

# 1. Duty Cycle

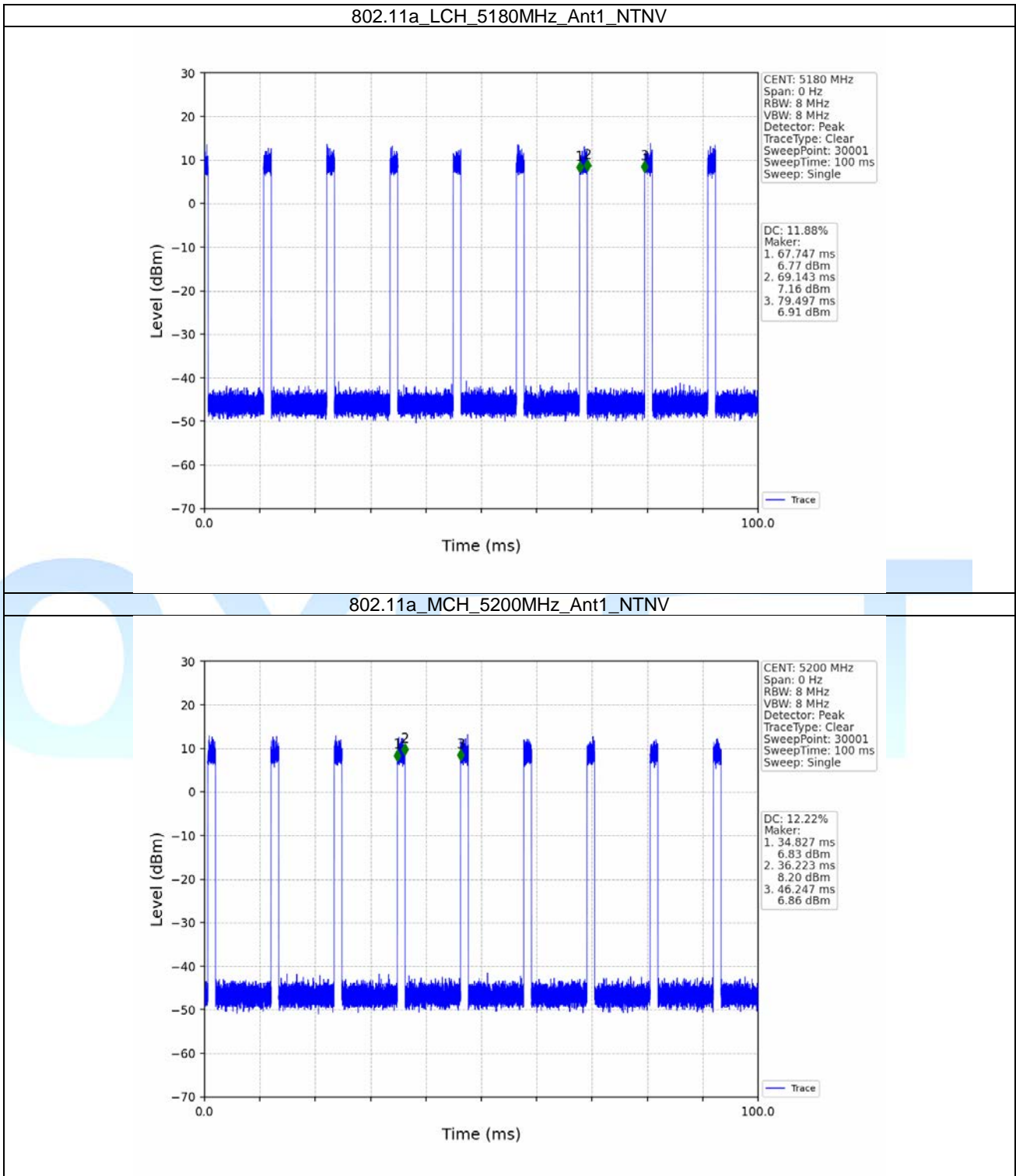
## 1.1 Test Result

### 1.1.1 Ant1

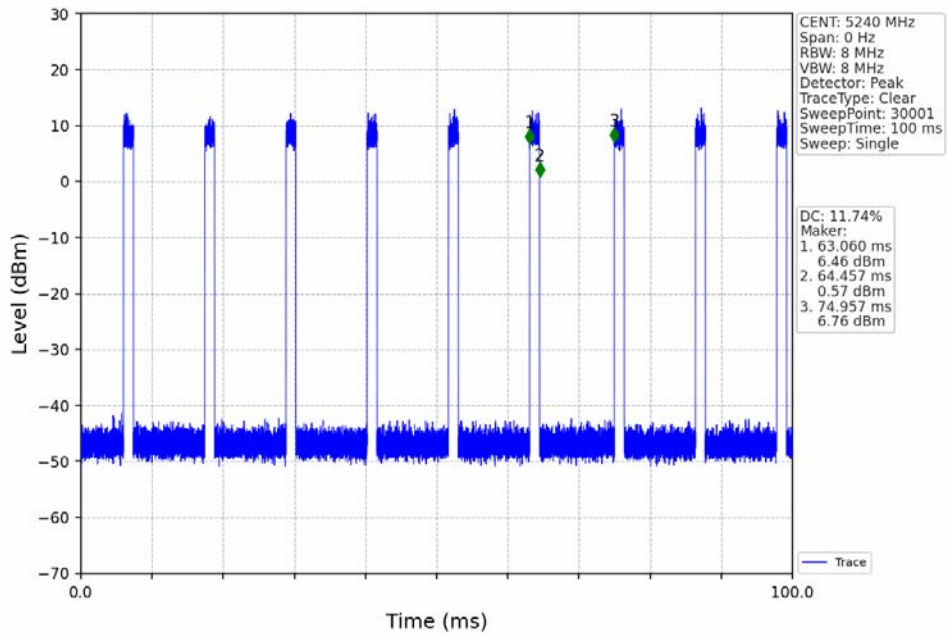
Ant1									
Mode	TX Type	Frequency (MHz)	RU	RU Pos	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
802.11a	SISO	5180	/	/	1.396	11.750	11.88	9.25	0.38
		5200	/	/	1.396	11.420	12.22	9.13	0.04
		5240	/	/	1.397	11.897	11.74	9.30	0.52
802.11n (HT20)	SISO	5180	/	/	5.090	15.113	33.68	4.73	0.01
		5200	/	/	5.090	15.110	33.69	4.73	0.03
		5240	/	/	5.090	15.164	33.57	4.74	0.13
802.11n (HT40)	SISO	5190	/	/	4.897	14.920	32.82	4.84	0.03
		5230	/	/	4.896	14.920	32.82	4.84	0.04
802.11ac (VHT20)	SISO	5180	/	/	5.096	15.120	33.70	4.72	0.04
		5200	/	/	5.096	15.113	33.72	4.72	0.02
		5240	/	/	5.096	15.120	33.70	4.72	0.04
802.11ac (VHT40)	SISO	5190	/	/	4.903	14.923	32.86	4.83	0.03
		5230	/	/	4.903	14.920	32.86	4.83	0.02
802.11ax (HEW20)	SISO	5180	RU242	Left	3.877	13.900	27.89	5.55	0.04
		5200	RU242	Left	3.880	14.010	27.69	5.58	0.23
		5240	RU242	Left	3.877	13.897	27.90	5.54	0.02
802.11ax (HEW40)	SISO	5190	RU484	Left	3.873	13.893	27.88	5.55	0.01
		5230	RU484	Left	3.873	13.890	27.88	5.55	0.02

## 1.2 Test Graph

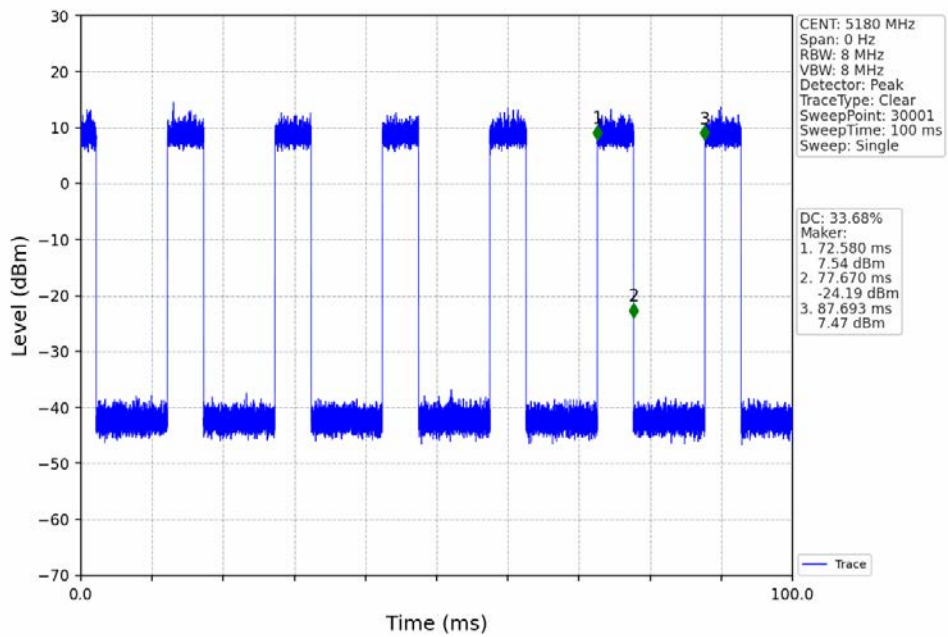
### 1.2.1 Ant1



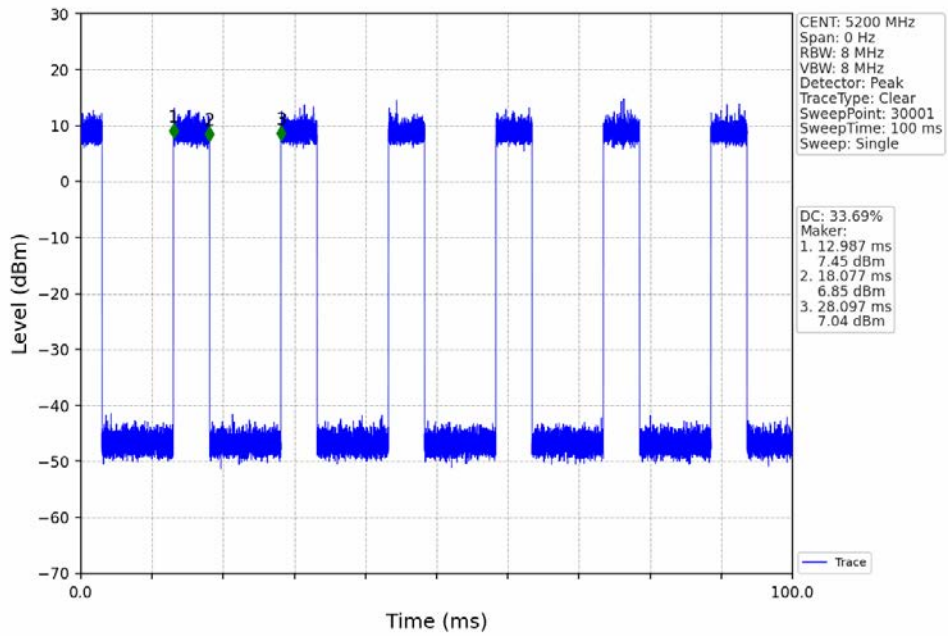
802.11a\_HCH\_5240MHz\_Ant1\_NTNV



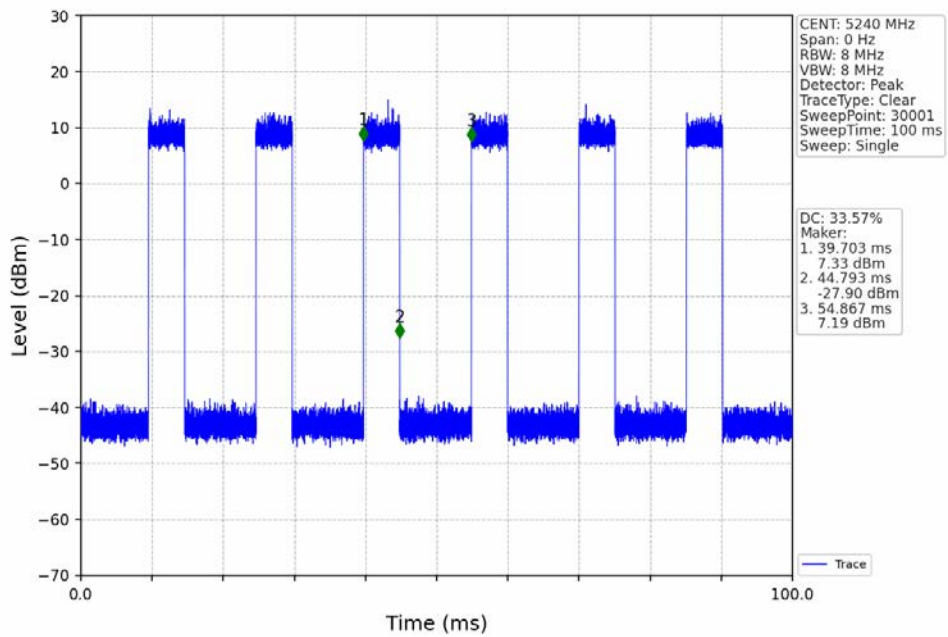
802.11n(HT20)\_LCH\_5180MHz\_Ant1\_NTNV



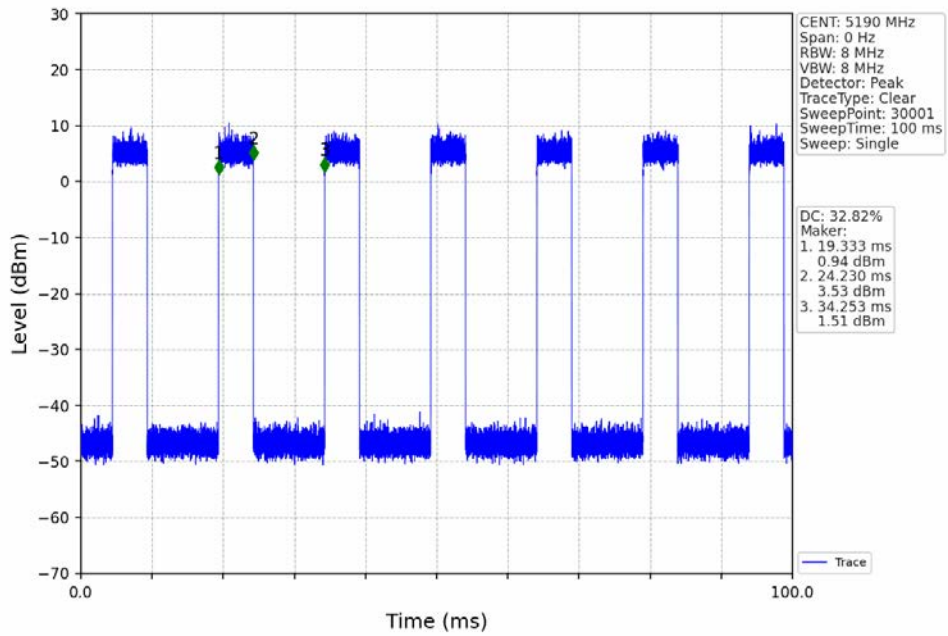
802.11n(HT20)\_MCH\_5200MHz\_Ant1\_NTNV



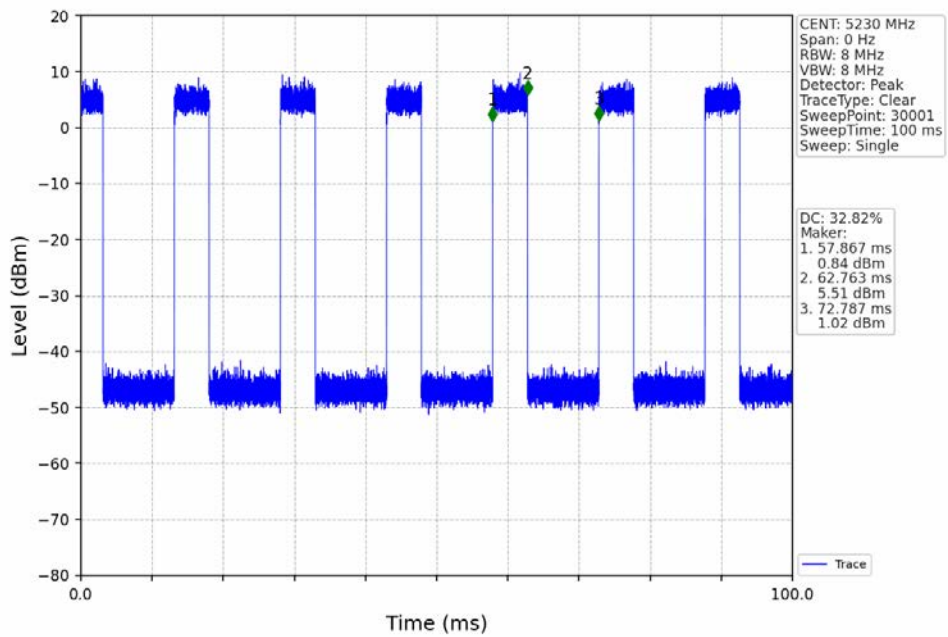
802.11n(HT20)\_HCH\_5240MHz\_Ant1\_NTNV



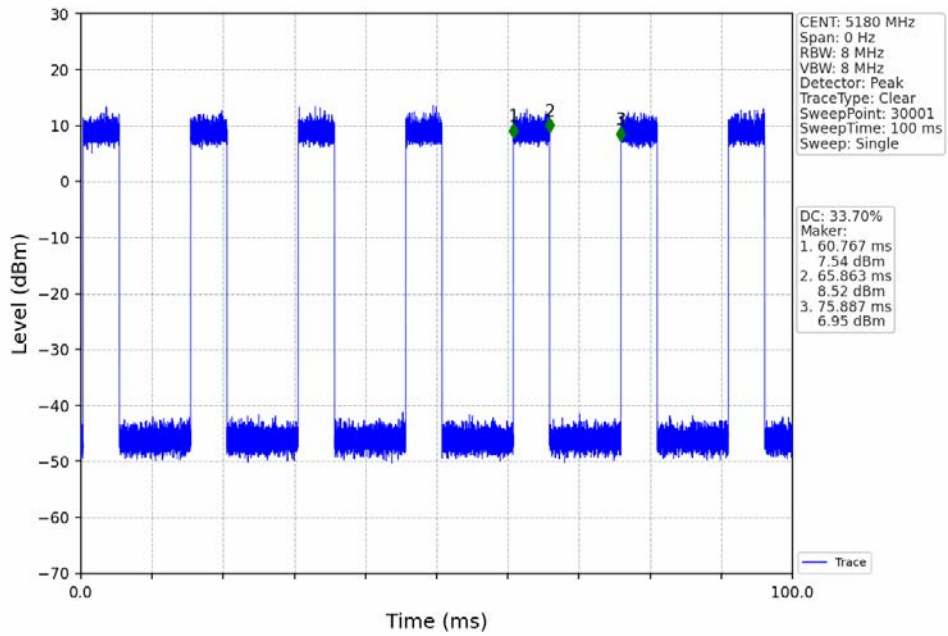
802.11n(HT40)\_LCH\_5190MHz\_Ant1\_NTNV



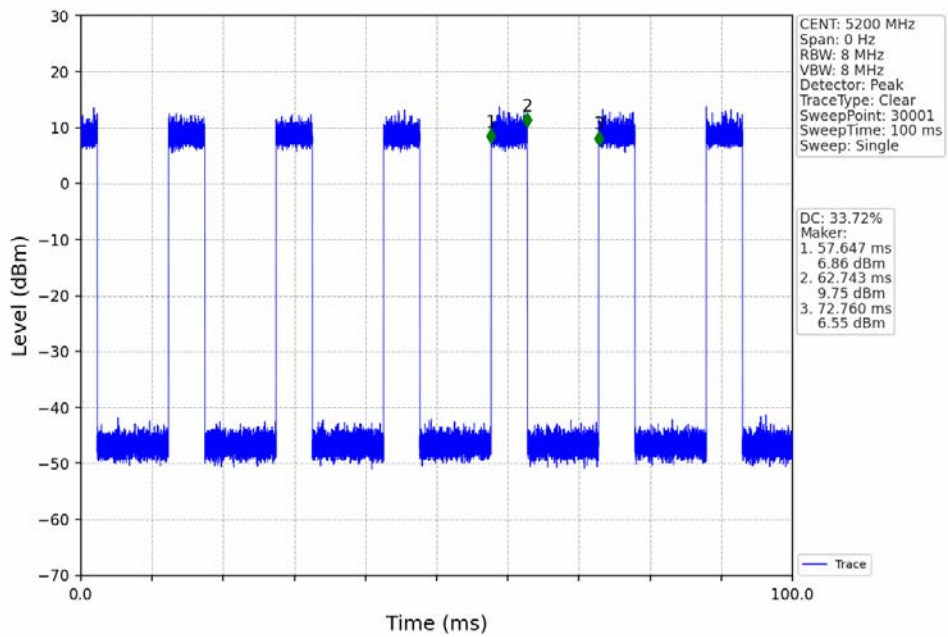
802.11n(HT40)\_HCH\_5230MHz\_Ant1\_NTNV



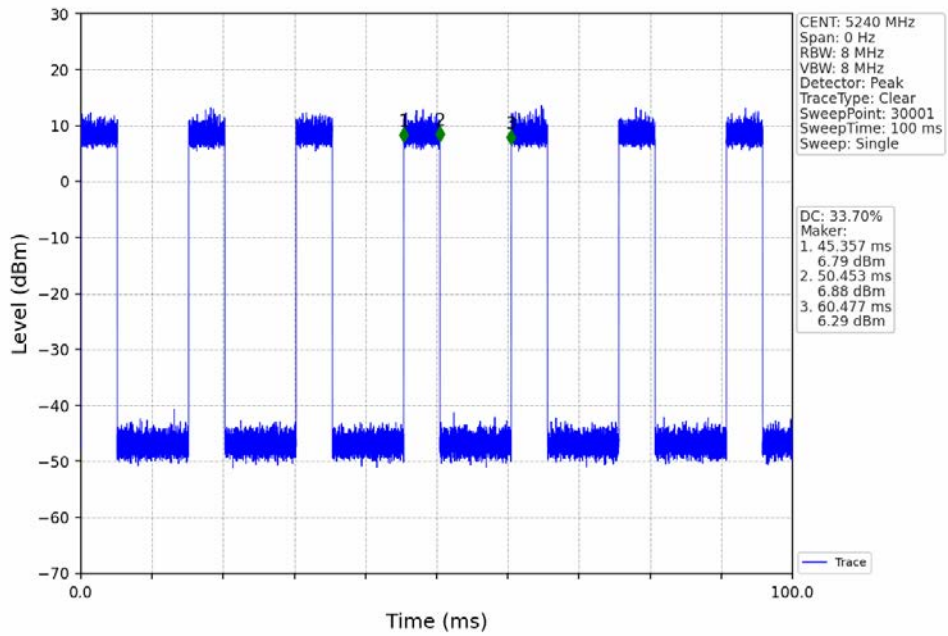
802.11ac(VHT20)\_LCH\_5180MHz\_Ant1\_NTNV



