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Annex for 5G Wi-Fi BAND 1

Test Report No.: CTL2510203021-WF03

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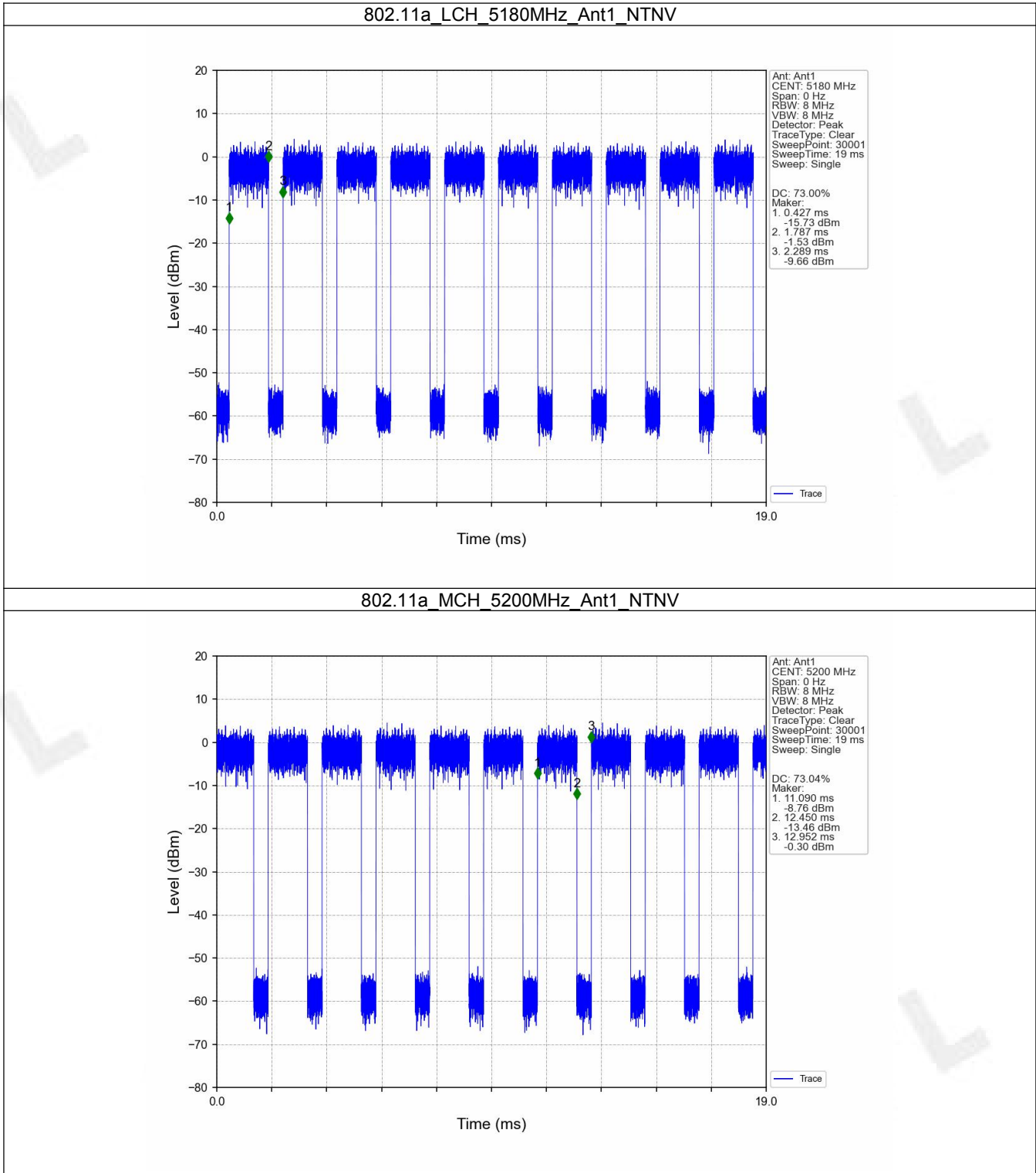
1. Duty Cycle**1.1 Test Result****1.1.1 Ant1**

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	/	/	1.360	1.863	73.00	1.37	0.03
		5200	/	/	1.360	1.862	73.04	1.36	0.03
		5240	/	/	1.360	1.862	73.04	1.36	0.03
802.11n (HT20)	SISO	5180	/	/	1.273	1.775	71.72	1.44	0.02
		5200	/	/	1.273	1.775	71.72	1.44	0.03
		5240	/	/	1.273	1.775	71.72	1.44	0.06
802.11n (HT40)	SISO	5190	/	/	0.633	1.135	55.77	2.54	0.01
		5230	/	/	0.633	1.134	55.82	2.53	0.03
802.11n (HT20)	MIMO	5180	/	/	1.273	1.775	71.72	1.44	0.03
		5200	/	/	1.272	1.775	71.66	1.45	0.03
		5240	/	/	1.272	1.775	71.66	1.45	0.03
802.11n (HT40)	MIMO	5190	/	/	0.632	1.134	55.73	2.54	0.03
		5230	/	/	0.632	1.134	55.73	2.54	0.03
802.11ac (VHT20)	SISO	5180	/	/	1.277	1.779	71.78	1.44	0.04
		5200	/	/	1.276	1.778	71.77	1.44	0.03
		5240	/	/	1.276	1.779	71.73	1.44	0.03
802.11ac (VHT40)	SISO	5190	/	/	0.636	1.138	55.89	2.53	0.03
		5230	/	/	0.637	1.139	55.93	2.52	0.04
802.11ac (VHT80)	SISO	5210	/	/	0.317	0.818	38.75	4.12	0.01
802.11ac (VHT20)	MIMO	5180	/	/	1.277	1.779	71.78	1.44	0.03
		5200	/	/	1.277	1.779	71.78	1.44	0.03
		5240	/	/	1.276	1.779	71.73	1.44	0.03
802.11ac (VHT40)	MIMO	5190	/	/	0.637	1.139	55.93	2.52	0.03
		5230	/	/	0.637	1.139	55.93	2.52	0.02
802.11ac (VHT80)	MIMO	5210	/	/	0.316	0.818	38.63	4.13	0.03
802.11ax (HEW20)	SISO	5180	SU	/	0.986	1.489	66.22	1.79	0.03
		5200	SU	/	0.986	1.489	66.22	1.79	0.03
		5240	SU	/	0.987	1.489	66.29	1.79	0.01
802.11ax (HEW40)	SISO	5190	SU	/	0.521	1.023	50.93	2.93	0.03
		5230	SU	/	0.520	1.023	50.83	2.94	0.03
802.11ax (HEW80)	SISO	5210	SU	/	0.280	0.782	35.81	4.46	0.03
802.11ax (HEW20)	MIMO	5180	SU	/	0.986	1.489	66.22	1.79	0.06
		5200	SU	/	0.986	1.489	66.22	1.79	0.03
		5240	SU	/	0.987	1.489	66.29	1.79	0.03
802.11ax (HEW40)	MIMO	5190	SU	/	0.520	1.023	50.83	2.94	0.03
		5230	SU	/	0.520	1.022	50.88	2.93	0.03
802.11ax (HEW80)	MIMO	5210	SU	/	0.280	0.782	35.81	4.46	0.03

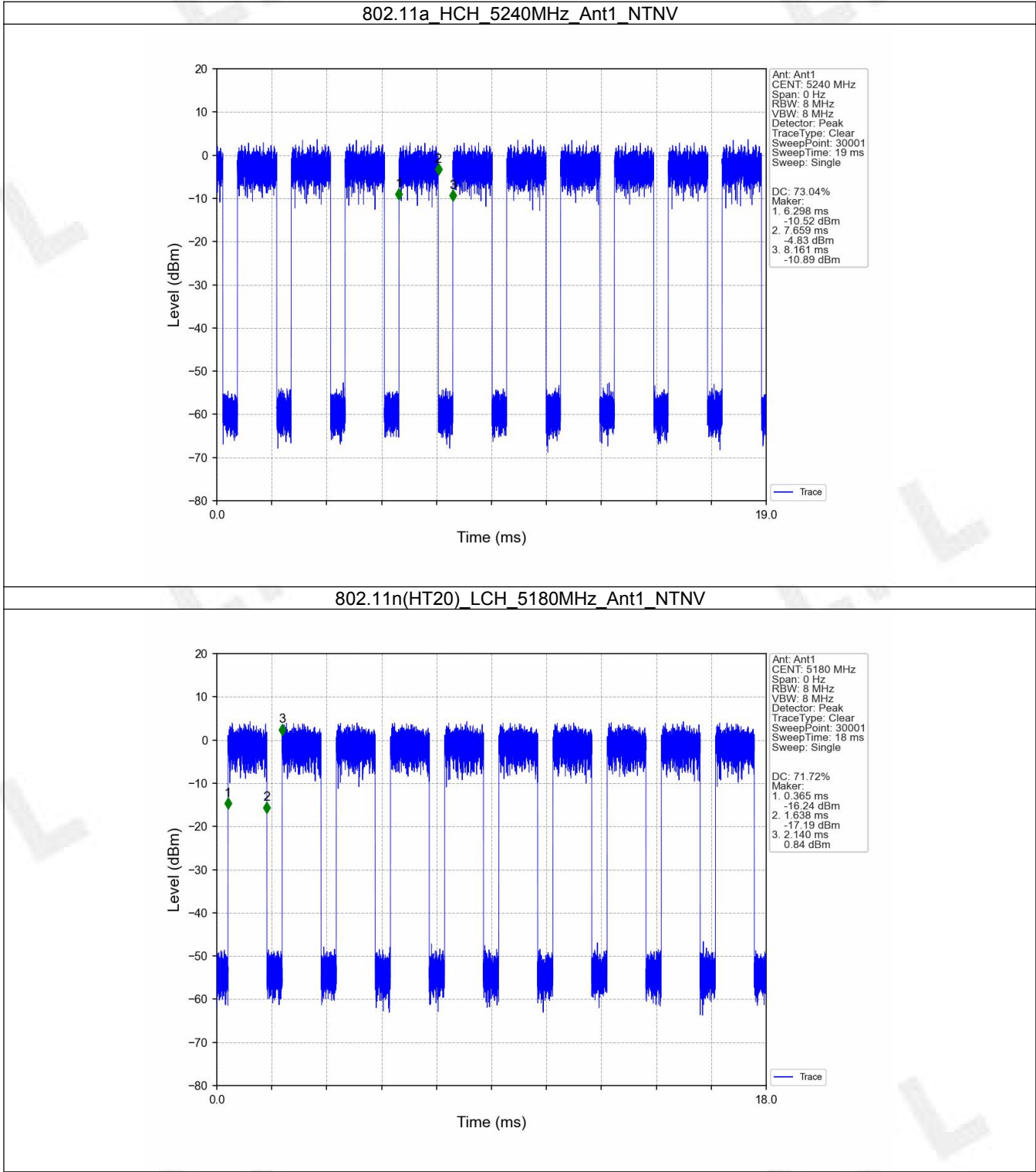
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1.2 Test Graph

