

Appendix B for SHEM210700841902

1. Duty Cycle

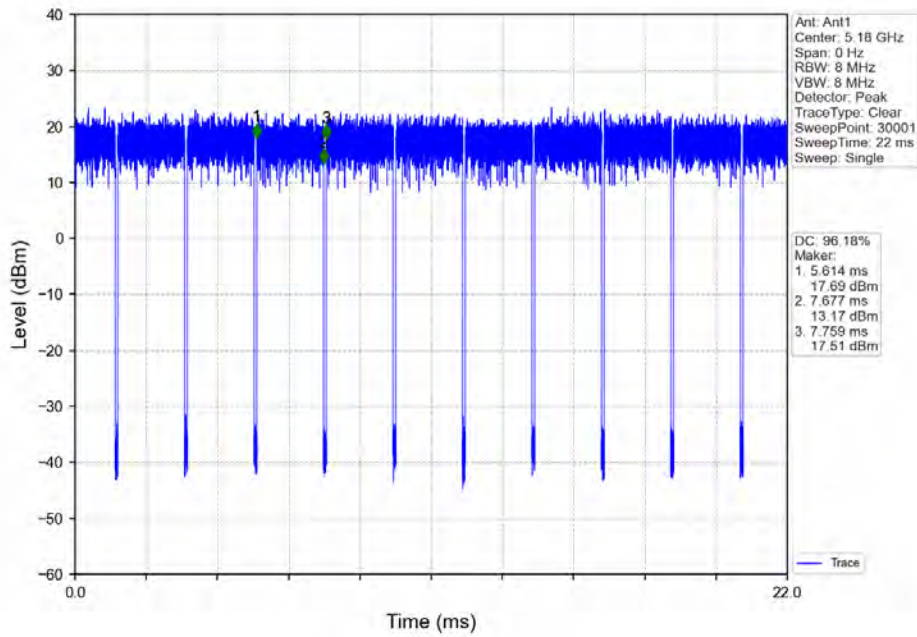
1.1 Ant1

1.1.1 Test Result

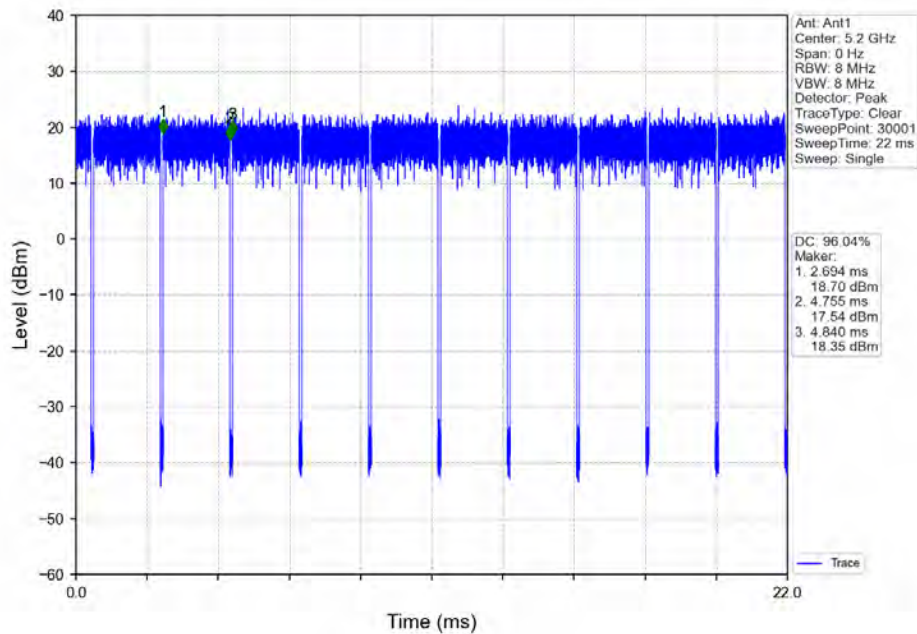
Ant1							
Mode	TX Type	Frequency (MHz)	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
802.11a	SISO	5180	2.063	2.145	96.18	0.17	0.03
		5200	2.061	2.146	96.04	0.18	0.00
		5240	2.061	2.146	96.04	0.18	0.00
		5745	2.063	2.145	96.18	0.17	0.03
		5785	2.060	2.146	95.99	0.18	0.00
		5825	2.060	2.147	95.95	0.18	0.10
802.11n (HT20)	MIMO	5180	4.999	5.083	98.35	0.07	0.07
		5200	4.995	5.079	98.35	0.07	0.00
		5240	4.998	5.081	98.37	0.07	0.07
		5745	4.995	5.080	98.33	0.07	0.00
		5785	4.995	5.079	98.35	0.07	0.00
		5825	4.999	5.082	98.37	0.07	0.07
802.11n (HT40)	MIMO	5190	2.424	2.511	96.54	0.15	0.00
		5230	2.423	2.513	96.42	0.16	0.07
		5755	2.423	2.513	96.42	0.16	0.07
		5795	2.427	2.512	96.62	0.15	0.03
802.11ac (VHT20)	MIMO	5180	5.007	5.094	98.29	0.07	0.00
		5200	5.008	5.096	98.27	0.08	0.00
		5240	5.007	5.095	98.27	0.08	0.04
		5745	5.008	5.096	98.27	0.08	0.04
		5785	5.009	5.097	98.27	0.08	0.07
		5825	5.008	5.096	98.27	0.08	0.00
802.11ac (VHT40)	MIMO	5190	2.431	2.520	96.47	0.16	0.03
		5230	2.431	2.520	96.47	0.16	0.03
		5755	2.431	2.520	96.47	0.16	0.03
		5795	2.435	2.520	96.63	0.15	0.10
802.11ac (VHT80)	MIMO	5210	1.147	1.228	93.40	0.30	0.24
		5775	1.148	1.230	93.33	0.30	0.40

