Test Data for 5G_BAND3

Product Name: MaaXBoard RT

Test Model: AES-MC-SBC-IMXRT1176-G

1. Bandwidth

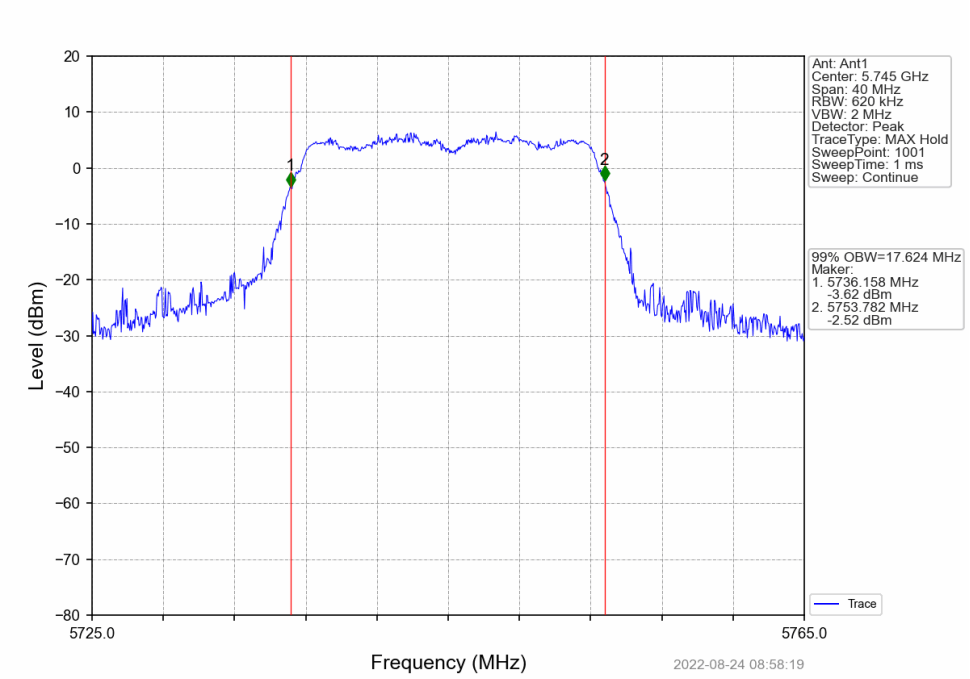
1.1 OBW

1.1.1 Test Result

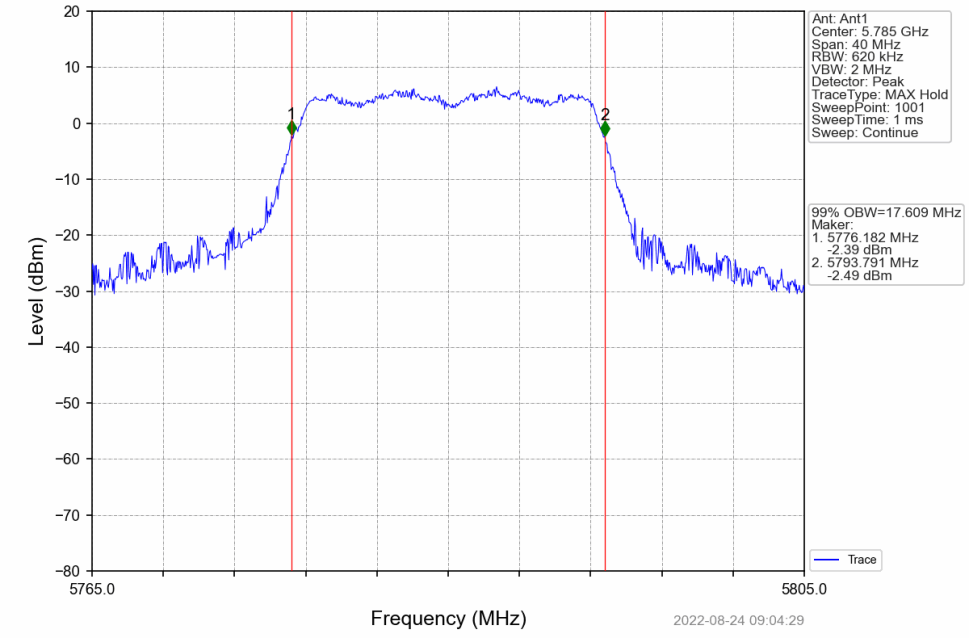
Mode	TX Type	Frequency (MHz)	ANT	99% Occupied Bandwidth (MHz) Result	Verdict
802.11a	SISO	5745	1	17.624	Pass
		5785	1	17.609	Pass
		5825	1	17.608	Pass
802.11n (HT20)	SISO	5745	1	18.186	Pass
		5785	1	18.190	Pass
		5825	1	18.181	Pass
802.11n (HT40)	SISO	5755	1	36.822	Pass
		5795	1	36.742	Pass
802.11ac (VHT20)	SISO	5745	1	18.172	Pass
		5785	1	18.173	Pass
		5825	1	18.221	Pass
802.11ac (VHT40)	SISO	5755	1	36.815	Pass
		5795	1	36.834	Pass
802.11ac (VHT80)	SISO	5775	1	76.876	Pass

