

## Appendix D for SHCR212010005404-5G WIFI

### 1. Duty Cycle

#### 1.1 Ant1

##### 1.1.1 Test Result

Ant1							
Mode	TX Type	Frequency (MHz)	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
802.11a	SISO	5180	1.040	1.238	84.01	0.76	0.04
		5200	1.040	1.238	84.01	0.76	0.03
		5240	1.039	1.238	83.93	0.76	0.04
		5745	1.040	1.238	84.01	0.76	0.01
		5785	1.040	1.238	84.01	0.76	0.04
		5825	1.040	1.239	83.94	0.76	0.03
802.11n (HT20)	SISO	5180	0.975	1.174	83.05	0.81	0.03
		5200	0.976	1.174	83.13	0.80	0.01
		5240	0.976	1.174	83.13	0.80	0.03
		5745	0.976	1.174	83.13	0.80	0.01
		5785	0.976	1.174	83.13	0.80	0.03
802.11n (HT40)	SISO	5190	0.488	0.687	71.03	1.49	0.04
		5230	0.488	0.687	71.03	1.49	0.03
		5755	0.487	0.687	70.89	1.49	0.01
		5795	0.488	0.688	70.93	1.49	0.04
		5180	0.976	1.174	83.13	0.80	0.01
802.11ac (VHT20)	SISO	5200	0.976	1.175	83.06	0.81	0.03
		5240	0.976	1.174	83.13	0.80	0.03
		5745	0.976	1.174	83.13	0.80	0.01
		5785	0.976	1.174	83.13	0.80	0.03
		5825	0.976	1.174	83.13	0.80	0.00
802.11ac (VHT40)	SISO	5190	0.492	0.691	71.20	1.48	0.02
		5230	0.492	0.691	71.20	1.48	0.02
		5755	0.492	0.691	71.20	1.48	0.03
		5795	0.492	0.692	71.10	1.48	0.03
802.11ac (VHT80)	SISO	5210	0.243	0.448	54.24	2.66	0.06
		5775	0.240	0.448	53.57	2.71	0.07

##### 1.1.2 Test Graph

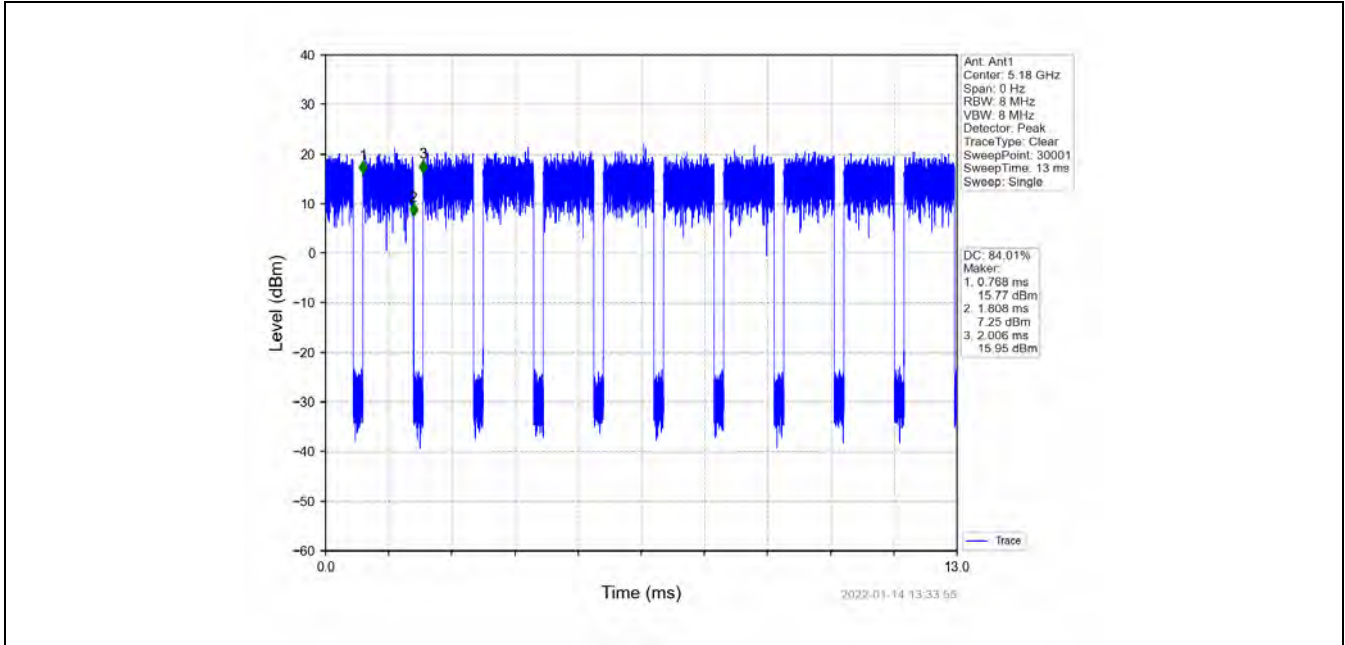
802.11a\_LCH\_5180MHz\_Ant1\_NTNV



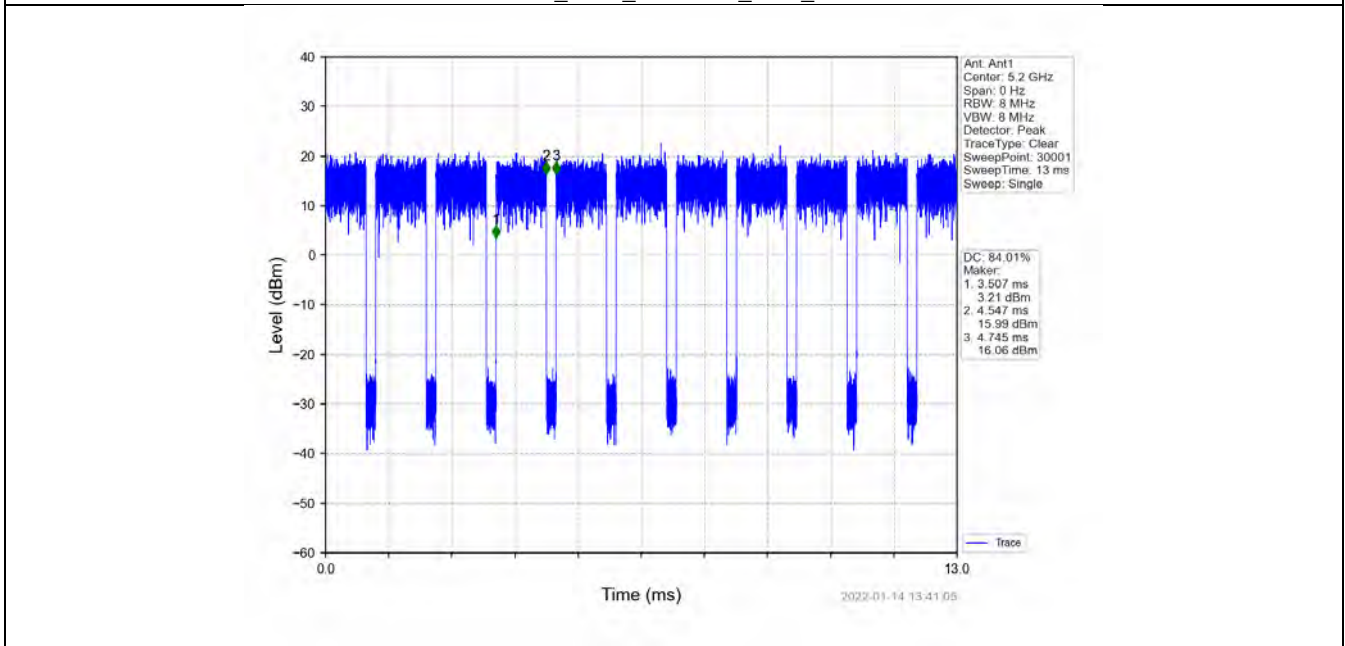
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802.11a\_MCH\_5200MHz\_Ant1\_NTNV

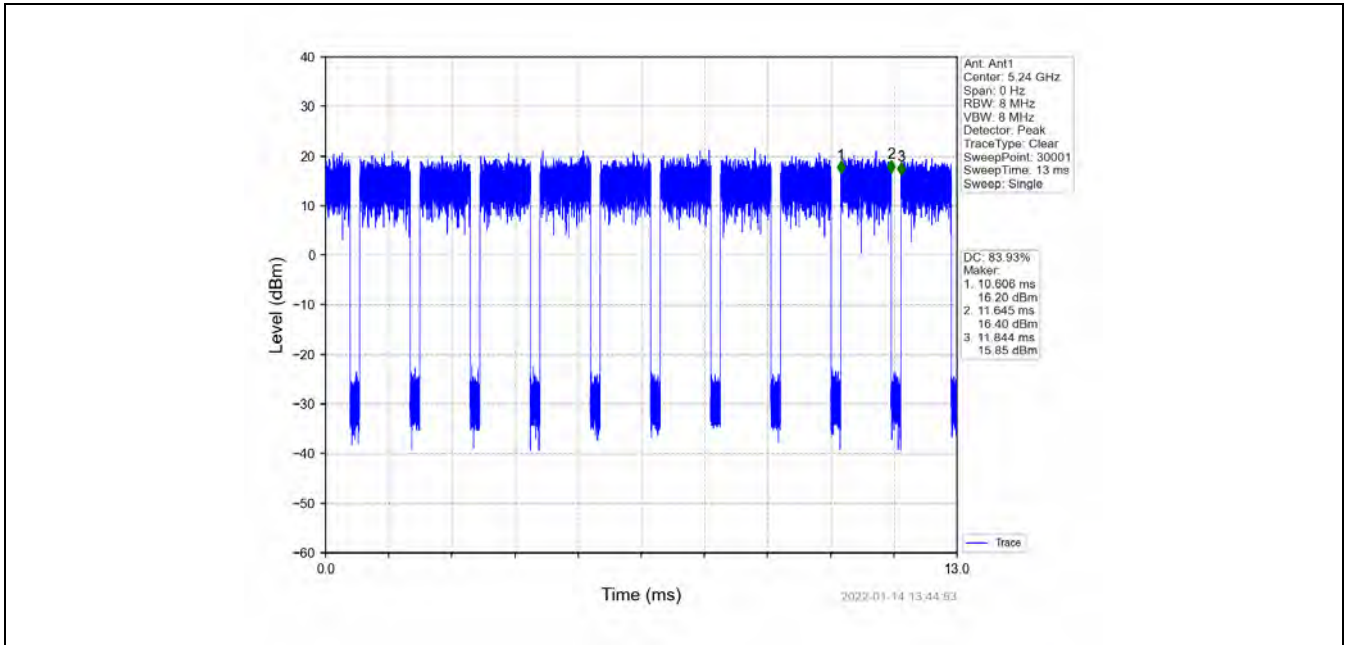


802.11a\_HCH\_5240MHz\_Ant1\_NTNV

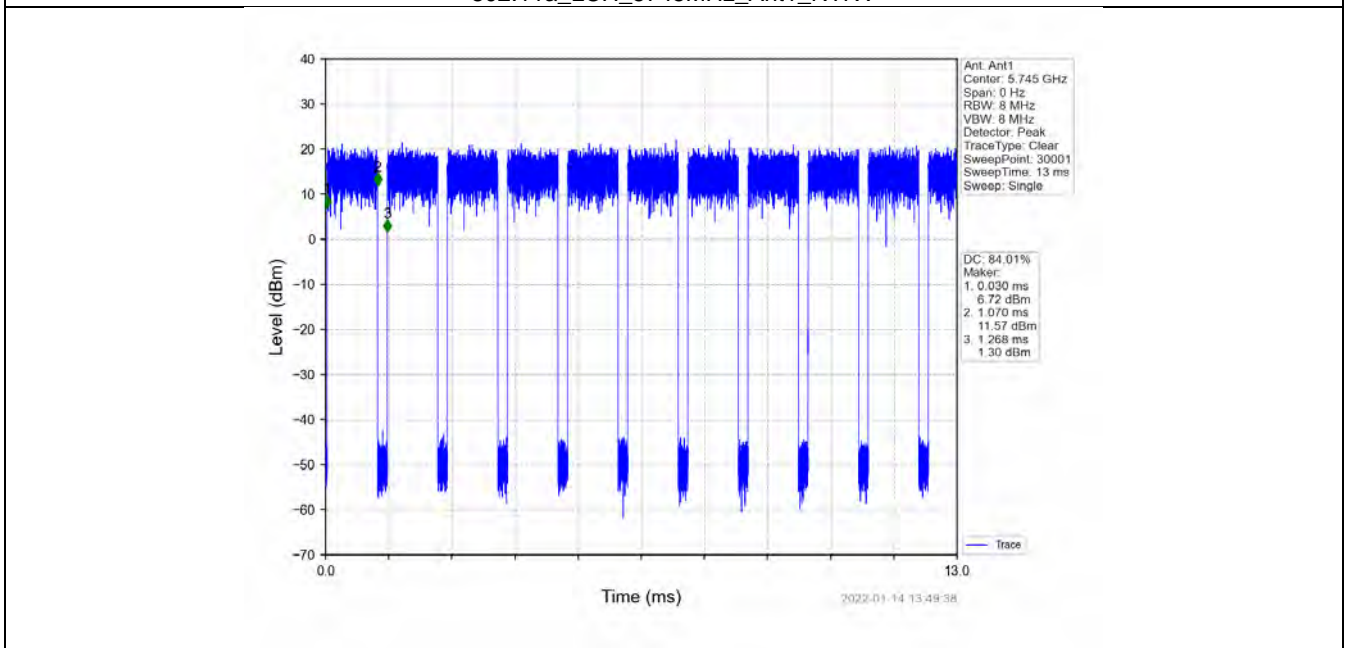


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802.11a\_LCH\_5745MHz\_Ant1\_NTNV



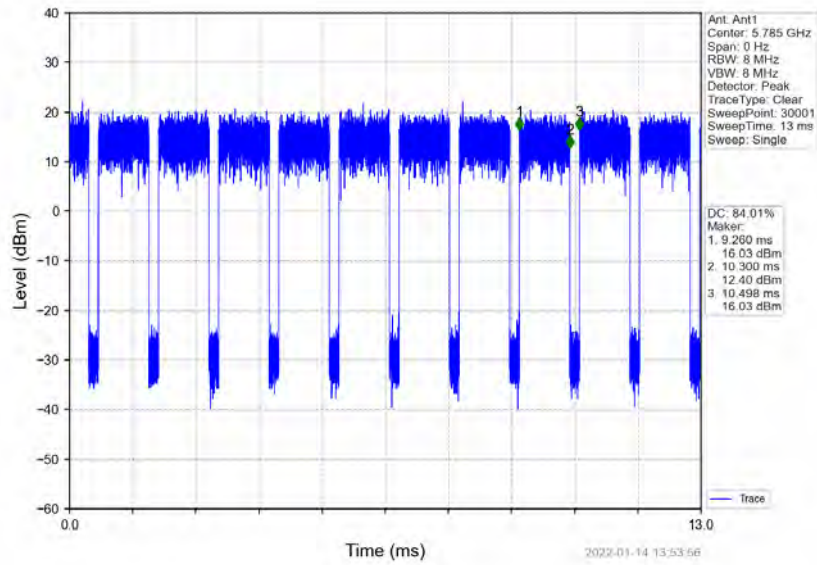
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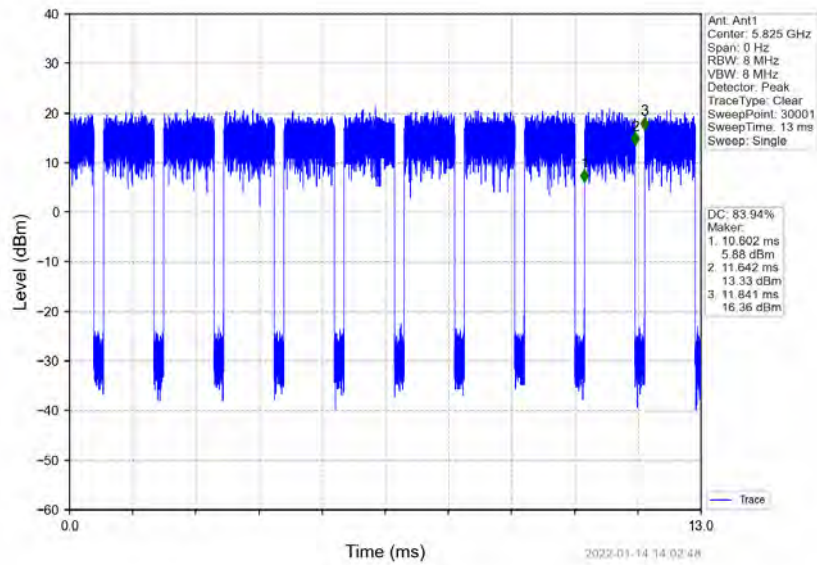
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802.11a\_HCH\_5825MHz\_Ant1\_NTNV

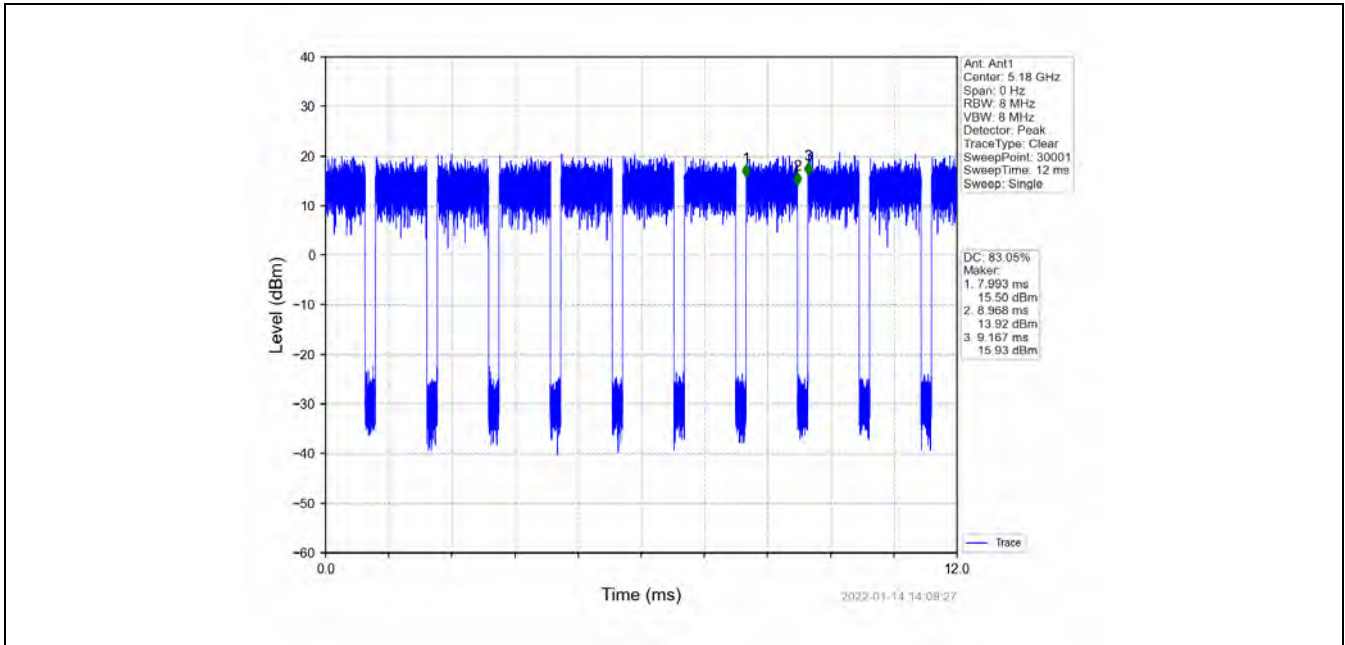


802.11n(HT20)\_LCH\_5180MHz\_Ant1\_NTNV

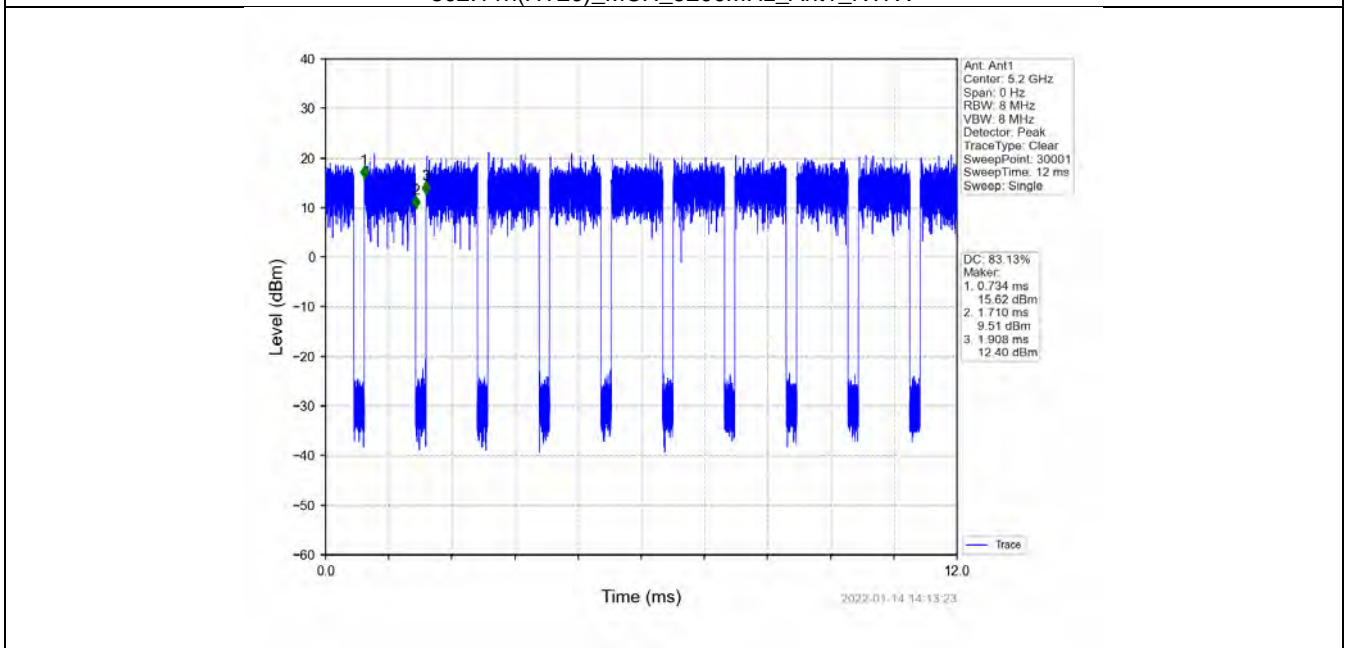


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802.11n(HT20)\_MCH\_5200MHz\_Ant1\_NTNV



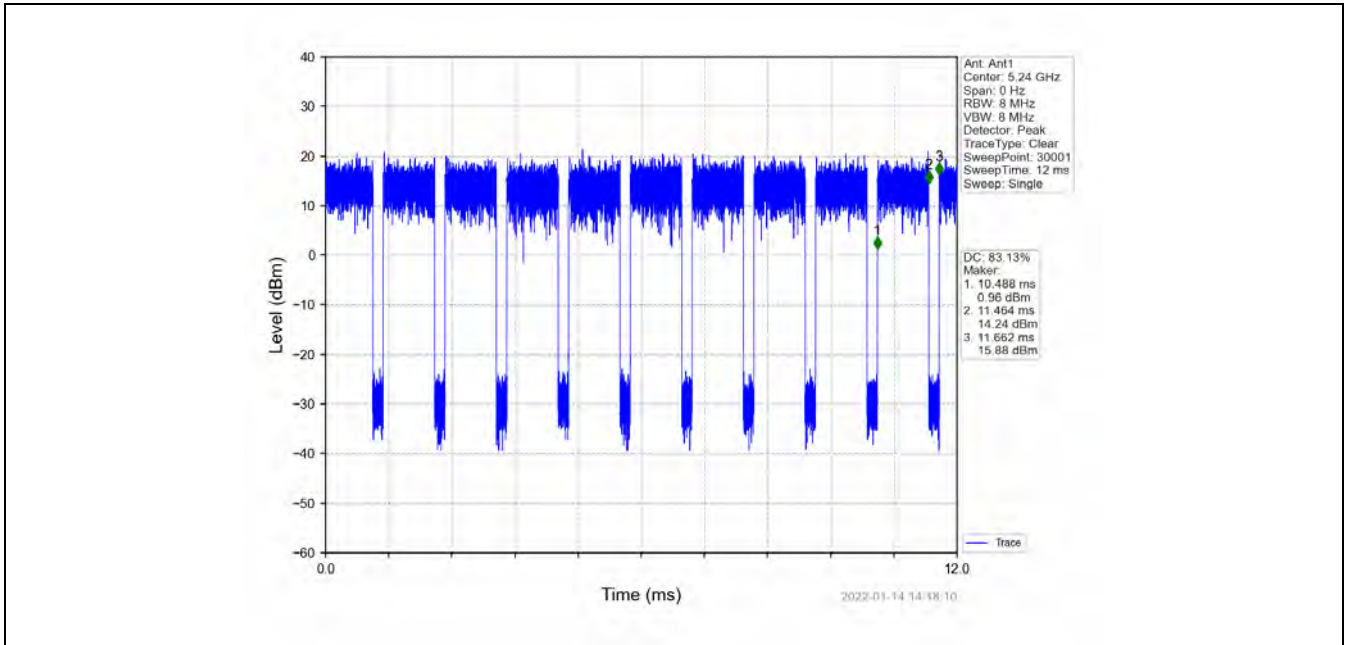
802.11n(HT20)\_HCH\_5240MHz\_Ant1\_NTNV



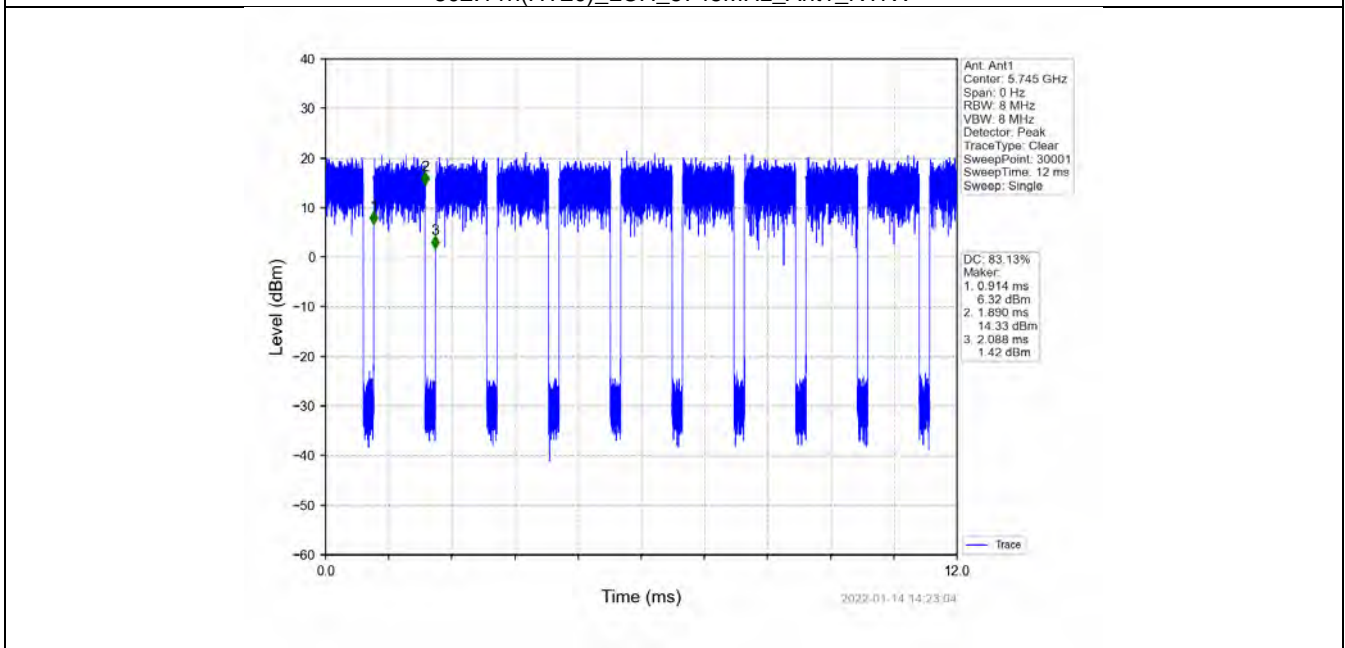
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802.11n(HT20)\_LCH\_5745MHz\_Ant1\_NTNV

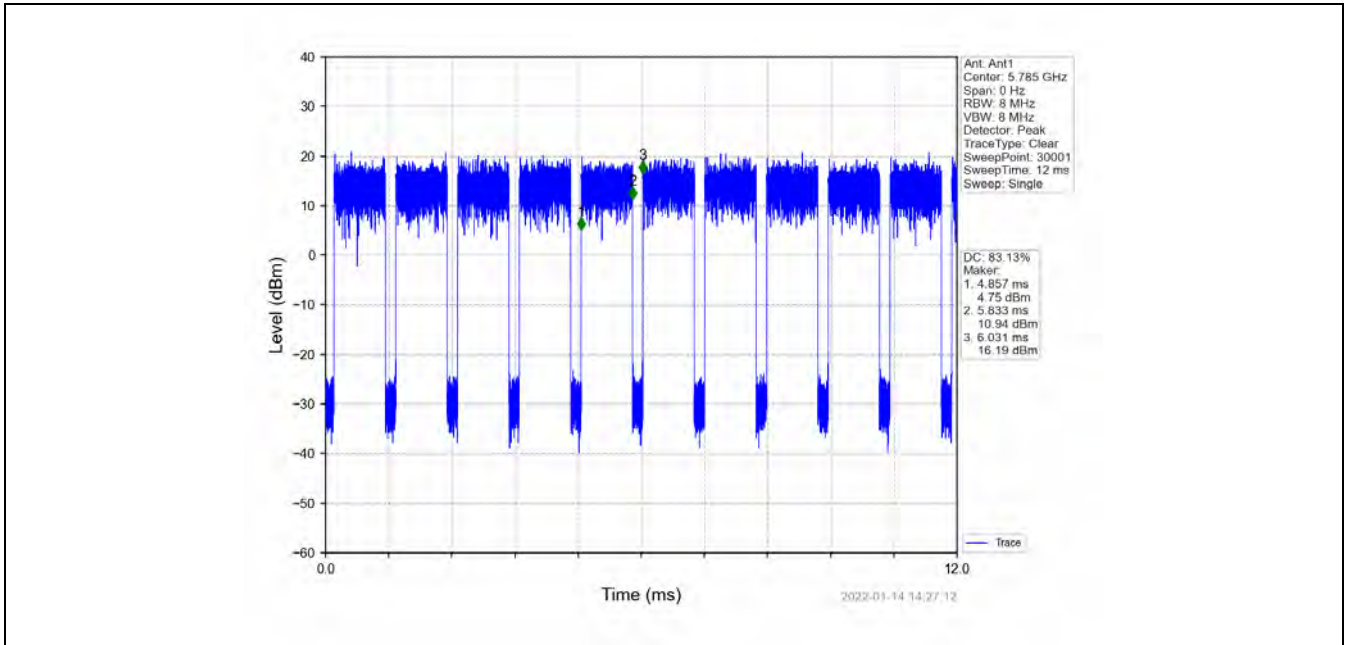


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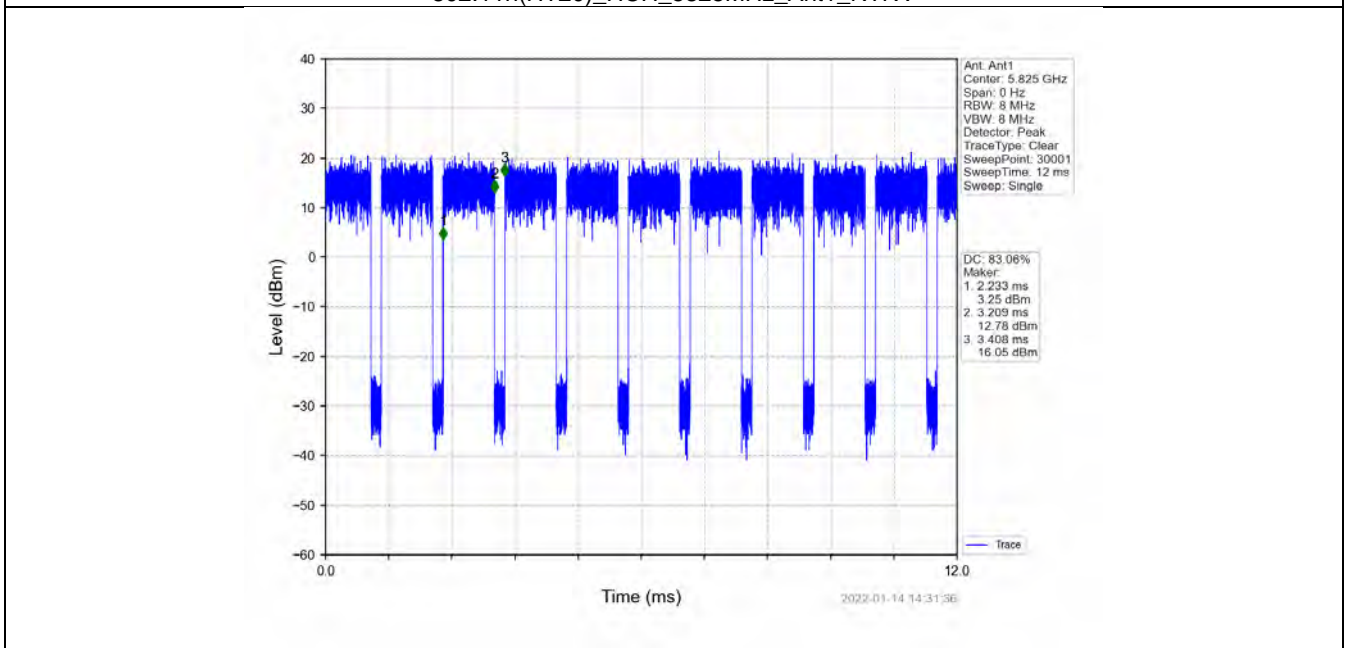


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802.11n(HT20)\_HCH\_5825MHz\_Ant1\_NTNV



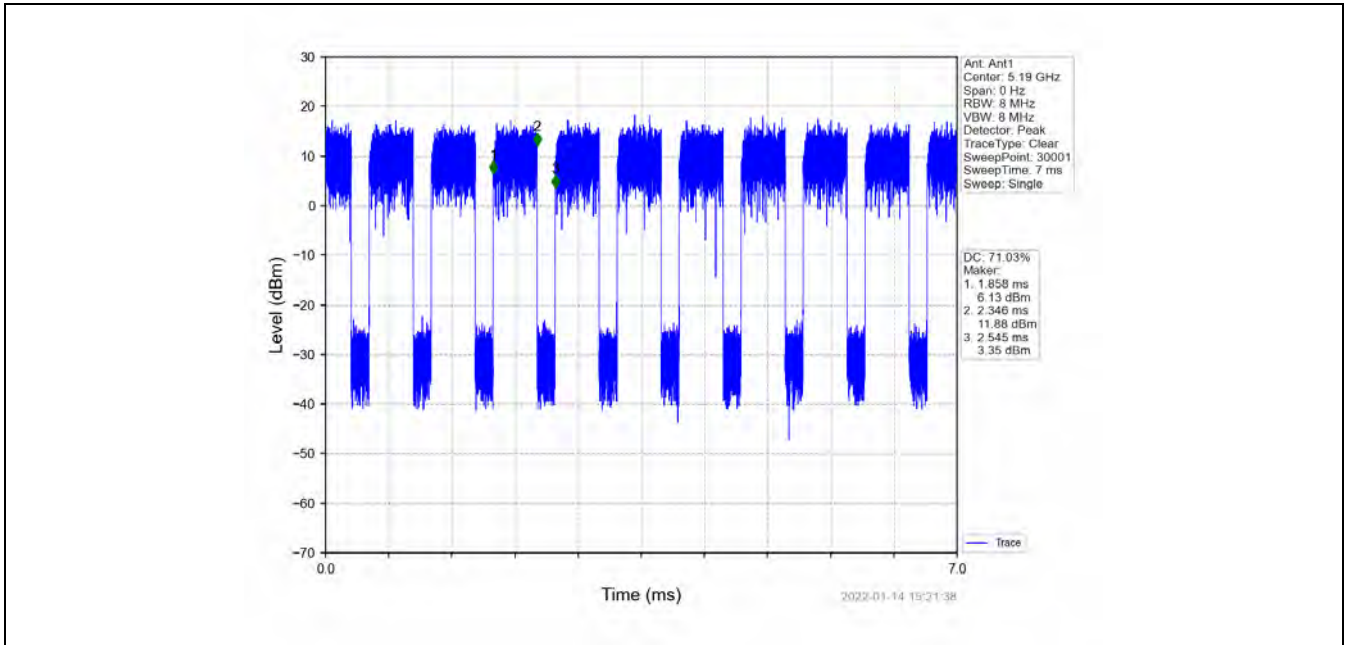
802.11n(HT40)\_LCH\_5190MHz\_Ant1\_NTNV



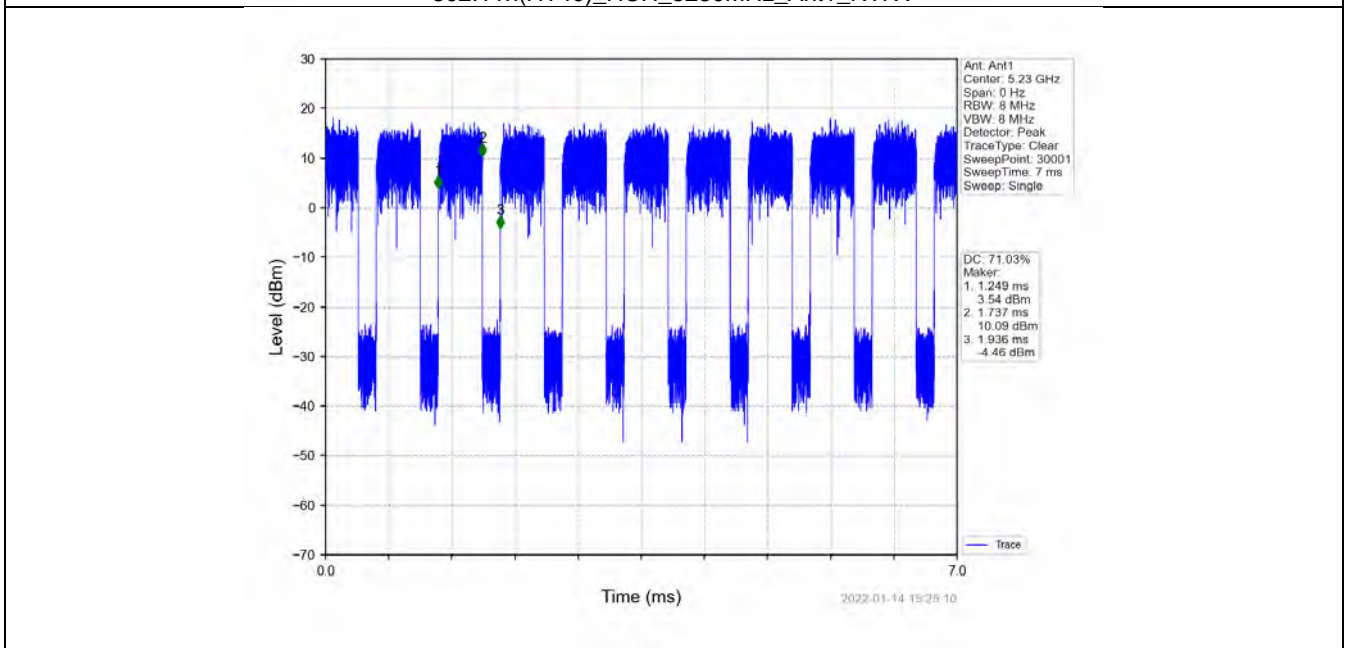
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802.11n(HT40)\_HCH\_5230MHz\_Ant1\_NTNV



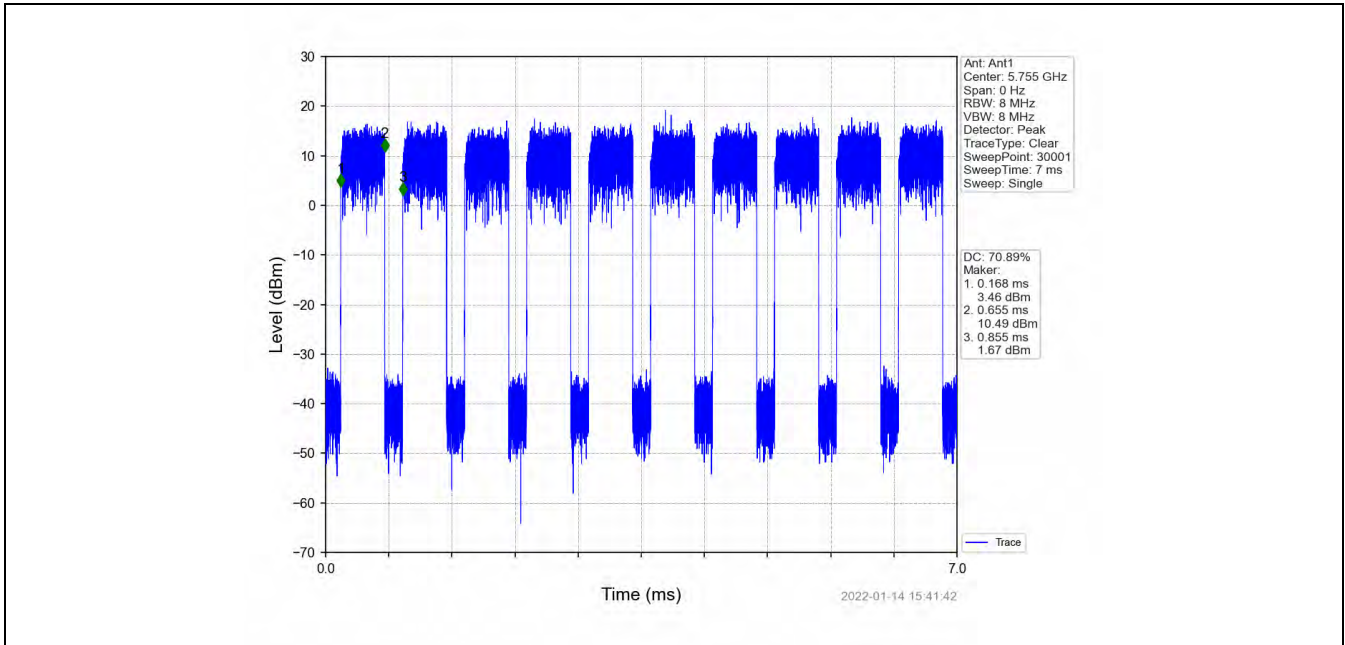
802.11n(HT40)\_LCH\_5755MHz\_Ant1\_NTNV



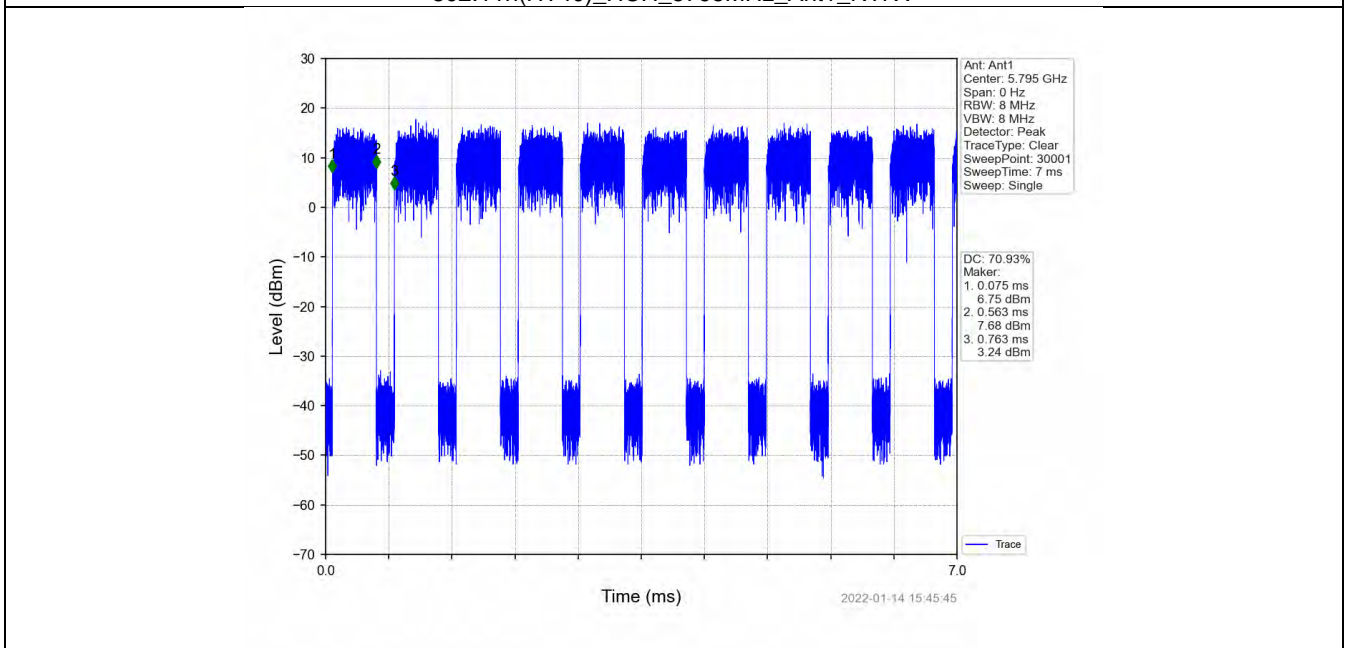
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802.11n(HT40)\_HCH\_5795MHz\_Ant1\_NTNV

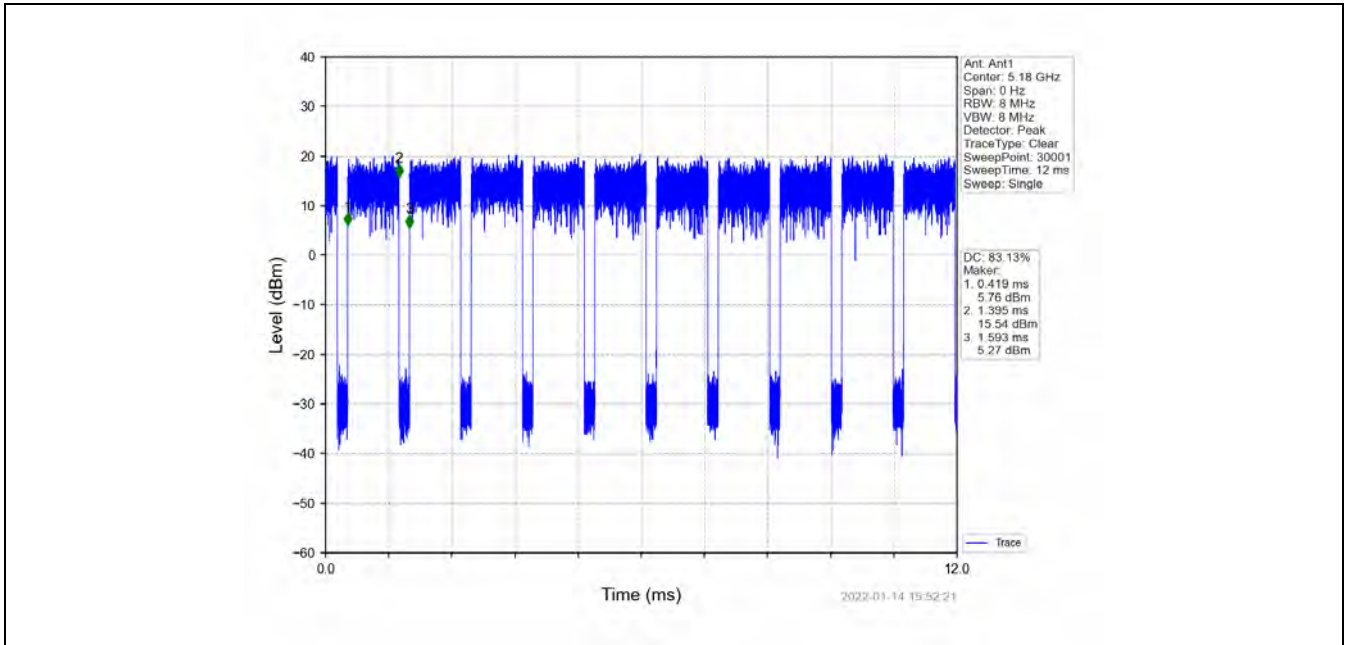


802.11ac(VHT20)\_LCH\_5180MHz\_Ant1\_NTNV

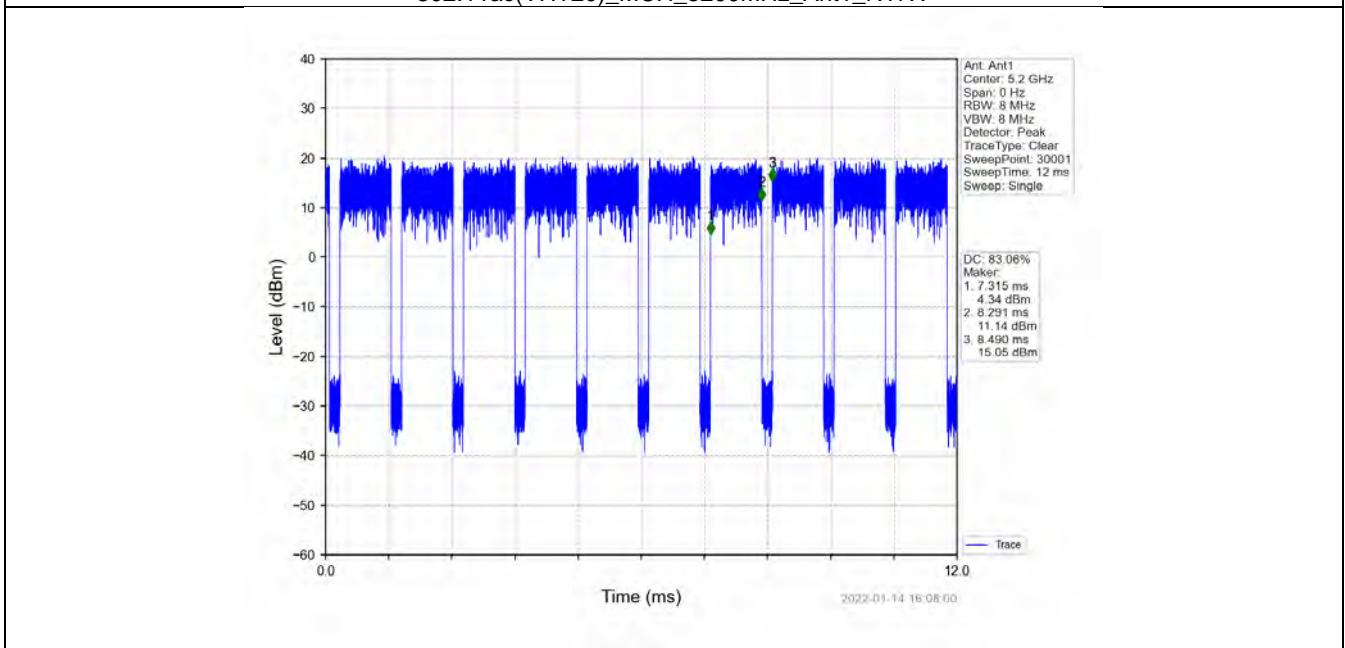


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802.11ac(VHT20)\_MCH\_5200MHz\_Ant1\_NTNV



