

# 1. Duty Cycle

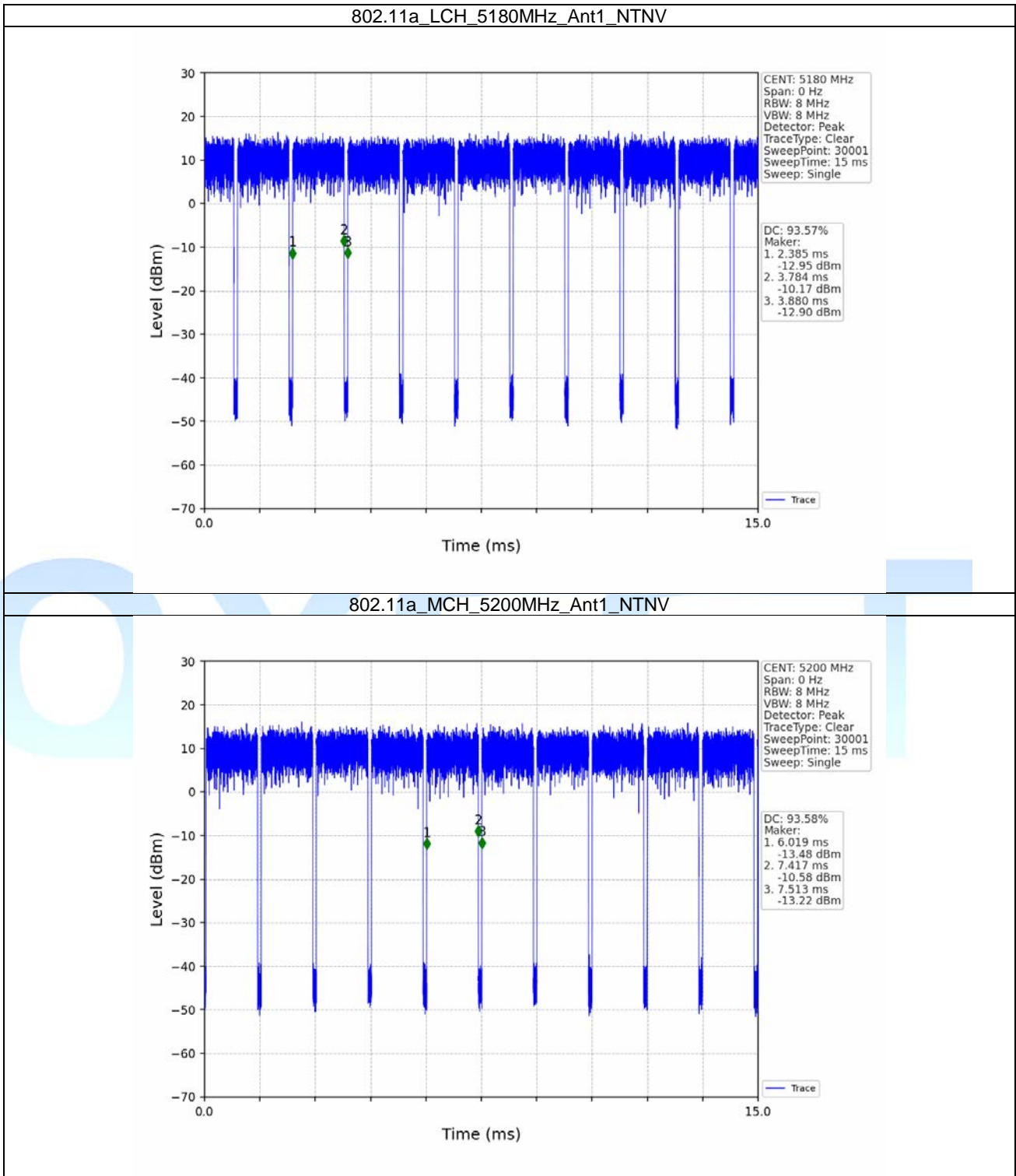
## 1.1 Test Result

### 1.1.1 Ant1

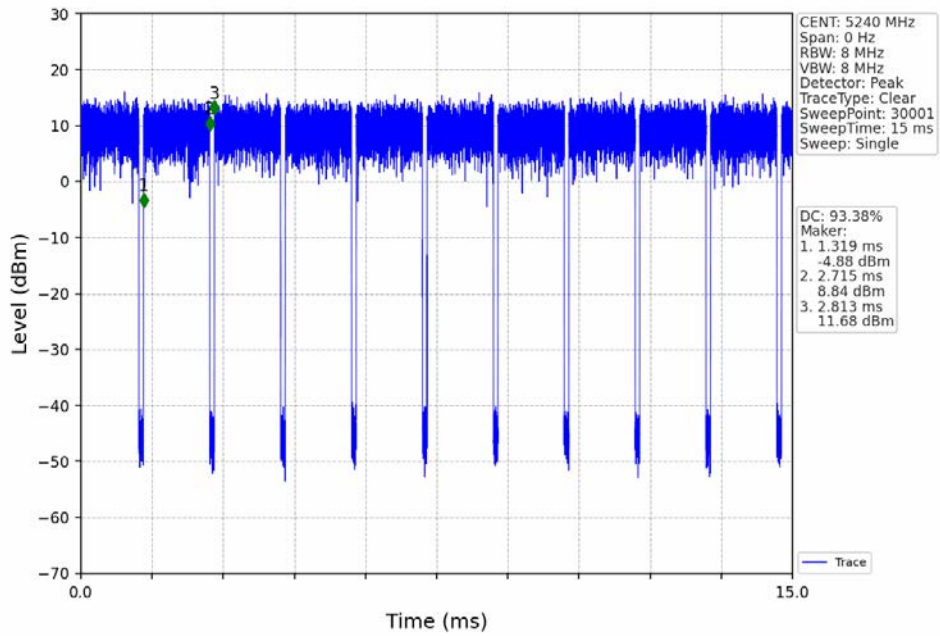
Ant1									
Mode	TX Type	Frequency (MHz)	RU	RU Pos	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
802.11a	SISO	5180	/	/	1.398	1.494	93.57	0.29	0.03
		5200	/	/	1.399	1.495	93.58	0.29	0.03
		5240	/	/	1.396	1.495	93.38	0.30	0.03
802.11n (HT20)	MIMO	5180	/	/	1.308	1.407	92.96	0.32	0.03
		5200	/	/	1.308	1.407	92.96	0.32	0.03
		5240	/	/	1.310	1.406	93.17	0.31	0.00
802.11n (HT40)	MIMO	5190	/	/	0.651	0.747	87.15	0.60	0.04
		5230	/	/	0.647	0.747	86.61	0.62	0.04
802.11ac (VHT20)	MIMO	5180	/	/	1.318	1.414	93.21	0.31	0.03
		5200	/	/	1.316	1.415	93.00	0.32	0.03
		5240	/	/	1.318	1.414	93.21	0.31	0.00
802.11ac (VHT40)	MIMO	5190	/	/	0.659	0.755	87.28	0.59	0.03
		5230	/	/	0.658	0.755	87.15	0.60	0.07
802.11ac (VHT80)	MIMO	5210	/	/	0.325	0.423	76.83	1.14	0.06
802.11ax (HEW20)	MIMO	5180	RU242	Left	1.024	1.121	91.35	0.39	0.06
		5200	RU242	Left	1.024	1.120	91.43	0.39	0.00
		5240	RU242	Left	1.020	1.120	91.07	0.41	0.06
802.11ax (HEW40)	MIMO	5190	RU484	Left	0.544	0.640	85.00	0.71	0.00
		5230	RU484	Left	0.543	0.640	84.84	0.71	0.03
802.11ax (HEW80)	MIMO	5210	RU996	Left	0.294	0.390	75.38	1.23	0.05

## 1.2 Test Graph

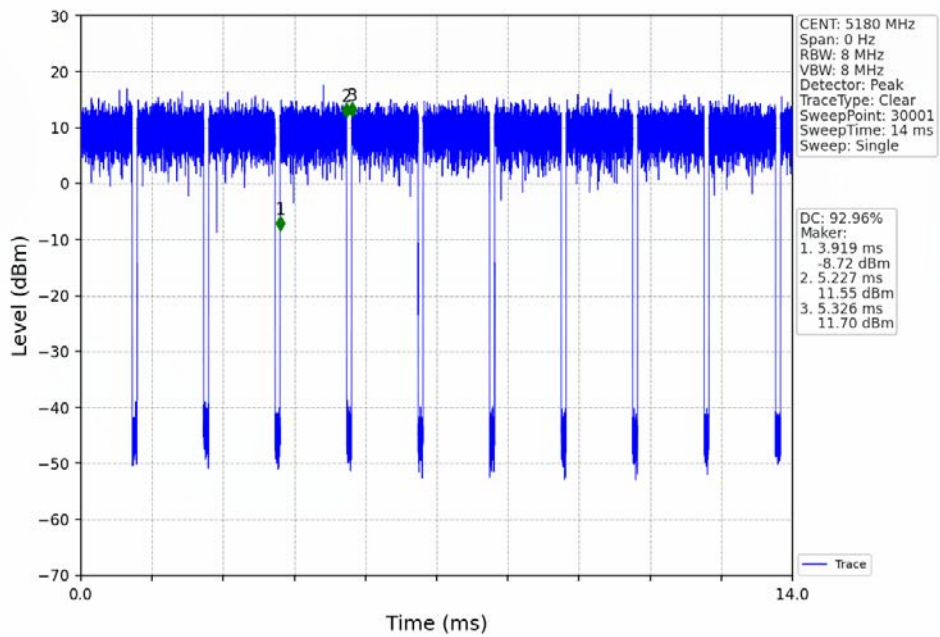
### 1.2.1 Ant1



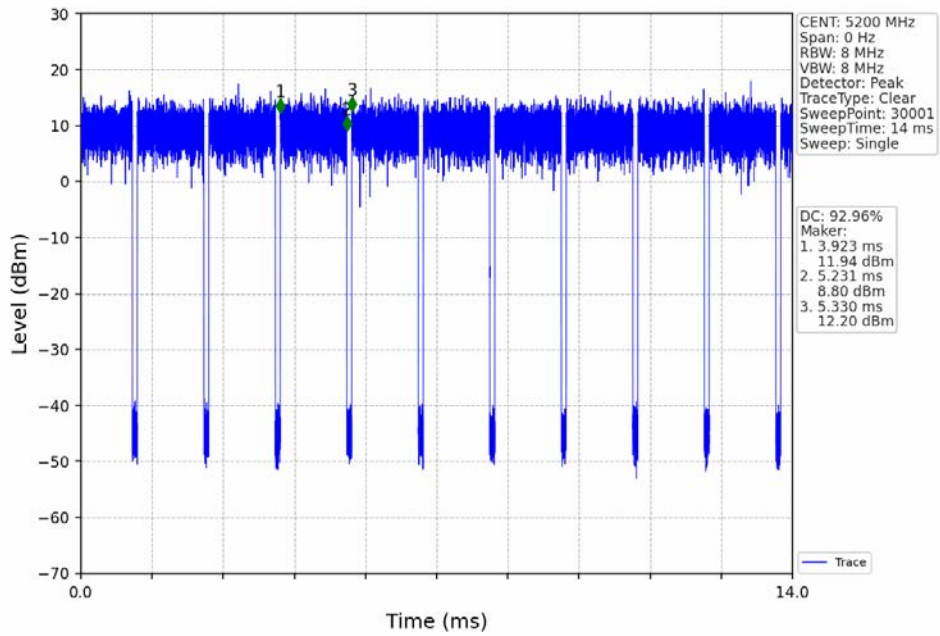
802.11a\_HCH\_5240MHz\_Ant1\_NTNV



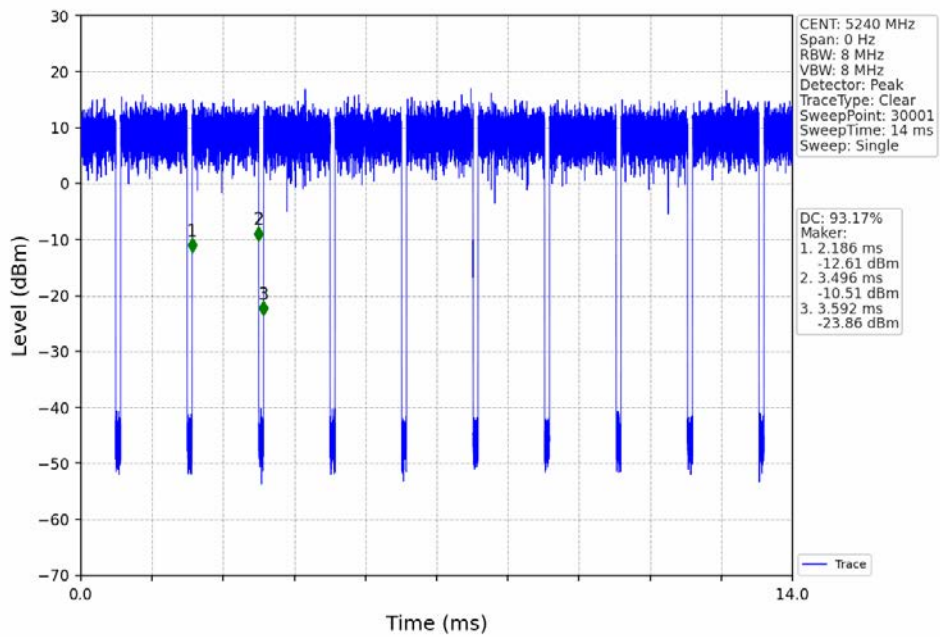
802.11n(HT20)\_LCH\_5180MHz\_Ant1\_NTNV



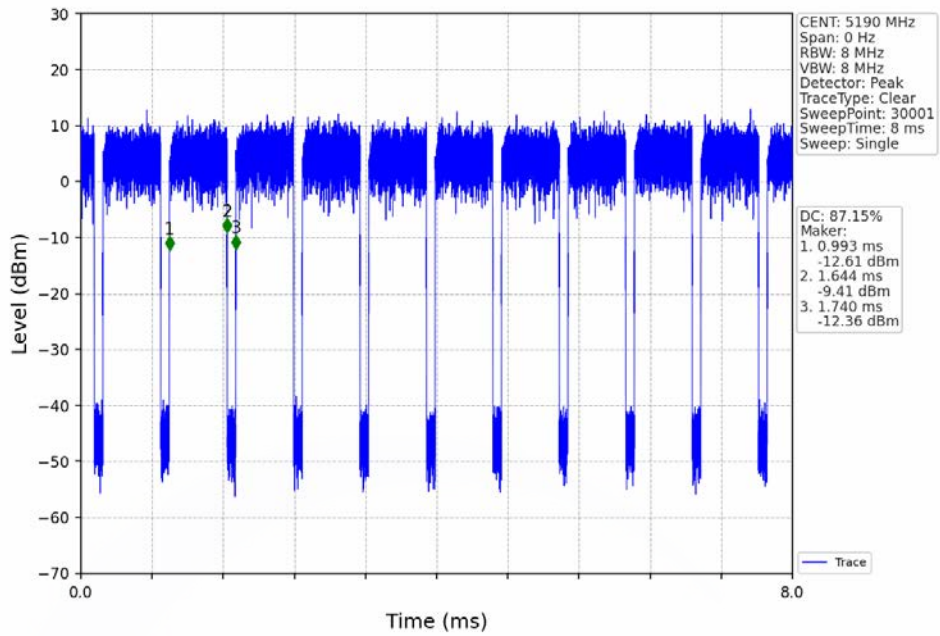
802.11n(HT20)\_MCH\_5200MHz\_Ant1\_NTNV



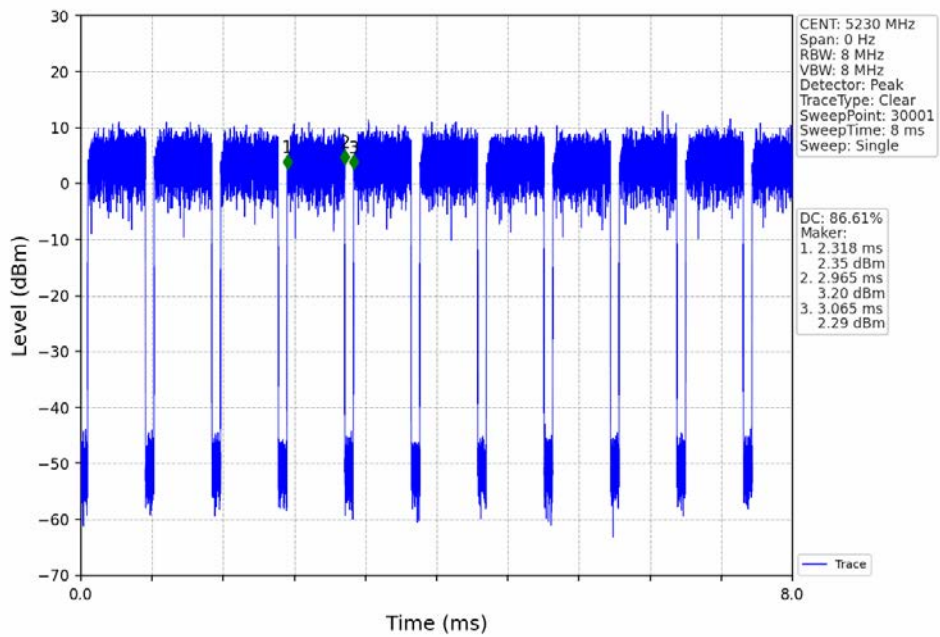
802.11n(HT20)\_HCH\_5240MHz\_Ant1\_NTNV



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

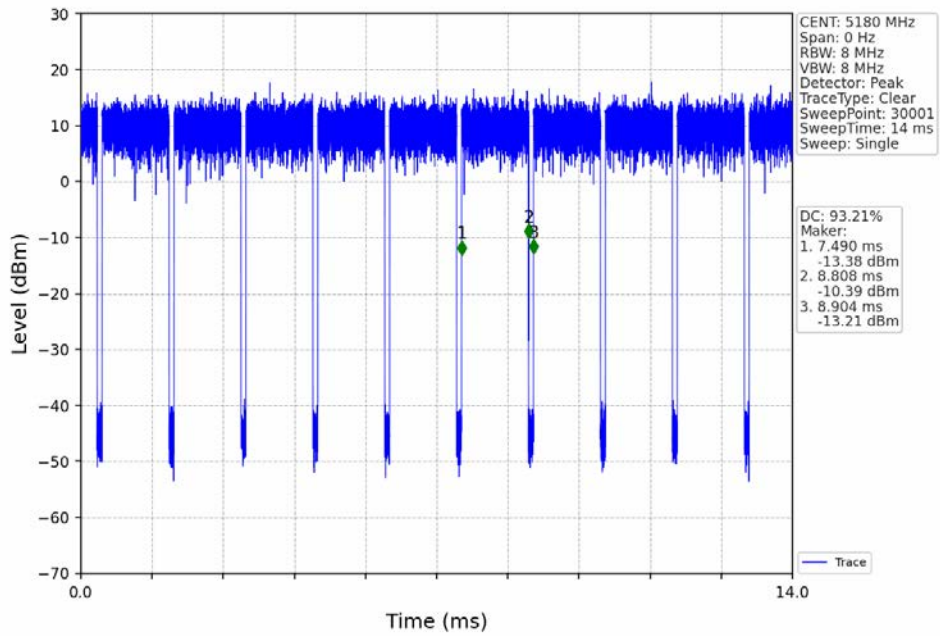


802.11n(HT40)\_HCH\_5230MHz\_Ant1\_NTNV

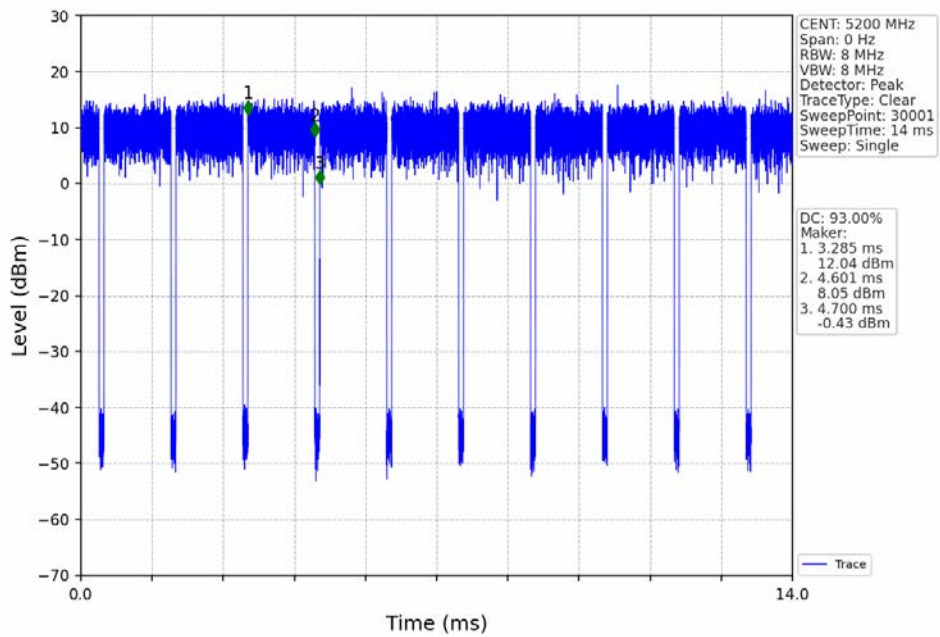




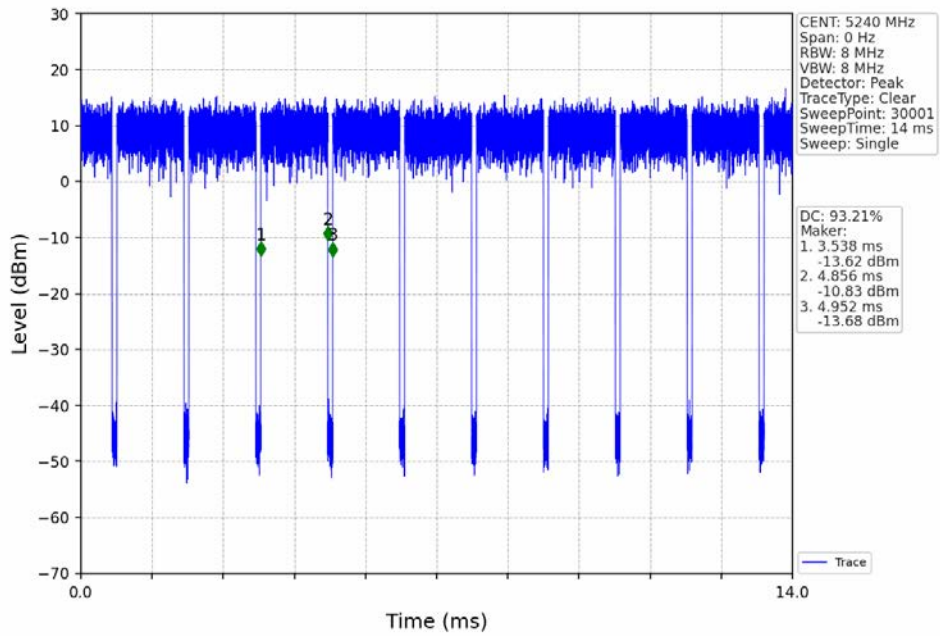
802.11ac(VHT20)\_LCH\_5180MHz\_Ant1\_NTNV