1.1.2 Test Graph

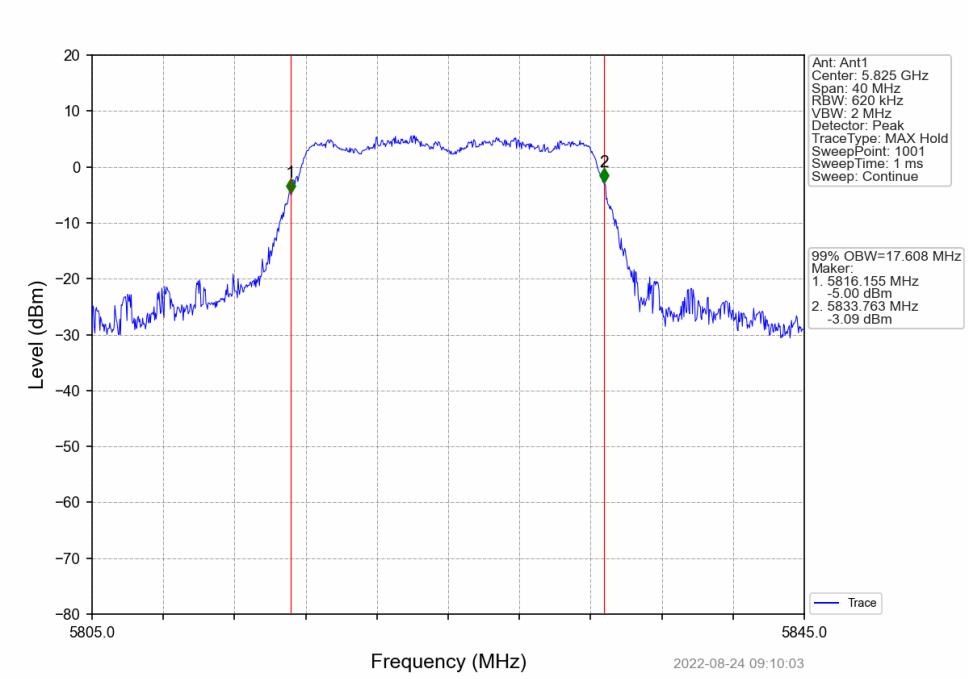
802.11a_LCH_5745MHz_Ant1_NTNV



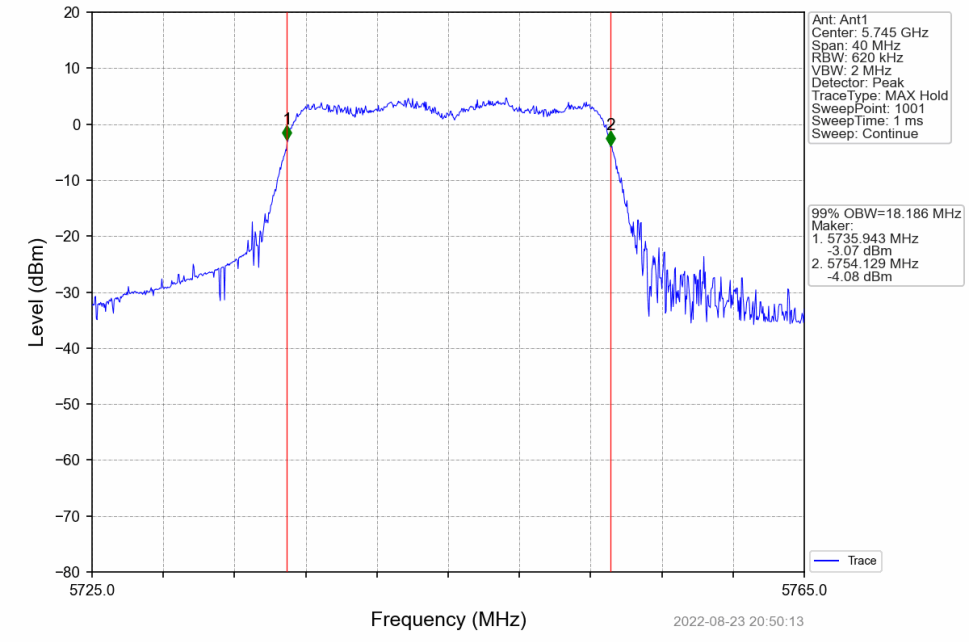
802.11a_MCH_5785MHz_Ant1_NTNV



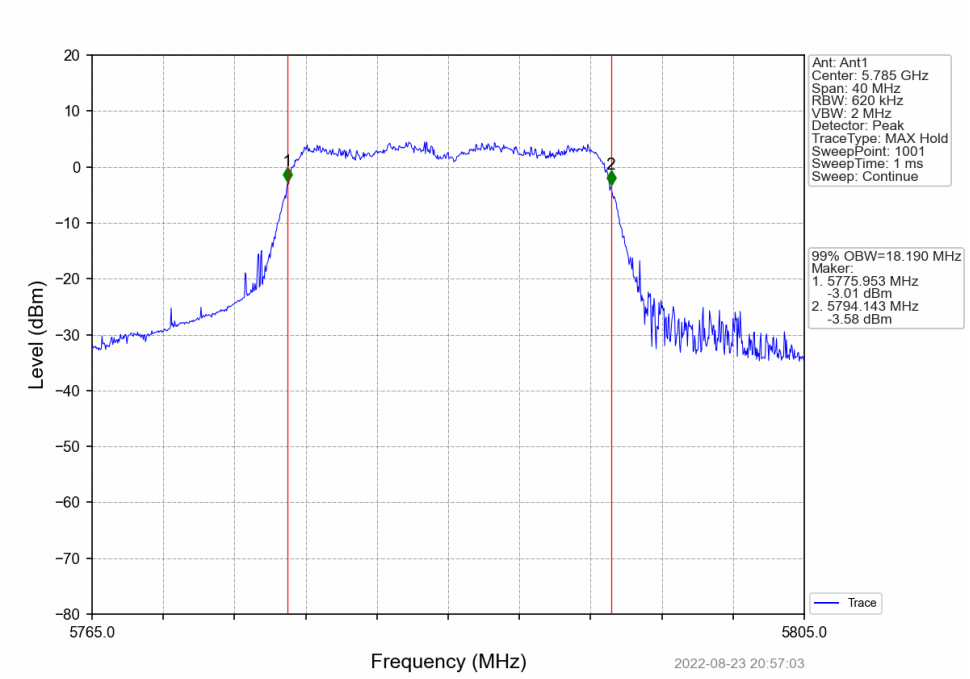
802.11a_HCH_5825MHz_Ant1_NTNV



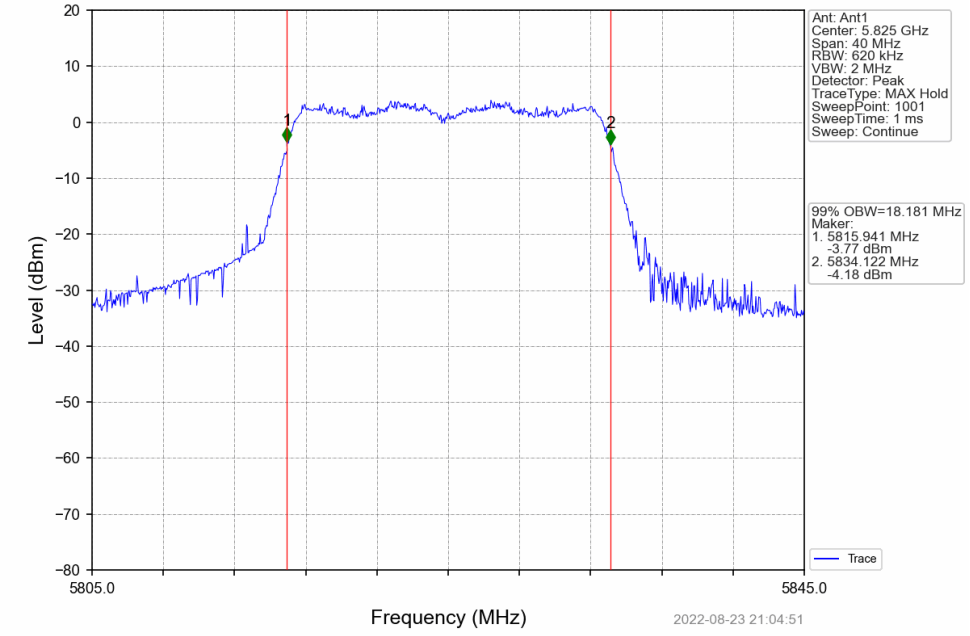
802.11n(HT20)_LCH_5745MHz_Ant1_NTNV



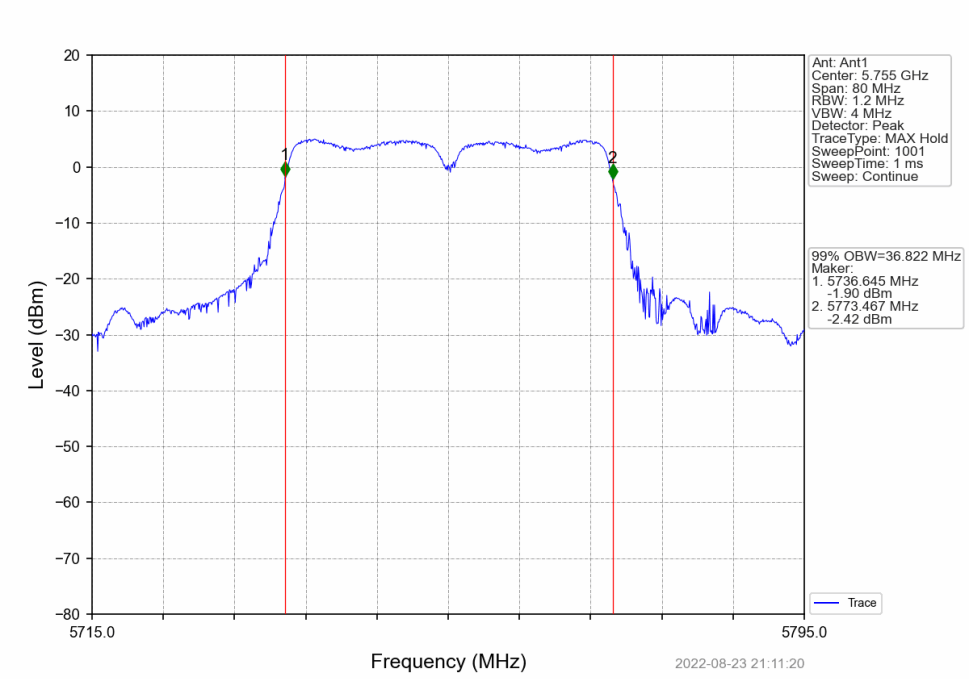
802.11n(HT20)_MCH_5785MHz_Ant1_NTNV



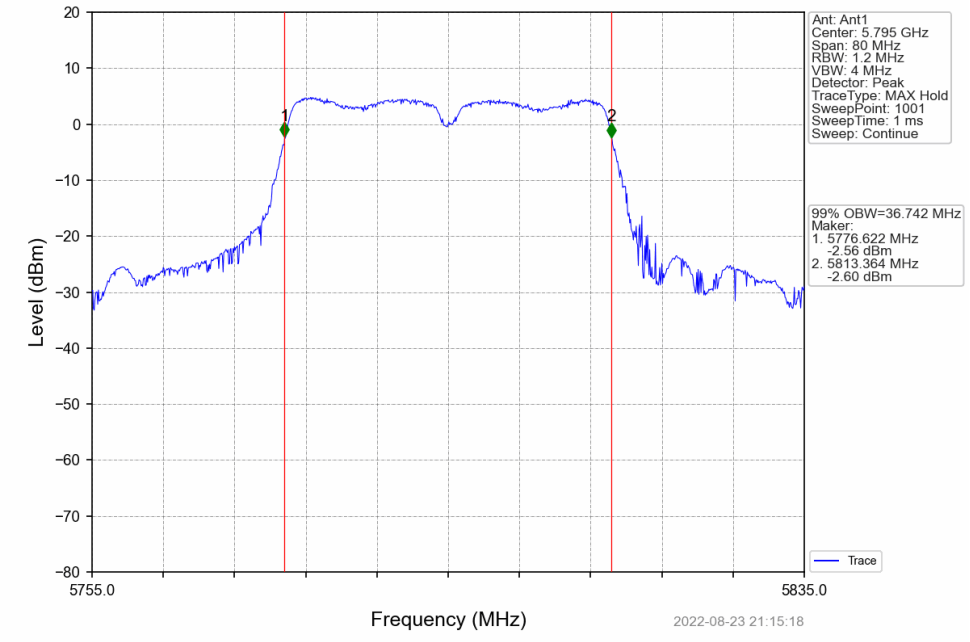
802.11n(HT20)_HCH_5825MHz_Ant1_NTNV



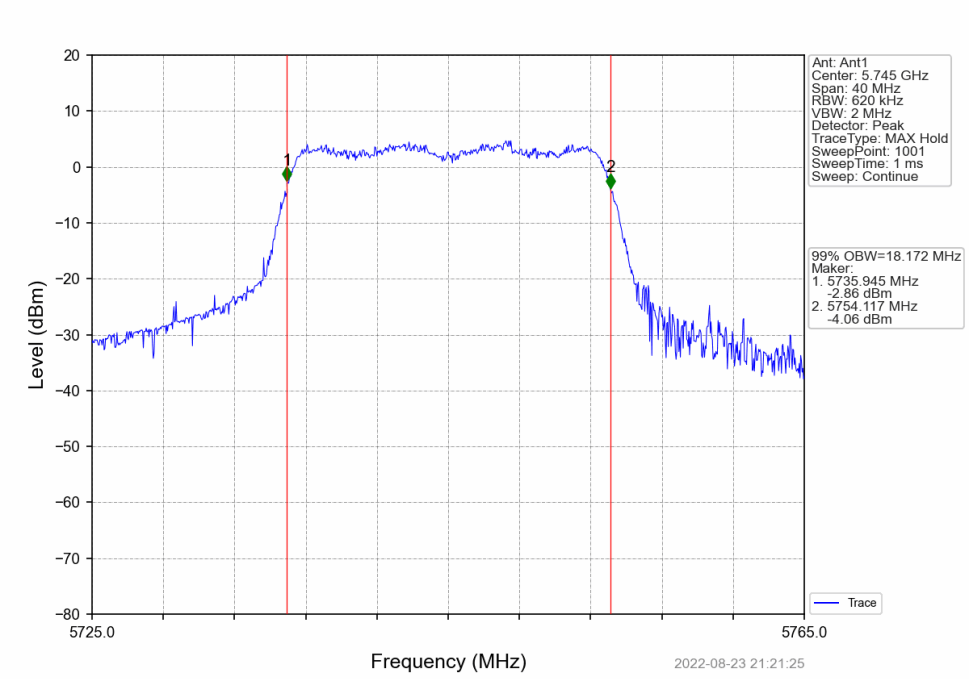
802.11n(HT40)_LCH_5755MHz_Ant1_NTNV



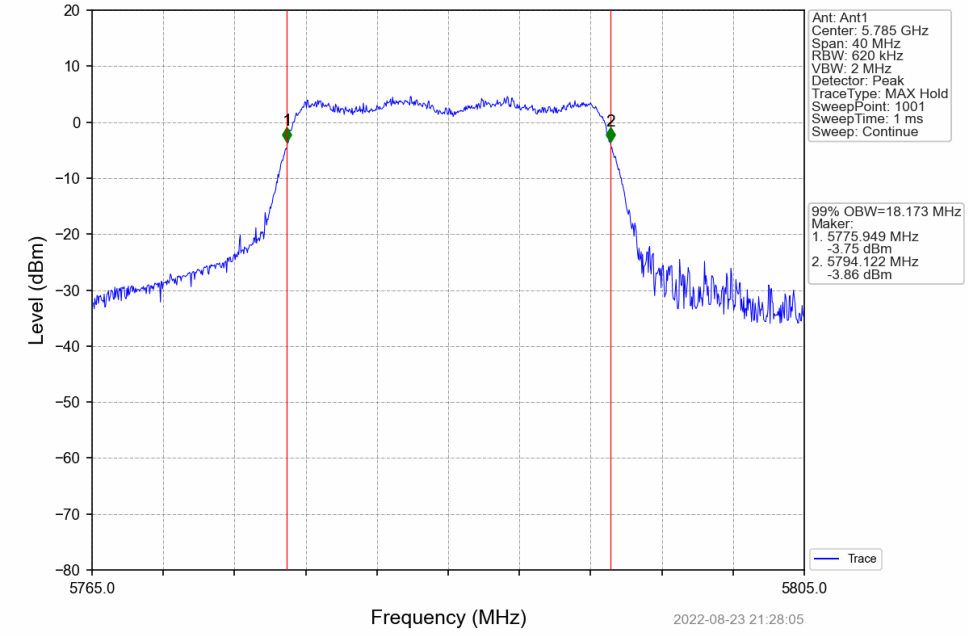
802.11n(HT40)_HCH_5795MHz_Ant1_NTNV



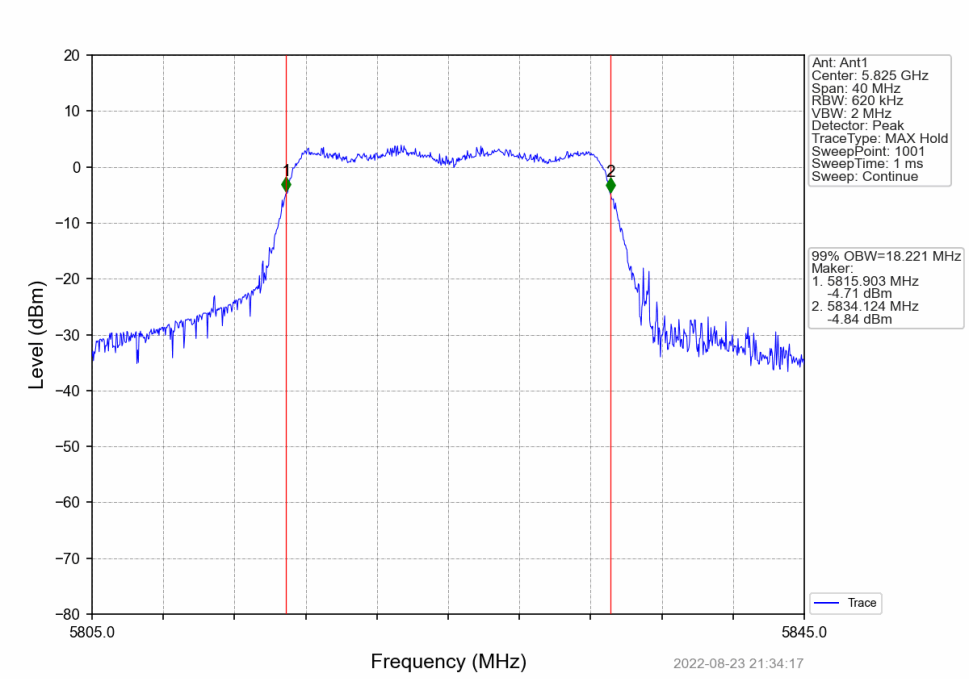
802.11ac(VHT20)_LCH_5745MHz_Ant1_NTNV



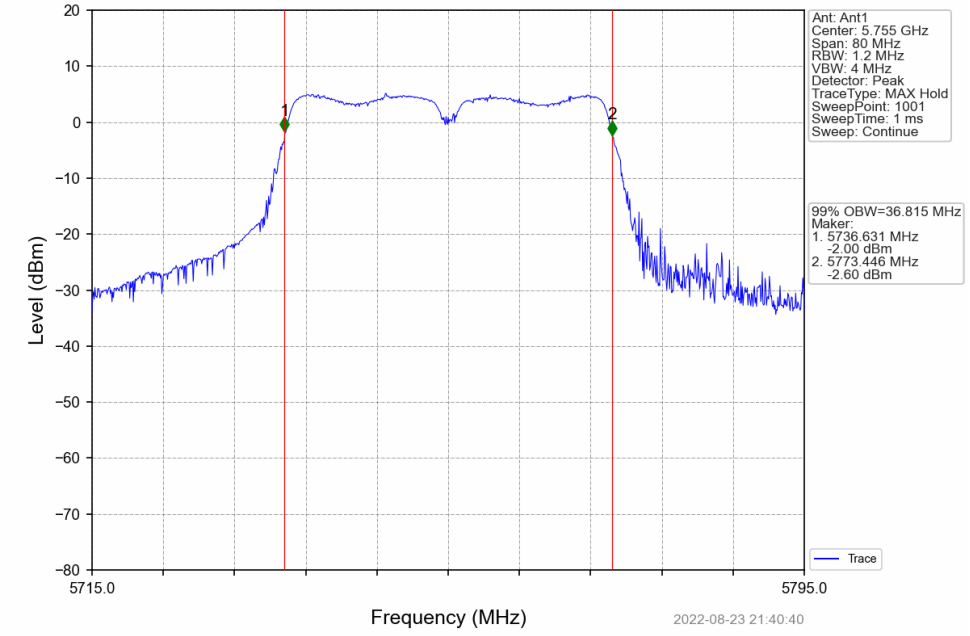
802.11ac(VHT20)_MCH_5785MHz_Ant1_NTNV



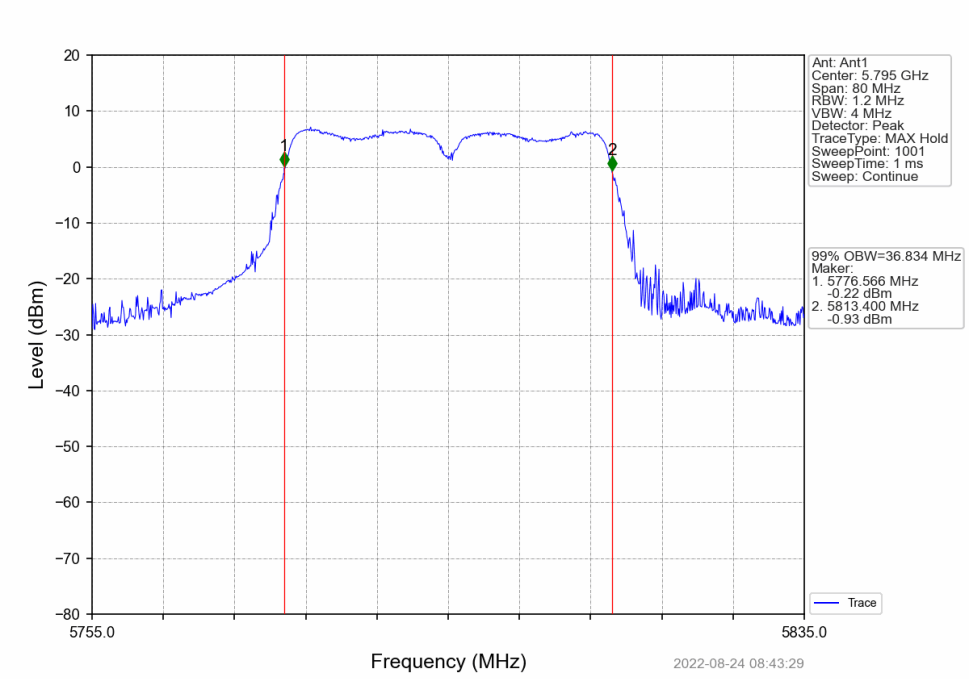
802.11ac(VHT20)_HCH_5825MHz_Ant1_NTNV



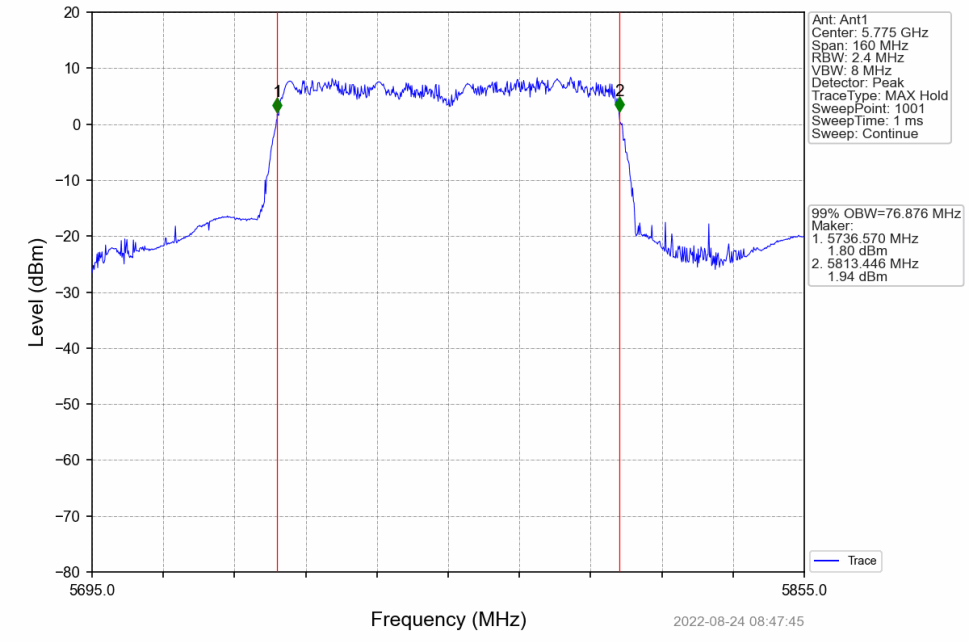
802.11ac(VHT40)_LCH_5755MHz_Ant1_NTNV



802.11ac(VHT40)_HCH_5795MHz_Ant1_NTNV



802.11ac(VHT80)_MCH_5775MHz_Ant1_NTNV



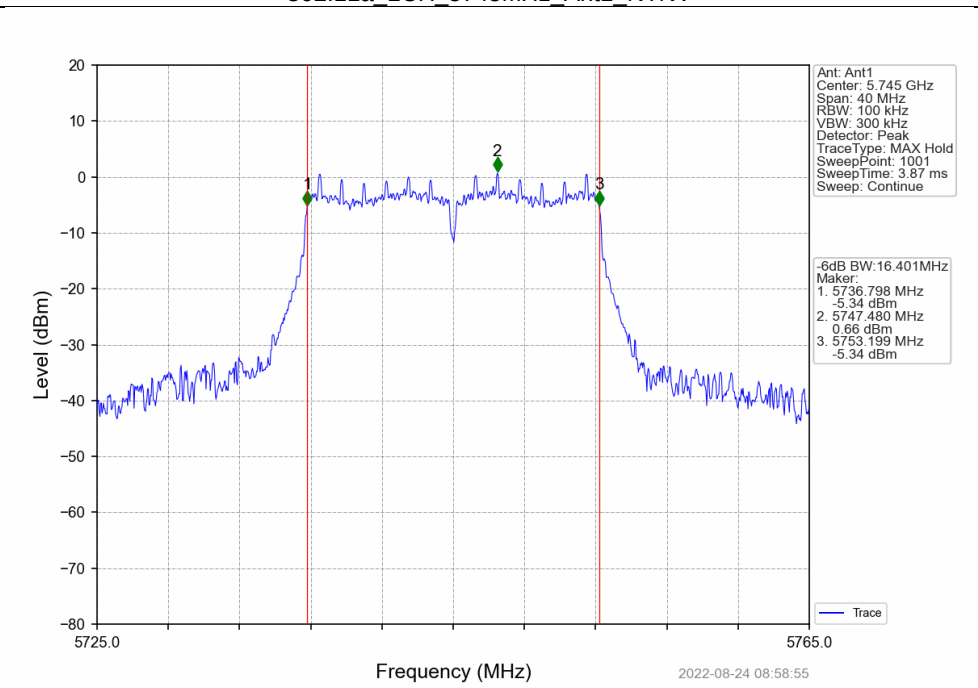
1.2 6dB BW

1.2.1 Test Result

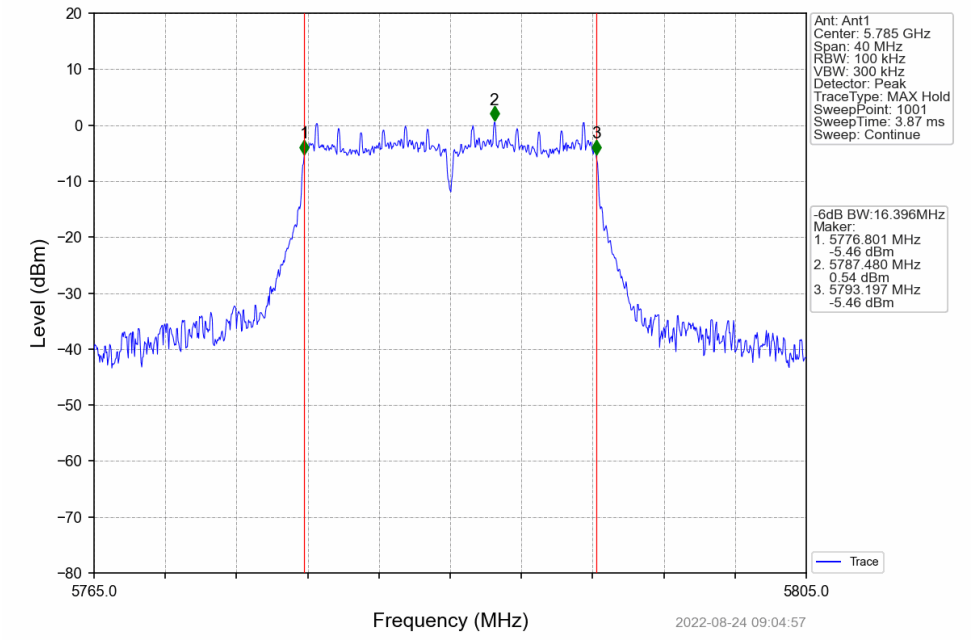
Mode	TX Type	Frequency (MHz)	ANT	6dB Bandwidth (MHz)		Verdict
				Result	Limit	
802.11a	SISO	5745	1	16.401	>=0.5	Pass
		5785	1	16.396	>=0.5	Pass
		5825	1	16.407	>=0.5	Pass
802.11n (HT20)	SISO	5745	1	17.603	>=0.5	Pass
		5785	1	17.586	>=0.5	Pass
		5825	1	17.597	>=0.5	Pass
802.11n (HT40)	SISO	5755	1	35.750	>=0.5	Pass
		5795	1	35.727	>=0.5	Pass
802.11ac (VHT20)	SISO	5745	1	17.615	>=0.5	Pass
		5785	1	17.606	>=0.5	Pass
		5825	1	17.597	>=0.5	Pass
802.11ac (VHT40)	SISO	5755	1	35.780	>=0.5	Pass
		5795	1	35.722	>=0.5	Pass
802.11ac (VHT80)	SISO	5775	1	76.281	>=0.5	Pass

