Appendix A for SHEM190901757501

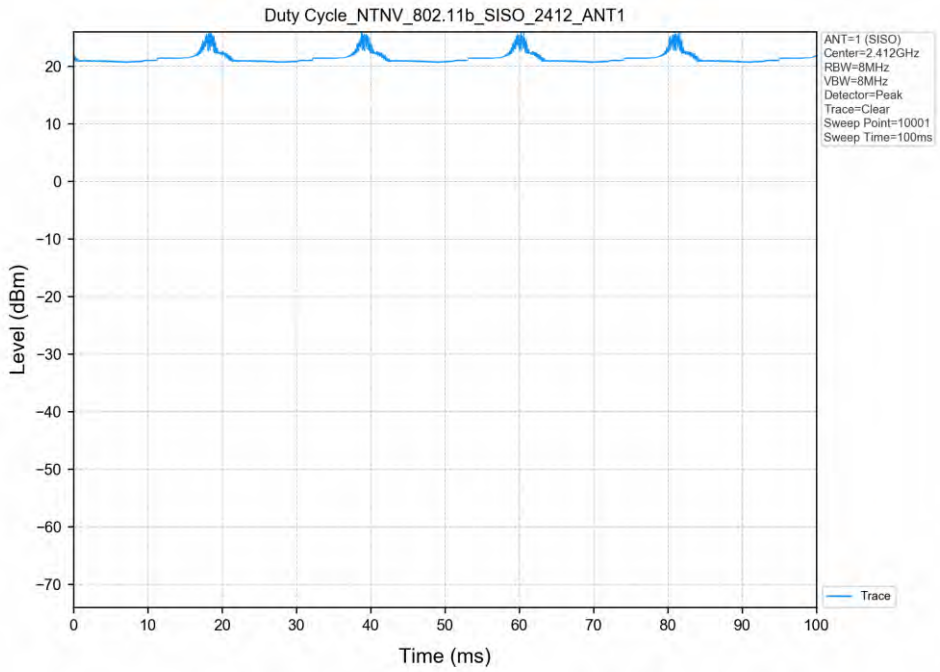
1. Duty Cycle

1.1 Test Result

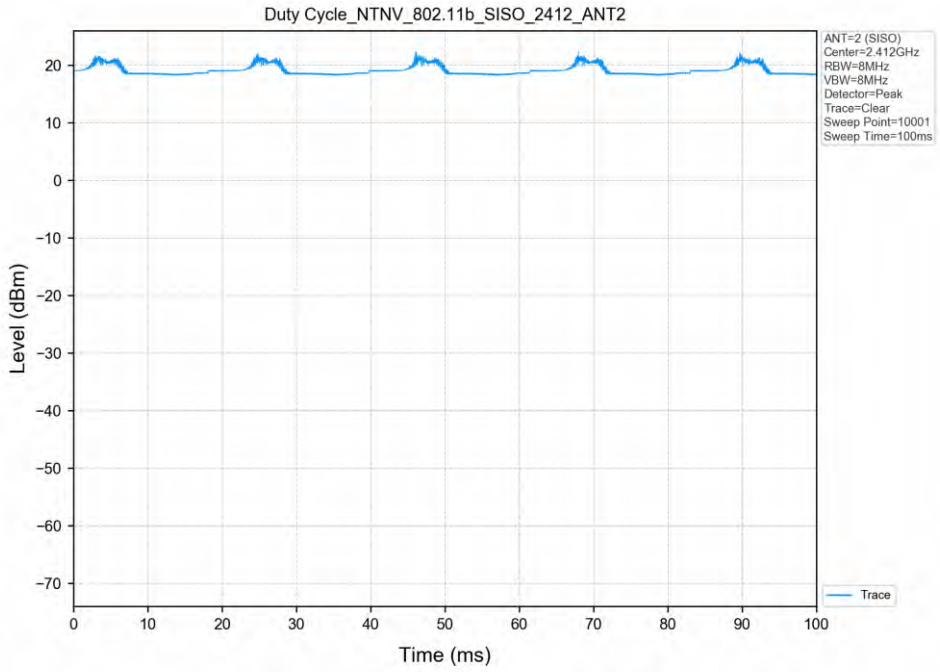
Test Mode	Channel Frequency(MHz)	TX Type	ANT No.	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)
802.11b	2412	SISO	1	100.000	100.000	100.00	0.00
			2	100.000	100.000	100.00	0.00
	2437	SISO	1	100.000	100.000	100.00	0.00
			2	100.000	100.000	100.00	0.00
	2462	SISO	1	100.000	100.000	100.00	0.00
			2	100.000	100.000	100.00	0.00
802.11g	2412	SISO	1	100.000	100.000	100.00	0.00
			2	100.000	100.000	100.00	0.00
	2437	SISO	1	100.000	100.000	100.00	0.00
			2	100.000	100.000	100.00	0.00
	2462	SISO	1	100.000	100.000	100.00	0.00
			2	100.000	100.000	100.00	0.00
802.11n(HT20)	2412	SISO	1	100.000	100.000	100.00	0.00
			2	100.000	100.000	100.00	0.00
		MIMO	1	100.000	100.000	100.00	0.00
	2437	SISO	1	100.000	100.000	100.00	0.00
			2	100.000	100.000	100.00	0.00
		MIMO	1	100.000	100.000	100.00	0.00
	2462	SISO	1	100.000	100.000	100.00	0.00
			2	100.000	100.000	100.00	0.00
		MIMO	1	100.000	100.000	100.00	0.00
			2	100.000	100.000	100.00	0.00
802.11n(HT40)	2422	SISO	1	100.000	100.000	100.00	0.00
			2	100.000	100.000	100.00	0.00
		MIMO	1	100.000	100.000	100.00	0.00
			2	100.000	100.000	100.00	0.00
	2437	SISO	1	100.000	100.000	100.00	0.00
			2	100.000	100.000	100.00	0.00
		MIMO	1	100.000	100.000	100.00	0.00
			2	100.000	100.000	100.00	0.00
	2452	SISO	1	100.000	100.000	100.00	0.00
			2	100.000	100.000	100.00	0.00
		MIMO	1	100.000	100.000	100.00	0.00
			2	100.000	100.000	100.00	0.00

