

Appendix RF test data for WIFI5G

5.8G WIFI

1. Duty Cycle

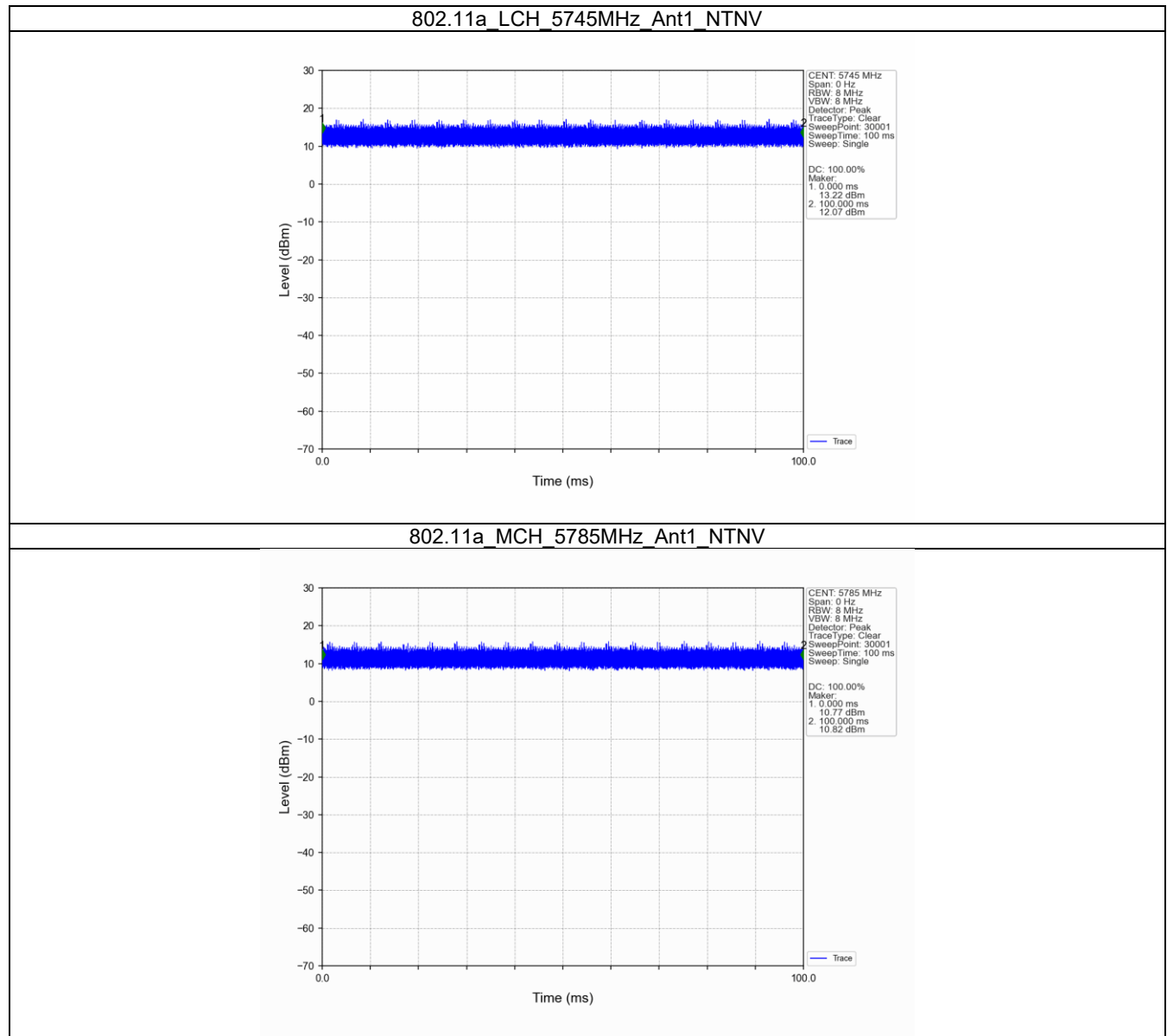
1.1 Test Result

1.1.1 Ant1

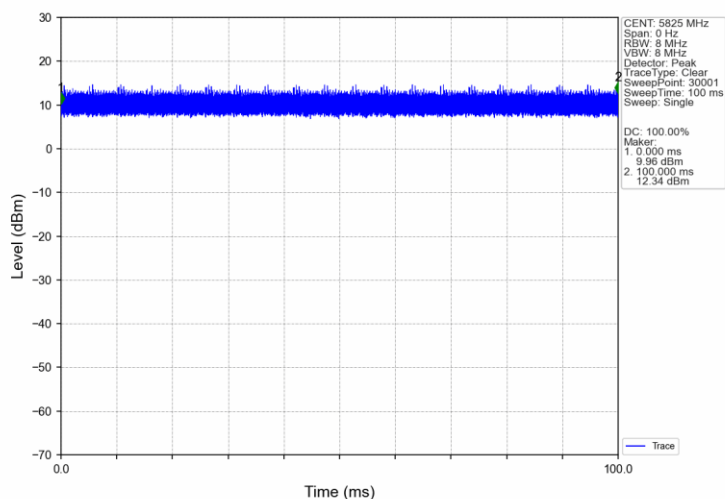
Ant1							
Mode	TX Type	Frequency (MHz)	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
802.11a	SISO	5745	100.000	100.000	100.00	0.00	0.00
		5785	100.000	100.000	100.00	0.00	0.00
		5825	100.000	100.000	100.00	0.00	0.00
802.11n (HT20)	SISO	5745	100.000	100.000	100.00	0.00	0.00
		5785	100.000	100.000	100.00	0.00	0.00
		5825	100.000	100.000	100.00	0.00	0.00
802.11n (HT40)	SISO	5755	100.000	100.000	100.00	0.00	0.00
		5795	100.000	100.000	100.00	0.00	0.00
802.11ac (VHT20)	SISO	5745	100.000	100.000	100.00	0.00	0.00
		5785	100.000	100.000	100.00	0.00	0.00
		5825	100.000	100.000	100.00	0.00	0.00
802.11ac (VHT40)	SISO	5755	100.000	100.000	100.00	0.00	0.00
		5795	100.000	100.000	100.00	0.00	0.00
802.11ac (VHT80)	SISO	5775	100.000	100.000	100.00	0.00	0.00

