

Appendix RF test data for WIFI5G_UNII Band 3 (Module 1: BL-M8811CU2)

1. Duty Cycle

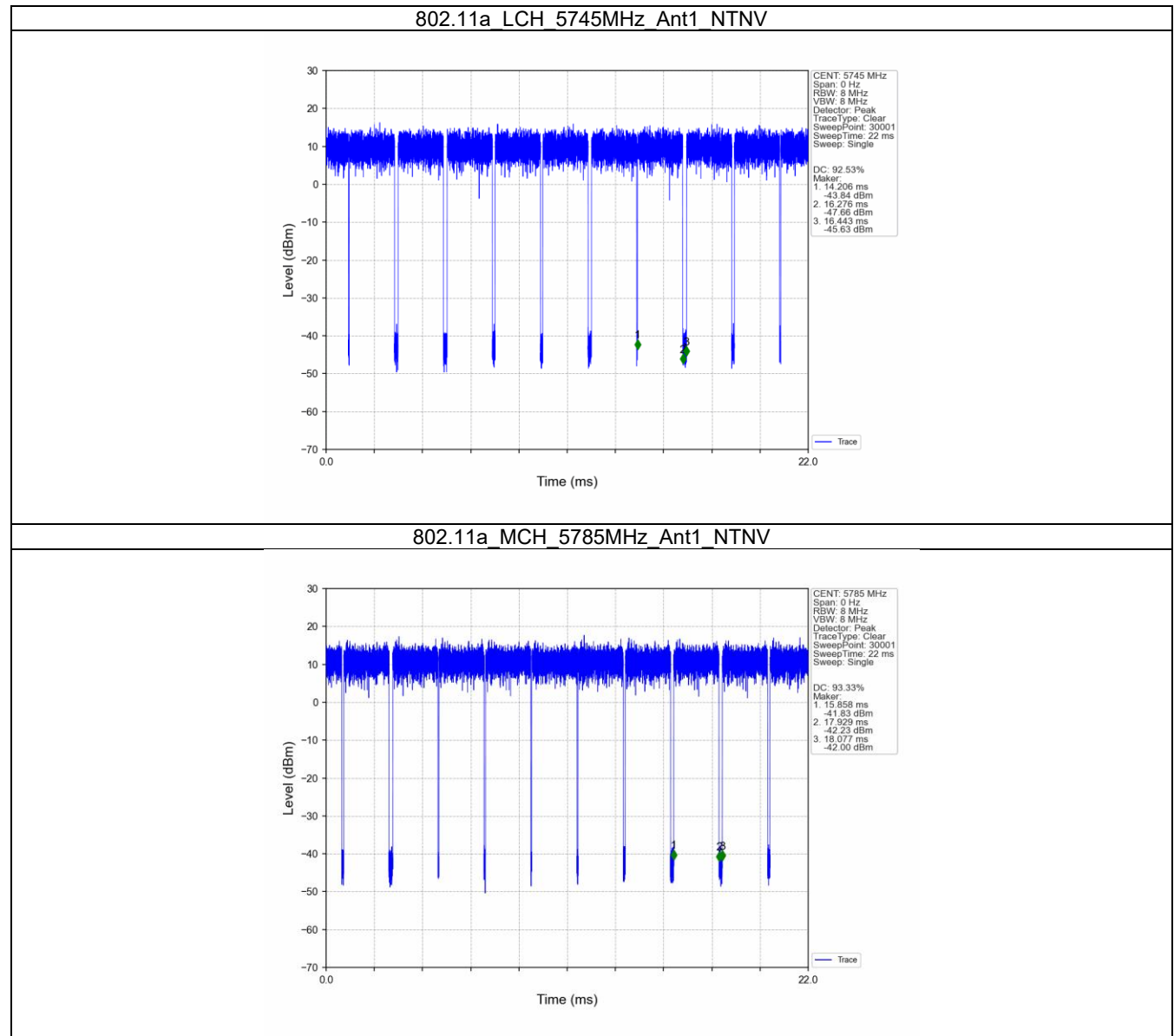
1.1 Test Result

1.1.1 Ant1

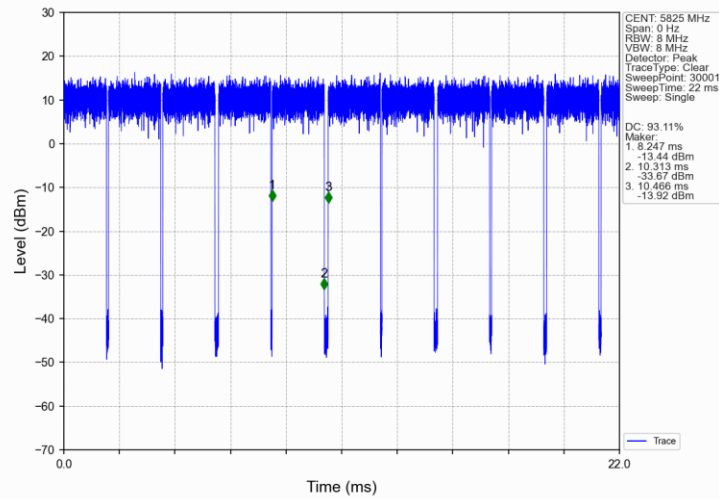
Ant1							
Mode	Tx Type	Frequency (MHz)	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
802.11a	SISO	5745	2.070	2.237	92.53	0.34	5.94
		5785	2.071	2.219	93.33	0.30	5.21
		5825	2.066	2.219	93.11	0.31	4.35
802.11n (HT20)	SISO	5745	1.922	2.084	92.23	0.35	5.94
		5785	1.921	2.065	93.03	0.31	4.25
		5825	1.922	2.093	91.83	0.37	5.42
802.11n (HT40)	SISO	5755	0.945	1.117	84.60	0.73	9.05
		5795	0.951	1.118	85.06	0.70	11.73
802.11ac (VHT20)	SISO	5745	1.921	2.075	92.58	0.33	5.08
		5785	1.921	2.056	93.43	0.29	4.74
		5825	1.921	2.084	92.18	0.35	5.04
802.11ac (VHT40)	SISO	5755	0.946	1.117	84.69	0.72	10.75
		5795	0.951	1.199	79.32	1.01	17.57
802.11ac (VHT80)	SISO	5775	1.921	2.084	92.18	0.35	4.21

