



802.11n(HT40)_Ant2_5795



802.11ac(VHT20)_Ant1_5180



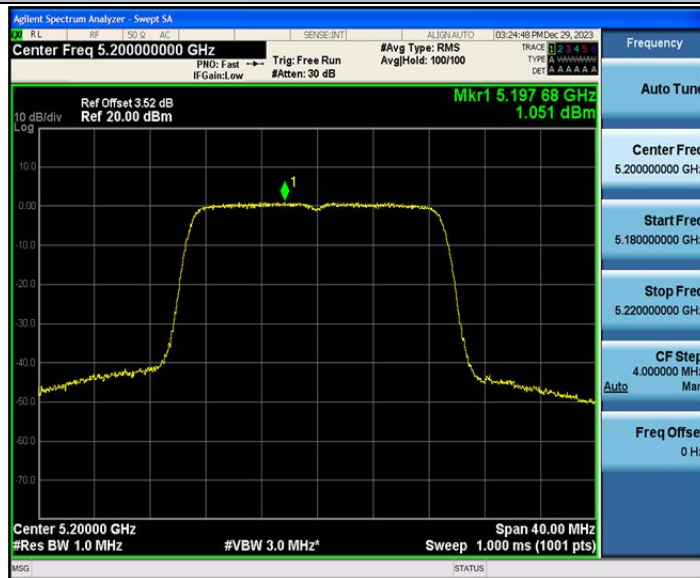
802.11ac(VHT20)_Ant2_5180



802.11ac(VHT20)_Ant1_5200



802.11ac(VHT20)_Ant2_5200



802.11ac(VHT20)_Ant1_5240



802.11ac(VHT20)_Ant2_5240



802.11ac(VHT20)_Ant1_5745



802.11ac(VHT20)_Ant2_5745



802.11ac(VHT20)_Ant2_5785



802.11ac(VHT20)_Ant1_5825



802.11ac(VHT20)_Ant2_5825



802.11ac(VHT40)_Ant1_5190



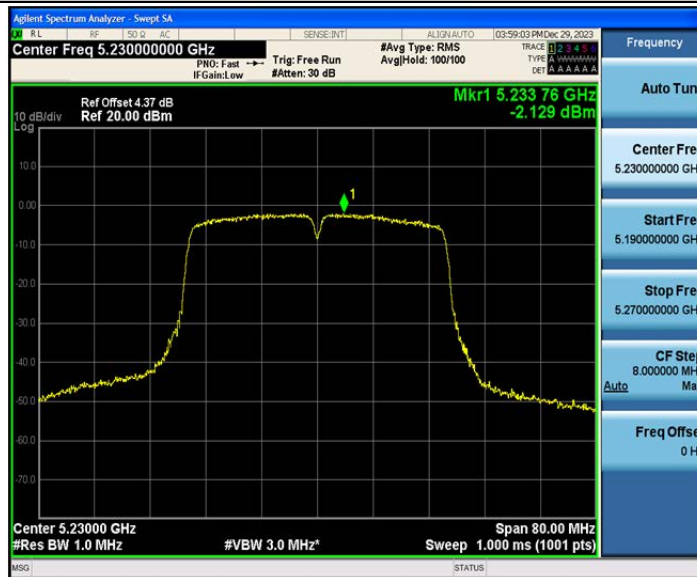
802.11ac(VHT40)_Ant2_5190



802.11ac(VHT40)_Ant1_5230



802.11ac(VHT40)_Ant2_5230



802.11ac(VHT40)_Ant1_5755



802.11ac(VHT40)_Ant2_5755



802.11ac(VHT40)_Ant1_5795



802.11ac(VHT40)_Ant2_5795



802.11ac(VHT80)_Ant1_5210



802.11ac(VHT80)_Ant2_5210



802.11ac(VHT80)_Ant1_5775



802.11ac(VHT80)_Ant2_5775



Appendix D: Frequency Stability

Test Result

Voltage								
Test Mode	Antenna	Freq [MHz]	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
20MHz	Ant1	5180	NV	NT	-29000.00	-5.598456	20	PASS
			LV	NT	-29000.00	-5.598456	20	PASS
			HV	NT	-29000.00	-5.598456	20	PASS
	Ant2	5180	NV	NT	-30000.00	-5.791506	20	PASS
			LV	NT	-30000.00	-5.791506	20	PASS
			HV	NT	-29000.00	-5.598456	20	PASS
	Ant1	5200	NV	NT	-29000.00	-5.576923	20	PASS
			LV	NT	-29000.00	-5.576923	20	PASS
			HV	NT	-29000.00	-5.576923	20	PASS
	Ant2	5200	NV	NT	-30000.00	-5.769231	20	PASS
			LV	NT	-30000.00	-5.769231	20	PASS
			HV	NT	-30000.00	-5.769231	20	PASS
	Ant1	5240	NV	NT	-29000.00	-5.534351	20	PASS
			LV	NT	-30000.00	-5.725191	20	PASS
			HV	NT	-30000.00	-5.725191	20	PASS
	Ant2	5240	NV	NT	-30000.00	-5.725191	20	PASS
			LV	NT	-30000.00	-5.725191	20	PASS
			HV	NT	-30000.00	-5.725191	20	PASS
	Ant1	5745	NV	NT	-32000.00	-5.570061	20	PASS
			LV	NT	-32000.00	-5.570061	20	PASS
			HV	NT	-33000.00	-5.744125	20	PASS
	Ant2	5745	NV	NT	-33000.00	-5.744125	20	PASS
			LV	NT	-33000.00	-5.744125	20	PASS
			HV	NT	-33000.00	-5.744125	20	PASS
	Ant1	5785	NV	NT	-32000.00	-5.531547	20	PASS
			LV	NT	-33000.00	-5.704408	20	PASS
			HV	NT	-33000.00	-5.704408	20	PASS
	Ant2	5785	NV	NT	-33000.00	-5.704408	20	PASS
			LV	NT	-33000.00	-5.704408	20	PASS
			HV	NT	-34000.00	-5.877269	20	PASS
	Ant1	5825	NV	NT	-32000.00	-5.493562	20	PASS
			LV	NT	-33000.00	-5.665236	20	PASS
			HV	NT	-33000.00	-5.665236	20	PASS
	Ant2	5825	NV	NT	-34000.00	-5.836910	20	PASS
			LV	NT	-34000.00	-5.836910	20	PASS
			HV	NT	-34000.00	-5.836910	20	PASS
40MHz	Ant1	5190	NV	NT	-27000.00	-5.202312	20	PASS
			LV	NT	-28000.00	-5.394990	20	PASS
			HV	NT	-29000.00	-5.587669	20	PASS

	Ant2	5190	NV	NT	-30000.00	-5.780347	20	PASS
			LV	NT	-30000.00	-5.780347	20	PASS
			HV	NT	-30000.00	-5.780347	20	PASS
	Ant1	5230	NV	NT	-29000.00	-5.544933	20	PASS
			LV	NT	-29000.00	-5.544933	20	PASS
			HV	NT	-30000.00	-5.736138	20	PASS
	Ant2	5230	NV	NT	-30000.00	-5.736138	20	PASS
			LV	NT	-30000.00	-5.736138	20	PASS
			HV	NT	-30000.00	-5.736138	20	PASS
	Ant1	5755	NV	NT	-32000.00	-5.560382	20	PASS
			LV	NT	-32000.00	-5.560382	20	PASS
			HV	NT	-33000.00	-5.734144	20	PASS
	Ant2	5755	NV	NT	-33000.00	-5.734144	20	PASS
			LV	NT	-33000.00	-5.734144	20	PASS
			HV	NT	-33000.00	-5.734144	20	PASS
	Ant1	5795	NV	NT	-32000.00	-5.522002	20	PASS
			LV	NT	-33000.00	-5.694564	20	PASS
			HV	NT	-33000.00	-5.694564	20	PASS
	Ant2	5795	NV	NT	-33000.00	-5.694564	20	PASS
			LV	NT	-33000.00	-5.694564	20	PASS
			HV	NT	-33000.00	-5.694564	20	PASS
80MHz	Ant1	5210	NV	NT	-29000.00	-5.566219	20	PASS
			LV	NT	-29000.00	-5.566219	20	PASS
			HV	NT	-29000.00	-5.566219	20	PASS
	Ant2	5210	NV	NT	-30000.00	-5.758157	20	PASS
			LV	NT	-30000.00	-5.758157	20	PASS
			HV	NT	-30000.00	-5.758157	20	PASS
	Ant1	5775	NV	NT	-32000.00	-5.541126	20	PASS
			LV	NT	-33000.00	-5.714286	20	PASS
			HV	NT	-33000.00	-5.714286	20	PASS
	Ant2	5775	NV	NT	-33000.00	-5.714286	20	PASS
			LV	NT	-33000.00	-5.714286	20	PASS
			HV	NT	-34000.00	-5.887446	20	PASS

Temperature								
Test Mode	Antenna	Freq [MHz]	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
20MHz	Ant1	5180	NV	0	-29000.00	-5.598456	20	PASS
			NV	10	-29000.00	-5.598456	20	PASS
			NV	20	-29000.00	-5.598456	20	PASS
			NV	30	-29000.00	-5.598456	20	PASS
			NV	40	-29000.00	-5.598456	20	PASS
	Ant2	5180	NV	0	-30000.00	-5.791506	20	PASS
			NV	10	-30000.00	-5.791506	20	PASS
			NV	20	-30000.00	-5.791506	20	PASS
			NV	30	-30000.00	-5.791506	20	PASS
			NV	40	-30000.00	-5.791506	20	PASS
	Ant1	5200	NV	0	-30000.00	-5.769231	20	PASS
			NV	10	-30000.00	-5.769231	20	PASS
			NV	20	-30000.00	-5.769231	20	PASS
			NV	30	-30000.00	-5.769231	20	PASS
			NV	40	-30000.00	-5.769231	20	PASS
	Ant2	5200	NV	0	-30000.00	-5.769231	20	PASS
			NV	10	-30000.00	-5.769231	20	PASS
			NV	20	-30000.00	-5.769231	20	PASS
			NV	30	-30000.00	-5.769231	20	PASS
			NV	40	-30000.00	-5.769231	20	PASS
	Ant1	5240	NV	0	-30000.00	-5.725191	20	PASS
			NV	10	-30000.00	-5.725191	20	PASS
			NV	20	-30000.00	-5.725191	20	PASS
			NV	30	-30000.00	-5.725191	20	PASS
			NV	40	-30000.00	-5.725191	20	PASS
	Ant2	5240	NV	0	-30000.00	-5.725191	20	PASS
			NV	10	-30000.00	-5.725191	20	PASS
			NV	20	-30000.00	-5.725191	20	PASS
			NV	30	-30000.00	-5.725191	20	PASS
			NV	40	-30000.00	-5.725191	20	PASS
	Ant1	5745	NV	0	-33000.00	-5.744125	20	PASS
			NV	10	-33000.00	-5.744125	20	PASS
			NV	20	-33000.00	-5.744125	20	PASS
			NV	30	-33000.00	-5.744125	20	PASS
			NV	40	-33000.00	-5.744125	20	PASS
	Ant2	5745	NV	0	-33000.00	-5.744125	20	PASS
			NV	10	-33000.00	-5.744125	20	PASS
			NV	20	-33000.00	-5.744125	20	PASS
			NV	30	-33000.00	-5.744125	20	PASS
			NV	40	-33000.00	-5.744125	20	PASS
	Ant1	5785	NV	0	-33000.00	-5.704408	20	PASS
			NV	10	-33000.00	-5.704408	20	PASS

