

Appendix RF test data for 5G WIFI -Module1

1. Duty Cycle

1.1 Test Result

1.1.1 Ant1

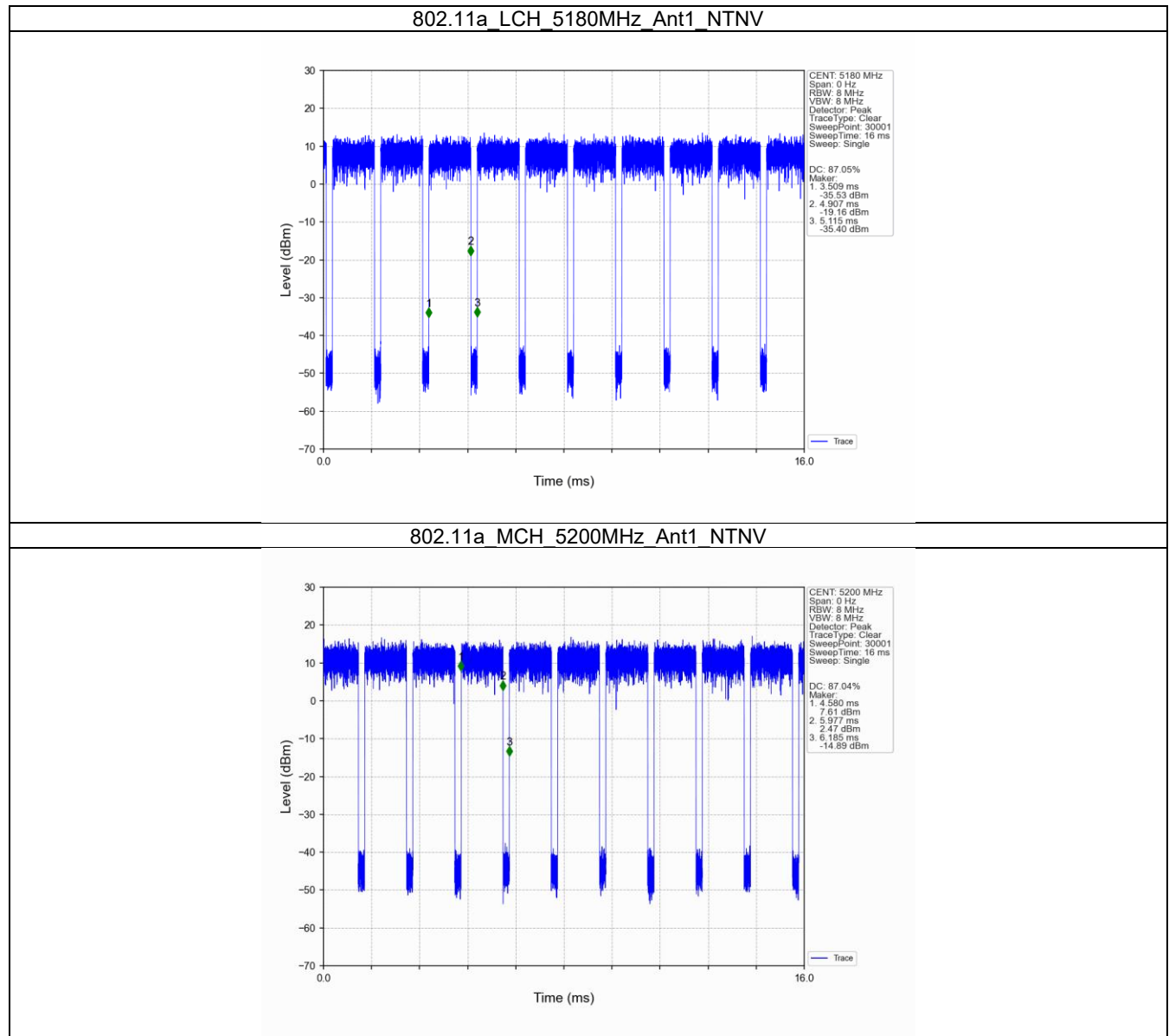
Ant1							
Mode	Tx Type	Frequency (MHz)	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
802.11a	SISO	5180	1.398	1.606	87.05	0.60	0.03
		5200	1.397	1.605	87.04	0.60	0.03
		5240	1.397	1.606	86.99	0.61	0.03
		5260	1.397	1.606	86.99	0.61	0.03
		5300	1.398	1.606	87.05	0.60	0.03
		5320	1.397	1.605	87.04	0.60	0.03
		5500	1.397	1.606	86.99	0.61	0.06
		5580	1.396	1.605	86.98	0.61	0.03
		5700	1.397	1.605	87.04	0.60	0.03
		5745	1.398	1.606	87.05	0.60	0.03
		5785	1.397	1.605	87.04	0.60	0.03
802.11n (HT20)	MIMO	5180	1.309	1.516	86.35	0.64	0.03
		5200	1.309	1.518	86.23	0.64	0.03
		5240	1.309	1.518	86.23	0.64	0.03
		5260	1.309	1.517	86.29	0.64	0.03
		5300	1.309	1.517	86.29	0.64	0.03
		5320	1.308	1.516	86.28	0.64	0.03
		5500	1.309	1.517	86.29	0.64	0.03
		5580	1.309	1.517	86.29	0.64	0.03
		5700	1.309	1.517	86.29	0.64	0.03
		5745	1.309	1.516	86.35	0.64	0.03
		5785	1.309	1.517	86.29	0.64	0.03
802.11n (HT40)	MIMO	5190	0.649	0.857	75.73	1.21	0.01
		5230	0.649	0.857	75.73	1.21	0.04
		5270	0.649	0.857	75.73	1.21	0.04
		5310	0.649	0.857	75.73	1.21	0.04
		5510	0.649	0.857	75.73	1.21	0.01
		5550	0.649	0.857	75.73	1.21	0.01
		5670	0.650	0.857	75.85	1.20	0.06
		5755	0.649	0.857	75.73	1.21	0.04
802.11ac (VHT20)	MIMO	5180	0.481	0.689	69.81	1.56	0.00
		5200	0.481	0.689	69.81	1.56	0.07
		5240	0.482	0.690	69.86	1.56	0.03
		5260	0.482	0.689	69.96	1.55	0.07
		5300	0.481	0.689	69.81	1.56	0.03
		5320	0.482	0.689	69.96	1.55	0.03
		5500	0.482	0.690	69.86	1.56	0.02
		5580	0.481	0.689	69.81	1.56	0.01
		5700	0.096	0.305	31.48	5.02	0.12
		5745	0.096	0.305	31.48	5.02	0.13
		5785	0.098	0.305	32.13	4.93	0.06
802.11ac (VHT40)	MIMO	5825	0.097	0.305	31.80	4.98	0.08
		5190	0.261	0.469	55.65	2.55	0.04
		5230	0.266	0.469	56.72	2.46	0.11
		5270	0.262	0.469	55.86	2.53	0.06
		5310	0.261	0.469	55.65	2.55	0.11



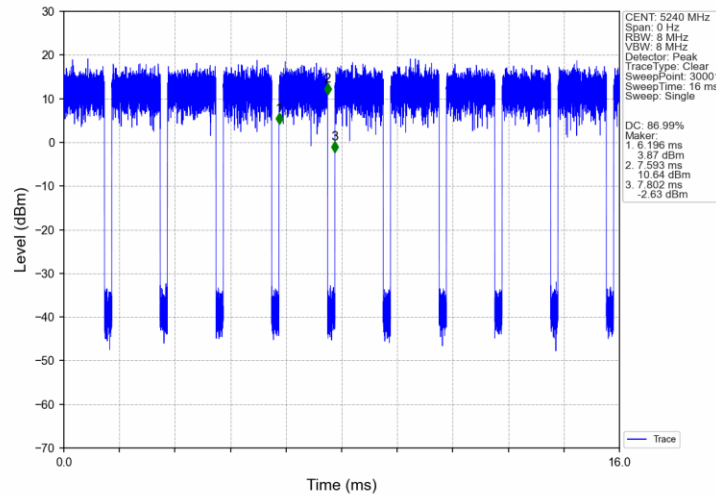
		5510	0.077	0.285	27.02	5.68	0.09
		5550	0.077	0.285	27.02	5.68	0.04
		5670	0.077	0.286	26.92	5.70	0.07
		5755	0.078	0.285	27.37	5.63	0.06
		5795	0.078	0.285	27.37	5.63	0.07
802.11ac (VHT80)	MIMO	5210	0.150	0.357	42.02	3.77	0.02
		5290	0.149	0.357	41.74	3.79	0.02
		5530	0.065	0.273	23.81	6.23	0.07
		5610	0.066	0.273	24.18	6.17	0.04
		5775	0.066	0.273	24.18	6.17	0.07

1.2 Test Graph

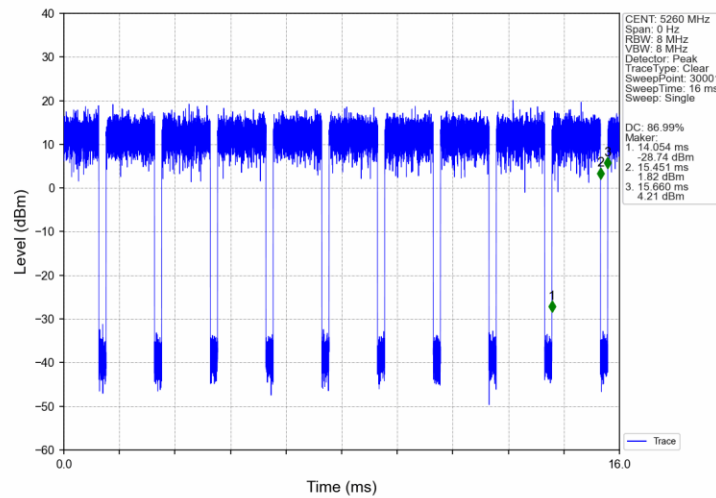
1.2.1 Ant1



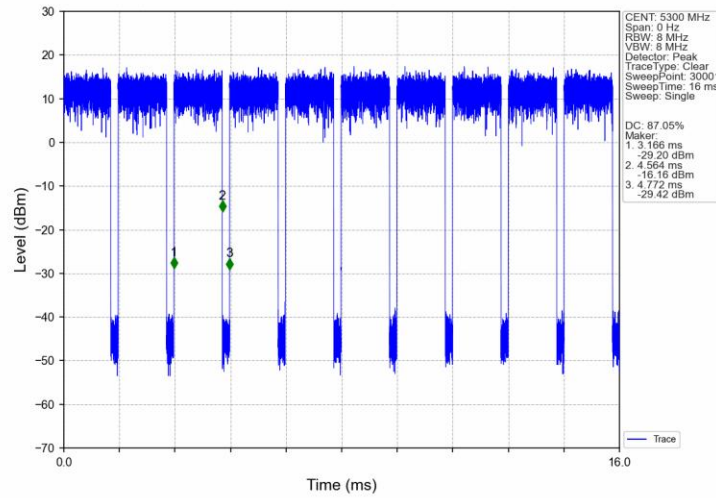
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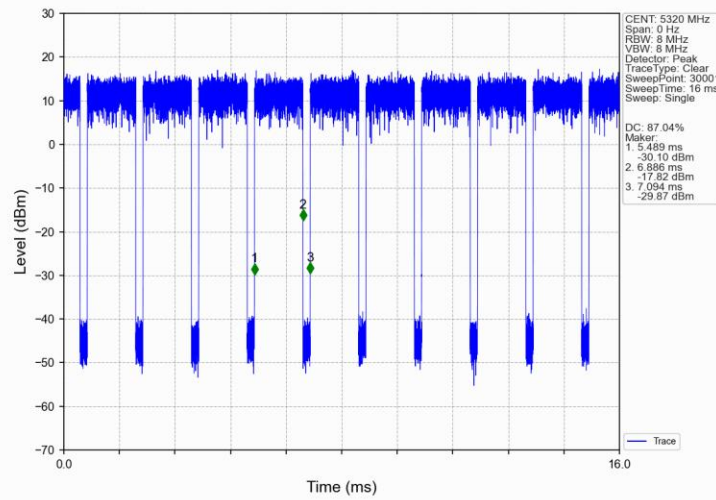
802.11a_LCH_5260MHz_Ant1_NTNV