1.2 Test Graph

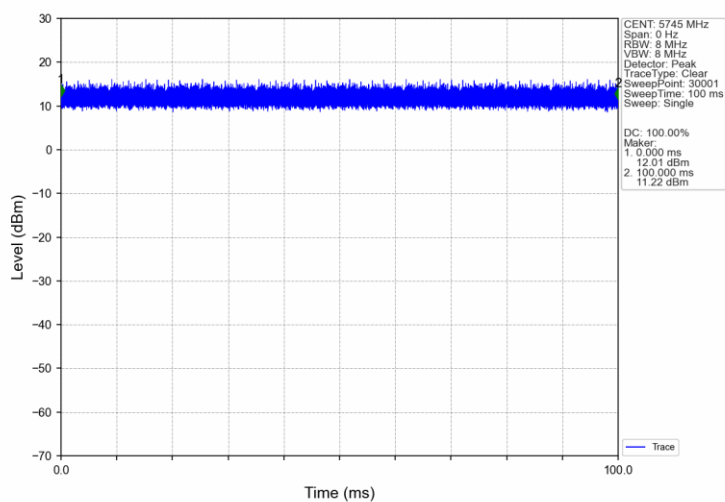
1.2.1 Ant1



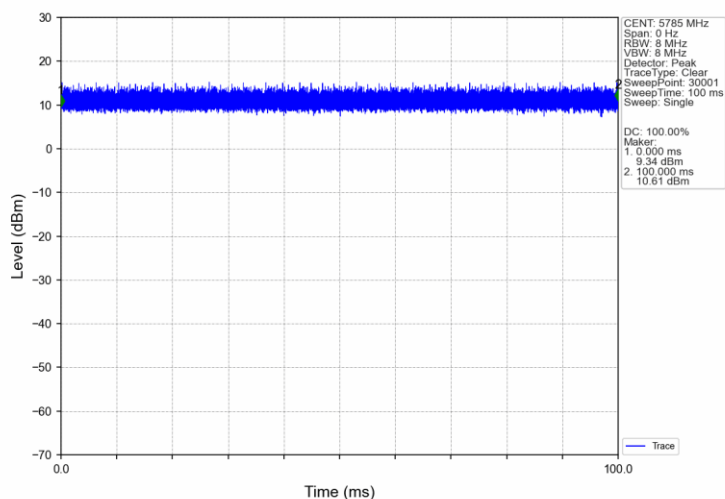
802.11a_HCH_5825MHz_Ant1_NTNV



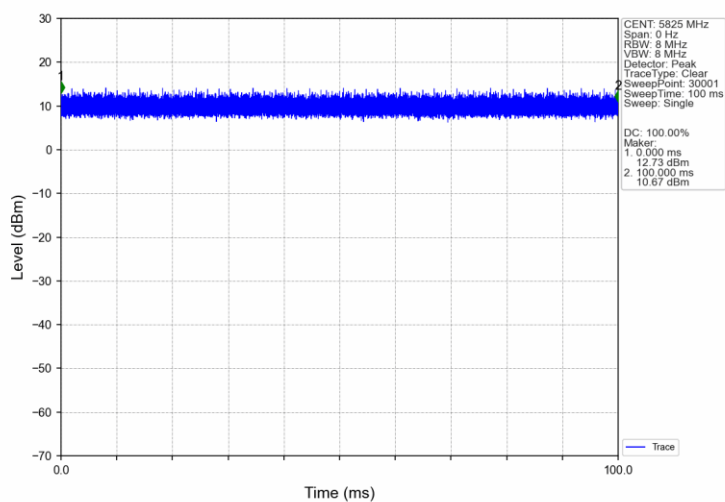
802.11n(HT20)_LCH_5745MHz_Ant1_NTNV



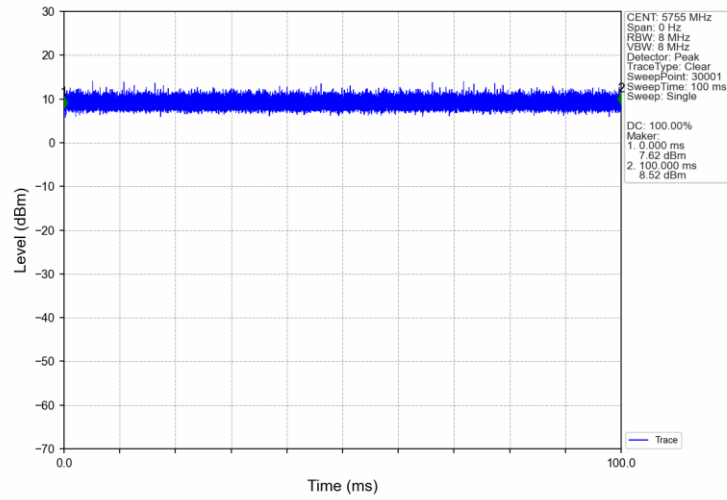
802.11n(HT20)_MCH_5785MHz_Ant1_NTNV



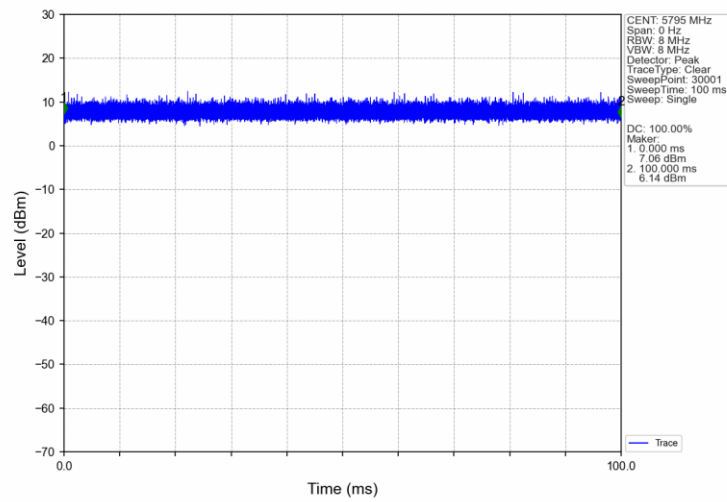
802.11n(HT20)_HCH_5825MHz_Ant1_NTNV



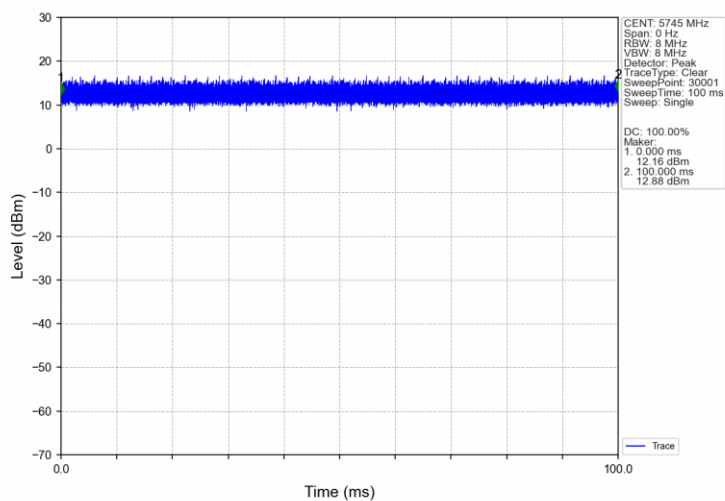
802.11n(HT40)_LCH_5755MHz_Ant1_NTNV



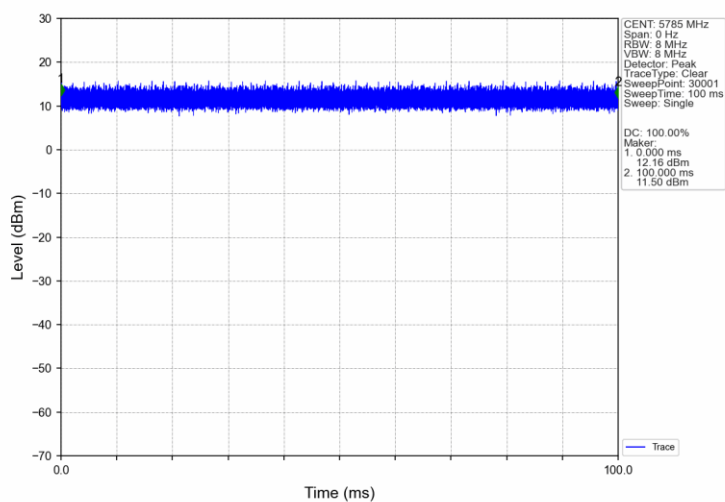
802.11n(HT40)_HCH_5795MHz_Ant1_NTNV



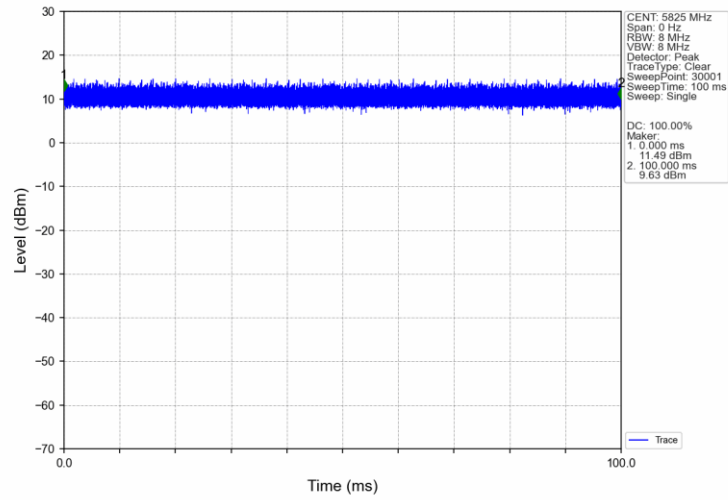
802.11ac(VHT20)_LCH_5745MHz_Ant1_NTNV



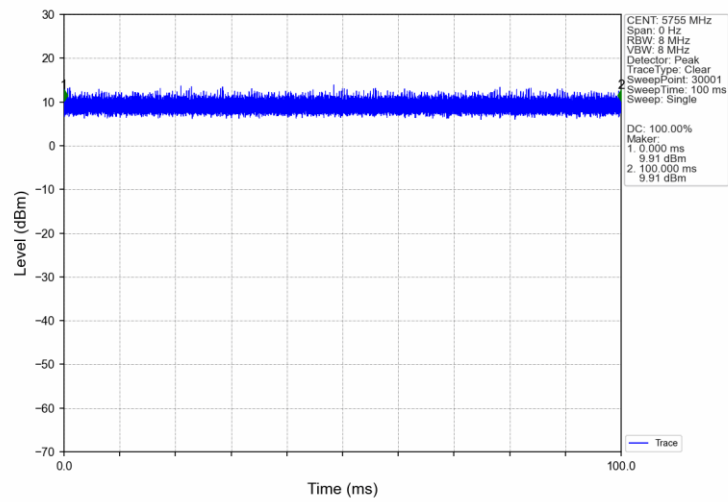
802.11ac(VHT20)_MCH_5785MHz_Ant1_NTNV



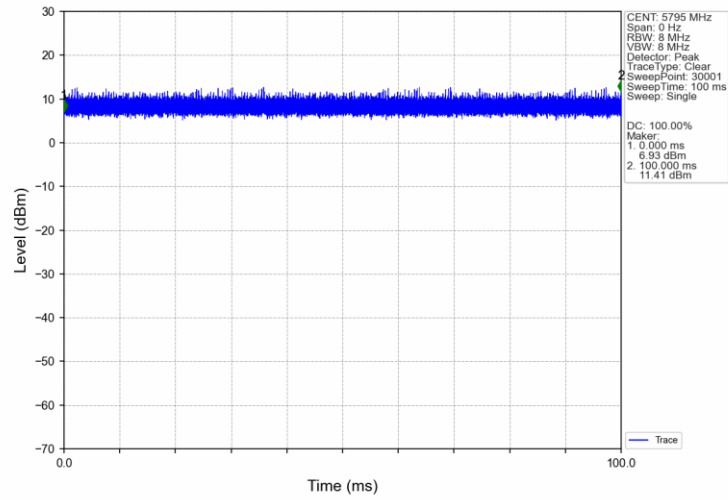
802.11ac(VHT20)_HCH_5825MHz_Ant1_NTNV



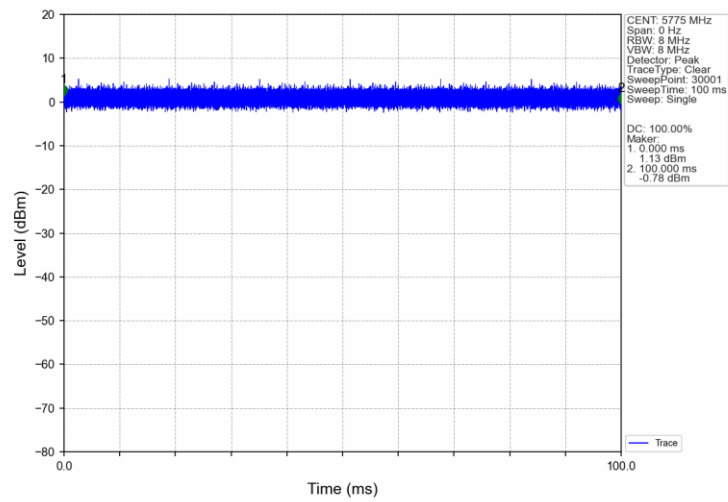
802.11ac(VHT40)_LCH_5755MHz_Ant1_NTNV



802.11ac(VHT40)_HCH_5795MHz_Ant1_NTNV



802.11ac(VHT80)_MCH_5775MHz_Ant1_NTNV



2. Bandwidth

2.1 Test Result

2.1.1 OBW

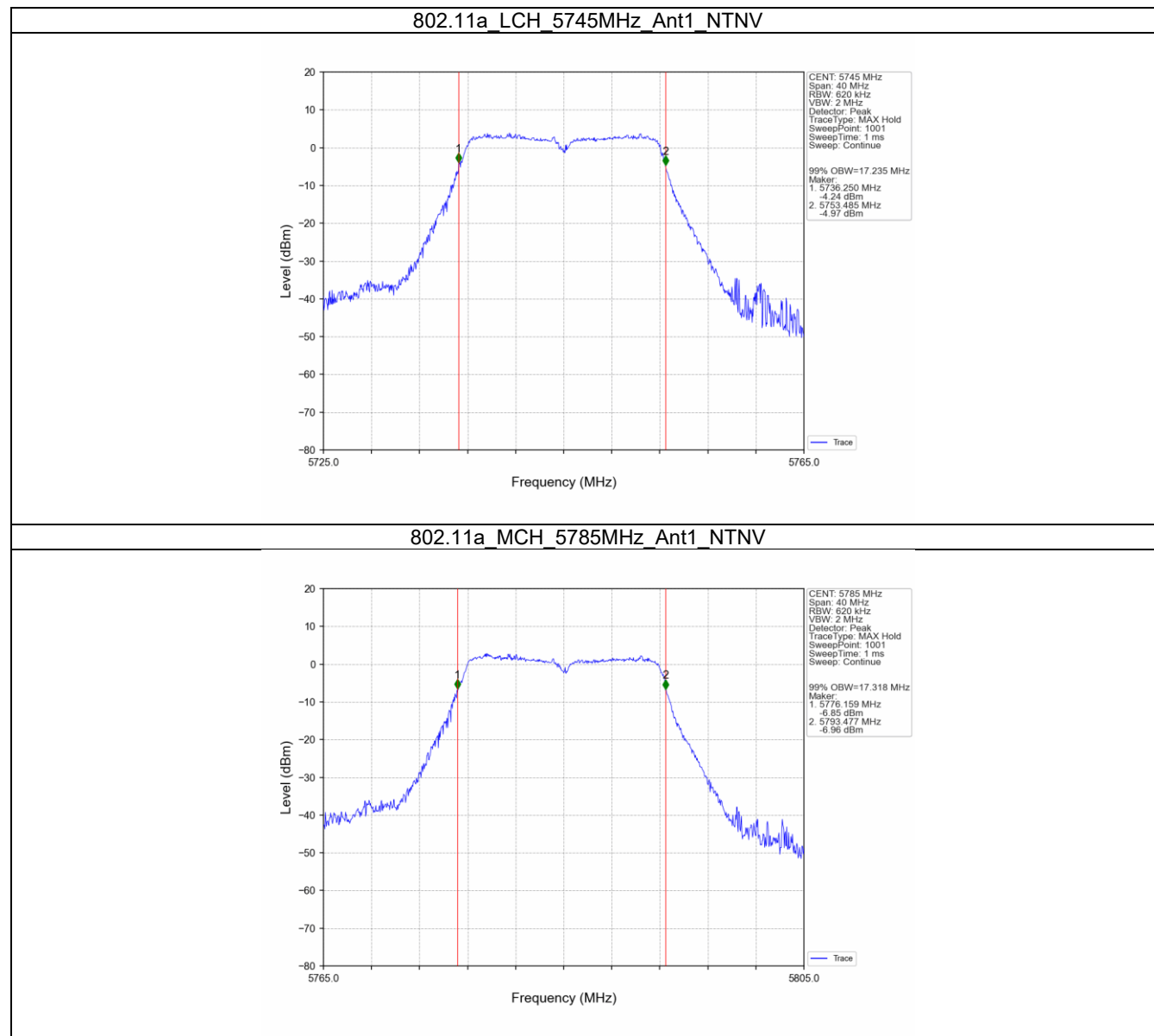
Mode	TX Type	Frequency (MHz)	ANT	99% Occupied Bandwidth (MHz)		Verdict