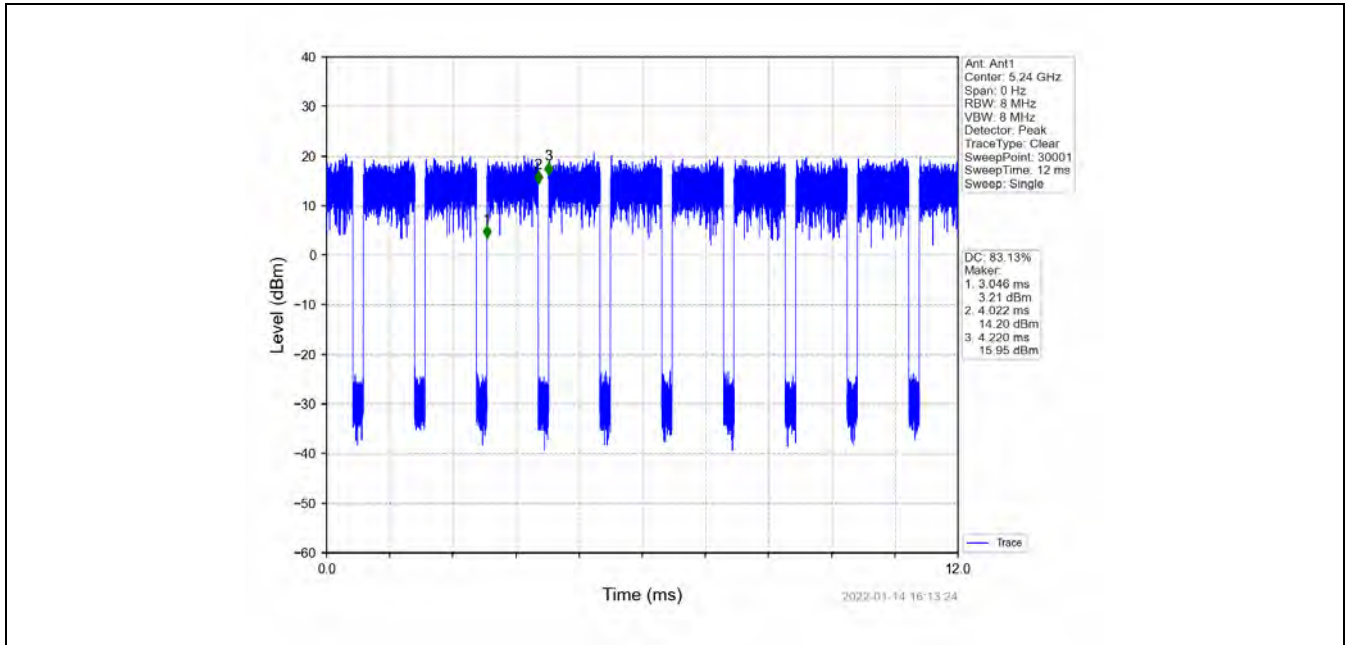
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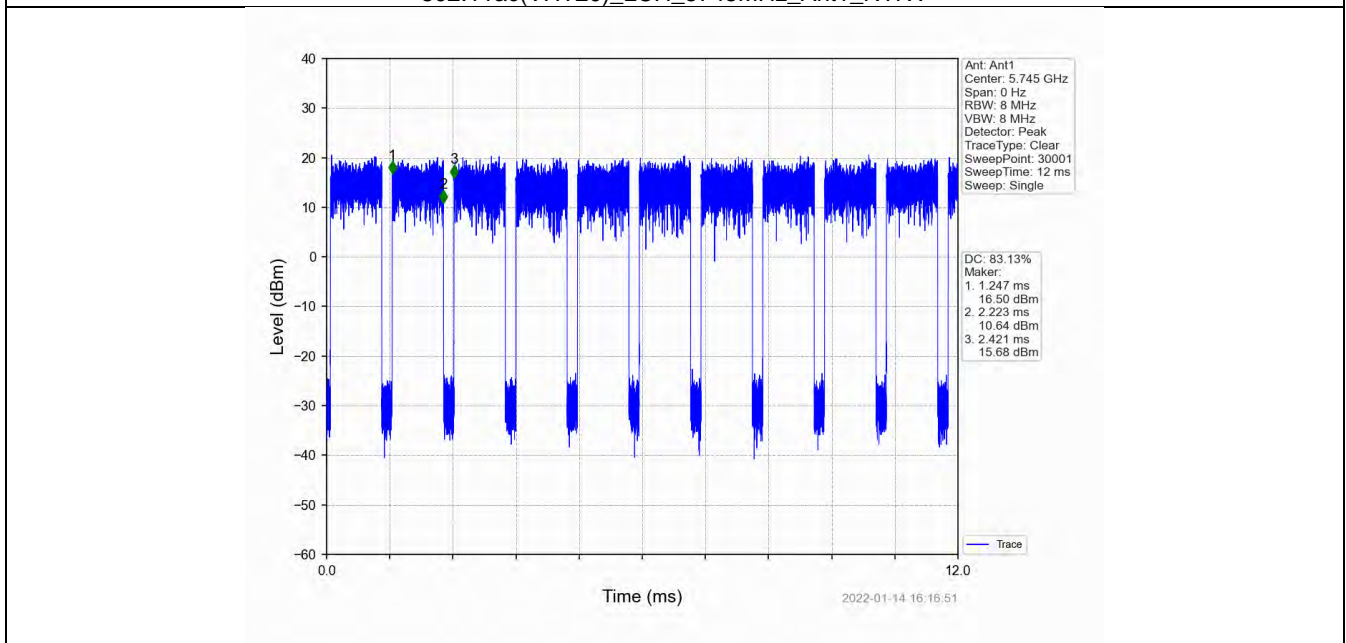
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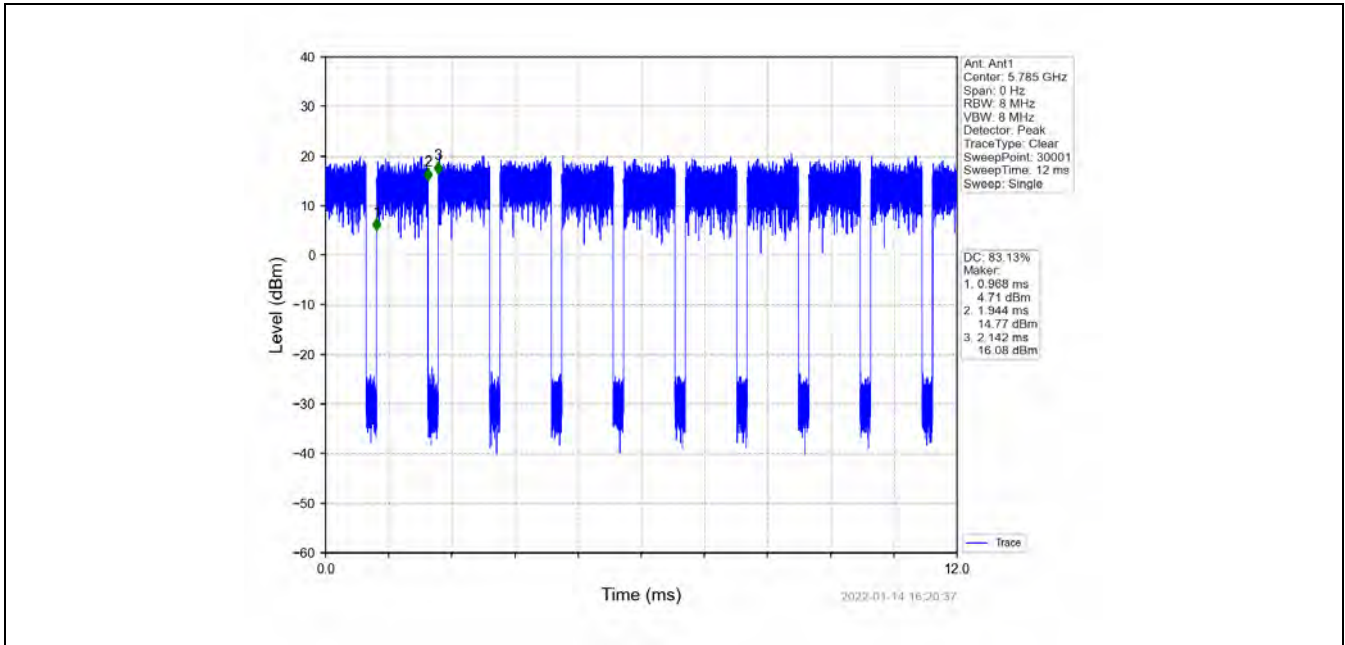
802.11ac(VHT20)\_MCH\_5785MHz\_Ant1\_NTNV



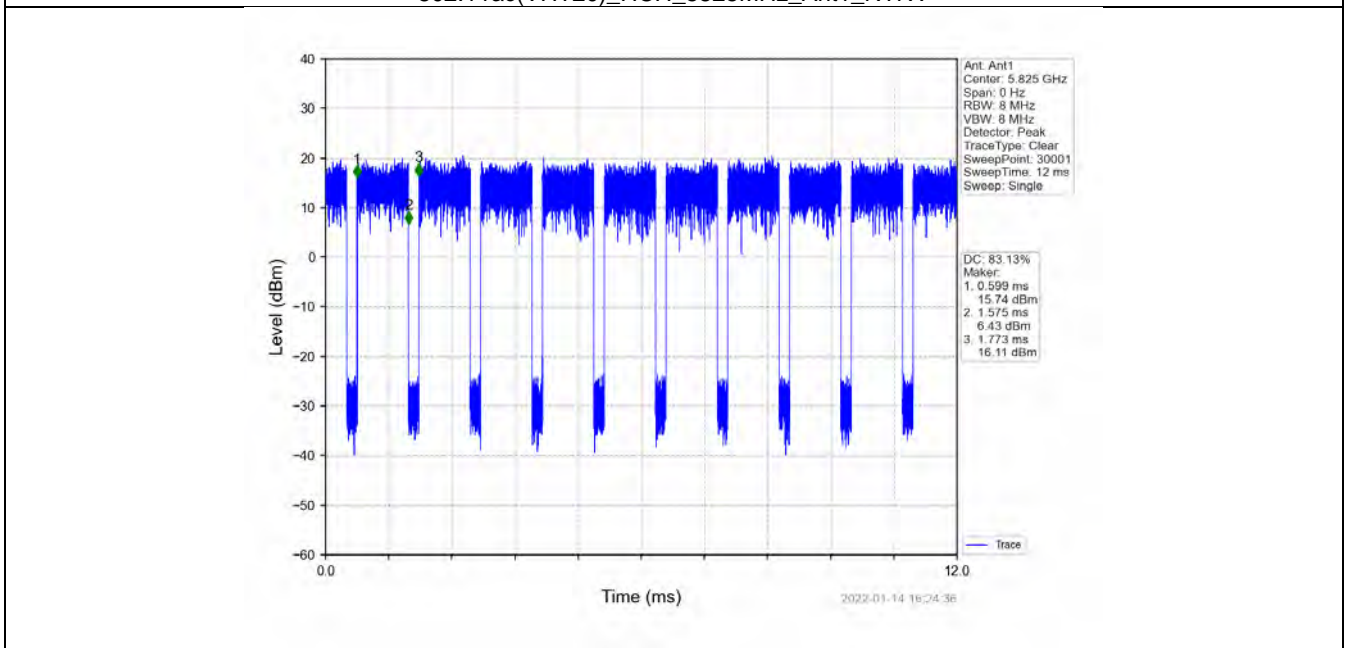
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802.11ac(VHT20)\_HCH\_5825MHz\_Ant1\_NTNV

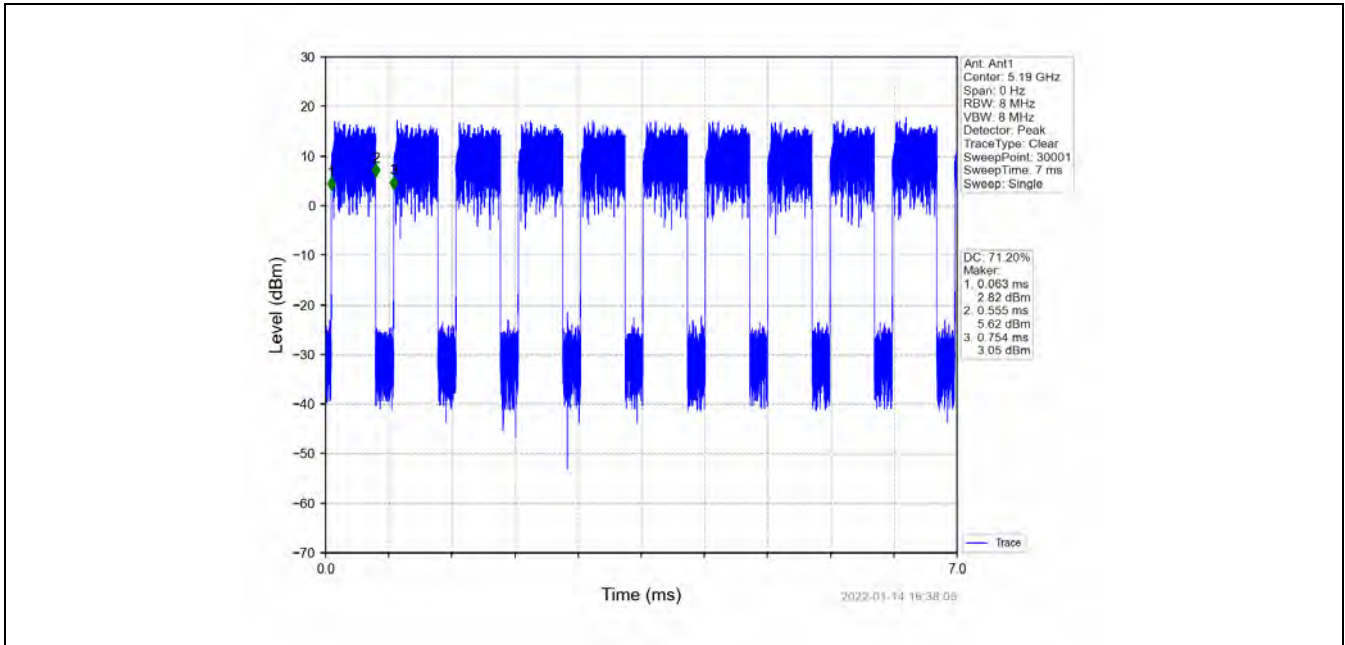


802.11ac(VHT40)\_LCH\_5190MHz\_Ant1\_NTNV

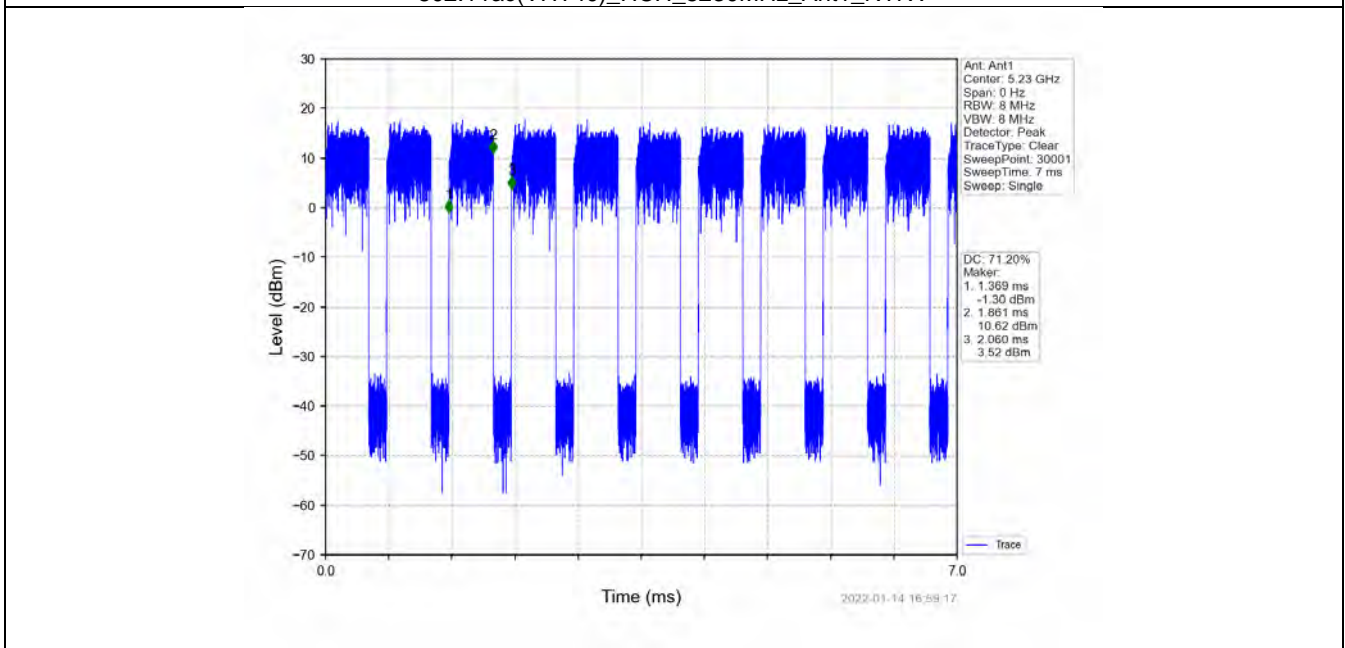


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802.11ac(VHT40)\_HCH\_5230MHz\_Ant1\_NTNV



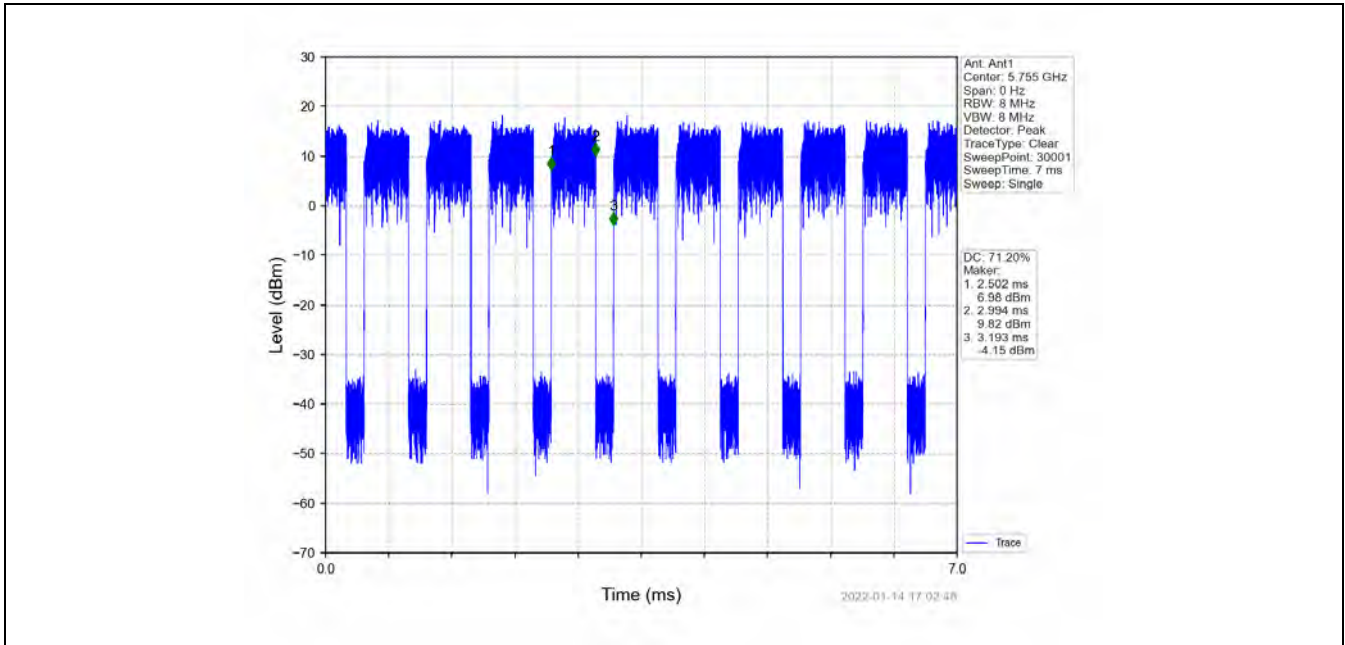
802.11ac(VHT40)\_LCH\_5755MHz\_Ant1\_NTNV



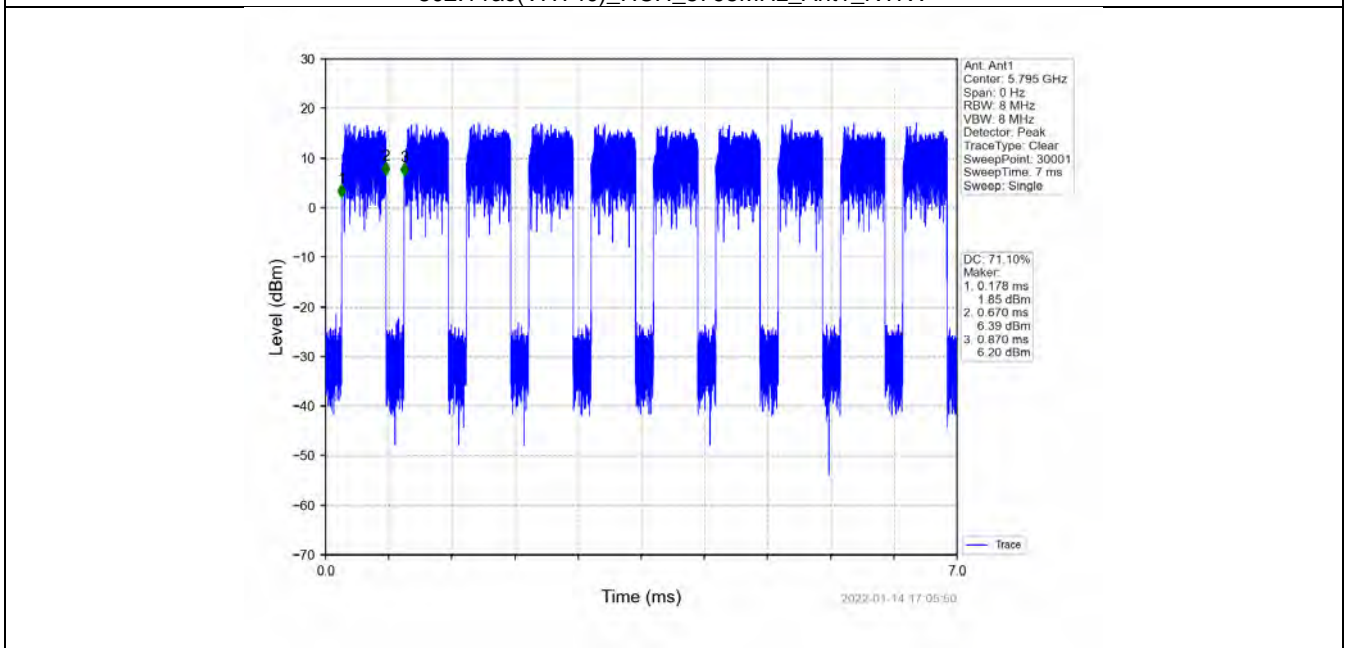
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802.11ac(VHT40)\_HCH\_5795MHz\_Ant1\_NTNV



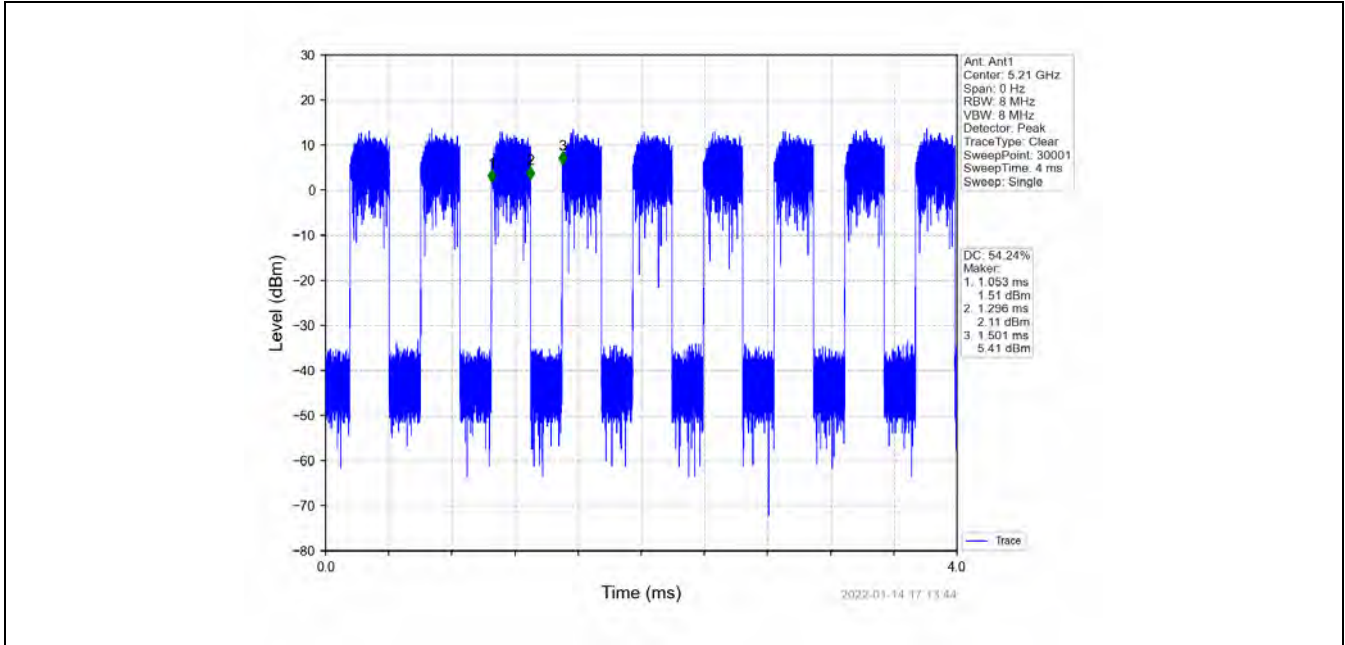
802.11ac(VHT80)\_MCH\_5210MHz\_Ant1\_NTNV



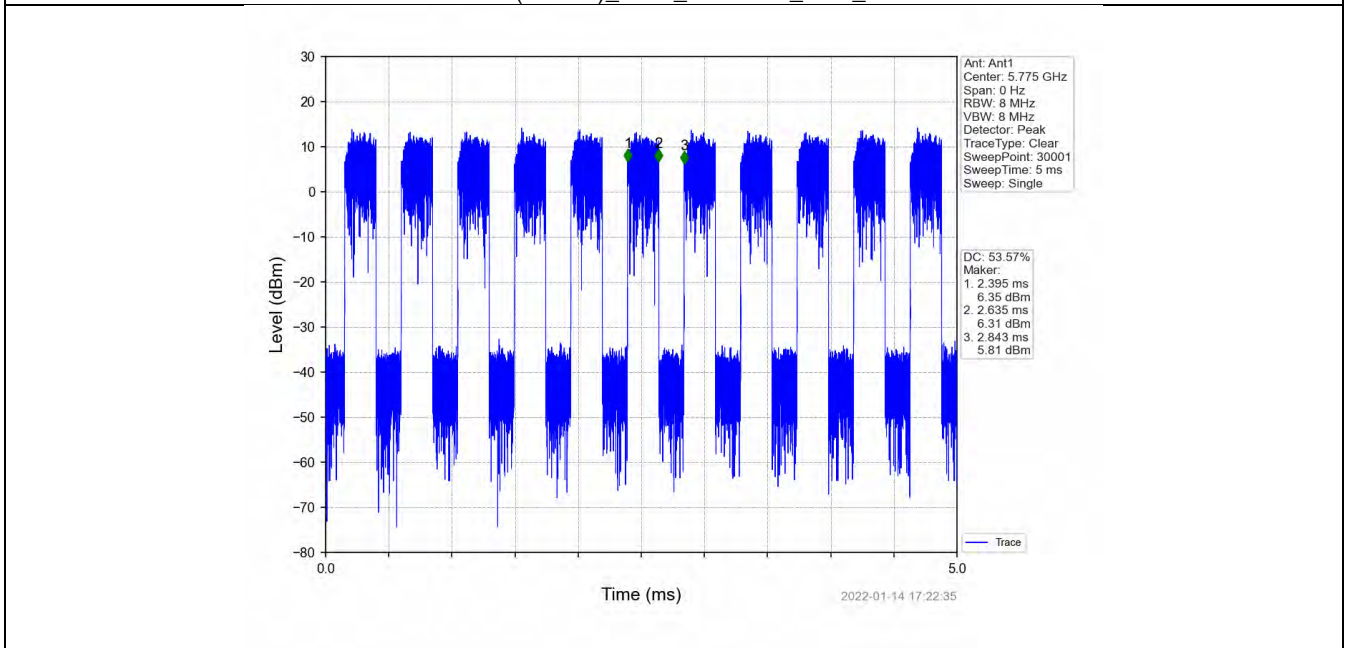
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802.11ac(VHT80)\_MCH\_5775MHz\_Ant1\_NTNV



## 2. Bandwidth

### 2.1 OBW

#### 2.1.1 Test Result



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Mode	TX Type	Frequency (MHz)	Ant	99% Occupied Bandwidth (MHz)	Verdict
				Result	
802.11a	SISO	5180	1	18.178	Pass
		5200	1	18.125	Pass
		5240	1	18.038	Pass
		5745	1	18.310	Pass
		5785	1	18.254	Pass
		5825	1	18.357	Pass
802.11n (HT20)	SISO	5180	1	18.867	Pass
		5200	1	18.905	Pass
		5240	1	18.946	Pass
		5745	1	19.020	Pass
		5785	1	19.007	Pass
802.11n (HT40)	SISO	5180	1	19.112	Pass
		5190	1	36.915	Pass
		5230	1	36.882	Pass
		5755	1	36.976	Pass
		5795	1	37.112	Pass
802.11ac (VHT20)	SISO	5180	1	18.801	Pass
		5200	1	18.792	Pass
		5240	1	18.804	Pass
		5745	1	18.923	Pass
		5785	1	18.896	Pass
802.11ac (VHT40)	SISO	5180	1	18.995	Pass
		5190	1	36.979	Pass
		5230	1	36.991	Pass
		5755	1	37.091	Pass
802.11ac (VHT80)	SISO	5795	1	37.028	Pass
		5210	1	75.314	Pass
		5775	1	75.618	Pass

### 2.1.2 Test Graph

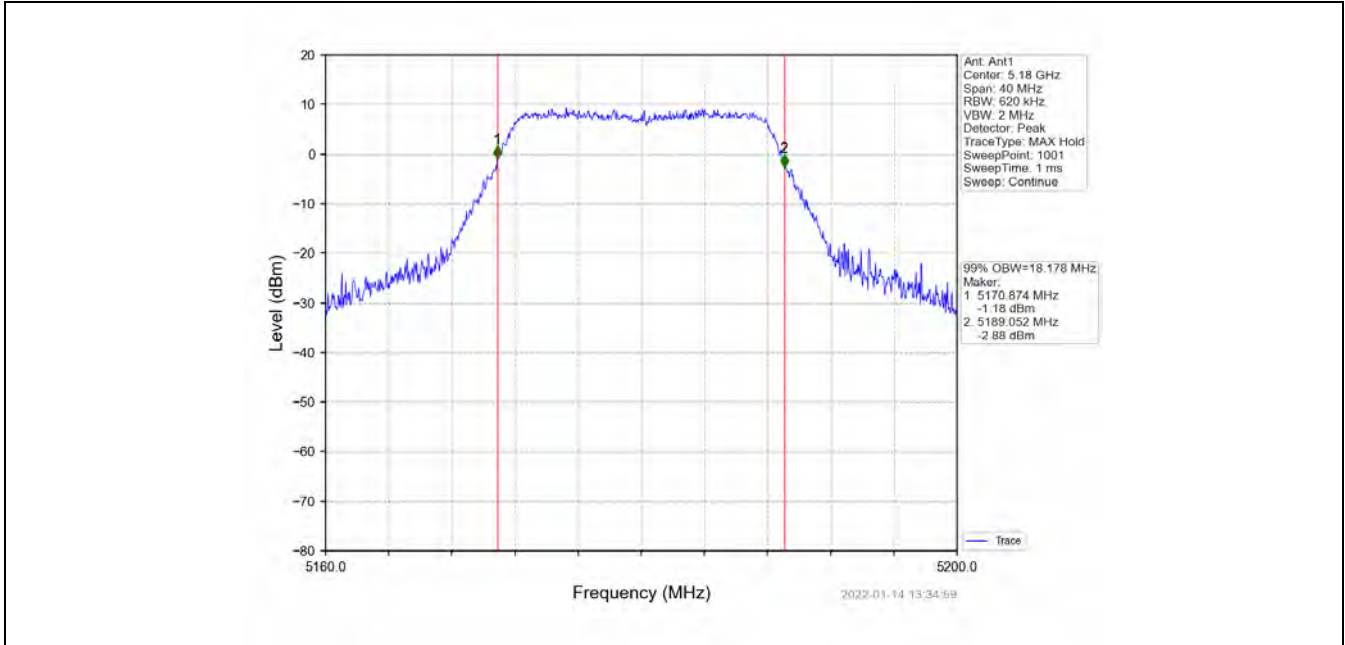
802.11a\_LCH\_5180MHz\_Ant1\_NTNV



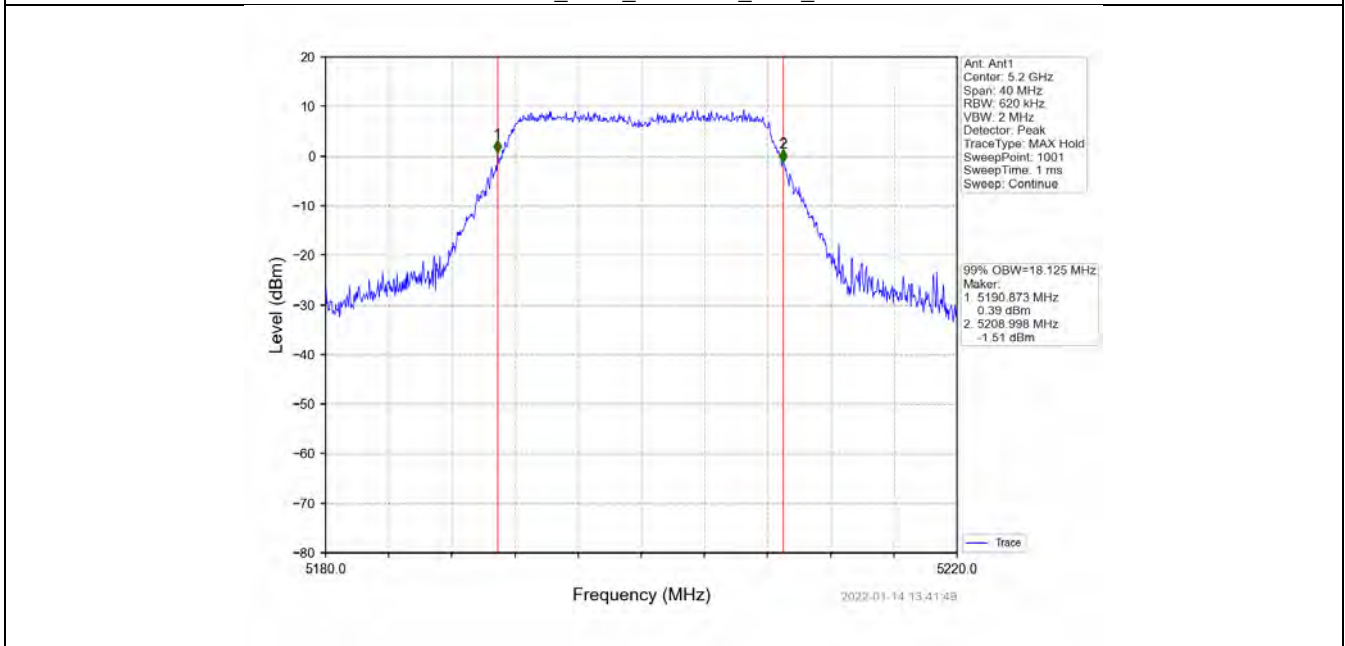
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 中国·上海·松江区金都西路588号 邮编: 201612 t(86-21) 61915666 f(86-21) 61915678 e sgs.china@sgs.com



802.11a\_MCH\_5200MHz\_Ant1\_NTNV



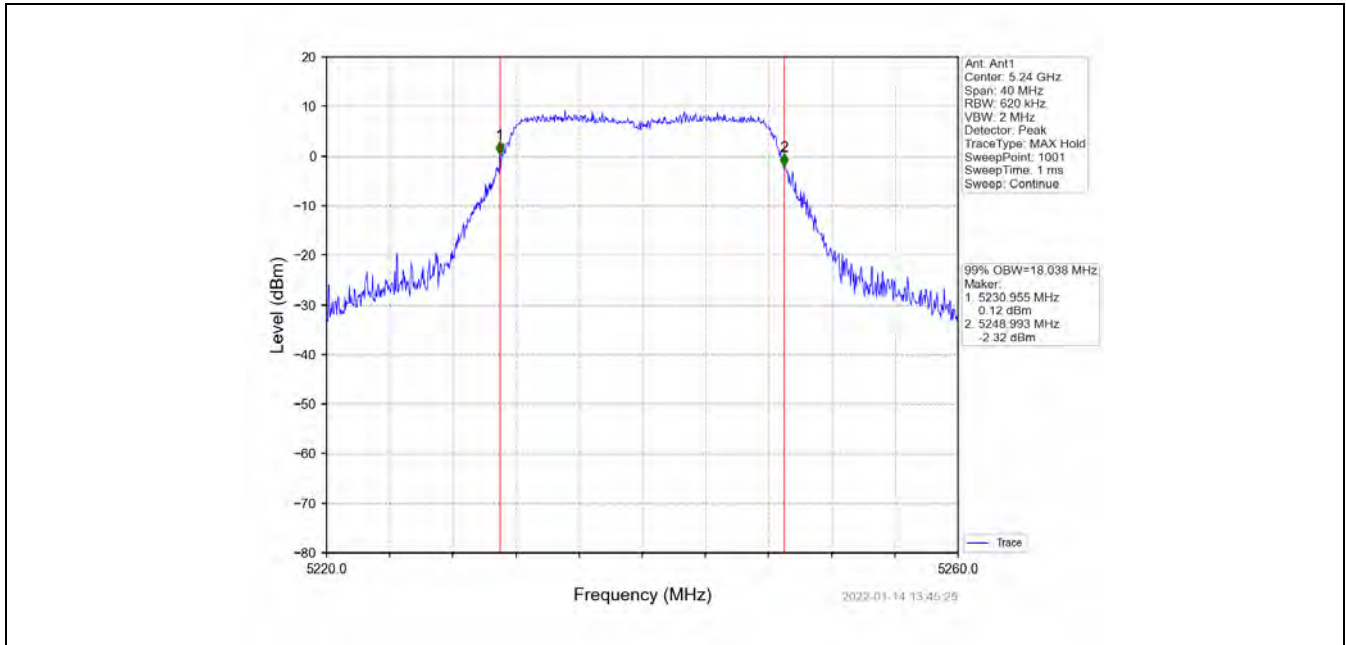
802.11a\_HCH\_5240MHz\_Ant1\_NTNV



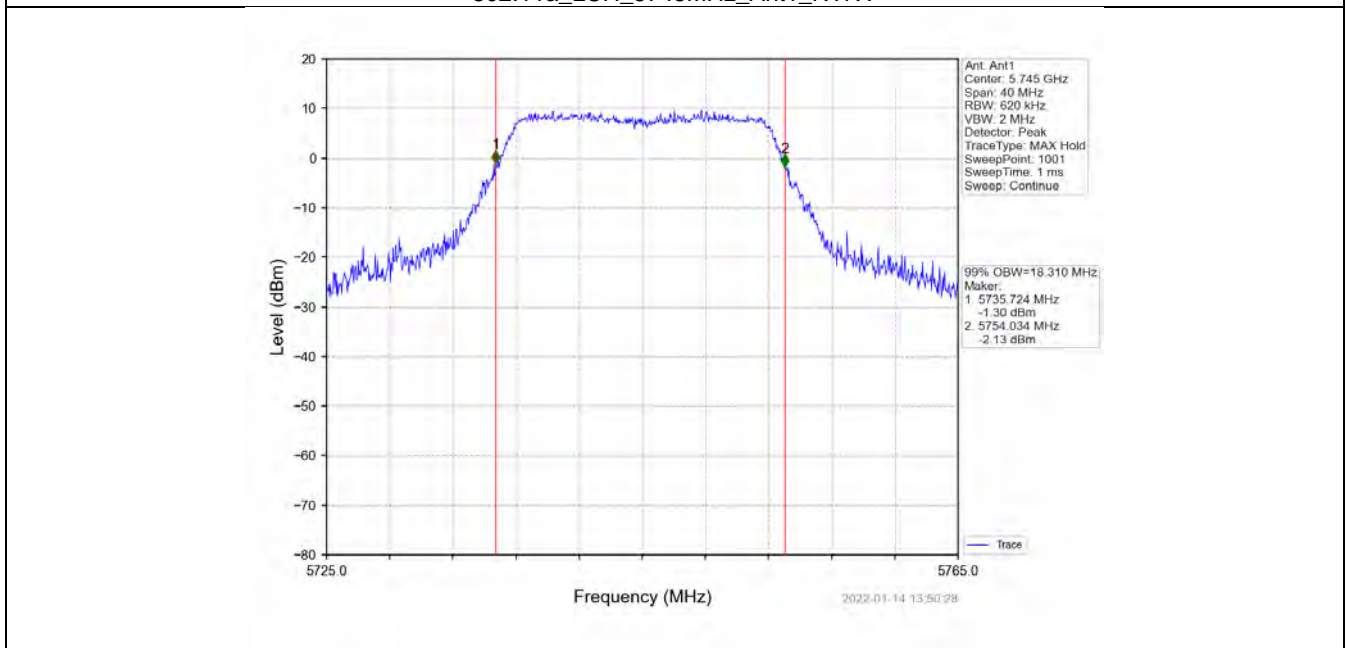
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802.11a\_LCH\_5745MHz\_Ant1\_NTNV

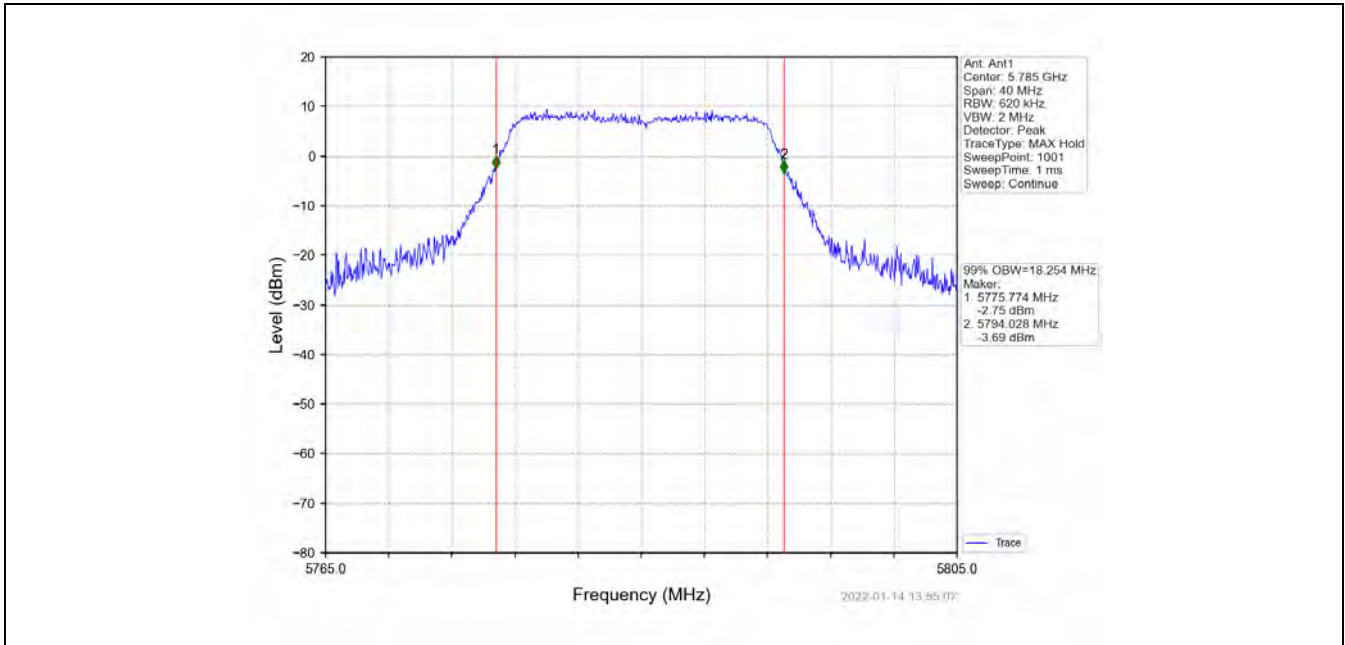


802.11a\_MCH\_5785MHz\_Ant1\_NTNV

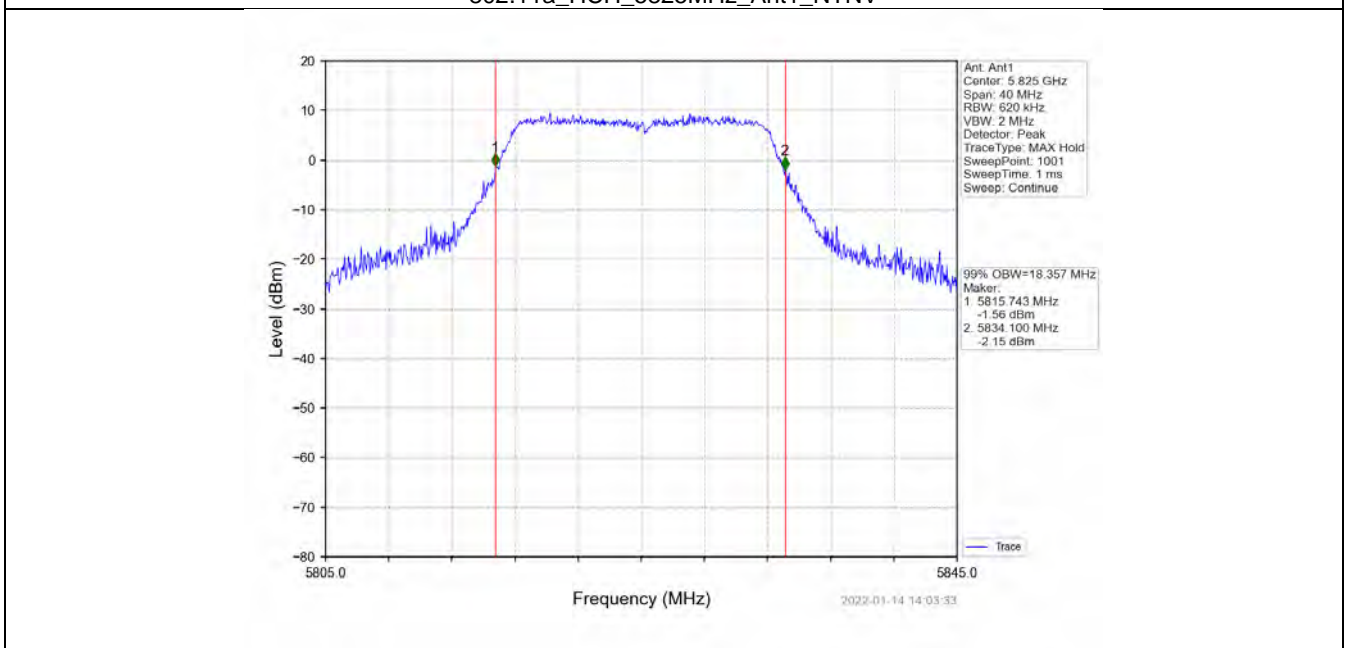


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802.11a\_HCH\_5825MHz\_Ant1\_NTNV