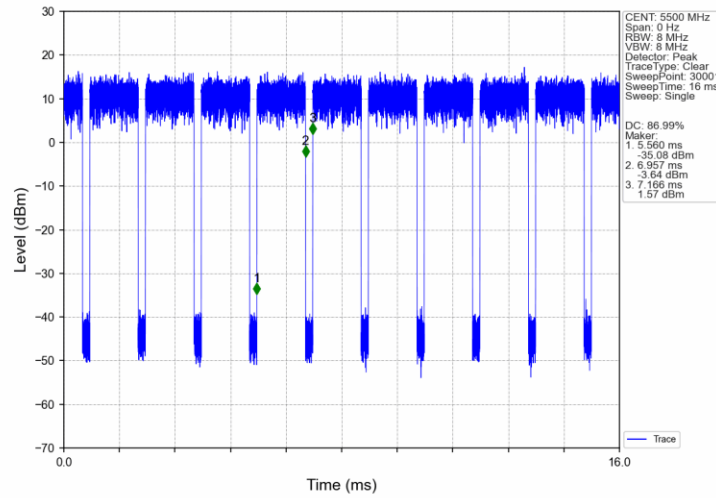
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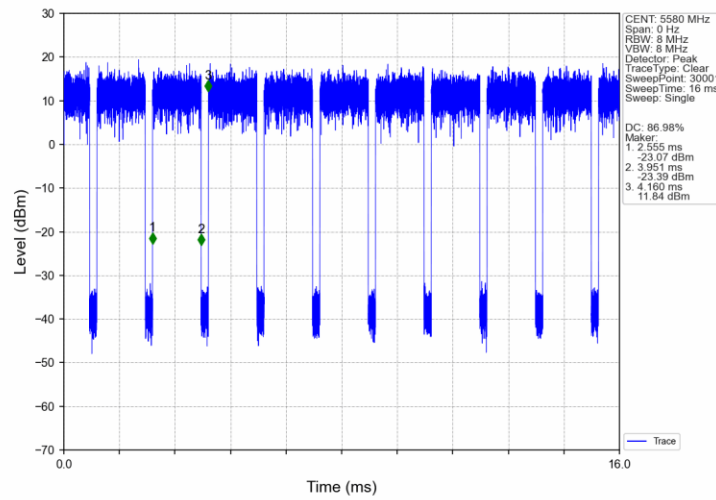
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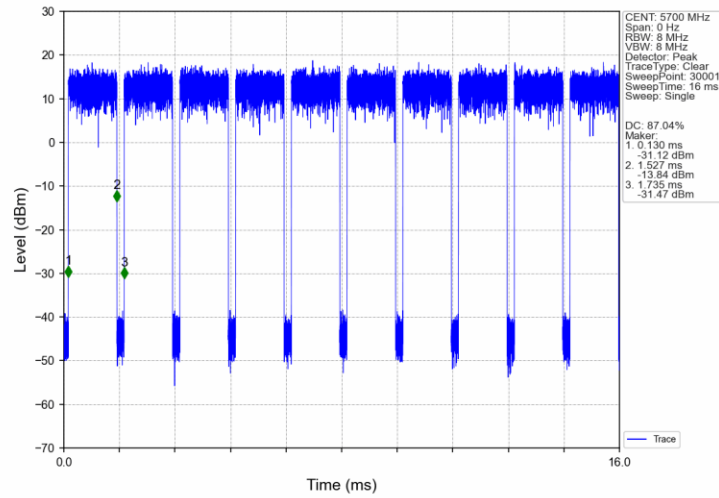
802.11a_LCH_5500MHz_Ant1_NTNV



