

RF Test Report

For

Project No.:	DLE-250522004R
Client:	Shenzhen Century Xinyang Tech Co., Ltd
Manufacturer:	Shenzhen Century Xinyang Tech Co., Ltd
Product Description:	1500Mbps Wireless WiFi Repeater
Model Number:	WD-R1501U
Test Engineer:	Alisa Song
Test Date:	2025-05-14

Test Summary

Item	Result
Duty Cycle	Pass
Bandwidth	Pass
Maximum Conducted Output Power	Pass
Maximum Power Spectral Density	Pass
Frequency Stability	Pass
Form731	Pass

1. Duty Cycle

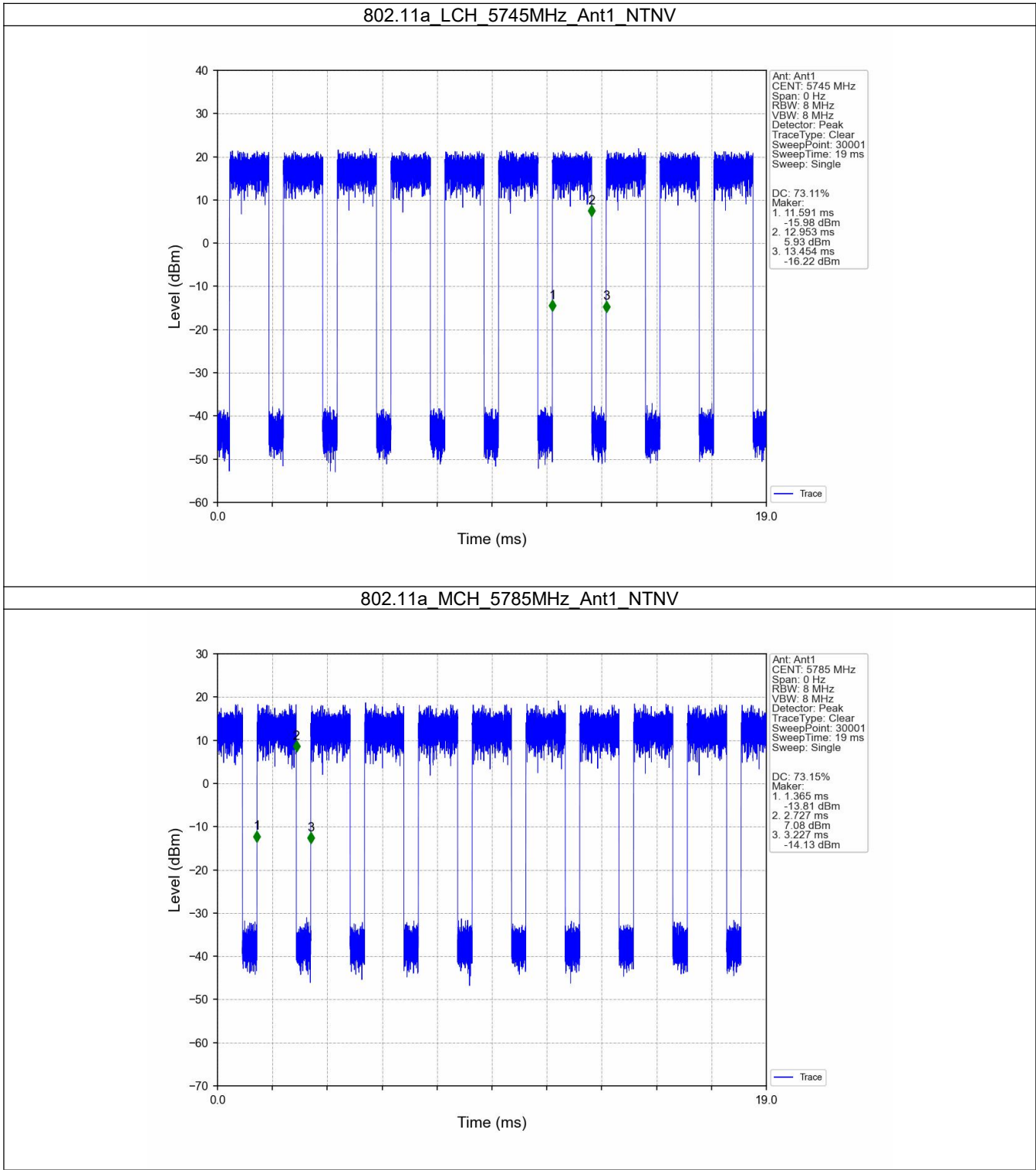
1.1 Test Result

1.1.1 Ant1

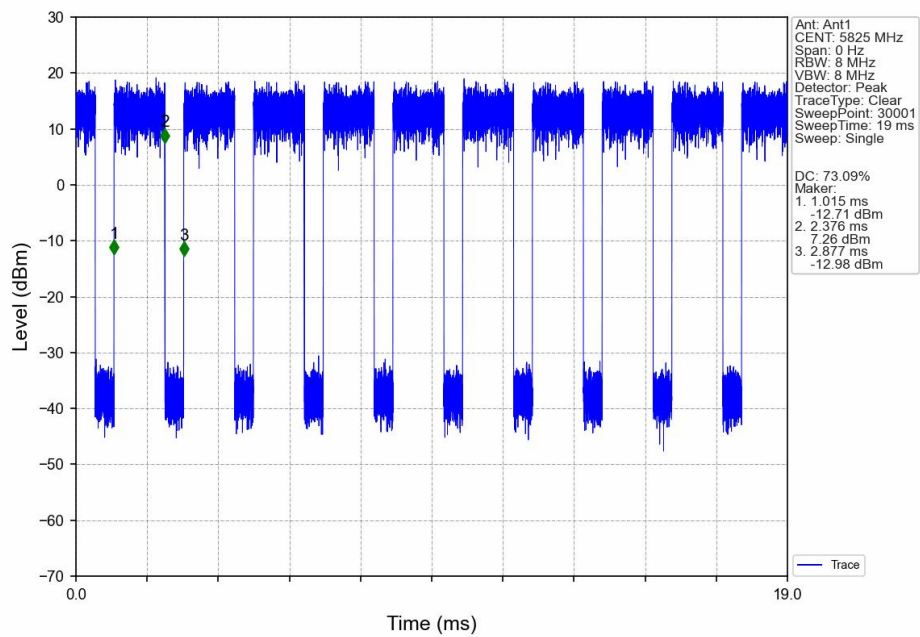
Ant1									
Mode	TX Type	Frequency (MHz)	RU	RU Pos	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
802.11a	SISO	5745	/	/	1.362	1.863	73.11	1.36	0.03
		5785	/	/	1.362	1.862	73.15	1.36	0.03
		5825	/	/	1.361	1.862	73.09	1.36	0.03
802.11n (HT20)	MIMO	5745	/	/	1.274	1.775	71.77	1.44	0.02
		5785	/	/	1.274	1.775	71.77	1.44	0.02
		5825	/	/	1.273	1.774	71.76	1.44	0.03
802.11n (HT40)	MIMO	5755	/	/	0.634	1.134	55.91	2.53	0.03
		5795	/	/	0.633	1.134	55.82	2.53	0.01
802.11ac (VHT20)	MIMO	5745	/	/	1.277	1.778	71.82	1.44	0.03
		5785	/	/	1.277	1.778	71.82	1.44	0.03
		5825	/	/	1.277	1.778	71.82	1.44	0.03
802.11ac (VHT40)	MIMO	5755	/	/	0.637	1.138	55.98	2.52	0.04
		5795	/	/	0.637	1.138	55.98	2.52	0.05
802.11ac (VHT80)	MIMO	5775	/	/	0.317	0.818	38.75	4.12	0.03
802.11ax (HEW20)	MIMO	5745	SU	/	1.277	1.779	71.78	1.44	0.03
		5785	SU	/	1.276	1.778	71.77	1.44	0.03
		5825	SU	/	1.277	1.778	71.82	1.44	0.03
802.11ax (HEW40)	MIMO	5755	SU	/	0.636	1.138	55.89	2.53	0.03
		5795	SU	/	0.636	1.138	55.89	2.53	0.05
802.11ax (HEW80)	MIMO	5775	SU	/	0.317	0.819	38.71	4.12	0.01