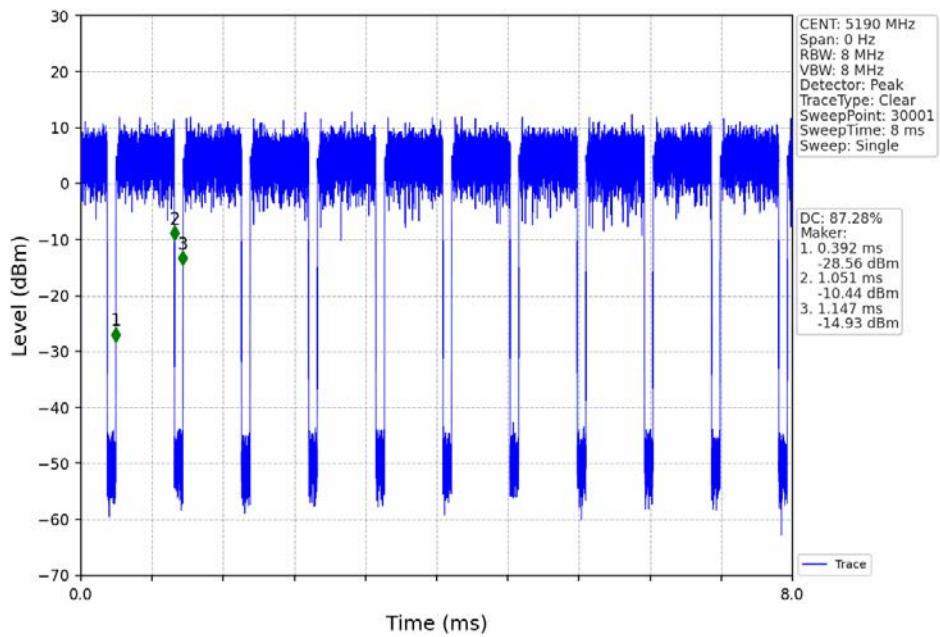
802.11ac(VHT20)\_MCH\_5200MHz\_Ant1\_NTNV



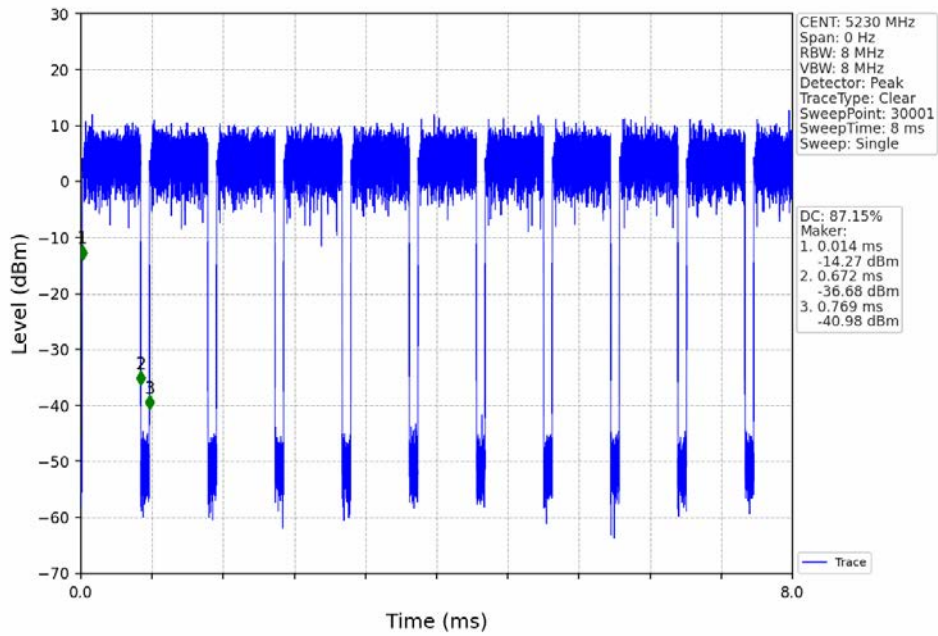
802.11ac(VHT20)\_HCH\_5240MHz\_Ant1\_NTNV



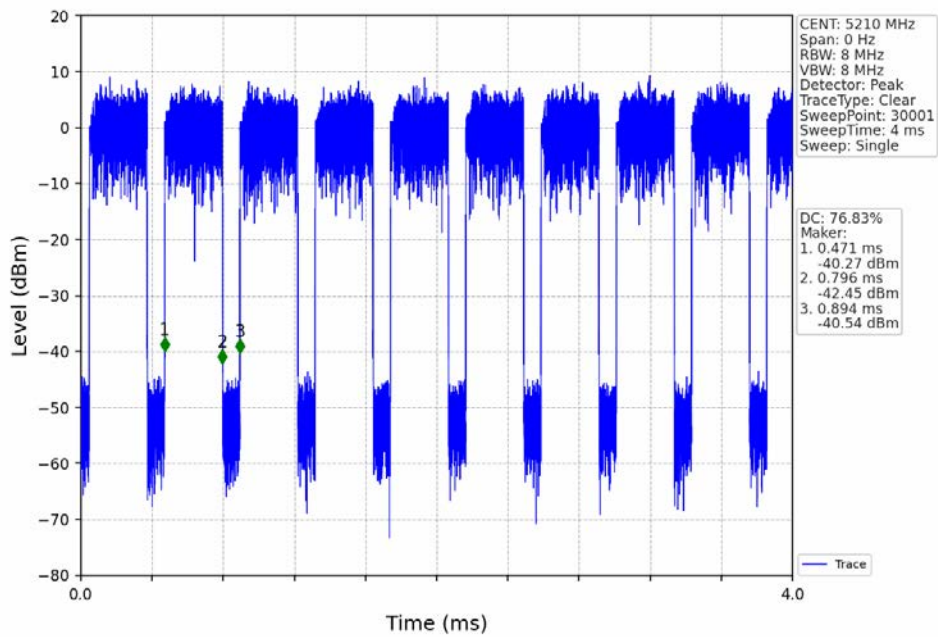
802.11ac(VHT40)\_LCH\_5190MHz\_Ant1\_NTNV



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

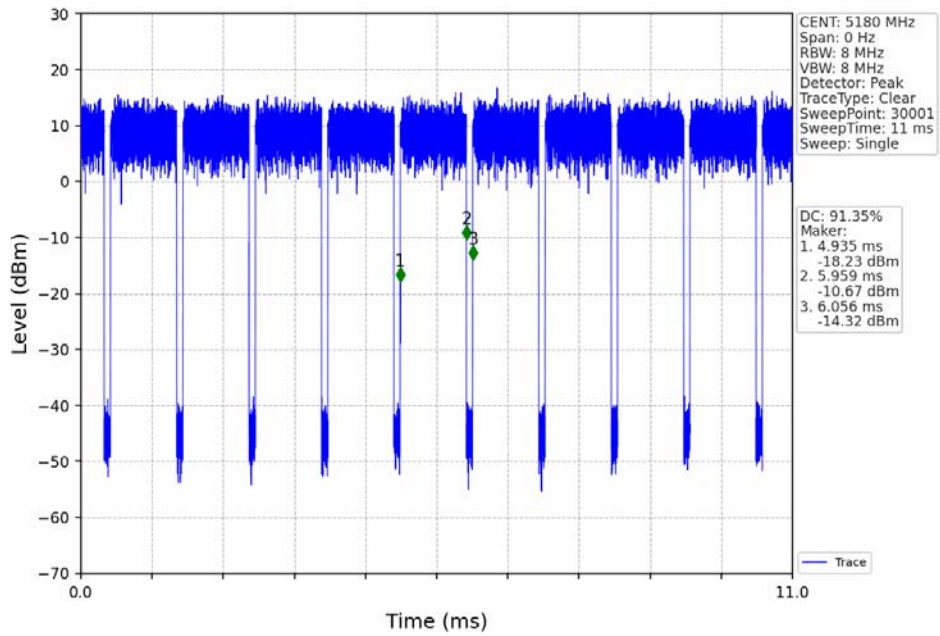


802.11ac(VHT80)\_MCH\_5210MHz\_Ant1\_NTNV

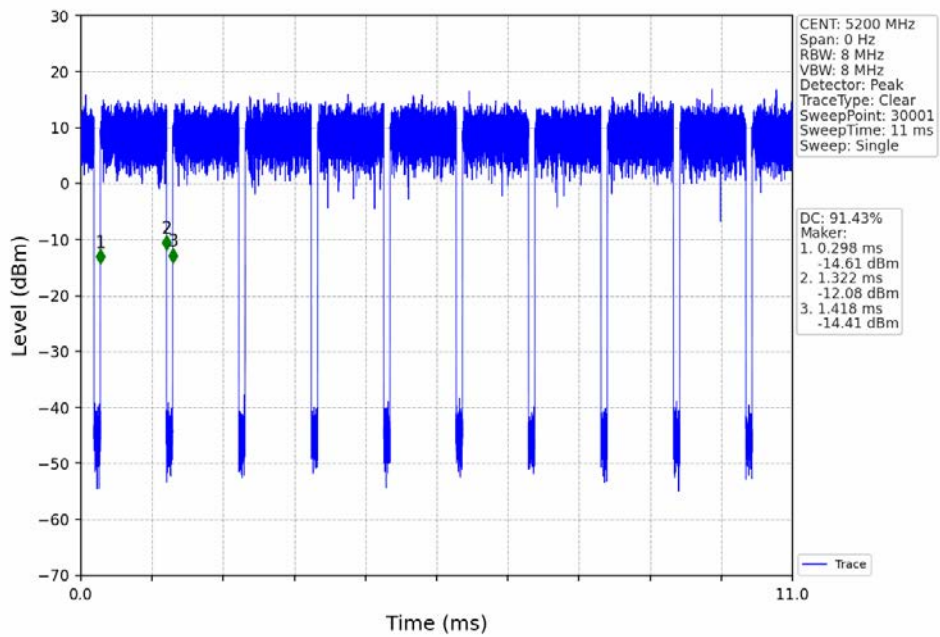




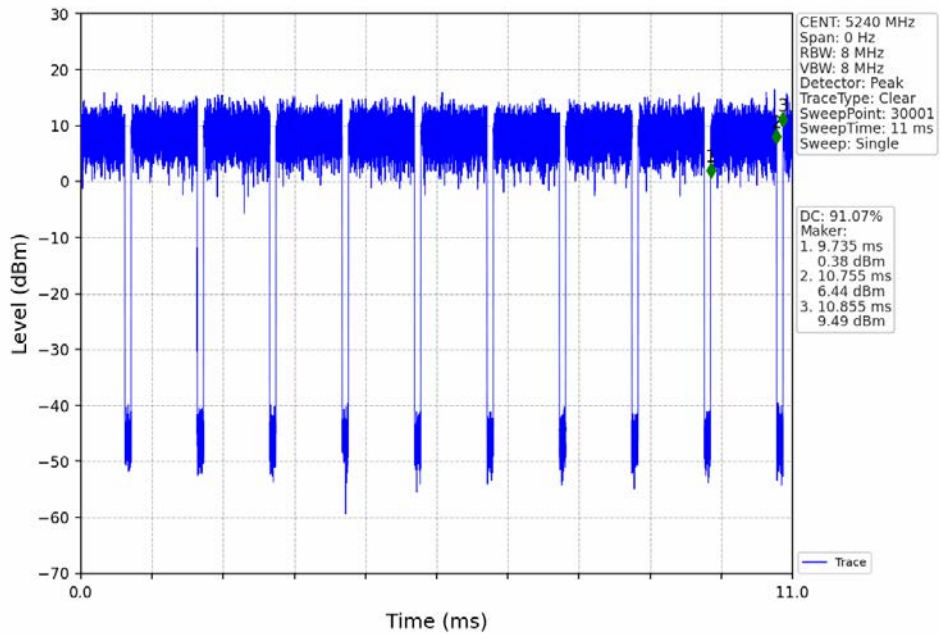
802.11ax(HEW20)\_LCH\_5180MHz\_RU242\_Left\_Ant1\_NTNV



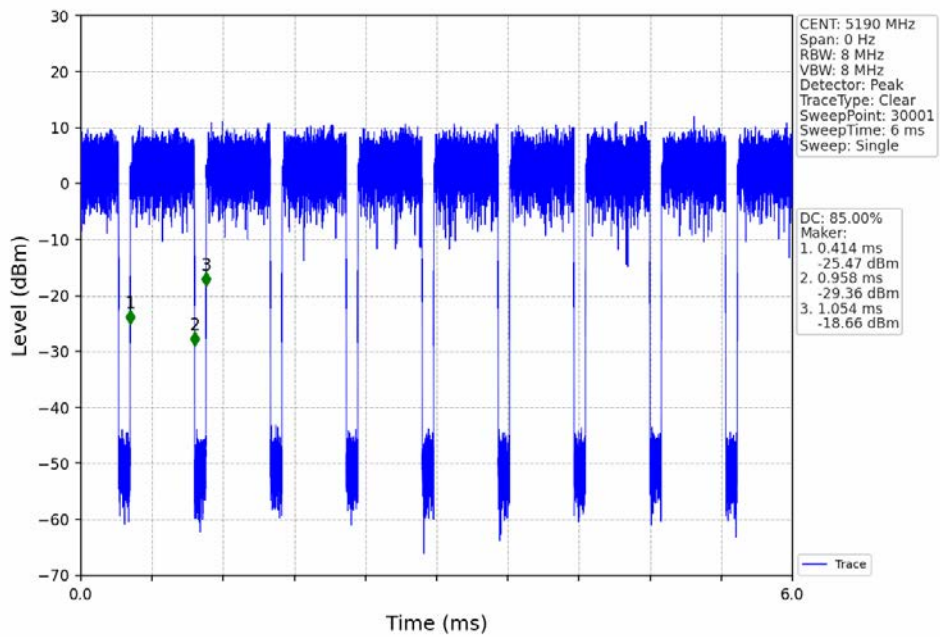
802.11ax(HEW20)\_MCH\_5200MHz\_RU242\_Left\_Ant1\_NTNV



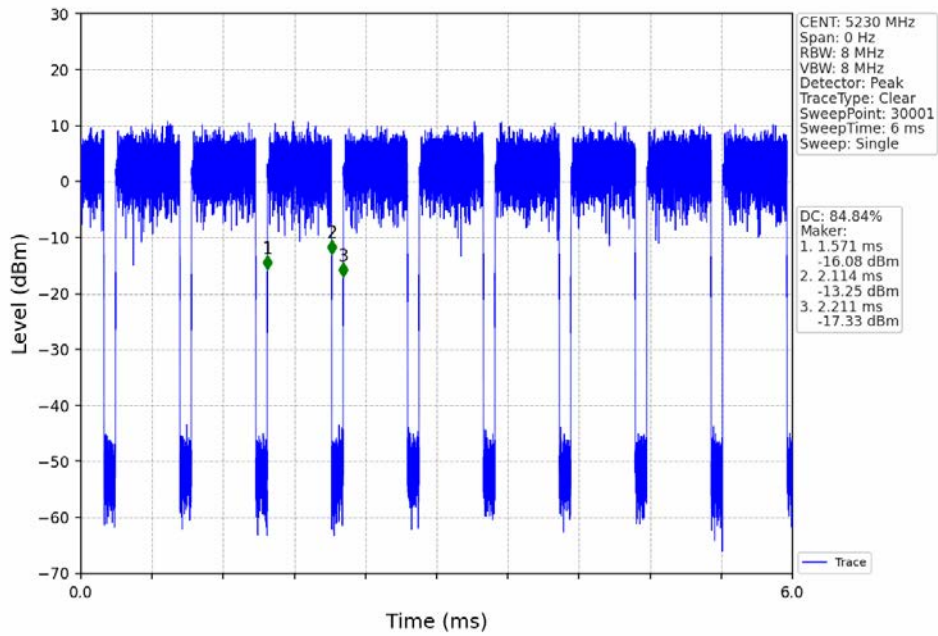
802.11ax(HEW20)\_HCH\_5240MHz\_RU242\_Left\_Ant1\_NTNV



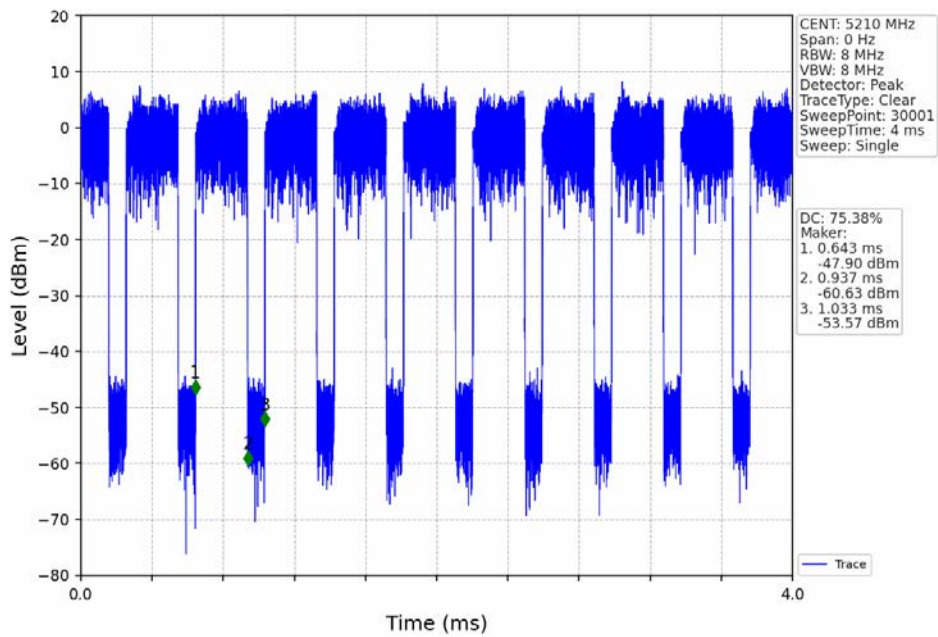
802.11ax(HEW40)\_LCH\_5190MHz\_RU484\_Left\_Ant1\_NTNV



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



802.11ax(HEW80)\_MCH\_5210MHz\_RU996\_Left\_Ant1\_NTNV



## 2. Bandwidth

### 2.1 Test Result

#### 2.1.1 OBW

Mode	TX Type	Frequency (MHz)	RU	RU Pos	ANT	99% Occupied Bandwidth (MHz)		Verdict
						Result	Limit	
802.11a	SISO	5180	/	/	1	17.633	/	Pass
		5200	/	/	1	17.603	/	Pass
		5240	/	/	1	17.567	/	Pass
802.11n (HT20)	MIMO	5180	/	/	1	18.587	/	Pass
		5200	/	/	1	18.561	/	Pass
		5240	/	/	1	18.522	/	Pass
802.11n (HT40)	MIMO	5190	/	/	1	36.272	/	Pass
		5230	/	/	1	36.291	/	Pass
802.11ac (VHT20)	MIMO	5180	/	/	1	18.566	/	Pass
		5200	/	/	1	18.480	/	Pass
		5240	/	/	1	18.506	/	Pass
802.11ac (VHT40)	MIMO	5190	/	/	1	36.250	/	Pass
		5230	/	/	1	36.165	/	Pass
802.11ac (VHT80)	MIMO	5210	/	/	1	75.627	/	Pass
802.11ax (HEW20)	MIMO	5180	RU242	Left	1	19.167	/	Pass
		5200	RU242	Left	1	19.172	/	Pass
		5240	RU242	Left	1	19.138	/	Pass
802.11ax (HEW40)	MIMO	5190	RU484	Left	1	37.828	/	Pass
		5230	RU484	Left	1	37.900	/	Pass
802.11ax (HEW80)	MIMO	5210	RU996	Left	1	77.773	/	Pass

#### 2.1.2 26dB BW

Mode	TX Type	Frequency (MHz)	RU	RU Pos	ANT	26dB Bandwidth (MHz)		Verdict
						Result	Limit	
802.11a	SISO	5180	/	/	1	20.713	/	Pass
		5200	/	/	1	20.592	/	Pass
		5240	/	/	1	20.602	/	Pass
802.11n (HT20)	MIMO	5180	/	/	1	20.940	/	Pass
		5200	/	/	1	20.998	/	Pass
		5240	/	/	1	20.934	/	Pass
802.11n (HT40)	MIMO	5190	/	/	1	39.138	/	Pass
		5230	/	/	1	39.189	/	Pass
802.11ac (VHT20)	MIMO	5180	/	/	1	21.088	/	Pass
		5200	/	/	1	21.169	/	Pass
		5240	/	/	1	20.917	/	Pass
802.11ac (VHT40)	MIMO	5190	/	/	1	38.937	/	Pass
		5230	/	/	1	39.339	/	Pass
802.11ac (VHT80)	MIMO	5210	/	/	1	80.344	/	Pass
802.11ax (HEW20)	MIMO	5180	RU242	Left	1	21.299	/	Pass
		5200	RU242	Left	1	21.212	/	Pass
		5240	RU242	Left	1	21.362	/	Pass
802.11ax (HEW40)	MIMO	5190	RU484	Left	1	40.134	/	Pass
		5230	RU484	Left	1	40.186	/	Pass
802.11ax	MIMO	5210	RU996	Left	1	81.485	/	Pass



