



RF Test Report

For

Project No.:	DLE-250407017R
Client:	Zhuhai Bigway Electronic Co.,Ltd.
Manufacturer:	Zhuhai Bigway Electronic Co.,Ltd.
Product Description:	WIRELESS HDMI Transmitter and Receiver
Model No.:	GT-HDWL50D
Test Engineer:	Alisa Song
Test Date:	2025-03-19

Test Summary

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



1. Duty Cycle

1.1 Test Result

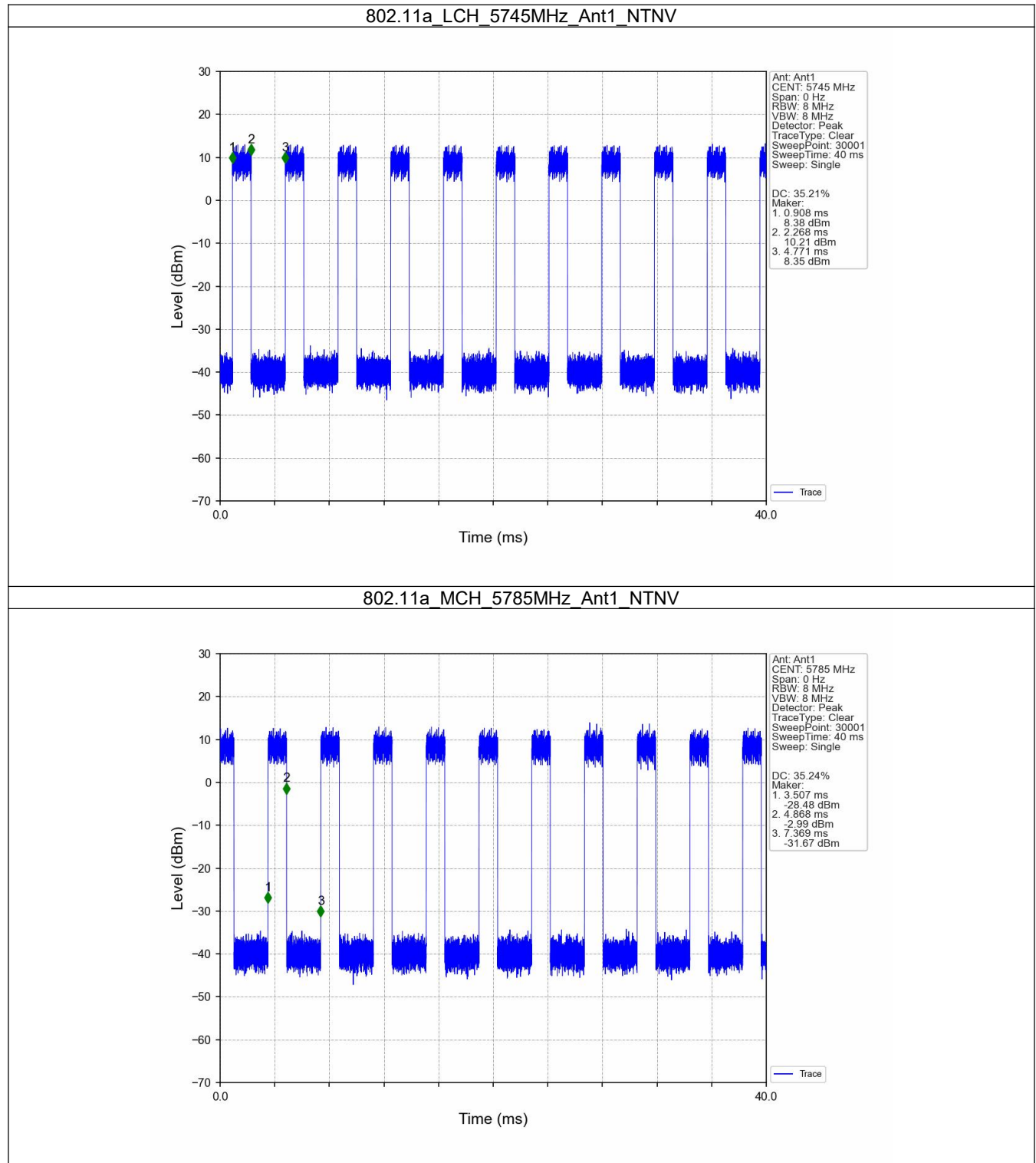
1.1.1 Ant1

Ant1							
Mode	TX Type	Frequency (MHz)	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
802.11a	SISO	5745	1.360	3.863	35.21	4.53	0.00
		5785	1.361	3.862	35.24	4.53	0.00
		5825	1.361	3.862	35.24	4.53	0.00
802.11n (HT20)	SISO	5745	1.149	3.652	31.46	5.02	0.03
		5785	1.149	3.650	31.48	5.02	0.02
		5825	1.149	3.652	31.46	5.02	0.05
802.11n (HT40)	SISO	5755	0.572	3.075	18.60	7.30	0.01
		5795	0.573	3.075	18.63	7.30	0.03
802.11ac (VHT20)	SISO	5745	1.152	3.655	31.52	5.01	0.03
		5785	1.153	3.654	31.55	5.01	0.02
		5825	1.153	3.656	31.54	5.01	0.03
802.11ac (VHT40)	SISO	5755	0.576	3.078	18.71	7.28	0.03
		5795	0.576	3.078	18.71	7.28	0.03
802.11ac (VHT80)	SISO	5775	0.289	2.791	10.35	9.85	0.04



