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Annex for 5G Wi-Fi BAND1

Test Report No.: CTL2506093036-WF04

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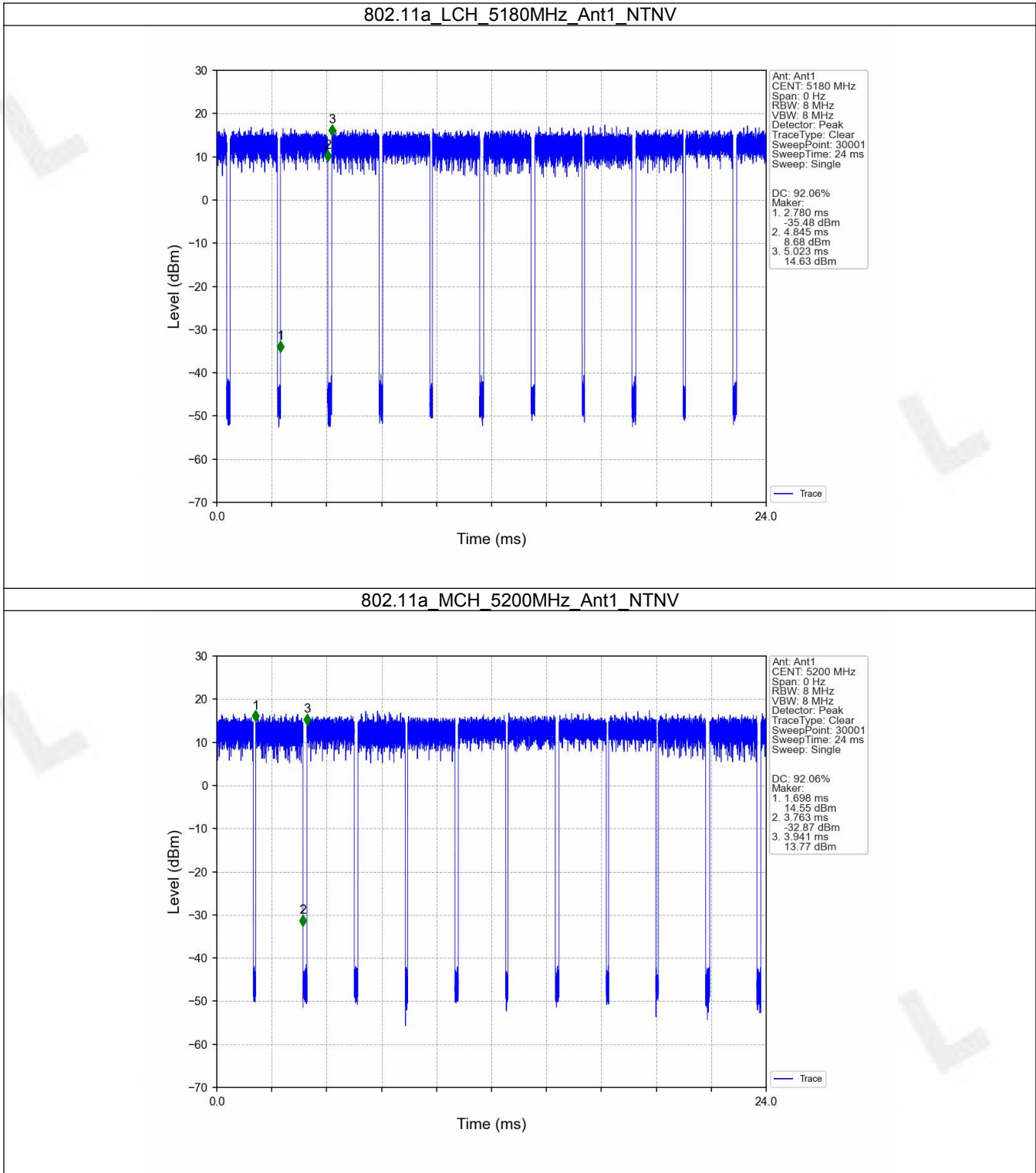
1. Duty Cycle**1.1 Test Result****1.1.1 Ant1**

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	2.065	2.243	92.06	0.36	3.13
		5200	2.065	2.243	92.06	0.36	3.06
		5240	2.065	2.233	92.48	0.34	2.70
802.11n (HT20)	SISO	5180	1.925	2.102	91.58	0.38	3.69
		5200	1.925	2.102	91.58	0.38	3.24
		5240	1.925	2.103	91.54	0.38	3.24
802.11n (HT40)	SISO	5190	0.949	1.126	84.28	0.74	6.53
		5230	0.949	1.126	84.28	0.74	6.50
802.11ac (VHT20)	SISO	5180	1.934	2.112	91.57	0.38	3.26
		5200	1.934	2.102	92.01	0.36	2.88
		5240	1.933	2.093	92.36	0.35	2.46
802.11ac (VHT40)	SISO	5190	0.953	1.121	85.01	0.71	5.86
		5230	0.953	1.130	84.34	0.74	6.48
802.11ac (VHT80)	SISO	5210	0.464	0.633	73.30	1.35	8.14

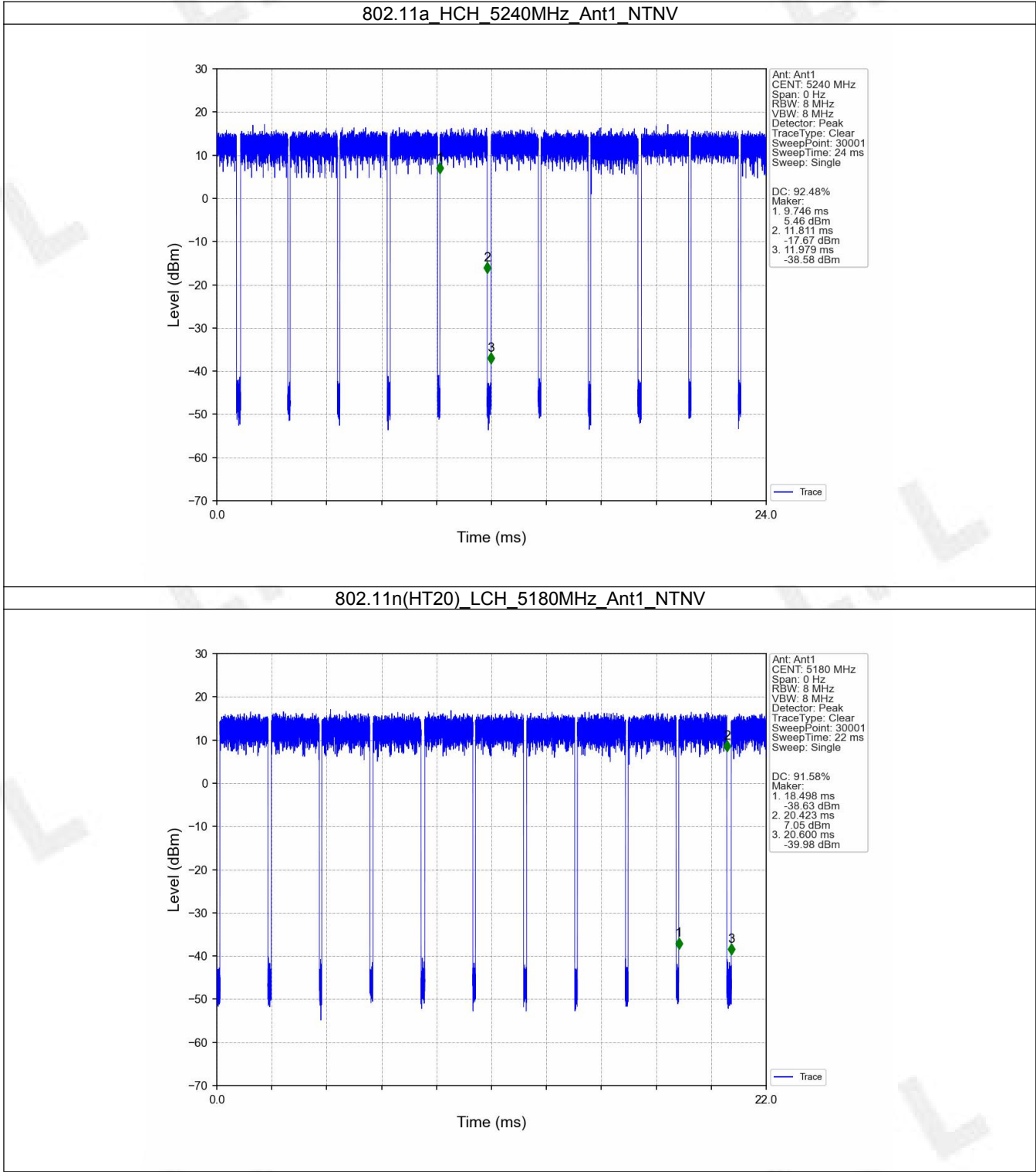
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1.2 Test Graph