1.2 Test Graph

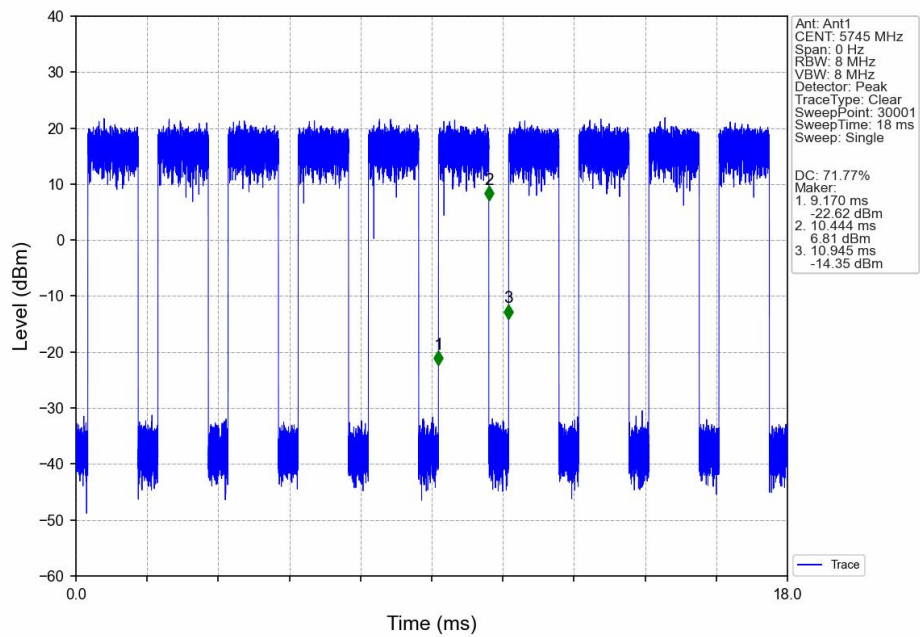
1.2.1 Ant1



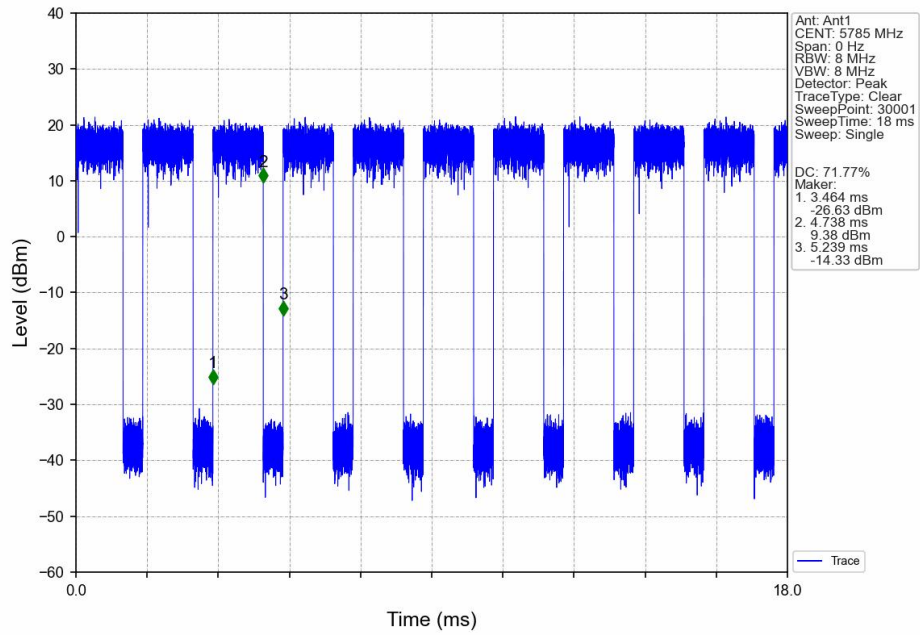
802.11a_HCH_5825MHz_Ant1_NTNV



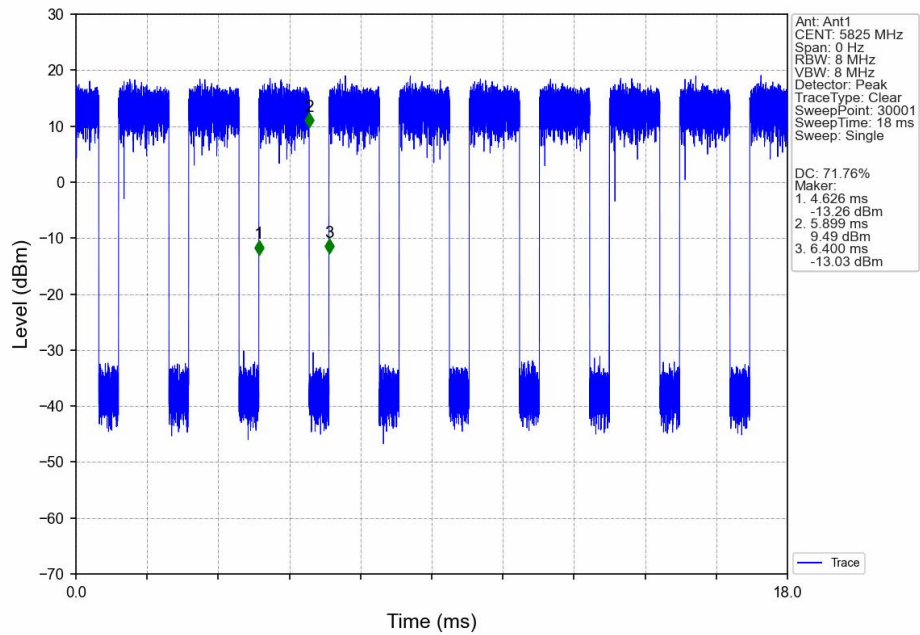
802.11n(HT20)_LCH_5745MHz_Ant1_NTNV



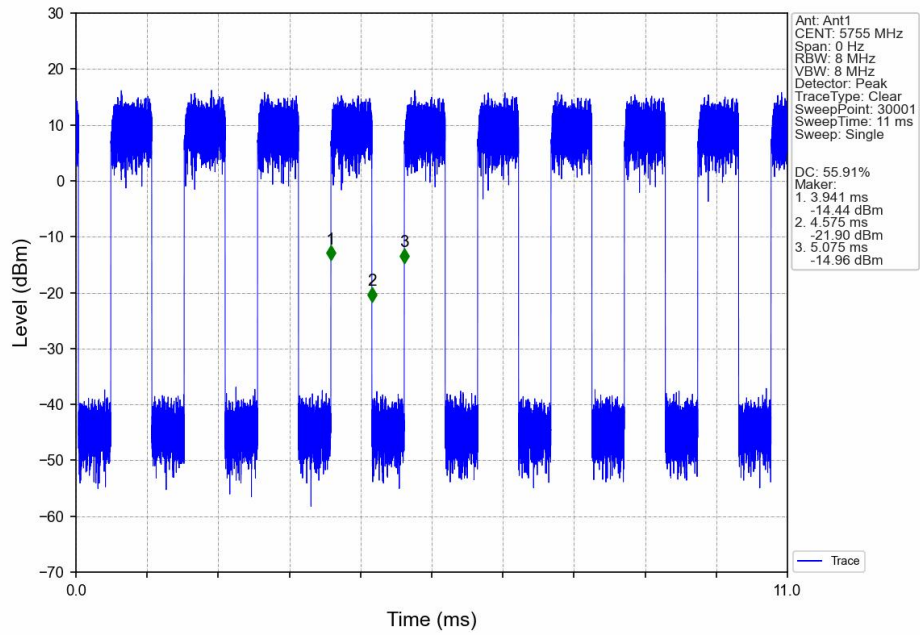
802.11n(HT20)_MCH_5785MHz_Ant1_NTNV



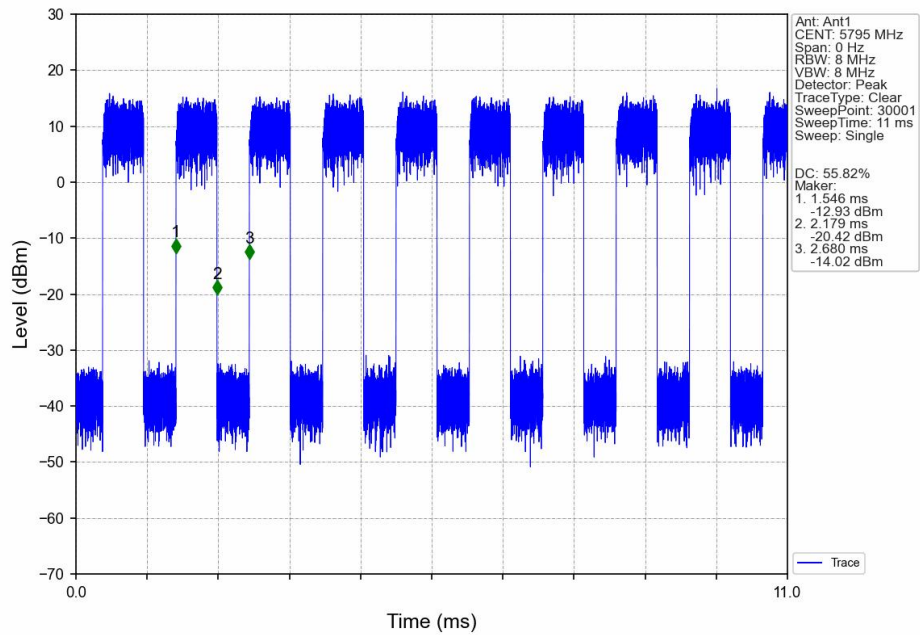
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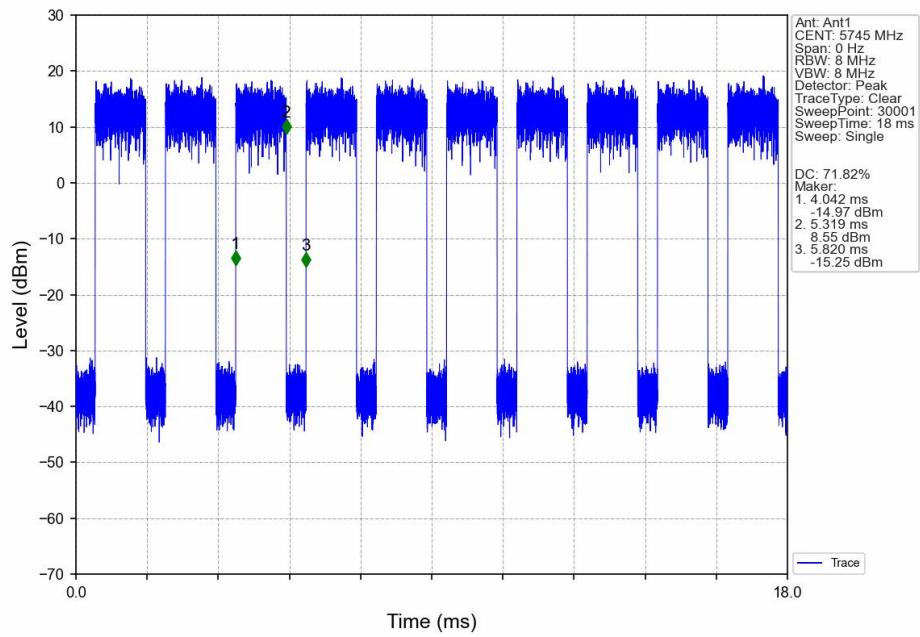
802.11n(HT40)_LCH_5755MHz_Ant1_NTNV



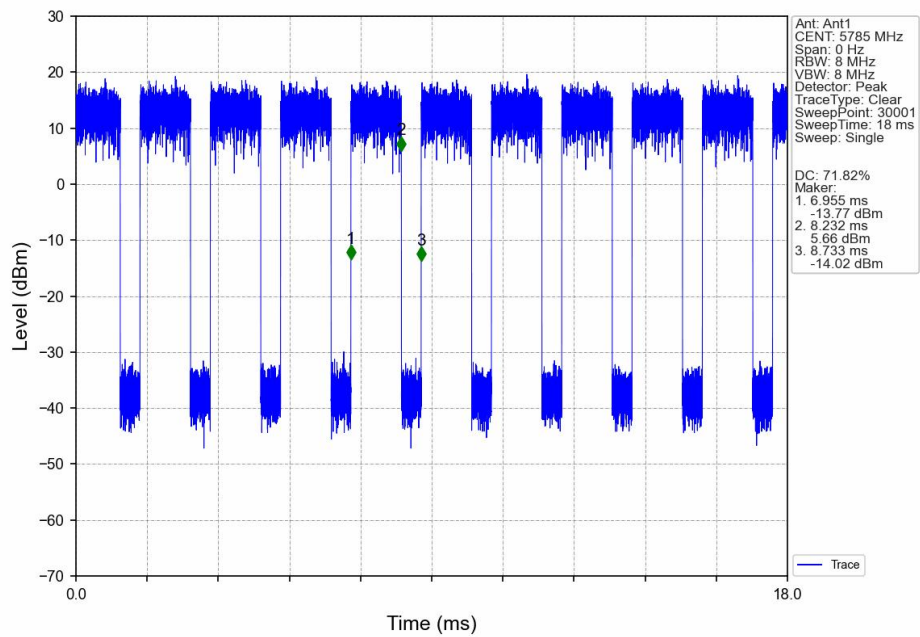
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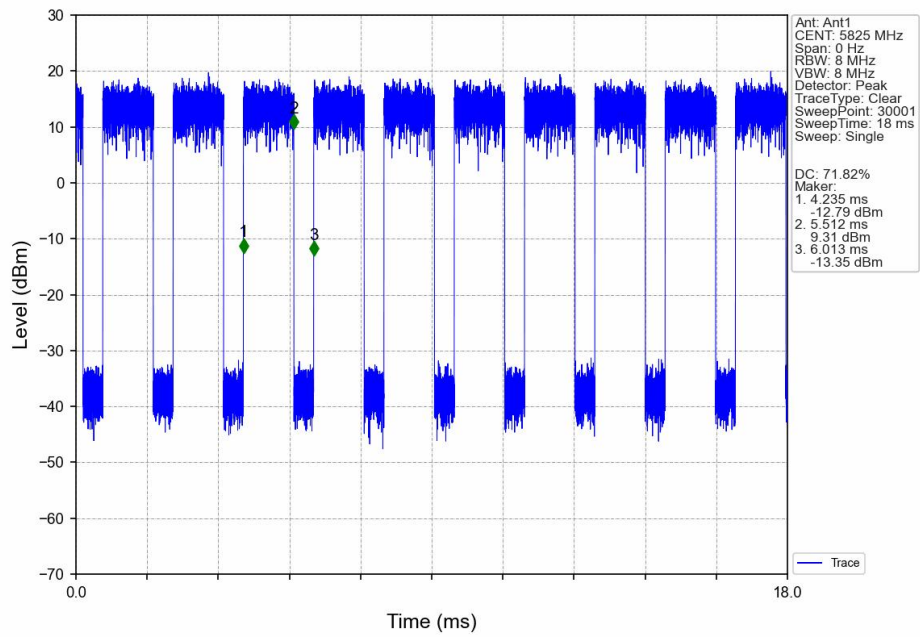
802.11ac(VHT20)_LCH_5745MHz_Ant1_NTNV



