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Annex for 5G Wi-Fi BAND 2A

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 (%)

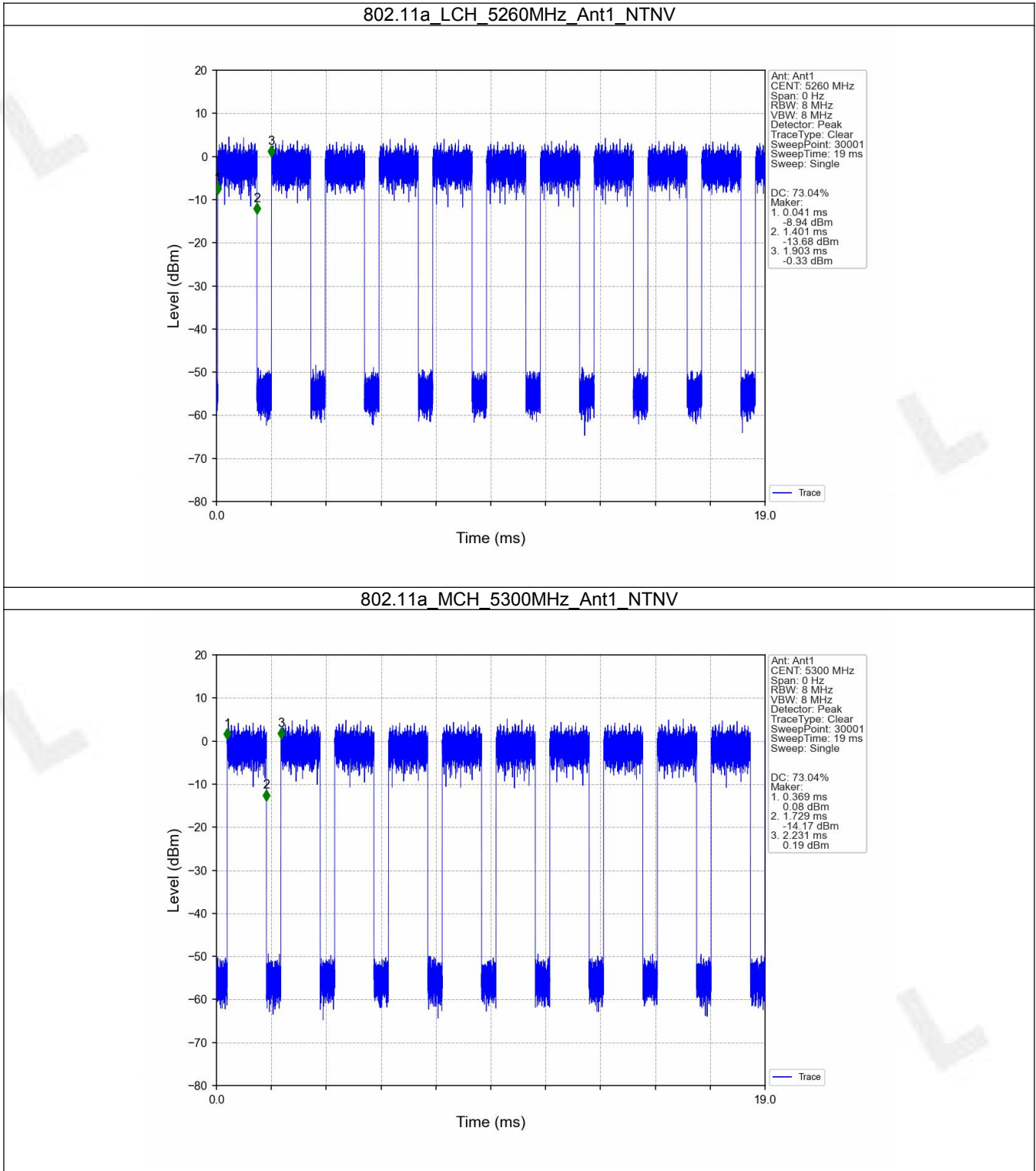
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802.11a	SISO	5260	/	/	1.360	1.862	73.04	1.36	0.03
		5300	/	/	1.360	1.862	73.04	1.36	0.03
		5320	/	/	1.361	1.863	73.05	1.36	0.03
802.11n (HT20)	SISO	5260	/	/	1.272	1.774	71.70	1.44	0.04
		5300	/	/	1.272	1.774	71.70	1.44	0.03
		5320	/	/	1.273	1.775	71.72	1.44	0.03
802.11n (HT40)	SISO	5270	/	/	0.632	1.135	55.68	2.54	0.03
		5310	/	/	0.632	1.134	55.73	2.54	0.01
802.11n (HT20)	MIMO	5260	/	/	1.273	1.775	71.72	1.44	0.03
		5300	/	/	1.273	1.775	71.72	1.44	0.03
		5320	/	/	1.273	1.775	71.72	1.44	0.03
802.11n (HT40)	MIMO	5270	/	/	0.633	1.135	55.77	2.54	0.03
		5310	/	/	0.632	1.134	55.73	2.54	0.03
802.11ac (VHT20)	SISO	5260	/	/	1.276	1.778	71.77	1.44	0.03
		5300	/	/	1.277	1.779	71.78	1.44	0.03
		5320	/	/	1.276	1.778	71.77	1.44	0.03
802.11ac (VHT40)	SISO	5270	/	/	0.636	1.138	55.89	2.53	0.03
		5310	/	/	0.636	1.138	55.89	2.53	0.04
802.11ac (VHT80)	SISO	5290	/	/	0.317	0.819	38.71	4.12	0.03
802.11ac (VHT20)	MIMO	5260	/	/	1.277	1.779	71.78	1.44	0.02
		5300	/	/	1.277	1.779	71.78	1.44	0.03
		5320	/	/	1.277	1.778	71.82	1.44	0.03
802.11ac (VHT40)	MIMO	5270	/	/	0.637	1.139	55.93	2.52	0.03
		5310	/	/	0.637	1.139	55.93	2.52	0.03
802.11ac (VHT80)	MIMO	5290	/	/	0.316	0.818	38.63	4.13	0.03
802.11ax (HEW20)	SISO	5260	SU	/	0.987	1.489	66.29	1.79	0.03
		5300	SU	/	0.986	1.489	66.22	1.79	0.06
		5320	SU	/	0.986	1.489	66.22	1.79	0.03
802.11ax (HEW40)	SISO	5270	SU	/	0.520	1.023	50.83	2.94	0.03
		5310	SU	/	0.520	1.023	50.83	2.94	0.03
802.11ax (HEW80)	SISO	5290	SU	/	0.279	0.781	35.72	4.47	0.03
802.11ax (HEW20)	MIMO	5260	SU	/	0.987	1.489	66.29	1.79	0.03
		5300	SU	/	0.987	1.489	66.29	1.79	0.03
		5320	SU	/	0.986	1.489	66.22	1.79	0.03
802.11ax (HEW40)	MIMO	5270	SU	/	0.521	1.023	50.93	2.93	0.03
		5310	SU	/	0.520	1.023	50.83	2.94	0.03
802.11ax (HEW80)	MIMO	5290	SU	/	0.280	0.782	35.81	4.46	0.03

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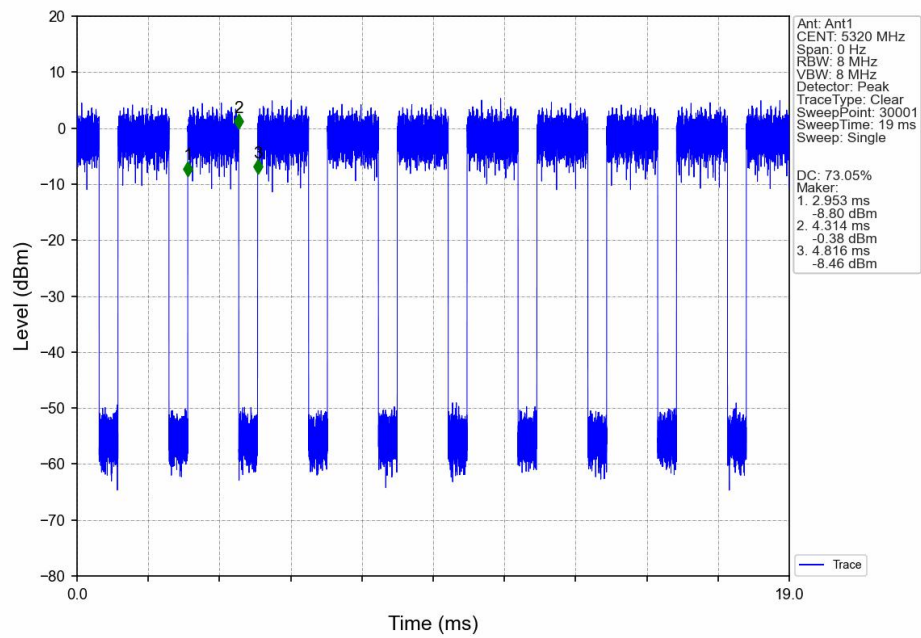
1.2 Test Graph

