

ANNEX F TEST DATA

For

Project No.:	8328EU122718W
Client:	Shenzhen HeZheng Technology CO.,Ltd
Product Description:	2-in-1 CarPlay & Android Auto
Model No.:	CP9_Pro
FCC ID:	2BOT2-CP9PRO
Technology:	WiFi 5G
Test Engineer:	<i>Mikoy zhu</i>
Test Date:	2025-04-10

Test Summary

Item	Result
Duty Cycle	Pass
Bandwidth	Pass
Maximum Conducted Output Power	Pass
Maximum Power Spectral Density	Pass
Unwanted Emissions In Non-restricted Frequency Bands	Pass
Frequency Stability	Pass

1. Duty Cycle

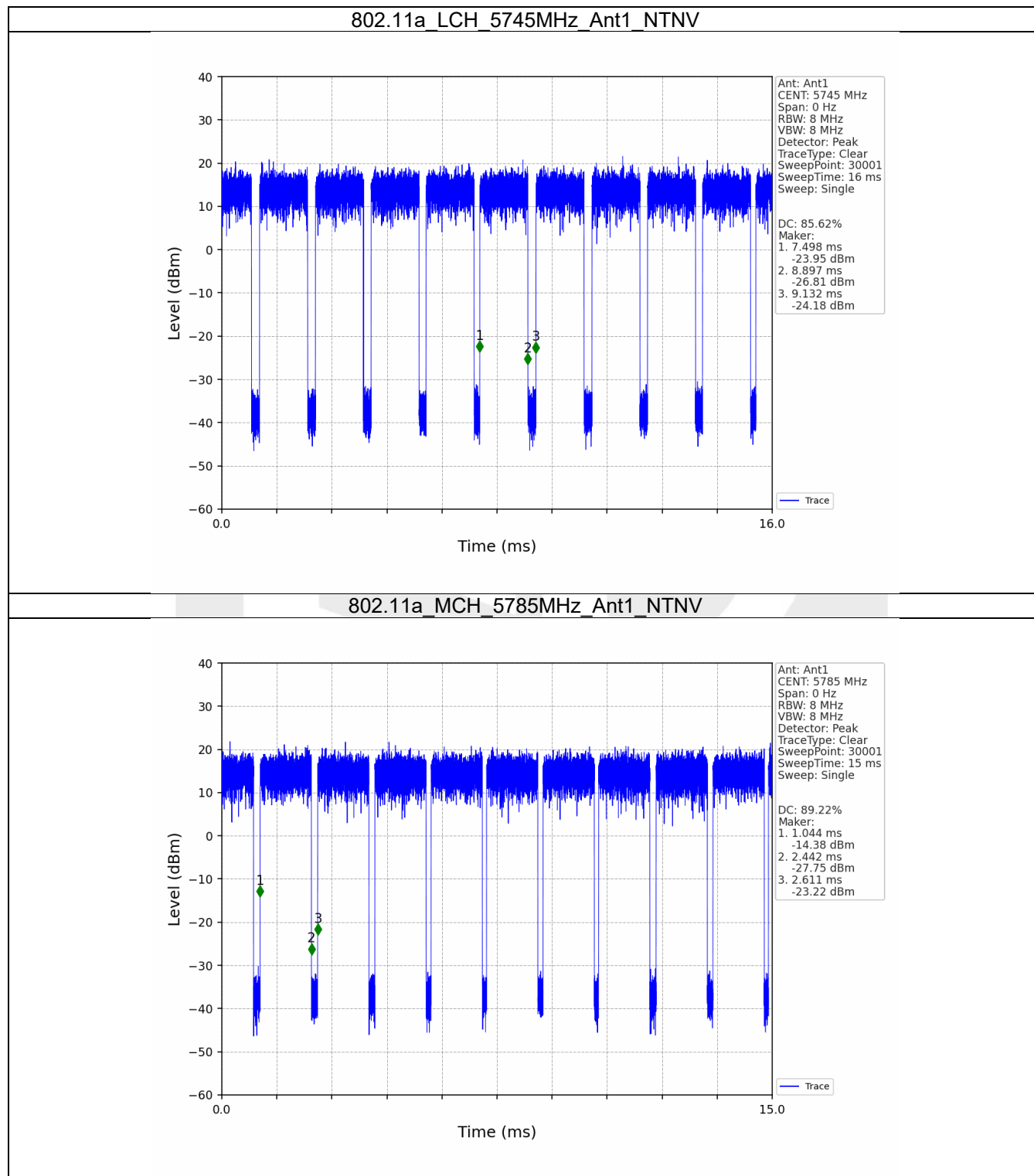
1.1 Test Result

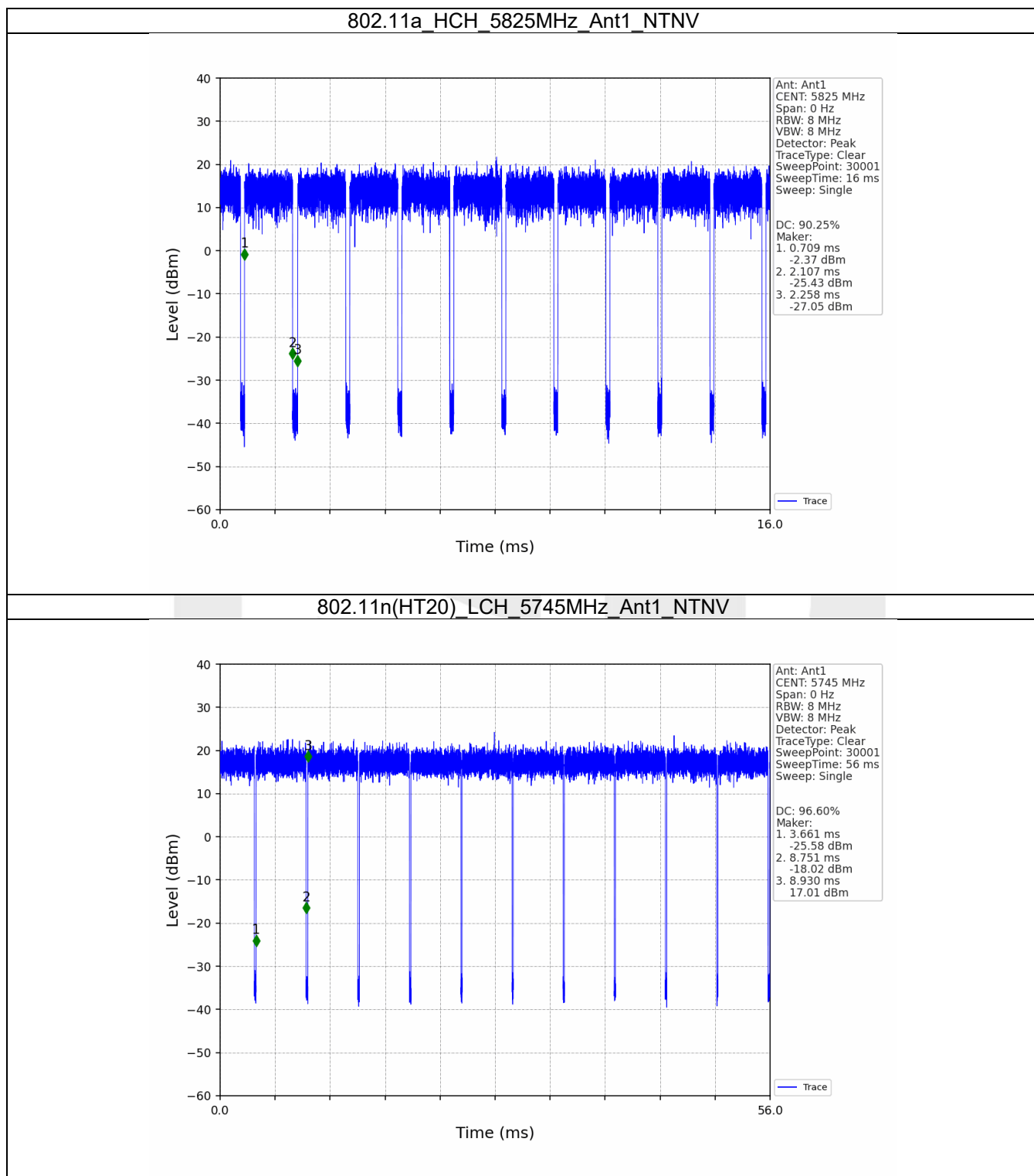
1.1.1 Ant1

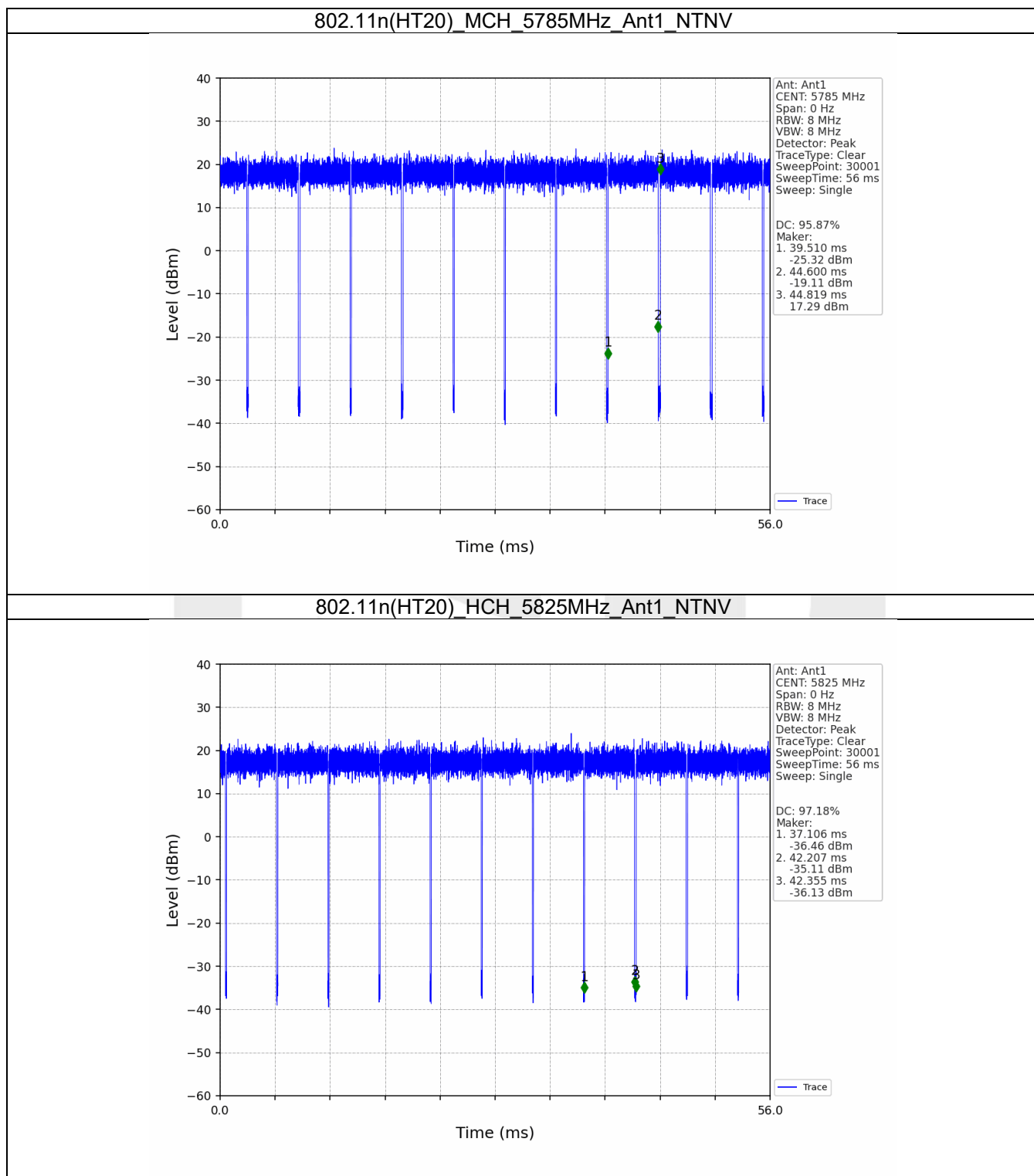
Ant1							
Mode	TX Type	Frequency (MHz)	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
802.11a	SISO	5745	1.399	1.634	85.62	0.67	4.44
		5785	1.398	1.567	89.22	0.50	3.19
		5825	1.398	1.549	90.25	0.45	2.17
802.11n (HT20)	SISO	5745	5.090	5.269	96.60	0.15	1.21
		5785	5.090	5.309	95.87	0.18	1.86
		5825	5.101	5.249	97.18	0.12	0.87
802.11n (HT40)	SISO	5755	4.898	5.129	95.50	0.20	2.24
		5795	4.898	5.076	96.49	0.16	1.21
802.11ac (VHT20)	SISO	5745	5.099	6.191	82.36	0.84	15.46
		5785	5.098	5.230	97.48	0.11	0.35
		5825	5.108	5.259	97.13	0.13	0.87

