

Appendix RF test data for WIFI2.4G

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 (%)
802.11b	SISO	2412	/	/	4.289	4.362	98.33	0.07	0.04
		2437	/	/	4.289	4.363	98.30	0.07	0.03
		2462	/	/	4.288	4.362	98.30	0.07	0.04
802.11g	SISO	2412	/	/	1.392	1.453	95.80	0.19	0.63
		2437	/	/	1.392	1.454	95.74	0.19	0.62
		2462	/	/	1.393	1.455	95.74	0.19	0.63
802.11n (HT20)	MIMO	2412	/	/	1.309	1.370	95.55	0.20	0.66
		2437	/	/	1.309	1.370	95.55	0.20	0.66
		2462	/	/	1.308	1.369	95.54	0.20	0.69
802.11n (HT40)	MIMO	2422	/	/	0.649	0.709	91.54	0.38	1.19
		2437	/	/	0.649	0.710	91.41	0.39	1.19
		2452	/	/	0.649	0.709	91.54	0.38	1.22
802.11ax (HEW20)	MIMO	2412	SU	/	0.202	0.263	76.81	1.15	2.79
		2437	SU	/	0.202	0.263	76.81	1.15	2.88
		2462	SU	/	0.204	0.263	77.57	1.10	2.85
802.11ax (HEW40)	MIMO	2422	SU	/	0.206	0.265	77.74	1.09	2.89
		2437	SU	/	0.203	0.265	76.60	1.16	2.79
		2452	SU	/	0.203	0.265	76.60	1.16	2.75
802.11be (EHT20)	MIMO	2412	SU	/	0.209	0.271	77.12	1.13	2.74
		2437	SU	/	0.210	0.272	77.21	1.12	2.76
		2462	SU	/	0.212	0.271	78.23	1.07	2.78
802.11be (EHT40)	MIMO	2422	SU	/	0.212	0.273	77.66	1.10	2.68
		2437	SU	/	0.042	0.094	44.68	3.50	55.53
		2452	SU	/	0.213	0.272	78.31	1.06	2.72

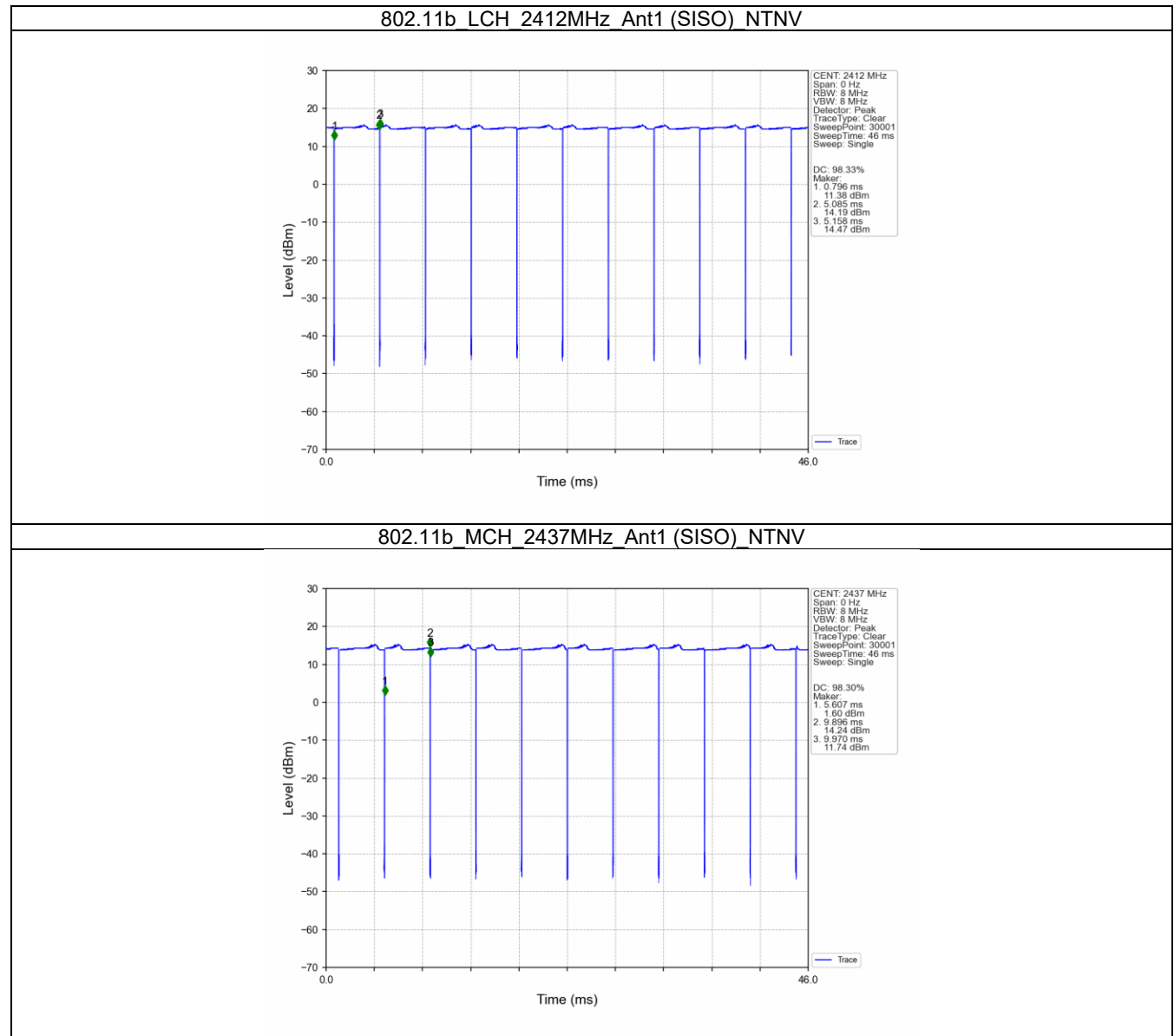
1.1.2 Ant2

Ant2									
Mode	Tx Type	Frequency (MHz)	RU	RU Pos	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
802.11b	SISO	2412	/	/	4.288	4.362	98.30	0.07	0.04
		2437	/	/	4.289	4.362	98.33	0.07	0.04
		2462	/	/	4.289	4.362	98.33	0.07	0.04
802.11g	SISO	2412	/	/	1.392	1.454	95.74	0.19	0.63
		2437	/	/	1.393	1.454	95.80	0.19	0.60
		2462	/	/	1.392	1.454	95.74	0.19	0.60
802.11n (HT20)	MIMO	2412	/	/	1.308	1.370	95.47	0.20	0.69
		2437	/	/	1.309	1.370	95.55	0.20	0.66
		2462	/	/	1.308	1.369	95.54	0.20	0.66
802.11n (HT40)	MIMO	2422	/	/	0.649	0.710	91.41	0.39	1.19
		2437	/	/	0.650	0.710	91.55	0.38	1.22
		2452	/	/	0.649	0.709	91.54	0.38	1.19
802.11ax (HEW20)	MIMO	2412	SU	/	0.201	0.263	76.43	1.17	2.76
		2437	SU	/	0.202	0.263	76.81	1.15	2.72
		2462	SU	/	0.202	0.263	76.81	1.15	2.76
802.11ax (HEW40)	MIMO	2422	SU	/	0.207	0.265	78.11	1.07	2.84
		2437	SU	/	0.204	0.265	76.98	1.14	2.75
		2452	SU	/	0.206	0.265	77.74	1.09	2.79
802.11be	MIMO	2412	SU	/	0.210	0.271	77.49	1.11	2.70

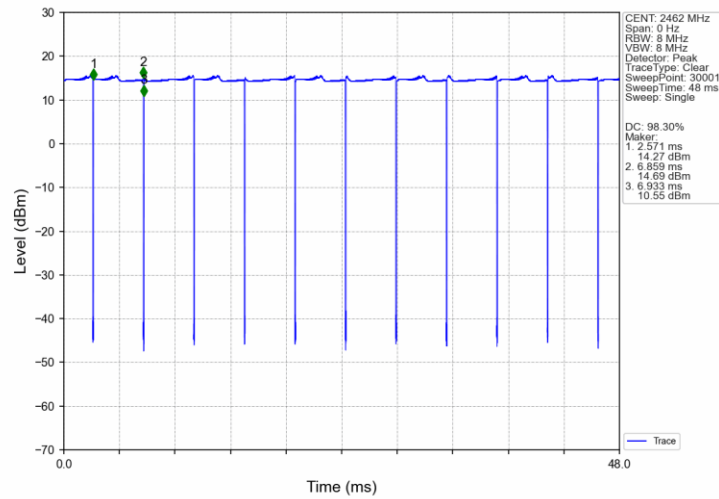
(EHT20) 802.11be (EHT40)	MIMO	2437	SU	/	0.210	0.271	77.49	1.11	2.73
		2462	SU	/	0.210	0.271	77.49	1.11	2.70
		2422	SU	/	0.214	0.273	78.39	1.06	2.75
		2437	SU	/	0.211	0.273	77.29	1.12	2.68
		2452	SU	/	0.211	0.273	77.29	1.12	2.68

