



Appendix A for SHEM190901759201

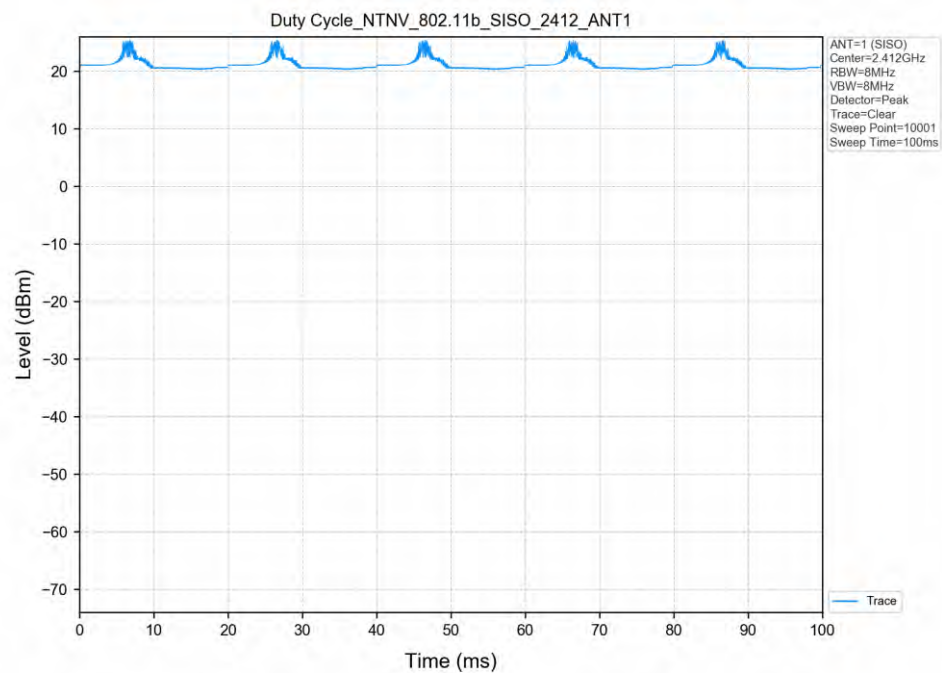
1. Duty Cycle

1.1 Test Result

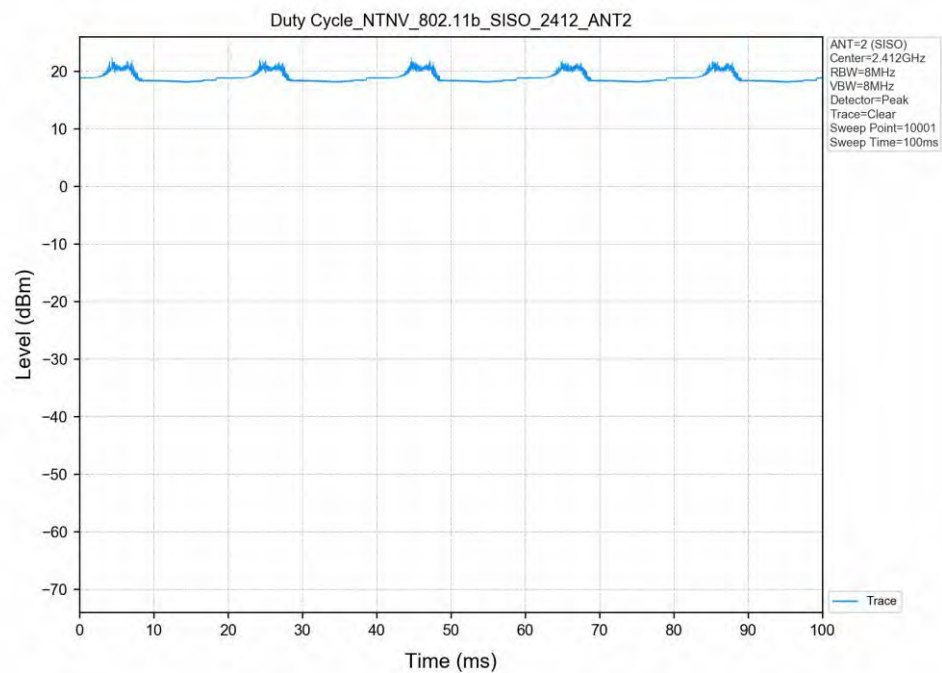
Test Mode	Channel Frequency(MHz)	TX Type	ANT No.	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)
802.11b	2412	SISO	1	100.000	100.000	100.00	0.00
			2	100.000	100.000	100.00	0.00
	2437	SISO	1	100.000	100.000	100.00	0.00
			2	100.000	100.000	100.00	0.00
	2462	SISO	1	100.000	100.000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

