



Annex for 5G Wi-Fi Band 3

Test Report No.: CTL2507222181-WF02

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FCCID: 2ASC7HD7000ELITE

1. Duty Cycle

1.1 Test Result

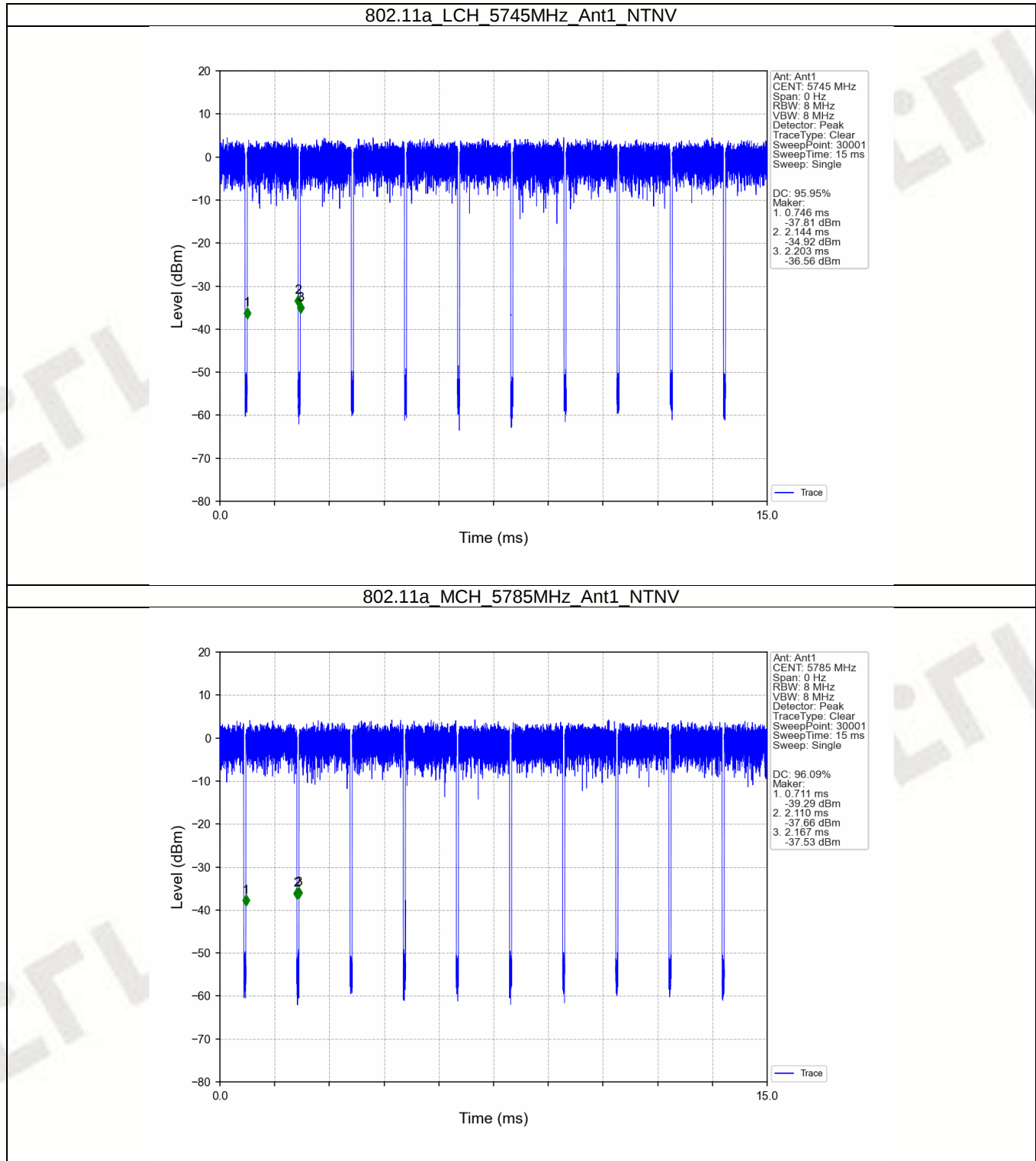
1.1.1 Ant1

Ant1									
Mode	TX Type	Frequency (MHz)	RU	RU Pos	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
802.11a	SISO	5745	/	/	1.398	1.457	95.95	0.18	0.03
		5785	/	/	1.399	1.456	96.09	0.17	0.03
		5825	/	/	1.399	1.457	96.02	0.18	0.03
802.11n (HT20)	SISO	5745	/	/	1.311	1.369	95.76	0.19	0.03
		5785	/	/	1.311	1.369	95.76	0.19	0.03
		5825	/	/	1.311	1.369	95.76	0.19	0.03
802.11n (HT40)	SISO	5755	/	/	0.650	0.708	91.81	0.37	0.03
		5795	/	/	0.650	0.708	91.81	0.37	0.06
802.11ac (VHT20)	SISO	5745	/	/	0.687	0.745	92.21	0.35	0.04
		5785	/	/	0.686	0.744	92.20	0.35	0.04
		5825	/	/	0.687	0.745	92.21	0.35	0.03
802.11ac (VHT40)	SISO	5755	/	/	0.354	0.412	85.92	0.66	0.03
		5795	/	/	0.354	0.412	85.92	0.66	0.00
802.11ax (HEW20)	SISO	5745	SU	/	0.987	3.489	28.29	5.48	0.03
		5785	SU	/	0.987	3.490	28.28	5.49	0.04
		5825	SU	/	0.987	3.490	28.28	5.49	0.04
802.11ax (HEW40)	SISO	5755	SU	/	0.521	3.023	17.23	7.64	0.01
		5795	SU	/	0.521	3.023	17.23	7.64	0.01

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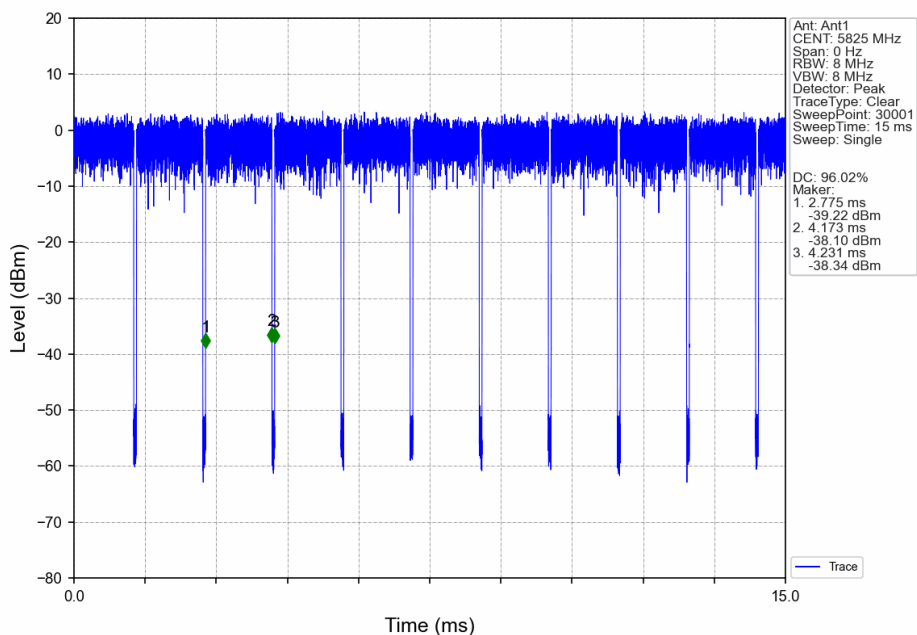
1.2 Test Graph

1.2.1 Ant1

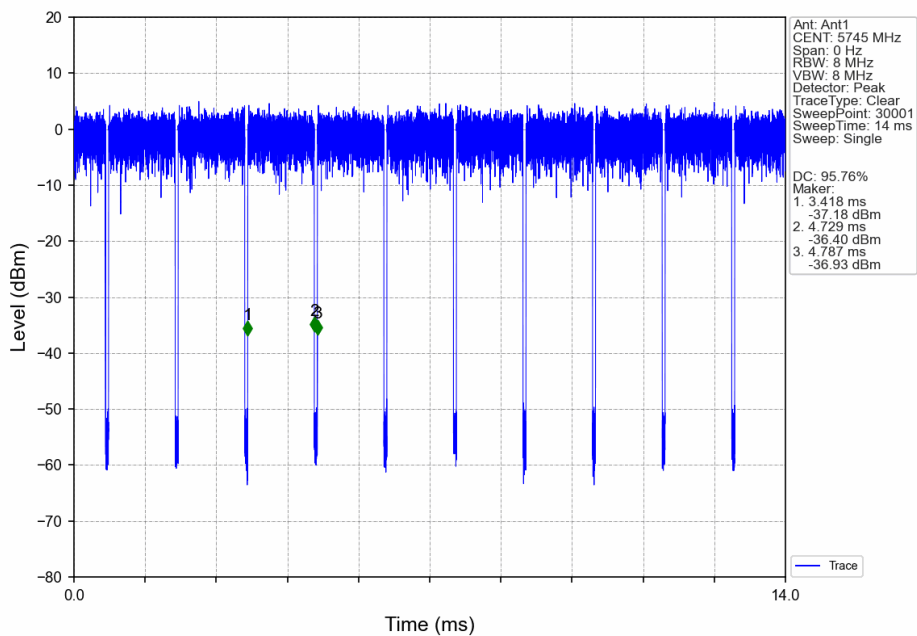


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802.11a_HCH_5825MHz_Ant1_NTNV

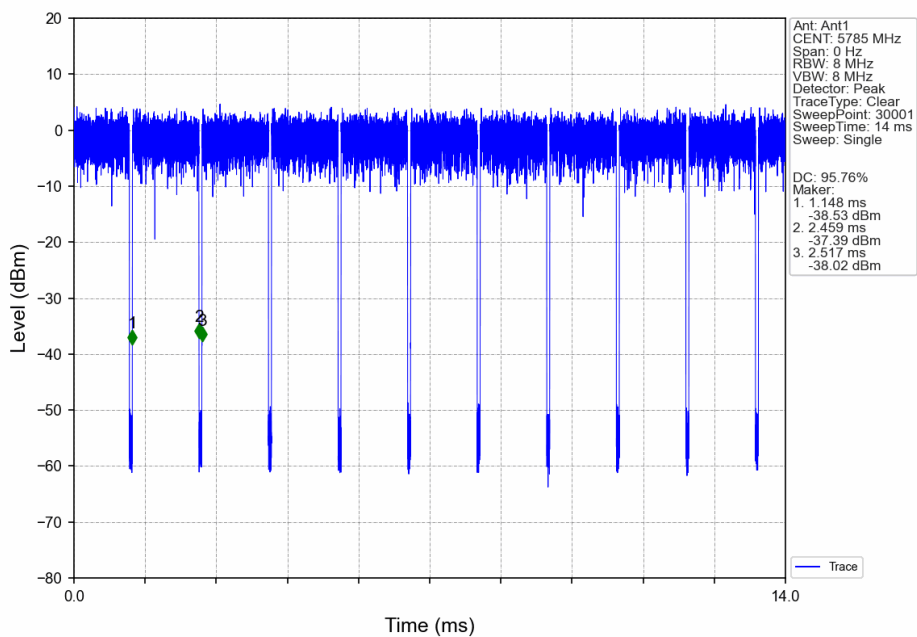


802.11n(HT20)_LCH_5745MHz_Ant1_NTNV

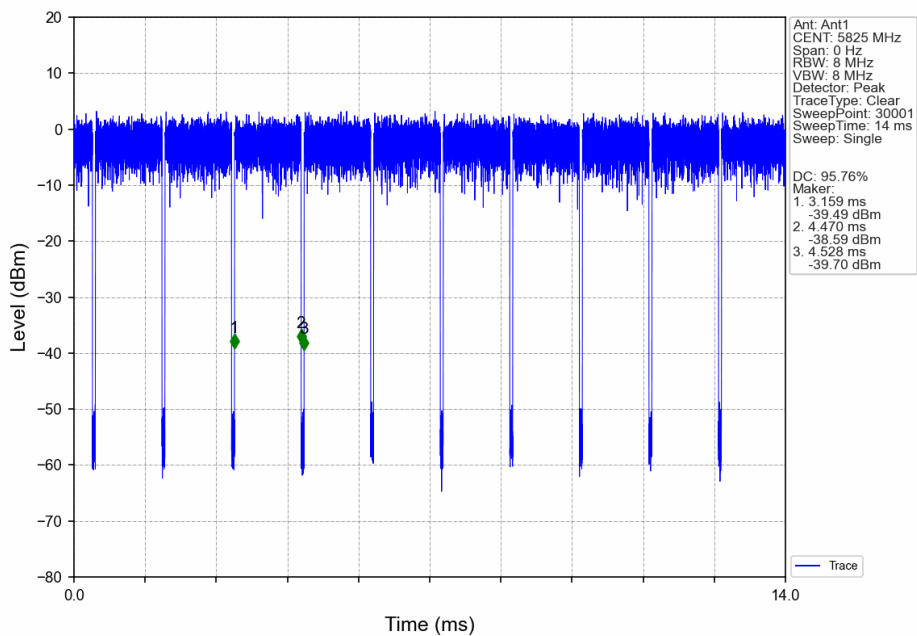


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802.11n(HT20) MCH 5785MHz_Ant1_NTNV

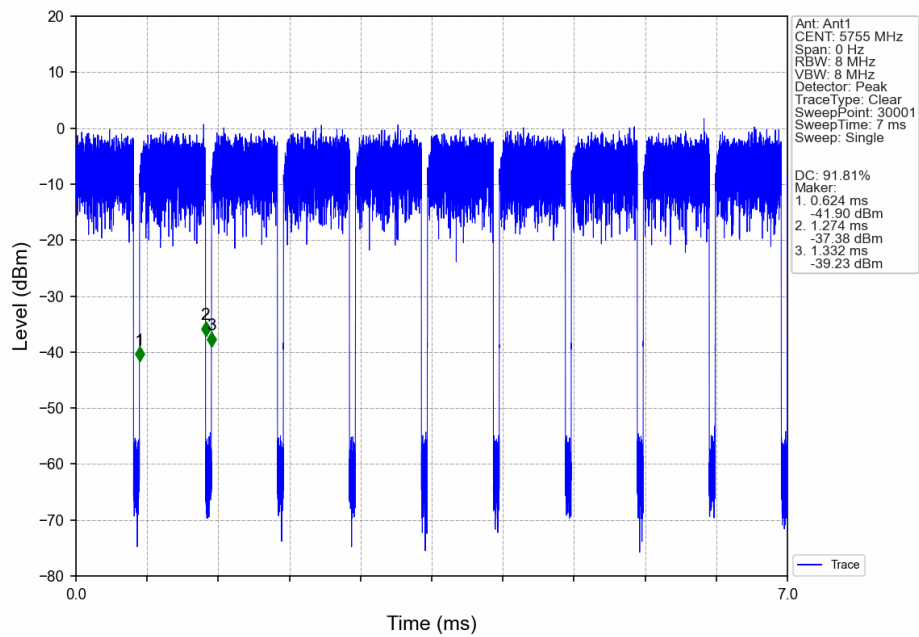


802.11n(HT20) HCH 5825MHz_Ant1_NTNV

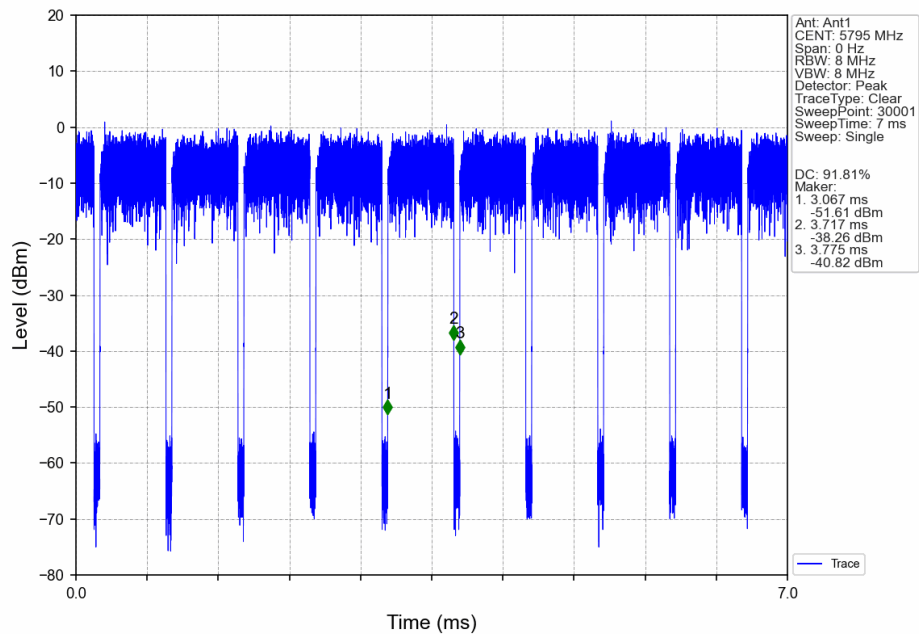


FCCID: 2ASC7HD7000ELITE

802.11n(HT40)_LCH_5755MHz_Ant1_NTNV

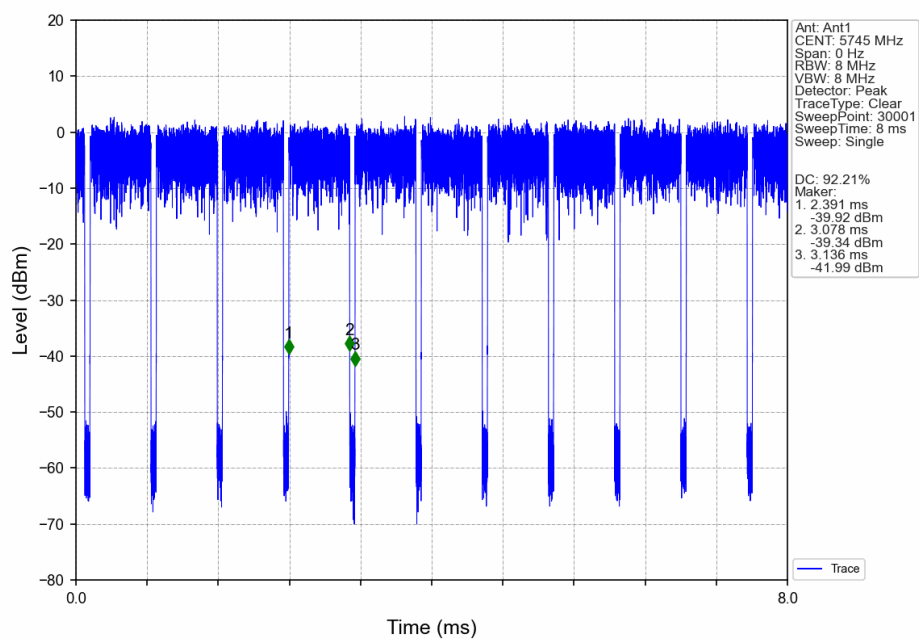


802.11n(HT40)_HCH_5795MHz_Ant1_NTNV

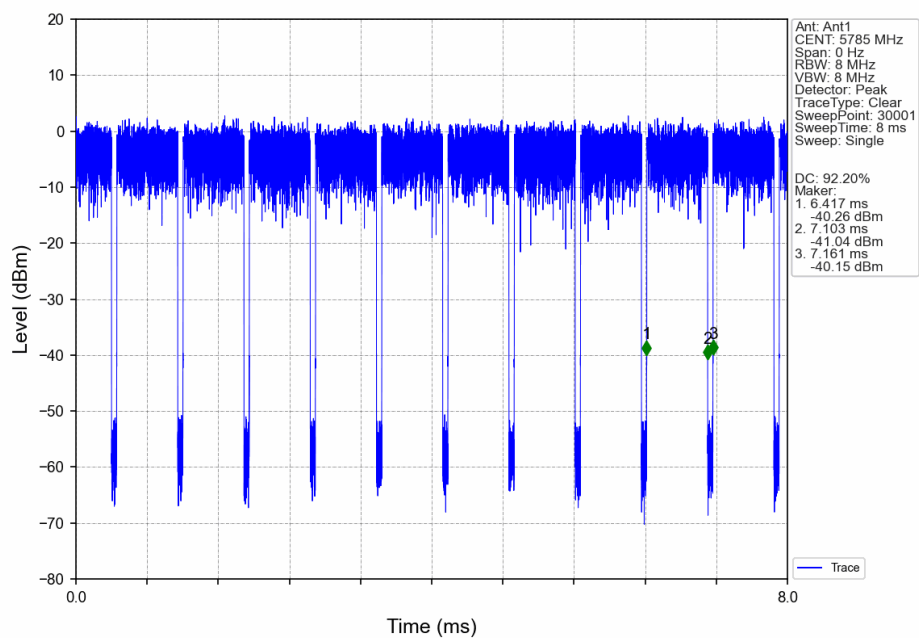


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802.11ac(VHT20)_LCH_5745MHz_Ant1_NTNV

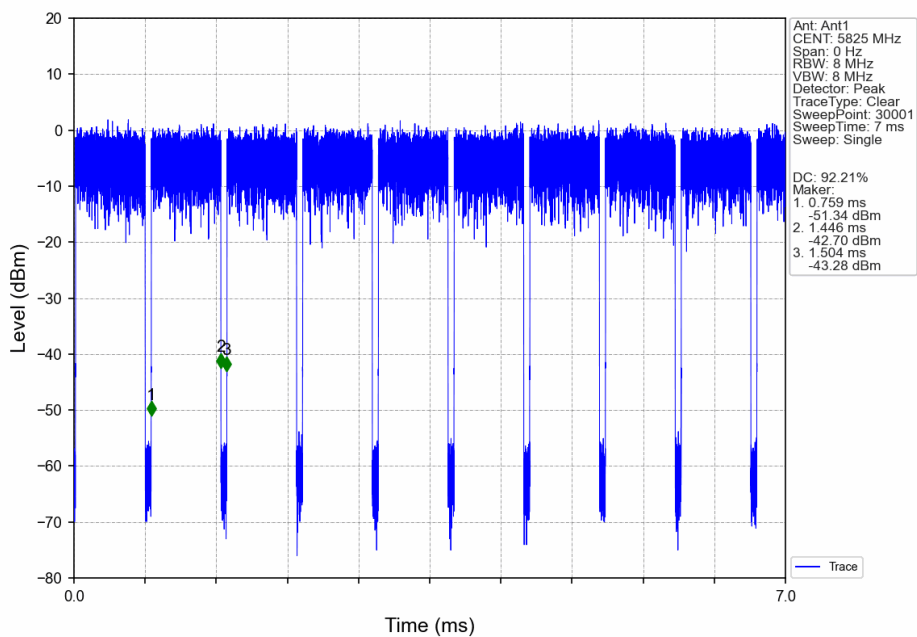


802.11ac(VHT20)_MCH_5785MHz_Ant1_NTNV

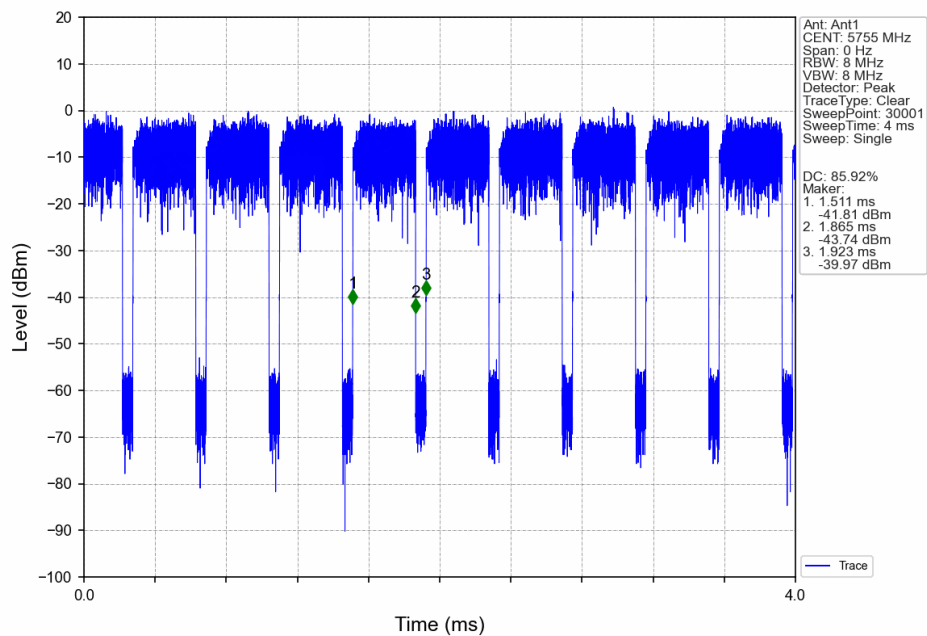


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802.11ac(VHT20) HCH 5825MHz Ant1_NTNV