1.2 Test Graph

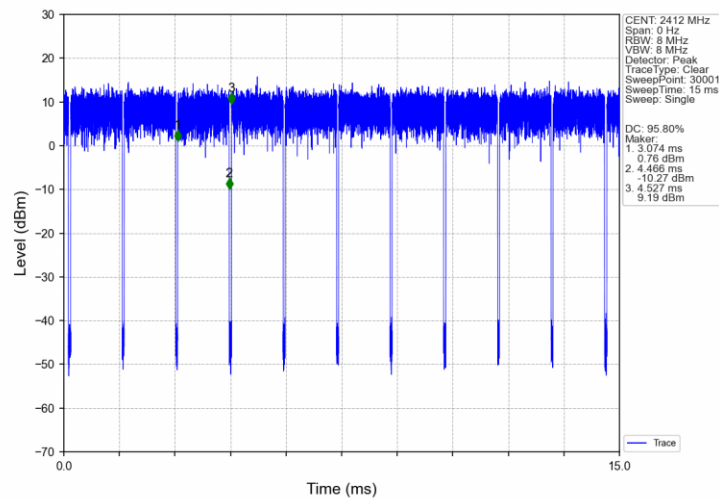
1.2.1 Ant1



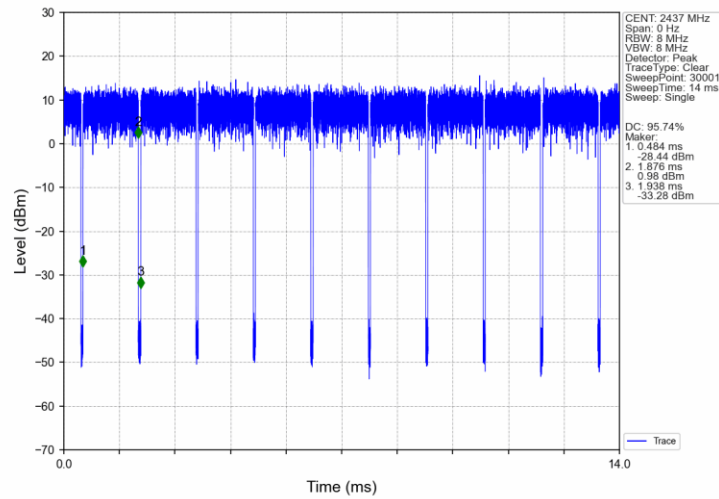
802.11b HCH 2462MHz_Ant1 (SISO) NTN



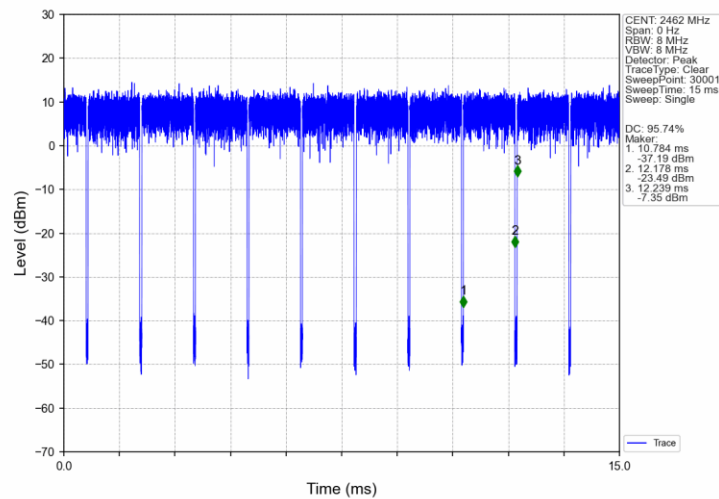
802.11g LCH 2412MHz_Ant1 (SISO) NTN



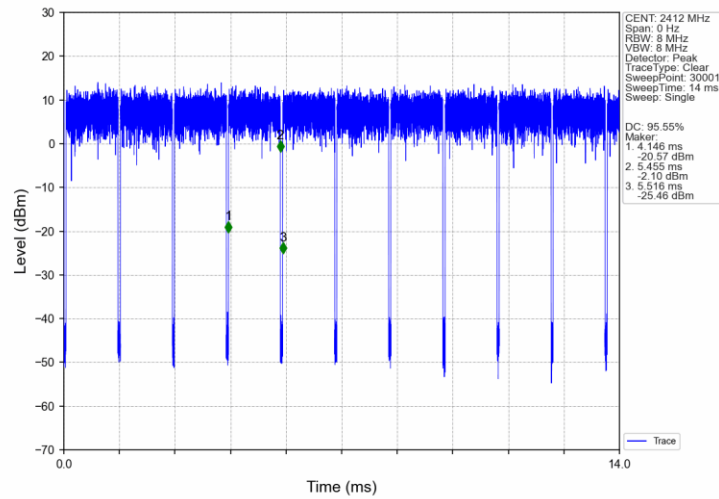
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



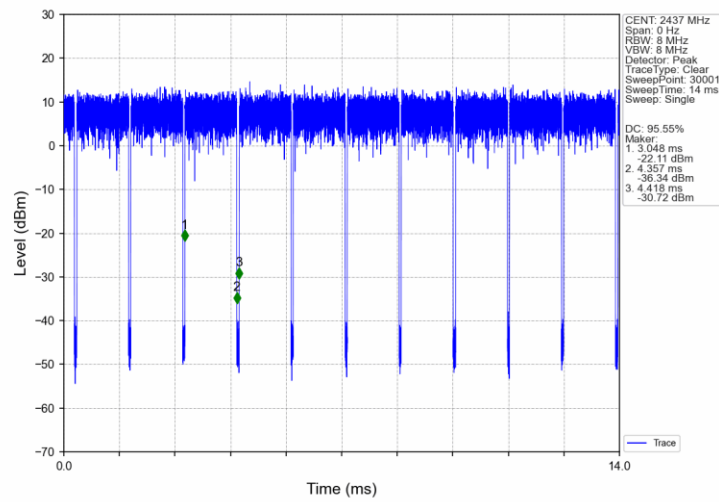
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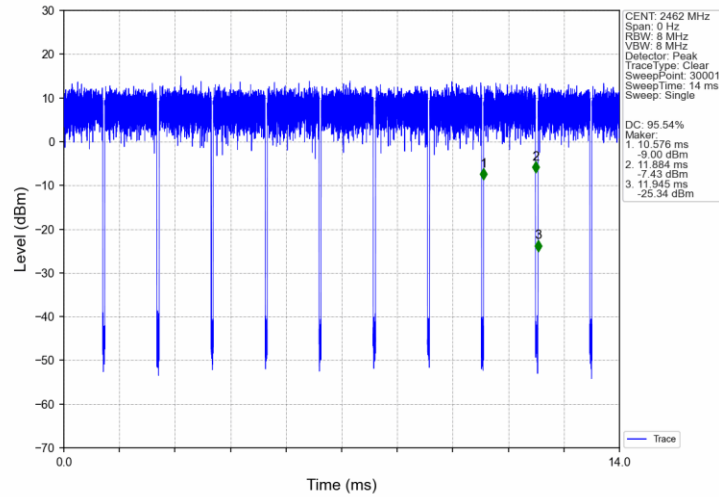
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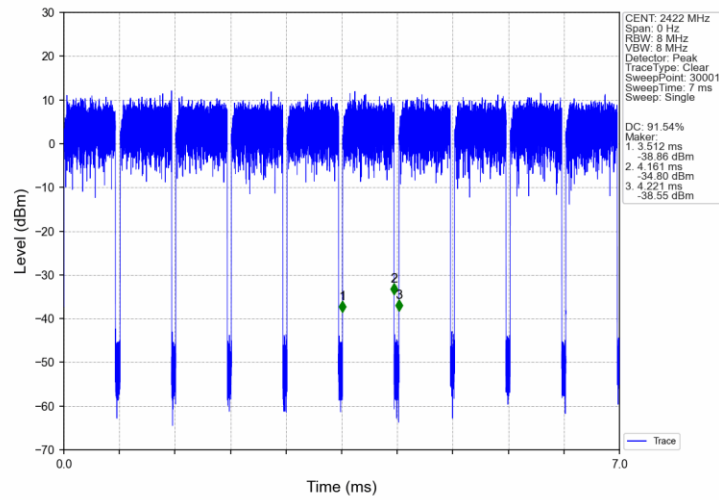
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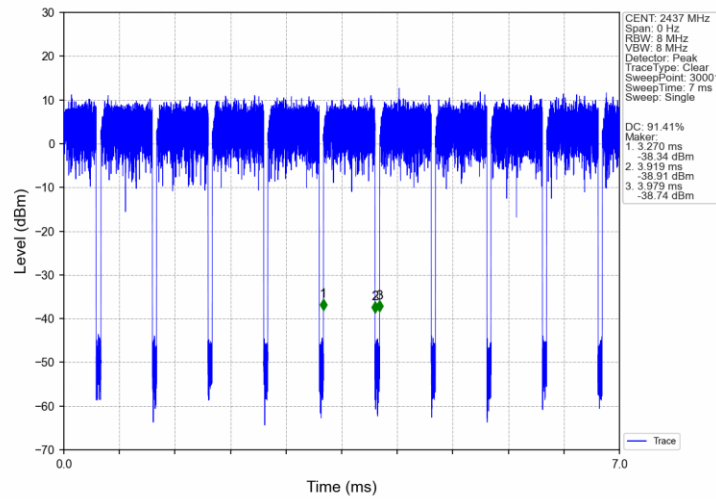
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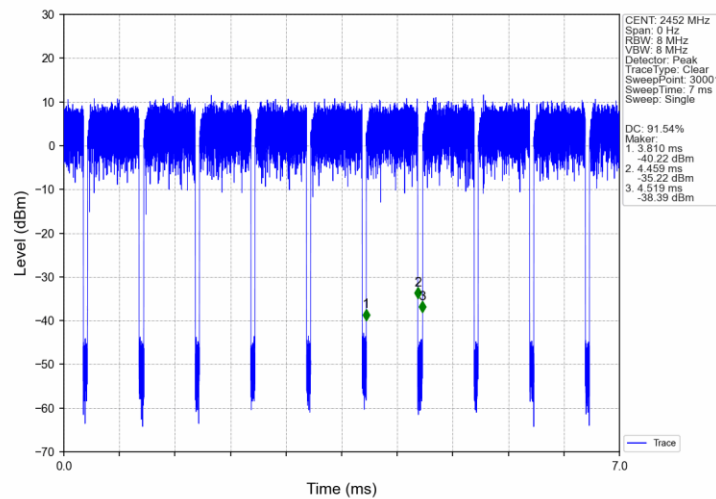
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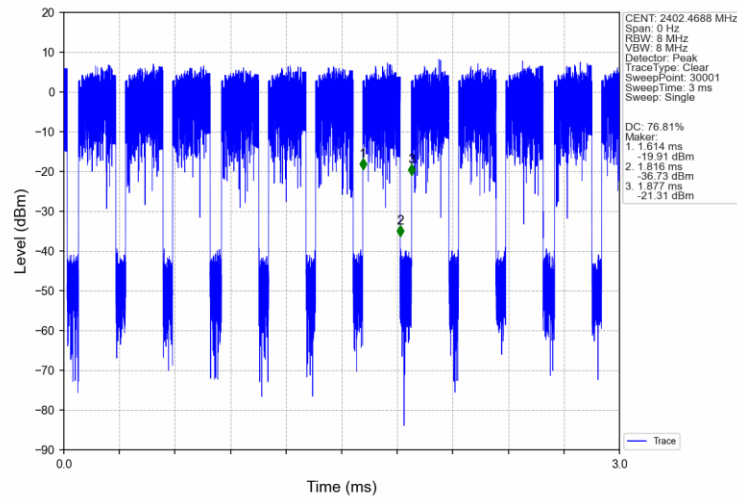
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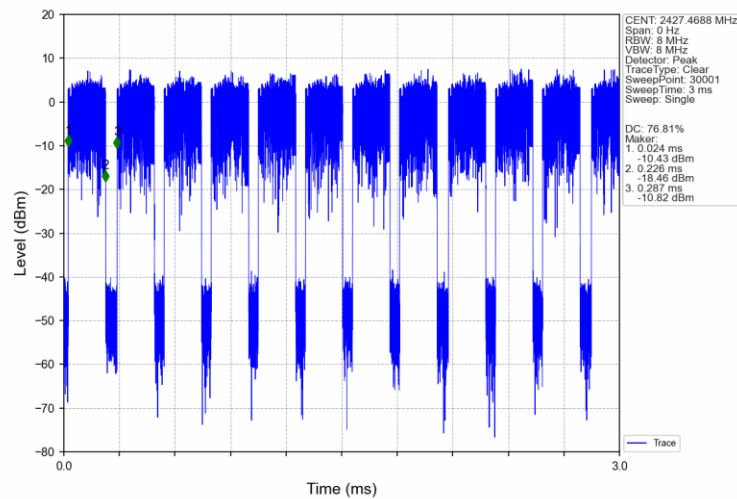
802.11n(HT40) HCH 2452MHz Ant1 (MIMO) NTNV



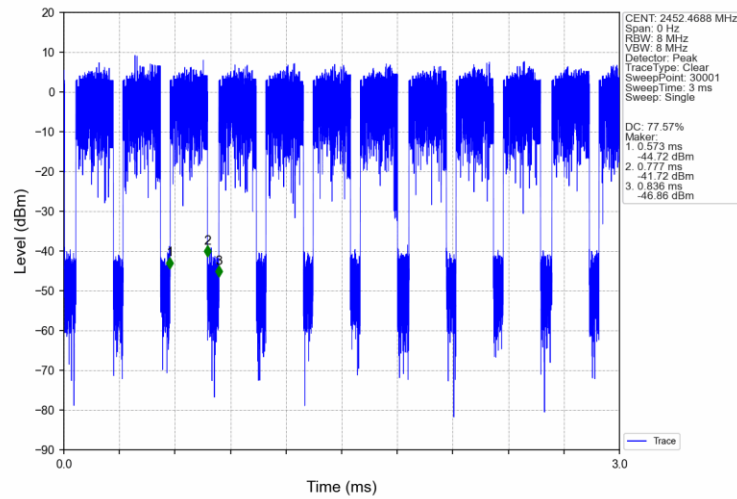
802.11ax(HEW20) LCH 2412MHz SU / Ant1 (MIMO) NTN