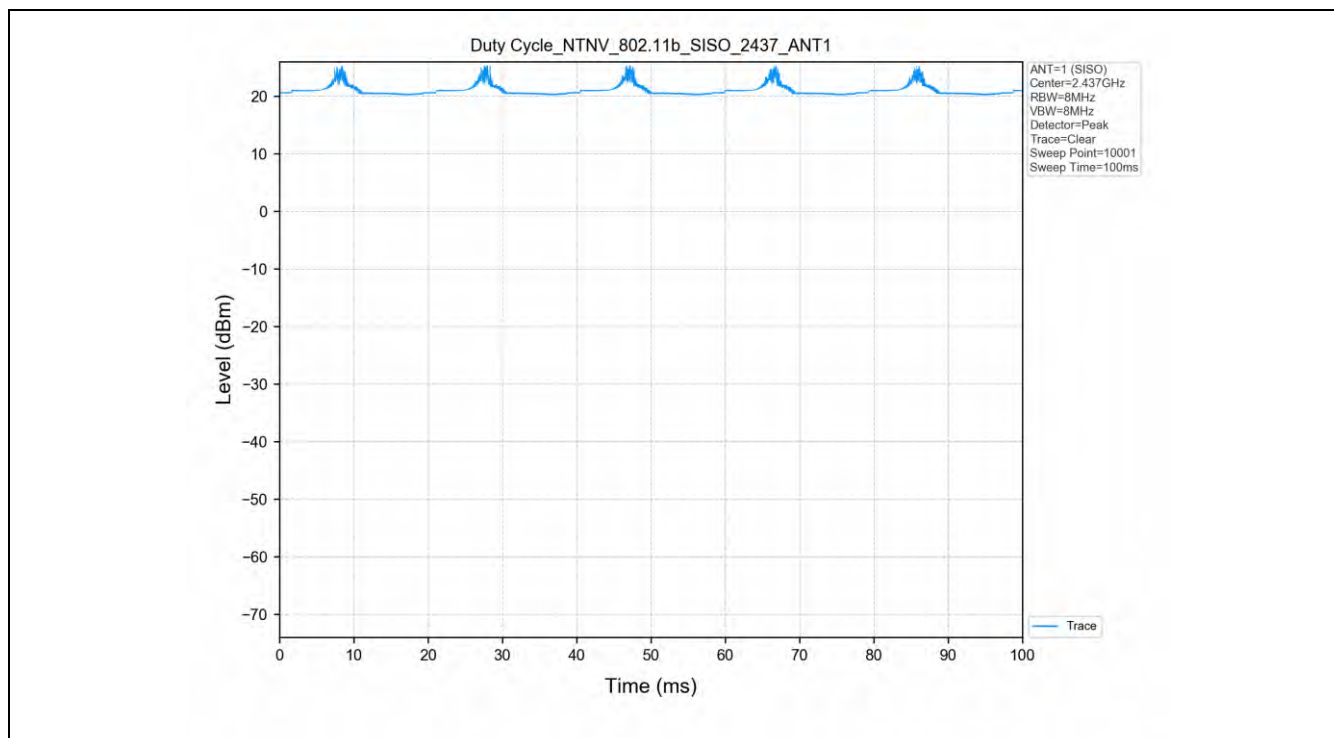
802.11b_2412MHz_SISO_ANT1



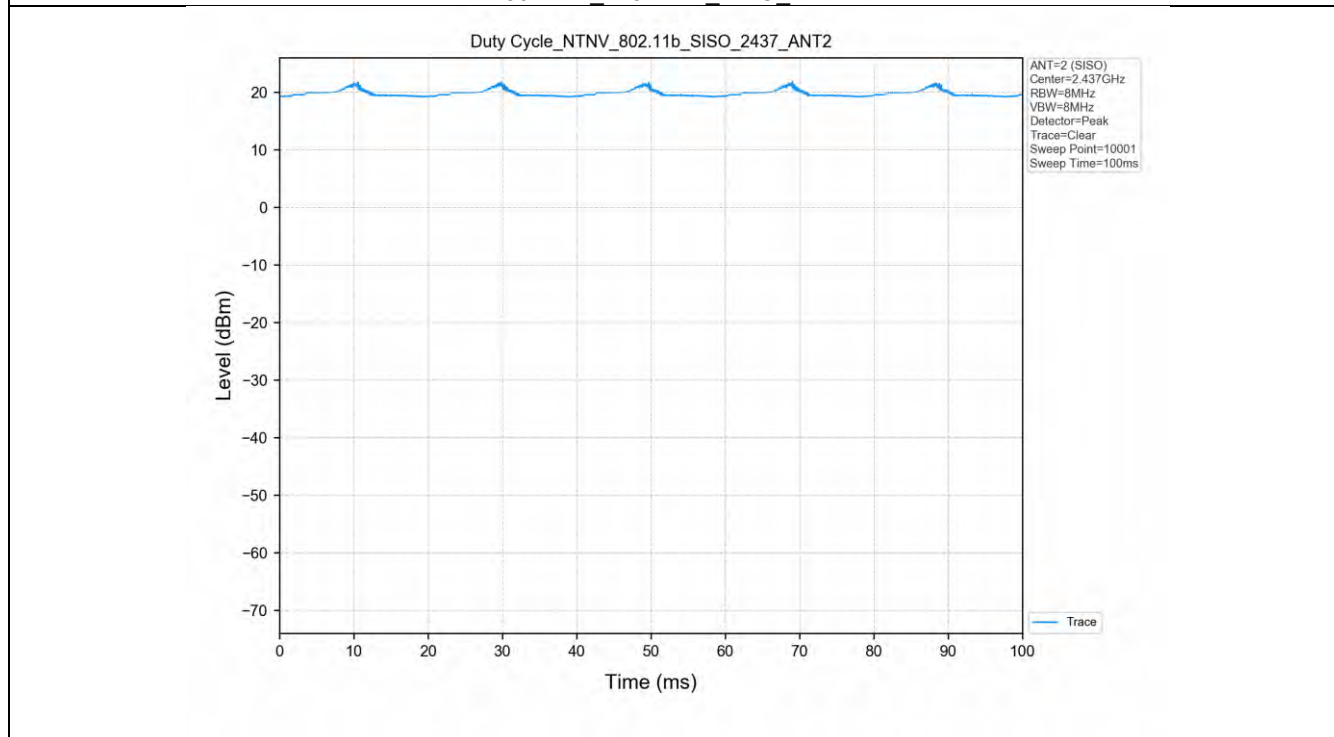
802.11b_2412MHz_SISO_ANT2



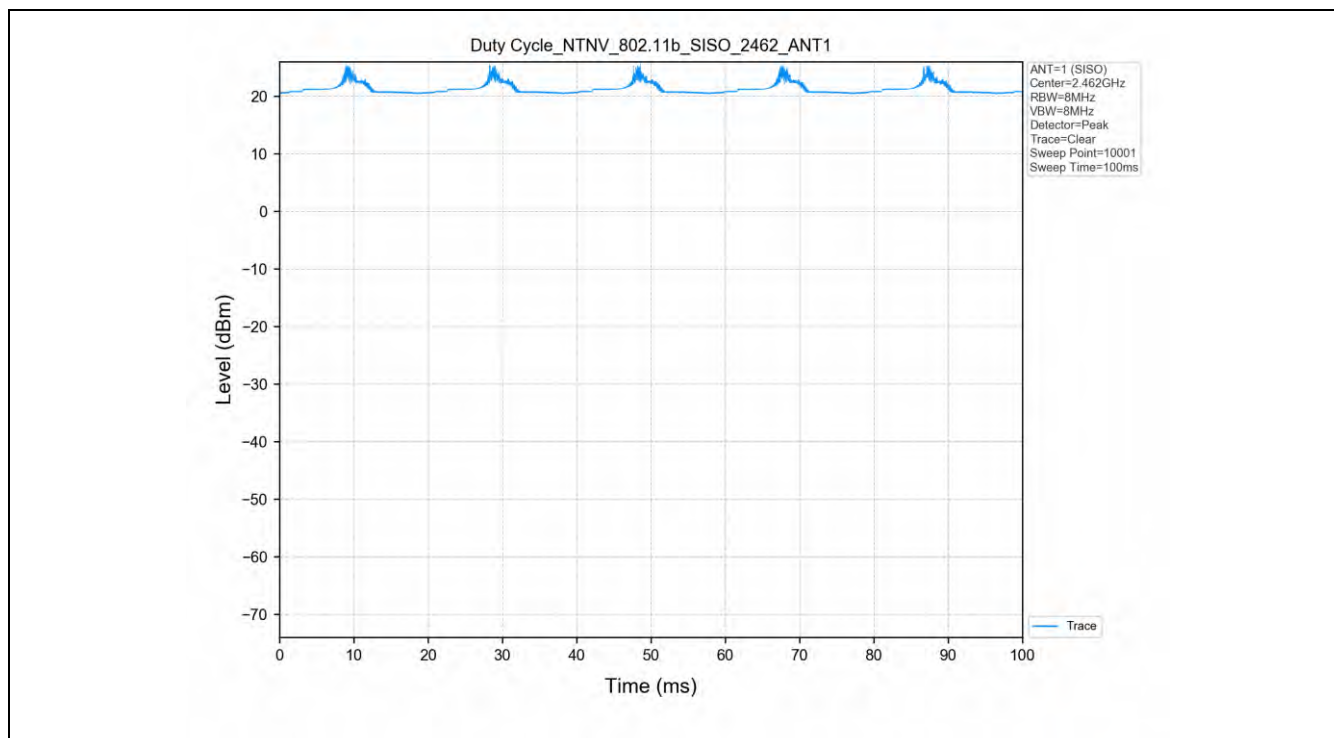
802.11b_2437MHz_SISO_ANT1



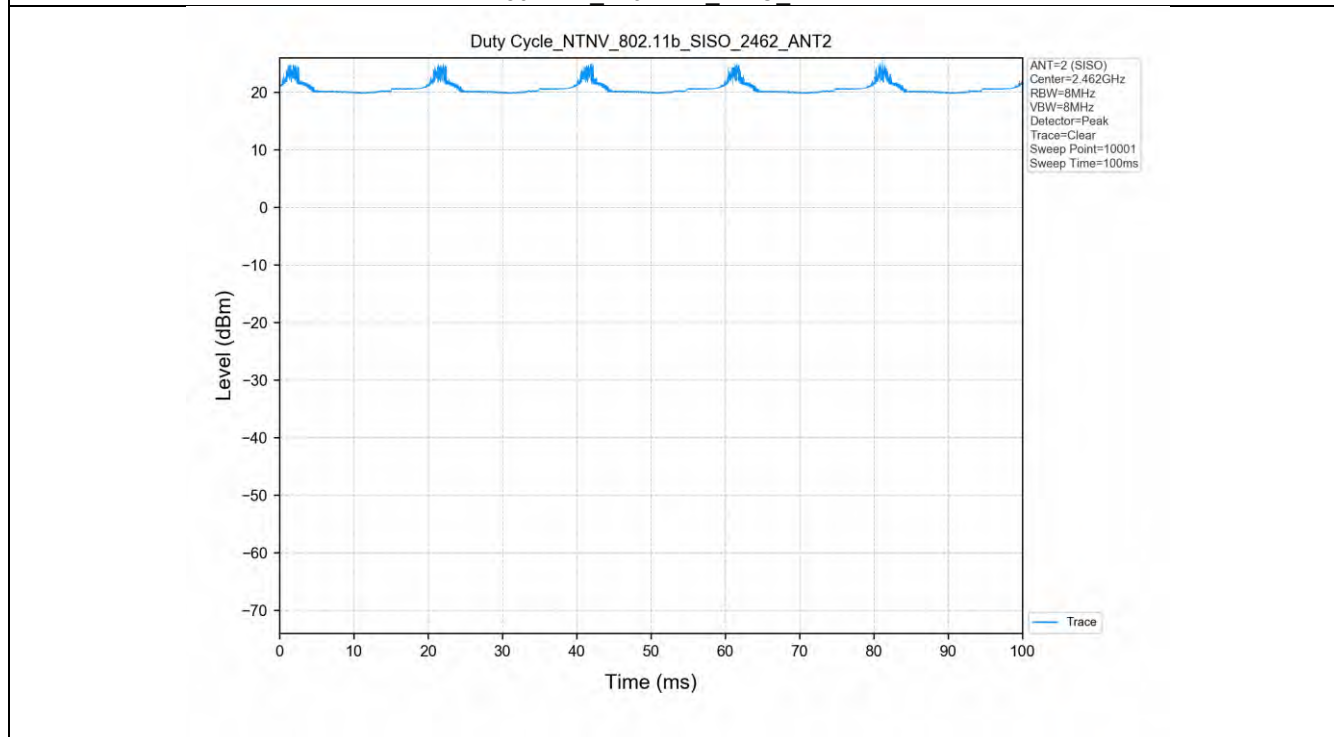
802.11b_2437MHz_SISO_ANT2



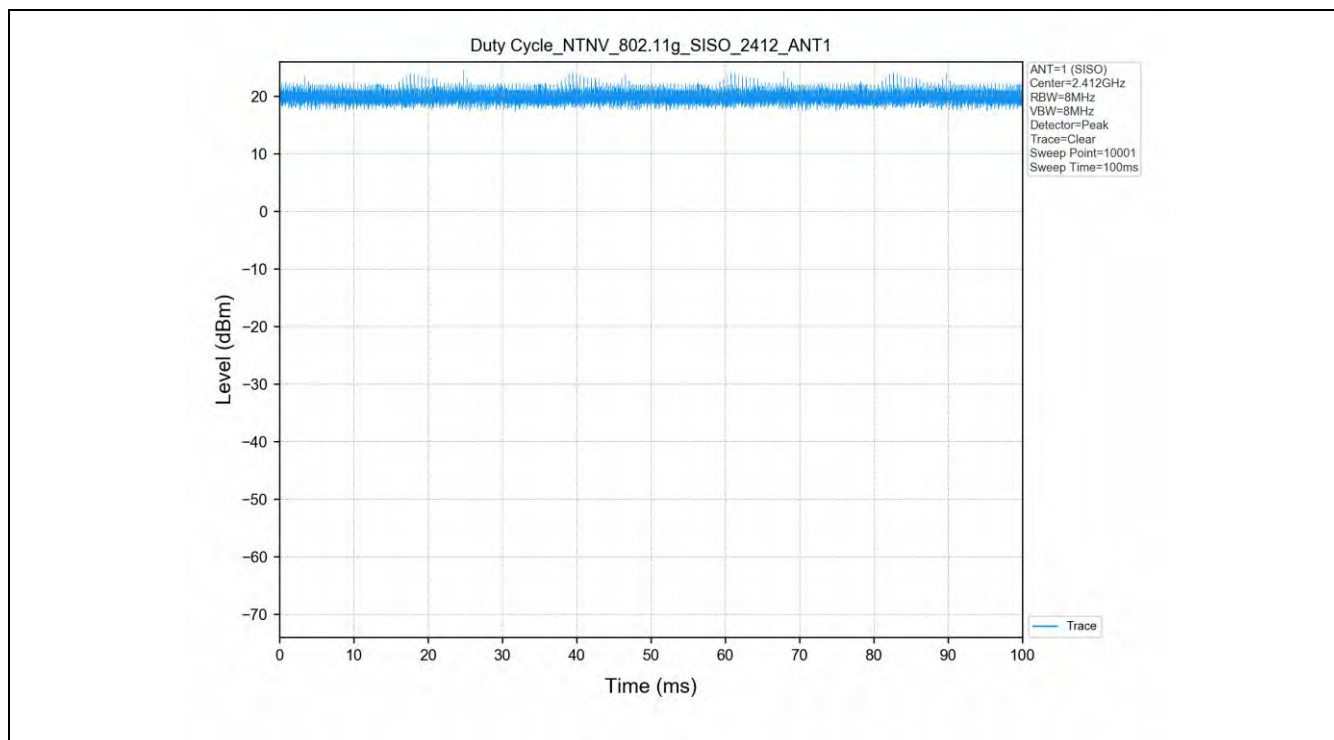
802.11b_2462MHz_SISO_ANT1



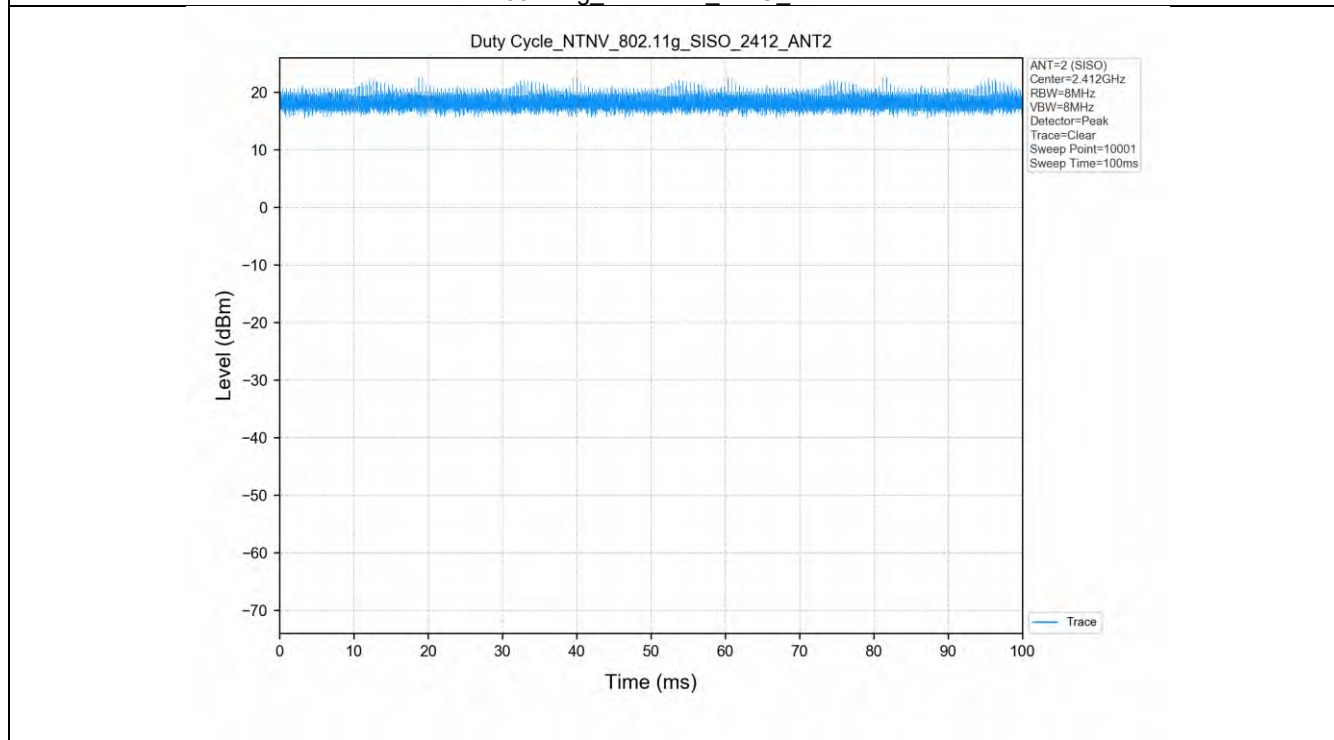
802.11b_2462MHz_SISO_ANT2



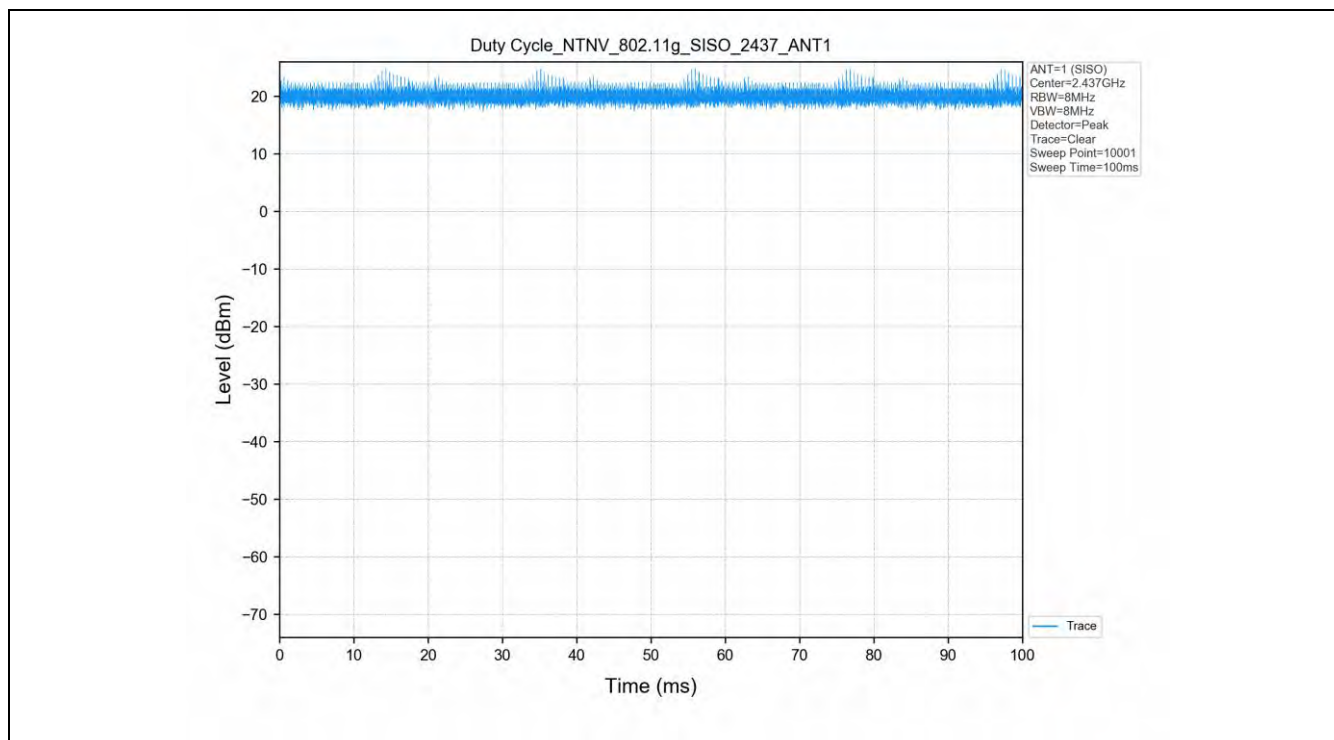
802.11g_2412MHz_SISO_ANT1



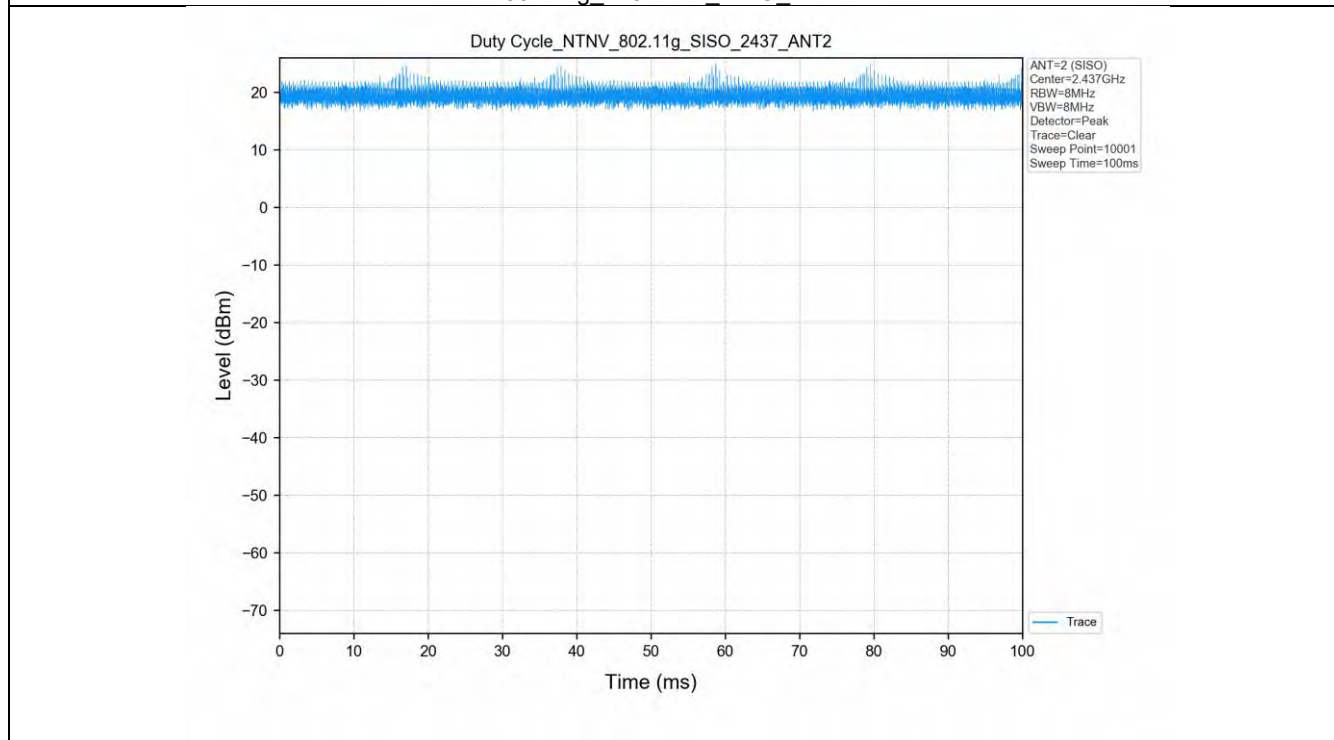
802.11g_2412MHz_SISO_ANT2



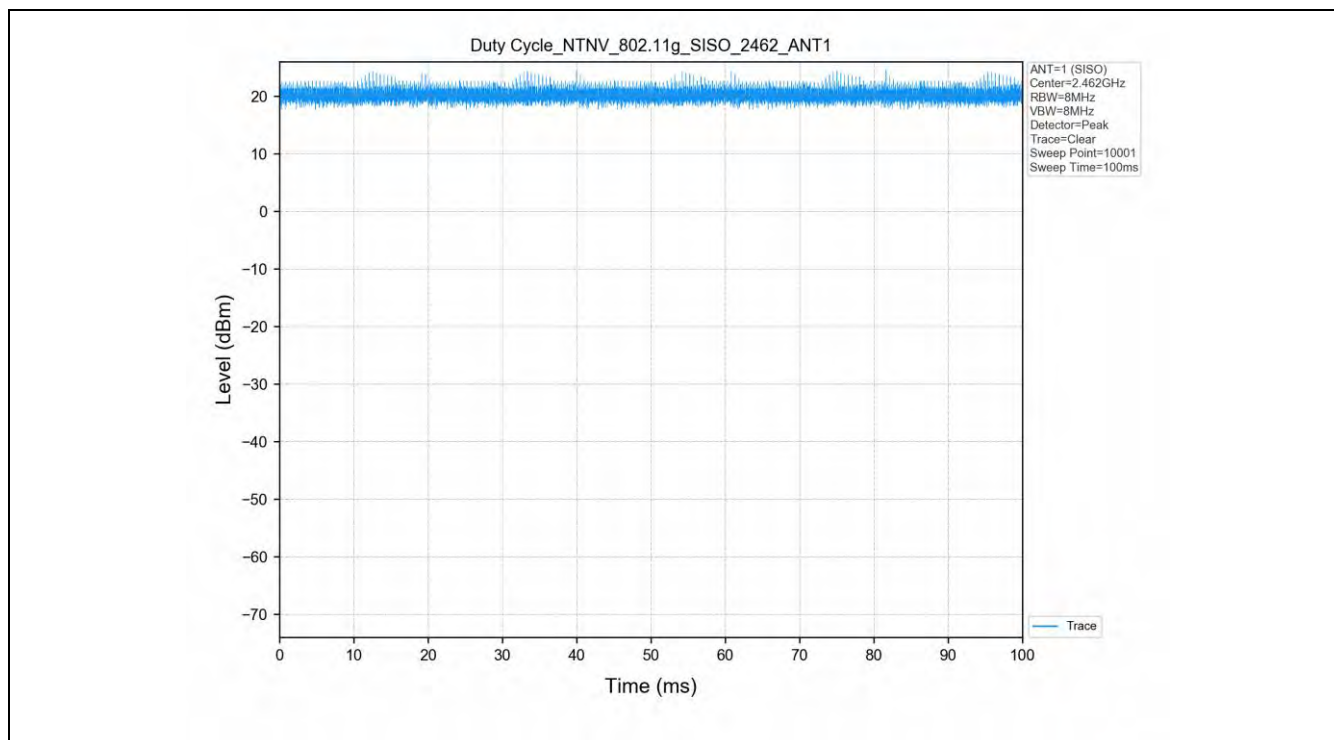
802.11g_2437MHz_SISO_ANT1



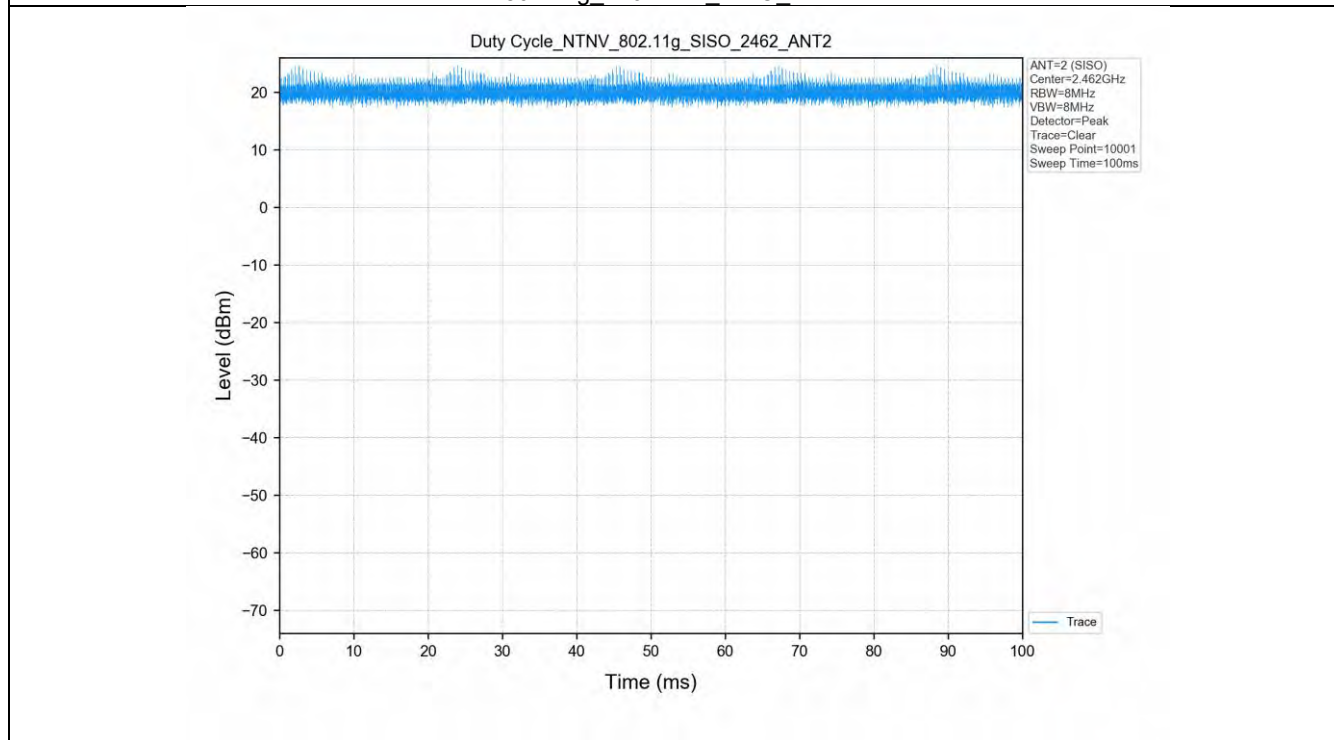
802.11g_2437MHz_SISO_ANT2



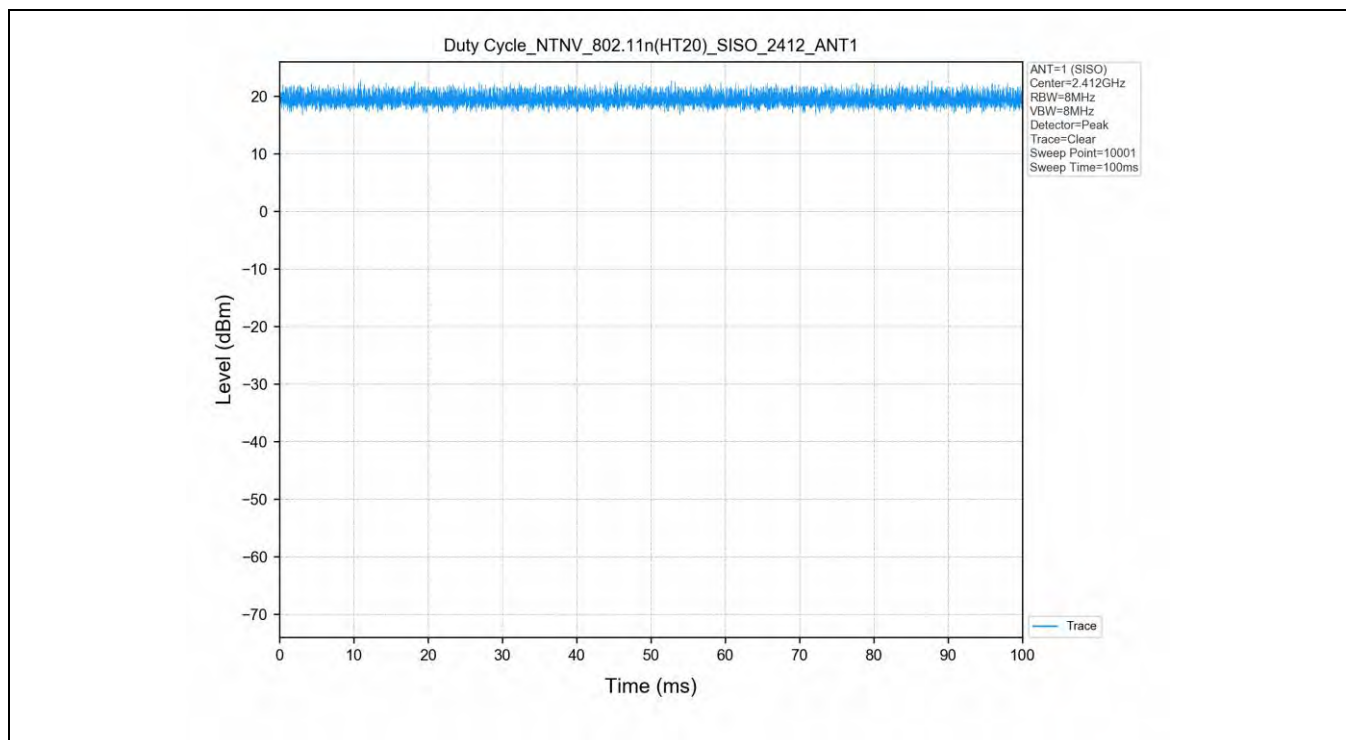
802.11g_2462MHz_SISO_ANT1



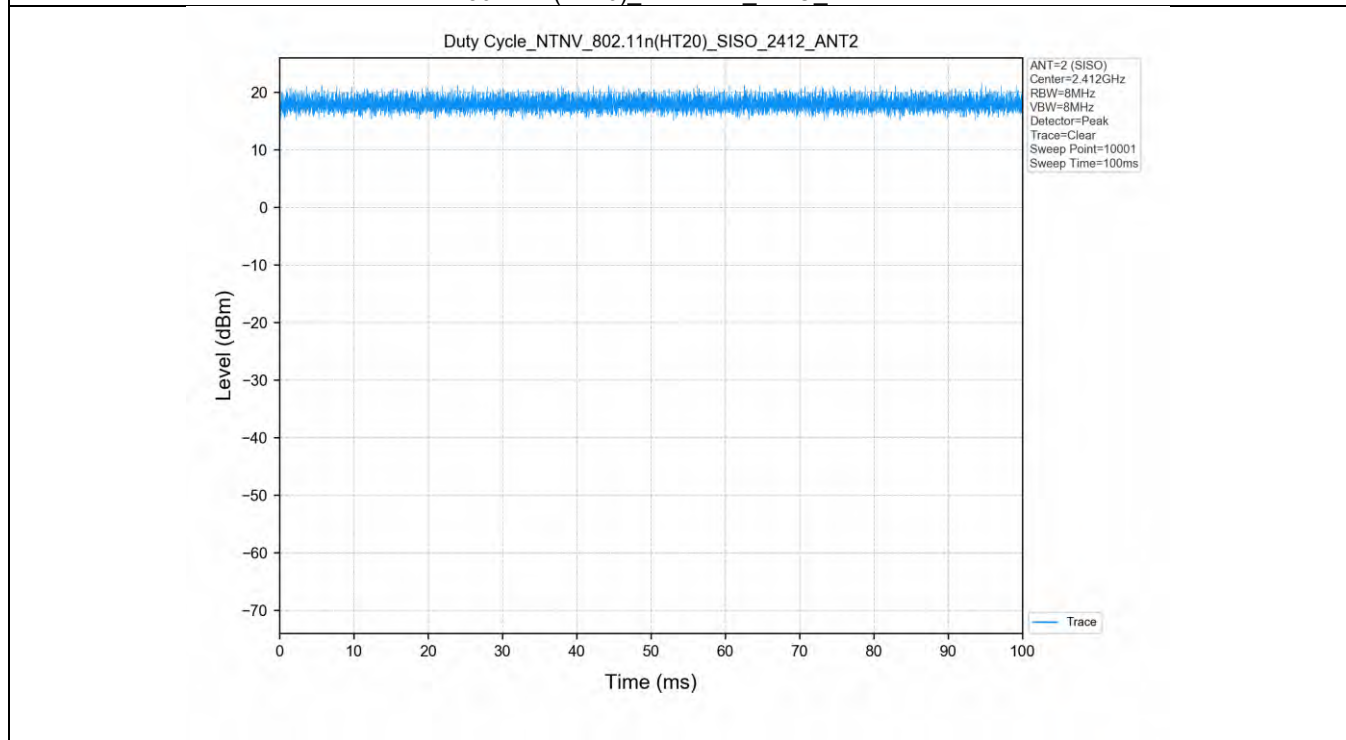
802.11g_2462MHz_SISO_ANT2



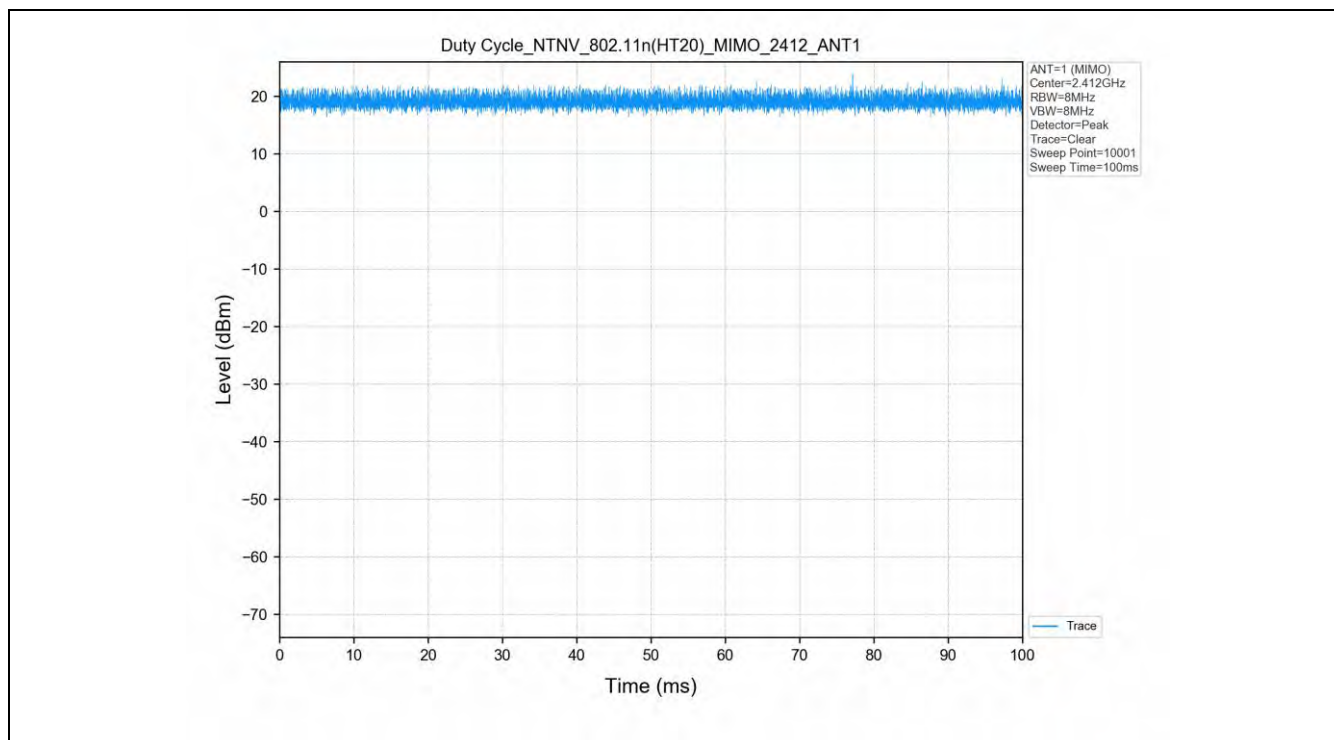
802.11n(HT20)_2412MHz_SISO_ANT1



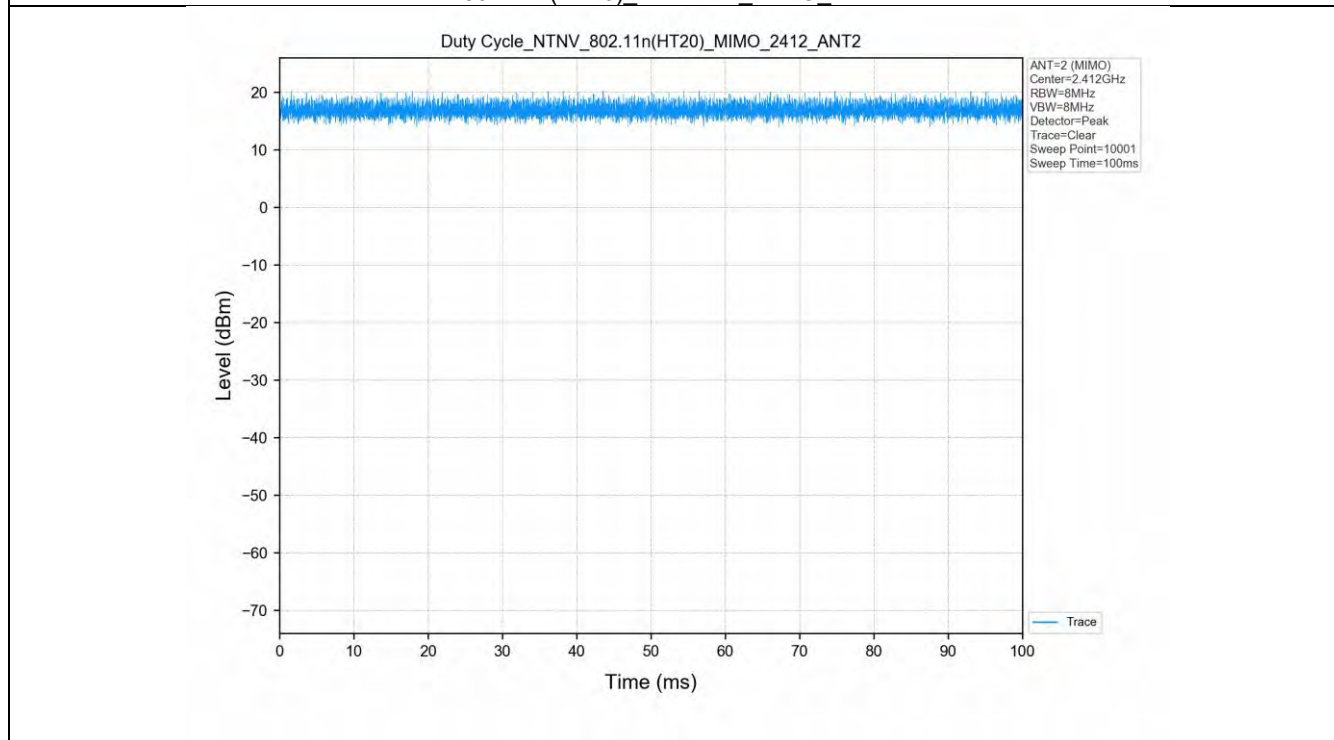
802.11n(HT20)_2412MHz_SISO_ANT2



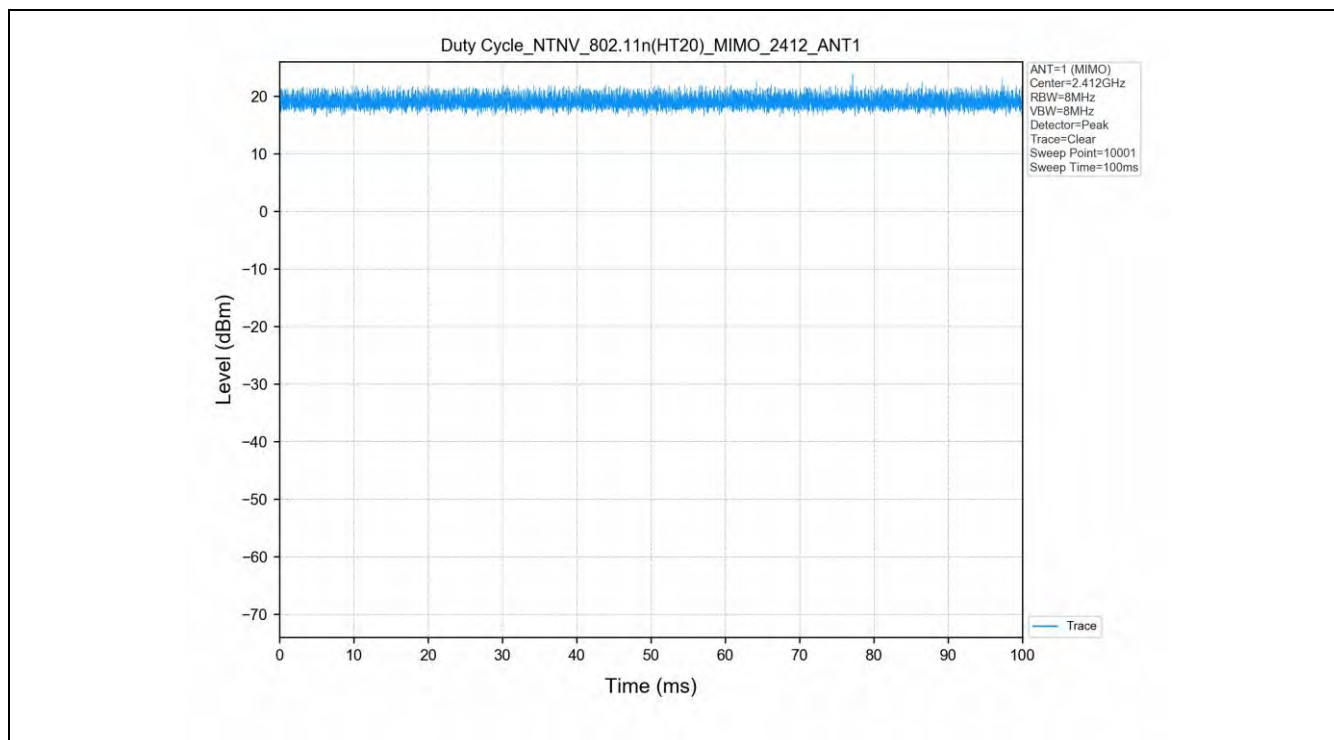
802.11n(HT20)_2412MHz_MIMO_ANT1



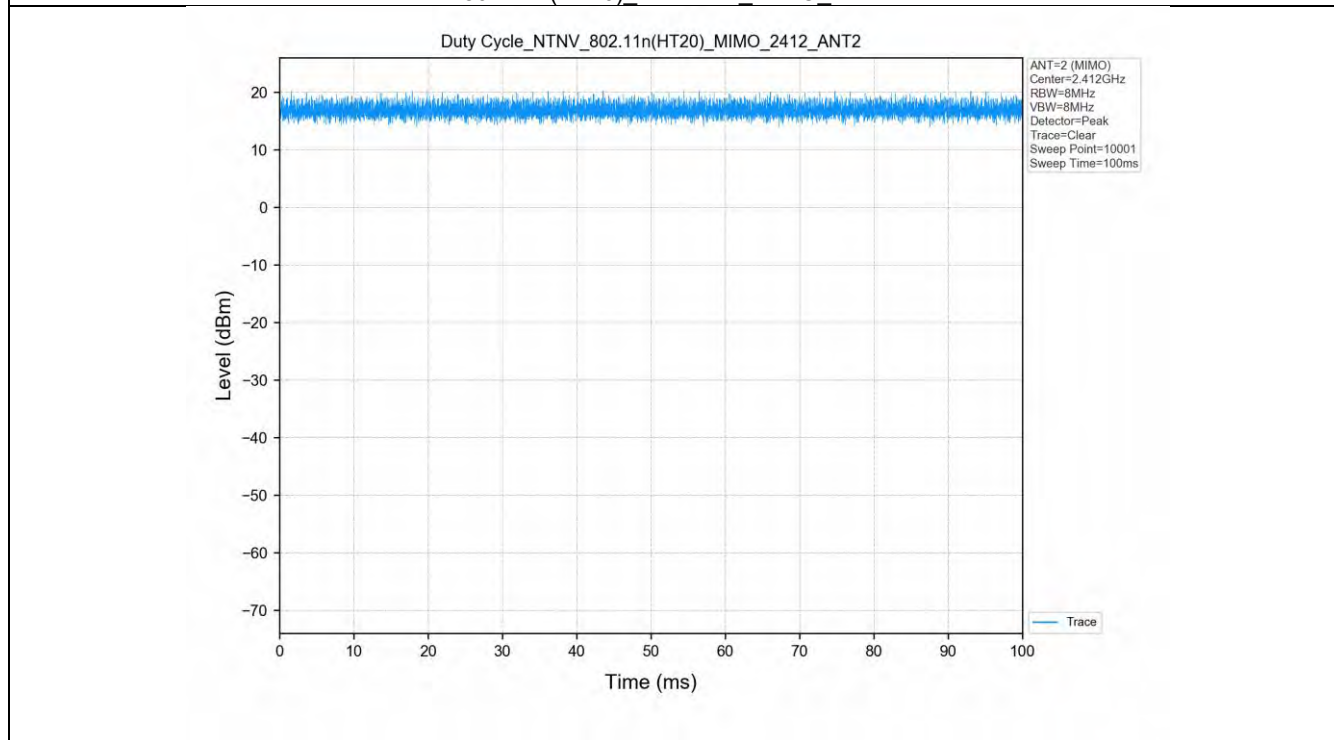
802.11n(HT20)_2412MHz_MIMO_ANT1



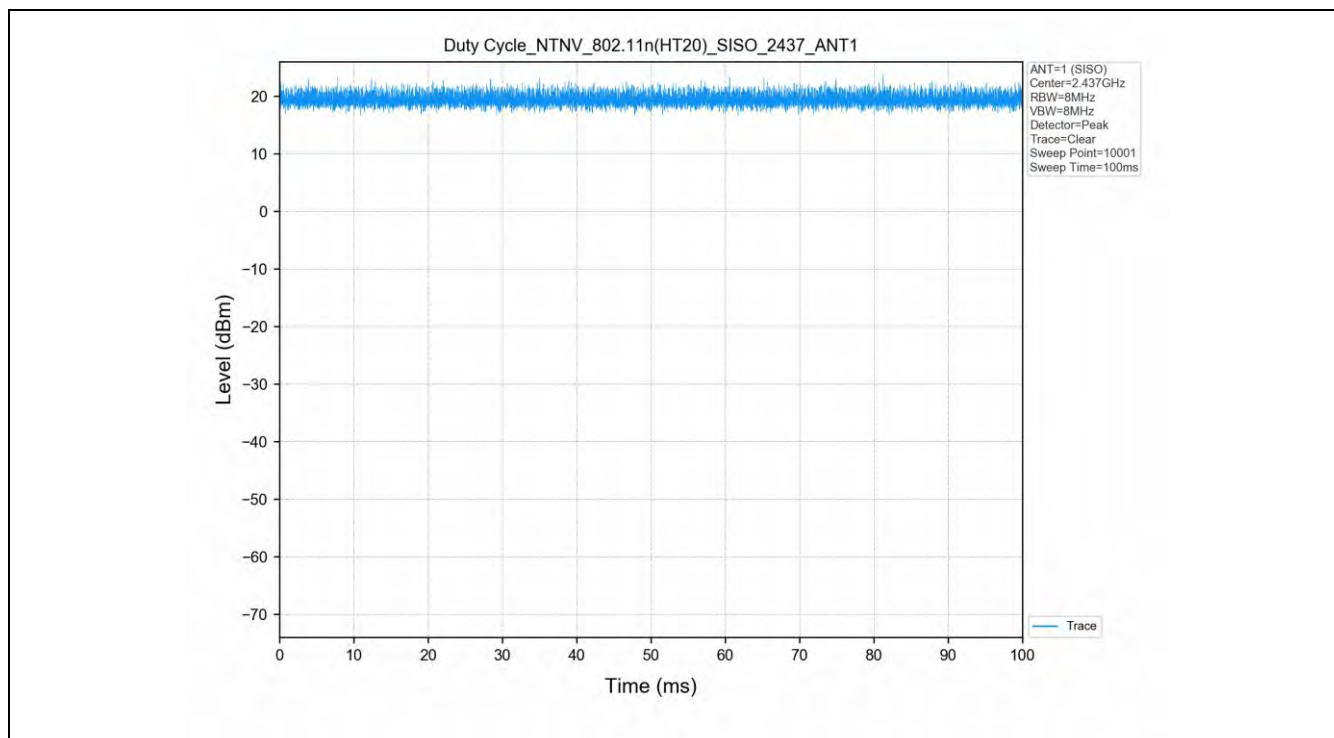
802.11n(HT20)_2412MHz_MIMO_ANT2



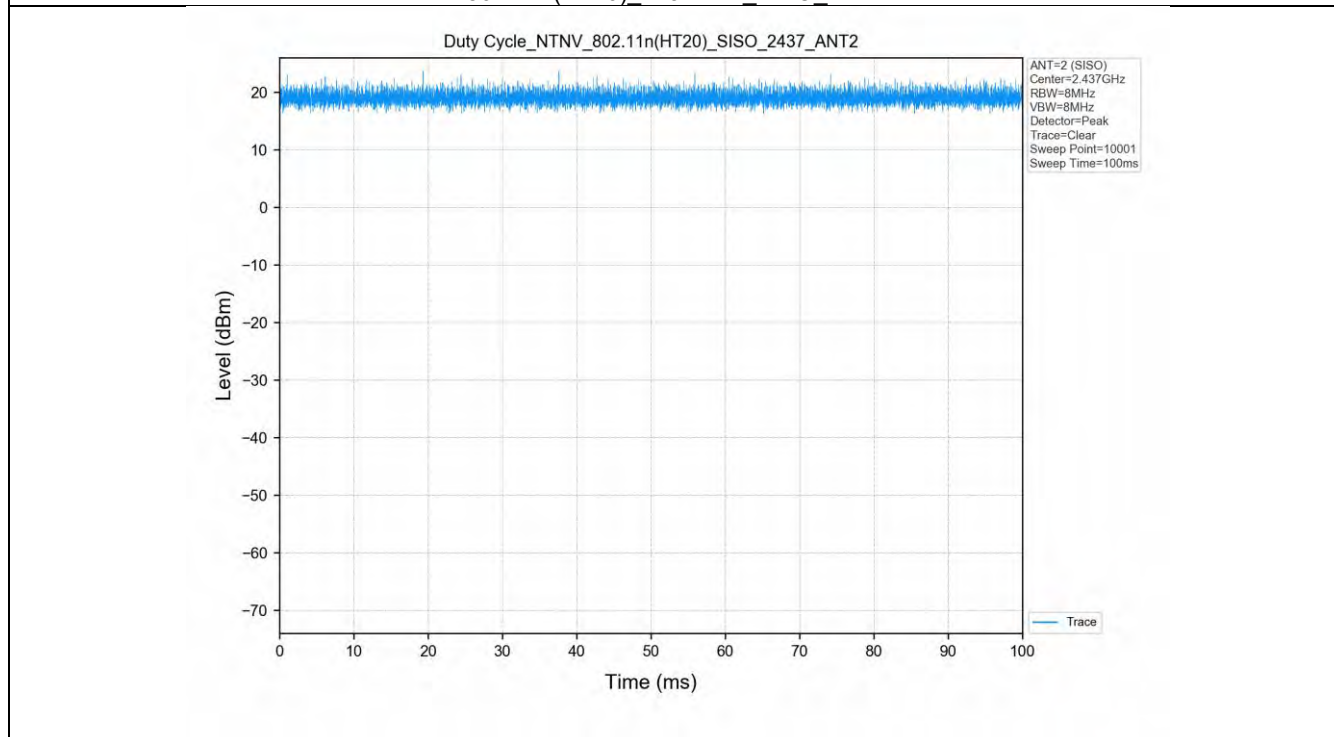
802.11n(HT20)_2412MHz_MIMO_ANT2



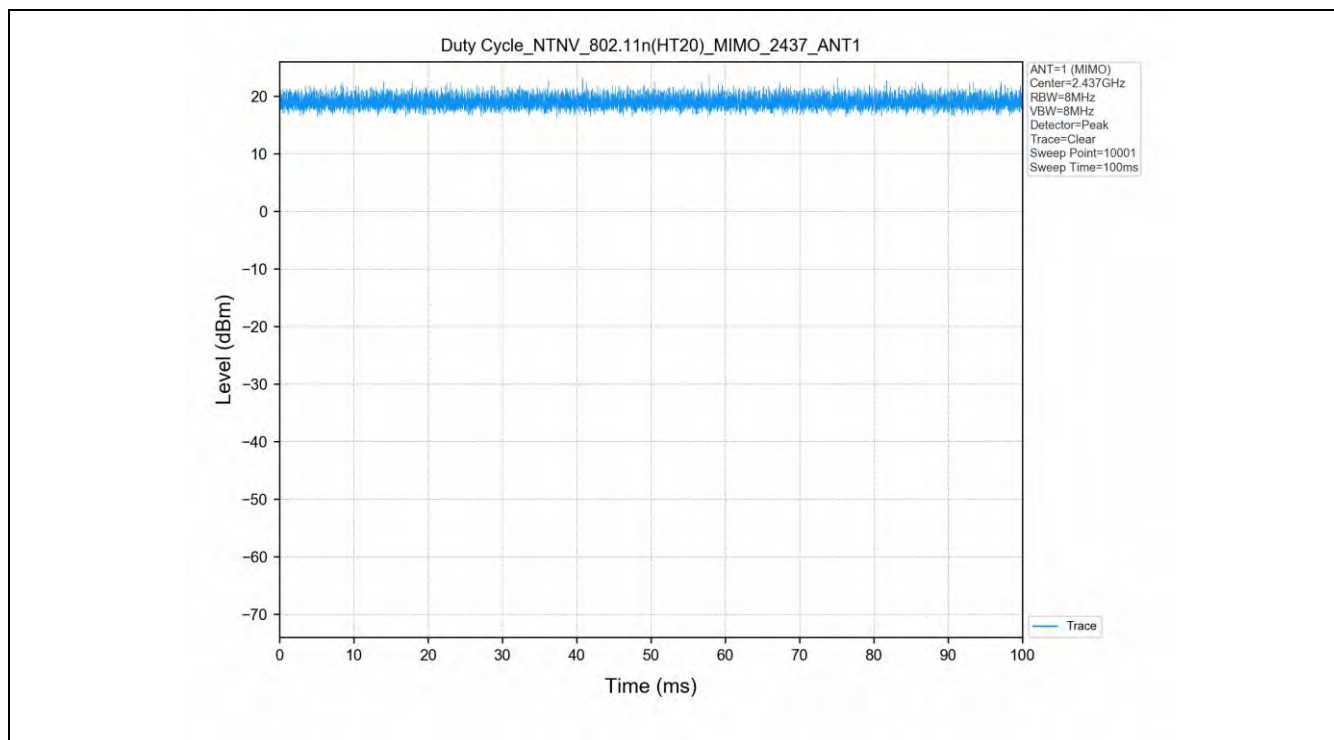
802.11n(HT20)_2437MHz_SISO_ANT1



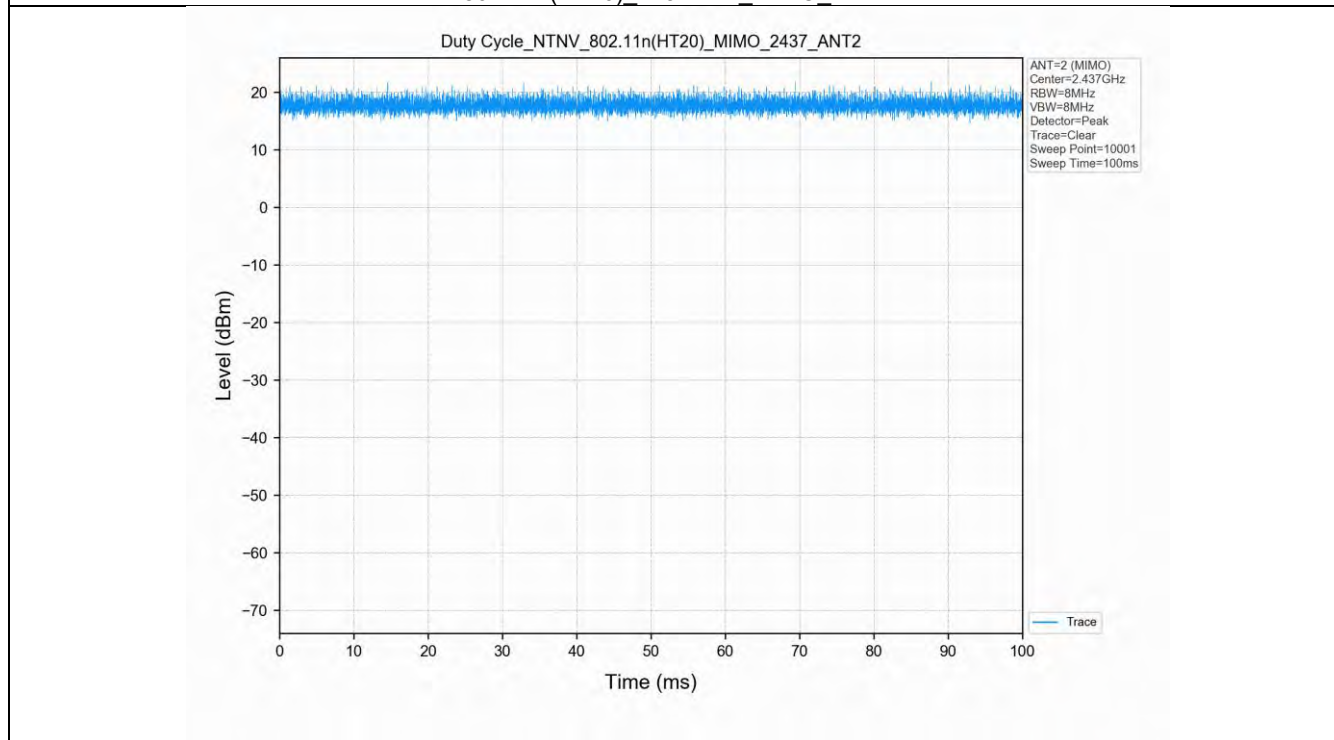
802.11n(HT20)_2437MHz_SISO_ANT2



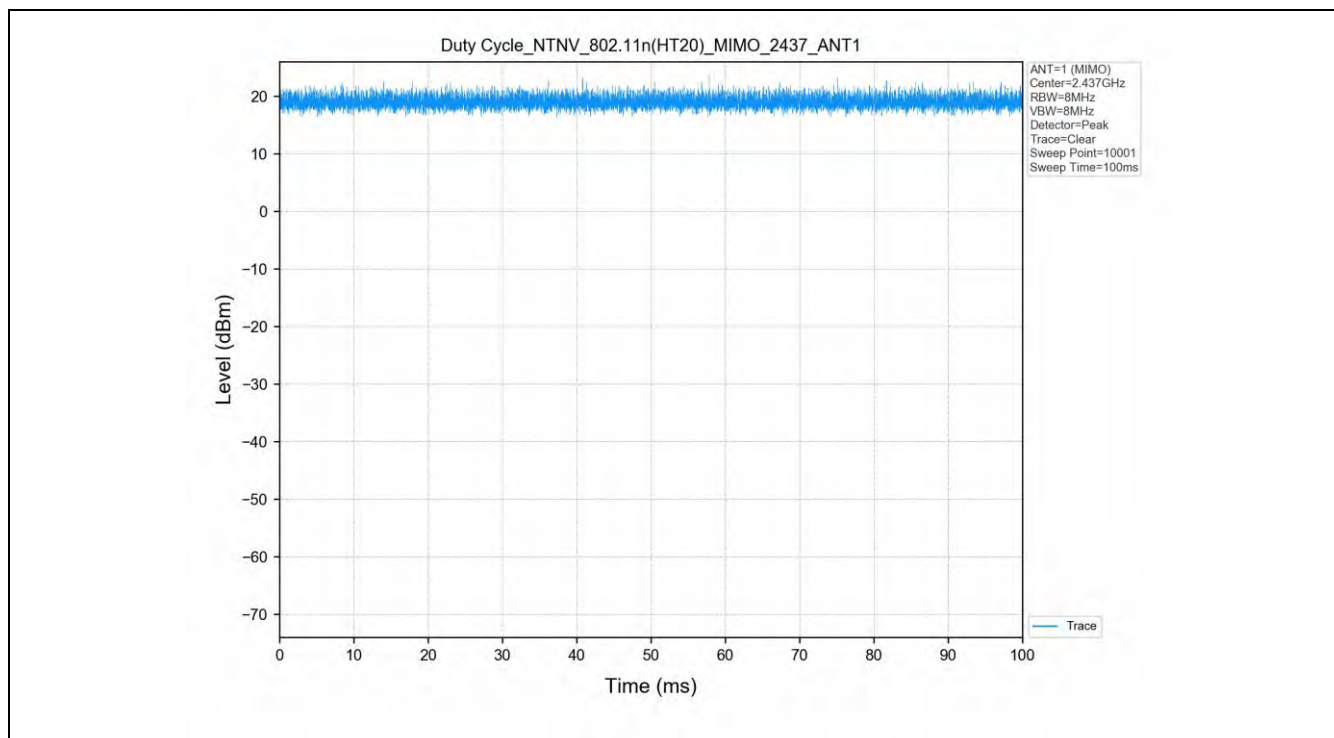
802.11n(HT20)_2437MHz_MIMO_ANT1



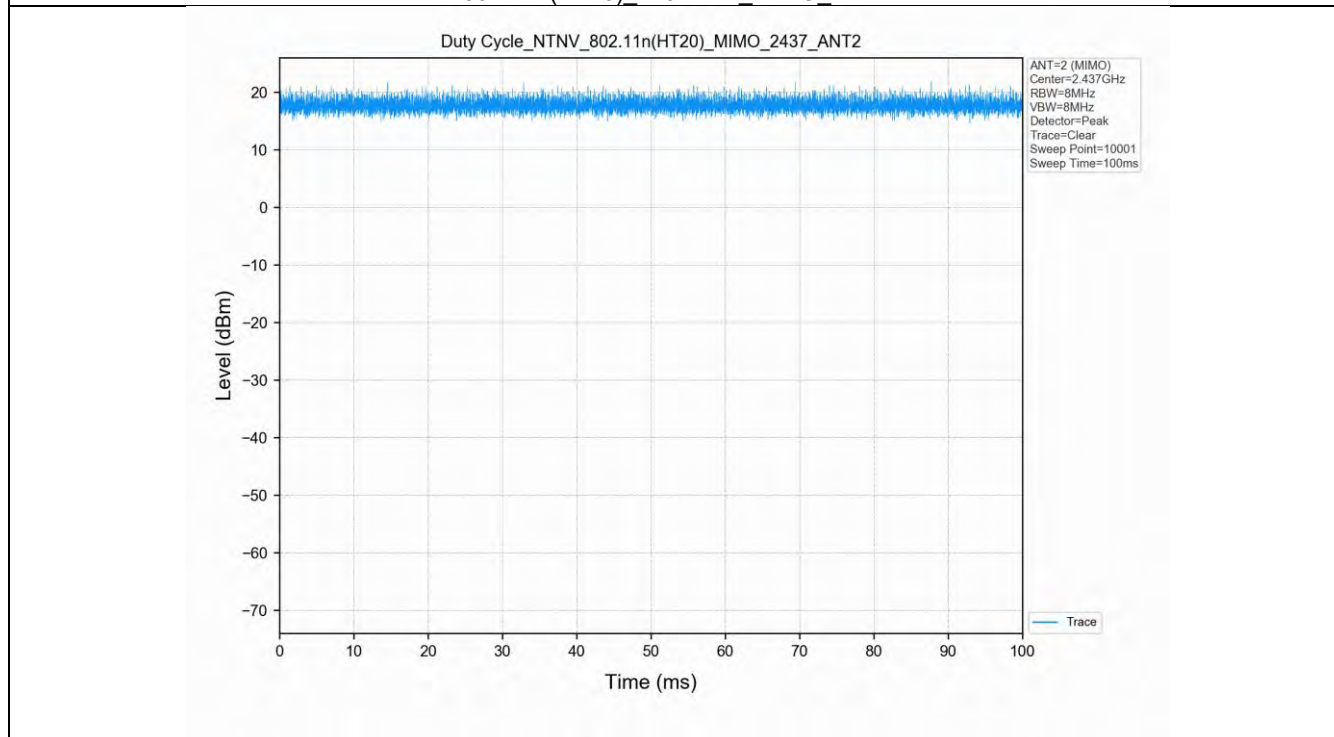
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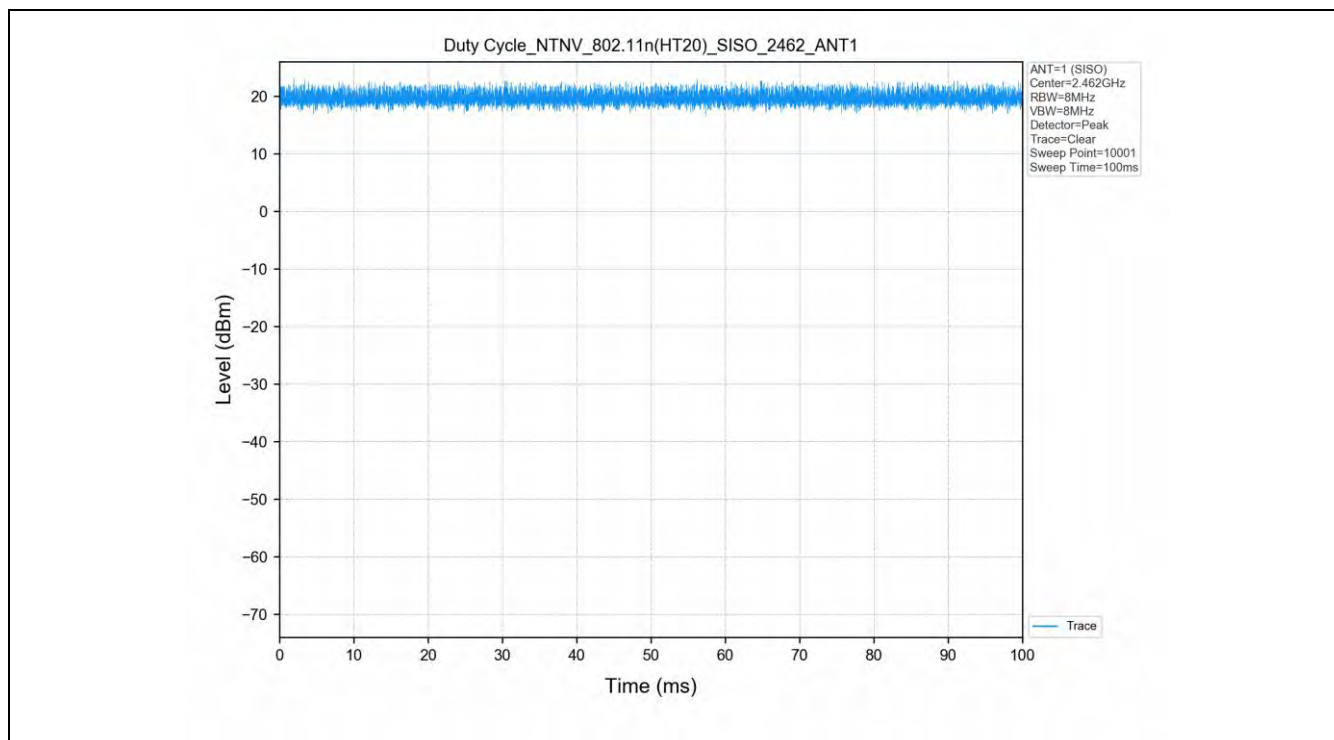
802.11n(HT20)_2437MHz_MIMO_ANT2



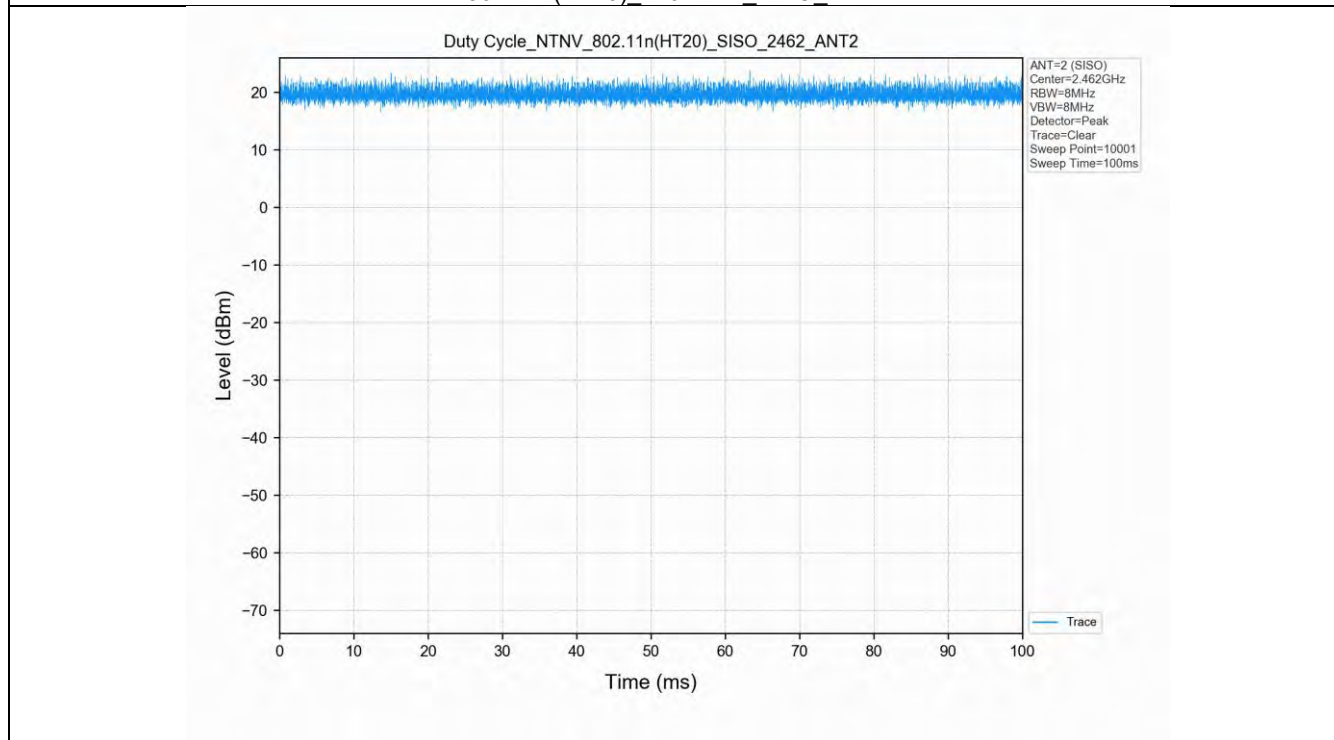
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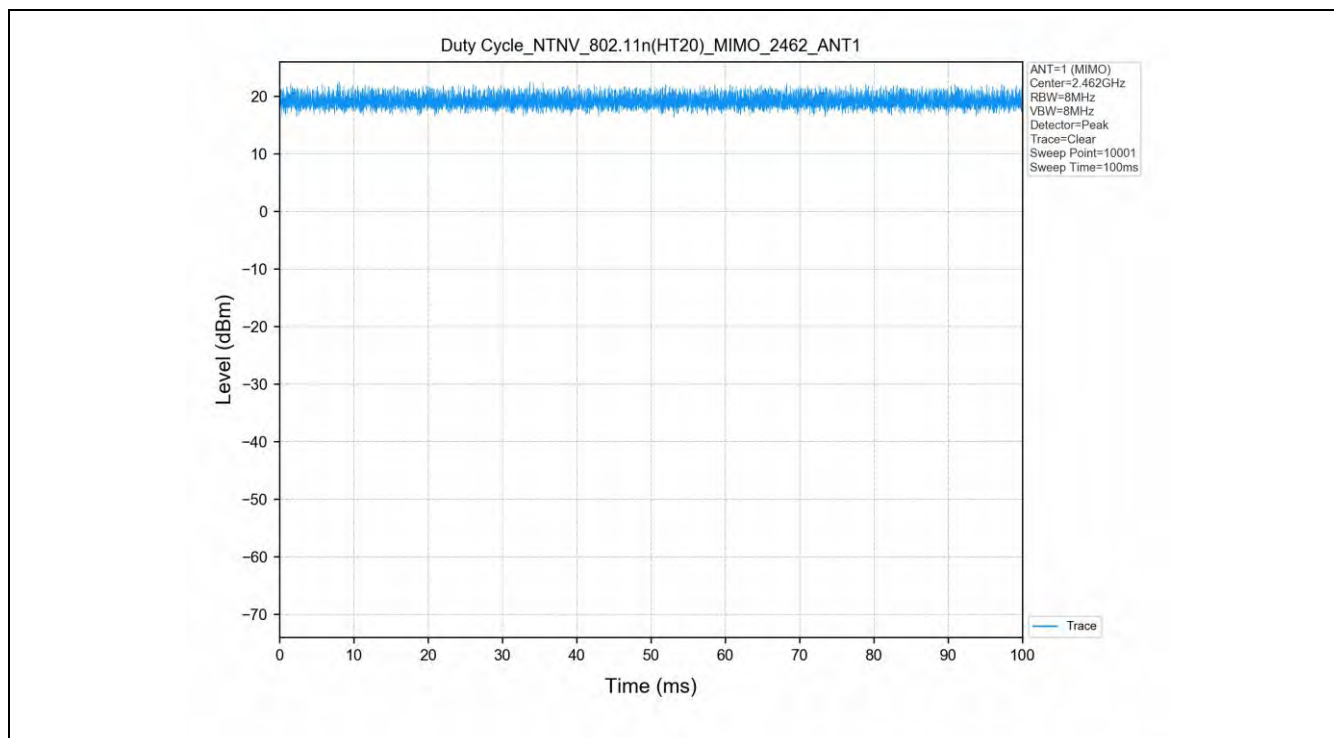
802.11n(HT20)_2462MHz_SISO_ANT1



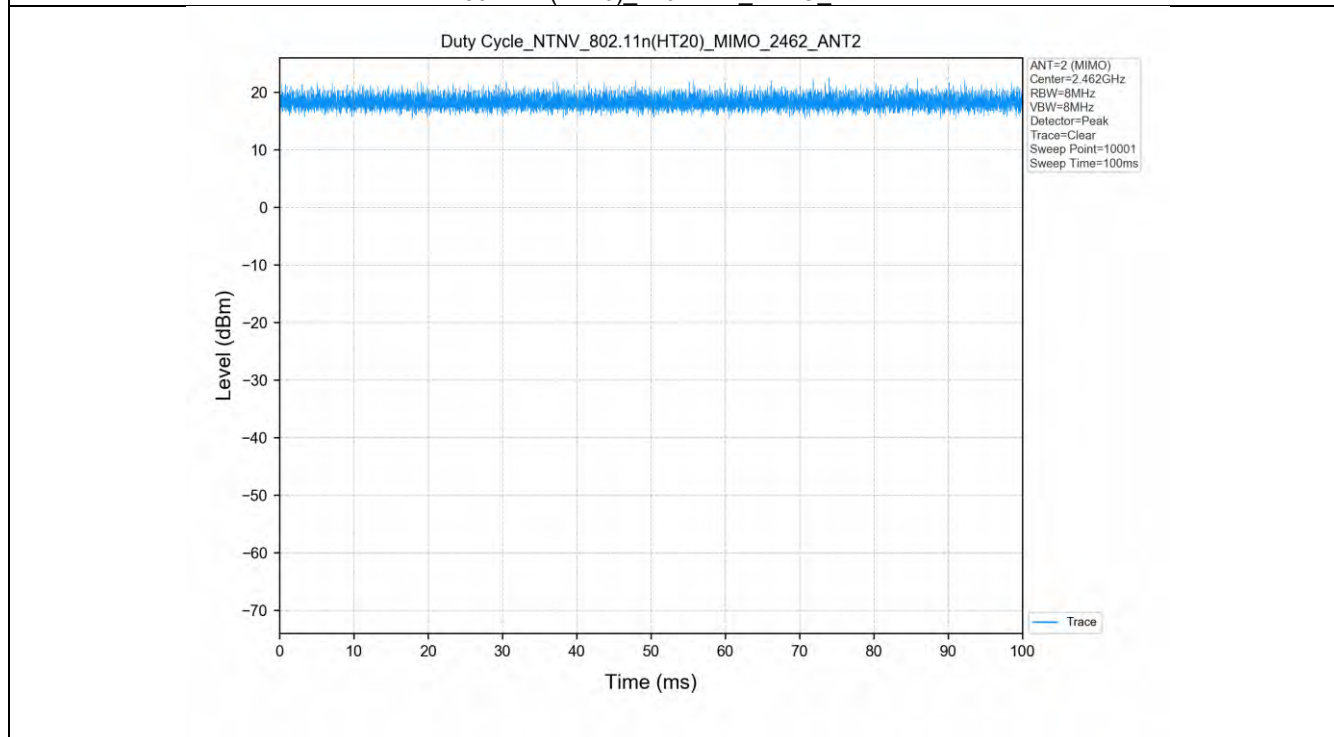
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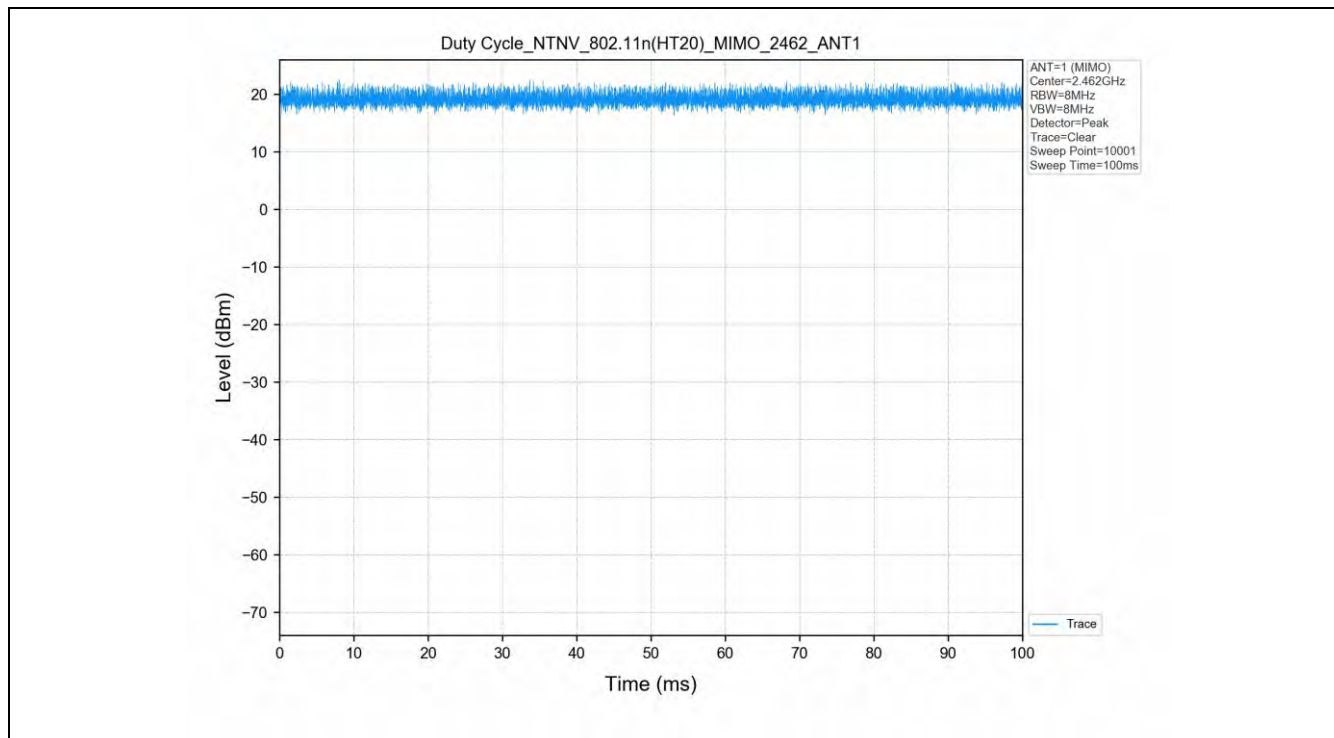
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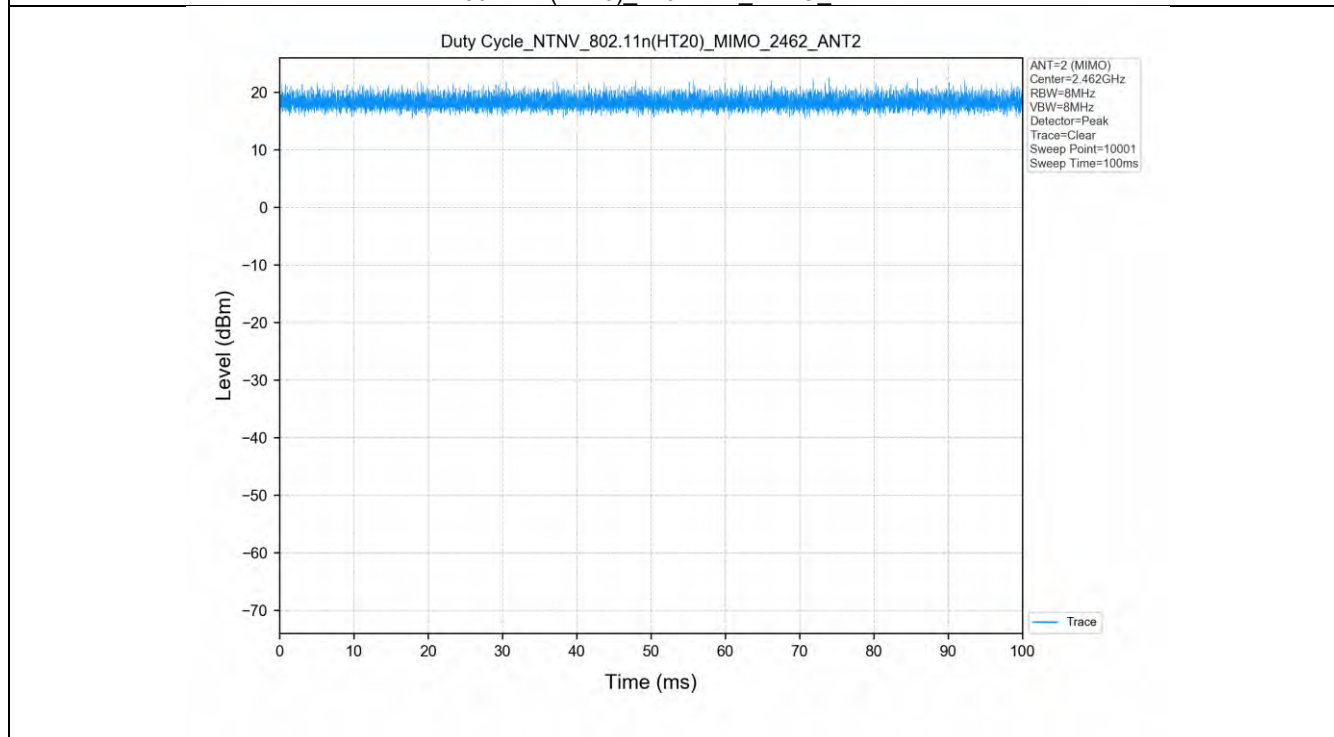
802.11n(HT20)_2462MHz_MIMO_ANT1