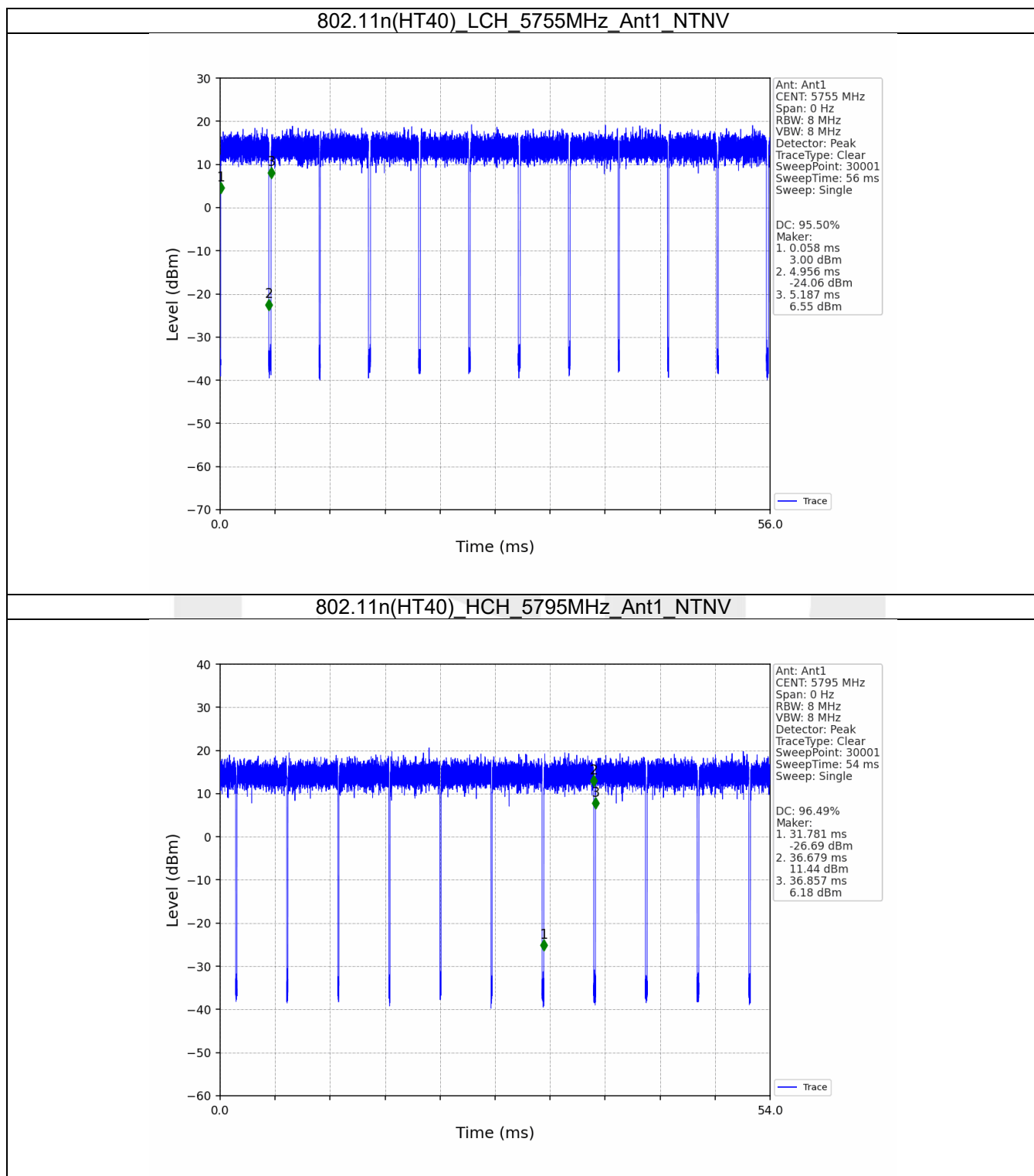
1.2 Test Graph

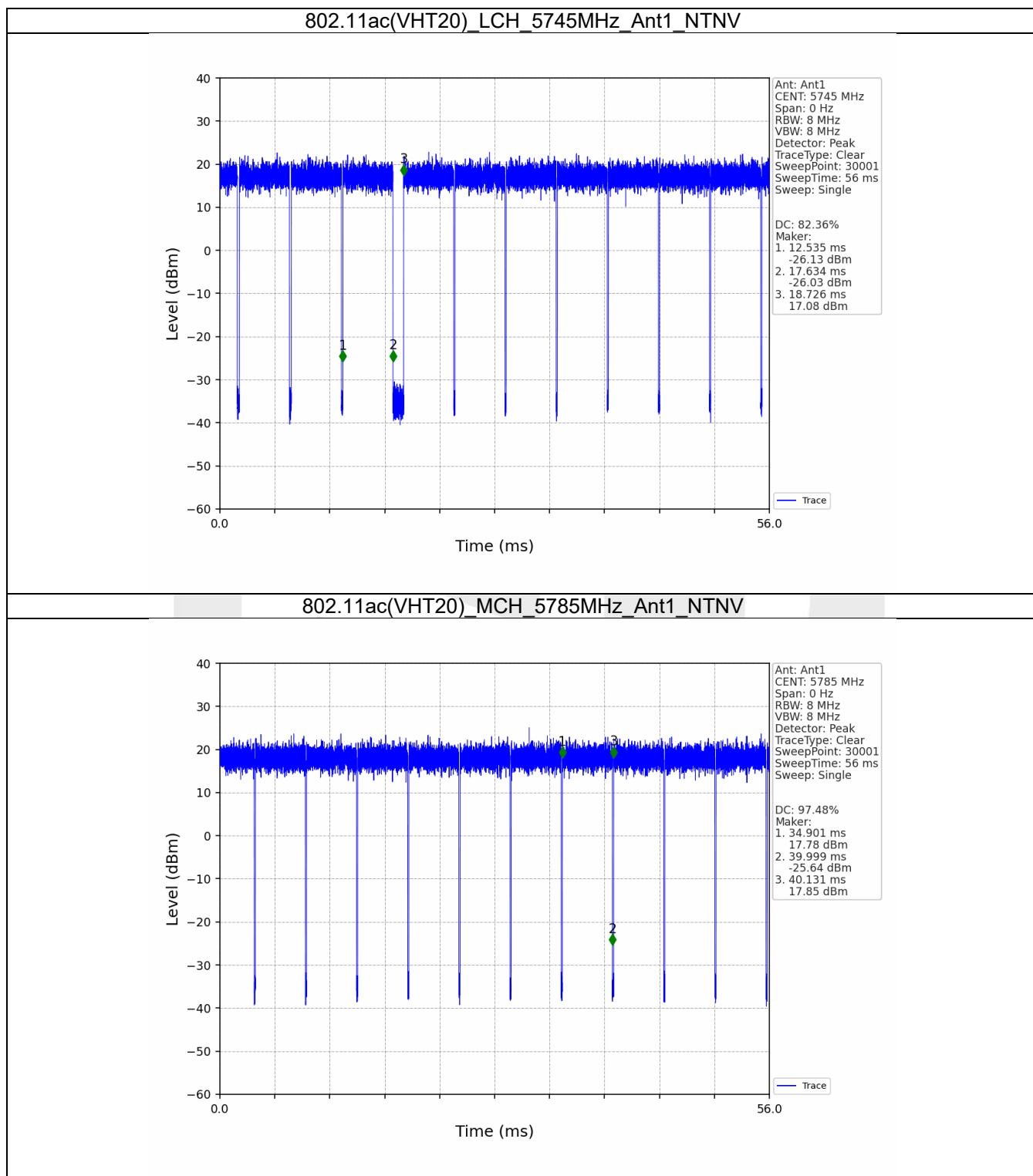
1.2.1 Ant1

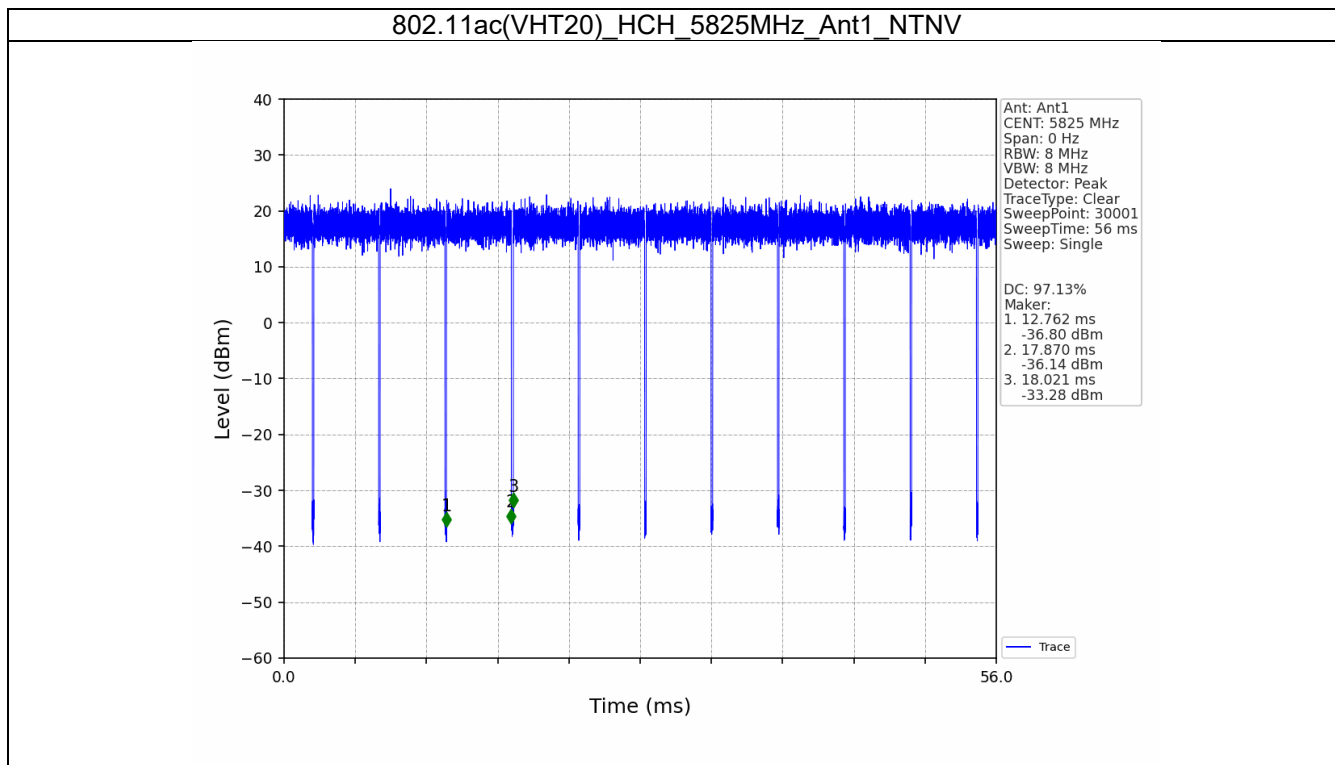












2. Bandwidth

2.1 Test Result

2.1.1 OBW

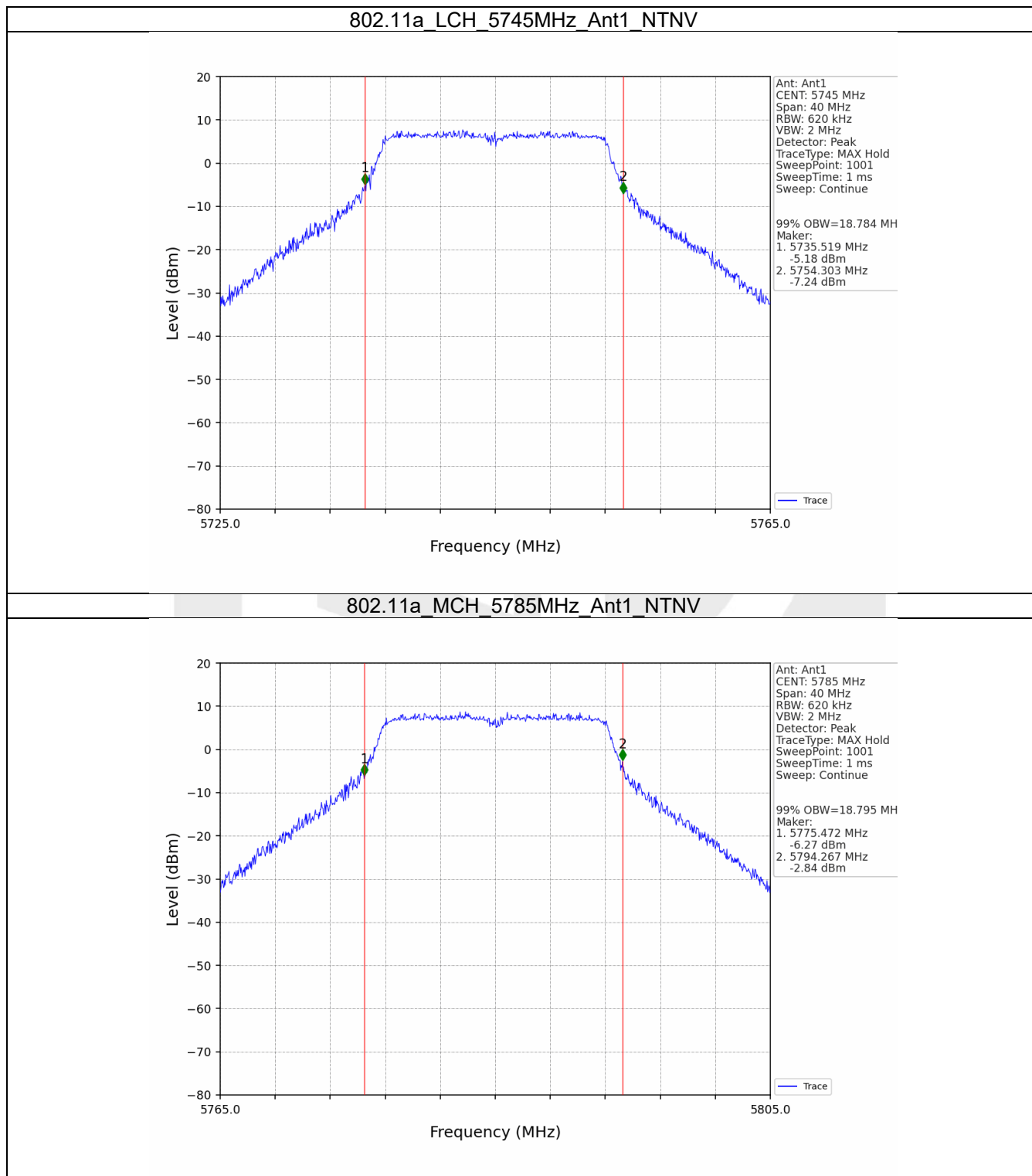
Mode	TX Type	Frequency (MHz)	ANT	99% Occupied Bandwidth (MHz)		Verdict
				Result	Limit	
802.11a	SISO	5745	1	18.784	/	Pass
		5785	1	18.795	/	Pass
		5825	1	18.862	/	Pass
802.11n (HT20)	SISO	5745	1	20.000	/	Pass
		5785	1	19.787	/	Pass
		5825	1	19.977	/	Pass
802.11n (HT40)	SISO	5755	1	38.716	/	Pass
		5795	1	38.298	/	Pass
802.11ac (VHT20)	SISO	5745	1	20.197	/	Pass
		5785	1	19.916	/	Pass
		5825	1	20.031	/	Pass

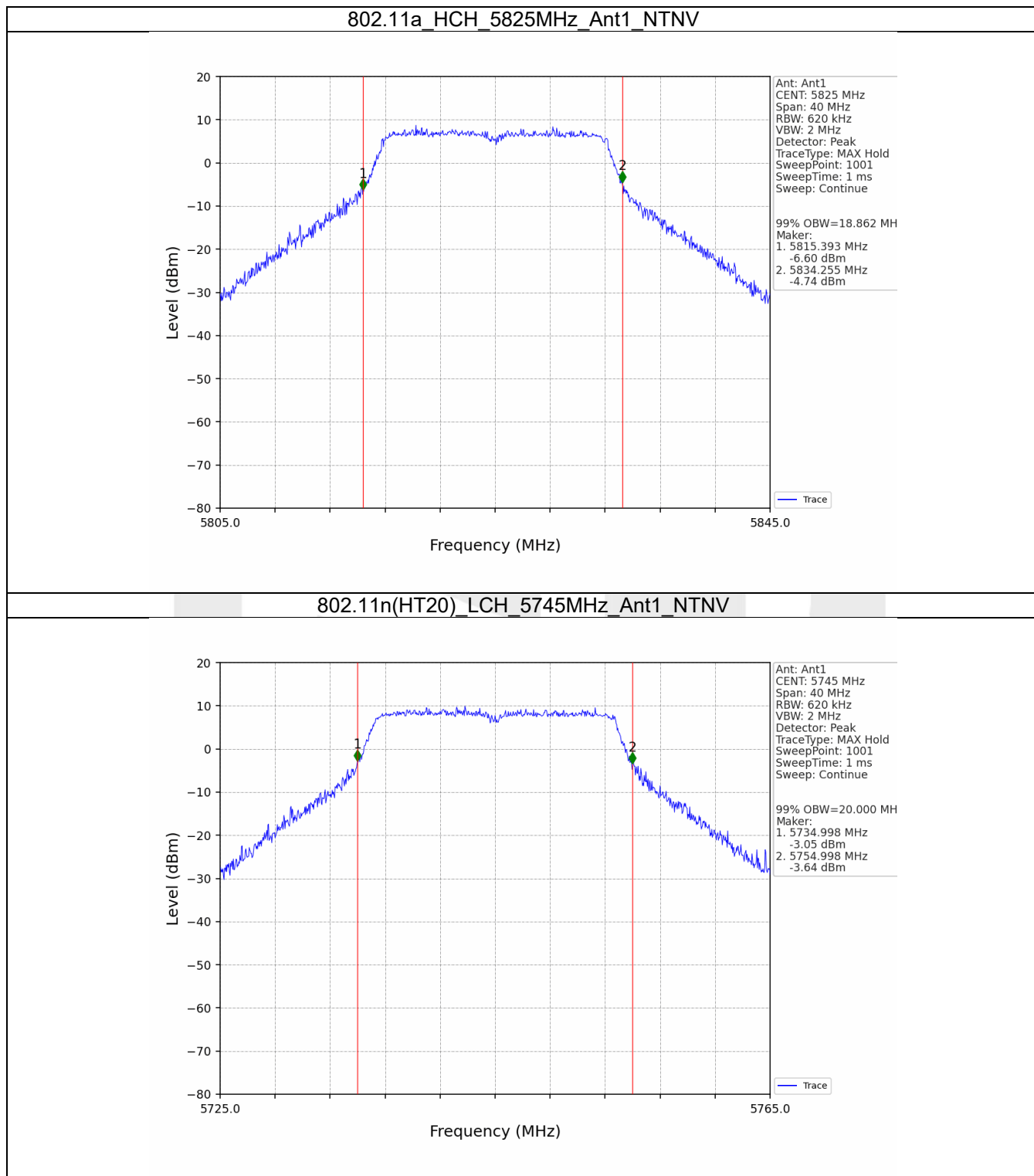
2.1.2 6dB BW

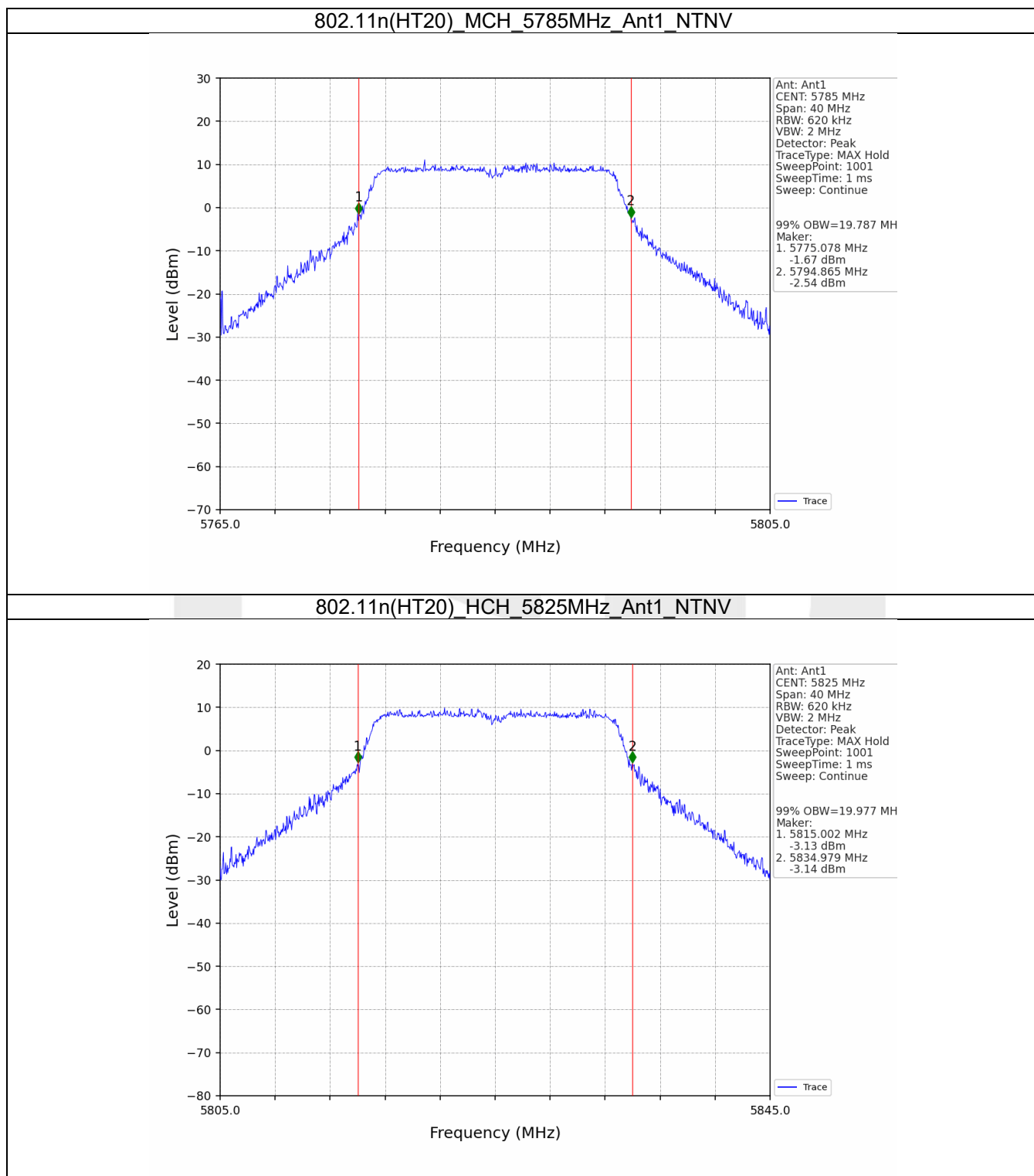
Mode	TX Type	Frequency (MHz)	ANT	6dB Bandwidth (MHz)		Verdict
				Result	Limit	
802.11a	SISO	5745	1	16.427	≥ 0.5	Pass
		5785	1	16.424	≥ 0.5	Pass
		5825	1	16.417	≥ 0.5	Pass
802.11n (HT20)	SISO	5745	1	17.672	≥ 0.5	Pass
		5785	1	17.663	≥ 0.5	Pass
		5825	1	17.648	≥ 0.5	Pass
802.11n (HT40)	SISO	5755	1	36.434	≥ 0.5	Pass
		5795	1	36.441	≥ 0.5	Pass
802.11ac (VHT20)	SISO	5745	1	17.675	≥ 0.5	Pass
		5785	1	17.672	≥ 0.5	Pass
		5825	1	17.669	≥ 0.5	Pass