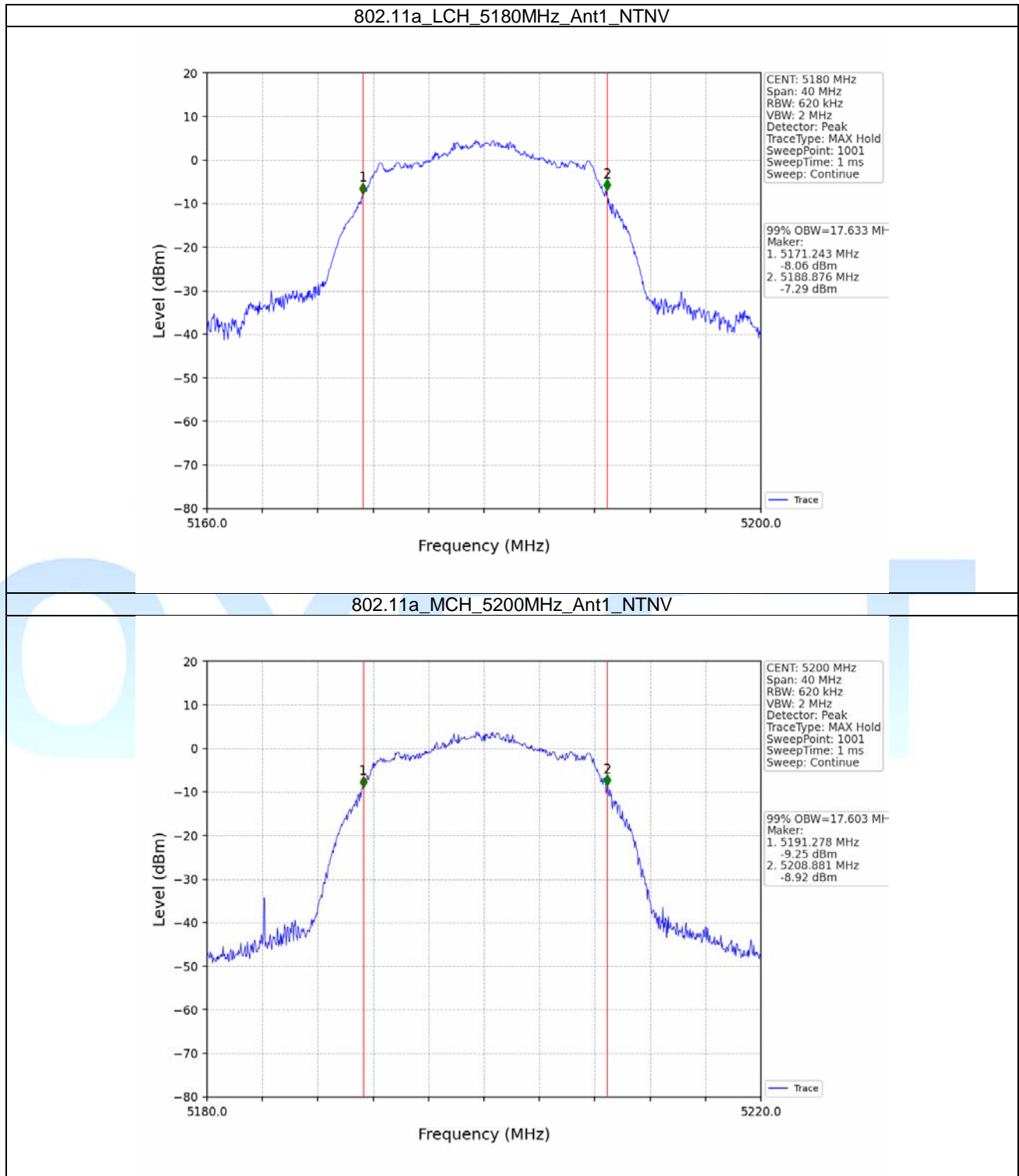
(HEW80)									
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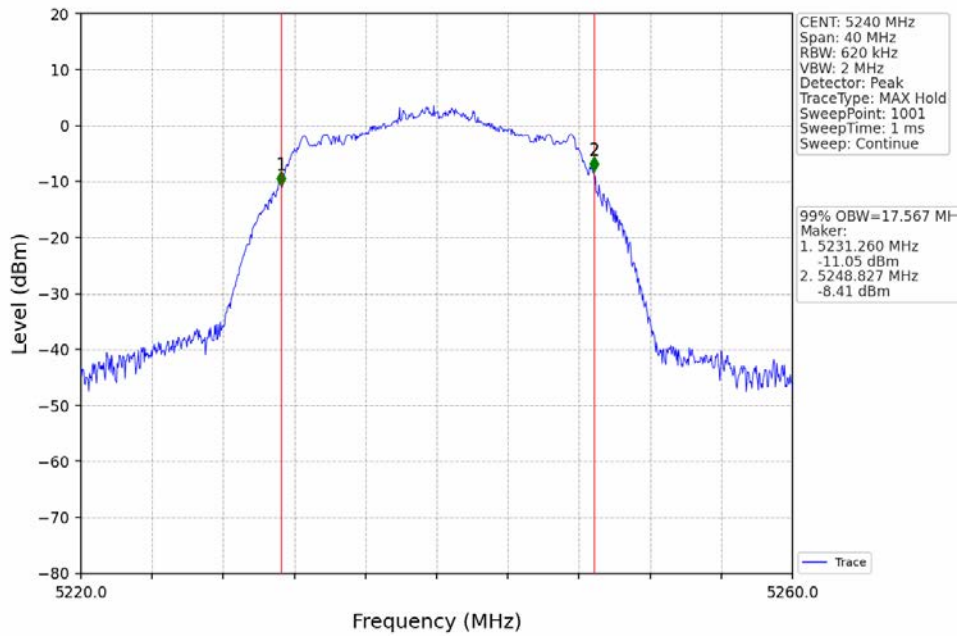