1.2.1 Ant1

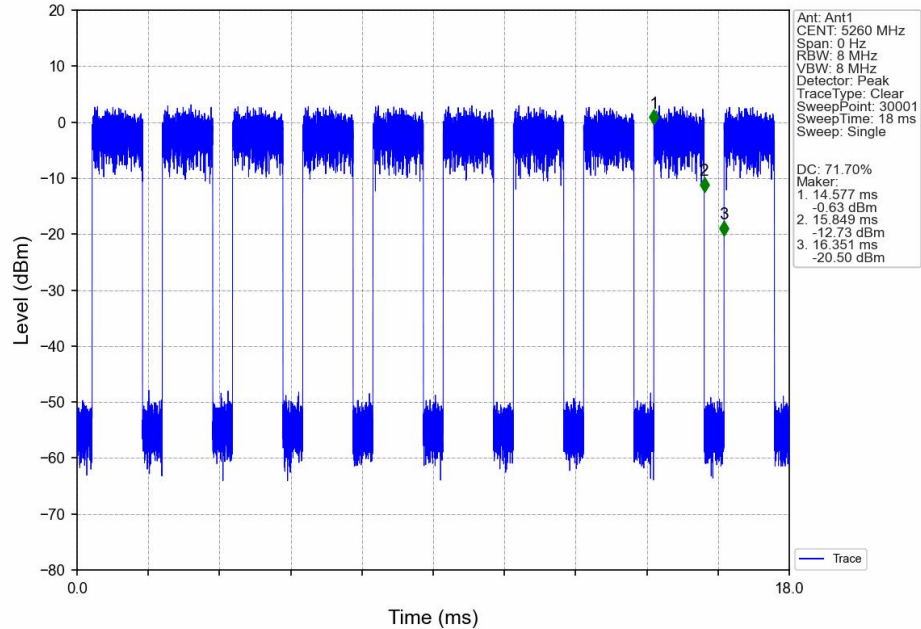


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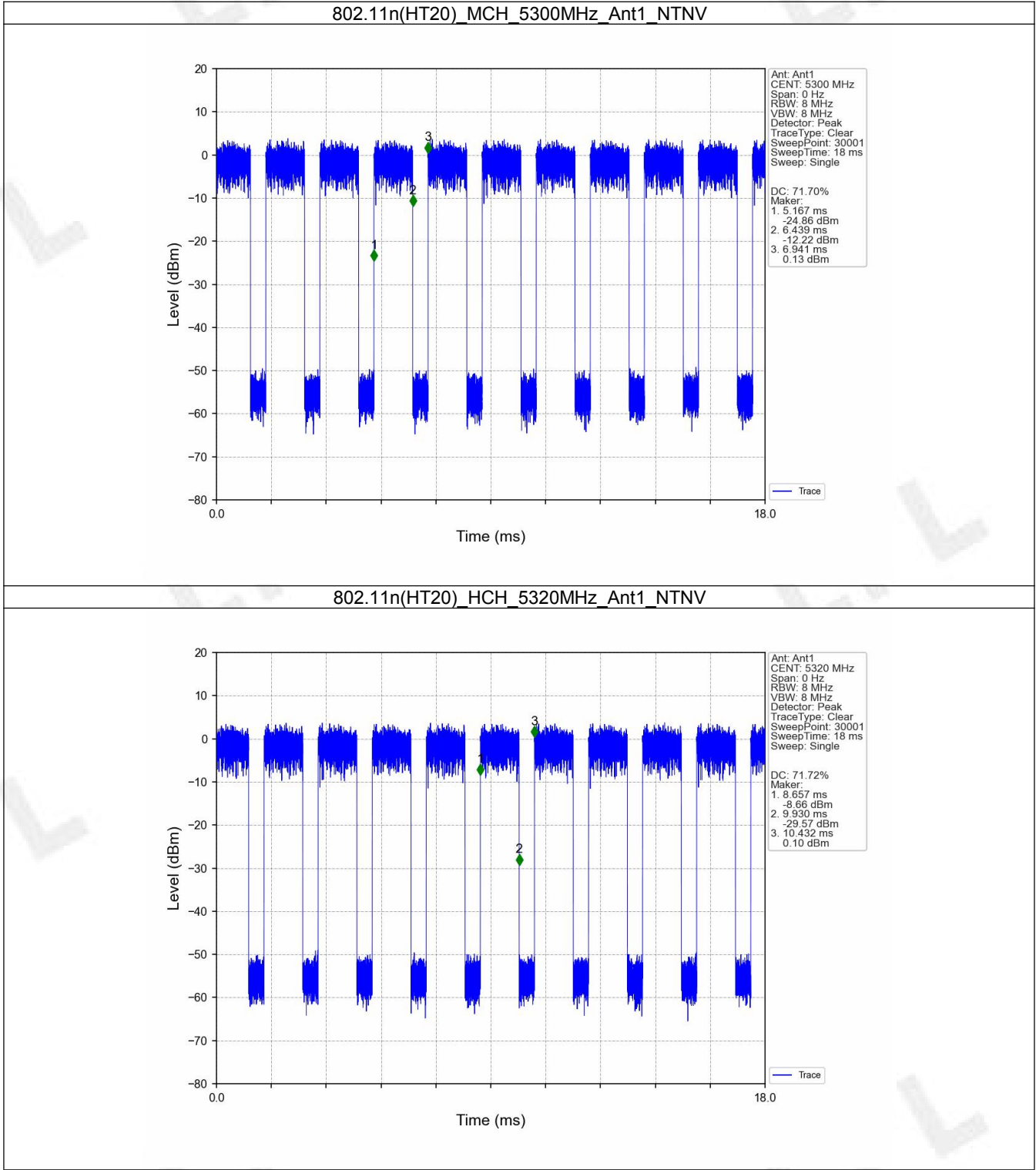
802.11a_HCH_5320MHz_Ant1_NTNV