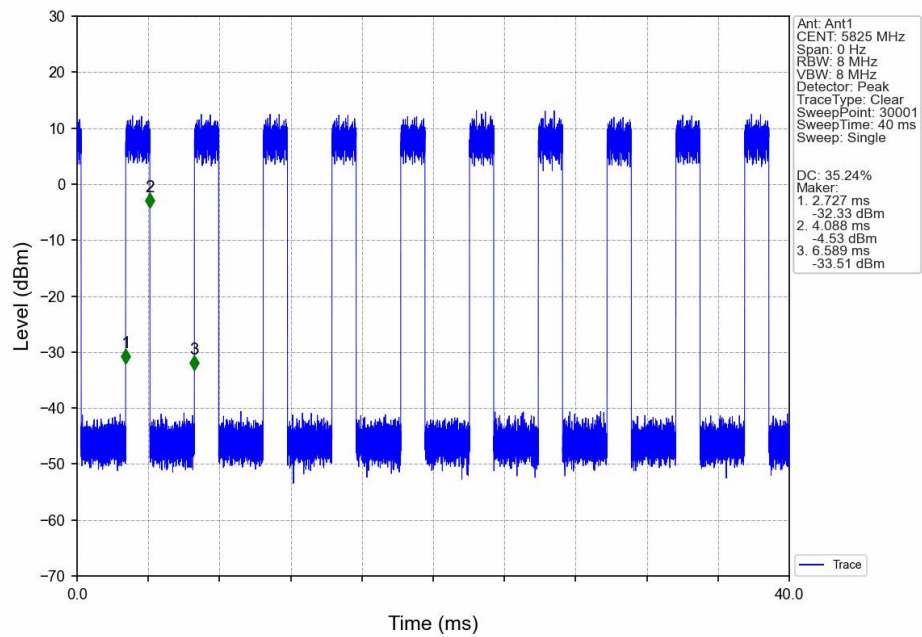
1.2 Test Graph

1.2.1 Ant1

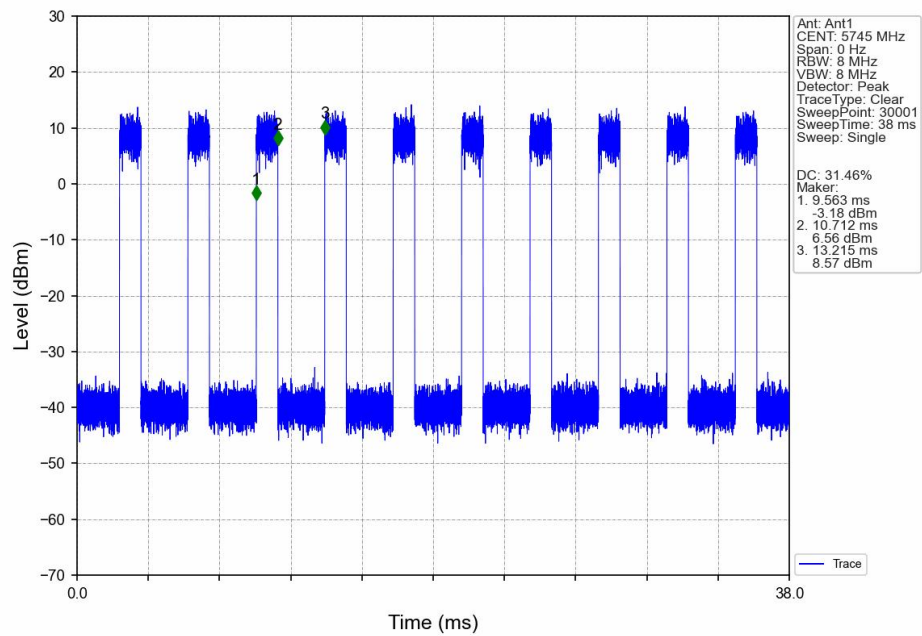




802.11a_HCH_5825MHz_Ant1_NTNV

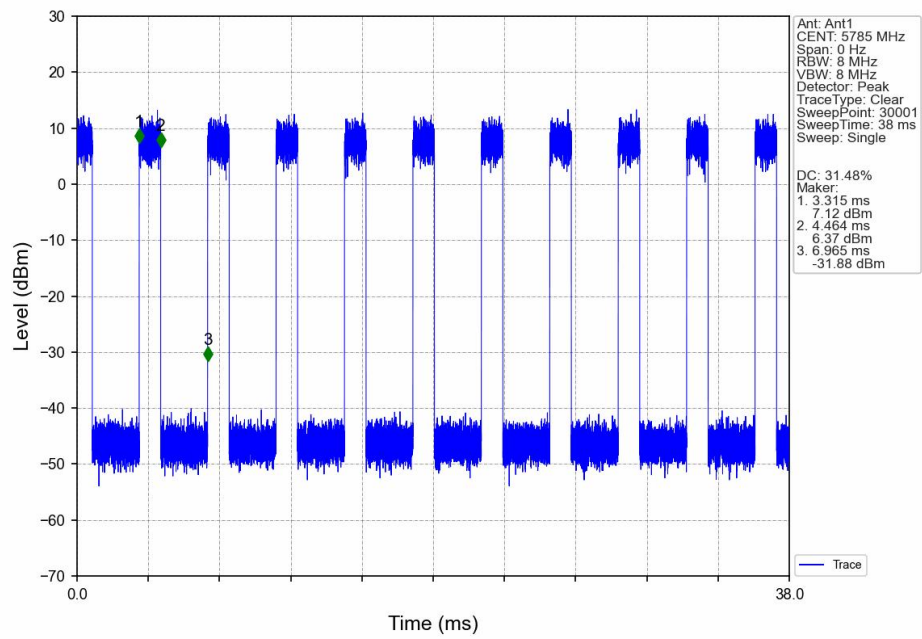


802.11n(HT20)_LCH_5745MHz_Ant1_NTNV

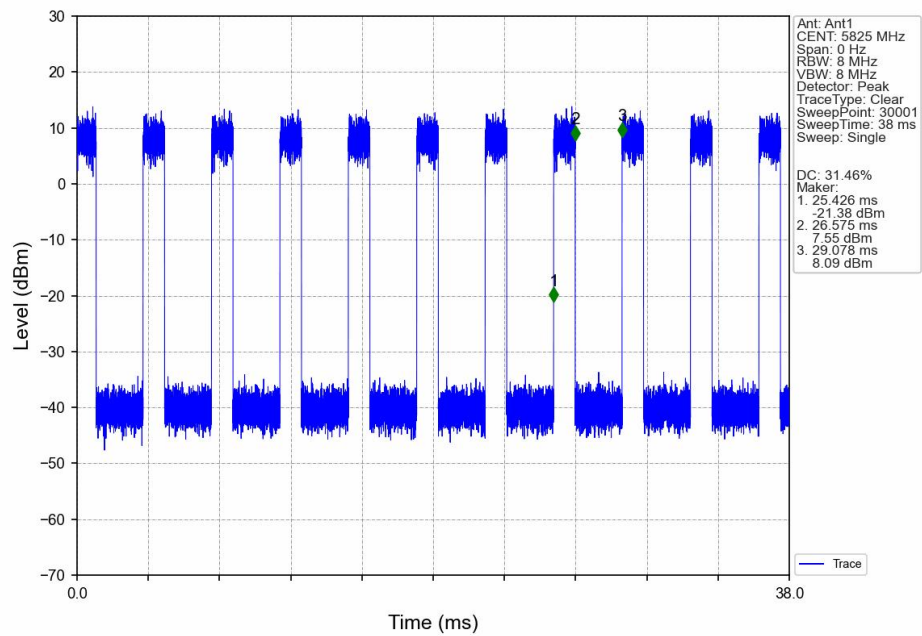




802.11n(HT20) MCH_5785MHz_Ant1_NTNV

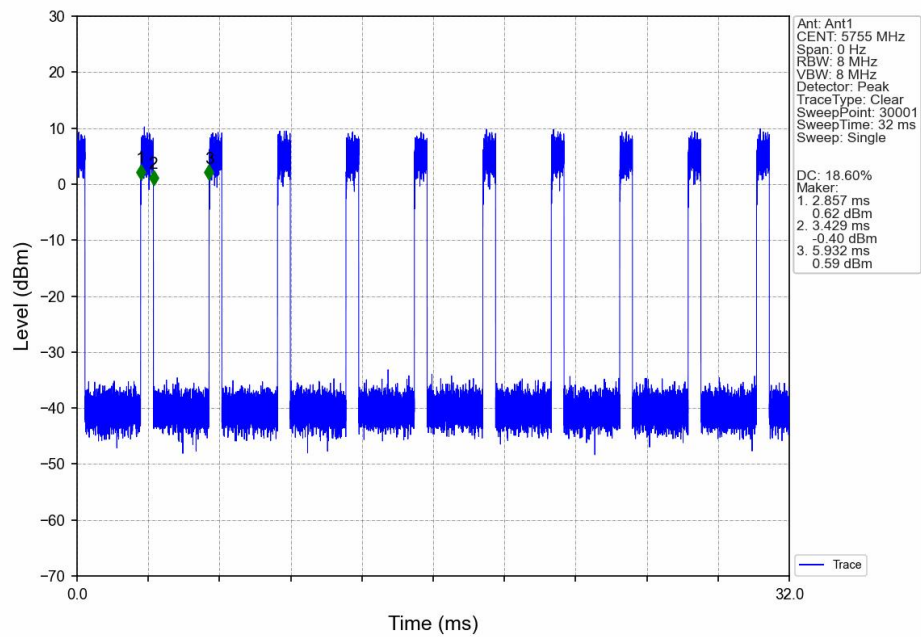


802.11n(HT20) HCH_5825MHz_Ant1_NTNV

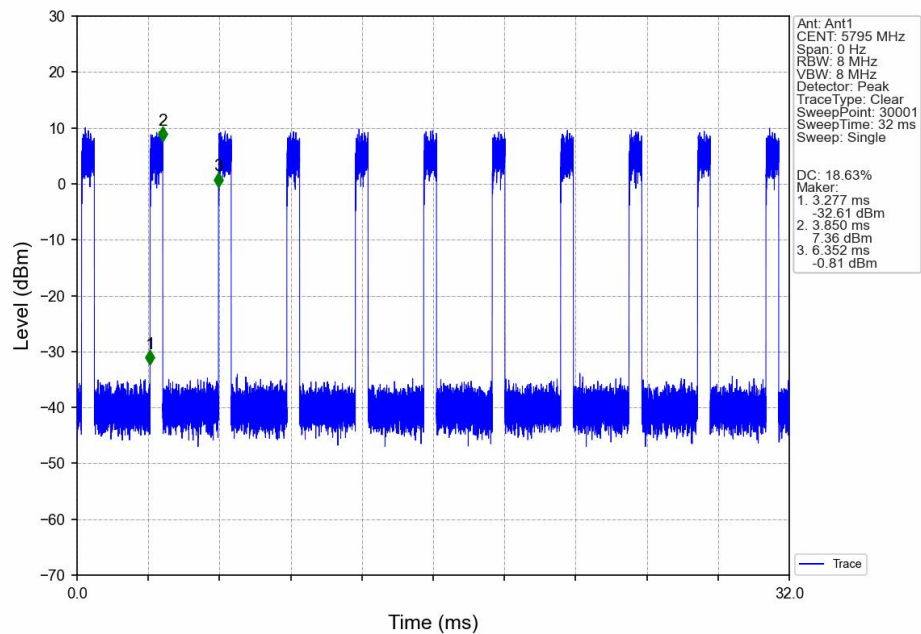




802.11n(HT40)_LCH_5755MHz_Ant1_NTNV

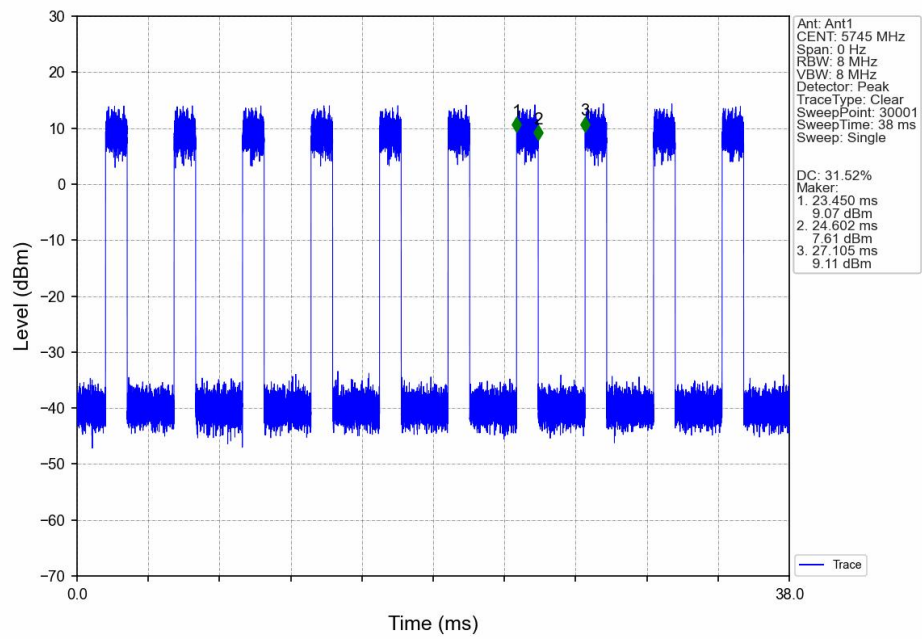


802.11n(HT40)_HCH_5795MHz_Ant1_NTNV

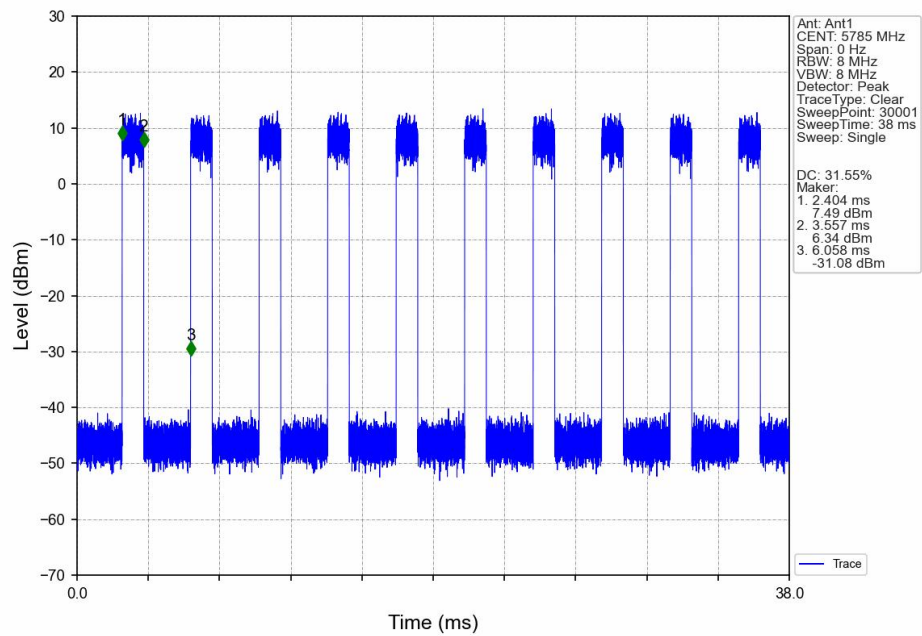




802.11ac(VHT20)_LCH_5745MHz_Ant1_NTNV

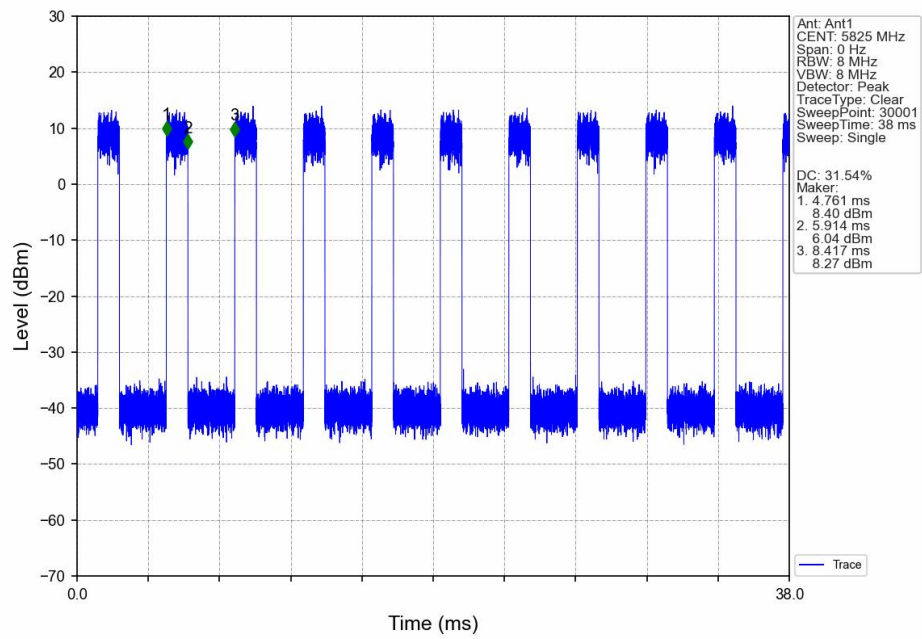


802.11ac(VHT20)_MCH_5785MHz_Ant1_NTNV

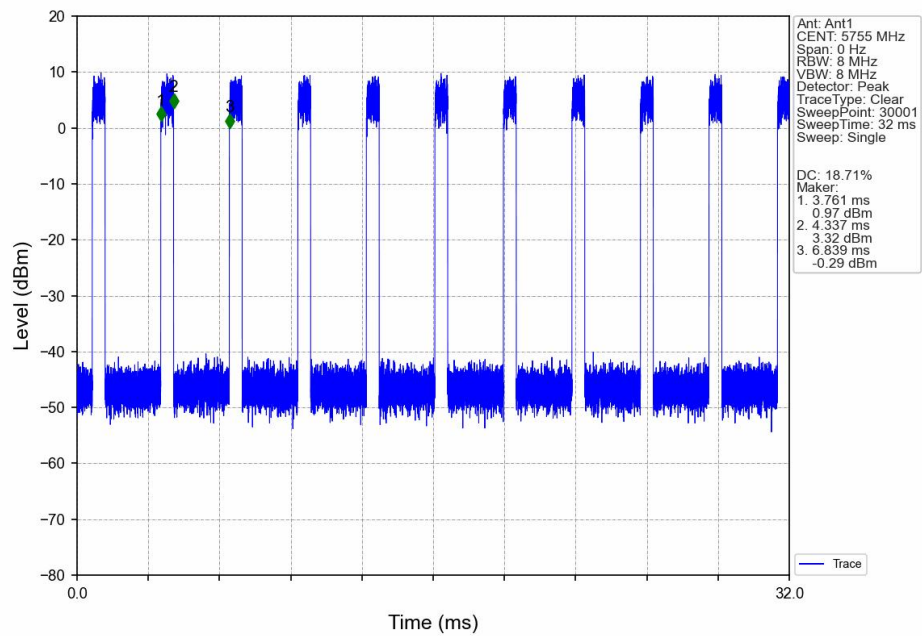




802.11ac(VHT20) HCH 5825MHz_Ant1_NTNV

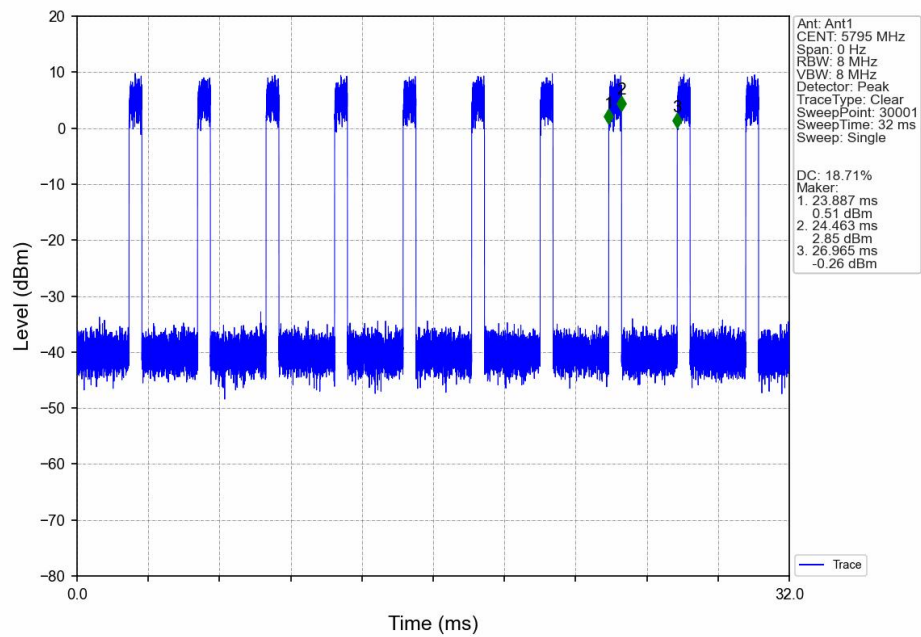


802.11ac(VHT40) LCH 5755MHz_Ant1_NTNV

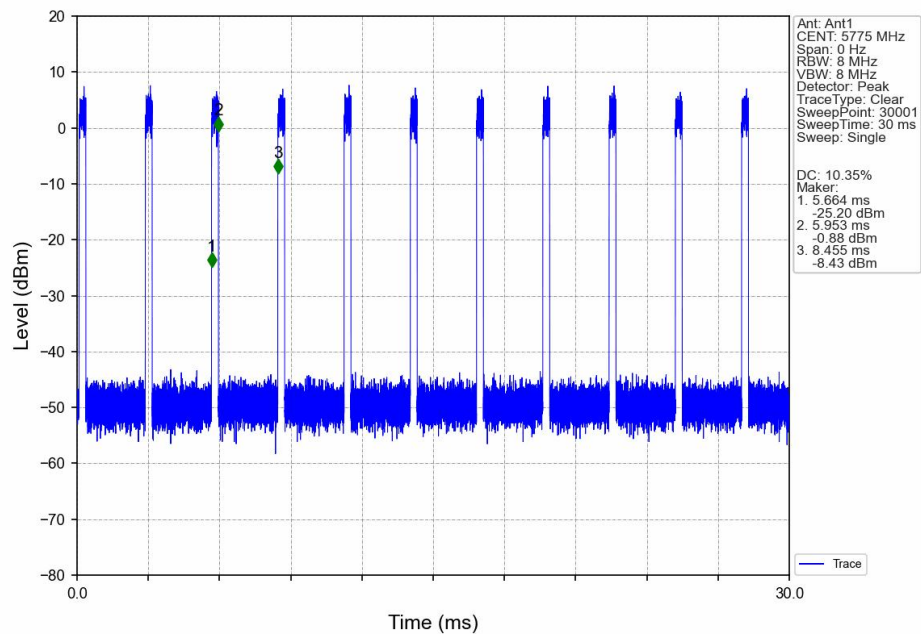




802.11ac(VHT40) HCH_5795MHz_Ant1_NTNV



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	5745	1	16.385	/	Pass