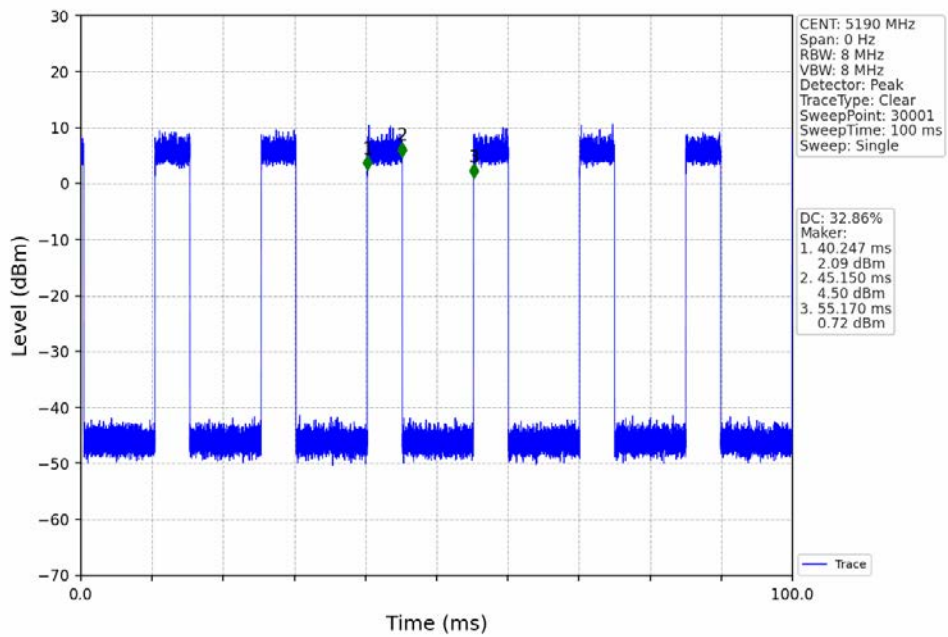
802.11ac(VHT20)\_MCH\_5200MHz\_Ant1\_NTNV



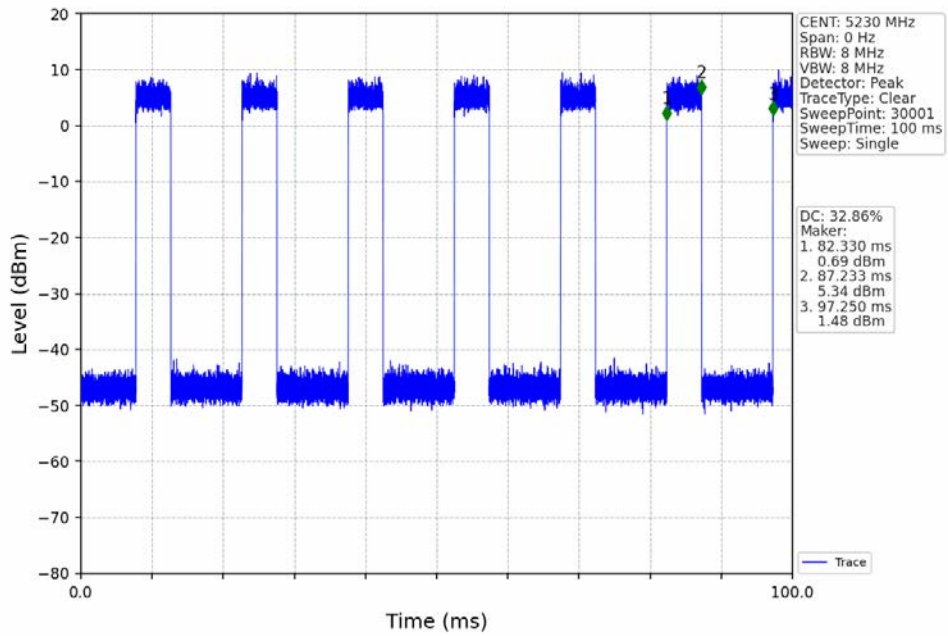
802.11ac(VHT20)\_HCH\_5240MHz\_Ant1\_NTNV



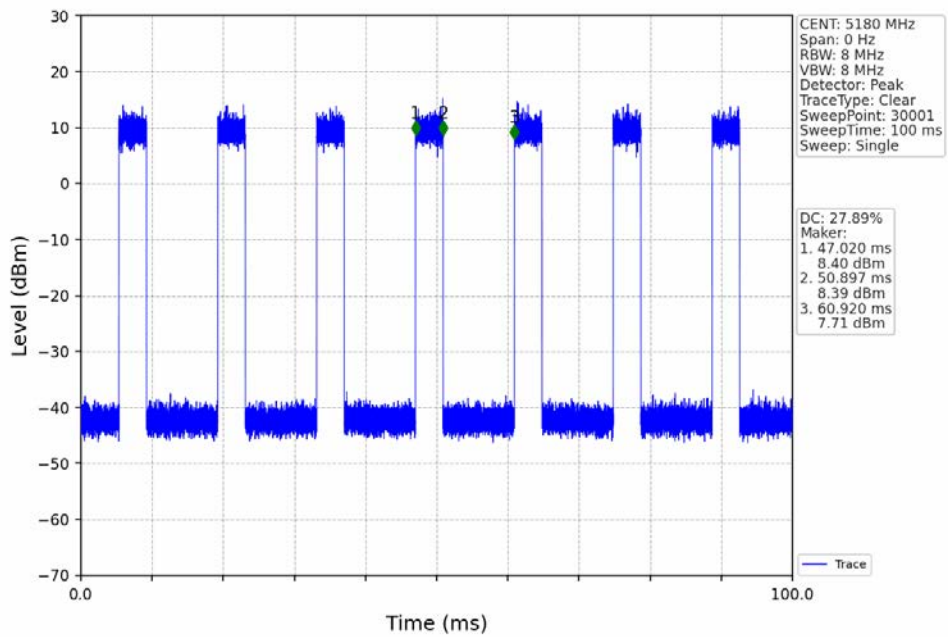
802.11ac(VHT40)\_LCH\_5190MHz\_Ant1\_NTNV



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

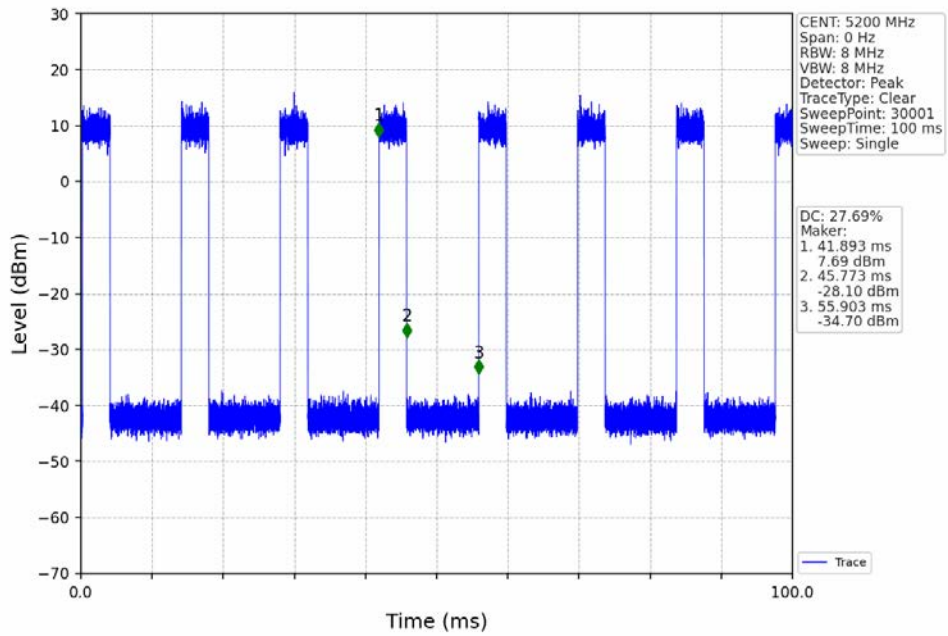


802.11ax(HEW20)\_LCH\_5180MHz\_RU242\_Left\_Ant1\_NTNV

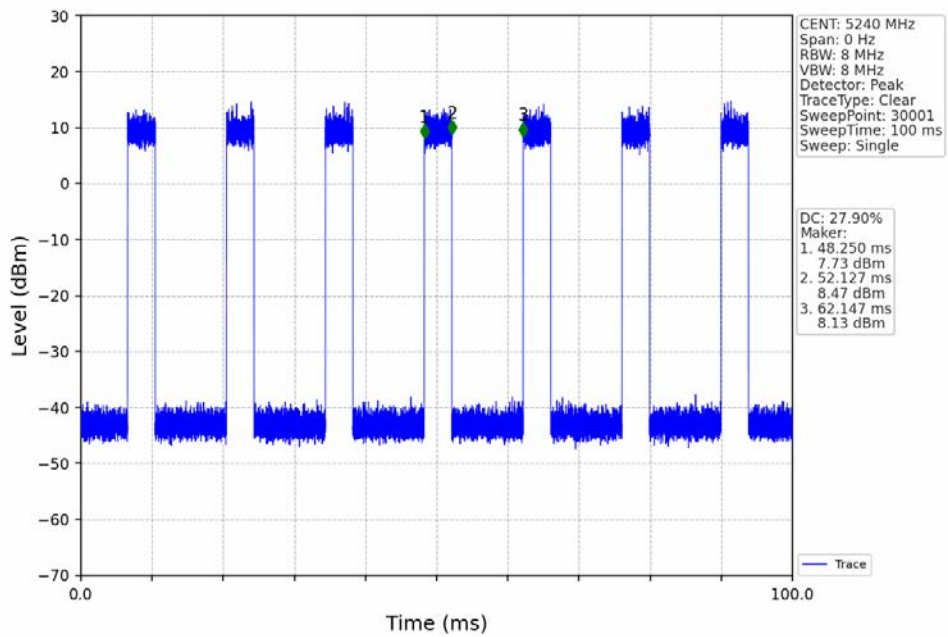




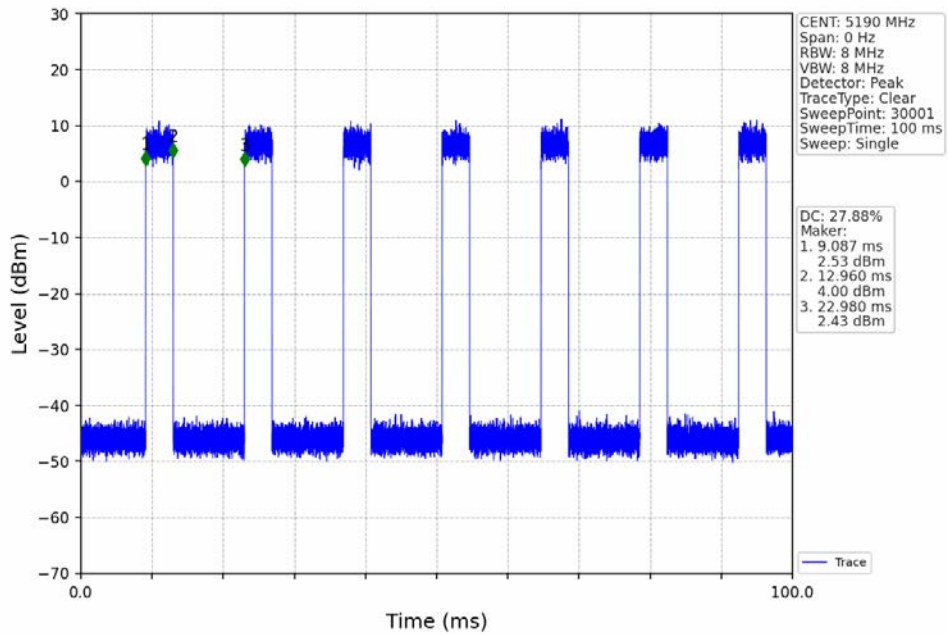
802.11ax(HEW20)\_MCH\_5200MHz\_RU242\_Left\_Ant1\_NTNV



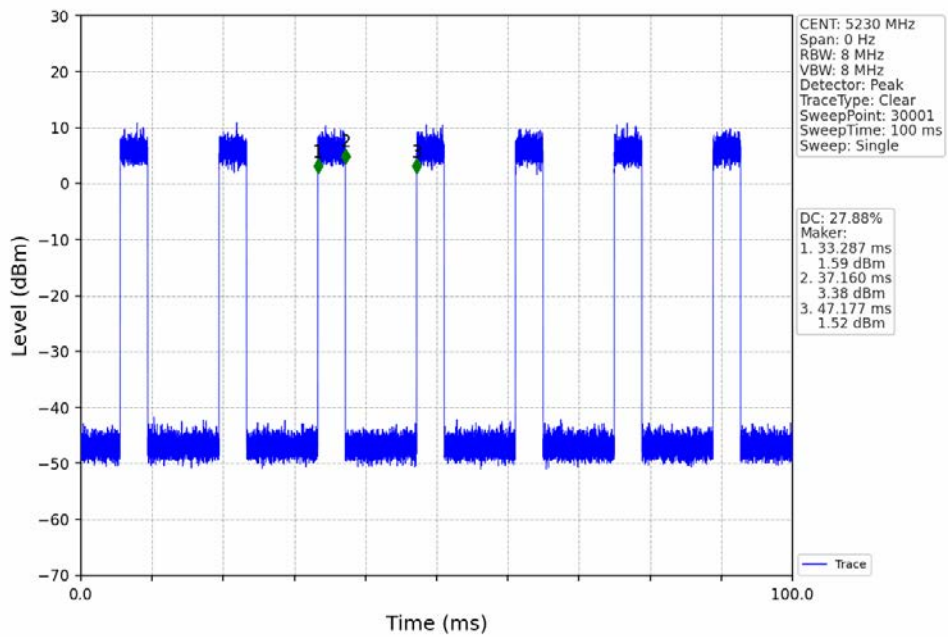
802.11ax(HEW20)\_HCH\_5240MHz\_RU242\_Left\_Ant1\_NTNV



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



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



## 2. Bandwidth

### 2.1 Test Result

#### 2.1.1 OBW

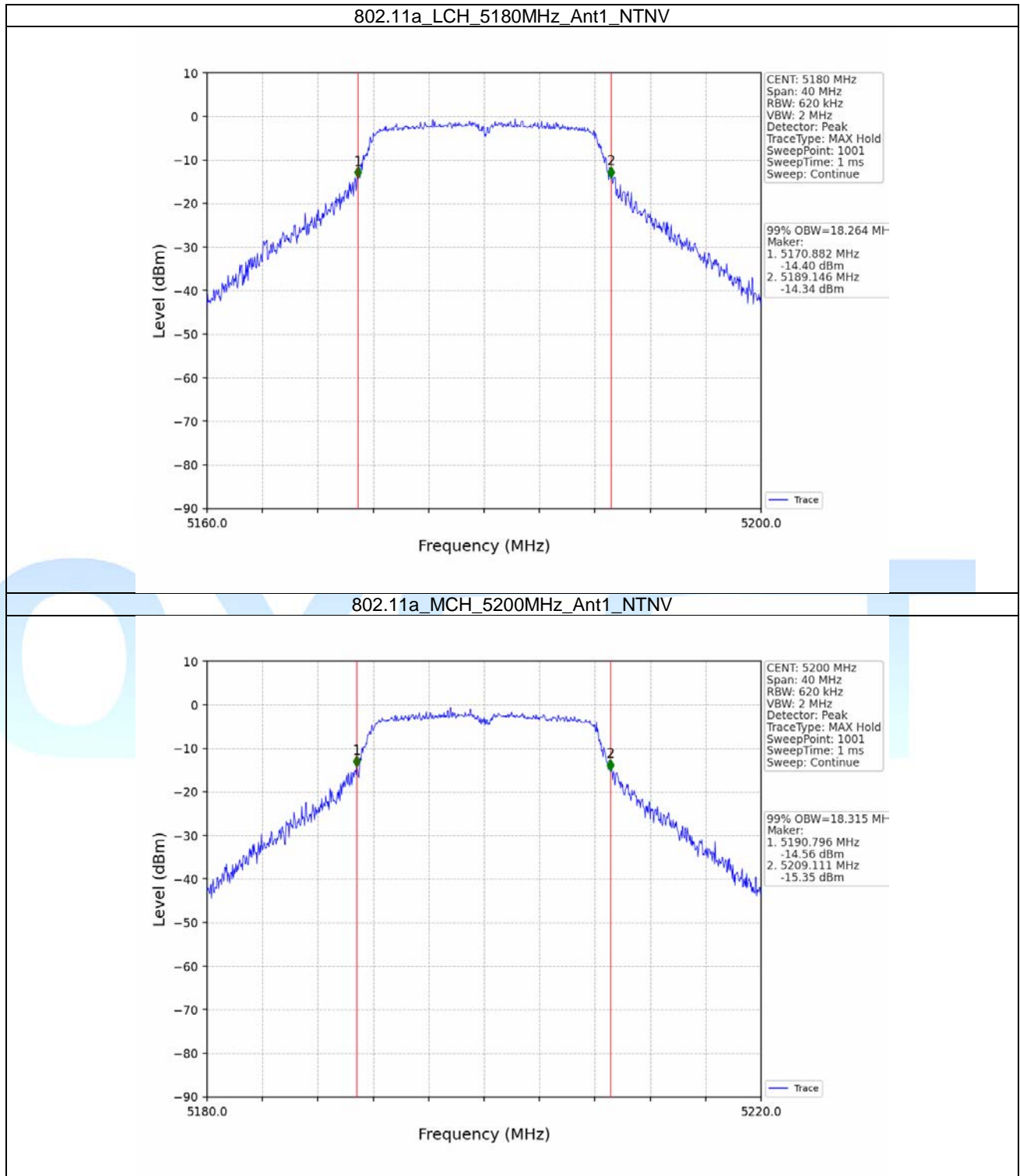
Mode	TX Type	Frequency (MHz)	RU	RU Pos	ANT	99% Occupied Bandwidth (MHz)		Verdict
						Result	Limit	
802.11a	SISO	5180	/	/	1	18.264	/	Pass
		5200	/	/	1	18.315	/	Pass
		5240	/	/	1	18.269	/	Pass
802.11n (HT20)	SISO	5180	/	/	1	19.446	/	Pass
		5200	/	/	1	19.497	/	Pass
		5240	/	/	1	19.487	/	Pass
802.11n (HT40)	SISO	5190	/	/	1	37.473	/	Pass
		5230	/	/	1	37.724	/	Pass
802.11ac (VHT20)	SISO	5180	/	/	1	19.564	/	Pass
		5200	/	/	1	19.526	/	Pass
		5240	/	/	1	19.469	/	Pass
802.11ac (VHT40)	SISO	5190	/	/	1	37.623	/	Pass
		5230	/	/	1	37.736	/	Pass
802.11ax (HEW20)	SISO	5180	RU242	Left	1	19.836	/	Pass
		5200	RU242	Left	1	19.793	/	Pass
		5240	RU242	Left	1	19.838	/	Pass
802.11ax (HEW40)	SISO	5190	RU484	Left	1	38.642	/	Pass
		5230	RU484	Left	1	38.722	/	Pass

