

Appendix RF test data for WIFI5G_UNII Band 3 (Module 2: BL-M8852BS2)

1. Duty Cycle

1.1 Test Result

1.1.1 Ant1

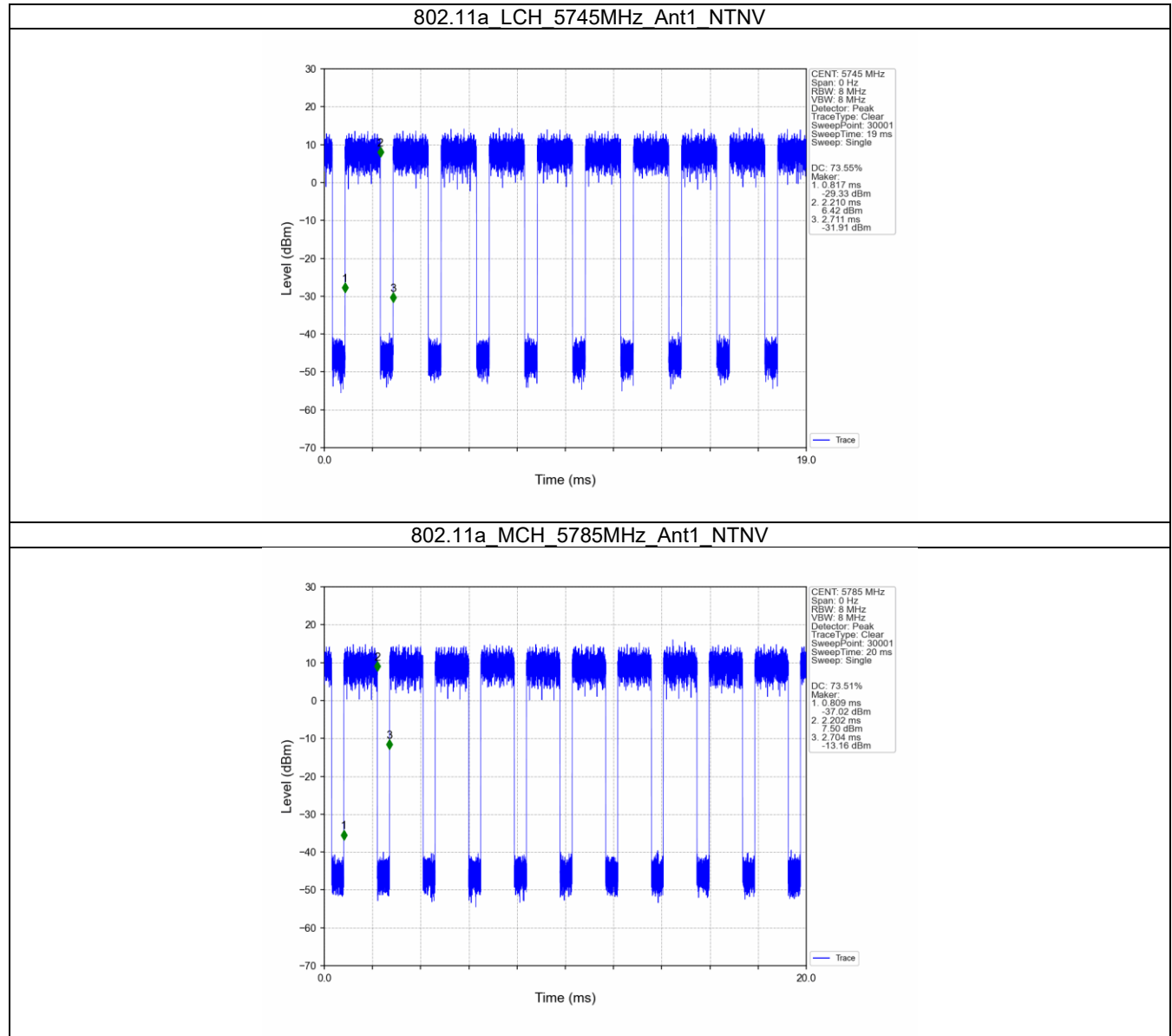
Ant1									
Mode	TX Type	Frequency (MHz)	RU	RU Pos	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
802.11a	SISO	5745	/	/	1.393	1.894	73.55	1.33	0.03
		5785	/	/	1.393	1.895	73.51	1.34	0.04
		5825	/	/	1.393	1.895	73.51	1.34	0.03
802.11n (HT20)	MIMO	5745	/	/	1.175	1.677	70.07	1.54	0.02
		5785	/	/	1.174	1.676	70.05	1.55	0.06
		5825	/	/	1.175	1.676	70.11	1.54	0.03
802.11n (HT40)	MIMO	5755	/	/	0.584	1.086	53.78	2.69	0.03
		5795	/	/	0.584	1.086	53.78	2.69	0.00
802.11ac (VHT20)	MIMO	5745	/	/	1.178	1.680	70.12	1.54	0.03
		5785	/	/	1.179	1.680	70.18	1.54	0.00
		5825	/	/	1.178	1.680	70.12	1.54	0.07
802.11ac (VHT40)	MIMO	5755	/	/	0.588	1.090	53.94	2.68	0.00
		5795	/	/	0.589	1.090	54.04	2.67	0.00
802.11ac (VHT80)	MIMO	5775	/	/	0.296	0.798	37.09	4.31	0.03
802.11ax (HEW20)	MIMO	5745	SU	/	1.010	1.512	66.80	1.75	0.03
		5785	SU	/	1.011	1.513	66.82	1.75	0.03
		5825	SU	/	1.010	1.511	66.84	1.75	0.03
802.11ax (HEW40)	MIMO	5755	SU	/	0.534	1.036	51.54	2.88	0.02
		5795	SU	/	0.534	1.036	51.54	2.88	0.05
802.11ax (HEW80)	MIMO	5775	SU	/	0.288	0.790	36.46	4.38	0.03

1.1.2 Ant2

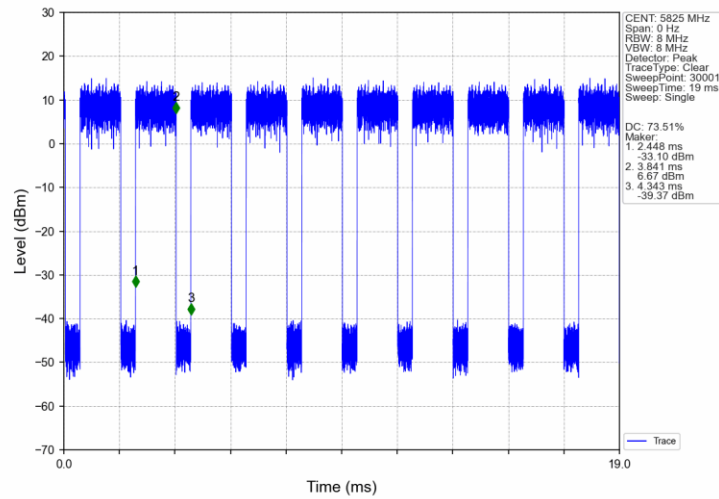
Ant2									
Mode	TX Type	Frequency (MHz)	RU	RU Pos	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
802.11a	SISO	5745	/	/	1.393	1.894	73.55	1.33	0.01
		5785	/	/	1.392	1.894	73.50	1.34	0.03
		5825	/	/	1.393	1.894	73.55	1.33	0.03
802.11n (HT20)	MIMO	5745	/	/	1.175	1.677	70.07	1.54	0.03
		5785	/	/	1.175	1.677	70.07	1.54	0.05
		5825	/	/	1.175	1.676	70.11	1.54	0.01
802.11n (HT40)	MIMO	5755	/	/	0.584	1.086	53.78	2.69	0.07
		5795	/	/	0.584	1.086	53.78	2.69	0.03
802.11ac (VHT20)	MIMO	5745	/	/	1.178	1.680	70.12	1.54	0.03
		5785	/	/	1.179	1.681	70.14	1.54	0.00
		5825	/	/	1.178	1.680	70.12	1.54	0.03
802.11ac (VHT40)	MIMO	5755	/	/	0.588	1.090	53.94	2.68	0.03
		5795	/	/	0.588	1.090	53.94	2.68	0.03
802.11ac (VHT80)	MIMO	5775	/	/	0.297	0.798	37.22	4.29	0.03
802.11ax (HEW20)	MIMO	5745	SU	/	1.010	1.513	66.75	1.76	0.06
		5785	SU	/	1.010	1.512	66.80	1.75	0.03
		5825	SU	/	1.010	1.511	66.84	1.75	0.03
802.11ax (HEW40)	MIMO	5755	SU	/	0.534	1.036	51.54	2.88	0.04
		5795	SU	/	0.534	1.036	51.54	2.88	0.02
802.11ax (HEW80)	MIMO	5775	SU	/	0.287	0.789	36.38	4.39	0.03