1.1.2 Test Graph

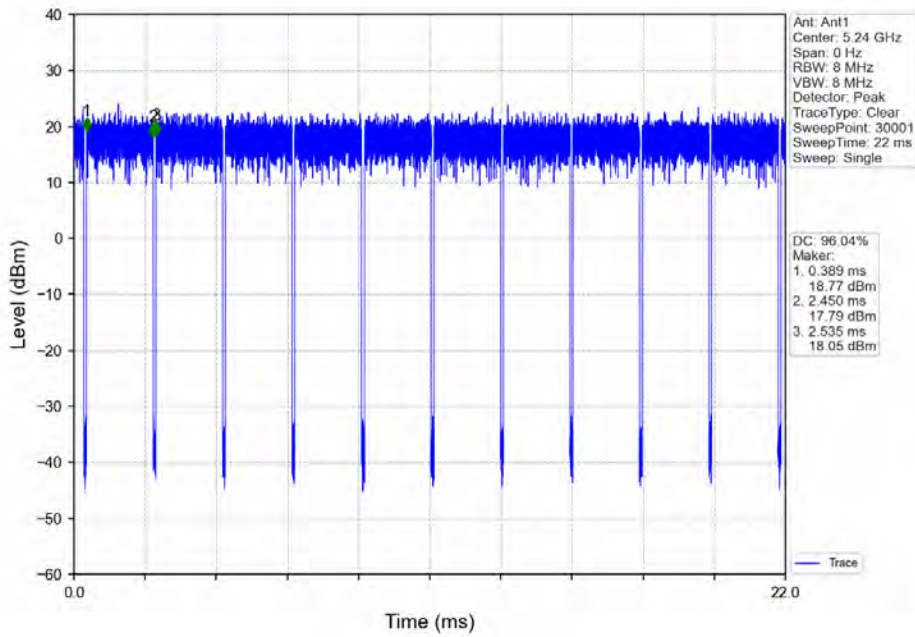
802.11a_LCH_5180MHz_Ant1_NTNV



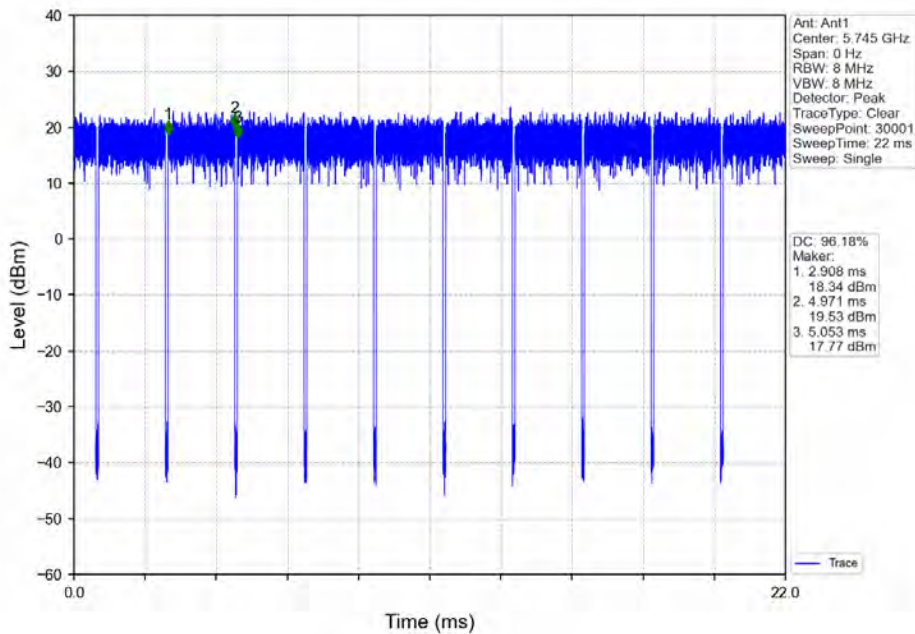
802.11a_MCH_5200MHz_Ant1_NTNV



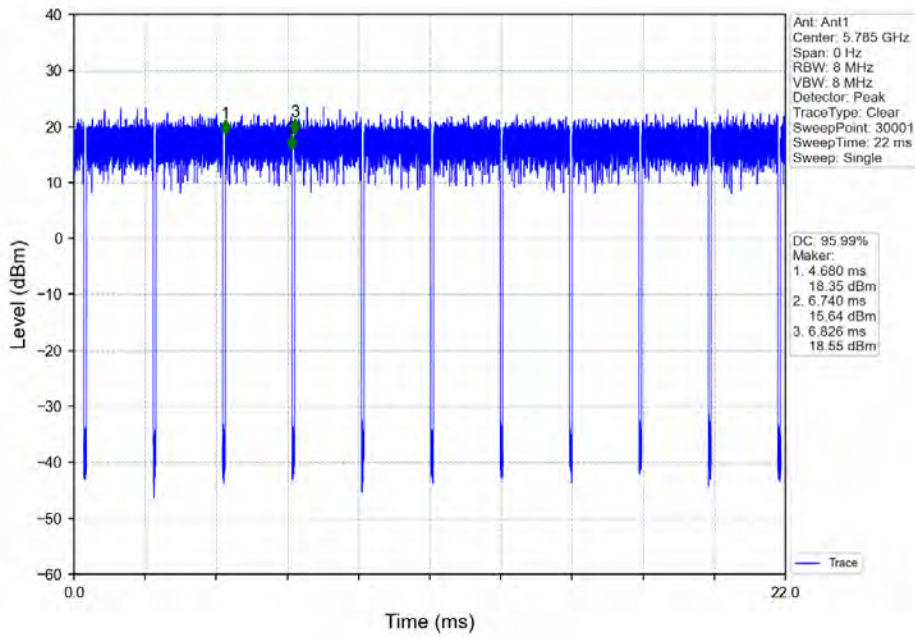
802.11a_HCH_5240MHz_Ant1_NTNV



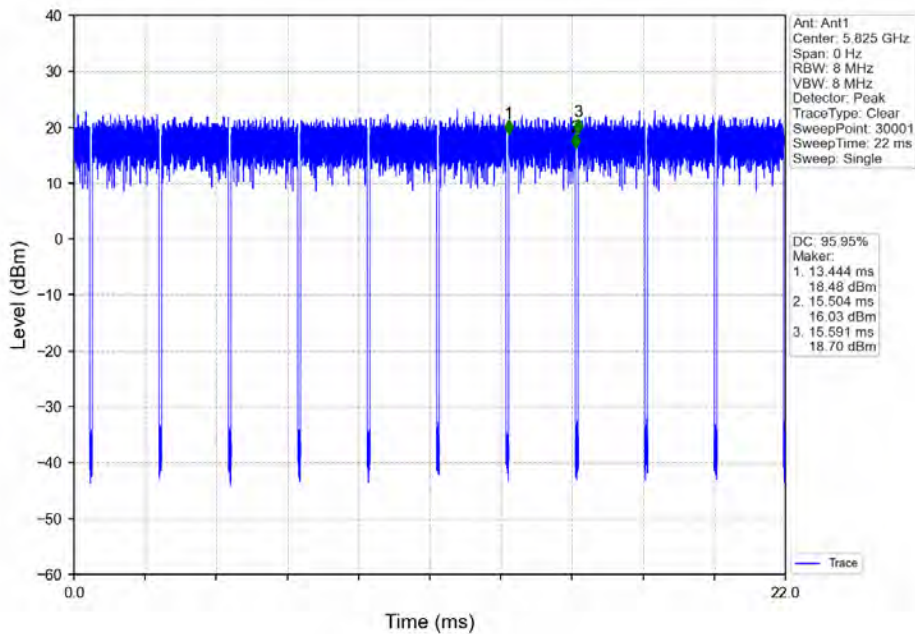
802.11a_LCH_5745MHz_Ant1_NTNV



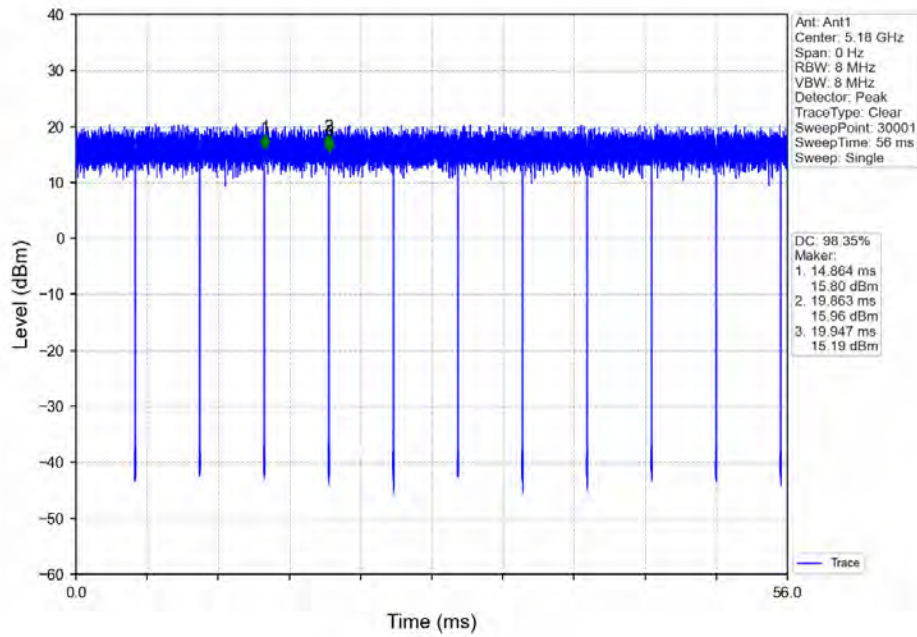
802.11a_MCH_5785MHz_Ant1_NTNV



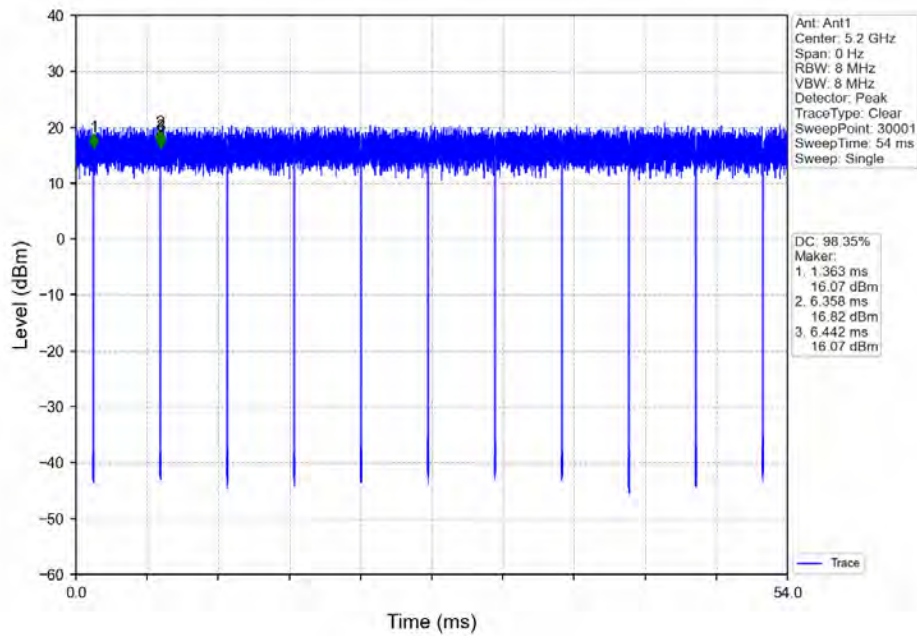
802.11a_HCH_5825MHz_Ant1_NTNV



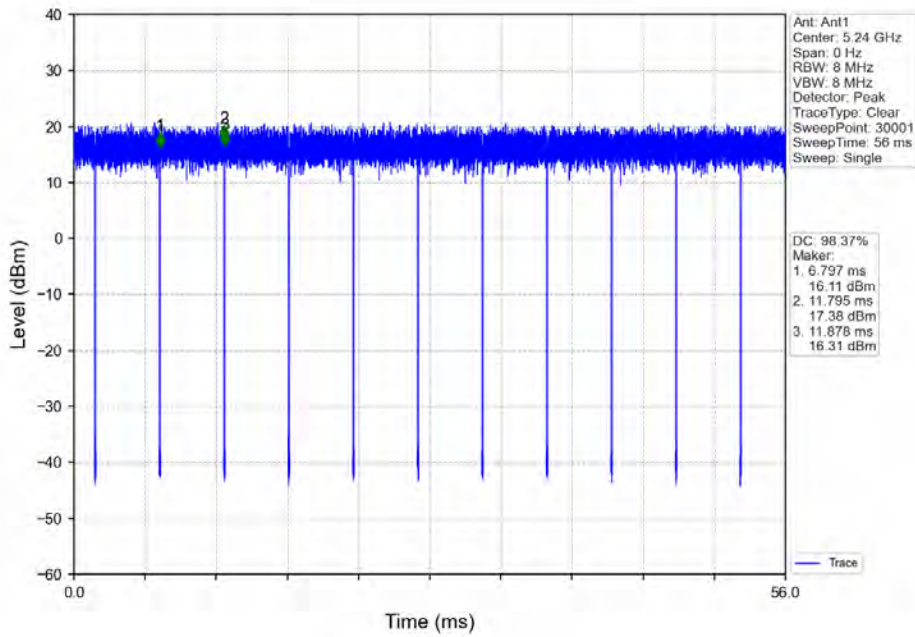
802.11n(HT20)_LCH_5180MHz_Ant1_NTNV



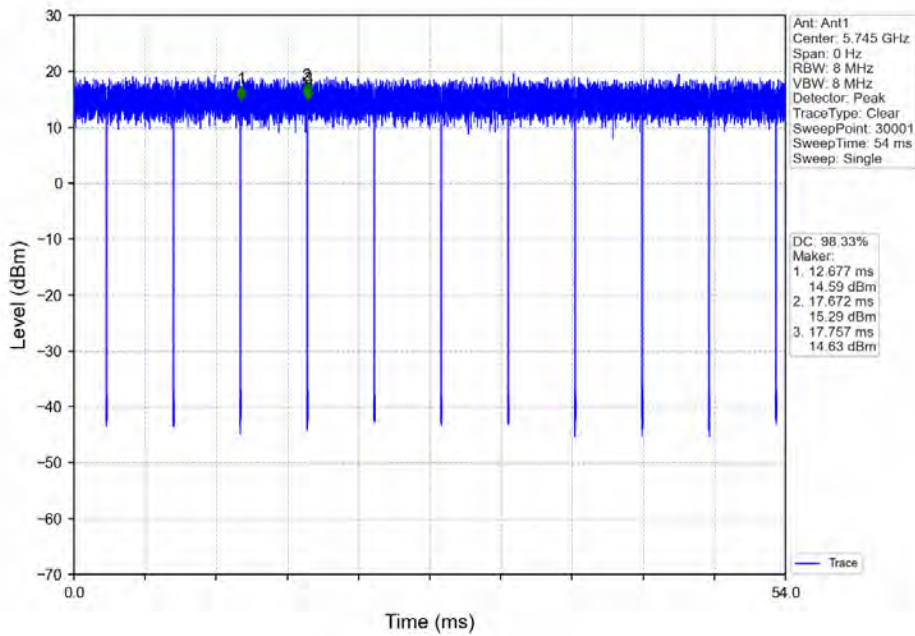
802.11n(HT20)_MCH_5200MHz_Ant1_NTNV



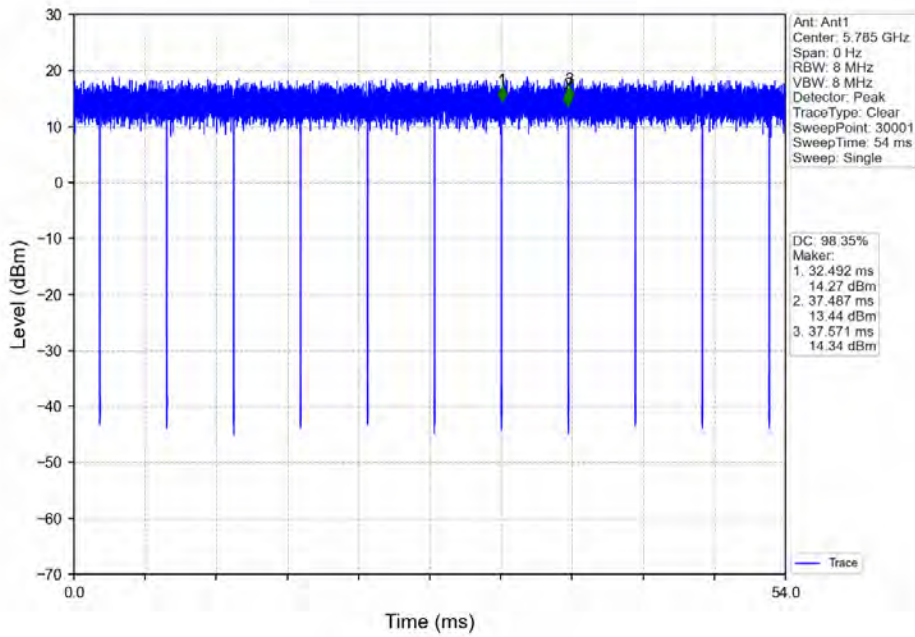
802.11n(HT20)_HCH_5240MHz_Ant1_NTNV



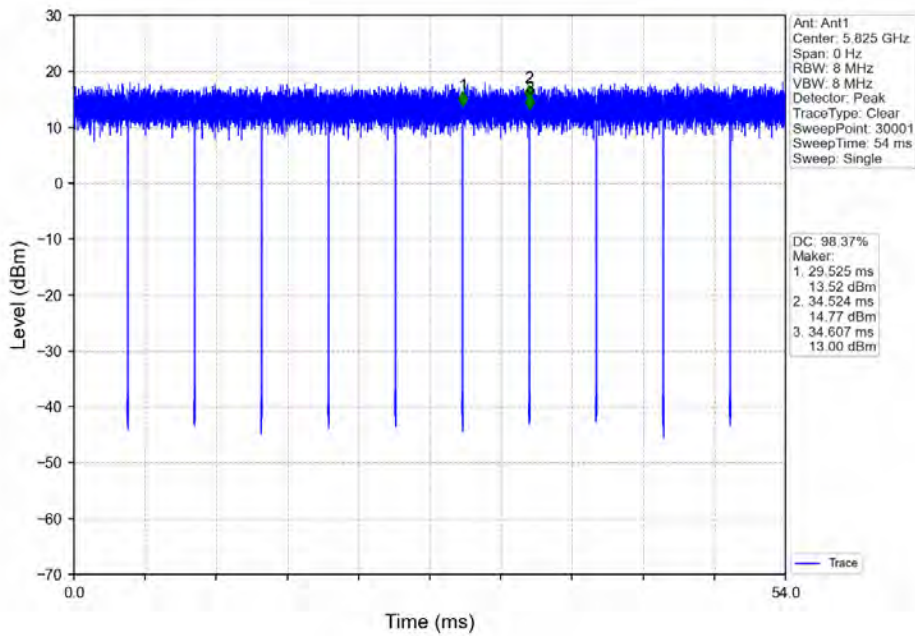
802.11n(HT20)_LCH_5745MHz_Ant1_NTNV



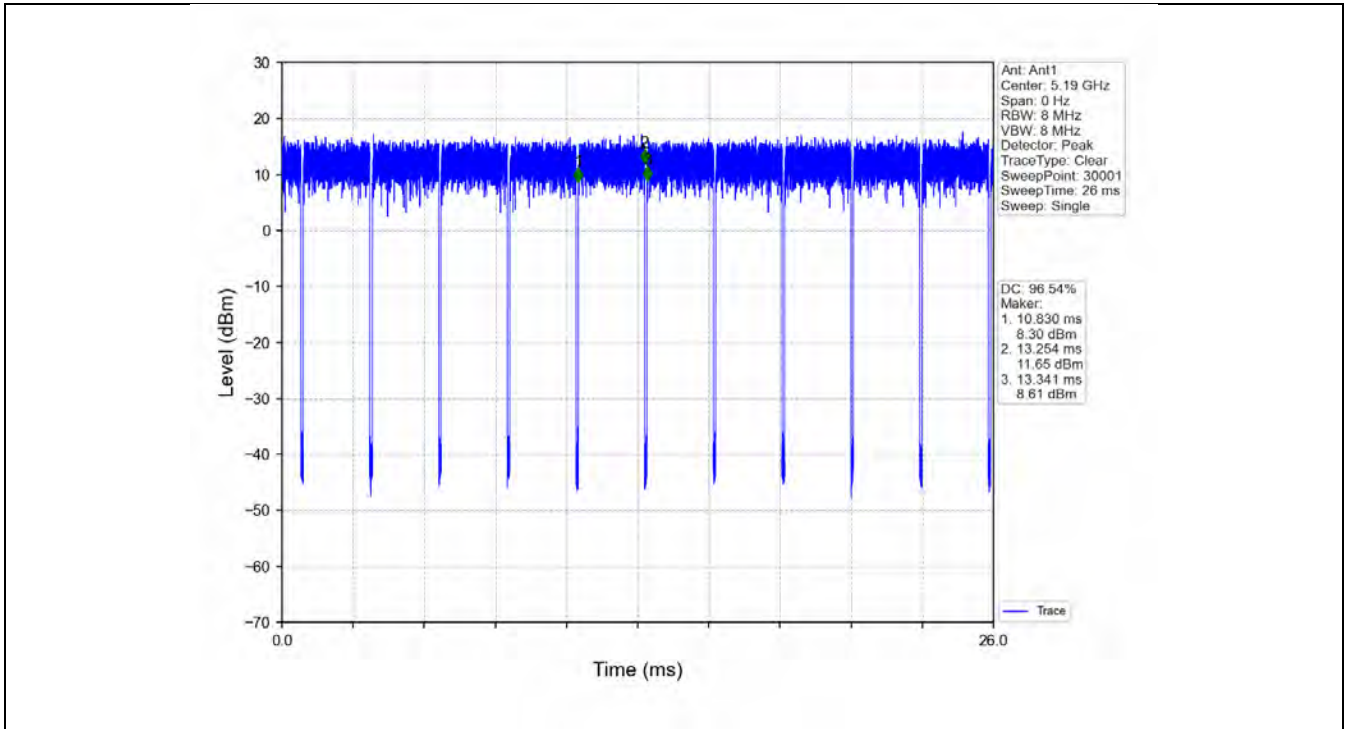
802.11n(HT20)_MCH_5785MHz_Ant1_NTNV



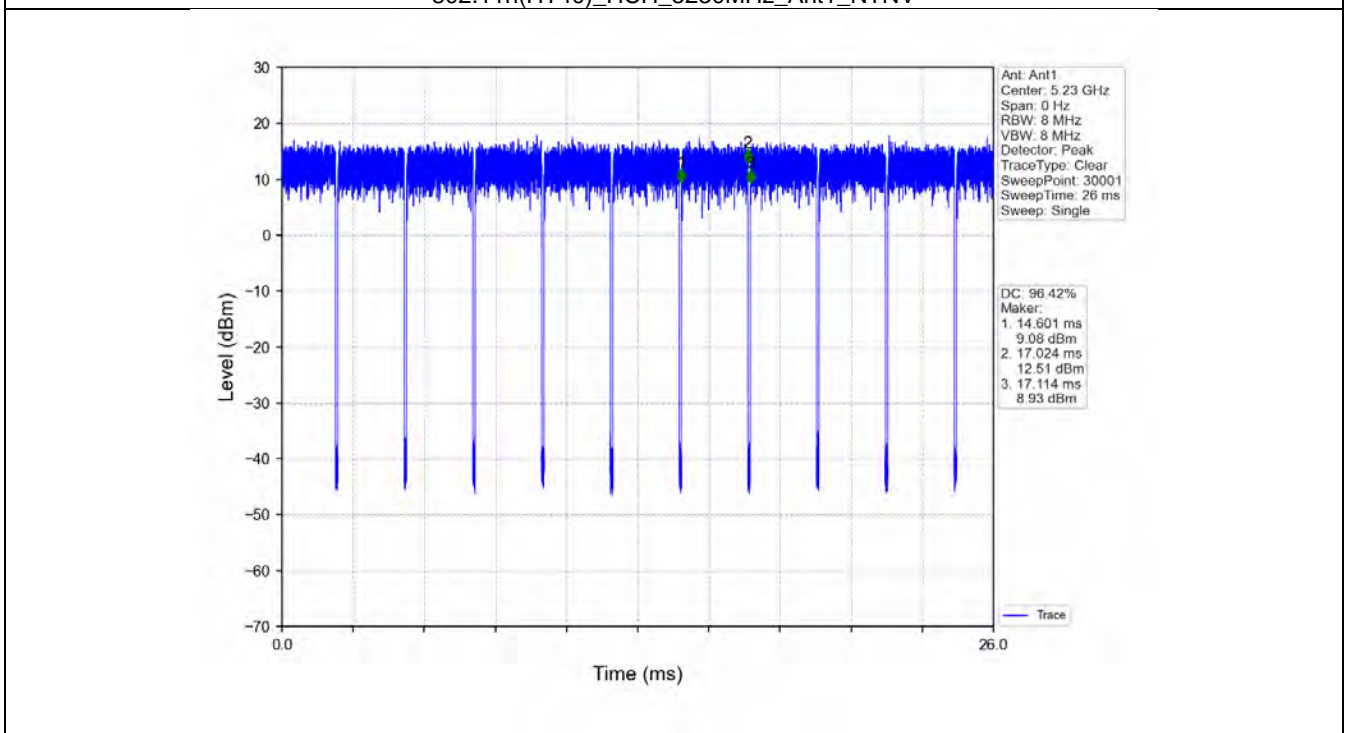
802.11n(HT20)_HCH_5825MHz_Ant1_NTNV



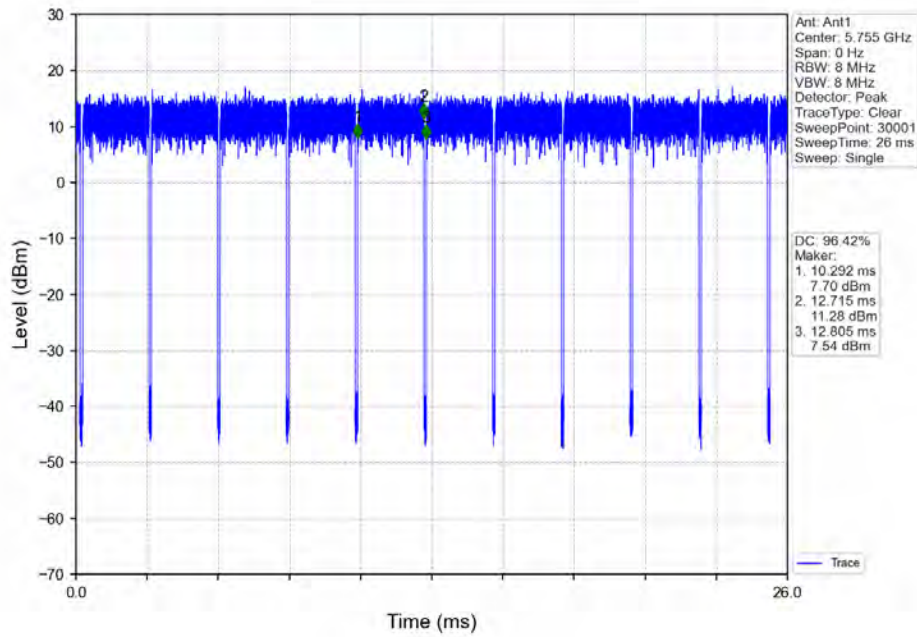
802.11n(HT40)_LCH_5190MHz_Ant1_NTNV



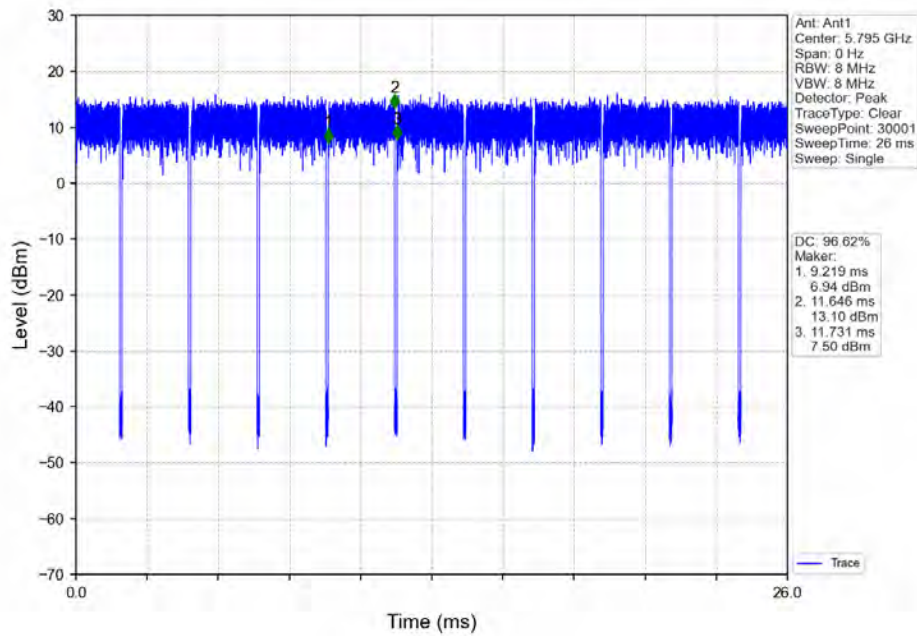
802.11n(HT40)_HCH_5230MHz_Ant1_NTNV



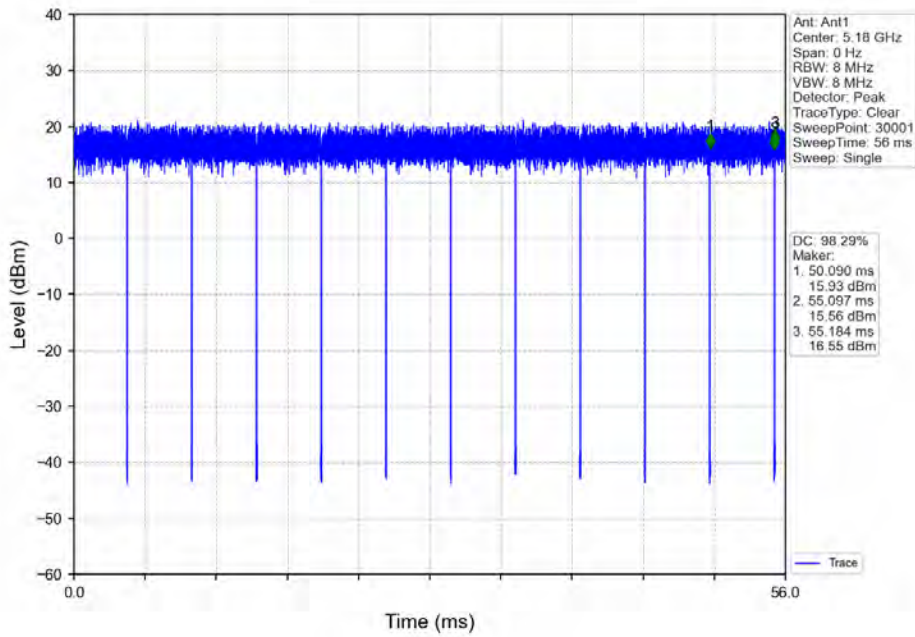
802.11n(HT40)_LCH_5755MHz_Ant1_NTNV



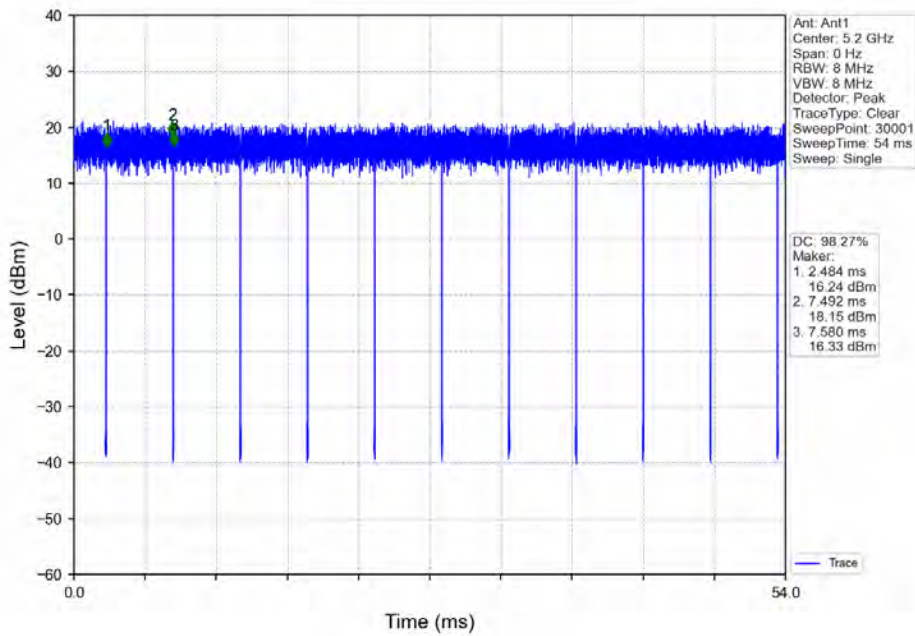
802.11n(HT40)_HCH_5795MHz_Ant1_NTNV



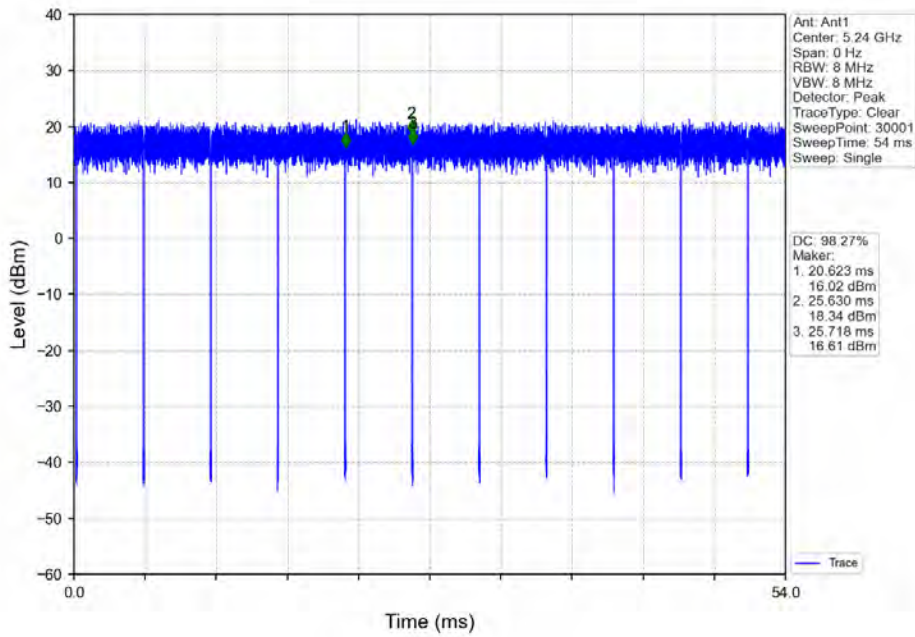
802.11ac(VHT20)_LCH_5180MHz_Ant1_NTNV



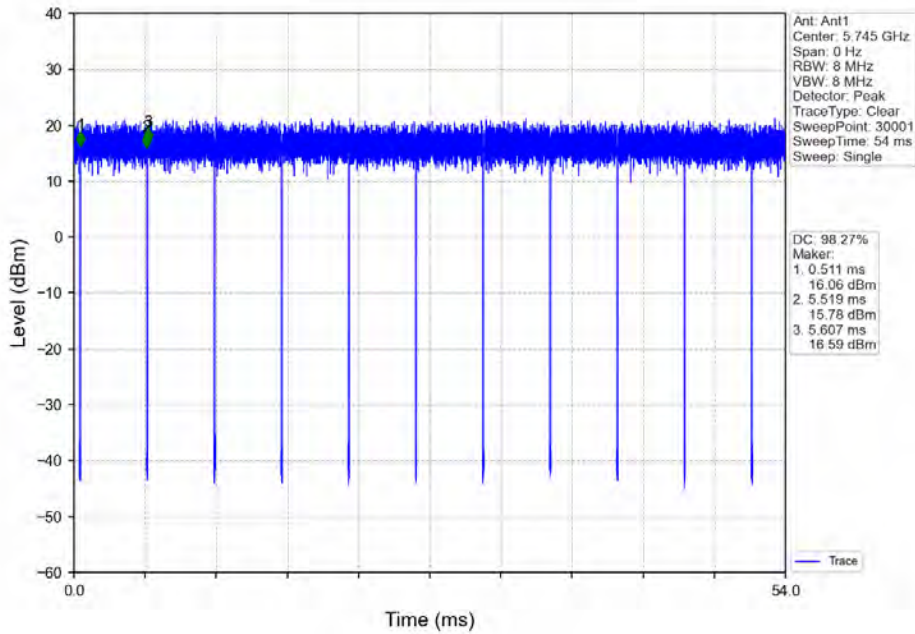
802.11ac(VHT20)_MCH_5200MHz_Ant1_NTNV



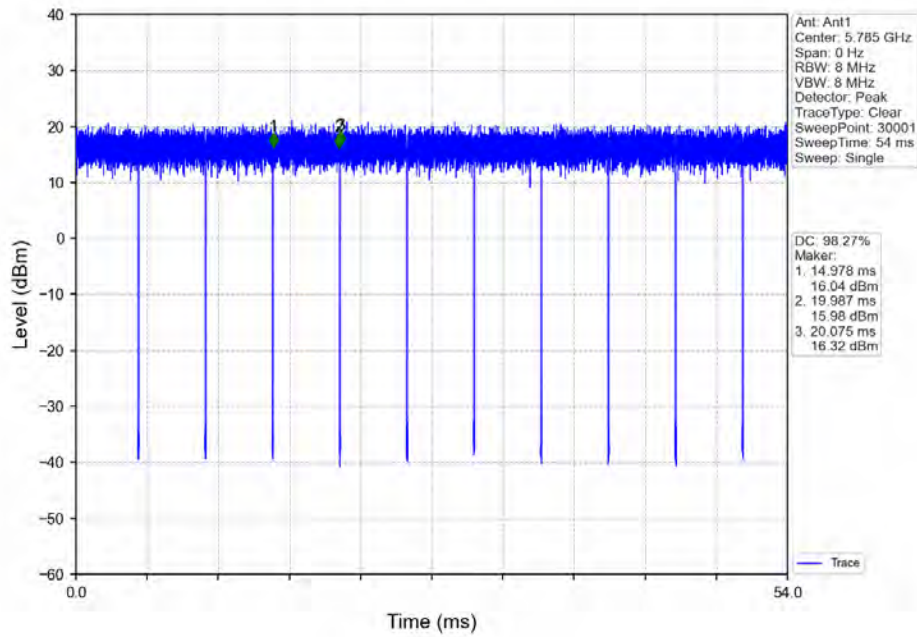
802.11ac(VHT20)_HCH_5240MHz_Ant1_NTNV



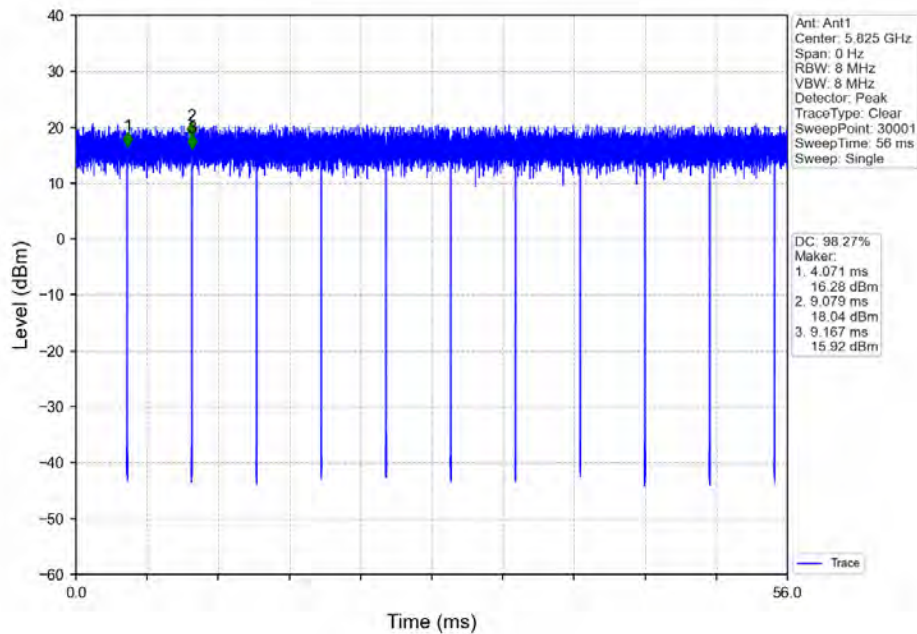
802.11ac(VHT20)_LCH_5745MHz_Ant1_NTNV



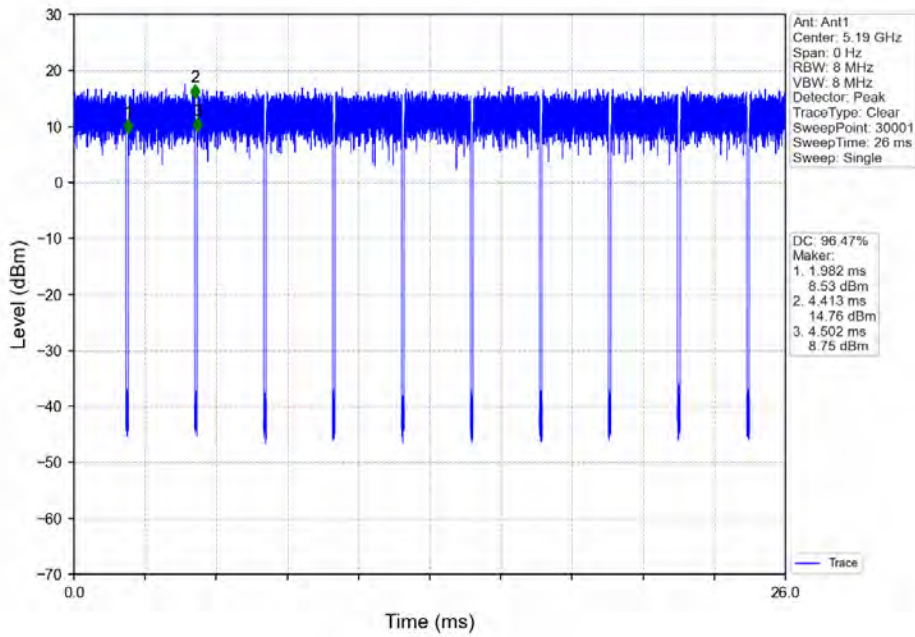
802.11ac(VHT20)_MCH_5785MHz_Ant1_NTNV



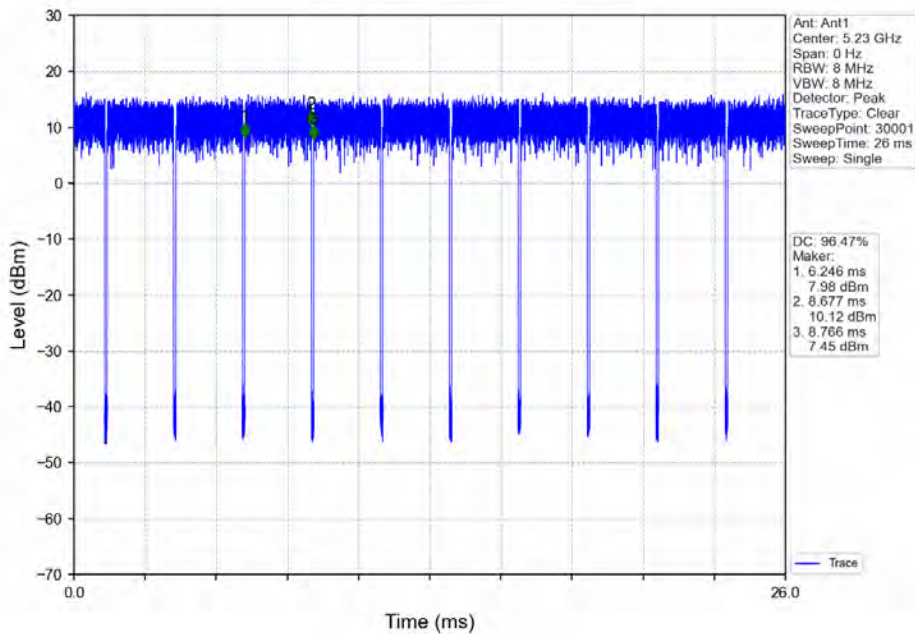
802.11ac(VHT20)_HCH_5825MHz_Ant1_NTNV



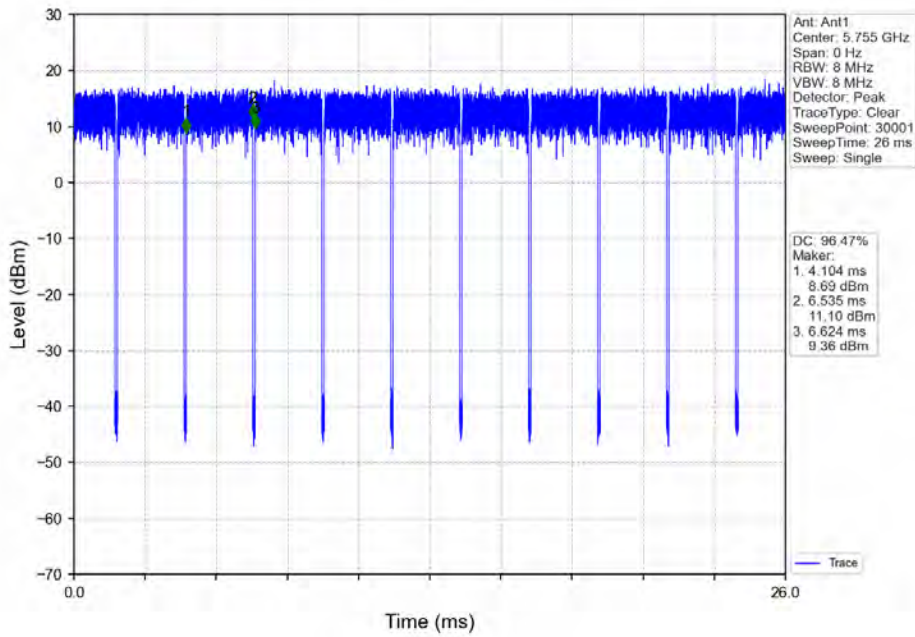
802.11ac(VHT40)_LCH_5190MHz_Ant1_NTNV



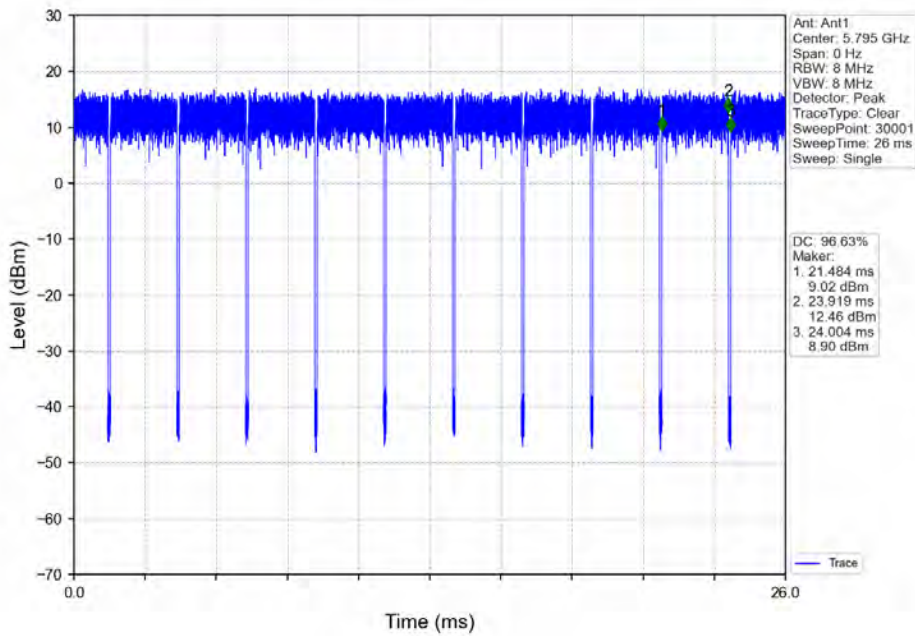
802.11ac(VHT40)_HCH_5230MHz_Ant1_NTNV



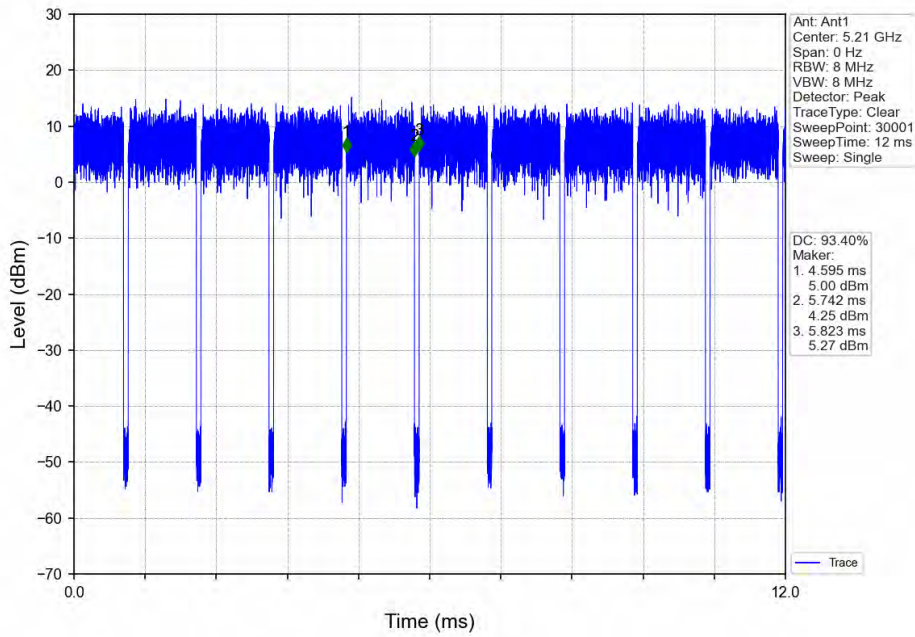
802.11ac(VHT40)_LCH_5755MHz_Ant1_NTNV



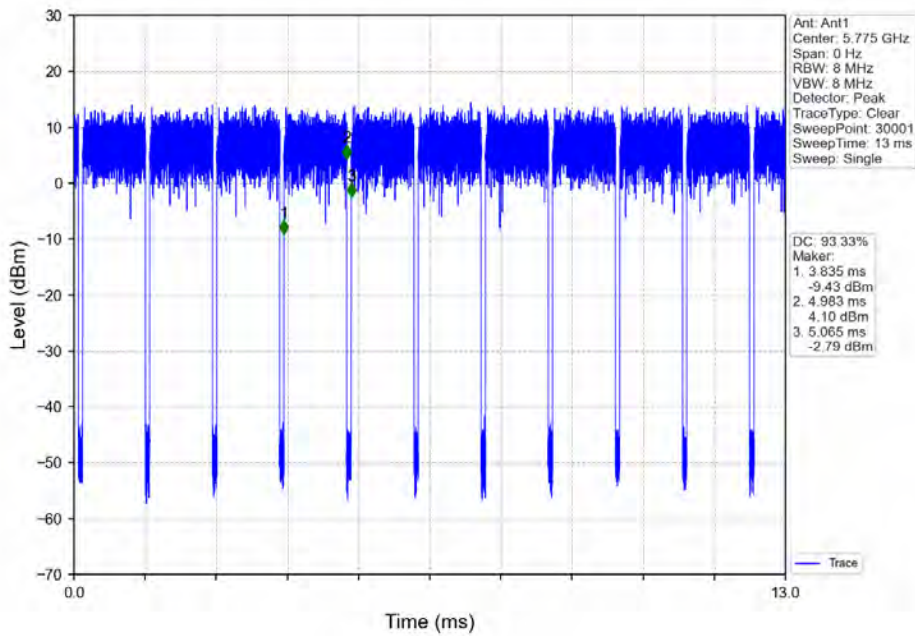
802.11ac(VHT40)_HCH_5795MHz_Ant1_NTNV



802.11ac(VHT80)_MCH_5210MHz_Ant1_NTNV



802.11ac(VHT80)_MCH_5775MHz_Ant1_NTNV



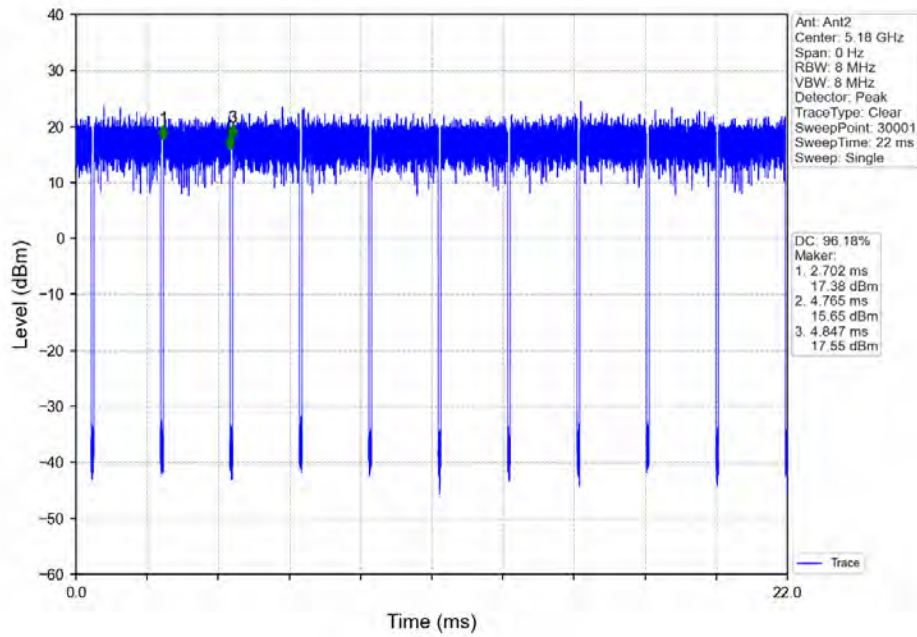
1.2 Ant2

1.2.1 Test Result

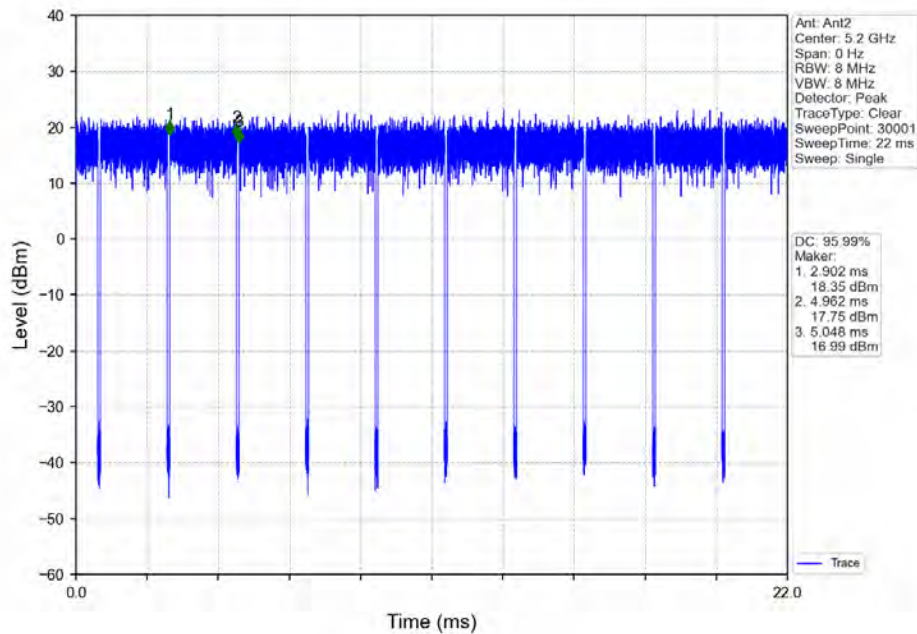
Ant2							
Mode	TX Type	Frequency (MHz)	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
802.11a	SISO	5180	2.063	2.145	96.18	0.17	0.03
		5200	2.060	2.146	95.99	0.18	0.10
		5240	2.063	2.145	96.18	0.17	0.00
		5745	2.064	2.146	96.18	0.17	0.07
		5785	2.063	2.145	96.18	0.17	0.03
		5825	2.060	2.146	95.99	0.18	0.03
802.11n (HT20)	MIMO	5180	4.995	5.081	98.31	0.07	0.07
		5200	4.999	5.080	98.41	0.07	0.00
		5240	4.996	5.081	98.33	0.07	0.03
		5745	4.998	5.081	98.37	0.07	0.04
		5785	4.997	5.082	98.33	0.07	0.03
		5825	4.997	5.081	98.35	0.07	0.03
802.11n (HT40)	MIMO	5190	2.423	2.513	96.42	0.16	0.07
		5230	2.423	2.512	96.46	0.16	0.07
		5755	2.424	2.513	96.46	0.16	0.03
		5795	2.422	2.513	96.38	0.16	0.07
802.11ac (VHT20)	MIMO	5180	5.008	5.096	98.27	0.08	0.00
		5200	5.012	5.098	98.31	0.07	0.04
		5240	5.007	5.095	98.27	0.08	0.04
		5745	5.008	5.096	98.27	0.08	0.04
		5785	5.012	5.096	98.35	0.07	0.14
		5825	5.008	5.096	98.27	0.08	0.00
802.11ac (VHT40)	MIMO	5190	2.433	2.520	96.55	0.15	0.03
		5230	2.436	2.520	96.67	0.15	0.00
		5755	2.431	2.520	96.47	0.16	0.03
		5795	2.431	2.521	96.43	0.16	0.07
802.11ac (VHT80)	MIMO	5210	1.144	1.230	93.01	0.31	0.40
		5775	1.148	1.228	93.49	0.29	0.23