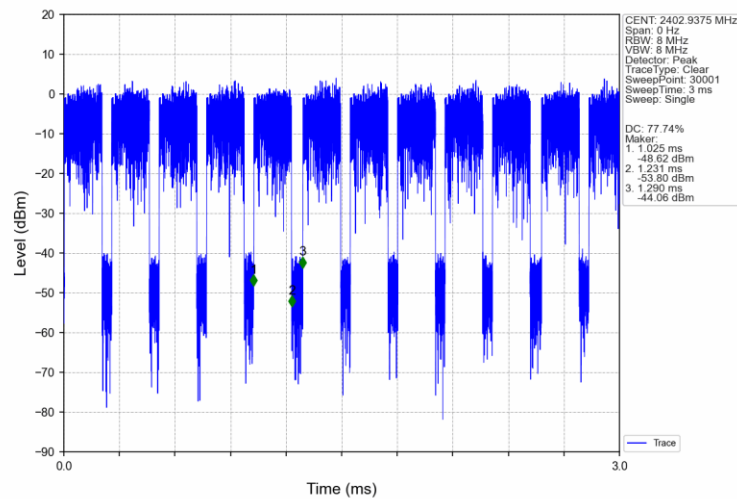
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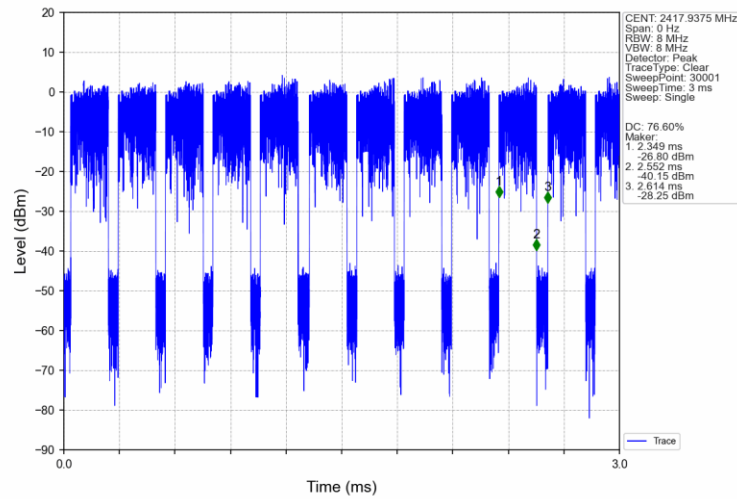
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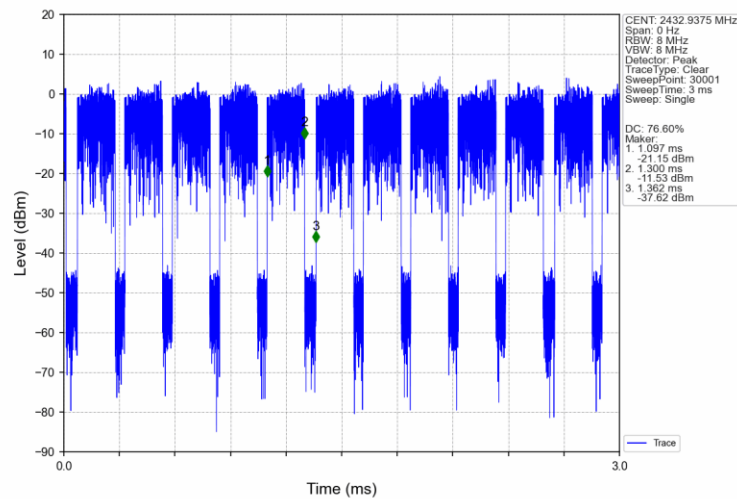
802.11ax(HEW40) LCH 2422MHz SU / Ant1 (MIMO) NTNV



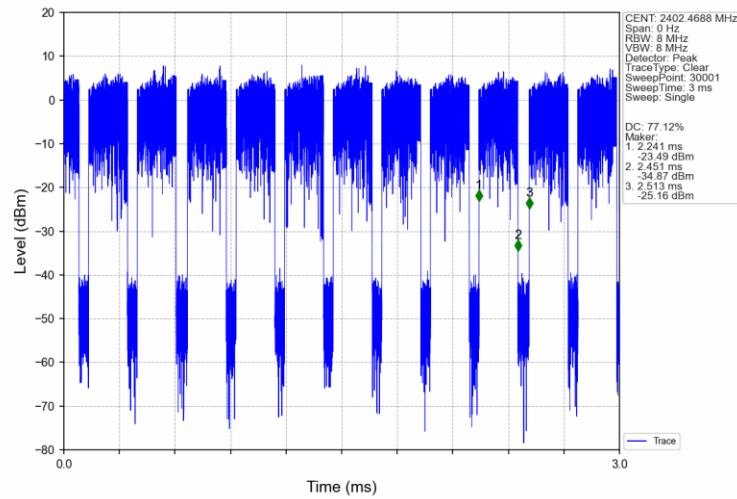
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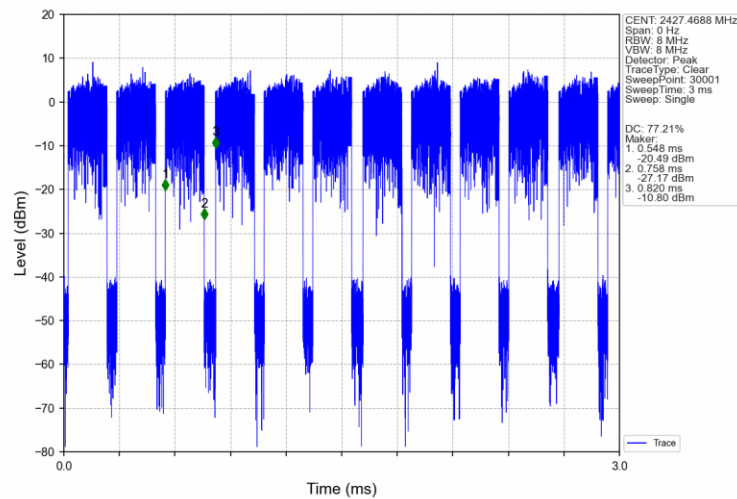
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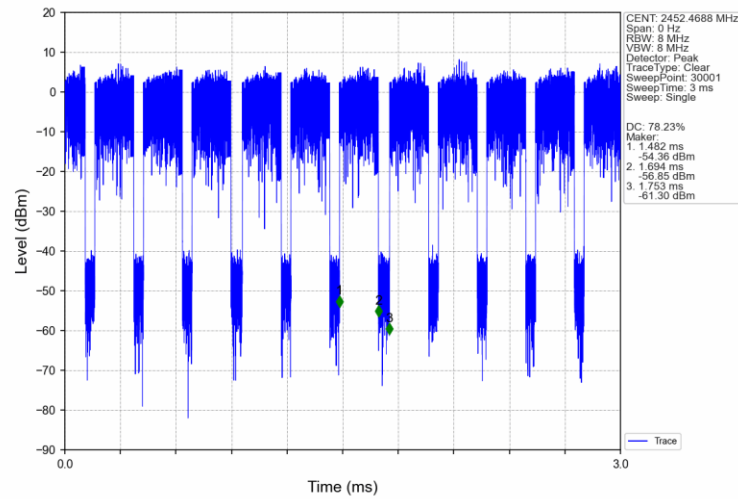
802.11be(EHT20) LCH 2412MHz SU / Ant1 (MIMO) NTN



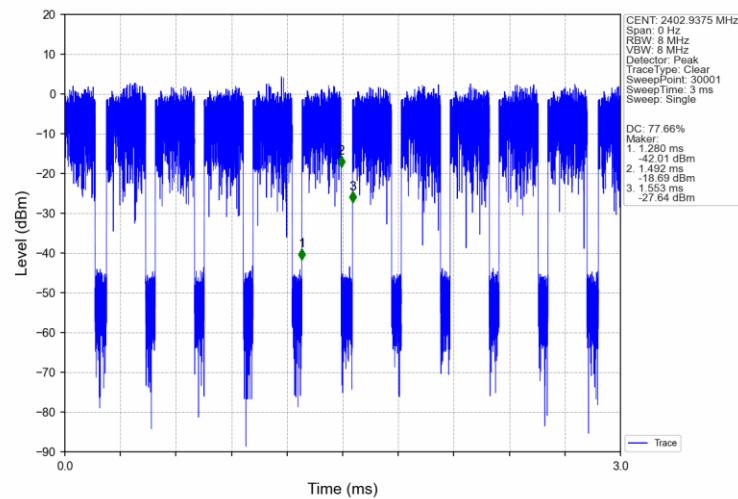
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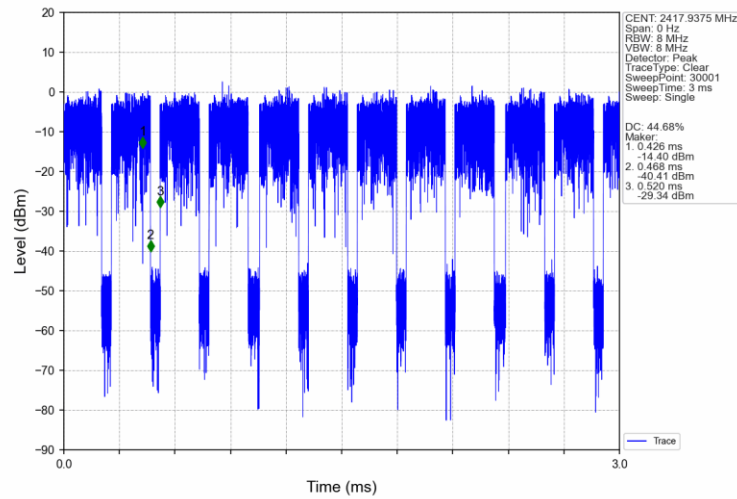
802.11be(EHT20) HCH 2462MHz SU / Ant1 (MIMO) NTNv



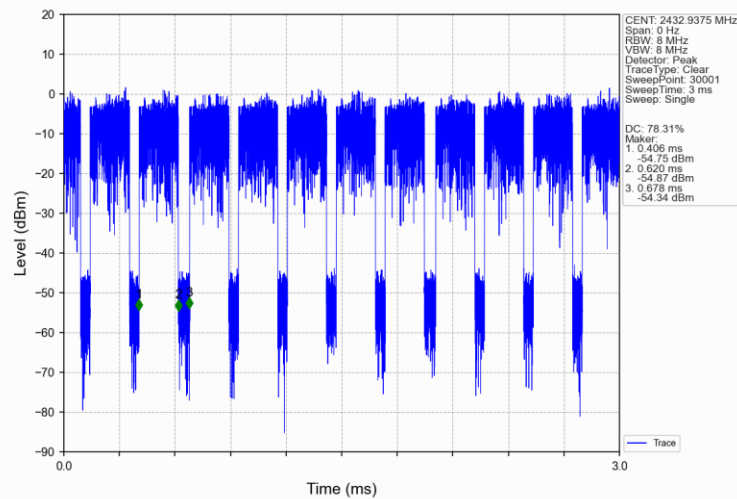
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802.11be(EHT40) MCH 2437MHz SU / Ant1 (MIMO) NTN

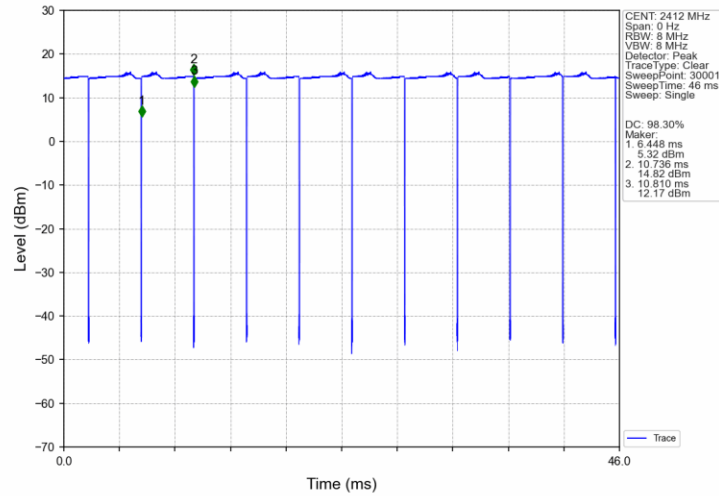


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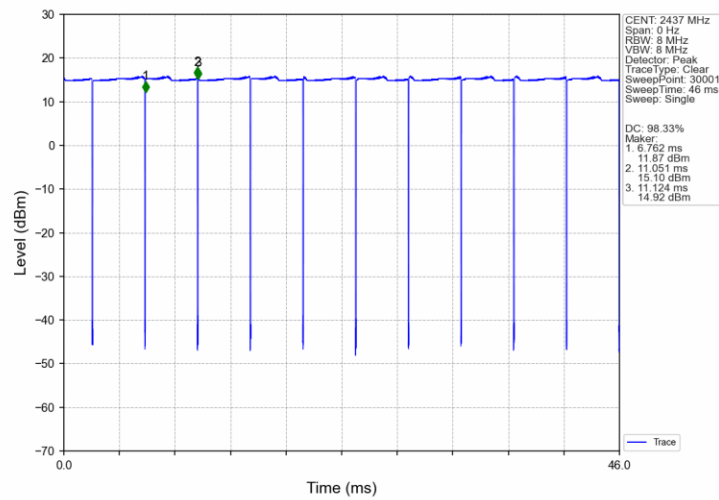