1.2 Test Graph

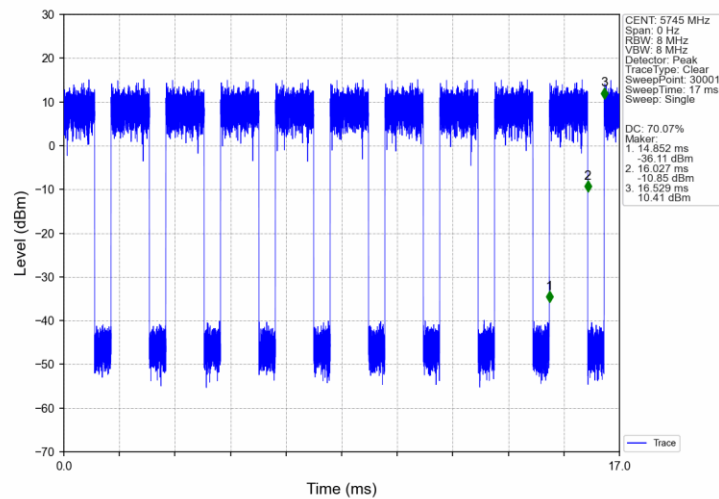
1.2.1 Ant1



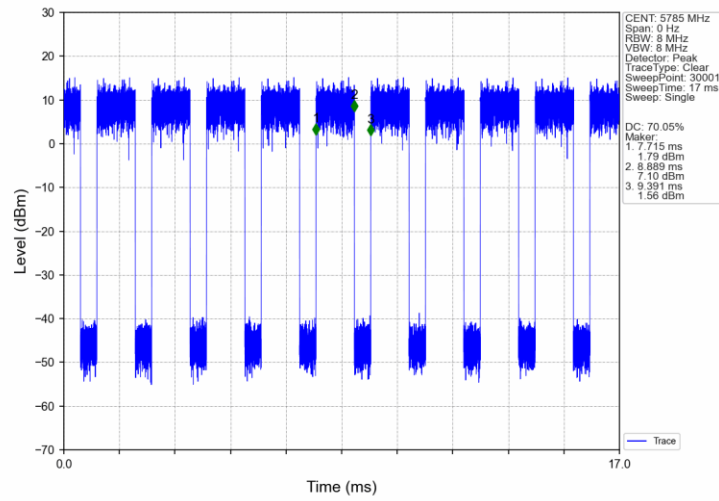
802.11a_HCH_5825MHz_Ant1_NTNV



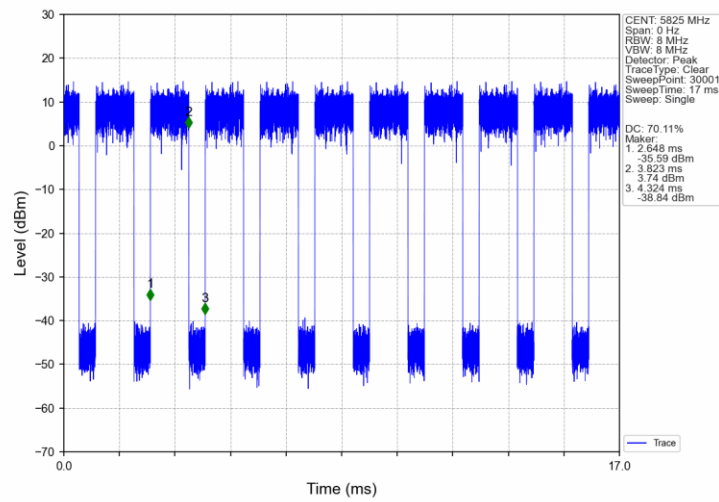
802.11n(HT20)_LCH_5745MHz_Ant1_NTNV



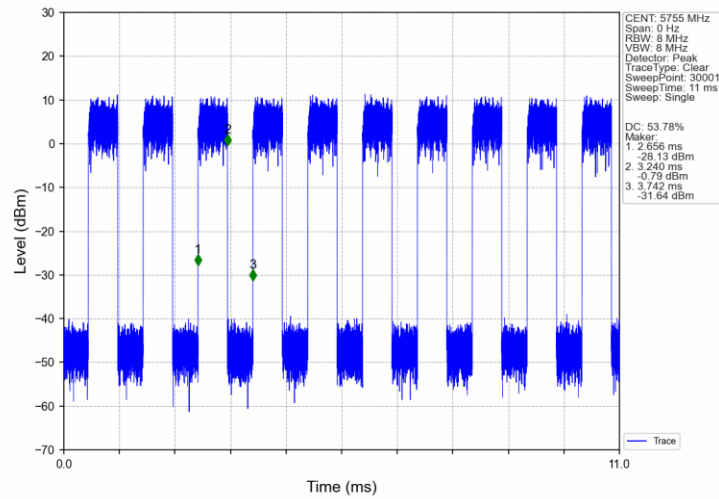
802.11n(HT20) MCH 5785MHz Ant1 NTN



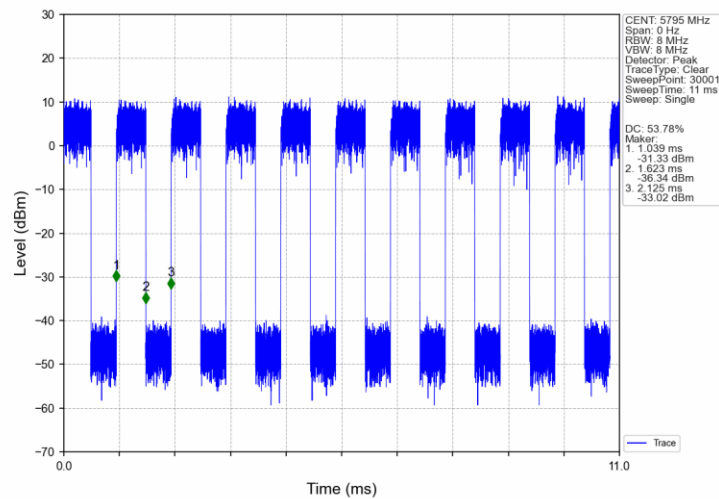
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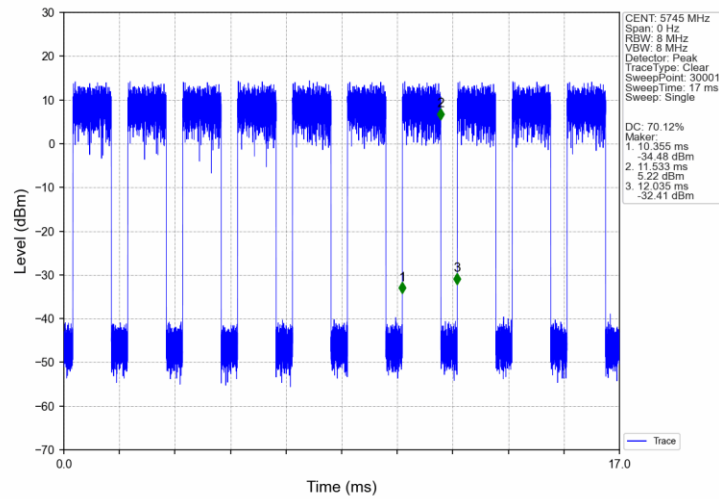
802.11n(HT40) LCH 5755MHz Ant1 NTN



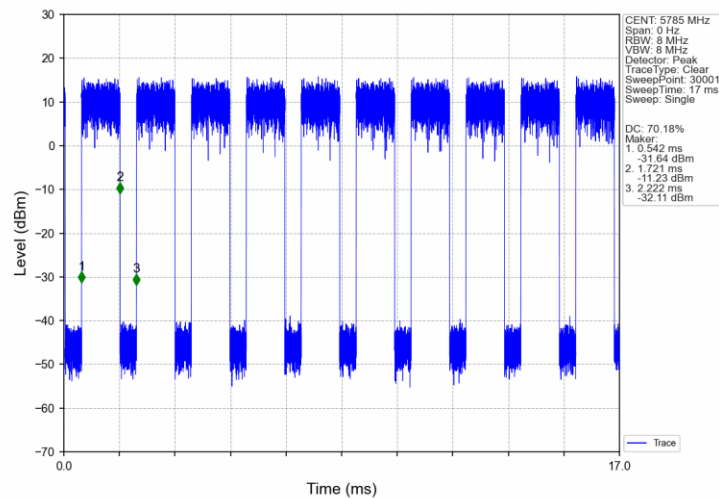
802.11n(HT40) HCH 5795MHz Ant1 NTN



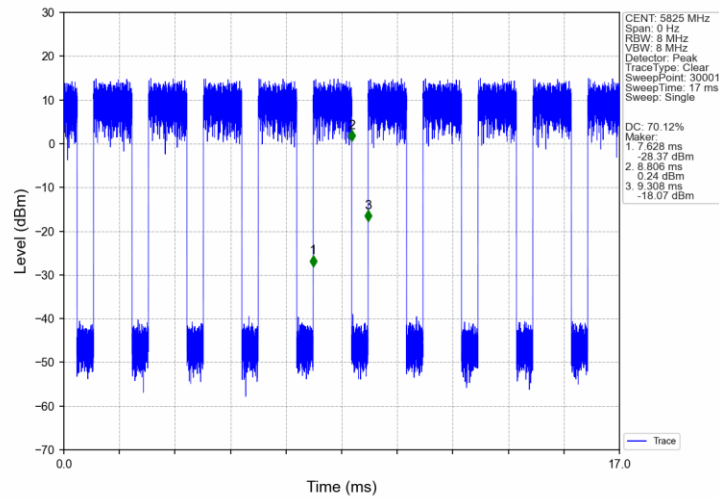
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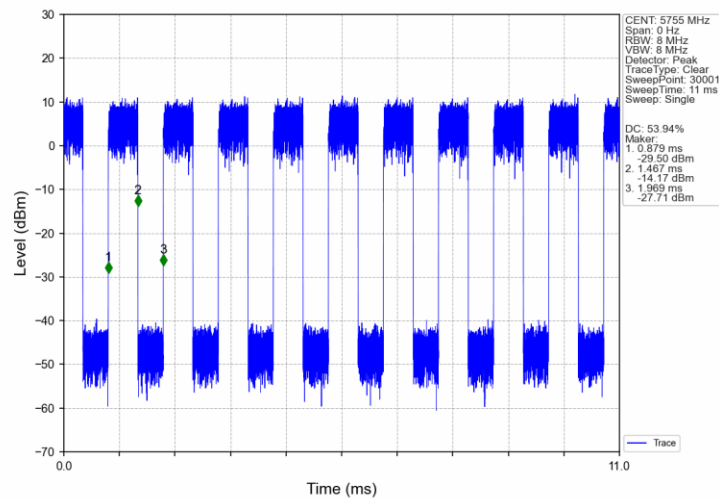
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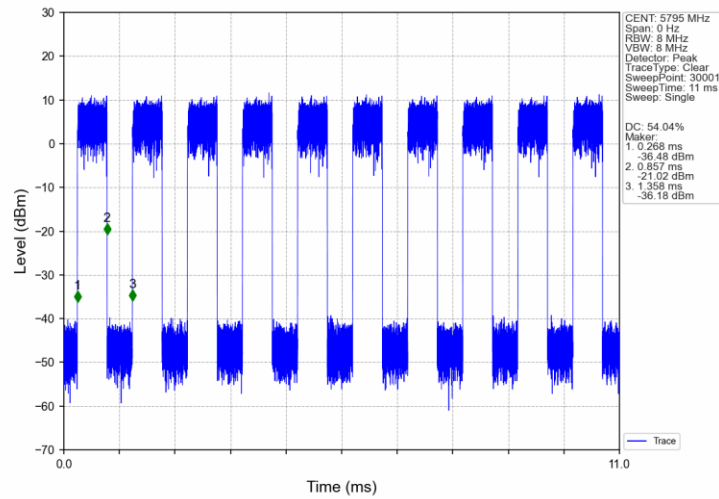
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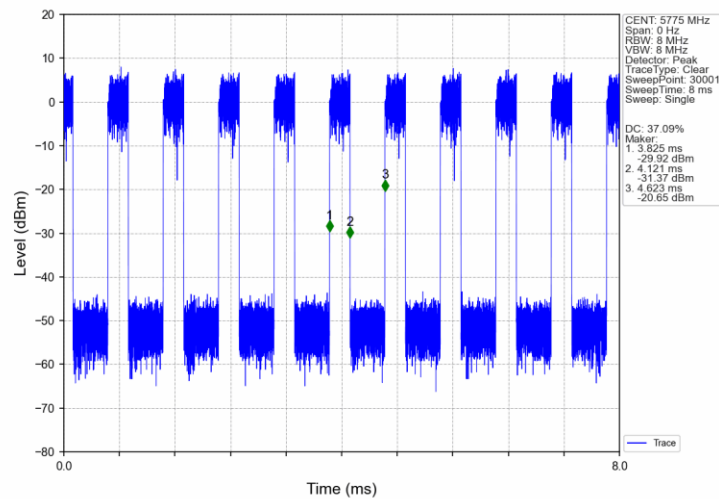
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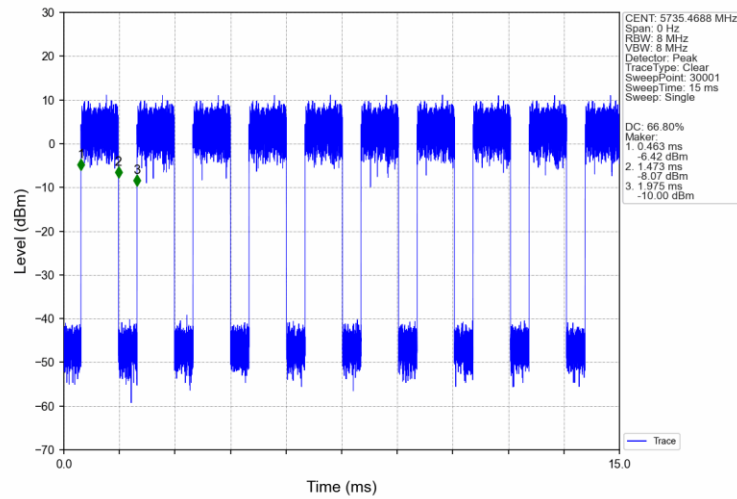
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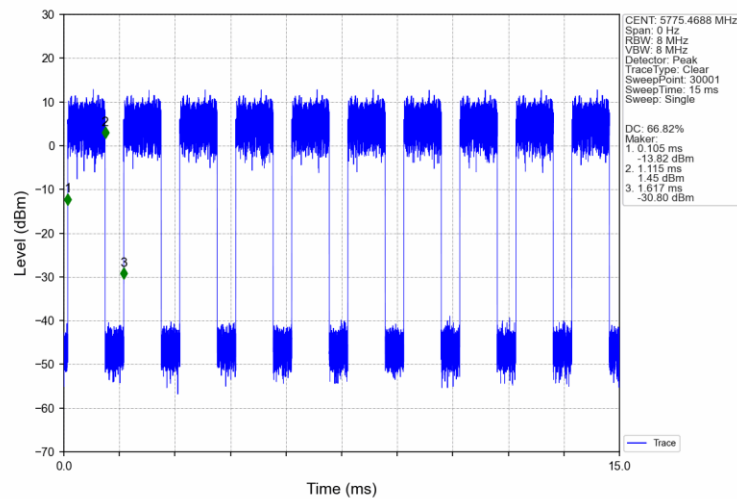
802.11ac(VHT80) MCH 5775MHz Ant1 NTN