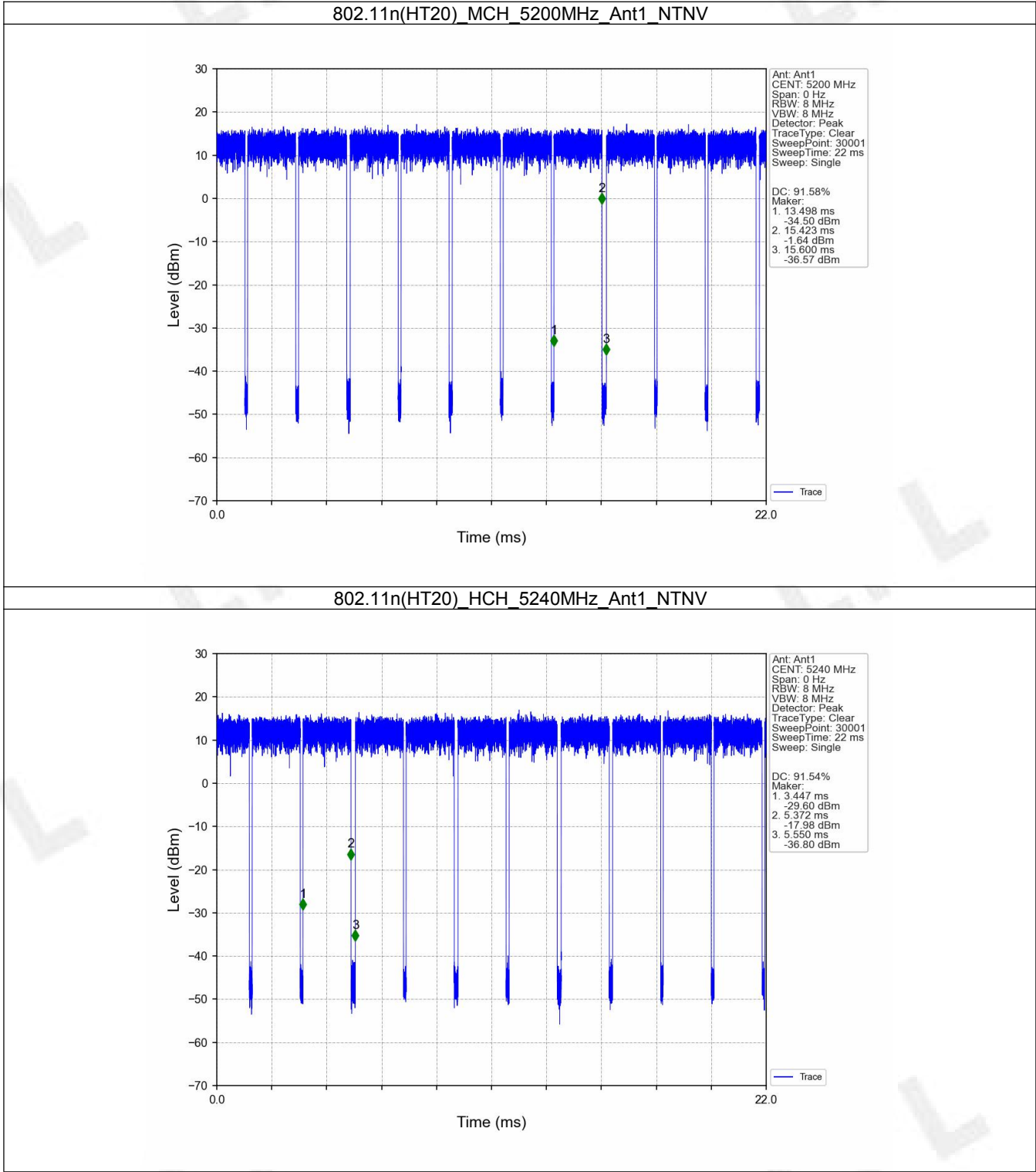
1.2.1 Ant1



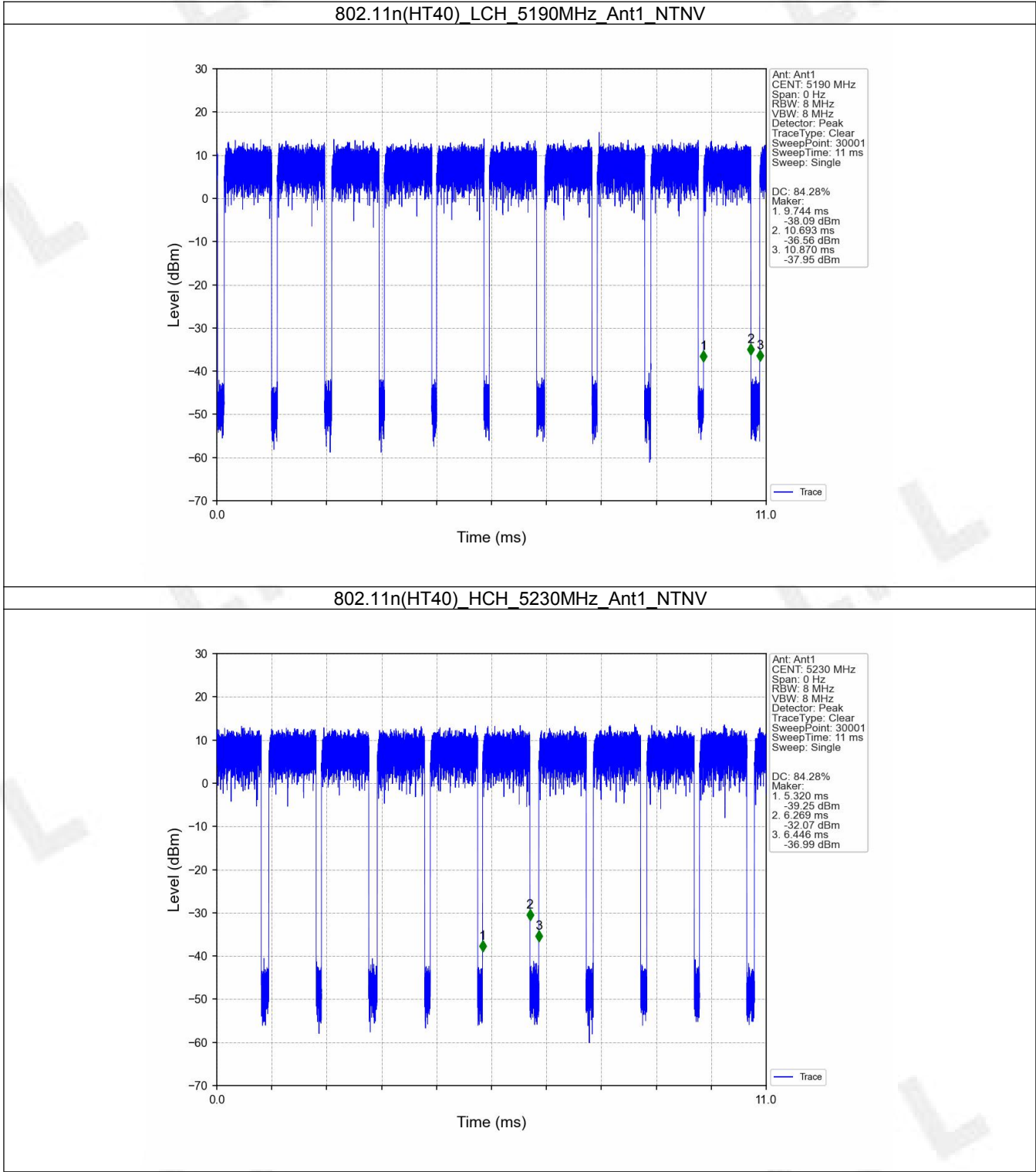
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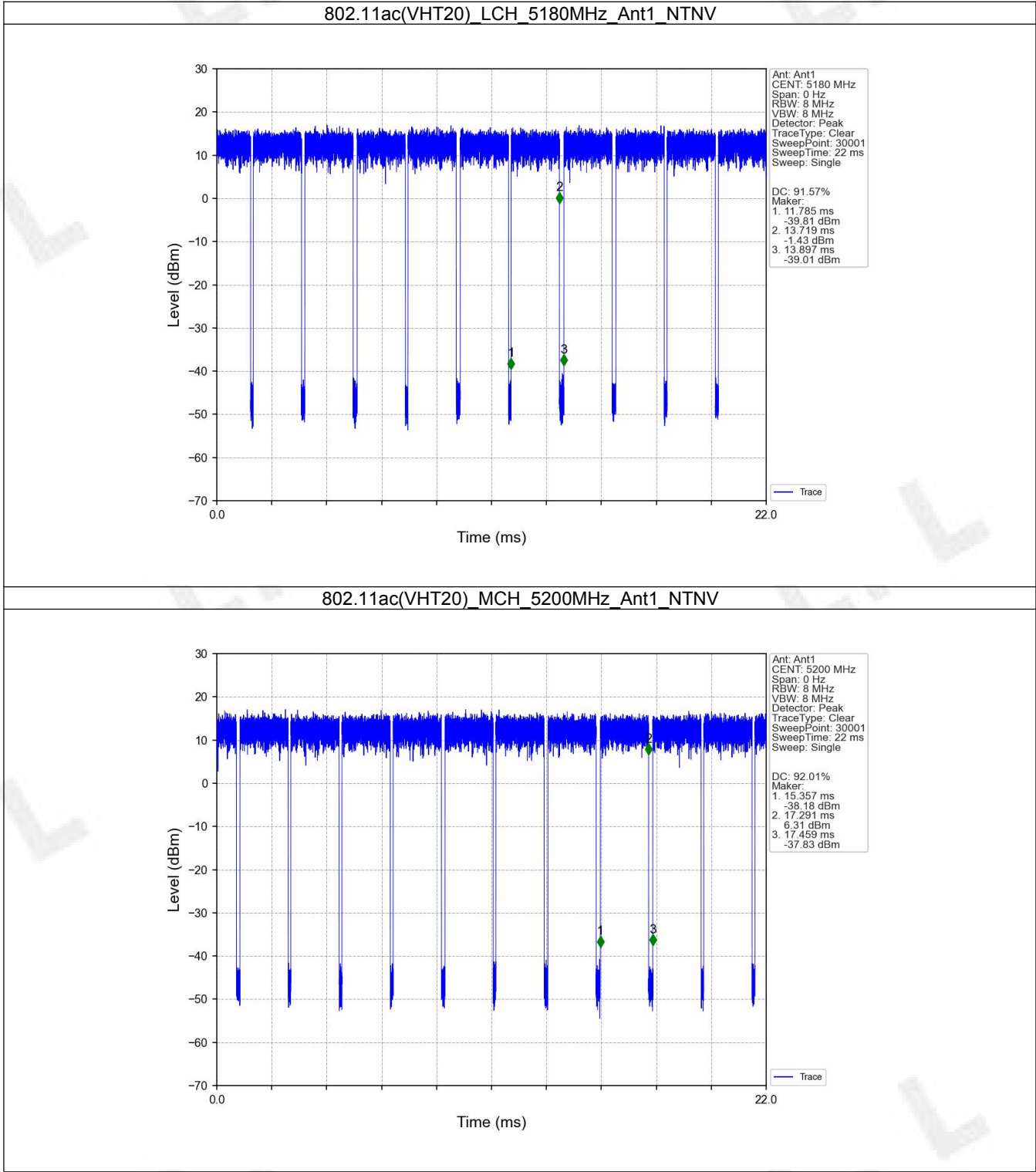
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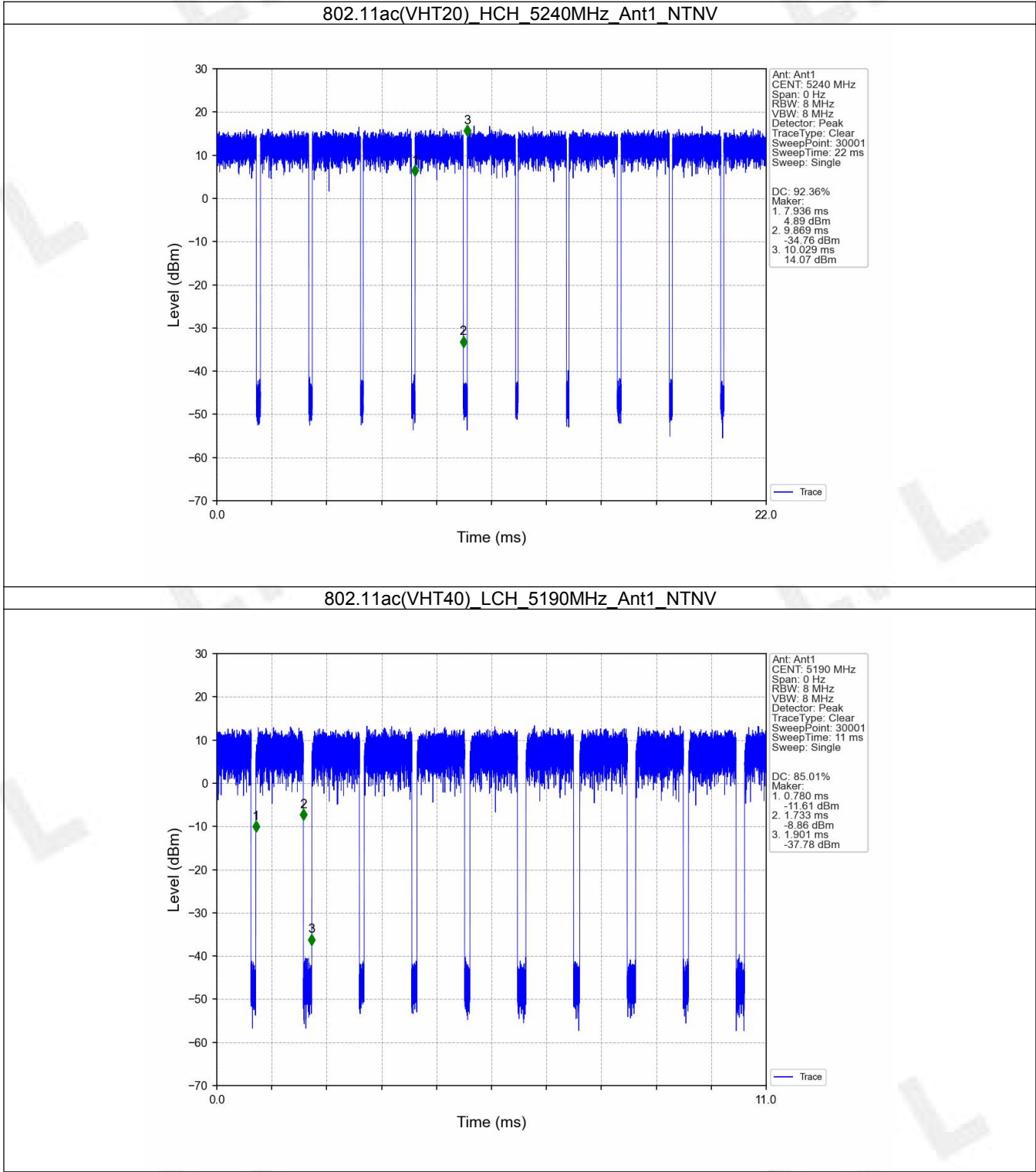
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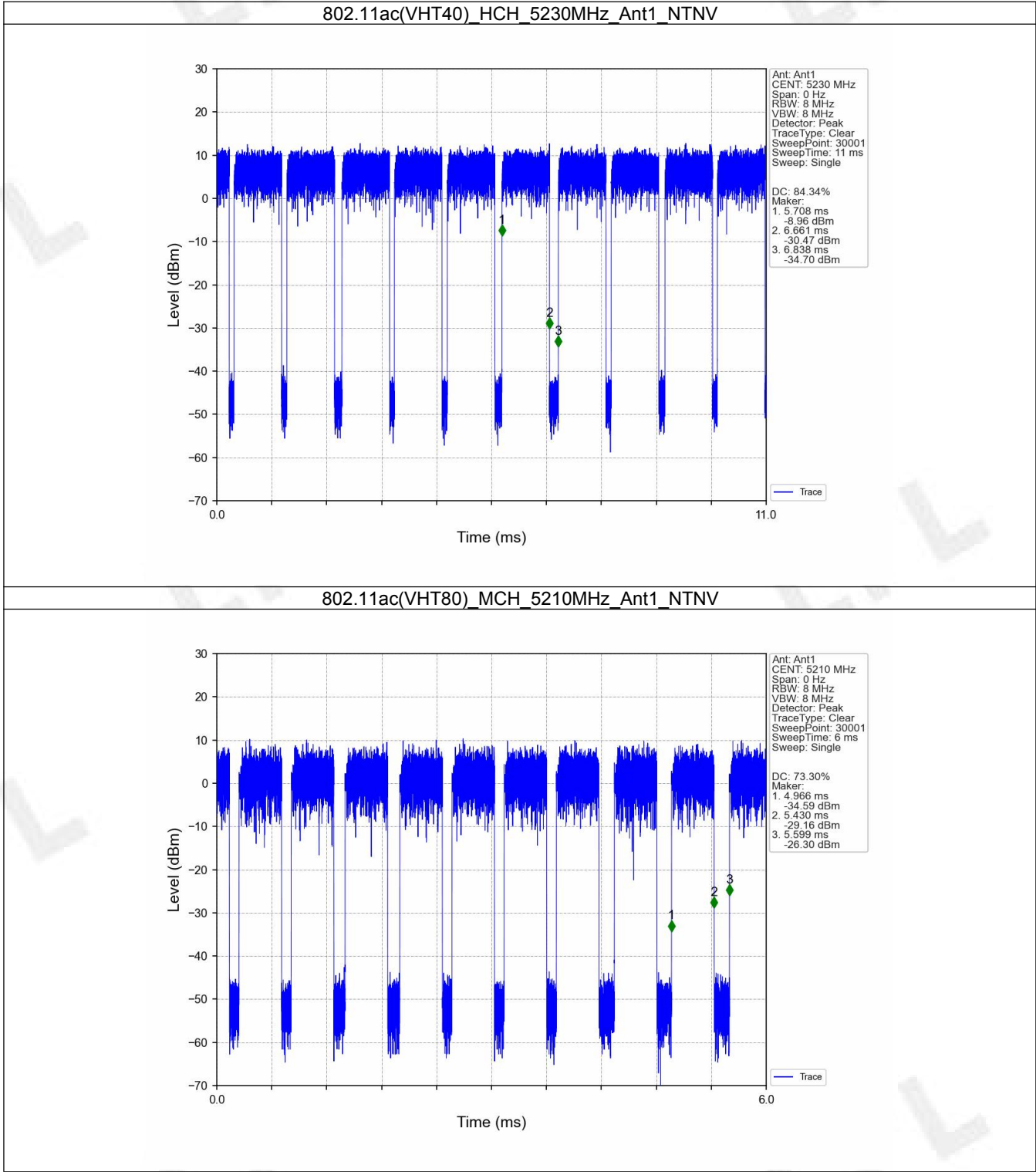
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2. Bandwidth**2.1 Test Result****2.1.1 OBW**

Mode	TX Type	Frequency (MHz)	ANT	99% Occupied Bandwidth (MHz)		Verdict
				Result	Limit	
802.11a	SISO	5180	1	17.056	/	Pass
		5200	1	17.036	/	Pass
		5240	1	16.986	/	Pass
802.11n (HT20)	SISO	5180	1	18.047	/	Pass
		5200	1	18.035	/	Pass
		5240	1	17.951	/	Pass
802.11n (HT40)	SISO	5190	1	36.476	/	Pass
		5230	1	36.403	/	Pass
802.11ac (VHT20)	SISO	5180	1	18.008	/	Pass
		5200	1	17.954	/	Pass
		5240	1	17.946	/	Pass
802.11ac (VHT40)	SISO	5190	1	36.316	/	Pass
		5230	1	36.286	/	Pass
802.11ac (VHT80)	SISO	5210	1	75.122	/	Pass