		5785	1	16.466	/	Pass
		5825	1	16.393	/	Pass
802.11n (HT20)	SISO	5745	1	17.386	/	Pass
		5785	1	17.402	/	Pass
		5825	1	17.375	/	Pass
802.11n (HT40)	SISO	5755	1	35.833	/	Pass
		5795	1	35.841	/	Pass
802.11ac (VHT20)	SISO	5745	1	17.372	/	Pass
		5785	1	17.379	/	Pass
		5825	1	17.383	/	Pass
802.11ac (VHT40)	SISO	5755	1	35.850	/	Pass
		5795	1	35.826	/	Pass
802.11ac (VHT80)	SISO	5775	1	75.585	/	Pass

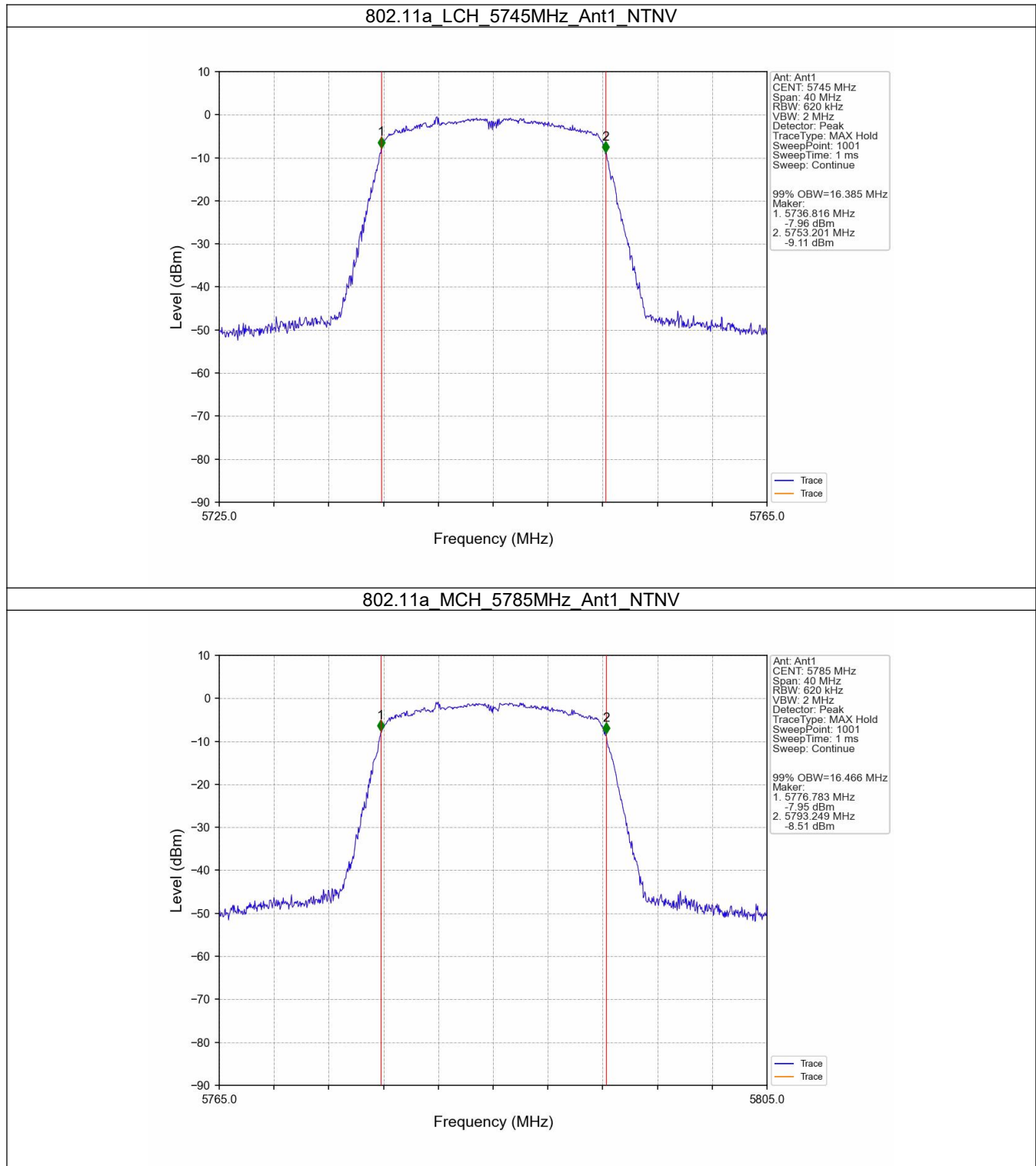
2.1.2 6dB BW

Mode	TX Type	Frequency (MHz)	ANT	6dB Bandwidth (MHz)		Verdict
				Result	Limit	
802.11a	SISO	5745	1	15.177	≥ 0.5	Pass
		5785	1	15.163	≥ 0.5	Pass
		5825	1	15.082	≥ 0.5	Pass
802.11n (HT20)	SISO	5745	1	15.168	≥ 0.5	Pass
		5785	1	15.072	≥ 0.5	Pass
		5825	1	15.077	≥ 0.5	Pass
802.11n (HT40)	SISO	5755	1	35.091	≥ 0.5	Pass
		5795	1	35.142	≥ 0.5	Pass
802.11ac (VHT20)	SISO	5745	1	15.159	≥ 0.5	Pass
		5785	1	15.163	≥ 0.5	Pass
		5825	1	15.001	≥ 0.5	Pass
802.11ac (VHT40)	SISO	5755	1	35.154	≥ 0.5	Pass
		5795	1	35.095	≥ 0.5	Pass
802.11ac (VHT80)	SISO	5775	1	75.139	≥ 0.5	Pass