1.2.2 Ant2

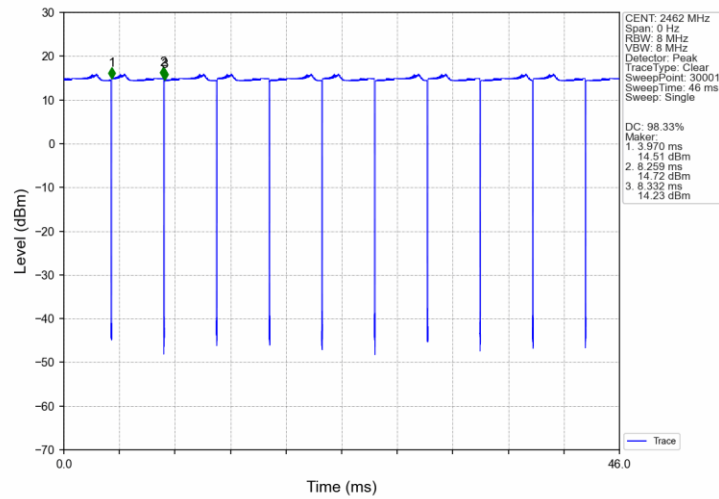
802.11b_LCH_2412MHz_Ant2 (SISO)_NTNV



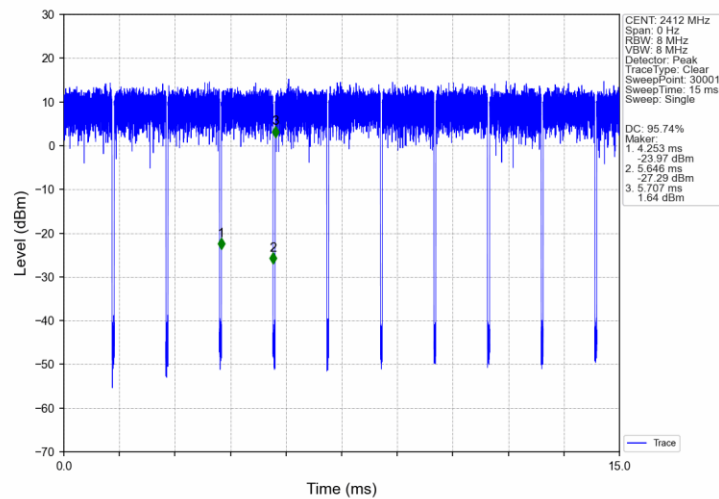
802.11b_MCH_2437MHz_Ant2 (SISO)_NTNV



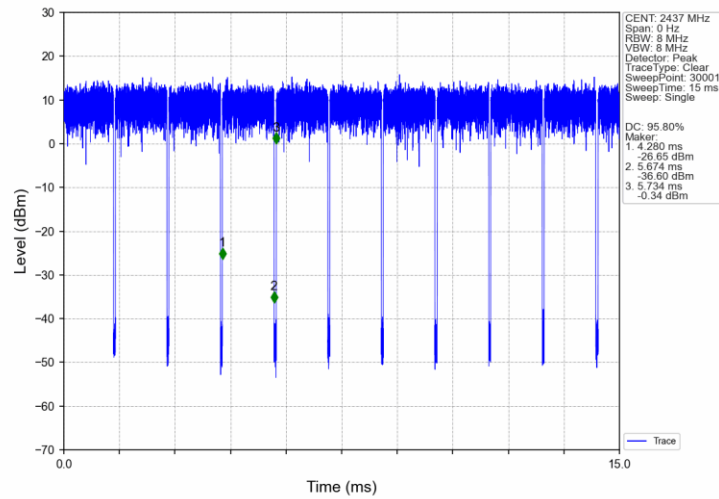
802.11b HCH 2462MHz_Ant2 (SISO) NTNv



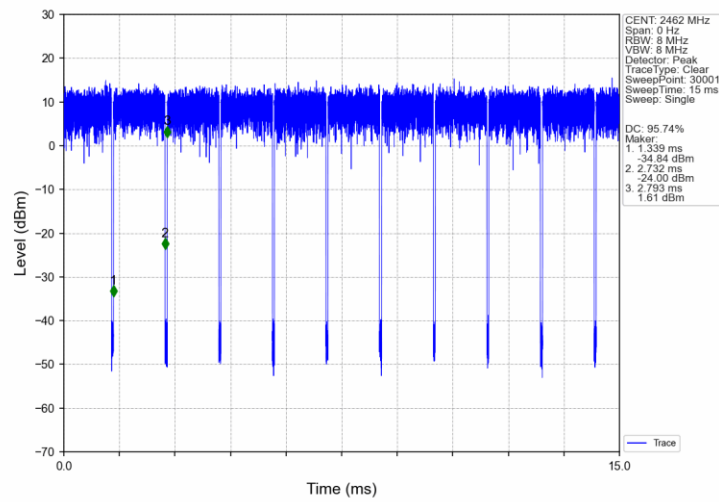
802.11g LCH 2412MHz_Ant2 (SISO) NTNv



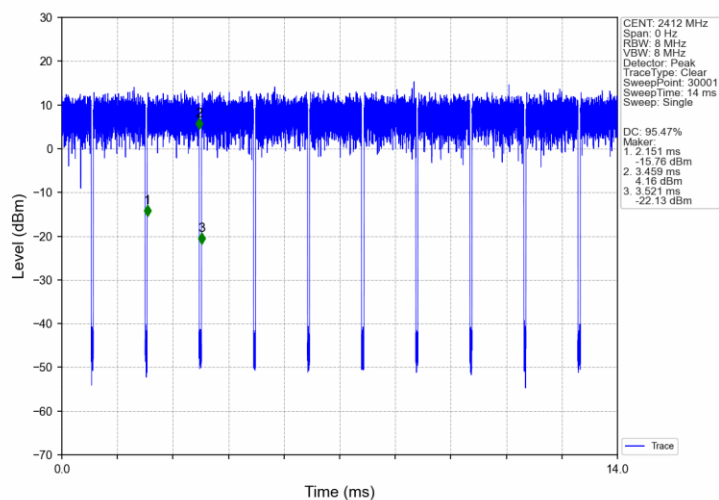
802.11g_MCH_2437MHz_Ant2 (SISO)_NTNV



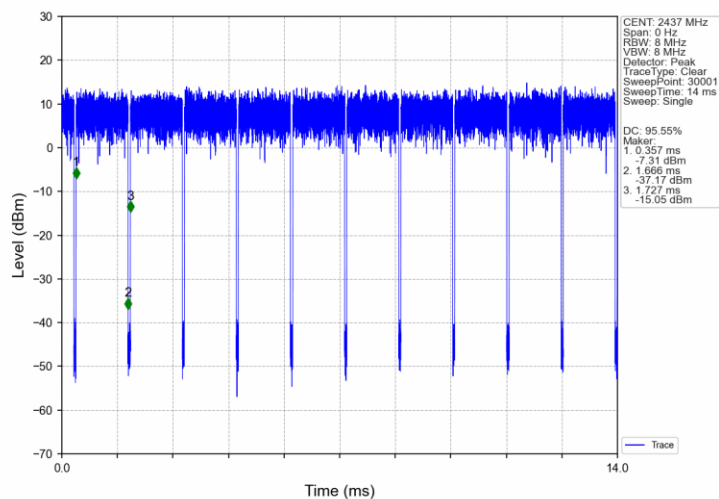
802.11g_HCH_2462MHz_Ant2 (SISO)_NTNV



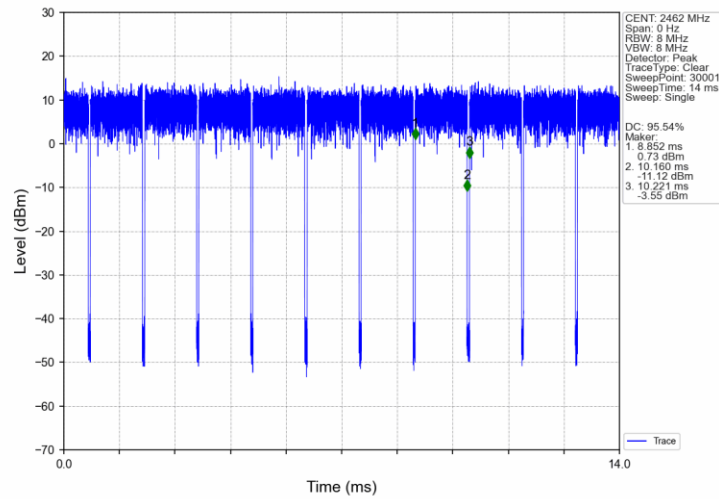
802.11n(HT20)_LCH_2412MHz_Ant2 (MIMO)_NTNV



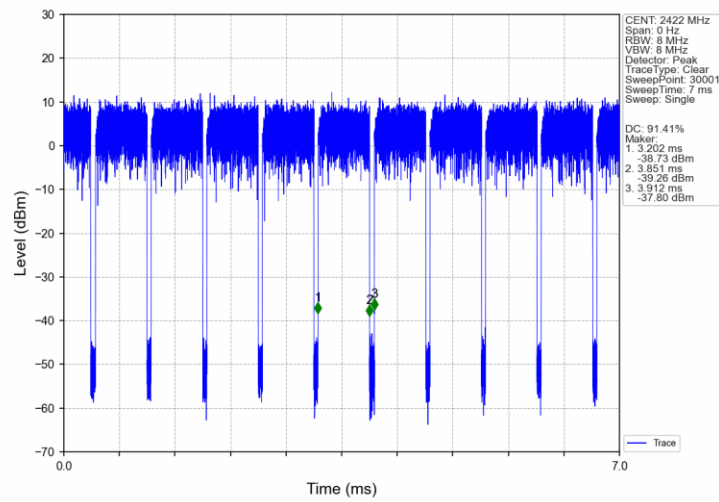
802.11n(HT20)_MCH_2437MHz_Ant2 (MIMO)_NTNV



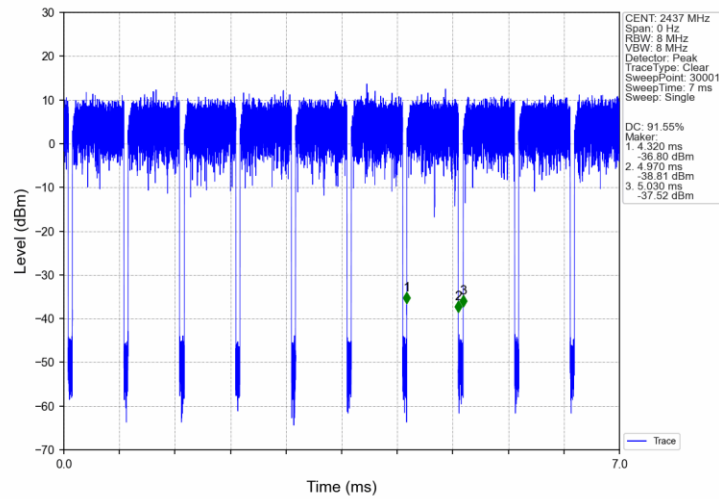
802.11n(HT20) HCH 2462MHz_Ant2 (MIMO) NTNV