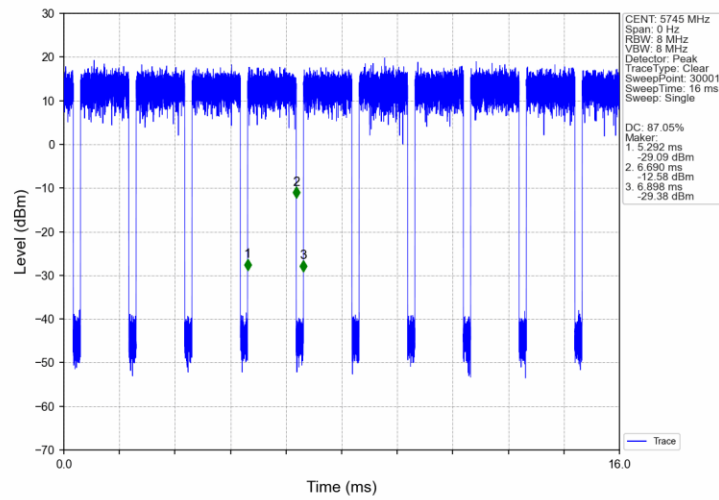
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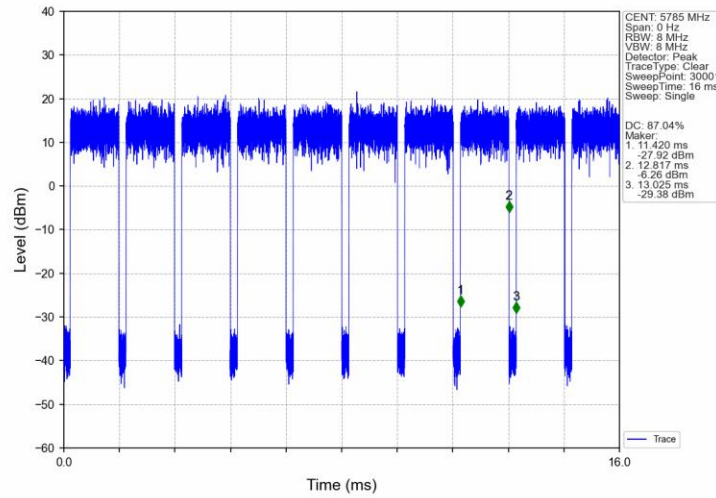
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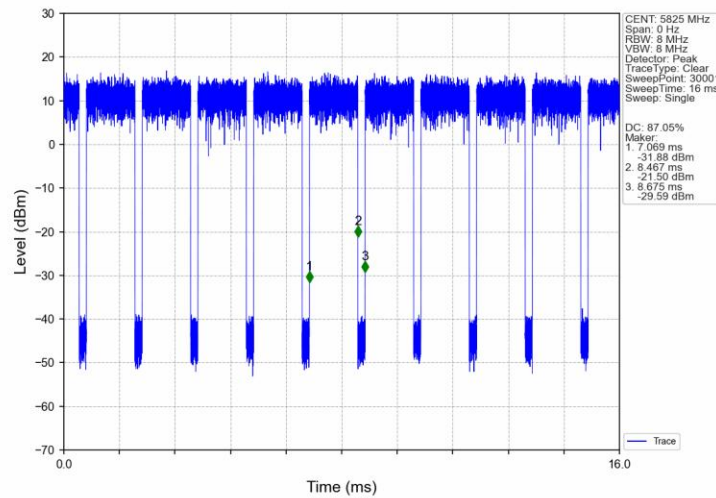
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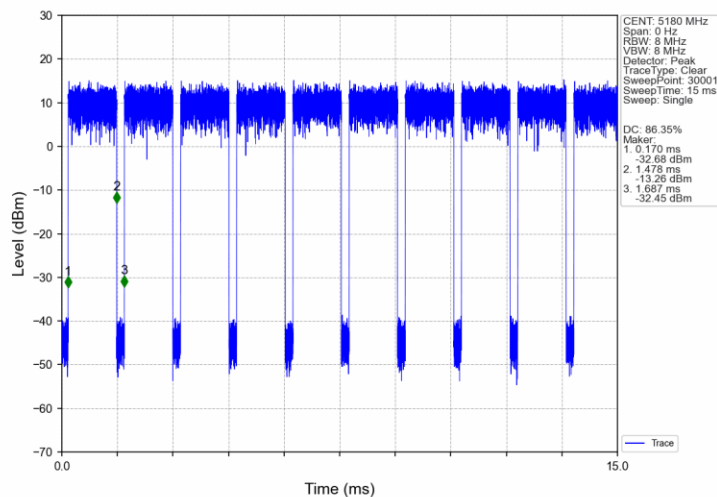
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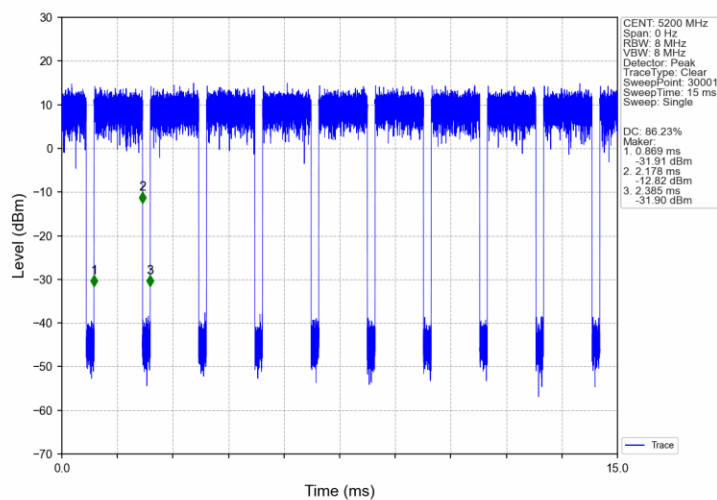
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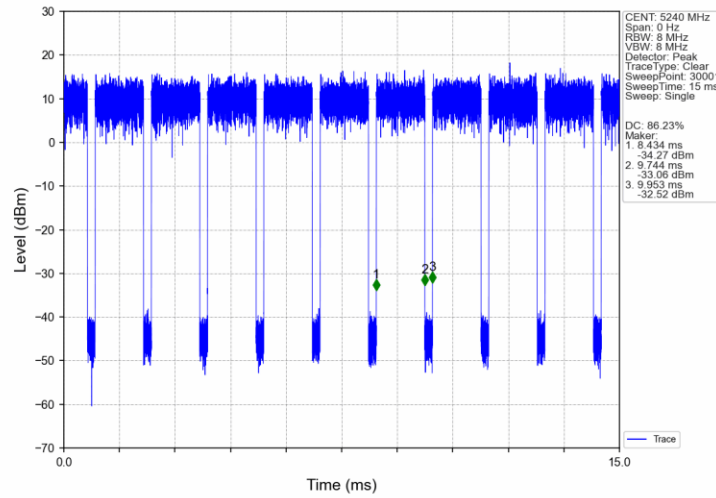
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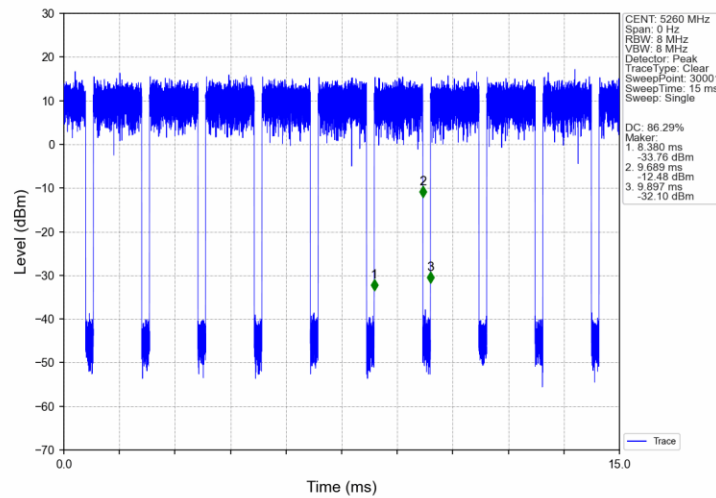
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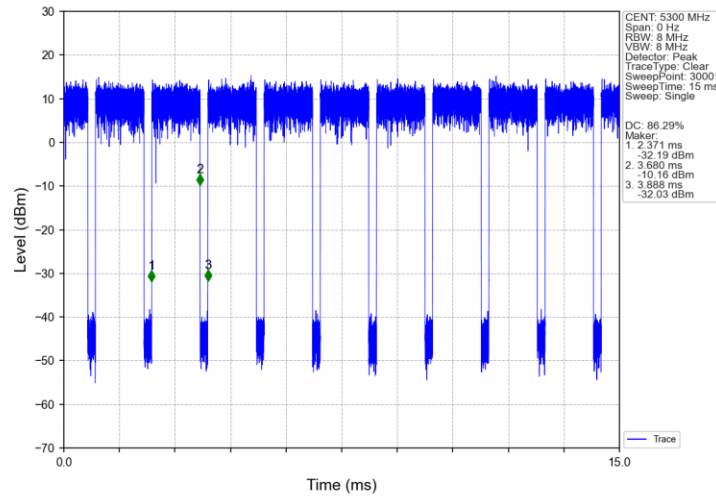
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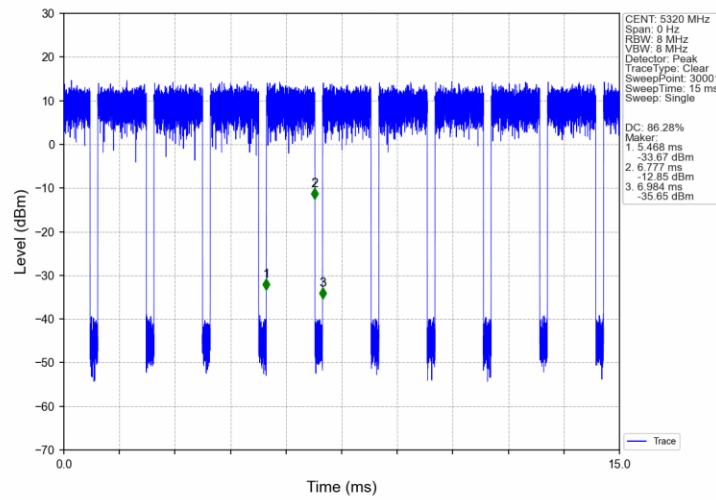
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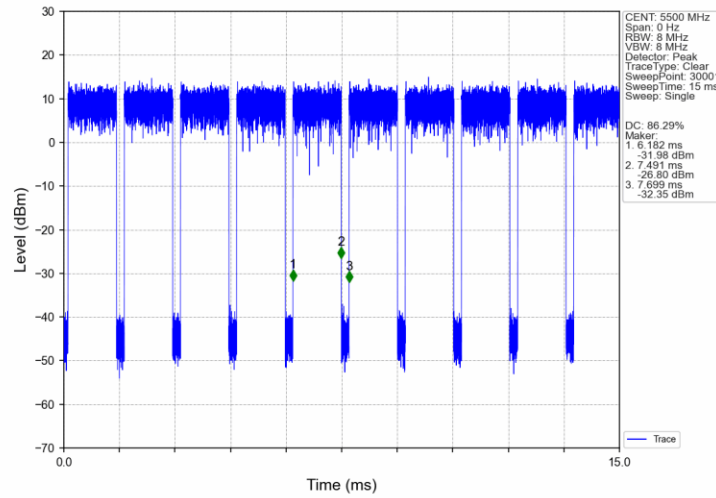
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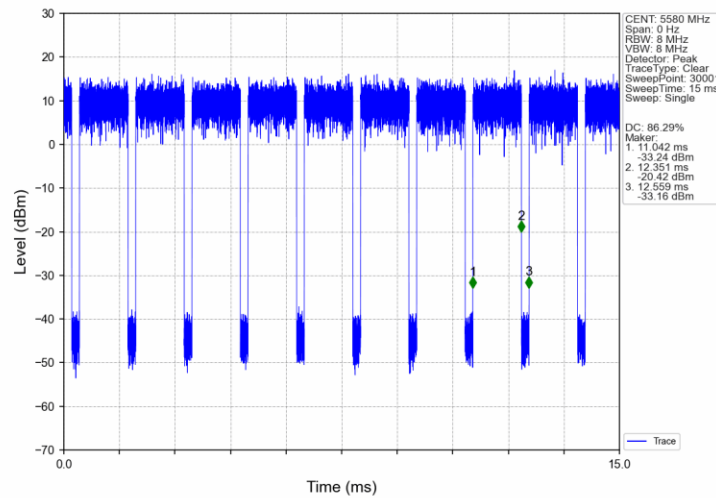
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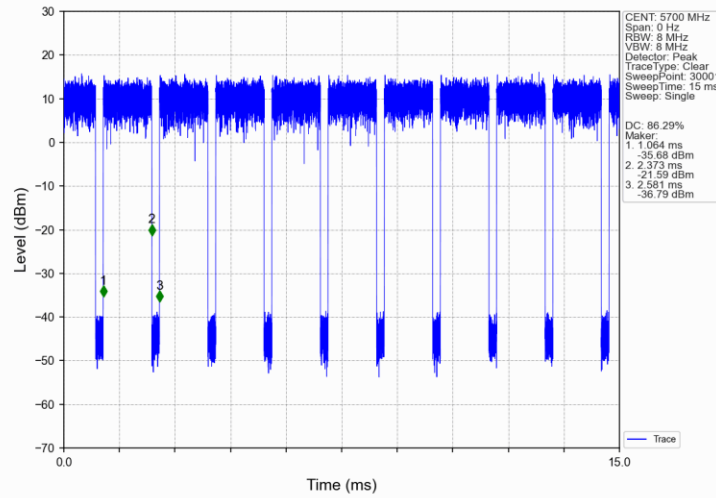
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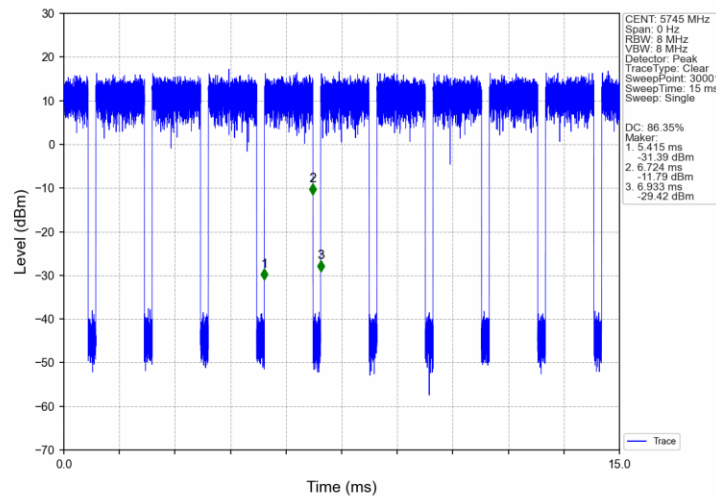