1.2.2 Test Graph

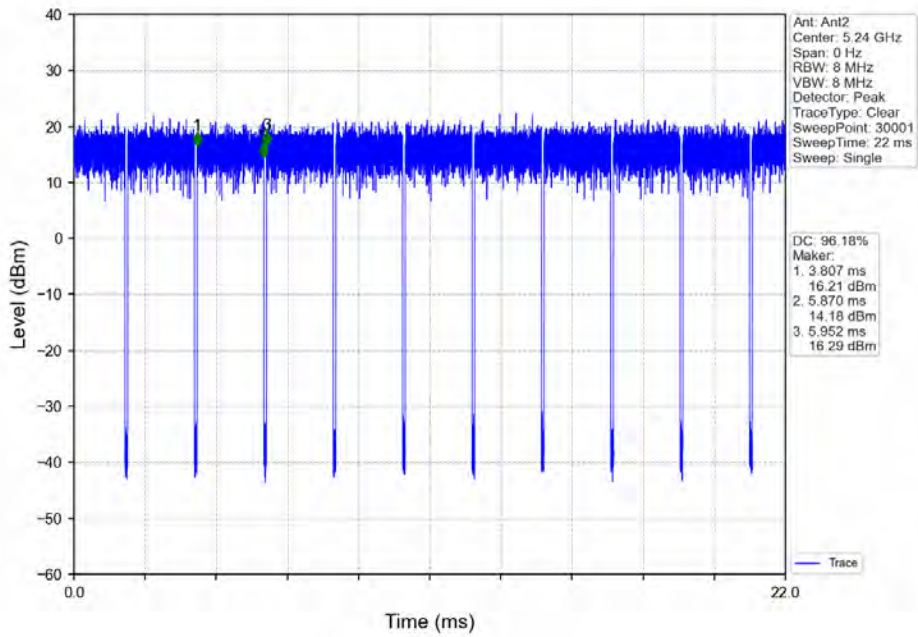
802.11a_LCH_5180MHz_Ant2_NTNV



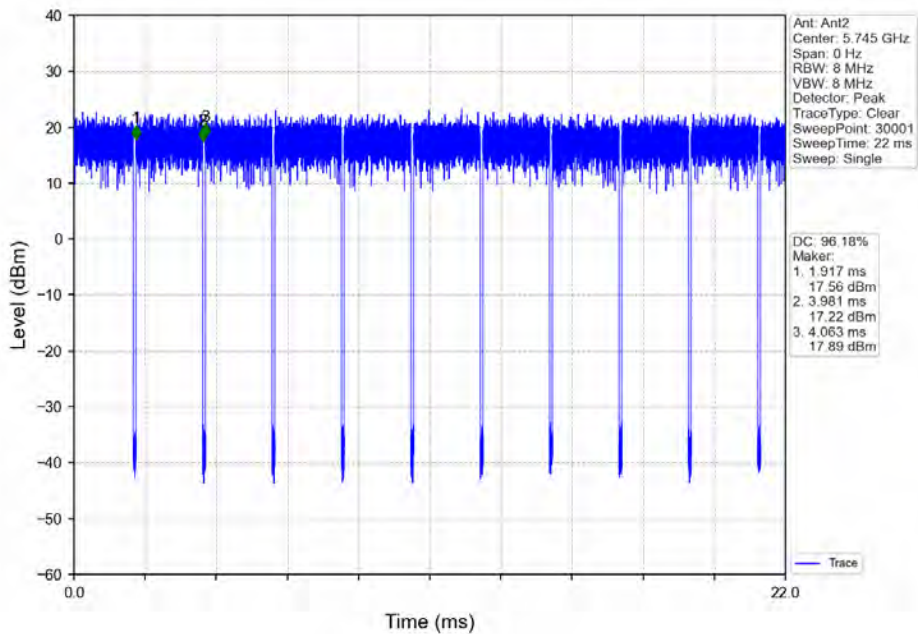
802.11a_MCH_5200MHz_Ant2_NTNV



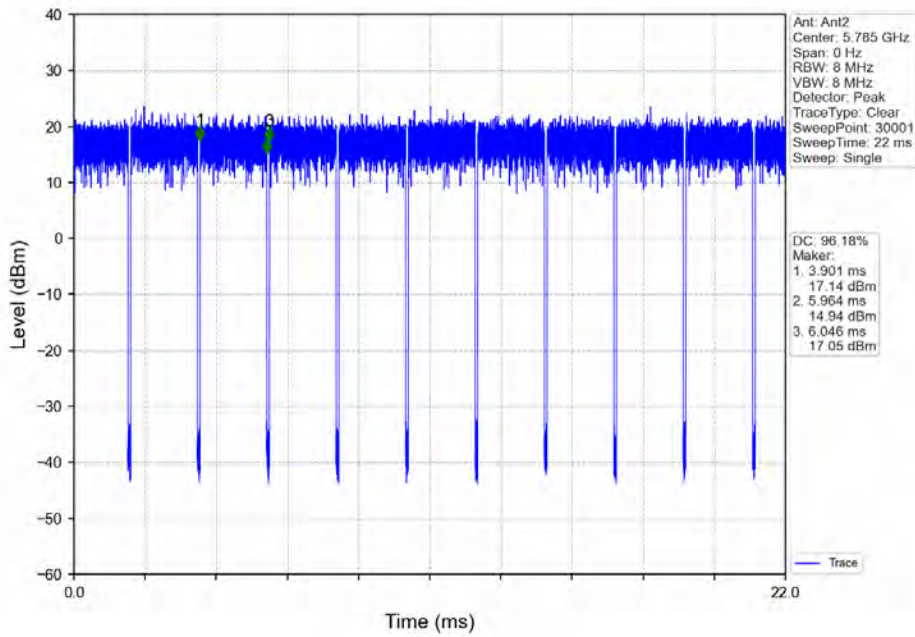
802.11a_HCH_5240MHz_Ant2_NTNV



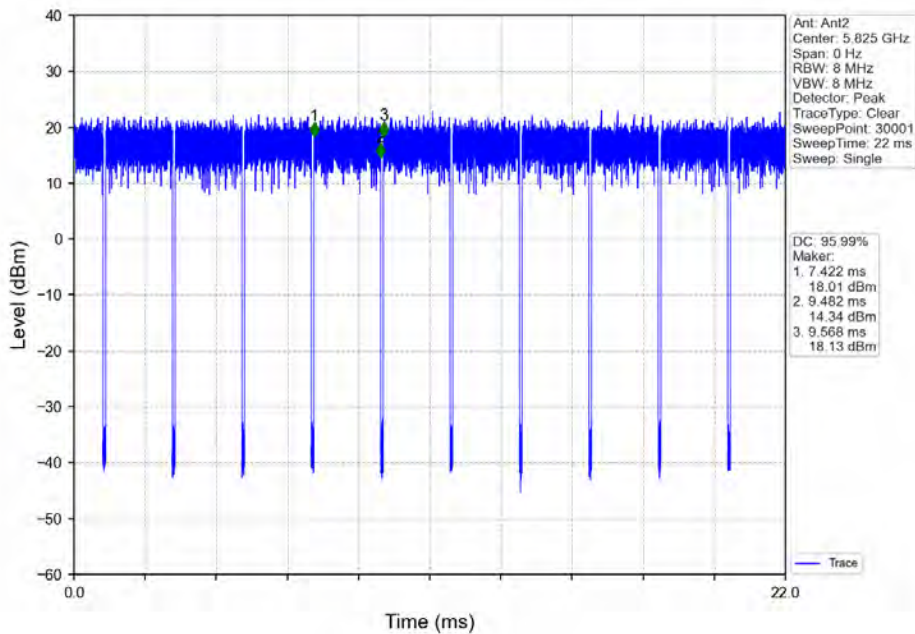
802.11a_LCH_5745MHz_Ant2_NTNV



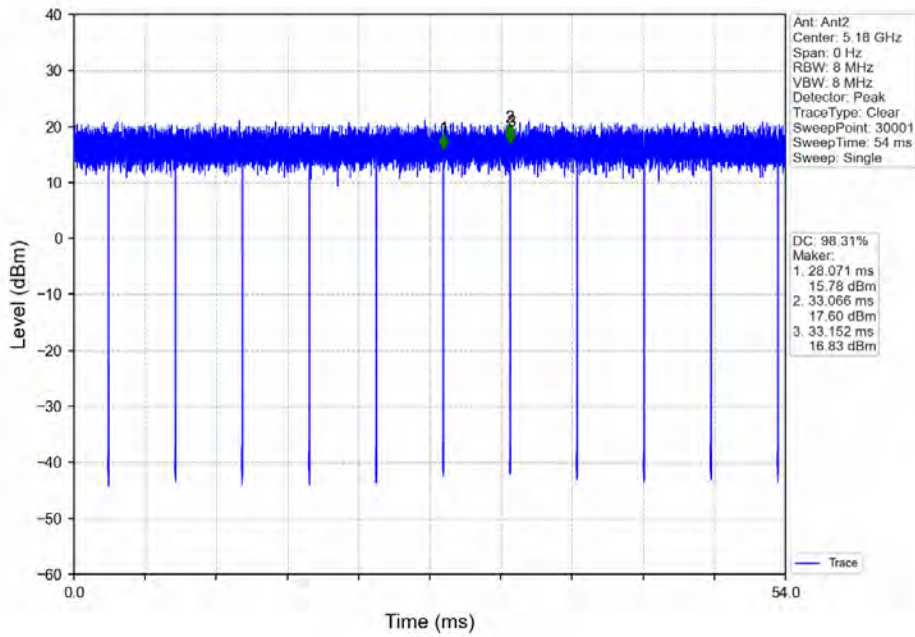
802.11a_MCH_5785MHz_Ant2_NTNV



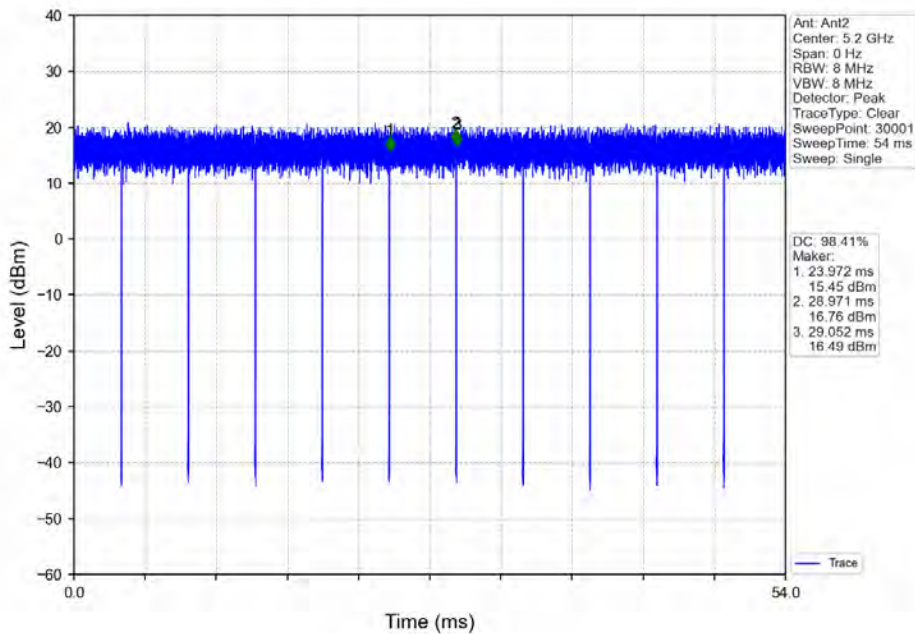
802.11a_HCH_5825MHz_Ant2_NTNV



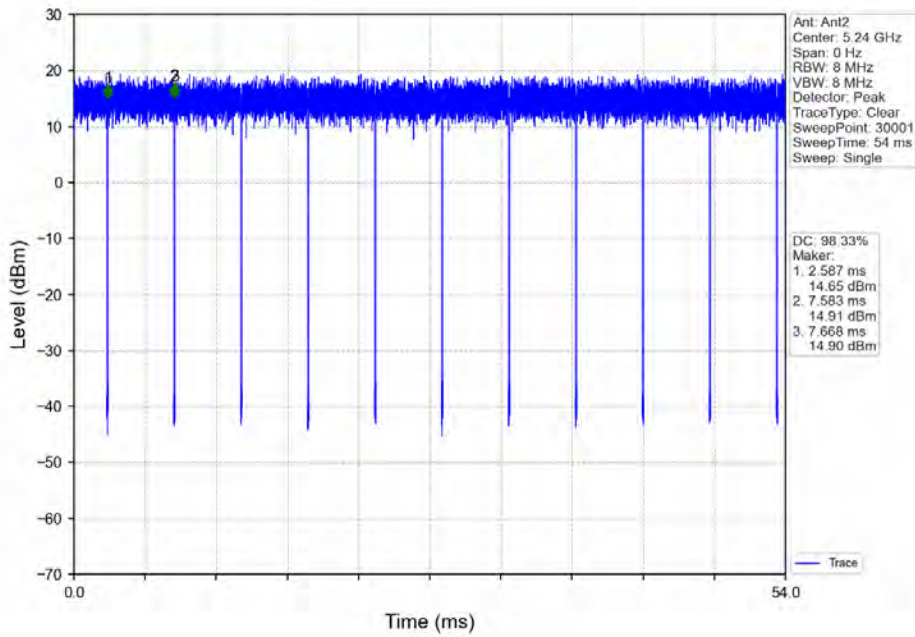
802.11n(HT20)_LCH_5180MHz_Ant2_NTNV



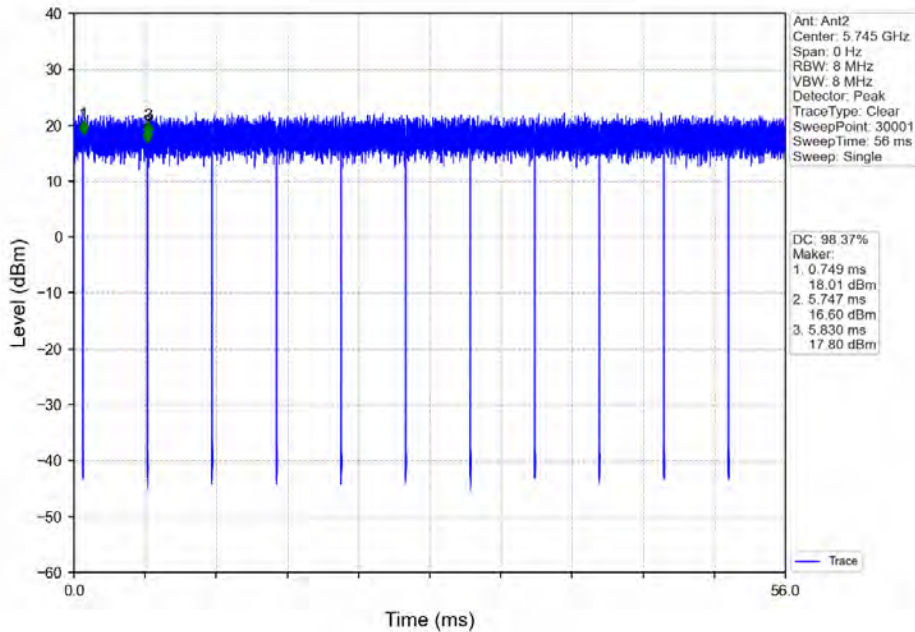
802.11n(HT20)_MCH_5200MHz_Ant2_NTNV



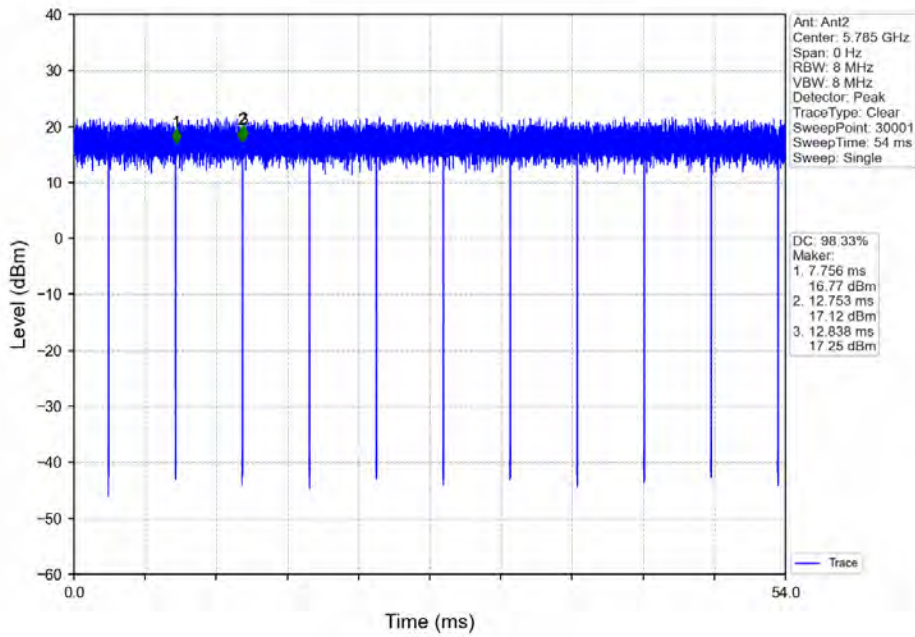
802.11n(HT20)_HCH_5240MHz_Ant2_NTNV



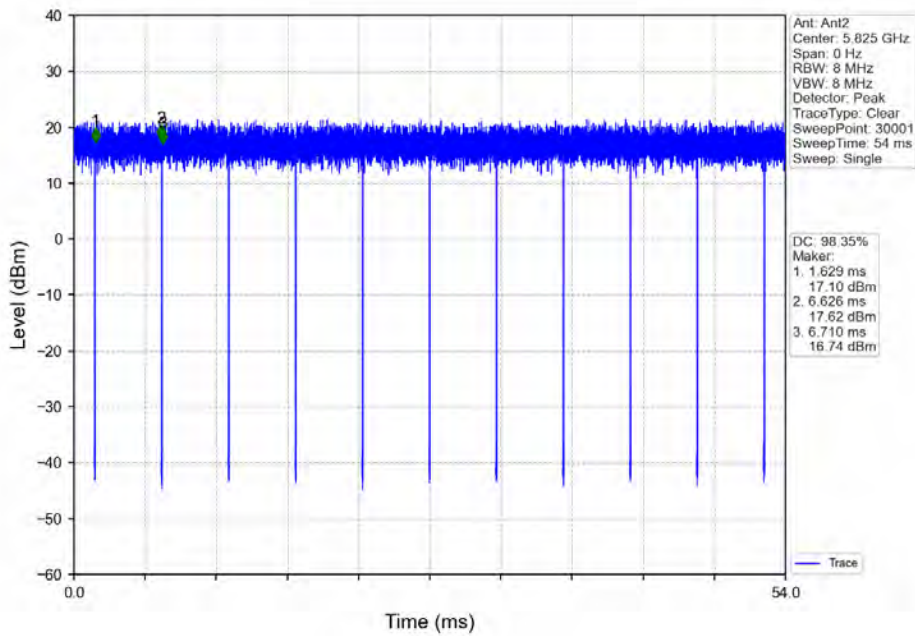
802.11n(HT20)_LCH_5745MHz_Ant2_NTNV



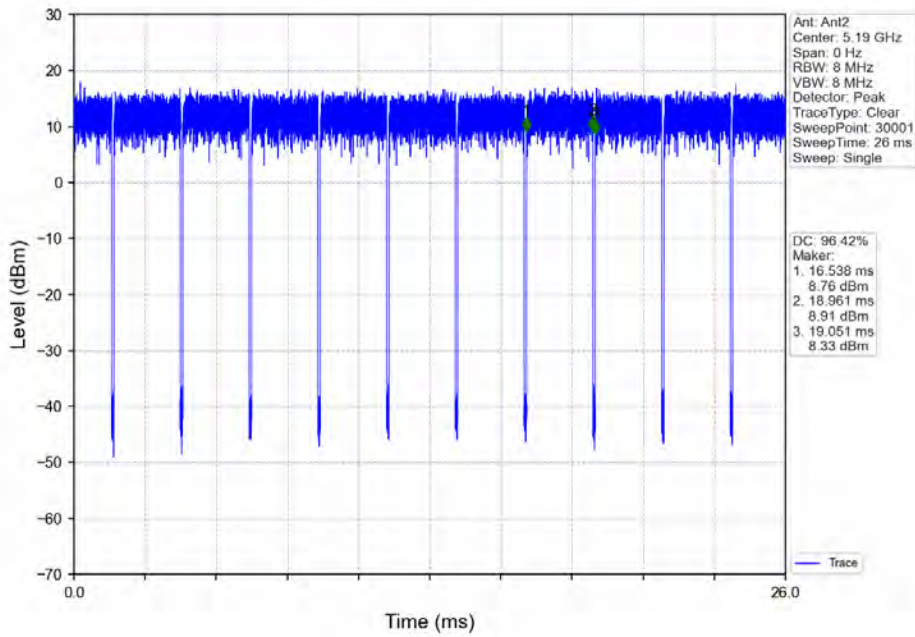
802.11n(HT20)_MCH_5785MHz_Ant2_NTNV



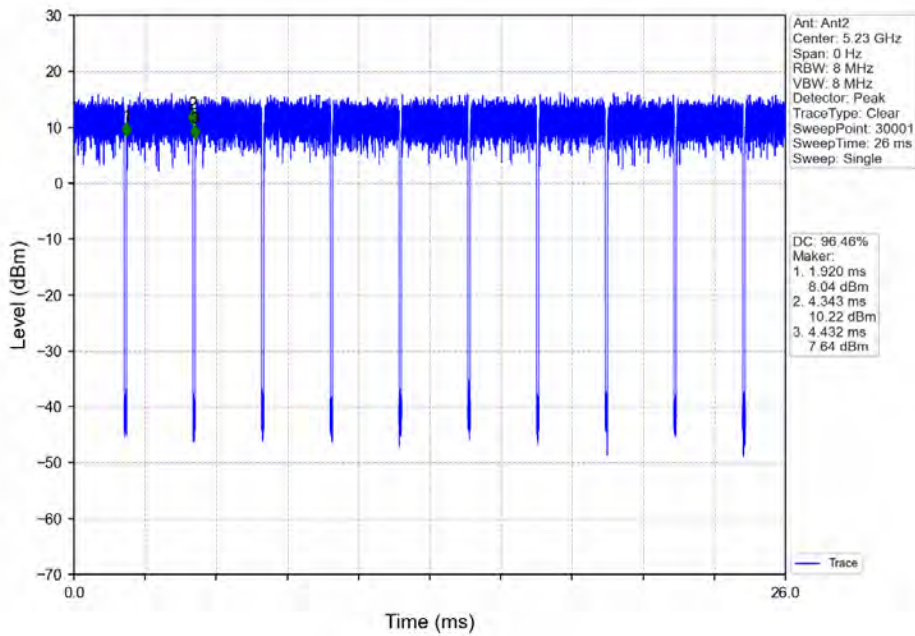
802.11n(HT20)_HCH_5825MHz_Ant2_NTNV



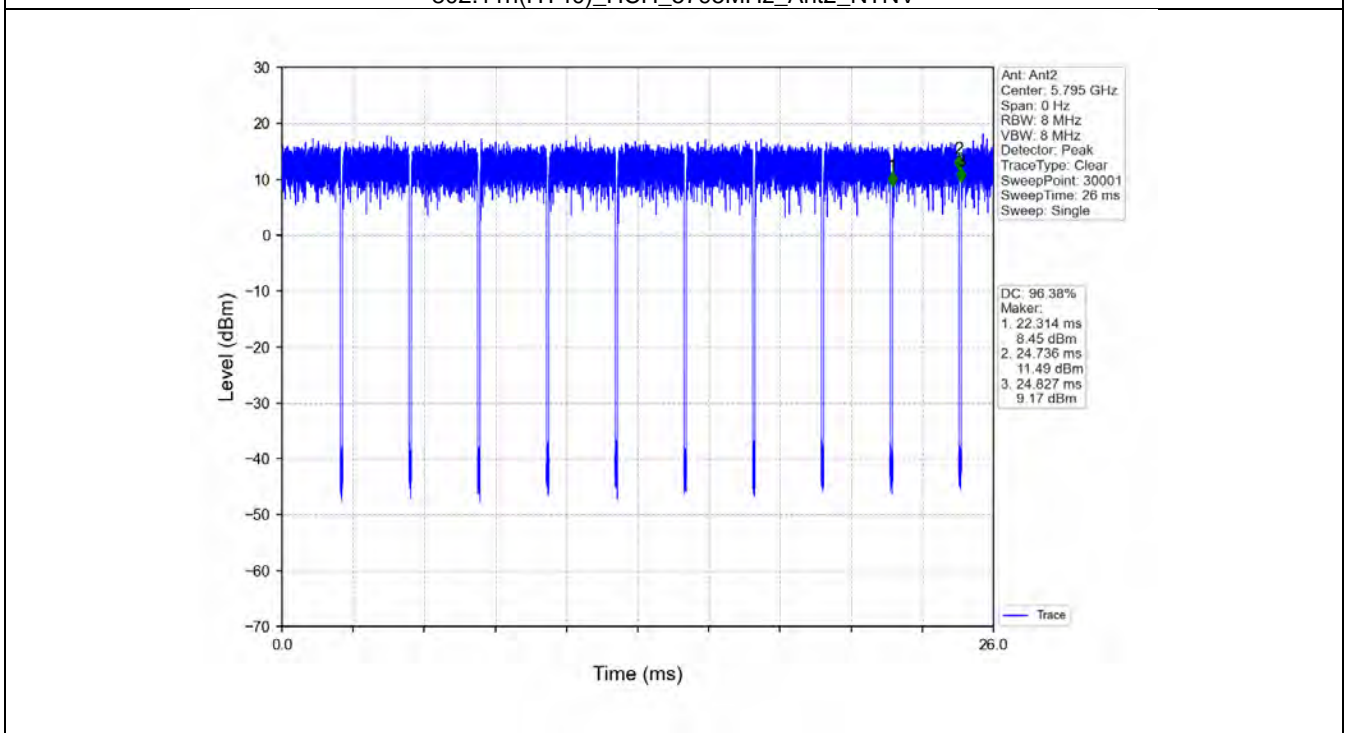
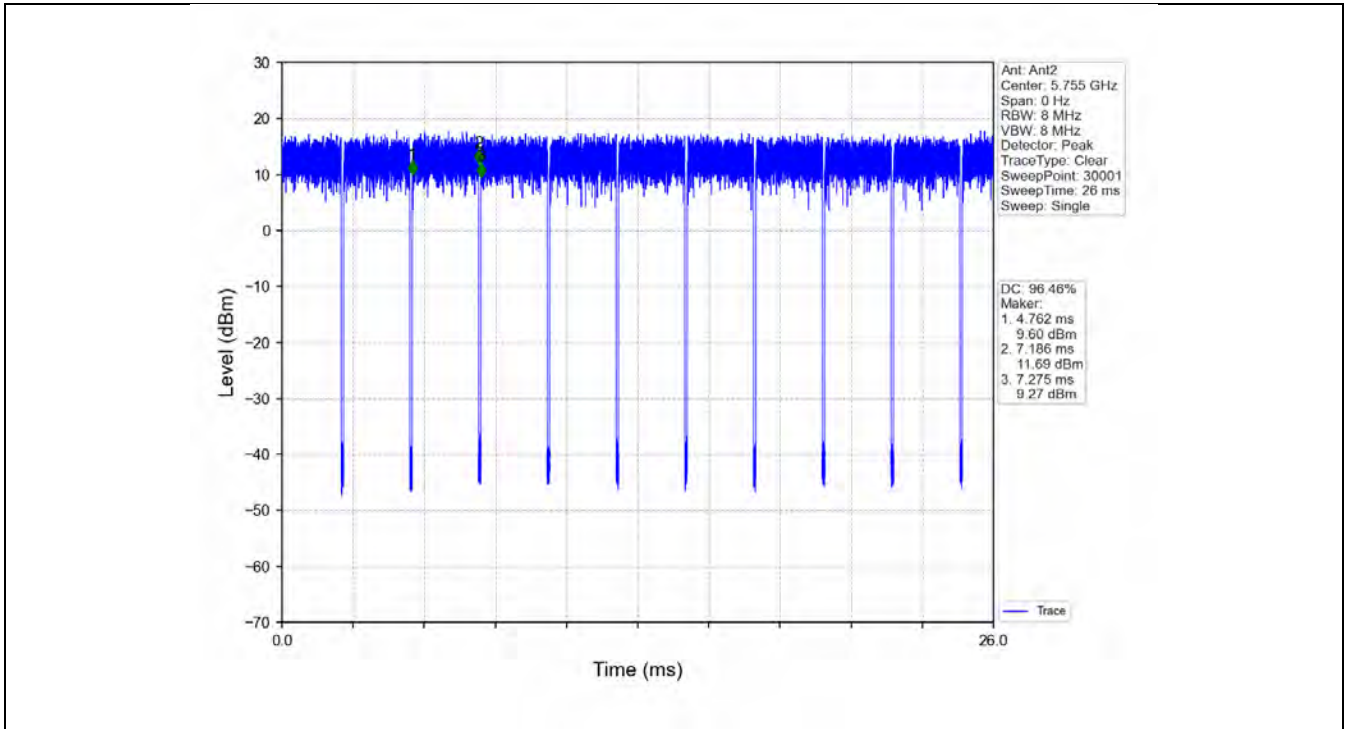
802.11n(HT40)_LCH_5190MHz_Ant2_NTNV