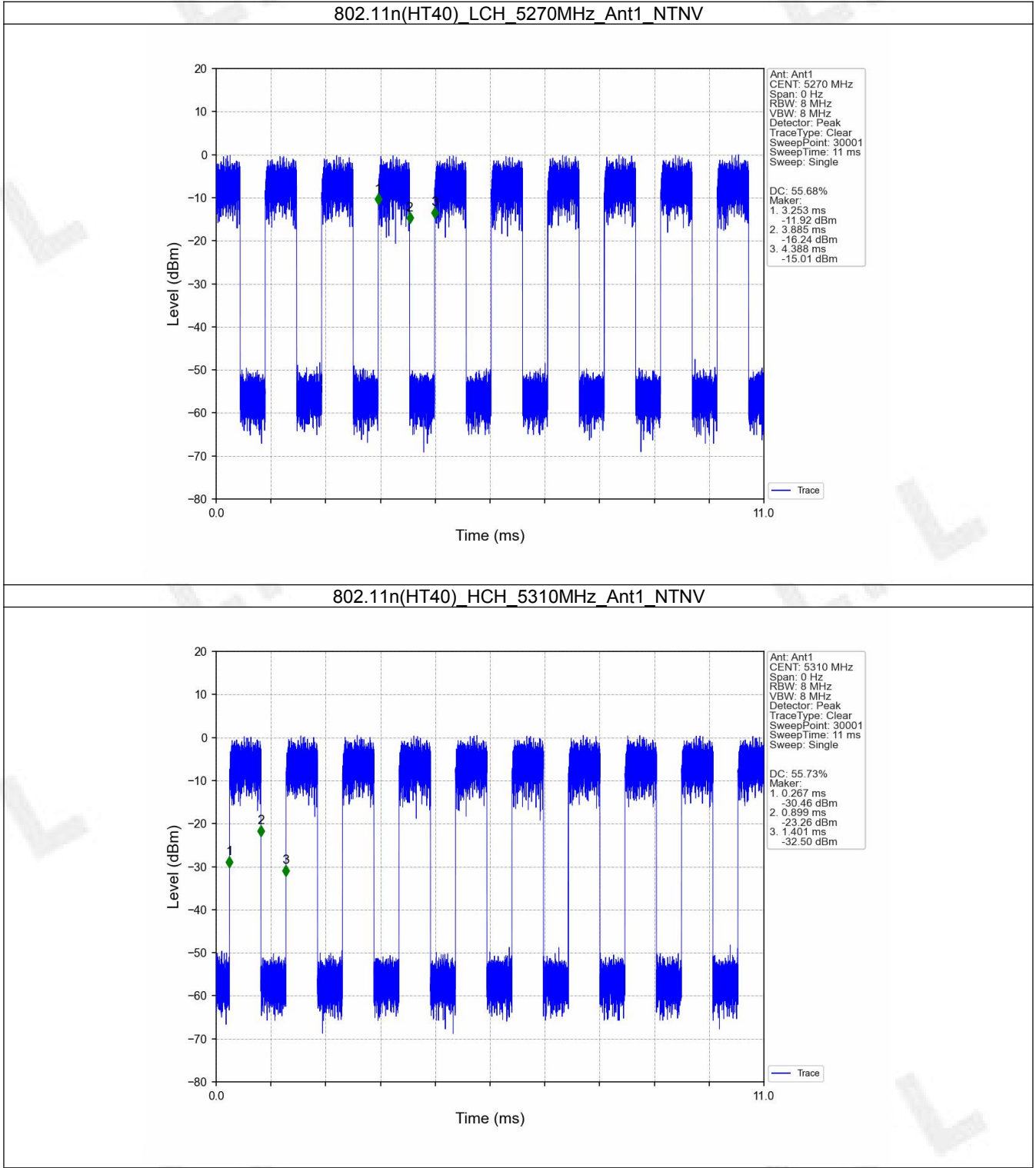
802.11n(HT20)_LCH_5260MHz_Ant1_NTNV



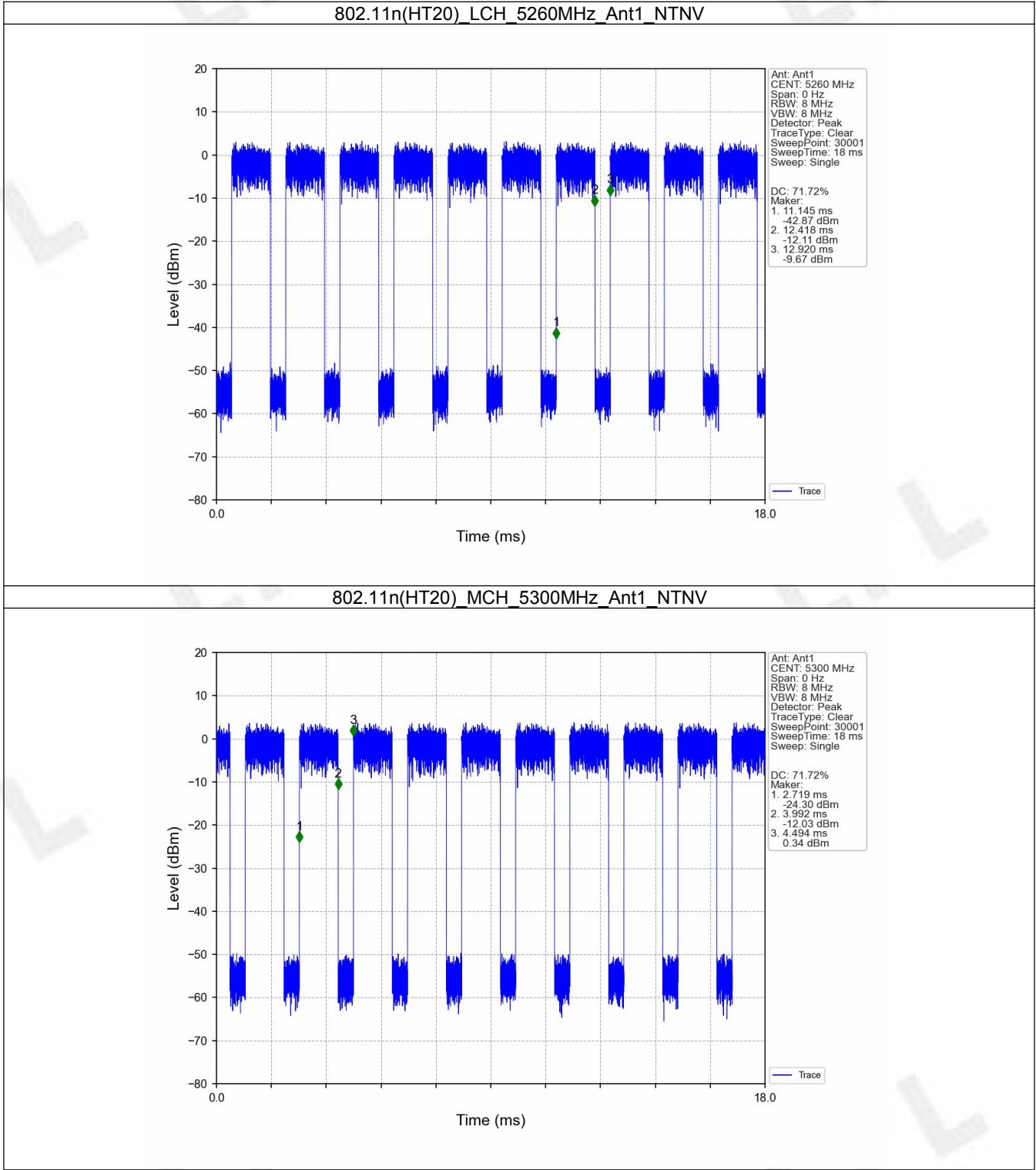
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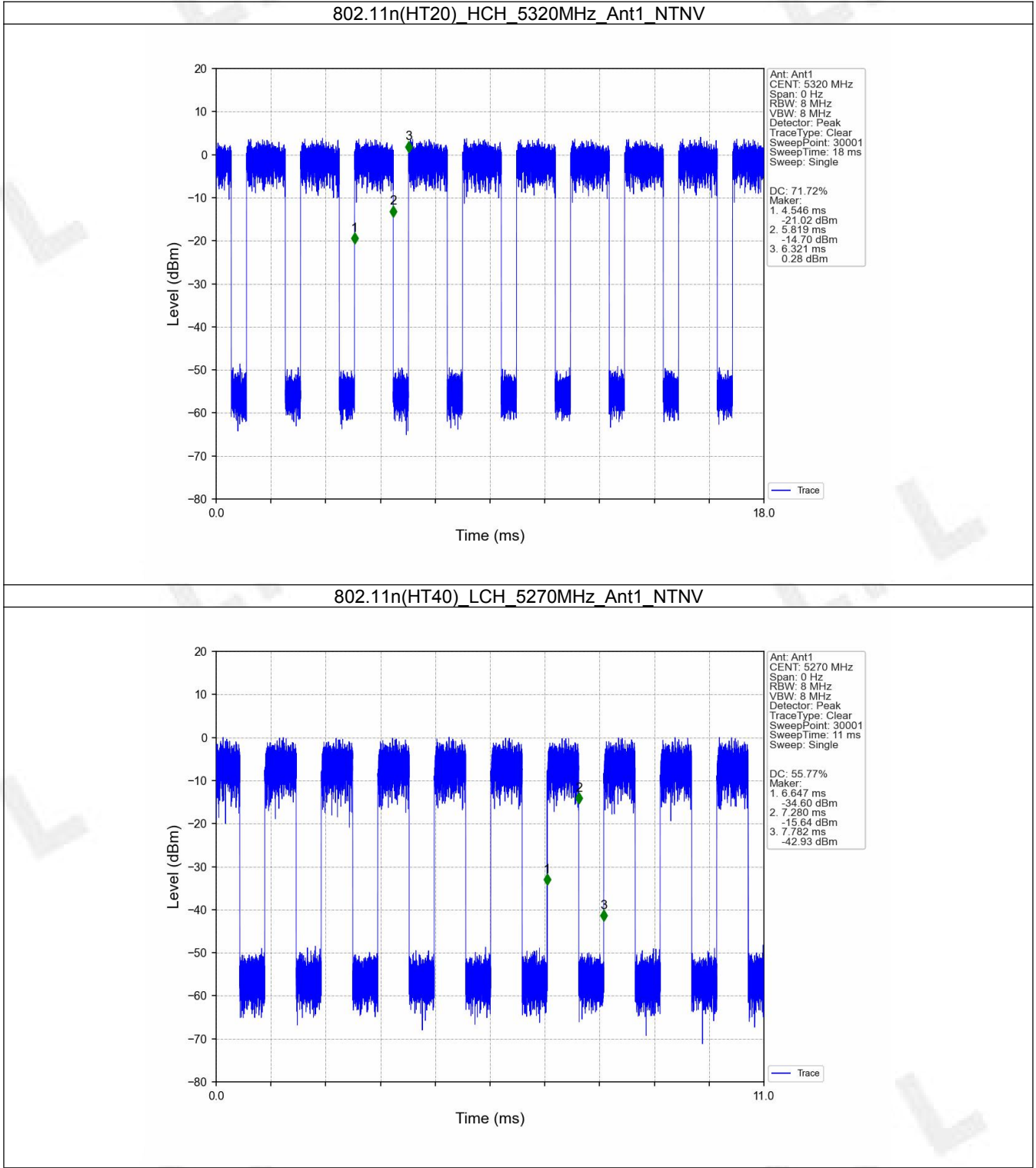
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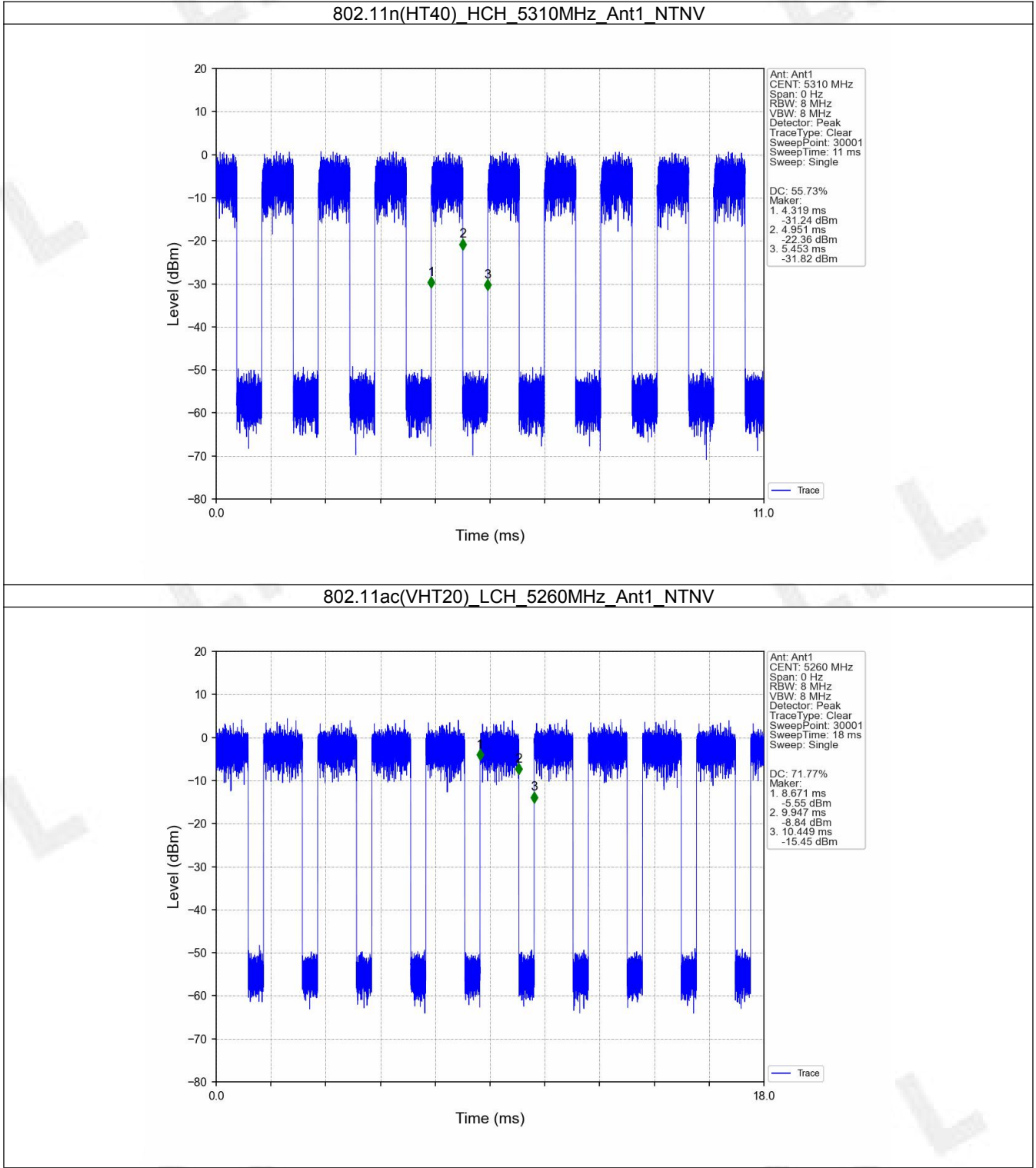
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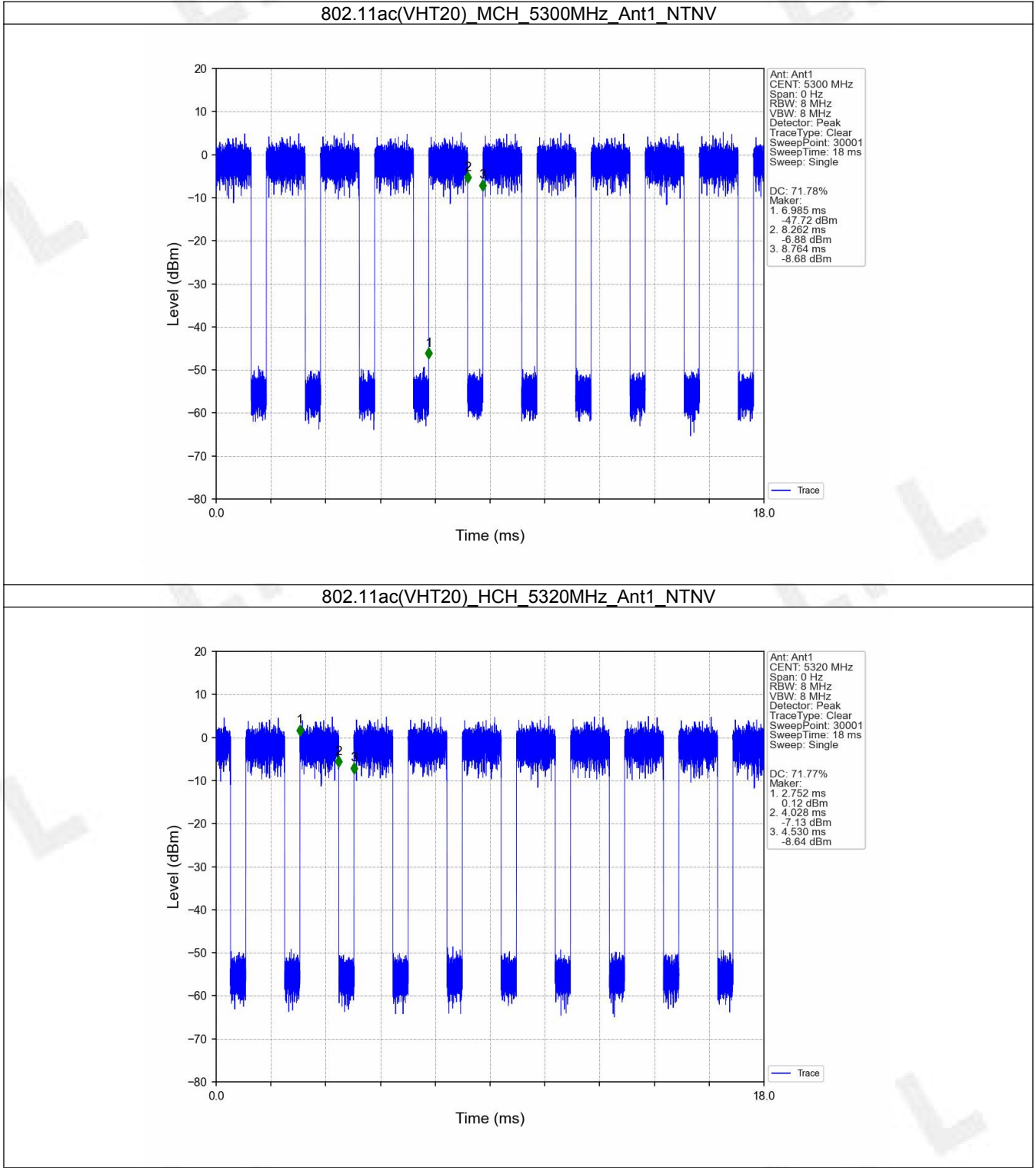
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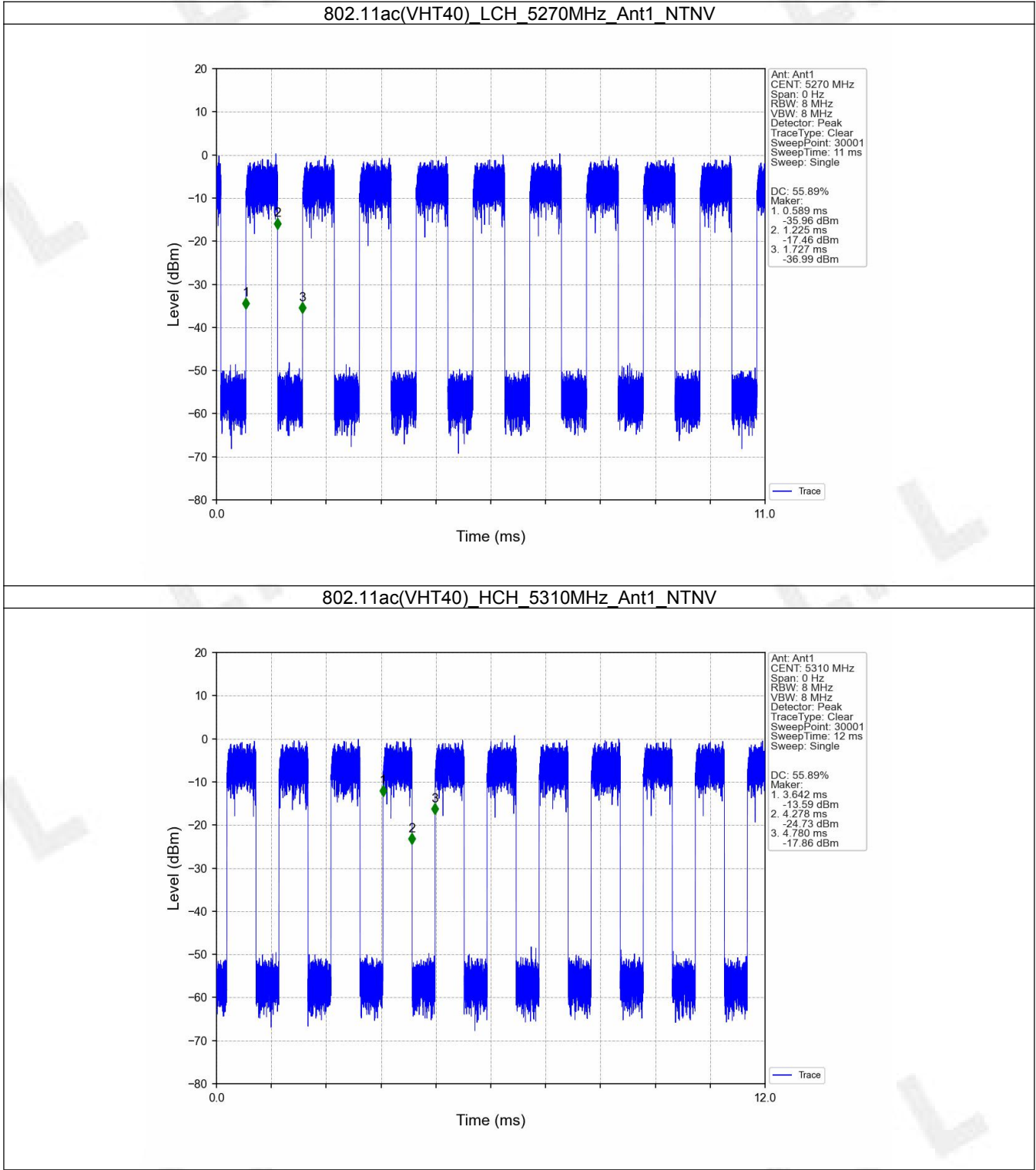
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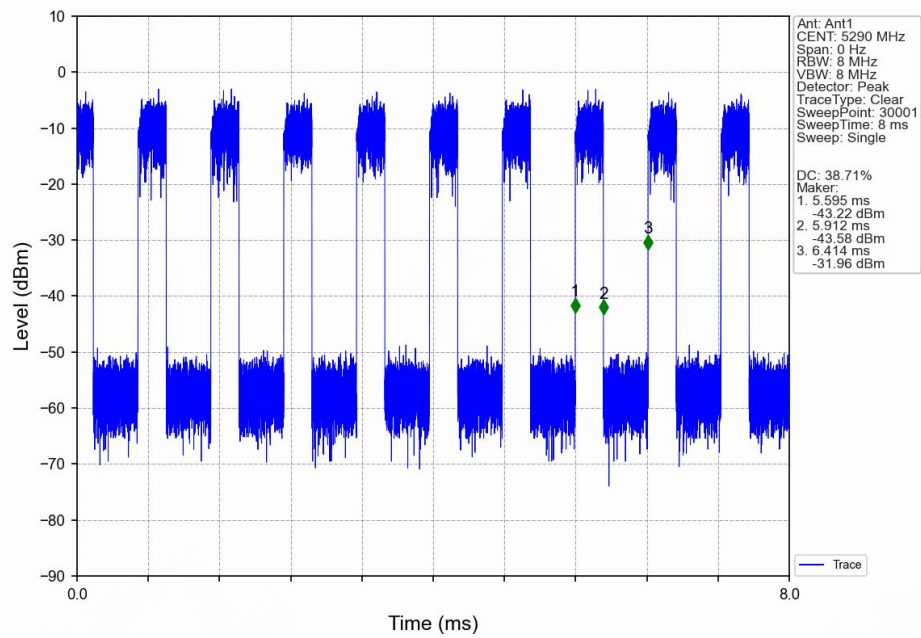