				Result	Limit	
802.11a	SISO	5745	1	17.235	/	Pass
		5785	1	17.318	/	Pass
		5825	1	17.320	/	Pass
802.11n (HT20)	SISO	5745	1	18.205	/	Pass
		5785	1	18.239	/	Pass
		5825	1	18.262	/	Pass
802.11n (HT40)	SISO	5755	1	36.692	/	Pass
		5795	1	36.803	/	Pass
802.11ac (VHT20)	SISO	5745	1	18.207	/	Pass
		5785	1	18.212	/	Pass
		5825	1	18.276	/	Pass
802.11ac (VHT40)	SISO	5755	1	36.698	/	Pass
		5795	1	36.701	/	Pass
802.11ac (VHT80)	SISO	5775	1	76.025	/	Pass

2.1.2 6dB BW

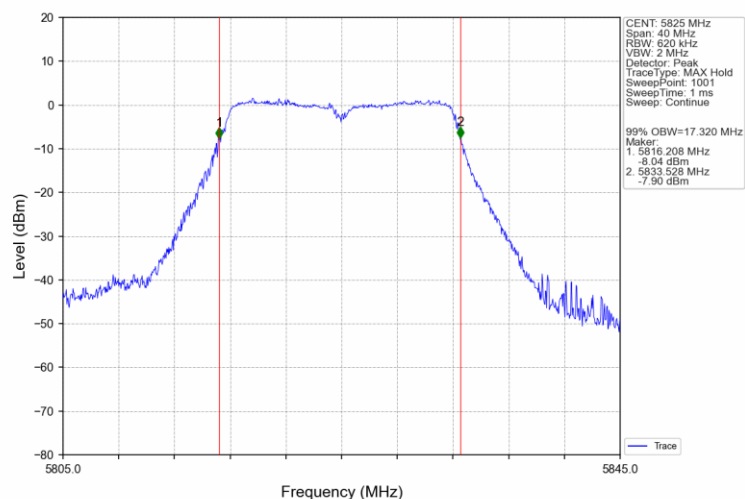
Mode	TX Type	Frequency (MHz)	ANT	6dB Bandwidth (MHz)		Verdict
				Result	Limit	
802.11a	SISO	5745	1	16.550	≥ 0.5	Pass
		5785	1	16.557	≥ 0.5	Pass
		5825	1	16.555	≥ 0.5	Pass
802.11n (HT20)	SISO	5745	1	17.691	≥ 0.5	Pass
		5785	1	17.672	≥ 0.5	Pass
		5825	1	17.728	≥ 0.5	Pass
802.11n (HT40)	SISO	5755	1	36.472	≥ 0.5	Pass
		5795	1	36.471	≥ 0.5	Pass
802.11ac (VHT20)	SISO	5745	1	17.685	≥ 0.5	Pass
		5785	1	17.683	≥ 0.5	Pass
		5825	1	17.806	≥ 0.5	Pass
802.11ac (VHT40)	SISO	5755	1	36.471	≥ 0.5	Pass
		5795	1	36.490	≥ 0.5	Pass
802.11ac (VHT80)	SISO	5775	1	76.114	≥ 0.5	Pass

