



Annex for 2.4G Wi-Fi

Test Report No.: CTL2506042031-WF01

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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 (%)
802.11b	SISO	2412	8.437	8.570	98.45	0.07	1.24
		2437	8.417	8.570	98.21	0.08	1.24
		2462	8.436	8.570	98.44	0.07	1.24
802.11g	SISO	2412	1.397	1.557	89.72	0.47	6.14
		2437	1.397	1.565	89.27	0.49	7.20
		2462	1.401	1.548	90.50	0.43	7.43
802.11n (HT20)	SISO	2412	1.309	1.451	90.21	0.45	6.00
		2437	1.315	1.451	90.63	0.43	7.28
		2462	1.314	1.469	89.45	0.48	8.40
802.11n (HT40)	SISO	2422	0.649	0.817	79.44	1.00	15.71
		2437	0.648	0.817	79.31	1.01	15.68
		2452	0.648	0.799	81.10	0.91	13.93
802.11n (HT20)	MIMO	2412	1.316	1.469	89.58	0.48	7.79
		2437	1.309	1.477	88.63	0.52	7.59
		2462	1.308	1.468	89.10	0.50	7.11
802.11n (HT40)	MIMO	2422	0.649	0.808	80.32	0.95	13.60
		2437	0.648	0.799	81.10	0.91	10.31
		2452	0.648	0.808	80.20	0.96	14.81

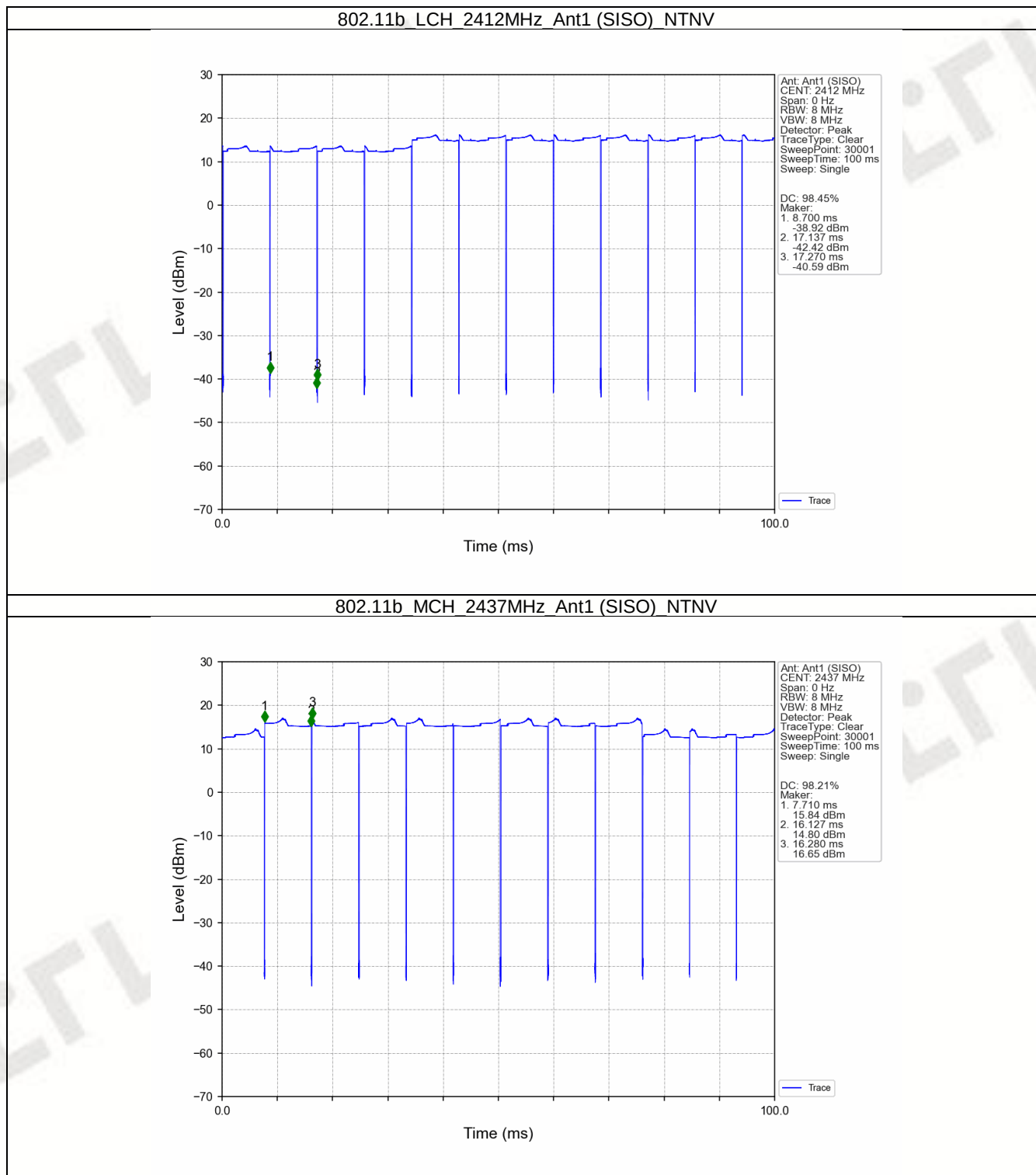
1.1.2 Ant2

Ant2							
Mode	TX Type	Frequency (MHz)	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
802.11b	SISO	2412	8.416	8.580	98.09	0.08	1.35
		2437	8.417	8.573	98.18	0.08	1.28
		2462	8.417	8.570	98.21	0.08	1.24
802.11g	SISO	2412	1.404	1.557	90.17	0.45	7.32
		2437	1.396	1.565	89.20	0.50	8.45
		2462	1.402	1.566	89.53	0.48	8.48
802.11n (HT20)	SISO	2412	1.308	1.477	88.56	0.53	7.62
		2437	1.309	1.478	88.57	0.53	7.65
		2462	1.308	1.459	89.65	0.47	6.55
802.11n (HT40)	SISO	2422	0.648	0.781	82.97	0.81	12.08
		2437	0.648	0.781	82.97	0.81	12.08
		2452	0.648	0.808	80.20	0.96	12.38

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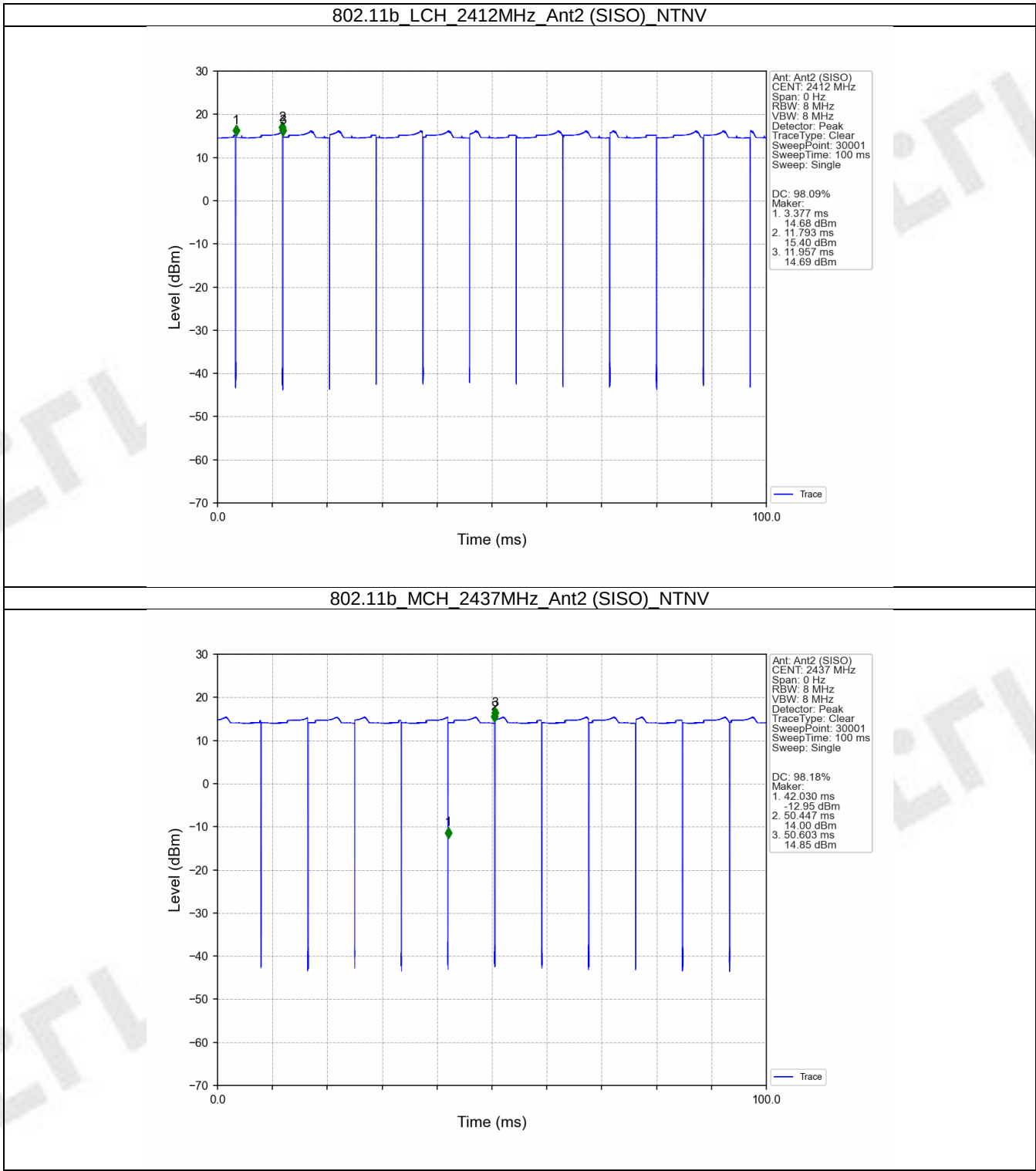
1.2 Test Graph

1.2.1 Ant1

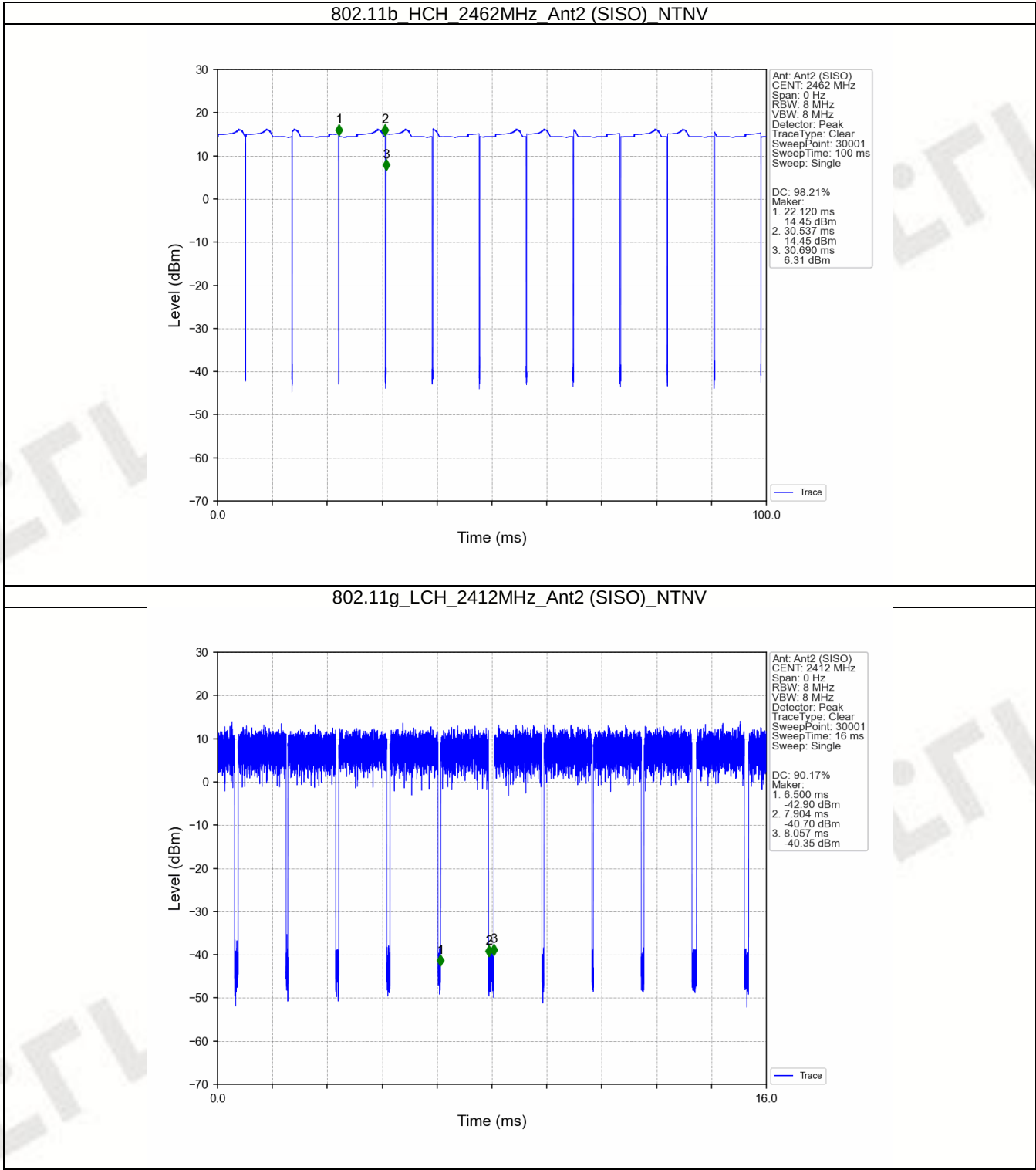


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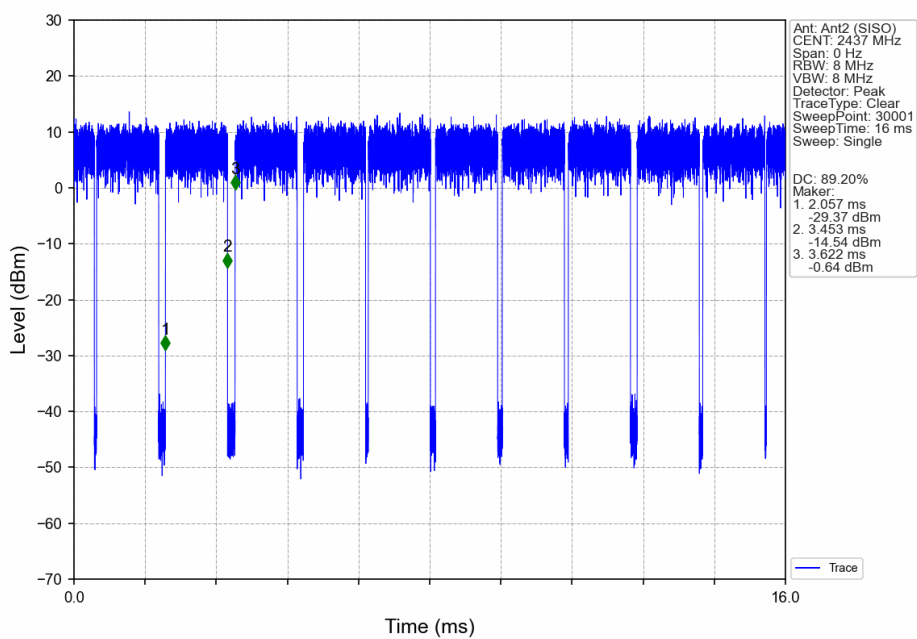


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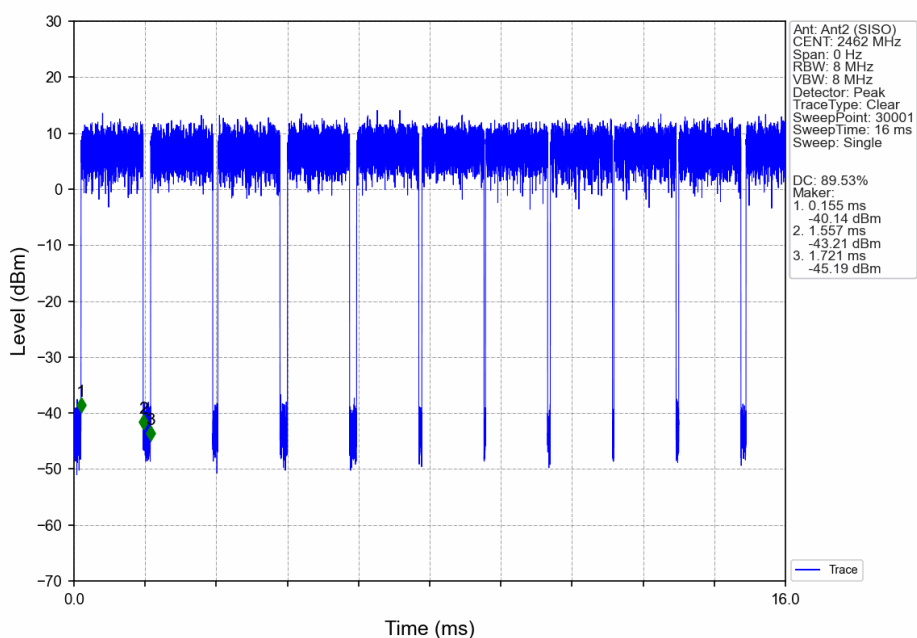


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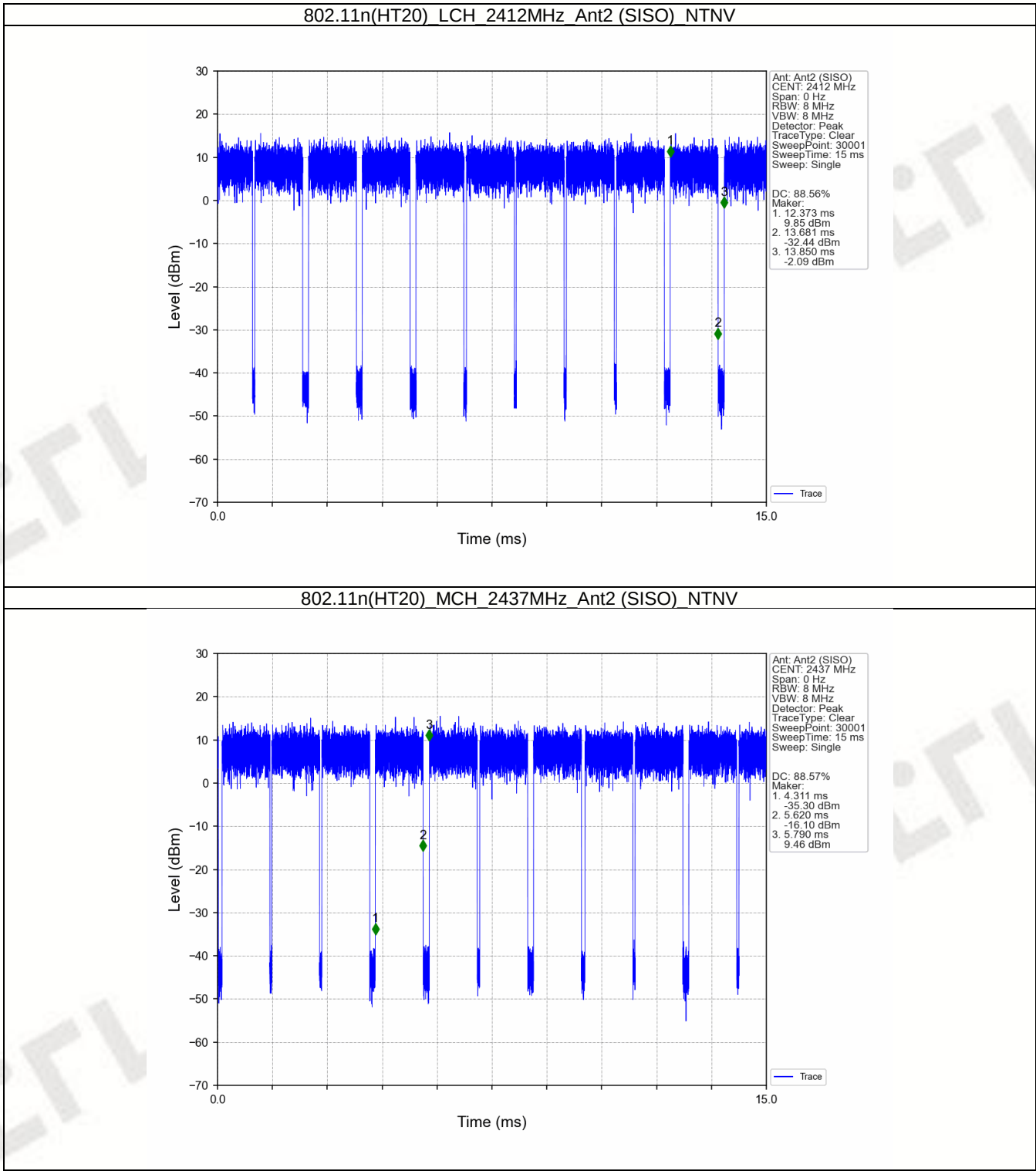
802.11g MCH 2437MHz Ant2 (SISO) NTN