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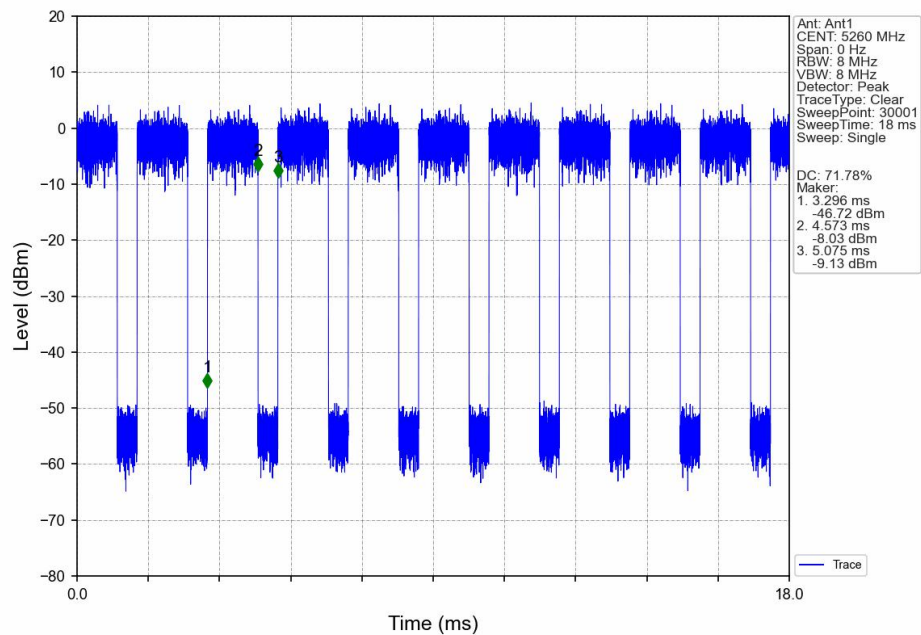


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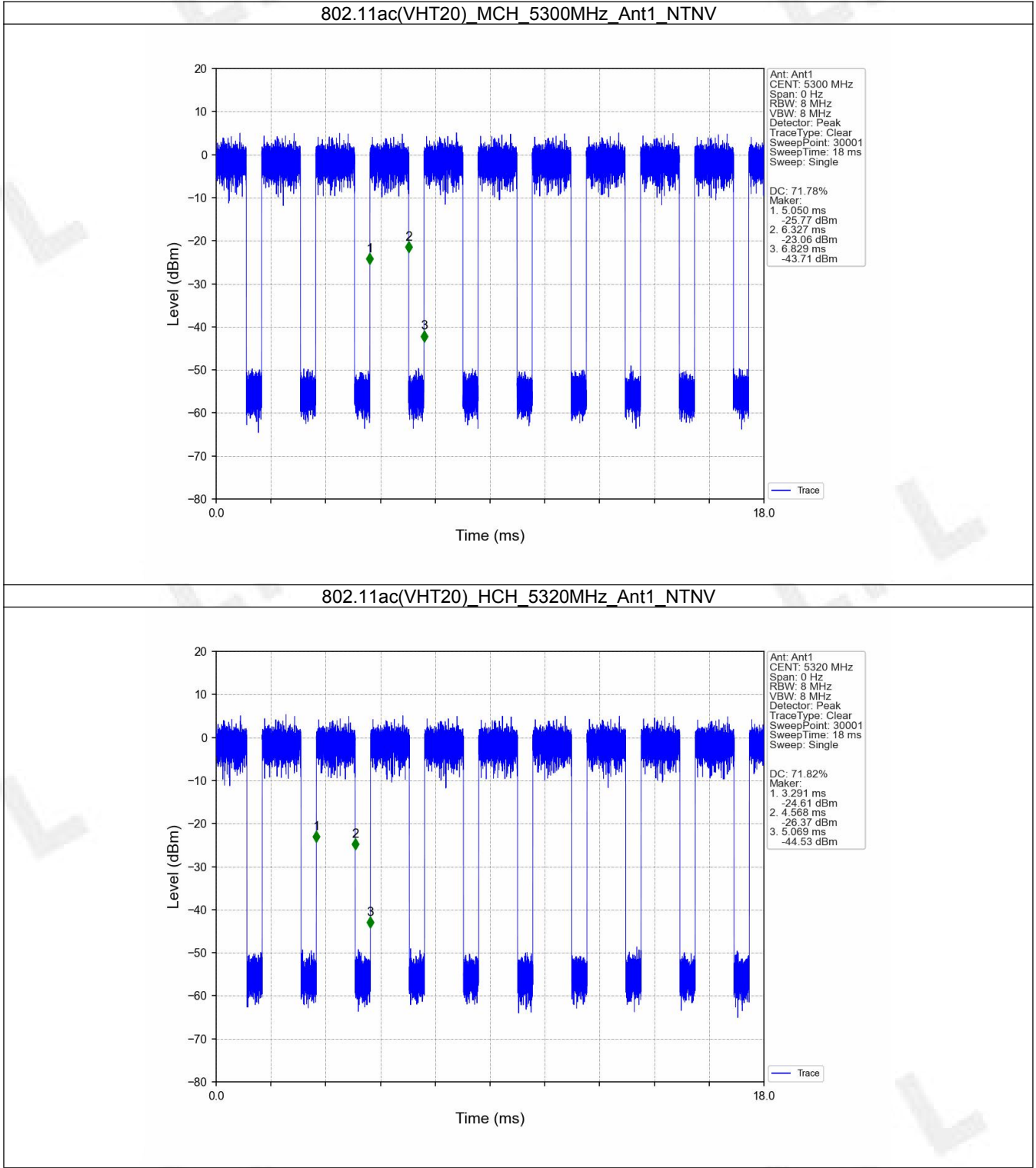
802.11ac(VHT80)_MCH_5290MHz_Ant1_NTNV