1.2.2 Test Graph

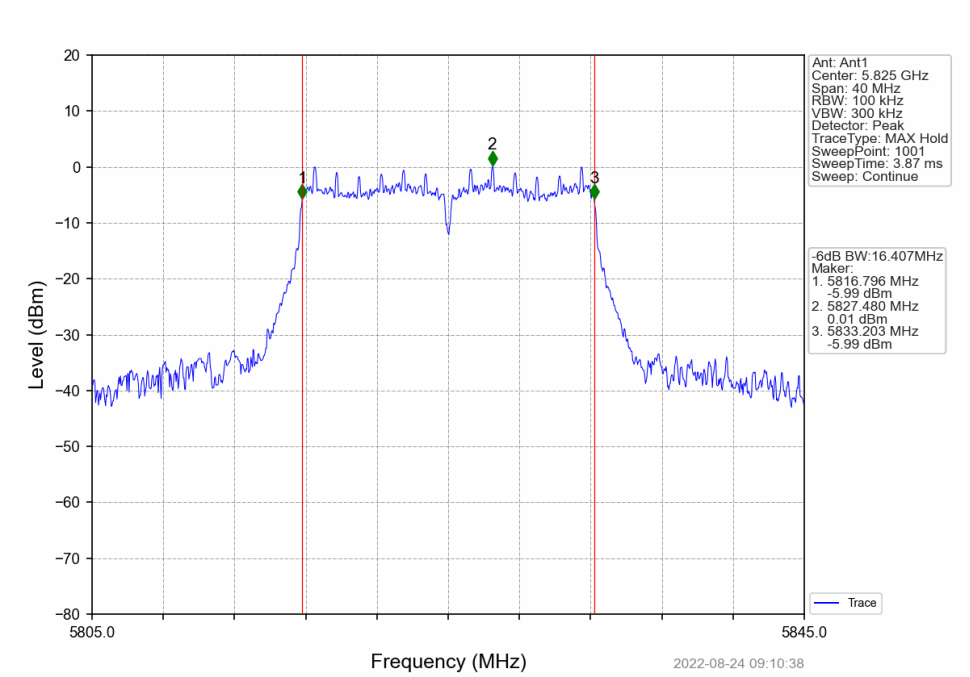
802.11a_LCH_5745MHz_Ant1_NTNV



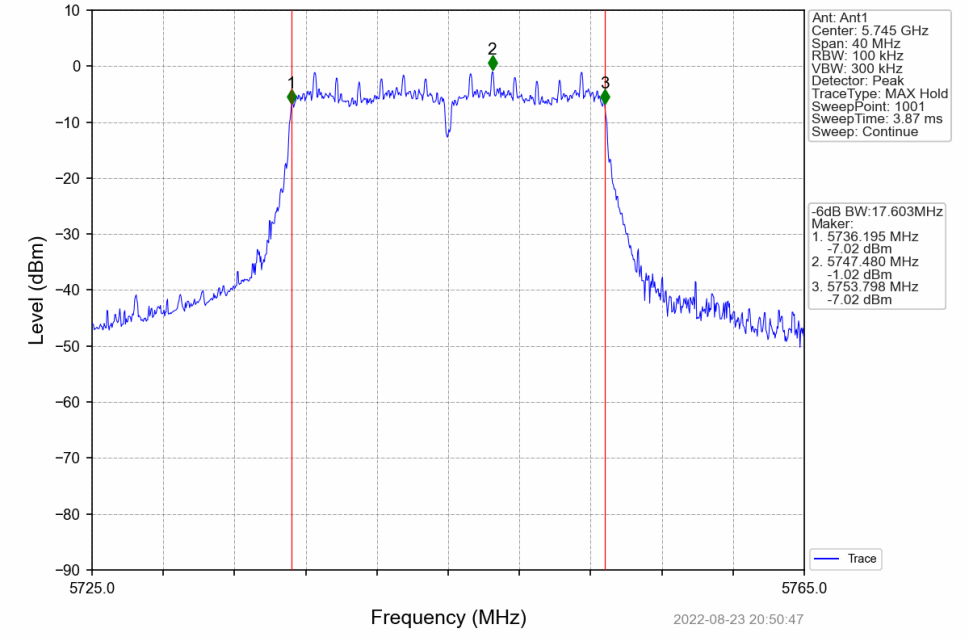
802.11a_MCH_5785MHz_Ant1_NTNV



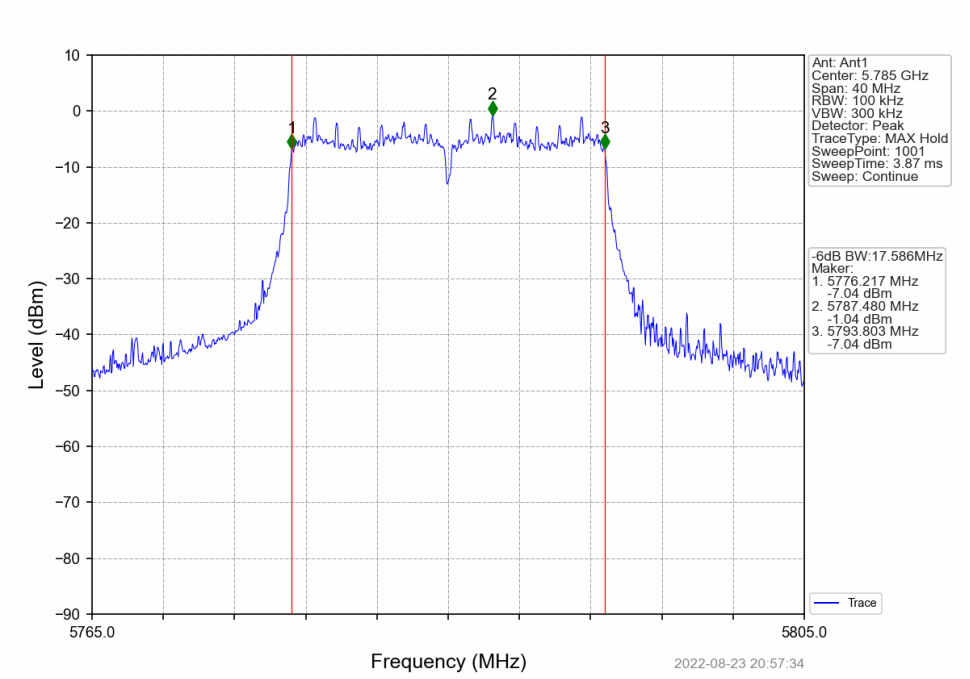
802.11a_HCH_5825MHz_Ant1_NTNV



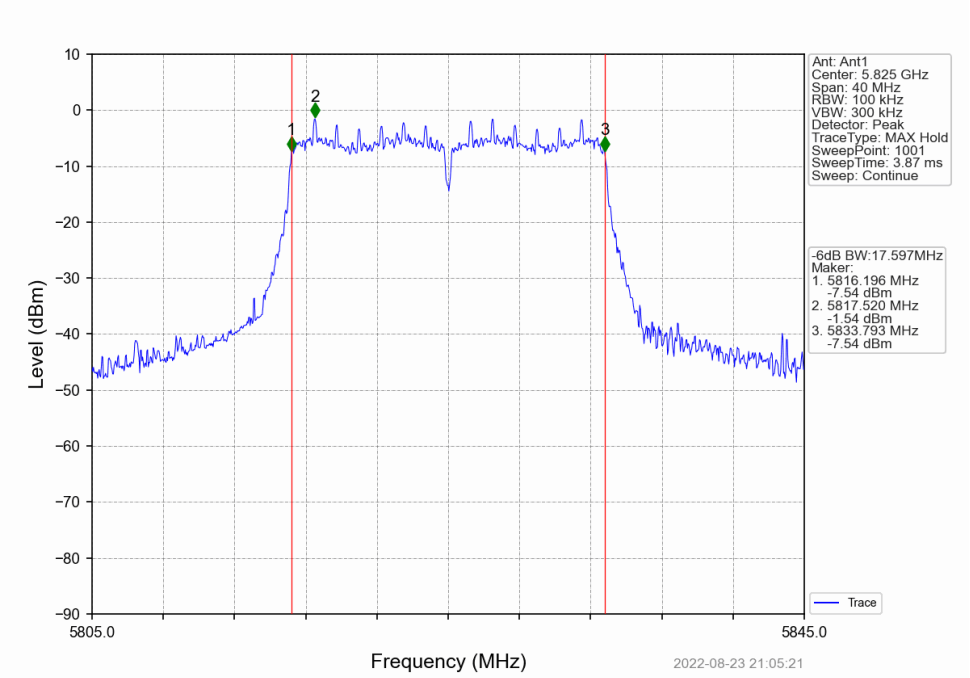
802.11n(HT20)_LCH_5745MHz_Ant1_NTNV



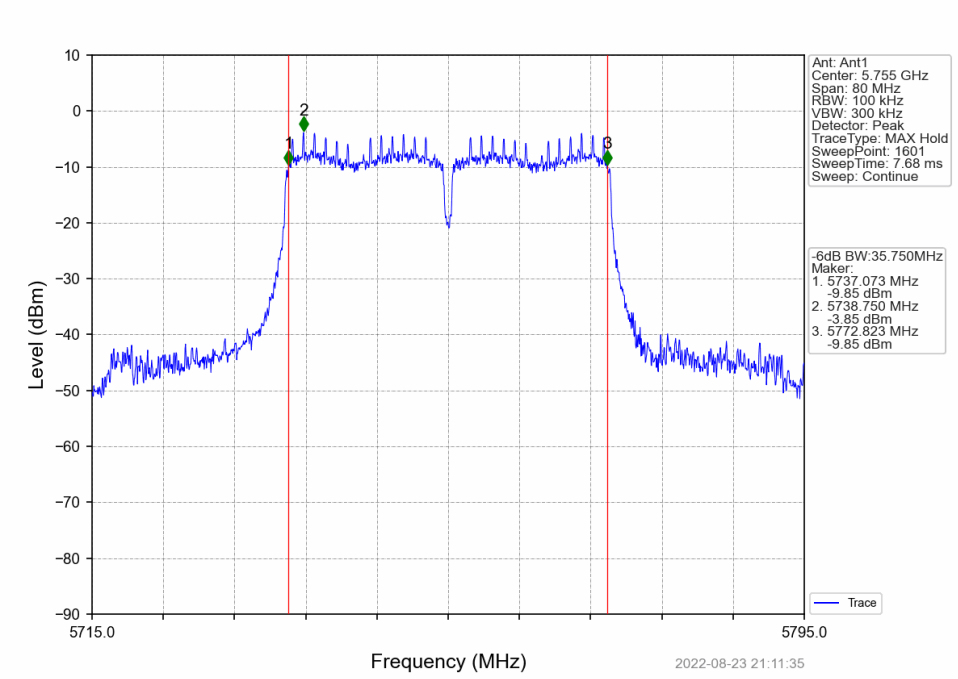
802.11n(HT20)_MCH_5785MHz_Ant1_NTNV



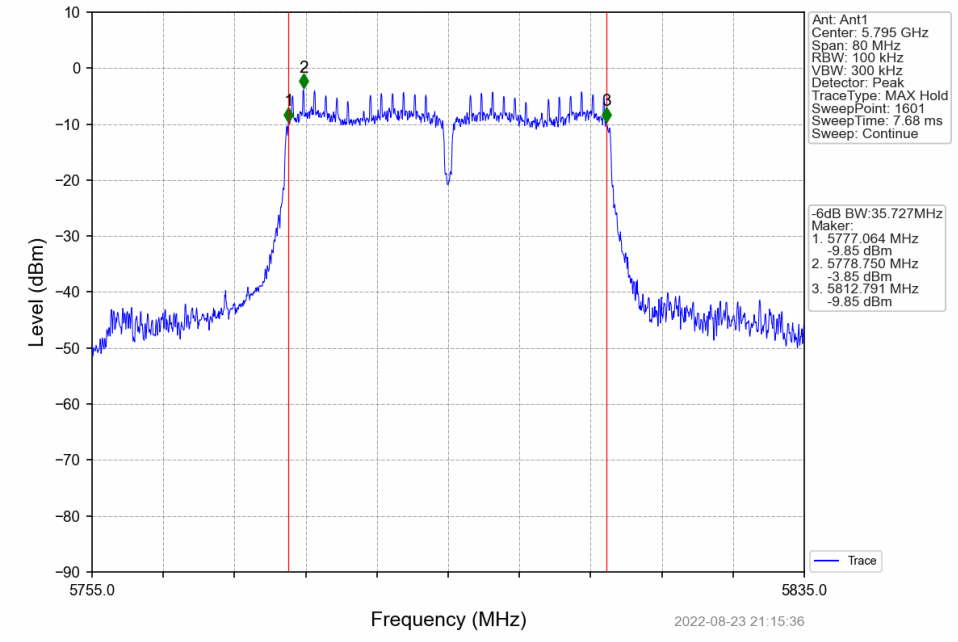
802.11n(HT20)_HCH_5825MHz_Ant1_NTNV



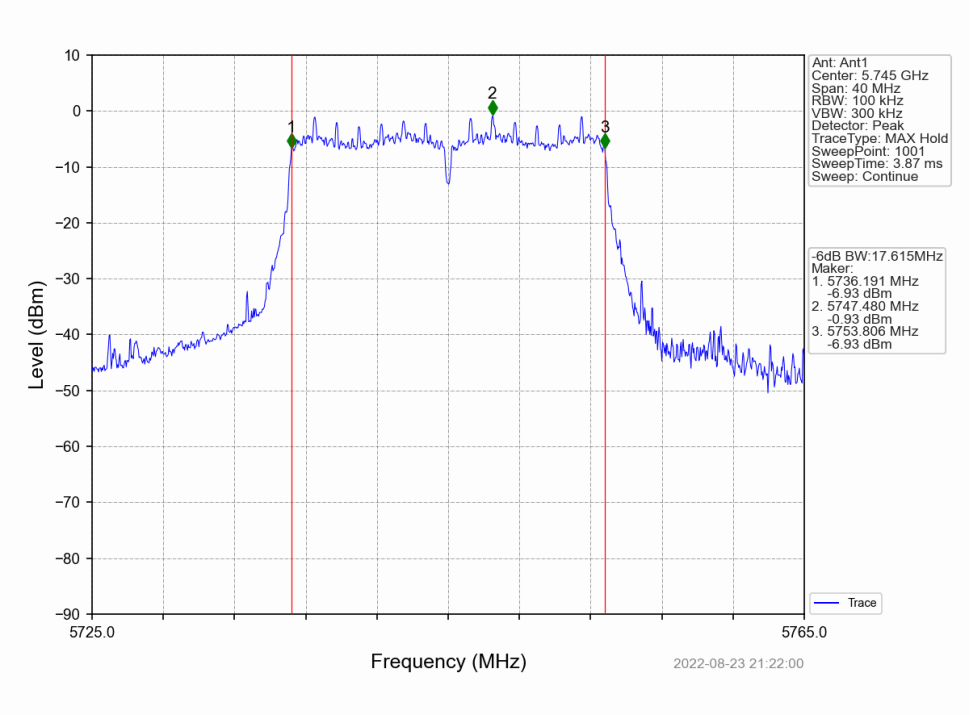
802.11n(HT40)_LCH_5755MHz_Ant1_NTNV



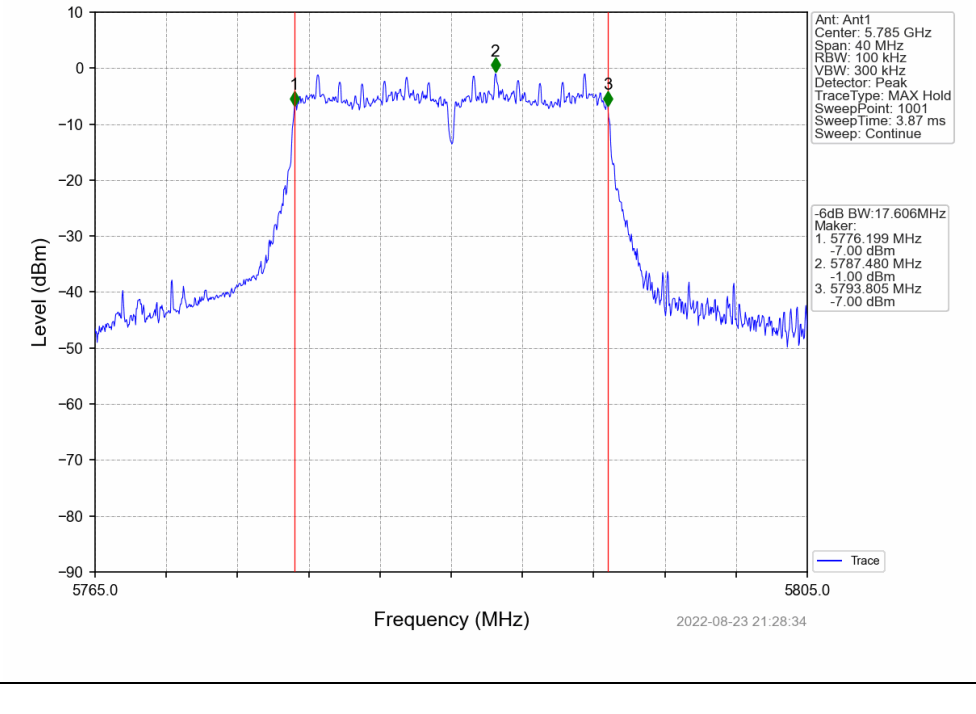
802.11n(HT40)_HCH_5795MHz_Ant1_NTNV



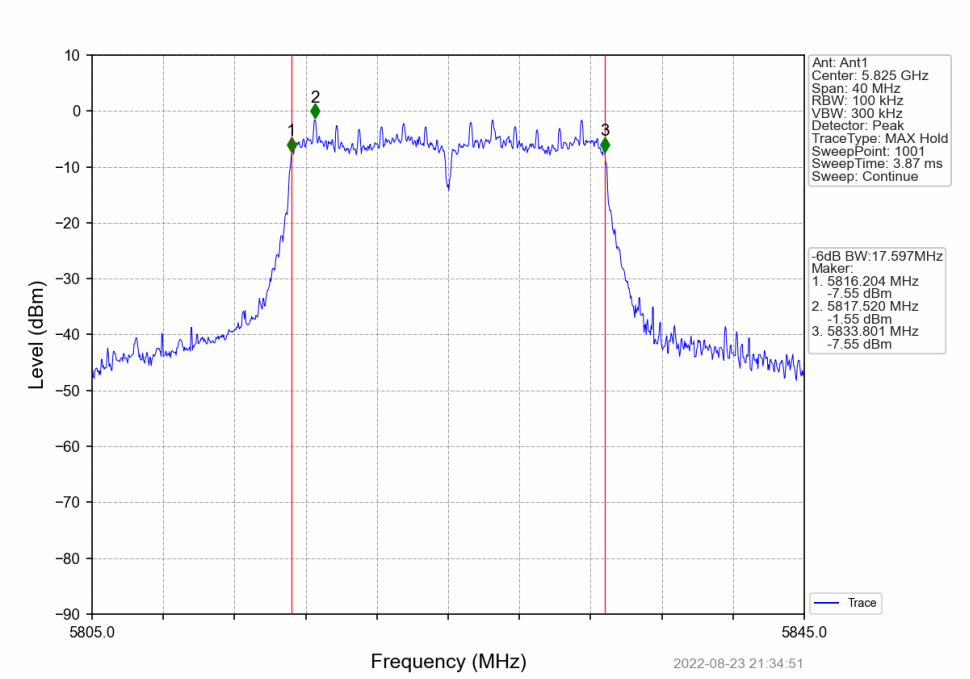
802.11ac(VHT20)_LCH_5745MHz_Ant1_NTNV



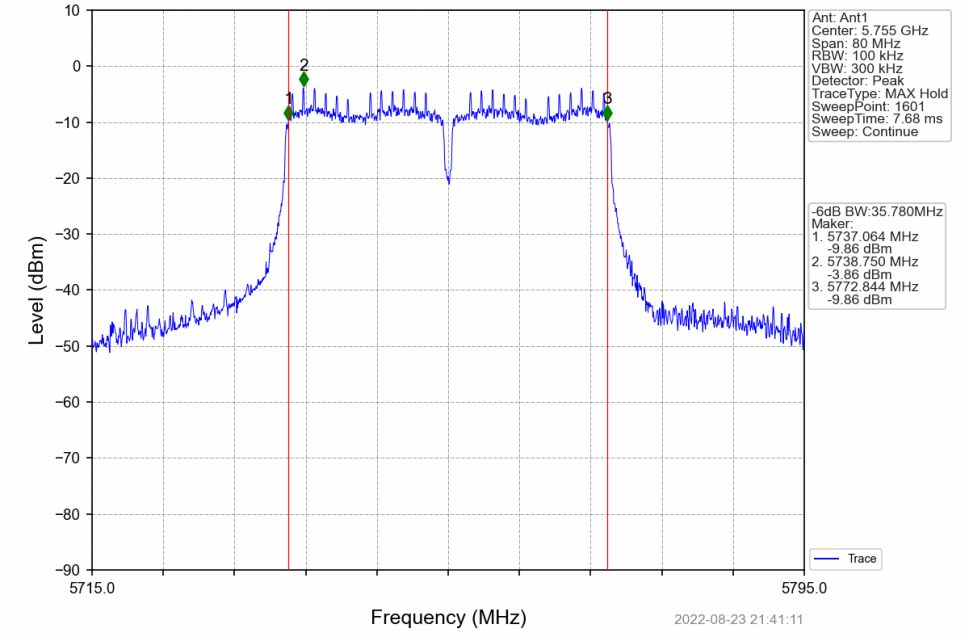
802.11ac(VHT20)_MCH_5785MHz_Ant1_NTNV



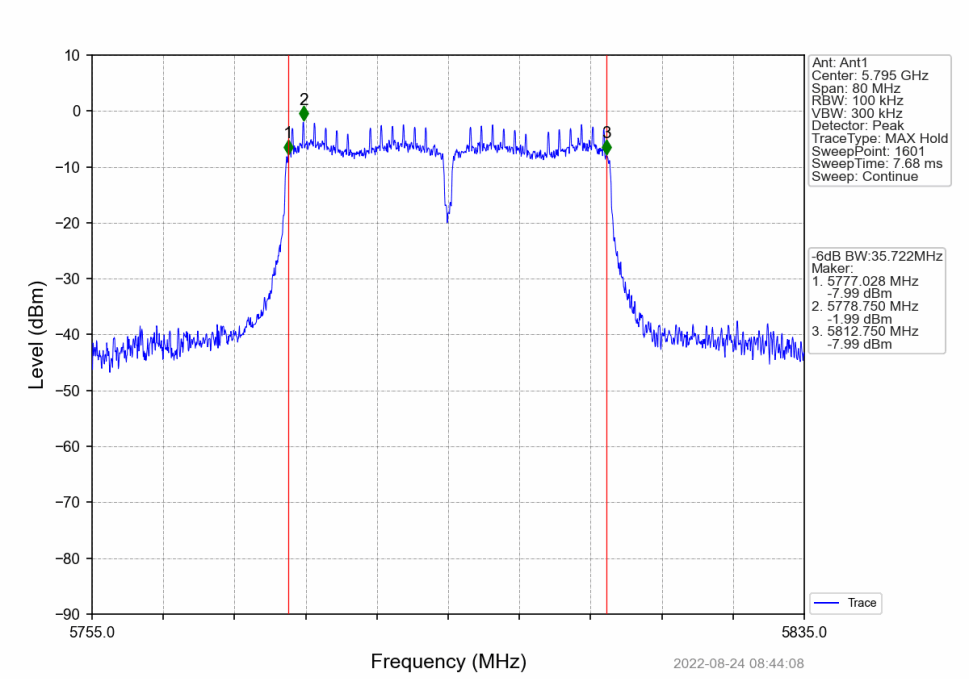
802.11ac(VHT20)_HCH_5825MHz_Ant1_NTNV



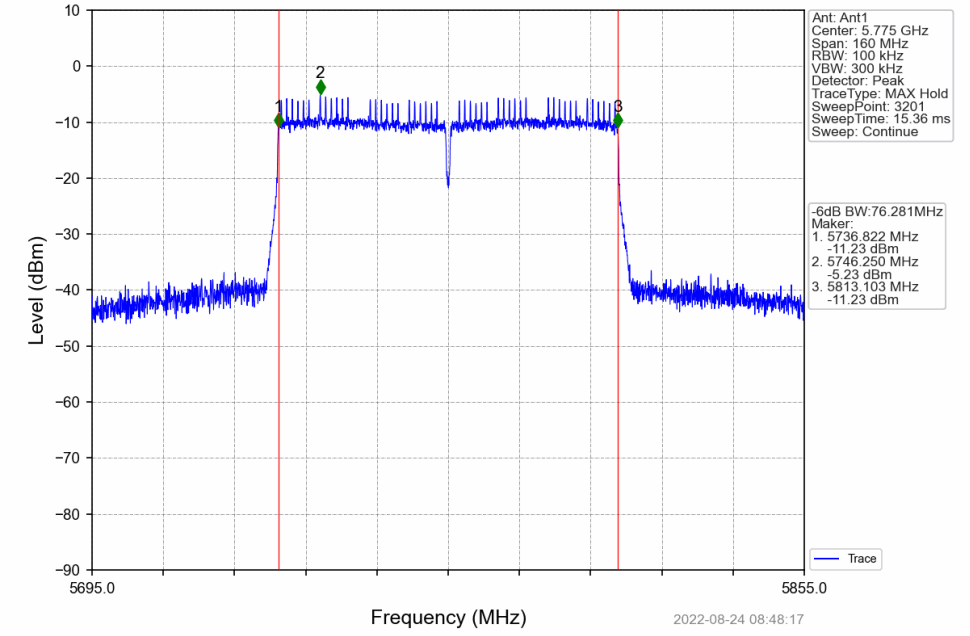
802.11ac(VHT40)_LCH_5755MHz_Ant1_NTNV



802.11ac(VHT40)_HCH_5795MHz_Ant1_NTNV