802.11g HCH 2462MHz Ant2 (SISO) NTN

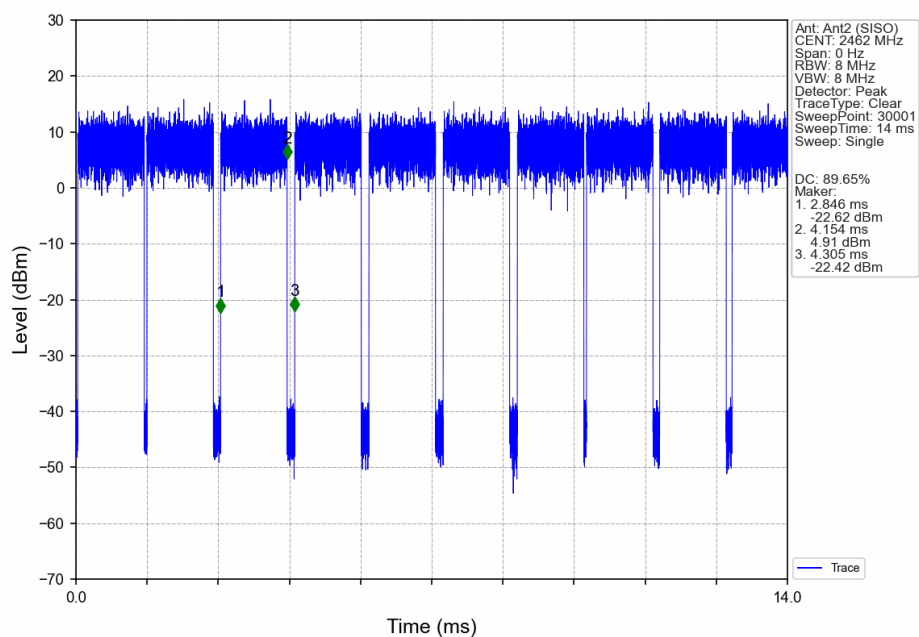


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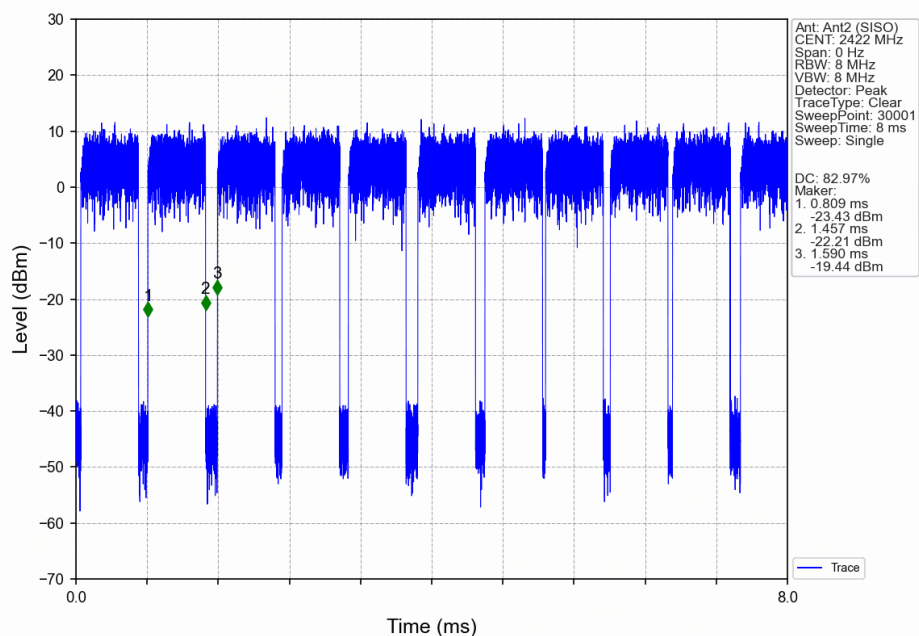


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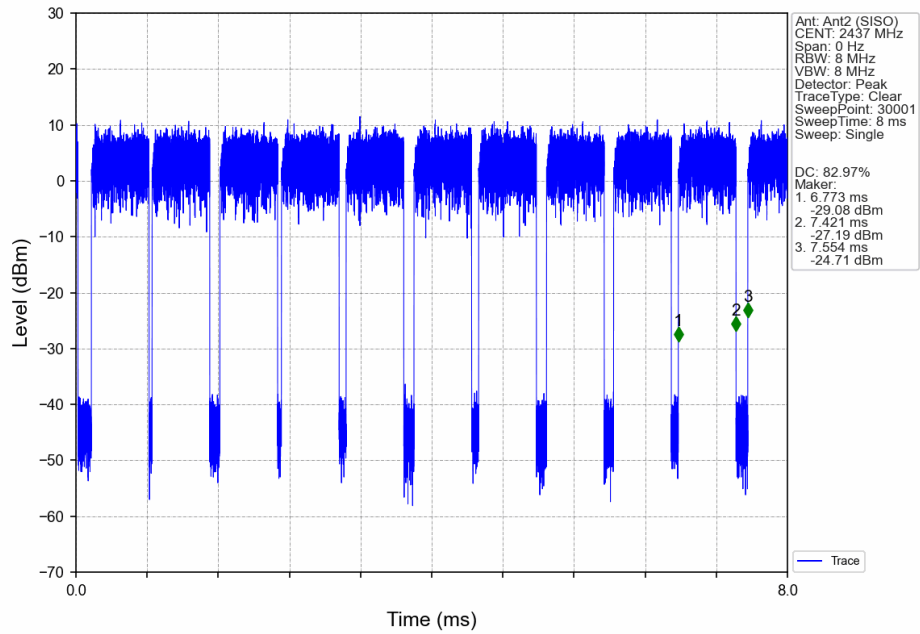


802.11n(HT40) LCH 2422MHz Ant2 (SISO) NTNV

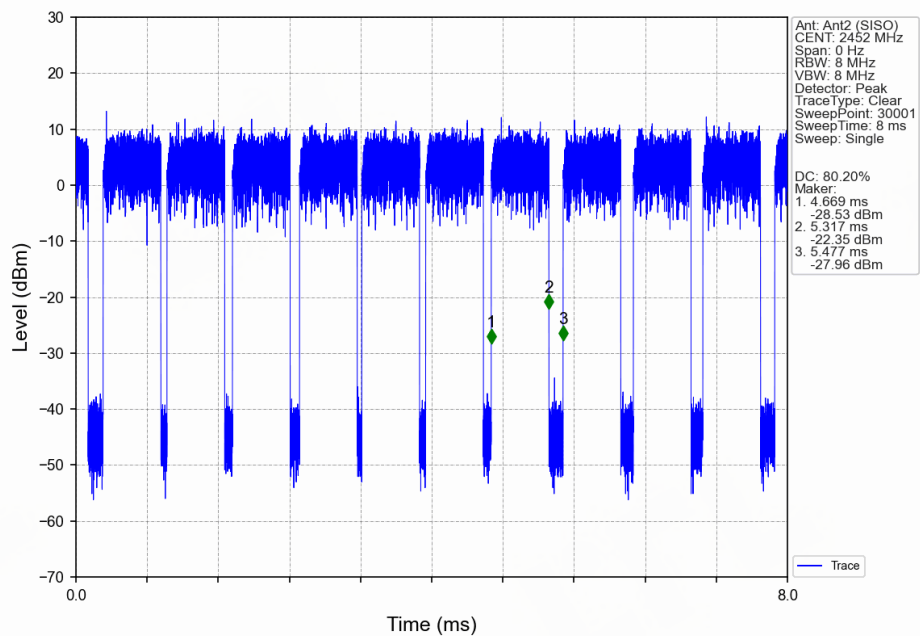


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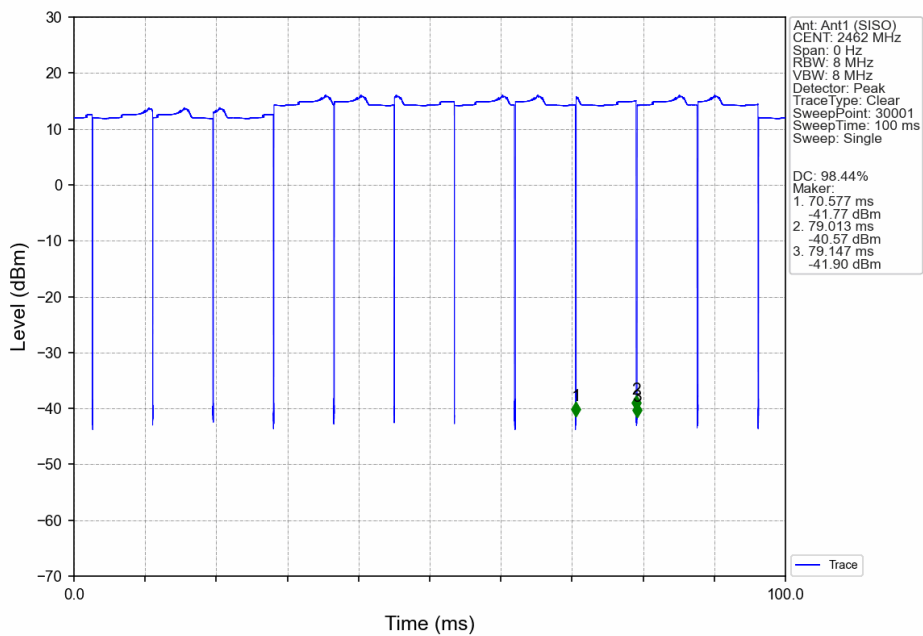


802.11n(HT40) HCH 2452MHz Ant2 (SISO) NTV

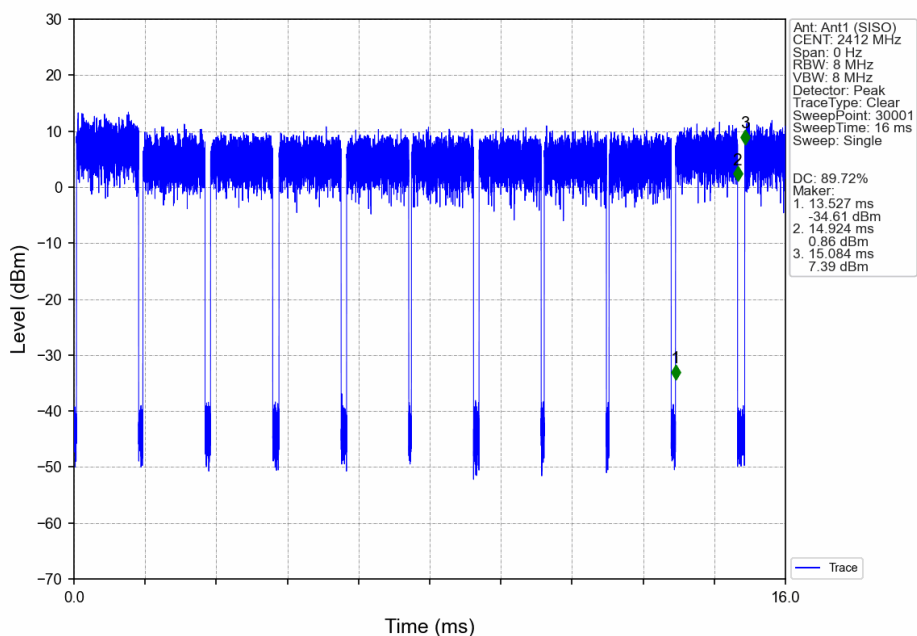


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802.11b HCH 2462MHz Ant1 (SISO) NTN

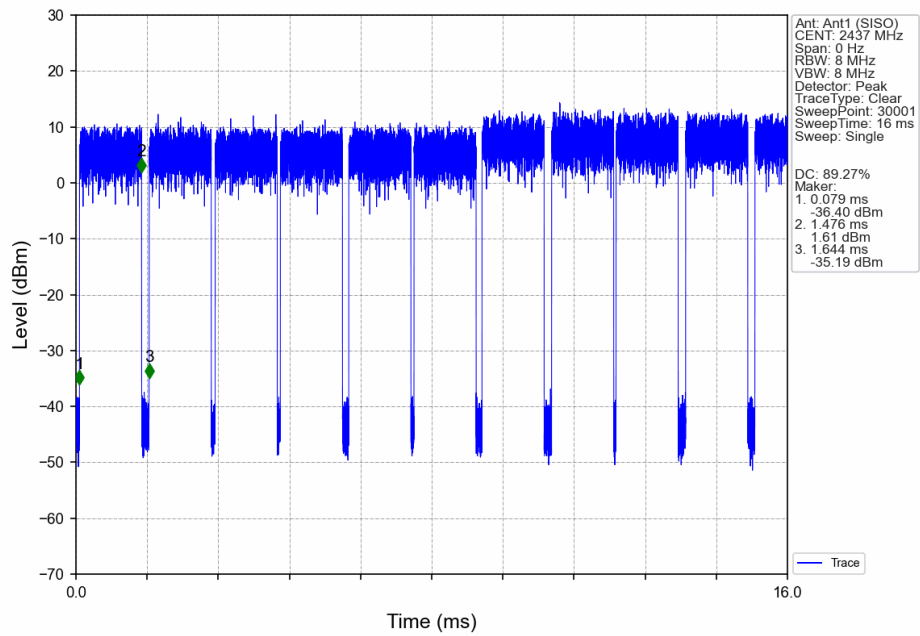


802.11g LCH 2412MHz Ant1 (SISO) NTN

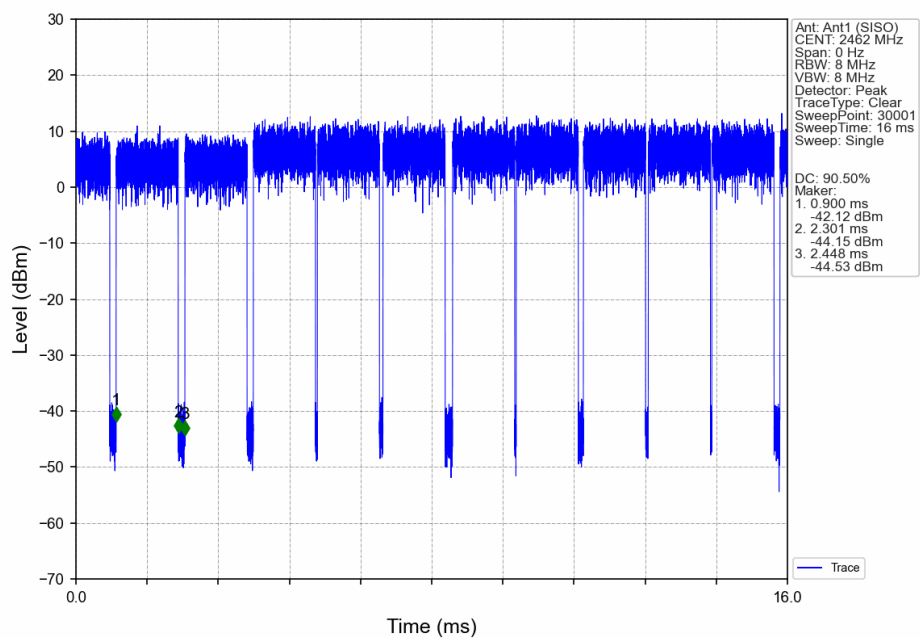


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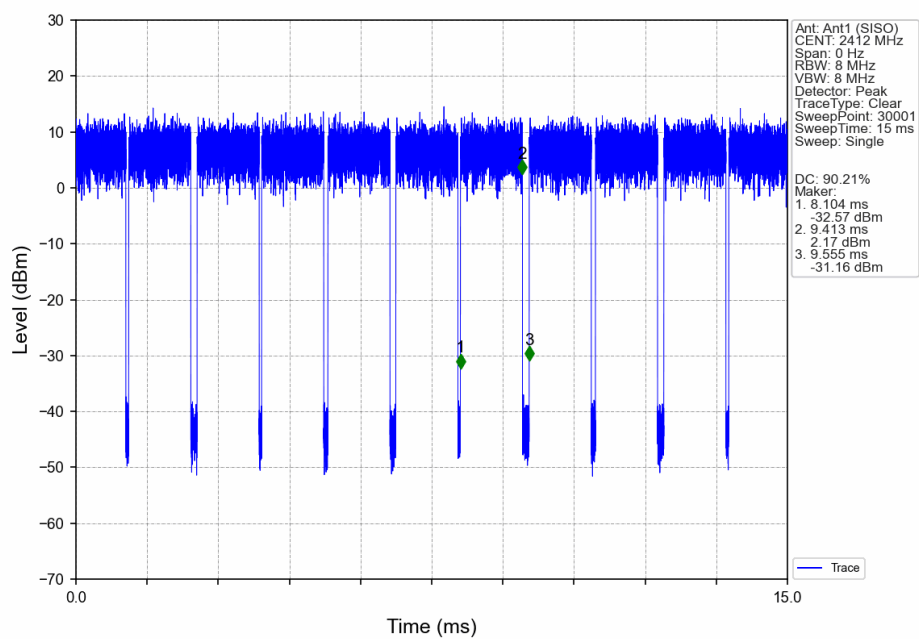


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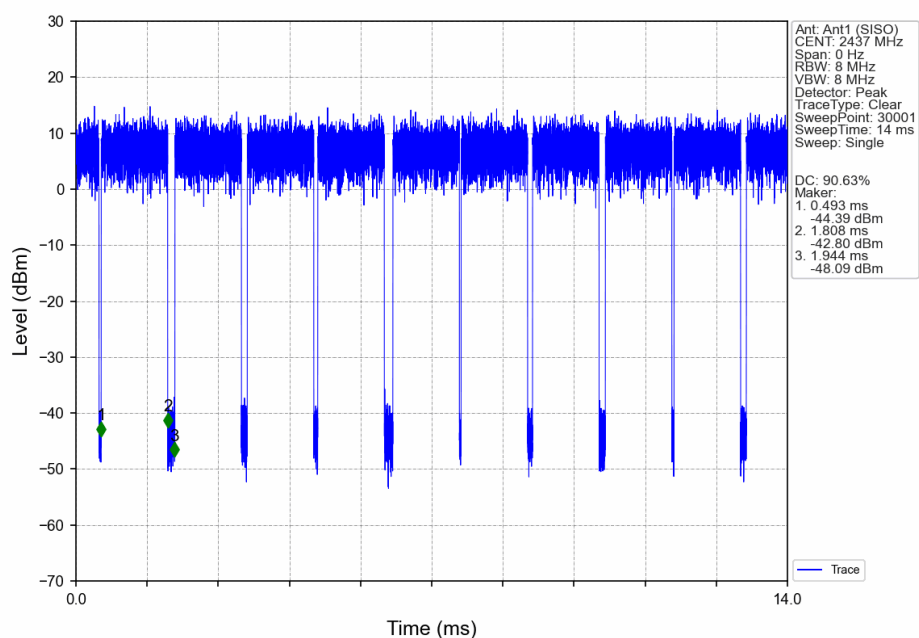


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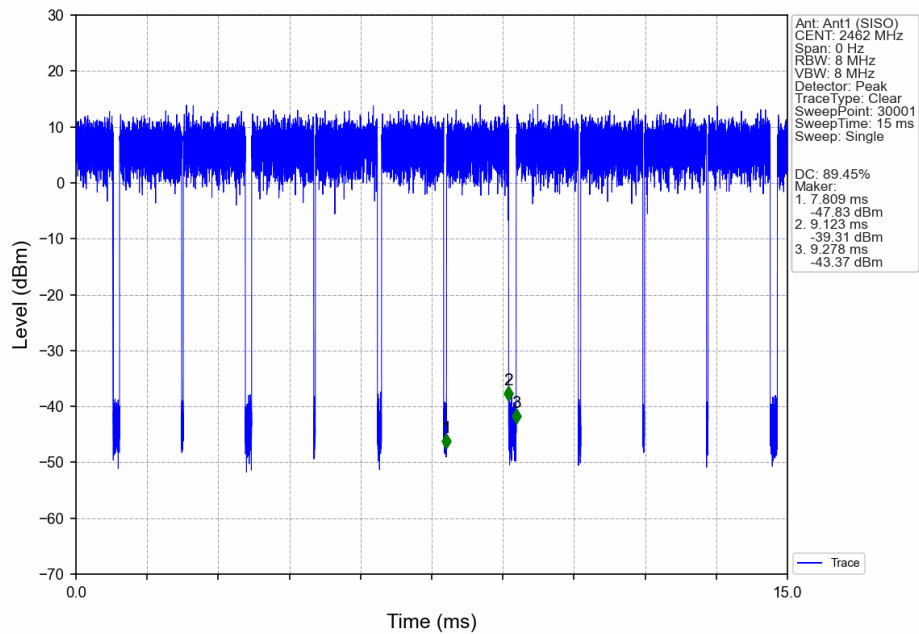


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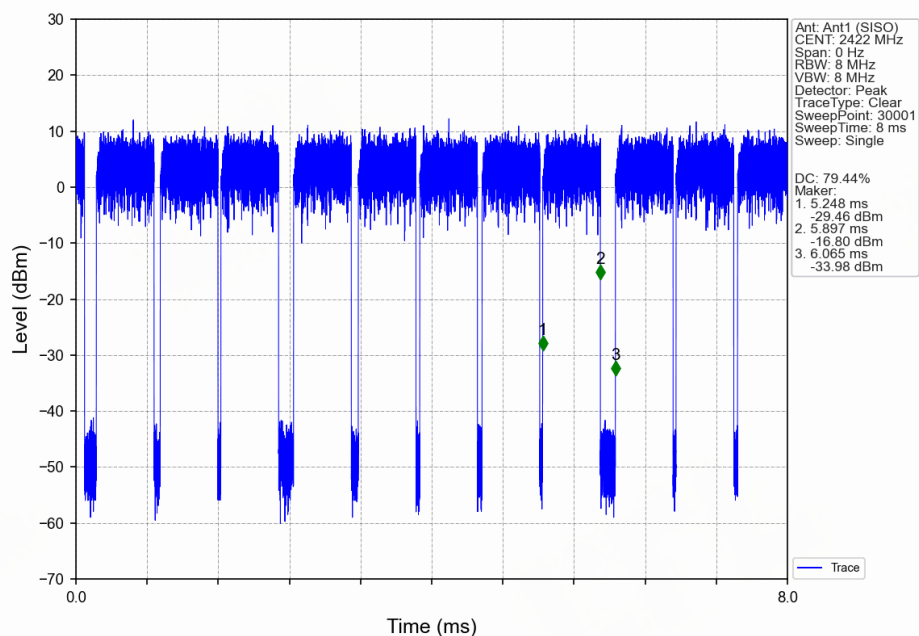