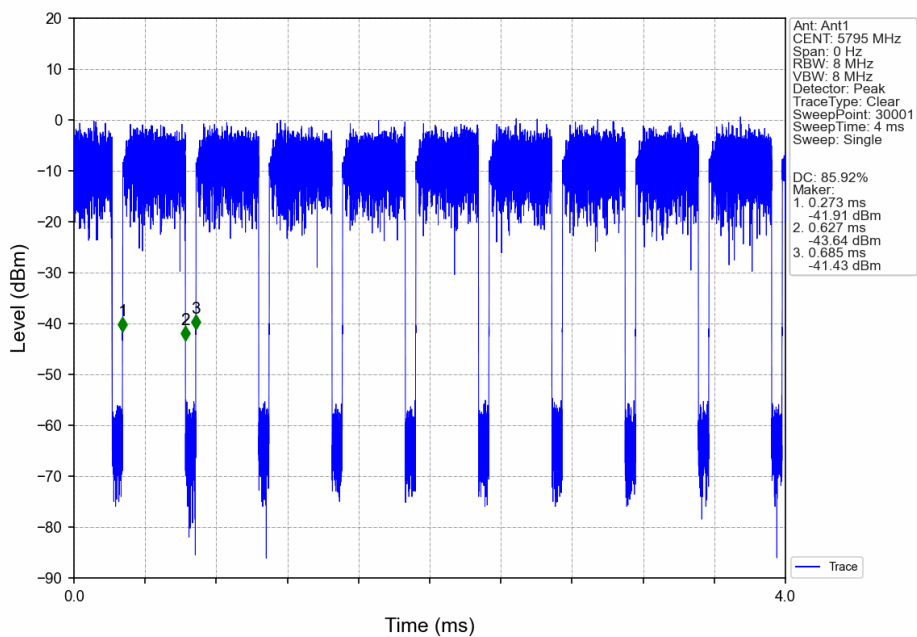


802.11ac(VHT40) LCH 5755MHz Ant1_NTNV

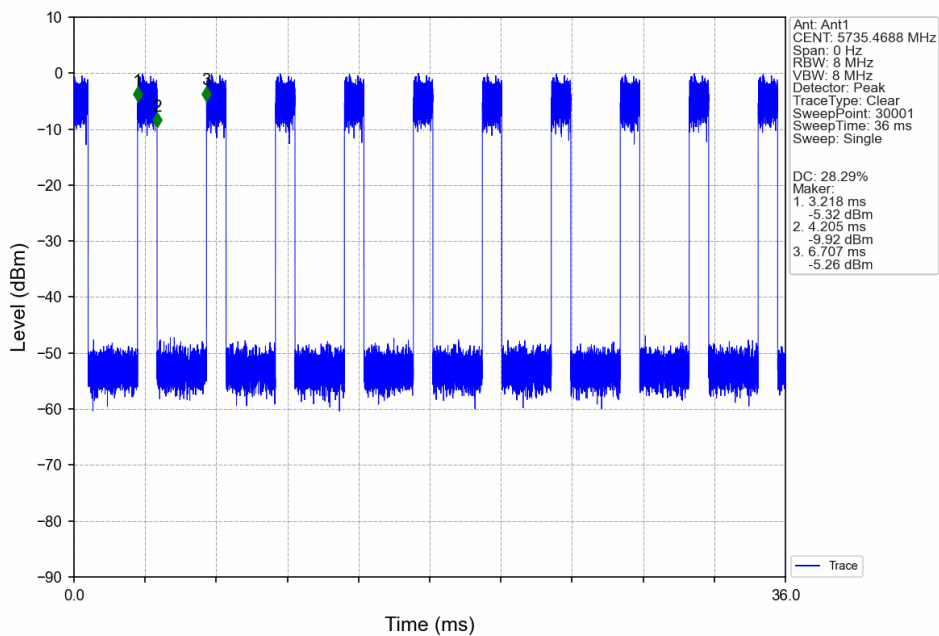


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802.11ac(VHT40) HCH_5795MHz_Ant1_NTNV

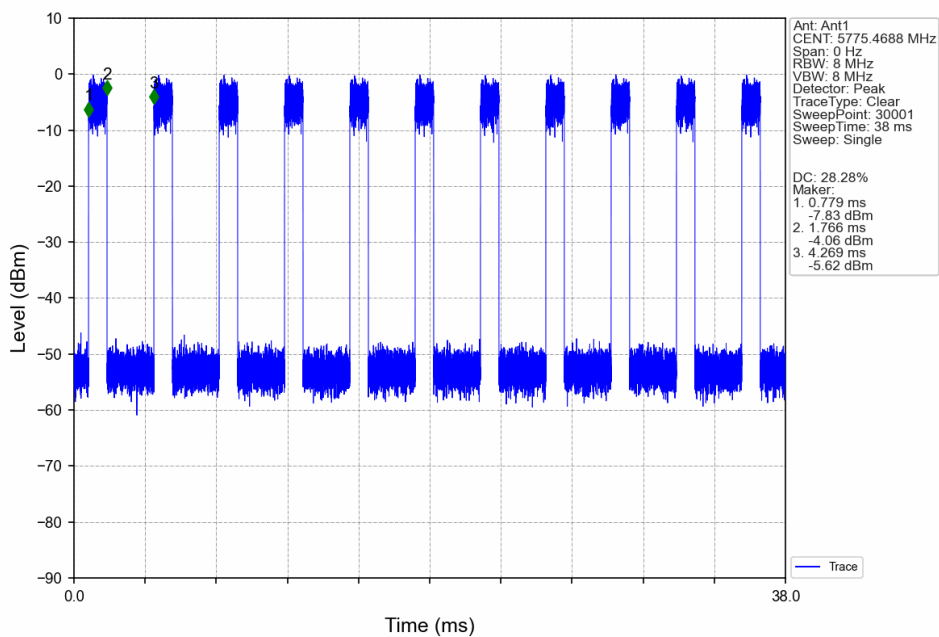


802.11ax(HEW20) LCH_5745MHz_SU_ / Ant1_NTNV

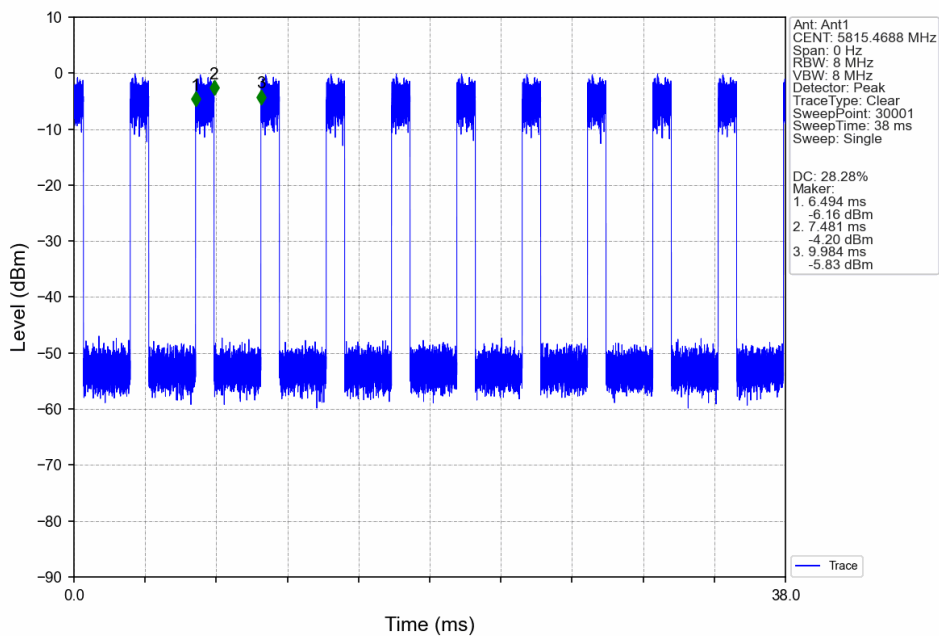


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802.11ax(HEW20)_MCH_5785MHz_SU_ / Ant1_NTNV

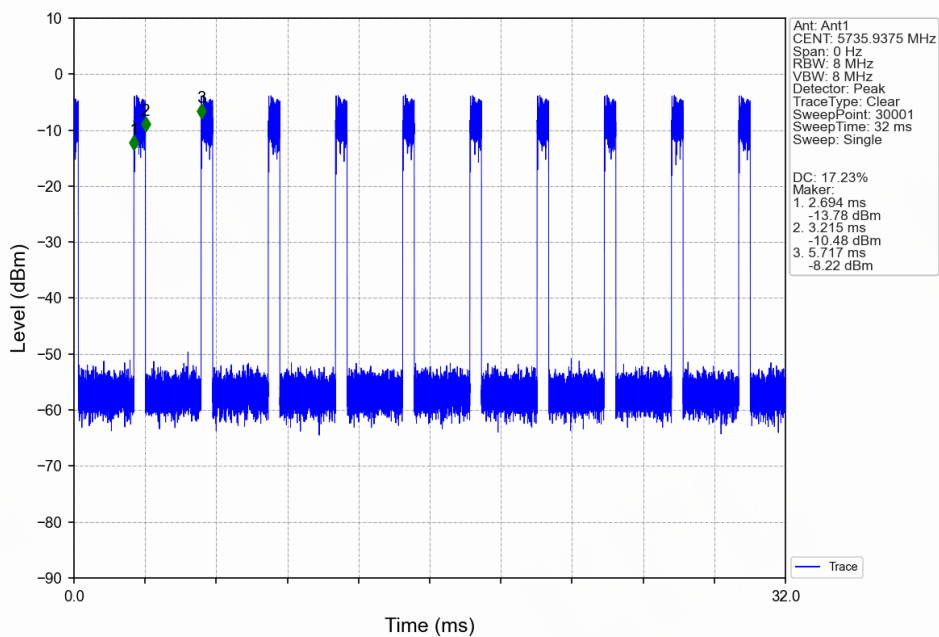


802.11ax(HEW20)_HCH_5825MHz_SU_ / Ant1_NTNV

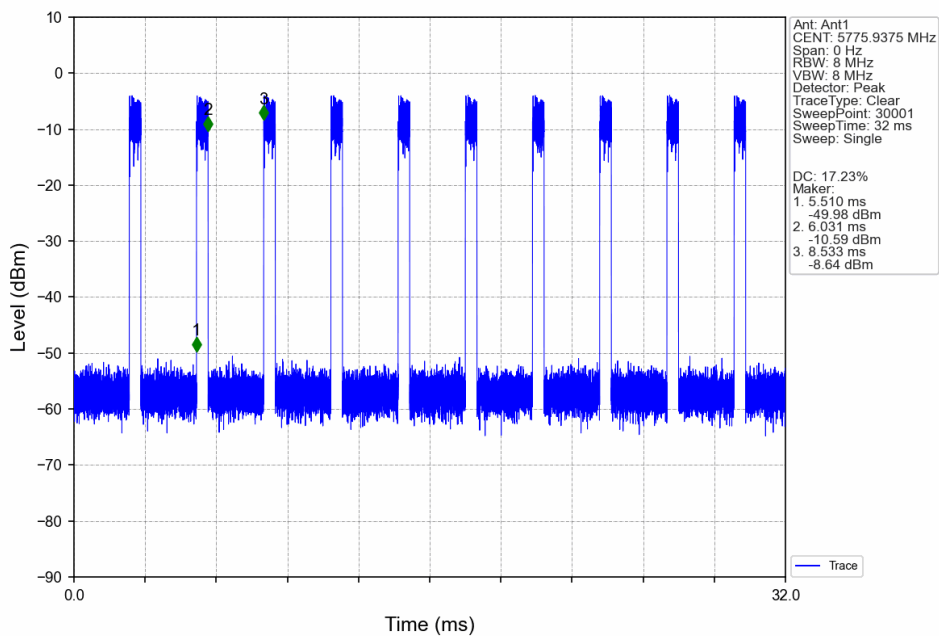


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802.11ax(HEW40)_LCH_5755MHz_SU_/_Ant1_NTNV



802.11ax(HEW40)_HCH_5795MHz_SU_/_Ant1_NTNV



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2. Bandwidth

2.1 Test Result

2.1.1 OBW

Mode	TX Type	Frequency (MHz)	RU	RU Pos	ANT	99% Occupied Bandwidth (MHz)		Verdict
						Result	Limit	
802.11a	SISO	5745	/	/	1	17.167	/	Pass
		5785	/	/	1	17.049	/	Pass
		5825	/	/	1	17.157	/	Pass
802.11n (HT20)	SISO	5745	/	/	1	17.972	/	Pass
		5785	/	/	1	18.022	/	Pass
		5825	/	/	1	18.020	/	Pass
802.11n (HT40)	SISO	5755	/	/	1	36.343	/	Pass
		5795	/	/	1	36.191	/	Pass
802.11ac (VHT20)	SISO	5745	/	/	1	18.037	/	Pass
		5785	/	/	1	17.984	/	Pass
		5825	/	/	1	18.020	/	Pass
802.11ac (VHT40)	SISO	5755	/	/	1	36.315	/	Pass
		5795	/	/	1	36.354	/	Pass
802.11ax (HEW20)	SISO	5745	SU	/	1	19.006	/	Pass
		5785	SU	/	1	19.034	/	Pass
		5825	SU	/	1	19.014	/	Pass
802.11ax (HEW40)	SISO	5755	SU	/	1	38.031	/	Pass
		5795	SU	/	1	37.879	/	Pass

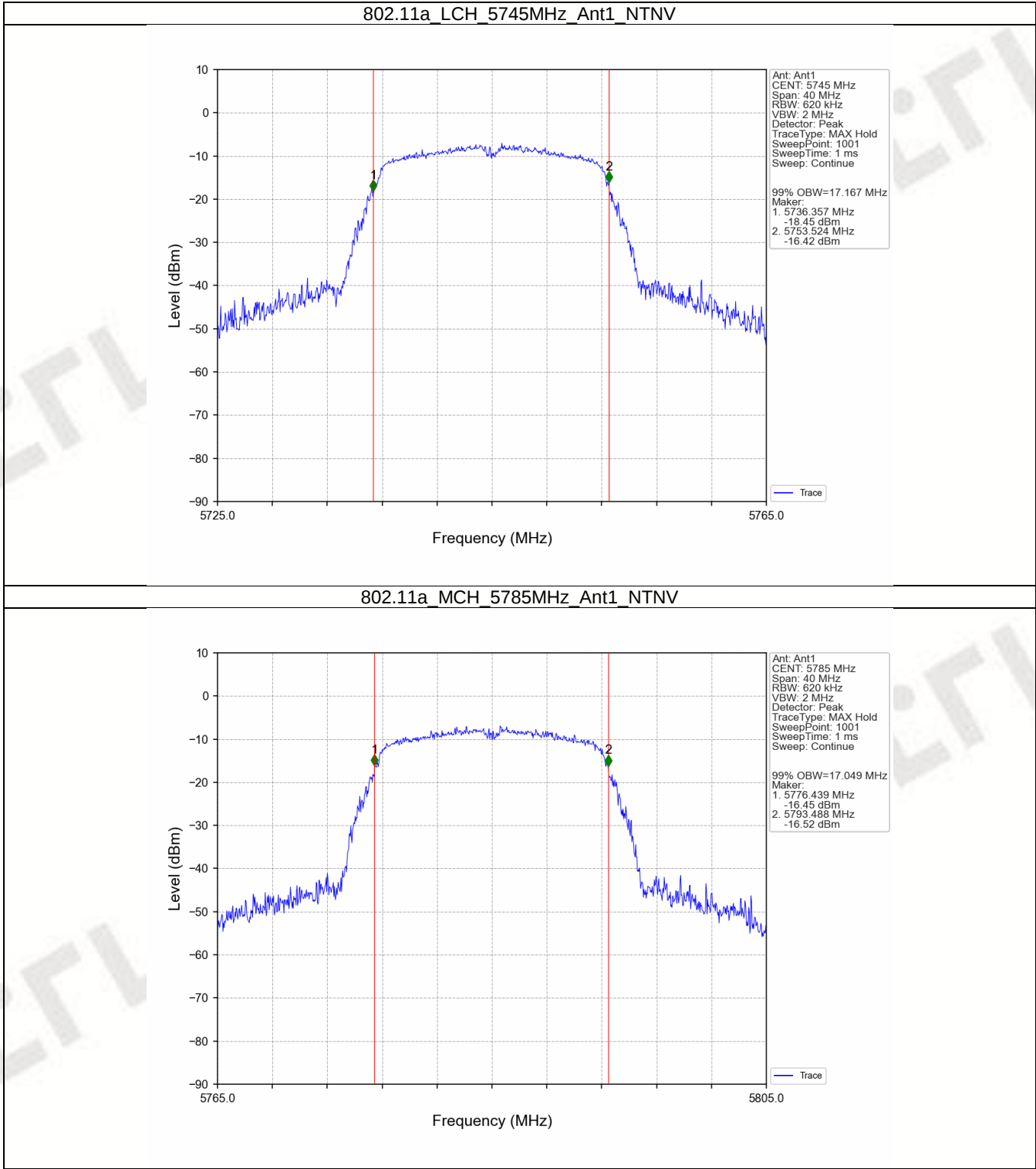
2.1.2 6dB BW

Mode	TX Type	Frequency (MHz)	RU	RU Pos	ANT	6dB Bandwidth (MHz)		Verdict
						Result	Limit	
802.11a	SISO	5745	/	/	1	15.165	>=0.5	Pass
		5785	/	/	1	14.125	>=0.5	Pass
		5825	/	/	1	15.174	>=0.5	Pass
802.11n (HT20)	SISO	5745	/	/	1	15.052	>=0.5	Pass
		5785	/	/	1	15.118	>=0.5	Pass
		5825	/	/	1	14.594	>=0.5	Pass
802.11n (HT40)	SISO	5755	/	/	1	35.115	>=0.5	Pass
		5795	/	/	1	35.142	>=0.5	Pass
802.11ac (VHT20)	SISO	5745	/	/	1	15.141	>=0.5	Pass
		5785	/	/	1	15.119	>=0.5	Pass
		5825	/	/	1	15.088	>=0.5	Pass
802.11ac (VHT40)	SISO	5755	/	/	1	35.066	>=0.5	Pass
		5795	/	/	1	35.136	>=0.5	Pass
802.11ax (HEW20)	SISO	5745	SU	/	1	17.889	>=0.5	Pass
		5785	SU	/	1	18.215	>=0.5	Pass
		5825	SU	/	1	18.994	>=0.5	Pass
802.11ax (HEW40)	SISO	5755	SU	/	1	37.250	>=0.5	Pass
		5795	SU	/	1	37.371	>=0.5	Pass

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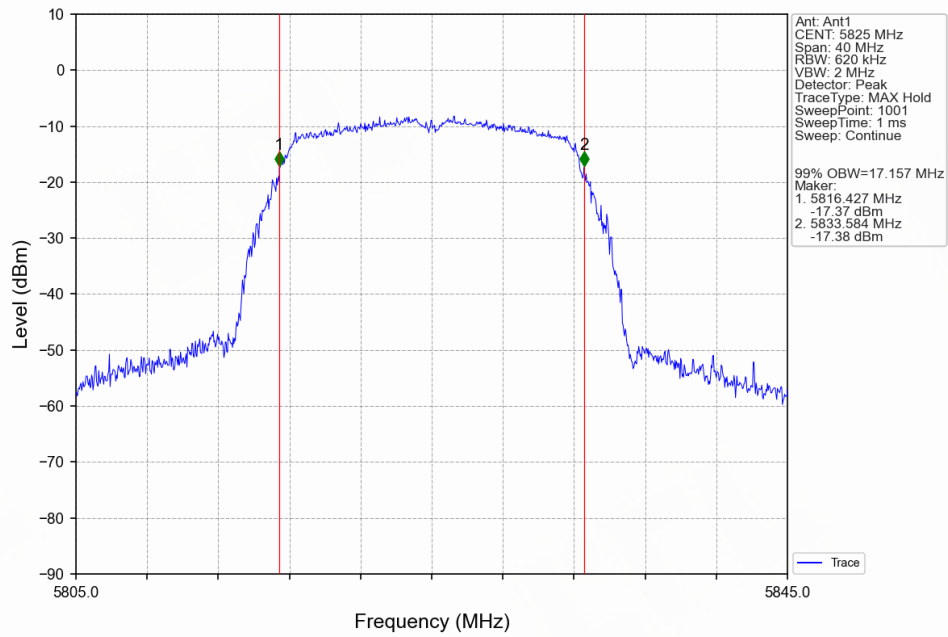
2.2 Test Graph