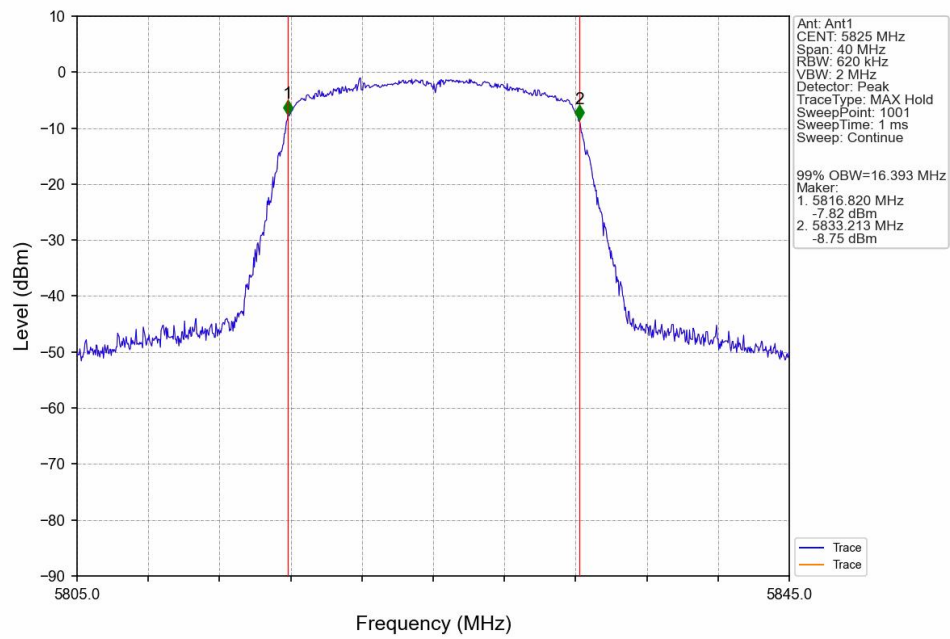
2.2 Test Graph

2.2.1 OBW

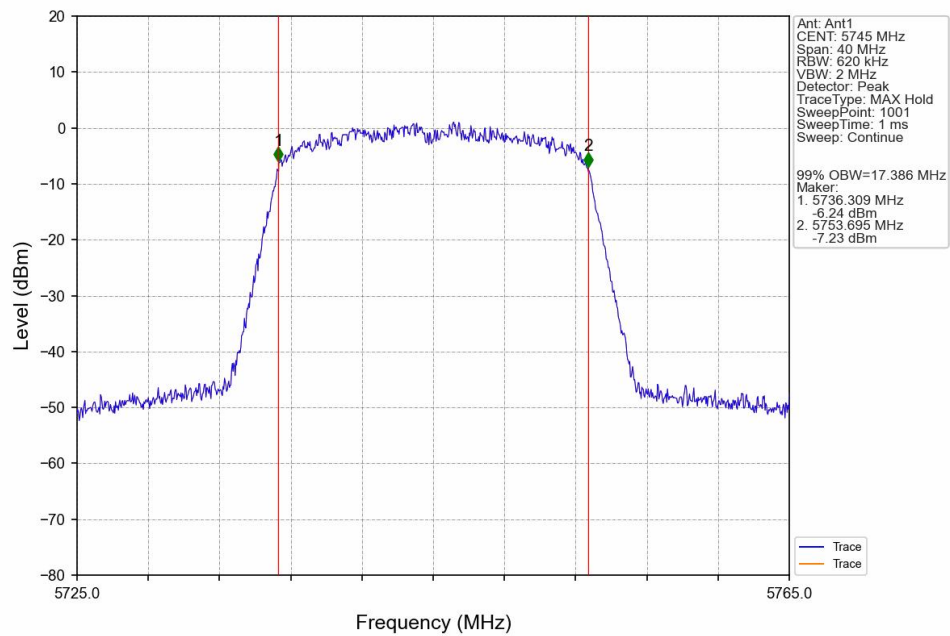




802.11a_HCH_5825MHz_Ant1_NTNV

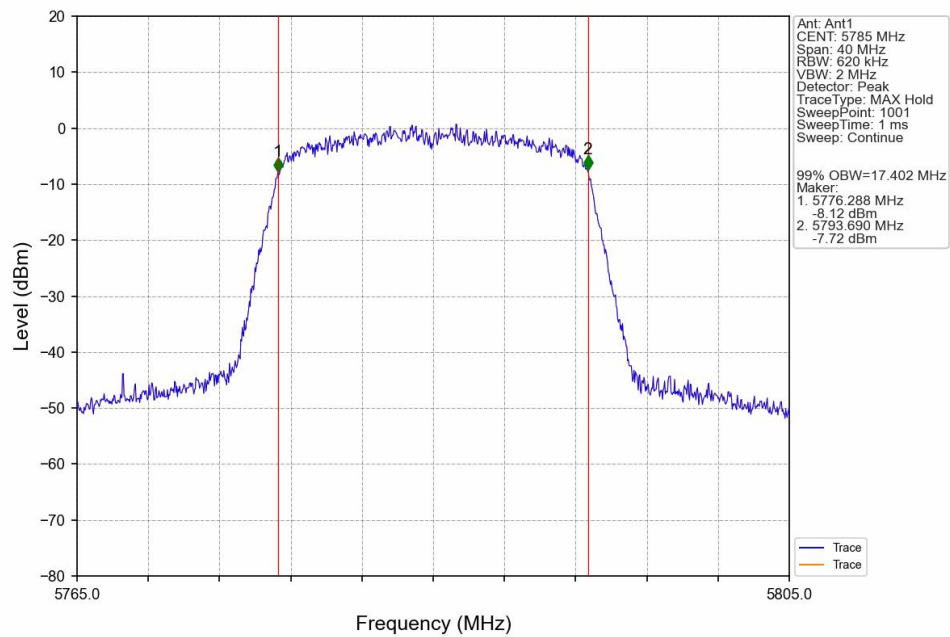


802.11n(HT20)_LCH_5745MHz_Ant1_NTNV

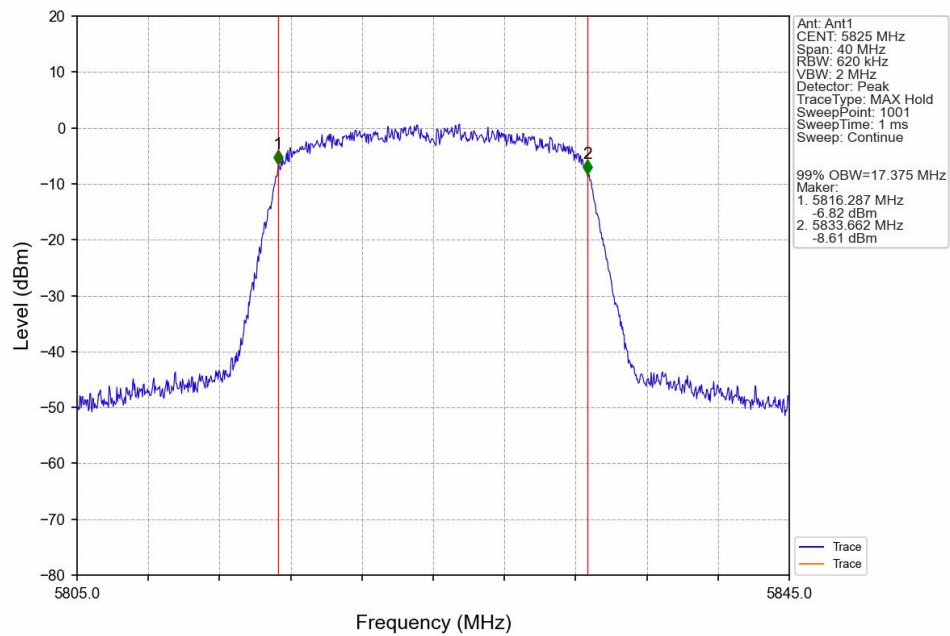




802.11n(HT20)_MCH_5785MHz_Ant1_NTNV

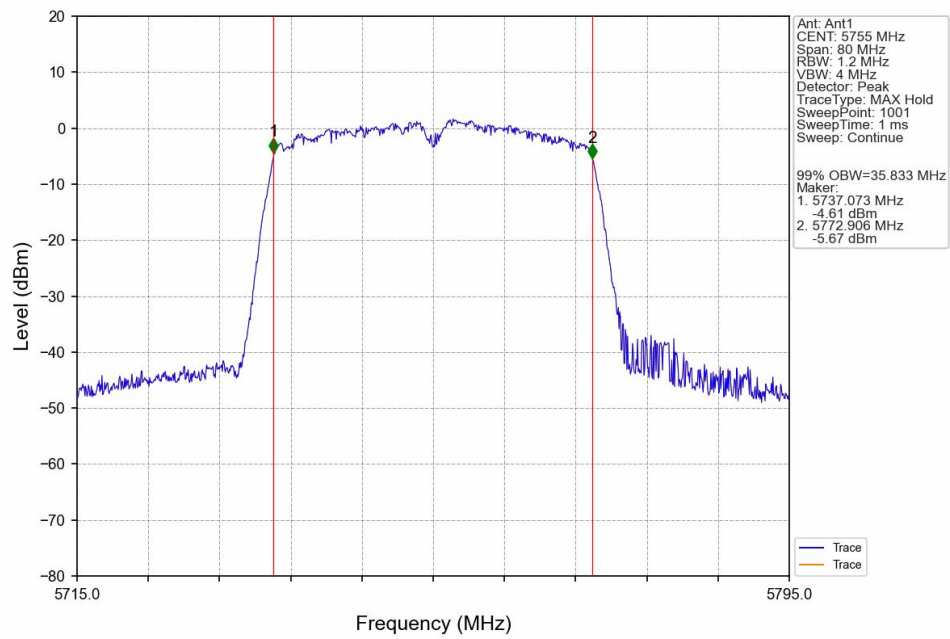


802.11n(HT20)_HCH_5825MHz_Ant1_NTNV

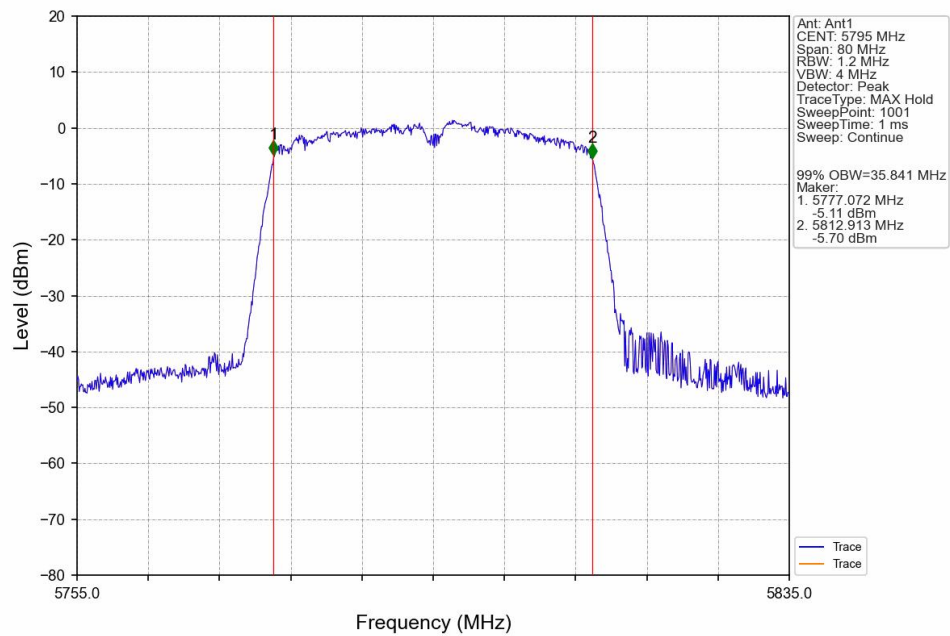




802.11n(HT40)_LCH_5755MHz_Ant1_NTNV

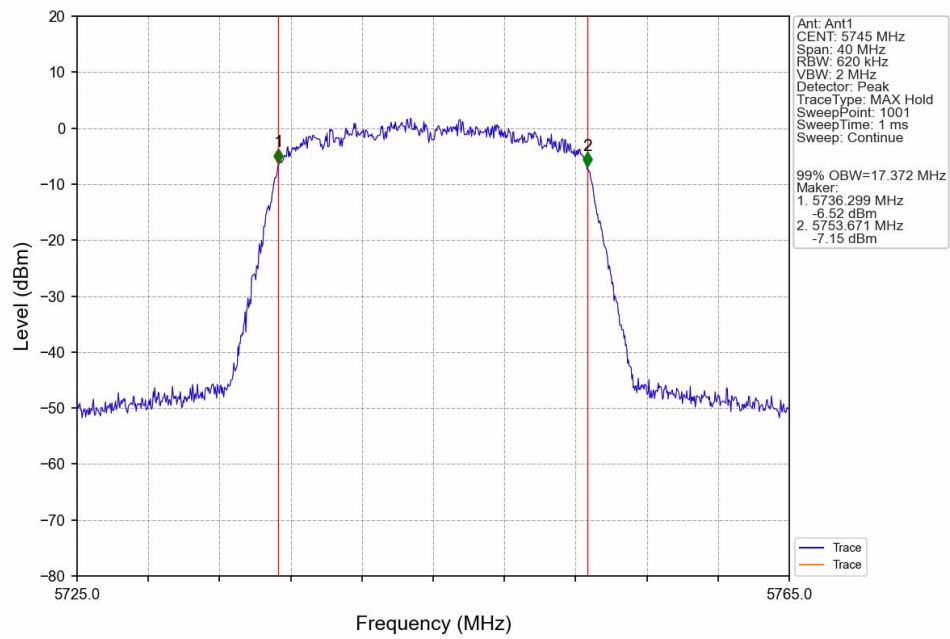


802.11n(HT40)_HCH_5795MHz_Ant1_NTNV

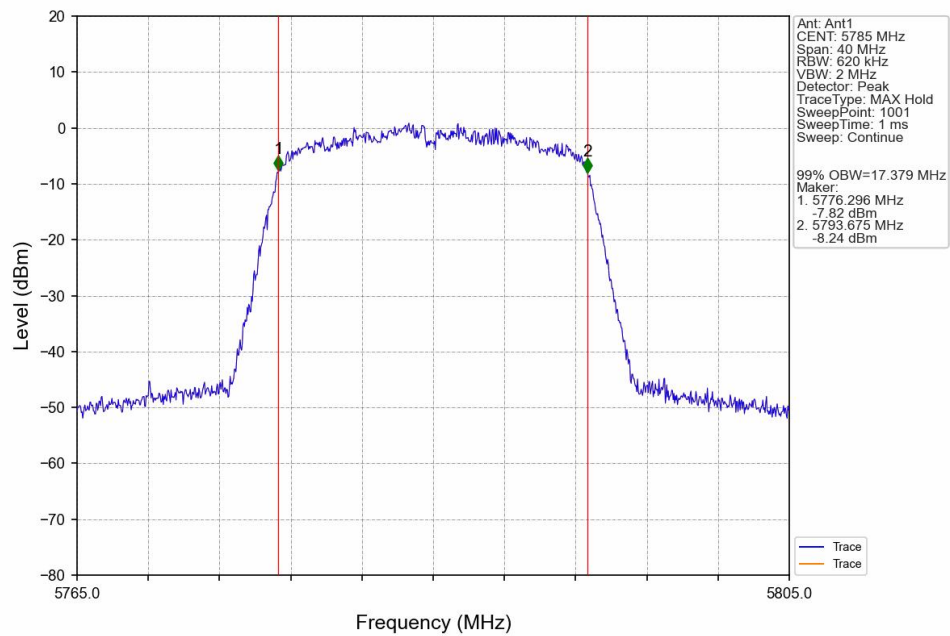




802.11ac(VHT20) LCH_5745MHz_Ant1_NTNV