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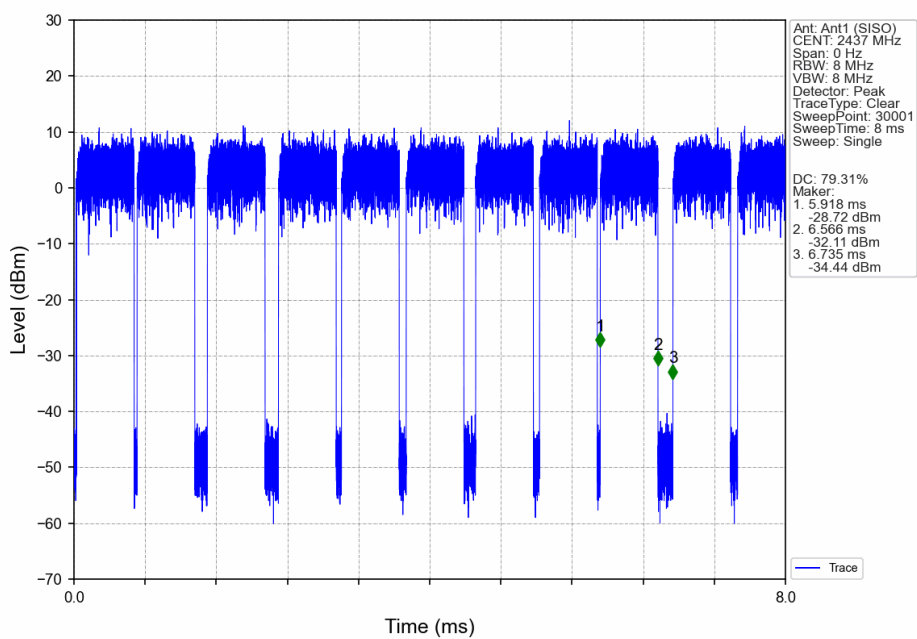


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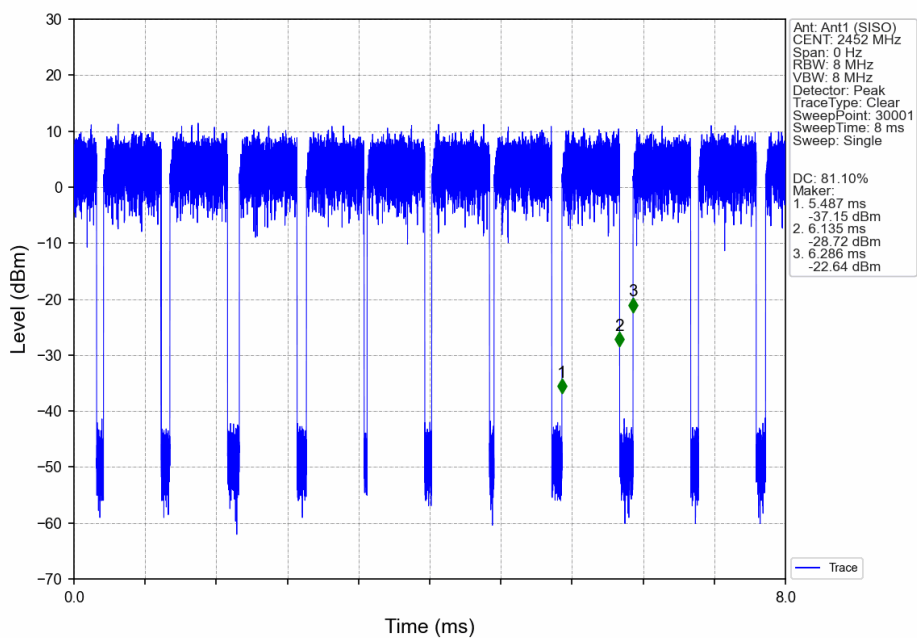


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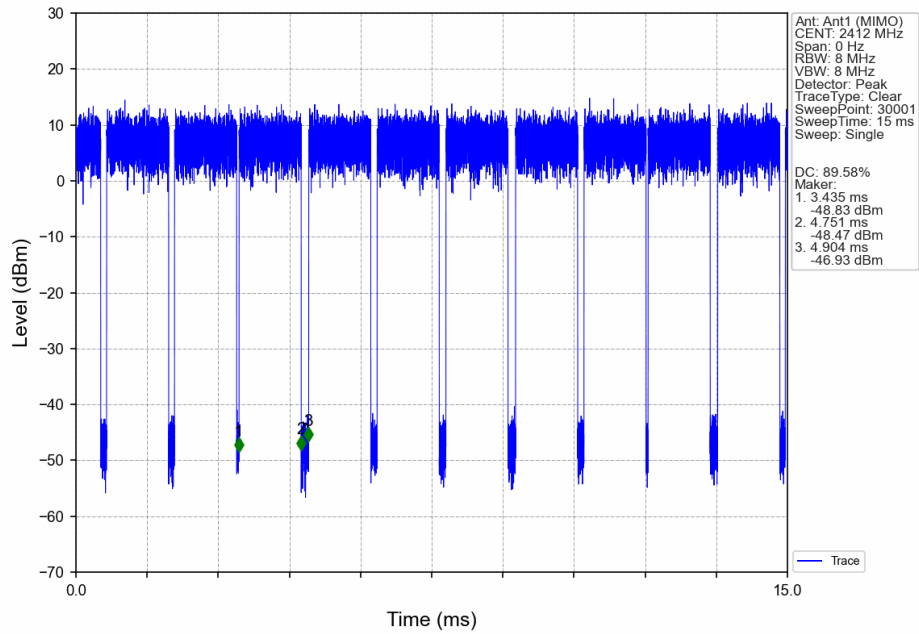


802.11n(HT40) HCH 2452MHz Ant1 (SISO) NTNV

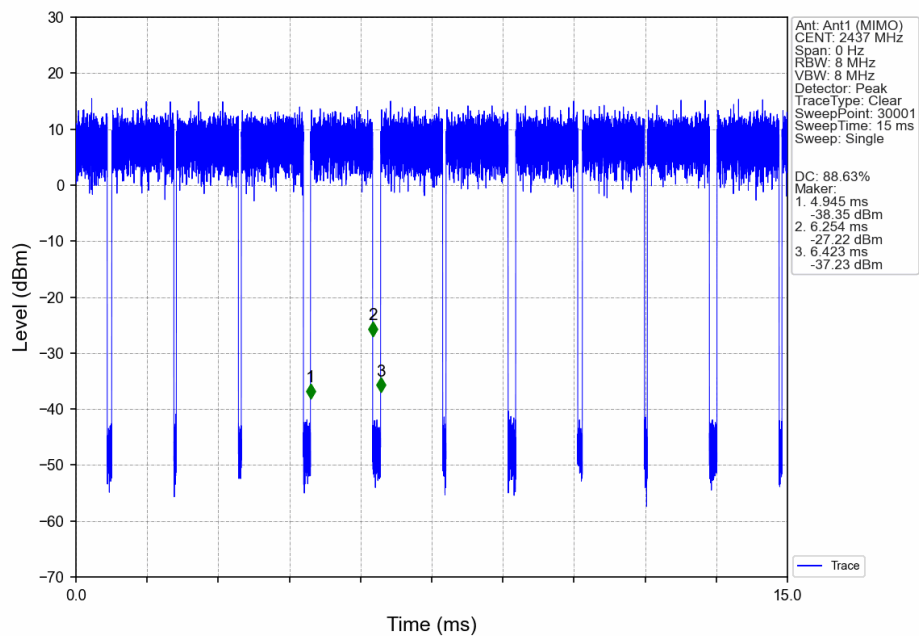


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802.11n(HT20) LCH 2412MHz Ant1 (MIMO) NTNV

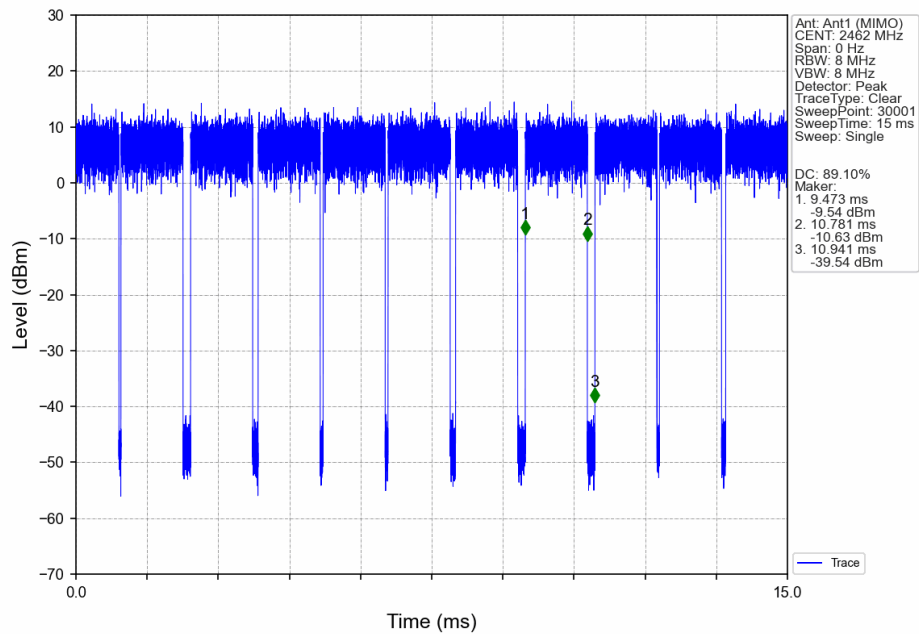


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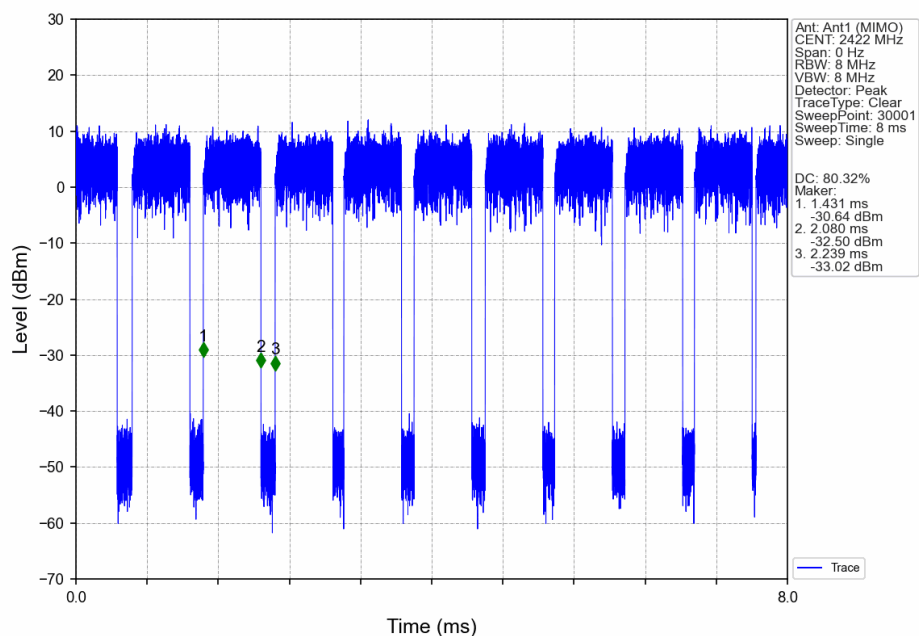


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802.11n(HT20) HCH 2462MHz Ant1 (MIMO) NTNV

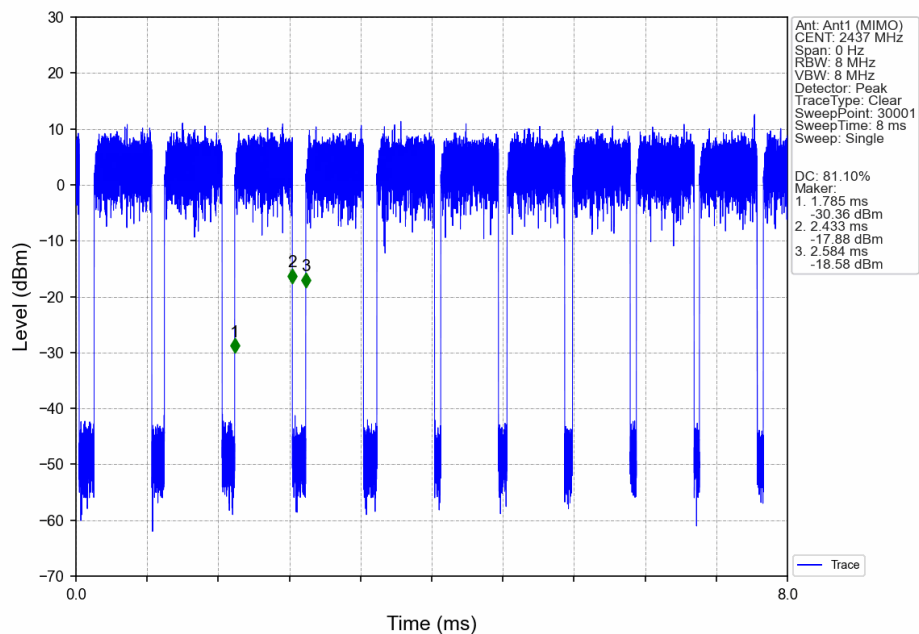


802.11n(HT40) LCH 2422MHz Ant1 (MIMO) NTNV

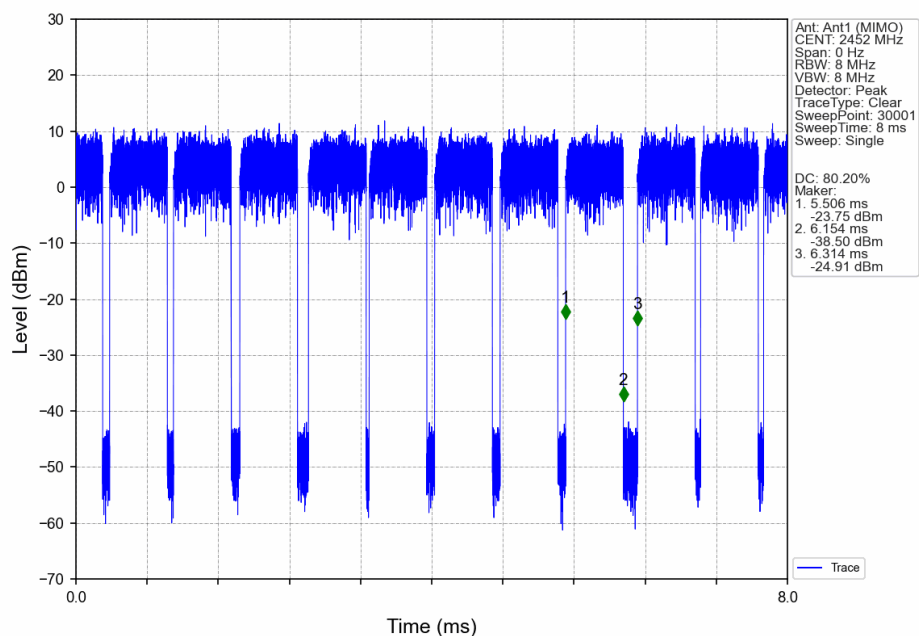


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802.11n(HT40) MCH 2437MHz Ant1 (MIMO) NTNV



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



FCCID: 2AYHD-SR01

2. Bandwidth

2.1 Test Result

2.1.1 OBW

Mode	TX Type	Frequency (MHz)	ANT	99% Occupied Bandwidth (MHz)		Verdict
				Result	Limit	
802.11b	SISO	2412	1	14.168	/	Pass
		2437	1	14.291	/	Pass
		2462	1	14.275	/	Pass
802.11g	SISO	2412	1	17.083	/	Pass
		2437	1	17.265	/	Pass
		2462	1	17.148	/	Pass
802.11n (HT20)	SISO	2412	1	17.993	/	Pass
		2437	1	18.069	/	Pass
		2462	1	17.976	/	Pass
802.11n (HT40)	SISO	2422	1	35.713	/	Pass
		2437	1	36.022	/	Pass
		2452	1	35.812	/	Pass
802.11n (HT20)	MIMO	2412	1	17.983	/	Pass
		2437	1	18.055	/	Pass
		2462	1	17.990	/	Pass
802.11n (HT40)	MIMO	2422	1	35.720	/	Pass
		2437	1	36.035	/	Pass
		2452	1	35.820	/	Pass

2.1.2 6dB BW

Mode	TX Type	Frequency (MHz)	ANT	6dB Bandwidth (MHz)		Verdict
				Result	Limit	
802.11b	SISO	2412	1	9.568	≥ 0.5	Pass
		2437	1	9.615	≥ 0.5	Pass
		2462	1	9.604	≥ 0.5	Pass
802.11g	SISO	2412	1	13.215	≥ 0.5	Pass
		2437	1	15.109	≥ 0.5	Pass
		2462	1	15.087	≥ 0.5	Pass
802.11n (HT20)	SISO	2412	1	15.134	≥ 0.5	Pass
		2437	1	15.142	≥ 0.5	Pass
		2462	1	15.126	≥ 0.5	Pass
802.11n (HT40)	SISO	2422	1	33.811	≥ 0.5	Pass
		2437	1	35.121	≥ 0.5	Pass
		2452	1	32.573	≥ 0.5	Pass
802.11n (HT20)	MIMO	2412	1	13.899	≥ 0.5	Pass
		2437	1	15.158	≥ 0.5	Pass
		2462	1	15.144	≥ 0.5	Pass
802.11n (HT40)	MIMO	2422	1	33.825	≥ 0.5	Pass
		2437	1	35.123	≥ 0.5	Pass
		2452	1	32.529	≥ 0.5	Pass

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2.1.3 OBW

Mode	TX Type	Frequency (MHz)	ANT	99% Occupied Bandwidth (MHz)		Verdict
				Result	Limit	
802.11b	SISO	2412	2	13.938	/	Pass
		2437	2	14.139	/	Pass
		2462	2	14.199	/	Pass
802.11g	SISO	2412	2	17.084	/	Pass
		2437	2	17.256	/	Pass
		2462	2	17.280	/	Pass
802.11n (HT20)	SISO	2412	2	17.853	/	Pass
		2437	2	18.009	/	Pass
		2462	2	18.038	/	Pass
802.11n (HT40)	SISO	2422	2	35.936	/	Pass
		2437	2	36.008	/	Pass
		2452	2	35.808	/	Pass

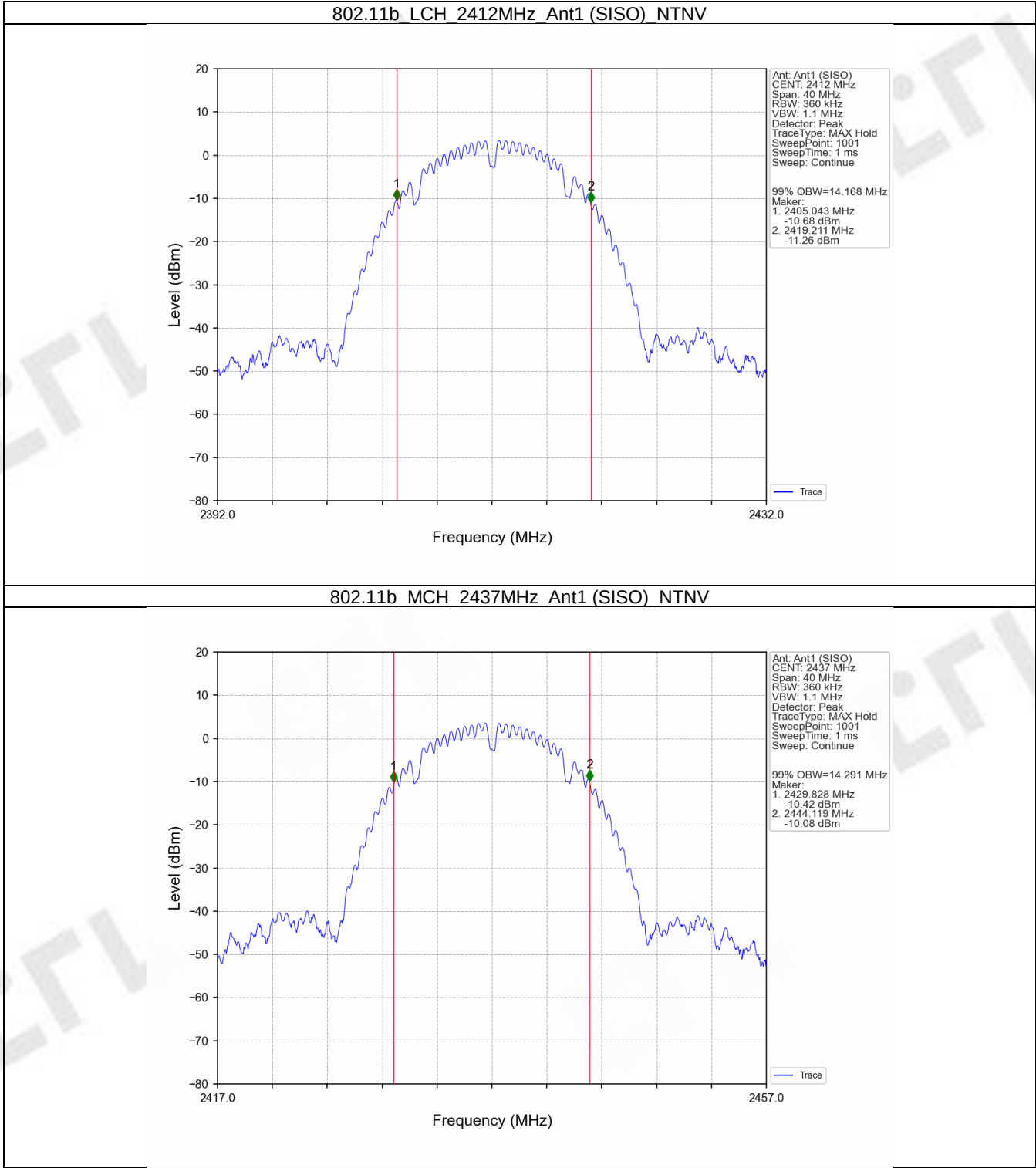
2.1.4 6dB BW

Mode	TX Type	Frequency (MHz)	ANT	6dB Bandwidth (MHz)		Verdict
				Result	Limit	
802.11b	SISO	2412	2	9.132	≥ 0.5	Pass
		2437	2	9.608	≥ 0.5	Pass
		2462	2	9.616	≥ 0.5	Pass
802.11g	SISO	2412	2	15.116	≥ 0.5	Pass
		2437	2	15.154	≥ 0.5	Pass
		2462	2	15.087	≥ 0.5	Pass
802.11n (HT20)	SISO	2412	2	15.100	≥ 0.5	Pass
		2437	2	15.131	≥ 0.5	Pass
		2462	2	15.165	≥ 0.5	Pass
802.11n (HT40)	SISO	2422	2	35.108	≥ 0.5	Pass
		2437	2	35.132	≥ 0.5	Pass
		2452	2	33.796	≥ 0.5	Pass