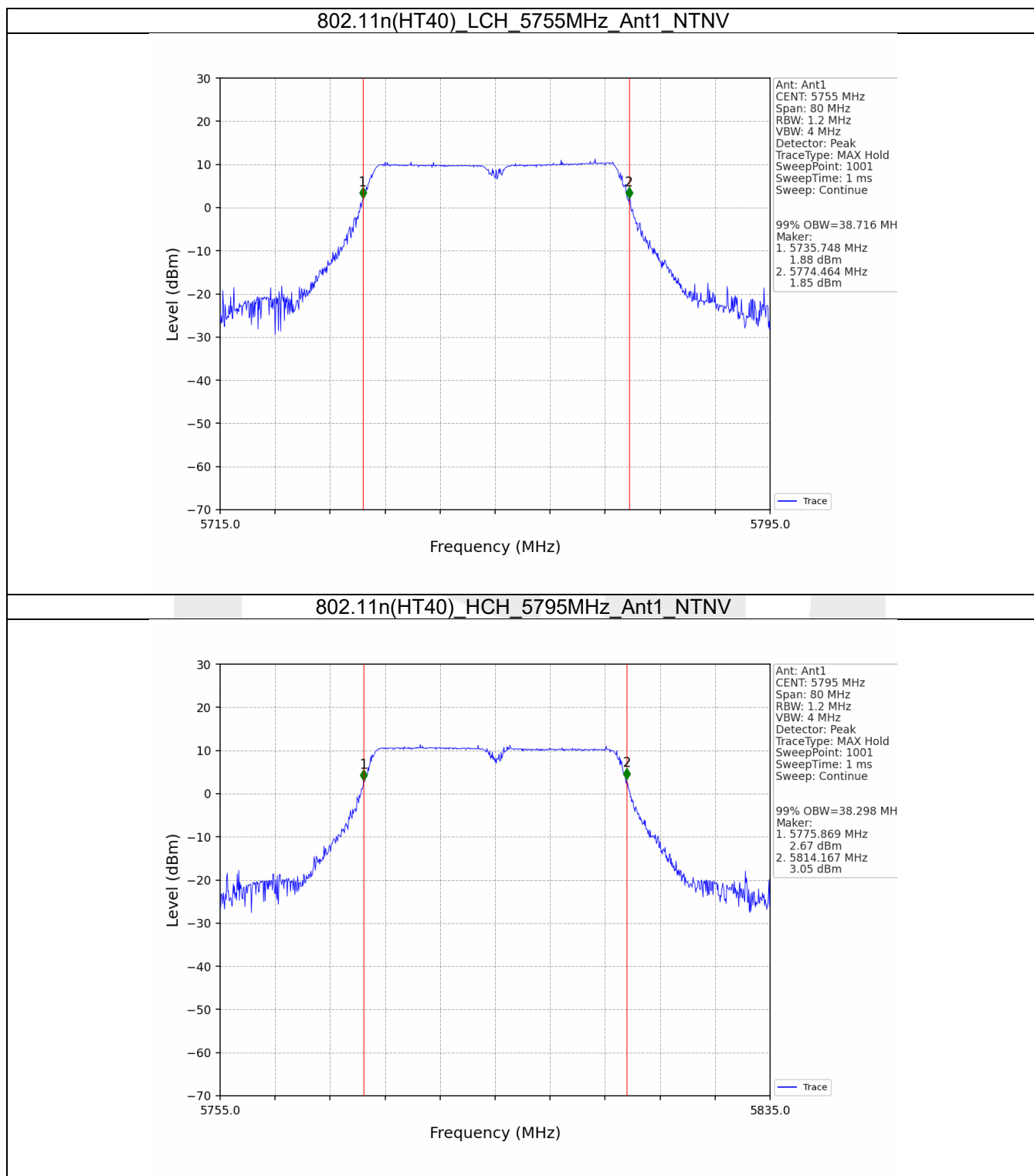
2.2 Test Graph

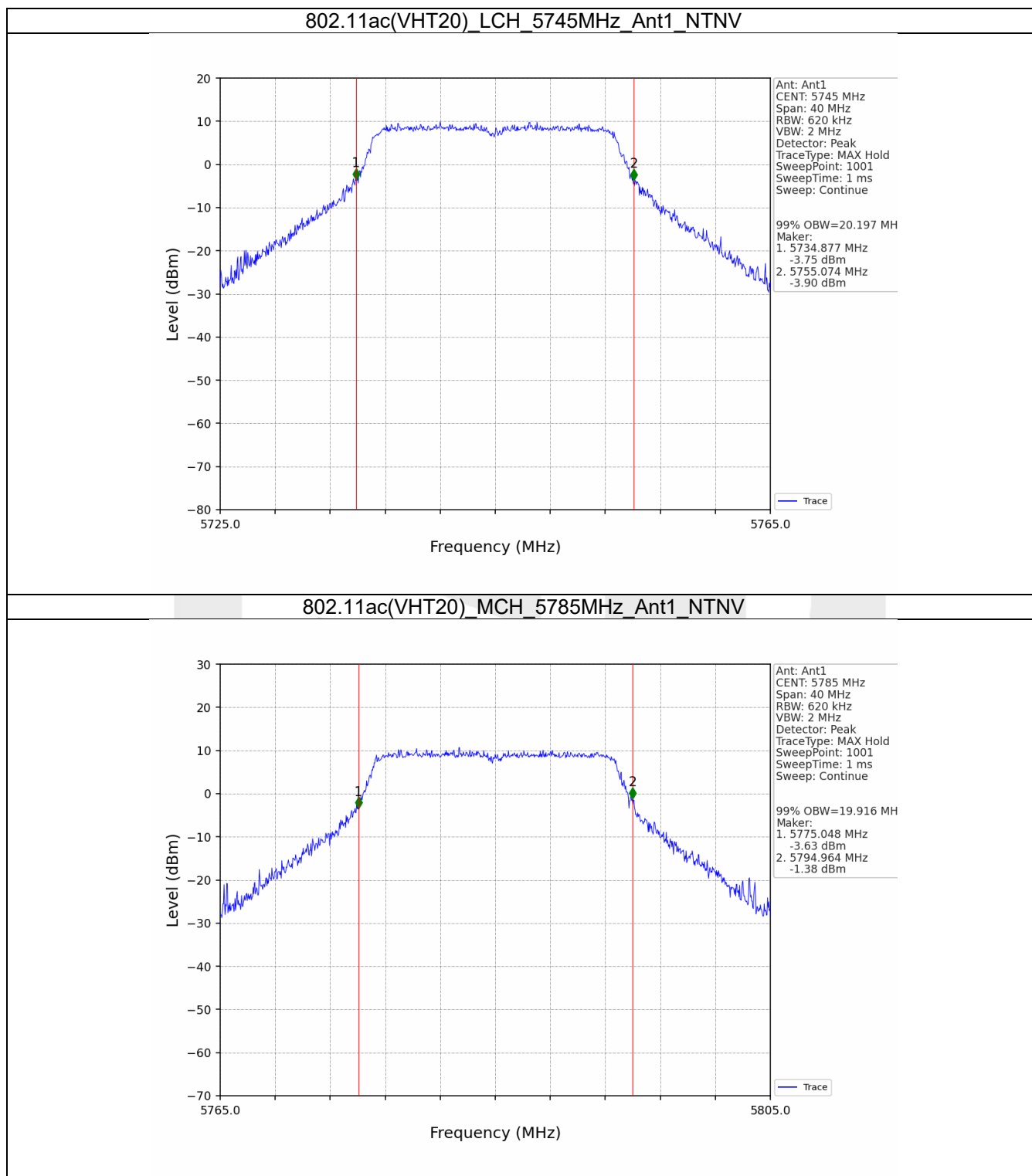
2.2.1 OBW

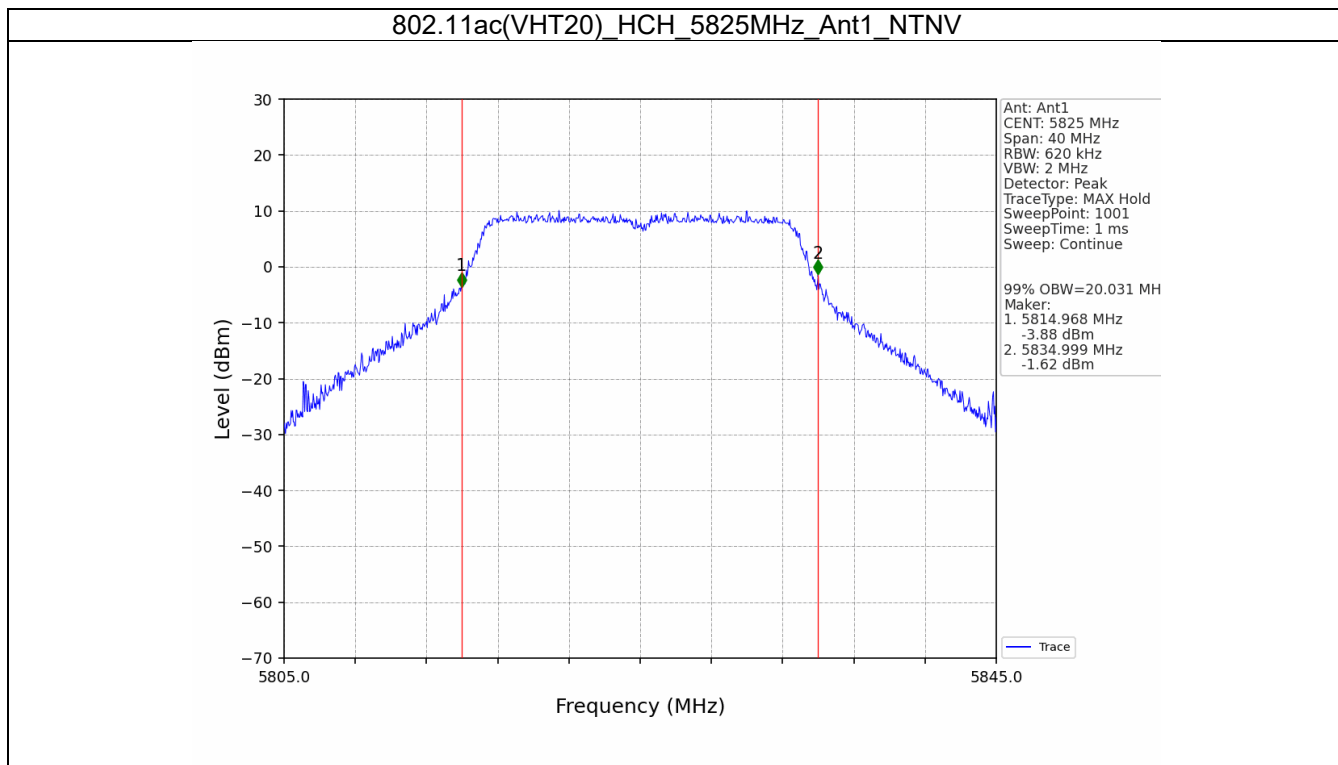




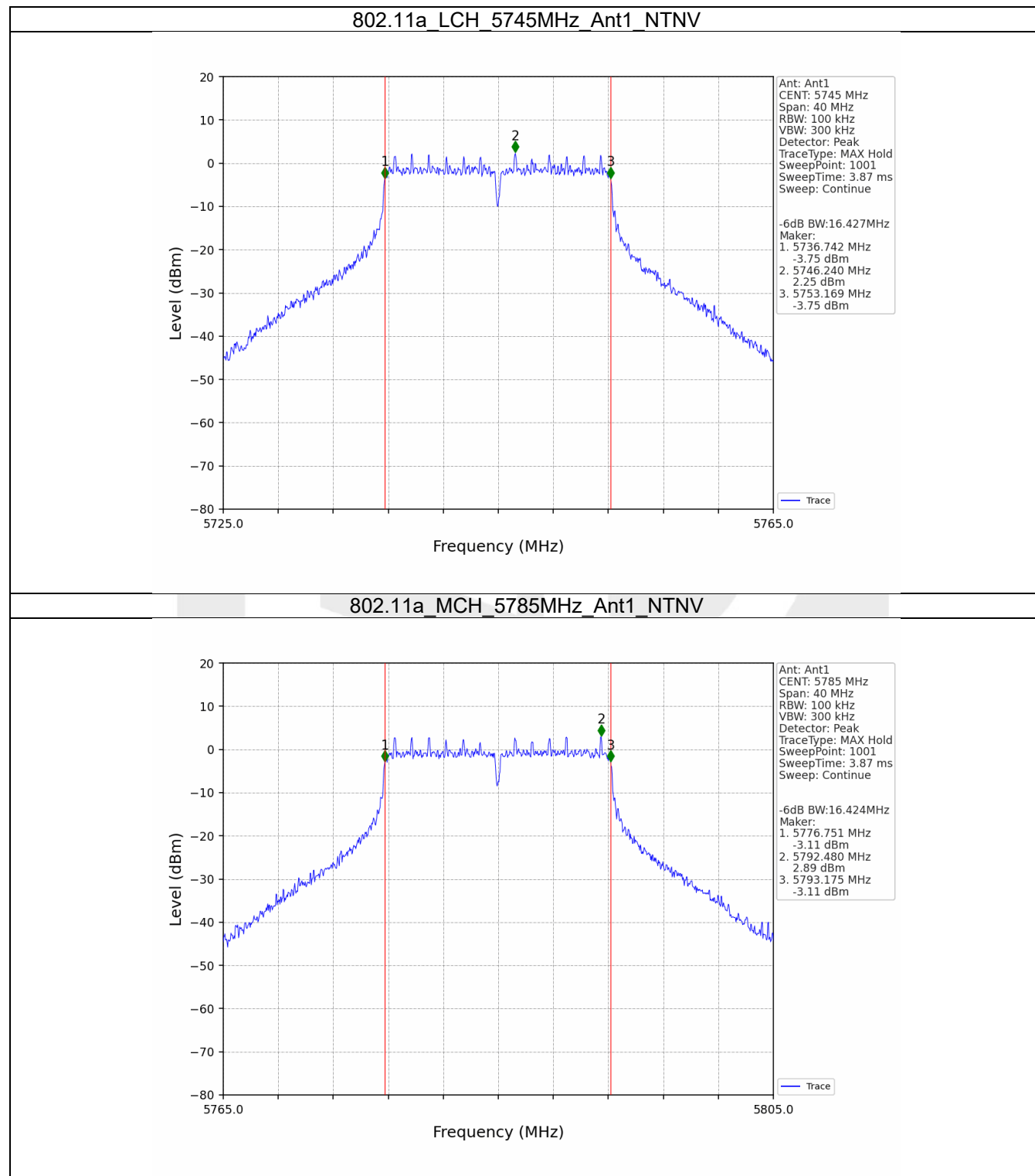


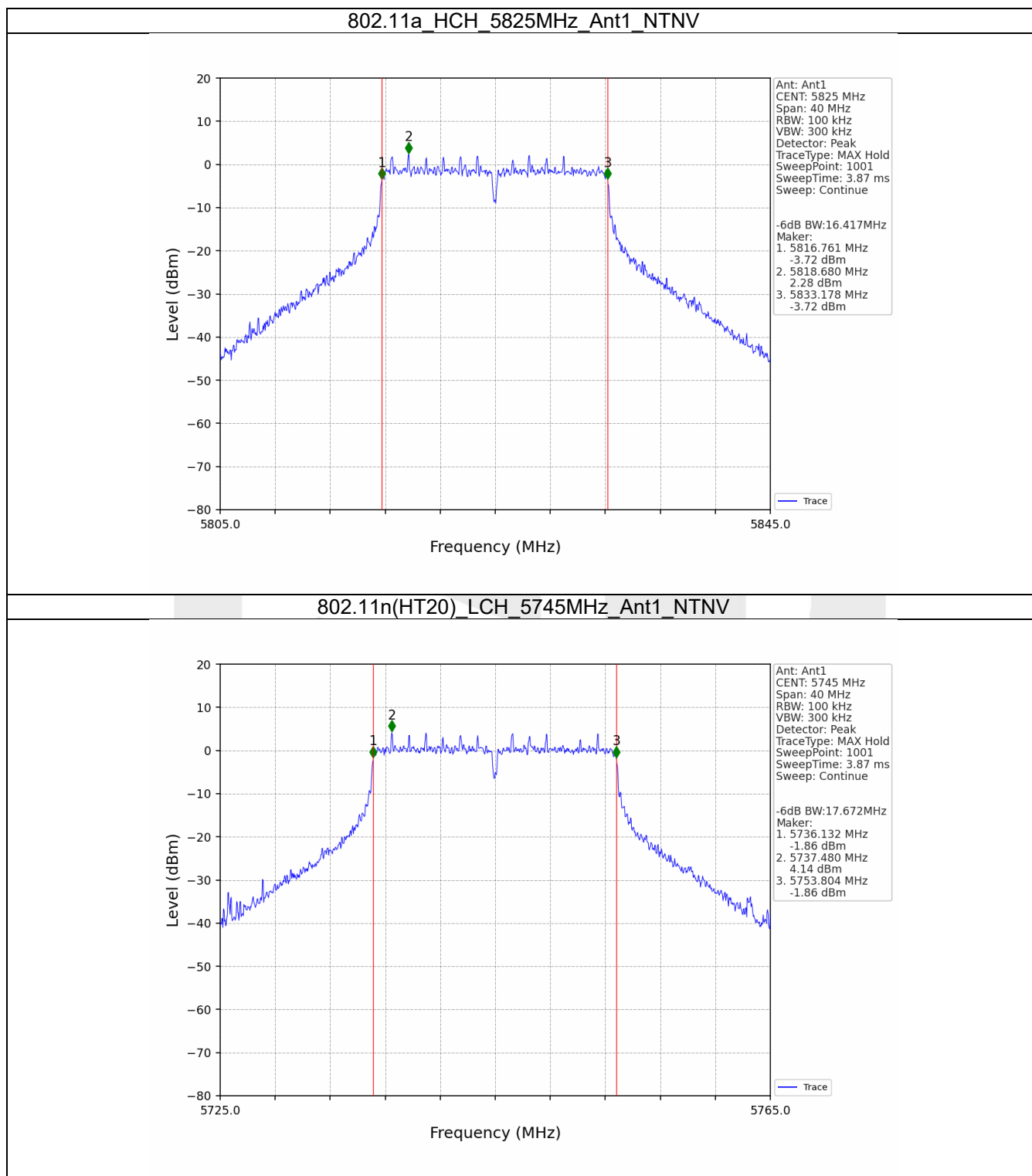


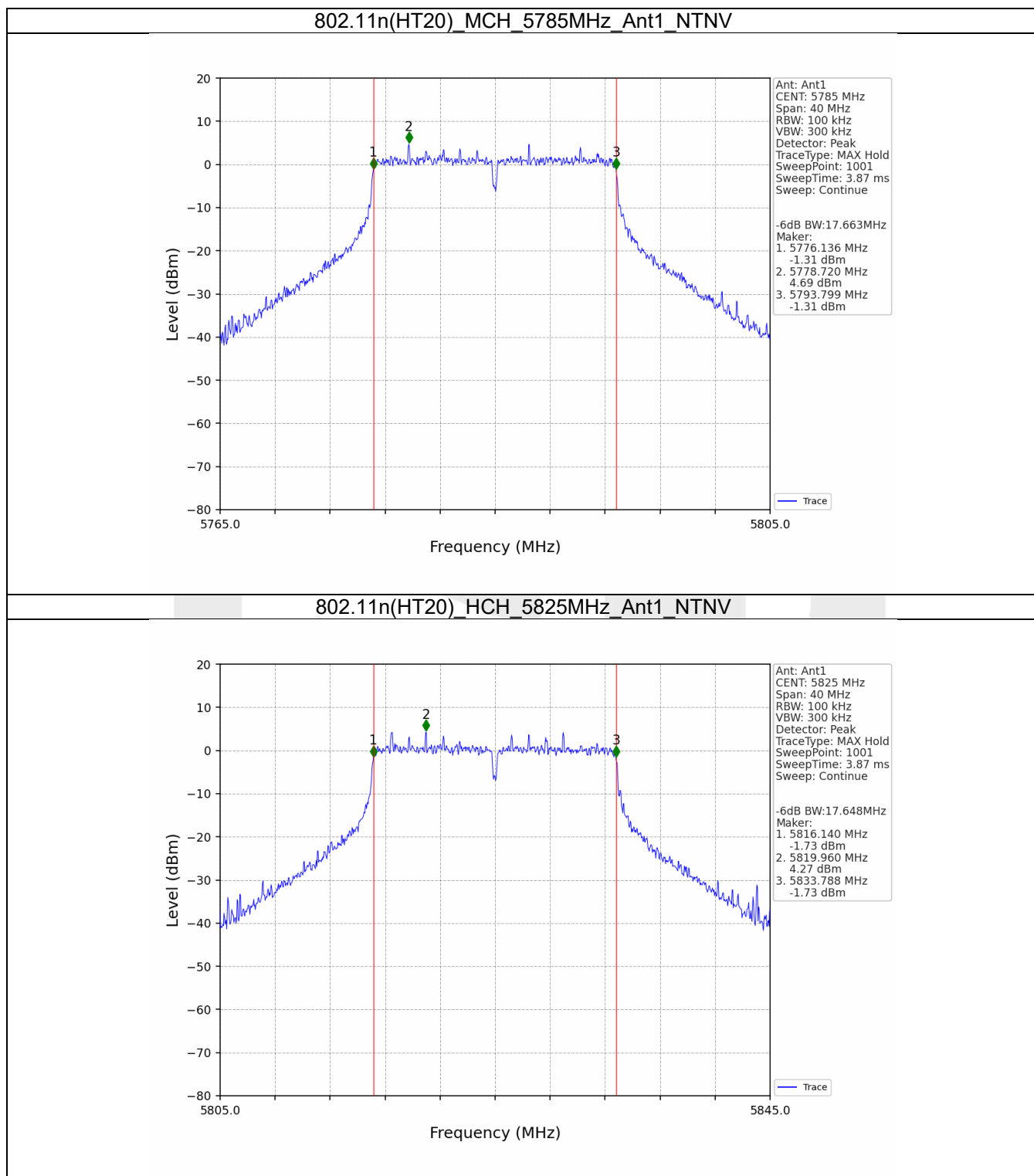


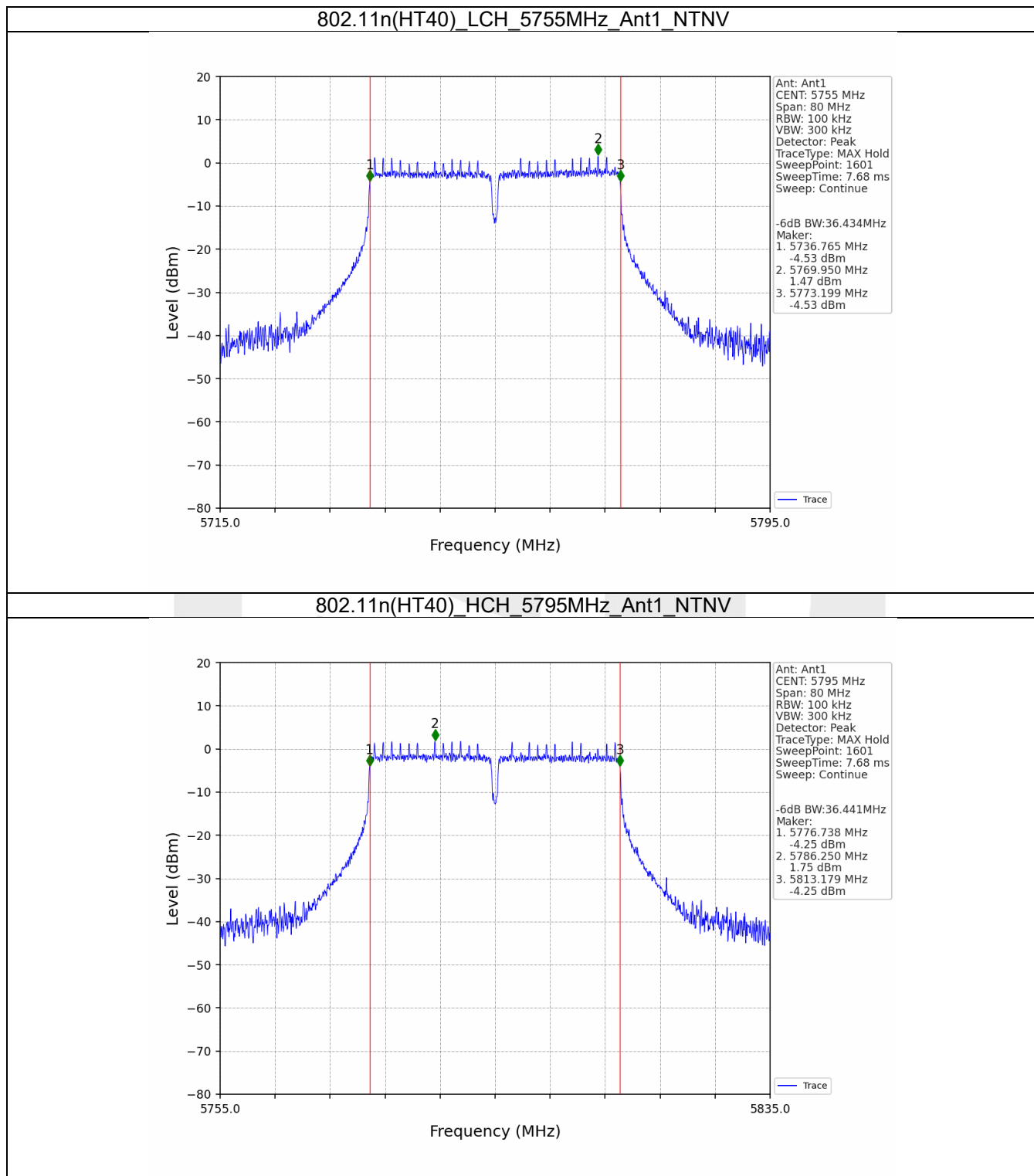


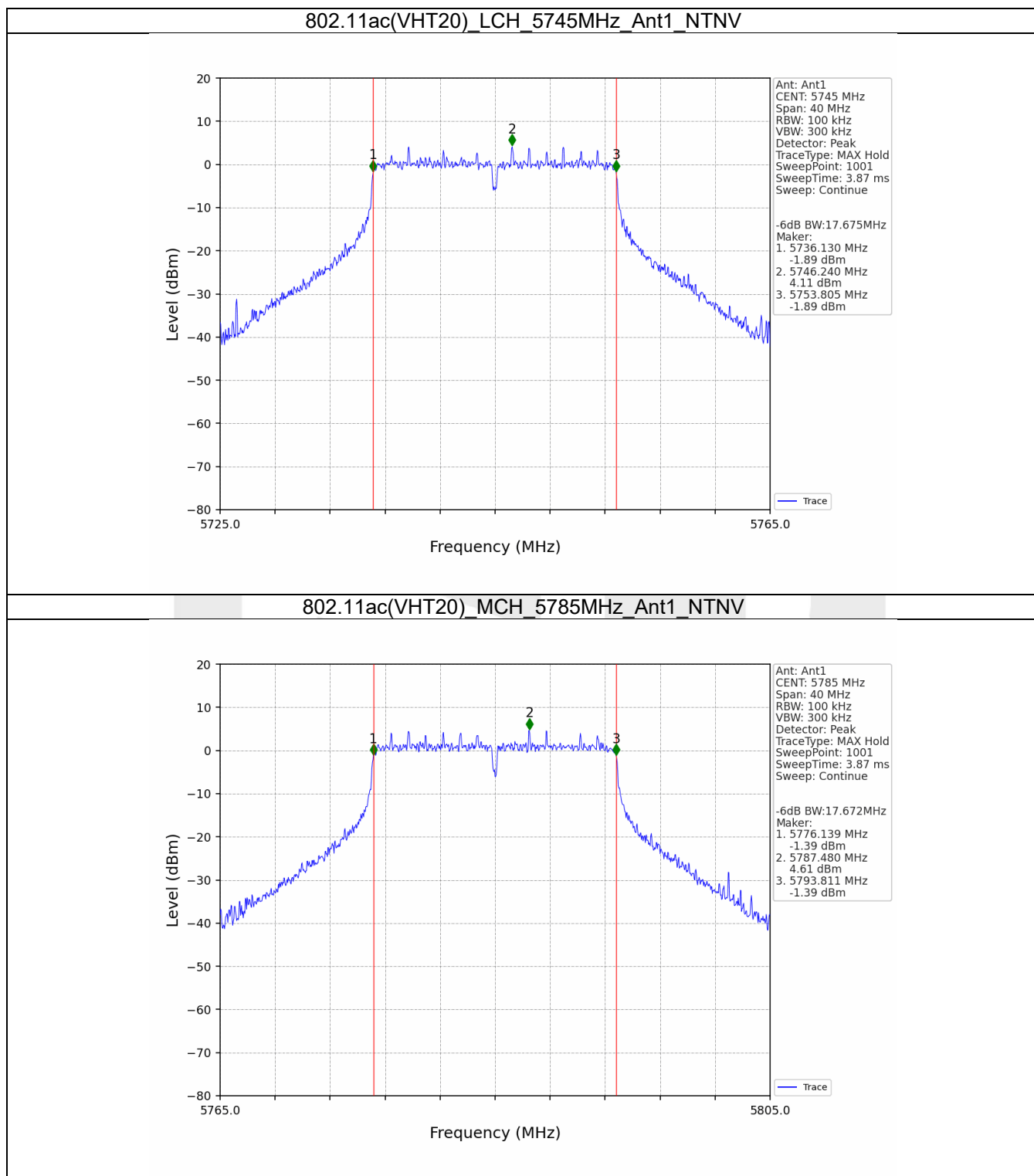