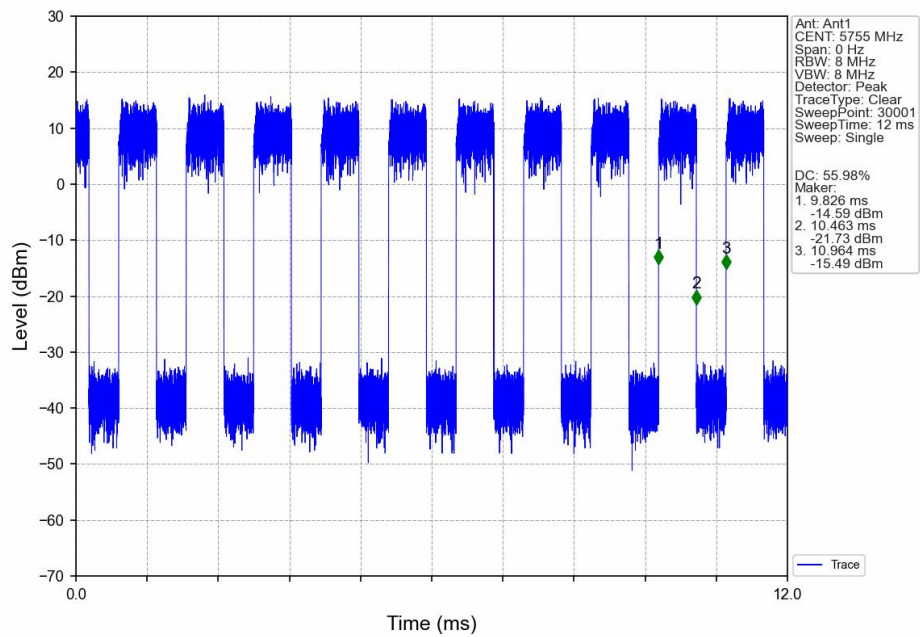
802.11ac(VHT20)_MCH_5785MHz_Ant1_NTNV



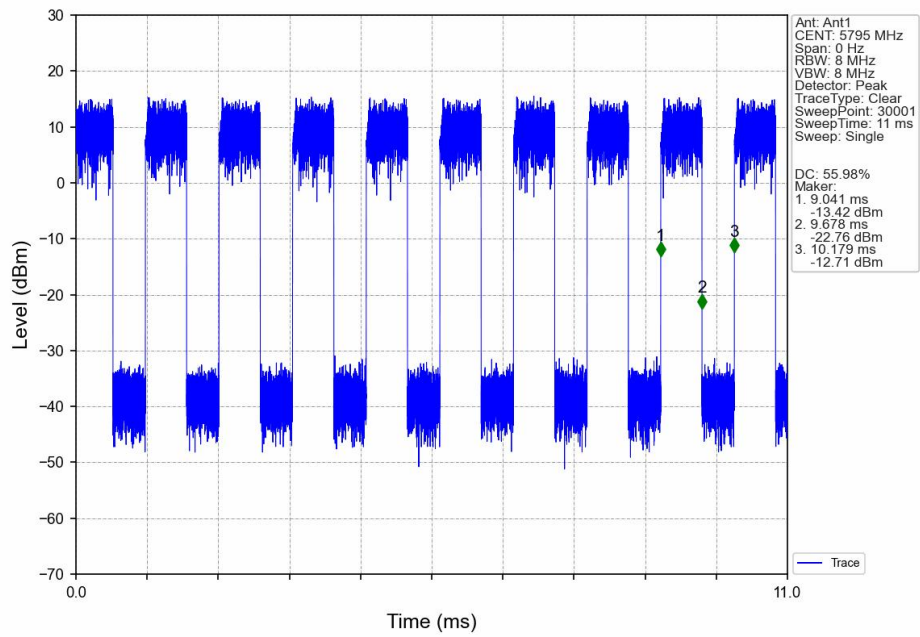
802.11ac(VHT20) HCH_5825MHz_Ant1_NTNV



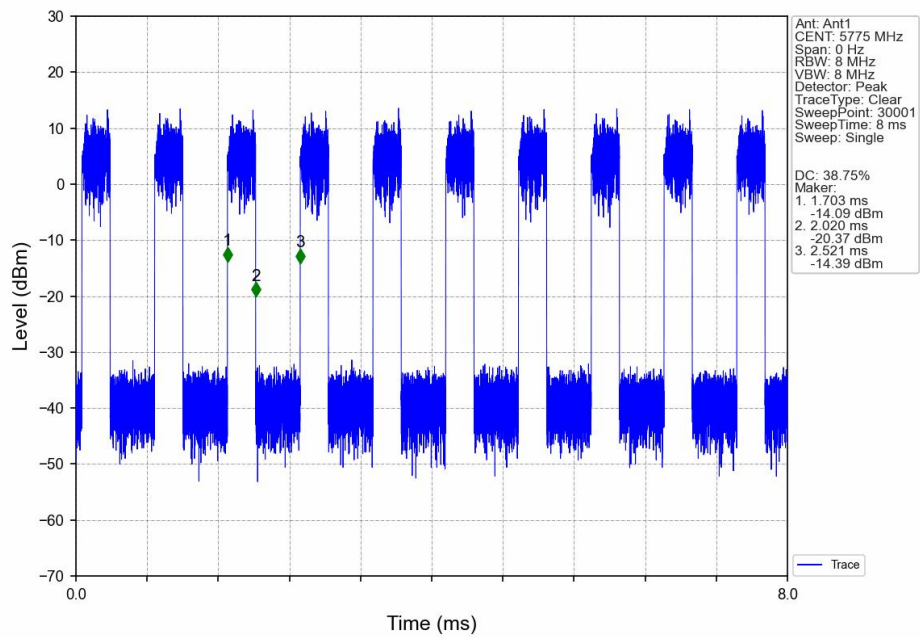
802.11ac(VHT40) LCH_5755MHz_Ant1_NTNV



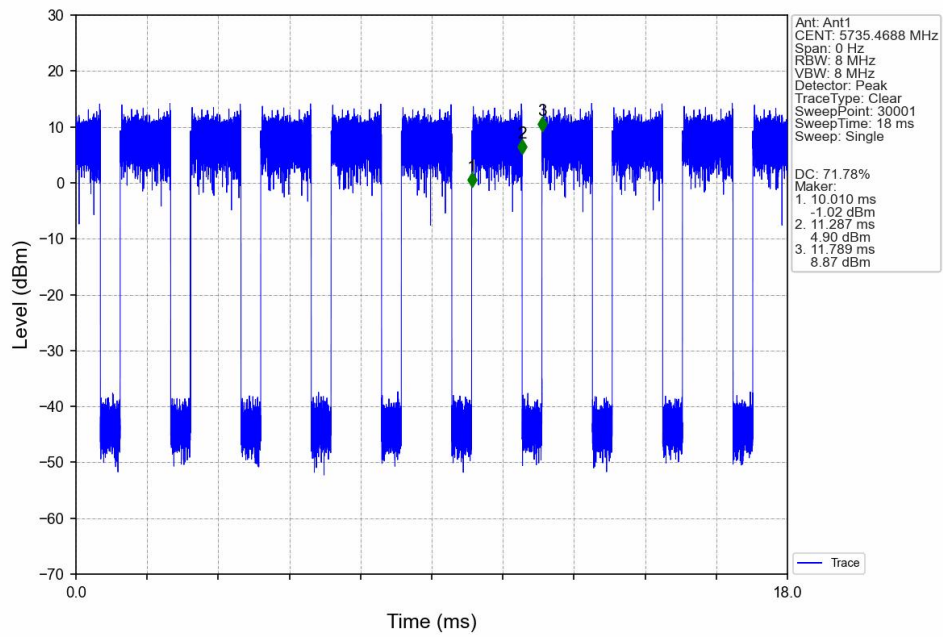
802.11ac(VHT40) HCH_5795MHz_Ant1_NTNV



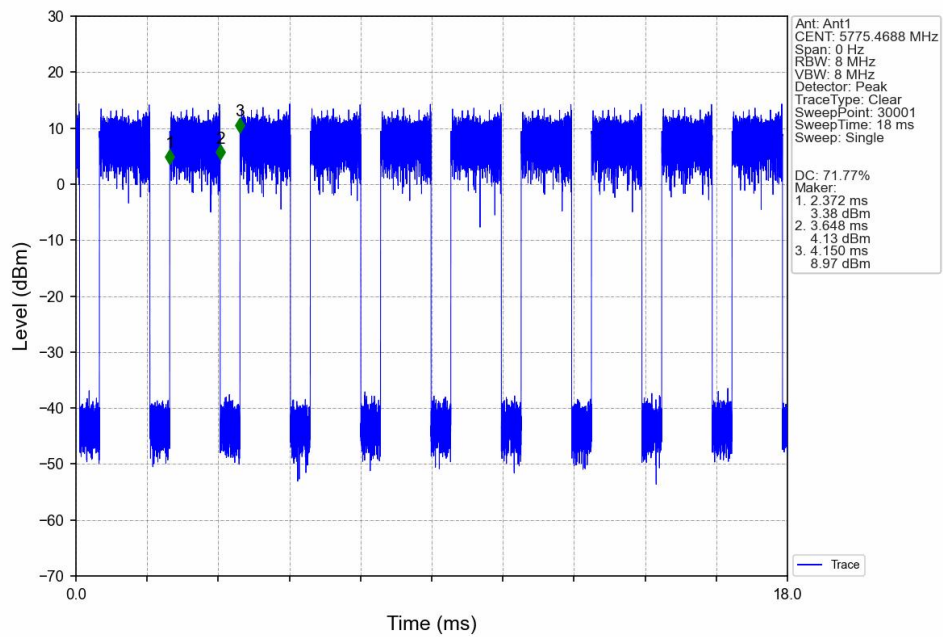
802.11ac(VHT80) MCH_5775MHz_Ant1_NTNV



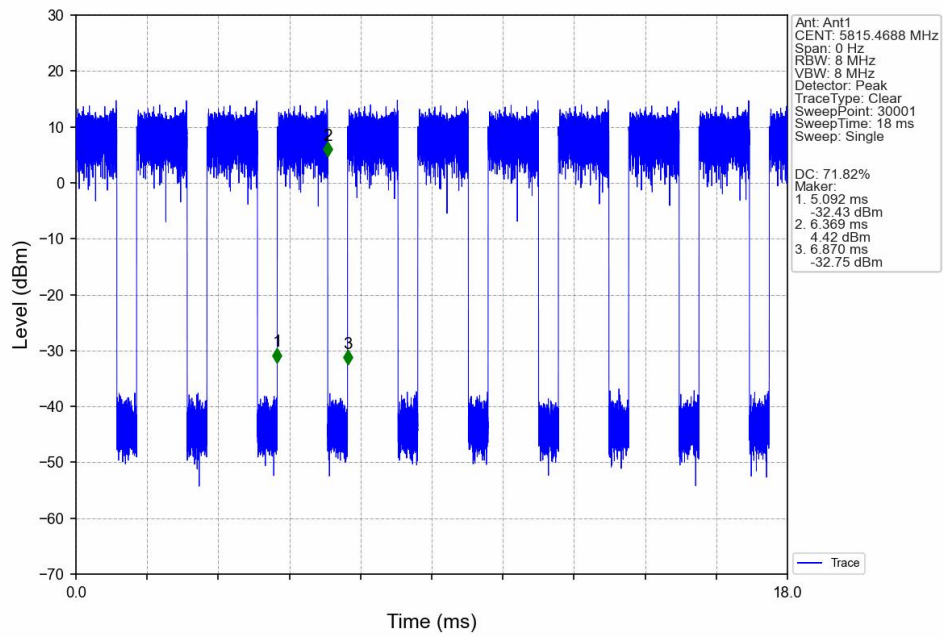
802.11ax(HEW20)_LCH_5745MHz_SU_/_Ant1_NTNV



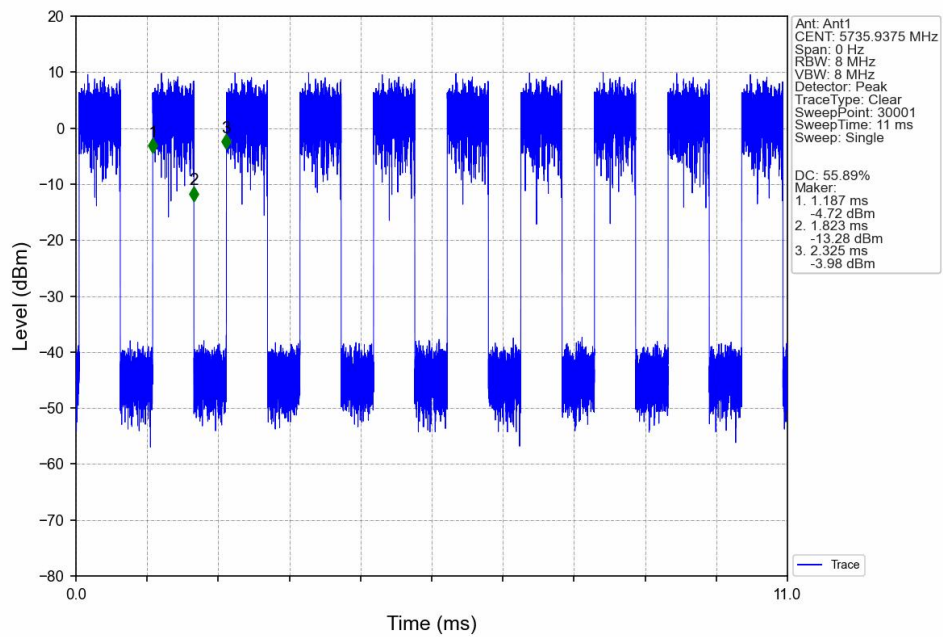
802.11ax(HEW20)_MCH_5785MHz_SU_/_Ant1_NTNV



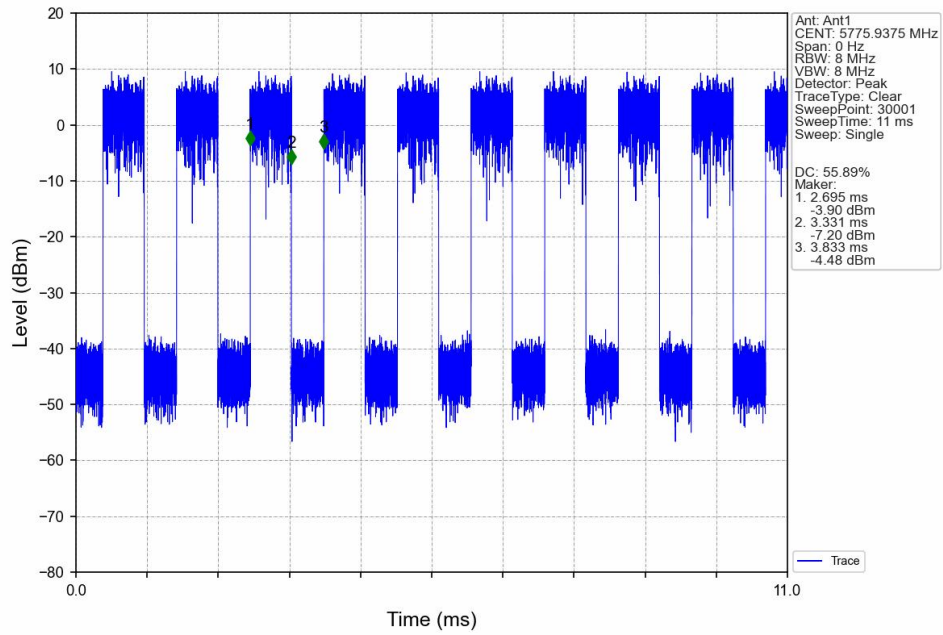
802.11ax(HEW20)_HCH_5825MHz_SU_ / _Ant1_NTNV



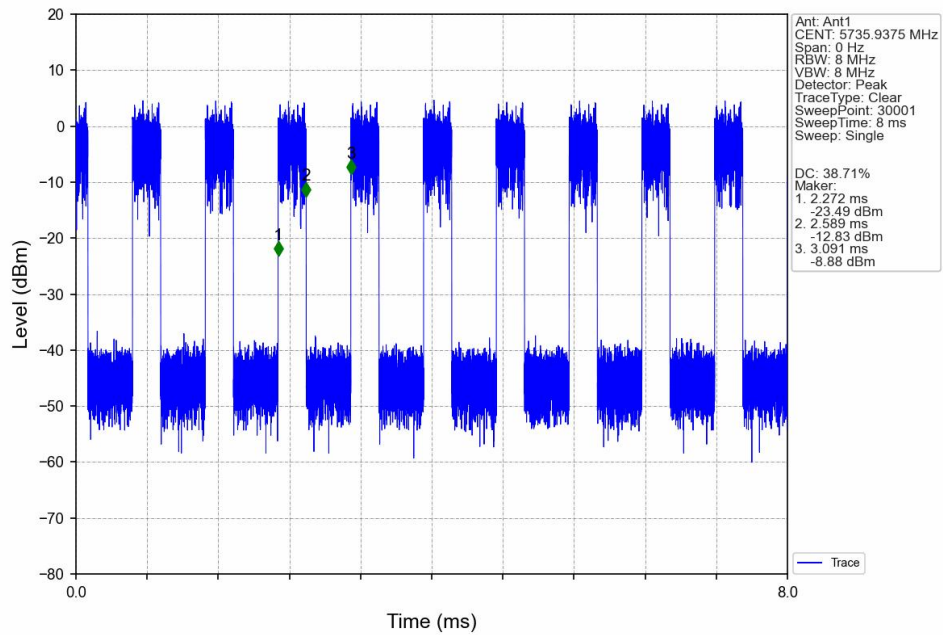
802.11ax(HEW40)_LCH_5755MHz_SU_ / _Ant1_NTNV