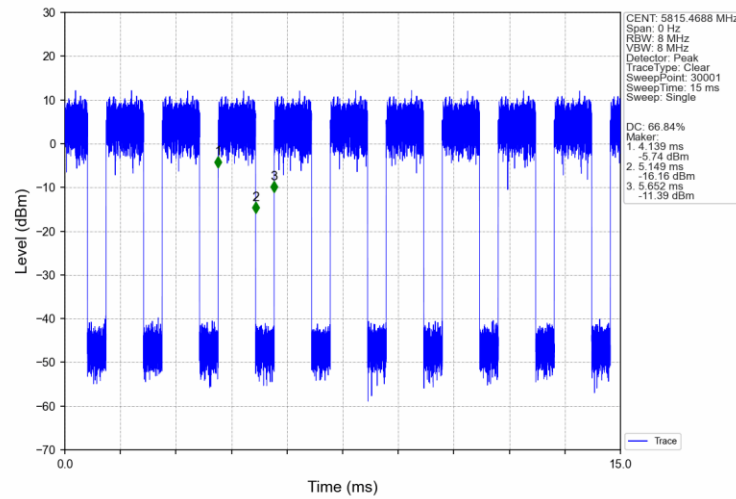
802.11ax(HEW20) LCH 5745MHz SU / Ant1 NTN



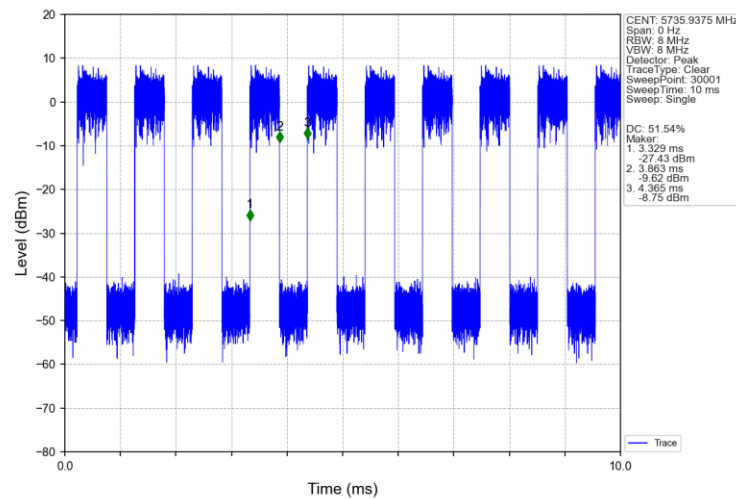
802.11ax(HEW20) MCH 5785MHz SU / Ant1 NTN



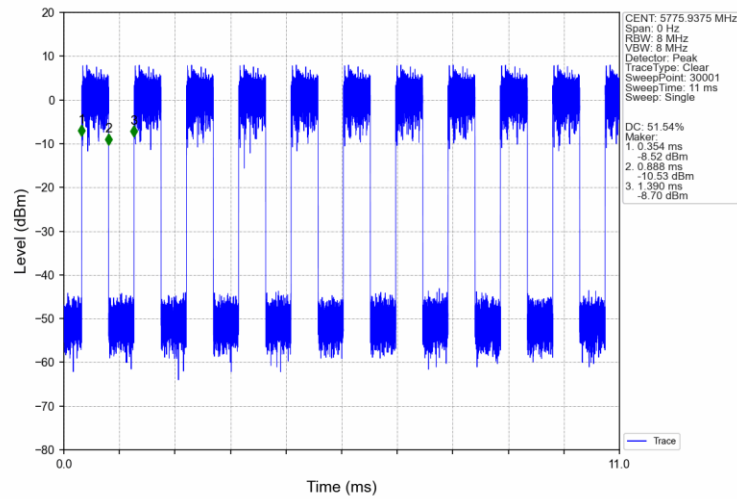
802.11ax(HEW20) HCH 5825MHz SU / Ant1 NTN



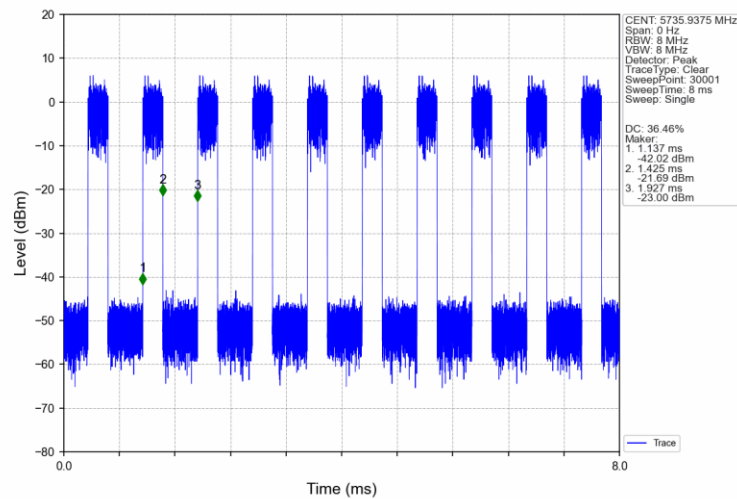
802.11ax(HEW40) LCH 5755MHz SU / Ant1 NTN