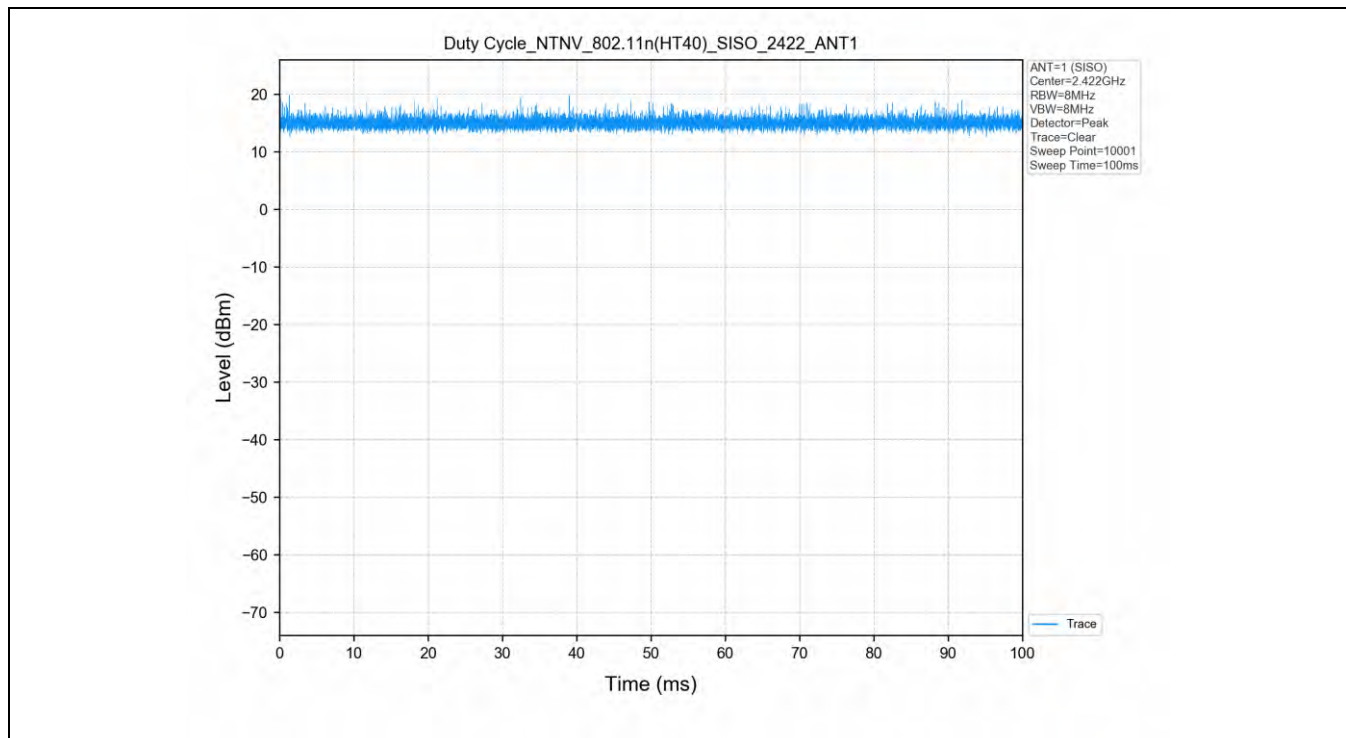
802.11n(HT20)_2462MHz_MIMO_ANT2



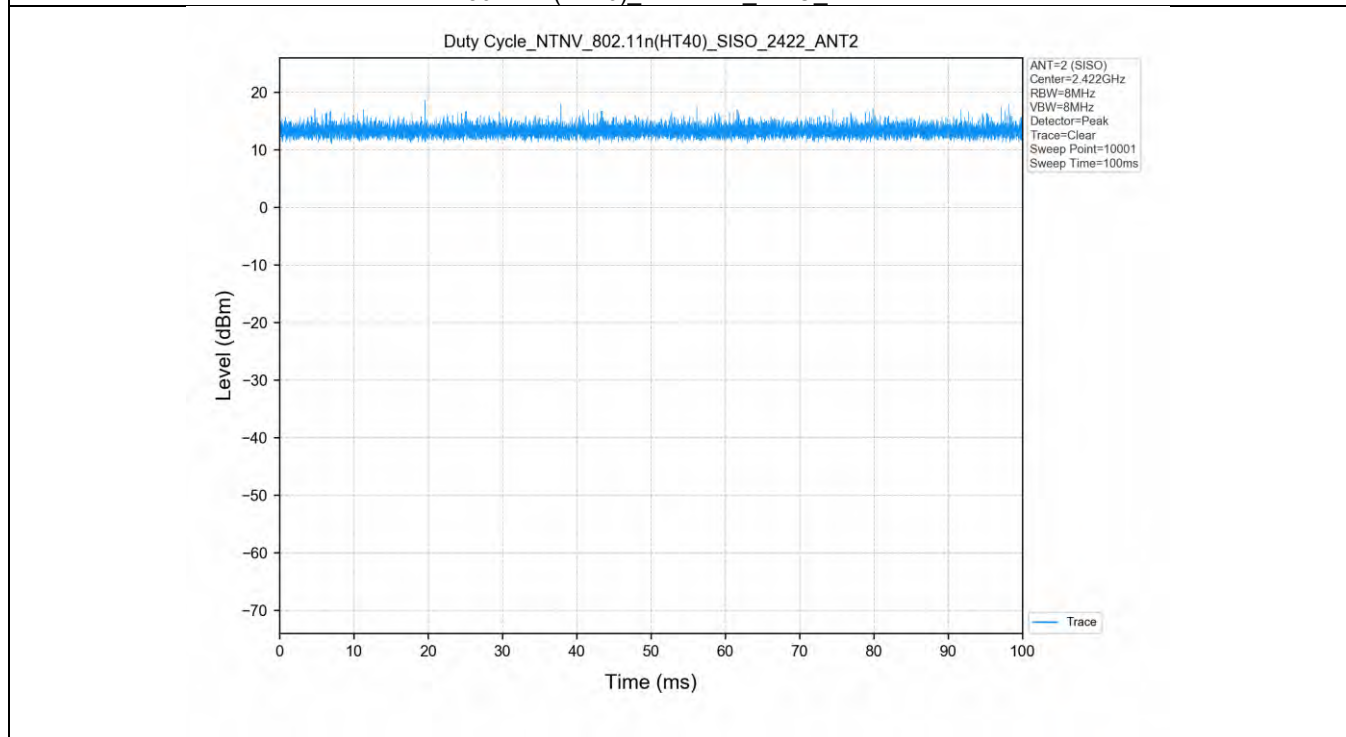
802.11n(HT20)_2462MHz_MIMO_ANT2



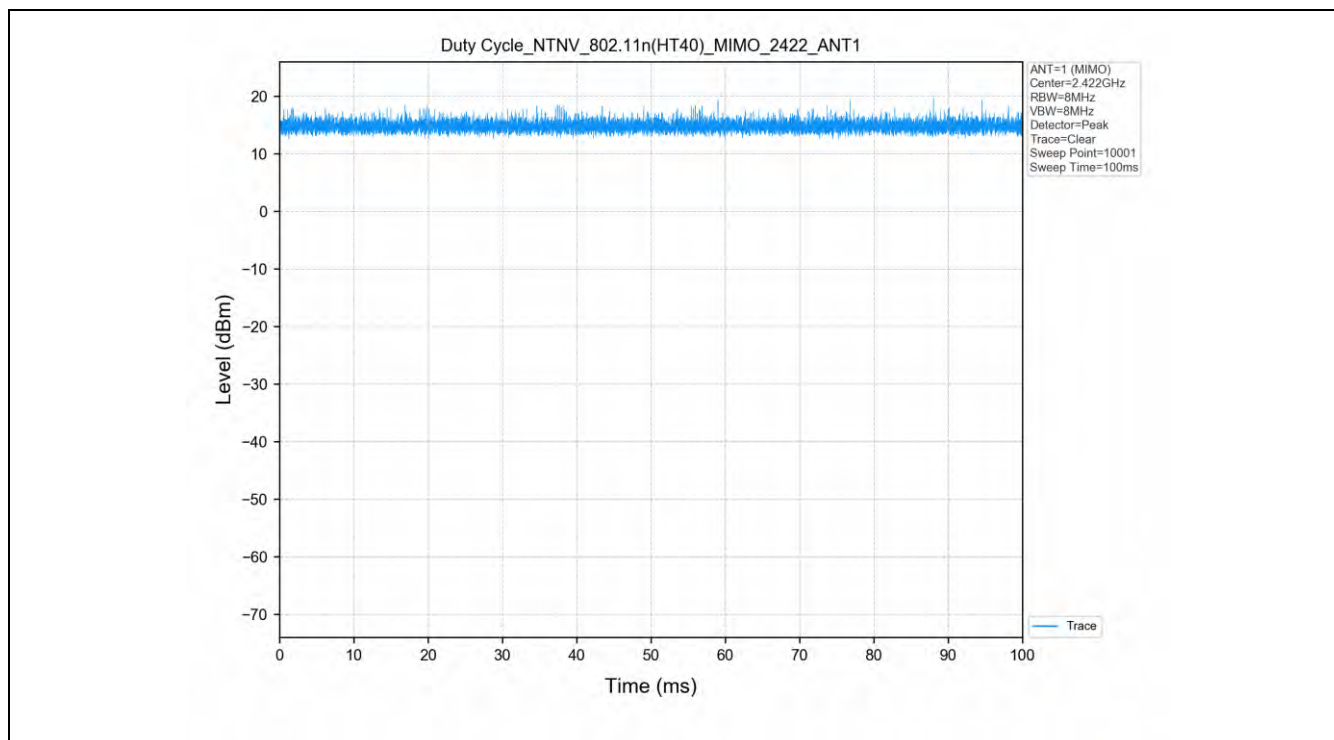
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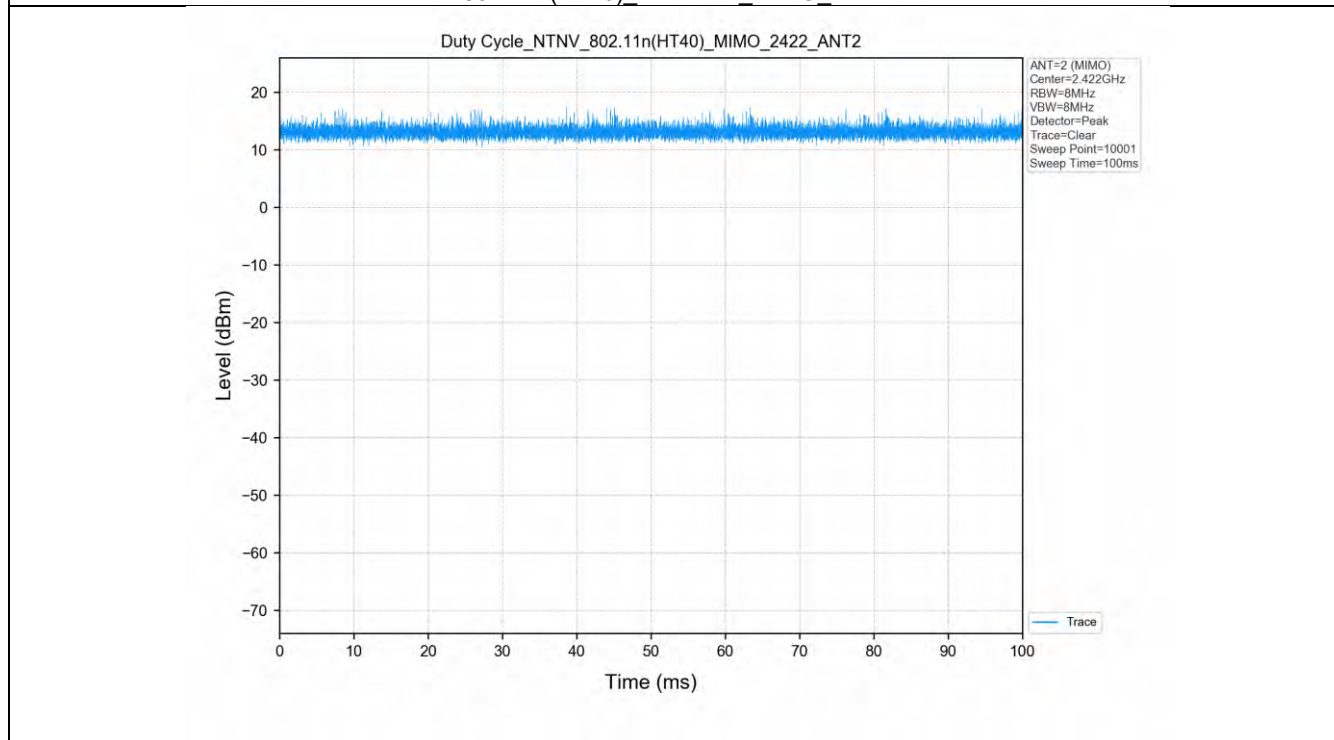
802.11n(HT40)_2422MHz_SISO_ANT2