2.2.1 OBW

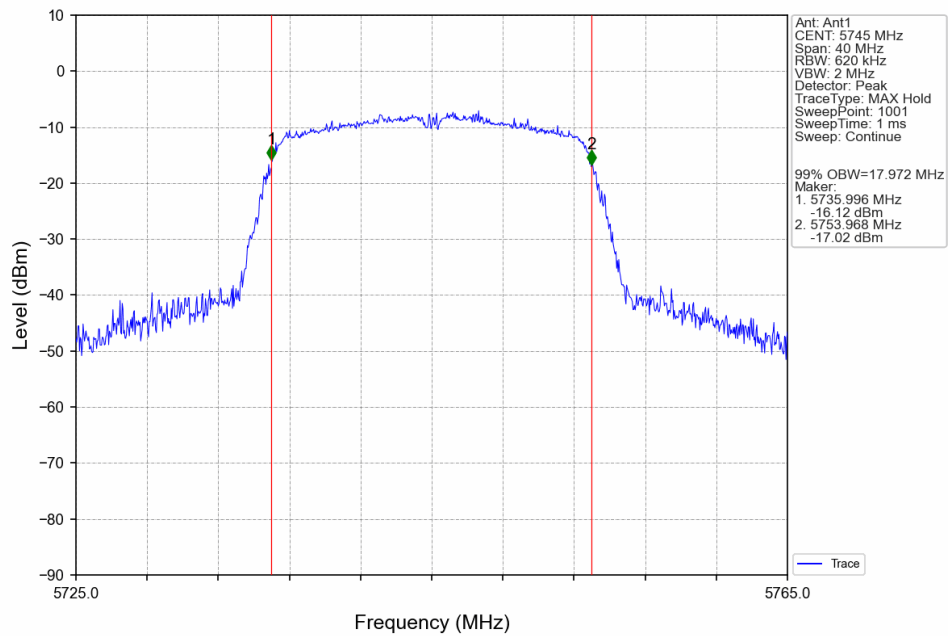


FCCID: 2ASC7HD7000ELITE

802.11a_HCH_5825MHz_Ant1_NTNV

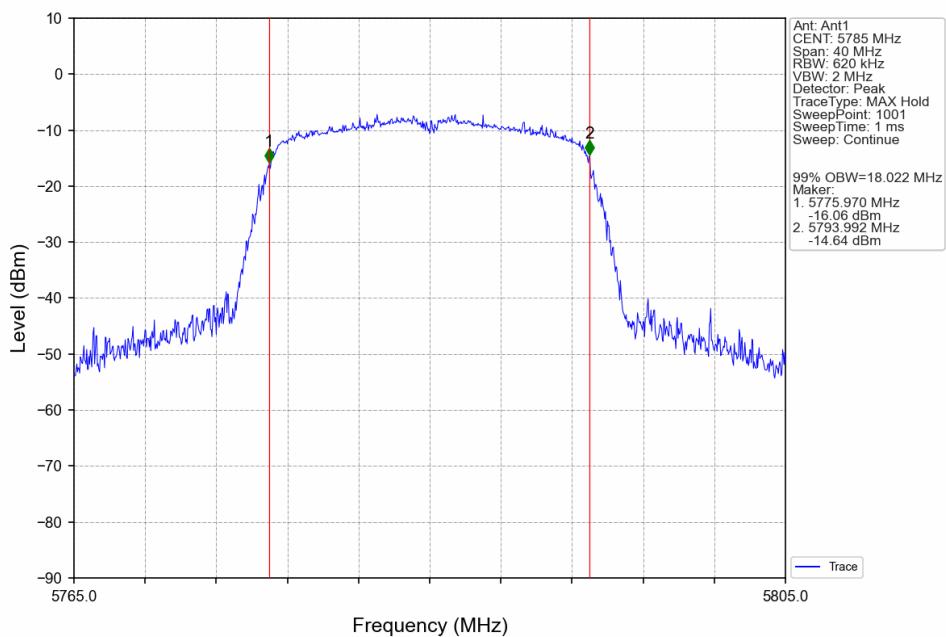


802.11n(HT20)_LCH_5745MHz_Ant1_NTNV

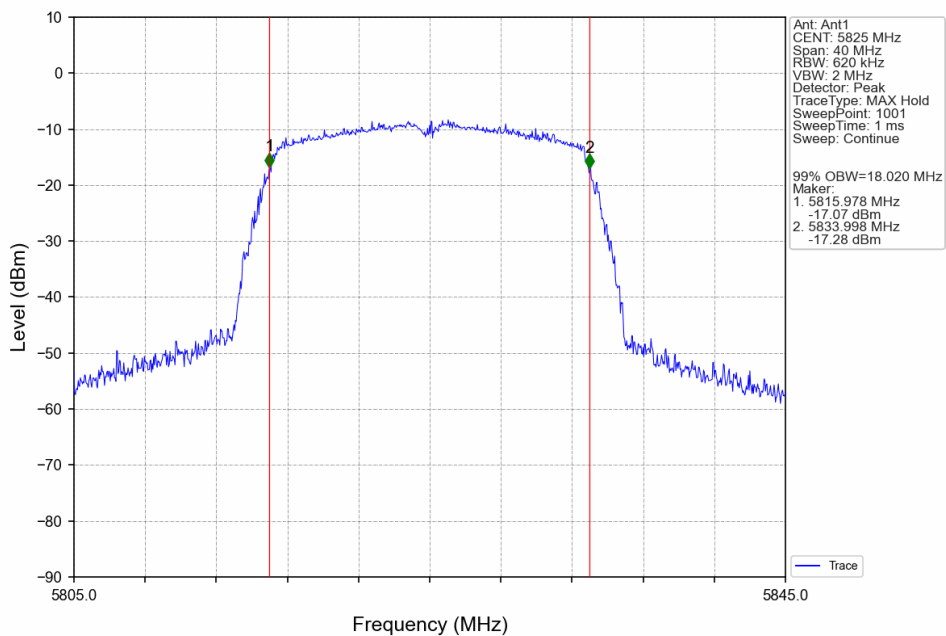


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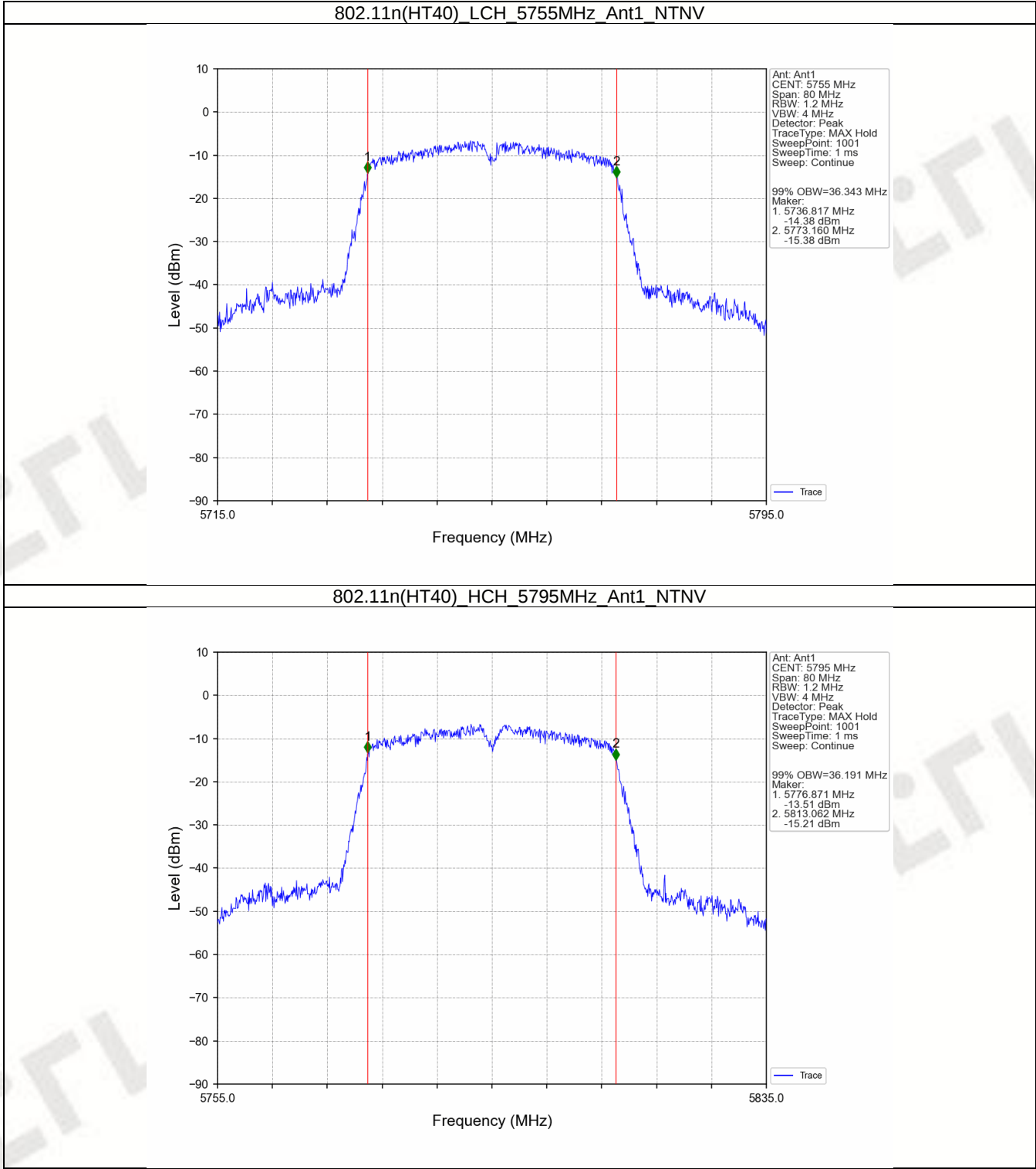
802.11n(HT20) MCH 5785MHz Ant1_NTNV



802.11n(HT20) HCH 5825MHz Ant1_NTNV

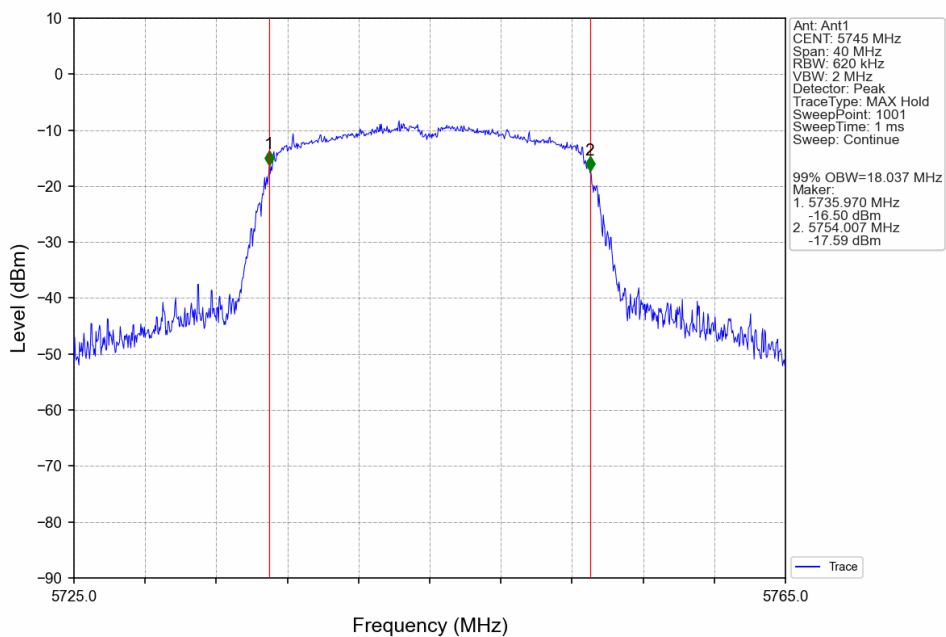


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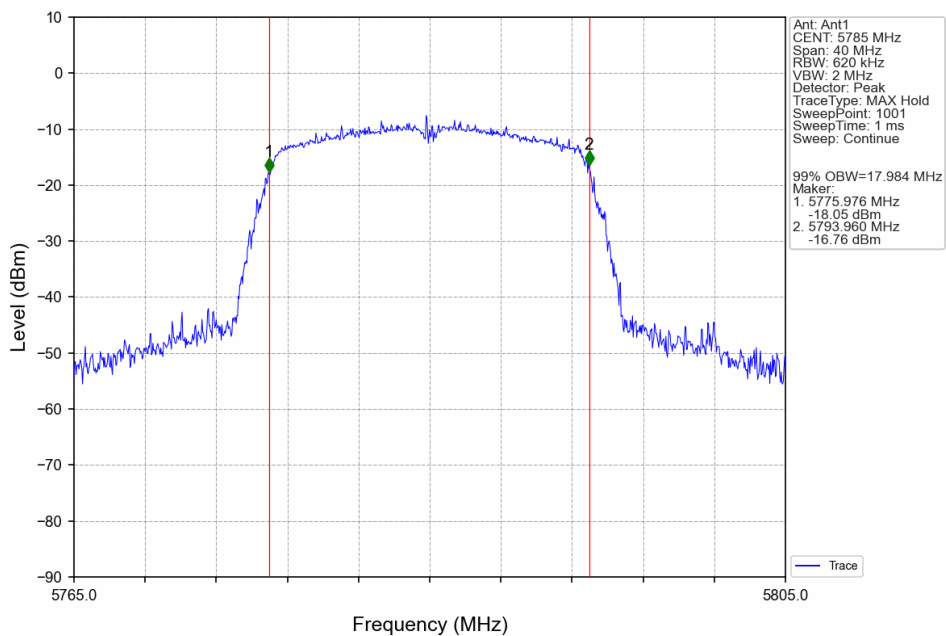


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802.11ac(VHT20)_LCH_5745MHz_Ant1_NTNV

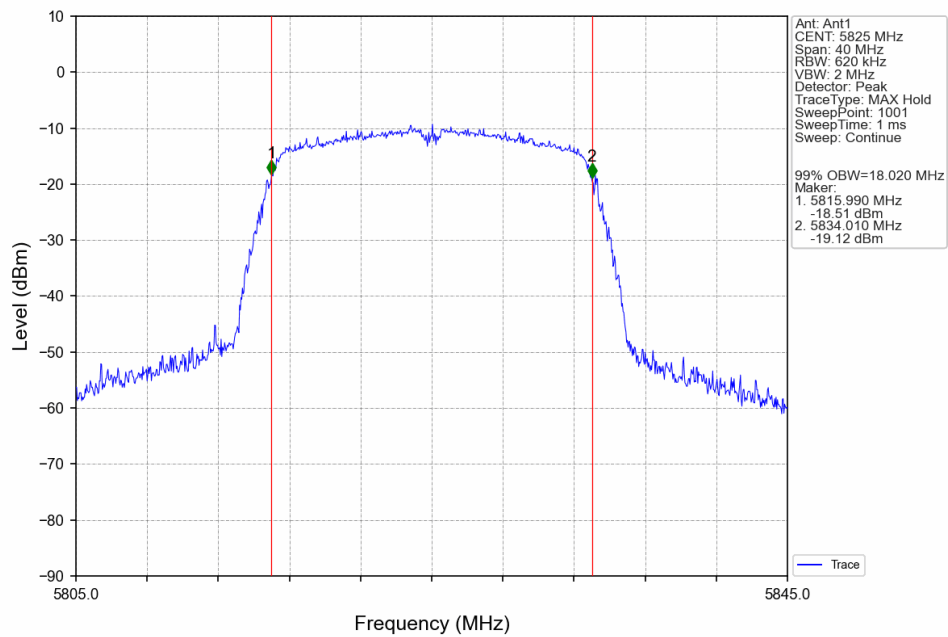


802.11ac(VHT20)_MCH_5785MHz_Ant1_NTNV

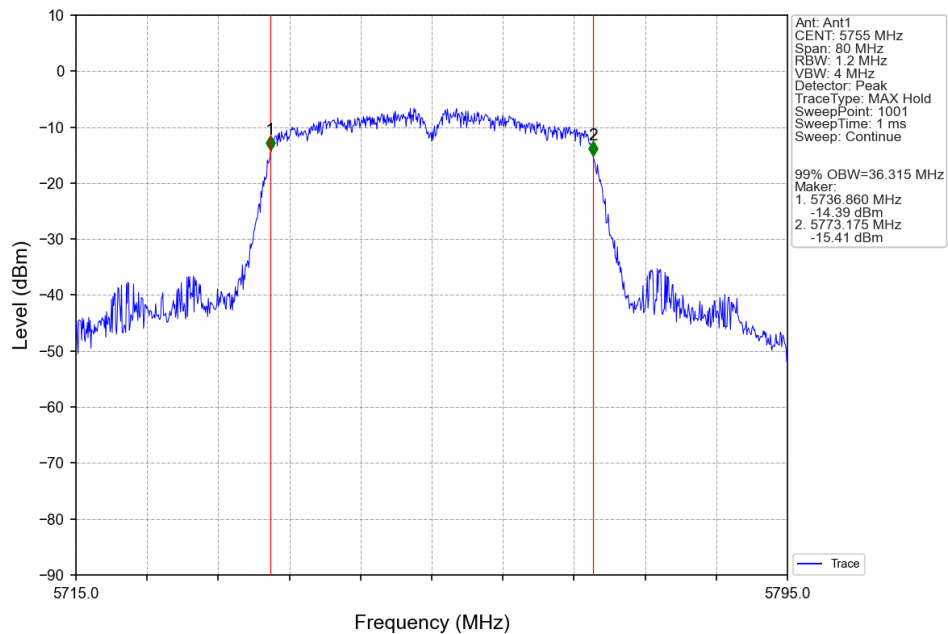


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802.11ac(VHT20) HCH 5825MHz Ant1_NTNV

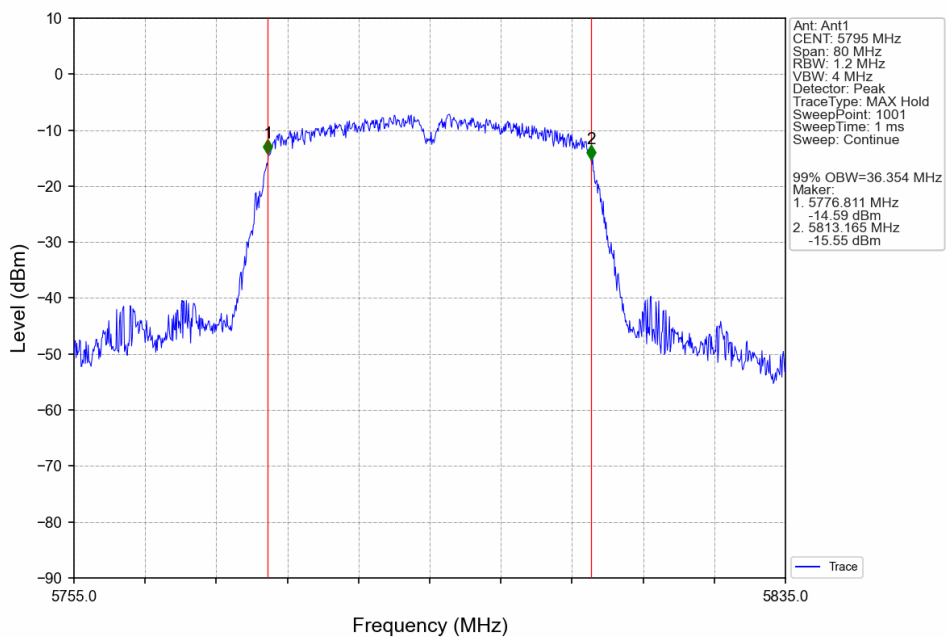


802.11ac(VHT40) LCH 5755MHz Ant1_NTNV

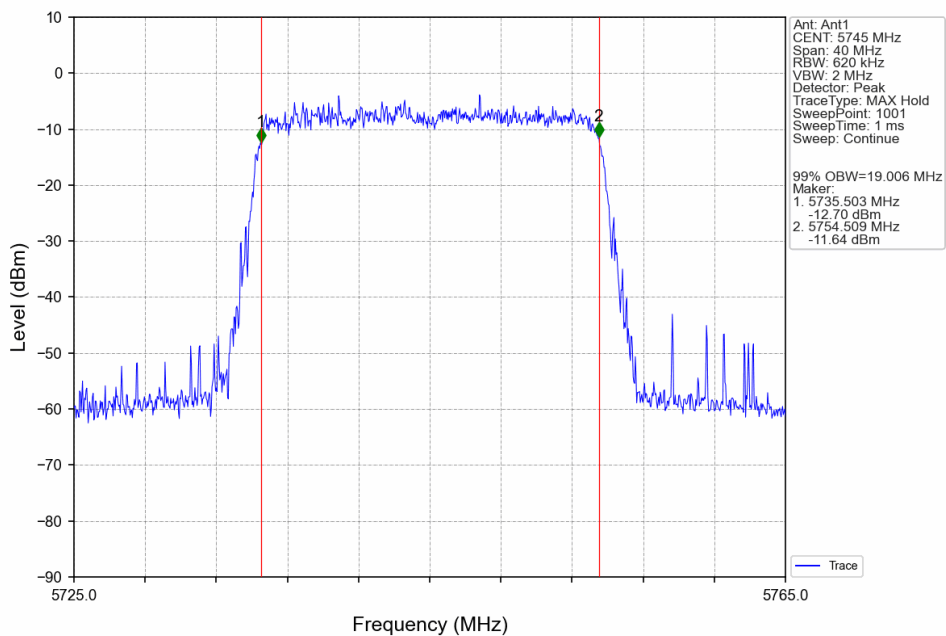


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802.11ac(VHT40) HCH 5795MHz Ant1_NTNV