			NV	20	-33000.00	-5.704408	20	PASS
			NV	30	-33000.00	-5.704408	20	PASS
			NV	40	-33000.00	-5.704408	20	PASS
	Ant2	5785	NV	0	-33000.00	-5.704408	20	PASS
			NV	10	-33000.00	-5.704408	20	PASS
			NV	20	-33000.00	-5.704408	20	PASS
			NV	30	-33000.00	-5.704408	20	PASS
			NV	40	-33000.00	-5.704408	20	PASS
	Ant1	5825	NV	0	-33000.00	-5.665236	20	PASS
			NV	10	-33000.00	-5.665236	20	PASS
			NV	20	-33000.00	-5.665236	20	PASS
			NV	30	-33000.00	-5.665236	20	PASS
			NV	40	-33000.00	-5.665236	20	PASS
	Ant2	5825	NV	0	-34000.00	-5.836910	20	PASS
			NV	10	-34000.00	-5.836910	20	PASS
			NV	20	-33000.00	-5.665236	20	PASS
			NV	30	-34000.00	-5.836910	20	PASS
			NV	40	-33000.00	-5.665236	20	PASS
40MHz	Ant1	5190	NV	0	-29000.00	-5.587669	20	PASS
			NV	10	-29000.00	-5.587669	20	PASS
			NV	20	-29000.00	-5.587669	20	PASS
			NV	30	-29000.00	-5.587669	20	PASS
			NV	40	-29000.00	-5.587669	20	PASS
	Ant2	5190	NV	0	-30000.00	-5.780347	20	PASS
			NV	10	-30000.00	-5.780347	20	PASS
			NV	20	-29000.00	-5.587669	20	PASS
			NV	30	-30000.00	-5.780347	20	PASS
			NV	40	-30000.00	-5.780347	20	PASS
	Ant1	5230	NV	0	-30000.00	-5.736138	20	PASS
			NV	10	-30000.00	-5.736138	20	PASS
			NV	20	-30000.00	-5.736138	20	PASS
			NV	30	-30000.00	-5.736138	20	PASS
			NV	40	-30000.00	-5.736138	20	PASS
	Ant2	5230	NV	0	-30000.00	-5.736138	20	PASS
			NV	10	-30000.00	-5.736138	20	PASS
			NV	20	-30000.00	-5.736138	20	PASS
			NV	30	-30000.00	-5.736138	20	PASS
			NV	40	-30000.00	-5.736138	20	PASS
	Ant1	5755	NV	0	-33000.00	-5.734144	20	PASS
			NV	10	-33000.00	-5.734144	20	PASS
			NV	20	-33000.00	-5.734144	20	PASS
			NV	30	-33000.00	-5.734144	20	PASS
			NV	40	-33000.00	-5.734144	20	PASS
	Ant2	5755	NV	0	-33000.00	-5.734144	20	PASS
			NV	10	-33000.00	-5.734144	20	PASS
			NV	20	-33000.00	-5.734144	20	PASS

			NV	30	-33000.00	-5.734144	20	PASS
			NV	40	-33000.00	-5.734144	20	PASS
	Ant1	5795	NV	0	-33000.00	-5.694564	20	PASS
			NV	10	-33000.00	-5.694564	20	PASS
			NV	20	-33000.00	-5.694564	20	PASS
			NV	30	-33000.00	-5.694564	20	PASS
			NV	40	-33000.00	-5.694564	20	PASS
	Ant2	5795	NV	0	-33000.00	-5.694564	20	PASS
			NV	10	-33000.00	-5.694564	20	PASS
			NV	20	-33000.00	-5.694564	20	PASS
			NV	30	-33000.00	-5.694564	20	PASS
			NV	40	-33000.00	-5.694564	20	PASS
80MHz	Ant1	5210	NV	0	-29000.00	-5.566219	20	PASS
			NV	10	-30000.00	-5.758157	20	PASS
			NV	20	-30000.00	-5.758157	20	PASS
			NV	30	-30000.00	-5.758157	20	PASS
			NV	40	-30000.00	-5.758157	20	PASS
	Ant2	5210	NV	0	-30000.00	-5.758157	20	PASS
			NV	10	-30000.00	-5.758157	20	PASS
			NV	20	-30000.00	-5.758157	20	PASS
			NV	30	-30000.00	-5.758157	20	PASS
			NV	40	-30000.00	-5.758157	20	PASS
	Ant1	5775	NV	0	-33000.00	-5.714286	20	PASS
			NV	10	-33000.00	-5.714286	20	PASS
			NV	20	-33000.00	-5.714286	20	PASS
			NV	30	-33000.00	-5.714286	20	PASS
			NV	40	-33000.00	-5.714286	20	PASS
	Ant2	5775	NV	0	-34000.00	-5.887446	20	PASS
			NV	10	-33000.00	-5.714286	20	PASS
			NV	20	-33000.00	-5.714286	20	PASS
			NV	30	-34000.00	-5.887446	20	PASS
			NV	40	-33000.00	-5.714286	20	PASS

Appendix E: Duty Cycle

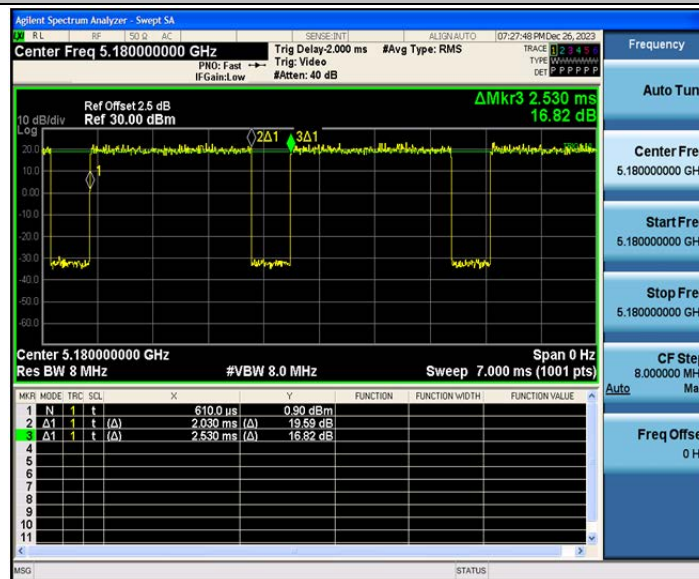
Test Result

Test Mode	Antenna	Freq [MHz]	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	Duty Cycle Factor	1/T Minimum VBW (kHz)	Final setting For VBW (kHz)
802.11a	Ant1	5180	2.03	2.53	80.24	0.96	0.493	1
	Ant2	5180	2.02	2.53	79.84	0.98	0.495	1
	Ant1	5200	2.02	2.52	80.16	0.96	0.495	1
	Ant2	5200	2.03	2.53	80.24	0.96	0.493	1
	Ant1	5240	2.02	2.52	80.16	0.96	0.495	1
	Ant2	5240	2.03	2.53	80.24	0.96	0.493	1
	Ant1	5745	2.02	2.52	80.16	0.96	0.495	1
	Ant2	5745	2.03	2.53	80.24	0.96	0.493	1
	Ant1	5785	2.02	2.52	80.16	0.96	0.495	1
	Ant2	5785	2.03	2.53	80.24	0.96	0.493	1
	Ant1	5825	2.02	2.53	79.84	0.98	0.495	1
	Ant2	5825	2.02	2.52	80.16	0.96	0.495	1
802.11n(HT20)	Ant1	5180	1.89	2.39	79.08	1.02	0.529	1
	Ant2	5180	1.89	2.39	79.08	1.02	0.529	1
	Ant1	5200	1.89	2.39	79.08	1.02	0.529	1
	Ant2	5200	1.89	2.39	79.08	1.02	0.529	1
	Ant1	5240	1.89	2.39	79.08	1.02	0.529	1
	Ant2	5240	1.89	2.40	78.75	1.04	0.529	1
	Ant1	5745	1.89	2.40	78.75	1.04	0.529	1
	Ant2	5745	1.89	2.39	79.08	1.02	0.529	1
	Ant1	5785	1.89	2.40	78.75	1.04	0.529	1
	Ant2	5785	1.89	2.39	79.08	1.02	0.529	1
	Ant1	5825	1.88	2.39	78.66	1.04	0.532	1
	Ant2	5825	1.89	2.39	79.08	1.02	0.529	1
802.11n(HT40)	Ant1	5190	0.92	1.43	64.34	1.92	1.087	2
	Ant2	5190	0.92	1.43	64.34	1.92	1.087	2
	Ant1	5230	0.92	1.43	64.34	1.92	1.087	2
	Ant2	5230	0.92	1.43	64.34	1.92	1.087	2
	Ant1	5755	0.92	1.42	64.79	1.88	1.087	2
	Ant2	5755	0.93	1.43	65.03	1.87	1.075	2
	Ant1	5795	0.92	1.43	64.34	1.92	1.087	2
	Ant2	5795	0.93	1.43	65.03	1.87	1.075	2
802.11ac(VHT20)	Ant1	5180	1.89	2.40	78.75	1.04	0.529	1
	Ant2	5180	1.89	2.40	78.75	1.04	0.529	1
	Ant1	5200	1.89	2.39	79.08	1.02	0.529	1
	Ant2	5200	1.89	2.39	79.08	1.02	0.529	1
	Ant1	5240	1.90	2.40	79.17	1.01	0.526	1
	Ant2	5240	1.89	2.39	79.08	1.02	0.529	1
	Ant1	5745	1.89	2.39	79.08	1.02	0.529	1

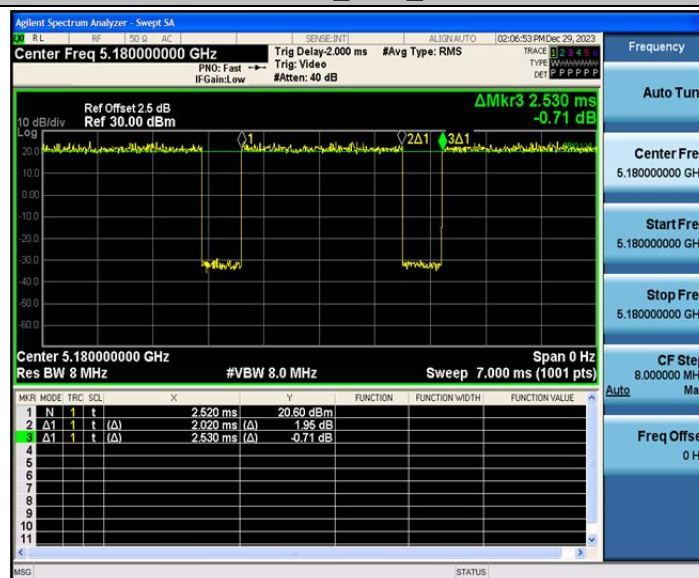
	Ant2	5745	1.89	2.39	79.08	1.02	0.529	1
	Ant1	5785	1.89	2.39	79.08	1.02	0.529	1
	Ant2	5785	1.89	2.39	79.08	1.02	0.529	1
	Ant1	5825	1.89	2.39	79.08	1.02	0.529	1
	Ant2	5825	1.89	2.39	79.08	1.02	0.529	1
802.11ac(VHT40)	Ant1	5190	0.93	1.44	64.58	1.90	1.075	2
	Ant2	5190	0.93	1.43	65.03	1.87	1.075	2
	Ant1	5230	0.93	1.43	65.03	1.87	1.075	2
	Ant2	5230	0.93	1.43	65.03	1.87	1.075	2
	Ant1	5755	0.93	1.43	65.03	1.87	1.075	2
	Ant2	5755	0.93	1.44	64.58	1.90	1.075	2
	Ant1	5795	0.93	1.44	64.58	1.90	1.075	2
	Ant2	5795	0.93	1.43	65.03	1.87	1.075	2
802.11ac(VHT80)	Ant1	5210	0.46	0.96	47.92	3.19	2.174	3
	Ant2	5210	0.45	0.95	47.37	3.24	2.222	3
	Ant1	5775	0.46	0.96	47.92	3.19	2.174	3
	Ant2	5775	0.46	0.96	47.92	3.19	2.174	3