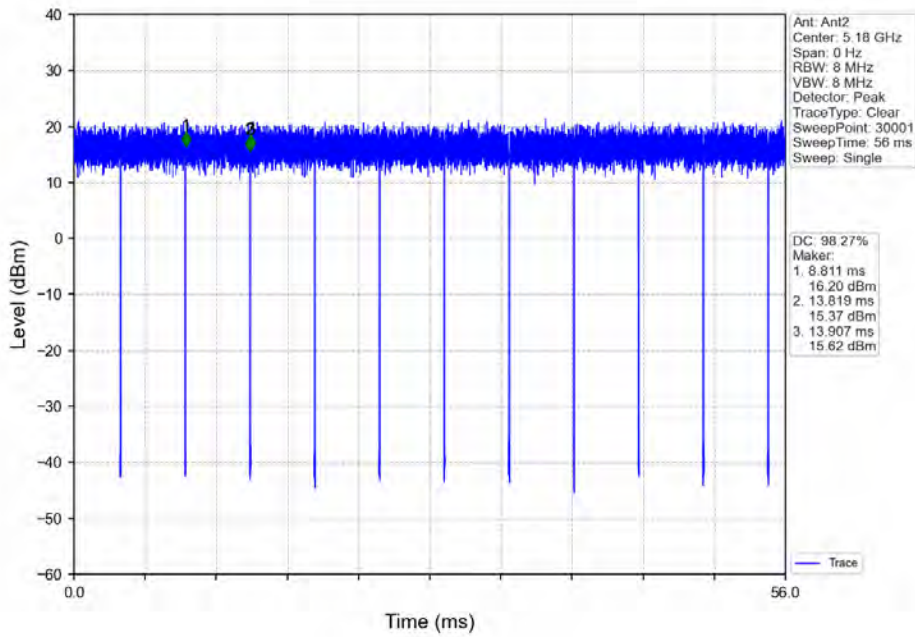


802.11n(HT40)_HCH_5230MHz_Ant2_NTNV

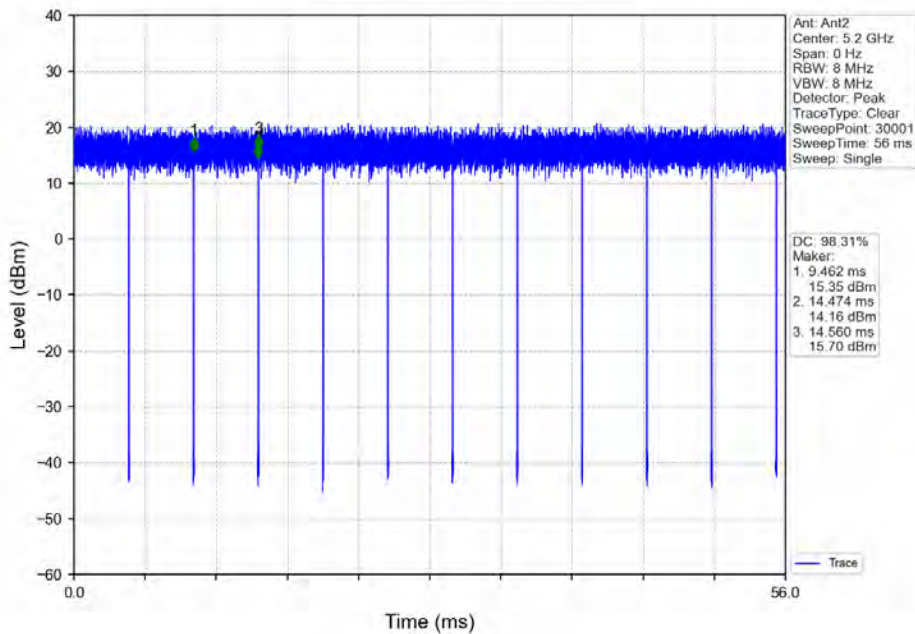


802.11n(HT40)_LCH_5755MHz_Ant2_NTNV

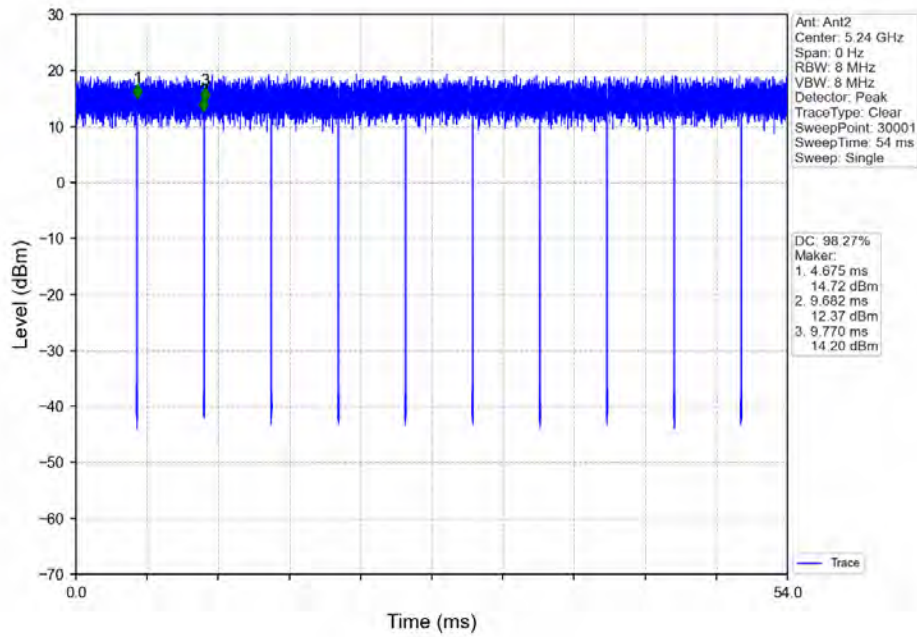




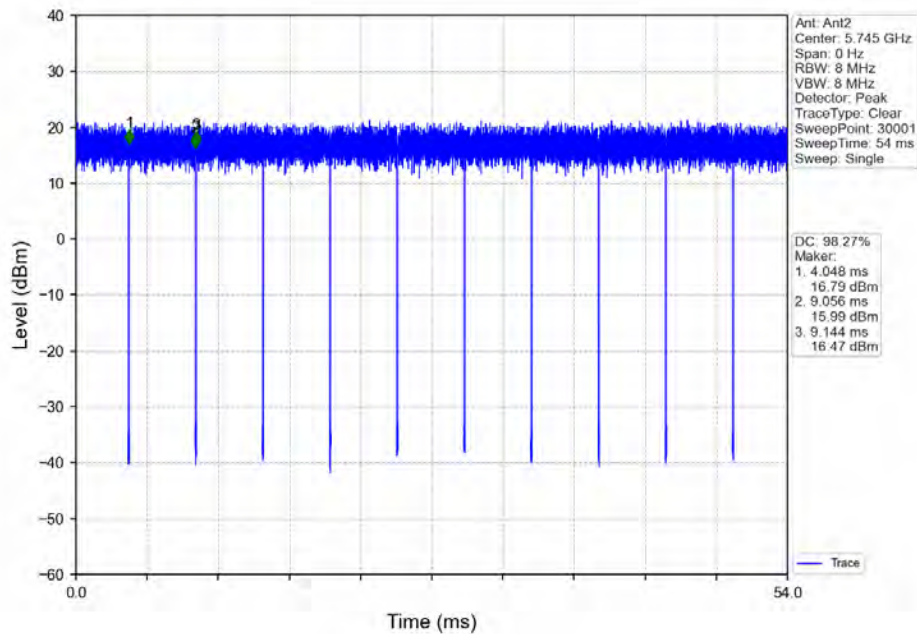
802.11ac(VHT20)_MCH_5200MHz_Ant2_NTNV



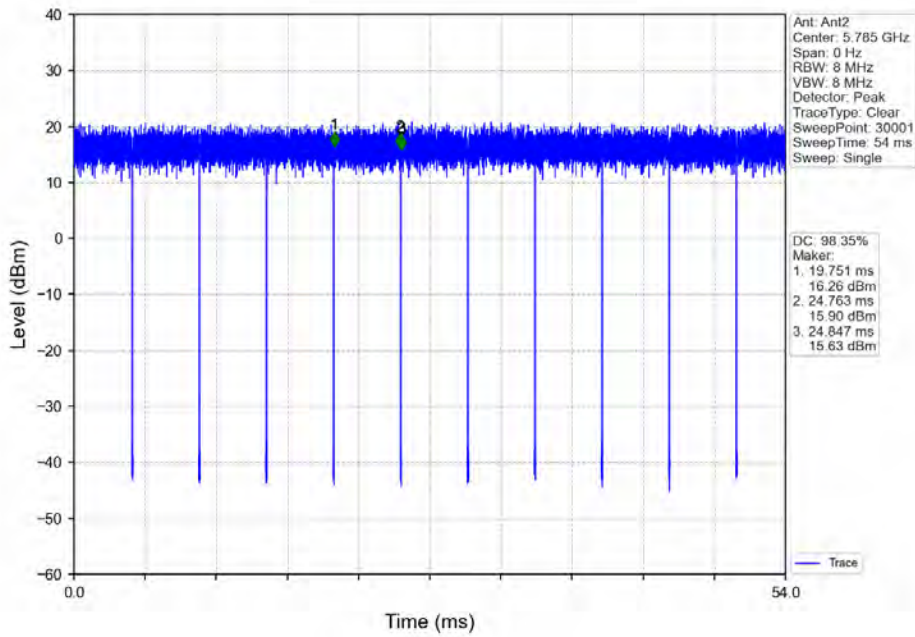
802.11ac(VHT20)_HCH_5240MHz_Ant2_NTNV



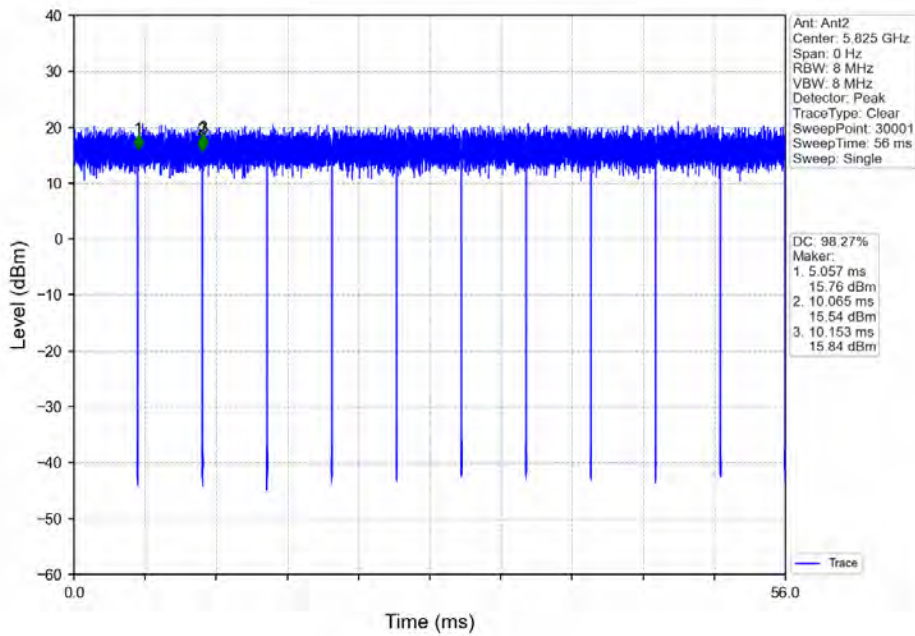
802.11ac(VHT20)_LCH_5745MHz_Ant2_NTNV



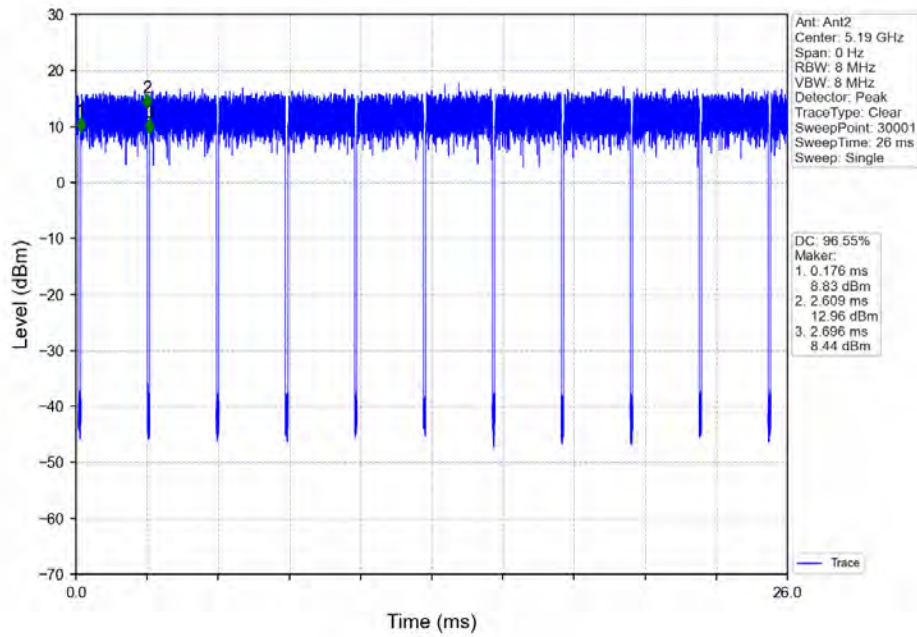
802.11ac(VHT20)_MCH_5785MHz_Ant2_NTNV



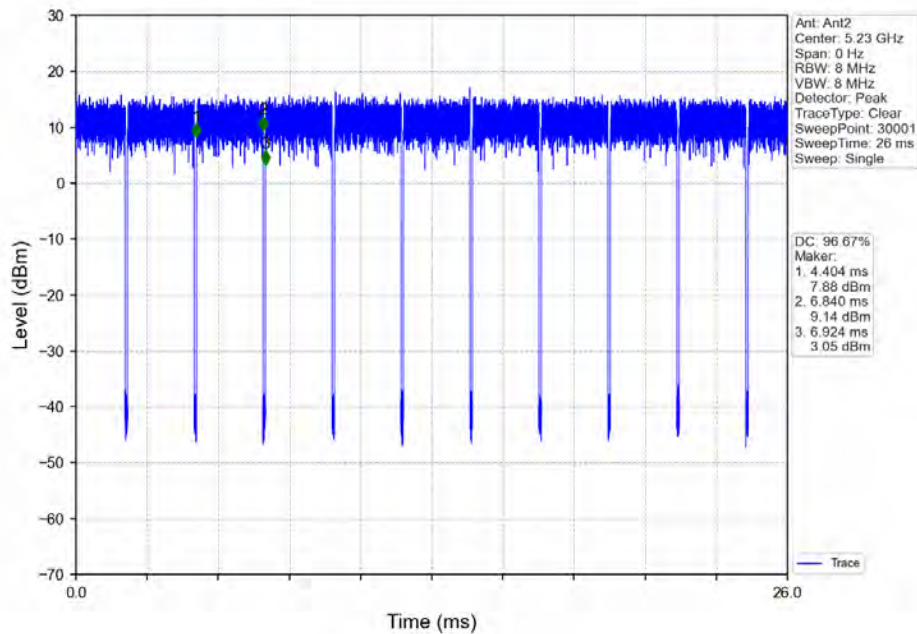
802.11ac(VHT20)_HCH_5825MHz_Ant2_NTNV



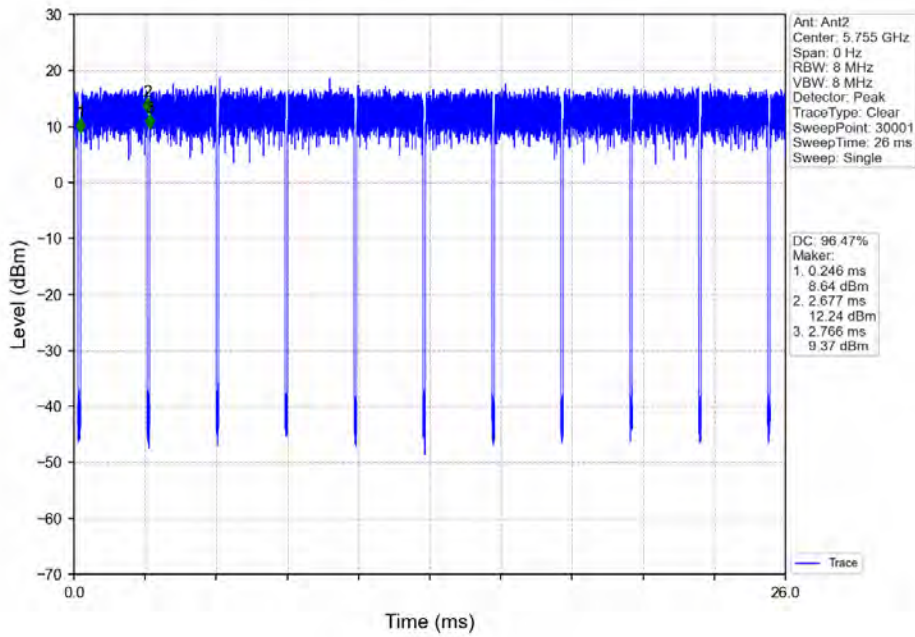
802.11ac(VHT40)_LCH_5190MHz_Ant2_NTNV



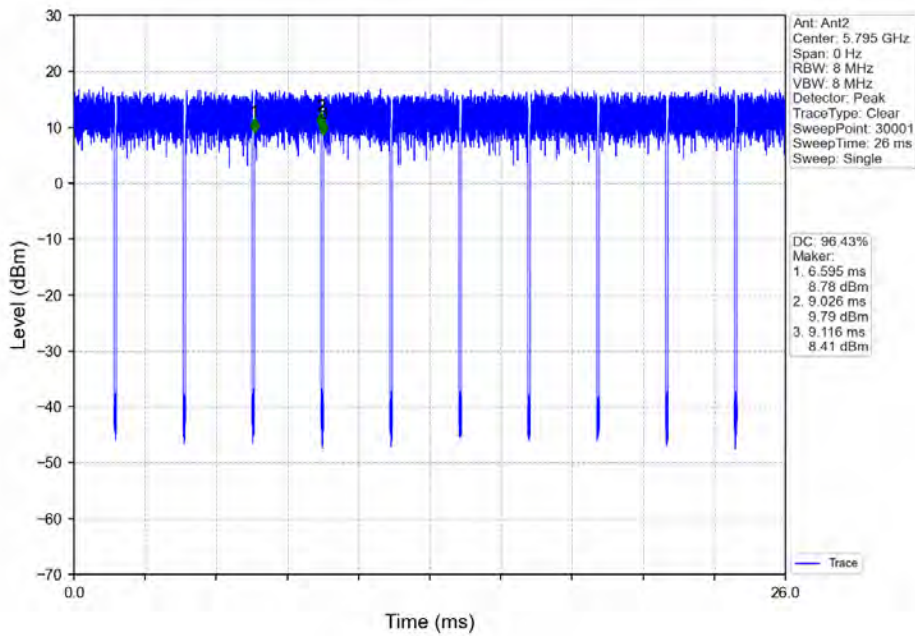
802.11ac(VHT40)_HCH_5230MHz_Ant2_NTNV



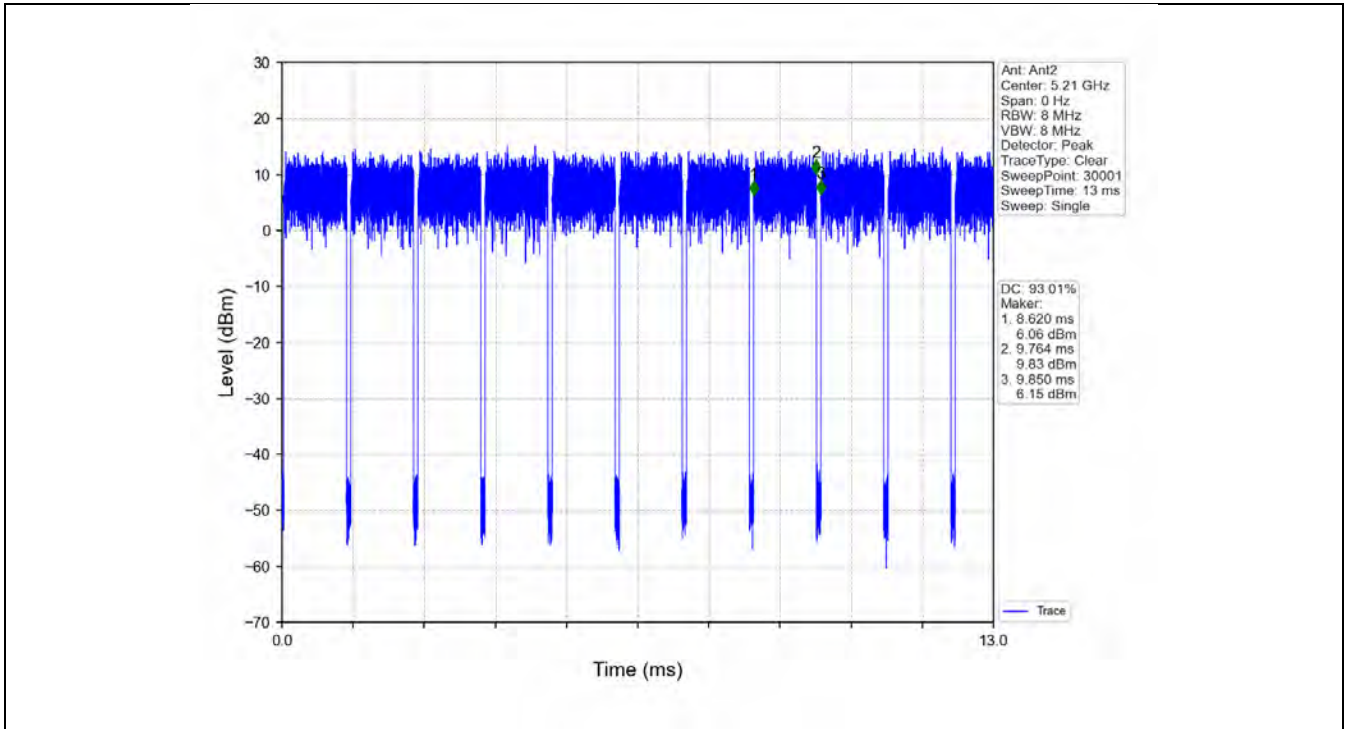
802.11ac(VHT40)_LCH_5755MHz_Ant2_NTNV



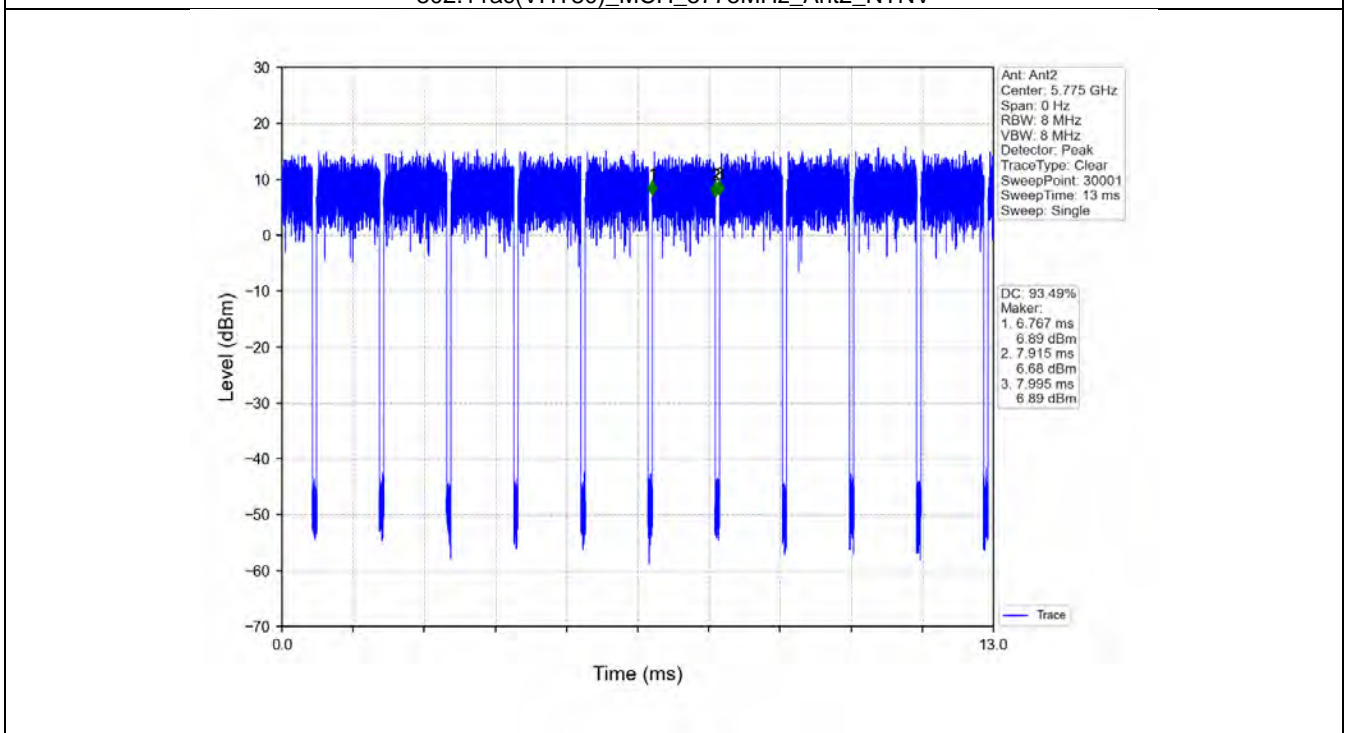
802.11ac(VHT40)_HCH_5795MHz_Ant2_NTNV



802.11ac(VHT80)_MCH_5210MHz_Ant2_NTNV



802.11ac(VHT80)_MCH_5775MHz_Ant2_NTNV



2. Bandwidth



2.1 OBW

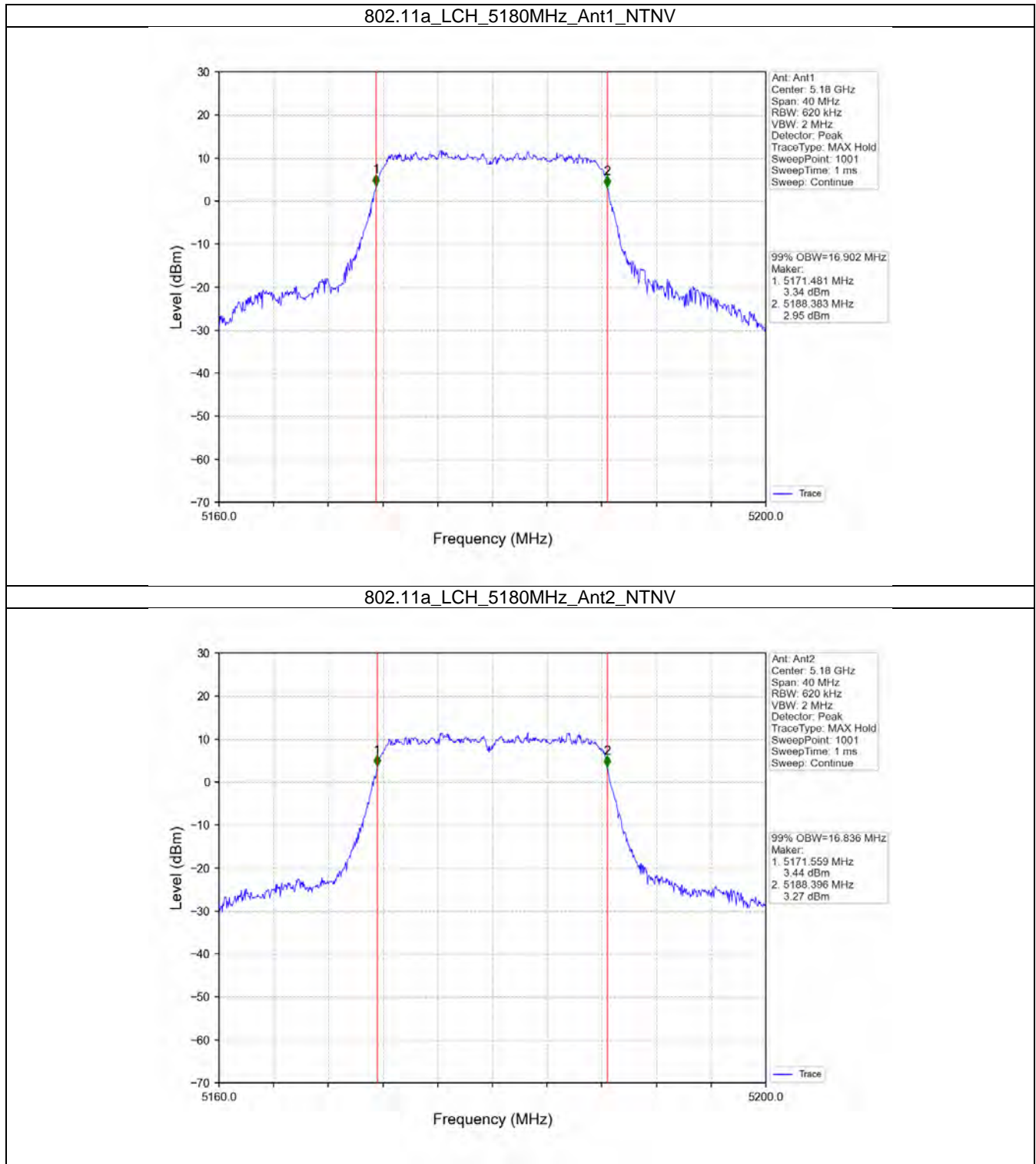
2.1.1 Test Result

Mode	TX Type	Frequency (MHz)	Ant	99% Occupied Bandwidth (MHz)	Limit (MHz)	Verdict
802.11a	SISO	5180	1	16.902	/	Pass
			2	16.836	/	Pass
		5200	1	16.938	/	Pass
			2	16.839	/	Pass
		5240	1	17.003	/	Pass
			2	16.841	/	Pass
		5745	1	16.864	/	Pass
			2	16.913	/	Pass
		5785	1	16.890	/	Pass
			2	16.875	/	Pass
		5825	1	17.036	/	Pass
			2	16.852	/	Pass
802.11n (HT20)	MIMO	5180	1	17.890	/	Pass
			2	17.897	/	Pass
		5200	1	17.889	/	Pass
			2	17.889	/	Pass
		5240	1	17.908	/	Pass
			2	17.864	/	Pass
		5745	1	17.888	/	Pass
			2	17.889	/	Pass
		5785	1	17.887	/	Pass
			2	17.911	/	Pass
		5825	1	17.890	/	Pass
			2	17.873	/	Pass
802.11n (HT40)	MIMO	5190	1	36.079	/	Pass
			2	36.132	/	Pass