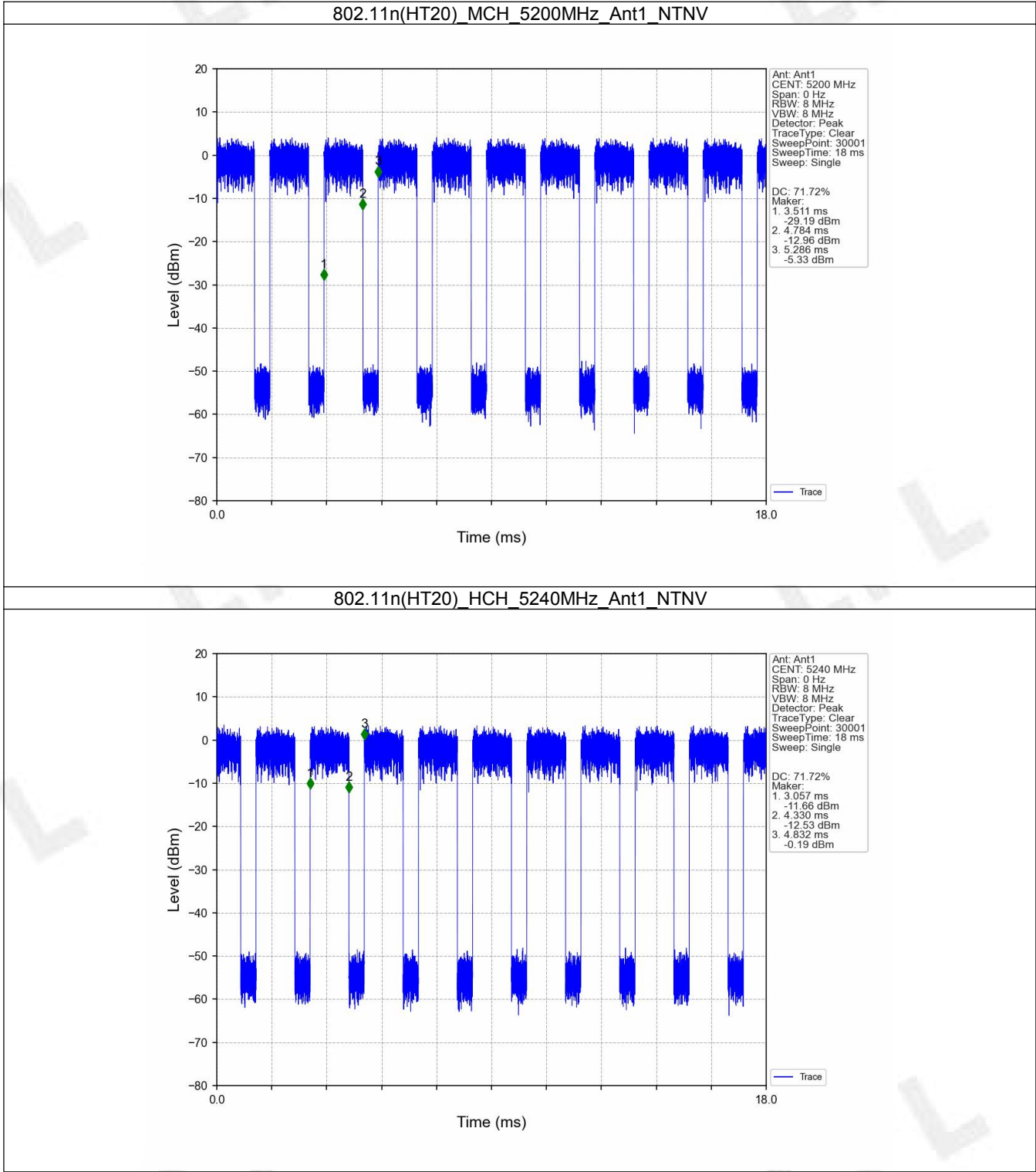
1.2.1 Ant1



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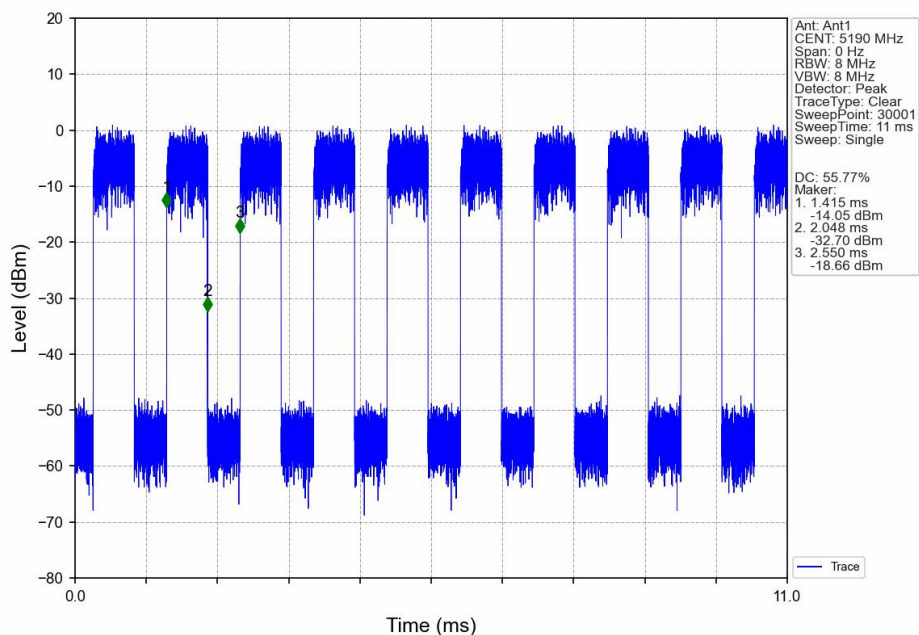


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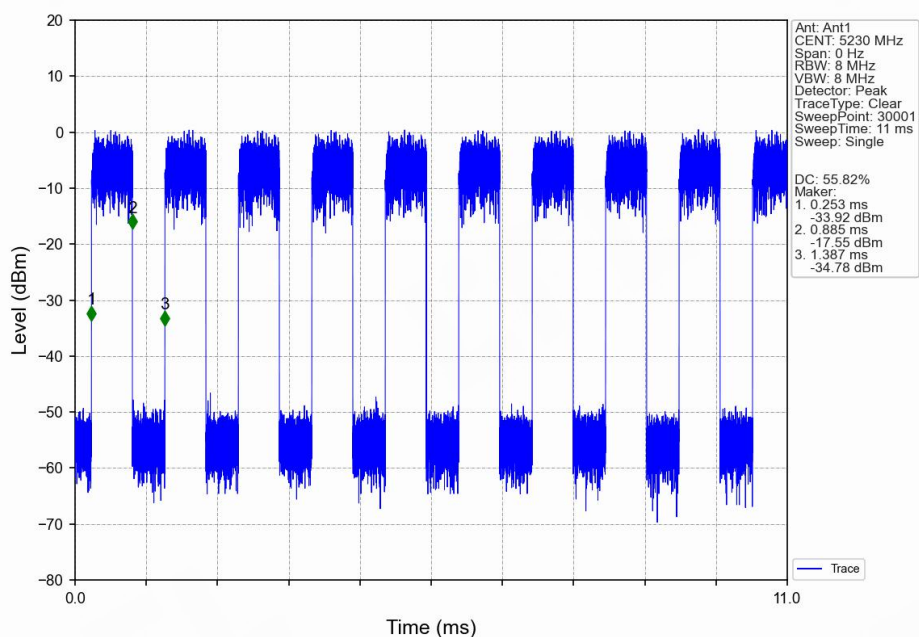


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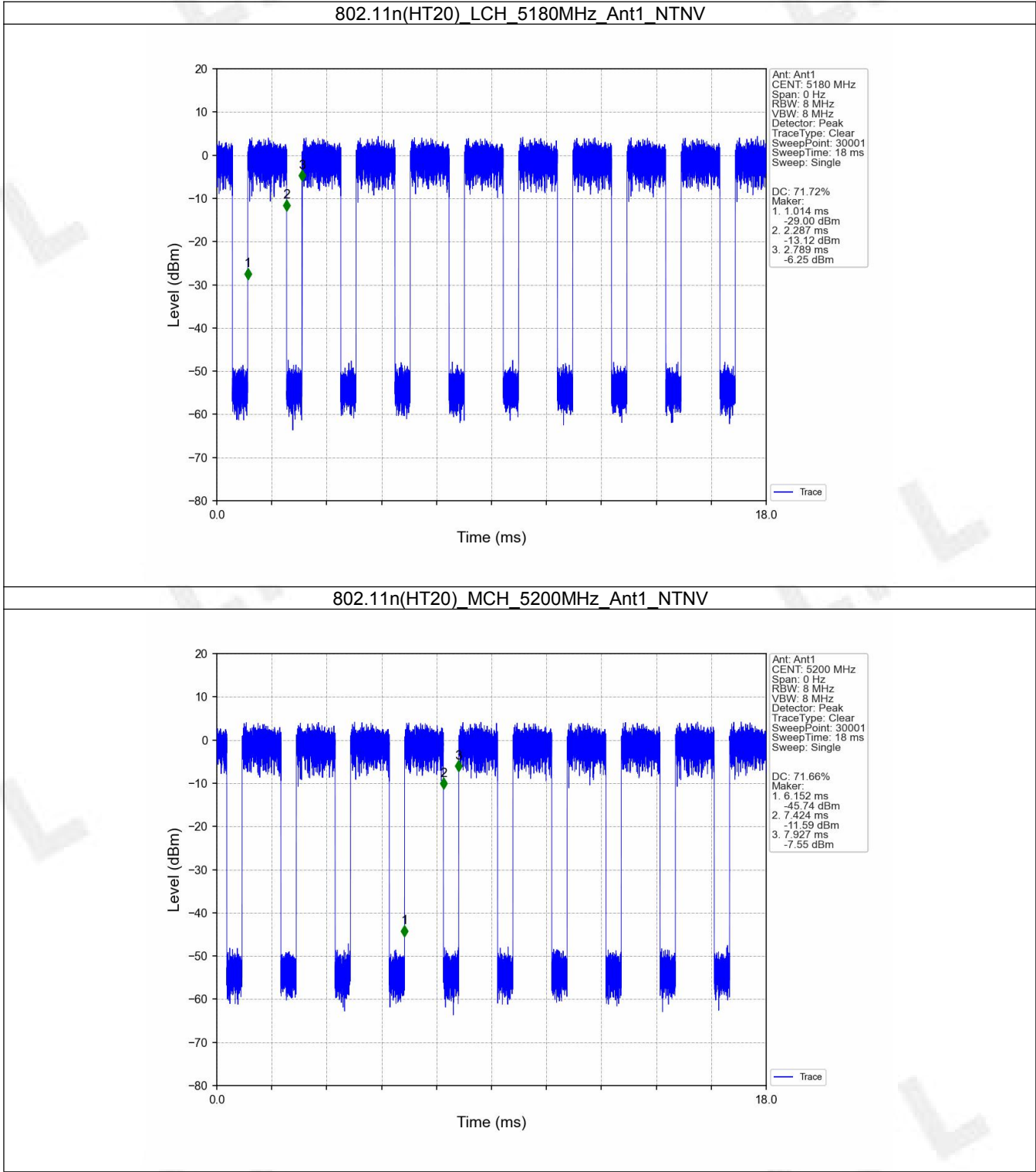
802.11n(HT40) LCH_5190MHz_Ant1_NTNV