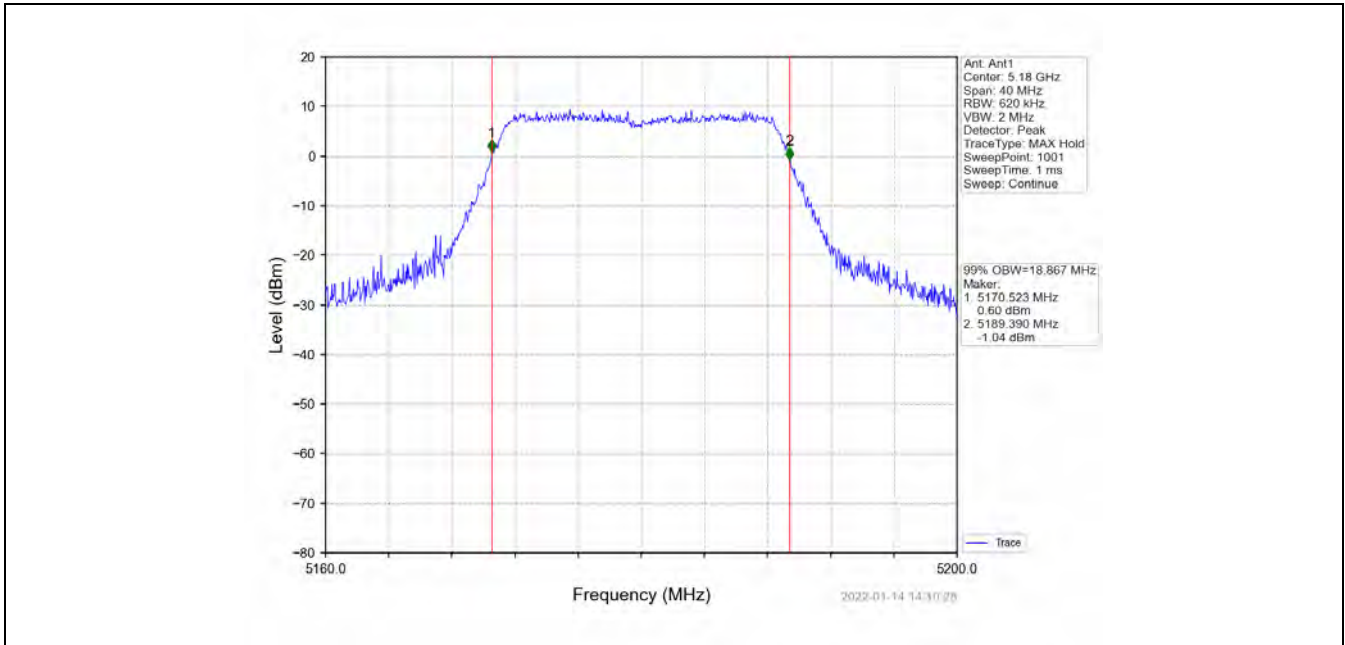


802.11n(HT20)\_LCH\_5180MHz\_Ant1\_NTNV

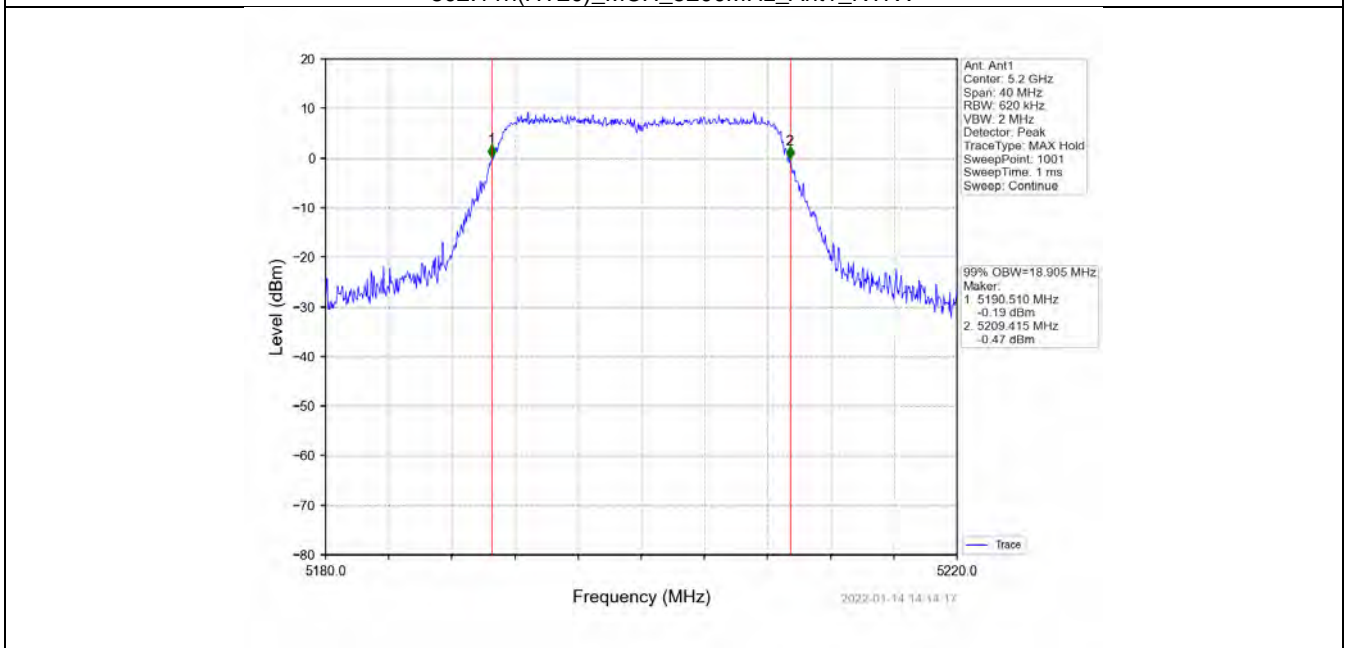


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802.11n(HT20)\_MCH\_5200MHz\_Ant1\_NTNV



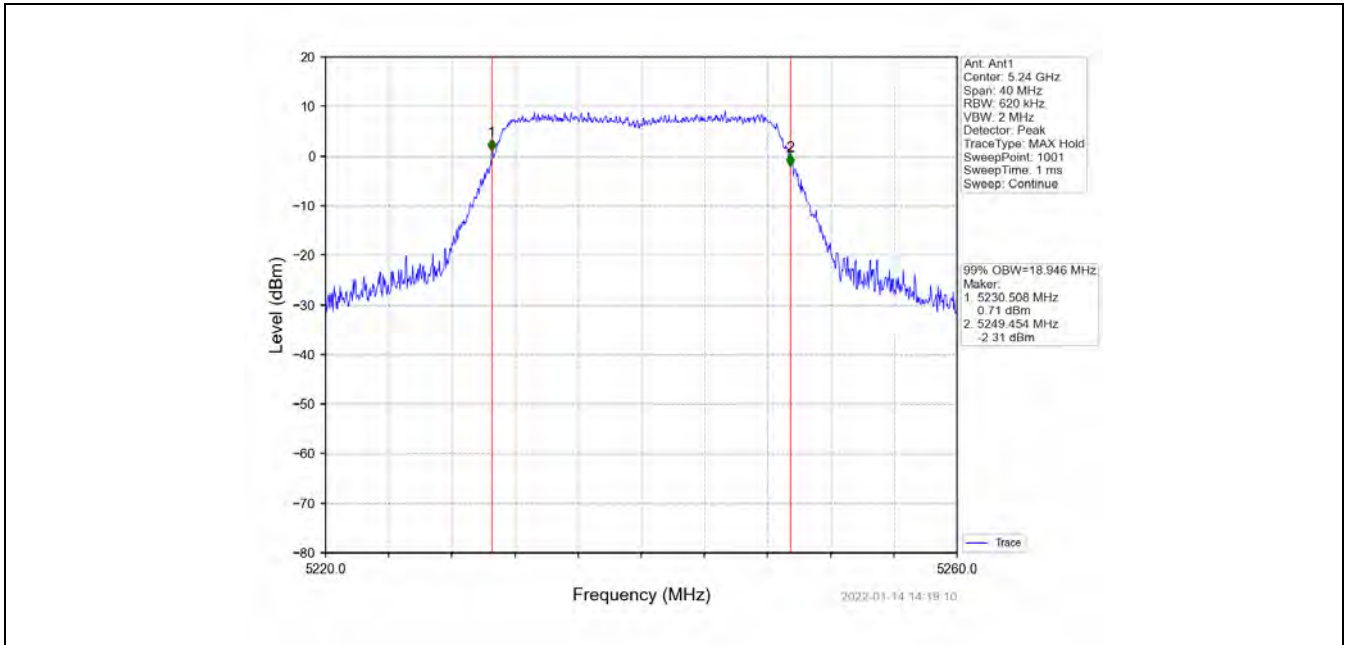
802.11n(HT20)\_HCH\_5240MHz\_Ant1\_NTNV



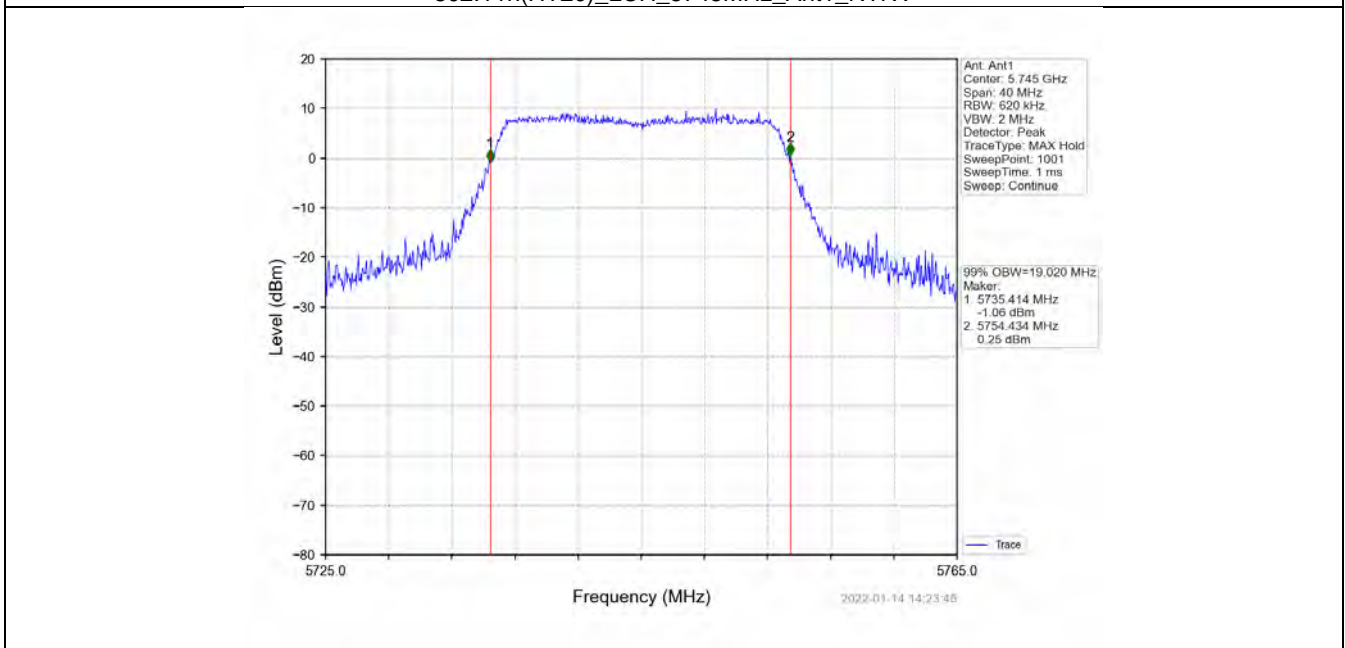
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802.11n(HT20)\_LCH\_5745MHz\_Ant1\_NTNV

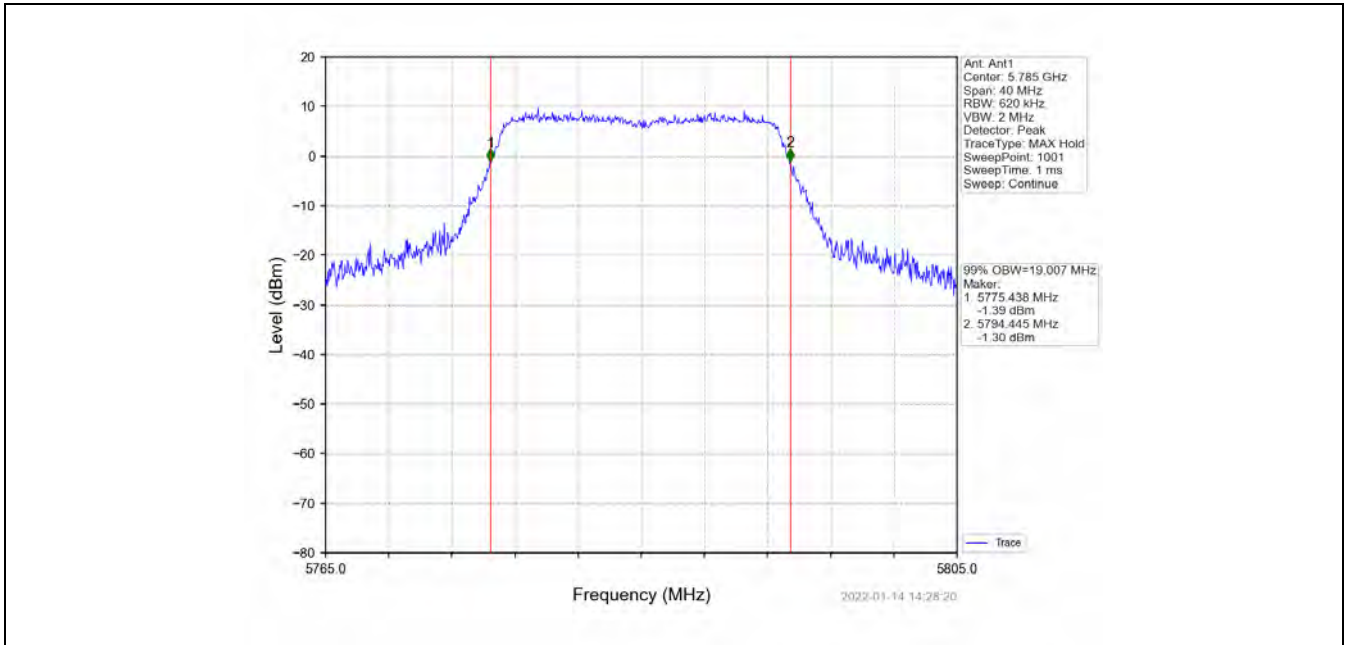


802.11n(HT20)\_MCH\_5785MHz\_Ant1\_NTNV

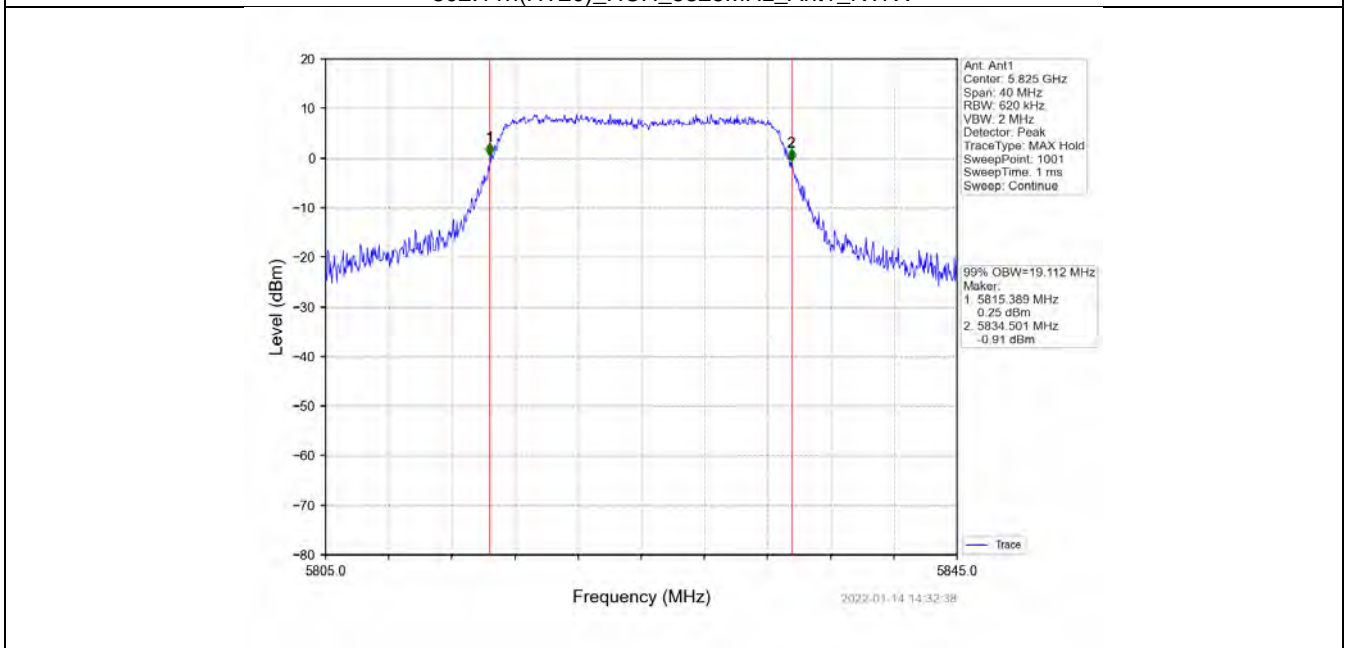


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802.11n(HT20)\_HCH\_5825MHz\_Ant1\_NTNV

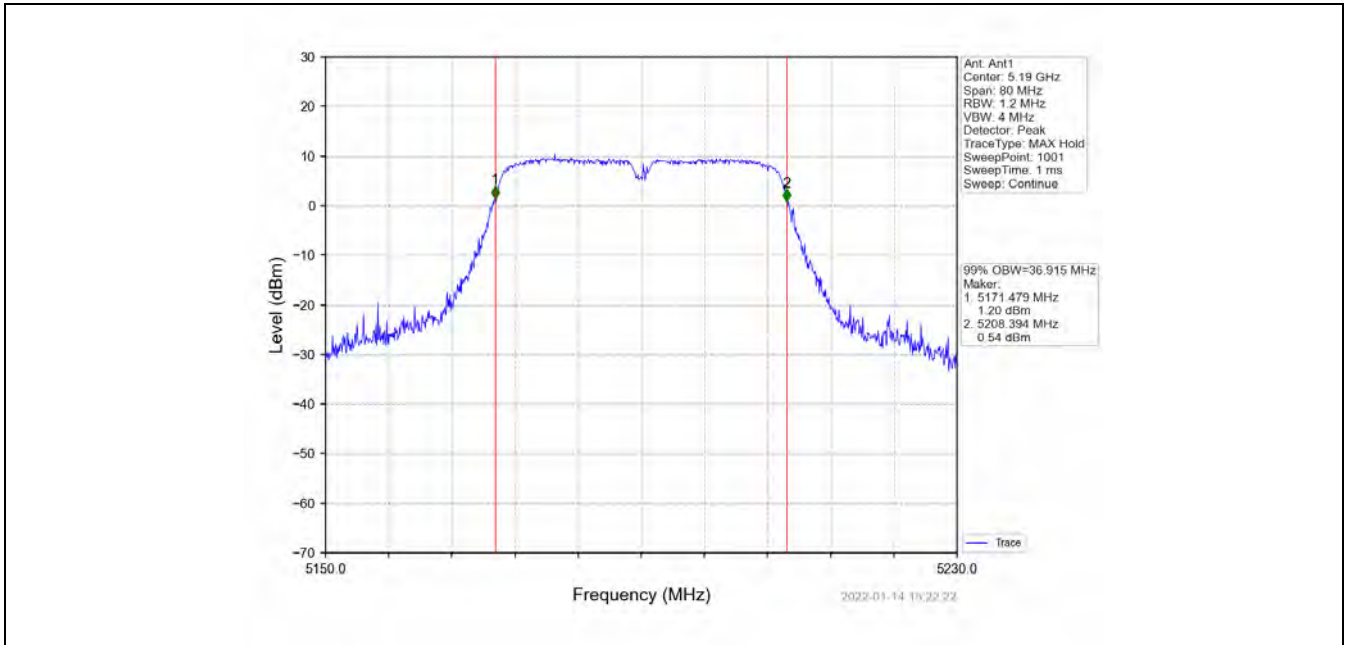


802.11n(HT40)\_LCH\_5190MHz\_Ant1\_NTNV

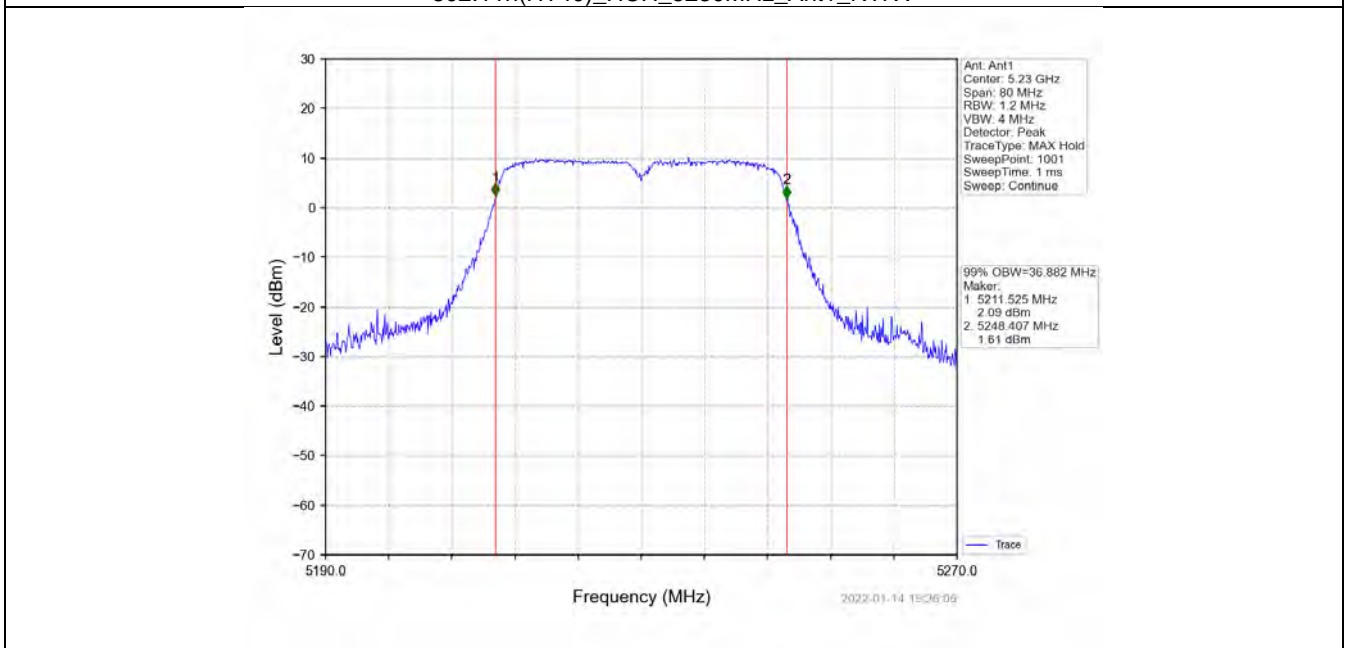


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802.11n(HT40)\_HCH\_5230MHz\_Ant1\_NTNV



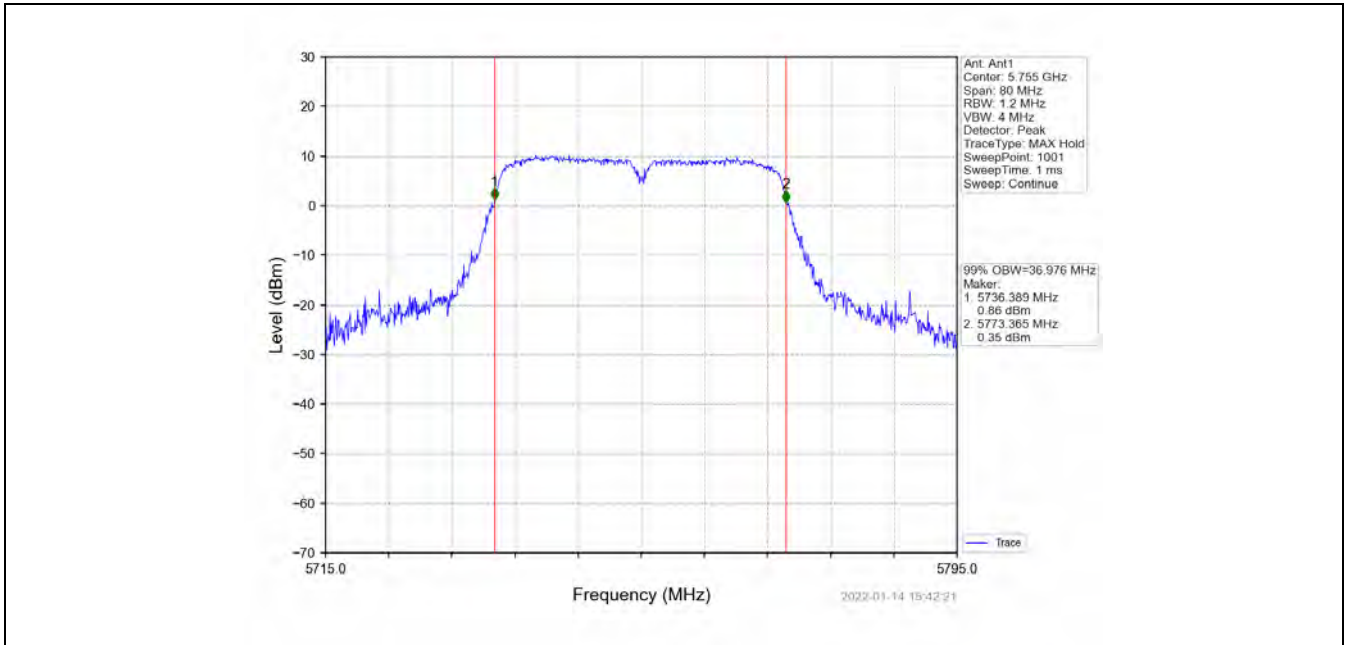
802.11n(HT40)\_LCH\_5755MHz\_Ant1\_NTNV



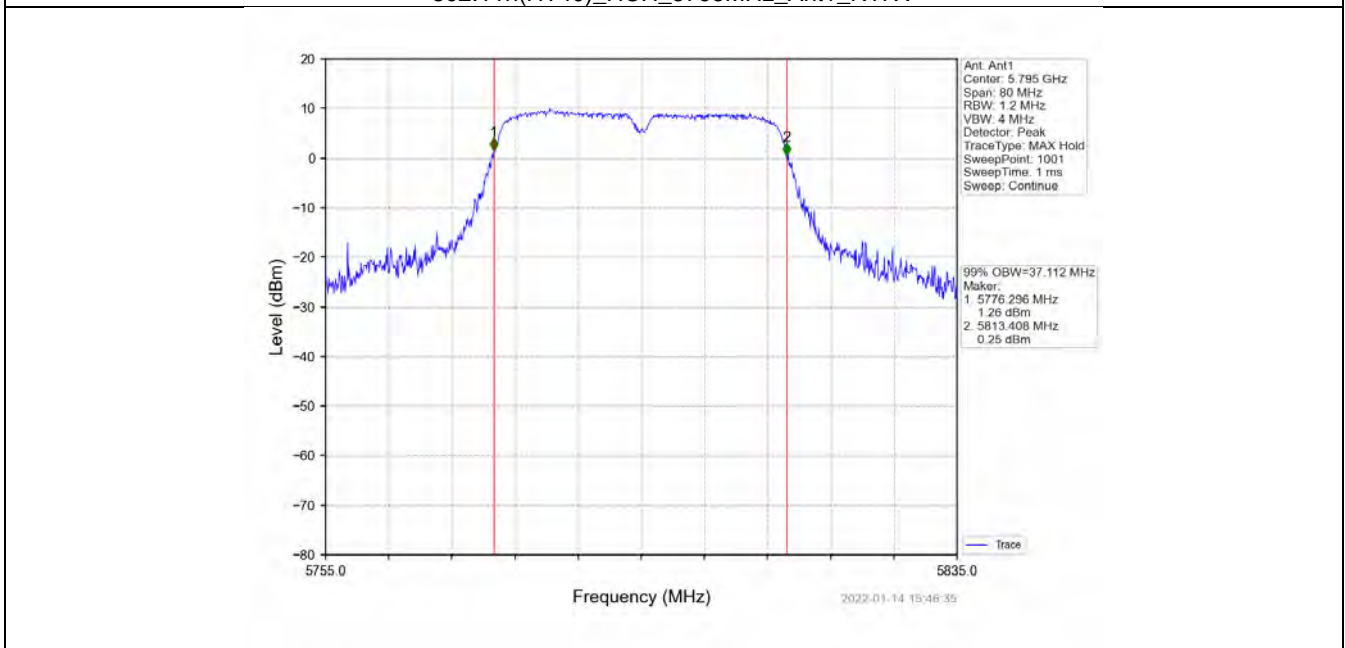
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802.11n(HT40)\_HCH\_5795MHz\_Ant1\_NTNV

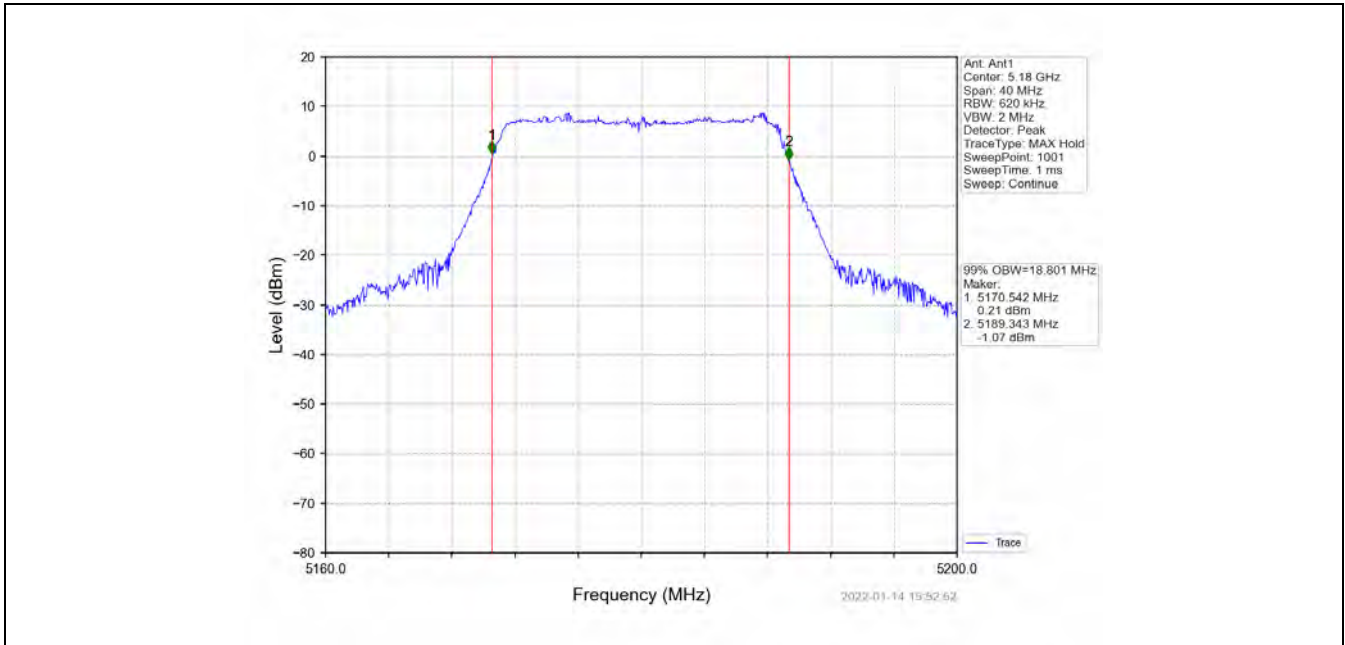


802.11ac(VHT20)\_LCH\_5180MHz\_Ant1\_NTNV

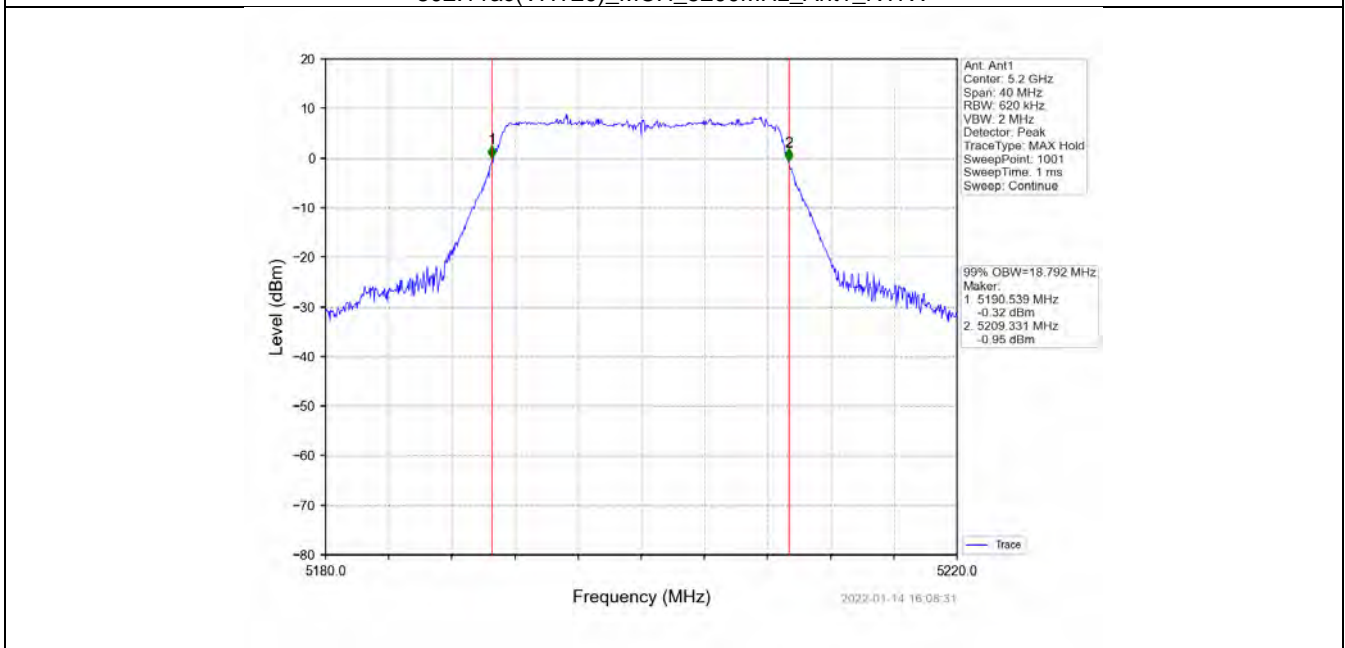


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802.11ac(VHT20)\_MCH\_5200MHz\_Ant1\_NTNV

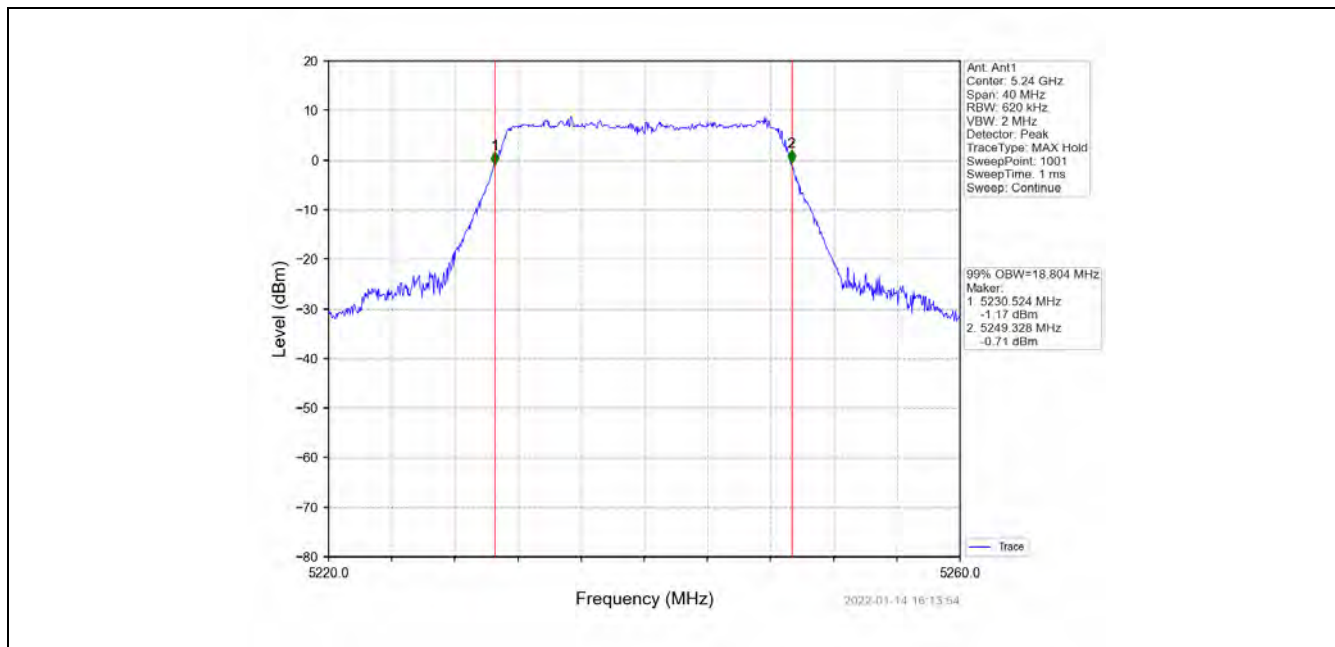


802.11ac(VHT20)\_HCH\_5240MHz\_Ant1\_NTNV



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802.11ac(VHT20)\_LCH\_5745MHz\_Ant1\_NTNV



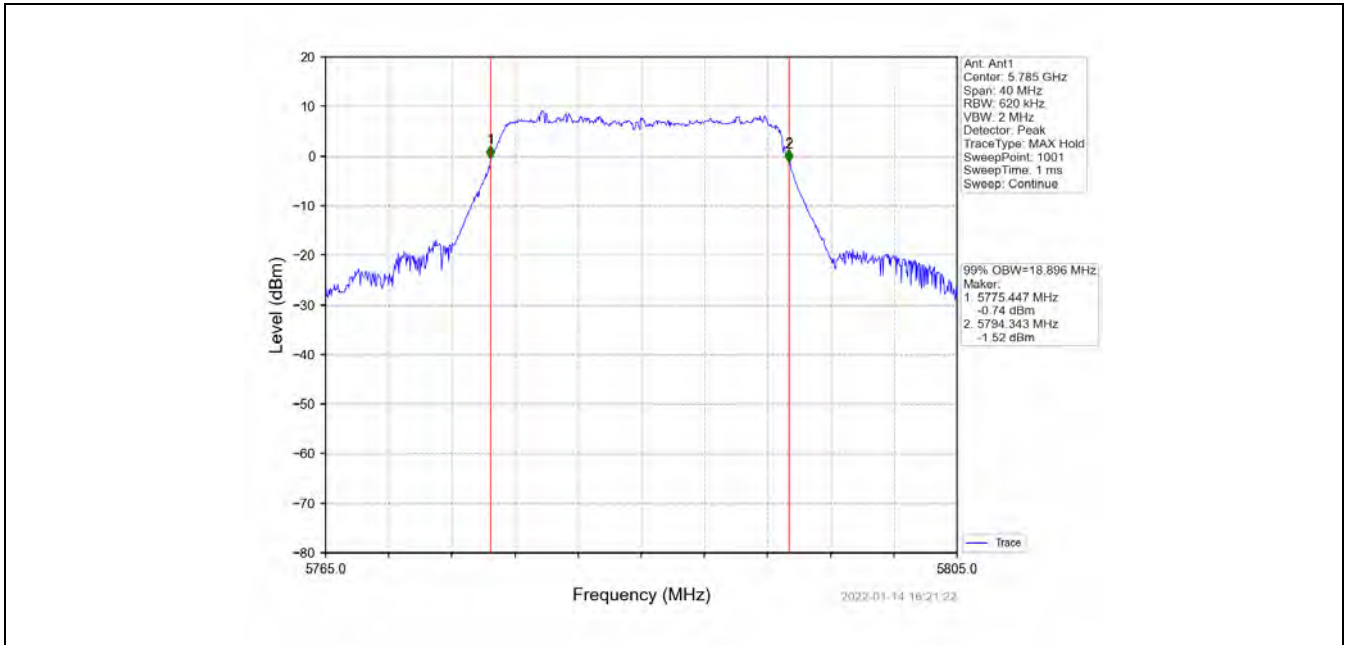
802.11ac(VHT20)\_MCH\_5785MHz\_Ant1\_NTNV



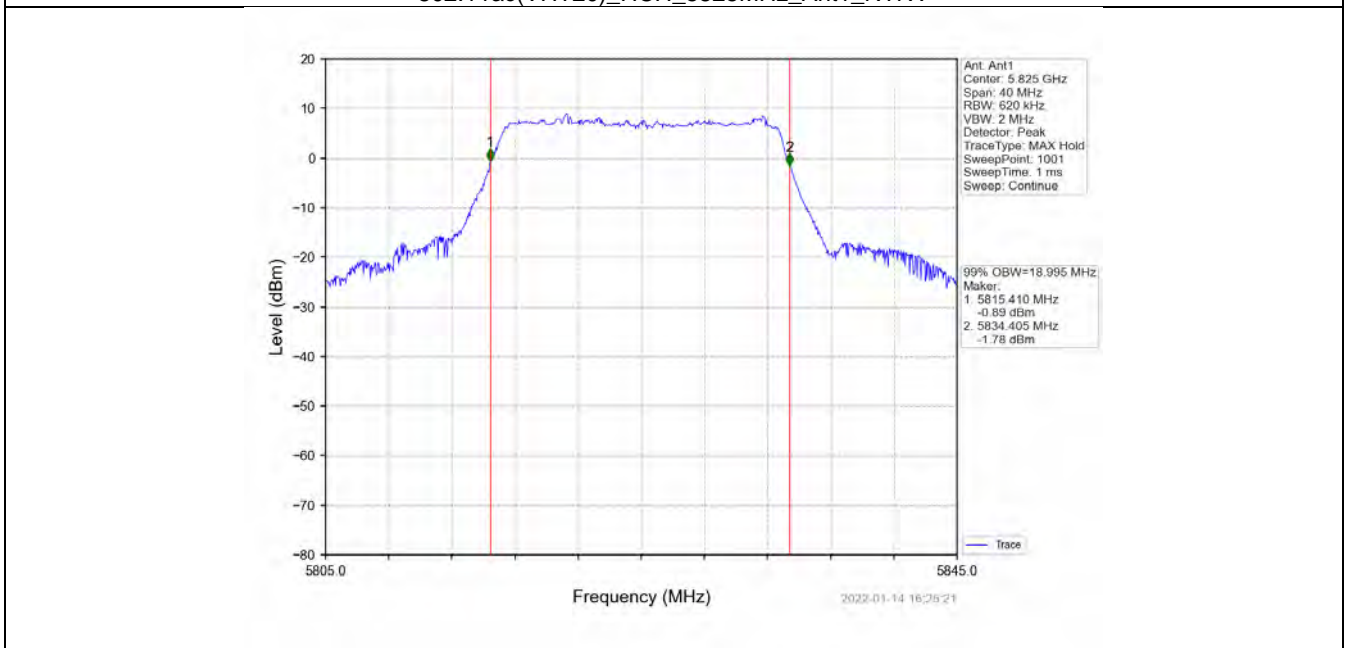
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802.11ac(VHT20)\_HCH\_5825MHz\_Ant1\_NTNV

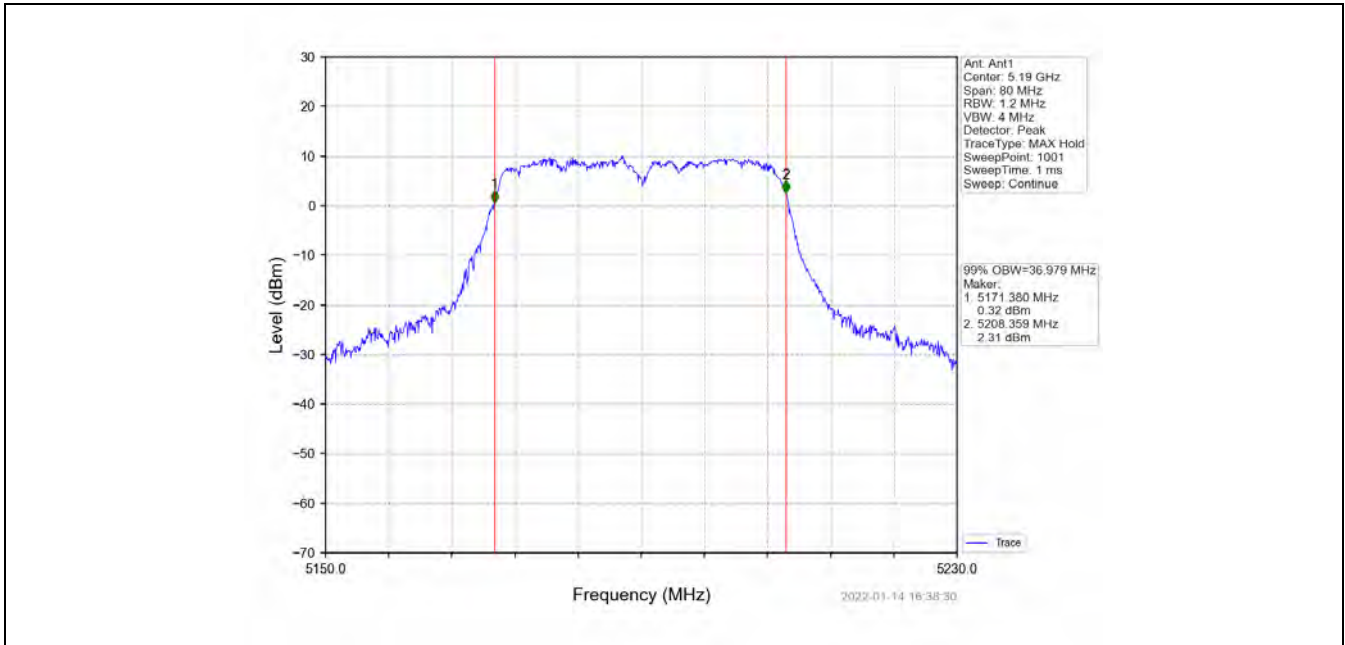


802.11ac(VHT40)\_LCH\_5190MHz\_Ant1\_NTNV

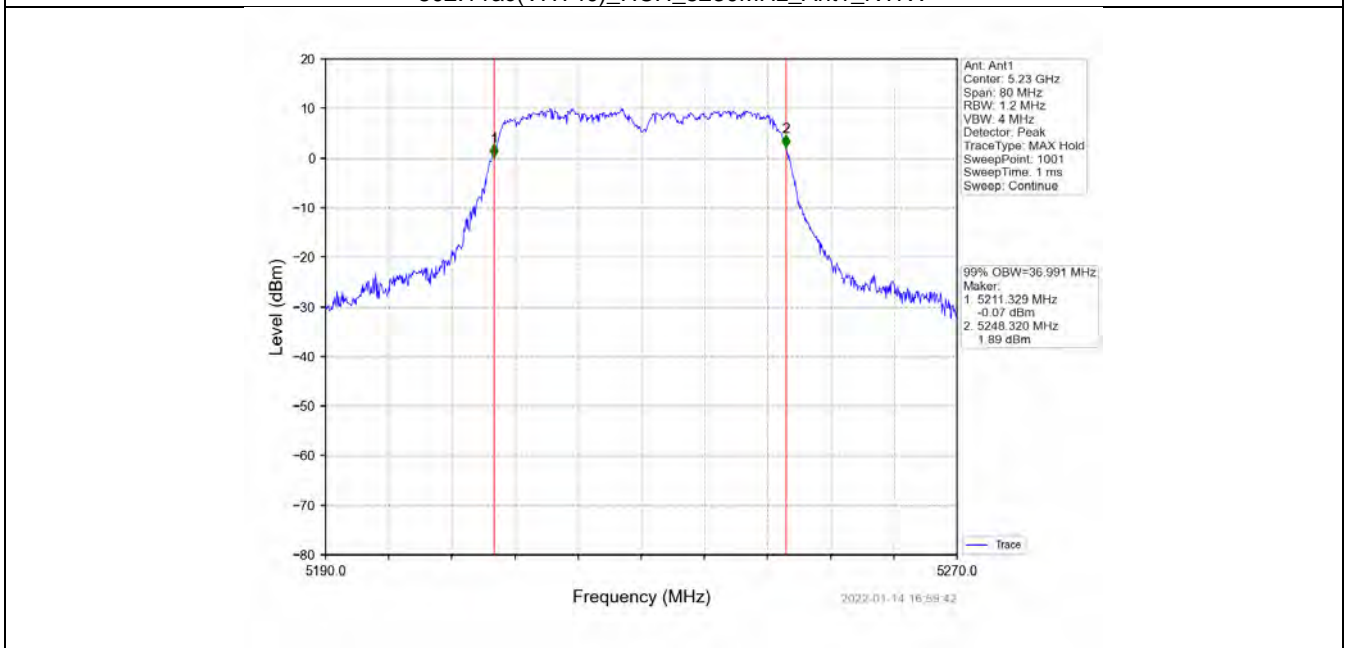


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802.11ac(VHT40)\_HCH\_5230MHz\_Ant1\_NTNV