Test Graphs

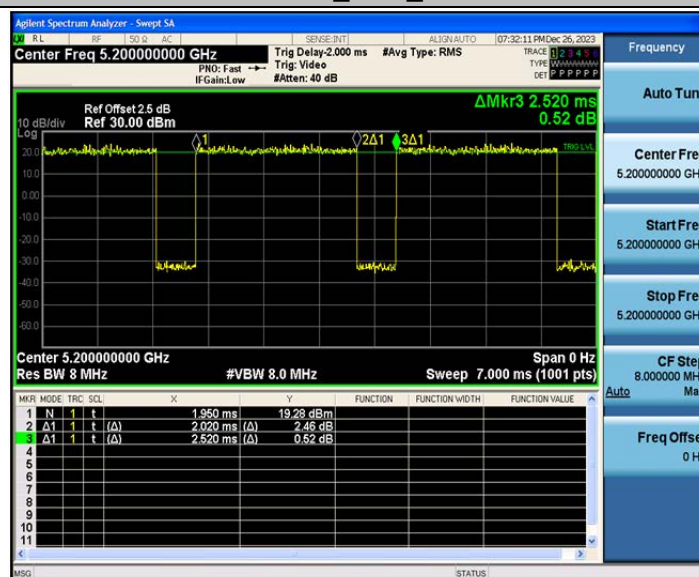
802.11a_Ant1_5180



802.11a_Ant2_5180



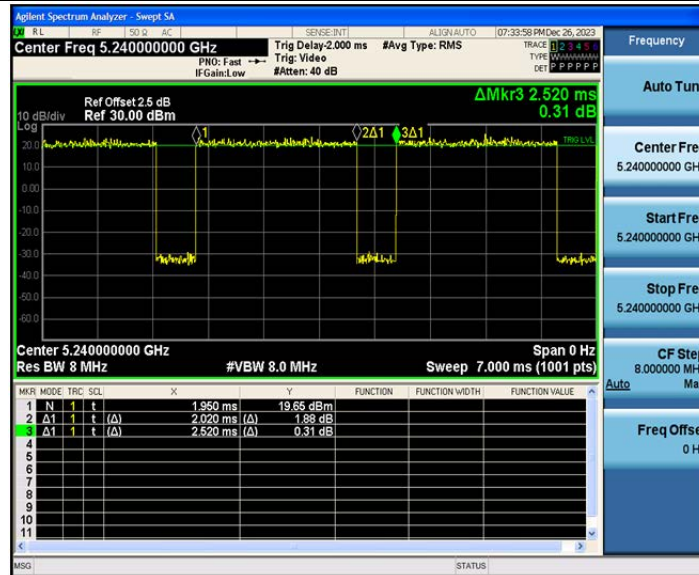
802.11a_Ant1_5200



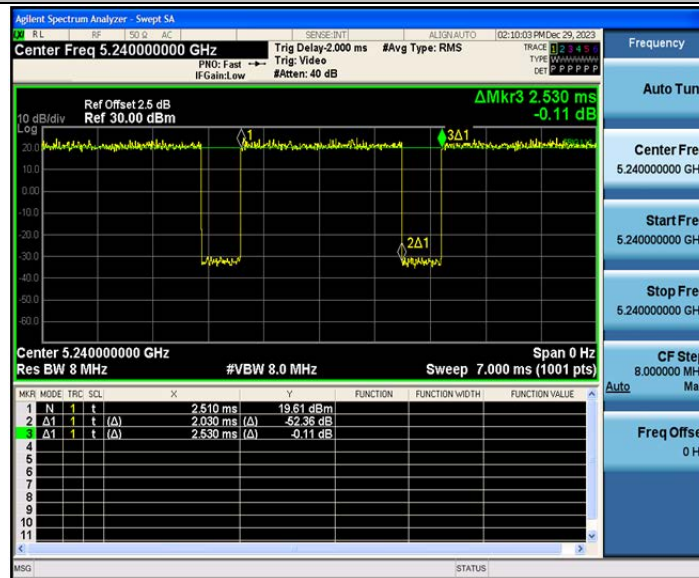
802.11a_Ant2_5200



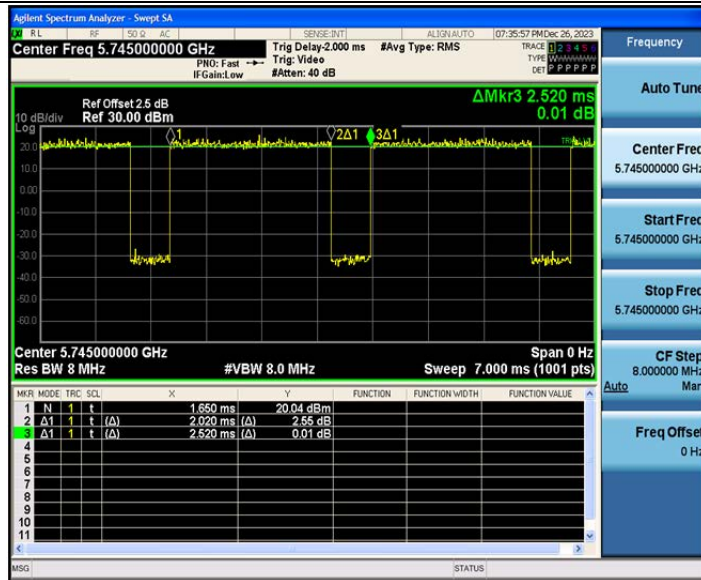
802.11a_Ant1_5240



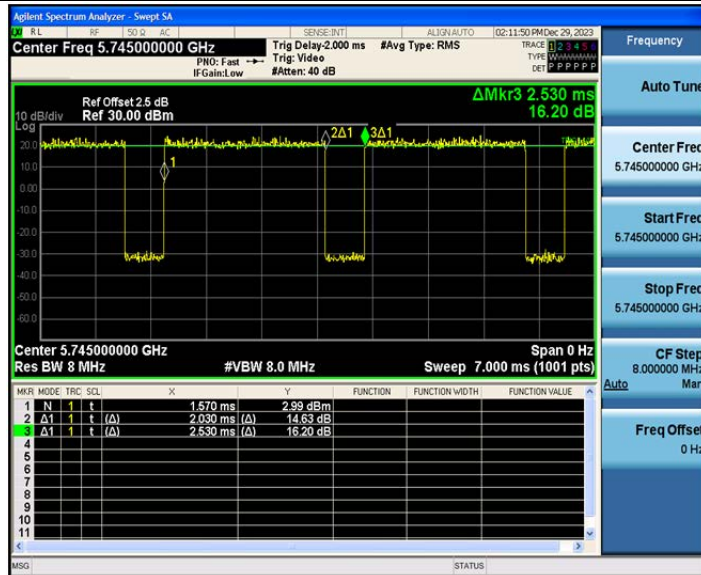
802.11a_Ant2_5240



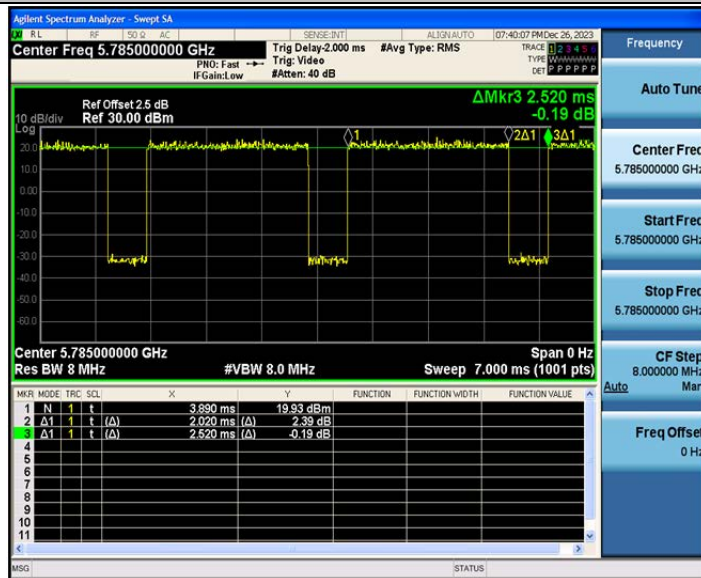
802.11a_Ant1_5745



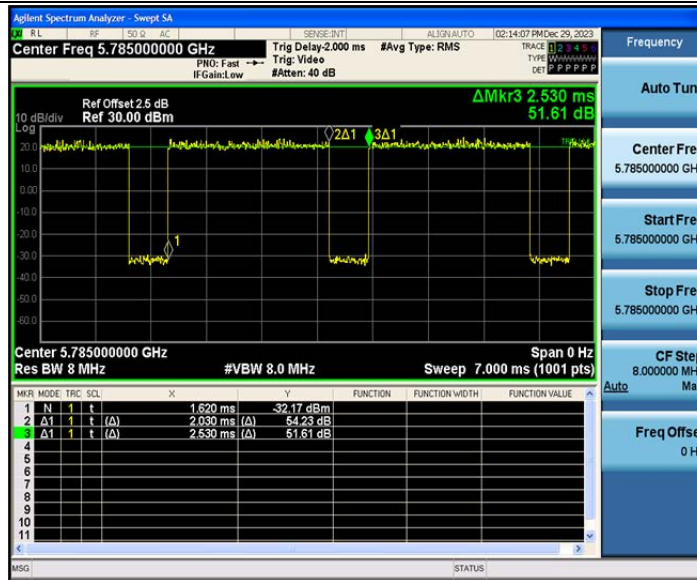
802.11a_Ant2_5745



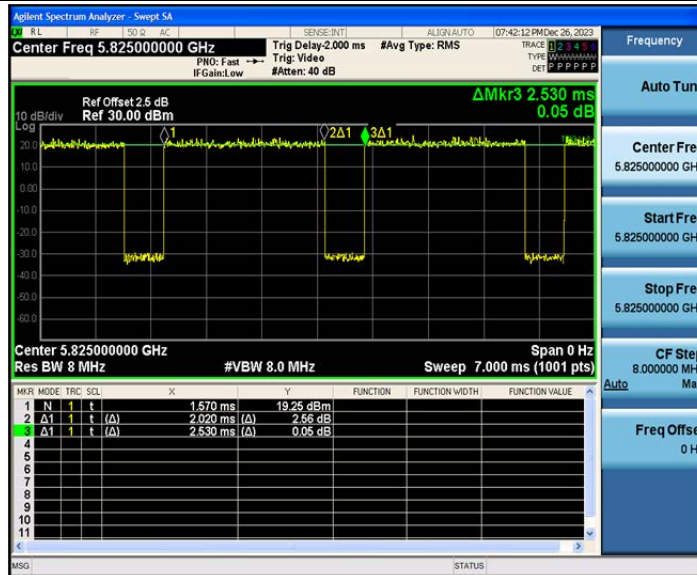
802.11a_Ant1_5785



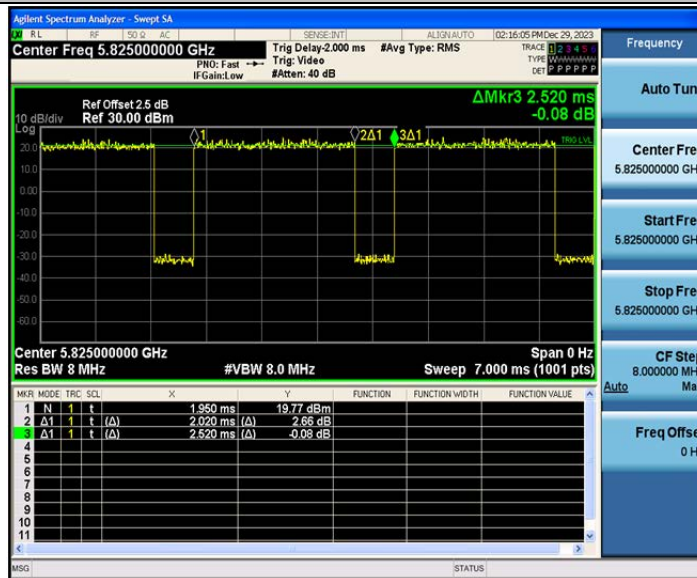
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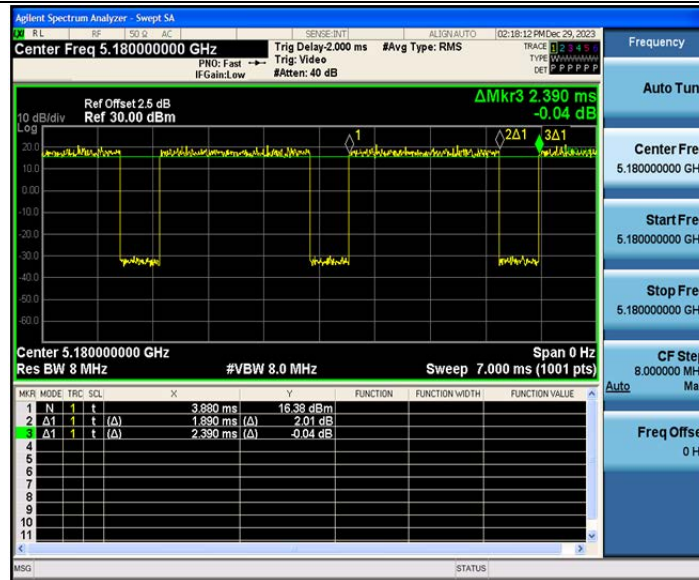
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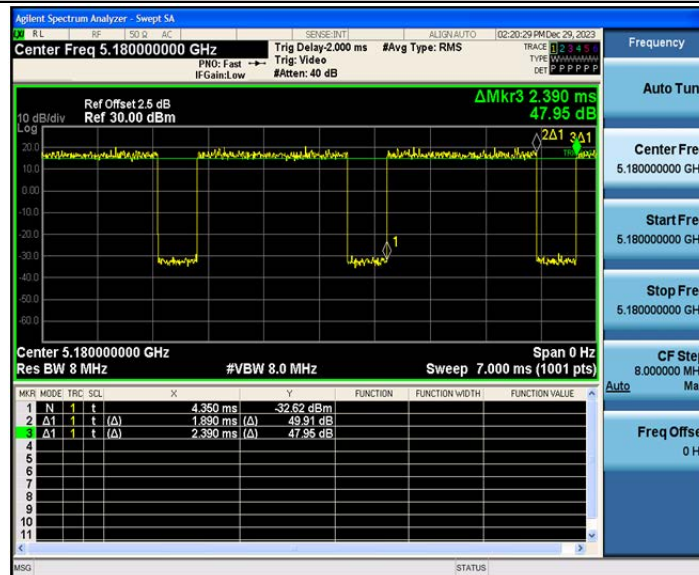