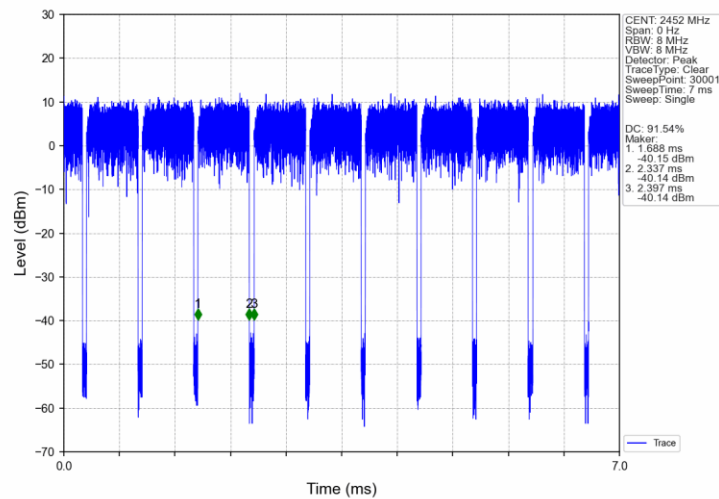
802.11n(HT40) LCH 2422MHz_Ant2 (MIMO) NTNV



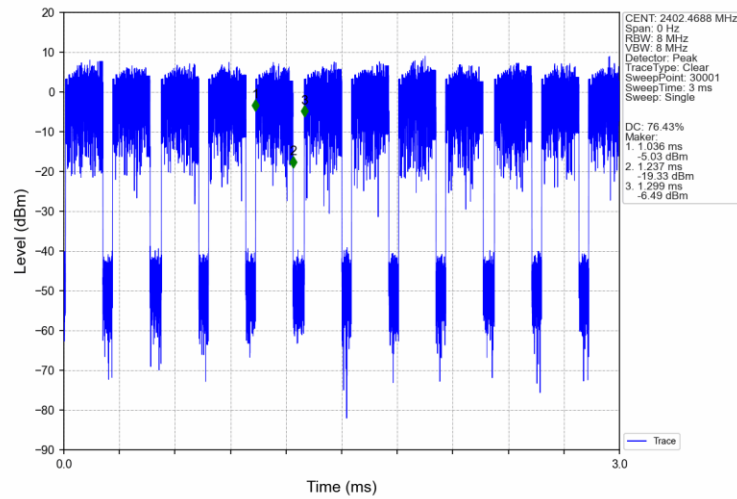
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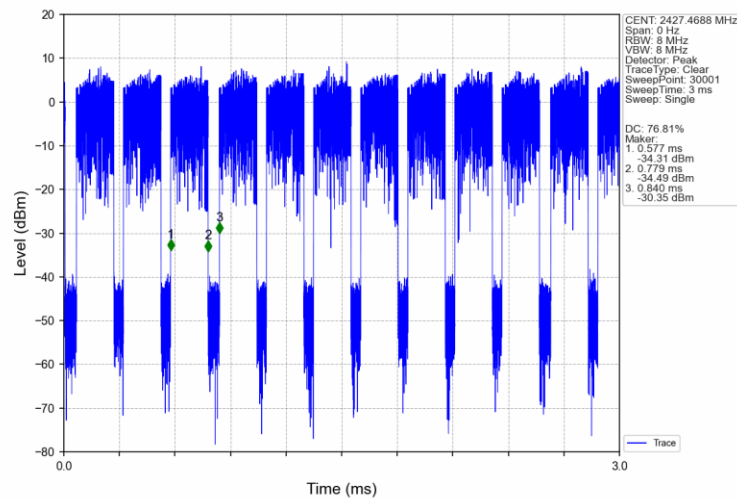
802.11n(HT40) HCH_2452MHz_Ant2 (MIMO) NTNv



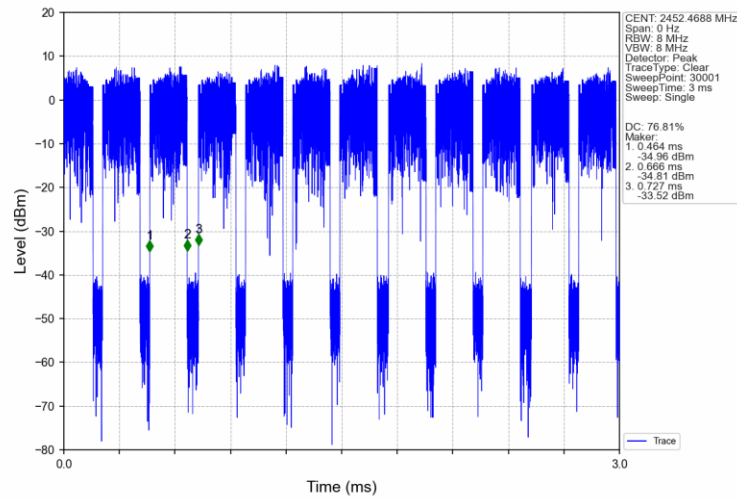
802.11ax(HEW20) LCH 2412MHz SU / Ant2 (MIMO) NTN



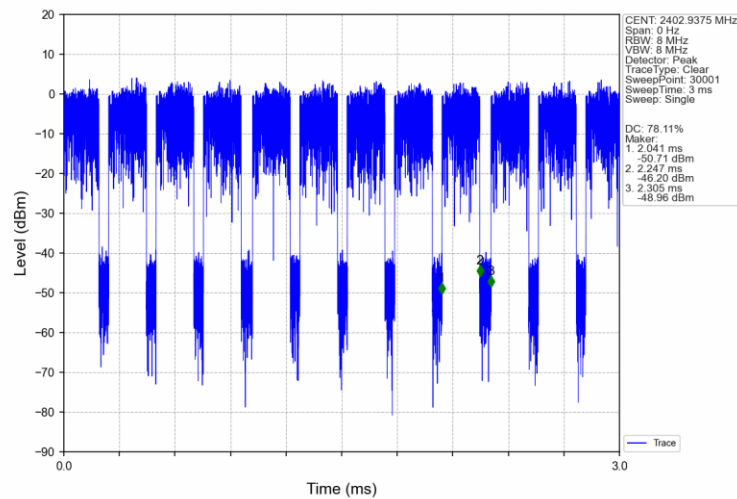
802.11ax(HEW20) MCH 2437MHz SU / Ant2 (MIMO) NTN



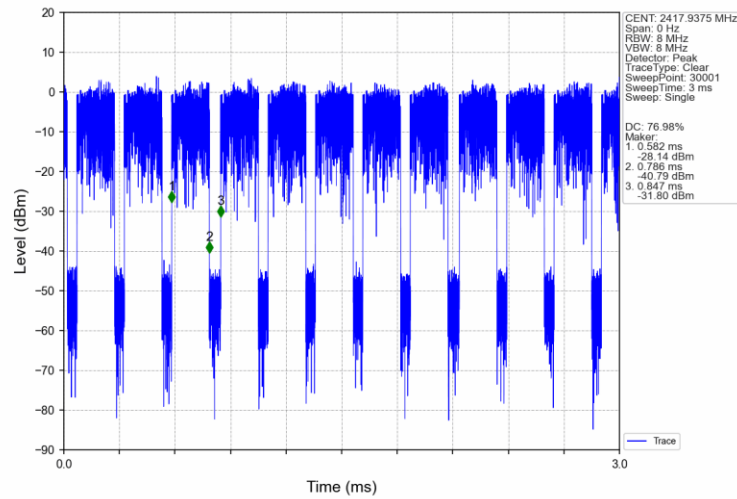
802.11ax(HEW20) HCH 2462MHz SU / Ant2 (MIMO) NTNV



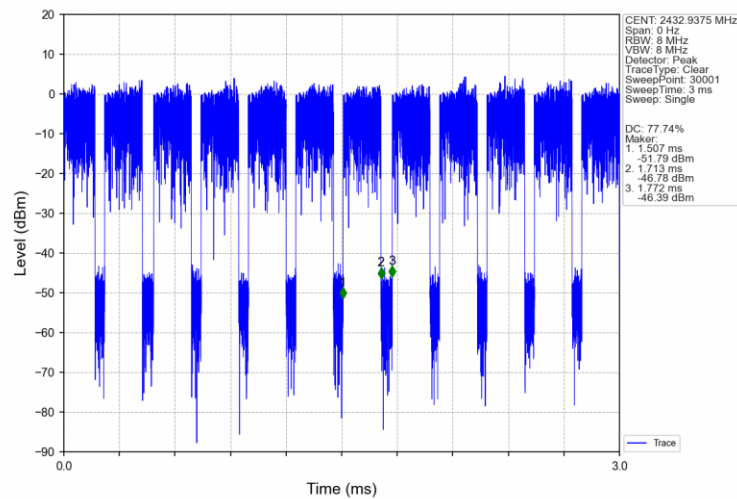
802.11ax(HEW40) LCH 2422MHz SU / Ant2 (MIMO) NTNV



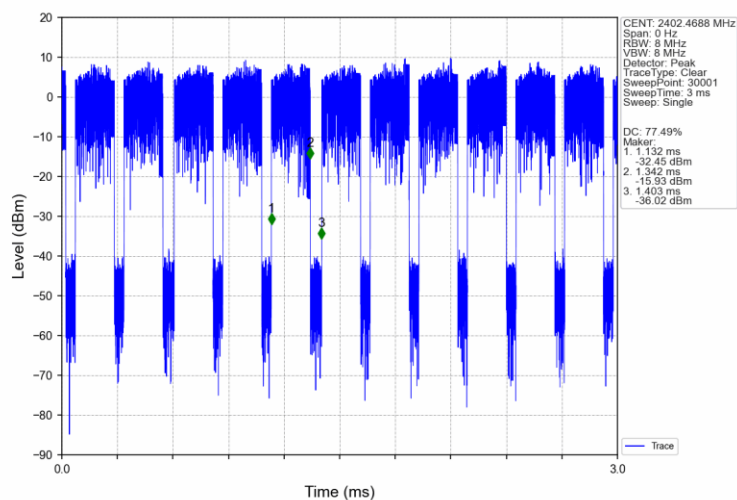
802.11ax(HEW40) MCH 2437MHz SU / Ant2 (MIMO) NTN



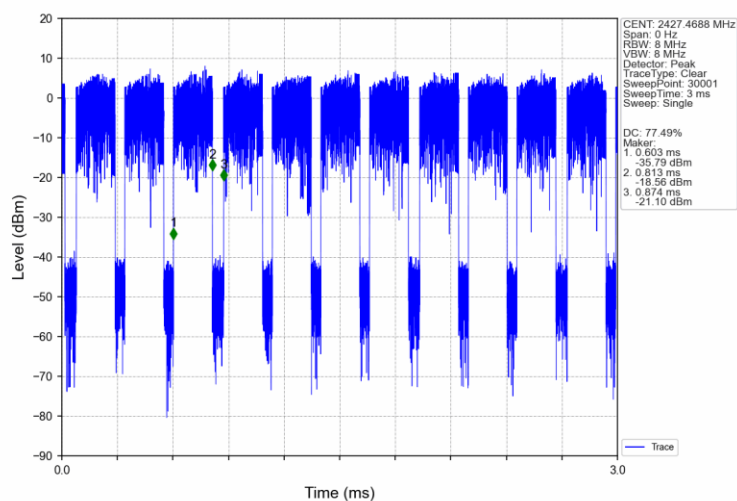
802.11ax(HEW40) HCH 2452MHz SU / Ant2 (MIMO) NTN



