



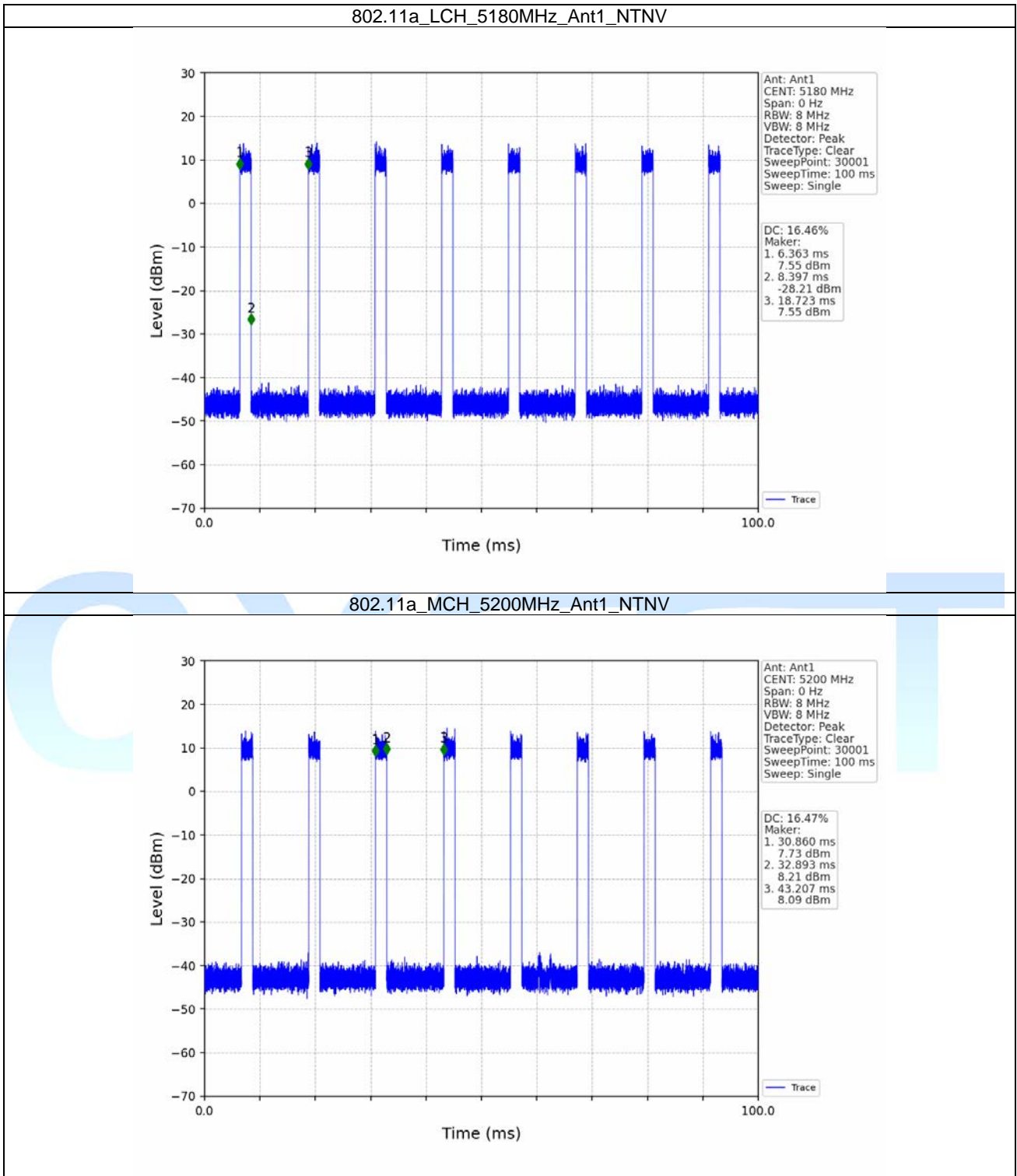
# 1. Duty Cycle

## 1.1 Ant1

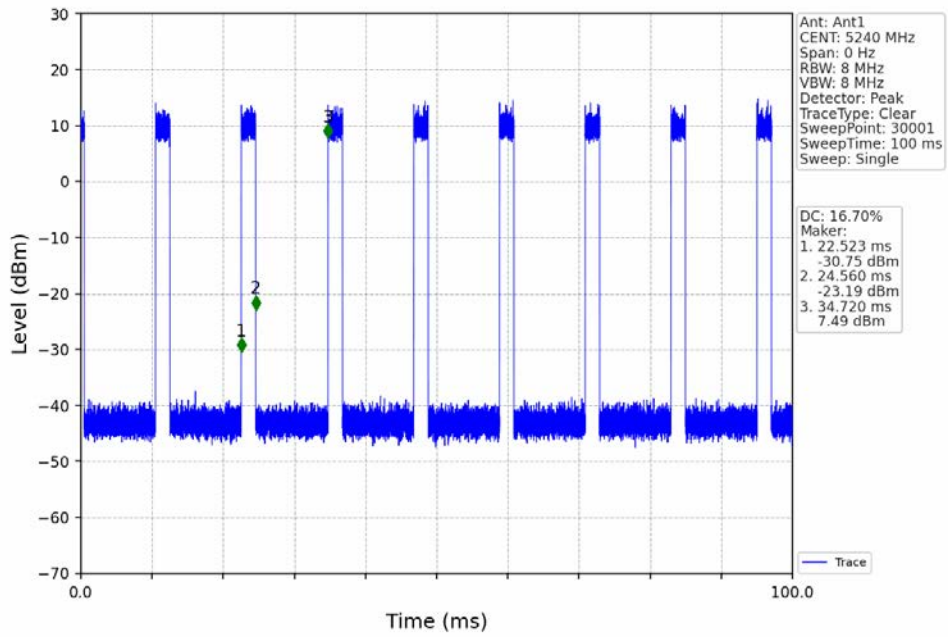
### 1.1.1 Test Result

Ant1									
Mode	TX Type	Frequency (MHz)	RU	RU Pos	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
802.11a	SISO	5180	/	/	2.034	12.360	16.46	7.84	0.44
		5200	/	/	2.033	12.347	16.47	7.83	0.43
		5240	/	/	2.037	12.197	16.70	7.77	0.20
802.11n (HT20)	SISO	5180	/	/	1.893	11.917	15.88	7.99	0.01
		5200	/	/	1.894	12.470	15.19	8.18	0.72
		5240	/	/	1.893	11.913	15.89	7.99	0.03
802.11n (HT40)	SISO	5190	/	/	0.933	10.953	8.52	10.70	0.03
		5230	/	/	0.934	11.050	8.45	10.73	0.11
802.11ac (VHT20)	SISO	5180	/	/	1.903	11.993	15.87	7.99	0.10
		5200	/	/	1.900	11.917	15.94	7.97	0.03
		5240	/	/	1.900	11.920	15.94	7.98	0.03
802.11ac (VHT40)	SISO	5190	/	/	0.936	11.243	8.33	10.80	0.25
		5230	/	/	0.937	10.957	8.55	10.68	0.03
802.11ax (HEW20)	SISO	5180	RU242	Left	1.466	11.600	12.64	8.98	0.13
		5200	RU242	Left	1.463	14.237	10.28	9.88	2.47
		5240	RU242	Left	1.464	11.644	12.57	9.01	0.20
802.11ax (HEW40)	SISO	5190	RU484	Left	0.764	10.927	6.99	11.55	0.13
		5230	RU484	Left	0.763	10.787	7.07	11.50	0.04