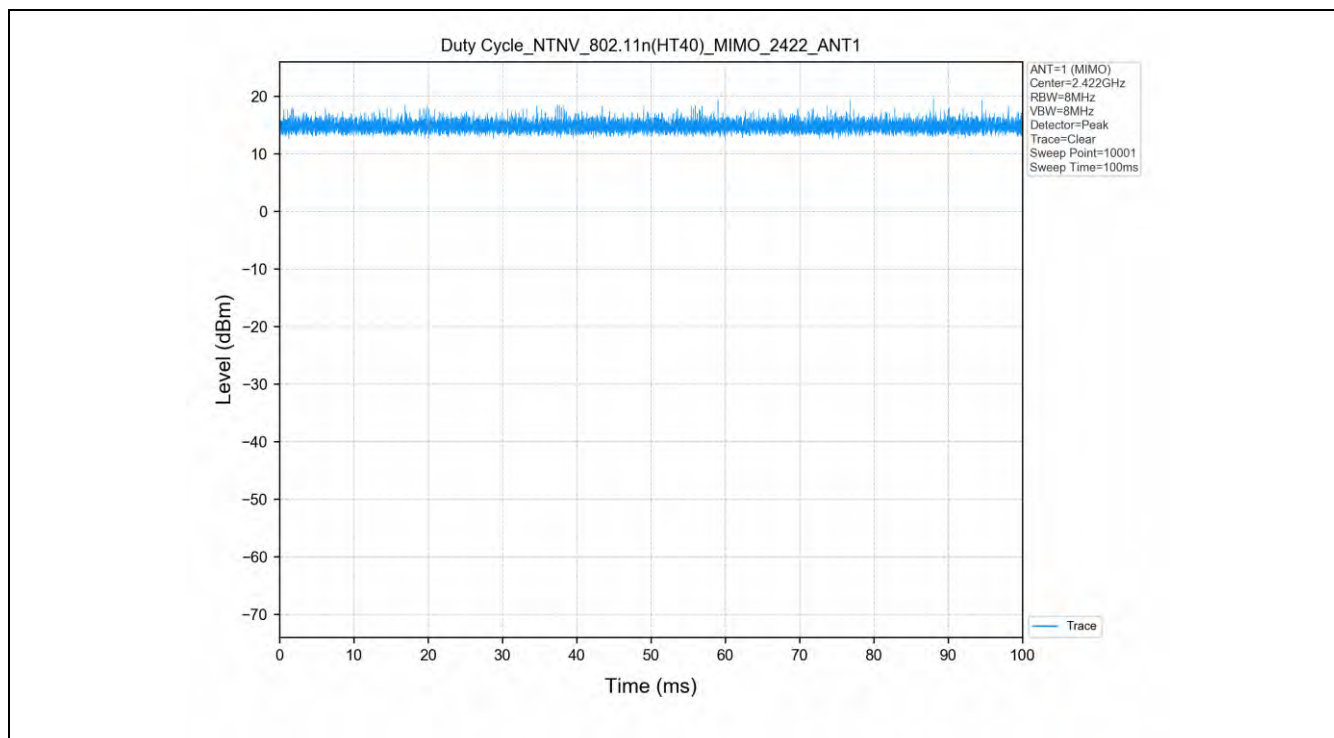
802.11n(HT40)_2422MHz_MIMO_ANT1



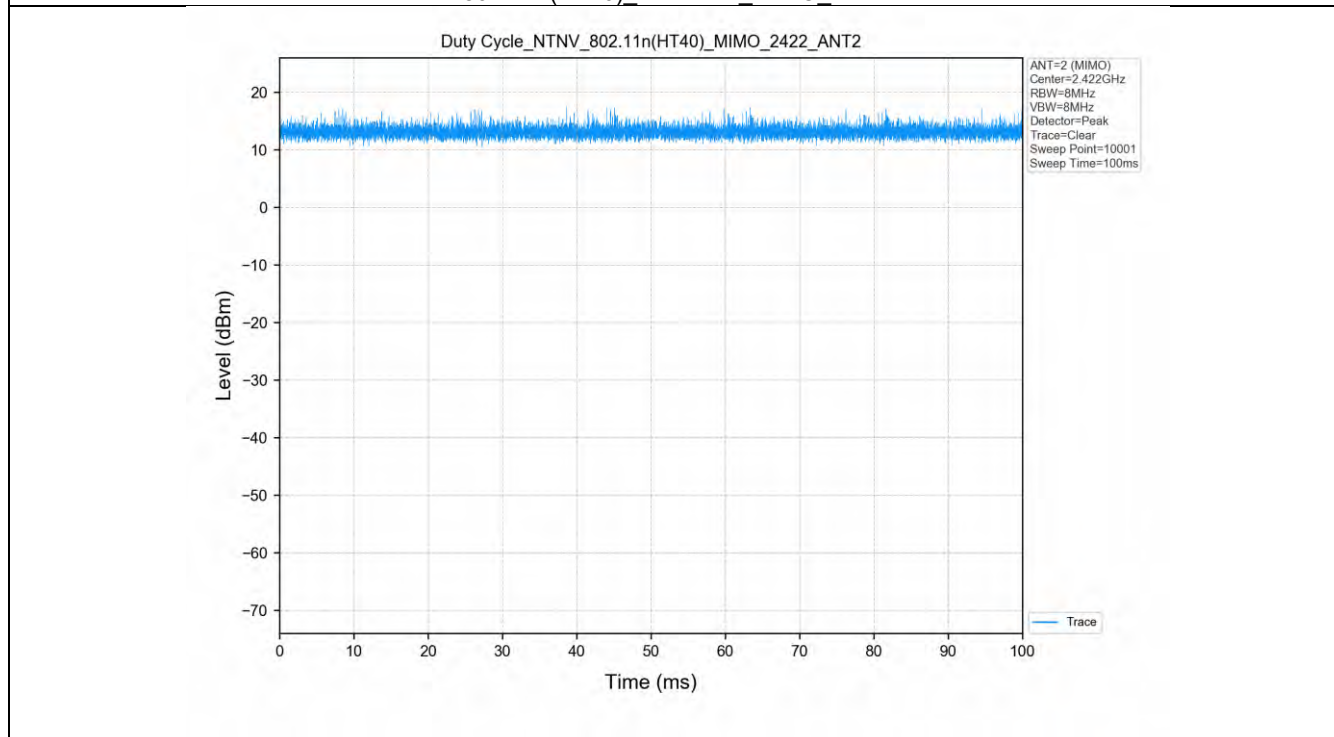
802.11n(HT40)_2422MHz_MIMO_ANT1



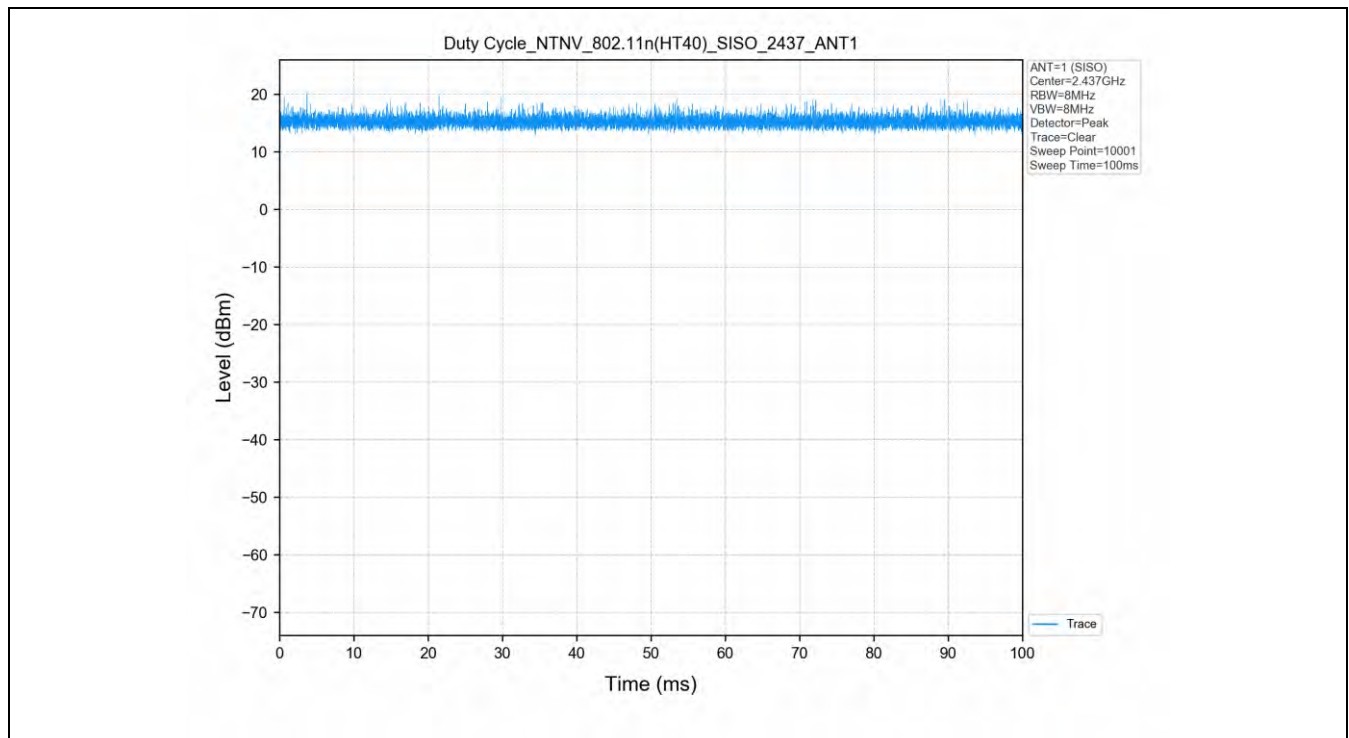
802.11n(HT40)_2422MHz_MIMO_ANT2



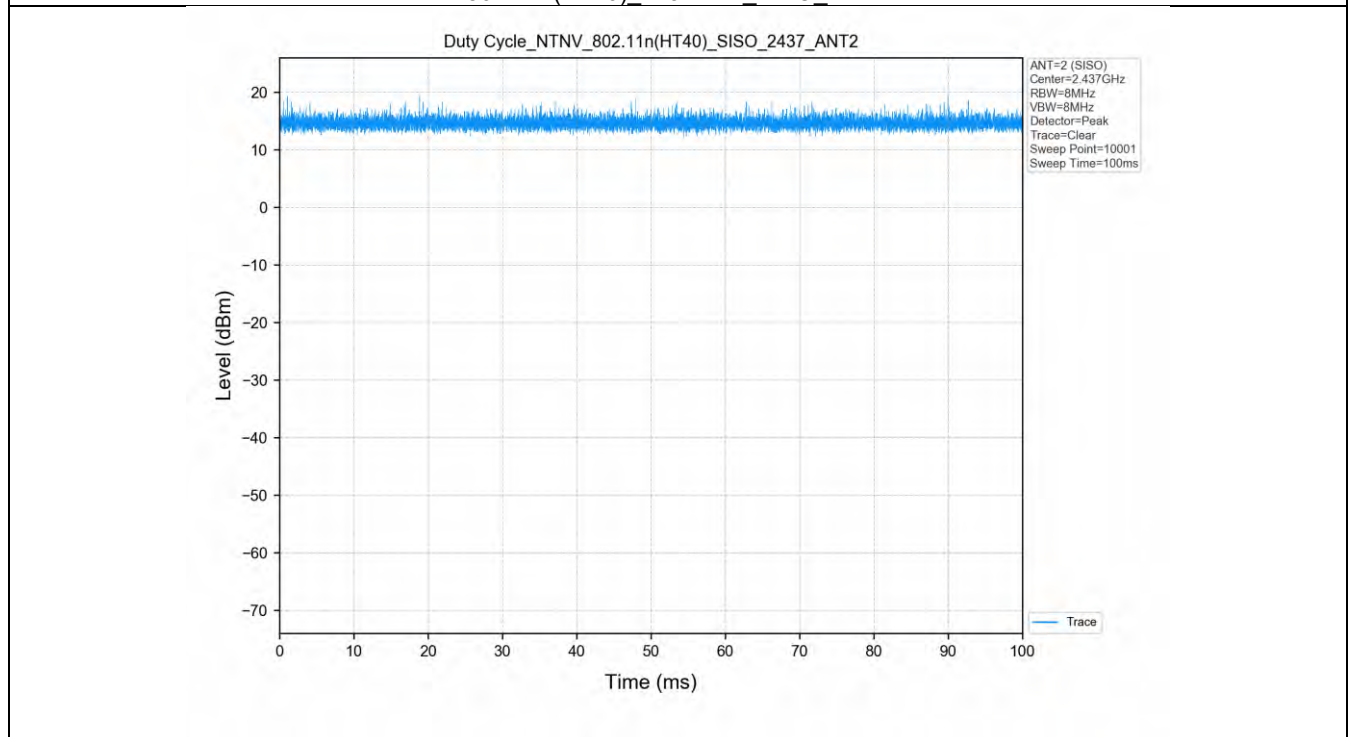
802.11n(HT40)_2422MHz_MIMO_ANT2



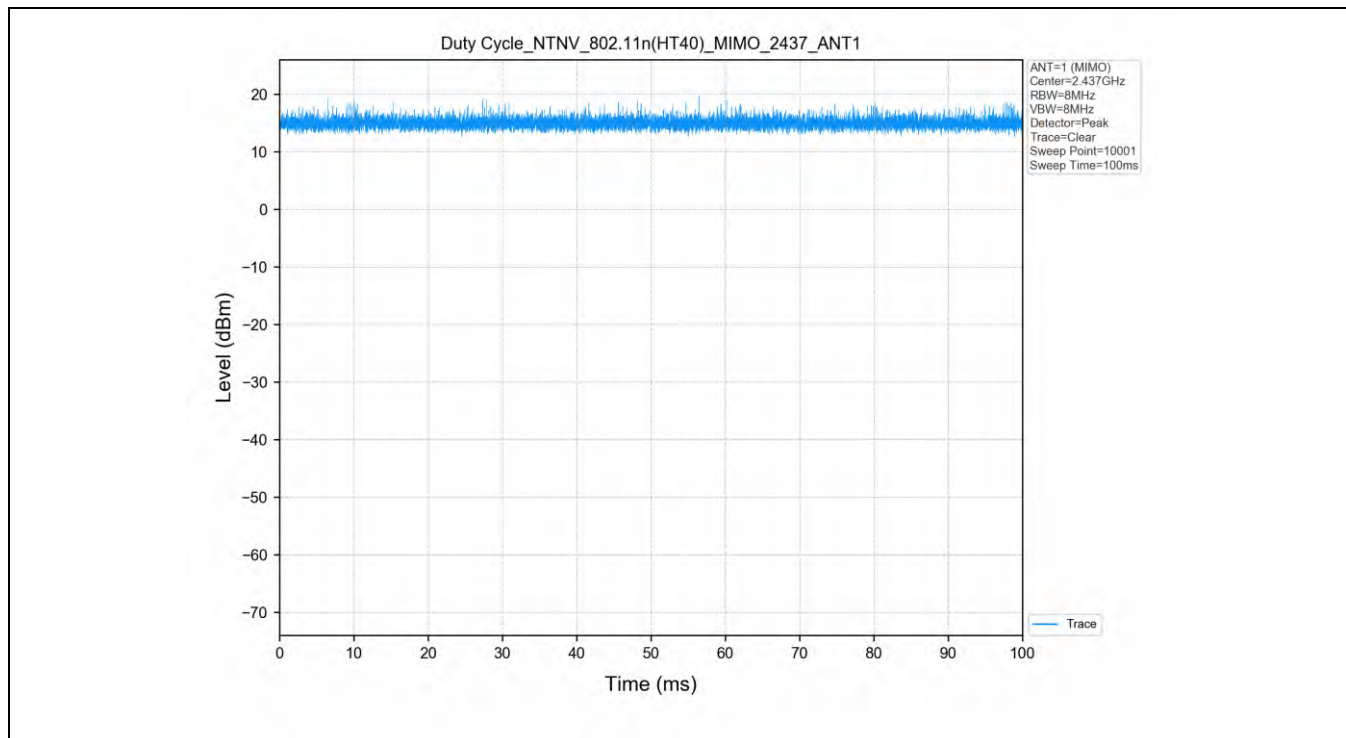
802.11n(HT40)_2437MHz_SISO_ANT1



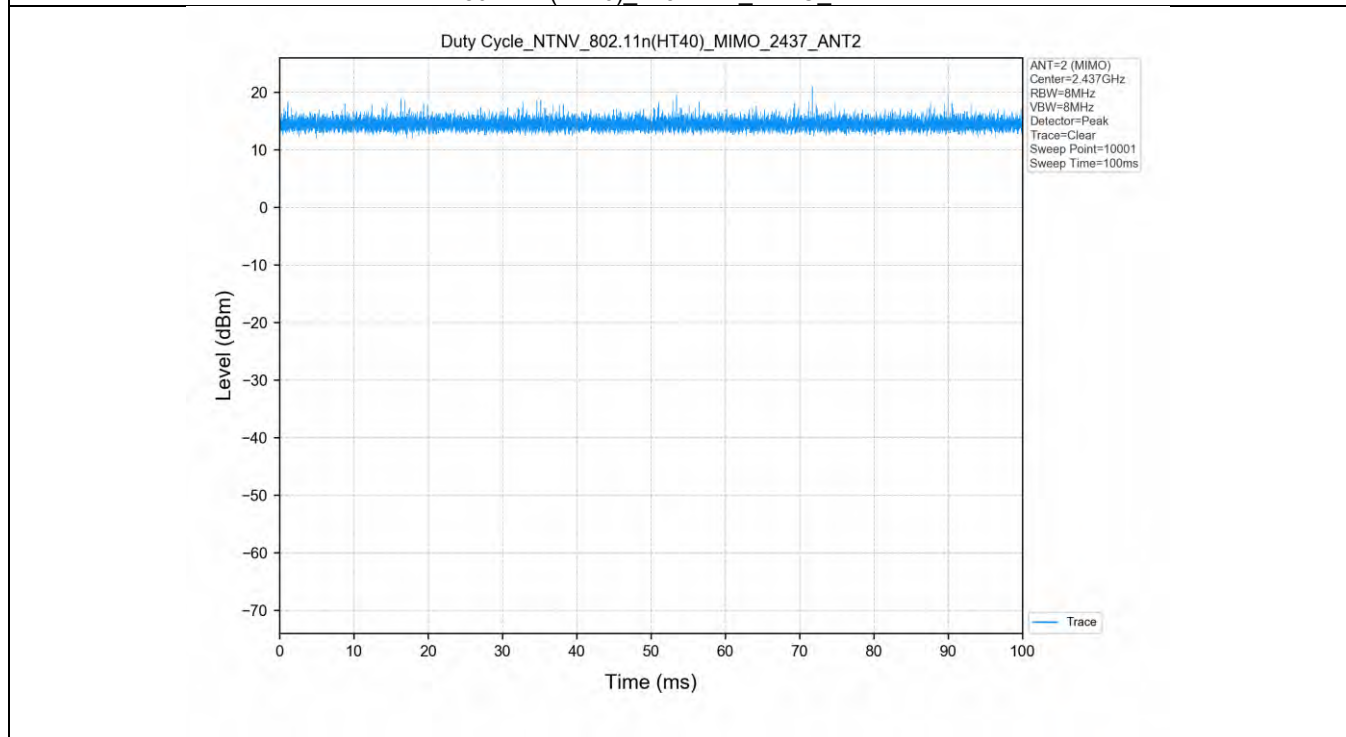
802.11n(HT40)_2437MHz_SISO_ANT2



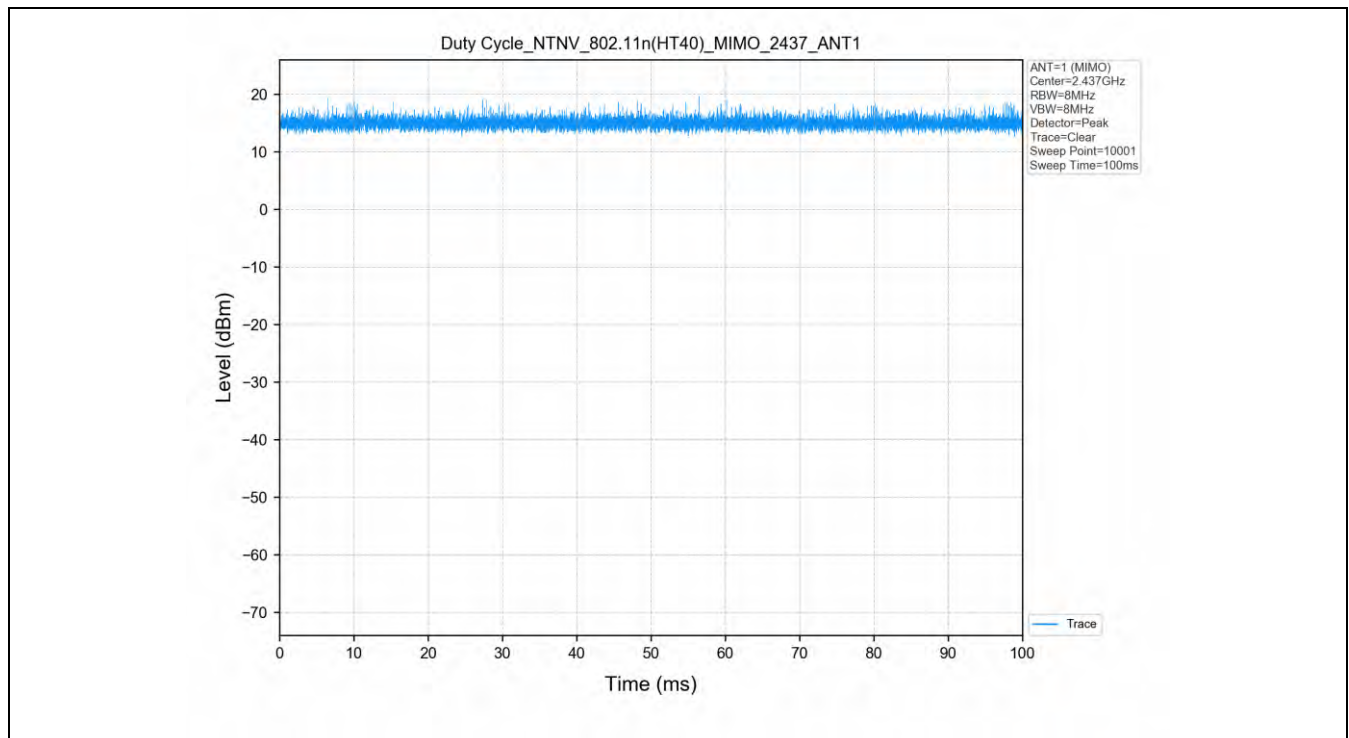
802.11n(HT40)_2437MHz_MIMO_ANT1



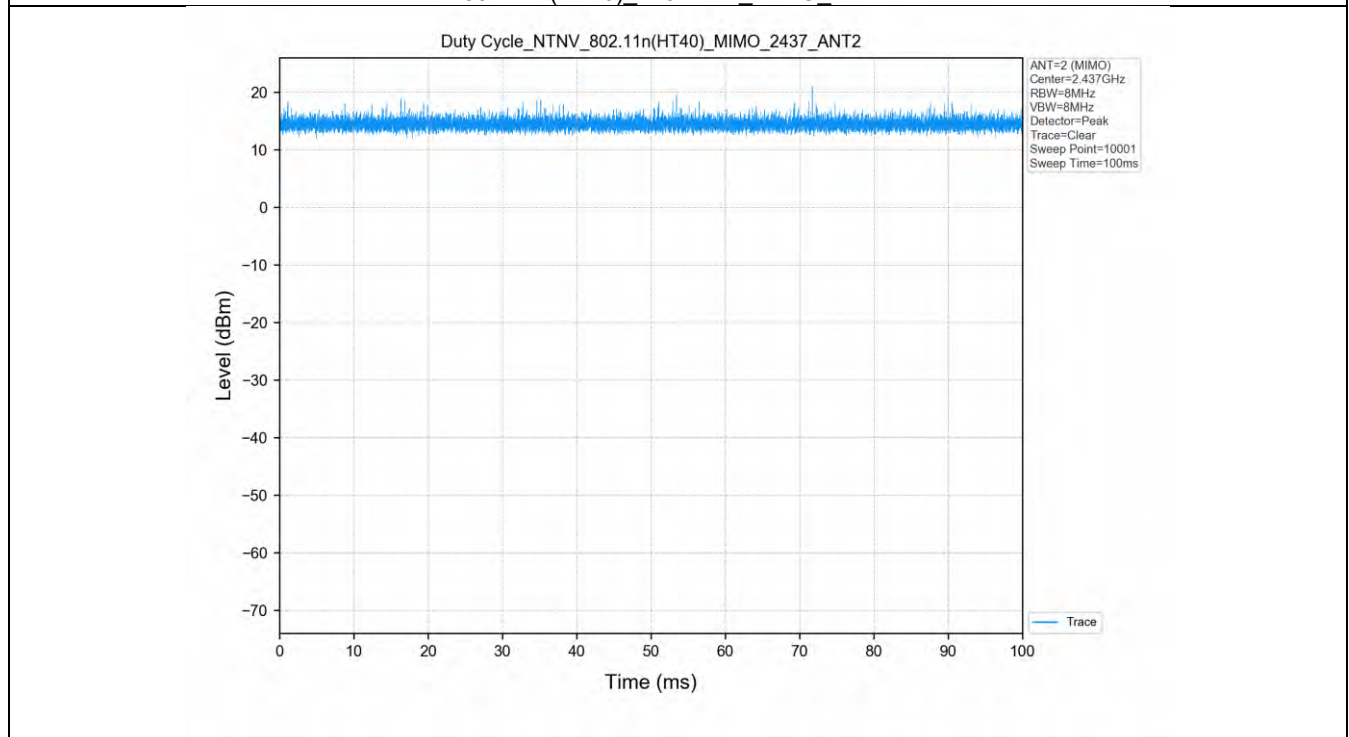
802.11n(HT40)_2437MHz_MIMO_ANT1



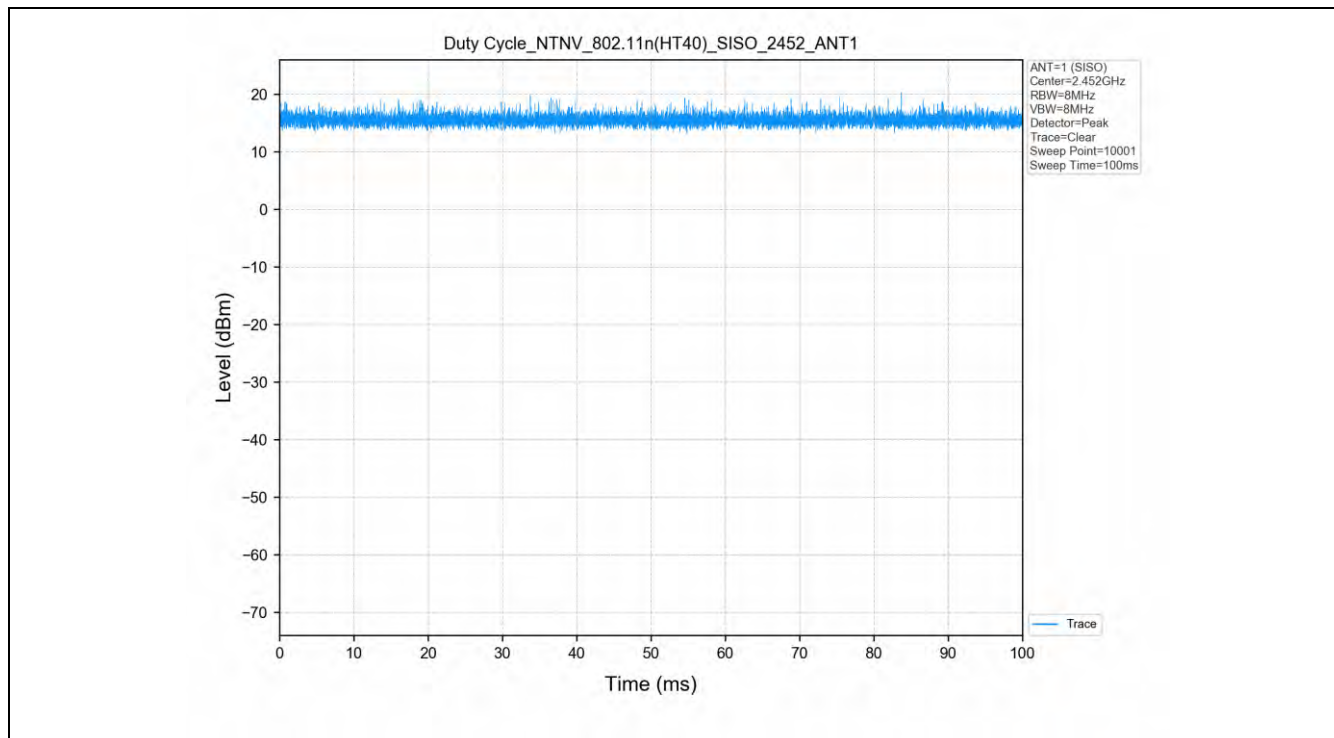
802.11n(HT40)_2437MHz_MIMO_ANT2



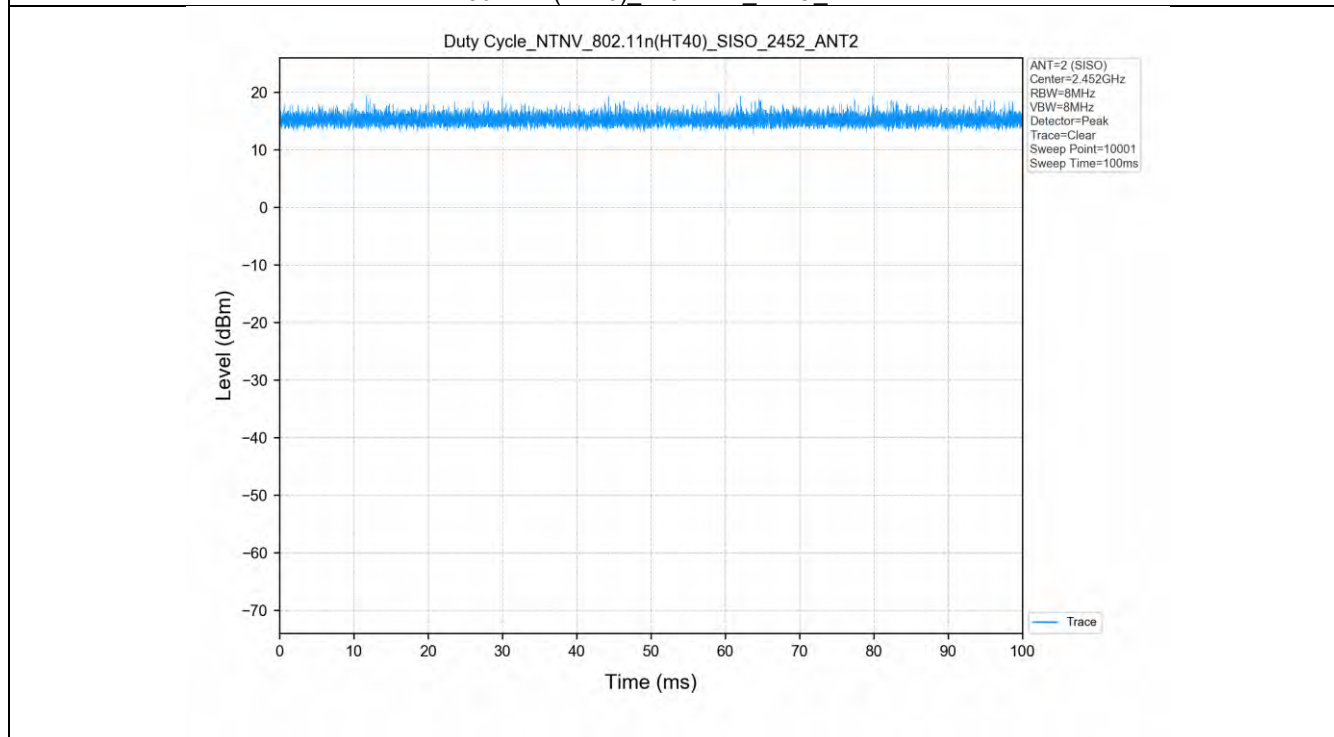
802.11n(HT40)_2437MHz_MIMO_ANT2



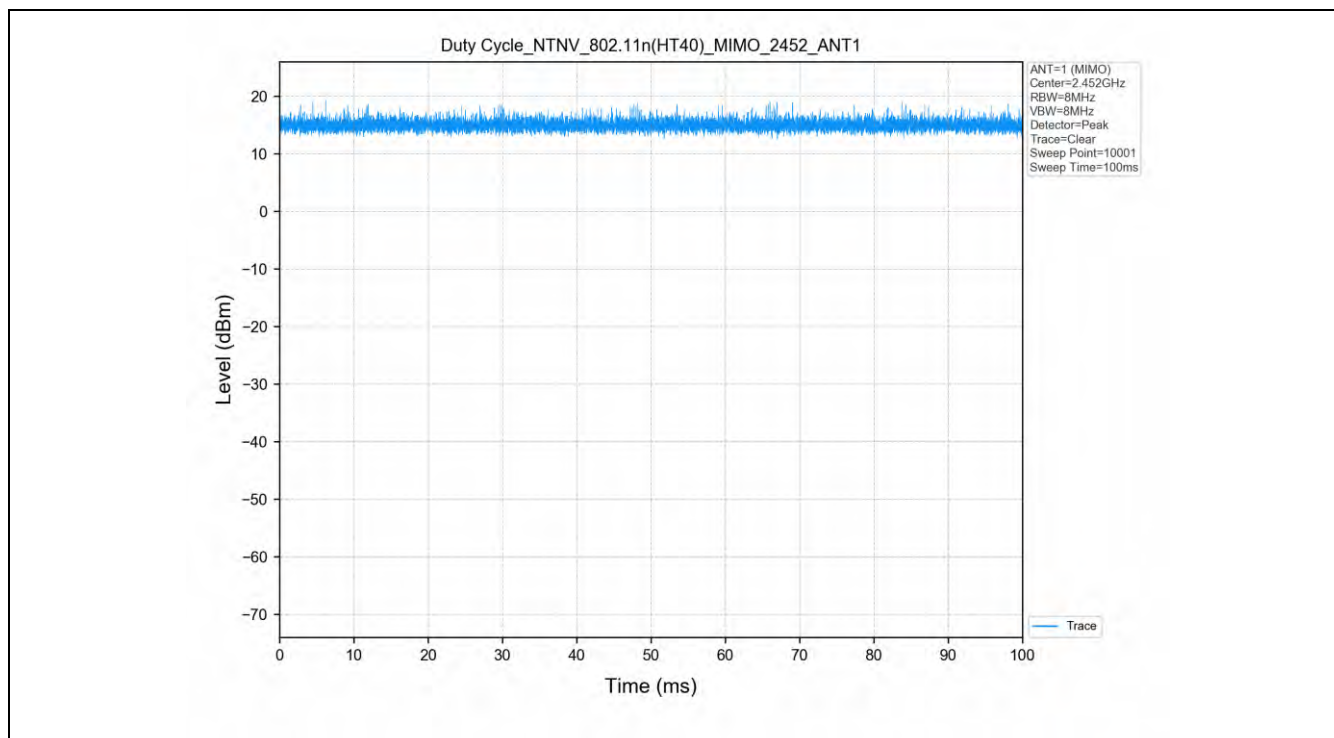
802.11n(HT40)_2452MHz_SISO_ANT1



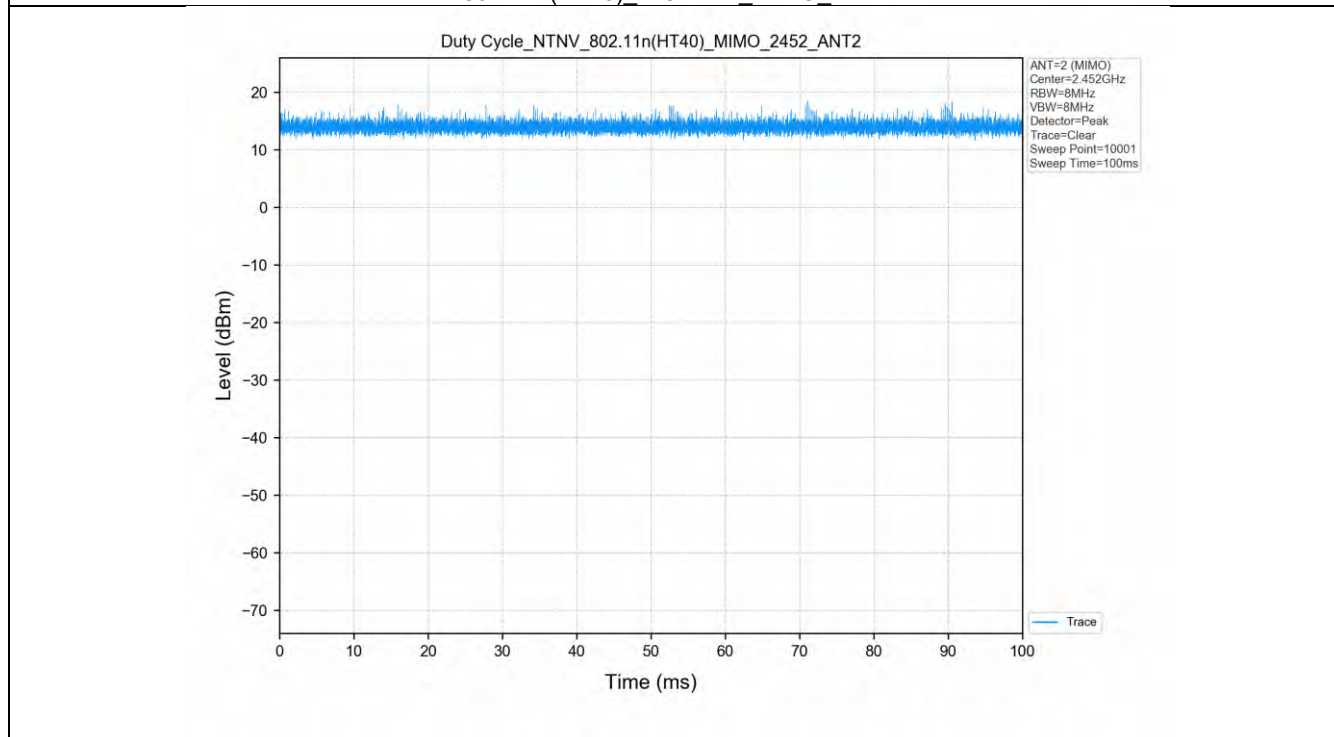
802.11n(HT40)_2452MHz_SISO_ANT2



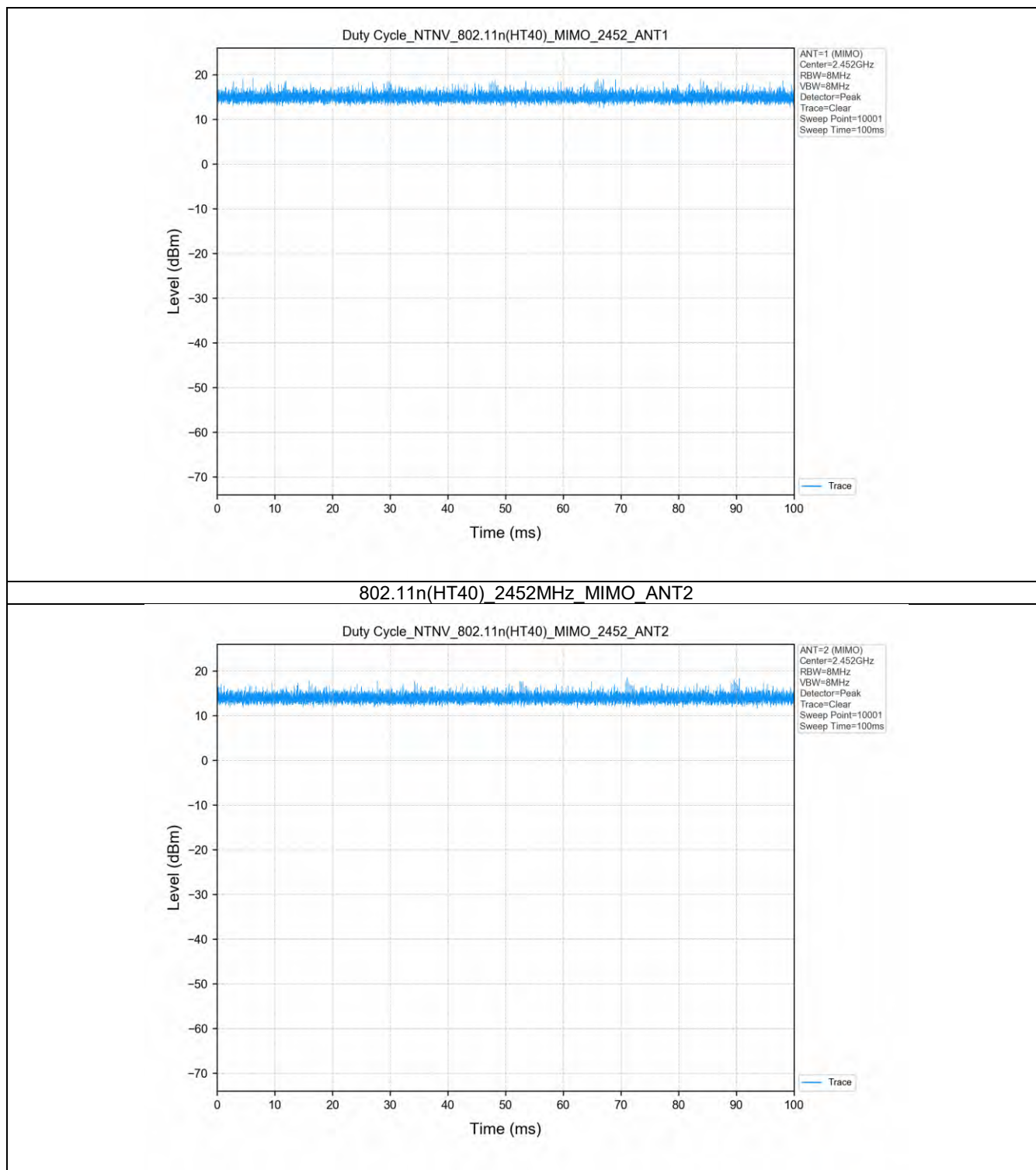
802.11n(HT40)_2452MHz_MIMO_ANT1



802.11n(HT40)_2452MHz_MIMO_ANT1



802.11n(HT40)_2452MHz_MIMO_ANT2





2. Bandwidth

2.1 Test Result

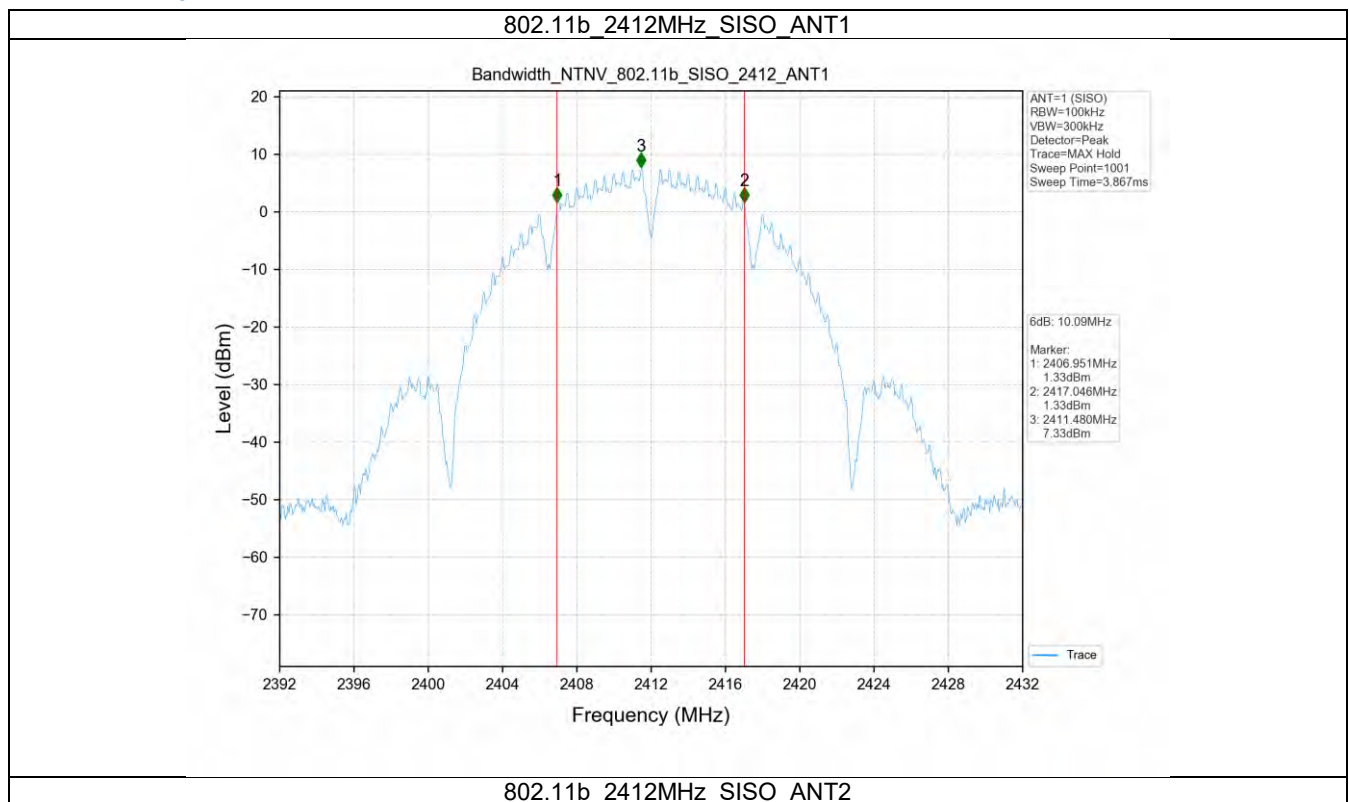
Test Mode	Frequency (MHz)	TX Type	ANT No.	6dB Bandwidth		Verdict
				Test Result (MHz)	Limits (MHz)	
802.11b	2412	SISO	1	10.090	≥0.5	PASS
			2	10.050	≥0.5	PASS
	2437	SISO	1	10.100	≥0.5	PASS
			2	10.080	≥0.5	PASS
	2462	SISO	1	10.100	≥0.5	PASS
			2	10.090	≥0.5	PASS
802.11g	2412	SISO	1	16.610	≥0.5	PASS
			2	16.620	≥0.5	PASS
	2437	SISO	1	16.620	≥0.5	PASS
			2	16.600	≥0.5	PASS
	2462	SISO	1	16.620	≥0.5	PASS
			2	16.620	≥0.5	PASS
802.11n(HT20)	2412	SISO	1	17.850	≥0.5	PASS
			2	17.840	≥0.5	PASS
	2437	MIMO	0	17.830	≥0.5	PASS
			1	17.850	≥0.5	PASS
		SISO	2	17.810	≥0.5	PASS
			0	17.800	≥0.5	PASS
	2462	MIMO	1	17.840	≥0.5	PASS
			2	17.850	≥0.5	PASS
		SISO	0	17.860	≥0.5	PASS
			1	17.850	≥0.5	PASS
802.11n(HT40)	2422	SISO	1	36.530	≥0.5	PASS
			2	36.550	≥0.5	PASS
		MIMO	0	36.520	≥0.5	PASS
	2437	SISO	1	36.500	≥0.5	PASS
			2	36.460	≥0.5	PASS
		MIMO	0	36.450	≥0.5	PASS
	2452	SISO	1	36.460	≥0.5	PASS
			2	36.450	≥0.5	PASS
		MIMO	1	36.460	≥0.5	PASS
			0	36.480	≥0.5	PASS

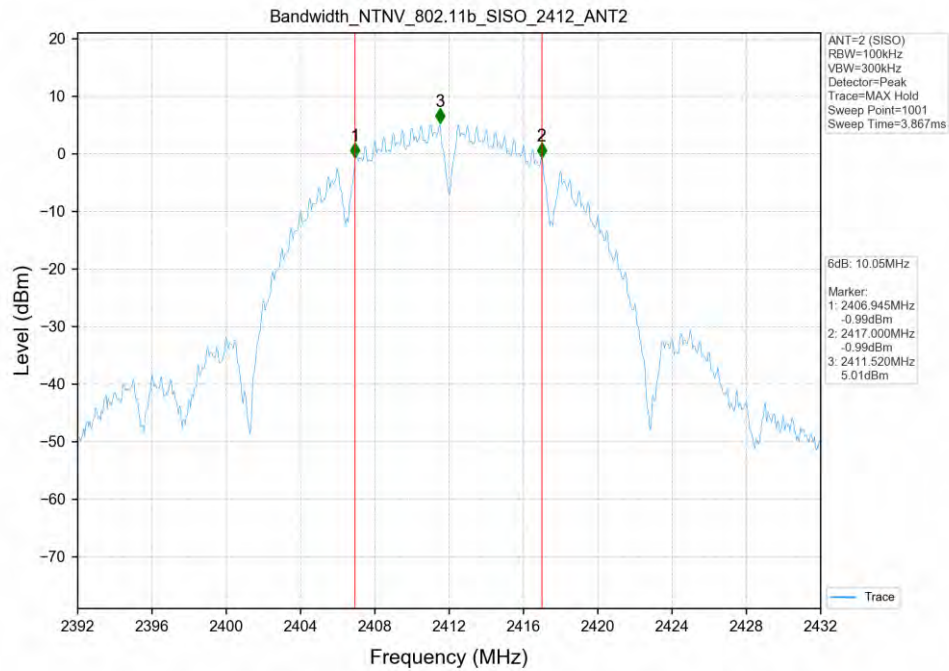
Test Mode	Frequency (MHz)	TX Type	ANT No.	99% Occupied Bandwidth	
				Test Result (MHz)	
802.11b	2412	SISO	1	15.110	Only for Report Use
			2	15.060	Only for Report Use
	2437	SISO	1	15.100	Only for Report Use
			2	14.980	Only for Report Use
	2462	SISO	1	15.110	Only for Report Use
			2	15.080	Only for Report Use
802.11g	2412	SISO	1	17.000	Only for Report Use
			2	17.060	Only for Report Use
	2437	SISO	1	17.010	Only for Report Use
			2	16.960	Only for Report Use
	2462	SISO	1	17.010	Only for Report Use
			2	17.070	Only for Report Use
802.11n(HT20)	2412	SISO	1	18.060	Only for Report Use
			2	18.090	Only for Report Use
		MIMO	0	18.080	Only for Report Use



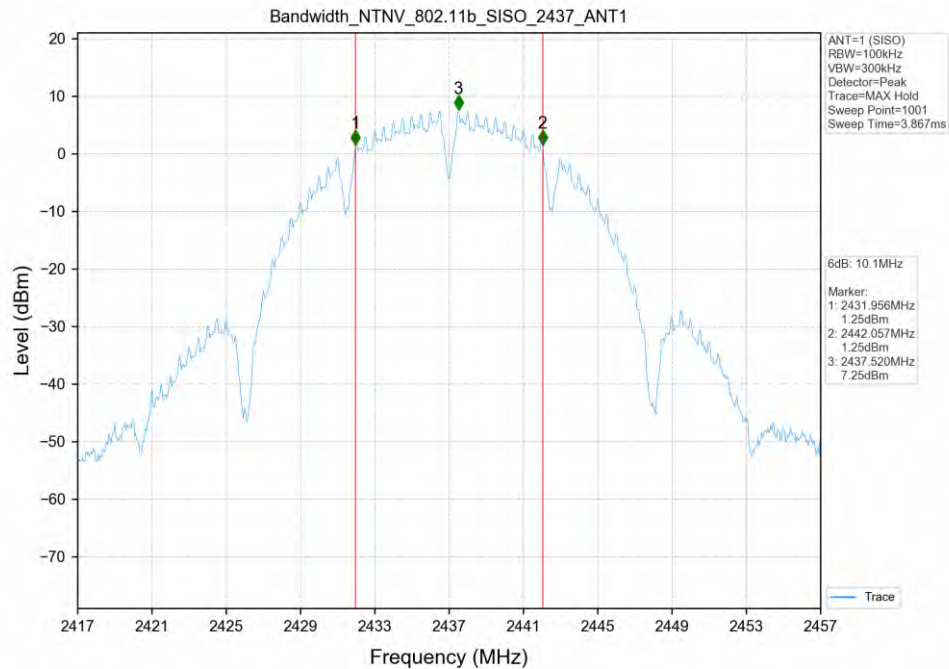
	2437	SISO	1	18.050	Only for Report Use
			2	18.030	Only for Report Use
		MIMO	0	18.040	Only for Report Use
	2462	SISO	1	18.050	Only for Report Use
			2	18.080	Only for Report Use
		MIMO	0	18.070	Only for Report Use
802.11n(HT40)	2422	SISO	1	36.770	Only for Report Use
			2	37.030	Only for Report Use
		MIMO	0	36.960	Only for Report Use
	2437	SISO	1	36.770	Only for Report Use
			2	36.640	Only for Report Use
		MIMO	0	36.600	Only for Report Use
	2452	SISO	1	36.640	Only for Report Use
			2	36.650	Only for Report Use
		MIMO	0	36.640	Only for Report Use