1.2 Test Graph

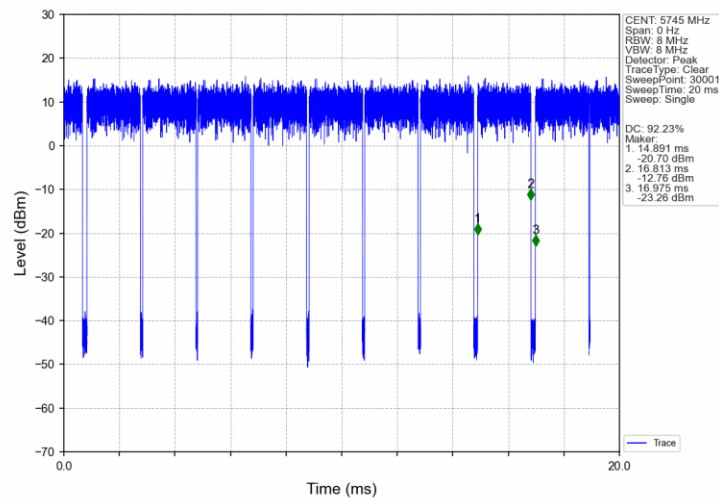
1.2.1 Ant1



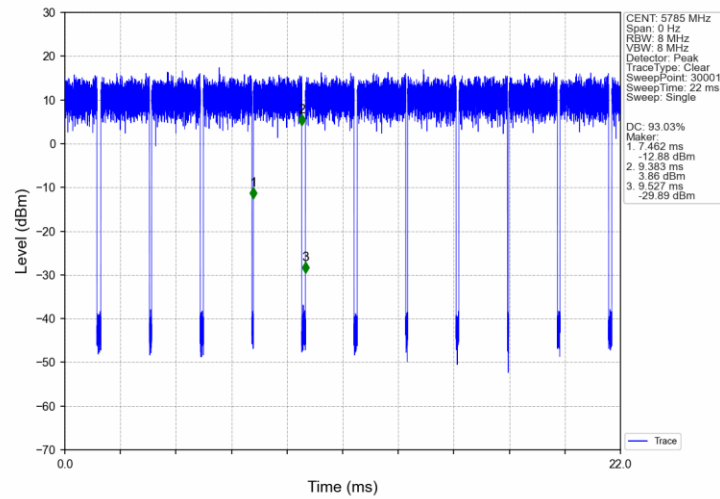
802.11a_HCH_5825MHz_Ant1_NTNV



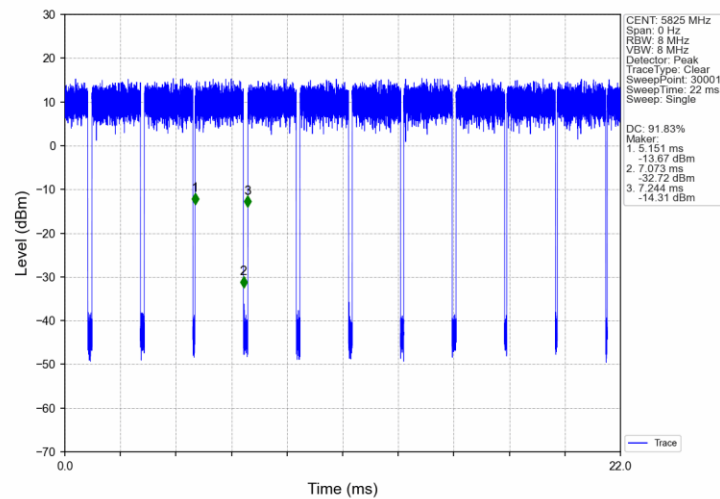
802.11n(HT20)_LCH_5745MHz_Ant1_NTNV



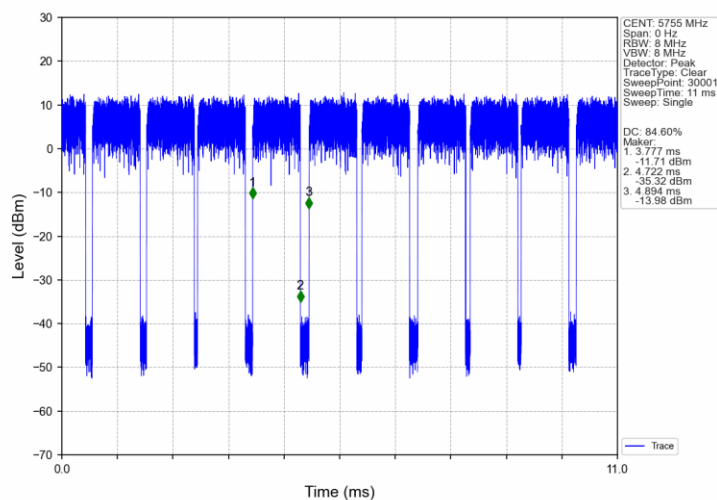
802.11n(HT20) MCH 5785MHz Ant1 NTV



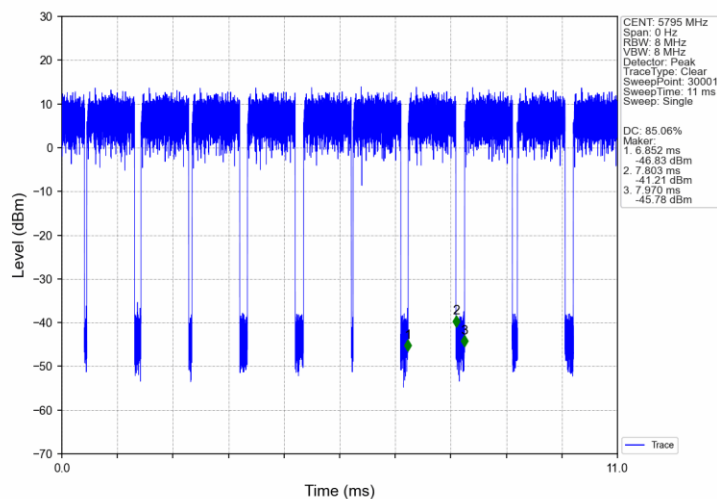
802.11n(HT20) HCH 5825MHz Ant1 NTV



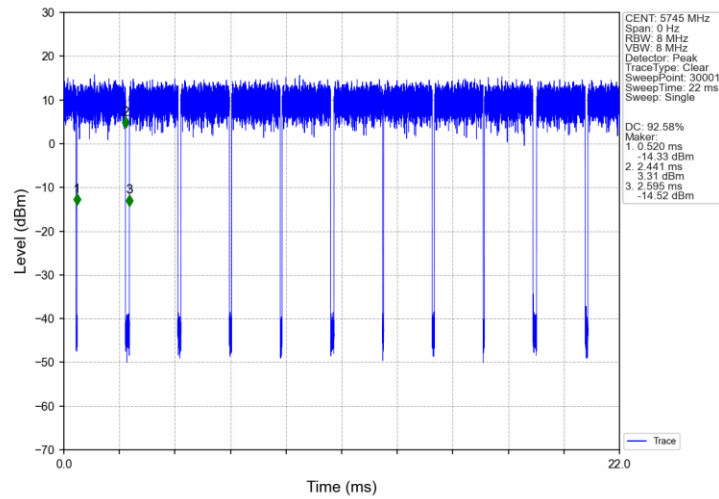
802.11n(HT40) LCH 5755MHz Ant1 NTN



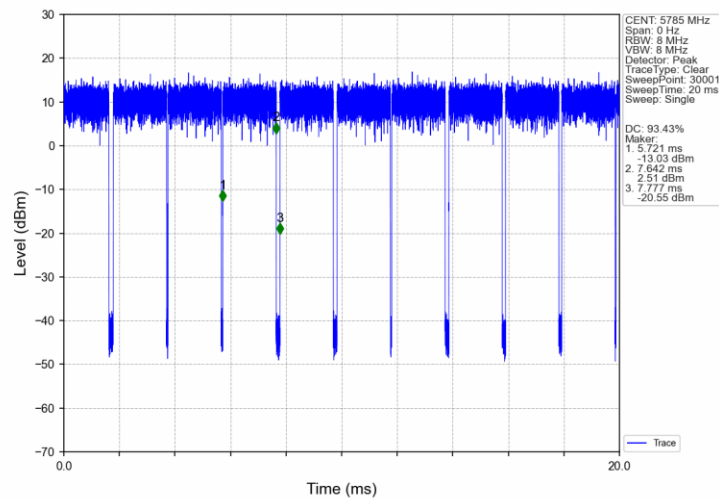
802.11n(HT40) HCH 5795MHz Ant1 NTN



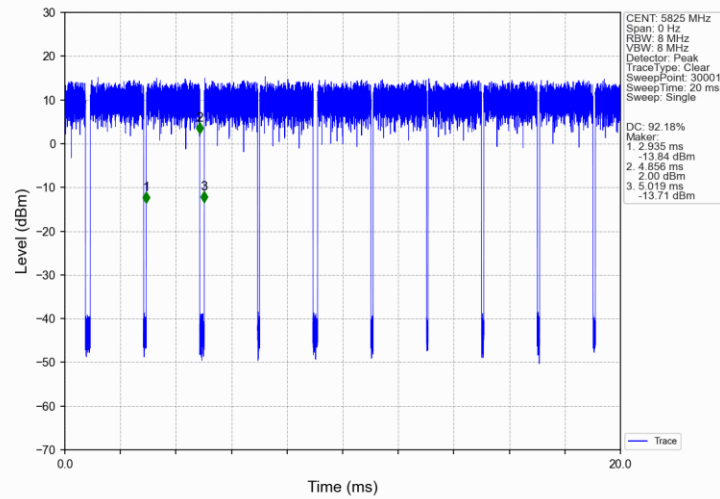
802.11ac(VHT20) LCH 5745MHz Ant1 NTN



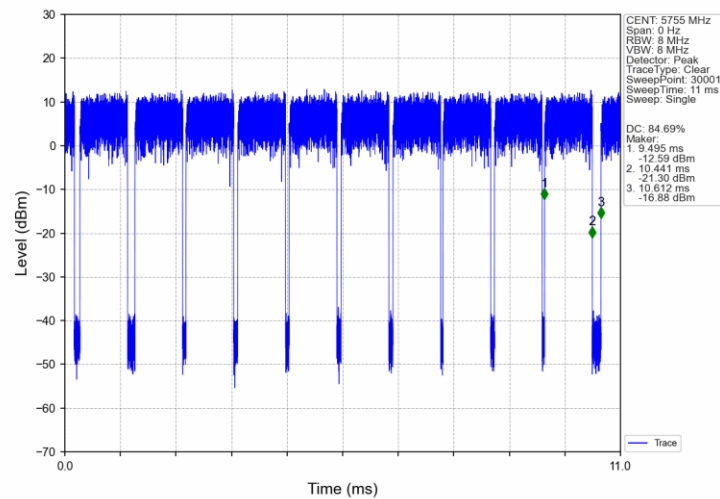
802.11ac(VHT20) MCH 5785MHz Ant1 NTN



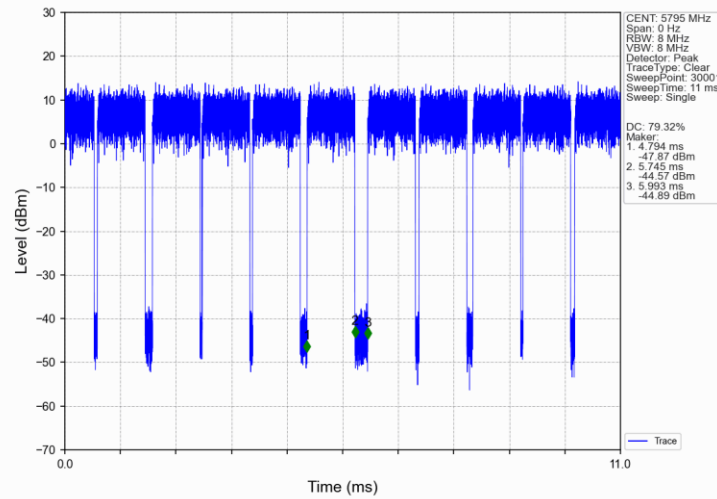
802.11ac(VHT20) HCH 5825MHz Ant1 NTN



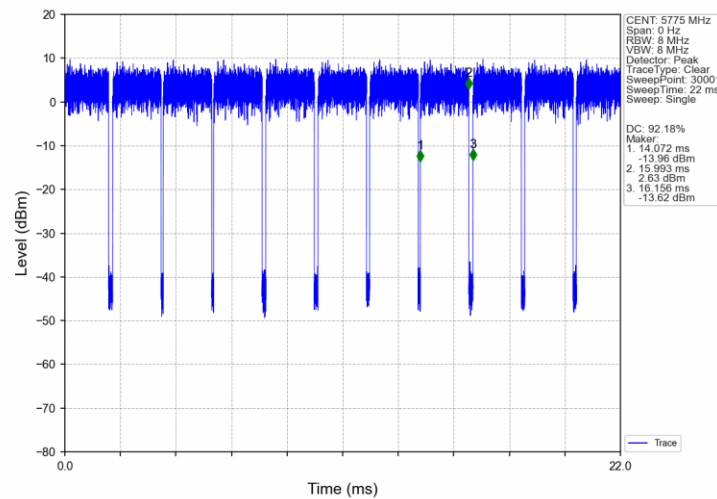
802.11ac(VHT40) LCH 5755MHz Ant1 NTN



802.11ac(VHT40) HCH 5795MHz Ant1 NTN



802.11ac(VHT80) MCH 5775MHz Ant1 NTN



2. Bandwidth

2.1 Test Result

2.1.1 OBW

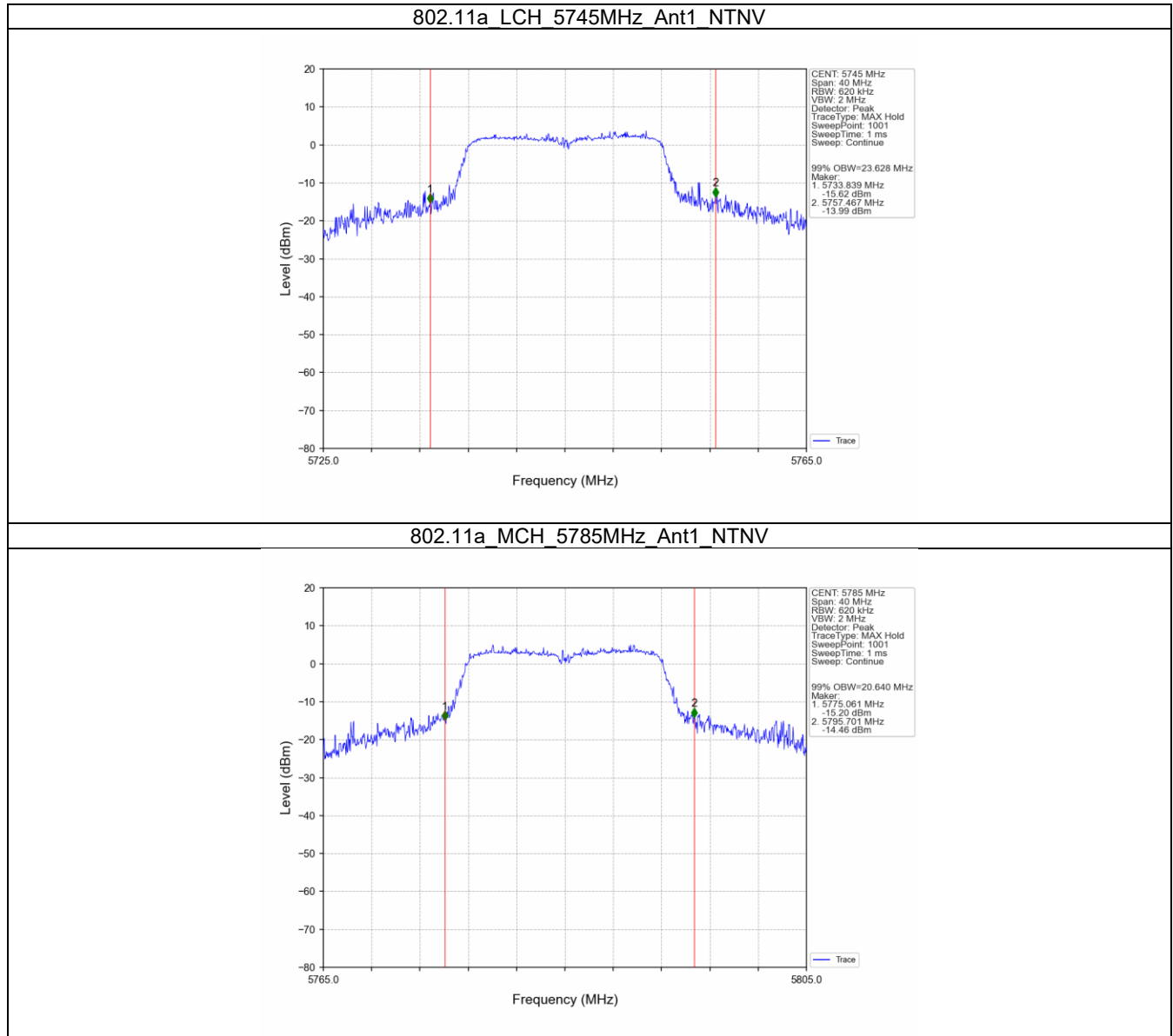
Mode	TX Type	Frequency (MHz)	ANT	99% Occupied Bandwidth (MHz)		Verdict