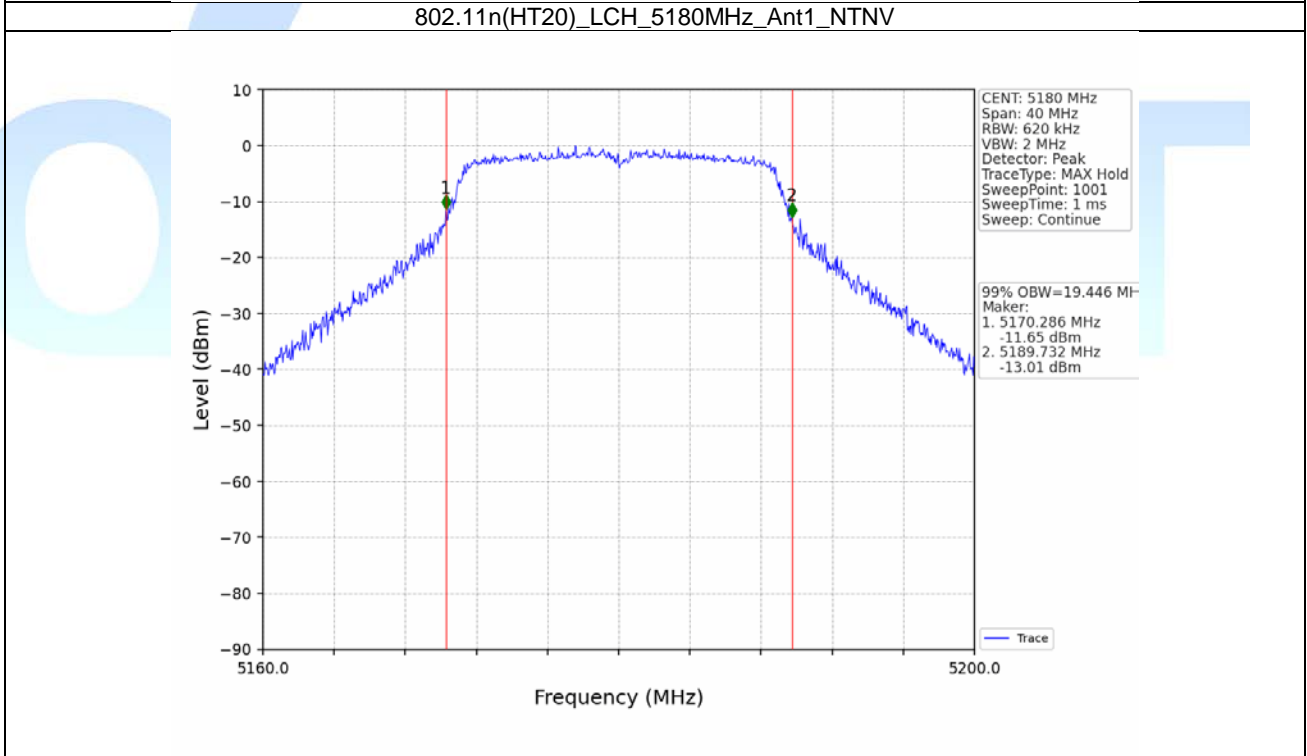
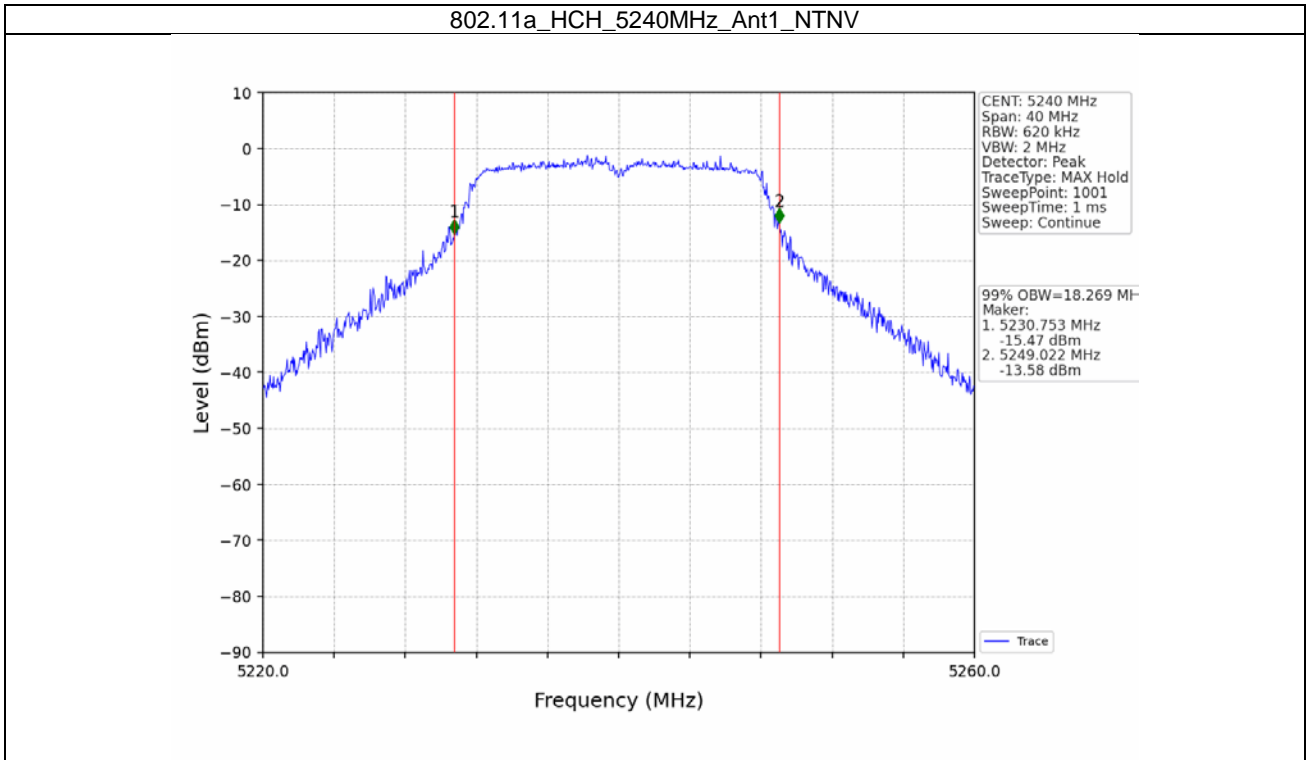
#### 2.1.2 26dB BW

Mode	TX Type	Frequency (MHz)	RU	RU Pos	ANT	26dB Bandwidth (MHz)		Verdict
						Result	Limit	
802.11a	SISO	5180	/	/	1	22.805	/	Pass
		5200	/	/	1	23.777	/	Pass
		5240	/	/	1	22.846	/	Pass
802.11n (HT20)	SISO	5180	/	/	1	25.509	/	Pass
		5200	/	/	1	24.654	/	Pass
		5240	/	/	1	24.345	/	Pass
802.11n (HT40)	SISO	5190	/	/	1	45.846	/	Pass
		5230	/	/	1	46.162	/	Pass
802.11ac (VHT20)	SISO	5180	/	/	1	25.681	/	Pass
		5200	/	/	1	23.993	/	Pass
		5240	/	/	1	24.754	/	Pass
802.11ac (VHT40)	SISO	5190	/	/	1	44.705	/	Pass
		5230	/	/	1	45.812	/	Pass
802.11ax (HEW20)	SISO	5180	RU242	Left	1	24.948	/	Pass
		5200	RU242	Left	1	24.200	/	Pass
		5240	RU242	Left	1	25.670	/	Pass
802.11ax (HEW40)	SISO	5190	RU484	Left	1	43.310	/	Pass
		5230	RU484	Left	1	44.971	/	Pass