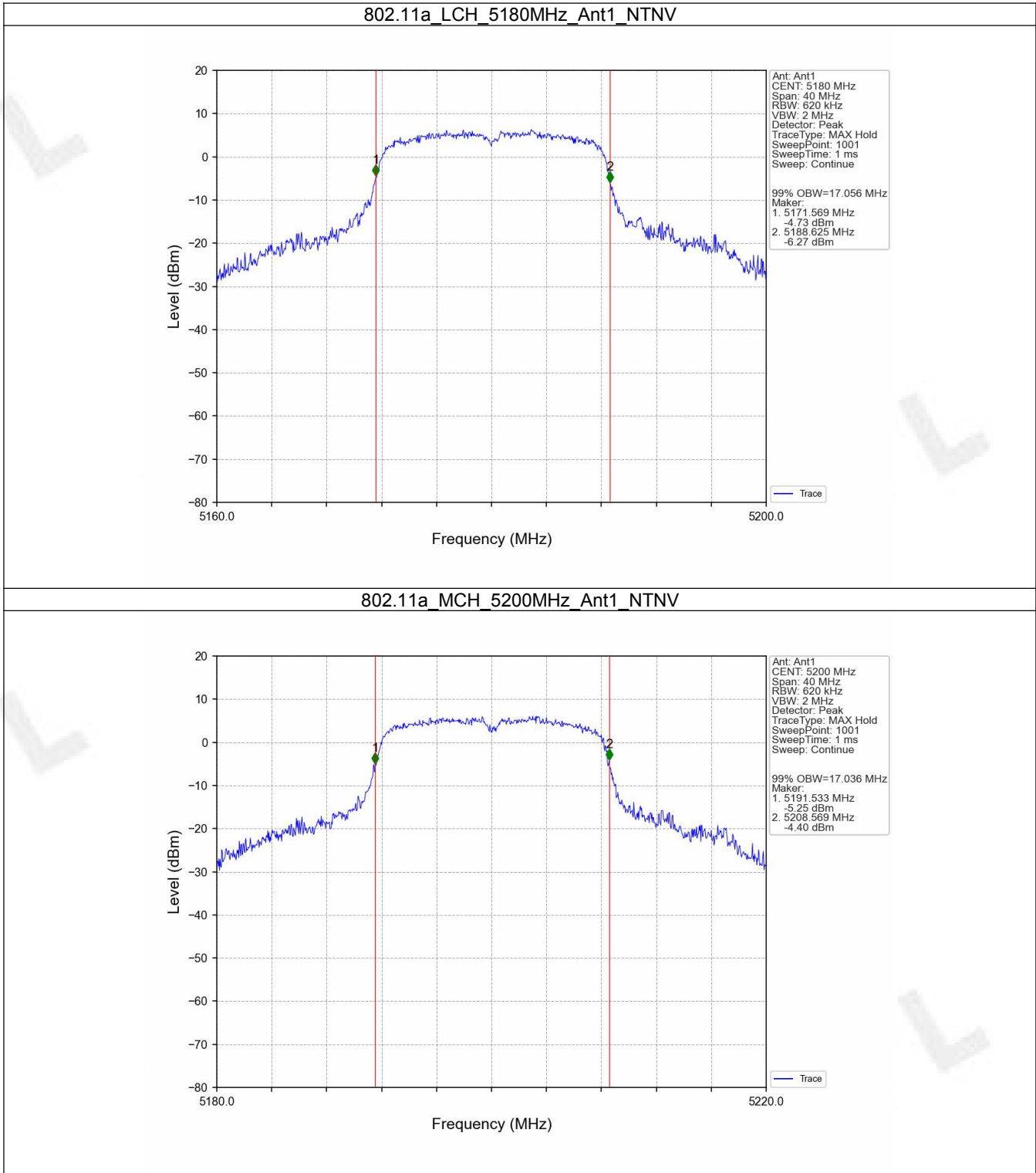
2.1.2 26dB BW

Mode	TX Type	Frequency (MHz)	ANT	26dB Bandwidth (MHz)		Verdict
				Result	Limit	
802.11a	SISO	5180	1	28.421	/	Pass
		5200	1	28.988	/	Pass
		5240	1	27.490	/	Pass
802.11n (HT20)	SISO	5180	1	27.876	/	Pass
		5200	1	27.503	/	Pass
		5240	1	27.479	/	Pass
802.11n (HT40)	SISO	5190	1	52.599	/	Pass
		5230	1	49.970	/	Pass
802.11ac (VHT20)	SISO	5180	1	29.927	/	Pass
		5200	1	29.232	/	Pass
		5240	1	28.875	/	Pass
802.11ac (VHT40)	SISO	5190	1	48.703	/	Pass
		5230	1	46.560	/	Pass
802.11ac (VHT80)	SISO	5210	1	86.192	/	Pass

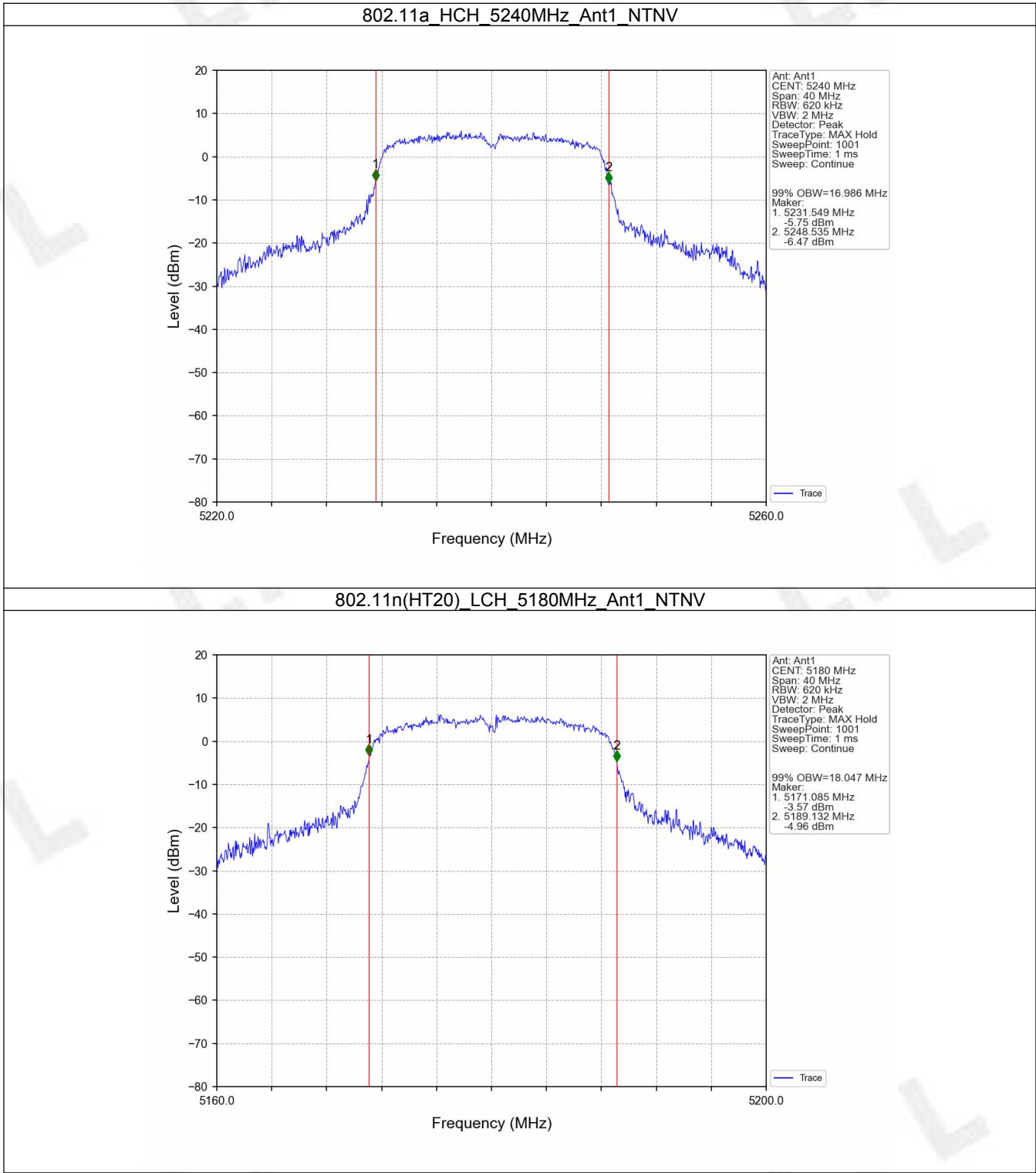
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2.2 Test Graph