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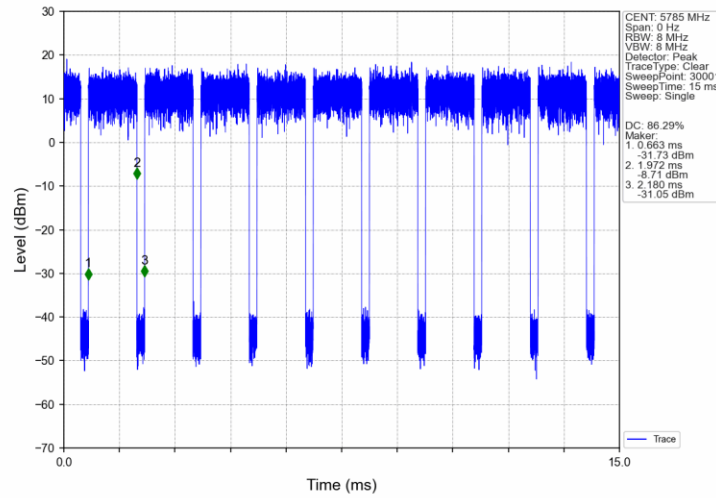
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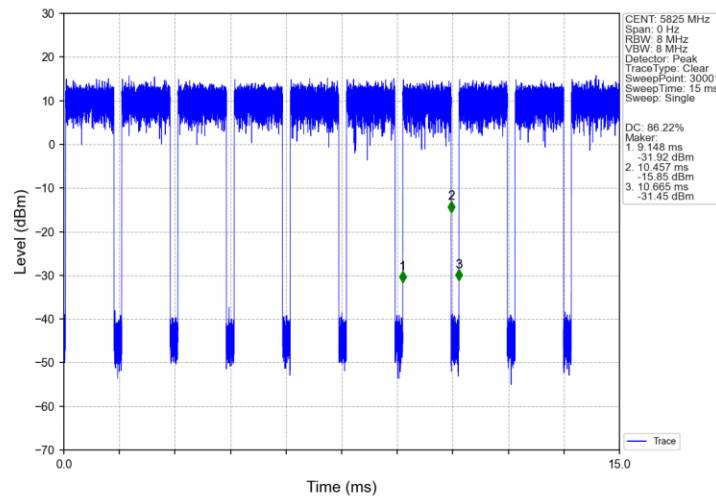
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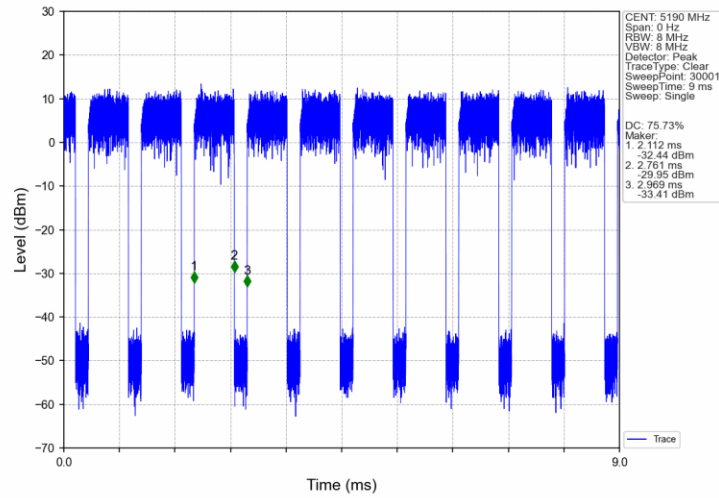
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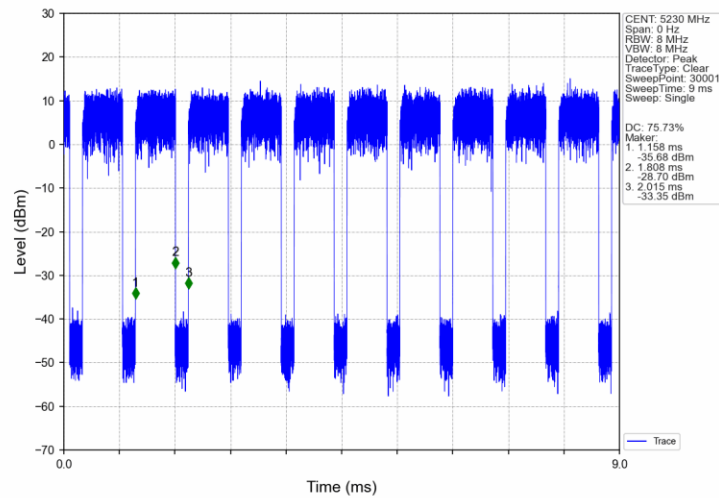
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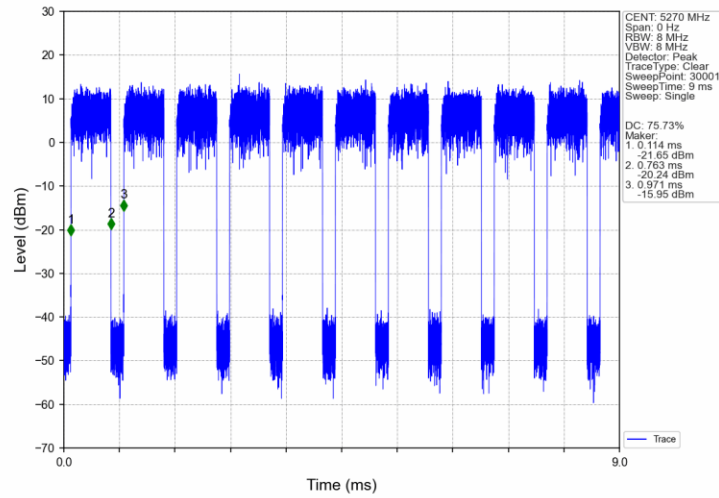
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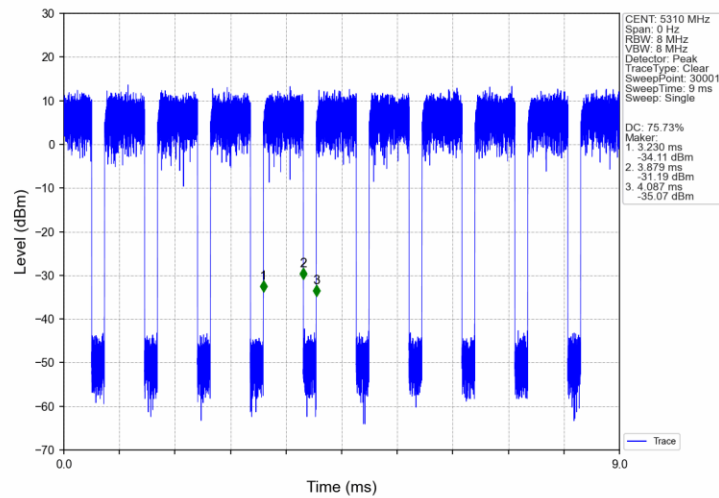
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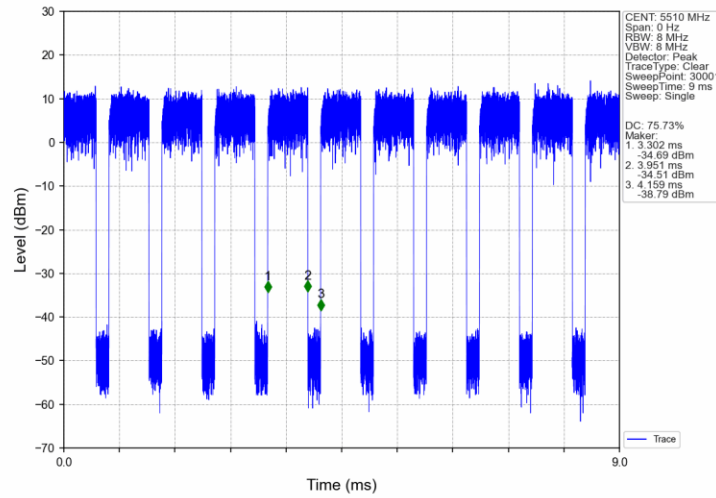
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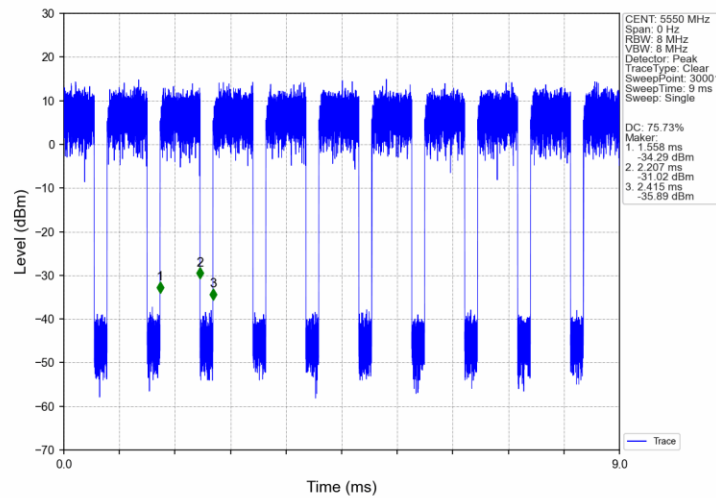
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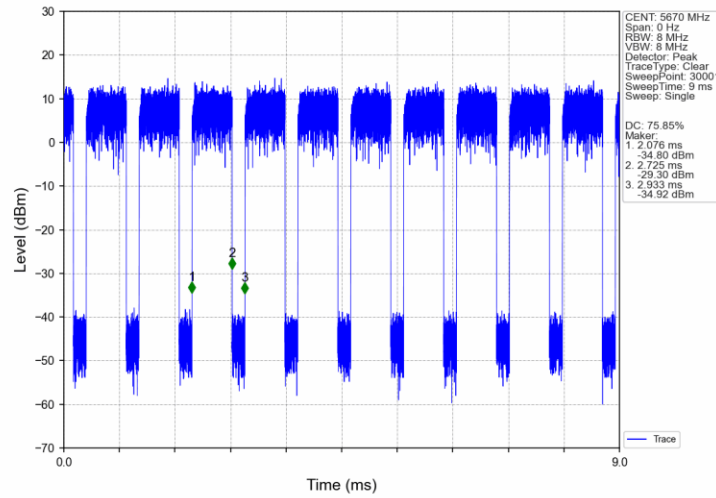
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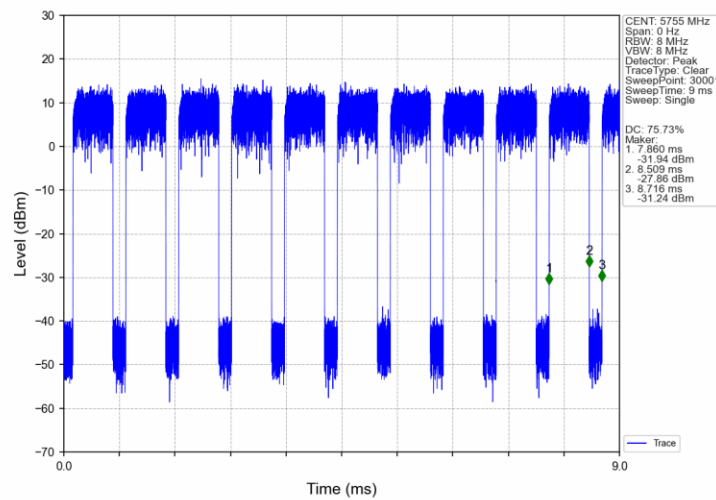
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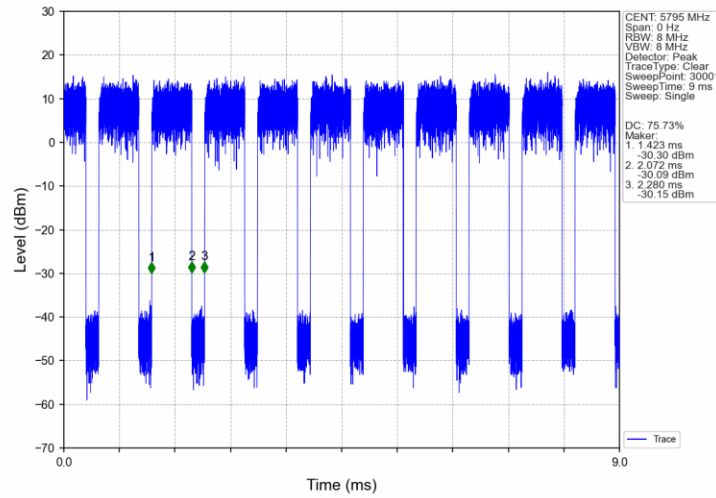
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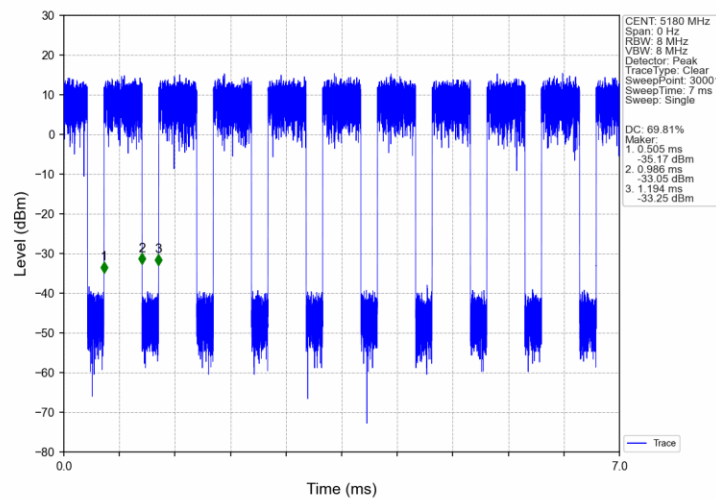