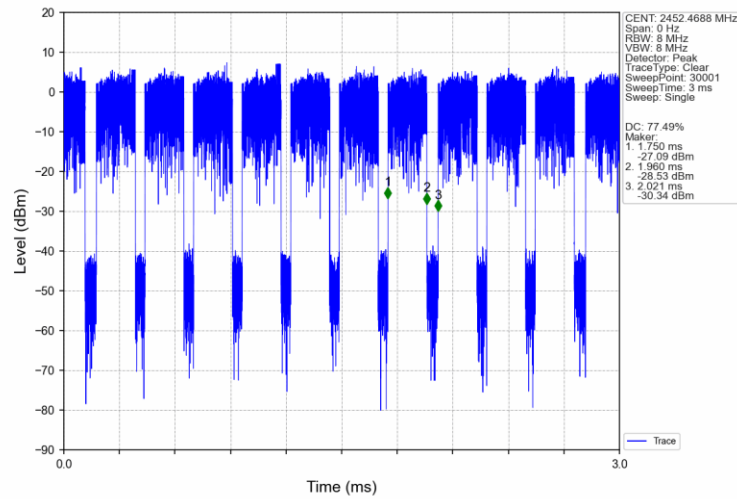
802.11be(EHT20) LCH 2412MHz SU / Ant2 (MIMO) NTN



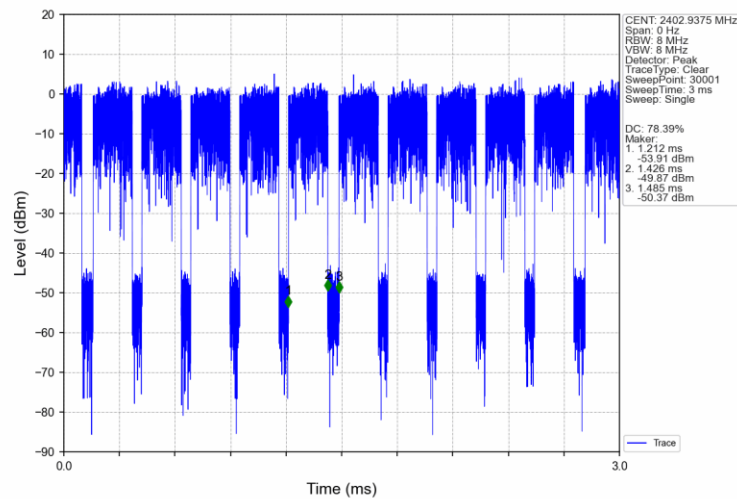
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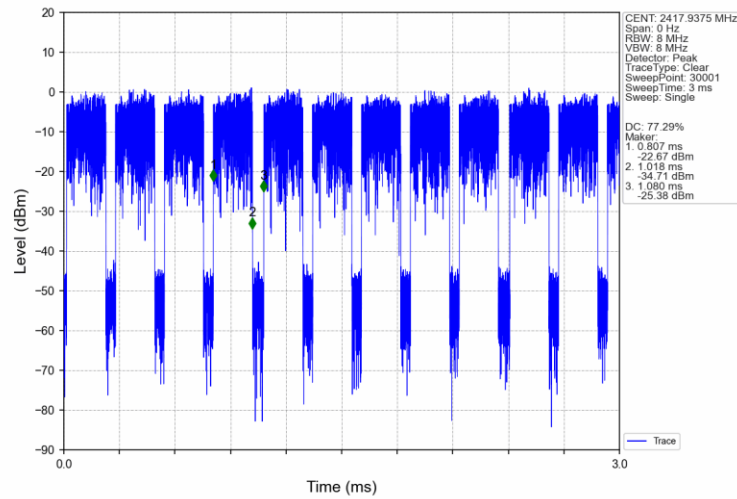
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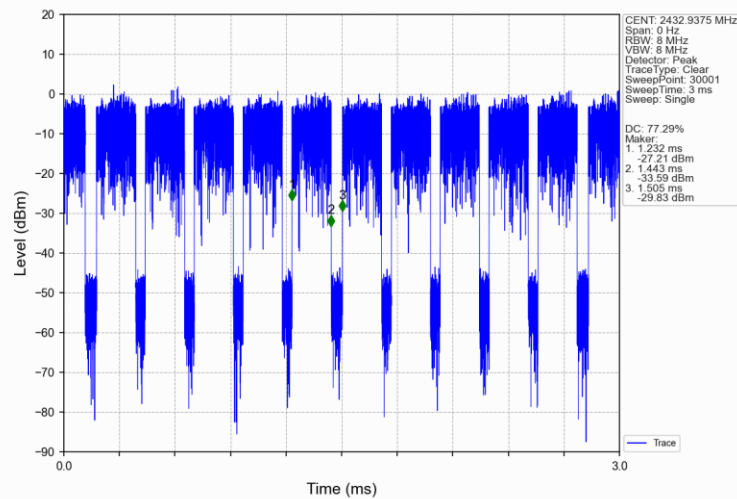
802.11be(EHT40)_LCH_2422MHz_SU / Ant2 (MIMO) NTNv



802.11be(EHT40) MCH 2437MHz SU / Ant2 (MIMO) NTN



802.11be(EHT40) HCH 2452MHz SU / Ant2 (MIMO) NTN



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	
802.11b	SISO	2412	/	/	1	13.410	/	Pass
		2437	/	/	1	13.371	/	Pass
		2462	/	/	1	13.426	/	Pass
802.11g	MIMO	2412	/	/	1	17.600	/	Pass
		2437	/	/	1	17.461	/	Pass
		2462	/	/	1	17.500	/	Pass
802.11n (HT20)	MIMO	2412	/	/	1	18.504	/	Pass
		2437	/	/	1	18.466	/	Pass
		2462	/	/	1	18.509	/	Pass
802.11n (HT40)	MIMO	2422	/	/	1	36.548	/	Pass
		2437	/	/	1	36.383	/	Pass
		2452	/	/	1	36.568	/	Pass
802.11ax (HEW20)	MIMO	2412	SU	/	1	19.222	/	Pass
		2437	SU	/	1	19.163	/	Pass
		2462	SU	/	1	19.174	/	Pass
802.11ax (HEW40)	MIMO	2422	SU	/	1	37.967	/	Pass
		2437	SU	/	1	37.896	/	Pass
		2452	SU	/	1	38.046	/	Pass

Note: Both Ant1 and Ant2 was test and recorded worst result of Ant 1.

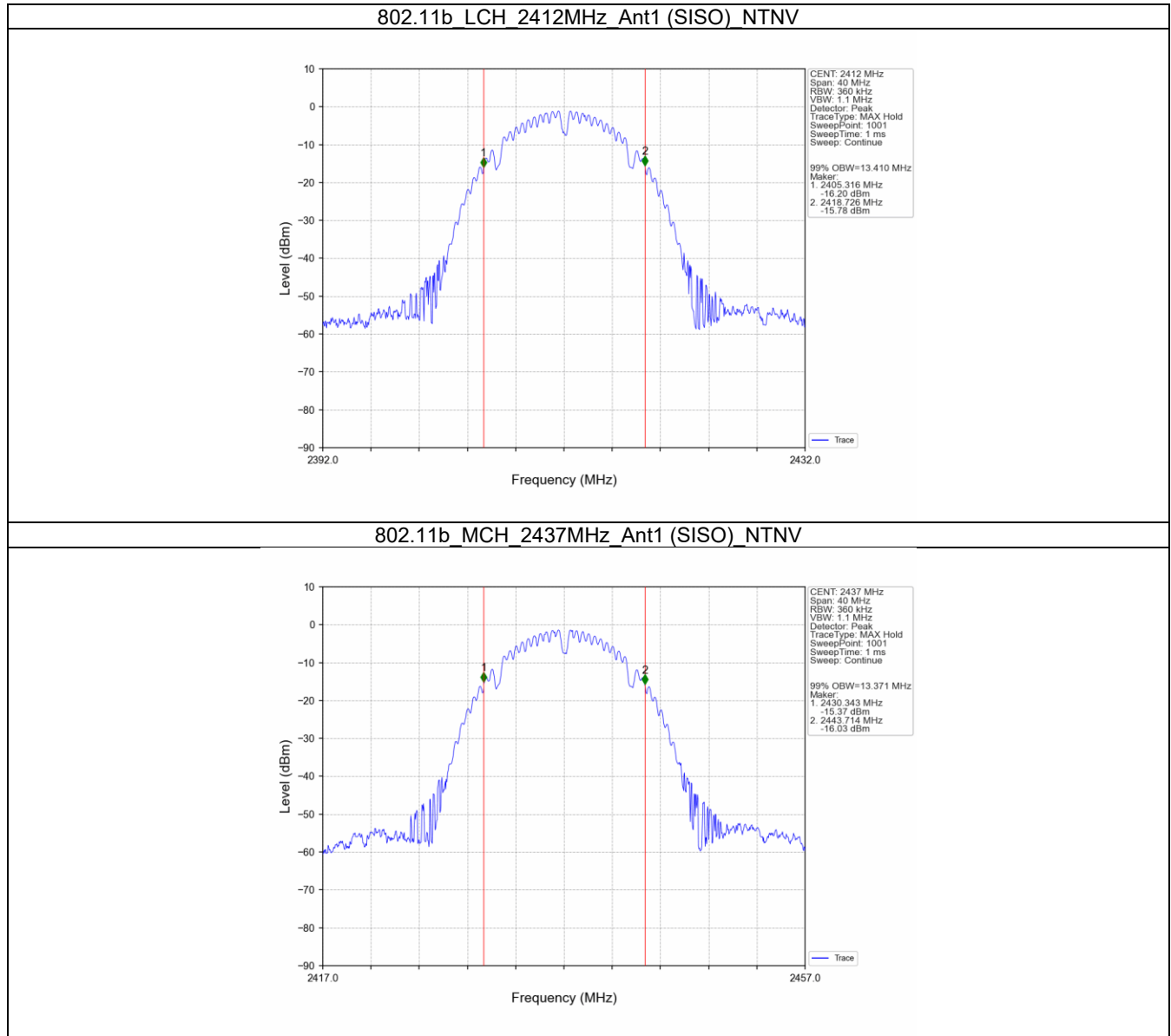
2.1.2 6dB BW

Mode	TX Type	Frequency (MHz)	RU	RU Pos	ANT	6dB Bandwidth (MHz)		Verdict
						Result	Limit	
802.11b	SISO	2412	/	/	1	9.202	>=0.5	Pass
		2437	/	/	1	9.170	>=0.5	Pass
		2462	/	/	1	9.195	>=0.5	Pass
802.11g	MIMO	2412	/	/	1	16.175	>=0.5	Pass
		2437	/	/	1	16.045	>=0.5	Pass
		2462	/	/	1	16.031	>=0.5	Pass
802.11n (HT20)	MIMO	2412	/	/	1	17.341	>=0.5	Pass
		2437	/	/	1	17.203	>=0.5	Pass
		2462	/	/	1	17.339	>=0.5	Pass
802.11n (HT40)	MIMO	2422	/	/	1	35.859	>=0.5	Pass
		2437	/	/	1	35.903	>=0.5	Pass
		2452	/	/	1	35.982	>=0.5	Pass
802.11ax (HEW20)	MIMO	2412	SU	/	1	18.705	>=0.5	Pass
		2437	SU	/	1	18.459	>=0.5	Pass
		2462	SU	/	1	18.793	>=0.5	Pass
802.11ax (HEW40)	MIMO	2422	SU	/	1	37.569	>=0.5	Pass
		2437	SU	/	1	37.231	>=0.5	Pass
		2452	SU	/	1	37.376	>=0.5	Pass

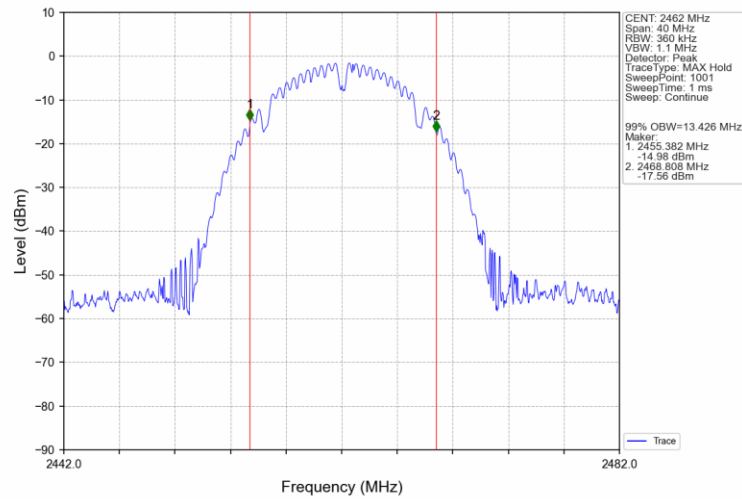
Note: Both Ant1 and Ant2 was test and recorded worst result of Ant 1.