2.2 Test Graph

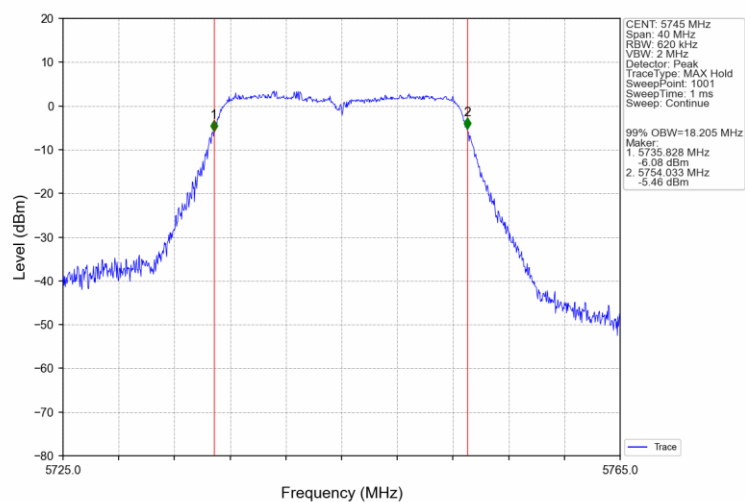
2.2.1 OBW



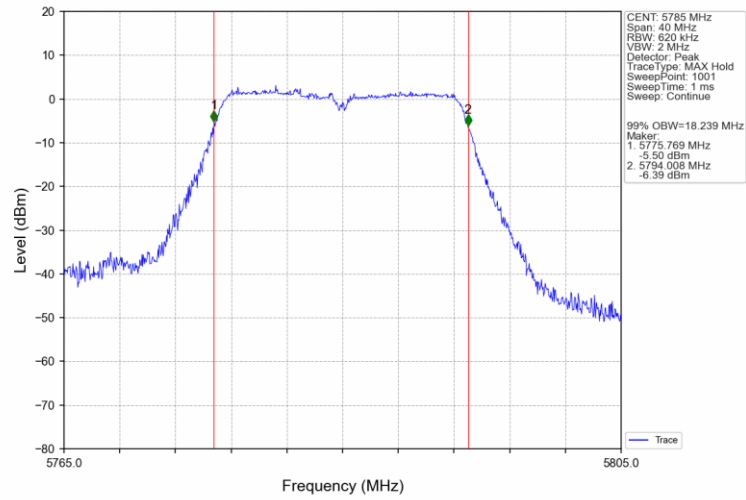
802.11a_HCH_5825MHz_Ant1_NTNV



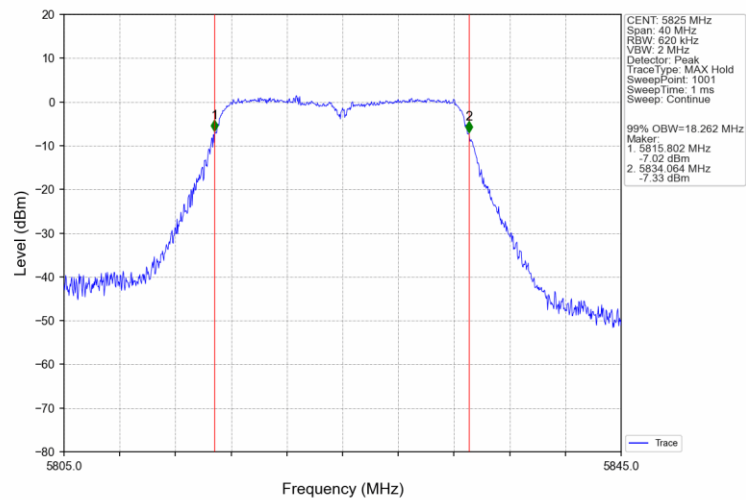
802.11n(HT20)_LCH_5745MHz_Ant1_NTNV



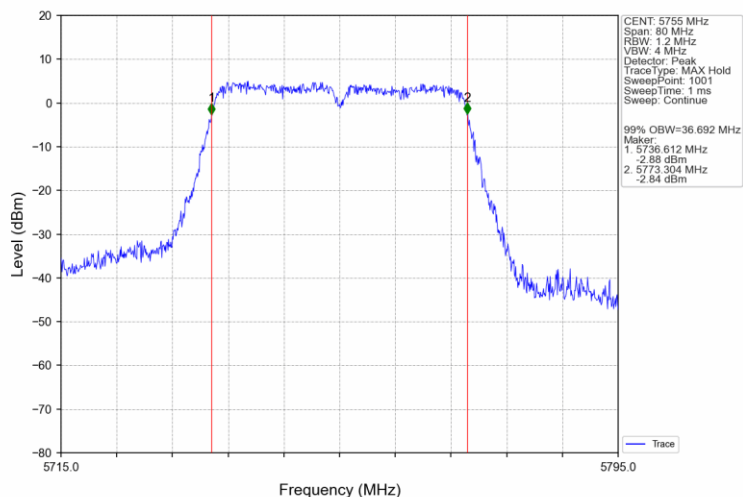
802.11n(HT20)_MCH_5785MHz_Ant1_NTNV



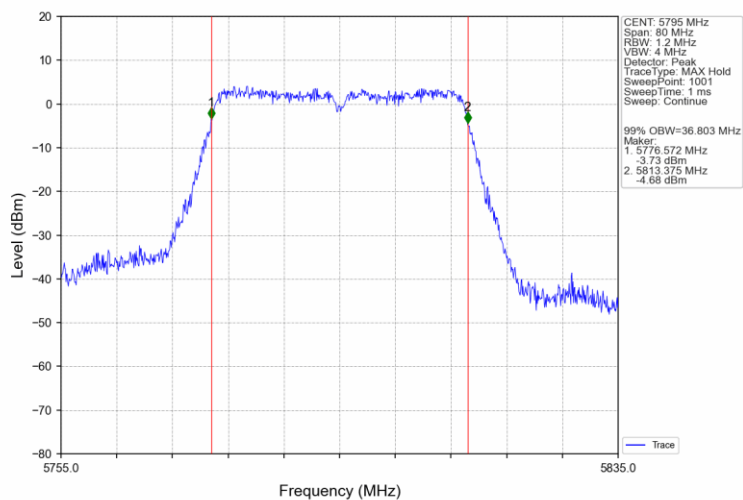
802.11n(HT20)_HCH_5825MHz_Ant1_NTNV



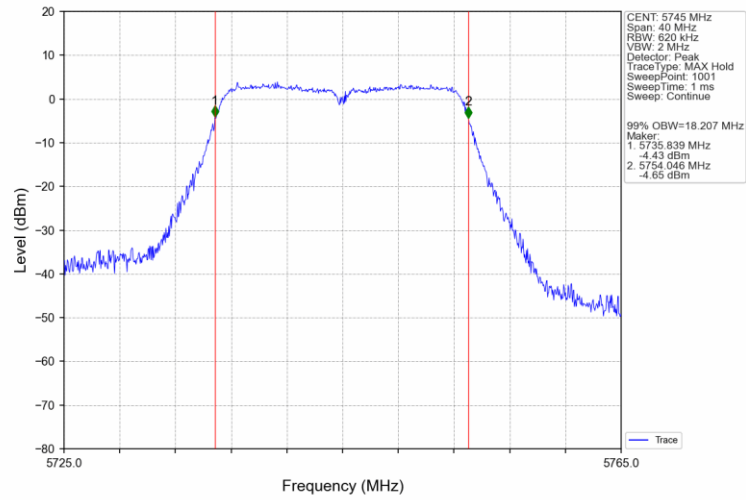
802.11n(HT40)_LCH_5755MHz_Ant1_NTNV



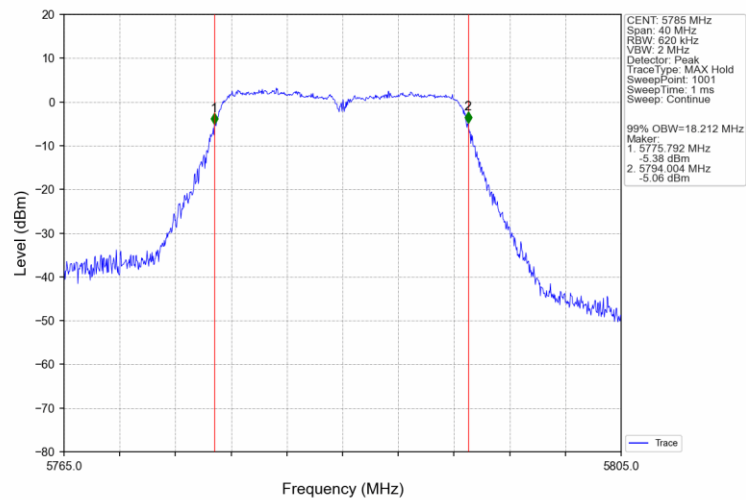
802.11n(HT40)_HCH_5795MHz_Ant1_NTNV



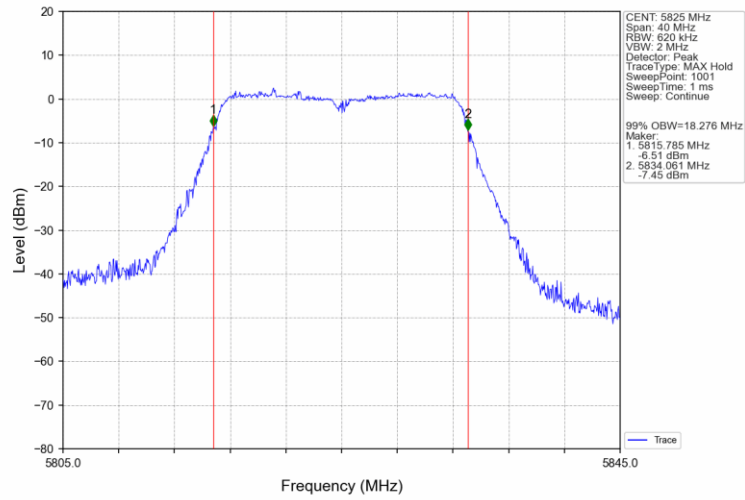
802.11ac(VHT20)_LCH_5745MHz_Ant1_NTNV



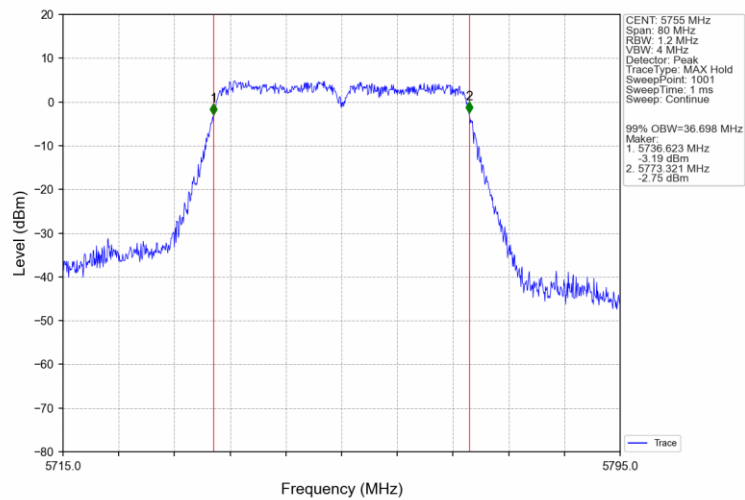
802.11ac(VHT20)_MCH_5785MHz_Ant1_NTNV



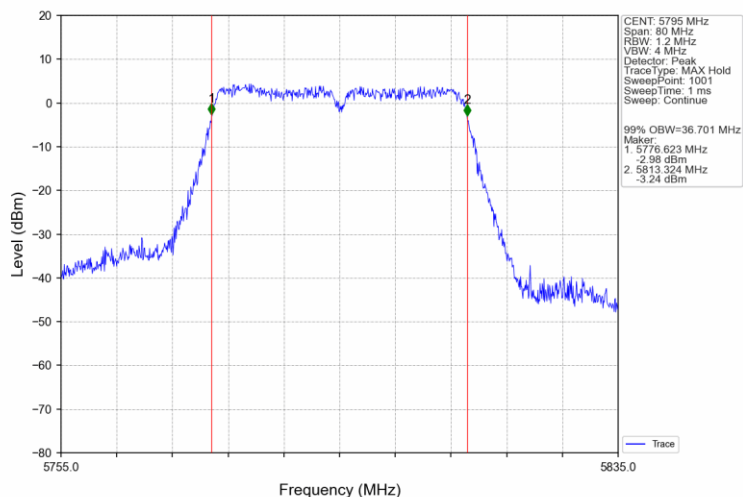
802.11ac(VHT20)_HCH_5825MHz_Ant1_NTNV



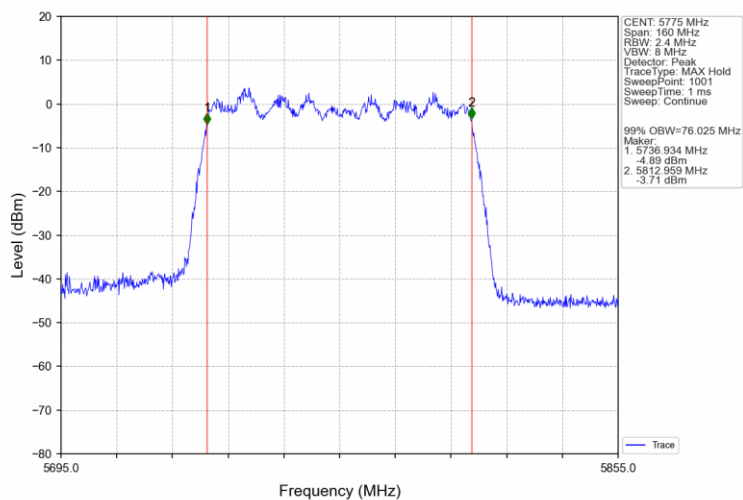