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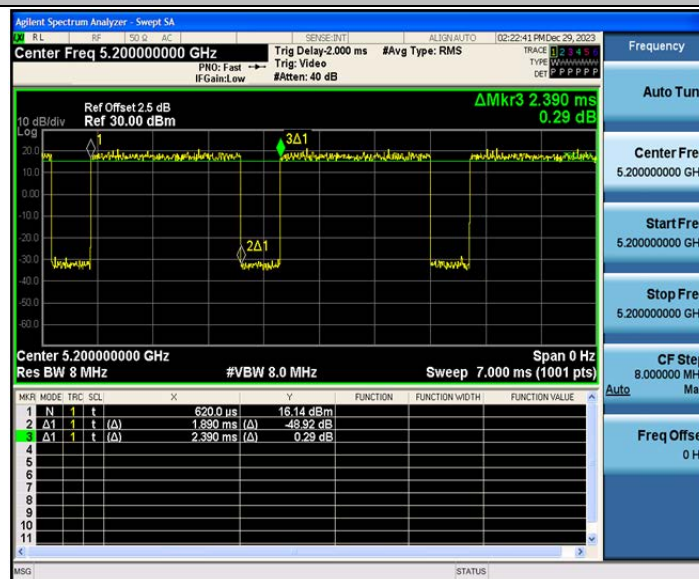
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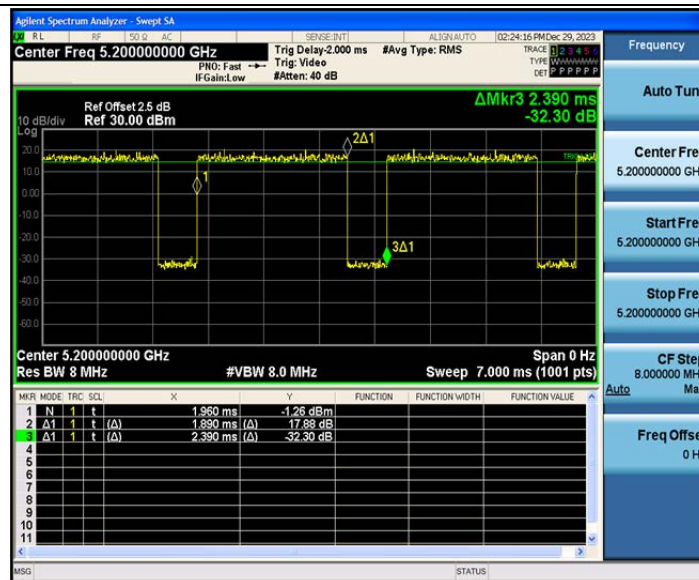
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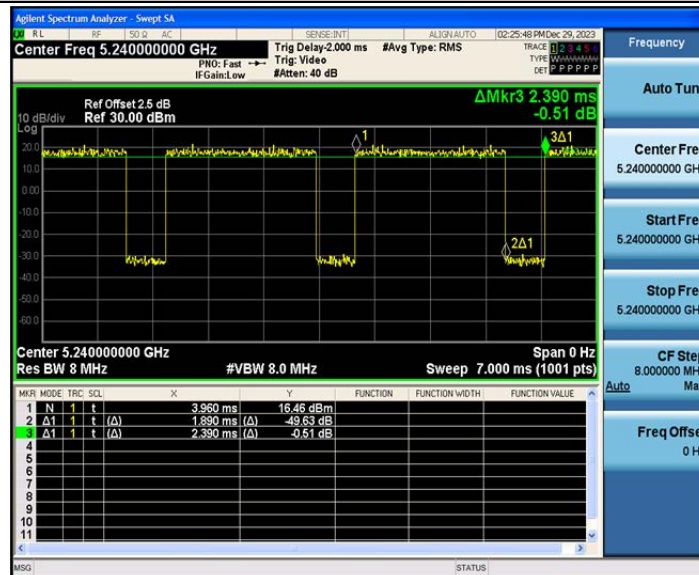
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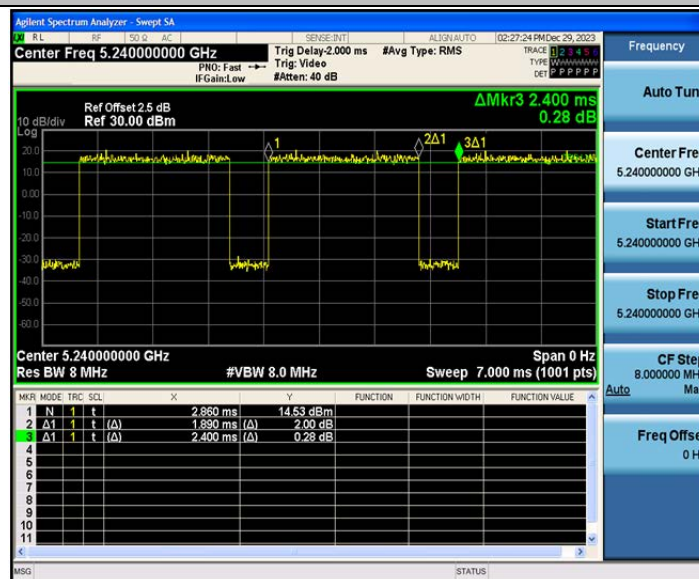
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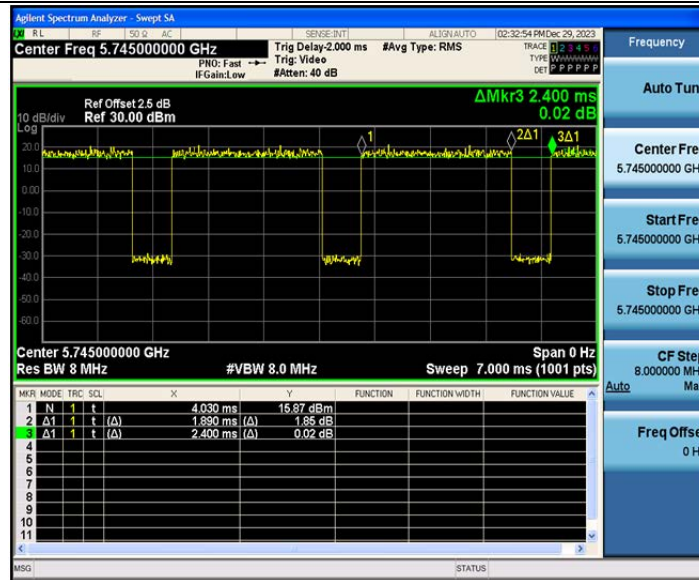
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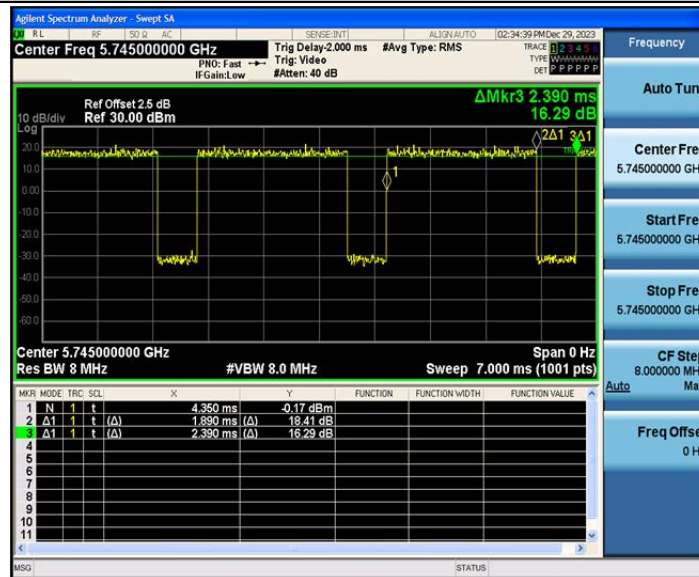
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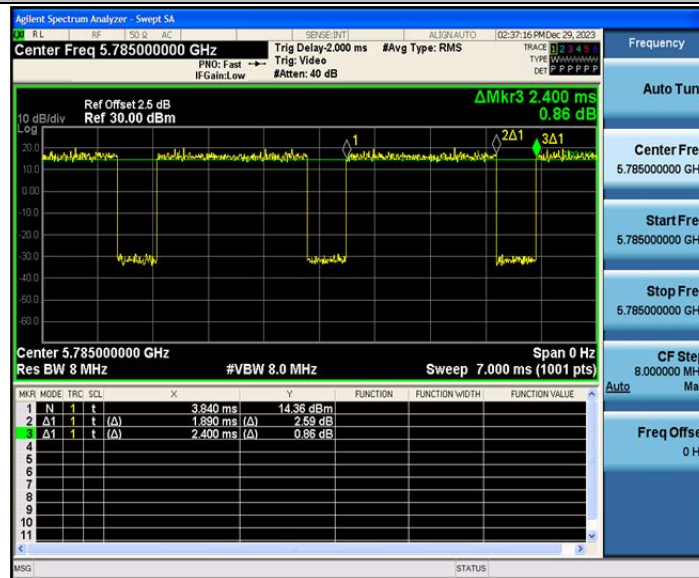
802.11n(HT20) Ant1 5745