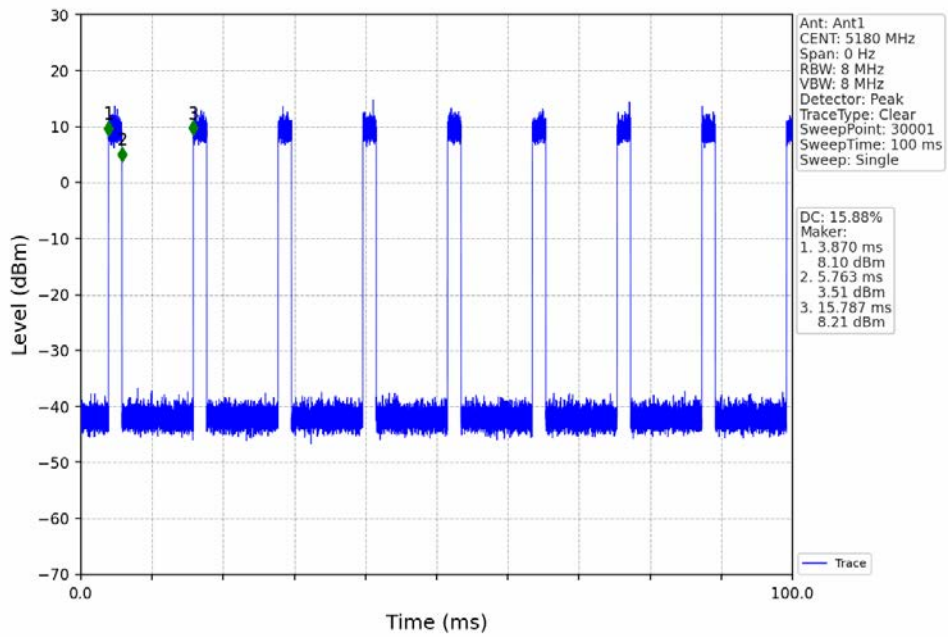
### 1.1.2 Test Graph



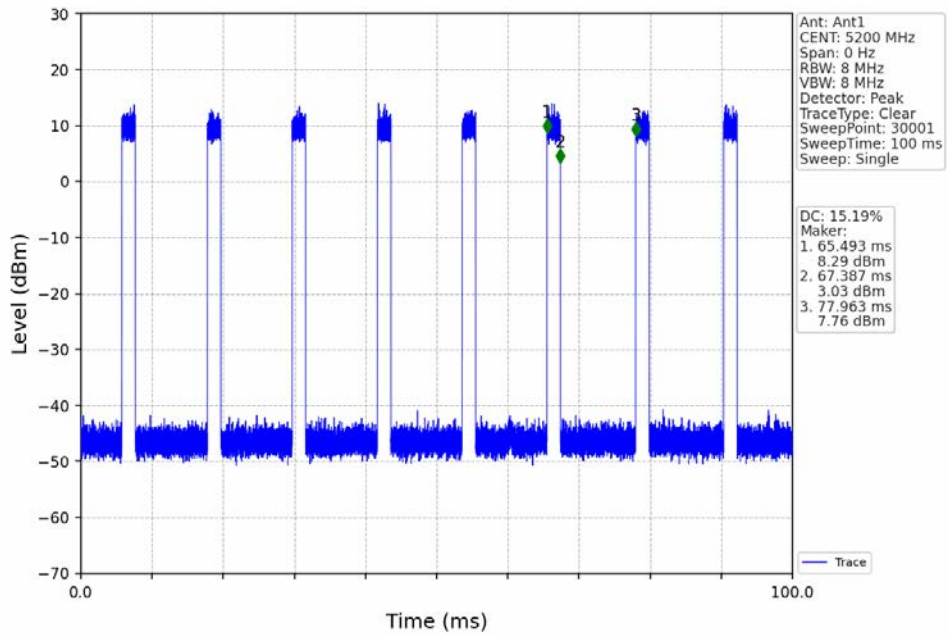
802.11a\_HCH\_5240MHz\_Ant1\_NTNV



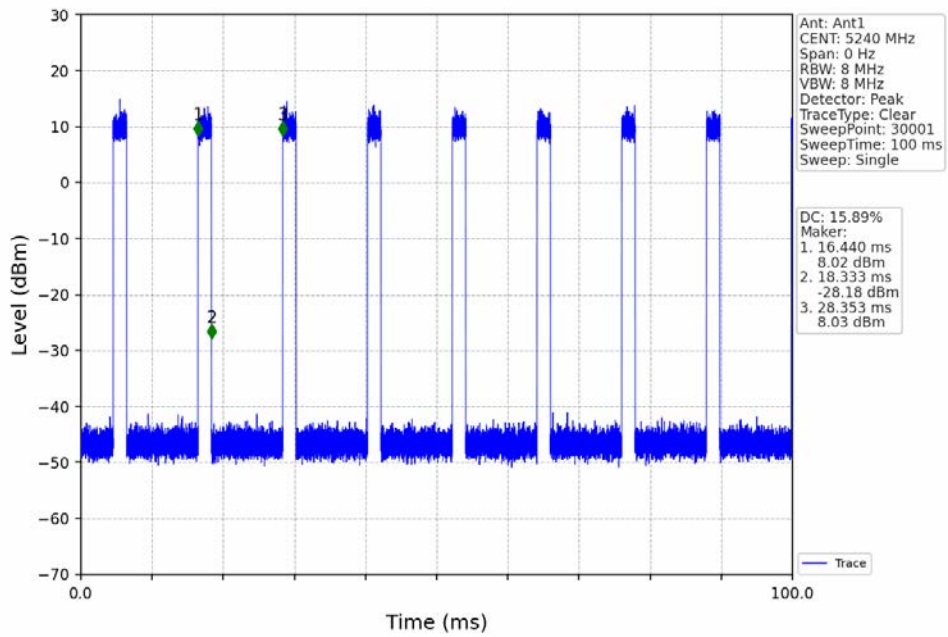
802.11n(HT20)\_LCH\_5180MHz\_Ant1\_NTNV



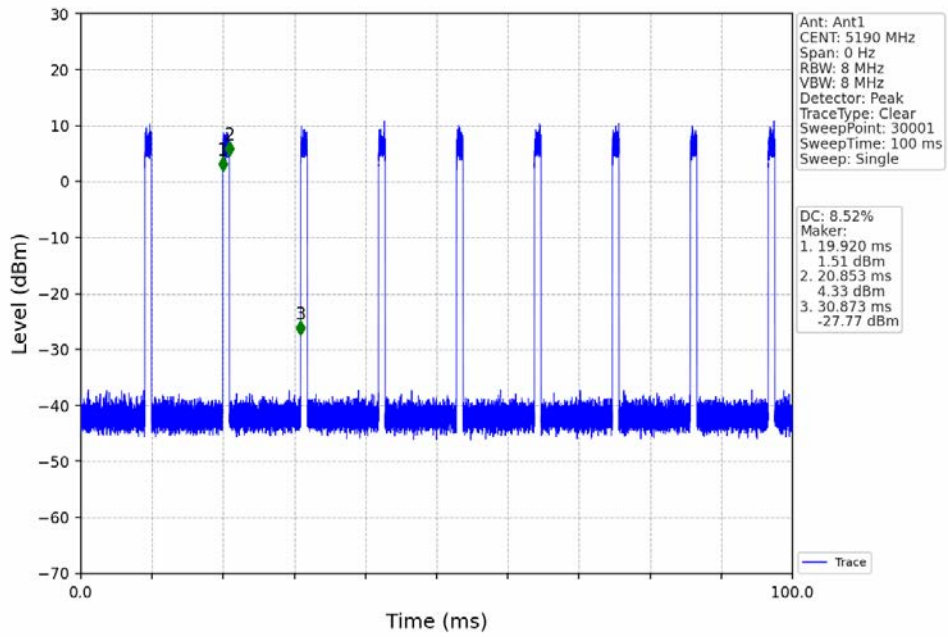
802.11n(HT20)\_MCH\_5200MHz\_Ant1\_NTNV



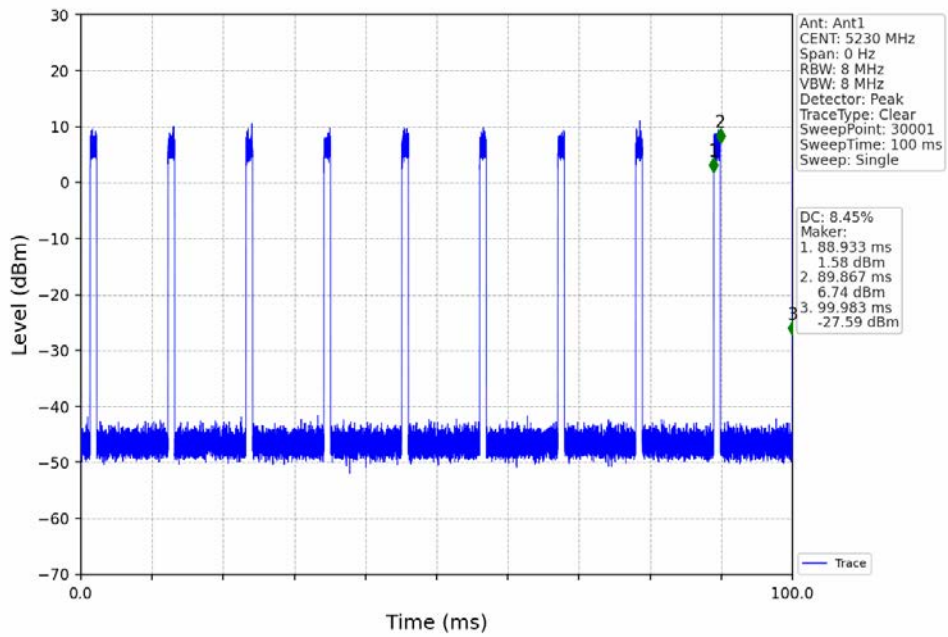
802.11n(HT20)\_HCH\_5240MHz\_Ant1\_NTNV



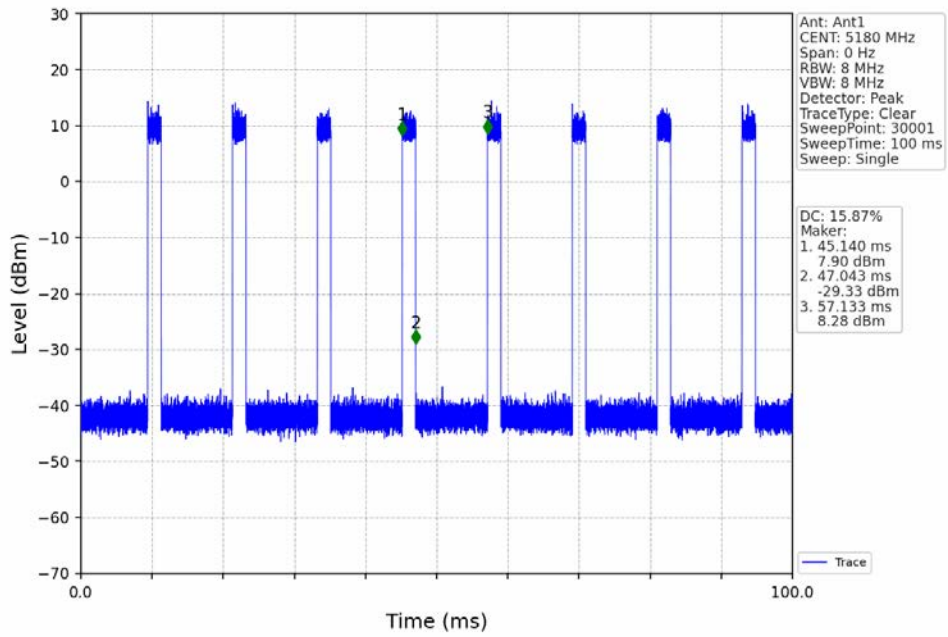
802.11n(HT40)\_LCH\_5190MHz\_Ant1\_NTNV



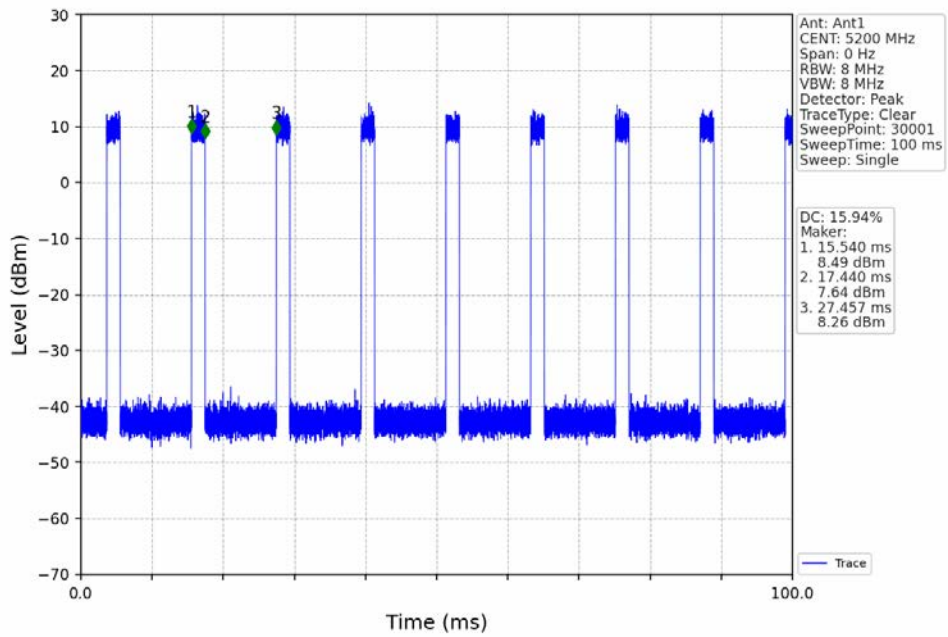
802.11n(HT40)\_HCH\_5230MHz\_Ant1\_NTNV



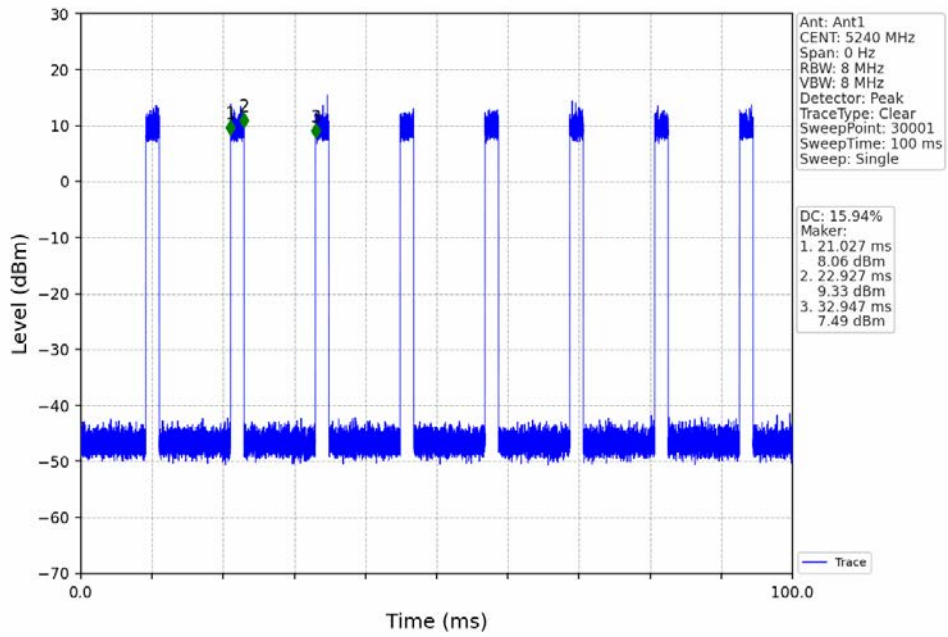
802.11ac(VHT20)\_LCH\_5180MHz\_Ant1\_NTNV



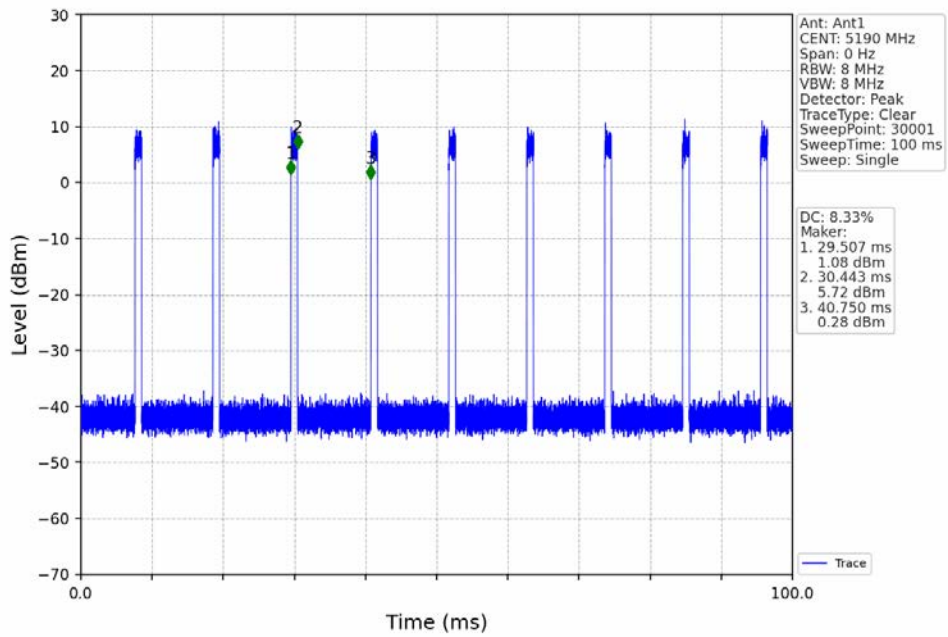
802.11ac(VHT20)\_MCH\_5200MHz\_Ant1\_NTNV



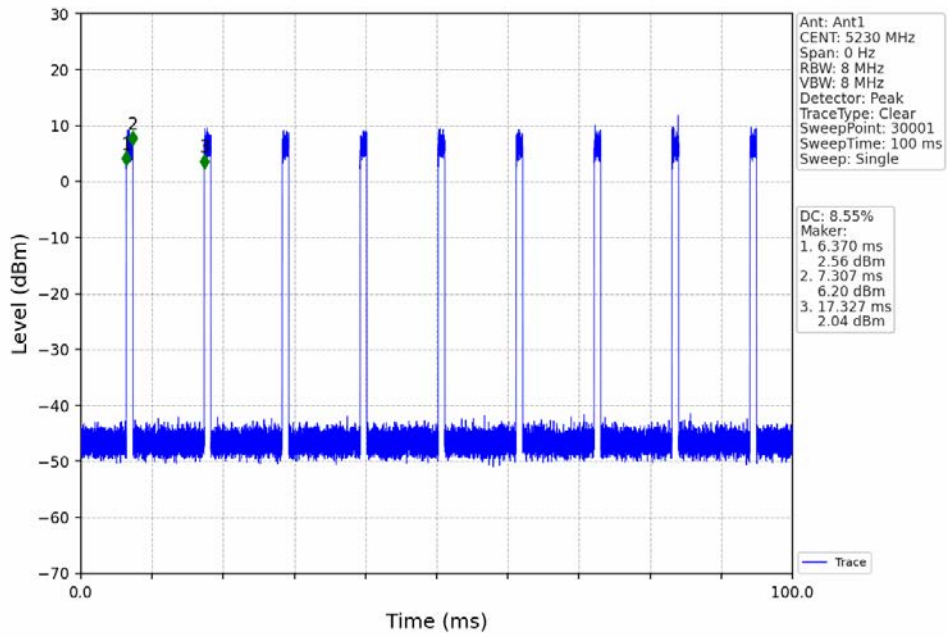
802.11ac(VHT20)\_HCH\_5240MHz\_Ant1\_NTNV



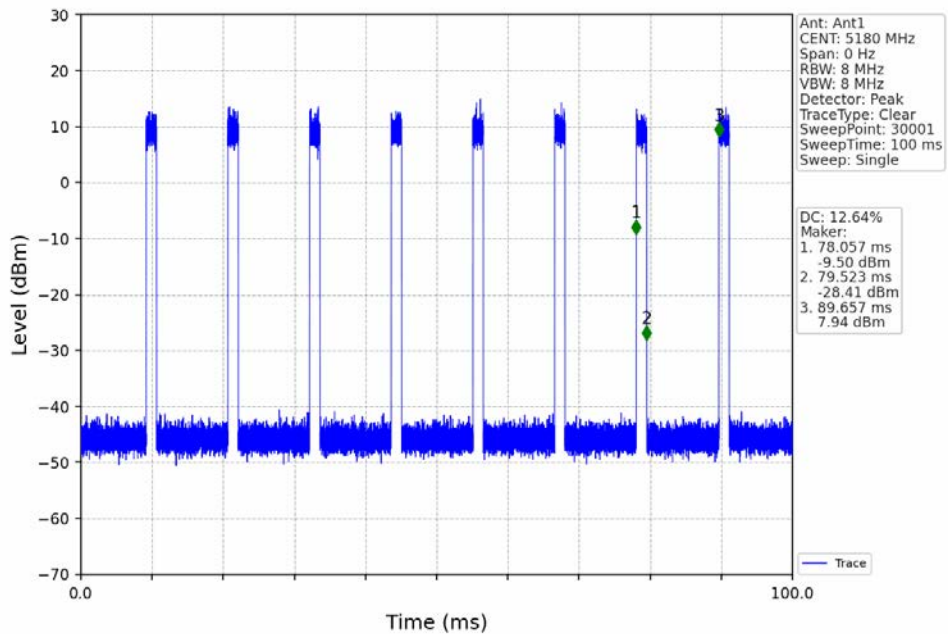
802.11ac(VHT40)\_LCH\_5190MHz\_Ant1\_NTNV



802.11ac(VHT40)\_HCH\_5230MHz\_Ant1\_NTNV

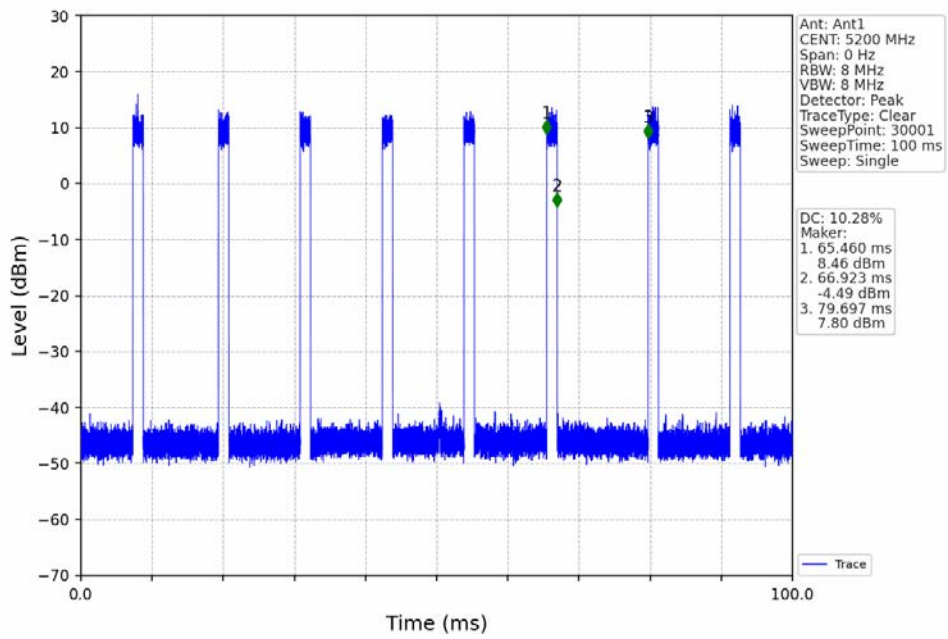


802.11ax(HEW20)\_LCH\_5180MHz\_RU242\_Left\_Ant1\_NTNV

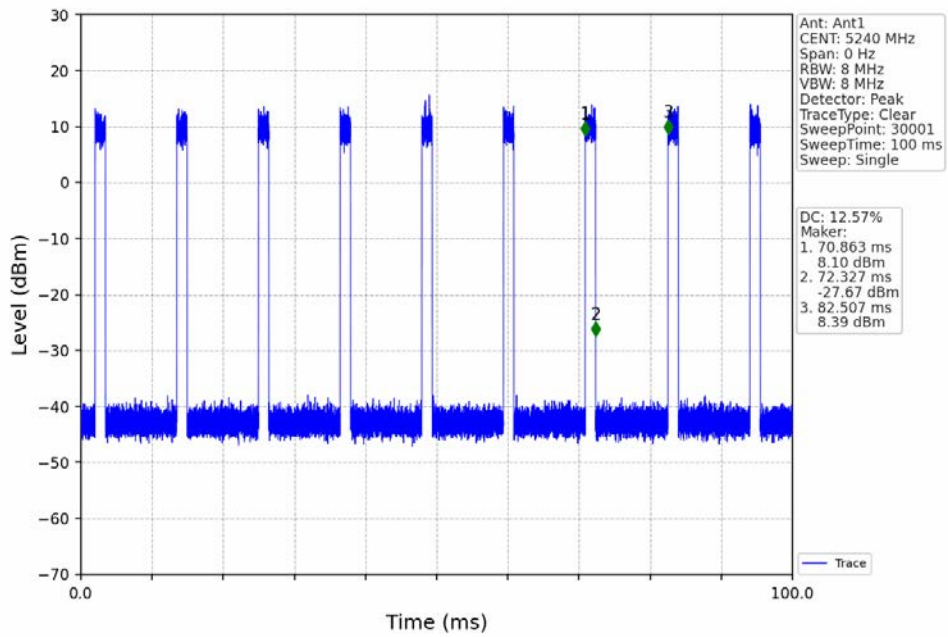




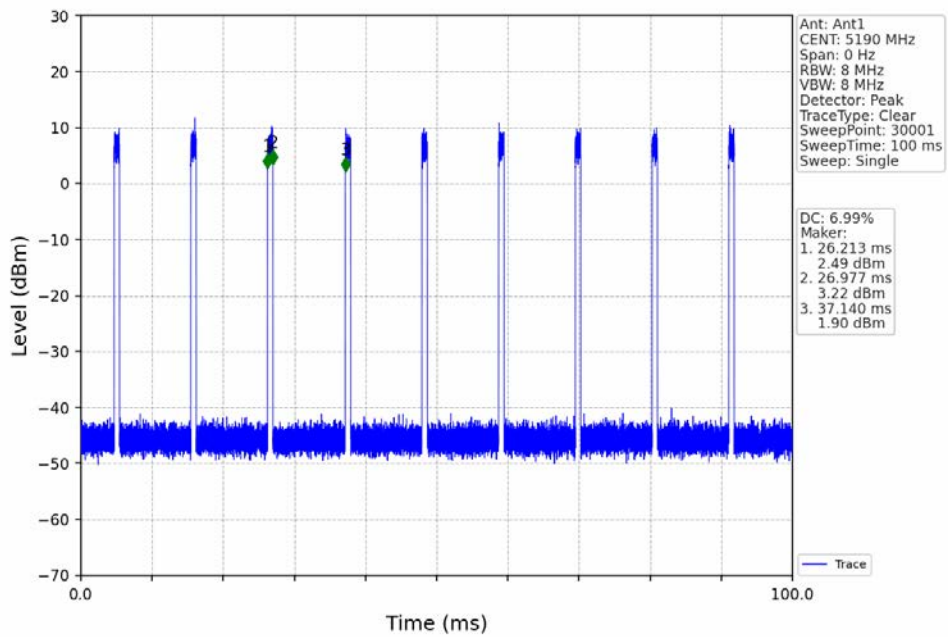
802.11ax(HEW20)\_MCH\_5200MHz\_RU242\_Left\_Ant1\_NTNV



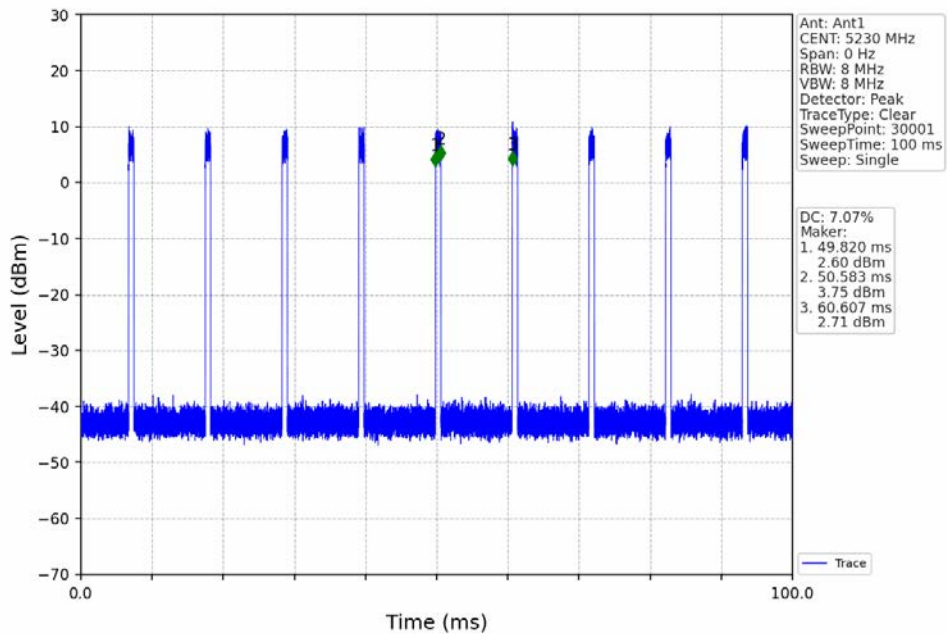
802.11ax(HEW20)\_HCH\_5240MHz\_RU242\_Left\_Ant1\_NTNV