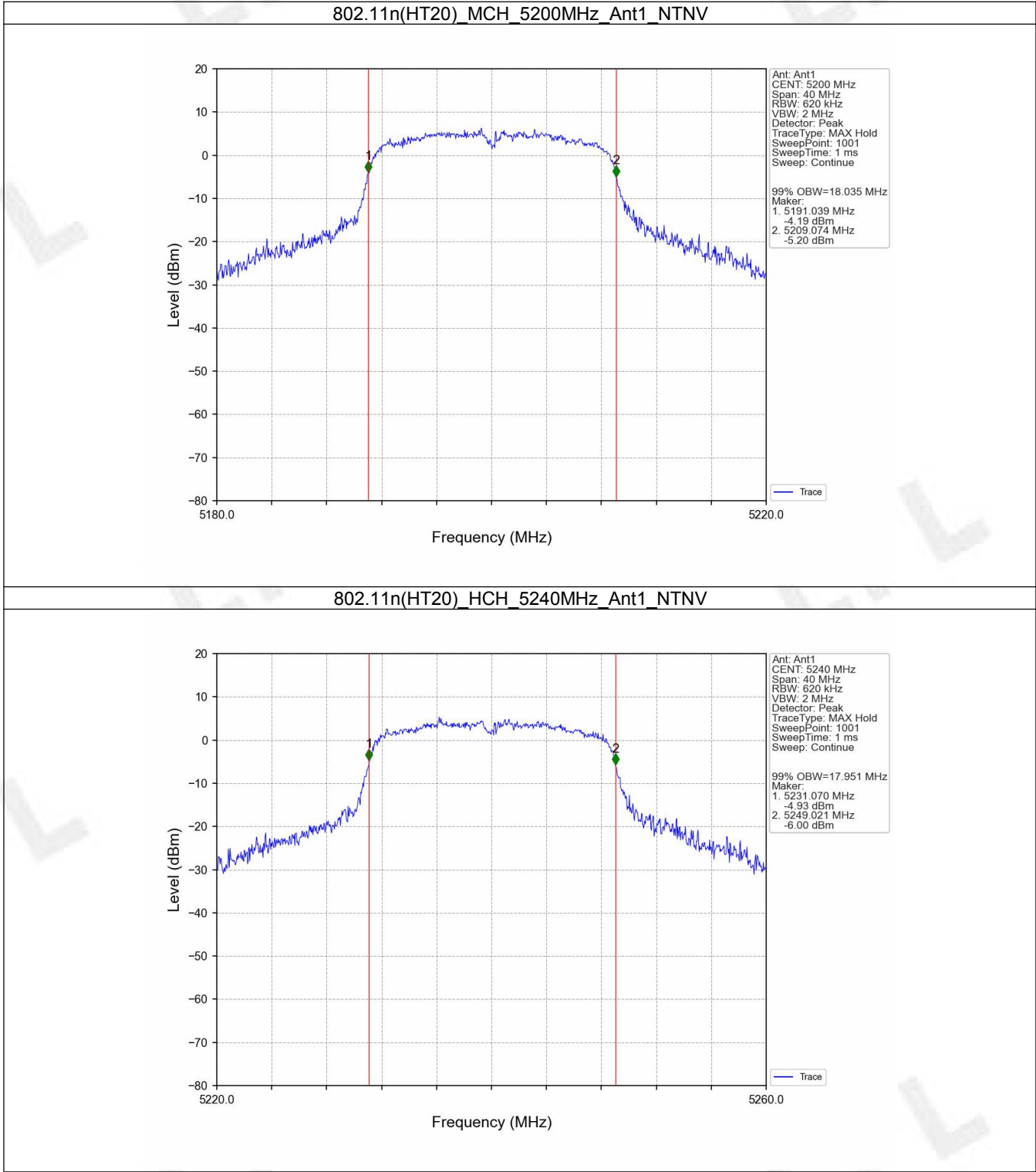
2.2.1 OBW



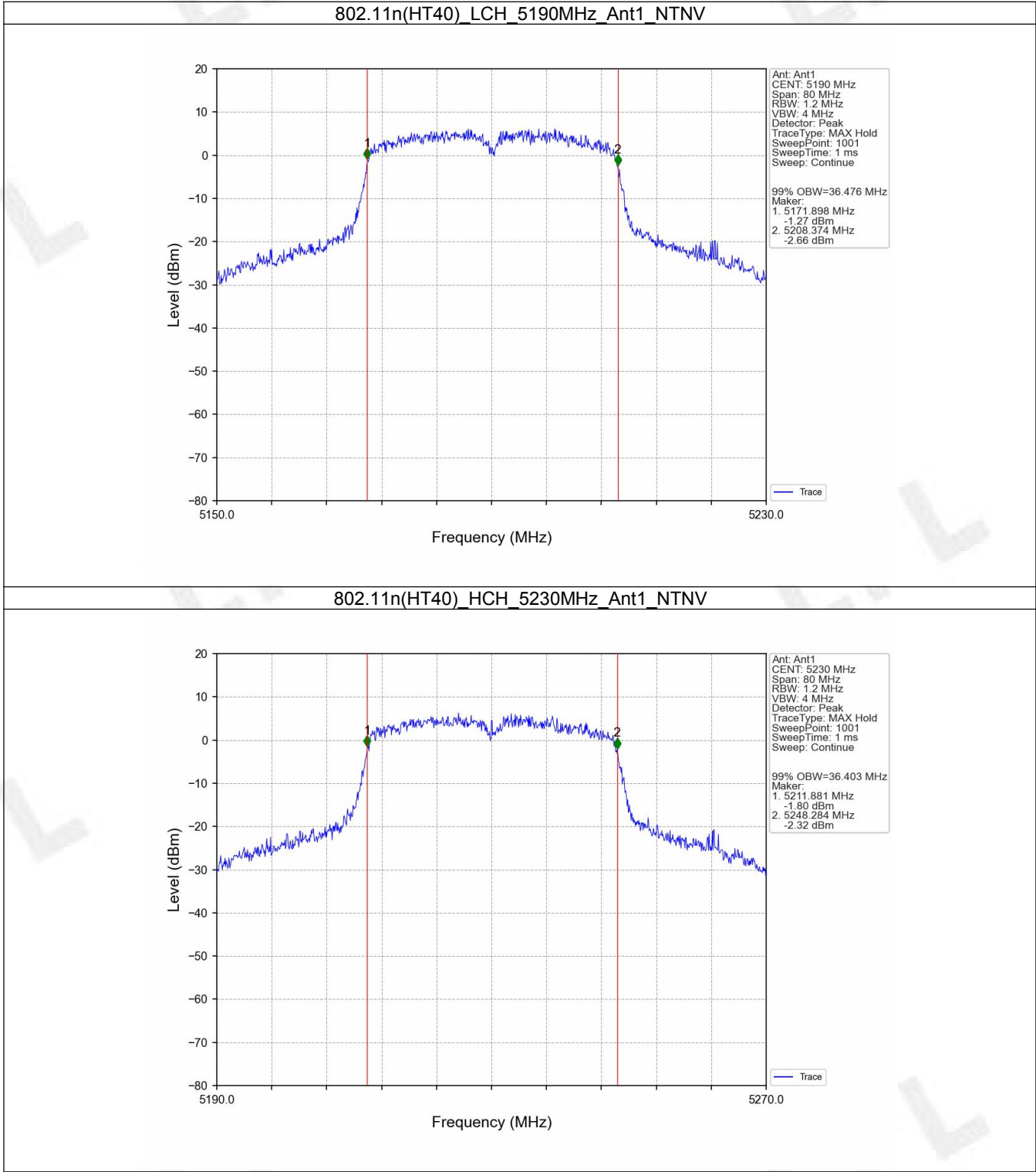
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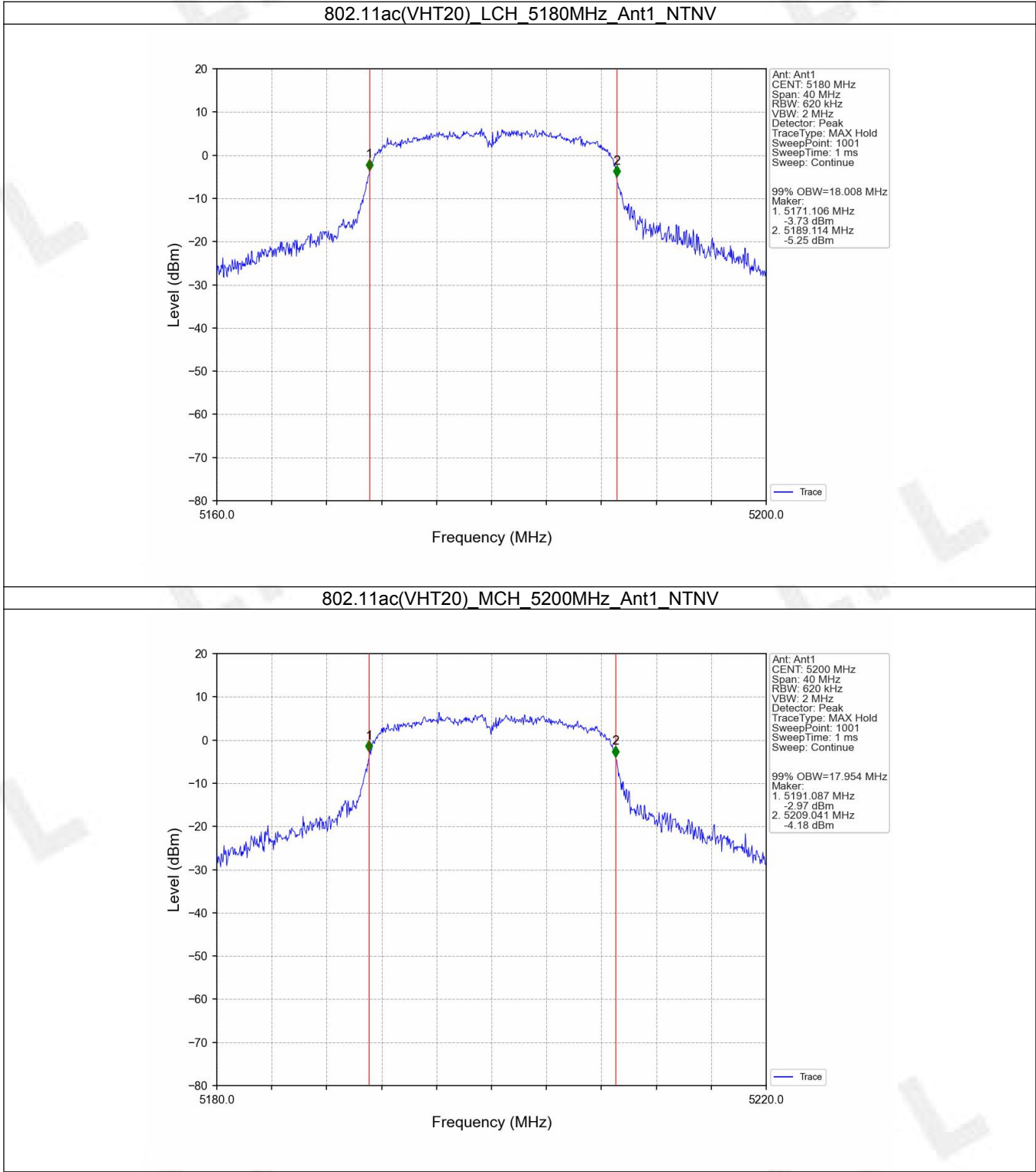
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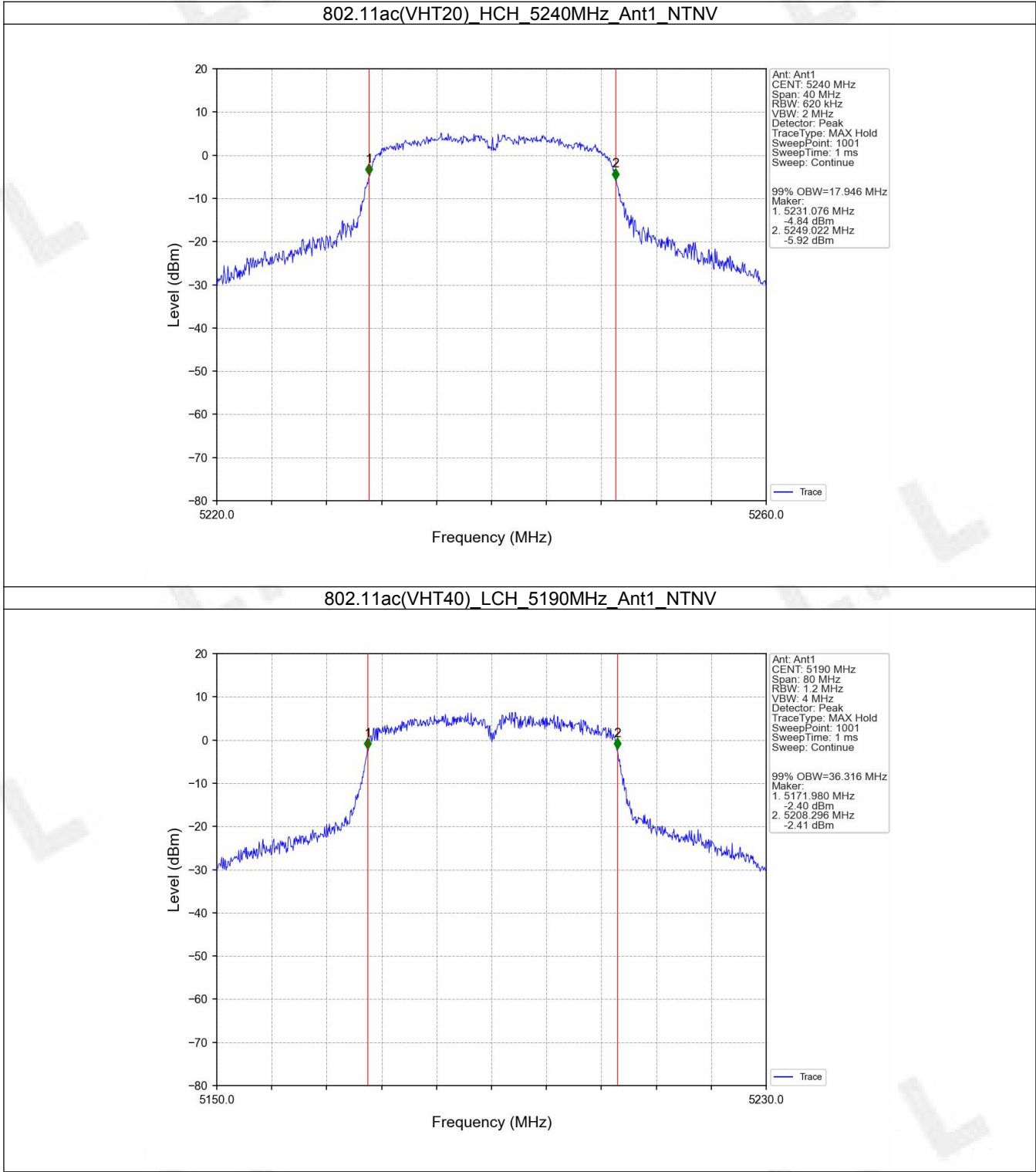
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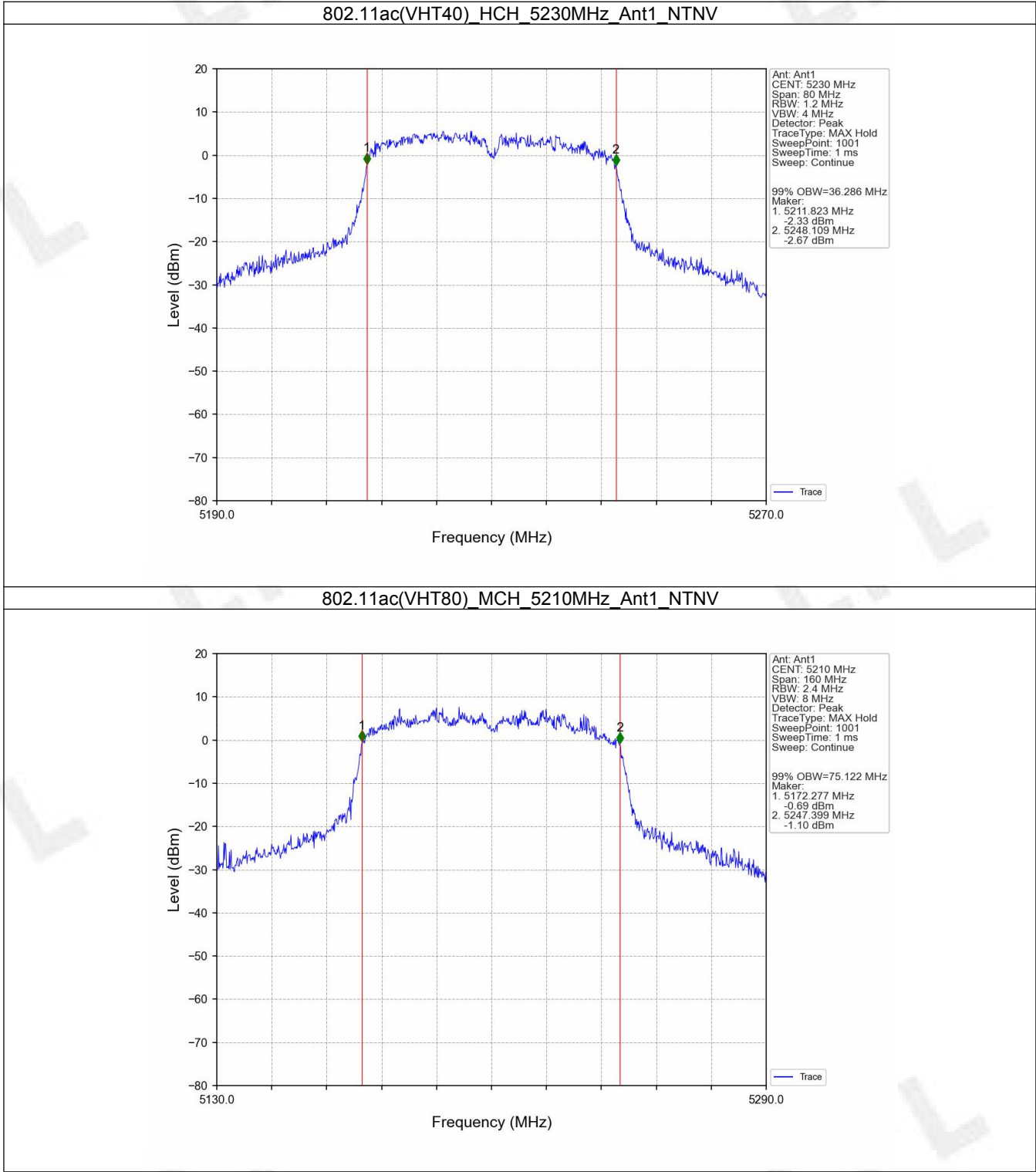
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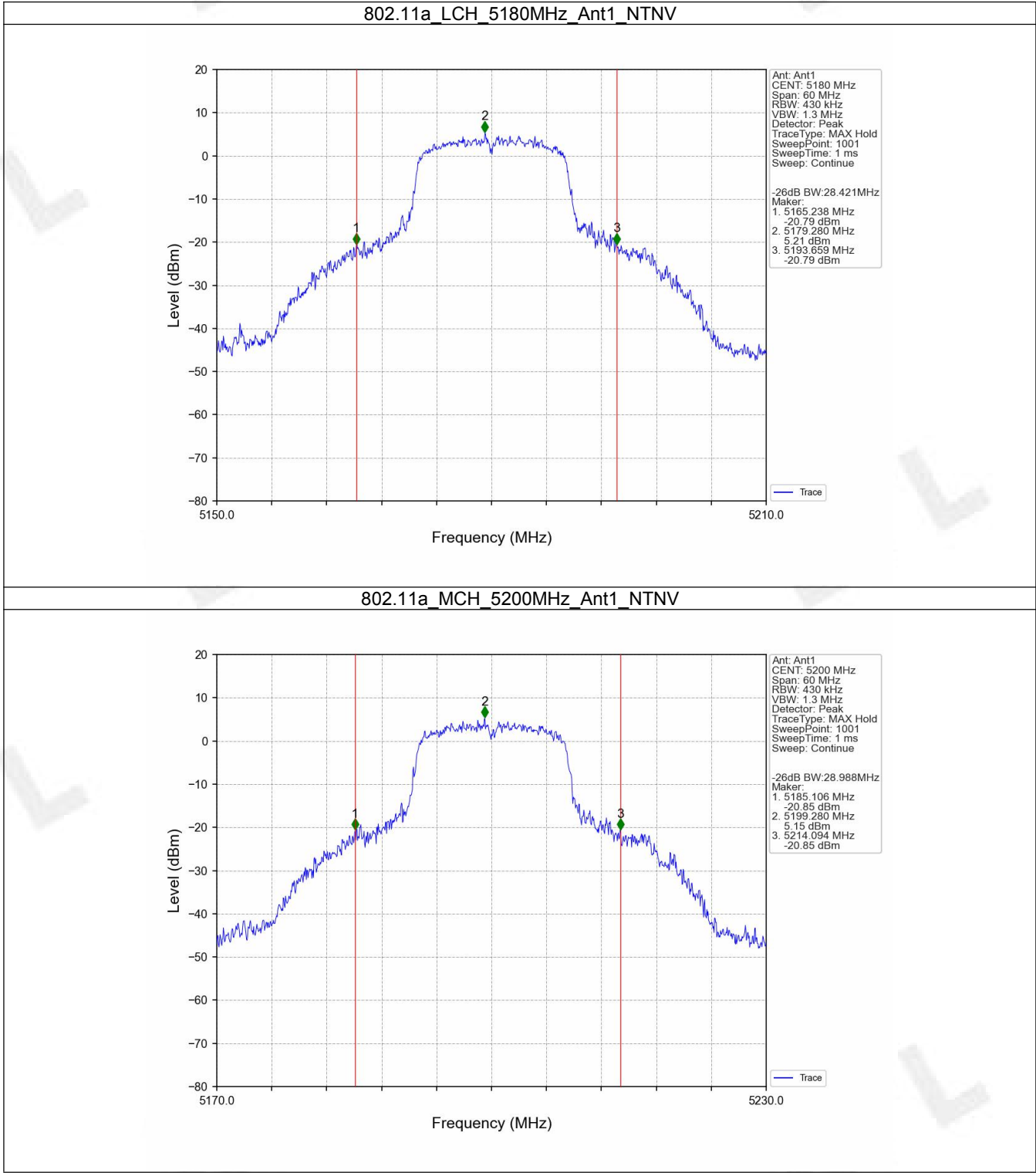