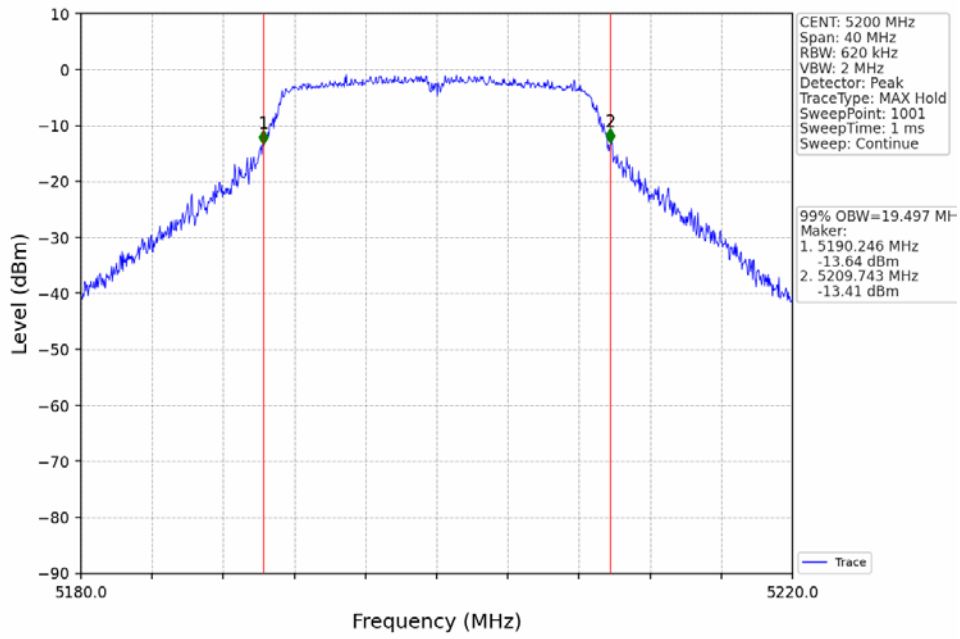
## 2.2 Test Graph

### 2.2.1 OBW

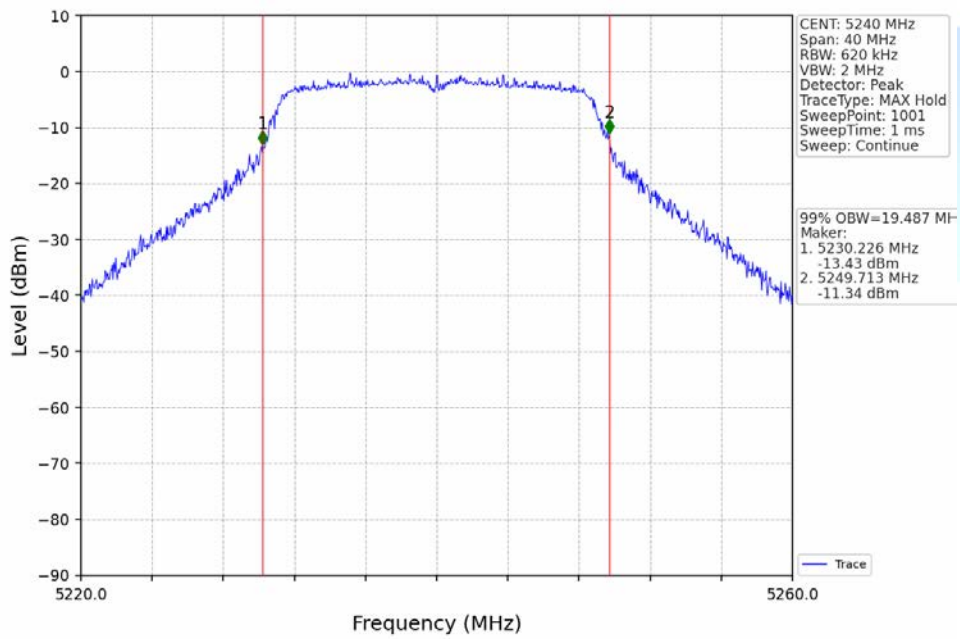




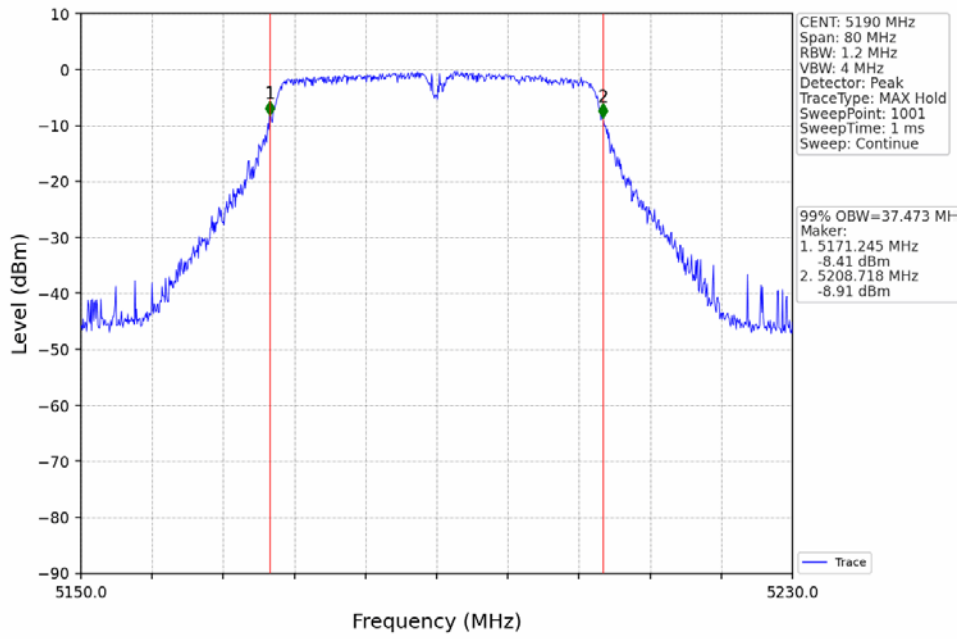
802.11n(HT20)\_MCH\_5200MHz\_Ant1\_NTNV



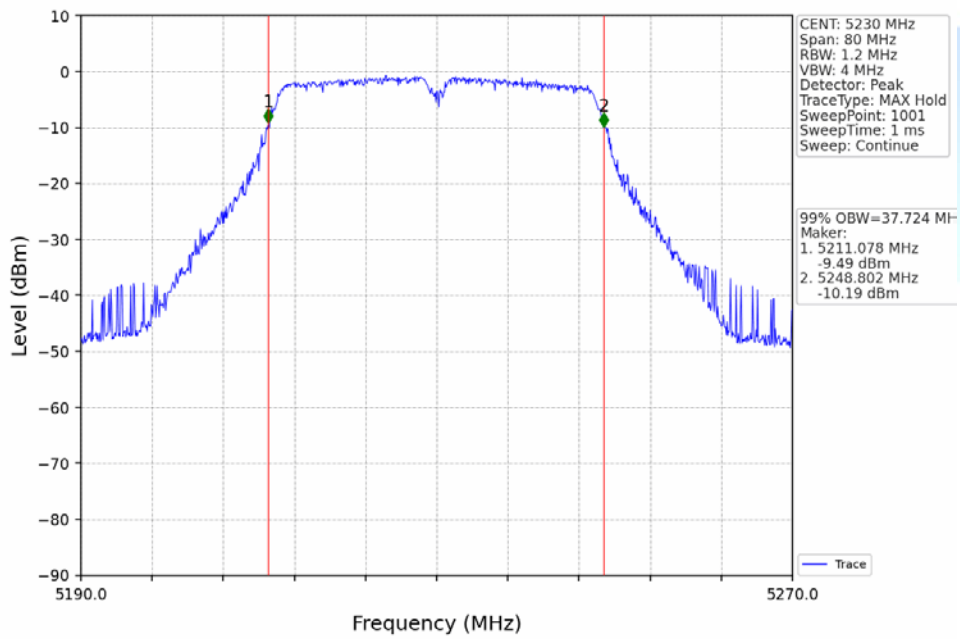
802.11n(HT20)\_HCH\_5240MHz\_Ant1\_NTNV



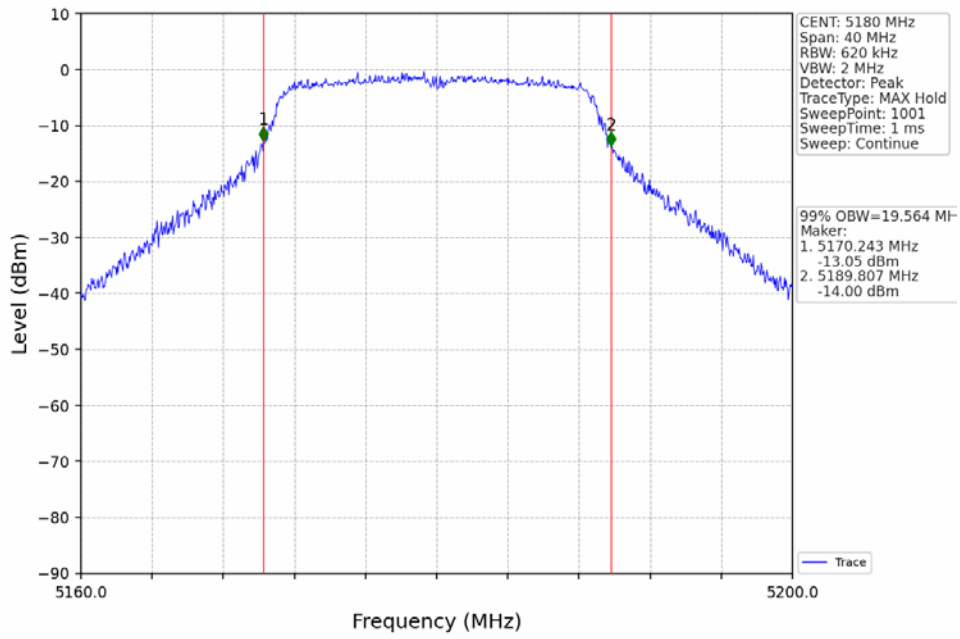
802.11n(HT40)\_LCH\_5190MHz\_Ant1\_NTNV



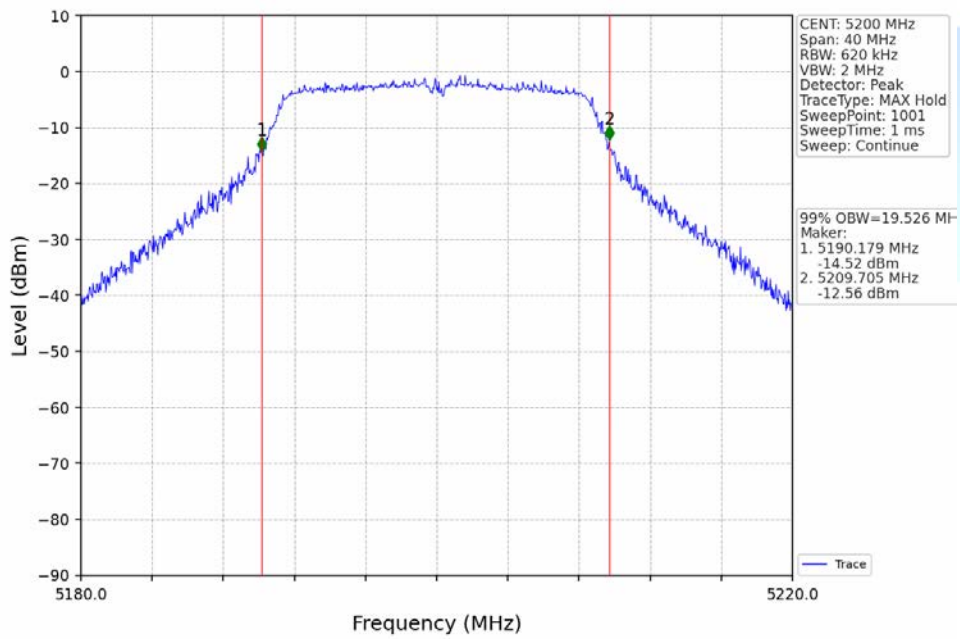
802.11n(HT40)\_HCH\_5230MHz\_Ant1\_NTNV



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

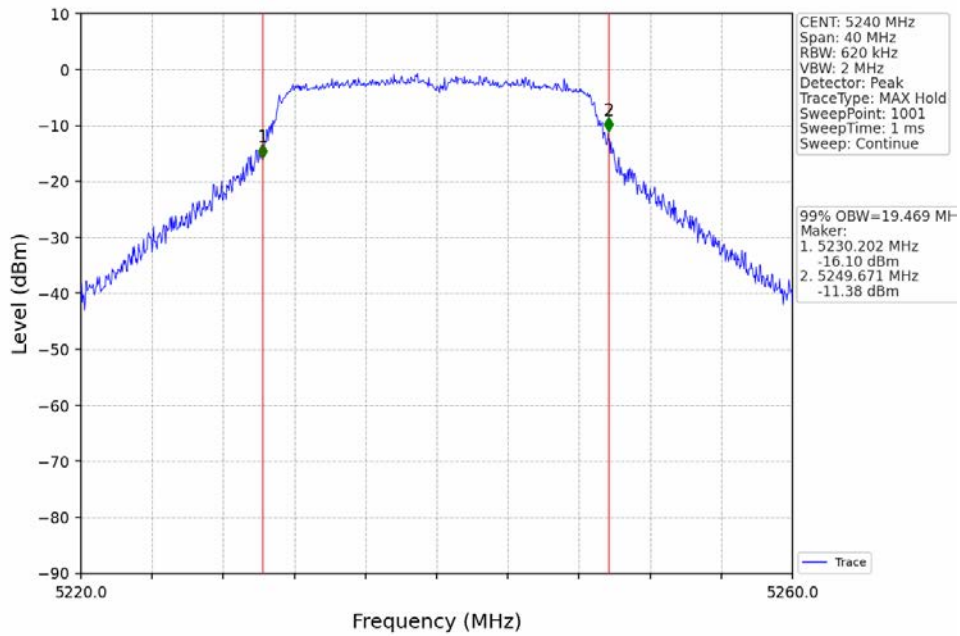


802.11ac(VHT20)\_MCH\_5200MHz\_Ant1\_NTNV

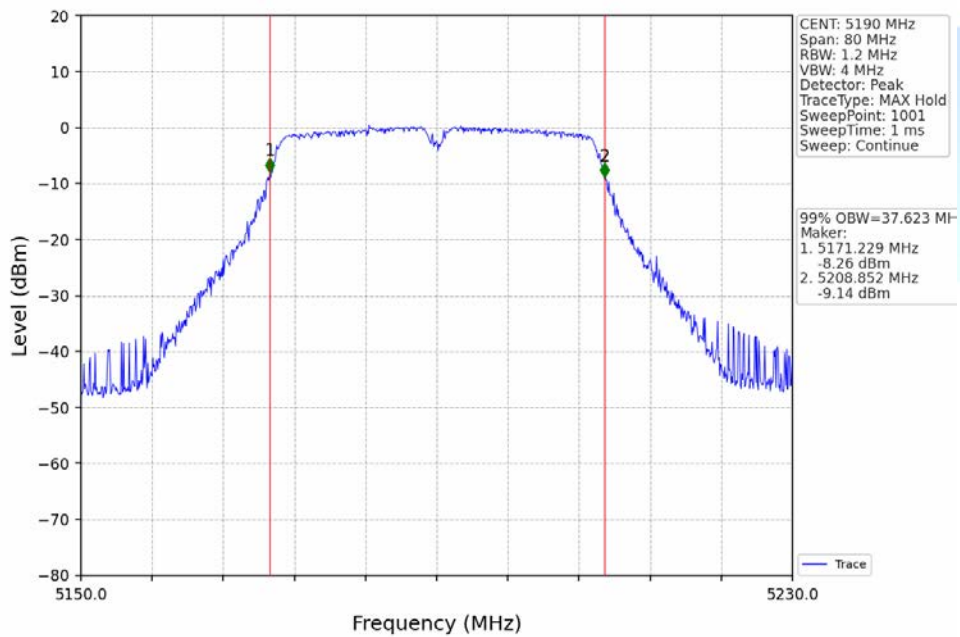




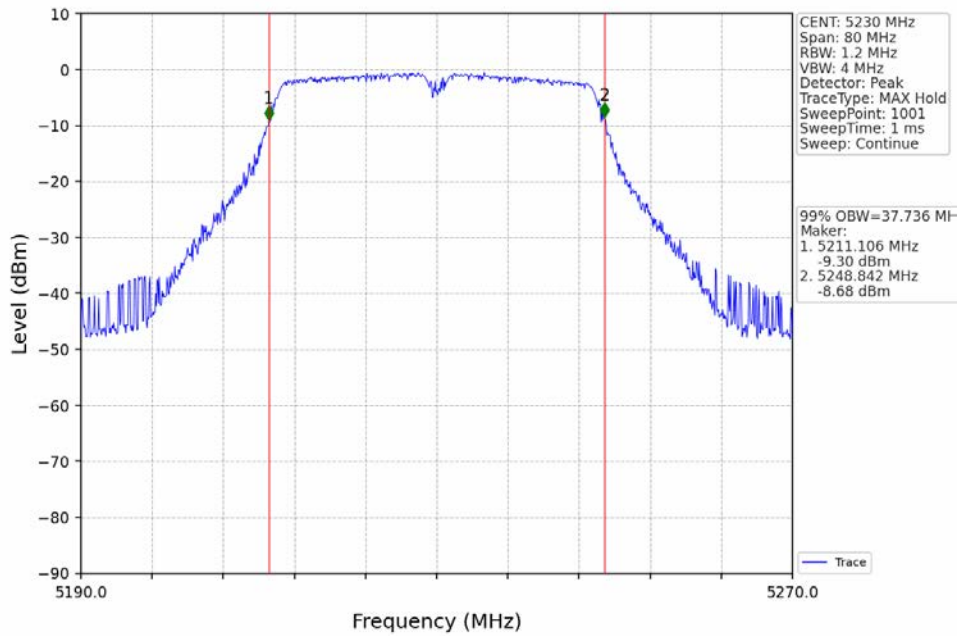
802.11ac(VHT20)\_HCH\_5240MHz\_Ant1\_NTNV



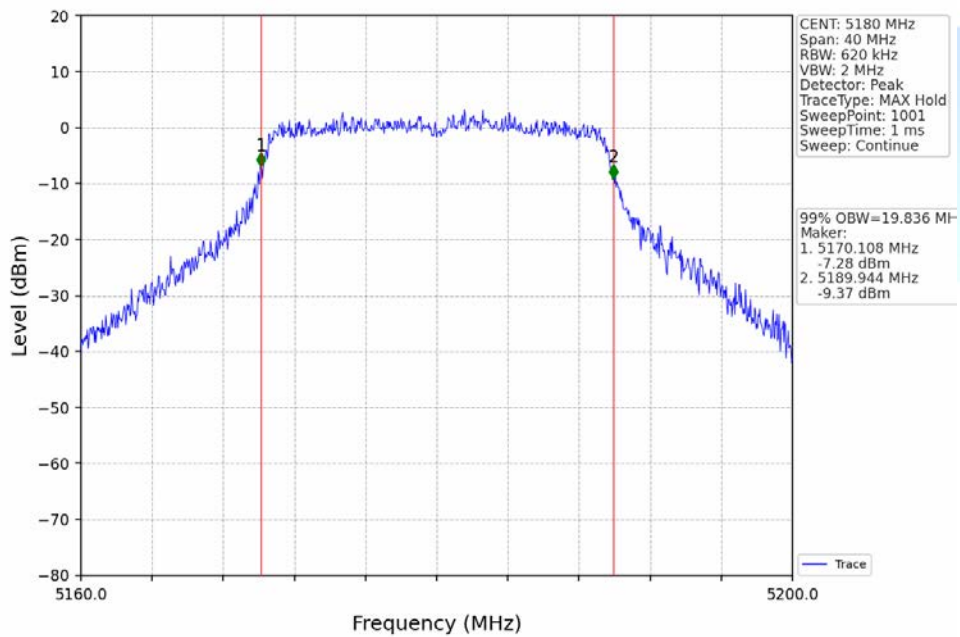
802.11ac(VHT40)\_LCH\_5190MHz\_Ant1\_NTNV



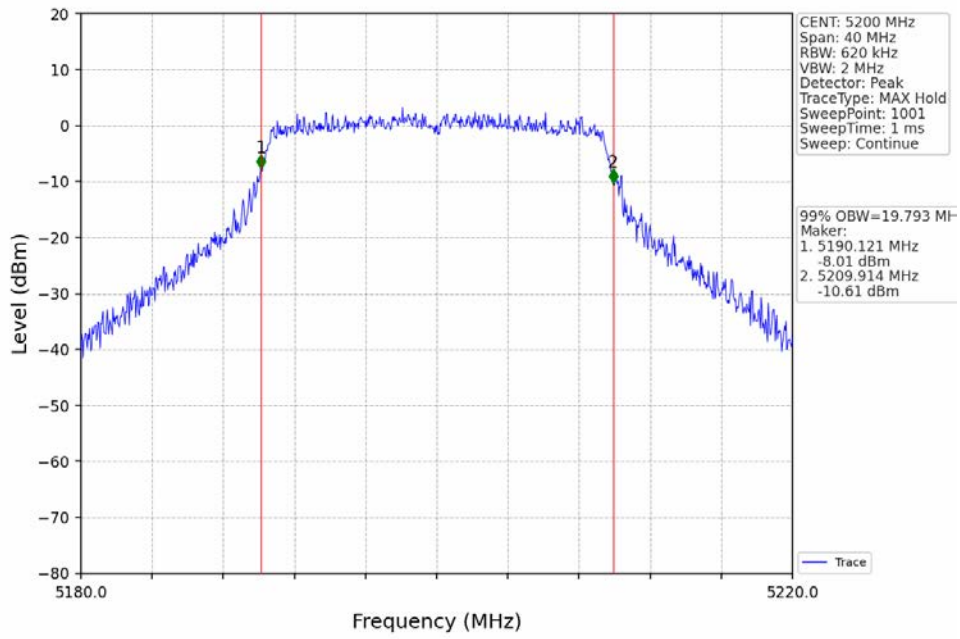
802.11ac(VHT40)\_HCH\_5230MHz\_Ant1\_NTNV



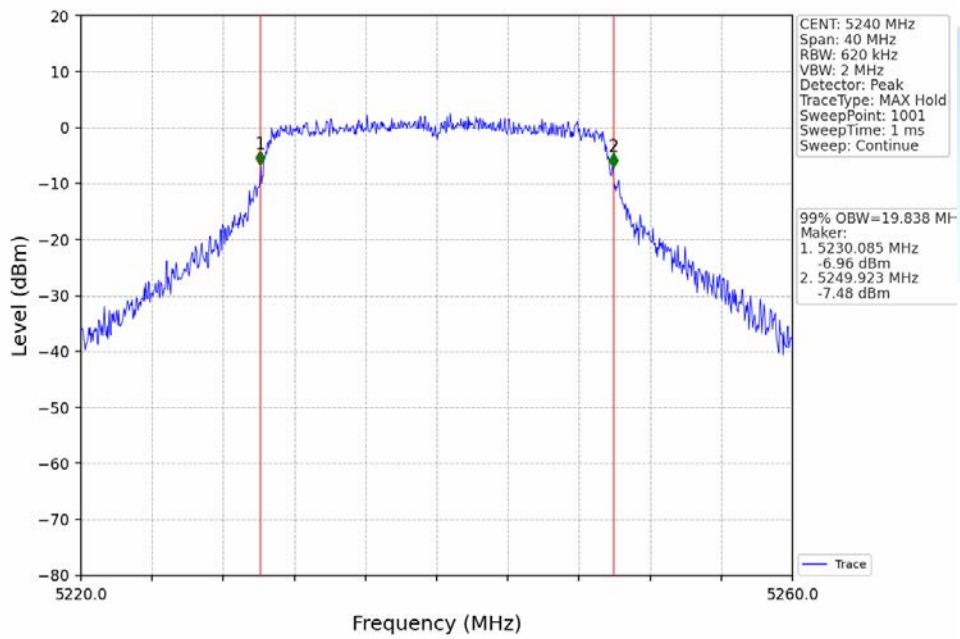
802.11ax(HEW20)\_LCH\_5180MHz\_RU242\_Left\_Ant1\_NTNV



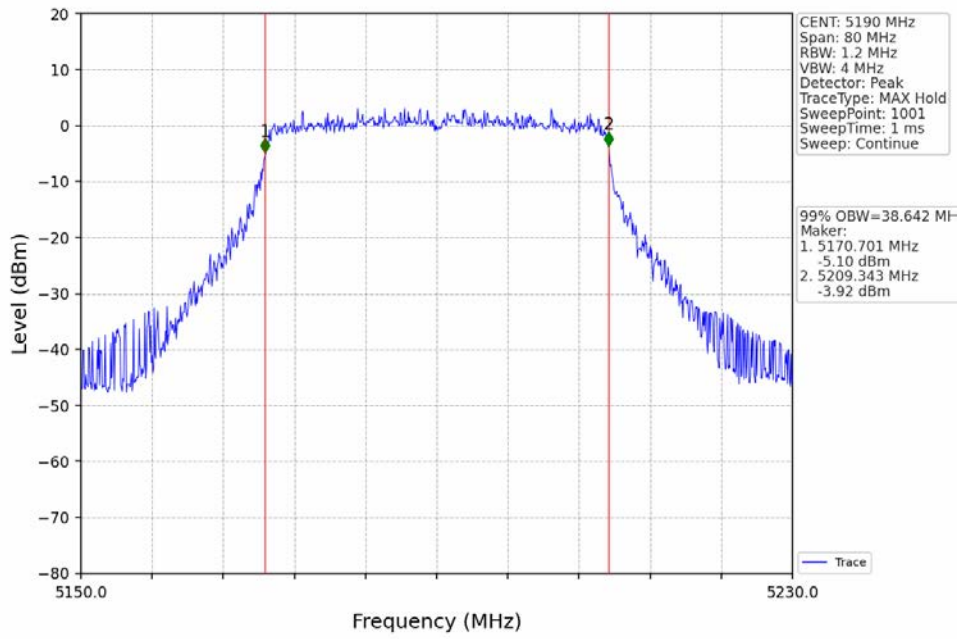
802.11ax(HEW20)\_MCH\_5200MHz\_RU242\_Left\_Ant1\_NTNV



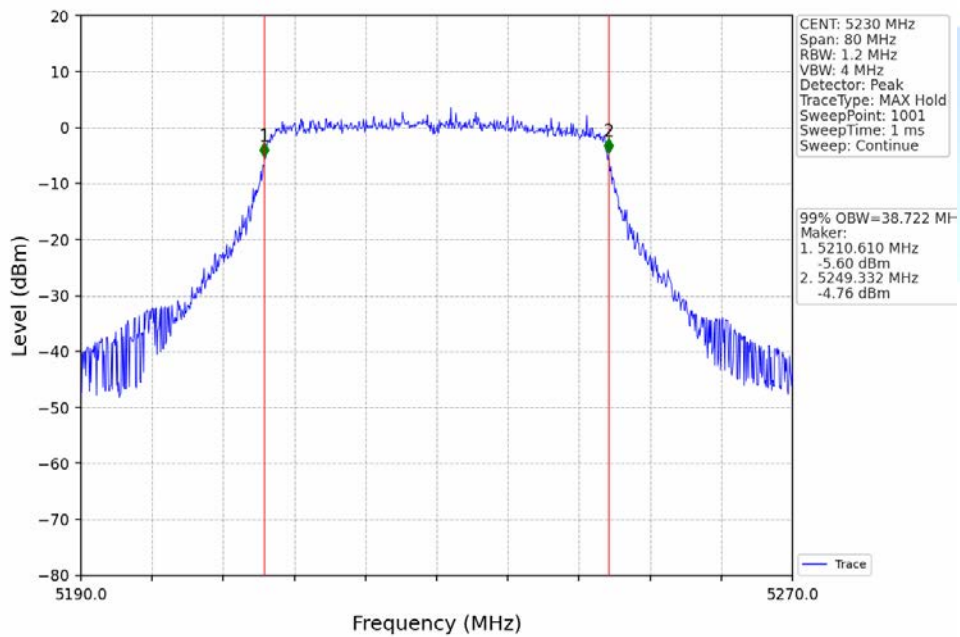
802.11ax(HEW20)\_HCH\_5240MHz\_RU242\_Left\_Ant1\_NTNV



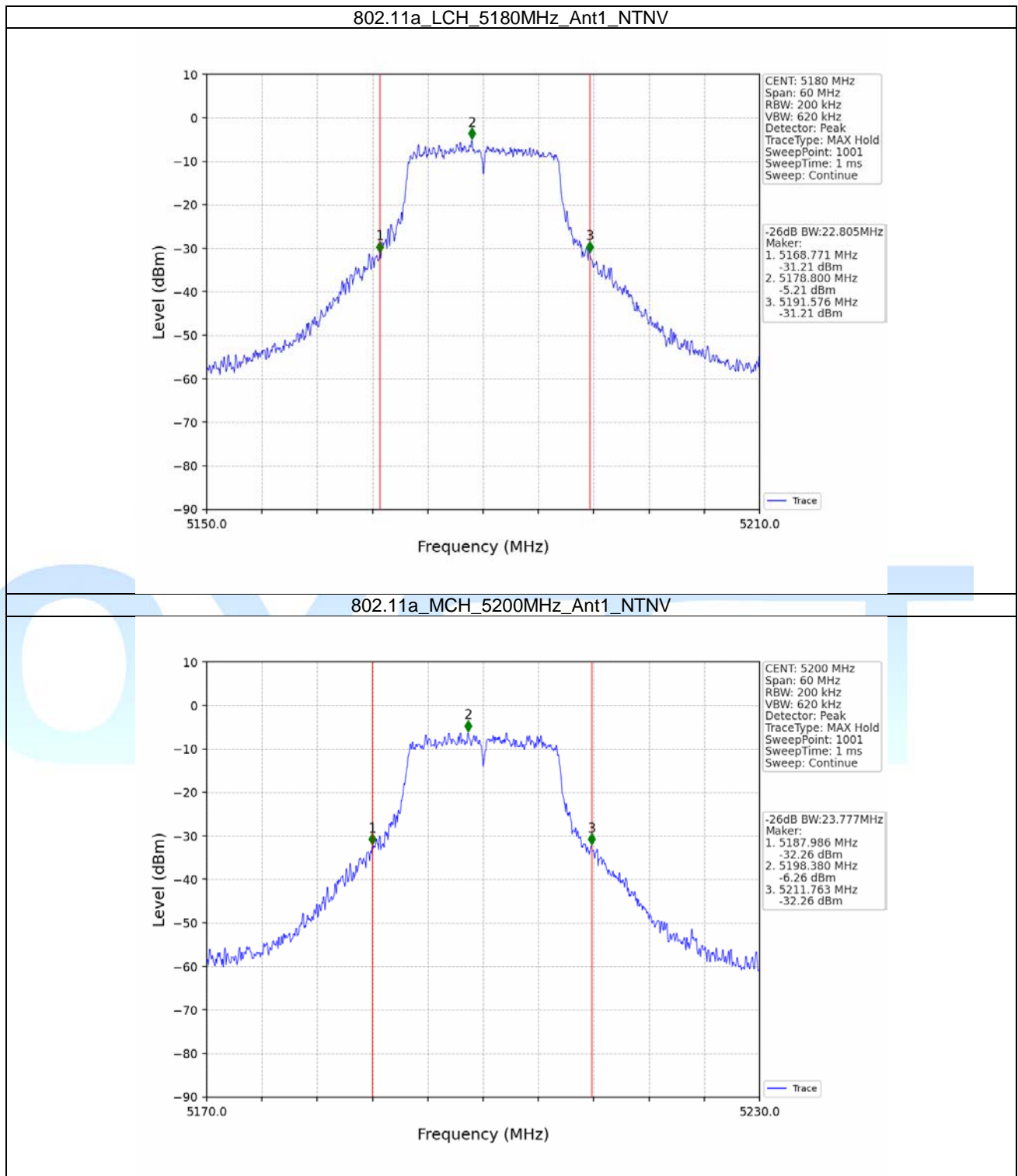
802.11ax(HEW40)\_LCH\_5190MHz\_RU484\_Left\_Ant1\_NTNV