802.11ax(HEW40)\_LCH\_5190MHz\_RU484\_Left\_Ant1\_NTNV



802.11ax(HEW40)\_HCH\_5230MHz\_RU484\_Left\_Ant1\_NTNV





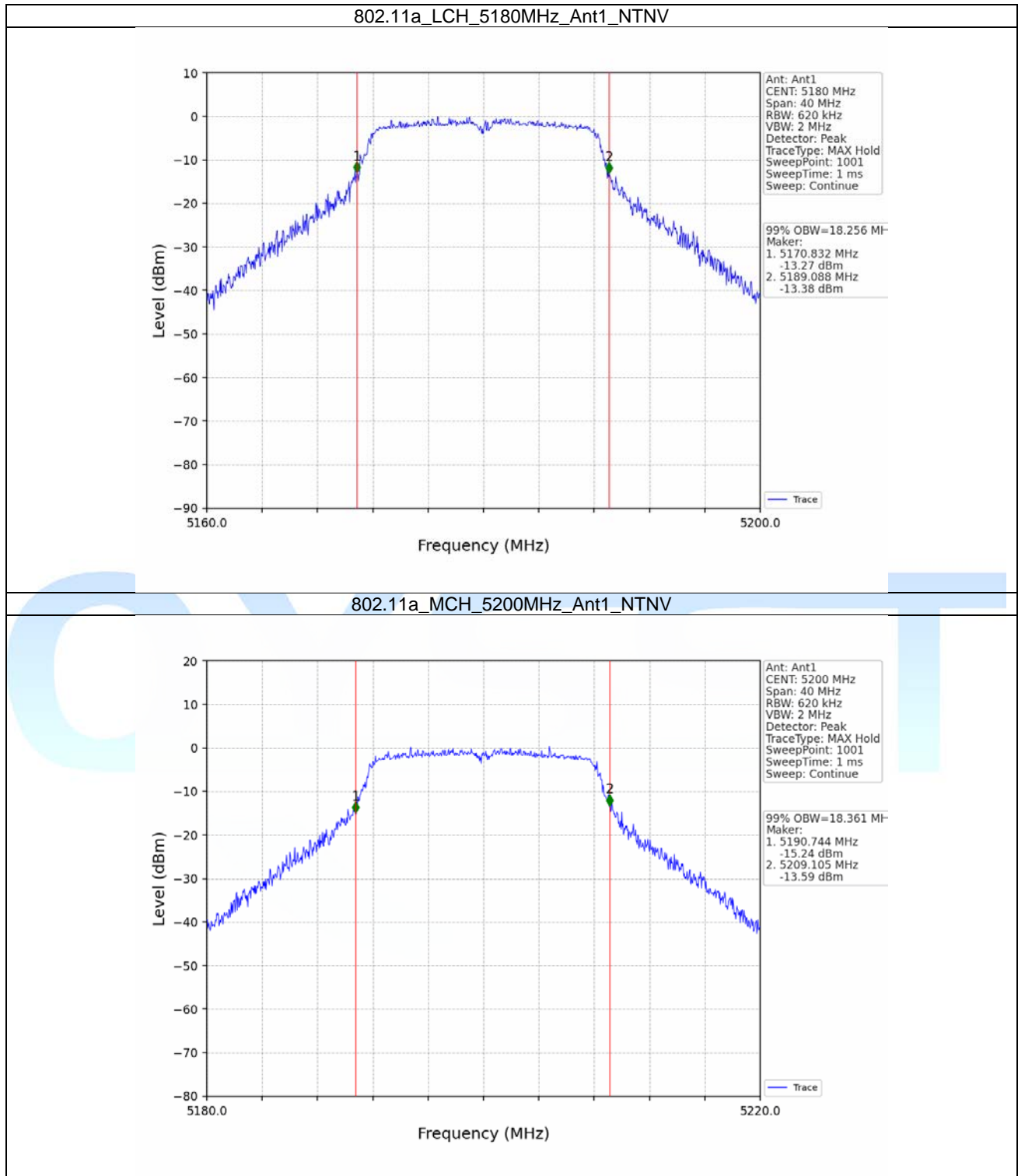
## 2. Bandwidth

### 2.1 OBW

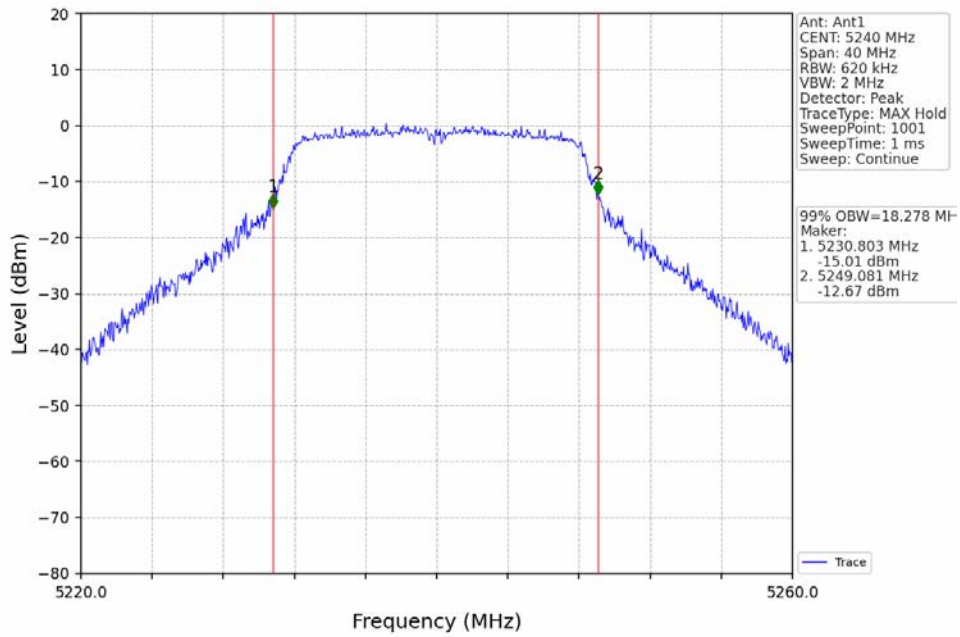
#### 2.1.1 Test Result

Mode	TX Type	Frequency (MHz)	RU	RU Pos	ANT	99% Occupied Bandwidth (MHz)		Verdict
						Result	Limit	
802.11a	SISO	5180	/	/	1	18.256	/	Pass
		5200	/	/	1	18.361	/	Pass
		5240	/	/	1	18.278	/	Pass
802.11n (HT20)	SISO	5180	/	/	1	19.468	/	Pass
		5200	/	/	1	19.313	/	Pass
		5240	/	/	1	19.497	/	Pass
802.11n (HT40)	SISO	5190	/	/	1	37.357	/	Pass
		5230	/	/	1	37.443	/	Pass
802.11ac (VHT20)	SISO	5180	/	/	1	19.418	/	Pass
		5200	/	/	1	19.187	/	Pass
		5240	/	/	1	19.117	/	Pass
802.11ac (VHT40)	SISO	5190	/	/	1	37.592	/	Pass
		5230	/	/	1	37.547	/	Pass
802.11ax (HEW20)	SISO	5180	RU242	Left	1	19.805	/	Pass
		5200	RU242	Left	1	19.705	/	Pass
		5240	RU242	Left	1	19.691	/	Pass
802.11ax (HEW40)	SISO	5190	RU484	Left	1	38.640	/	Pass
		5230	RU484	Left	1	38.604	/	Pass