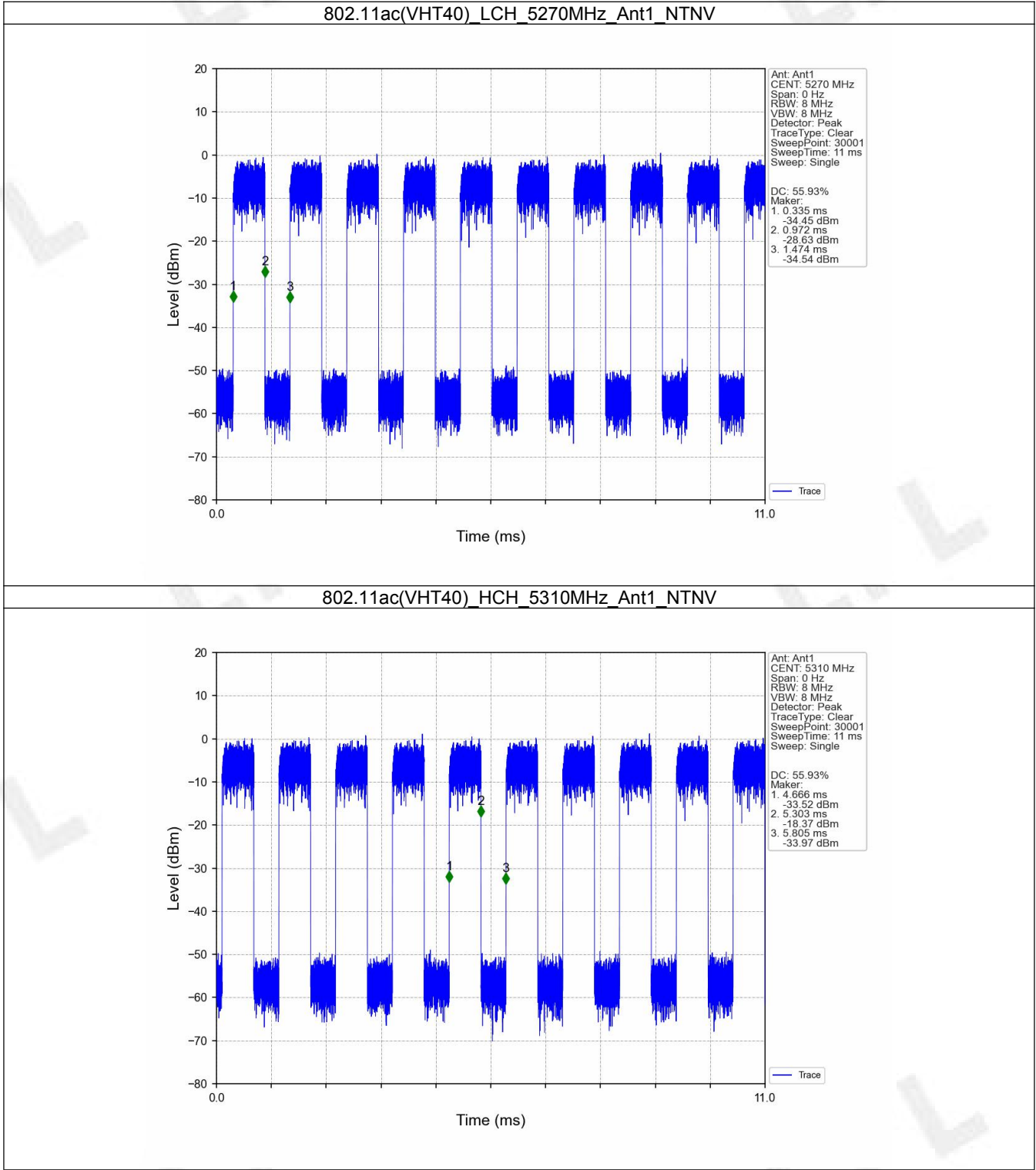
802.11ac(VHT20)_LCH_5260MHz_Ant1_NTNV



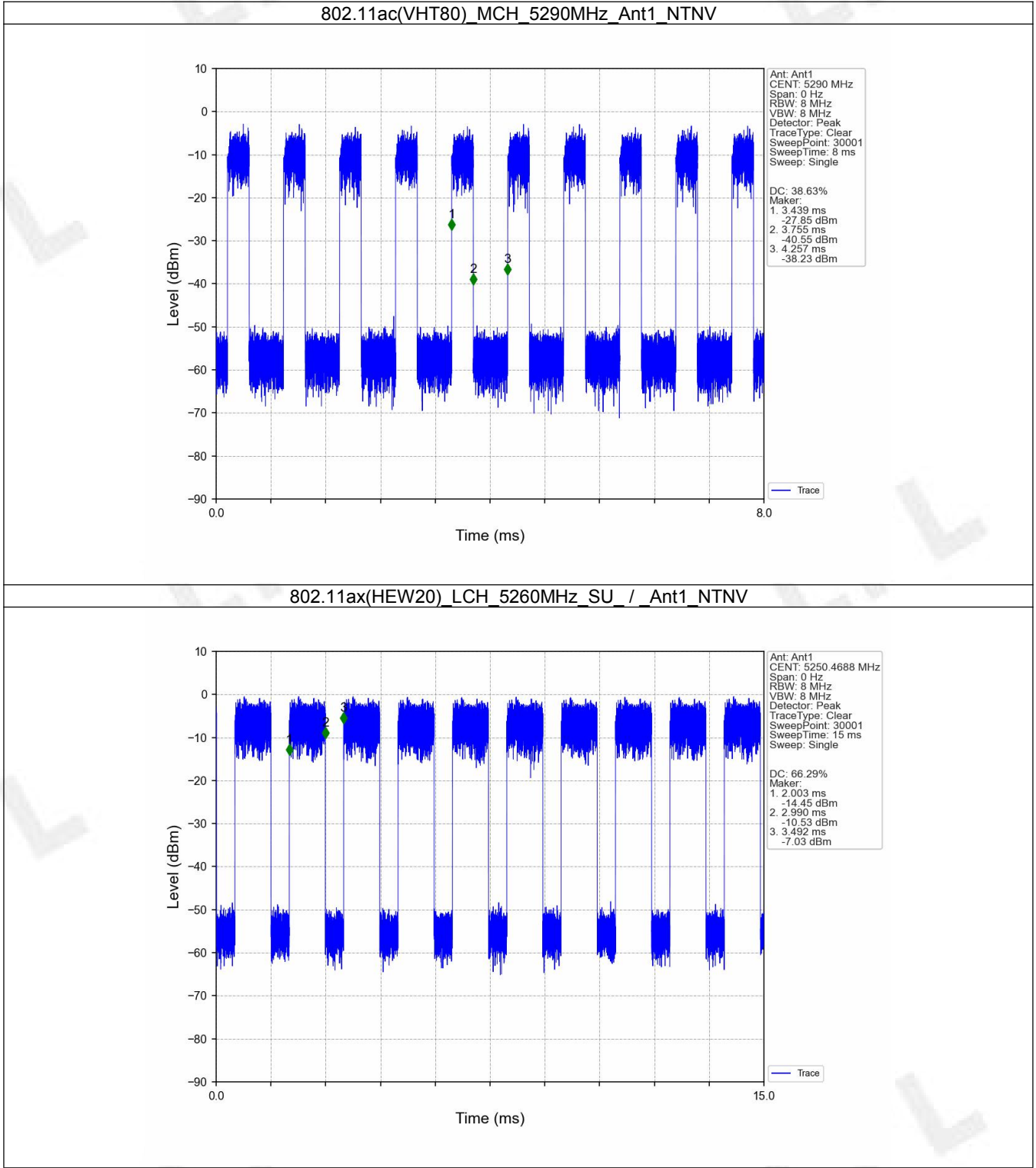
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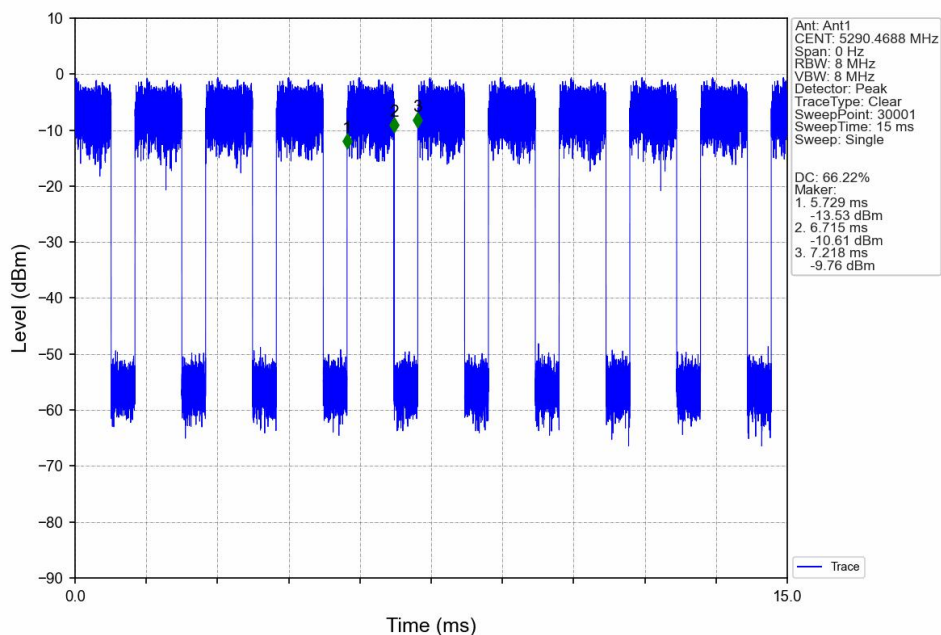


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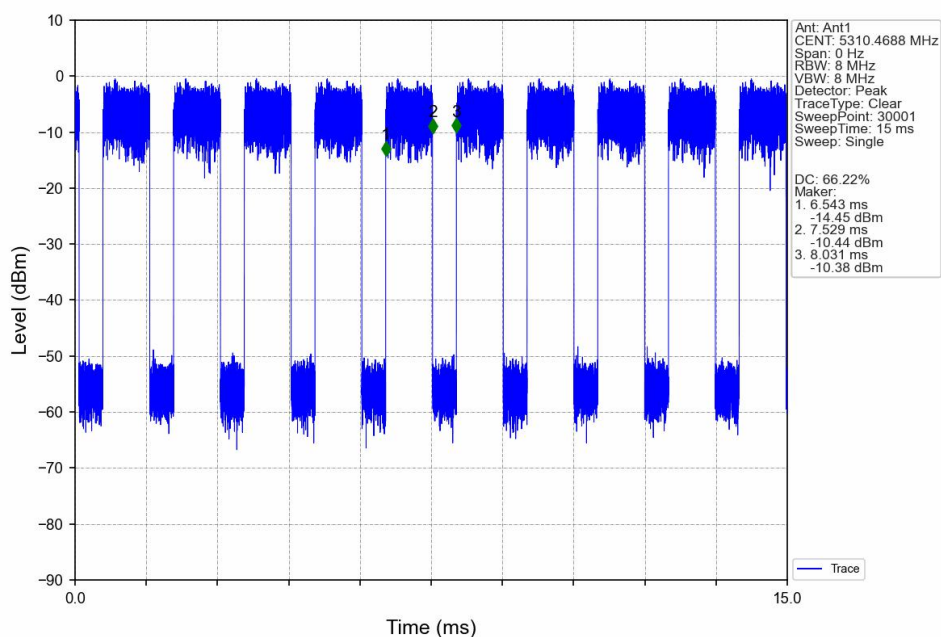


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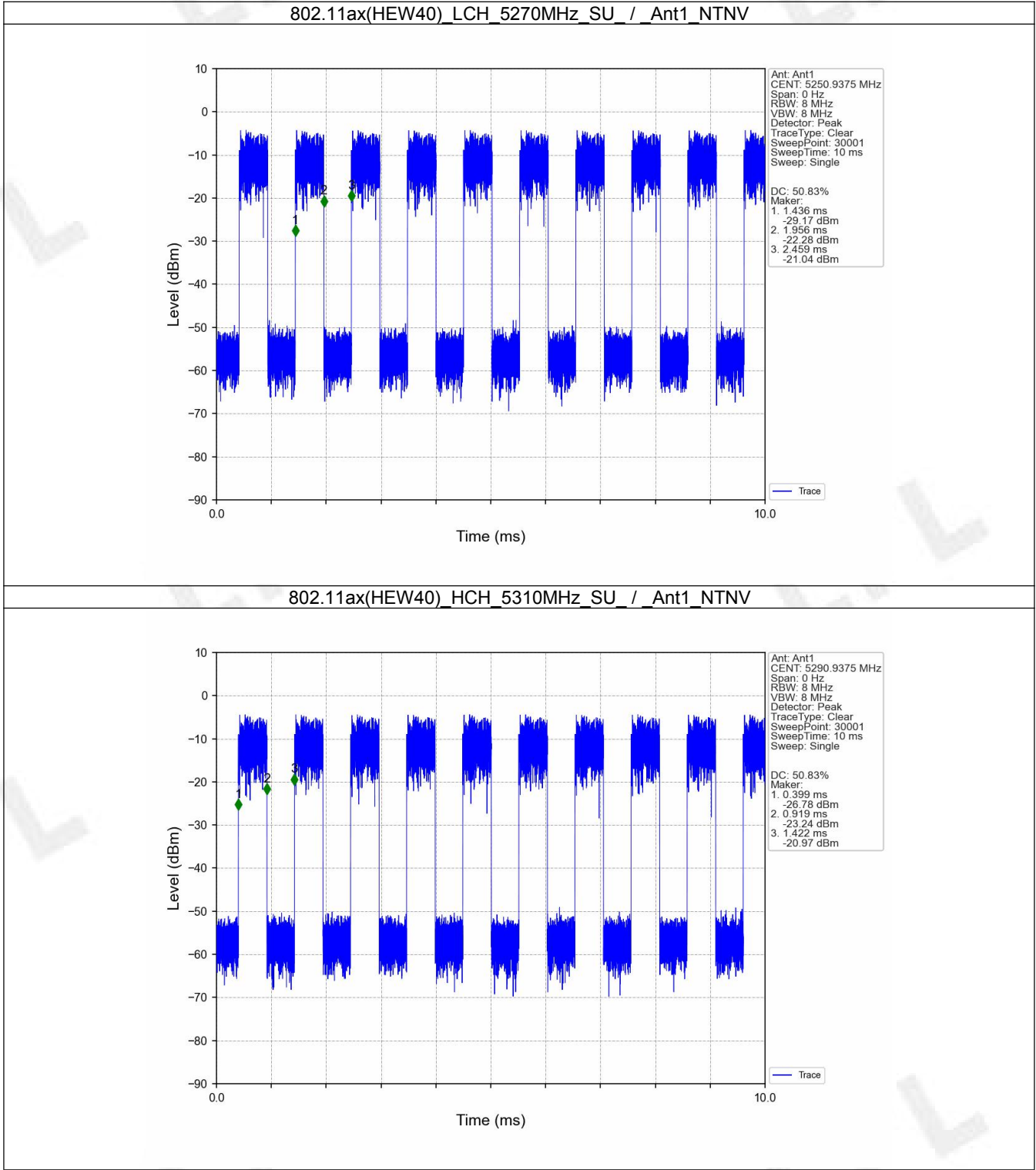
802.11ax(HEW20)_MCH_5300MHz_SU_ / Ant1_NTNV