2.2.2 6dB BW

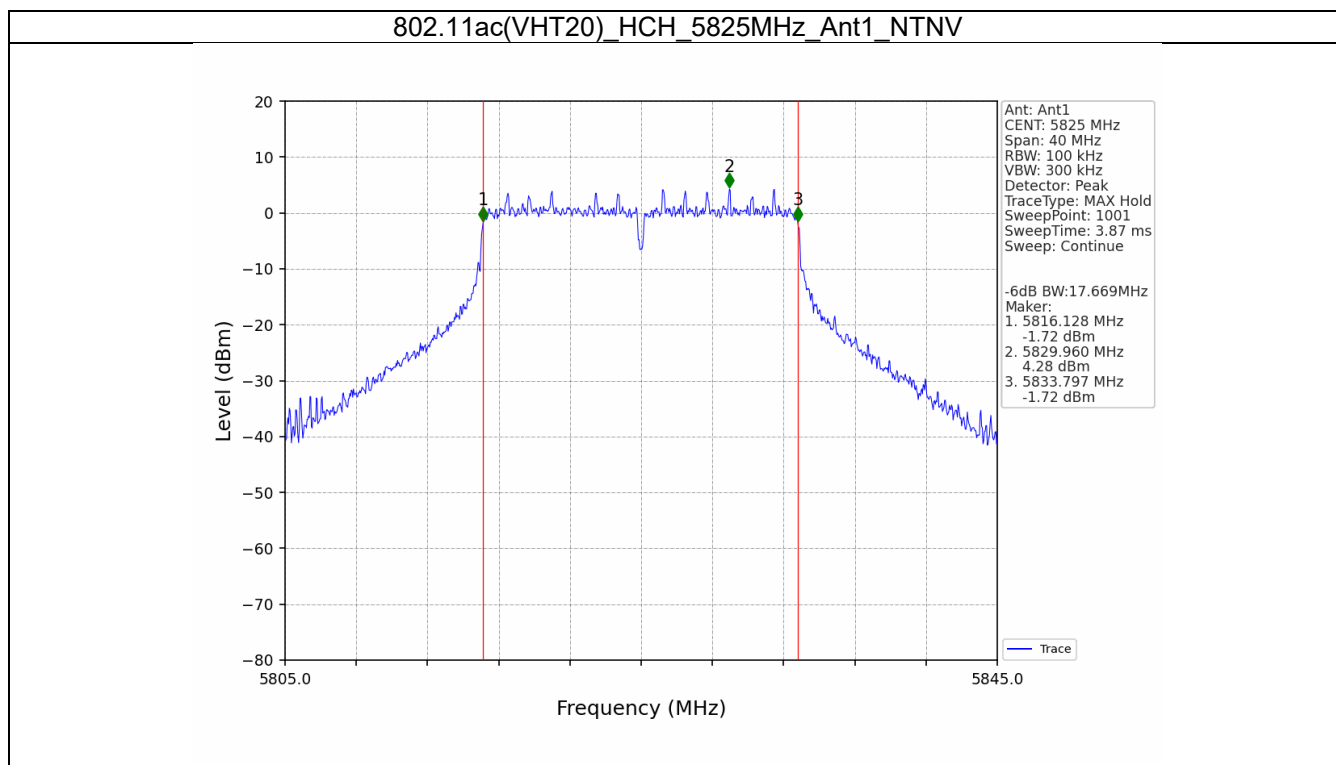












3. Maximum Conducted Output Power

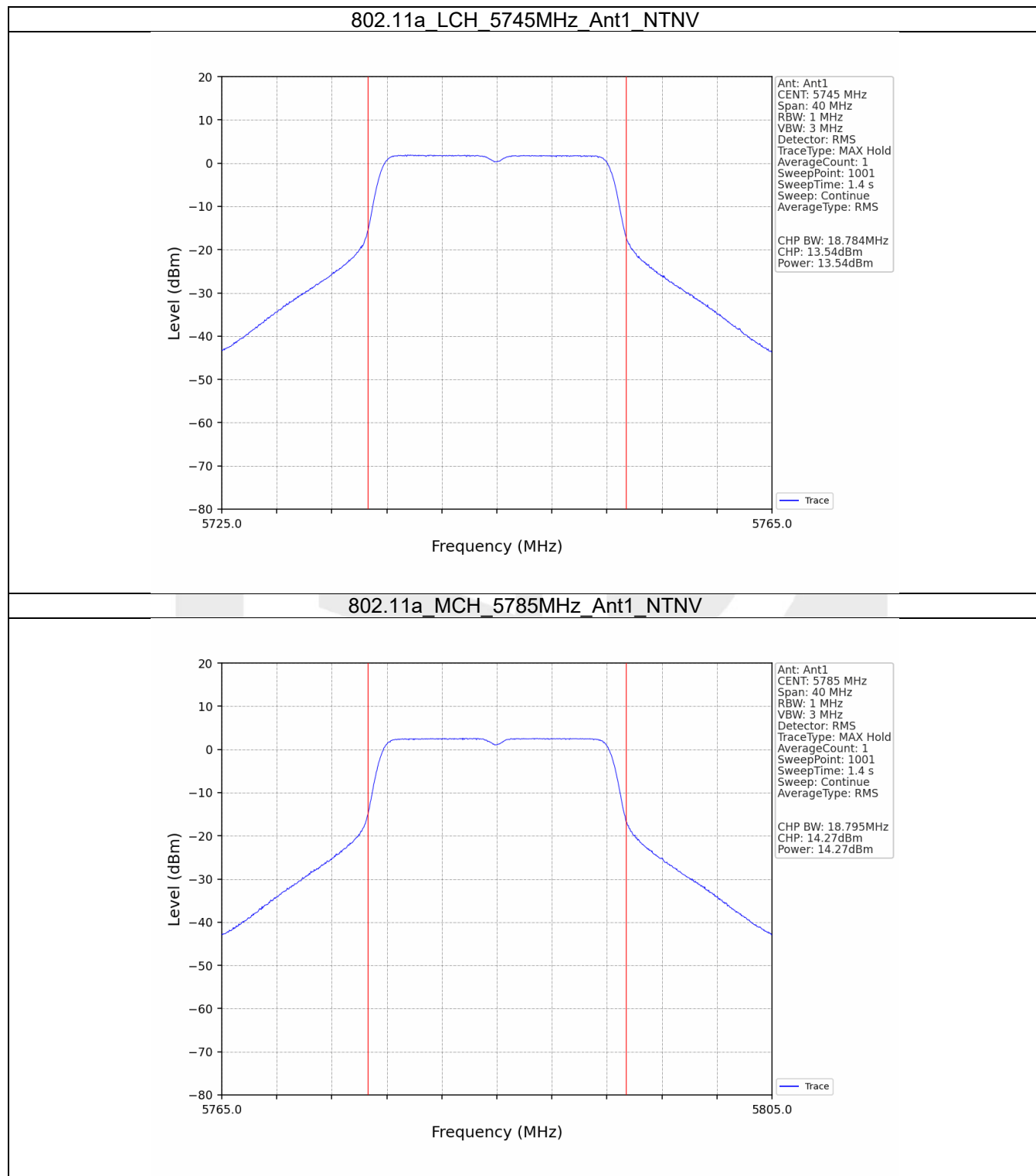
3.1 Test Result

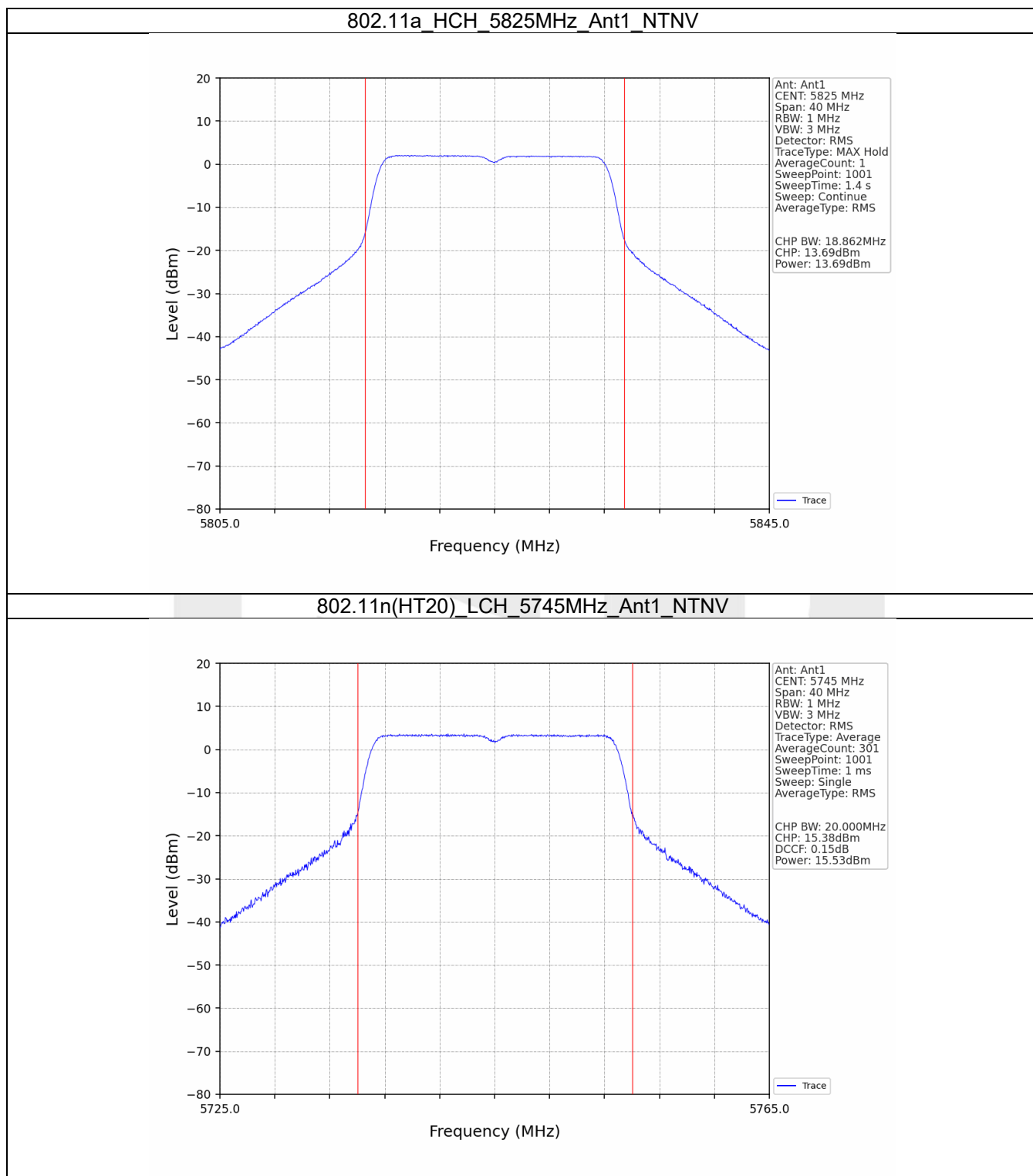
3.1.1 Power

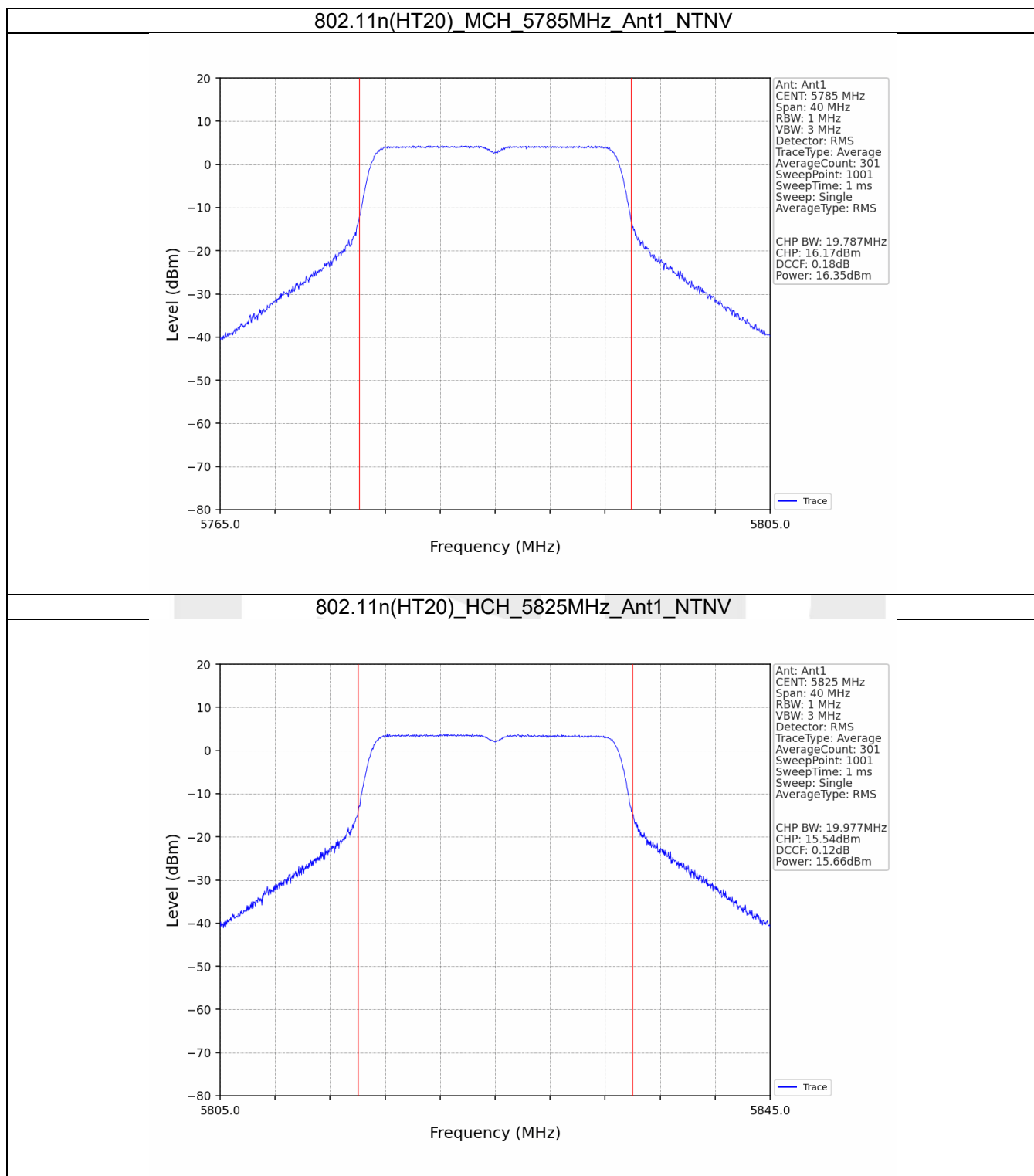
Mode	TX Type	Frequency (MHz)	Maximum Average Conducted Output Power (dBm)		Verdict
			ANT1	Limit	
802.11a	SISO	5745	13.54	<=30	Pass
		5785	14.27	<=30	Pass
		5825	13.69	<=30	Pass
802.11n (HT20)	SISO	5745	15.53	<=30	Pass
		5785	16.35	<=30	Pass
		5825	15.66	<=30	Pass
802.11n (HT40)	SISO	5755	15.56	<=30	Pass
		5795	16.03	<=30	Pass
802.11ac (VHT20)	SISO	5745	15.42	<=30	Pass
		5785	16.32	<=30	Pass
		5825	15.72	<=30	Pass