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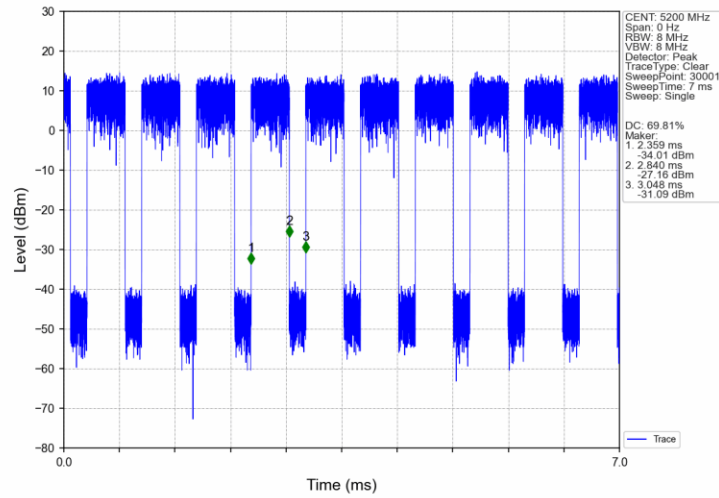
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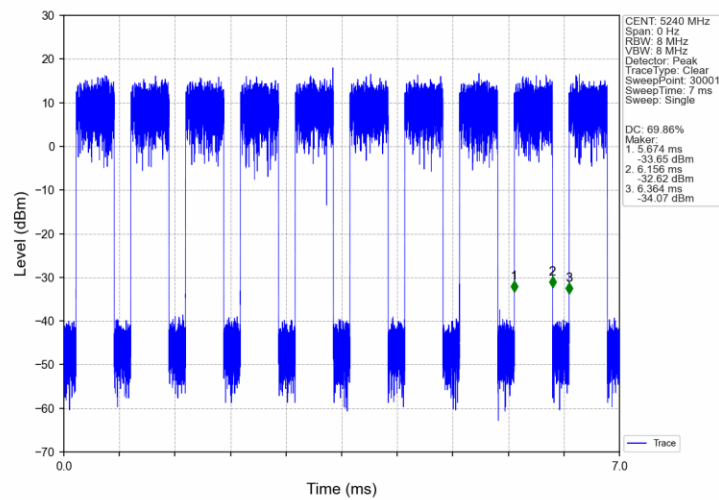
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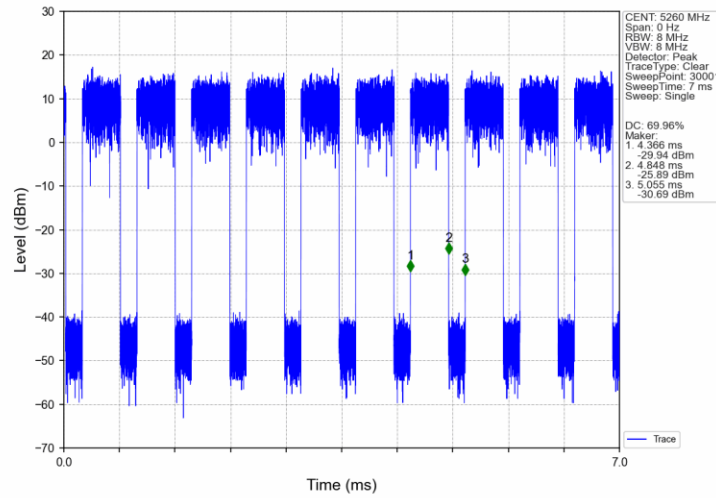
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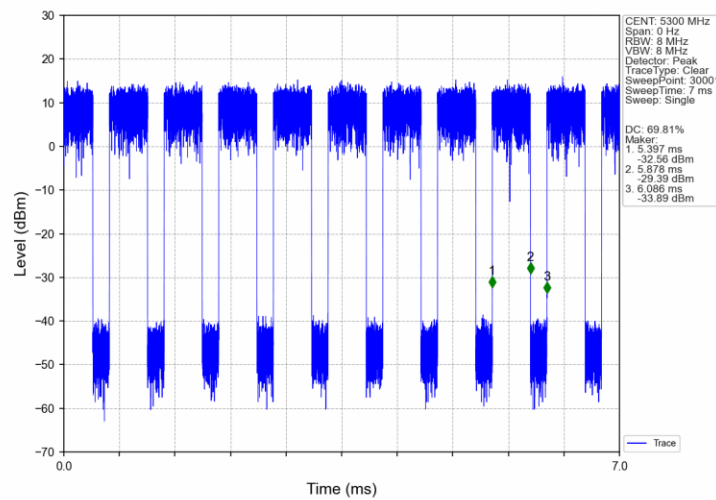
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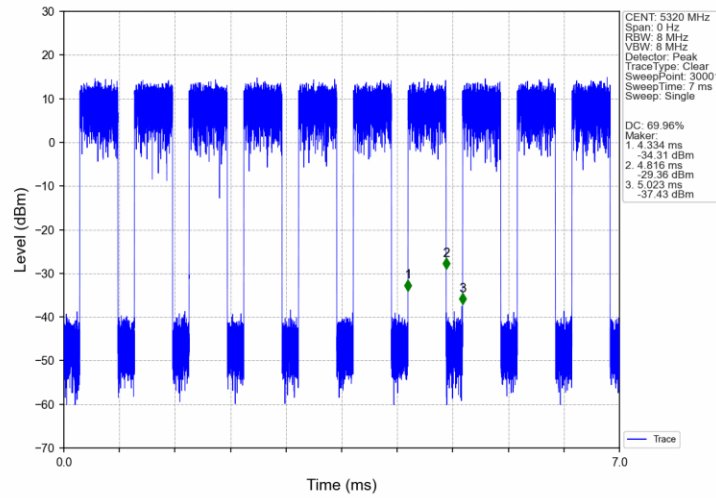
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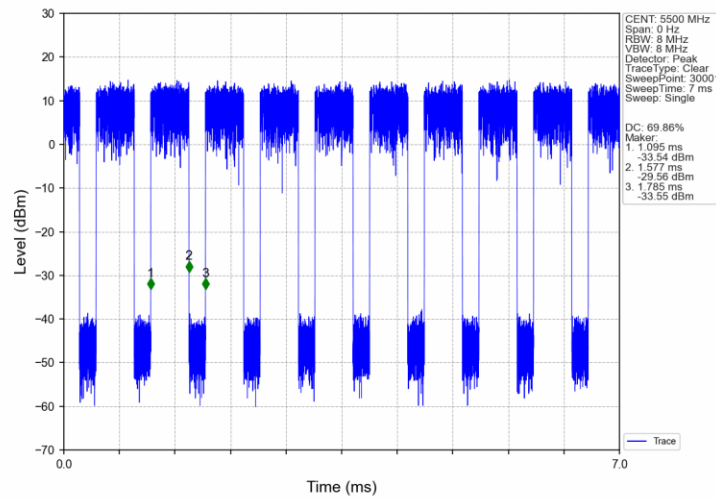
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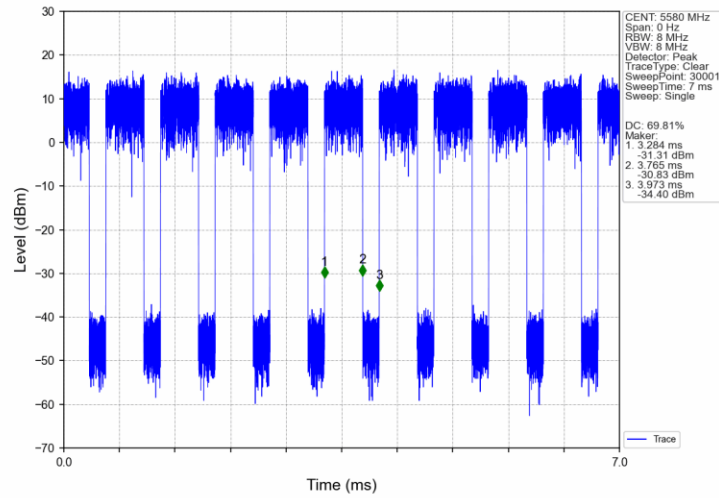
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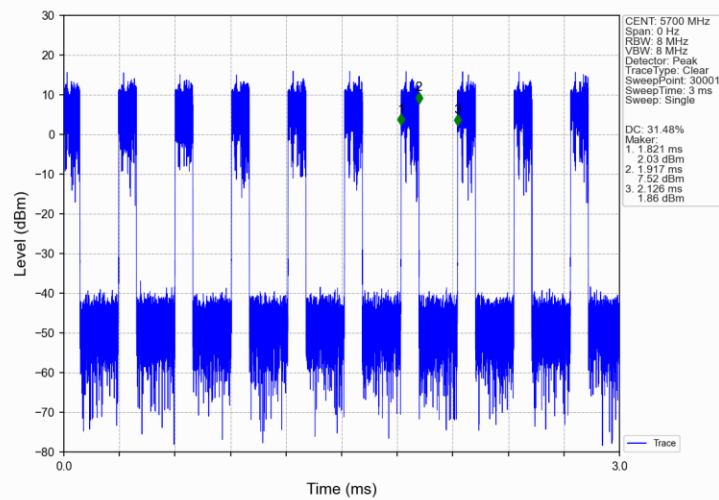
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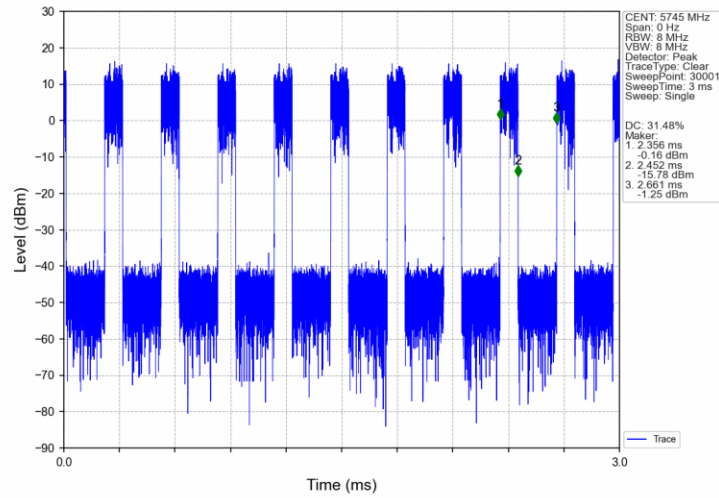
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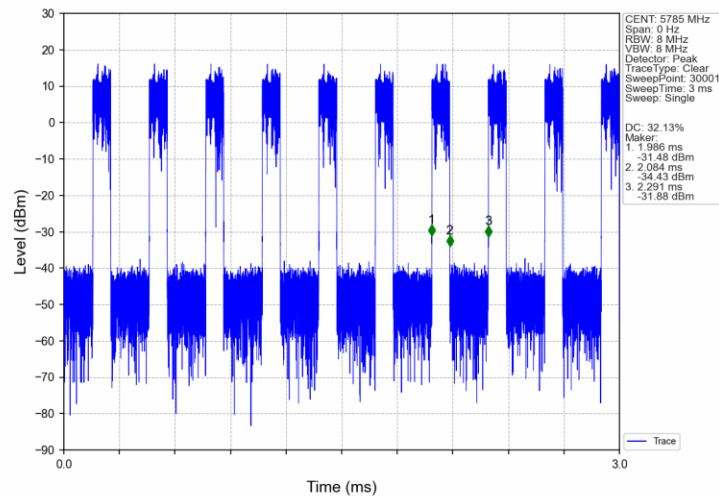
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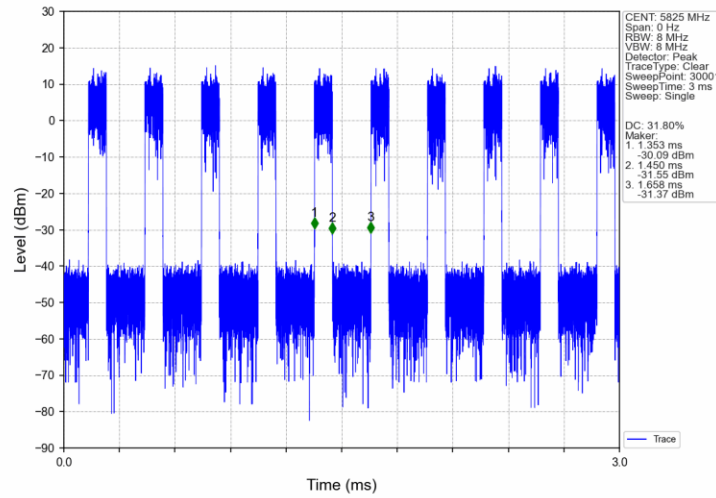
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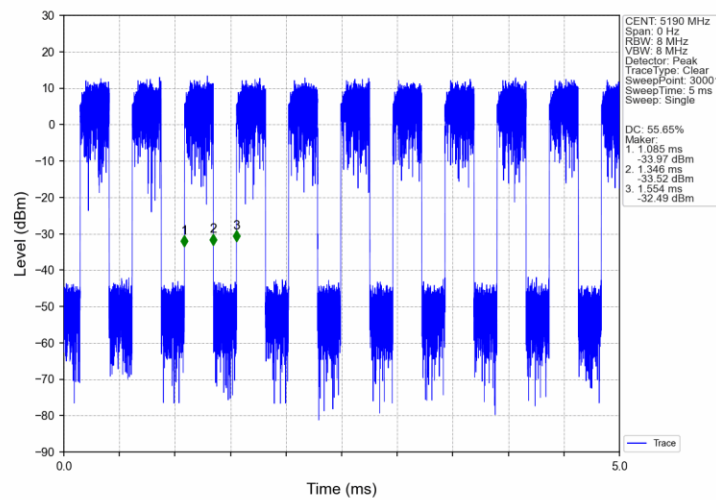
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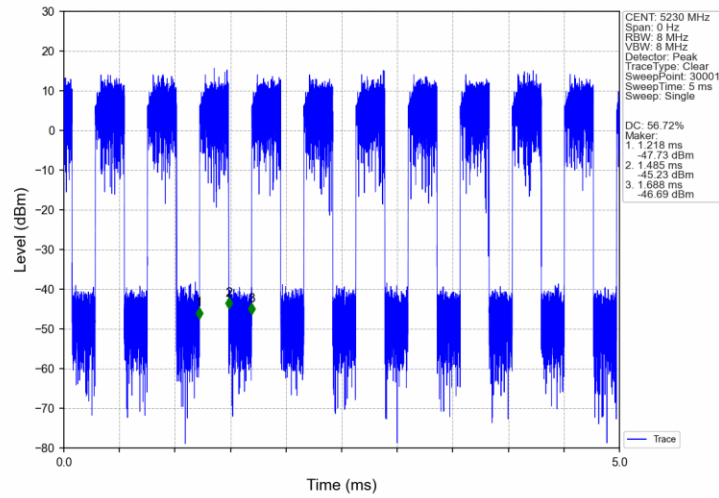