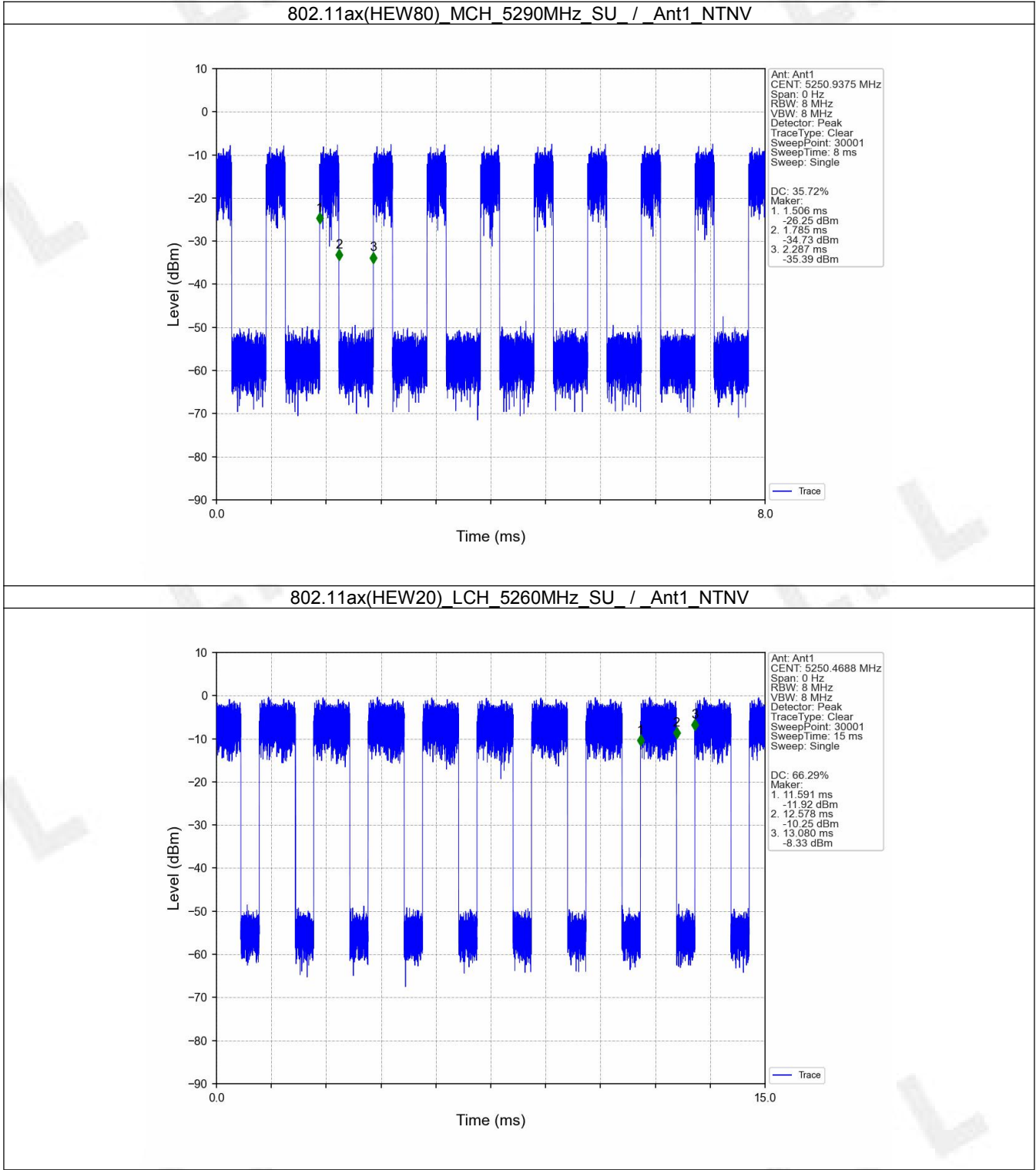
802.11ax(HEW20)_HCH_5320MHz_SU_ / Ant1_NTNV



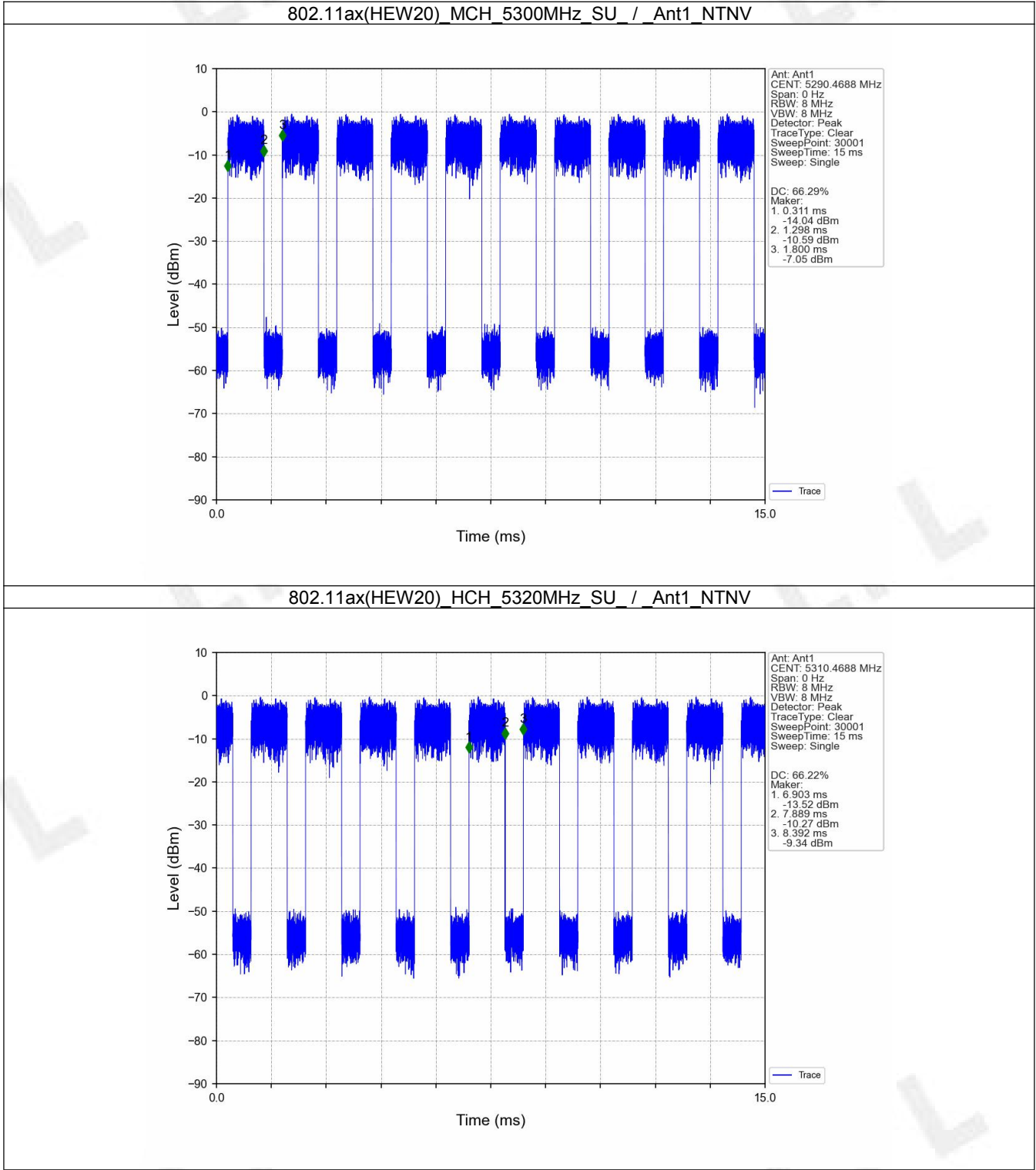
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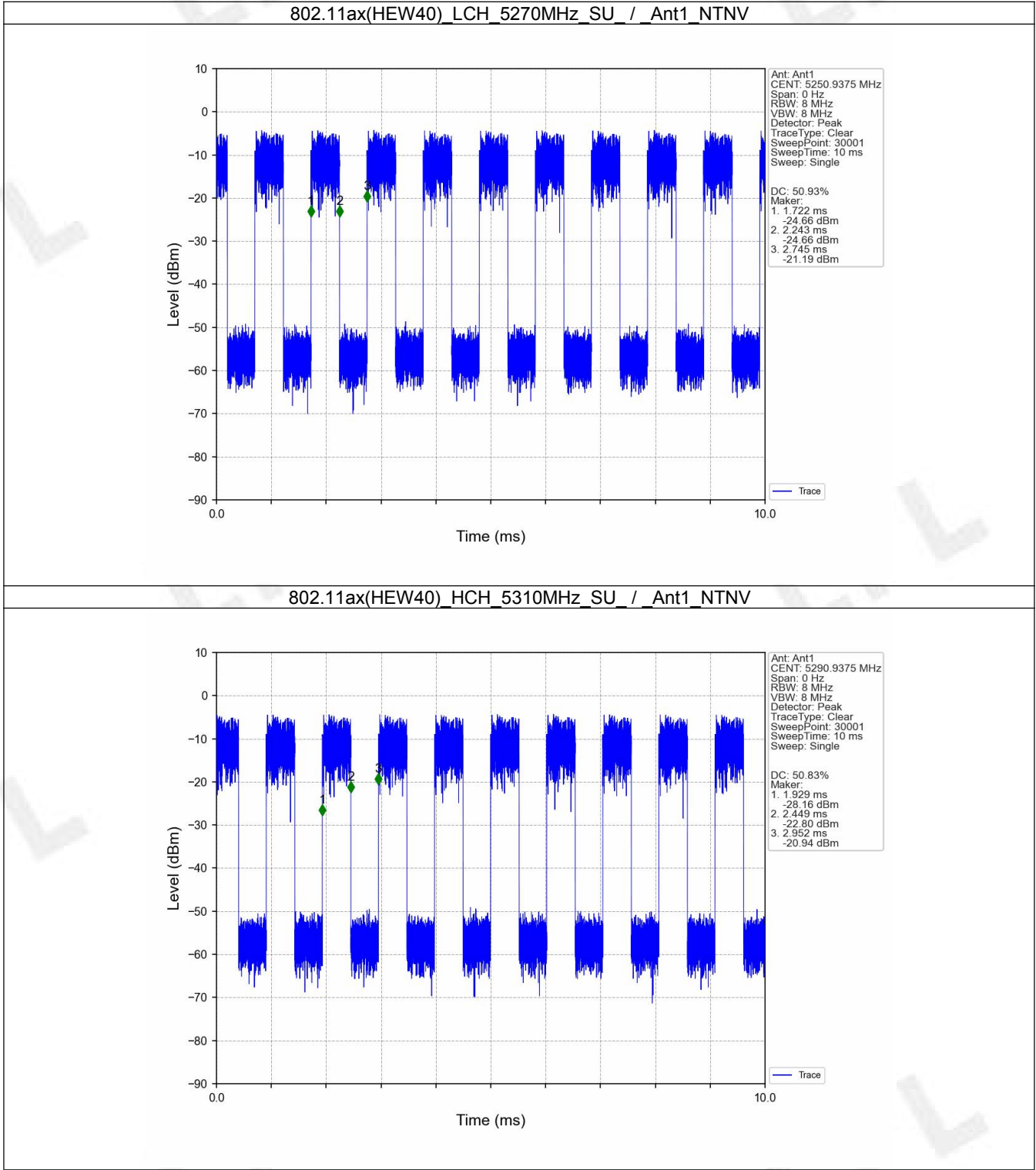
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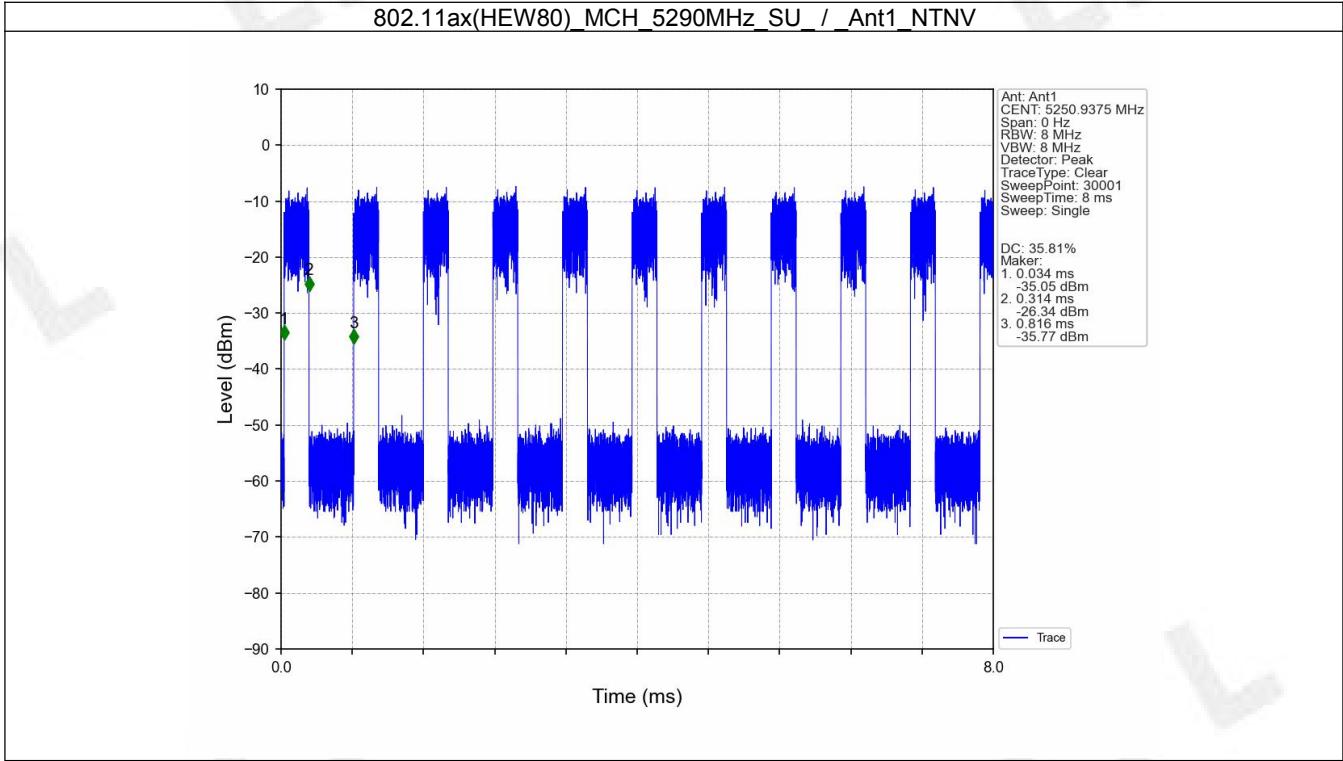
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FCC ID: 2BUT3-SILICONE