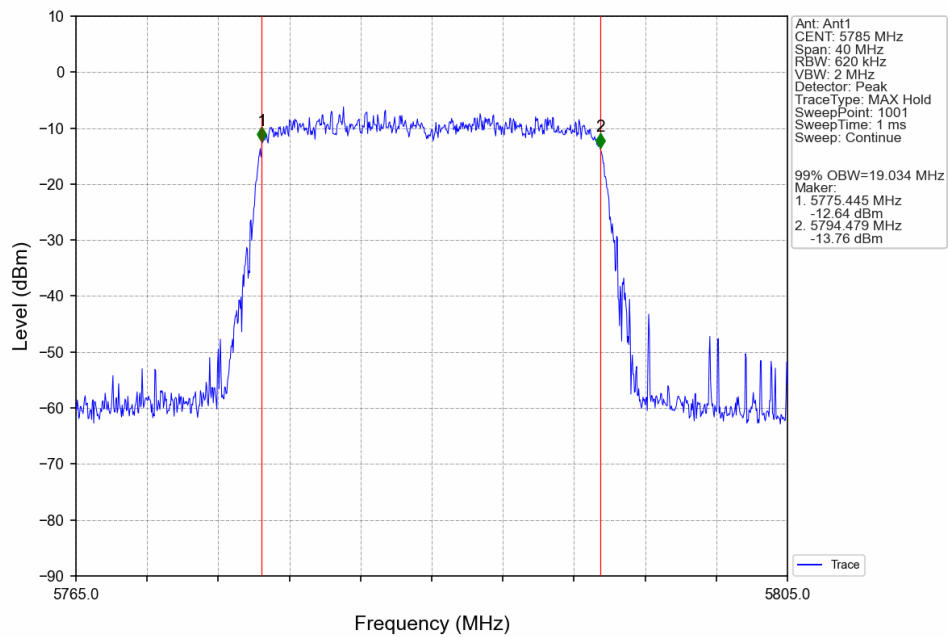


802.11ax(HEW20) LCH 5745MHz_SU_ / Ant1_NTNV

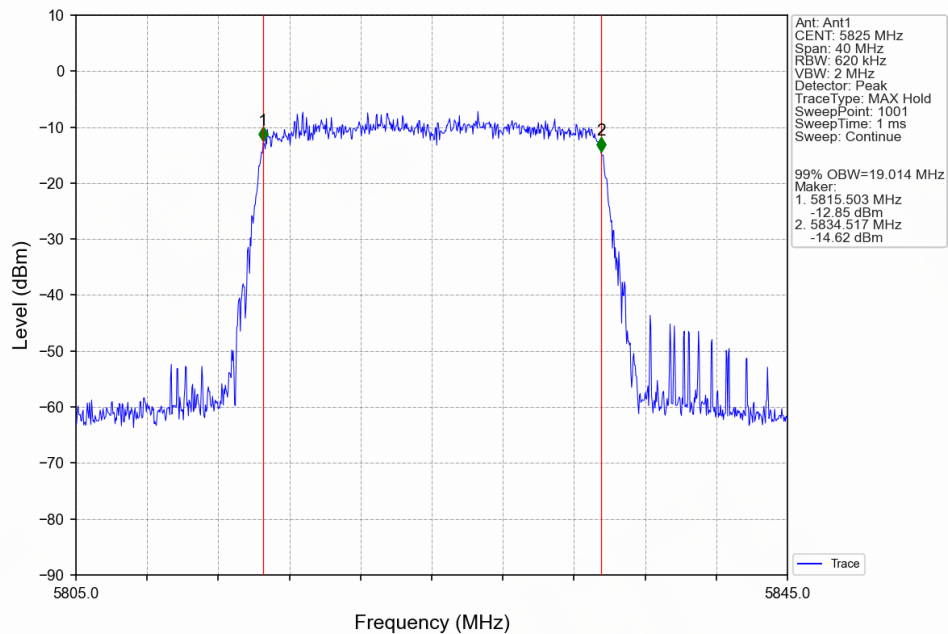


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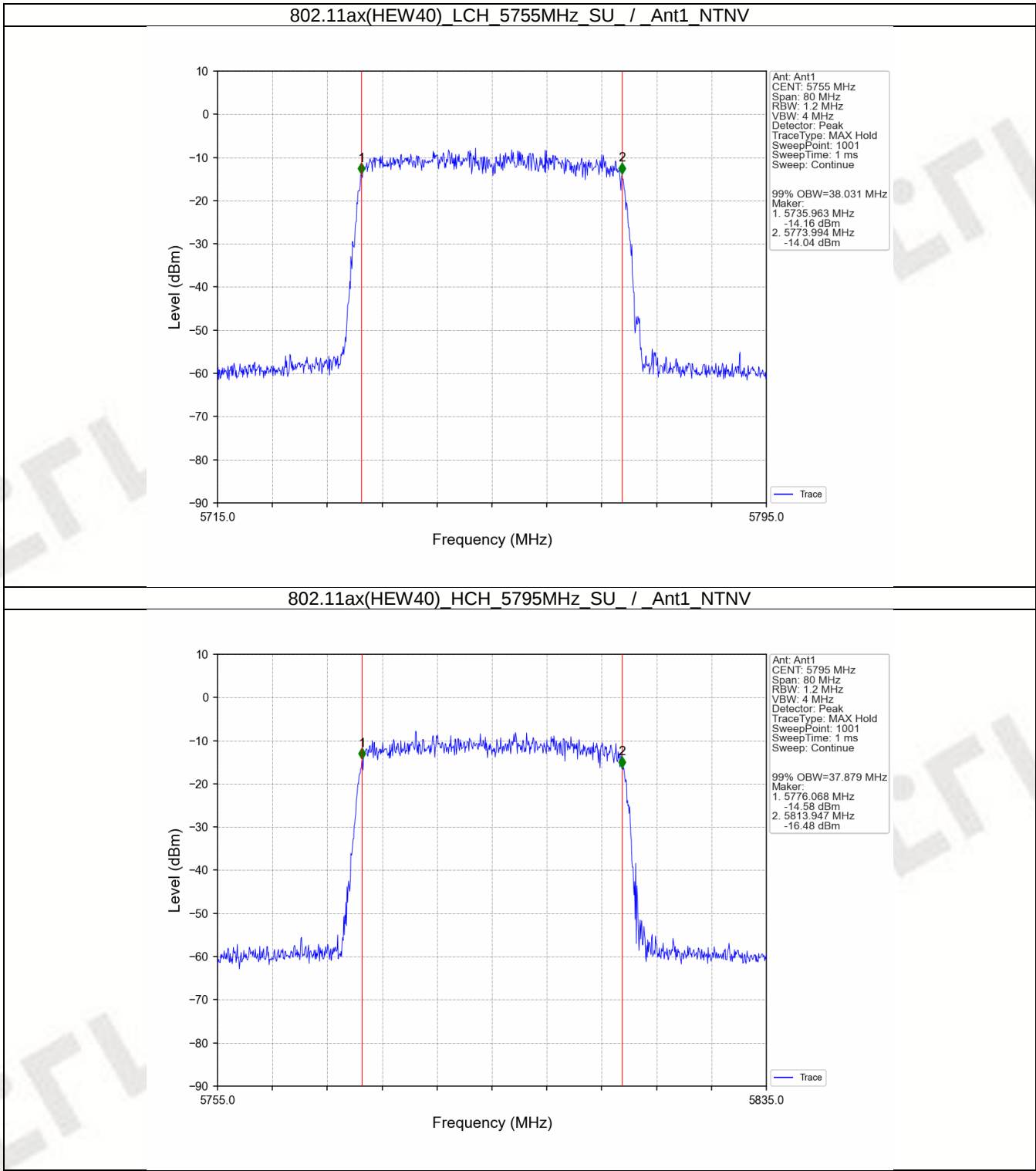
802.11ax(HEW20)_MCH_5785MHz_SU_ / Ant1_NTNV



802.11ax(HEW20)_HCH_5825MHz_SU_ / Ant1_NTNV

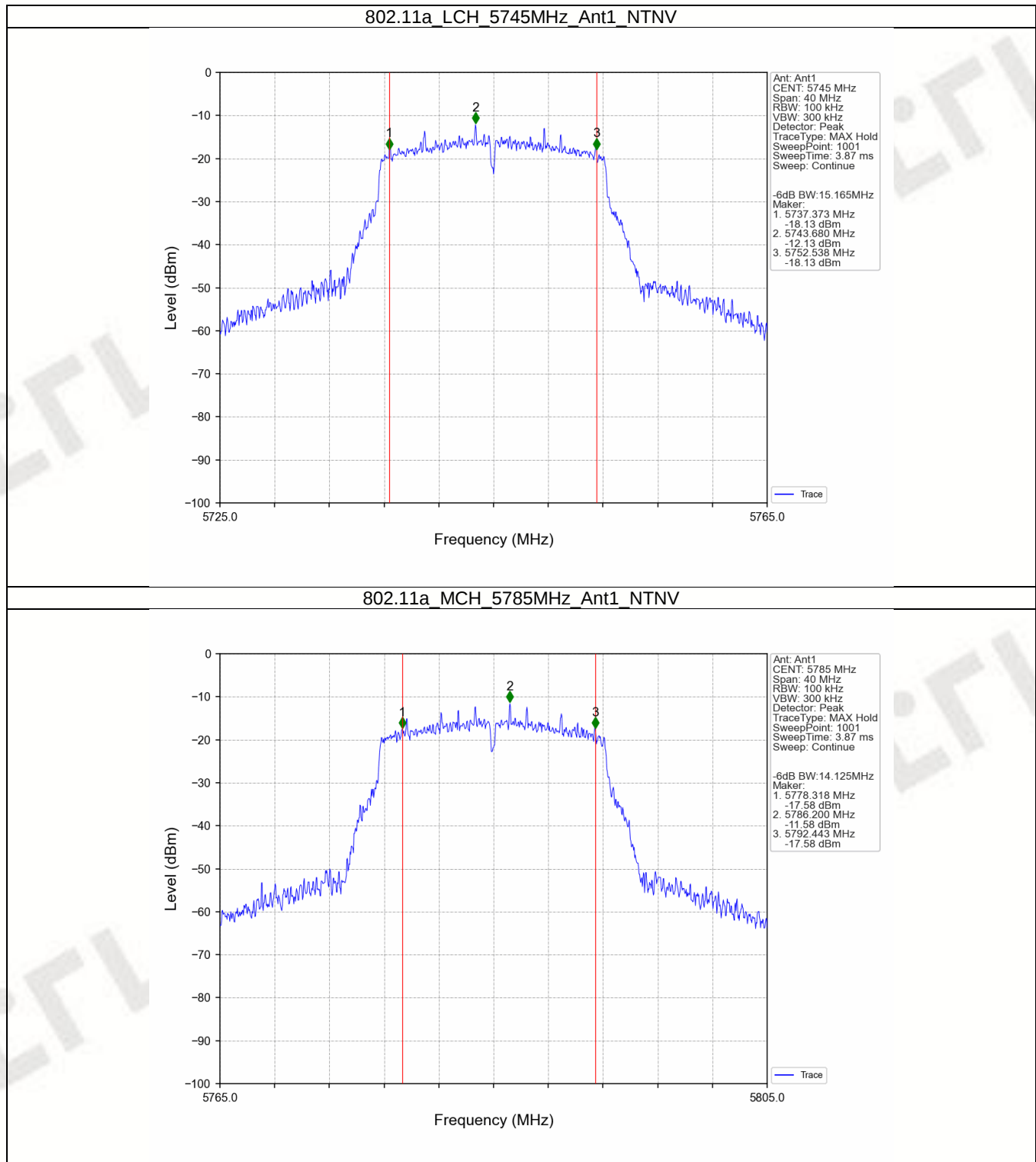


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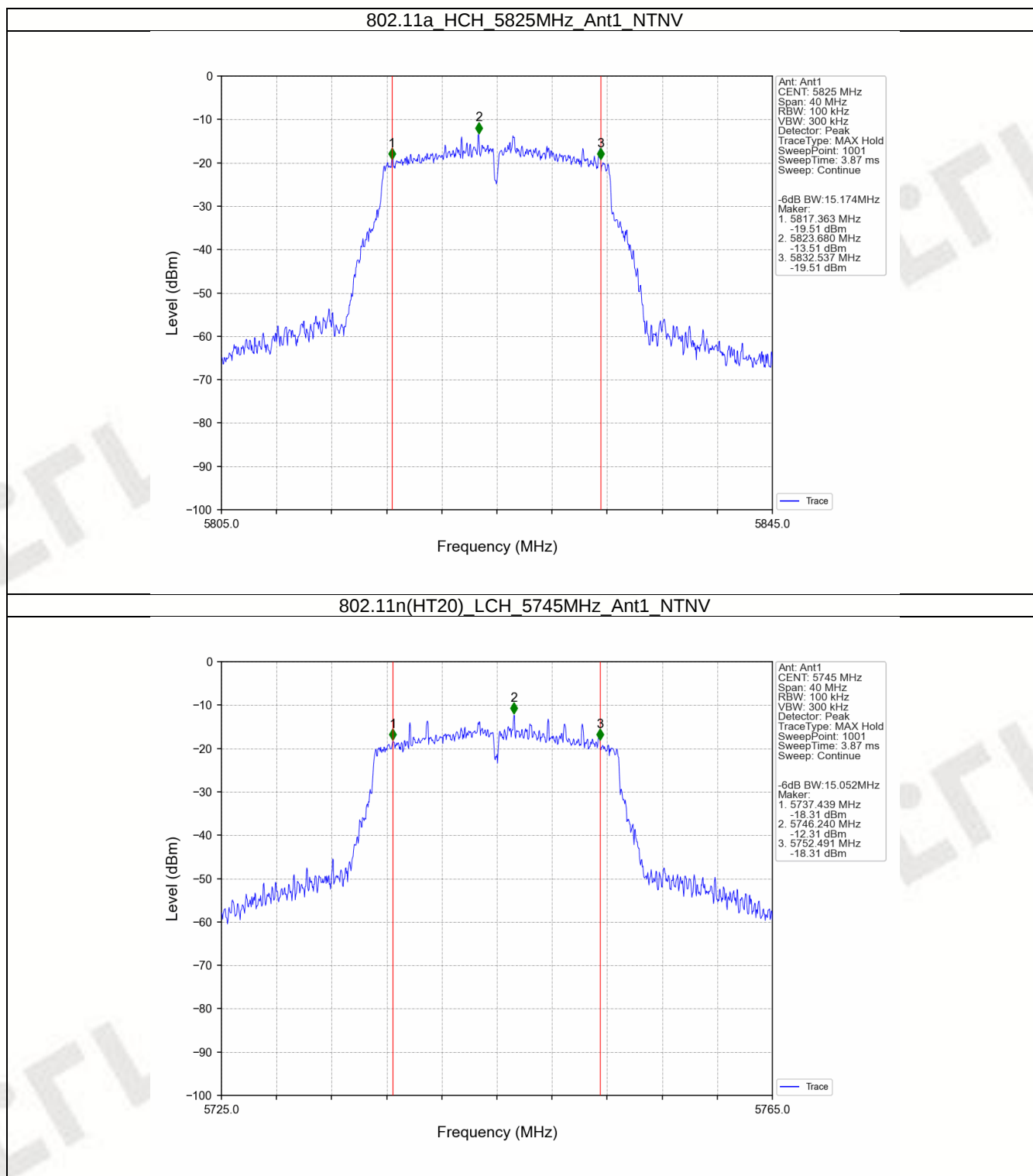


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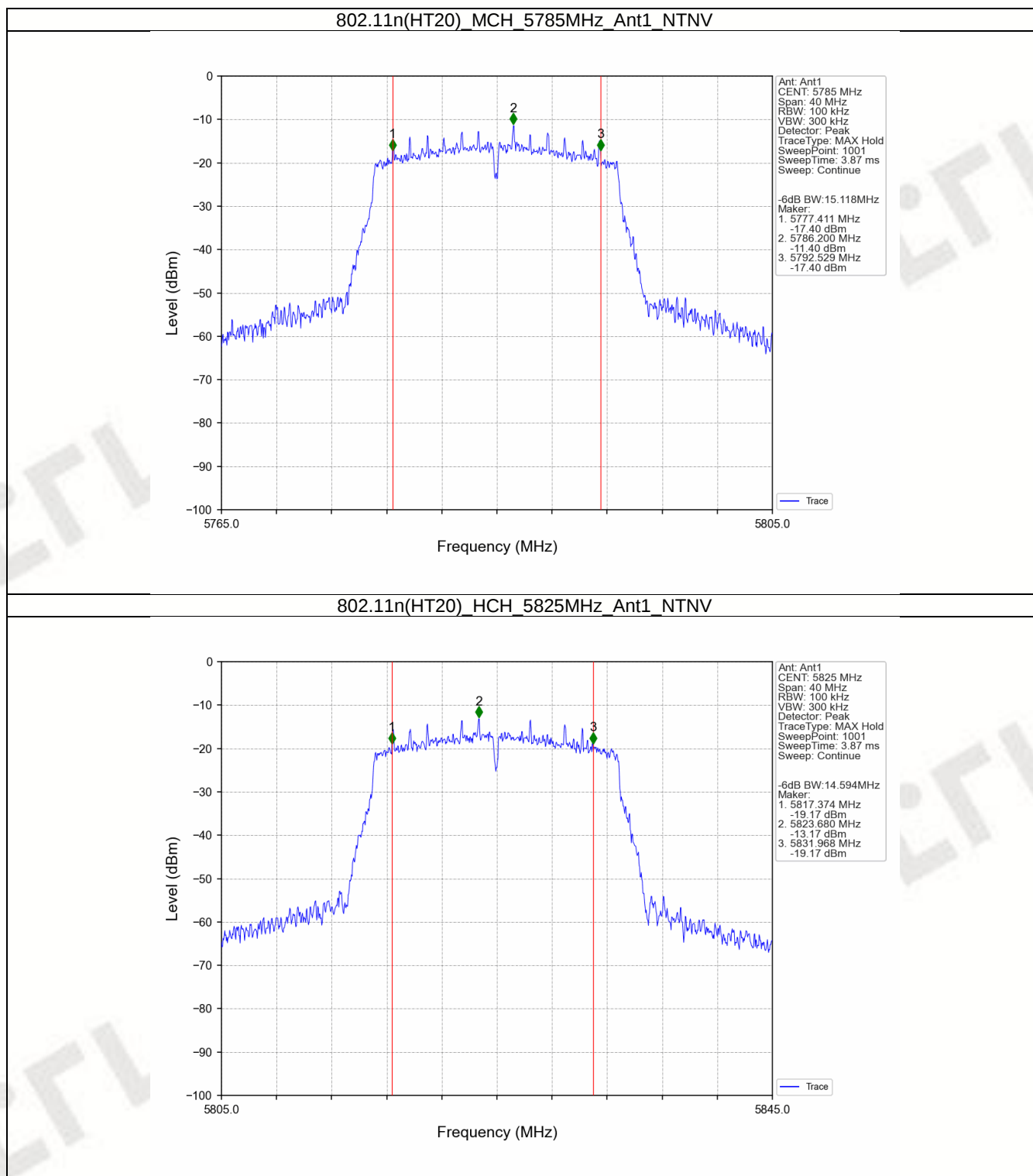
2.2.2 6dB BW



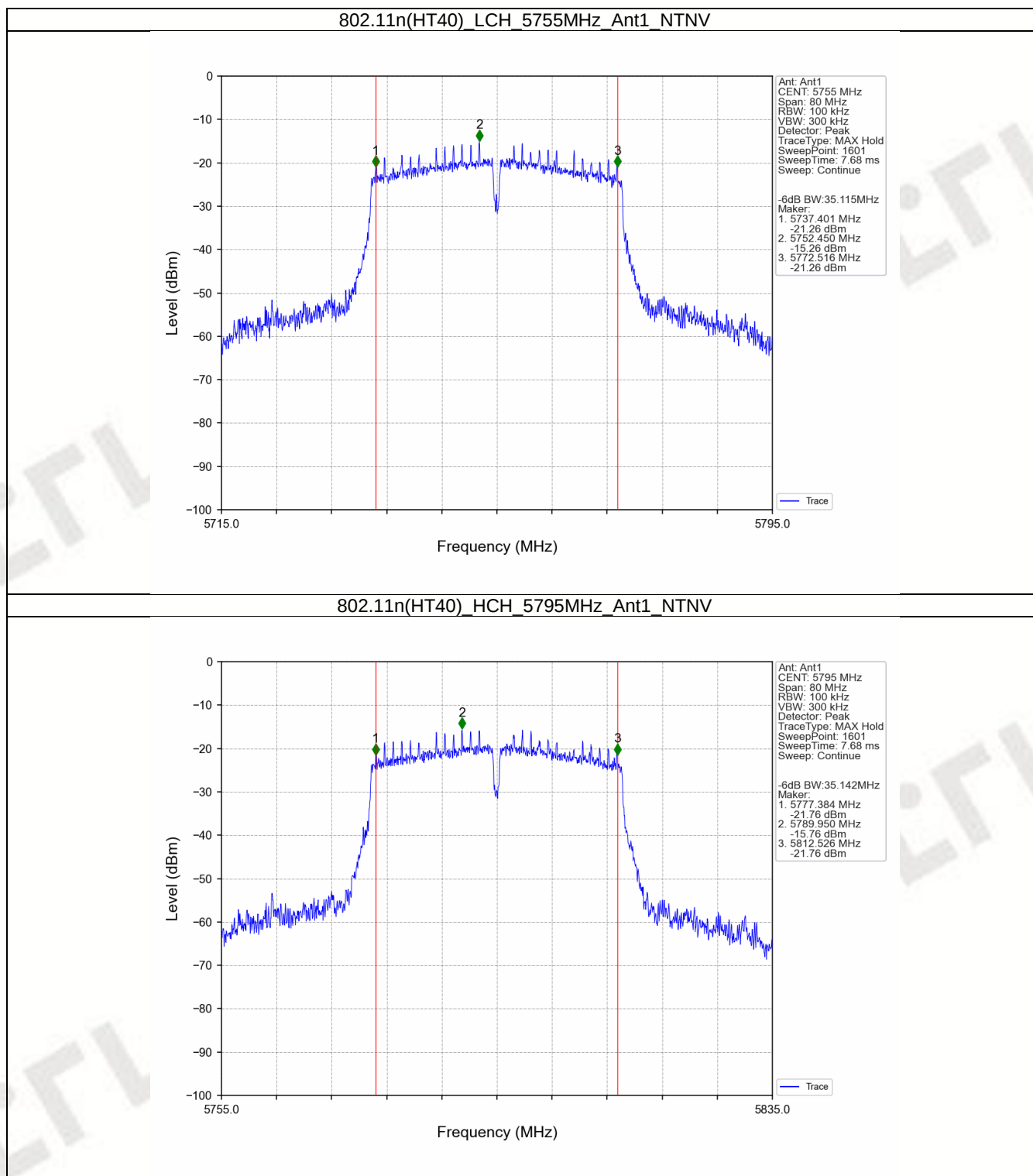
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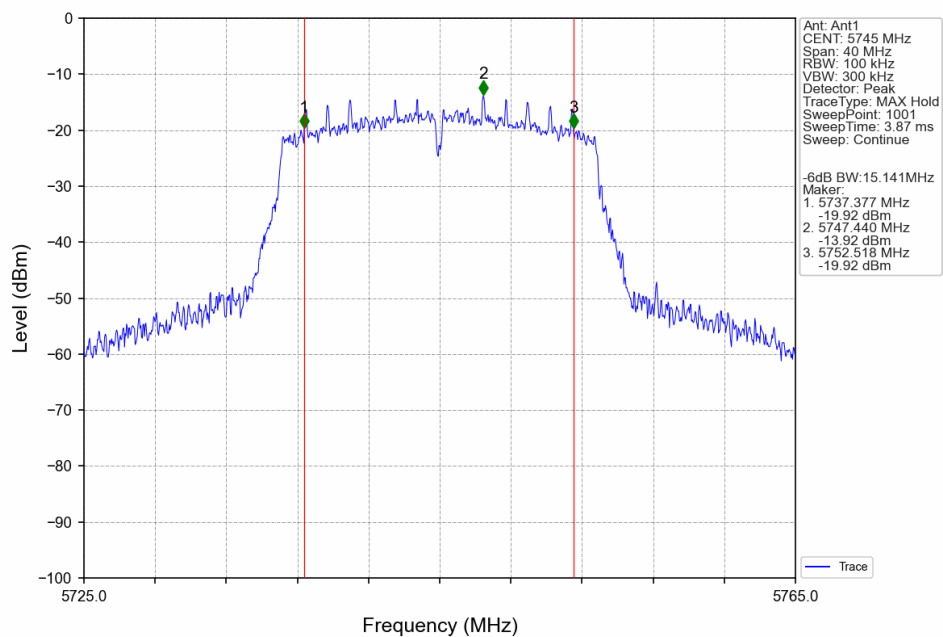


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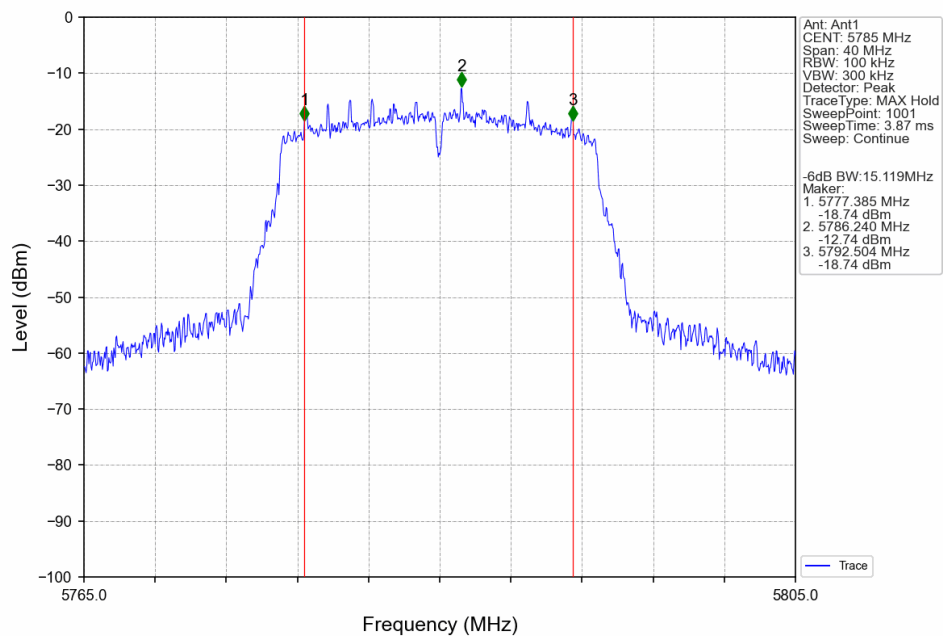