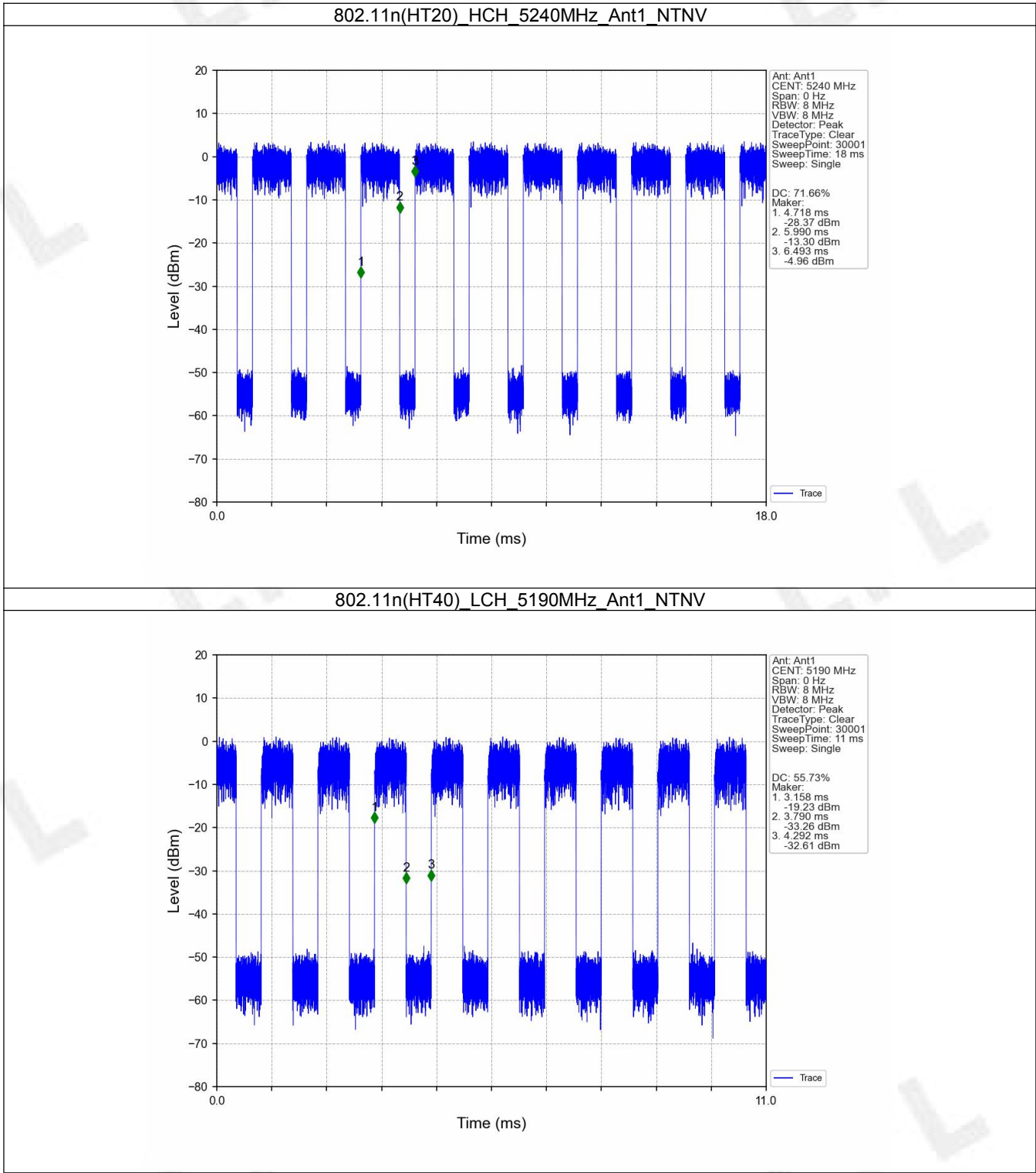
802.11n(HT40) HCH_5230MHz_Ant1_NTNV



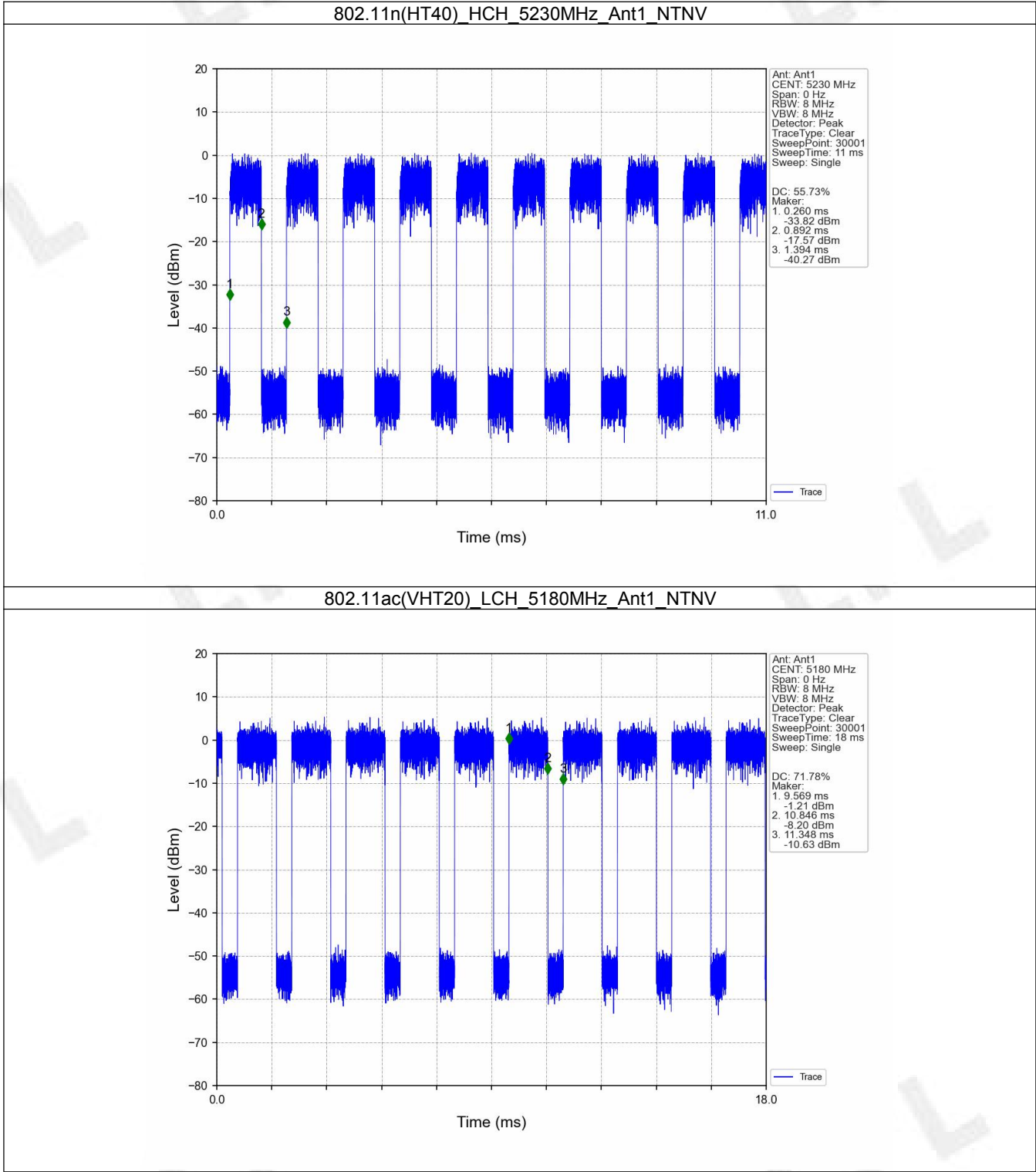
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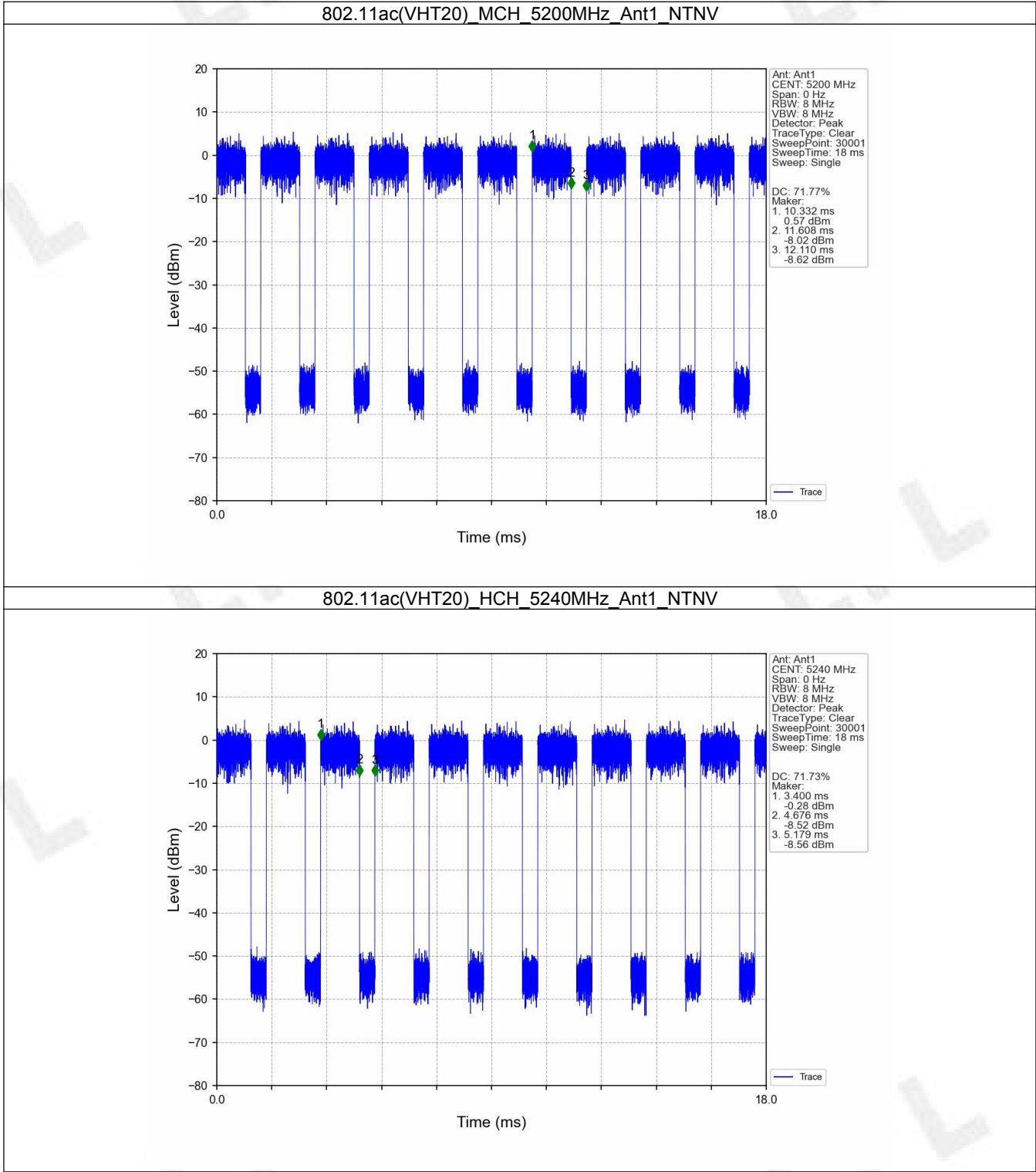
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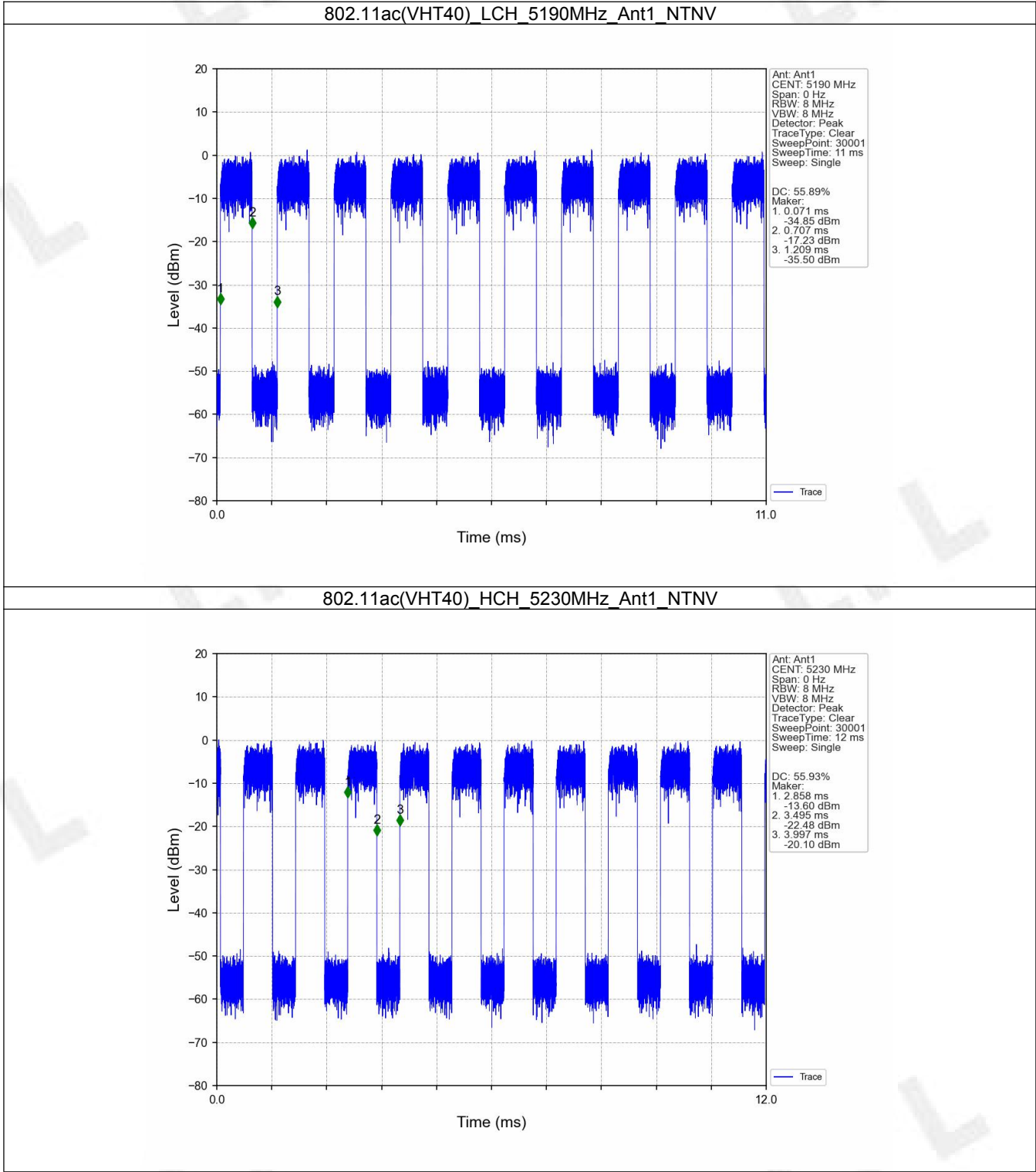
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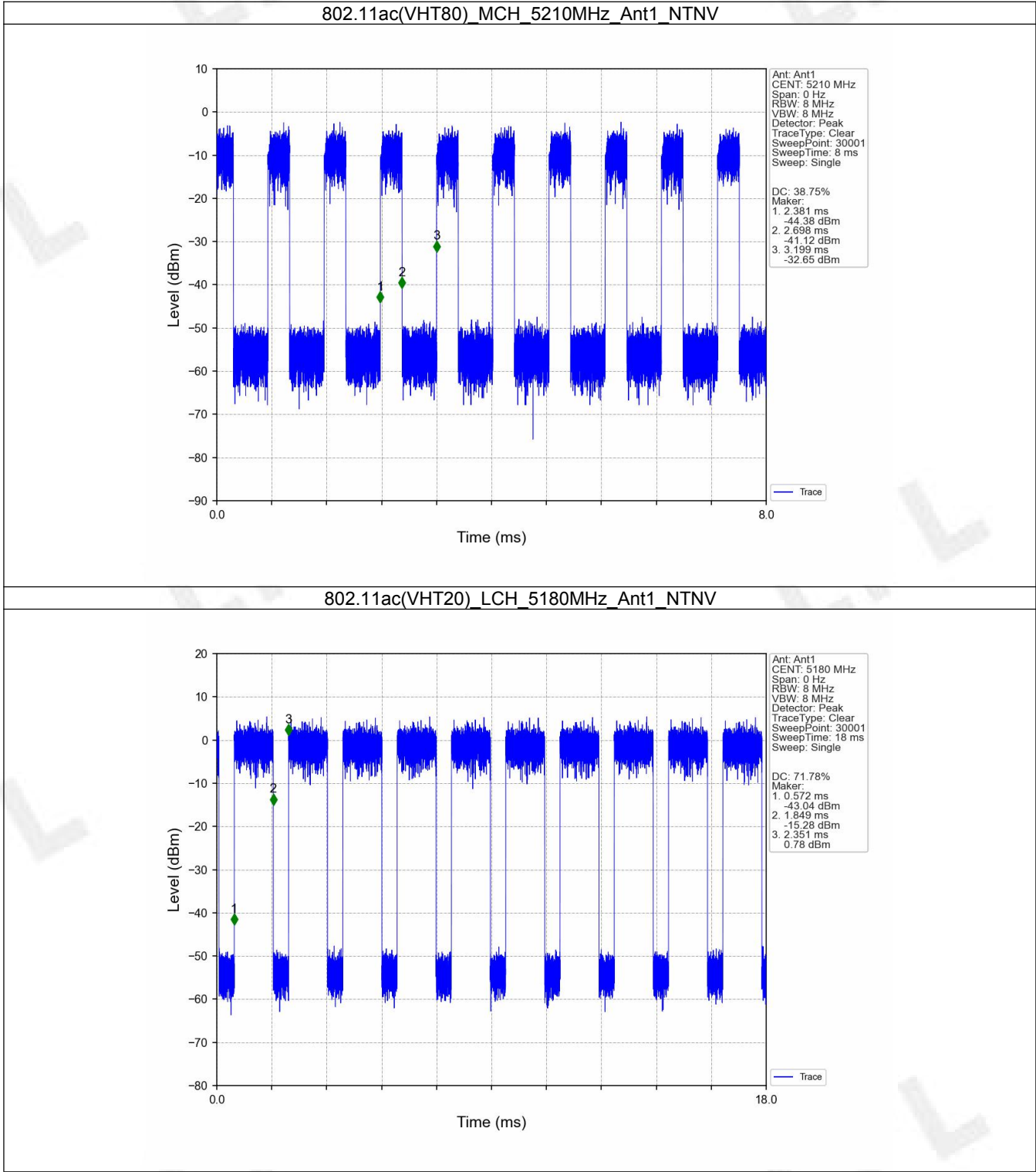
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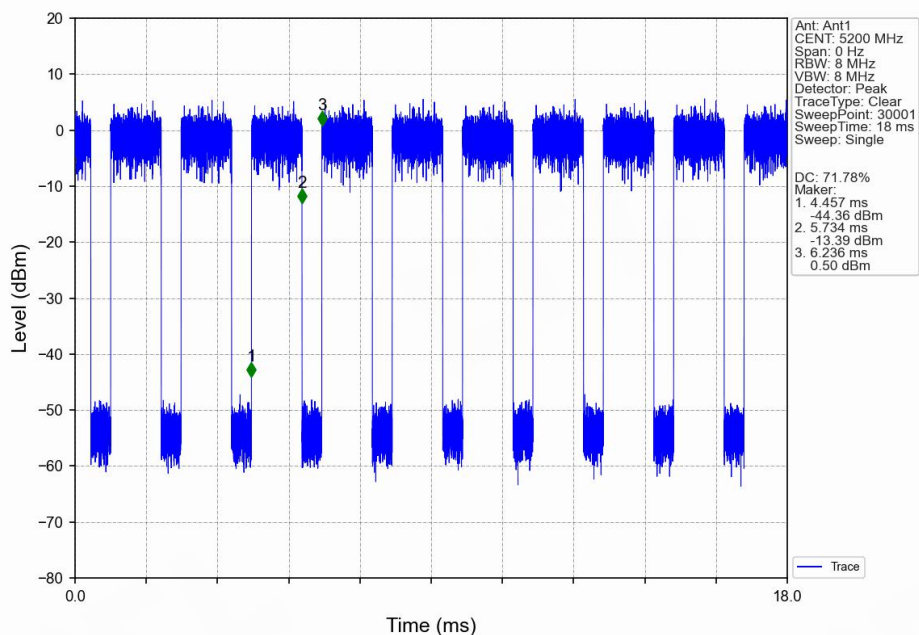