802.11ac(VHT40)_LCH_5755MHz_Ant1_NTNV



802.11ac(VHT40)_HCH_5795MHz_Ant1_NTNV

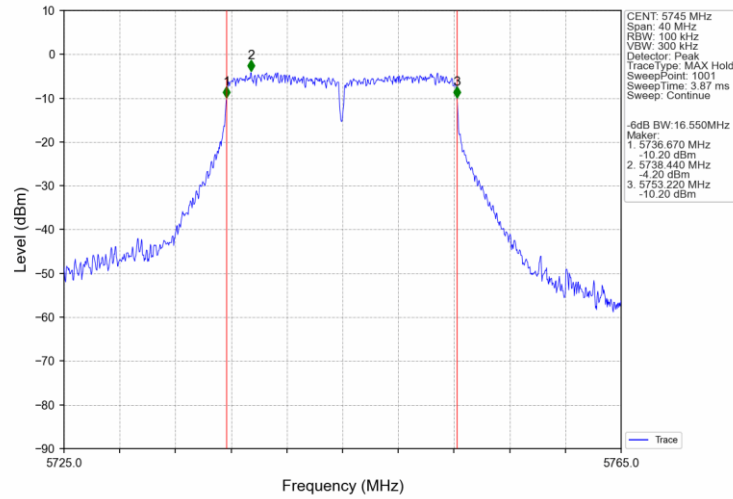


802.11ac(VHT80)_MCH_5775MHz_Ant1_NTNV

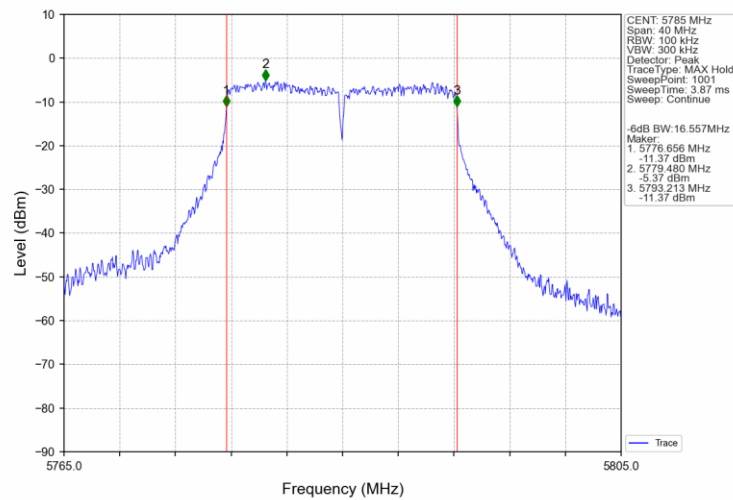


2.2.2 6dB BW

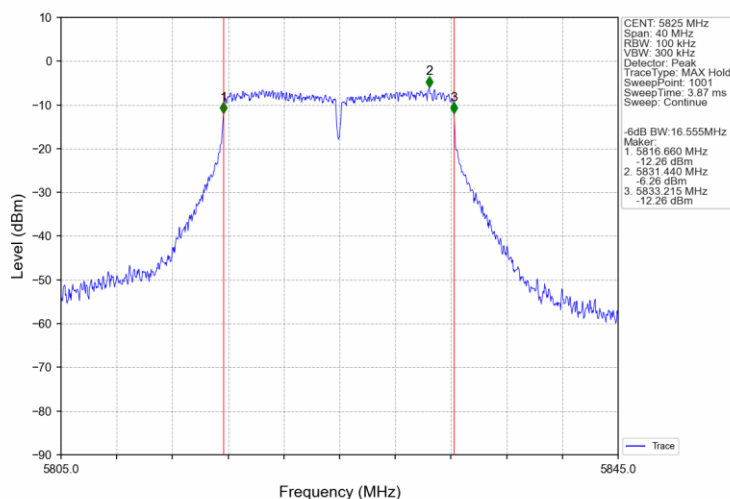
802.11a_LCH_5745MHz_Ant1_NTNV



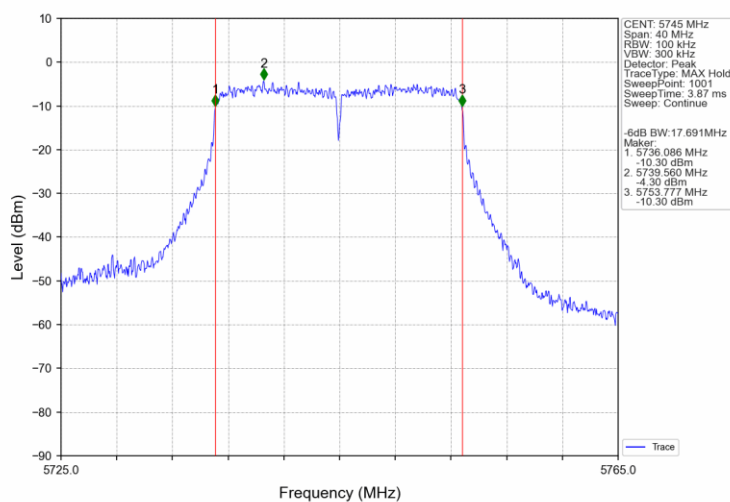
802.11a_MCH_5785MHz_Ant1_NTNV



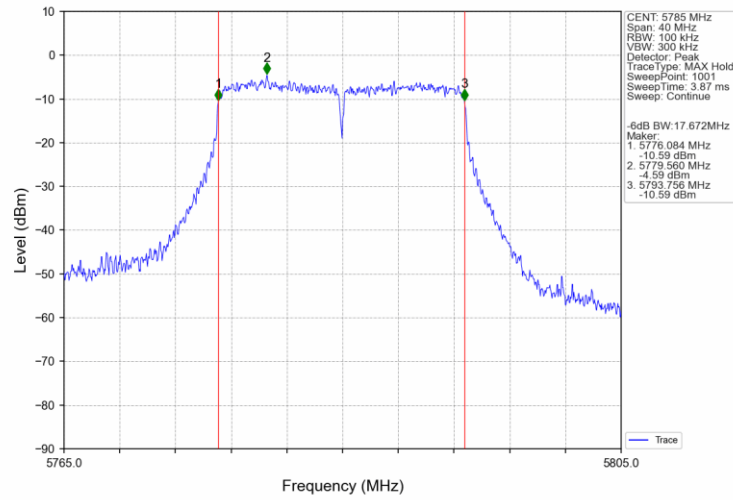
802.11a_HCH_5825MHz_Ant1_NTNV



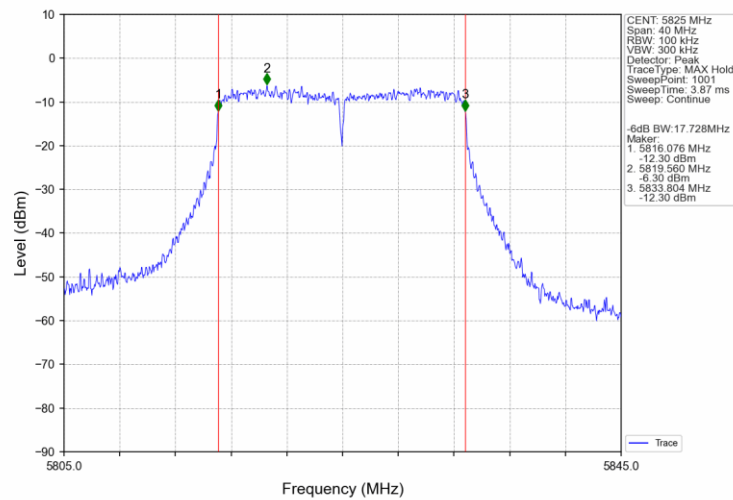
802.11n(HT20)_LCH_5745MHz_Ant1_NTNV



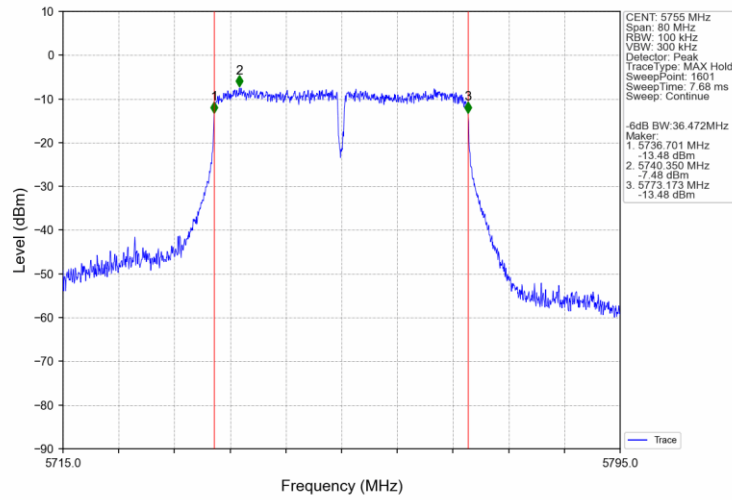
802.11n(HT20)_MCH_5785MHz_Ant1_NTNV



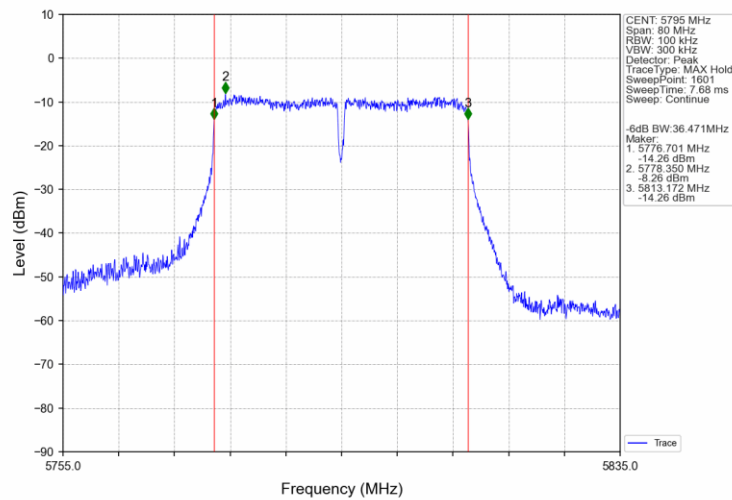
802.11n(HT20)_HCH_5825MHz_Ant1_NTNV



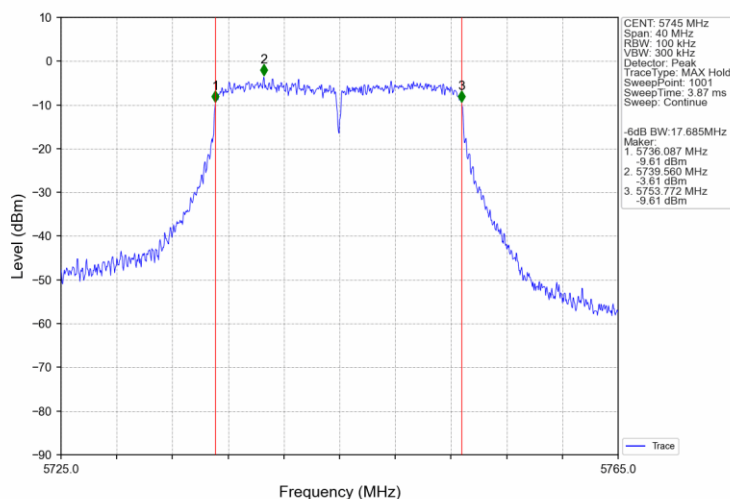
802.11n(HT40)_LCH_5755MHz_Ant1_NTNV



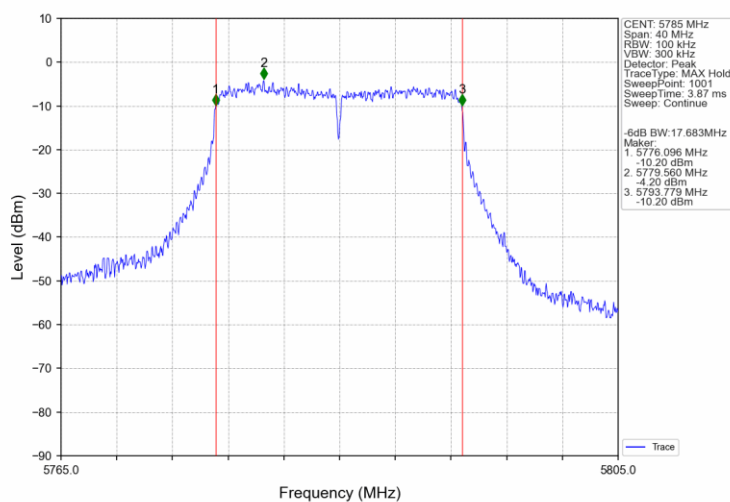
802.11n(HT40)_HCH_5795MHz_Ant1_NTNV