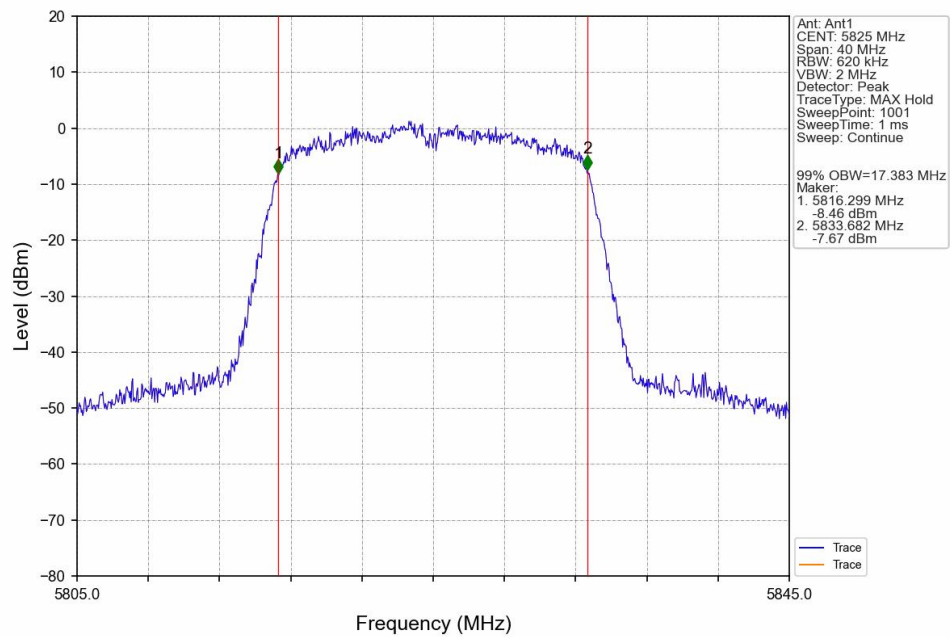


802.11ac(VHT20) MCH_5785MHz_Ant1_NTNV

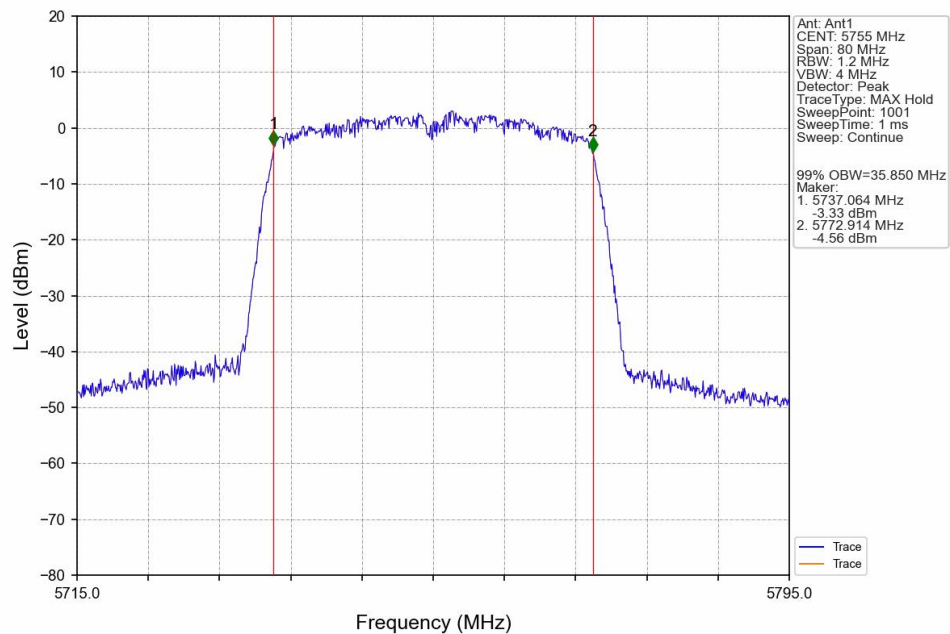




802.11ac(VHT20) HCH 5825MHz_Ant1_NTNV

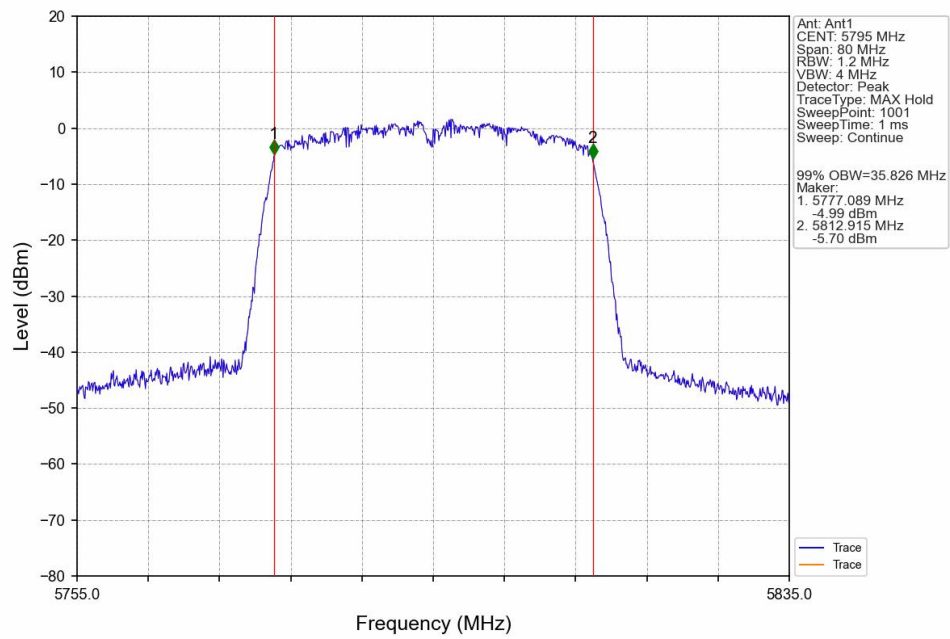


802.11ac(VHT40) LCH 5755MHz_Ant1_NTNV

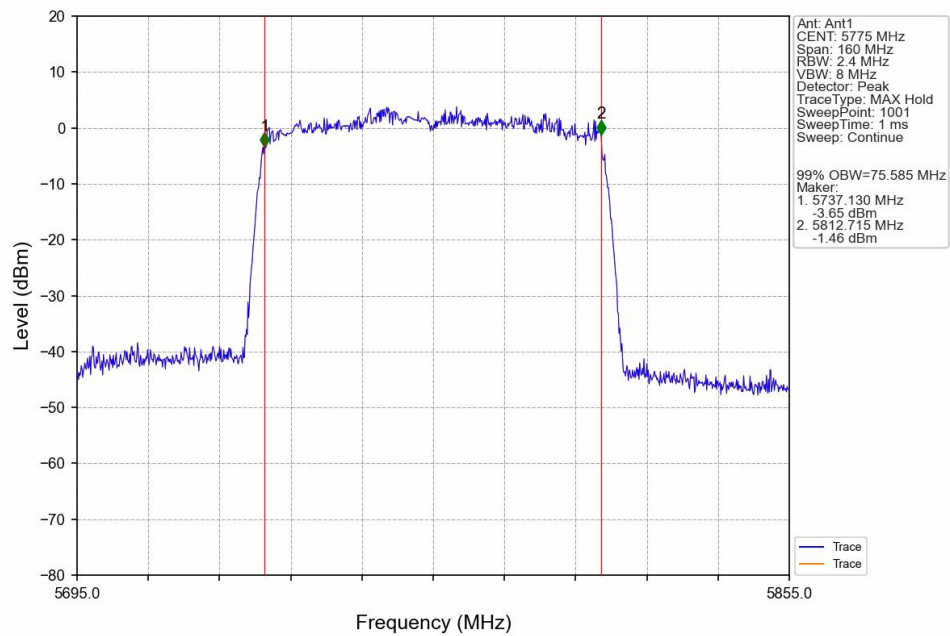




802.11ac(VHT40) HCH 5795MHz Ant1_NTNV



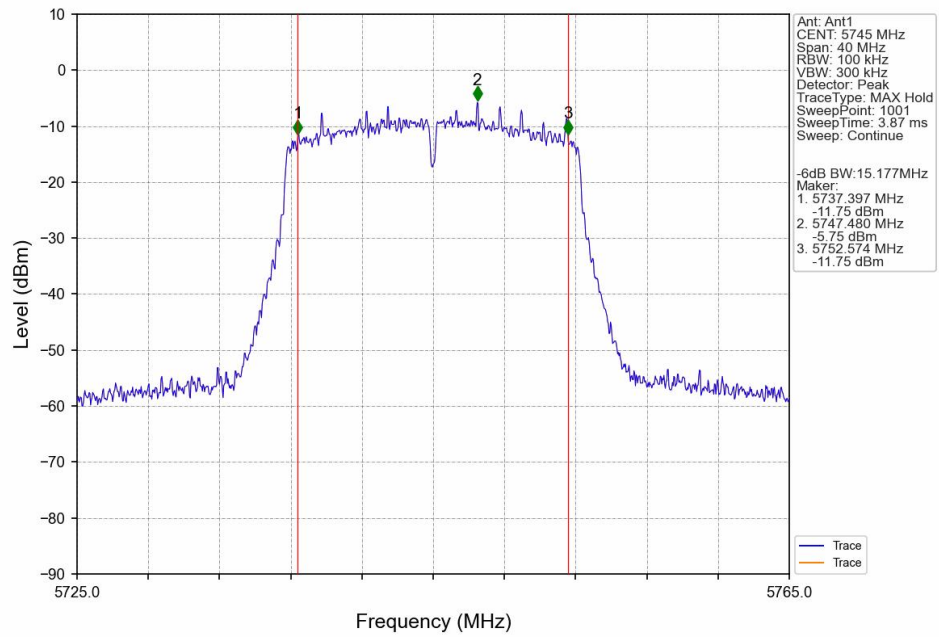
802.11ac(VHT80) MCH 5775MHz Ant1_NTNV



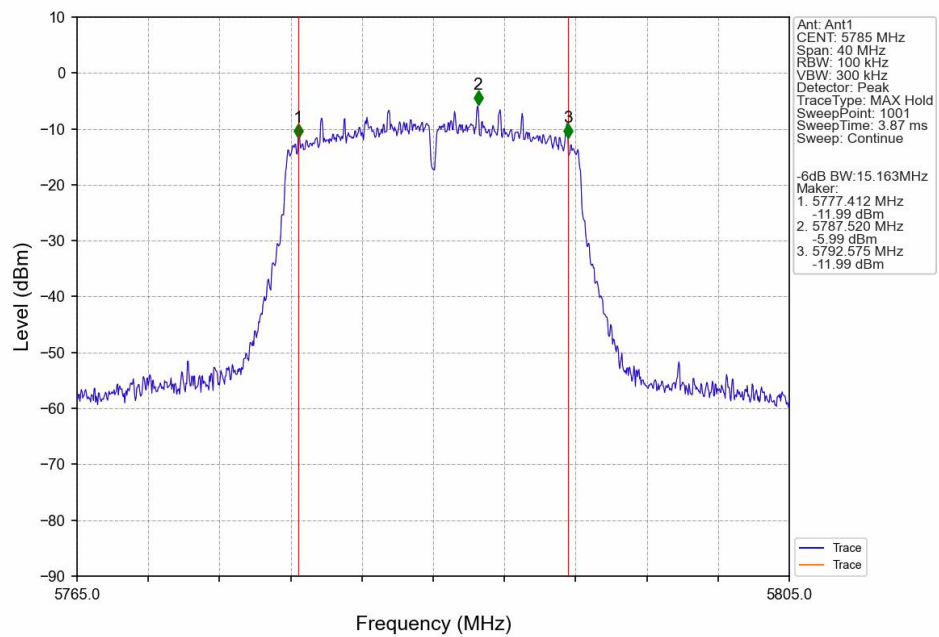


2.2.2 6dB BW

802.11a_LCH_5745MHz_Ant1_NTNV

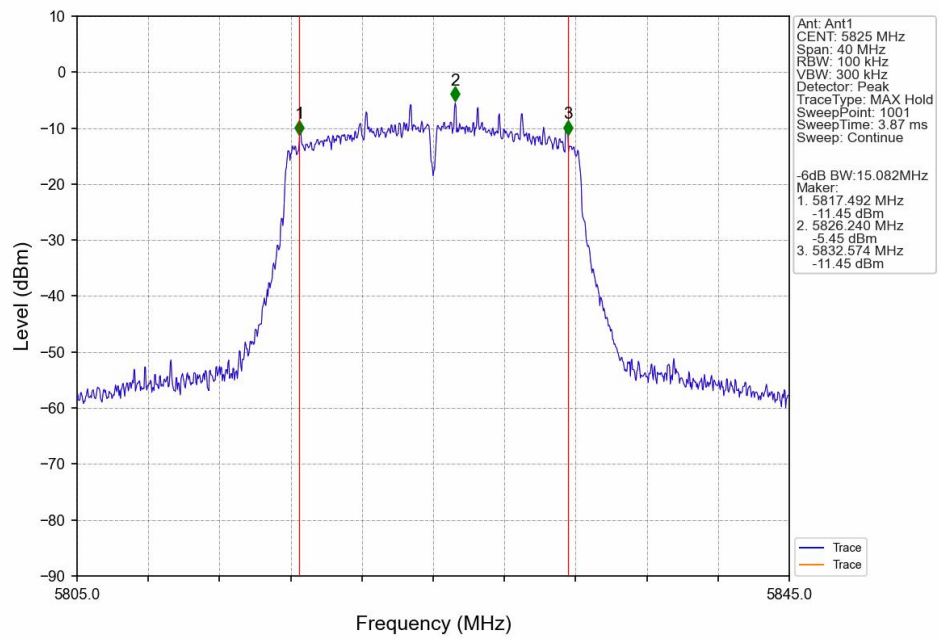


802.11a_MCH_5785MHz_Ant1_NTNV

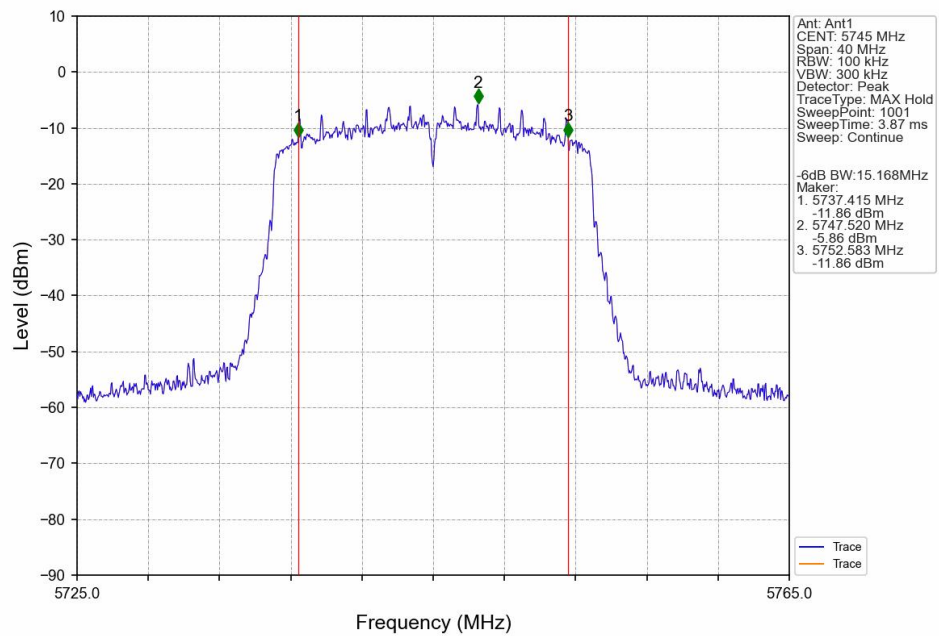