2.2 Test Graph

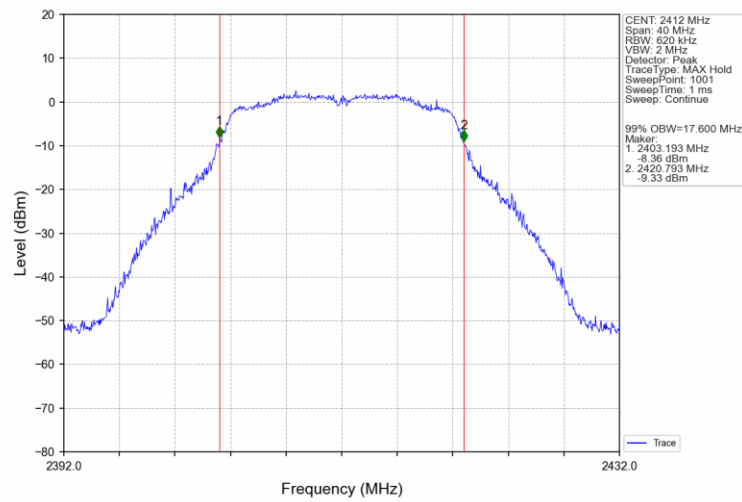
2.2.1 OBW



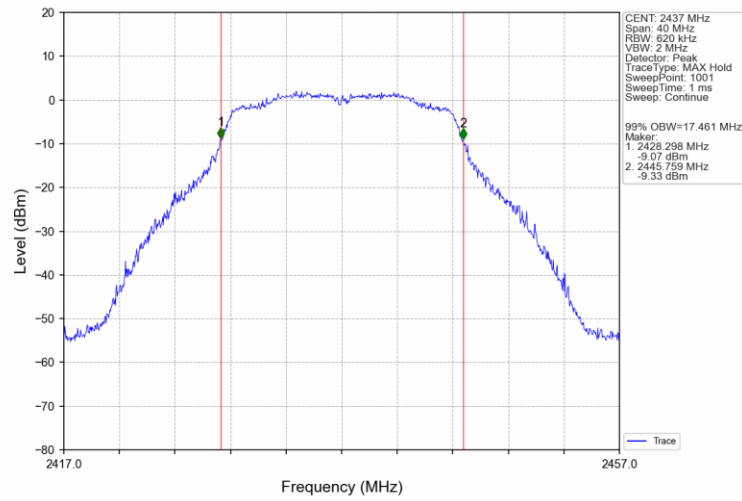
802.11b HCH 2462MHz_Ant1 (SISO)_NTNV



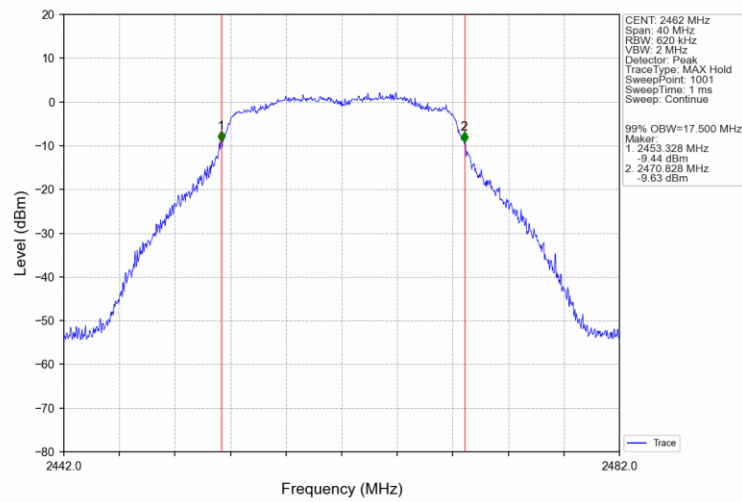
802.11g LCH 2412MHz_Ant1 (MIMO)_NTNV



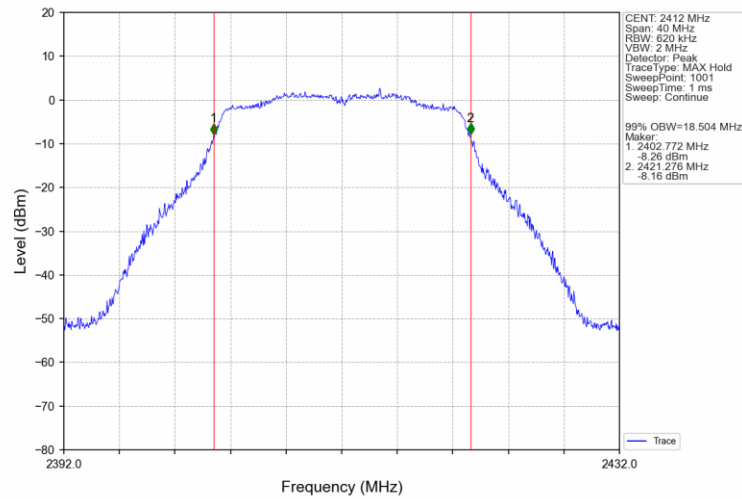
802.11g_MCH_2437MHz_Ant1 (MIMO)_NTNV



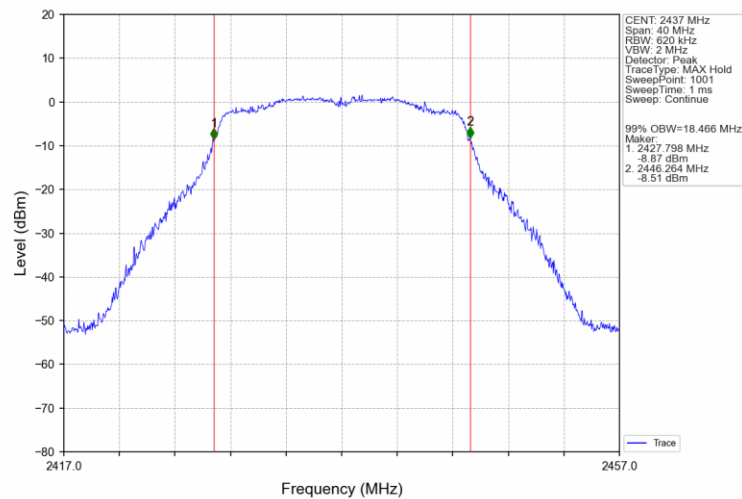
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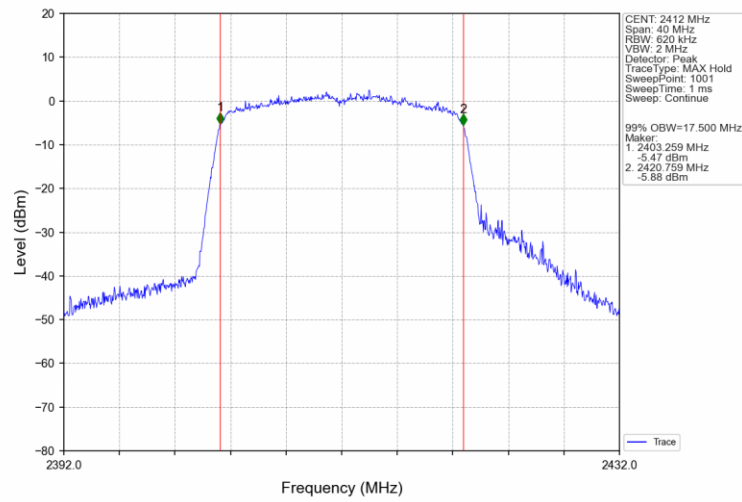
802.11n(HT20)_LCH_2412MHz_Ant1 (MIMO)_NTNV



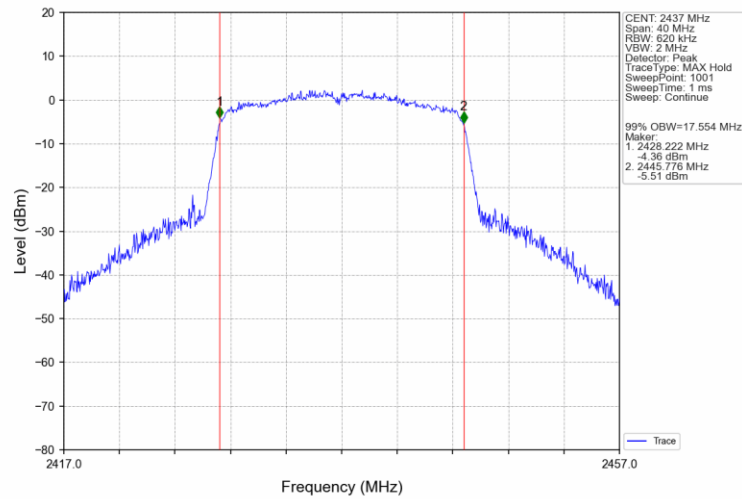
802.11n(HT20)_MCH_2437MHz_Ant1 (MIMO)_NTNV



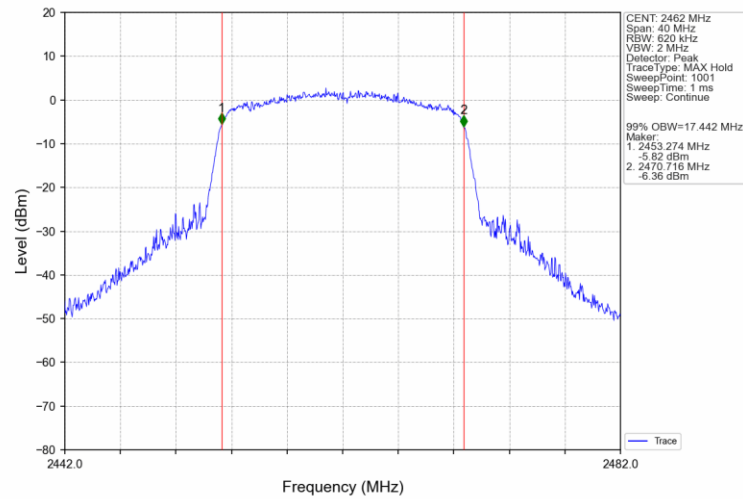
802.11n(HT20)_LCH_2412MHz_Ant1 (MIMO)_NTNV



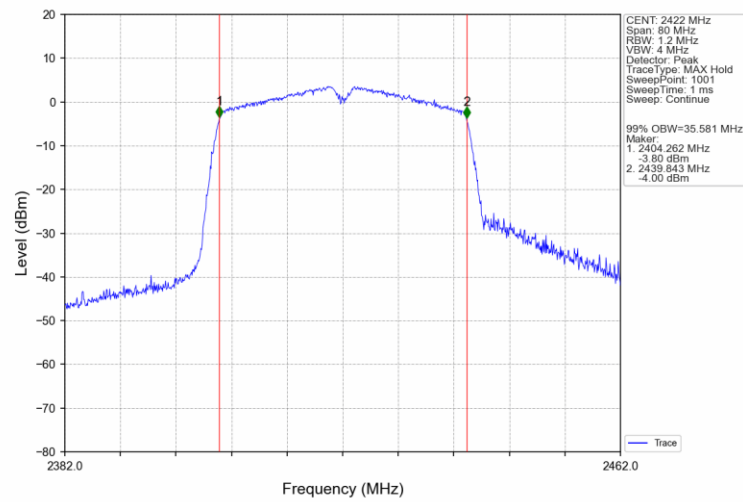
802.11n(HT20)_MCH_2437MHz_Ant1 (MIMO)_NTNV