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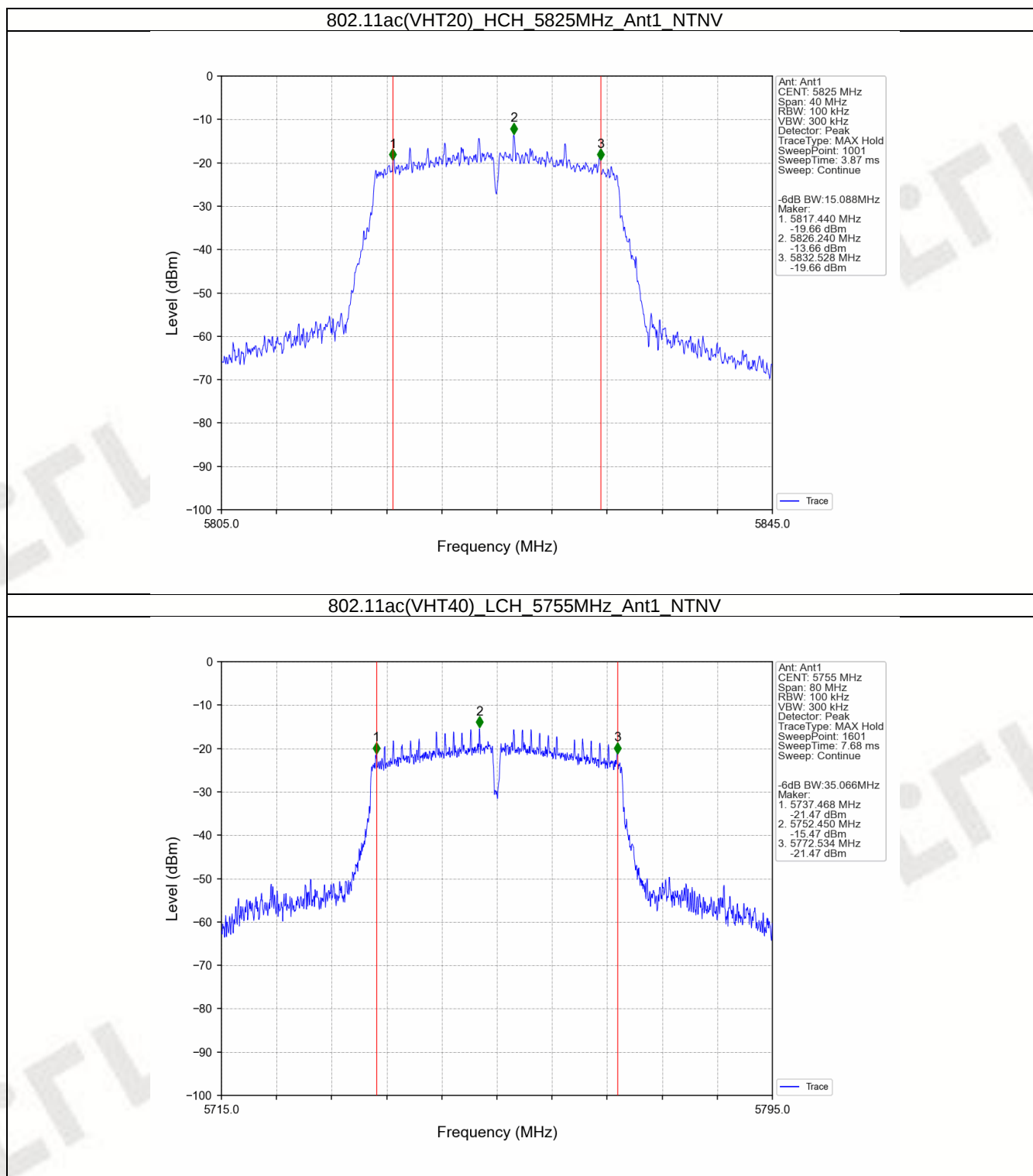
802.11ac(VHT20)_LCH_5745MHz_Ant1_NTNV



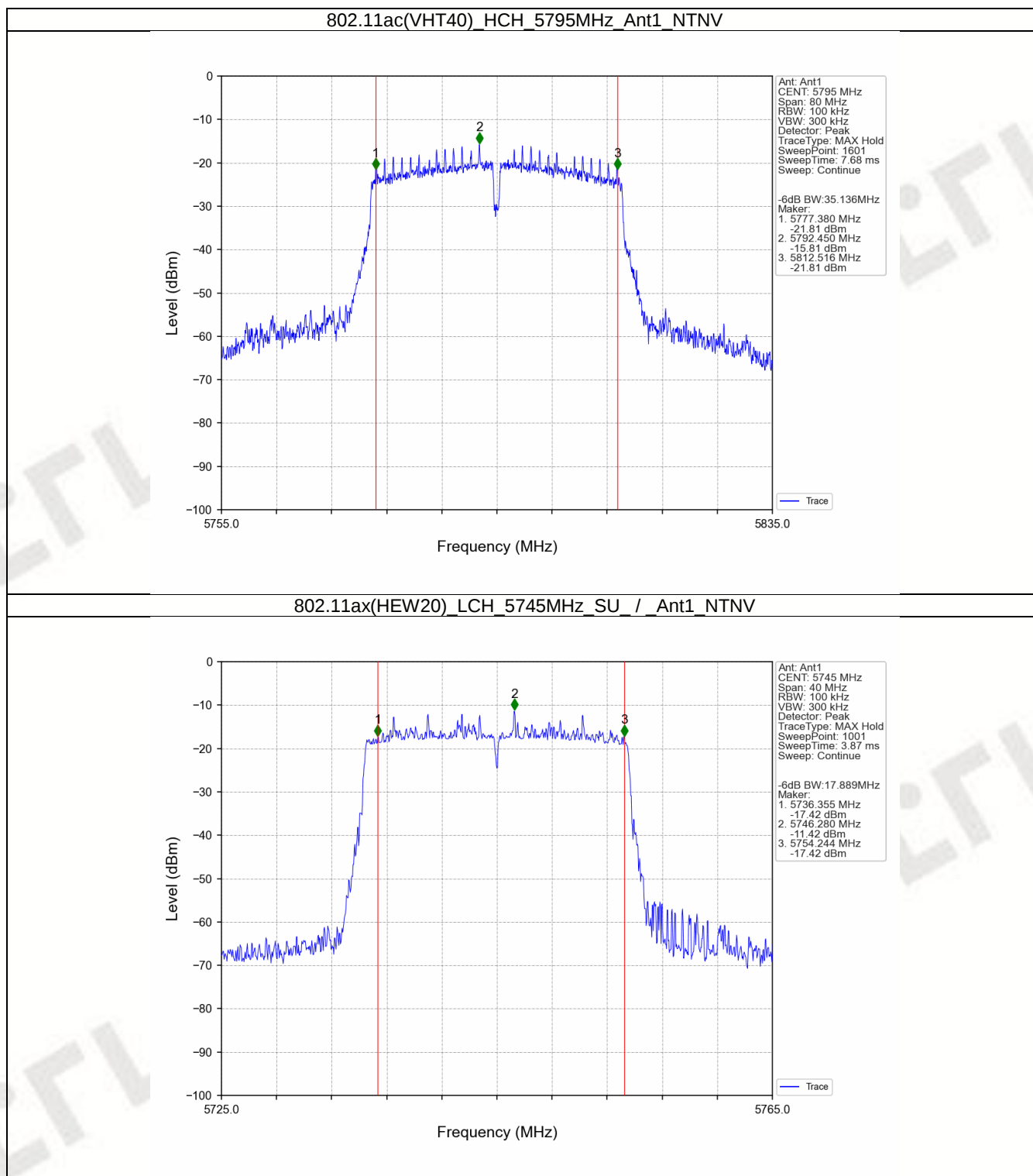
802.11ac(VHT20)_MCH_5785MHz_Ant1_NTNV



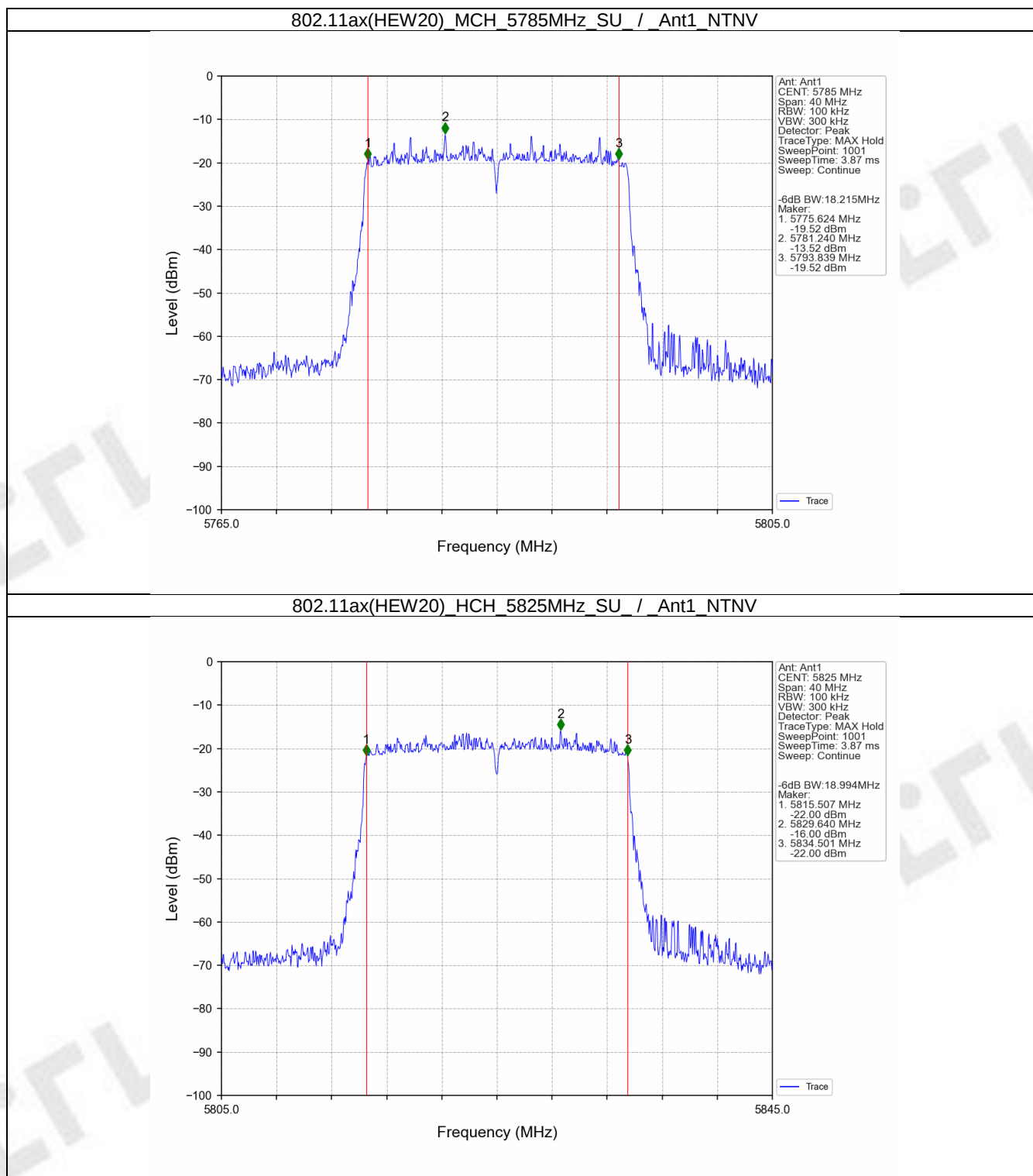
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FCCID: 2ASC7HD7000ELITE

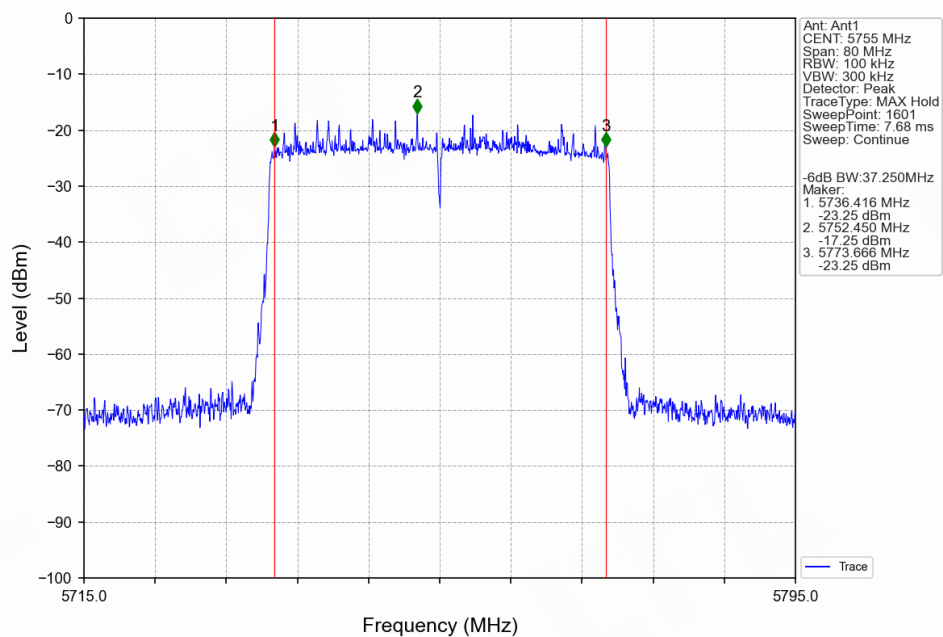


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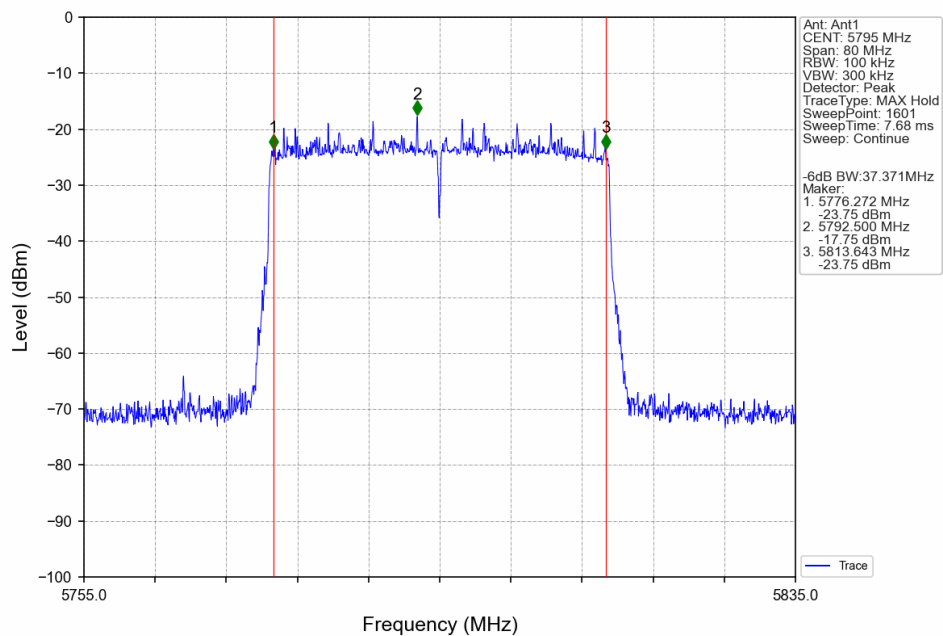


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802.11ax(HEW40)_LCH_5755MHz_SU_ / _Ant1_NTNV



802.11ax(HEW40)_HCH_5795MHz_SU_ / _Ant1_NTNV



3. Maximum Conducted Output Power

3.1 Test Result

3.1.1 Power

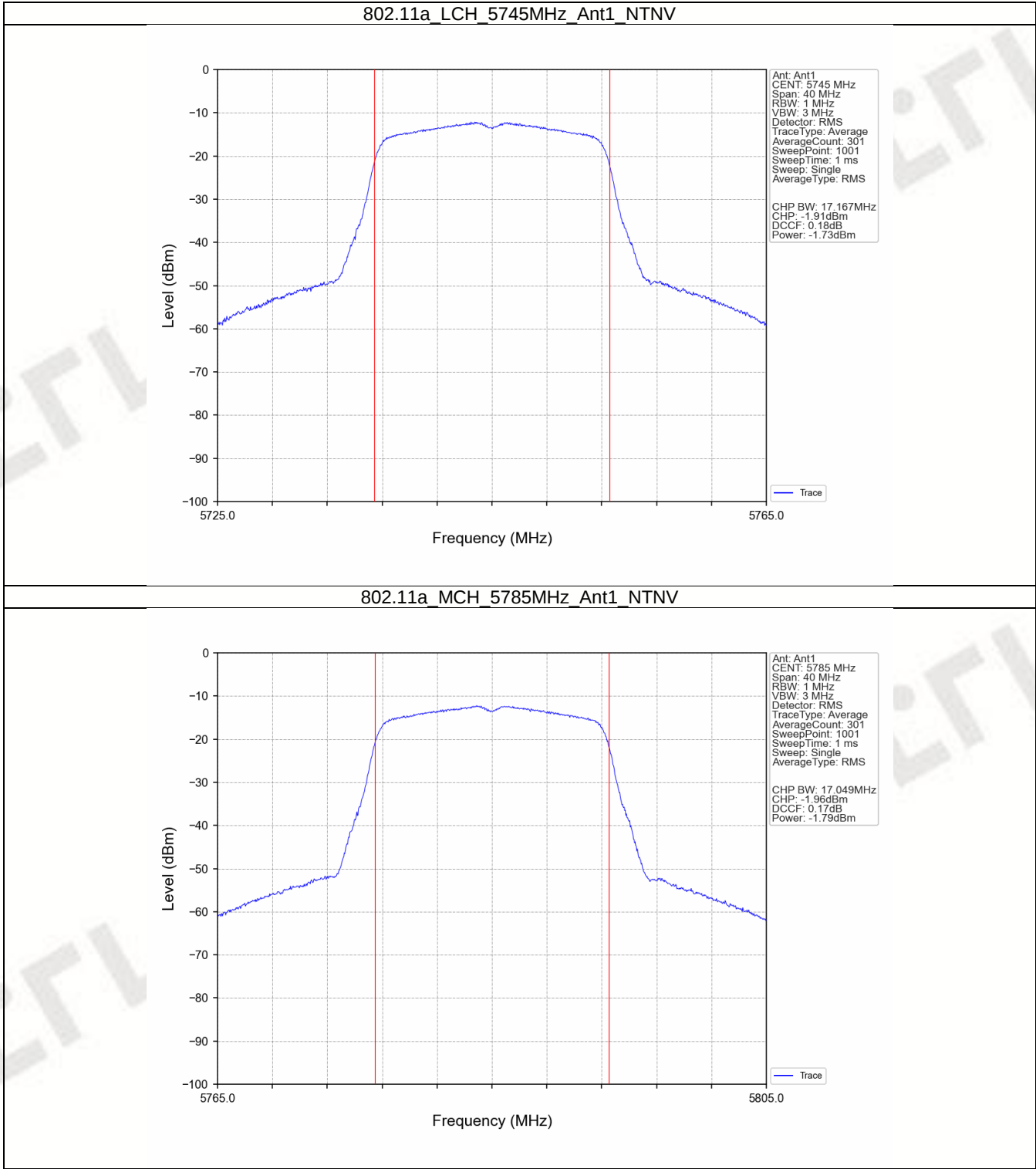
Mode	TX Type	Frequency (MHz)	RU	RU Pos	Maximum Average Conducted Output Power (dBm)		Verdict
					ANT1	Limit	
802.11a	SISO	5745	/	/	-1.73	<=30	Pass
		5785	/	/	-1.79	<=30	Pass
		5825	/	/	-2.77	<=30	Pass
802.11n (HT20)	SISO	5745	/	/	-1.77	<=30	Pass
		5785	/	/	-1.81	<=30	Pass
		5825	/	/	-2.74	<=30	Pass
802.11n (HT40)	SISO	5755	/	/	-2.48	<=30	Pass
		5795	/	/	-2.58	<=30	Pass
802.11ac (VHT20)	SISO	5745	/	/	-3.16	<=30	Pass
		5785	/	/	-3.17	<=30	Pass
		5825	/	/	-4.14	<=30	Pass
802.11ac (VHT40)	SISO	5755	/	/	-2.42	<=30	Pass
		5795	/	/	-3.03	<=30	Pass
802.11ax (HEW20)	SISO	5745	SU	/	-2.76	<=30	Pass
		5785	SU	/	-1.34	<=30	Pass
		5825	SU	/	-2.51	<=30	Pass
802.11ax (HEW40)	SISO	5755	SU	/	-2.42	<=30	Pass
		5795	SU	/	-1.04	<=30	Pass

Note1: Antenna Gain: Ant1: 3.23dBi;