802.11ax(HEW40)_HCH_5795MHz_SU_ / Ant1_NTNV



802.11ax(HEW80)_MCH_5775MHz_SU_ / Ant1_NTNV



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	5745	/	/	1	17.021	/	Pass
					2	16.706	/	Pass
		5785	/	/	1	17.414	/	Pass
					2	16.630	/	Pass
		5825	/	/	1	17.413	/	Pass
					2	16.604	/	Pass
802.11n (HT20)	MIMO	5745	/	/	1	18.025	/	Pass
					2	17.884	/	Pass
		5785	/	/	1	18.380	/	Pass
					2	17.796	/	Pass
		5825	/	/	1	18.467	/	Pass
					2	17.773	/	Pass
802.11n (HT40)	MIMO	5755	/	/	1	37.178	/	Pass
					2	36.782	/	Pass
		5795	/	/	1	37.352	/	Pass
					2	36.706	/	Pass
		5745	/	/	1	17.986	/	Pass
					2	17.833	/	Pass
802.11ac (VHT20)	MIMO	5785	/	/	1	18.194	/	Pass
					2	17.755	/	Pass
		5825	/	/	1	18.348	/	Pass
					2	17.730	/	Pass
		5755	/	/	1	37.473	/	Pass
					2	36.537	/	Pass
802.11ac (VHT40)	MIMO	5795	/	/	1	37.361	/	Pass
					2	36.451	/	Pass
		5775	/	/	1	76.307	/	Pass
					2	75.066	/	Pass
		5745	SU	/	1	17.999	/	Pass
					2	17.843	/	Pass
802.11ax (HEW20)	MIMO	5785	SU	/	1	18.280	/	Pass
					2	17.763	/	Pass
		5825	SU	/	1	18.328	/	Pass
					2	17.732	/	Pass
		5755	SU	/	1	37.325	/	Pass
					2	36.509	/	Pass
802.11ax (HEW40)	MIMO	5795	SU	/	1	37.433	/	Pass
					2	36.414	/	Pass
		5775	SU	/	1	76.348	/	Pass
					2	75.130	/	Pass
		5745	SU	/	1	17.999	/	Pass
					2	17.843	/	Pass

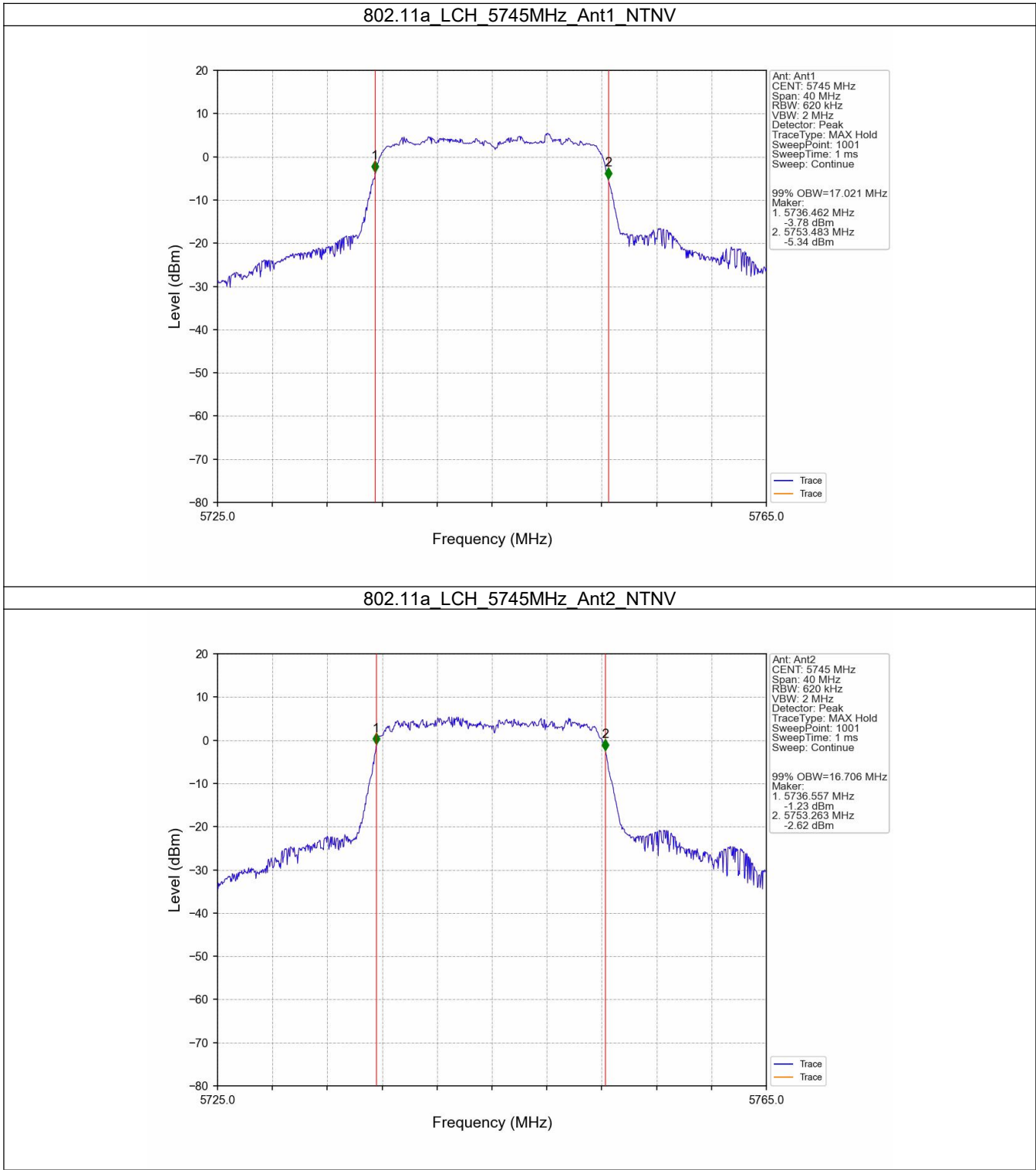
2.1.2 6dB BW

Mode	TX Type	Frequency (MHz)	RU	RU Pos	ANT	6dB Bandwidth (MHz)		Verdict
						Result	Limit	
802.11a	SISO	5745	/	/	1	16.336	>=0.5	Pass

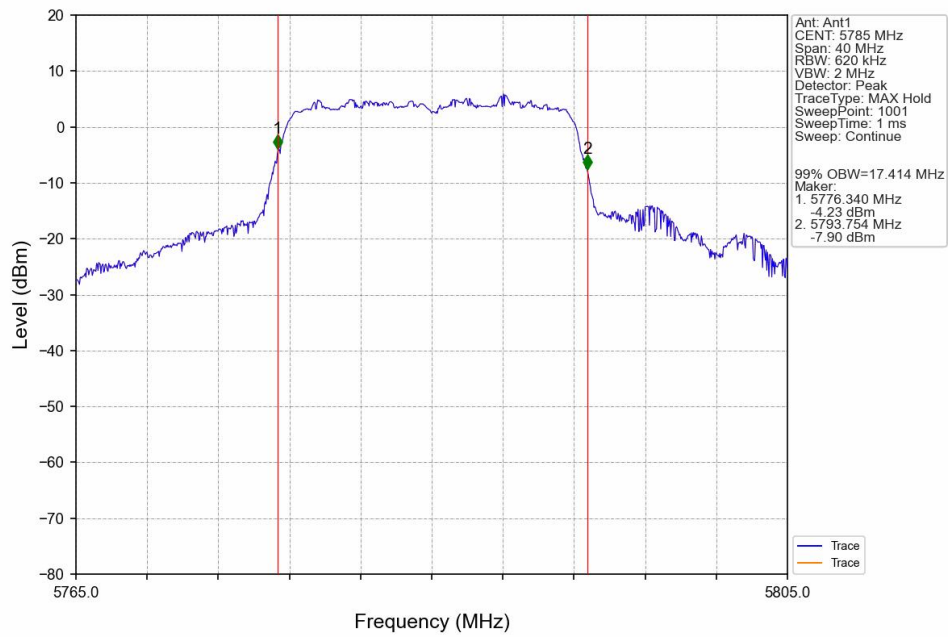
					2	16.379	>=0.5	Pass
		5785	/	/	1	16.341	>=0.5	Pass
					2	16.367	>=0.5	Pass
		5825	/	/	1	16.354	>=0.5	Pass
					2	16.371	>=0.5	Pass
802.11n (HT20)	MIMO	5745	/	/	1	17.568	>=0.5	Pass
					2	17.580	>=0.5	Pass
		5785	/	/	1	17.340	>=0.5	Pass
					2	17.563	>=0.5	Pass
		5825	/	/	1	17.302	>=0.5	Pass
					2	17.530	>=0.5	Pass
802.11n (HT40)	MIMO	5755	/	/	1	35.206	>=0.5	Pass
					2	35.185	>=0.5	Pass
		5795	/	/	1	35.161	>=0.5	Pass
					2	35.180	>=0.5	Pass
802.11ac (VHT20)	MIMO	5745	/	/	1	17.576	>=0.5	Pass
					2	17.318	>=0.5	Pass
		5785	/	/	1	17.290	>=0.5	Pass
					2	17.535	>=0.5	Pass
		5825	/	/	1	17.108	>=0.5	Pass
					2	17.565	>=0.5	Pass
802.11ac (VHT40)	MIMO	5755	/	/	1	35.205	>=0.5	Pass
					2	35.169	>=0.5	Pass
		5795	/	/	1	35.205	>=0.5	Pass
					2	35.167	>=0.5	Pass
802.11ac (VHT80)	MIMO	5775	/	/	1	75.081	>=0.5	Pass
					2	75.092	>=0.5	Pass
802.11ax (HEW20)	MIMO	5745	SU	/	1	17.306	>=0.5	Pass
					2	17.306	>=0.5	Pass
		5785	SU	/	1	17.320	>=0.5	Pass
					2	17.570	>=0.5	Pass
		5825	SU	/	1	17.080	>=0.5	Pass
					2	17.536	>=0.5	Pass
802.11ax (HEW40)	MIMO	5755	SU	/	1	35.210	>=0.5	Pass
					2	35.180	>=0.5	Pass
		5795	SU	/	1	35.173	>=0.5	Pass
					2	35.175	>=0.5	Pass
802.11ax (HEW80)	MIMO	5775	SU	/	1	75.088	>=0.5	Pass
					2	75.082	>=0.5	Pass