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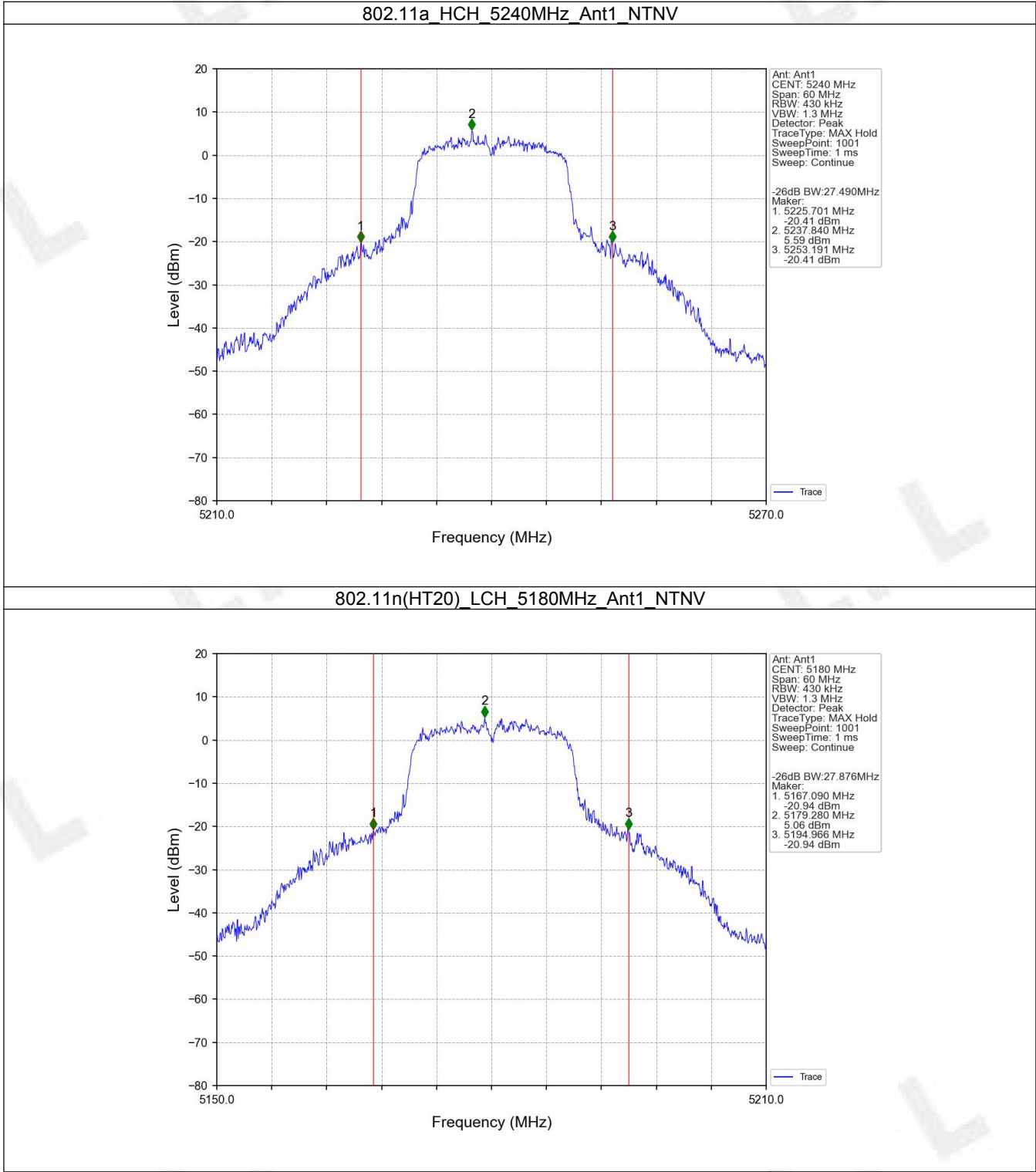


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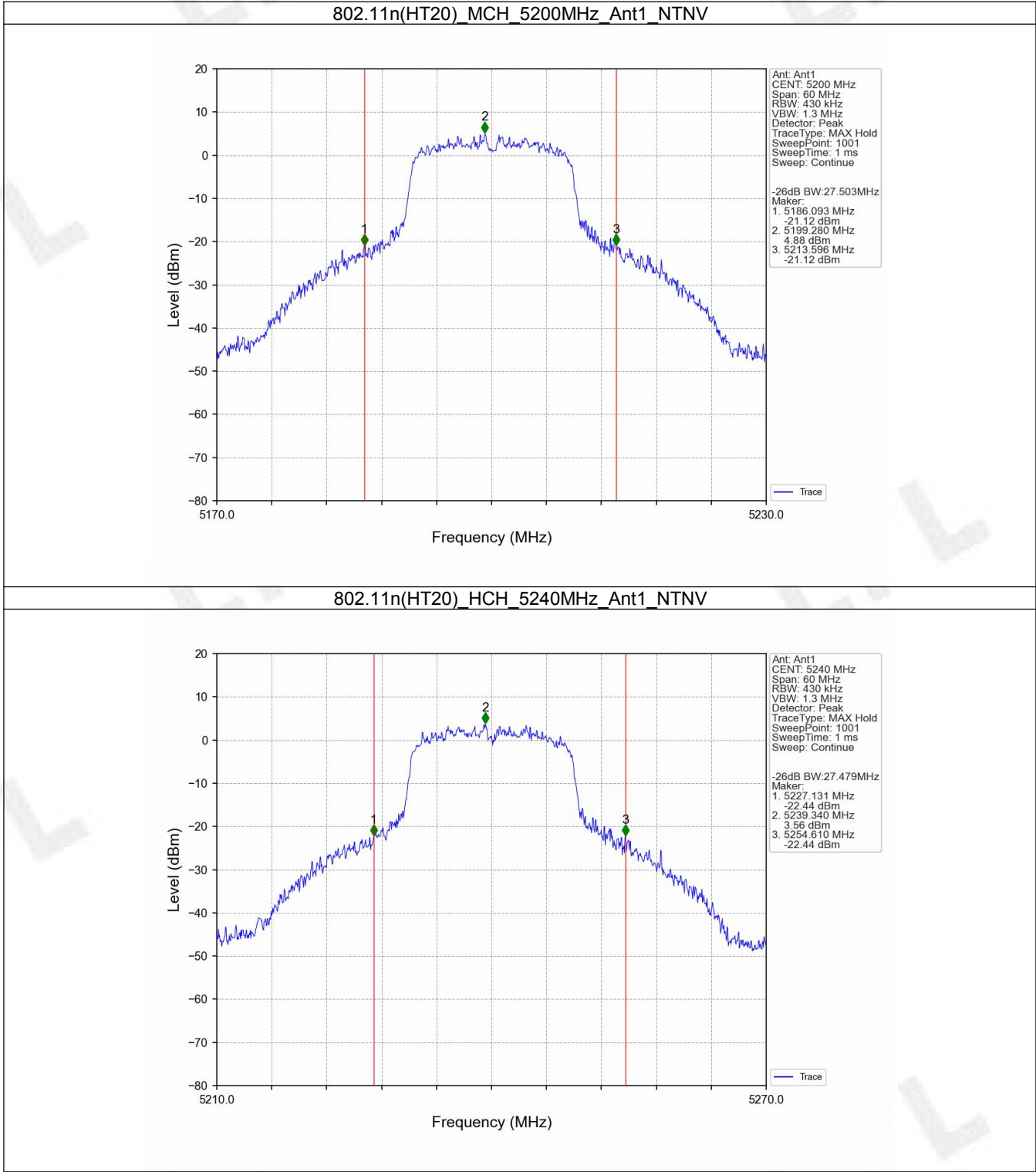
2.2.2 26dB BW