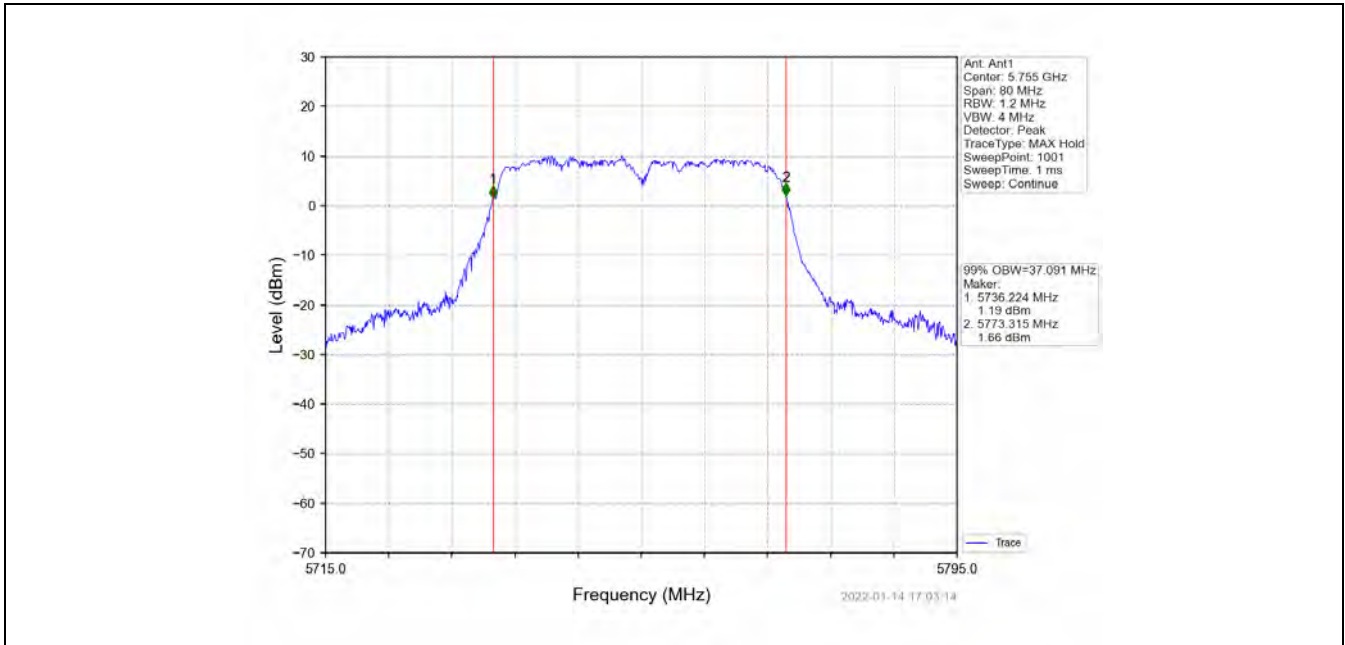


802.11ac(VHT40)\_LCH\_5755MHz\_Ant1\_NTNV

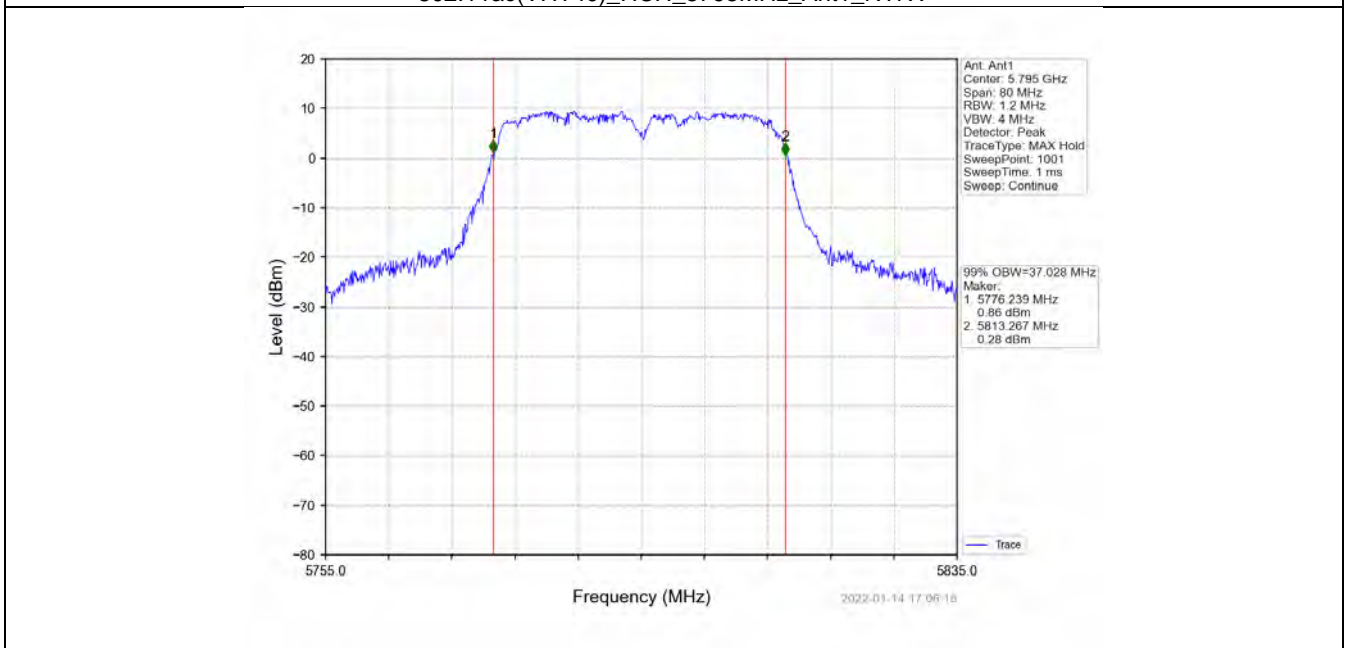


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802.11ac(VHT40)\_HCH\_5795MHz\_Ant1\_NTNV



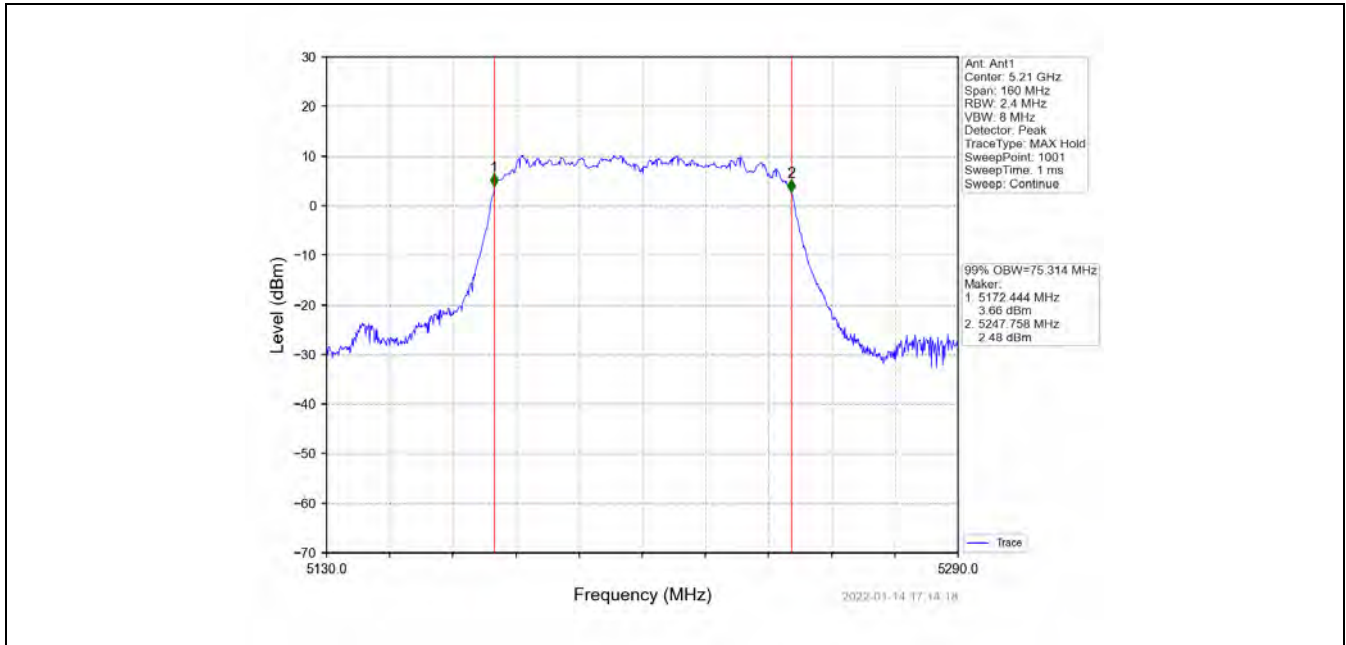
802.11ac(VHT80)\_MCH\_5210MHz\_Ant1\_NTNV



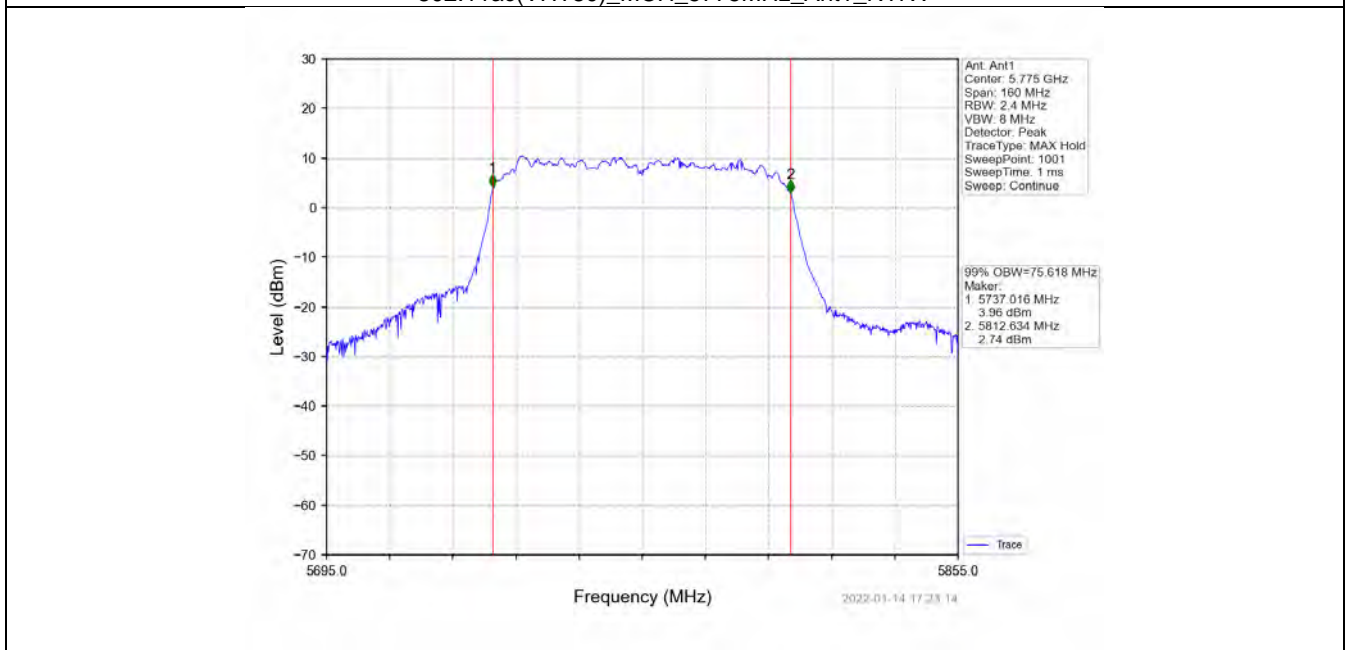
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802.11ac(VHT80)\_MCH\_5775MHz\_Ant1\_NTNV



## 2.2 6dB BW

### 2.2.1 Test Result

Mode	TX Type	Frequency (MHz)	Ant	6dB Bandwidth (MHz)		Verdict
				Result	Limit	
802.11a	SISO	5745	1	16.437	>=0.5	Pass



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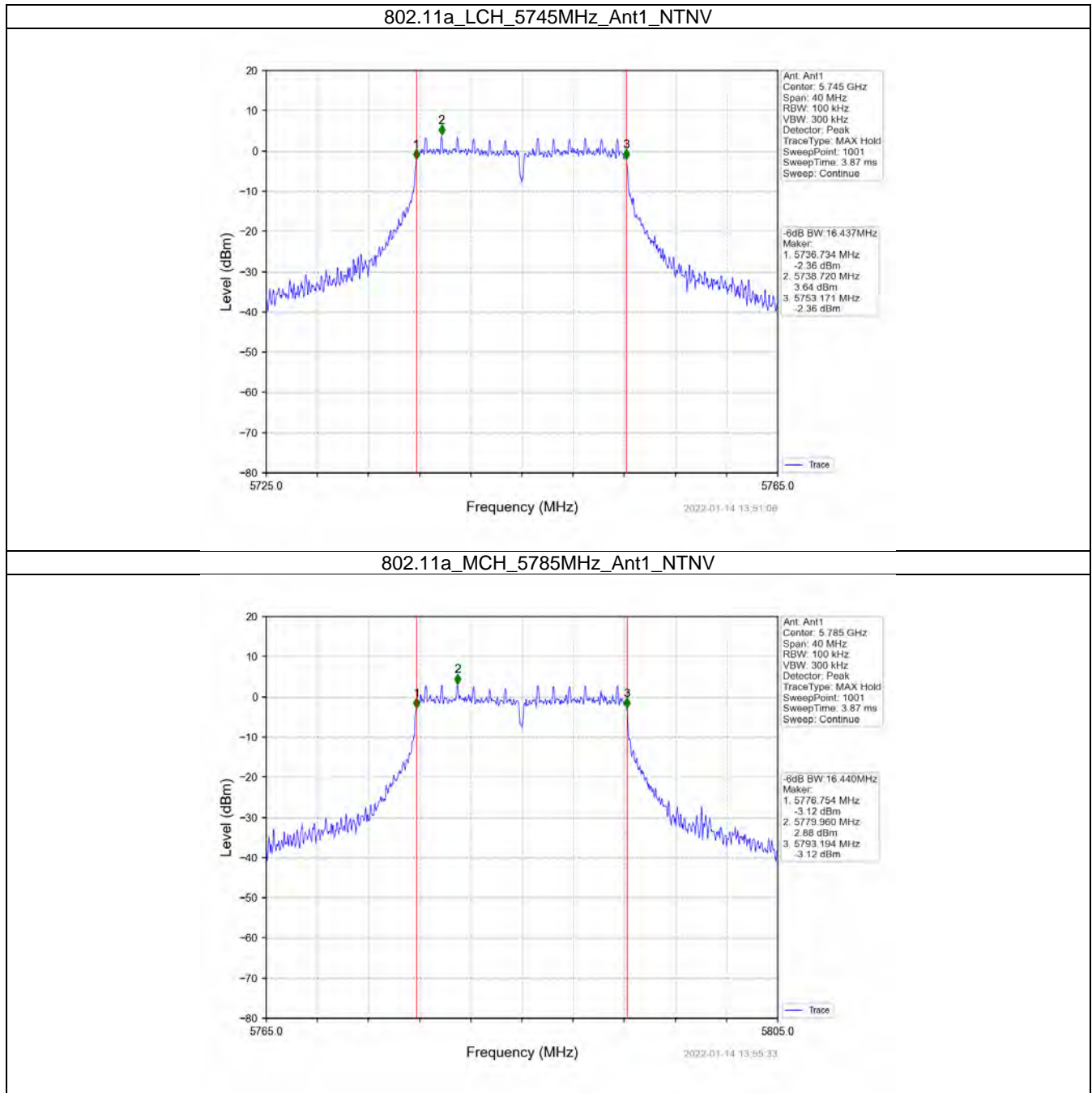
		5785	1	16.440	>=0.5	Pass
		5825	1	16.453	>=0.5	Pass
802.11n (HT20)	SISO	5745	1	17.634	>=0.5	Pass
		5785	1	17.600	>=0.5	Pass
		5825	1	17.621	>=0.5	Pass
802.11n (HT40)	SISO	5755	1	35.202	>=0.5	Pass
		5795	1	35.470	>=0.5	Pass
802.11ac (VHT20)	SISO	5745	1	17.632	>=0.5	Pass
		5785	1	17.632	>=0.5	Pass
		5825	1	17.621	>=0.5	Pass
802.11ac (VHT40)	SISO	5755	1	35.199	>=0.5	Pass
		5795	1	35.218	>=0.5	Pass
802.11ac (VHT80)	SISO	5775	1	75.114	>=0.5	Pass



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2.2.2 Test Graph

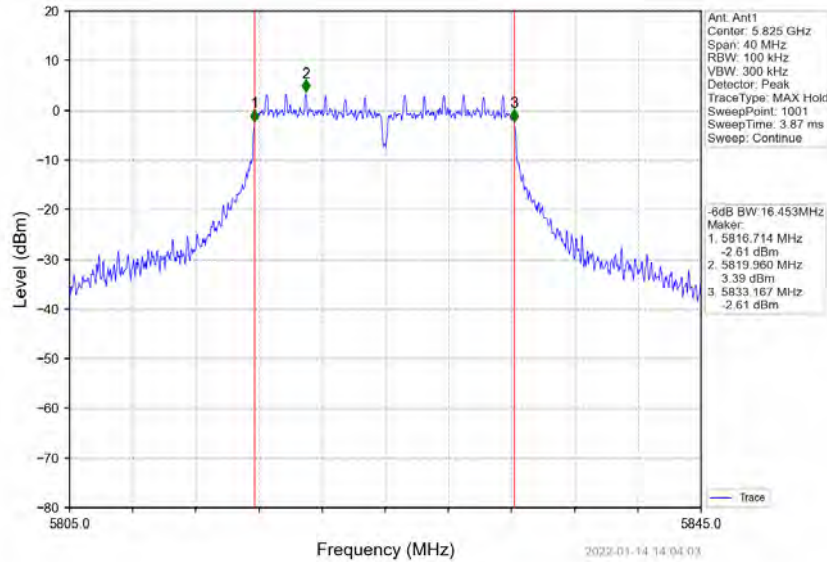


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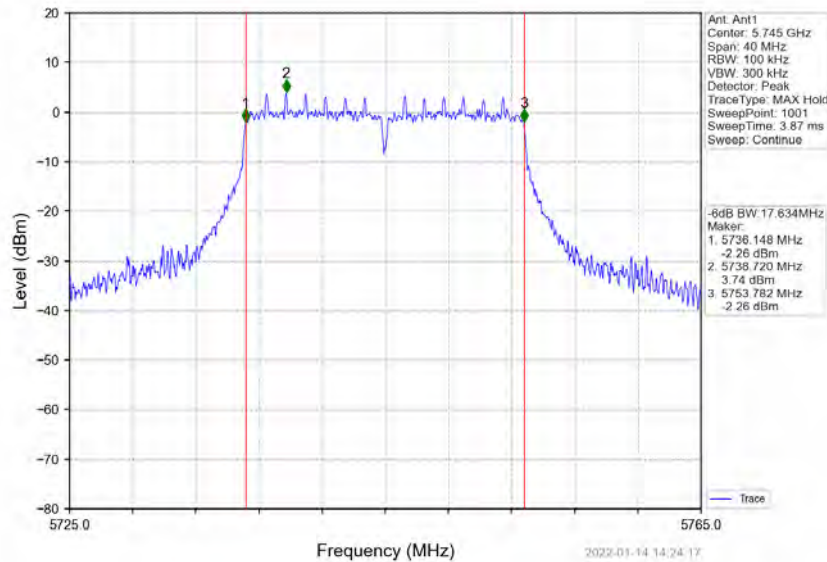
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802.11a\_HCH\_5825MHz\_Ant1\_NTNV



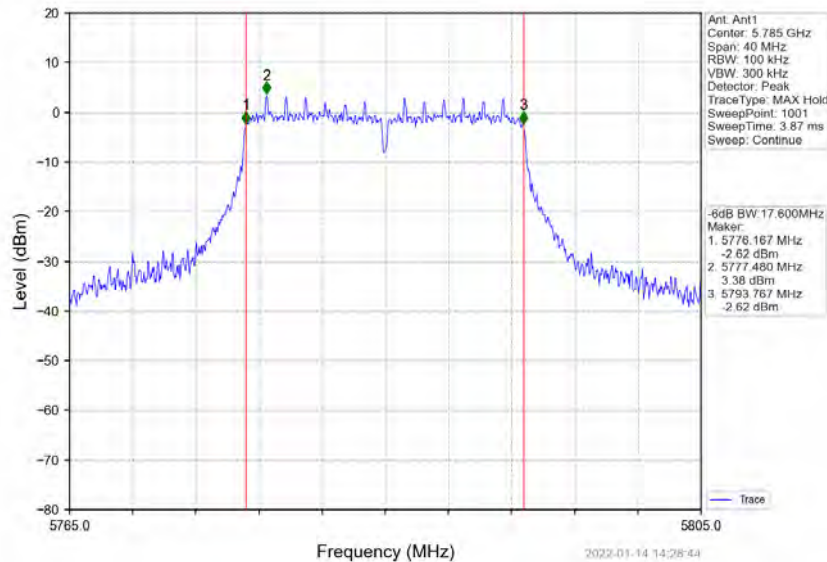
802.11n(HT20)\_LCH\_5745MHz\_Ant1\_NTNV



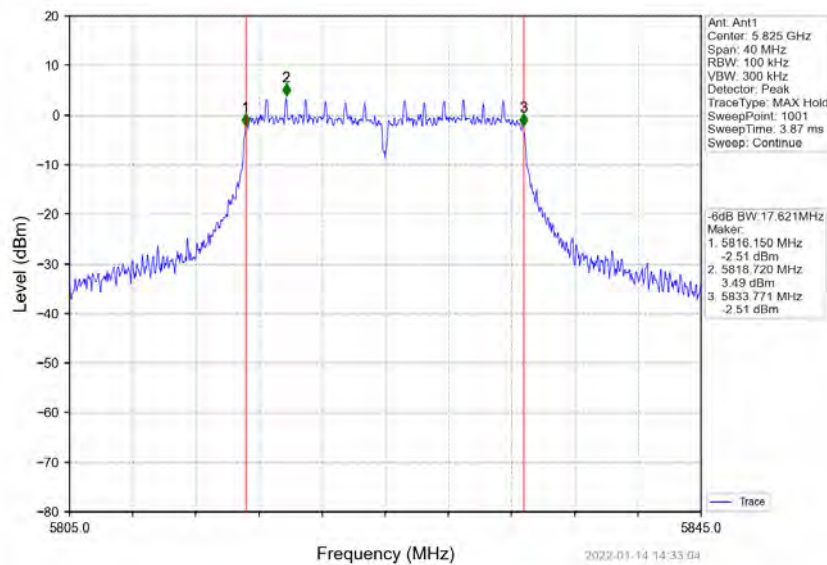
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802.11n(HT20)\_MCH\_5785MHz\_Ant1\_NTNV



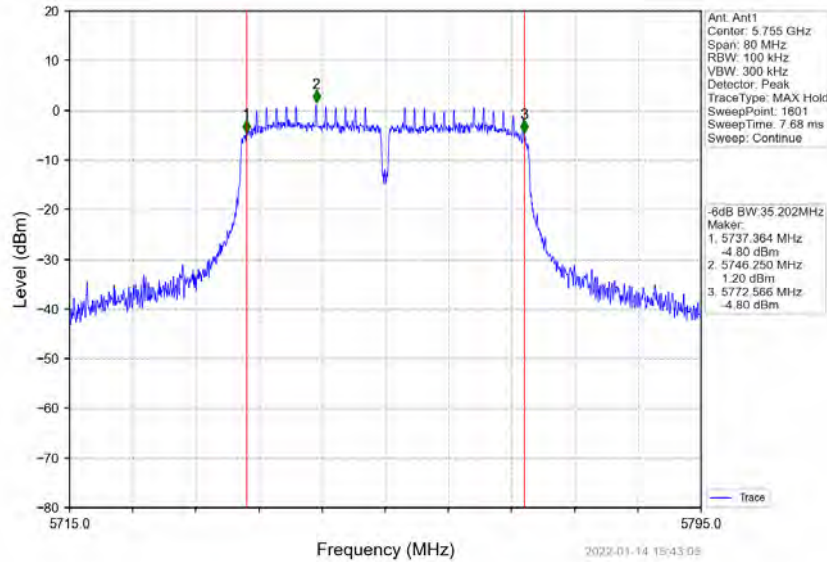
802.11n(HT20)\_HCH\_5825MHz\_Ant1\_NTNV



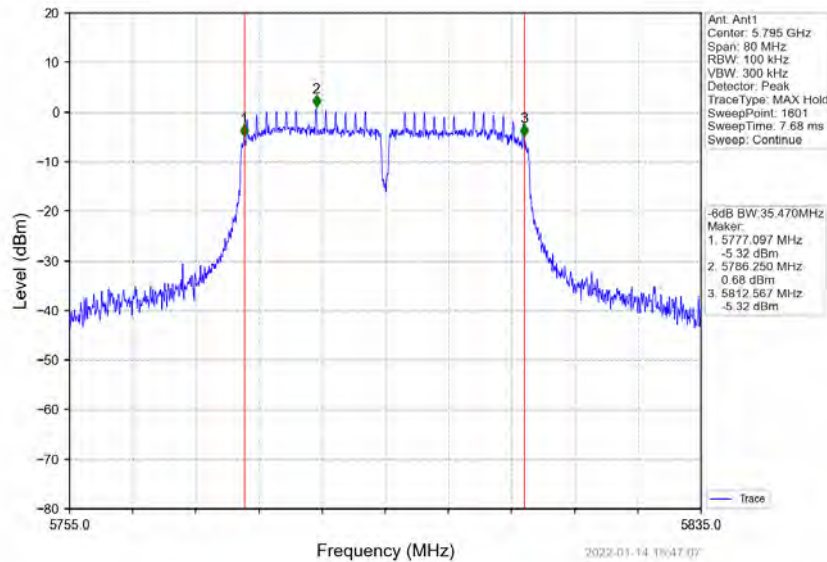
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802.11n(HT40)\_LCH\_5755MHz\_Ant1\_NTNV



802.11n(HT40)\_HCH\_5795MHz\_Ant1\_NTNV

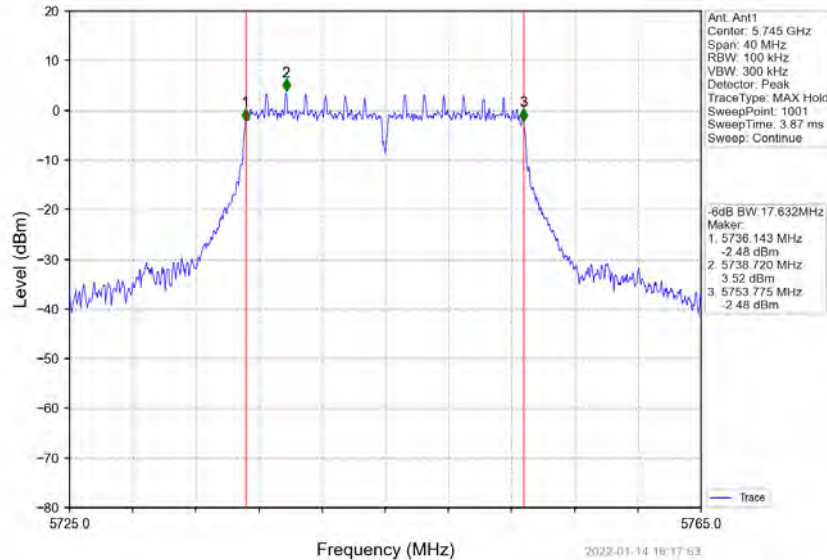


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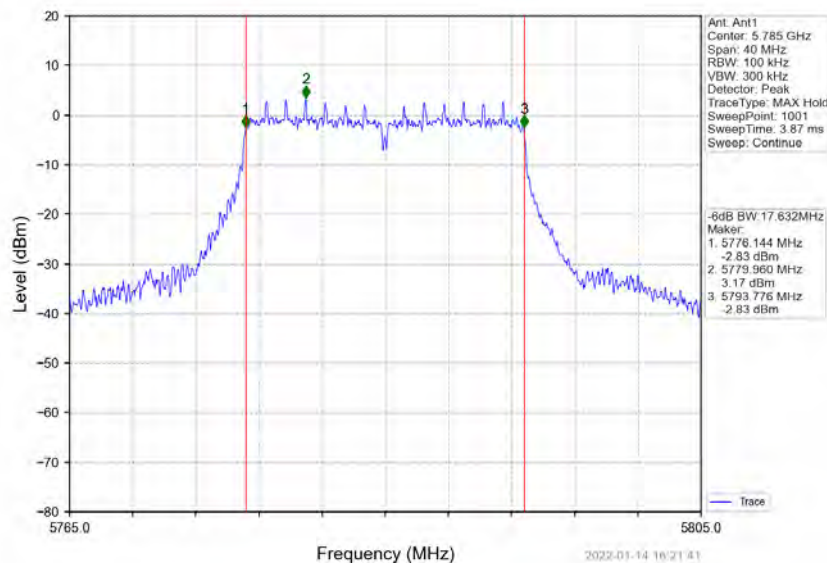
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802.11ac(VHT20)\_LCH\_5745MHz\_Ant1\_NTNV

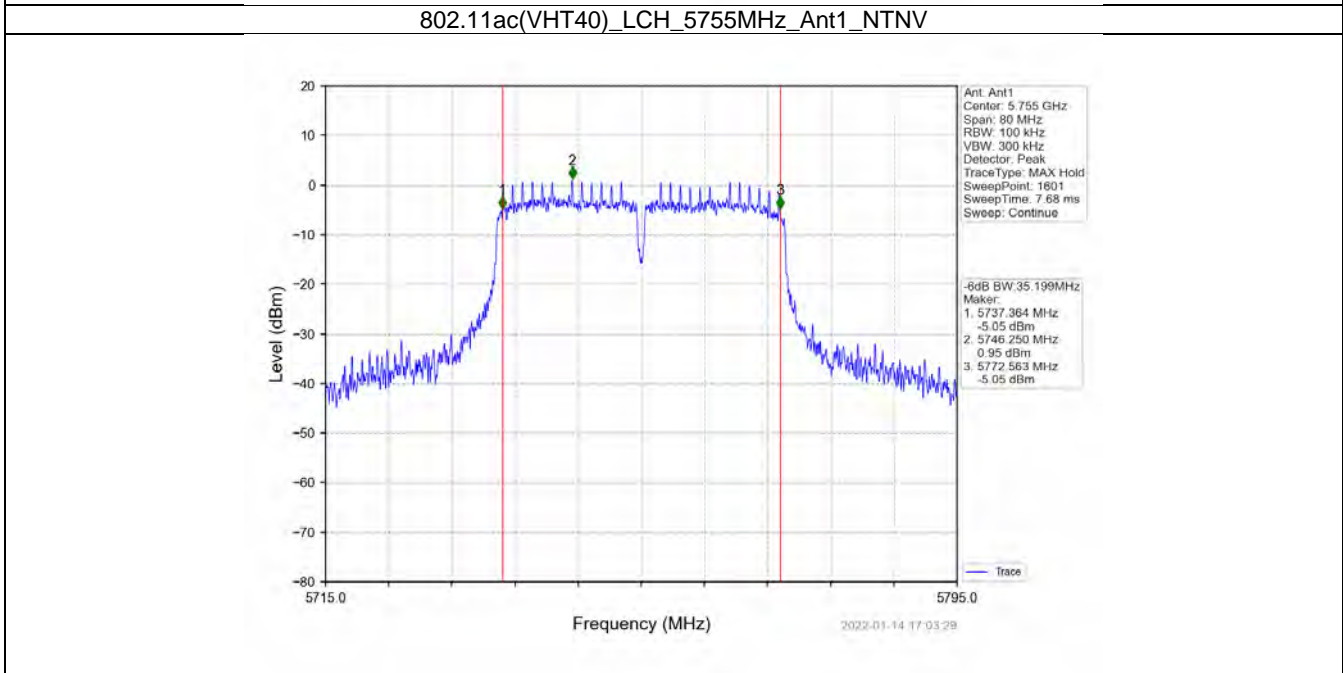
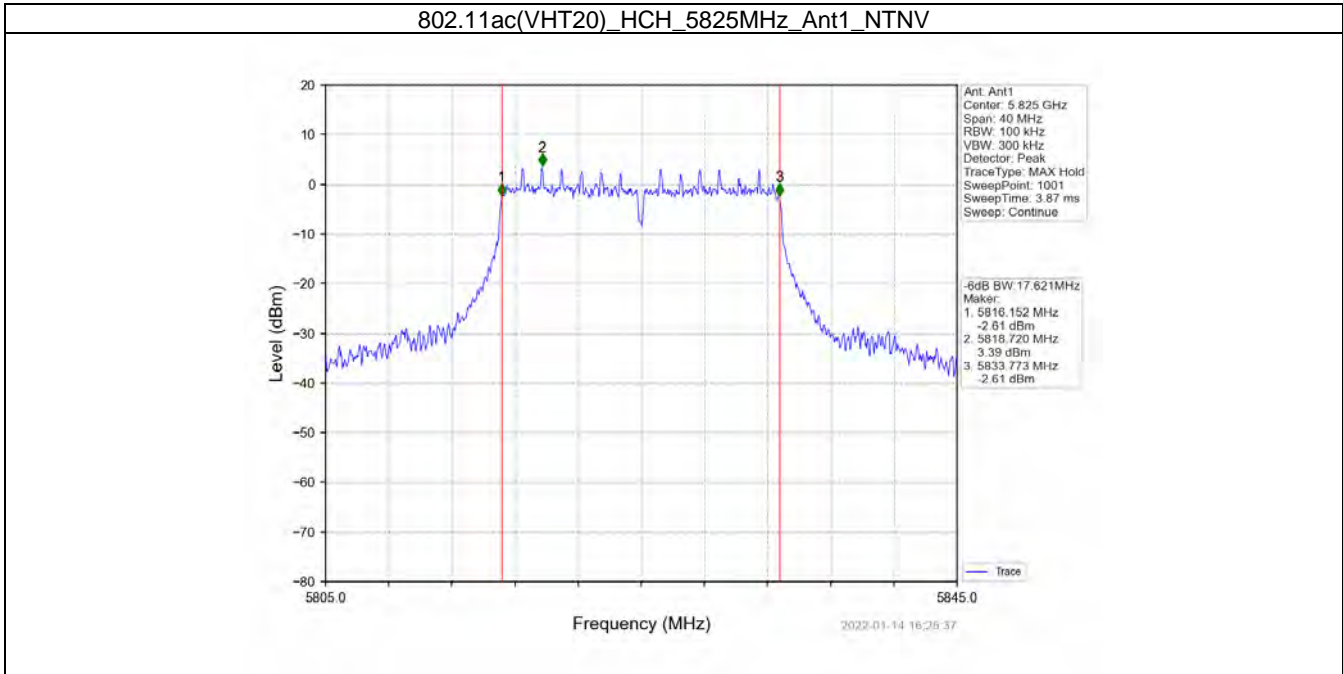


802.11ac(VHT20)\_MCH\_5785MHz\_Ant1\_NTNV



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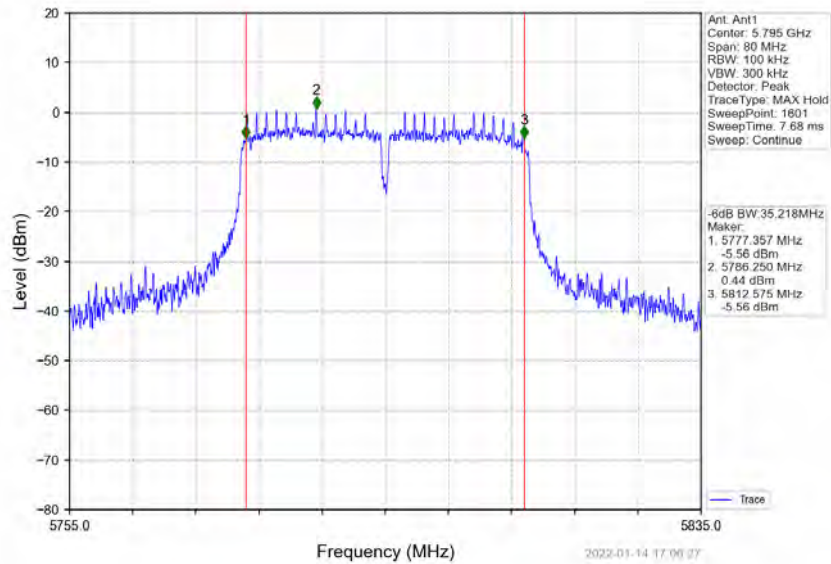
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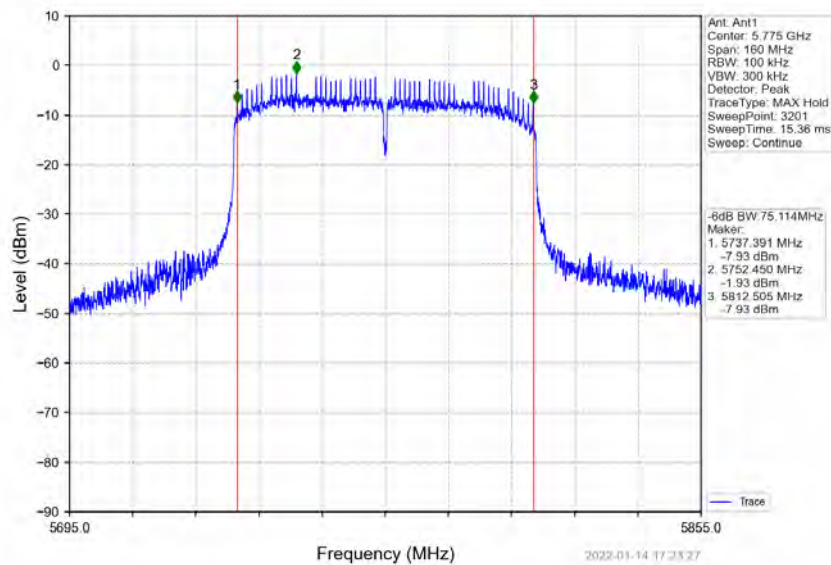
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802.11ac(VHT40)\_HCH\_5795MHz\_Ant1\_NTNV



802.11ac(VHT80)\_MCH\_5775MHz\_Ant1\_NTNV



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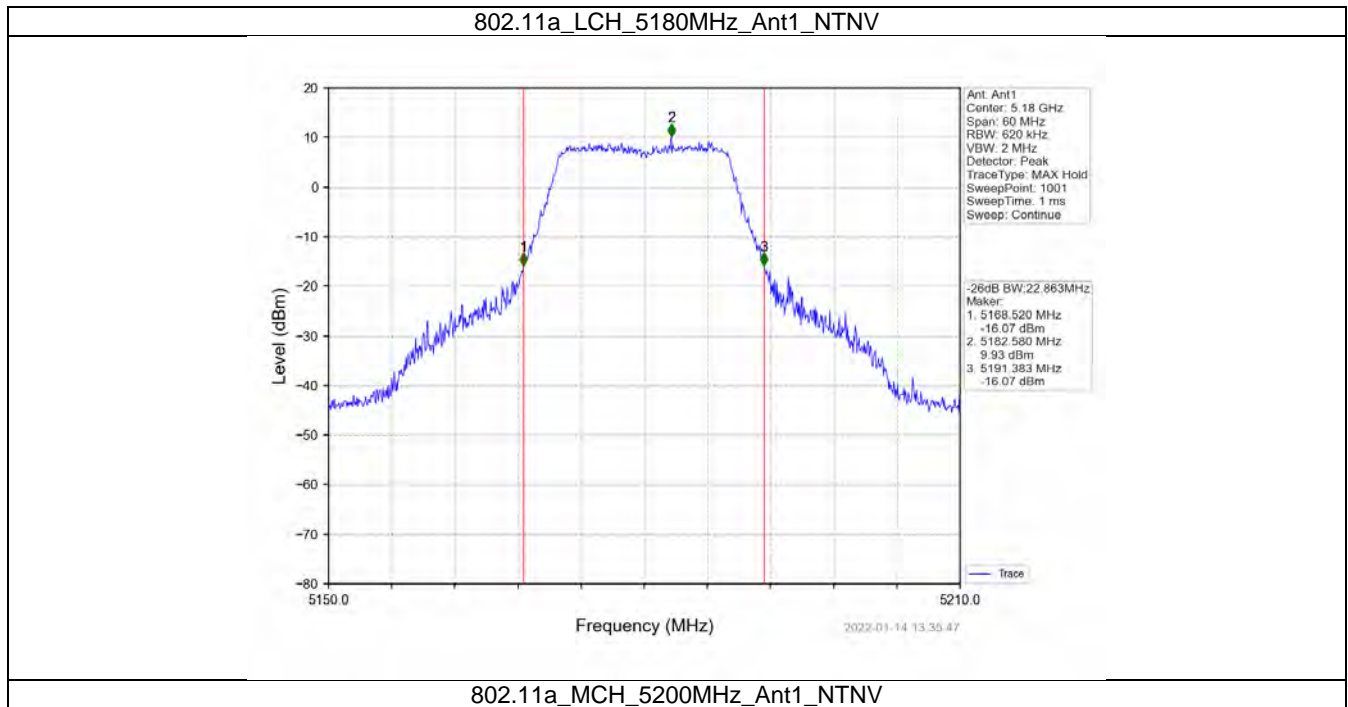


### 2.3 26dB BW

#### 2.3.1 Test Result

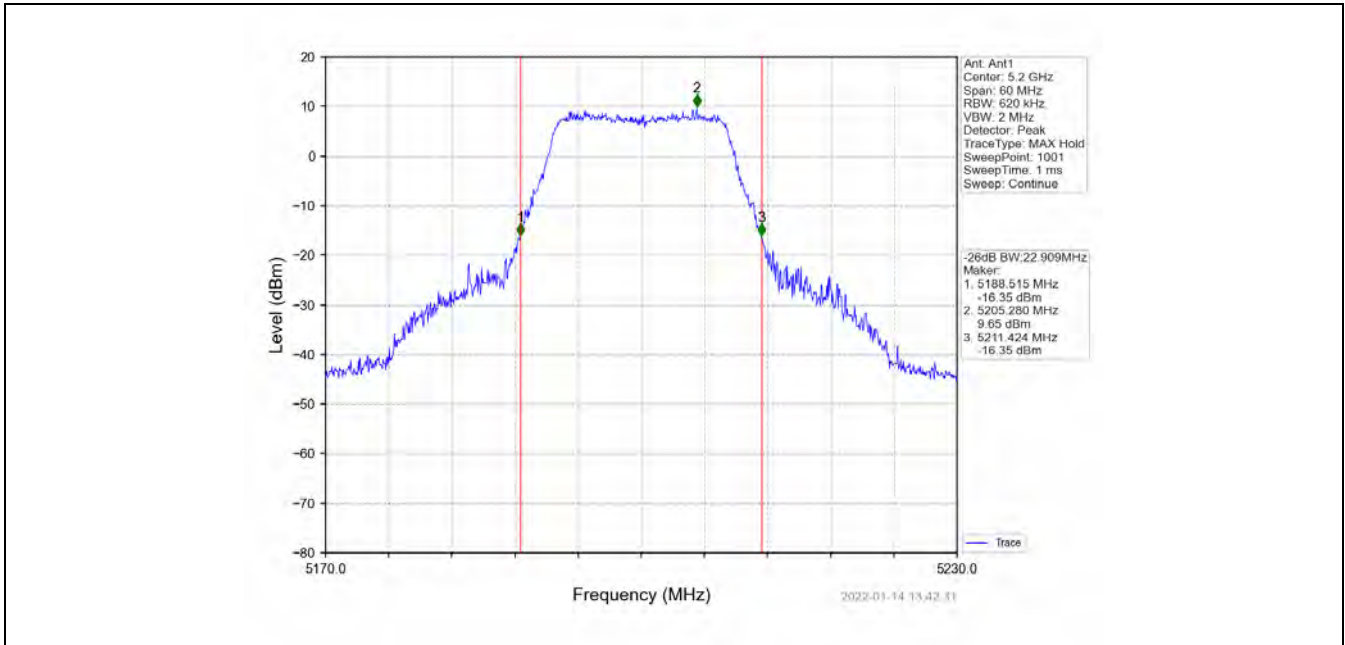
Mode	TX Type	Frequency (MHz)	Ant	26dB Bandwidth (MHz)	Verdict
				Result	
802.11a	SISO	5180	1	22.863	Pass
		5200	1	22.909	Pass
		5240	1	23.145	Pass
802.11n (HT20)	SISO	5180	1	23.938	Pass
		5200	1	23.426	Pass
		5240	1	23.295	Pass
802.11n (HT40)	SISO	5190	1	46.160	Pass
		5230	1	46.917	Pass
802.11ac (VHT20)	SISO	5180	1	23.318	Pass
		5200	1	23.210	Pass
		5240	1	23.398	Pass
802.11ac (VHT40)	SISO	5190	1	45.140	Pass
		5230	1	44.567	Pass
802.11ac (VHT80)	SISO	5210	1	88.203	Pass

#### 2.3.2 Test Graph

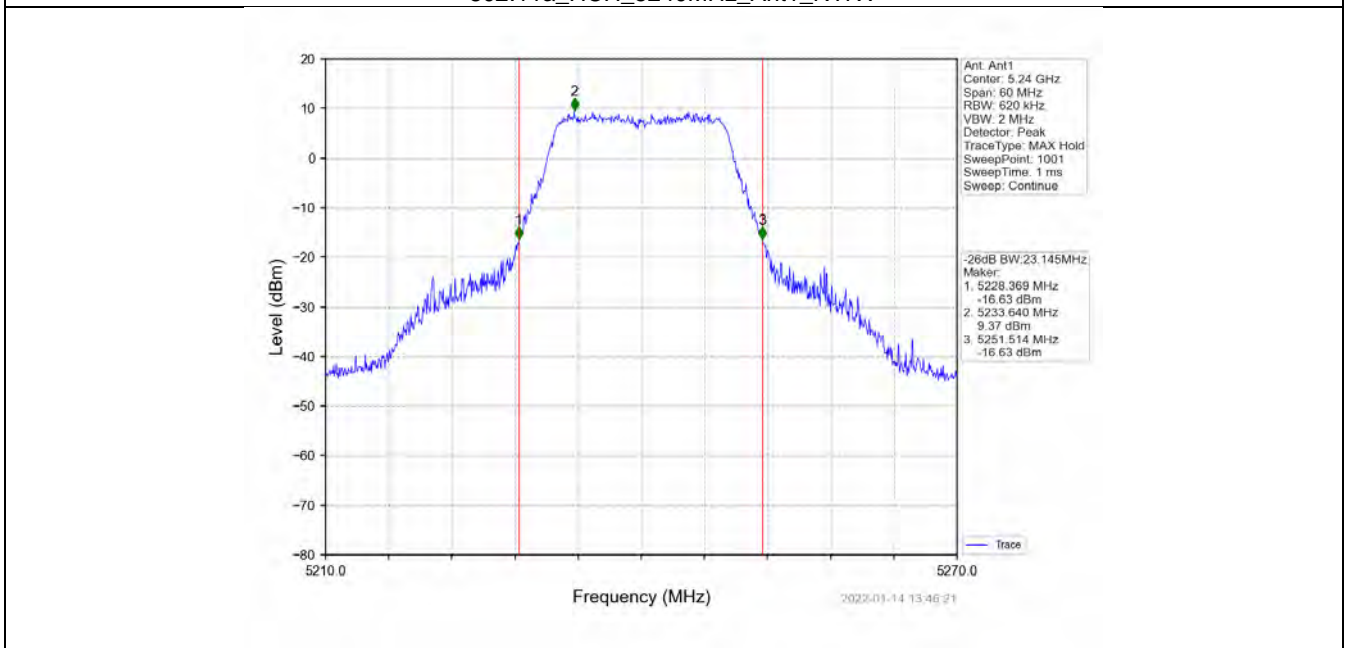


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802.11a\_HCH\_5240MHz\_Ant1\_NTNV