2.2 Test Graph - 6dB Bandwidth

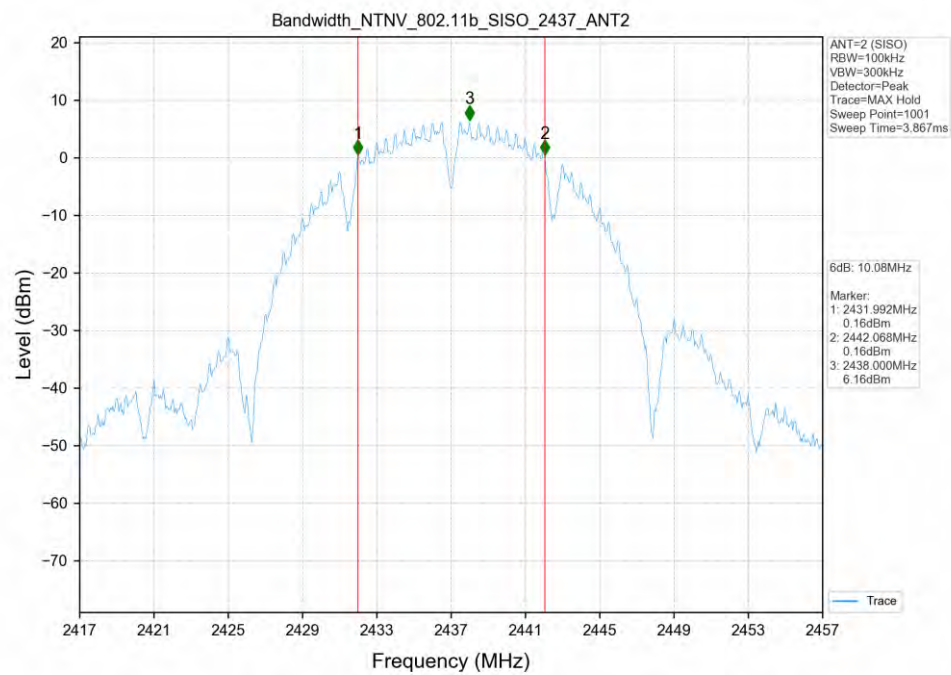




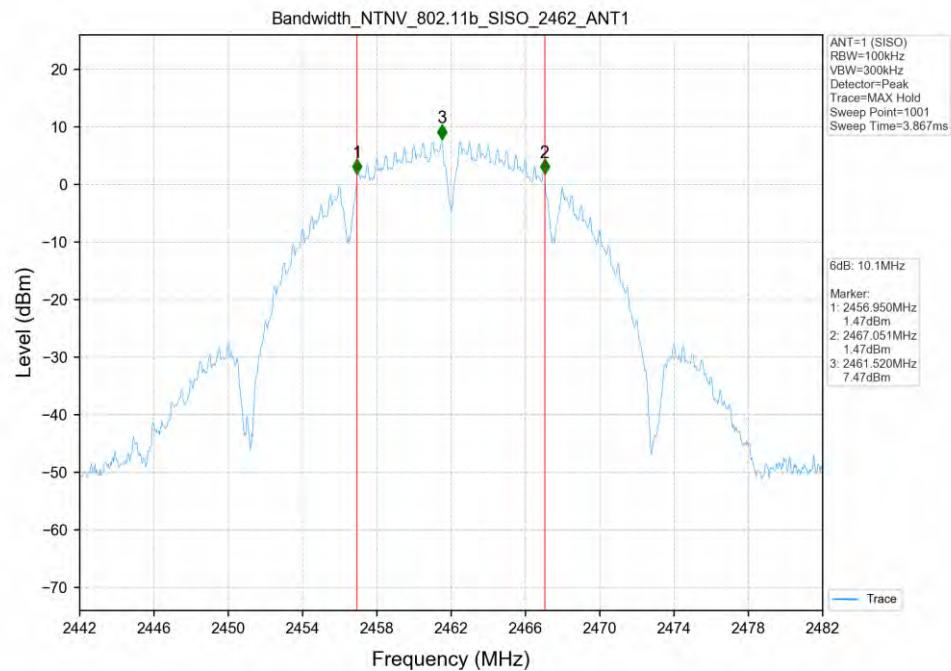
802.11b_2437MHz_SISO_ANT1



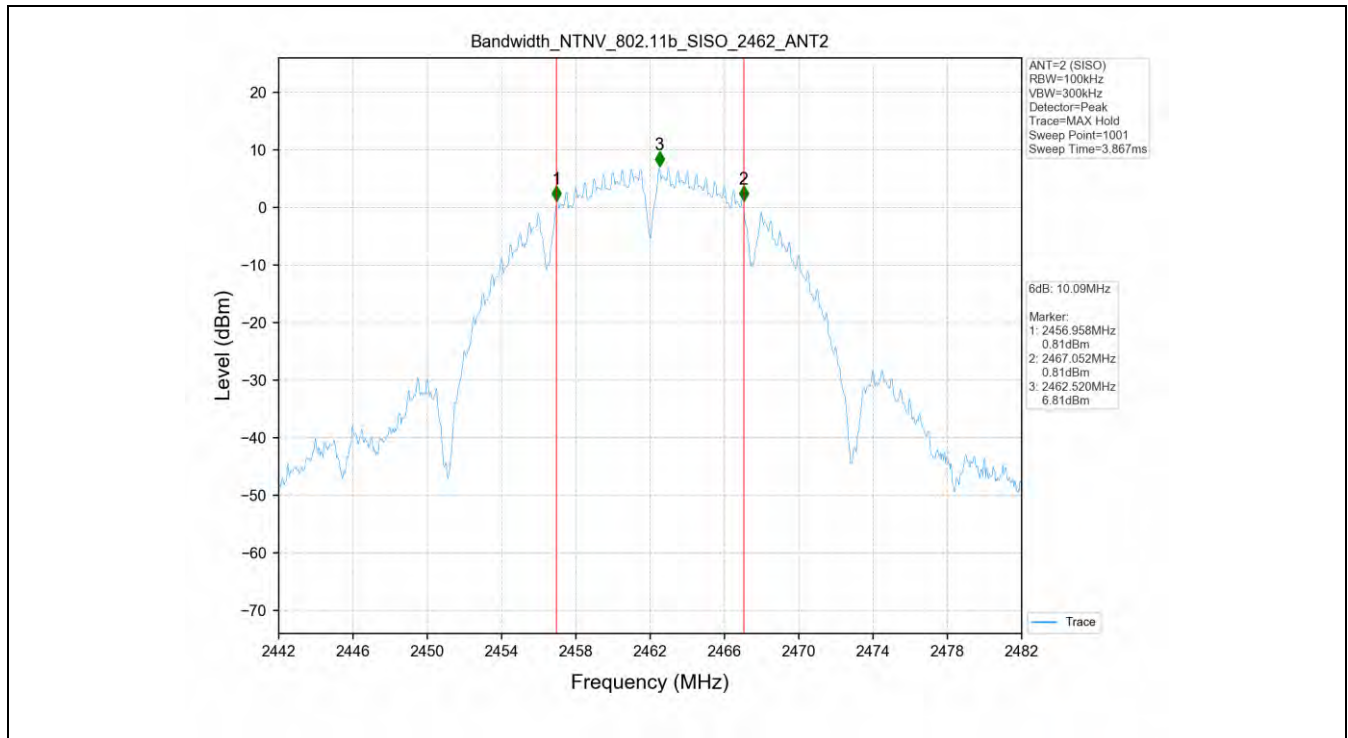
802.11b_2437MHz_SISO_ANT2



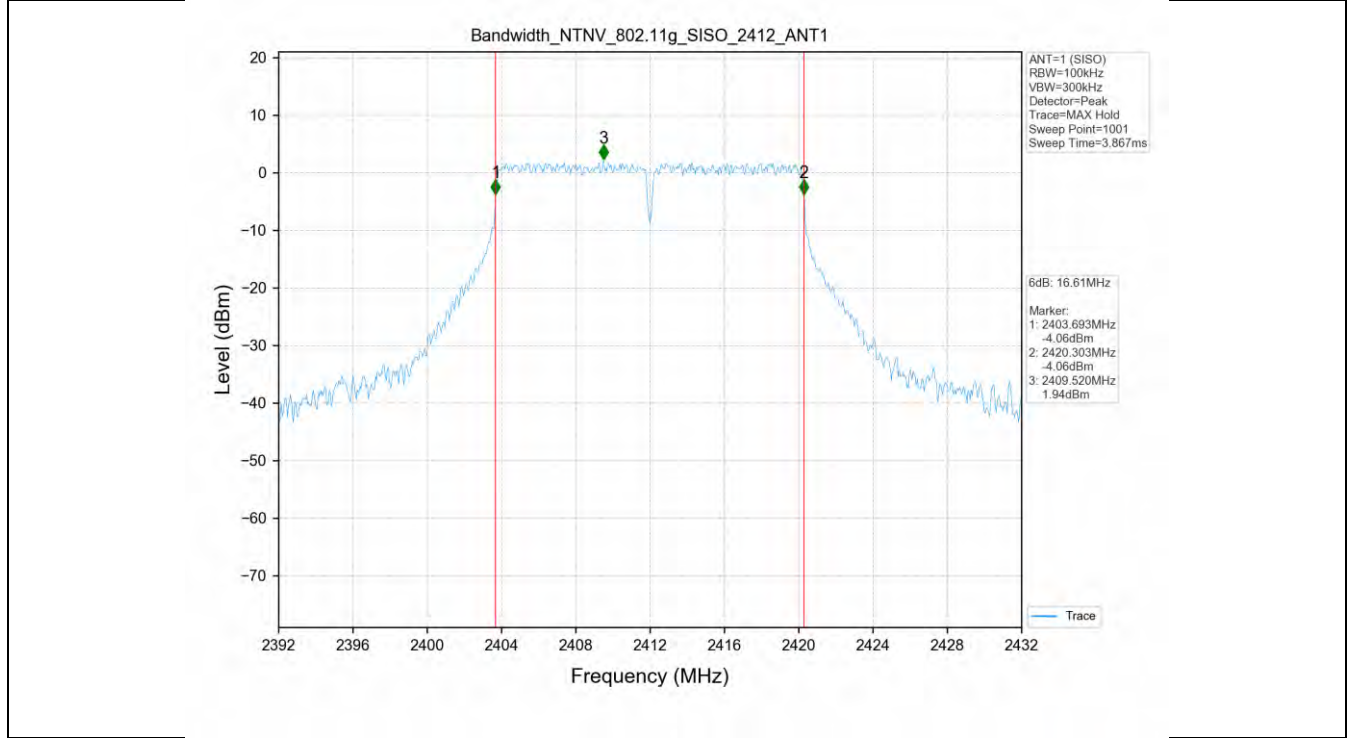
802.11b_2462MHz_SISO_ANT1



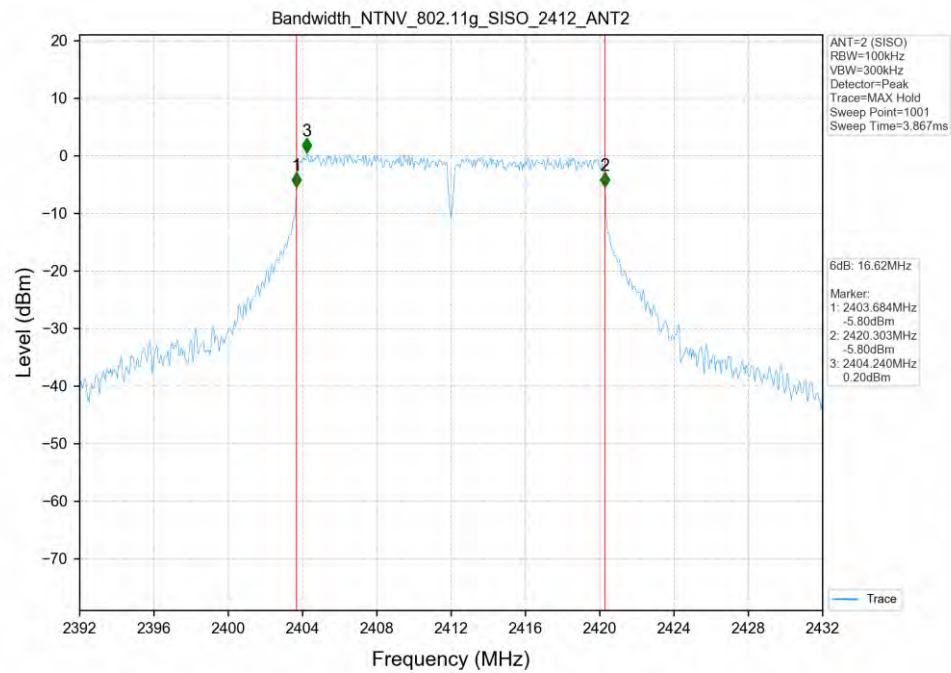
802.11b_2462MHz_SISO_ANT2



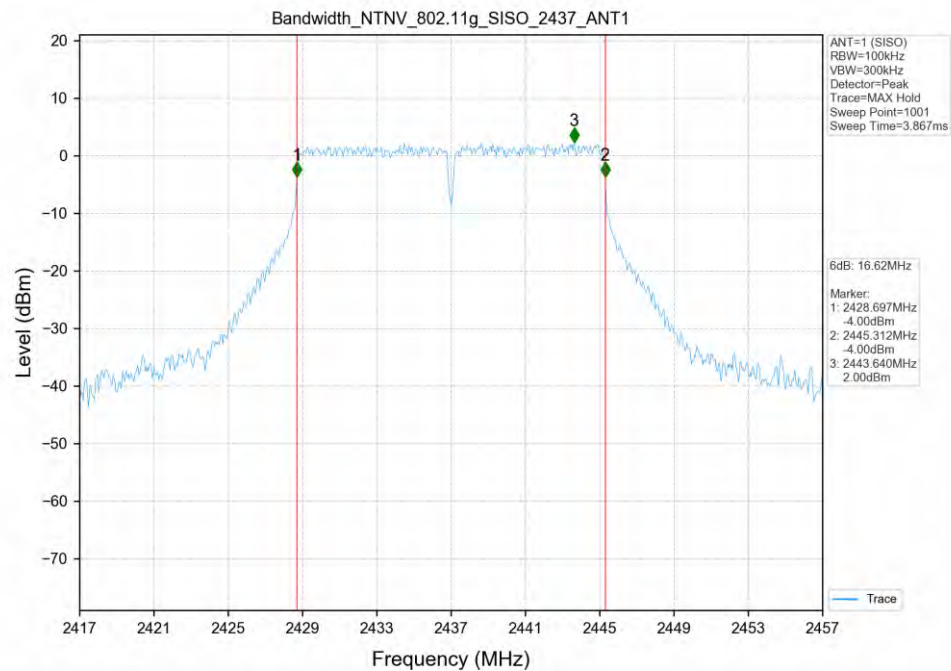
802.11g_2412MHz_SISO_ANT1



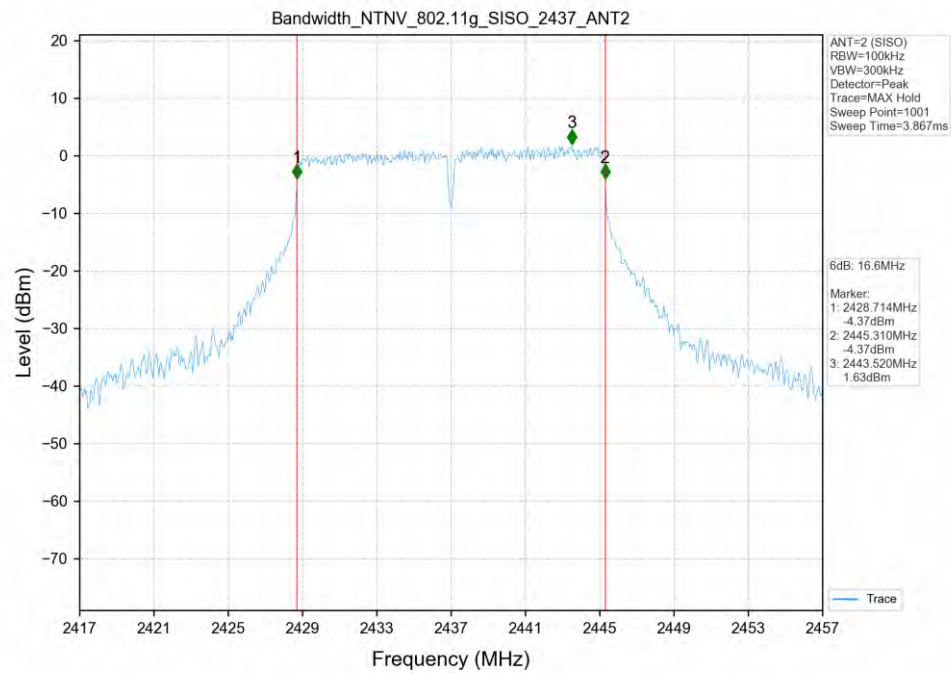
802.11g_2412MHz_SISO_ANT2



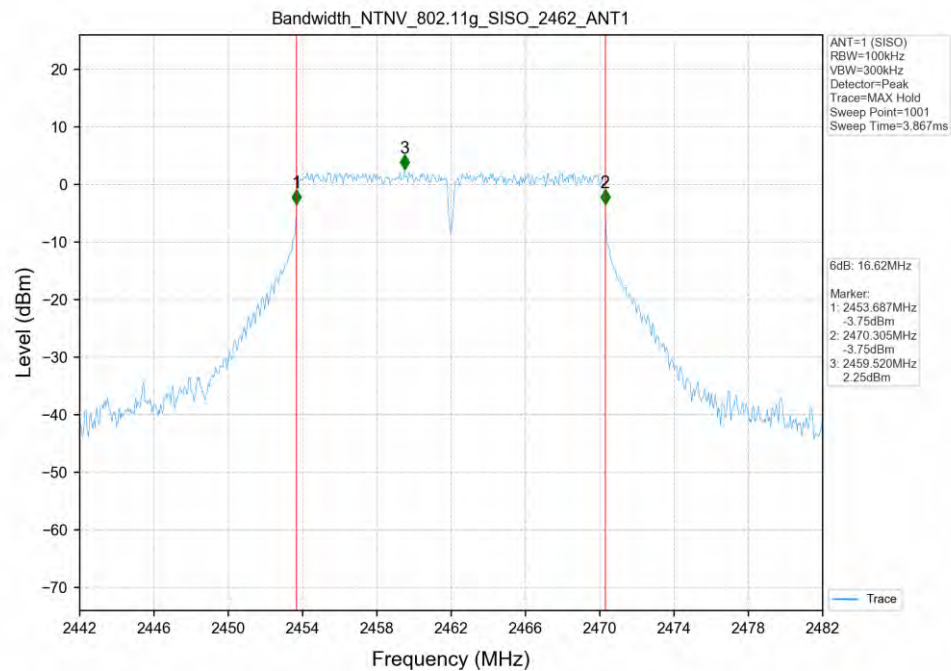
802.11g_2437MHz_SISO_ANT1



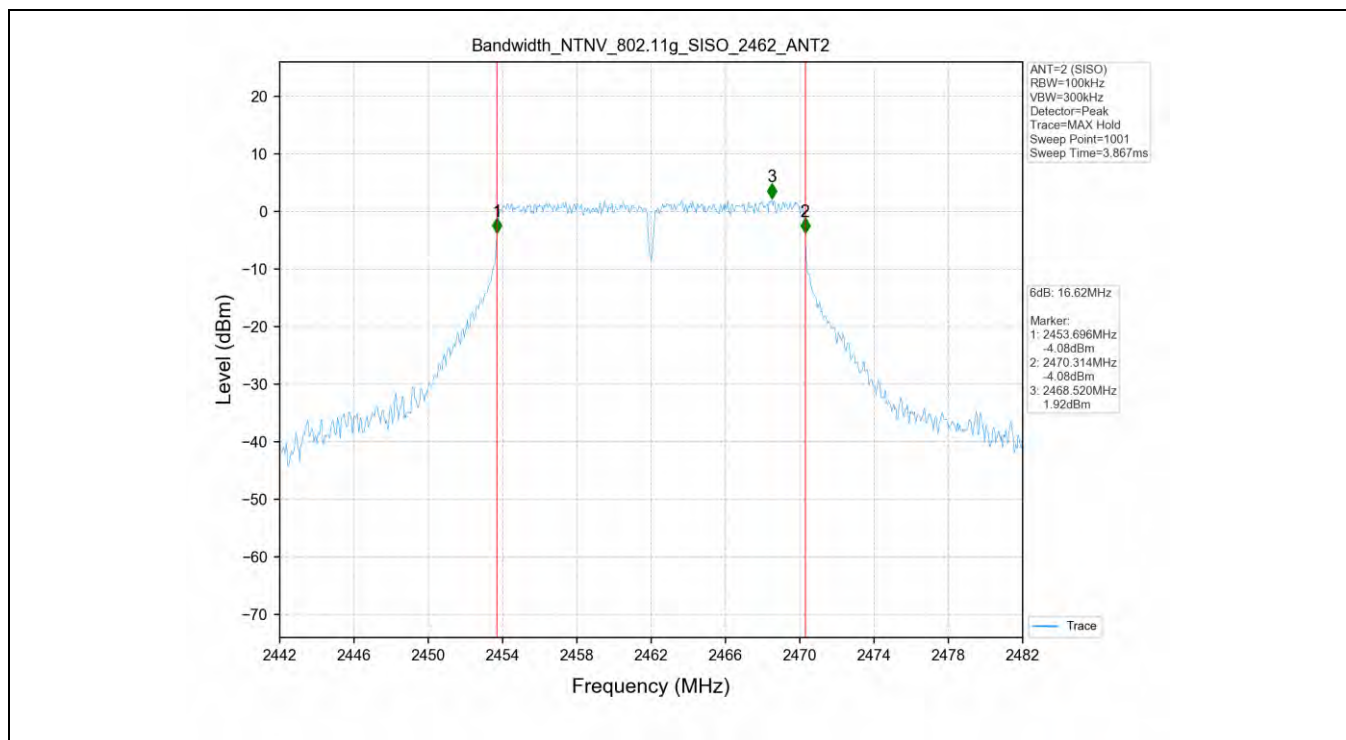
802.11g_2437MHz_SISO_ANT2



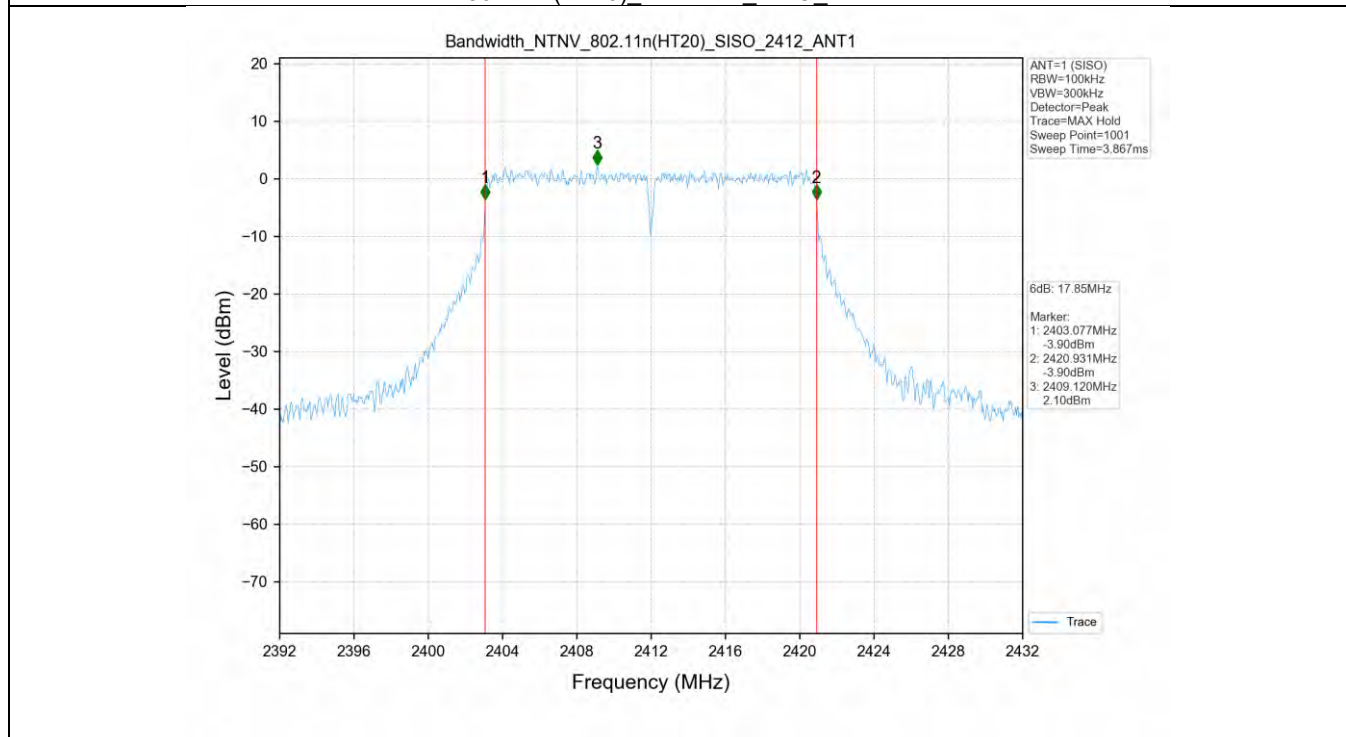
802.11g_2462MHz_SISO_ANT1



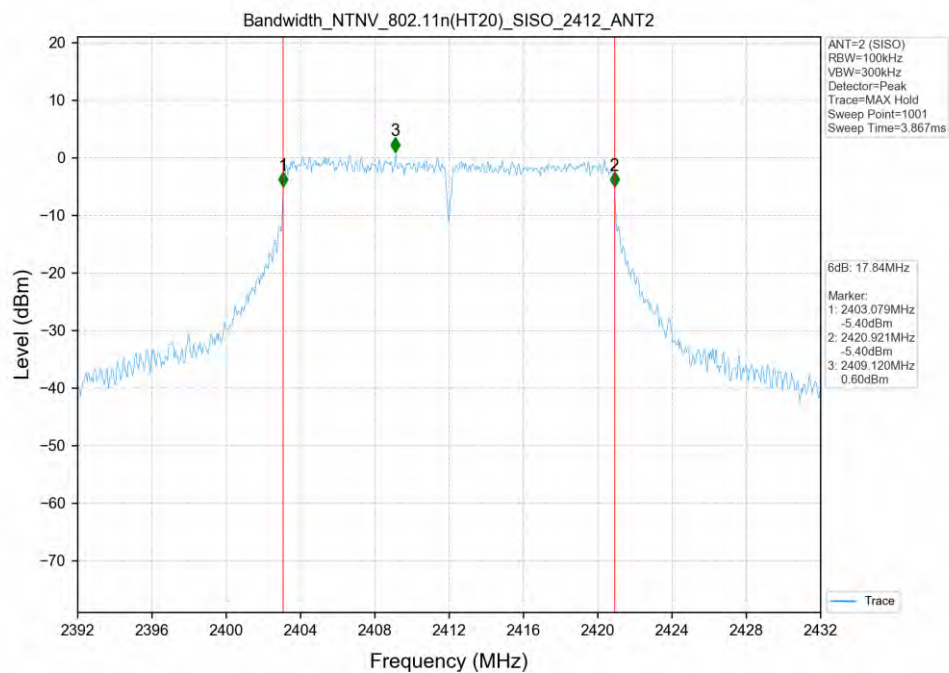
802.11g_2462MHz_SISO_ANT2



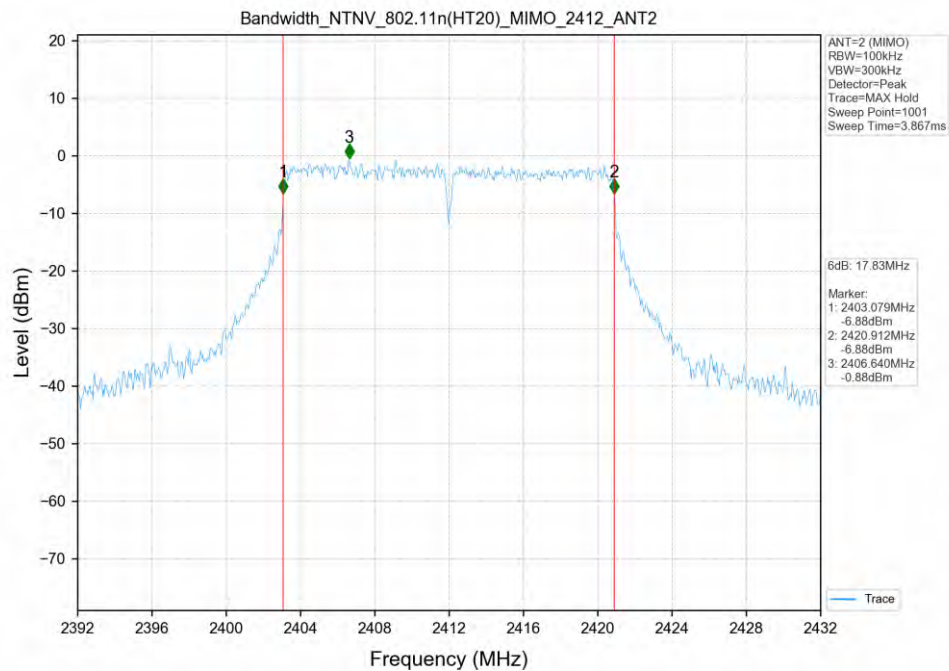
802.11n(HT20)_2412MHz_SISO_ANT1



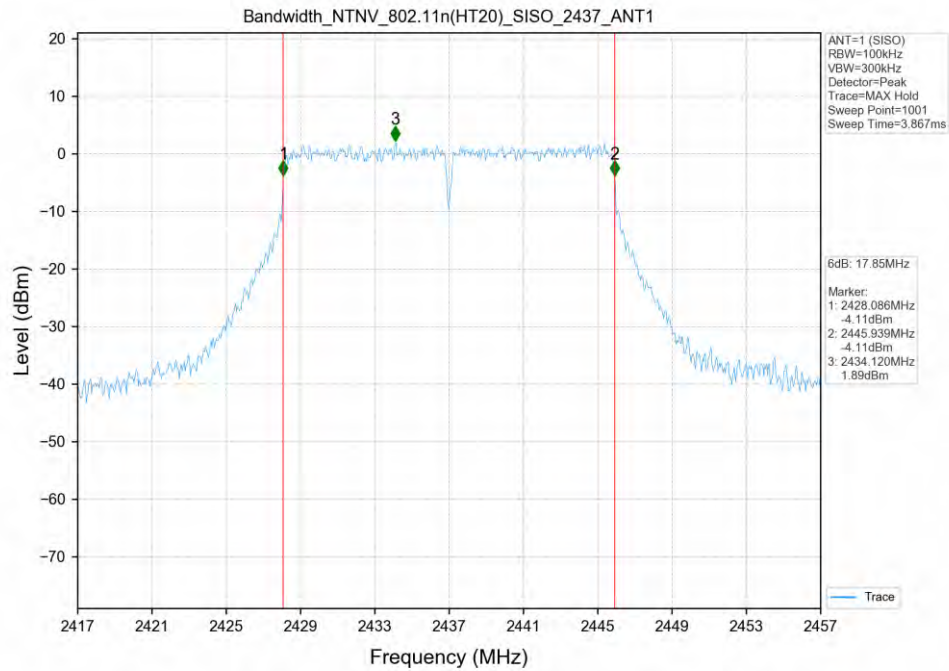
802.11n(HT20)_2412MHz_SISO_ANT2



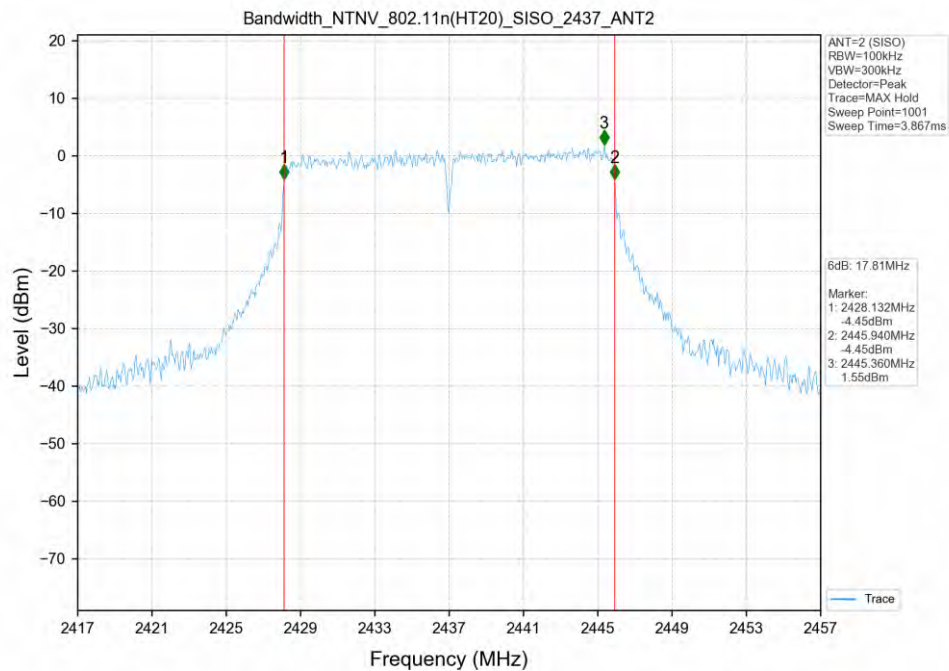
802.11n(HT20)_2412MHz_MIMO_Total



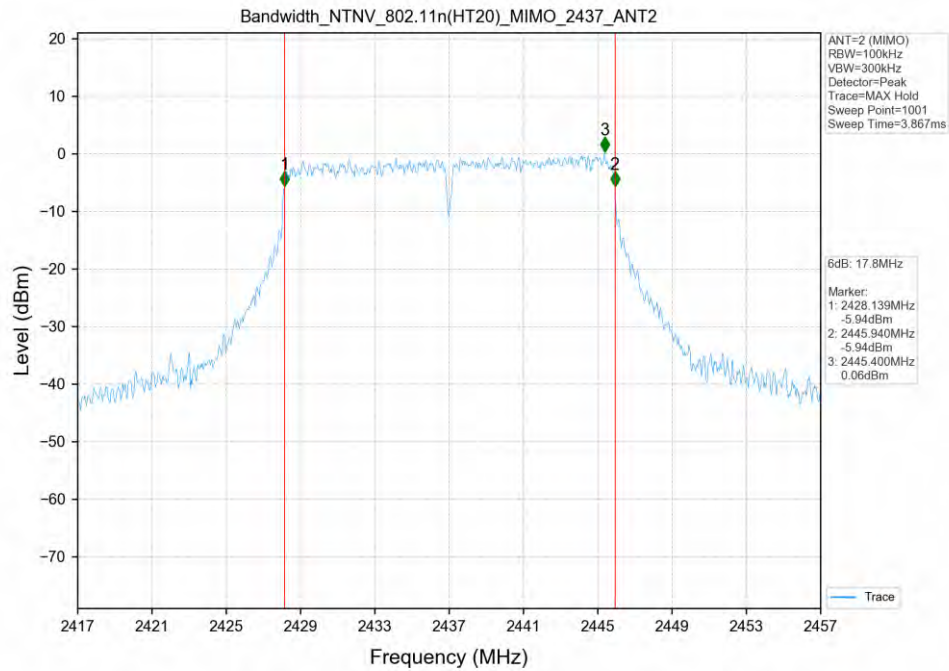
802.11n(HT20)_2437MHz_SISO_ANT1



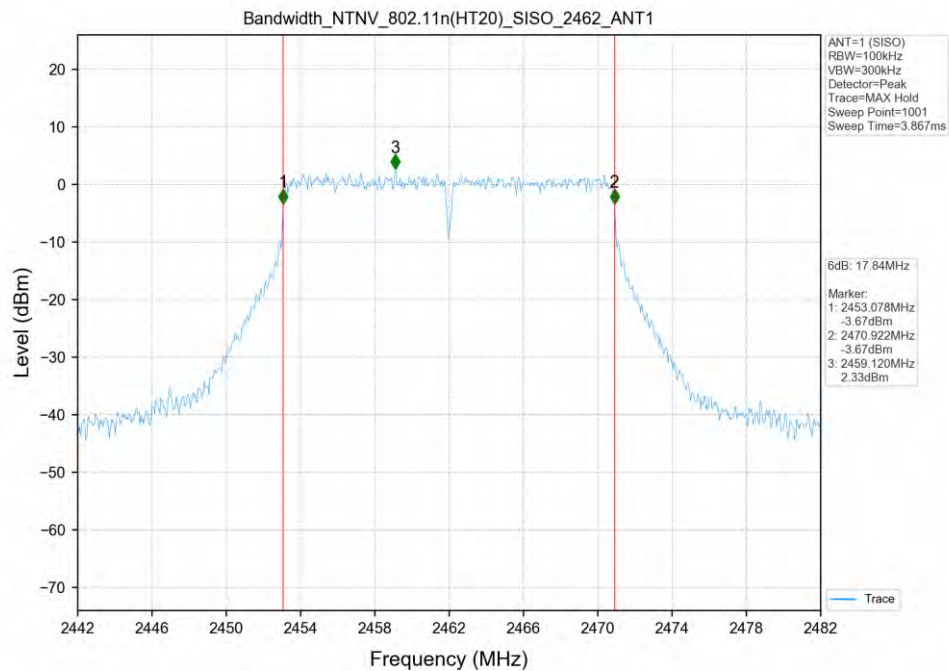
802.11n(HT20)_2437MHz_SISO_ANT2



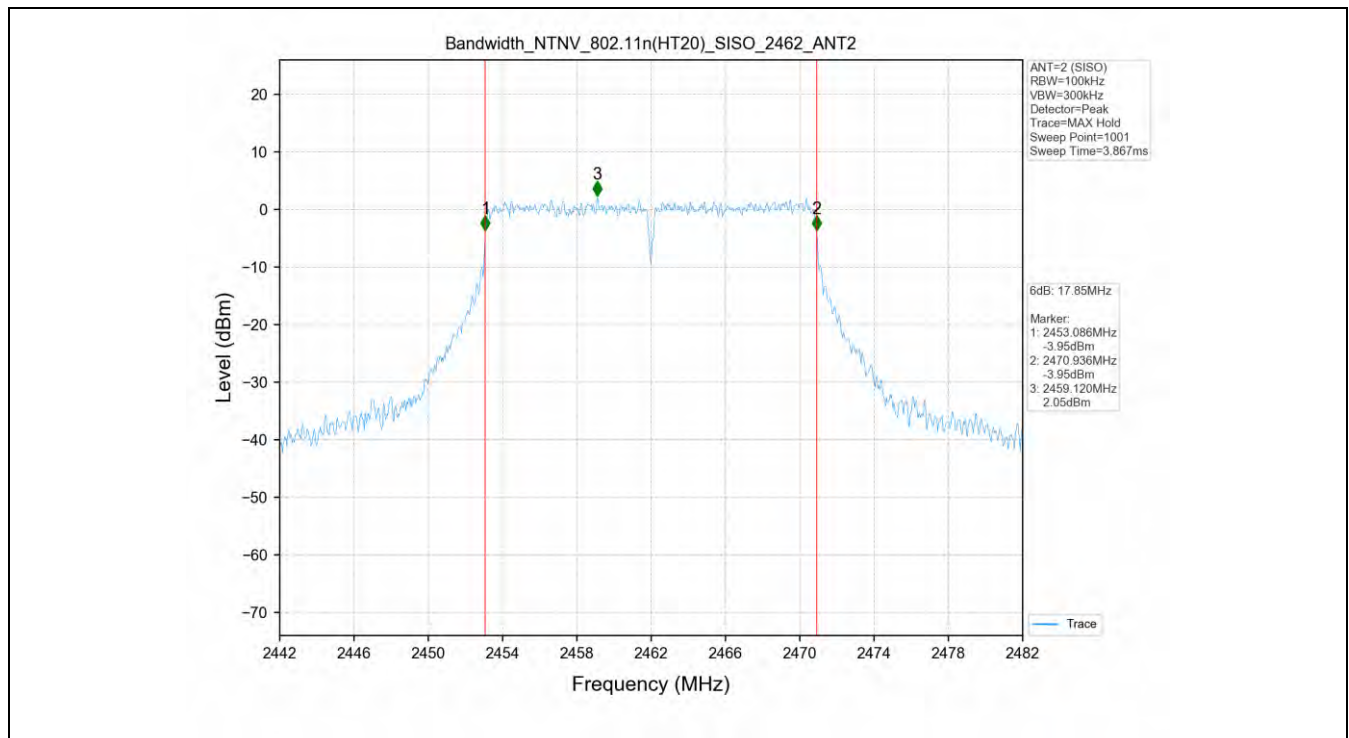
802.11n(HT20)_2437MHz_MIMO_Total



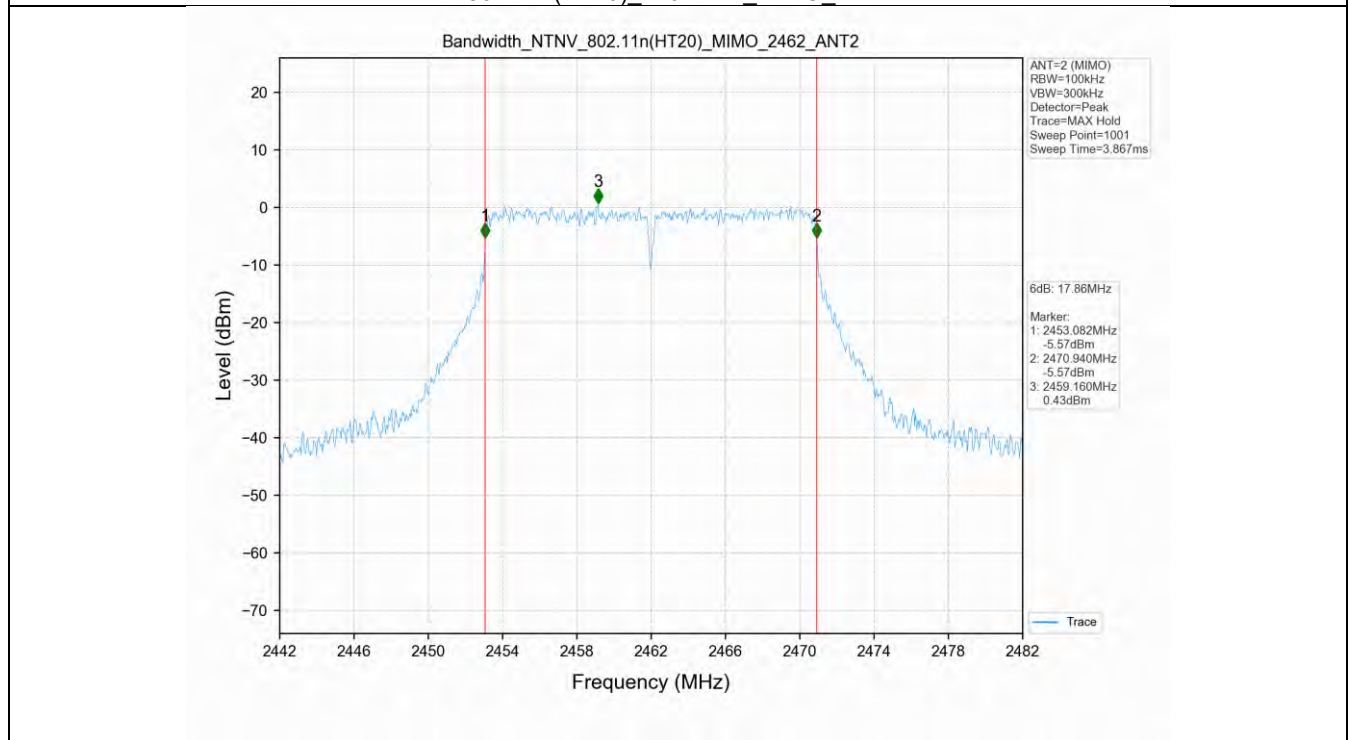
802.11n(HT20)_2462MHz_SISO_ANT1



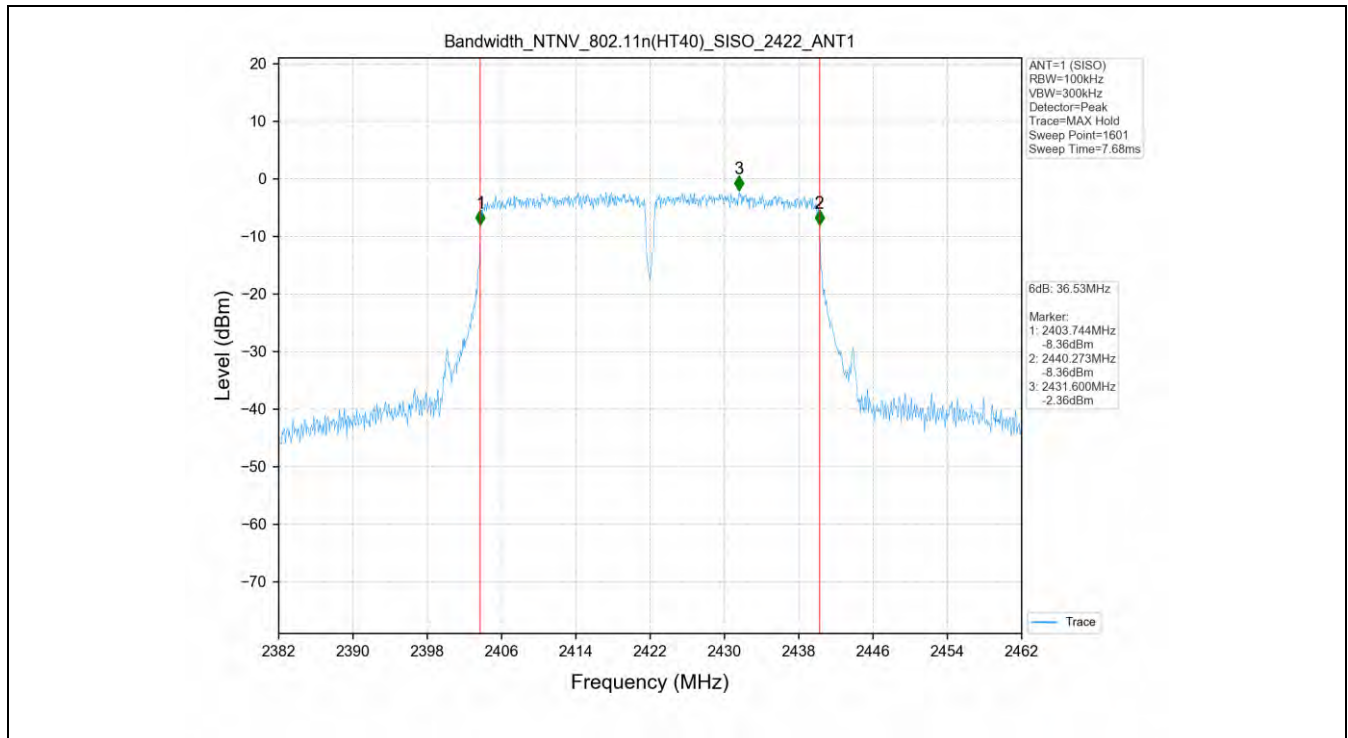
802.11n(HT20)_2462MHz_SISO_ANT2



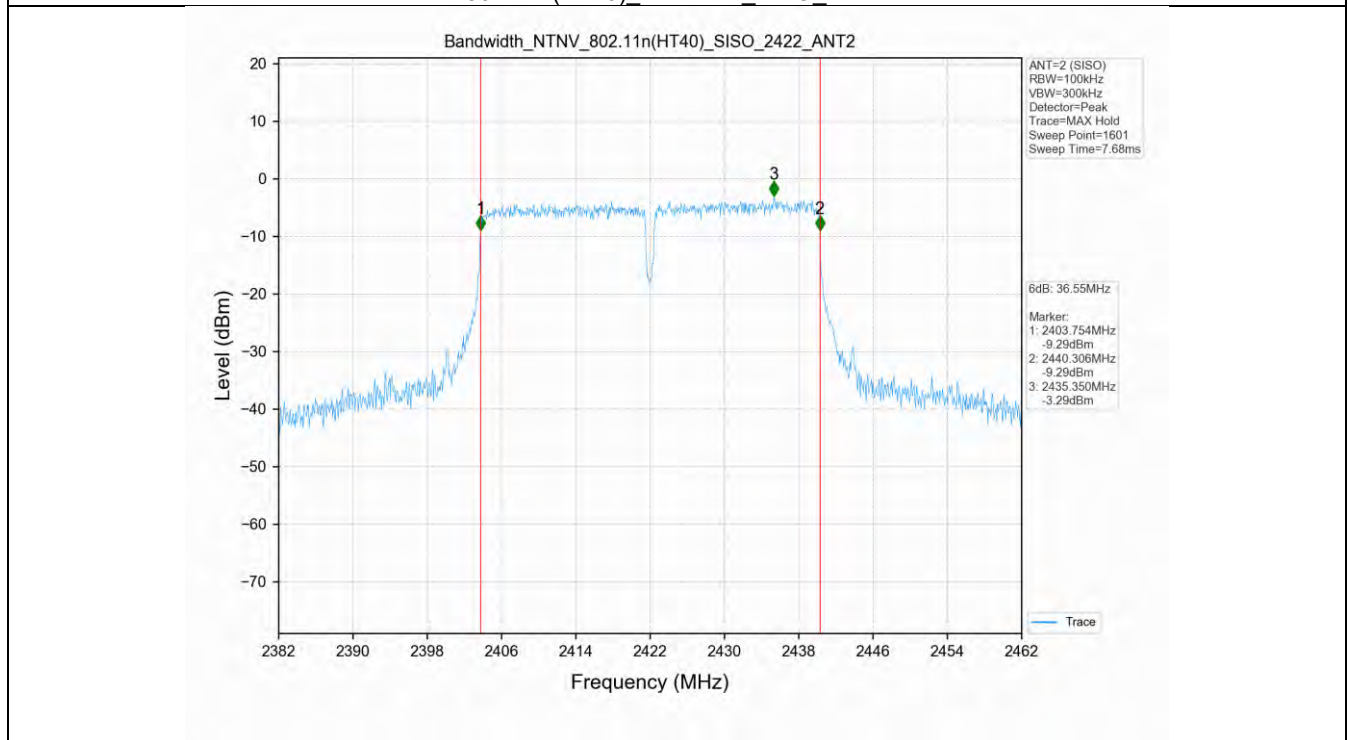