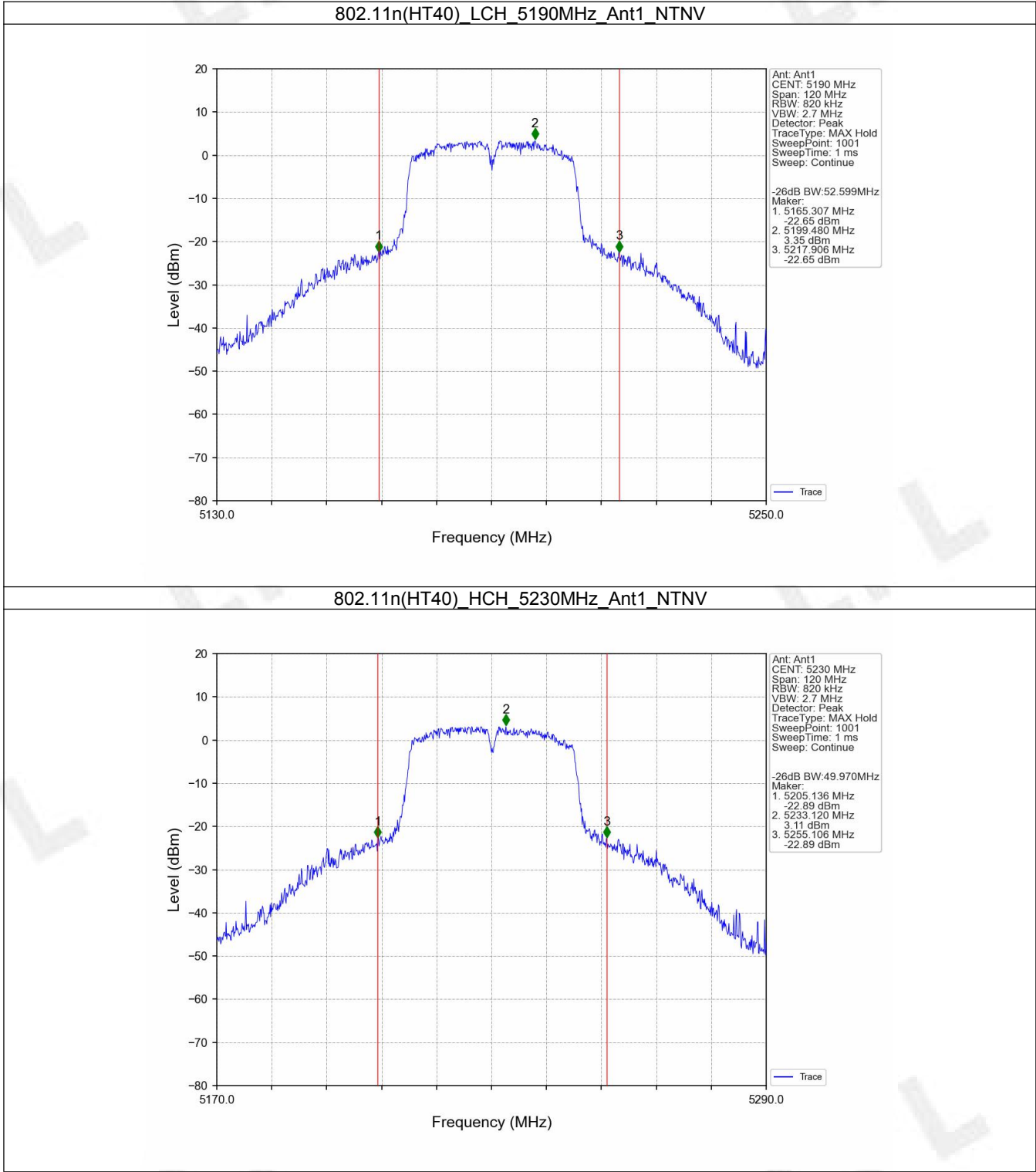
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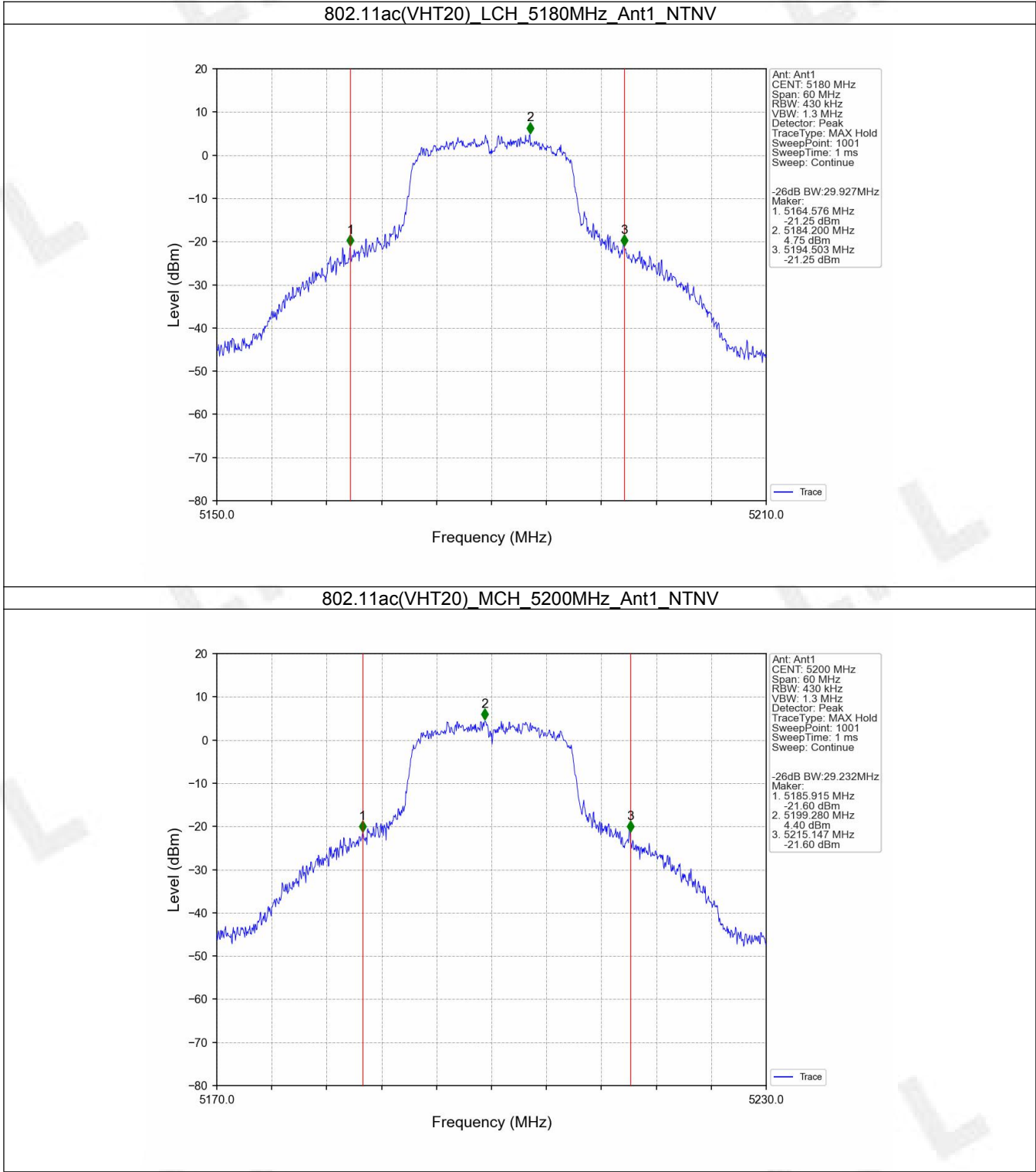
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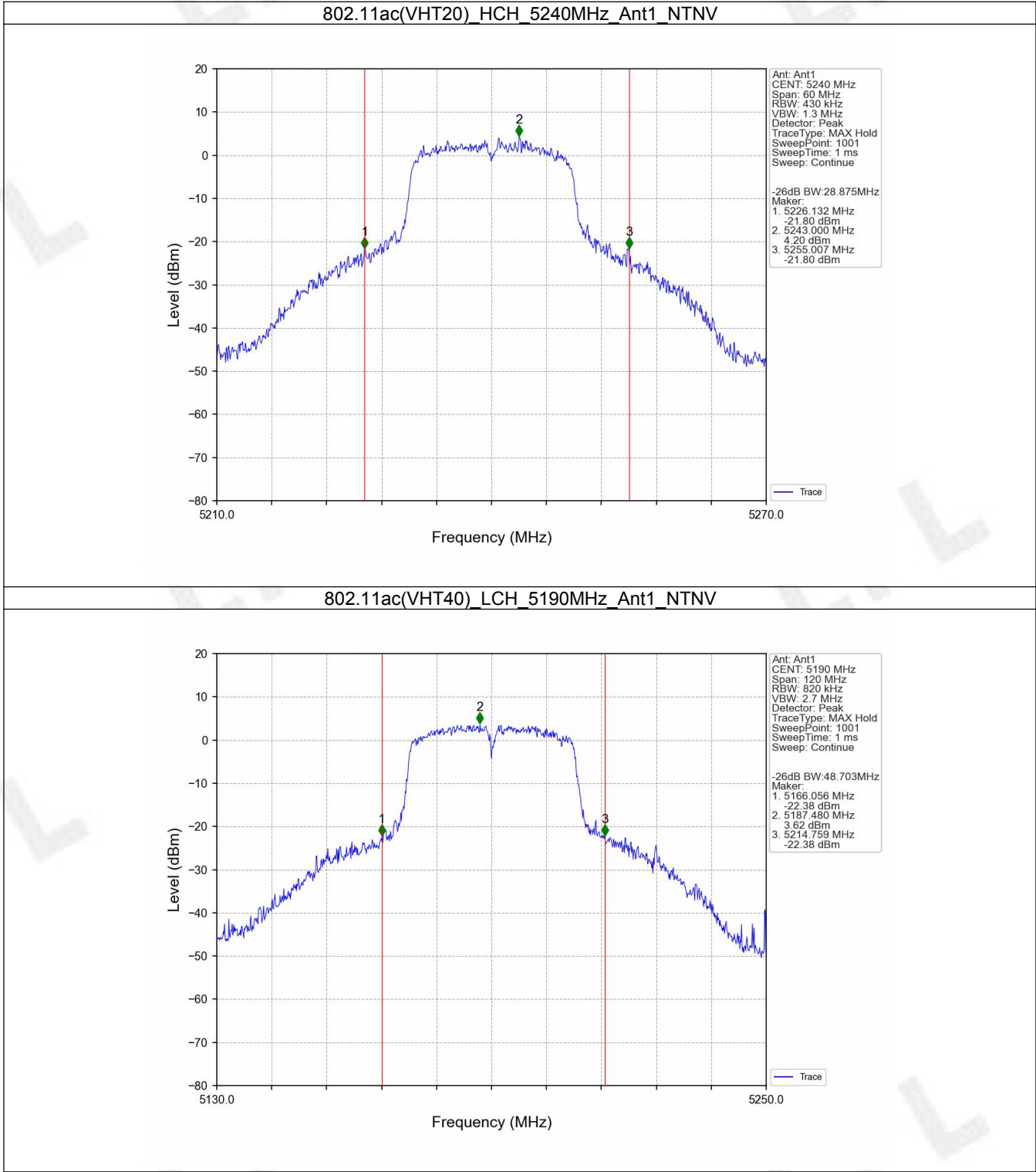
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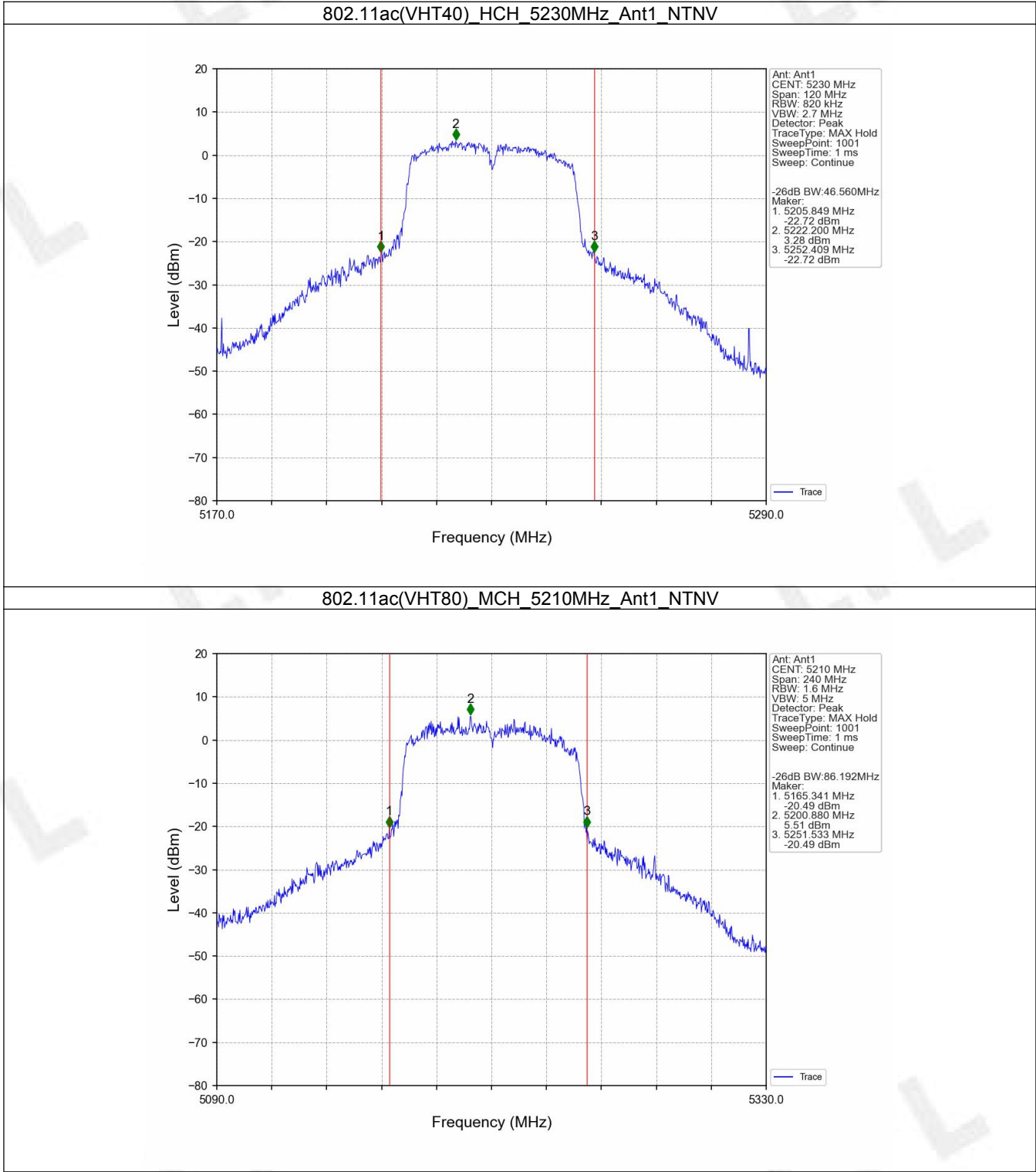
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FCCID: 2BQV3-AL16

3. Maximum Conducted Output Power**3.1 Test Result****3.1.1 Power**

Mode	TX Type	Frequency (MHz)	Maximum Average Conducted Output Power (dBm)			Verdict
			Duty Cycle Correction Factor (dB)	ANT1	Limit	
802.11a	SISO	5180	0.36	11.76	<=30	Pass
		5200	0.36	11.82	<=30	Pass
		5240	0.34	11.31	<=30	Pass
802.11n (HT20)	SISO	5180	0.38	11.58	<=30	Pass
		5200	0.38	11.63	<=30	Pass
		5240	0.38	10.51	<=30	Pass
802.11n (HT40)	SISO	5190	0.74	10.71	<=30	Pass
		5230	0.74	10.47	<=30	Pass
802.11ac (VHT20)	SISO	5180	0.38	11.58	<=30	Pass
		5200	0.36	11.62	<=30	Pass
		5240	0.35	10.77	<=30	Pass
802.11ac (VHT40)	SISO	5190	0.71	10.98	<=30	Pass
		5230	0.74	10.22	<=30	Pass
802.11ac (VHT80)	SISO	5210	1.35	10.08	<=30	Pass
Note1: Antenna Gain: Ant1: 2.58dBi; Note 2: Maximum Average Conducted Output Power=DCCF+Maker;						

FCCID: 2BQV3-AL16

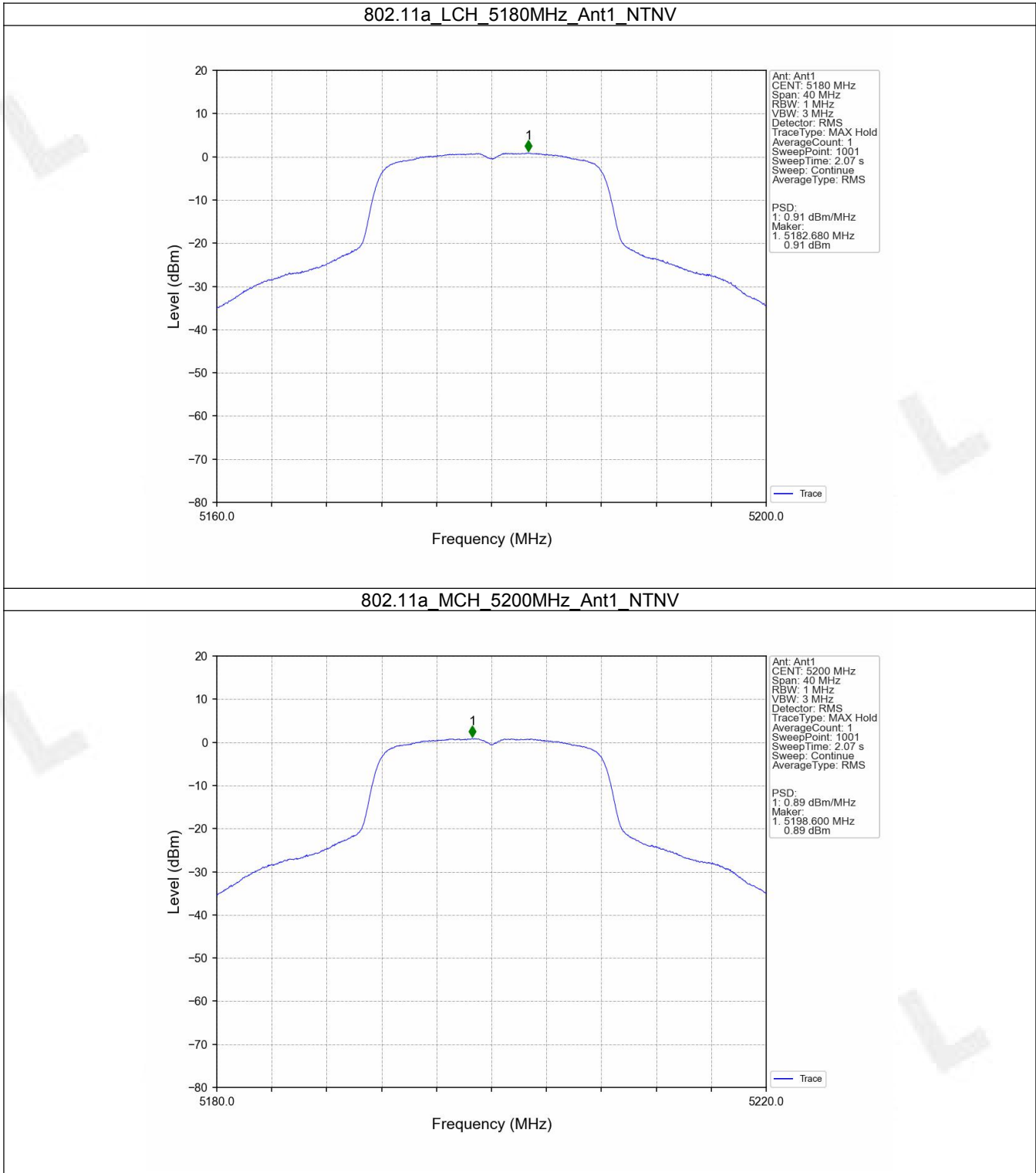
4. Maximum Power Spectral Density**4.1 Test Result****4.1.1 PSD**