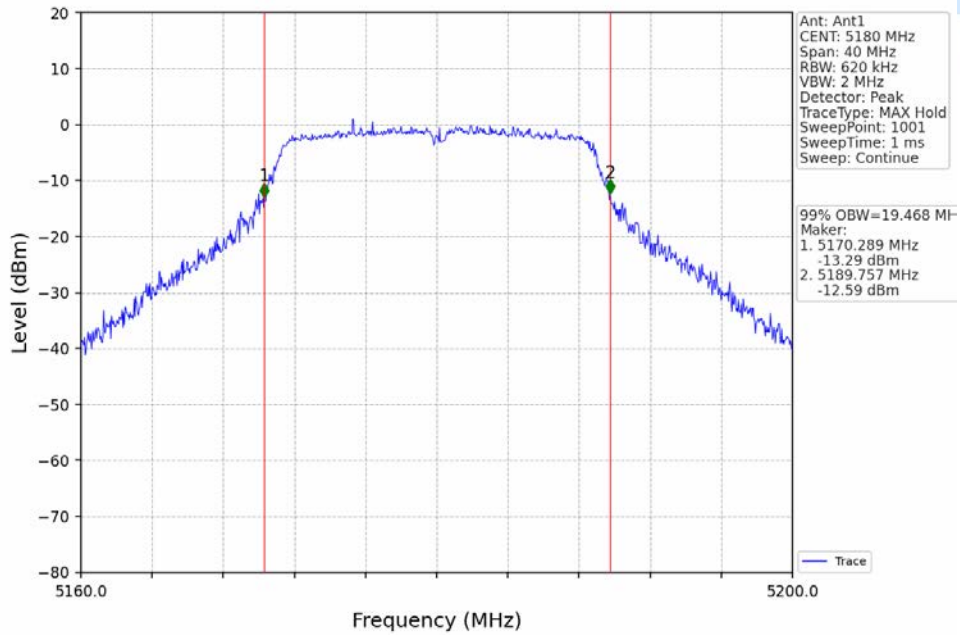
### 2.1.2 Test Graph



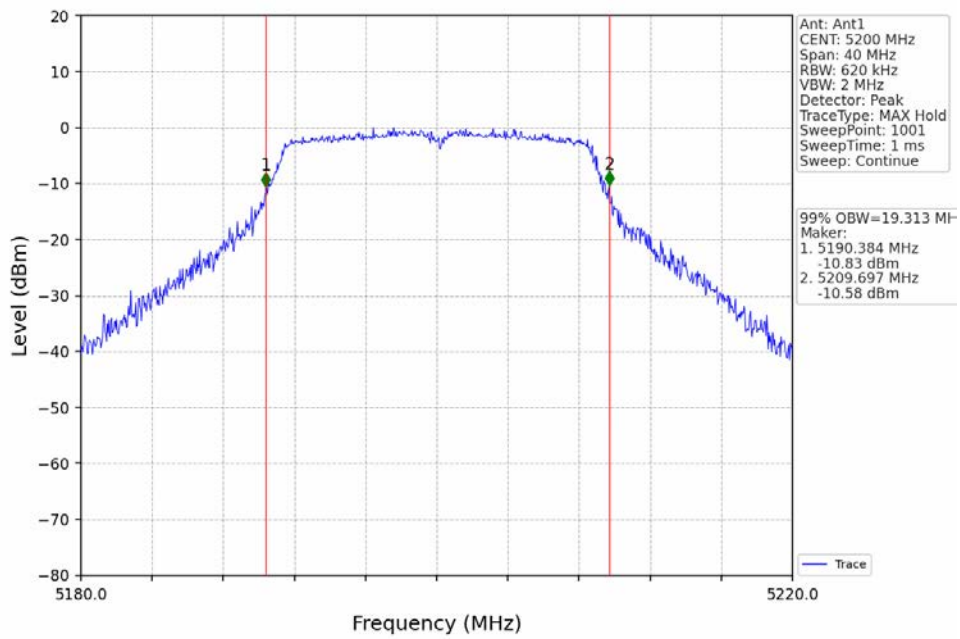
802.11a\_HCH\_5240MHz\_Ant1\_NTNV



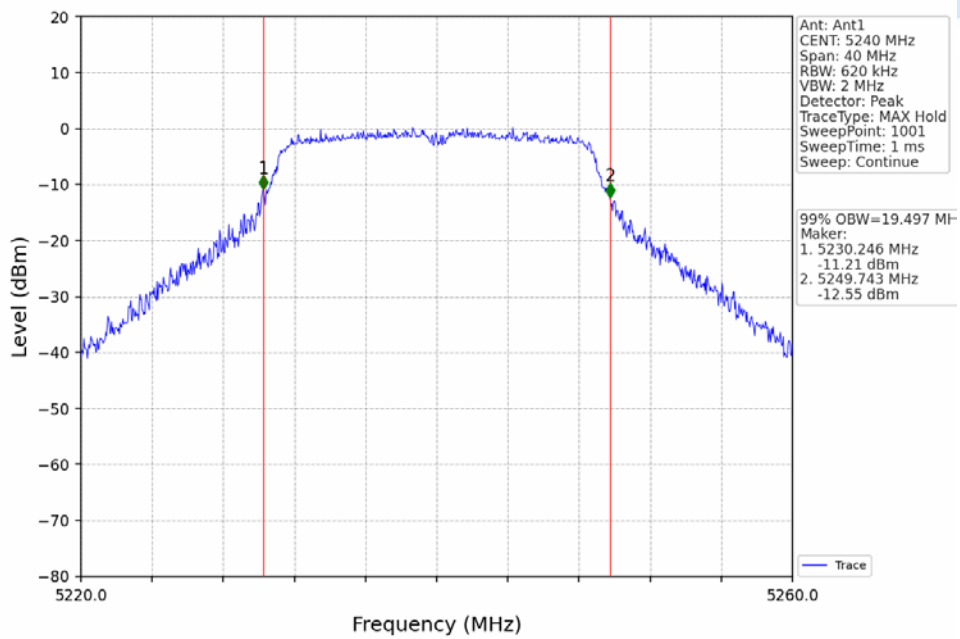
802.11n(HT20)\_LCH\_5180MHz\_Ant1\_NTNV



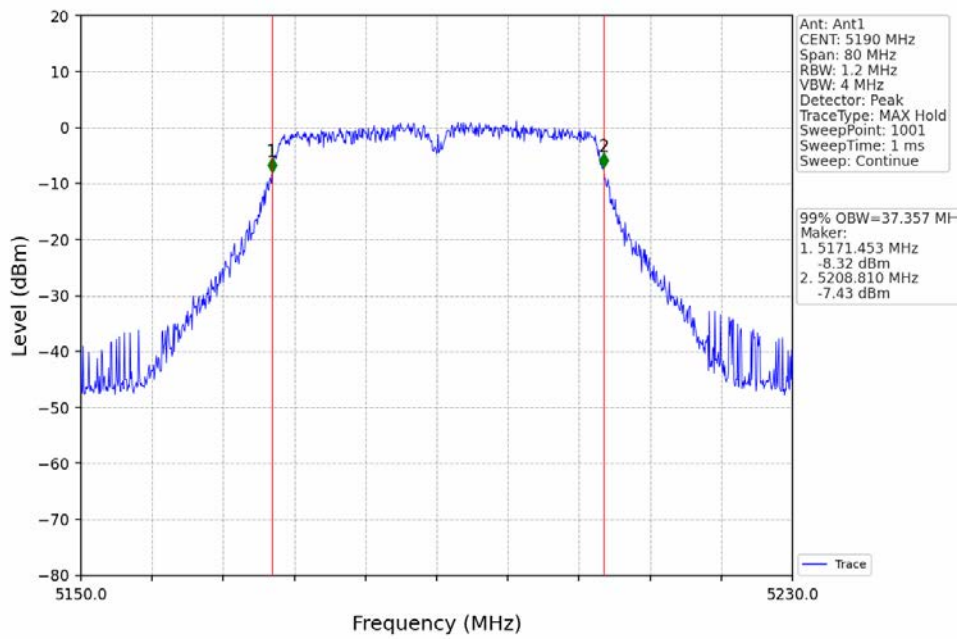
802.11n(HT20)\_MCH\_5200MHz\_Ant1\_NTNV



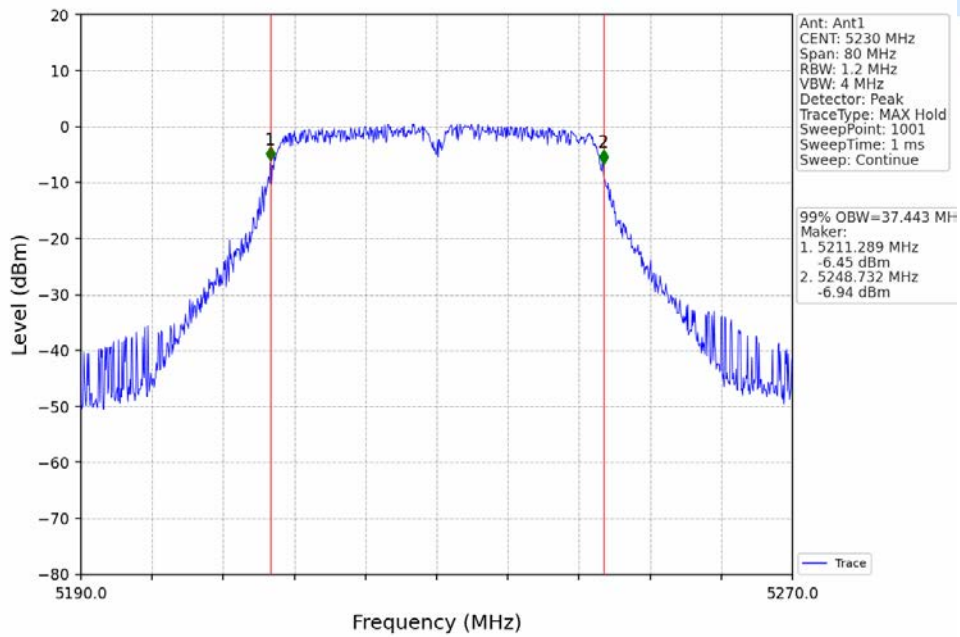
802.11n(HT20)\_HCH\_5240MHz\_Ant1\_NTNV



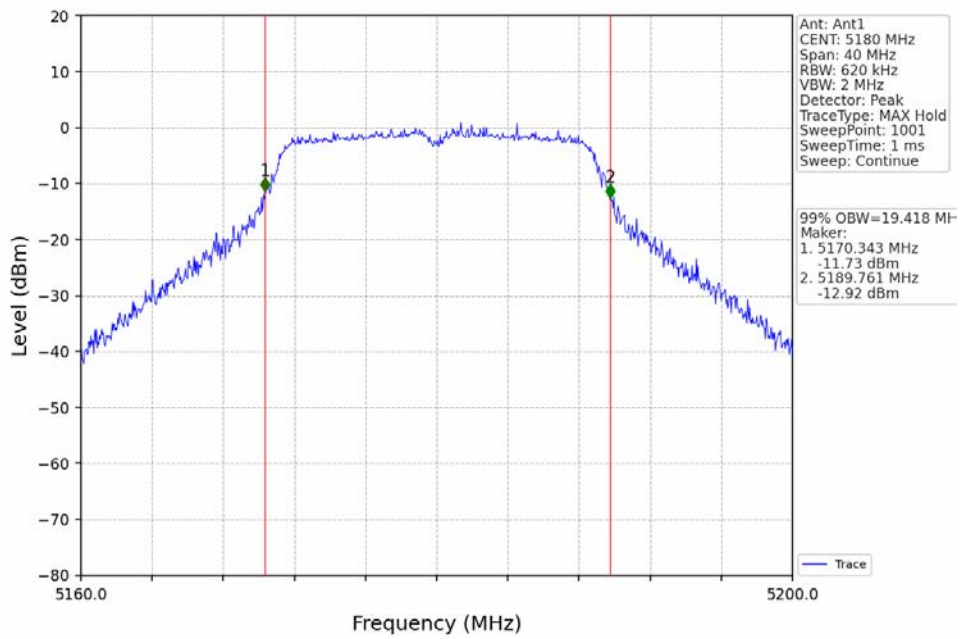
802.11n(HT40)\_LCH\_5190MHz\_Ant1\_NTNV



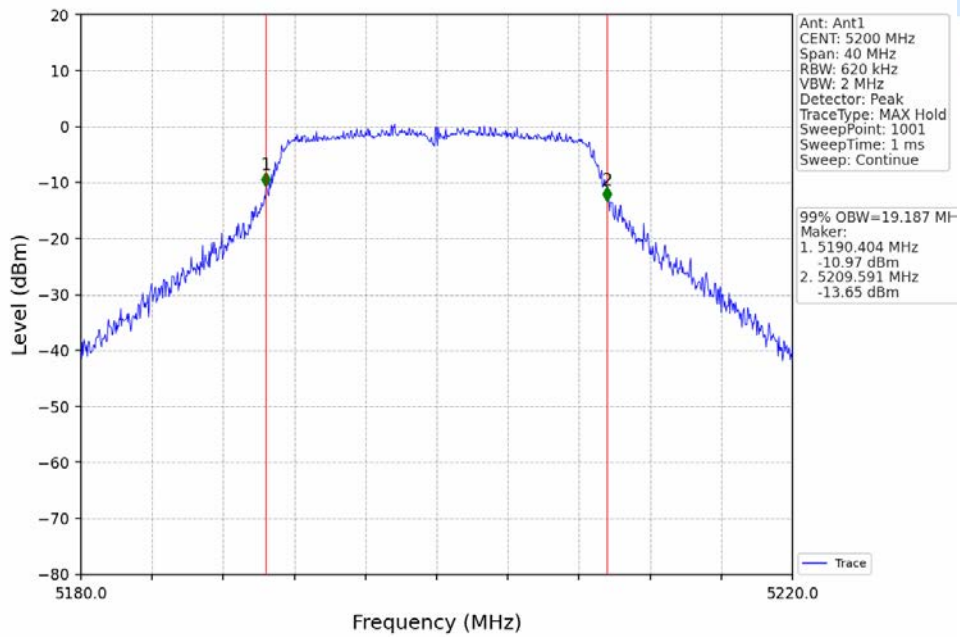
802.11n(HT40)\_HCH\_5230MHz\_Ant1\_NTNV



802.11ac(VHT20)\_LCH\_5180MHz\_Ant1\_NTNV

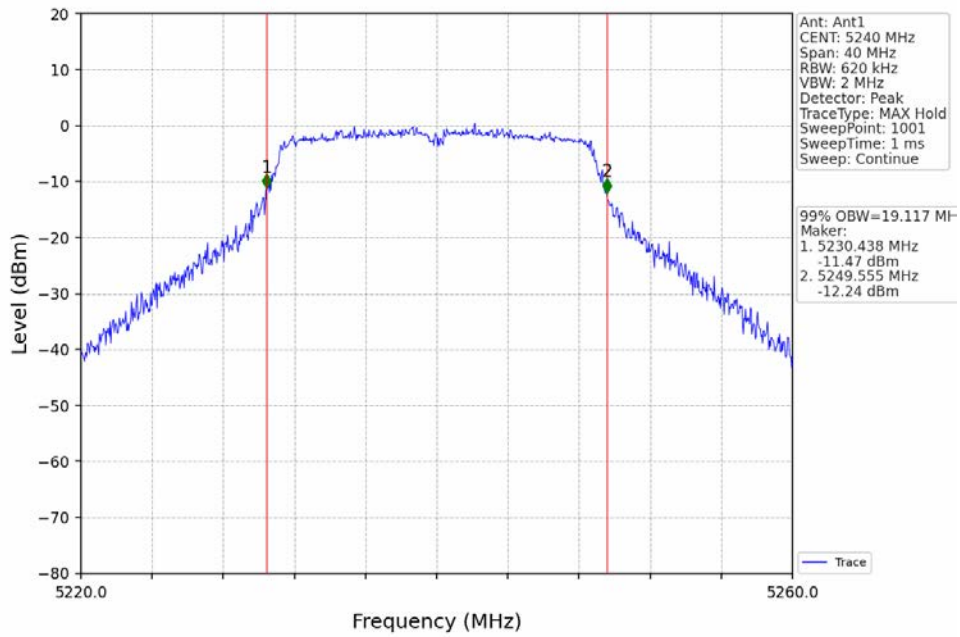


802.11ac(VHT20)\_MCH\_5200MHz\_Ant1\_NTNV

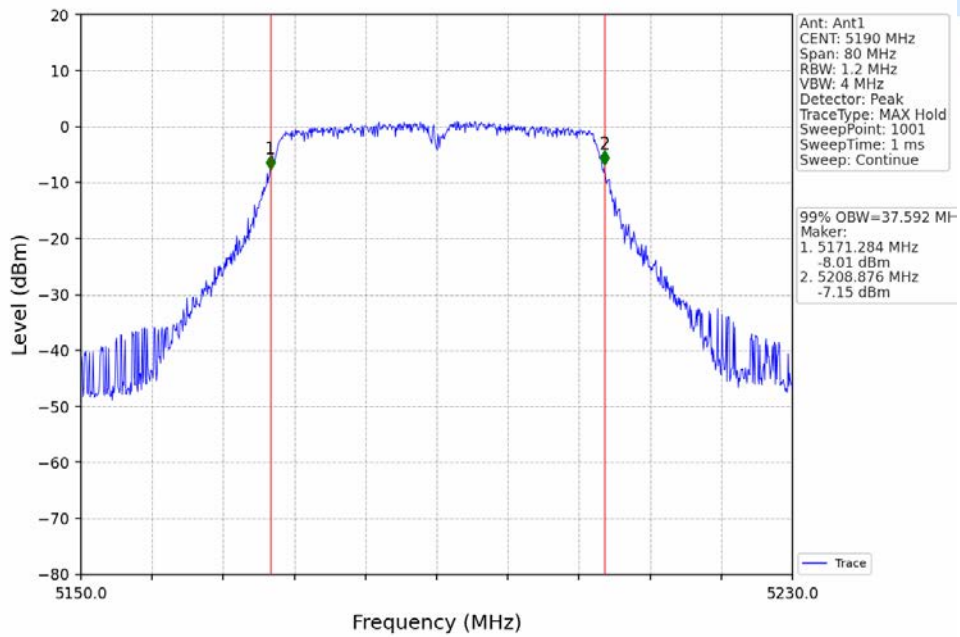




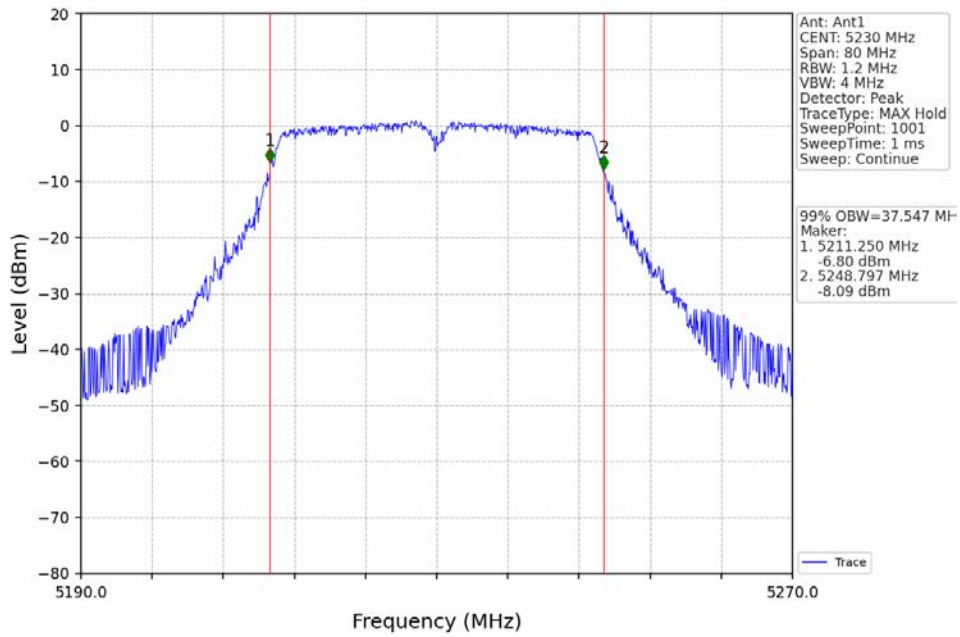
802.11ac(VHT20)\_HCH\_5240MHz\_Ant1\_NTNV



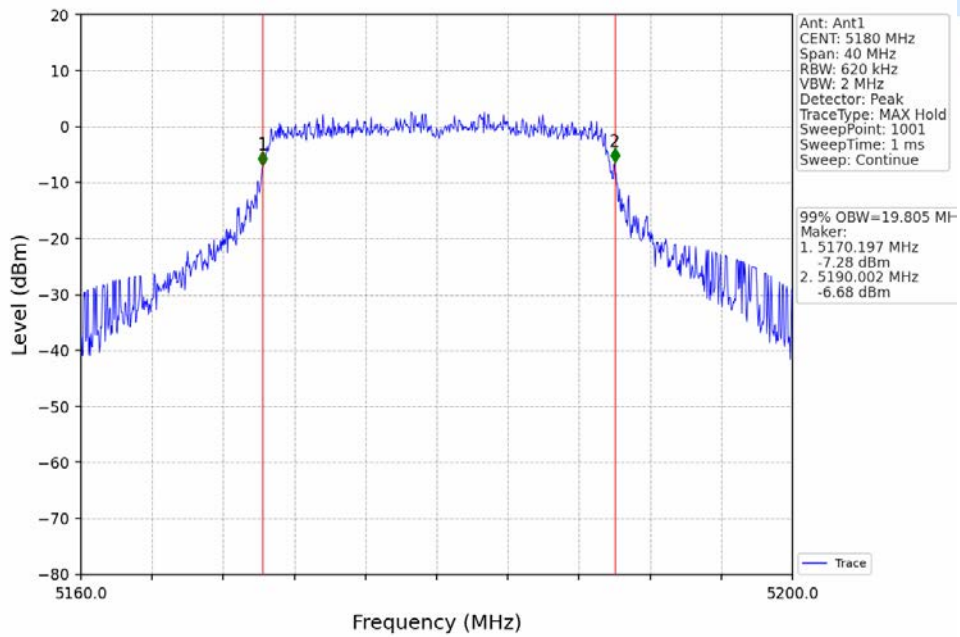
802.11ac(VHT40)\_LCH\_5190MHz\_Ant1\_NTNV



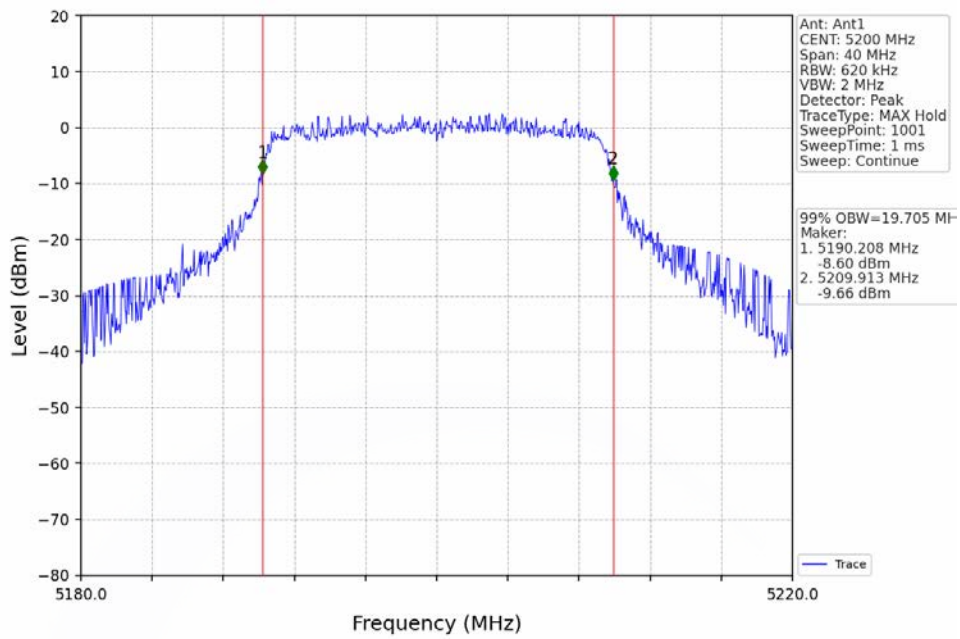
802.11ac(VHT40)\_HCH\_5230MHz\_Ant1\_NTNV



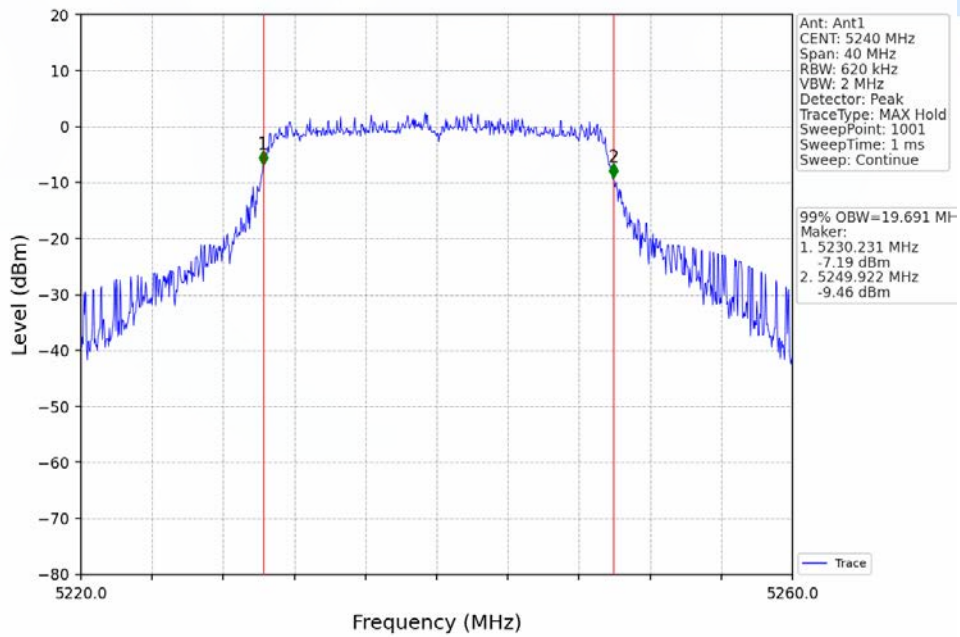
802.11ax(HEW20)\_LCH\_5180MHz\_RU242\_Left\_Ant1\_NTNV



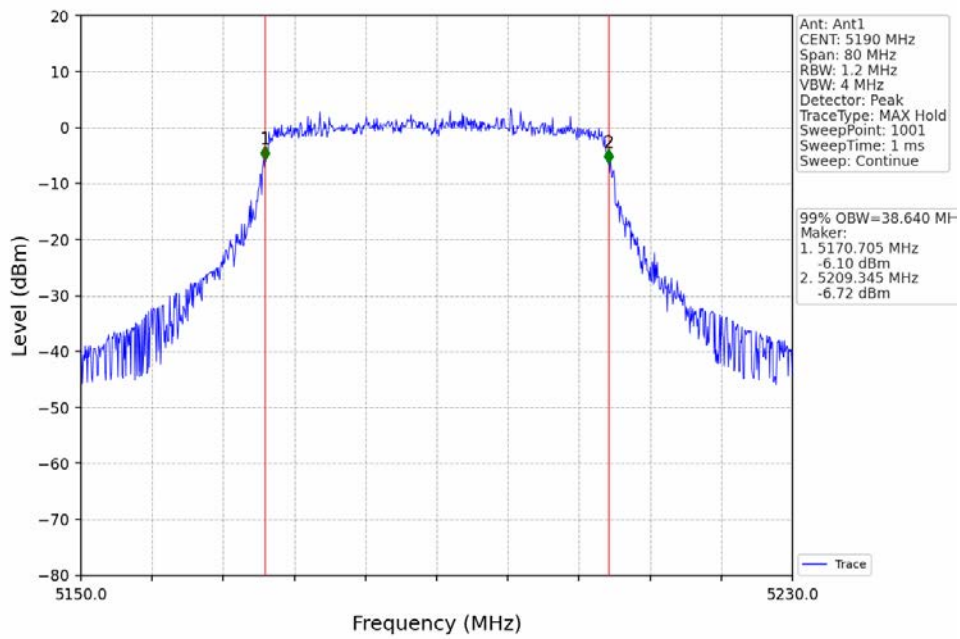
802.11ax(HEW20)\_MCH\_5200MHz\_RU242\_Left\_Ant1\_NTNV



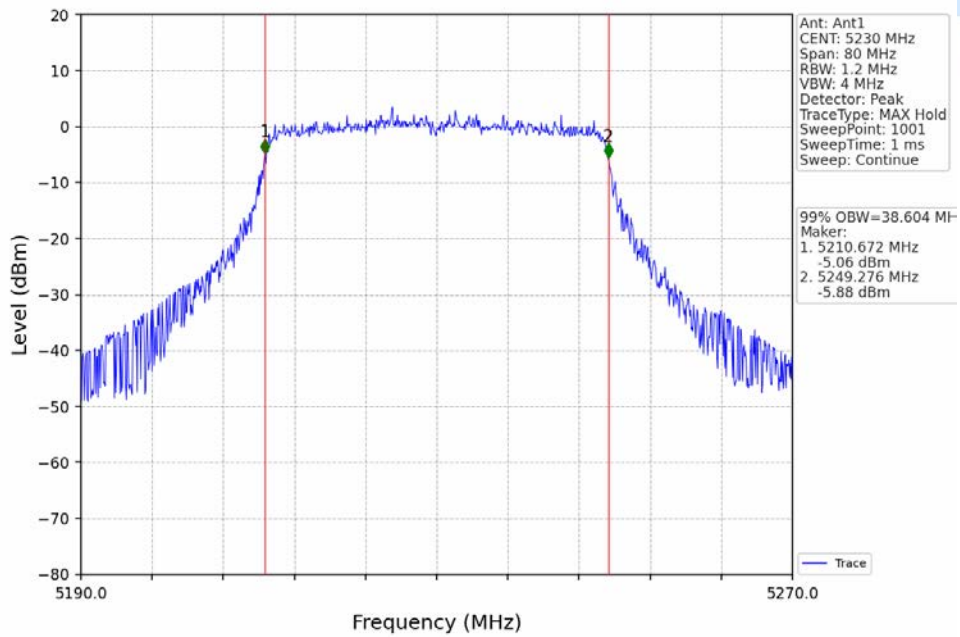
802.11ax(HEW20)\_HCH\_5240MHz\_RU242\_Left\_Ant1\_NTNV