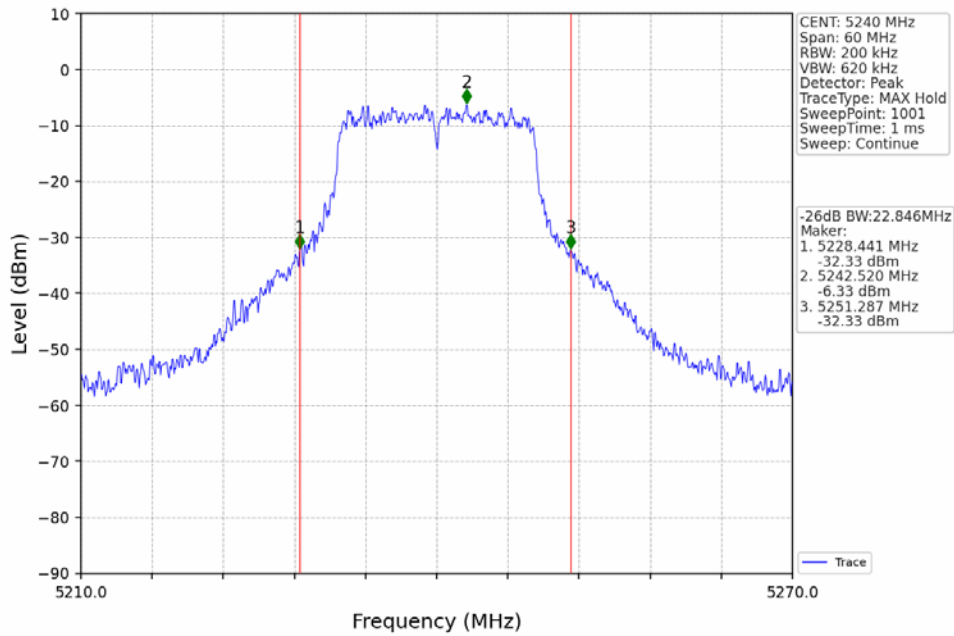
802.11ax(HEW40)\_HCH\_5230MHz\_RU484\_Left\_Ant1\_NTNV



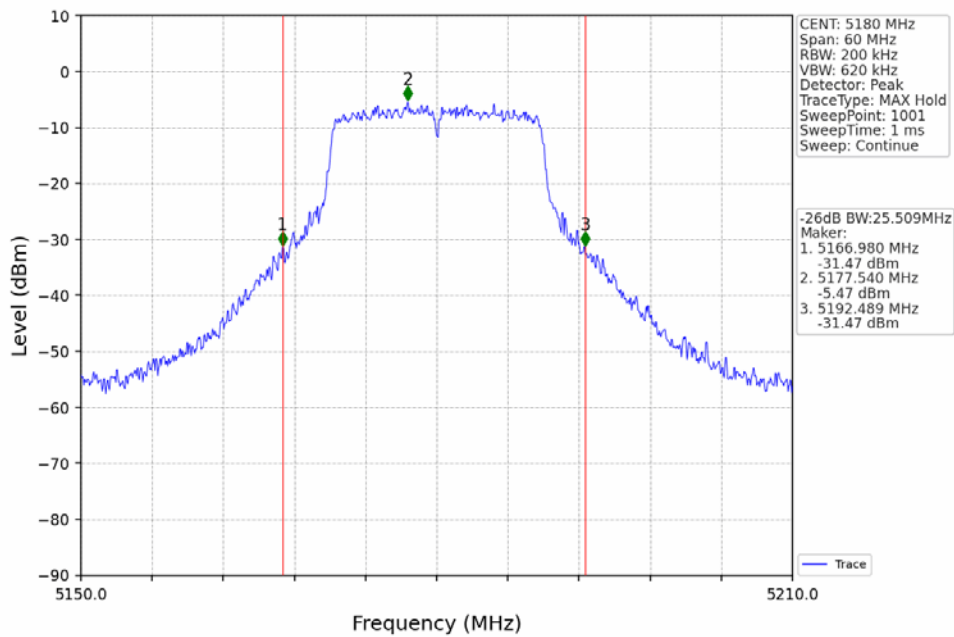
### 2.2.2 26dB BW



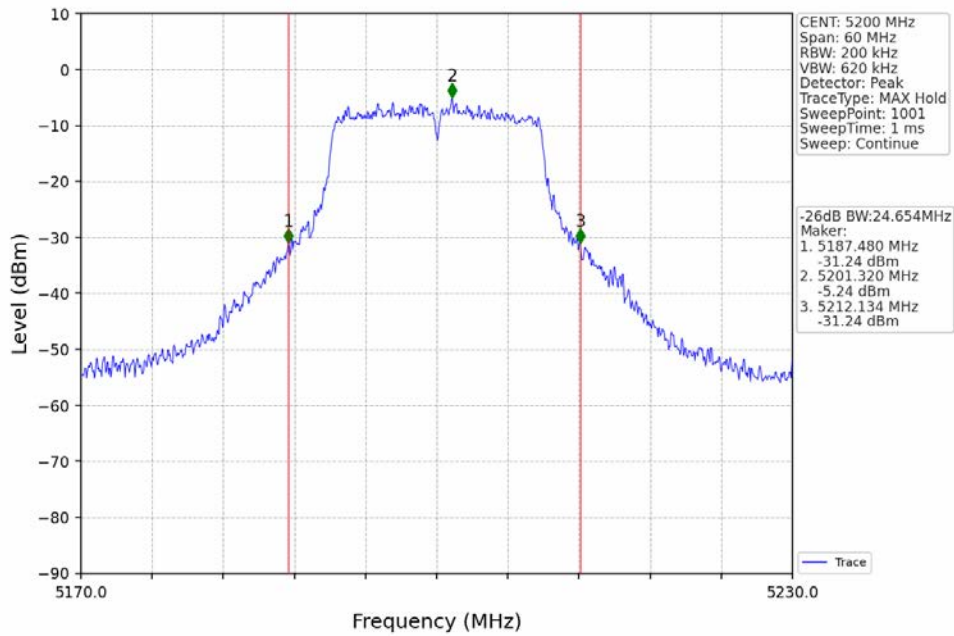
802.11a\_HCH\_5240MHz\_Ant1\_NTNV



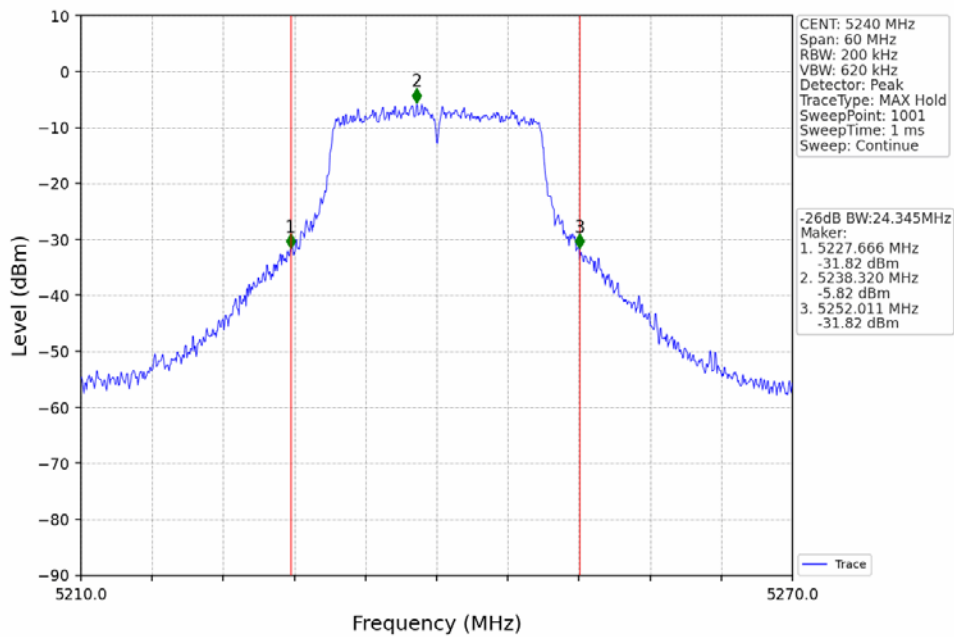
802.11n(HT20)\_LCH\_5180MHz\_Ant1\_NTNV



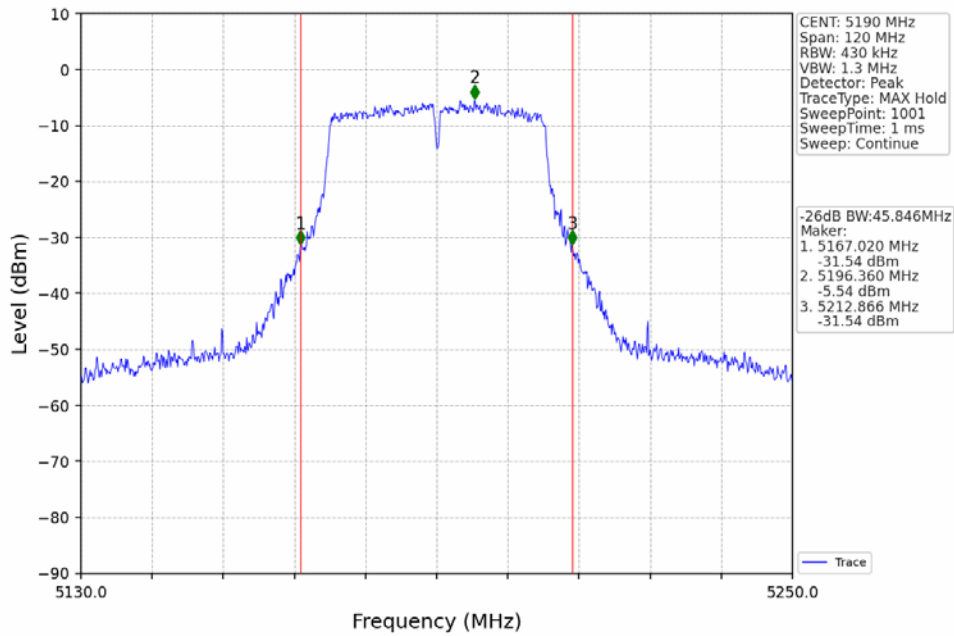
802.11n(HT20)\_MCH\_5200MHz\_Ant1\_NTNV



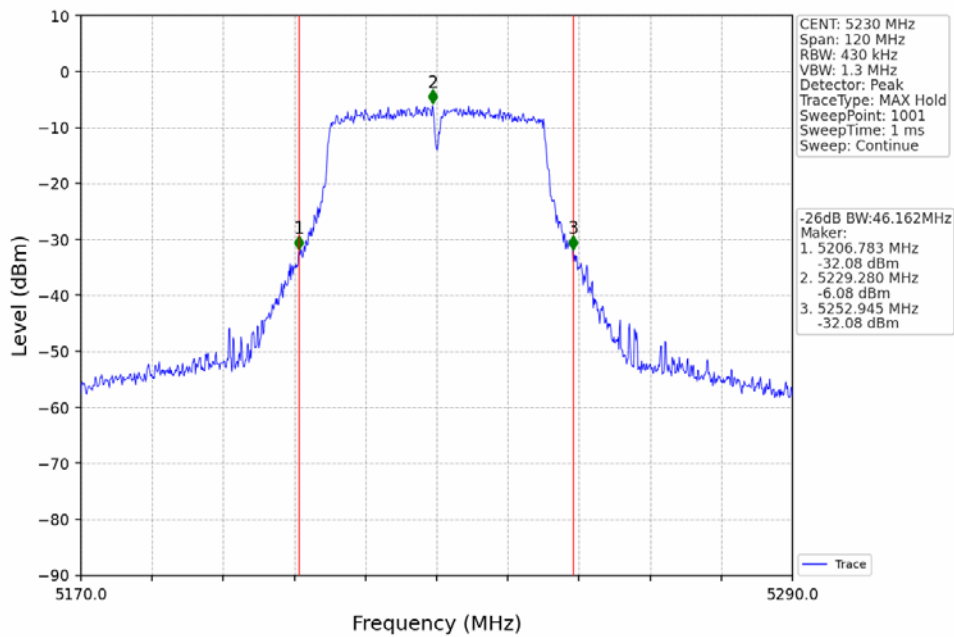
802.11n(HT20)\_HCH\_5240MHz\_Ant1\_NTNV



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

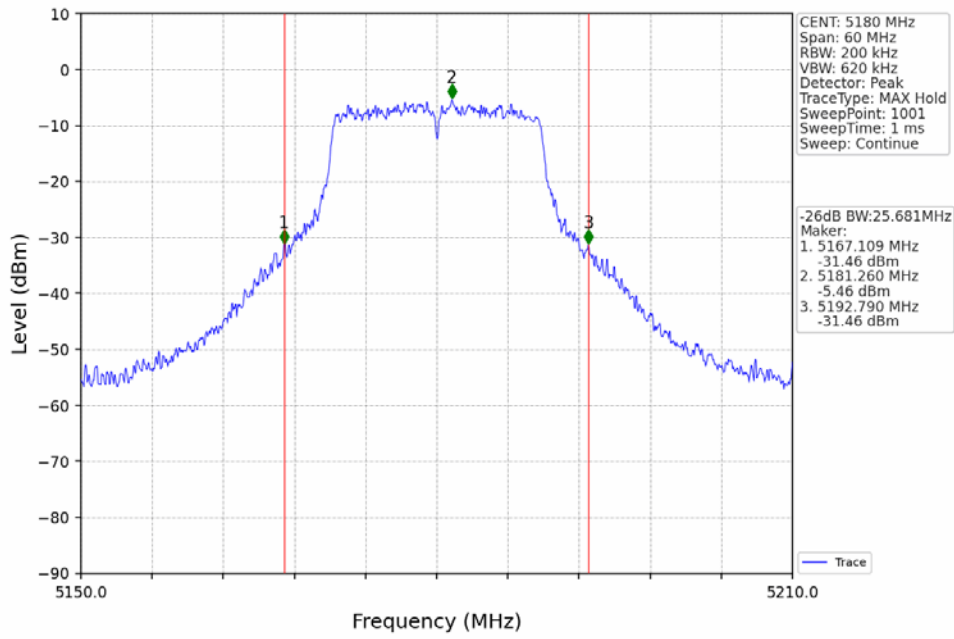


802.11n(HT40)\_HCH\_5230MHz\_Ant1\_NTNV

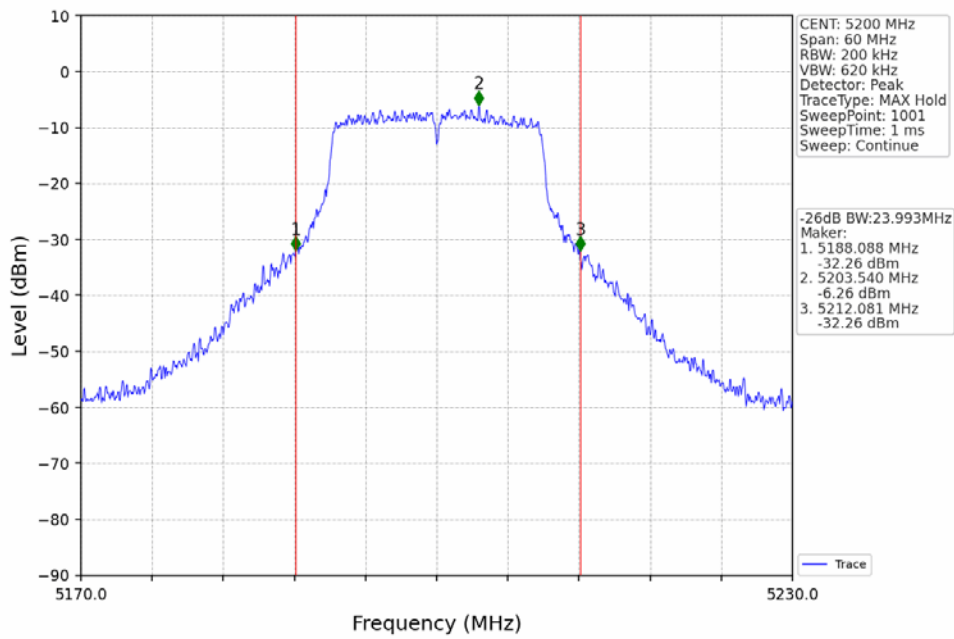




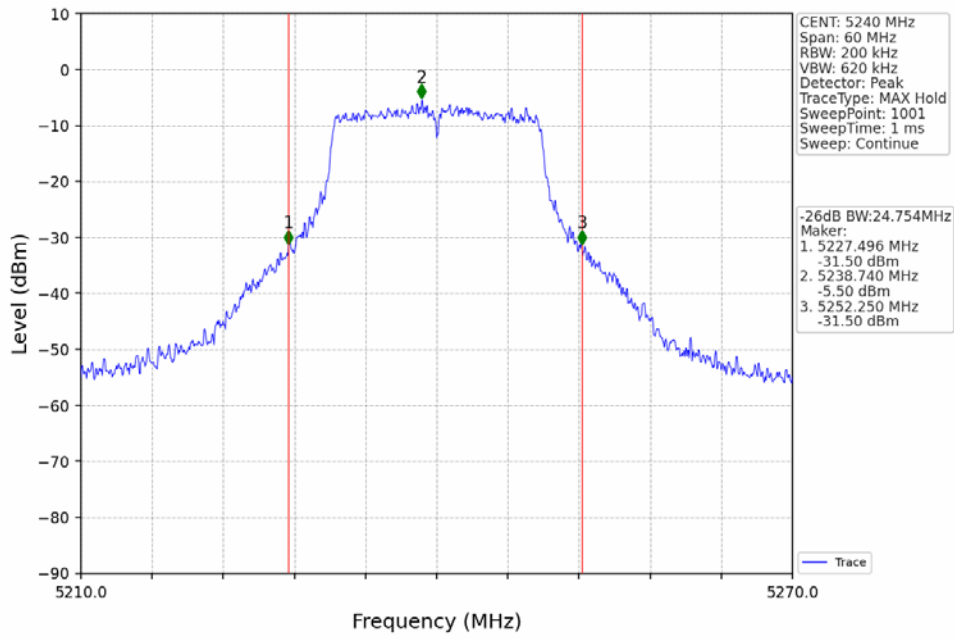
802.11ac(VHT20)\_LCH\_5180MHz\_Ant1\_NTNV



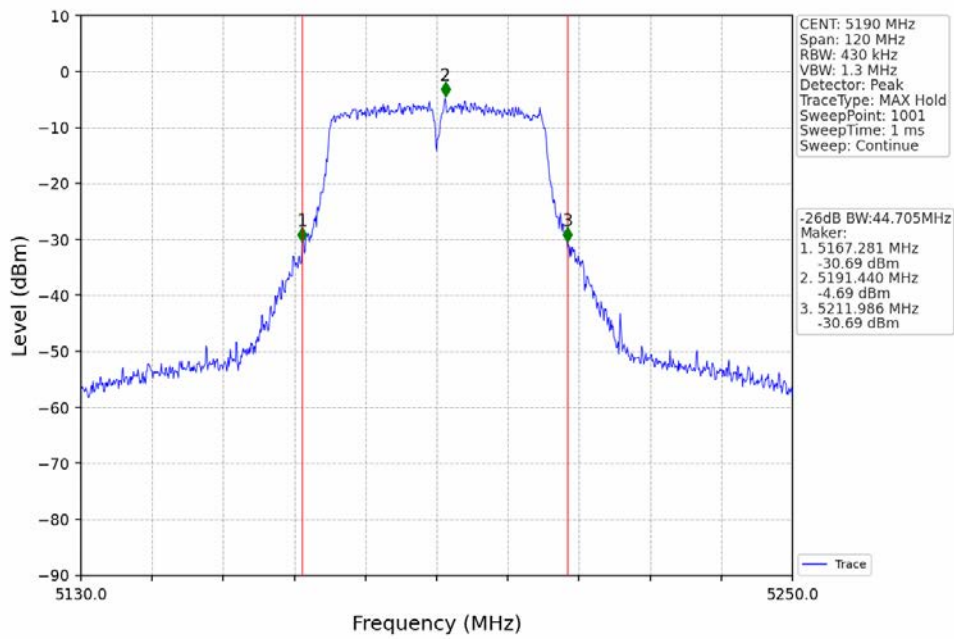
802.11ac(VHT20)\_MCH\_5200MHz\_Ant1\_NTNV