802.11n(HT20)_2462MHz_MIMO_Total



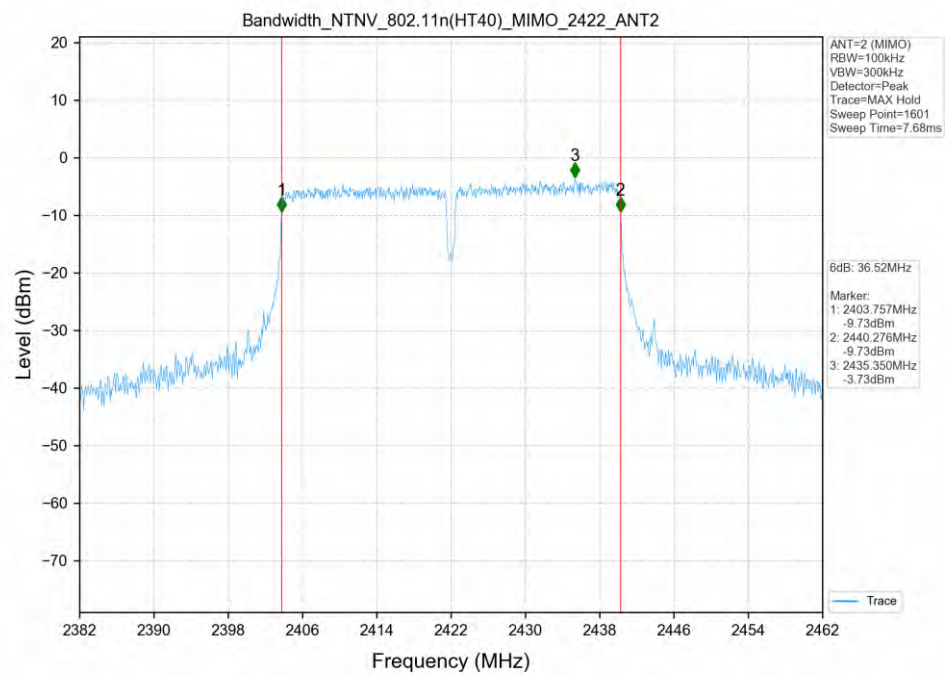
802.11n(HT40)_2422MHz_SISO_ANT1



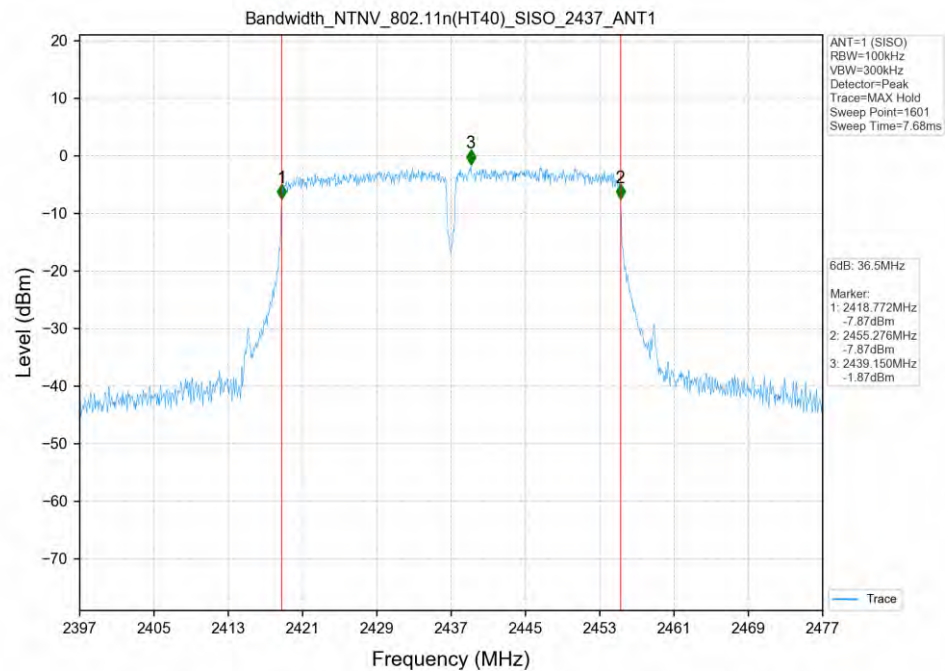
802.11n(HT40)_2422MHz_SISO_ANT2



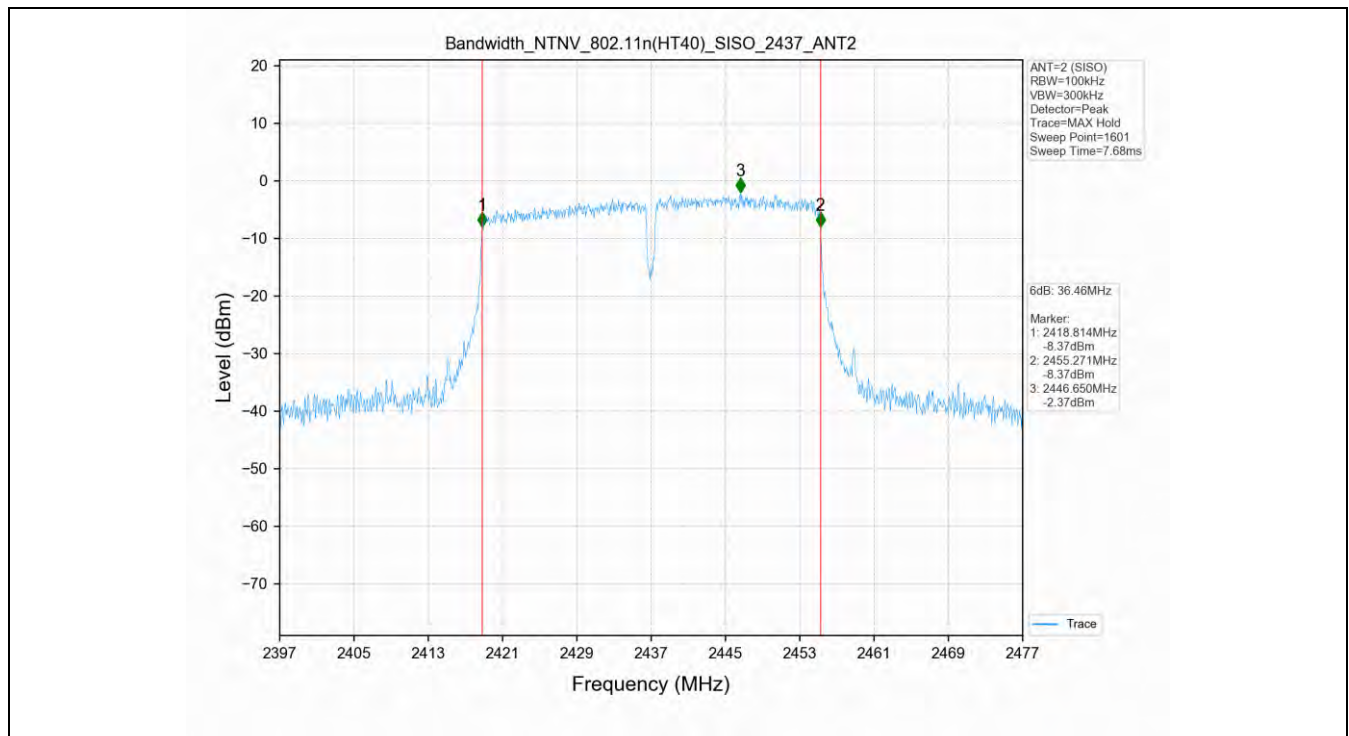
802.11n(HT40)_2422MHz_MIMO_Total



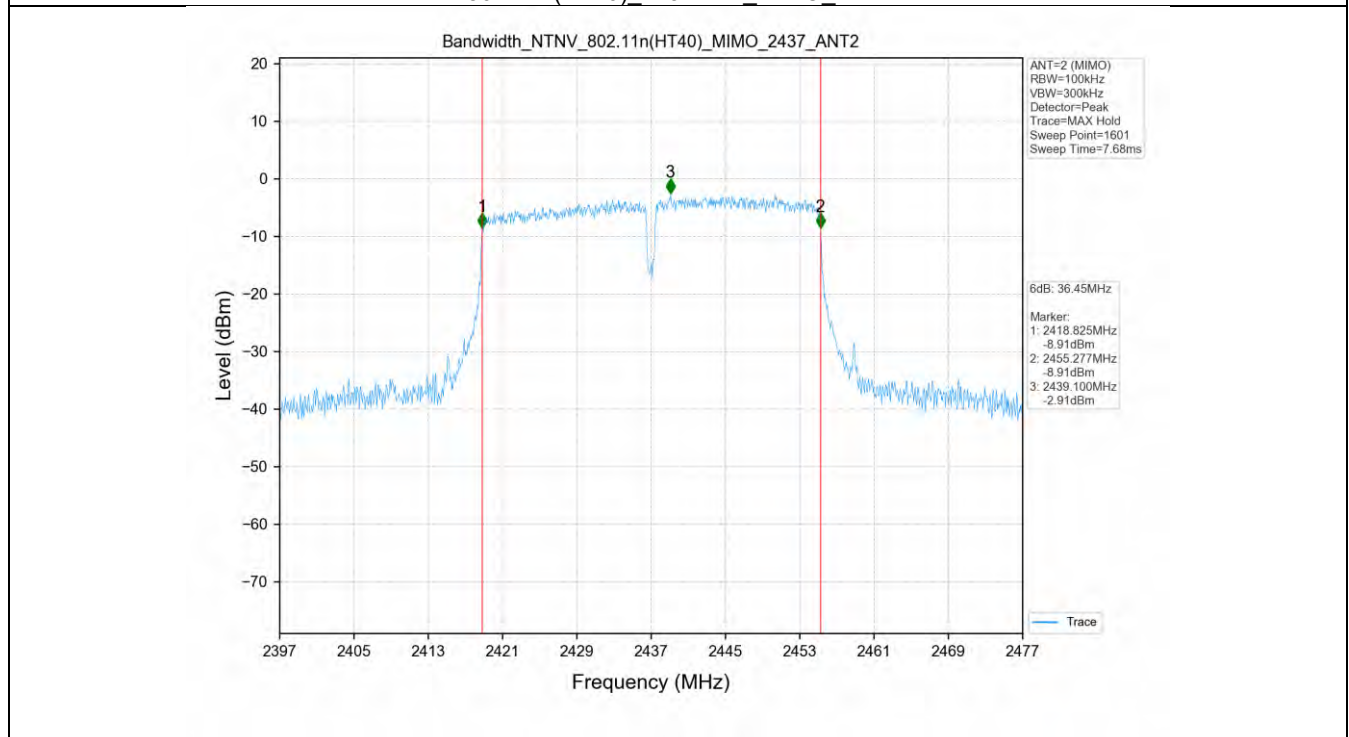
802.11n(HT40)_2437MHz_SISO_ANT1



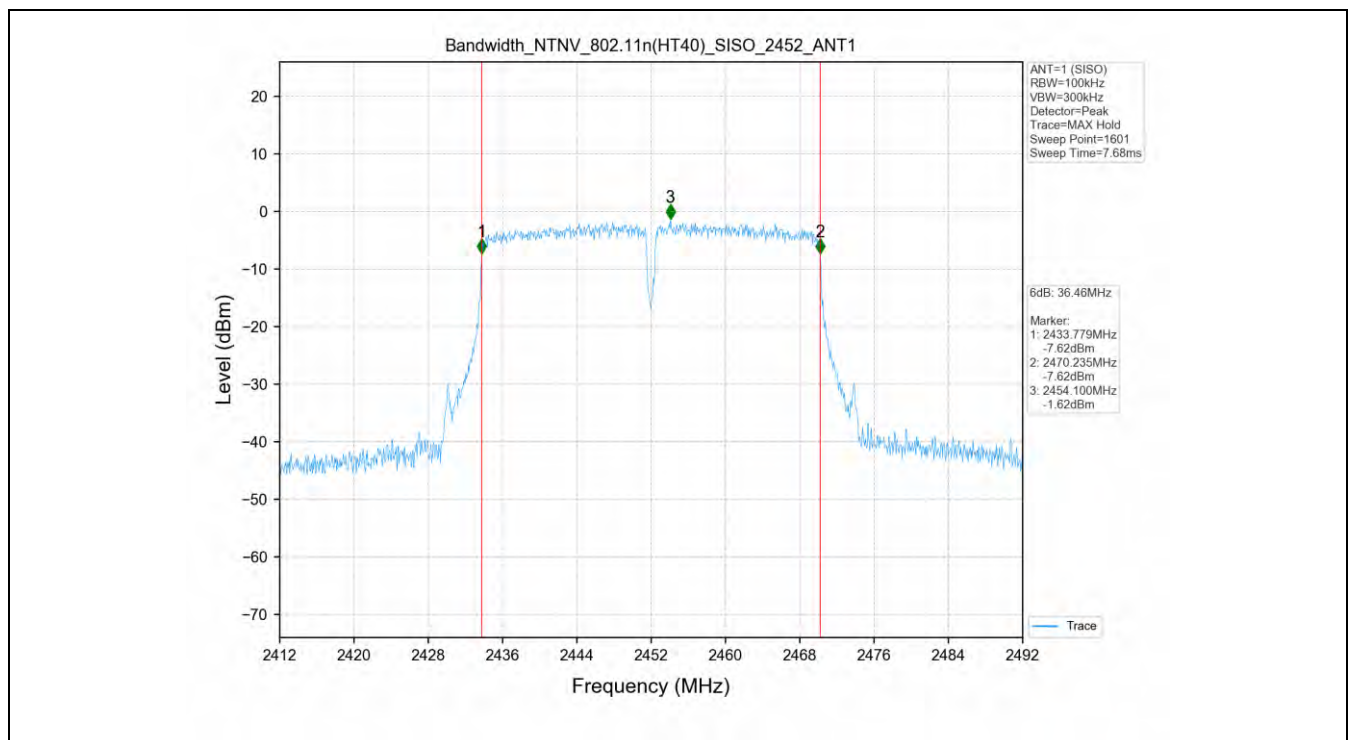
802.11n(HT40)_2437MHz_SISO_ANT2



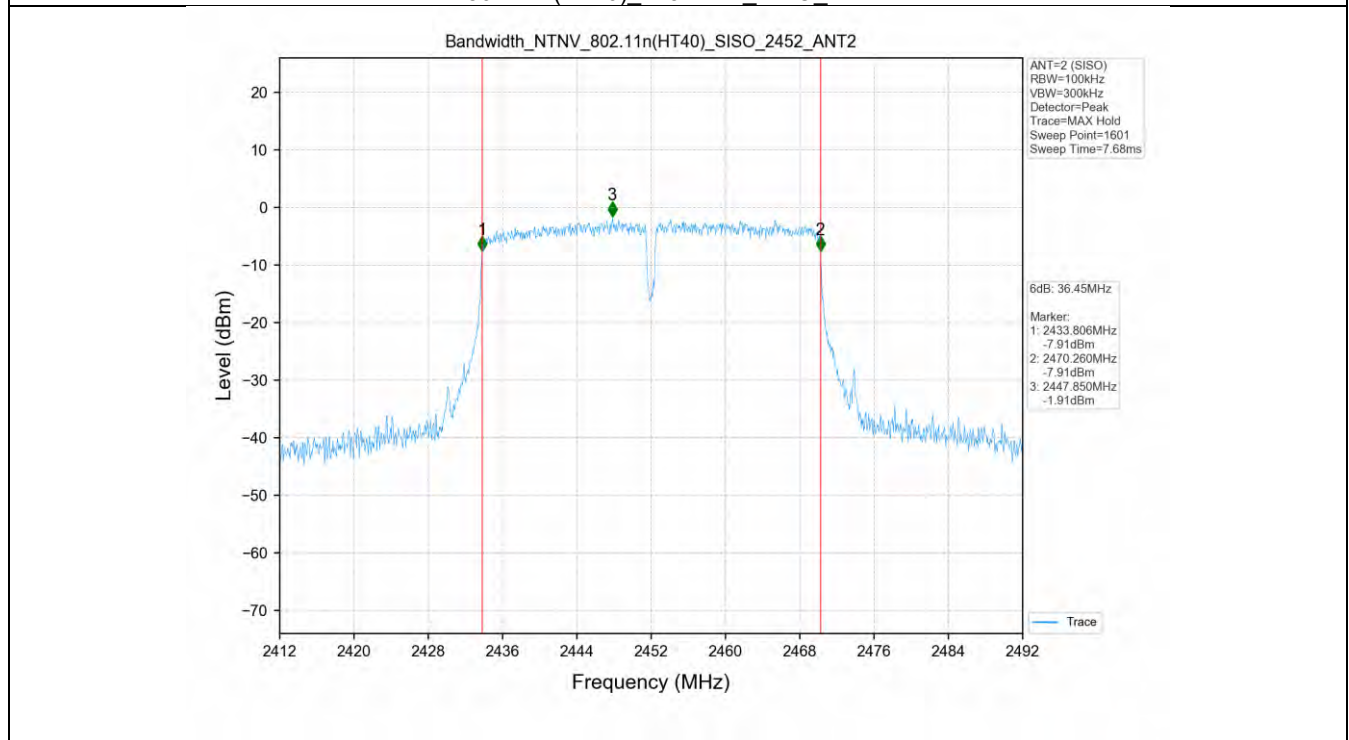
802.11n(HT40)_2437MHz_MIMO_Total



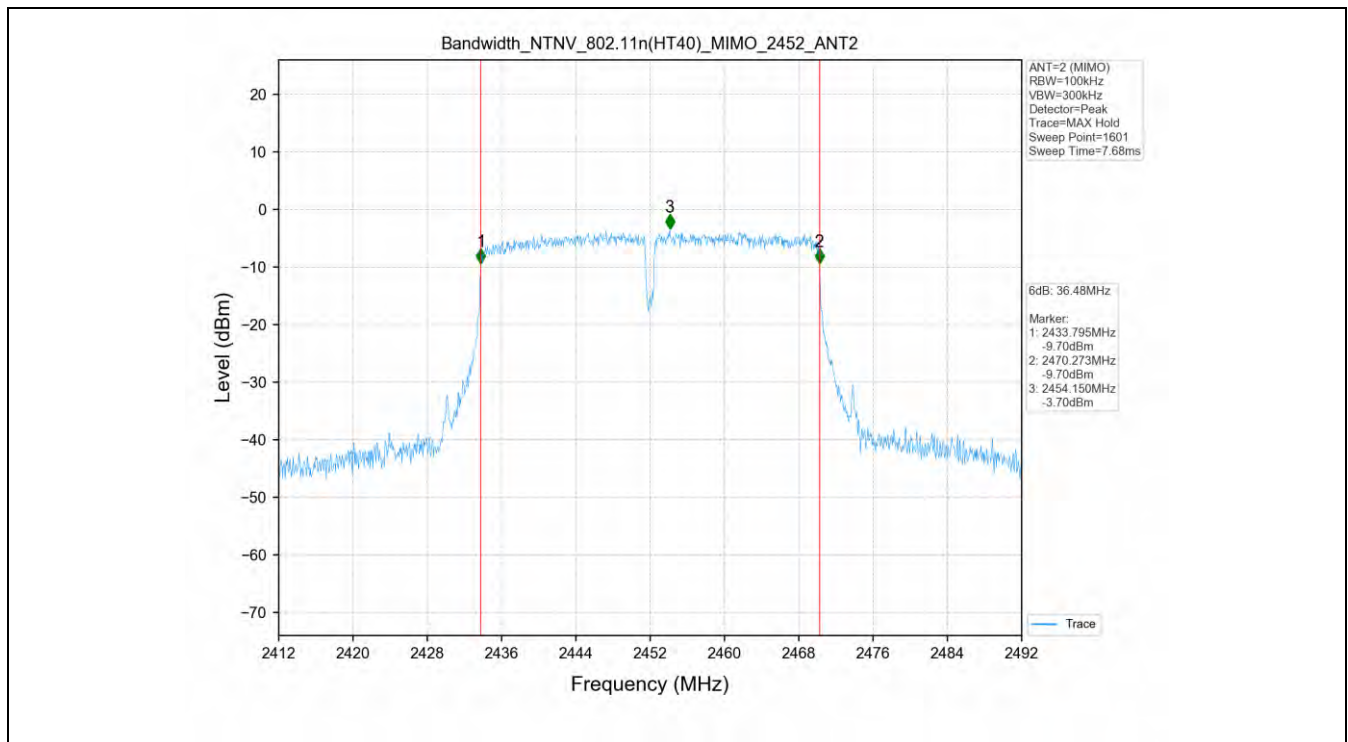
802.11n(HT40)_2452MHz_SISO_ANT1



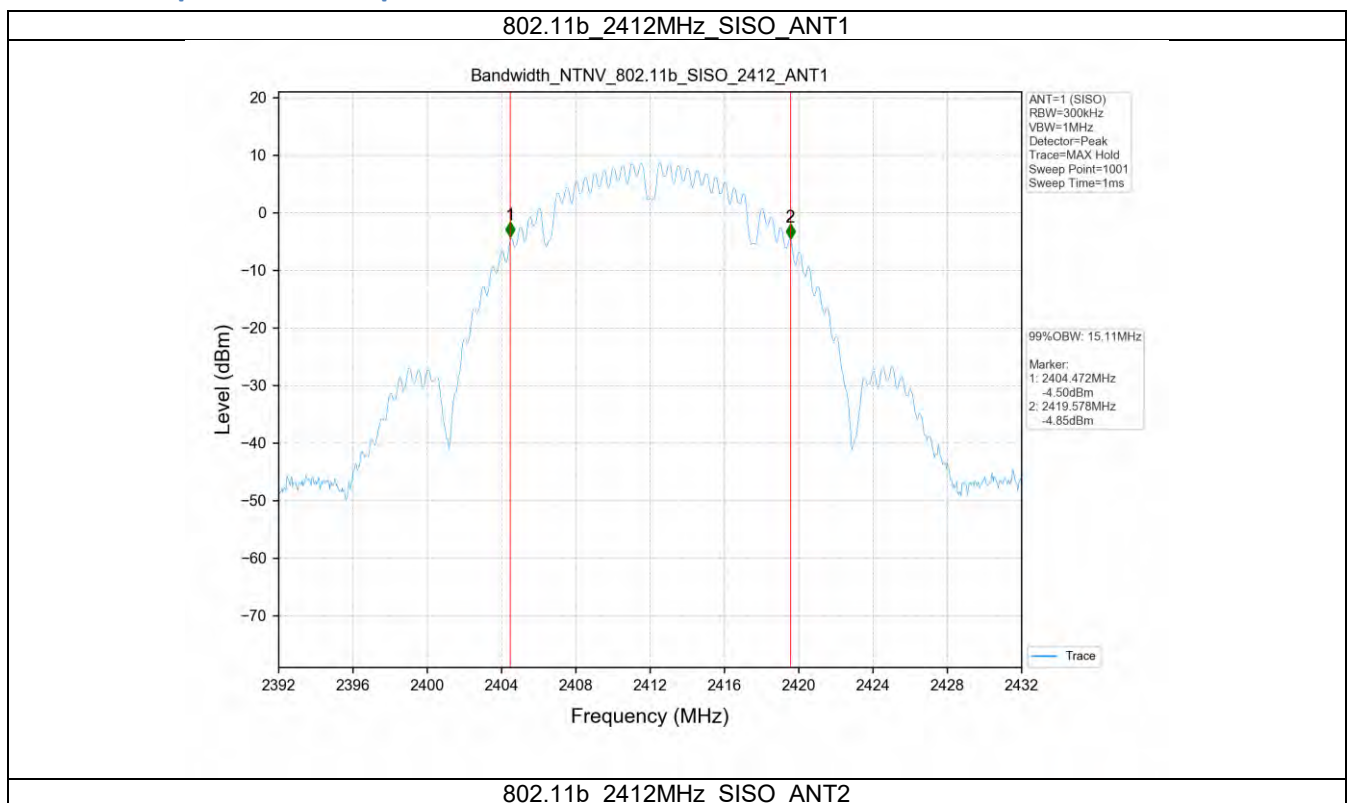
802.11n(HT40)_2452MHz_SISO_ANT2

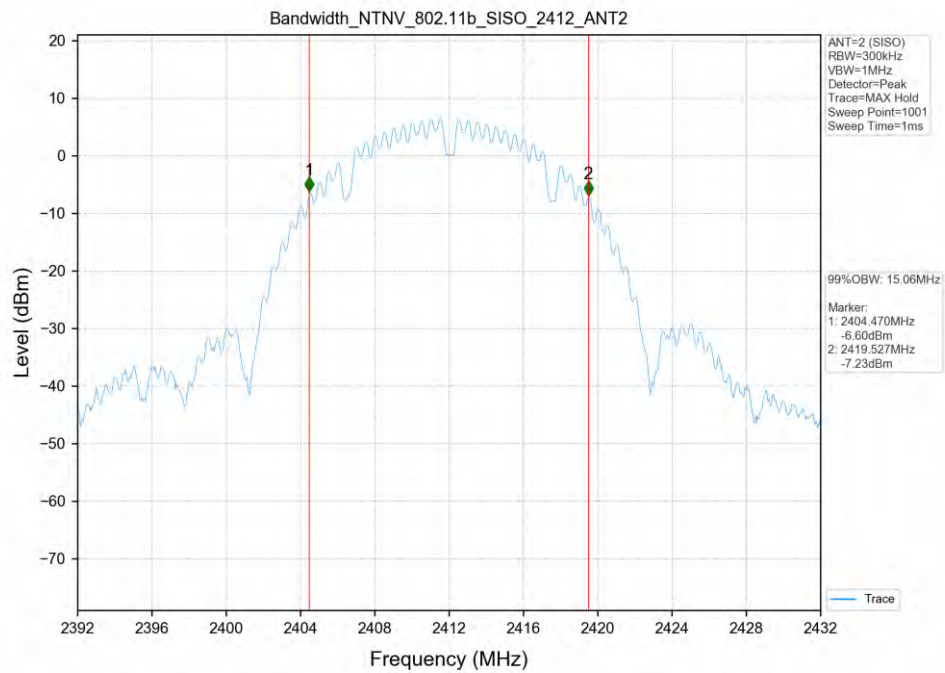


802.11n(HT40)_2452MHz_MIMO_Total

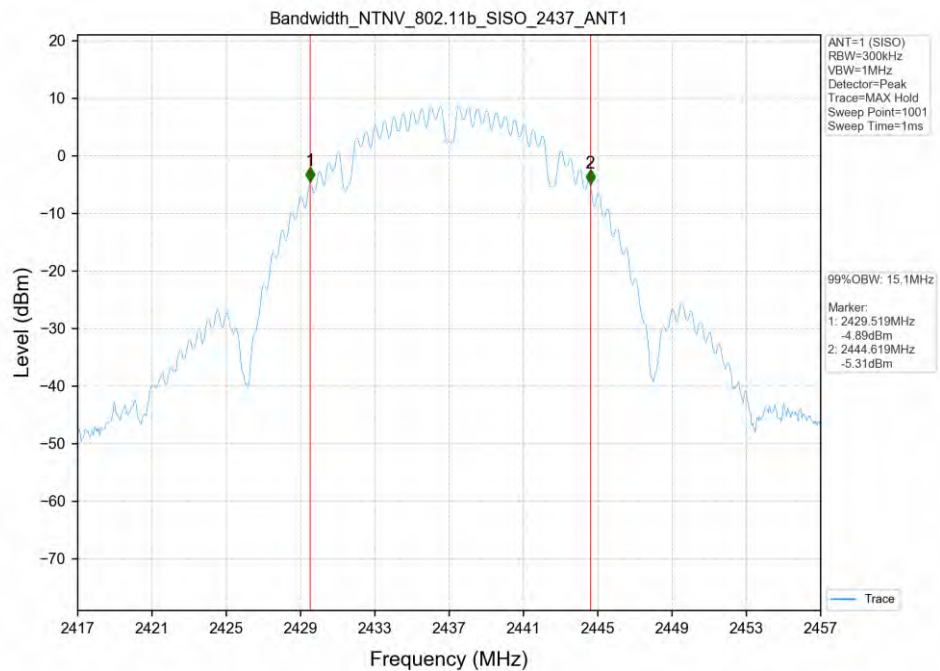


2.3 Test Graph - 99% Occupied Bandwidth

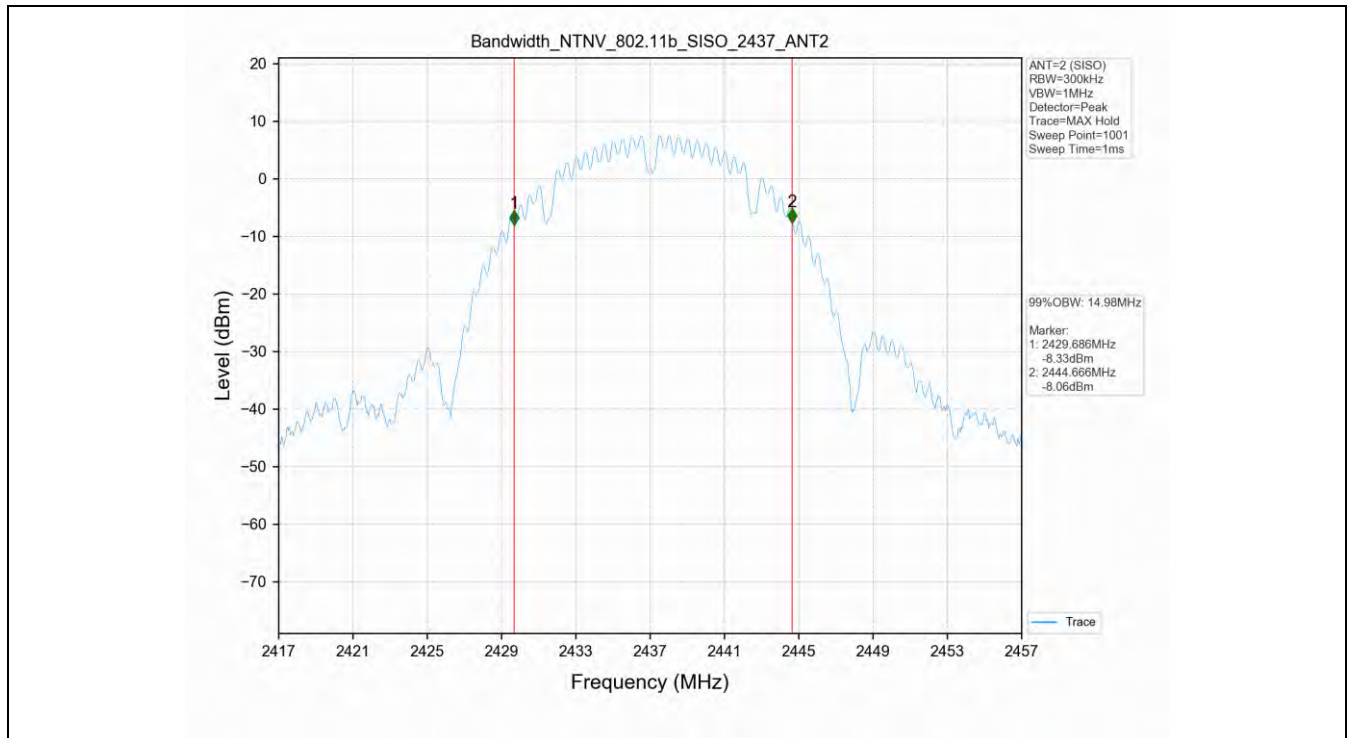




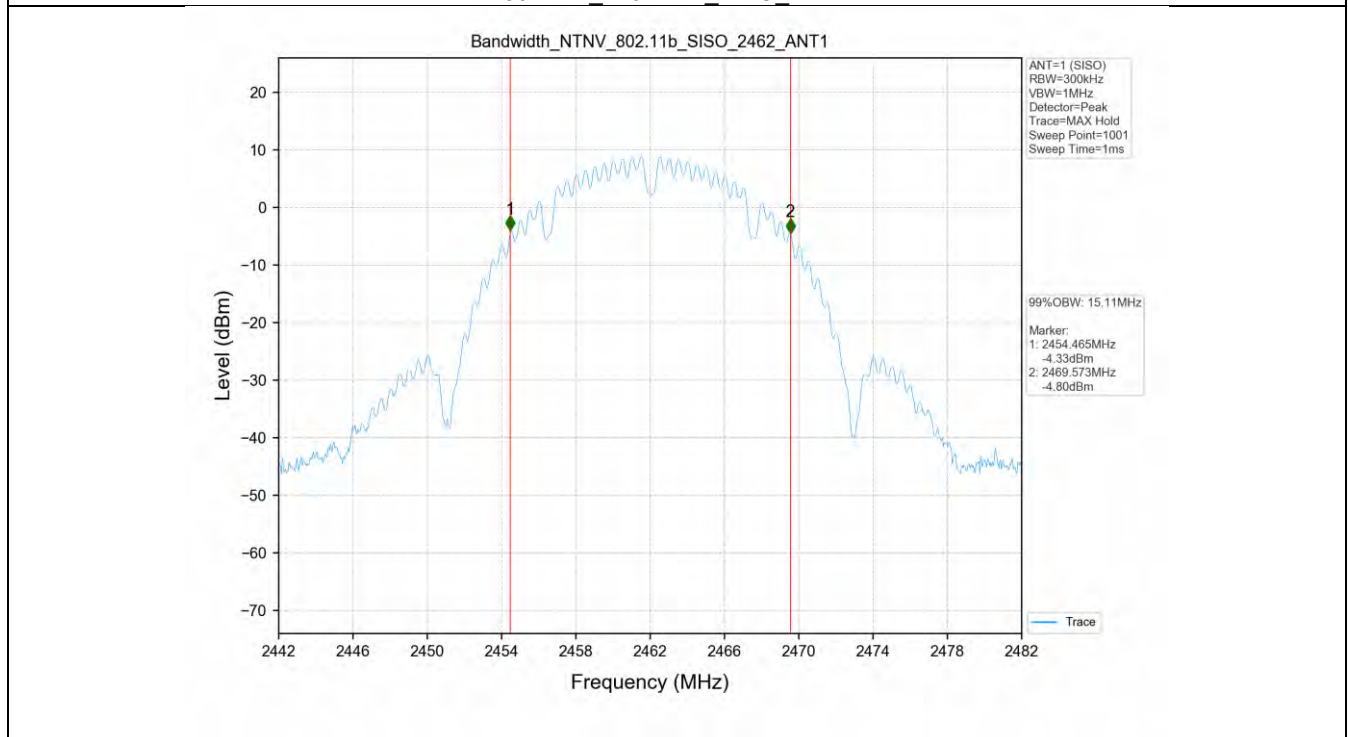
802.11b_2437MHz_SISO_ANT1



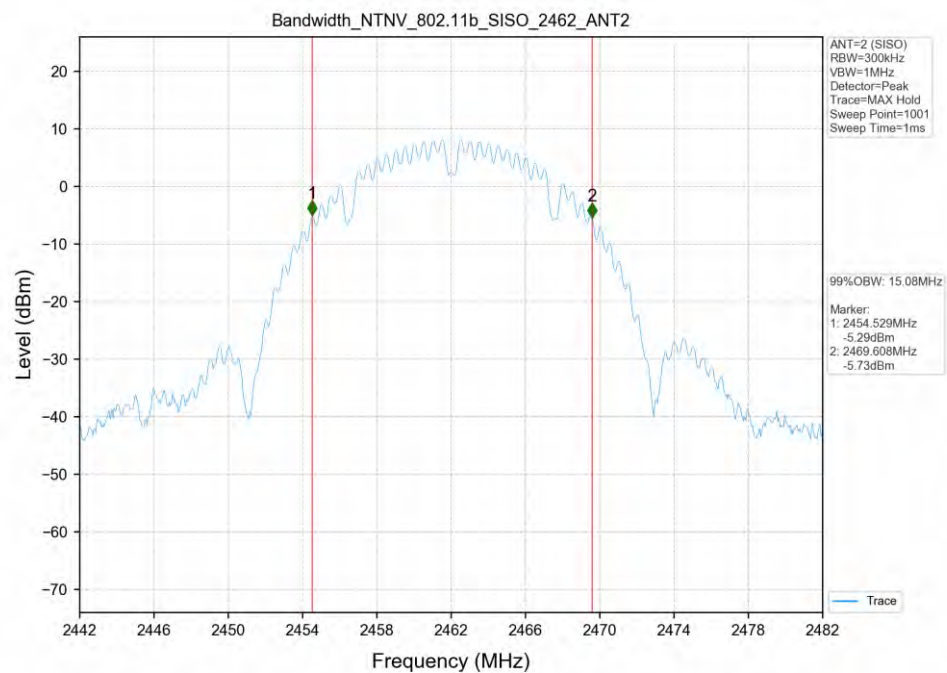
802.11b_2437MHz_SISO_ANT2



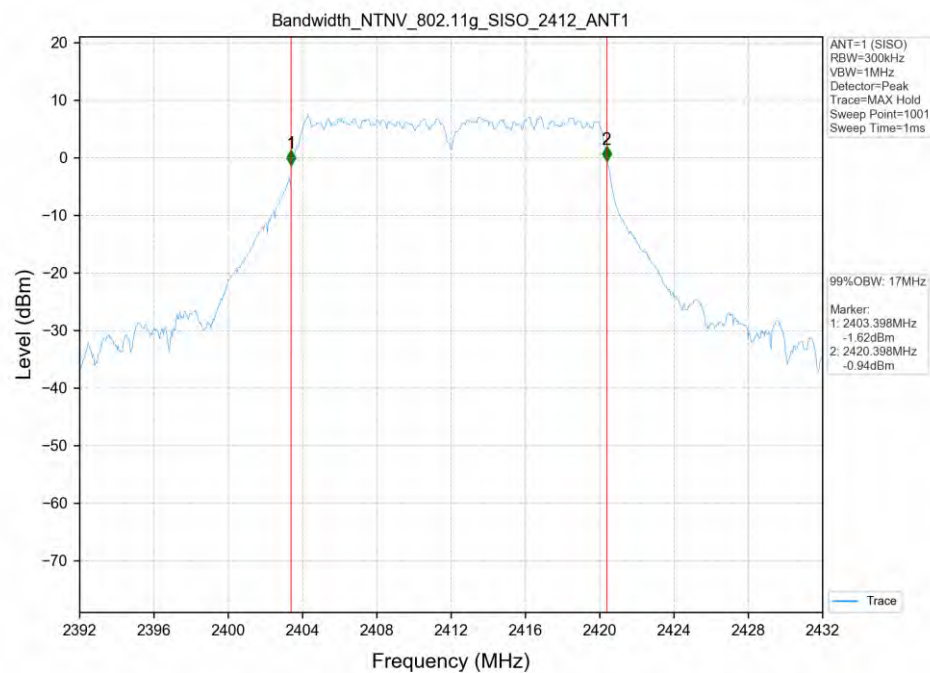
802.11b_2462MHz_SISO_ANT1



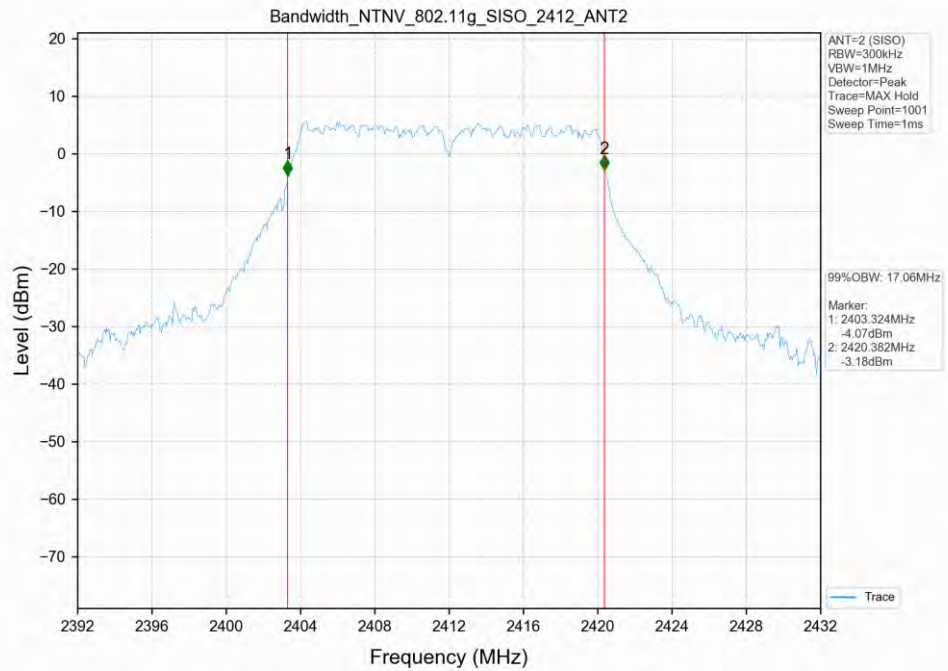
802.11b_2462MHz_SISO_ANT2



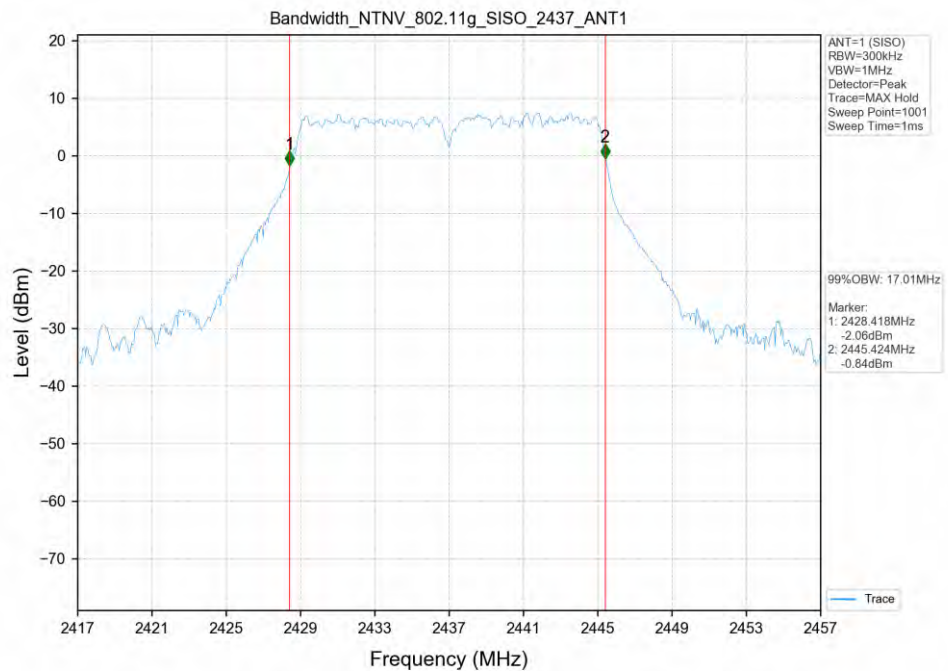
802.11g_2412MHz_SISO_ANT1



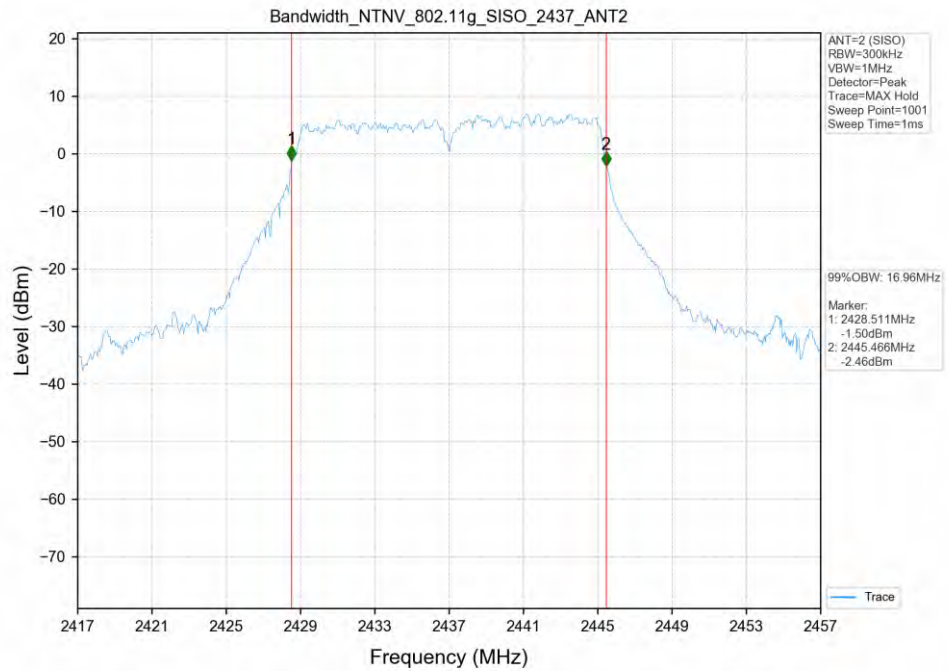
802.11g_2412MHz_SISO_ANT2



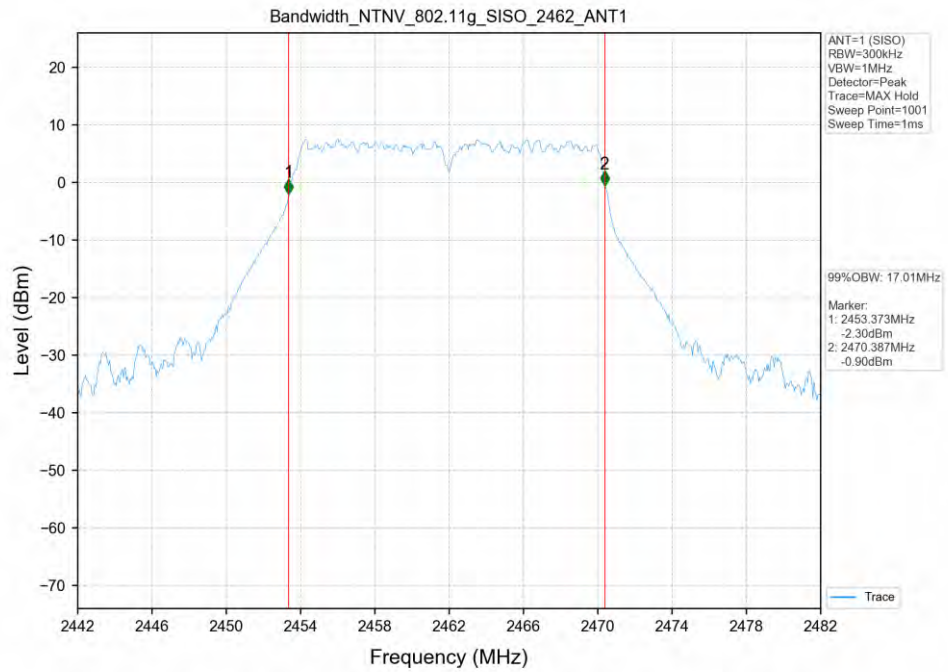
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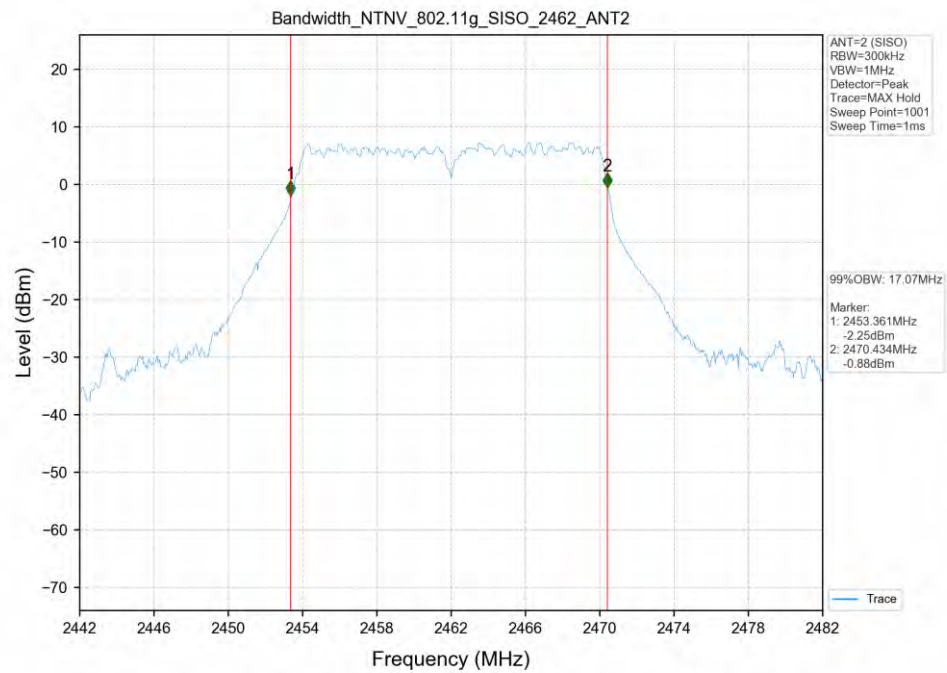
802.11g_2437MHz_SISO_ANT2