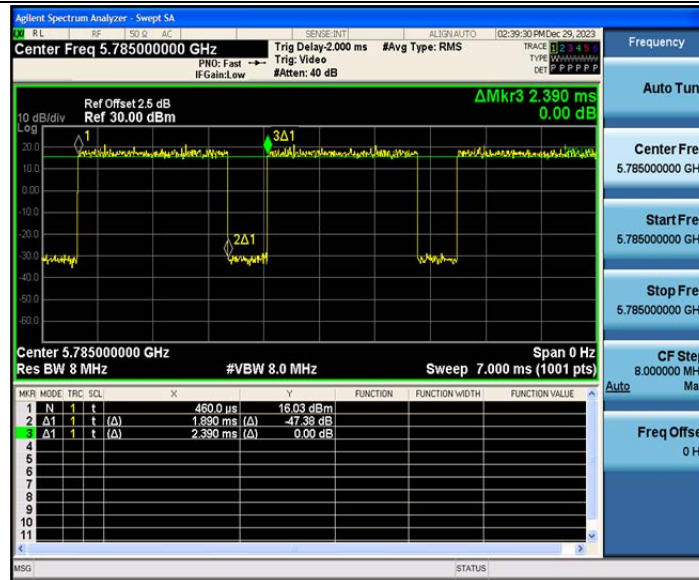
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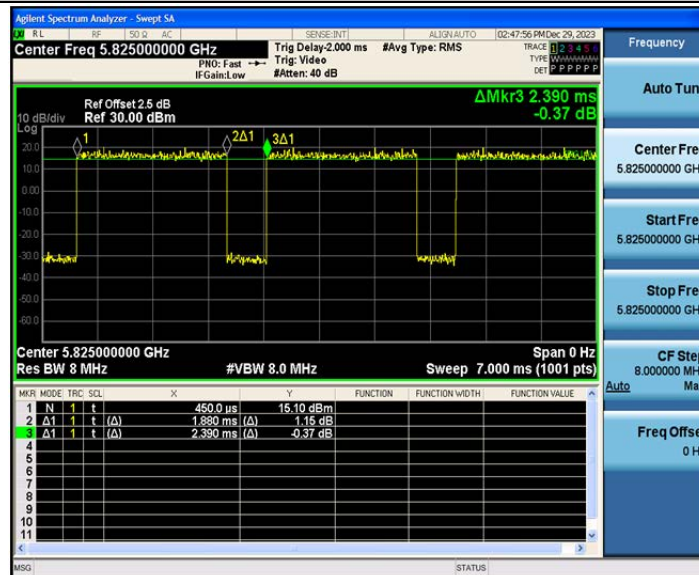
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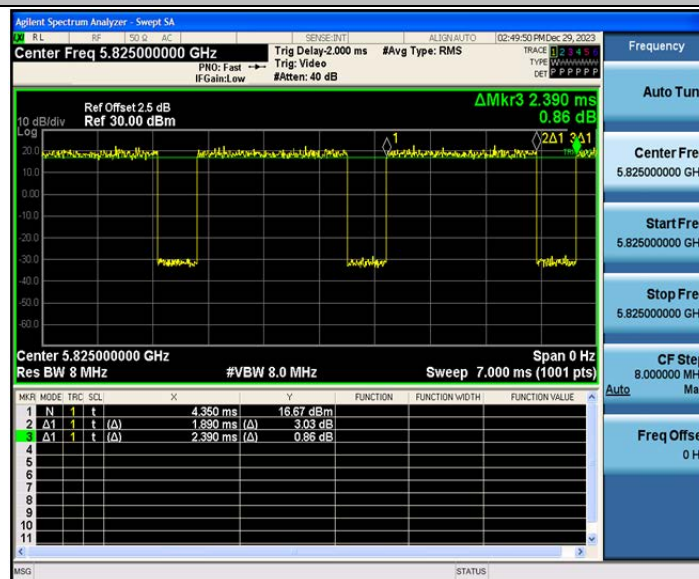
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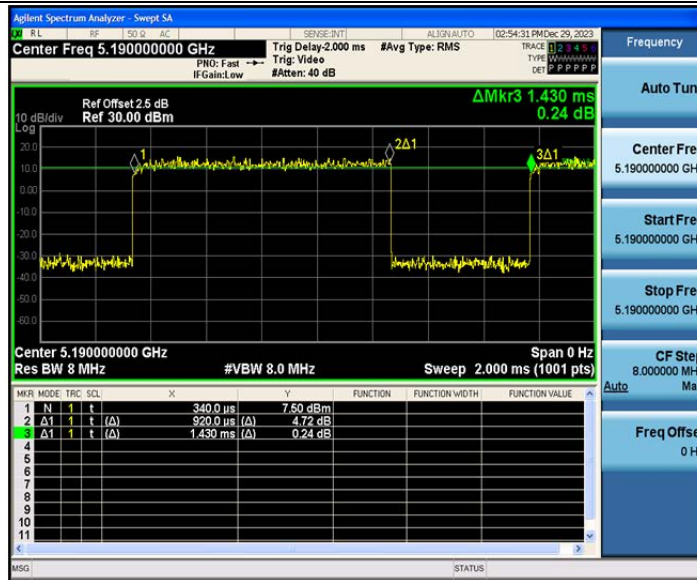
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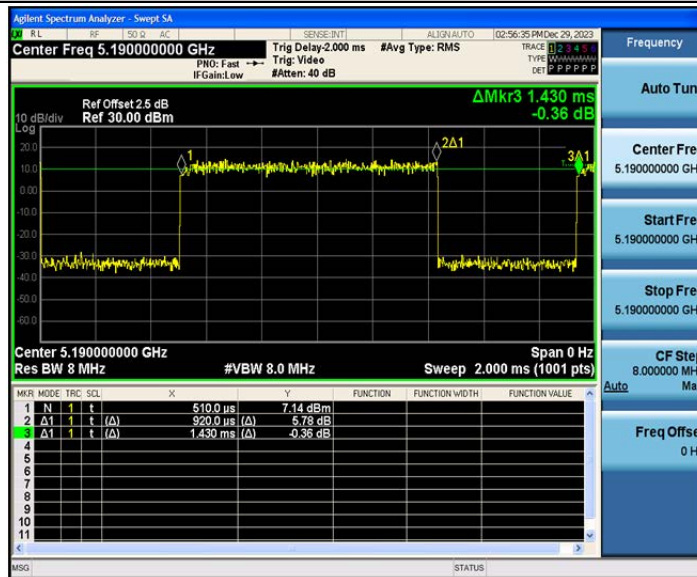
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802.11n(HT40)_Ant1_5190



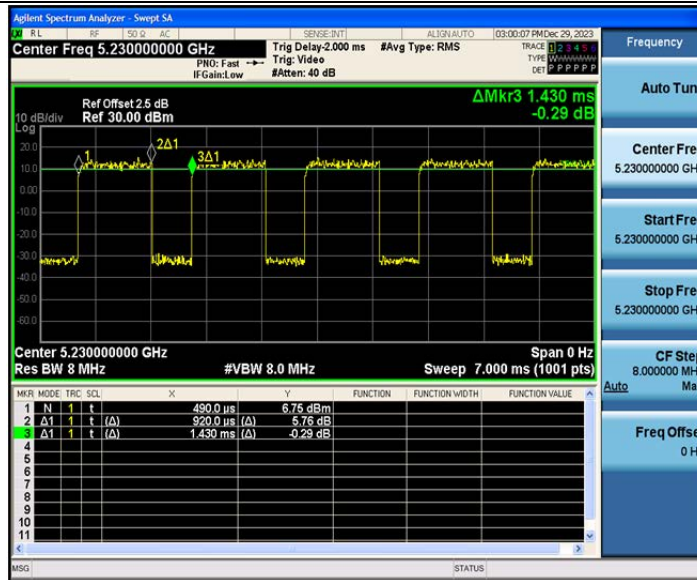
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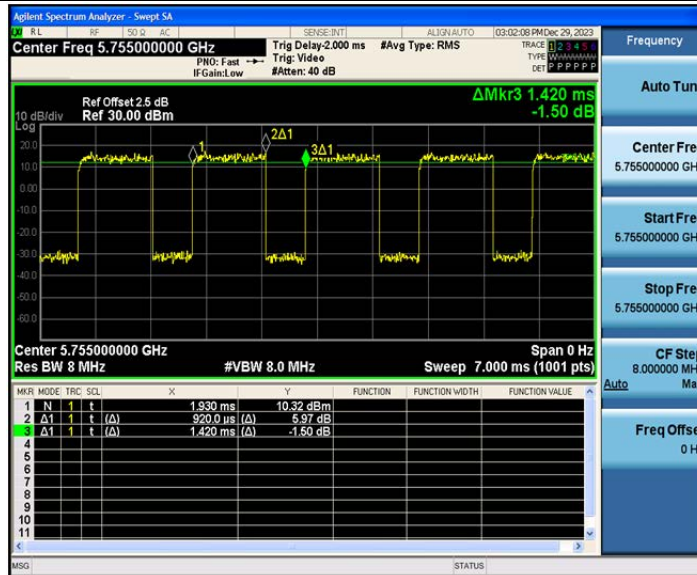
802.11n(HT40)_Ant1_5230