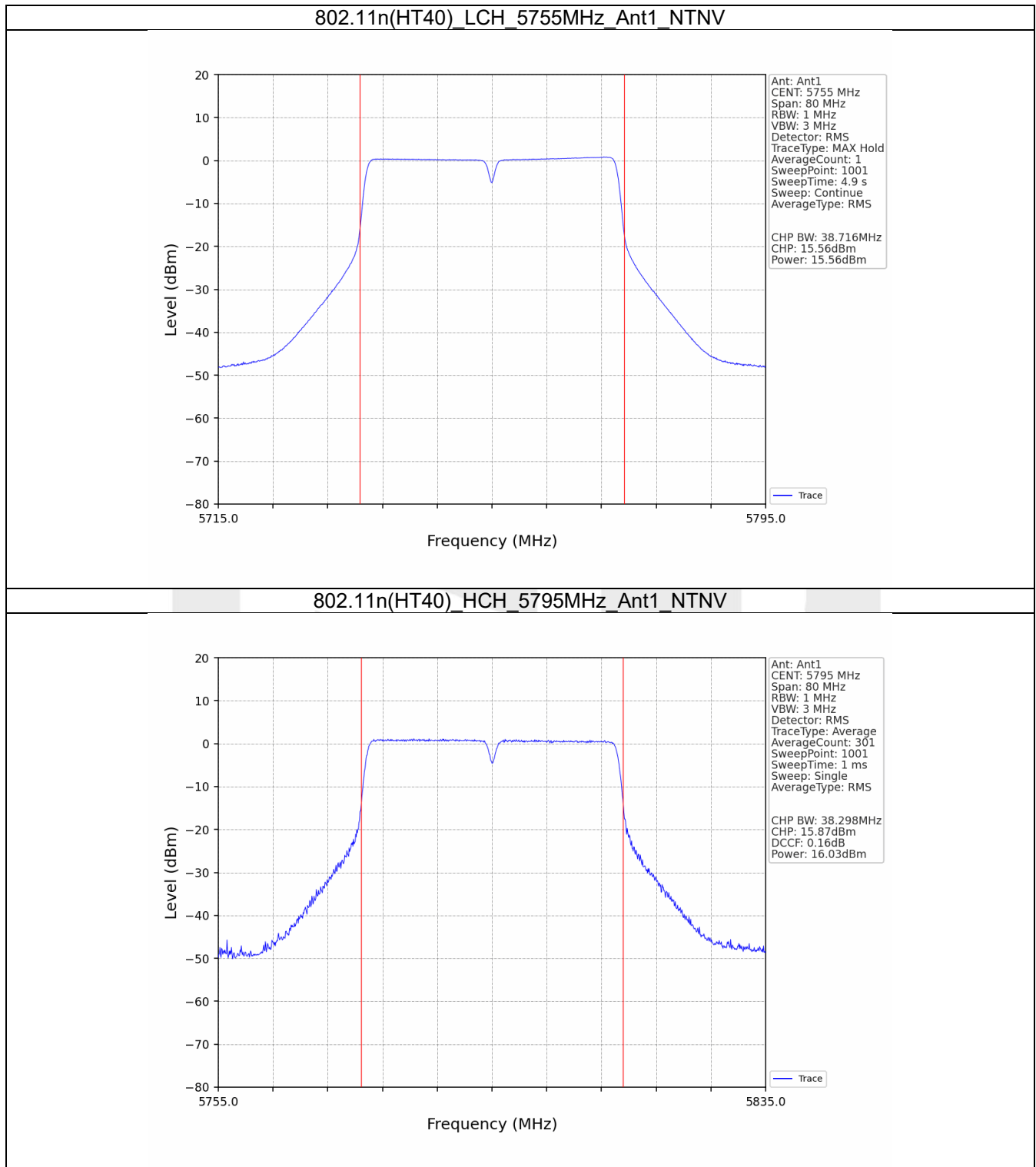
3.2 Test Graph

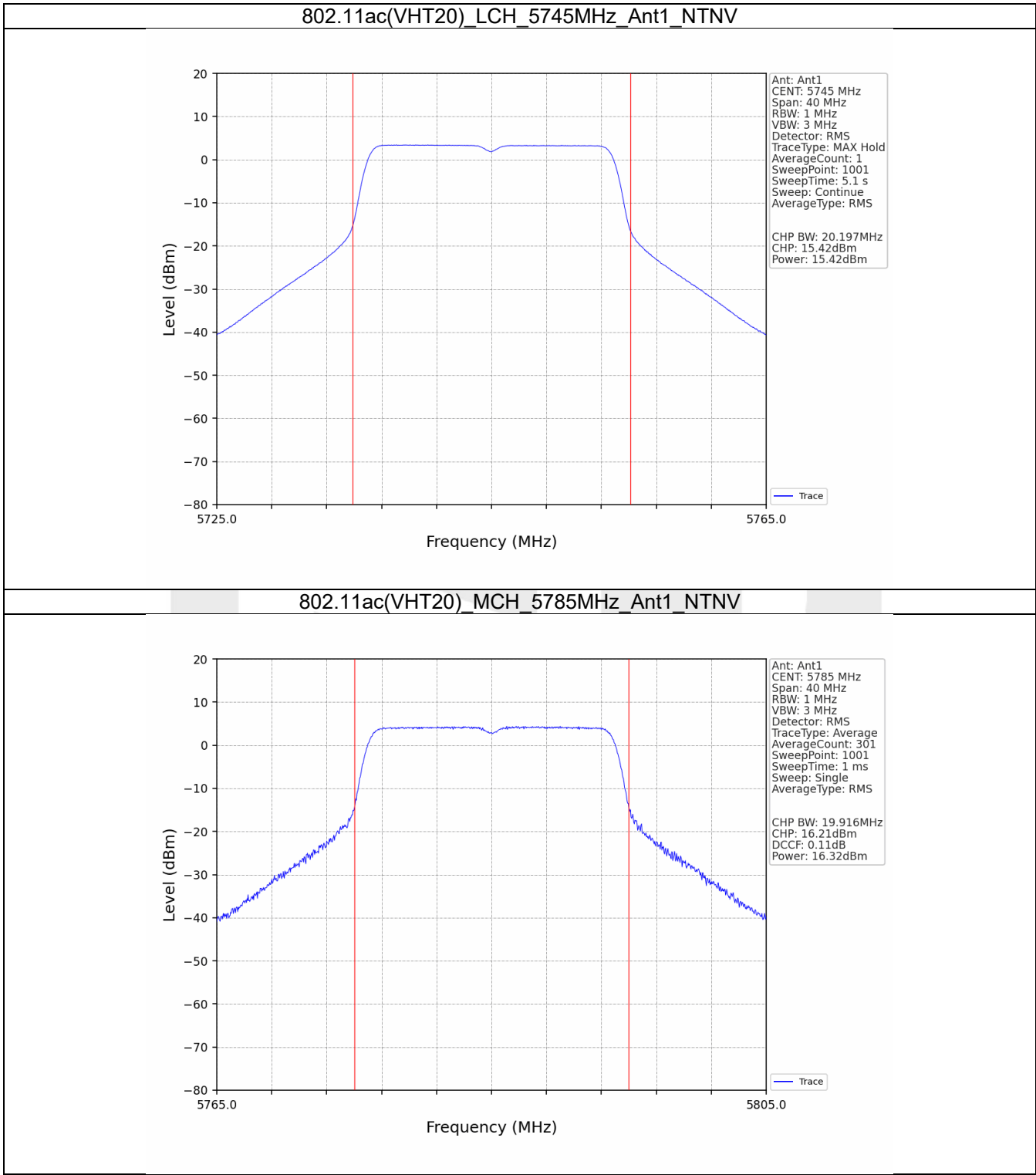
3.2.1 Power

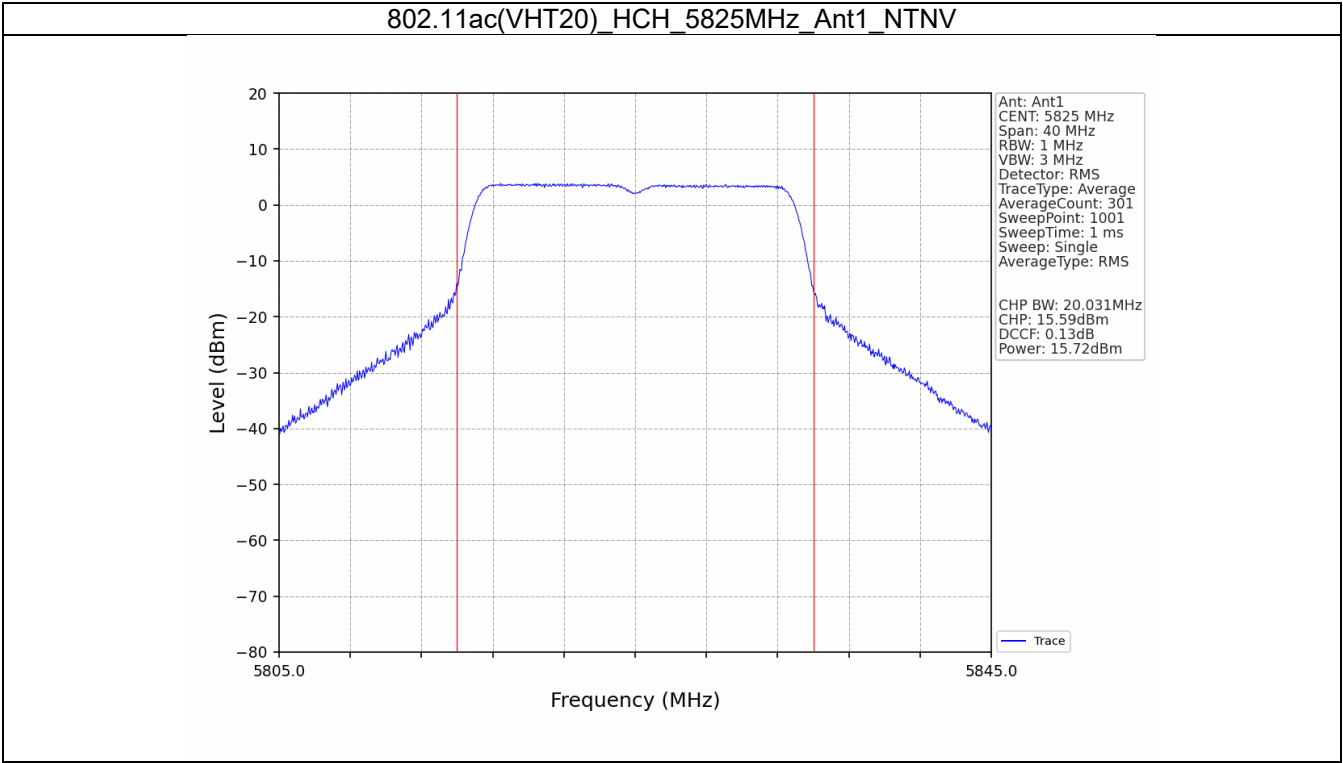












4. Maximum Power Spectral Density

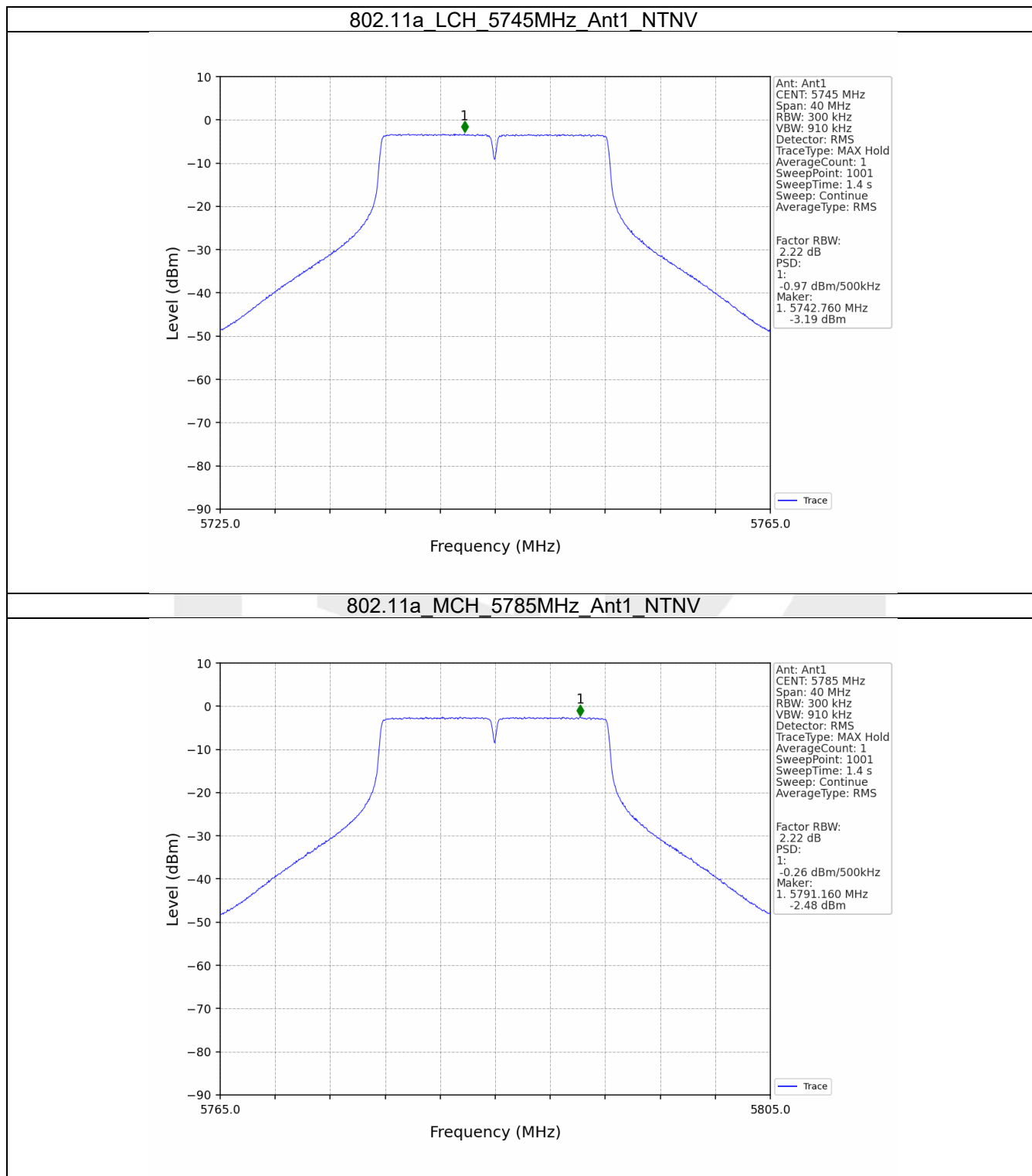
4.1 Test Result

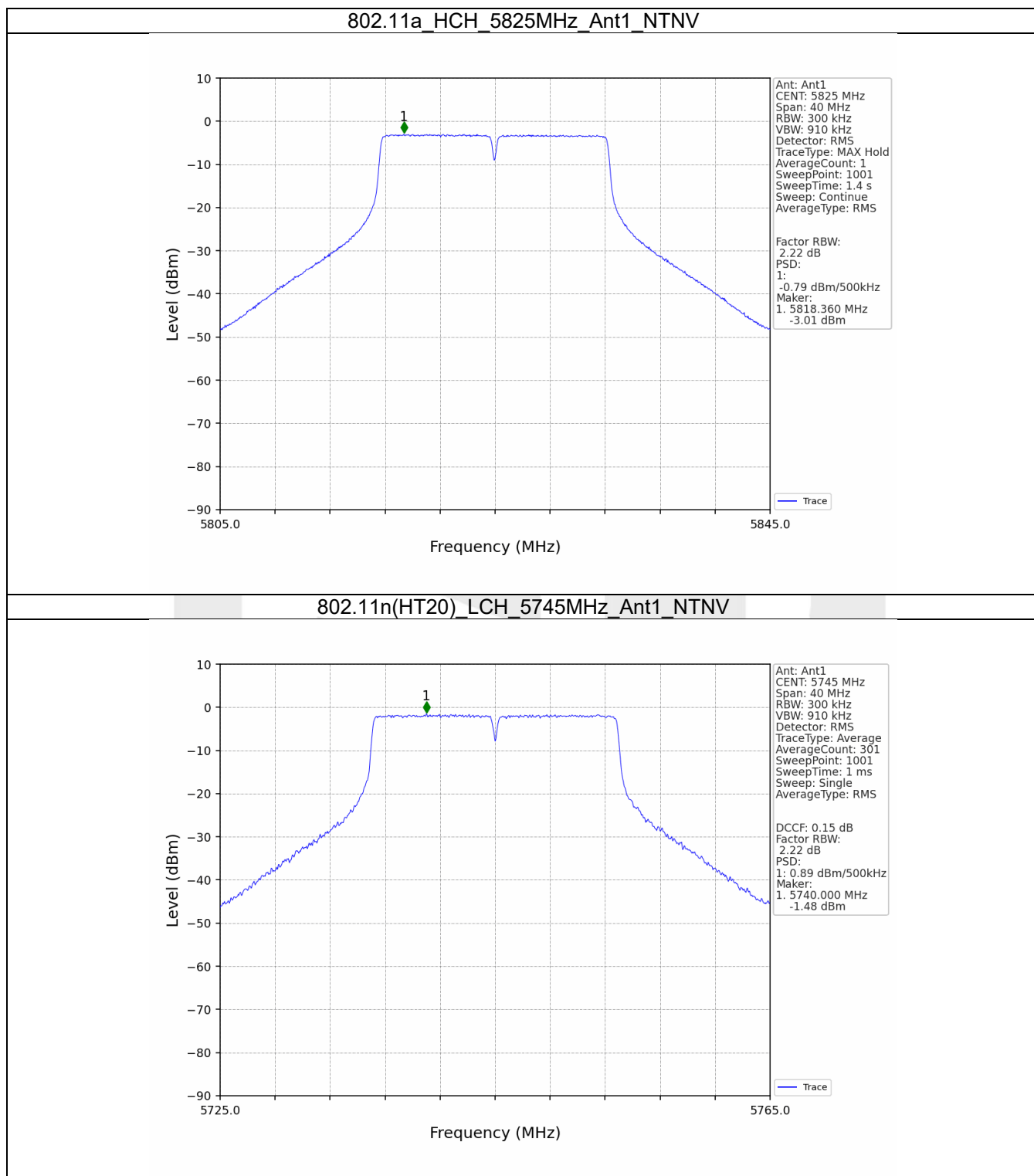
4.1.1 PSD-Band3

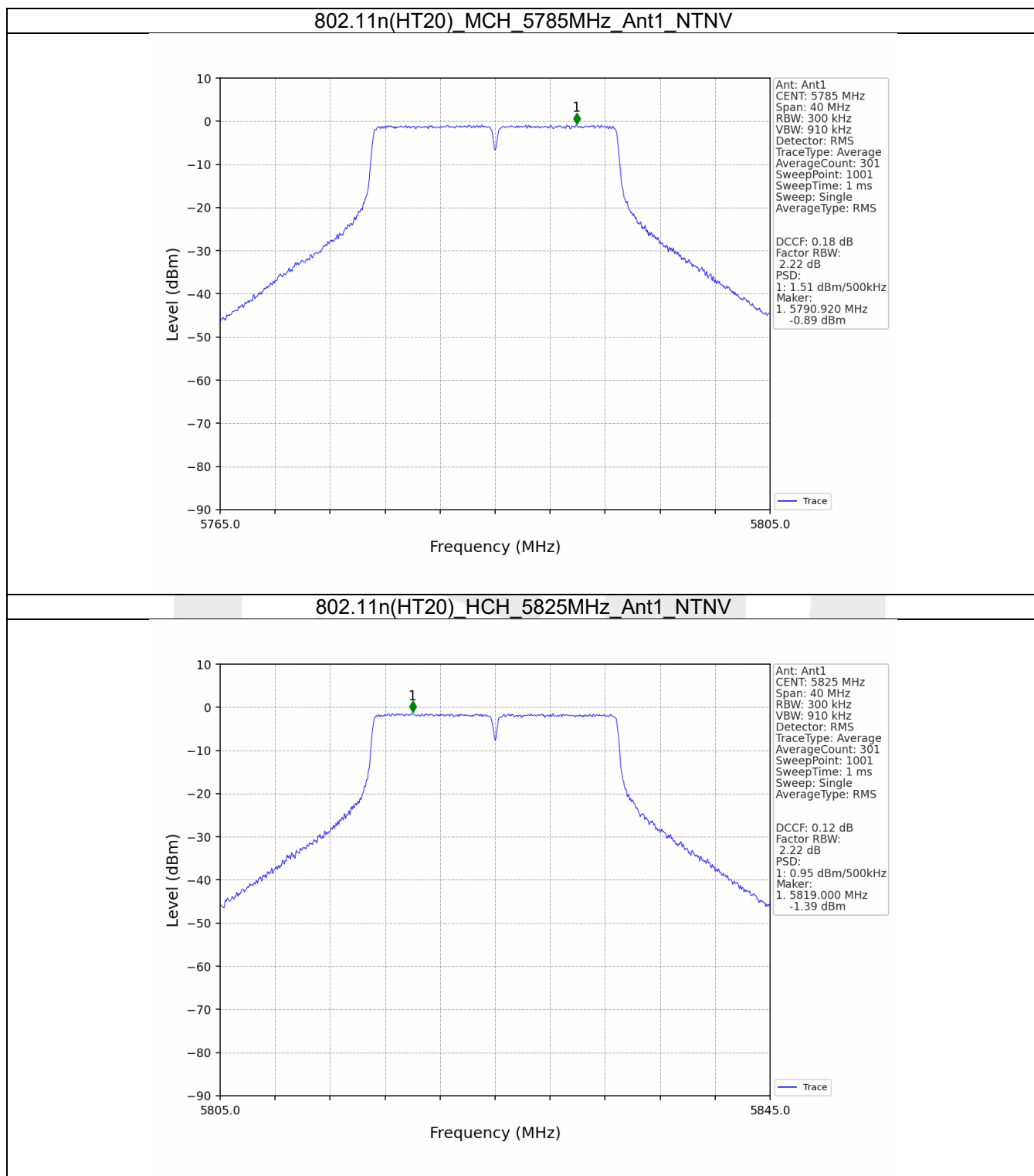
Mode	TX Type	Frequency (MHz)	Maximum PSD (dBm/500kHz)		Verdict
			ANT1	Limit	
802.11a	SISO	5745	-0.97	<=30	Pass
		5785	-0.26	<=30	Pass
		5825	-0.79	<=30	Pass
802.11n (HT20)	SISO	5745	0.89	<=30	Pass
		5785	1.51	<=30	Pass
		5825	0.95	<=30	Pass
802.11n (HT40)	SISO	5755	-2.11	<=30	Pass
		5795	-1.74	<=30	Pass
802.11ac (VHT20)	SISO	5745	0.43	<=30	Pass
		5785	1.47	<=30	Pass
		5825	0.97	<=30	Pass