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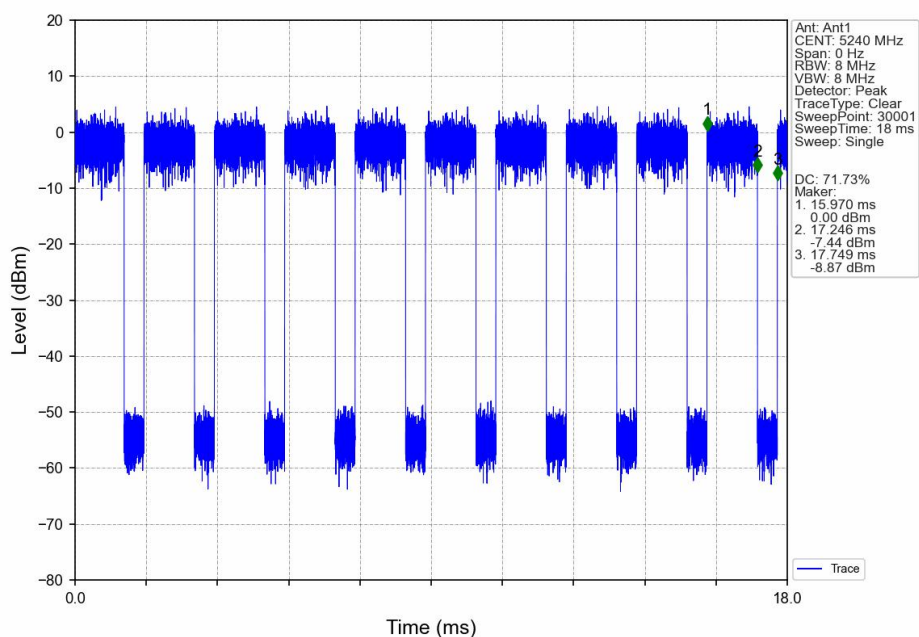


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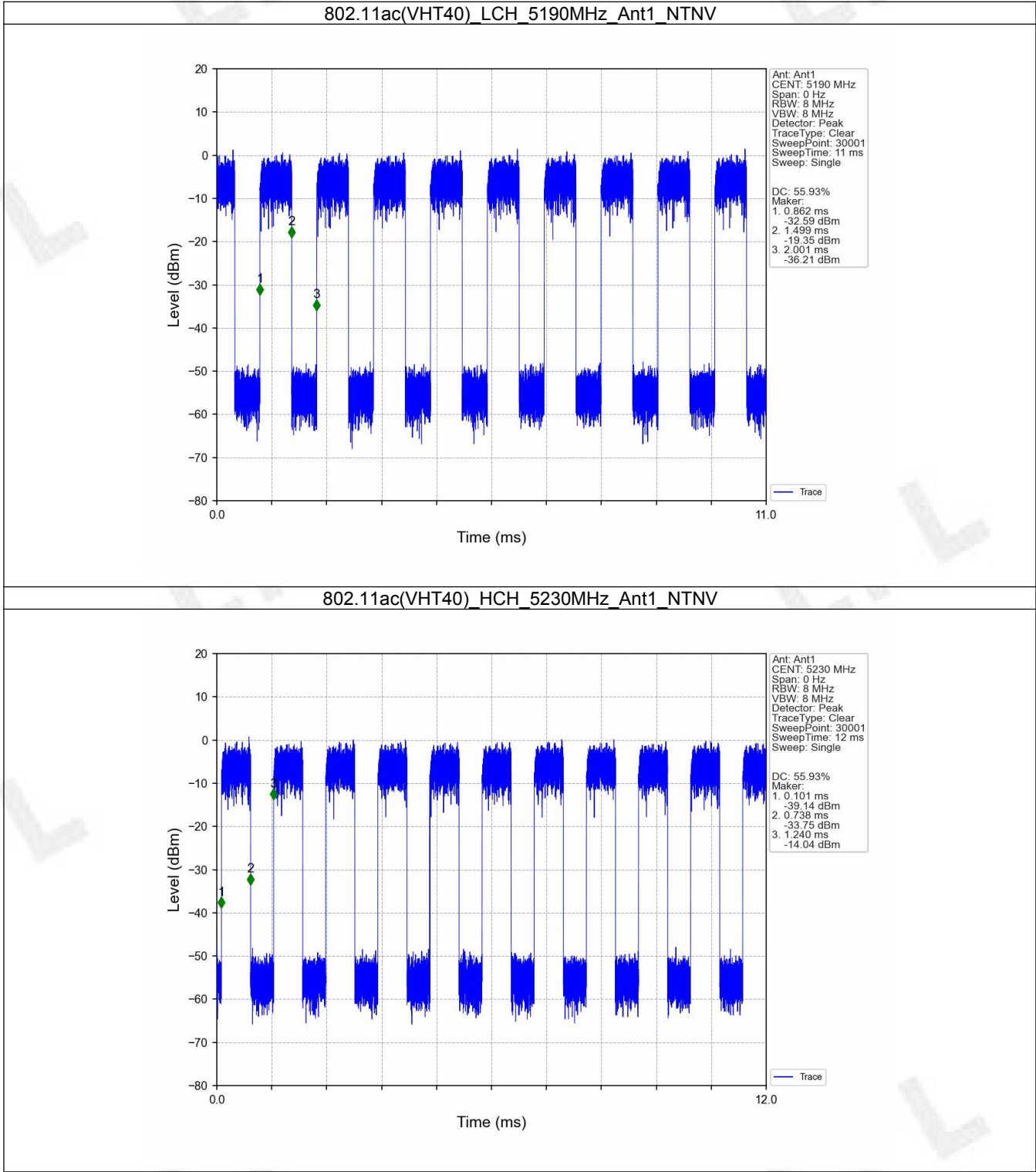
802.11ac(VHT20) MCH 5200MHz_Ant1_NTNV