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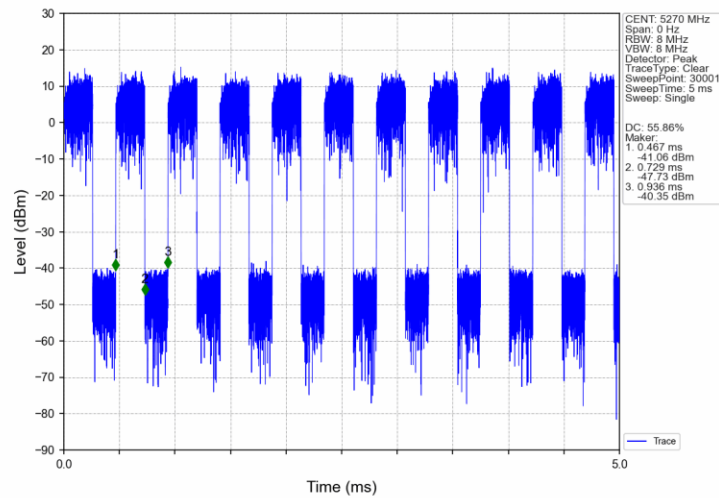
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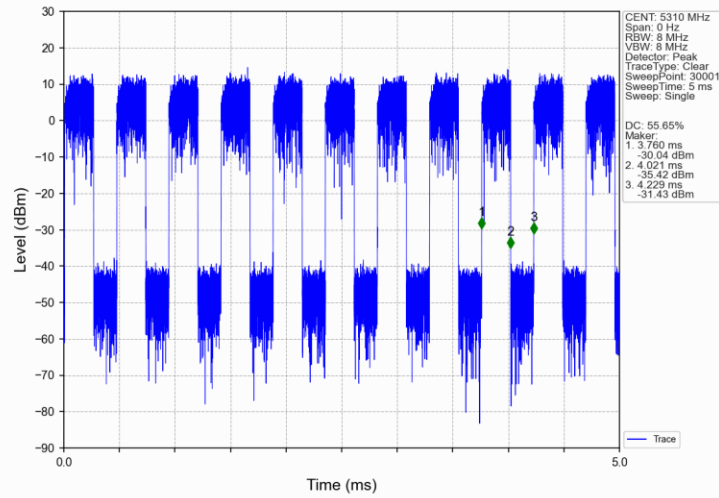
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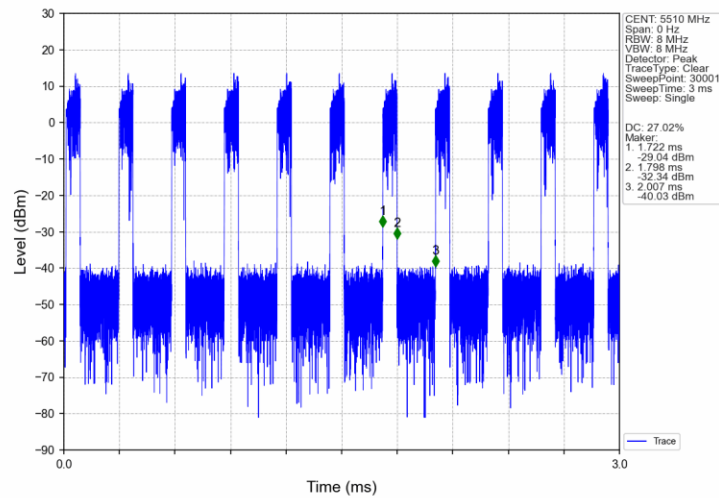
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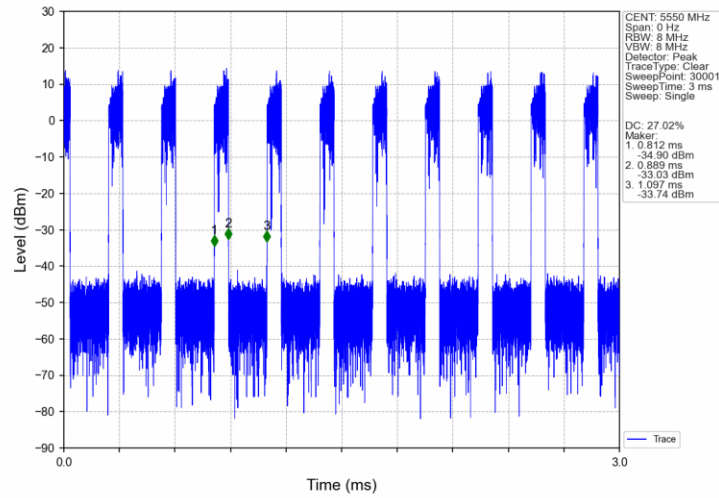
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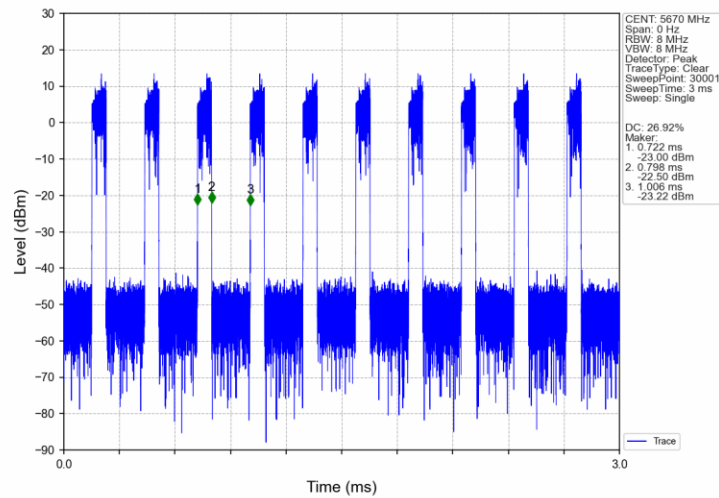
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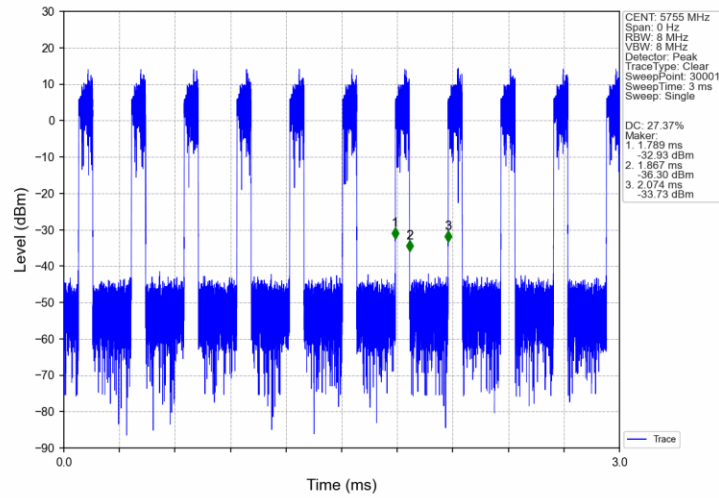
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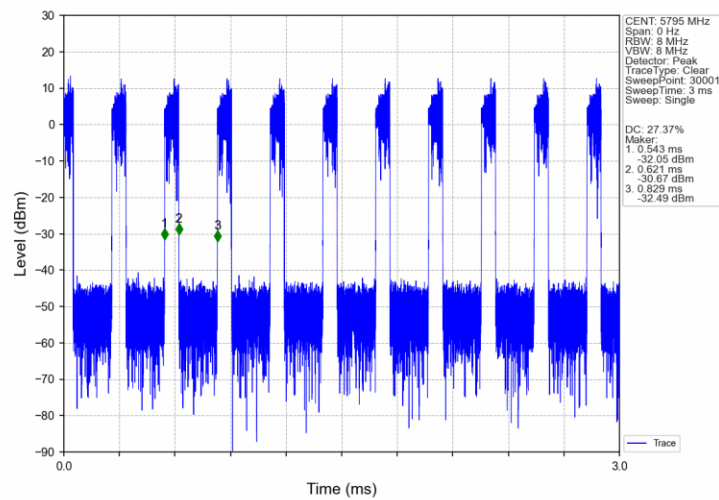
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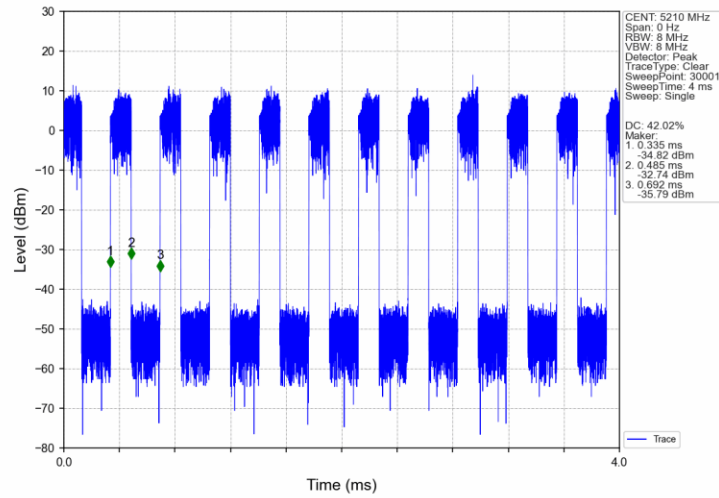
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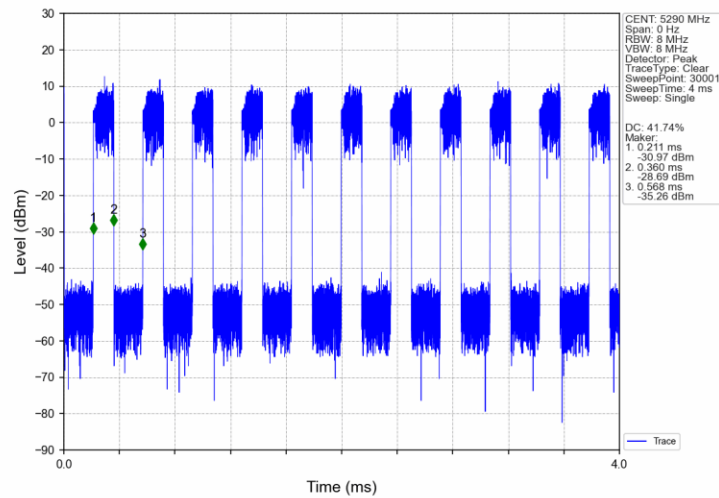
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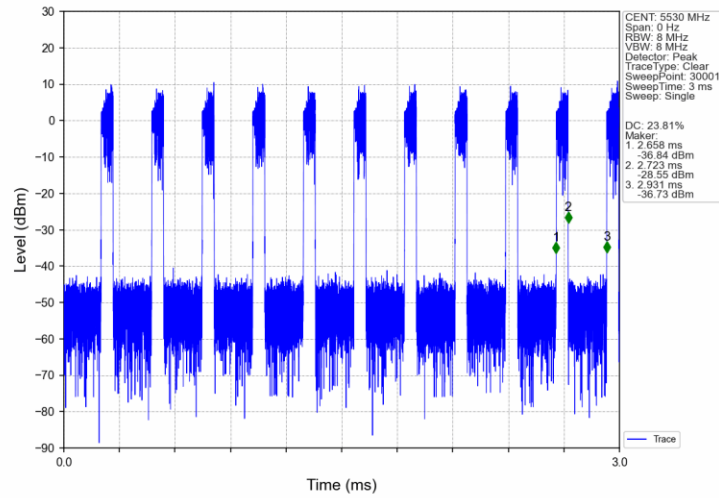
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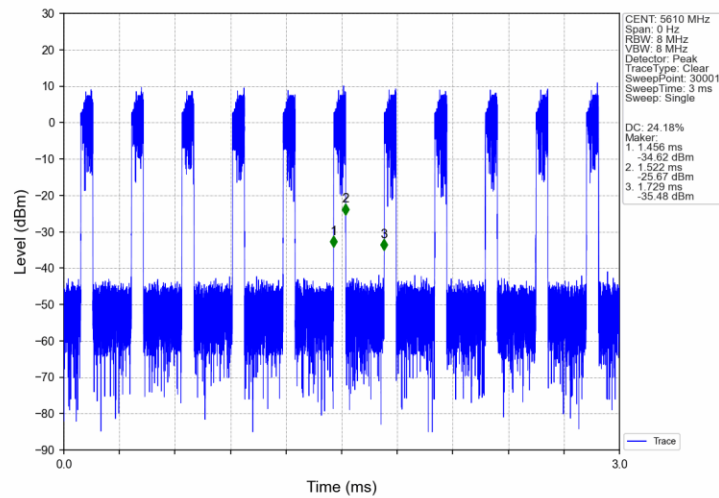
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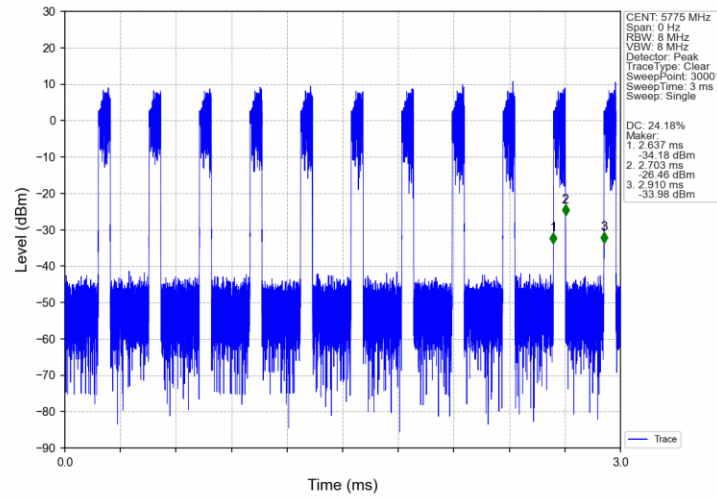
802.11ac(VHT80)_LCH_5530MHz_Ant1_NTNV