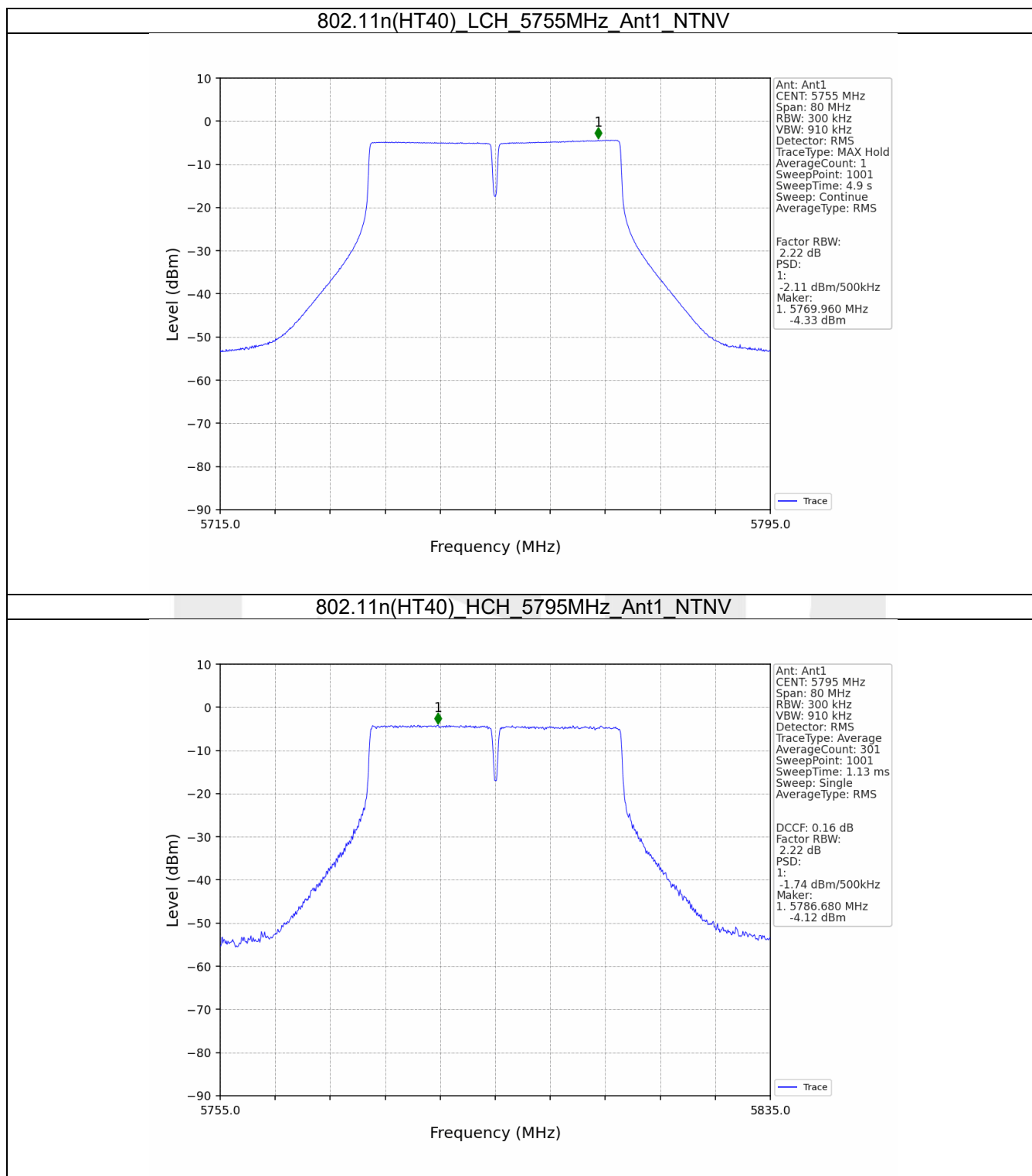
4.2 Test Graph

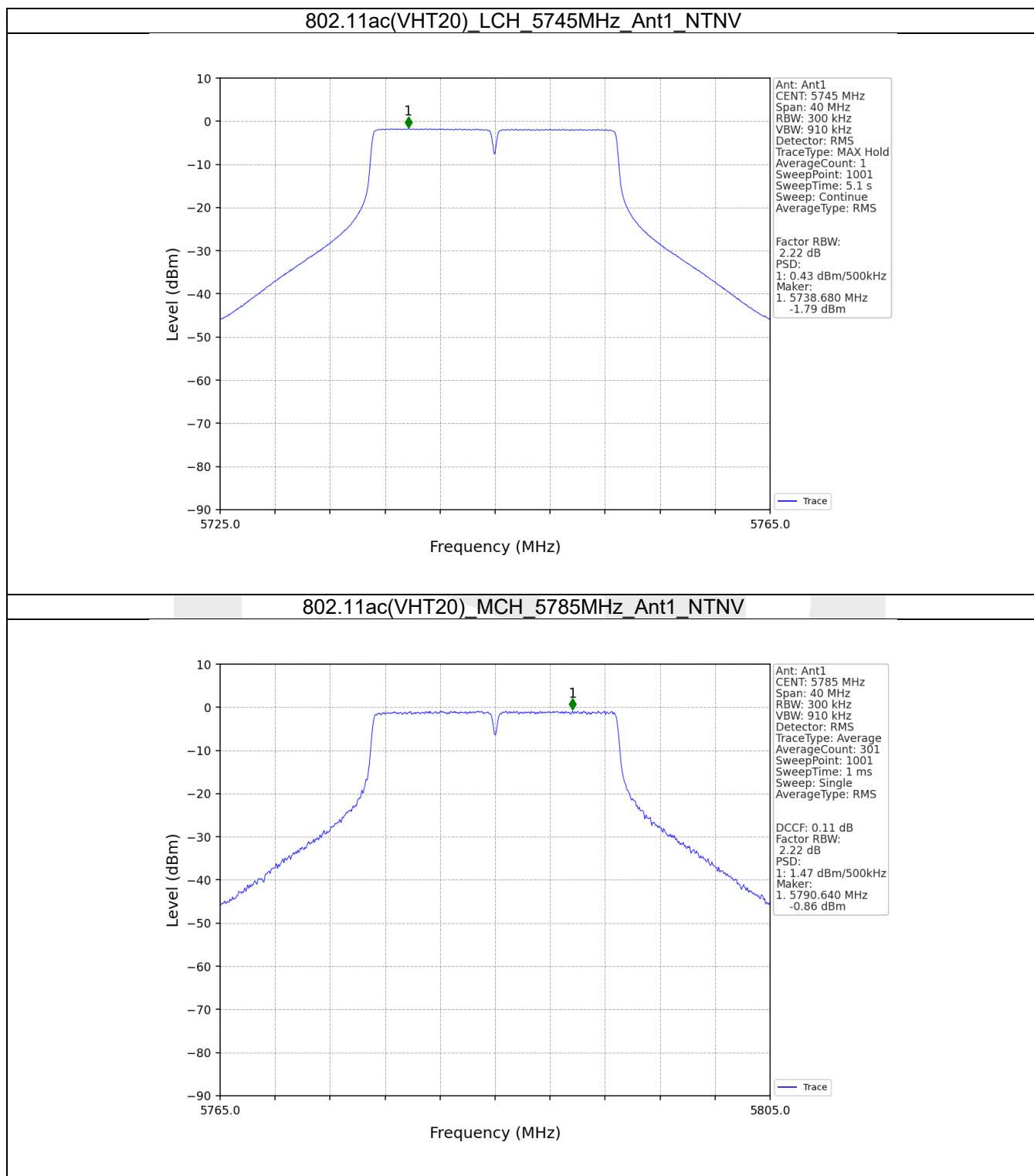
4.2.1 PSD-Band3

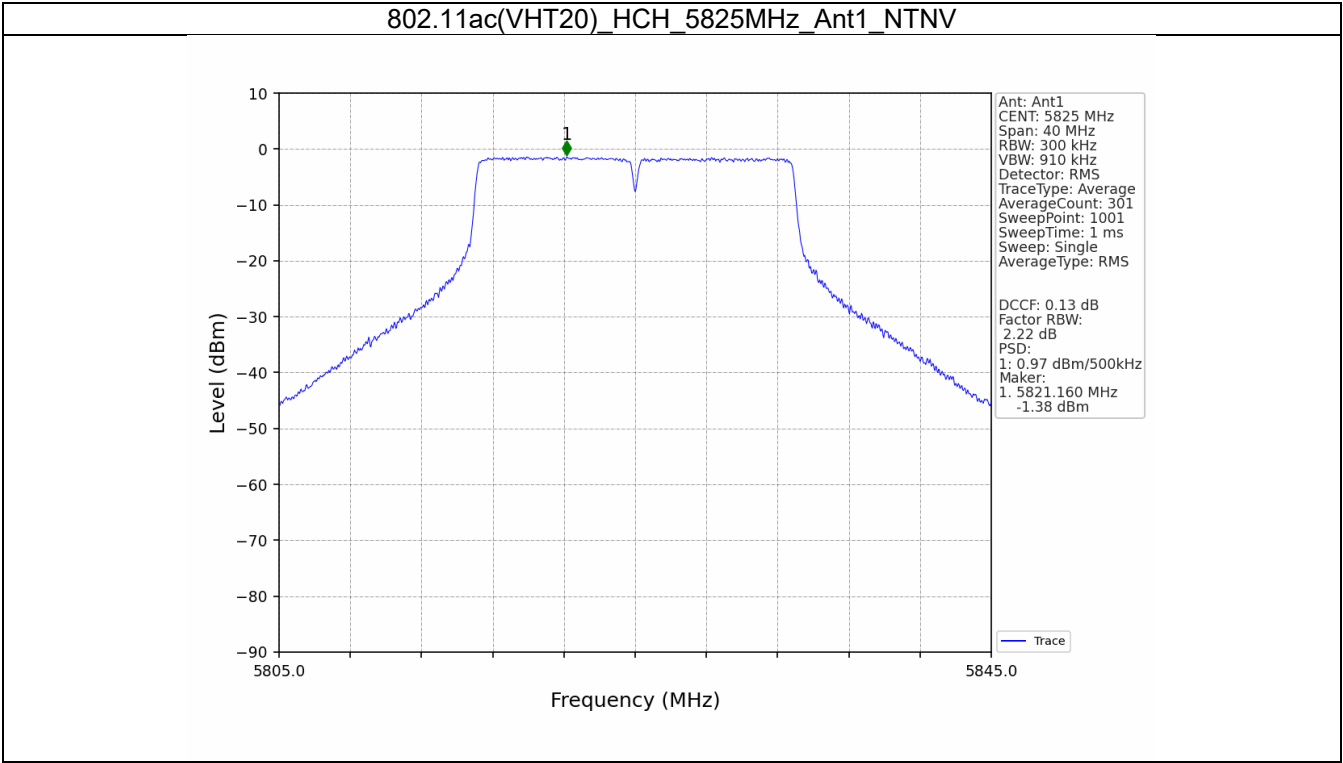












5. Unwanted Emissions In Restricted Frequency Bands

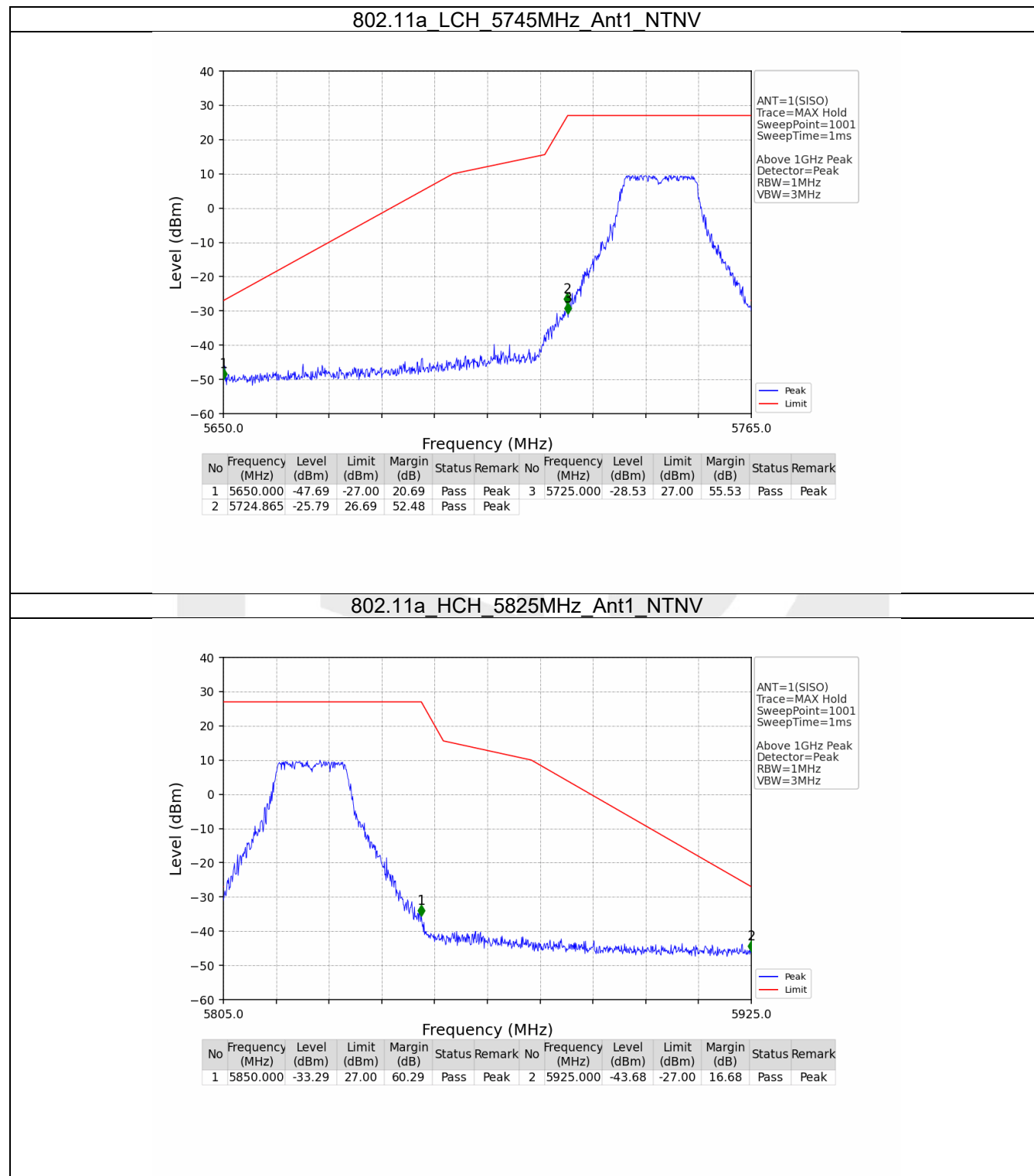
5.1 Test Result

5.1.1 CSE

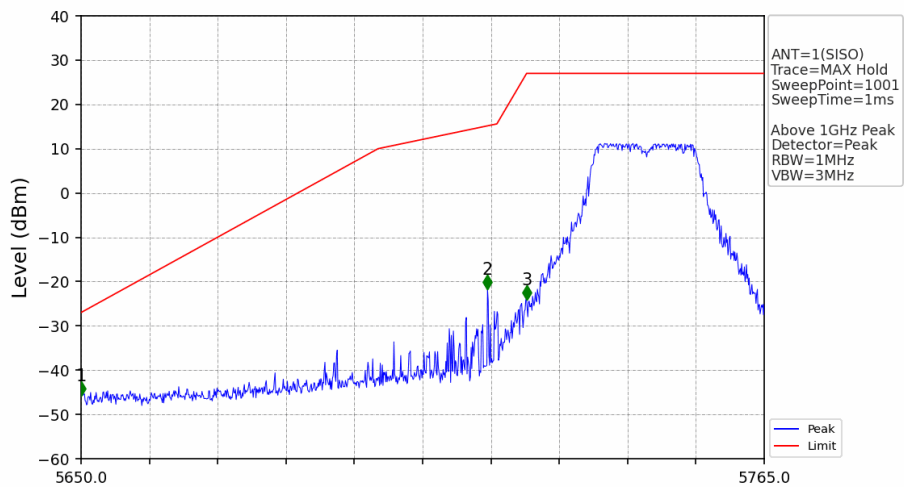
Mode	TX Type	Frequency (MHz)	ANT	Level of Unwanted Emissions (dBm)		Verdict
				Result	Limit	
802.11a	SISO	5745	1	Refer To Test Graph		Pass
		5785	1	Refer To Test Graph		Pass
		5825	1	Refer To Test Graph		Pass
802.11n (HT20)	SISO	5745	1	Refer To Test Graph		Pass
		5785	1	Refer To Test Graph		Pass
		5825	1	Refer To Test Graph		Pass
802.11n (HT40)	SISO	5755	1	Refer To Test Graph		Pass
		5795	1	Refer To Test Graph		Pass
802.11ac (VHT20)	SISO	5745	1	Refer To Test Graph		Pass
		5785	1	Refer To Test Graph		Pass
		5825	1	Refer To Test Graph		Pass