802.11ac(VHT80)_MCH_5775MHz_Ant1_NTNV



2. Maximum Conducted Output Power

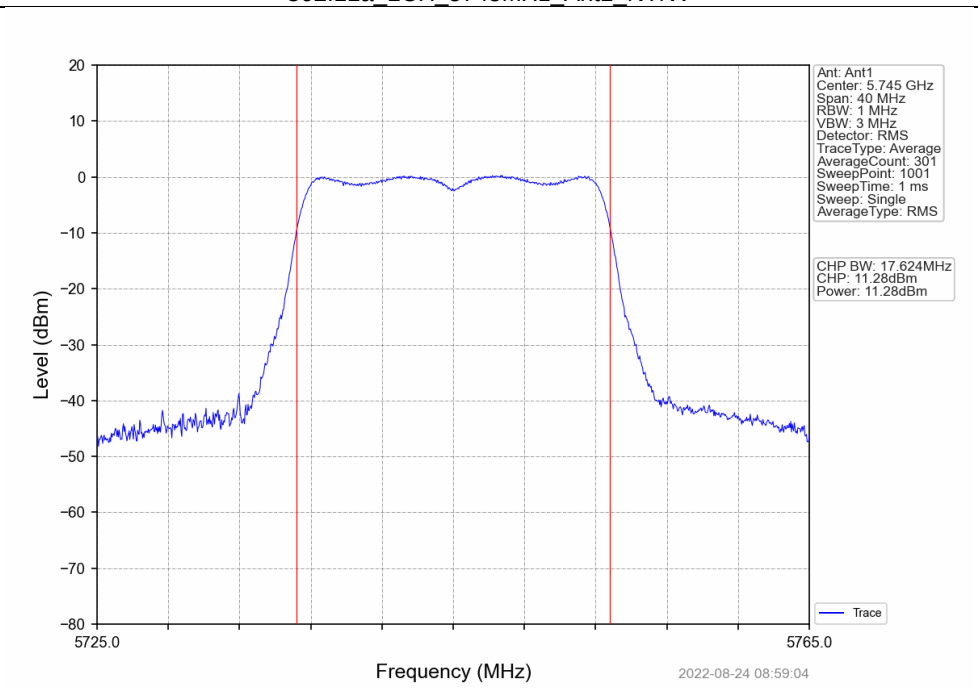
2.1 Power

2.1.1 Test Result

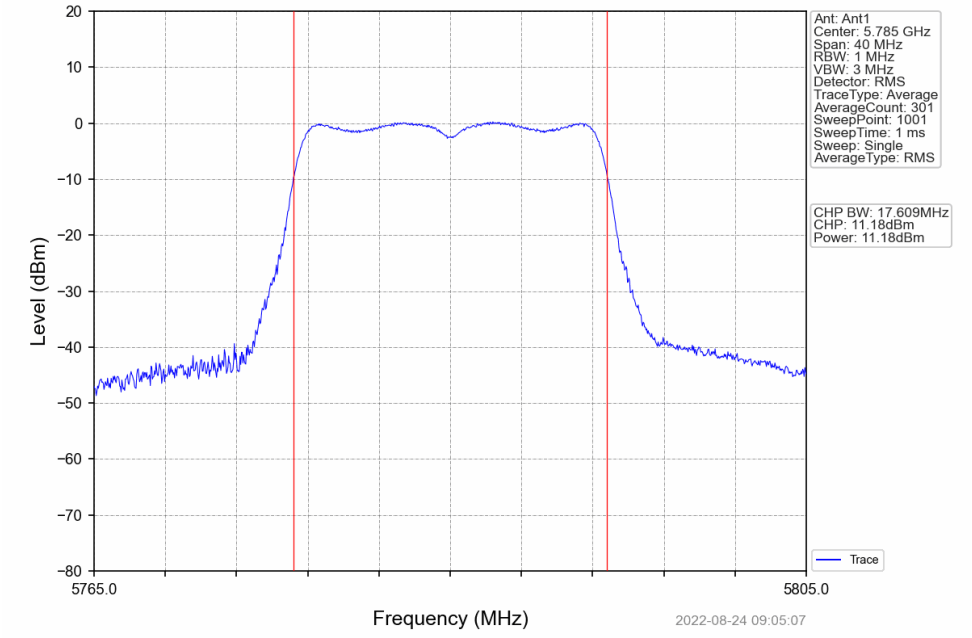
Mode	TX Type	Frequency (MHz)	Maximum Average Conducted Output Power (dBm)				Verdict
			AVG Conducted Power (dBm)	Duty Cycle Factor(dB)	EIRP	Limit	
802.11a	SISO	5745	11.28	0.00	15.53	<=30	Pass
		5785	11.18	0.00	15.43	<=30	Pass
		5825	10.69	0.00	14.94	<=30	Pass
802.11n (HT20)	SISO	5745	9.82	0.00	14.07	<=30	Pass
		5785	9.77	0.00	14.02	<=30	Pass
		5825	9.18	0.00	13.43	<=30	Pass
802.11n (HT40)	SISO	5755	9.68	0.00	13.93	<=30	Pass
		5795	9.42	0.00	13.67	<=30	Pass
802.11ac (VHT20)	SISO	5745	9.70	0.00	13.95	<=30	Pass
		5785	9.67	0.00	13.92	<=30	Pass
		5825	9.11	0.00	13.36	<=30	Pass
802.11ac (VHT40)	SISO	5755	9.68	0.00	13.93	<=30	Pass
		5795	11.31	0.00	15.56	<=30	Pass
802.11ac (VHT80)	SISO	5775	11.13	0.00	15.38	<=30	Pass
Note1: Antenna Gain: Ant1: 4.25dBi; Note2: The Duty Cycle Factor and RBW Factor is compensated in the graph.							