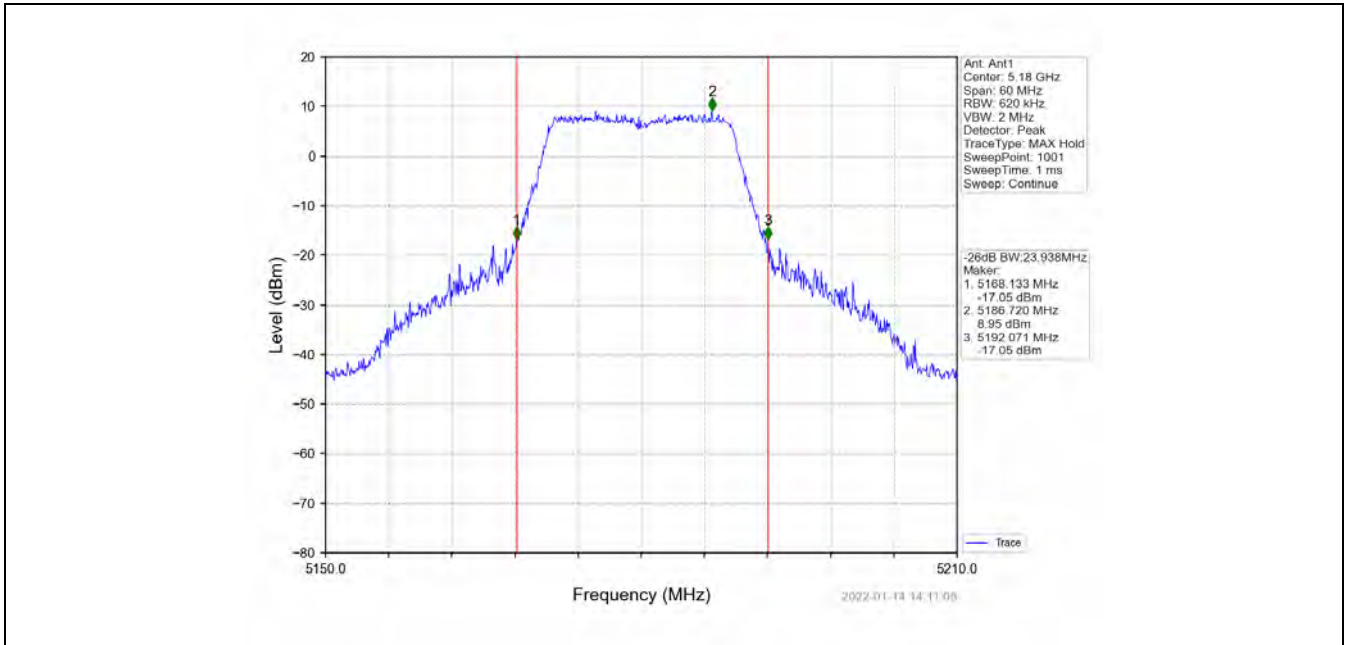


802.11n(HT20)\_LCH\_5180MHz\_Ant1\_NTNV

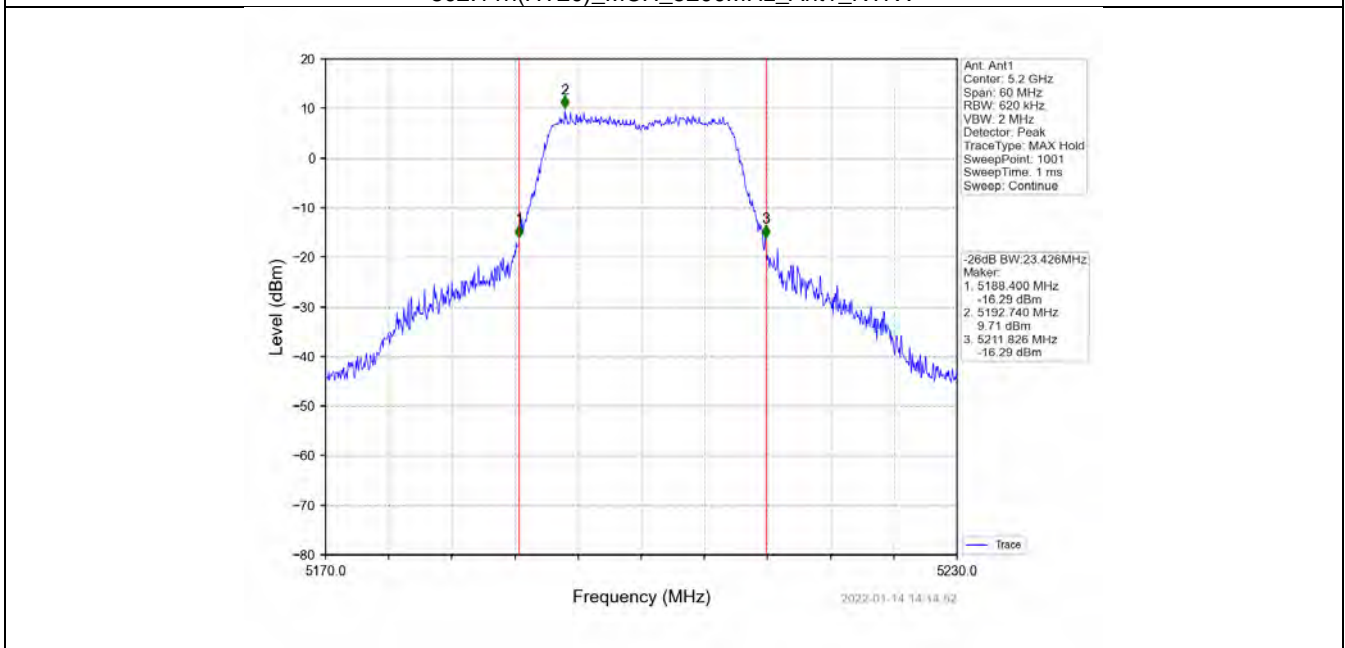


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802.11n(HT20)\_MCH\_5200MHz\_Ant1\_NTNV



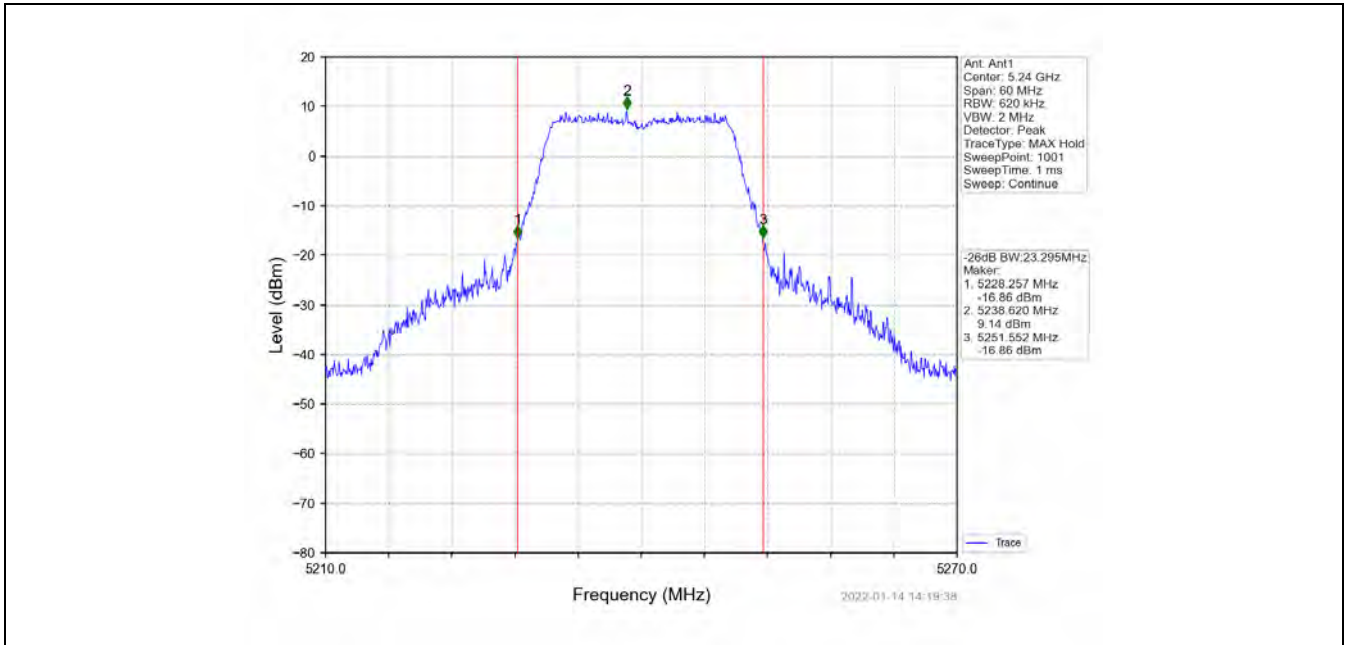
802.11n(HT20)\_HCH\_5240MHz\_Ant1\_NTNV



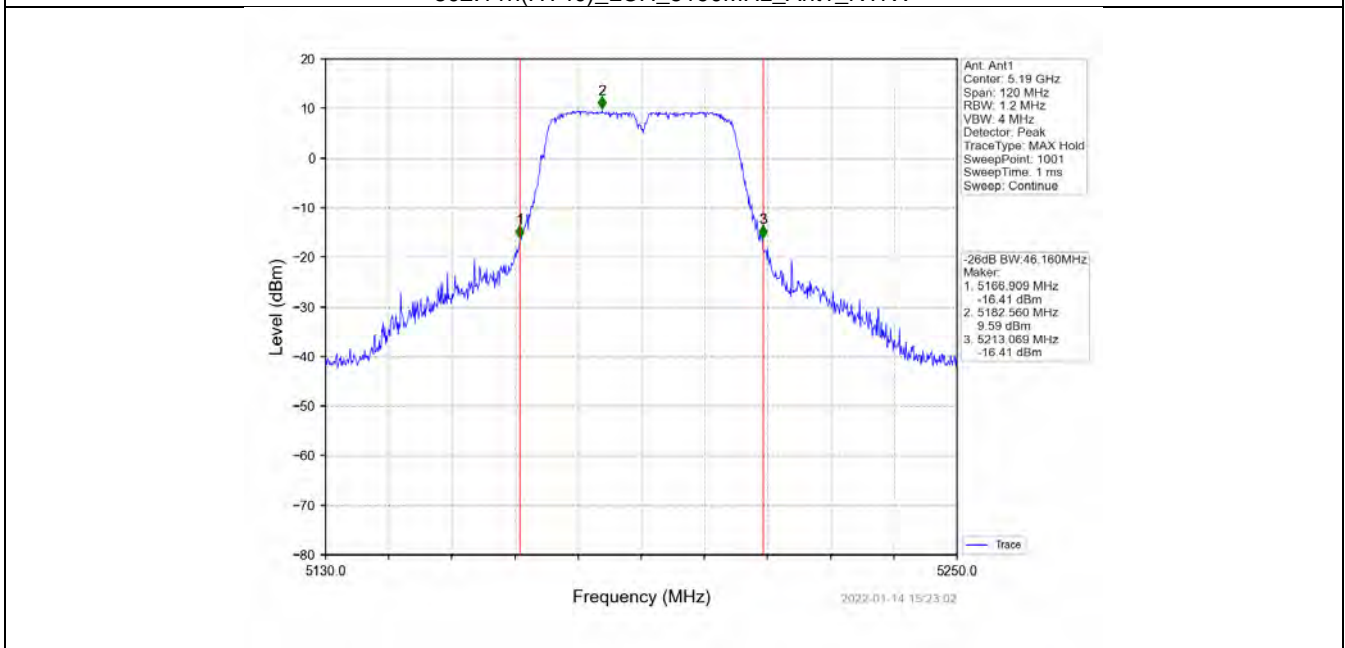
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802.11n(HT40)\_LCH\_5190MHz\_Ant1\_NTNV

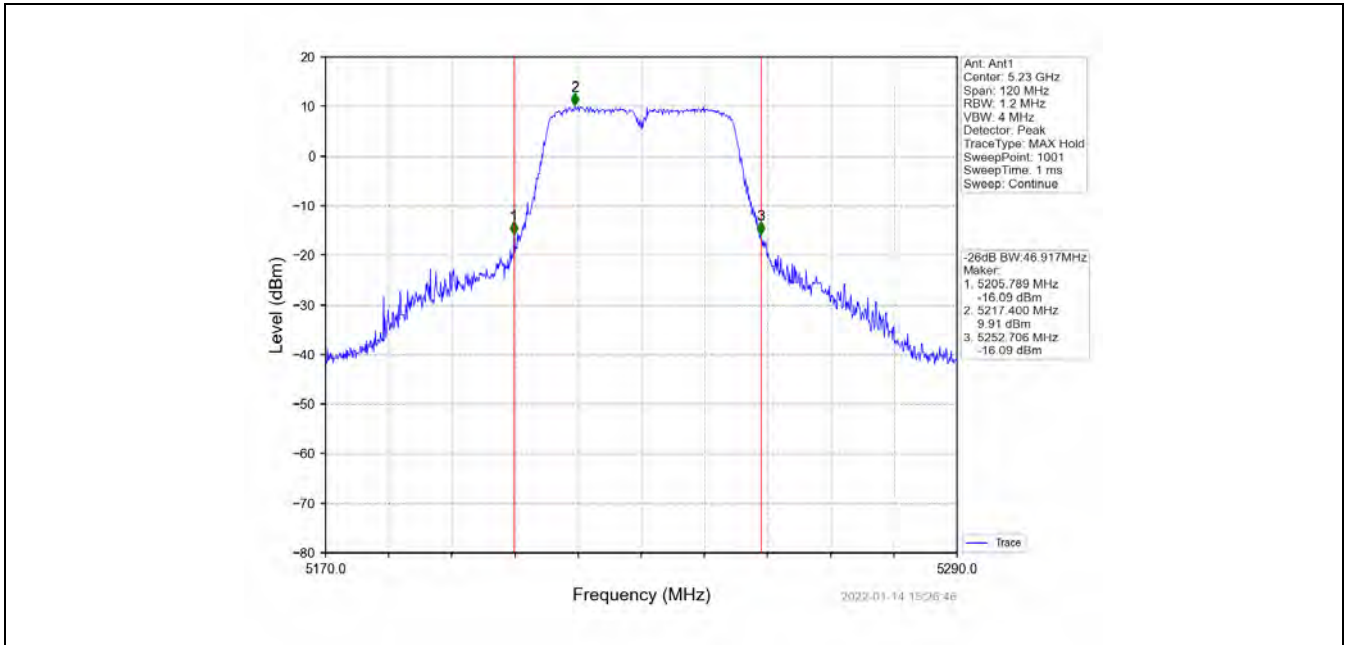


802.11n(HT40)\_HCH\_5230MHz\_Ant1\_NTNV

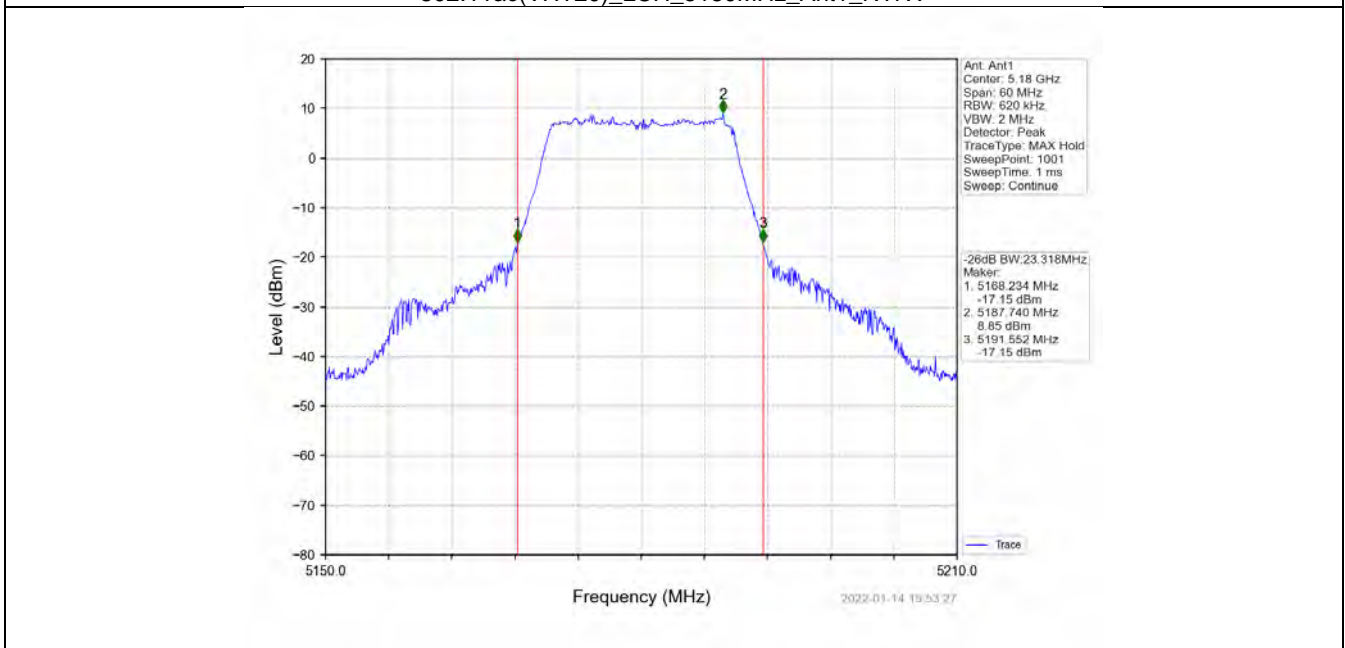


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802.11ac(VHT20)\_LCH\_5180MHz\_Ant1\_NTNV

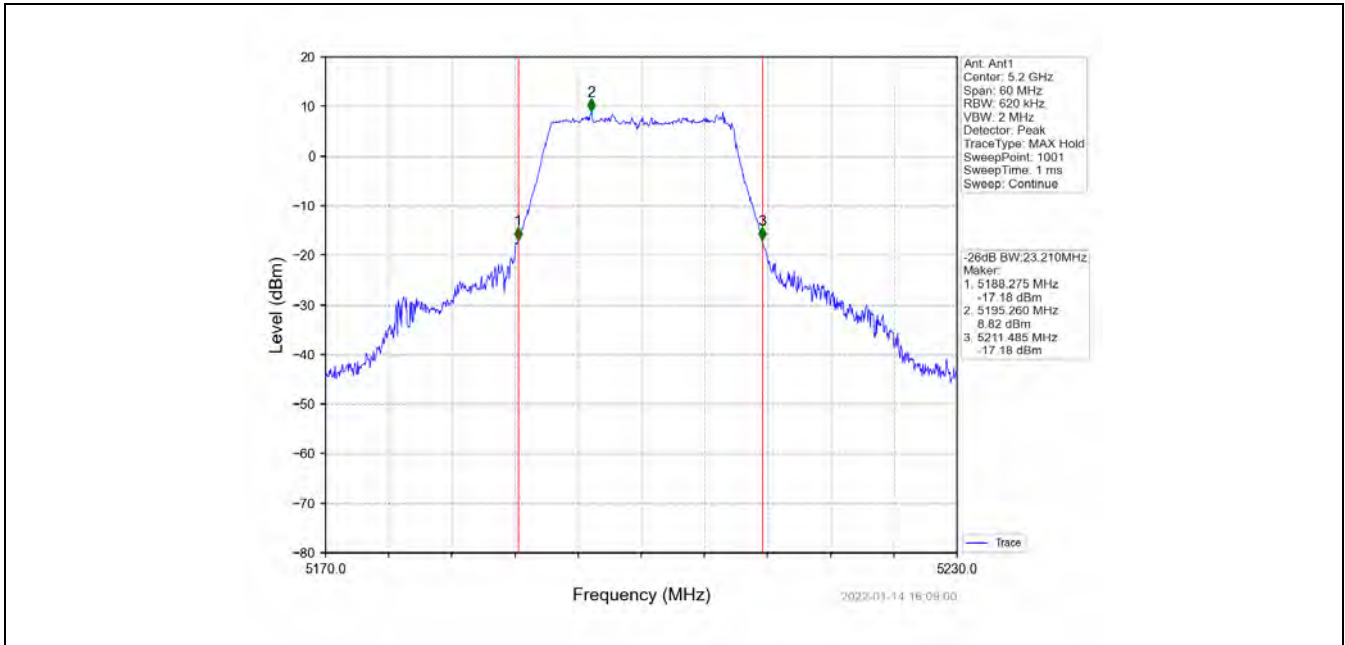


802.11ac(VHT20)\_MCH\_5200MHz\_Ant1\_NTNV

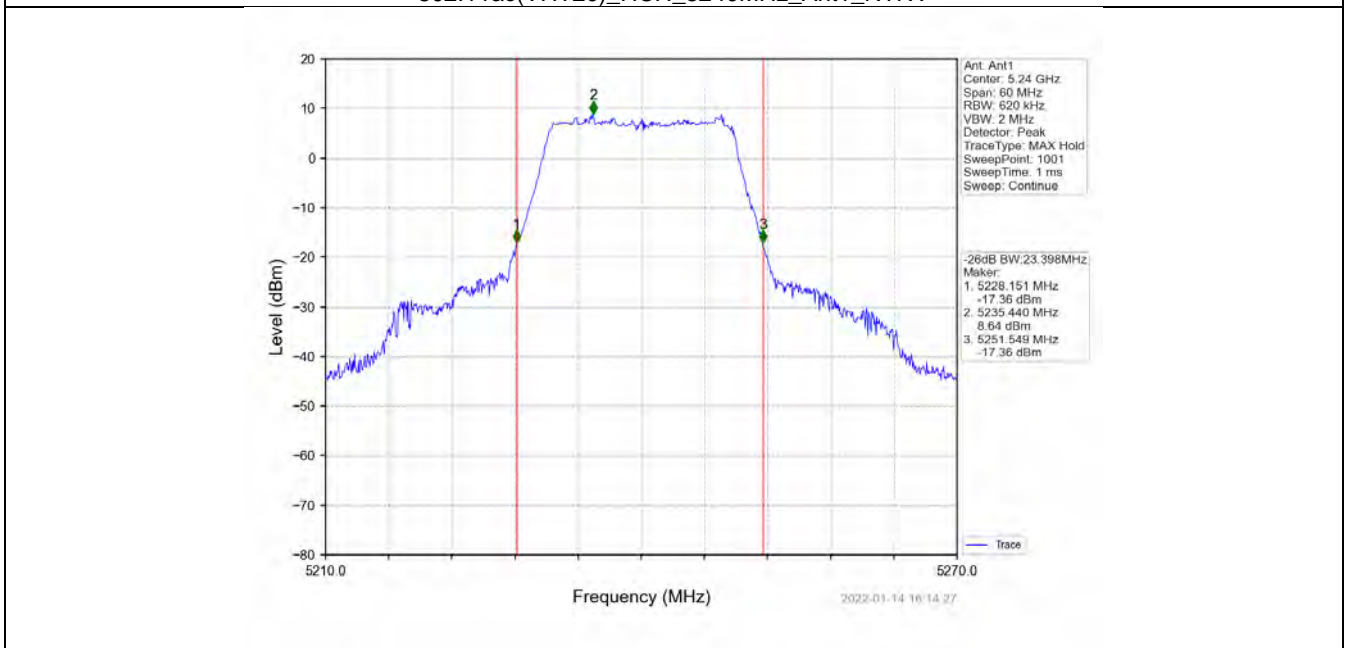


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802.11ac(VHT20)\_HCH\_5240MHz\_Ant1\_NTNV



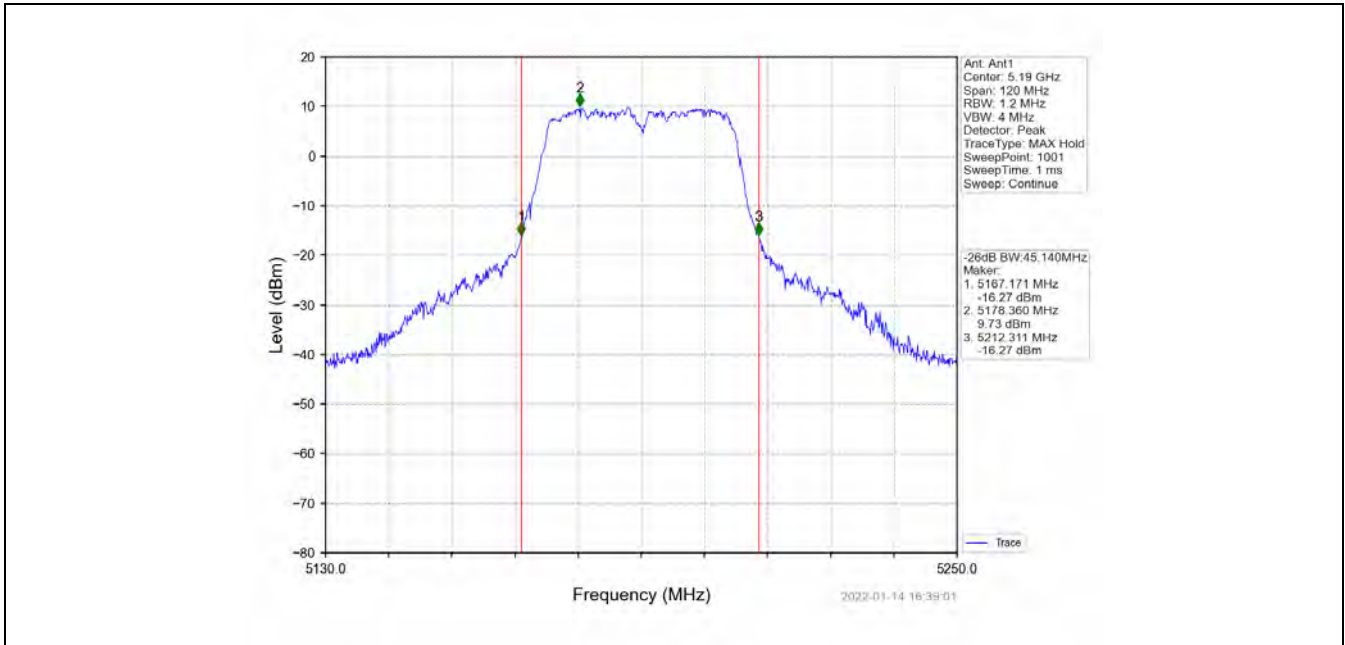
802.11ac(VHT40)\_LCH\_5190MHz\_Ant1\_NTNV



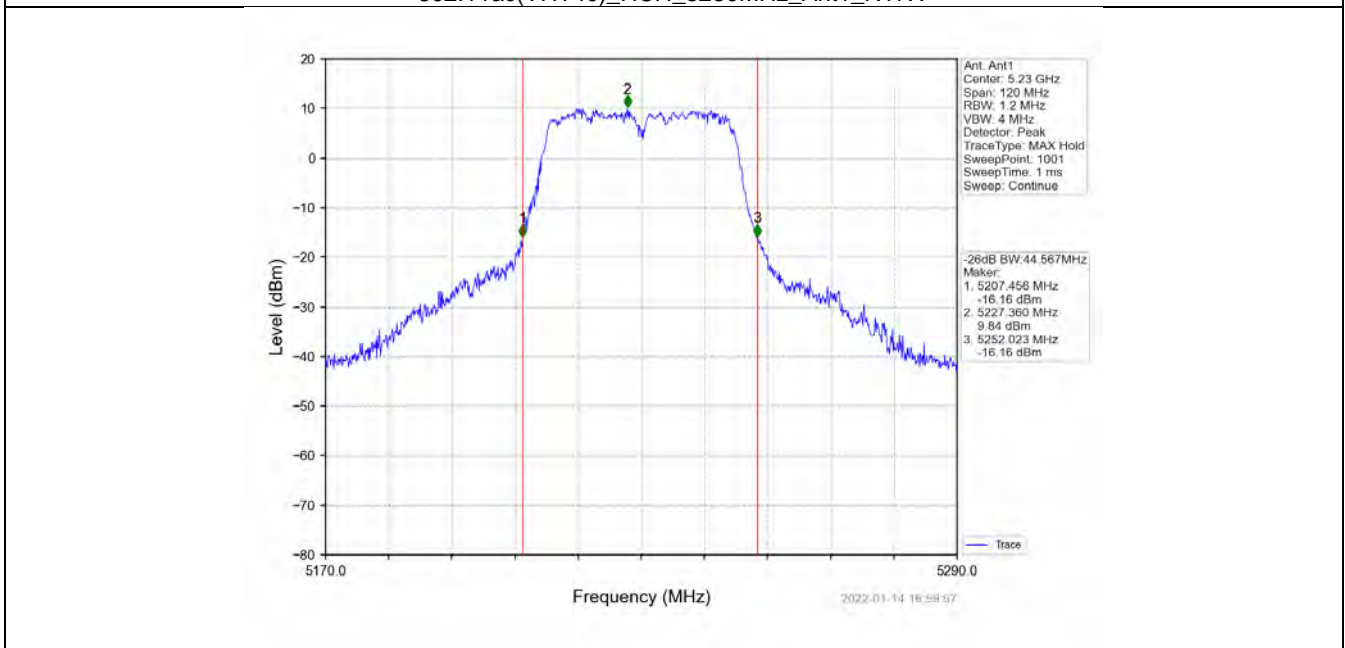
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802.11ac(VHT40)\_HCH\_5230MHz\_Ant1\_NTNV

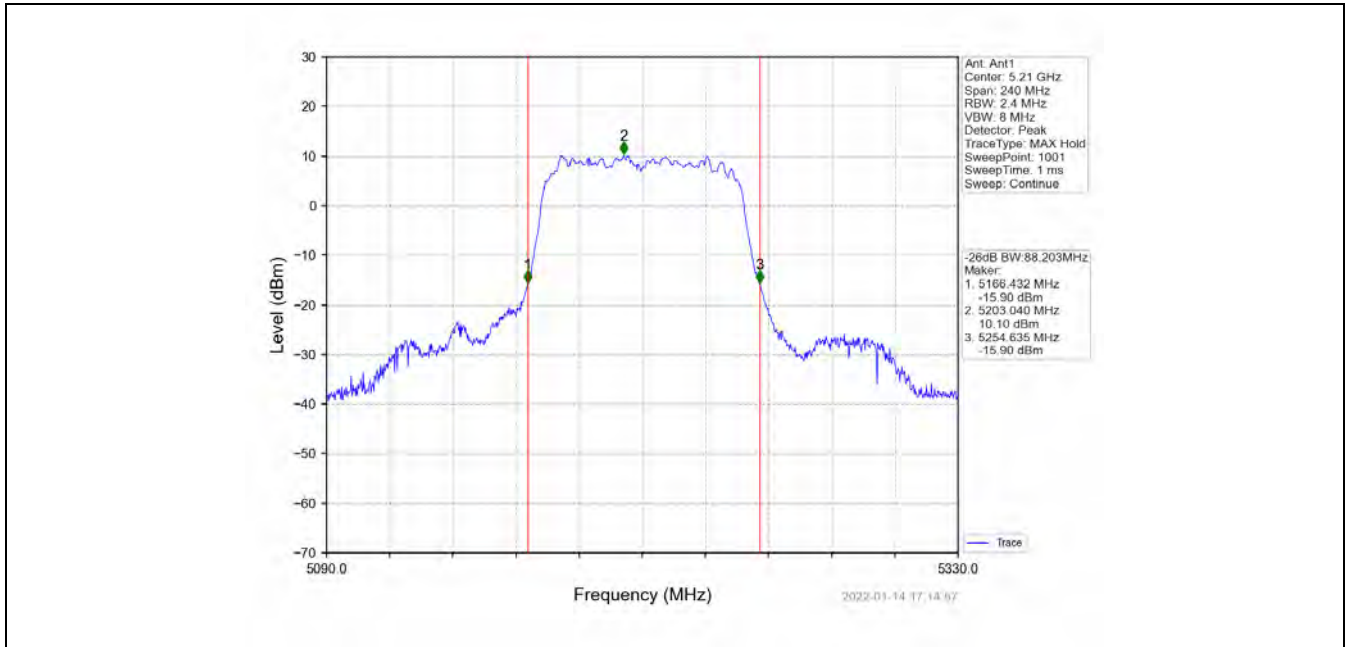


802.11ac(VHT80)\_MCH\_5210MHz\_Ant1\_NTNV



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### 3. Maximum Conducted Output Power

#### 3.1 Power

##### 3.1.1 Test Result

Mode	TX Type	Frequency (MHz)	Maximum Average Conducted Output Power (dBm)		Verdict
			Ant1	Limit	
802.11a	SISO	5180	14.43	<=23.98	Pass
		5200	14.38	<=23.98	Pass
		5240	14.43	<=23.98	Pass
		5745	14.79	<=30	Pass
		5785	14.37	<=30	Pass
		5825	14.52	<=30	Pass
802.11n (HT20)	SISO	5180	14.51	<=23.98	Pass
		5200	14.46	<=23.98	Pass
		5240	14.50	<=23.98	Pass
		5745	14.83	<=30	Pass
		5785	14.45	<=30	Pass
802.11n (HT40)	SISO	5190	14.72	<=23.98	Pass
		5230	14.95	<=23.98	Pass
		5755	14.70	<=30	Pass
		5795	14.20	<=30	Pass
802.11ac (VHT20)	SISO	5180	14.54	<=23.98	Pass
		5200	14.56	<=23.98	Pass
		5240	14.44	<=23.98	Pass
		5745	14.80	<=30	Pass
		5785	14.29	<=30	Pass



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		5825	14.60	<=30	Pass
802.11ac (VHT40)	SISO	5190	14.66	<=23.98	Pass
		5230	14.63	<=23.98	Pass
		5755	14.73	<=30	Pass
		5795	14.44	<=30	Pass
802.11ac (VHT80)	SISO	5210	14.57	<=23.98	Pass
		5775	14.76	<=30	Pass

Note1: Antenna Gain: Ant1: -3.79dBi;

Mode	TX Type	Frequency (MHz)	E.I.R.P (dBm)		Verdict
			Ant1	Limit	
802.11a	SISO	5180	10.64	<=22.60	Pass
		5200	10.59	<=22.58	Pass
		5240	10.64	<=22.56	Pass
802.11n (HT20)	SISO	5180	10.72	<=22.76	Pass
		5200	10.67	<=22.77	Pass
		5240	10.71	<=22.78	Pass
802.11n (HT40)	SISO	5190	10.93	<=23.01	Pass
		5230	11.16	<=23.01	Pass
802.11ac (VHT20)	SISO	5180	10.75	<=22.74	Pass
		5200	10.77	<=22.74	Pass
		5240	10.65	<=22.74	Pass
802.11ac (VHT40)	SISO	5190	10.87	<=23.01	Pass
		5230	10.84	<=23.01	Pass
802.11ac (VHT80)	SISO	5210	10.78	<=23.01	Pass

Note1: Antenna Gain: Ant1: -3.79dBi;  
Note2: E.I.R.P = Measured Power + Antenna Gain

### 3.1.2 Test Graph

802.11a_LCH_5180MHz_Ant1_NTNV
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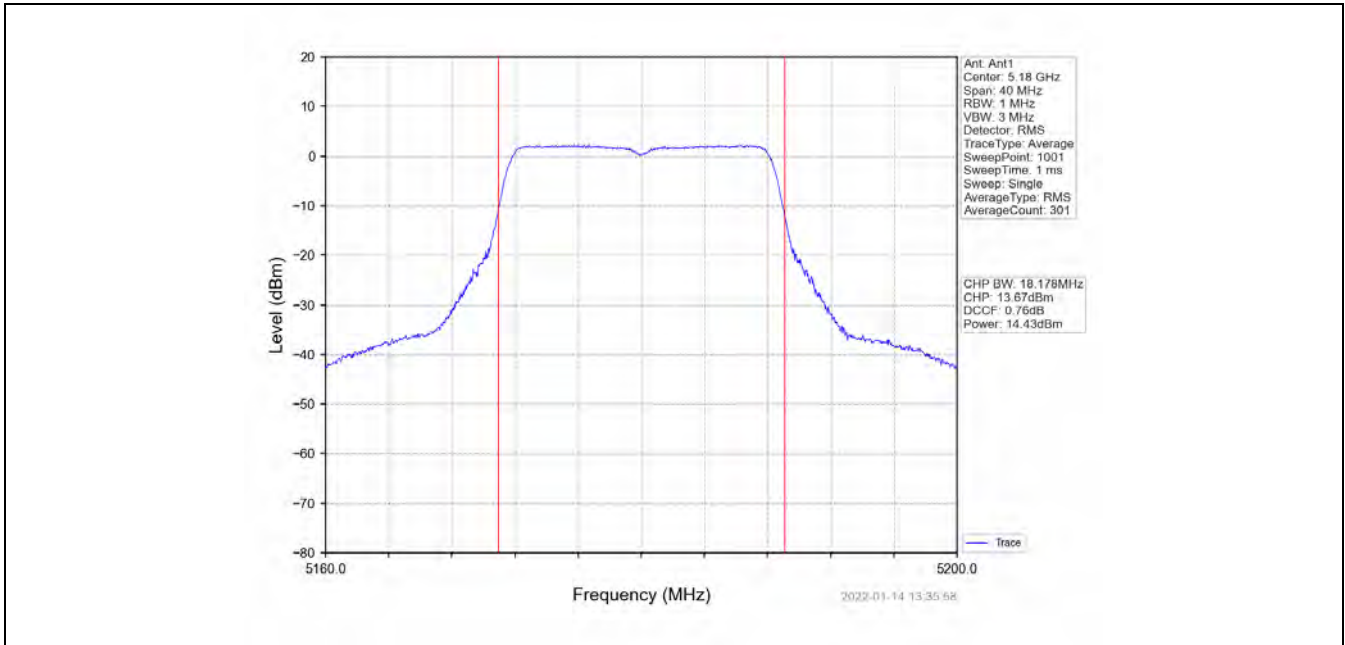


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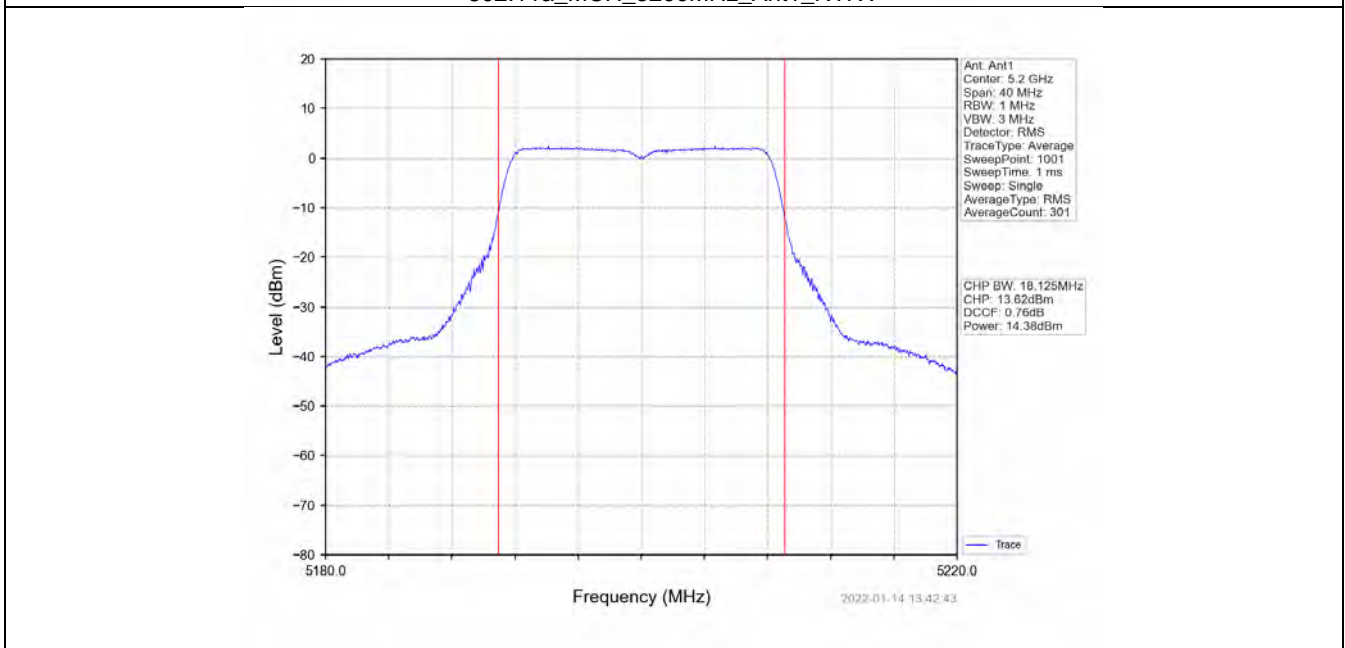
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802.11a\_MCH\_5200MHz\_Ant1\_NTNV

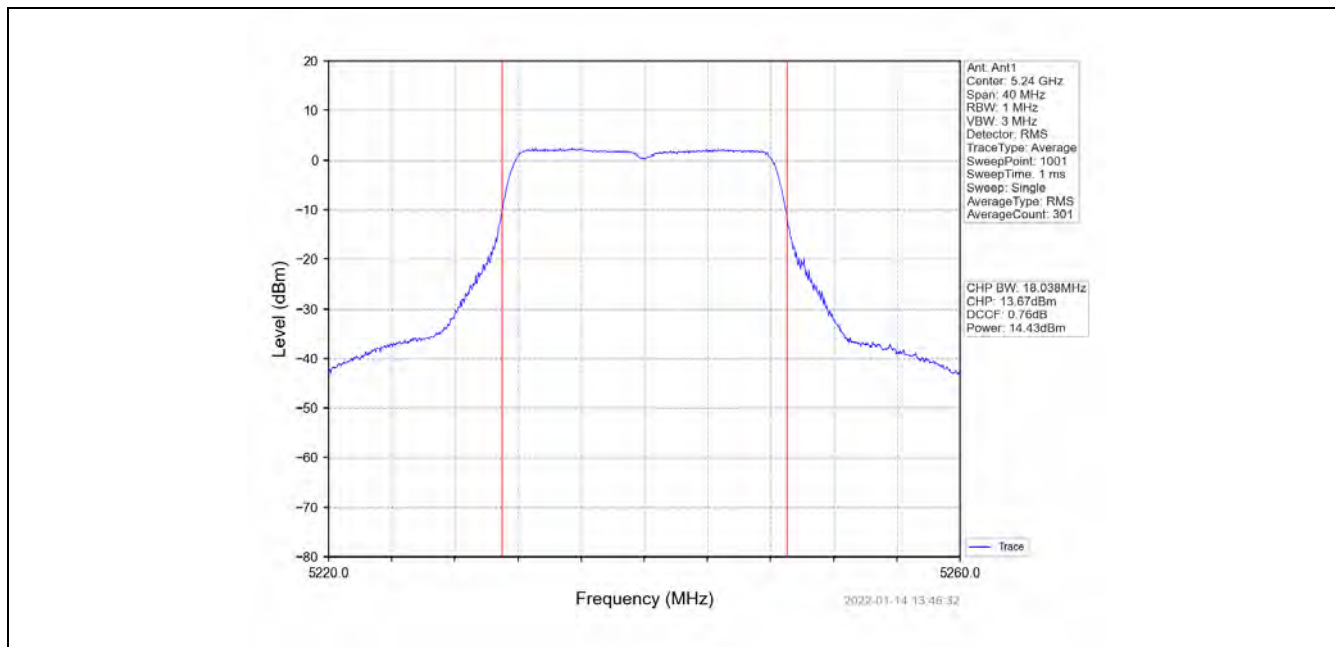


802.11a\_HCH\_5240MHz\_Ant1\_NTNV

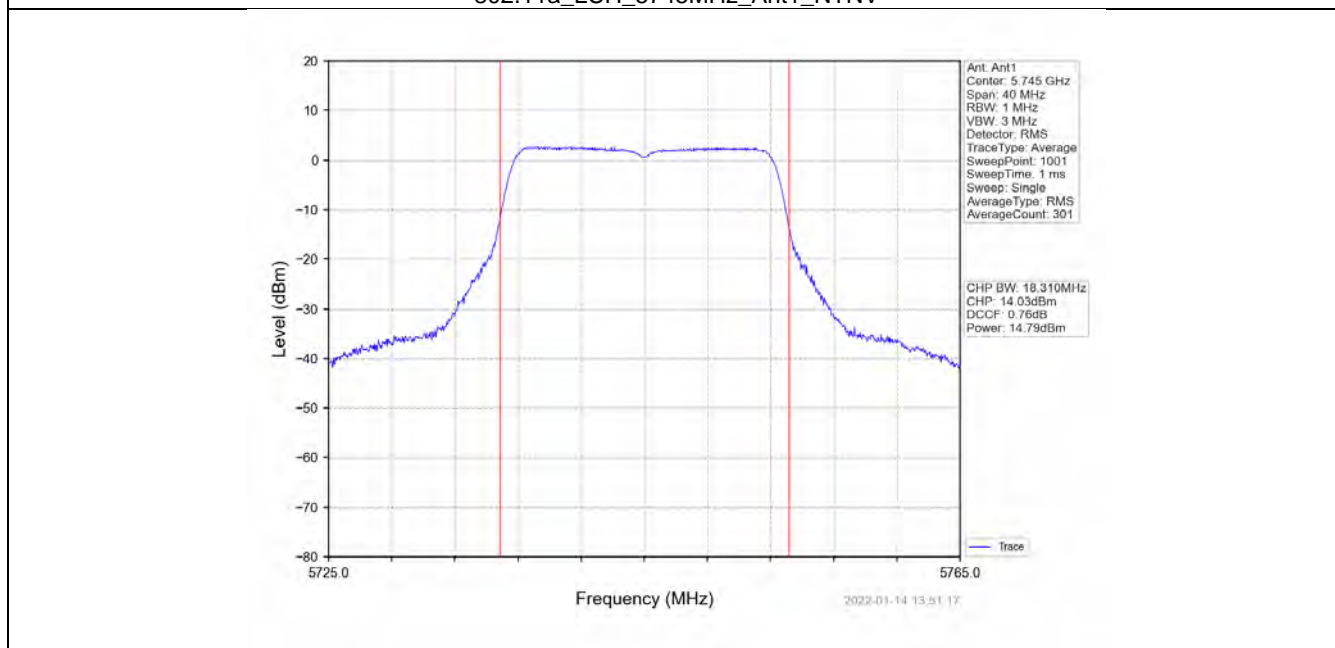


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802.11a\_LCH\_5745MHz\_Ant1\_NTNV

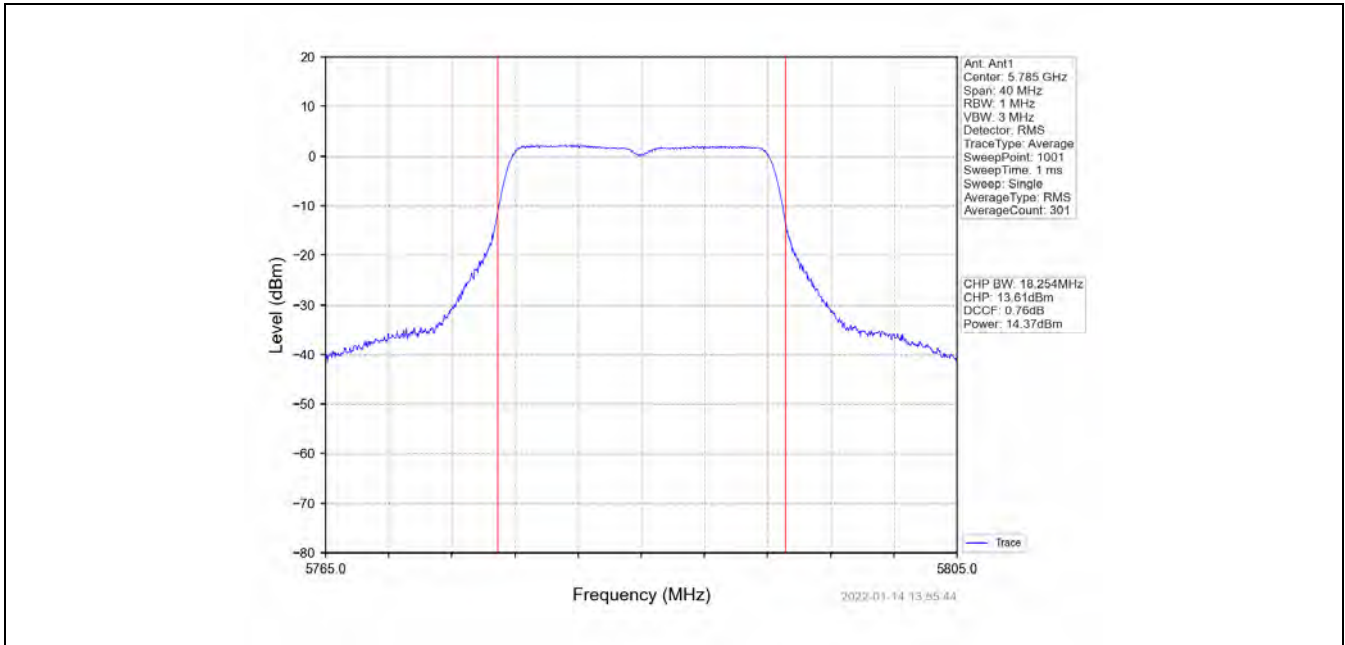


802.11a\_MCH\_5785MHz\_Ant1\_NTNV

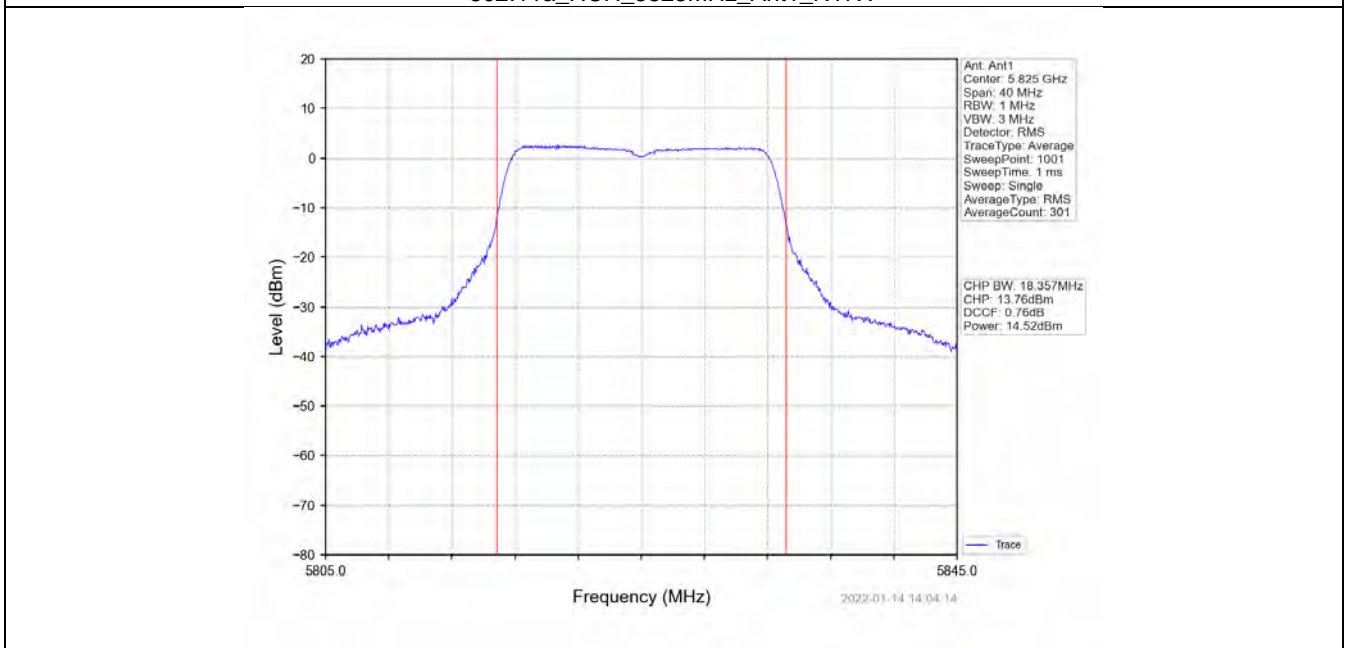


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802.11a\_HCH\_5825MHz\_Ant1\_NTNV