802.11ax(HEW40)\_LCH\_5190MHz\_RU484\_Left\_Ant1\_NTNV



802.11ax(HEW40)\_HCH\_5230MHz\_RU484\_Left\_Ant1\_NTNV



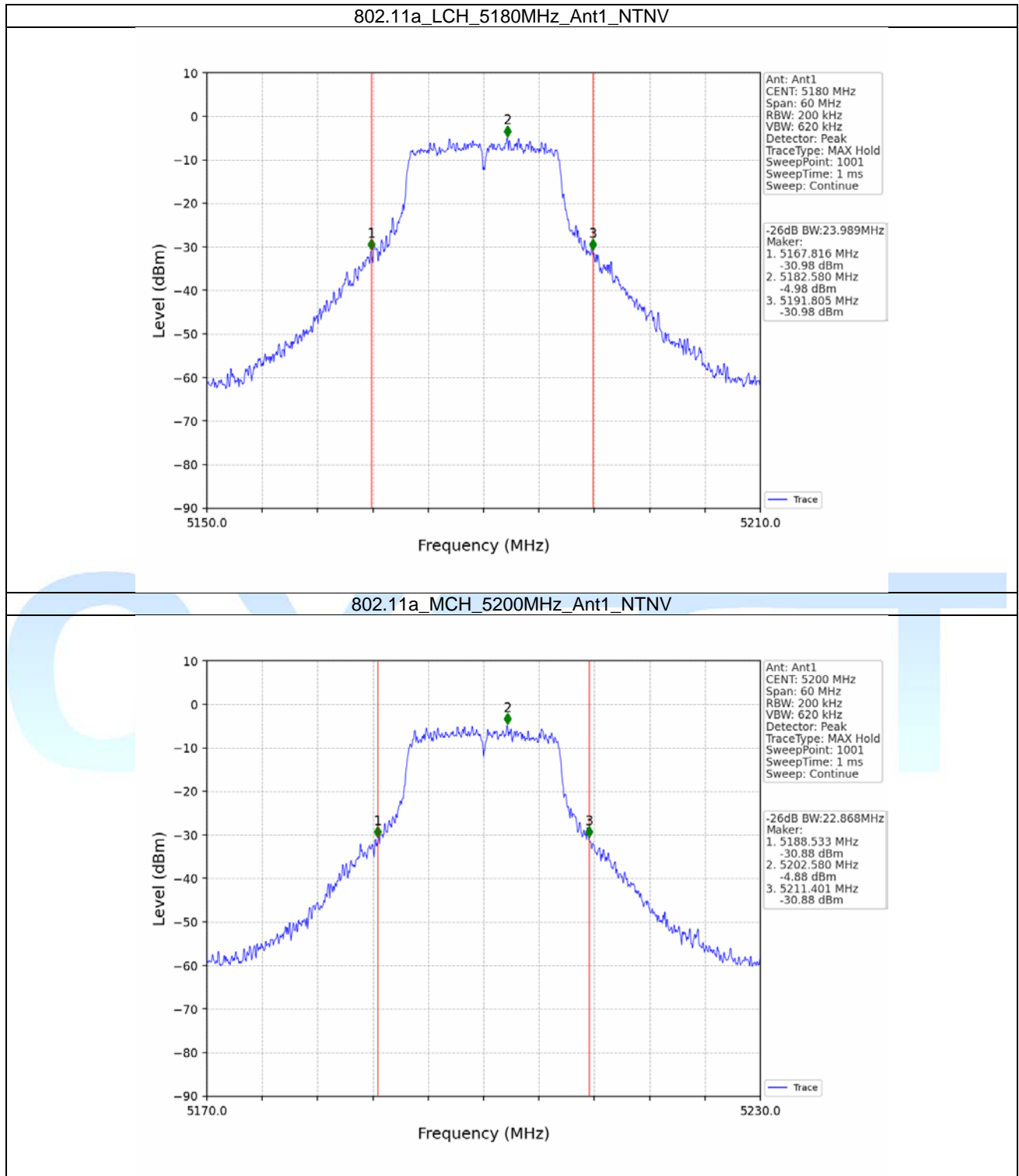


## 2.2 26dB BW

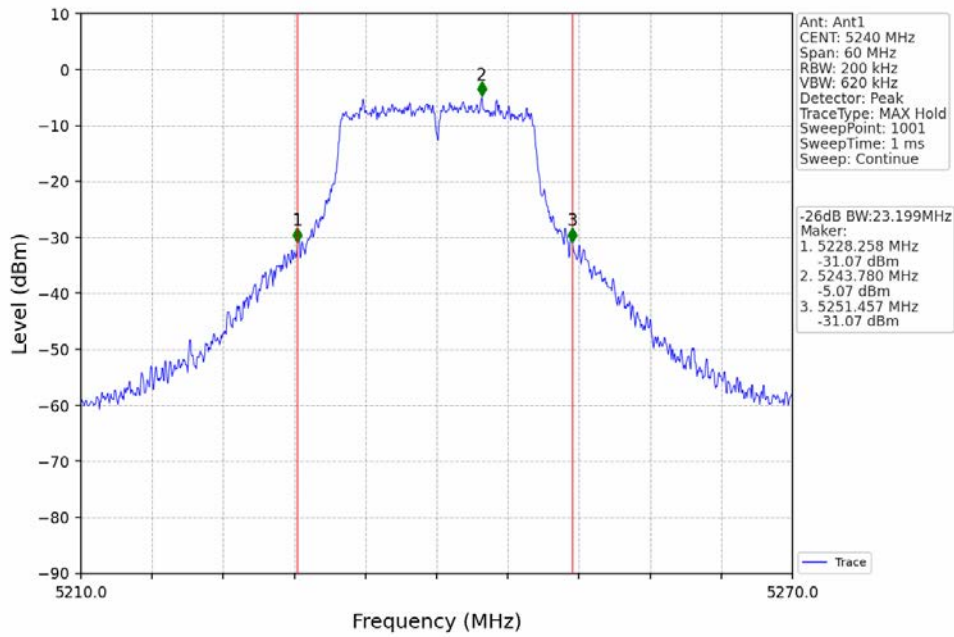
### 2.2.1 Test Result

Mode	TX Type	Frequency (MHz)	RU	RU Pos	ANT	26dB Bandwidth (MHz)		Verdict
						Result	Limit	
802.11a	SISO	5180	/	/	1	23.989	/	Pass
		5200	/	/	1	22.868	/	Pass
		5240	/	/	1	23.199	/	Pass
802.11n (HT20)	SISO	5180	/	/	1	24.052	/	Pass
		5200	/	/	1	24.265	/	Pass
		5240	/	/	1	24.160	/	Pass
802.11n (HT40)	SISO	5190	/	/	1	45.358	/	Pass
		5230	/	/	1	45.531	/	Pass
802.11ac (VHT20)	SISO	5180	/	/	1	24.507	/	Pass
		5200	/	/	1	24.339	/	Pass
		5240	/	/	1	23.626	/	Pass
802.11ac (VHT40)	SISO	5190	/	/	1	45.257	/	Pass
		5230	/	/	1	44.486	/	Pass
802.11ax (HEW20)	SISO	5180	RU242	Left	1	23.993	/	Pass
		5200	RU242	Left	1	24.281	/	Pass
		5240	RU242	Left	1	23.184	/	Pass
802.11ax (HEW40)	SISO	5190	RU484	Left	1	44.507	/	Pass
		5230	RU484	Left	1	43.812	/	Pass

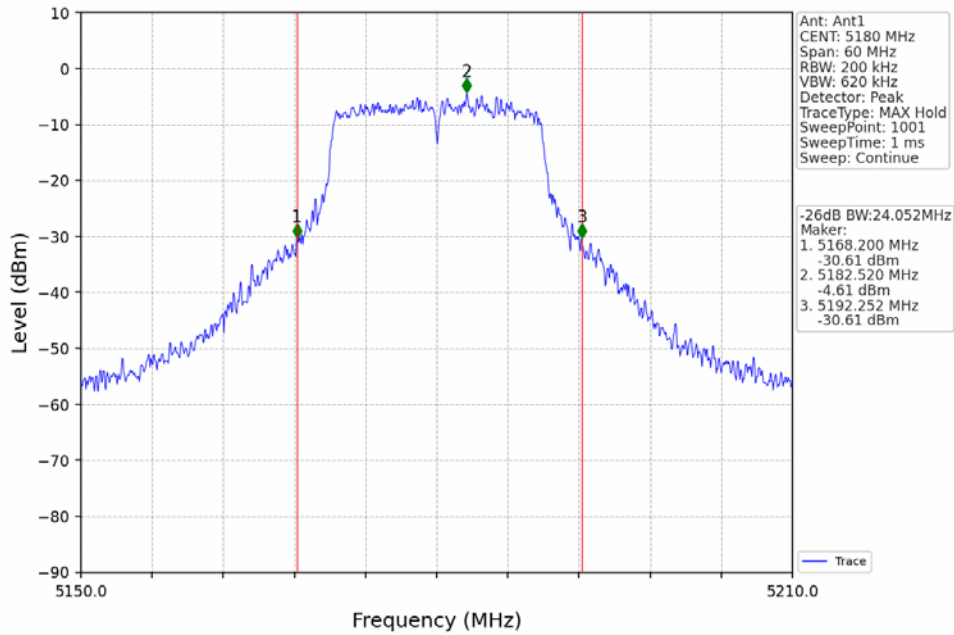
### 2.2.2 Test Graph



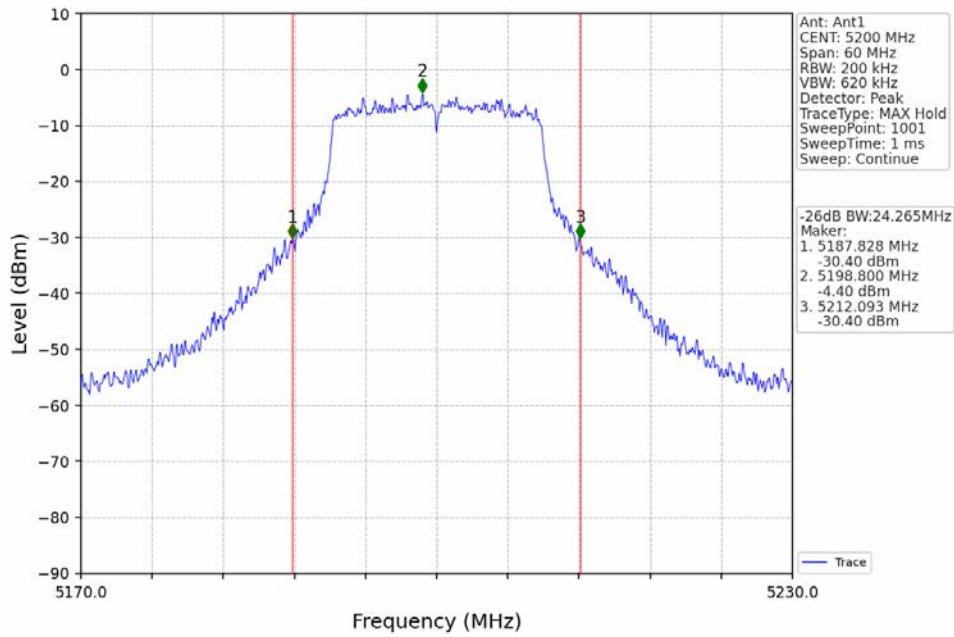
802.11a\_HCH\_5240MHz\_Ant1\_NTNV



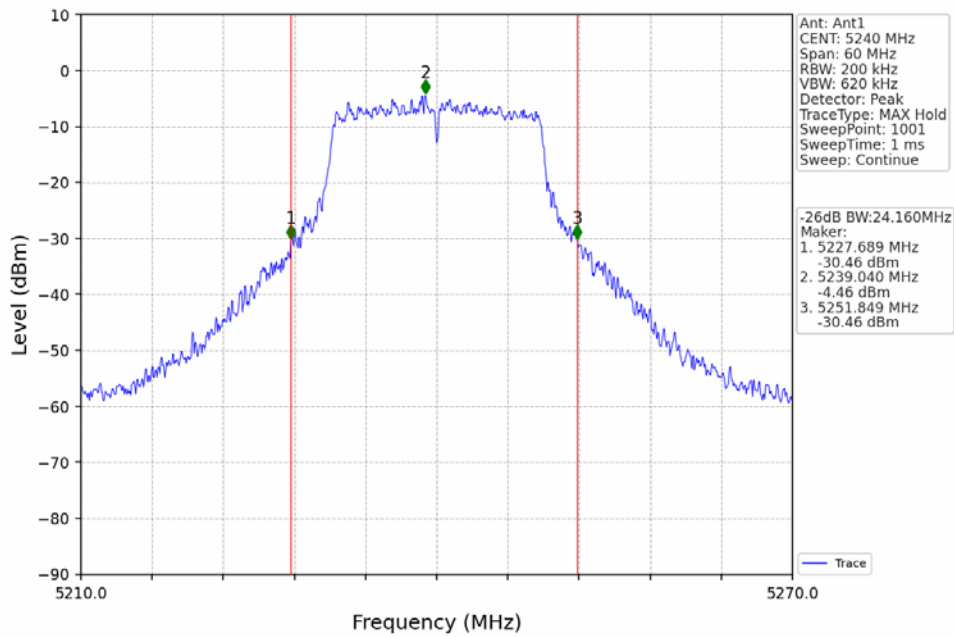
802.11n(HT20)\_LCH\_5180MHz\_Ant1\_NTNV



802.11n(HT20)\_MCH\_5200MHz\_Ant1\_NTNV

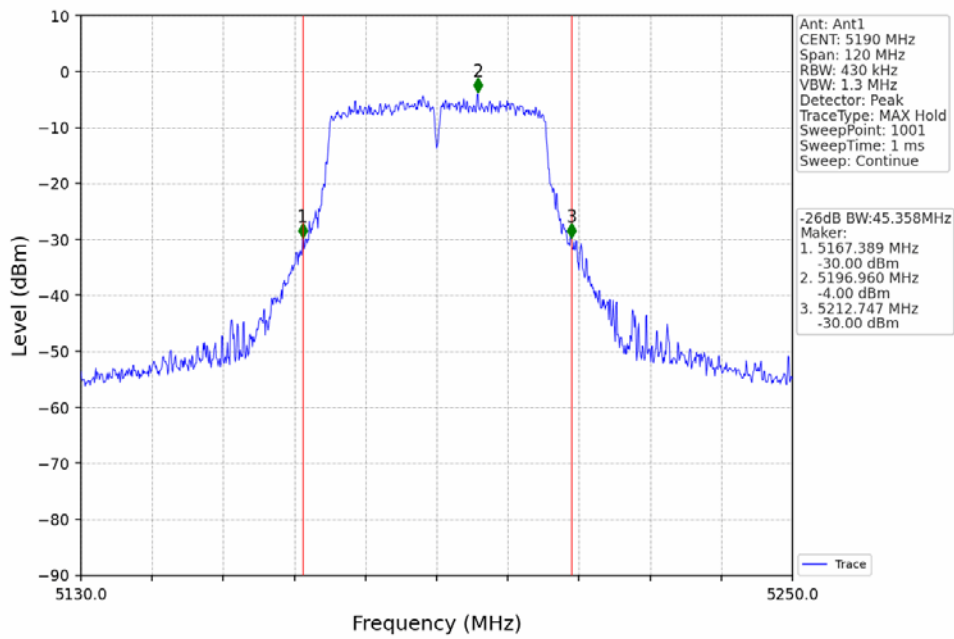


802.11n(HT20)\_HCH\_5240MHz\_Ant1\_NTNV

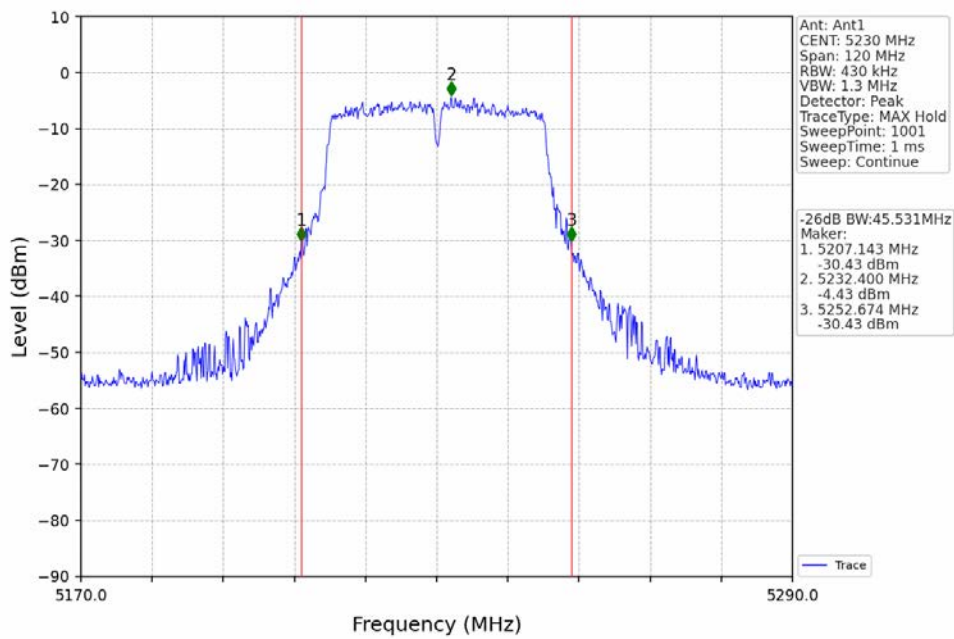




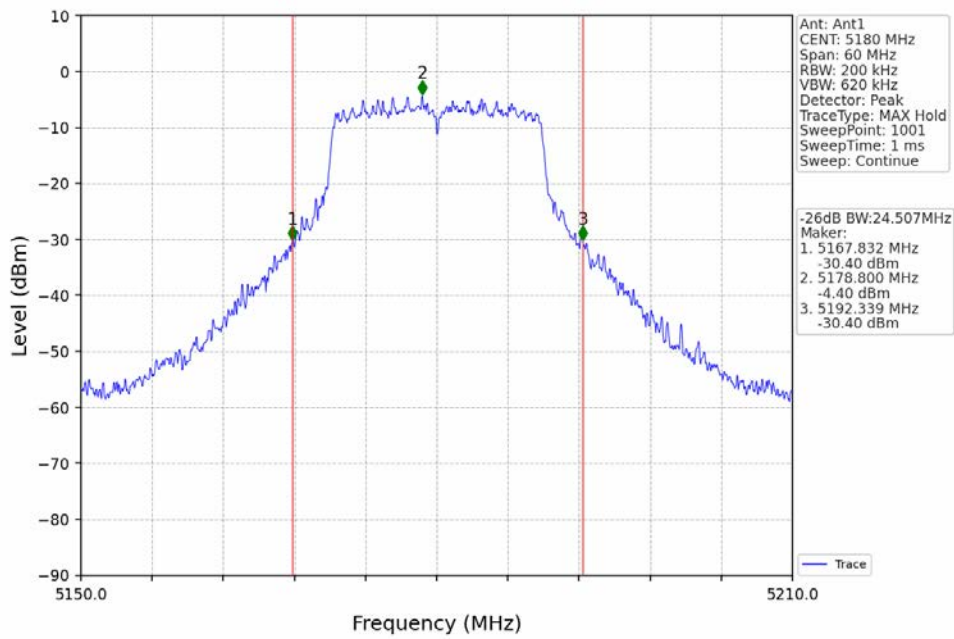
802.11n(HT40)\_LCH\_5190MHz\_Ant1\_NTNV



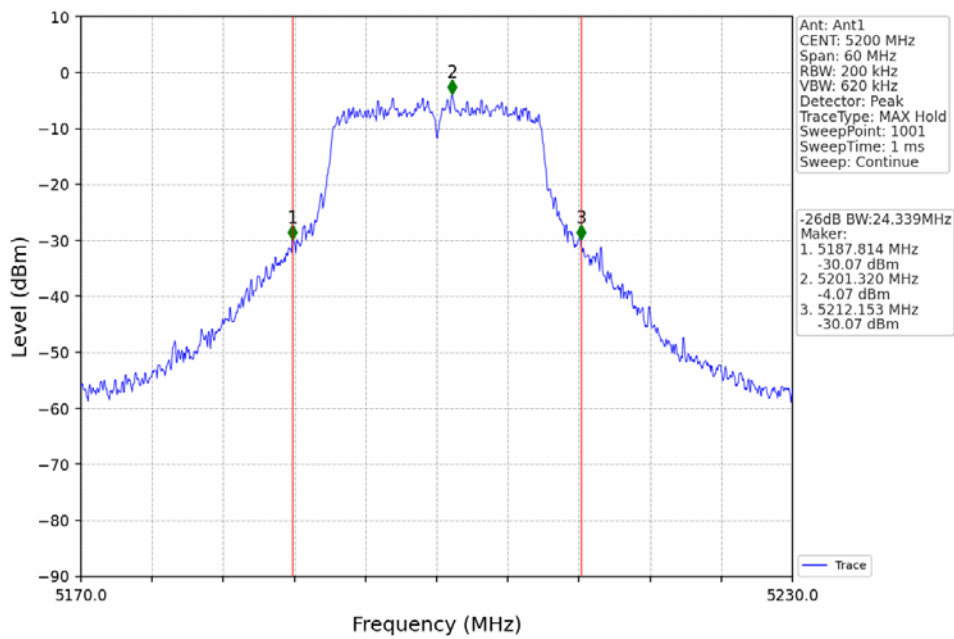
802.11n(HT40)\_HCH\_5230MHz\_Ant1\_NTNV



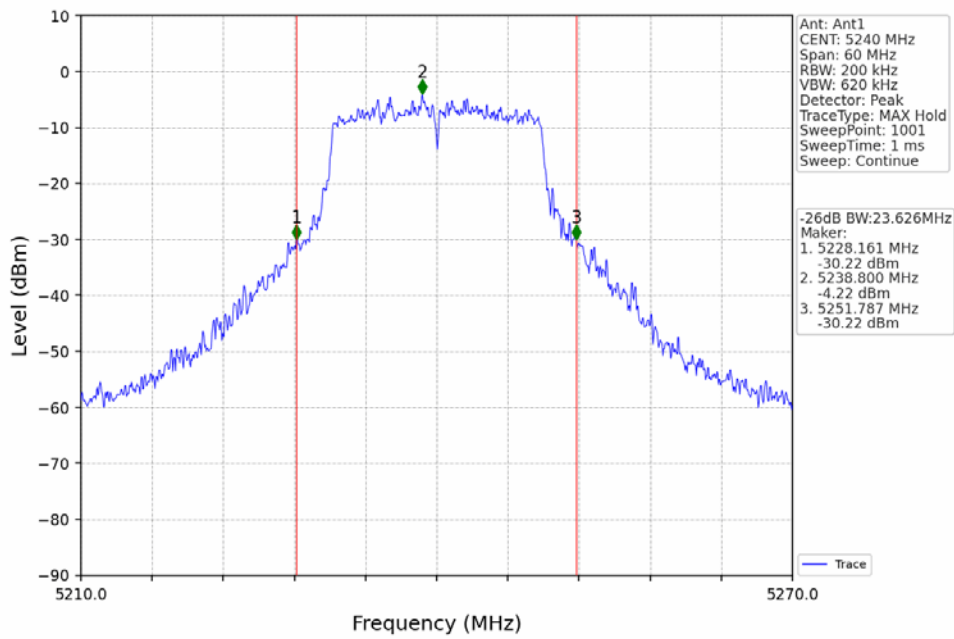
802.11ac(VHT20)\_LCH\_5180MHz\_Ant1\_NTNV