				Result	Limit	
802.11a	SISO	5745	1	23.628	/	Pass
		5785	1	20.640	/	Pass
		5825	1	18.740	/	Pass
802.11n (HT20)	SISO	5745	1	22.700	/	Pass
		5785	1	20.496	/	Pass
		5825	1	19.426	/	Pass
802.11n (HT40)	SISO	5755	1	43.607	/	Pass
		5795	1	38.855	/	Pass
802.11ac (VHT20)	SISO	5745	1	22.724	/	Pass
		5785	1	20.155	/	Pass
		5825	1	19.334	/	Pass
802.11ac (VHT40)	SISO	5755	1	40.739	/	Pass
		5795	1	38.588	/	Pass
802.11ac (VHT80)	SISO	5775	1	91.638	/	Pass

2.1.2 6dB BW

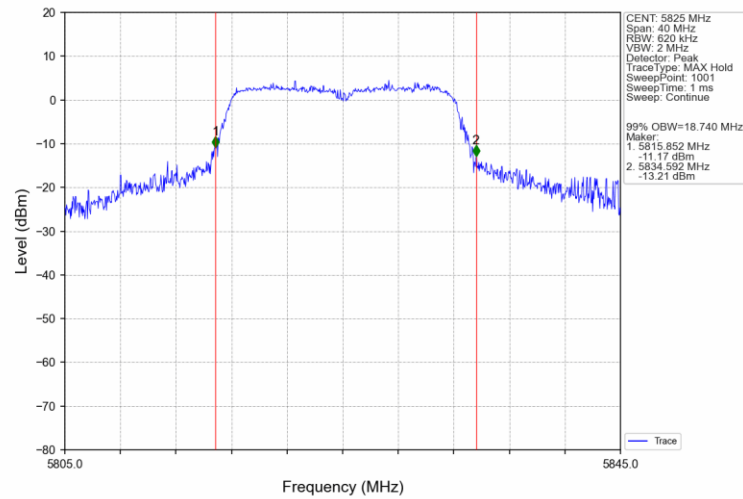
Mode	TX Type	Frequency (MHz)	ANT	6dB Bandwidth (MHz)		Verdict
				Result	Limit	
802.11a	SISO	5745	1	16.080	≥ 0.5	Pass
		5785	1	16.377	≥ 0.5	Pass
		5825	1	16.342	≥ 0.5	Pass
802.11n (HT20)	SISO	5745	1	17.531	≥ 0.5	Pass
		5785	1	16.324	≥ 0.5	Pass
		5825	1	16.084	≥ 0.5	Pass
802.11n (HT40)	SISO	5755	1	33.858	≥ 0.5	Pass
		5795	1	35.374	≥ 0.5	Pass
802.11ac (VHT20)	SISO	5745	1	17.151	≥ 0.5	Pass
		5785	1	16.898	≥ 0.5	Pass
		5825	1	16.874	≥ 0.5	Pass
802.11ac (VHT40)	SISO	5755	1	35.162	≥ 0.5	Pass
		5795	1	35.116	≥ 0.5	Pass
802.11ac (VHT80)	SISO	5775	1	73.809	≥ 0.5	Pass