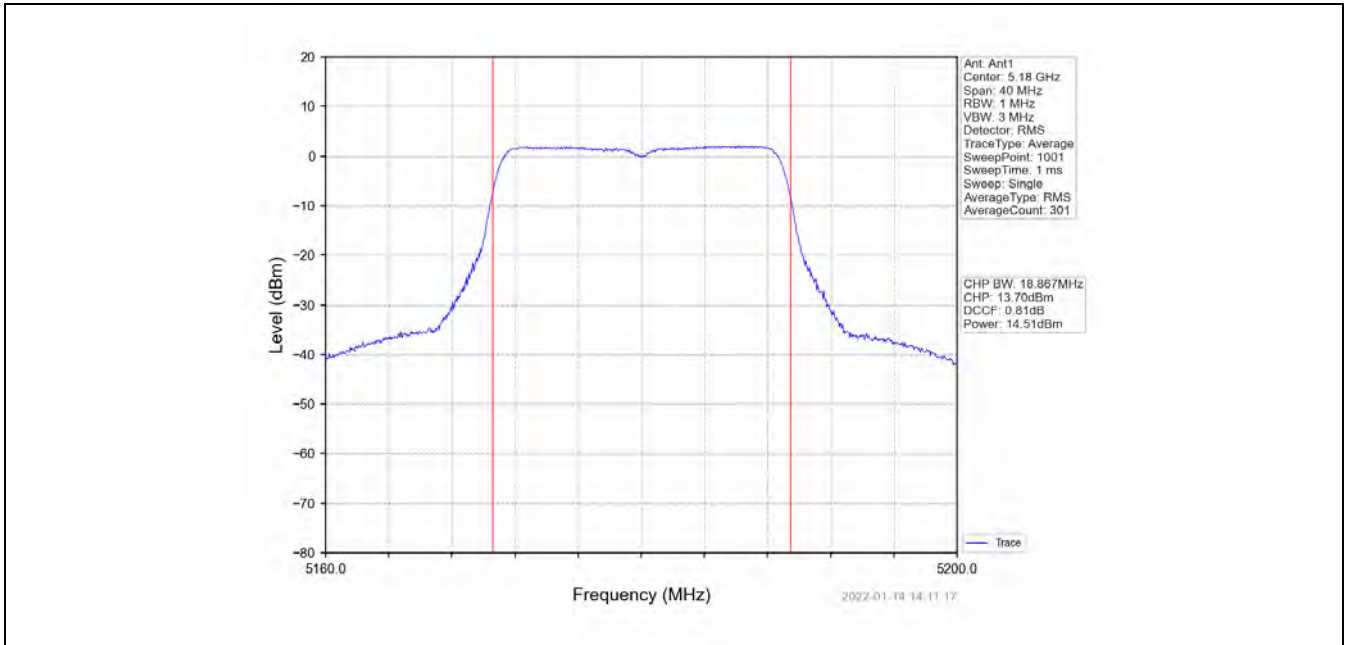
802.11n(HT20)\_LCH\_5180MHz\_Ant1\_NTNV



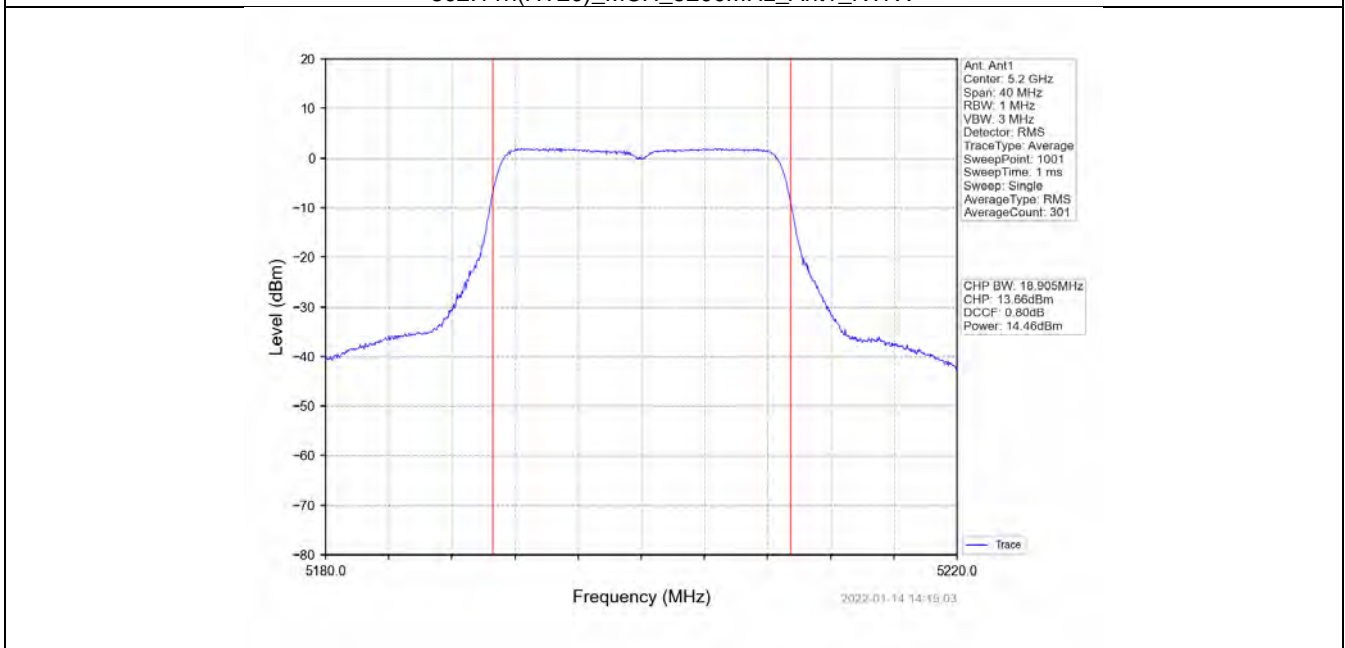
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802.11n(HT20)\_MCH\_5200MHz\_Ant1\_NTNV

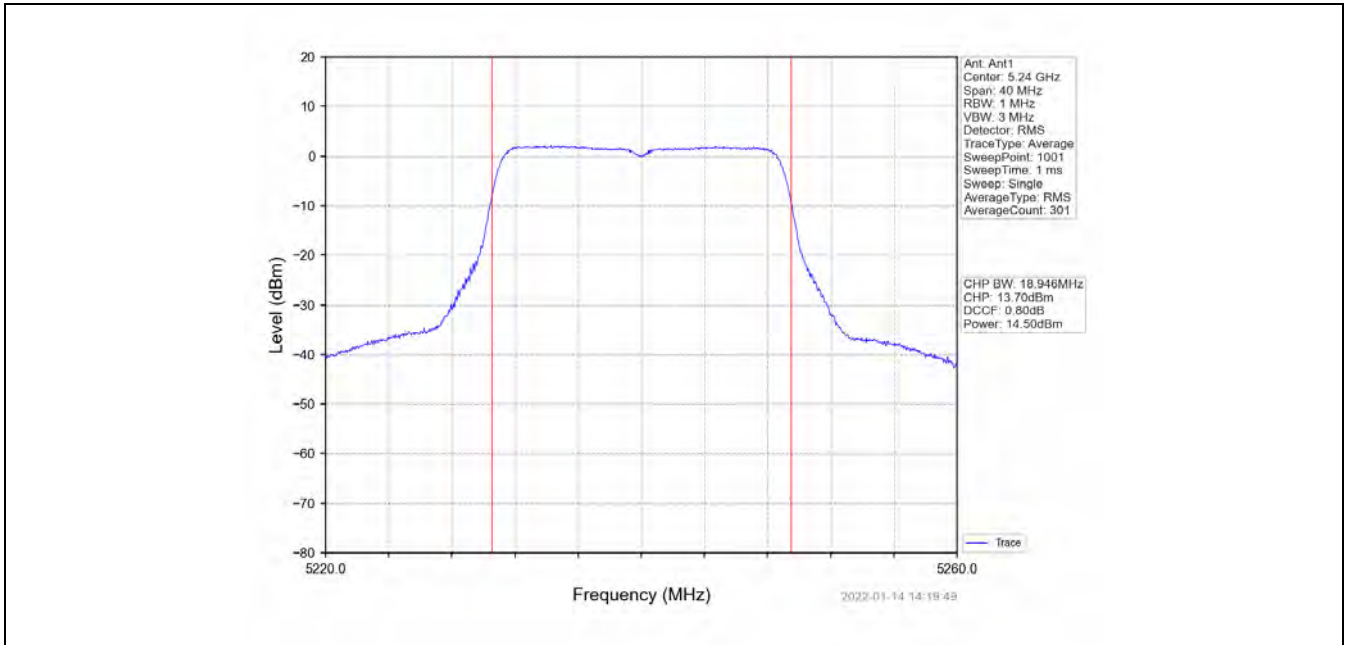


802.11n(HT20)\_HCH\_5240MHz\_Ant1\_NTNV

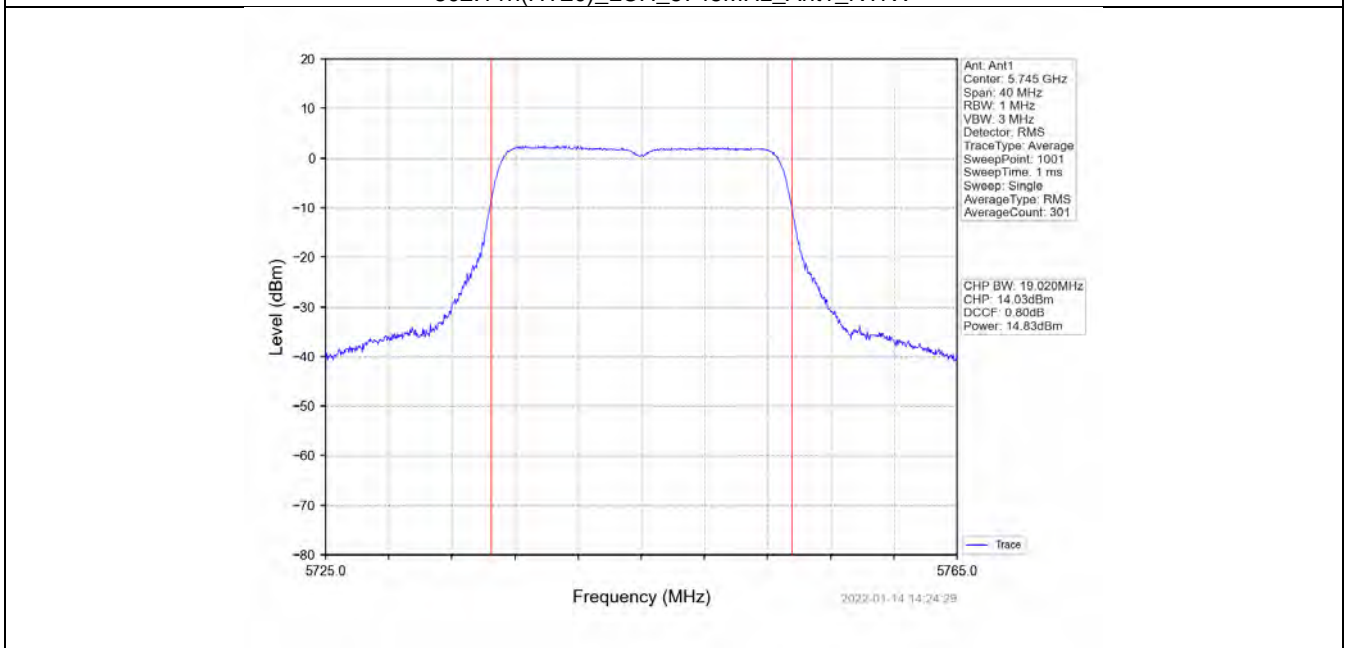


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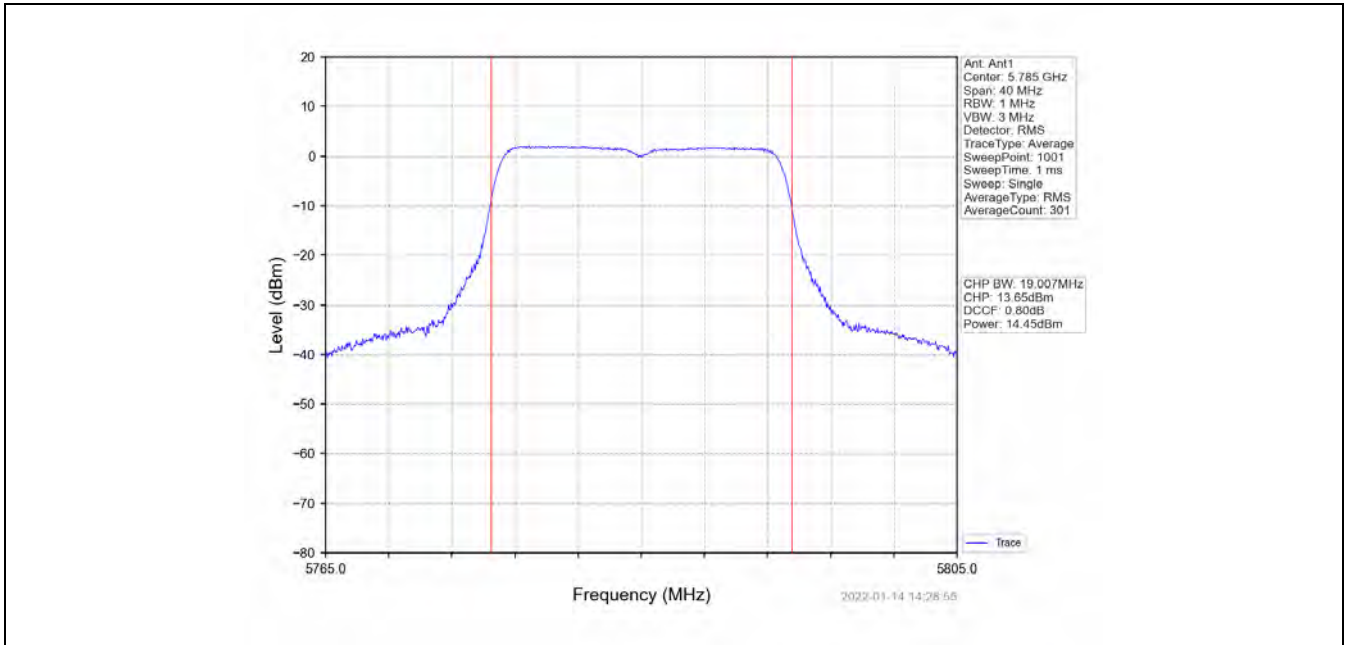
802.11n(HT20)\_LCH\_5745MHz\_Ant1\_NTNV



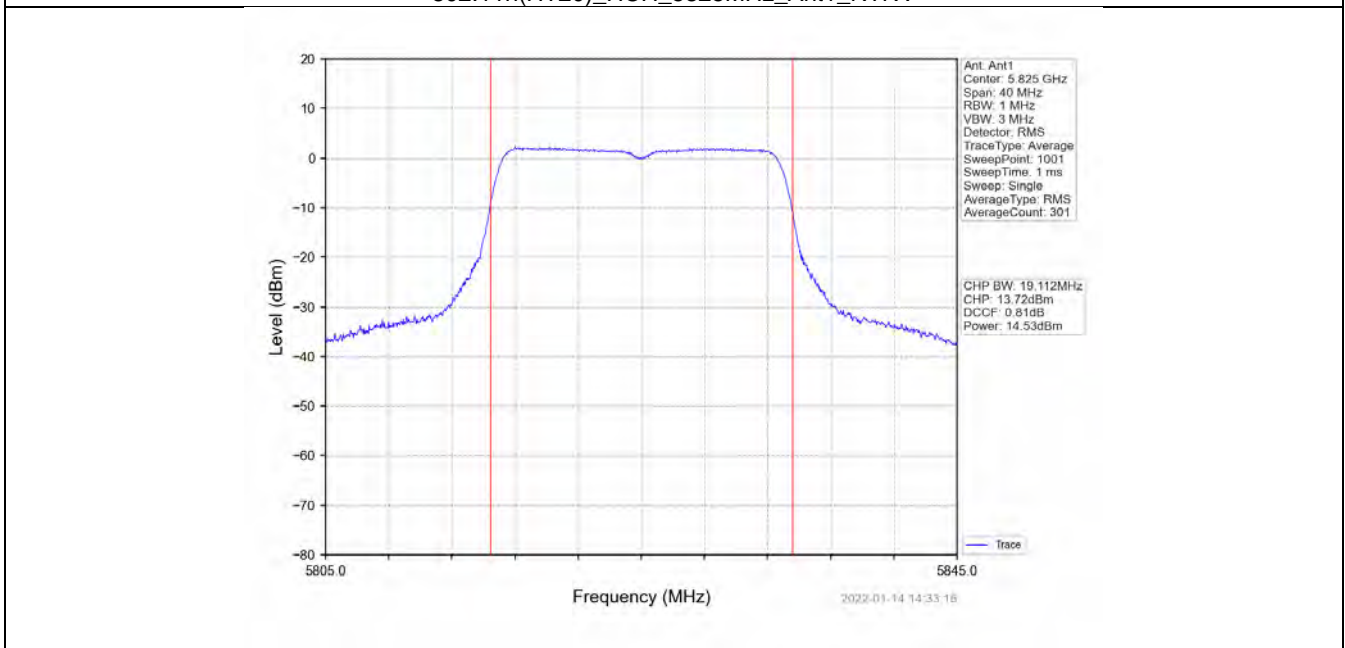
802.11n(HT20)\_MCH\_5785MHz\_Ant1\_NTNV



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802.11n(HT20)\_HCH\_5825MHz\_Ant1\_NTNV



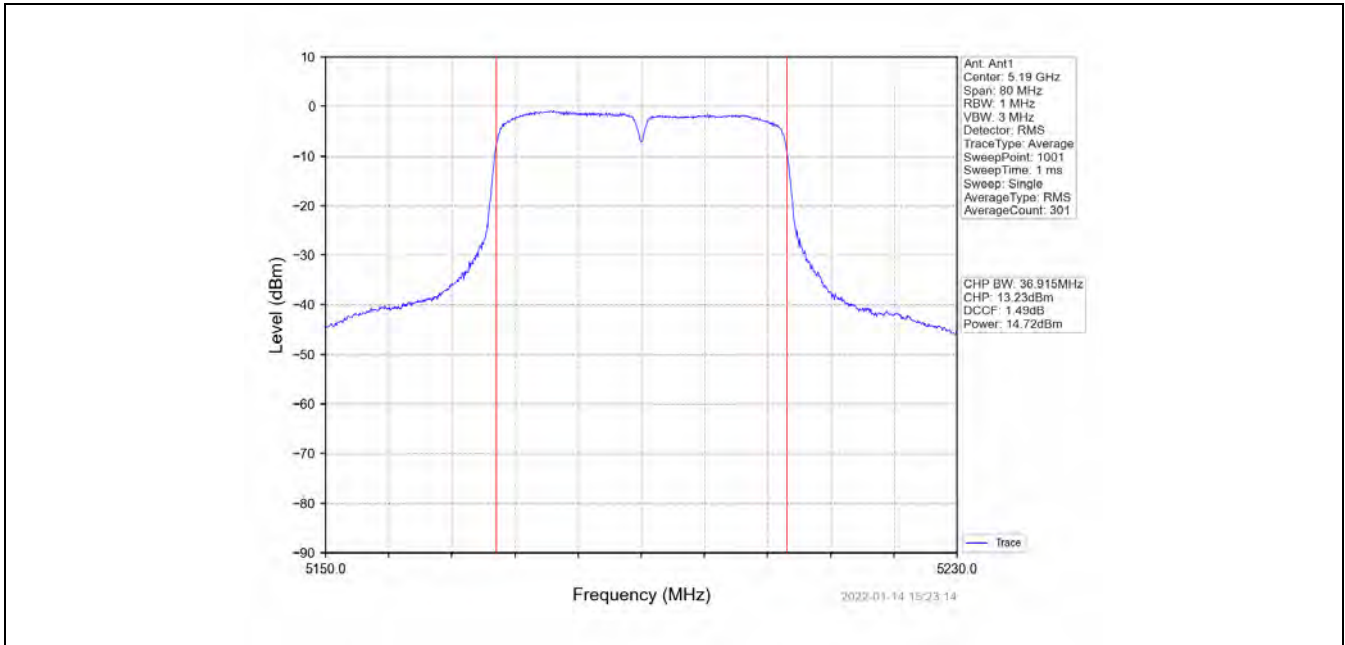
802.11n(HT40)\_LCH\_5190MHz\_Ant1\_NTNV



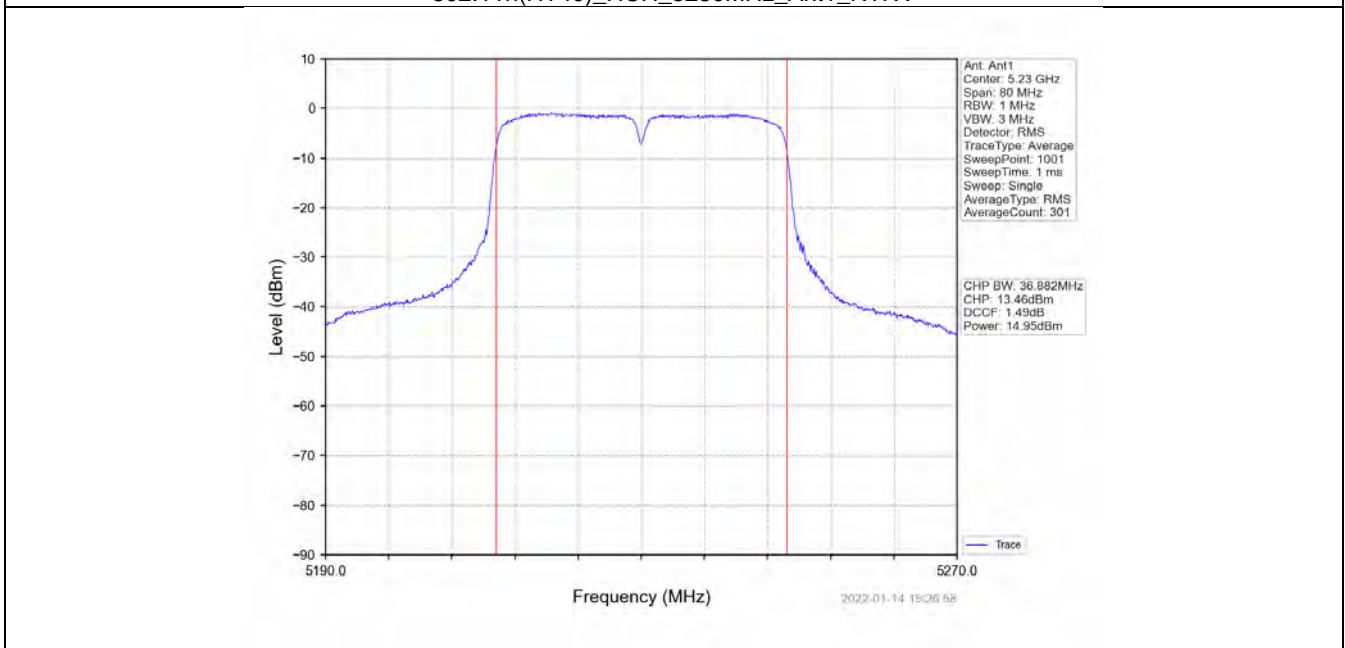
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802.11n(HT40)\_HCH\_5230MHz\_Ant1\_NTNV

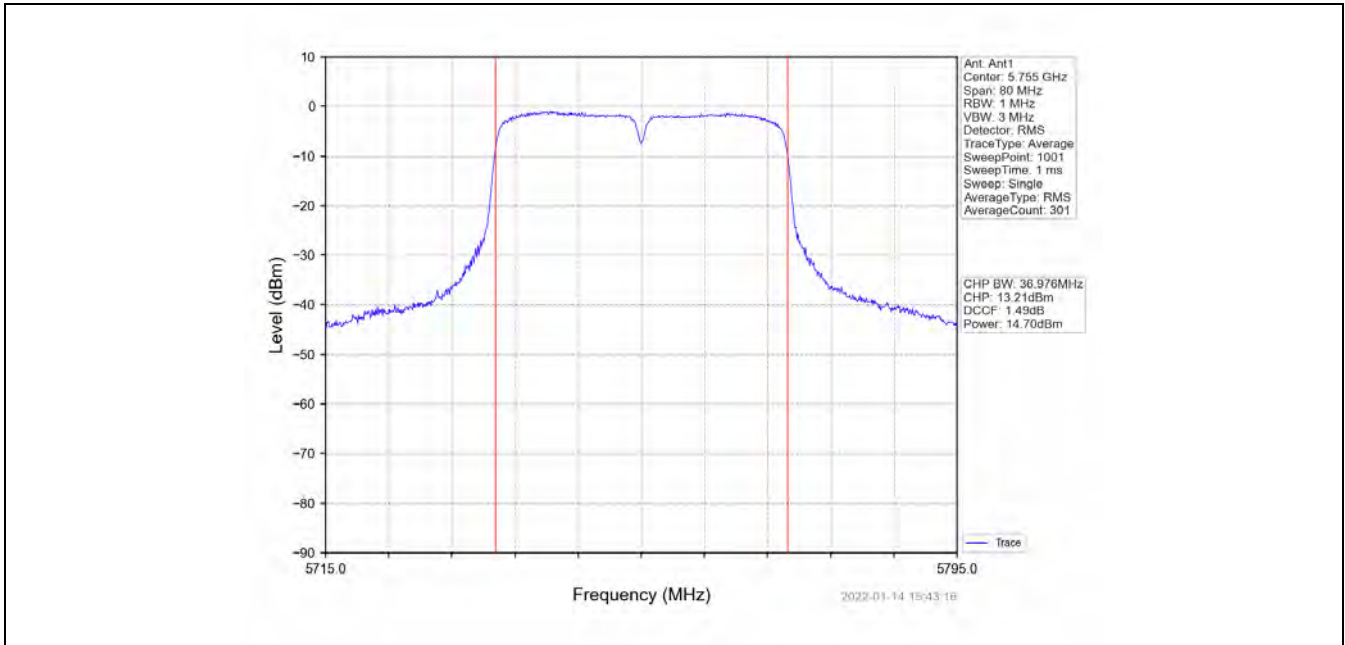


802.11n(HT40)\_LCH\_5755MHz\_Ant1\_NTNV

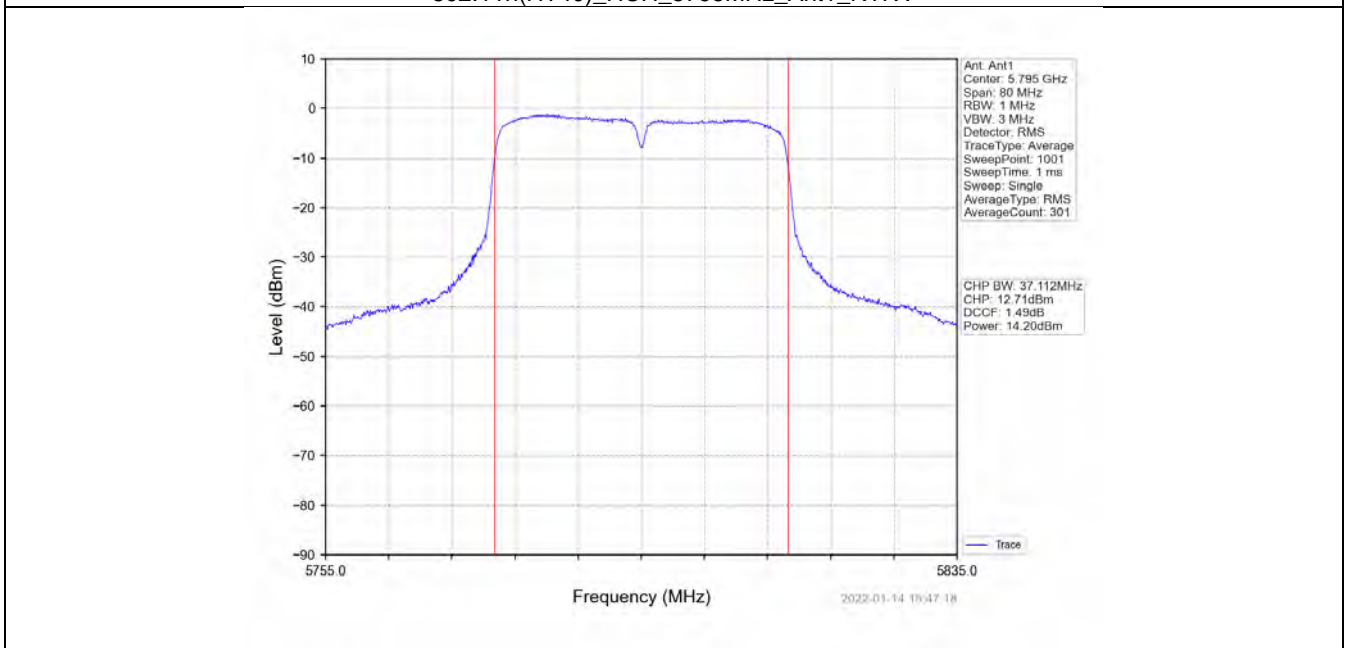


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802.11n(HT40)\_HCH\_5795MHz\_Ant1\_NTNV

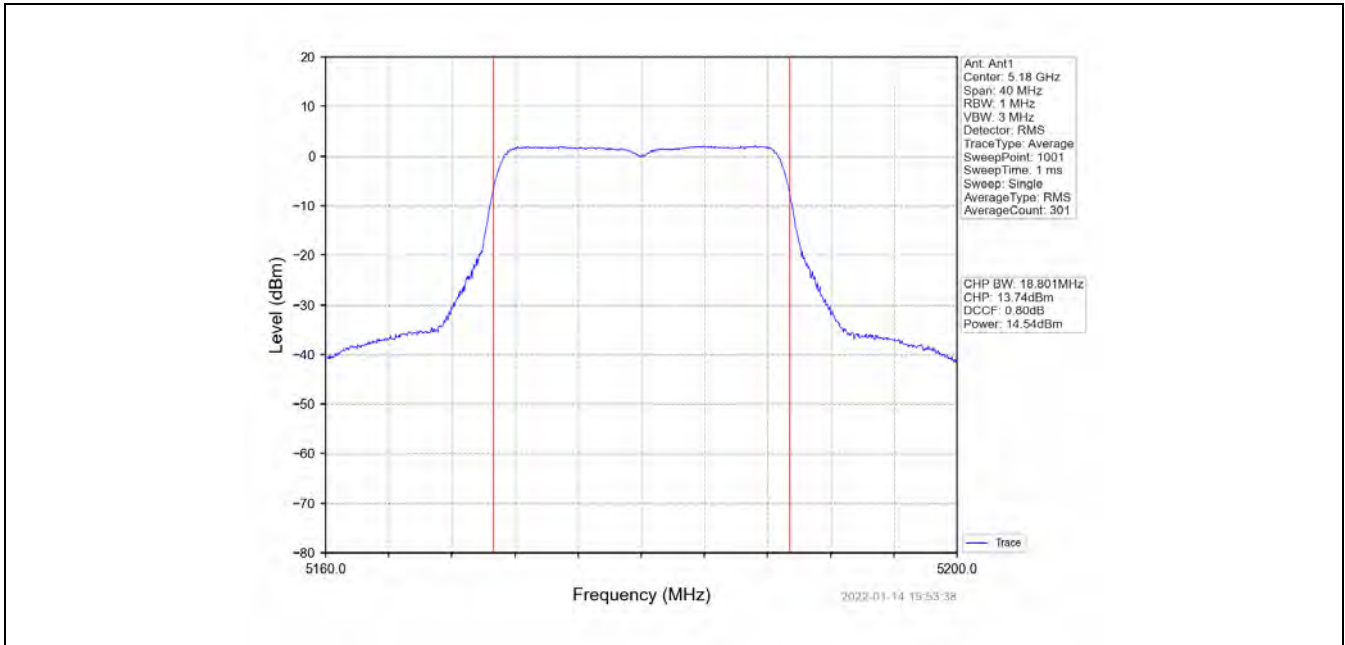


802.11ac(VHT20)\_LCH\_5180MHz\_Ant1\_NTNV

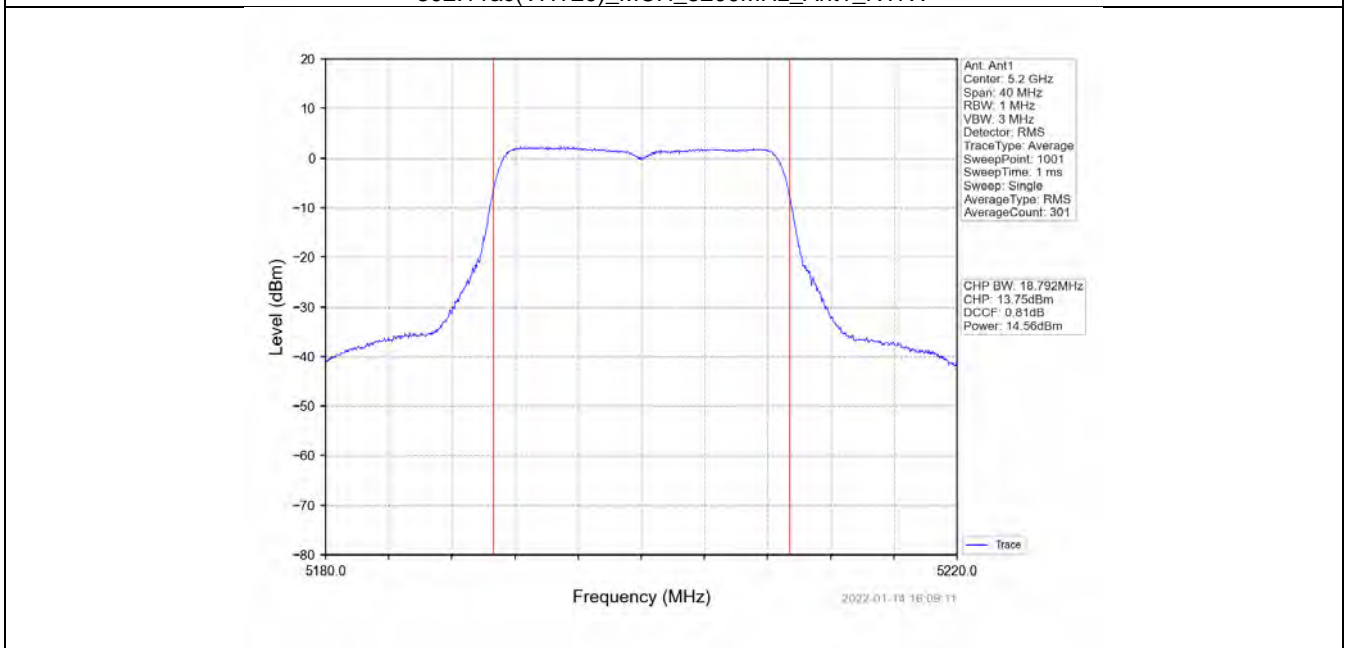


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802.11ac(VHT20)\_MCH\_5200MHz\_Ant1\_NTNV



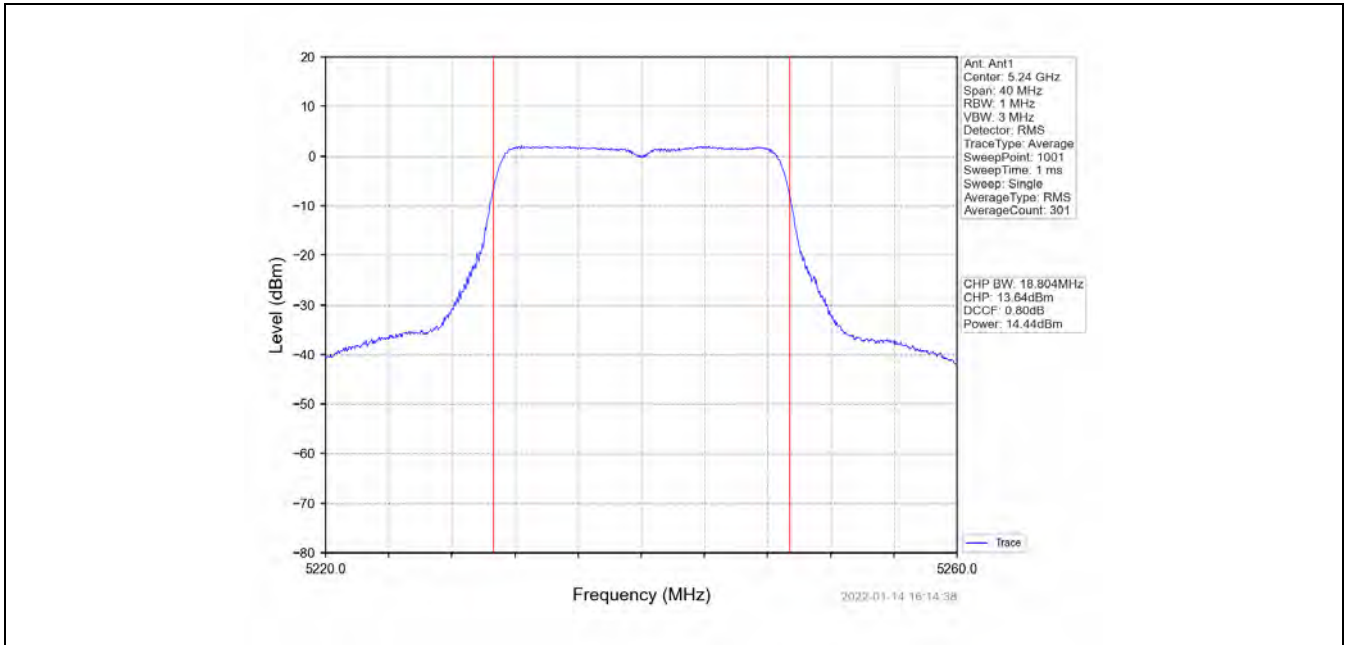
802.11ac(VHT20)\_HCH\_5240MHz\_Ant1\_NTNV



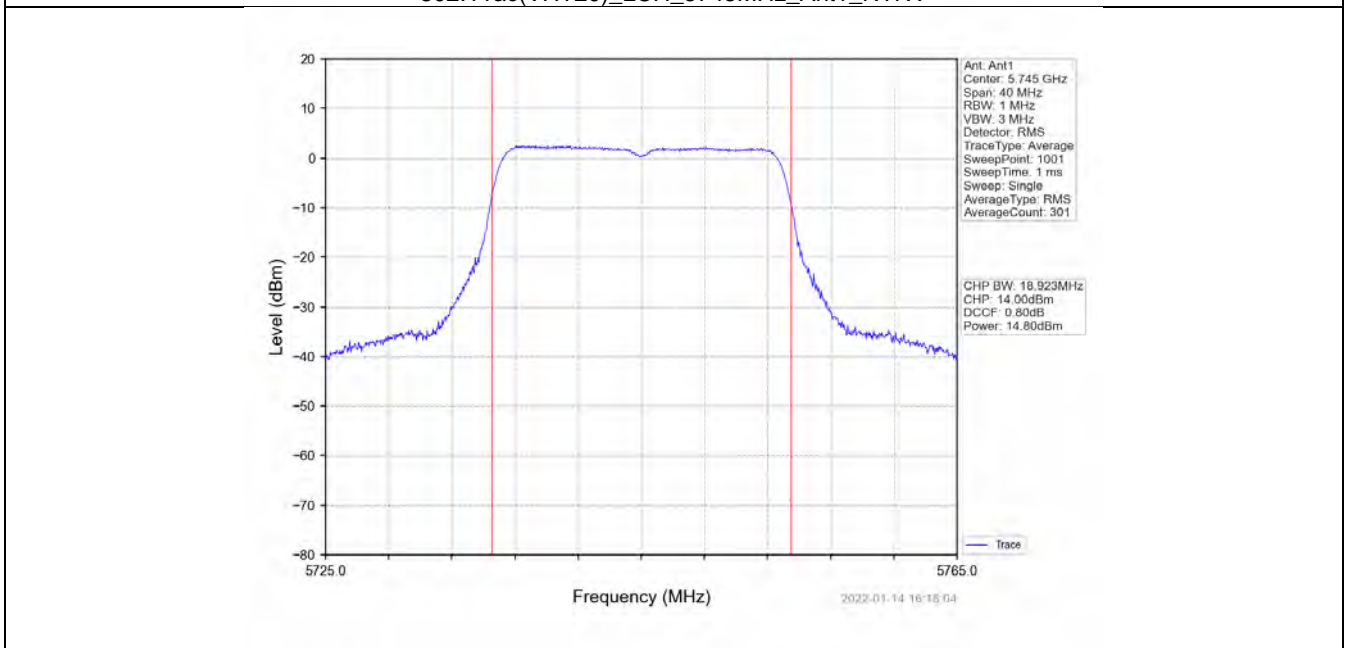
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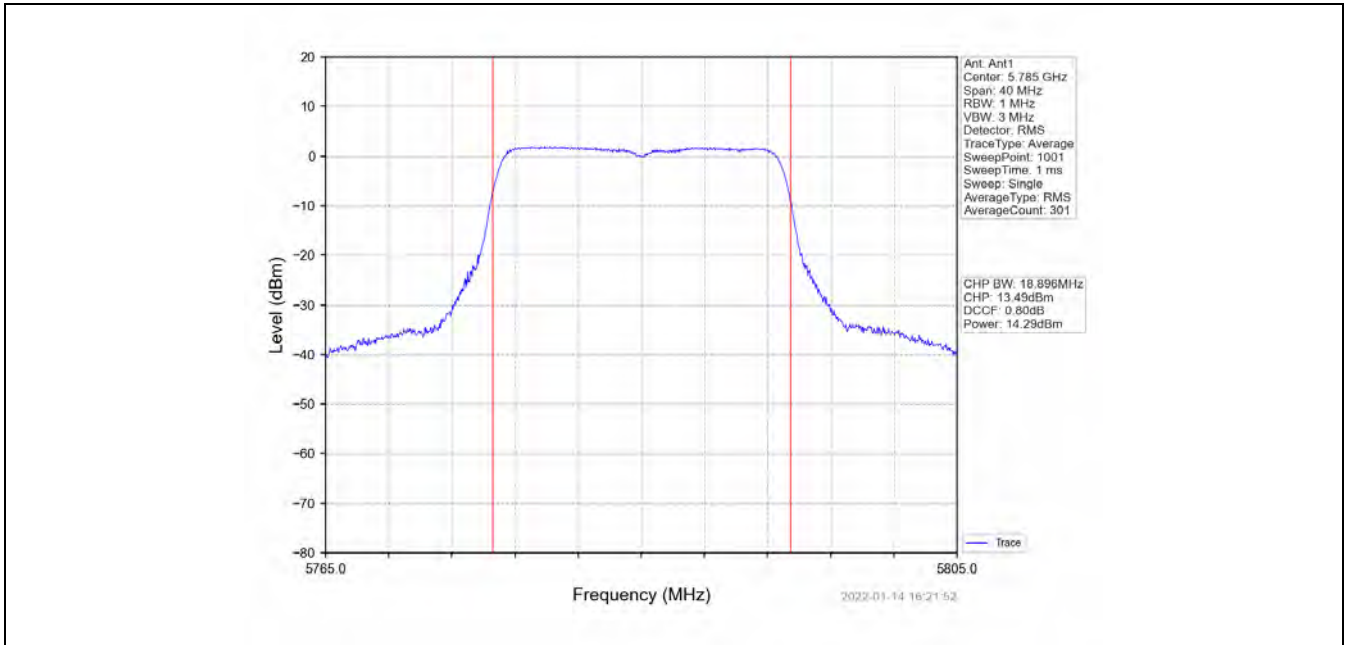
802.11ac(VHT20)\_LCH\_5745MHz\_Ant1\_NTNV



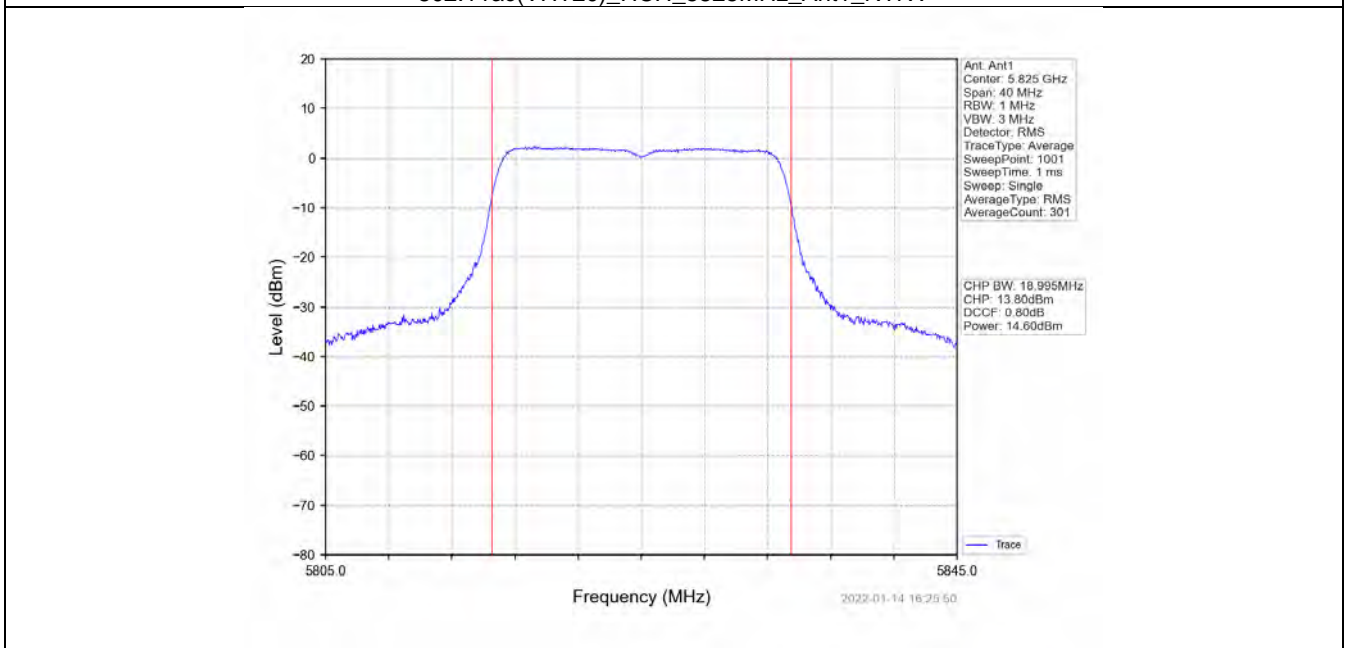
802.11ac(VHT20)\_MCH\_5785MHz\_Ant1\_NTNV



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802.11ac(VHT20)\_HCH\_5825MHz\_Ant1\_NTNV