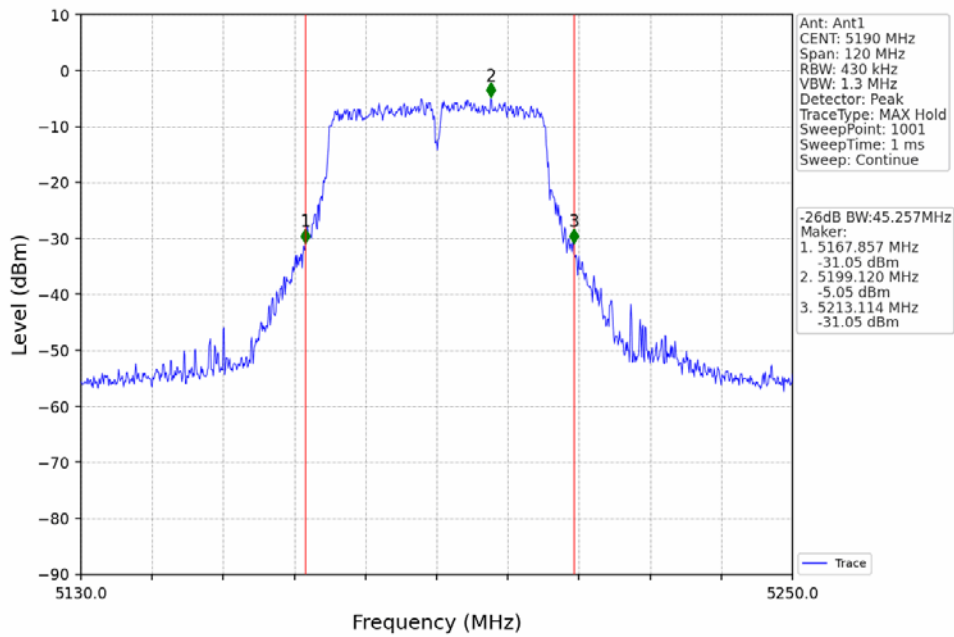
802.11ac(VHT20)\_MCH\_5200MHz\_Ant1\_NTNV



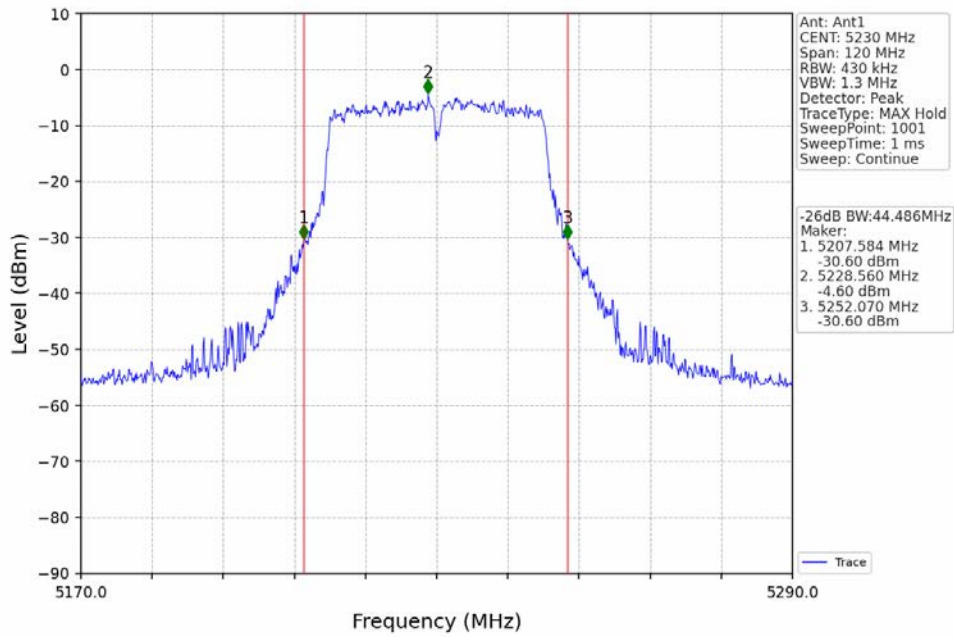
802.11ac(VHT20)\_HCH\_5240MHz\_Ant1\_NTNV



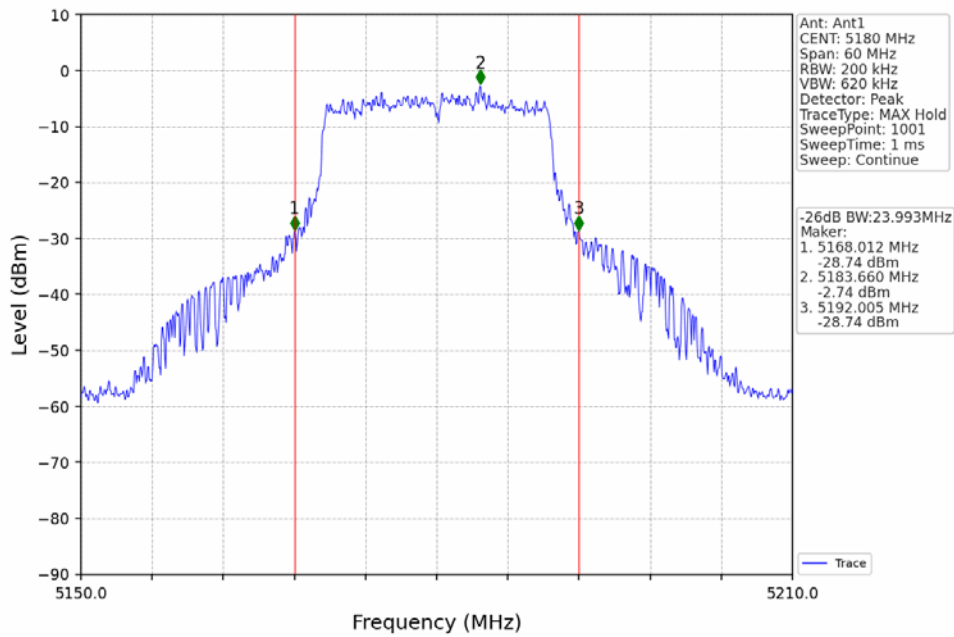
802.11ac(VHT40)\_LCH\_5190MHz\_Ant1\_NTNV



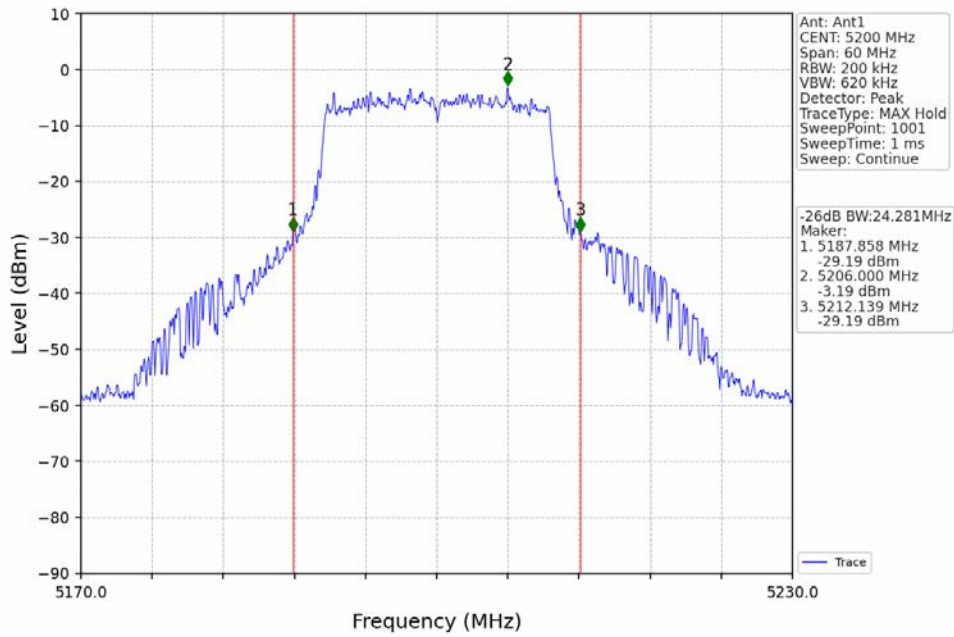
802.11ac(VHT40)\_HCH\_5230MHz\_Ant1\_NTNV



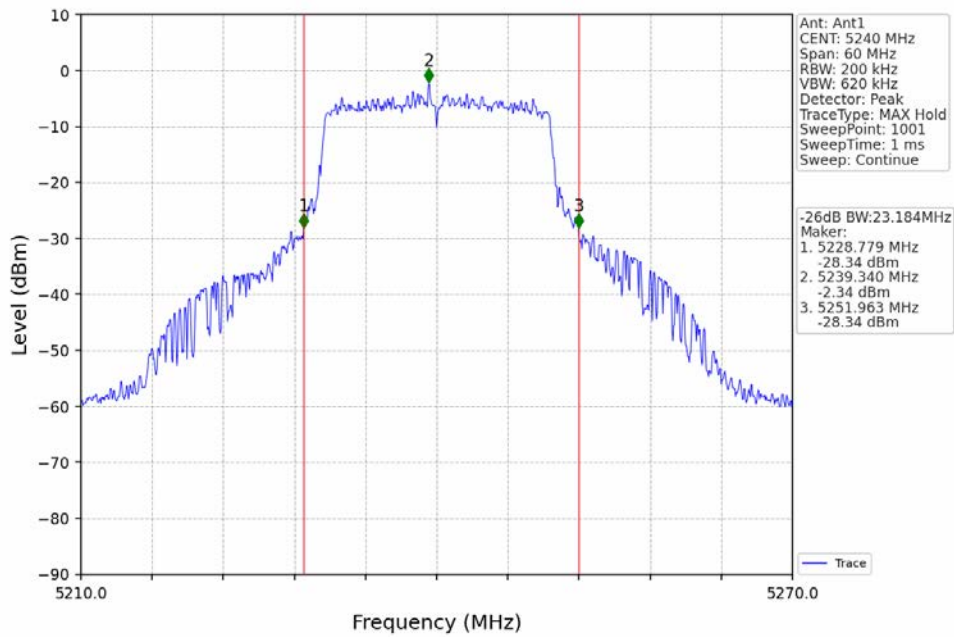
802.11ax(HEW20)\_LCH\_5180MHz\_RU242\_Left\_Ant1\_NTNV



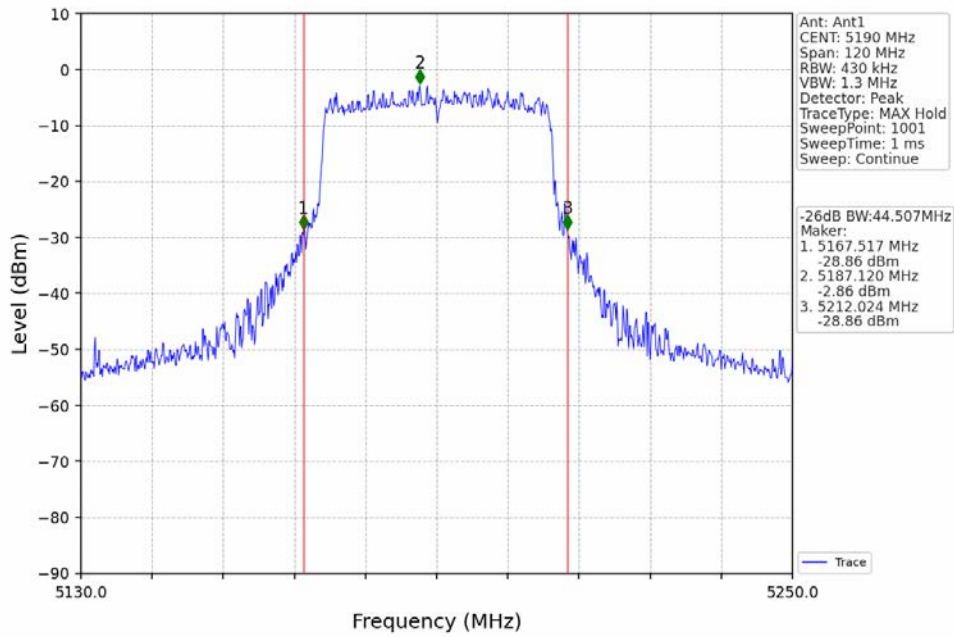
802.11ax(HEW20)\_MCH\_5200MHz\_RU242\_Left\_Ant1\_NTNV



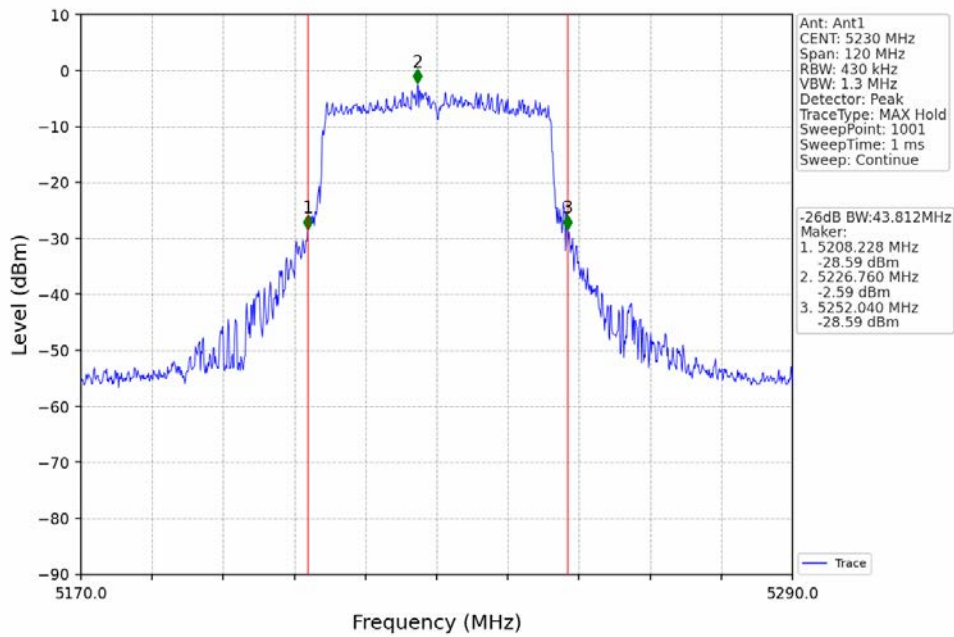
802.11ax(HEW20)\_HCH\_5240MHz\_RU242\_Left\_Ant1\_NTNV



802.11ax(HEW40)\_LCH\_5190MHz\_RU484\_Left\_Ant1\_NTNV



802.11ax(HEW40)\_HCH\_5230MHz\_RU484\_Left\_Ant1\_NTNV





### 3. Maximum Conducted Output Power

#### 3.1 Power

##### 3.1.1 Test Result

Mode	TX Type	Frequency (MHz)	RU	RU Pos	Maximum Average Conducted Output Power (dBm)		Verdict
					ANT1	Limit	
802.11a	SISO	5180	/	/	5.77	<=23.98	Pass
		5200	/	/	5.21	<=23.98	Pass
		5240	/	/	4.12	<=23.98	Pass
802.11n (HT20)	SISO	5180	/	/	6.83	<=23.98	Pass
		5200	/	/	5.81	<=23.98	Pass
		5240	/	/	5.90	<=23.98	Pass
802.11n (HT40)	SISO	5190	/	/	5.02	<=23.98	Pass
		5230	/	/	5.28	<=23.98	Pass
802.11ac (VHT20)	SISO	5180	/	/	6.27	<=23.98	Pass
		5200	/	/	5.15	<=23.98	Pass
		5240	/	/	5.89	<=23.98	Pass
802.11ac (VHT40)	SISO	5190	/	/	5.66	<=23.98	Pass
		5230	/	/	6.05	<=23.98	Pass
802.11ax (HEW20)	SISO	5180	RU242	Left	5.60	<=23.98	Pass
		5200	RU242	Left	5.46	<=23.98	Pass
		5240	RU242	Left	5.71	<=23.98	Pass
802.11ax (HEW40)	SISO	5190	RU484	Left	5.39	<=23.98	Pass
		5230	RU484	Left	5.44	<=23.98	Pass

Note1: Antenna Gain: Ant1: 2.58dBi;