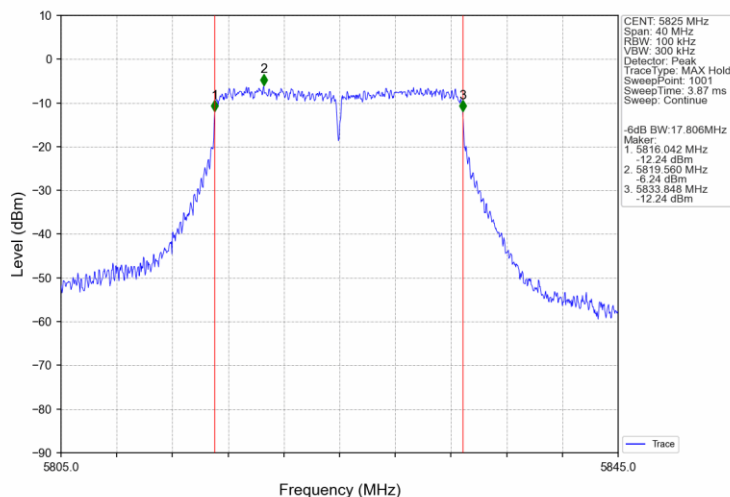
802.11ac(VHT20)_LCH_5745MHz_Ant1_NTNV



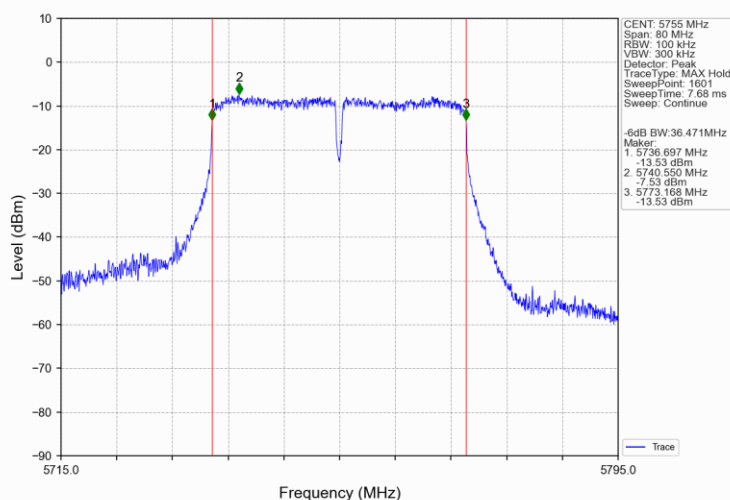
802.11ac(VHT20)_MCH_5785MHz_Ant1_NTNV



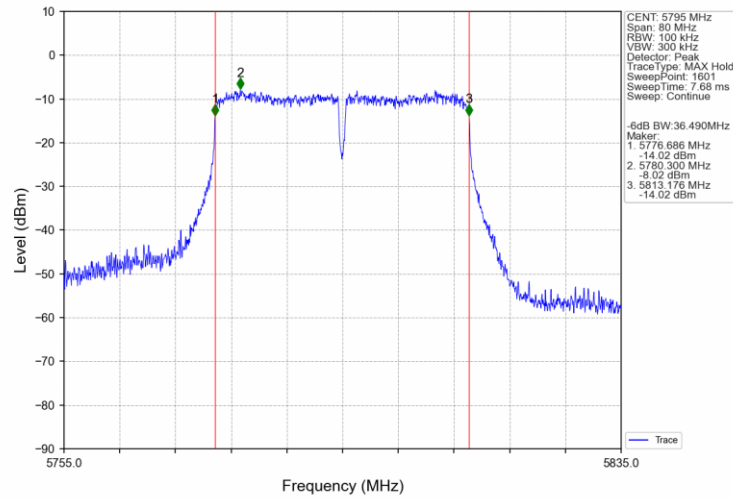
802.11ac(VHT20)_HCH_5825MHz_Ant1_NTNV



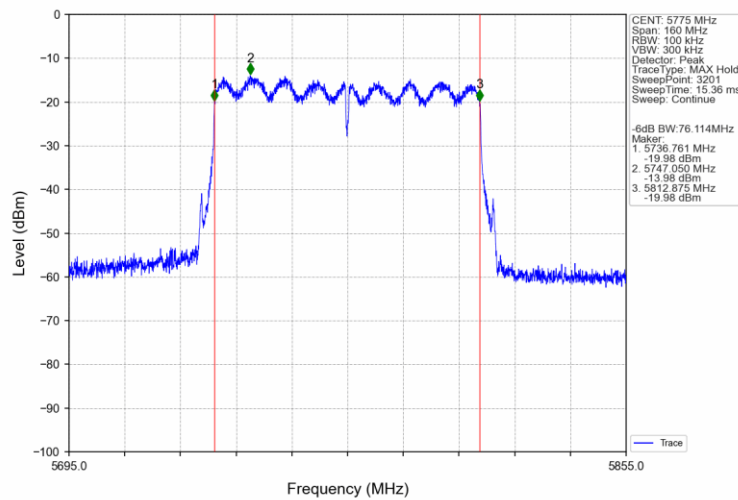
802.11ac(VHT40)_LCH_5755MHz_Ant1_NTNV



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	9.99	<=30	Pass
		5785	8.73	<=30	Pass
		5825	7.70	<=30	Pass
802.11n (HT20)	SISO	5745	9.43	<=30	Pass
		5785	8.63	<=30	Pass
		5825	7.65	<=30	Pass
802.11n (HT40)	SISO	5755	9.76	<=30	Pass
		5795	8.89	<=30	Pass
802.11ac (VHT20)	SISO	5745	10.02	<=30	Pass
		5785	9.18	<=30	Pass
		5825	8.17	<=30	Pass
802.11ac (VHT40)	SISO	5755	9.80	<=30	Pass
		5795	9.10	<=30	Pass
802.11ac (VHT80)	SISO	5775	4.88	<=30	Pass

Note1: Antenna Gain: Ant1: 4.48dBi;

