass
		5700	12.43	<=23.98	0.00	16.68	<=30	Pass
802.11ac (VHT40)	SISO	5510	10.96	<=23.98	0.00	15.21	<=30	Pass
		5550	12.15	<=23.98	0.00	16.40	<=30	Pass
		5670	13.12	<=23.98	0.00	17.37	<=30	Pass
802.11ac (VHT80)	SISO	5530	12.15	<=23.98	0.00	16.40	<=30	Pass
		5610	13.54	<=23.98	0.00	17.79	<=30	Pass
Note1: Antenna Gain: Ant1: 4.25dBi; Note2: The Duty Cycle Factor and RBW Factor is compensated in the result.								

3. Maximum Power Spectral Density

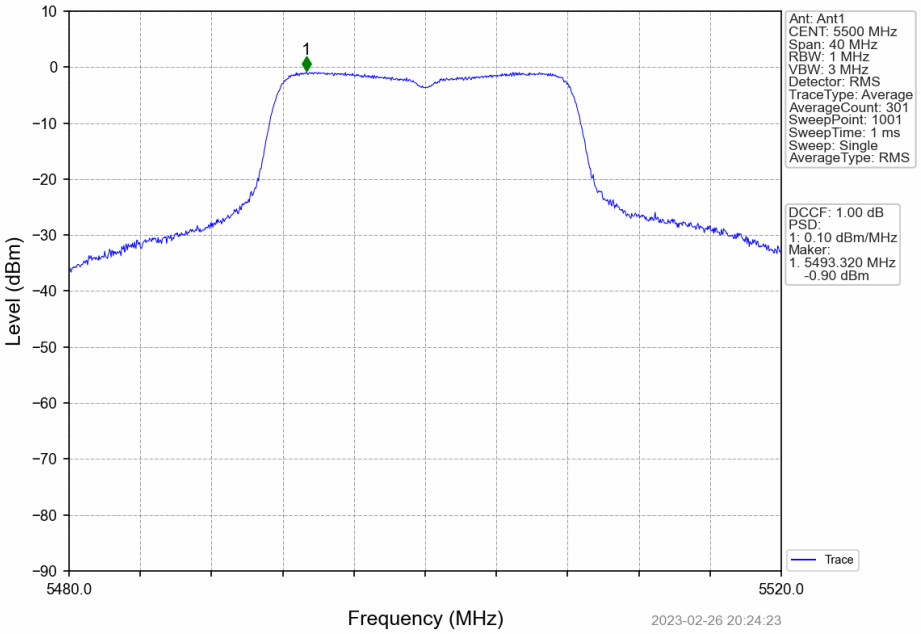
3.1 PSD

3.1.1 Test Result

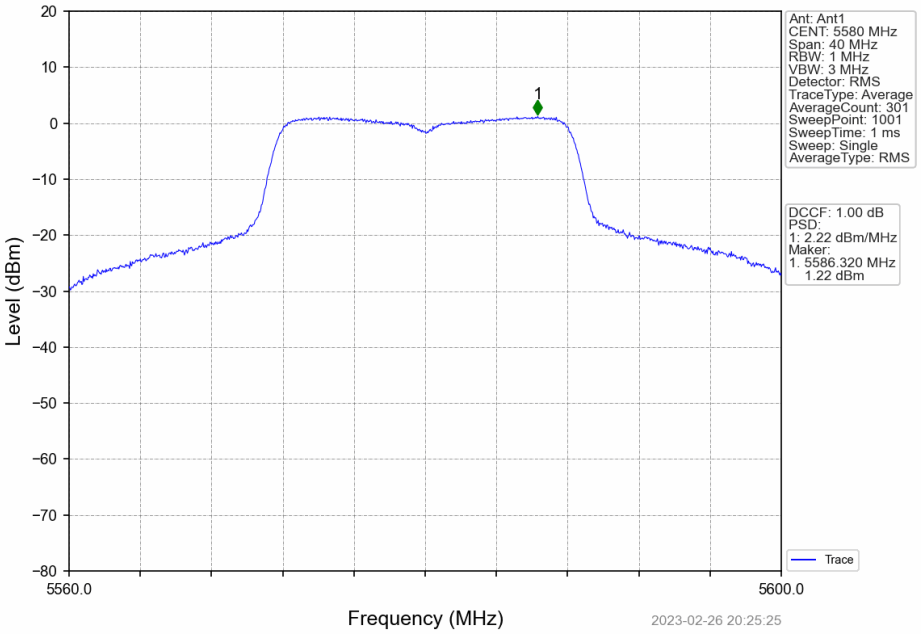
Mode	TX Type	Frequency (MHz)	Maximum PSD (dBm/MHz)				Verdict
			Report Power Density [dBm/3KHz]	Duty Cycle Factor(dB)	Report Power Density [dBm/3KHz]	Limit	
802.11a	SISO	5500	0.10	0.00	0.10	<=11	Pass
		5580	2.22	0.00	2.22	<=11	Pass
		5700	2.17	0.00	2.17	<=11	Pass
802.11n (HT20)	SISO	5500	-0.32	0.00	-0.32	<=11	Pass
		5580	1.56	0.00	1.56	<=11	Pass
		5700	1.71	0.00	1.71	<=11	Pass
802.11n (HT40)	SISO	5510	-1.81	0.00	-1.81	<=11	Pass
		5550	-0.98	0.00	-0.98	<=11	Pass
		5670	-0.55	0.00	-0.55	<=11	Pass
802.11ac (VHT20)	SISO	5500	-0.04	0.00	-0.04	<=11	Pass
		5580	1.19	0.00	1.19	<=11	Pass
		5700	1.17	0.00	1.17	<=11	Pass
802.11ac (VHT40)	SISO	5510	-2.75	0.00	-2.75	<=11	Pass
		5550	-1.66	0.00	-1.66	<=11	Pass
		5670	-1.10	0.00	-1.10	<=11	Pass
802.11ac (VHT80)	SISO	5530	-3.62	0.00	-3.62	<=11	Pass
		5610	-2.48	0.00	-2.48	<=11	Pass
Note1: Antenna Gain: Ant1: 4.25dBi; Note2: The Duty Cycle Factor and RBW Factor is compensated in the graph.							