1.2 Test Graph

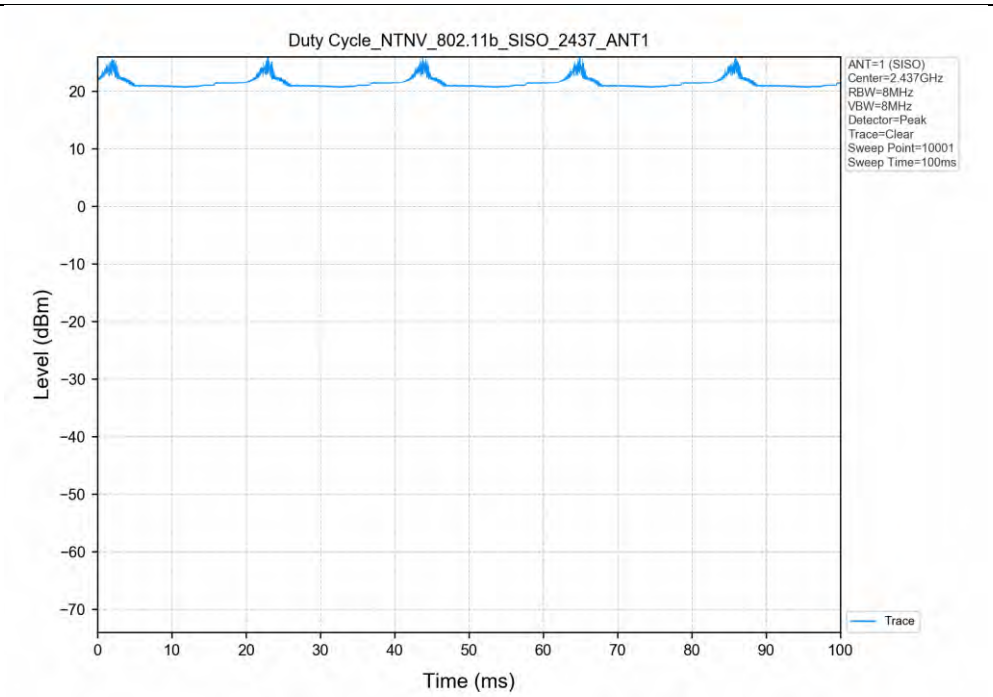
802.11b_2412MHz_SISO_ANT1



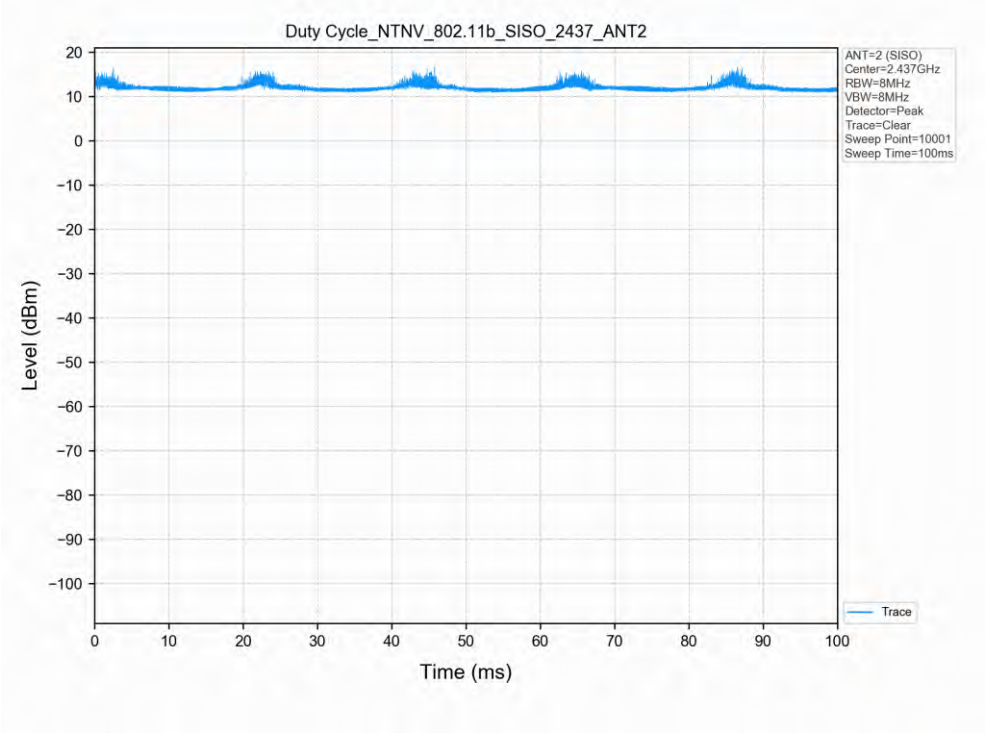
802.11b_2412MHz_SISO_ANT2



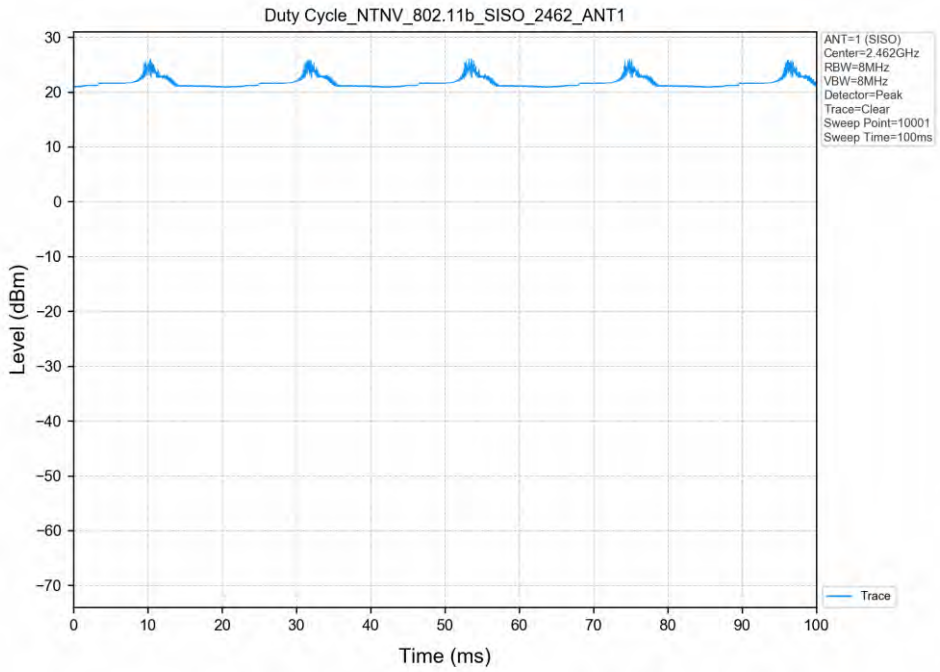
802.11b_2437MHz_SISO_ANT1



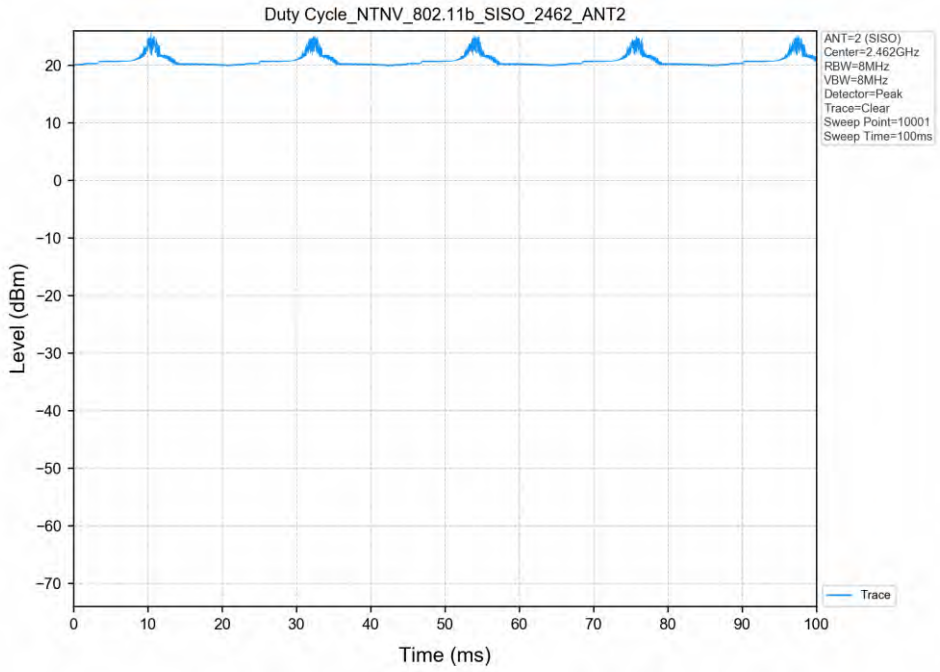
802.11b_2437MHz_SISO_ANT2



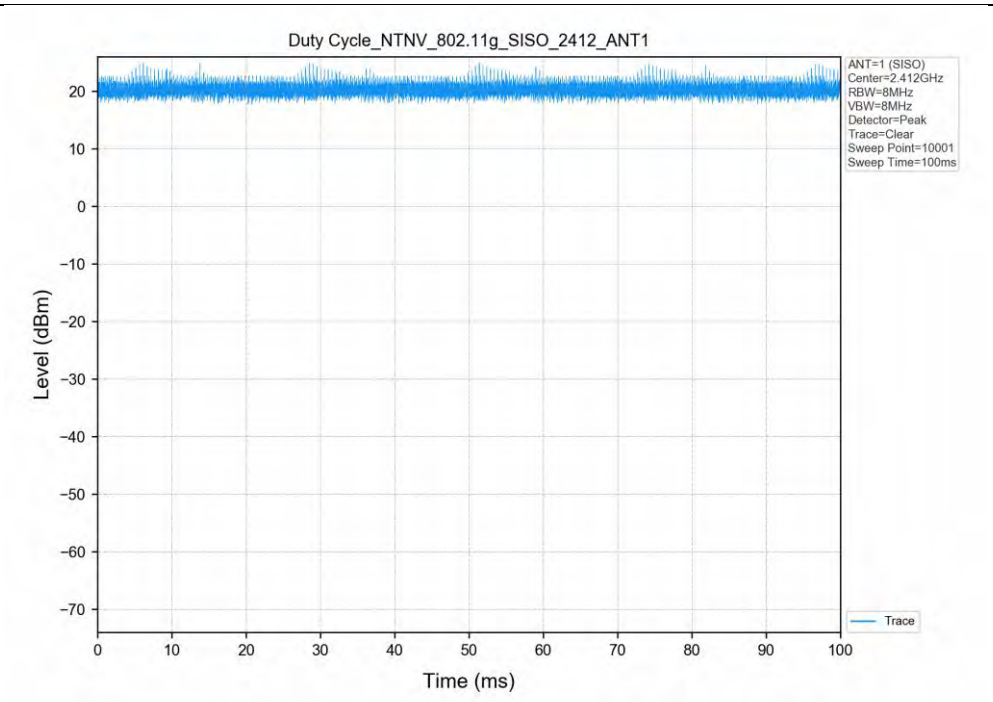
802.11b_2462MHz_SISO_ANT1



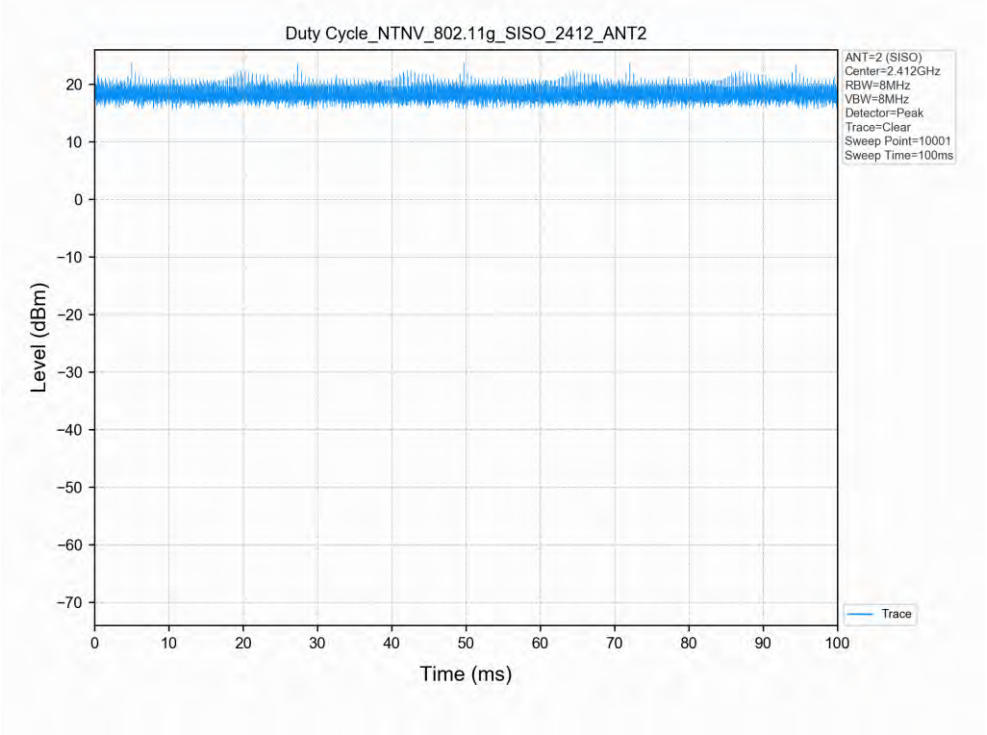
802.11b_2462MHz_SISO_ANT2



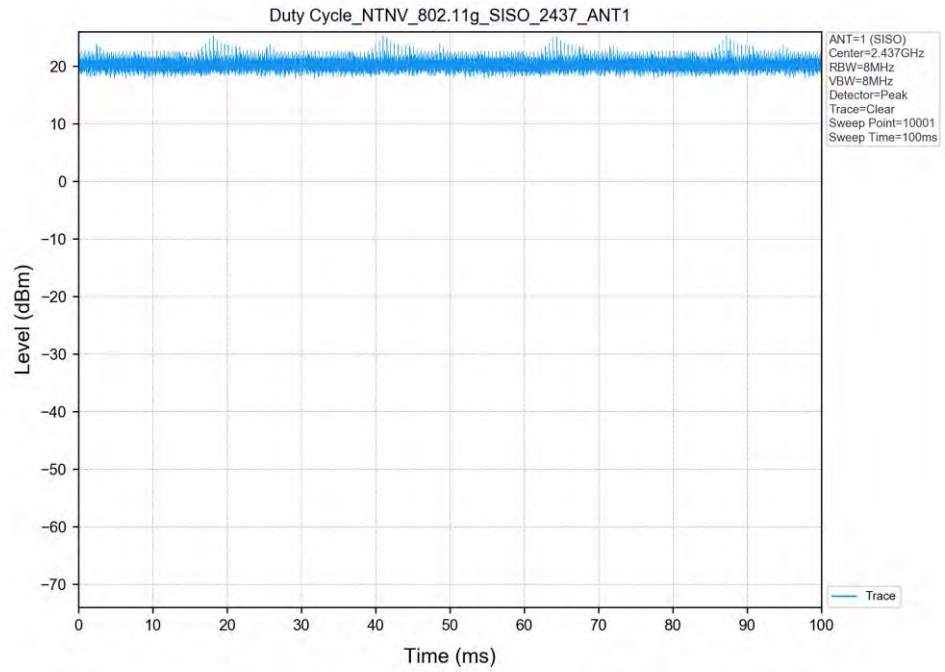
802.11g_2412MHz_SISO_ANT1



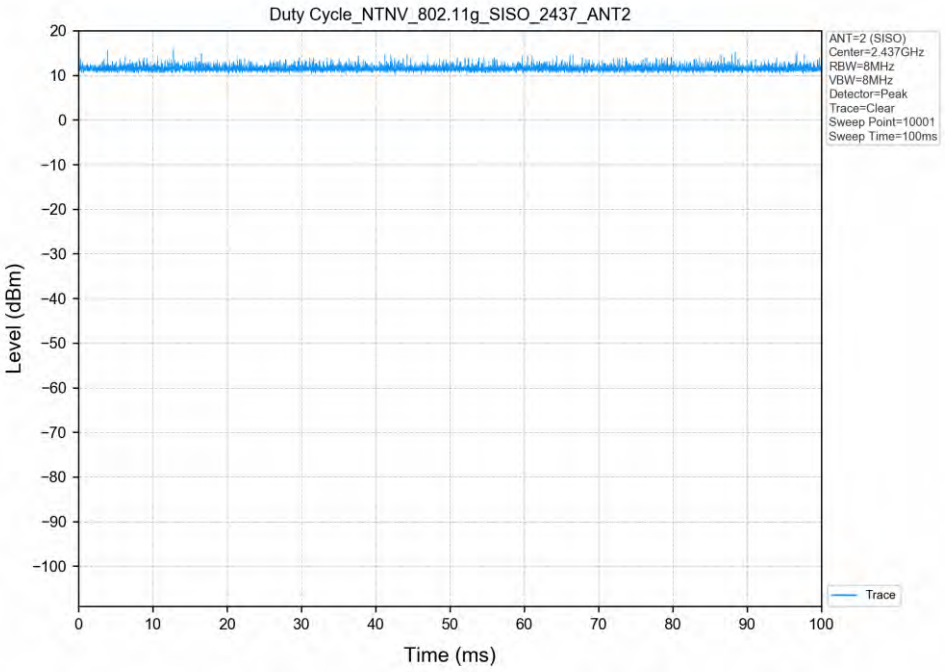
802.11g_2412MHz_SISO_ANT2



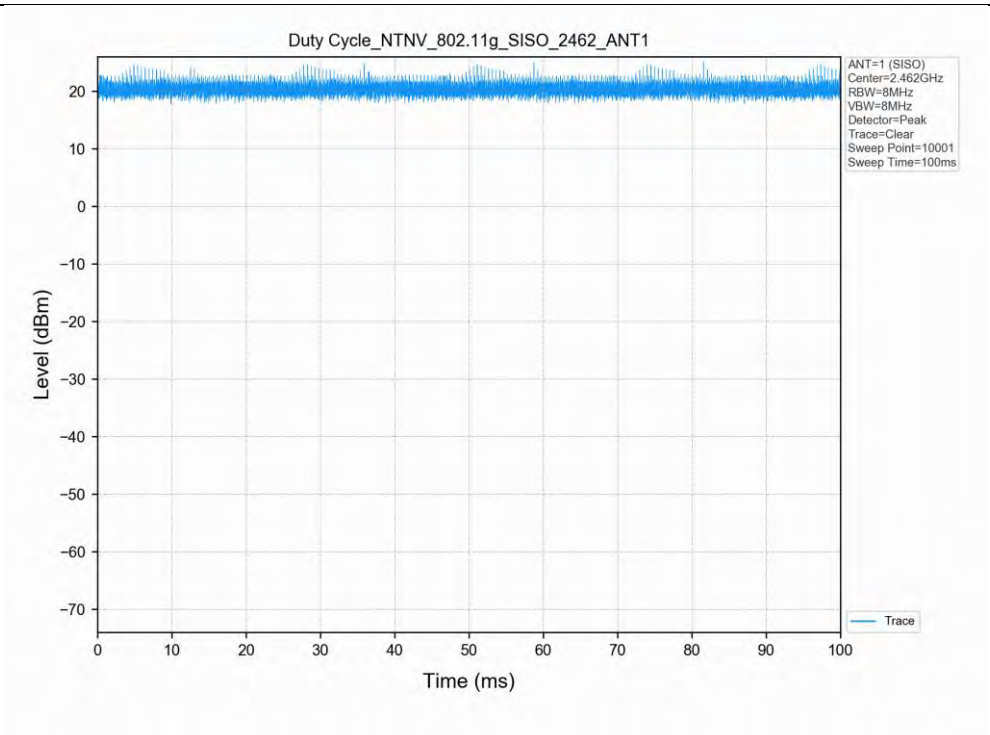
802.11g_2437MHz_SISO_ANT1



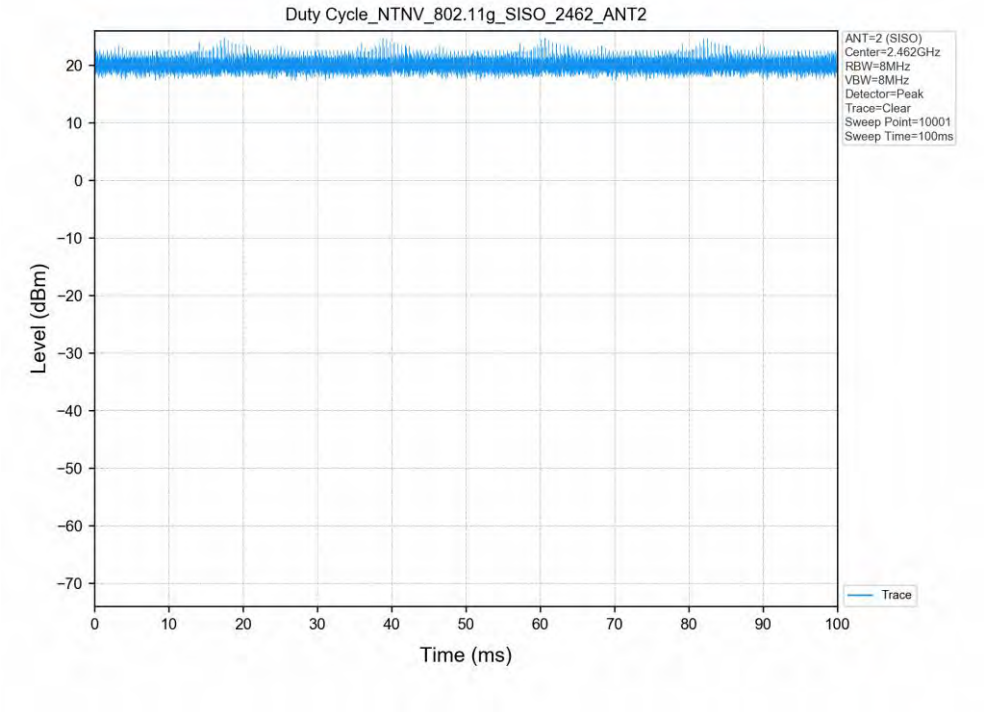
802.11g_2437MHz_SISO_ANT2



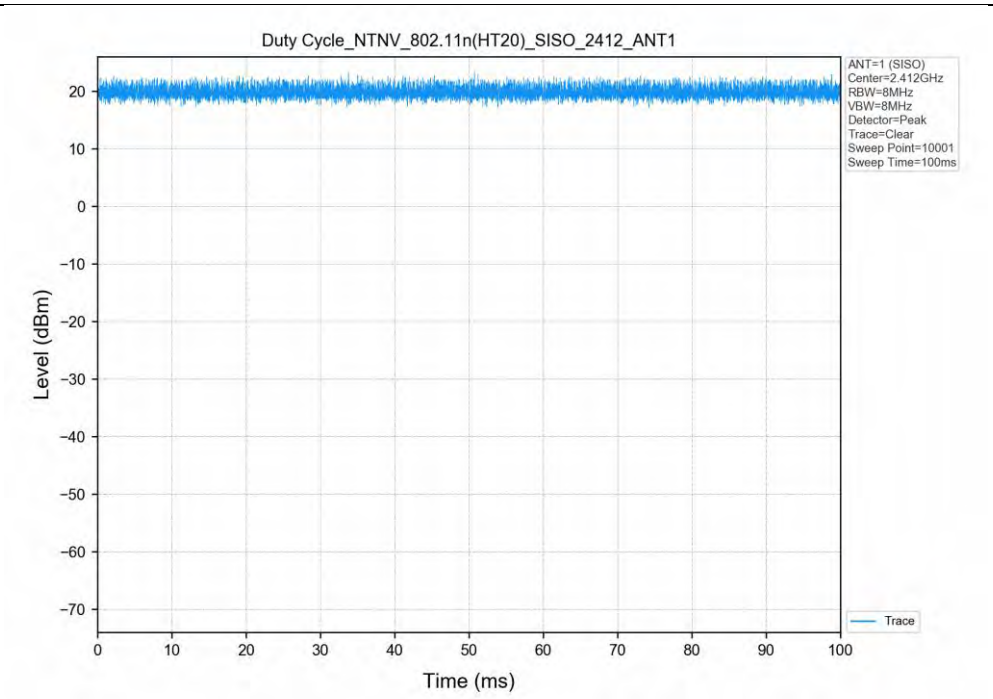
802.11g_2462MHz_SISO_ANT1



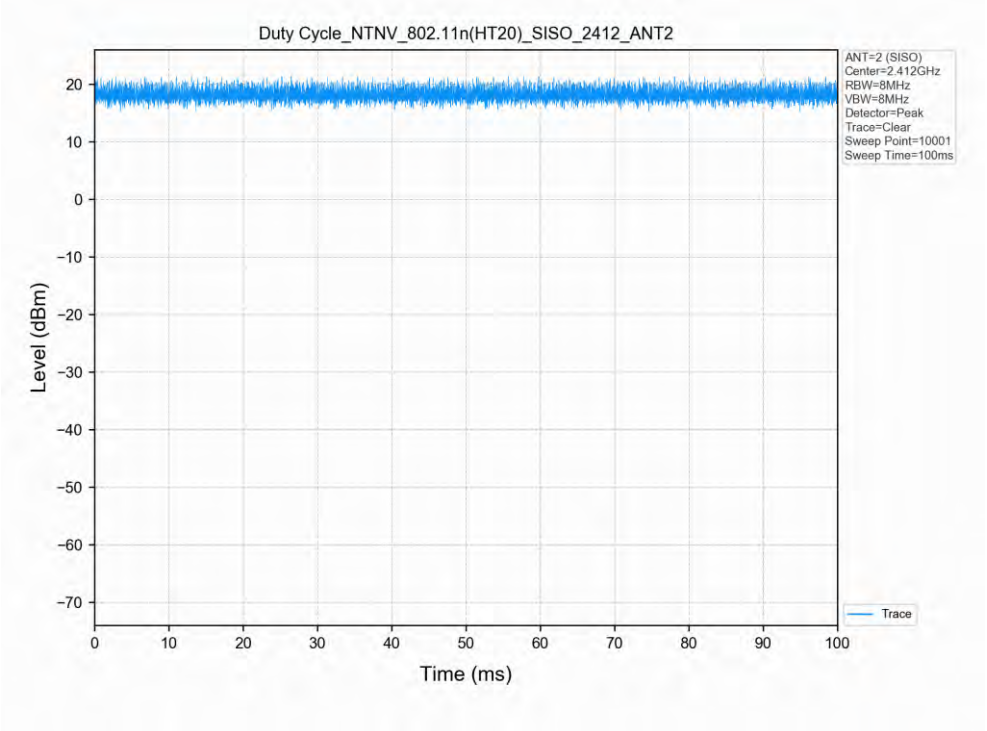
802.11g_2462MHz_SISO_ANT2



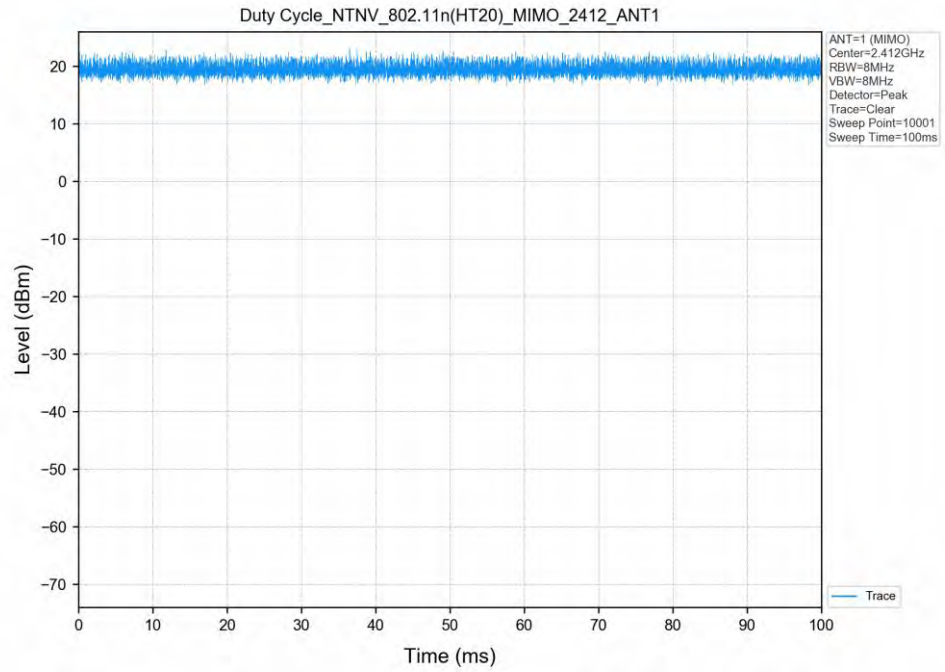
802.11n(HT20)_2412MHz_SISO_ANT1



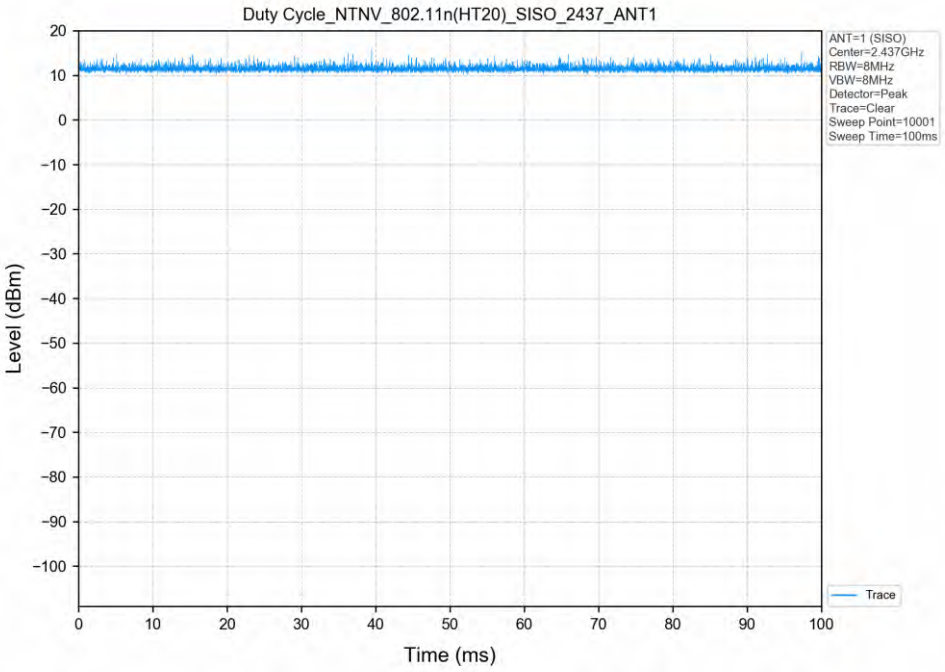
802.11n(HT20)_2412MHz_SISO_ANT2



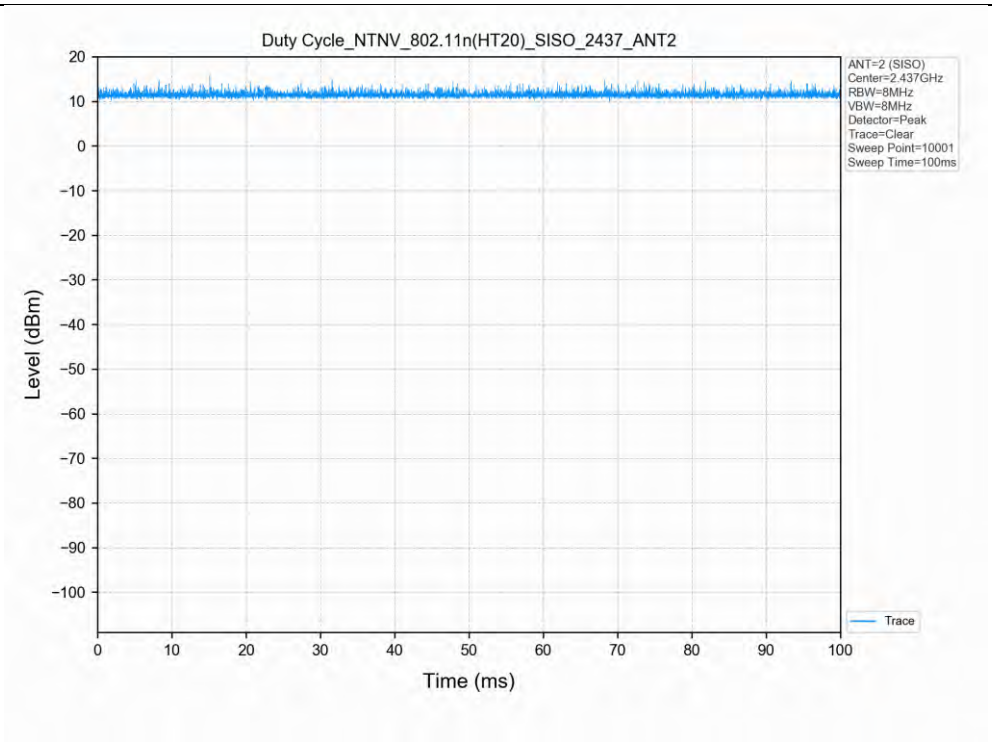
802.11n(HT20)_2412MHz_MIMO_ANT1



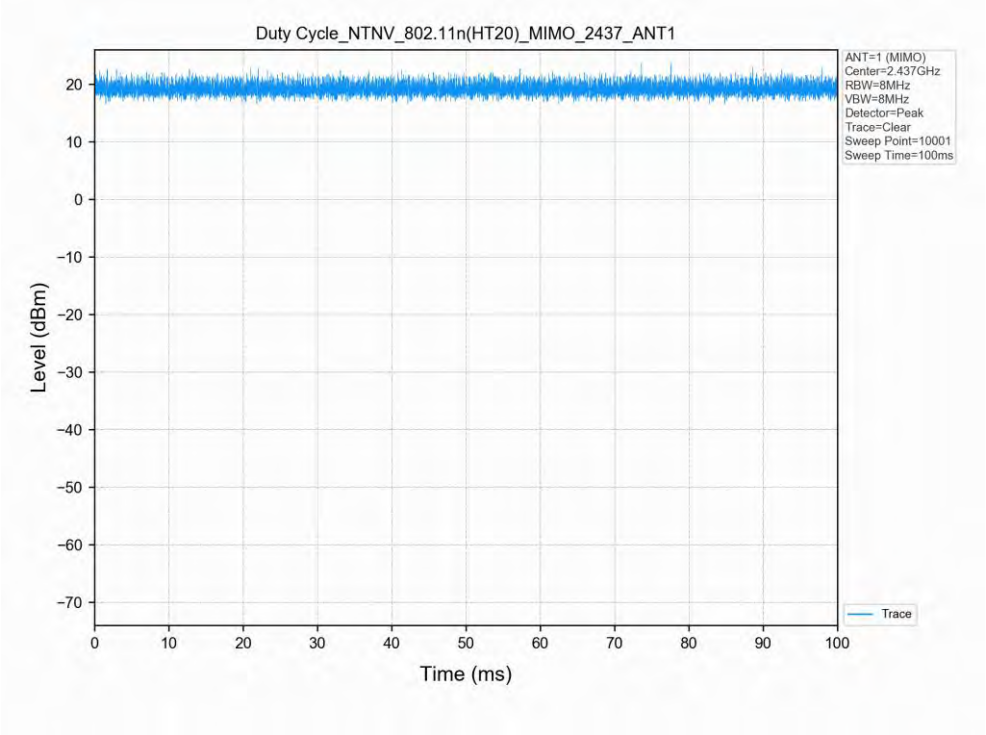
802.11n(HT20)_2437MHz_SISO_ANT1



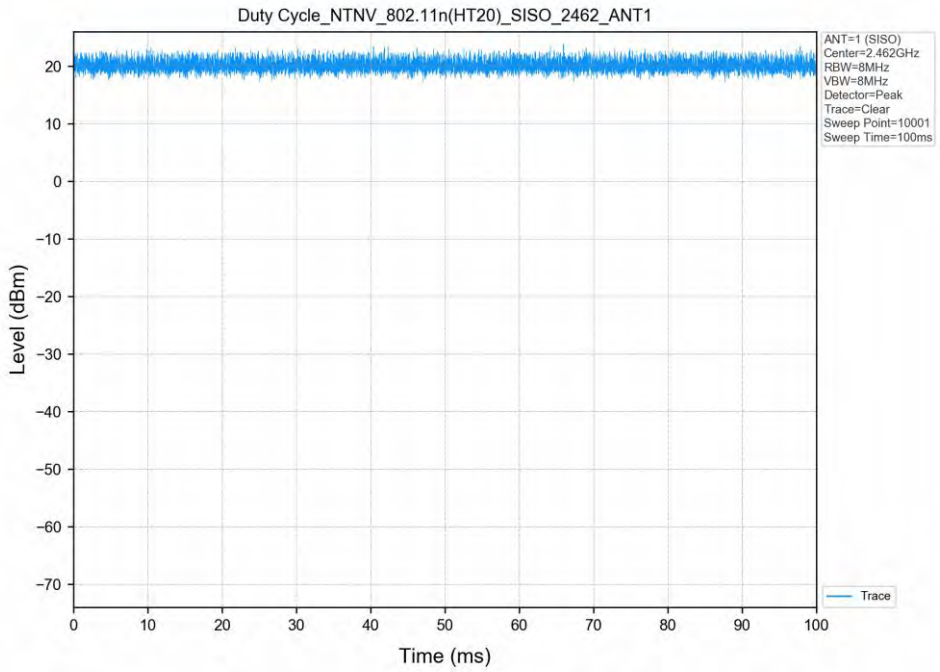
802.11n(HT20)_2437MHz_SISO_ANT2



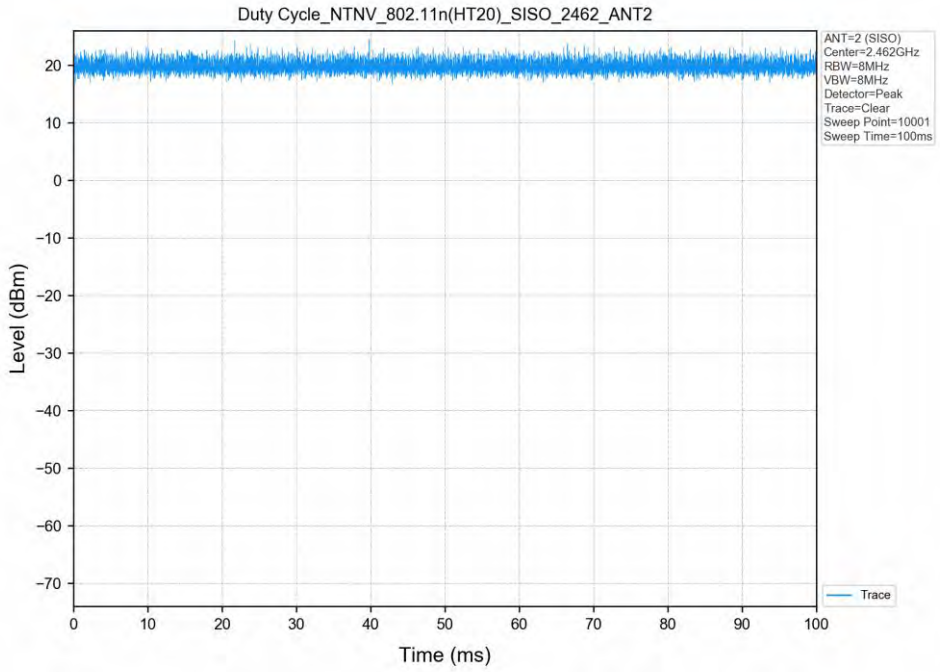
802.11n(HT20)_2437MHz_MIMO_ANT1



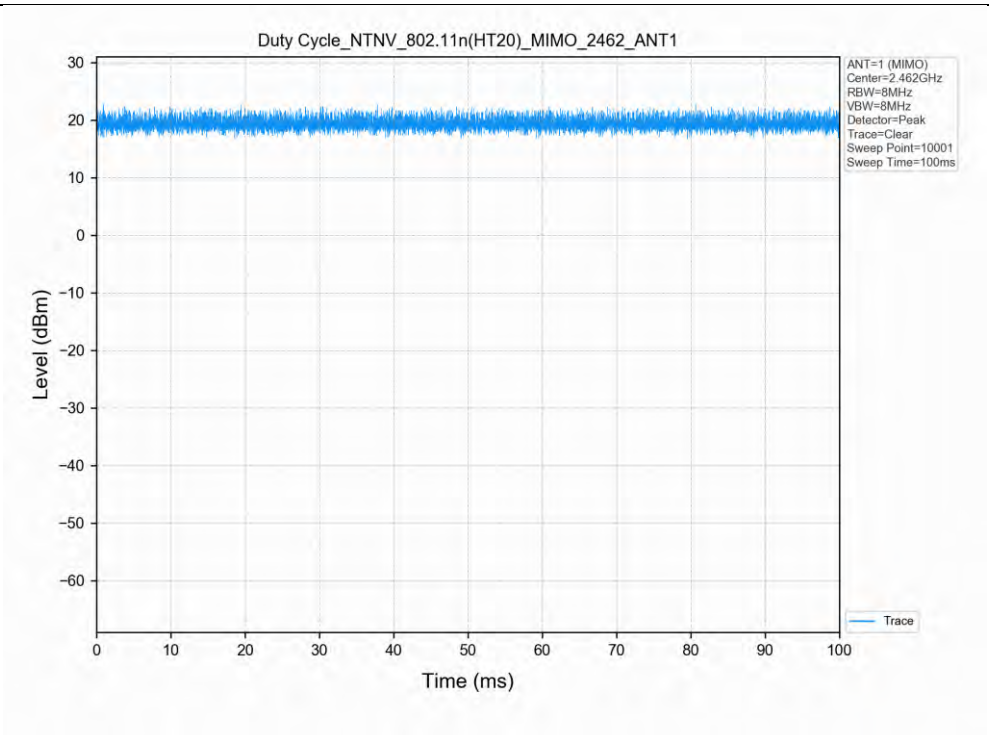
802.11n(HT20)_2462MHz_SISO_ANT1



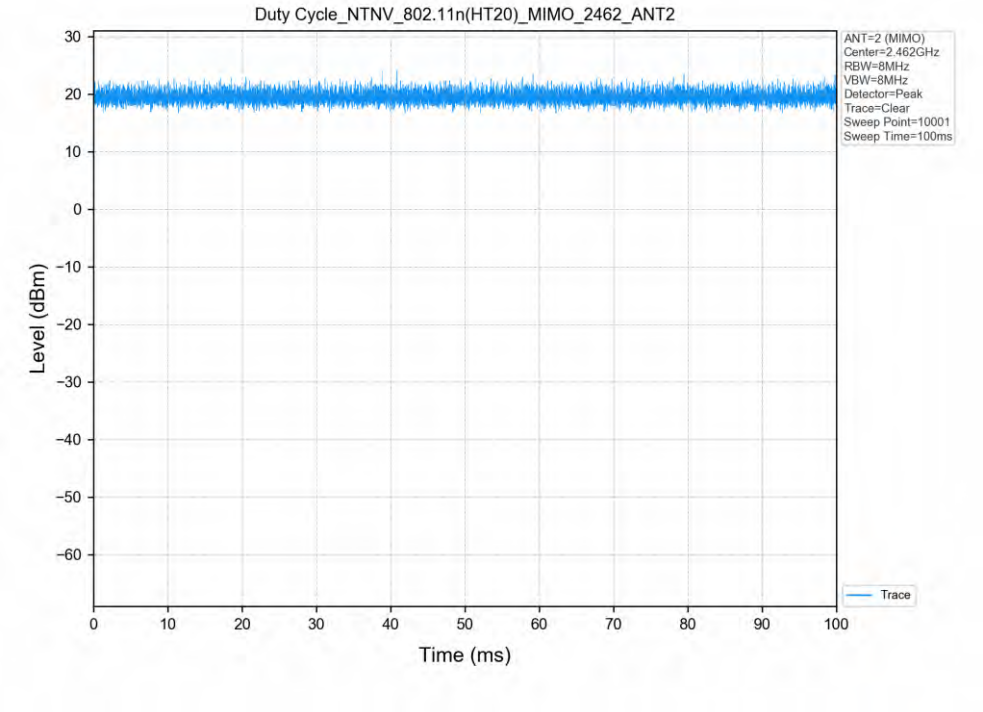
802.11n(HT20)_2462MHz_SISO_ANT2



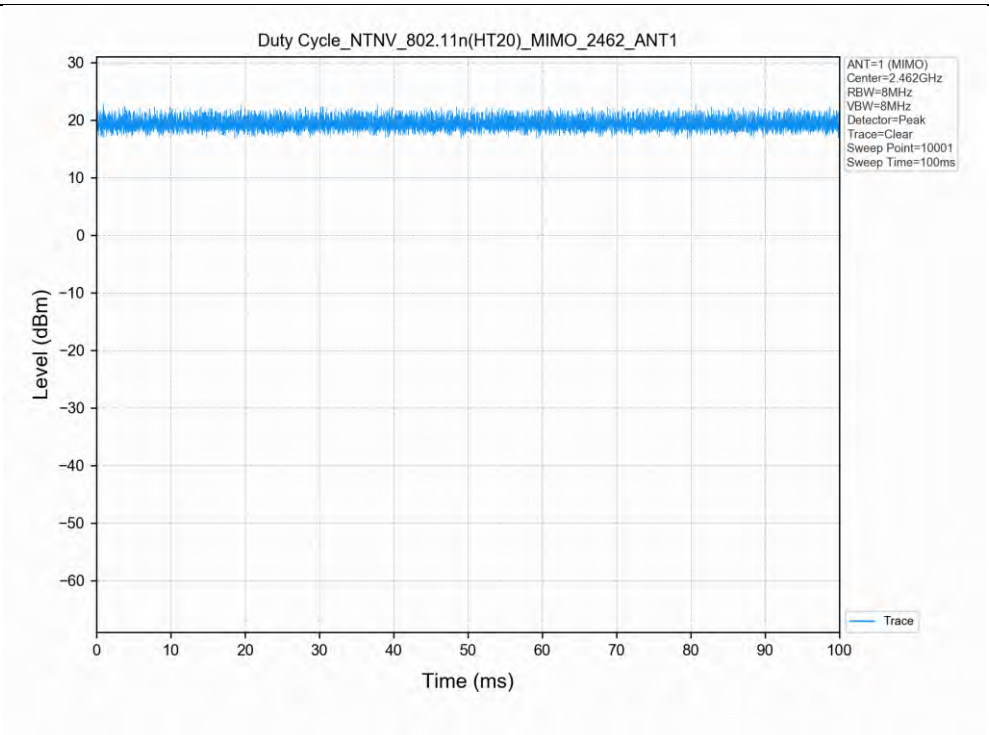
802.11n(HT20)_2462MHz_MIMO_ANT1



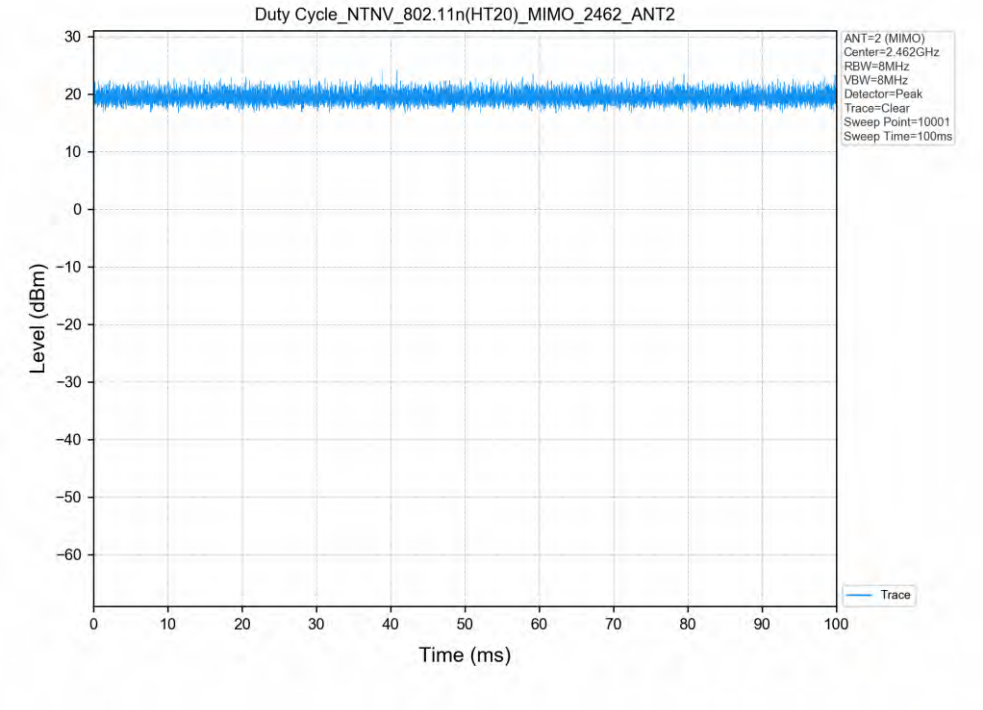
802.11n(HT20)_2462MHz_MIMO_ANT1



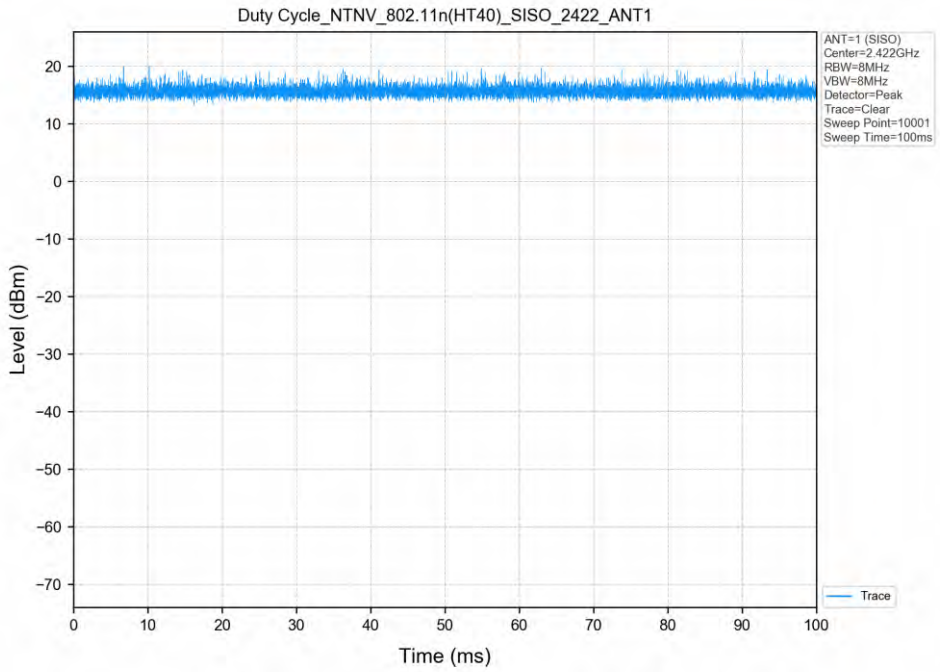
802.11n(HT20)_2462MHz_MIMO_ANT2



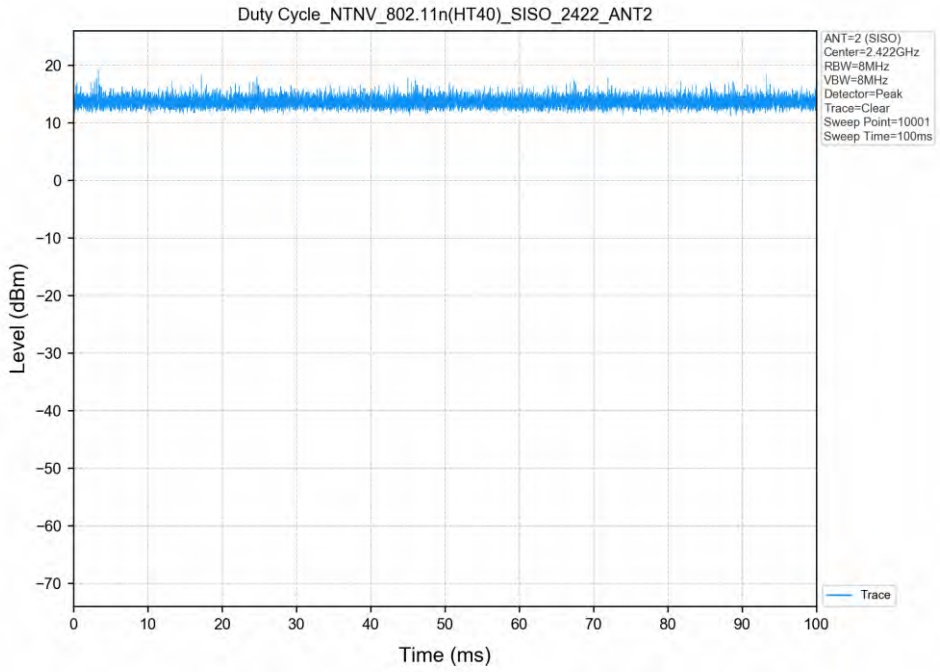
802.11n(HT20)_2462MHz_MIMO_ANT2



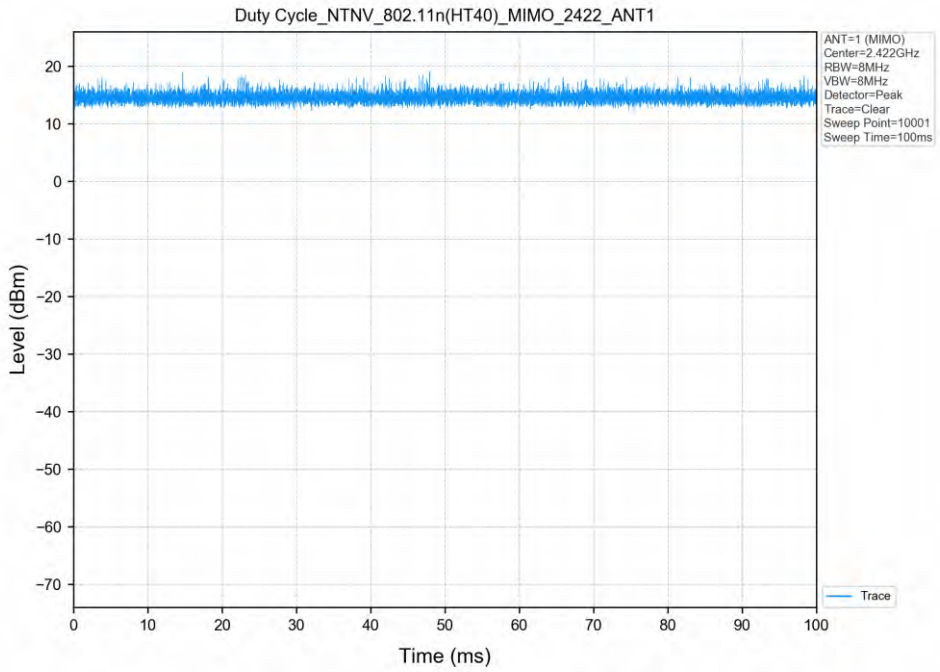
802.11n(HT40)_2422MHz_SISO_ANT1



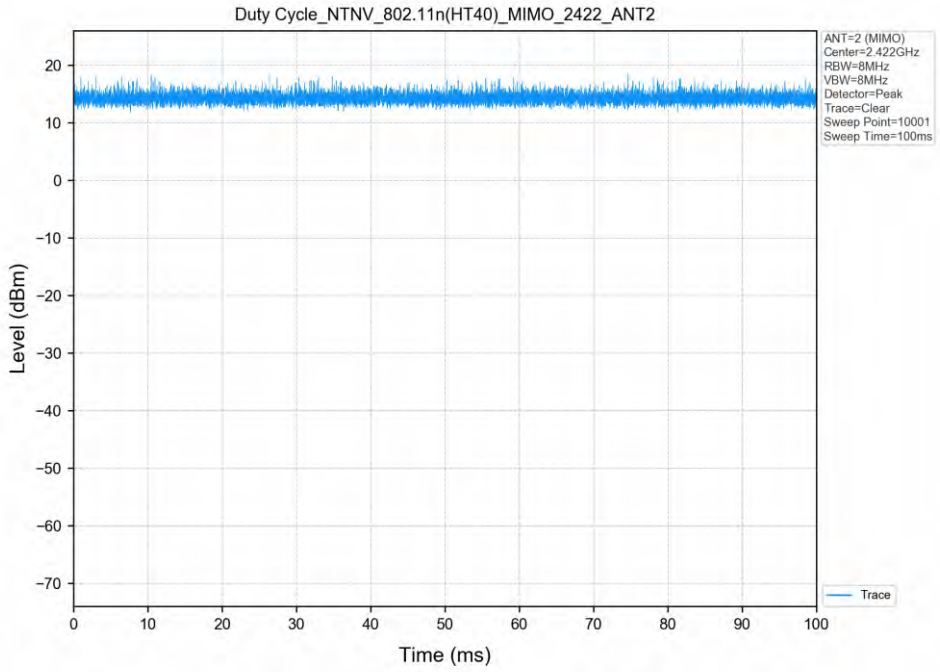
802.11n(HT40)_2422MHz_SISO_ANT2



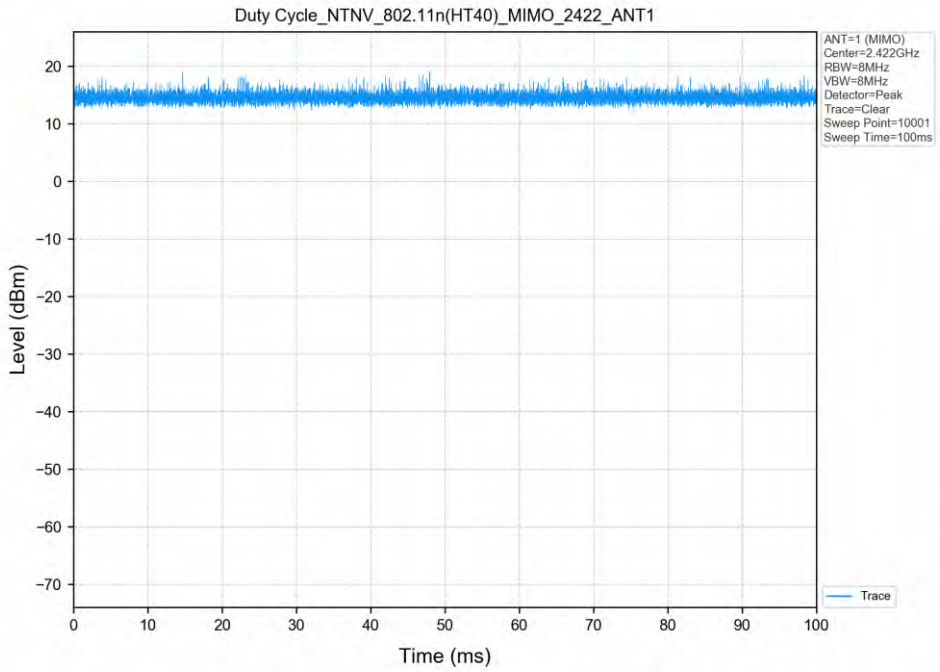
802.11n(HT40)_2422MHz_MIMO_ANT1



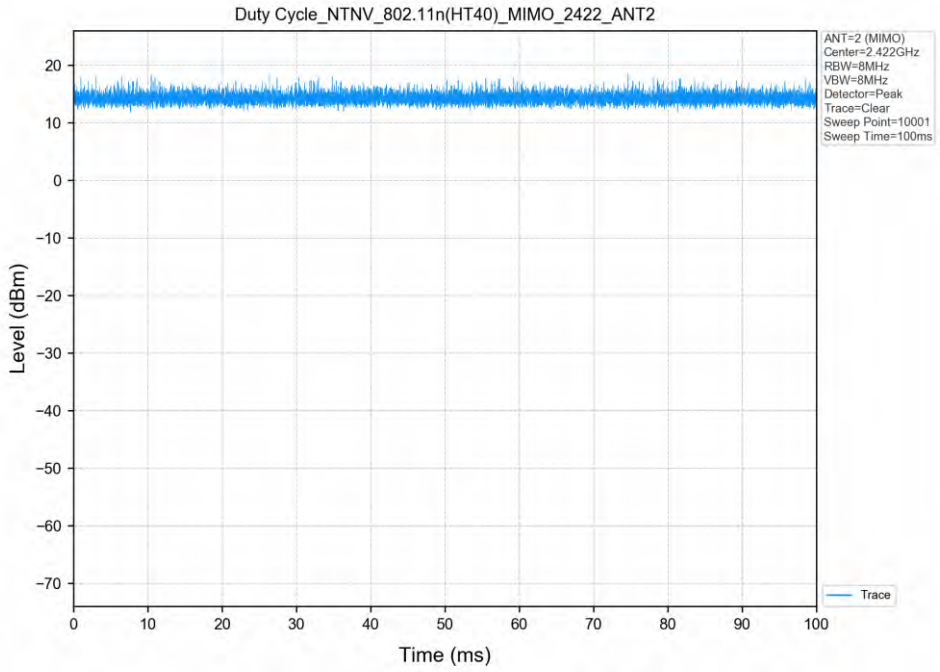
802.11n(HT40)_2422MHz_MIMO_ANT1



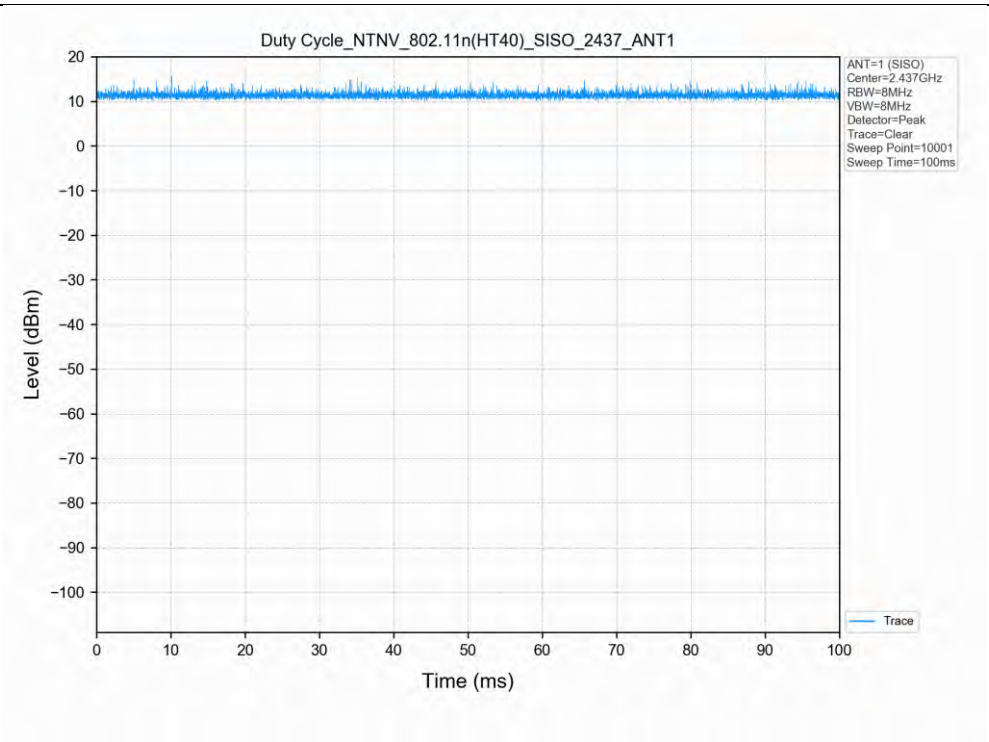
802.11n(HT40)_2422MHz_MIMO_ANT2



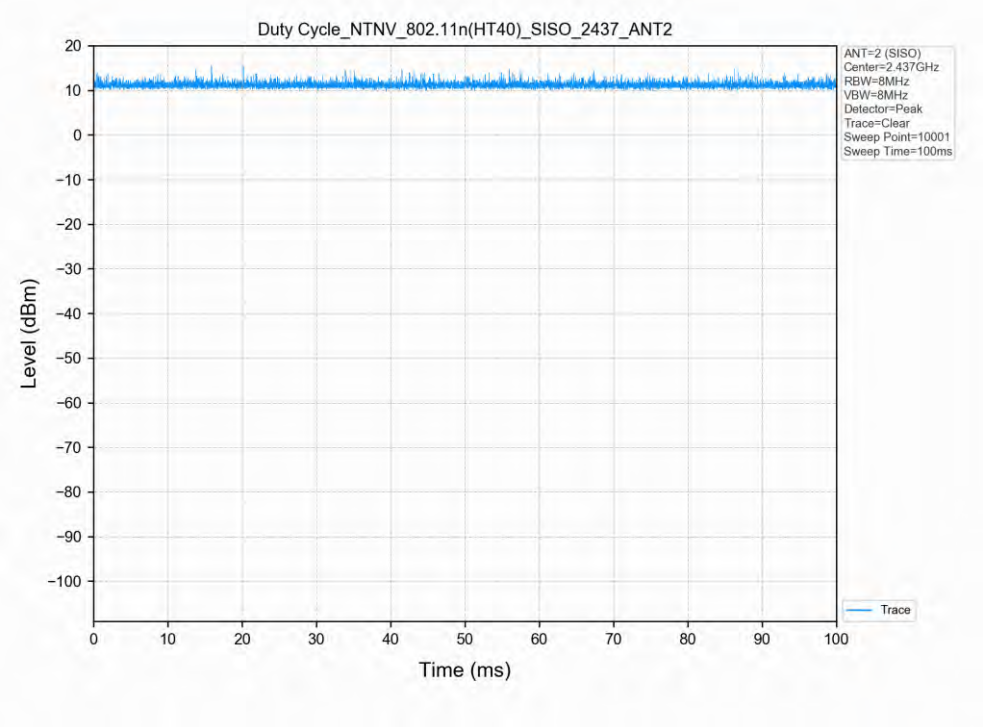
802.11n(HT40)_2422MHz_MIMO_ANT2



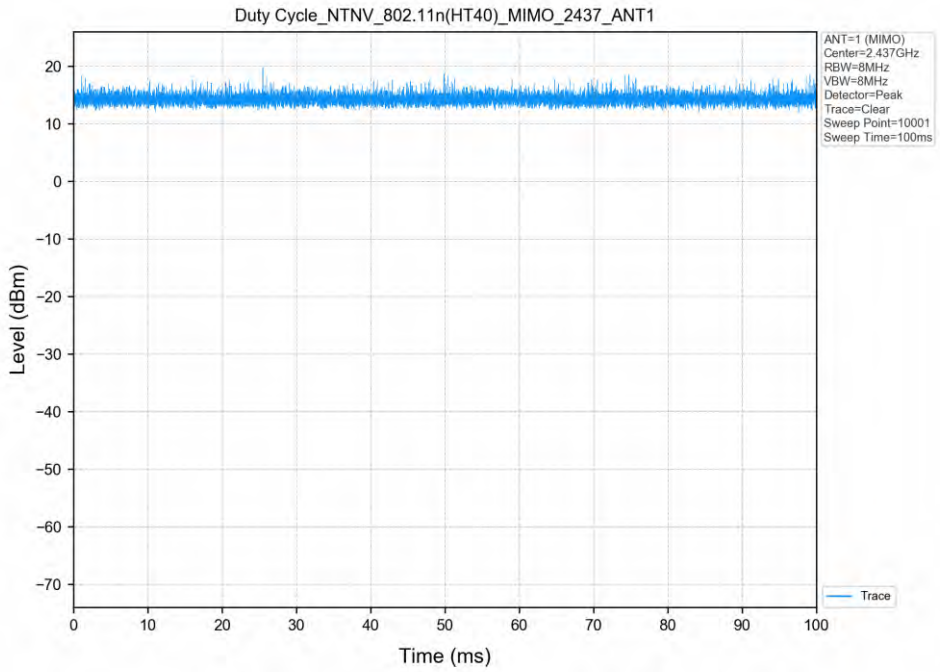
802.11n(HT40)_2437MHz_SISO_ANT1



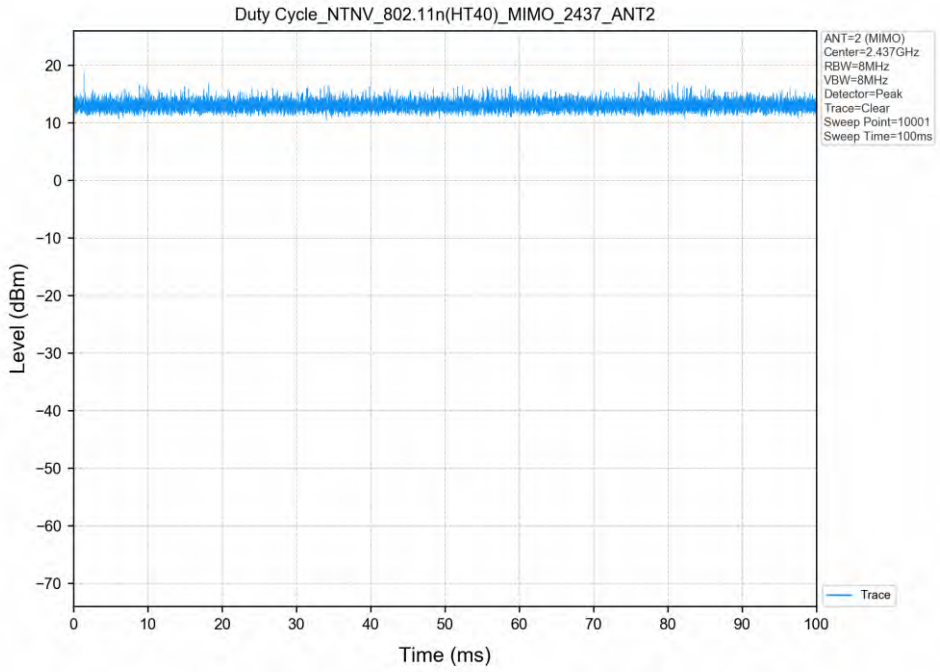
802.11n(HT40)_2437MHz_SISO_ANT2



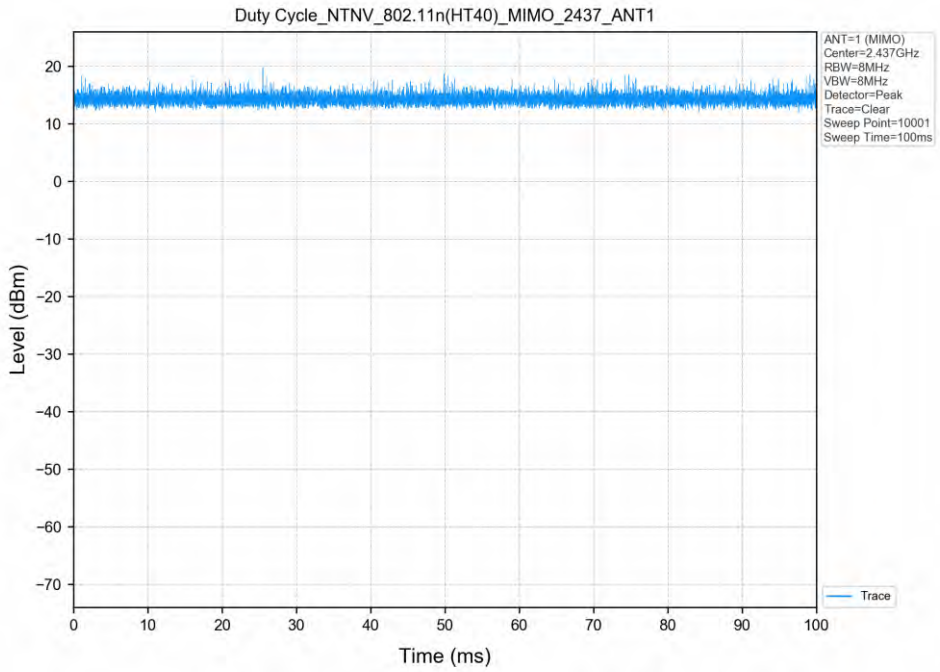
802.11n(HT40)_2437MHz_MIMO_ANT1



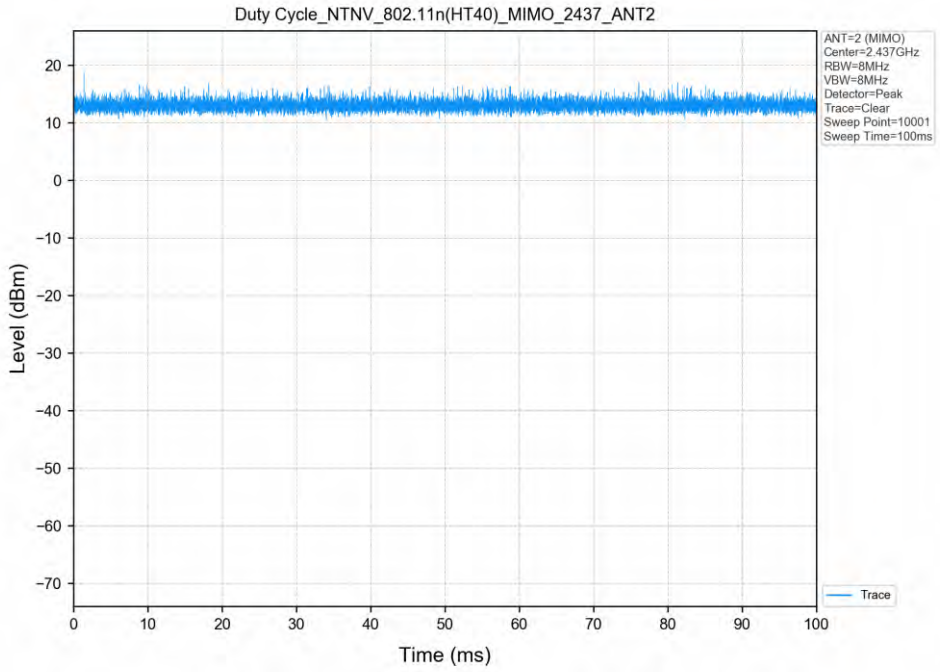
802.11n(HT40)_2437MHz_MIMO_ANT1



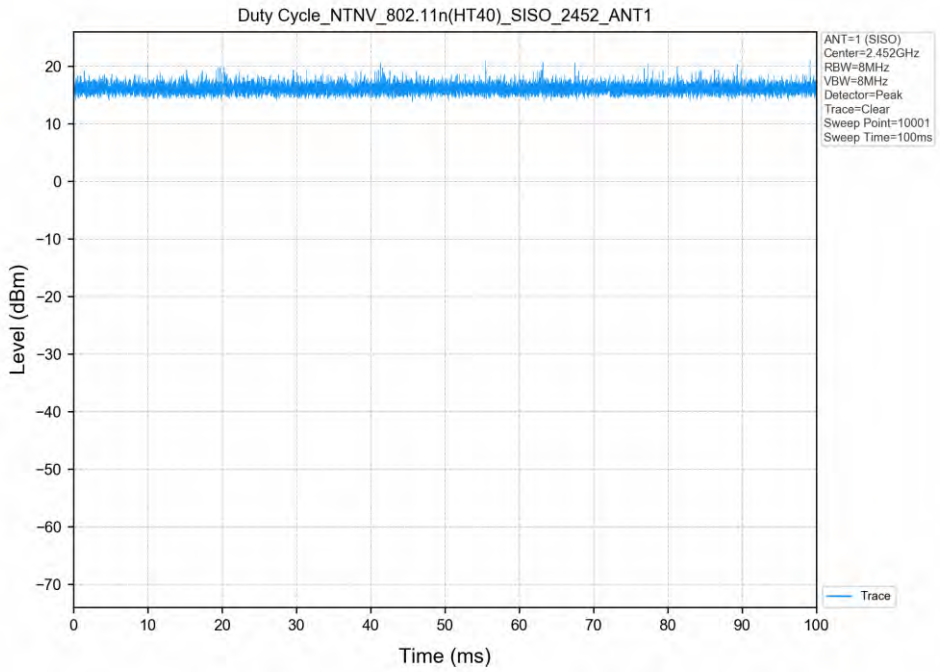
802.11n(HT40)_2437MHz_MIMO_ANT2



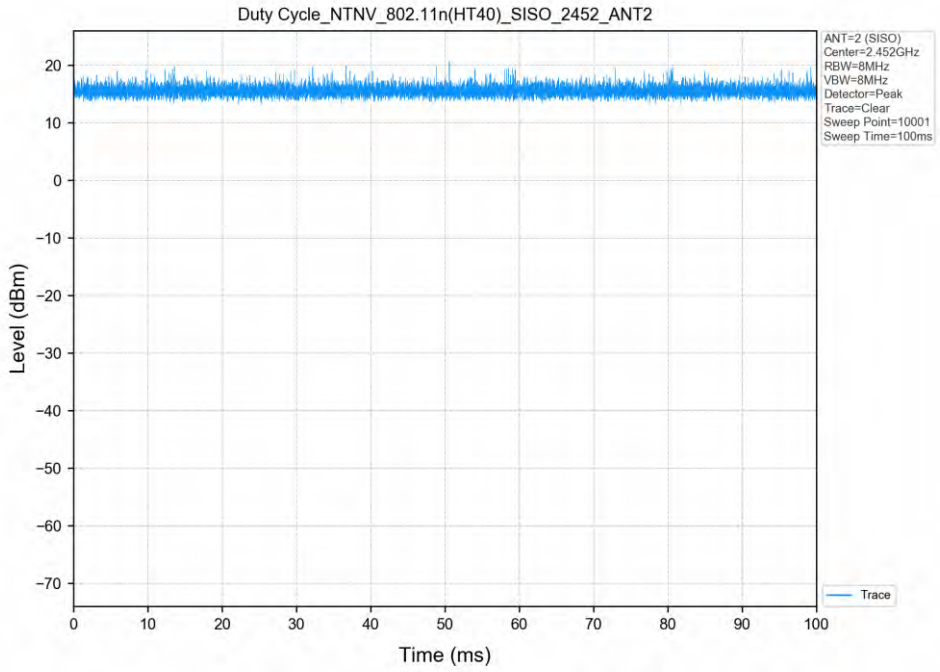
802.11n(HT40)_2437MHz_MIMO_ANT2



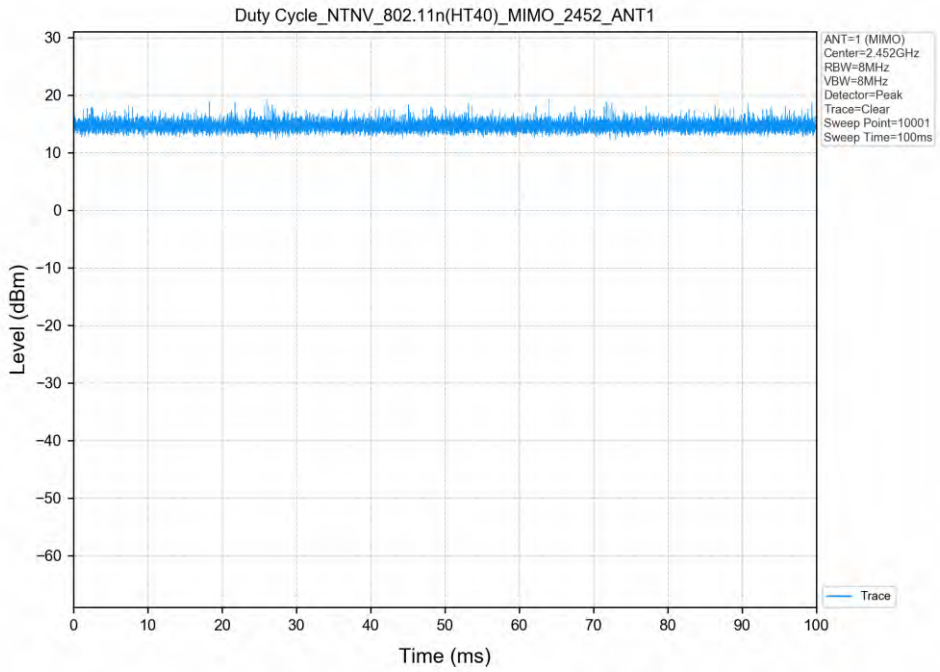
802.11n(HT40)_2452MHz_SISO_ANT1



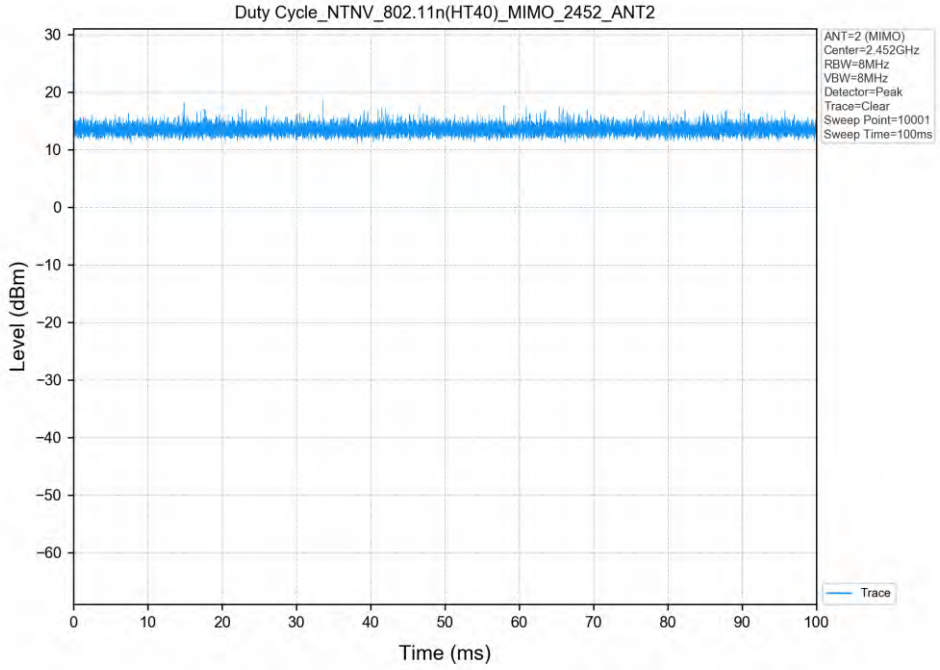
802.11n(HT40)_2452MHz_SISO_ANT2



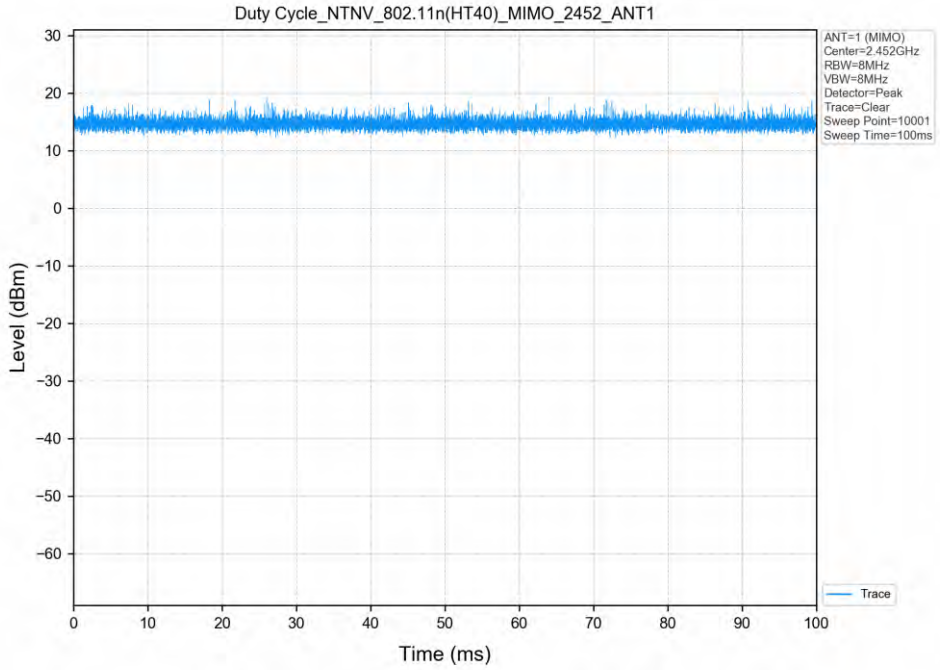
802.11n(HT40)_2452MHz_MIMO_ANT1



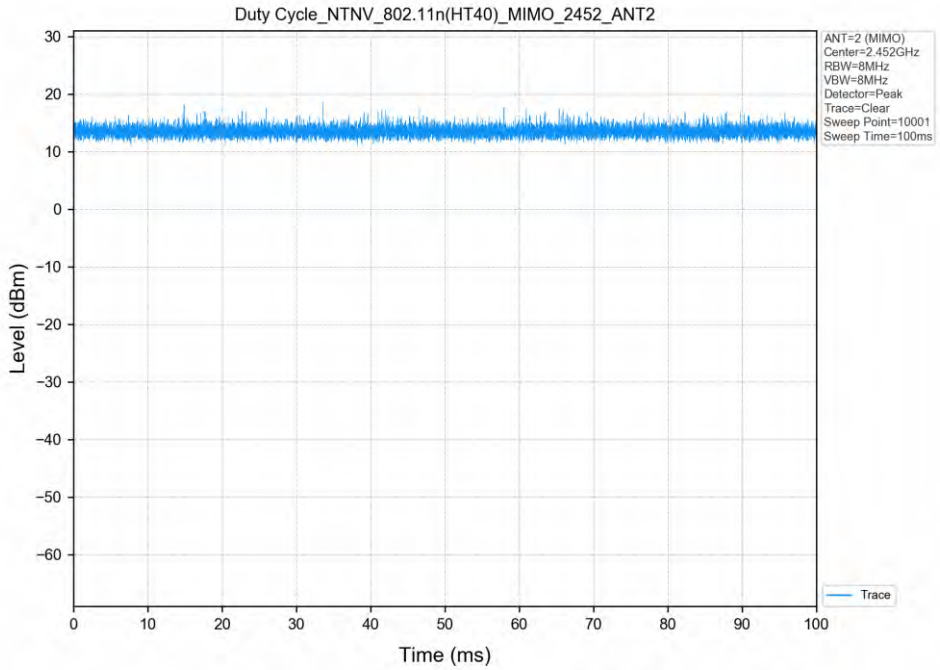