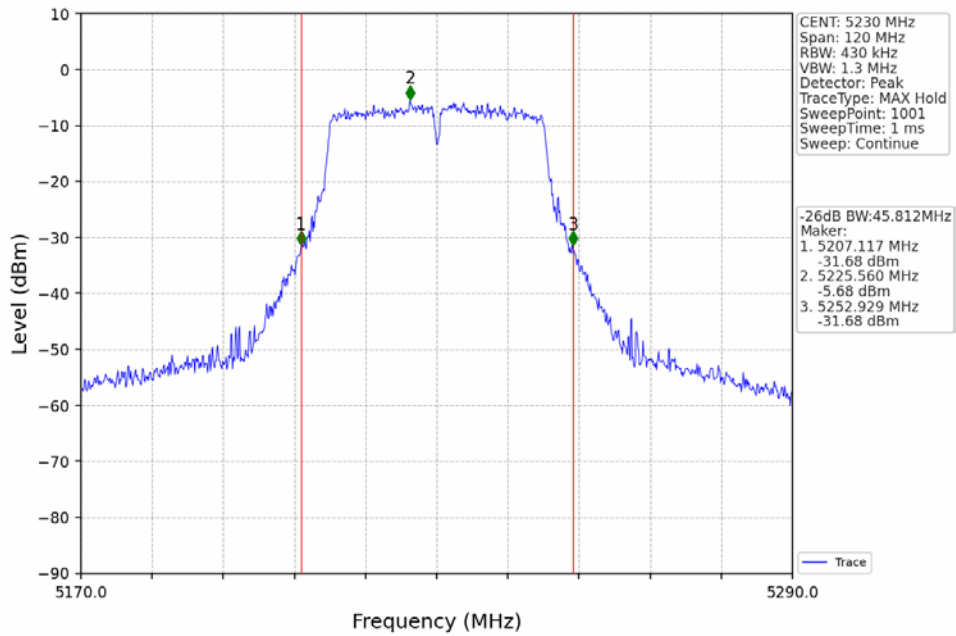
802.11ac(VHT20)\_HCH\_5240MHz\_Ant1\_NTNV



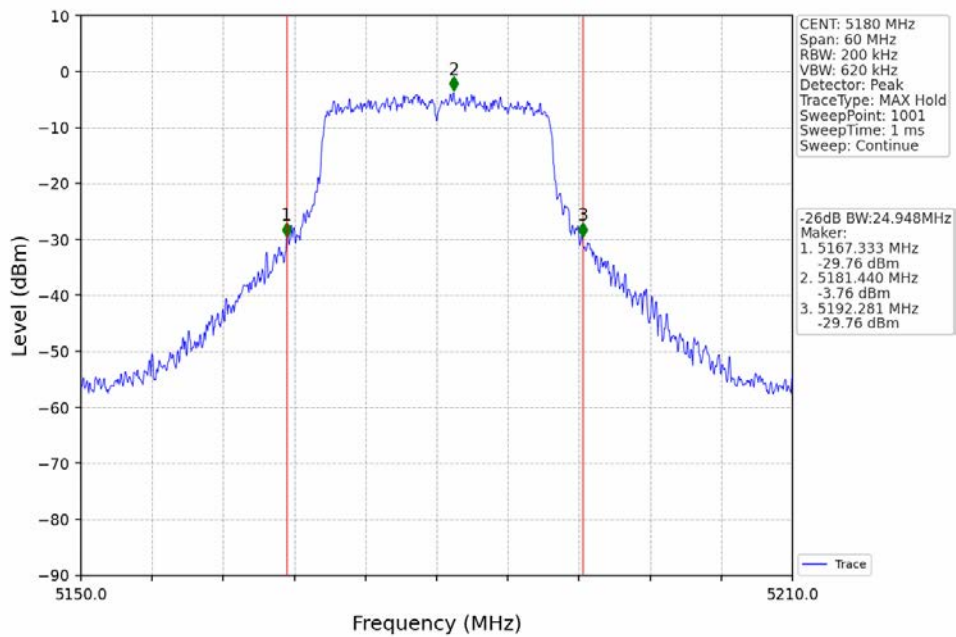
802.11ac(VHT40)\_LCH\_5190MHz\_Ant1\_NTNV



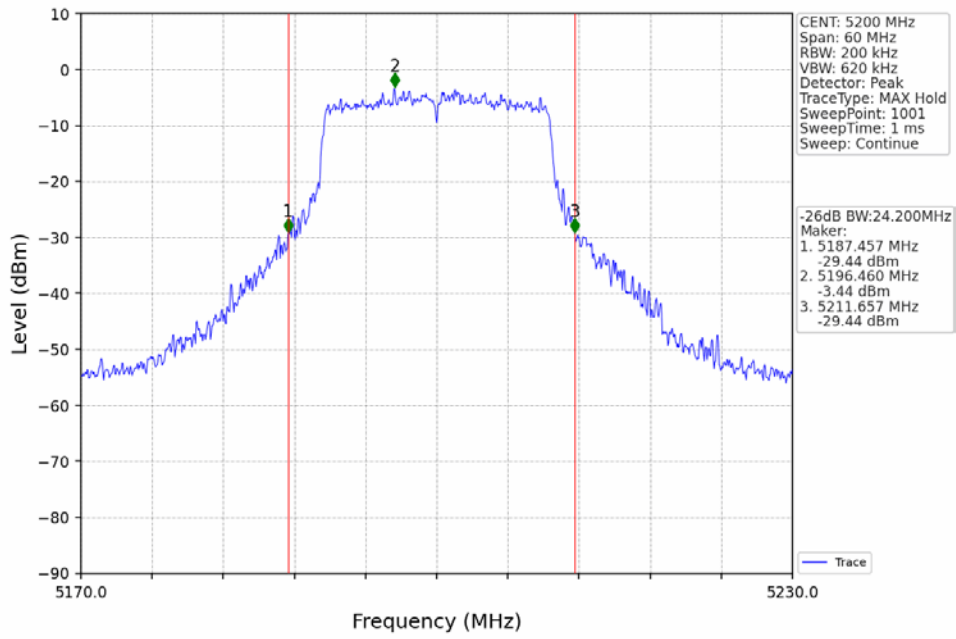
802.11ac(VHT40)\_HCH\_5230MHz\_Ant1\_NTNV



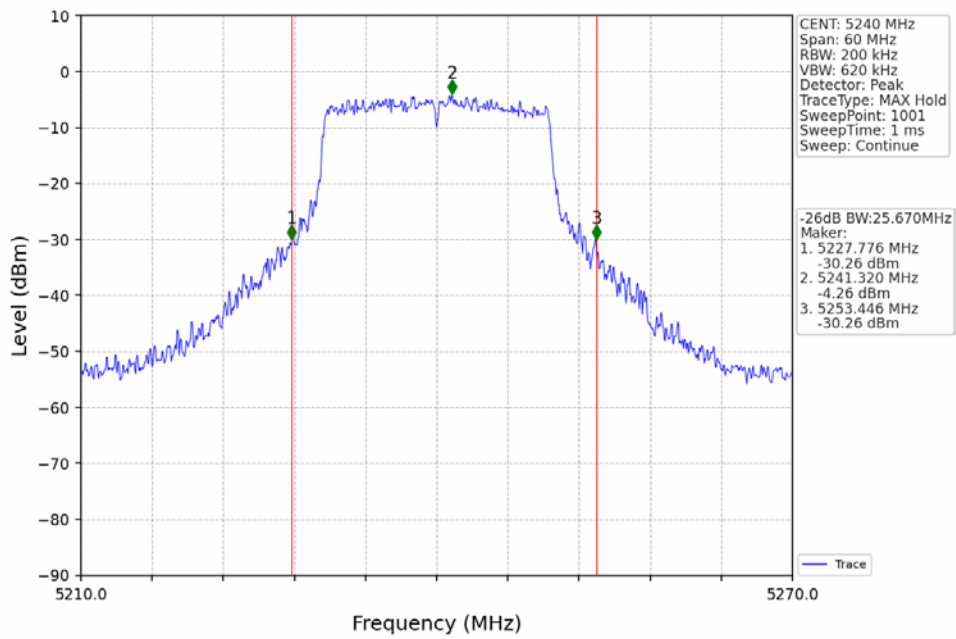
802.11ax(HEW20)\_LCH\_5180MHz\_RU242\_Left\_Ant1\_NTNV



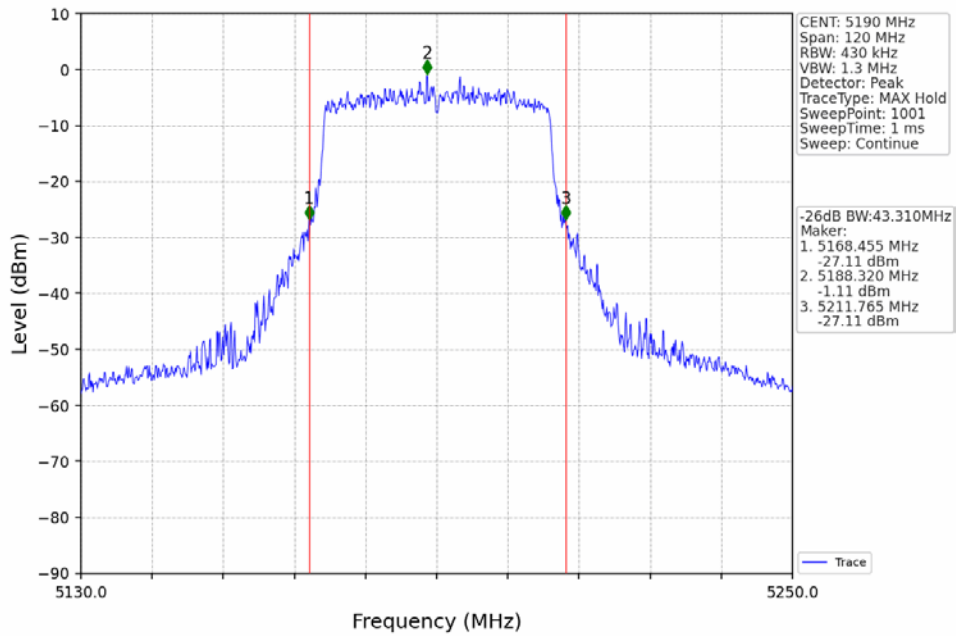
802.11ax(HEW20)\_MCH\_5200MHz\_RU242\_Left\_Ant1\_NTNV



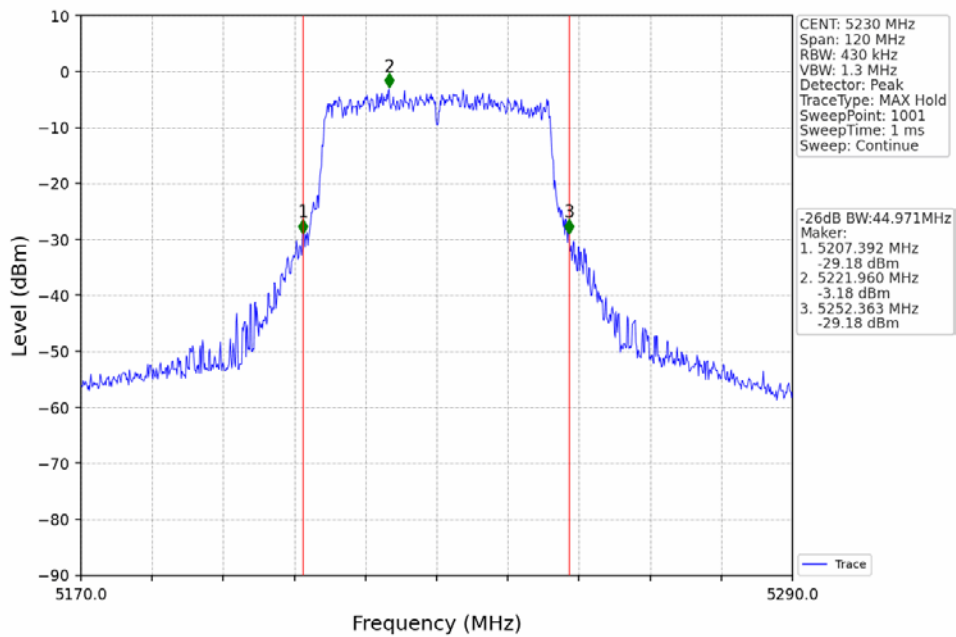
802.11ax(HEW20)\_HCH\_5240MHz\_RU242\_Left\_Ant1\_NTNV



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 Test Result

##### 3.1.1 Power

Mode	TX Type	Frequency (MHz)	RU	RU Pos	Maximum Average Conducted Output Power (dBm)		Verdict
					ANT1	Limit	
802.11a	SISO	5180	/	/	5.58	<=23.98	Pass
		5200	/	/	4.18	<=23.98	Pass
		5240	/	/	3.87	<=23.98	Pass
802.11n (HT20)	SISO	5180	/	/	5.17	<=23.98	Pass
		5200	/	/	5.13	<=23.98	Pass
		5240	/	/	5.25	<=23.98	Pass
802.11n (HT40)	SISO	5190	/	/	4.77	<=23.98	Pass
		5230	/	/	4.02	<=23.98	Pass
802.11ac (VHT20)	SISO	5180	/	/	4.77	<=23.98	Pass
		5200	/	/	5.17	<=23.98	Pass
		5240	/	/	4.69	<=23.98	Pass
802.11ac (VHT40)	SISO	5190	/	/	4.63	<=23.98	Pass
		5230	/	/	4.29	<=23.98	Pass
802.11ax (HEW20)	SISO	5180	RU242	Left	6.11	<=23.98	Pass
		5200	RU242	Left	6.34	<=23.98	Pass
		5240	RU242	Left	6.05	<=23.98	Pass
802.11ax (HEW40)	SISO	5190	RU484	Left	5.34	<=23.98	Pass
		5230	RU484	Left	5.35	<=23.98	Pass

Note1: Antenna Gain: Ant1: 2.99dBi;

## 4. Maximum Power Spectral Density

### 4.1 Test Result

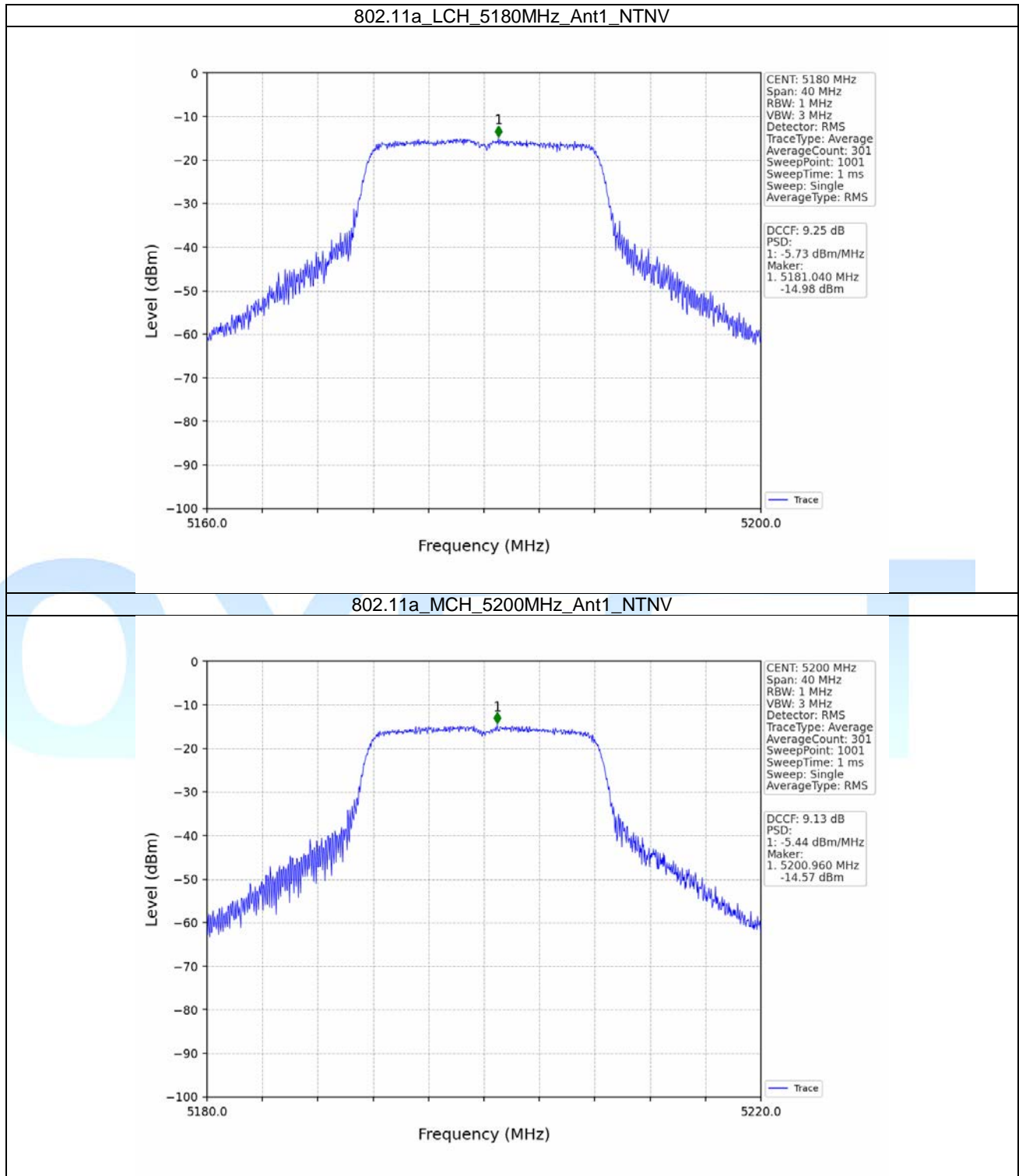
#### 4.1.1 PSD

Mode	TX Type	Frequency (MHz)	RU	RU Pos	Maximum PSD (dBm/MHz)		Verdict
					ANT1	Limit	
802.11a	SISO	5180	/	/	-5.73	<=11	Pass
		5200	/	/	-5.44	<=11	Pass
		5240	/	/	-6.14	<=11	Pass
802.11n (HT20)	SISO	5180	/	/	-5.75	<=11	Pass
		5200	/	/	-5.83	<=11	Pass
		5240	/	/	-6.08	<=11	Pass
802.11n (HT40)	SISO	5190	/	/	-9.57	<=11	Pass
		5230	/	/	-10.16	<=11	Pass
802.11ac (VHT20)	SISO	5180	/	/	-6.02	<=11	Pass
		5200	/	/	-5.64	<=11	Pass
		5240	/	/	-6.15	<=11	Pass
802.11ac (VHT40)	SISO	5190	/	/	-9.07	<=11	Pass
		5230	/	/	-9.69	<=11	Pass
802.11ax (HEW20)	SISO	5180	RU242	Left	-5.32	<=11	Pass
		5200	RU242	Left	-4.99	<=11	Pass
		5240	RU242	Left	-5.41	<=11	Pass
802.11ax (HEW40)	SISO	5190	RU484	Left	-8.70	<=11	Pass
		5230	RU484	Left	-8.51	<=11	Pass

Note1: Antenna Gain: Ant1: 2.99dBi;