3.1.2 Test Graph

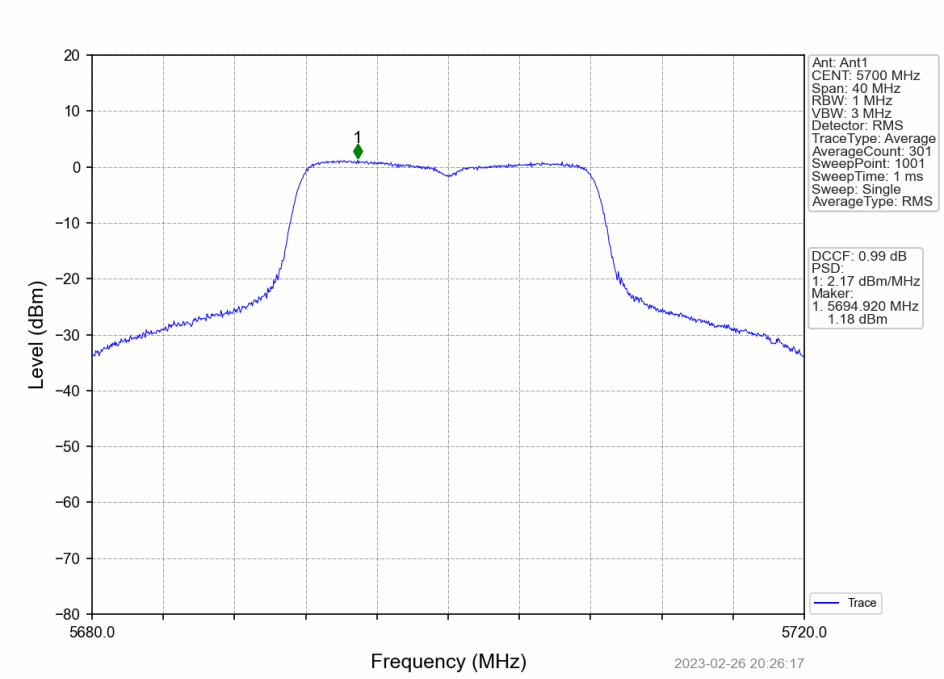
802.11a_LCH_5500MHz_Ant1_NTNV



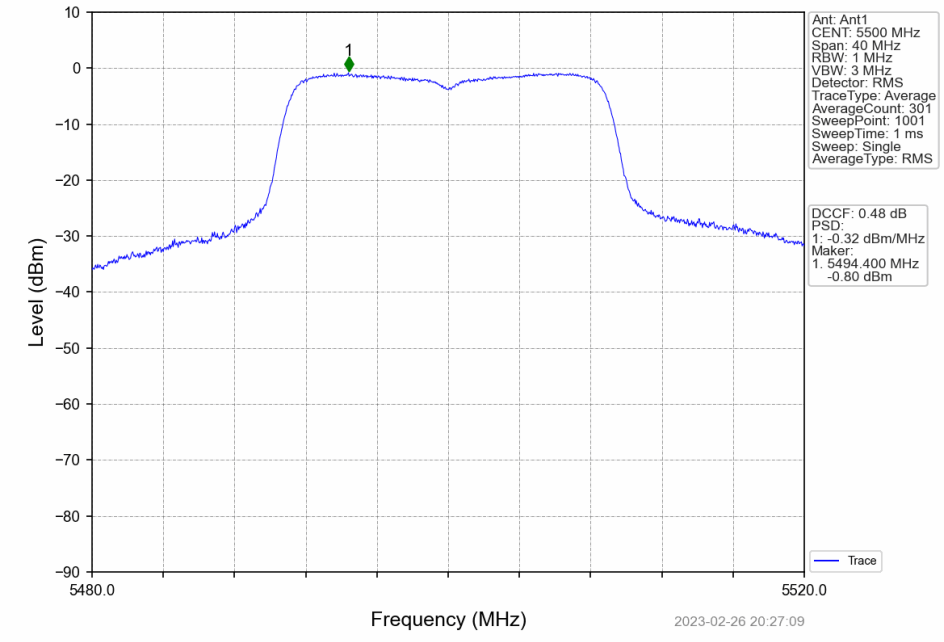
802.11a_MCH_5580MHz_Ant1_NTNV



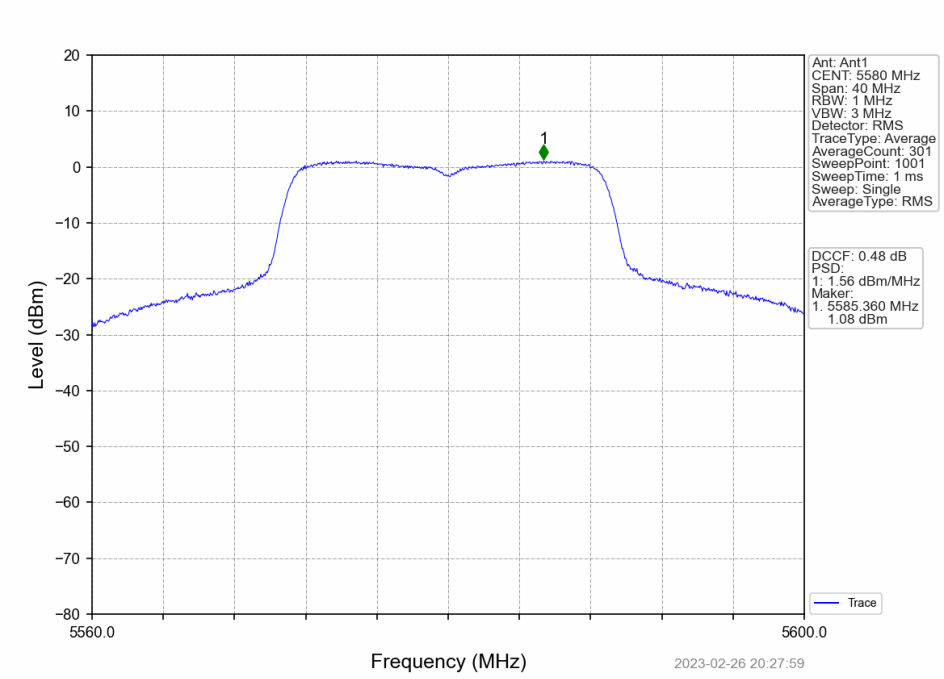
802.11a_HCH_5700MHz_Ant1_NTNV



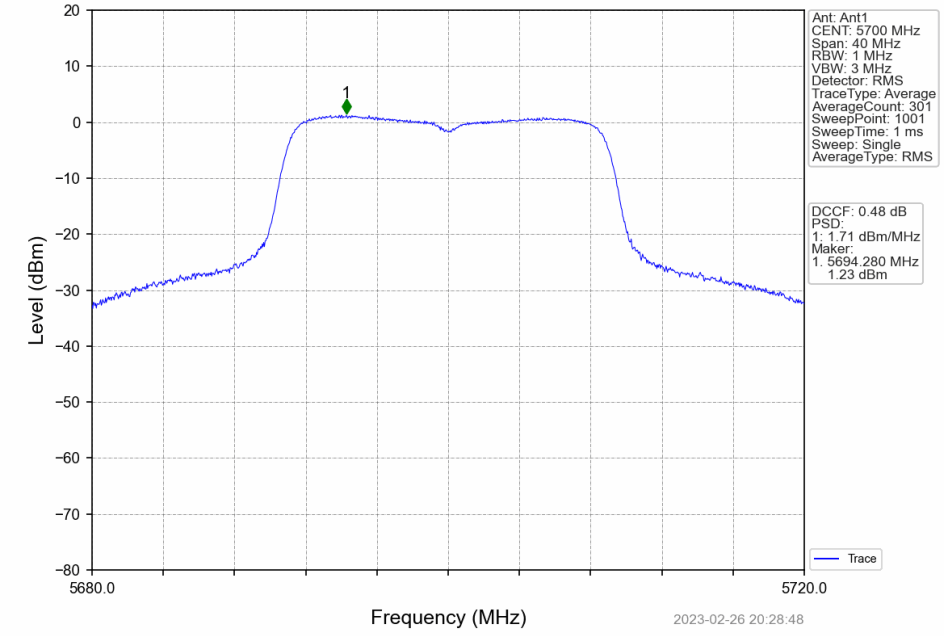
802.11n(HT20)_LCH_5500MHz_Ant1_NTNV



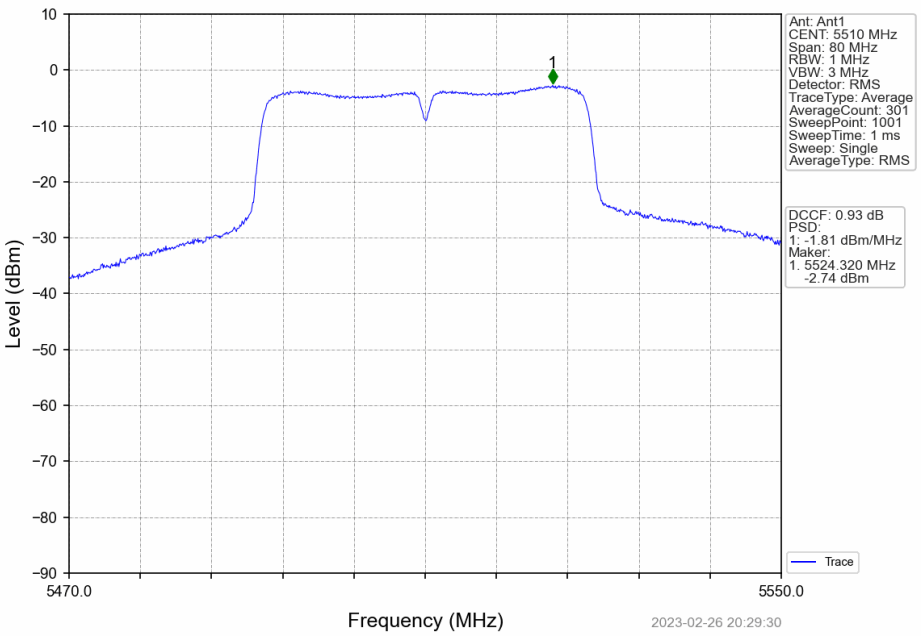
802.11n(HT20)_MCH_5580MHz_Ant1_NTNV



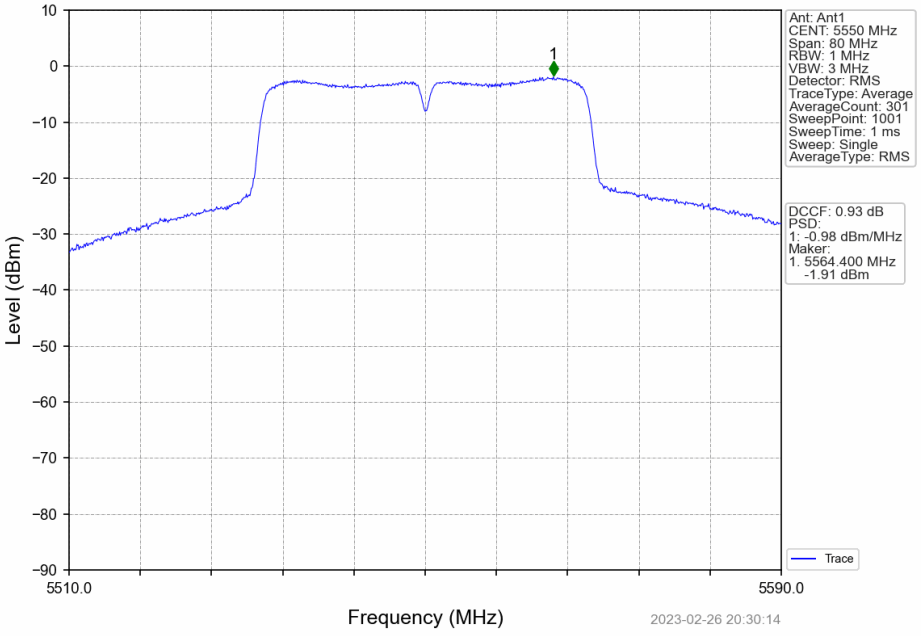
802.11n(HT20)_HCH_5700MHz_Ant1_NTNV



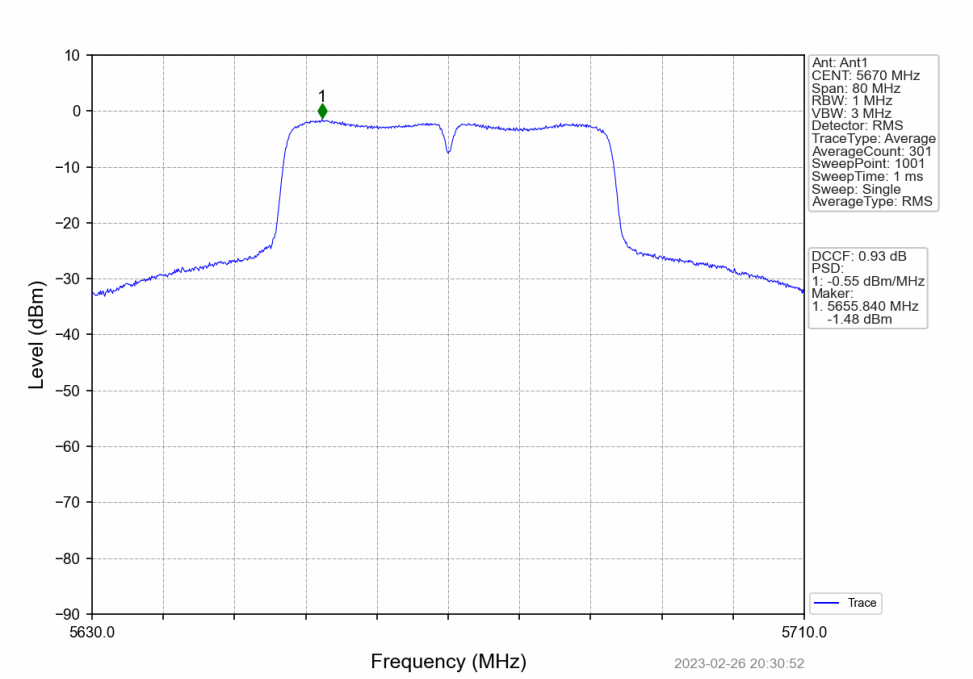
802.11n(HT40)_LCH_5510MHz_Ant1_NTNV



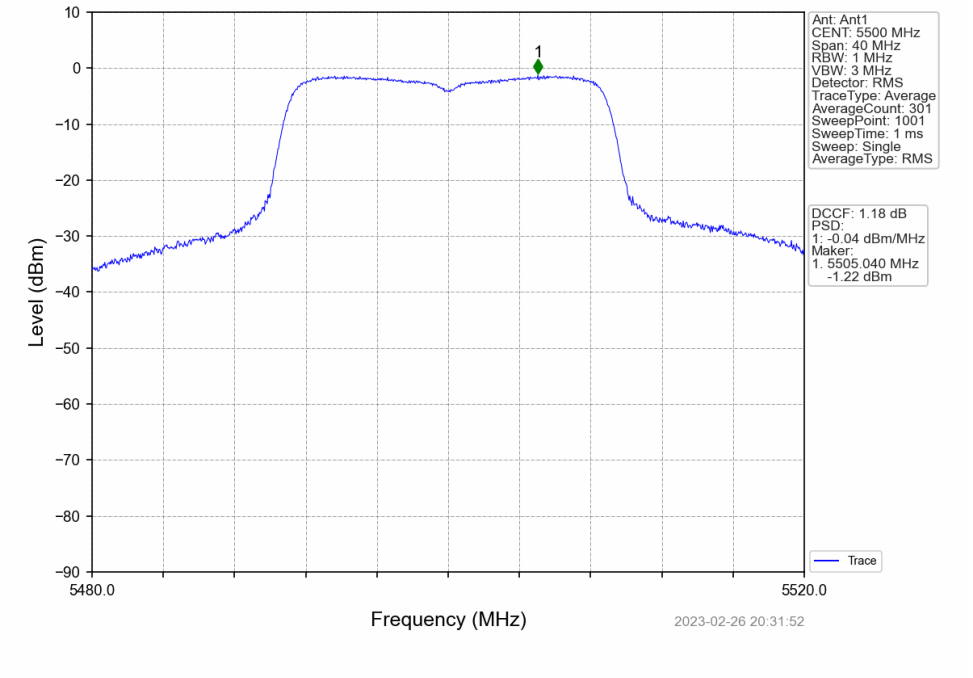
802.11n(HT40)_MCH_5550MHz_Ant1_NTNV



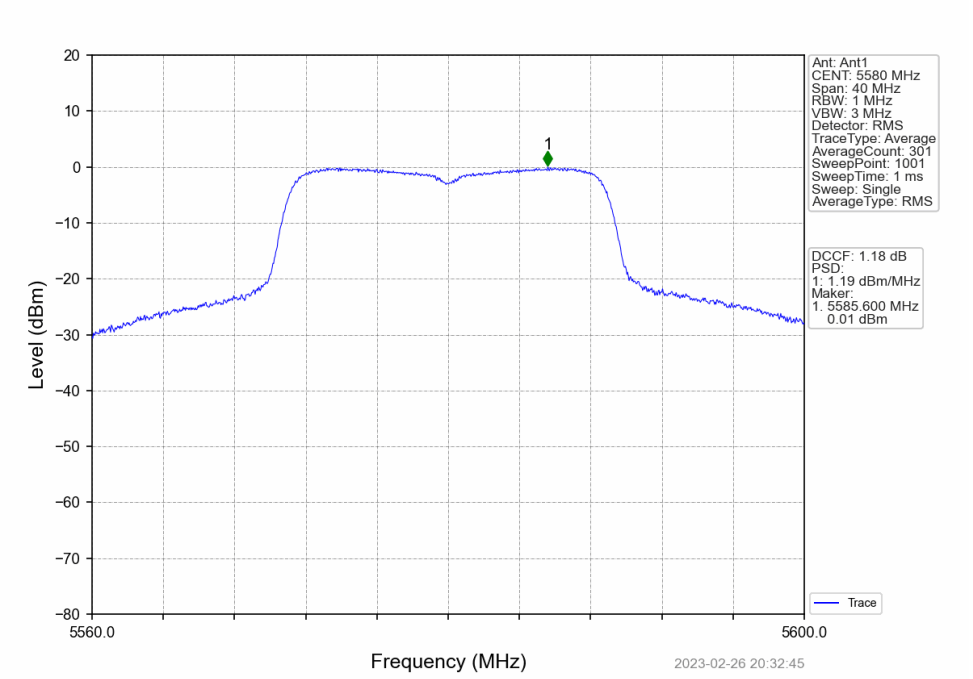