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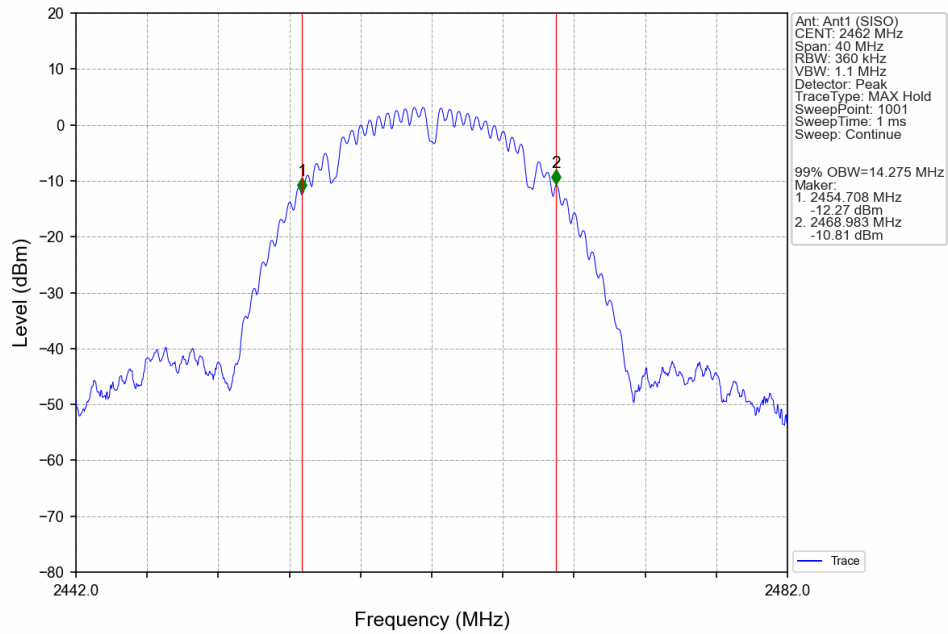
2.2 Test Graph

2.2.1 OBW

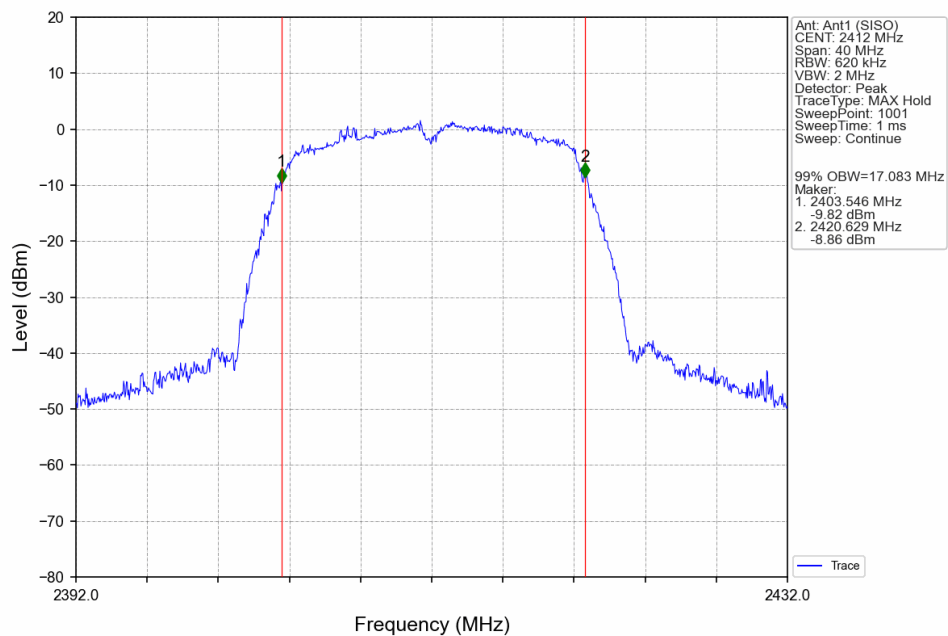


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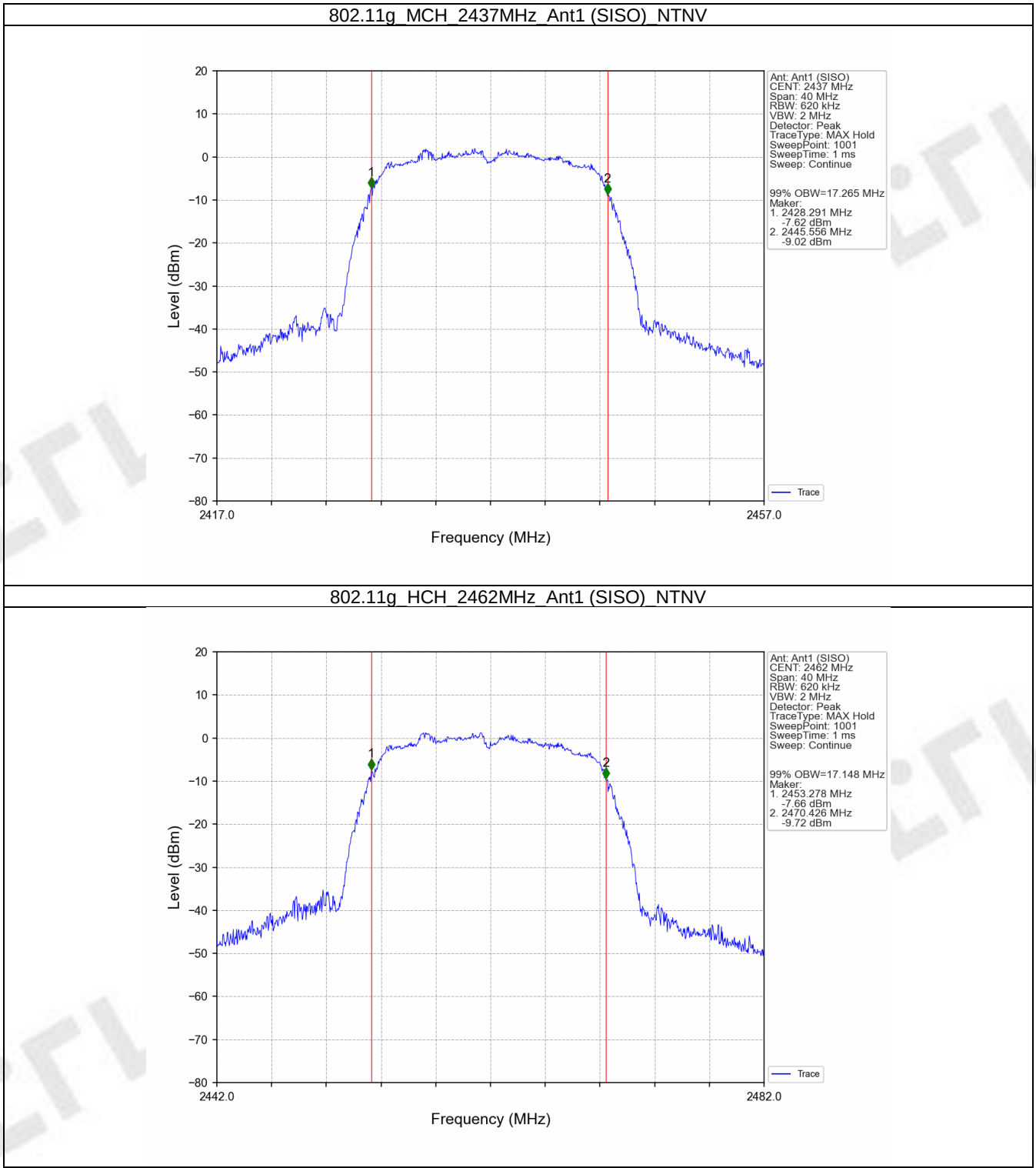
802.11b HCH 2462MHz Ant1 (SISO) NTN



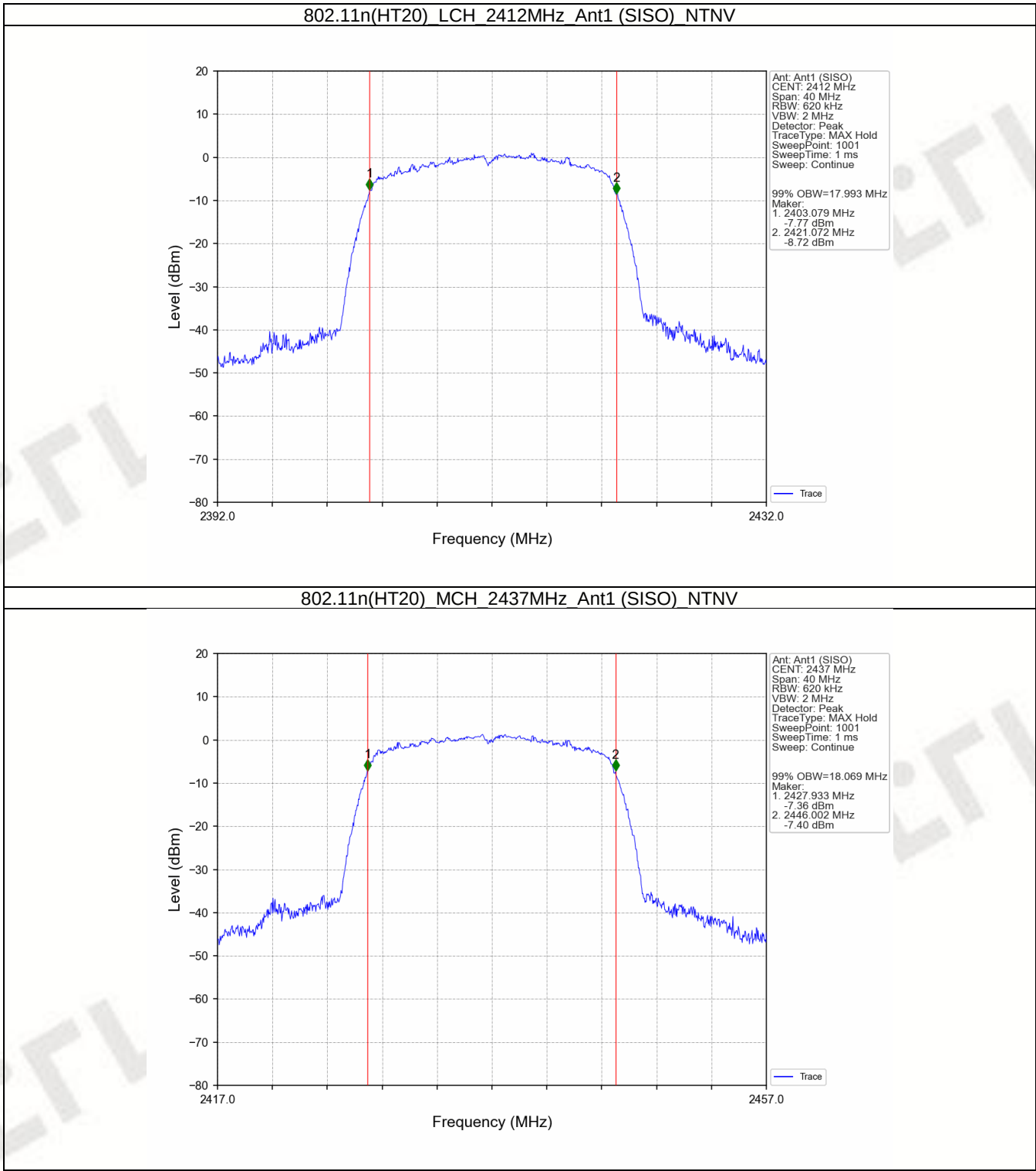
802.11g LCH 2412MHz Ant1 (SISO) NTN



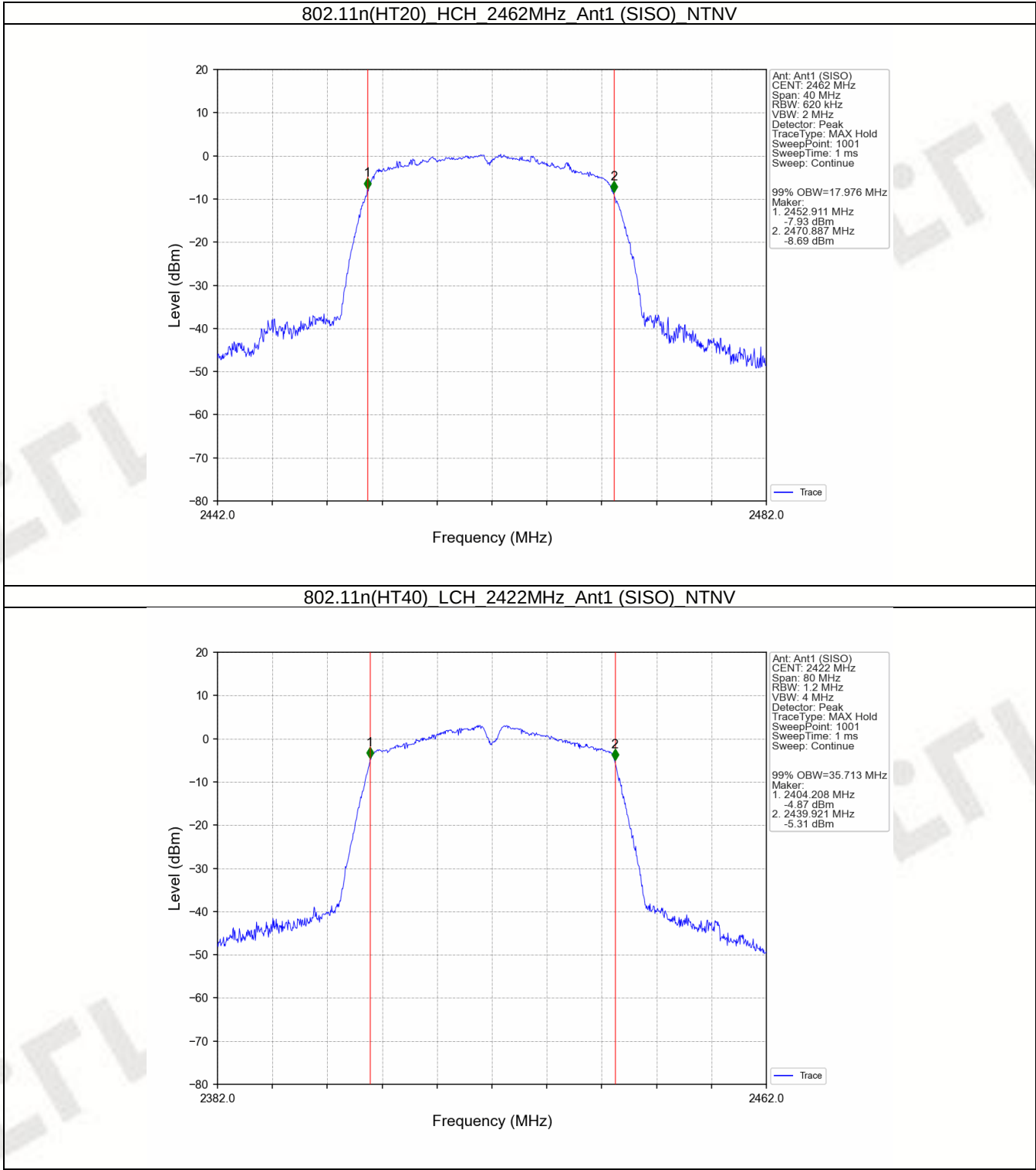
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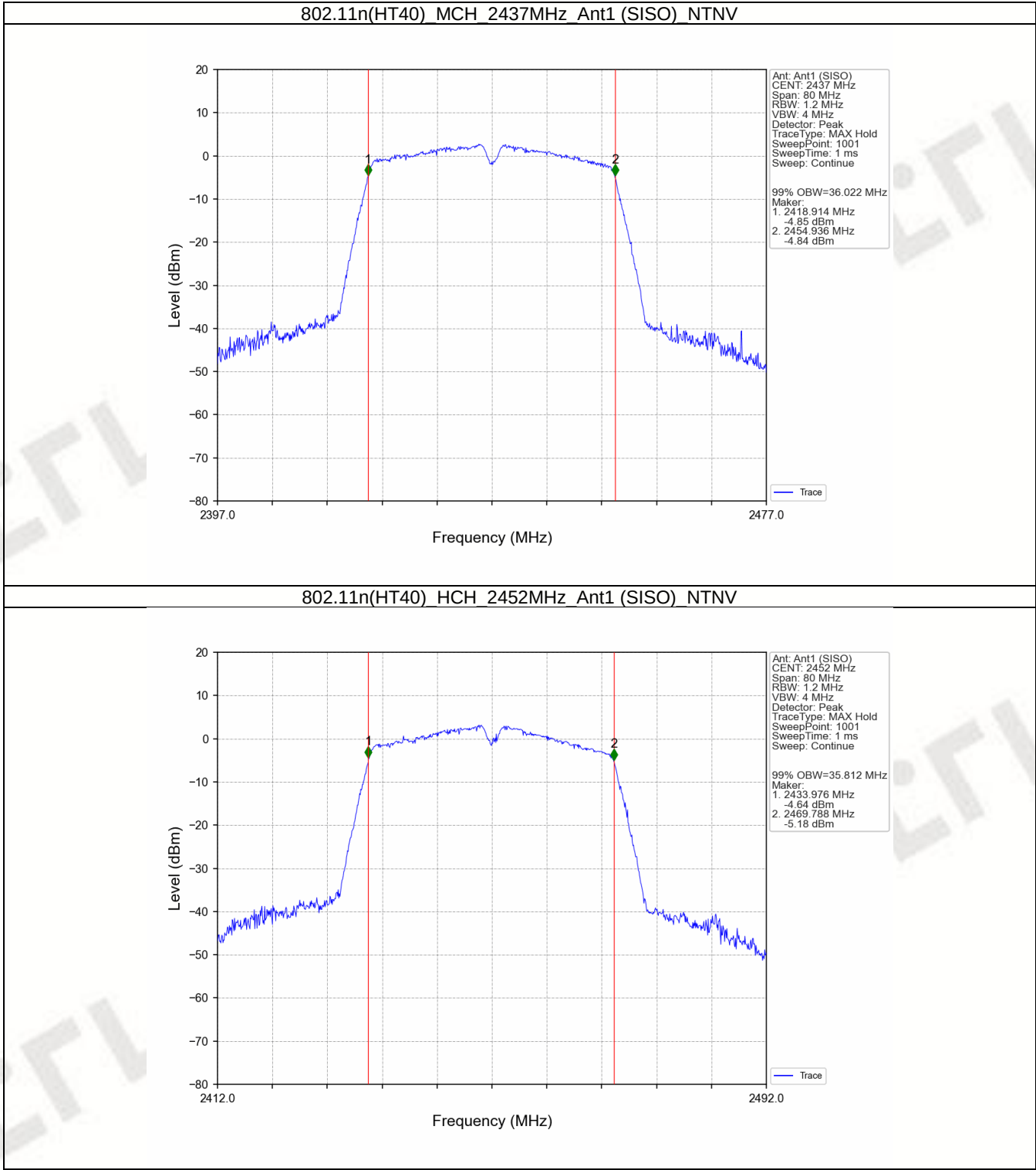
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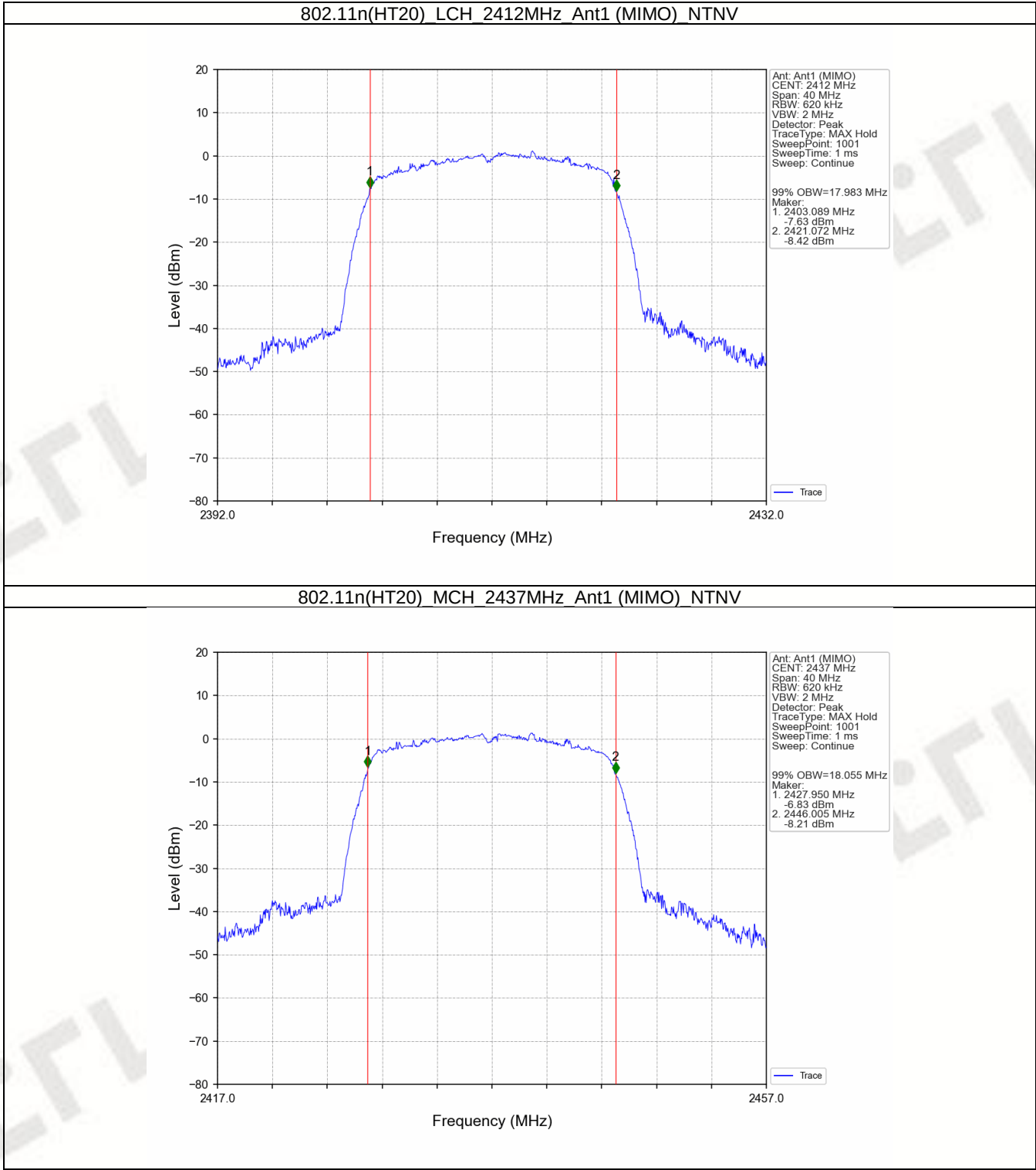
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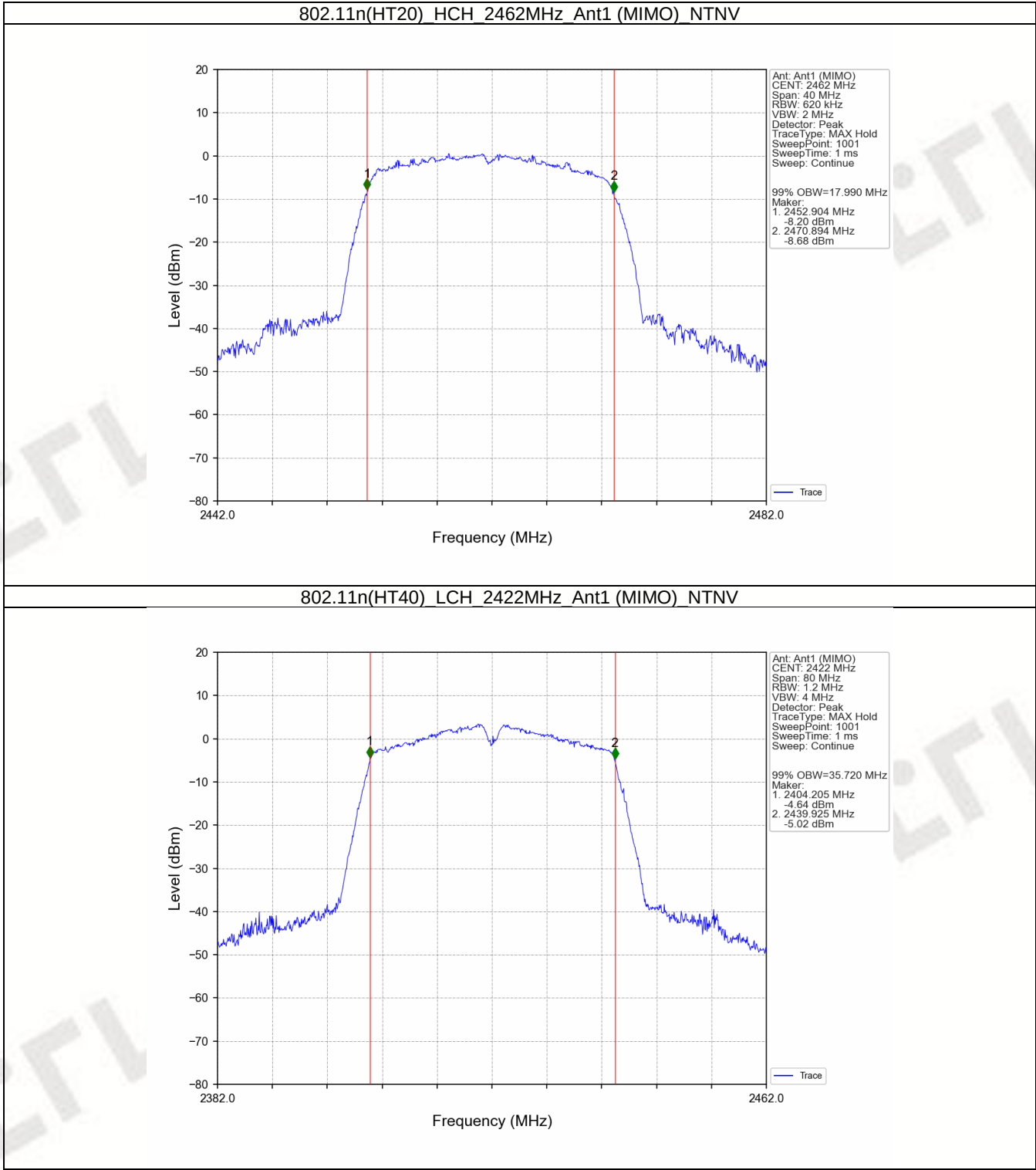
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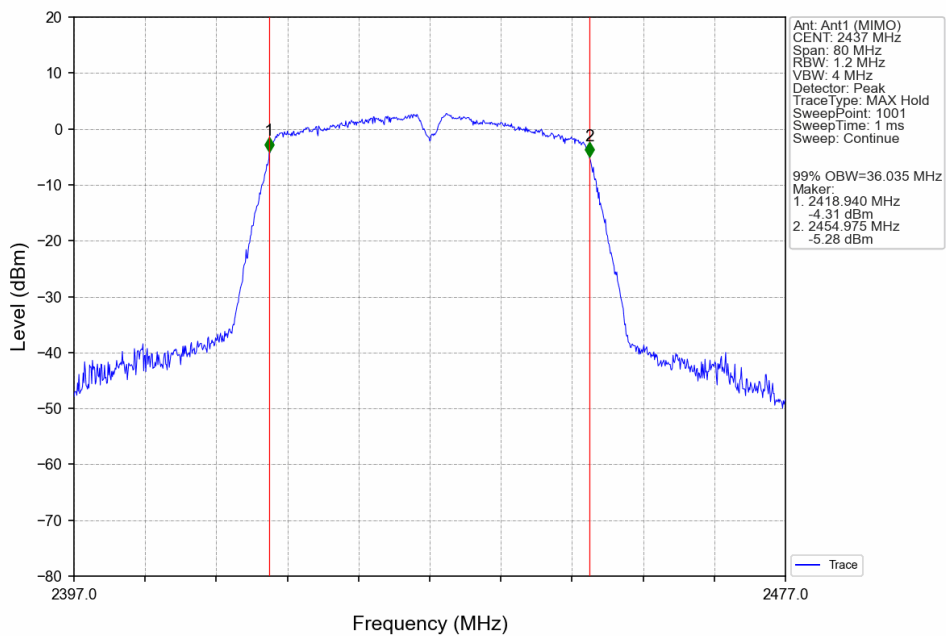


