

Appendix for SHEM2010008914CR

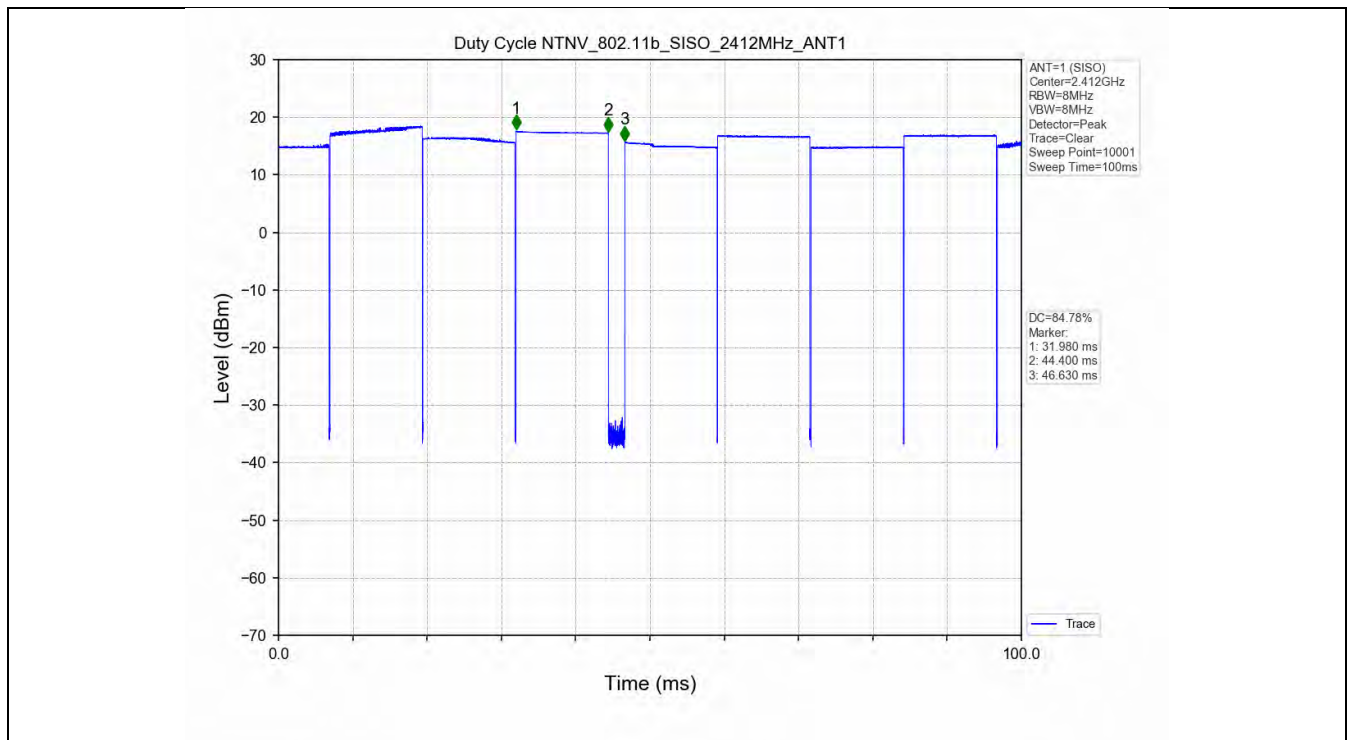
1. Duty Cycle