5.2 Test Graph

5.2.1 CSE

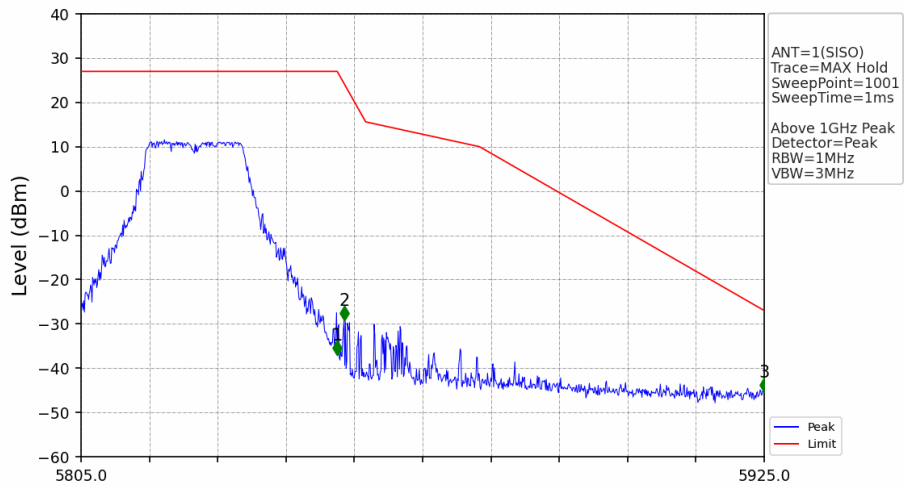


802.11n(HT20)_LCH_5745MHz_Ant1_NTNV



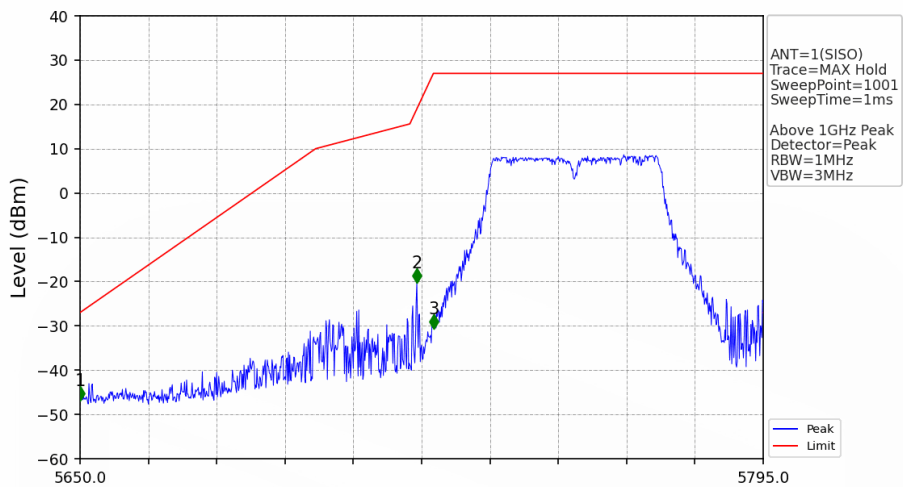
No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark	No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark
1	5650.000	-43.56	-27.00	16.56	Pass	Peak	3	5725.000	-21.87	27.00	48.87	Pass	Peak
2	5718.425	-19.50	15.16	34.66	Pass	Peak							

802.11n(HT20)_HCH_5825MHz_Ant1_NTNV



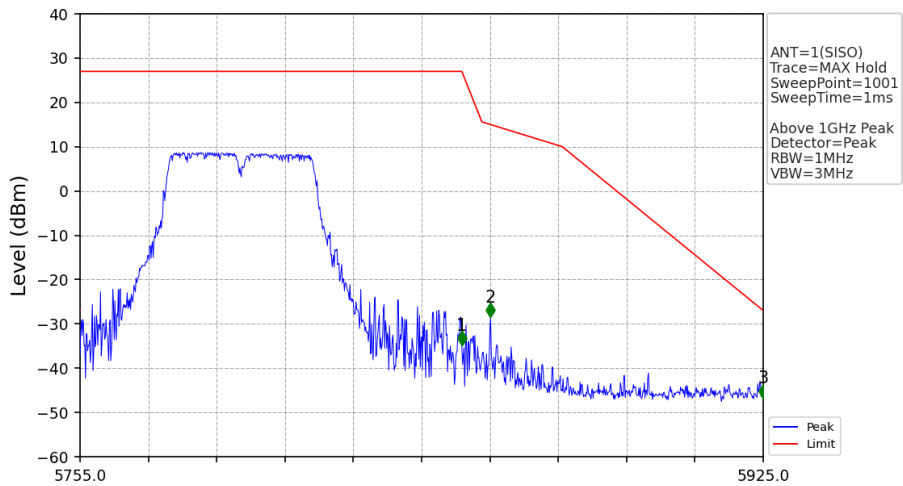
No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark	No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark
1	5850.000	-34.78	27.00	61.78	Pass	Peak	3	5925.000	-43.22	-27.00	16.22	Pass	Peak
2	5851.200	-26.95	24.26	51.21	Pass	Peak							

802.11n(HT40)_LCH_5755MHz_Ant1_NTNV



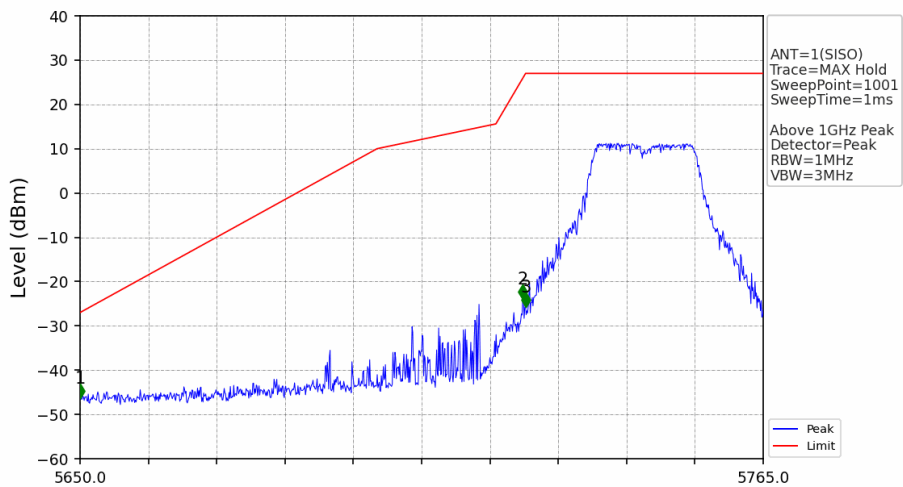
No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark	No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark
1	5650.000	-44.63	-27.00	17.63	Pass	Peak	3	5725.000	-28.36	27.00	55.36	Pass	Peak
2	5721.485	-18.09	18.99	37.08	Pass	Peak							

802.11n(HT40)_HCH_5795MHz_Ant1_NTNV



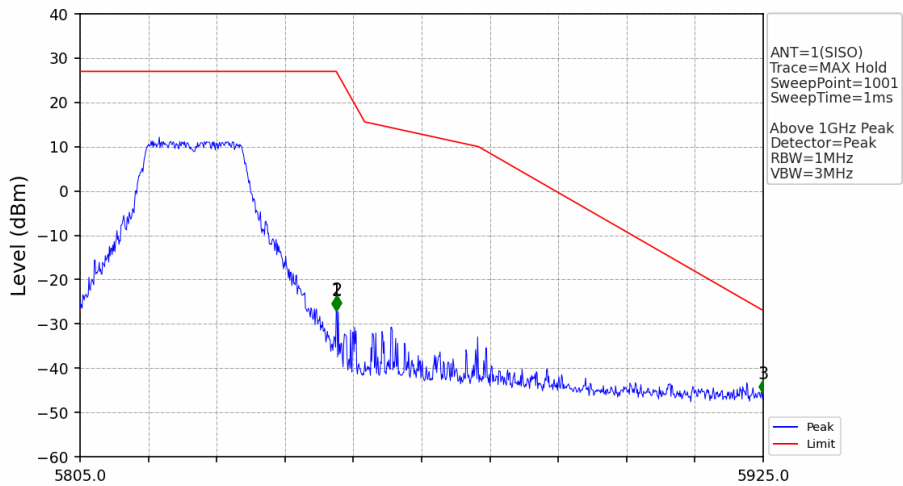
No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark	No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark
1	5850.000	-32.61	27.00	59.61	Pass	Peak	3	5925.000	-44.53	-27.00	17.53	Pass	Peak
2	5857.170	-26.29	14.99	41.28	Pass	Peak							

802.11ac(VHT20)_LCH_5745MHz_Ant1_NTNV



No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark	No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark
1	5650.000	-44.10	-27.00	17.10	Pass	Peak	3	5725.000	-23.46	27.00	50.46	Pass	Peak
2	5724.520	-21.64	25.91	47.54	Pass	Peak							

802.11ac(VHT20)_HCH_5825MHz_Ant1_NTNV



No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark	No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark
1	5850.000	-24.80	27.00	51.80	Pass	Peak	3	5925.000	-43.51	-27.00	16.51	Pass	Peak
2	5850.120	-24.62	26.73	51.35	Pass	Peak							

6. Frequency Stability

6.1 Test Result

6.1.1 Ant1

Ant1							
Mode	TX Type	Frequency (MHz)	Temperature (°C)	Voltage (VAC)	Measured Frequency (MHz)	Limit (MHz)	Verdict
802.11a	SISO	5745	20	102	5744.960	5725 to 5850	Pass
				120	5744.980	5725 to 5850	Pass
				138	5744.980	5725 to 5850	Pass
			-30	120	5744.980	5725 to 5850	Pass
			-20	120	5744.940	5725 to 5850	Pass
			-10	120	5745.000	5725 to 5850	Pass
			0	120	5744.940	5725 to 5850	Pass
			10	120	5744.980	5725 to 5850	Pass
			30	120	5744.980	5725 to 5850	Pass
			40	120	5744.940	5725 to 5850	Pass
			50	120	5745.040	5725 to 5850	Pass
		5785	20	102	5784.960	5725 to 5850	Pass
				120	5784.980	5725 to 5850	Pass
				138	5785.000	5725 to 5850	Pass
			-30	120	5785.040	5725 to 5850	Pass
			-20	120	5784.960	5725 to 5850	Pass
			-10	120	5784.920	5725 to 5850	Pass
			0	120	5785.000	5725 to 5850	Pass
			10	120	5785.020	5725 to 5850	Pass
			30	120	5785.000	5725 to 5850	Pass
			40	120	5784.980	5725 to 5850	Pass
			50	120	5785.000	5725 to 5850	Pass
		5825	20	102	5824.980	5725 to 5850	Pass
				120	5825.020	5725 to 5850	Pass
				138	5824.980	5725 to 5850	Pass
			-30	120	5825.000	5725 to 5850	Pass
			-20	120	5825.020	5725 to 5850	Pass
			-10	120	5824.980	5725 to 5850	Pass
			0	120	5825.000	5725 to 5850	Pass
			10	120	5825.040	5725 to 5850	Pass
			30	120	5824.980	5725 to 5850	Pass
			40	120	5825.020	5725 to 5850	Pass
			50	120	5824.960	5725 to 5850	Pass
802.11n (HT20)	SISO	5745	20	102	5744.960	5725 to 5850	Pass
				120	5745.000	5725 to 5850	Pass
				138	5745.040	5725 to 5850	Pass
			-30	120	5744.960	5725 to 5850	Pass
			-20	120	5744.980	5725 to 5850	Pass
			-10	120	5745.000	5725 to 5850	Pass
			0	120	5744.960	5725 to 5850	Pass
			10	120	5744.980	5725 to 5850	Pass

			30	120	5745.020	5725 to 5850	Pass
			40	120	5745.000	5725 to 5850	Pass
			50	120	5745.000	5725 to 5850	Pass
		5785	20	102	5785.000	5725 to 5850	Pass
				120	5784.960	5725 to 5850	Pass
				138	5785.000	5725 to 5850	Pass
			-30	120	5784.980	5725 to 5850	Pass
			-20	120	5785.020	5725 to 5850	Pass
			-10	120	5785.020	5725 to 5850	Pass
			0	120	5785.060	5725 to 5850	Pass
			10	120	5784.980	5725 to 5850	Pass
			30	120	5784.980	5725 to 5850	Pass
			40	120	5784.960	5725 to 5850	Pass
			50	120	5785.000	5725 to 5850	Pass
		5825	20	102	5824.960	5725 to 5850	Pass
				120	5824.980	5725 to 5850	Pass
				138	5825.000	5725 to 5850	Pass
			-30	120	5824.960	5725 to 5850	Pass
			-20	120	5825.020	5725 to 5850	Pass
			-10	120	5825.020	5725 to 5850	Pass
			0	120	5825.020	5725 to 5850	Pass
			10	120	5824.980	5725 to 5850	Pass
			30	120	5824.980	5725 to 5850	Pass
			40	120	5825.040	5725 to 5850	Pass
			50	120	5825.000	5725 to 5850	Pass
802.11n (HT40)	SISO	5755	20	102	5755.040	5725 to 5850	Pass
				120	5755.040	5725 to 5850	Pass
				138	5755.080	5725 to 5850	Pass
			-30	120	5755.080	5725 to 5850	Pass
			-20	120	5755.040	5725 to 5850	Pass
			-10	120	5755.080	5725 to 5850	Pass
			0	120	5755.080	5725 to 5850	Pass
			10	120	5755.040	5725 to 5850	Pass
			30	120	5755.080	5725 to 5850	Pass
			40	120	5755.040	5725 to 5850	Pass
			50	120	5755.040	5725 to 5850	Pass
		5795	20	102	5795.040	5725 to 5850	Pass
				120	5795.000	5725 to 5850	Pass
				138	5795.040	5725 to 5850	Pass
			-30	120	5795.080	5725 to 5850	Pass
			-20	120	5795.000	5725 to 5850	Pass
			-10	120	5795.040	5725 to 5850	Pass
			0	120	5795.040	5725 to 5850	Pass
			10	120	5795.040	5725 to 5850	Pass
			30	120	5795.000	5725 to 5850	Pass
			40	120	5795.080	5725 to 5850	Pass
			50	120	5795.160	5725 to 5850	Pass
802.11ac (VHT20)	SISO	5745	20	102	5744.980	5725 to 5850	Pass
				120	5745.020	5725 to 5850	Pass
				138	5745.060	5725 to 5850	Pass
			-30	120	5745.040	5725 to 5850	Pass
			-20	120	5745.020	5725 to 5850	Pass

			-10	120	5744.980	5725 to 5850	Pass
			0	120	5744.980	5725 to 5850	Pass
			10	120	5744.960	5725 to 5850	Pass
			30	120	5745.000	5725 to 5850	Pass
			40	120	5745.000	5725 to 5850	Pass
			50	120	5745.020	5725 to 5850	Pass
		5785	20	102	5785.000	5725 to 5850	Pass
				120	5785.000	5725 to 5850	Pass
				138	5785.020	5725 to 5850	Pass
			-30	120	5785.000	5725 to 5850	Pass
			-20	120	5784.980	5725 to 5850	Pass
			-10	120	5785.040	5725 to 5850	Pass
			0	120	5784.980	5725 to 5850	Pass
			10	120	5785.020	5725 to 5850	Pass
			30	120	5784.960	5725 to 5850	Pass
			40	120	5785.040	5725 to 5850	Pass
			50	120	5785.020	5725 to 5850	Pass
		5825	20	102	5825.000	5725 to 5850	Pass
				120	5825.000	5725 to 5850	Pass
				138	5825.000	5725 to 5850	Pass
			-30	120	5825.000	5725 to 5850	Pass
			-20	120	5825.000	5725 to 5850	Pass
			-10	120	5825.000	5725 to 5850	Pass
			0	120	5825.040	5725 to 5850	Pass
			10	120	5824.980	5725 to 5850	Pass
			30	120	5825.000	5725 to 5850	Pass
			40	120	5825.020	5725 to 5850	Pass
			50	120	5824.940	5725 to 5850	Pass

----- End of Report -----