2.1.2 Test Graph

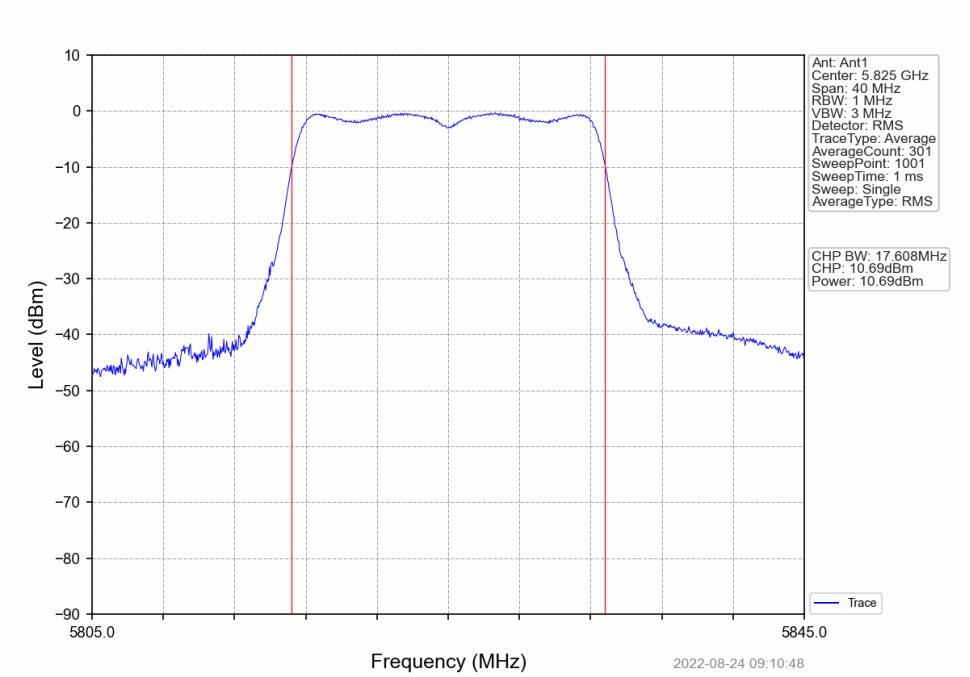
802.11a_LCH_5745MHz_Ant1_NTNV



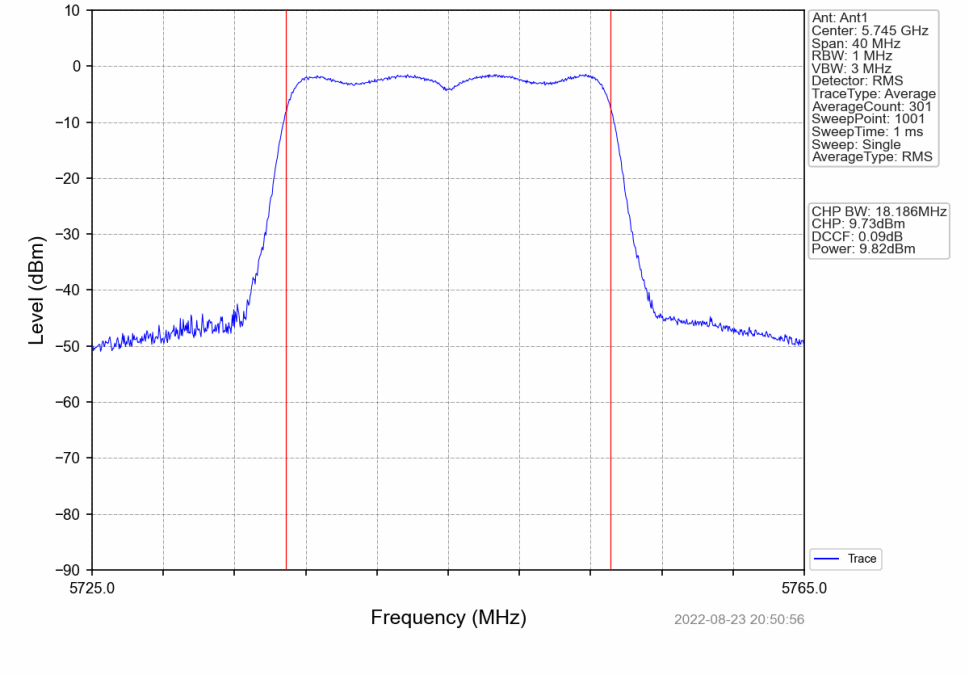
802.11a_MCH_5785MHz_Ant1_NTNV



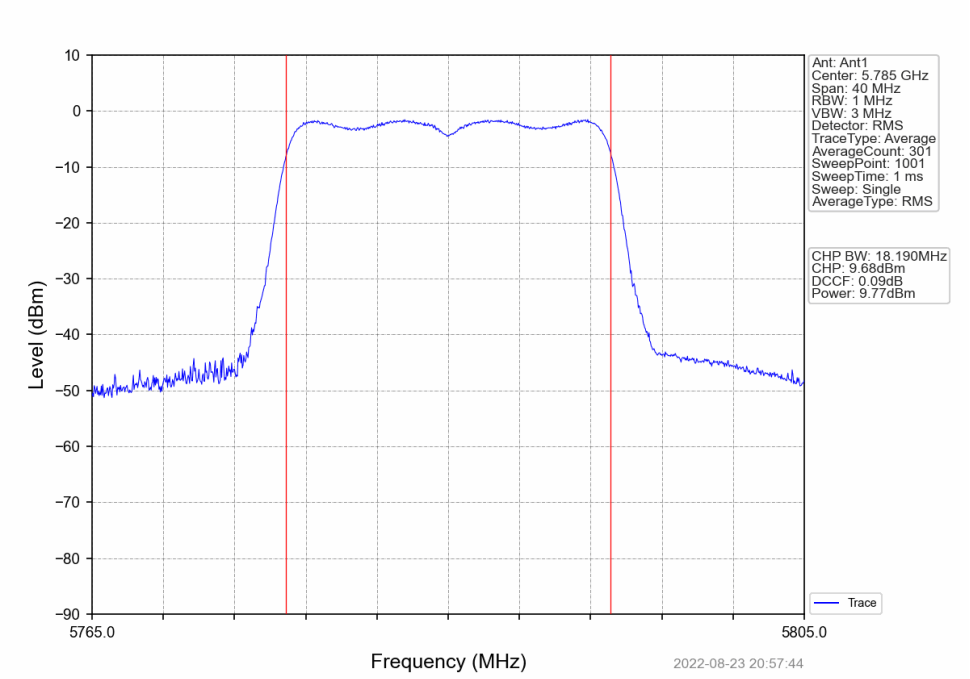
802.11a_HCH_5825MHz_Ant1_NTNV



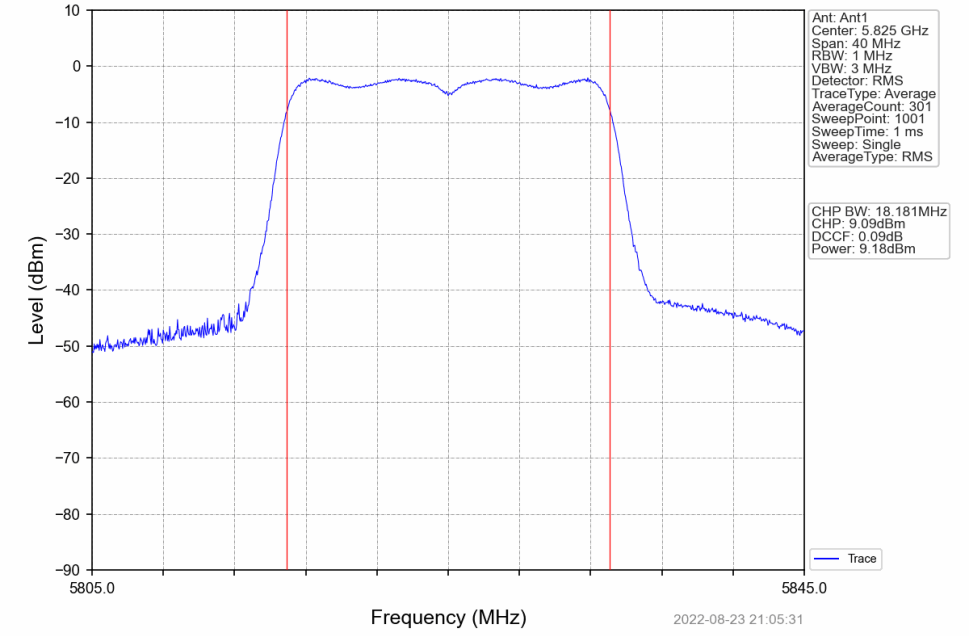
802.11n(HT20)_LCH_5745MHz_Ant1_NTNV



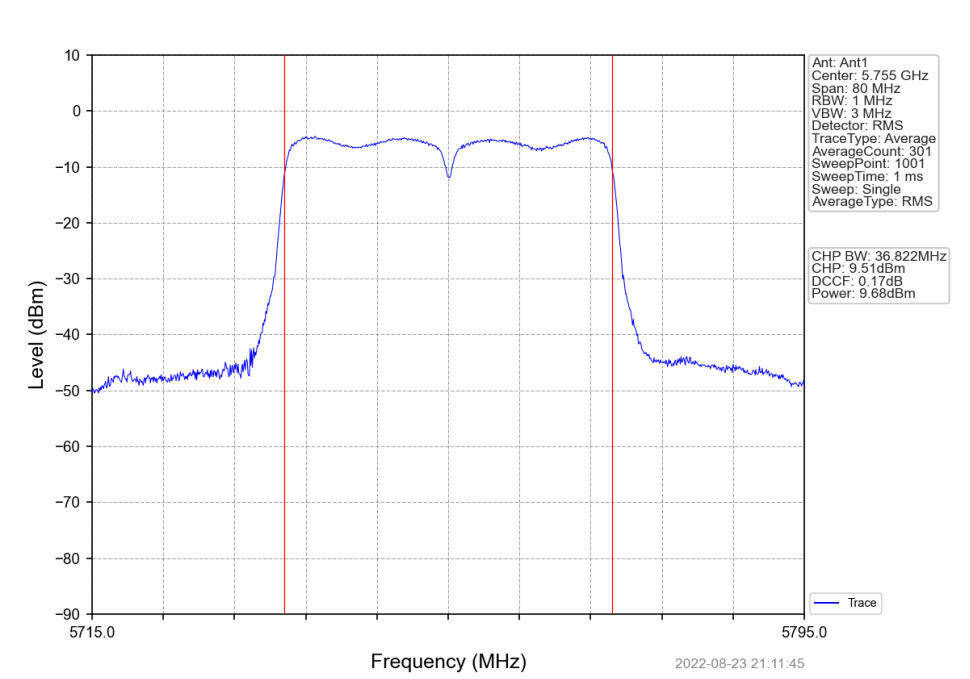
802.11n(HT20)_MCH_5785MHz_Ant1_NTNV



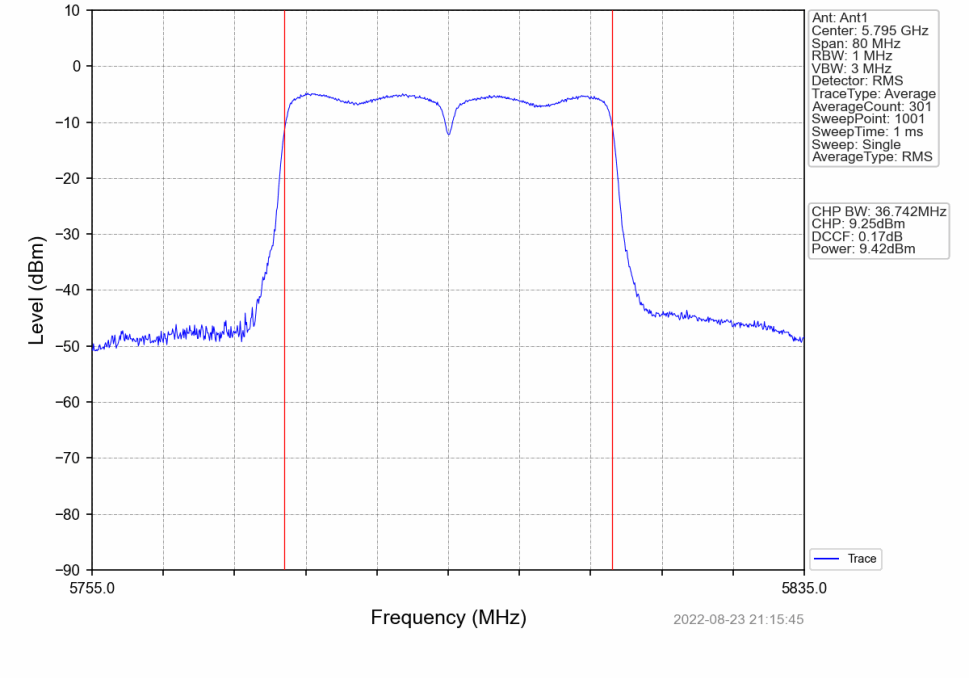
802.11n(HT20)_HCH_5825MHz_Ant1_NTNV



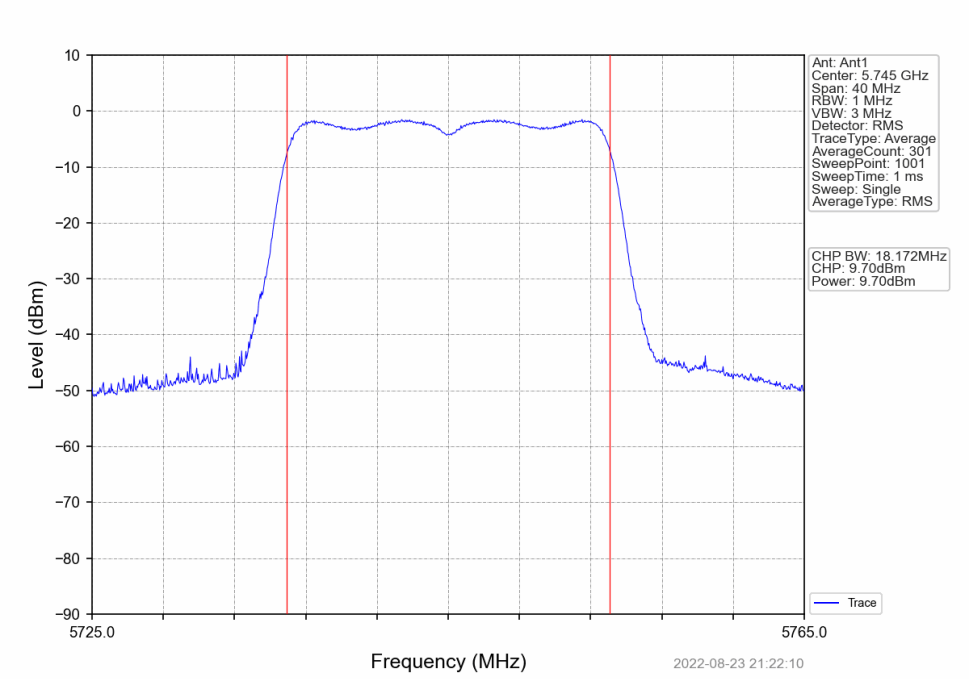
802.11n(HT40)_LCH_5755MHz_Ant1_NTNV



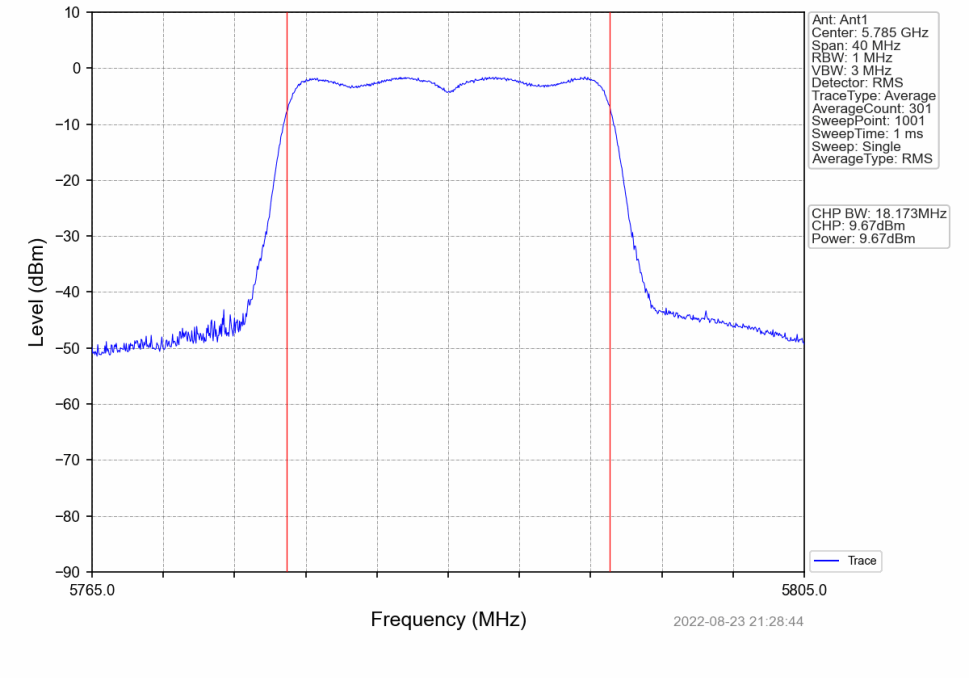
802.11n(HT40)_HCH_5795MHz_Ant1_NTNV



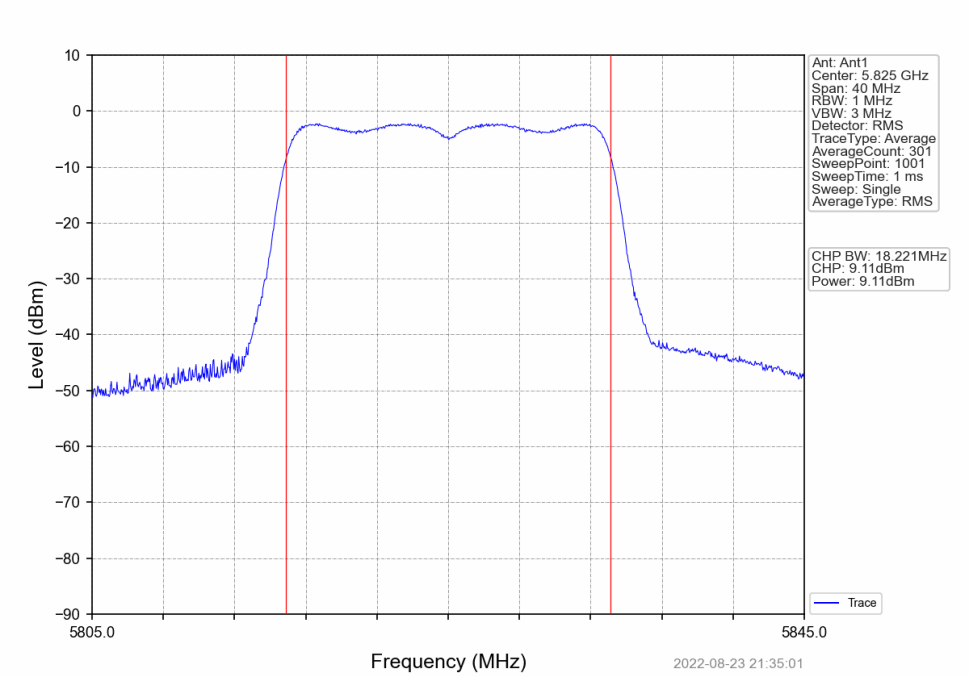
802.11ac(VHT20)_LCH_5745MHz_Ant1_NTNV



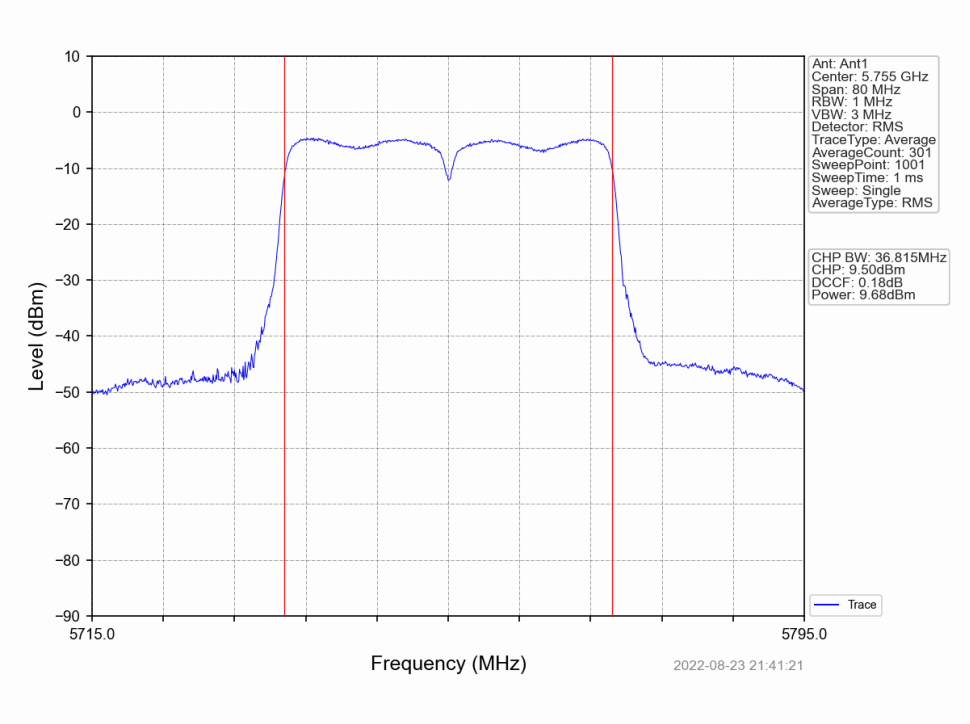
802.11ac(VHT20)_MCH_5785MHz_Ant1_NTNV



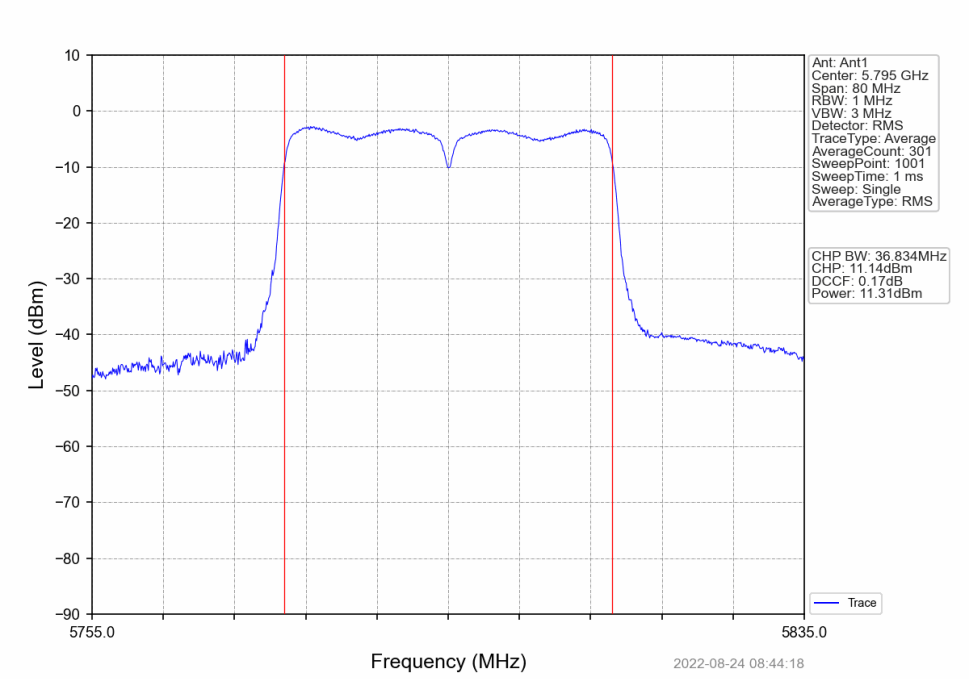
802.11ac(VHT20)_HCH_5825MHz_Ant1_NTNV



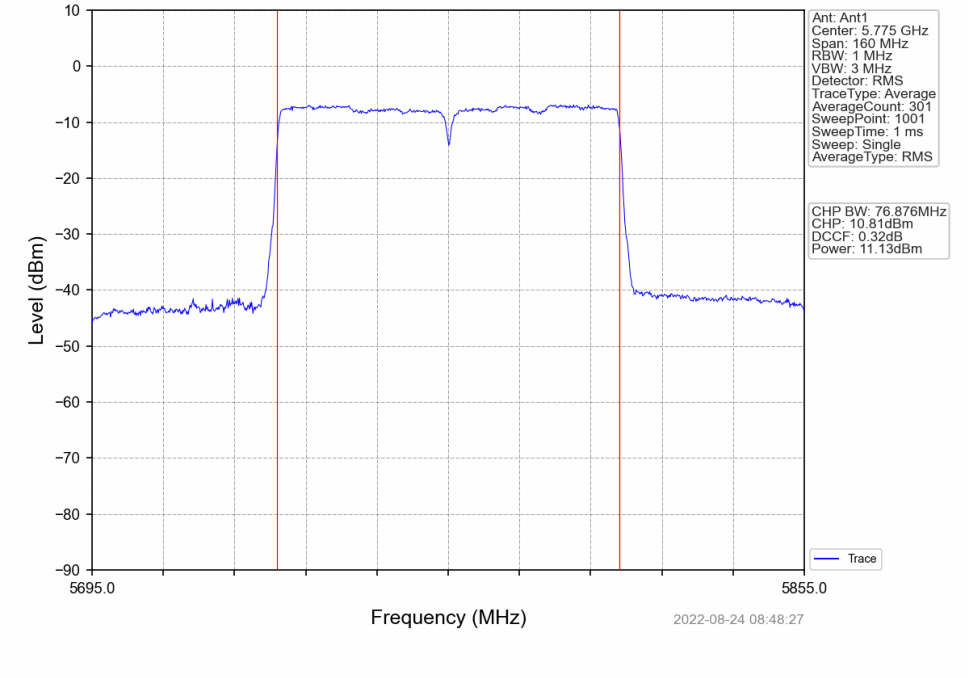
802.11ac(VHT40)_LCH_5755MHz_Ant1_NTNV



802.11ac(VHT40)_HCH_5795MHz_Ant1_NTNV



802.11ac(VHT80)_MCH_5775MHz_Ant1_NTNV