FCCID: 2ASC7HD7000ELITE

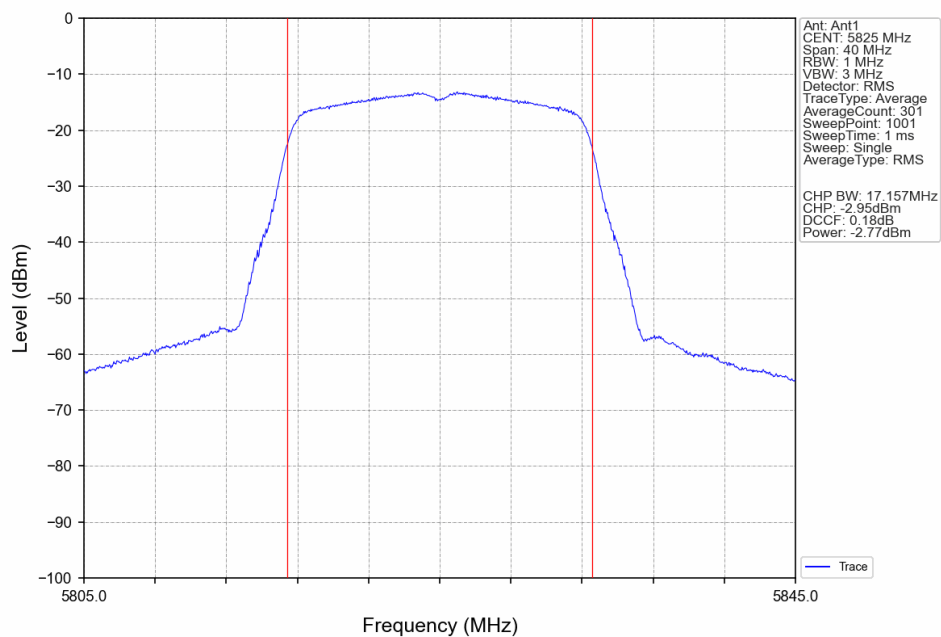
3.2 Test Graph

3.2.1 Power

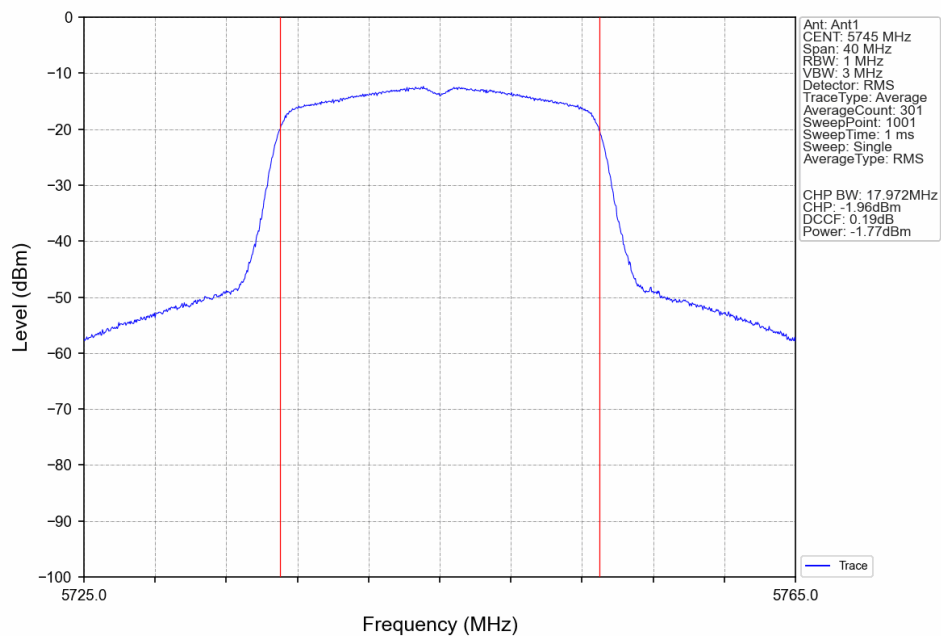


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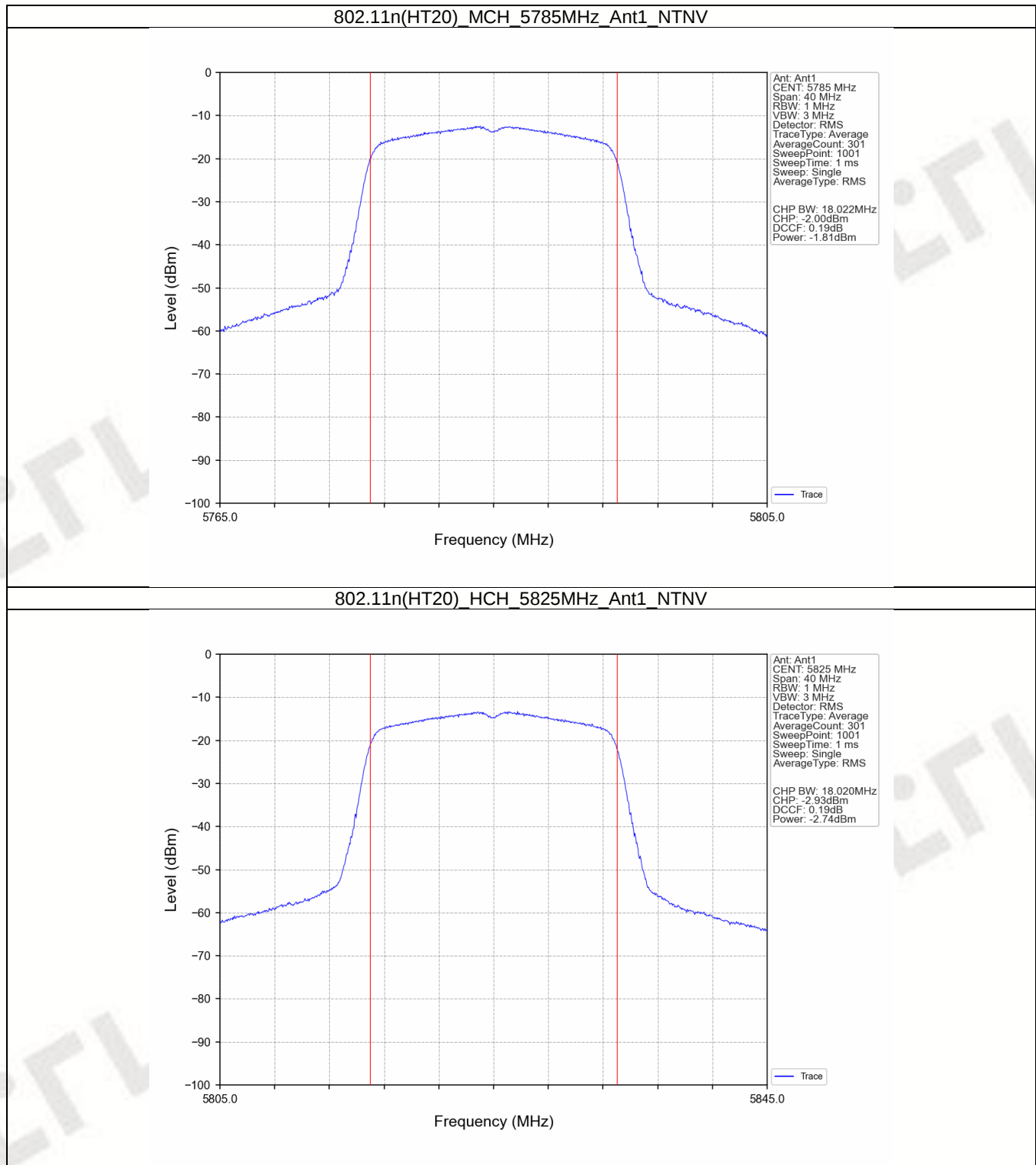
802.11a_HCH_5825MHz_Ant1_NTNV



802.11n(HT20)_LCH_5745MHz_Ant1_NTNV

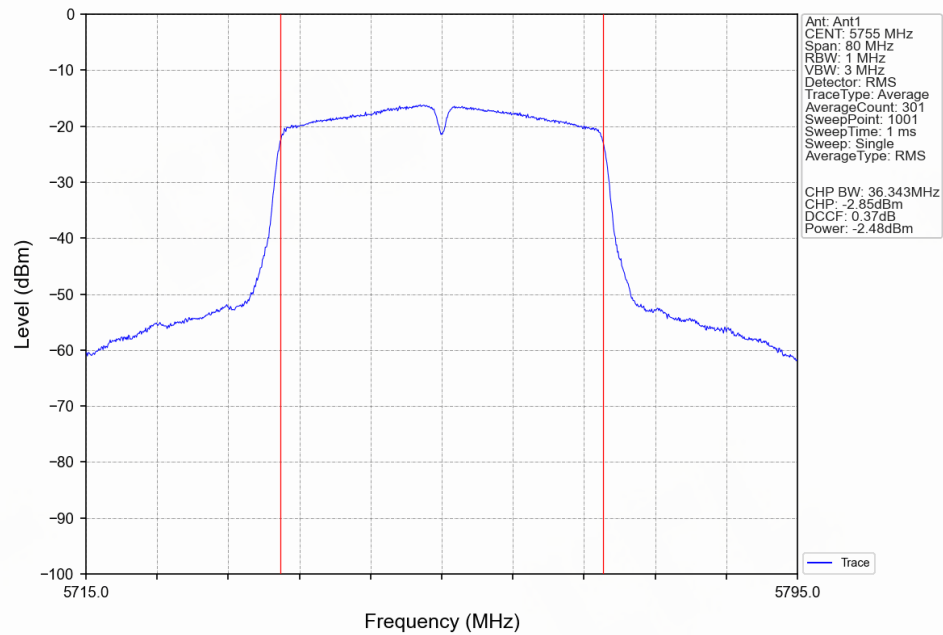


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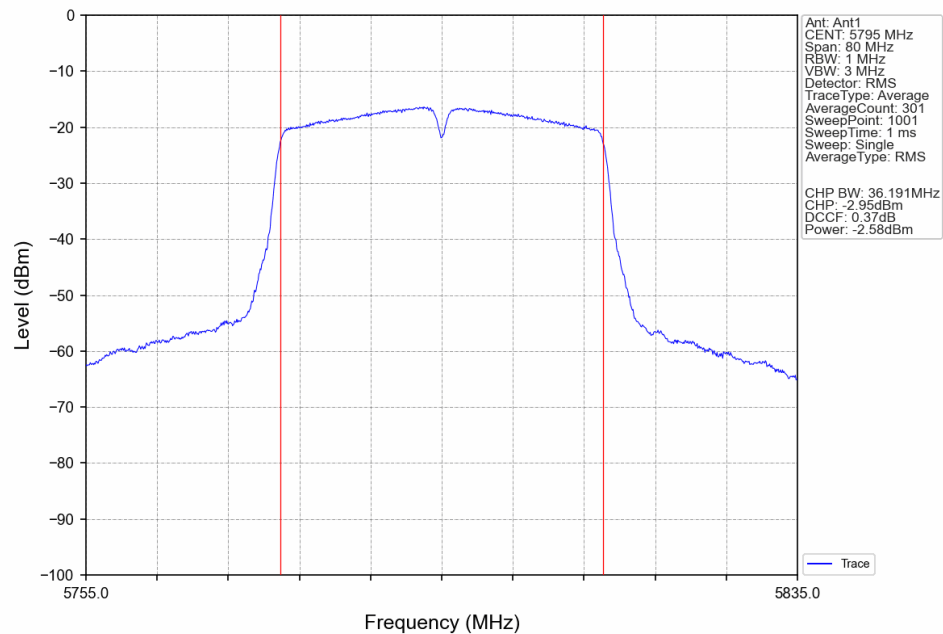