2.2 Test Graph

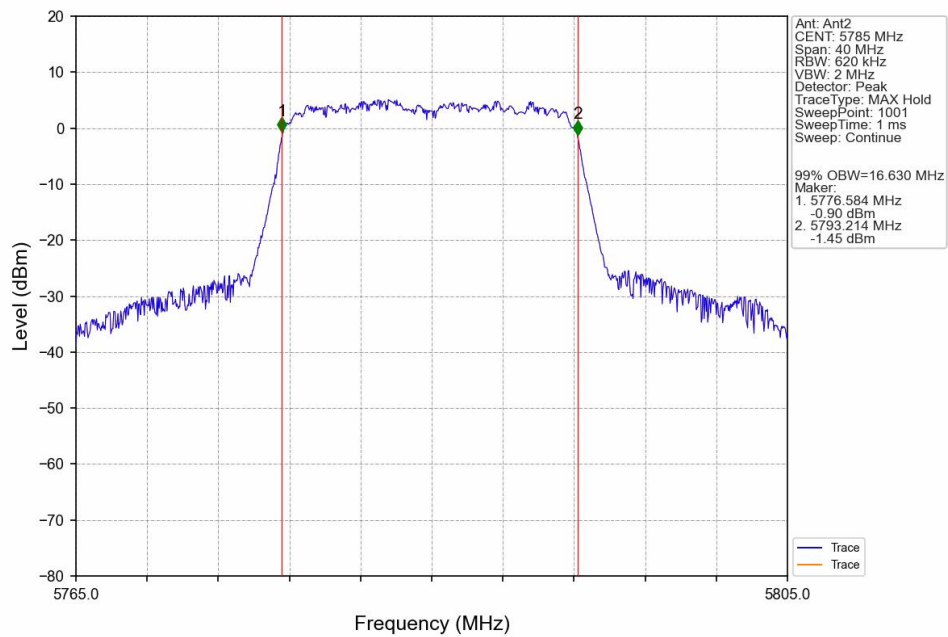
2.2.1 OBW



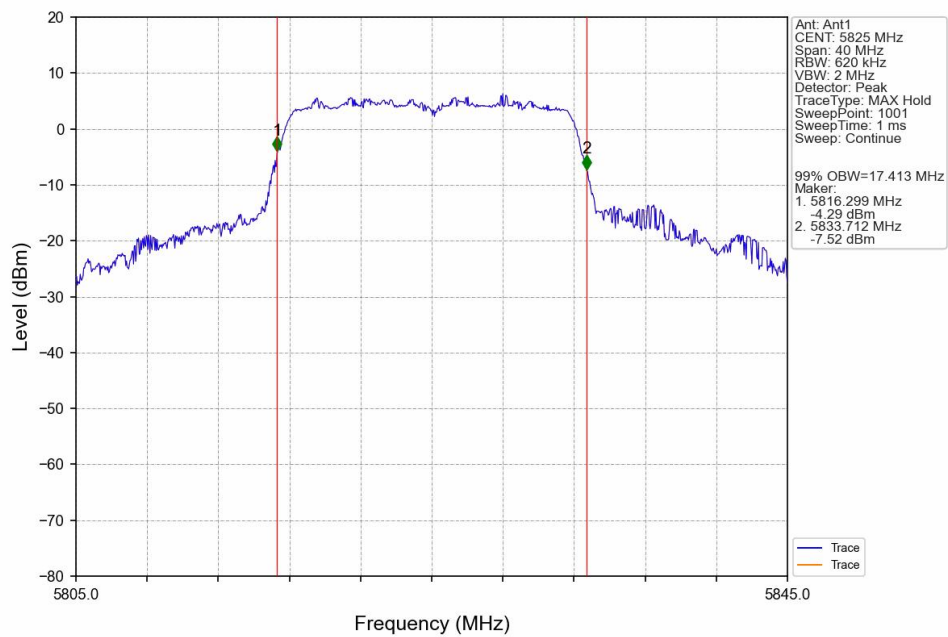
802.11a_MCH_5785MHz_Ant1_NTNV



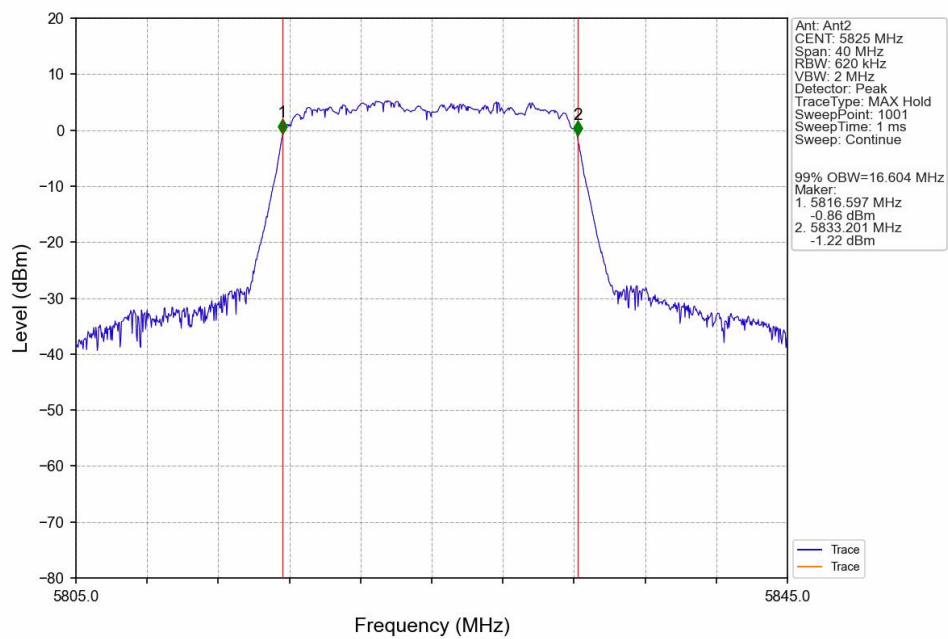
802.11a_MCH_5785MHz_Ant2_NTNV



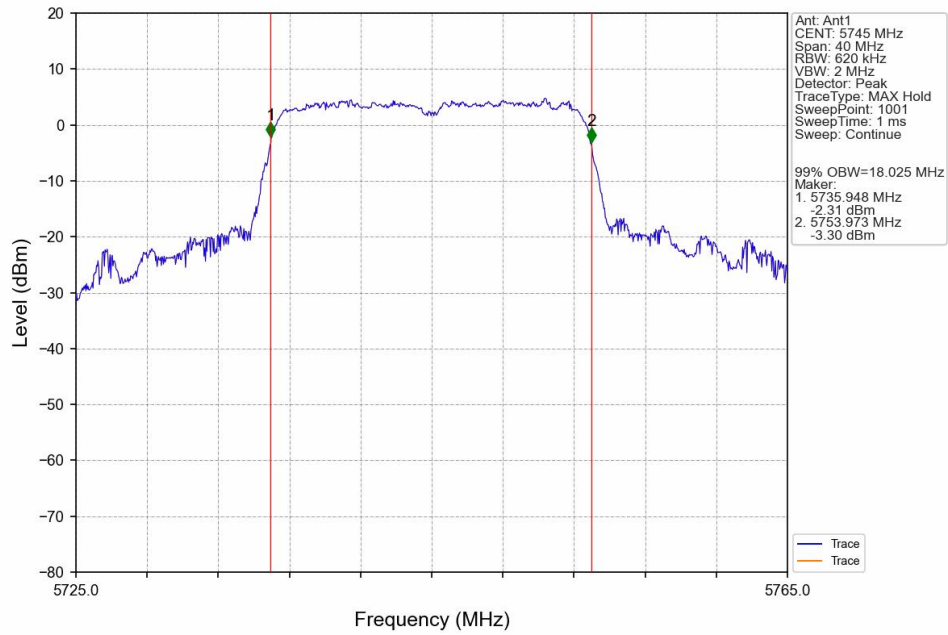
802.11a_HCH_5825MHz_Ant1_NTNV



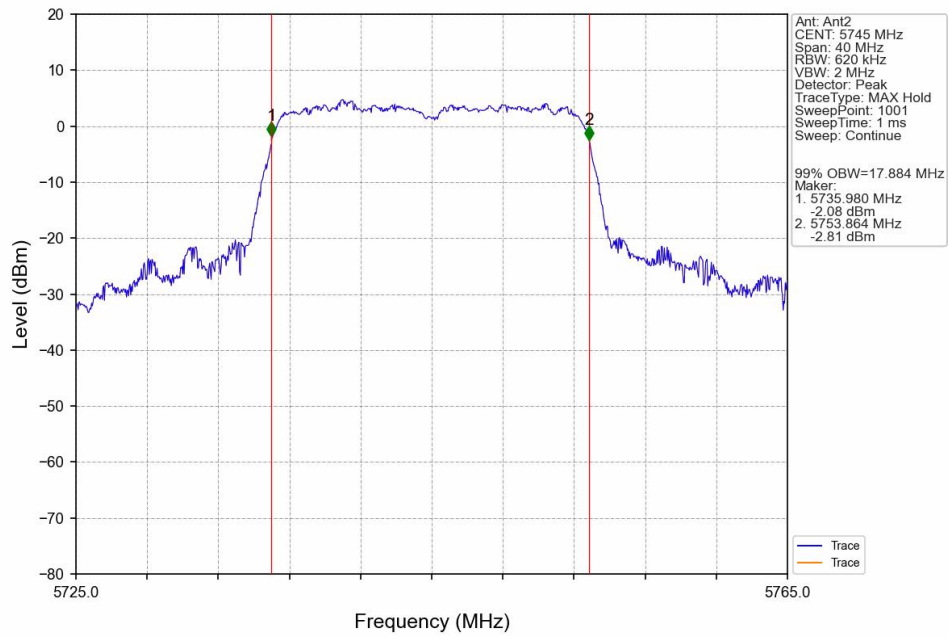
802.11a_HCH_5825MHz_Ant2_NTNV



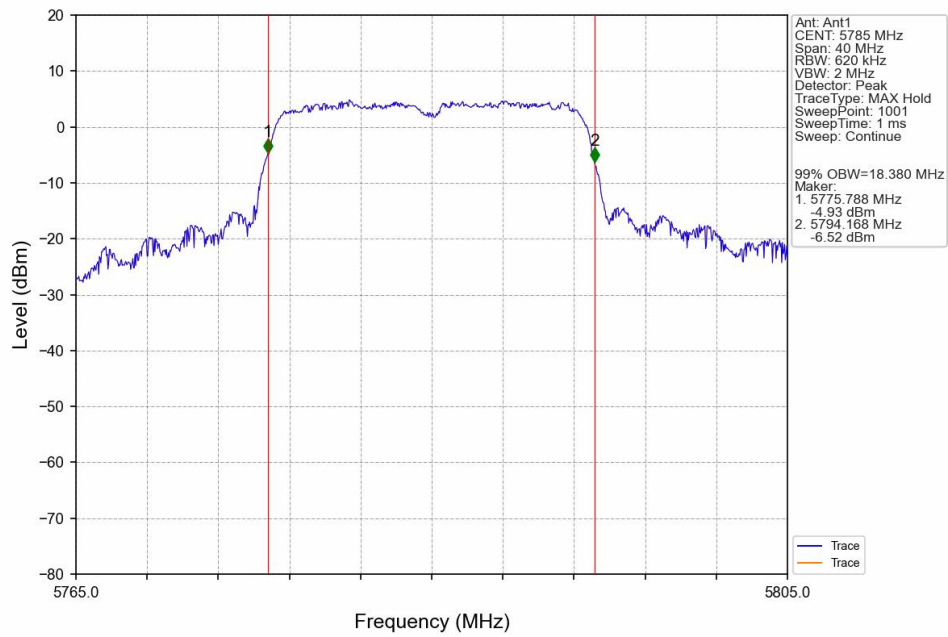
802.11n(HT20)_LCH_5745MHz_Ant1_NTNV



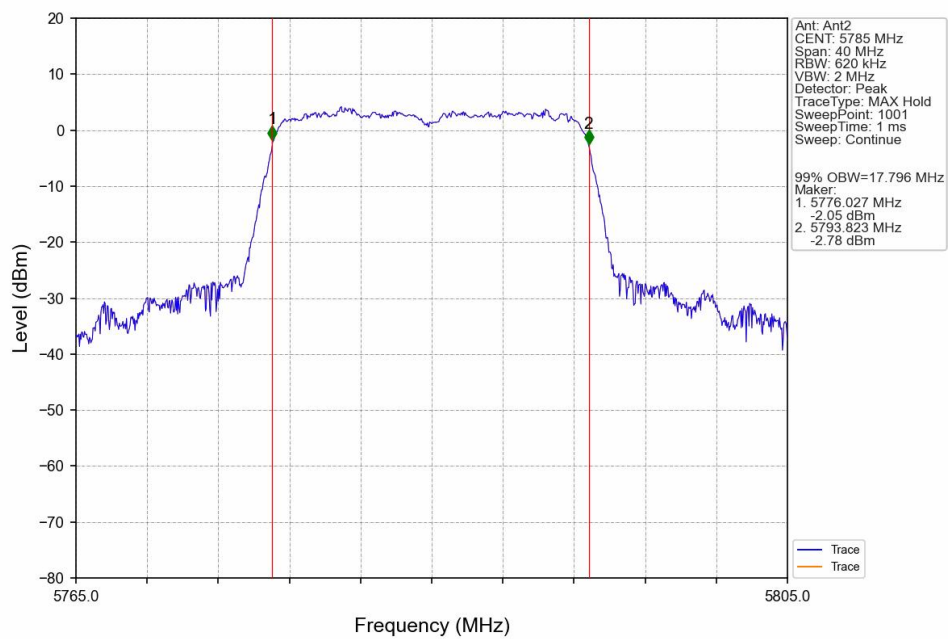