802.11ac(VHT20) HCH 5240MHz_Ant1_NTNV

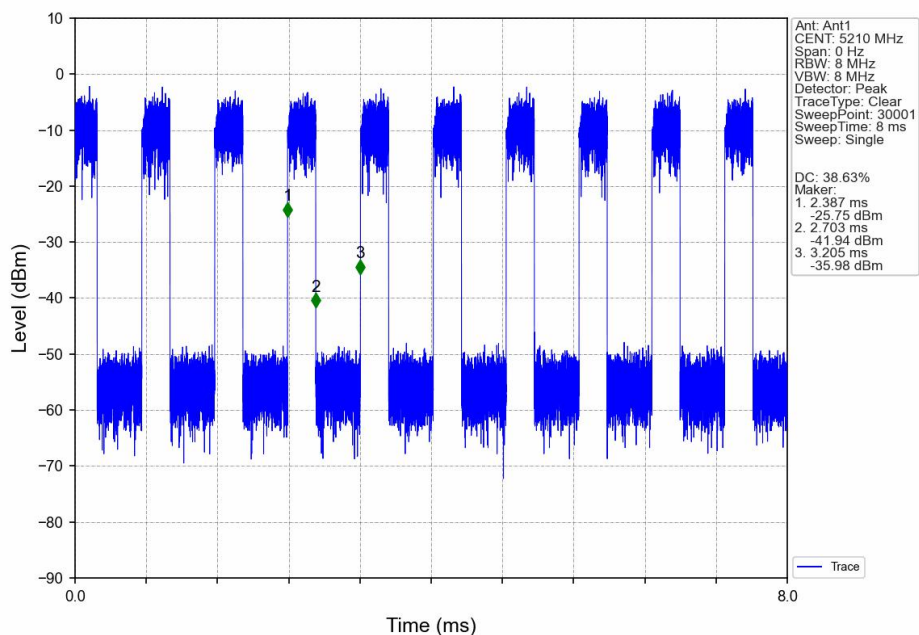


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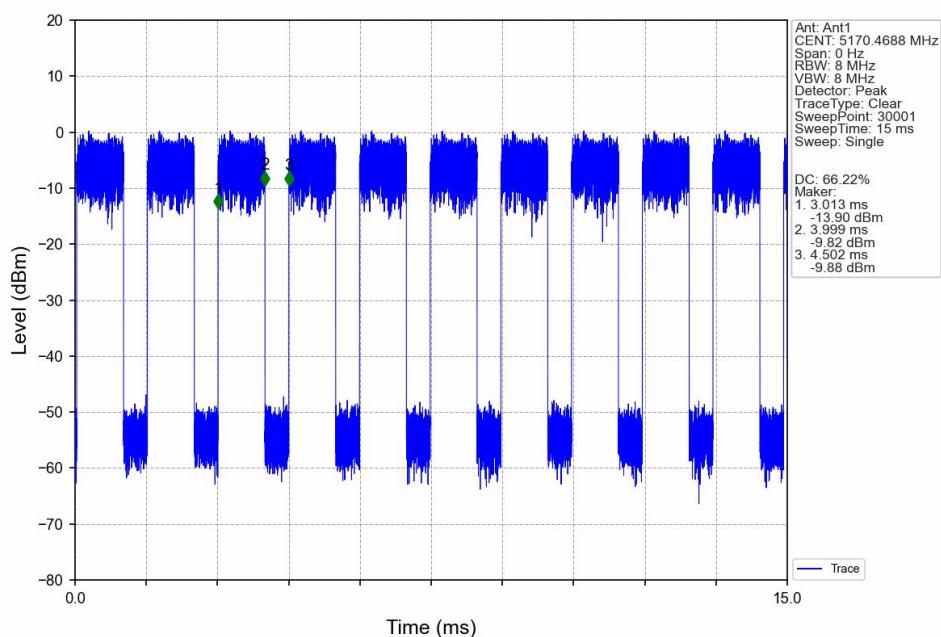


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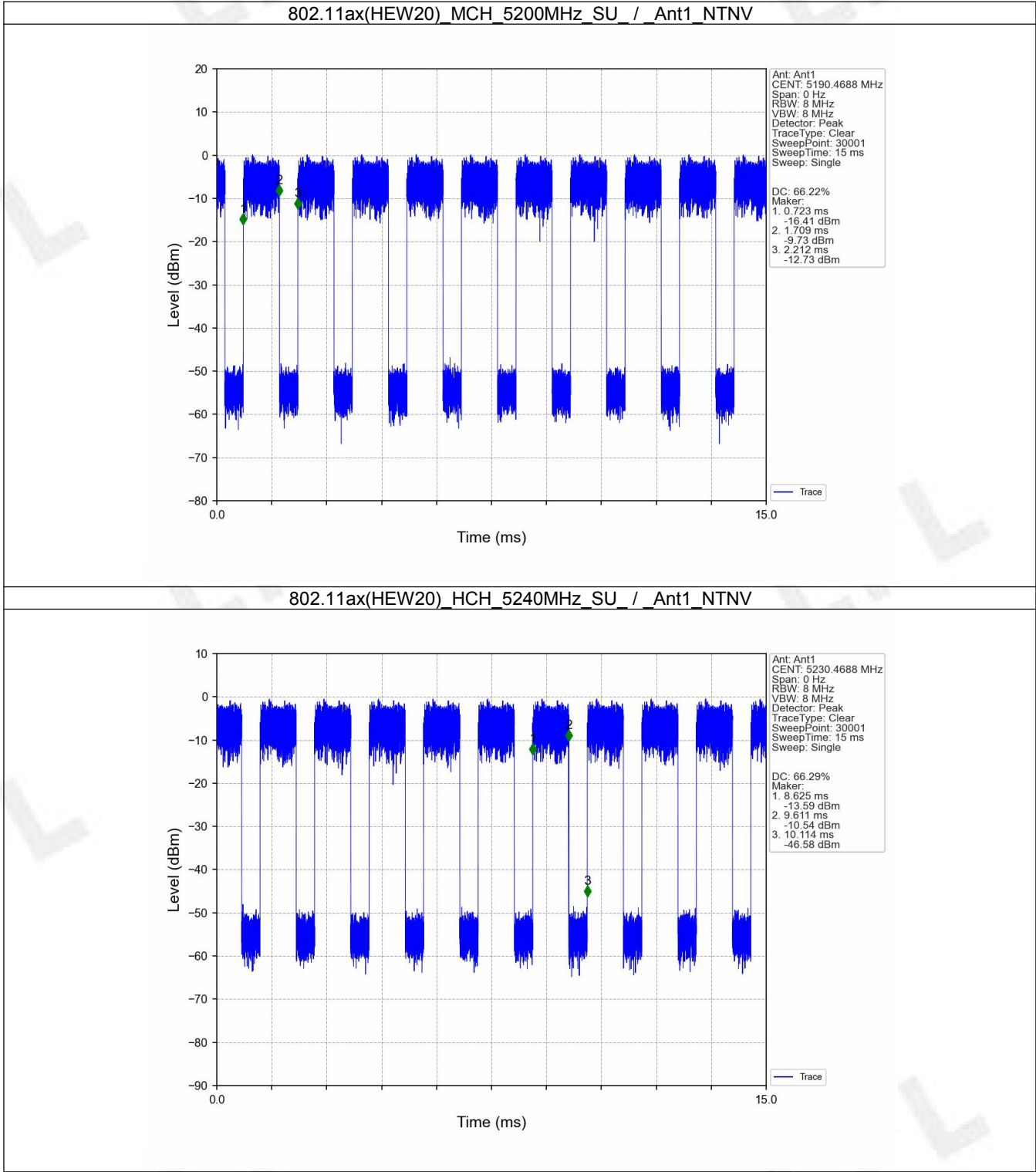
802.11ac(VHT80) MCH 5210MHz_Ant1_NTNV



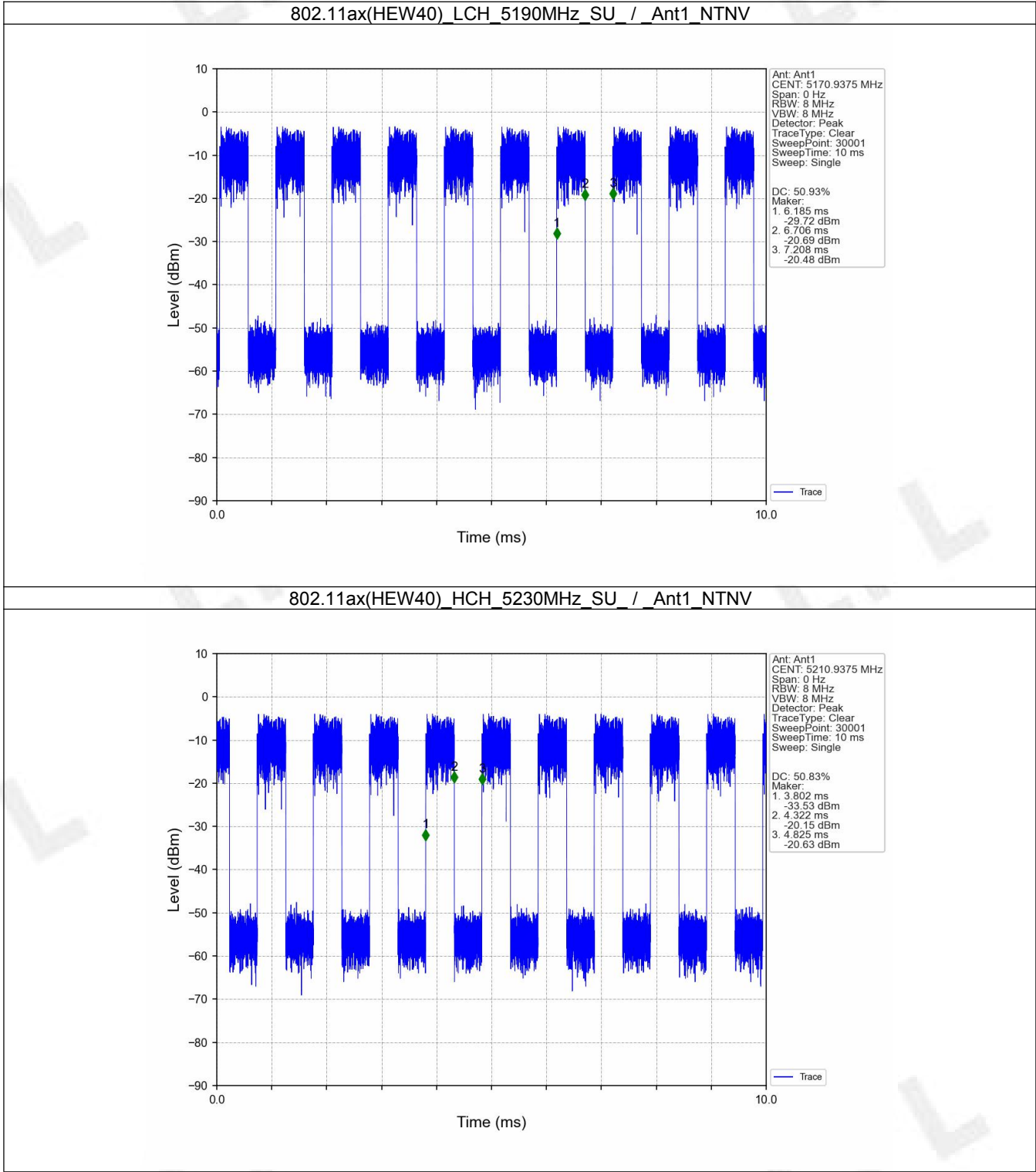
802.11ax(HEW20) LCH 5180MHz_SU / Ant1_NTNV