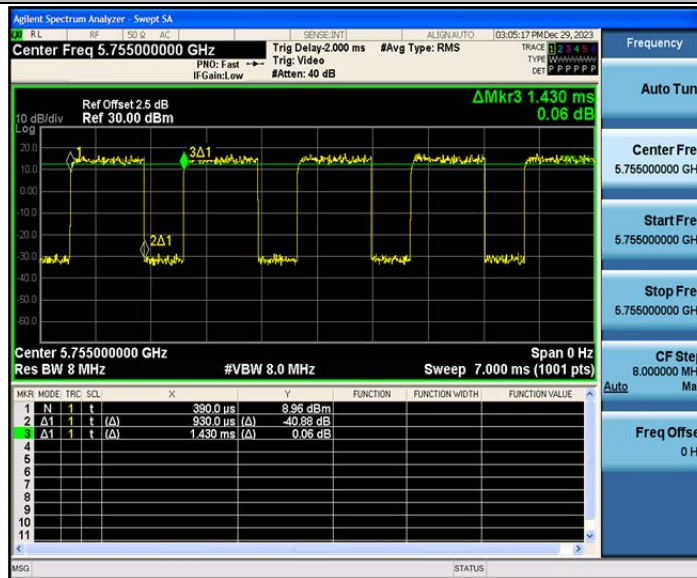
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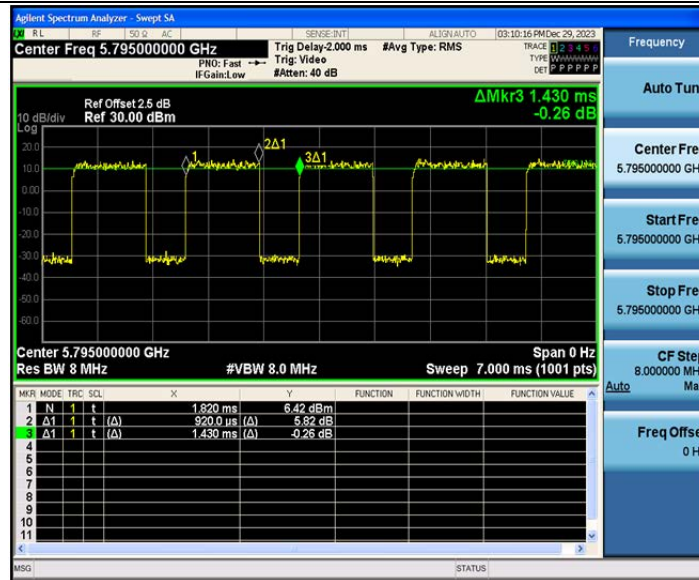
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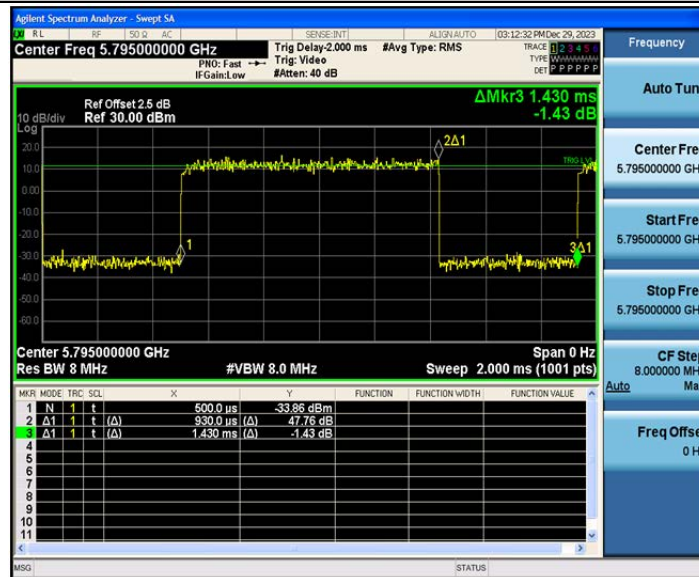
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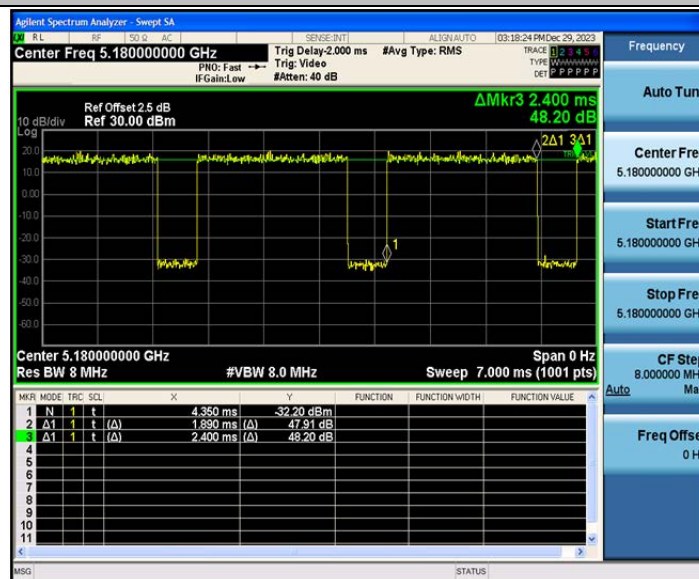
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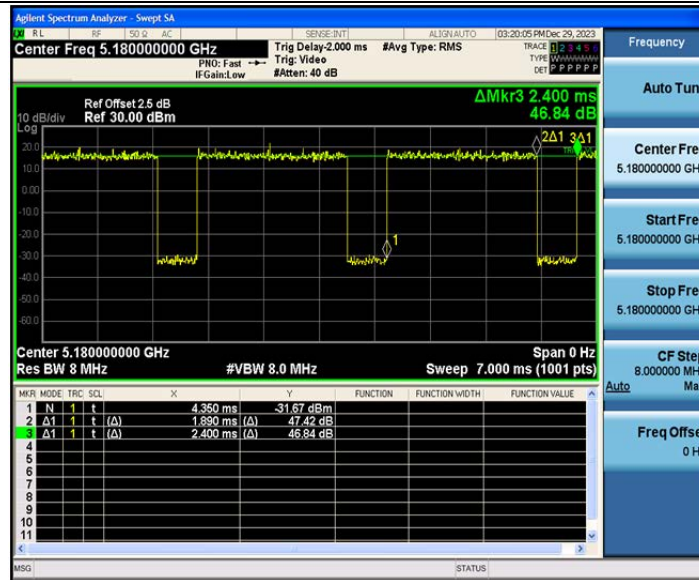
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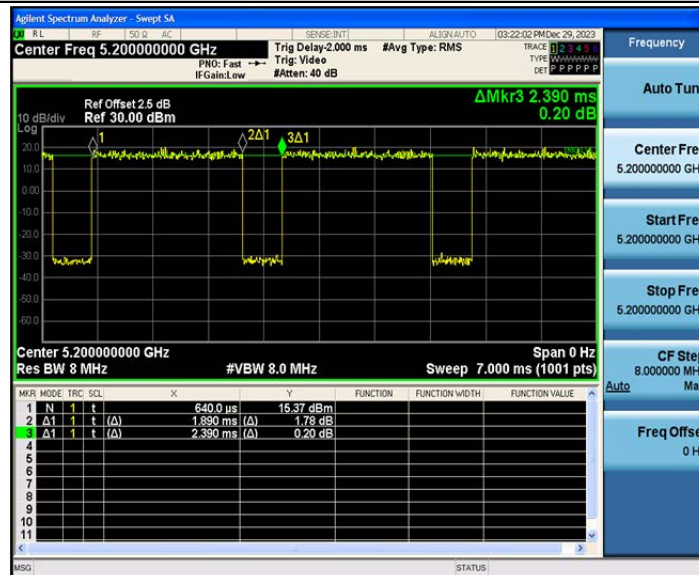
802.11ac(VHT20)_Ant1_5180