802.11ac(VHT80)_HCH_5610MHz_Ant1_NTNV



802.11ac(VHT80)_MCH_5775MHz_Ant1_NTNV



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	17.113	/	Pass
		5200	1	17.112	/	Pass
		5240	1	16.997	/	Pass
		5260	1	16.976	/	Pass
		5300	1	17.168	/	Pass
		5320	1	17.171	/	Pass
		5500	1	17.089	/	Pass
		5580	1	16.912	/	Pass
		5700	1	17.028	/	Pass
		5745	1	17.022	/	Pass
		5785	1	16.911	/	Pass
802.11n (HT20)	MIMO	5825	1	17.074	/	Pass
		5180	1	18.212	/	Pass
		5200	1	18.226	/	Pass
		5240	1	17.906	/	Pass
		5260	1	18.085	/	Pass
		5300	1	18.213	/	Pass
		5320	1	18.187	/	Pass
		5500	1	18.234	/	Pass
		5580	1	18.005	/	Pass
		5700	1	18.165	/	Pass
		5745	1	18.109	/	Pass
802.11n (HT40)	MIMO	5785	1	18.018	/	Pass
		5825	1	18.163	/	Pass
		5190	1	36.148	/	Pass
		5230	1	35.928	/	Pass
		5270	1	35.828	/	Pass
		5310	1	36.042	/	Pass
		5510	1	36.107	/	Pass
		5550	1	35.892	/	Pass
802.11ac (VHT20)	MIMO	5670	1	36.143	/	Pass
		5755	1	36.015	/	Pass
		5795	1	35.897	/	Pass
		5180	1	18.135	/	Pass
		5200	1	18.083	/	Pass
		5240	1	17.961	/	Pass
		5260	1	18.029	/	Pass
		5300	1	18.097	/	Pass
		5320	1	18.171	/	Pass
		5500	1	18.130	/	Pass
		5580	1	17.993	/	Pass
802.11ac (VHT40)	MIMO	5700	1	18.215	/	Pass
		5745	1	18.071	/	Pass
		5785	1	18.080	/	Pass
		5825	1	18.067	/	Pass
		5190	1	36.194	/	Pass
		5230	1	35.927	/	Pass

		5270	1	35.963	/	Pass
		5310	1	36.134	/	Pass
		5510	1	36.199	/	Pass
		5550	1	36.246	/	Pass
		5670	1	36.337	/	Pass
		5755	1	36.370	/	Pass
		5795	1	36.272	/	Pass
802.11ac (VHT80)	MIMO	5210	1	75.160	/	Pass
		5290	1	75.133	/	Pass
		5530	1	75.305	/	Pass
		5610	1	75.256	/	Pass
		5775	1	75.403	/	Pass

Remark: All modes have been tested, and only the worst data is displayed

2.1.2 26dB BW

Mode	TX Type	Frequency (MHz)	ANT	26dB Bandwidth (MHz)		Verdict
				Result	Limit	
802.11a	SISO	5180	1	24.564	/	Pass
		5200	1	25.112	/	Pass
		5240	1	20.066	/	Pass
		5260	1	20.624	/	Pass
		5300	1	23.495	/	Pass
		5320	1	23.362	/	Pass
		5500	1	22.627	/	Pass
		5580	1	20.769	/	Pass
802.11n (HT20)	MIMO	5700	1	23.196	/	Pass
		5180	1	25.191	/	Pass
		5200	1	24.488	/	Pass
		5240	1	20.435	/	Pass
		5260	1	22.042	/	Pass
		5300	1	25.752	/	Pass
		5320	1	26.165	/	Pass
		5500	1	26.021	/	Pass
802.11n (HT40)	MIMO	5580	1	21.473	/	Pass
		5700	1	22.250	/	Pass
		5190	1	43.616	/	Pass
		5230	1	40.305	/	Pass
		5270	1	40.419	/	Pass
		5310	1	42.306	/	Pass
		5510	1	41.388	/	Pass
		5550	1	40.489	/	Pass
802.11ac (VHT20)	MIMO	5670	1	41.955	/	Pass
		5180	1	24.412	/	Pass
		5200	1	24.679	/	Pass
		5240	1	20.350	/	Pass
		5260	1	21.551	/	Pass
		5300	1	24.372	/	Pass
		5320	1	24.582	/	Pass
		5500	1	25.446	/	Pass
802.11ac (VHT40)	MIMO	5580	1	21.735	/	Pass
		5700	1	21.958	/	Pass
		5190	1	49.210	/	Pass
		5230	1	40.344	/	Pass
		5270	1	40.107	/	Pass
		5310	1	49.604	/	Pass
		5510	1	40.186	/	Pass
		5550	1	40.558	/	Pass
		5670	1	40.335	/	Pass

802.11ac (VHT80)	MIMO	5210	1	86.228	/	Pass
		5290	1	83.440	/	Pass
		5530	1	80.739	/	Pass
		5610	1	80.437	/	Pass