FCCID: 2ASC7HD7000ELITE

802.11n(HT40)_LCH_5755MHz_Ant1_NTNV

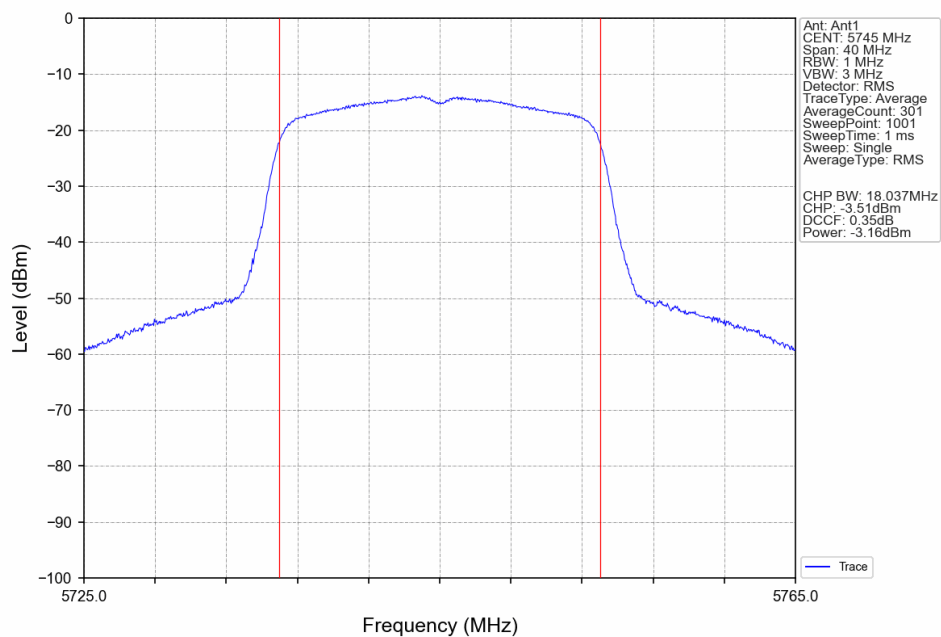


802.11n(HT40)_HCH_5795MHz_Ant1_NTNV

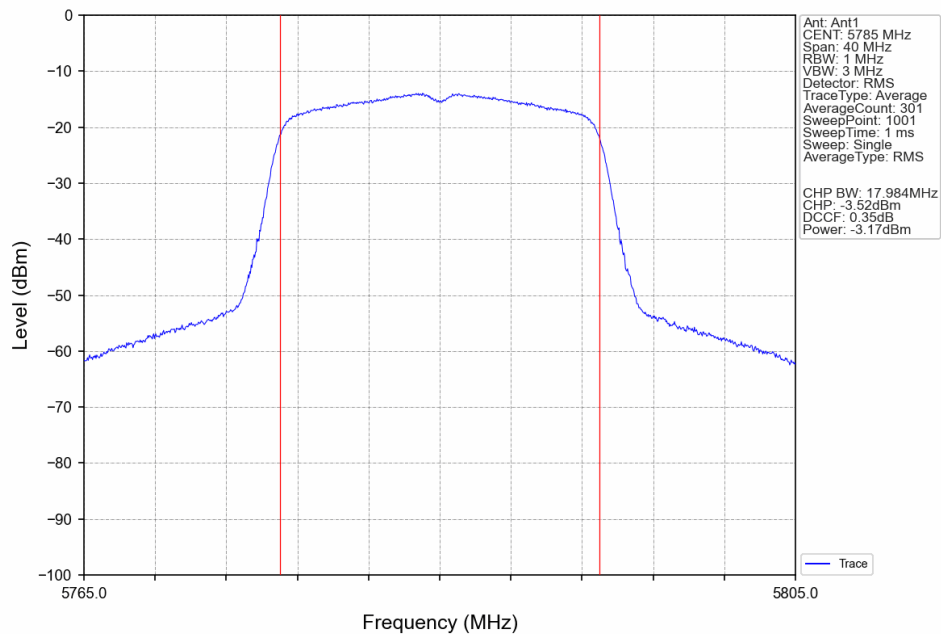


FCCID: 2ASC7HD7000ELITE

802.11ac(VHT20)_LCH_5745MHz_Ant1_NTNV

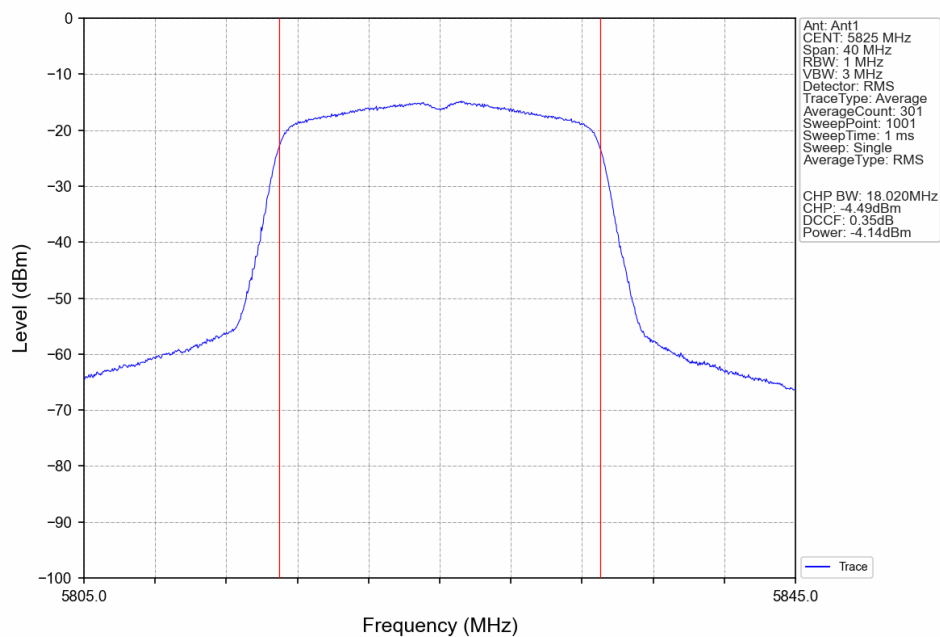


802.11ac(VHT20)_MCH_5785MHz_Ant1_NTNV

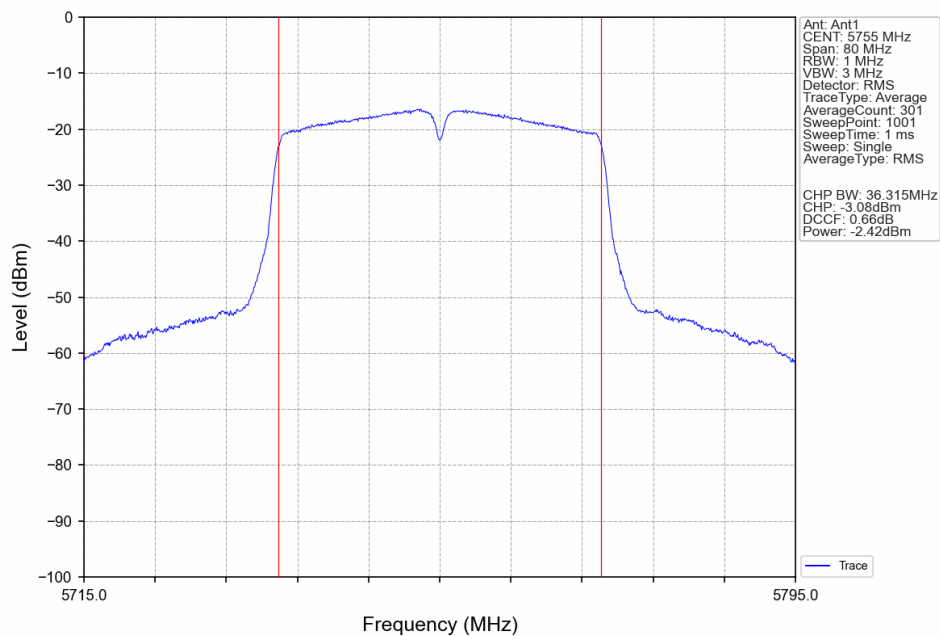


FCCID: 2ASC7HD7000ELITE

802.11ac(VHT20) HCH 5825MHz Ant1_NTNV

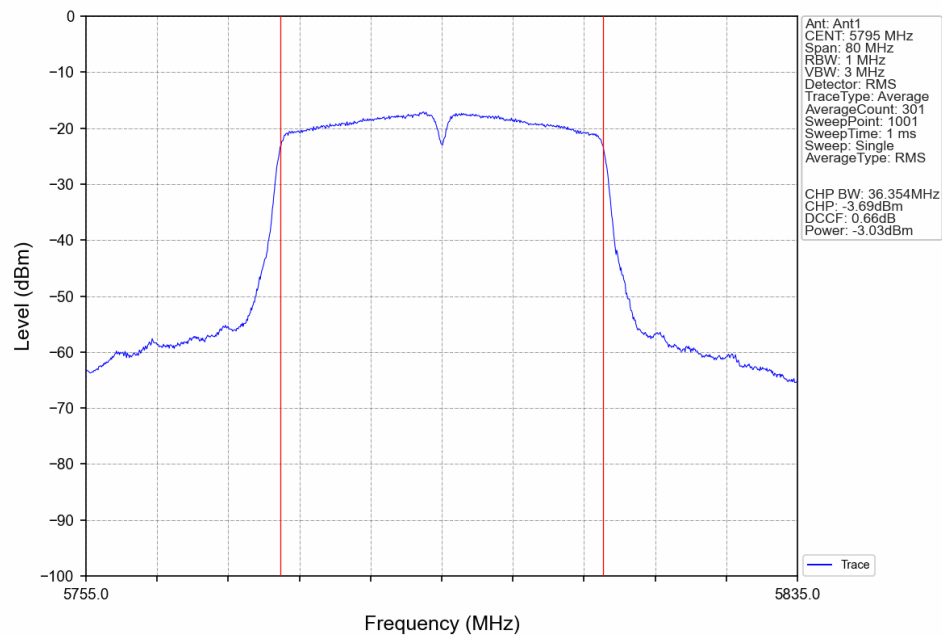


802.11ac(VHT40) LCH 5755MHz Ant1_NTNV

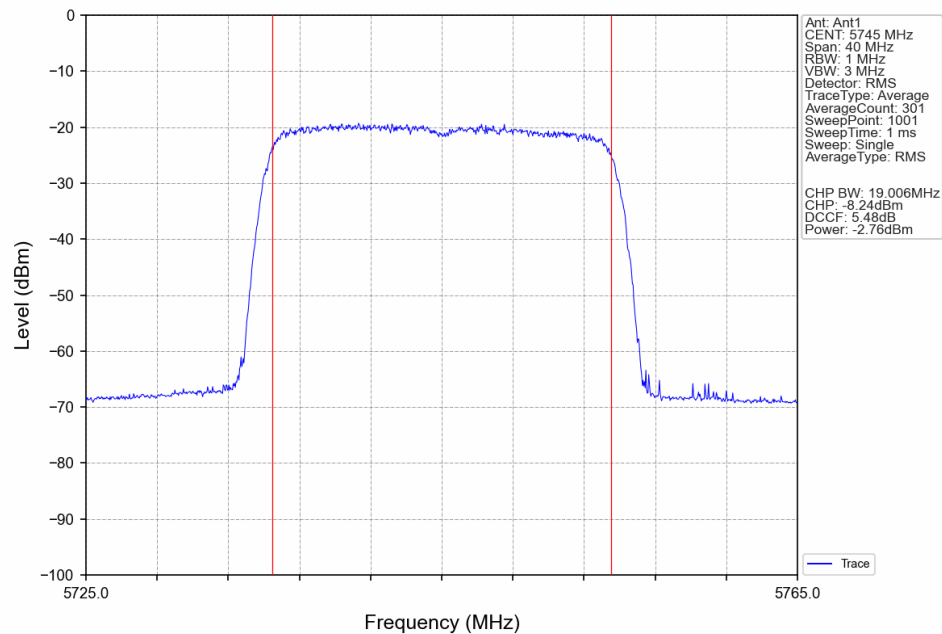


FCCID: 2ASC7HD7000ELITE

802.11ac(VHT40) HCH 5795MHz Ant1_NTNV

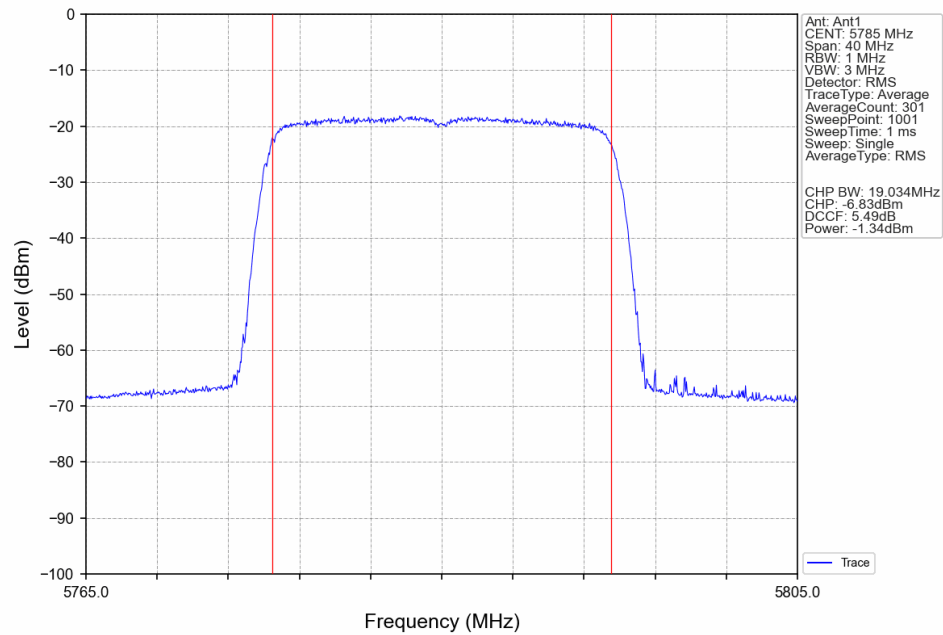


802.11ax(HEW20) LCH 5745MHz SU_ / Ant1_NTNV

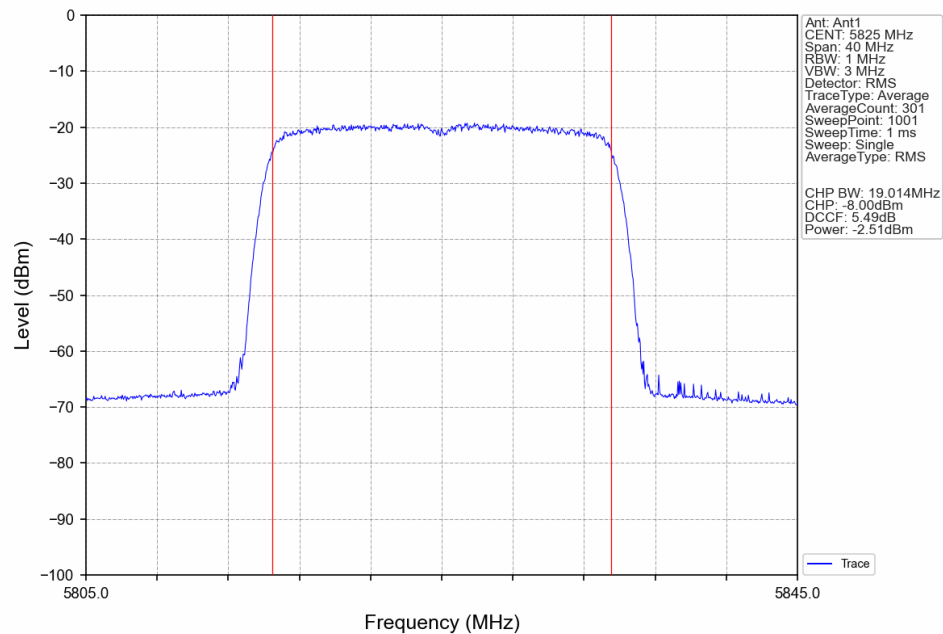


FCCID: 2ASC7HD7000ELITE

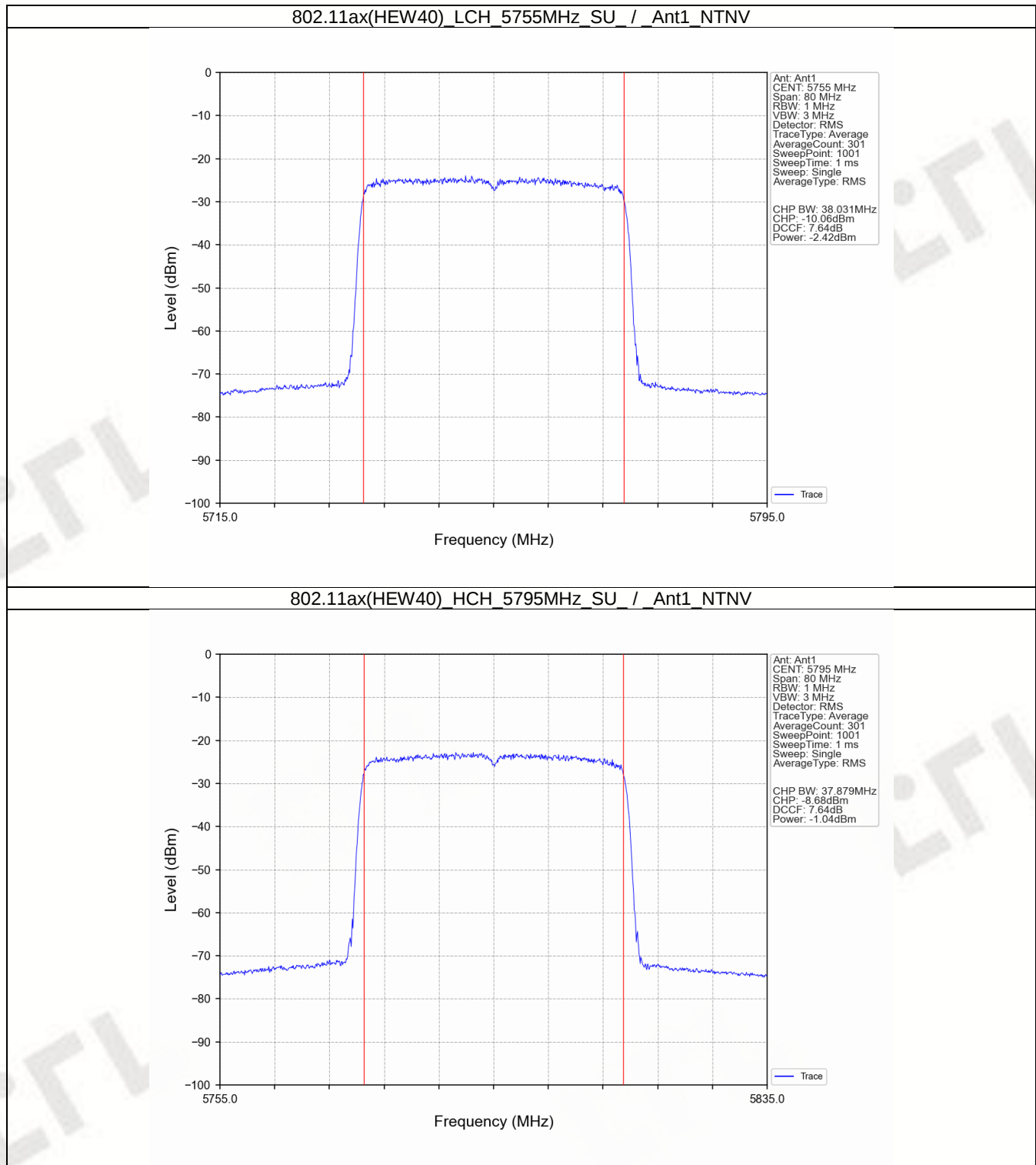
802.11ax(HEW20)_MCH_5785MHz_SU_ / Ant1_NTNV



802.11ax(HEW20)_HCH_5825MHz_SU_ / Ant1_NTNV



FCCID: 2ASC7HD7000ELITE



FCCID: 2ASC7HD7000ELITE

FCCID: 2ASC7HD7000ELITE

4. Maximum Power Spectral Density

4.1 Test Result

4.1.1 PSD-Band3

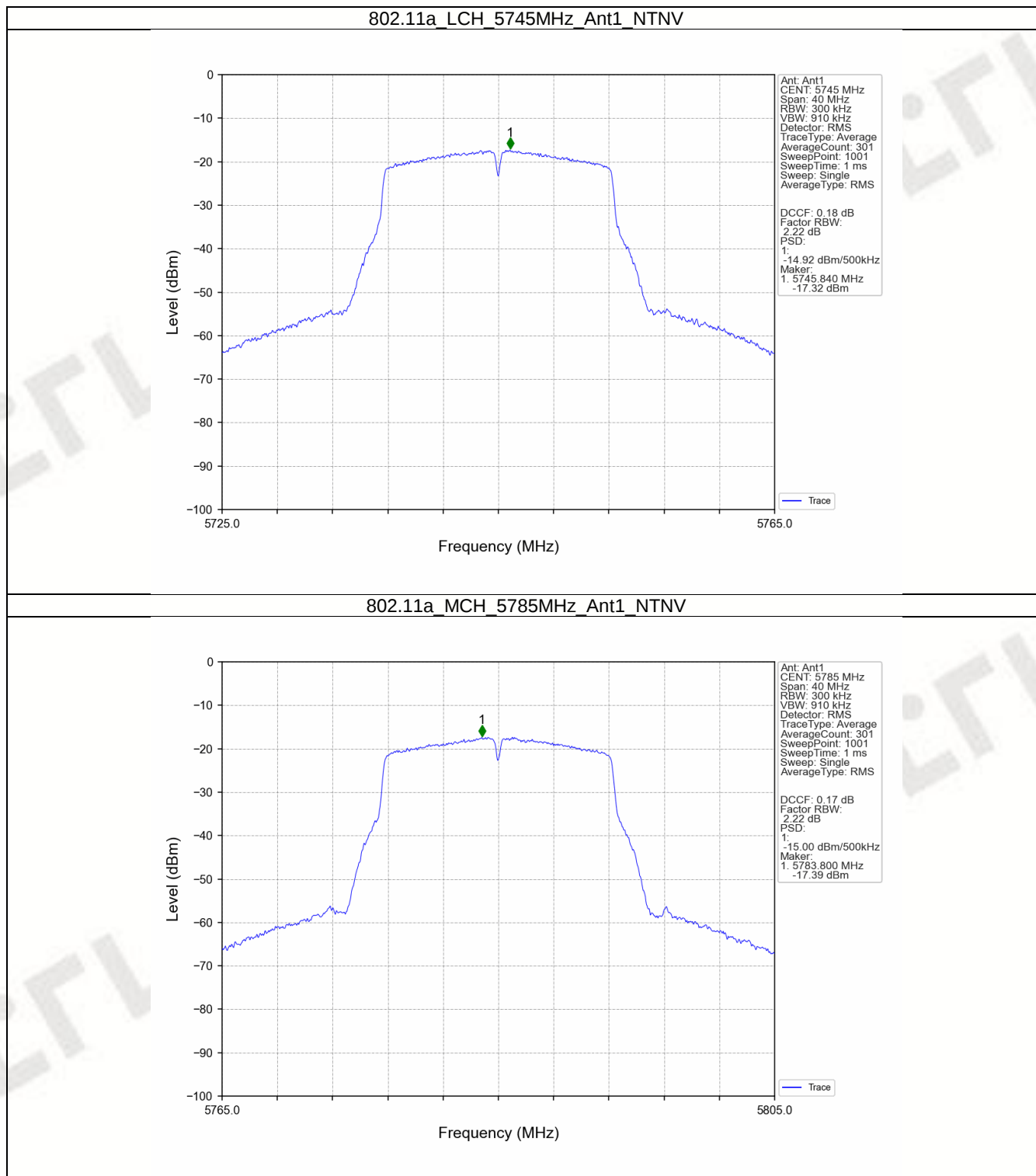
Mode	TX Type	Frequency (MHz)	RU	RU Pos	Maximum PSD (dBm/500kHz)		Verdict
					ANT1	Limit	
802.11a	SISO	5745	/	/	-14.92	<=30	Pass
		5785	/	/	-15.00	<=30	Pass
		5825	/	/	-15.85	<=30	Pass
802.11n (HT20)	SISO	5745	/	/	-14.94	<=30	Pass
		5785	/	/	-15.20	<=30	Pass
		5825	/	/	-15.93	<=30	Pass
802.11n (HT40)	SISO	5755	/	/	-18.90	<=30	Pass
		5795	/	/	-19.16	<=30	Pass
802.11ac (VHT20)	SISO	5745	/	/	-16.51	<=30	Pass
		5785	/	/	-16.53	<=30	Pass
		5825	/	/	-17.58	<=30	Pass
802.11ac (VHT40)	SISO	5755	/	/	-18.69	<=30	Pass
		5795	/	/	-19.30	<=30	Pass
802.11ax (HEW20)	SISO	5745	SU	/	-16.04	<=30	Pass
		5785	SU	/	-16.06	<=30	Pass
		5825	SU	/	-16.64	<=30	Pass
802.11ax (HEW40)	SISO	5755	SU	/	-18.84	<=30	Pass
		5795	SU	/	-19.11	<=30	Pass

Note1: Antenna Gain: Ant1: 3.23dBi;