802.11ax(HEW40) HCH 5795MHz SU / Ant1 NTN

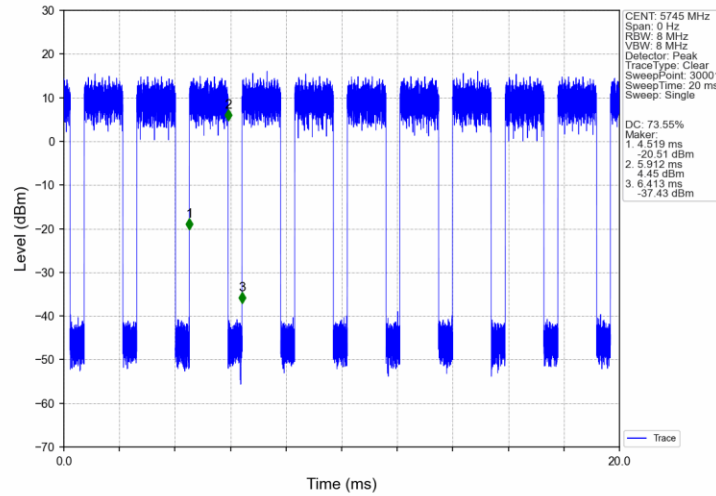


802.11ax(HEW80) MCH 5775MHz SU / Ant1 NTN

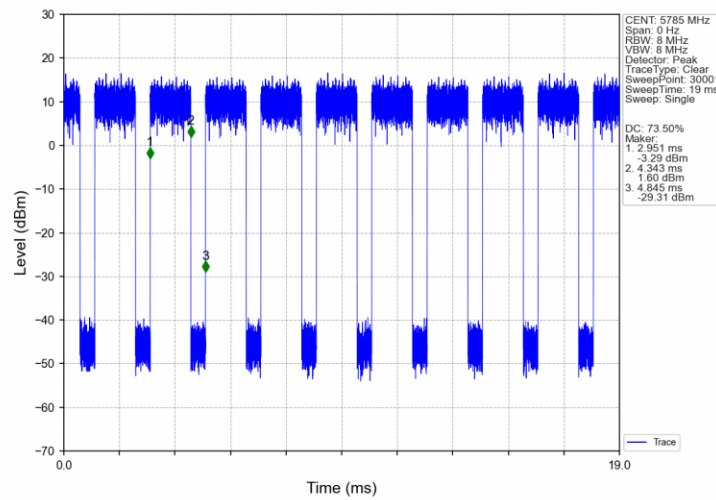


1.2.2 Ant2

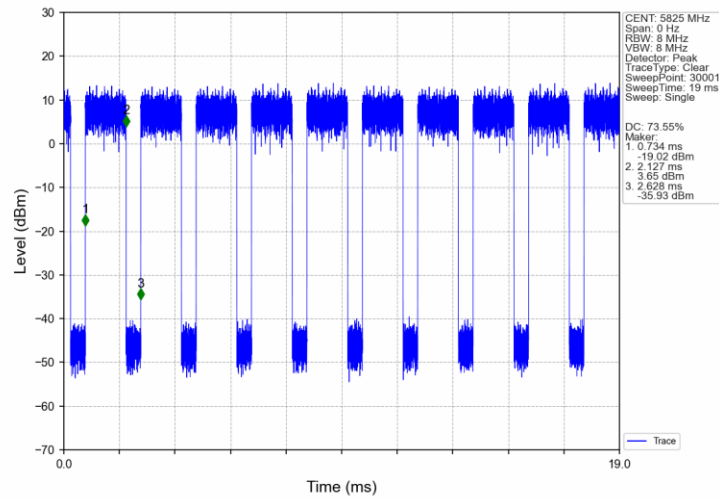
802.11a LCH 5745MHz Ant2 NTN



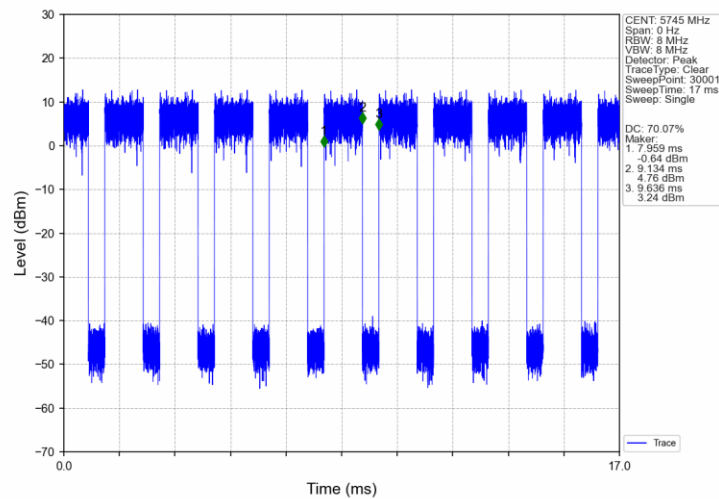
802.11a MCH 5785MHz Ant2 NTN



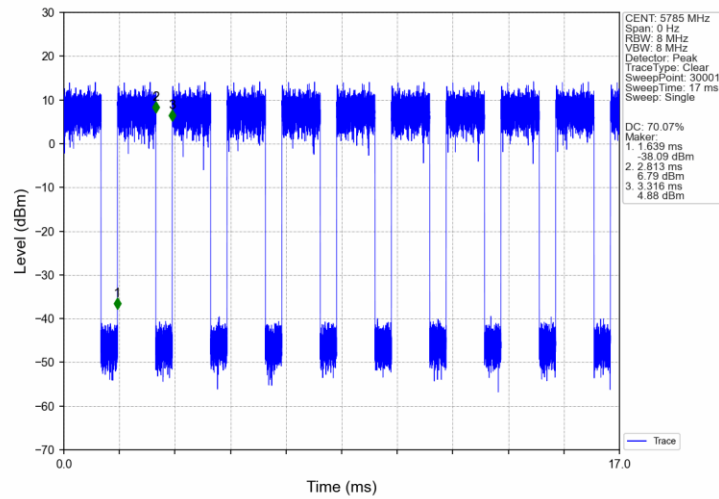
802.11a_HCH_5825MHz_Ant2_NTNV



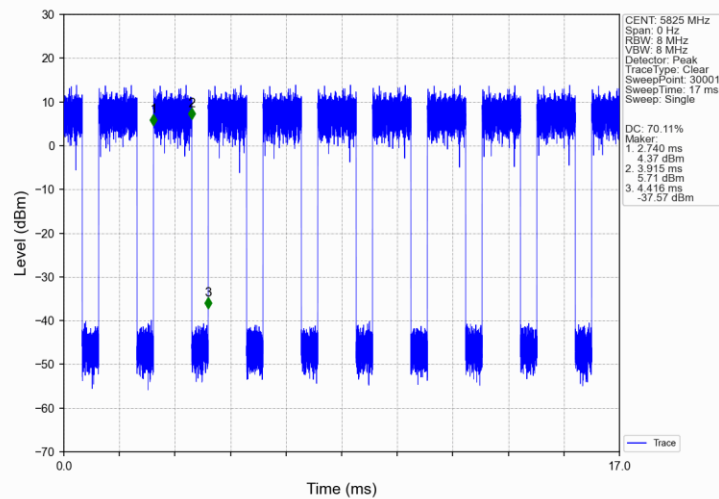
802.11n(HT20)_LCH_5745MHz_Ant2_NTNV



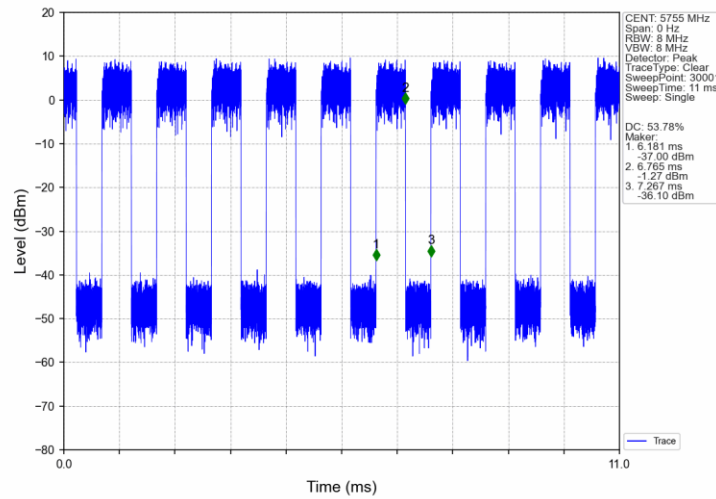
802.11n(HT20) MCH 5785MHz Ant2 NTN



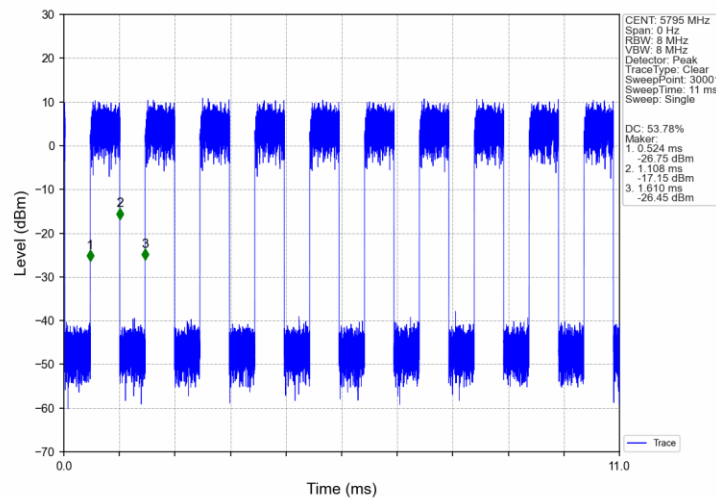
802.11n(HT20) HCH 5825MHz Ant2 NTN



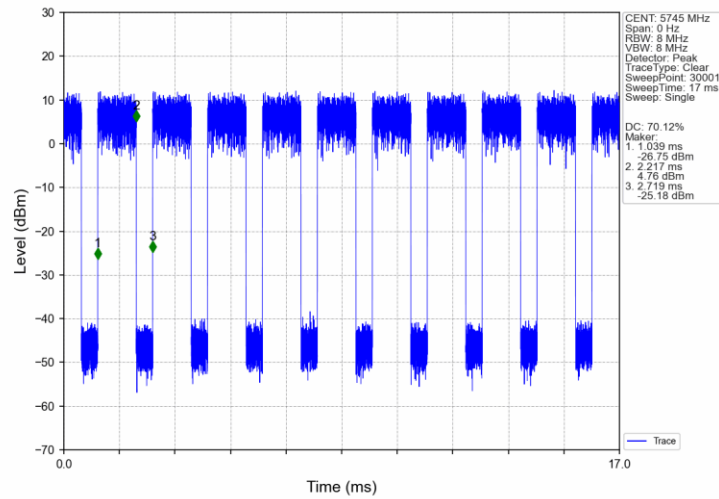
802.11n(HT40) LCH 5755MHz Ant2 NTN



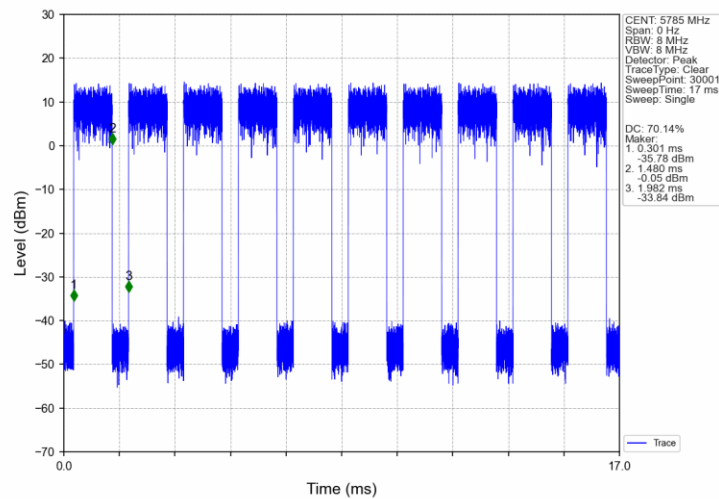
802.11n(HT40) HCH 5795MHz Ant2 NTN



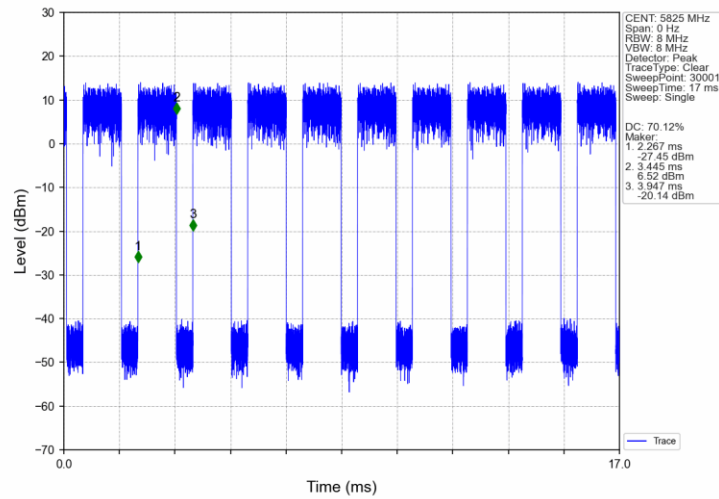
802.11ac(VHT20) LCH 5745MHz Ant2 NTN



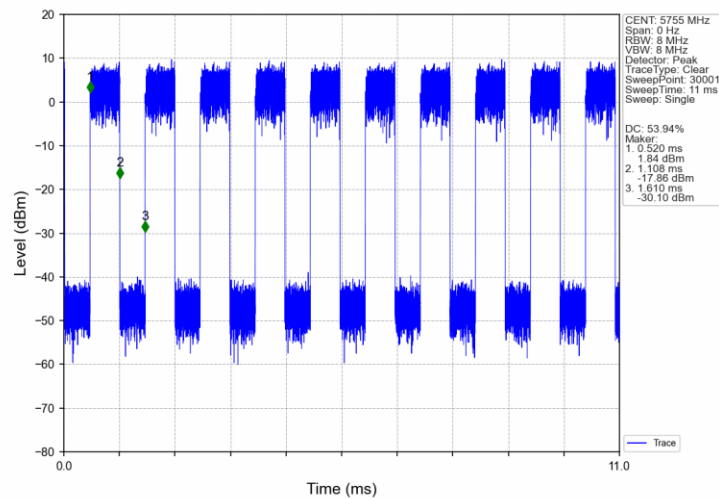
802.11ac(VHT20) MCH 5785MHz Ant2 NTN



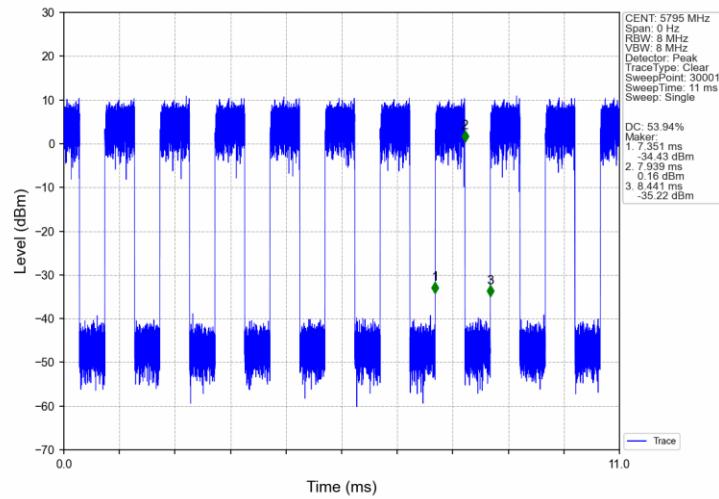
802.11ac(VHT20) HCH 5825MHz Ant2 NTN



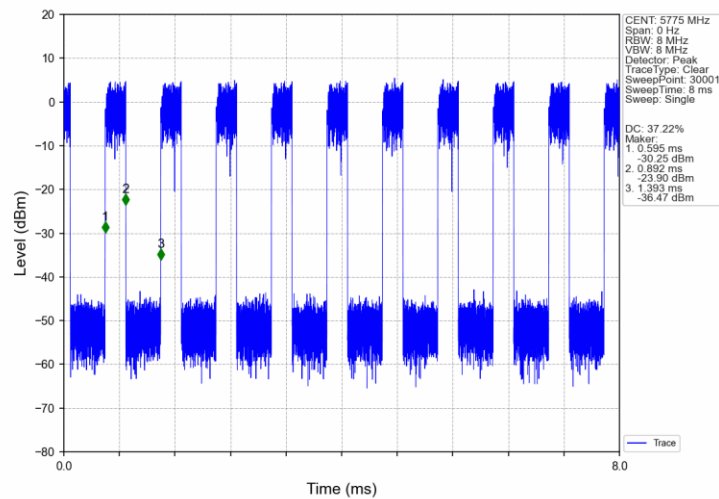
802.11ac(VHT40) LCH 5755MHz Ant2 NTN



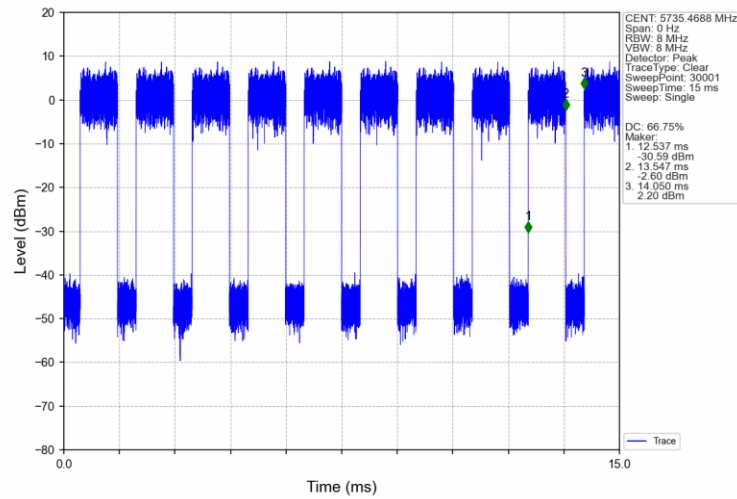
802.11ac(VHT40) HCH 5795MHz Ant2 NTN



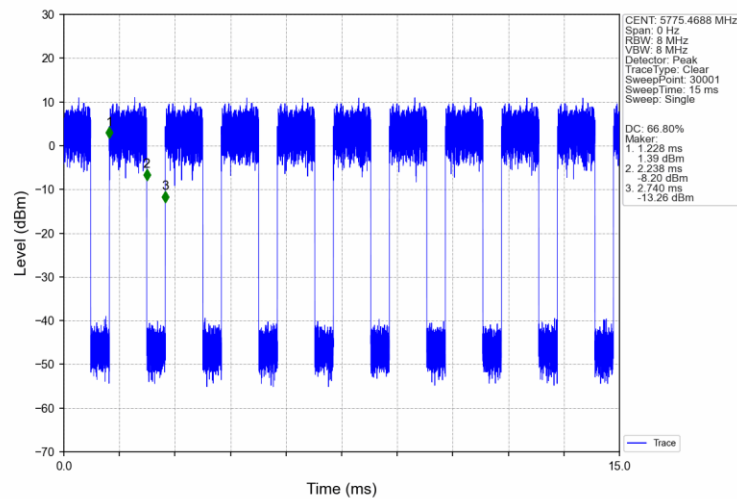
802.11ac(VHT80) MCH 5775MHz Ant2 NTN



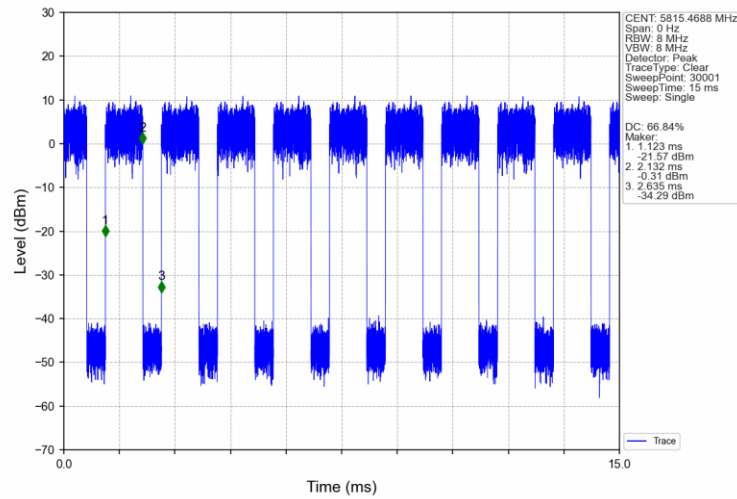
802.11ax(HEW20) LCH 5745MHz SU / Ant2 NTN



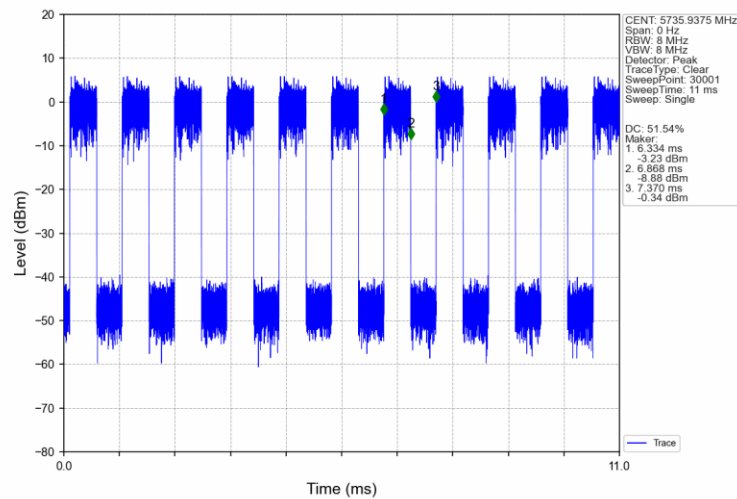
802.11ax(HEW20) MCH 5785MHz SU / Ant2 NTN



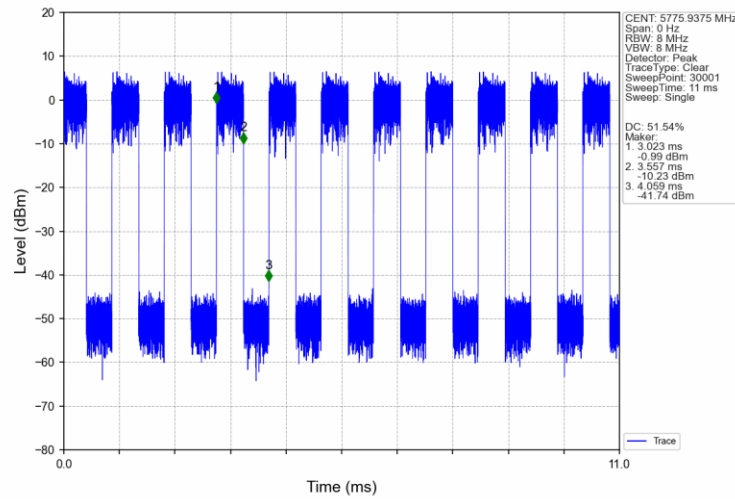
802.11ax(HEW20) HCH 5825MHz SU / Ant2 NTNv



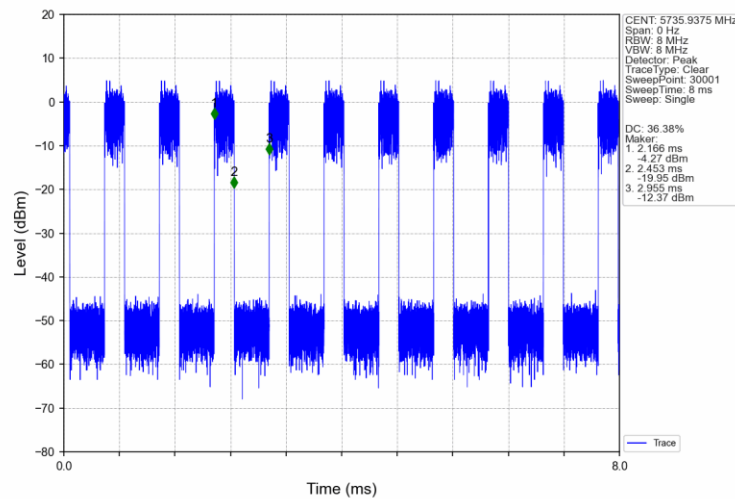
802.11ax(HEW40) LCH 5755MHz SU / Ant2 NTNv



802.11ax(HEW40) HCH 5795MHz SU / Ant2 NTNv