		5230	1	36.144	/	Pass
			2	36.072	/	Pass
		5755	1	36.102	/	Pass
			2	36.077	/	Pass
		5795	1	36.061	/	Pass
			2	36.095	/	Pass
802.11ac (VHT20)	MIMO	5180	1	17.878	/	Pass
			2	17.891	/	Pass
		5200	1	17.891	/	Pass
			2	17.899	/	Pass
		5240	1	17.887	/	Pass
			2	17.889	/	Pass
		5745	1	17.904	/	Pass
			2	17.879	/	Pass
		5785	1	17.900	/	Pass
			2	17.892	/	Pass
		5825	1	17.889	/	Pass
			2	17.879	/	Pass
802.11ac (VHT40)	MIMO	5190	1	36.112	/	Pass
			2	36.095	/	Pass
		5230	1	36.088	/	Pass
			2	36.096	/	Pass
		5755	1	36.084	/	Pass
			2	36.072	/	Pass

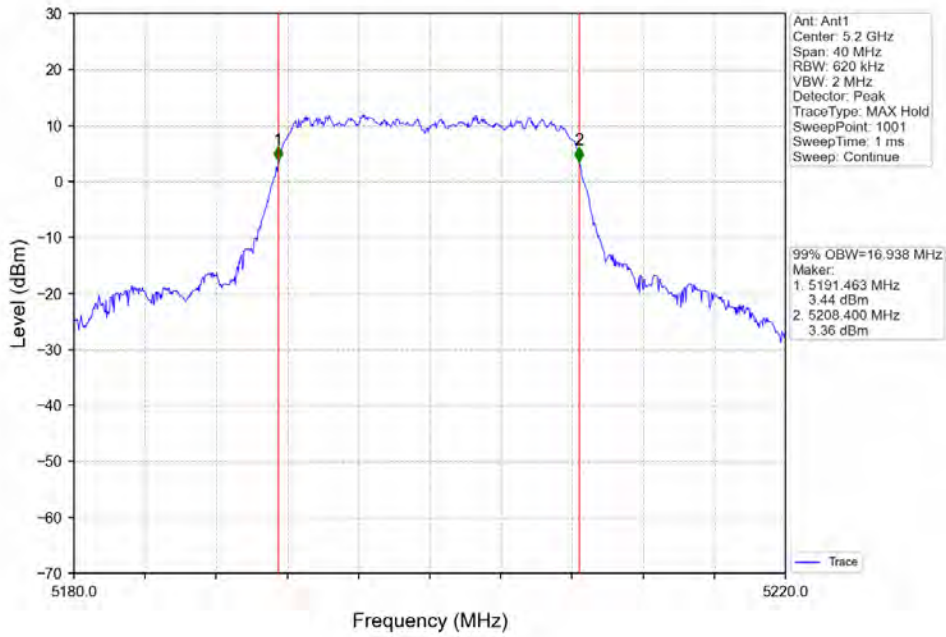


		5795	1	36.068	/	Pass
			2	36.076	/	Pass
802.11ac (VHT80)	MIMO	5210	1	76.027	/	Pass
			2	75.840	/	Pass
		5775	1	76.162	/	Pass
			2	76.012	/	Pass

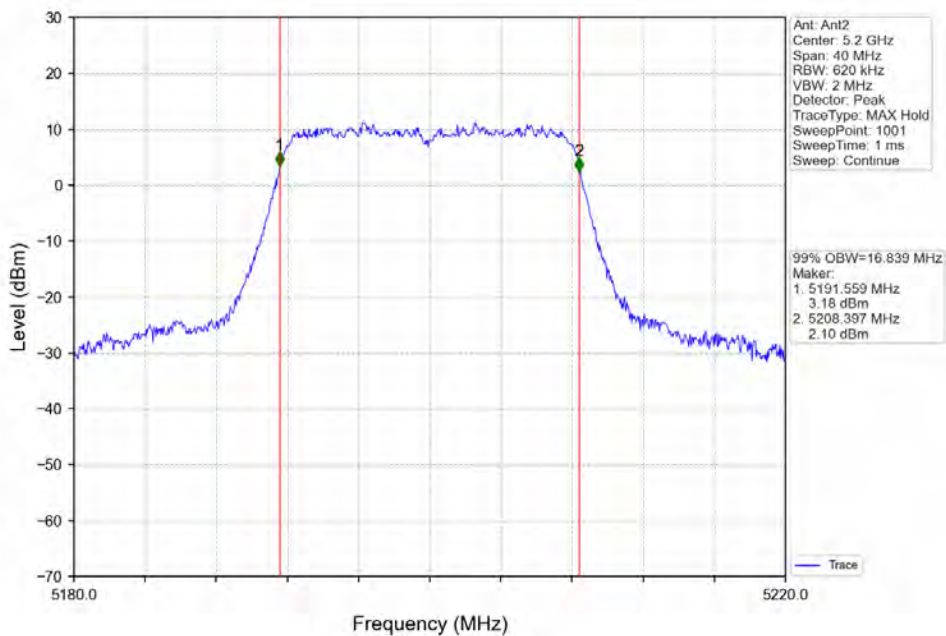
2.1.2 Test Graph



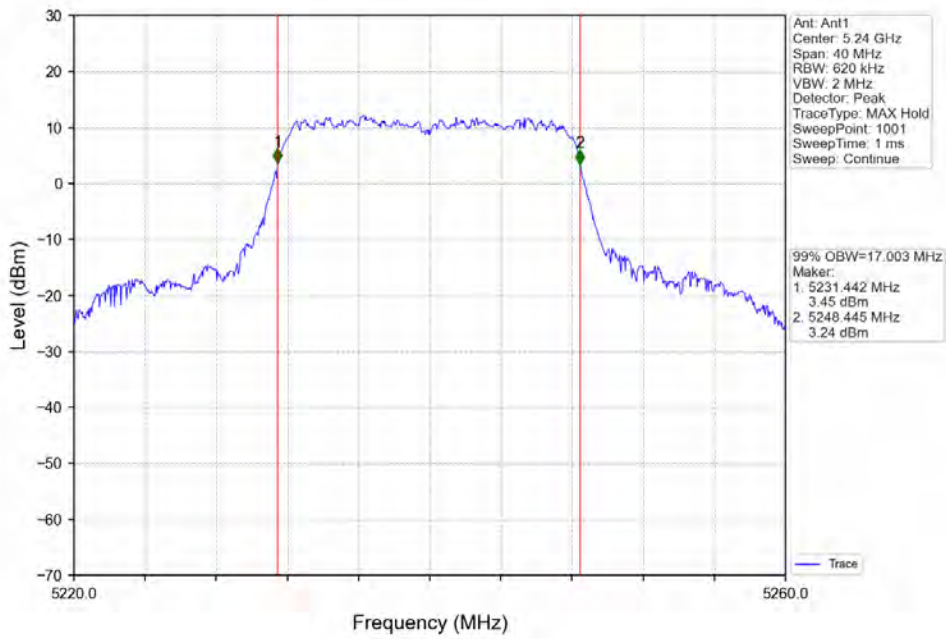
802.11a_MCH_5200MHz_Ant1_NTNV



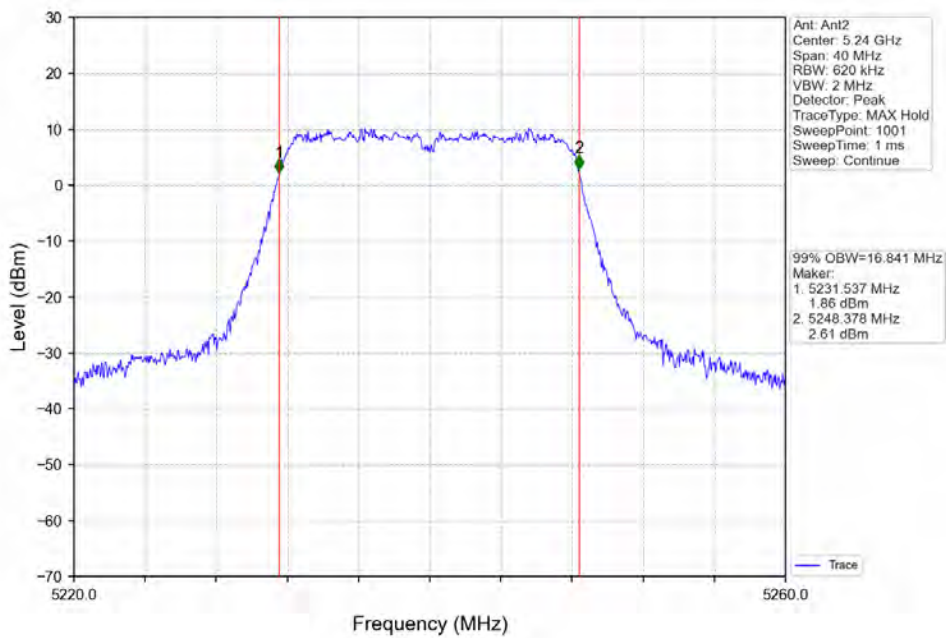
802.11a_MCH_5200MHz_Ant2_NTNV



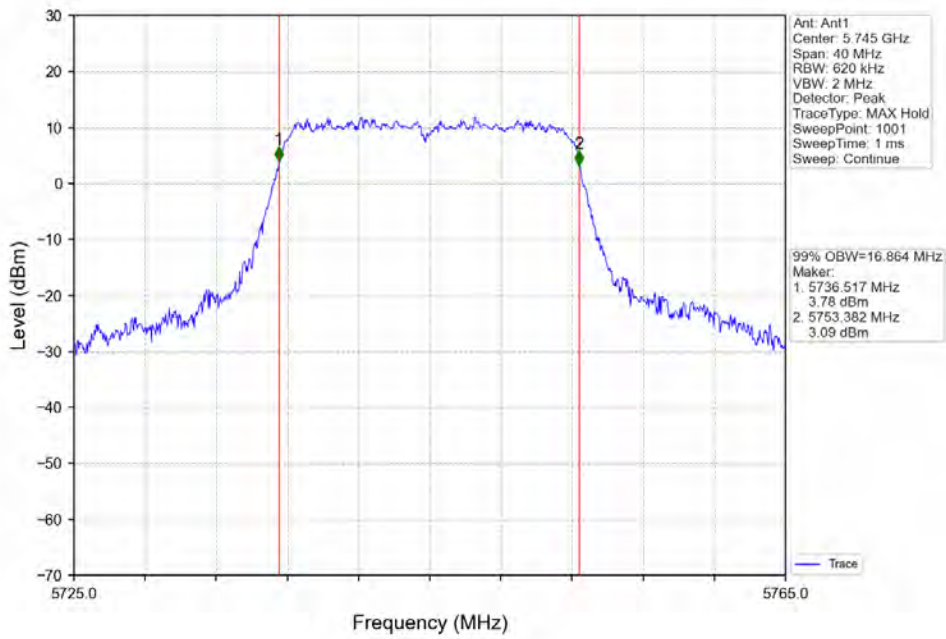
802.11a_HCH_5240MHz_Ant1_NTNV



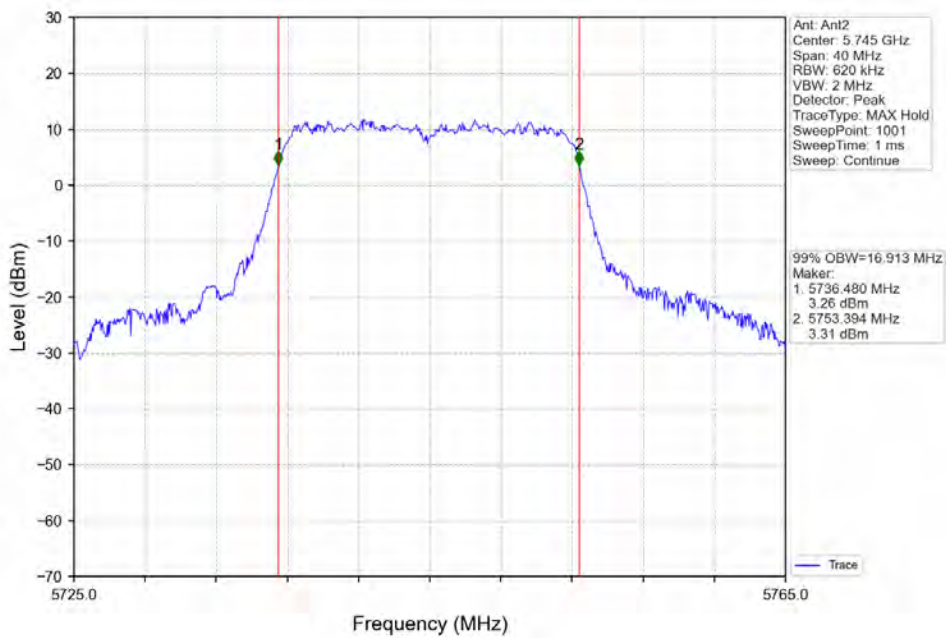
802.11a_HCH_5240MHz_Ant2_NTNV



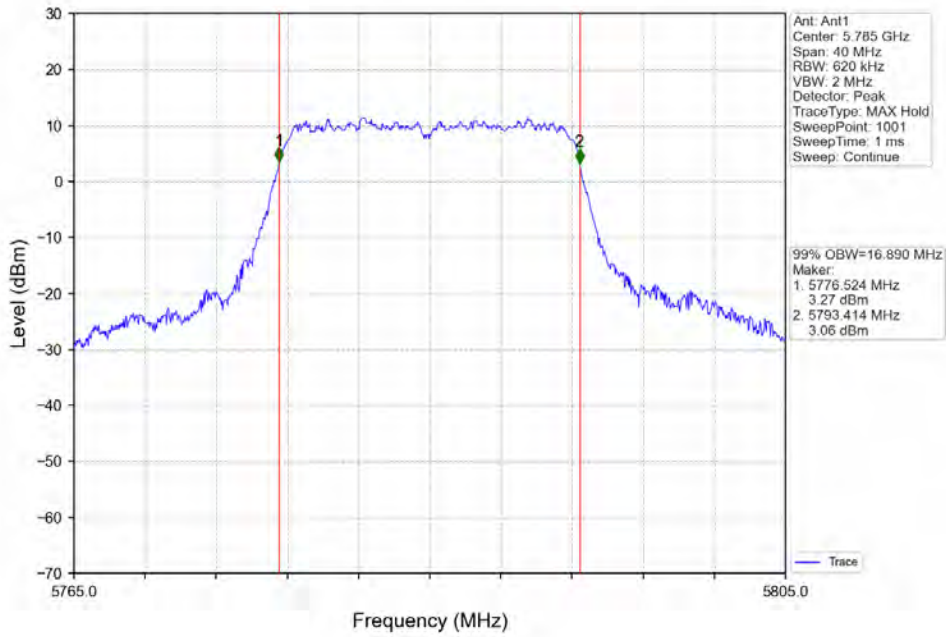
802.11a_LCH_5745MHz_Ant1_NTNV



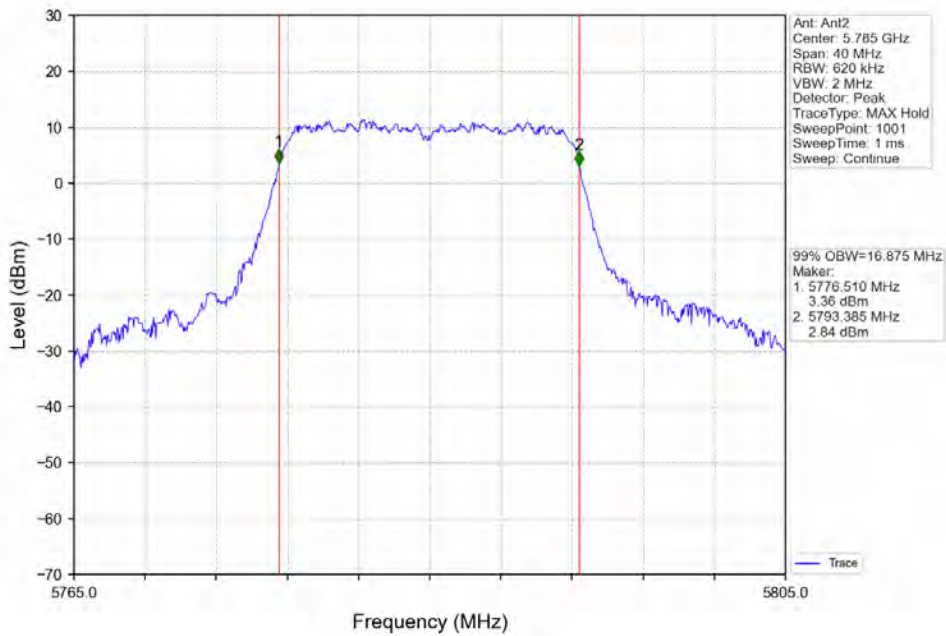
802.11a_LCH_5745MHz_Ant2_NTNV



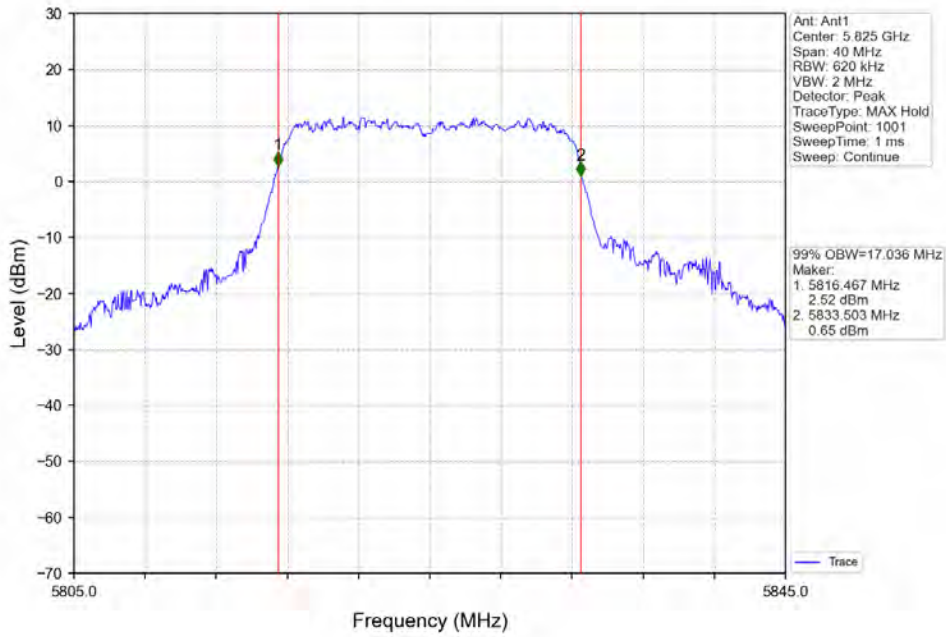
802.11a_MCH_5785MHz_Ant1_NTNV



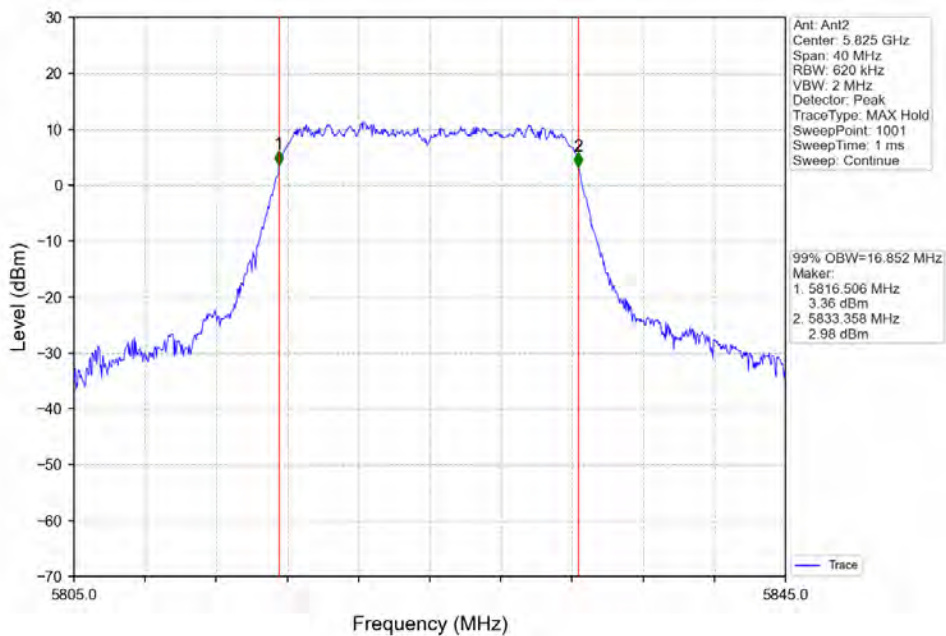
802.11a_MCH_5785MHz_Ant2_NTNV



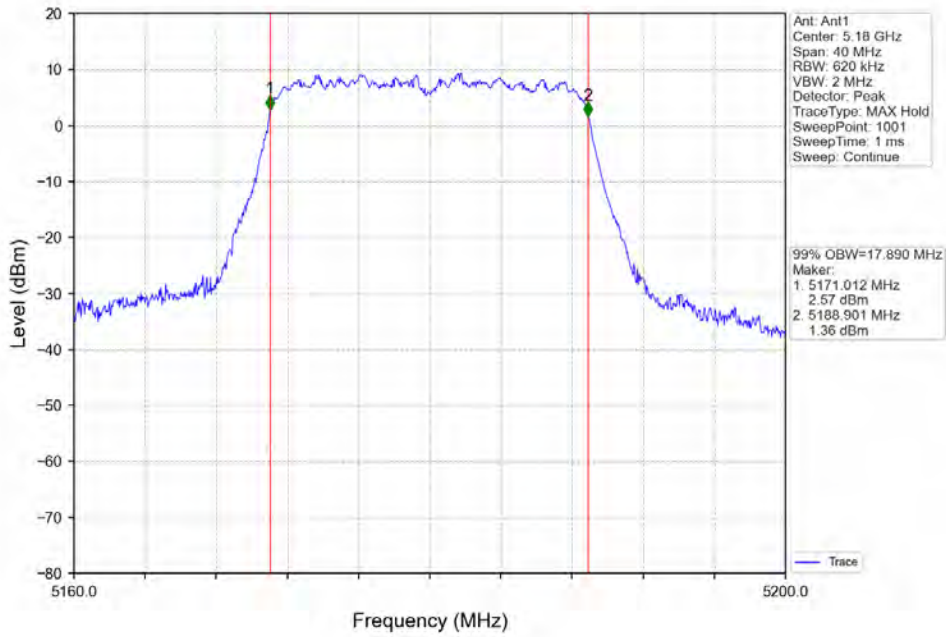
802.11a_HCH_5825MHz_Ant1_NTNV



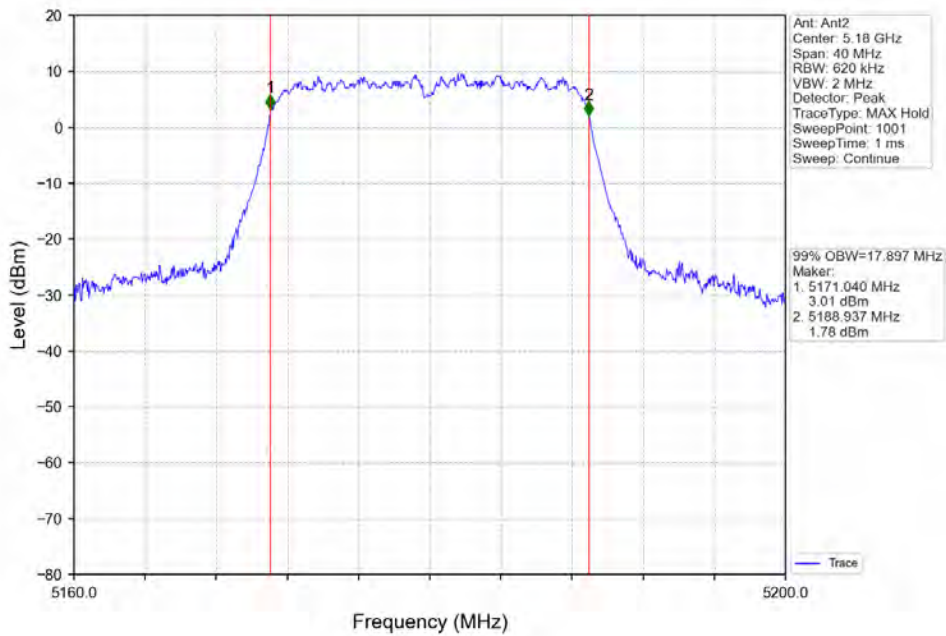
802.11a_HCH_5825MHz_Ant2_NTNV



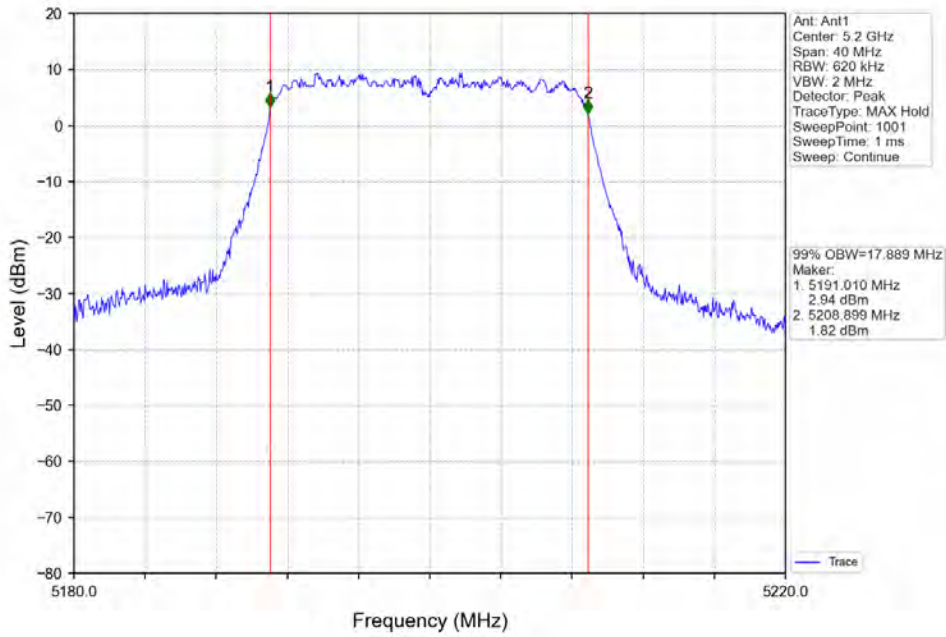
802.11n(HT20)_LCH_5180MHz_Ant1_NTNV



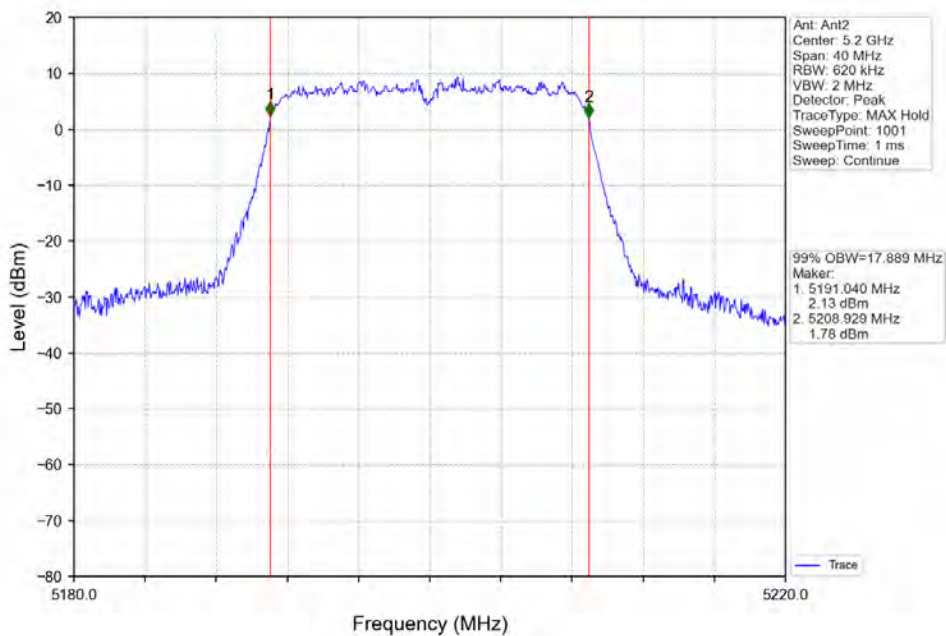
802.11n(HT20)_LCH_5180MHz_Ant2_NTNV

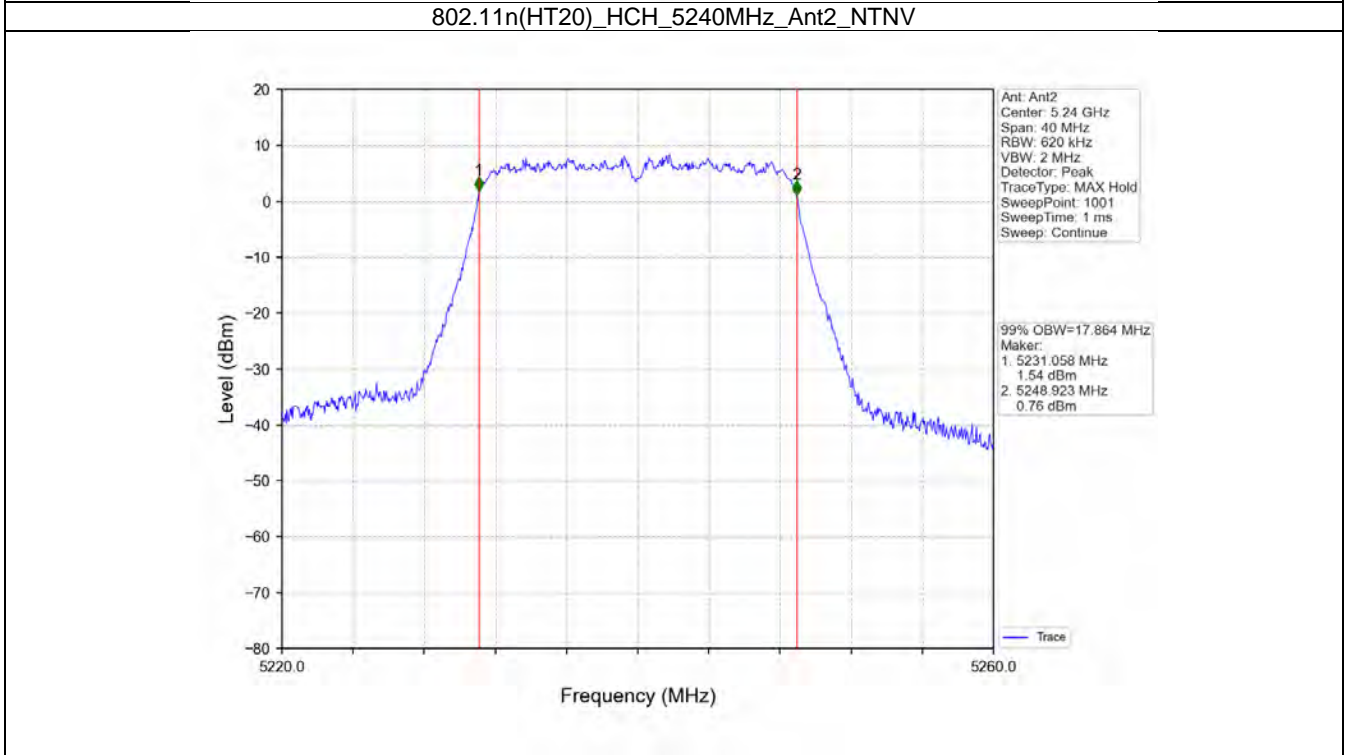
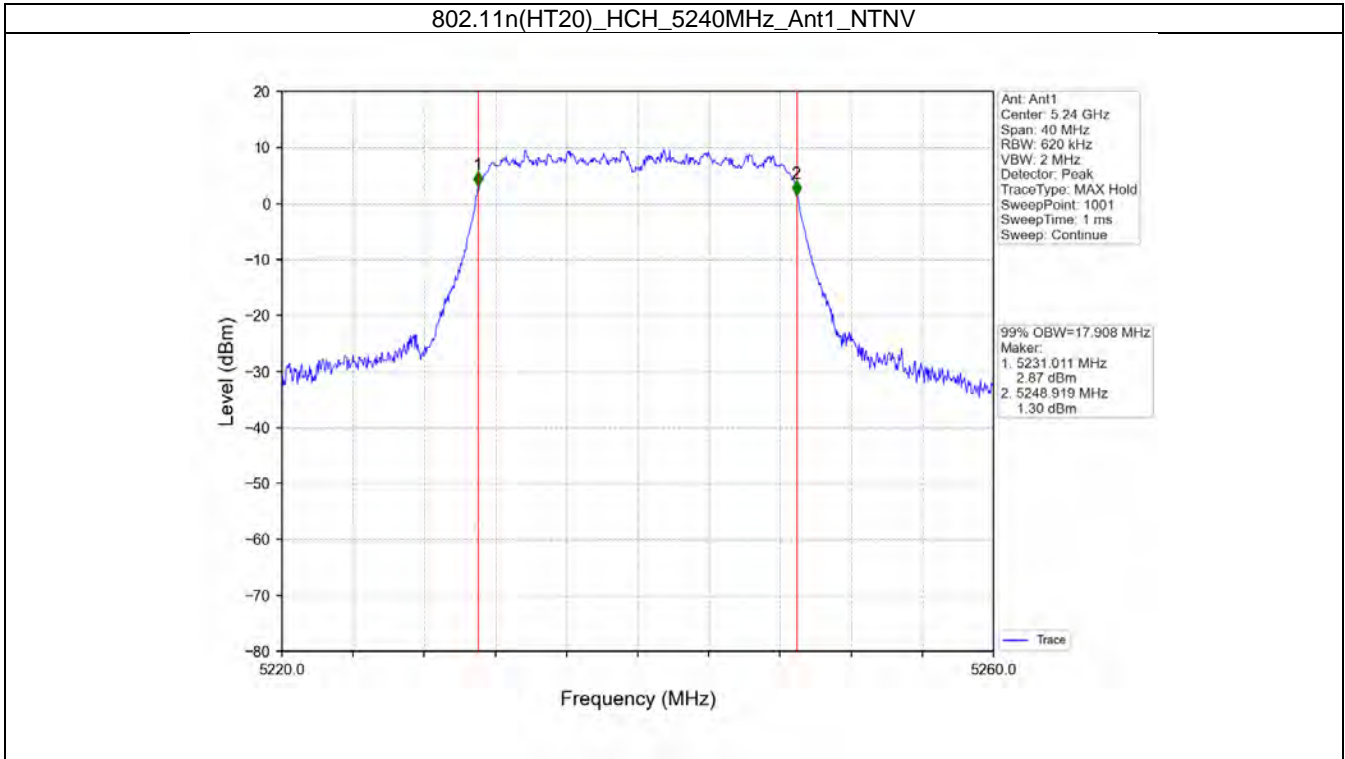