802.11n(HT40)_2452MHz_MIMO_ANT1



802.11n(HT40)_2452MHz_MIMO_ANT2



802.11n(HT40)_2452MHz_MIMO_ANT2



2. Bandwidth

2.1 Test Result

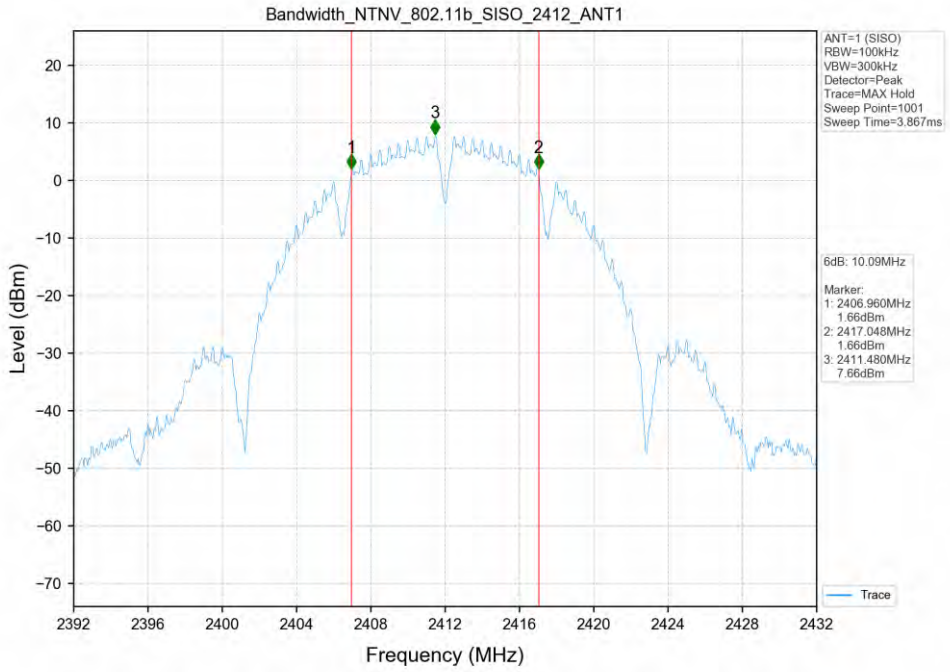
Test Mode	Frequency (MHz)	TX Type	ANT No.	6dB Bandwidth		Verdict
				Test Result (MHz)	Limits (MHz)	
802.11b	2412	SISO	1	10.090	≥0.5	PASS
			2	10.080	≥0.5	PASS
	2437	SISO	1	10.100	≥0.5	PASS
			2	10.060	≥0.5	PASS
	2462	SISO	1	10.100	≥0.5	PASS
			2	10.070	≥0.5	PASS
802.11g	2412	SISO	1	16.620	≥0.5	PASS
			2	16.620	≥0.5	PASS
	2437	SISO	1	16.620	≥0.5	PASS
			2	16.590	≥0.5	PASS
	2462	SISO	1	16.620	≥0.5	PASS
			2	16.620	≥0.5	PASS
802.11n(HT20)	2412	SISO	1	17.860	≥0.5	PASS
			2	17.850	≥0.5	PASS
		MIMO	0	17.850	≥0.5	PASS
	2437	SISO	1	17.850	≥0.5	PASS
			2	17.830	≥0.5	PASS
		MIMO	0	17.830	≥0.5	PASS
	2462	SISO	1	17.830	≥0.5	PASS
			2	17.860	≥0.5	PASS
		MIMO	0	17.850	≥0.5	PASS
802.11n(HT40)	2422	SISO	1	36.500	≥0.5	PASS
			2	36.550	≥0.5	PASS
		MIMO	0	36.550	≥0.5	PASS
	2437	SISO	1	36.480	≥0.5	PASS
			2	36.450	≥0.5	PASS
		MIMO	0	36.500	≥0.5	PASS
	2452	SISO	1	36.460	≥0.5	PASS
			2	36.450	≥0.5	PASS
		MIMO	0	36.440	≥0.5	PASS

Test Mode	Frequency (MHz)	TX Type	ANT No.	99% Occupied Bandwidth	
				Test Result (MHz)	
802.11b	2412	SISO	1	15.600	Only for Report Use
			2	15.060	Only for Report Use
	2437	SISO	1	15.160	Only for Report Use
			2	15.070	Only for Report Use
	2462	SISO	1	15.680	Only for Report Use
			2	15.080	Only for Report Use
802.11g	2412	SISO	1	15.640	Only for Report Use
			2	17.100	Only for Report Use
	2437	SISO	1	17.020	Only for Report Use
			2	17.020	Only for Report Use
	2462	SISO	1	16.990	Only for Report Use
			2	17.060	Only for Report Use
802.11n(HT20)	2412	SISO	1	18.120	Only for Report Use
			2	18.110	Only for Report Use
		MIMO	0	18.080	Only for Report Use

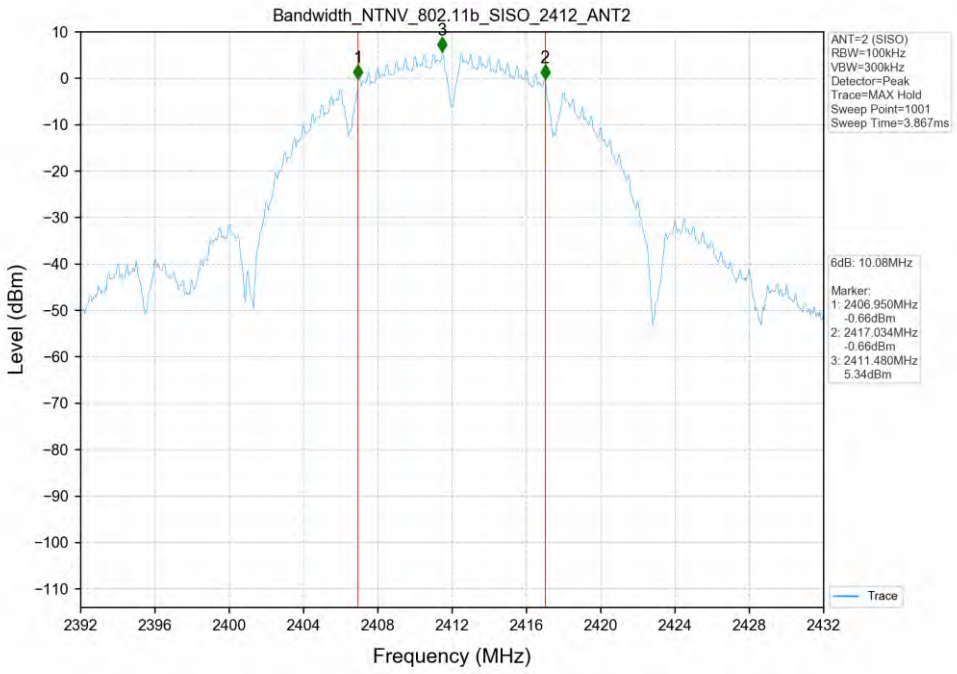
	2437	SISO	1	18.090	Only for Report Use
			2	18.080	Only for Report Use
		MIMO	0	18.090	Only for Report Use
	2462	SISO	1	18.050	Only for Report Use
			2	18.060	Only for Report Use
		MIMO	0	18.070	Only for Report Use
802.11n(HT40)	2422	SISO	1	37.450	Only for Report Use
			2	37.400	Only for Report Use
		MIMO	0	36.790	Only for Report Use
	2437	SISO	1	37.420	Only for Report Use
			2	37.230	Only for Report Use
		MIMO	0	36.800	Only for Report Use
	2452	SISO	1	36.640	Only for Report Use
			2	36.600	Only for Report Use
		MIMO	0	36.600	Only for Report Use

2.2 Test Graph - 6dB Bandwidth

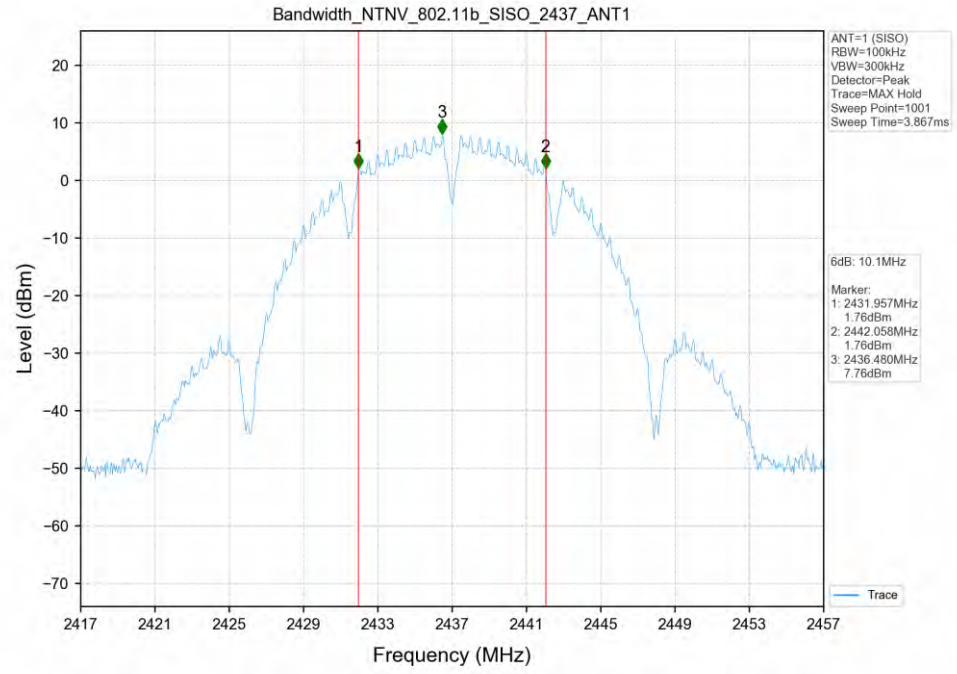
802.11b_2412MHz_SISO_ANT1



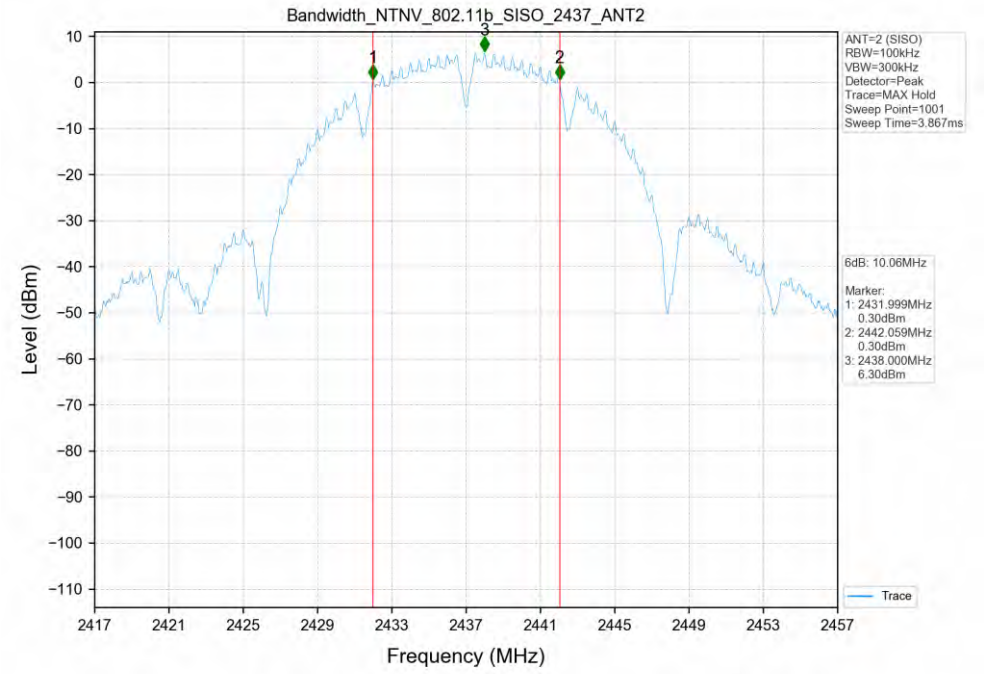
802.11b_2412MHz_SISO_ANT2



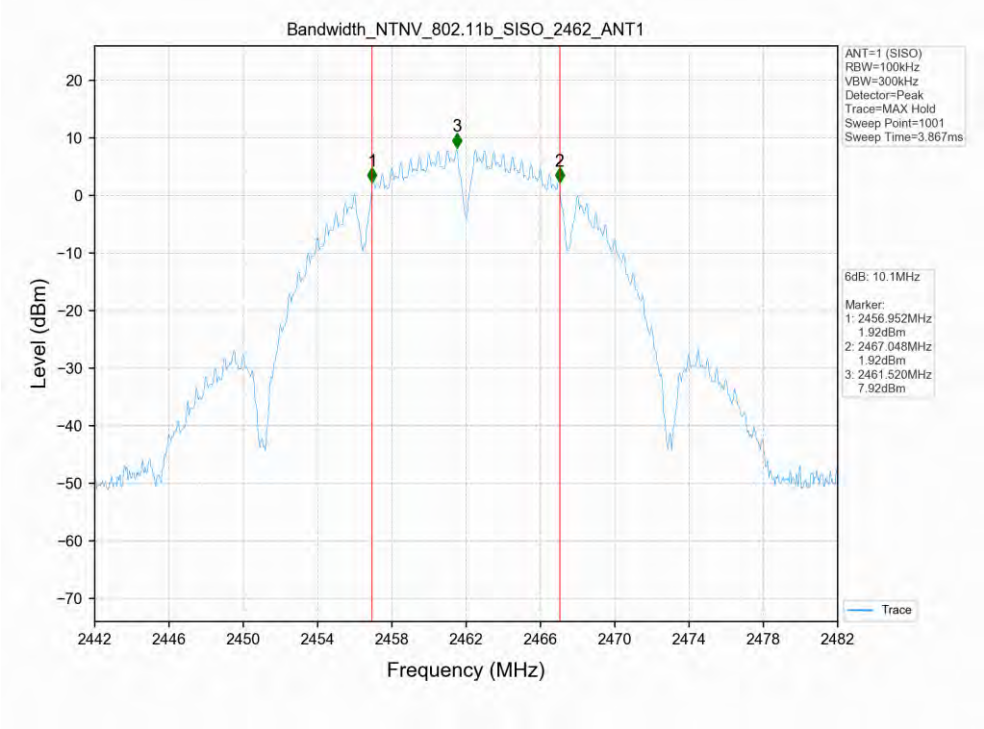
802.11b_2437MHz_SISO_ANT1



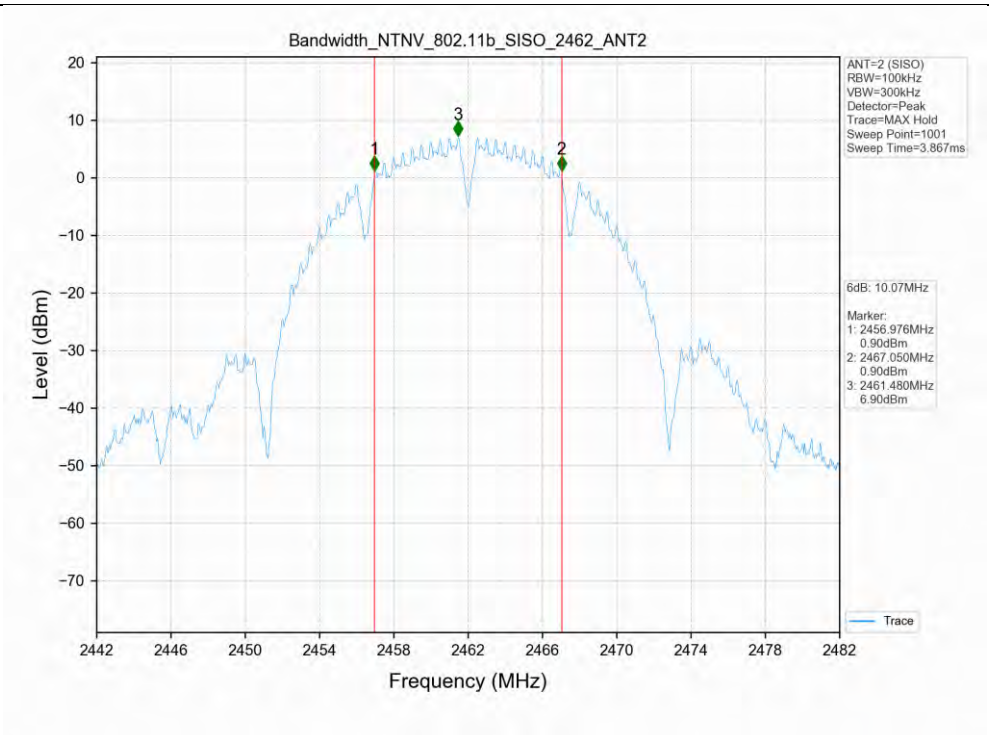
802.11b_2437MHz_SISO_ANT2



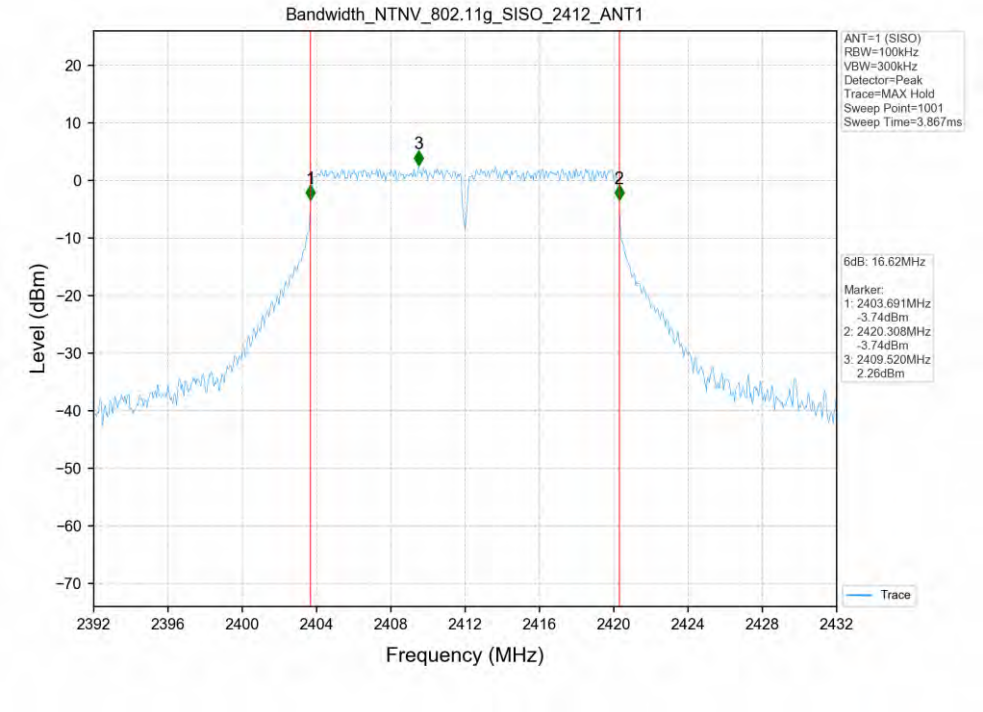
802.11b_2462MHz_SISO_ANT1



802.11b_2462MHz_SISO_ANT2



802.11g_2412MHz_SISO_ANT1



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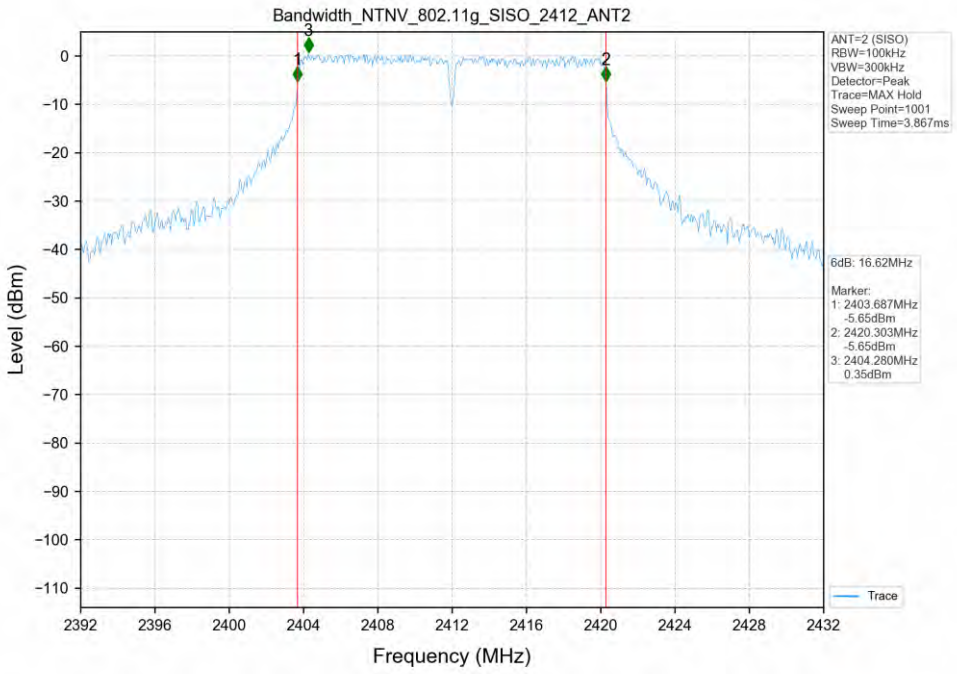
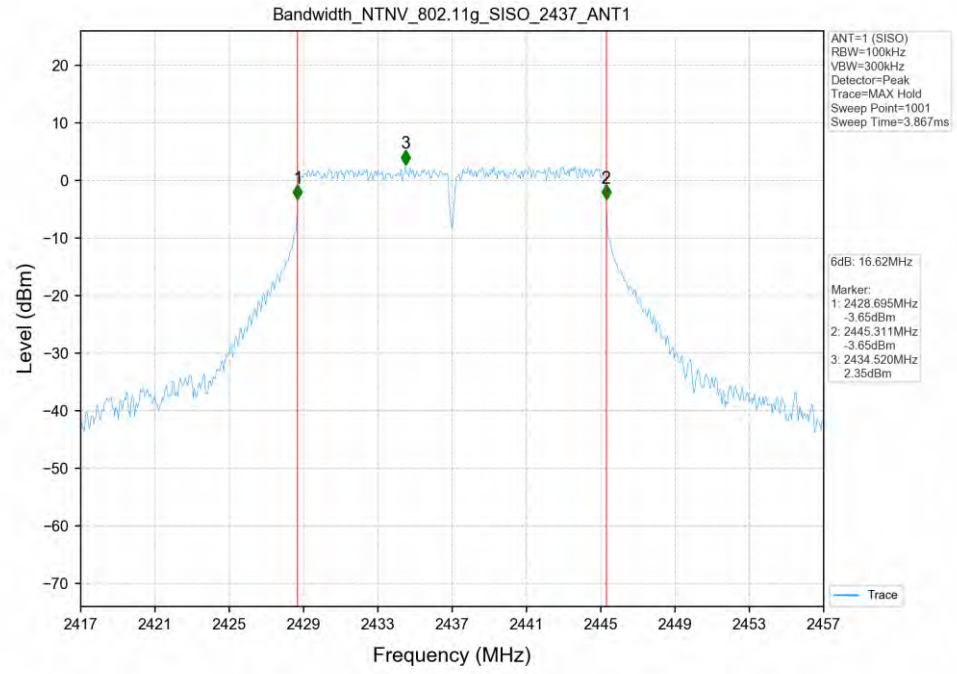