802.11a_HCH_5825MHz_Ant1_NTNV

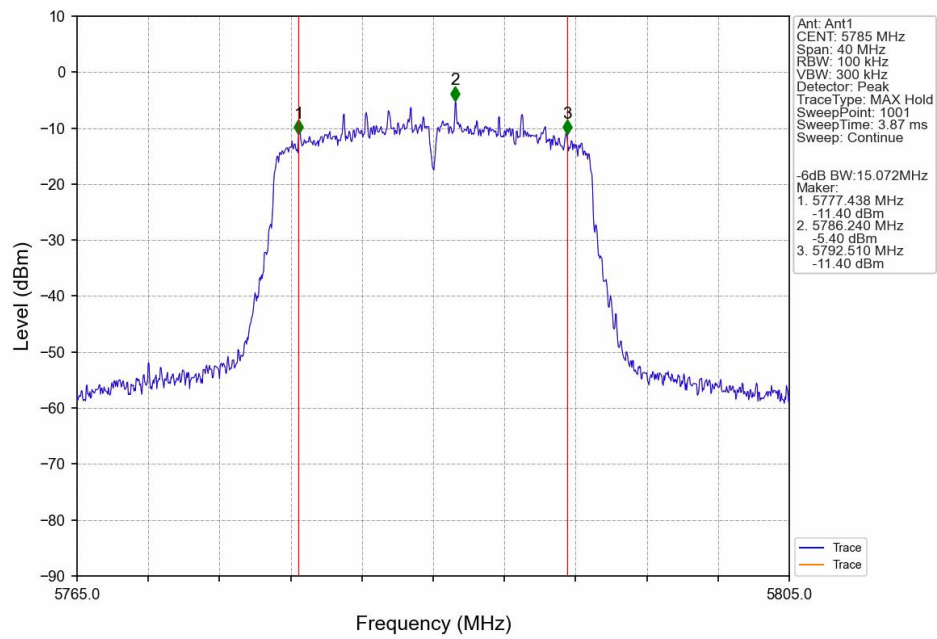


802.11n(HT20)_LCH_5745MHz_Ant1_NTNV

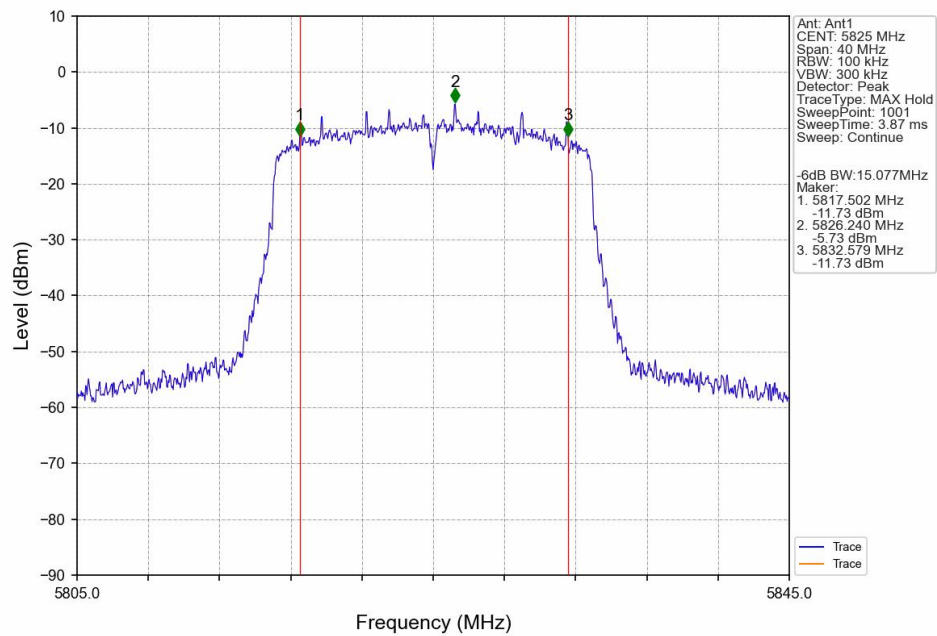




802.11n(HT20)_MCH_5785MHz_Ant1_NTNV

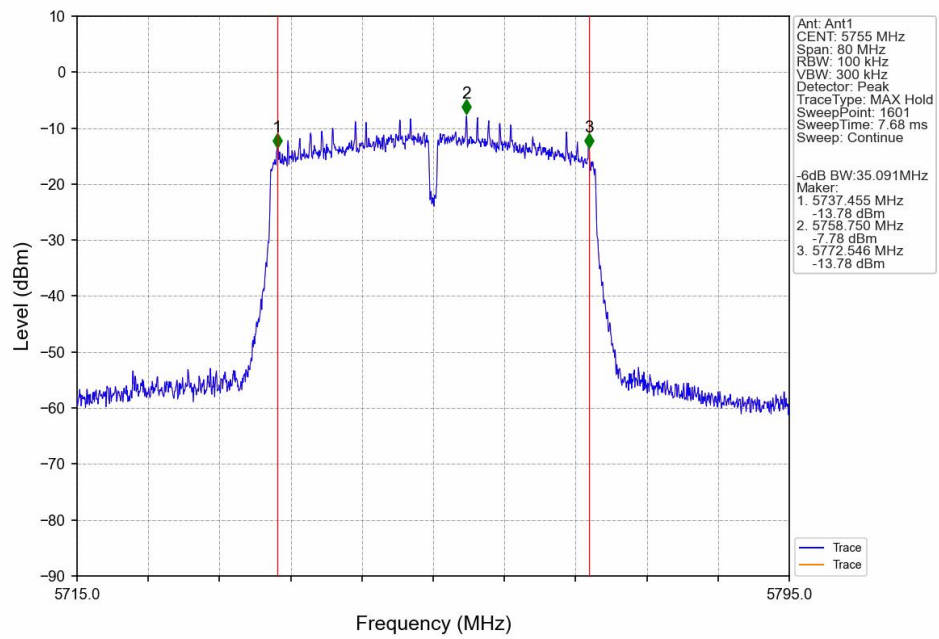


802.11n(HT20)_HCH_5825MHz_Ant1_NTNV

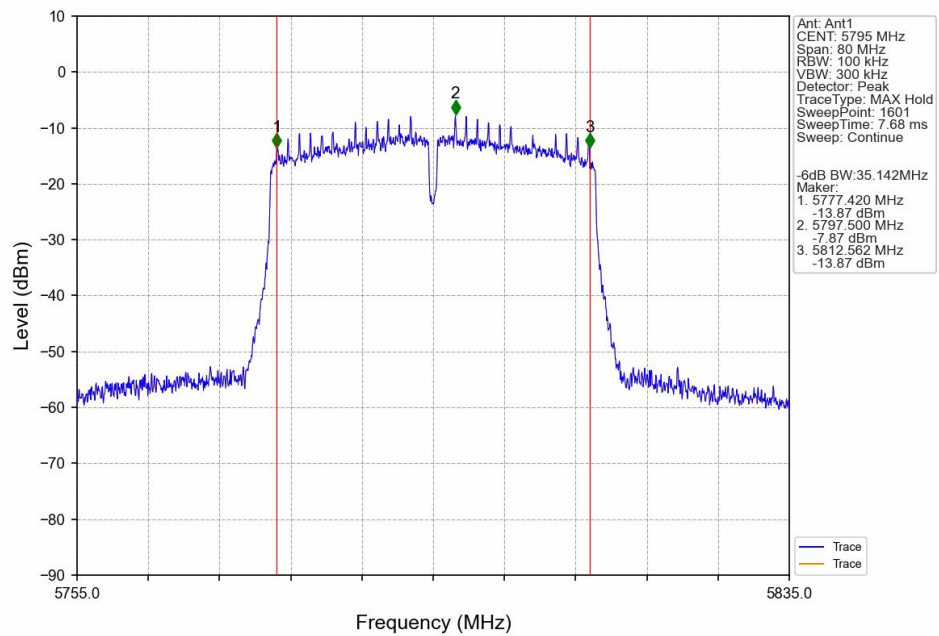




802.11n(HT40)_LCH_5755MHz_Ant1_NTNV

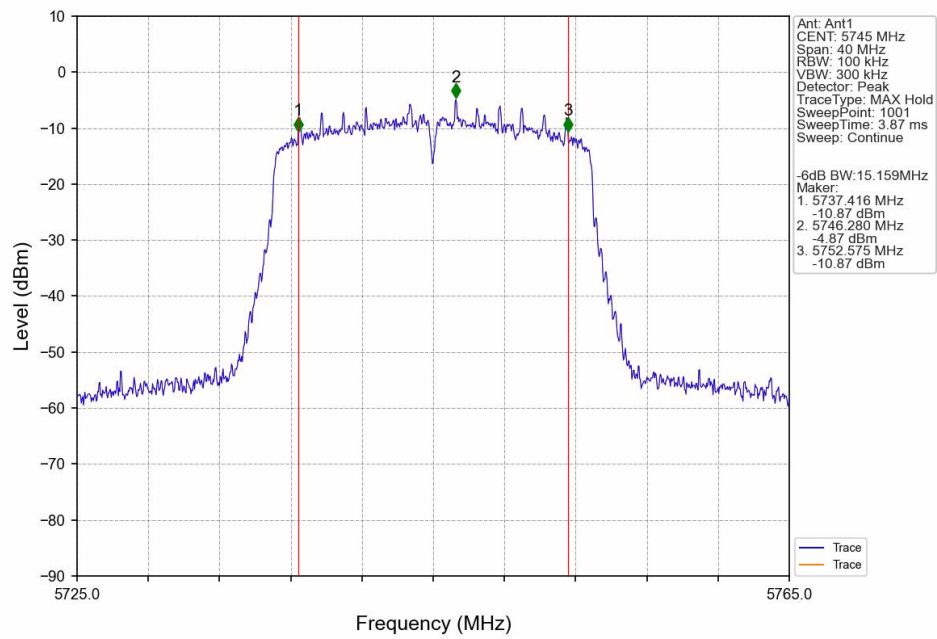


802.11n(HT40)_HCH_5795MHz_Ant1_NTNV

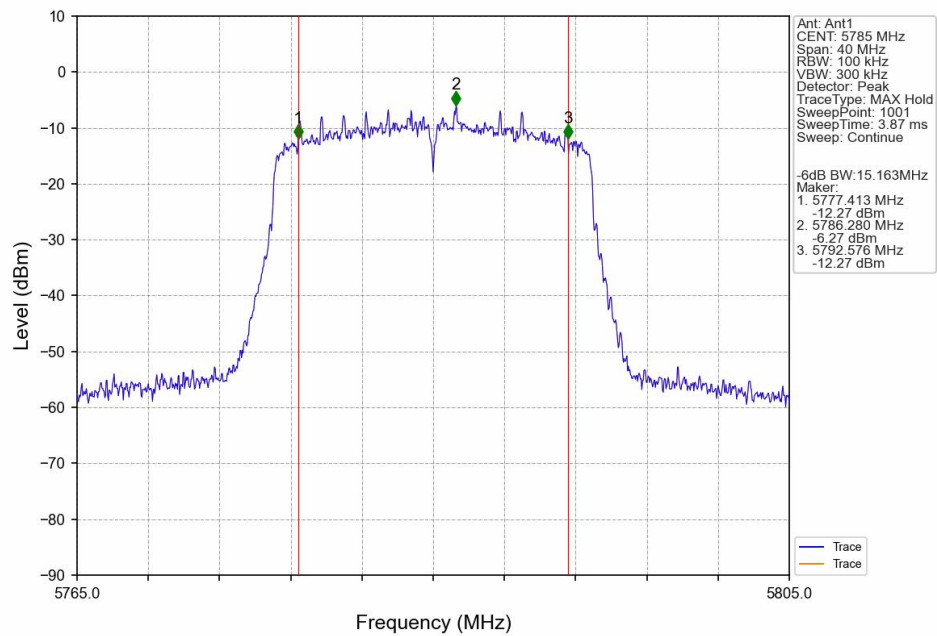




802.11ac(VHT20) LCH_5745MHz_Ant1_NTNV

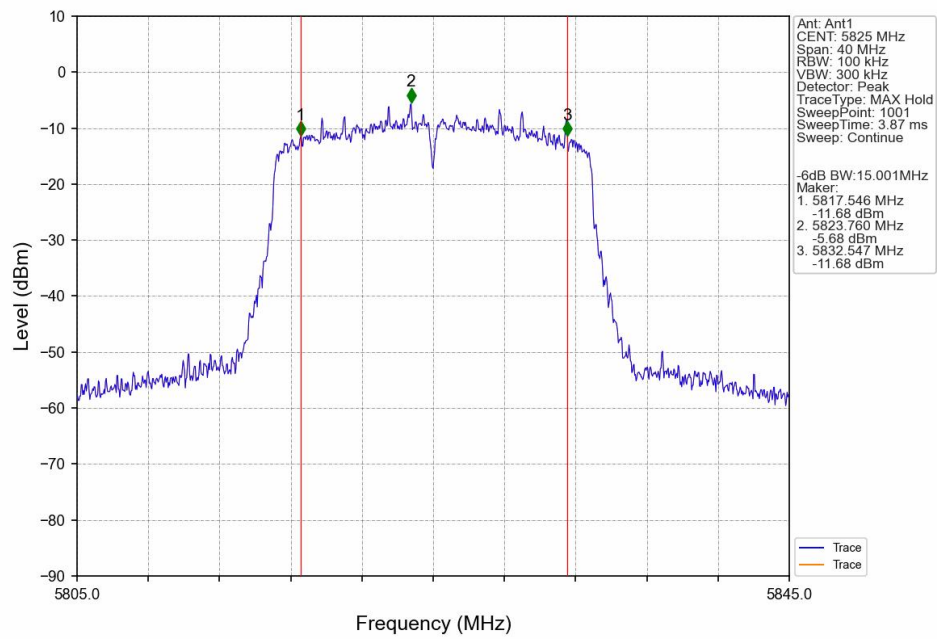


802.11ac(VHT20) MCH_5785MHz_Ant1_NTNV