## 2.2 Test Graph

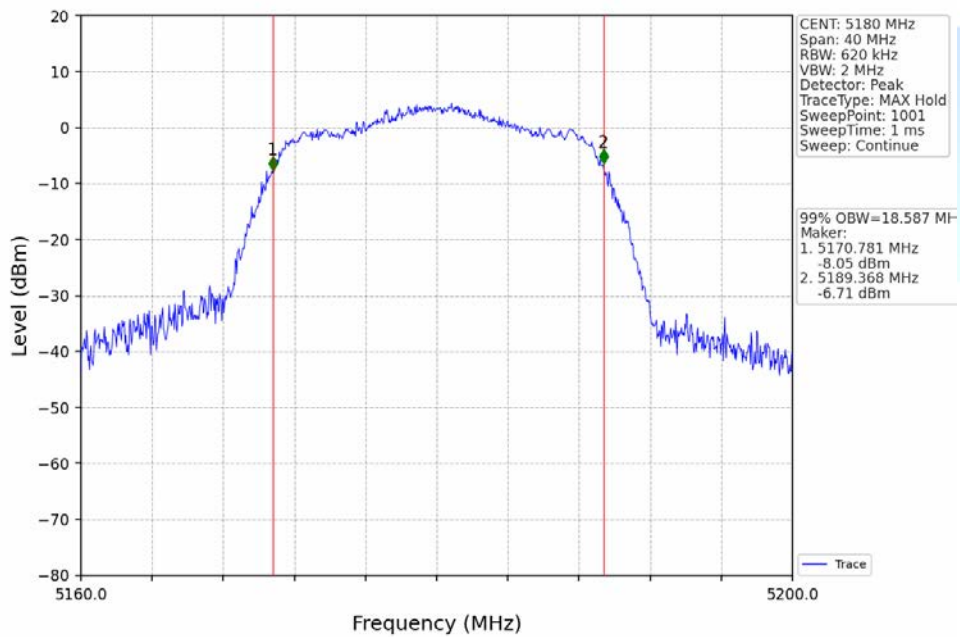
### 2.2.1 OBW



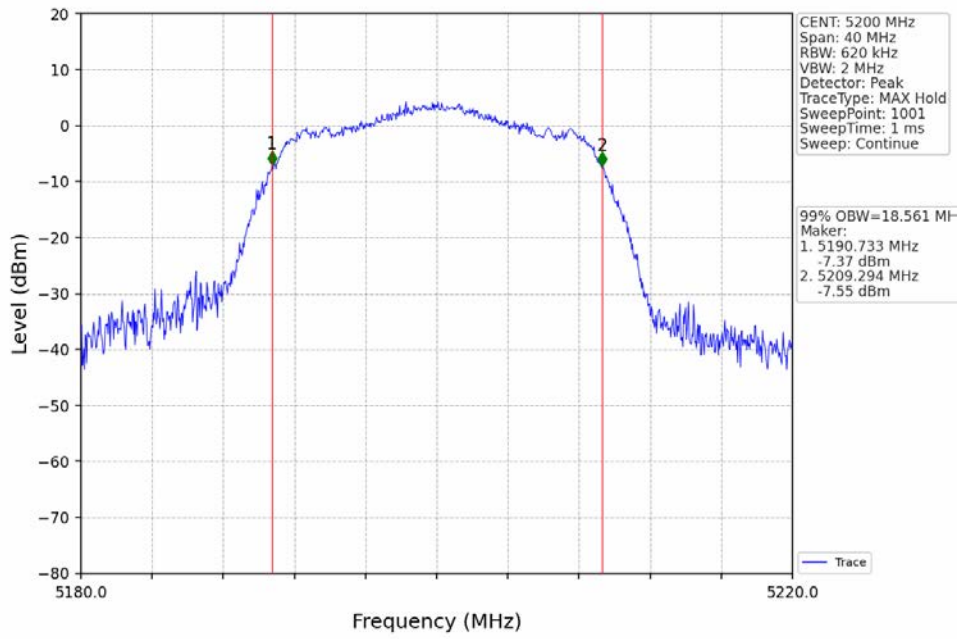
802.11a\_HCH\_5240MHz\_Ant1\_NTNV



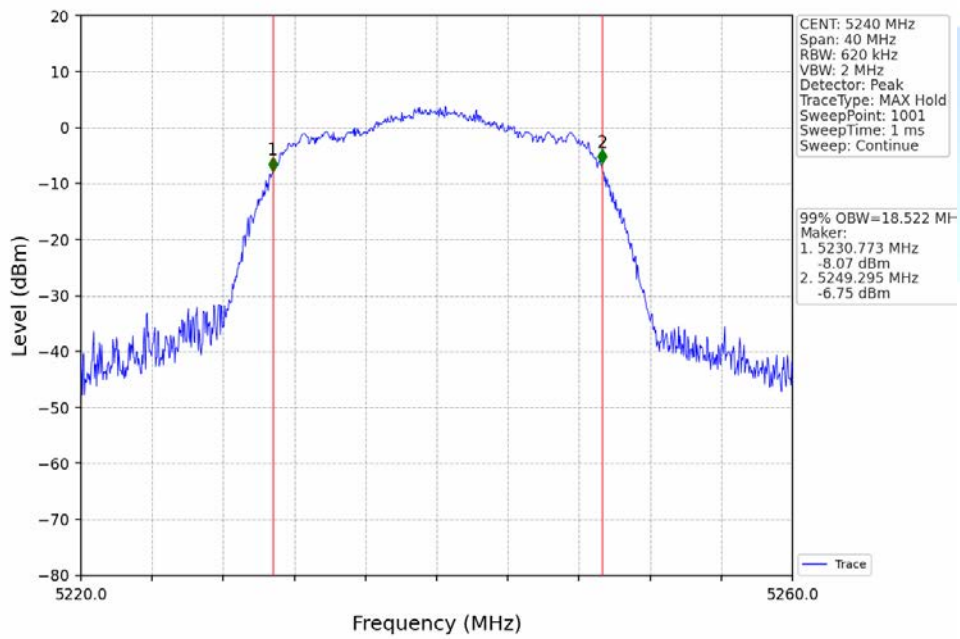
802.11n(HT20)\_LCH\_5180MHz\_Ant1\_NTNV



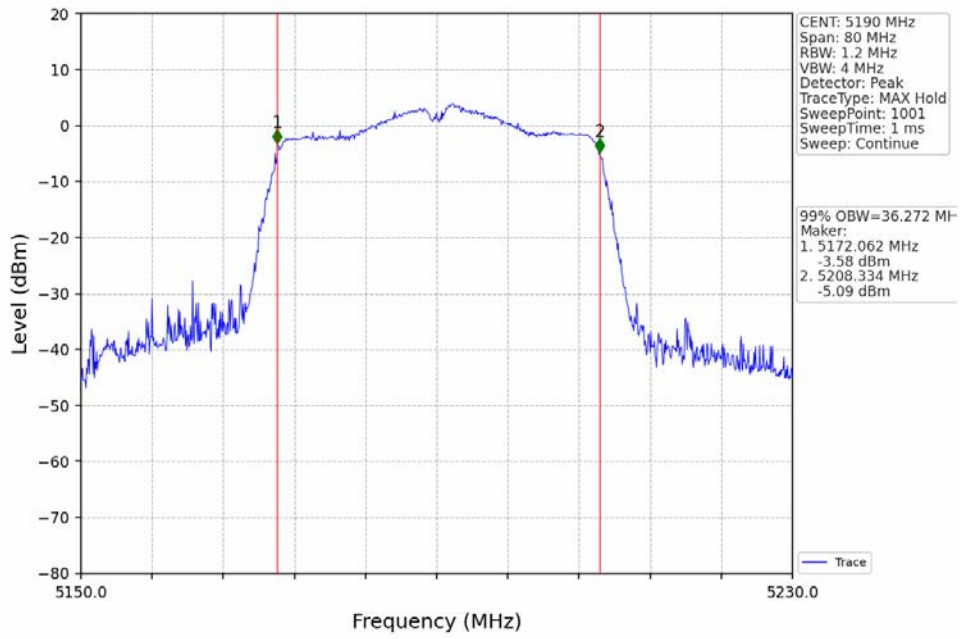
802.11n(HT20)\_MCH\_5200MHz\_Ant1\_NTNV



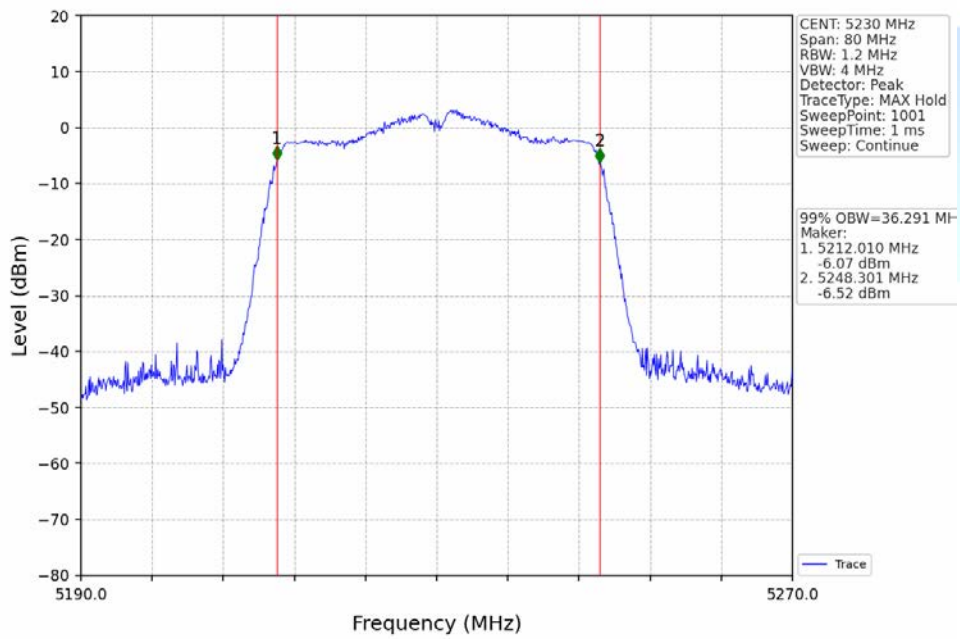
802.11n(HT20)\_HCH\_5240MHz\_Ant1\_NTNV



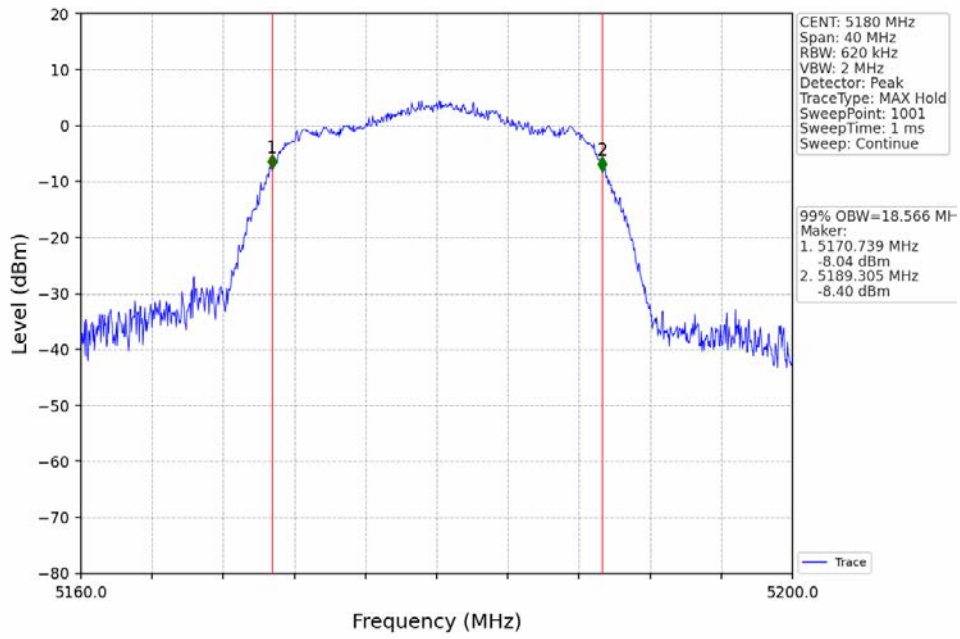
802.11n(HT40)\_LCH\_5190MHz\_Ant1\_NTNV



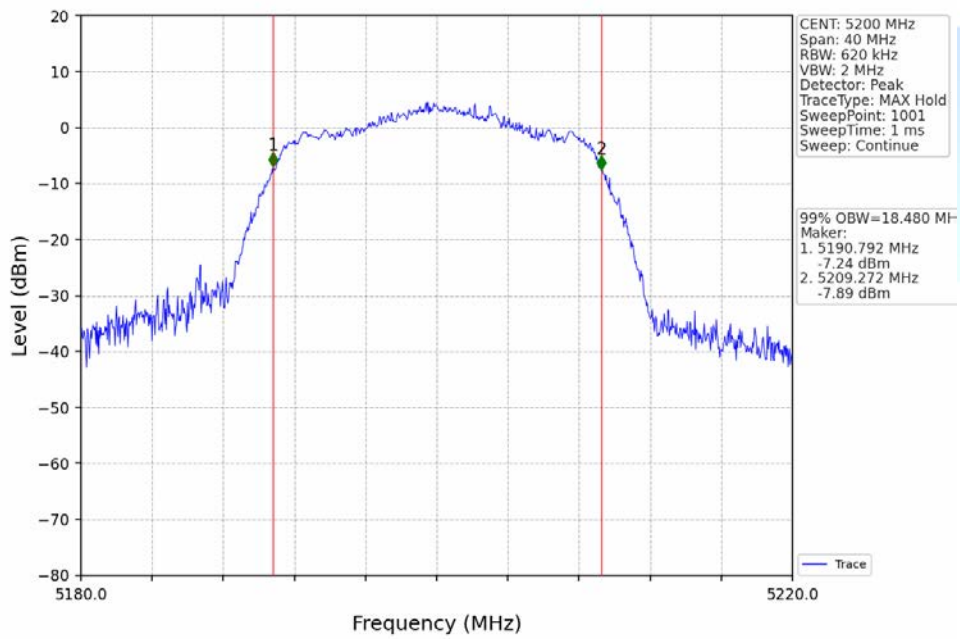
802.11n(HT40)\_HCH\_5230MHz\_Ant1\_NTNV



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

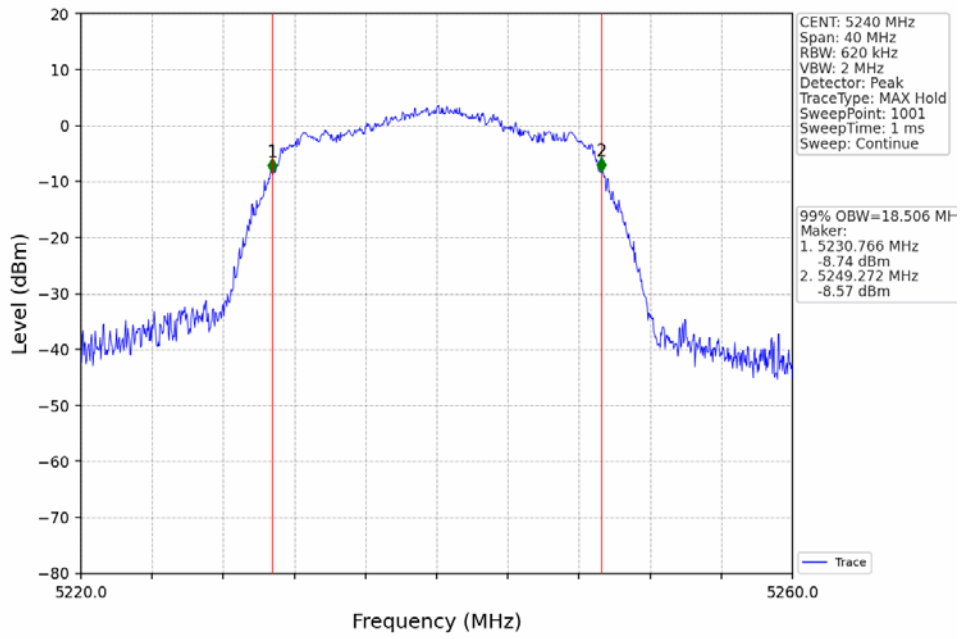


802.11ac(VHT20)\_MCH\_5200MHz\_Ant1\_NTNV

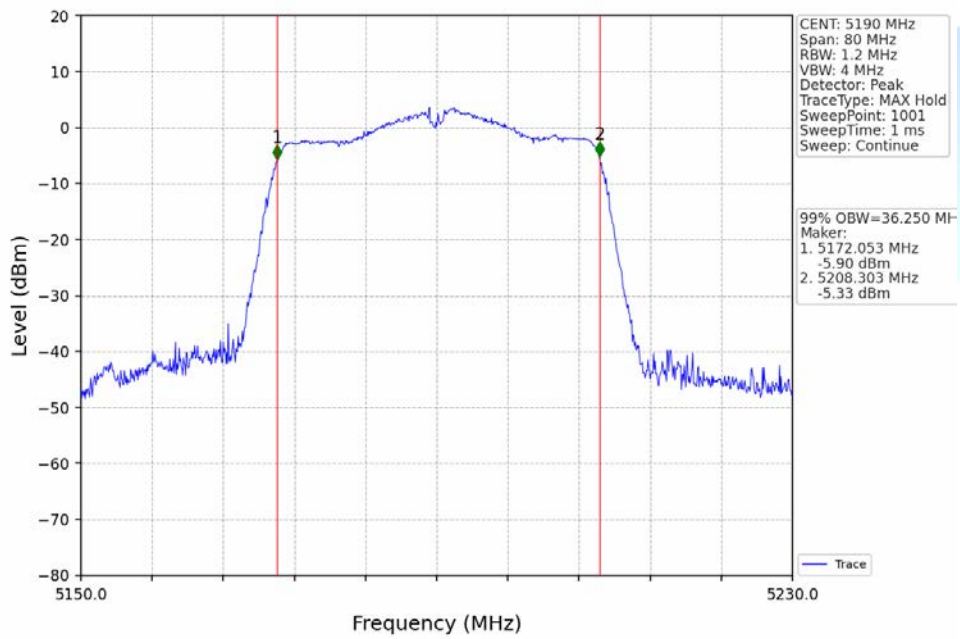




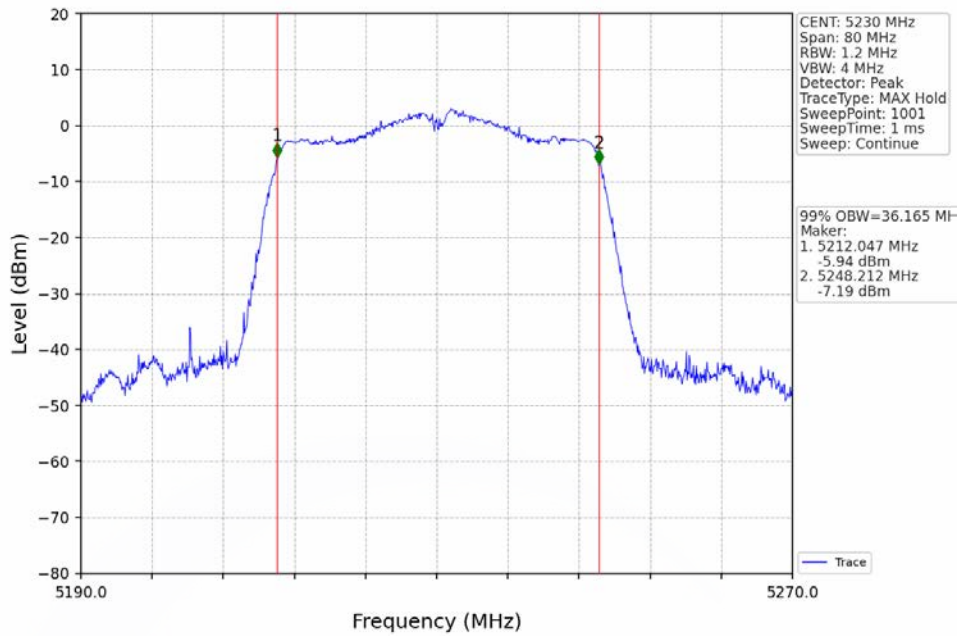
802.11ac(VHT20)\_HCH\_5240MHz\_Ant1\_NTNV



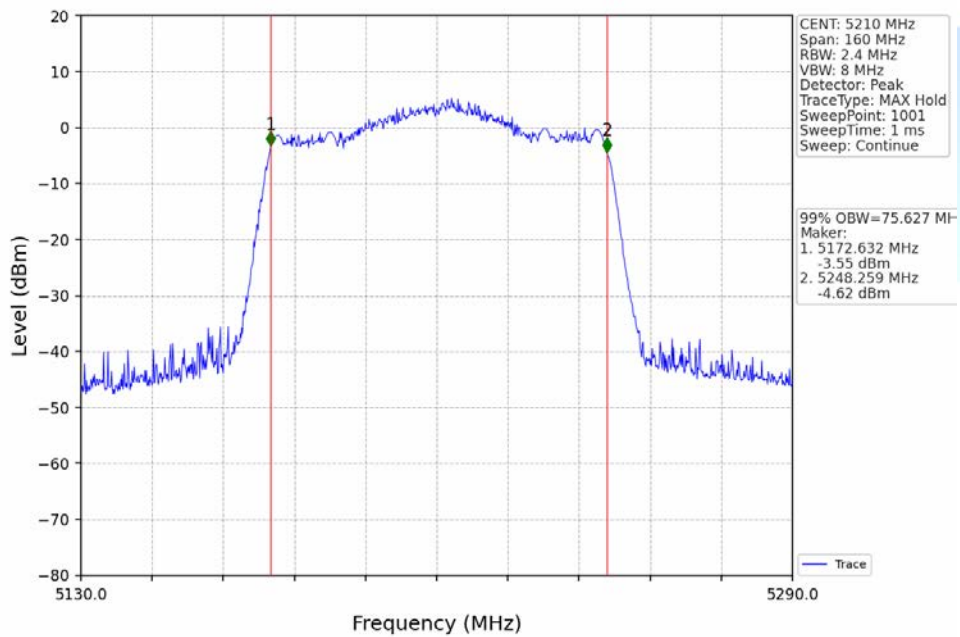
802.11ac(VHT40)\_LCH\_5190MHz\_Ant1\_NTNV



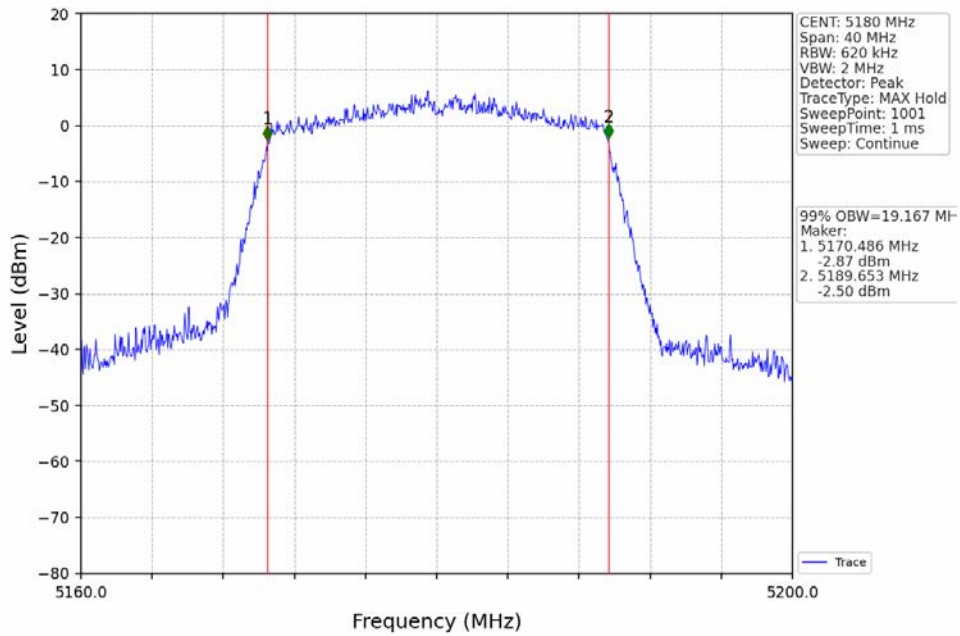
802.11ac(VHT40)\_HCH\_5230MHz\_Ant1\_NTNV



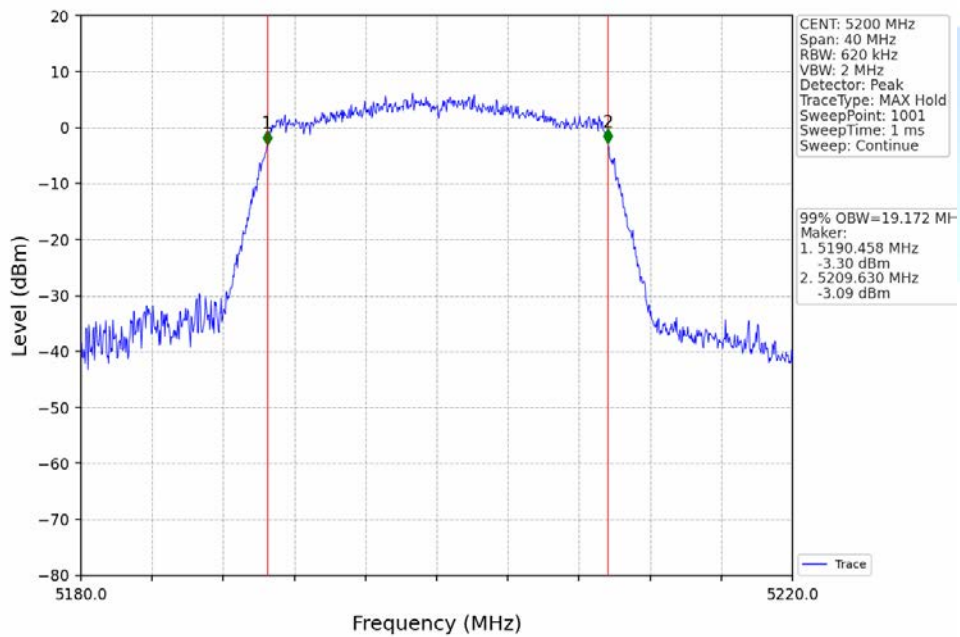
802.11ac(VHT80)\_MCH\_5210MHz\_Ant1\_NTNV



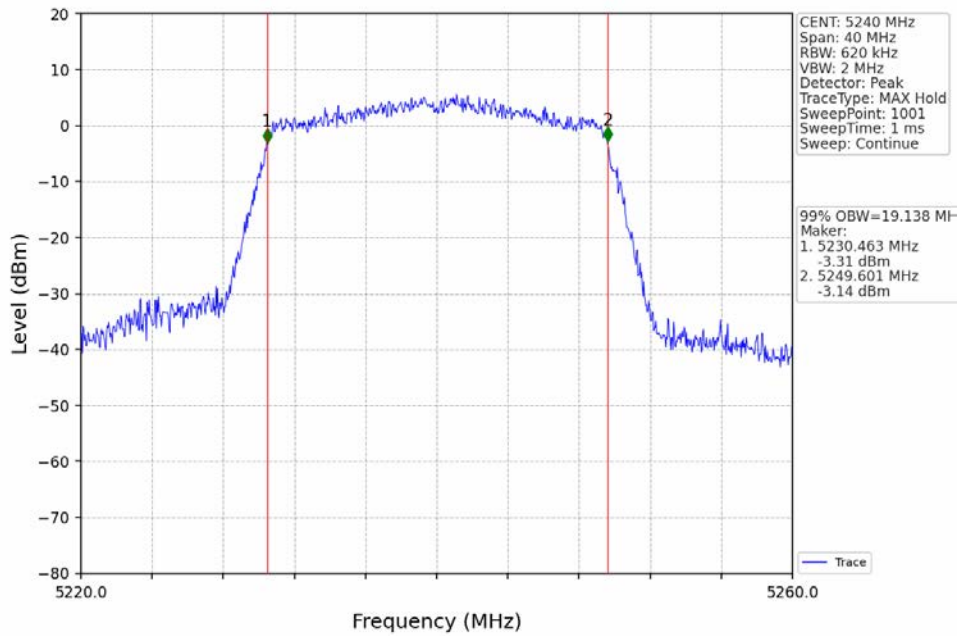
802.11ax(HEW20)\_LCH\_5180MHz\_RU242\_Left\_Ant1\_NTNV



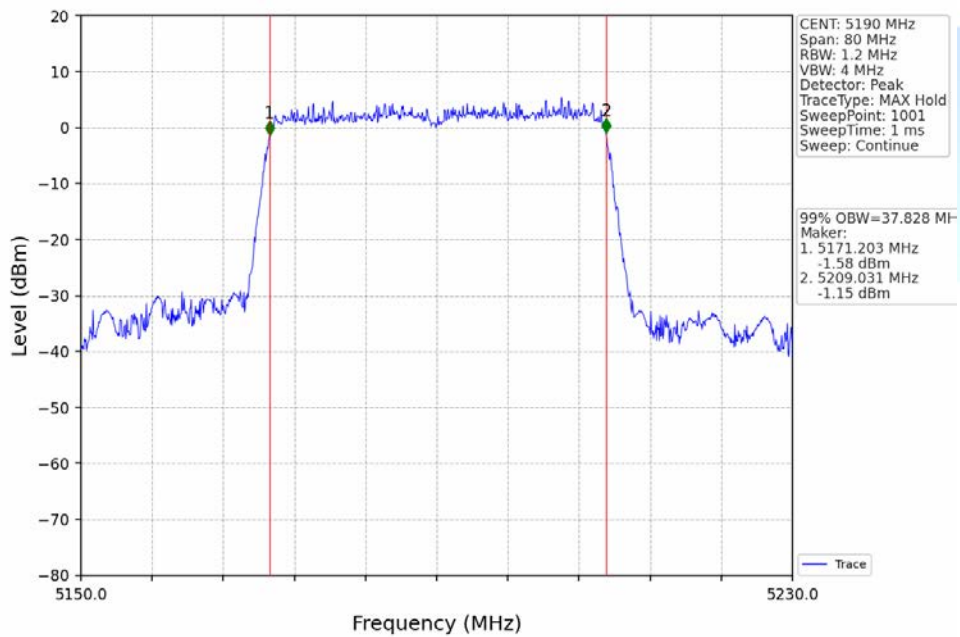
802.11ax(HEW20)\_MCH\_5200MHz\_RU242\_Left\_Ant1\_NTNV



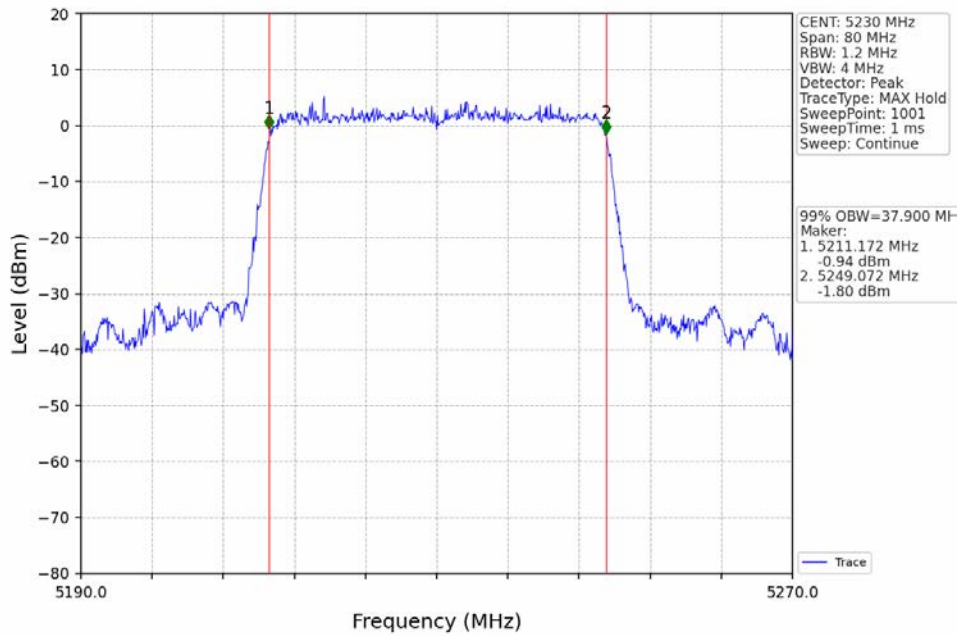
802.11ax(HEW20)\_HCH\_5240MHz\_RU242\_Left\_Ant1\_NTNV



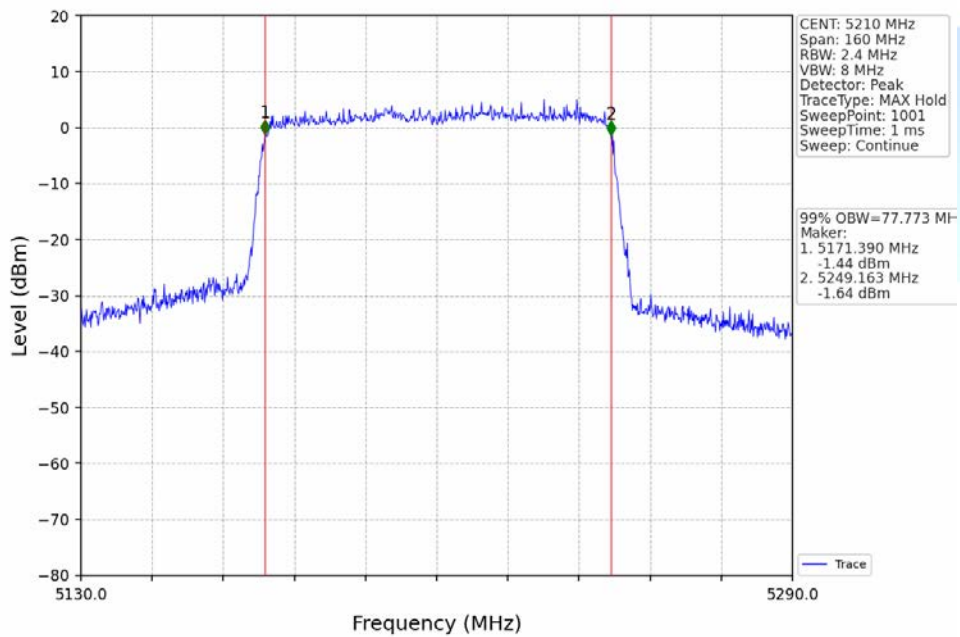
802.11ax(HEW40)\_LCH\_5190MHz\_RU484\_Left\_Ant1\_NTNV