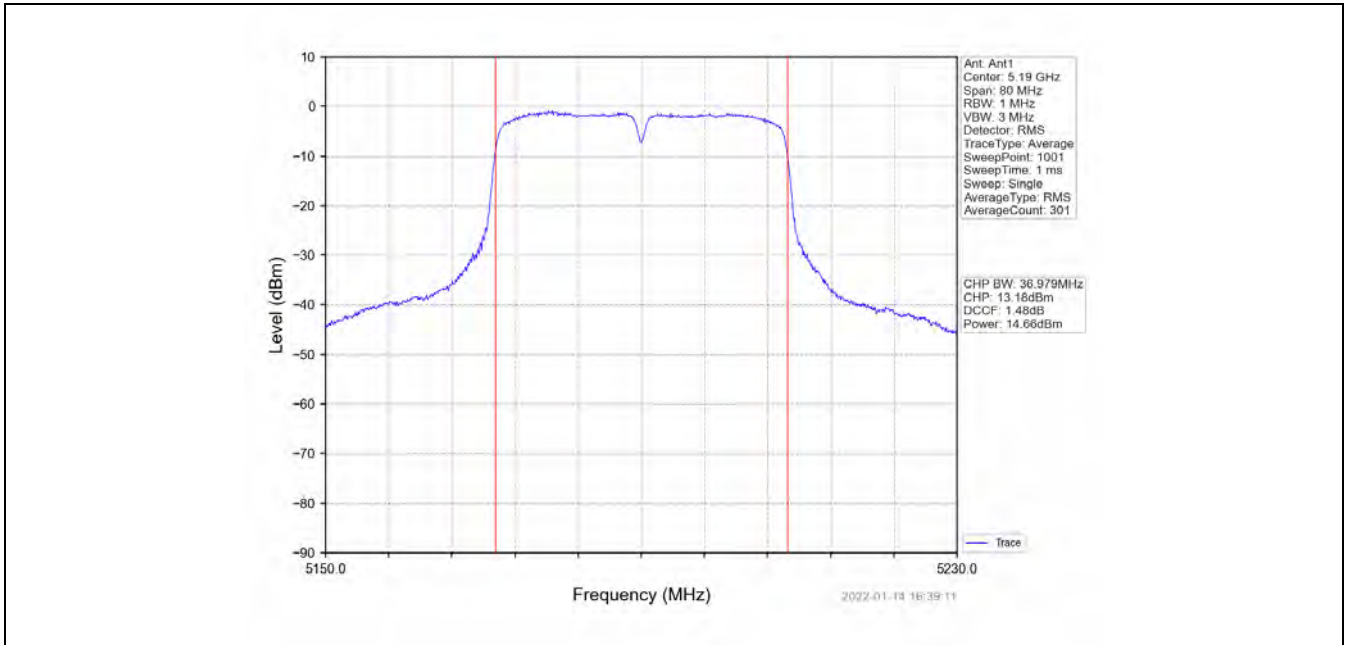


802.11ac(VHT40)\_LCH\_5190MHz\_Ant1\_NTNV

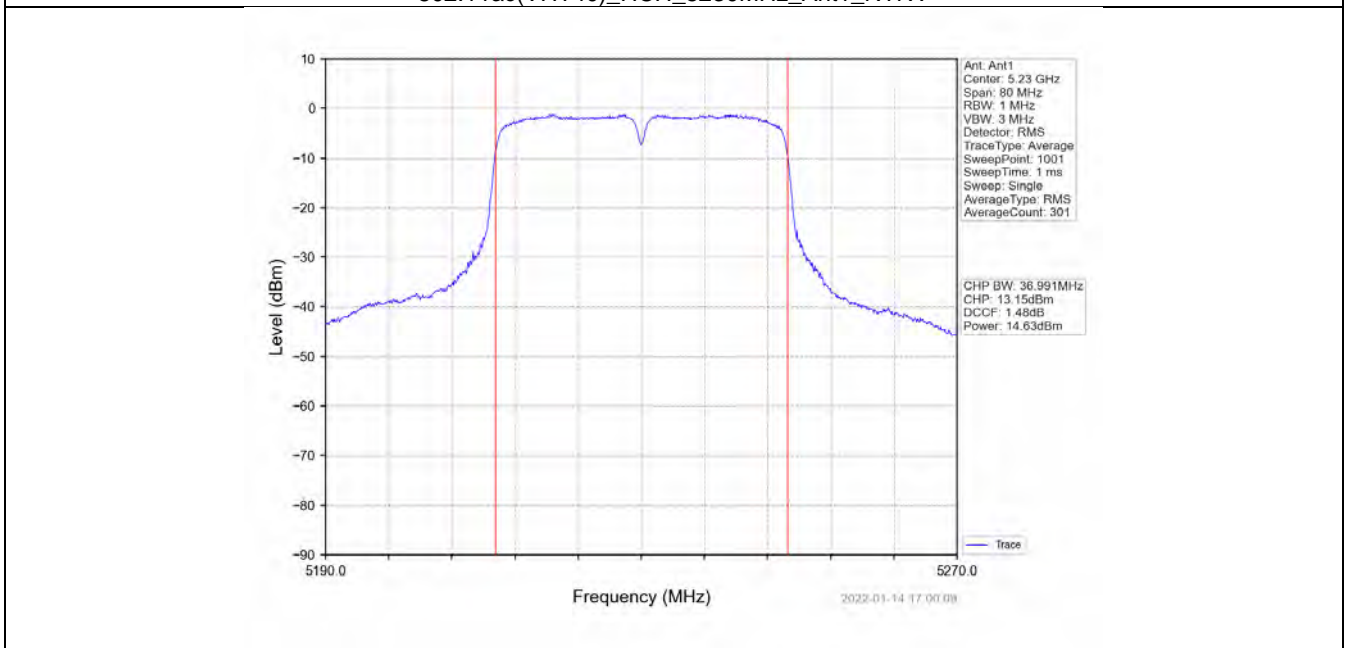


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802.11ac(VHT40)\_HCH\_5230MHz\_Ant1\_NTNV



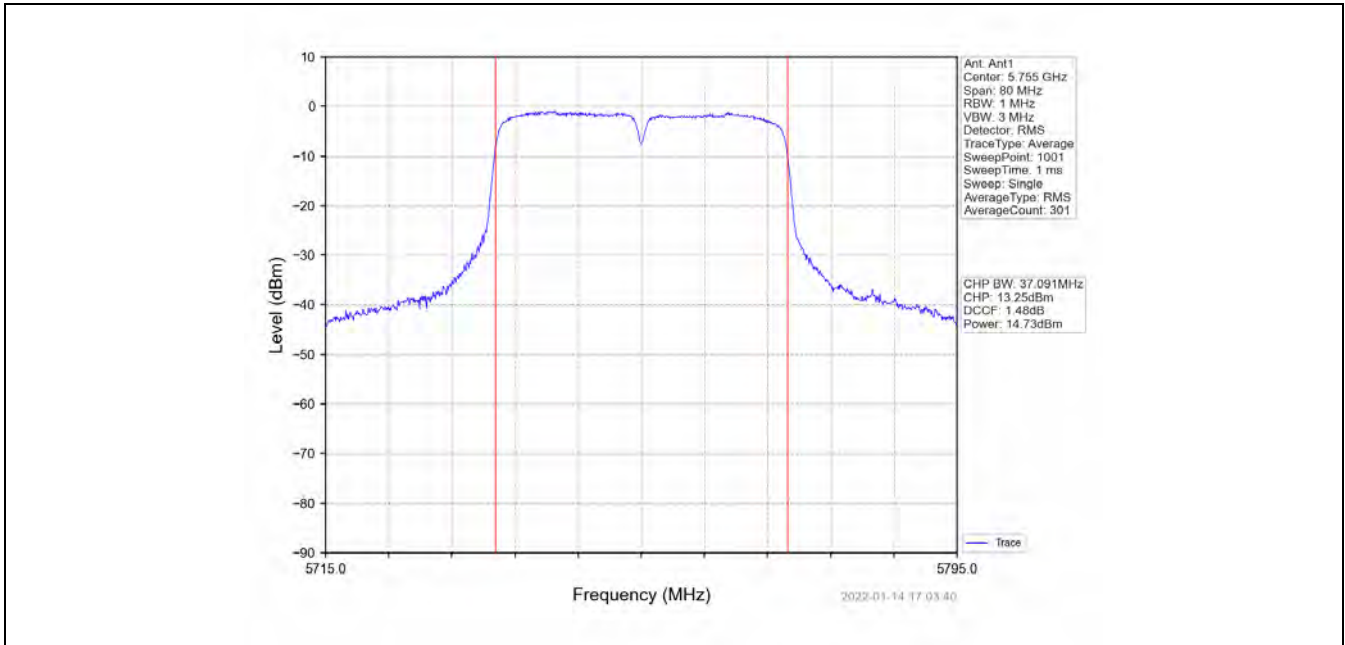
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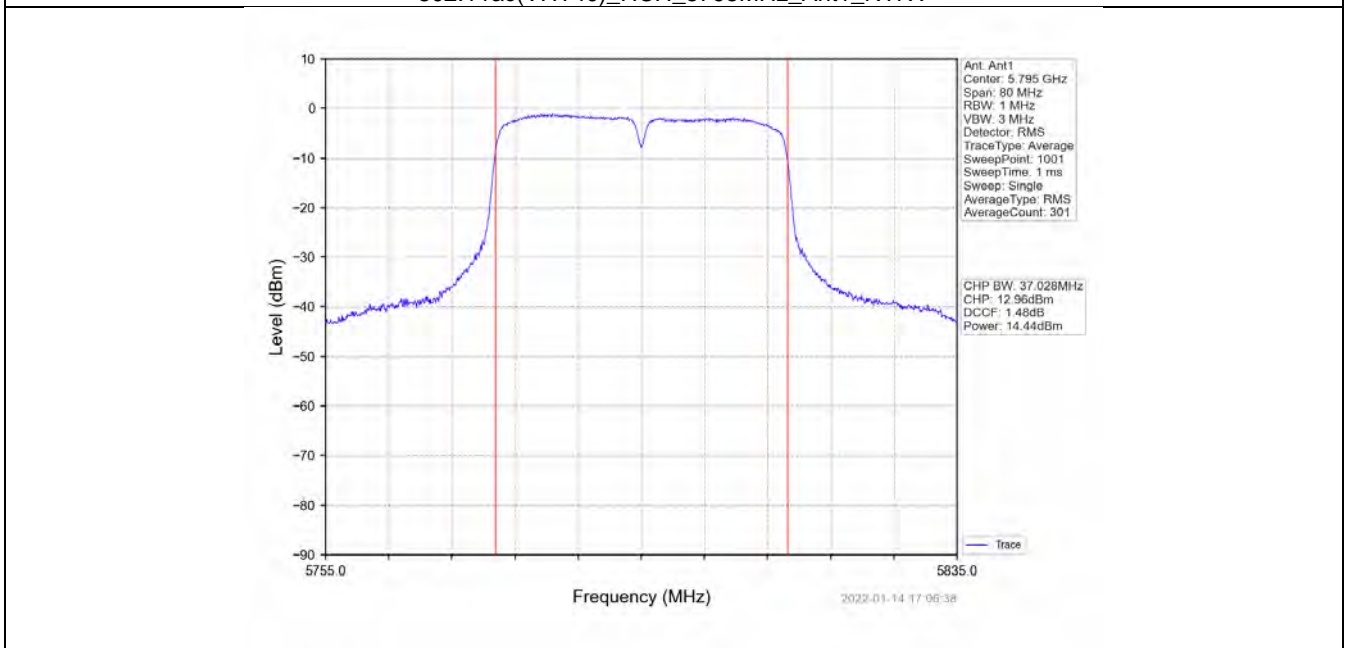
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802.11ac(VHT40)\_HCH\_5795MHz\_Ant1\_NTNV

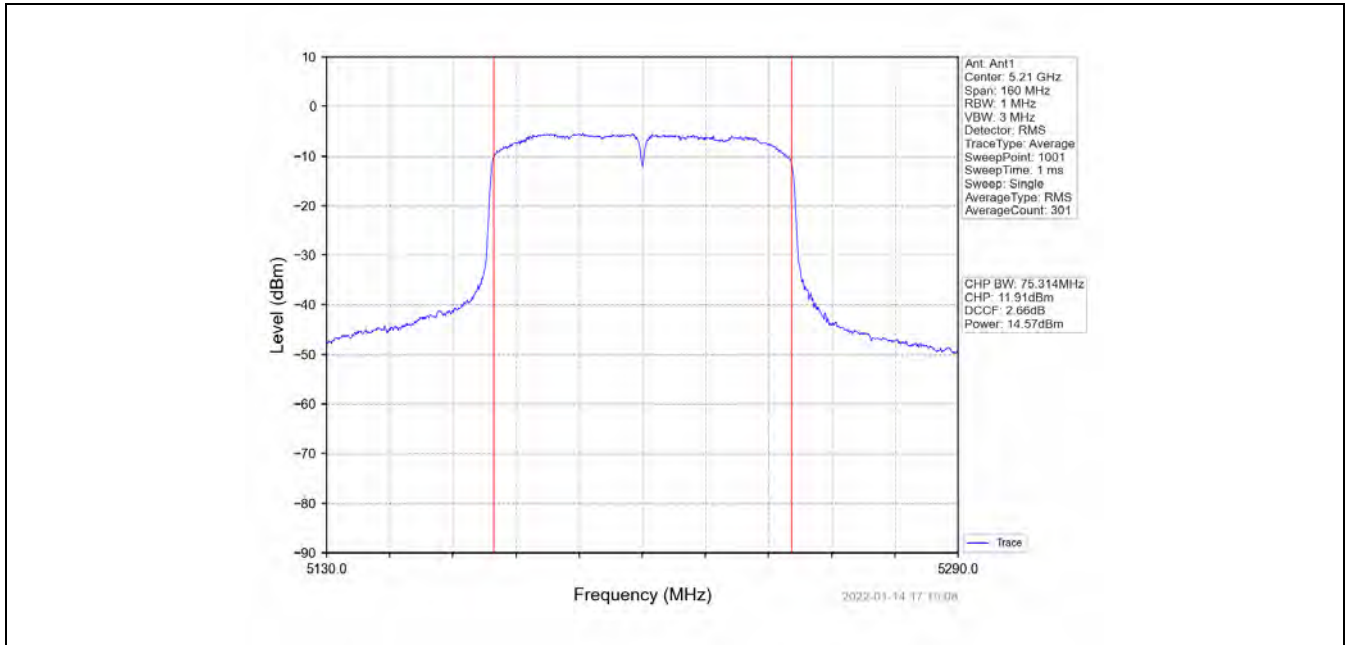


802.11ac(VHT80)\_MCH\_5210MHz\_Ant1\_NTNV

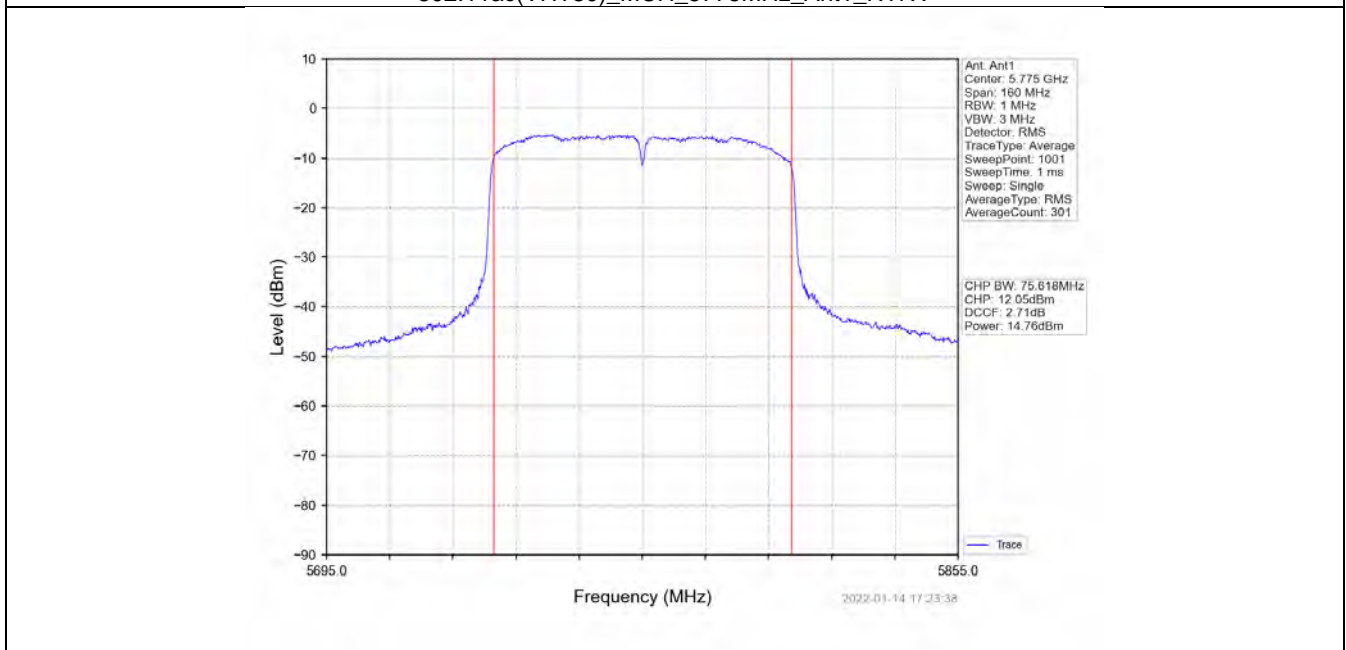


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802.11ac(VHT80)\_MCH\_5775MHz\_Ant1\_NTNV



## 4. Maximum Power Spectral Density

### 4.1 PSD

#### 4.1.1 Test Result



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Mode	TX Type	Frequency (MHz)	Maximum PSD (dBm/MHz)		Verdict
			Ant1	Limit	
802.11a	SISO	5180	3.20	<=11	Pass
		5200	3.15	<=11	Pass
		5240	3.33	<=11	Pass
802.11n (HT20)	SISO	5180	2.78	<=11	Pass
		5200	2.80	<=11	Pass
		5240	2.91	<=11	Pass
802.11n (HT40)	SISO	5190	0.41	<=11	Pass
		5230	0.52	<=11	Pass
802.11ac (VHT20)	SISO	5180	3.04	<=11	Pass
		5200	2.96	<=11	Pass
		5240	2.75	<=11	Pass
802.11ac (VHT40)	SISO	5190	0.41	<=11	Pass
		5230	0.58	<=11	Pass
802.11ac (VHT80)	SISO	5210	-2.48	<=11	Pass

Note1: Antenna Gain: Ant1: -3.79dBi;

Mode	TX Type	Frequency (MHz)	Maximum E.I.R.PSD (dBm/MHz)		Verdict
			Ant1	Limit	
802.11a	SISO	5180	-0.59	<=10	Pass
		5200	-0.64	<=10	Pass
		5240	-0.46	<=10	Pass
802.11n (HT20)	SISO	5180	-1.01	<=10	Pass
		5200	-0.99	<=10	Pass
		5240	-0.88	<=10	Pass
802.11n (HT40)	SISO	5190	-3.38	<=10	Pass
		5230	-3.27	<=10	Pass
802.11ac (VHT20)	SISO	5180	-0.75	<=10	Pass
		5200	-0.83	<=10	Pass
		5240	-1.04	<=10	Pass
802.11ac (VHT40)	SISO	5190	-3.38	<=10	Pass
		5230	-3.21	<=10	Pass
802.11ac (VHT80)	SISO	5210	-6.27	<=10	Pass

Note1: Antenna Gain: Ant1: -3.79dBi;  
Note: E.I.R.PSD = Measured PSD + Antenna Gain



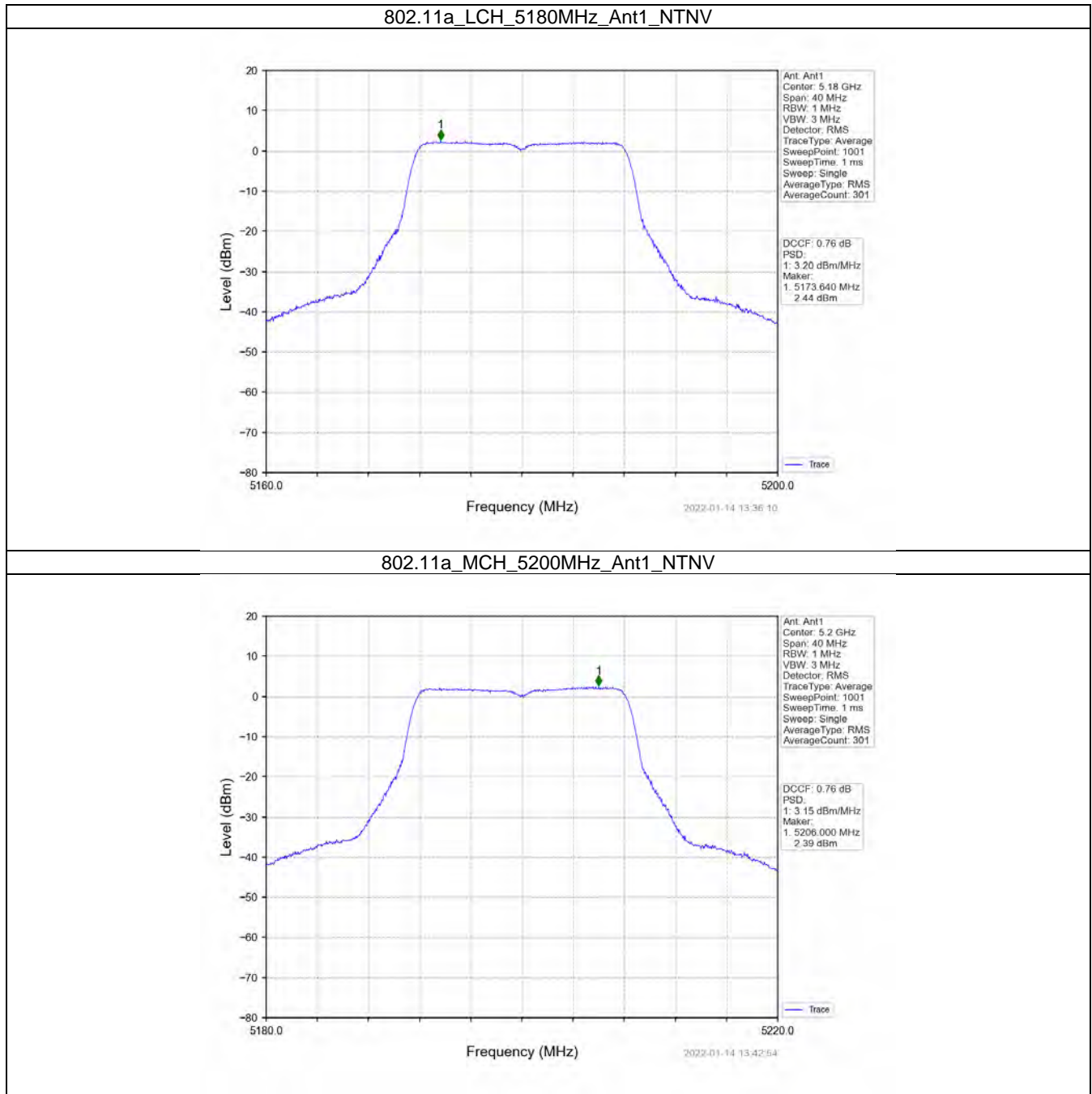
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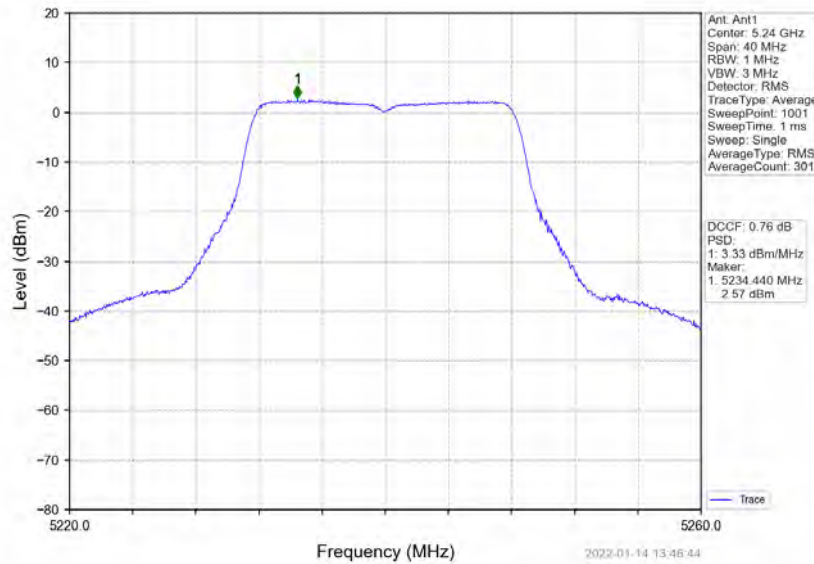
4.1.2 Test Graph



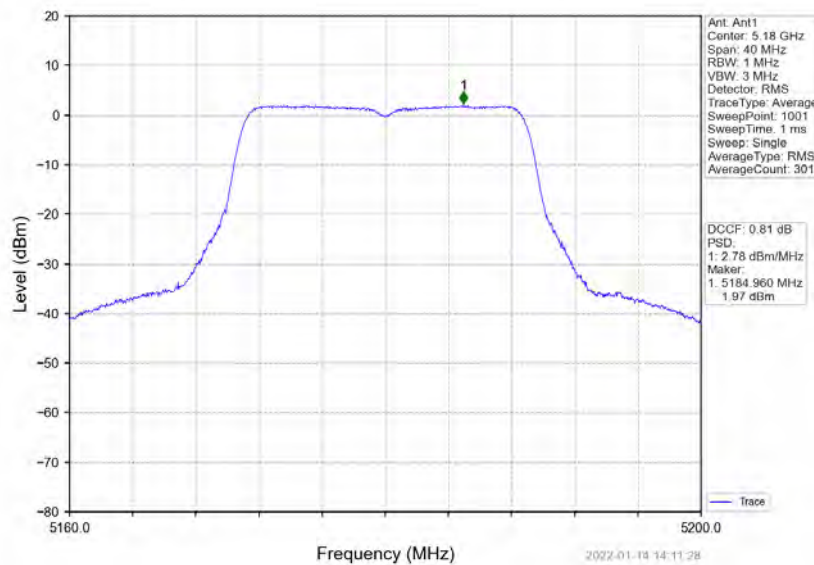
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802.11a\_HCH\_5240MHz\_Ant1\_NTNV



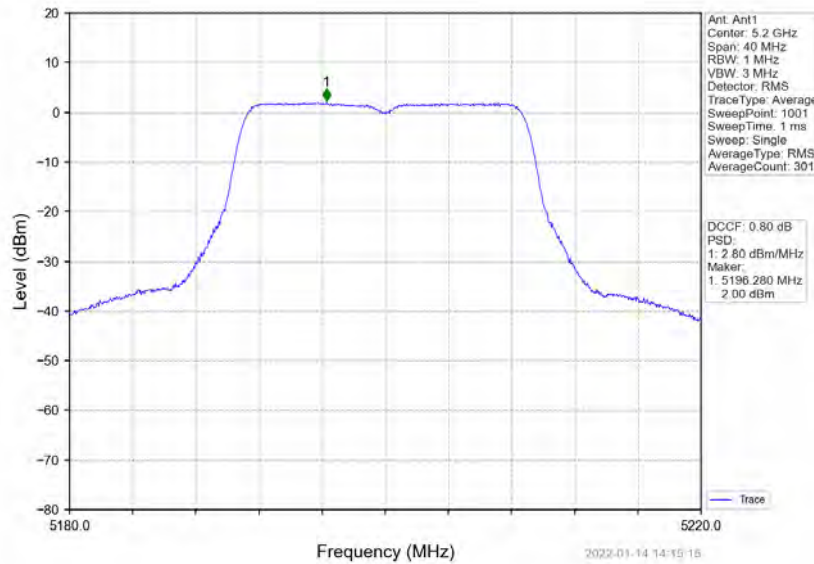
802.11n(HT20)\_LCH\_5180MHz\_Ant1\_NTNV



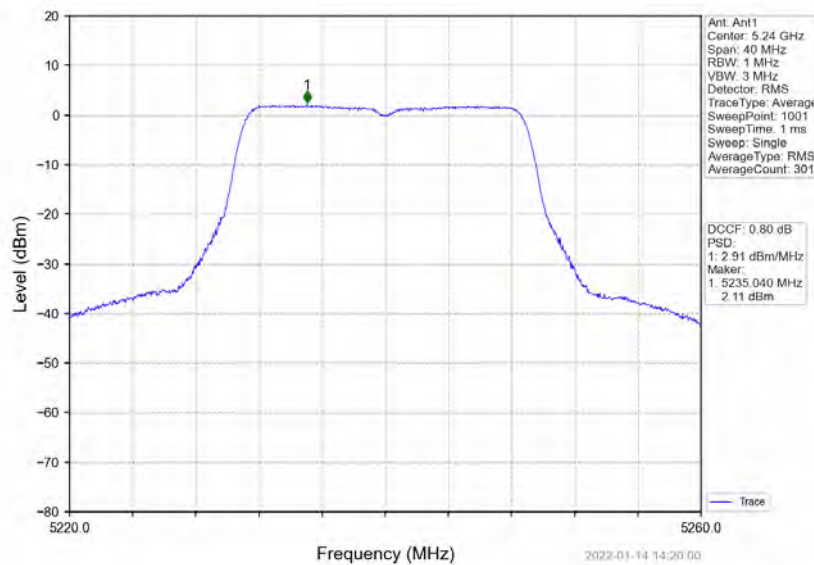
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802.11n(HT20)\_MCH\_5200MHz\_Ant1\_NTNV



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

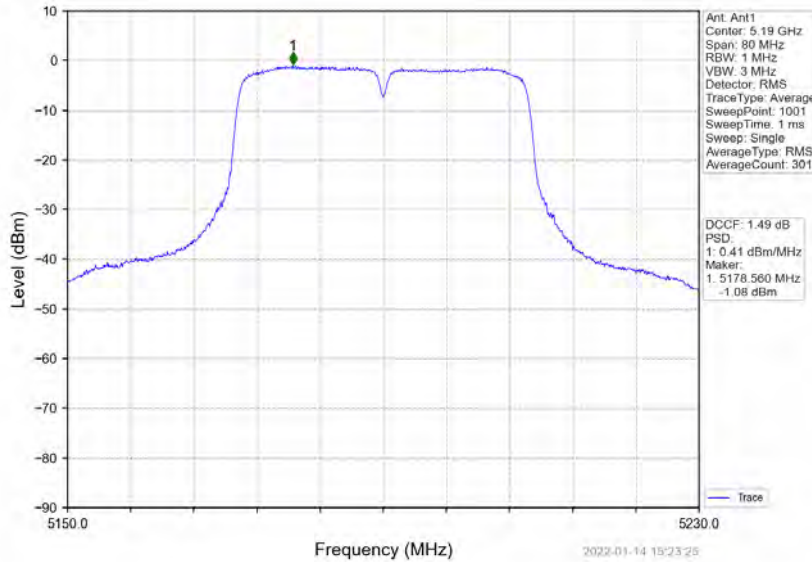


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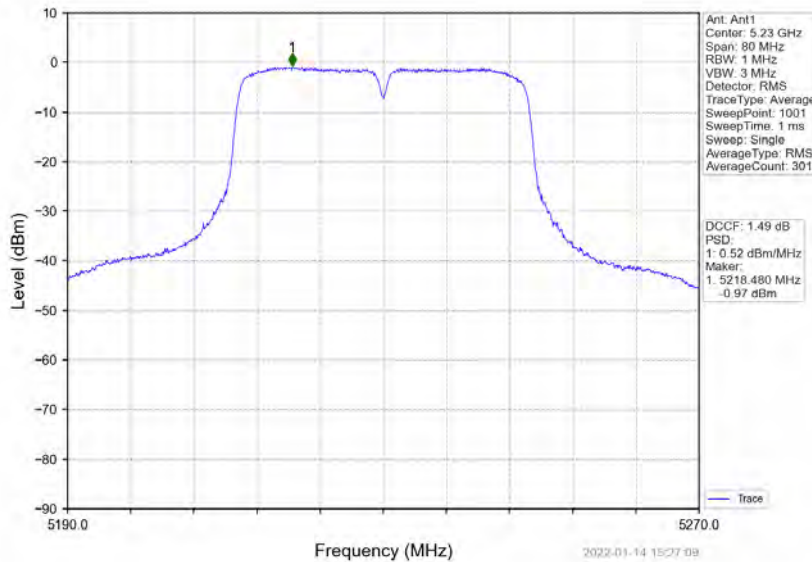
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802.11n(HT40)\_LCH\_5190MHz\_Ant1\_NTNV



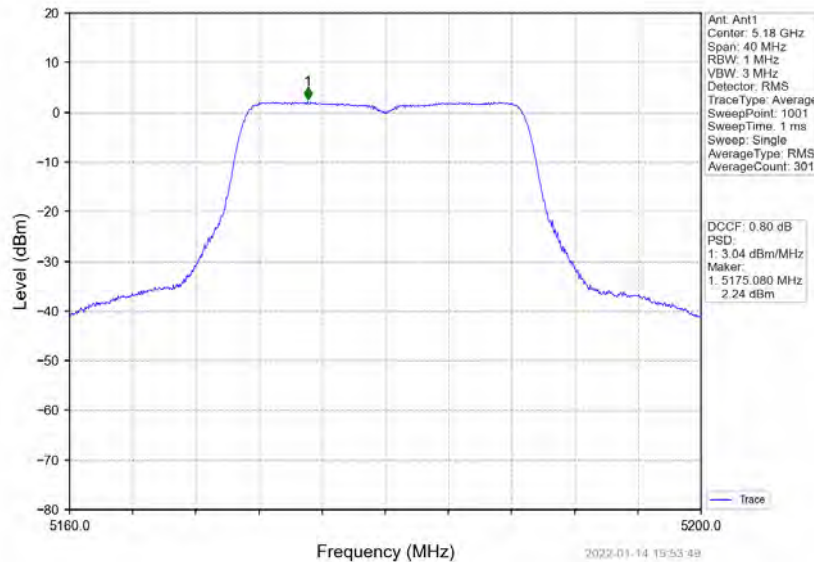
802.11n(HT40)\_HCH\_5230MHz\_Ant1\_NTNV



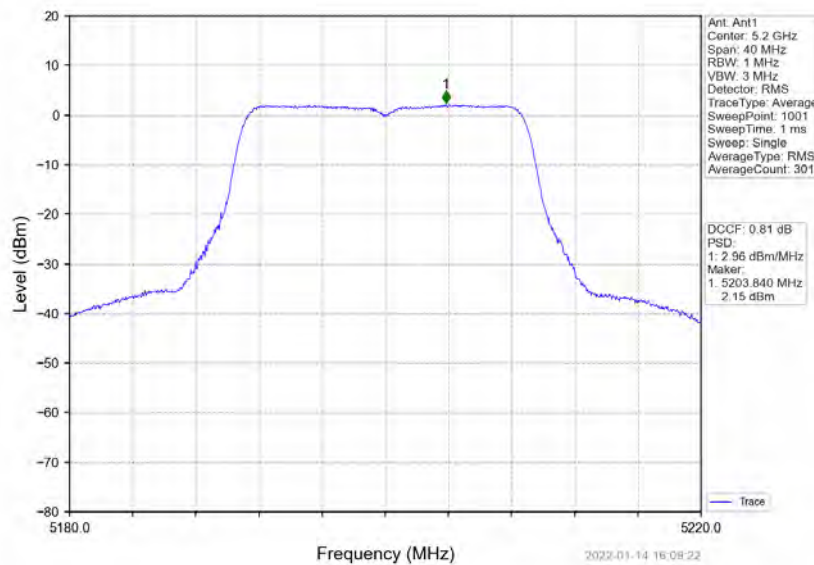
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802.11ac(VHT20)\_LCH\_5180MHz\_Ant1\_NTNV



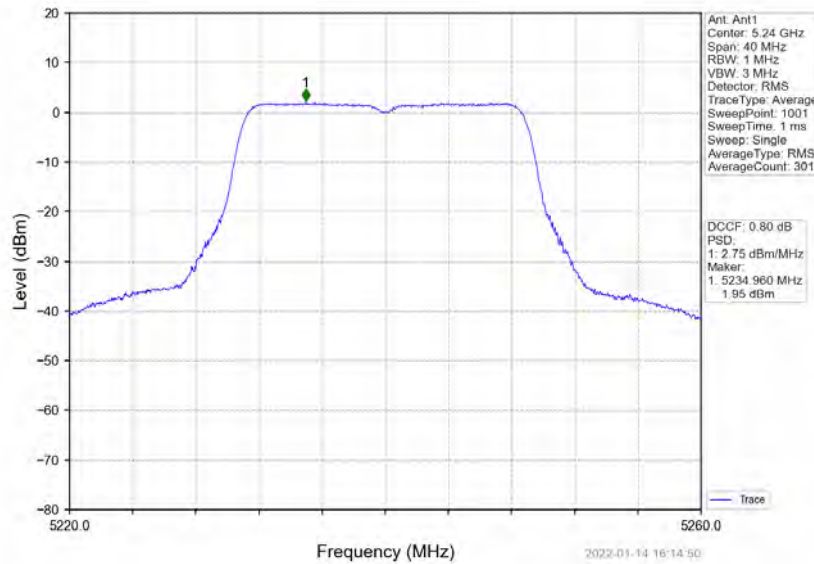
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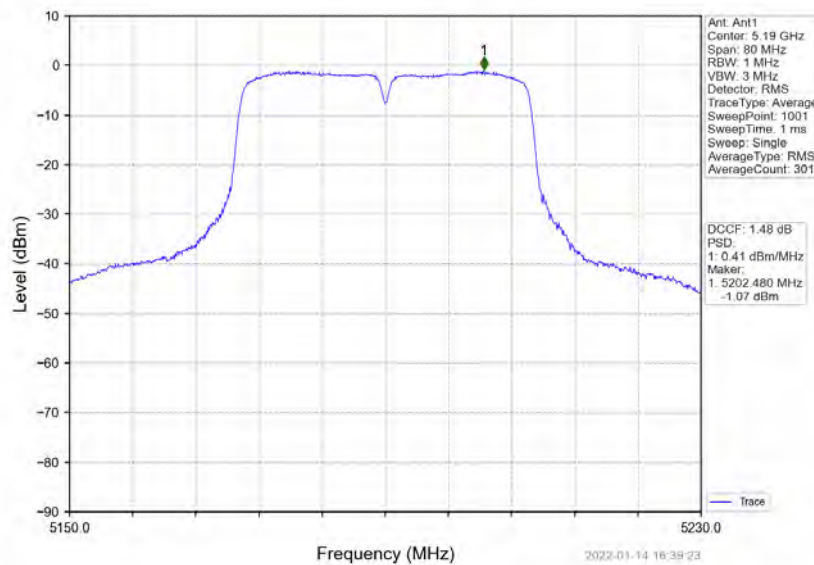
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802.11ac(VHT20)\_HCH\_5240MHz\_Ant1\_NTNV



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

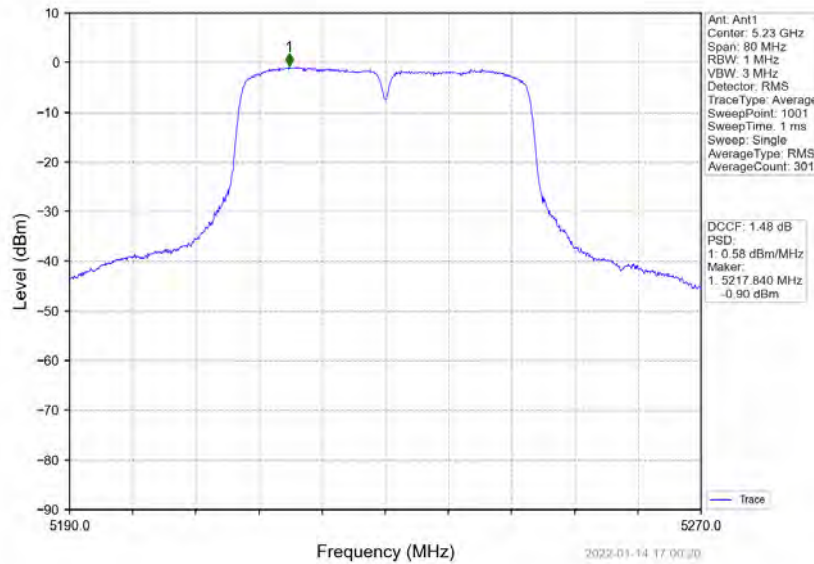


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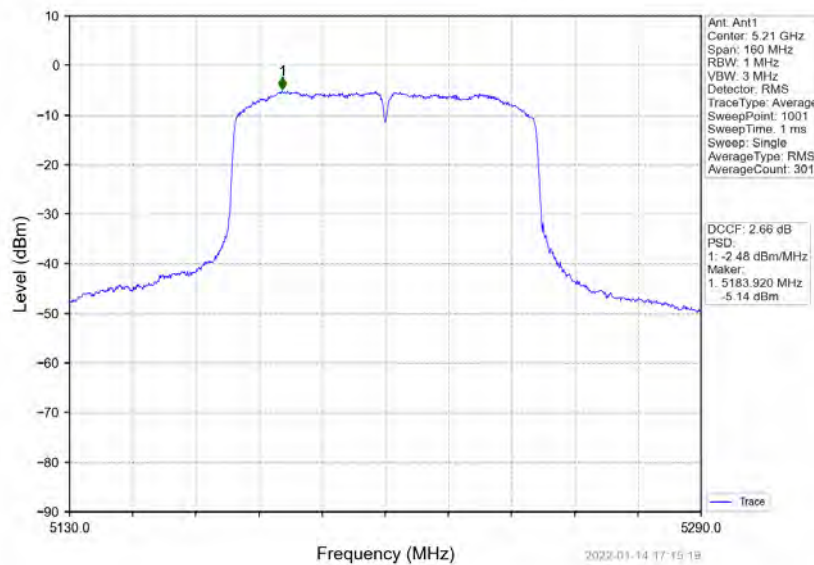
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802.11ac(VHT40)\_HCH\_5230MHz\_Ant1\_NTNV



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



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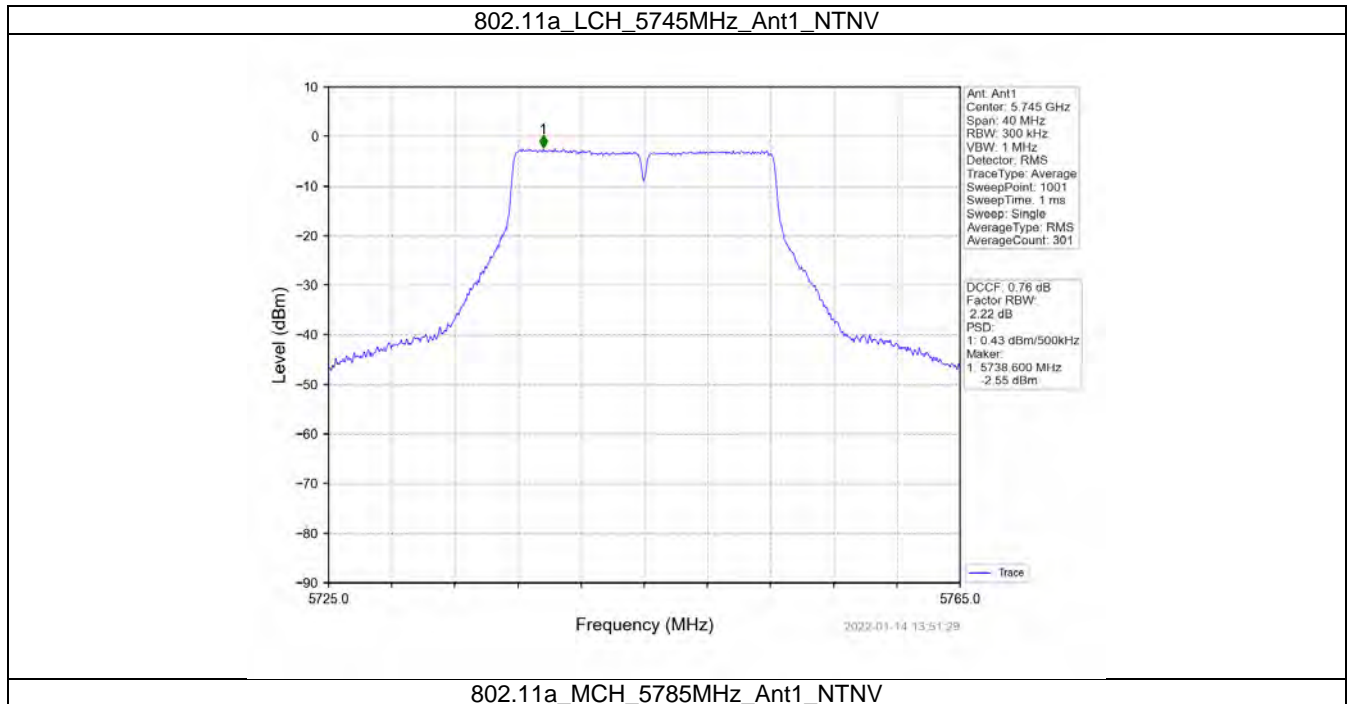
### 4.2 PSD-Band3

#### 4.2.1 Test Result

Mode	TX Type	Frequency (MHz)	Maximum PSD (dBm/500kHz)		Verdict
			Ant1	Limit	
802.11a	SISO	5745	0.43	<=30	Pass
		5785	0.13	<=30	Pass
		5825	0.45	<=30	Pass
802.11n (HT20)	SISO	5745	0.44	<=30	Pass
		5785	-0.07	<=30	Pass
		5825	0.21	<=30	Pass
802.11n (HT40)	SISO	5755	-2.60	<=30	Pass
		5795	-2.38	<=30	Pass
802.11ac (VHT20)	SISO	5745	0.62	<=30	Pass
		5785	-0.06	<=30	Pass
		5825	0.04	<=30	Pass
802.11ac (VHT40)	SISO	5755	-2.48	<=30	Pass
		5795	-2.76	<=30	Pass
802.11ac (VHT80)	SISO	5775	-5.23	<=30	Pass

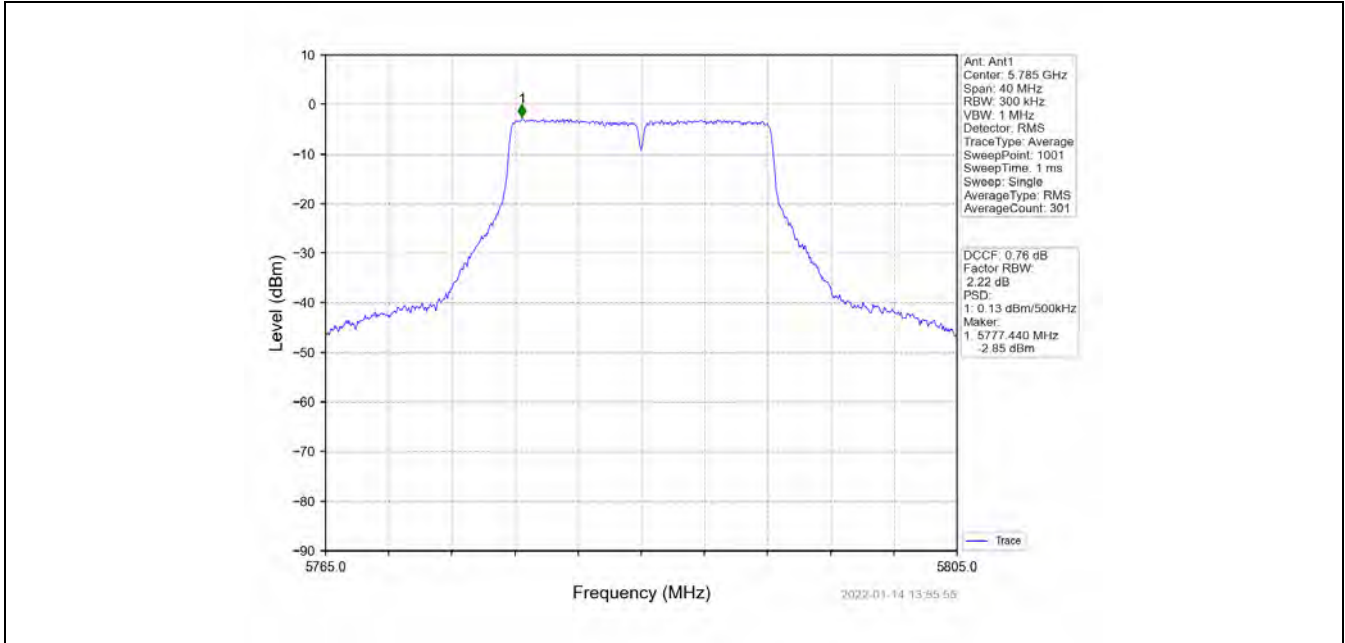
Note1: Antenna Gain: Ant1: -3.98dBi;

#### 4.2.2 Test Graph

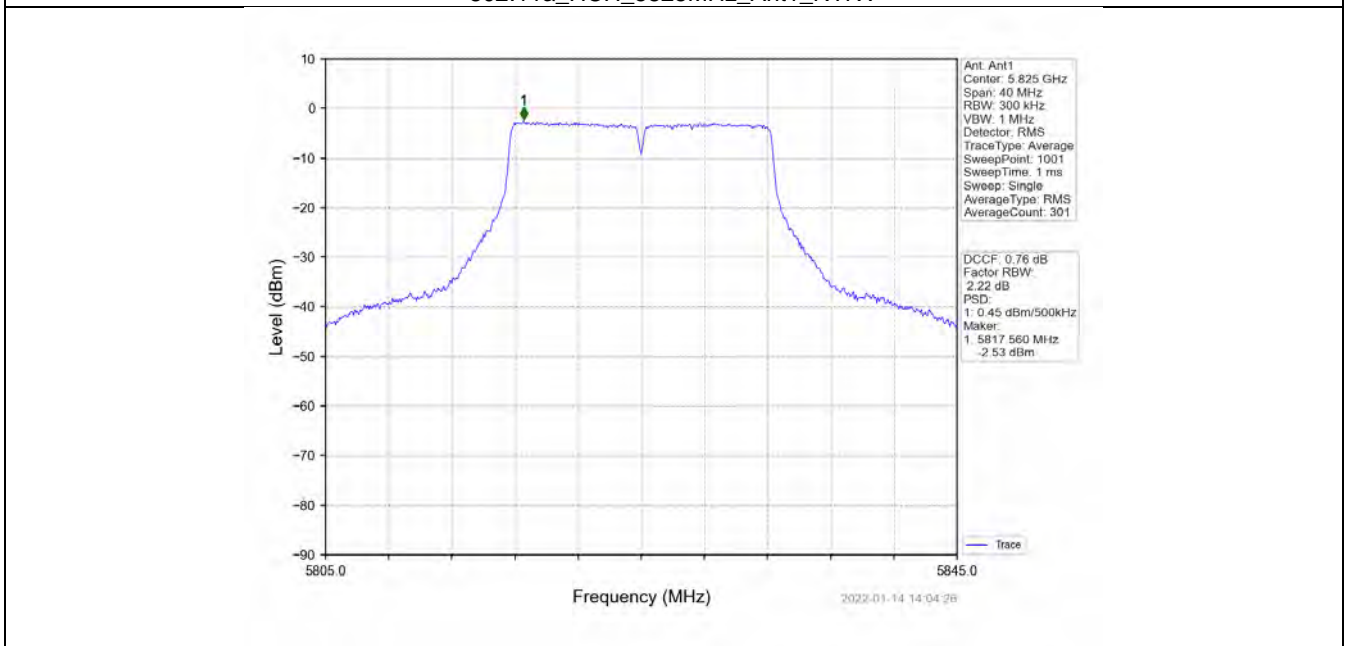


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802.11a\_HCH\_5825MHz\_Ant1\_NTNV