Mode	TX Type	Frequency (MHz)	Maximum PSD (dBm/MHz)			Verdict
			Duty Cycle Correction Factor (dB)	ANT1	Limit	
802.11a	SISO	5180	0.36	1.27	<=17	Pass
		5200	0.36	1.25	<=17	Pass
		5240	0.34	0.73	<=17	Pass
802.11n (HT20)	SISO	5180	0.38	0.90	<=17	Pass
		5200	0.38	0.81	<=17	Pass
		5240	0.38	-0.24	<=17	Pass
802.11n (HT40)	SISO	5190	0.74	-2.76	<=17	Pass
		5230	0.74	-2.81	<=17	Pass
802.11ac (VHT20)	SISO	5180	0.38	0.89	<=17	Pass
		5200	0.36	0.80	<=17	Pass
		5240	0.35	-0.01	<=17	Pass
802.11ac (VHT40)	SISO	5190	0.71	-2.42	<=17	Pass
		5230	0.74	-2.92	<=17	Pass
802.11ac (VHT80)	SISO	5210	1.35	-5.57	<=17	Pass
Note1: Antenna Gain: Ant1: 2.58dBi; Note 2: Maximum PSD=DCCF+Maker;						

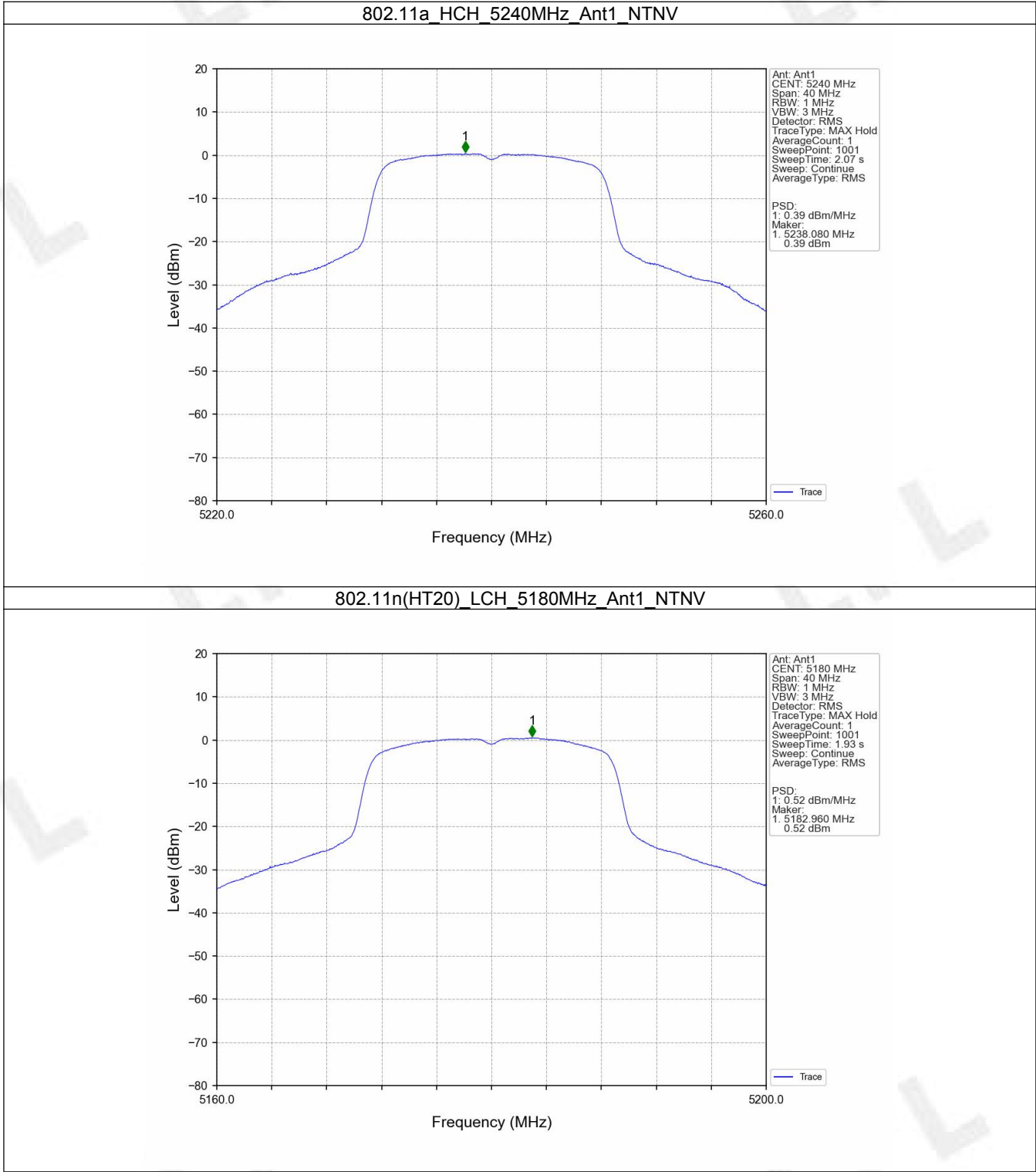
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4.2 Test Graph