802.11g_2437MHz_SISO_ANT1



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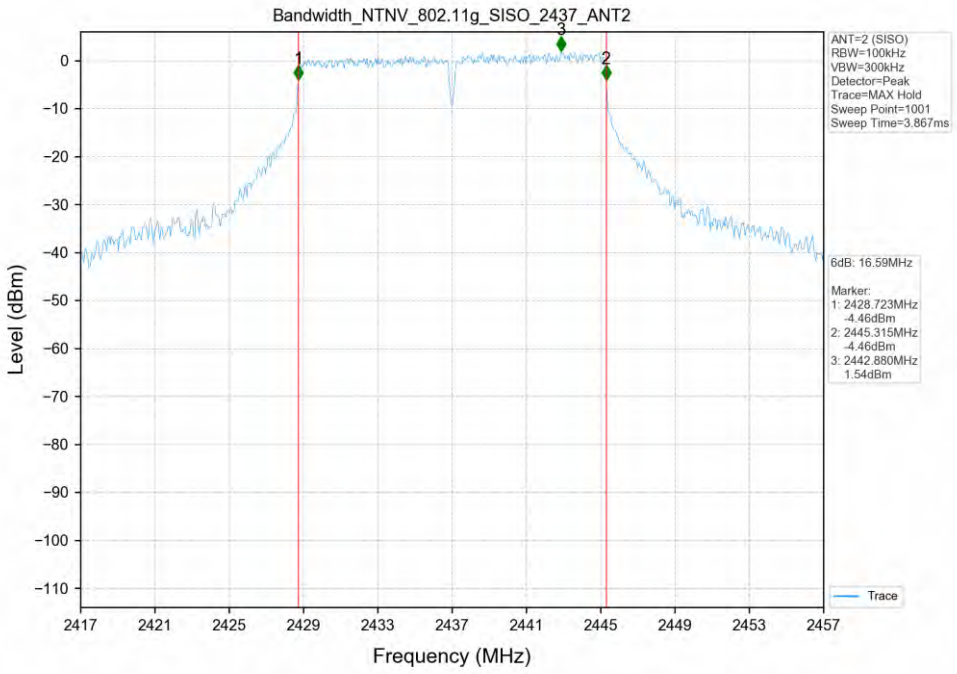
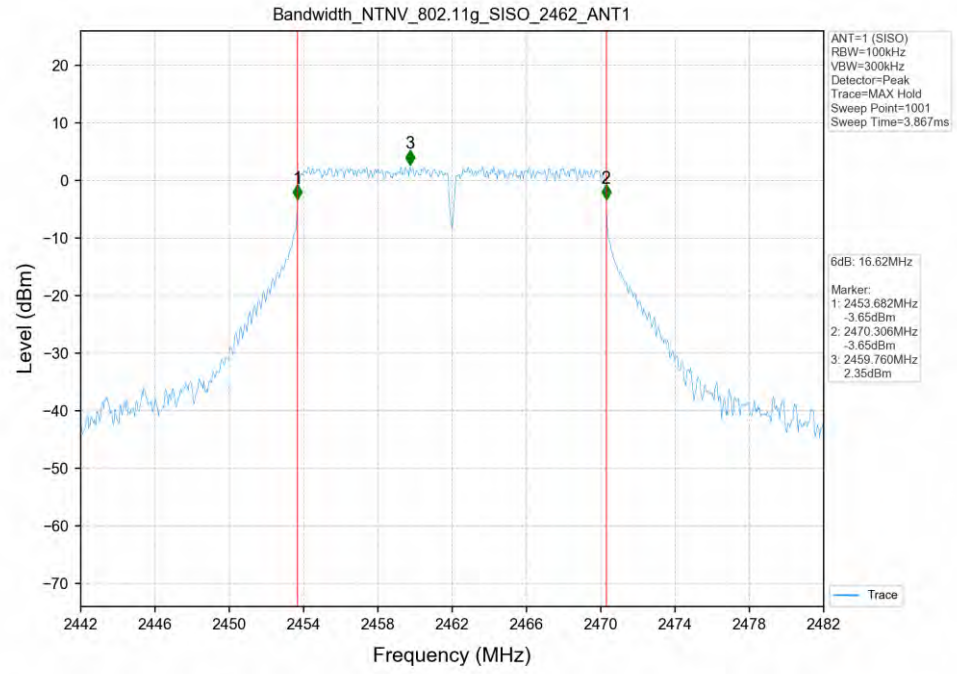
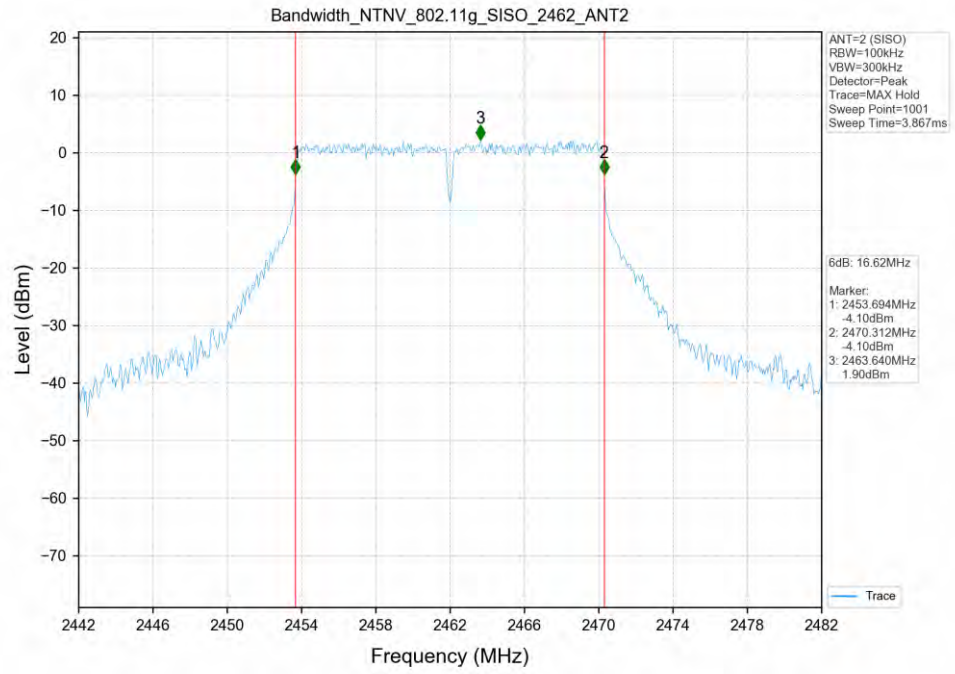