3. Maximum Power Spectral Density

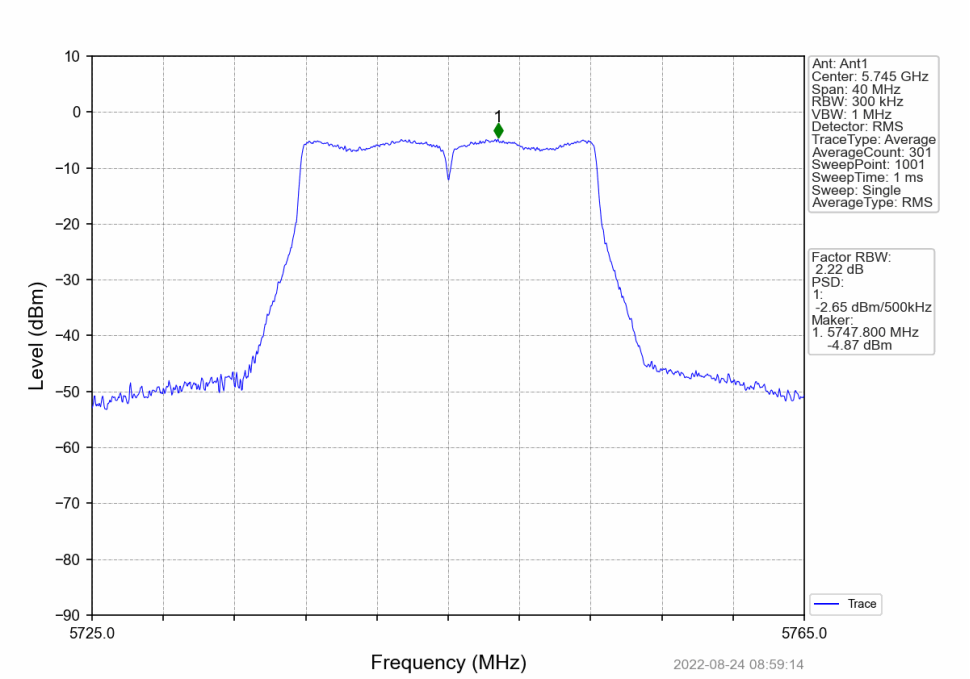
3.1 PSD-Band3

3.1.1 Test Result

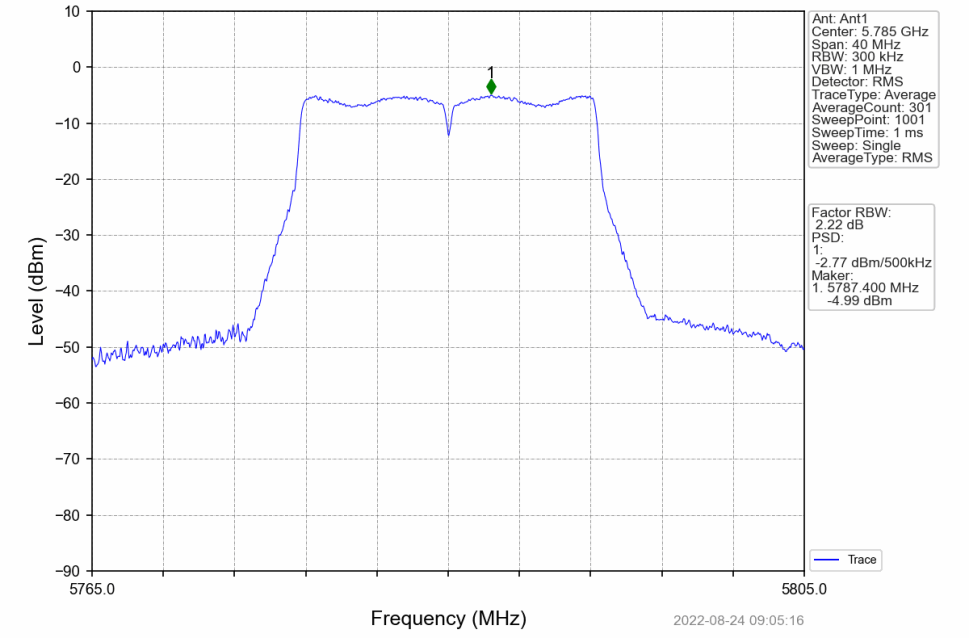
Mode	TX Type	Frequency (MHz)	Maximum PSD (dBm/500kHz)				Verdict
			Report Power Density [dBm/3KHz]	Duty Cycle Factor(dB)	Report Power Density [dBm/3KHz]	Limit	
802.11a	SISO	5745	-2.65	0.00	-2.65	<=30	Pass
		5785	-2.77	0.00	-2.77	<=30	Pass
		5825	-3.25	0.00	-3.25	<=30	Pass
802.11n (HT20)	SISO	5745	-4.25	0.00	-4.25	<=30	Pass
		5785	-4.24	0.00	-4.24	<=30	Pass
		5825	-4.75	0.00	-4.75	<=30	Pass
802.11n (HT40)	SISO	5755	-7.04	0.00	-7.04	<=30	Pass
		5795	-7.29	0.00	-7.29	<=30	Pass
802.11ac (VHT20)	SISO	5745	-4.20	0.00	-4.20	<=30	Pass
		5785	-4.23	0.00	-4.23	<=30	Pass
		5825	-4.99	0.00	-4.99	<=30	Pass
802.11ac (VHT40)	SISO	5755	-7.39	0.00	-7.39	<=30	Pass
		5795	-5.54	0.00	-5.54	<=30	Pass
802.11ac (VHT80)	SISO	5775	-8.69	0.00	-8.69	<=30	Pass
Note1: Antenna Gain: Ant1: 4.25dBi; Note2: The Duty Cycle Factor and RBW Factor is compensated in the graph.							