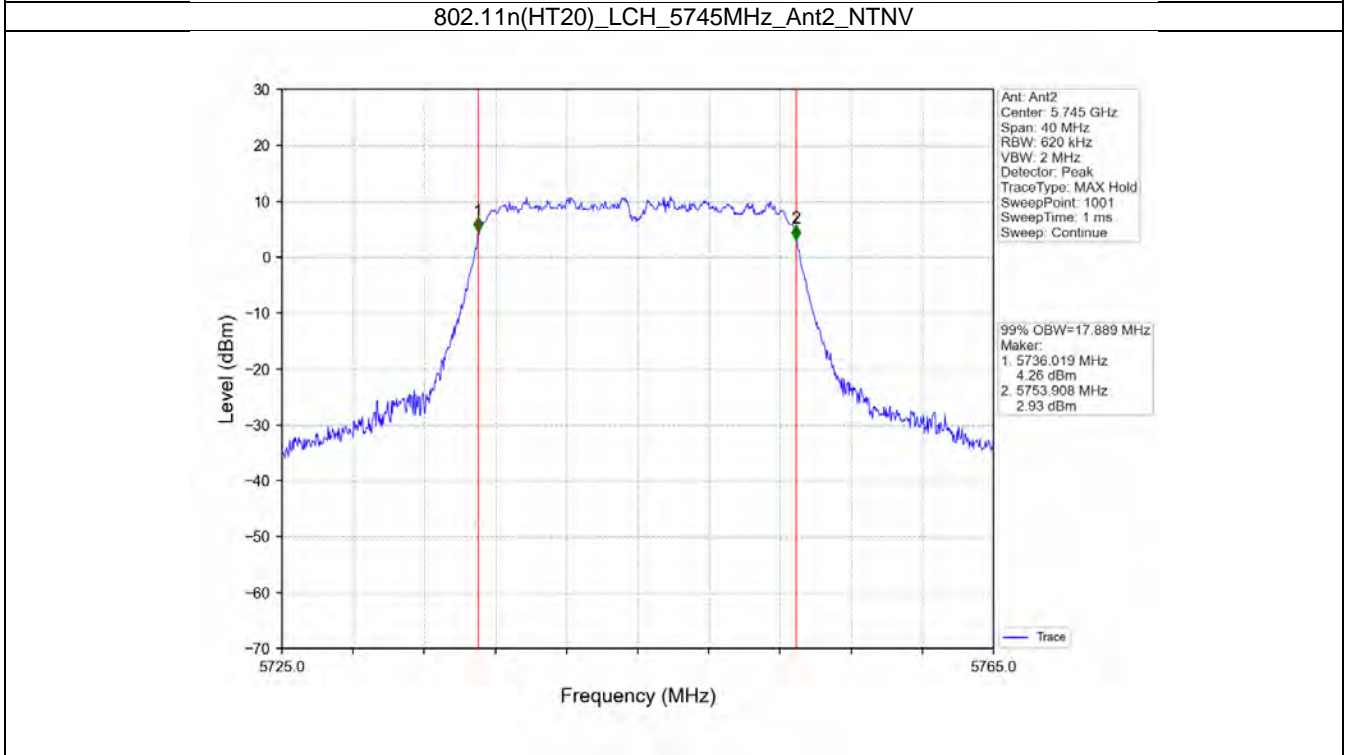
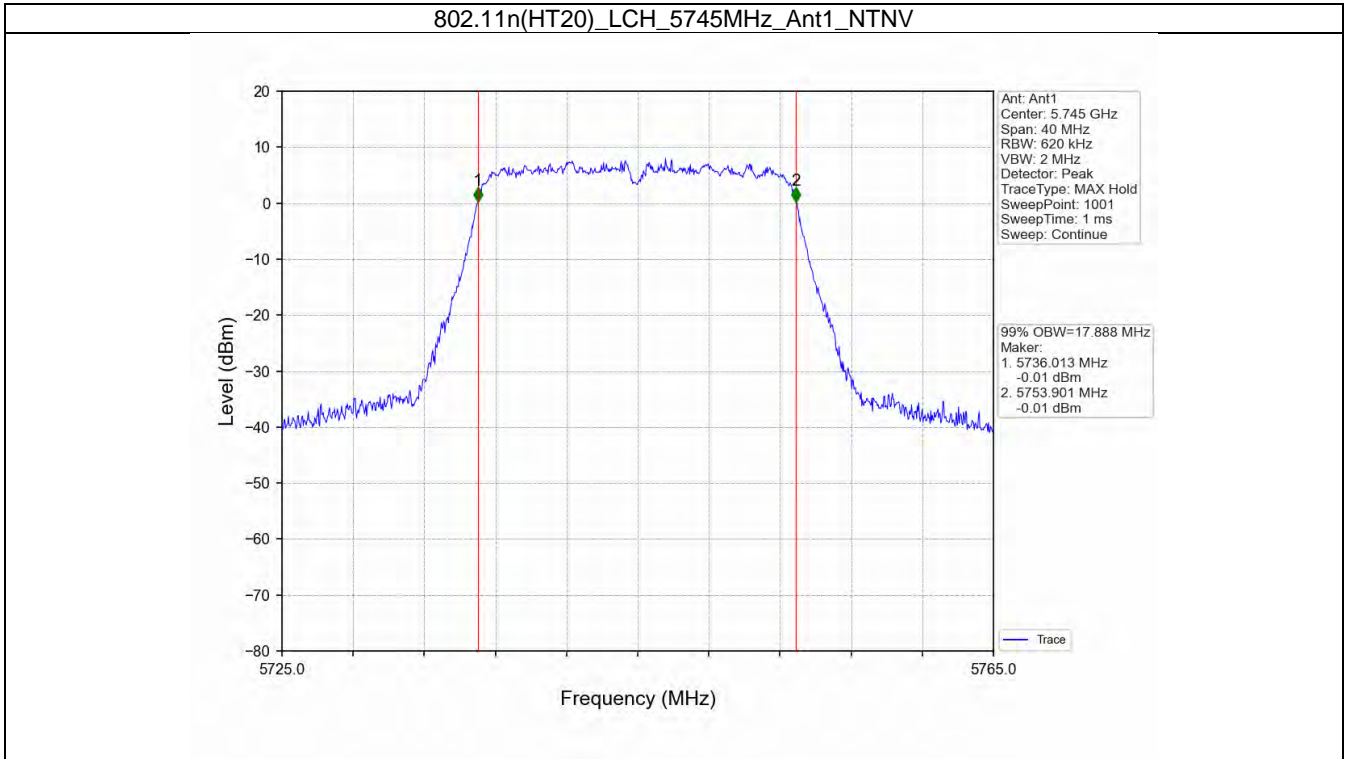
802.11n(HT20)_MCH_5200MHz_Ant1_NTNV



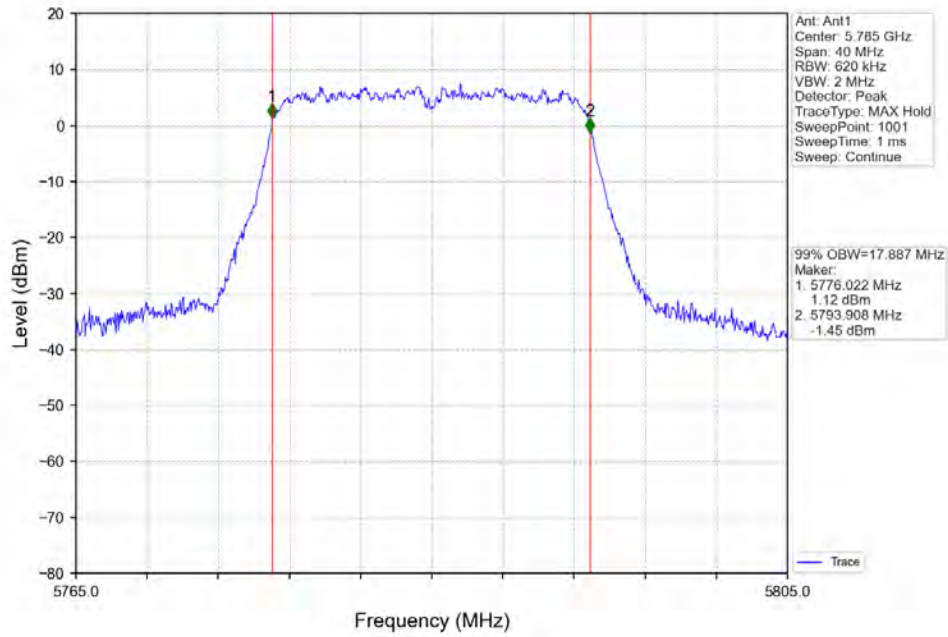
802.11n(HT20)_MCH_5200MHz_Ant2_NTNV



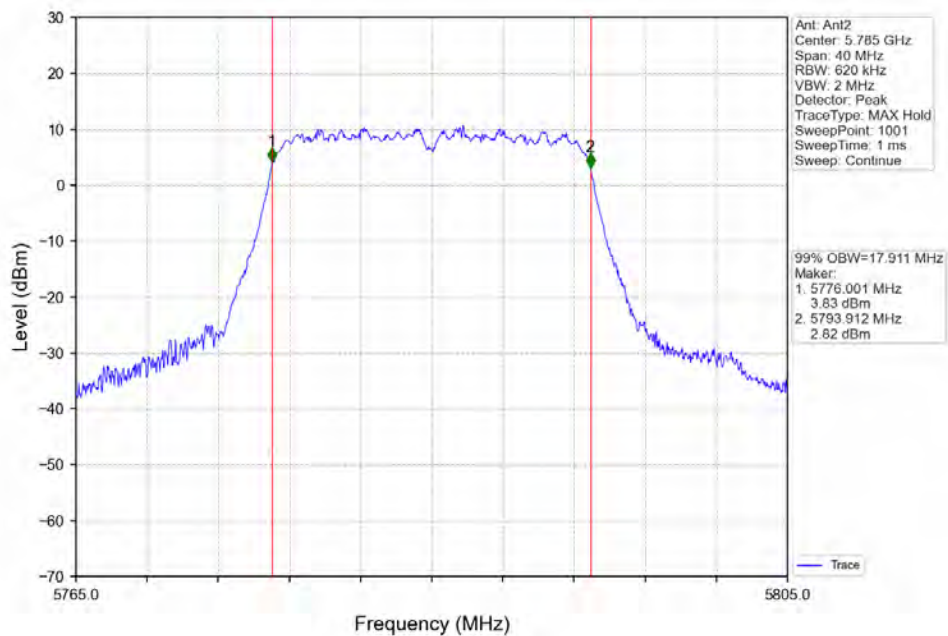




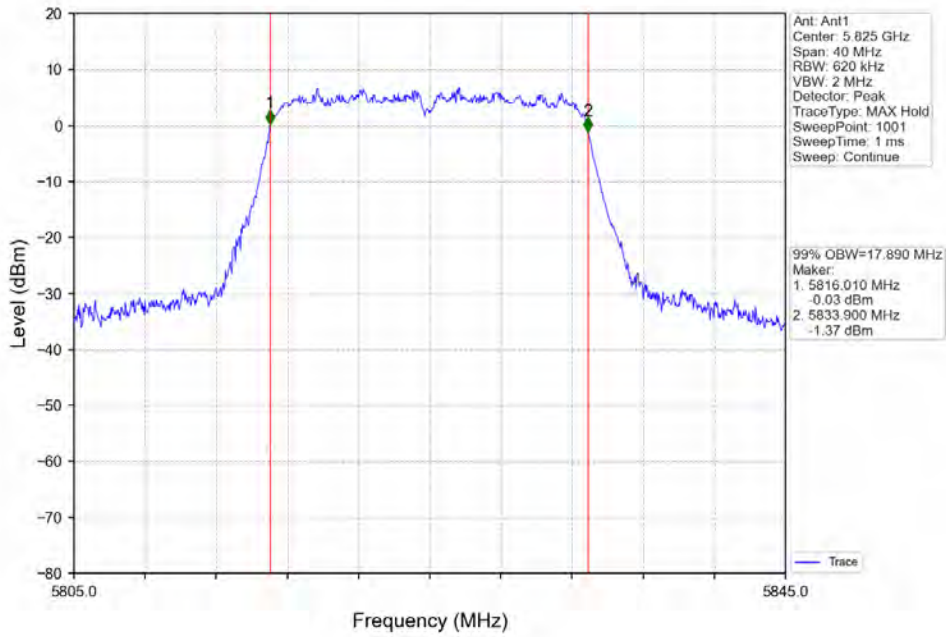
802.11n(HT20)_MCH_5785MHz_Ant1_NTNV



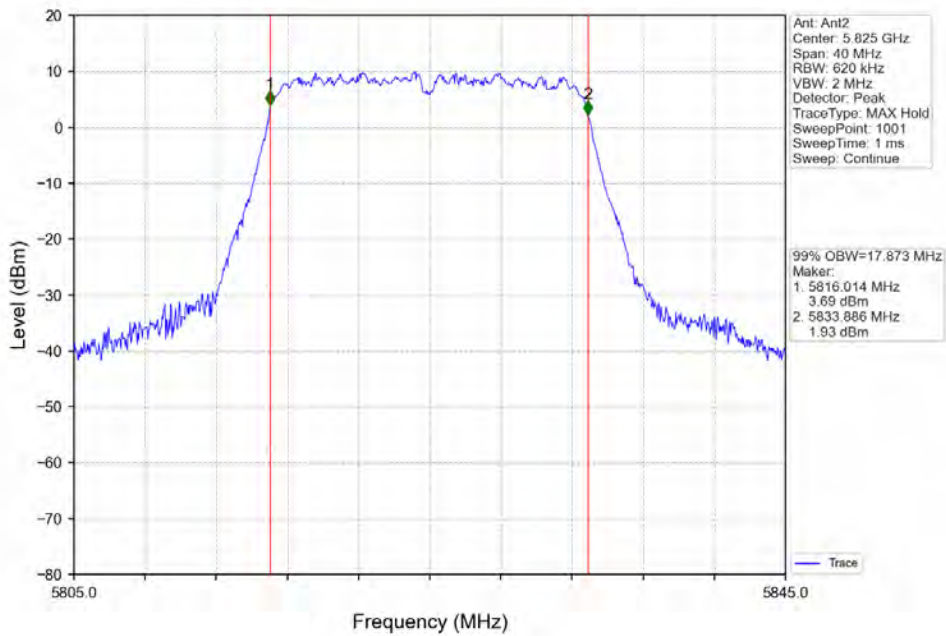
802.11n(HT20)_MCH_5785MHz_Ant2_NTNV



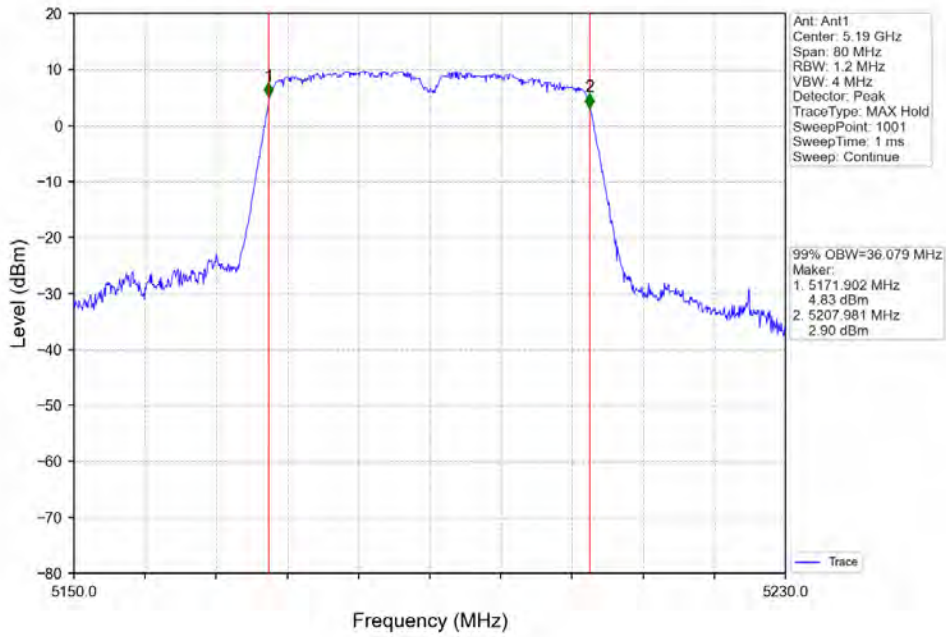
802.11n(HT20)_HCH_5825MHz_Ant1_NTNV



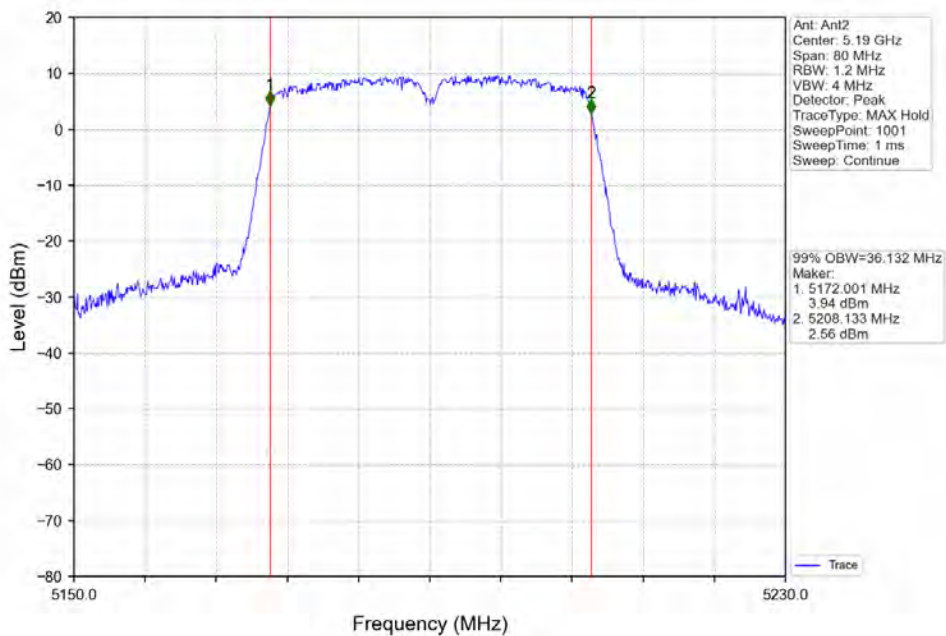
802.11n(HT20)_HCH_5825MHz_Ant2_NTNV



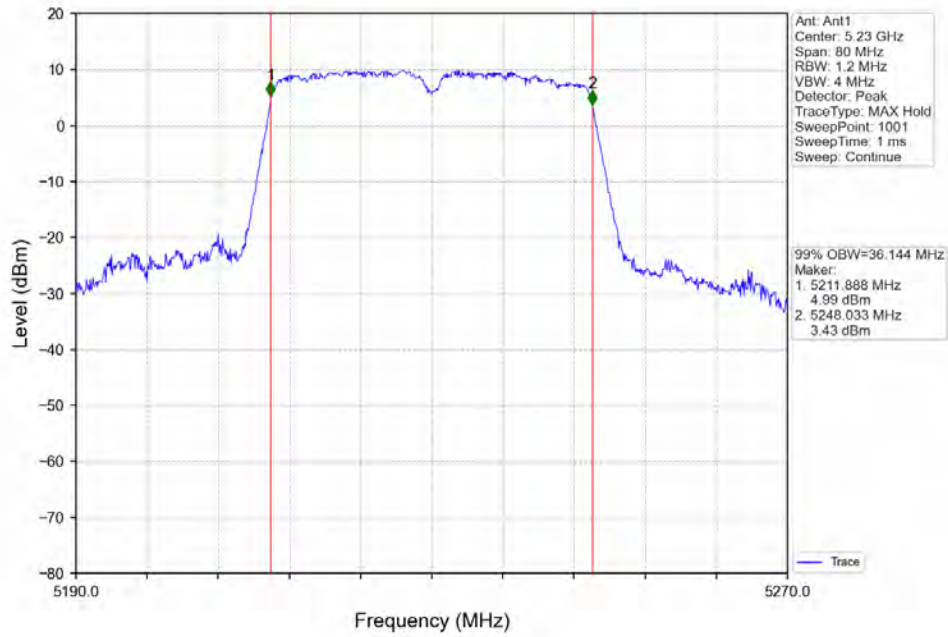
802.11n(HT40)_LCH_5190MHz_Ant1_NTNV



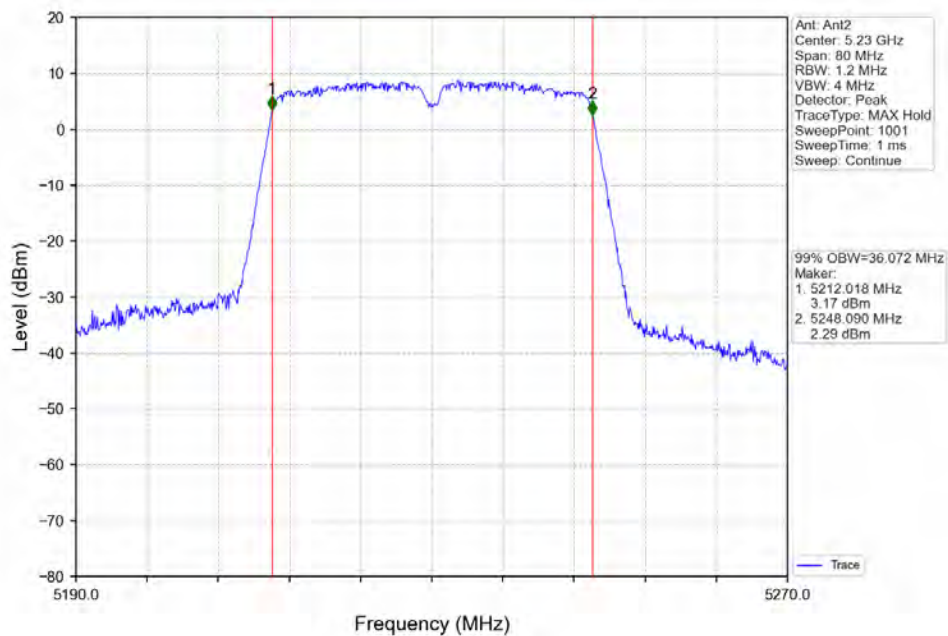
802.11n(HT40)_LCH_5190MHz_Ant2_NTNV



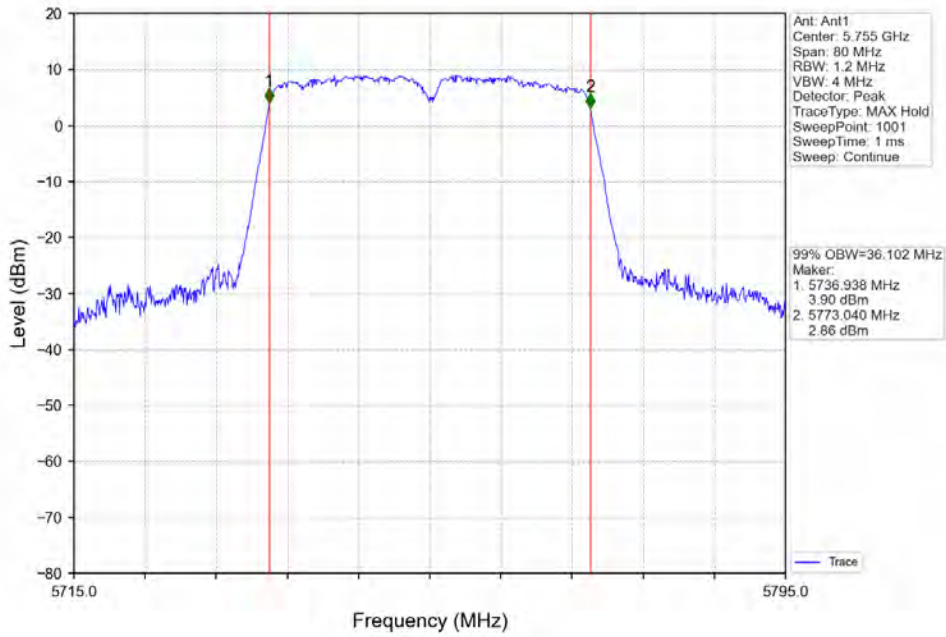
802.11n(HT40)_HCH_5230MHz_Ant1_NTNV



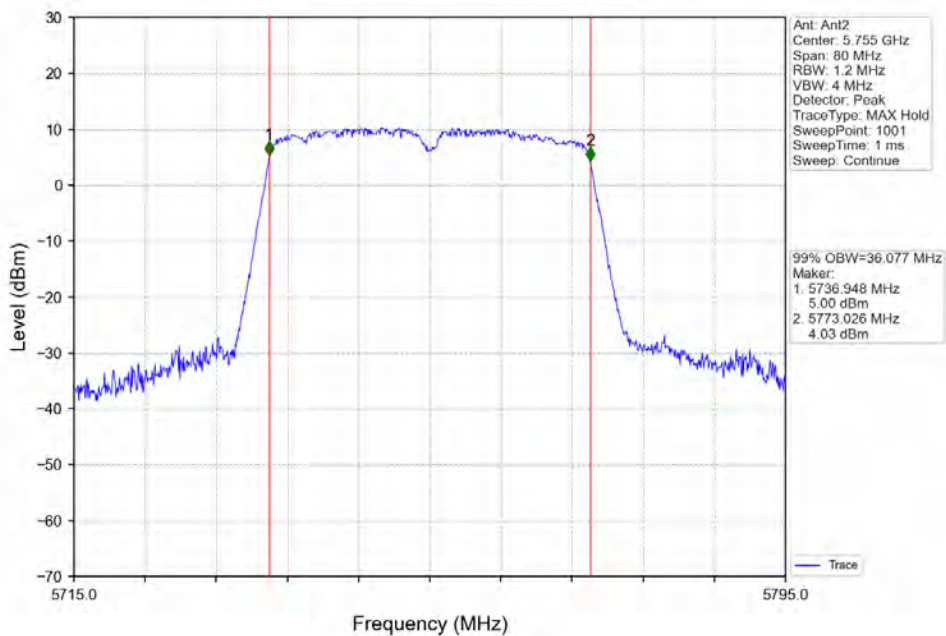
802.11n(HT40)_HCH_5230MHz_Ant2_NTNV



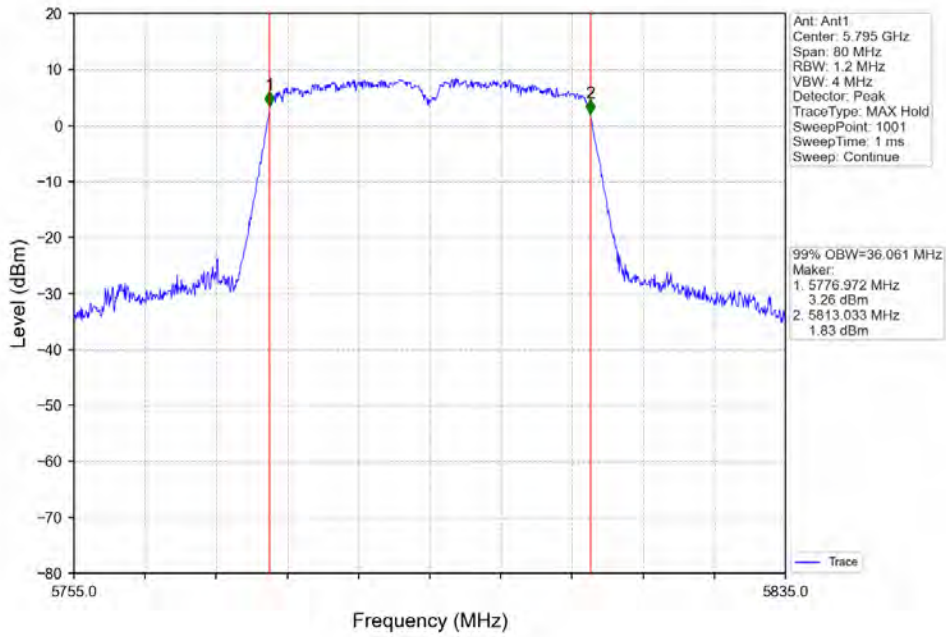
802.11n(HT40)_LCH_5755MHz_Ant1_NTNV



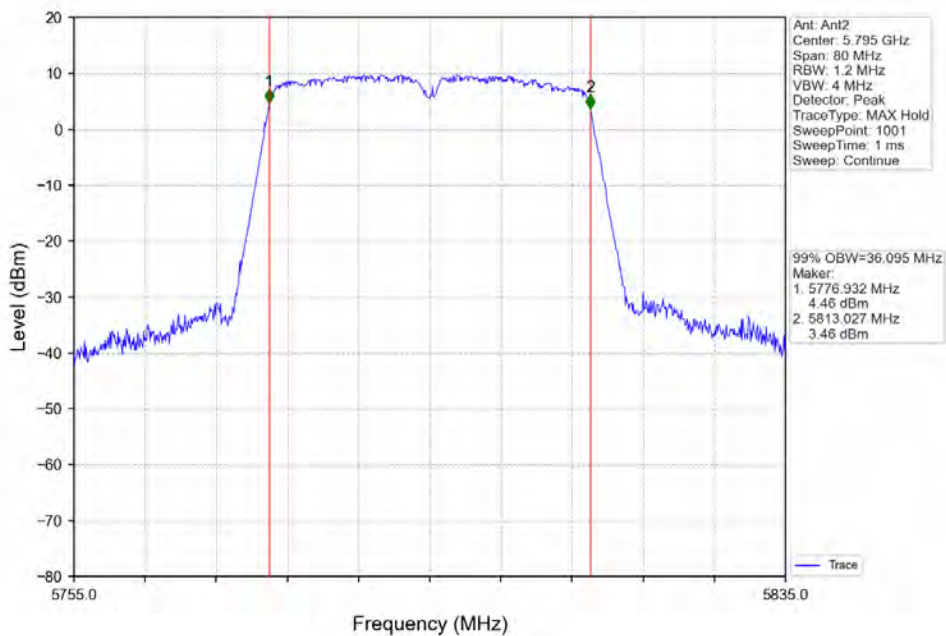
802.11n(HT40)_LCH_5755MHz_Ant2_NTNV

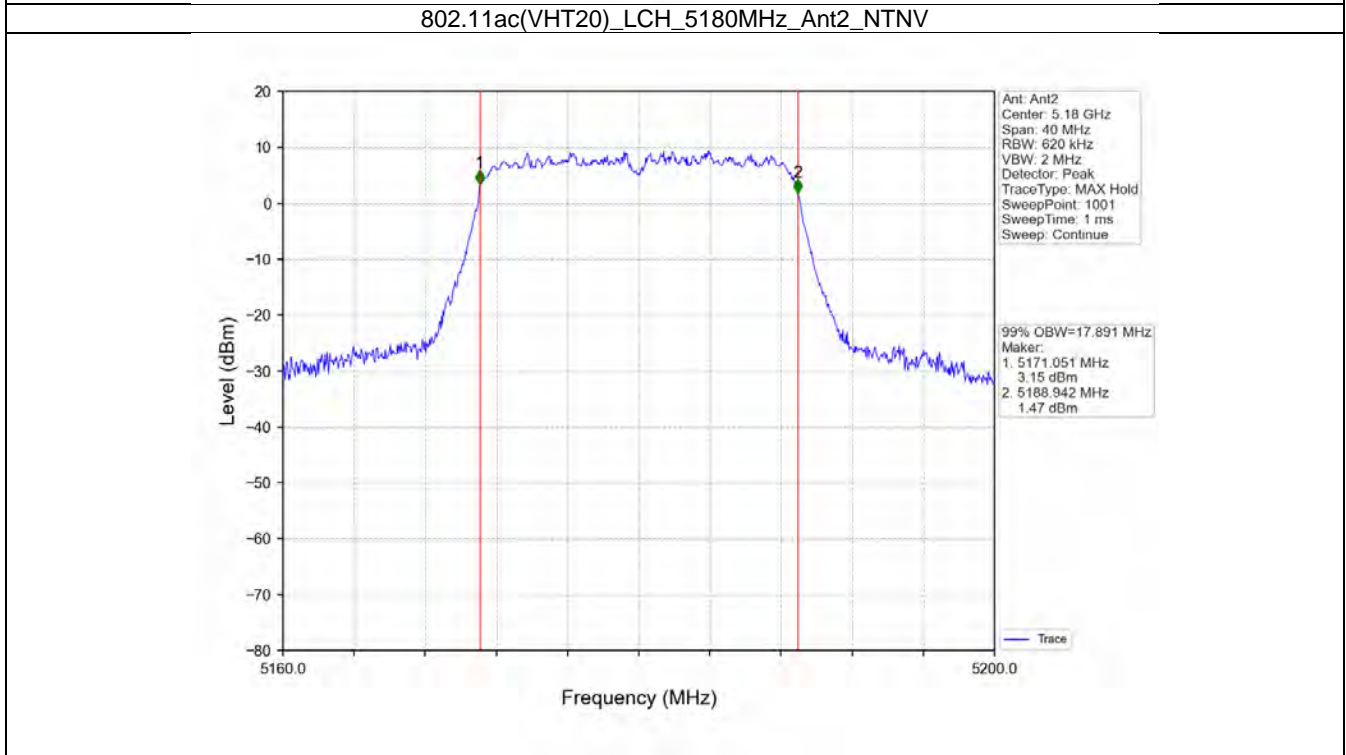
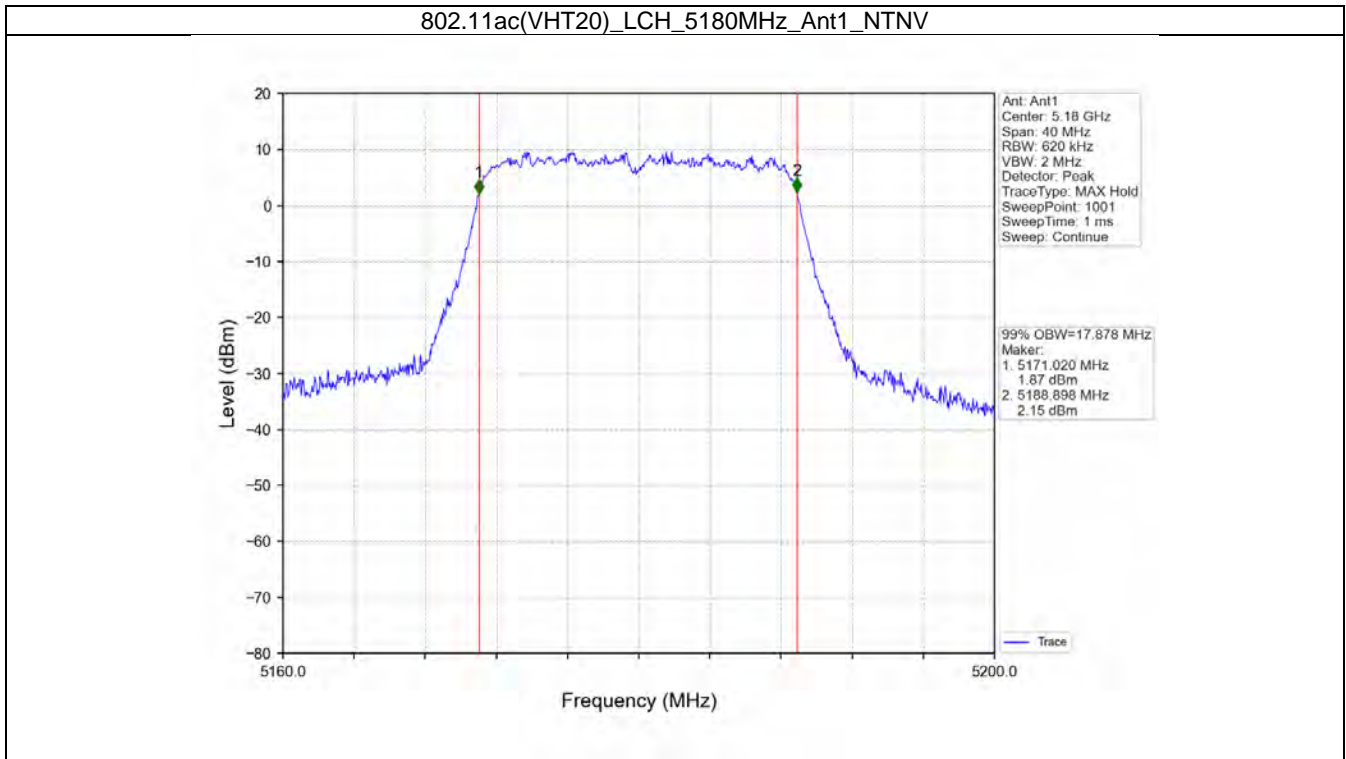