FCC ID: 2BUT3-SILICONE



FCC ID: 2BUT3-SILICONE

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	5260	/	/	1	16.613	/	Pass
		5300	/	/	1	16.598	/	Pass
		5320	/	/	1	16.597	/	Pass
802.11n (HT20)	SISO	5260	/	/	1	17.697	/	Pass
		5300	/	/	1	17.698	/	Pass
		5320	/	/	1	17.696	/	Pass
802.11n (HT40)	SISO	5270	/	/	1	36.236	/	Pass
		5310	/	/	1	36.205	/	Pass
802.11n (HT20)	MIMO	5260	/	/	1	17.699	/	Pass
		5300	/	/	1	17.709	/	Pass
		5320	/	/	1	17.682	/	Pass
802.11n (HT40)	MIMO	5270	/	/	1	36.224	/	Pass
		5310	/	/	1	36.162	/	Pass
802.11ac (VHT20)	SISO	5260	/	/	1	17.731	/	Pass
		5300	/	/	1	17.698	/	Pass
		5320	/	/	1	17.690	/	Pass
802.11ac (VHT40)	SISO	5270	/	/	1	36.226	/	Pass
		5310	/	/	1	36.159	/	Pass
802.11ac (VHT80)	SISO	5290	/	/	1	76.668	/	Pass
802.11ac (VHT20)	MIMO	5260	/	/	1	17.708	/	Pass
		5300	/	/	1	17.685	/	Pass
		5320	/	/	1	17.690	/	Pass
802.11ac (VHT40)	MIMO	5270	/	/	1	36.214	/	Pass
		5310	/	/	1	36.170	/	Pass
802.11ac (VHT80)	MIMO	5290	/	/	1	76.406	/	Pass
802.11ax (HEW20)	SISO	5260	SU	/	1	19.047	/	Pass
		5300	SU	/	1	19.060	/	Pass
		5320	SU	/	1	19.019	/	Pass
802.11ax (HEW40)	SISO	5270	SU	/	1	37.821	/	Pass
		5310	SU	/	1	37.783	/	Pass
802.11ax (HEW80)	SISO	5290	SU	/	1	77.265	/	Pass
802.11ax (HEW20)	MIMO	5260	SU	/	1	19.038	/	Pass
		5300	SU	/	1	19.018	/	Pass
		5320	SU	/	1	19.053	/	Pass
802.11ax (HEW40)	MIMO	5270	SU	/	1	37.837	/	Pass
		5310	SU	/	1	37.812	/	Pass
802.11ax (HEW80)	MIMO	5290	SU	/	1	77.231	/	Pass

2.1.2 26dB BW

Mode	TX Type	Frequency (MHz)	RU	RU Pos	ANT	26dB Bandwidth (MHz)		Verdict
						Result	Limit	
802.11a	SISO	5260	/	/	1	18.924	/	Pass
		5300	/	/	1	18.909	/	Pass
		5320	/	/	1	18.845	/	Pass

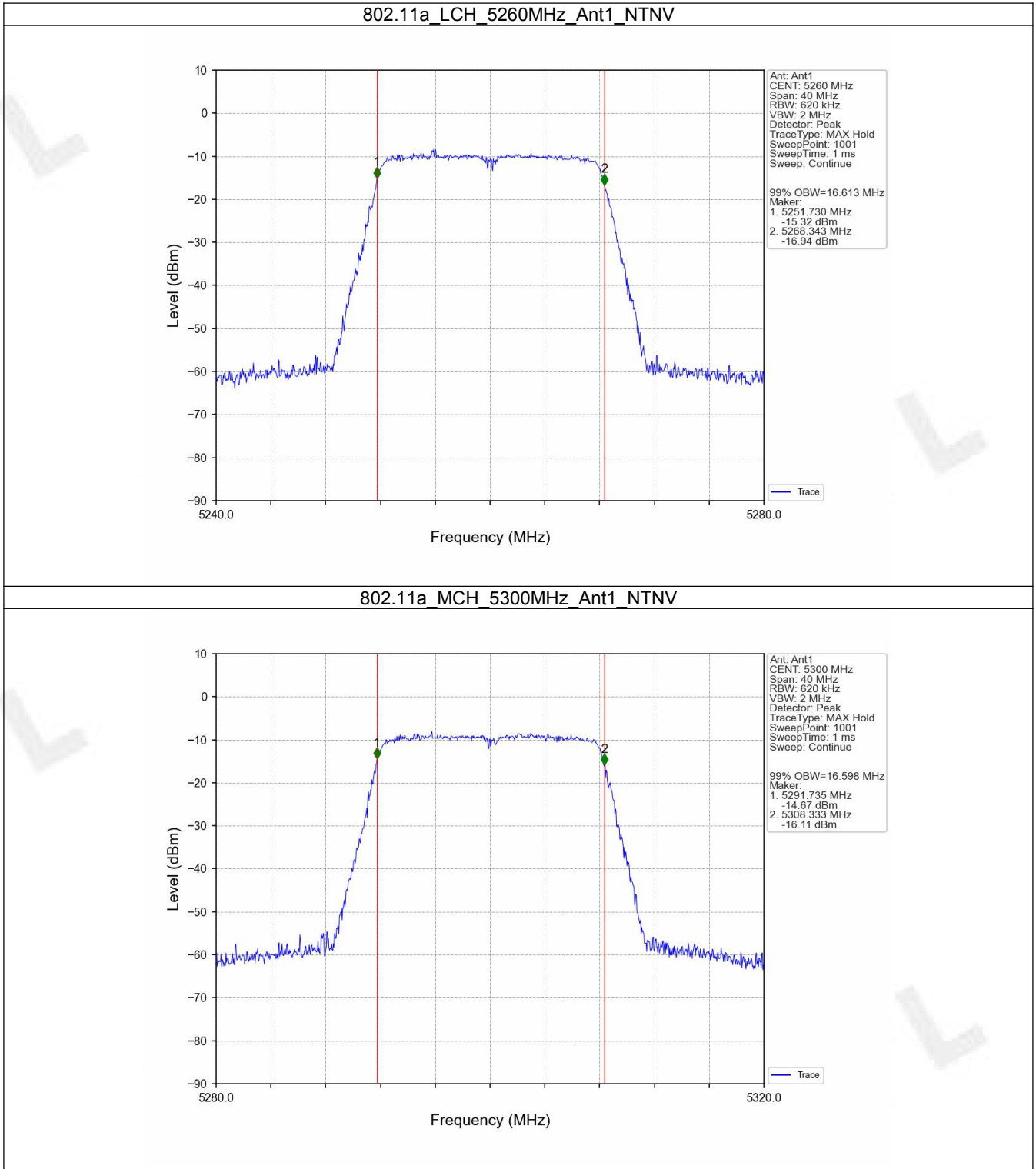
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802.11n (HT20)	SISO	5260	/	/	1	19.859	/	Pass
		5300	/	/	1	19.846	/	Pass
		5320	/	/	1	19.818	/	Pass
802.11n (HT40)	SISO	5270	/	/	1	39.691	/	Pass
		5310	/	/	1	39.603	/	Pass
802.11n (HT20)	MIMO	5260	/	/	1	19.831	/	Pass
		5300	/	/	1	19.836	/	Pass
		5320	/	/	1	19.748	/	Pass
802.11n (HT40)	MIMO	5270	/	/	1	39.628	/	Pass
		5310	/	/	1	39.748	/	Pass
802.11ac (VHT20)	SISO	5260	/	/	1	19.870	/	Pass
		5300	/	/	1	19.928	/	Pass
		5320	/	/	1	19.825	/	Pass
802.11ac (VHT40)	SISO	5270	/	/	1	39.604	/	Pass
		5310	/	/	1	39.596	/	Pass
802.11ac (VHT80)	SISO	5290	/	/	1	84.767	/	Pass
802.11ac (VHT20)	MIMO	5260	/	/	1	19.793	/	Pass
		5300	/	/	1	19.777	/	Pass
		5320	/	/	1	19.873	/	Pass
802.11ac (VHT40)	MIMO	5270	/	/	1	39.344	/	Pass
		5310	/	/	1	39.406	/	Pass
802.11ac (VHT80)	MIMO	5290	/	/	1	85.717	/	Pass
802.11ax (HEW20)	SISO	5260	SU	/	1	20.671	/	Pass
		5300	SU	/	1	20.522	/	Pass
		5320	SU	/	1	20.537	/	Pass
802.11ax (HEW40)	SISO	5270	SU	/	1	40.665	/	Pass
		5310	SU	/	1	40.346	/	Pass
802.11ax (HEW80)	SISO	5290	SU	/	1	81.151	/	Pass
802.11ax (HEW20)	MIMO	5260	SU	/	1	20.534	/	Pass
		5300	SU	/	1	20.818	/	Pass
		5320	SU	/	1	20.465	/	Pass
802.11ax (HEW40)	MIMO	5270	SU	/	1	40.212	/	Pass
		5310	SU	/	1	40.338	/	Pass
802.11ax (HEW80)	MIMO	5290	SU	/	1	81.436	/	Pass