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

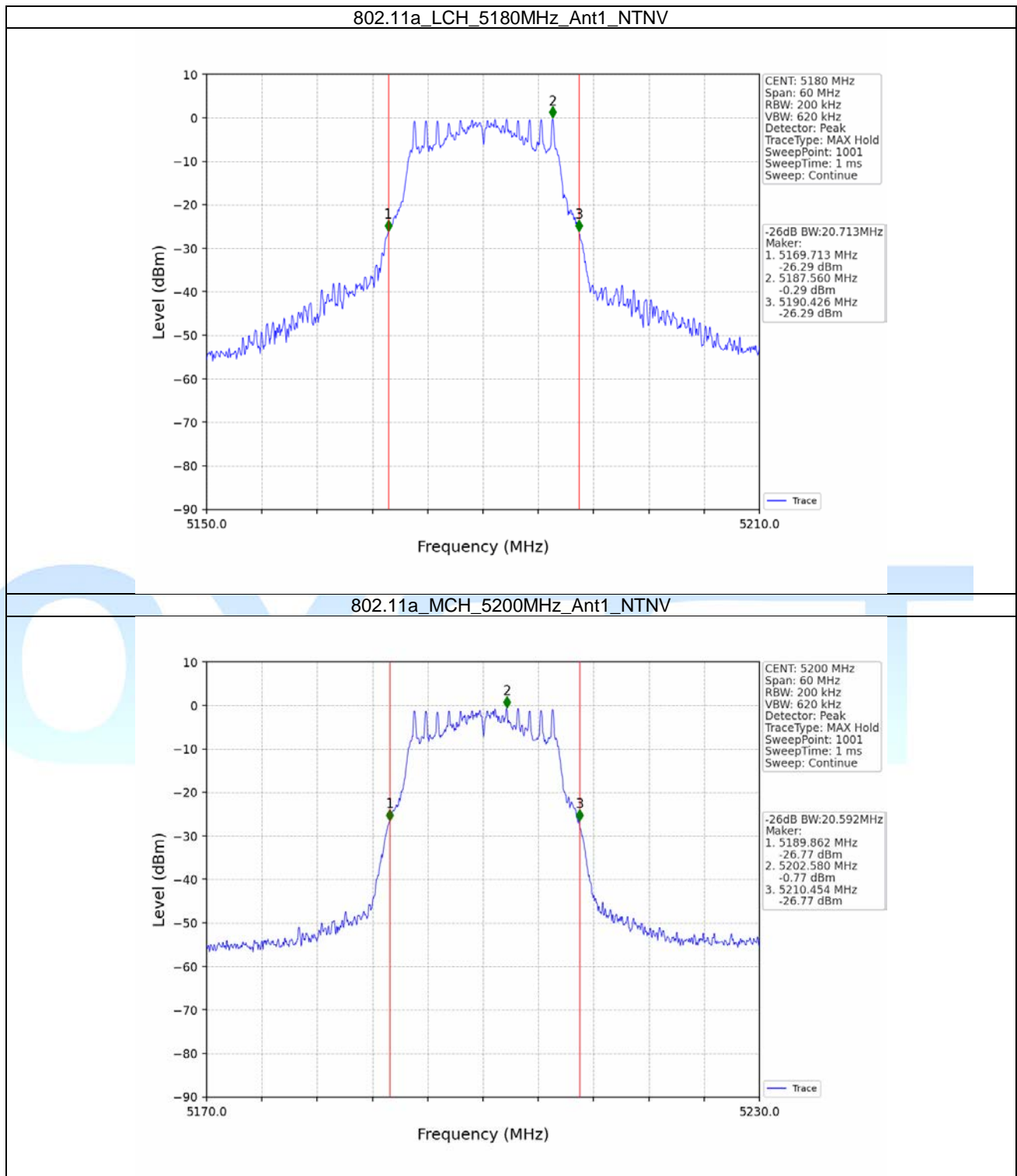


802.11ax(HEW80)\_MCH\_5210MHz\_RU996\_Left\_Ant1\_NTNV

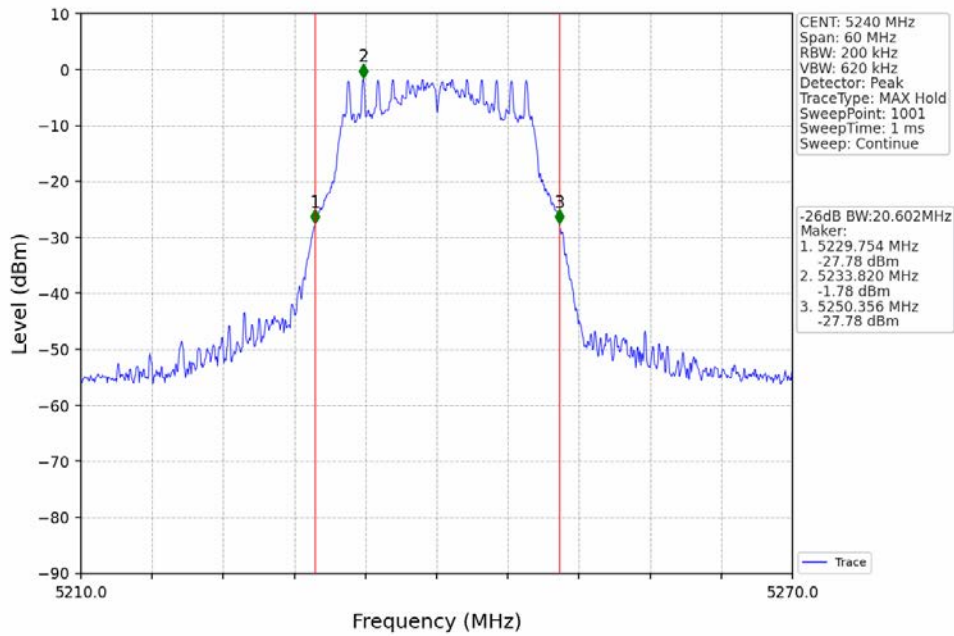




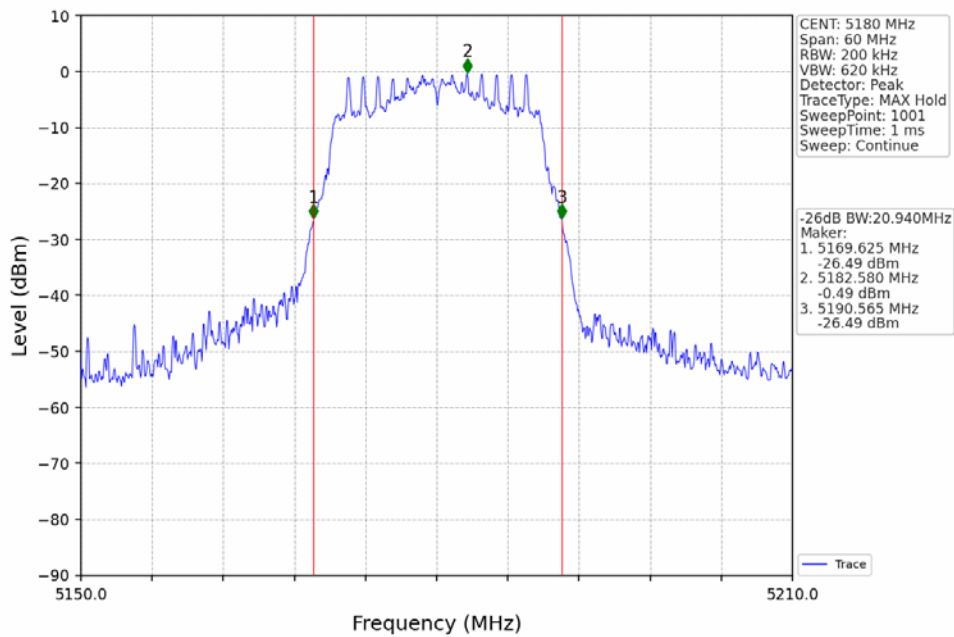
### 2.2.2 26dB BW



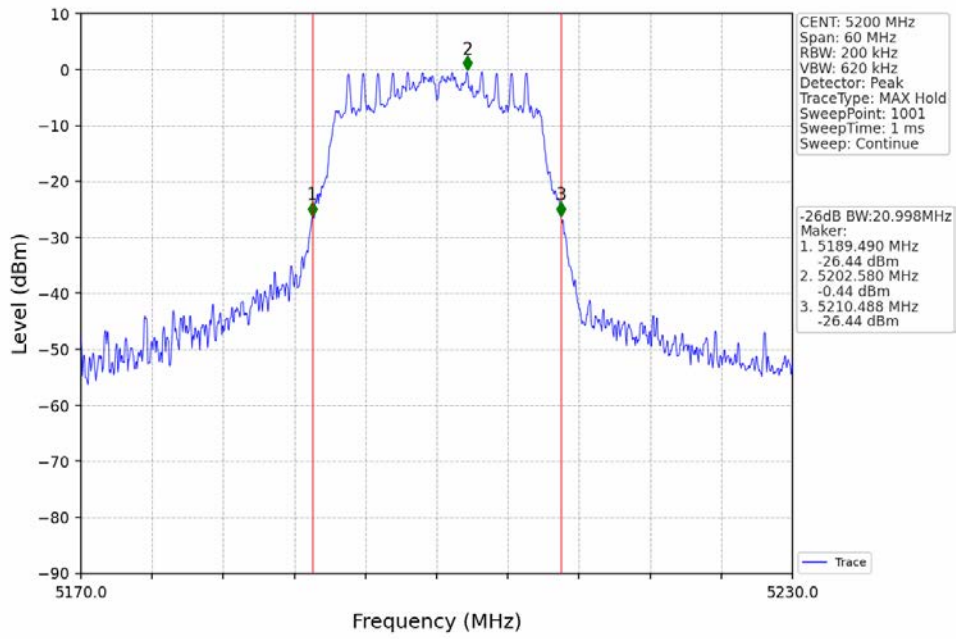
802.11a\_HCH\_5240MHz\_Ant1\_NTNV



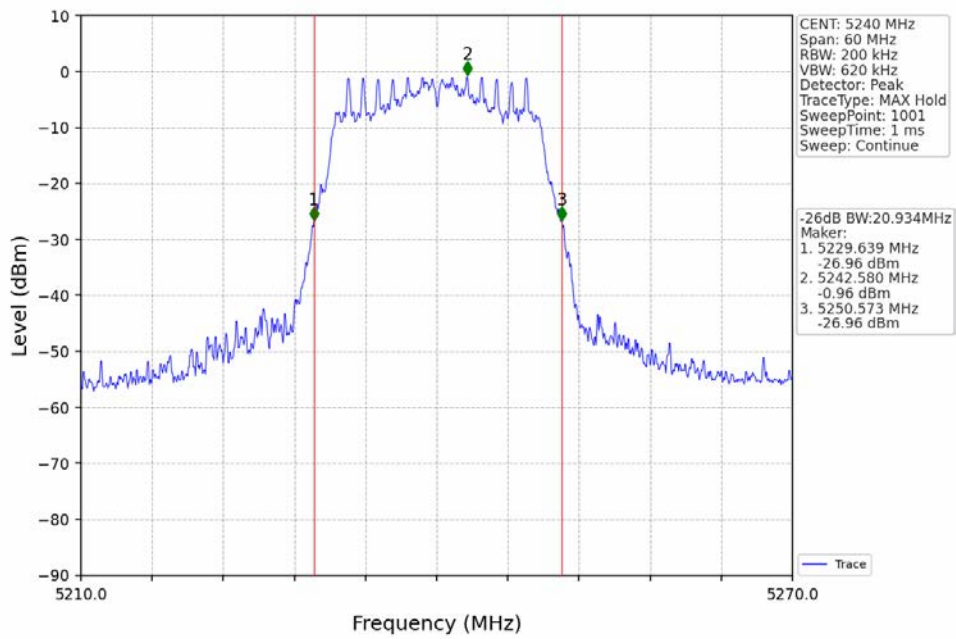
802.11n(HT20)\_LCH\_5180MHz\_Ant1\_NTNV



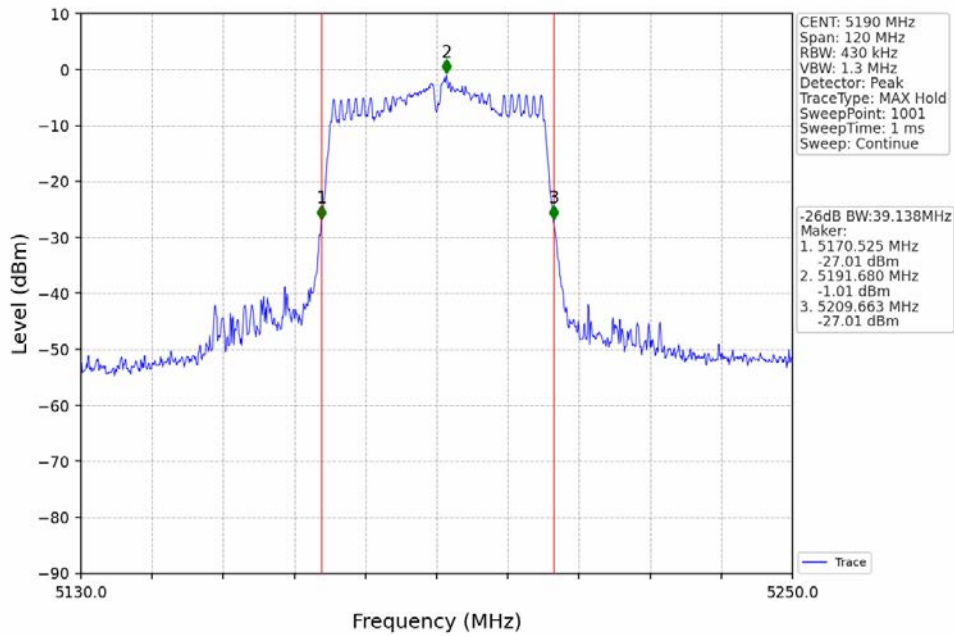
802.11n(HT20)\_MCH\_5200MHz\_Ant1\_NTNV



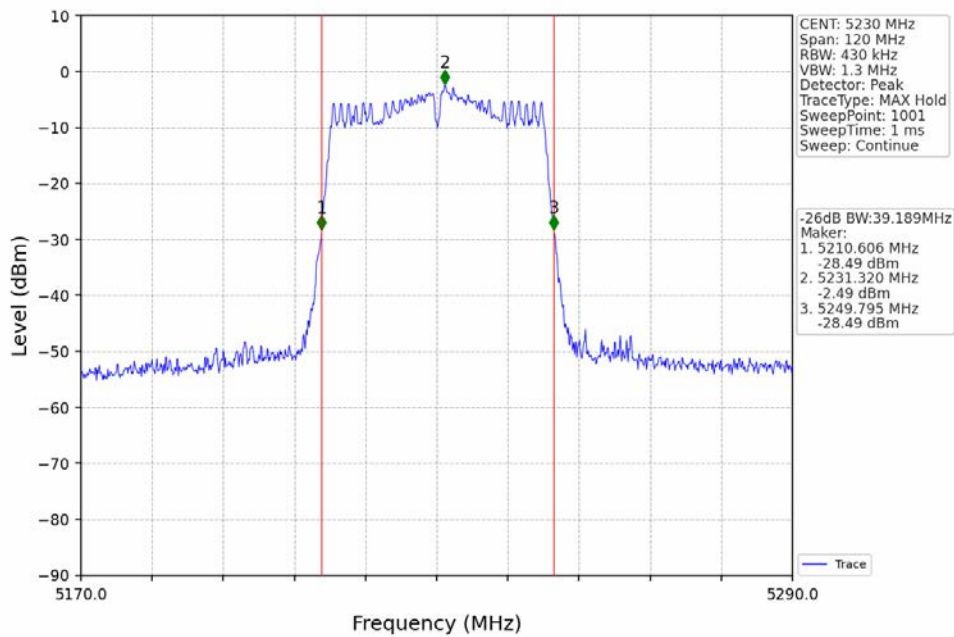
802.11n(HT20)\_HCH\_5240MHz\_Ant1\_NTNV



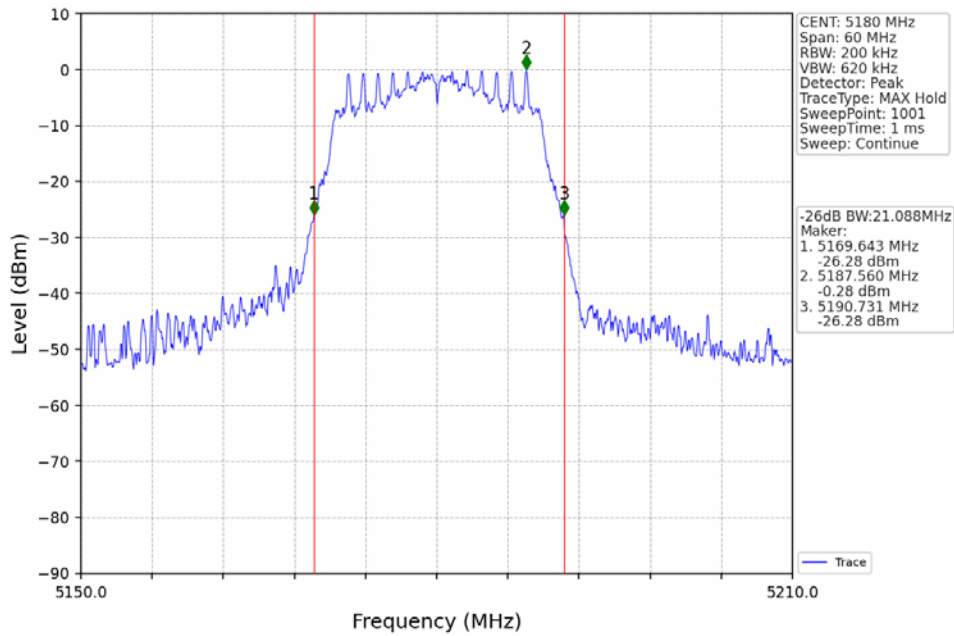
802.11n(HT40)\_LCH\_5190MHz\_Ant1\_NTNV



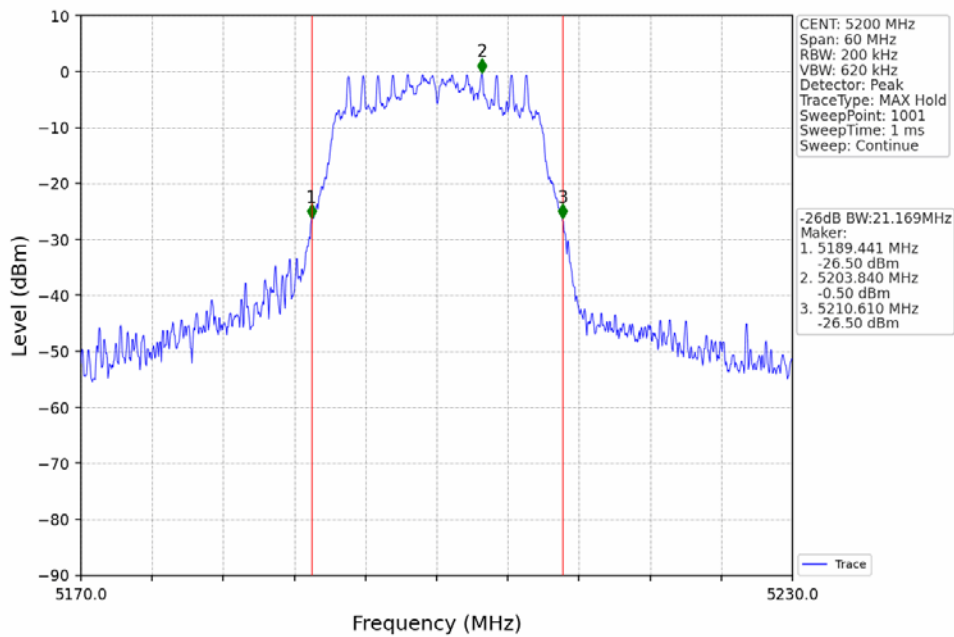
802.11n(HT40)\_HCH\_5230MHz\_Ant1\_NTNV



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

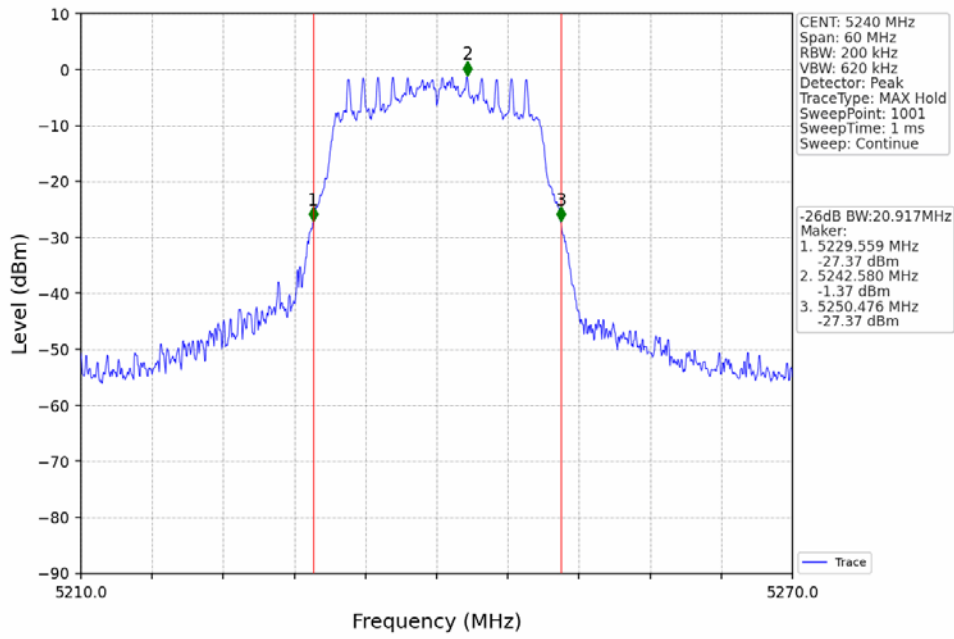


802.11ac(VHT20)\_MCH\_5200MHz\_Ant1\_NTNV

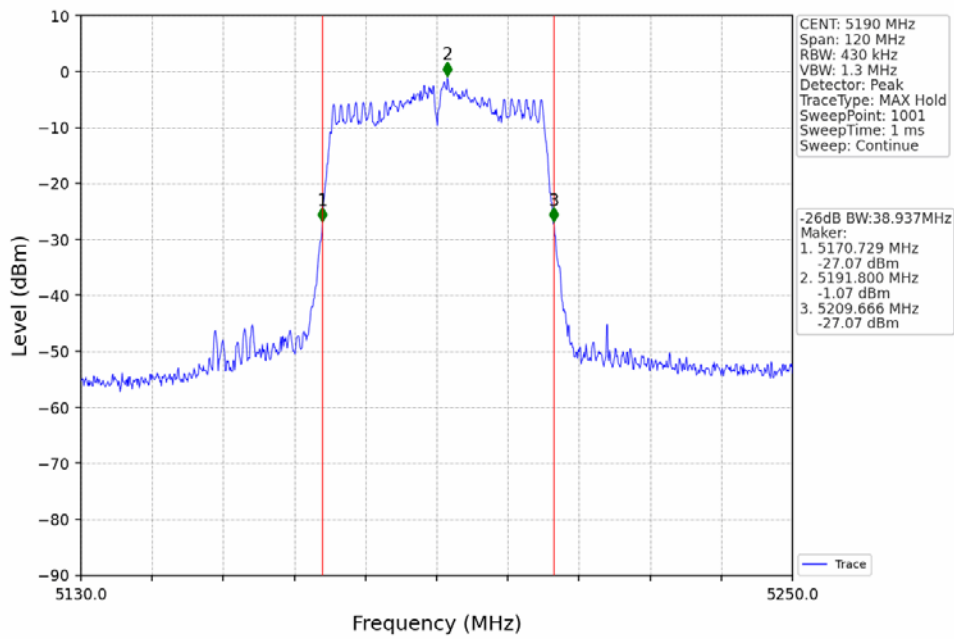




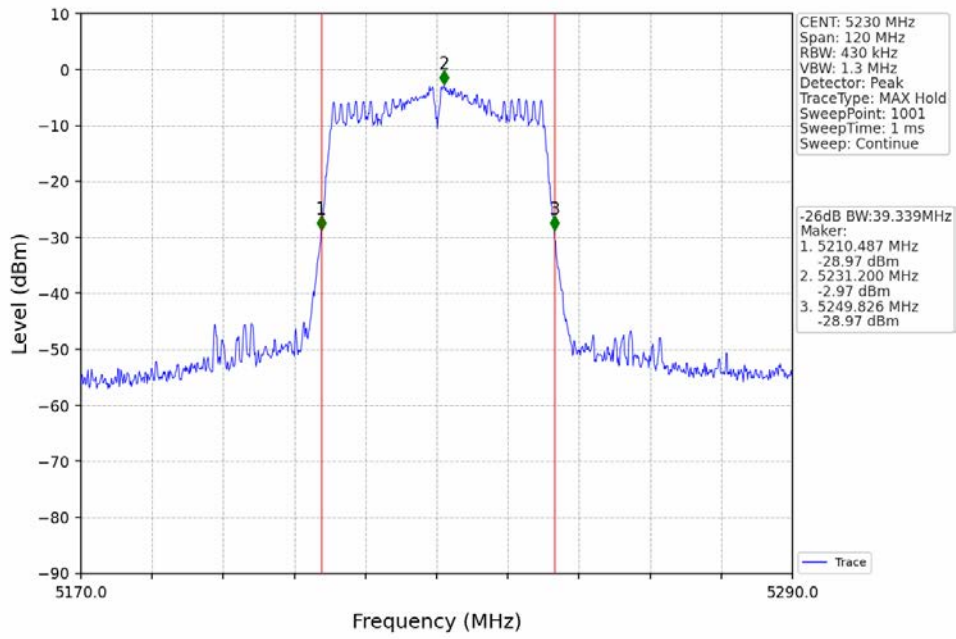
802.11ac(VHT20)\_HCH\_5240MHz\_Ant1\_NTNV