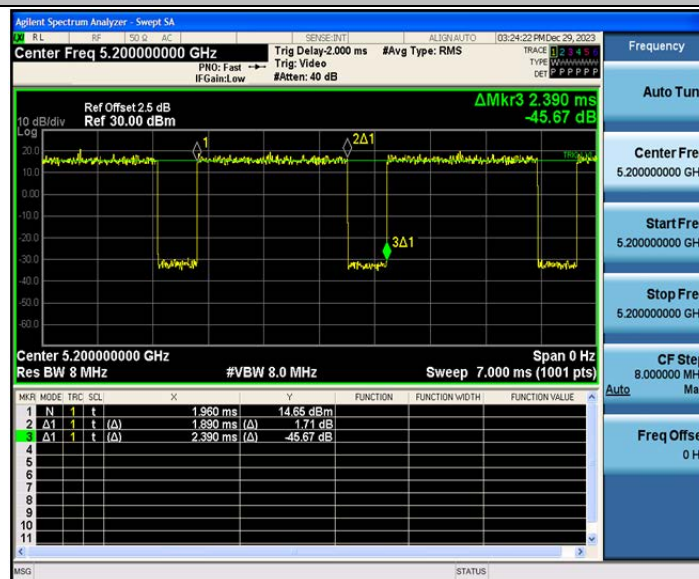
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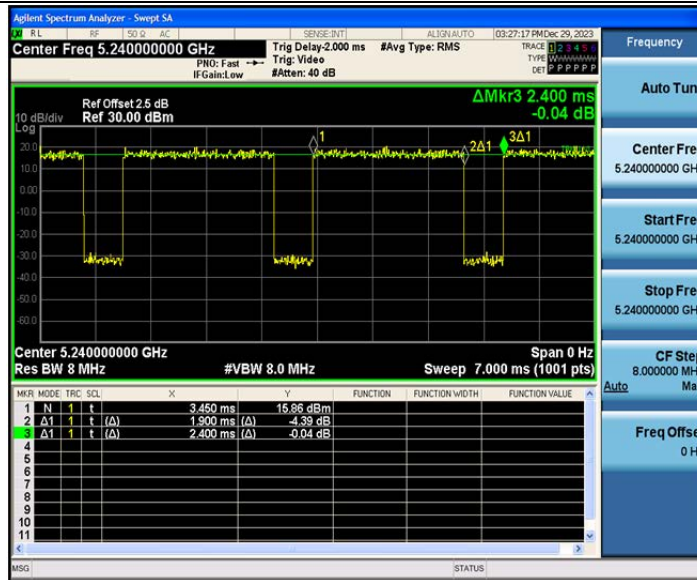
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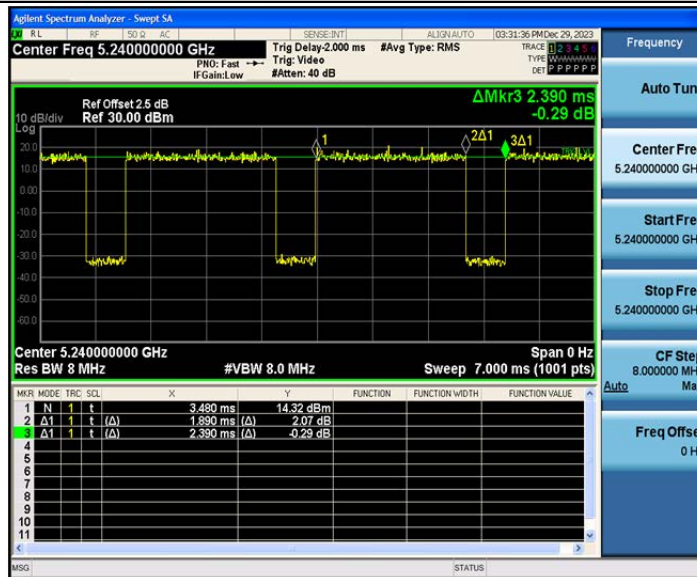
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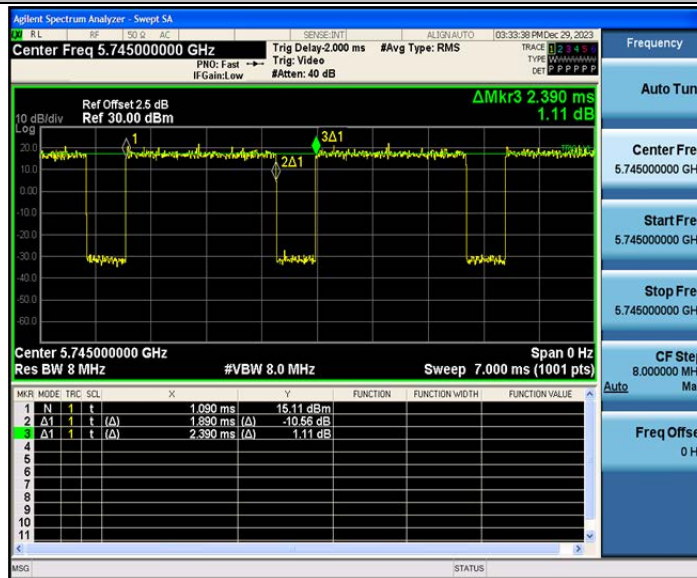
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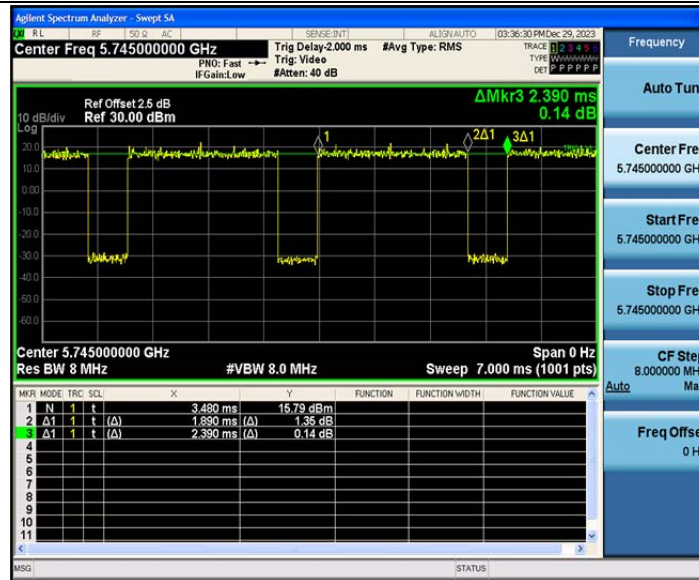
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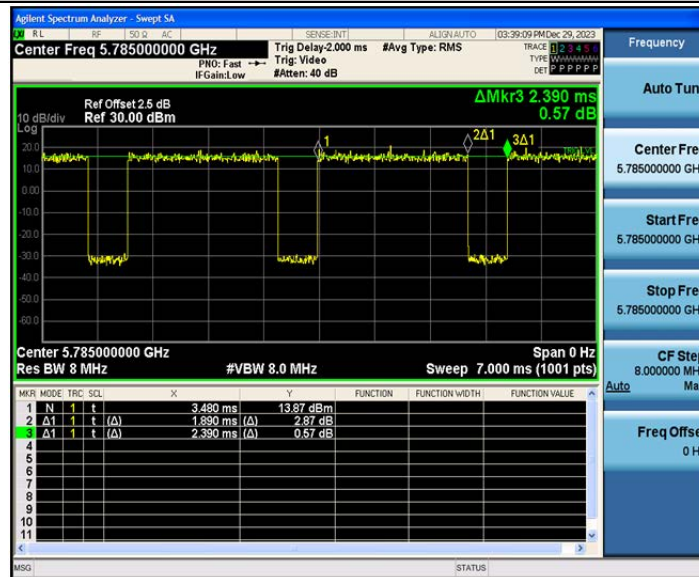
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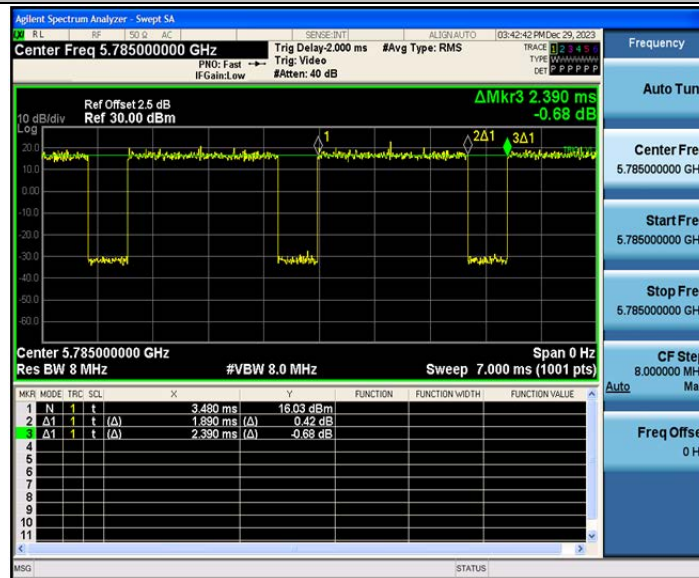
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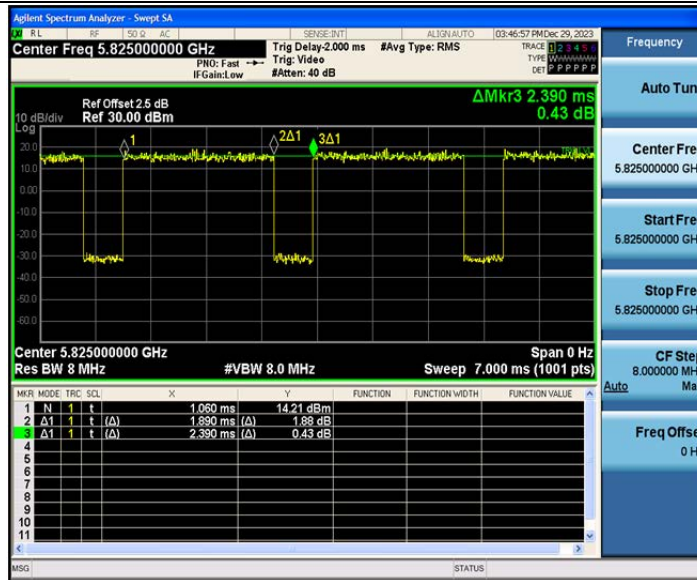
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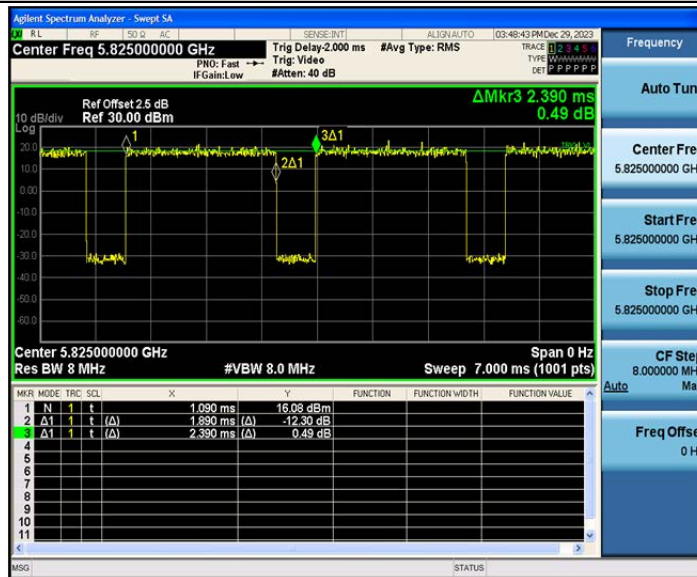
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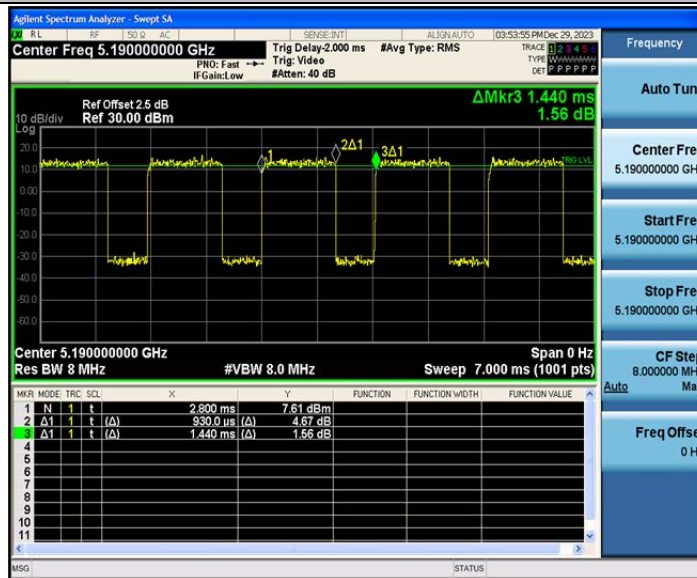
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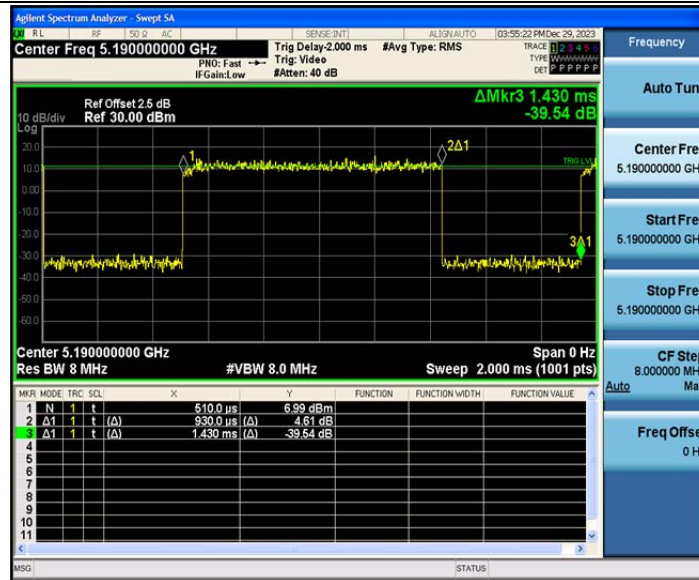
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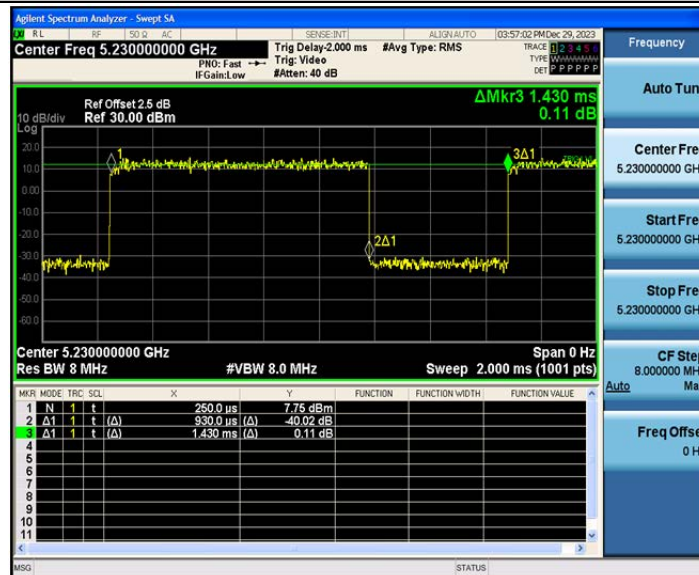
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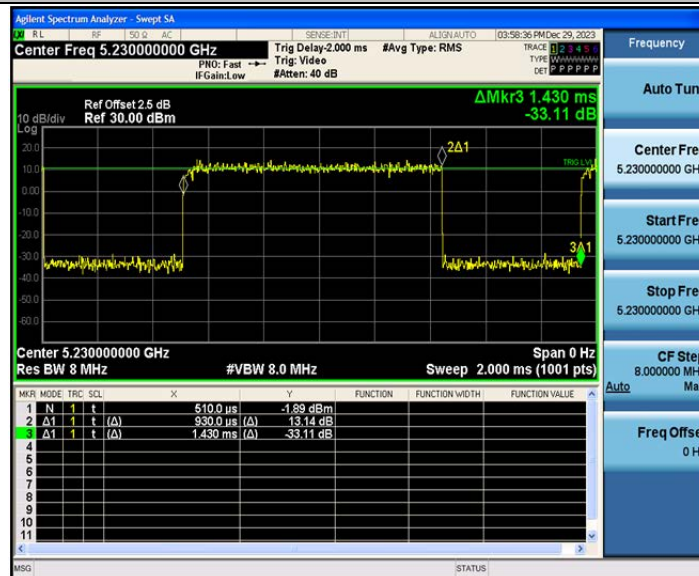
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802.11ac(VHT40)_Ant1_5230