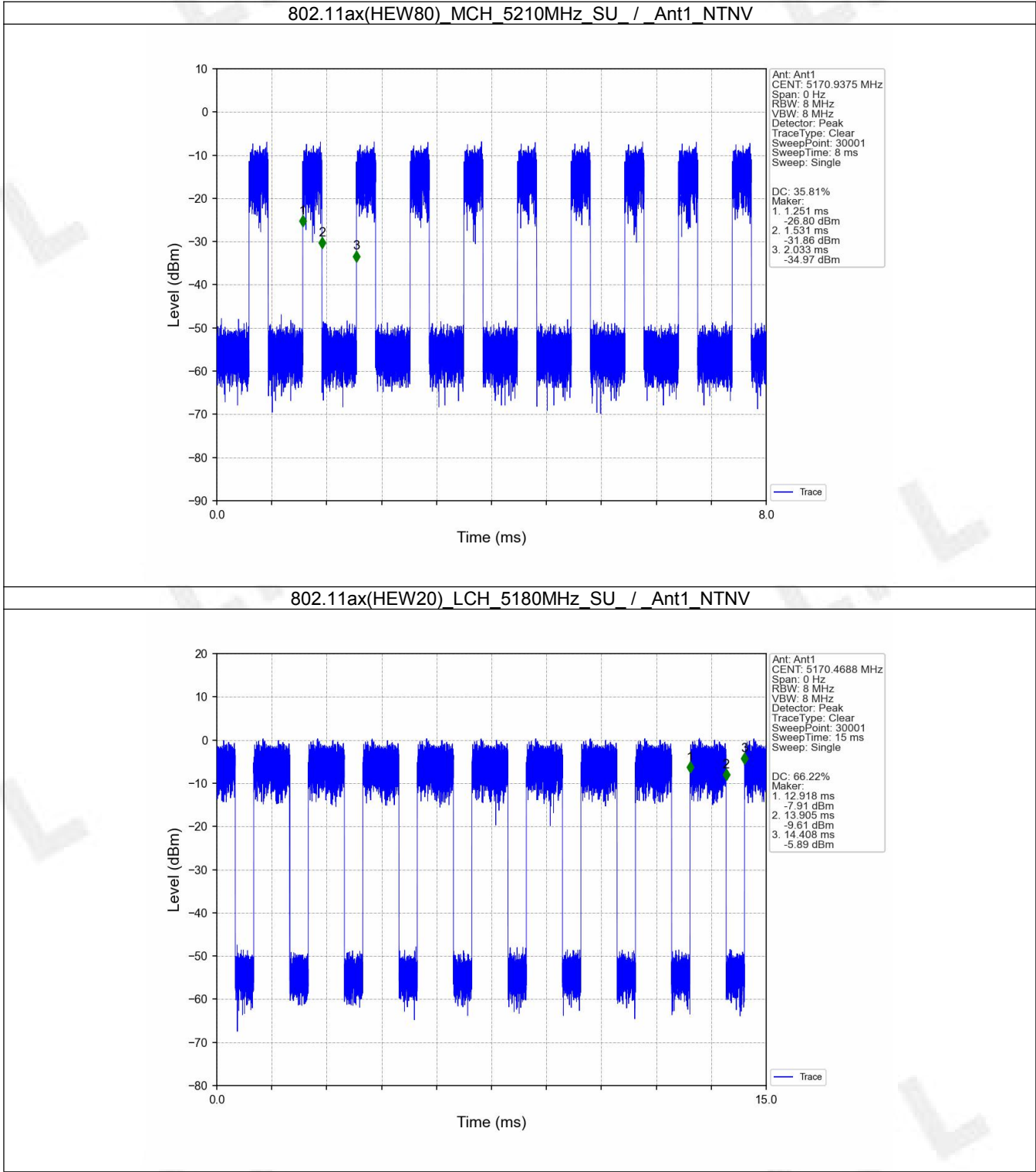
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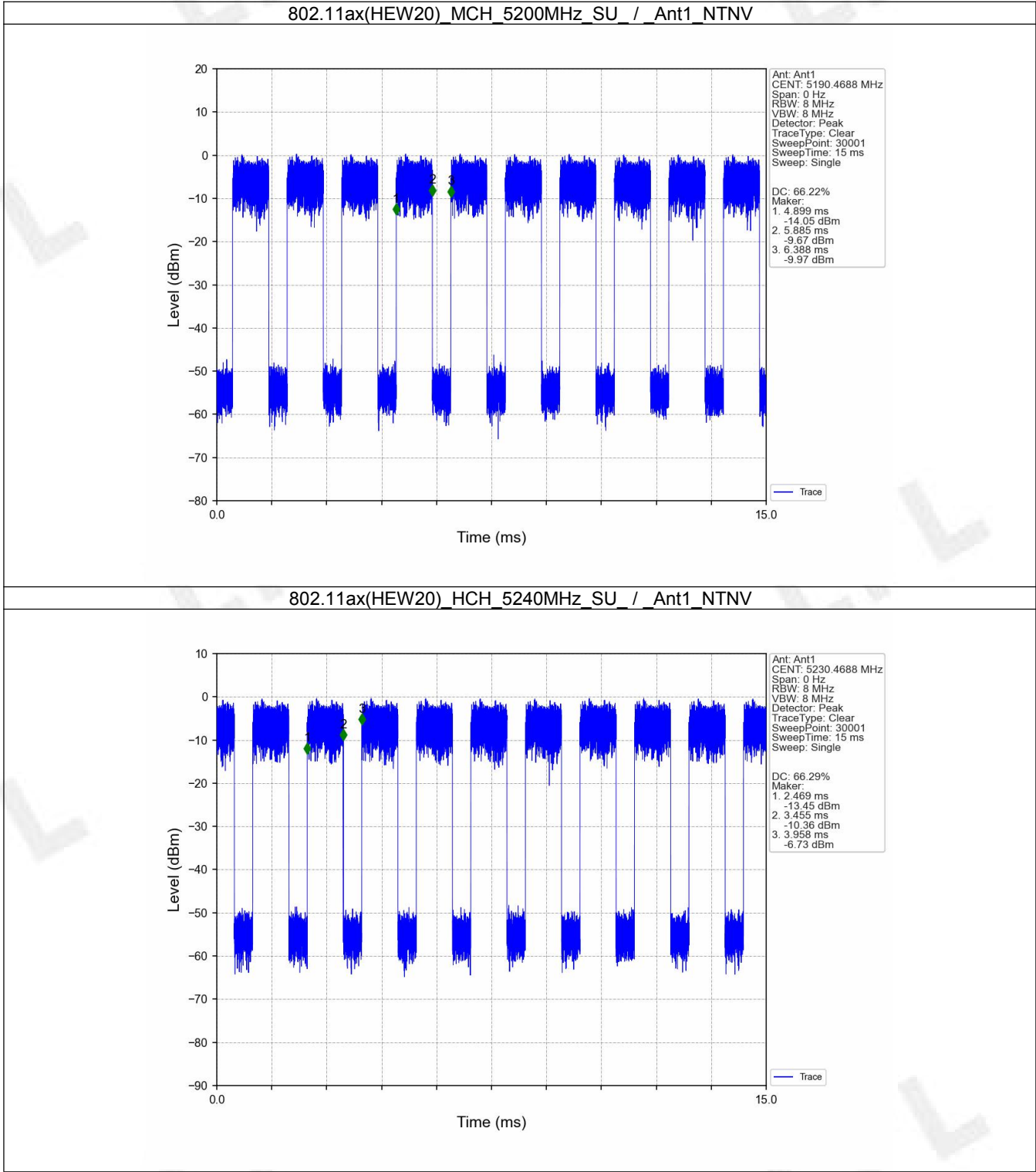
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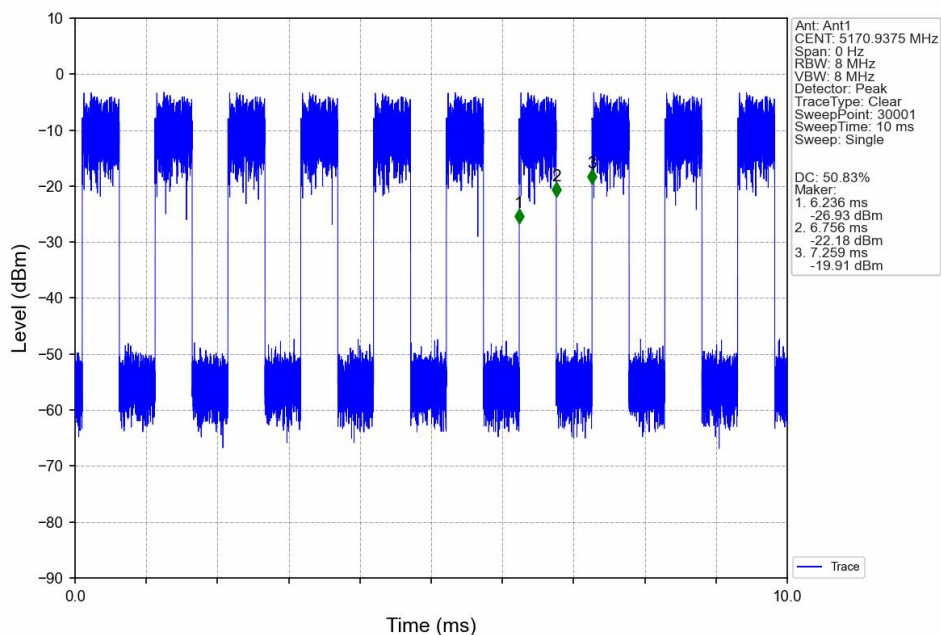


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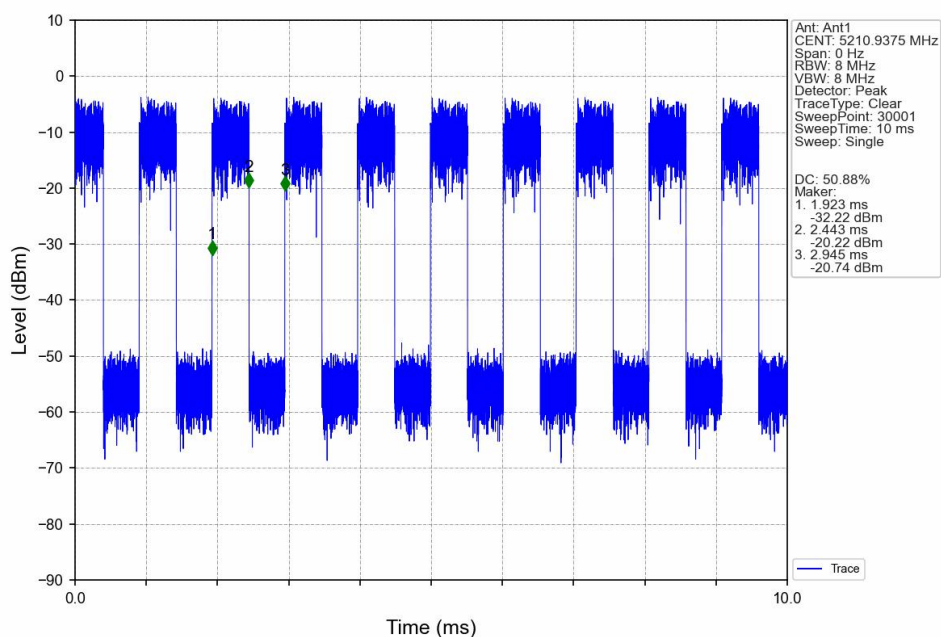