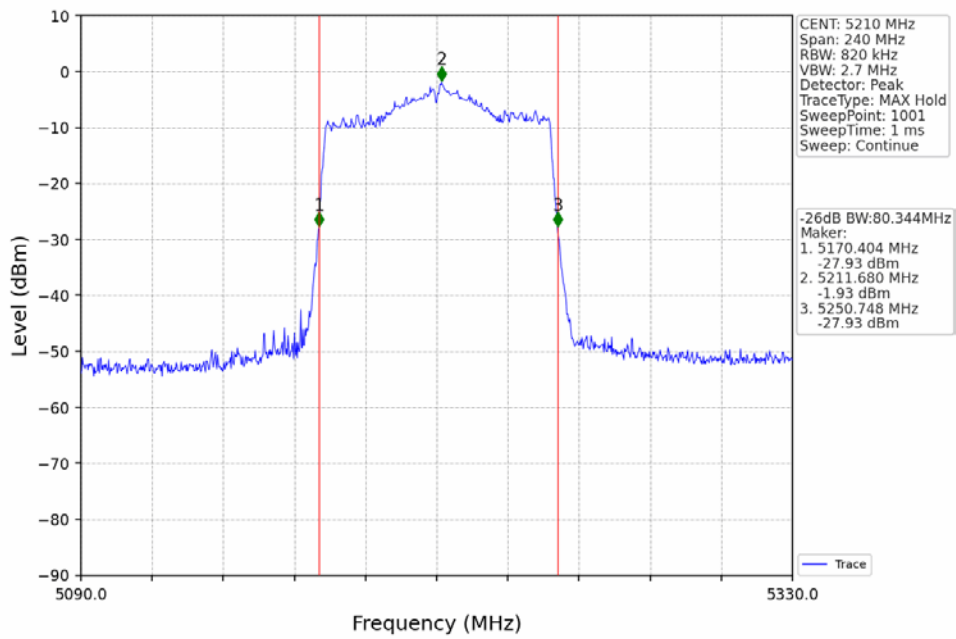
802.11ac(VHT40)\_LCH\_5190MHz\_Ant1\_NTNV



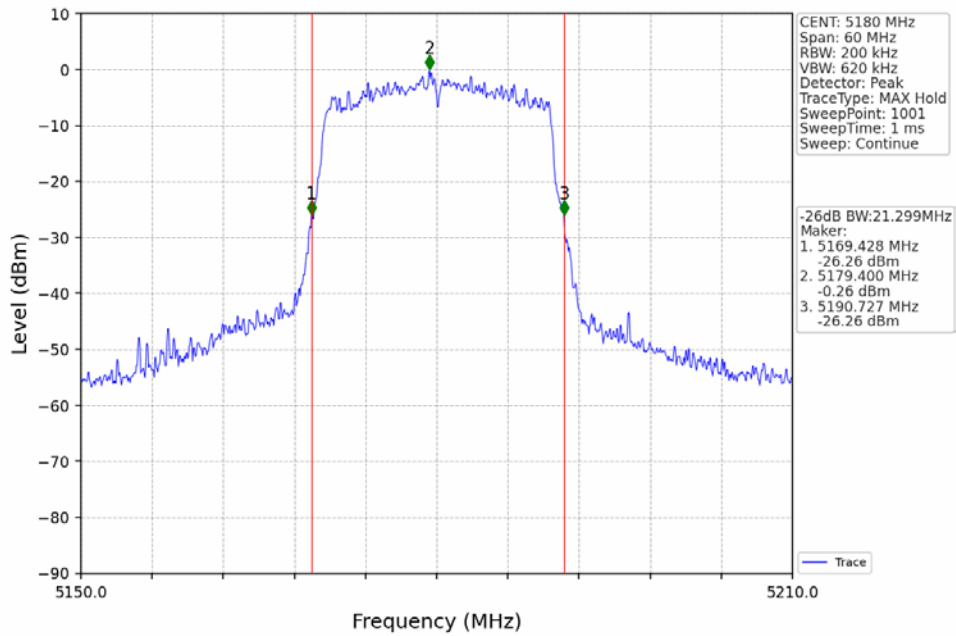
802.11ac(VHT40)\_HCH\_5230MHz\_Ant1\_NTNV



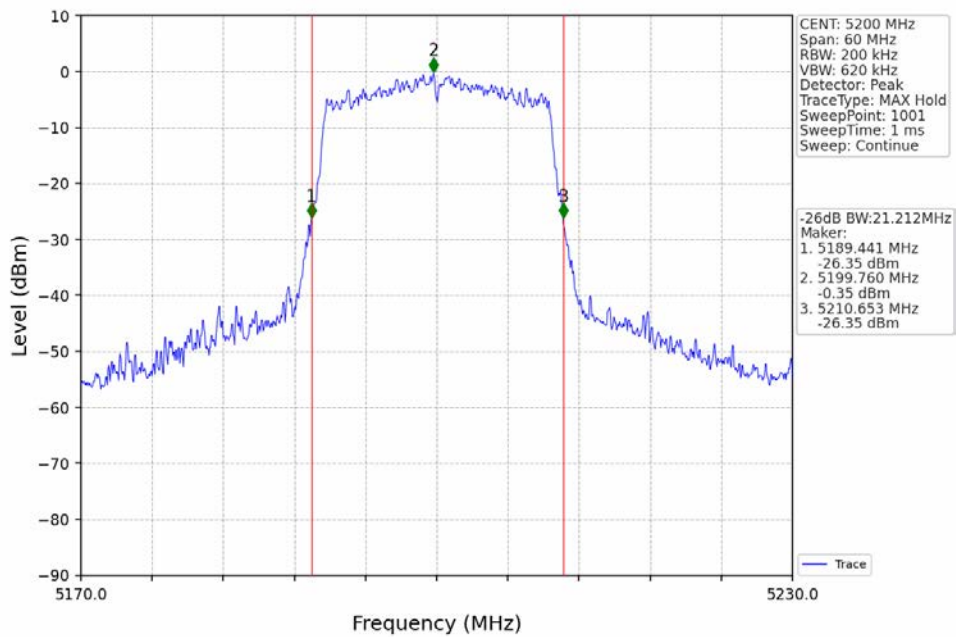
802.11ac(VHT80)\_MCH\_5210MHz\_Ant1\_NTNV



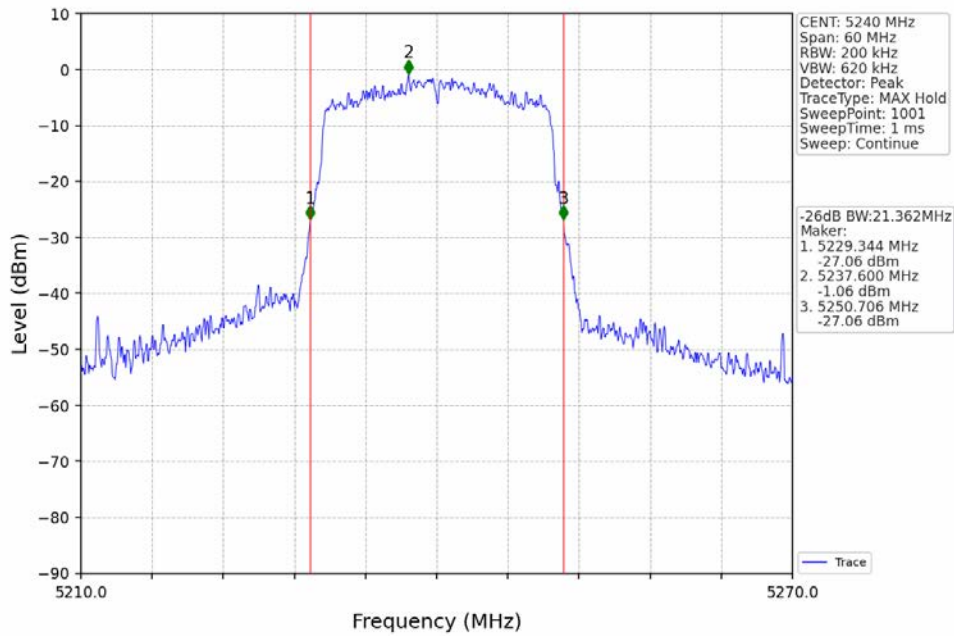
802.11ax(HEW20)\_LCH\_5180MHz\_RU242\_Left\_Ant1\_NTNV



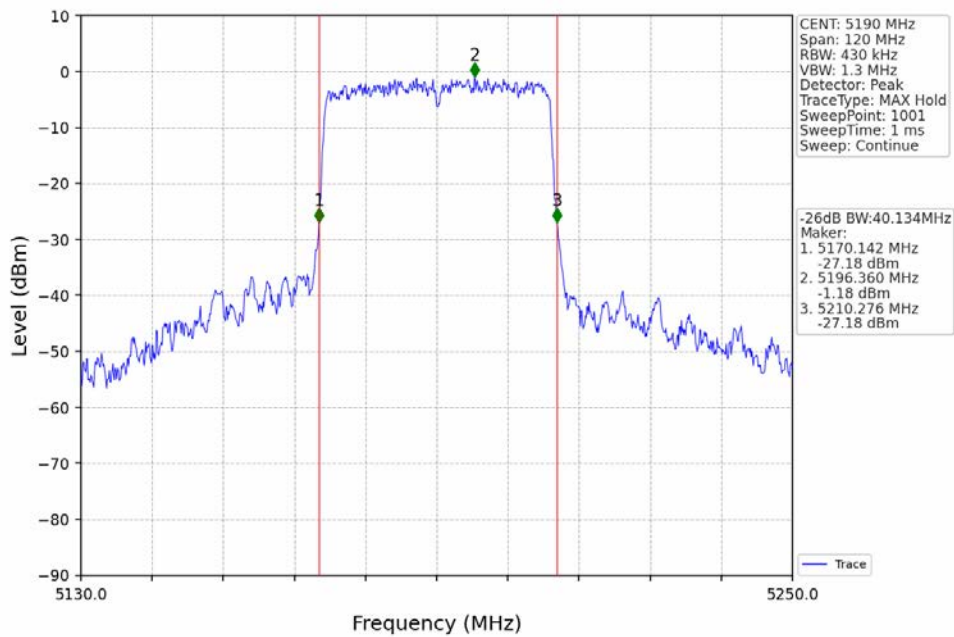
802.11ax(HEW20)\_MCH\_5200MHz\_RU242\_Left\_Ant1\_NTNV



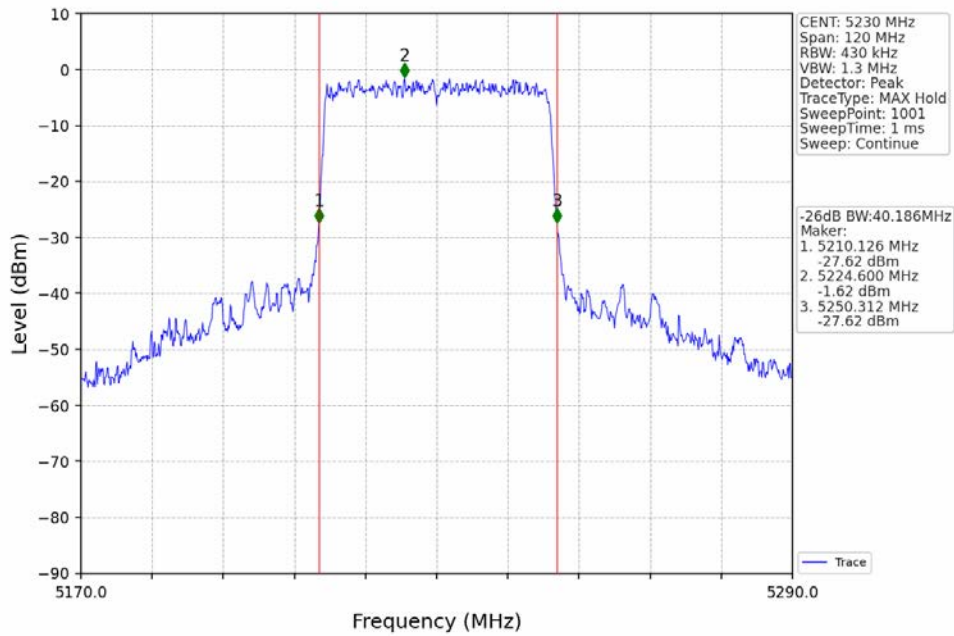
802.11ax(HEW20)\_HCH\_5240MHz\_RU242\_Left\_Ant1\_NTNV



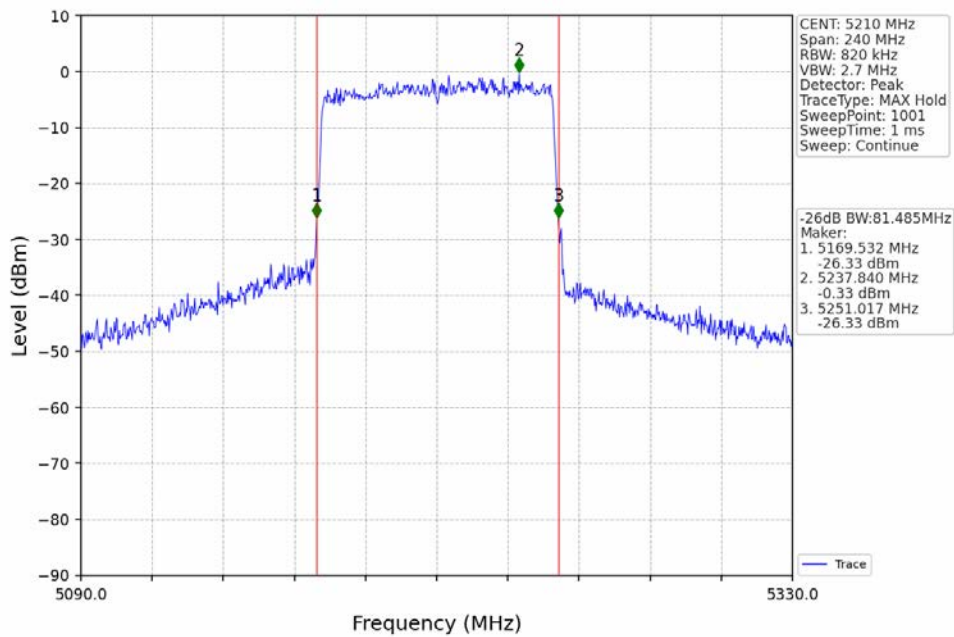
802.11ax(HEW40)\_LCH\_5190MHz\_RU484\_Left\_Ant1\_NTNV



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



802.11ax(HEW80)\_MCH\_5210MHz\_RU996\_Left\_Ant1\_NTNV





### 3. Maximum Conducted Output Power

#### 3.1 Test Result

##### 3.1.1 Power

Mode	TX Type	Frequency (MHz)	RU	RU Pos	Maximum Average Conducted Output Power (dBm)				Verdict
					ANT1	ANT2	MIMO	Limit	
802.11a	SISO	5180	/	/	7.70	6.73	/	<=23.98	Pass
		5200	/	/	7.36	6.65	/	<=23.98	Pass
		5240	/	/	6.95	5.17	/	<=23.98	Pass
802.11n (HT20)	MIMO	5180	/	/	7.64	6.82	10.26	<=23.98	Pass
		5200	/	/	7.52	6.40	10.01	<=23.98	Pass
		5240	/	/	6.76	4.69	8.86	<=23.98	Pass
802.11n (HT40)	MIMO	5190	/	/	5.61	4.78	8.23	<=23.98	Pass
		5230	/	/	5.18	3.57	7.46	<=23.98	Pass
802.11ac (VHT20)	MIMO	5180	/	/	7.62	6.69	10.19	<=23.98	Pass
		5200	/	/	7.57	6.42	10.04	<=23.98	Pass
		5240	/	/	7.14	5.53	9.42	<=23.98	Pass
802.11ac (VHT40)	MIMO	5190	/	/	5.29	4.77	8.05	<=23.98	Pass
		5230	/	/	5.08	3.27	7.28	<=23.98	Pass
802.11ac (VHT80)	MIMO	5210	/	/	5.42	3.77	7.68	<=23.98	Pass
802.11ax (HEW20)	MIMO	5180	RU242	Left	7.68	7.01	10.37	<=23.98	Pass
		5200	RU242	Left	7.72	6.67	10.24	<=23.98	Pass
		5240	RU242	Left	7.13	5.64	9.46	<=23.98	Pass
802.11ax (HEW40)	MIMO	5190	RU484	Left	6.83	6.56	9.71	<=23.98	Pass
		5230	RU484	Left	6.70	5.09	8.98	<=23.98	Pass
802.11ax (HEW80)	MIMO	5210	RU996	Left	7.00	5.62	9.37	<=23.98	Pass
Note1: Antenna Gain: Ant1: 2.50dBi; Ant2: 2.50dBi; Note2: Directional Gain: 5.51dBi									