FCCID: 2ASC7HD7000ELITE

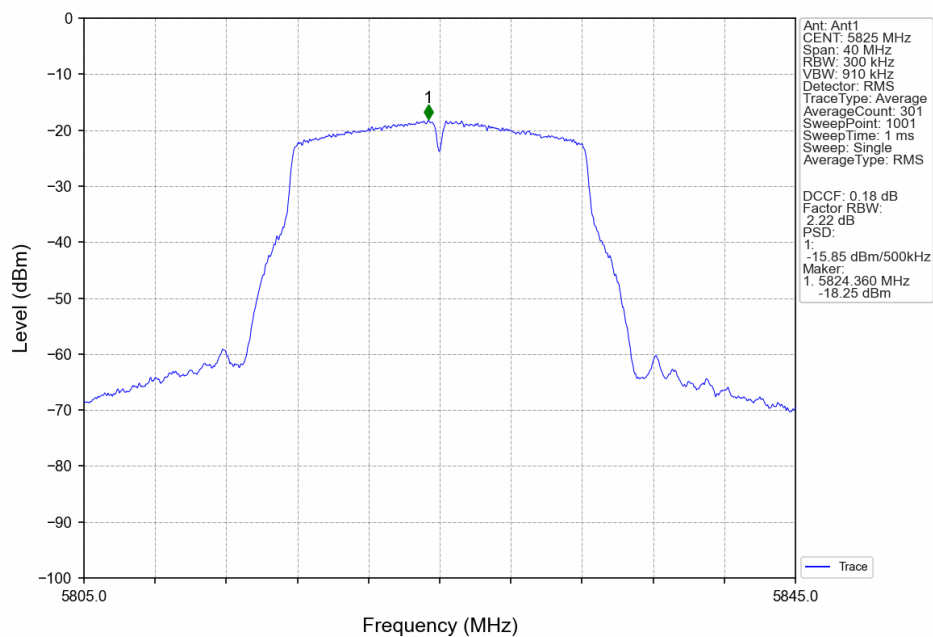
4.2 Test Graph

4.2.1 PSD-Band3

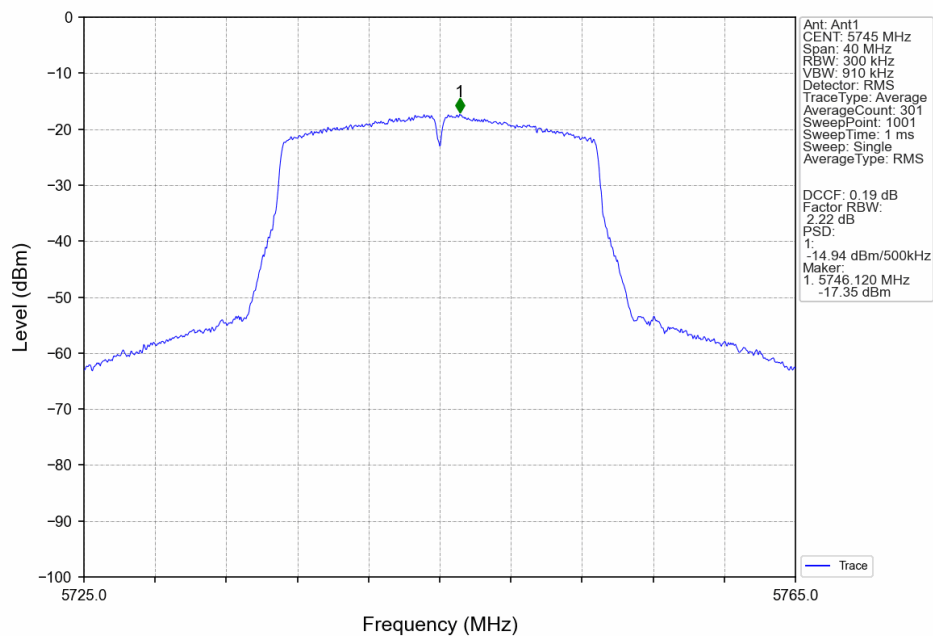


FCCID: 2ASC7HD7000ELITE

802.11a_HCH_5825MHz_Ant1_NTNV

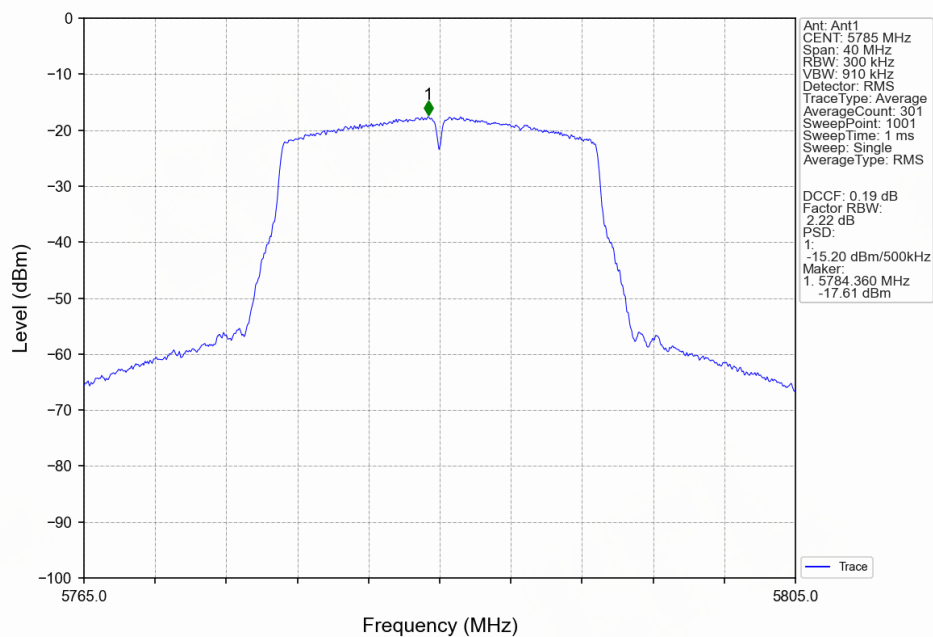


802.11n(HT20)_LCH_5745MHz_Ant1_NTNV

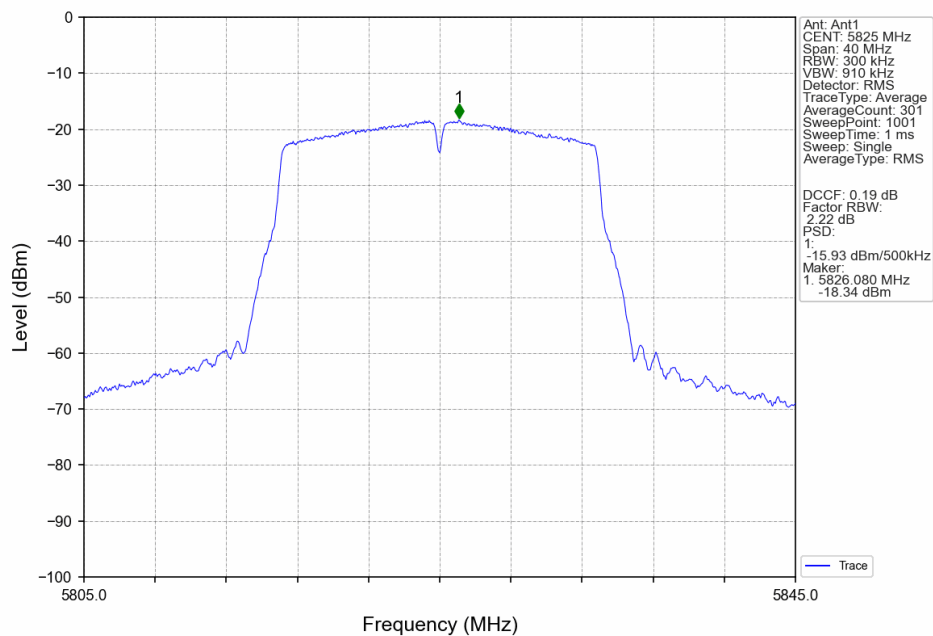


FCCID: 2ASC7HD7000ELITE

802.11n(HT20) MCH 5785MHz_Ant1_NTNV

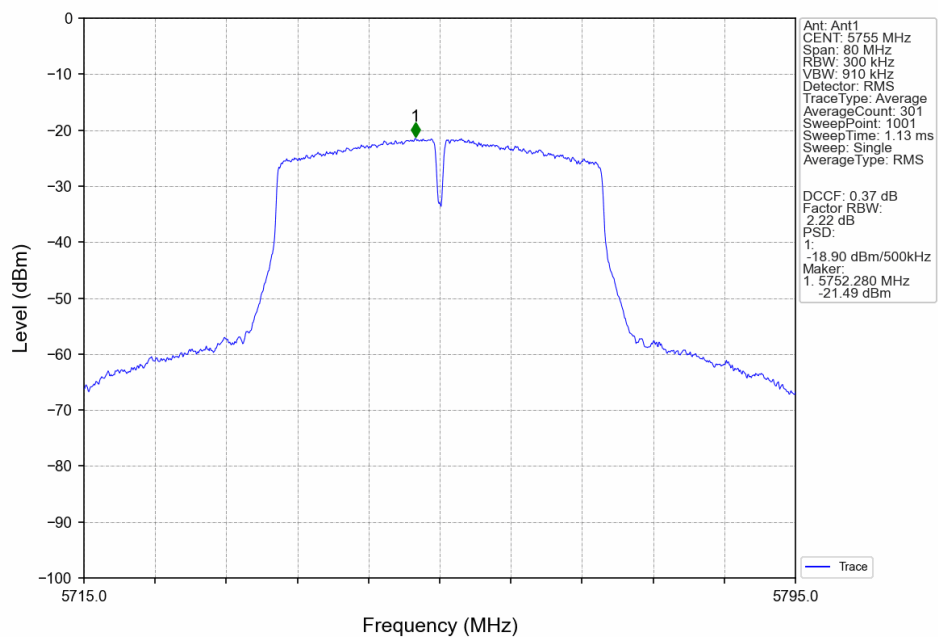


802.11n(HT20) HCH 5825MHz_Ant1_NTNV

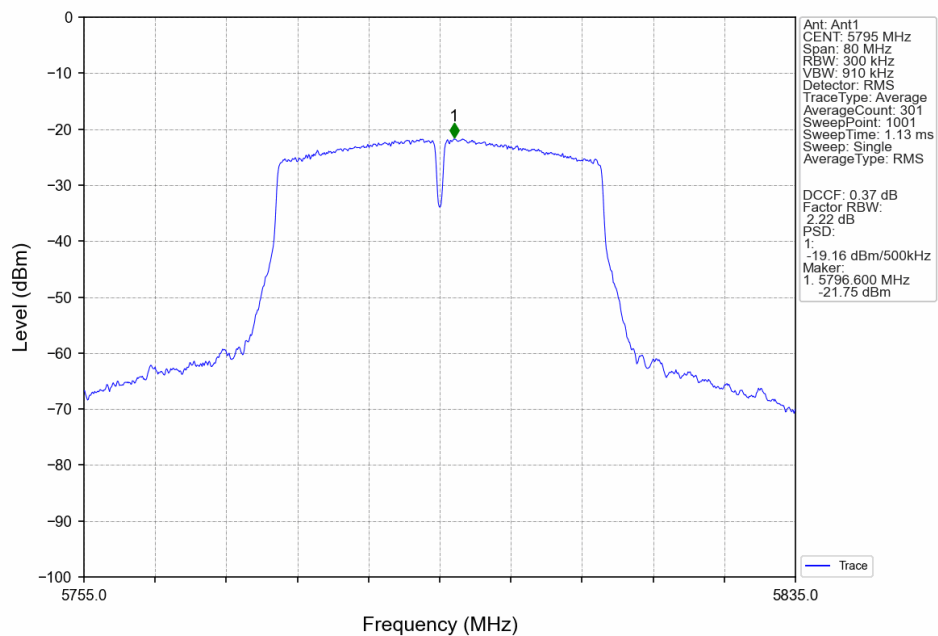


FCCID: 2ASC7HD7000ELITE

802.11n(HT40)_LCH_5755MHz_Ant1_NTNV

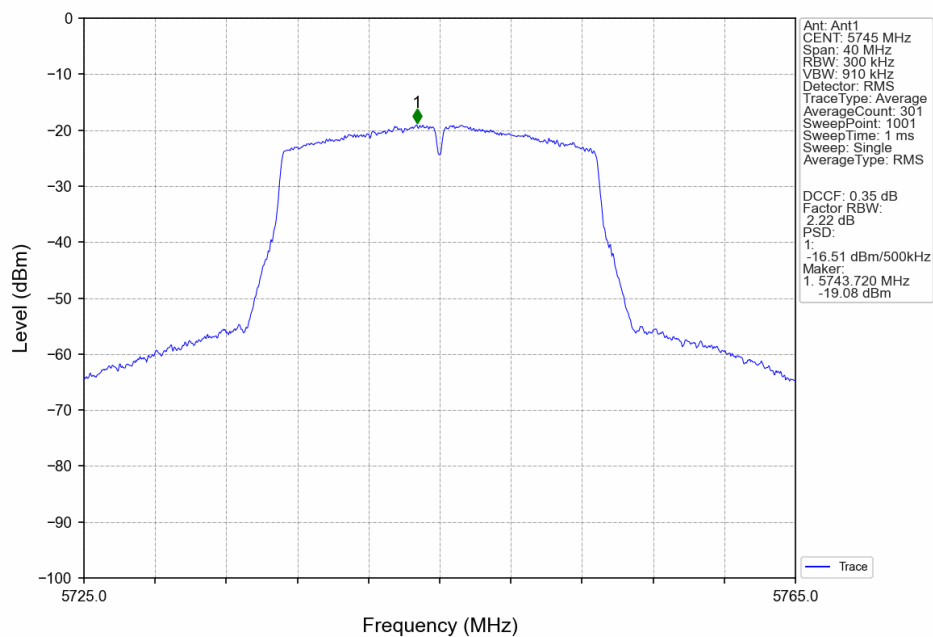


802.11n(HT40)_HCH_5795MHz_Ant1_NTNV

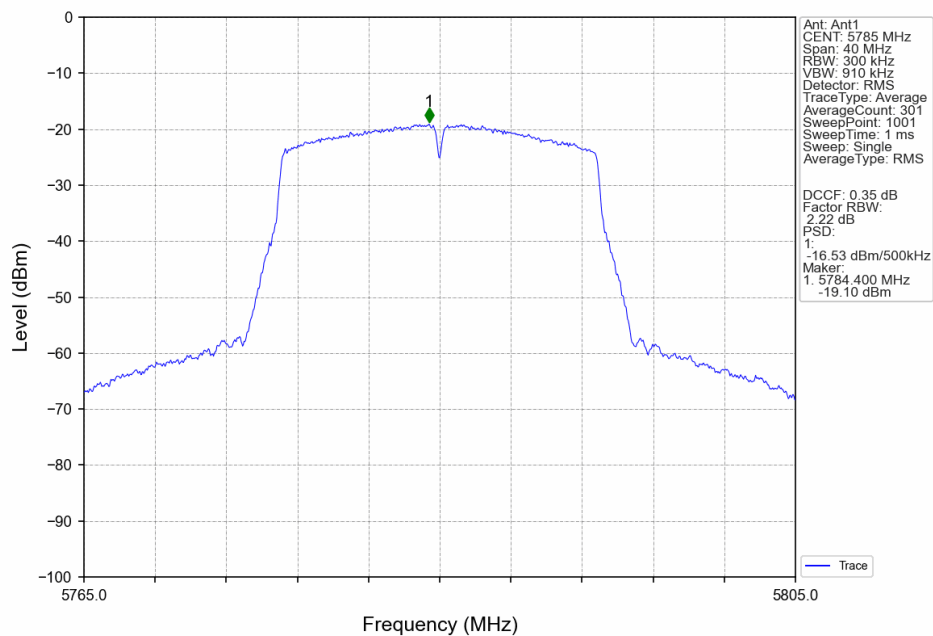


FCCID: 2ASC7HD7000ELITE

802.11ac(VHT20)_LCH_5745MHz_Ant1_NTNV

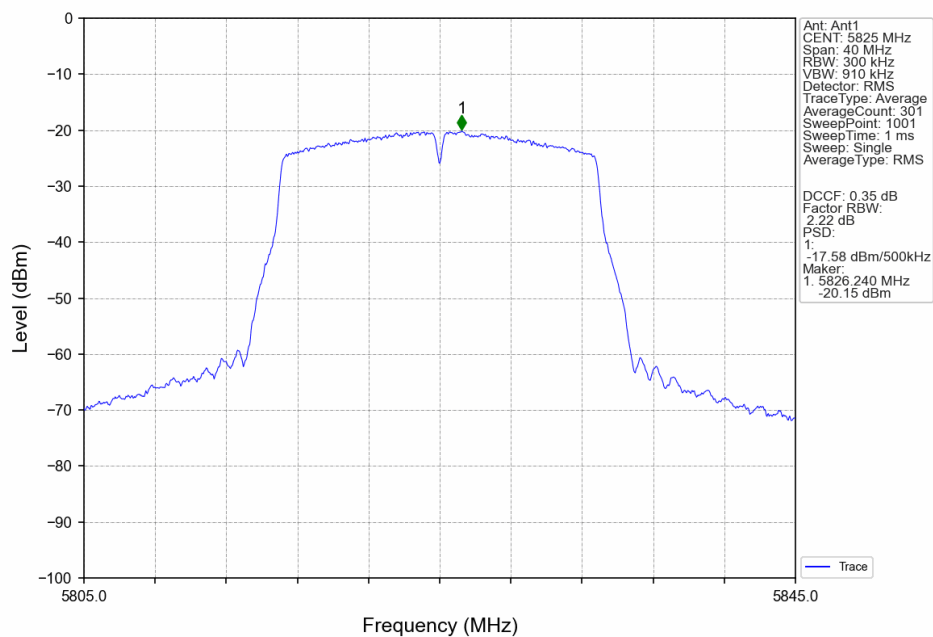


802.11ac(VHT20)_MCH_5785MHz_Ant1_NTNV

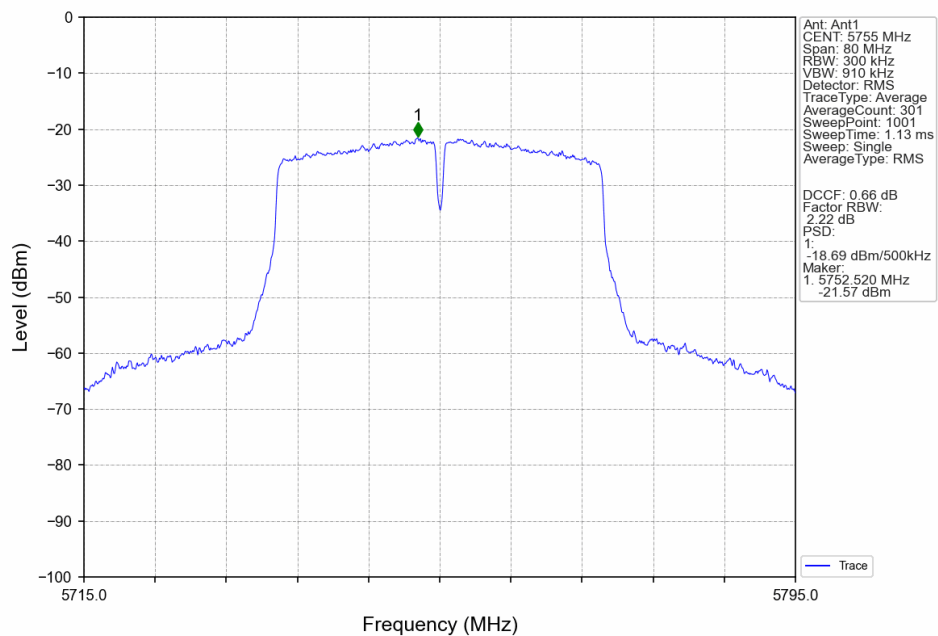


FCCID: 2ASC7HD7000ELITE

802.11ac(VHT20) HCH 5825MHz Ant1_NTNV

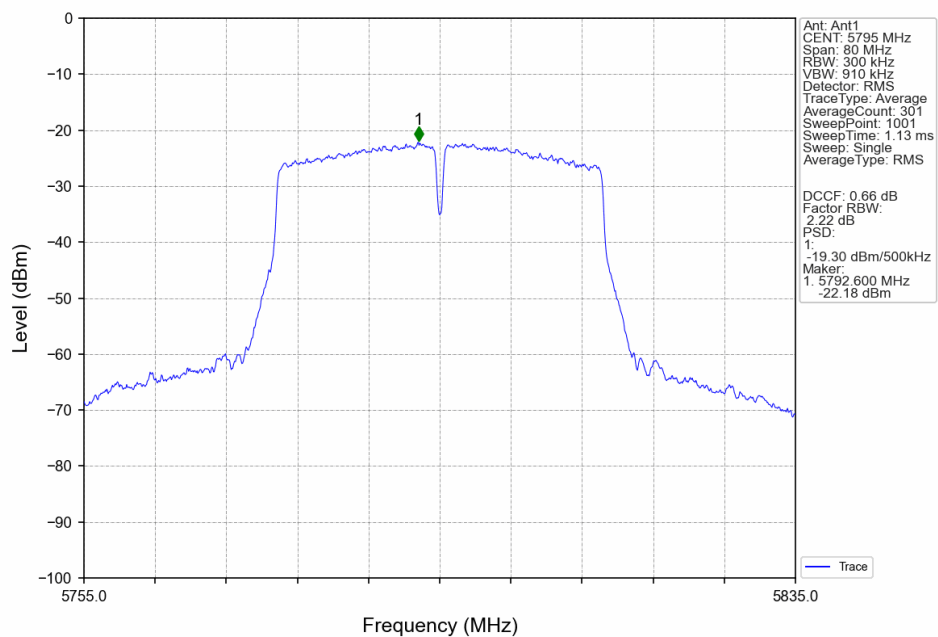


802.11ac(VHT40) LCH 5755MHz Ant1_NTNV

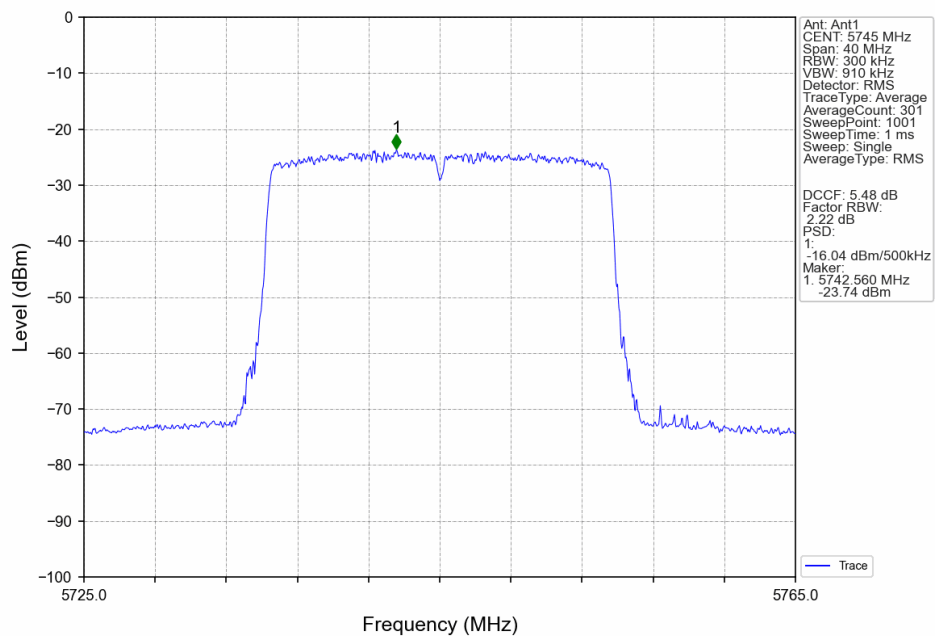


FCCID: 2ASC7HD7000ELITE

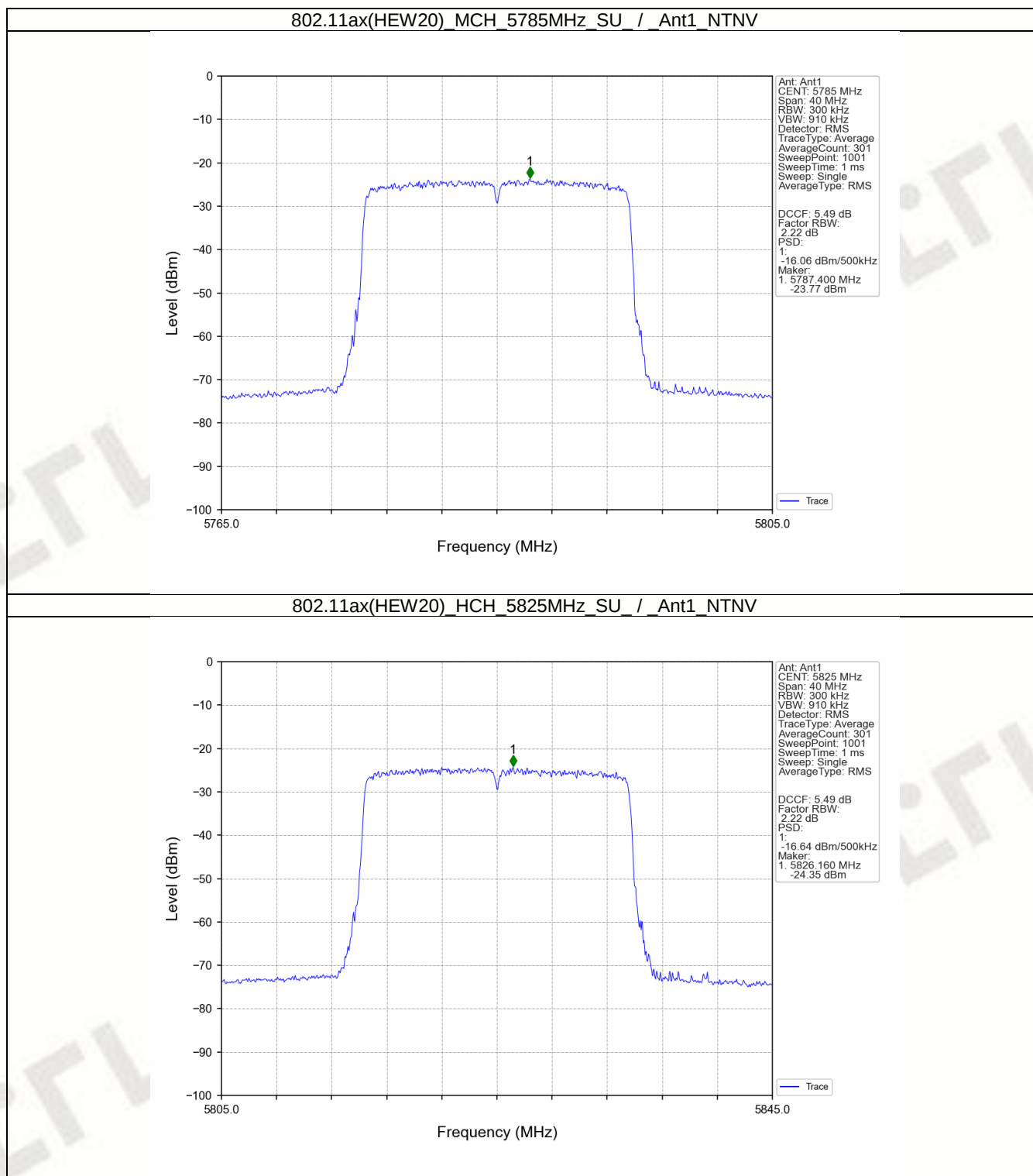
802.11ac(VHT40) HCH 5795MHz_Ant1_NTNV



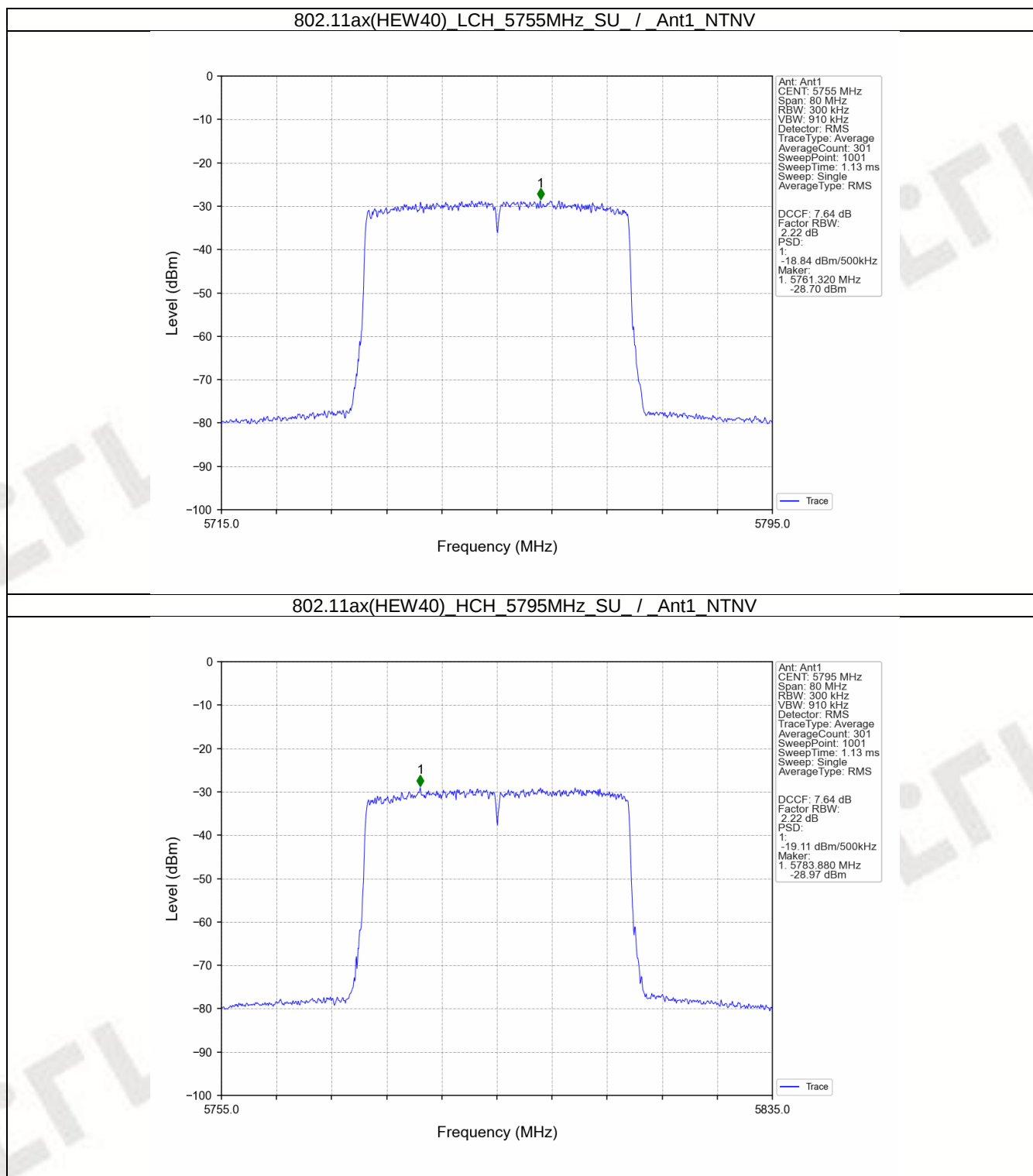
802.11ax(HEW20) LCH 5745MHz_SU_ / _Ant1_NTNV



FCCID: 2ASC7HD7000ELITE



FCCID: 2ASC7HD7000ELITE



FCCID: 2ASC7HD7000ELITE

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	5744.957	5725 to 5850	Pass
				120	5744.957	5725 to 5850	Pass
				138	5744.957	5725 to 5850	Pass
			-30	120	5744.957	5725 to 5850	Pass
			-20	120	5744.957	5725 to 5850	Pass
			-10	120	5744.957	5725 to 5850	Pass
			0	120	5744.957	5725 to 5850	Pass
			10	120	5744.957	5725 to 5850	Pass
			30	120	5744.957	5725 to 5850	Pass
			40	120	5744.957	5725 to 5850	Pass
			50	120	5744.957	5725 to 5850	Pass
		5785	20	102	5784.957	5725 to 5850	Pass
				120	5784.957	5725 to 5850	Pass
				138	5784.957	5725 to 5850	Pass
			-30	120	5784.957	5725 to 5850	Pass
			-20	120	5784.957	5725 to 5850	Pass
			-10	120	5784.957	5725 to 5850	Pass
			0	120	5784.957	5725 to 5850	Pass
			10	120	5784.957	5725 to 5850	Pass
			30	120	5784.957	5725 to 5850	Pass
			40	120	5784.957	5725 to 5850	Pass
			50	120	5784.957	5725 to 5850	Pass
		5825	20	102	5824.957	5725 to 5850	Pass
				120	5824.957	5725 to 5850	Pass
				138	5824.957	5725 to 5850	Pass
			-30	120	5824.957	5725 to 5850	Pass
			-20	120	5824.957	5725 to 5850	Pass
			-10	120	5824.957	5725 to 5850	Pass
			0	120	5824.957	5725 to 5850	Pass
			10	120	5824.957	5725 to 5850	Pass
			30	120	5824.957	5725 to 5850	Pass
			40	120	5824.957	5725 to 5850	Pass
			50	120	5824.957	5725 to 5850	Pass
		5755	20	102	5754.957	5725 to 5850	Pass
				120	5754.957	5725 to 5850	Pass
				138	5754.958	5725 to 5850	Pass
			-30	120	5754.958	5725 to 5850	Pass
			-20	120	5754.957	5725 to 5850	Pass
			-10	120	5754.958	5725 to 5850	Pass
			0	120	5754.958	5725 to 5850	Pass
			10	120	5754.958	5725 to 5850	Pass
			30	120	5754.957	5725 to 5850	Pass
			40	120	5754.958	5725 to 5850	Pass
			50	120	5754.957	5725 to 5850	Pass

FCCID: 2ASC7HD7000ELITE

		5795	20	102	5794.957	5725 to 5850	Pass
				120	5794.957	5725 to 5850	Pass
				138	5794.957	5725 to 5850	Pass
			-30	120	5794.957	5725 to 5850	Pass
			-20	120	5794.957	5725 to 5850	Pass
			-10	120	5794.957	5725 to 5850	Pass
			0	120	5794.957	5725 to 5850	Pass
			10	120	5794.957	5725 to 5850	Pass
			30	120	5794.957	5725 to 5850	Pass
			40	120	5794.957	5725 to 5850	Pass
			50	120	5794.957	5725 to 5850	Pass