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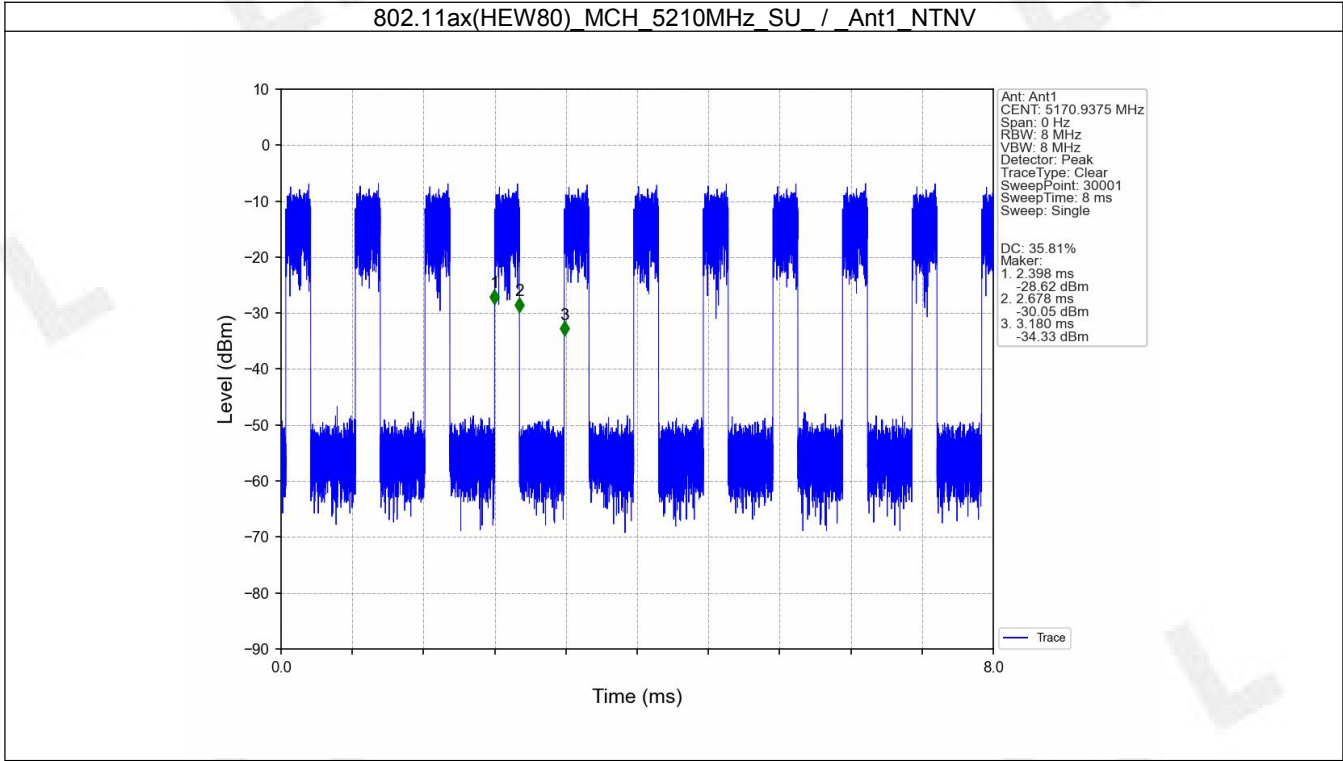
802.11ax(HEW40) LCH_5190MHz_SU_ / Ant1_NTNV



802.11ax(HEW40) HCH_5230MHz_SU_ / Ant1_NTNV



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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	16.639	/	Pass
		5200	/	/	1	16.626	/	Pass
		5240	/	/	1	16.619	/	Pass
802.11n (HT20)	SISO	5180	/	/	1	17.674	/	Pass
		5200	/	/	1	17.696	/	Pass
		5240	/	/	1	17.692	/	Pass
802.11n (HT40)	SISO	5190	/	/	1	36.204	/	Pass
		5230	/	/	1	36.167	/	Pass
802.11n (HT20)	MIMO	5180	/	/	1	17.676	/	Pass
		5200	/	/	1	17.693	/	Pass
		5240	/	/	1	17.693	/	Pass
802.11n (HT40)	MIMO	5190	/	/	1	36.197	/	Pass
		5230	/	/	1	36.218	/	Pass
802.11ac (VHT20)	SISO	5180	/	/	1	17.671	/	Pass
		5200	/	/	1	17.679	/	Pass
		5240	/	/	1	17.689	/	Pass
802.11ac (VHT40)	SISO	5190	/	/	1	36.207	/	Pass
		5230	/	/	1	36.199	/	Pass
802.11ac (VHT80)	SISO	5210	/	/	1	76.371	/	Pass
802.11ac (VHT20)	MIMO	5180	/	/	1	17.706	/	Pass
		5200	/	/	1	17.704	/	Pass
		5240	/	/	1	17.687	/	Pass
802.11ac (VHT40)	MIMO	5190	/	/	1	36.203	/	Pass
		5230	/	/	1	36.184	/	Pass
802.11ac (VHT80)	MIMO	5210	/	/	1	76.351	/	Pass
802.11ax (HEW20)	SISO	5180	SU	/	1	19.024	/	Pass
		5200	SU	/	1	19.048	/	Pass
		5240	SU	/	1	19.061	/	Pass
802.11ax (HEW40)	SISO	5190	SU	/	1	37.920	/	Pass
		5230	SU	/	1	37.837	/	Pass
802.11ax (HEW80)	SISO	5210	SU	/	1	77.257	/	Pass
802.11ax (HEW20)	MIMO	5180	SU	/	1	19.072	/	Pass
		5200	SU	/	1	19.006	/	Pass
		5240	SU	/	1	19.027	/	Pass
802.11ax (HEW40)	MIMO	5190	SU	/	1	37.906	/	Pass
		5230	SU	/	1	37.808	/	Pass
802.11ax (HEW80)	MIMO	5210	SU	/	1	77.159	/	Pass

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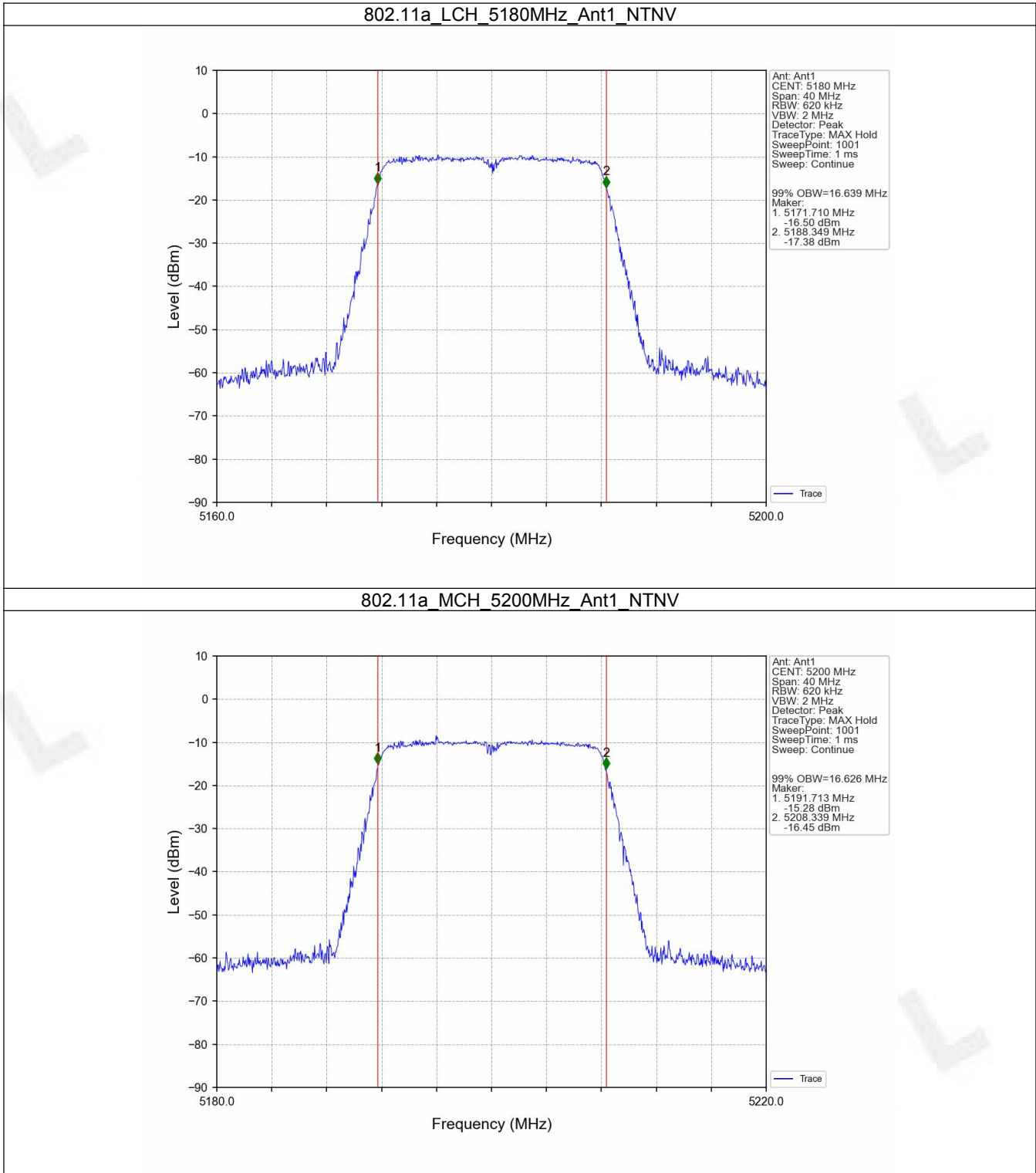
2.1.2 26dB BW

Mode	TX Type	Frequency (MHz)	RU	RU Pos	ANT	26dB Bandwidth (MHz)		Verdict
						Result	Limit	
802.11a	SISO	5180	/	/	1	18.910	/	Pass
		5200	/	/	1	18.954	/	Pass
		5240	/	/	1	18.849	/	Pass
802.11n (HT20)	SISO	5180	/	/	1	19.842	/	Pass
		5200	/	/	1	19.654	/	Pass
		5240	/	/	1	19.815	/	Pass
802.11n (HT40)	SISO	5190	/	/	1	39.714	/	Pass
		5230	/	/	1	39.418	/	Pass
802.11n (HT20)	MIMO	5180	/	/	1	19.789	/	Pass
		5200	/	/	1	19.713	/	Pass
		5240	/	/	1	19.714	/	Pass
802.11n (HT40)	MIMO	5190	/	/	1	39.584	/	Pass
		5230	/	/	1	39.562	/	Pass
802.11ac (VHT20)	SISO	5180	/	/	1	19.853	/	Pass
		5200	/	/	1	19.851	/	Pass
		5240	/	/	1	19.849	/	Pass
802.11ac (VHT40)	SISO	5190	/	/	1	39.597	/	Pass
		5230	/	/	1	39.587	/	Pass
802.11ac (VHT80)	SISO	5210	/	/	1	85.872	/	Pass
802.11ac (VHT20)	MIMO	5180	/	/	1	19.716	/	Pass
		5200	/	/	1	19.934	/	Pass
		5240	/	/	1	19.806	/	Pass
802.11ac (VHT40)	MIMO	5190	/	/	1	39.511	/	Pass
		5230	/	/	1	39.585	/	Pass
802.11ac (VHT80)	MIMO	5210	/	/	1	86.521	/	Pass
802.11ax (HEW20)	SISO	5180	SU	/	1	20.753	/	Pass
		5200	SU	/	1	20.499	/	Pass
		5240	SU	/	1	20.711	/	Pass
802.11ax (HEW40)	SISO	5190	SU	/	1	40.373	/	Pass
		5230	SU	/	1	40.387	/	Pass
802.11ax (HEW80)	SISO	5210	SU	/	1	81.294	/	Pass
802.11ax (HEW20)	MIMO	5180	SU	/	1	20.533	/	Pass
		5200	SU	/	1	20.635	/	Pass
		5240	SU	/	1	20.851	/	Pass
802.11ax (HEW40)	MIMO	5190	SU	/	1	40.424	/	Pass
		5230	SU	/	1	40.437	/	Pass
802.11ax (HEW80)	MIMO	5210	SU	/	1	81.197	/	Pass