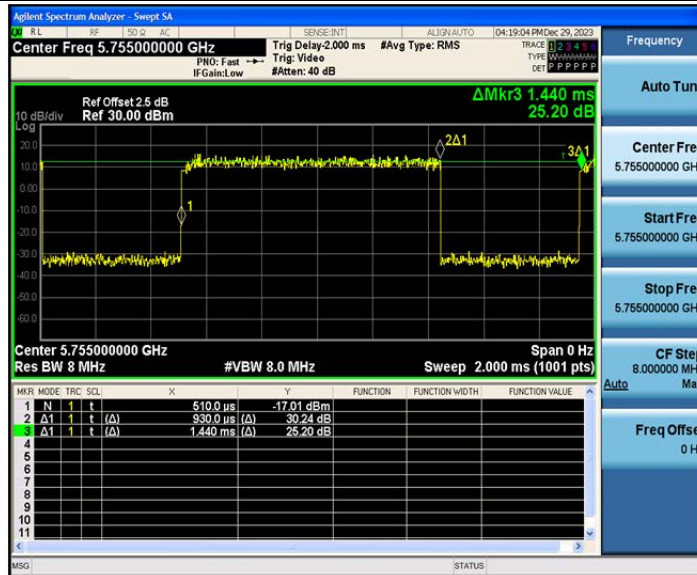
802.11ac(VHT40)_Ant2_5230



802.11ac(VHT40)_Ant1_5755



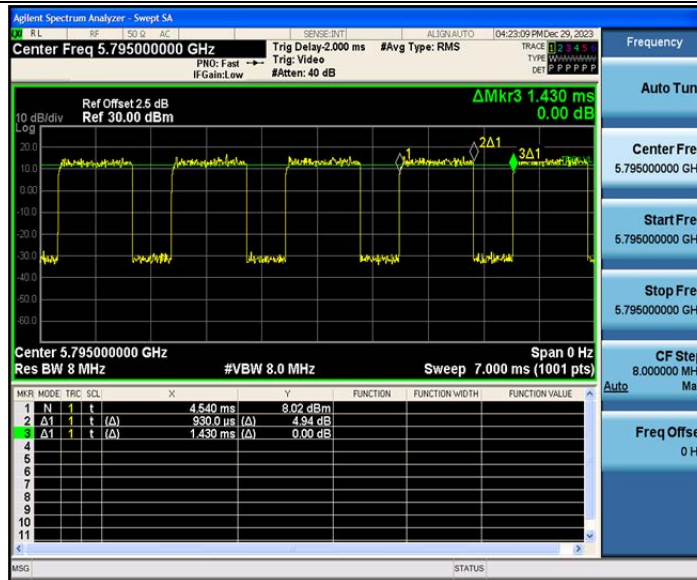
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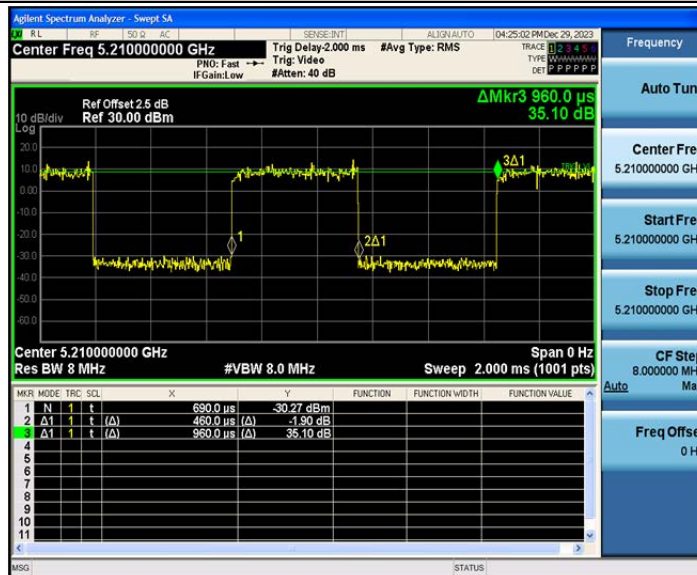
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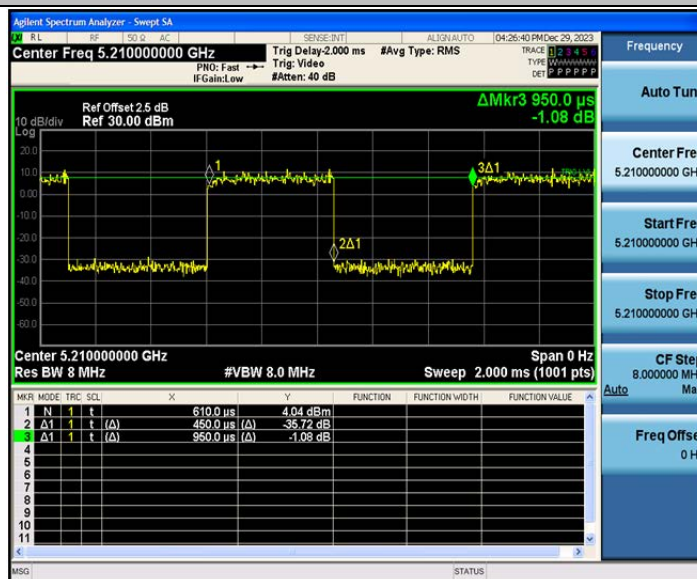
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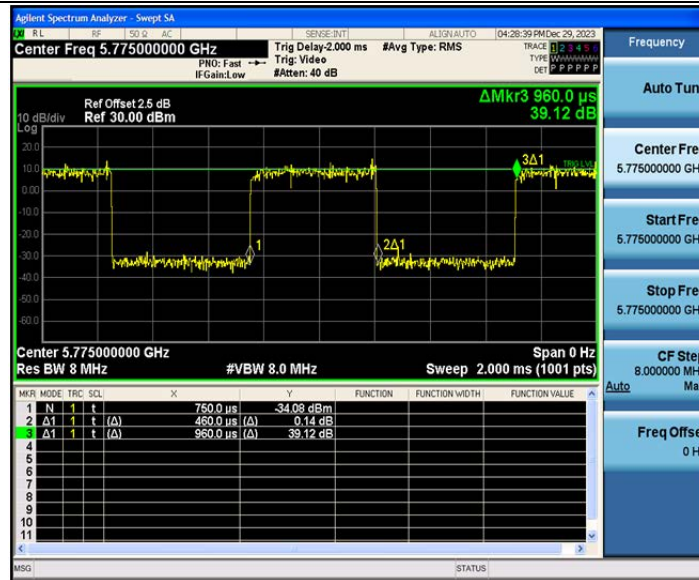
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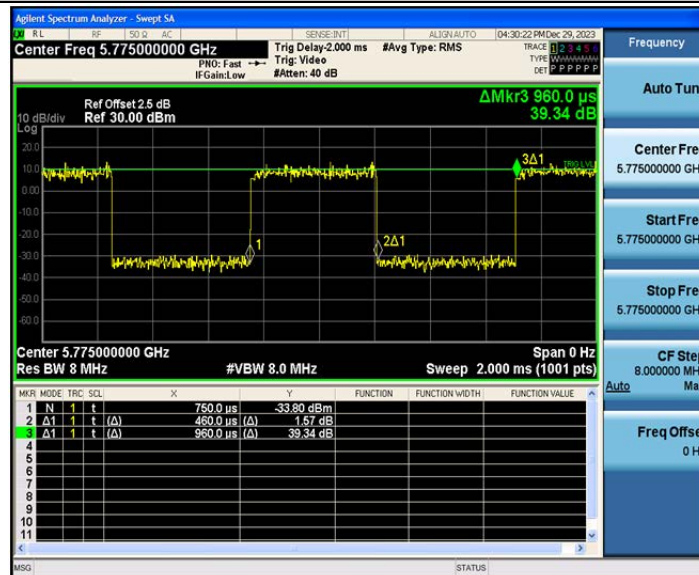
802.11ac(VHT80)_Ant2_5210



802.11ac(VHT80)_Ant1_5775



802.11ac(VHT80)_Ant2_5775



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