2.2 Test Graph

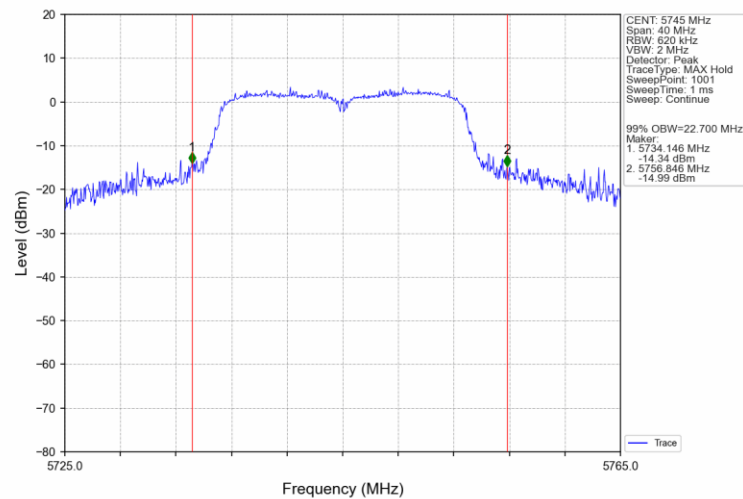
2.2.1 OBW



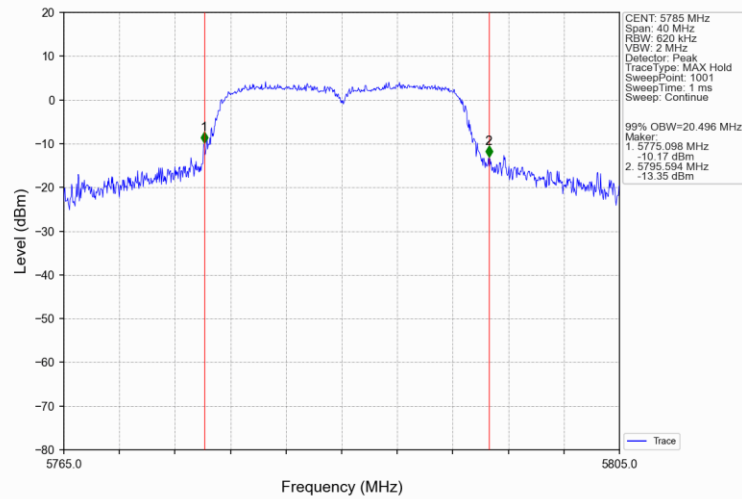
802.11a_HCH_5825MHz_Ant1_NTNV



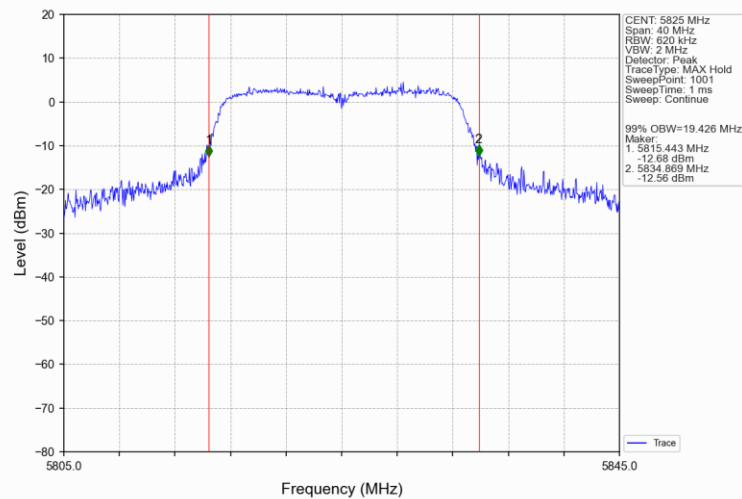
802.11n(HT20)_LCH_5745MHz_Ant1_NTNV



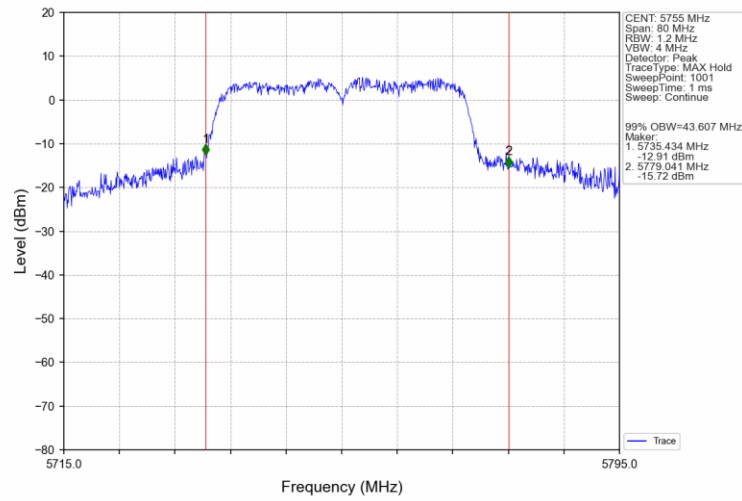
802.11n(HT20) MCH 5785MHz Ant1 NTN



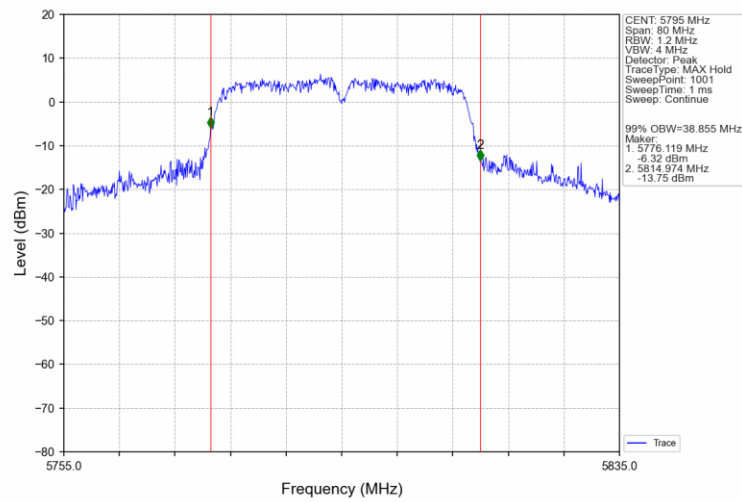
802.11n(HT20) HCH 5825MHz Ant1 NTN



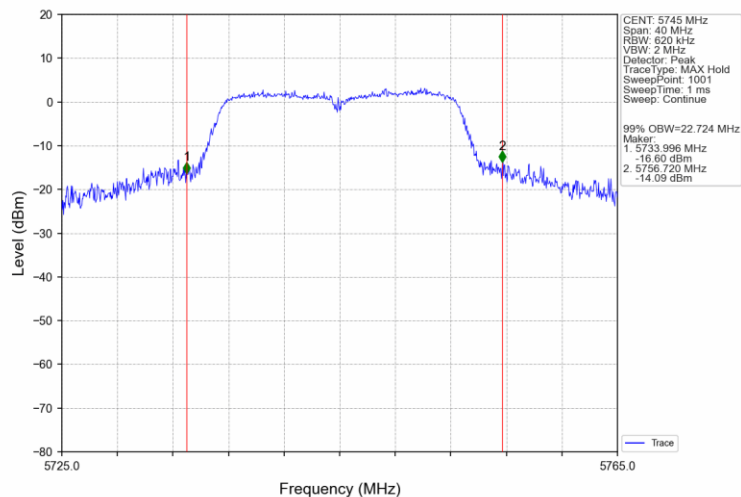
802.11n(HT40) LCH 5755MHz Ant1 NTN



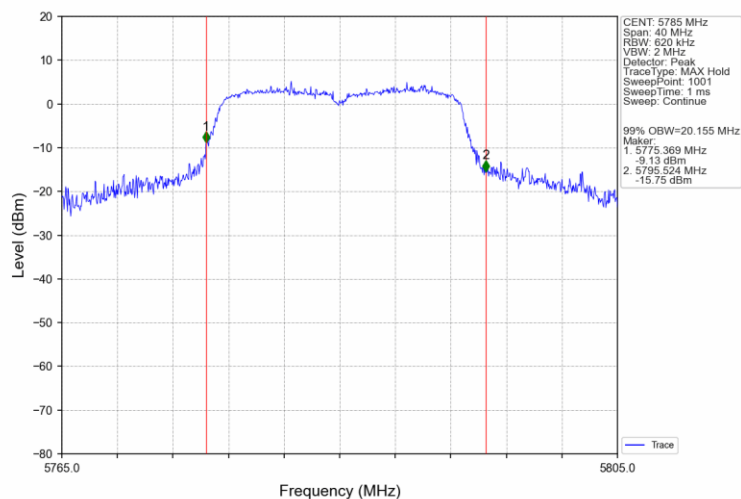
802.11n(HT40) HCH 5795MHz Ant1 NTN



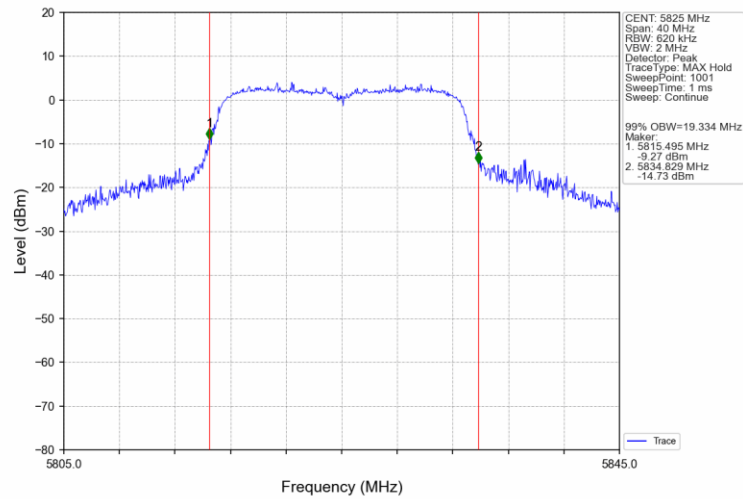
802.11ac(VHT20) LCH 5745MHz Ant1 NTN



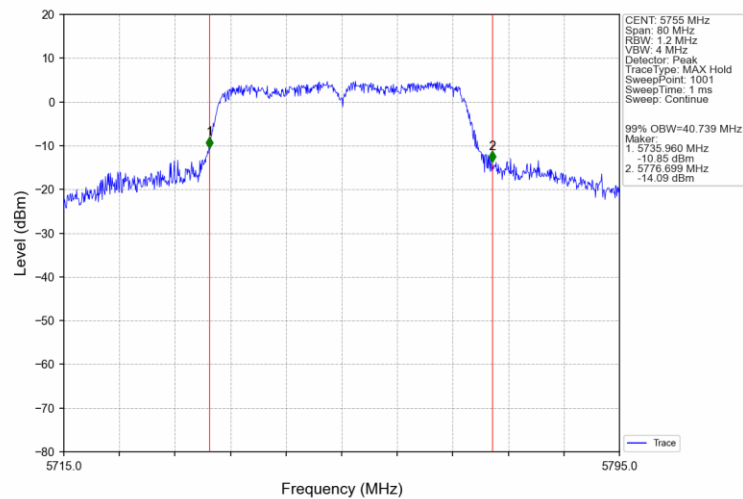
802.11ac(VHT20) MCH 5785MHz Ant1 NTN



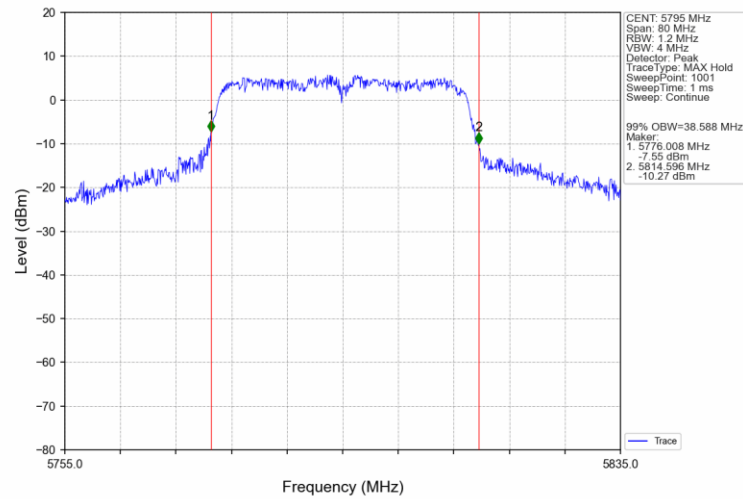
802.11ac(VHT20) HCH 5825MHz Ant1 NTN



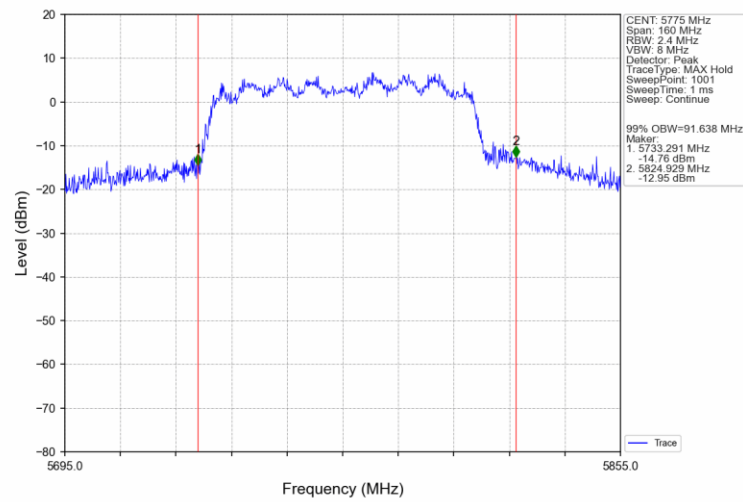
802.11ac(VHT40) LCH 5755MHz Ant1 NTN



802.11ac(VHT40) HCH 5795MHz Ant1 NTN