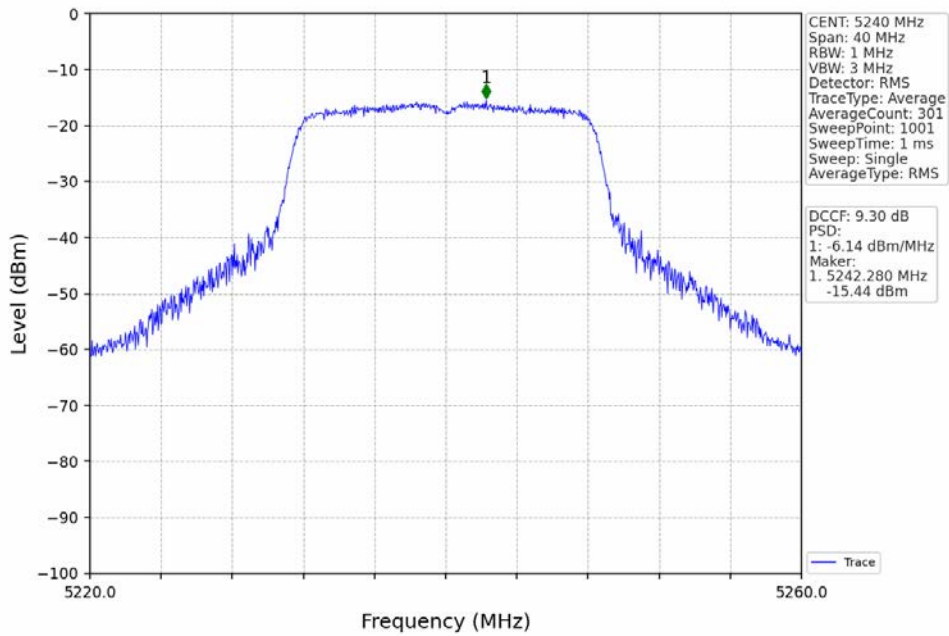
## 4.2 Test Graph

### 4.2.1 PSD

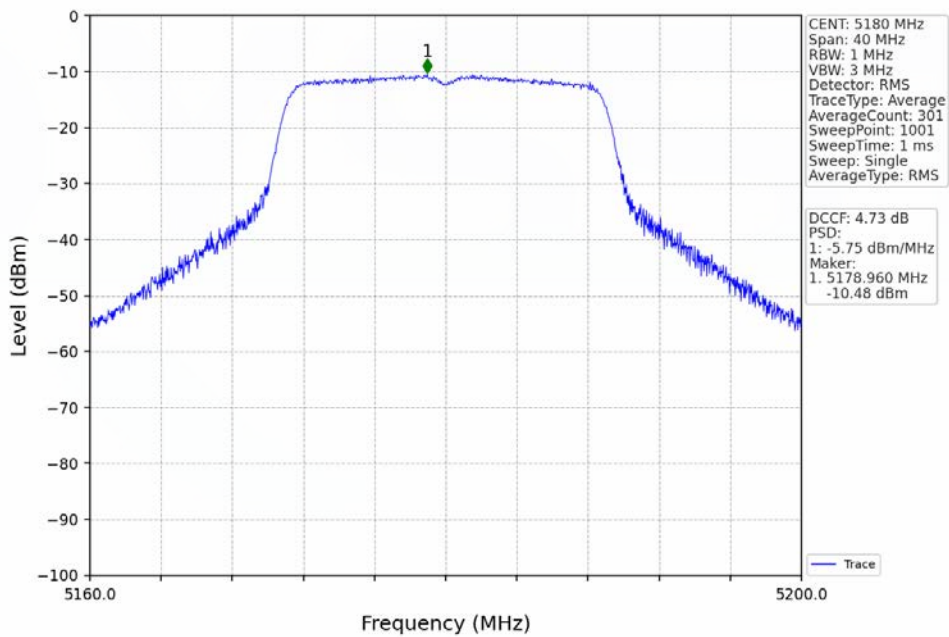




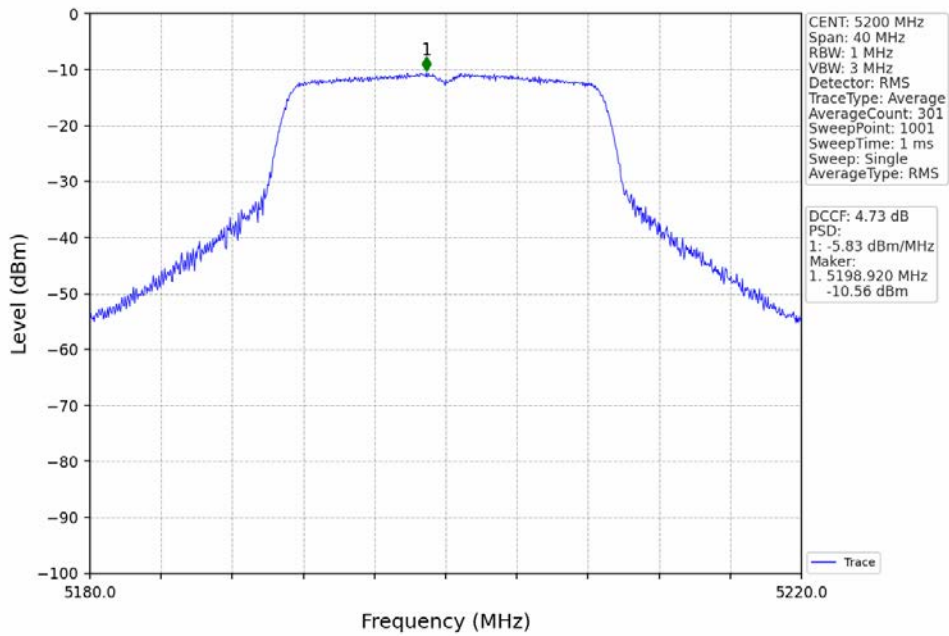
802.11a\_HCH\_5240MHz\_Ant1\_NTNV



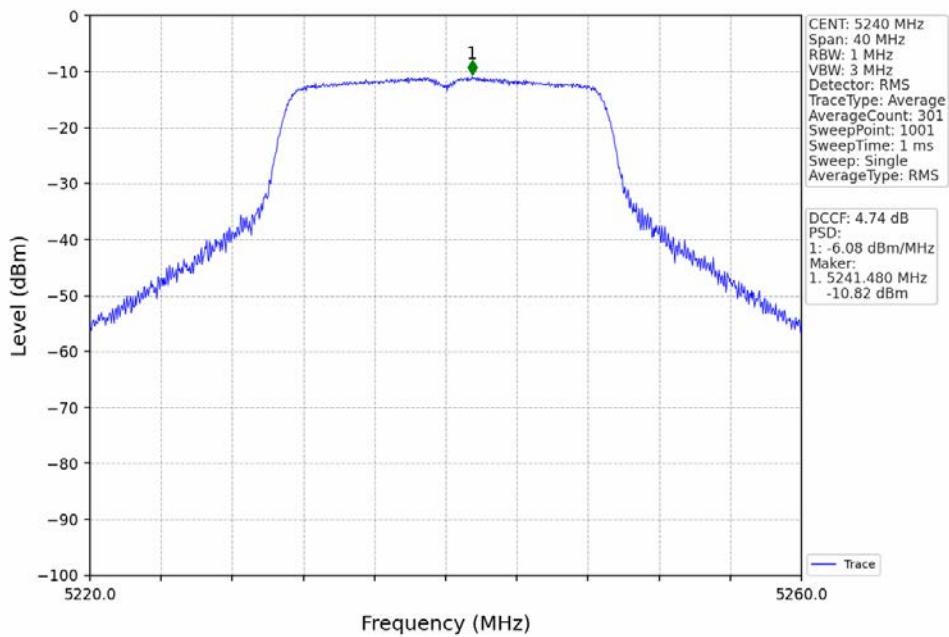
802.11n(HT20)\_LCH\_5180MHz\_Ant1\_NTNV



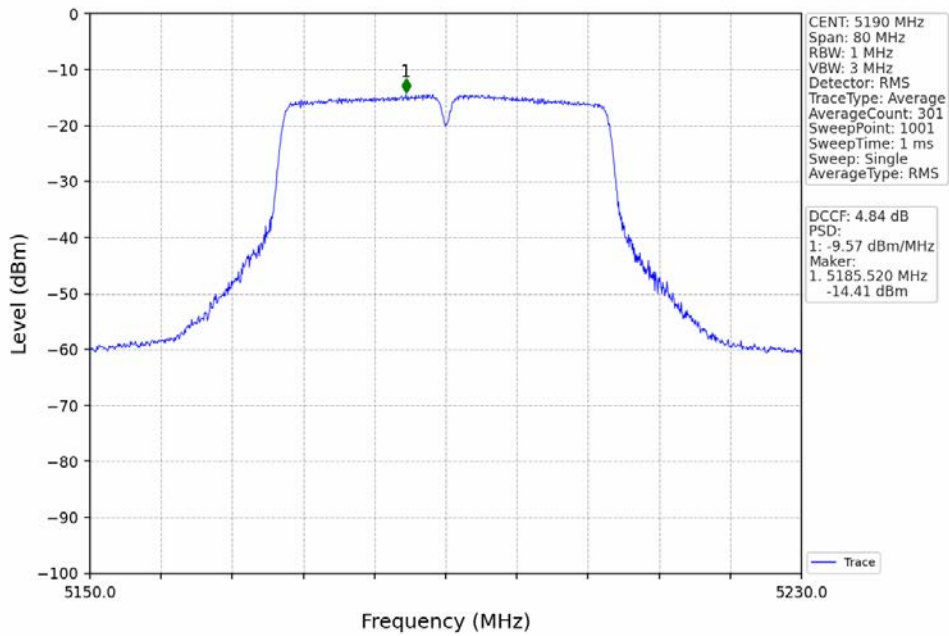
802.11n(HT20)\_MCH\_5200MHz\_Ant1\_NTNV



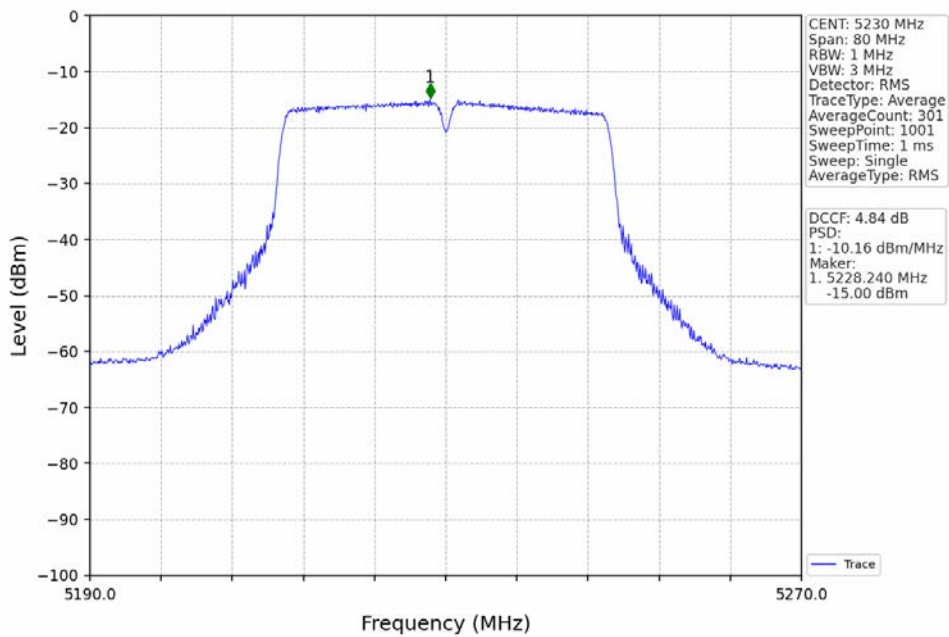
802.11n(HT20)\_HCH\_5240MHz\_Ant1\_NTNV



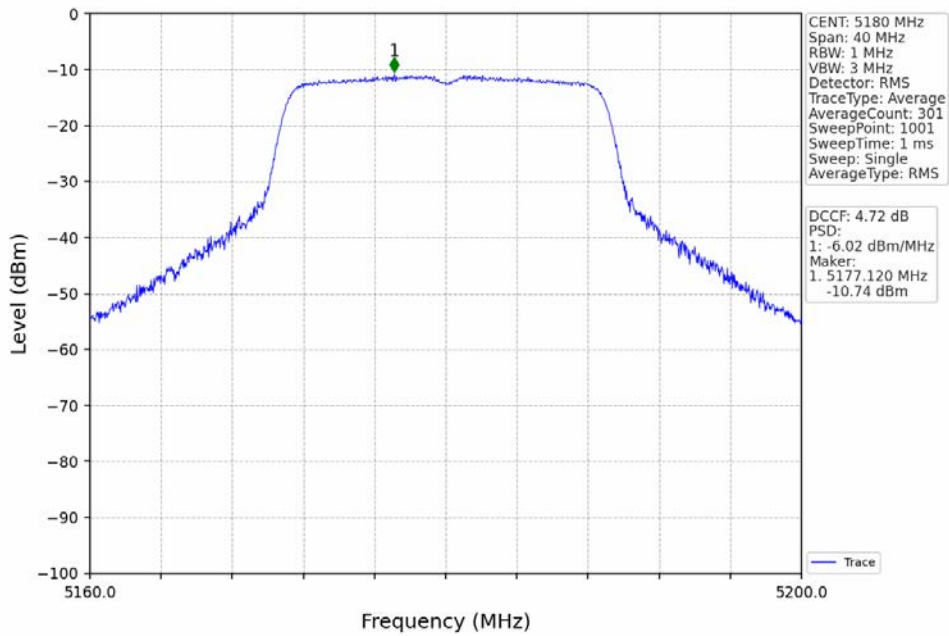
802.11n(HT40)\_LCH\_5190MHz\_Ant1\_NTNV



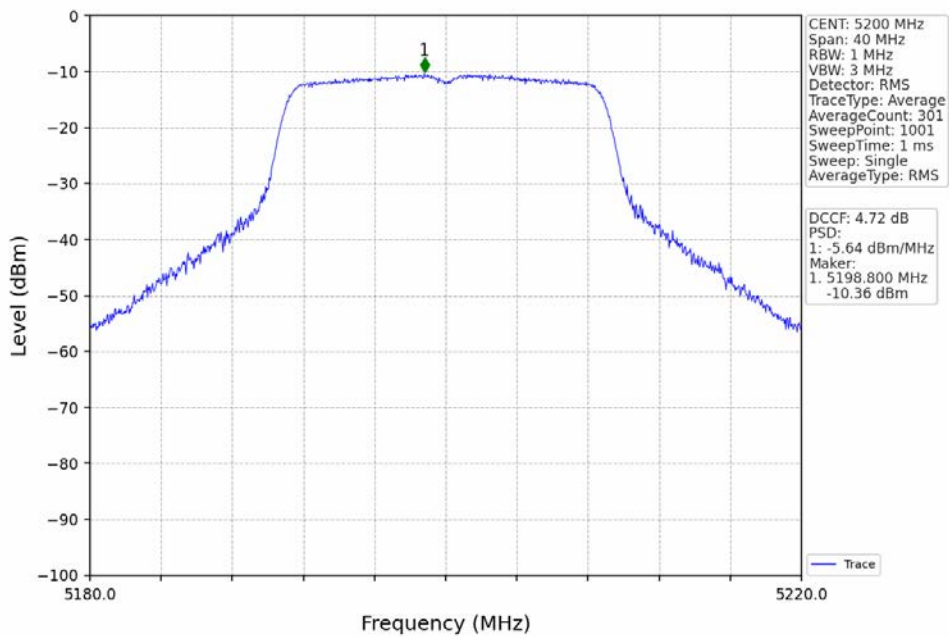
802.11n(HT40)\_HCH\_5230MHz\_Ant1\_NTNV



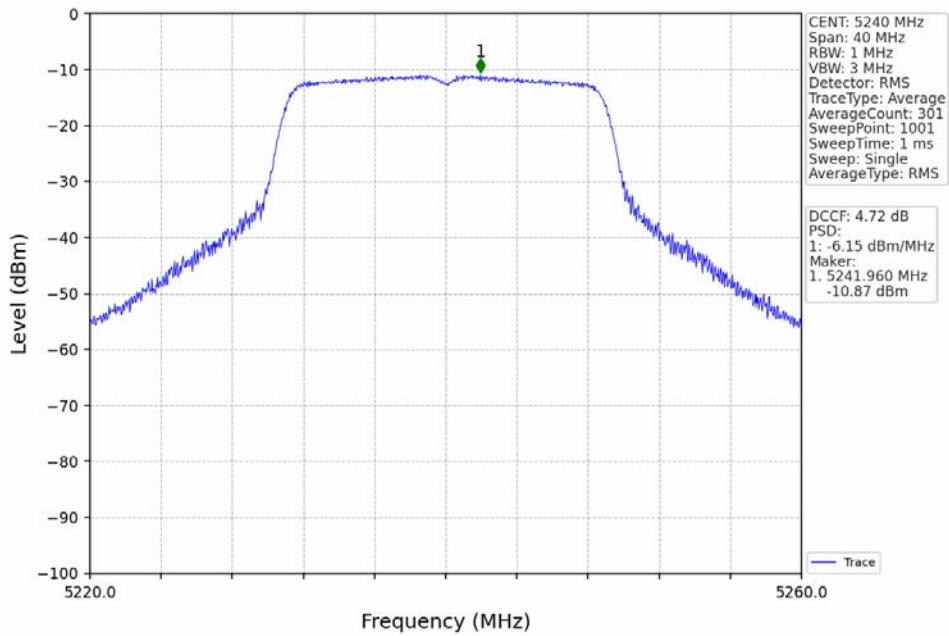
802.11ac(VHT20)\_LCH\_5180MHz\_Ant1\_NTNV



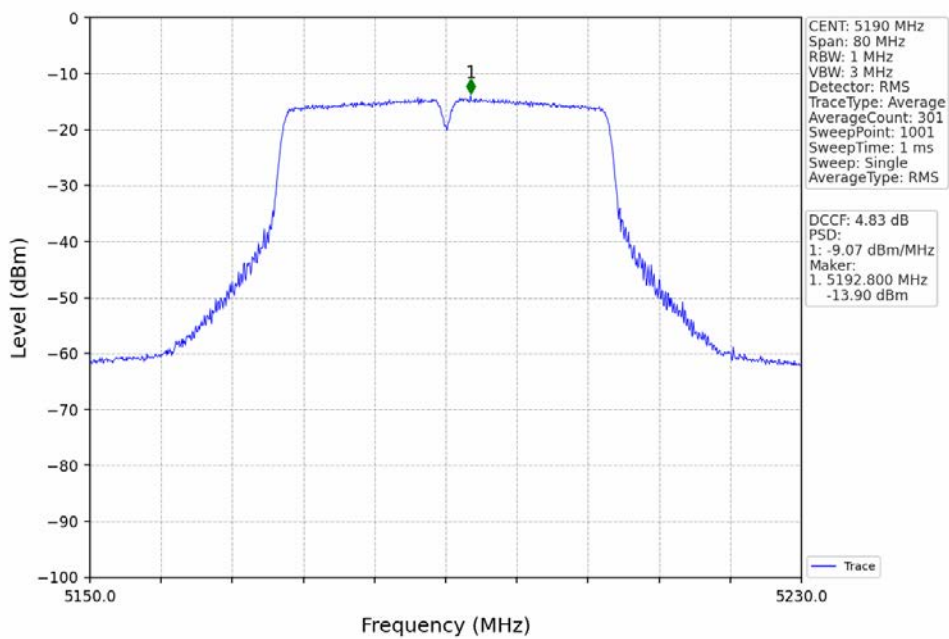
802.11ac(VHT20)\_MCH\_5200MHz\_Ant1\_NTNV



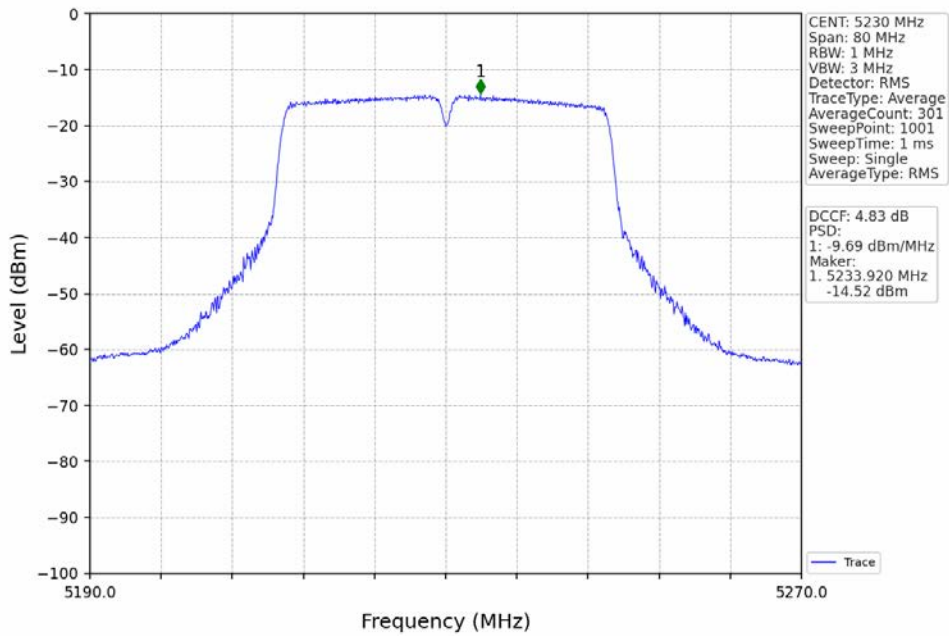
802.11ac(VHT20)\_HCH\_5240MHz\_Ant1\_NTNV