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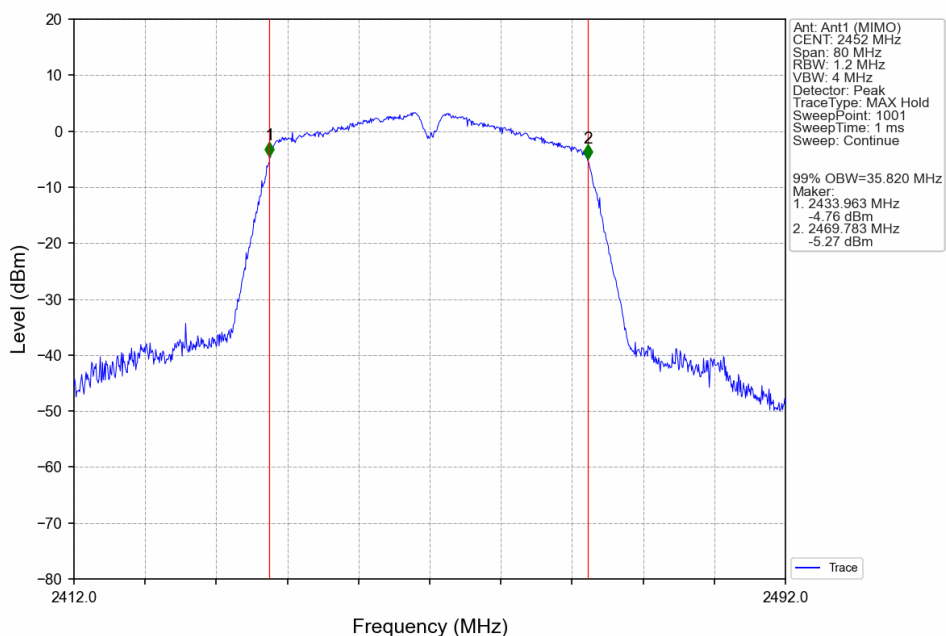


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802.11n(HT40) MCH 2437MHz Ant1 (MIMO) NTNV

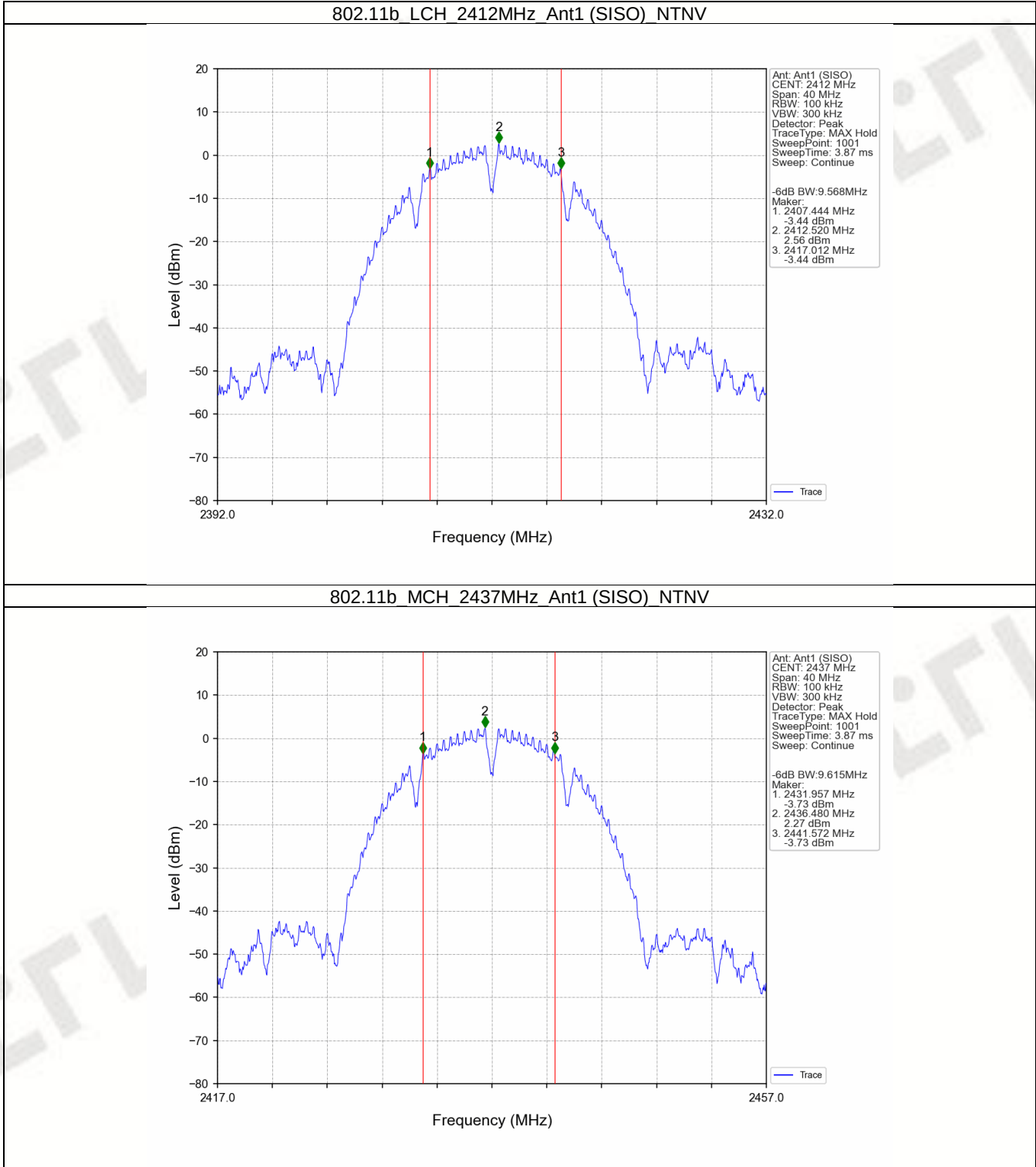


802.11n(HT40) HCH 2452MHz Ant1 (MIMO) NTNV



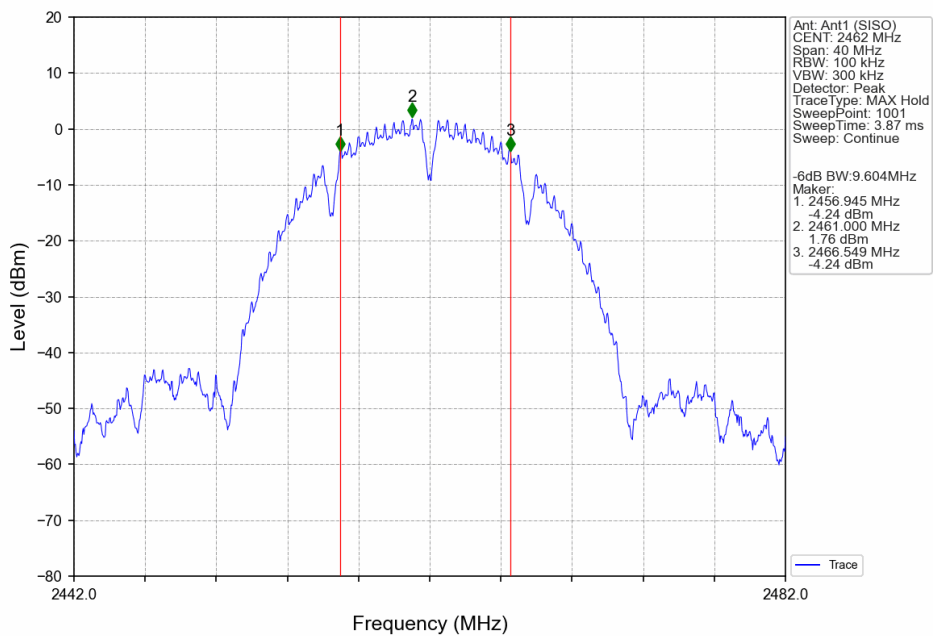
FCCID: 2AYHD-SR01

2.2.2 6dB BW

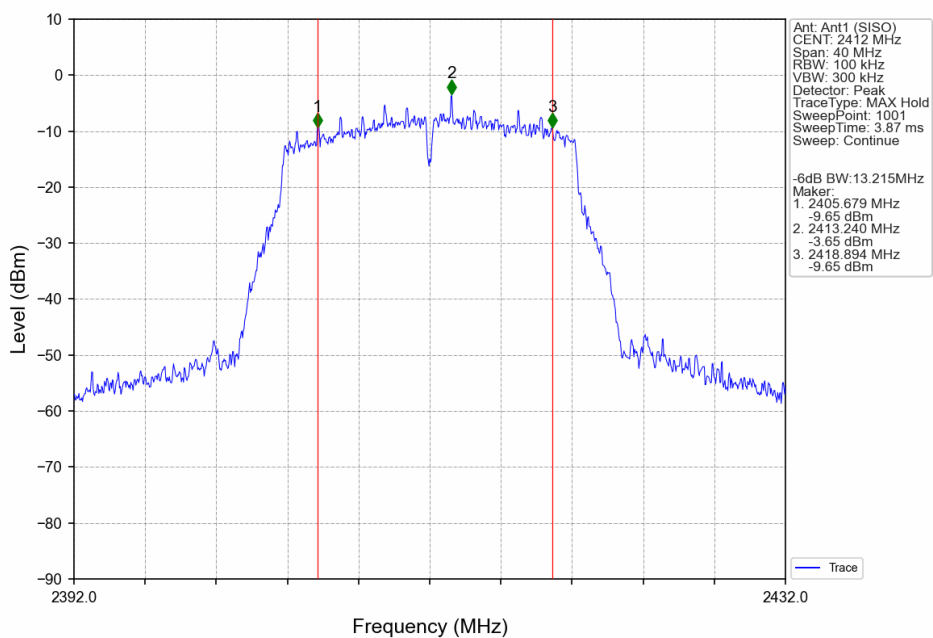


FCCID: 2AYHD-SR01

802.11b HCH 2462MHz Ant1 (SISO) NTN

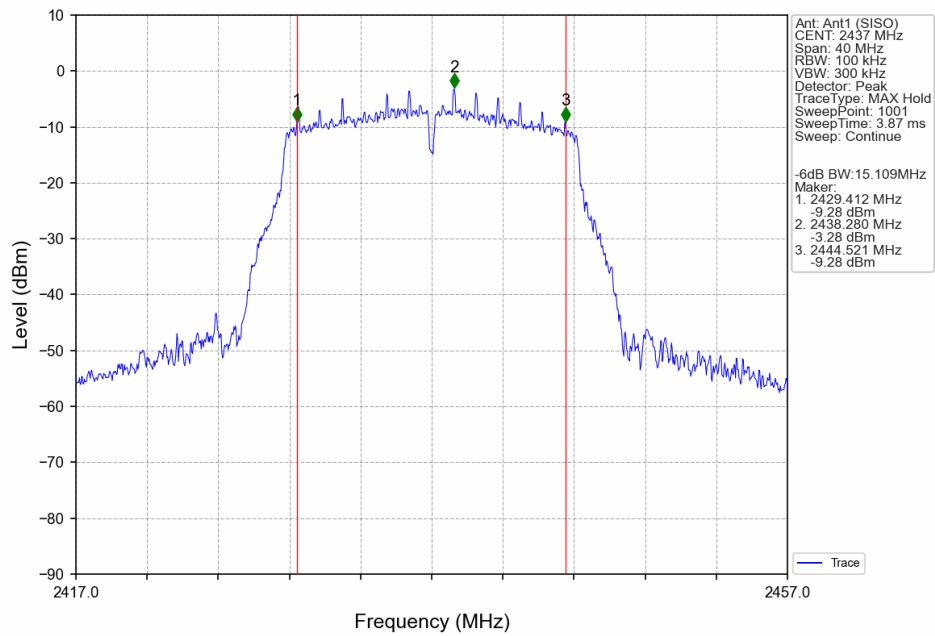


802.11g LCH 2412MHz Ant1 (SISO) NTN

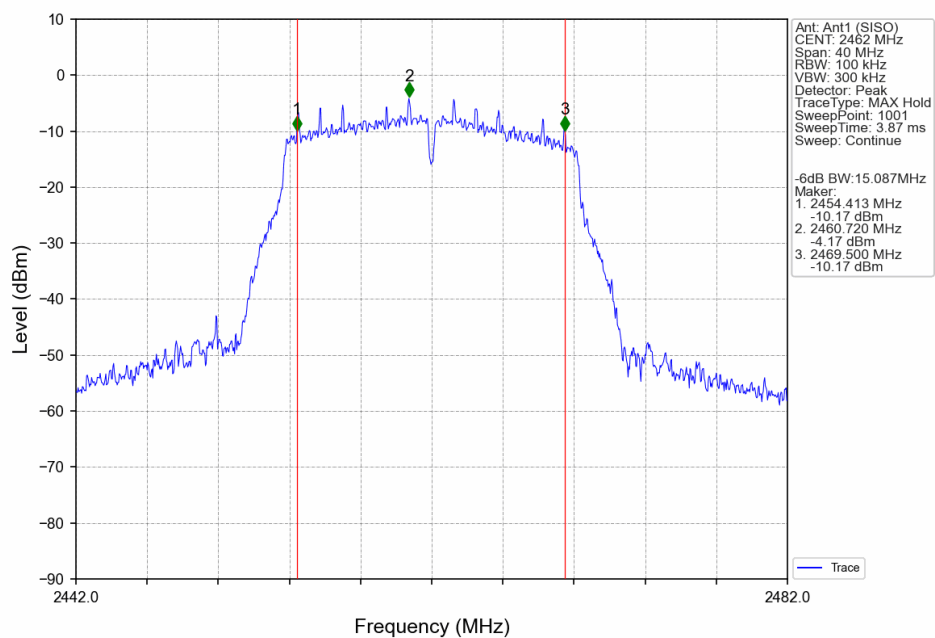


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802.11g MCH 2437MHz Ant1 (SISO) NTN

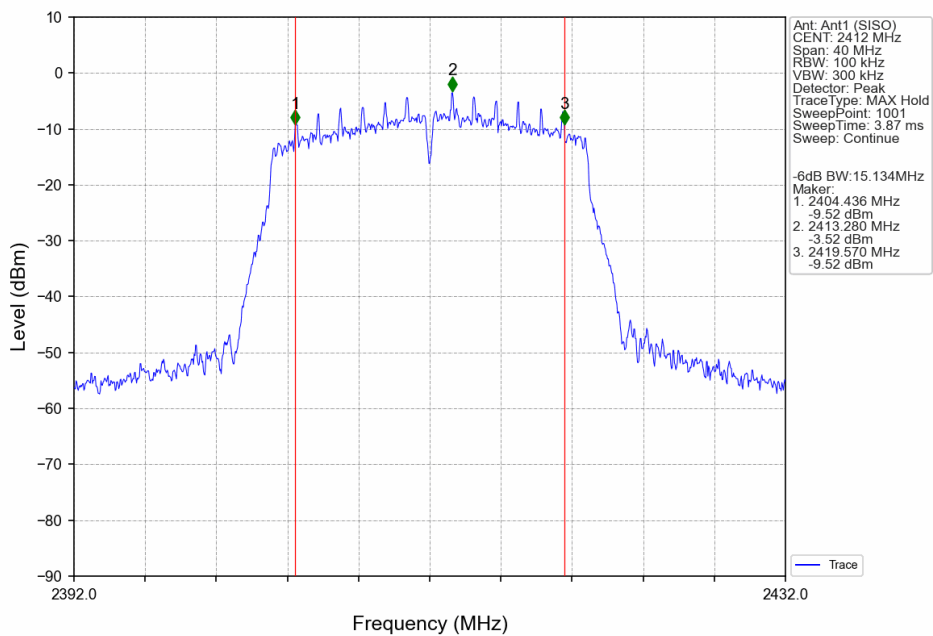


802.11g HCH 2462MHz Ant1 (SISO) NTN

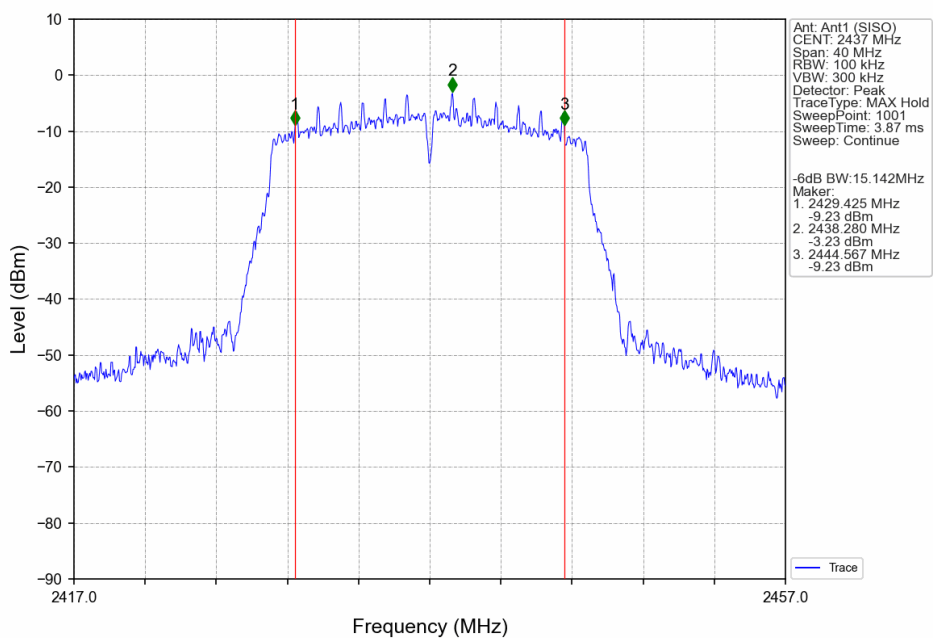


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802.11n(HT20) LCH 2412MHz Ant1 (SISO) NTNV