4. Maximum Power Spectral Density

4.1 Test Result

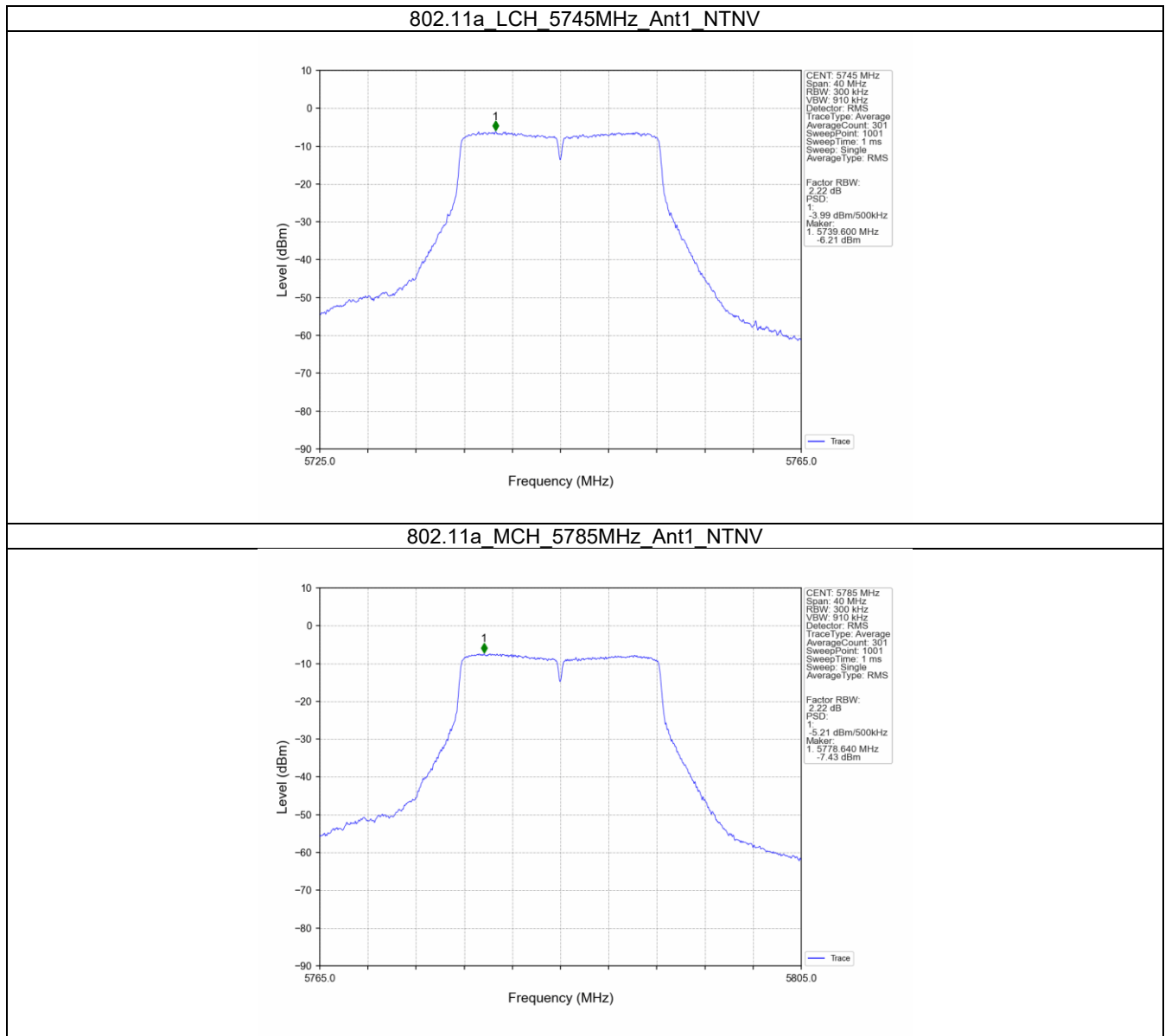
4.1.1 PSD-Band3

Mode	TX Type	Frequency (MHz)	Maximum PSD (dBm/500kHz)		Verdict
			ANT1	Limit	
802.11a	SISO	5745	-3.99	<=30	Pass
		5785	-5.21	<=30	Pass
		5825	-6.32	<=30	Pass
802.11n (HT20)	SISO	5745	-4.85	<=30	Pass
		5785	-5.32	<=30	Pass
		5825	-6.59	<=30	Pass
802.11n (HT40)	SISO	5755	-7.58	<=30	Pass
		5795	-8.15	<=30	Pass
802.11ac (VHT20)	SISO	5745	-4.26	<=30	Pass
		5785	-4.83	<=30	Pass
		5825	-6.04	<=30	Pass
802.11ac (VHT40)	SISO	5755	-7.57	<=30	Pass
		5795	-8.03	<=30	Pass
802.11ac (VHT80)	SISO	5775	-13.88	<=30	Pass

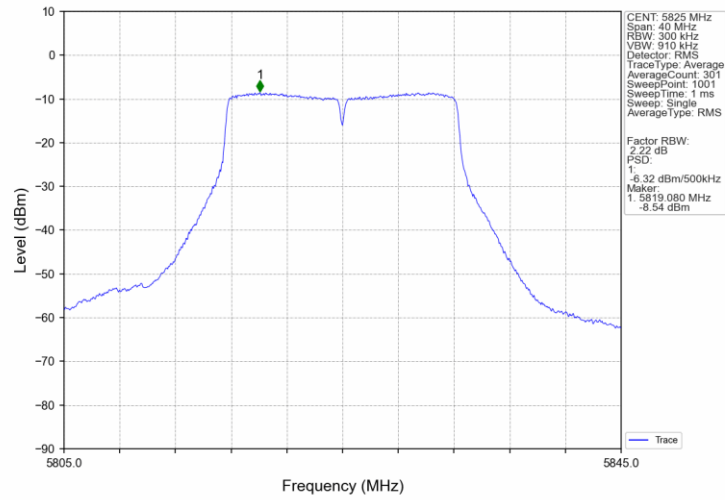
Note1: Antenna Gain: Ant1: 4.48dBi;