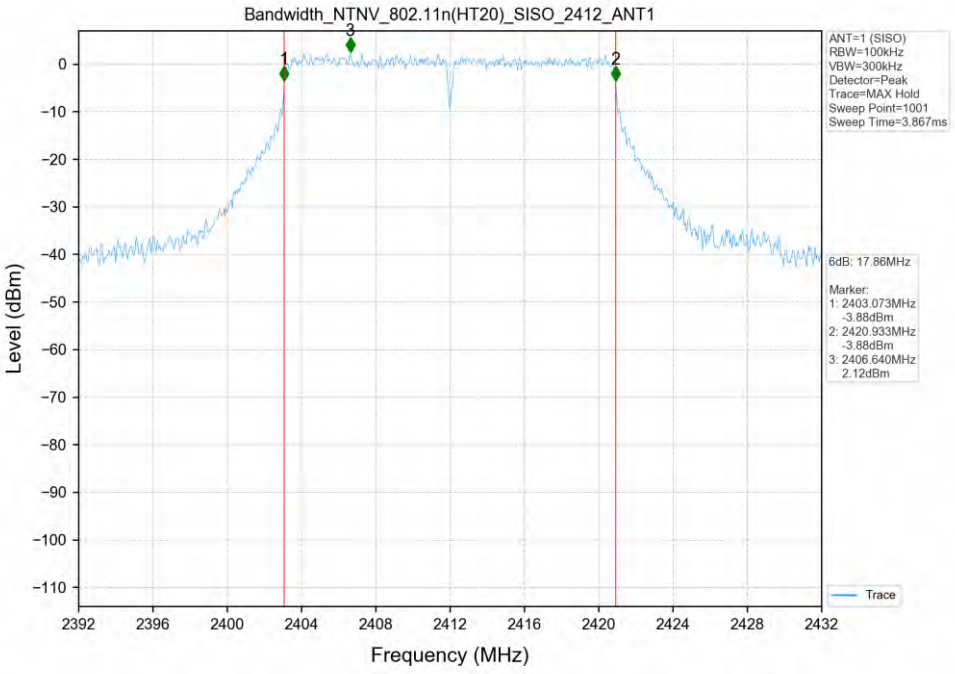
802.11g_2462MHz_SISO_ANT1



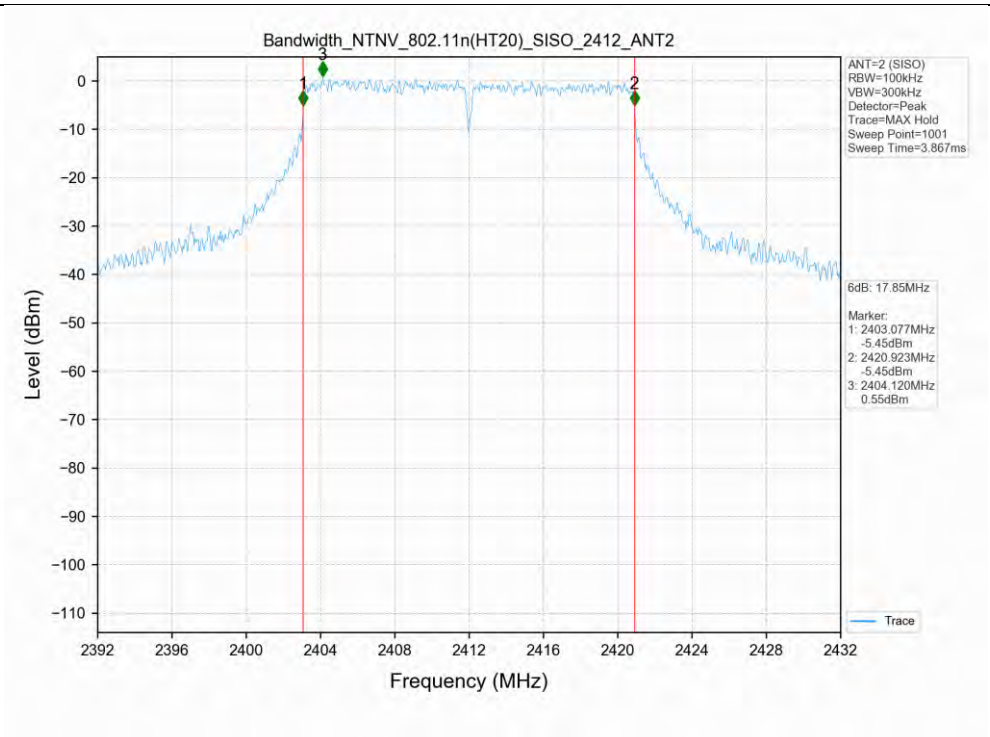
802.11g_2462MHz_SISO_ANT2



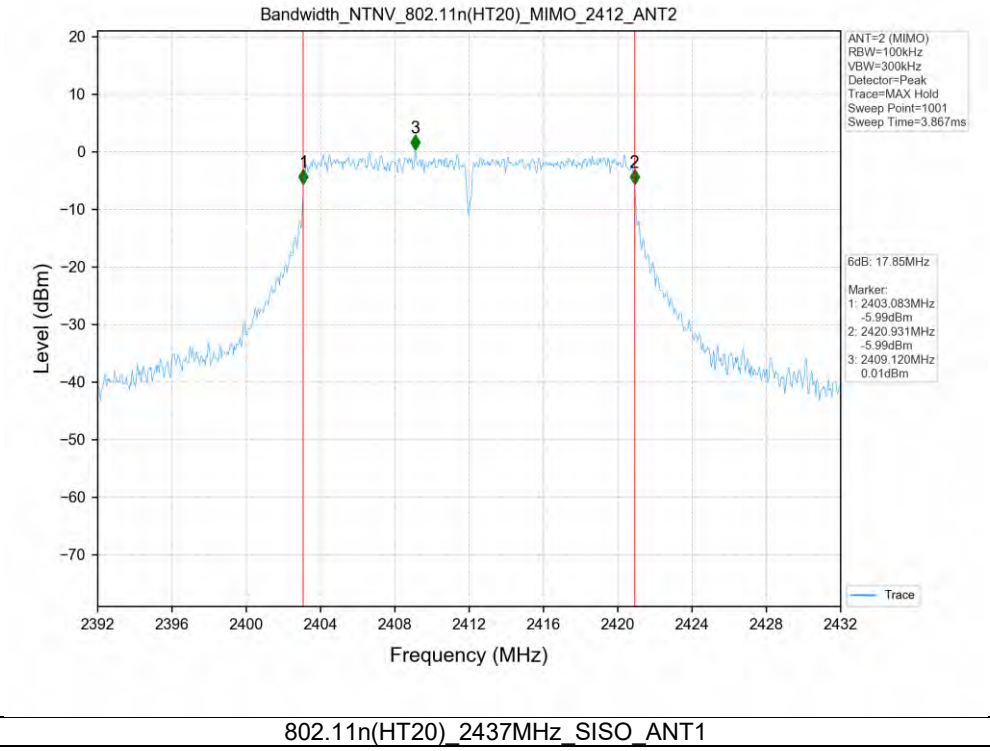
802.11n(HT20)_2412MHz_SISO_ANT1



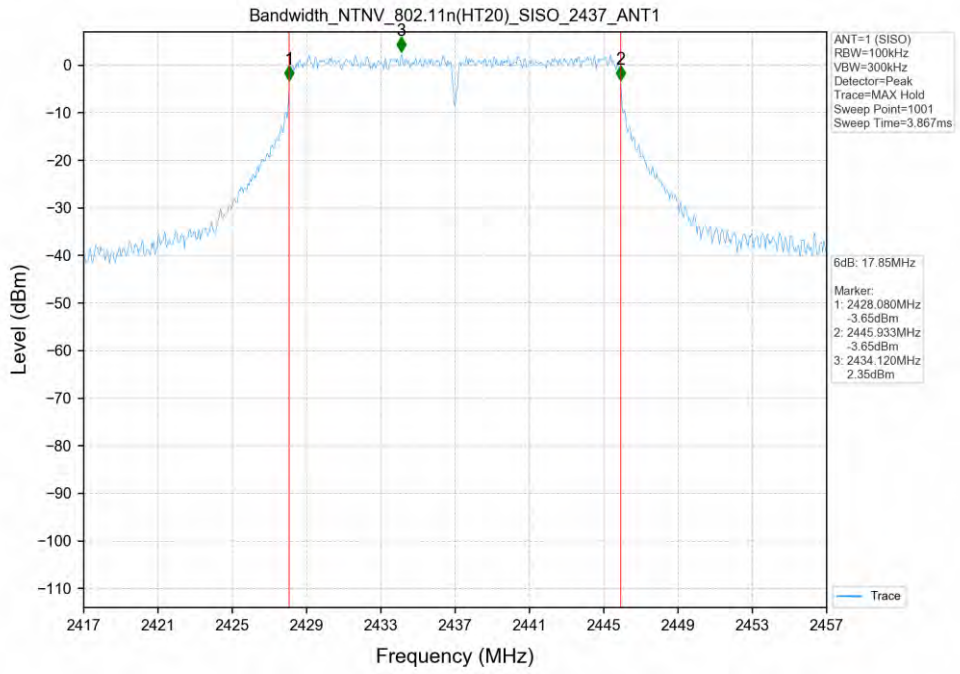
802.11n(HT20)_2412MHz_SISO_ANT2



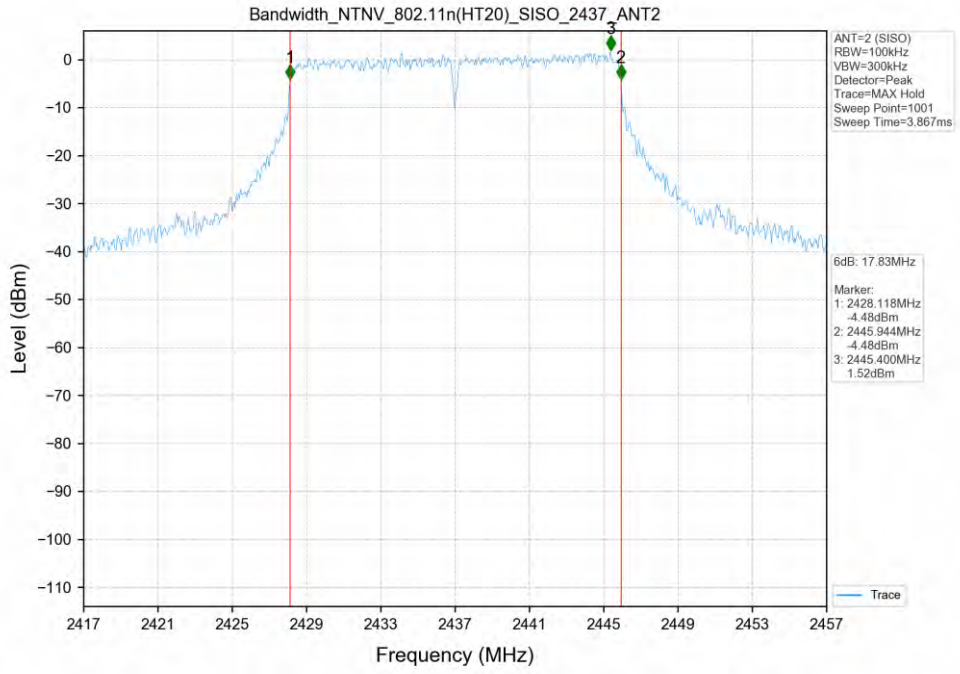
802.11n(HT20)_2412MHz_MIMO_Total



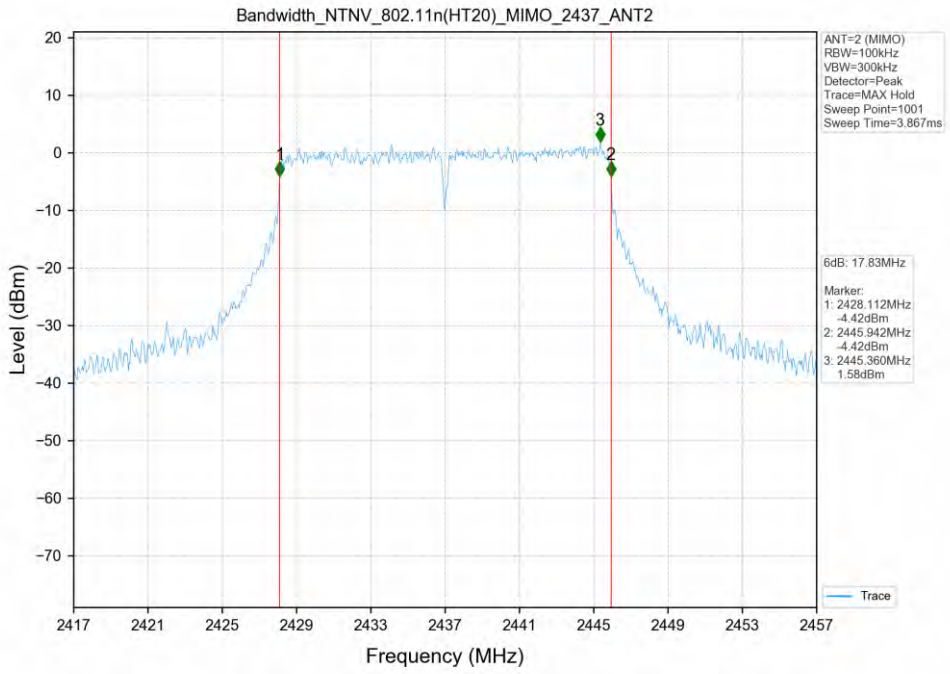
802.11n(HT20)_2437MHz_SISO_ANT1



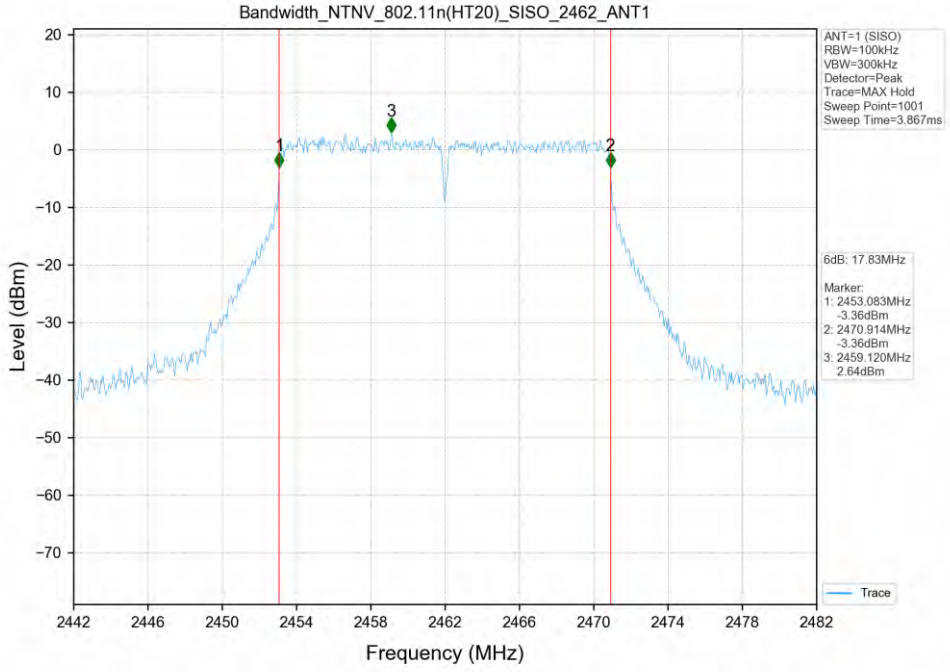
802.11n(HT20)_2437MHz_SISO_ANT2



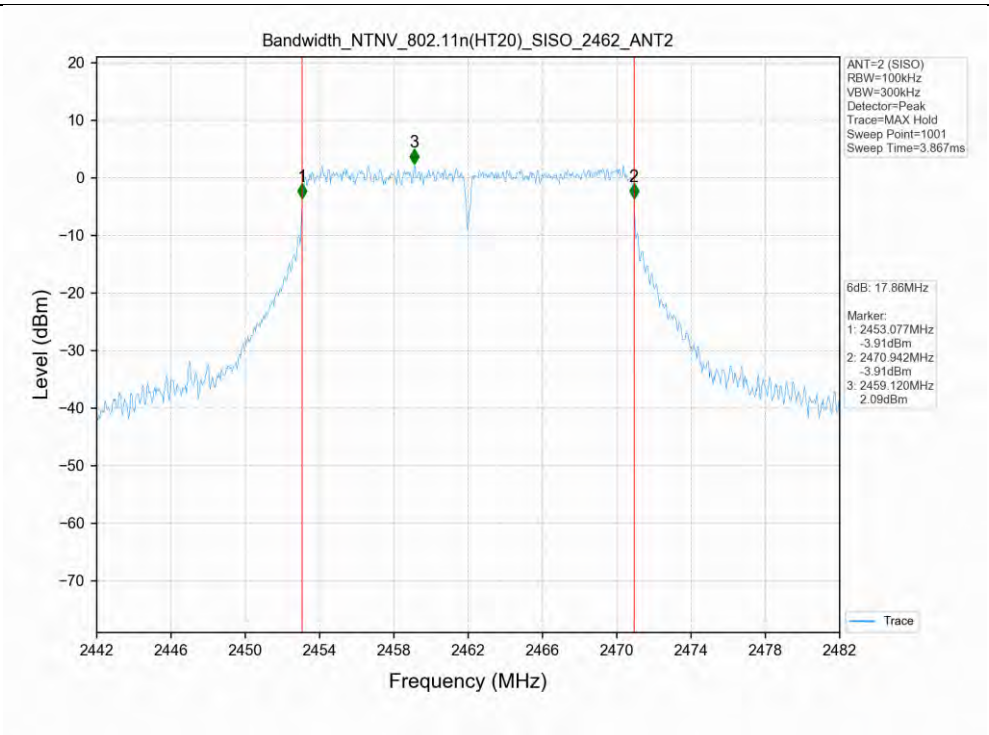
802.11n(HT20)_2437MHz_MIMO_Total



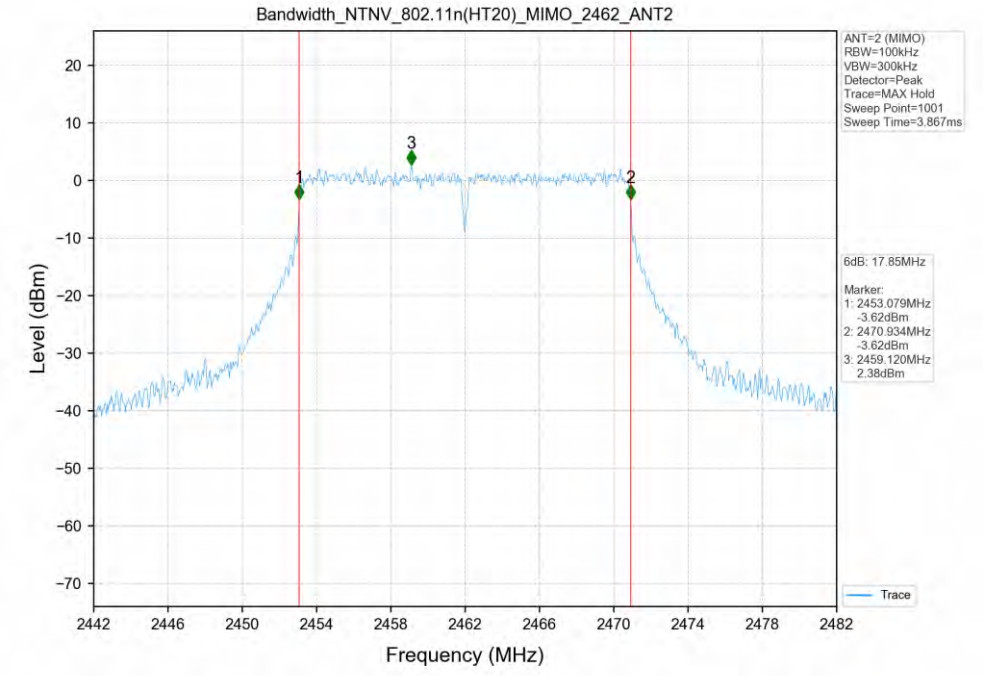
802.11n(HT20)_2462MHz_SISO_ANT1



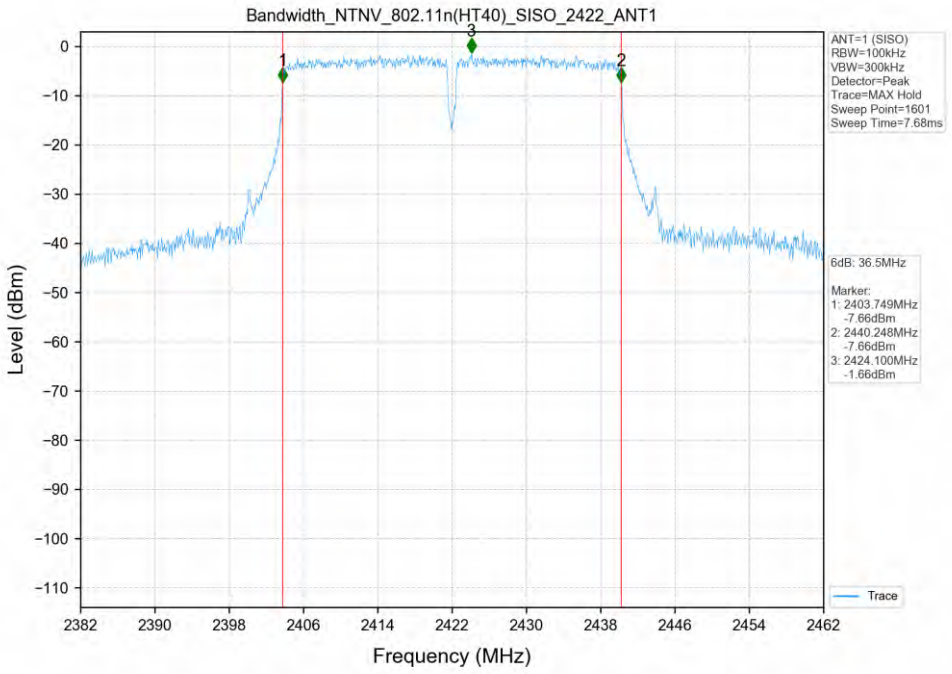
802.11n(HT20)_2462MHz_SISO_ANT2



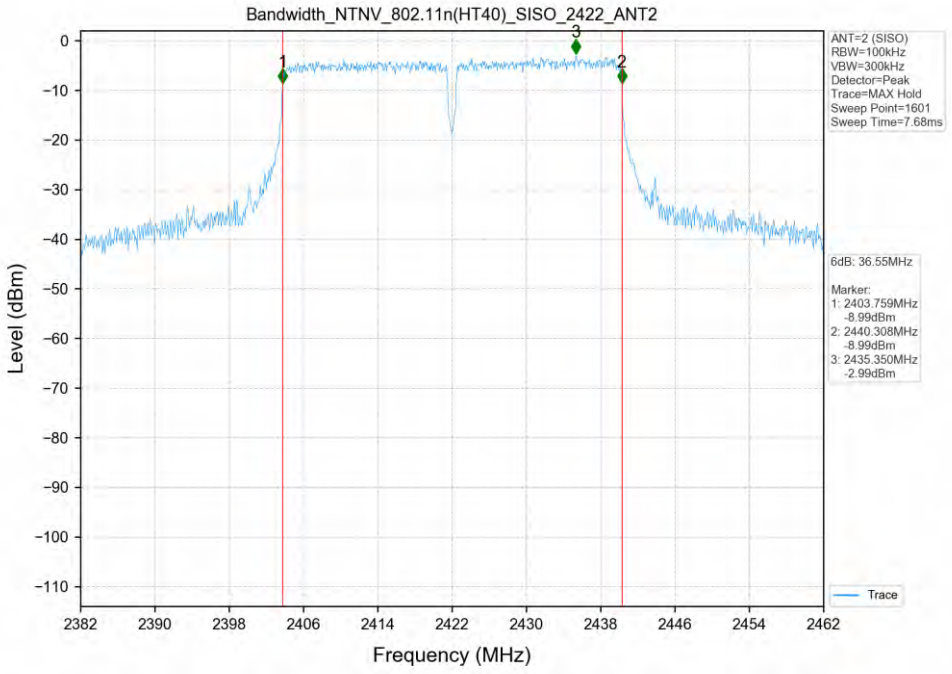
802.11n(HT20)_2462MHz_MIMO_Total



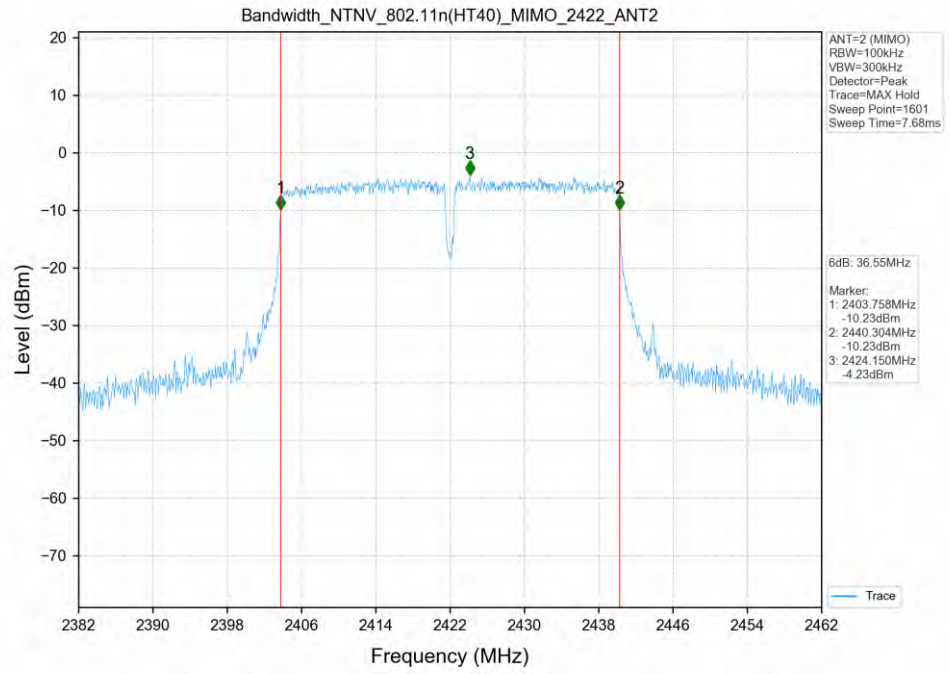
802.11n(HT40)_2422MHz_SISO_ANT1



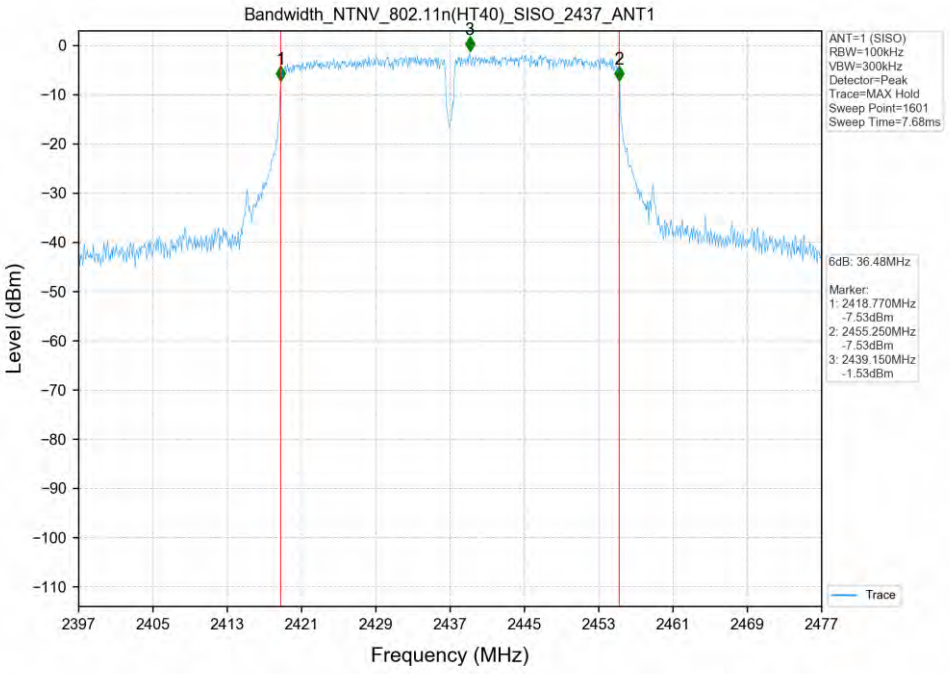
802.11n(HT40)_2422MHz_SISO_ANT2



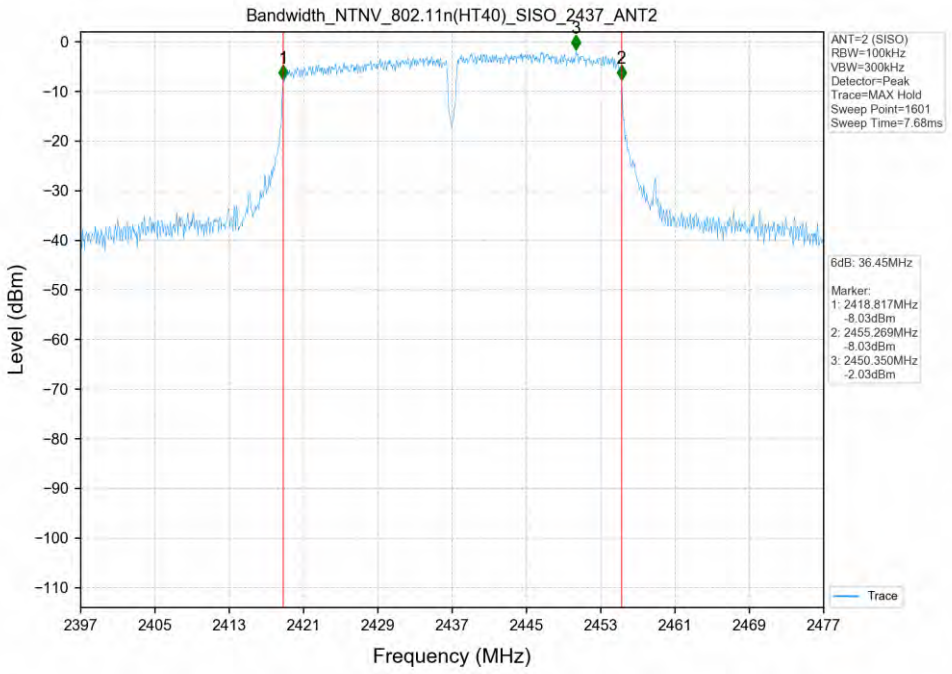
802.11n(HT40)_2422MHz_MIMO_Total



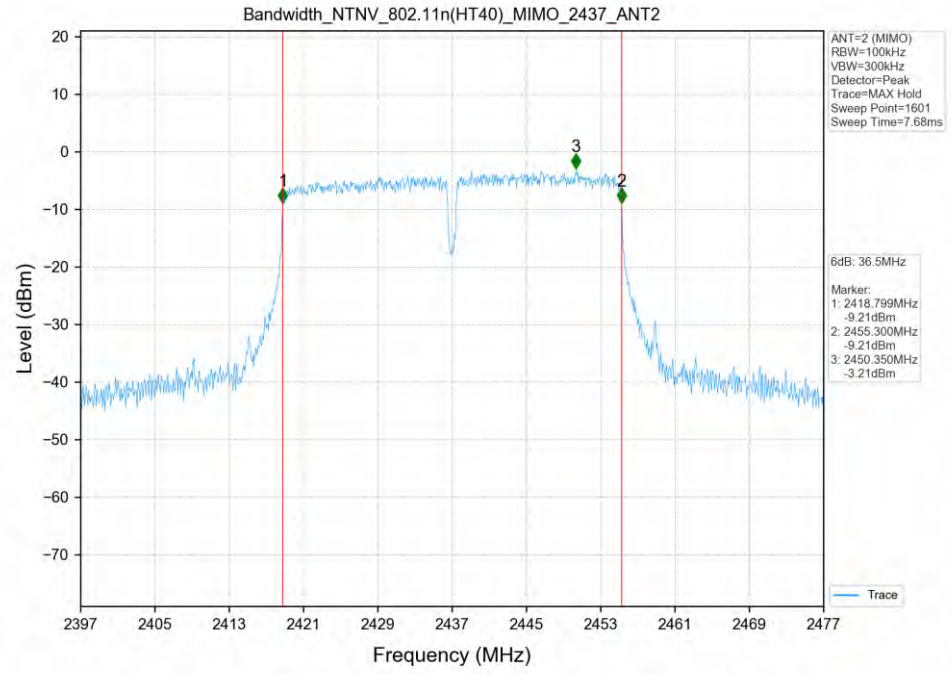
802.11n(HT40)_2437MHz_SISO_ANT1



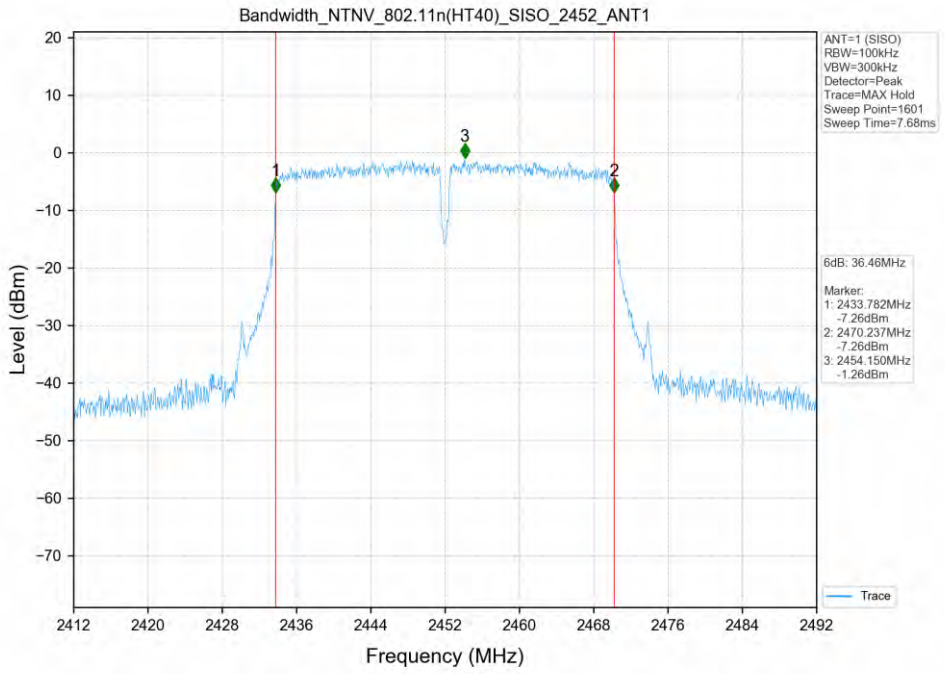
802.11n(HT40)_2437MHz_SISO_ANT2



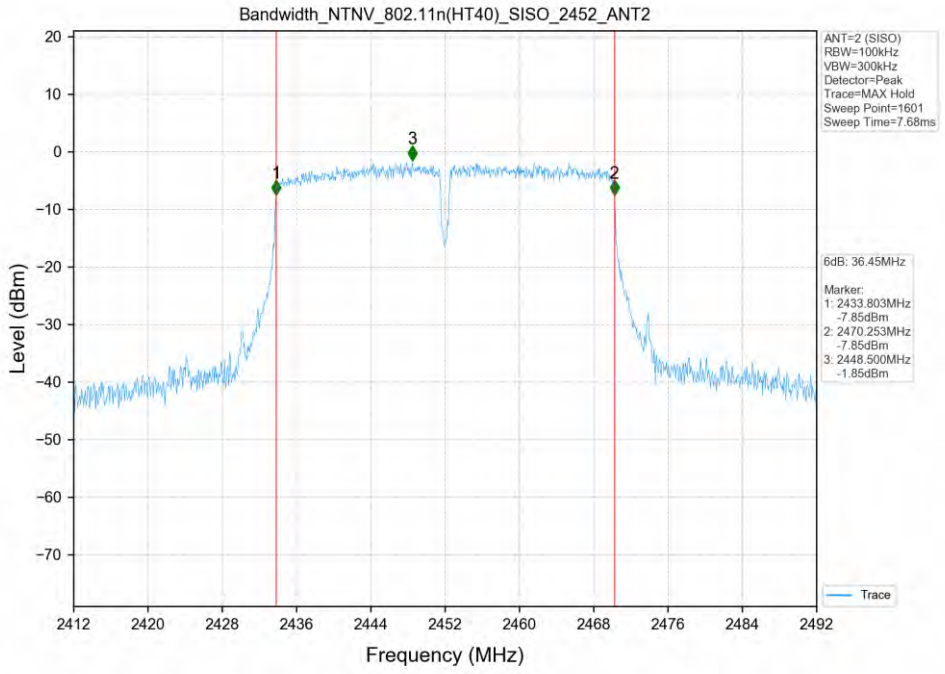
802.11n(HT40)_2437MHz_MIMO_Total



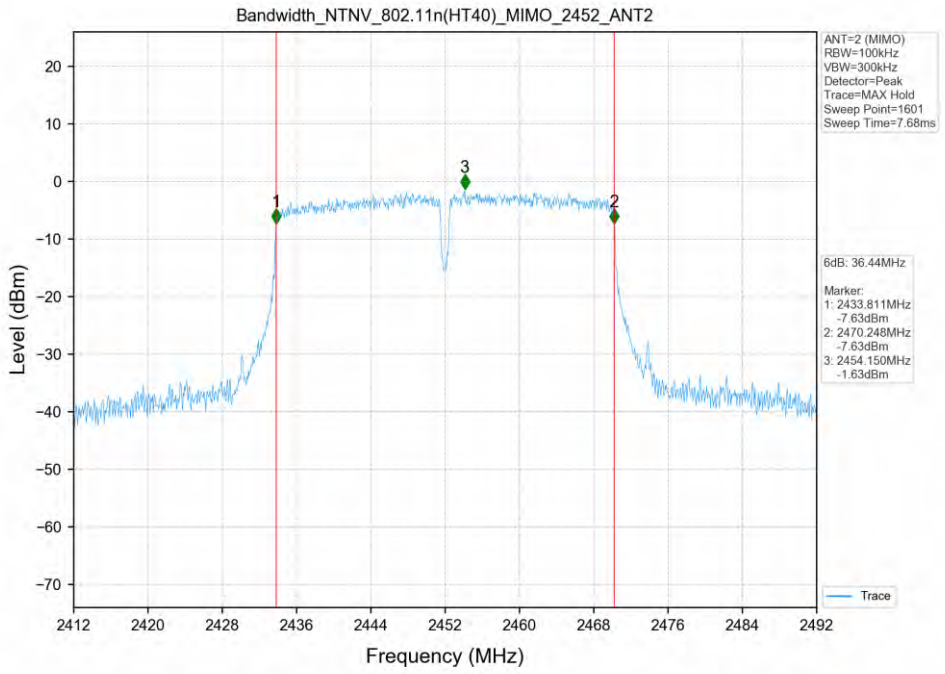
802.11n(HT40)_2452MHz_SISO_ANT1



802.11n(HT40)_2452MHz_SISO_ANT2

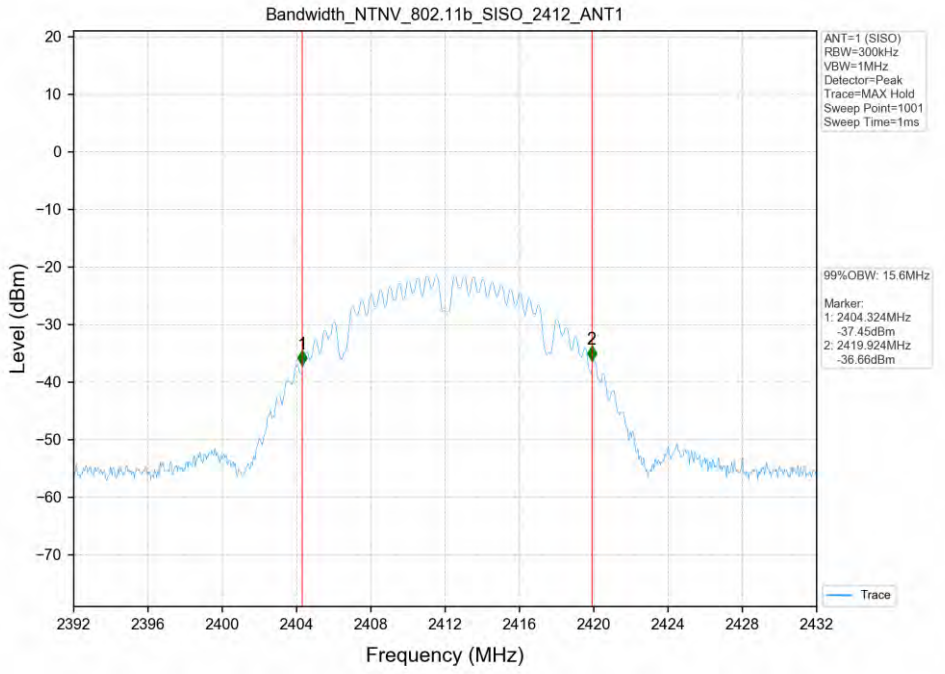


802.11n(HT40)_2452MHz_MIMO_Total

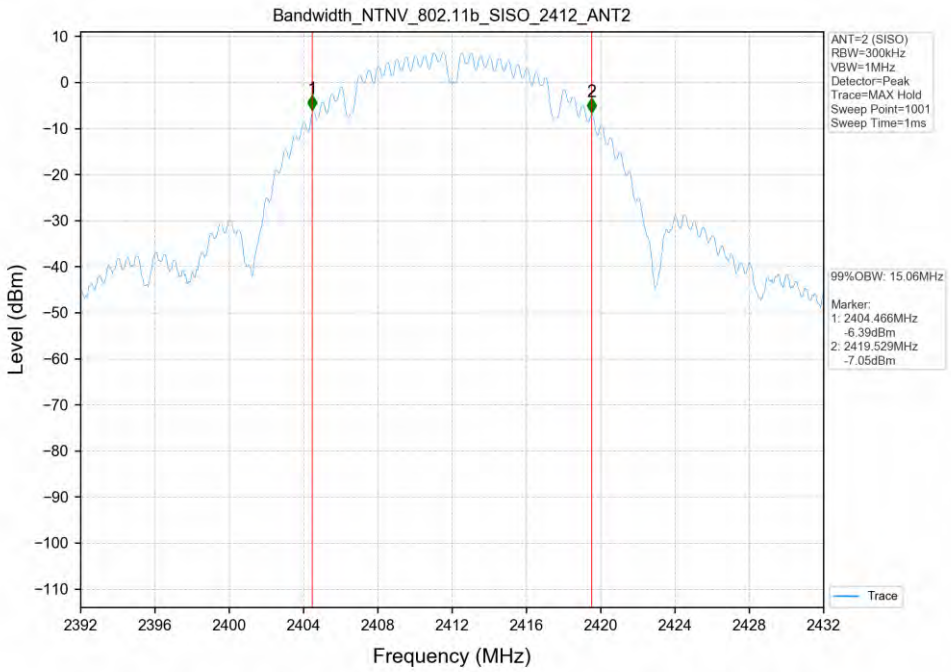


2.3 Test Graph - 99% Occupied Bandwidth

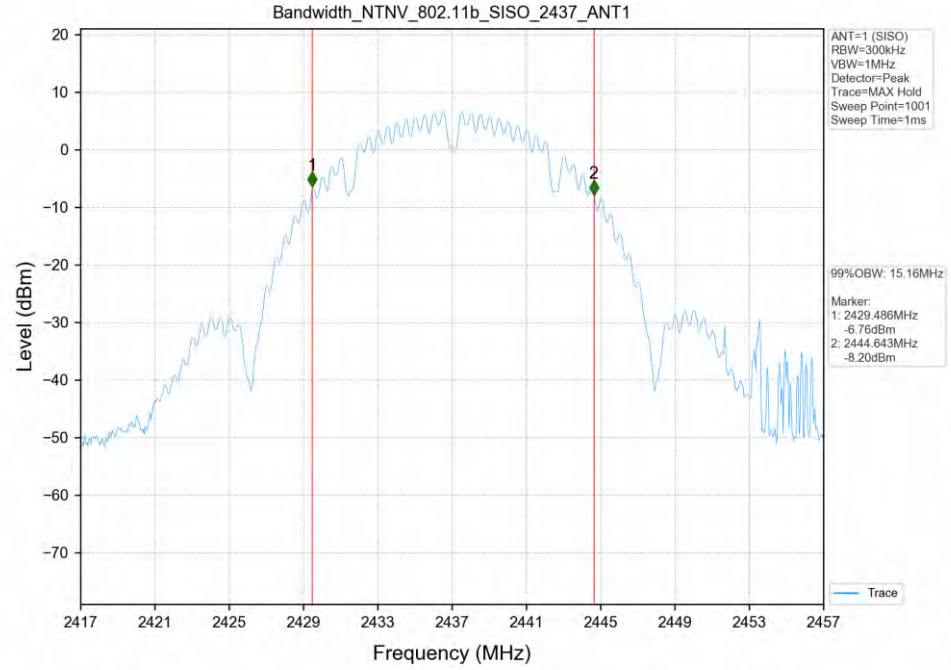
802.11b_2412MHz_SISO_ANT1



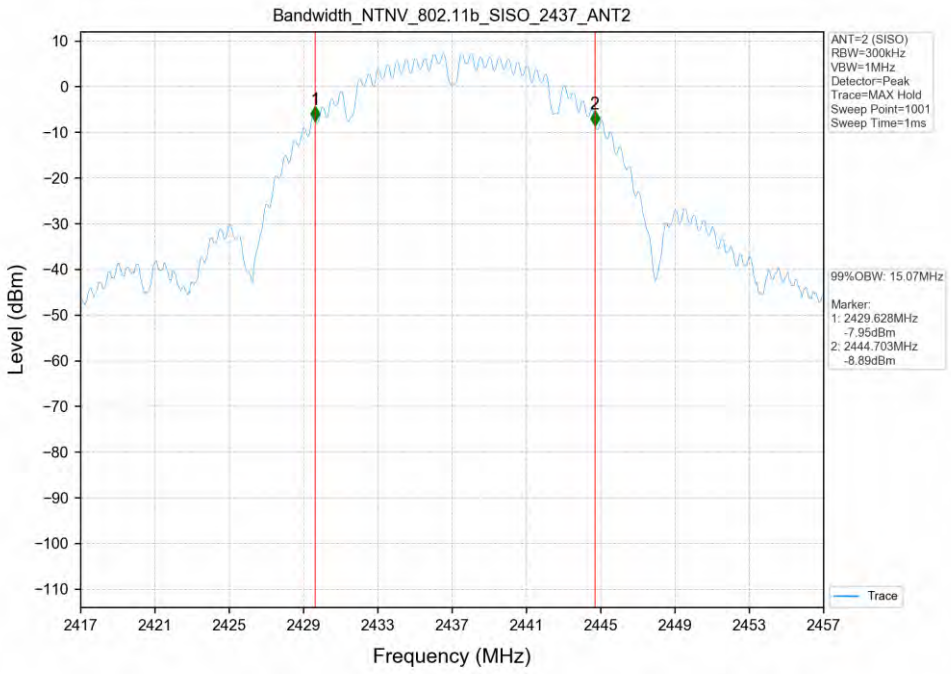
802.11b_2412MHz_SISO_ANT2



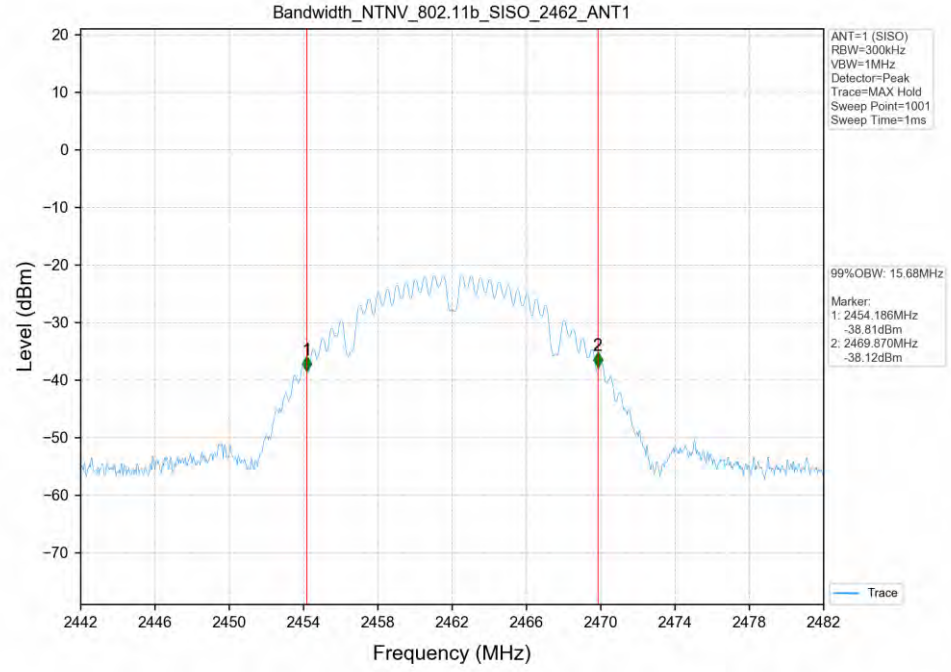
802.11b_2437MHz_SISO_ANT1



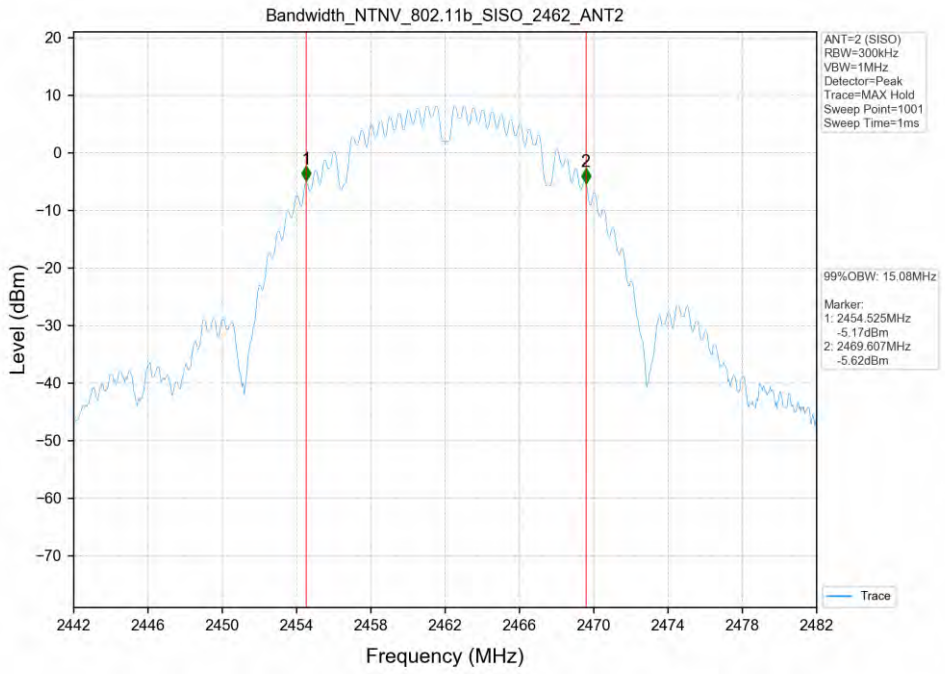
802.11b_2437MHz_SISO_ANT2



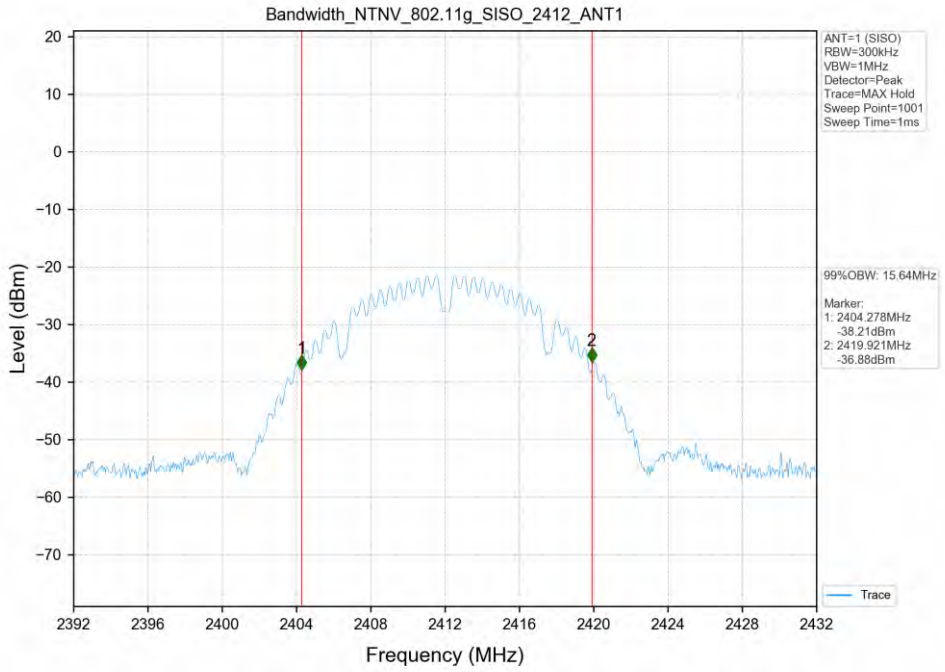