802.11n(HT40)_HCH_5670MHz_Ant1_NTNV



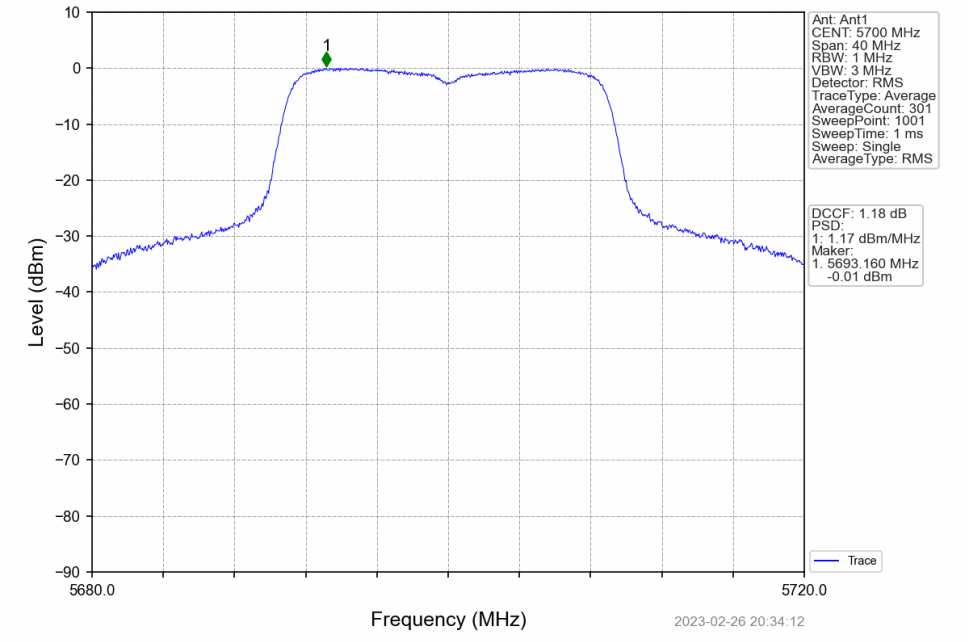
802.11ac(VHT20)_LCH_5500MHz_Ant1_NTNV



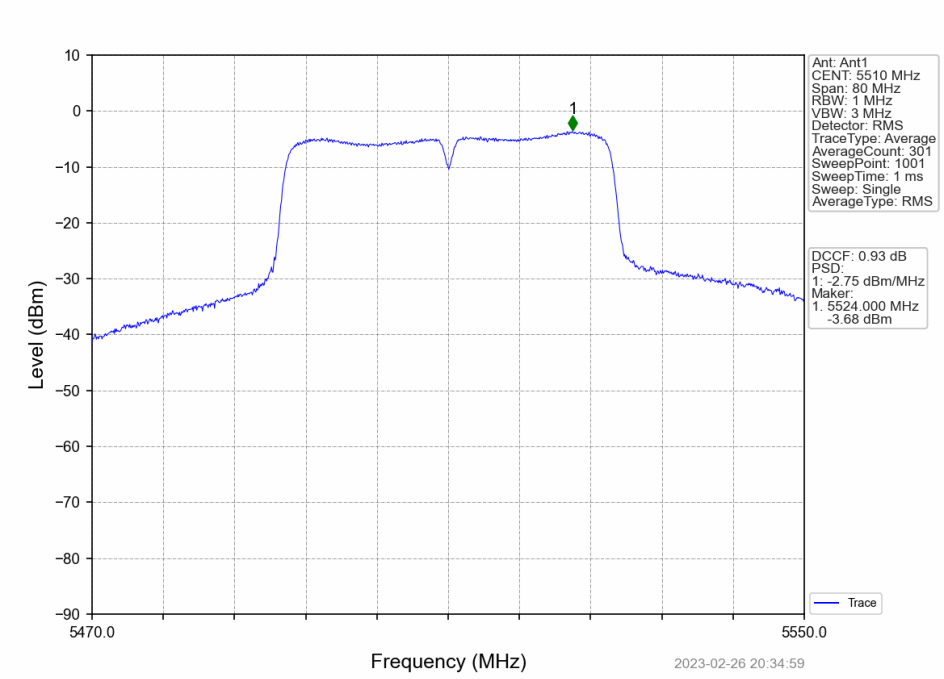
802.11ac(VHT20)_MCH_5580MHz_Ant1_NTNV



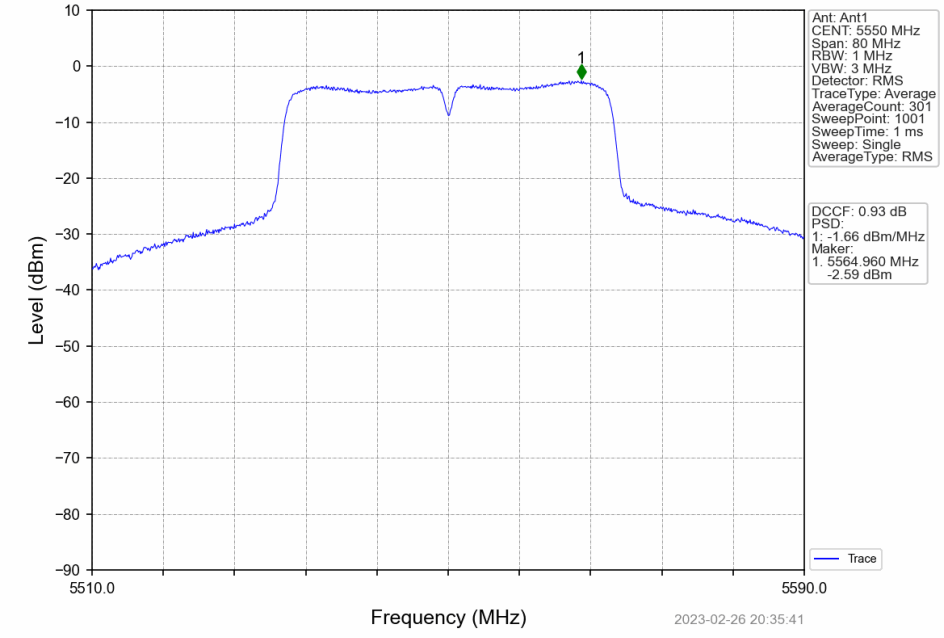
802.11ac(VHT20)_HCH_5700MHz_Ant1_NTNV



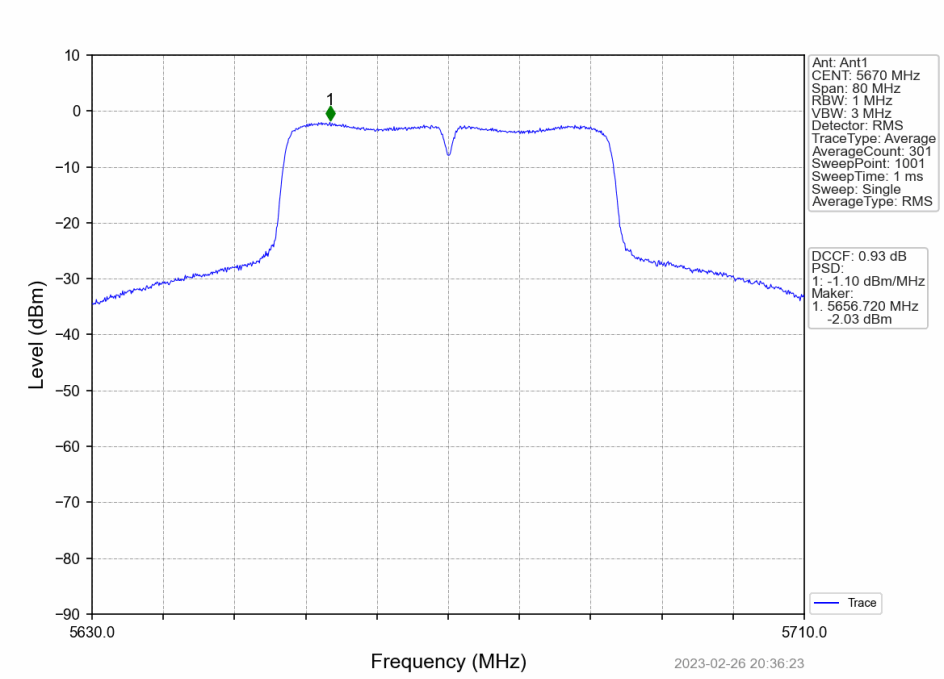
802.11ac(VHT40)_LCH_5510MHz_Ant1_NTNV



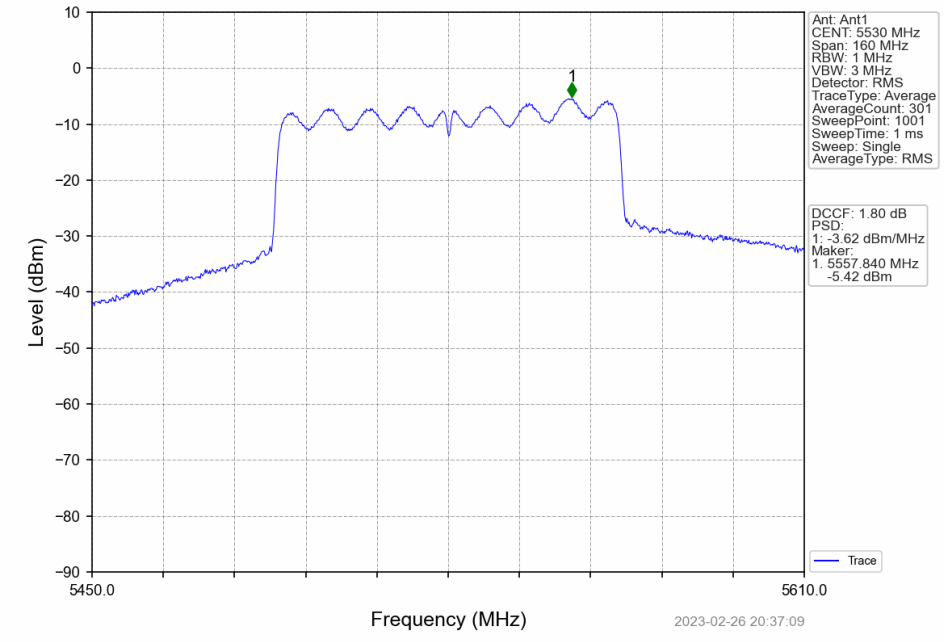
802.11ac(VHT40)_MCH_5550MHz_Ant1_NTNV



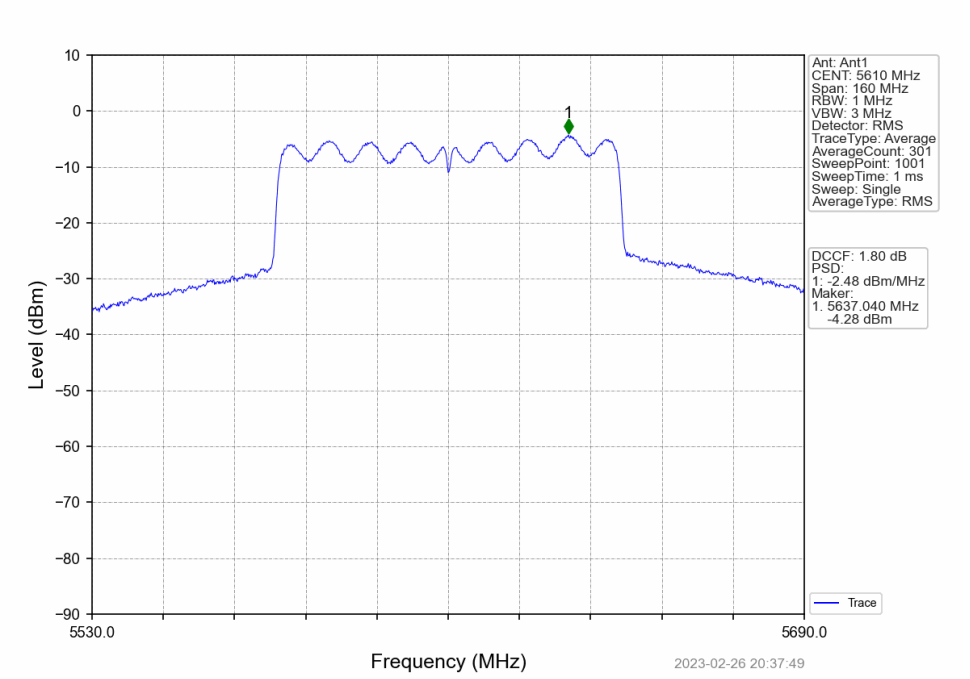
802.11ac(VHT40)_HCH_5670MHz_Ant1_NTNV



802.11ac(VHT80)_LCH_5530MHz_Ant1_NTNV



802.11ac(VHT80)_HCH_5610MHz_Ant1_NTNV



4. Frequency Stability

4.1 Ant1

4.1.1 Test Result

Ant1							