802.11n(HT20)_LCH_5745MHz_Ant2_NTNV



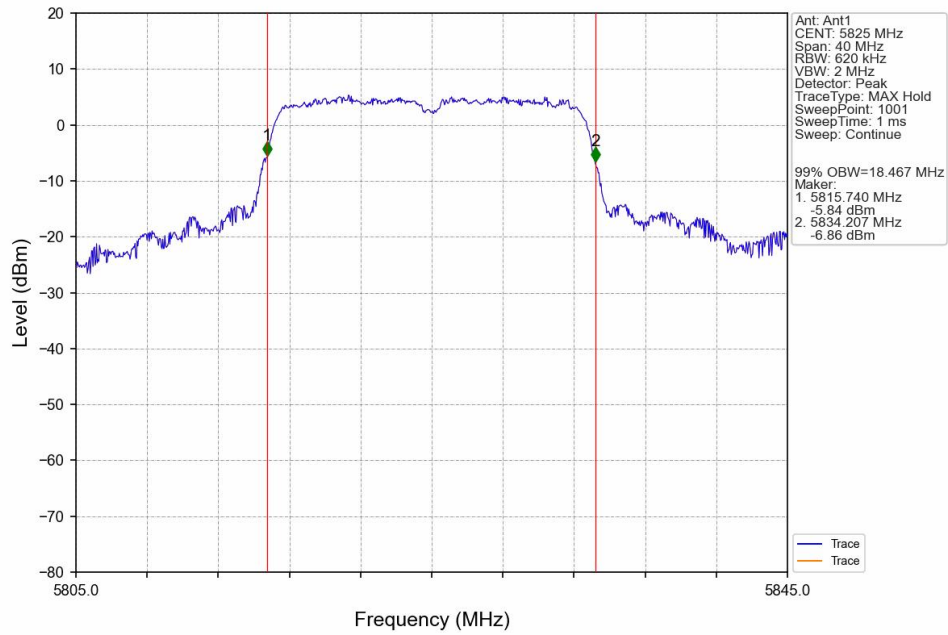
802.11n(HT20)_MCH_5785MHz_Ant1_NTNV



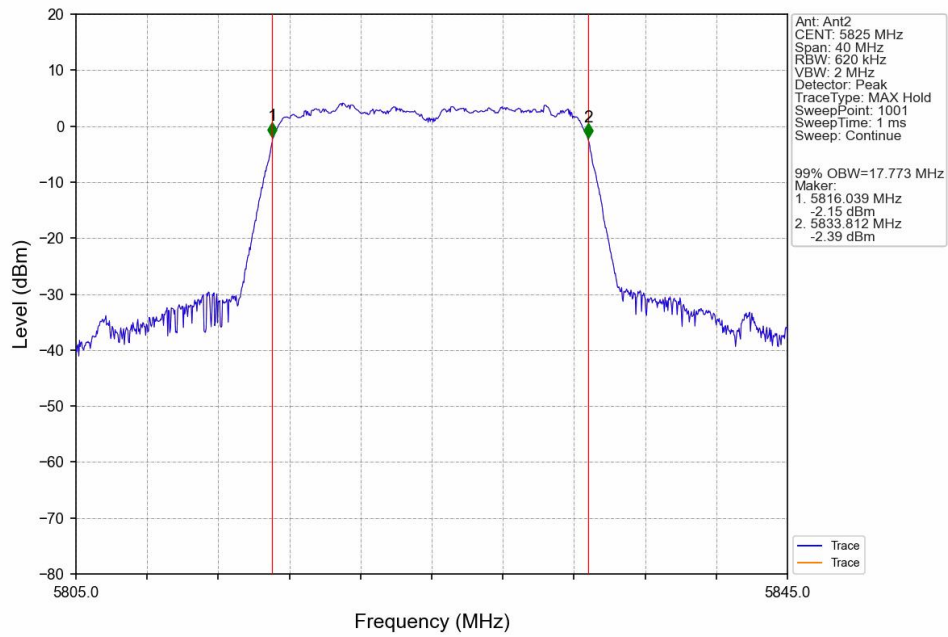
802.11n(HT20)_MCH_5785MHz_Ant2_NTNV



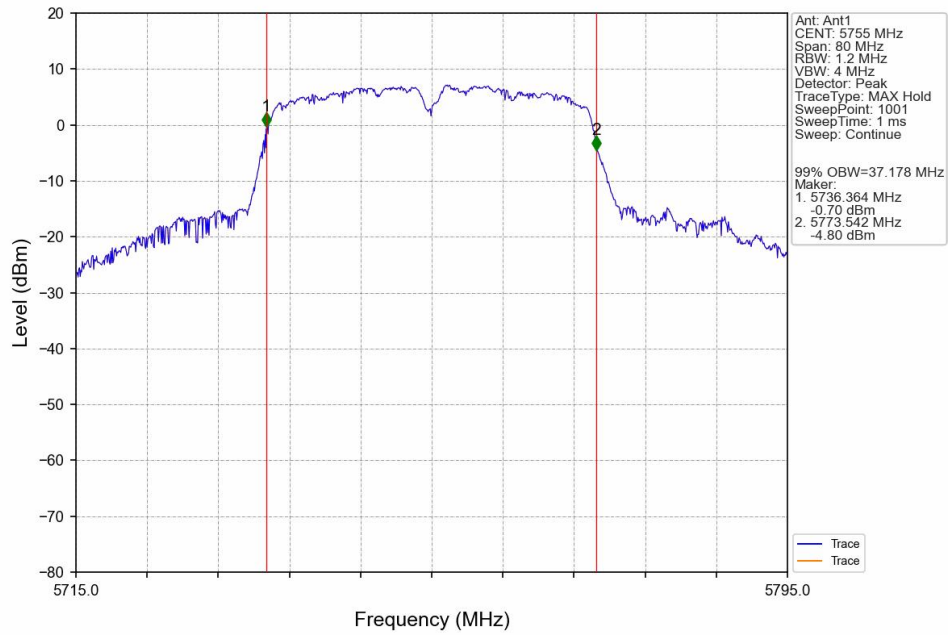
802.11n(HT20)_HCH_5825MHz_Ant1_NTNV



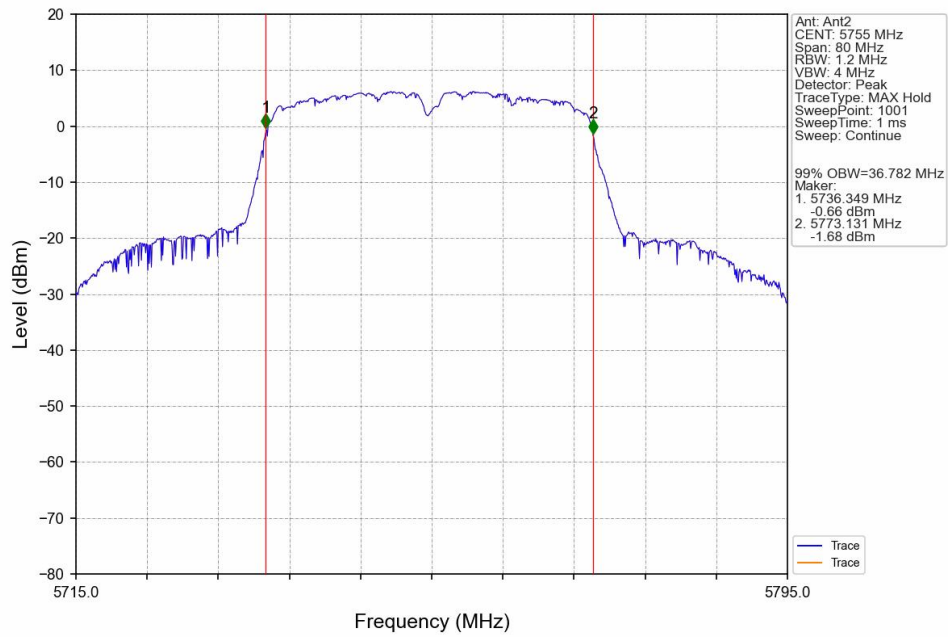
802.11n(HT20)_HCH_5825MHz_Ant2_NTNV



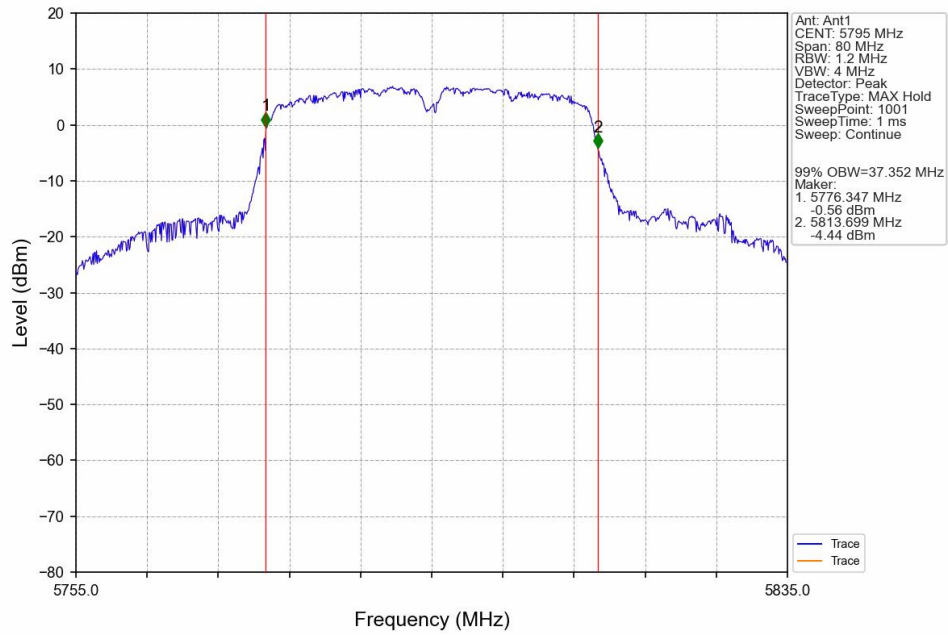
802.11n(HT40) LCH_5755MHz_Ant1_NTNV



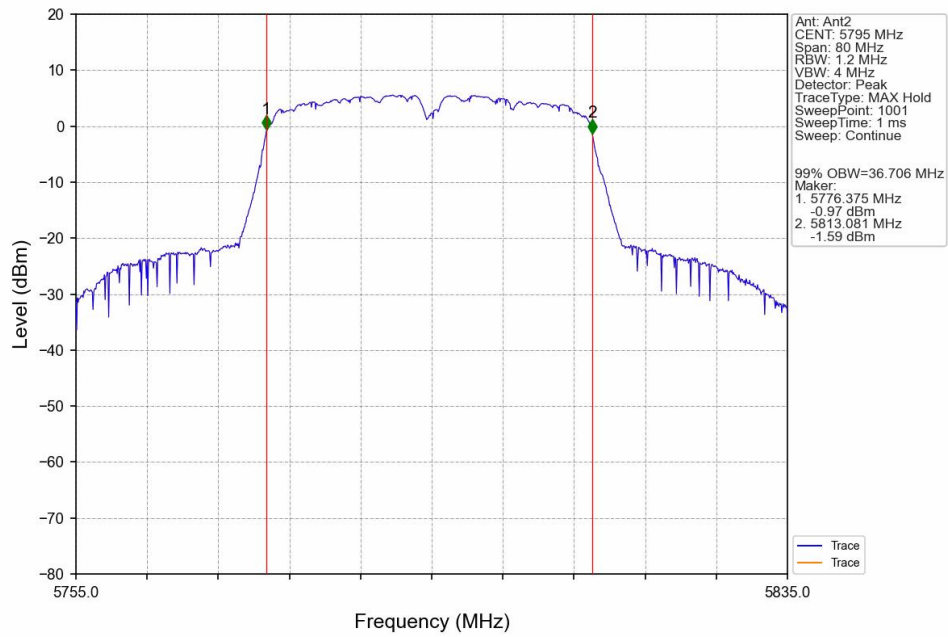