802.11b_2462MHz_SISO_ANT1



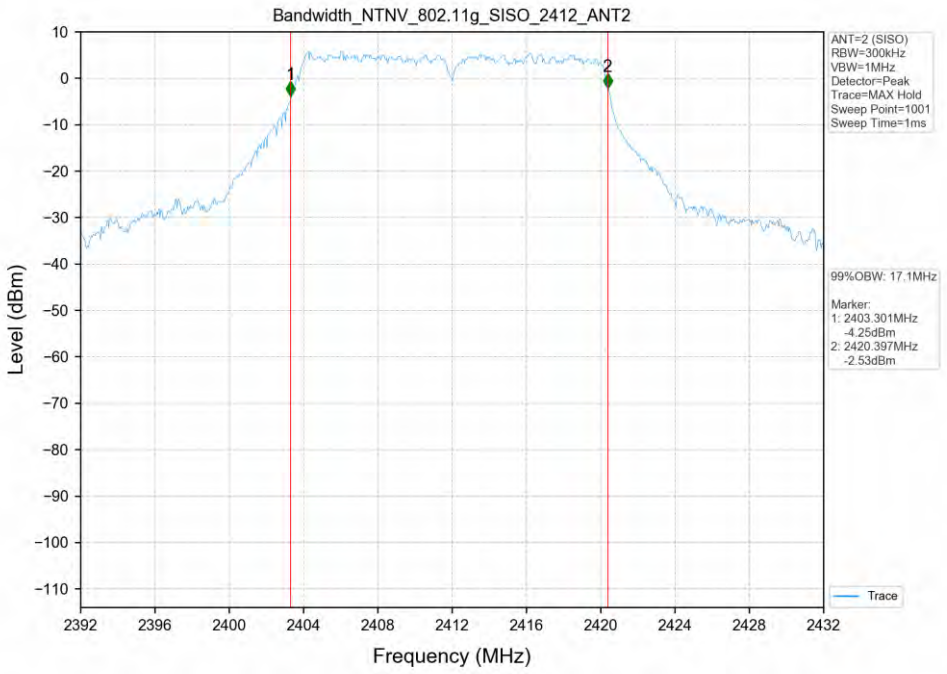
802.11b_2462MHz_SISO_ANT2



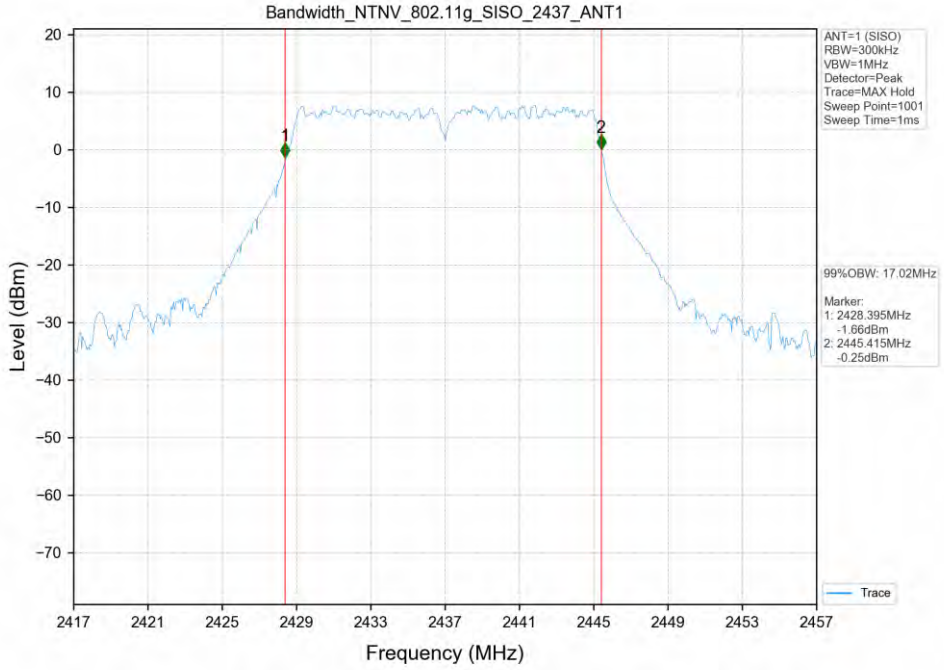
802.11g_2412MHz_SISO_ANT1



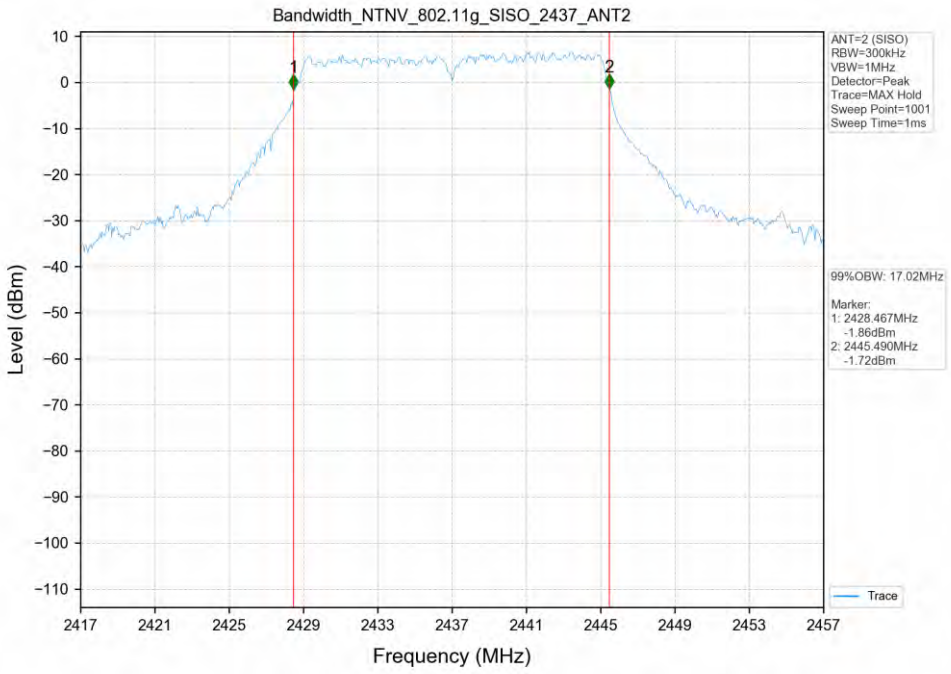
802.11g_2412MHz_SISO_ANT2



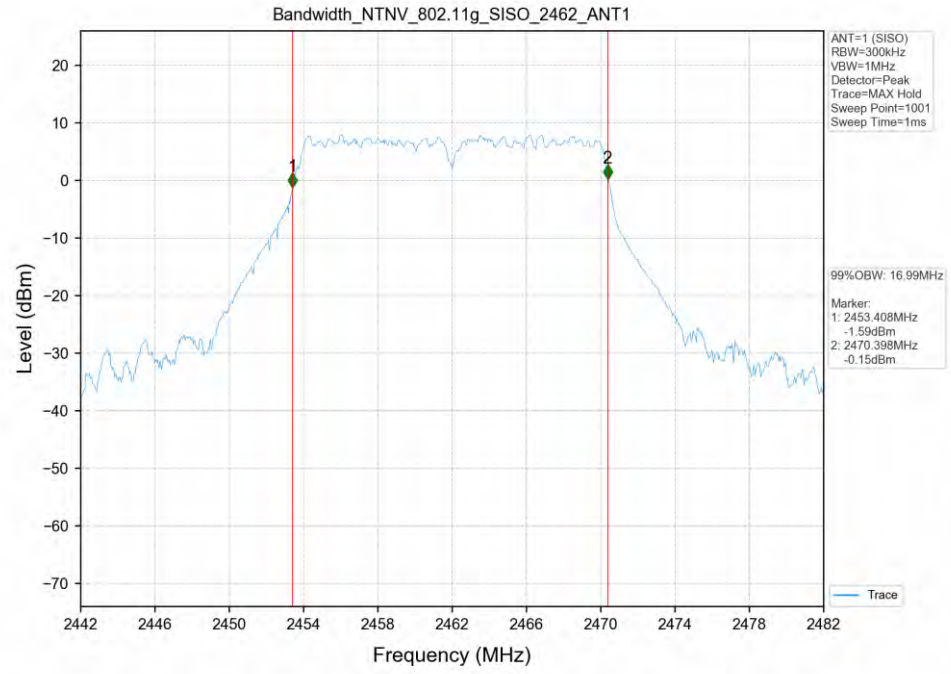
802.11g_2437MHz_SISO_ANT1



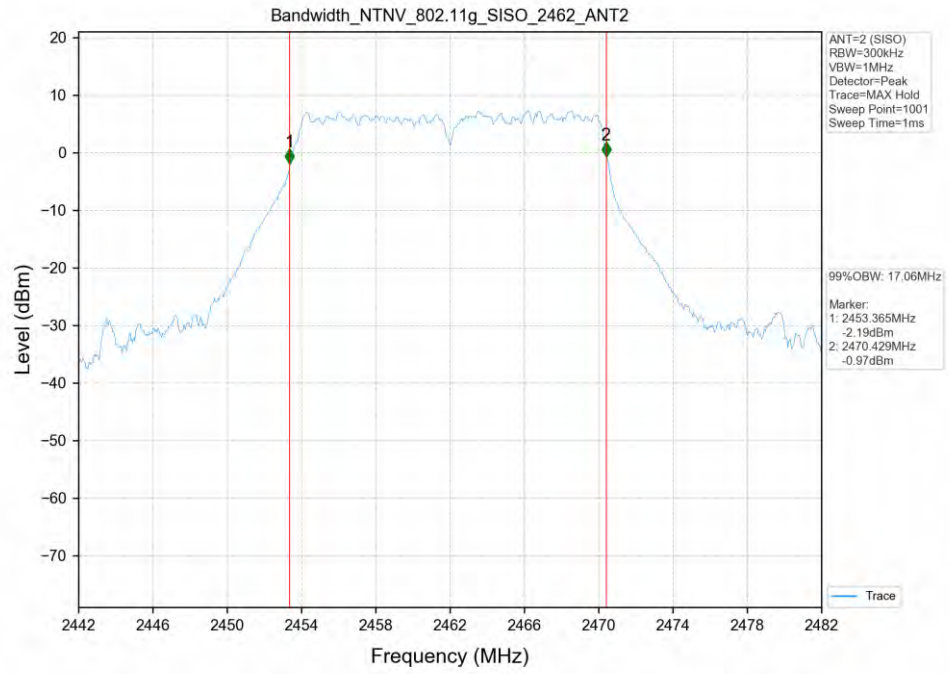
802.11g_2437MHz_SISO_ANT2



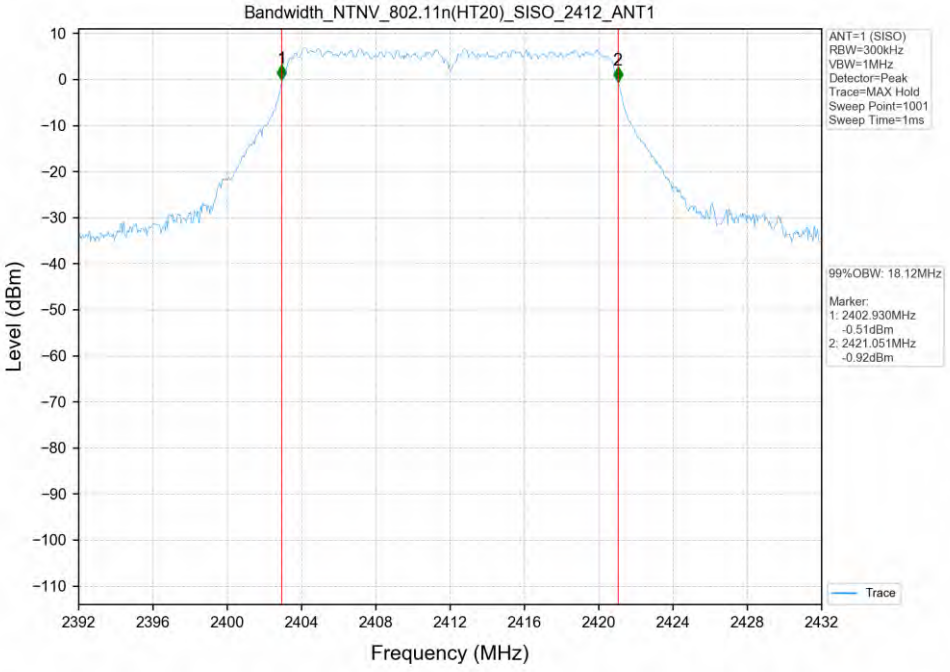
802.11g_2462MHz_SISO_ANT1



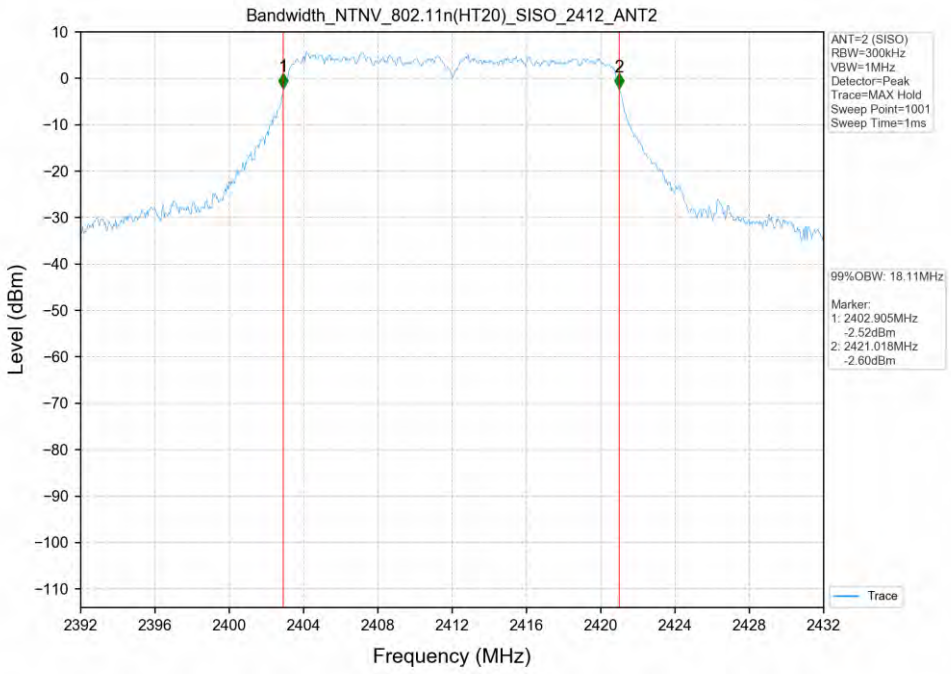
802.11g_2462MHz_SISO_ANT2



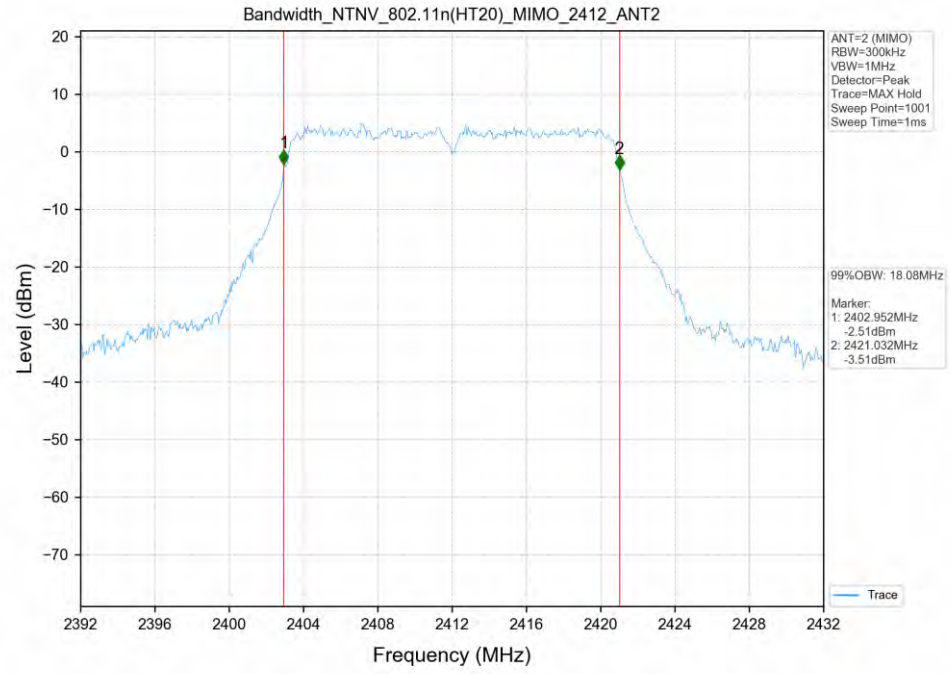
802.11n(HT20)_2412MHz_SISO_ANT1



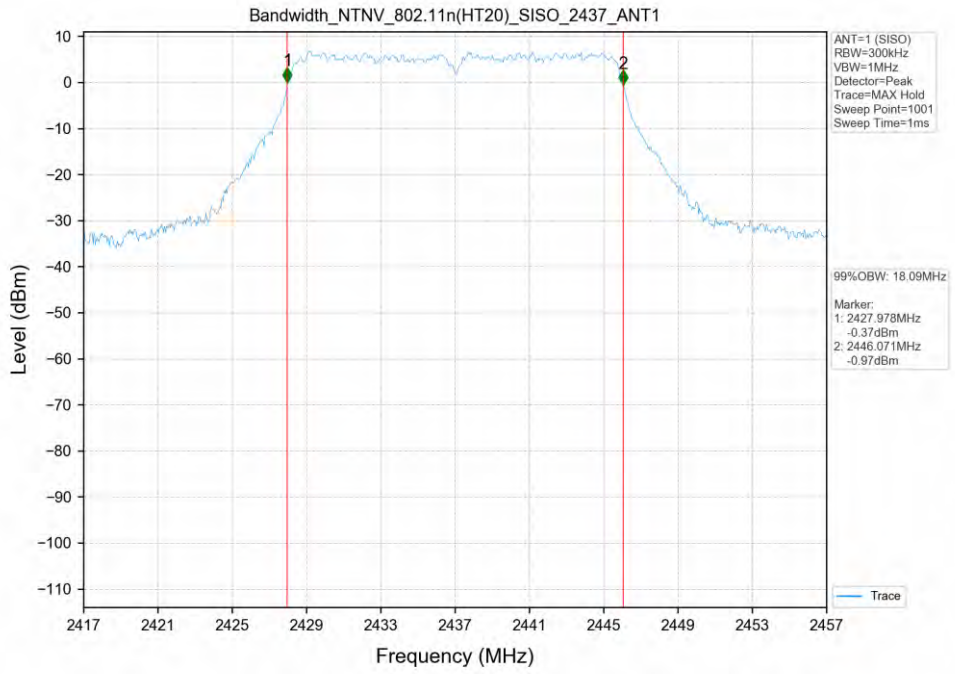
802.11n(HT20)_2412MHz_SISO_ANT2



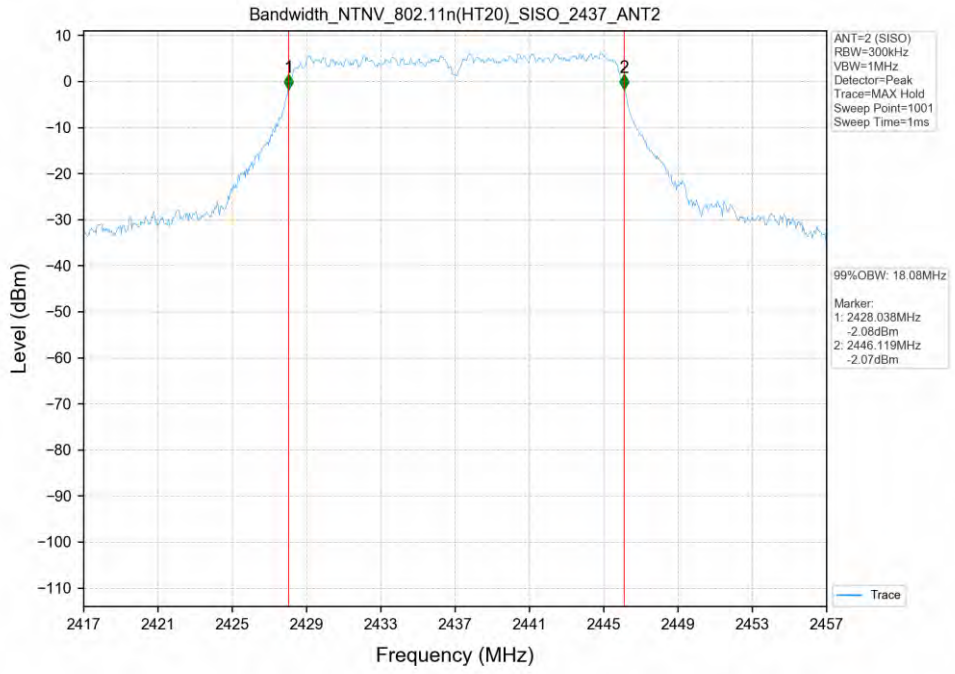
802.11n(HT20)_2412MHz_MIMO_Total



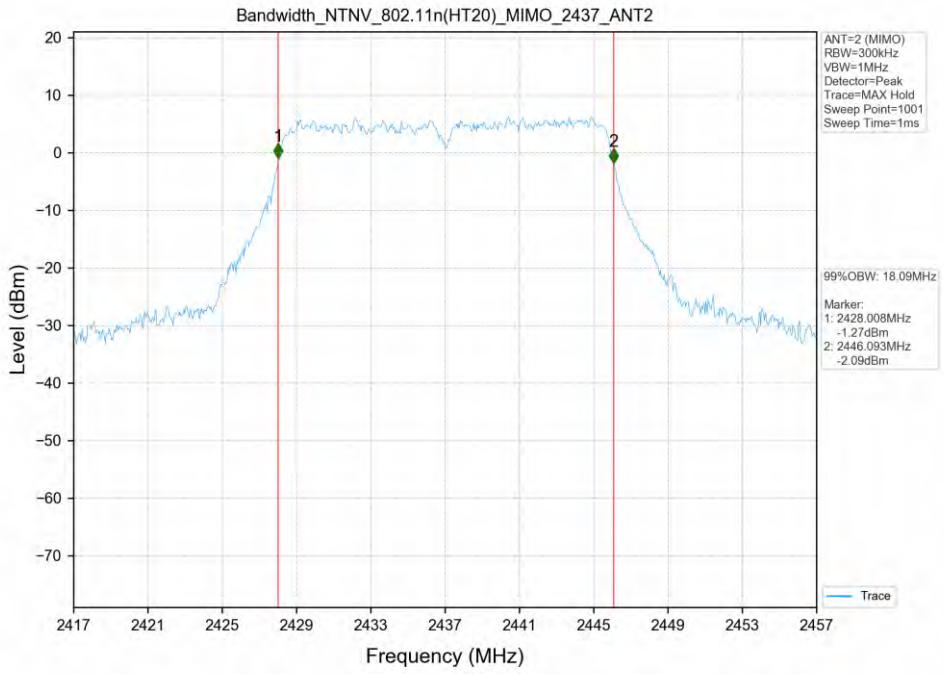
802.11n(HT20)_2437MHz_SISO_ANT1



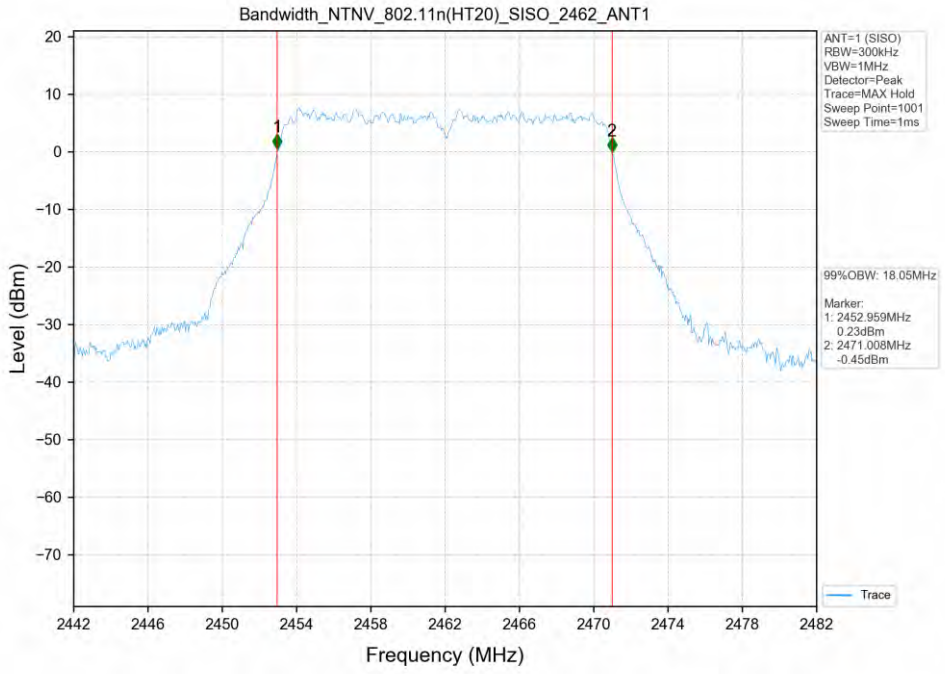
802.11n(HT20)_2437MHz_SISO_ANT2



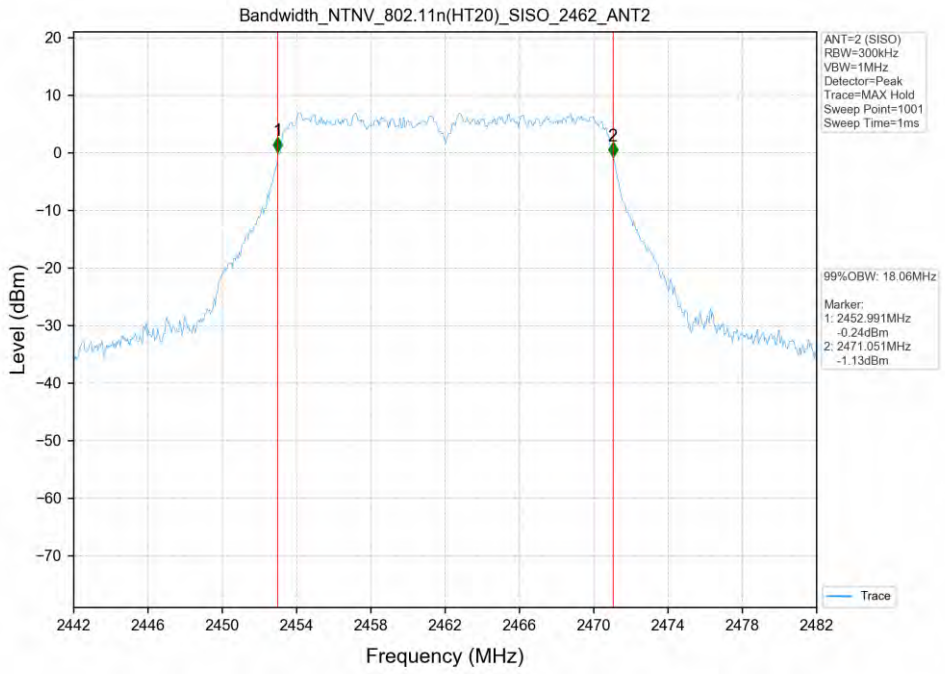
802.11n(HT20)_2437MHz_MIMO_Total



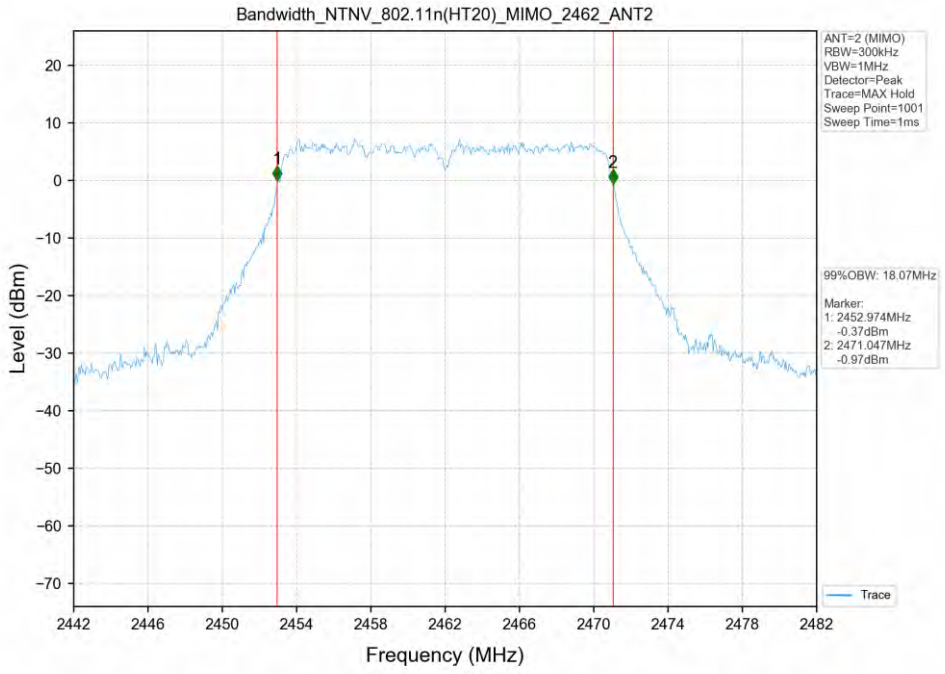
802.11n(HT20)_2462MHz_SISO_ANT1



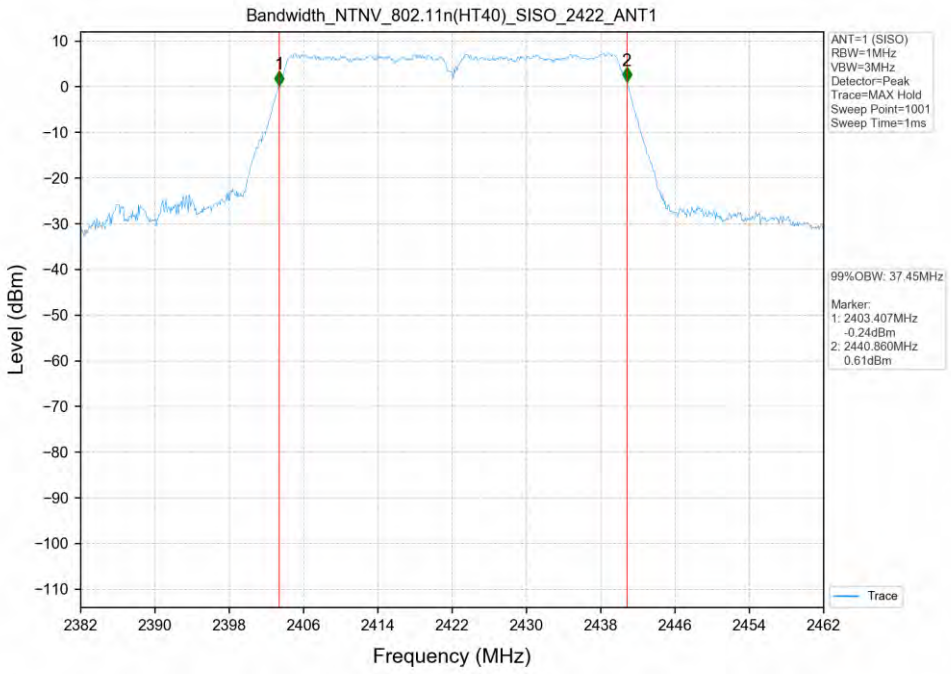
802.11n(HT20)_2462MHz_SISO_ANT2



802.11n(HT20)_2462MHz_MIMO_Total



802.11n(HT40)_2422MHz_SISO_ANT1



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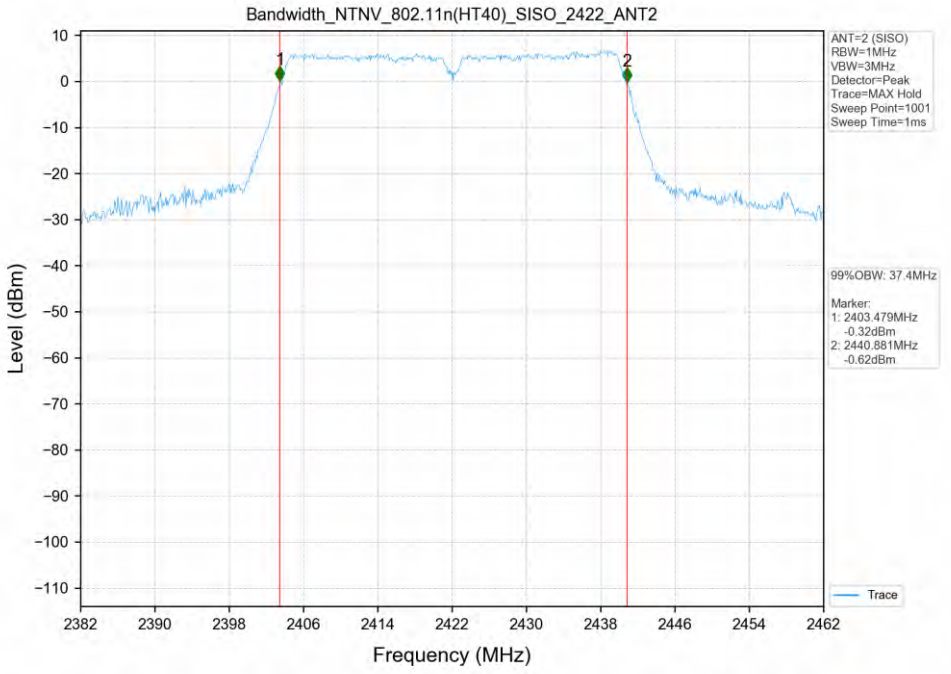

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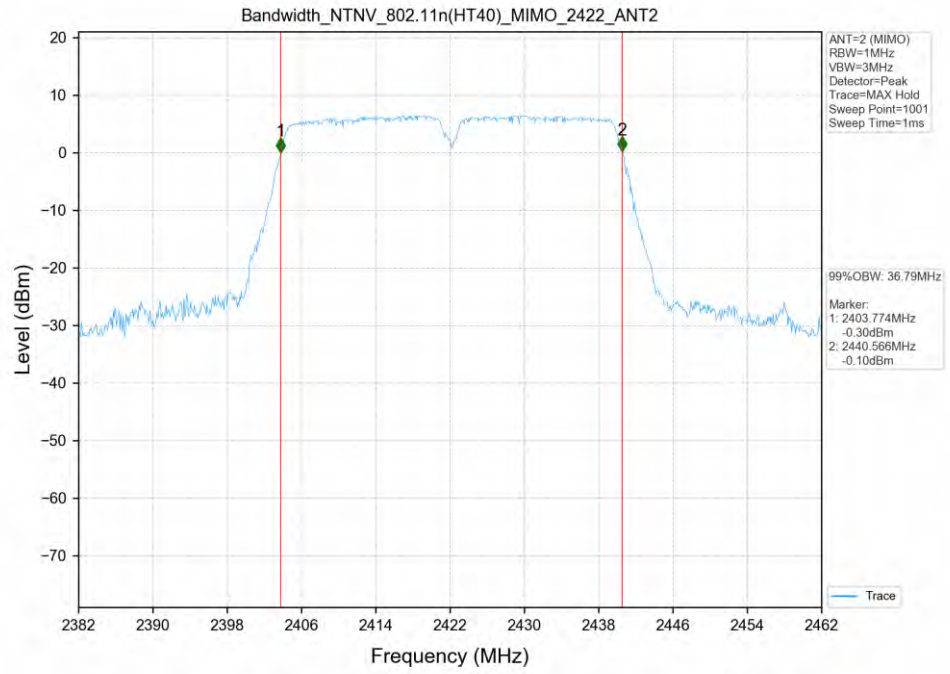

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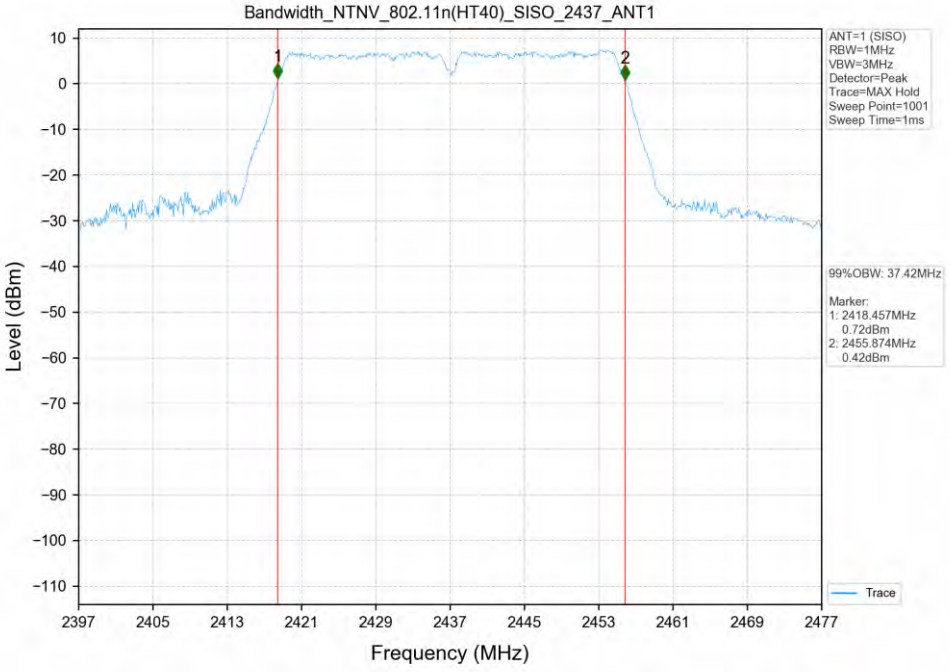

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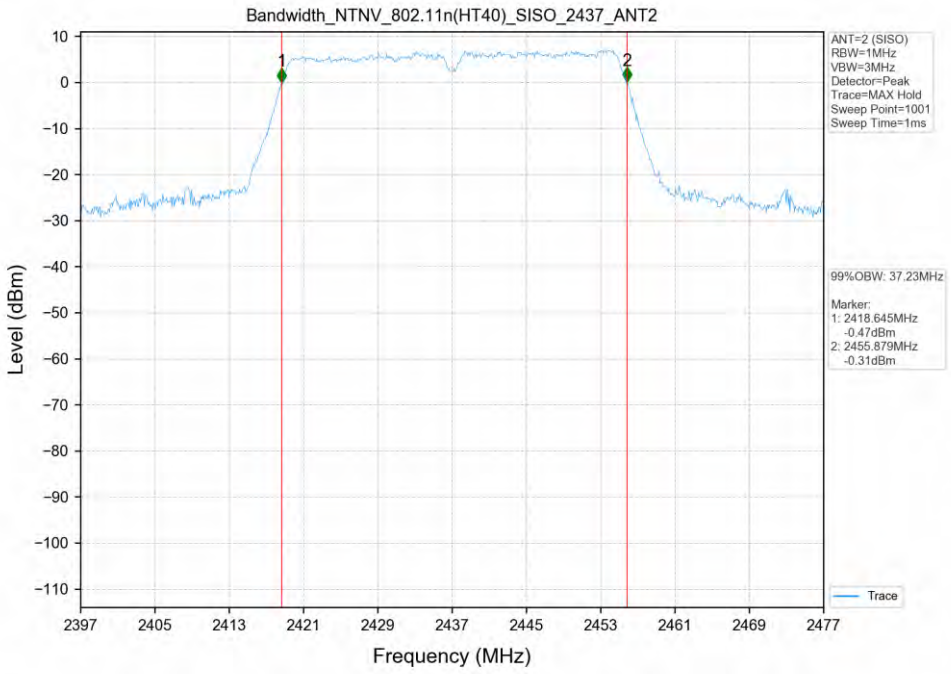
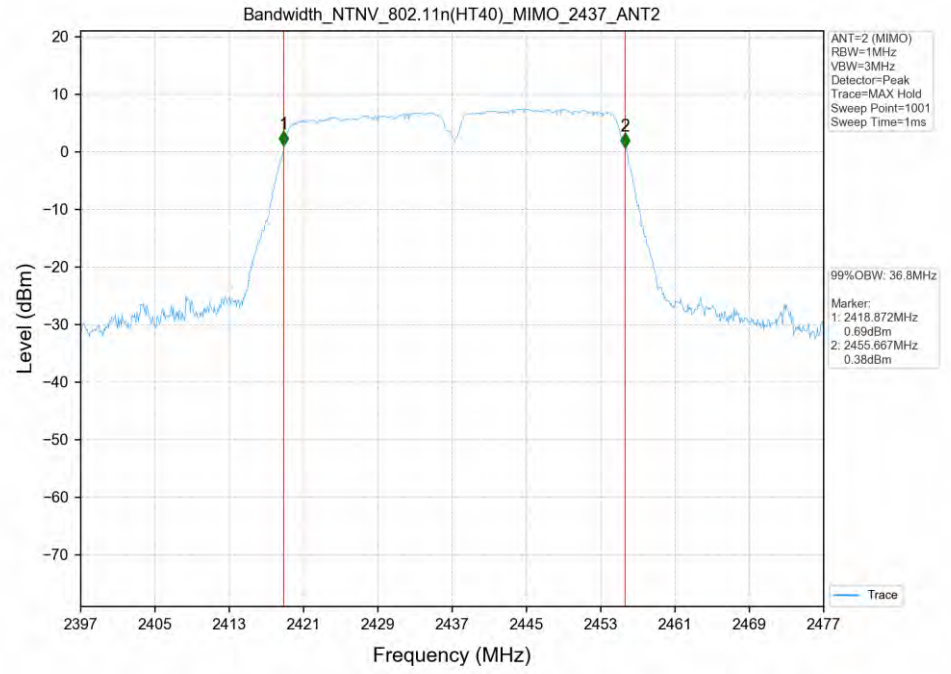
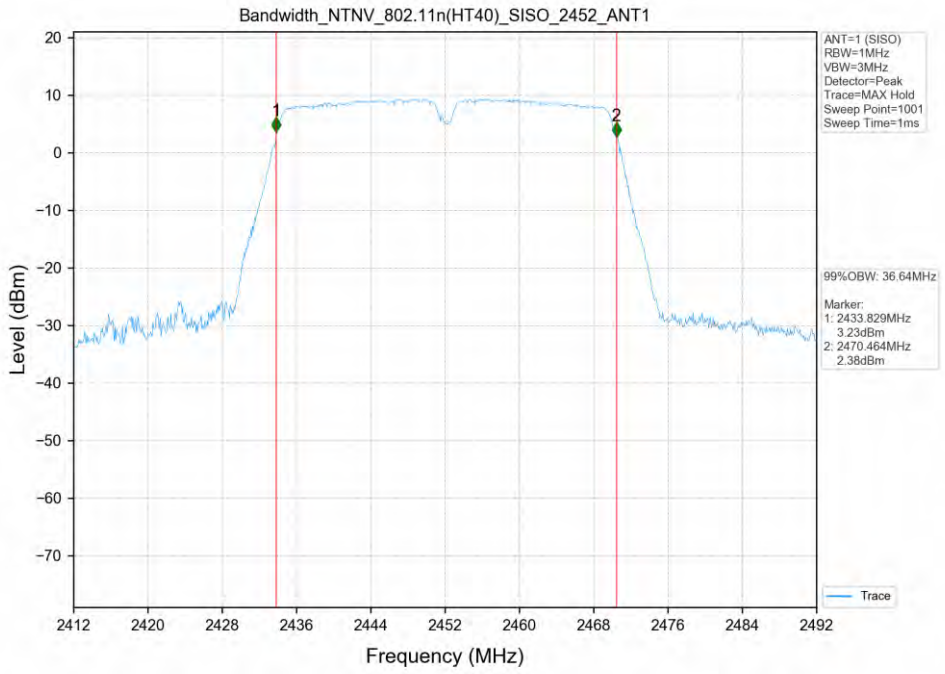


802.11n(HT40)_2437MHz_MIMO_Total



802.11n(HT40)_2452MHz_SISO_ANT1



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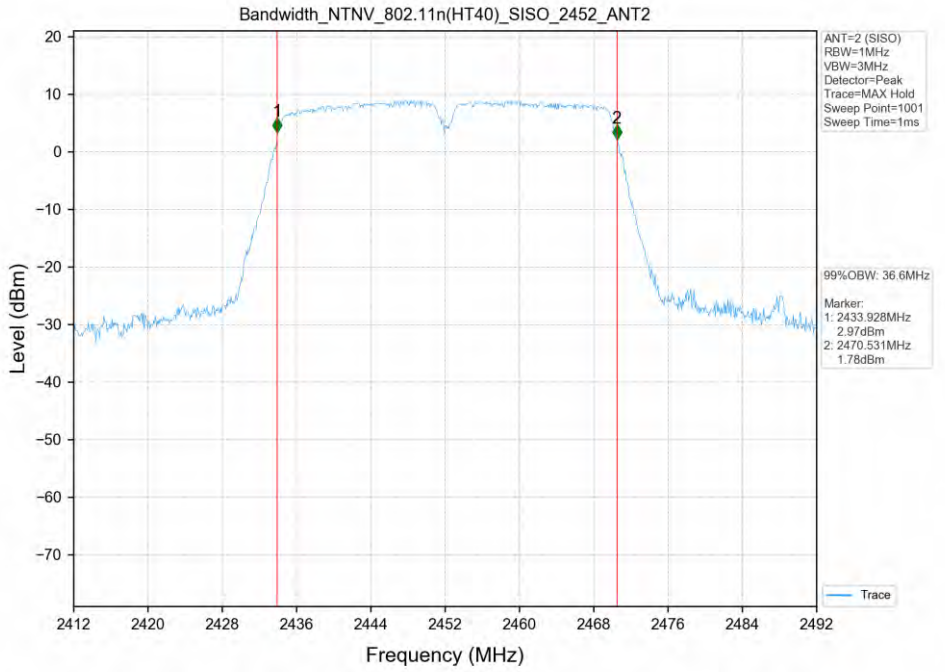
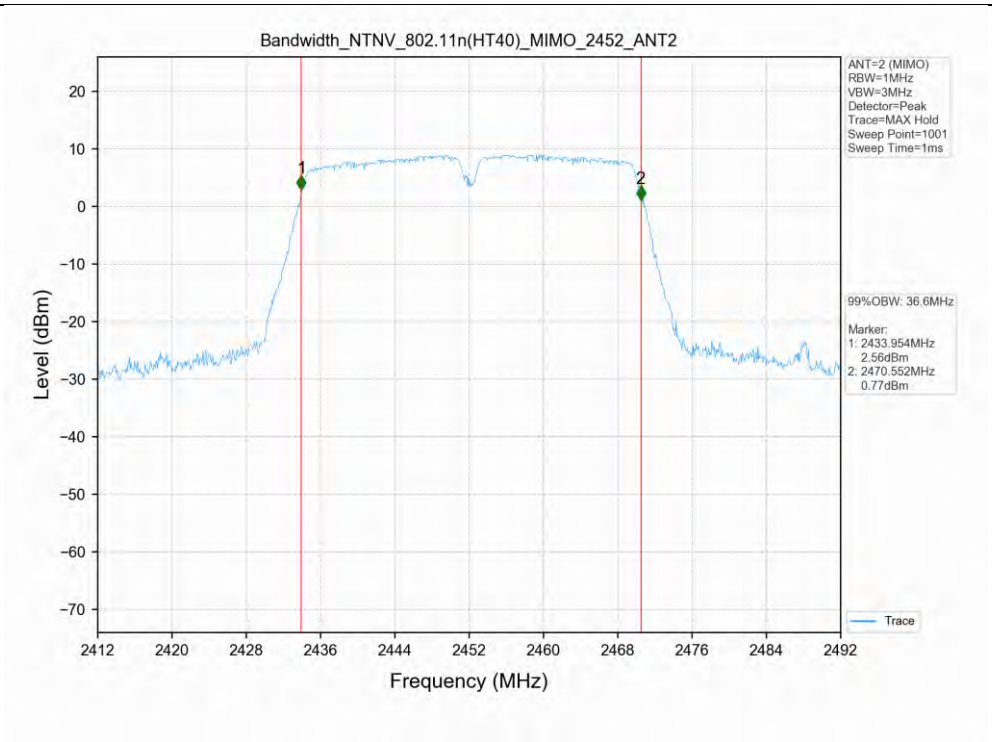