Remark: All modes have been tested, and only the worst data is displayed

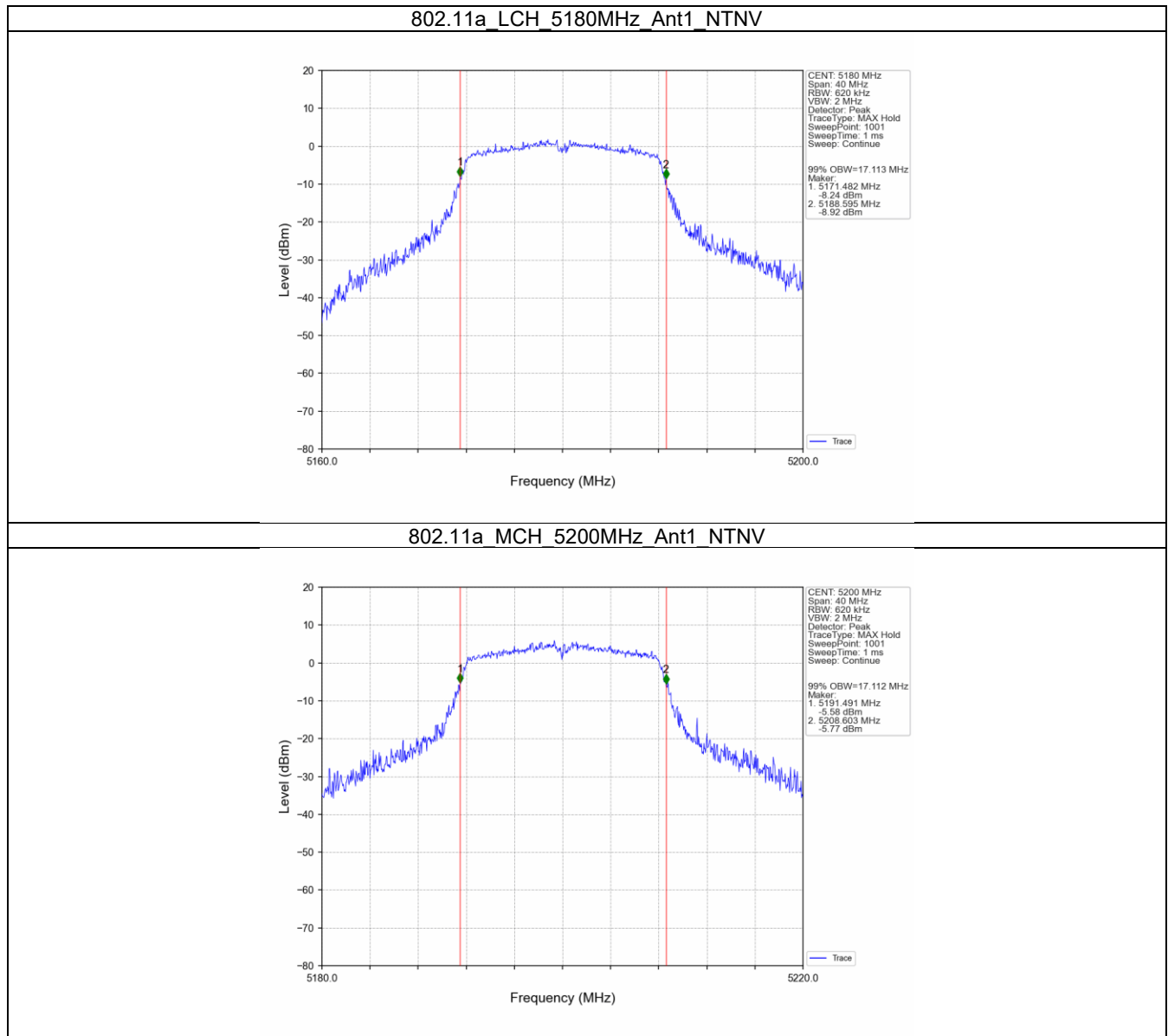
2.1.3 6dB BW

Mode	TX Type	Frequency (MHz)	ANT	6dB Bandwidth (MHz)		Verdict
				Result	Limit	
802.11a	SISO	5745	1	16.070	≥ 0.5	Pass
		5785	1	15.348	≥ 0.5	Pass
		5825	1	16.041	≥ 0.5	Pass
802.11n (HT20)	MIMO	5745	1	12.628	≥ 0.5	Pass
		5785	1	15.101	≥ 0.5	Pass
		5825	1	15.104	≥ 0.5	Pass
802.11n (HT40)	MIMO	5755	1	31.324	≥ 0.5	Pass
		5795	1	35.086	≥ 0.5	Pass
802.11ac (VHT20)	MIMO	5745	1	17.581	≥ 0.5	Pass
		5785	1	17.239	≥ 0.5	Pass
		5825	1	16.359	≥ 0.5	Pass
802.11ac (VHT40)	MIMO	5755	1	35.133	≥ 0.5	Pass
		5795	1	35.117	≥ 0.5	Pass
802.11ac (VHT80)	MIMO	5775	1	75.109	≥ 0.5	Pass

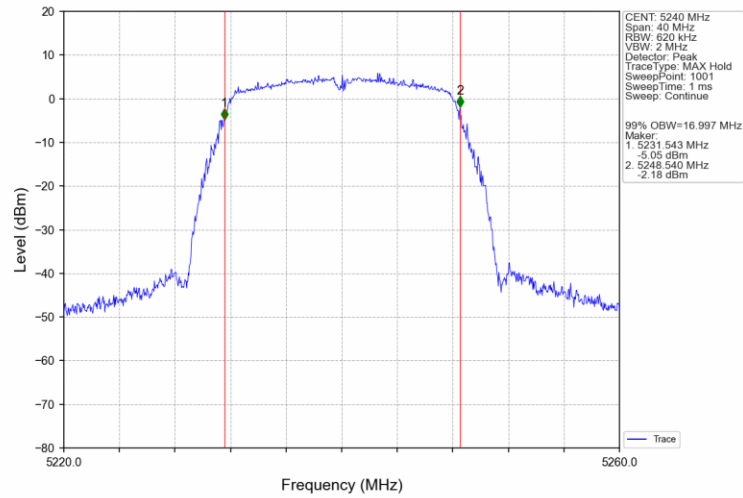
Remark: All modes have been tested, and only the worst data is displayed

2.2 Test Graph

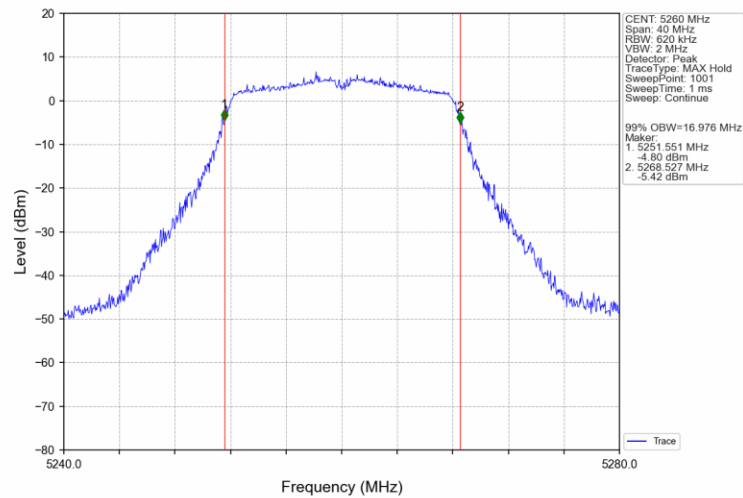
2.2.1 OBW



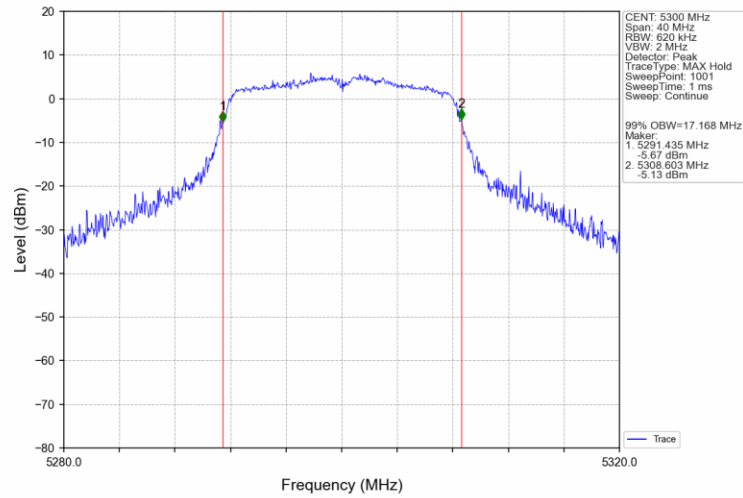
802.11a_HCH_5240MHz_Ant1_NTNV



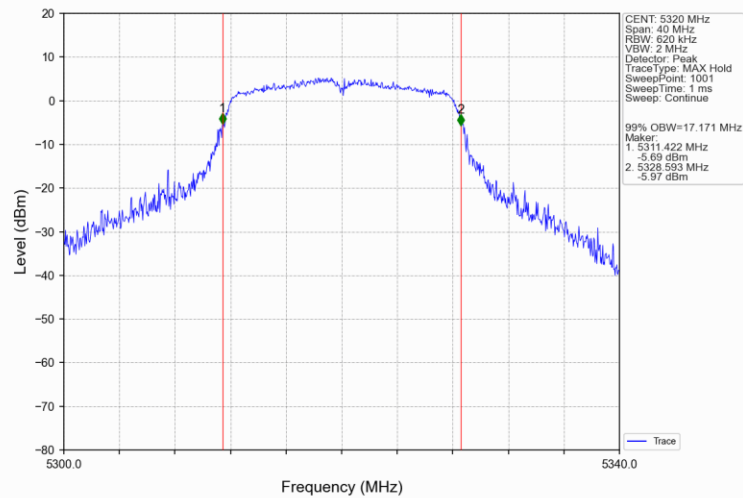
802.11a_LCH_5260MHz_Ant1_NTNV



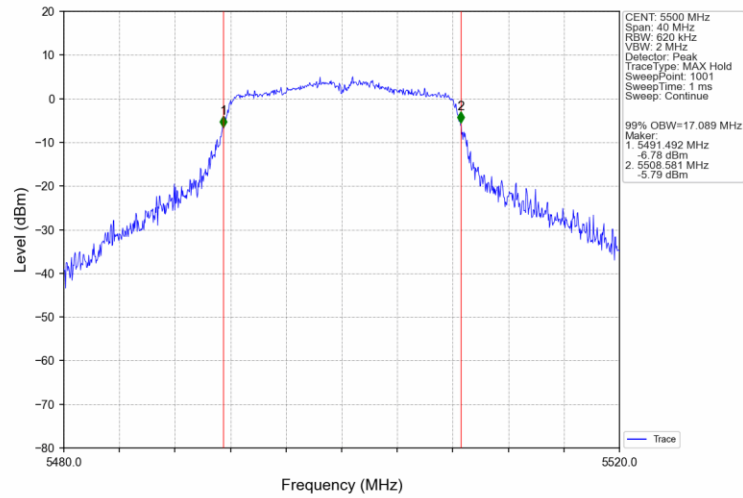
802.11a_MCH_5300MHz_Ant1_NTNV



802.11a_HCH_5320MHz_Ant1_NTNV



802.11a_LCH_5500MHz_Ant1_NTNV



802.11a_MCH_5580MHz_Ant1_NTNV