802.11ax(HEW80) MCH 5775MHz SU / Ant2 NTNv



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	16.604	/	Pass
		5785	/	/	1	16.632	/	Pass
		5825	/	/	1	16.665	/	Pass
802.11n (HT20)	MIMO	5745	/	/	1	17.694	/	Pass
		5785	/	/	1	17.720	/	Pass
		5825	/	/	1	17.711	/	Pass
802.11n (HT40)	MIMO	5755	/	/	1	36.222	/	Pass
		5795	/	/	1	36.272	/	Pass
802.11ac (VHT20)	MIMO	5745	/	/	1	17.665	/	Pass
		5785	/	/	1	17.741	/	Pass
		5825	/	/	1	17.698	/	Pass
802.11ac (VHT40)	MIMO	5755	/	/	1	36.286	/	Pass
		5795	/	/	1	36.309	/	Pass
802.11ac (VHT80)	MIMO	5775	/	/	1	77.203	/	Pass
802.11ax (HEW20)	MIMO	5745	SU	/	1	18.973	/	Pass
		5785	SU	/	1	19.005	/	Pass
		5825	SU	/	1	18.971	/	Pass
802.11ax (HEW40)	MIMO	5755	SU	/	1	37.883	/	Pass
		5795	SU	/	1	37.938	/	Pass
802.11ax (HEW80)	MIMO	5775	SU	/	1	77.913	/	Pass

Remark: both ANT1 and ANT2 tested, recorded the worst result of ANT1.

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	16.025	≥ 0.5	Pass
		5785	/	/	1	16.329	≥ 0.5	Pass
		5825	/	/	1	16.364	≥ 0.5	Pass
802.11n (HT20)	MIMO	5745	/	/	1	17.019	≥ 0.5	Pass
		5785	/	/	1	17.263	≥ 0.5	Pass
		5825	/	/	1	17.564	≥ 0.5	Pass
802.11n (HT40)	MIMO	5755	/	/	1	35.950	≥ 0.5	Pass
		5795	/	/	1	35.891	≥ 0.5	Pass
802.11ac (VHT20)	MIMO	5745	/	/	1	17.144	≥ 0.5	Pass
		5785	/	/	1	17.443	≥ 0.5	Pass
		5825	/	/	1	17.269	≥ 0.5	Pass
802.11ac (VHT40)	MIMO	5755	/	/	1	35.265	≥ 0.5	Pass
		5795	/	/	1	35.595	≥ 0.5	Pass
802.11ac (VHT80)	MIMO	5775	/	/	1	75.581	≥ 0.5	Pass
802.11ax (HEW20)	MIMO	5745	SU	/	1	18.352	≥ 0.5	Pass
		5785	SU	/	1	18.865	≥ 0.5	Pass
		5825	SU	/	1	18.836	≥ 0.5	Pass
802.11ax (HEW40)	MIMO	5755	SU	/	1	37.480	≥ 0.5	Pass
		5795	SU	/	1	37.569	≥ 0.5	Pass