802.11n(HT40) LCH_5755MHz_Ant2_NTNV



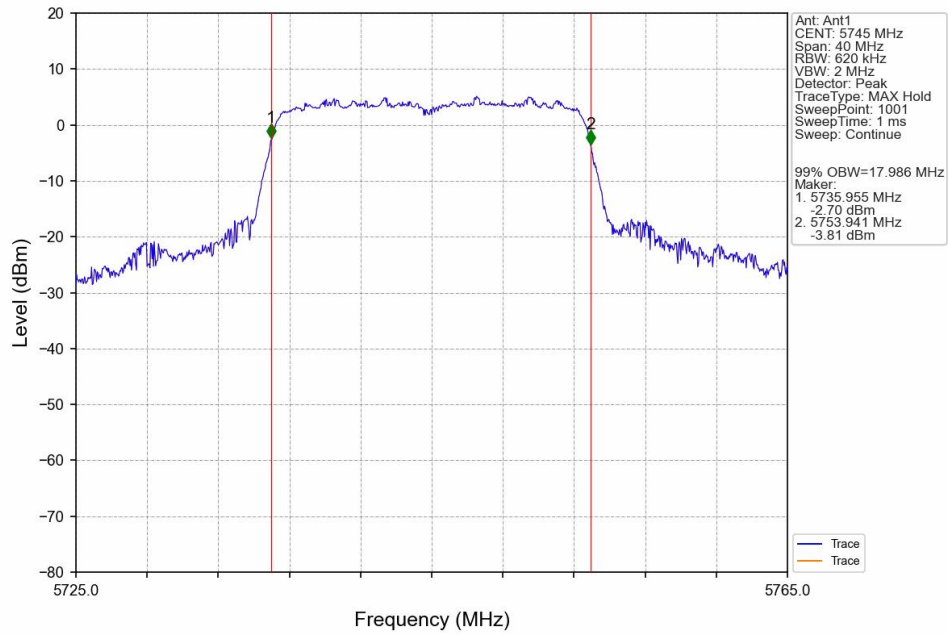
802.11n(HT40) HCH 5795MHz Ant1 NTN



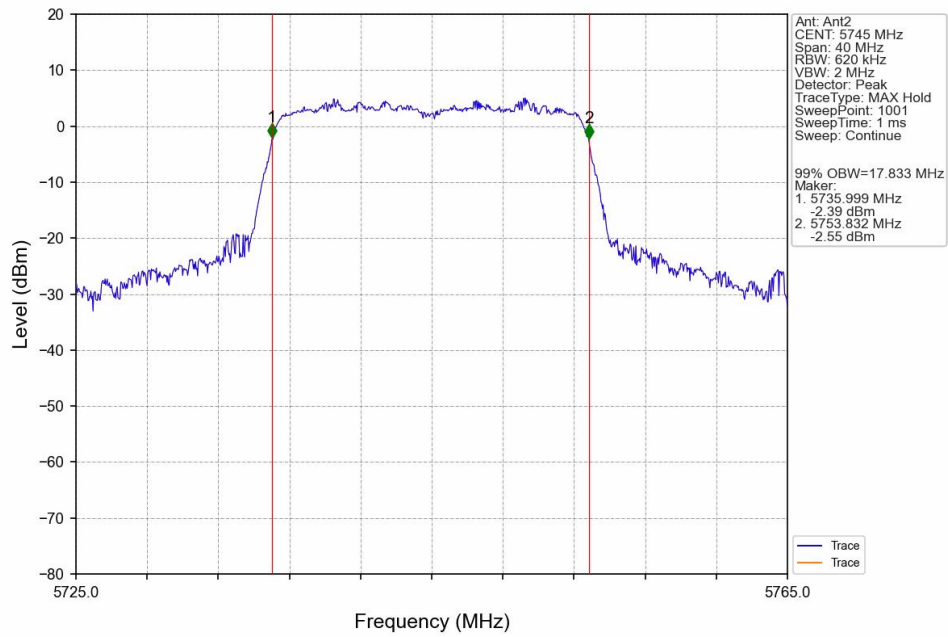
802.11n(HT40) HCH 5795MHz Ant2 NTN



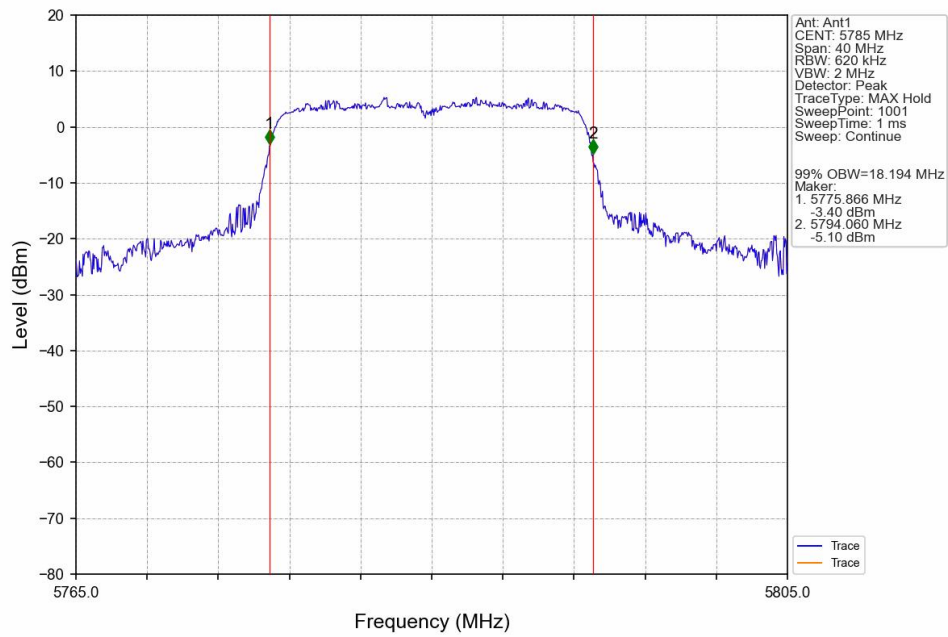
802.11ac(VHT20)_LCH_5745MHz_Ant1_NTNV



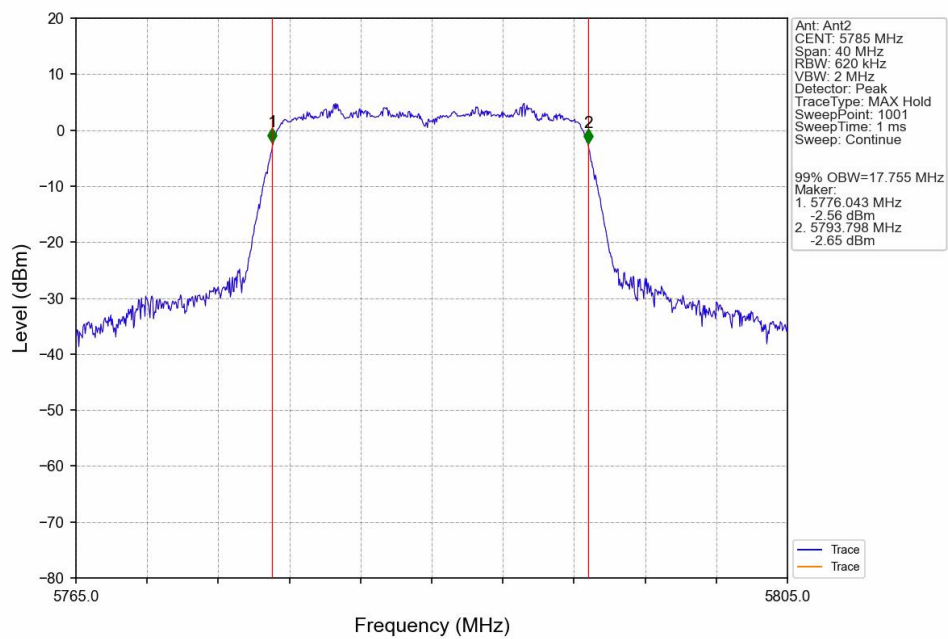
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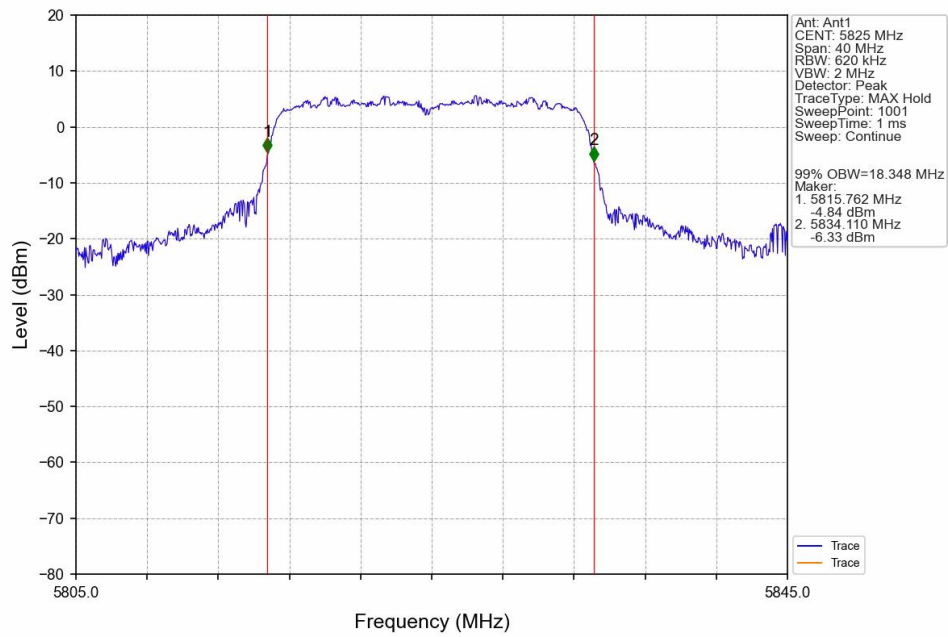
802.11ac(VHT20)_MCH_5785MHz_Ant1_NTNV