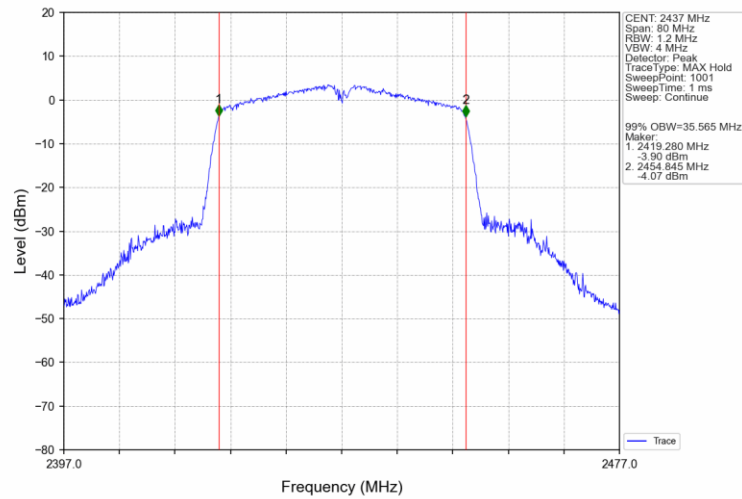
802.11n(HT20) HCH 2462MHz Ant1 (MIMO) NTNV



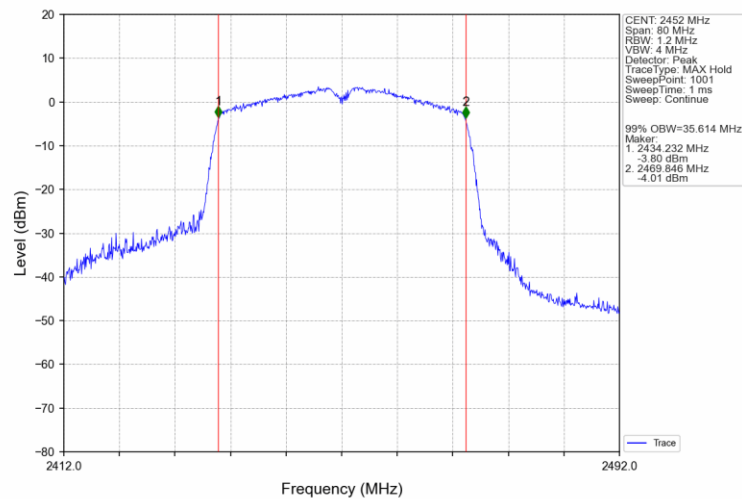
802.11n(HT40) LCH 2422MHz Ant1 (MIMO) NTNV



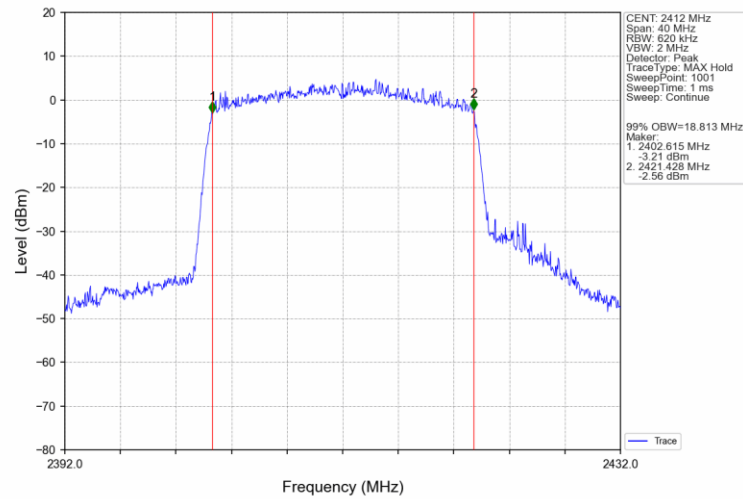
802.11n(HT40) MCH_2437MHz_Ant1 (MIMO) NTN



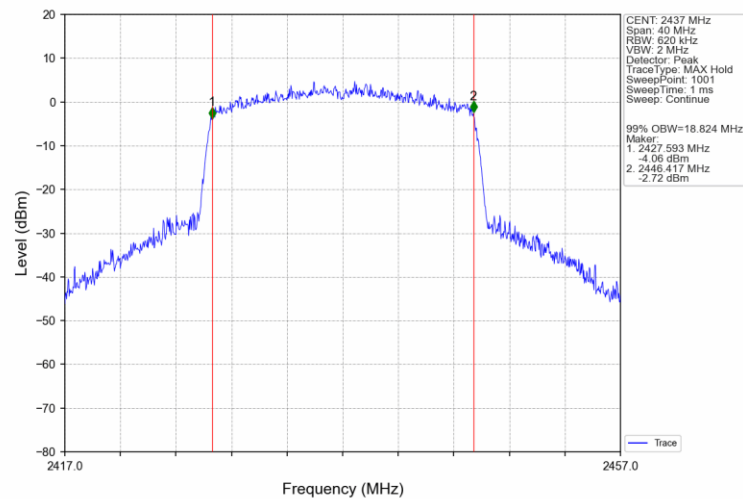
802.11n(HT40) HCH_2452MHz_Ant1 (MIMO) NTN



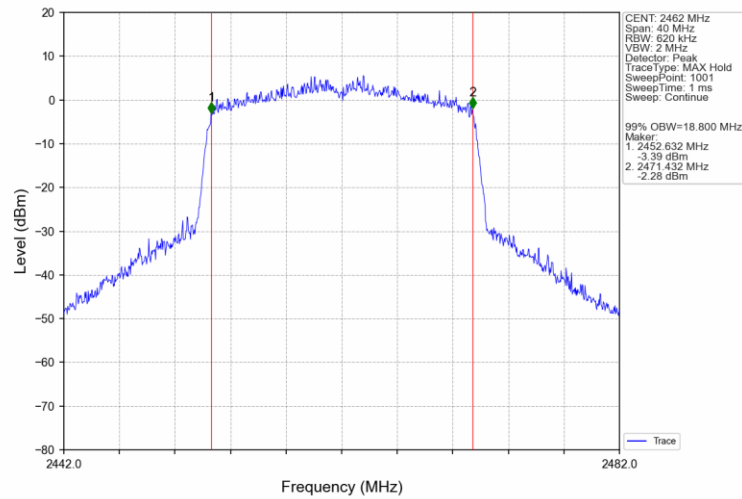
802.11ax(HEW20) LCH 2412MHz SU / Ant1 (MIMO) NTN



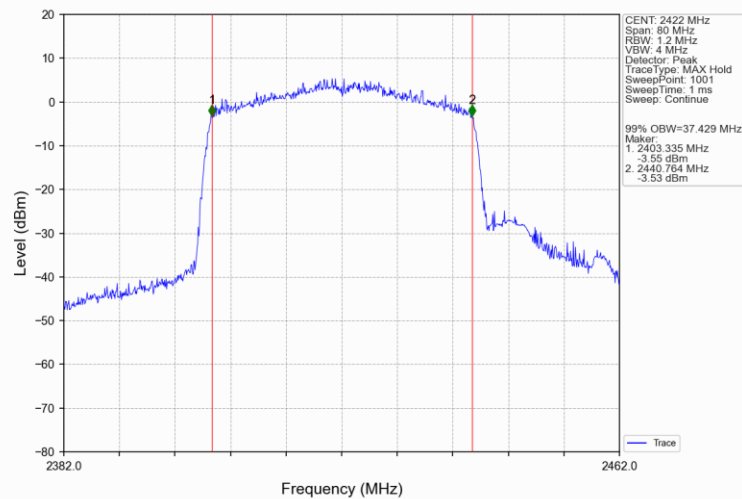
802.11ax(HEW20) MCH 2437MHz SU / Ant1 (MIMO) NTN



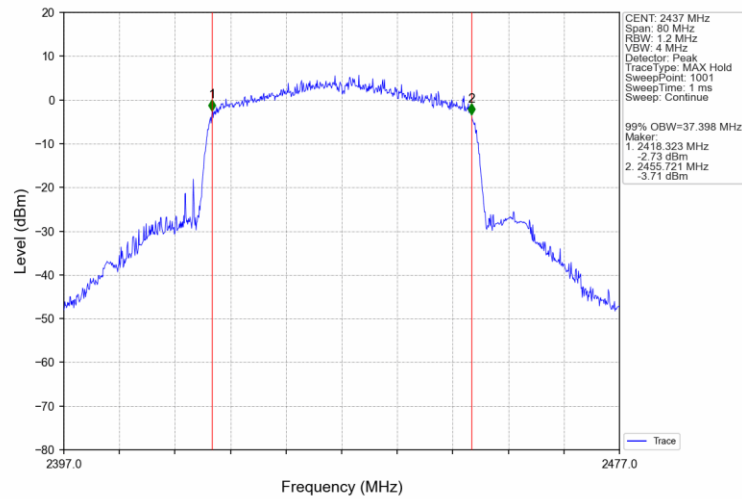
802.11ax(HEW20) HCH 2462MHz SU / Ant1 (MIMO) NTN



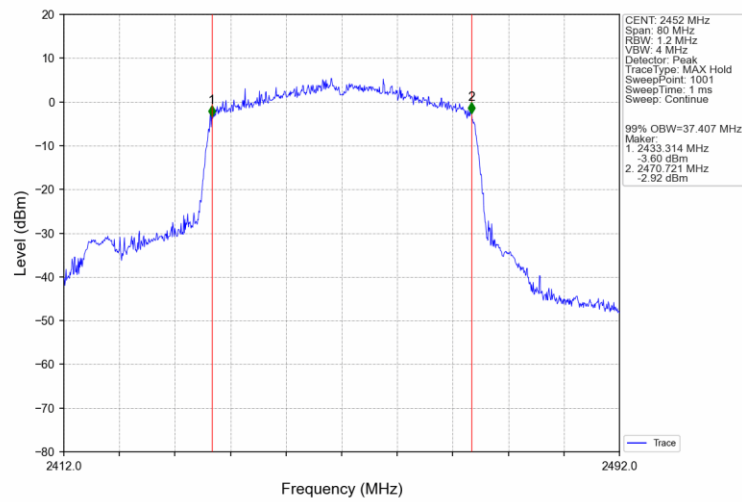
802.11ax(HEW40) LCH 2422MHz SU / Ant1 (MIMO) NTN



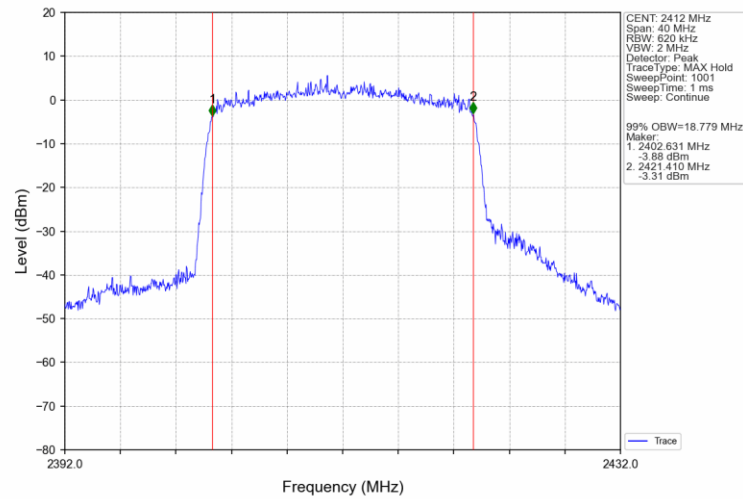
802.11ax(HEW40) MCH 2437MHz SU / Ant1 (MIMO) NTVN



802.11ax(HEW40) HCH 2452MHz SU / Ant1 (MIMO) NTVN



802.11be(EHT20) LCH 2412MHz SU / Ant1 (MIMO) NTNv



802.11be(EHT20) MCH 2437MHz SU / Ant1 (MIMO) NTNv