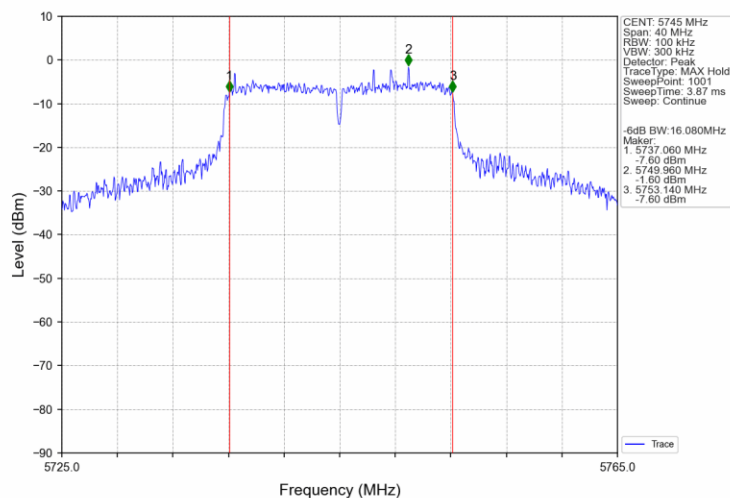


802.11ac(VHT80) MCH 5775MHz Ant1 NTN

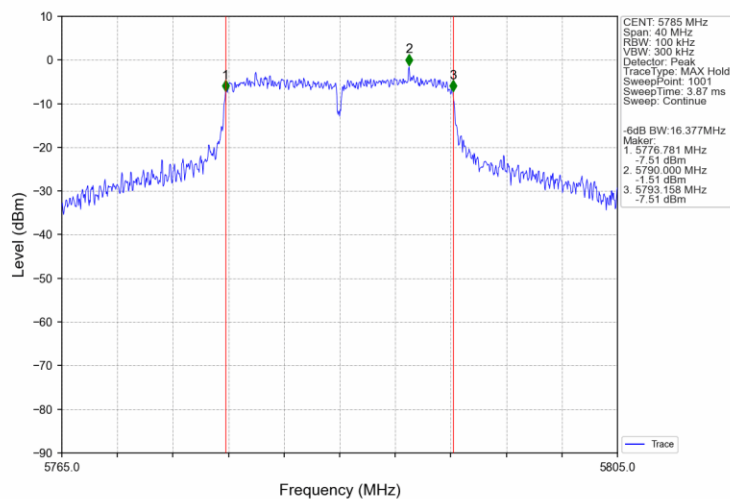


2.2.2 6dB BW

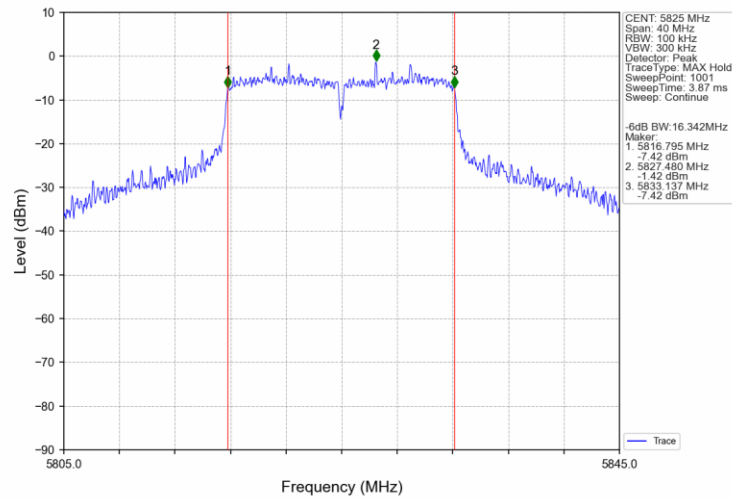
802.11a LCH 5745MHz Ant1 NTN



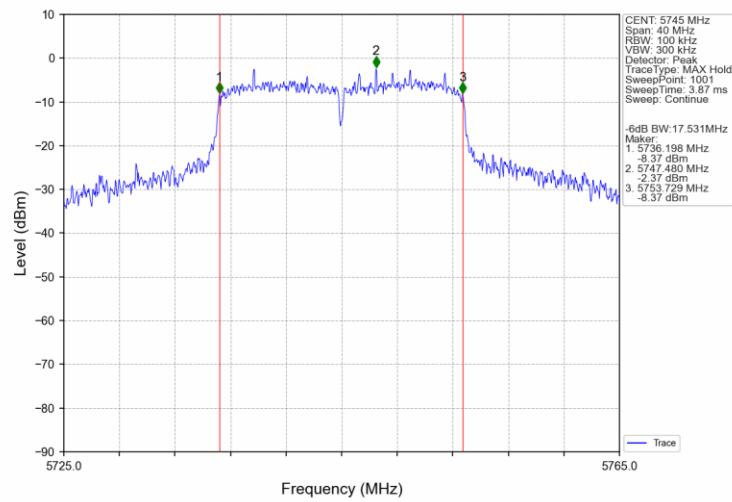
802.11a MCH 5785MHz Ant1 NTN



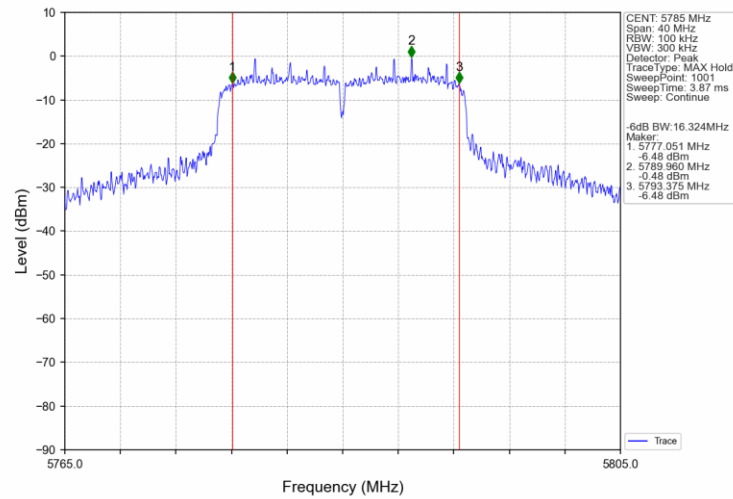
802.11a_HCH_5825MHz_Ant1_NTNV



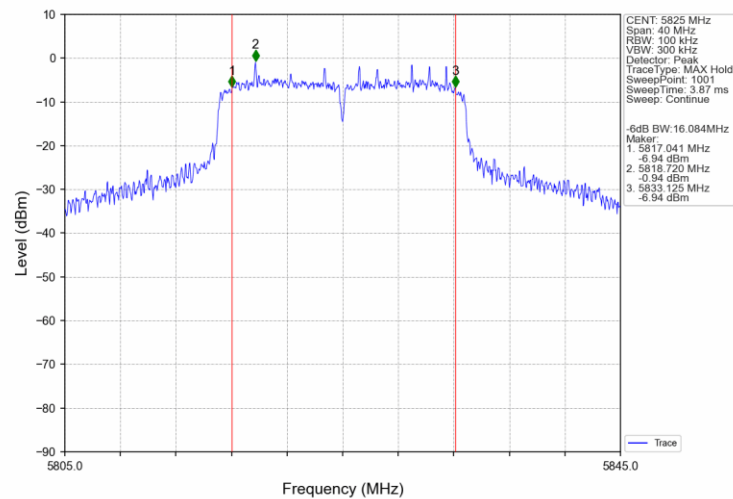
802.11n(HT20)_LCH_5745MHz_Ant1_NTNV



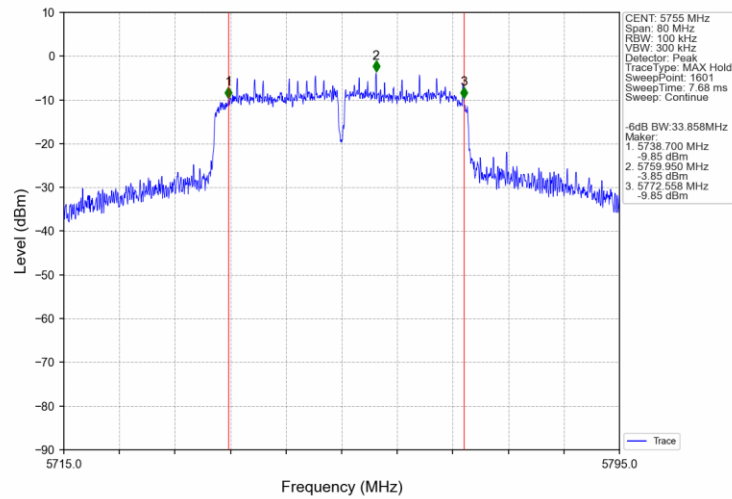
802.11n(HT20) MCH 5785MHz Ant1 NTNv



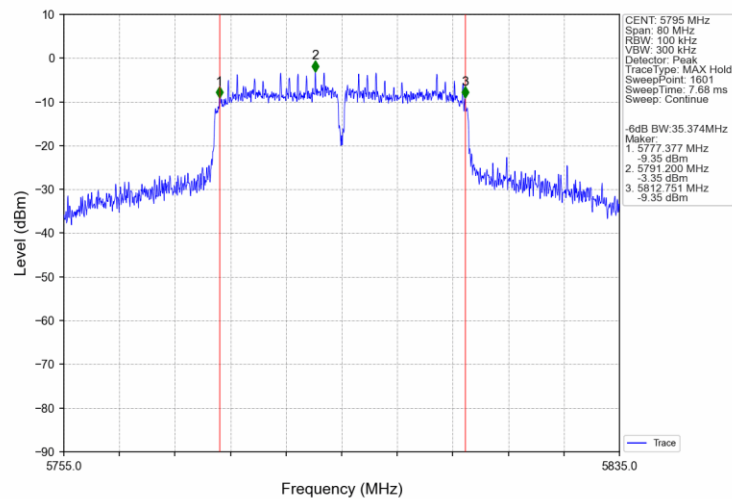
802.11n(HT20) HCH 5825MHz Ant1 NTNv



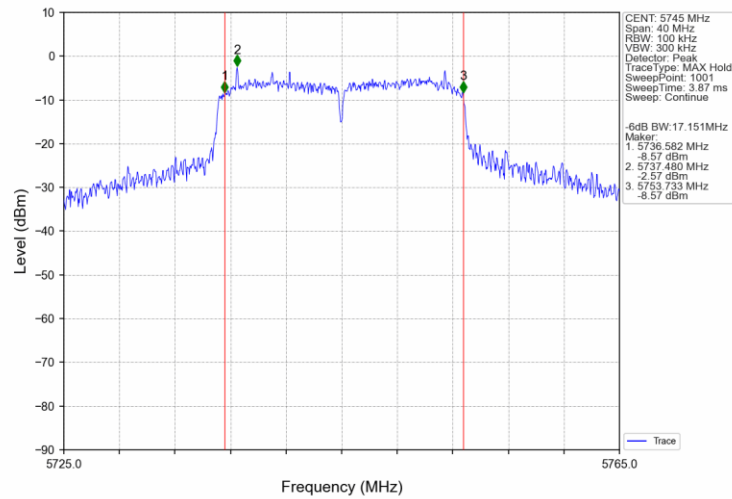
802.11n(HT40) LCH 5755MHz Ant1 NTN



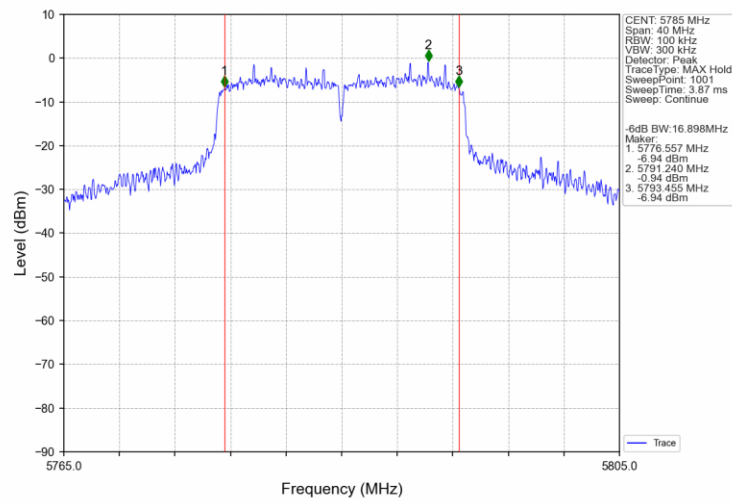
802.11n(HT40) HCH 5795MHz Ant1 NTN



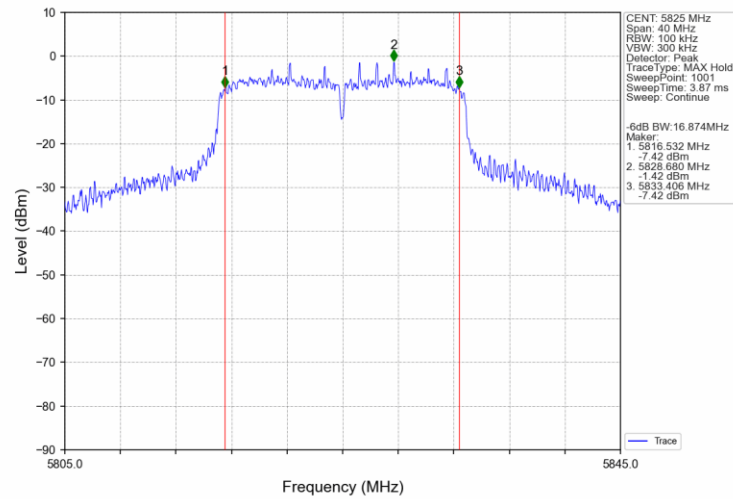
802.11ac(VHT20) LCH 5745MHz Ant1 NTNv



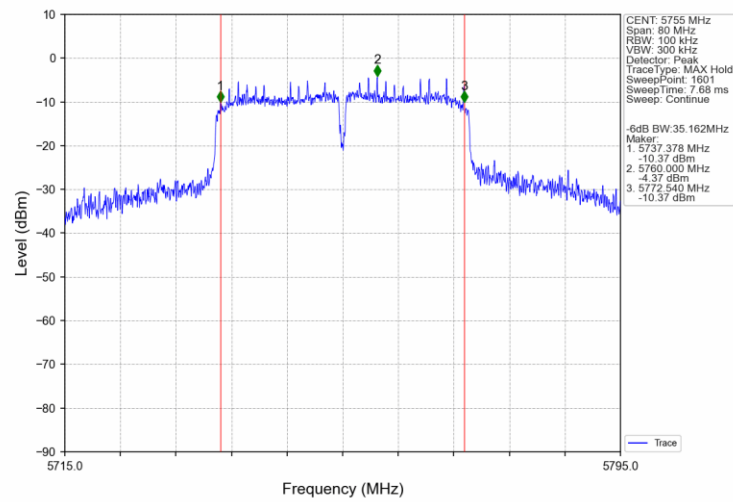
802.11ac(VHT20) MCH 5785MHz Ant1 NTNv