802.11n(HT40)_HCH_5795MHz_Ant1_NTNV

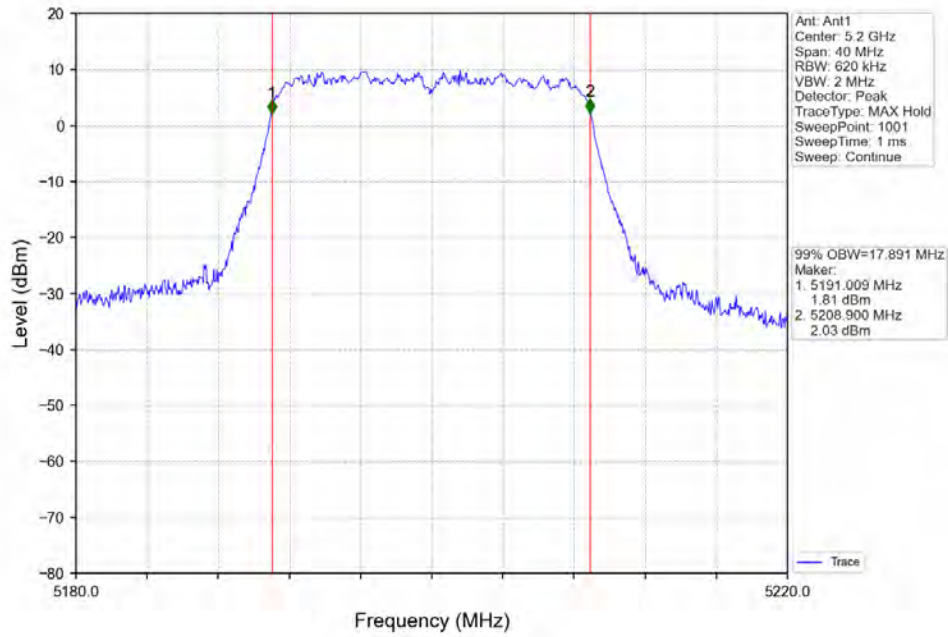


802.11n(HT40)_HCH_5795MHz_Ant2_NTNV

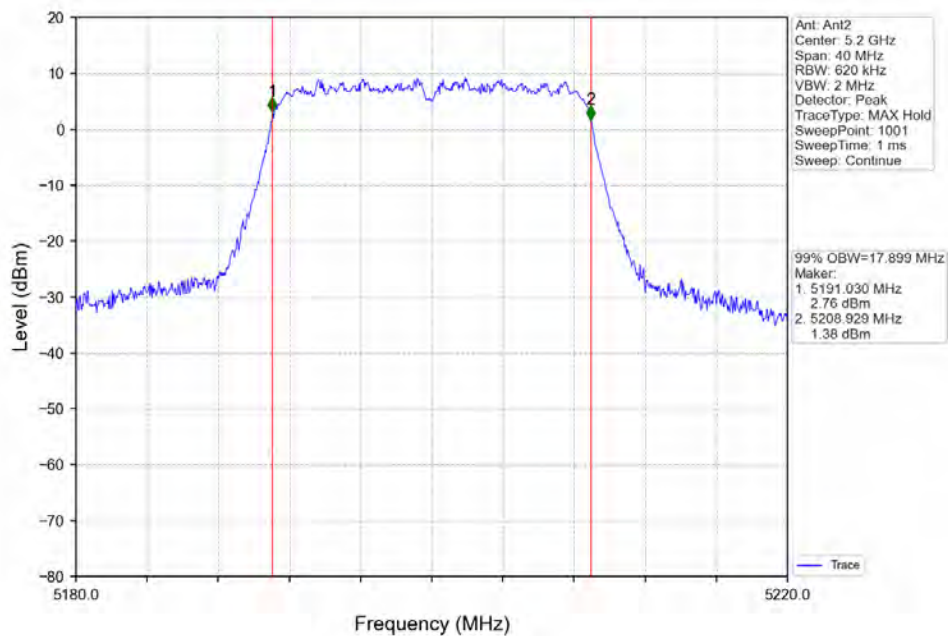




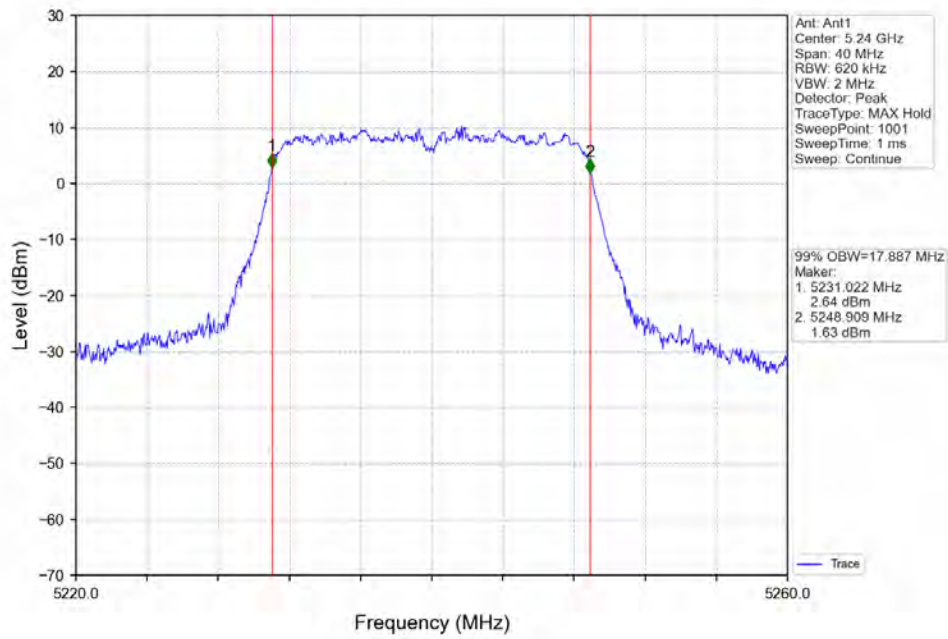
802.11ac(VHT20)_MCH_5200MHz_Ant1_NTNV



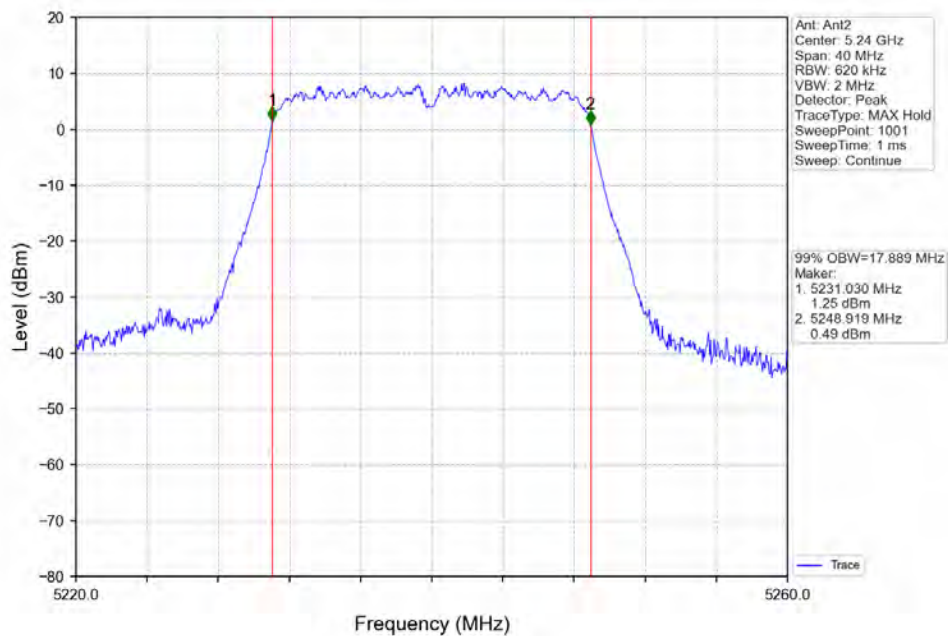
802.11ac(VHT20)_MCH_5200MHz_Ant2_NTNV



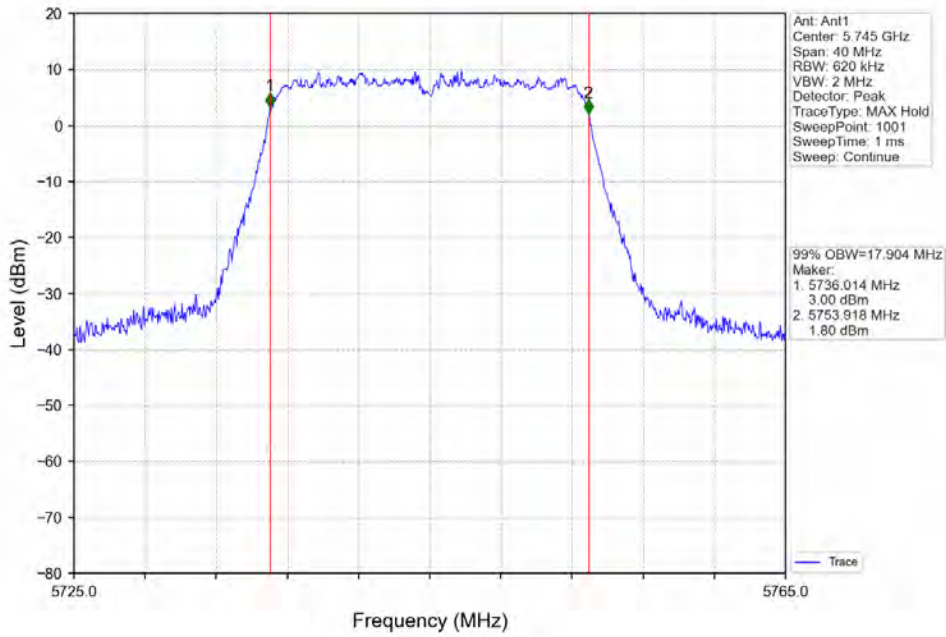
802.11ac(VHT20)_HCH_5240MHz_Ant1_NTNV



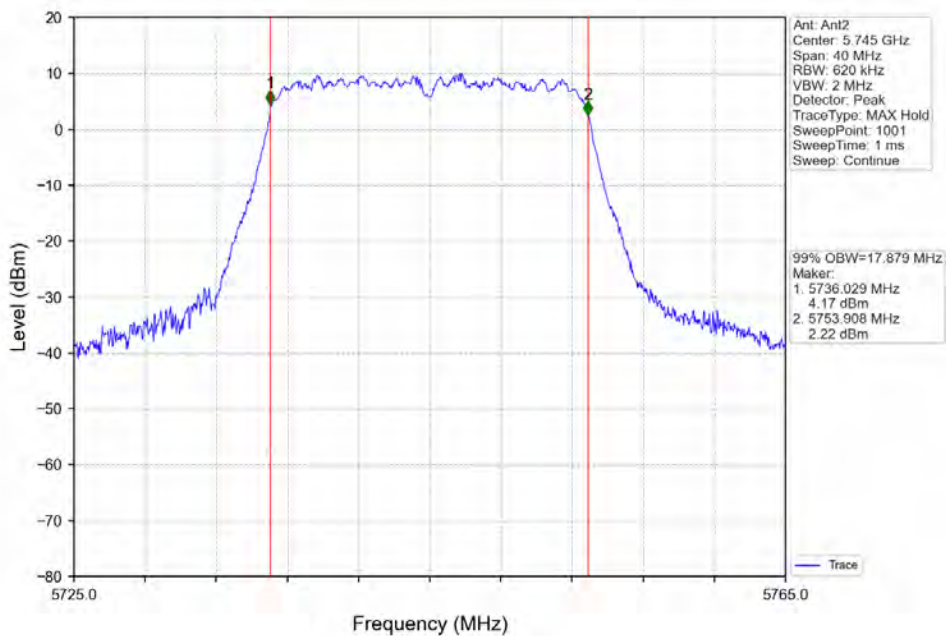
802.11ac(VHT20)_HCH_5240MHz_Ant2_NTNV



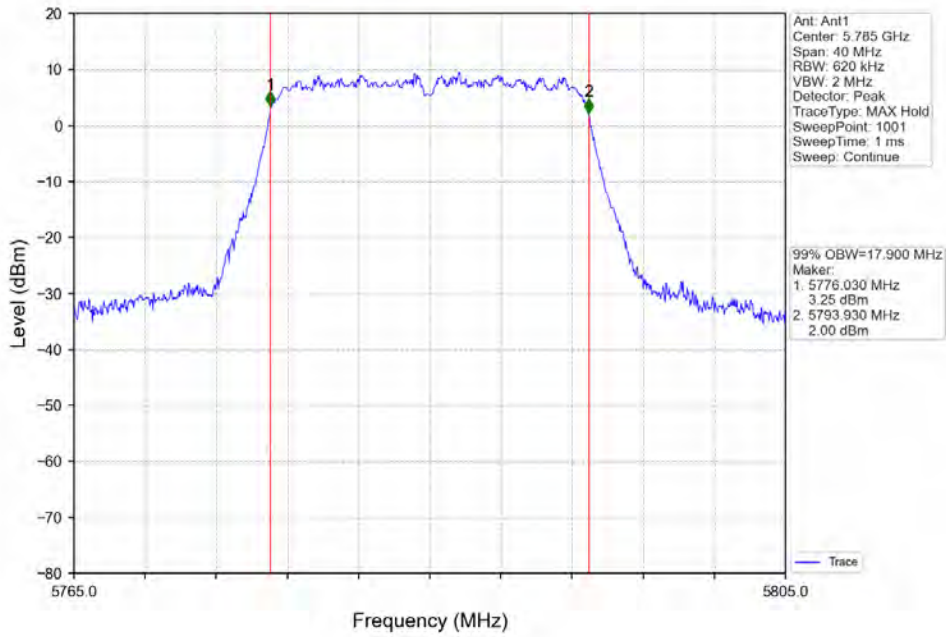
802.11ac(VHT20)_LCH_5745MHz_Ant1_NTNV



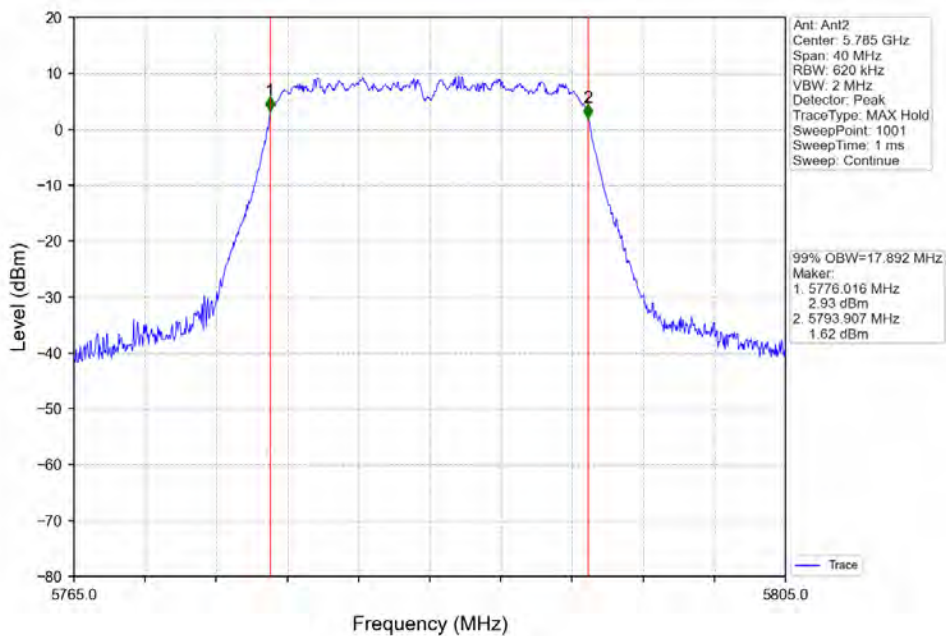
802.11ac(VHT20)_LCH_5745MHz_Ant2_NTNV



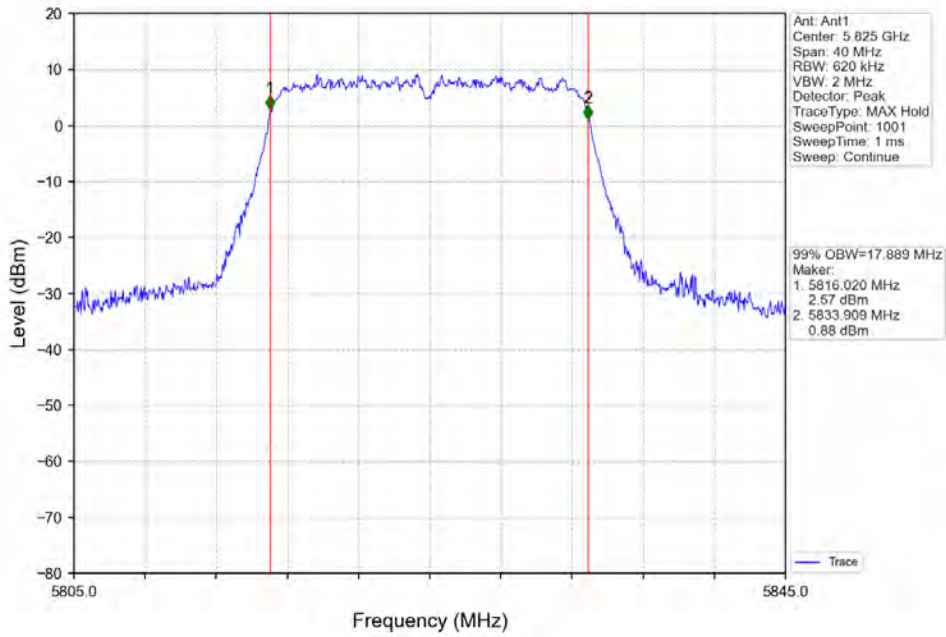
802.11ac(VHT20)_MCH_5785MHz_Ant1_NTNV



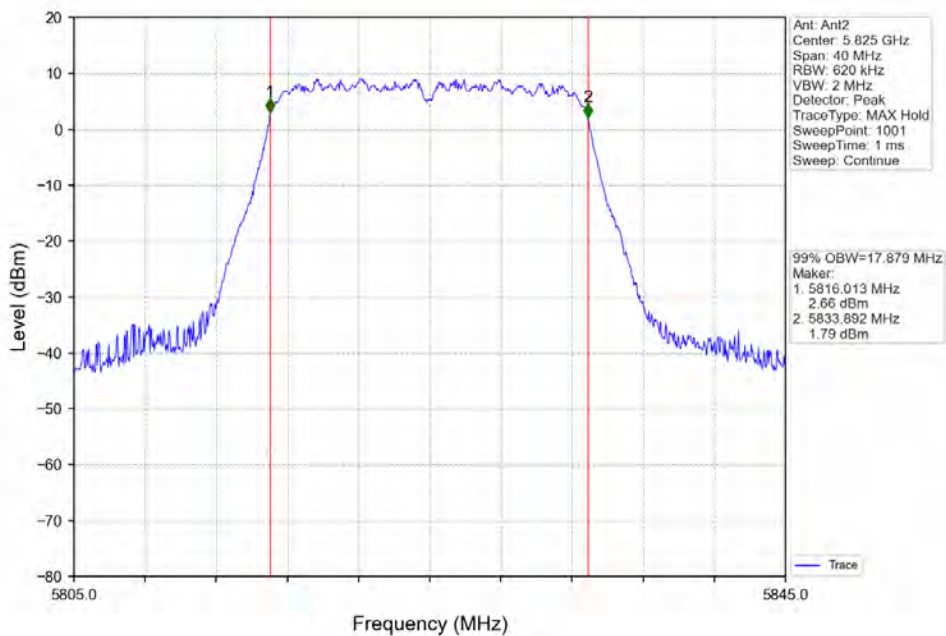
802.11ac(VHT20)_MCH_5785MHz_Ant2_NTNV



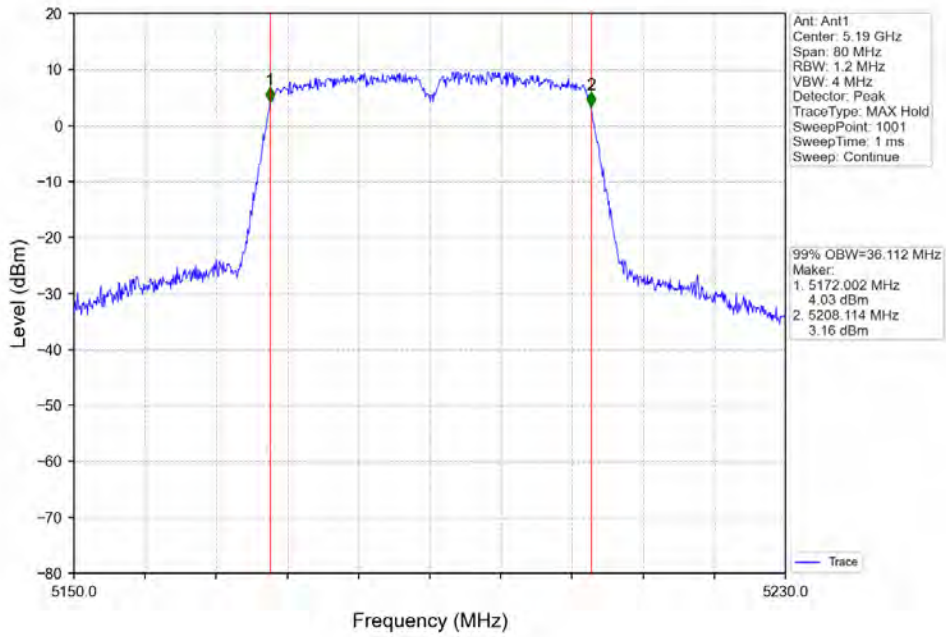
802.11ac(VHT20)_HCH_5825MHz_Ant1_NTNV



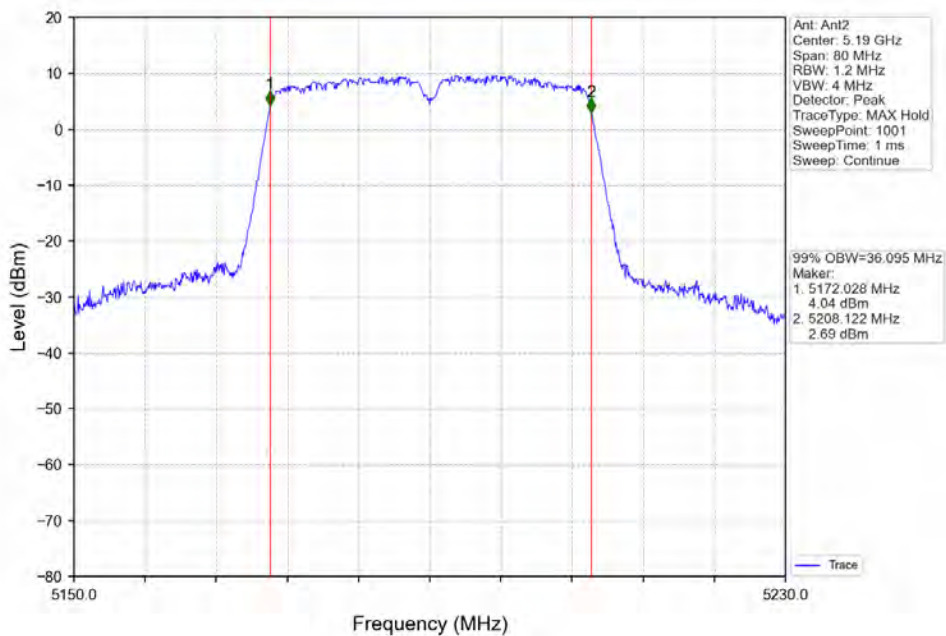
802.11ac(VHT20)_HCH_5825MHz_Ant2_NTNV



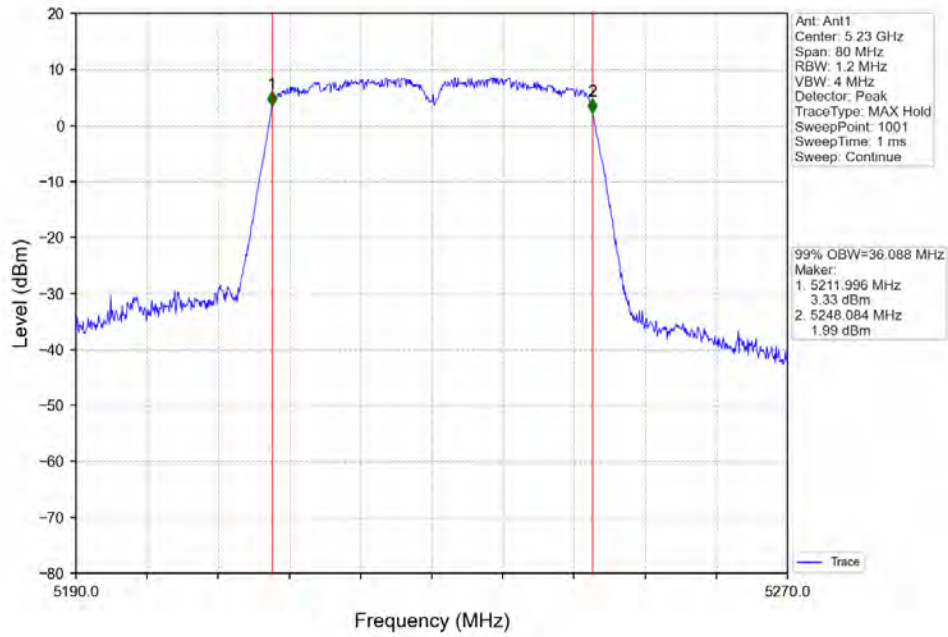
802.11ac(VHT40)_LCH_5190MHz_Ant1_NTNV



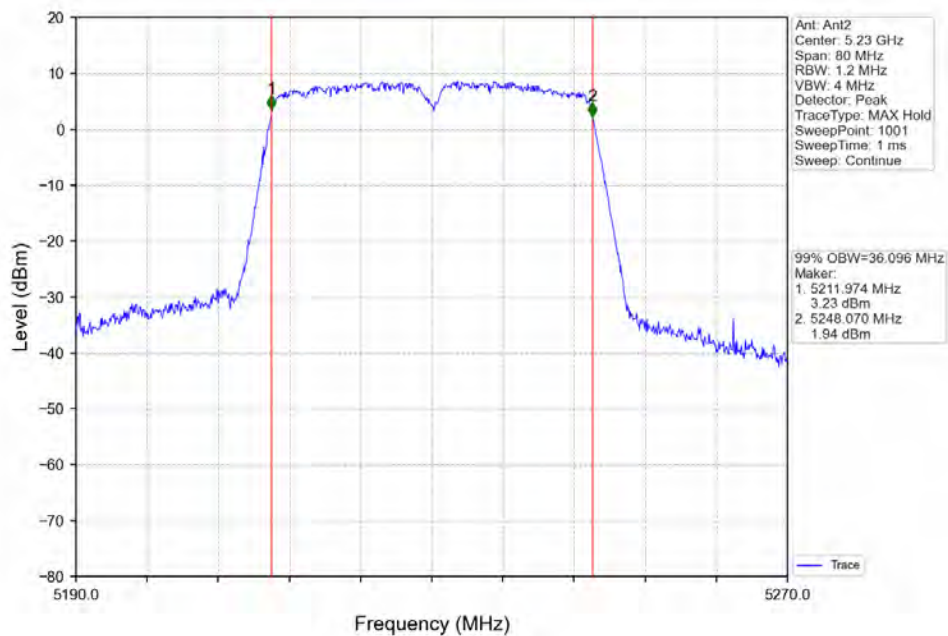
802.11ac(VHT40)_LCH_5190MHz_Ant2_NTNV



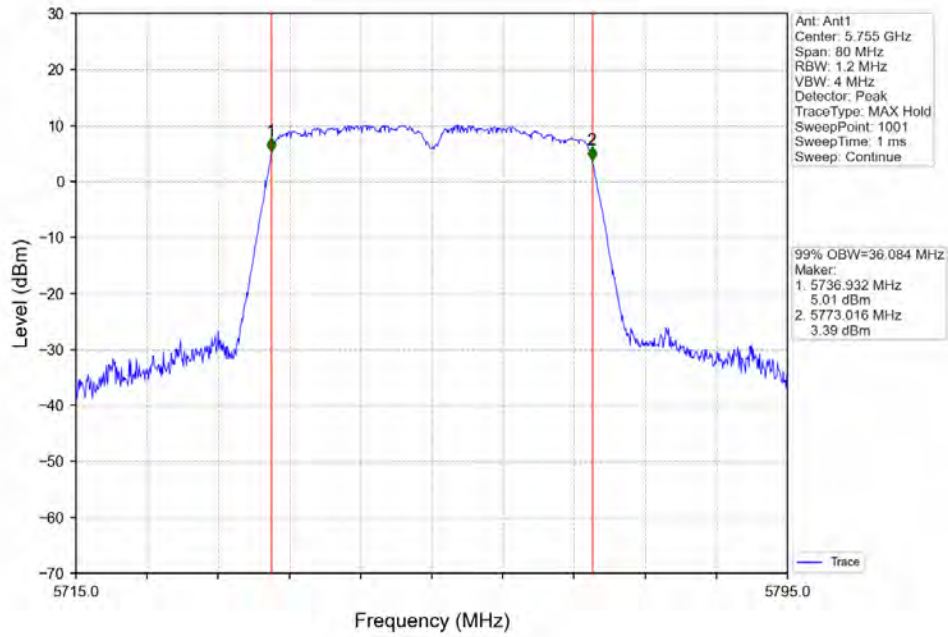
802.11ac(VHT40)_HCH_5230MHz_Ant1_NTNV



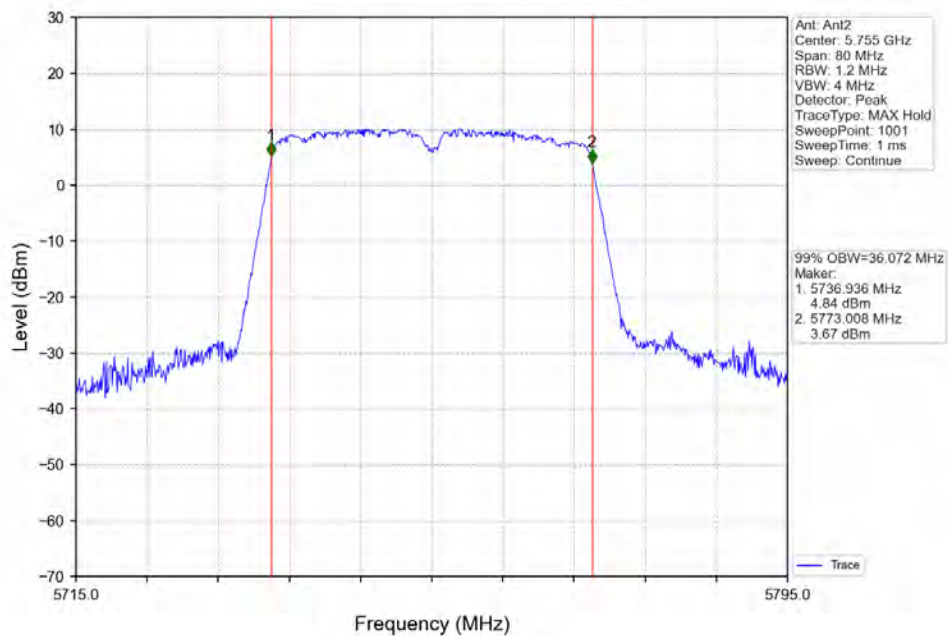
802.11ac(VHT40)_HCH_5230MHz_Ant2_NTNV



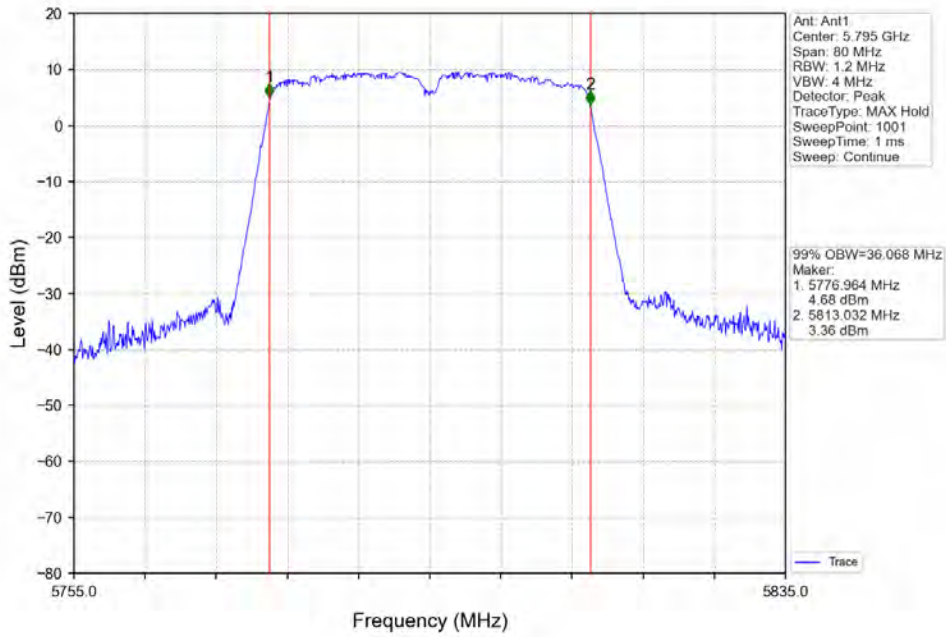
802.11ac(VHT40)_LCH_5755MHz_Ant1_NTNV



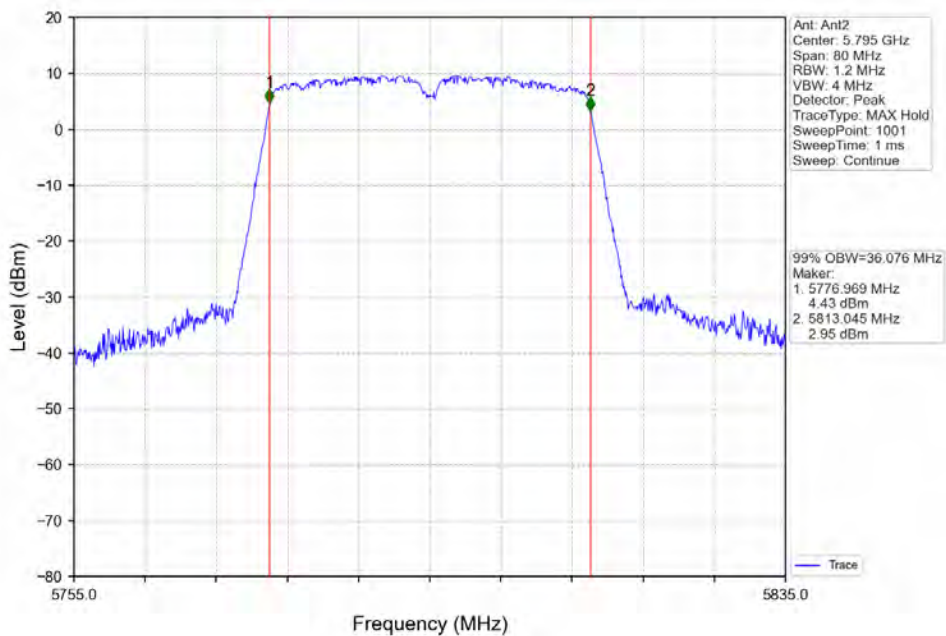
802.11ac(VHT40)_LCH_5755MHz_Ant2_NTNV



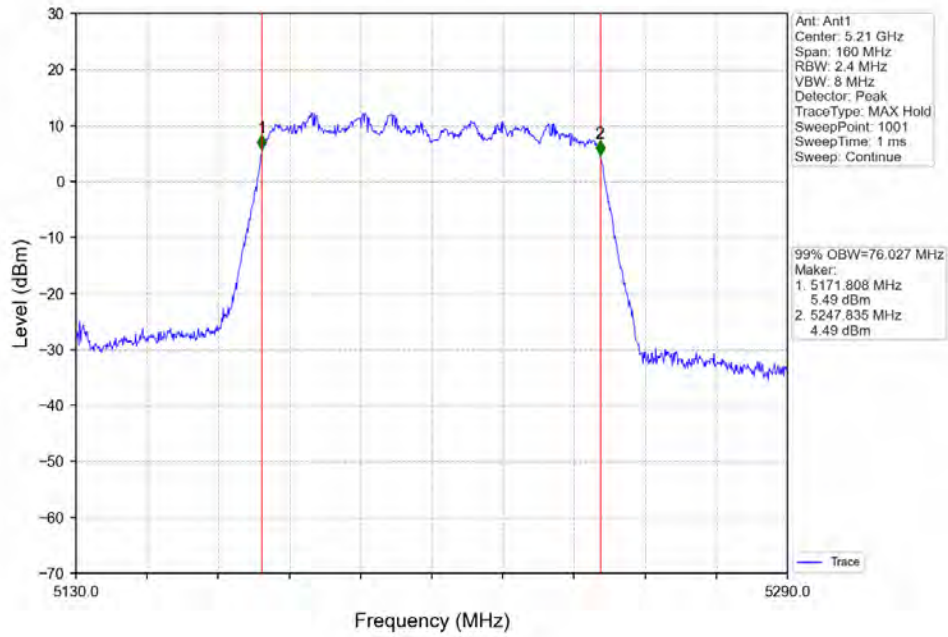
802.11ac(VHT40)_HCH_5795MHz_Ant1_NTNV



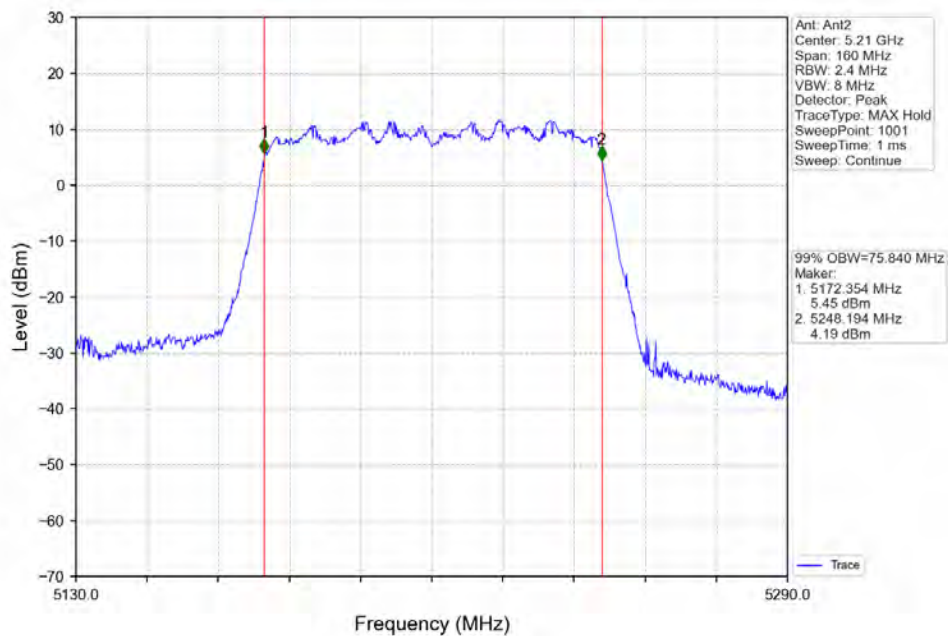
802.11ac(VHT40)_HCH_5795MHz_Ant2_NTNV



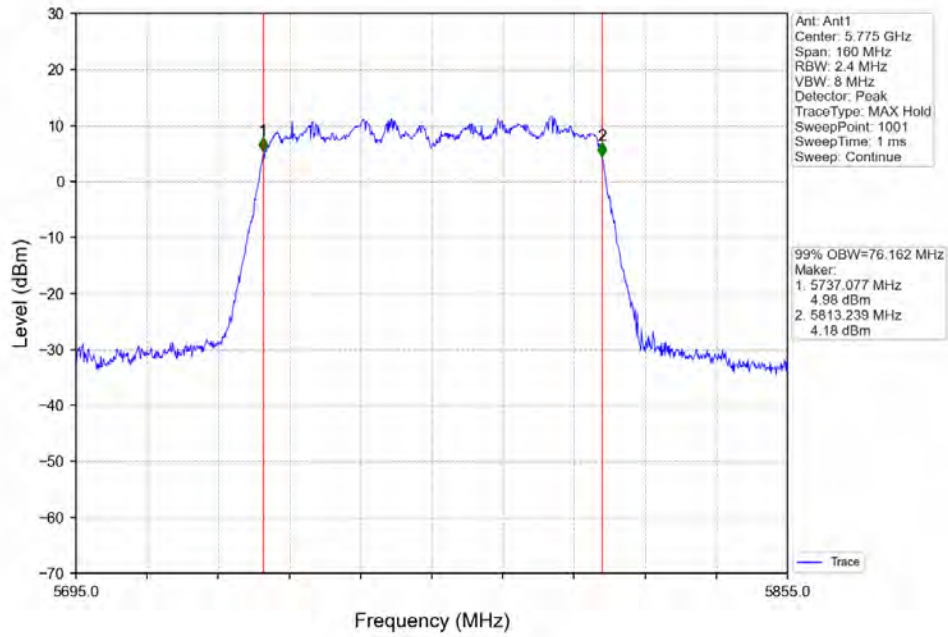
802.11ac(VHT80)_MCH_5210MHz_Ant1_NTNV



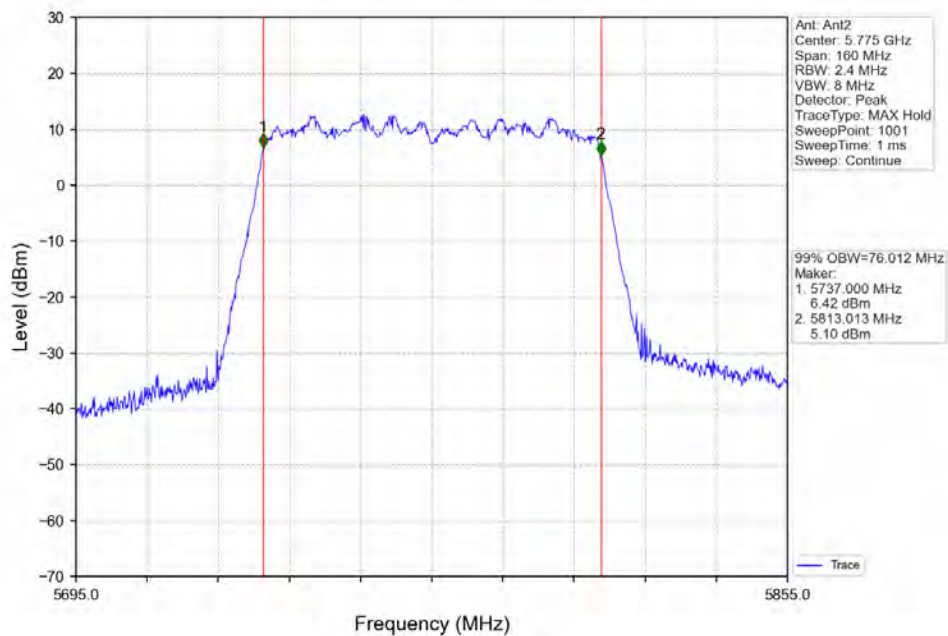
802.11ac(VHT80)_MCH_5210MHz_Ant2_NTNV



802.11ac(VHT80)_MCH_5775MHz_Ant1_NTNV



802.11ac(VHT80)_MCH_5775MHz_Ant2_NTNV

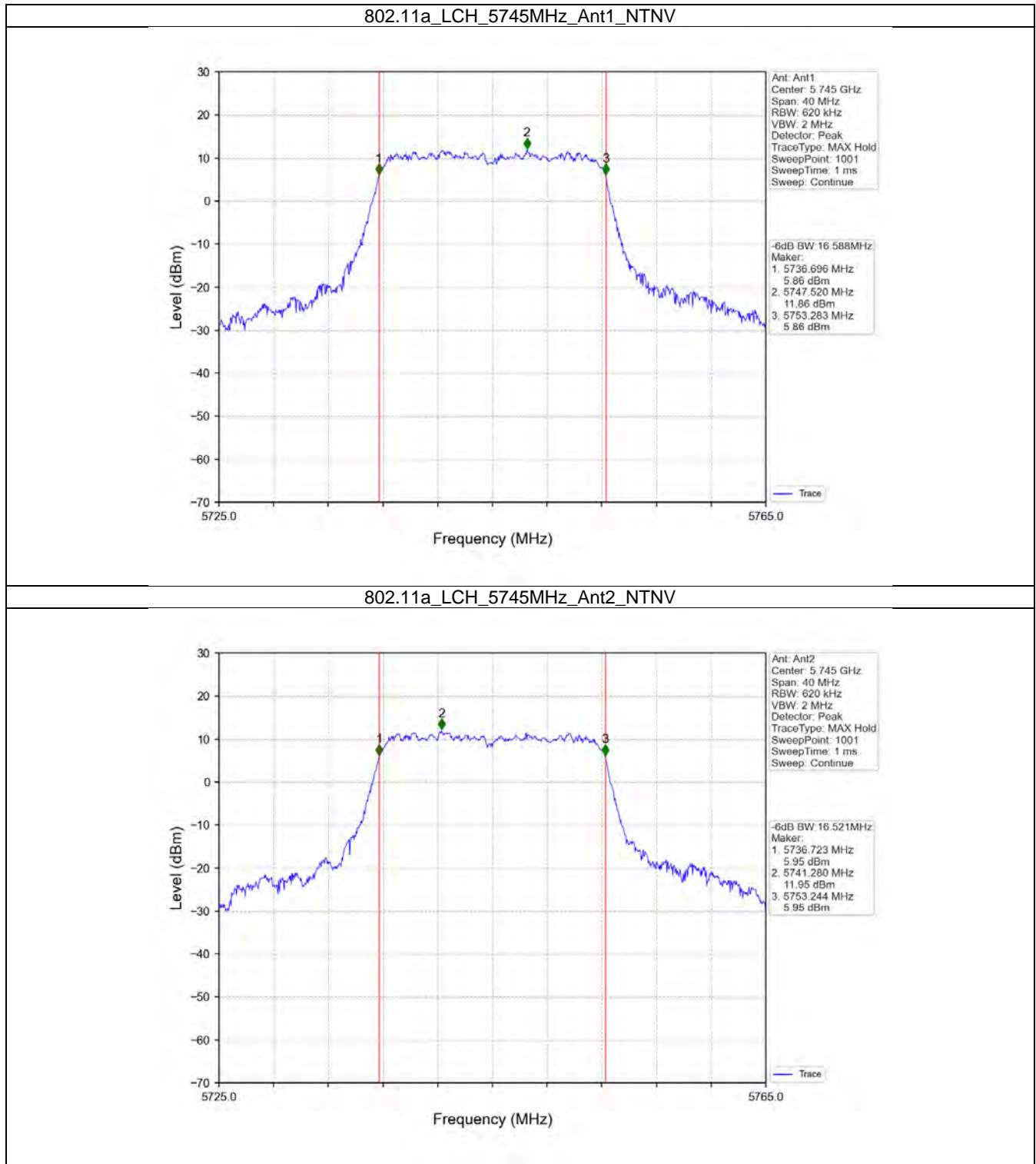


2.2 6dB BW

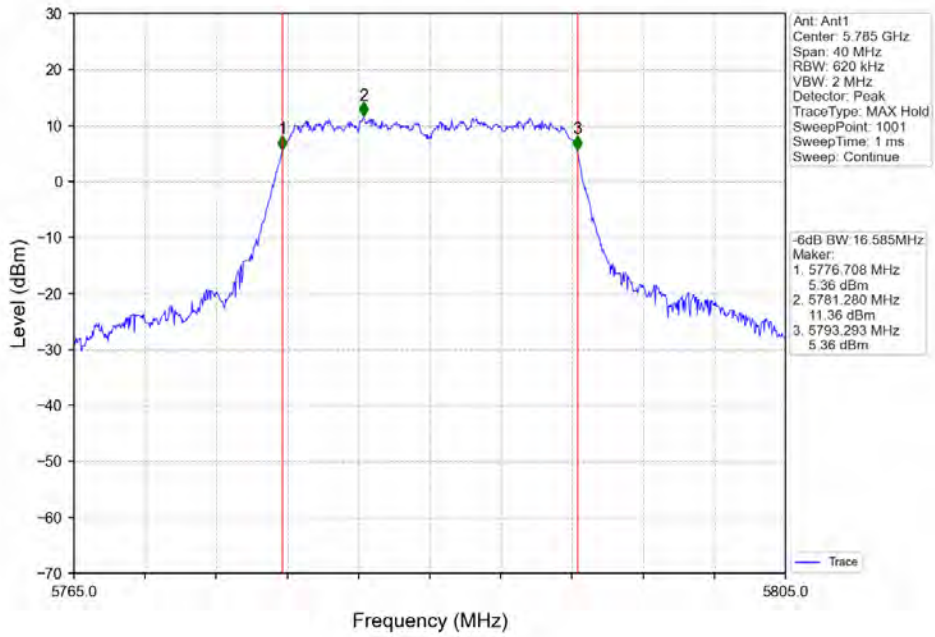
2.2.1 Test Result

Mode	TX Type	Frequency (MHz)	Ant	6dB Bandwidth (MHz)	Limit (MHz)	Verdict
802.11a	SISO	5745	1	16.588	≥ 0.5	Pass
			2	16.521	≥ 0.5	Pass
		5785	1	16.585	≥ 0.5	Pass
			2	16.532	≥ 0.5	Pass
		5825	1	16.531	≥ 0.5	Pass
			2	16.513	≥ 0.5	Pass
802.11n (HT20)	MIMO	5745	1	17.656	≥ 0.5	Pass
			2	17.690	≥ 0.5	Pass
		5785	1	17.727	≥ 0.5	Pass
			2	17.712	≥ 0.5	Pass
		5825	1	17.598	≥ 0.5	Pass
			2	17.679	≥ 0.5	Pass
802.11n (HT40)	MIMO	5755	1	36.188	≥ 0.5	Pass
			2	36.088	≥ 0.5	Pass
		5795	1	36.015	≥ 0.5	Pass
			2	36.116	≥ 0.5	Pass
802.11ac (VHT20)	MIMO	5745	1	17.671	≥ 0.5	Pass
			2	17.637	≥ 0.5	Pass
		5785	1	17.659	≥ 0.5	Pass
			2	17.645	≥ 0.5	Pass
		5825	1	17.624	≥ 0.5	Pass
			2	17.703	≥ 0.5	Pass
802.11ac (VHT40)	MIMO	5755	1	36.134	≥ 0.5	Pass
			2	36.119	≥ 0.5	Pass
		5795	1	36.137	≥ 0.5	Pass
			2	36.135	≥ 0.5	Pass
802.11ac (VHT80)	MIMO	5775	1	75.203	≥ 0.5	Pass
			2	75.762	≥ 0.5	Pass