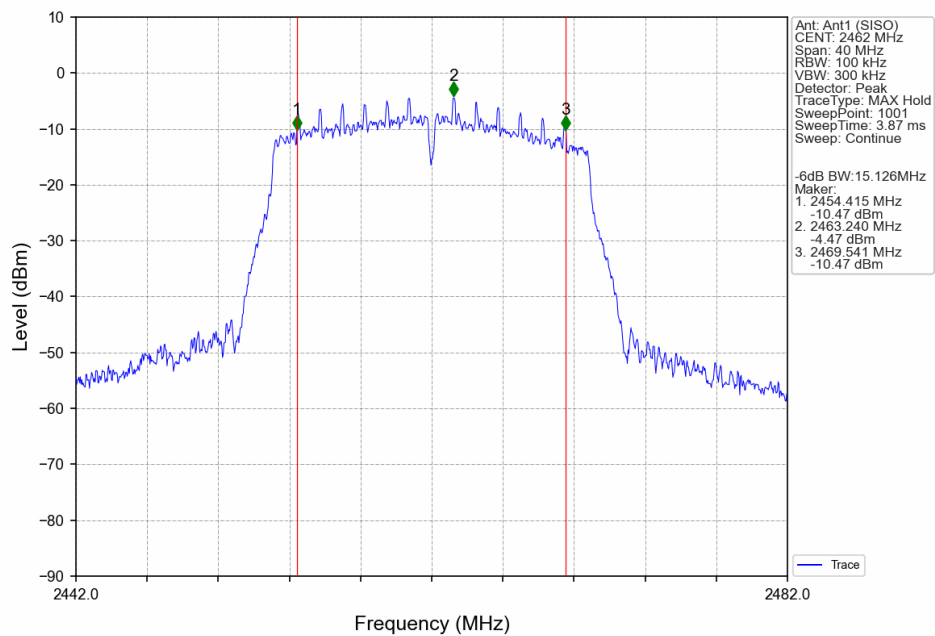


802.11n(HT20) MCH 2437MHz Ant1 (SISO) NTNV

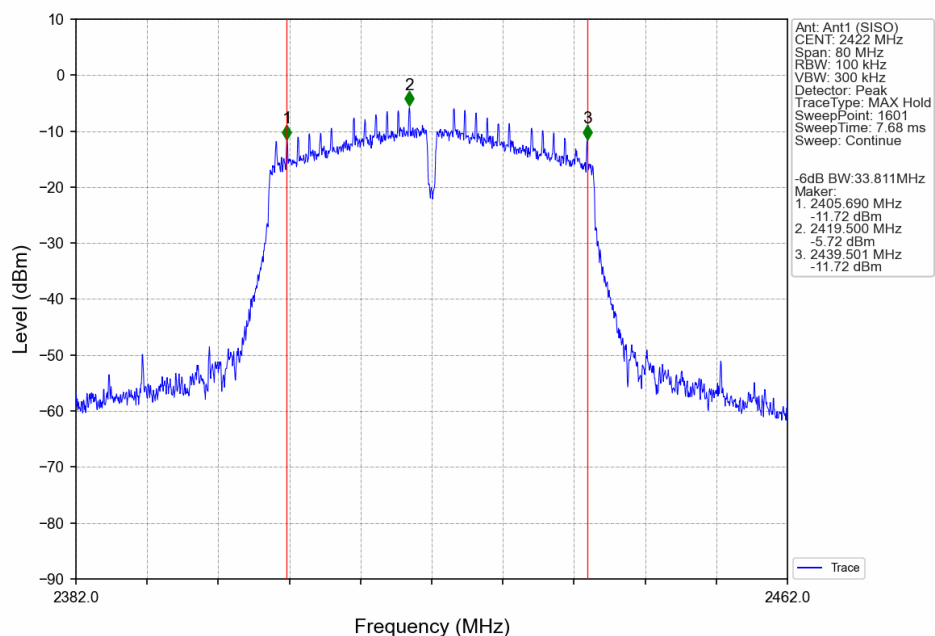


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802.11n(HT20) HCH 2462MHz Ant1 (SISO) NTNV

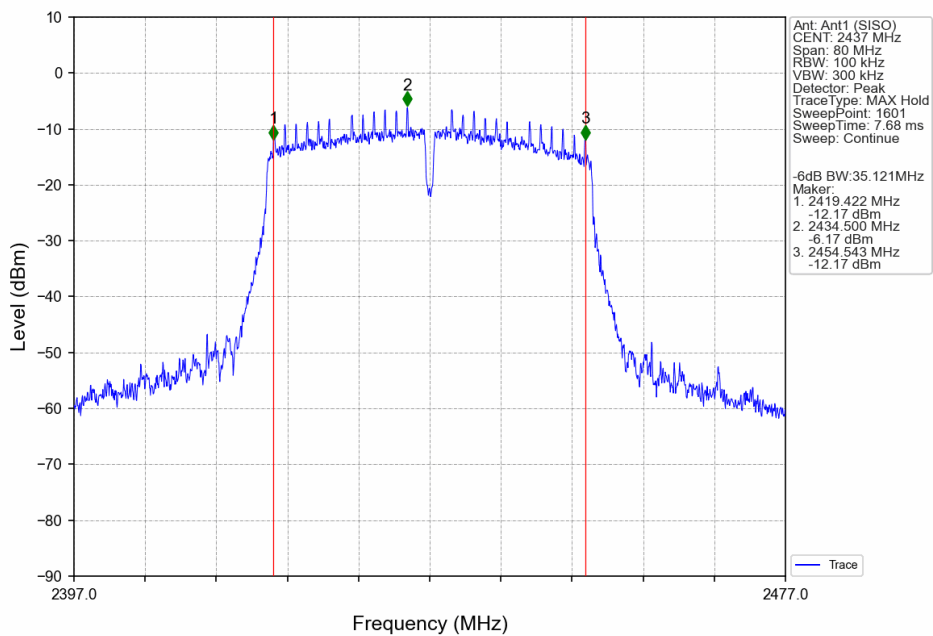


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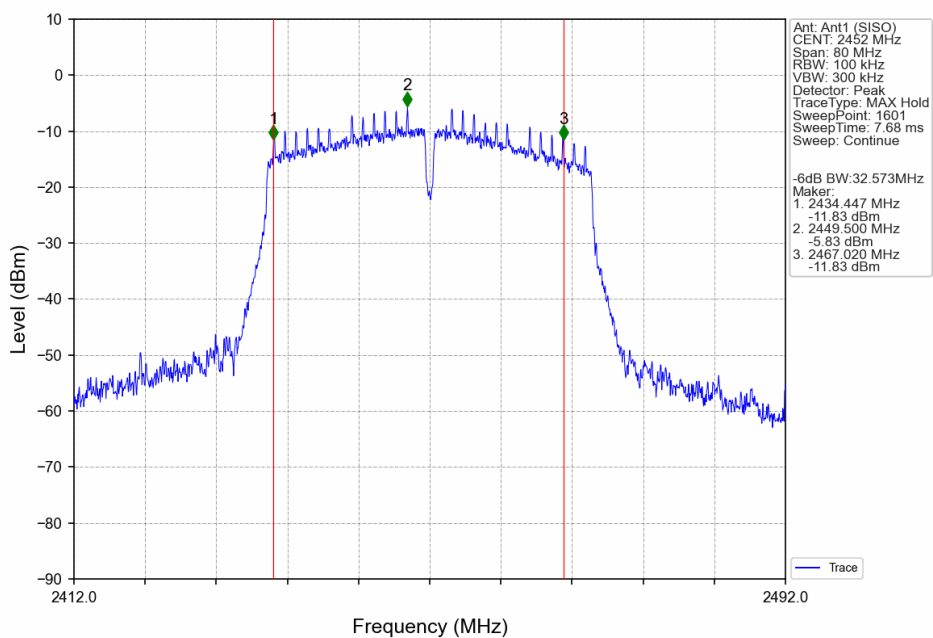


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802.11n(HT40) MCH 2437MHz Ant1 (SISO) NTNV