3.1.2 Test Graph

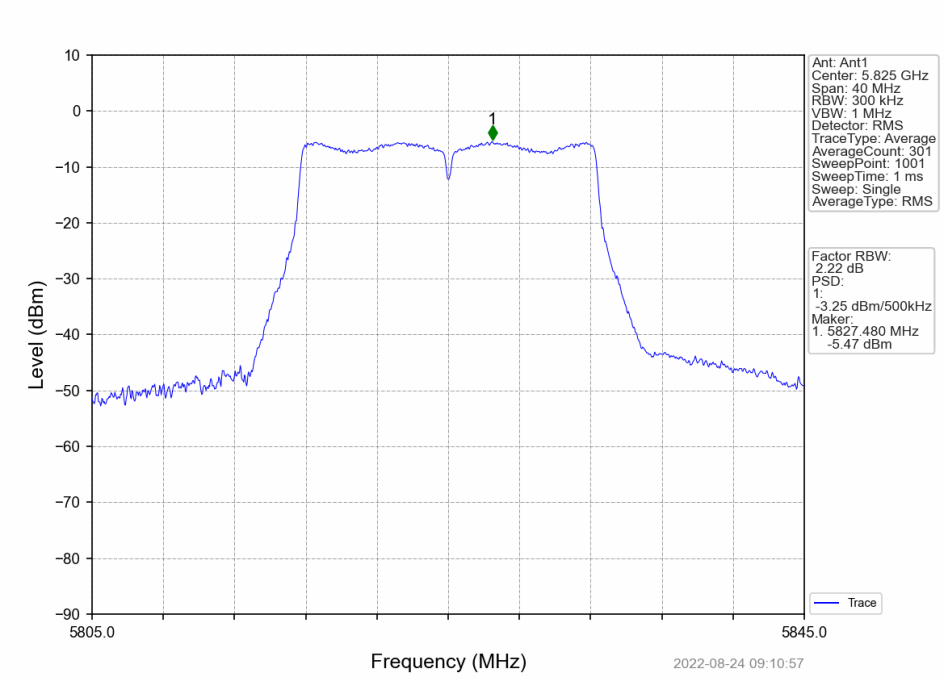
802.11a_LCH_5745MHz_Ant1_NTNV



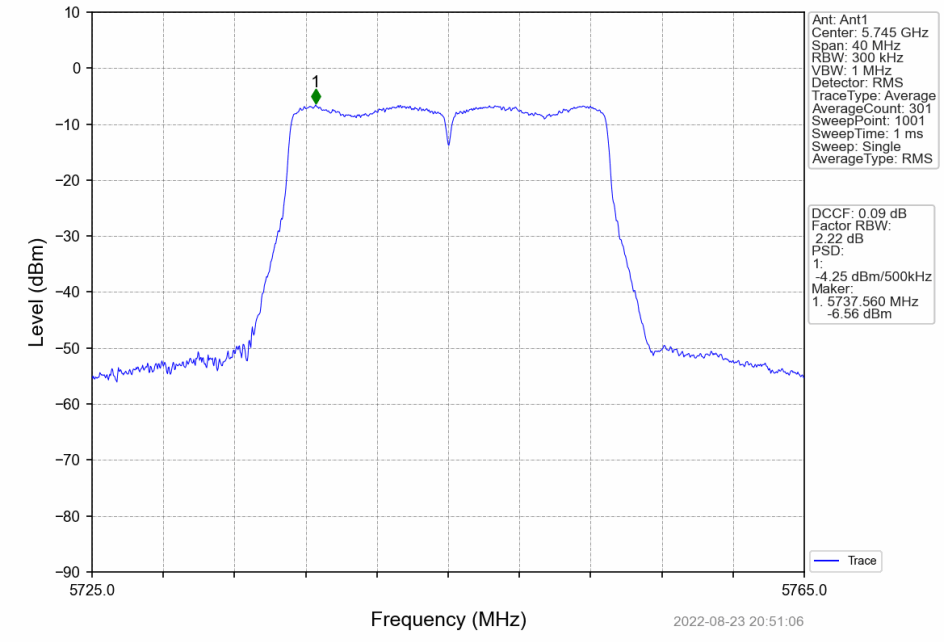
802.11a_MCH_5785MHz_Ant1_NTNV



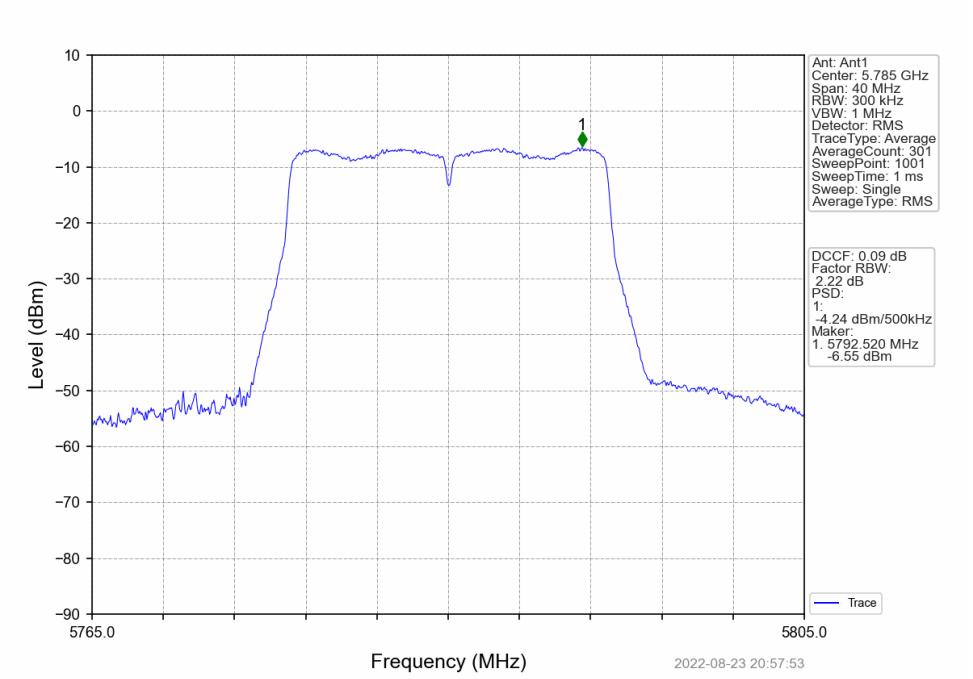
802.11a_HCH_5825MHz_Ant1_NTNV



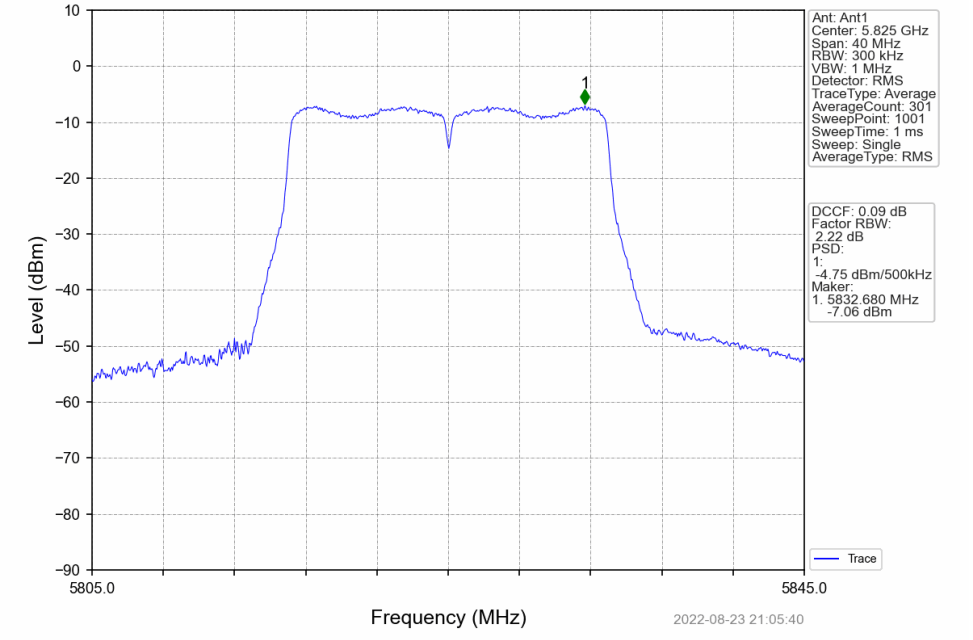
802.11n(HT20)_LCH_5745MHz_Ant1_NTNV



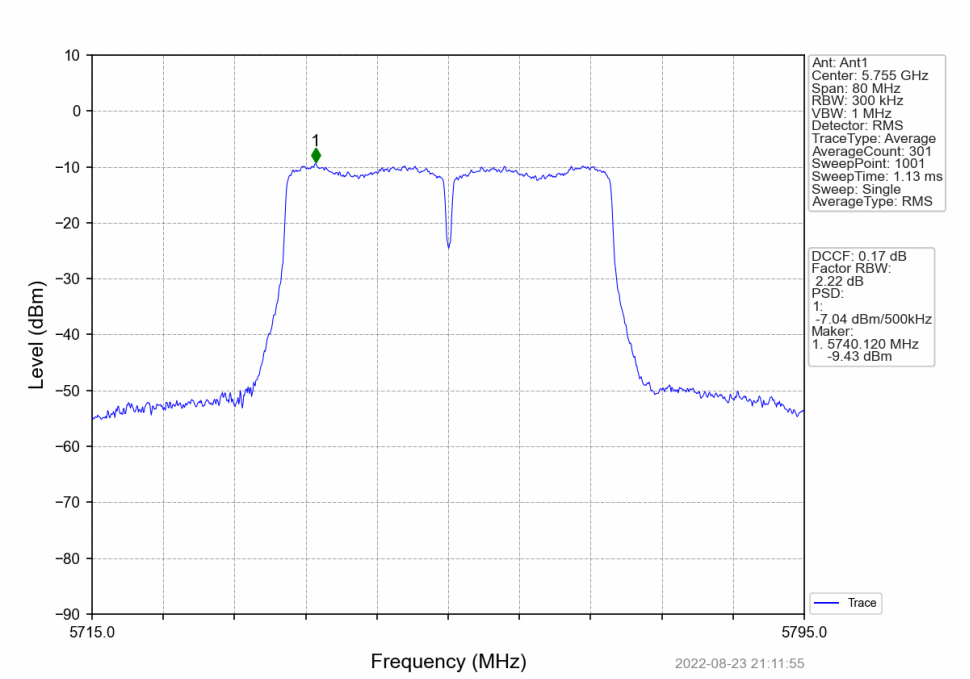
802.11n(HT20)_MCH_5785MHz_Ant1_NTNV



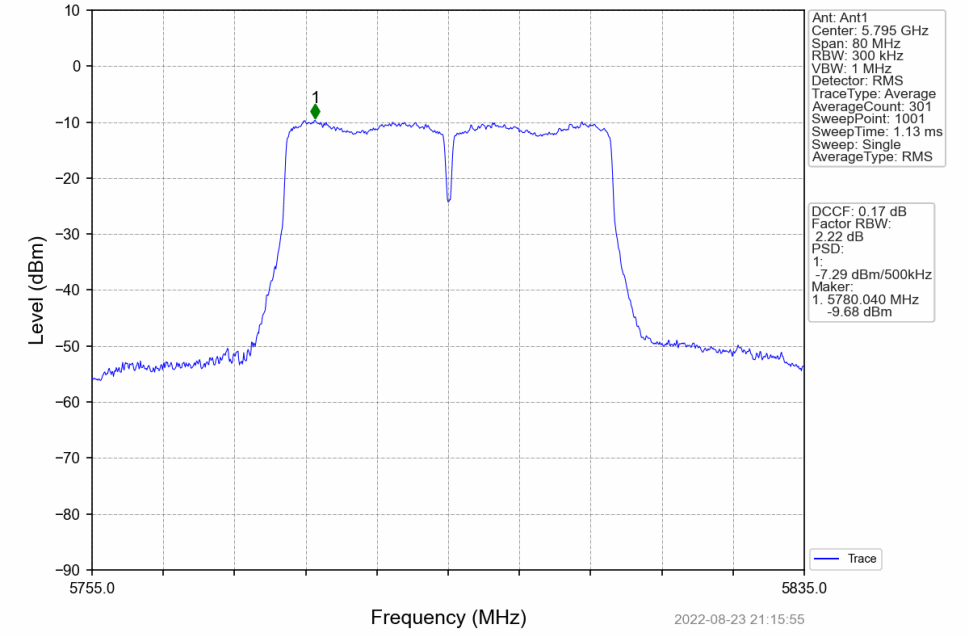
802.11n(HT20)_HCH_5825MHz_Ant1_NTNV



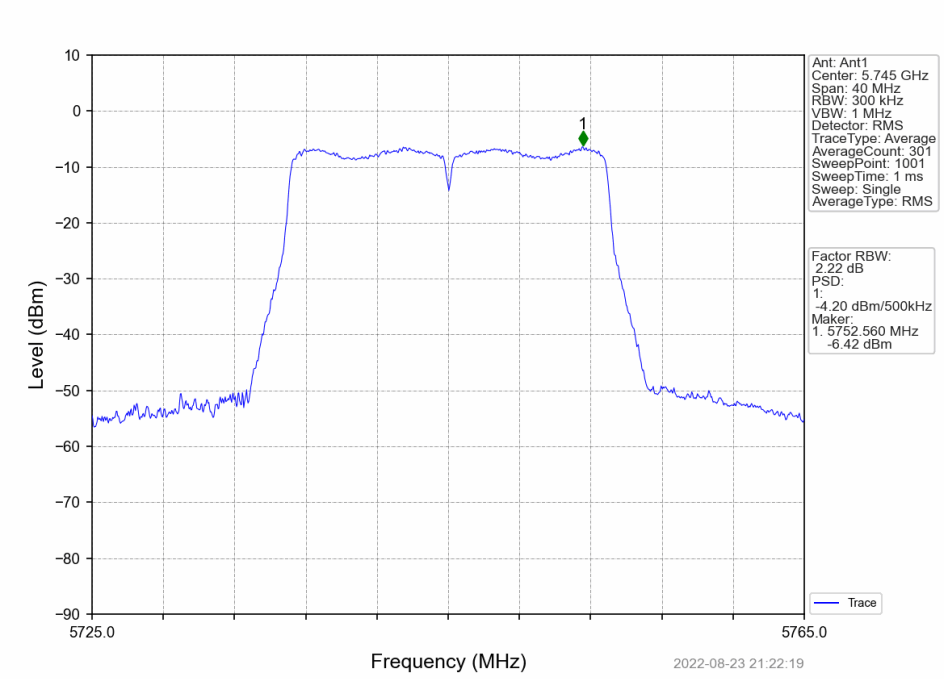
802.11n(HT40)_LCH_5755MHz_Ant1_NTNV



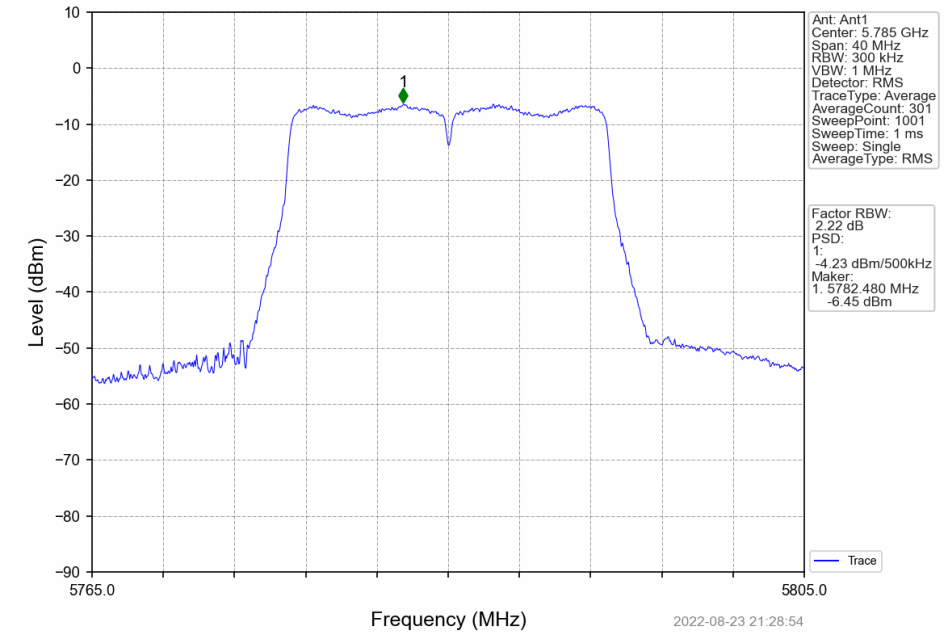
802.11n(HT40)_HCH_5795MHz_Ant1_NTNV



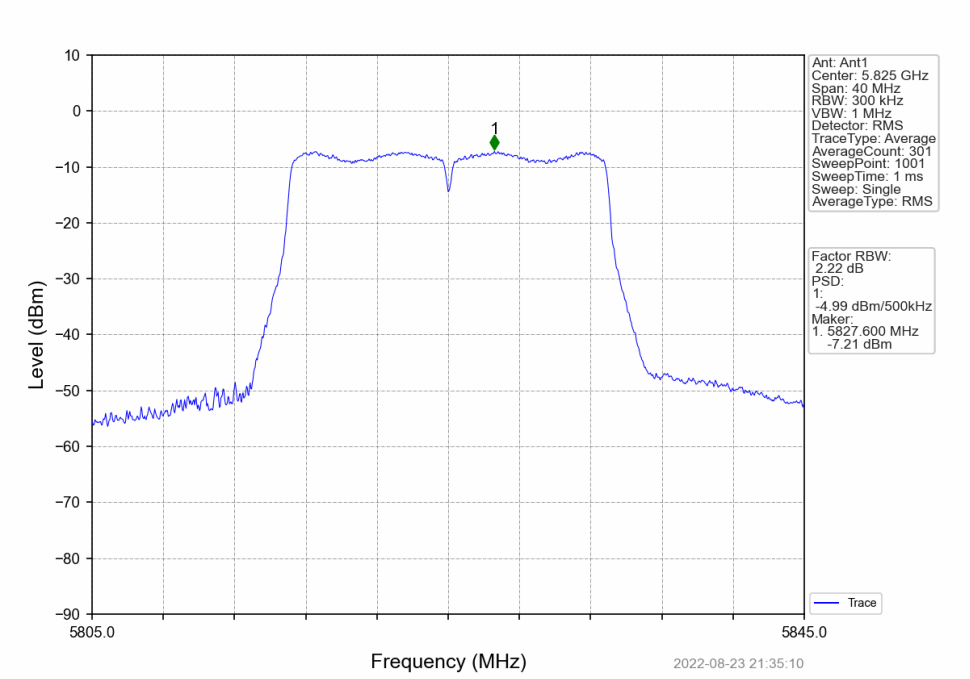
802.11ac(VHT20)_LCH_5745MHz_Ant1_NTNV



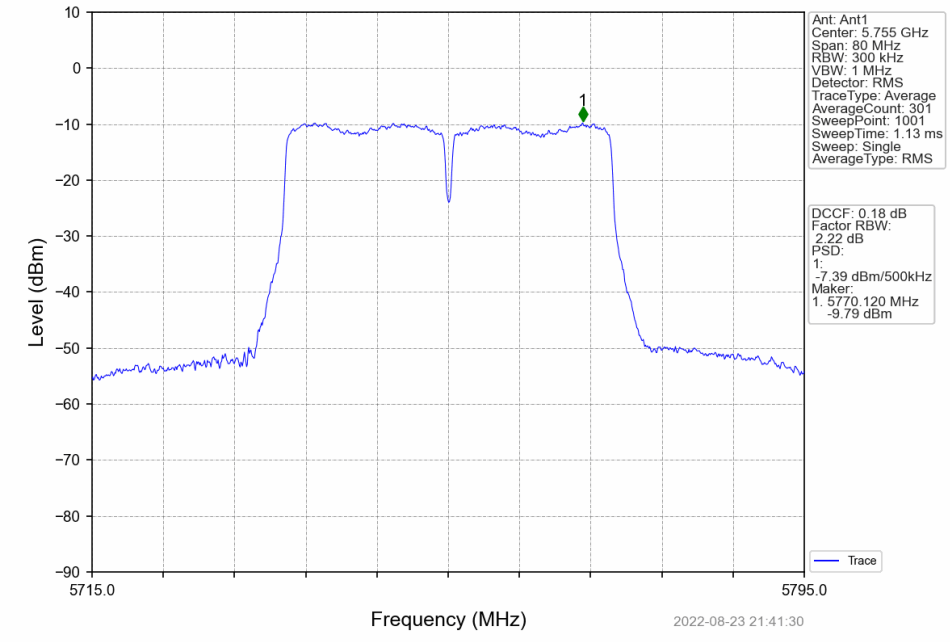
802.11ac(VHT20)_MCH_5785MHz_Ant1_NTNV



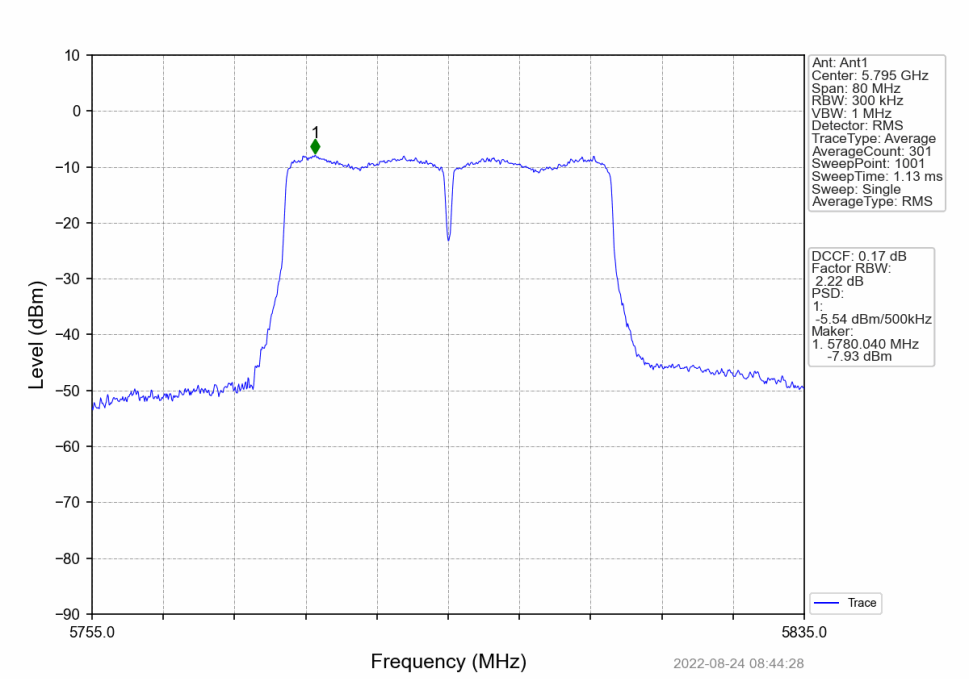
802.11ac(VHT20)_HCH_5825MHz_Ant1_NTNV



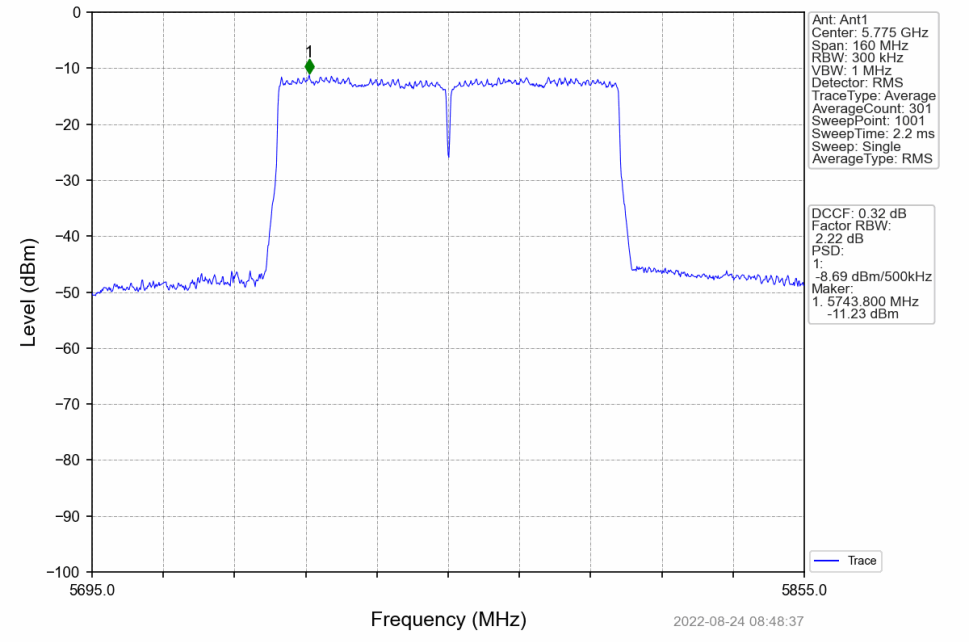
802.11ac(VHT40)_LCH_5755MHz_Ant1_NTNV



802.11ac(VHT40)_HCH_5795MHz_Ant1_NTNV



802.11ac(VHT80)_MCH_5775MHz_Ant1_NTNV



4. Frequency Stability

4.1 Ant1

4.1.1 Test Result

Ant1							
Mode	TX Type	Frequency (MHz)	Temperature (°C)	Voltage (VDC)	Measured Frequency (MHz)	Limit (MHz)	Verdict
802.11a	SISO	5745	20	4.25	5745.000	5725 to 5850	Pass
				5	5744.980	5725 to 5850	Pass
				5.75	5745.020	5725 to 5850	Pass
			-30	5	5745.000	5725 to 5850	Pass
			-20	5	5745.020	5725 to 5850	Pass
			-10	5	5744.980	5725 to 5850	Pass
			0	5	5745.020	5725 to 5850	Pass
			10	5	5745.020	5725 to 5850	Pass
			30	5	5745.080	5725 to 5850	Pass
			40	5	5745.000	5725 to 5850	Pass
			85	5	5745.040	5725 to 5850	Pass
		5785	20	4.25	5785.000	5725 to 5850	Pass
				5	5785.000	5725 to 5850	Pass
				5.75	5785.040	5725 to 5850	Pass
			-30	5	5785.000	5725 to 5850	Pass
			-20	5	5785.040	5725 to 5850	Pass
			-10	5	5785.020	5725 to 5850	Pass
			0	5	5785.020	5725 to 5850	Pass
			10	5	5785.020	5725 to 5850	Pass
			30	5	5784.980	5725 to 5850	Pass
			40	5	5785.040	5725 to 5850	Pass
			85	5	5785.020	5725 to 5850	Pass
		5825	20	4.25	5824.980	5725 to 5850	Pass
				5	5825.020	5725 to 5850	Pass
				5.75	5825.020	5725 to 5850	Pass
			-30	5	5825.060	5725 to 5850	Pass
			-20	5	5824.980	5725 to 5850	Pass
			-10	5	5825.040	5725 to 5850	Pass
			0	5	5825.000	5725 to 5850	Pass
			10	5	5824.980	5725 to 5850	Pass
			30	5	5825.060	5725 to 5850	Pass
			40	5	5825.040	5725 to 5850	Pass
			85	5	5825.020	5725 to 5850	Pass
802.11n (HT20)	SISO	5745	20	4.25	5745.040	5725 to 5850	Pass
				5	5745.040	5725 to 5850	Pass
				5.75	5745.040	5725 to 5850	Pass
			-30	5	5745.020	5725 to 5850	Pass
			-20	5	5745.040	5725 to 5850	Pass
			-10	5	5745.080	5725 to 5850	Pass
			0	5	5745.040	5725 to 5850	Pass
			10	5	5745.020	5725 to 5850	Pass
			30	5	5745.040	5725 to 5850	Pass
			40	5	5745.060	5725 to 5850	Pass
			85	5	5745.040	5725 to 5850	Pass
		5785	20	4.25	5785.060	5725 to 5850	Pass
				5	5785.020	5725 to 5850	Pass
				5.75	5785.040	5725 to 5850	Pass
			-30	5	5785.080	5725 to 5850	Pass
			-20	5	5785.060	5725 to 5850	Pass

			-10	5	5785.020	5725 to 5850	Pass
			0	5	5785.060	5725 to 5850	Pass
			10	5	5785.060	5725 to 5850	Pass
			30	5	5785.060	5725 to 5850	Pass
			40	5	5785.040	5725 to 5850	Pass
			85	5	5785.060	5725 to 5850	Pass
				4.25	5825.040	5725 to 5850	Pass
			20	5	5825.020	5725 to 5850	Pass
				5.75	5825.000	5725 to 5850	Pass
			-30	5	5825.060	5725 to 5850	Pass
			-20	5	5825.040	5725 to 5850	Pass
		5825	-10	5	5825.040	5725 to 5850	Pass