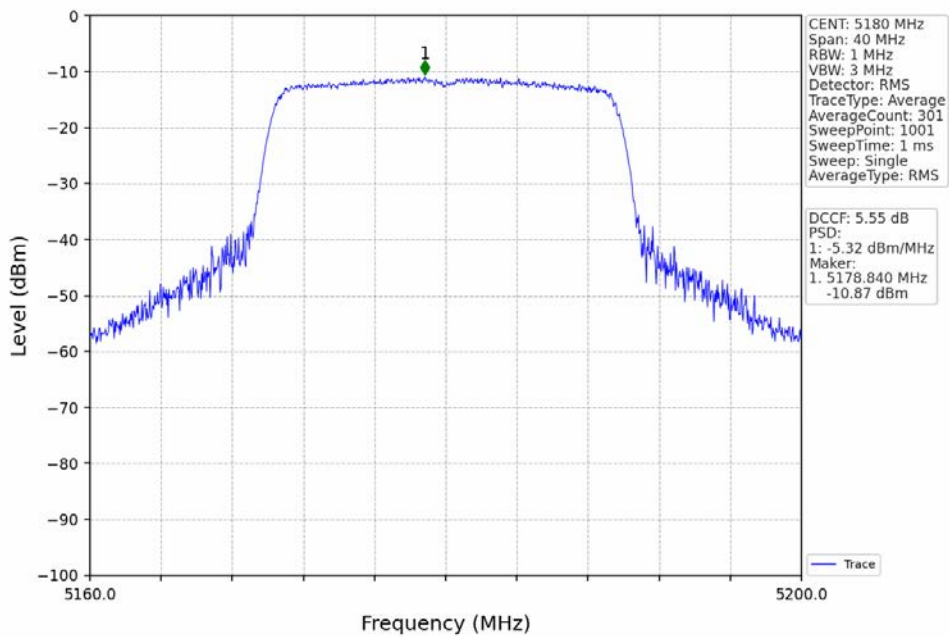
802.11ac(VHT40)\_LCH\_5190MHz\_Ant1\_NTNV



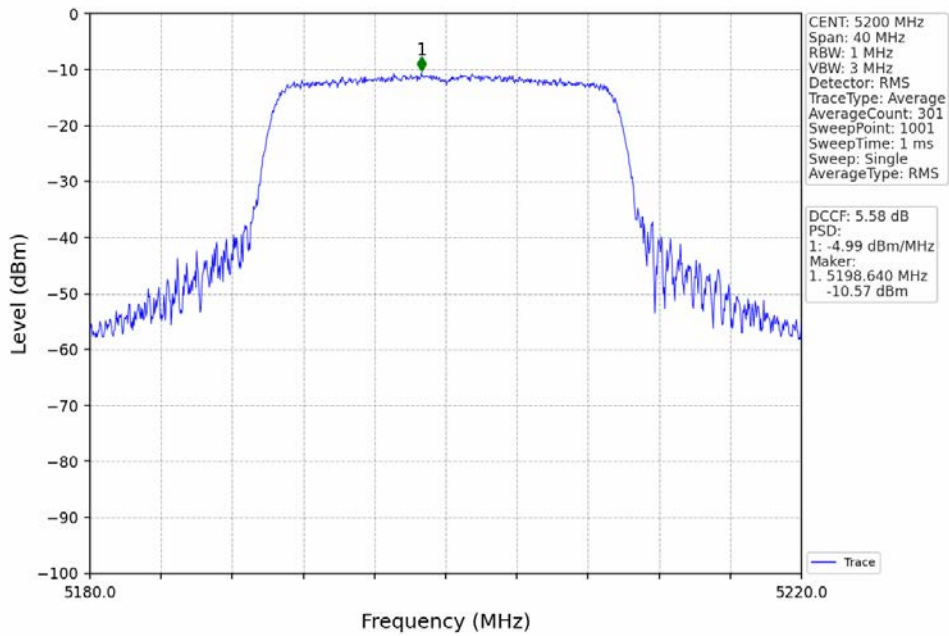
802.11ac(VHT40)\_HCH\_5230MHz\_Ant1\_NTNV



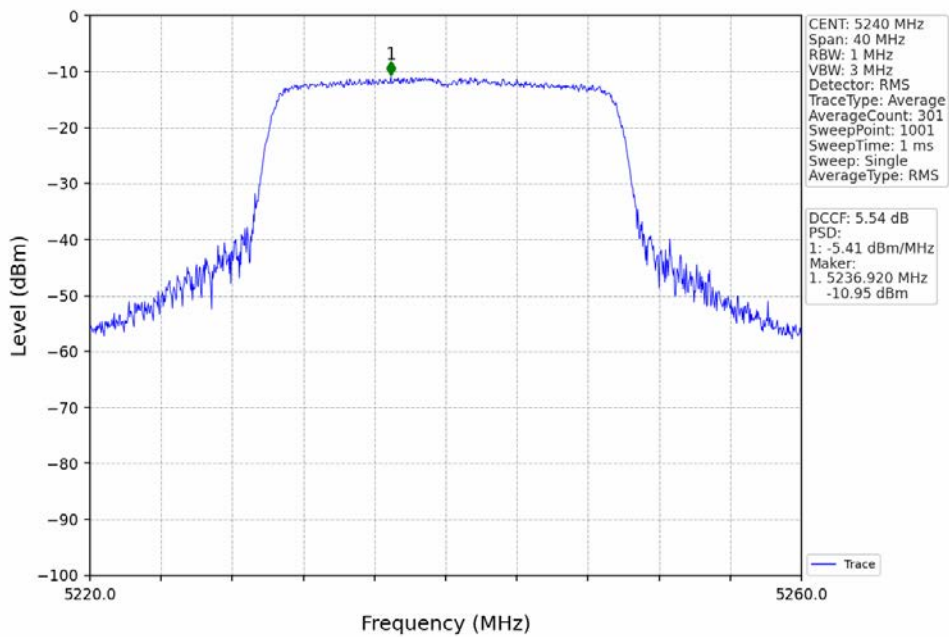
802.11ax(HEW20)\_LCH\_5180MHz\_RU242\_Left\_Ant1\_NTNV



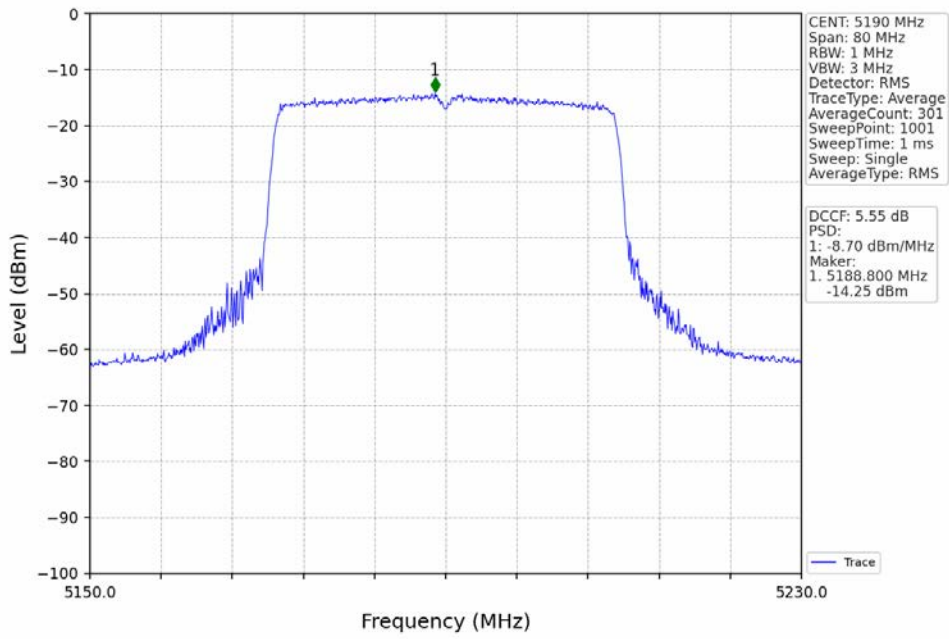
802.11ax(HEW20)\_MCH\_5200MHz\_RU242\_Left\_Ant1\_NTNV



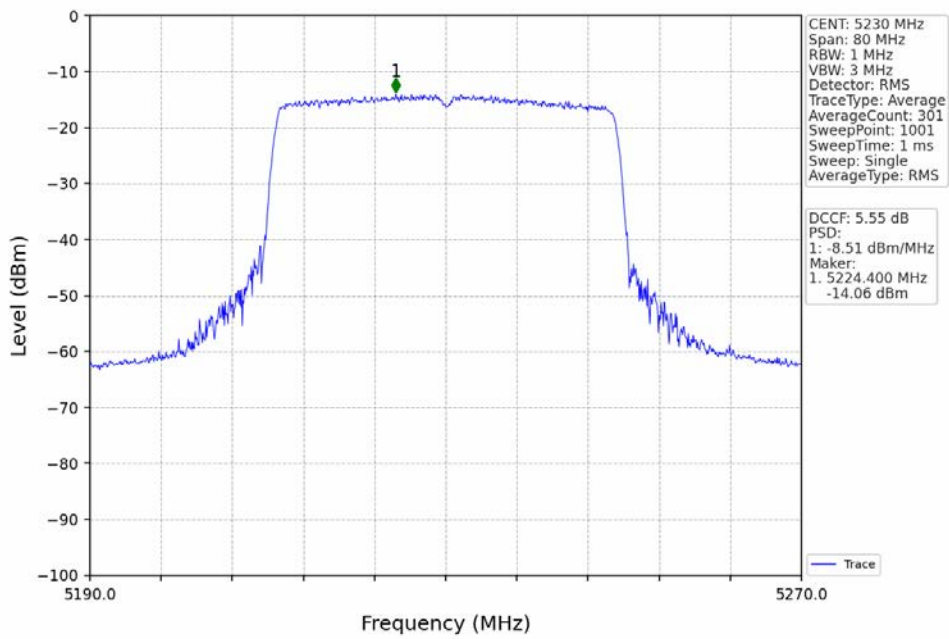
802.11ax(HEW20)\_HCH\_5240MHz\_RU242\_Left\_Ant1\_NTNV



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



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





## 5. Unwanted Emissions In Restricted Frequency Bands

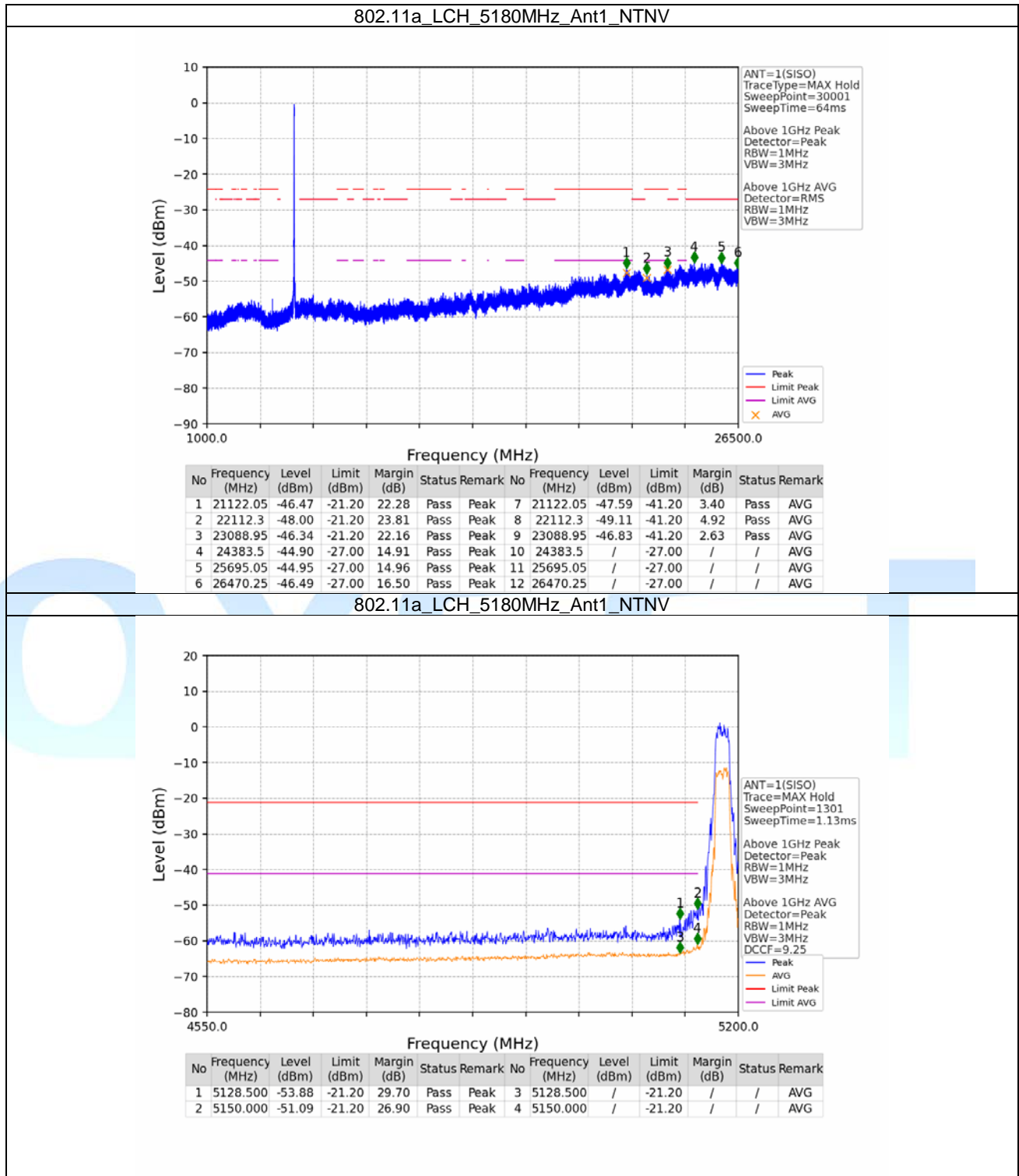
### 5.1 Test Result

#### 5.1.1 RSE

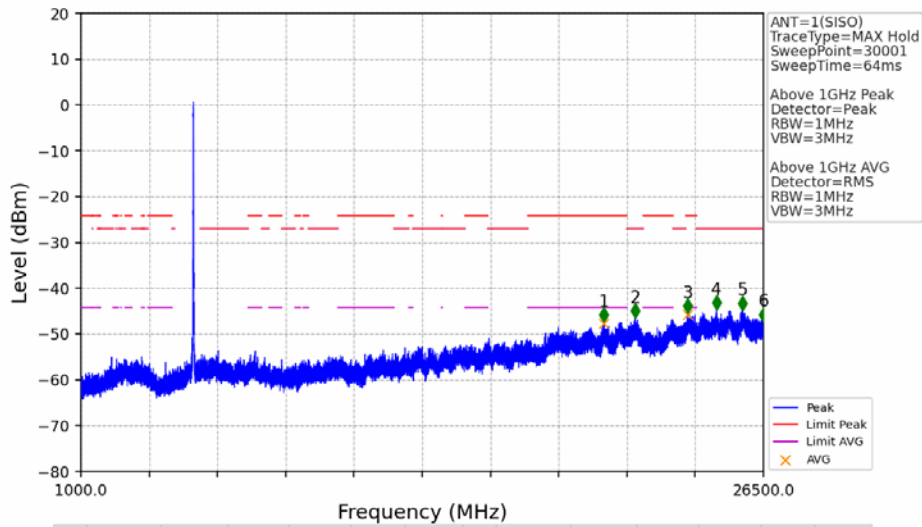
Mode	TX Type	Frequency (MHz)	RU	RU Pos	ANT	Level of Unwanted Emissions (dBm)		Verdict
						Result	Limit	
802.11a	SISO	5180	/	/	1	Refer To Test Graph		Pass
		5200	/	/	1	Refer To Test Graph		Pass
		5240	/	/	1	Refer To Test Graph		Pass
802.11n (HT20)	SISO	5180	/	/	1	Refer To Test Graph		Pass
		5200	/	/	1	Refer To Test Graph		Pass
		5240	/	/	1	Refer To Test Graph		Pass
802.11n (HT40)	SISO	5190	/	/	1	Refer To Test Graph		Pass
		5230	/	/	1	Refer To Test Graph		Pass
802.11ac (VHT20)	SISO	5180	/	/	1	Refer To Test Graph		Pass
		5200	/	/	1	Refer To Test Graph		Pass
		5240	/	/	1	Refer To Test Graph		Pass
802.11ac (VHT40)	SISO	5190	/	/	1	Refer To Test Graph		Pass
		5230	/	/	1	Refer To Test Graph		Pass
802.11ax (HEW20)	SISO	5180	RU242	Left	1	Refer To Test Graph		Pass
		5200	RU242	Left	1	Refer To Test Graph		Pass
		5240	RU242	Left	1	Refer To Test Graph		Pass
802.11ax (HEW40)	SISO	5190	RU484	Left	1	Refer To Test Graph		Pass
		5230	RU484	Left	1	Refer To Test Graph		Pass

## 5.2 Test Graph

### 5.2.1 RSE

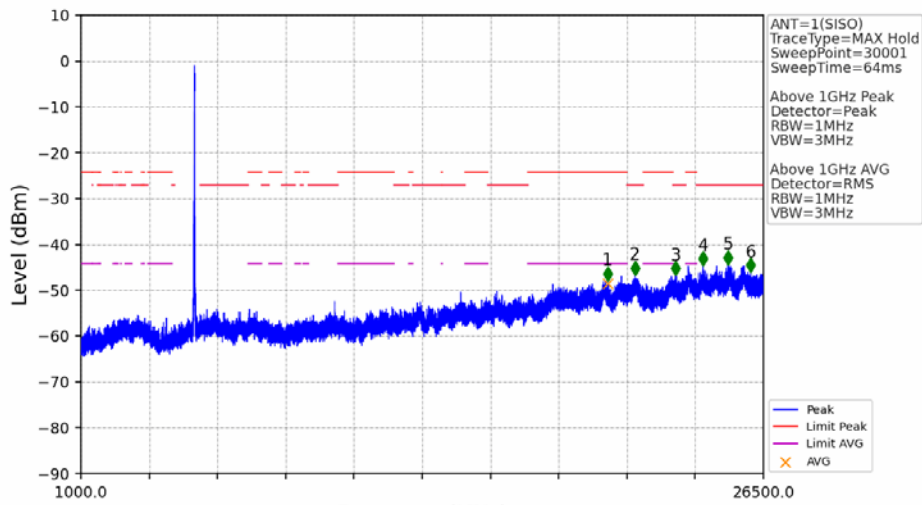


802.11a\_MCH\_5200MHz\_Ant1\_NTNV



No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark	No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark
1	20546.6	-47.42	-21.20	23.23	Pass	Peak	7	20546.6	-47.72	-41.20	3.53	Pass	AVG
2	21704.3	-46.44	-27.00	16.45	Pass	Peak	8	21704.3	/	-27.00	/	/	AVG
3	23659.3	-45.46	-21.20	21.27	Pass	Peak	9	23659.3	-45.77	-41.20	1.58	Pass	AVG
4	24745.6	-44.79	-27.00	14.80	Pass	Peak	10	24745.6	/	-27.00	/	/	AVG
5	25715.45	-44.81	-27.00	14.82	Pass	Peak	11	25715.45	/	-27.00	/	/	AVG
6	26499.15	-47.28	-27.00	17.30	Pass	Peak	12	26499.15	/	-27.00	/	/	AVG

802.11a\_HCH\_5240MHz\_Ant1\_NTNV



No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark	No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark
1	20668.15	-47.95	-21.20	23.76	Pass	Peak	7	20668.15	-48.55	-41.20	4.36	Pass	AVG
2	21692.4	-46.73	-27.00	16.74	Pass	Peak	8	21692.4	/	-27.00	/	/	AVG
3	23214.75	-46.76	-27.00	16.77	Pass	Peak	9	23214.75	/	-27.00	/	/	AVG
4	24245.8	-44.62	-27.00	14.63	Pass	Peak	10	24245.8	/	-27.00	/	/	AVG
5	25178.25	-44.43	-27.00	14.44	Pass	Peak	11	25178.25	/	-27.00	/	/	AVG
6	26028.25	-46.03	-27.00	16.04	Pass	Peak	12	26028.25	/	-27.00	/	/	AVG