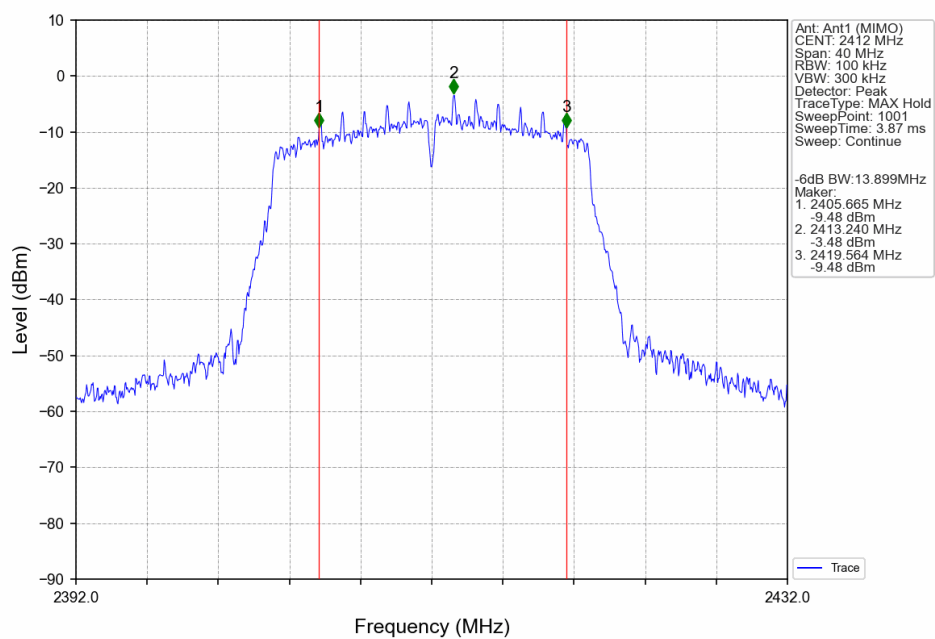


802.11n(HT40) HCH 2452MHz Ant1 (SISO) NTNV

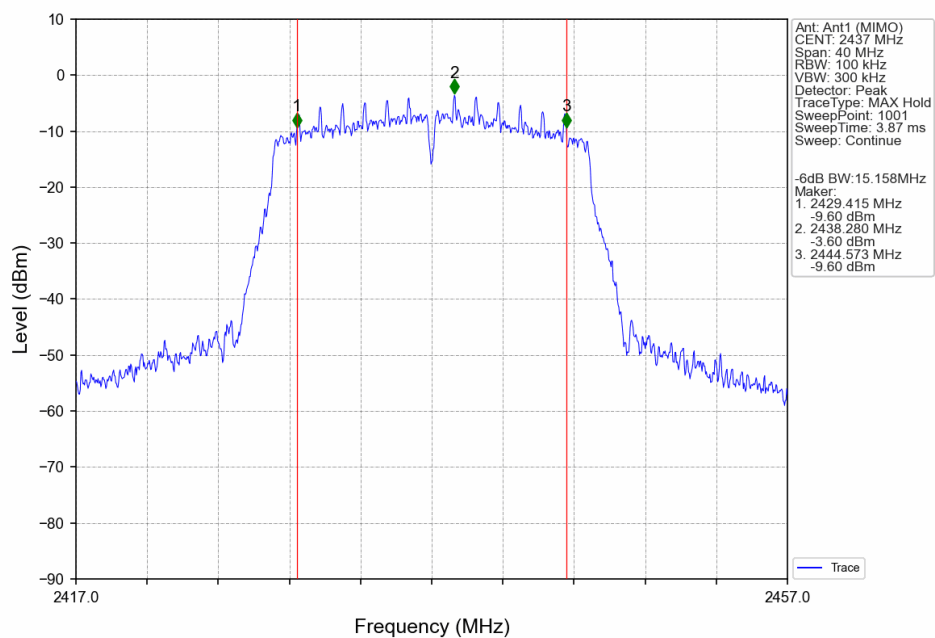


FCCID: 2AYHD-SR01

802.11n(HT20) LCH 2412MHz Ant1 (MIMO) NTNV

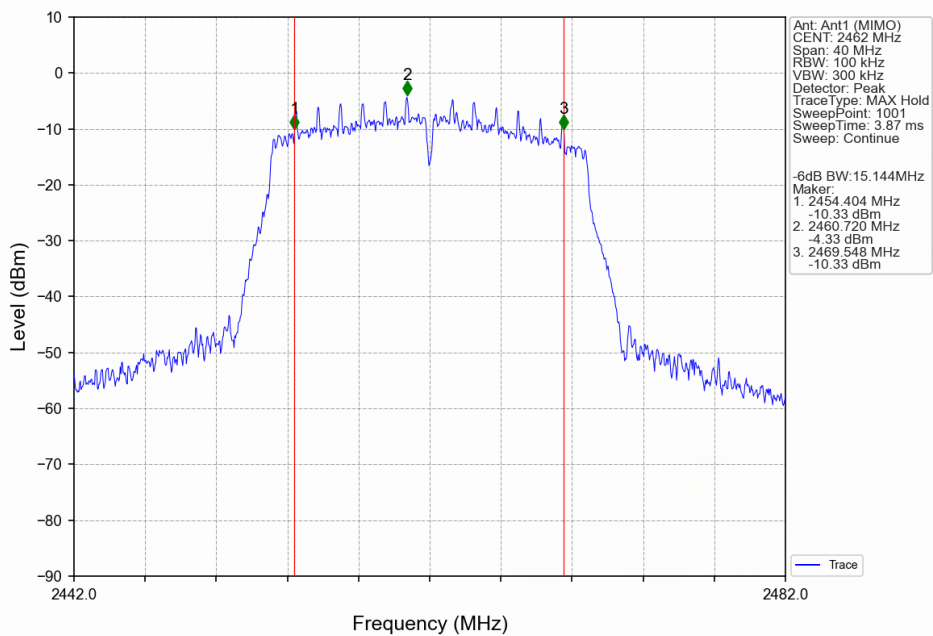


802.11n(HT20) MCH 2437MHz Ant1 (MIMO) NTNV

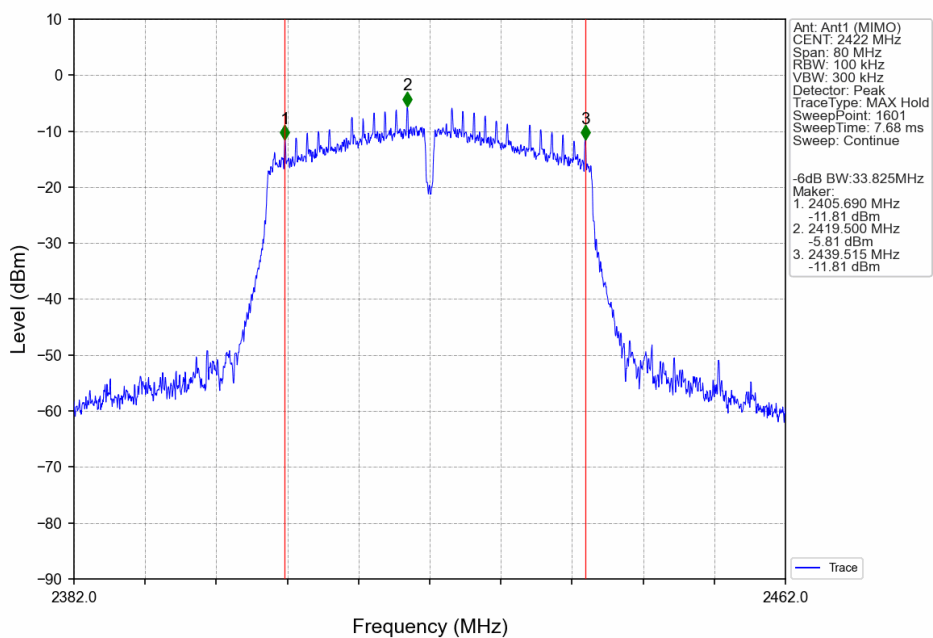


FCCID: 2AYHD-SR01

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

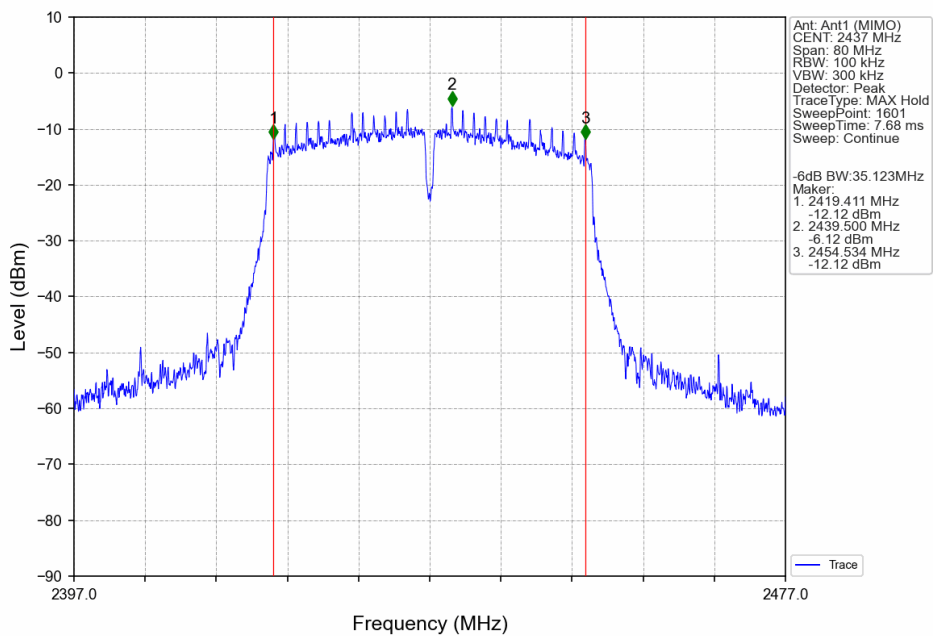


802.11n(HT40) LCH 2422MHz Ant1 (MIMO) NTNV

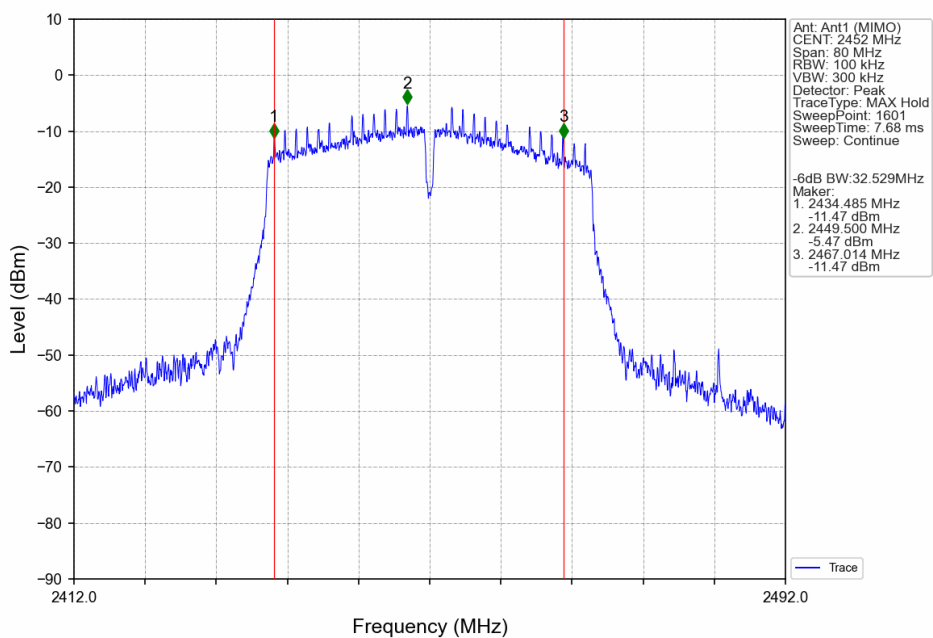


FCCID: 2AYHD-SR01

802.11n(HT40) MCH 2437MHz Ant1 (MIMO) NTNV

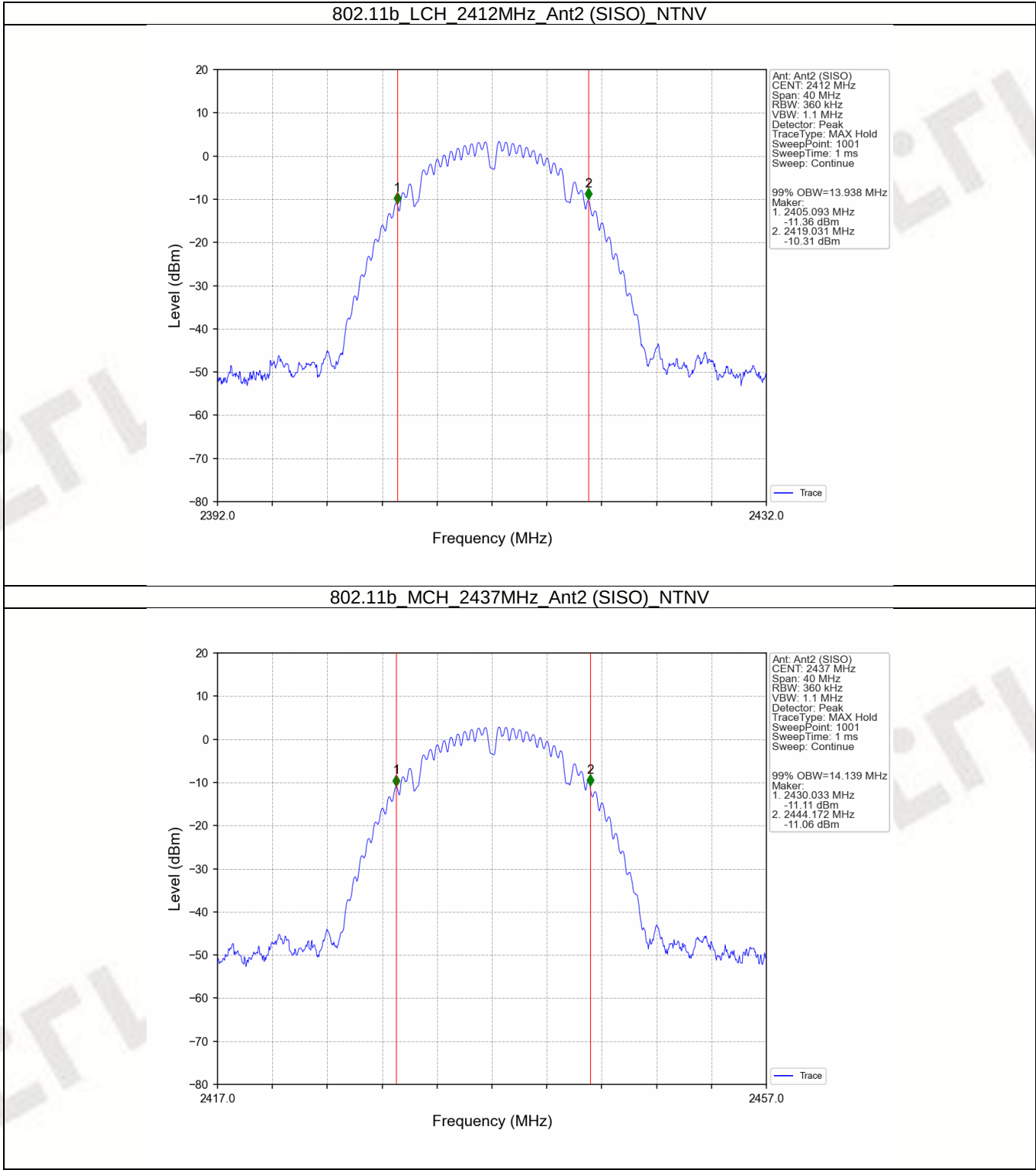


802.11n(HT40) HCH 2452MHz Ant1 (MIMO) NTNV

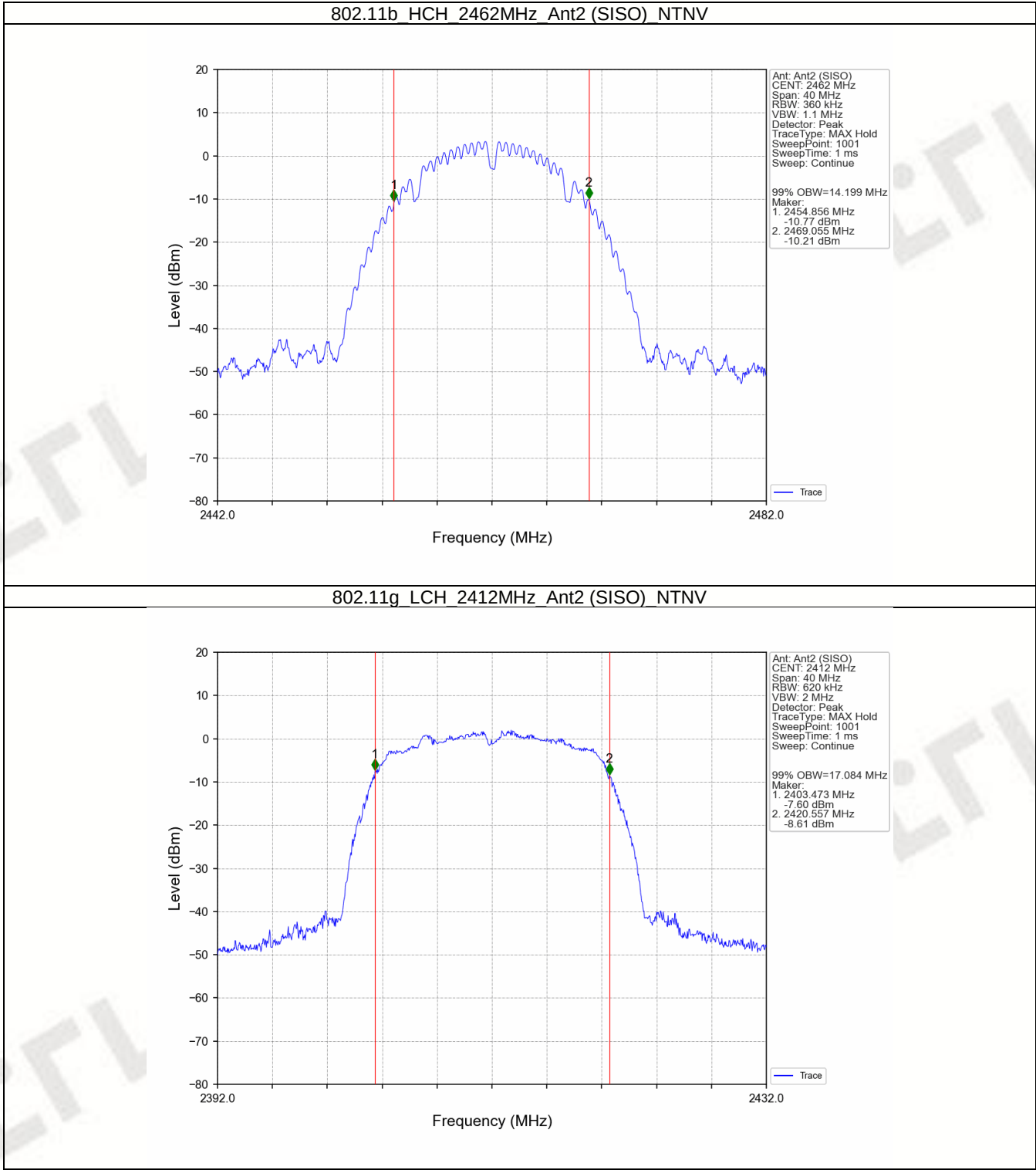


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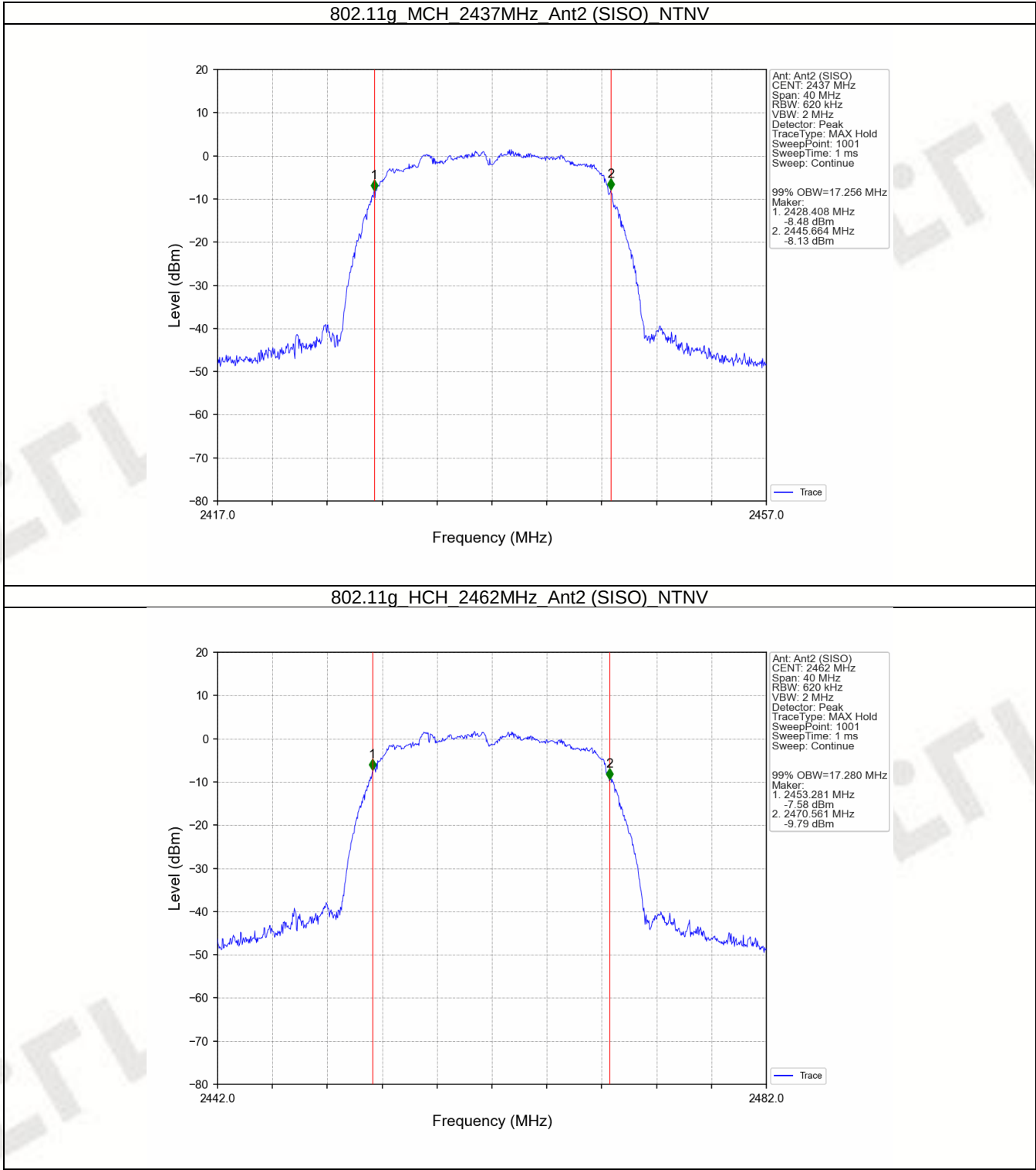
2.2.3 OBW



FCCID: 2AYHD-SR01

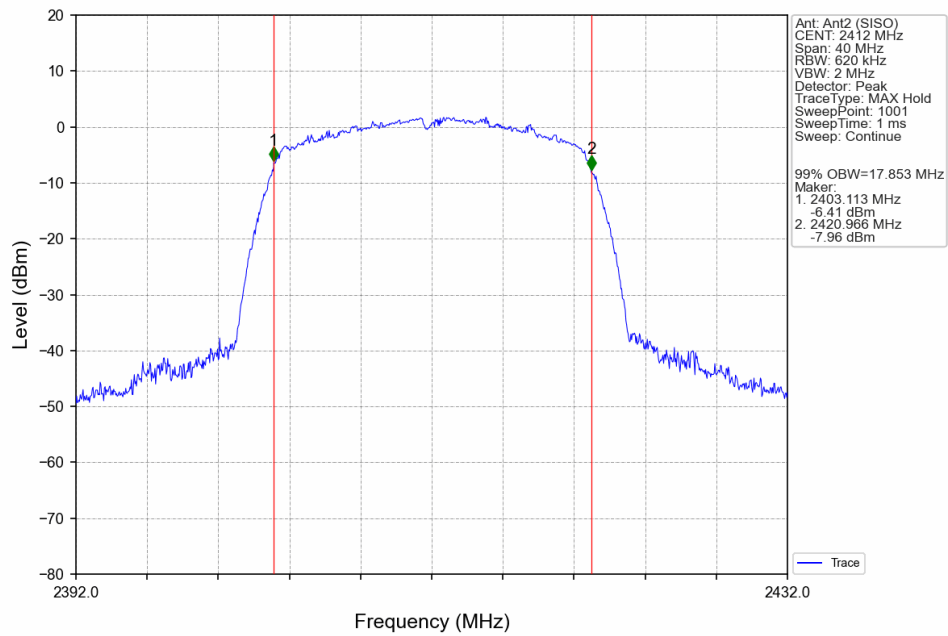


FCCID: 2AYHD-SR01

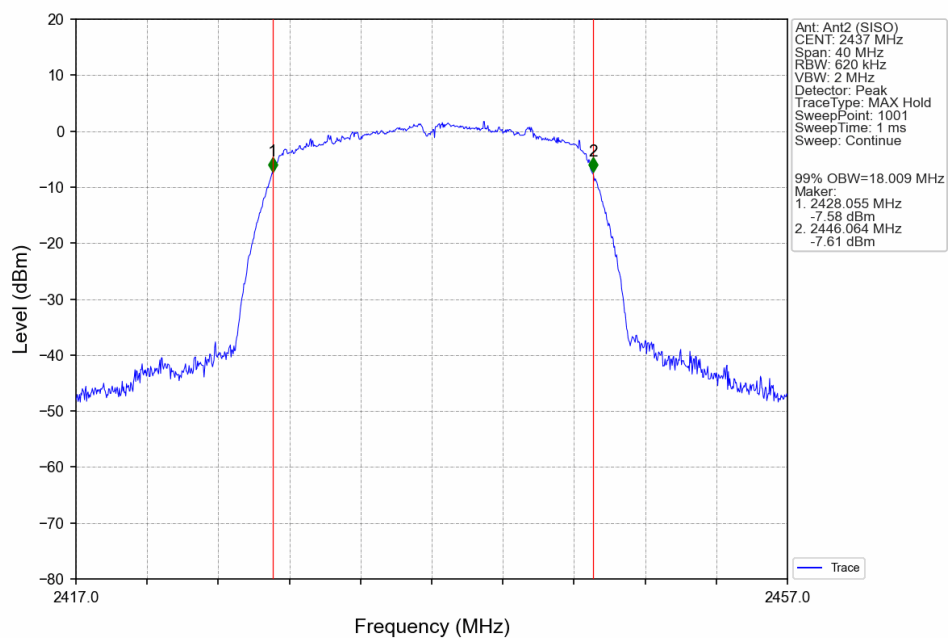


FCCID: 2AYHD-SR01

802.11n(HT20) LCH 2412MHz Ant2 (SISO) NTNV

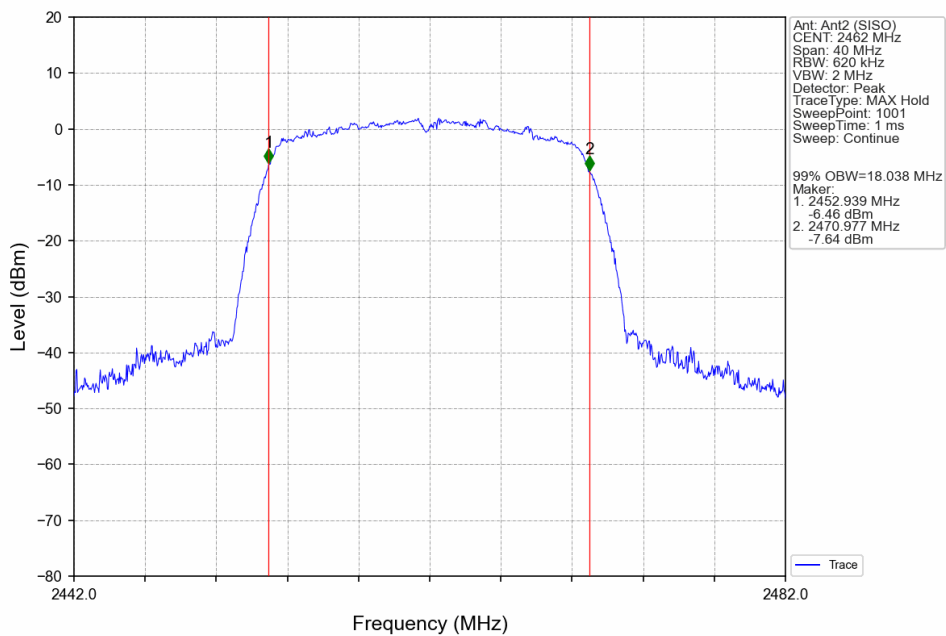


802.11n(HT20) MCH 2437MHz Ant2 (SISO) NTNV

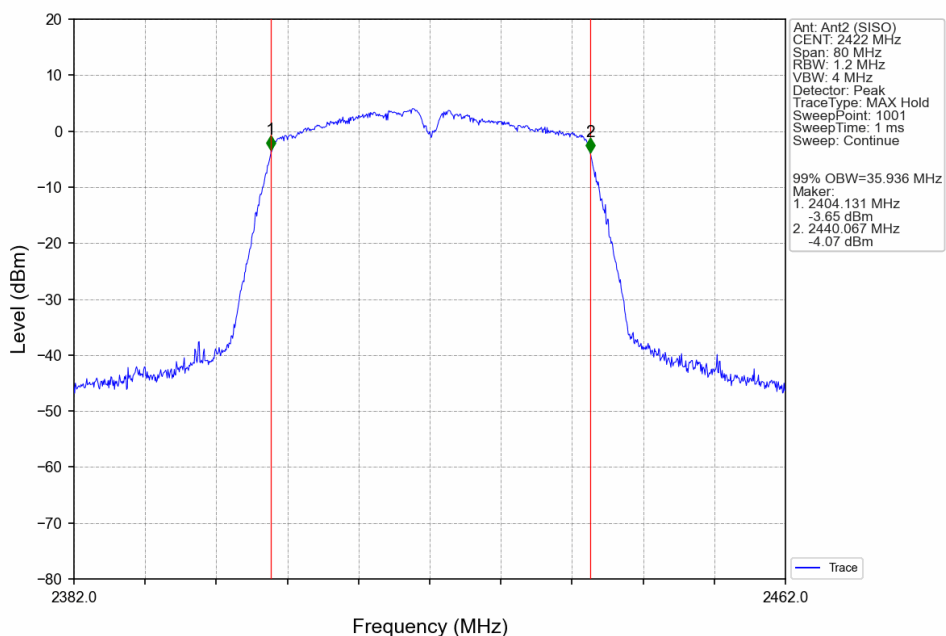


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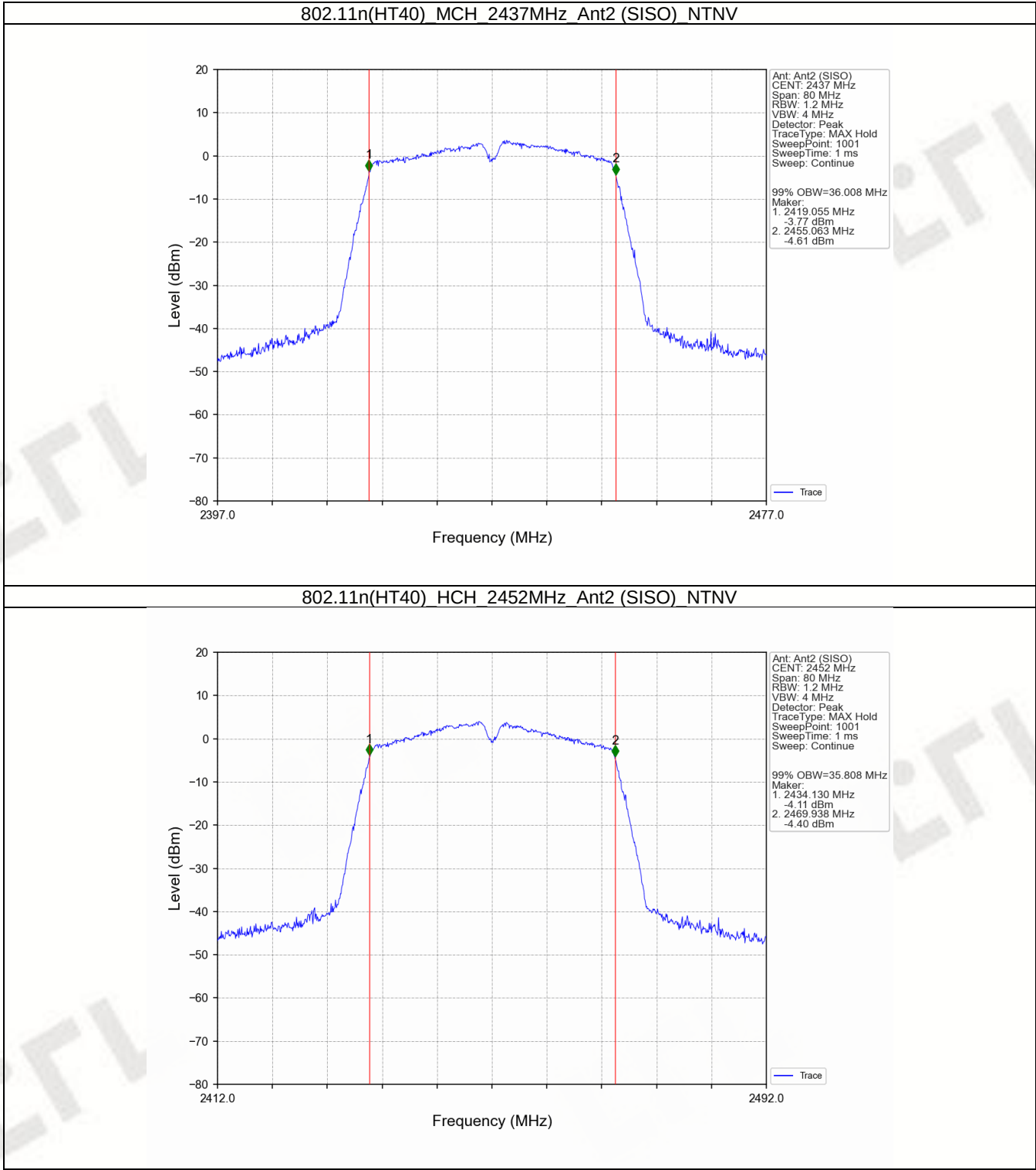
802.11n(HT20) HCH 2462MHz Ant2 (SISO) NTNV