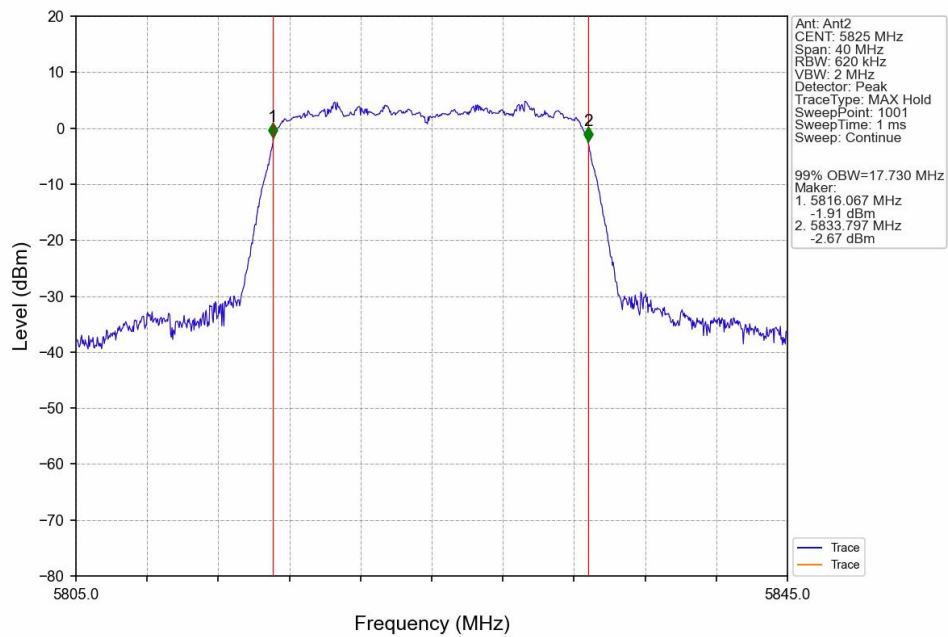
802.11ac(VHT20)_MCH_5785MHz_Ant2_NTNV



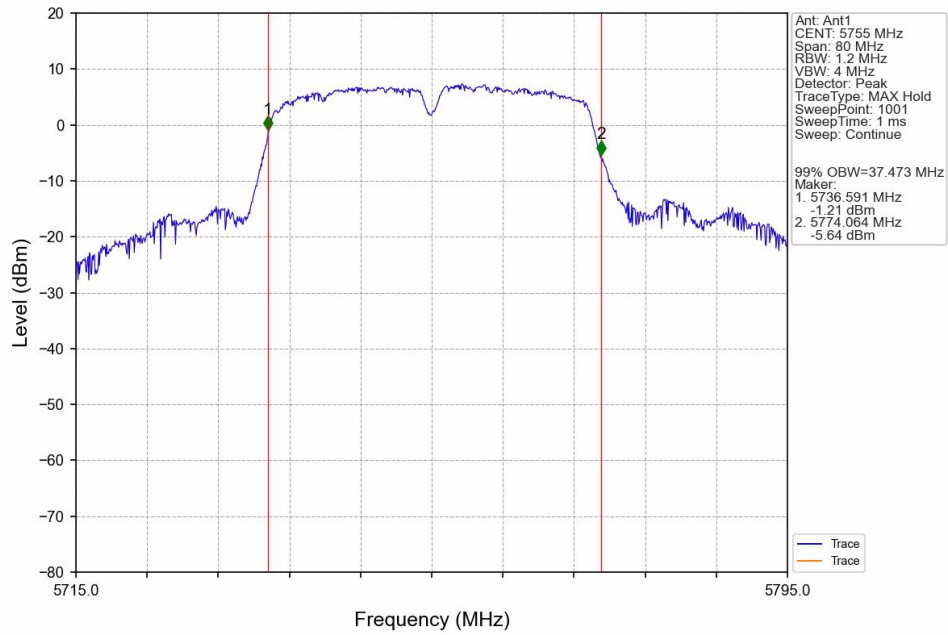
802.11ac(VHT20)_HCH_5825MHz_Ant1_NTNV



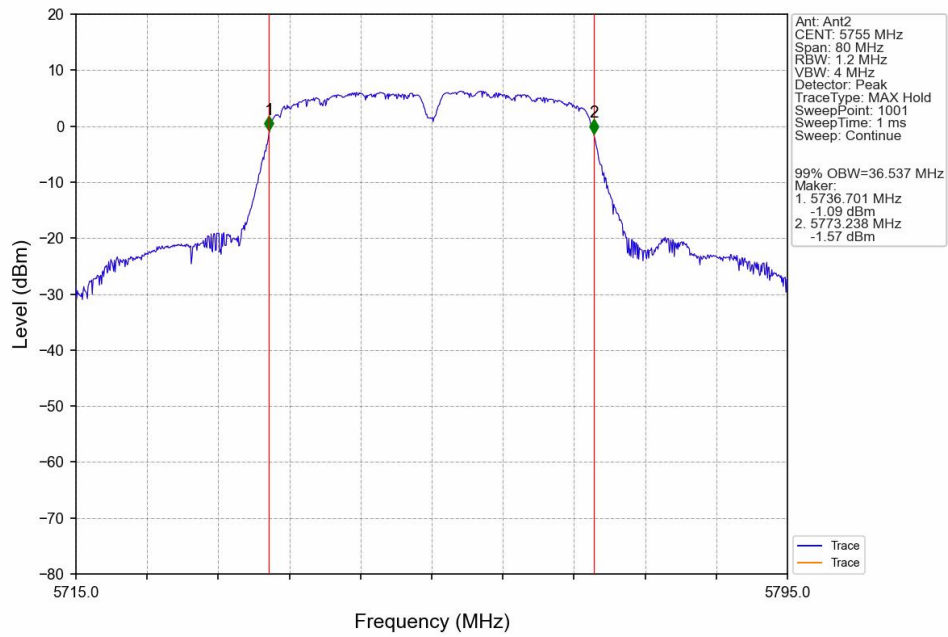
802.11ac(VHT20)_HCH_5825MHz_Ant2_NTNV



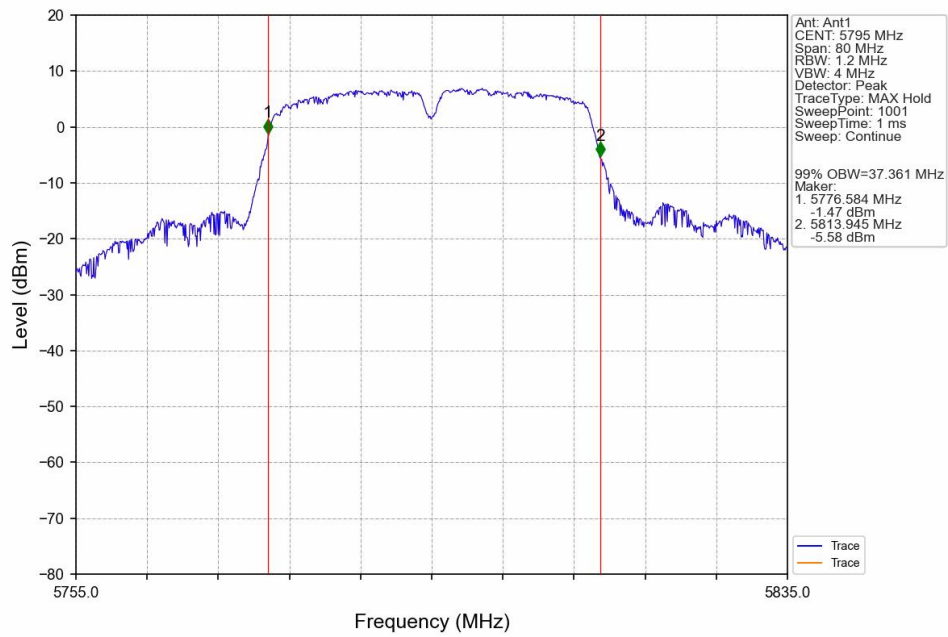
802.11ac(VHT40)_LCH_5755MHz_Ant1_NTNV



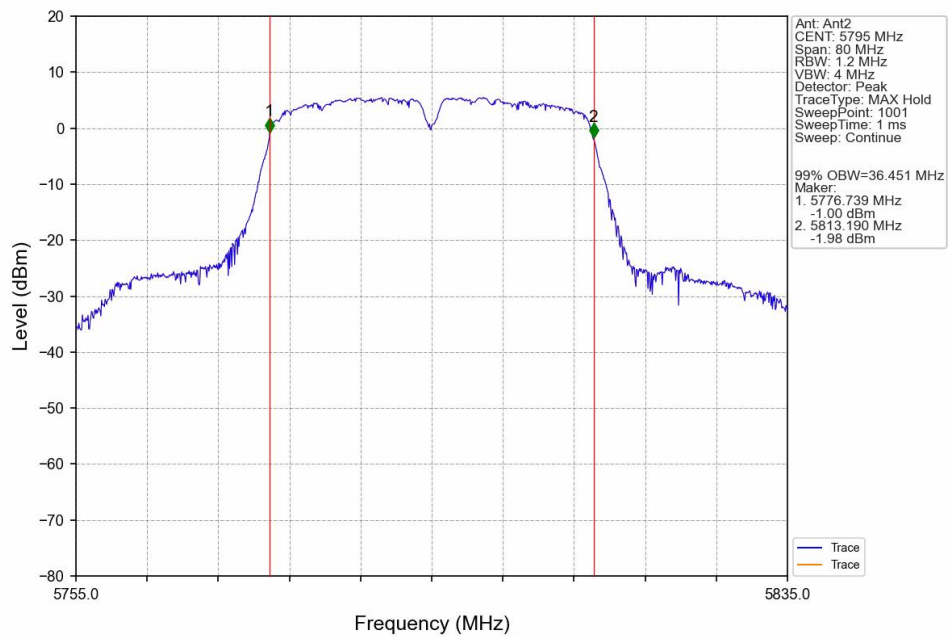
802.11ac(VHT40)_LCH_5755MHz_Ant2_NTNV



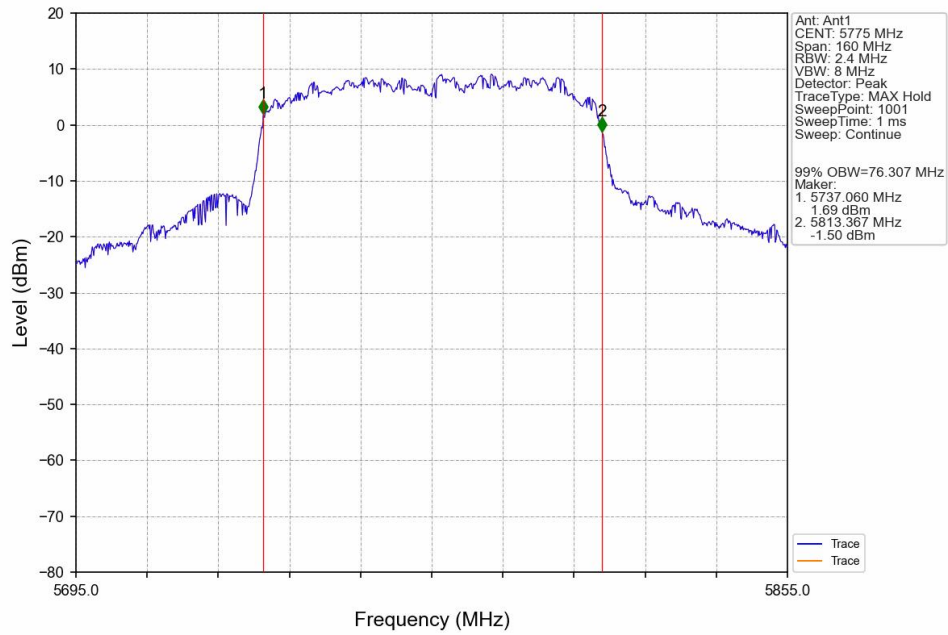
802.11ac(VHT40)_HCH_5795MHz_Ant1_NTNV



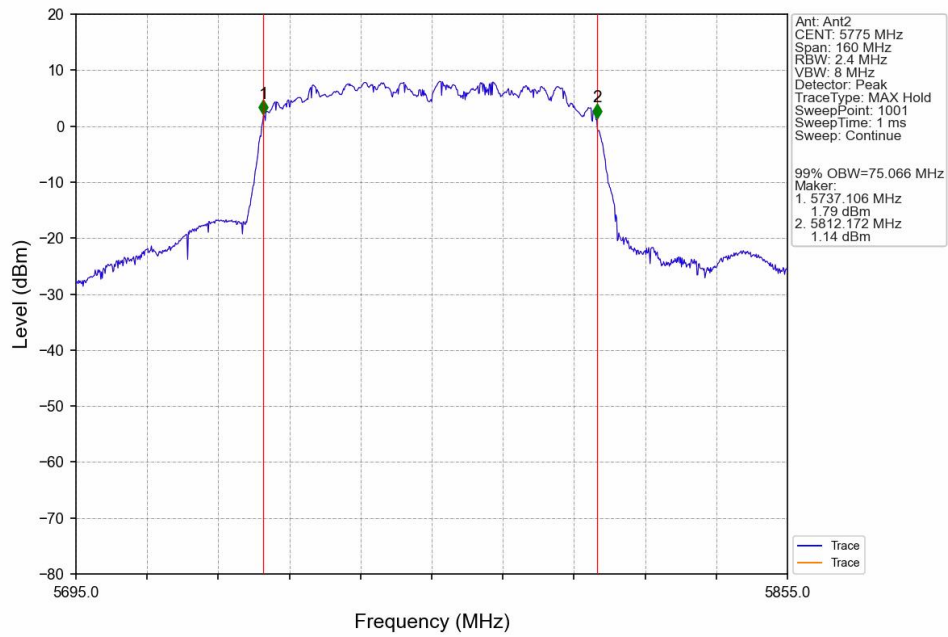
802.11ac(VHT40)_HCH_5795MHz_Ant2_NTNV



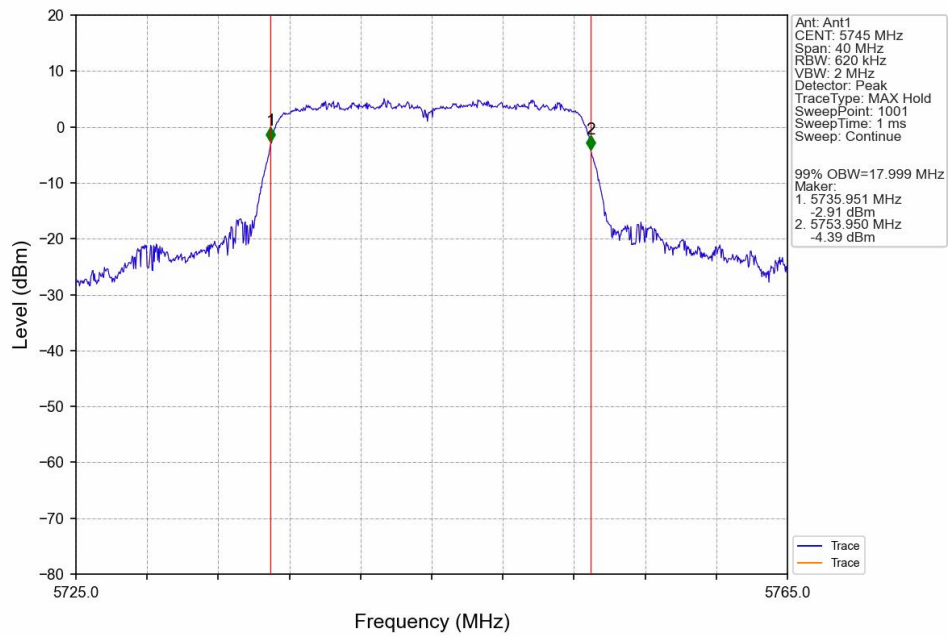
802.11ac(VHT80) MCH_5775MHz_Ant1_NTNV



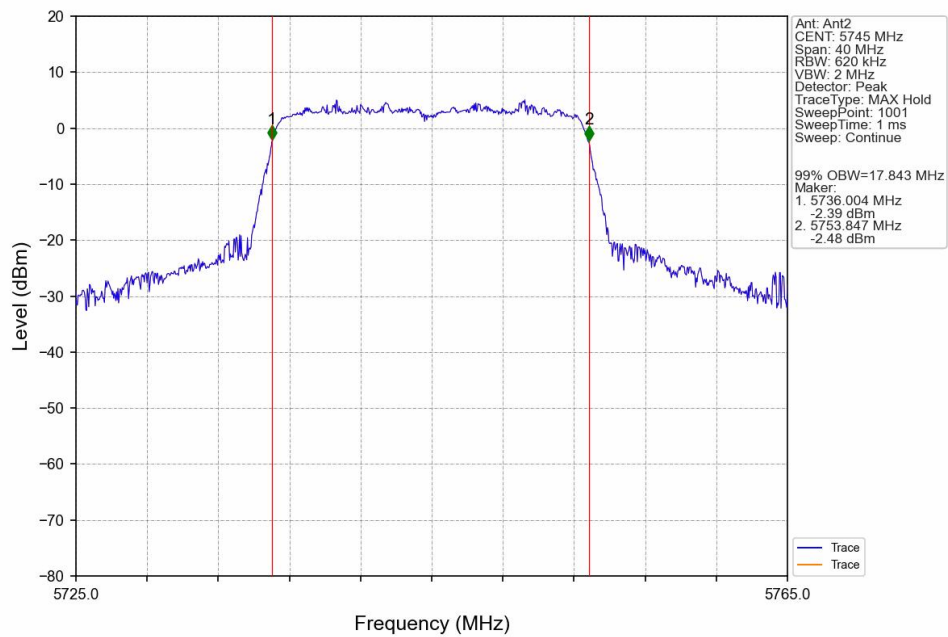
802.11ac(VHT80) MCH_5775MHz_Ant2_NTNV



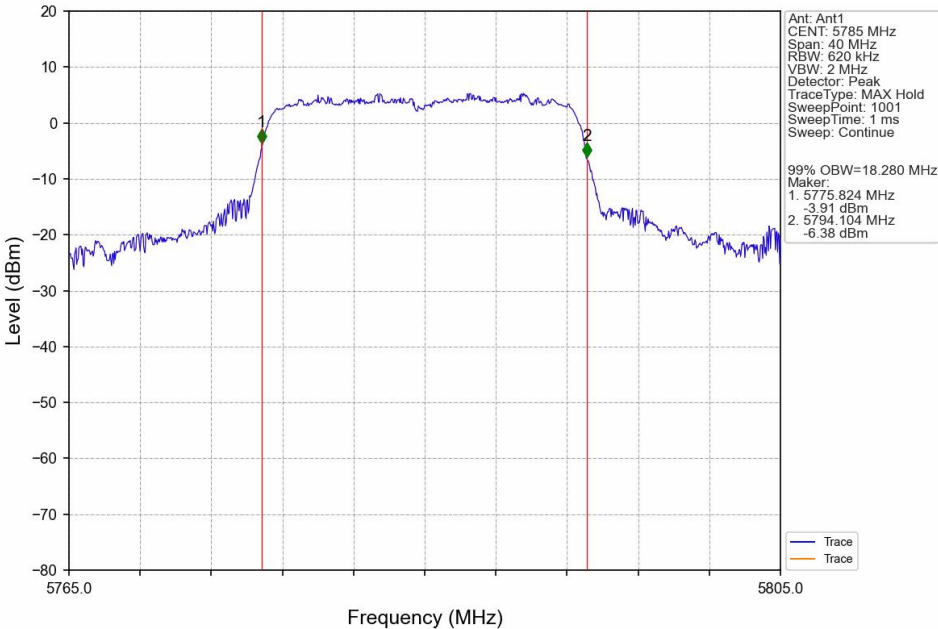
802.11ax(HEW20)_LCH_5745MHz_SU_/_Ant1_NTNV



802.11ax(HEW20)_LCH_5745MHz_SU_/_Ant2_NTNV



802.11ax(HEW20)_MCH_5785MHz_SU_ / Ant1_NTNV



802.11ax(HEW20)_MCH_5785MHz_SU_ / Ant2_NTNV