## 4. Maximum Power Spectral Density

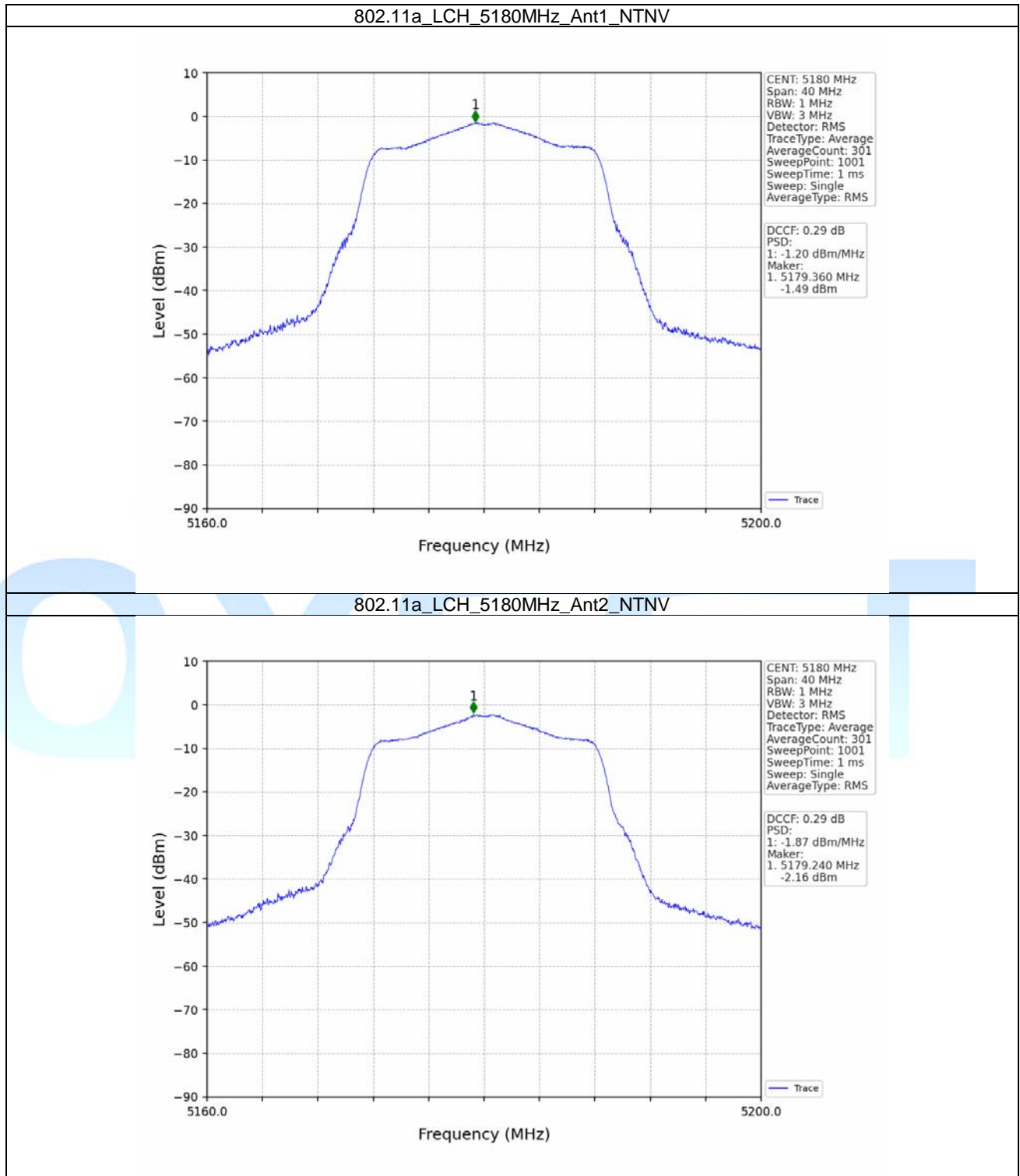
### 4.1 Test Result

#### 4.1.1 PSD

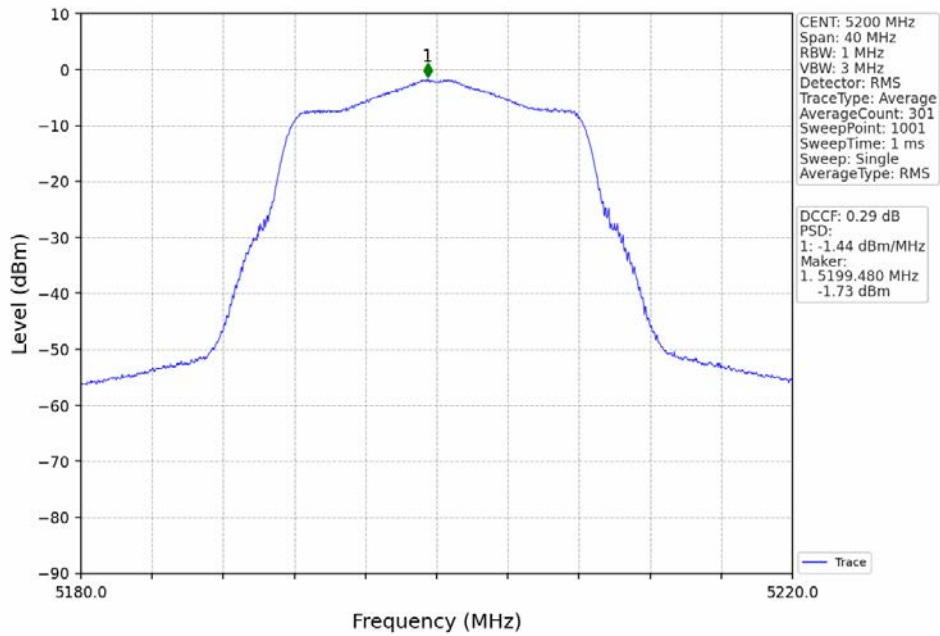
Mode	TX Type	Frequency (MHz)	RU	RU Pos	Maximum PSD (dBm/MHz)				Verdict
					ANT1	ANT2	MIMO	Limit	
802.11a	SISO	5180	/	/	-1.20	-1.87	/	<=11	Pass
		5200	/	/	-1.44	-2.03	/	<=11	Pass
		5240	/	/	-1.79	-3.40	/	<=11	Pass
802.11n (HT20)	MIMO	5180	/	/	-1.34	-1.84	1.32	<=11	Pass
		5200	/	/	-1.49	-2.45	1.06	<=11	Pass
		5240	/	/	-2.42	-4.23	-0.25	<=11	Pass
802.11n (HT40)	MIMO	5190	/	/	-5.90	-6.92	-3.39	<=11	Pass
		5230	/	/	-6.59	-8.17	-4.37	<=11	Pass
802.11ac (VHT20)	MIMO	5180	/	/	-1.31	-2.31	1.19	<=11	Pass
		5200	/	/	-1.32	-2.52	1.10	<=11	Pass
		5240	/	/	-1.76	-3.36	0.45	<=11	Pass
802.11ac (VHT40)	MIMO	5190	/	/	-6.07	-6.57	-3.43	<=11	Pass
		5230	/	/	-6.58	-8.42	-4.48	<=11	Pass
802.11ac (VHT80)	MIMO	5210	/	/	-8.83	-10.49	-6.58	<=11	Pass
802.11ax (HEW20)	MIMO	5180	RU242	Left	-2.46	-3.42	-0.05	<=11	Pass
		5200	RU242	Left	-2.81	-3.69	-0.24	<=11	Pass
		5240	RU242	Left	-3.00	-4.71	-0.97	<=11	Pass
802.11ax (HEW40)	MIMO	5190	RU484	Left	-7.85	-7.94	-5.07	<=11	Pass
		5230	RU484	Left	-8.10	-9.66	-5.92	<=11	Pass
802.11ax (HEW80)	MIMO	5210	RU996	Left	-10.44	-12.16	-8.32	<=11	Pass
Note1: Antenna Gain: Ant1: 2.50dBi; Ant2: 2.50dBi; Note2: Directional Gain: 5.51dBi Note3: Test result contains DCCF.									