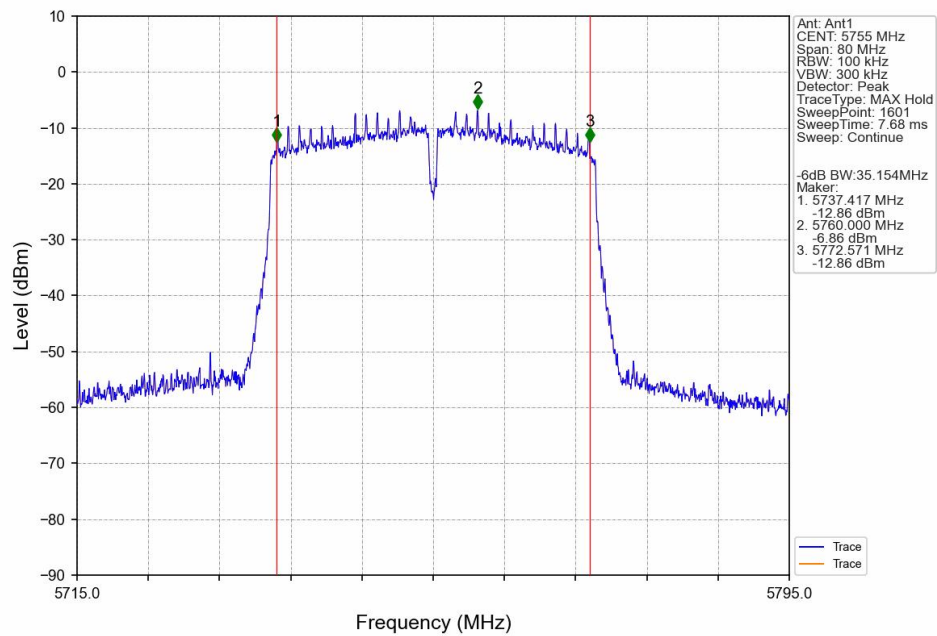




802.11ac(VHT20) HCH 5825MHz Ant1_NTNV

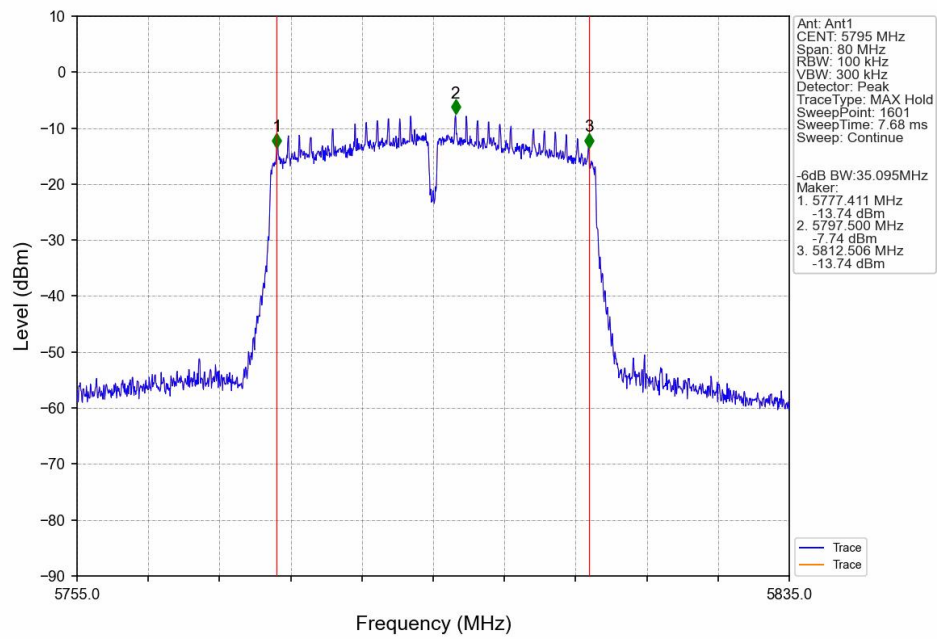


802.11ac(VHT40) LCH 5755MHz Ant1_NTNV

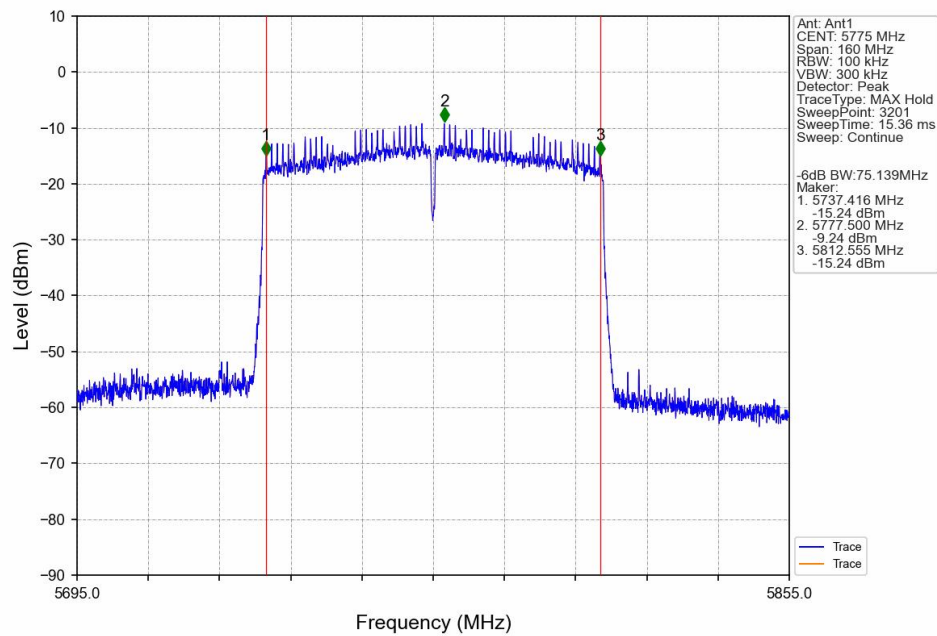




802.11ac(VHT40) HCH 5795MHz_Ant1_NTNV



802.11ac(VHT80) MCH 5775MHz_Ant1_NTNV





3. Maximum Conducted Output Power

3.1 Test Result

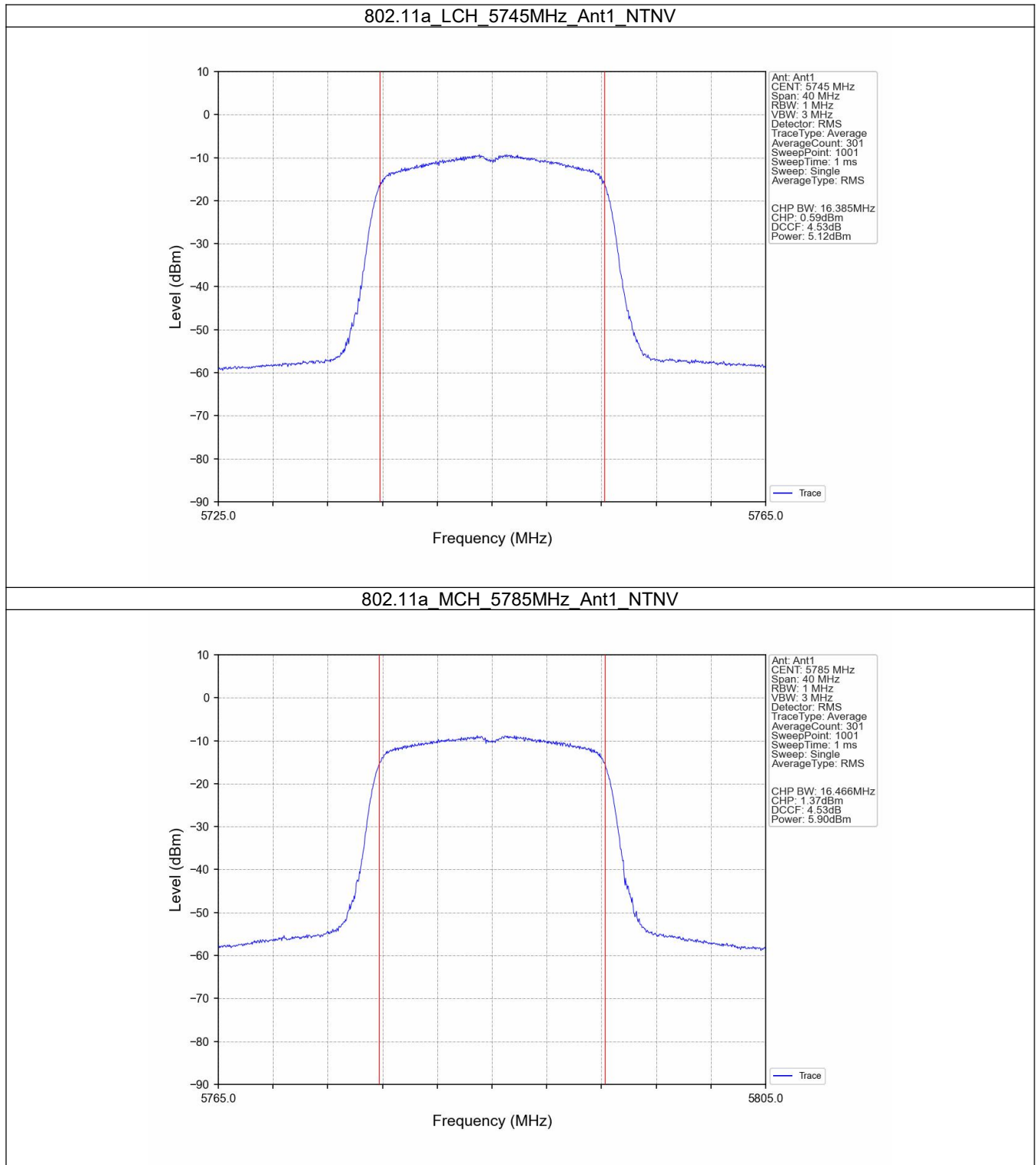
3.1.1 Power

Mode	TX Type	Frequency (MHz)	Maximum Average Conducted Output Power (dBm)		Verdict
			ANT1	Limit	
802.11a	SISO	5745	5.12	<=30	Pass
		5785	5.90	<=30	Pass
		5825	5.67	<=30	Pass
802.11n (HT20)	SISO	5745	4.97	<=30	Pass
		5785	4.42	<=30	Pass