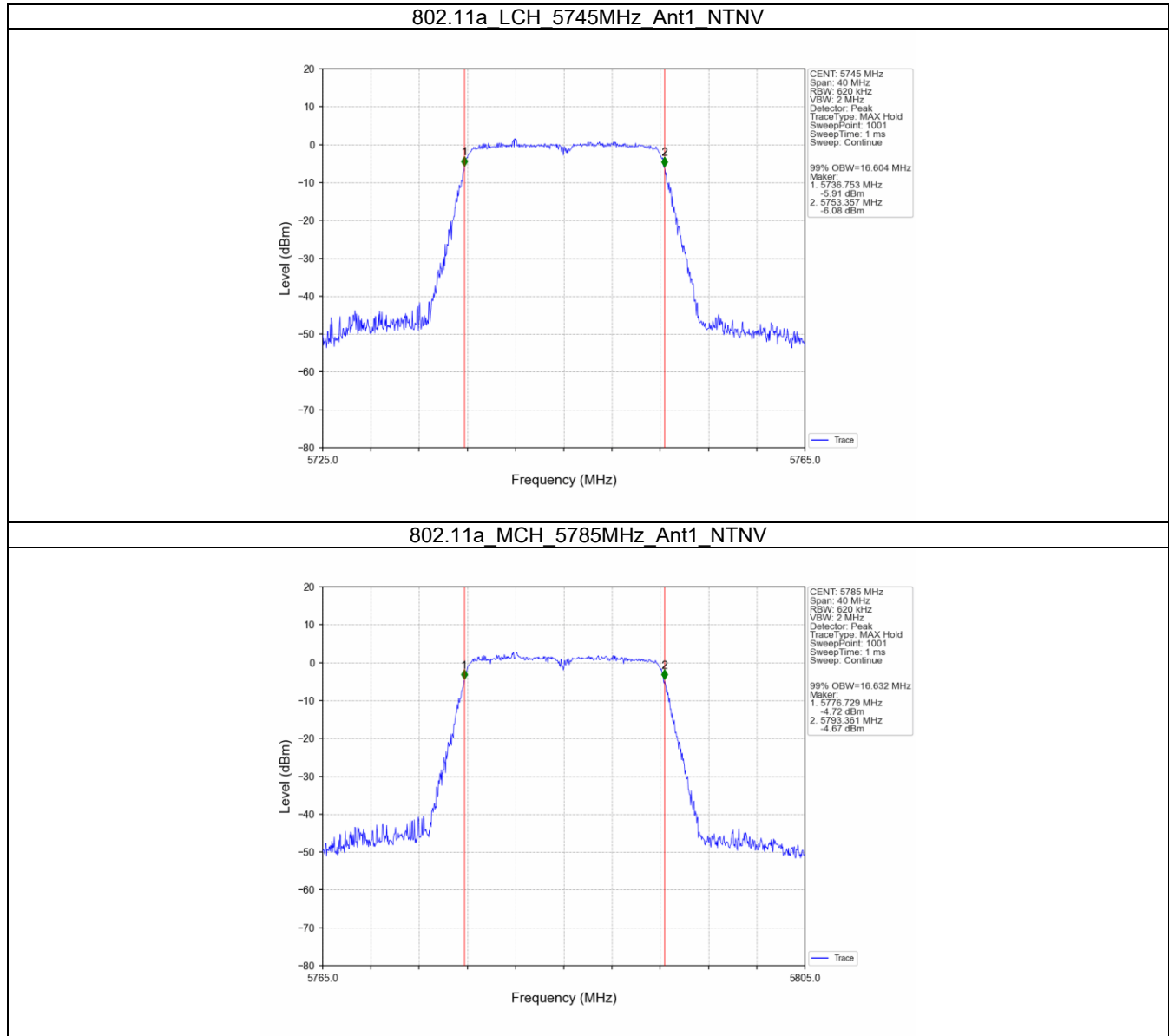


802.11ax (HEW80)	MIMO	5775	SU	/	1	76.129	≥ 0.5	Pass
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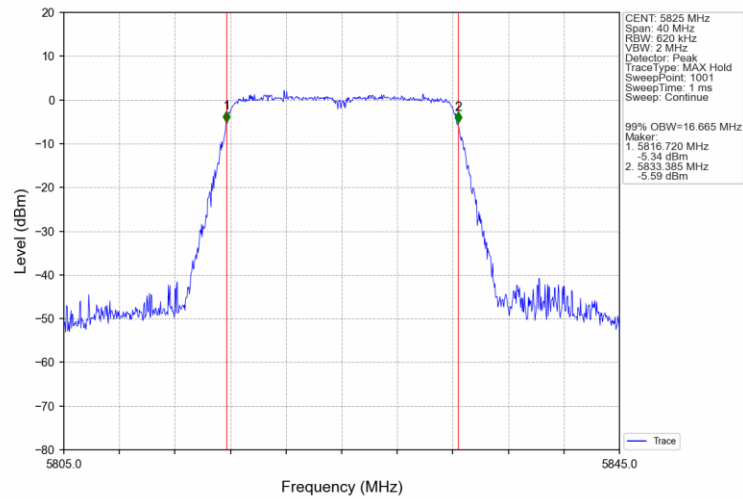
Remark: both ANT1 and ANT2 tested, recorded the worst result of ANT1.

2.2 Test Graph

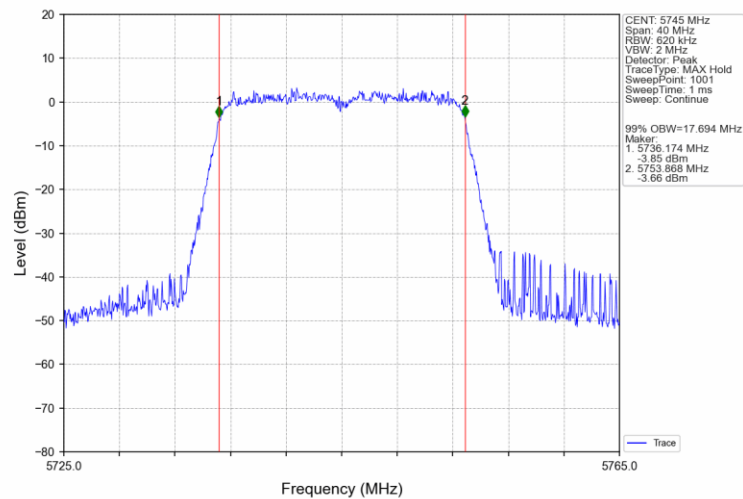
2.2.1 OBW



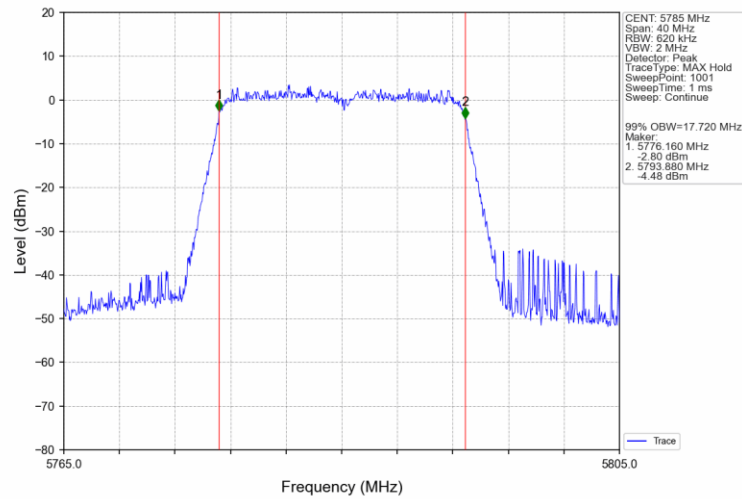
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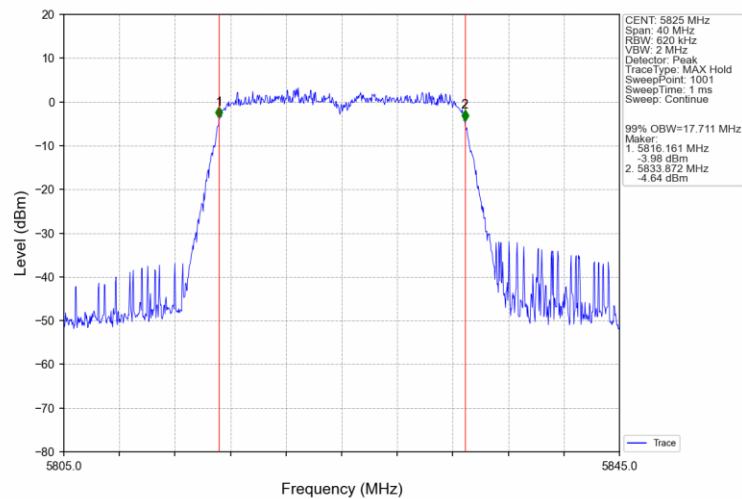
802.11n(HT20)_LCH_5745MHz_Ant1_NTNV



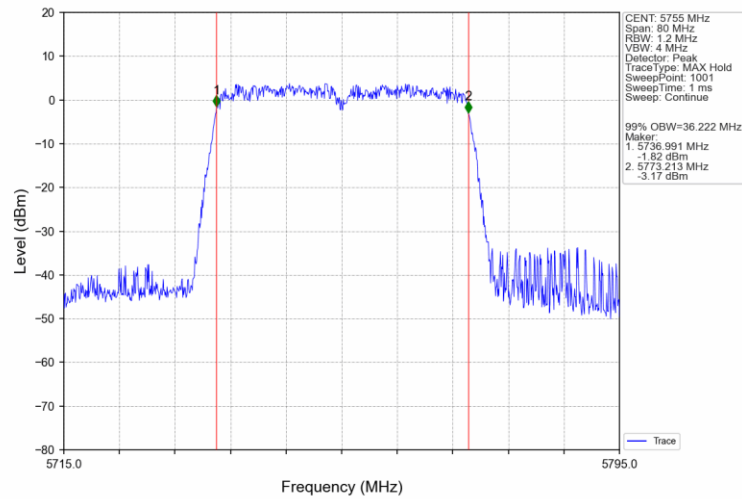
802.11n(HT20) MCH 5785MHz Ant1 NTN



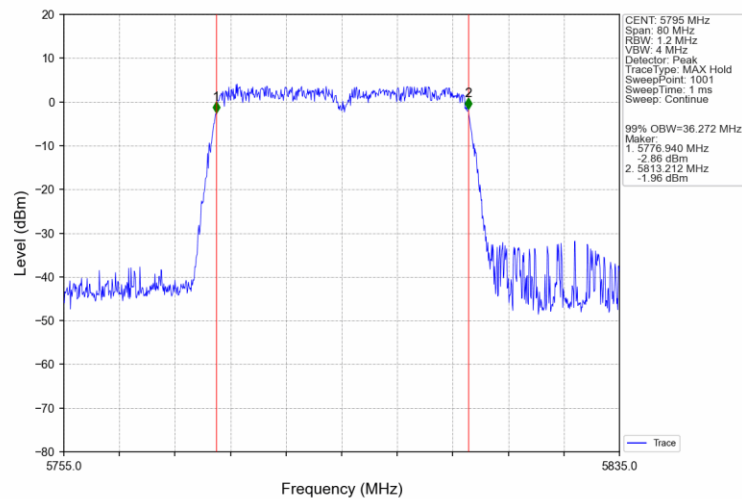
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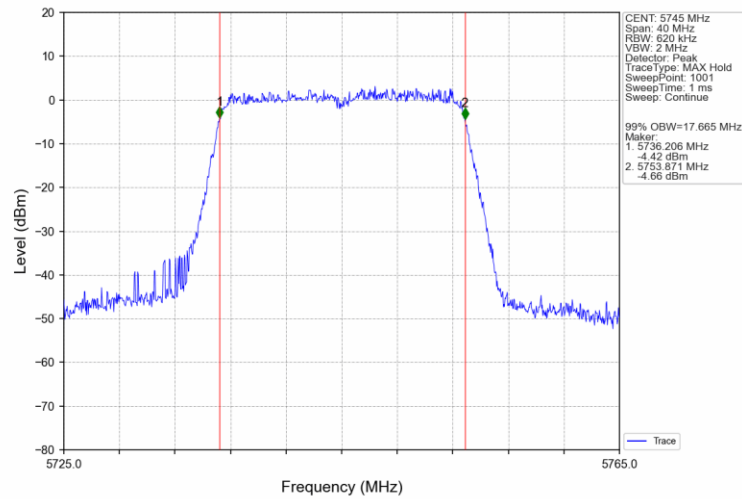
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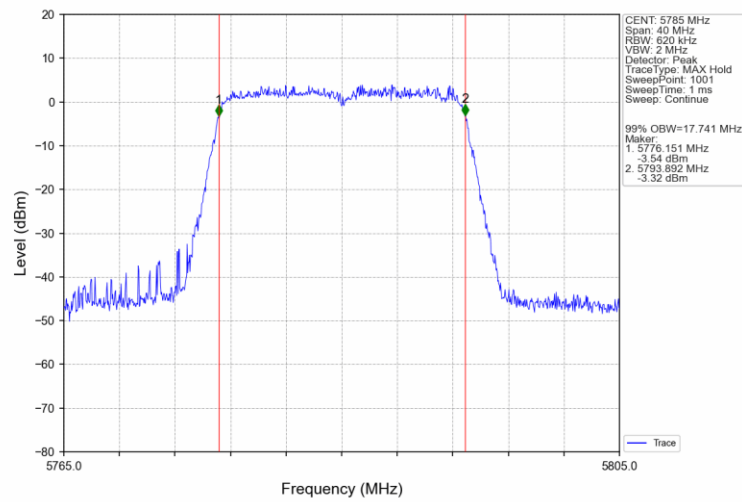
802.11n(HT40) HCH 5795MHz Ant1 NTN