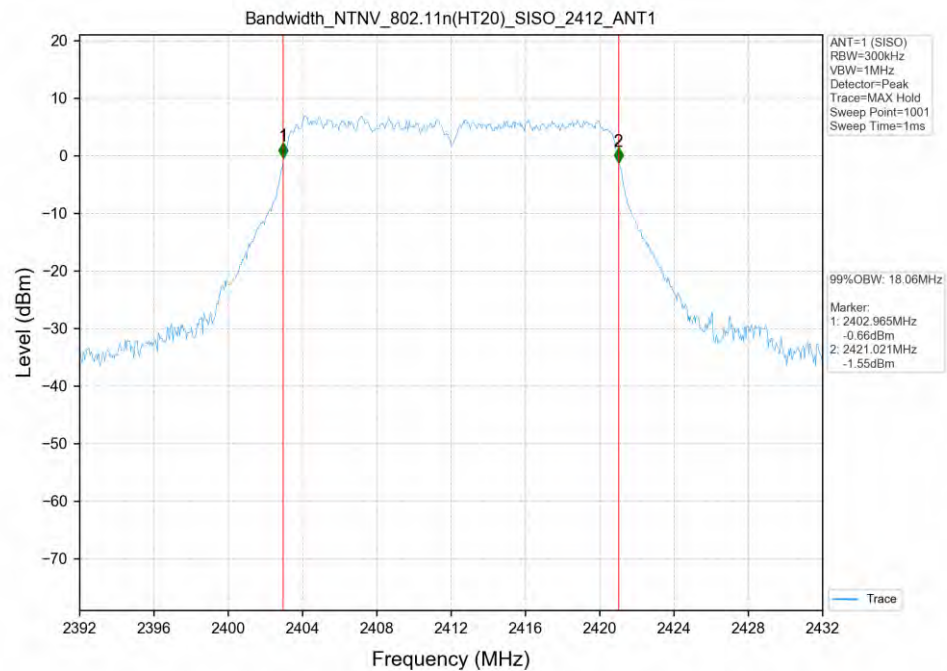
802.11g_2462MHz_SISO_ANT1



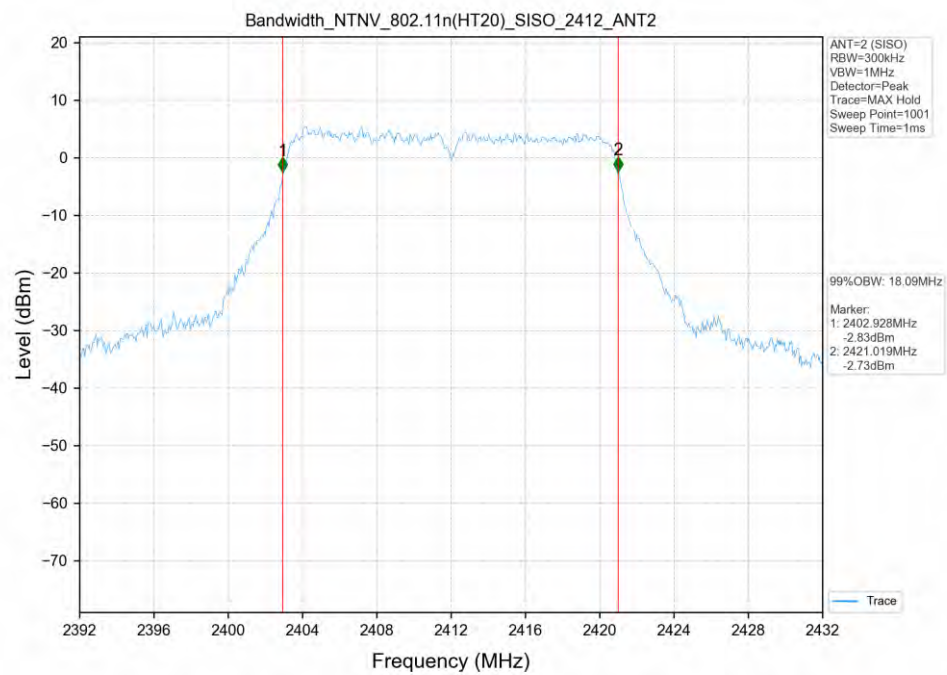
802.11g_2462MHz_SISO_ANT2



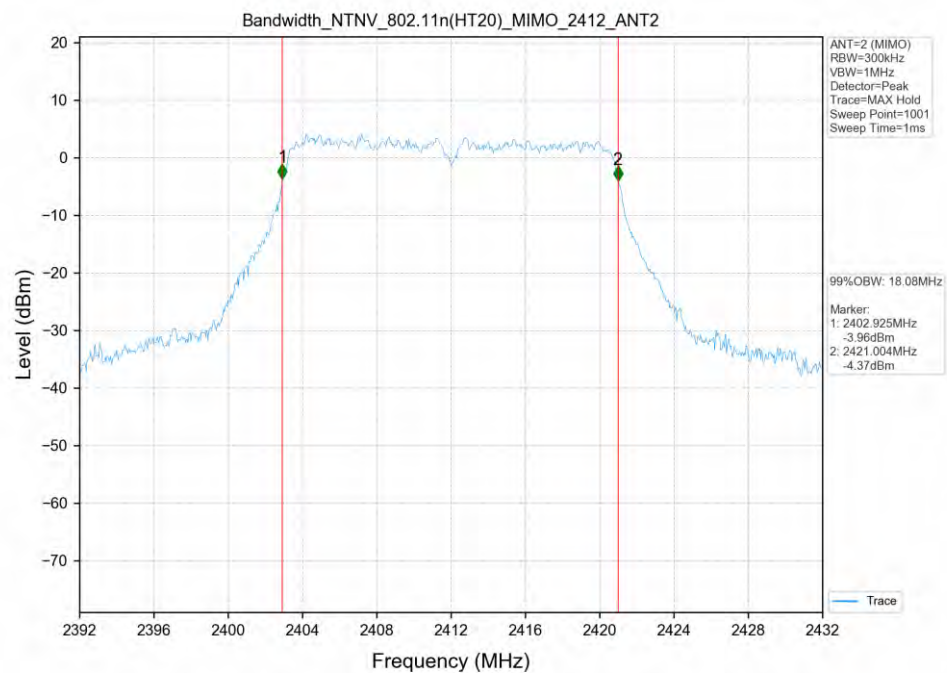
802.11n(HT20)_2412MHz_SISO_ANT1



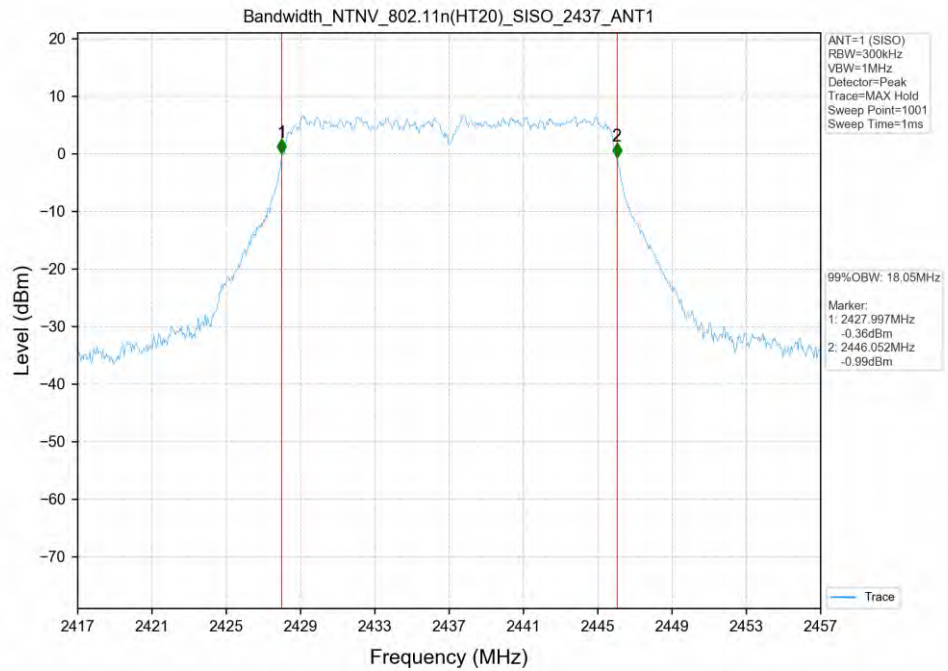
802.11n(HT20)_2412MHz_SISO_ANT2



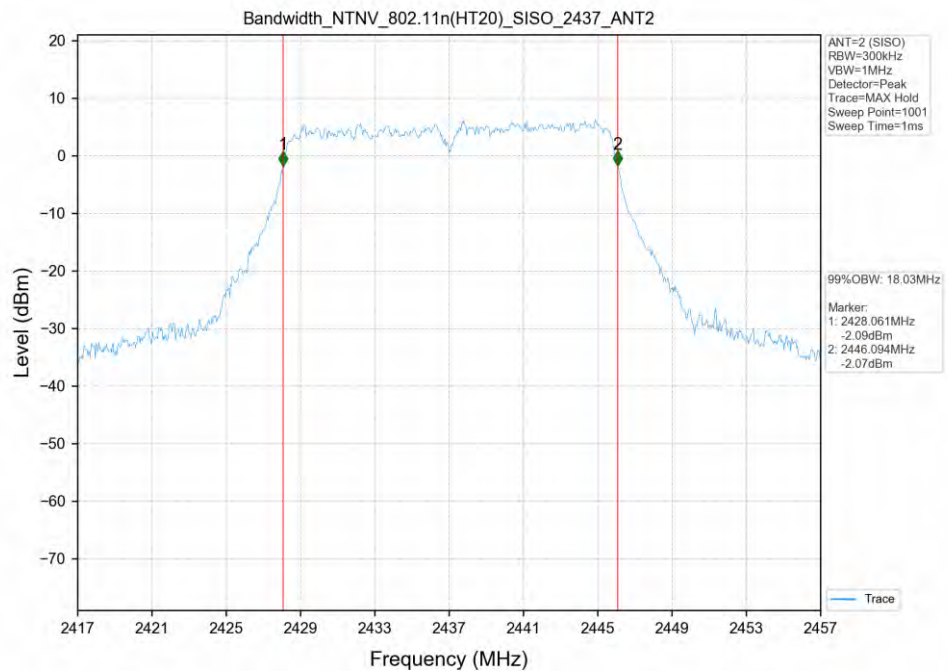
802.11n(HT20)_2412MHz_MIMO_Total



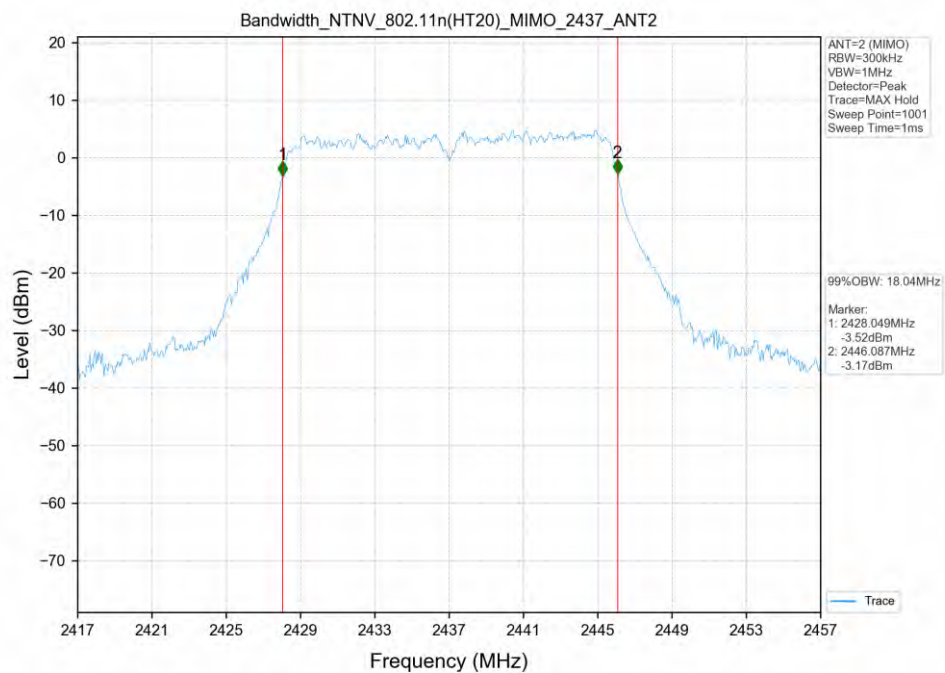
802.11n(HT20)_2437MHz_SISO_ANT1



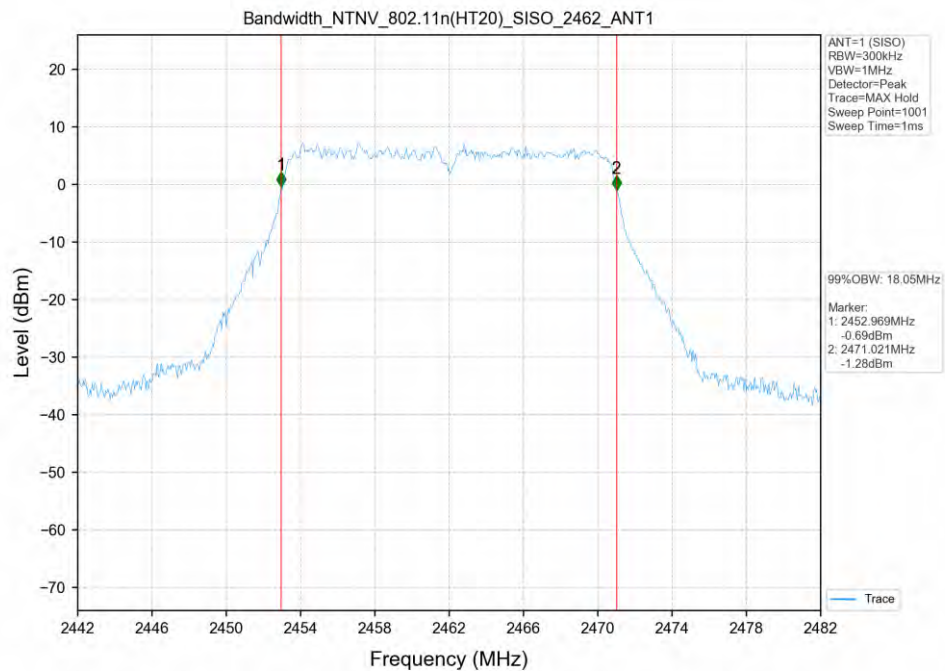
802.11n(HT20)_2437MHz_SISO_ANT2



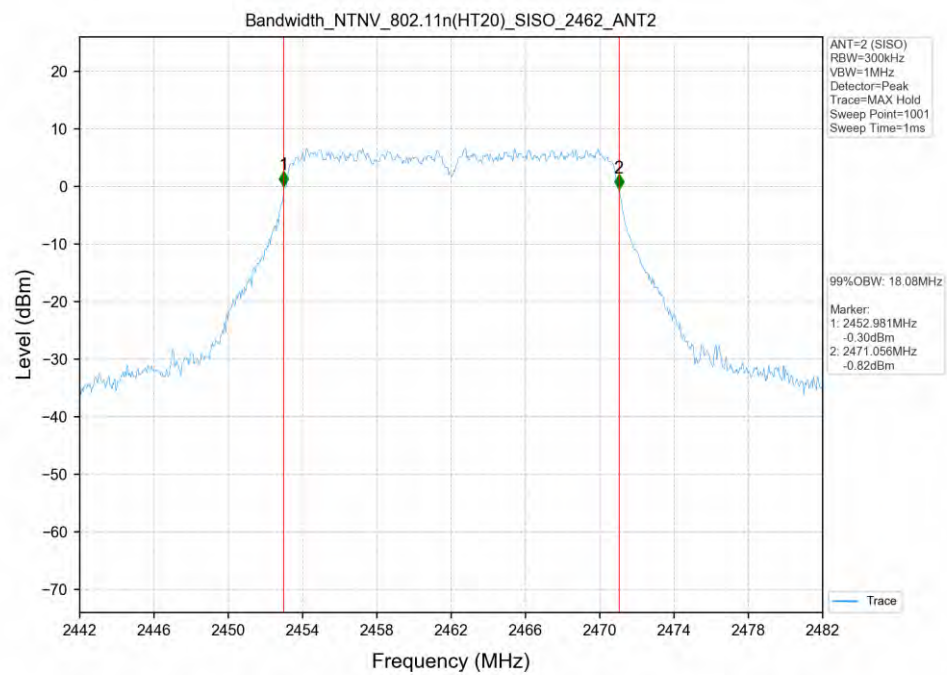
802.11n(HT20)_2437MHz_MIMO_Total



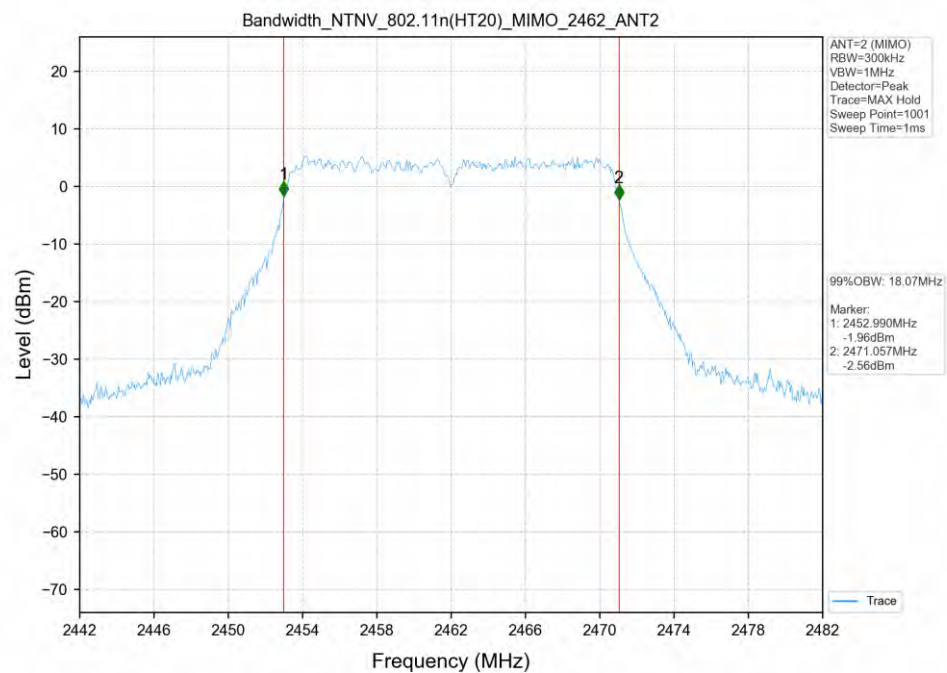
802.11n(HT20)_2462MHz_SISO_ANT1



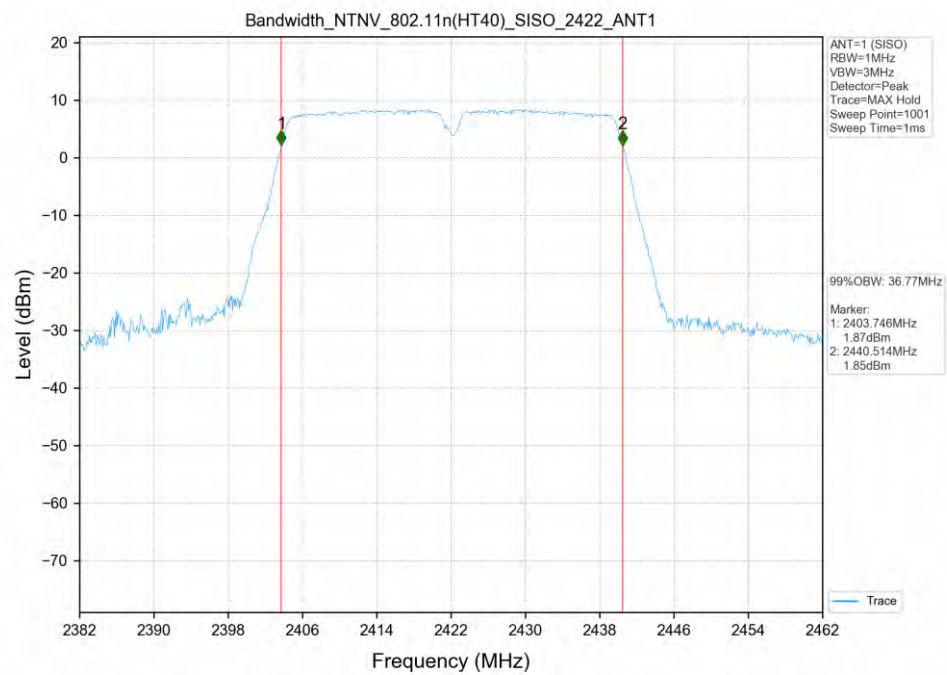
802.11n(HT20)_2462MHz_SISO_ANT2



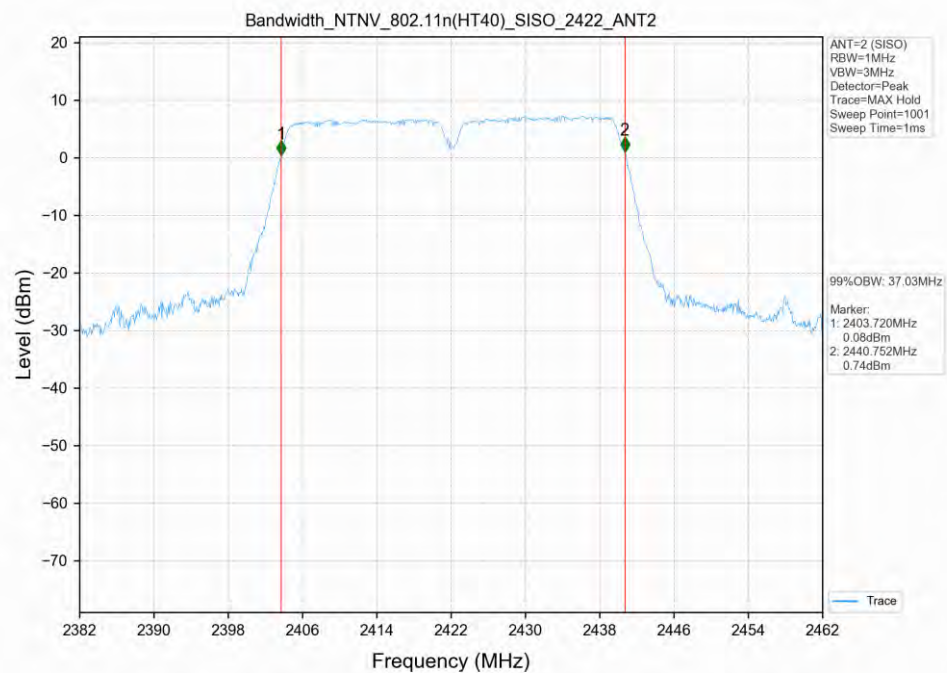
802.11n(HT20)_2462MHz_MIMO_Total



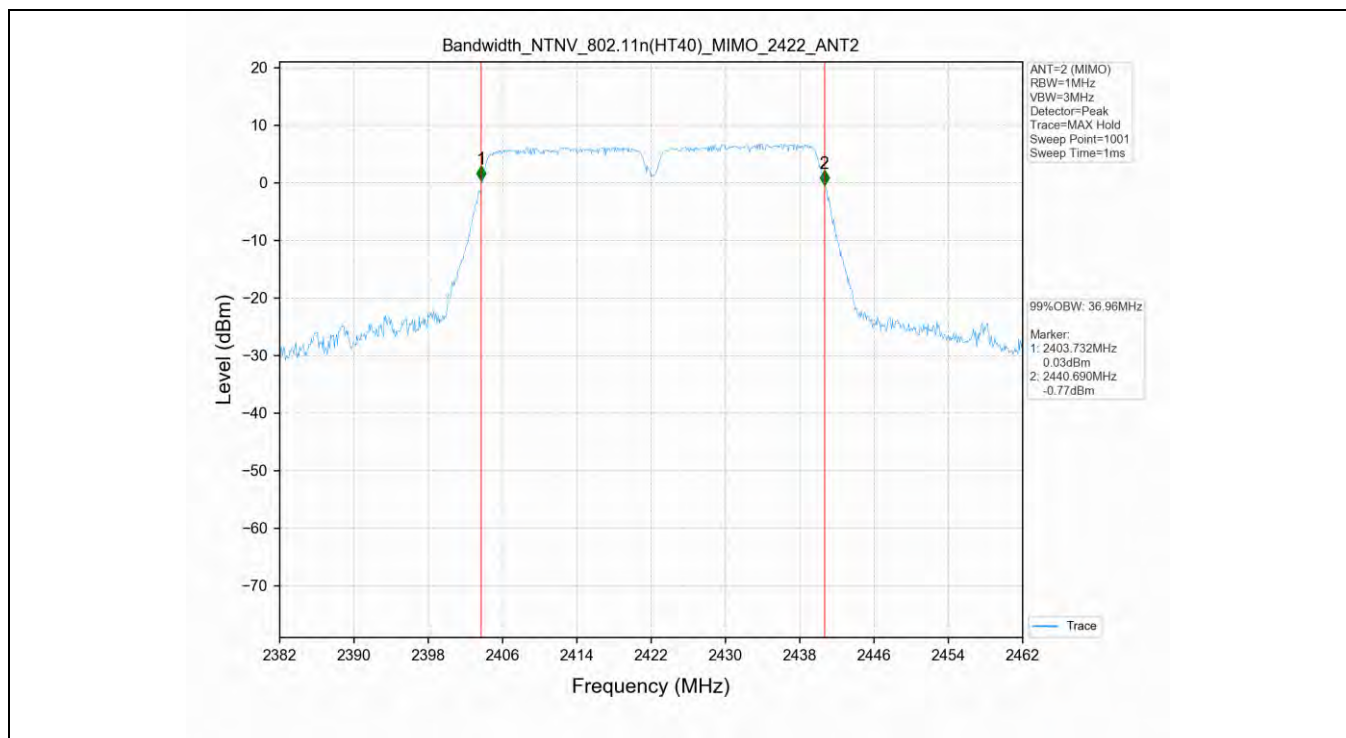
802.11n(HT40)_2422MHz_SISO_ANT1



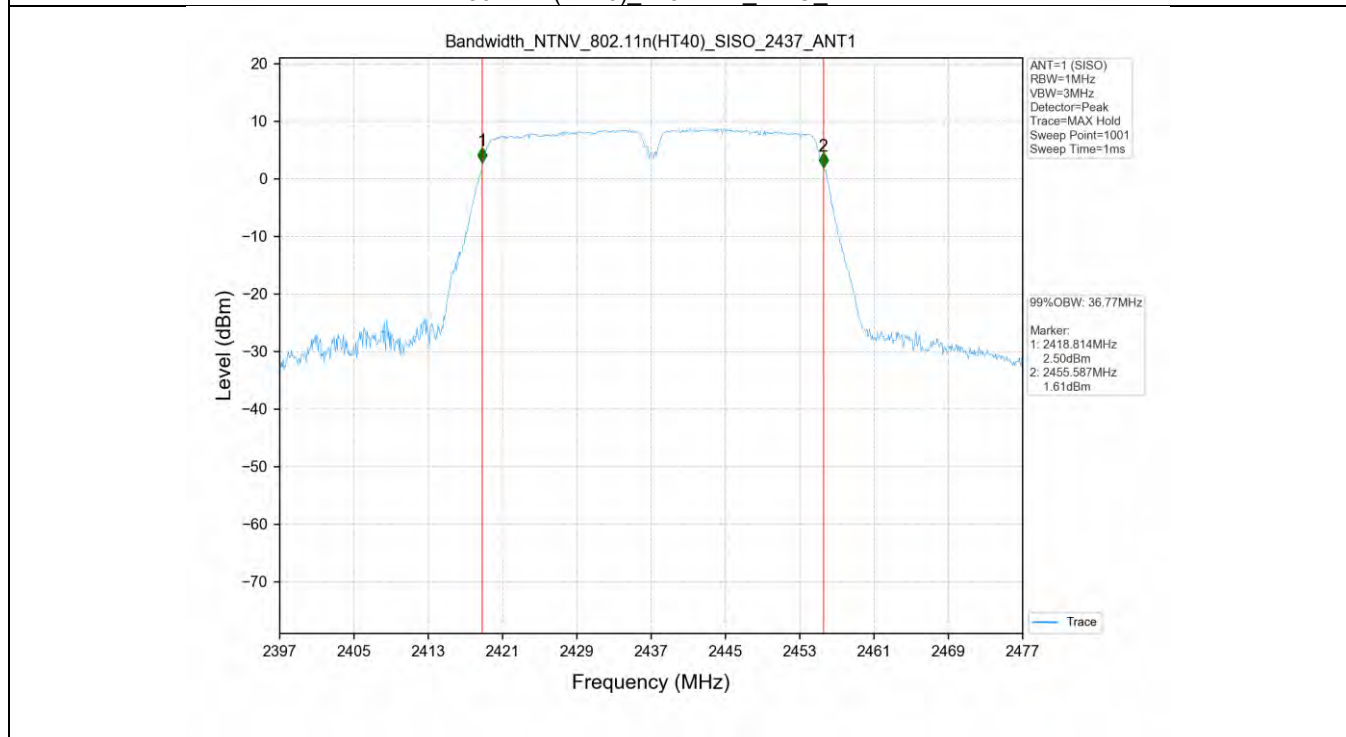
802.11n(HT40)_2422MHz_SISO_ANT2



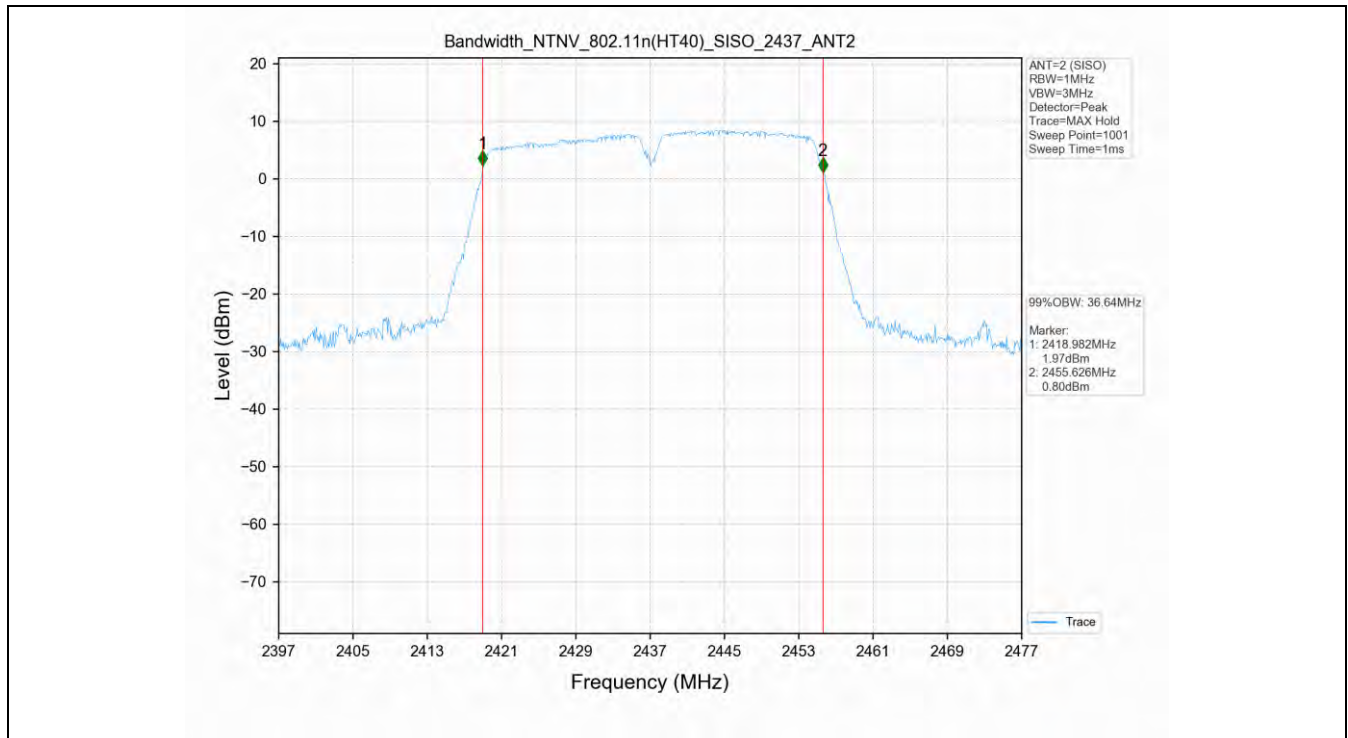
802.11n(HT40)_2422MHz_MIMO_Total



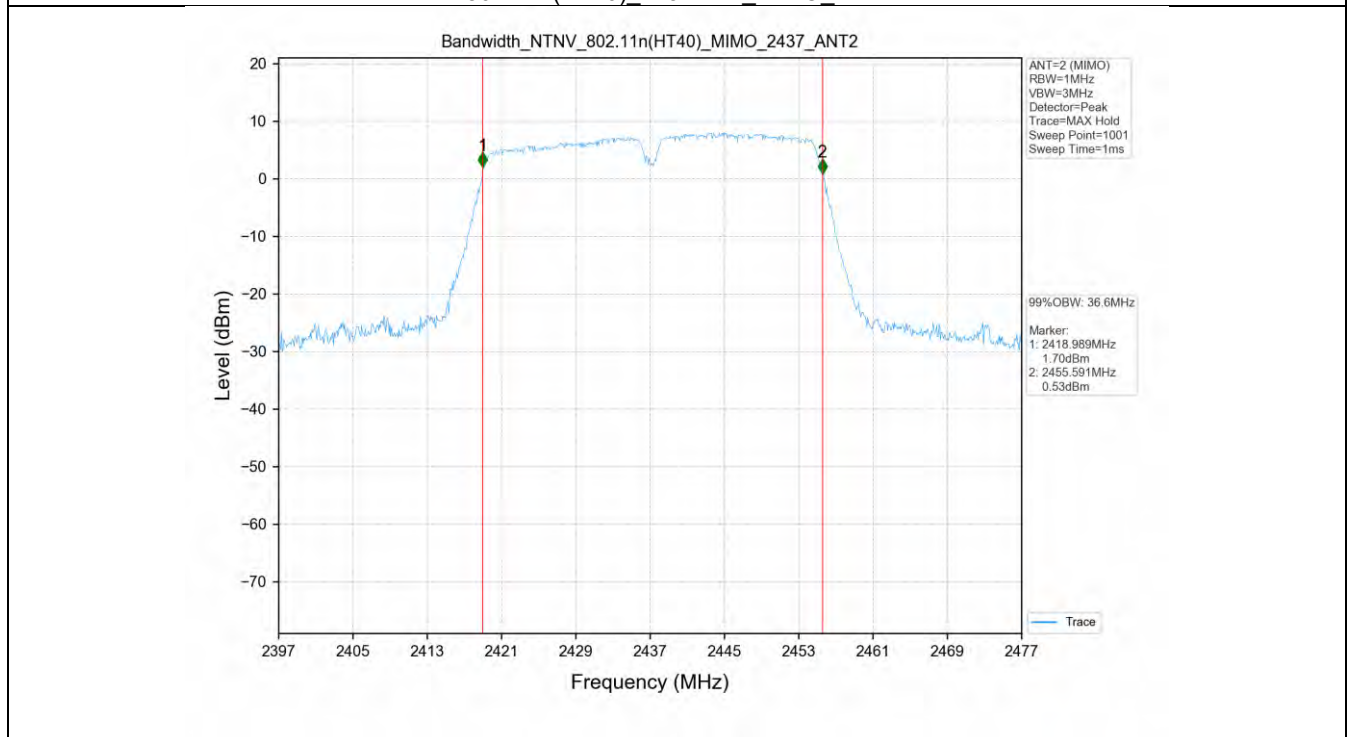
802.11n(HT40)_2437MHz_SISO_ANT1



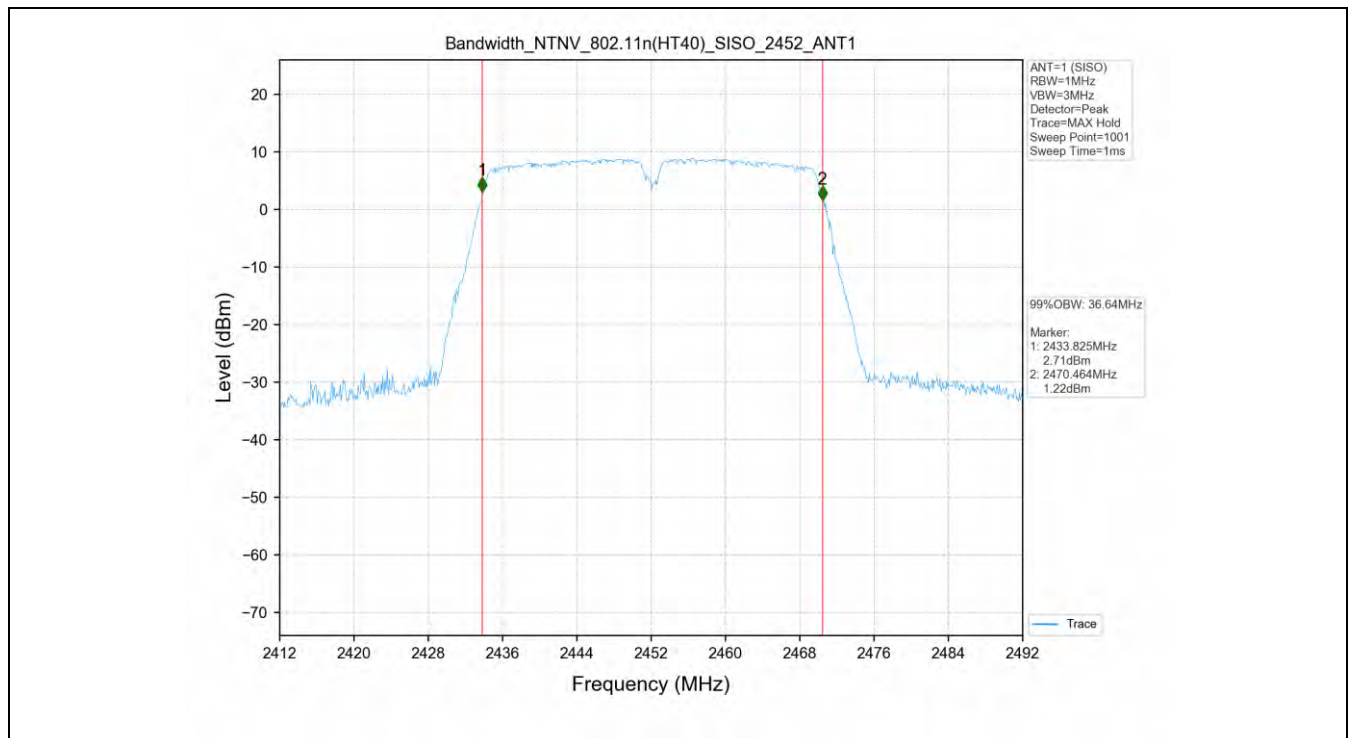
802.11n(HT40)_2437MHz_SISO_ANT2



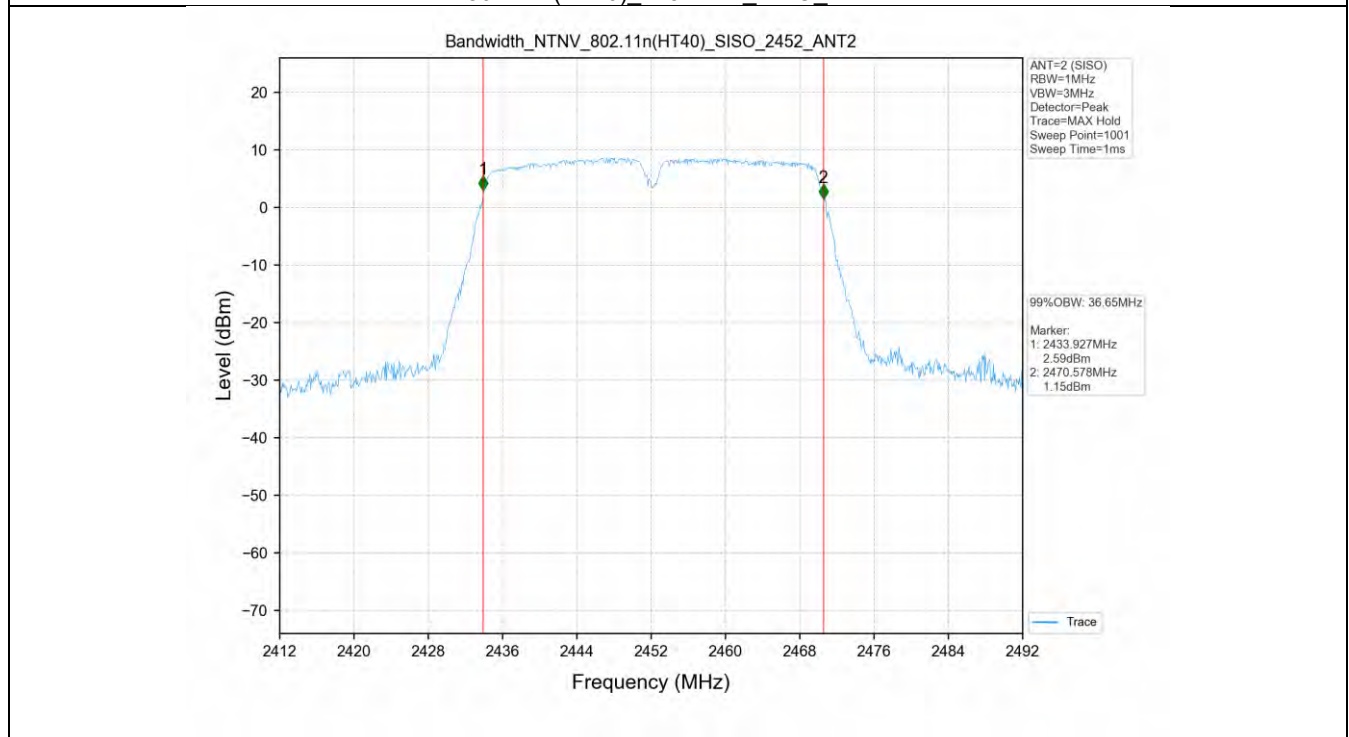
802.11n(HT40)_2437MHz_MIMO_Total



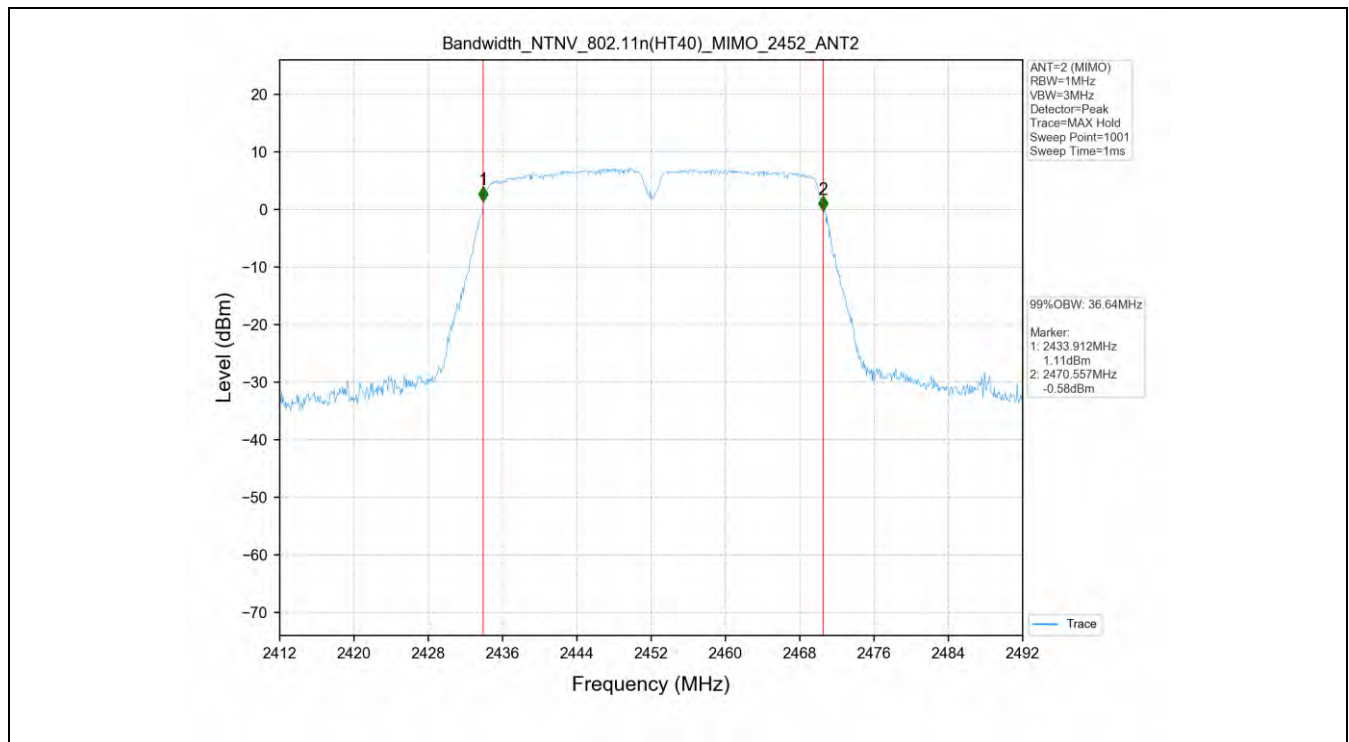
802.11n(HT40)_2452MHz_SISO_ANT1



802.11n(HT40)_2452MHz_SISO_ANT2



802.11n(HT40)_2452MHz_MIMO_Total



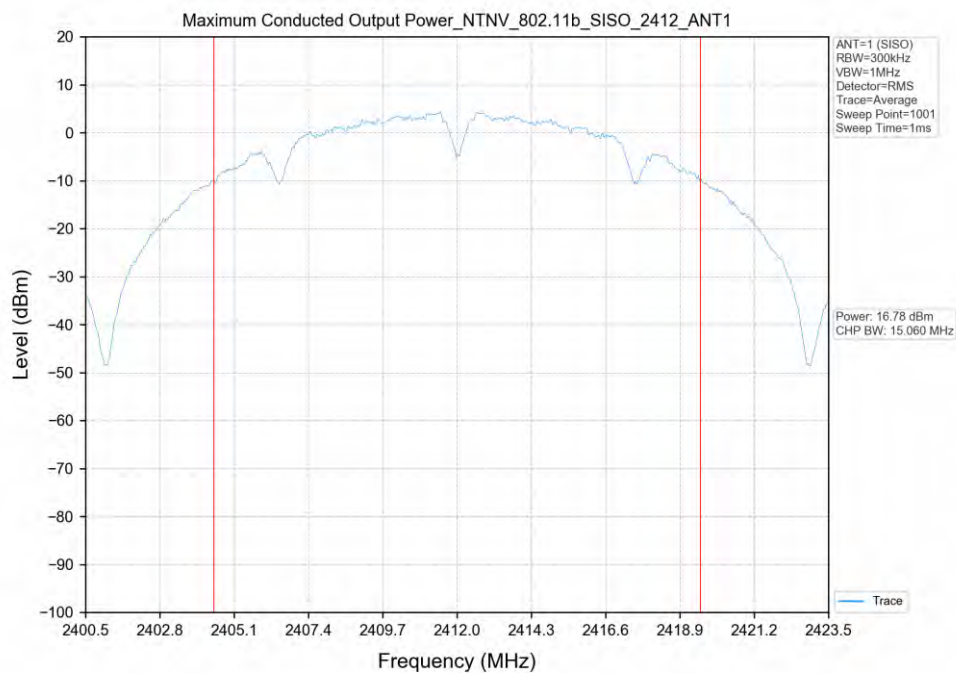
3. Maximum Conducted Output Power

3.1 Test Result

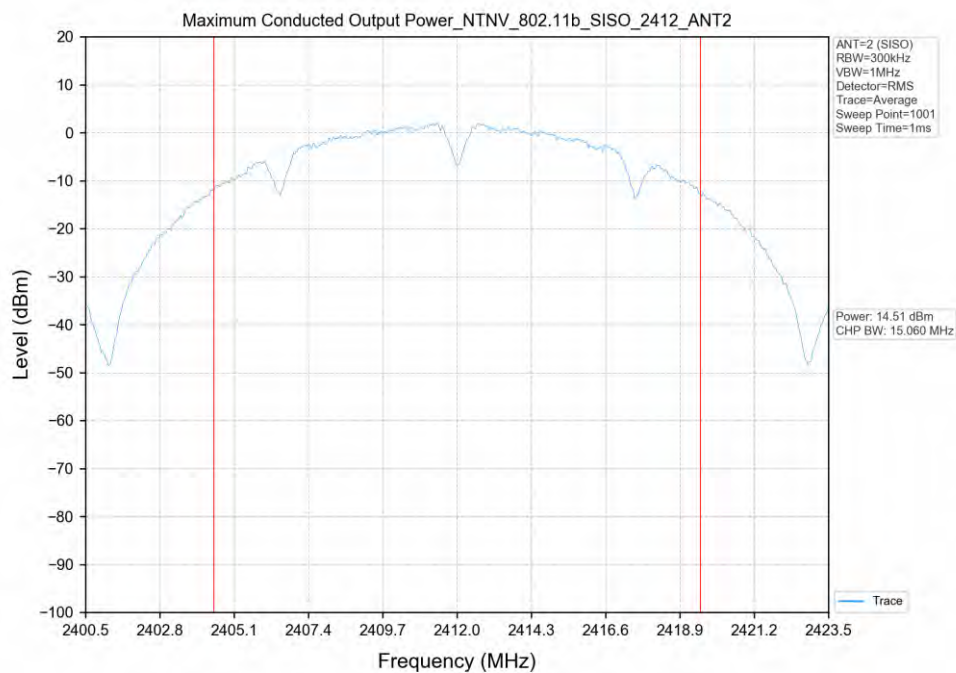
Test Mode	Frequency (MHz)	Tx Type	Measured Average Output Power (dBm)			Limits (dBm)	Verdict
			Ant 1	Ant 2	Total		
802.11b	2412	SISO	16.78	14.51	/	≤30	PASS
	2437	SISO	16.74	15.63	/	≤30	PASS
	2462	SISO	16.97	16.31	/	≤30	PASS
802.11g	2412	SISO	16.33	14.54	/	≤30	PASS
	2437	SISO	16.41	15.61	/	≤30	PASS
	2462	SISO	16.64	16.33	/	≤30	PASS
802.11n(HT20)	2412	SISO	16.13	14.42	/	≤30	PASS
		MIMO	15.33	13.07	17.36	≤30	PASS
	2437	SISO	16.09	15.40	/	≤30	PASS
		MIMO	15.23	13.94	17.64	≤30	PASS
	2462	SISO	16.34	16.11	/	≤30	PASS
		MIMO	15.50	14.65	18.11	≤30	PASS
802.11n(HT40)	2422	SISO	15.10	13.62	/	≤30	PASS
		MIMO	14.47	13.11	16.85	≤30	PASS
	2437	SISO	15.24	14.37	/	≤30	PASS
		MIMO	14.58	13.88	17.25	≤30	PASS
	2452	SISO	15.42	15.04	/	≤30	PASS
		MIMO	14.60	13.53	17.11	≤30	PASS