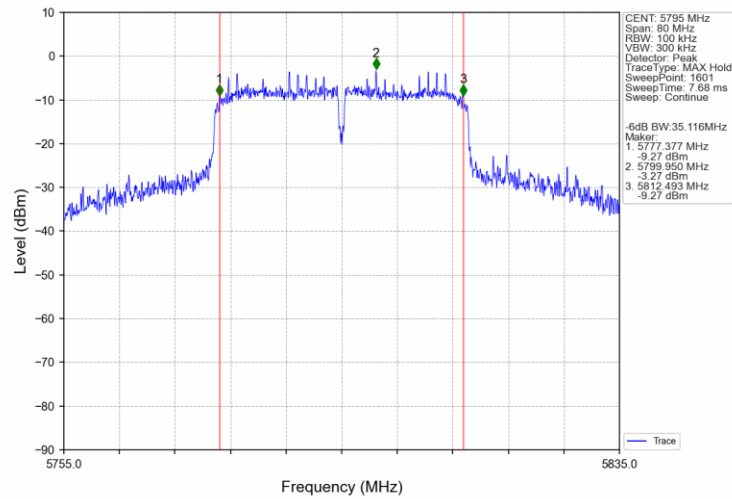
802.11ac(VHT20) HCH 5825MHz Ant1 NTN



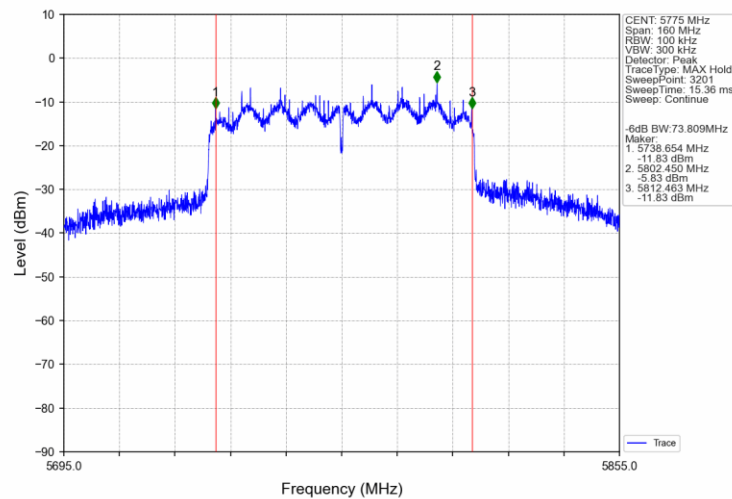
802.11ac(VHT40) LCH 5755MHz Ant1 NTN



802.11ac(VHT40) HCH 5795MHz Ant1 NTN



802.11ac(VHT80) MCH 5775MHz Ant1 NTN



3. Maximum Conducted Output Power

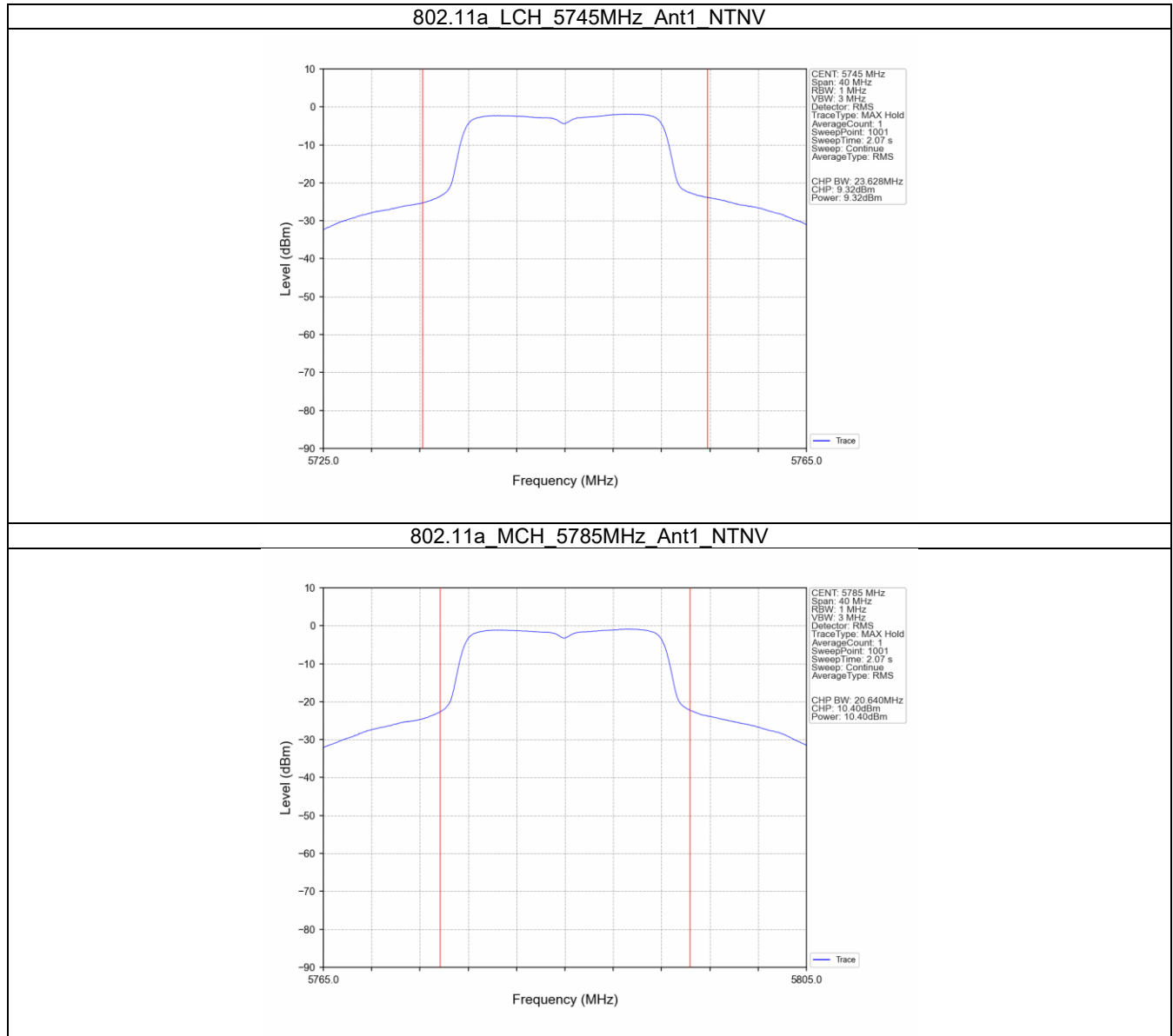
3.1 Test Result

3.1.1 Power

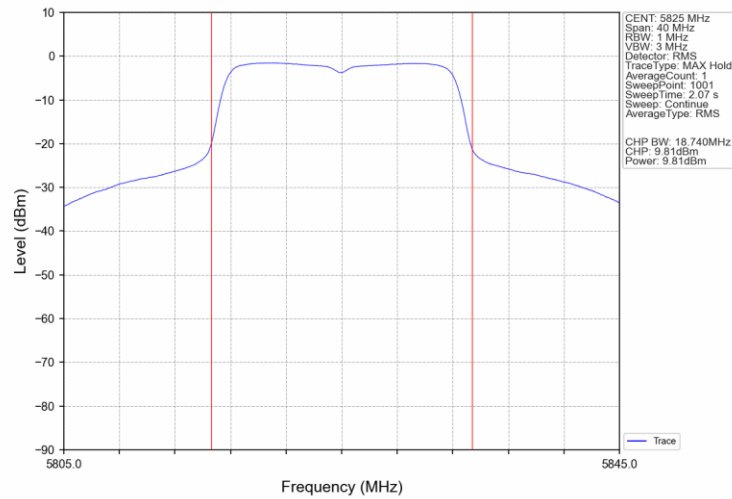
Mode	TX Type	Frequency (MHz)	Maximum Average Conducted Output Power (dBm)		Verdict
			ANT1	Limit	
802.11a	SISO	5745	9.32	<=30	Pass
		5785	10.40	<=30	Pass
		5825	9.81	<=30	Pass
802.11n (HT20)	SISO	5745	9.23	<=30	Pass
		5785	10.29	<=30	Pass
		5825	9.72	<=30	Pass
802.11n (HT40)	SISO	5755	9.71	<=30	Pass
		5795	10.47	<=30	Pass
802.11ac (VHT20)	SISO	5745	9.21	<=30	Pass
		5785	10.30	<=30	Pass
		5825	9.68	<=30	Pass
802.11ac (VHT40)	SISO	5755	9.67	<=30	Pass
		5795	10.43	<=30	Pass
802.11ac (VHT80)	SISO	5775	9.71	<=30	Pass