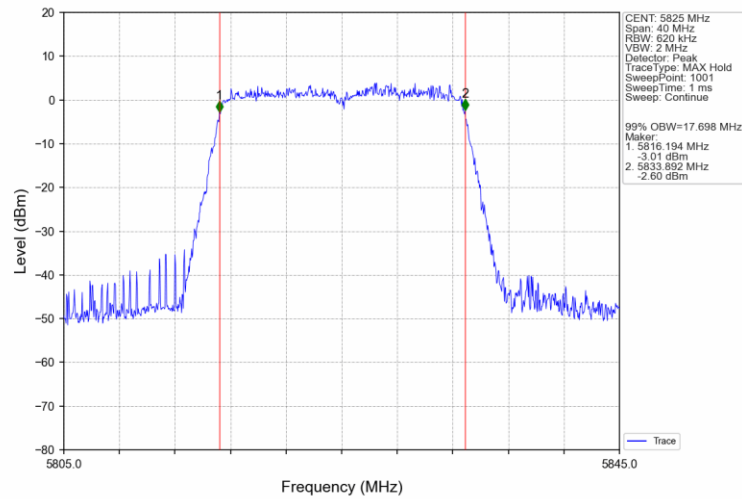
802.11ac(VHT20) LCH 5745MHz Ant1 NTN



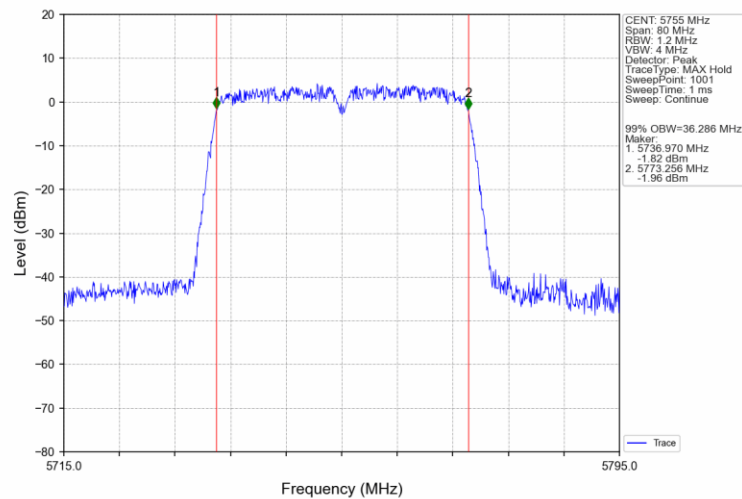
802.11ac(VHT20) MCH 5785MHz Ant1 NTN



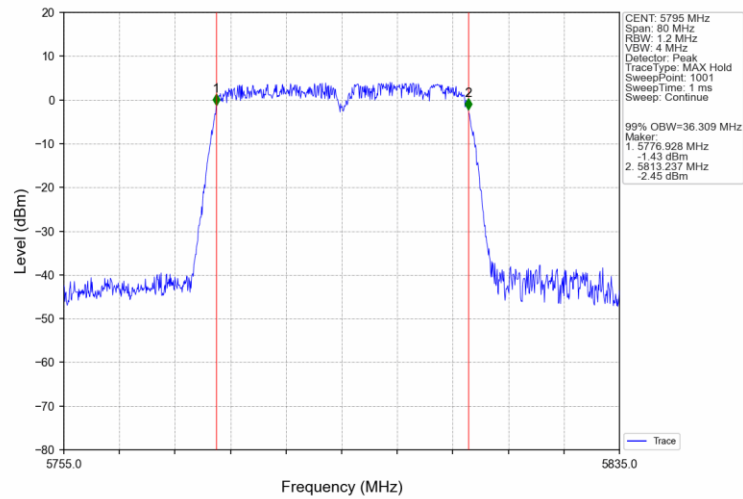
802.11ac(VHT20) HCH 5825MHz Ant1 NTN



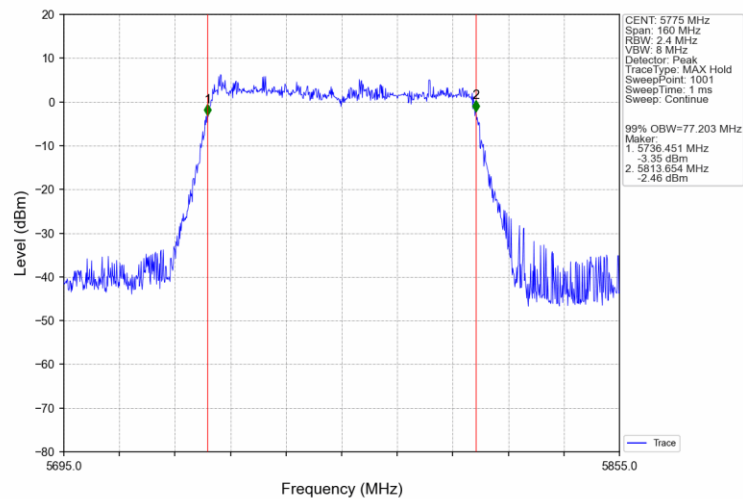
802.11ac(VHT40) LCH 5755MHz Ant1 NTN



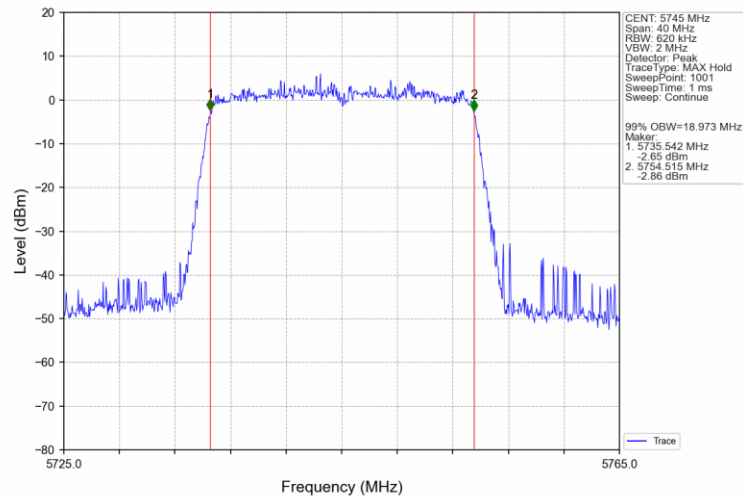
802.11ac(VHT40) HCH 5795MHz Ant1 NTN



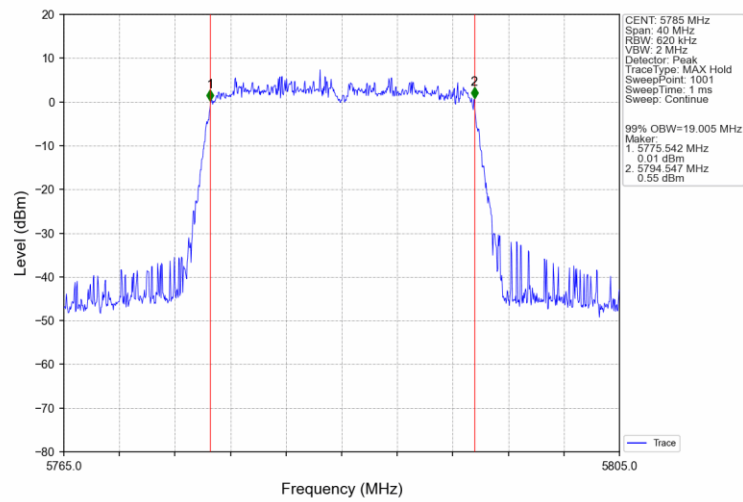
802.11ac(VHT80) MCH 5775MHz Ant1 NTN



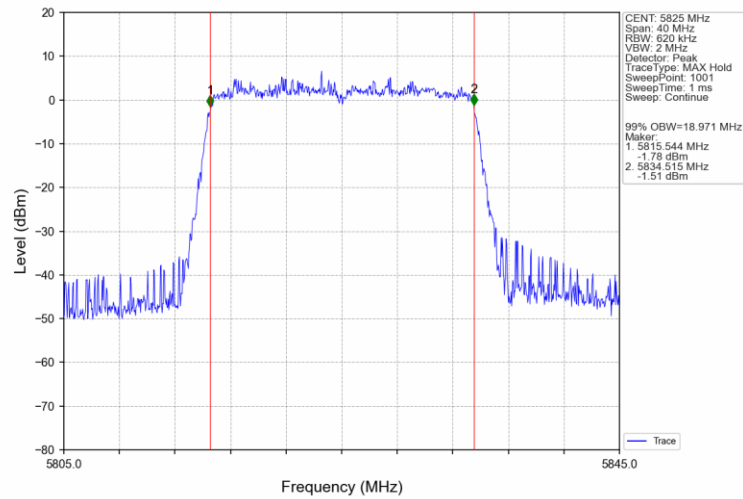
802.11ax(HEW20) LCH 5745MHz SU / Ant1 NTN



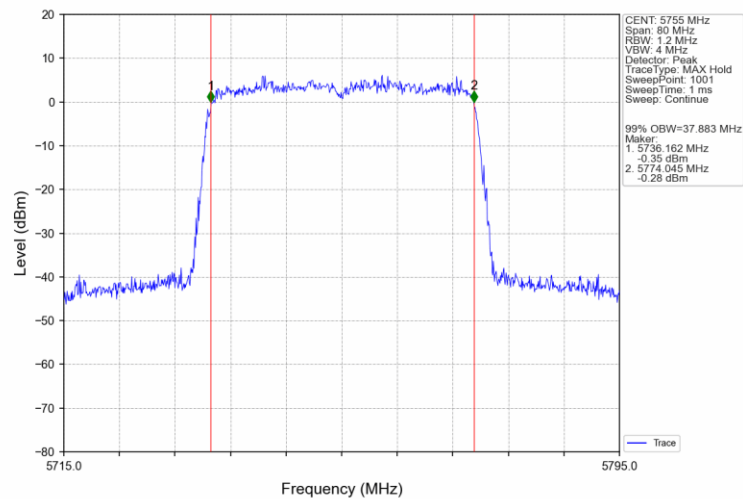
802.11ax(HEW20) MCH 5785MHz SU / Ant1 NTN