3.2 Test Graph

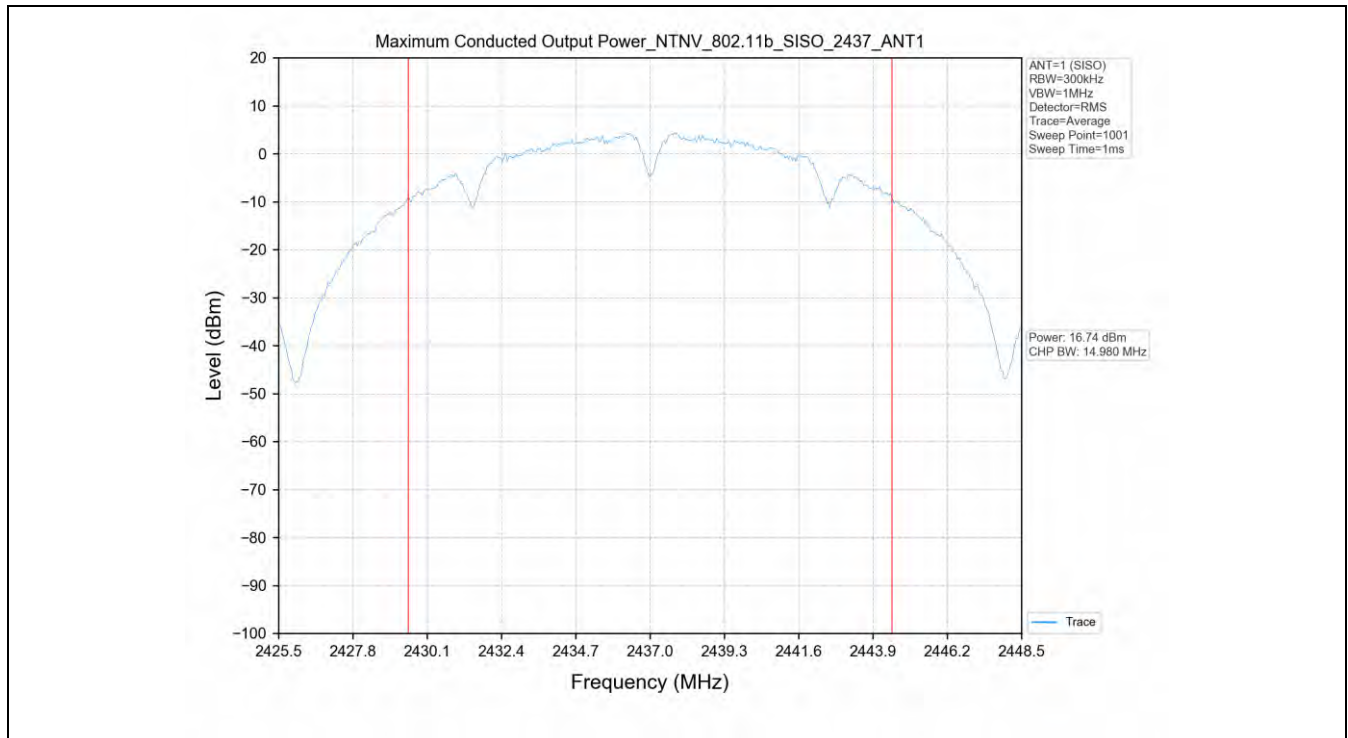
802.11b_2412MHz_SISO_ANT1



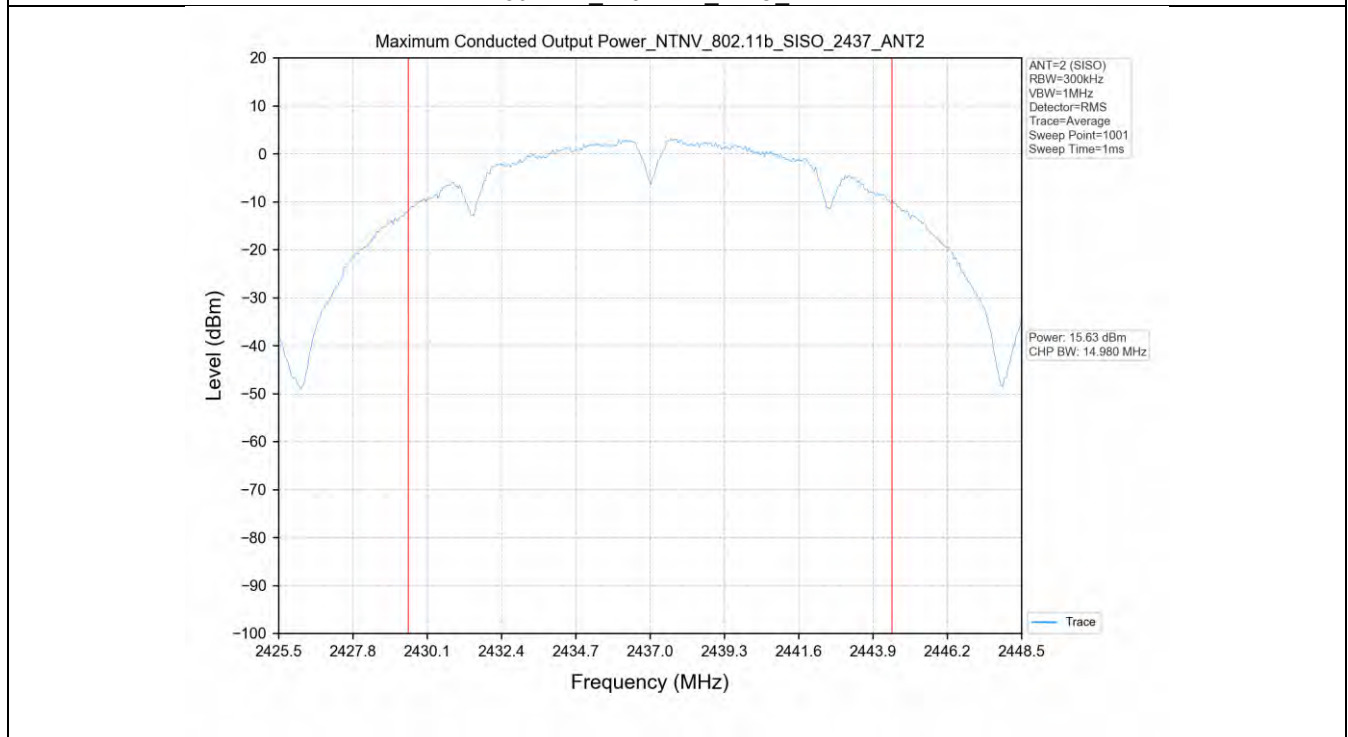
802.11b_2412MHz_SISO_ANT2



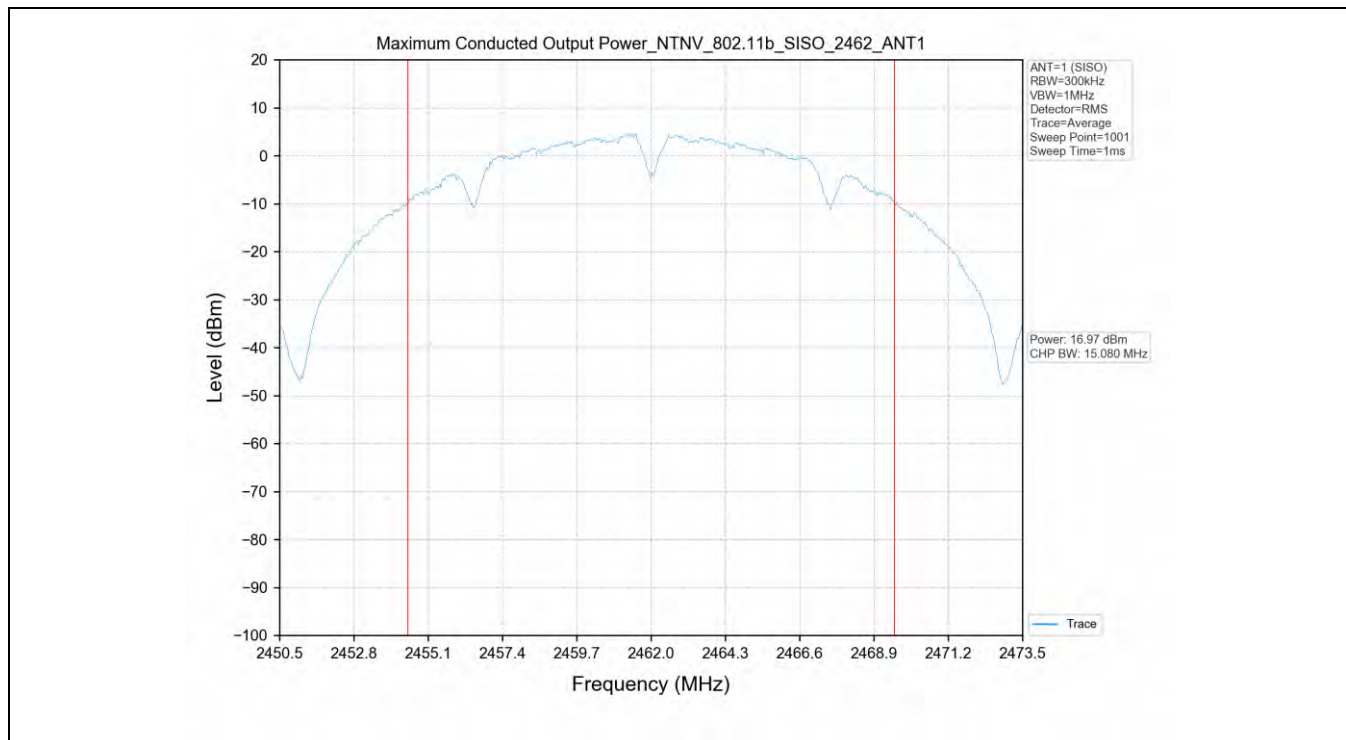
802.11b_2437MHz_SISO_ANT1



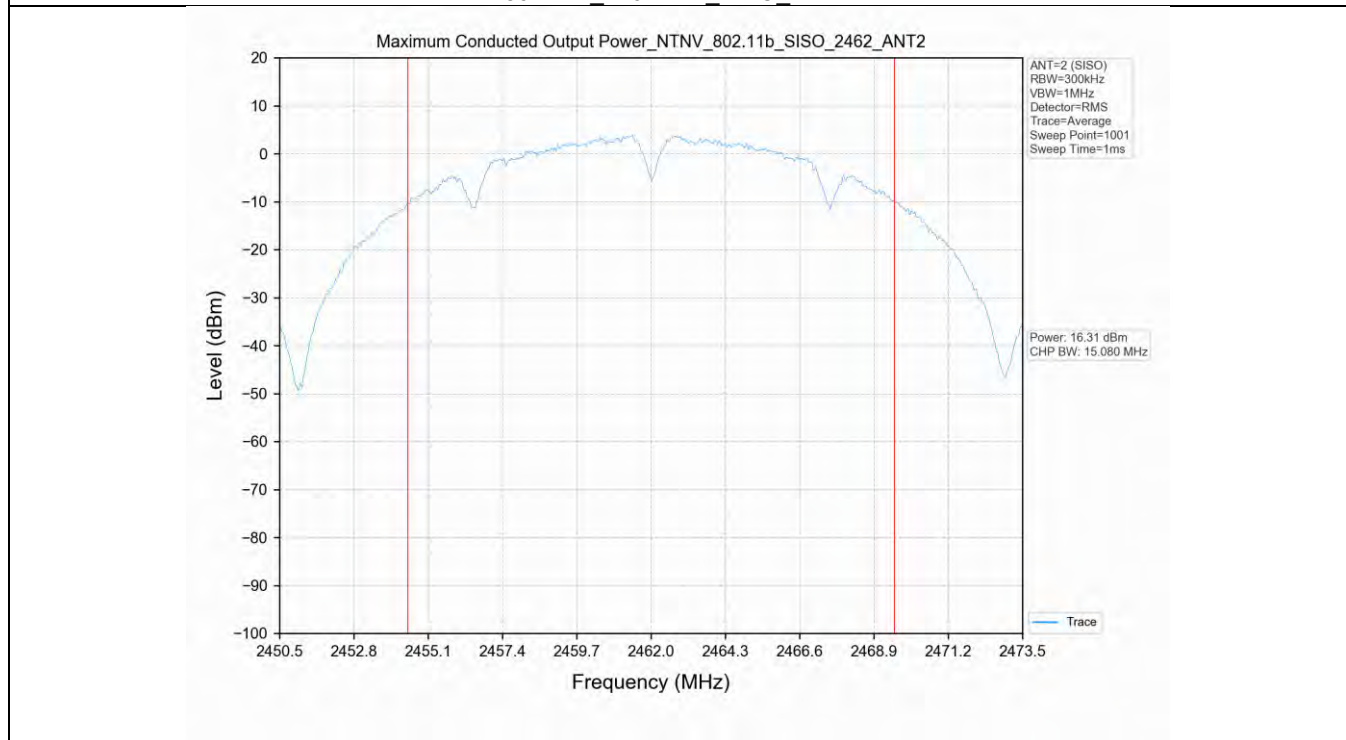
802.11b_2437MHz_SISO_ANT2



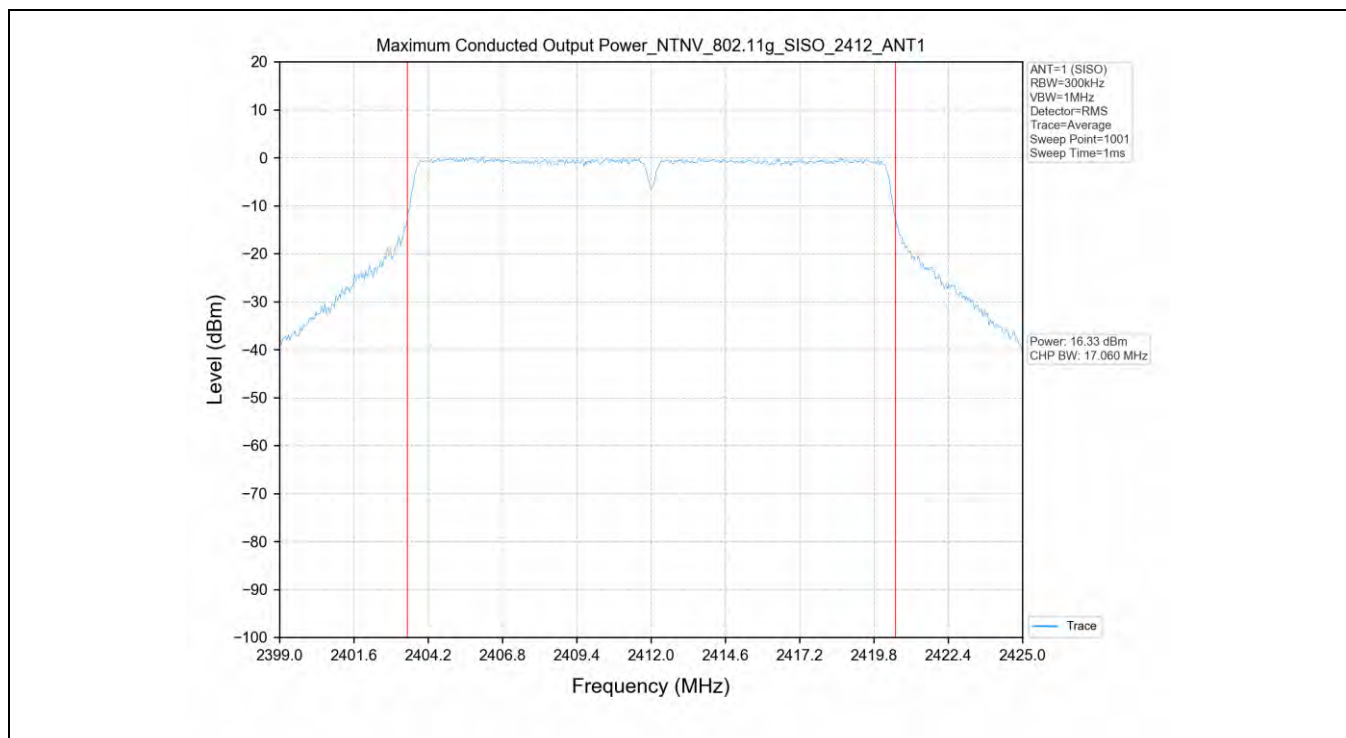
802.11b_2462MHz_SISO_ANT1



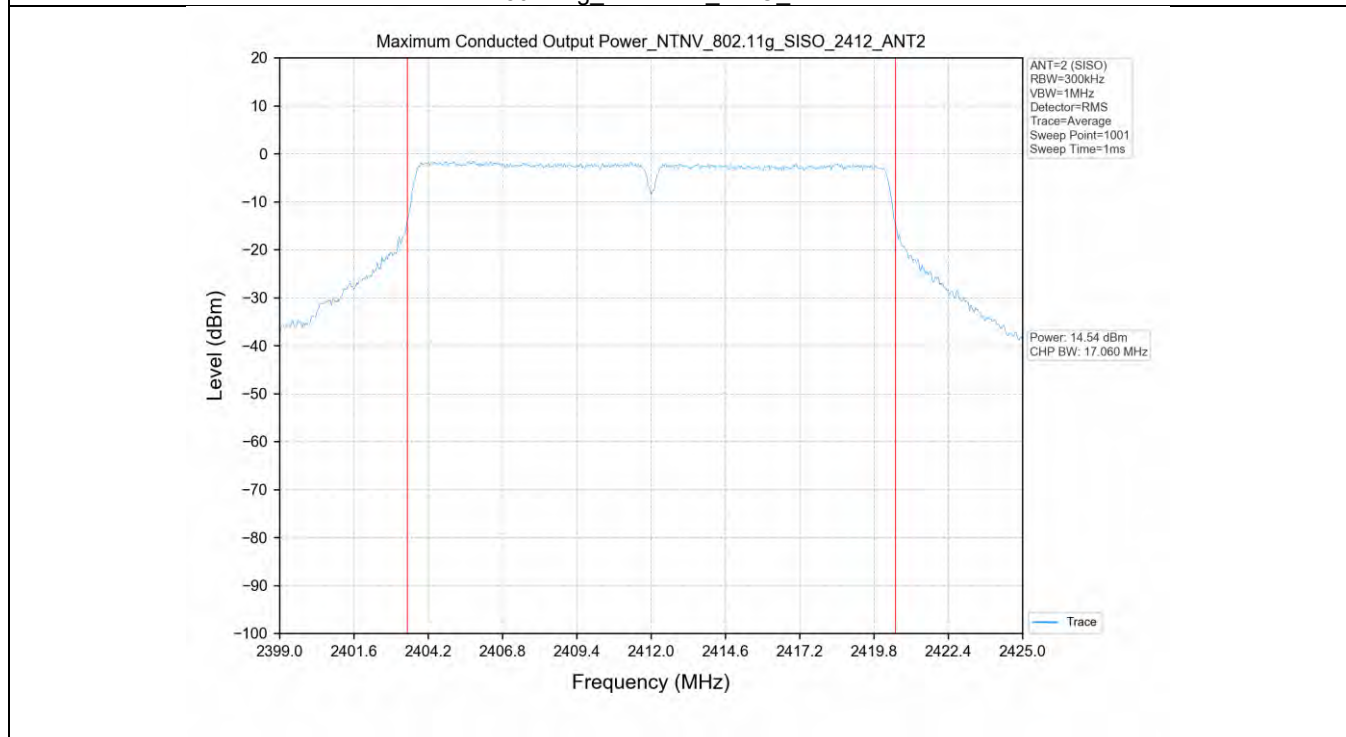
802.11b_2462MHz_SISO_ANT2



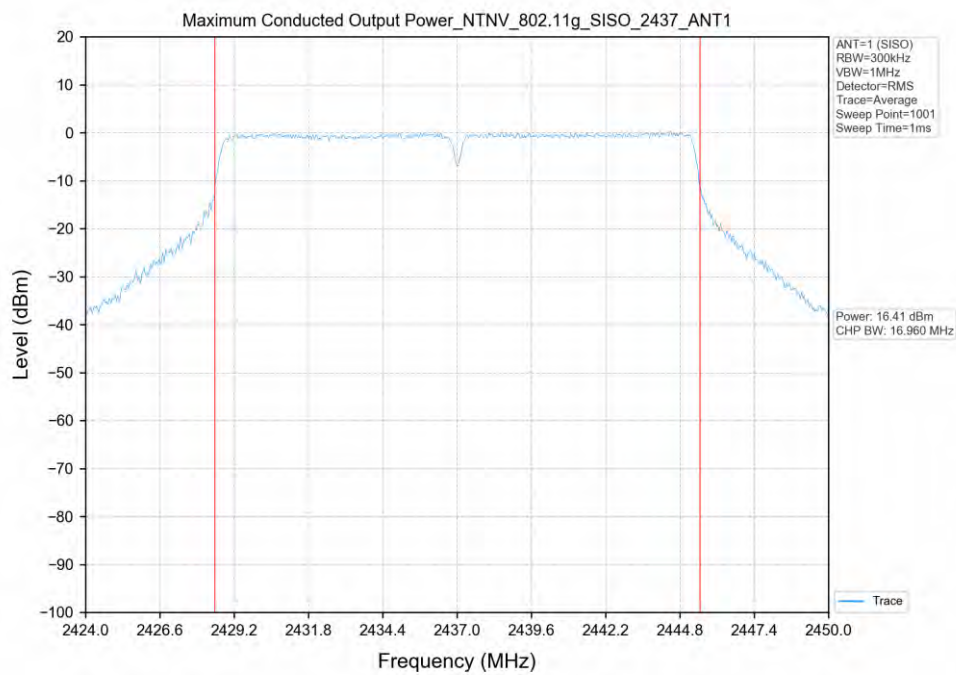
802.11g_2412MHz_SISO_ANT1



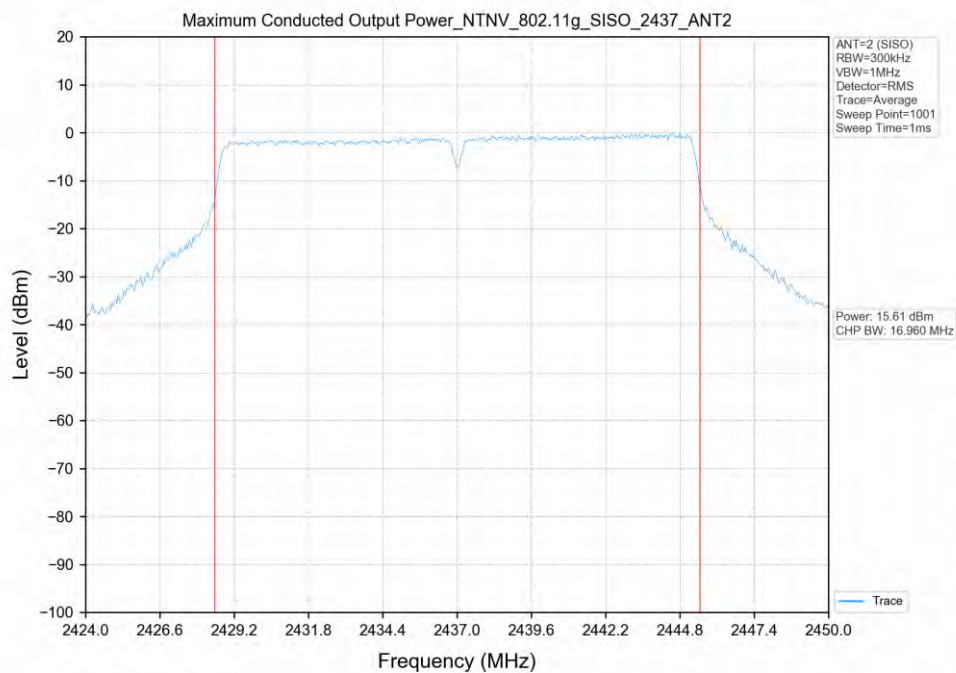
802.11g_2412MHz_SISO_ANT2



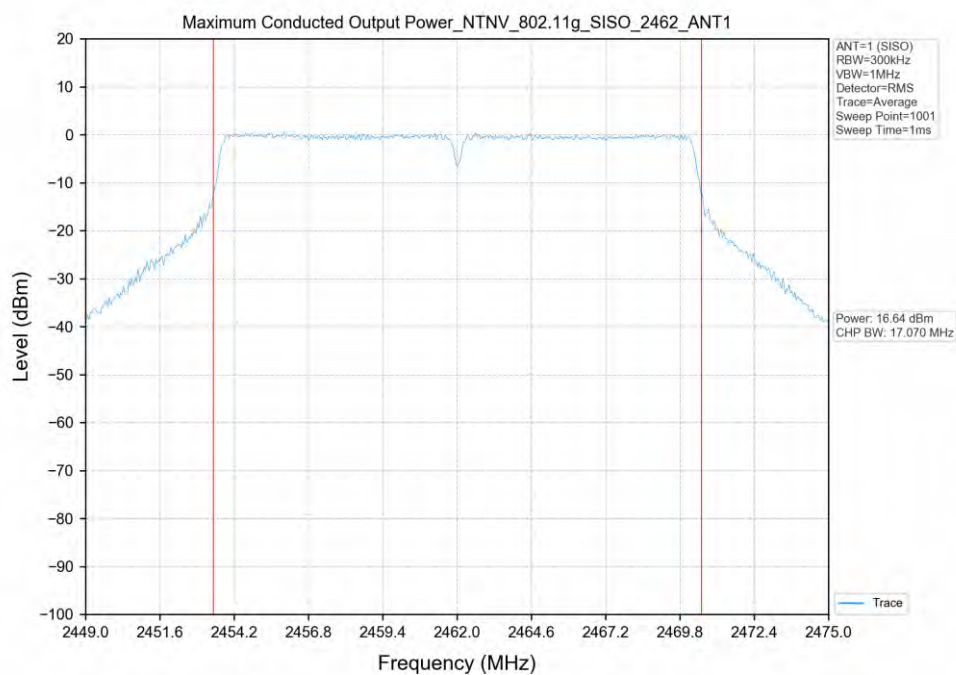
802.11g_2437MHz_SISO_ANT1



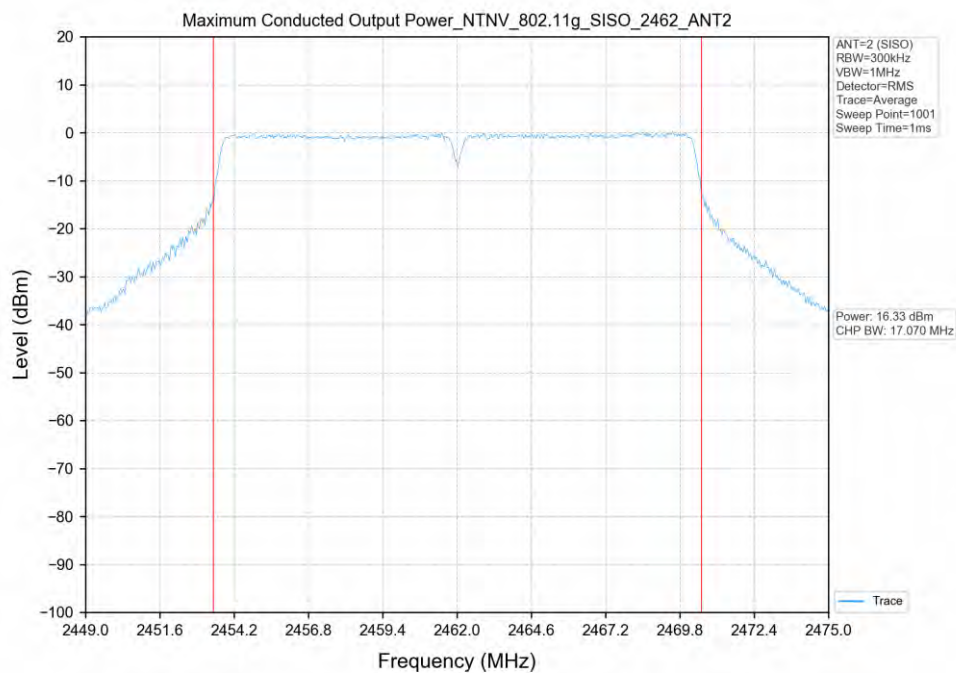
802.11g_2437MHz_SISO_ANT2



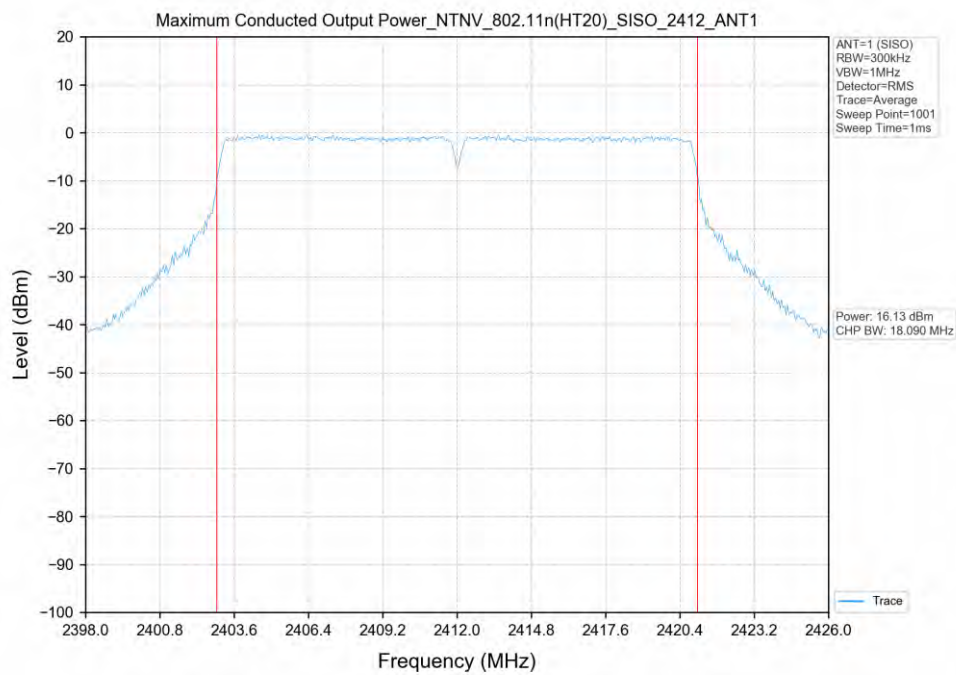
802.11g_2462MHz_SISO_ANT1



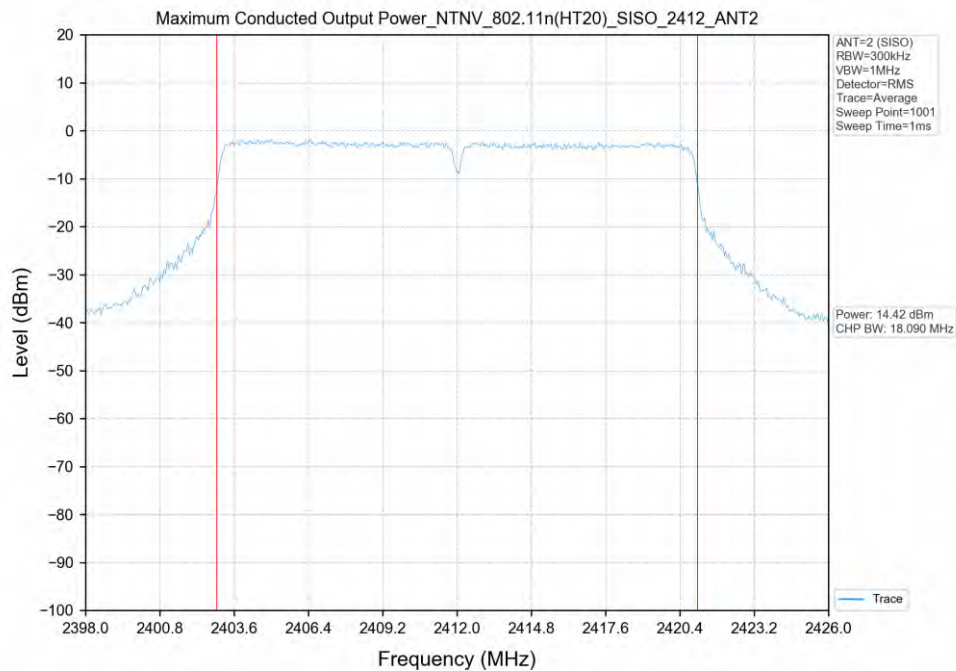
802.11g_2462MHz_SISO_ANT2



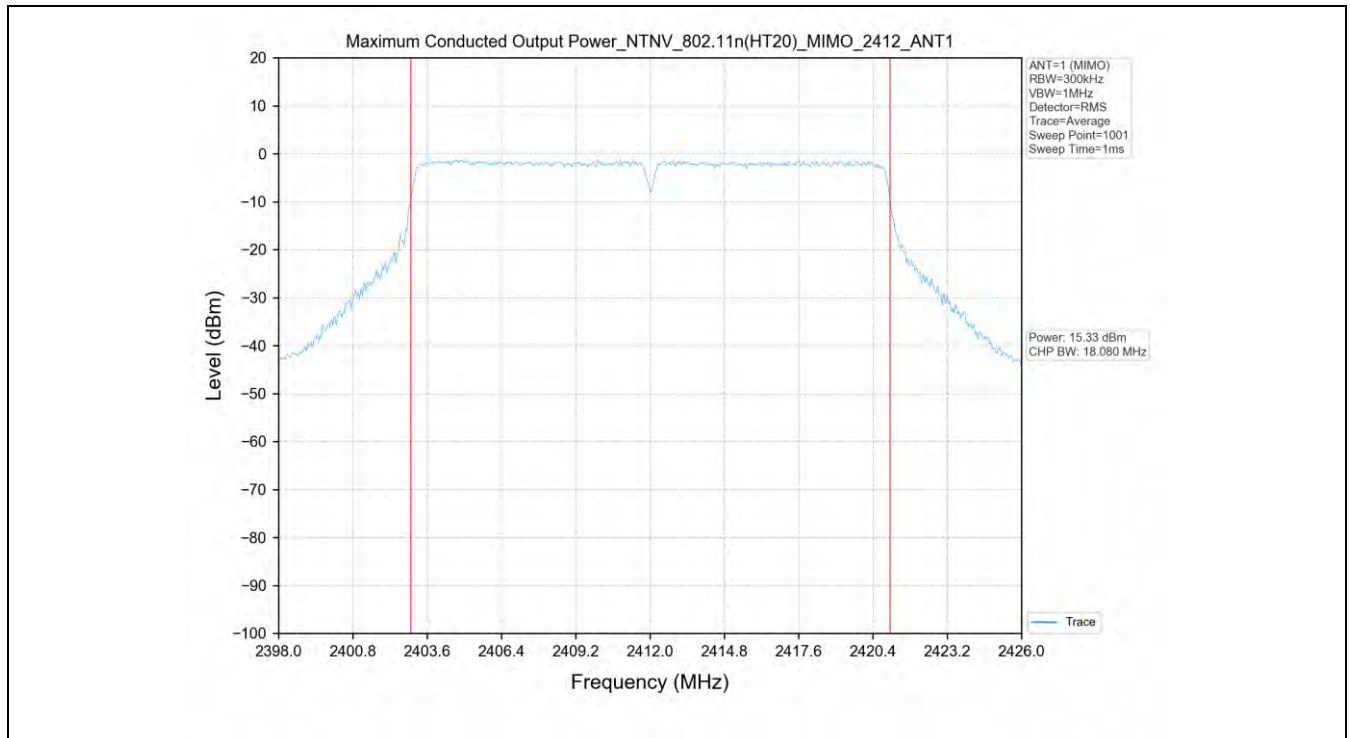
802.11n(HT20)_2412MHz_SISO_ANT1



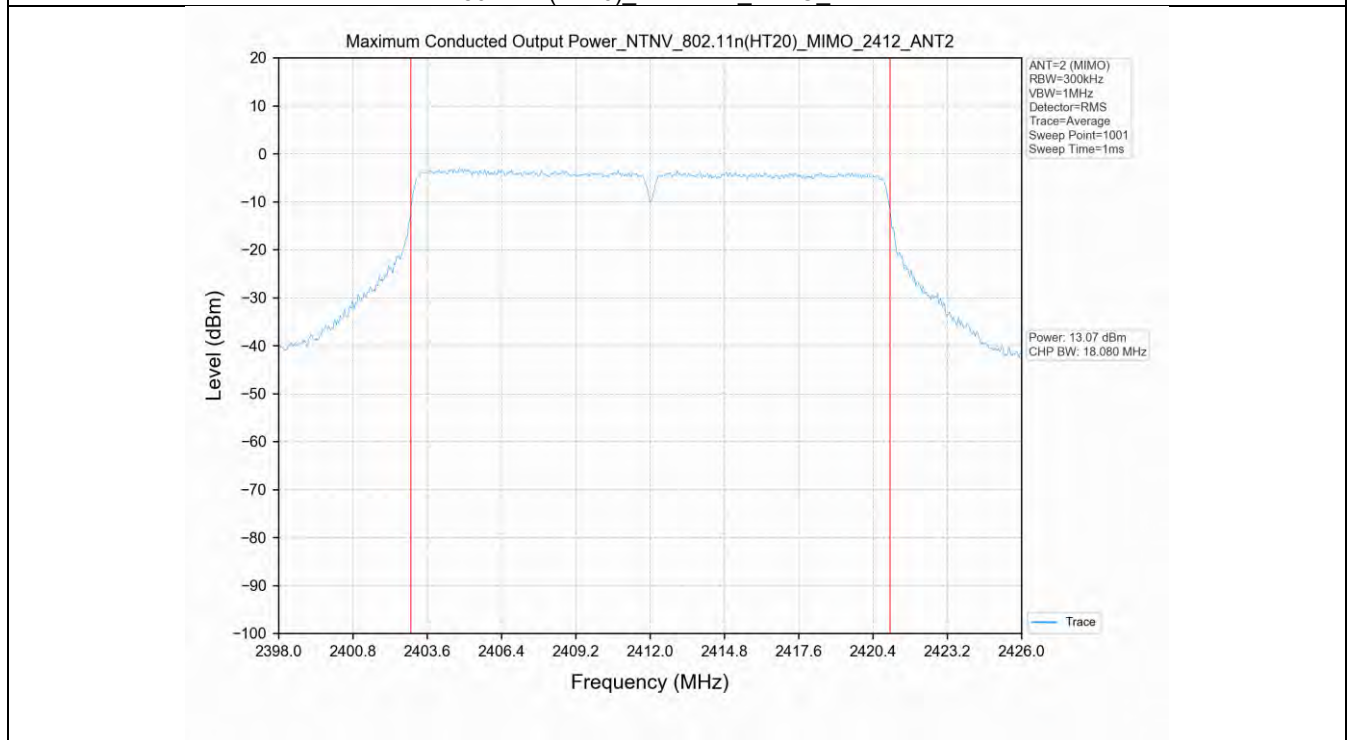
802.11n(HT20)_2412MHz_SISO_ANT2



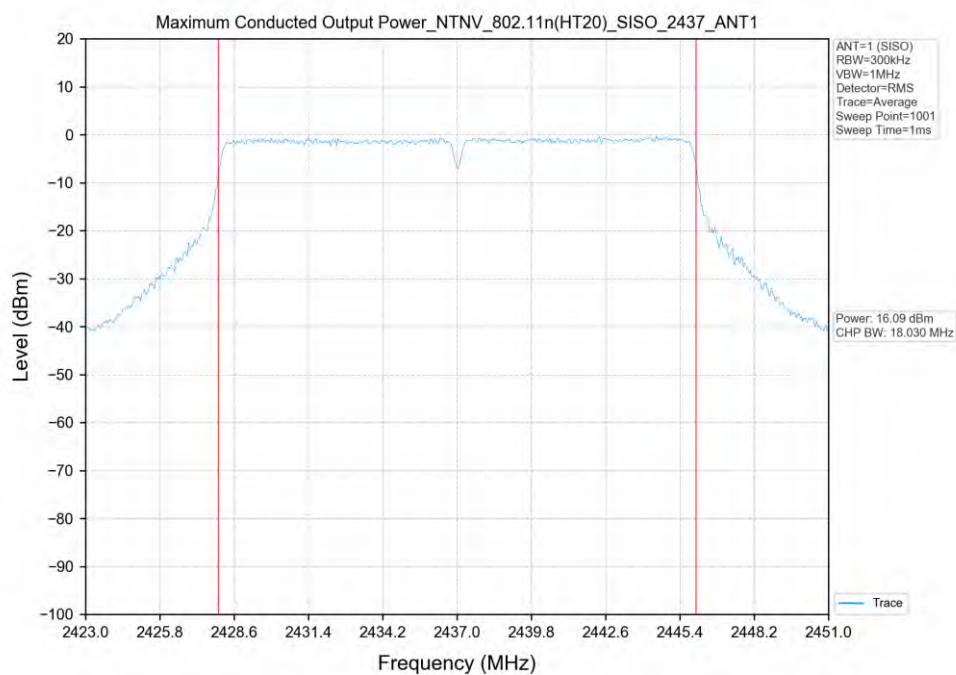
802.11n(HT20)_2412MHz_MIMO_ANT1



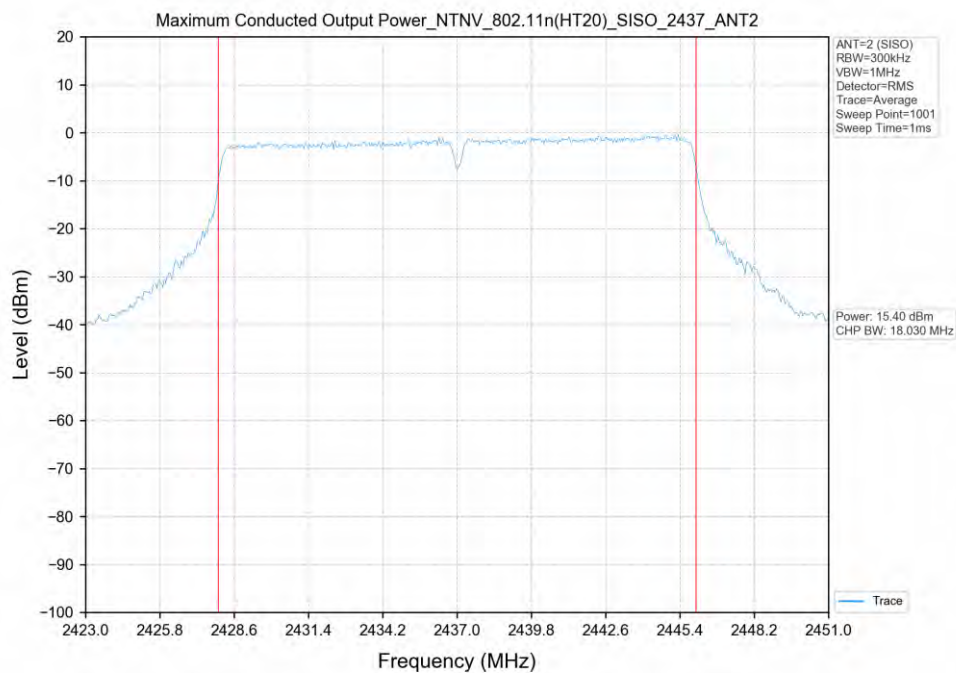
802.11n(HT20)_2412MHz_MIMO_ANT2



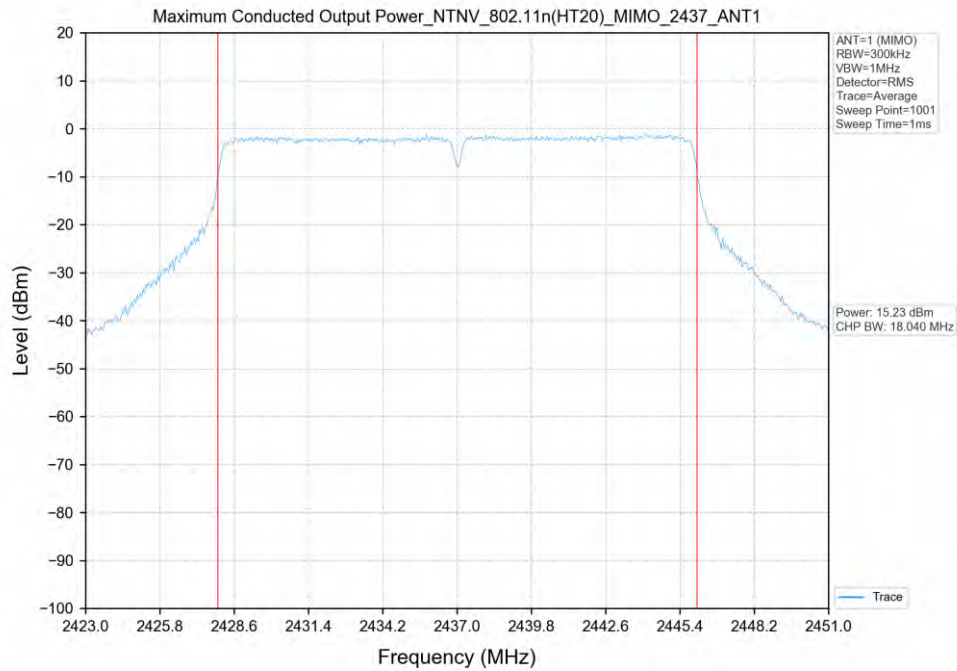
802.11n(HT20)_2437MHz_SISO_ANT1



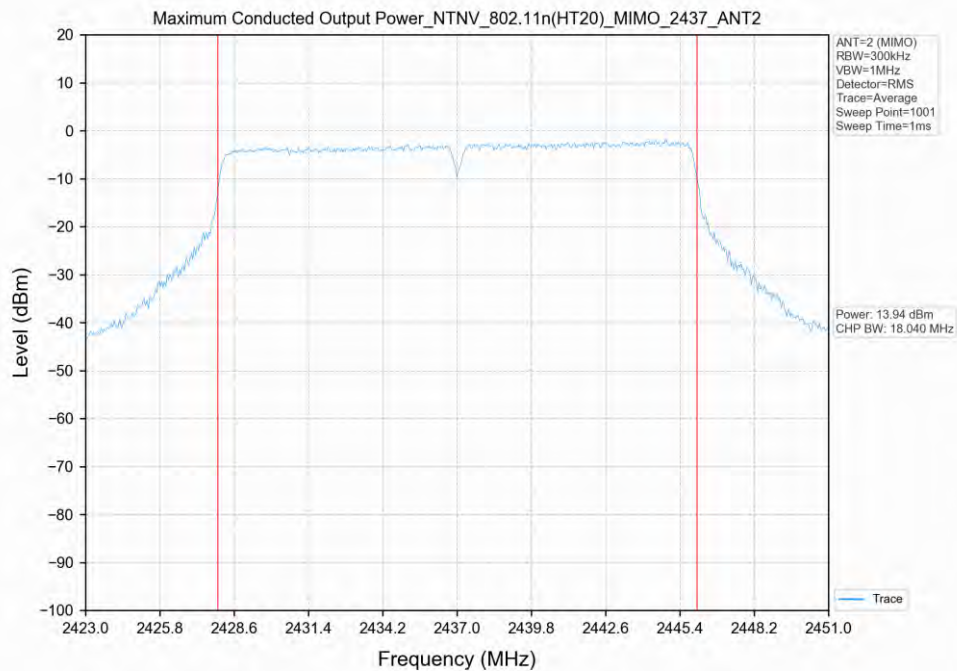
802.11n(HT20)_2437MHz_SISO_ANT2



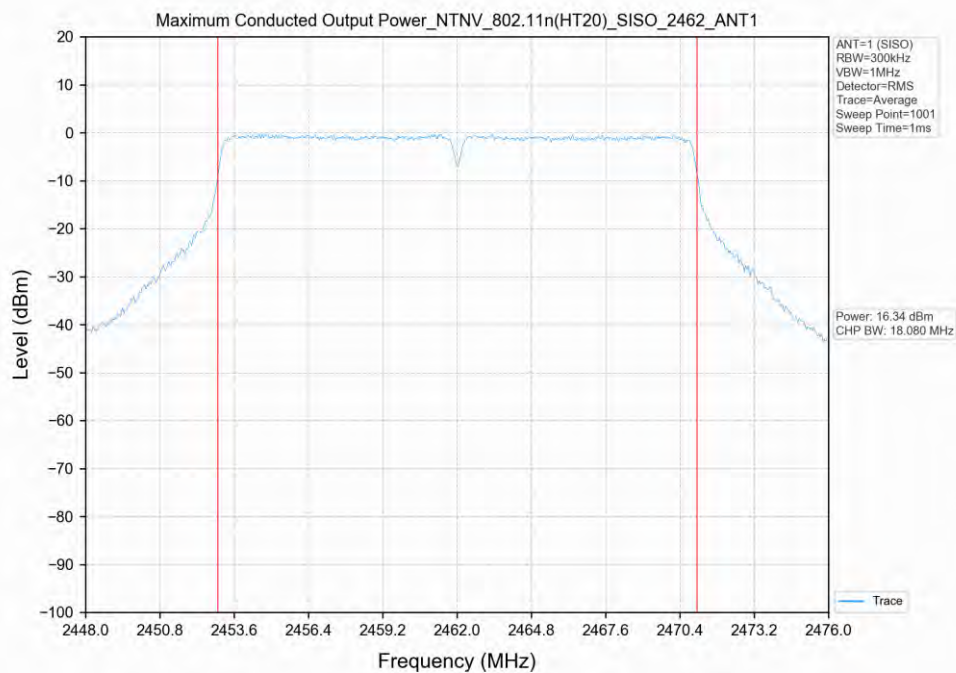
802.11n(HT20)_2437MHz_MIMO_ANT1



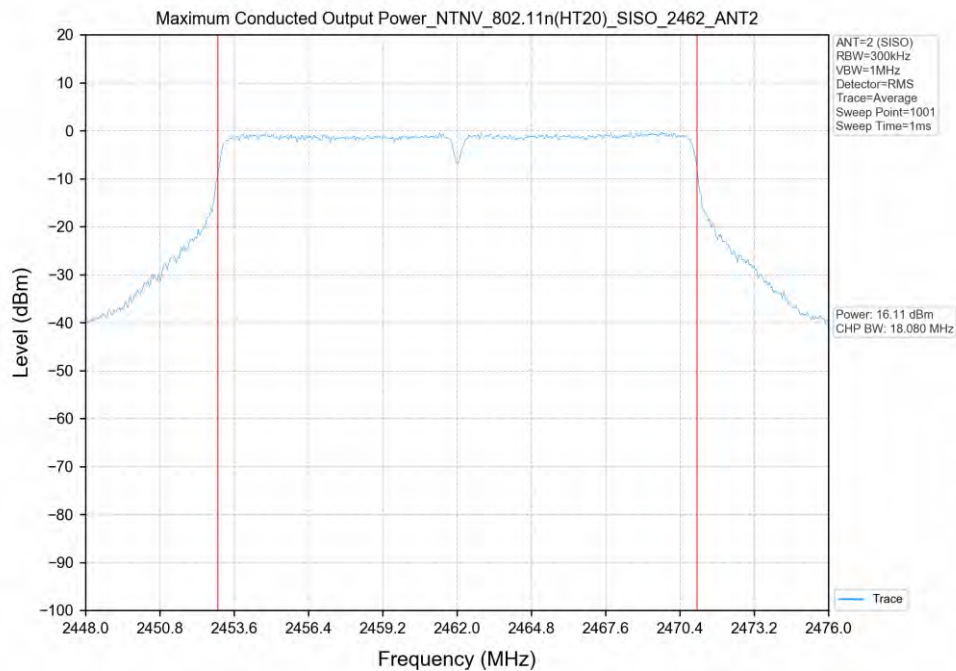
802.11n(HT20)_2437MHz_MIMO_ANT2



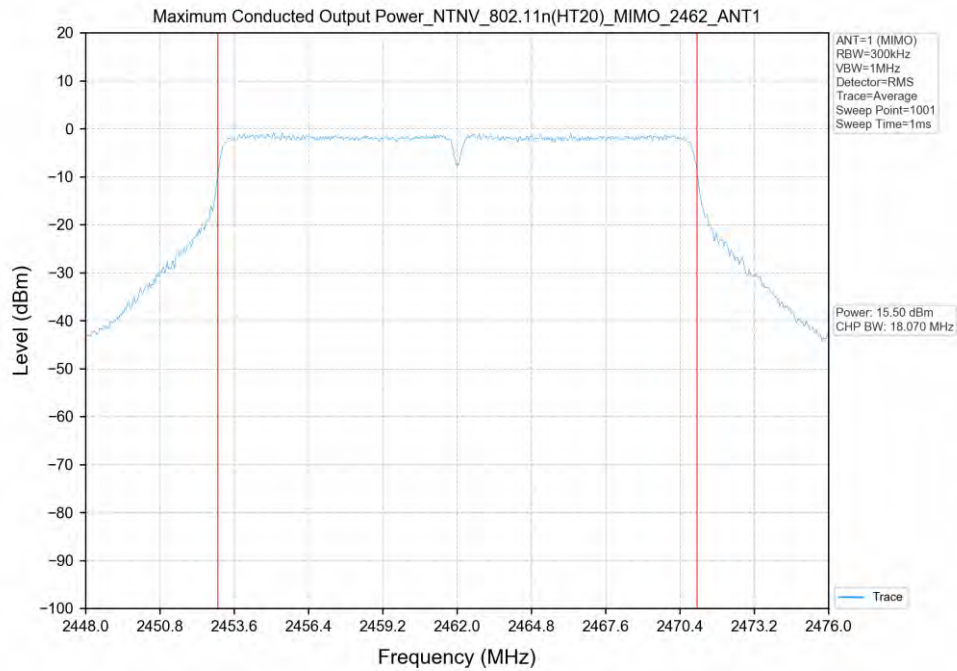
802.11n(HT20)_2462MHz_SISO_ANT1



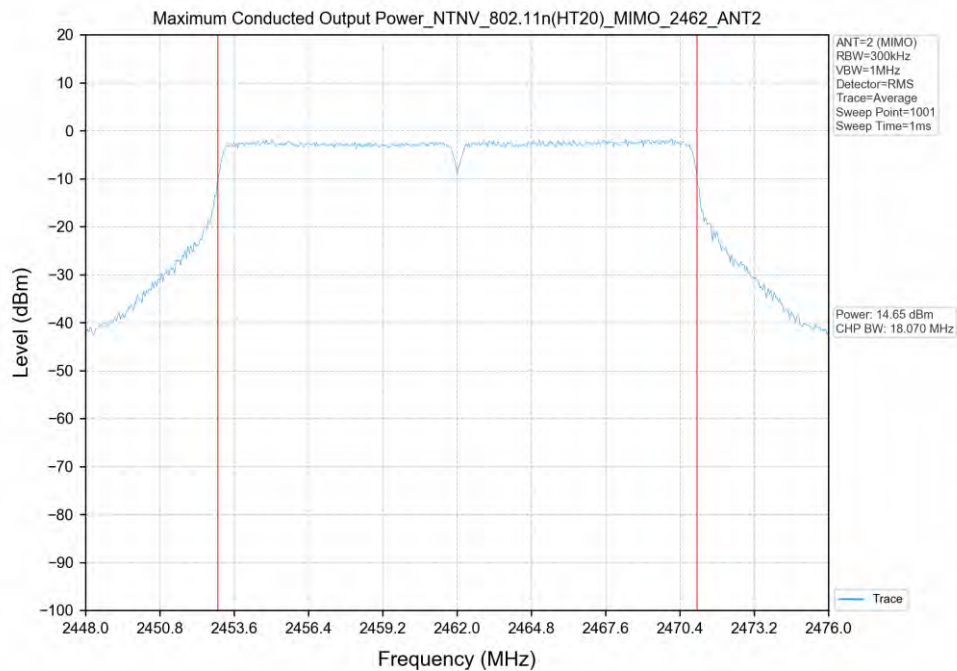
802.11n(HT20)_2462MHz_SISO_ANT2



802.11n(HT20)_2462MHz_MIMO_ANT1



802.11n(HT20)_2462MHz_MIMO_ANT2



802.11n(HT40)_2422MHz_SISO_ANT1