			0	5	5825.020	5725 to 5850	Pass
			10	5	5825.060	5725 to 5850	Pass
			30	5	5825.020	5725 to 5850	Pass
			40	5	5825.040	5725 to 5850	Pass
			85	5	5825.040	5725 to 5850	Pass
				4.25	5755.080	5725 to 5850	Pass
			20	5	5755.120	5725 to 5850	Pass
				5.75	5755.120	5725 to 5850	Pass
			-30	5	5755.080	5725 to 5850	Pass
			-20	5	5755.080	5725 to 5850	Pass
		5755	-10	5	5755.120	5725 to 5850	Pass
			0	5	5755.120	5725 to 5850	Pass
			10	5	5755.120	5725 to 5850	Pass
			30	5	5755.040	5725 to 5850	Pass
			40	5	5755.080	5725 to 5850	Pass
802.11n (HT40)	SISO		85	5	5755.120	5725 to 5850	Pass
				4.25	5795.120	5725 to 5850	Pass
			20	5	5795.080	5725 to 5850	Pass
				5.75	5795.080	5725 to 5850	Pass
			-30	5	5795.080	5725 to 5850	Pass
			-20	5	5794.960	5725 to 5850	Pass
		5795	-10	5	5795.080	5725 to 5850	Pass
			0	5	5795.120	5725 to 5850	Pass
			10	5	5795.080	5725 to 5850	Pass
			30	5	5795.080	5725 to 5850	Pass
			40	5	5795.080	5725 to 5850	Pass
			85	5	5795.040	5725 to 5850	Pass
				4.25	5745.040	5725 to 5850	Pass
			20	5	5745.040	5725 to 5850	Pass
				5.75	5745.040	5725 to 5850	Pass
			-30	5	5745.020	5725 to 5850	Pass
			-20	5	5745.060	5725 to 5850	Pass
		5745	-10	5	5745.040	5725 to 5850	Pass
			0	5	5745.060	5725 to 5850	Pass
			10	5	5745.040	5725 to 5850	Pass
			30	5	5745.020	5725 to 5850	Pass
802.11ac (VHT20)	SISO		40	5	5745.040	5725 to 5850	Pass
			85	5	5745.060	5725 to 5850	Pass
				4.25	5785.040	5725 to 5850	Pass
			20	5	5785.040	5725 to 5850	Pass
				5.75	5785.060	5725 to 5850	Pass
			-30	5	5785.060	5725 to 5850	Pass
		5785	-20	5	5785.040	5725 to 5850	Pass
			-10	5	5785.020	5725 to 5850	Pass
			0	5	5785.080	5725 to 5850	Pass
			10	5	5785.080	5725 to 5850	Pass
			30	5	5785.040	5725 to 5850	Pass

			40	5	5785.060	5725 to 5850	Pass
			85	5	5785.060	5725 to 5850	Pass
		5825	20	4.25	5825.060	5725 to 5850	Pass
				5	5825.040	5725 to 5850	Pass
				5.75	5825.060	5725 to 5850	Pass
			-30	5	5825.040	5725 to 5850	Pass
			-20	5	5825.060	5725 to 5850	Pass
			-10	5	5825.060	5725 to 5850	Pass
			0	5	5825.020	5725 to 5850	Pass
			10	5	5825.040	5725 to 5850	Pass
			30	5	5825.040	5725 to 5850	Pass
			40	5	5825.060	5725 to 5850	Pass
			85	5	5825.040	5725 to 5850	Pass
802.11ac (VHT40)	SISO	5755	20	4.25	5755.040	5725 to 5850	Pass
				5	5755.040	5725 to 5850	Pass
				5.75	5755.040	5725 to 5850	Pass
			-30	5	5755.040	5725 to 5850	Pass
			-20	5	5755.120	5725 to 5850	Pass
			-10	5	5755.080	5725 to 5850	Pass
			0	5	5755.040	5725 to 5850	Pass
			10	5	5755.080	5725 to 5850	Pass
			30	5	5755.120	5725 to 5850	Pass
			40	5	5755.080	5725 to 5850	Pass
			85	5	5755.040	5725 to 5850	Pass
		5795	20	4.25	5795.160	5725 to 5850	Pass
				5	5795.000	5725 to 5850	Pass
				5.75	5795.040	5725 to 5850	Pass
			-30	5	5795.040	5725 to 5850	Pass
			-20	5	5795.000	5725 to 5850	Pass
			-10	5	5795.040	5725 to 5850	Pass
			0	5	5795.000	5725 to 5850	Pass
			10	5	5795.040	5725 to 5850	Pass
			30	5	5795.040	5725 to 5850	Pass
			40	5	5795.040	5725 to 5850	Pass
			85	5	5795.040	5725 to 5850	Pass
802.11ac (VHT80)	SISO	5775	20	4.25	5775.075	5725 to 5850	Pass
				5	5775.000	5725 to 5850	Pass
				5.75	5775.075	5725 to 5850	Pass
			-30	5	5775.075	5725 to 5850	Pass
			-20	5	5775.000	5725 to 5850	Pass
			-10	5	5775.075	5725 to 5850	Pass
			0	5	5775.075	5725 to 5850	Pass
			10	5	5775.150	5725 to 5850	Pass
			30	5	5775.075	5725 to 5850	Pass
			40	5	5775.075	5725 to 5850	Pass
			85	5	5775.150	5725 to 5850	Pass