## 4.2 Test Graph

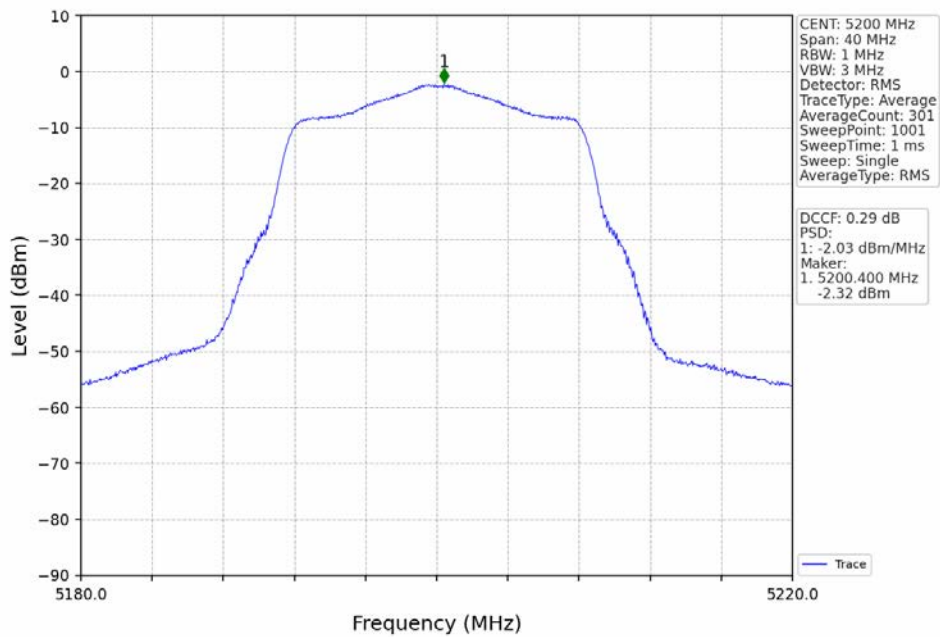
### 4.2.1 PSD



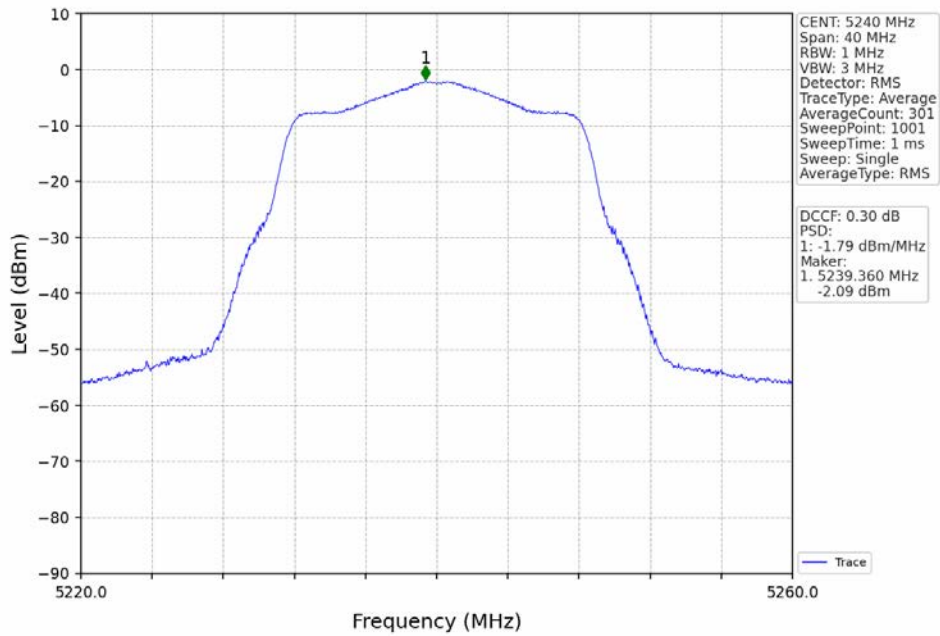
802.11a\_MCH\_5200MHz\_Ant1\_NTNV



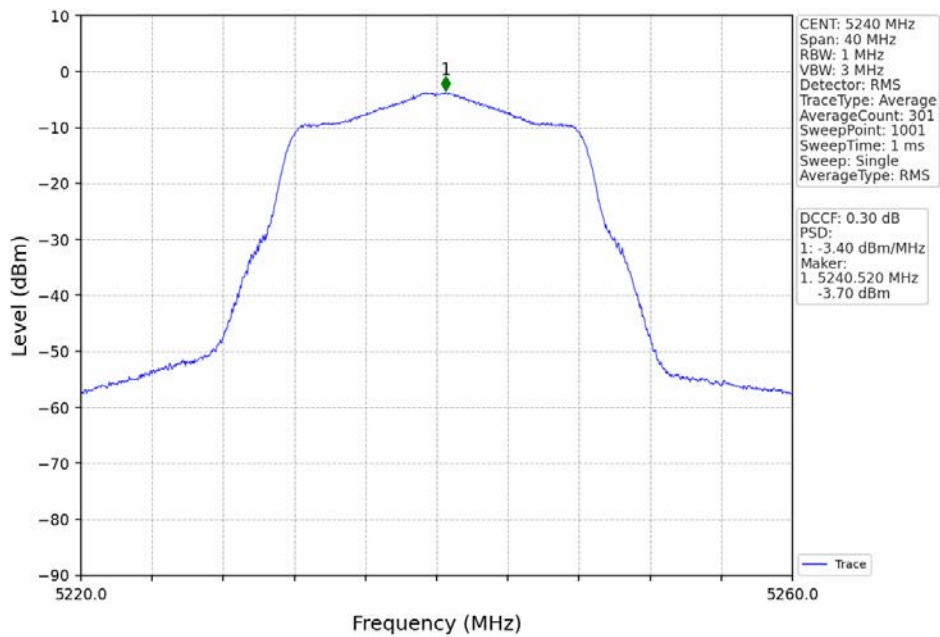
802.11a\_MCH\_5200MHz\_Ant2\_NTNV



802.11a\_HCH\_5240MHz\_Ant1\_NTNV

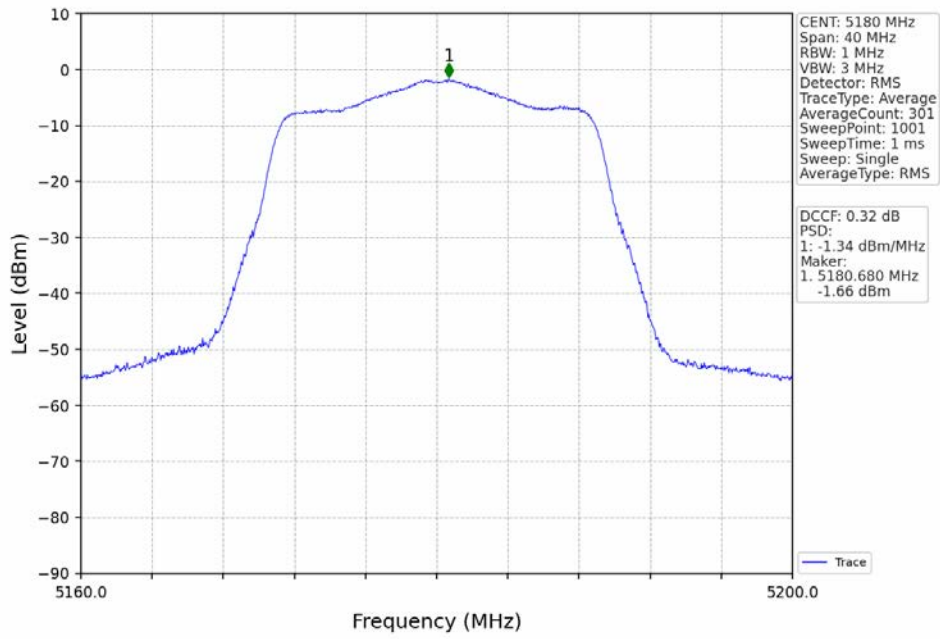


802.11a\_HCH\_5240MHz\_Ant2\_NTNV

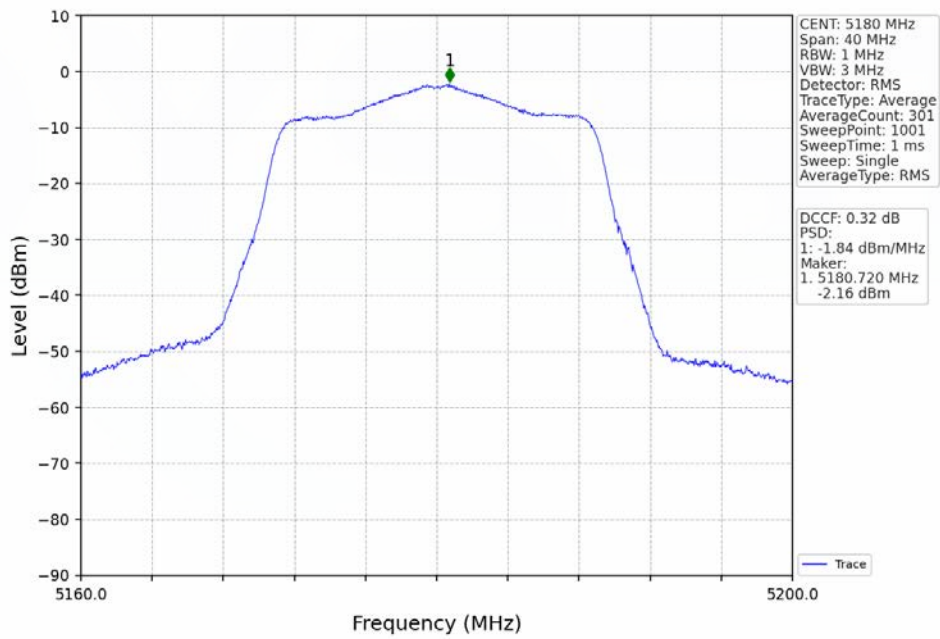




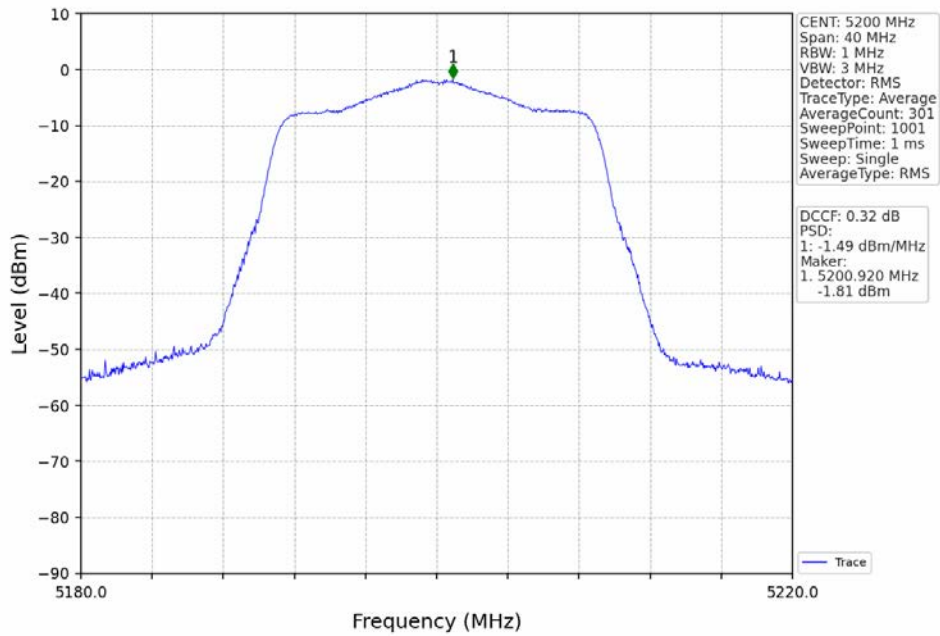
802.11n(HT20)\_LCH\_5180MHz\_Ant1\_NTNV



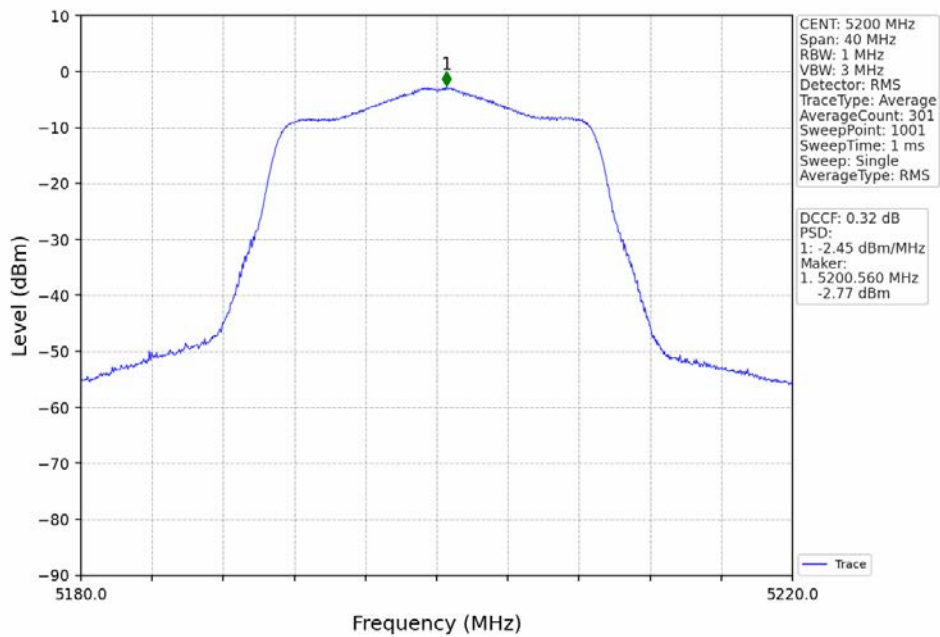
802.11n(HT20)\_LCH\_5180MHz\_Ant2\_NTNV



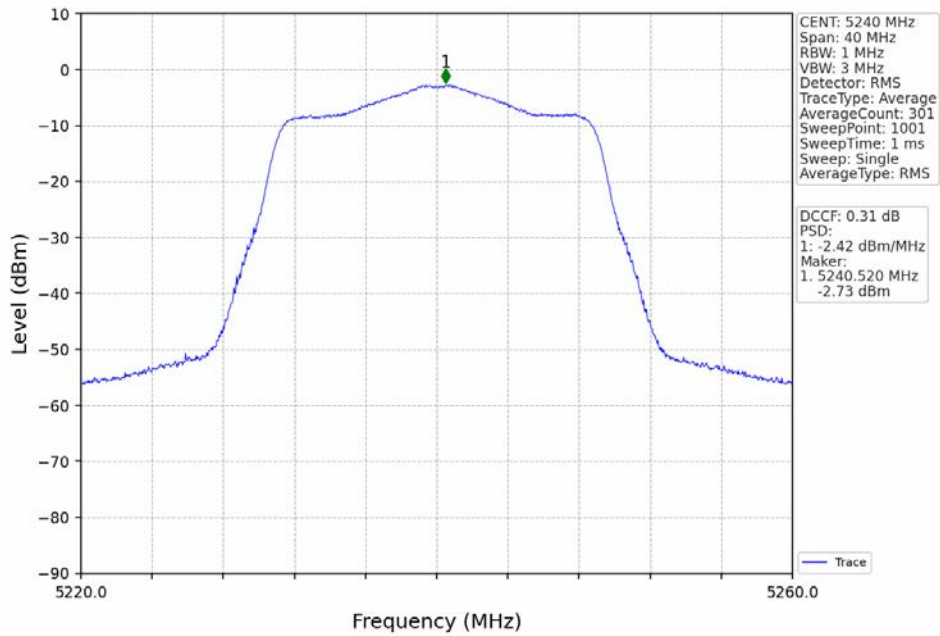
802.11n(HT20)\_MCH\_5200MHz\_Ant1\_NTNV



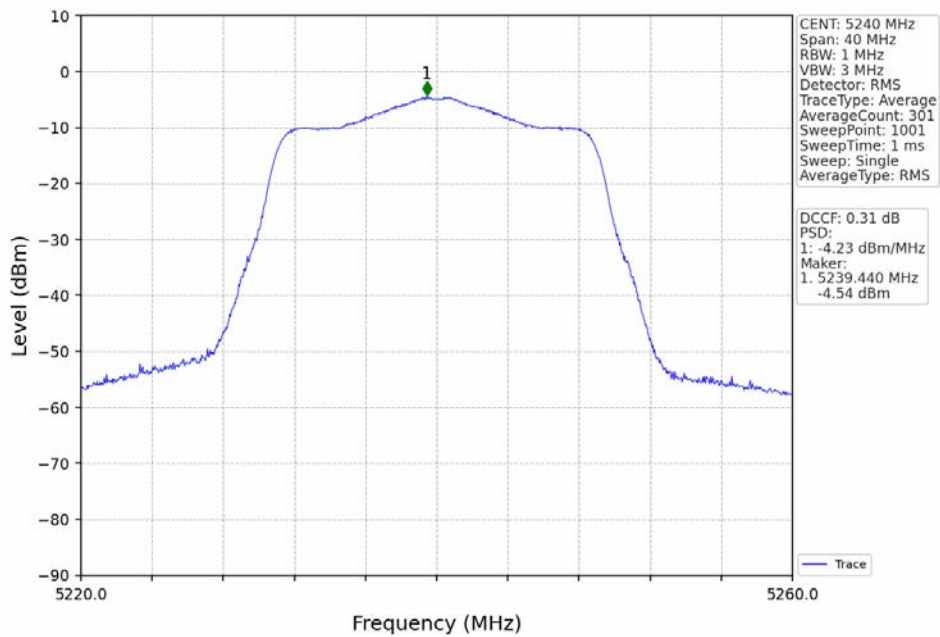
802.11n(HT20)\_MCH\_5200MHz\_Ant2\_NTNV



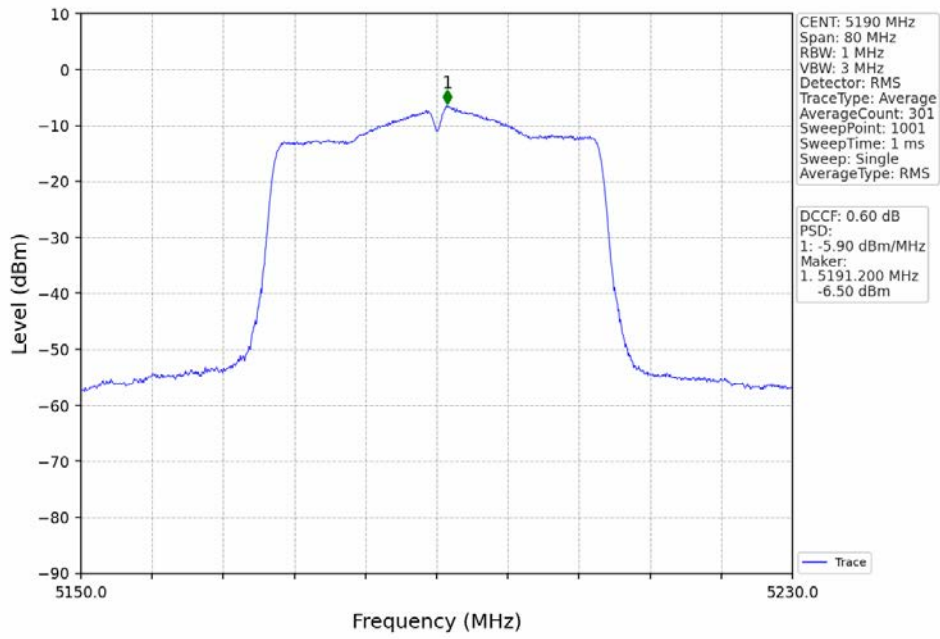
802.11n(HT20)\_HCH\_5240MHz\_Ant1\_NTNV



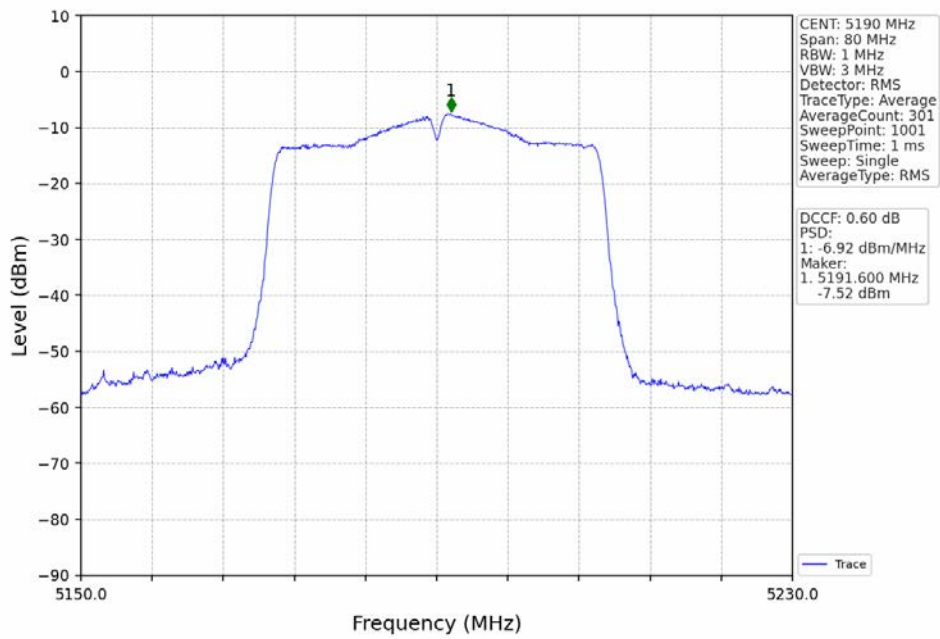
802.11n(HT20)\_HCH\_5240MHz\_Ant2\_NTNV



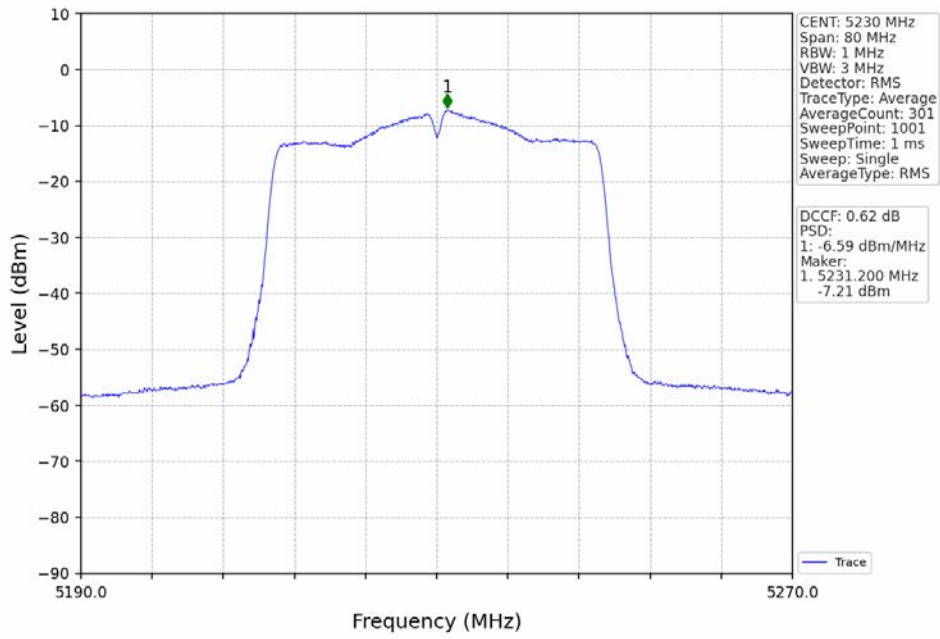
802.11n(HT40)\_LCH\_5190MHz\_Ant1\_NTNV



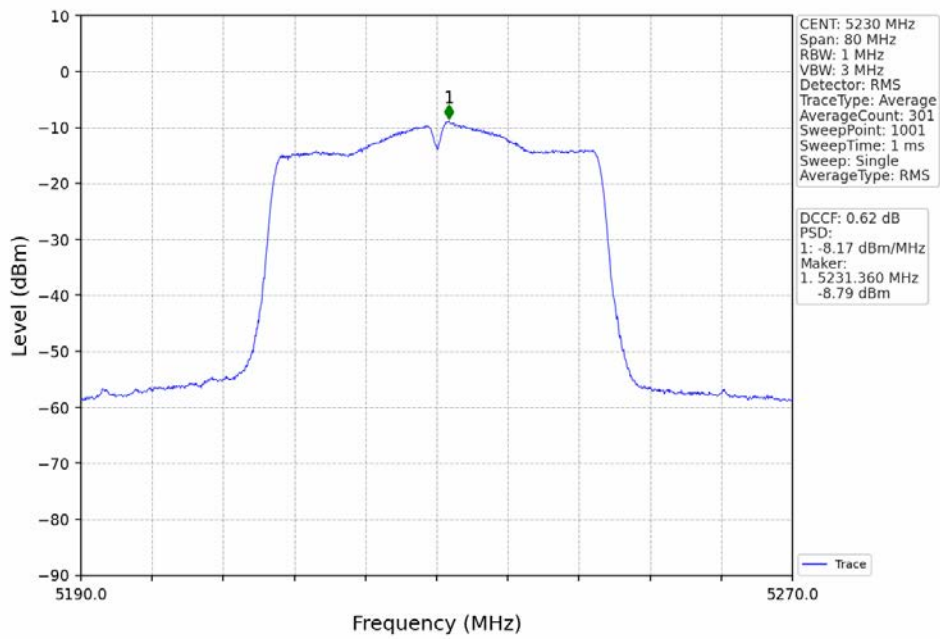
802.11n(HT40)\_LCH\_5190MHz\_Ant2\_NTNV



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

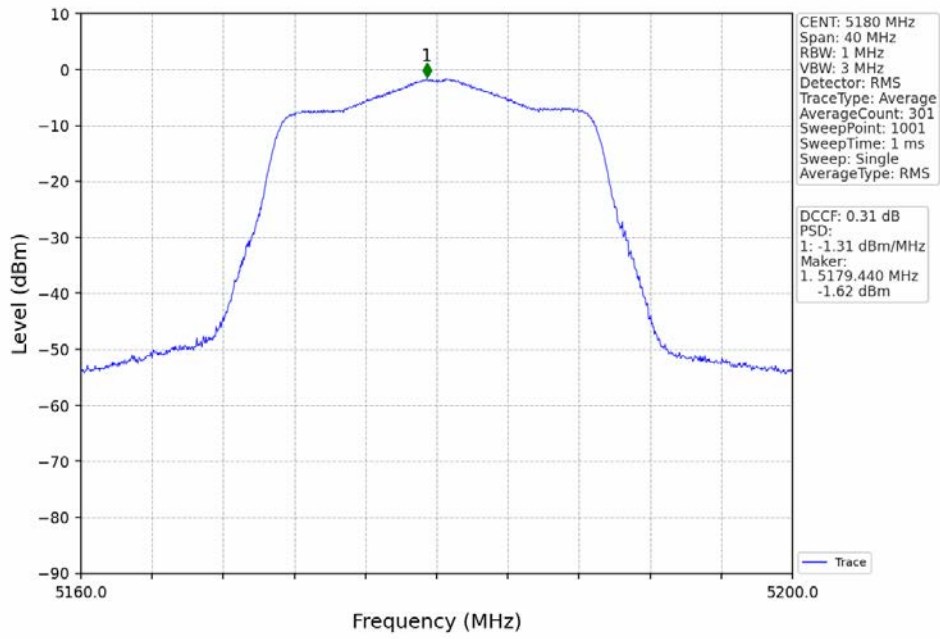


802.11n(HT40)\_HCH\_5230MHz\_Ant2\_NTNV

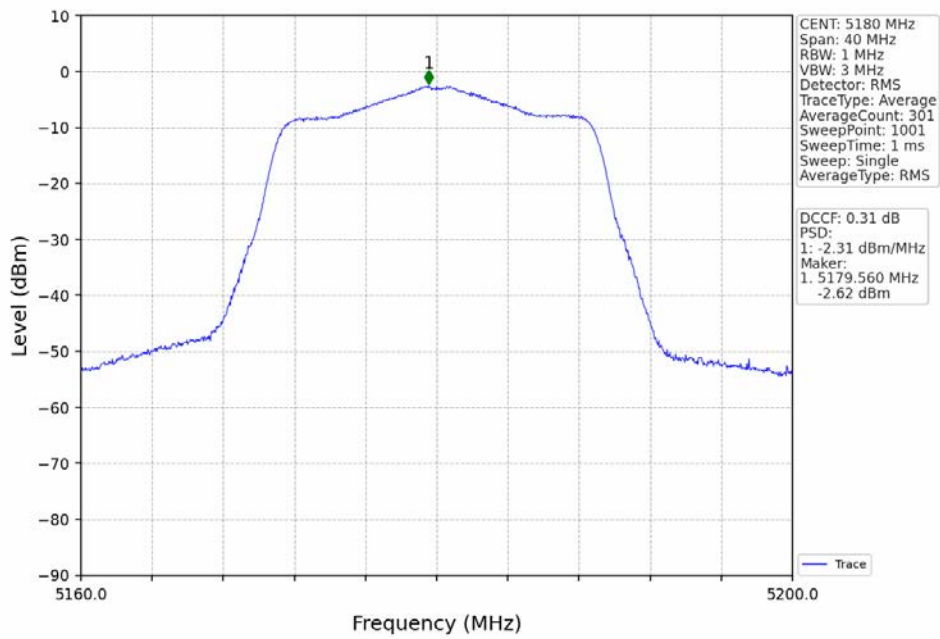




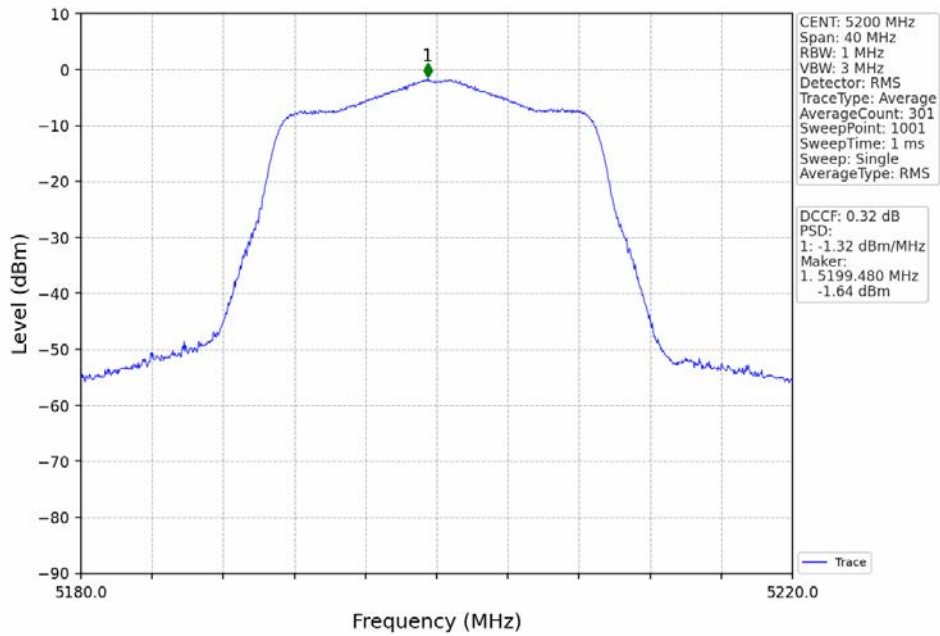
802.11ac(VHT20)\_LCH\_5180MHz\_Ant1\_NTNV



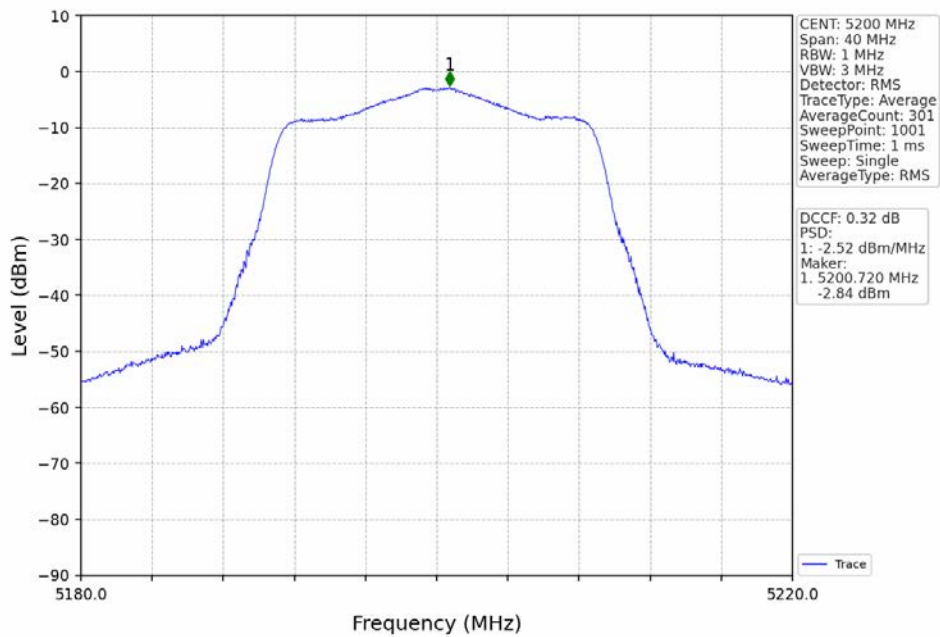
802.11ac(VHT20)\_LCH\_5180MHz\_Ant2\_NTNV



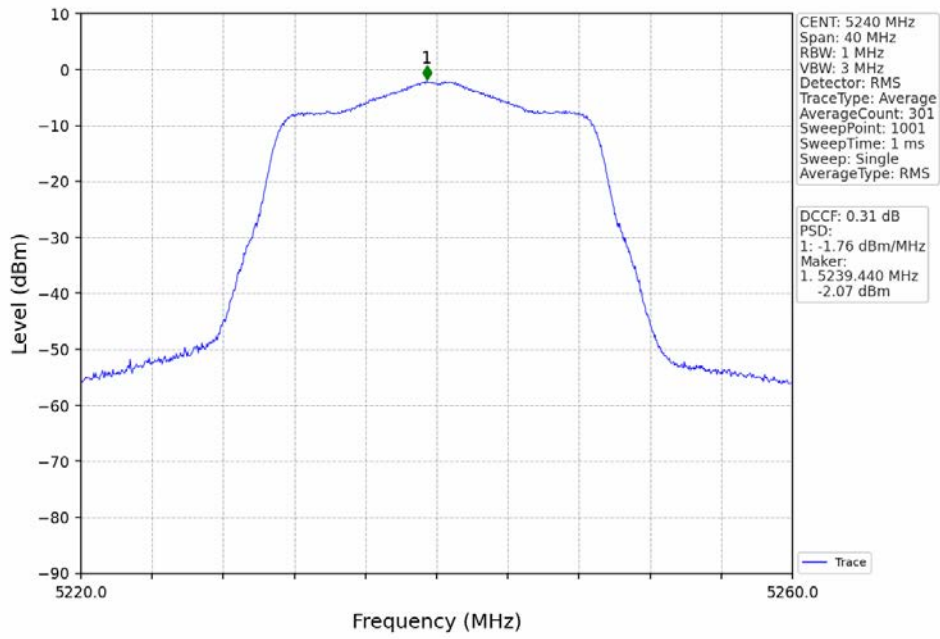
802.11ac(VHT20)\_MCH\_5200MHz\_Ant1\_NTNV



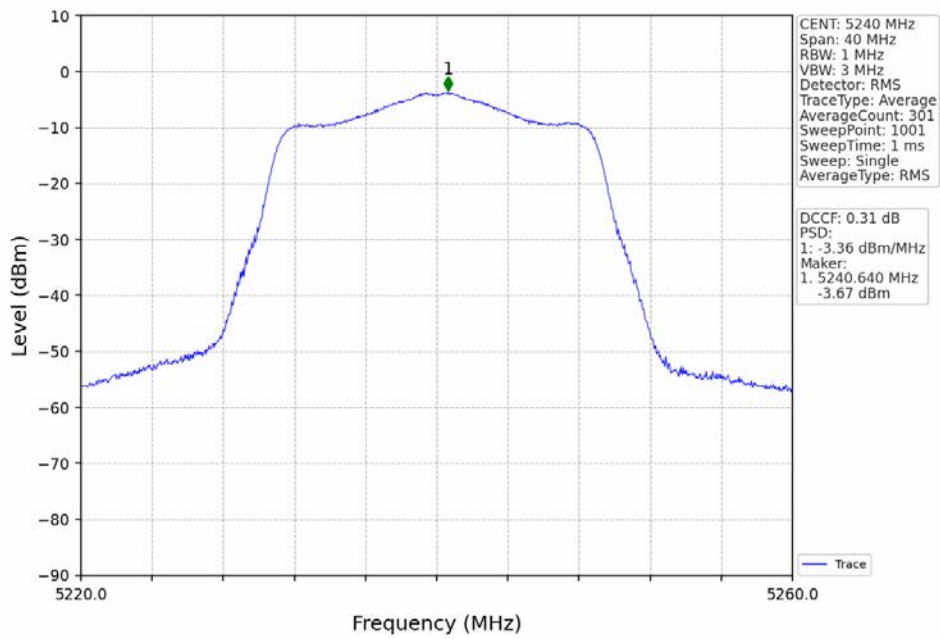
802.11ac(VHT20)\_MCH\_5200MHz\_Ant2\_NTNV



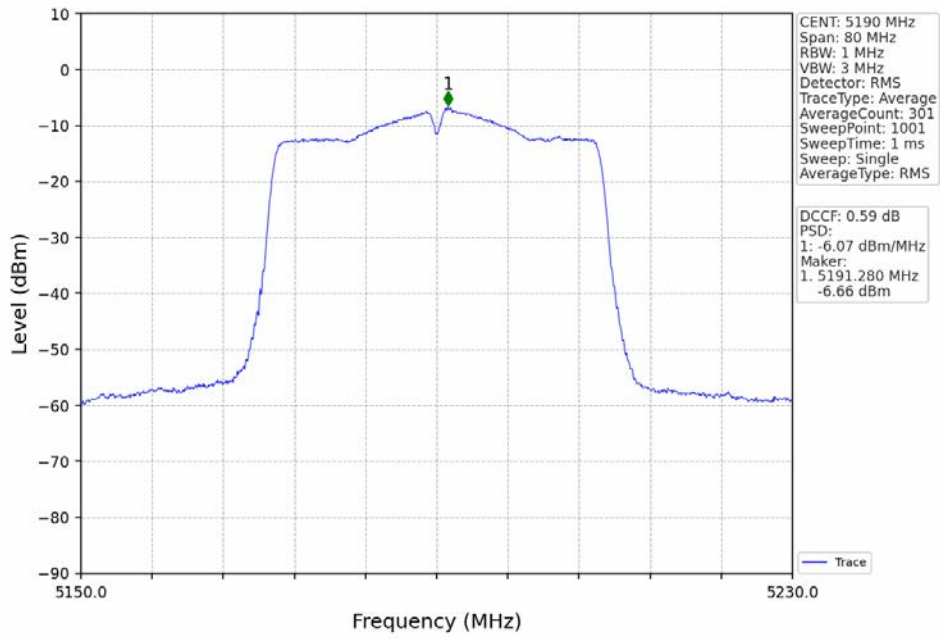
802.11ac(VHT20)\_HCH\_5240MHz\_Ant1\_NTNV



802.11ac(VHT20)\_HCH\_5240MHz\_Ant2\_NTNV



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



802.11ac(VHT40)\_LCH\_5190MHz\_Ant2\_NTNV