3.2 Test Graph

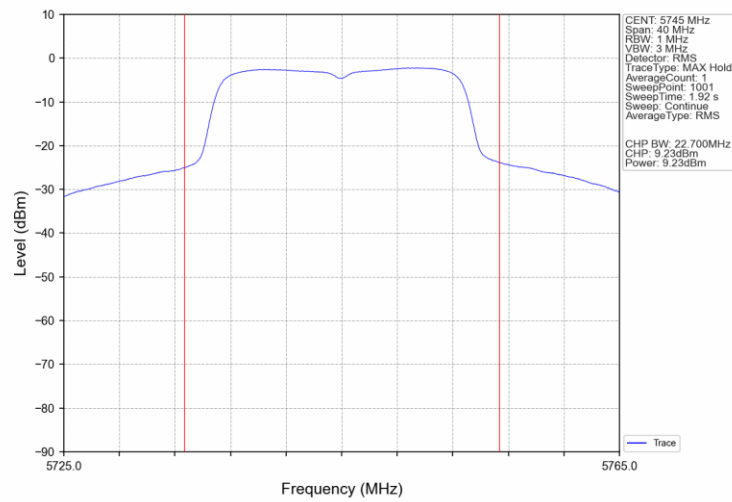
3.2.1 Power



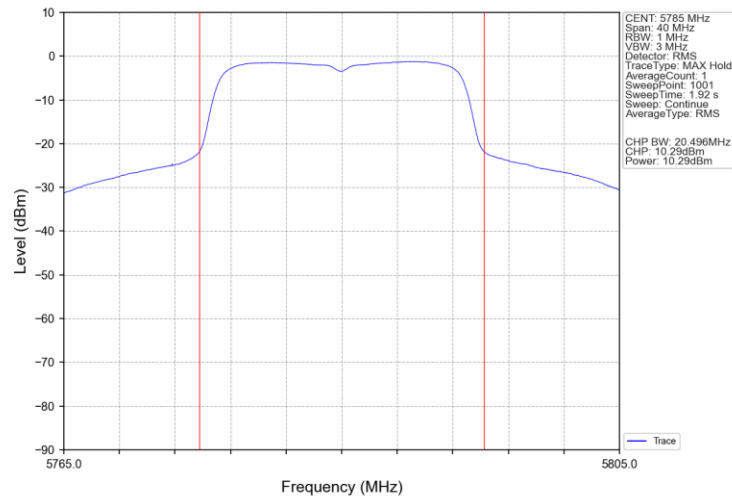
802.11a_HCH_5825MHz_Ant1_NTNV



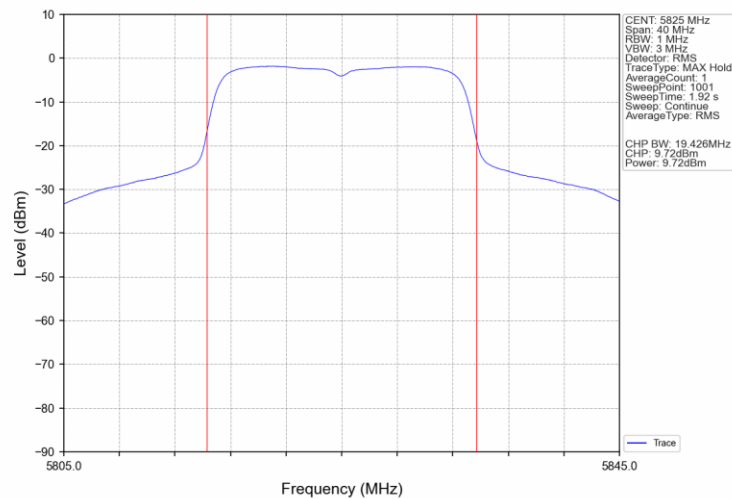
802.11n(HT20)_LCH_5745MHz_Ant1_NTNV



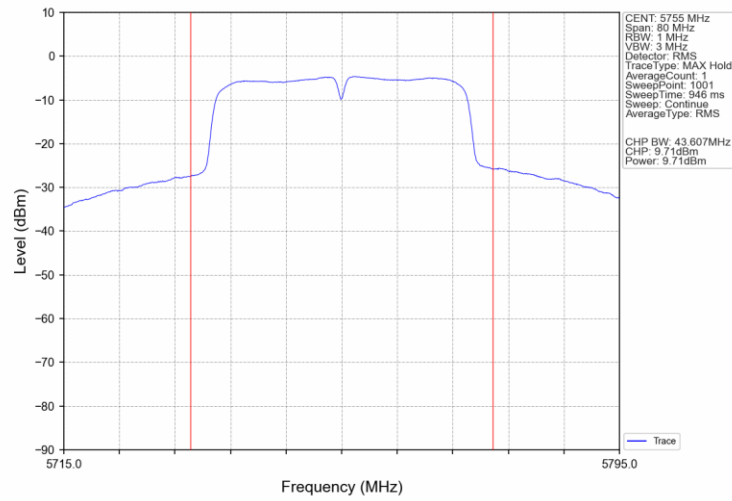
802.11n(HT20) MCH 5785MHz Ant1 NTNv



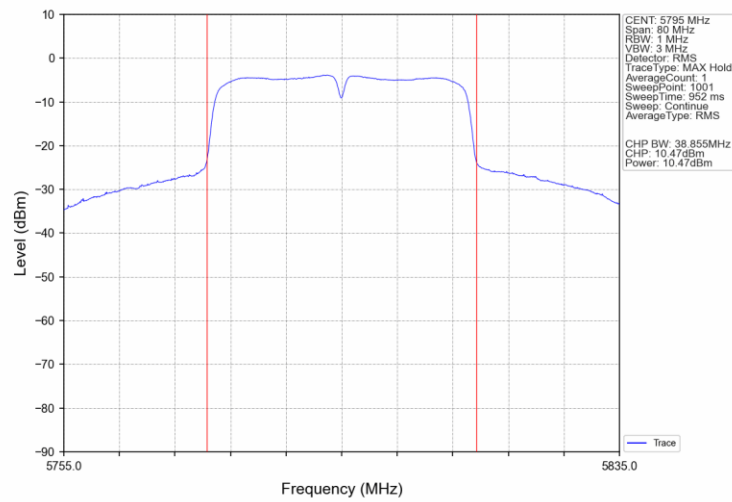
802.11n(HT20) HCH 5825MHz Ant1 NTNv



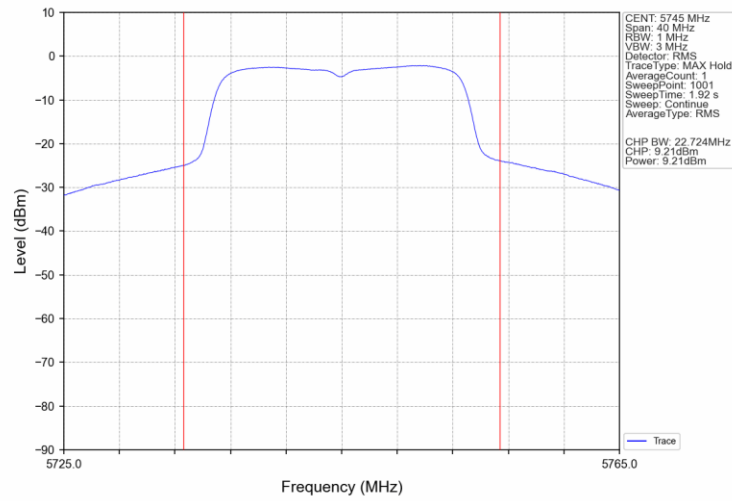
802.11n(HT40) LCH 5755MHz Ant1 NTN



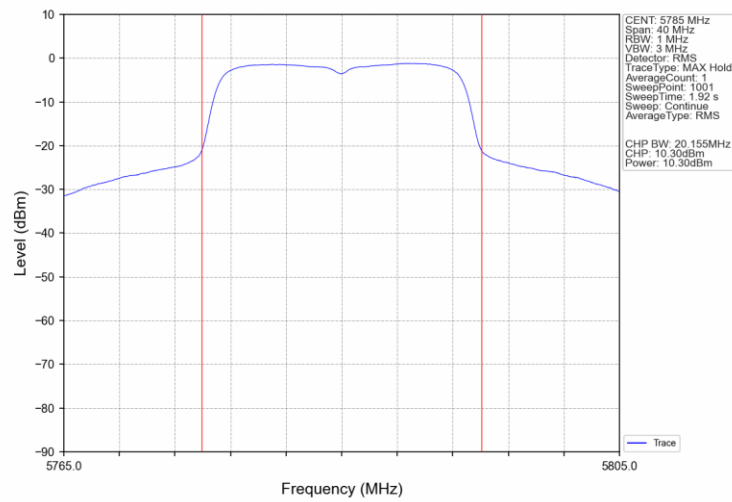
802.11n(HT40) HCH 5795MHz Ant1 NTN



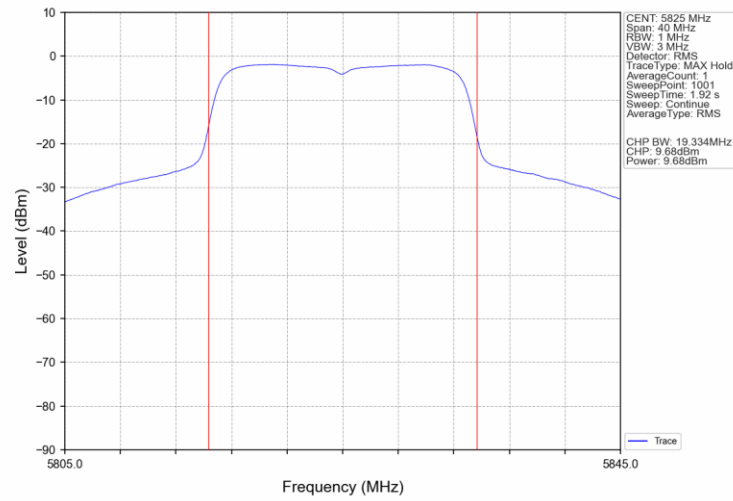
802.11ac(VHT20) LCH 5745MHz Ant1 NTN



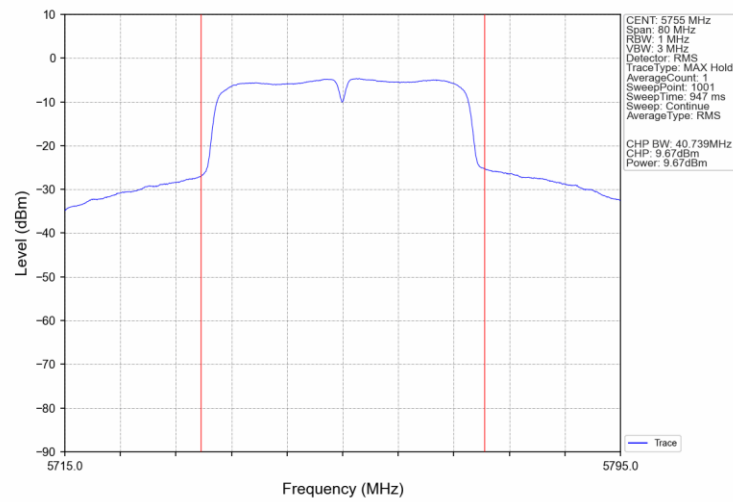
802.11ac(VHT20) MCH 5785MHz Ant1 NTN



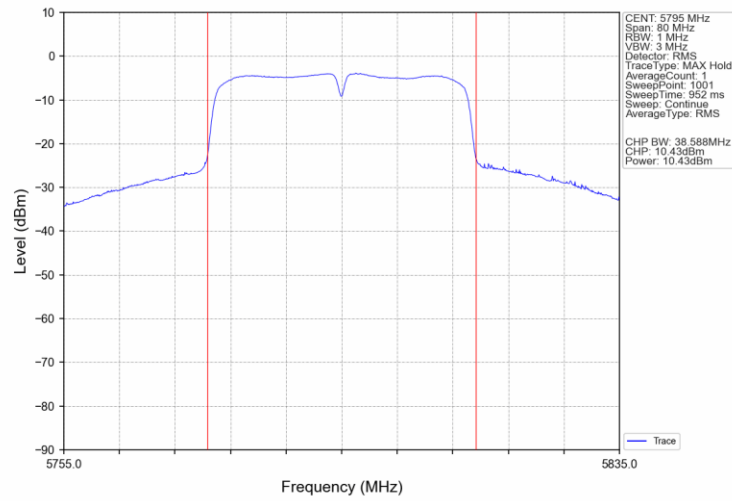
802.11ac(VHT20) HCH 5825MHz Ant1 NTN



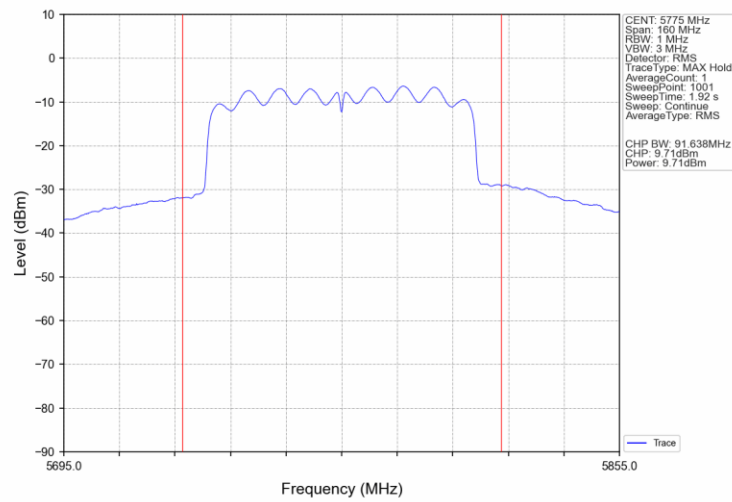
802.11ac(VHT40) LCH 5755MHz Ant1 NTN



802.11ac(VHT40) HCH 5795MHz Ant1 NTN



802.11ac(VHT80) MCH 5775MHz Ant1 NTN



4. Maximum Power Spectral Density

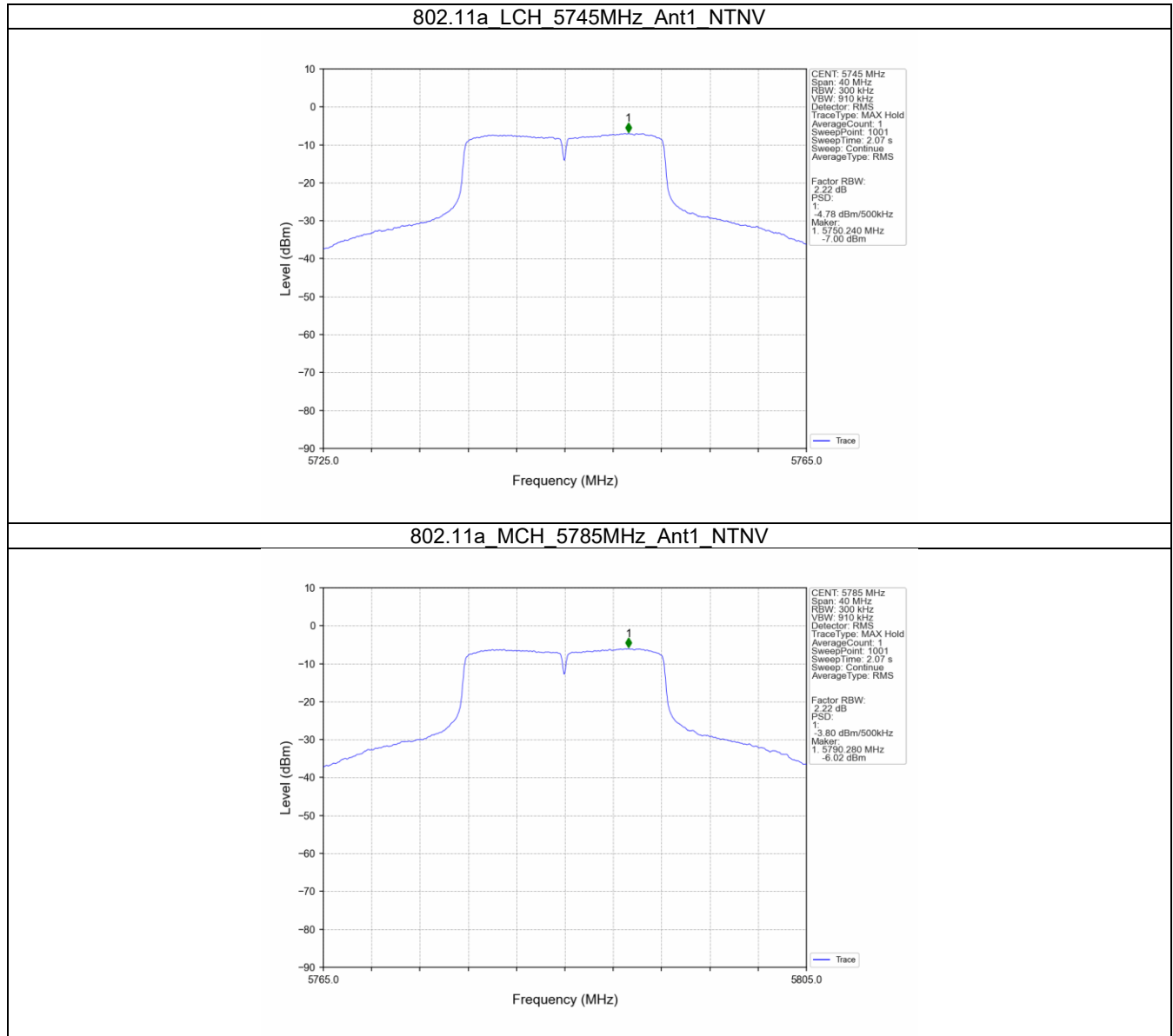
4.1 Test Result

4.1.1 PSD-Band3

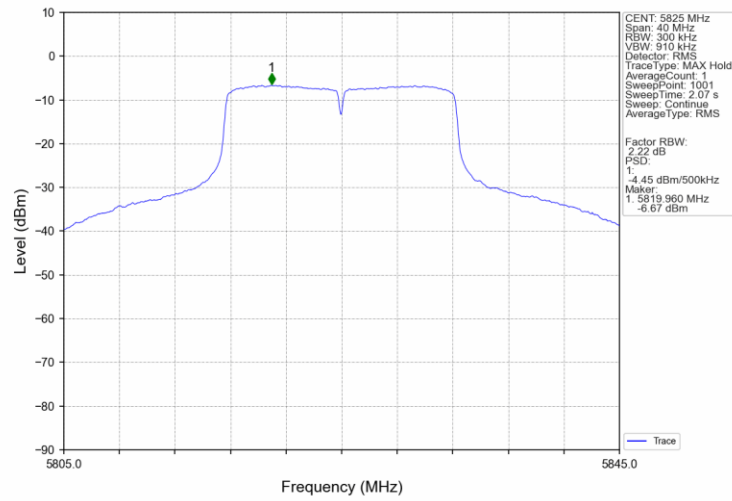
Mode	TX Type	Frequency (MHz)	Maximum PSD (dBm/500kHz)		Verdict
			ANT1	Limit	
802.11a	SISO	5745	-4.78	<=30	Pass
		5785	-3.80	<=30	Pass
		5825	-4.45	<=30	Pass
802.11n (HT20)	SISO	5745	-5.17	<=30	Pass
		5785	-4.15	<=30	Pass
		5825	-4.73	<=30	Pass
802.11n (HT40)	SISO	5755	-7.55	<=30	Pass
		5795	-6.73	<=30	Pass
802.11ac (VHT20)	SISO	5745	-5.02	<=30	Pass
		5785	-4.14	<=30	Pass
		5825	-4.70	<=30	Pass
802.11ac (VHT40)	SISO	5755	-7.42	<=30	Pass
		5795	-6.80	<=30	Pass
802.11ac (VHT80)	SISO	5775	-9.29	<=30	Pass