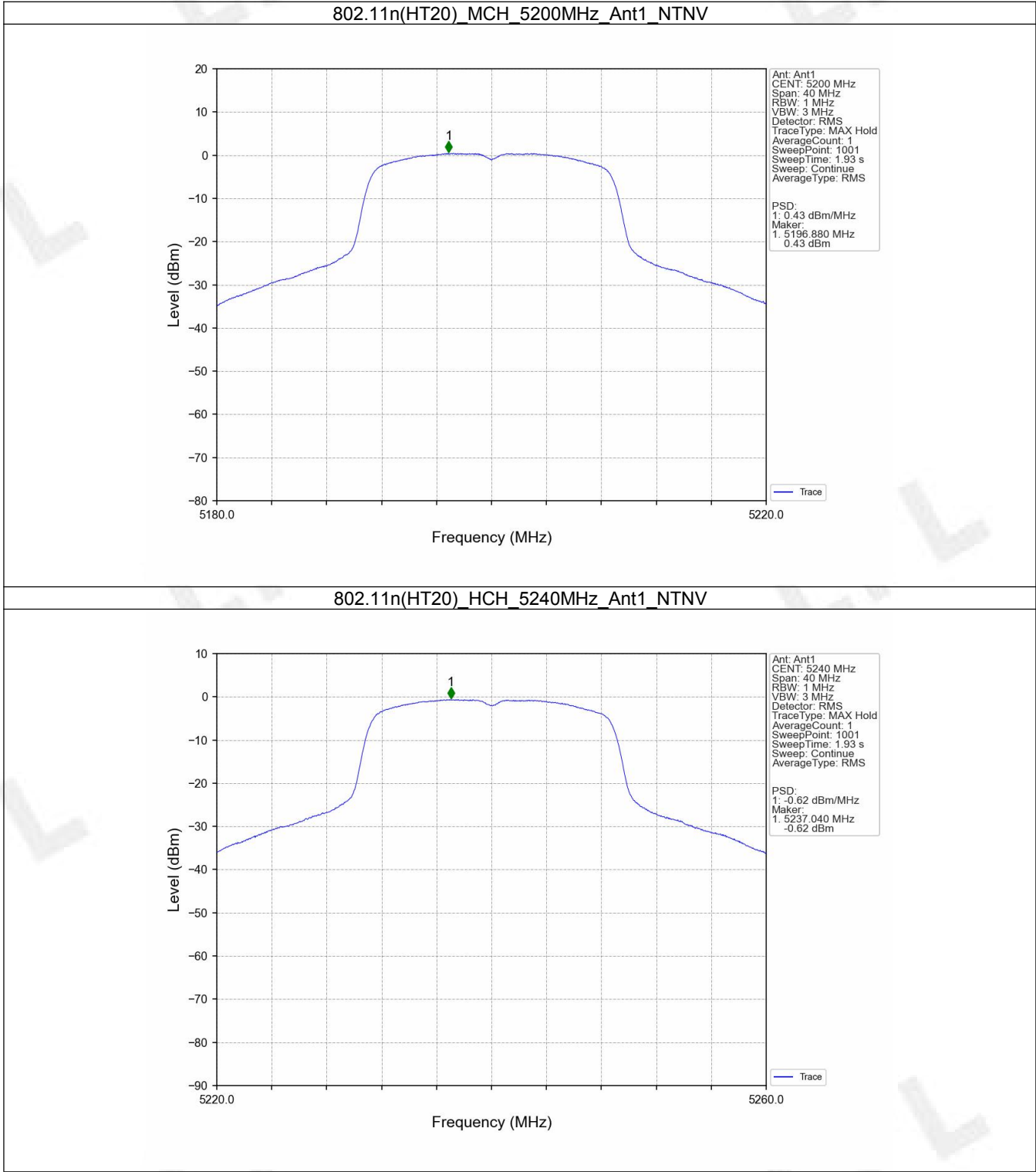
4.2.1 PSD



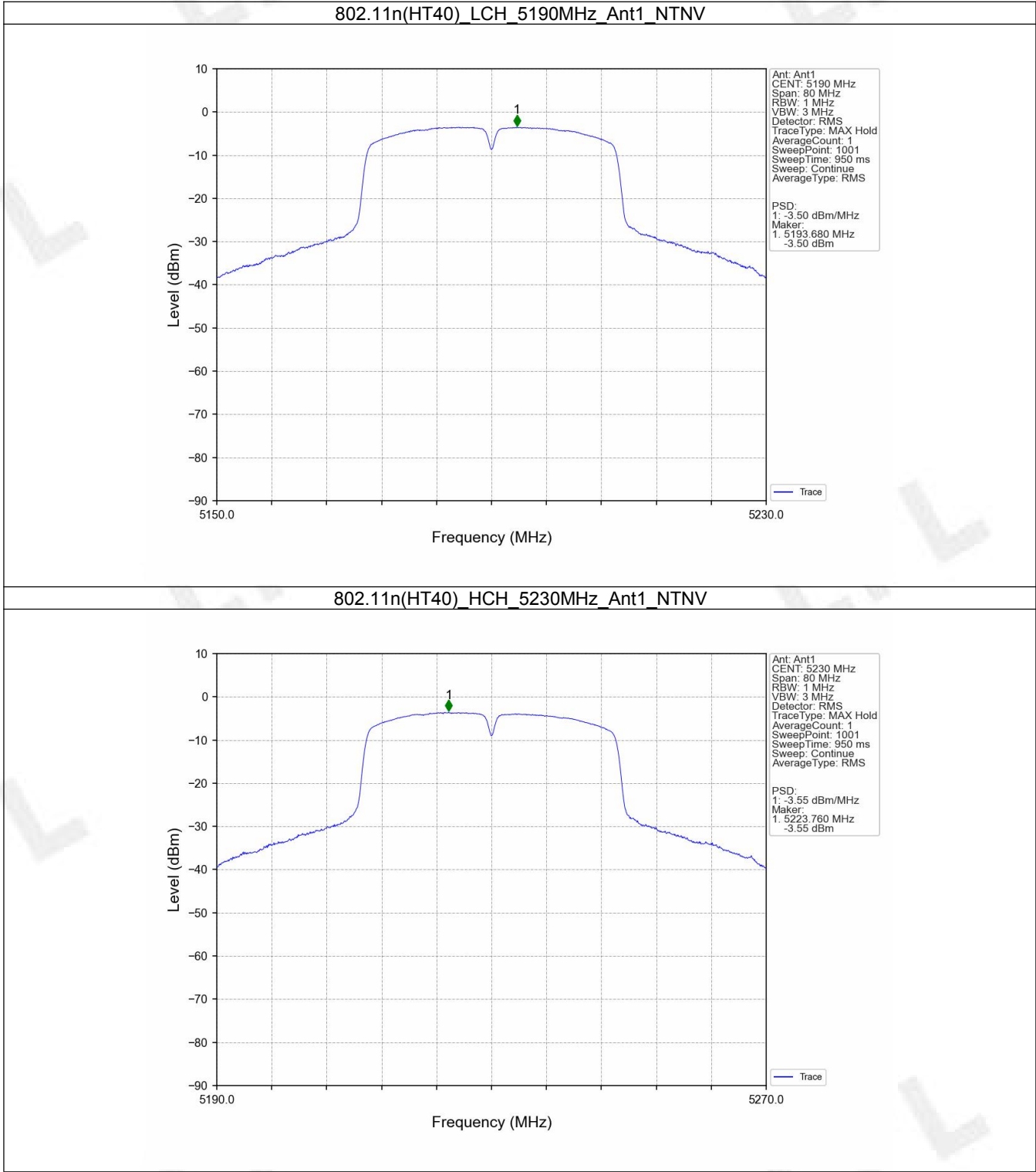
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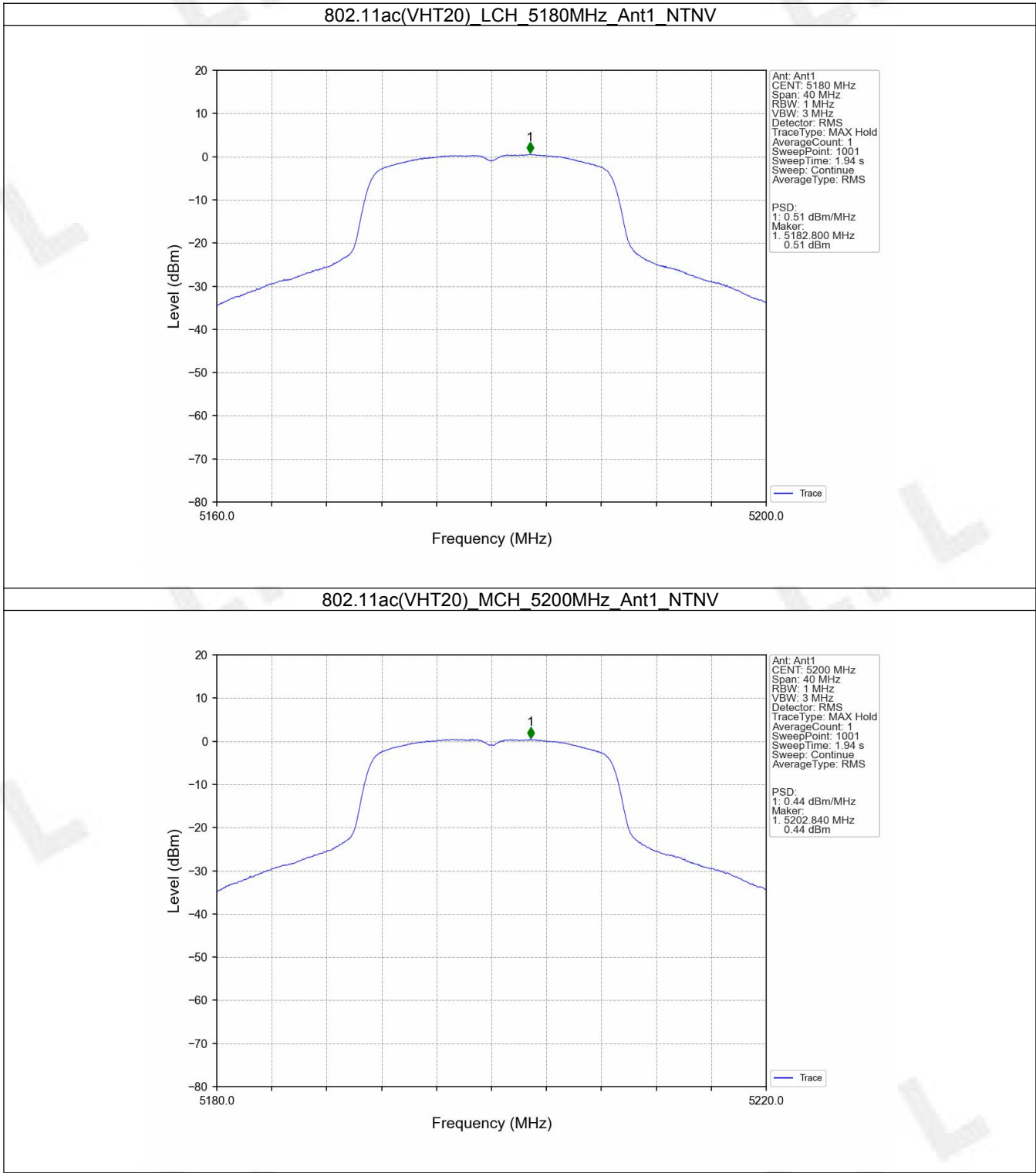
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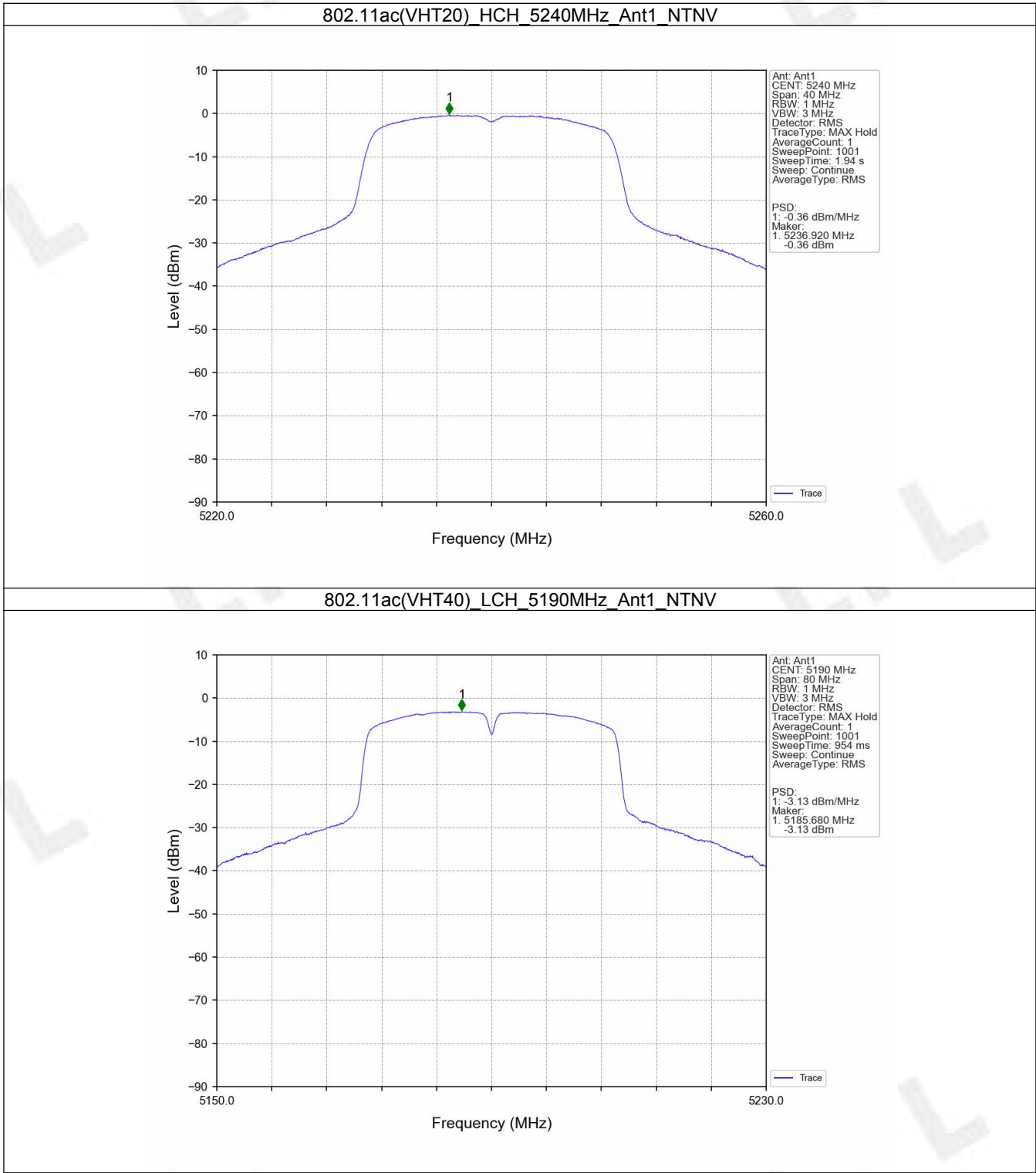
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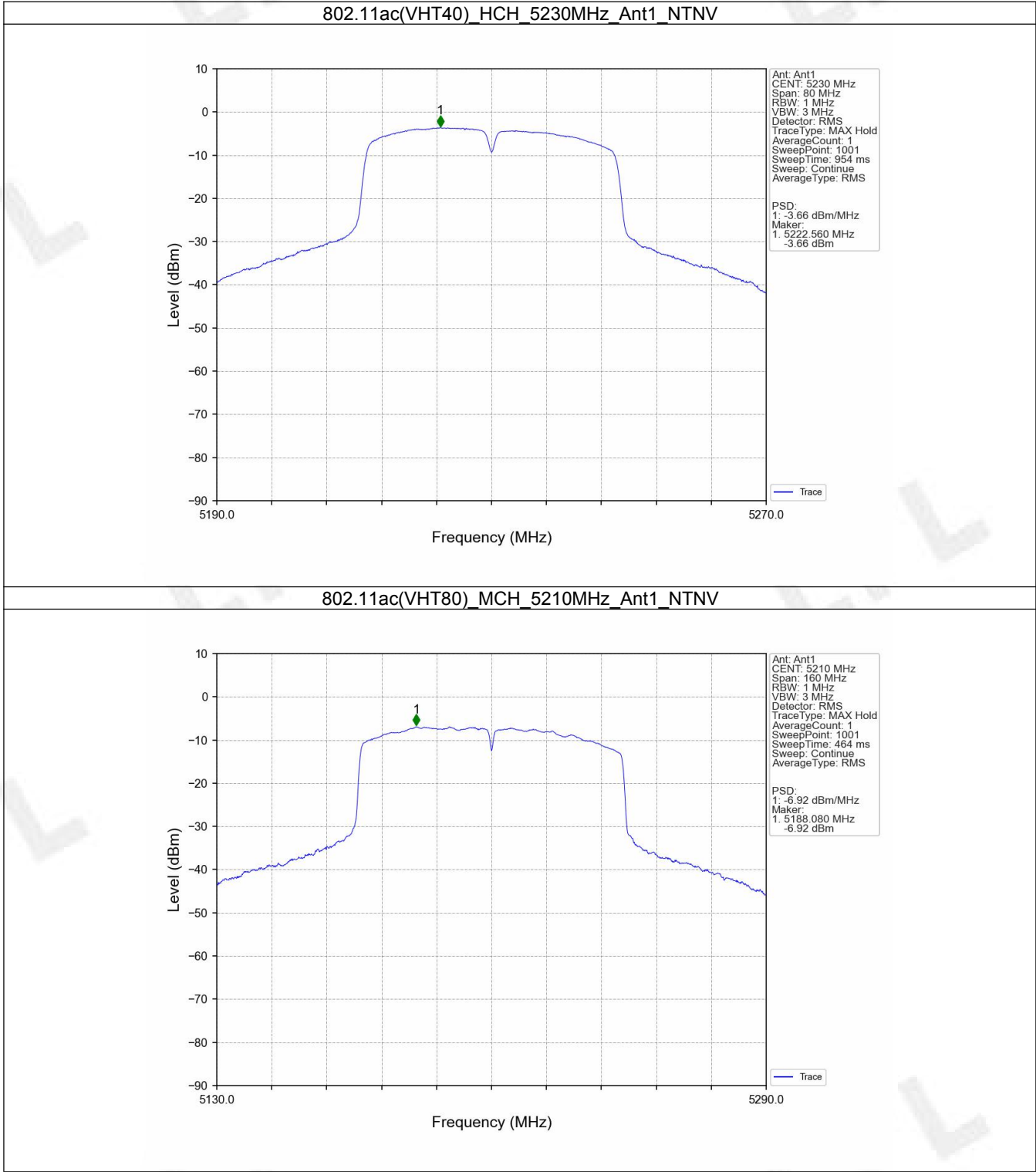
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FCCID: 2BQV3-AL16

5. Frequency Stability**5.1 Test Result****5.1.1 Ant1**

Ant1							
Mode	Tx Type	Frequency (MHz)	Temperature (°C)	Voltage (VAC)	Measured Frequency (MHz)	Limit (MHz)	Verdict
Carrier Wave	SISO	5180	20	102	5180.018	5150 to 5250	Pass
				120	5180.018	5150 to 5250	Pass
				138	5180.018	5150 to 5250	Pass
			-30	120	5180.018	5150 to 5250	Pass
			-20	120	5180.018	5150 to 5250	Pass
			-10	120	5180.018	5150 to 5250	Pass
			0	120	5180.018	5150 to 5250	Pass
			10	120	5180.018	5150 to 5250	Pass
			30	120	5180.018	5150 to 5250	Pass
			40	120	5180.018	5150 to 5250	Pass
			50	120	5180.018	5150 to 5250	Pass
		5200	20	102	5200.018	5150 to 5250	Pass
				120	5200.018	5150 to 5250	Pass
				138	5200.018	5150 to 5250	Pass
			-30	120	5200.018	5150 to 5250	Pass
			-20	120	5200.018	5150 to 5250	Pass
			-10	120	5200.018	5150 to 5250	Pass
			0	120	5200.018	5150 to 5250	Pass
			10	120	5200.018	5150 to 5250	Pass
			30	120	5200.018	5150 to 5250	Pass
			40	120	5200.018	5150 to 5250	Pass
			50	120	5200.018	5150 to 5250	Pass
		5240	20	102	5240.019	5150 to 5250	Pass
				120	5240.019	5150 to 5250	Pass
				138	5240.019	5150 to 5250	Pass
			-30	120	5240.019	5150 to 5250	Pass
			-20	120	5240.019	5150 to 5250	Pass
			-10	120	5240.019	5150 to 5250	Pass
			0	120	5240.019	5150 to 5250	Pass
			10	120	5240.019	5150 to 5250	Pass
			30	120	5240.019	5150 to 5250	Pass
			40	120	5240.019	5150 to 5250	Pass
			50	120	5240.019	5150 to 5250	Pass
		5190	20	102	5190.018	5150 to 5250	Pass
				120	5190.018	5150 to 5250	Pass
				138	5190.018	5150 to 5250	Pass
			-30	120	5190.018	5150 to 5250	Pass
			-20	120	5190.018	5150 to 5250	Pass
			-10	120	5190.018	5150 to 5250	Pass
			0	120	5190.018	5150 to 5250	Pass
			10	120	5190.018	5150 to 5250	Pass
			30	120	5190.018	5150 to 5250	Pass
			40	120	5190.018	5150 to 5250	Pass
			50	120	5190.018	5150 to 5250	Pass
		5230	20	102	5230.019	5150 to 5250	Pass
				120	5230.019	5150 to 5250	Pass
				138	5230.019	5150 to 5250	Pass
			-30	120	5230.019	5150 to 5250	Pass
			-20	120	5230.019	5150 to 5250	Pass

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			-10	120	5230.019	5150 to 5250	Pass
			0	120	5230.019	5150 to 5250	Pass
			10	120	5230.019	5150 to 5250	Pass
			30	120	5230.019	5150 to 5250	Pass
			40	120	5230.019	5150 to 5250	Pass
			50	120	5230.019	5150 to 5250	Pass
		5210	20	102	5210.018	5150 to 5250	Pass
				120	5210.018	5150 to 5250	Pass
				138	5210.018	5150 to 5250	Pass
			-30	120	5210.019	5150 to 5250	Pass
			-20	120	5210.019	5150 to 5250	Pass
			-10	120	5210.019	5150 to 5250	Pass
			0	120	5210.019	5150 to 5250	Pass
			10	120	5210.019	5150 to 5250	Pass
			30	120	5210.019	5150 to 5250	Pass
			40	120	5210.019	5150 to 5250	Pass
			50	120	5210.019	5150 to 5250	Pass