## 4. Maximum Power Spectral Density

### 4.1 PSD

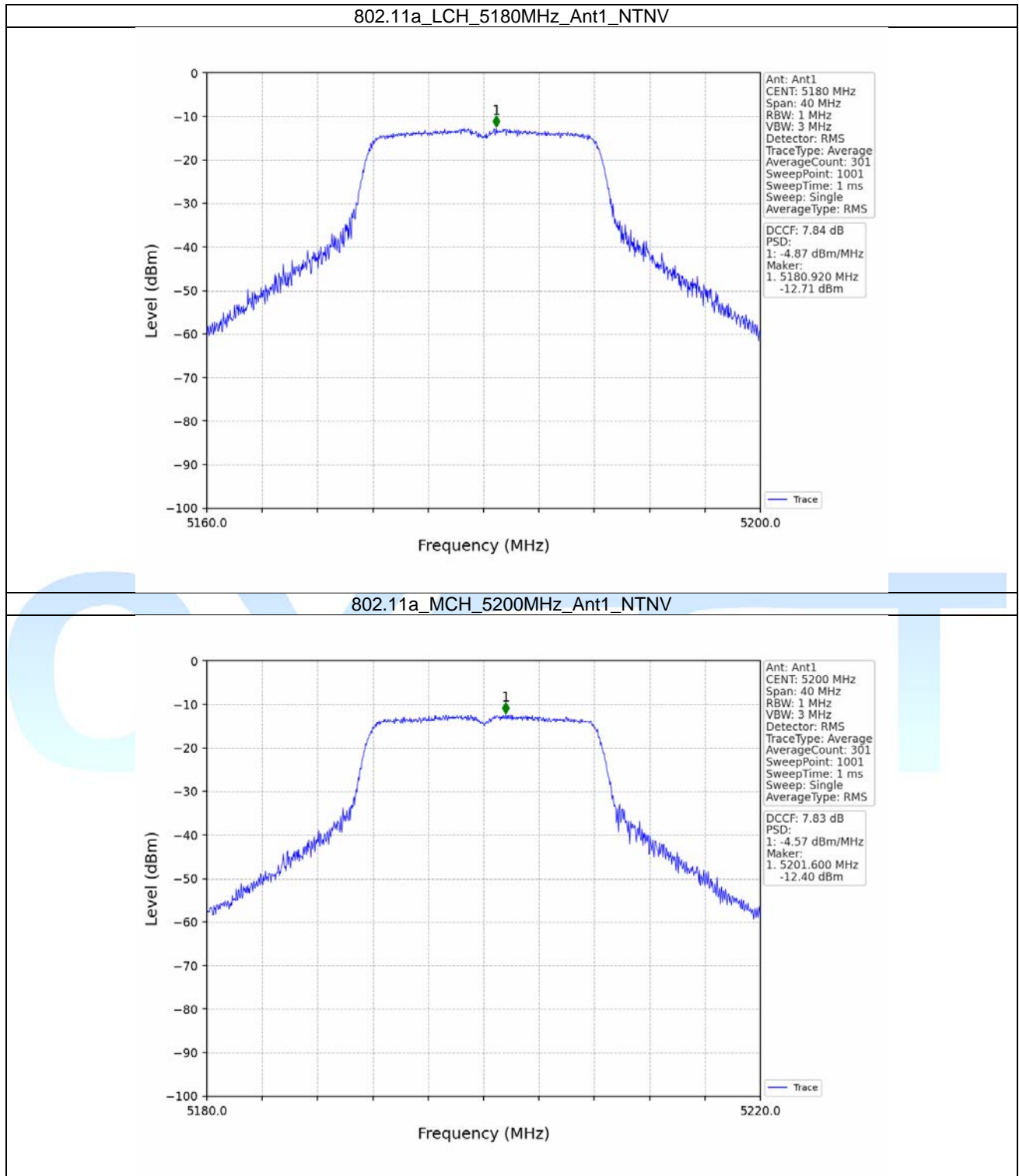
#### 4.1.1 Test Result

Mode	TX Type	Frequency (MHz)	RU	RU Pos	Maximum PSD (dBm/MHz)		Verdict
					ANT1	Limit	
802.11a	SISO	5180	/	/	-4.87	<=11	Pass
		5200	/	/	-4.57	<=11	Pass
		5240	/	/	-5.70	<=11	Pass
802.11n (HT20)	SISO	5180	/	/	-4.34	<=11	Pass
		5200	/	/	-5.08	<=11	Pass
		5240	/	/	-5.58	<=11	Pass
802.11n (HT40)	SISO	5190	/	/	-8.32	<=11	Pass
		5230	/	/	-8.49	<=11	Pass
802.11ac (VHT20)	SISO	5180	/	/	-4.62	<=11	Pass
		5200	/	/	-5.06	<=11	Pass
		5240	/	/	-5.27	<=11	Pass
802.11ac (VHT40)	SISO	5190	/	/	-8.02	<=11	Pass
		5230	/	/	-7.49	<=11	Pass
802.11ax (HEW20)	SISO	5180	RU242	Left	-5.32	<=11	Pass
		5200	RU242	Left	-5.74	<=11	Pass
		5240	RU242	Left	-4.87	<=11	Pass
802.11ax (HEW40)	SISO	5190	RU484	Left	-6.65	<=11	Pass
		5230	RU484	Left	-6.97	<=11	Pass

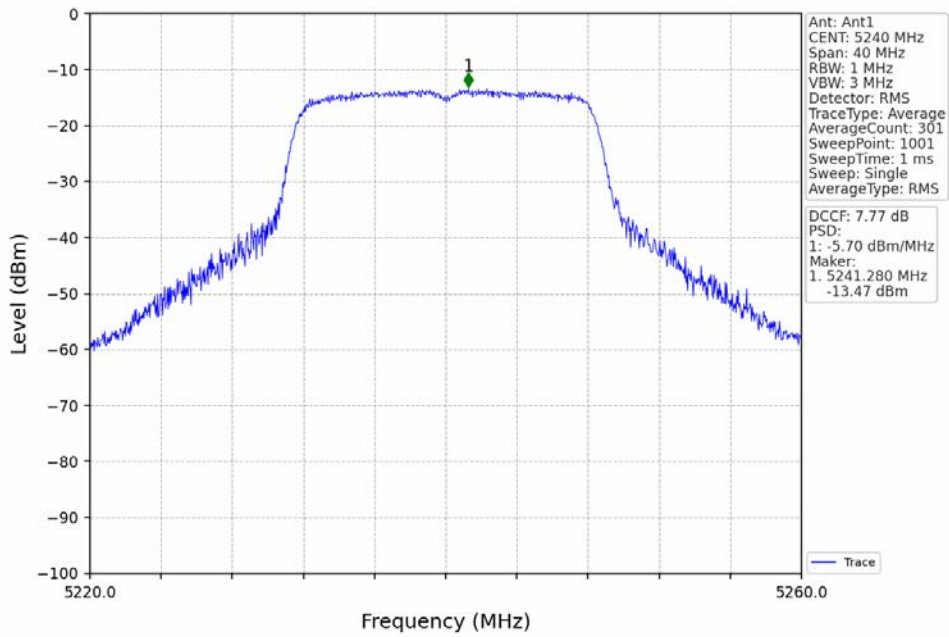
Note1: Antenna Gain: Ant1: 2.58dBi;  
 Note2: Test result contains DCCF



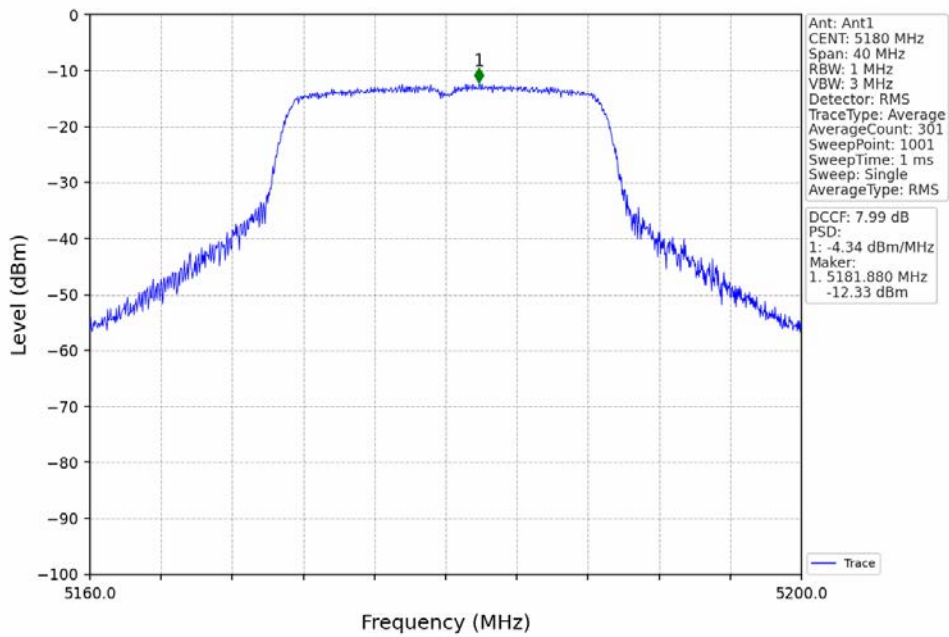
### 4.1.2 Test Graph



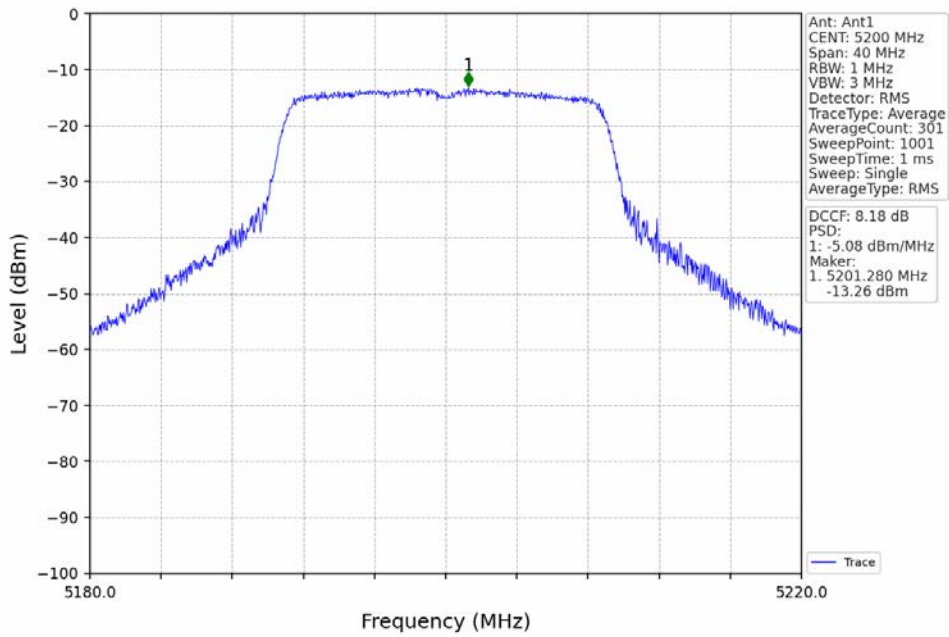
802.11a\_HCH\_5240MHz\_Ant1\_NTNV



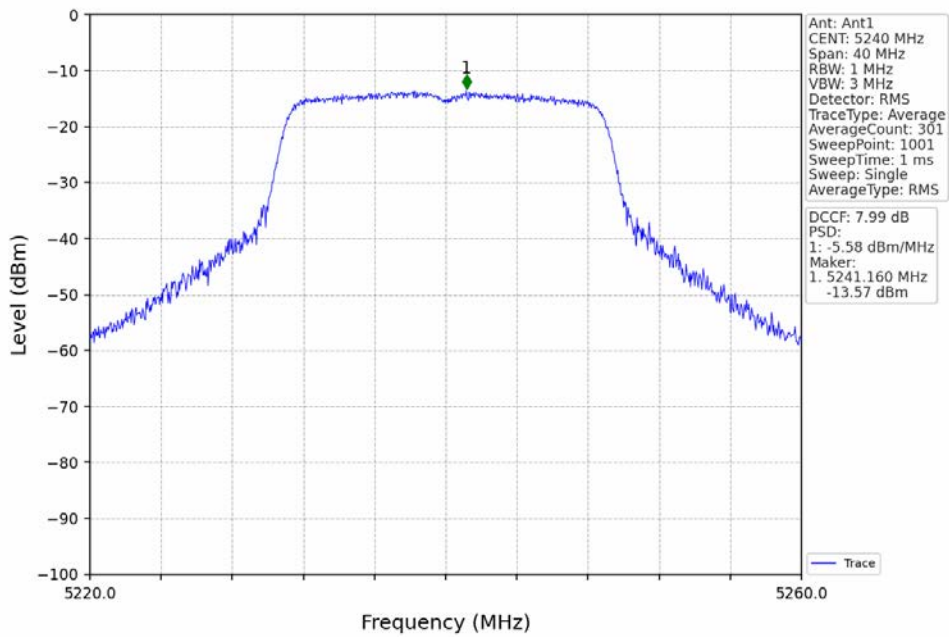
802.11n(HT20)\_LCH\_5180MHz\_Ant1\_NTNV



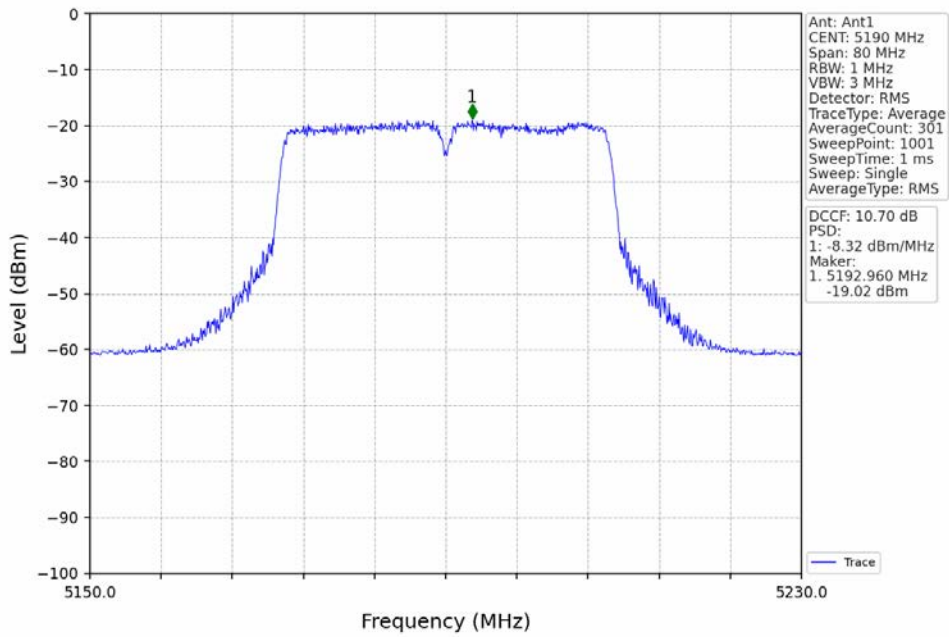
802.11n(HT20)\_MCH\_5200MHz\_Ant1\_NTNV



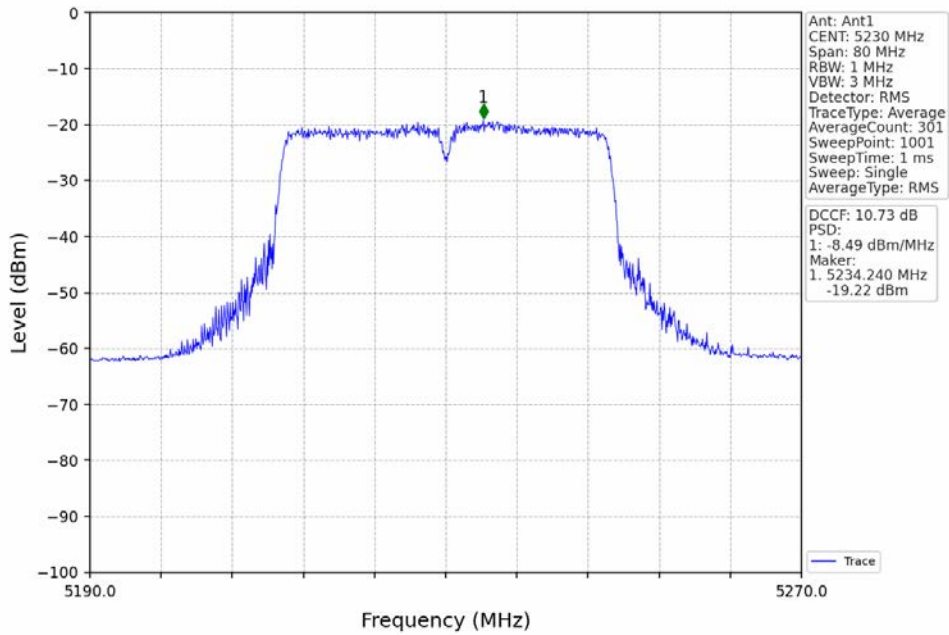
802.11n(HT20)\_HCH\_5240MHz\_Ant1\_NTNV



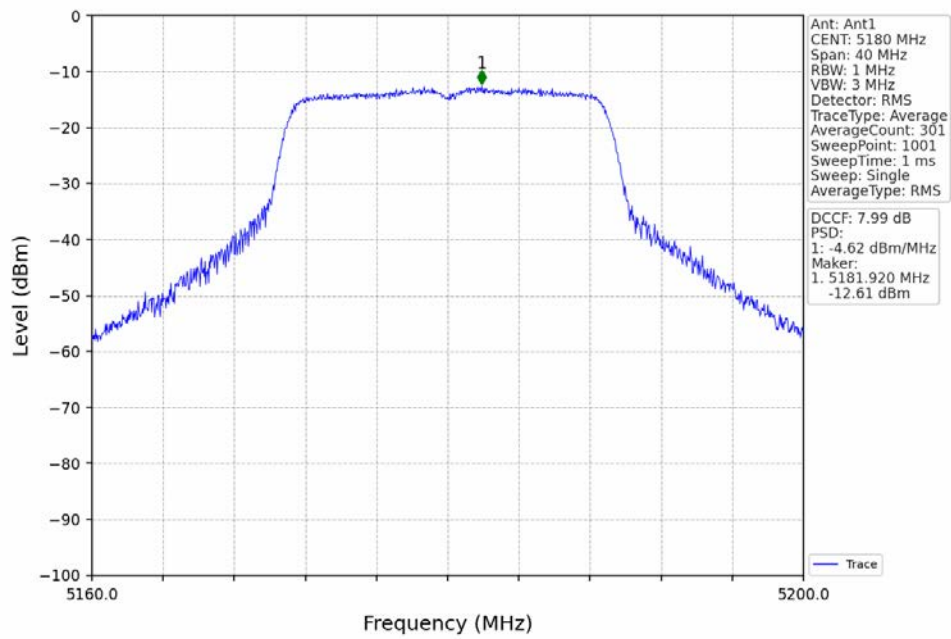
802.11n(HT40)\_LCH\_5190MHz\_Ant1\_NTNV



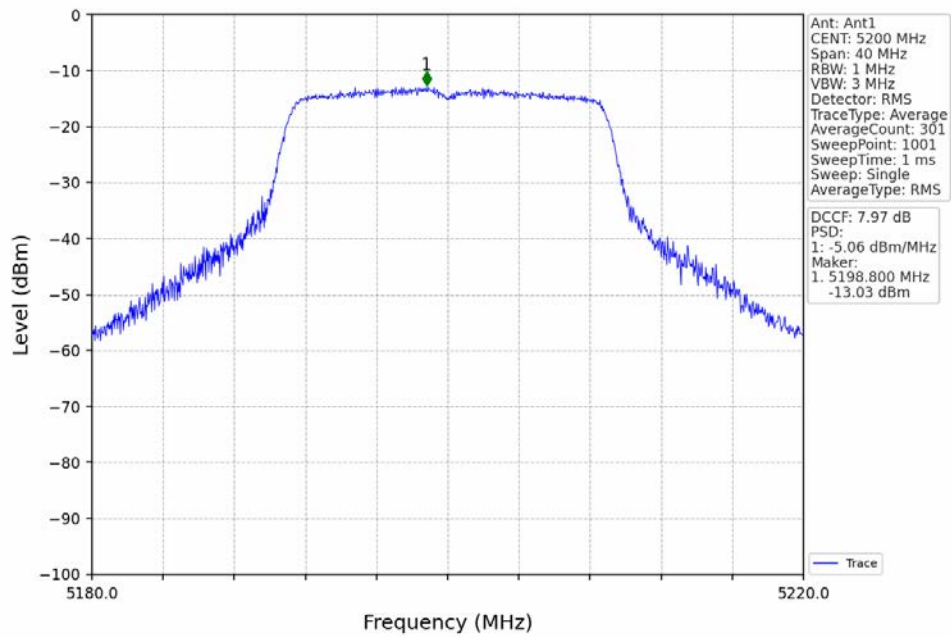
802.11n(HT40)\_HCH\_5230MHz\_Ant1\_NTNV



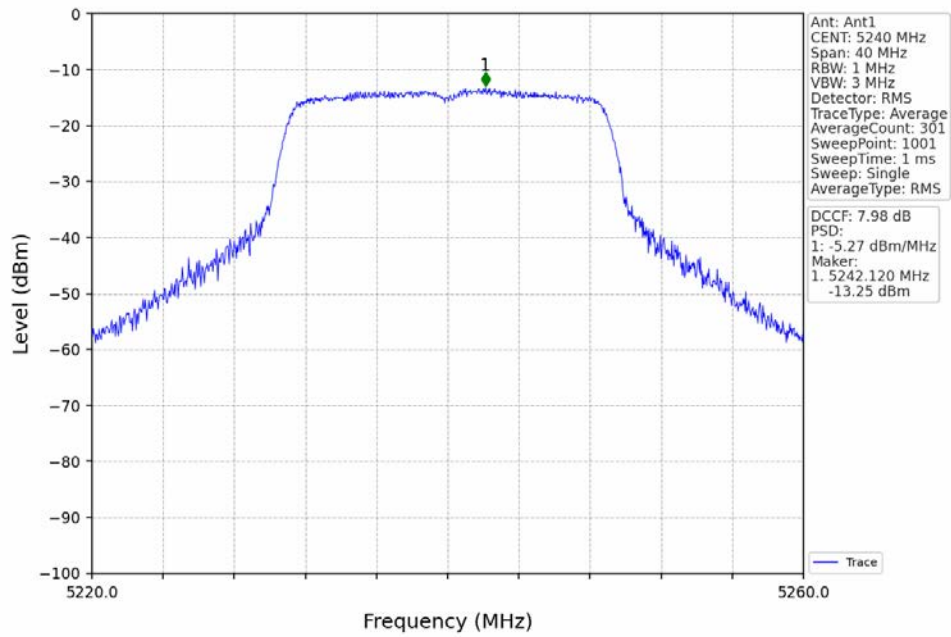
802.11ac(VHT20)\_LCH\_5180MHz\_Ant1\_NTNV