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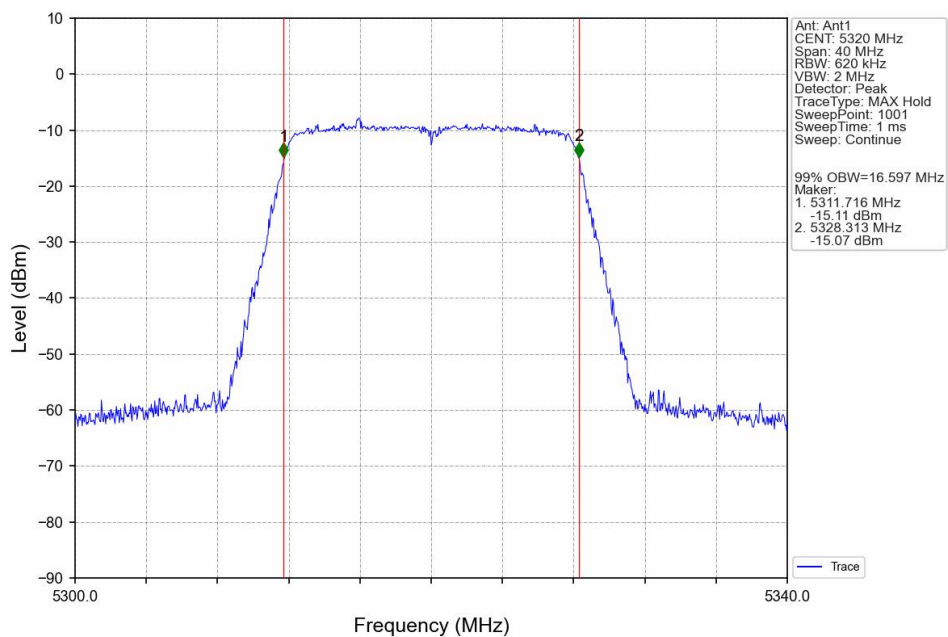
2.2 Test Graph

2.2.1 OBW

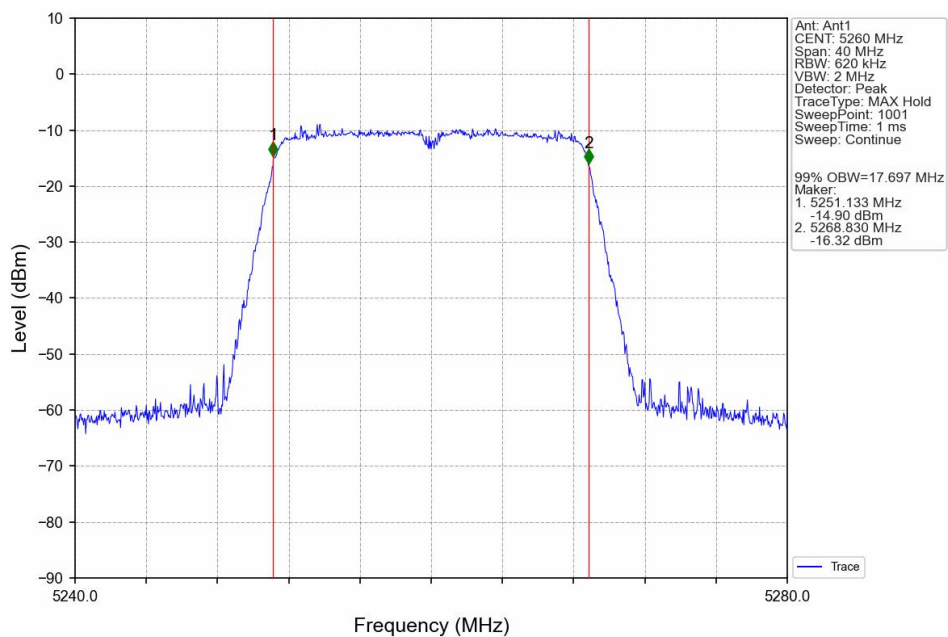


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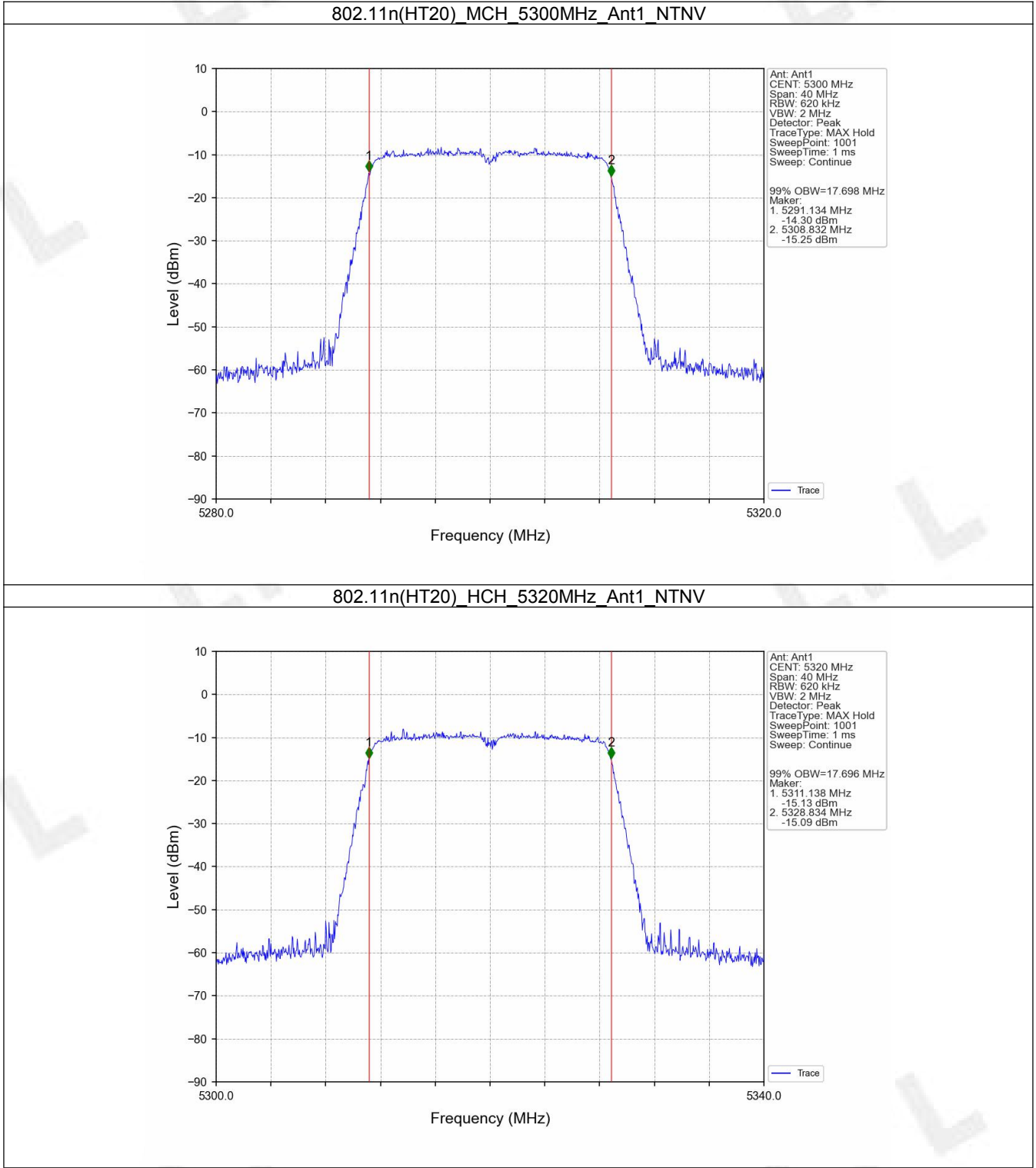
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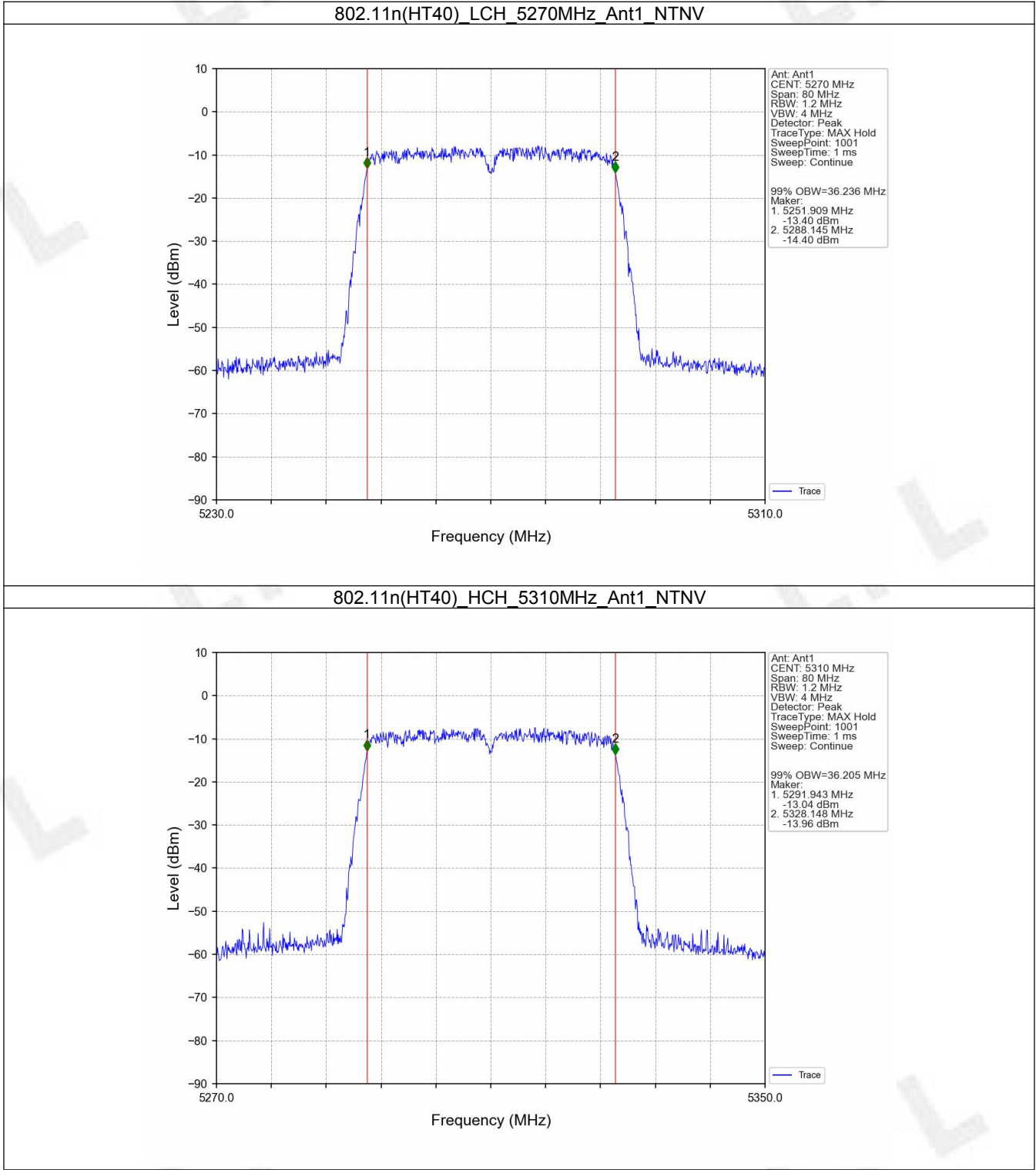
802.11n(HT20)_LCH_5260MHz_Ant1_NTNV



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