802.11n(HT40) LCH 2422MHz Ant2 (SISO) NTNV

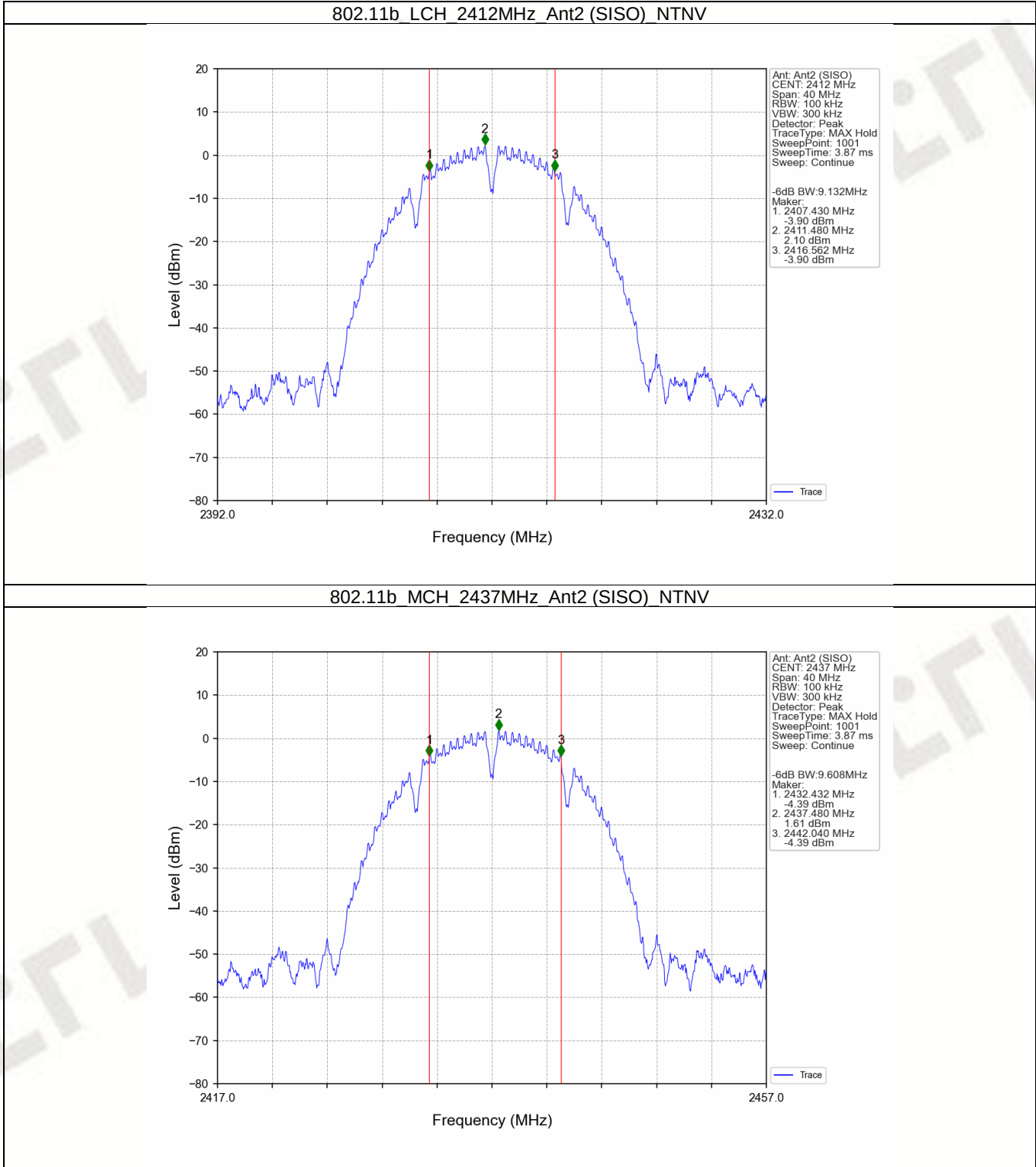


FCCID: 2AYHD-SR01



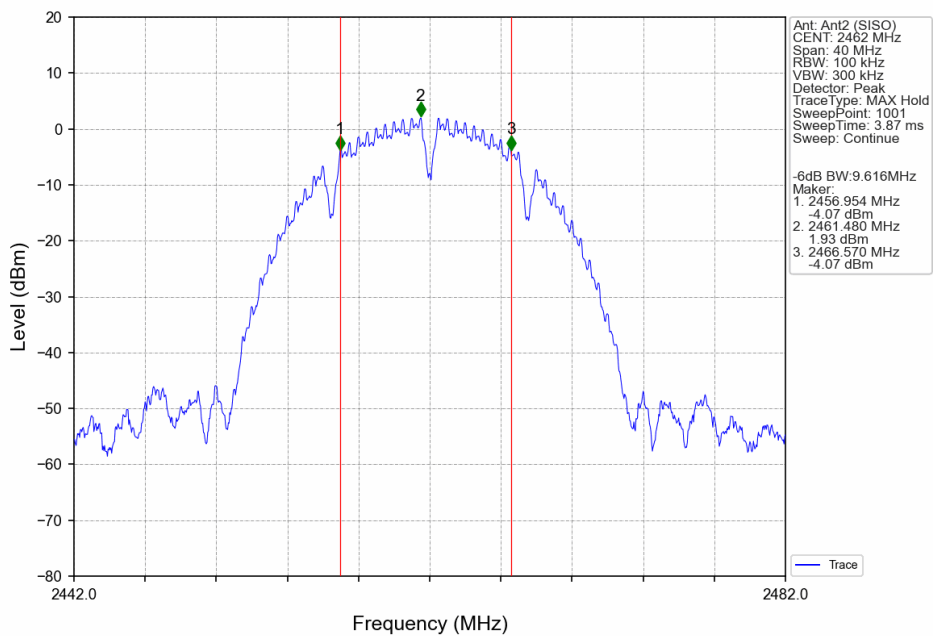
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2.2.4 6dB BW

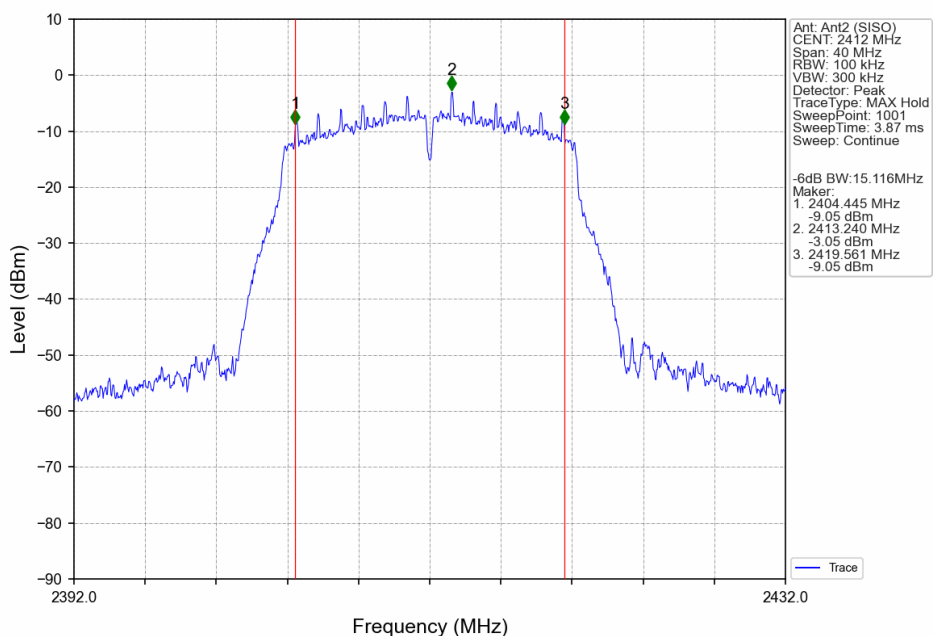


FCCID: 2AYHD-SR01

802.11b HCH 2462MHz Ant2 (SISO) NTN

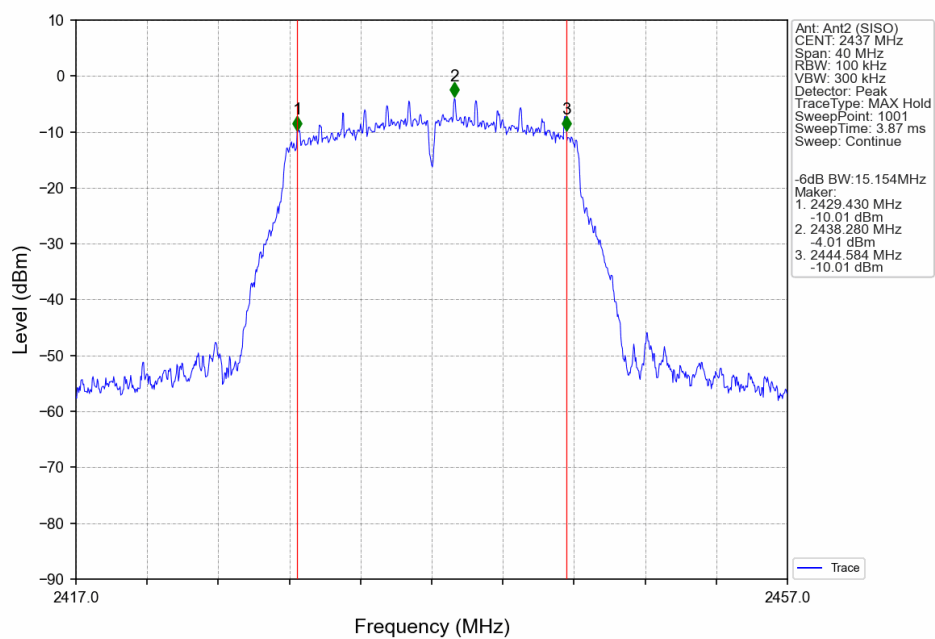


802.11g LCH 2412MHz Ant2 (SISO) NTN

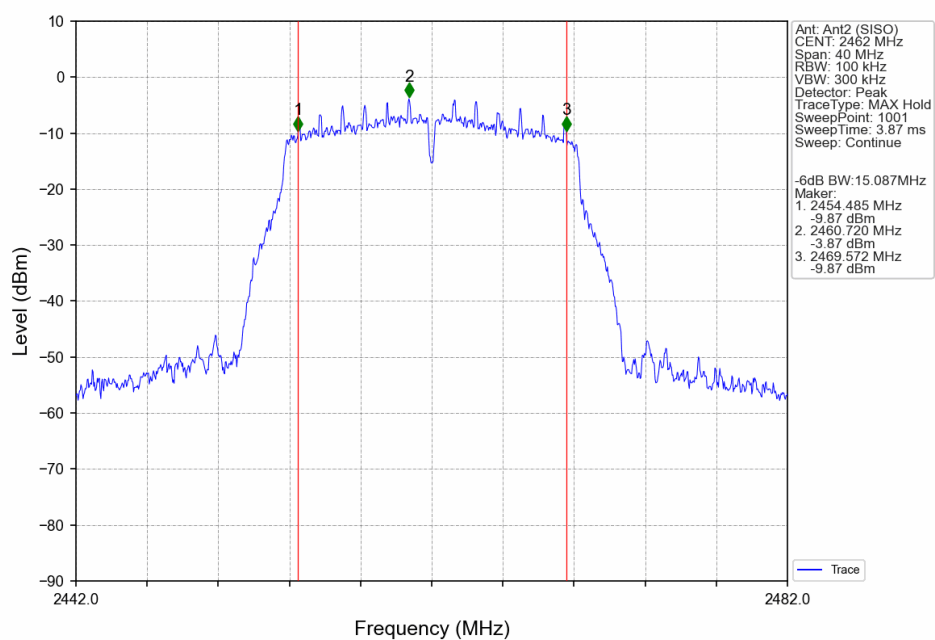


FCCID: 2AYHD-SR01

802.11g MCH 2437MHz Ant2 (SISO) NTN

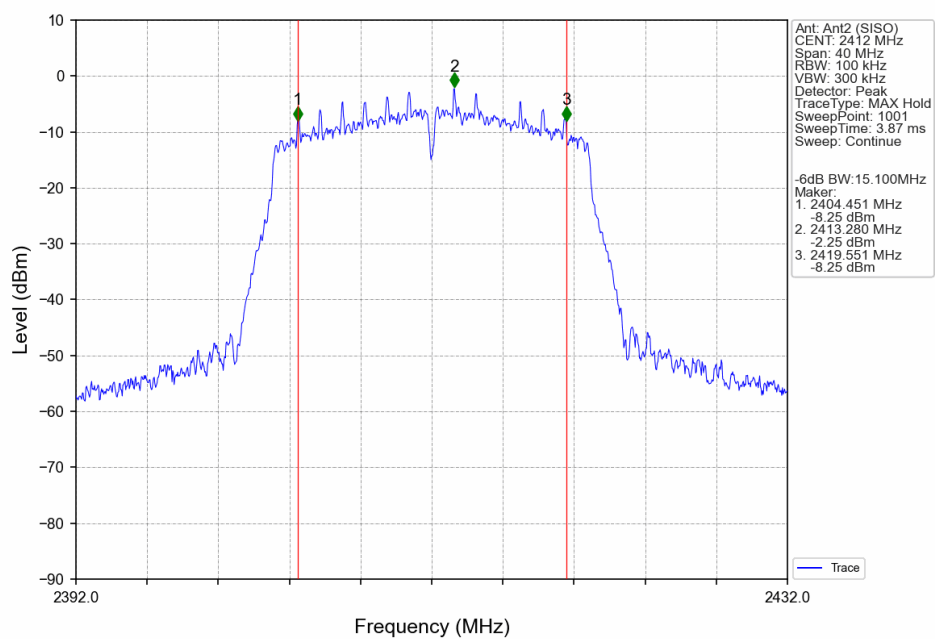


802.11g HCH 2462MHz Ant2 (SISO) NTN

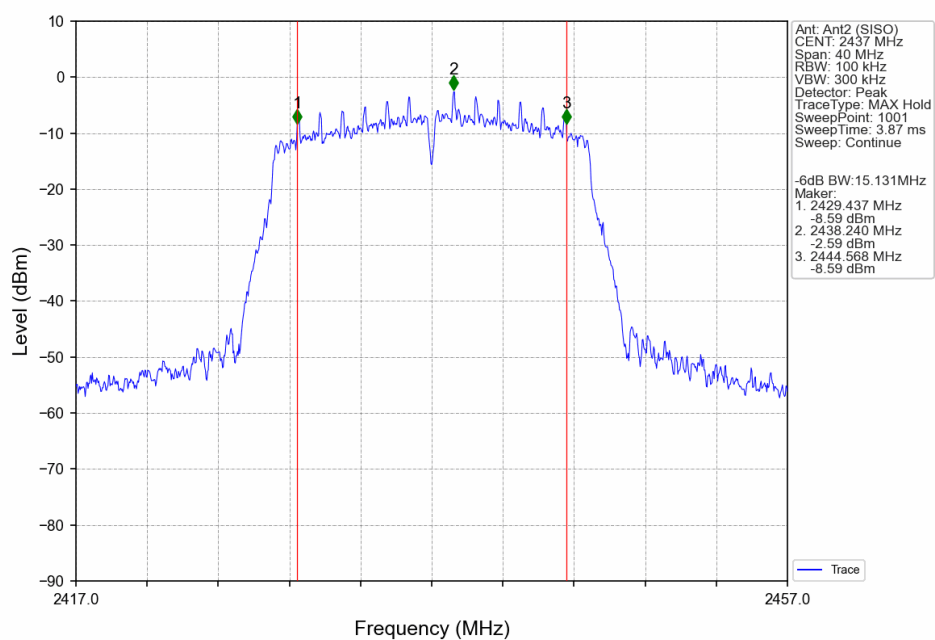


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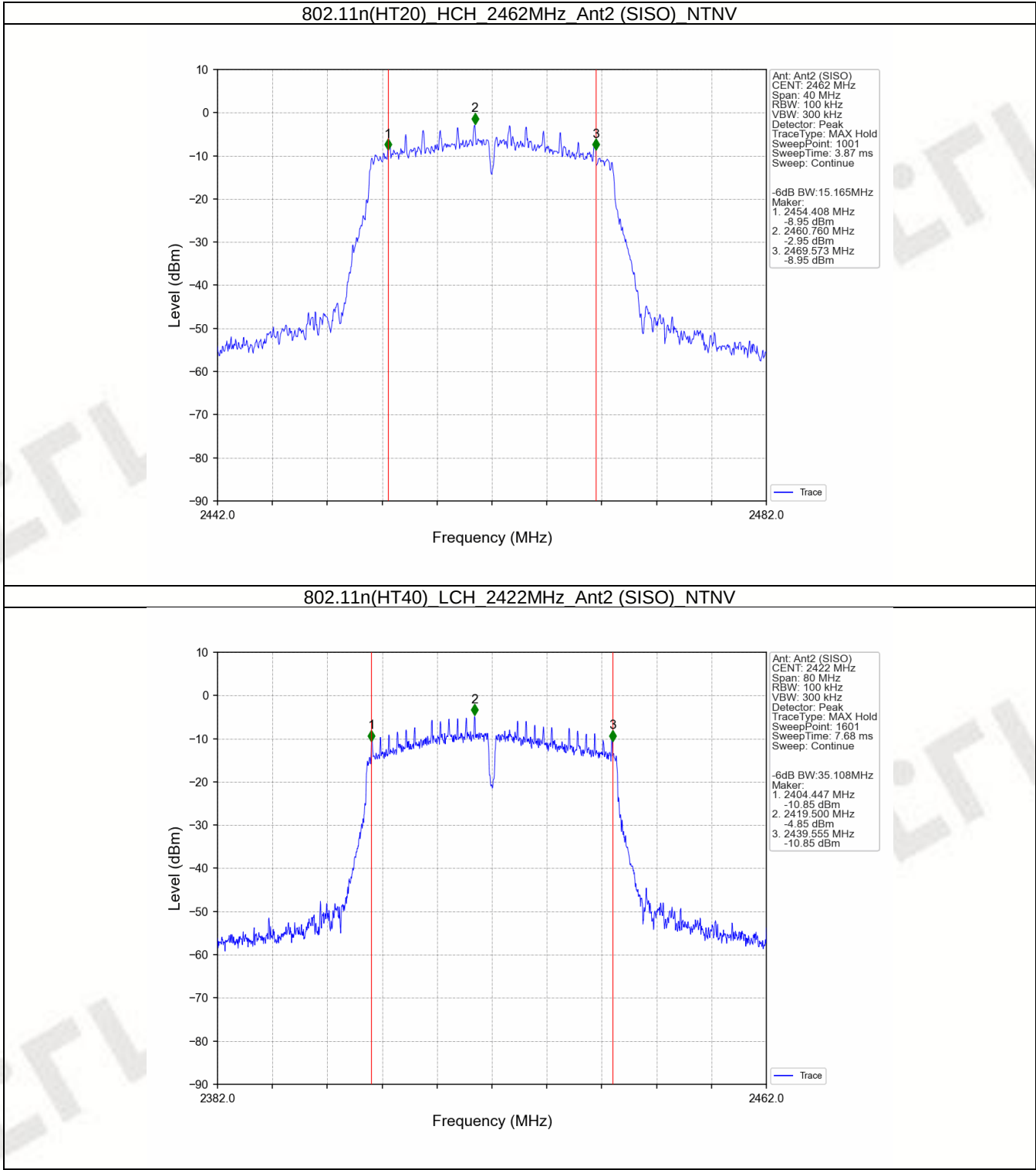
802.11n(HT20) LCH 2412MHz Ant2 (SISO) NTNV



802.11n(HT20) MCH 2437MHz Ant2 (SISO) NTNV

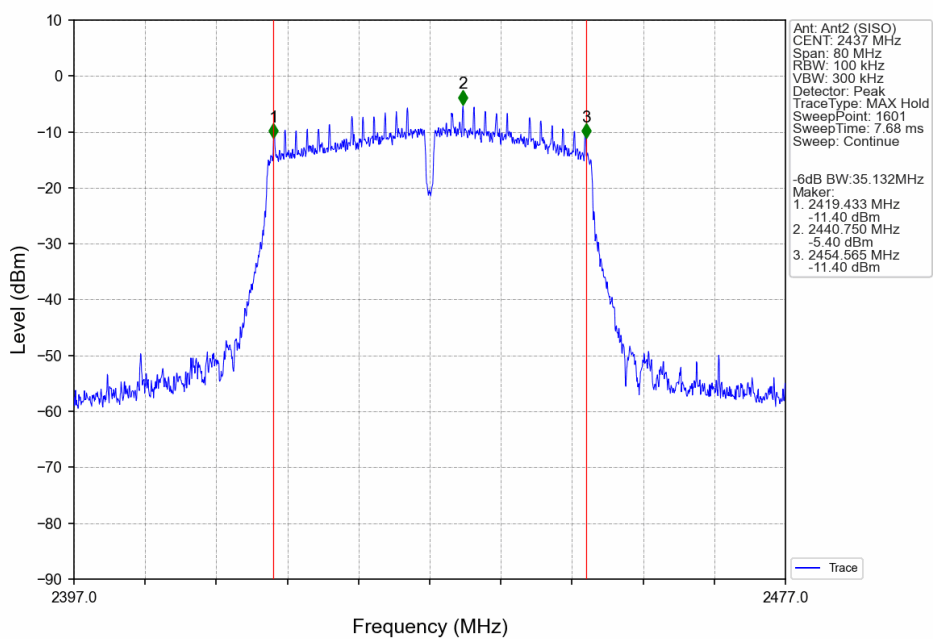


FCCID: 2AYHD-SR01



FCCID: 2AYHD-SR01

802.11n(HT40) MCH 2437MHz Ant2 (SISO) NTNV



802.11n(HT40) HCH 2452MHz Ant2 (SISO) NTNV