Mode	TX Type	Frequency (MHz)	Temperature (°C)	Voltage (VAC)	Measured Frequency (MHz)	Limit (MHz)	Verdict
Carrier Wave	SISO	5500	20	102	5499.965	5470 to 5725	Pass
				120	5499.965	5470 to 5725	Pass
				138	5499.965	5470 to 5725	Pass
			-30	120	5499.965	5470 to 5725	Pass
			-20	120	5499.965	5470 to 5725	Pass
			-10	120	5499.965	5470 to 5725	Pass
			0	120	5499.965	5470 to 5725	Pass
			10	120	5499.965	5470 to 5725	Pass
			30	120	5499.965	5470 to 5725	Pass
			40	120	5499.965	5470 to 5725	Pass
			85	120	5499.965	5470 to 5725	Pass
		5580	20	102	5579.965	5470 to 5725	Pass
				120	5579.965	5470 to 5725	Pass
				138	5579.965	5470 to 5725	Pass
			-30	120	5579.965	5470 to 5725	Pass
			-20	120	5579.965	5470 to 5725	Pass
			-10	120	5579.965	5470 to 5725	Pass
			0	120	5579.965	5470 to 5725	Pass
			10	120	5579.965	5470 to 5725	Pass
			30	120	5579.965	5470 to 5725	Pass
			40	120	5579.965	5470 to 5725	Pass
			85	120	5579.965	5470 to 5725	Pass
		5700	20	102	5699.964	5470 to 5725	Pass
				120	5699.964	5470 to 5725	Pass
				138	5699.964	5470 to 5725	Pass
			-30	120	5699.964	5470 to 5725	Pass
			-20	120	5699.964	5470 to 5725	Pass
			-10	120	5699.964	5470 to 5725	Pass
			0	120	5699.964	5470 to 5725	Pass
			10	120	5699.964	5470 to 5725	Pass
			30	120	5699.964	5470 to 5725	Pass
			40	120	5699.964	5470 to 5725	Pass
			85	120	5699.964	5470 to 5725	Pass