802.11n(HT40)_2452MHz_MIMO_Total



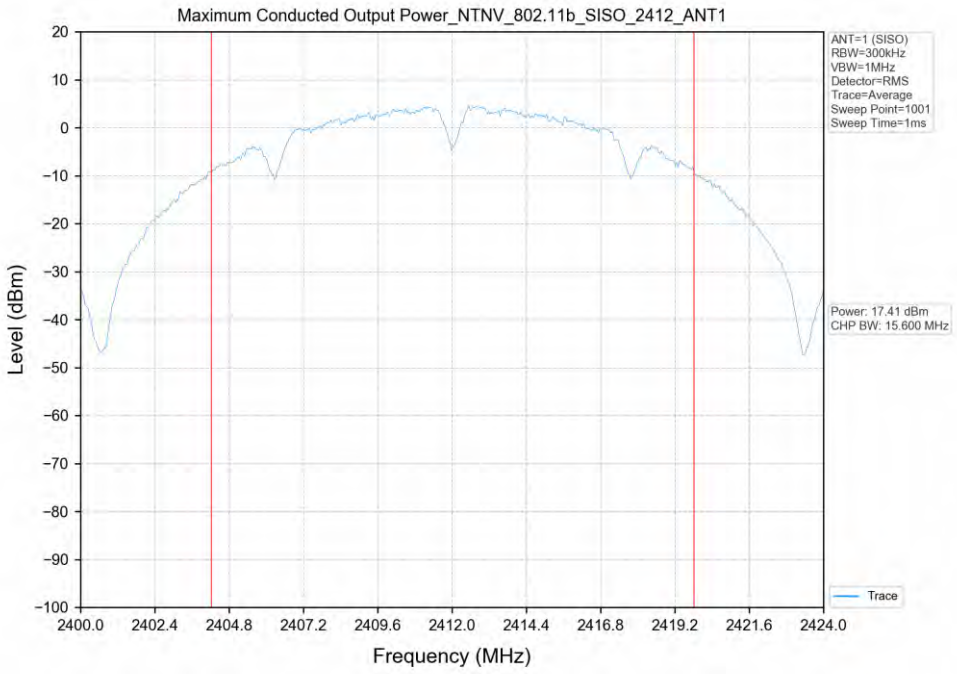
3. Maximum Conducted Output Power

3.1 Test Result

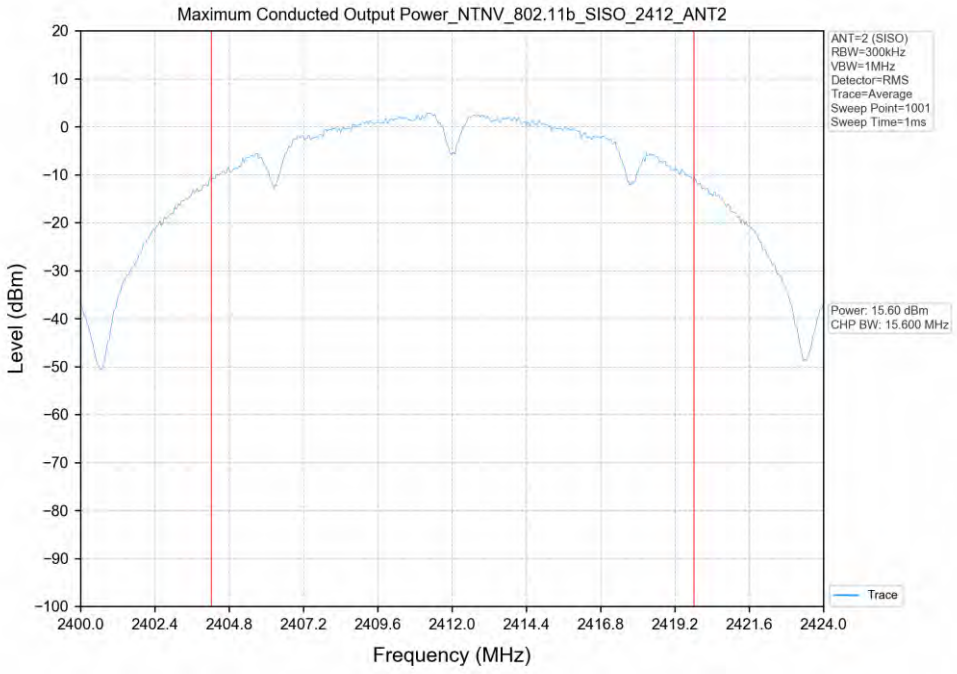
Test Mode	Frequency (MHz)	Tx Type	Measured Average Output Power (dBm)			Limits (dBm)	Verdict
			Ant 1	Ant 2	Total		
802.11b	2412	SISO	17.41	15.60	/	≤30	PASS
	2437	SISO	17.54	16.04	/	≤30	PASS
	2462	SISO	17.67	17.08	/	≤30	PASS
802.11g	2412	SISO	16.67	15.17	/	≤30	PASS
	2437	SISO	16.75	15.63	/	≤30	PASS
	2462	SISO	16.88	16.62	/	≤30	PASS
802.11n(HT20)	2412	SISO	16.21	14.62	/	≤30	PASS
		MIMO	15.99	13.98	18.11	≤30	PASS
	2437	SISO	16.16	15.44	/	≤30	PASS
		MIMO	15.90	14.23	18.16	≤30	PASS
	2462	SISO	16.66	16.30	/	≤30	PASS
		MIMO	15.87	15.77	18.83	≤30	PASS
802.11n(HT40)	2422	SISO	13.16	12.53	/	≤30	PASS
		MIMO	14.70	13.75	17.26	≤30	PASS
	2437	SISO	13.22	12.81	/	≤30	PASS
		MIMO	14.35	13.15	16.80	≤30	PASS
	2452	SISO	15.89	15.38	/	≤30	PASS
		MIMO	14.53	13.42	17.02	≤30	PASS

3.2 Test Graph

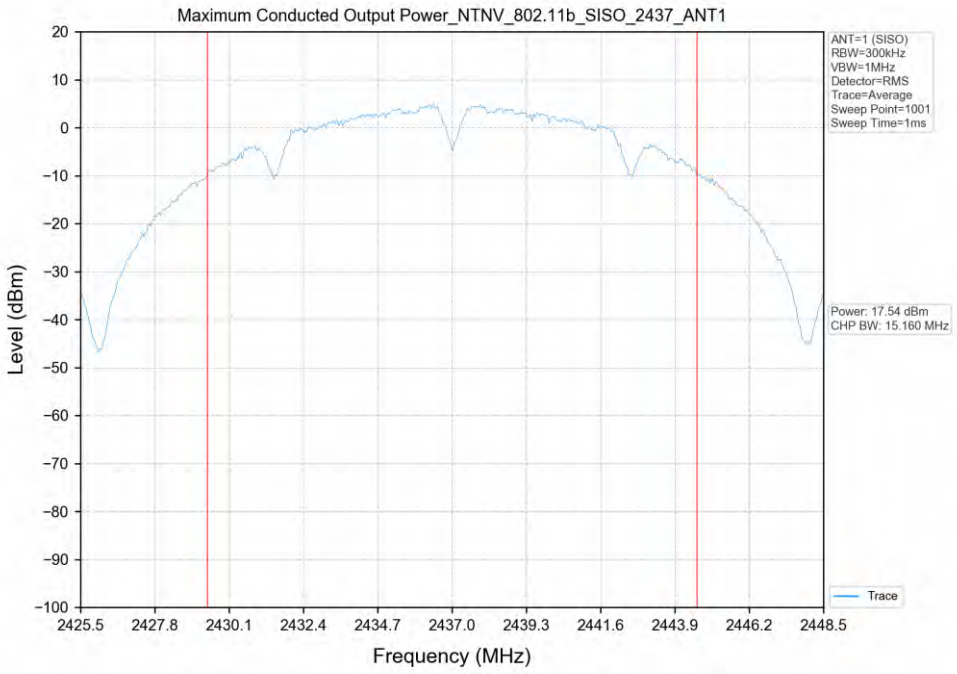
802.11b_2412MHz_SISO_ANT1



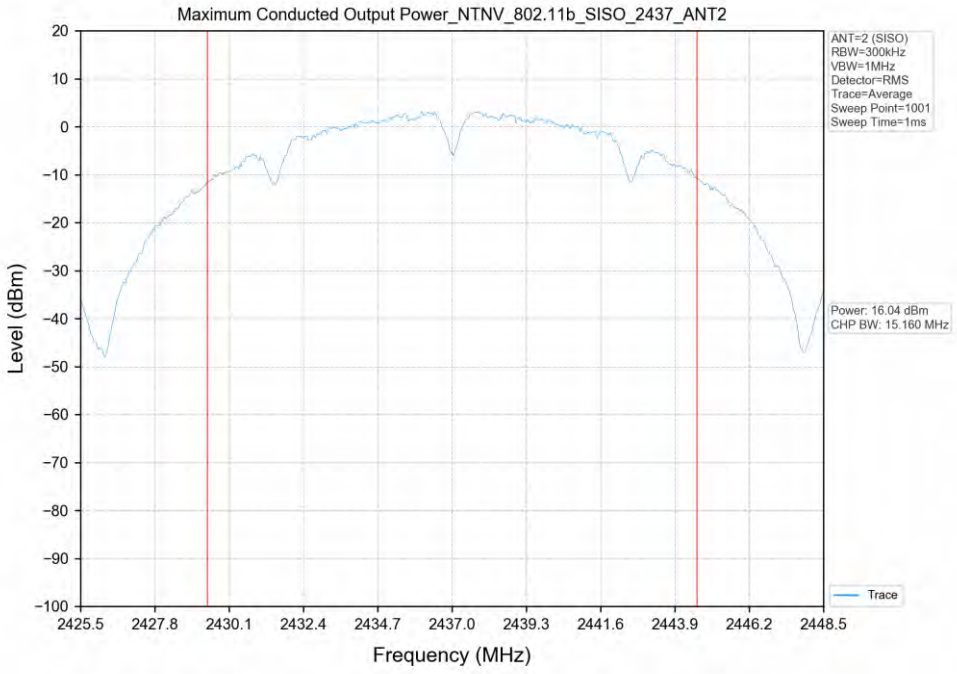
802.11b_2412MHz_SISO_ANT2



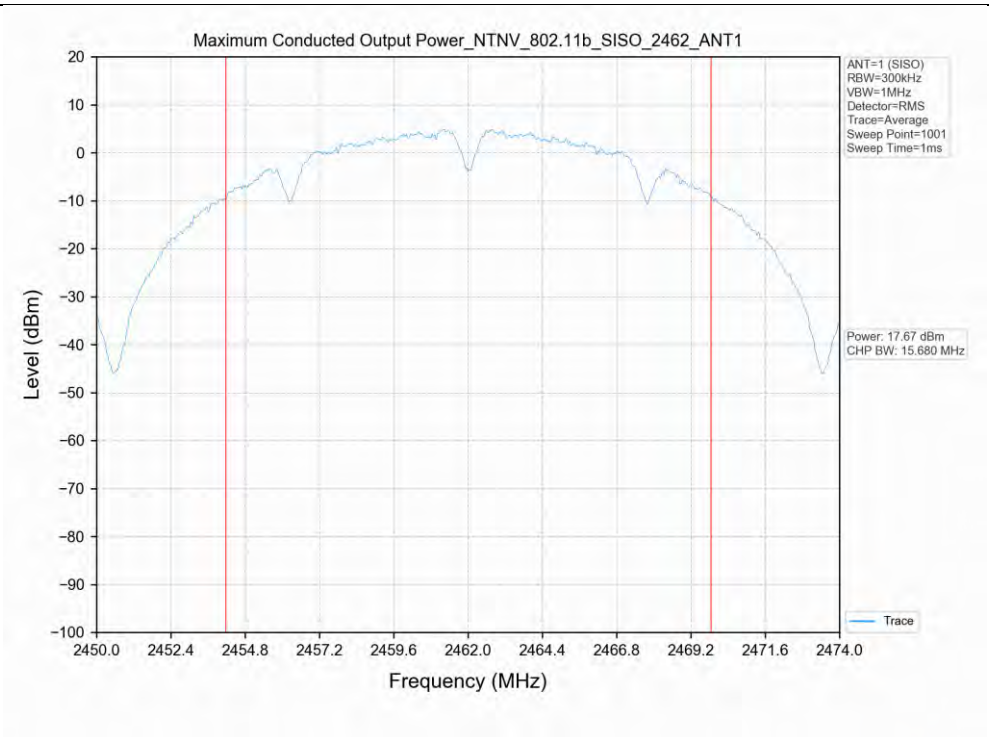
802.11b_2437MHz_SISO_ANT1



802.11b_2437MHz_SISO_ANT2



802.11b_2462MHz_SISO_ANT1



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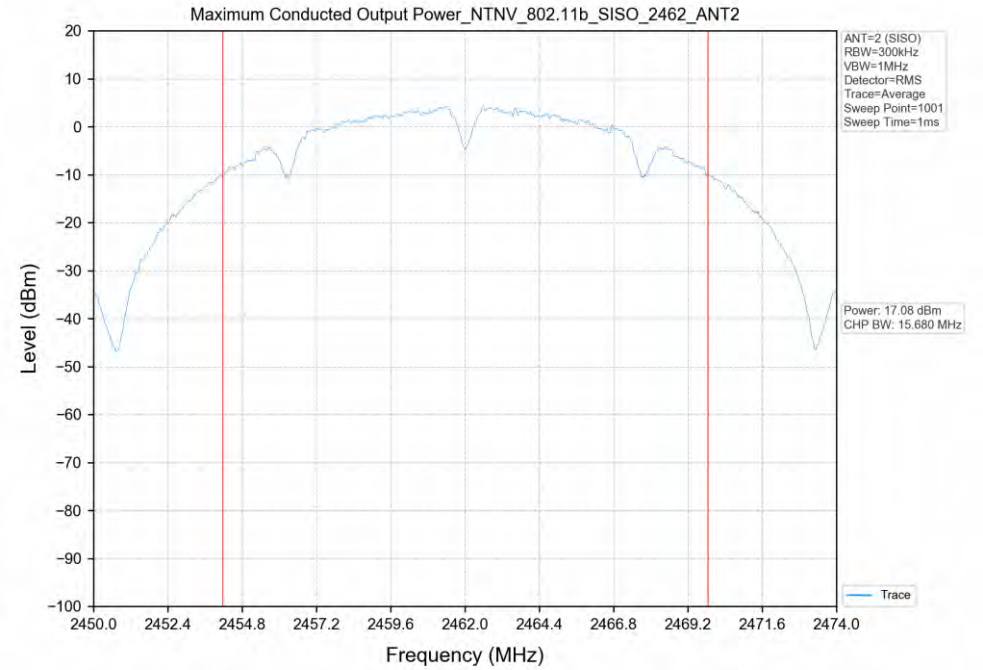
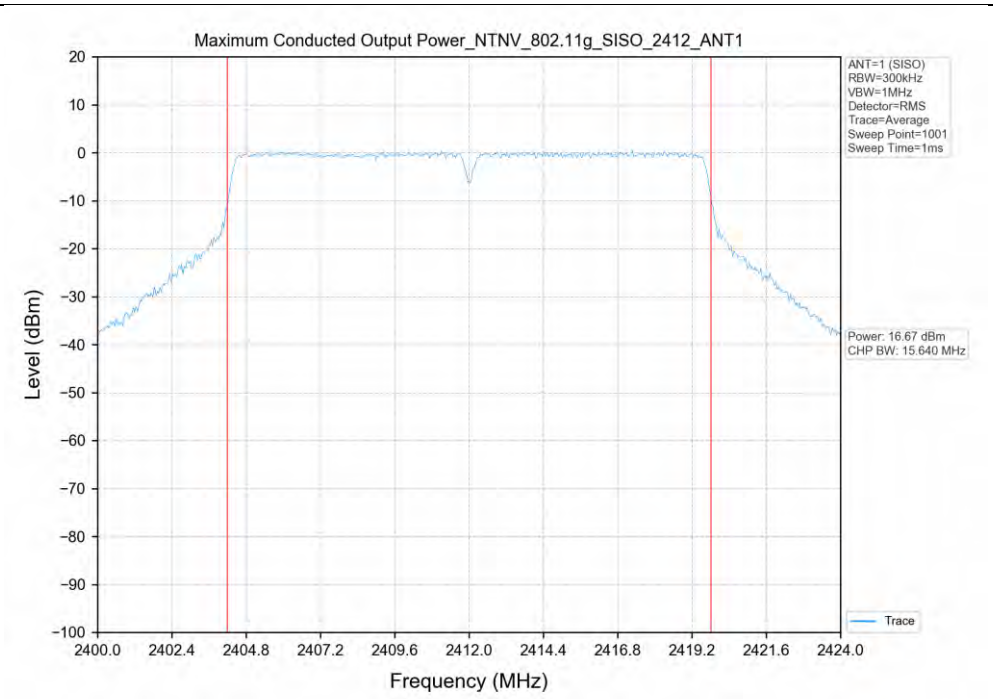


802.11g_2412MHz_SISO_ANT1



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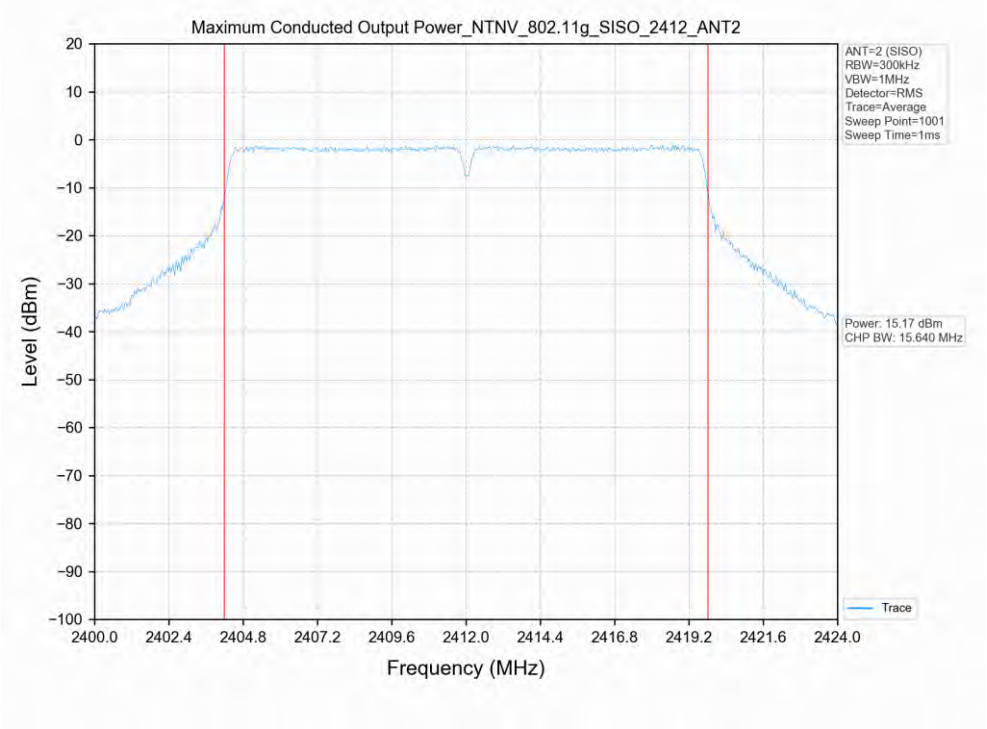
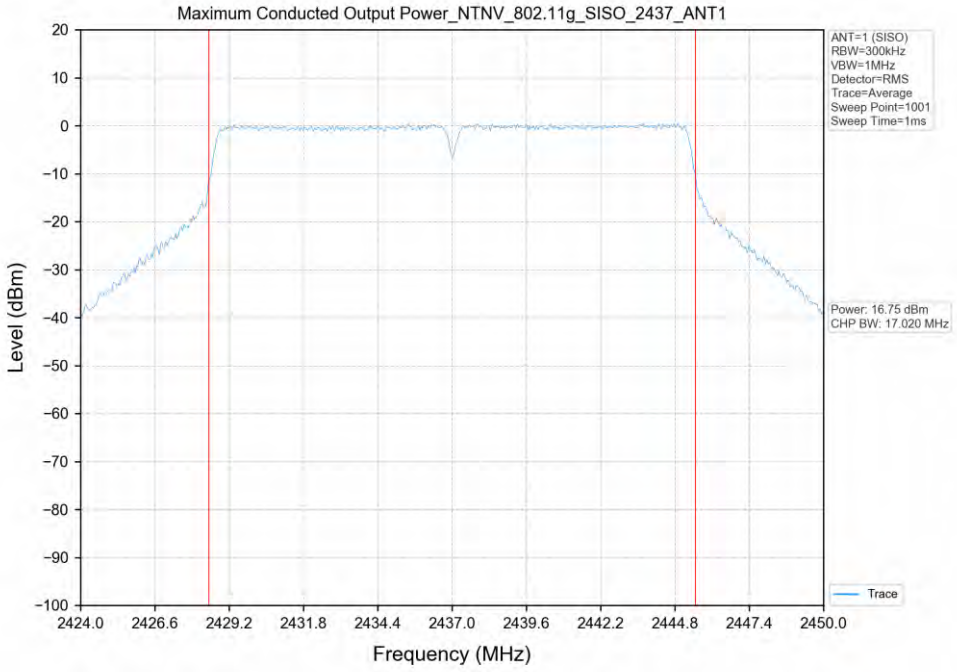


802.11g_2437MHz_SISO_ANT1



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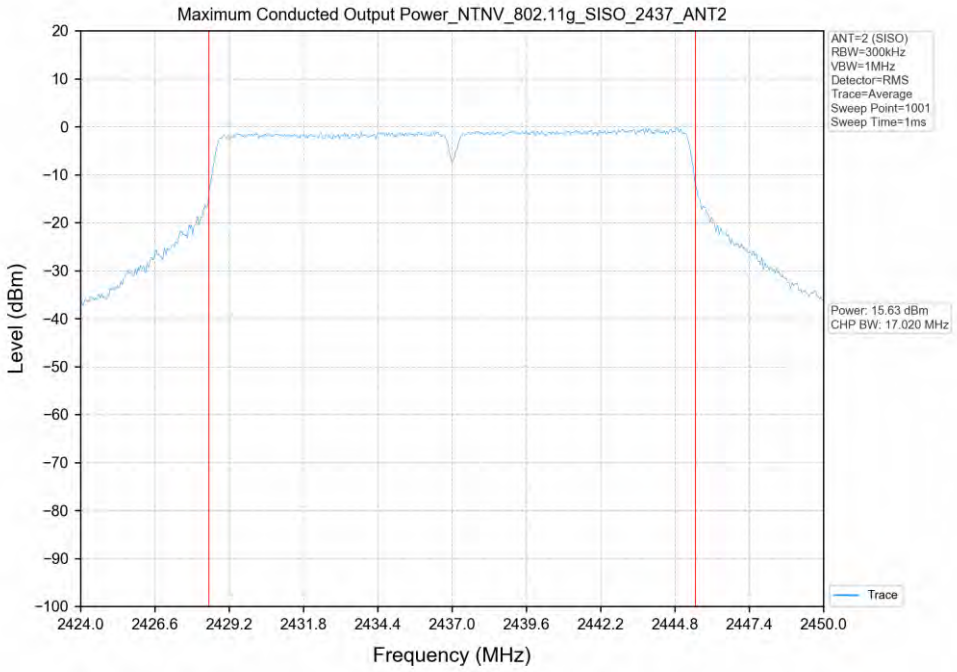
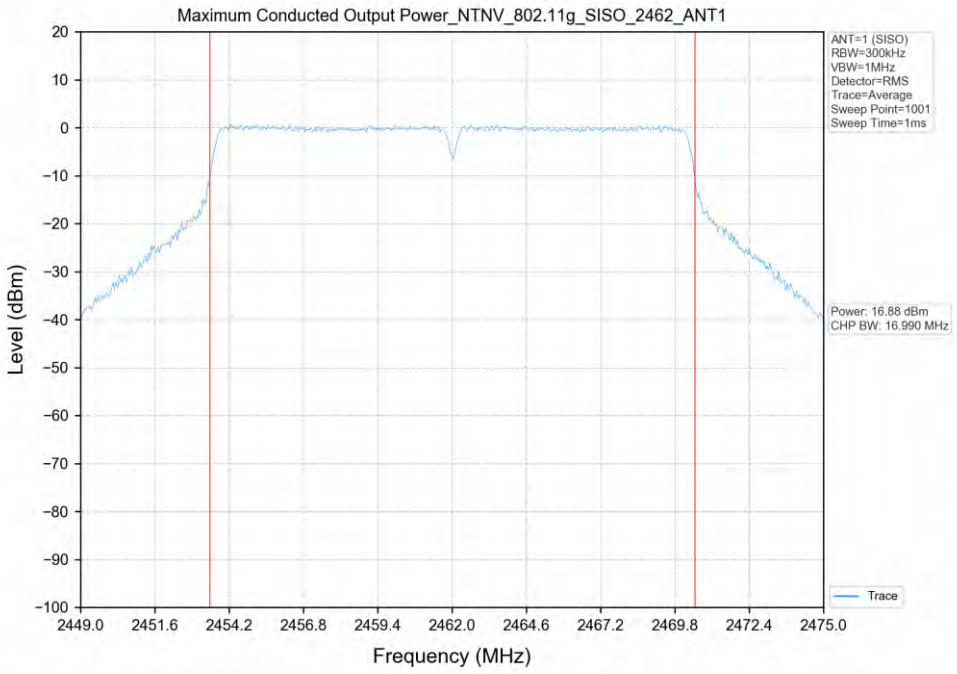


802.11g_2462MHz_SISO_ANT1



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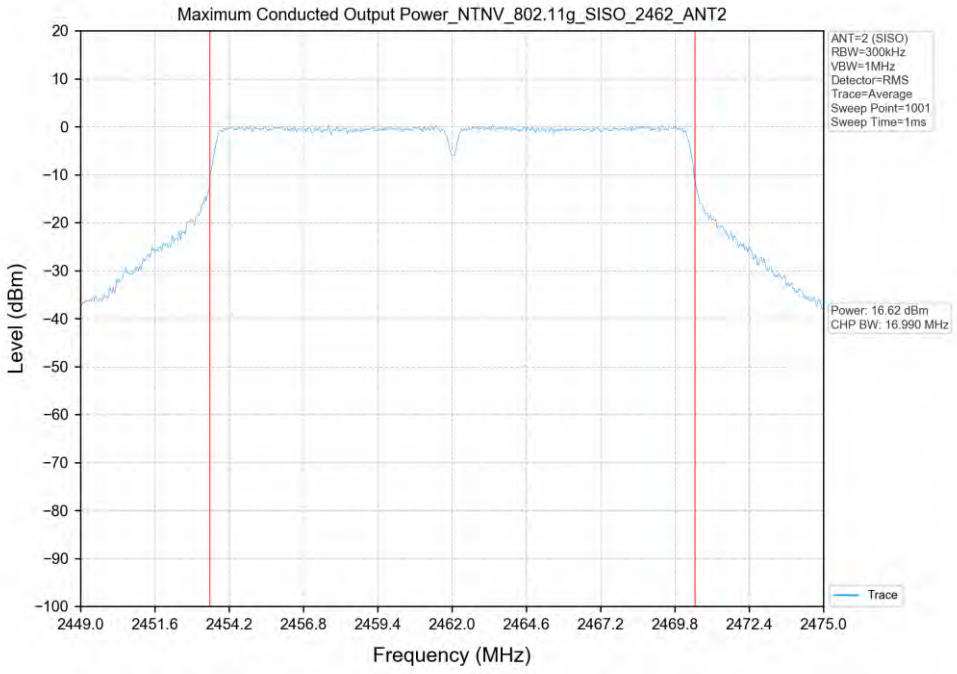
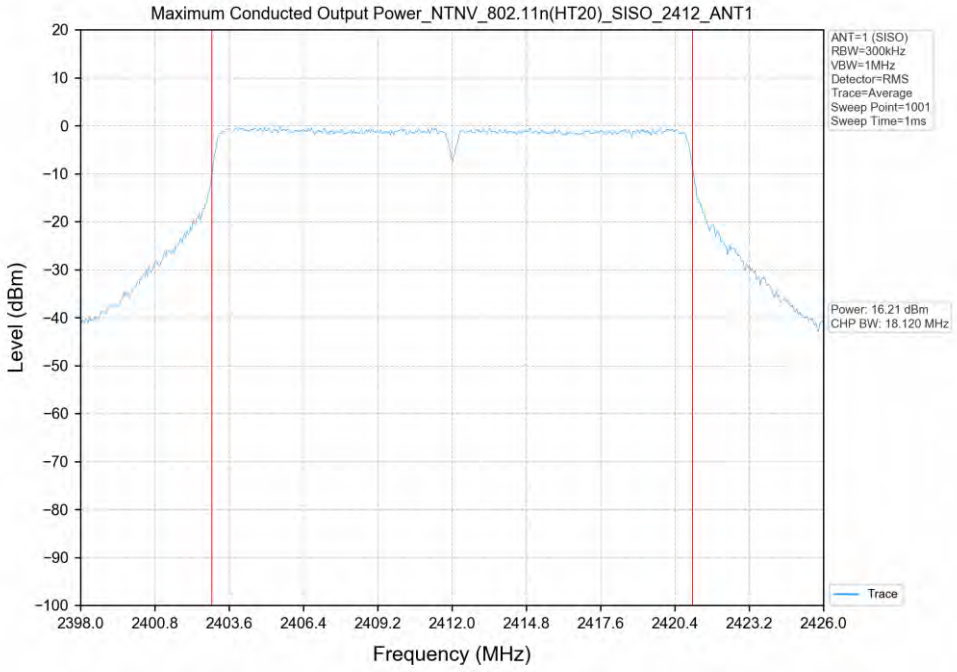


802.11n(HT20)_2412MHz_SISO_ANT1



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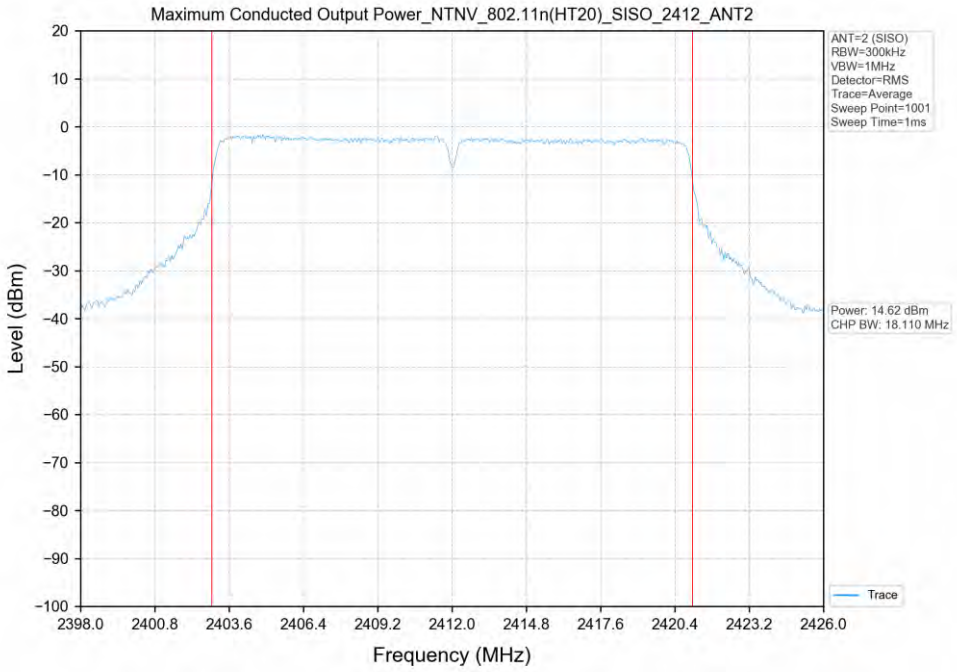

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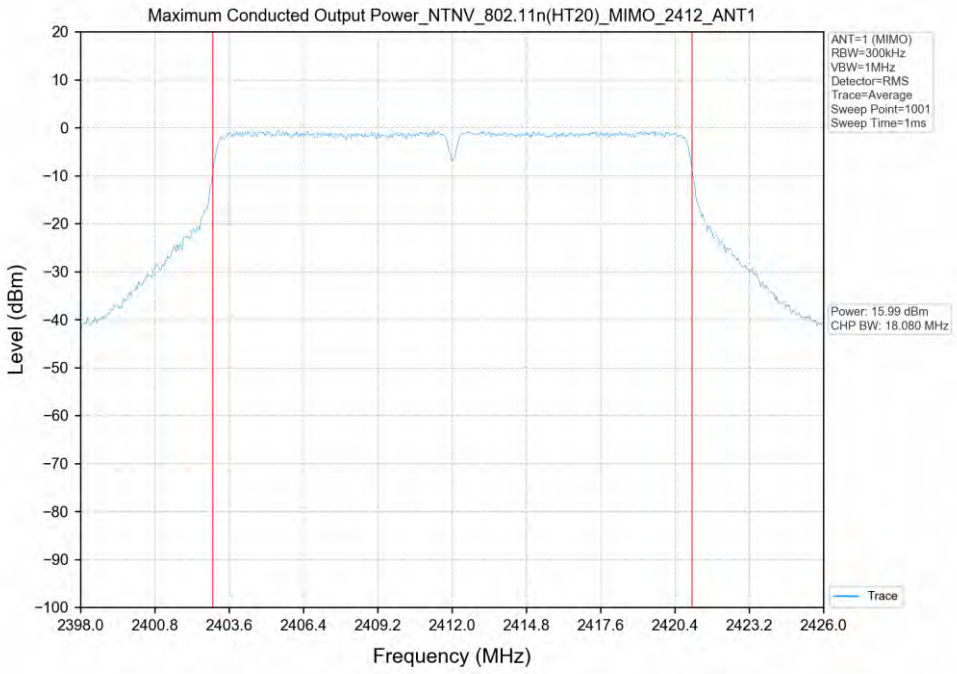

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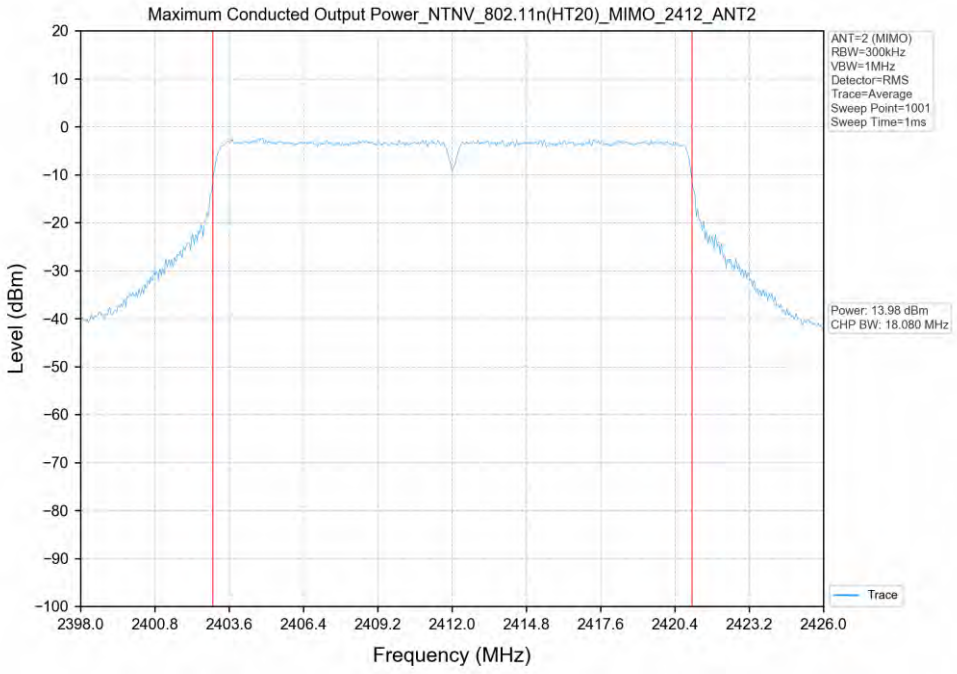

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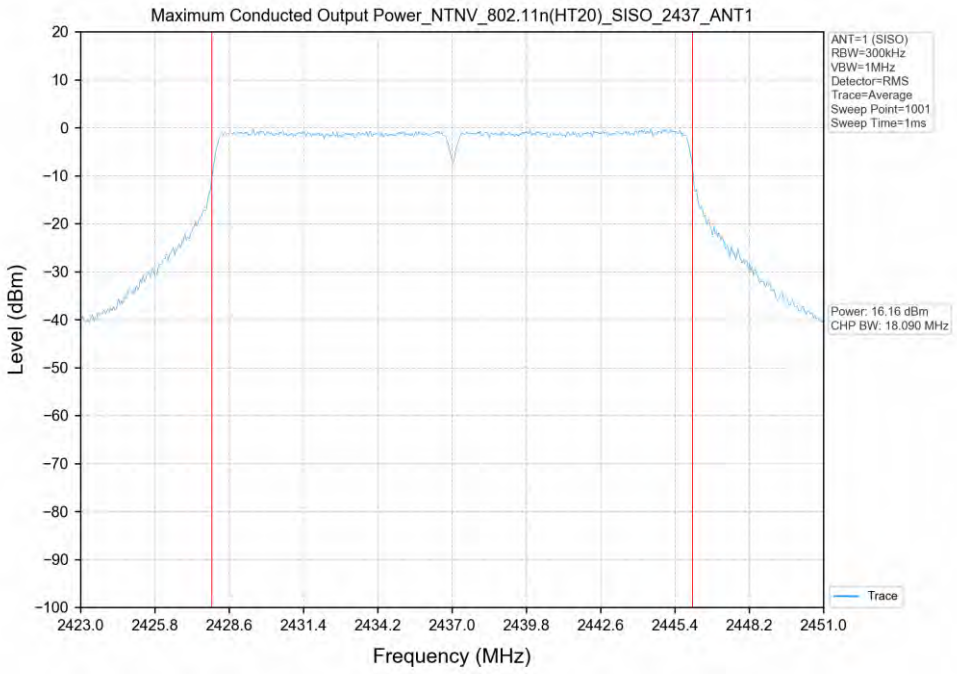

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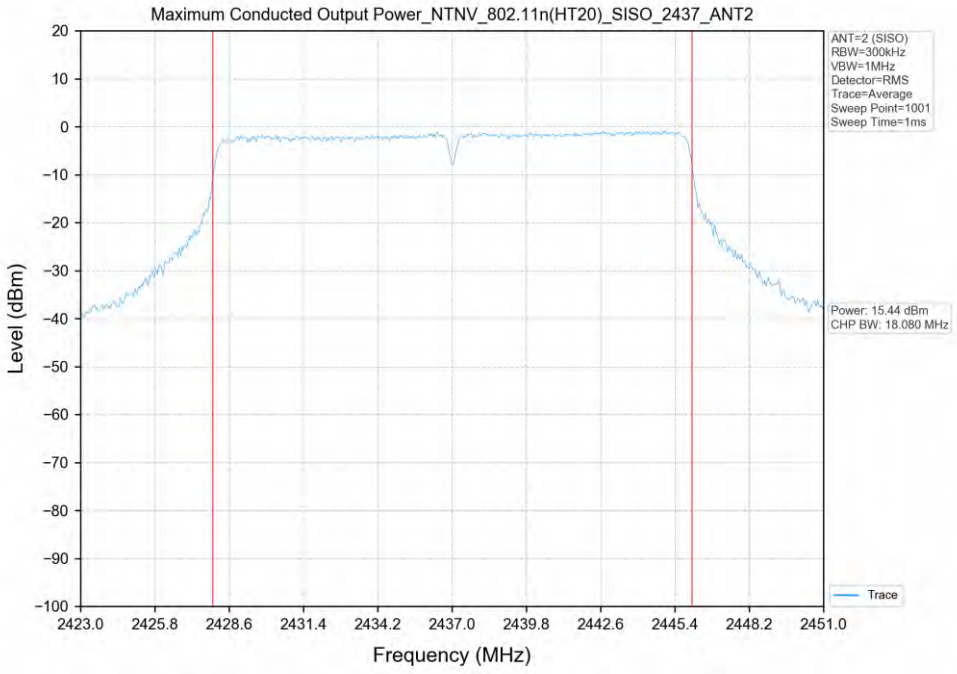