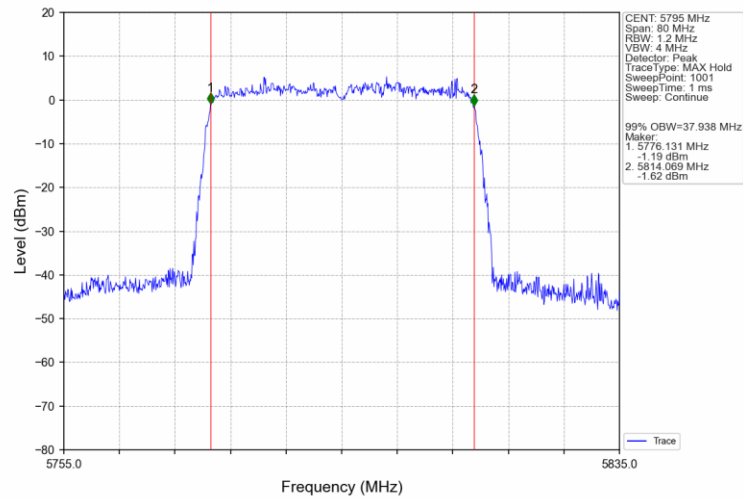
802.11ax(HEW20) HCH 5825MHz SU / Ant1 NTNv



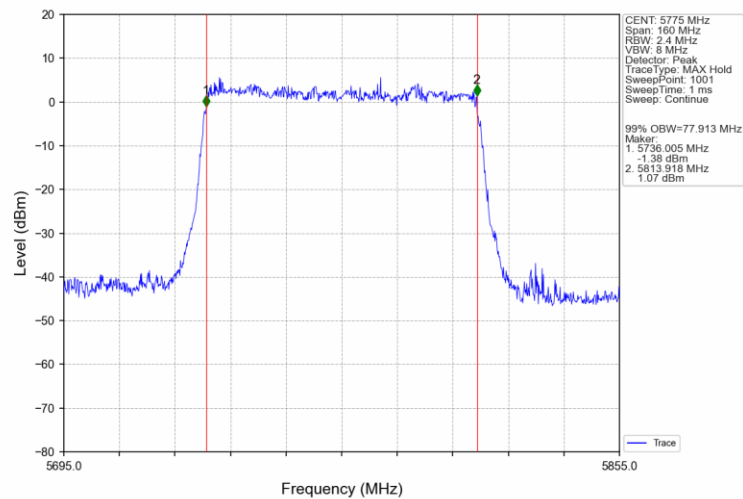
802.11ax(HEW40) LCH 5755MHz SU / Ant1 NTNv



802.11ax(HEW40) HCH 5795MHz SU / Ant1 NTNv

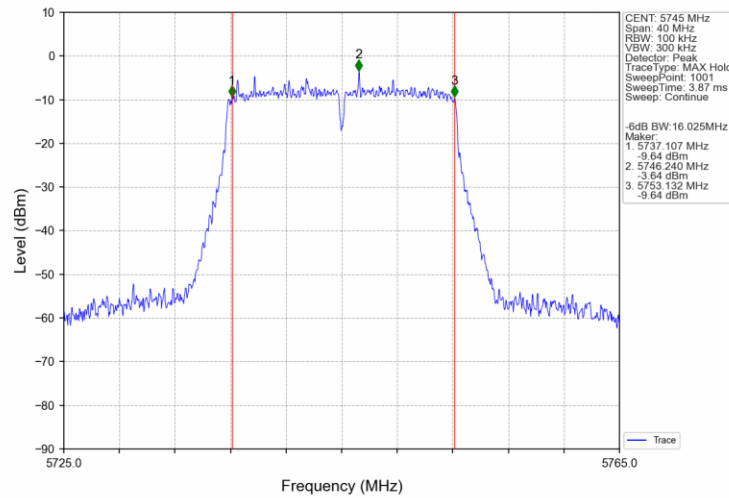


802.11ax(HEW80) MCH 5775MHz SU / Ant1 NTNv

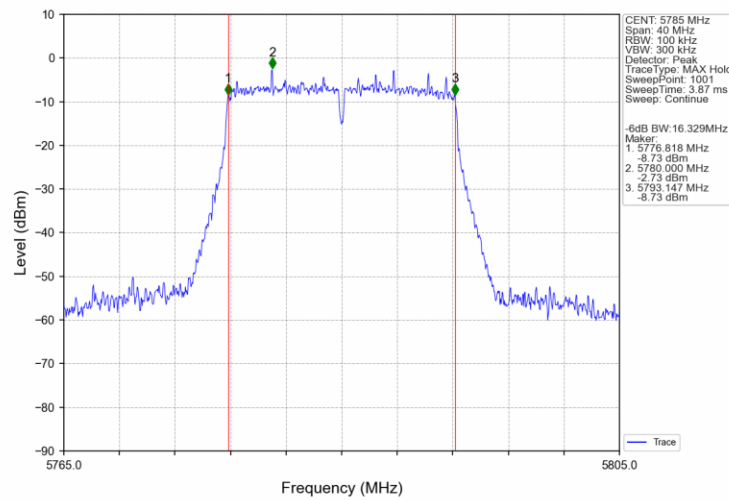


2.2.2 6dB BW

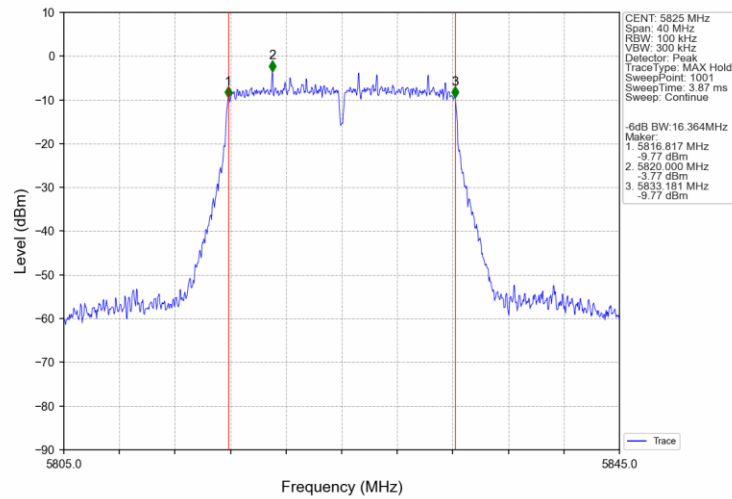
802.11a LCH 5745MHz Ant1 NTN



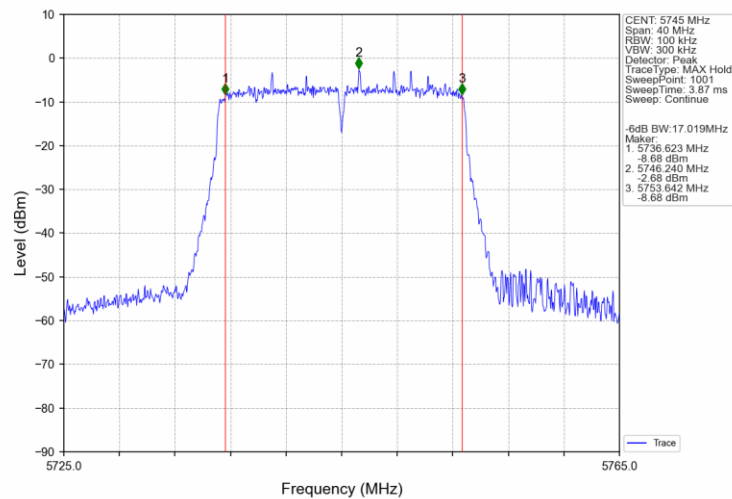
802.11a_MCH_5785MHz_Ant1_NTNV



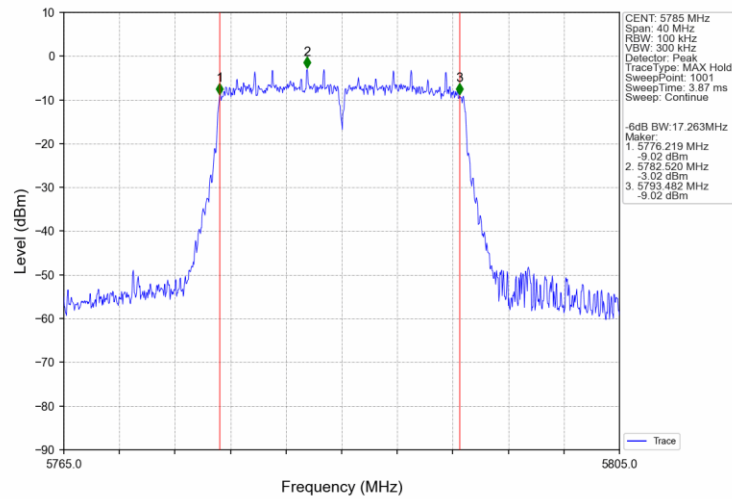
802.11a_HCH_5825MHz_Ant1_NTNV



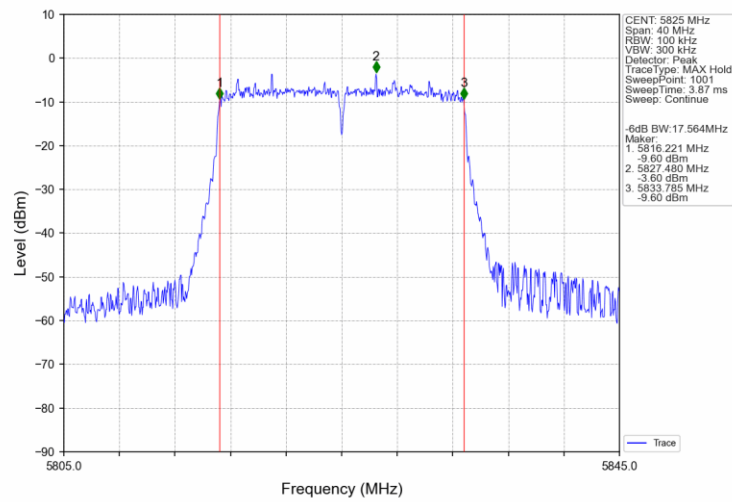
802.11n(HT20)_LCH_5745MHz_Ant1_NTNV



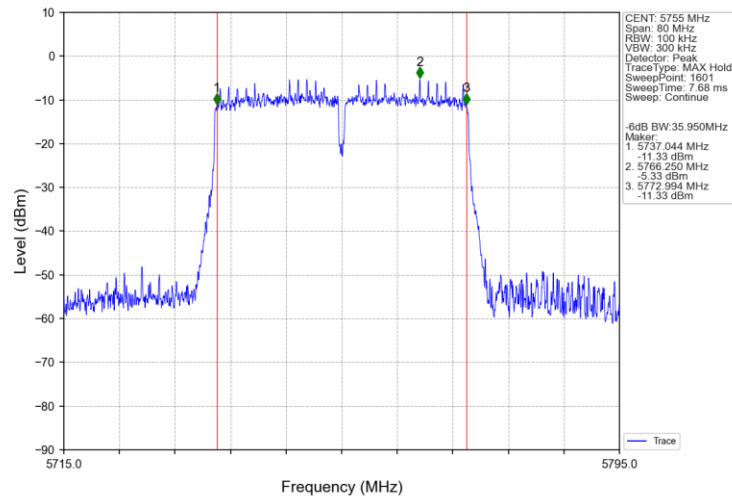
802.11n(HT20) MCH 5785MHz Ant1 NTV



802.11n(HT20) HCH 5825MHz Ant1 NTV



802.11n(HT40) LCH 5755MHz Ant1 NTN



802.11n(HT40) HCH 5795MHz Ant1 NTN