		5825	4.71	<=30	Pass
802.11n (HT40)	SISO	5755	5.23	<=30	Pass
		5795	4.50	<=30	Pass
802.11ac (VHT20)	SISO	5745	5.35	<=30	Pass
		5785	4.67	<=30	Pass
		5825	4.71	<=30	Pass
802.11ac (VHT40)	SISO	5755	4.48	<=30	Pass
		5795	4.41	<=30	Pass
802.11ac (VHT80)	SISO	5775	4.82	<=30	Pass
Note1: Antenna Gain: Ant1: 2.12dBi;					



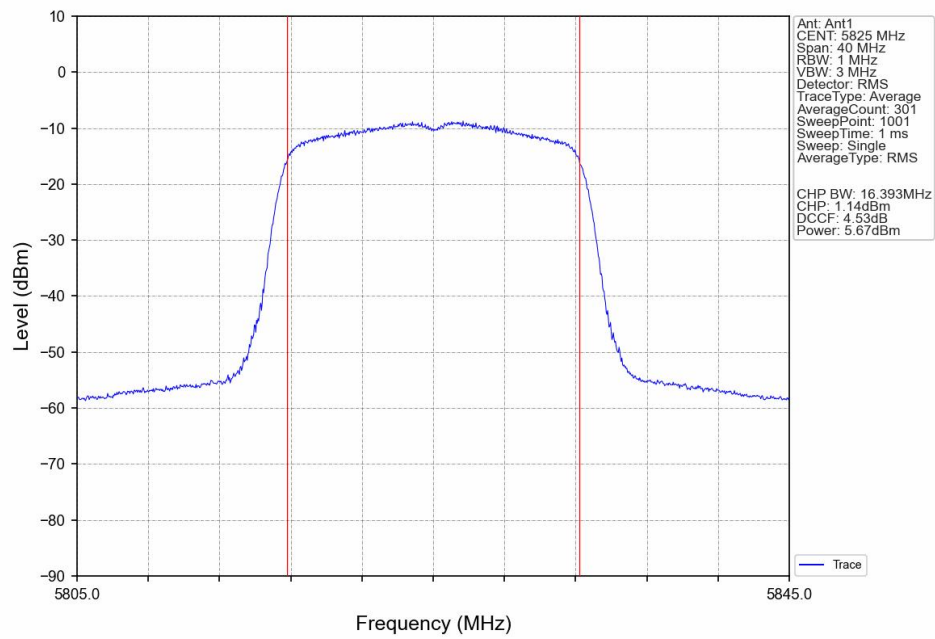
3.2 Test Graph

3.2.1 Power

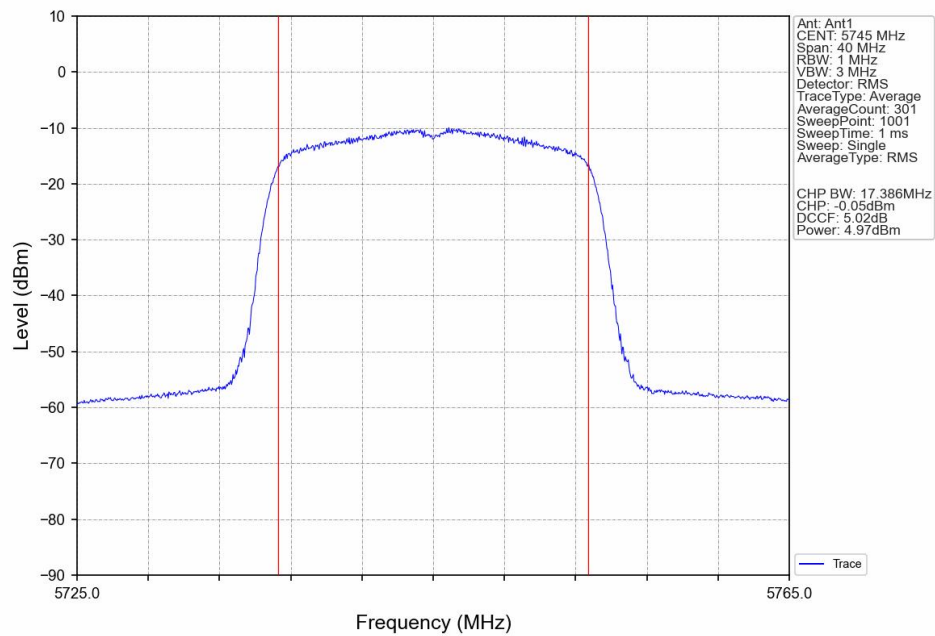




802.11a_HCH_5825MHz_Ant1_NTNV

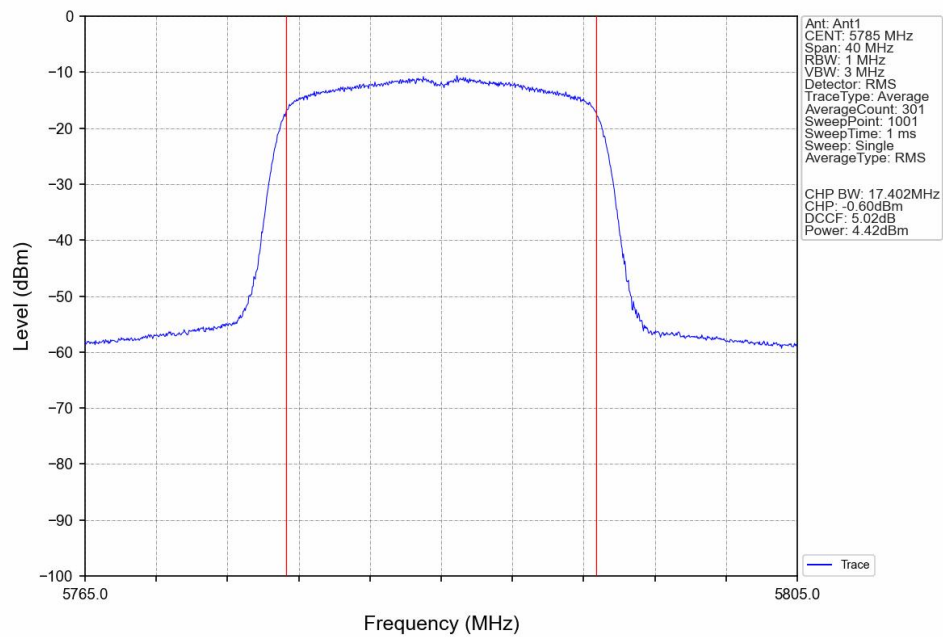


802.11n(HT20)_LCH_5745MHz_Ant1_NTNV





802.11n(HT20)_MCH_5785MHz_Ant1_NTNV



802.11n(HT20)_HCH_5825MHz_Ant1_NTNV