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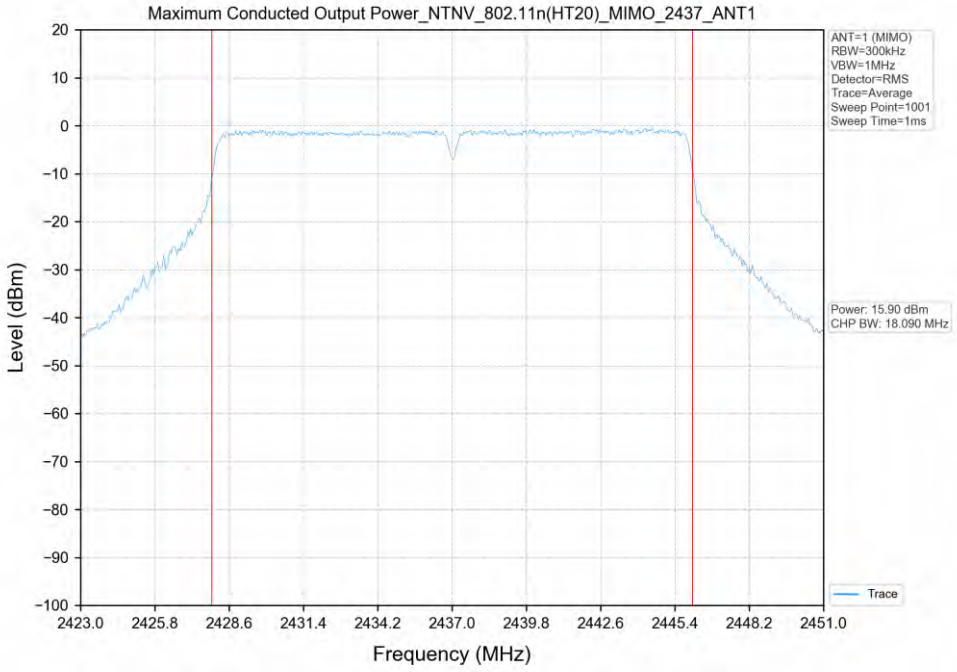

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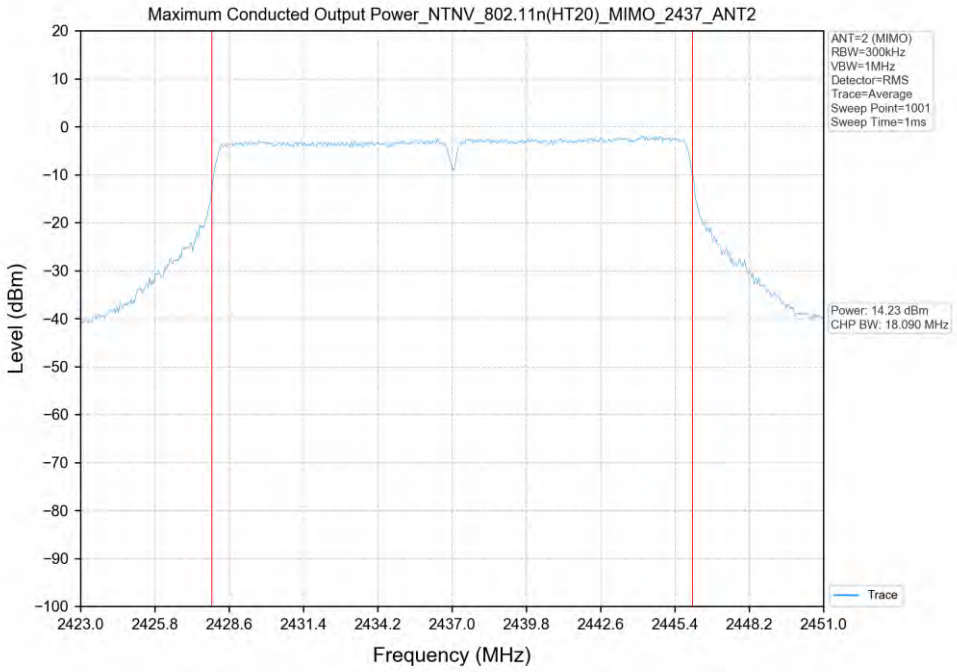
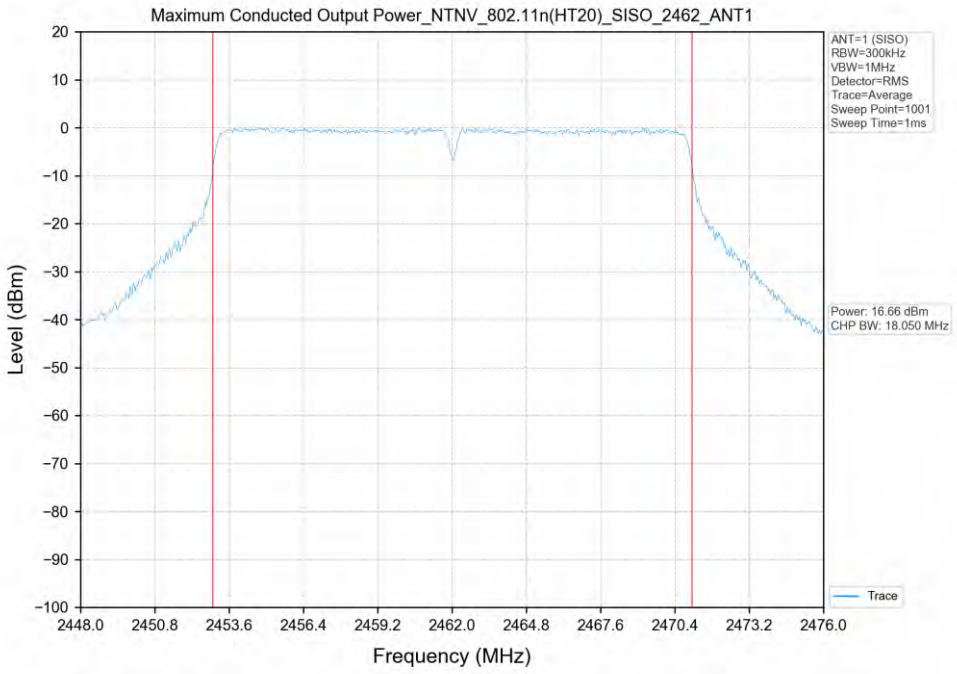


802.11n(HT20)_2462MHz_SISO_ANT1



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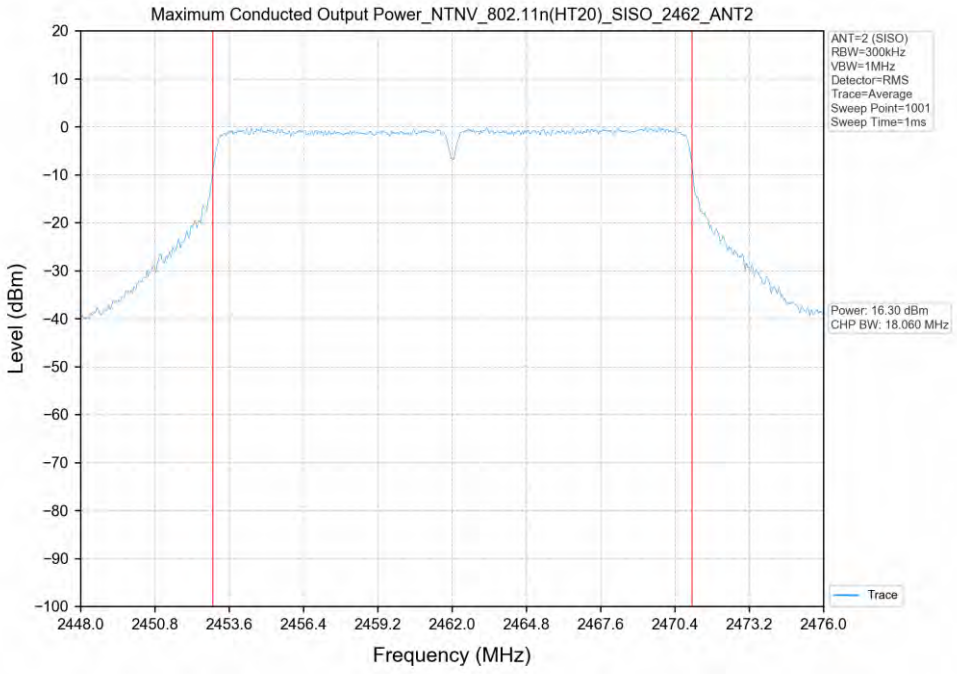
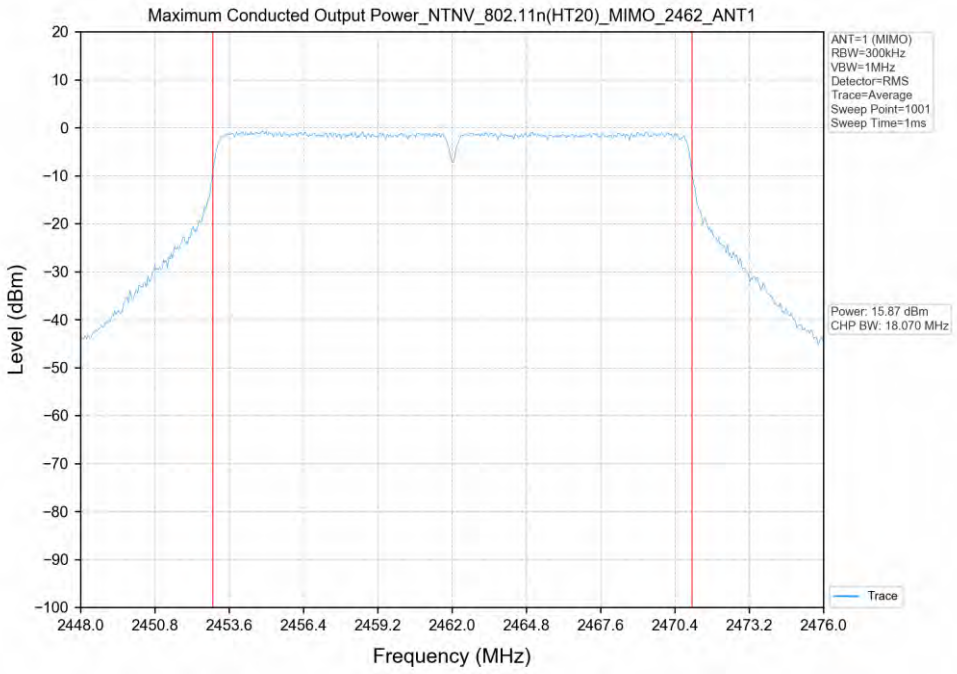


802.11n(HT20)_2462MHz_MIMO_ANT1



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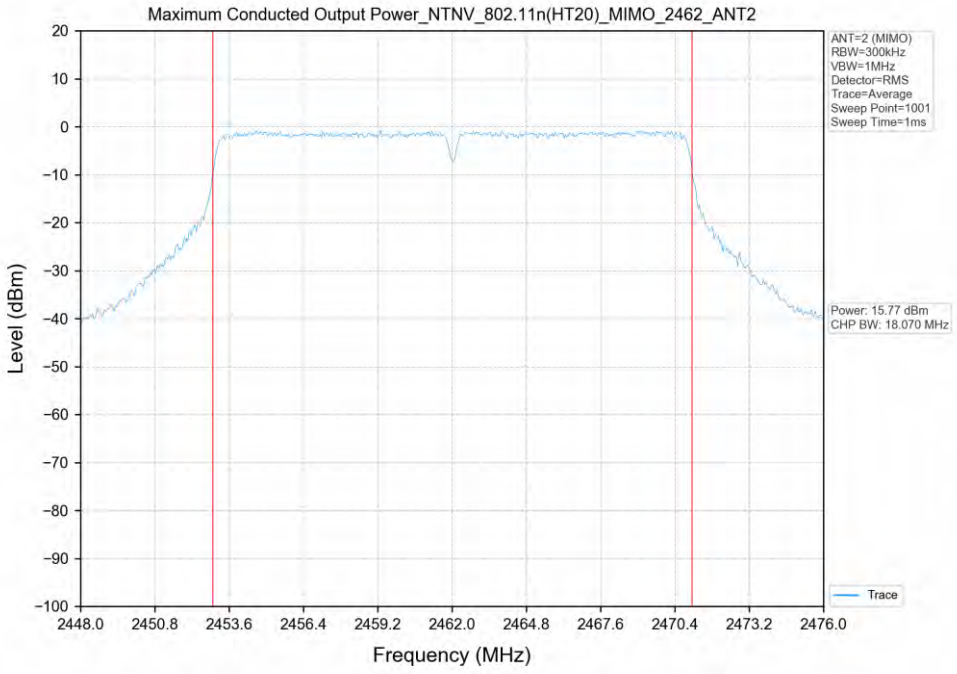
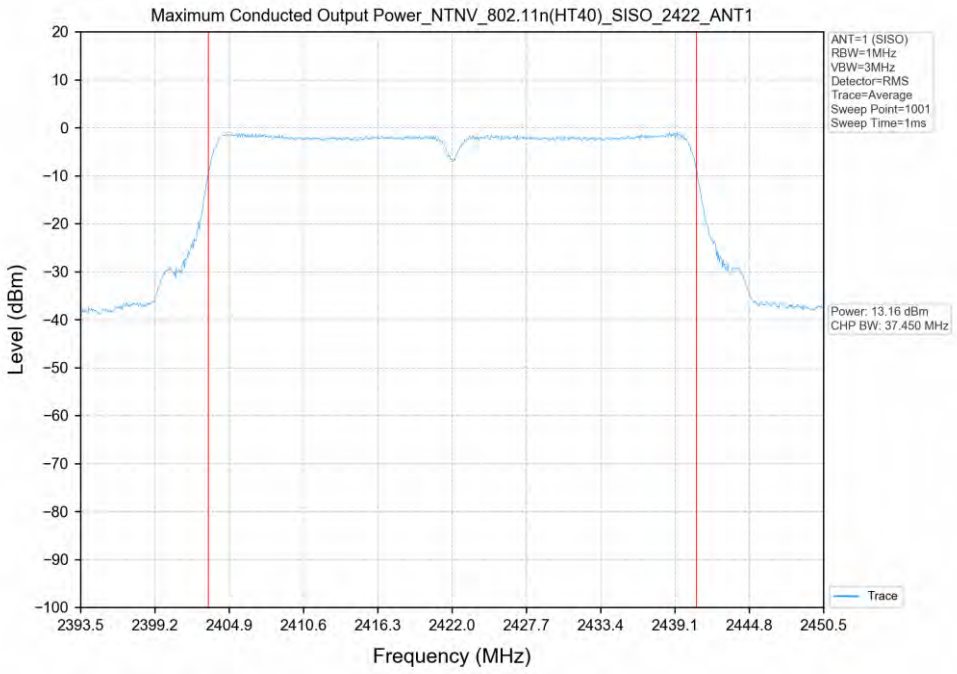


802.11n(HT40)_2422MHz_SISO_ANT1



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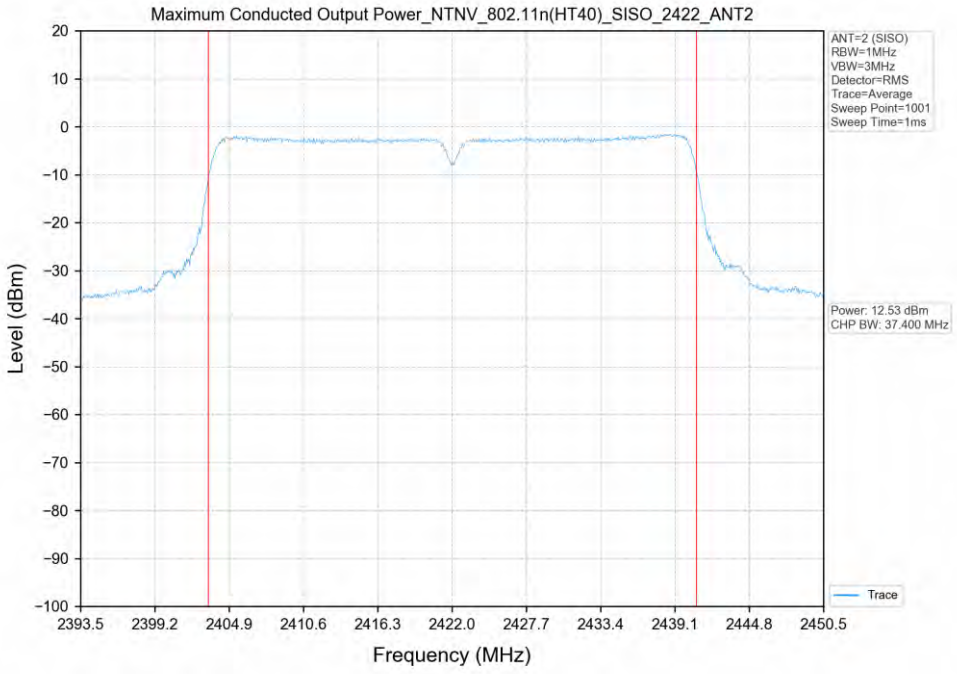

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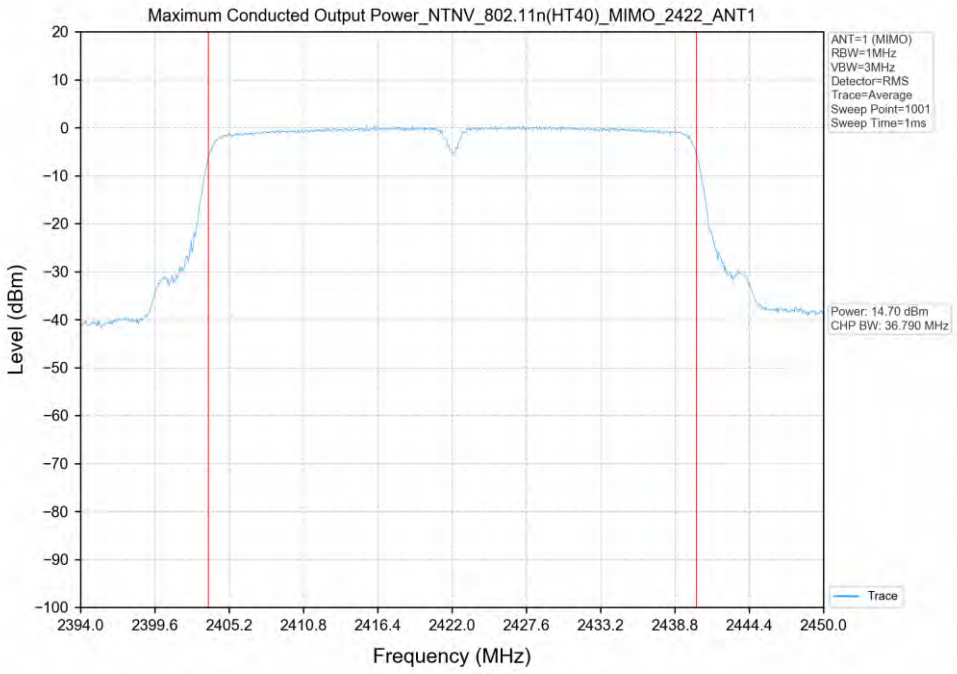

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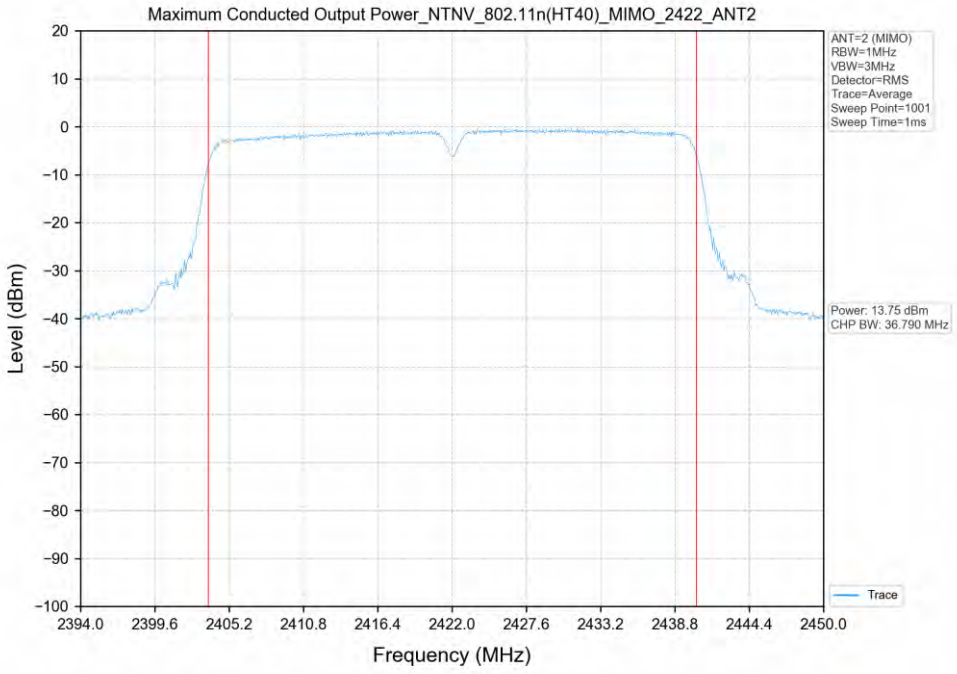

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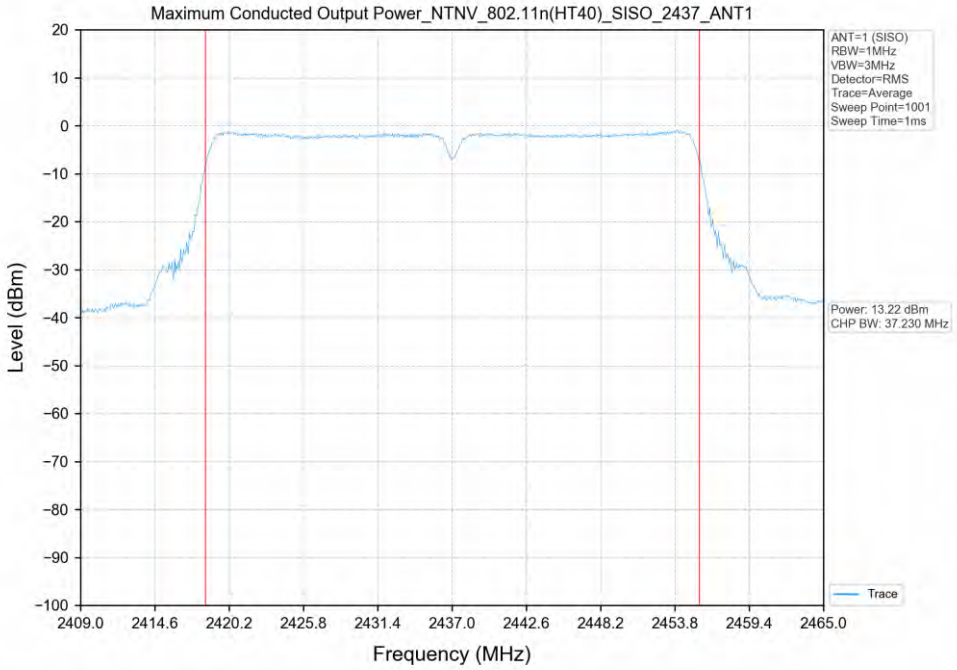

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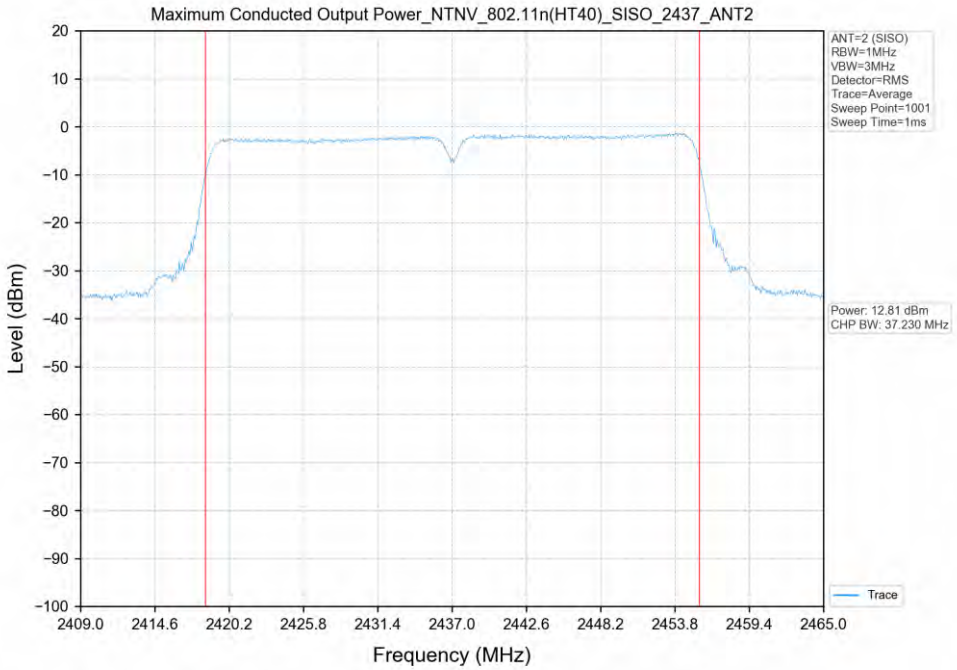
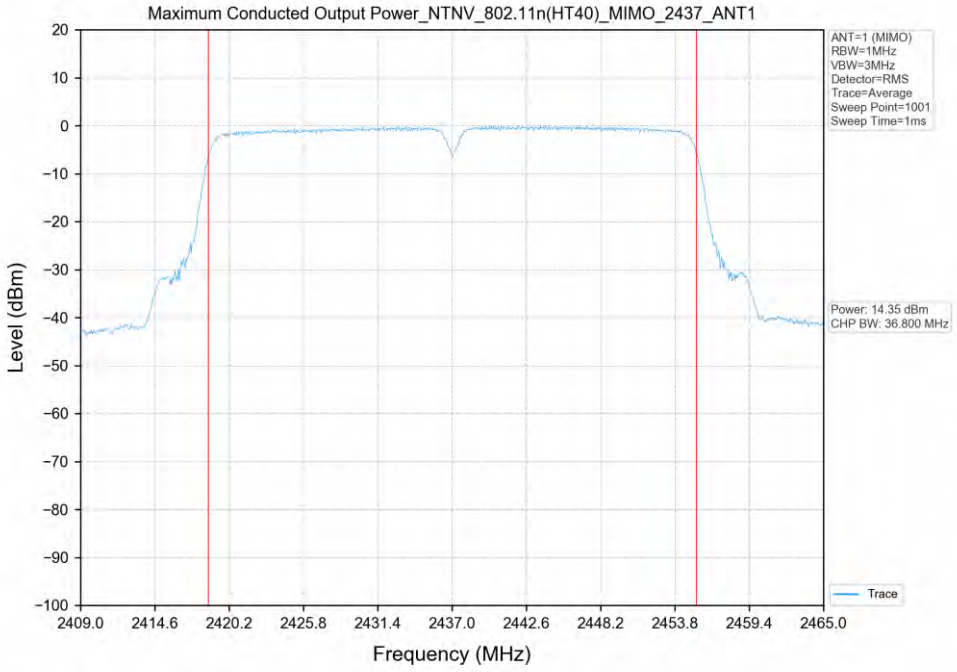


802.11n(HT40)_2437MHz_MIMO_ANT1



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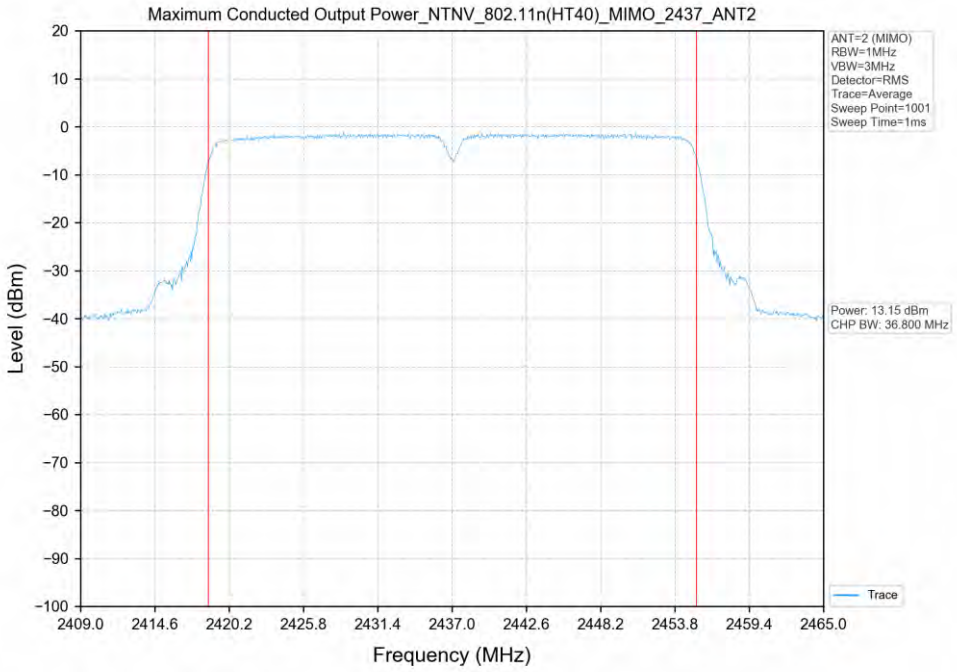
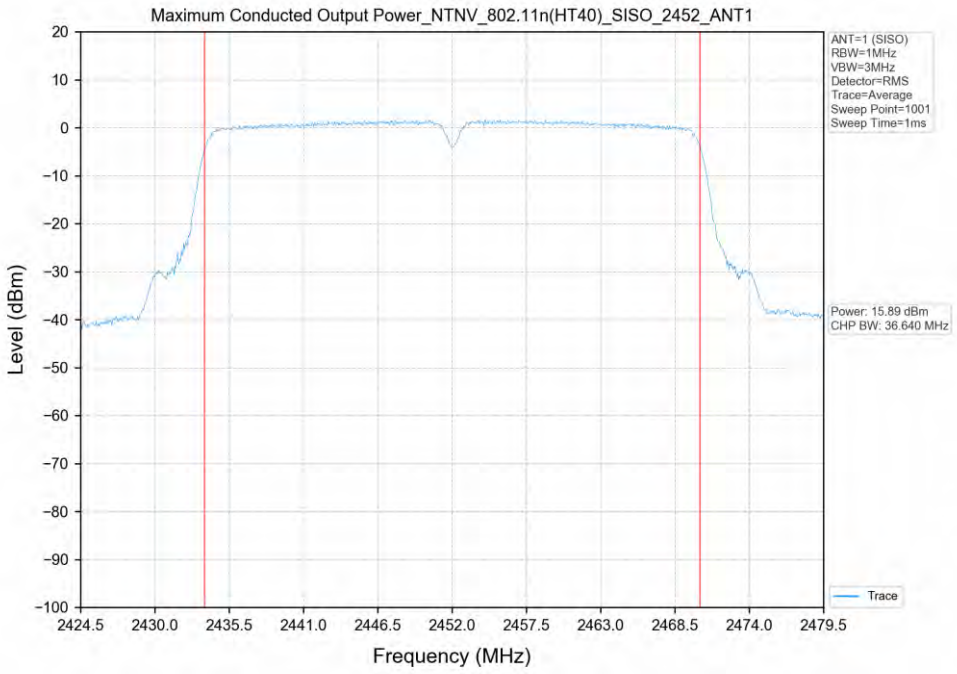


802.11n(HT40)_2452MHz_SISO_ANT1



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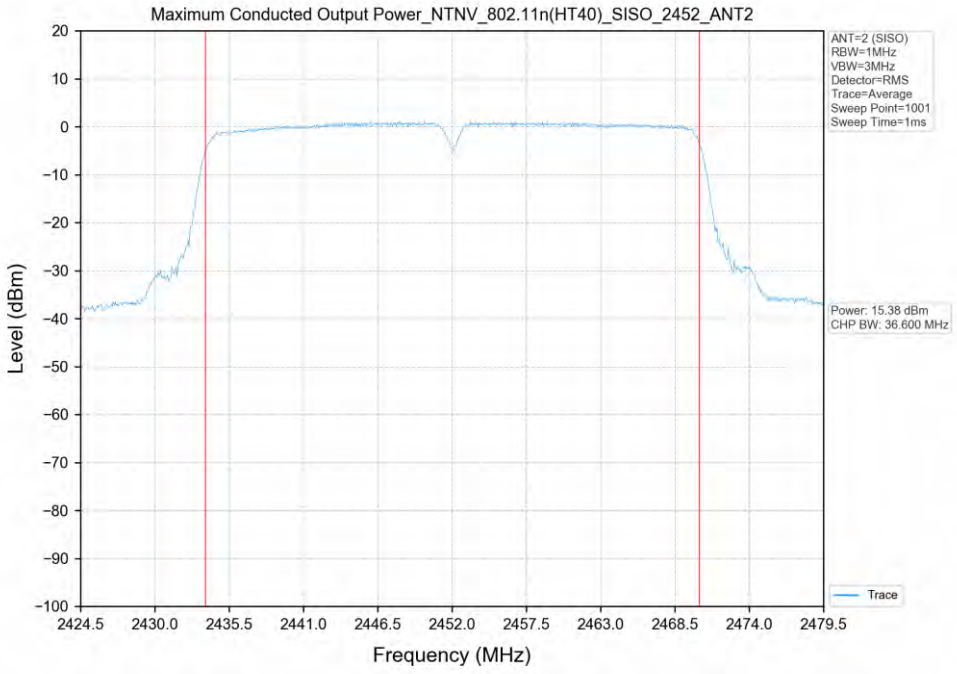
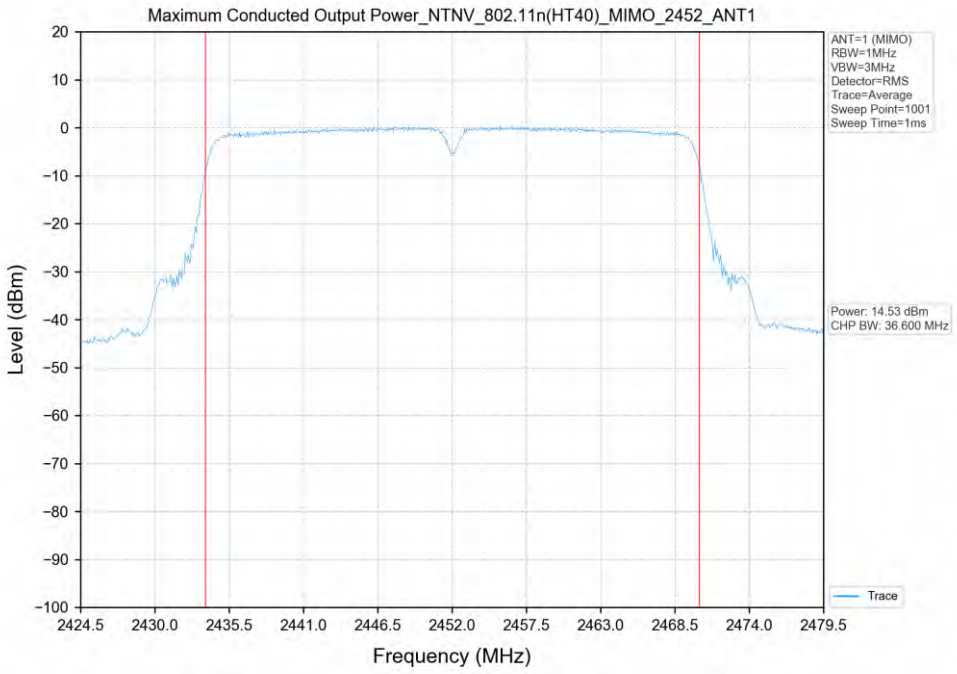
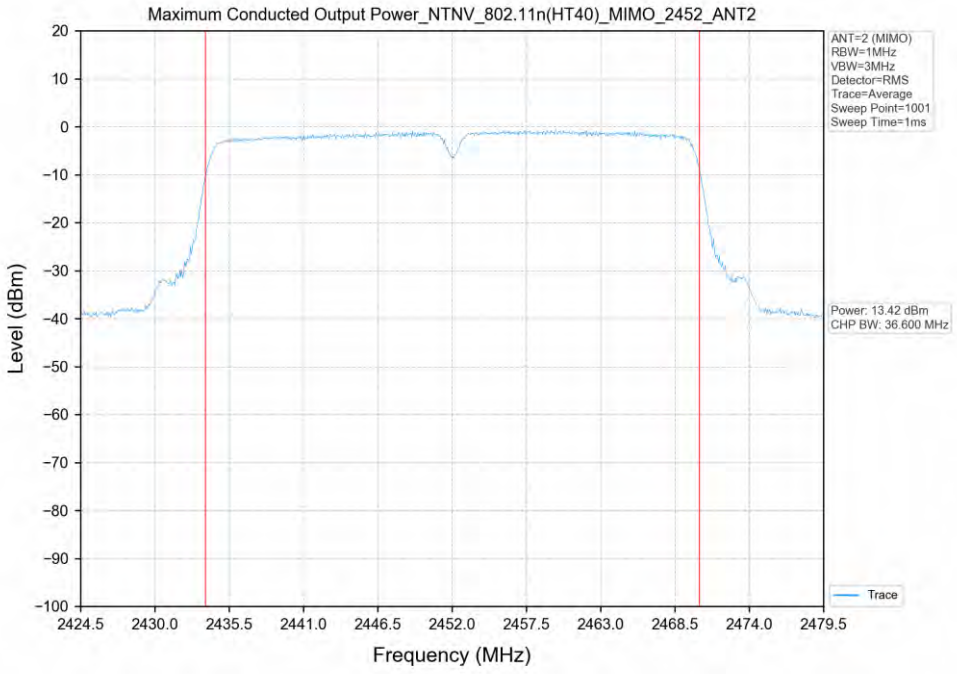


802.11n(HT40)_2452MHz_MIMO_ANT1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