4.2 Test Graph

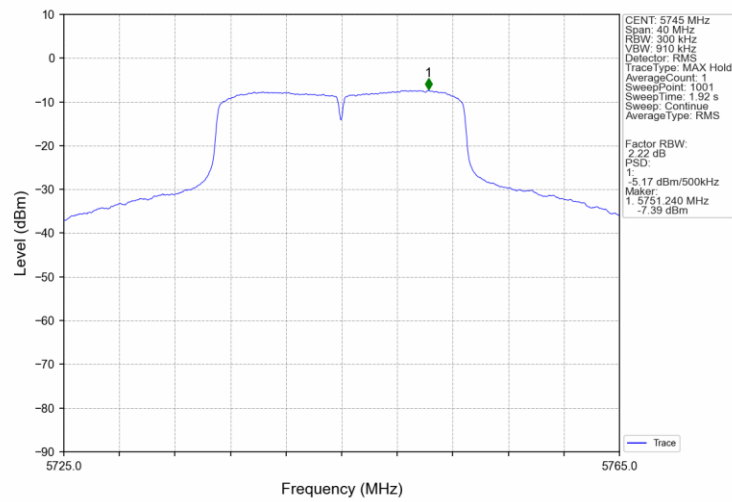
4.2.1 PSD-Band3



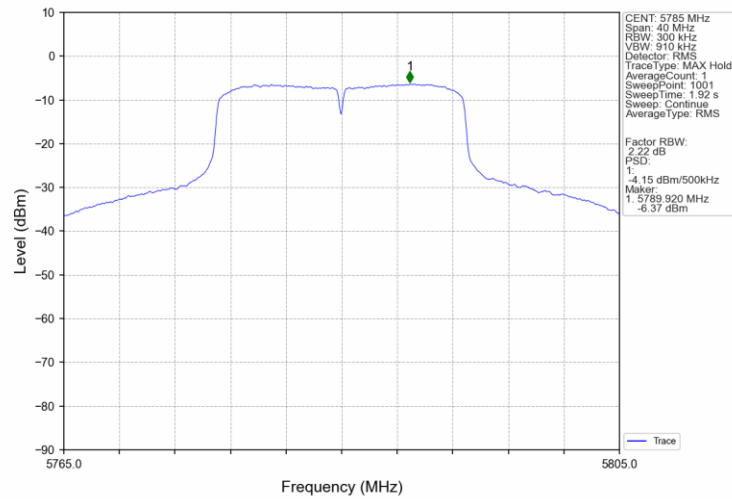
802.11a_HCH_5825MHz_Ant1_NTNV



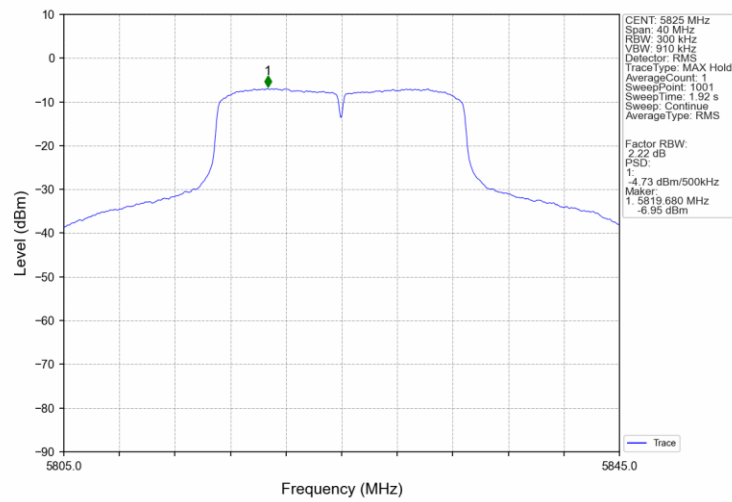
802.11n(HT20)_LCH_5745MHz_Ant1_NTNV



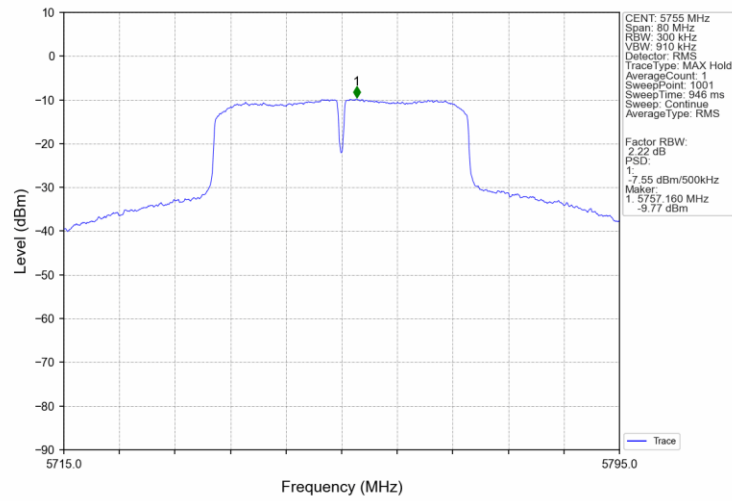
802.11n(HT20) MCH 5785MHz Ant1 NTV



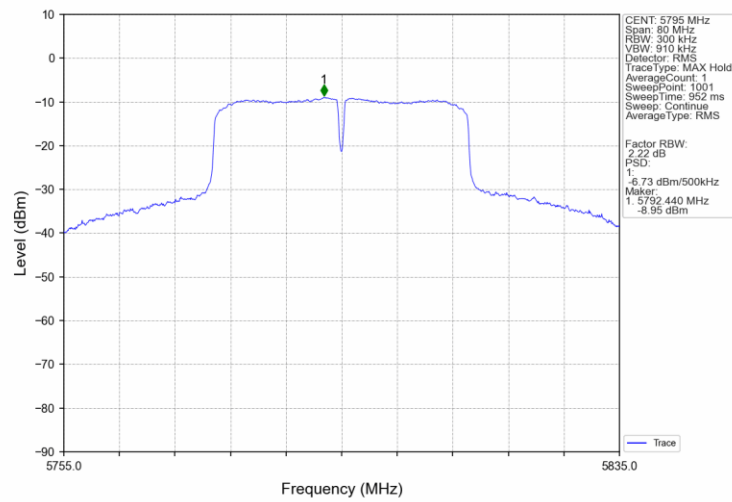
802.11n(HT20) HCH 5825MHz Ant1 NTV



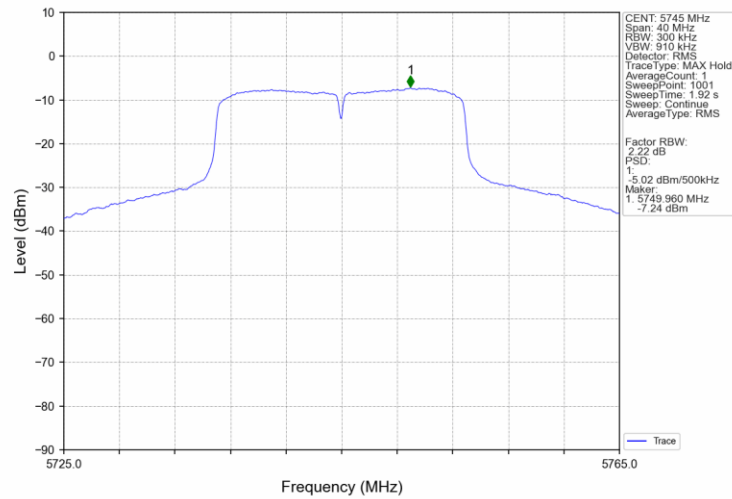
802.11n(HT40) LCH 5755MHz Ant1 NTN



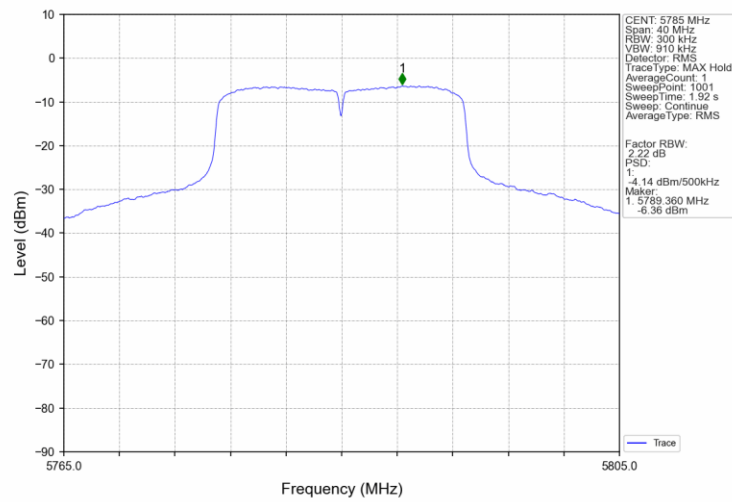
802.11n(HT40) HCH 5795MHz Ant1 NTN



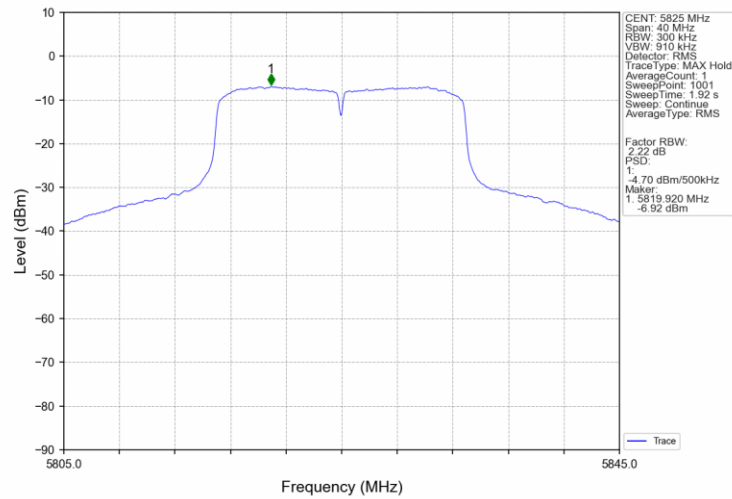
802.11ac(VHT20) LCH 5745MHz Ant1 NTN



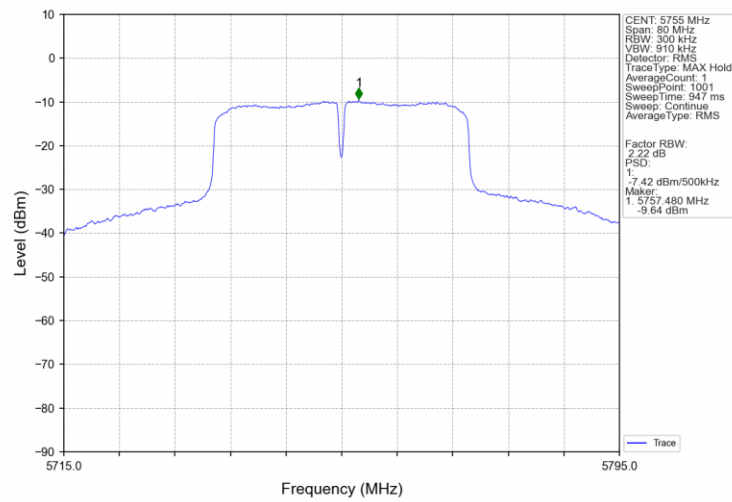
802.11ac(VHT20) MCH 5785MHz Ant1 NTN



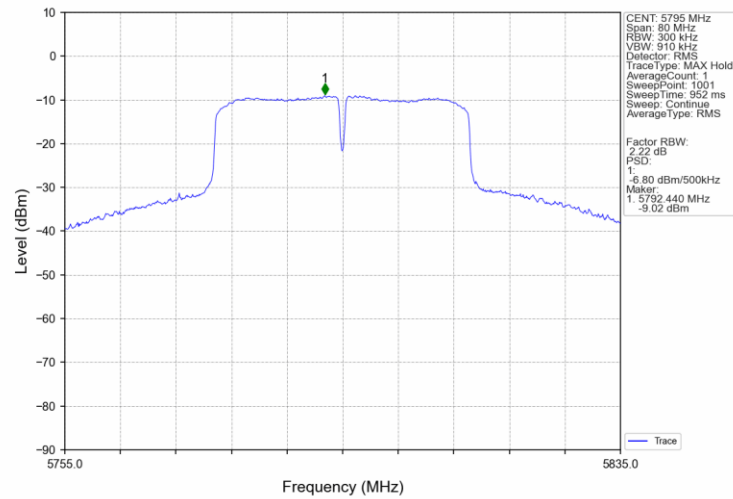
802.11ac(VHT20) HCH 5825MHz Ant1 NTN



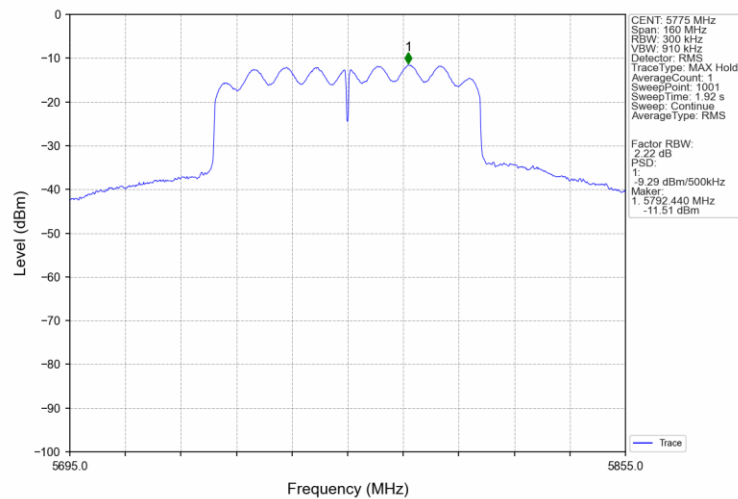
802.11ac(VHT40) LCH 5755MHz Ant1 NTN



802.11ac(VHT40) HCH 5795MHz Ant1 NTN



802.11ac(VHT80) MCH 5775MHz Ant1 NTN



5. Frequency Stability

5.1 Test Result

5.1.1 Ant1

Ant1							
Mode	TX Type	Frequency (MHz)	Temperature (°C)	Voltage (VAC)	Measured Frequency (MHz)	Limit (MHz)	Verdict
Carrier Wave	SISO	5745	20	102	5744.989	5725 to 5850	Pass
				120	5744.989	5725 to 5850	Pass
				138	5744.989	5725 to 5850	Pass
			-30	120	5744.989	5725 to 5850	Pass
			-20	120	5744.989	5725 to 5850	Pass
			-10	120	5744.988	5725 to 5850	Pass
			0	120	5744.988	5725 to 5850	Pass
			10	120	5744.988	5725 to 5850	Pass
			30	120	5744.988	5725 to 5850	Pass
			40	120	5744.988	5725 to 5850	Pass
			50	120	5744.988	5725 to 5850	Pass
		5785	20	102	5784.988	5725 to 5850	Pass
				120	5784.987	5725 to 5850	Pass
				138	5784.987	5725 to 5850	Pass
			-30	120	5784.987	5725 to 5850	Pass
			-20	120	5784.987	5725 to 5850	Pass
			-10	120	5784.987	5725 to 5850	Pass
			0	120	5784.987	5725 to 5850	Pass
			10	120	5784.987	5725 to 5850	Pass
			30	120	5784.987	5725 to 5850	Pass
			40	120	5784.987	5725 to 5850	Pass
			50	120	5784.987	5725 to 5850	Pass
		5825	20	102	5824.984	5725 to 5850	Pass
				120	5824.984	5725 to 5850	Pass
				138	5824.984	5725 to 5850	Pass
			-30	120	5824.984	5725 to 5850	Pass
			-20	120	5824.984	5725 to 5850	Pass
			-10	120	5824.984	5725 to 5850	Pass
			0	120	5824.984	5725 to 5850	Pass
			10	120	5824.984	5725 to 5850	Pass
			30	120	5824.984	5725 to 5850	Pass
			40	120	5824.984	5725 to 5850	Pass
			50	120	5824.984	5725 to 5850	Pass
		5755	20	102	5754.993	5725 to 5850	Pass
				120	5754.993	5725 to 5850	Pass
				138	5754.993	5725 to 5850	Pass
			-30	120	5754.992	5725 to 5850	Pass
			-20	120	5754.992	5725 to 5850	Pass
			-10	120	5754.992	5725 to 5850	Pass
			0	120	5754.992	5725 to 5850	Pass
			10	120	5754.992	5725 to 5850	Pass
			30	120	5754.991	5725 to 5850	Pass
			40	120	5754.991	5725 to 5850	Pass
			50	120	5754.991	5725 to 5850	Pass
		5795	20	102	5794.991	5725 to 5850	Pass
				120	5794.990	5725 to 5850	Pass
				138	5794.990	5725 to 5850	Pass
			-30	120	5794.990	5725 to 5850	Pass
			-20	120	5794.990	5725 to 5850	Pass
			-10	120	5794.990	5725 to 5850	Pass



			0	120	5794.990	5725 to 5850	Pass
			10	120	5794.990	5725 to 5850	Pass
			30	120	5794.990	5725 to 5850	Pass
			40	120	5794.990	5725 to 5850	Pass
			50	120	5794.990	5725 to 5850	Pass
		5775	20	102	5774.986	5725 to 5850	Pass
				120	5774.986	5725 to 5850	Pass
				138	5774.985	5725 to 5850	Pass
			-30	120	5774.985	5725 to 5850	Pass
			-20	120	5774.985	5725 to 5850	Pass
			-10	120	5774.985	5725 to 5850	Pass
			0	120	5774.985	5725 to 5850	Pass
			10	120	5774.985	5725 to 5850	Pass
			30	120	5774.985	5725 to 5850	Pass
			40	120	5774.985	5725 to 5850	Pass
			50	120	5774.985	5725 to 5850	Pass

6. Form731

6.1 Test Result

6.1.1 Form731

Lower Freq (MHz)	High Freq (MHz)	MAX Power (W)	MAX Power (dBm)
5745	5825	0.0110	10.40
5755	5795	0.0111	10.47
5775	5775	0.0094	9.71

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