4.2 Test Graph

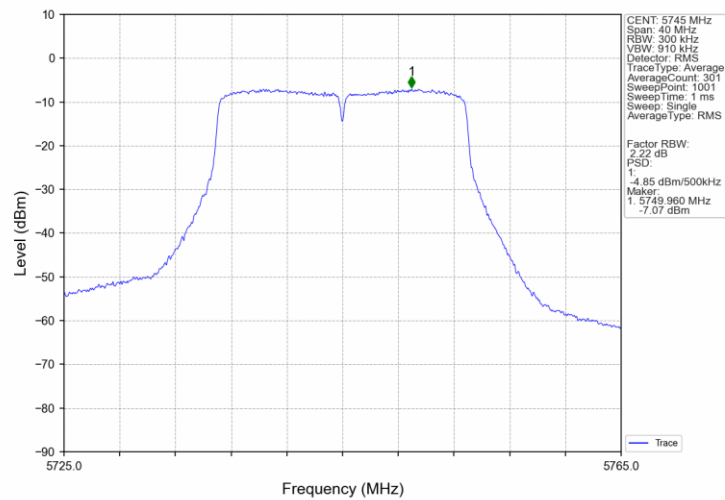
4.2.1 PSD-Band3



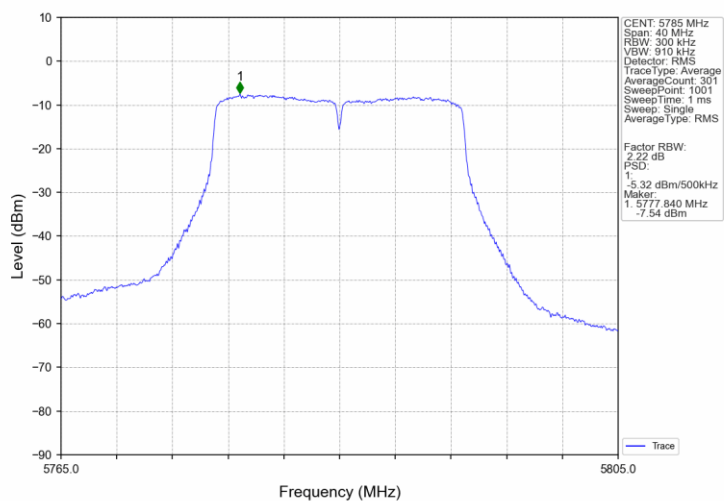
802.11a_HCH_5825MHz_Ant1_NTNV



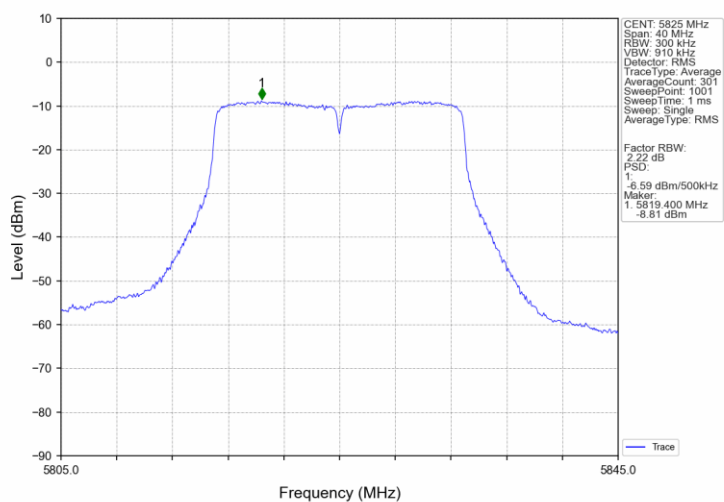
802.11n(HT20)_LCH_5745MHz_Ant1_NTNV



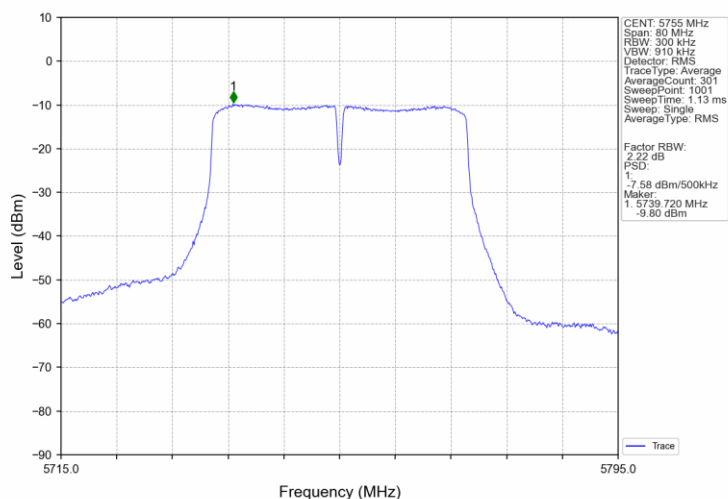
802.11n(HT20)_MCH_5785MHz_Ant1_NTNV



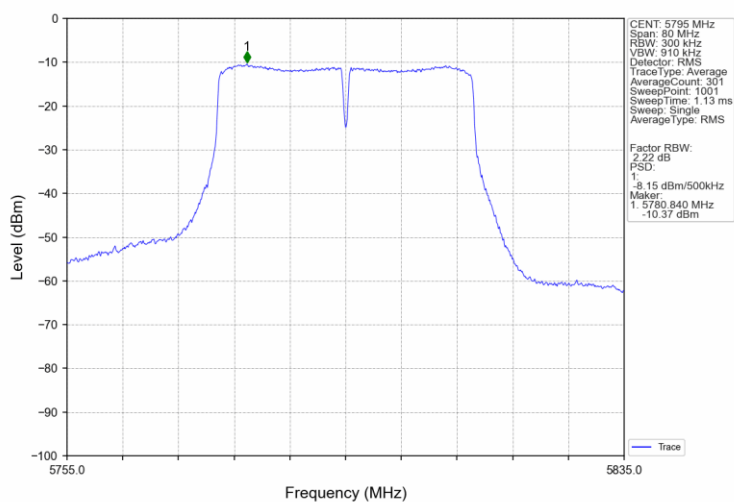
802.11n(HT20)_HCH_5825MHz_Ant1_NTNV



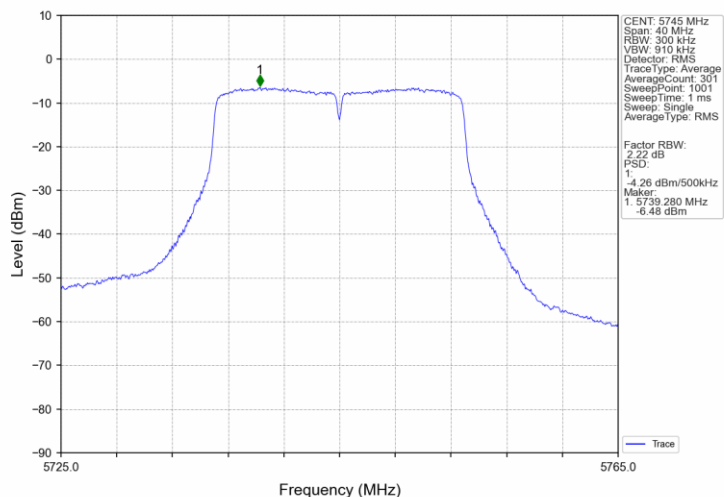
802.11n(HT40)_LCH_5755MHz_Ant1_NTNV



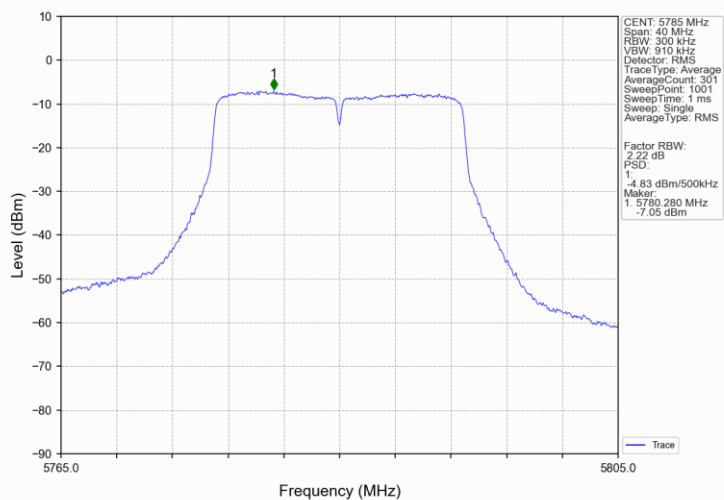
802.11n(HT40)_HCH_5795MHz_Ant1_NTNV



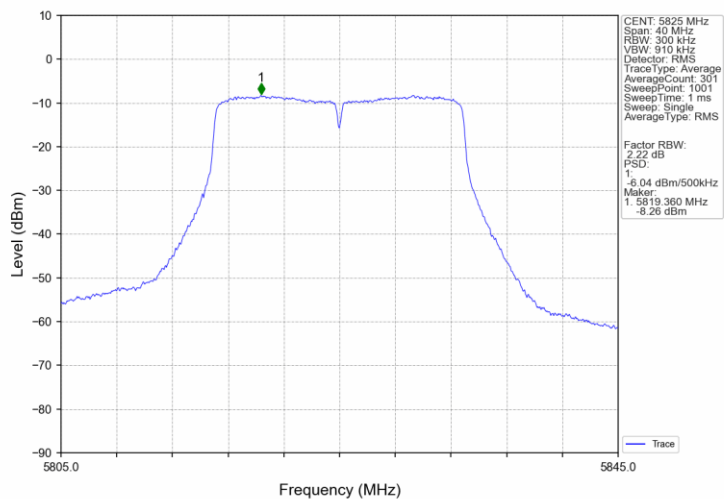
802.11ac(VHT20)_LCH_5745MHz_Ant1_NTNV



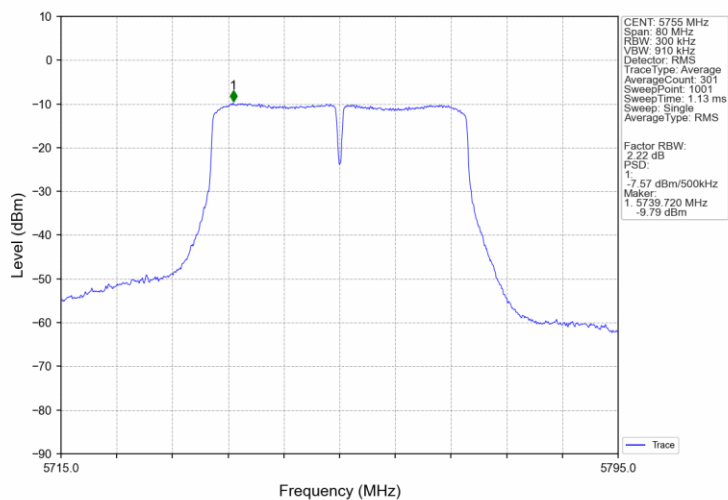
802.11ac(VHT20)_MCH_5785MHz_Ant1_NTNV



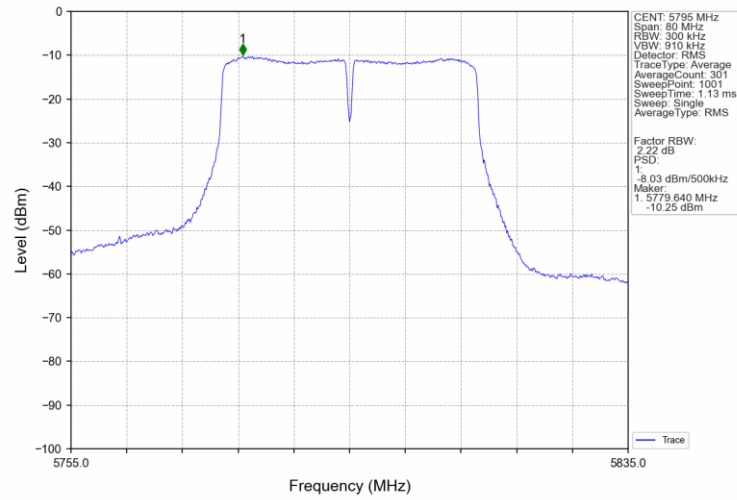
802.11ac(VHT20)_HCH_5825MHz_Ant1_NTNV



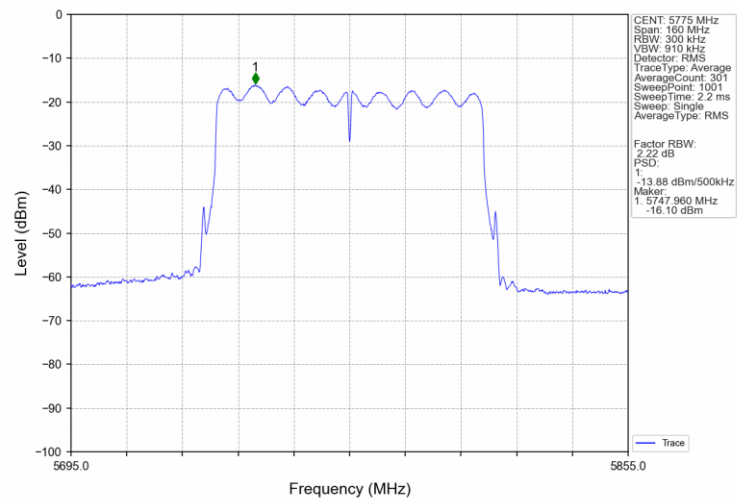
802.11ac(VHT40)_LCH_5755MHz_Ant1_NTNV



802.11ac(VHT40)_HCH_5795MHz_Ant1_NTNV



802.11ac(VHT80)_MCH_5775MHz_Ant1_NTNV



5. Frequency Stability

5.1 Test Result

5.1.1 Ant1

Ant1							
Mode	TX Type	Frequency (MHz)	Temperature (°C)	Voltage (VDC)	Measured Frequency (MHz)	Limit (MHz)	Verdict
Carrier Wave	SISO	5745	20	2.84	5744.934	5725 to 5850	Pass
				3.30	5744.934	5725 to 5850	Pass
				3.80	5744.933	5725 to 5850	Pass
			-30	3.30	5744.933	5725 to 5850	Pass
			-20	3.30	5744.933	5725 to 5850	Pass
			-10	3.30	5744.933	5725 to 5850	Pass
			0	3.30	5744.933	5725 to 5850	Pass
			10	3.30	5744.933	5725 to 5850	Pass
			30	3.30	5744.933	5725 to 5850	Pass
			40	3.30	5744.932	5725 to 5850	Pass
			50	3.30	5744.932	5725 to 5850	Pass
		5785	20	2.84	5784.933	5725 to 5850	Pass
				3.30	5784.933	5725 to 5850	Pass
				3.80	5784.932	5725 to 5850	Pass
			-30	3.30	5784.932	5725 to 5850	Pass
			-20	3.30	5784.932	5725 to 5850	Pass
			-10	3.30	5784.932	5725 to 5850	Pass
			0	3.30	5784.932	5725 to 5850	Pass
			10	3.30	5784.932	5725 to 5850	Pass
			30	3.30	5784.932	5725 to 5850	Pass
			40	3.30	5784.931	5725 to 5850	Pass
			50	3.30	5784.931	5725 to 5850	Pass
		5825	20	2.84	5824.932	5725 to 5850	Pass
				3.30	5824.931	5725 to 5850	Pass
				3.80	5824.931	5725 to 5850	Pass
			-30	3.30	5824.931	5725 to 5850	Pass
			-20	3.30	5824.931	5725 to 5850	Pass
			-10	3.30	5824.931	5725 to 5850	Pass
			0	3.30	5824.931	5725 to 5850	Pass
			10	3.30	5824.931	5725 to 5850	Pass
			30	3.30	5824.931	5725 to 5850	Pass
			40	3.30	5824.931	5725 to 5850	Pass
			50	3.30	5824.931	5725 to 5850	Pass
		5755	20	2.84	5754.933	5725 to 5850	Pass
				3.30	5754.933	5725 to 5850	Pass
				3.80	5754.932	5725 to 5850	Pass
			-30	3.30	5754.932	5725 to 5850	Pass
			-20	3.30	5754.932	5725 to 5850	Pass
			-10	3.30	5754.932	5725 to 5850	Pass
			0	3.30	5754.932	5725 to 5850	Pass
			10	3.30	5754.932	5725 to 5850	Pass
			30	3.30	5754.932	5725 to 5850	Pass
			40	3.30	5754.932	5725 to 5850	Pass
			50	3.30	5754.932	5725 to 5850	Pass
		5795	20	2.84	5794.932	5725 to 5850	Pass
				3.30	5794.932	5725 to 5850	Pass

				3.80	5794.932	5725 to 5850	Pass
			-30	3.30	5794.931	5725 to 5850	Pass
			-20	3.30	5794.931	5725 to 5850	Pass
			-10	3.30	5794.931	5725 to 5850	Pass
			0	3.30	5794.931	5725 to 5850	Pass
			10	3.30	5794.931	5725 to 5850	Pass
			30	3.30	5794.931	5725 to 5850	Pass
			40	3.30	5794.931	5725 to 5850	Pass
			50	3.30	5794.931	5725 to 5850	Pass
		5775	20	2.84	5774.933	5725 to 5850	Pass
				3.30	5774.932	5725 to 5850	Pass
				3.80	5774.932	5725 to 5850	Pass
			-30	3.30	5774.932	5725 to 5850	Pass
			-20	3.30	5774.932	5725 to 5850	Pass
			-10	3.30	5774.932	5725 to 5850	Pass
			0	3.30	5774.931	5725 to 5850	Pass
			10	3.30	5774.931	5725 to 5850	Pass
			30	3.30	5774.931	5725 to 5850	Pass
			40	3.30	5774.931	5725 to 5850	Pass
			50	3.30	5774.931	5725 to 5850	Pass

***** End of Report *****