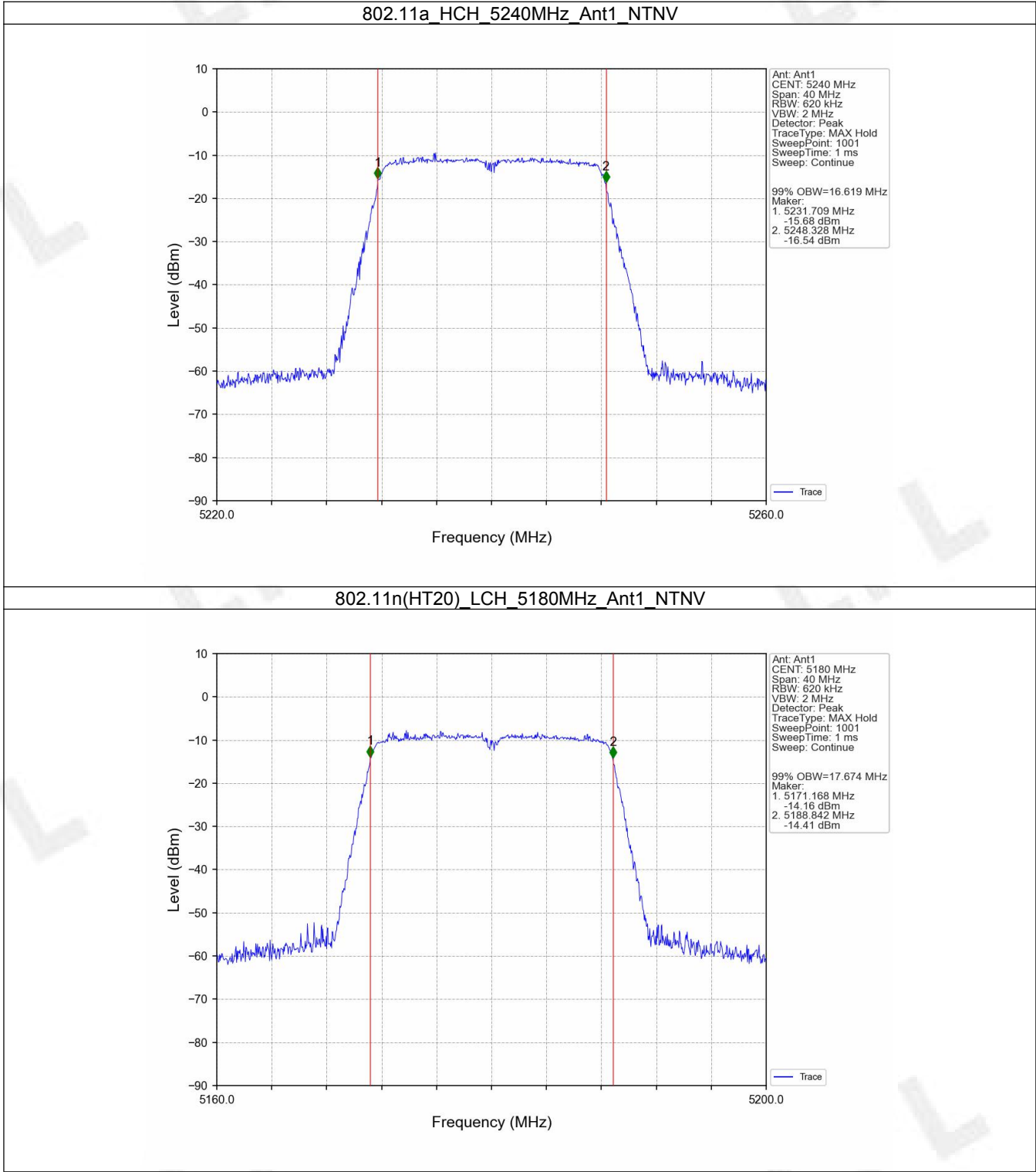
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2.2 Test Graph

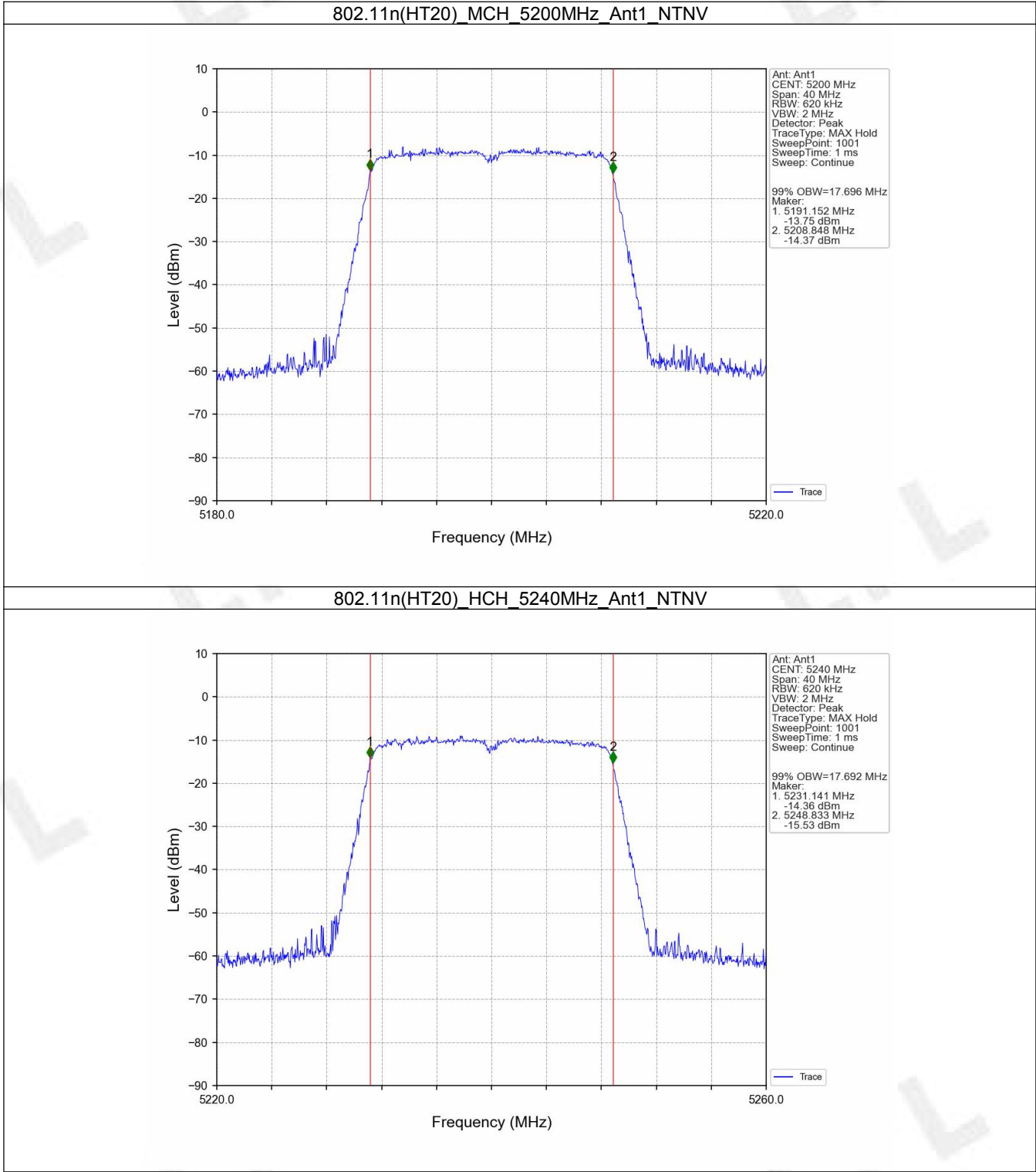
2.2.1 OBW



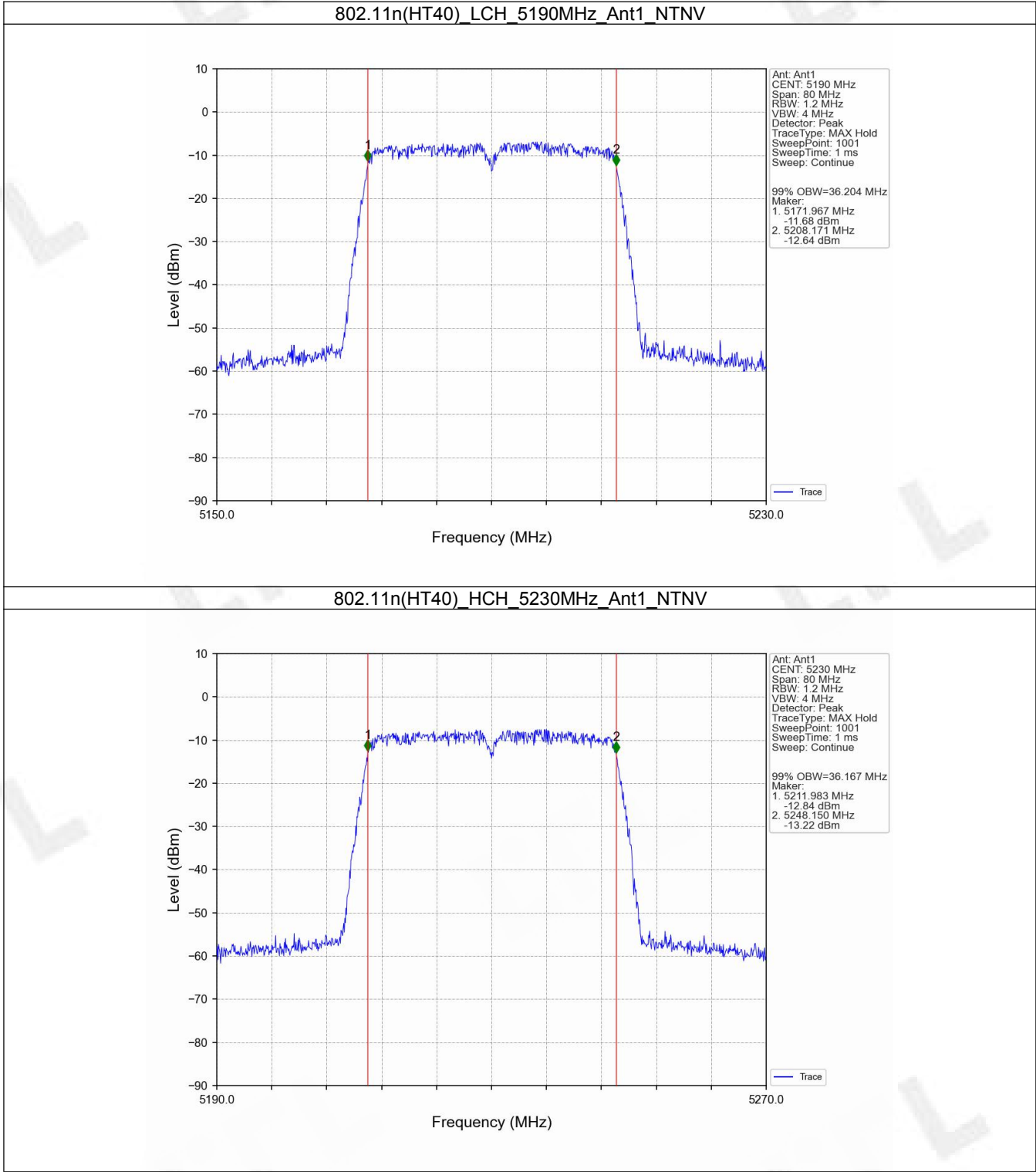
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