		5510	20	102	5509.965	5470 to 5725	Pass
				120	5509.965	5470 to 5725	Pass
				138	5509.966	5470 to 5725	Pass
			-30	120	5509.966	5470 to 5725	Pass
			-20	120	5509.966	5470 to 5725	Pass
			-10	120	5509.966	5470 to 5725	Pass
			0	120	5509.966	5470 to 5725	Pass
			10	120	5509.966	5470 to 5725	Pass
			30	120	5509.966	5470 to 5725	Pass
			40	120	5509.966	5470 to 5725	Pass
			85	120	5509.966	5470 to 5725	Pass
		5550	20	102	5549.965	5470 to 5725	Pass
				120	5549.965	5470 to 5725	Pass
				138	5549.965	5470 to 5725	Pass
			-30	120	5549.965	5470 to 5725	Pass
			-20	120	5549.965	5470 to 5725	Pass

			-10	120	5549.965	5470 to 5725	Pass
			0	120	5549.965	5470 to 5725	Pass
			10	120	5549.965	5470 to 5725	Pass
			30	120	5549.965	5470 to 5725	Pass
			40	120	5549.965	5470 to 5725	Pass
			85	120	5549.965	5470 to 5725	Pass
		5670	20	102	5669.964	5470 to 5725	Pass
				120	5669.964	5470 to 5725	Pass
				138	5669.964	5470 to 5725	Pass
			-30	120	5669.964	5470 to 5725	Pass
			-20	120	5669.965	5470 to 5725	Pass
			-10	120	5669.965	5470 to 5725	Pass
			0	120	5669.965	5470 to 5725	Pass
			10	120	5669.965	5470 to 5725	Pass
			30	120	5669.965	5470 to 5725	Pass
			40	120	5669.965	5470 to 5725	Pass
			85	120	5669.965	5470 to 5725	Pass
		5530	20	102	5529.965	5470 to 5725	Pass
				120	5529.965	5470 to 5725	Pass
				138	5529.965	5470 to 5725	Pass
			-30	120	5529.965	5470 to 5725	Pass
			-20	120	5529.965	5470 to 5725	Pass
			-10	120	5529.965	5470 to 5725	Pass
			0	120	5529.966	5470 to 5725	Pass
			10	120	5529.966	5470 to 5725	Pass
			30	120	5529.966	5470 to 5725	Pass
			40	120	5529.966	5470 to 5725	Pass
			85	120	5529.966	5470 to 5725	Pass
		5610	20	102	5609.965	5470 to 5725	Pass
				120	5609.965	5470 to 5725	Pass
				138	5609.965	5470 to 5725	Pass
			-30	120	5609.965	5470 to 5725	Pass
			-20	120	5609.965	5470 to 5725	Pass
			-10	120	5609.965	5470 to 5725	Pass
			0	120	5609.965	5470 to 5725	Pass
			10	120	5609.965	5470 to 5725	Pass
			30	120	5609.965	5470 to 5725	Pass
			40	120	5609.965	5470 to 5725	Pass
			85	120	5609.965	5470 to 5725	Pass