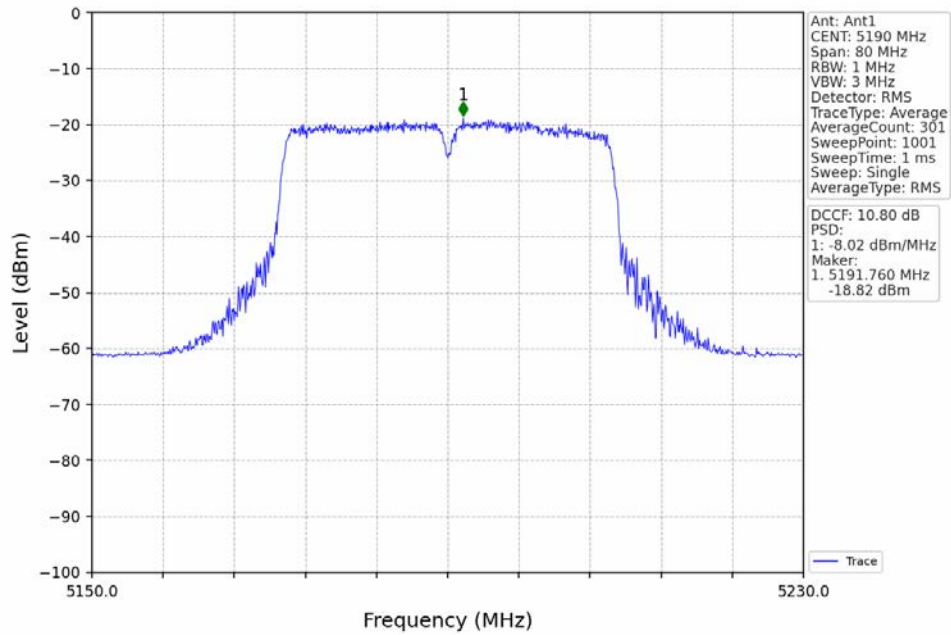
802.11ac(VHT20)\_MCH\_5200MHz\_Ant1\_NTNV



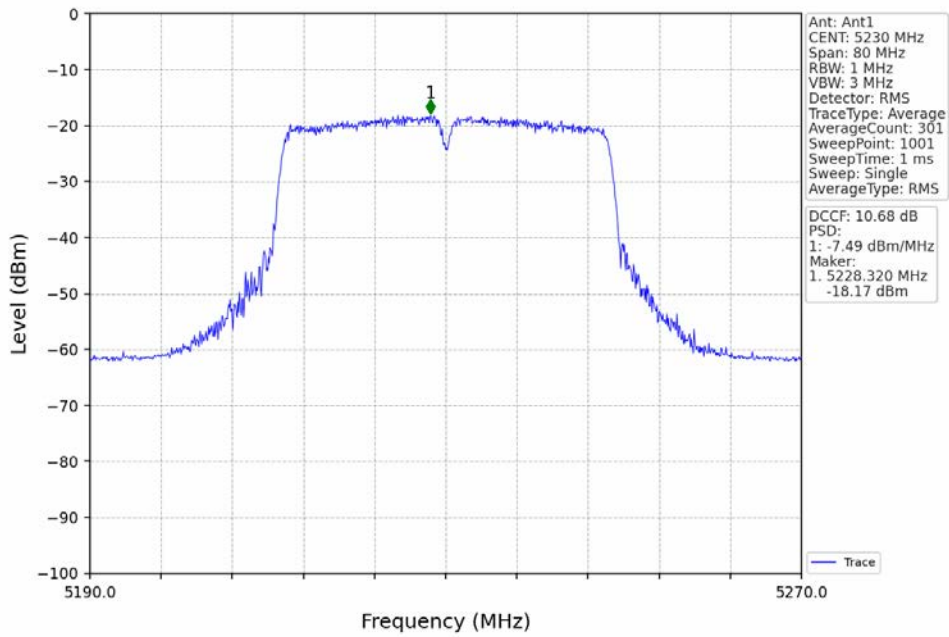
802.11ac(VHT20)\_HCH\_5240MHz\_Ant1\_NTNV



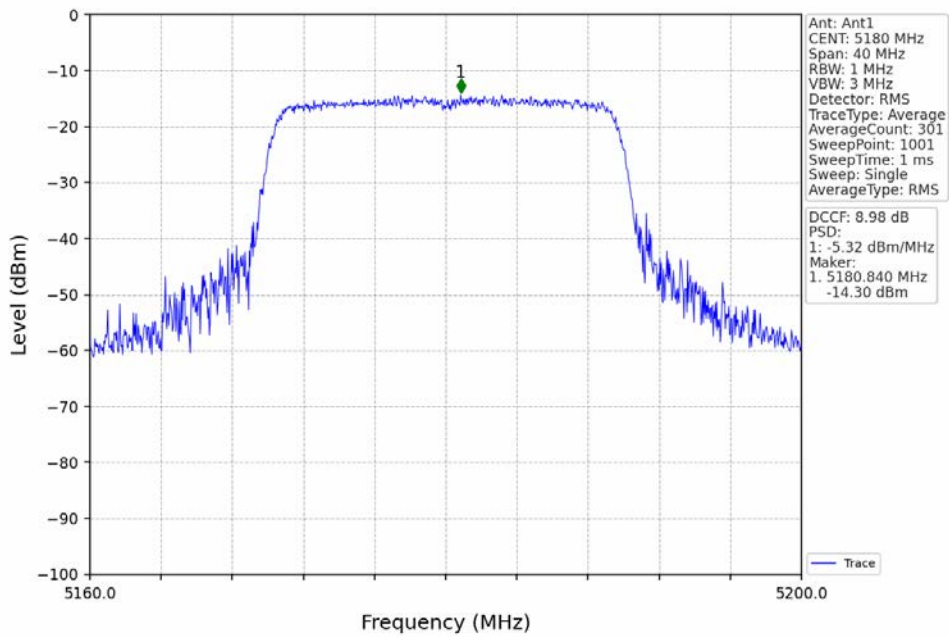
802.11ac(VHT40)\_LCH\_5190MHz\_Ant1\_NTNV



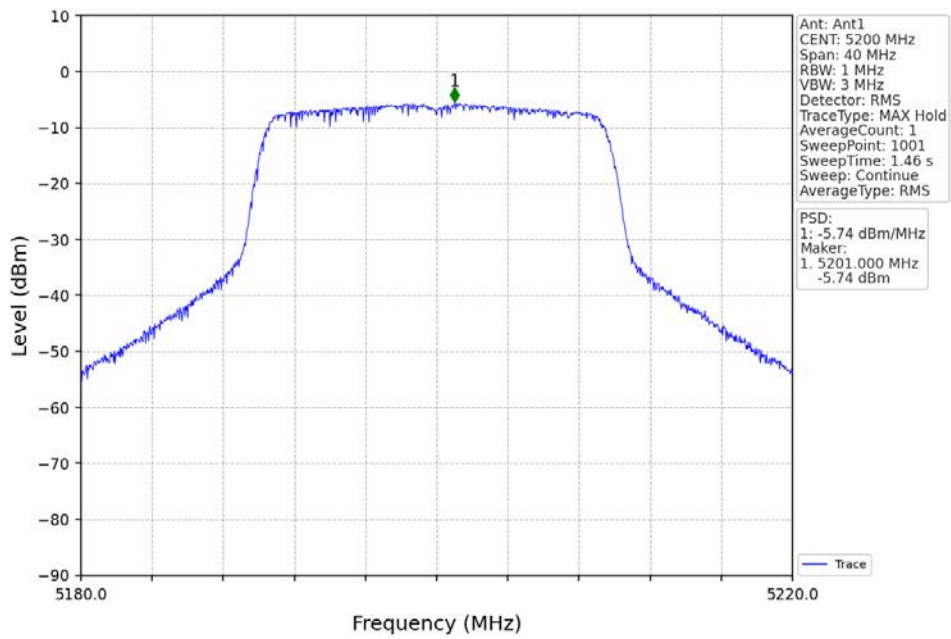
802.11ac(VHT40)\_HCH\_5230MHz\_Ant1\_NTNV



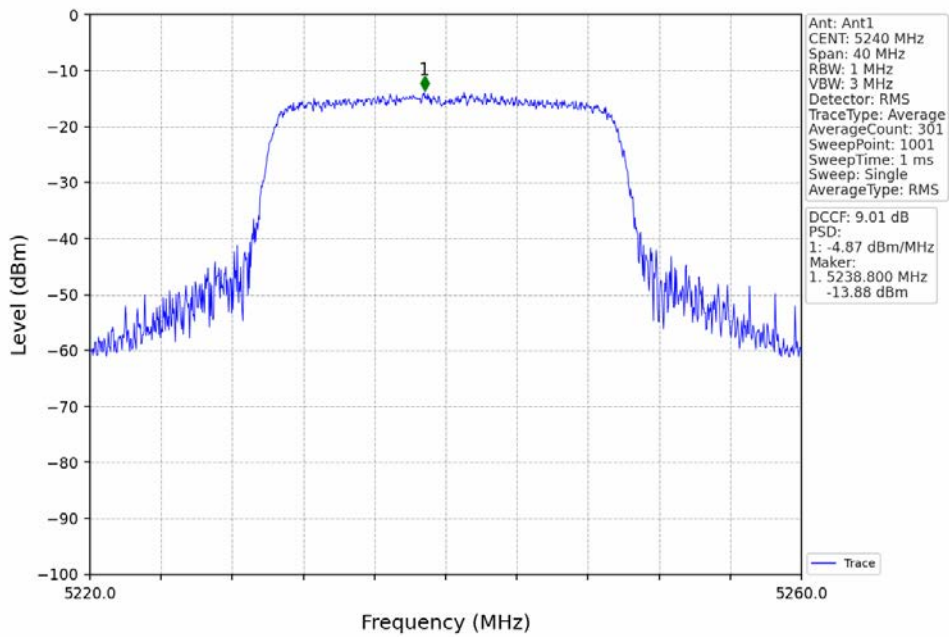
802.11ax(HEW20)\_LCH\_5180MHz\_RU242\_Left\_Ant1\_NTNV



802.11ax(HEW20)\_MCH\_5200MHz\_RU242\_Left\_Ant1\_NTNV

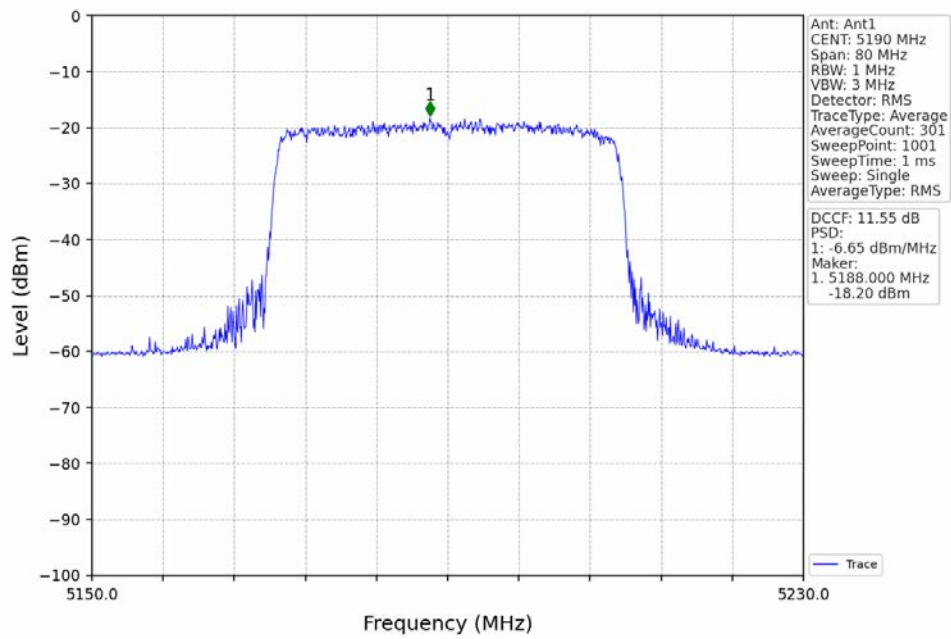


802.11ax(HEW20)\_HCH\_5240MHz\_RU242\_Left\_Ant1\_NTNV

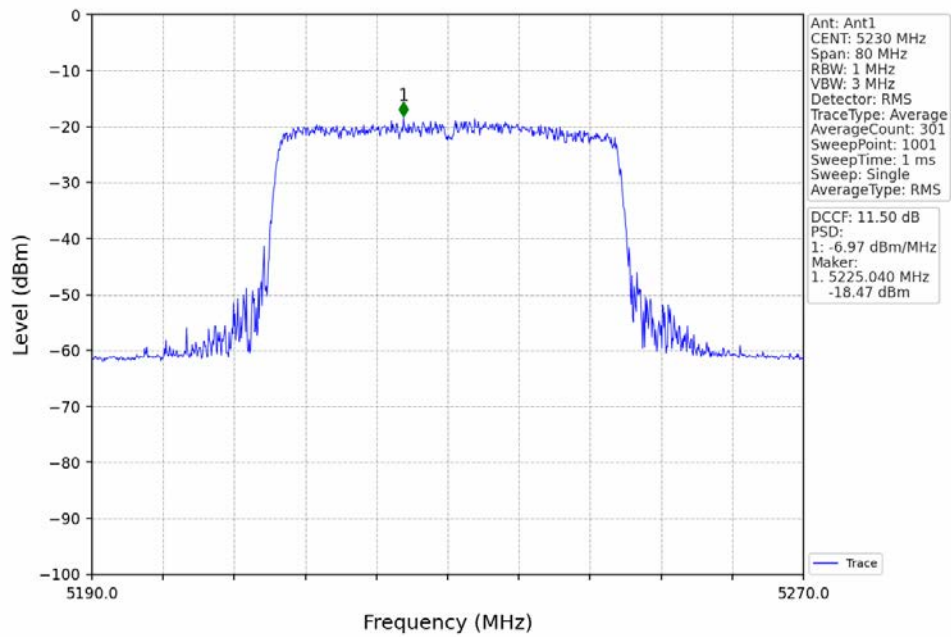




802.11ax(HEW40)\_LCH\_5190MHz\_RU484\_Left\_Ant1\_NTNV



802.11ax(HEW40)\_HCH\_5230MHz\_RU484\_Left\_Ant1\_NTNV





## 5. Frequency Stability

### 5.1 Ant1

#### 5.1.1 Test Result

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	5179.981	5150 to 5250	Pass			
			5200	-30	120	5179.981	5150 to 5250	Pass		
					-20	120	5179.981	5150 to 5250	Pass	
					-10	120	5179.980	5150 to 5250	Pass	
				5240	0	120	5179.981	5150 to 5250	Pass	
						10	120	5179.981	5150 to 5250	Pass
						30	120	5179.980	5150 to 5250	Pass
		5190			40	120	5179.980	5150 to 5250	Pass	
						50	120	5179.980	5150 to 5250	Pass
						20	102	5199.980	5150 to 5250	Pass
			5230		20	120	5199.980	5150 to 5250	Pass	
						138	5199.980	5150 to 5250	Pass	
						-30	120	5199.980	5150 to 5250	Pass
				5180	-20	120	5199.980	5150 to 5250	Pass	
						-10	120	5199.980	5150 to 5250	Pass
						0	120	5199.980	5150 to 5250	Pass
		5190			10	120	5199.980	5150 to 5250	Pass	
						30	120	5199.980	5150 to 5250	Pass
						40	120	5199.980	5150 to 5250	Pass
			5200		50	120	5199.980	5150 to 5250	Pass	
						20	102	5239.980	5150 to 5250	Pass
						120	5239.980	5150 to 5250	Pass	
				5240	-30	138	5239.980	5150 to 5250	Pass	
						120	5239.980	5150 to 5250	Pass	
						-20	120	5239.980	5150 to 5250	Pass
		5190			-10	120	5239.980	5150 to 5250	Pass	
						0	120	5239.980	5150 to 5250	Pass
						10	120	5239.980	5150 to 5250	Pass
			5230		30	120	5239.980	5150 to 5250	Pass	
						40	120	5239.980	5150 to 5250	Pass
						50	120	5239.980	5150 to 5250	Pass
				5180	20	102	5189.980	5150 to 5250	Pass	
						120	5189.980	5150 to 5250	Pass	
						138	5189.980	5150 to 5250	Pass	
		5200			-30	120	5189.980	5150 to 5250	Pass	
						-20	120	5189.980	5150 to 5250	Pass
						-10	120	5189.980	5150 to 5250	Pass
			5240		0	120	5189.980	5150 to 5250	Pass	
						10	120	5189.980	5150 to 5250	Pass
						30	120	5189.980	5150 to 5250	Pass
				5190	40	120	5189.980	5150 to 5250	Pass	
						50	120	5189.980	5150 to 5250	Pass
						20	102	5229.980	5150 to 5250	Pass
5230	20	120			5229.980	5150 to 5250	Pass			
		138			5229.980	5150 to 5250	Pass			
		-30			120	5229.980	5150 to 5250	Pass		



			-30	120	5229.980	5150 to 5250	Pass
			-20	120	5229.980	5150 to 5250	Pass
			-10	120	5229.980	5150 to 5250	Pass
			0	120	5229.980	5150 to 5250	Pass
			10	120	5229.980	5150 to 5250	Pass
			30	120	5229.980	5150 to 5250	Pass
			40	120	5229.980	5150 to 5250	Pass
			50	120	5229.980	5150 to 5250	Pass

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