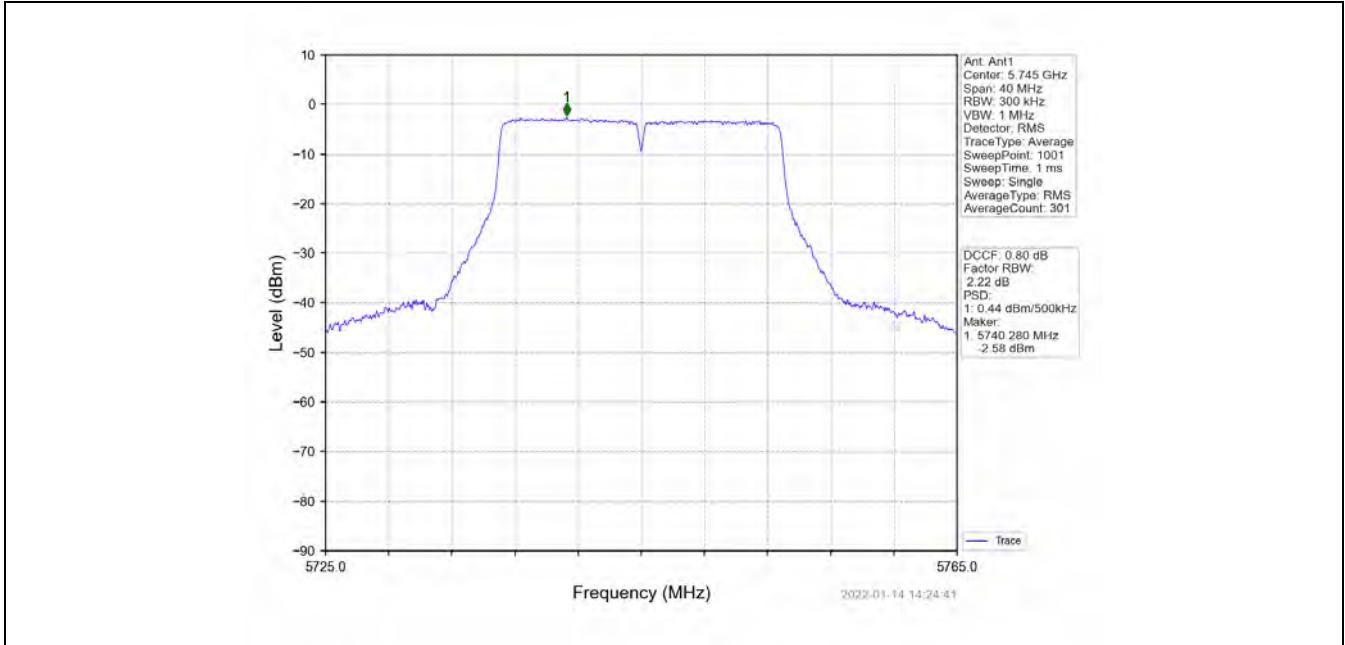
802.11n(HT20)\_LCH\_5745MHz\_Ant1\_NTNV



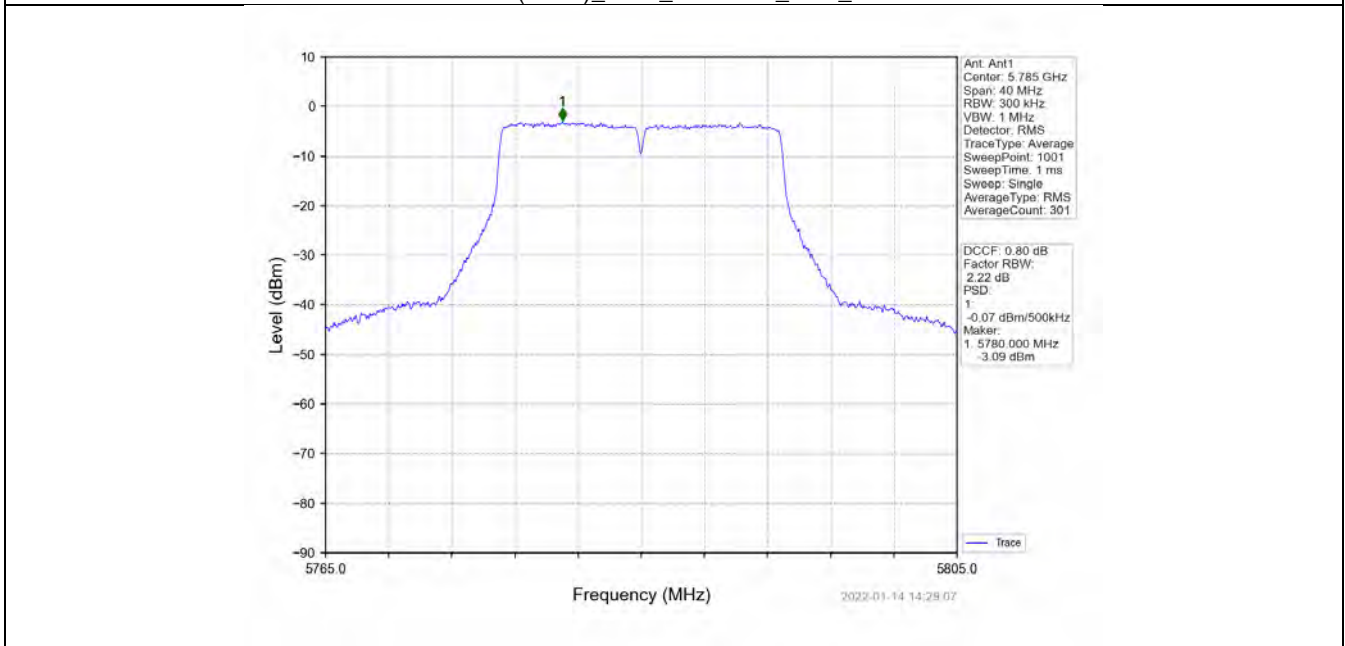
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802.11n(HT20)\_MCH\_5785MHz\_Ant1\_NTNV

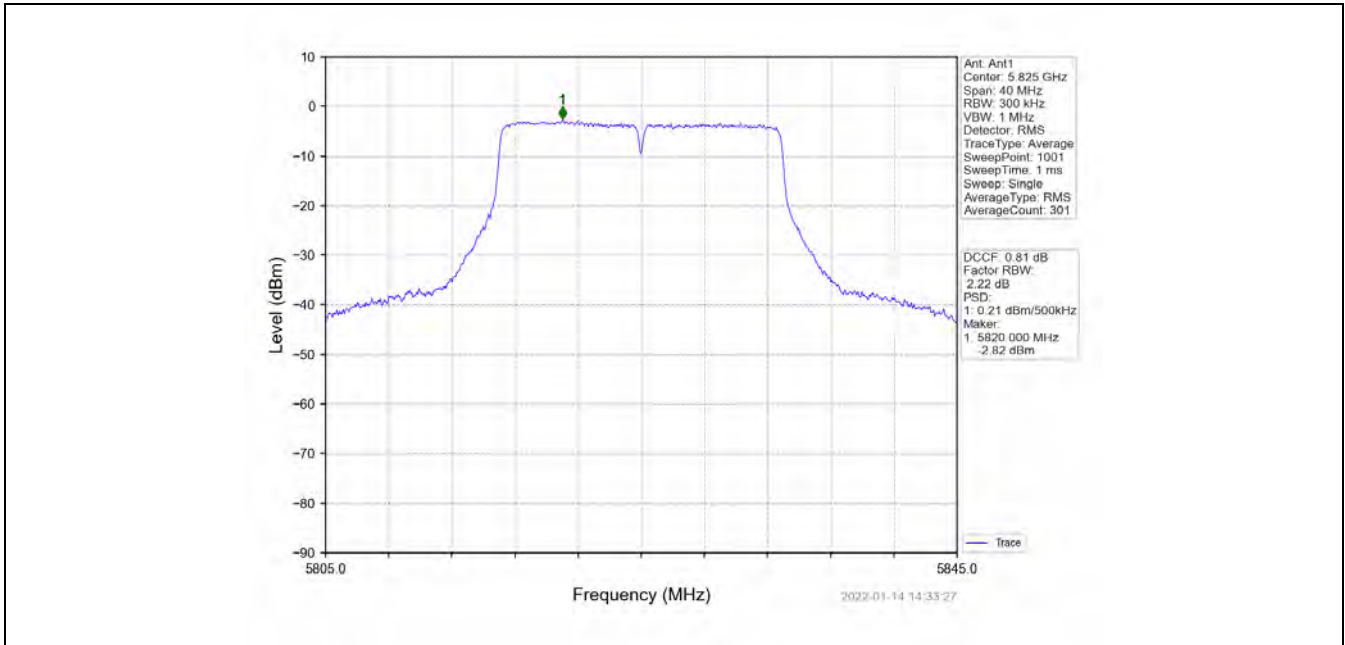


802.11n(HT20)\_HCH\_5825MHz\_Ant1\_NTNV

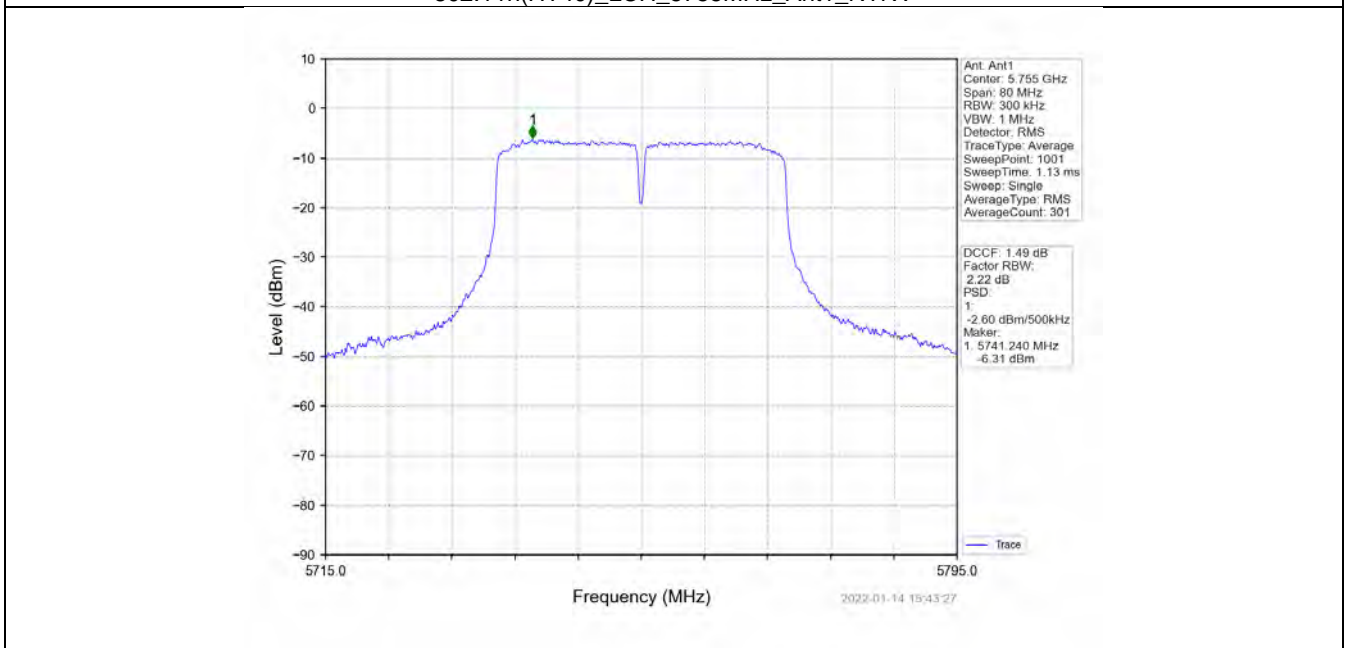


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802.11n(HT40)\_LCH\_5755MHz\_Ant1\_NTNV



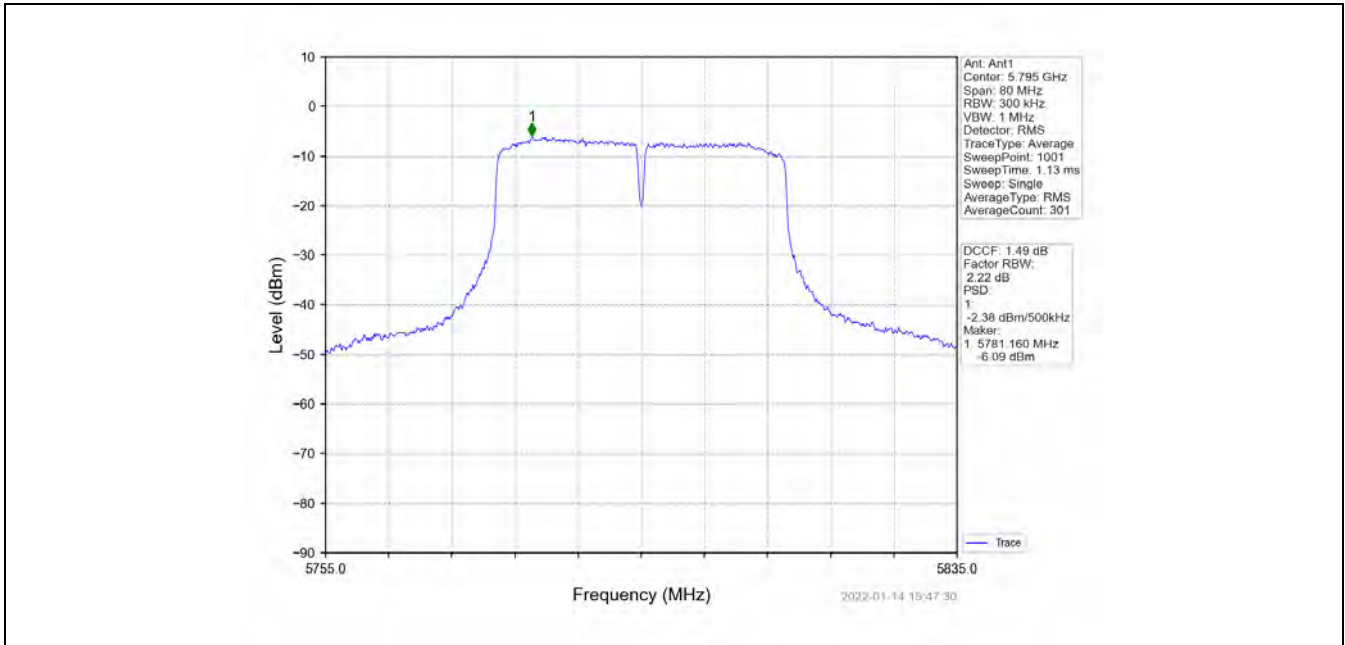
802.11n(HT40)\_HCH\_5795MHz\_Ant1\_NTNV



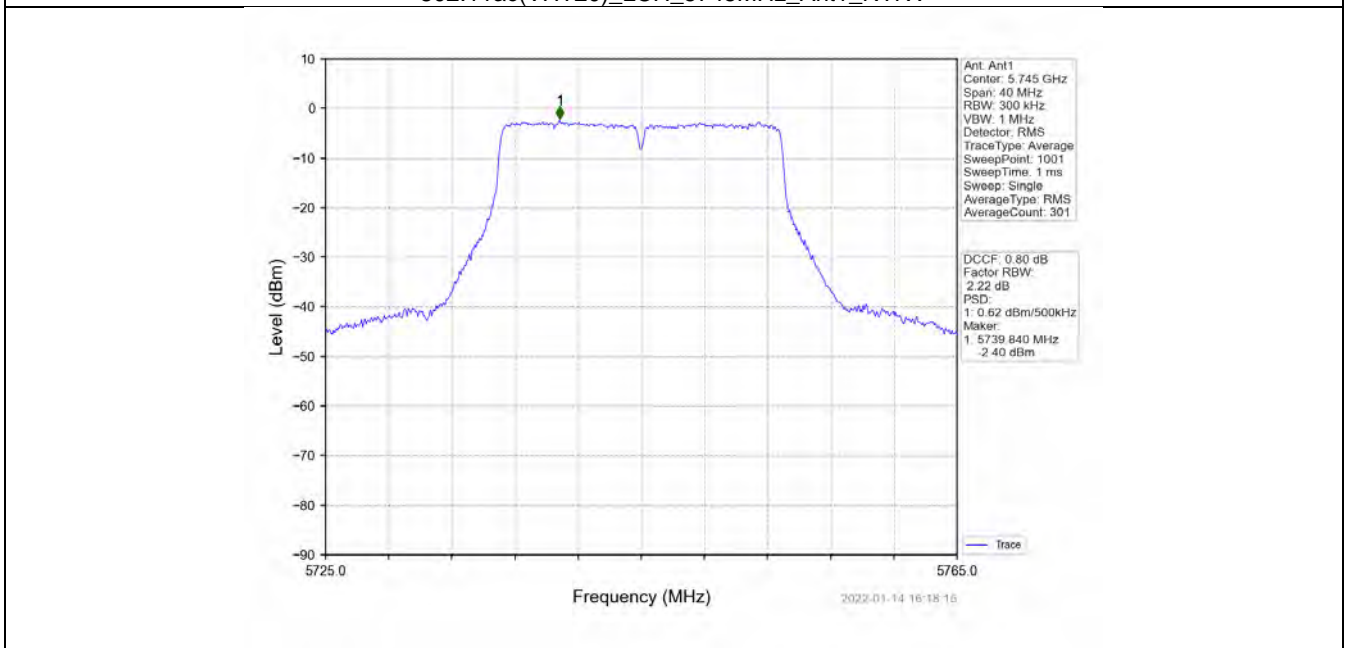
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802.11ac(VHT20)\_LCH\_5745MHz\_Ant1\_NTNV



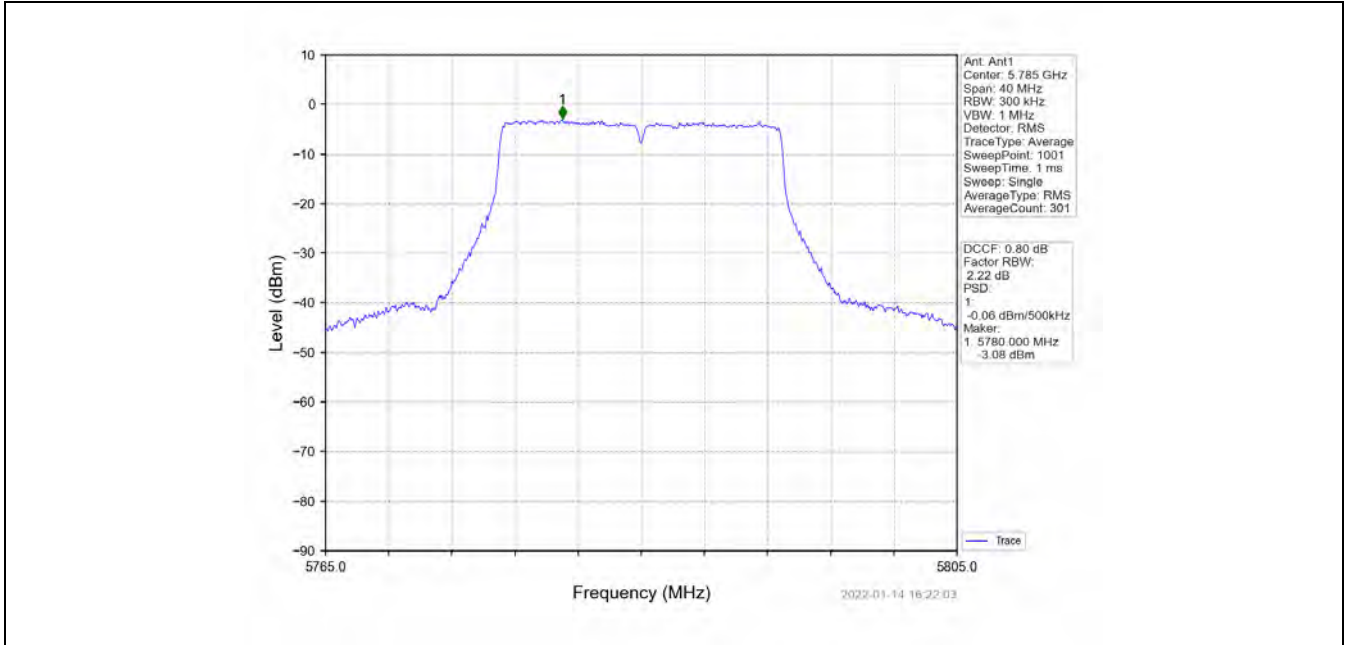
802.11ac(VHT20)\_MCH\_5785MHz\_Ant1\_NTNV



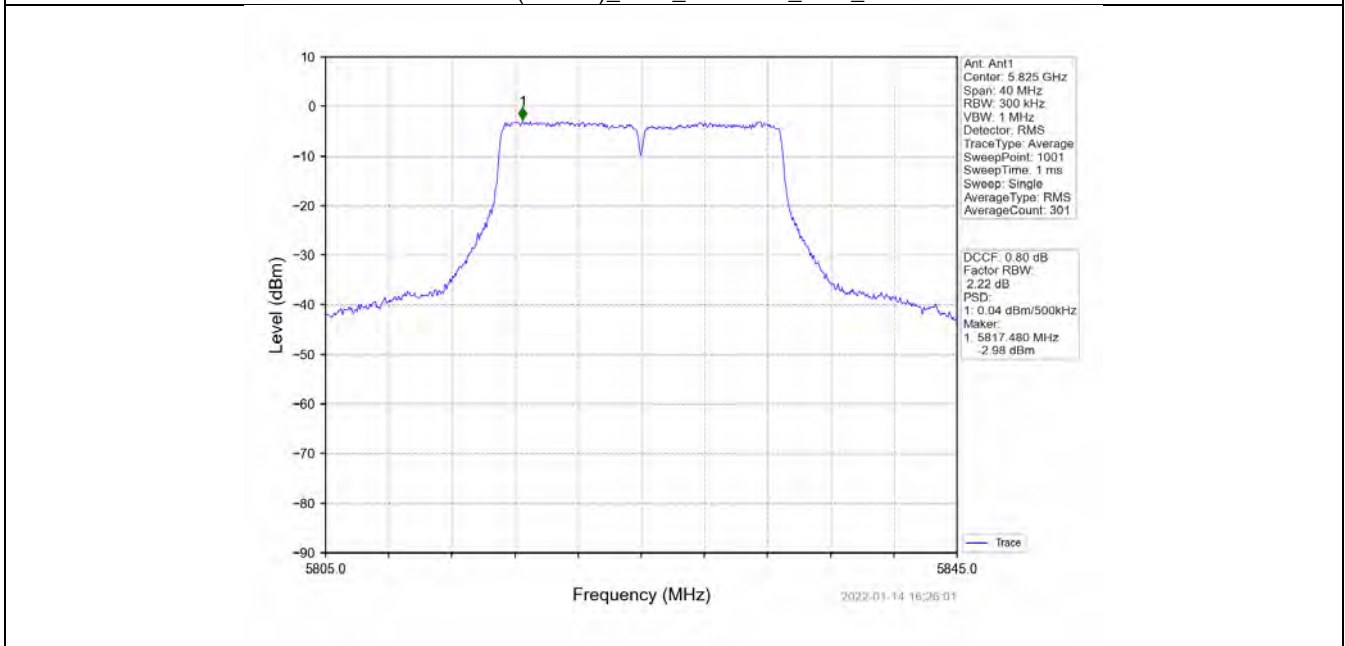
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802.11ac(VHT20)\_HCH\_5825MHz\_Ant1\_NTNV

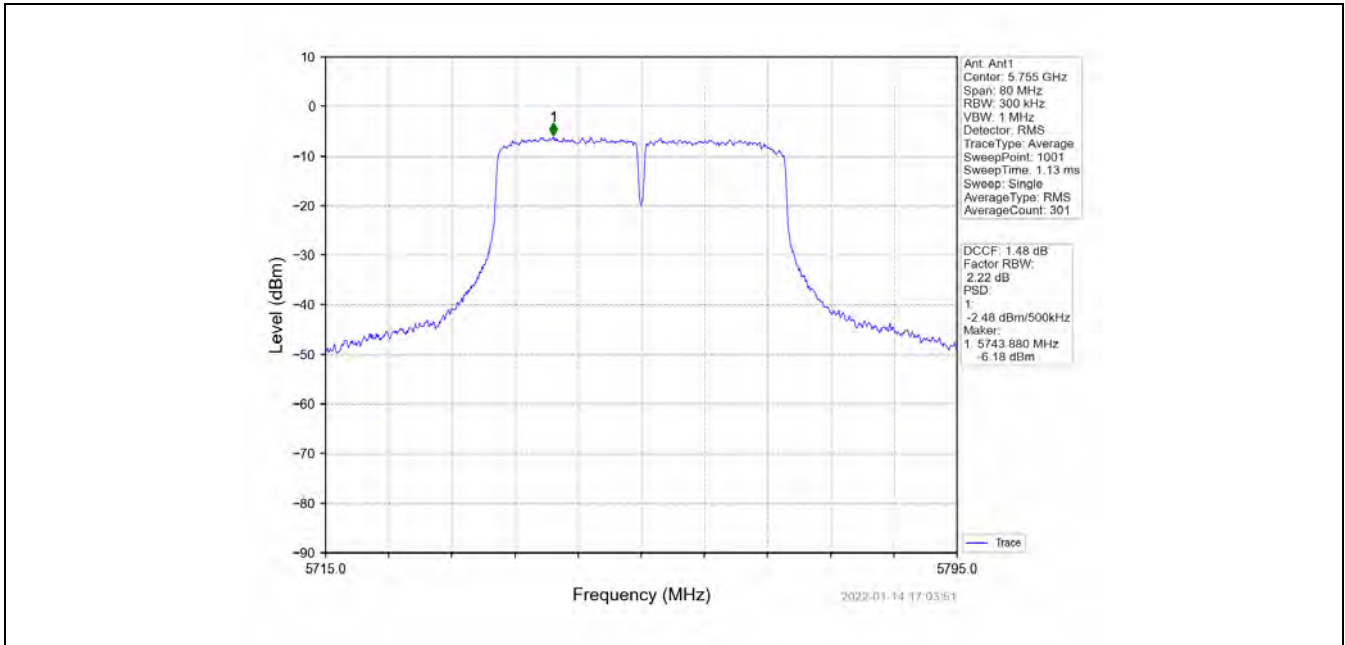


802.11ac(VHT40)\_LCH\_5755MHz\_Ant1\_NTNV

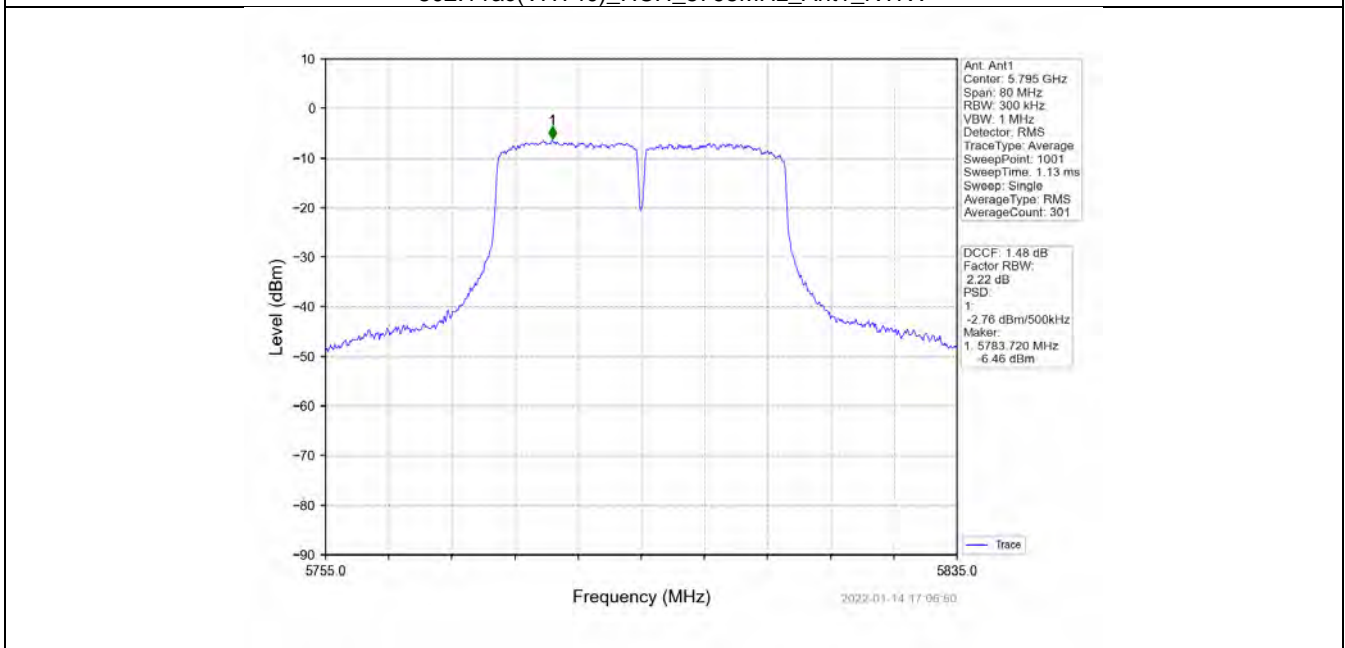


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802.11ac(VHT40)\_HCH\_5795MHz\_Ant1\_NTNV

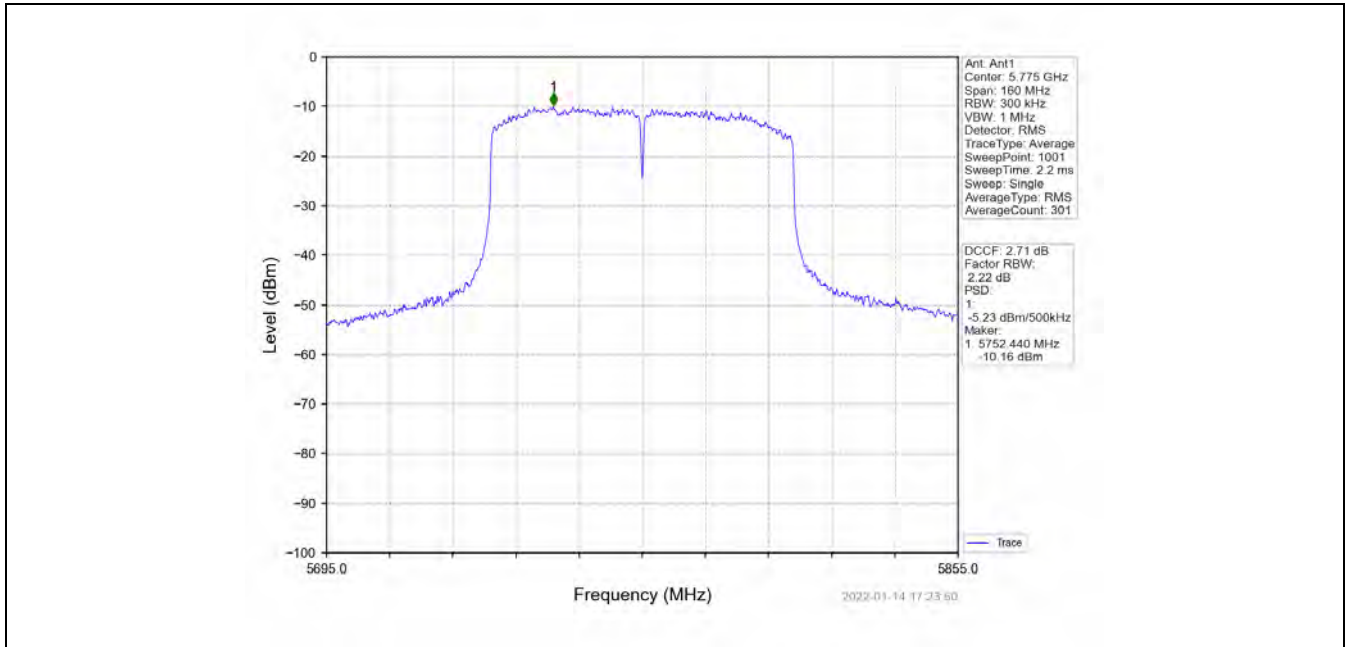


802.11ac(VHT80)\_MCH\_5775MHz\_Ant1\_NTNV



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## 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	
802.11a	SISO	5180	20	102	5179.960	5150 to 5250	Pass	
				120	5179.940	5150 to 5250	Pass	
				138	5179.980	5150 to 5250	Pass	
			-30	120	5180.000	5150 to 5250	Pass	
				-20	120	5179.980	5150 to 5250	Pass
					-10	120	5179.940	5150 to 5250
			0	120	5179.980	5150 to 5250	Pass	
				10	120	5179.940	5150 to 5250	Pass
				30	120	5179.900	5150 to 5250	Pass
				40	120	5179.980	5150 to 5250	Pass
				50	120	5180.000	5150 to 5250	Pass
				5200	20	102	5199.980	5150 to 5250
		120	5199.960			5150 to 5250	Pass	
		138	5199.980			5150 to 5250	Pass	
		-30	120		5199.960	5150 to 5250	Pass	
			-20		120	5200.020	5150 to 5250	Pass
					-10	120	5199.980	5150 to 5250
		0	120		5199.940	5150 to 5250	Pass	
			10		120	5199.920	5150 to 5250	Pass
			30		120	5199.940	5150 to 5250	Pass



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			40	120	5199.940	5150 to 5250	Pass			
			50	120	5199.980	5150 to 5250	Pass			
			20	102	5239.980	5150 to 5250	Pass			
				120	5239.980	5150 to 5250	Pass			
				138	5239.920	5150 to 5250	Pass			
			5240	-30	120	5239.920	5150 to 5250	Pass		
				-20	120	5239.920	5150 to 5250	Pass		
				-10	120	5240.000	5150 to 5250	Pass		
				0	120	5239.960	5150 to 5250	Pass		
				10	120	5239.980	5150 to 5250	Pass		
				30	120	5240.060	5150 to 5250	Pass		
				40	120	5240.000	5150 to 5250	Pass		
				50	120	5239.920	5150 to 5250	Pass		
				5745	20	102	5744.940	5725 to 5850	Pass	
						120	5744.900	5725 to 5850	Pass	
			138			5744.940	5725 to 5850	Pass		
			-30		120	5744.980	5725 to 5850	Pass		
			-20		120	5744.980	5725 to 5850	Pass		
			-10		120	5744.980	5725 to 5850	Pass		
			0		120	5744.960	5725 to 5850	Pass		
			10		120	5744.960	5725 to 5850	Pass		
			30		120	5744.960	5725 to 5850	Pass		
			40		120	5744.940	5725 to 5850	Pass		
			5785	20	102	5784.920	5725 to 5850	Pass		
					120	5784.980	5725 to 5850	Pass		
					138	5784.960	5725 to 5850	Pass		
				-30	120	5784.940	5725 to 5850	Pass		
				-20	120	5785.000	5725 to 5850	Pass		
				-10	120	5784.980	5725 to 5850	Pass		
				0	120	5785.000	5725 to 5850	Pass		
				10	120	5784.940	5725 to 5850	Pass		
				30	120	5784.940	5725 to 5850	Pass		
				40	120	5784.880	5725 to 5850	Pass		
			5825	20	102	5824.980	5725 to 5850	Pass		
					120	5825.020	5725 to 5850	Pass		
					138	5824.980	5725 to 5850	Pass		
				-30	120	5824.920	5725 to 5850	Pass		
				-20	120	5824.940	5725 to 5850	Pass		
				-10	120	5824.940	5725 to 5850	Pass		
				0	120	5824.980	5725 to 5850	Pass		
				10	120	5824.940	5725 to 5850	Pass		
				30	120	5824.960	5725 to 5850	Pass		
				40	120	5824.960	5725 to 5850	Pass		
			802.11n (HT20)	SISO	5180	20	102	5180.000	5150 to 5250	Pass
							120	5179.960	5150 to 5250	Pass
138	5180.000	5150 to 5250					Pass			
-30	120	5180.020				5150 to 5250	Pass			
-20	120	5179.980				5150 to 5250	Pass			
-10	120	5180.040				5150 to 5250	Pass			
0	120	5179.980				5150 to 5250	Pass			
10	120	5180.040				5150 to 5250	Pass			
30	120	5180.000				5150 to 5250	Pass			



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		40	120	5179.920	5150 to 5250	Pass		
		50	120	5179.980	5150 to 5250	Pass		
		20	102	5199.900	5150 to 5250	Pass		
			120	5199.900	5150 to 5250	Pass		
			138	5199.960	5150 to 5250	Pass		
		5200	-30	120	5199.980	5150 to 5250	Pass	
			-20	120	5200.000	5150 to 5250	Pass	
			-10	120	5200.020	5150 to 5250	Pass	
			0	120	5200.000	5150 to 5250	Pass	
			10	120	5199.980	5150 to 5250	Pass	
			30	120	5199.960	5150 to 5250	Pass	
			40	120	5200.020	5150 to 5250	Pass	
			50	120	5199.940	5150 to 5250	Pass	
			5240	20	102	5240.020	5150 to 5250	Pass
					120	5240.000	5150 to 5250	Pass
		138			5239.980	5150 to 5250	Pass	
		-30		120	5239.980	5150 to 5250	Pass	
		-20		120	5239.960	5150 to 5250	Pass	
		-10		120	5239.960	5150 to 5250	Pass	
		0		120	5240.020	5150 to 5250	Pass	
		10		120	5240.040	5150 to 5250	Pass	
		30		120	5239.980	5150 to 5250	Pass	
		40		120	5239.960	5150 to 5250	Pass	
		50	120	5239.980	5150 to 5250	Pass		
		5745	20	102	5744.980	5725 to 5850	Pass	
				120	5744.980	5725 to 5850	Pass	
				138	5745.000	5725 to 5850	Pass	
			-30	120	5745.000	5725 to 5850	Pass	
			-20	120	5744.940	5725 to 5850	Pass	
			-10	120	5744.940	5725 to 5850	Pass	
			0	120	5744.960	5725 to 5850	Pass	
			10	120	5744.940	5725 to 5850	Pass	
			30	120	5744.960	5725 to 5850	Pass	
			40	120	5744.980	5725 to 5850	Pass	
		50	120	5744.940	5725 to 5850	Pass		
		5785	20	102	5784.960	5725 to 5850	Pass	
				120	5784.980	5725 to 5850	Pass	
				138	5784.980	5725 to 5850	Pass	
			-30	120	5784.960	5725 to 5850	Pass	
			-20	120	5784.920	5725 to 5850	Pass	
			-10	120	5784.980	5725 to 5850	Pass	
			0	120	5784.960	5725 to 5850	Pass	
10	120		5784.960	5725 to 5850	Pass			
30	120		5785.000	5725 to 5850	Pass			
40	120		5784.900	5725 to 5850	Pass			
50	120	5784.980	5725 to 5850	Pass				
5825	20	102	5825.000	5725 to 5850	Pass			
		120	5824.960	5725 to 5850	Pass			
		138	5824.960	5725 to 5850	Pass			
	-30	120	5824.940	5725 to 5850	Pass			
	-20	120	5824.960	5725 to 5850	Pass			
	-10	120	5824.960	5725 to 5850	Pass			
	0	120	5824.940	5725 to 5850	Pass			
	10	120	5825.040	5725 to 5850	Pass			
	30	120	5824.980	5725 to 5850	Pass			



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			40	120	5824.980	5725 to 5850	Pass
			50	120	5824.980	5725 to 5850	Pass
802.11n (HT40)	SISO	5190	20	102	5190.040	5150 to 5250	Pass
				120	5190.000	5150 to 5250	Pass
				138	5189.960	5150 to 5250	Pass
			-30	120	5190.000	5150 to 5250	Pass
			-20	120	5190.040	5150 to 5250	Pass
			-10	120	5190.000	5150 to 5250	Pass
			0	120	5190.080	5150 to 5250	Pass
			10	120	5189.960	5150 to 5250	Pass
			30	120	5189.960	5150 to 5250	Pass
			40	120	5189.920	5150 to 5250	Pass
		50	120	5189.960	5150 to 5250	Pass	
		5230	20	102	5230.040	5150 to 5250	Pass
				120	5230.000	5150 to 5250	Pass
				138	5230.000	5150 to 5250	Pass
			-30	120	5229.920	5150 to 5250	Pass
			-20	120	5229.920	5150 to 5250	Pass
			-10	120	5229.960	5150 to 5250	Pass
			0	120	5229.960	5150 to 5250	Pass
			10	120	5230.000	5150 to 5250	Pass
			30	120	5229.960	5150 to 5250	Pass
			40	120	5229.960	5150 to 5250	Pass
		50	120	5230.000	5150 to 5250	Pass	
		5755	20	102	5754.920	5725 to 5850	Pass
				120	5754.880	5725 to 5850	Pass
				138	5754.960	5725 to 5850	Pass
			-30	120	5754.960	5725 to 5850	Pass
			-20	120	5754.960	5725 to 5850	Pass
			-10	120	5755.000	5725 to 5850	Pass
			0	120	5754.920	5725 to 5850	Pass
			10	120	5755.000	5725 to 5850	Pass
			30	120	5754.960	5725 to 5850	Pass
			40	120	5754.920	5725 to 5850	Pass
		50	120	5754.960	5725 to 5850	Pass	
		5795	20	102	5794.960	5725 to 5850	Pass
				120	5795.000	5725 to 5850	Pass
				138	5794.960	5725 to 5850	Pass
			-30	120	5794.960	5725 to 5850	Pass
			-20	120	5794.920	5725 to 5850	Pass
			-10	120	5794.960	5725 to 5850	Pass
			0	120	5795.000	5725 to 5850	Pass
10	120		5794.960	5725 to 5850	Pass		
30	120		5794.880	5725 to 5850	Pass		
40	120		5794.960	5725 to 5850	Pass		
50	120	5794.920	5725 to 5850	Pass			
802.11ac (VHT20)	SISO	5180	20	102	5179.980	5150 to 5250	Pass
				120	5179.900	5150 to 5250	Pass
				138	5179.960	5150 to 5250	Pass
			-30	120	5179.960	5150 to 5250	Pass
			-20	120	5179.960	5150 to 5250	Pass
			-10	120	5179.980	5150 to 5250	Pass
			0	120	5180.000	5150 to 5250	Pass
			10	120	5179.940	5150 to 5250	Pass
30	120	5179.980	5150 to 5250	Pass			



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			40	120	5179.980	5150 to 5250	Pass		
			50	120	5179.940	5150 to 5250	Pass		
			20	102	5199.980	5150 to 5250	Pass		
				120	5199.940	5150 to 5250	Pass		
				138	5199.960	5150 to 5250	Pass		
			5200	-30	120	5199.960	5150 to 5250	Pass	
				-20	120	5199.960	5150 to 5250	Pass	
				-10	120	5199.960	5150 to 5250	Pass	
				0	120	5199.940	5150 to 5250	Pass	
				10	120	5199.940	5150 to 5250	Pass	
				30	120	5199.980	5150 to 5250	Pass	
				40	120	5200.000	5150 to 5250	Pass	
				50	120	5199.960	5150 to 5250	Pass	
				5240	20	102	5239.960	5150 to 5250	Pass
						120	5239.960	5150 to 5250	Pass
						138	5239.980	5150 to 5250	Pass
			-30		120	5239.940	5150 to 5250	Pass	
			-20		120	5240.000	5150 to 5250	Pass	
			-10		120	5239.960	5150 to 5250	Pass	
			0		120	5239.940	5150 to 5250	Pass	
			10		120	5239.940	5150 to 5250	Pass	
			30		120	5239.980	5150 to 5250	Pass	
			40		120	5239.960	5150 to 5250	Pass	
			50		120	5239.940	5150 to 5250	Pass	
			5745	20	102	5744.960	5725 to 5850	Pass	
					120	5744.960	5725 to 5850	Pass	
					138	5744.920	5725 to 5850	Pass	
				-30	120	5744.940	5725 to 5850	Pass	
				-20	120	5744.960	5725 to 5850	Pass	
				-10	120	5744.900	5725 to 5850	Pass	
				0	120	5745.000	5725 to 5850	Pass	
				10	120	5744.960	5725 to 5850	Pass	
				30	120	5744.940	5725 to 5850	Pass	
				40	120	5744.960	5725 to 5850	Pass	
				50	120	5744.940	5725 to 5850	Pass	
			5785	20	102	5784.900	5725 to 5850	Pass	
					120	5784.940	5725 to 5850	Pass	
					138	5784.920	5725 to 5850	Pass	
				-30	120	5784.940	5725 to 5850	Pass	
				-20	120	5784.900	5725 to 5850	Pass	
				-10	120	5784.940	5725 to 5850	Pass	
				0	120	5784.960	5725 to 5850	Pass	
				10	120	5784.900	5725 to 5850	Pass	
				30	120	5784.940	5725 to 5850	Pass	
				40	120	5784.940	5725 to 5850	Pass	
50	120	5784.940		5725 to 5850	Pass				
5825	20	102	5824.960	5725 to 5850	Pass				
		120	5824.960	5725 to 5850	Pass				
		138	5824.940	5725 to 5850	Pass				
	-30	120	5824.940	5725 to 5850	Pass				
	-20	120	5824.960	5725 to 5850	Pass				
	-10	120	5824.940	5725 to 5850	Pass				
	0	120	5824.900	5725 to 5850	Pass				
	10	120	5824.960	5725 to 5850	Pass				
	30	120	5824.980	5725 to 5850	Pass				



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			40	120	5824.960	5725 to 5850	Pass
			50	120	5824.940	5725 to 5850	Pass
802.11ac (VHT40)	SISO	5190	20	102	5189.960	5150 to 5250	Pass
				120	5189.920	5150 to 5250	Pass
				138	5189.880	5150 to 5250	Pass
			-30	120	5189.960	5150 to 5250	Pass
			-20	120	5190.000	5150 to 5250	Pass
			-10	120	5190.000	5150 to 5250	Pass
			0	120	5189.880	5150 to 5250	Pass
			10	120	5190.000	5150 to 5250	Pass
			30	120	5189.920	5150 to 5250	Pass
			40	120	5189.920	5150 to 5250	Pass
		50	120	5190.000	5150 to 5250	Pass	
		5230	20	102	5229.880	5150 to 5250	Pass
				120	5229.960	5150 to 5250	Pass
				138	5229.960	5150 to 5250	Pass
			-30	120	5229.920	5150 to 5250	Pass
			-20	120	5229.960	5150 to 5250	Pass
			-10	120	5229.920	5150 to 5250	Pass
			0	120	5229.920	5150 to 5250	Pass
			10	120	5229.920	5150 to 5250	Pass
			30	120	5230.000	5150 to 5250	Pass
			40	120	5230.000	5150 to 5250	Pass
		50	120	5229.920	5150 to 5250	Pass	
		5755	20	102	5754.920	5725 to 5850	Pass
				120	5754.920	5725 to 5850	Pass
				138	5754.920	5725 to 5850	Pass
			-30	120	5754.880	5725 to 5850	Pass
			-20	120	5755.000	5725 to 5850	Pass
			-10	120	5754.920	5725 to 5850	Pass
			0	120	5754.920	5725 to 5850	Pass
			10	120	5754.960	5725 to 5850	Pass
			30	120	5754.920	5725 to 5850	Pass
			40	120	5754.920	5725 to 5850	Pass
		50	120	5754.960	5725 to 5850	Pass	
		5795	20	102	5795.000	5725 to 5850	Pass
				120	5794.880	5725 to 5850	Pass
				138	5794.880	5725 to 5850	Pass
			-30	120	5794.920	5725 to 5850	Pass
			-20	120	5794.960	5725 to 5850	Pass
			-10	120	5794.920	5725 to 5850	Pass
			0	120	5794.920	5725 to 5850	Pass
10	120		5794.920	5725 to 5850	Pass		
30	120		5794.960	5725 to 5850	Pass		
40	120		5794.880	5725 to 5850	Pass		
50	120	5794.960	5725 to 5850	Pass			
802.11ac (VHT80)	SISO	5210	20	102	5210.000	5150 to 5250	Pass
				120	5209.850	5150 to 5250	Pass
				138	5209.925	5150 to 5250	Pass
			-30	120	5209.850	5150 to 5250	Pass
			-20	120	5210.000	5150 to 5250	Pass
			-10	120	5210.000	5150 to 5250	Pass
			0	120	5210.000	5150 to 5250	Pass
			10	120	5210.000	5150 to 5250	Pass
30	120	5210.000	5150 to 5250	Pass			



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	5775	40	120	5209.925	5150 to 5250	Pass
		50	120	5209.925	5150 to 5250	Pass
		20	102	5774.925	5725 to 5850	Pass
			120	5774.925	5725 to 5850	Pass
			138	5774.925	5725 to 5850	Pass
		-30	120	5774.850	5725 to 5850	Pass
		-20	120	5774.850	5725 to 5850	Pass
		-10	120	5774.850	5725 to 5850	Pass
		0	120	5774.850	5725 to 5850	Pass
		10	120	5774.925	5725 to 5850	Pass
		30	120	5774.925	5725 to 5850	Pass
		40	120	5775.000	5725 to 5850	Pass
		50	120	5775.000	5725 to 5850	Pass



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