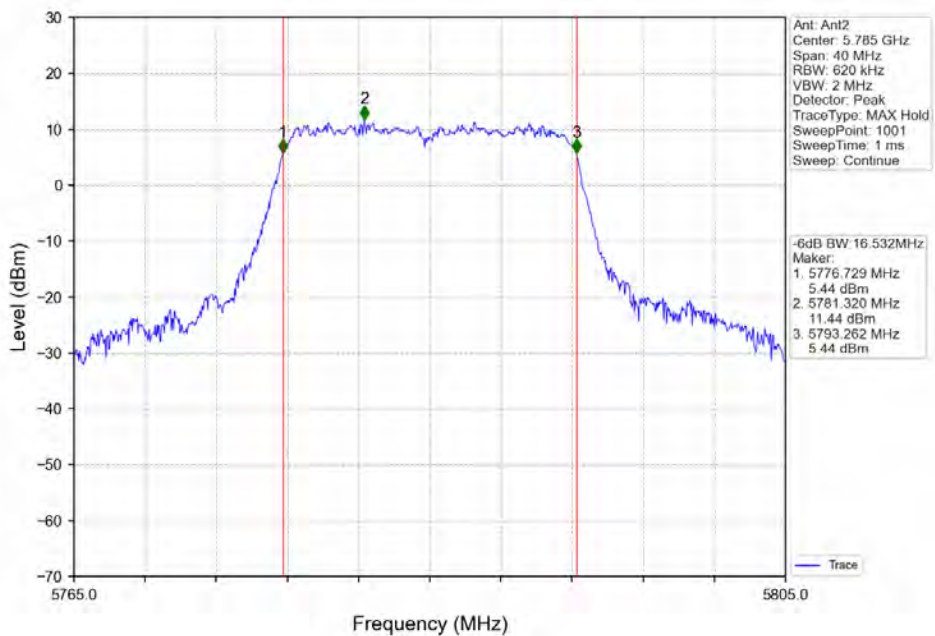
2.2.2 Test Graph



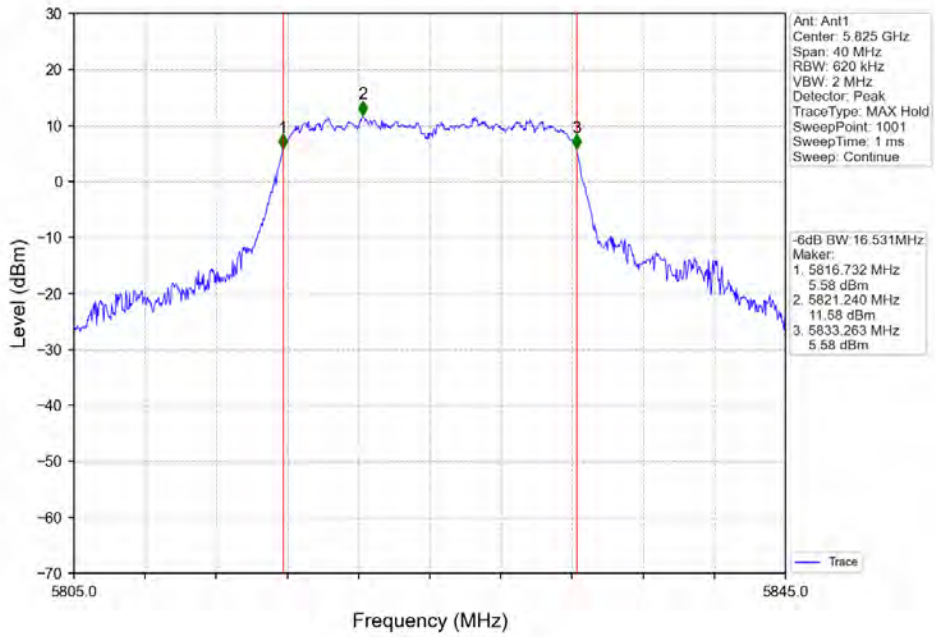
802.11a_MCH_5785MHz_Ant1_NTNV



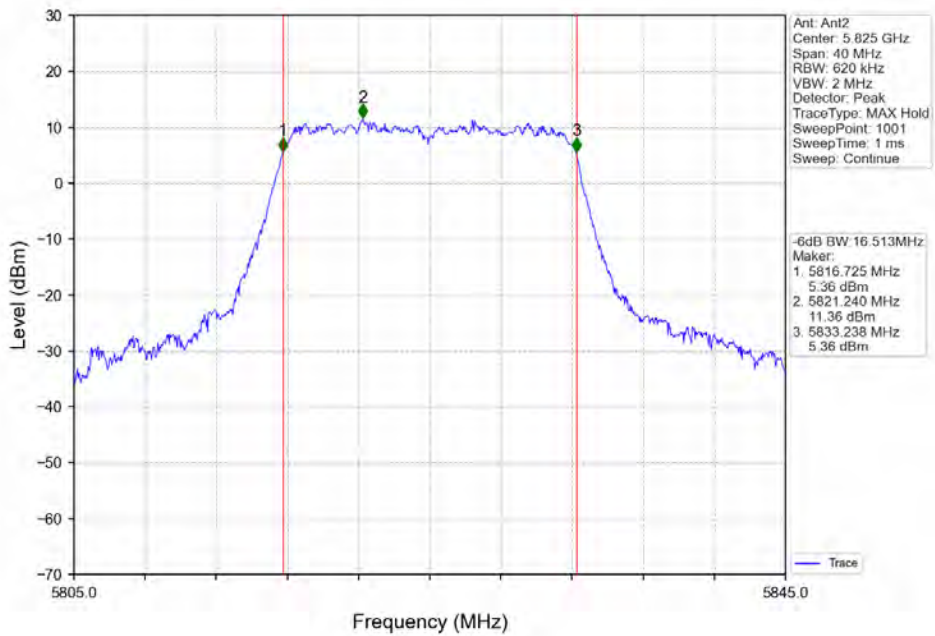
802.11a_MCH_5785MHz_Ant2_NTNV



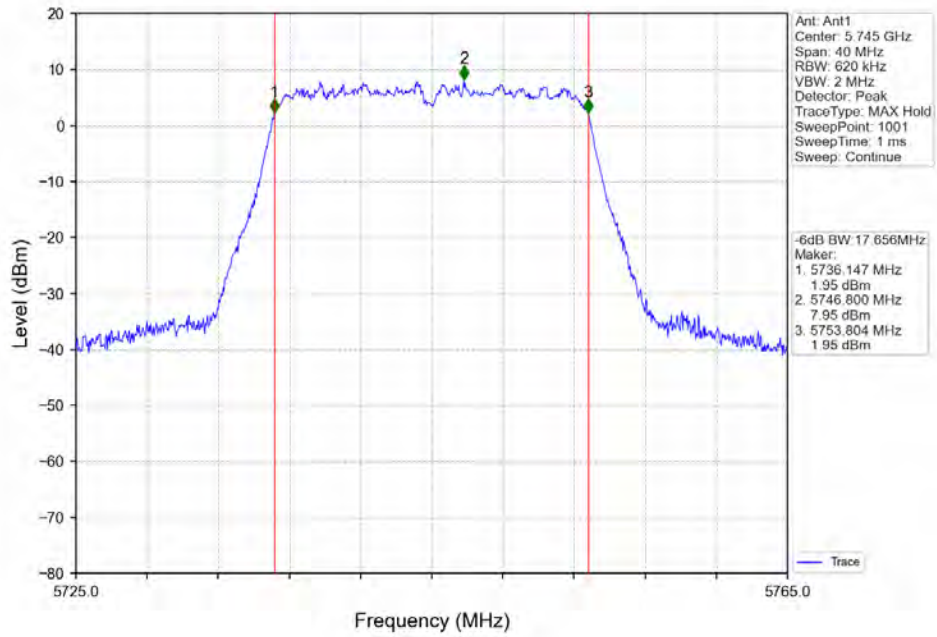
802.11a_HCH_5825MHz_Ant1_NTNV



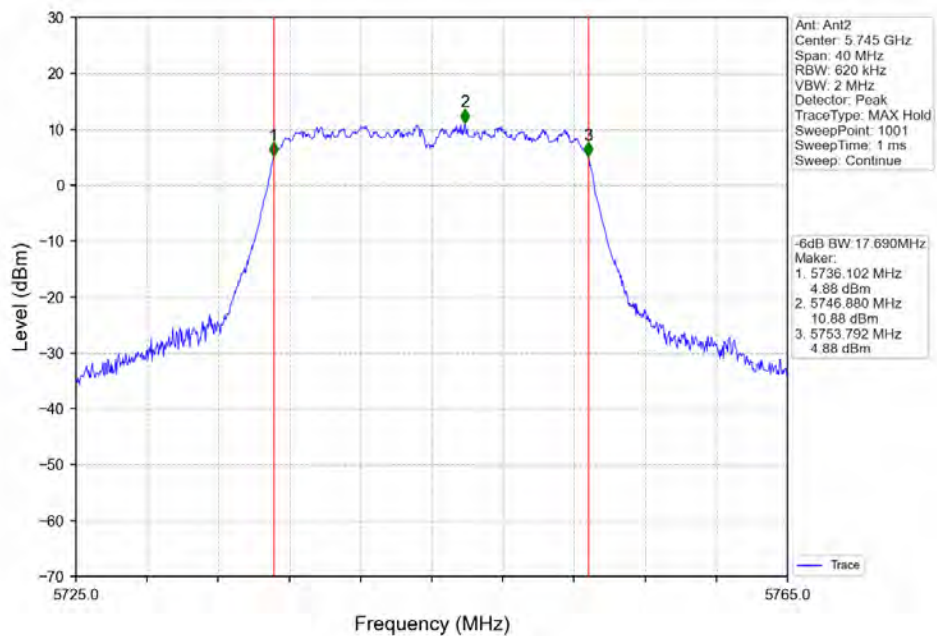
802.11a_HCH_5825MHz_Ant2_NTNV



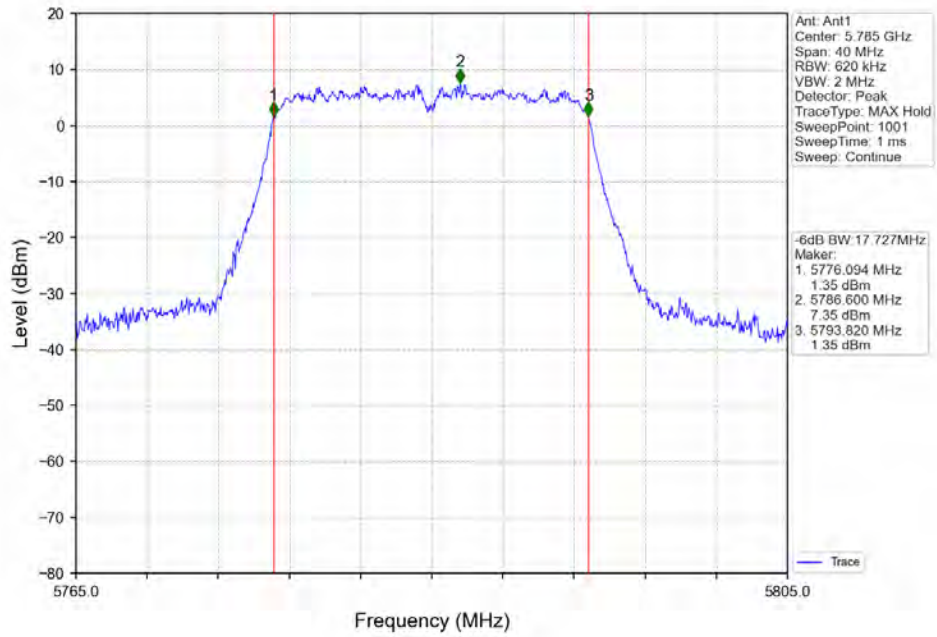
802.11n(HT20)_LCH_5745MHz_Ant1_NTNV



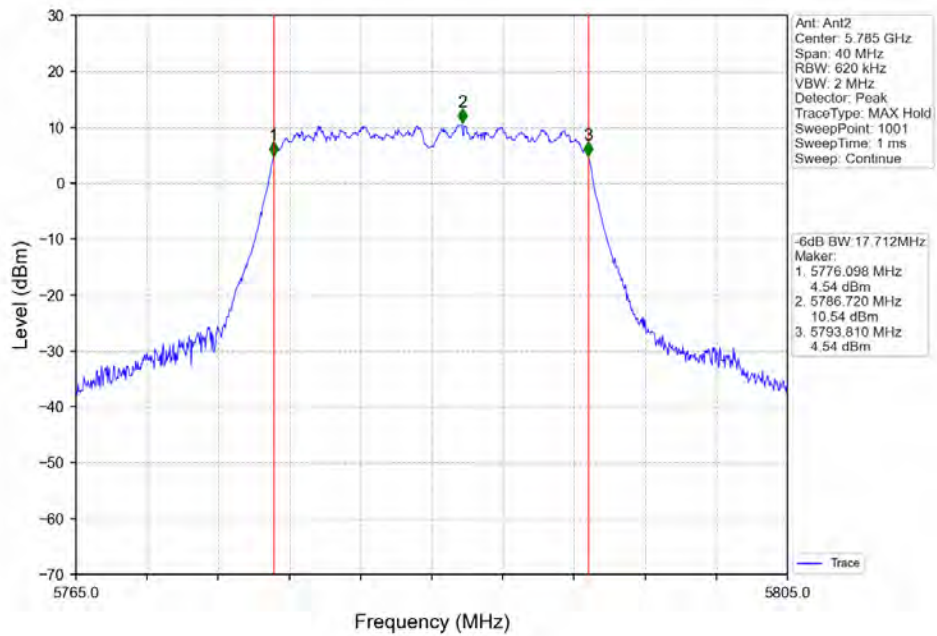
802.11n(HT20)_LCH_5745MHz_Ant2_NTNV



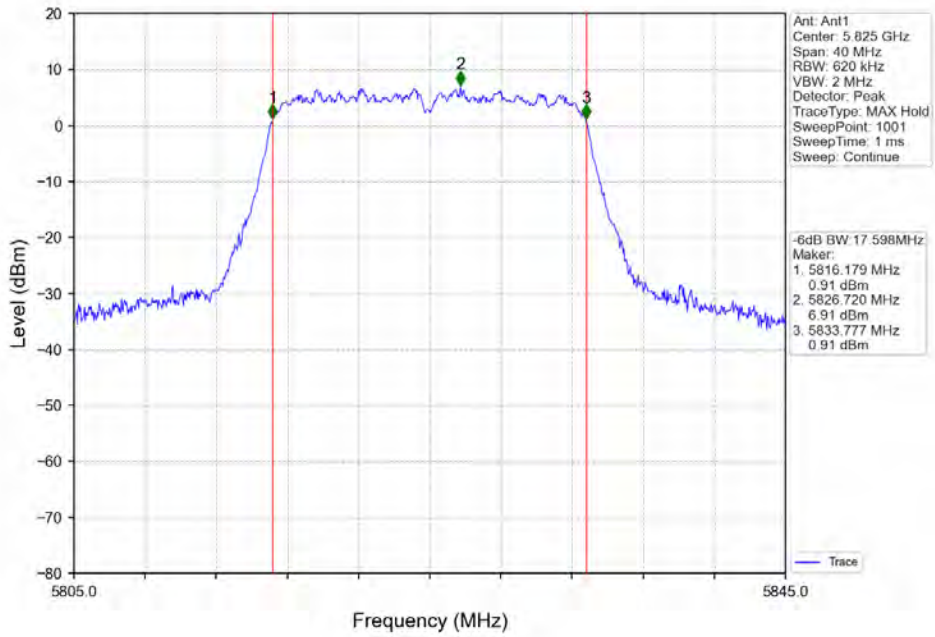
802.11n(HT20)_MCH_5785MHz_Ant1_NTNV



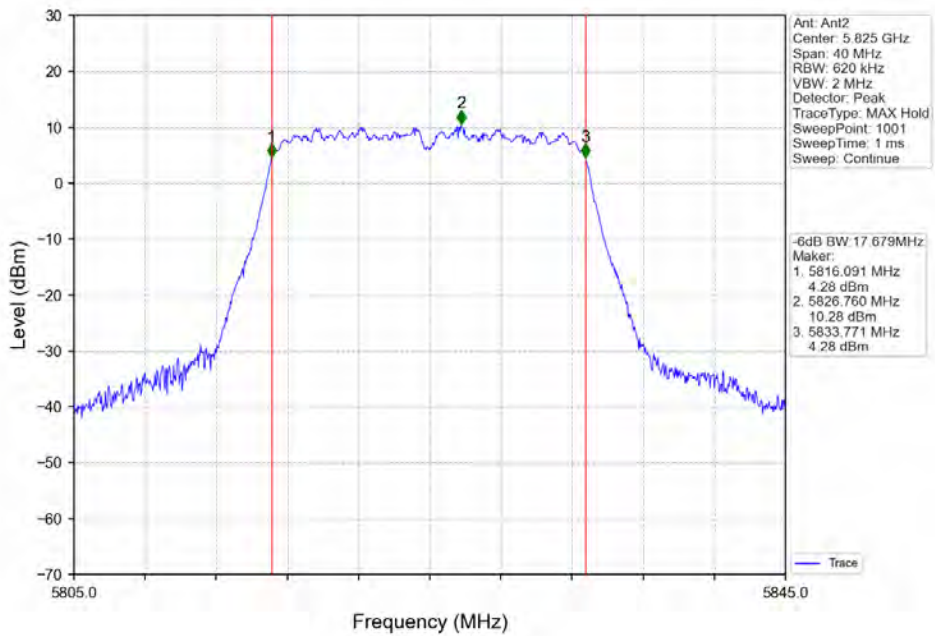
802.11n(HT20)_MCH_5785MHz_Ant2_NTNV



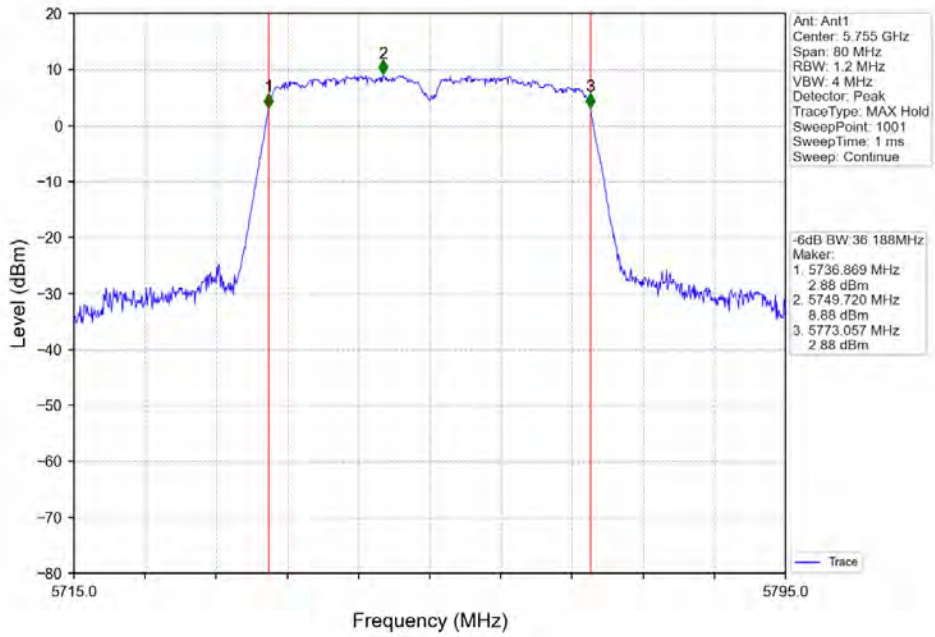
802.11n(HT20)_HCH_5825MHz_Ant1_NTNV



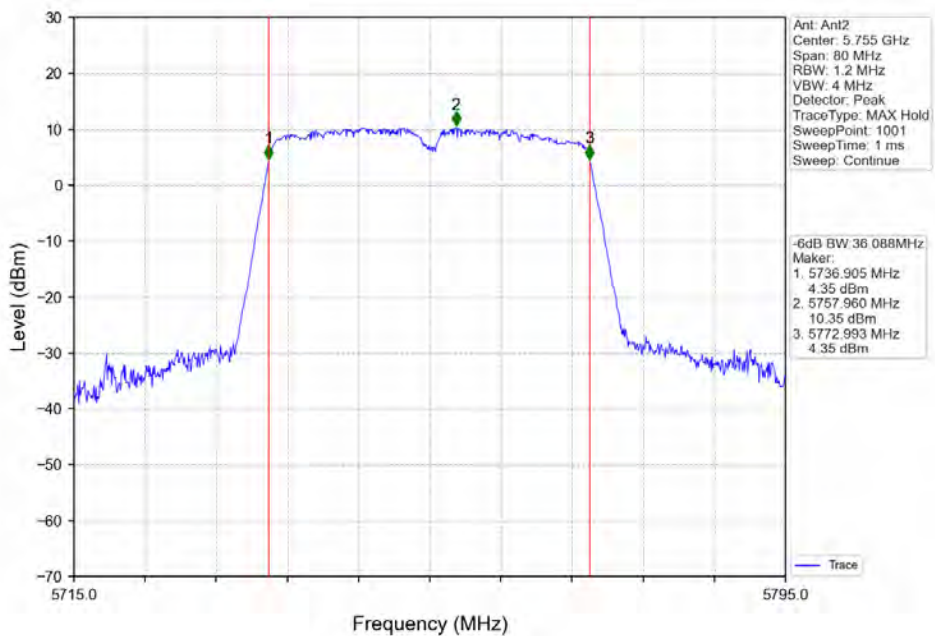
802.11n(HT20)_HCH_5825MHz_Ant2_NTNV



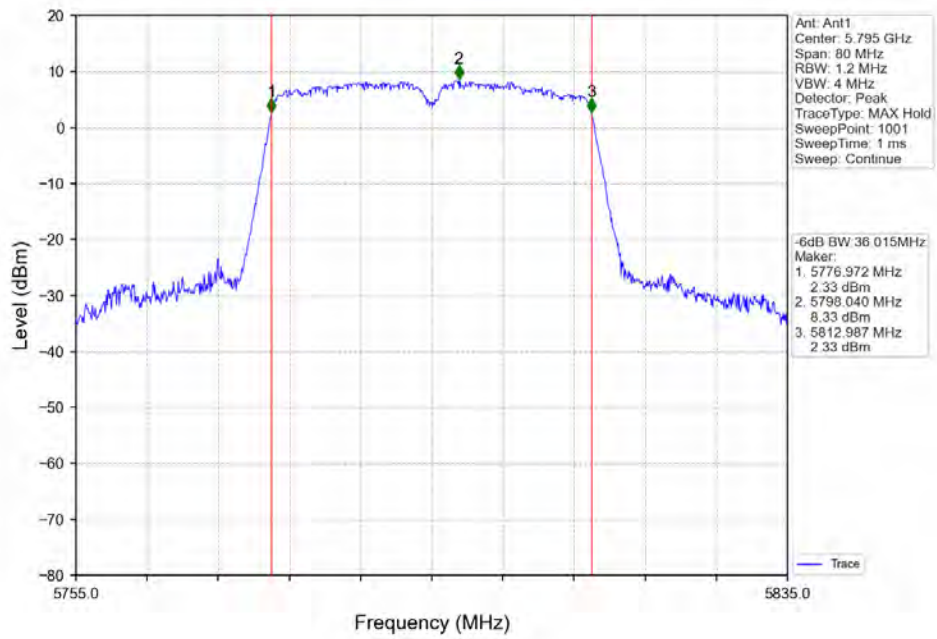
802.11n(HT40)_LCH_5755MHz_Ant1_NTNV



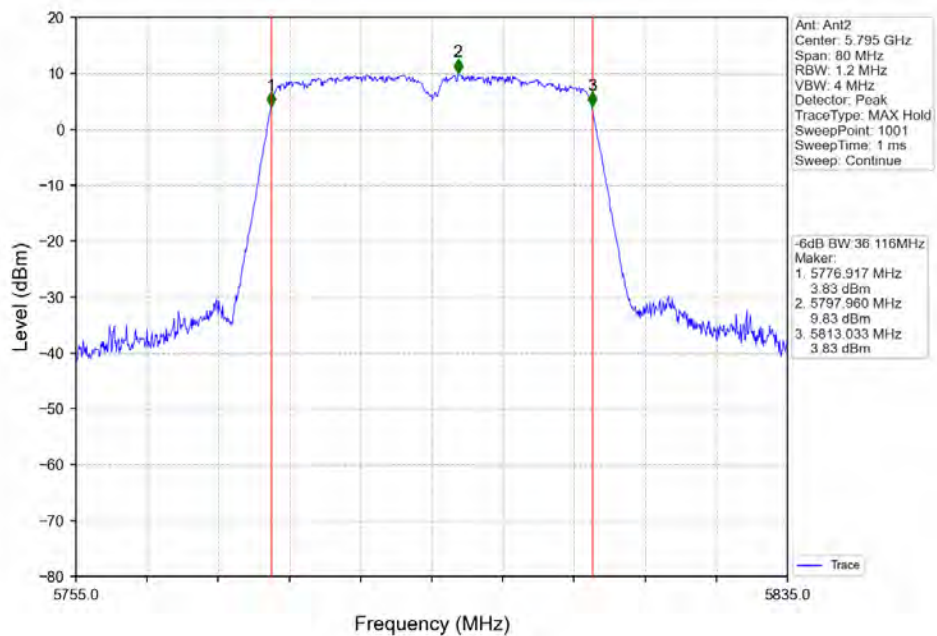
802.11n(HT40)_LCH_5755MHz_Ant2_NTNV



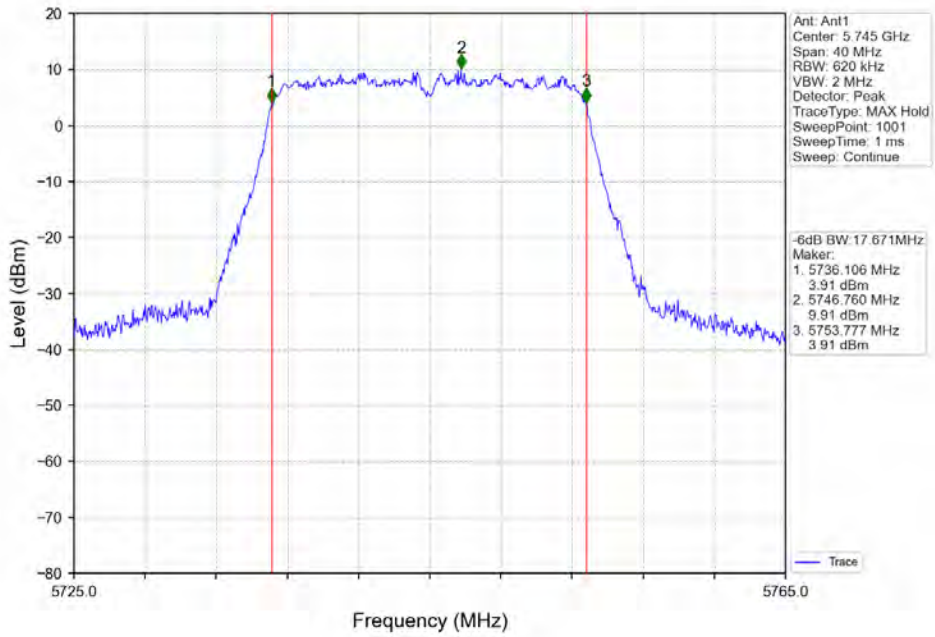
802.11n(HT40)_HCH_5795MHz_Ant1_NTNV



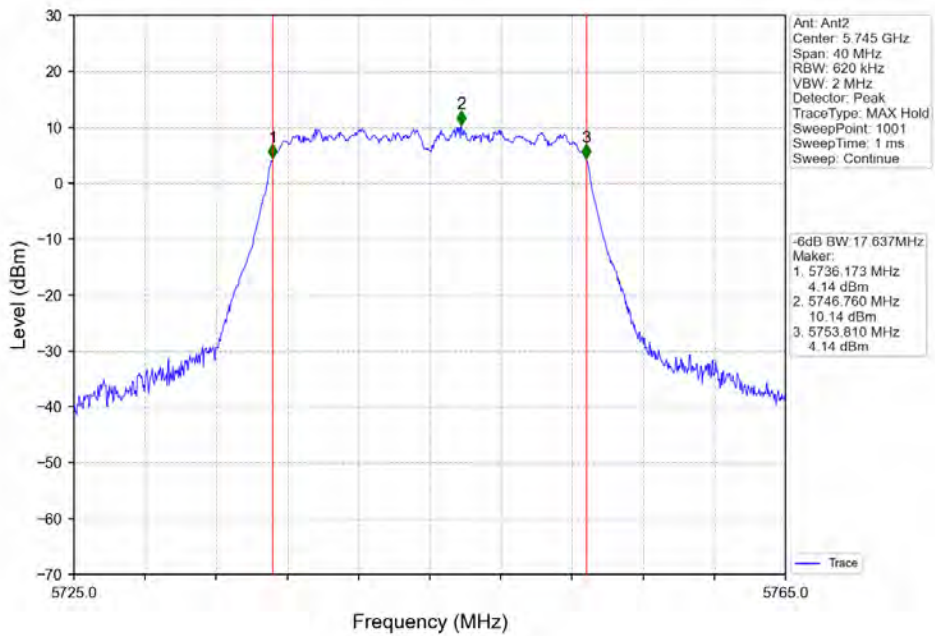
802.11n(HT40)_HCH_5795MHz_Ant2_NTNV



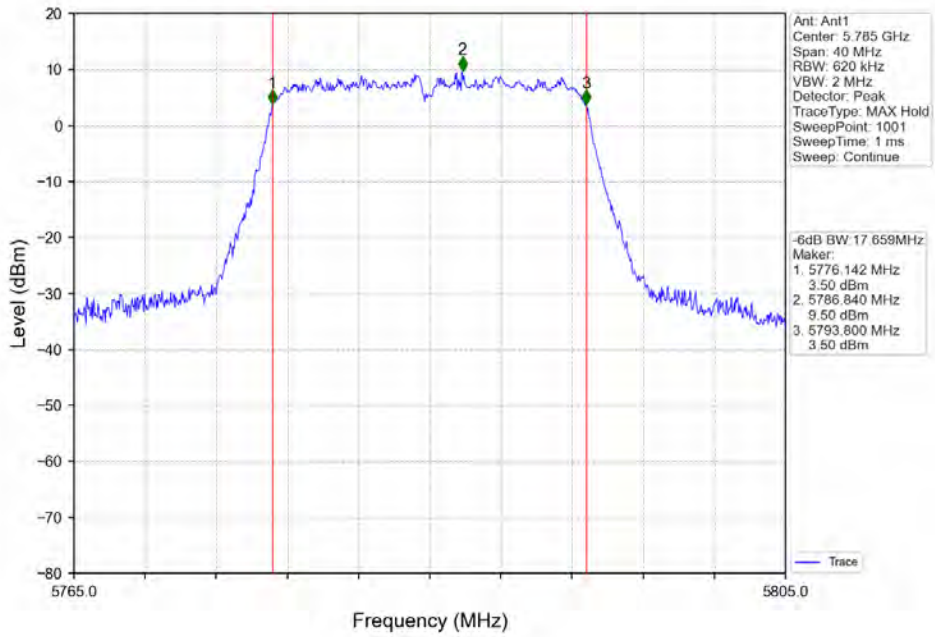
802.11ac(VHT20)_LCH_5745MHz_Ant1_NTNV



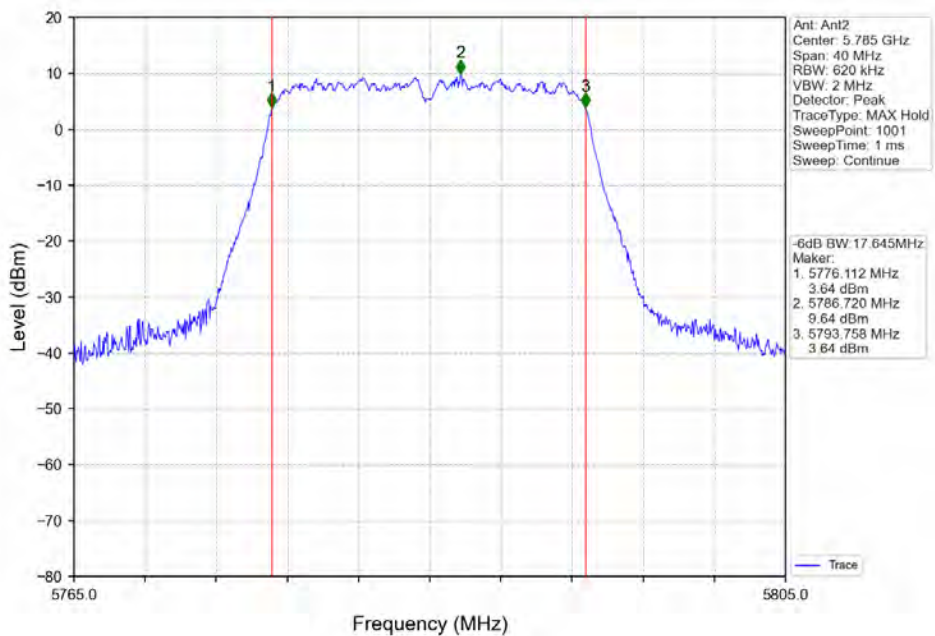
802.11ac(VHT20)_LCH_5745MHz_Ant2_NTNV



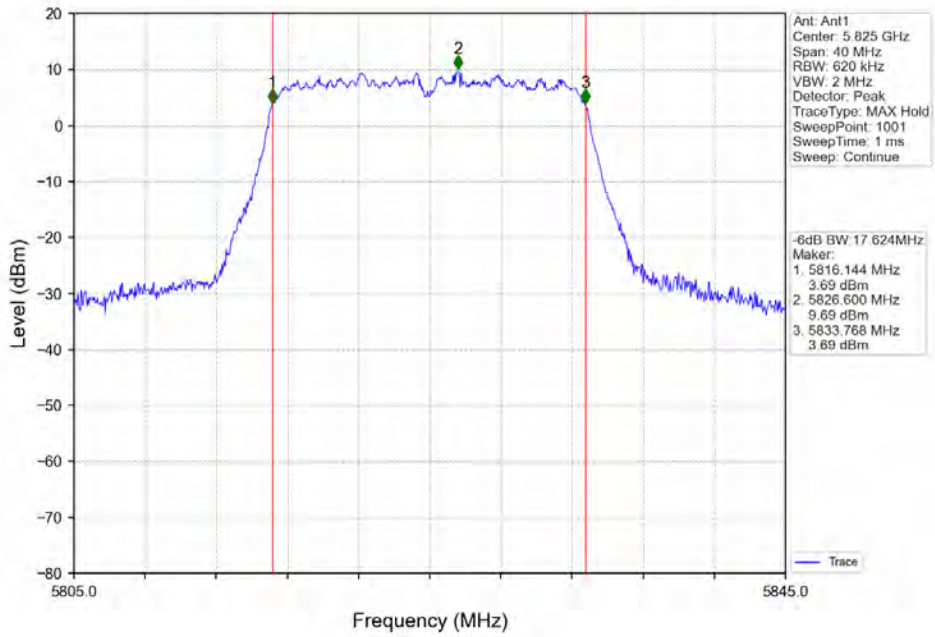
802.11ac(VHT20)_MCH_5785MHz_Ant1_NTNV



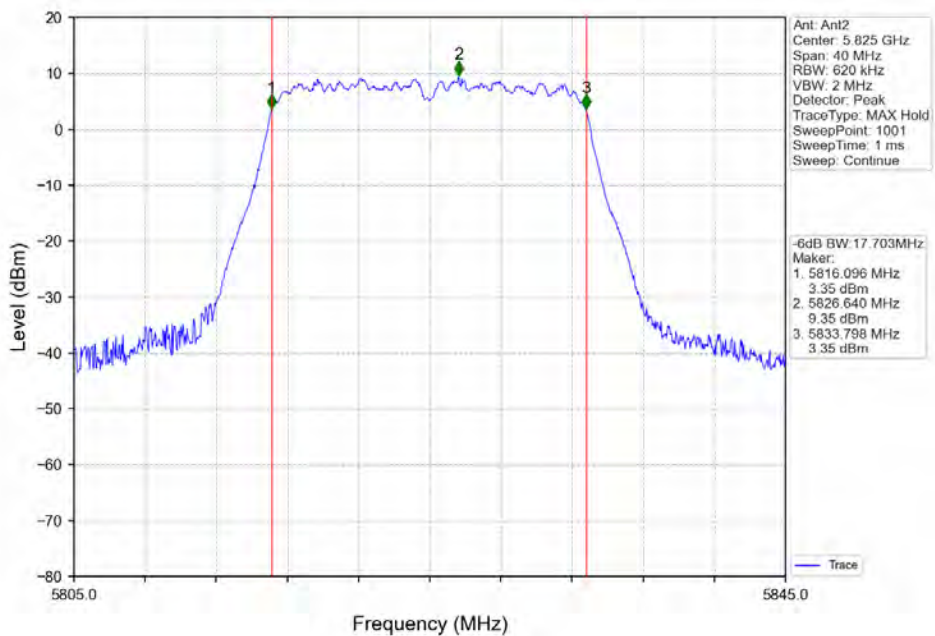
802.11ac(VHT20)_MCH_5785MHz_Ant2_NTNV



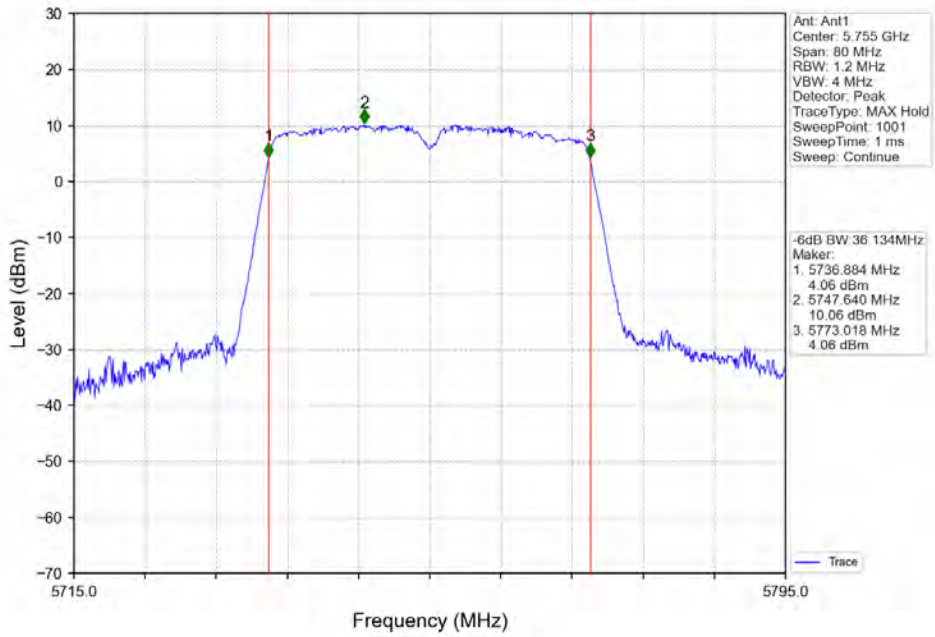
802.11ac(VHT20)_HCH_5825MHz_Ant1_NTNV



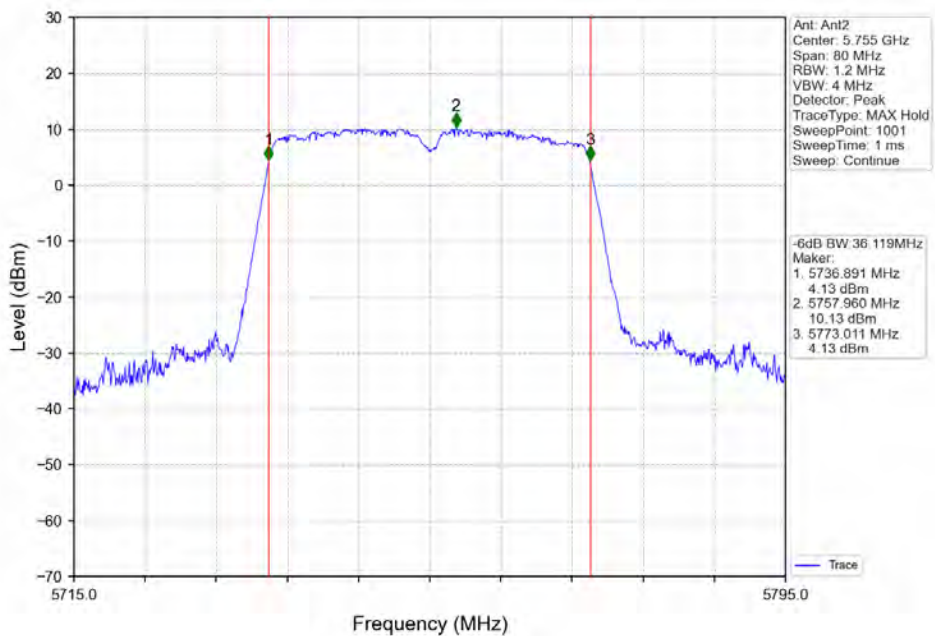
802.11ac(VHT20)_HCH_5825MHz_Ant2_NTNV



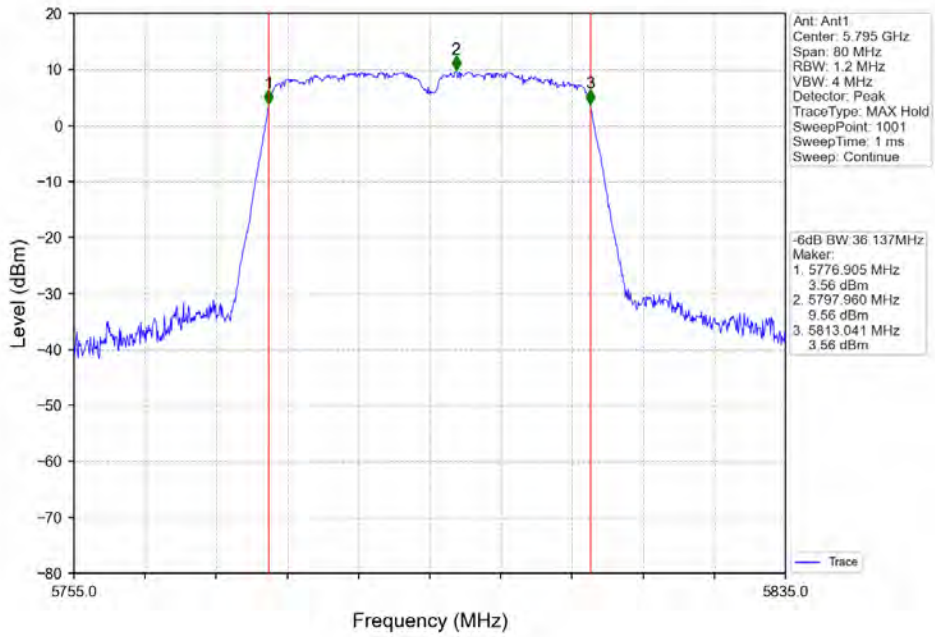
802.11ac(VHT40)_LCH_5755MHz_Ant1_NTNV



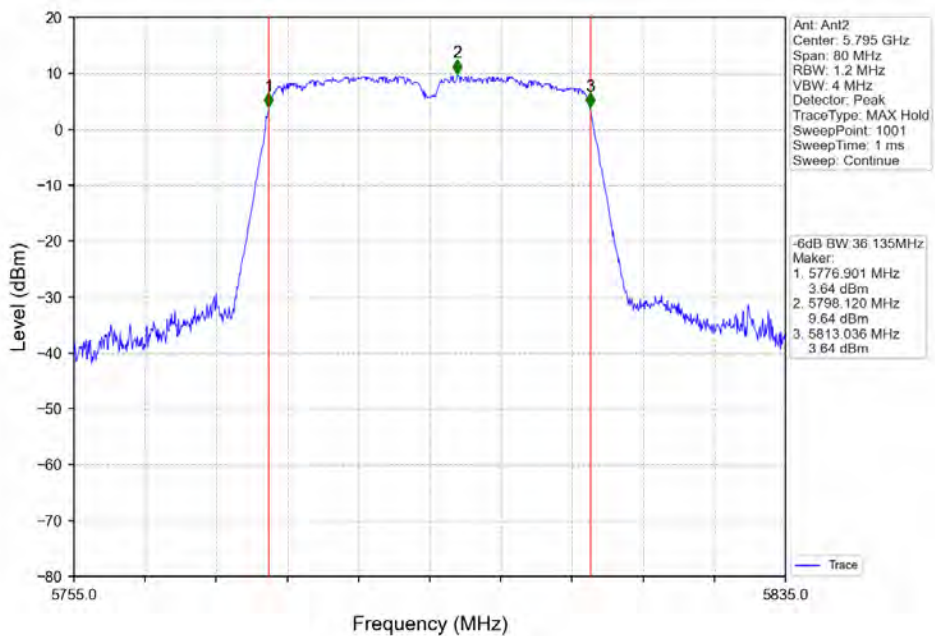
802.11ac(VHT40)_LCH_5755MHz_Ant2_NTNV



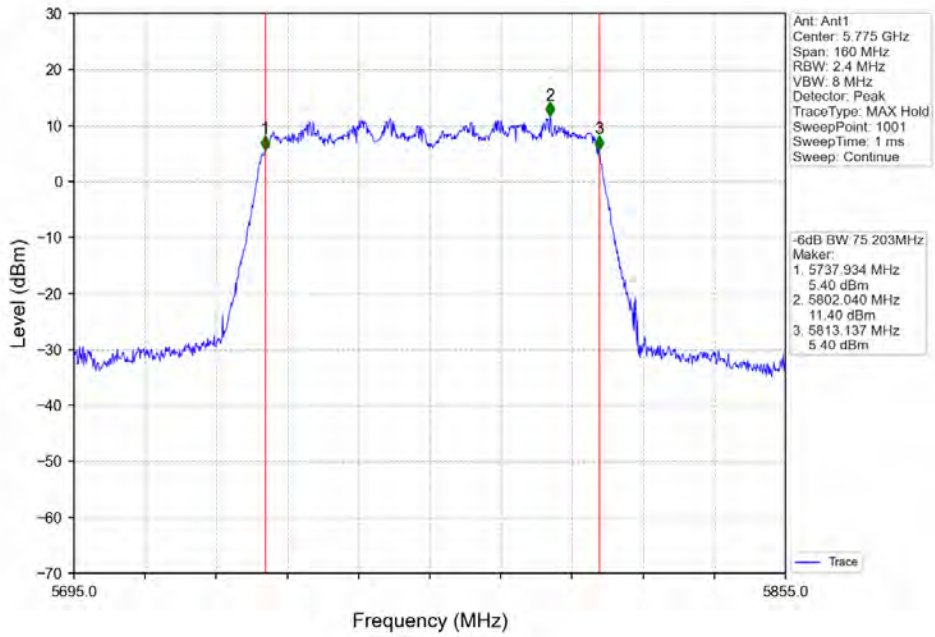
802.11ac(VHT40)_HCH_5795MHz_Ant1_NTNV



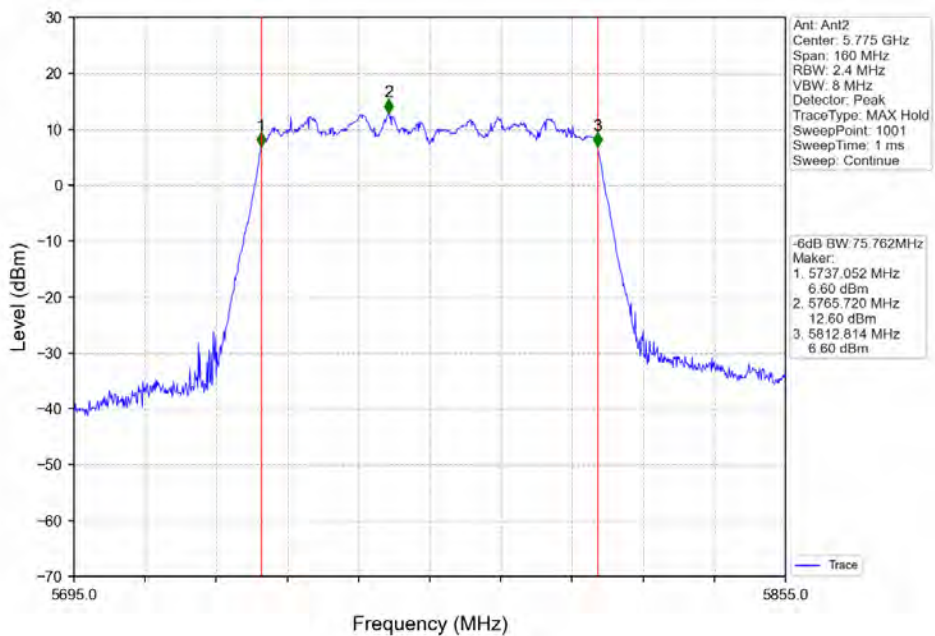
802.11ac(VHT40)_HCH_5795MHz_Ant2_NTNV



802.11ac(VHT80)_MCH_5775MHz_Ant1_NTNV



802.11ac(VHT80)_MCH_5775MHz_Ant2_NTNV

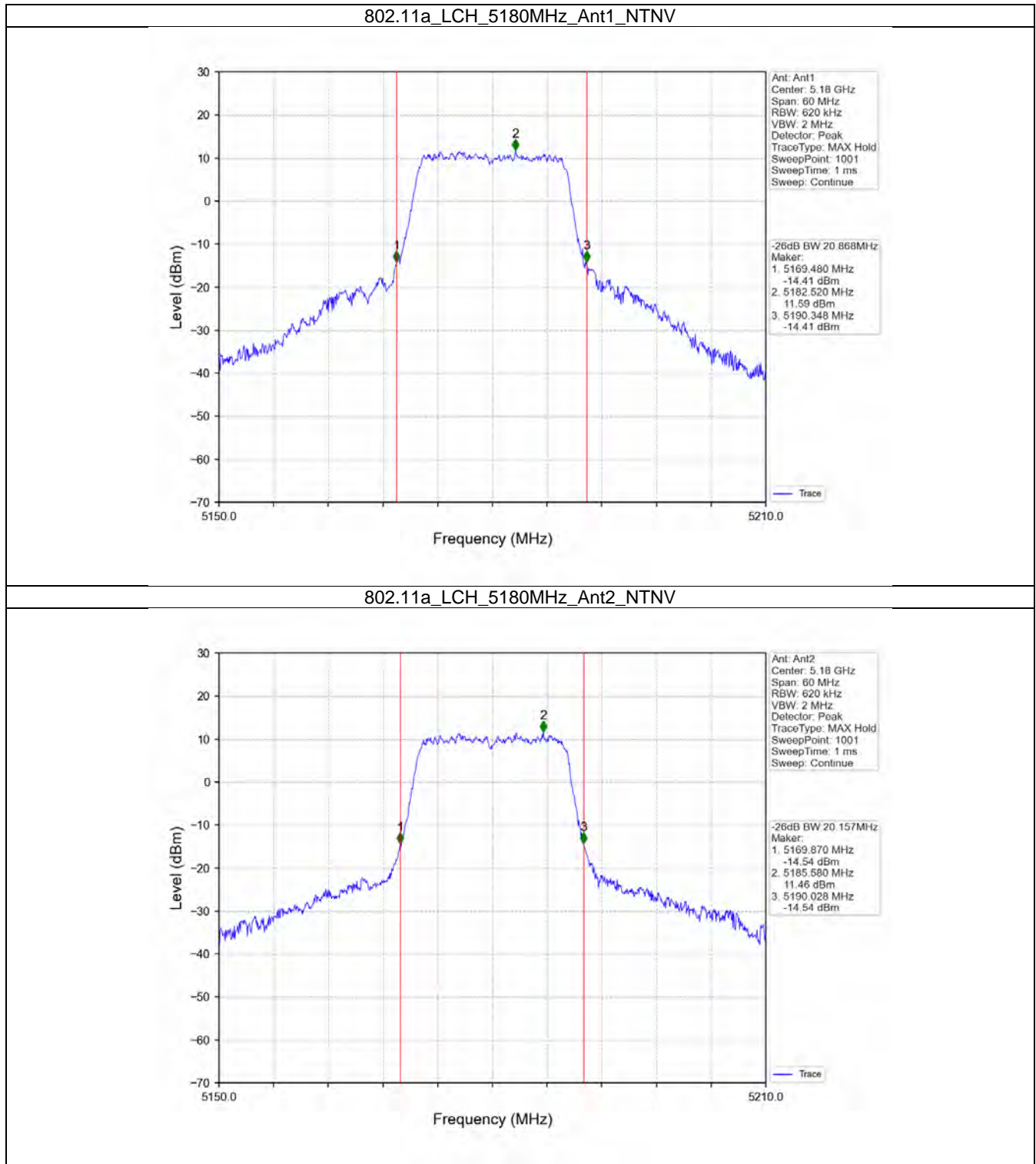


2.3 26dB BW

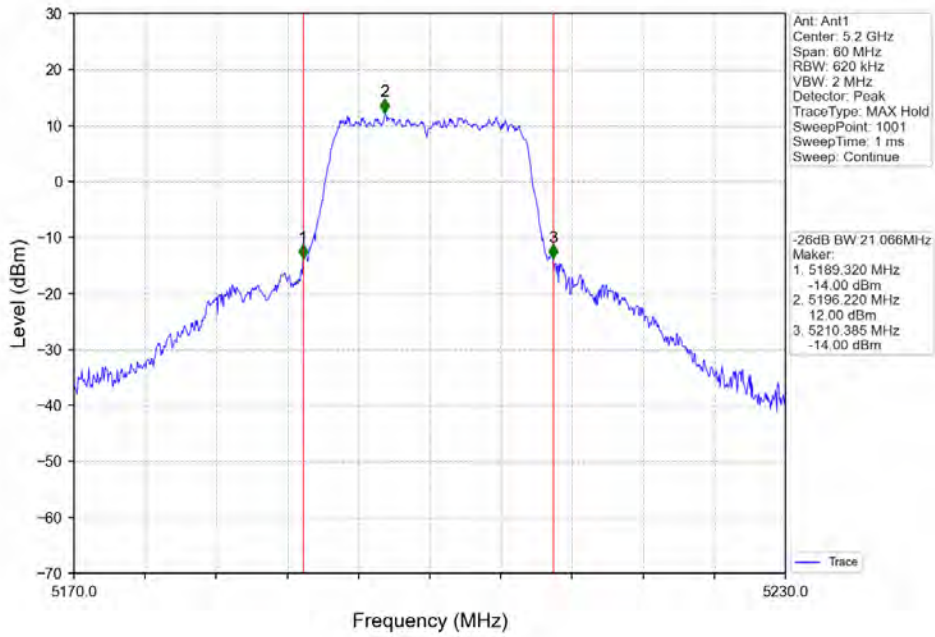
2.3.1 Test Result

Mode	TX Type	Frequency (MHz)	Ant	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
802.11a	SISO	5180	1	20.868	/	Pass
			2	20.157	/	Pass
		5200	1	21.066	/	Pass
			2	20.128	/	Pass
		5240	1	21.840	/	Pass
			2	20.087	/	Pass
802.11n (HT20)	MIMO	5180	1	21.053	/	Pass
			2	21.009	/	Pass
		5200	1	20.975	/	Pass
			2	21.007	/	Pass
		5240	1	21.185	/	Pass
			2	20.832	/	Pass
802.11n (HT40)	MIMO	5190	1	40.647	/	Pass
			2	40.731	/	Pass
		5230	1	40.785	/	Pass
			2	40.561	/	Pass
802.11ac (VHT20)	MIMO	5180	1	20.940	/	Pass
			2	21.015	/	Pass
		5200	1	21.191	/	Pass
			2	20.906	/	Pass
		5240	1	21.116	/	Pass
			2	20.946	/	Pass
802.11ac (VHT40)	MIMO	5190	1	40.648	/	Pass
			2	40.568	/	Pass
		5230	1	40.543	/	Pass
			2	40.632	/	Pass
802.11ac (VHT80)	MIMO	5210	1	85.007	/	Pass
			2	84.900	/	Pass

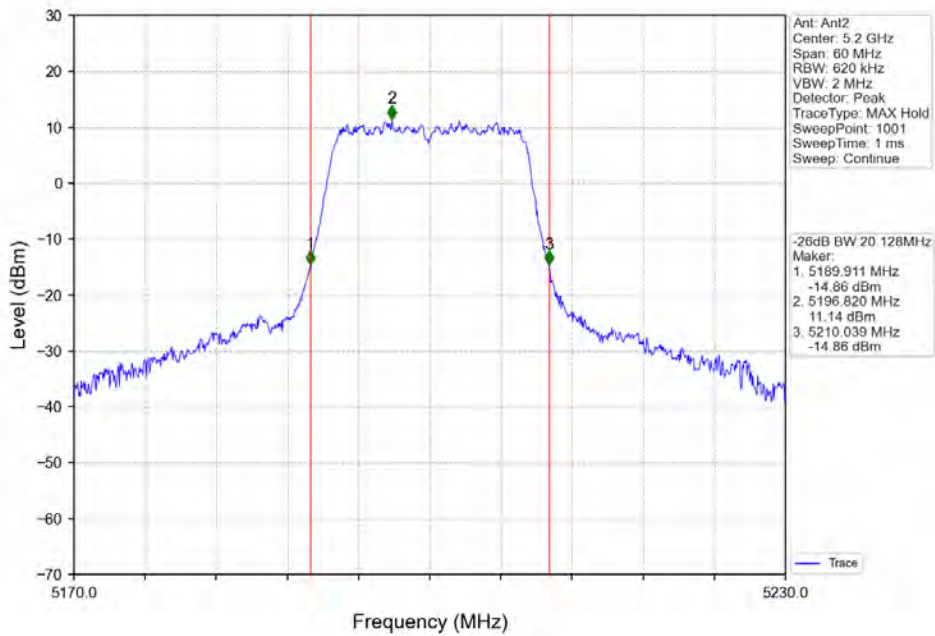
2.3.2 Test Graph



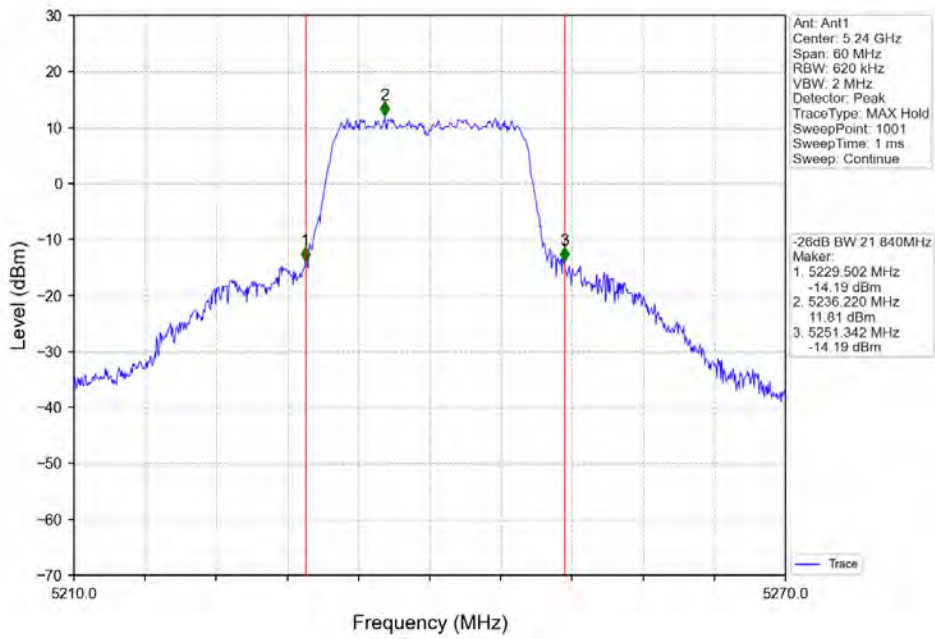
802.11a_MCH_5200MHz_Ant1_NTNV



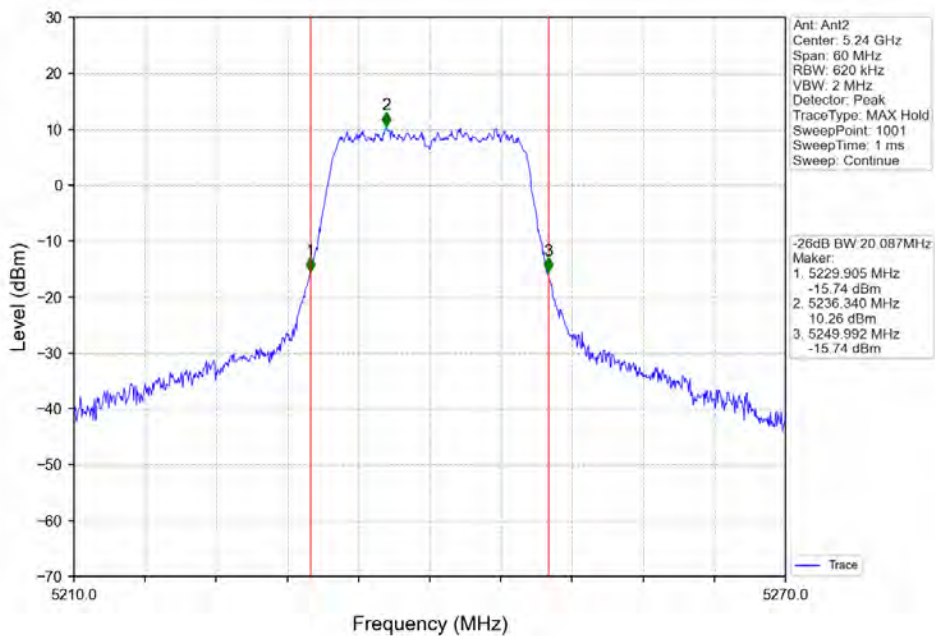
802.11a_MCH_5200MHz_Ant2_NTNV



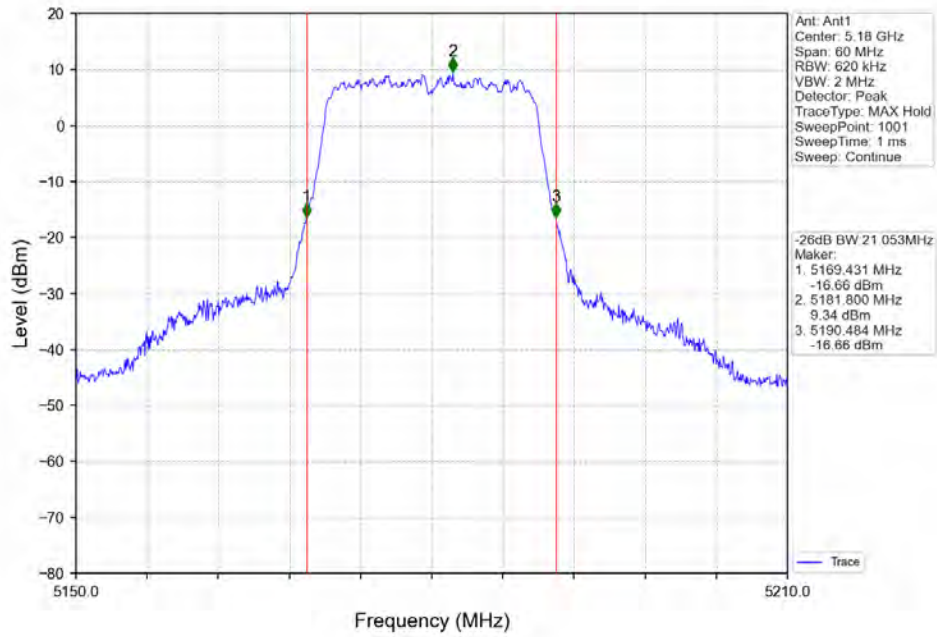
802.11a_HCH_5240MHz_Ant1_NTNV



802.11a_HCH_5240MHz_Ant2_NTNV



802.11n(HT20)_LCH_5180MHz_Ant1_NTNV



802.11n(HT20)_LCH_5180MHz_Ant2_NTNV