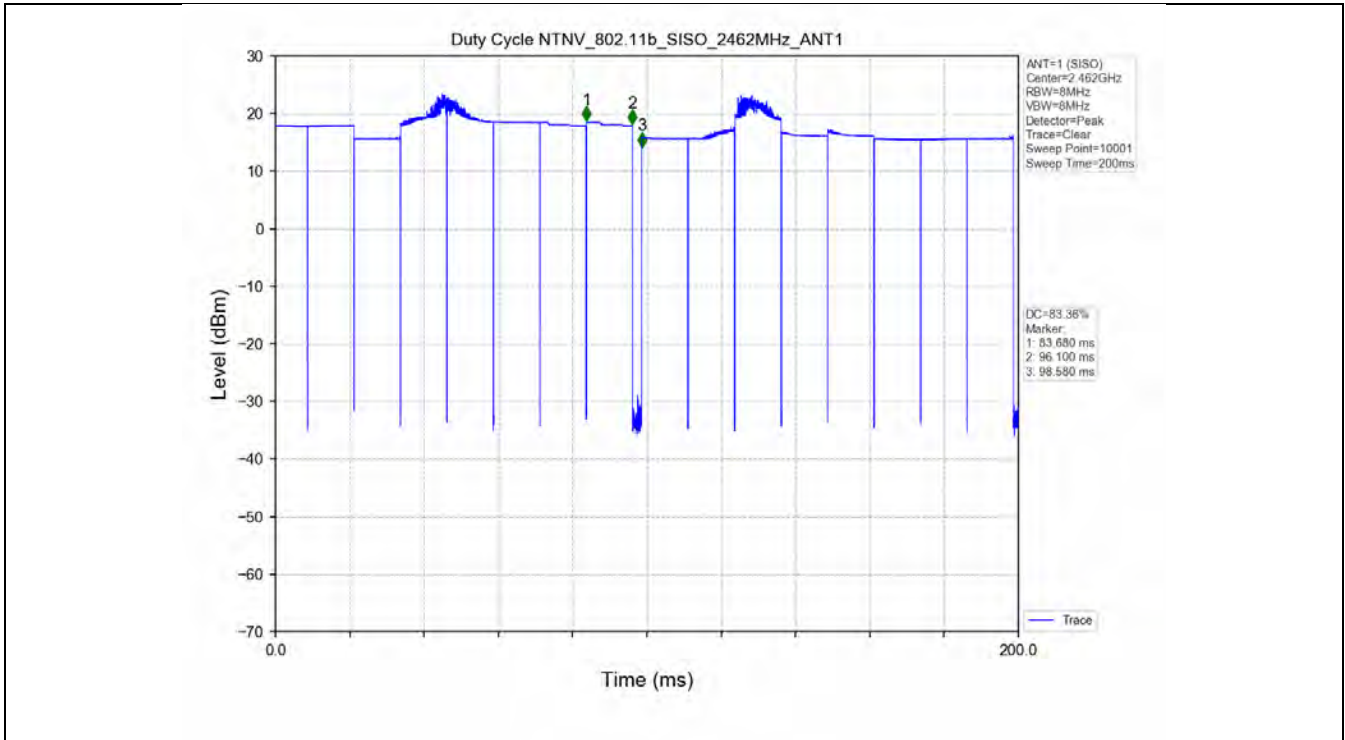
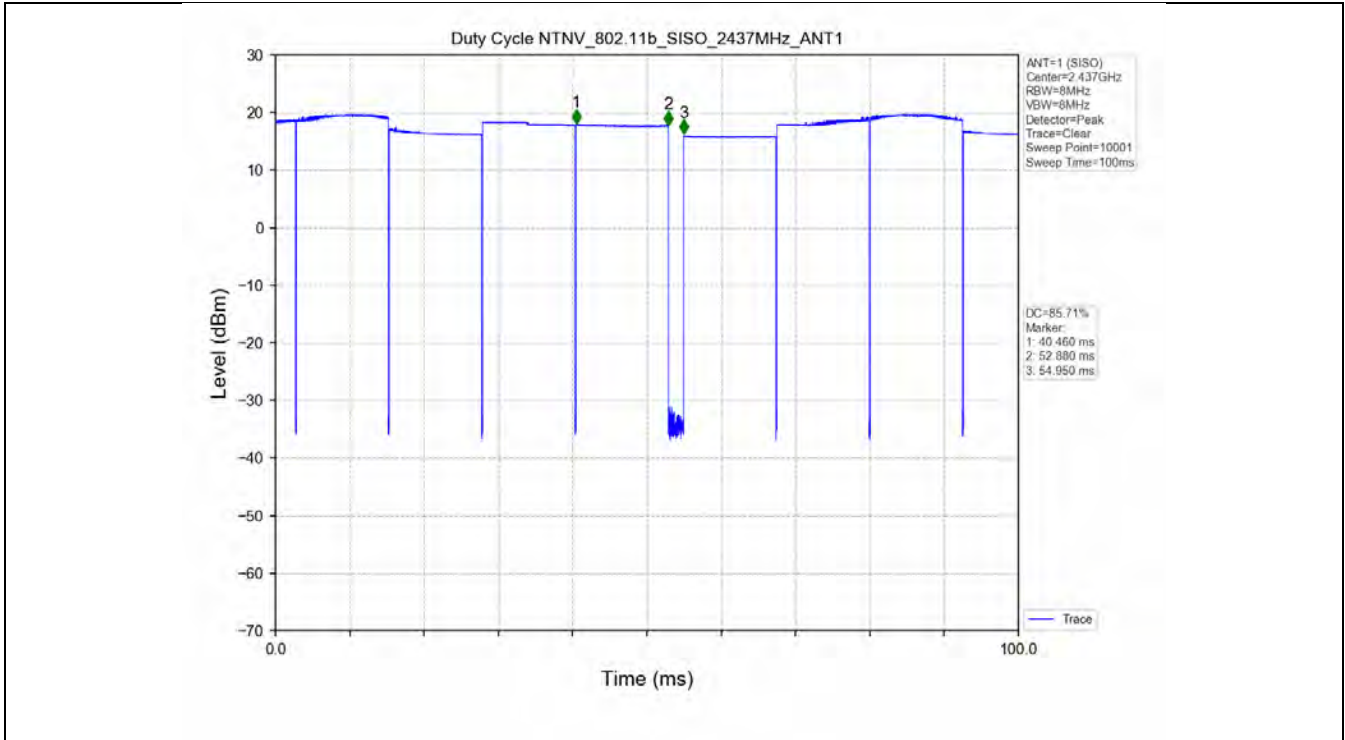
1.1 Test Result

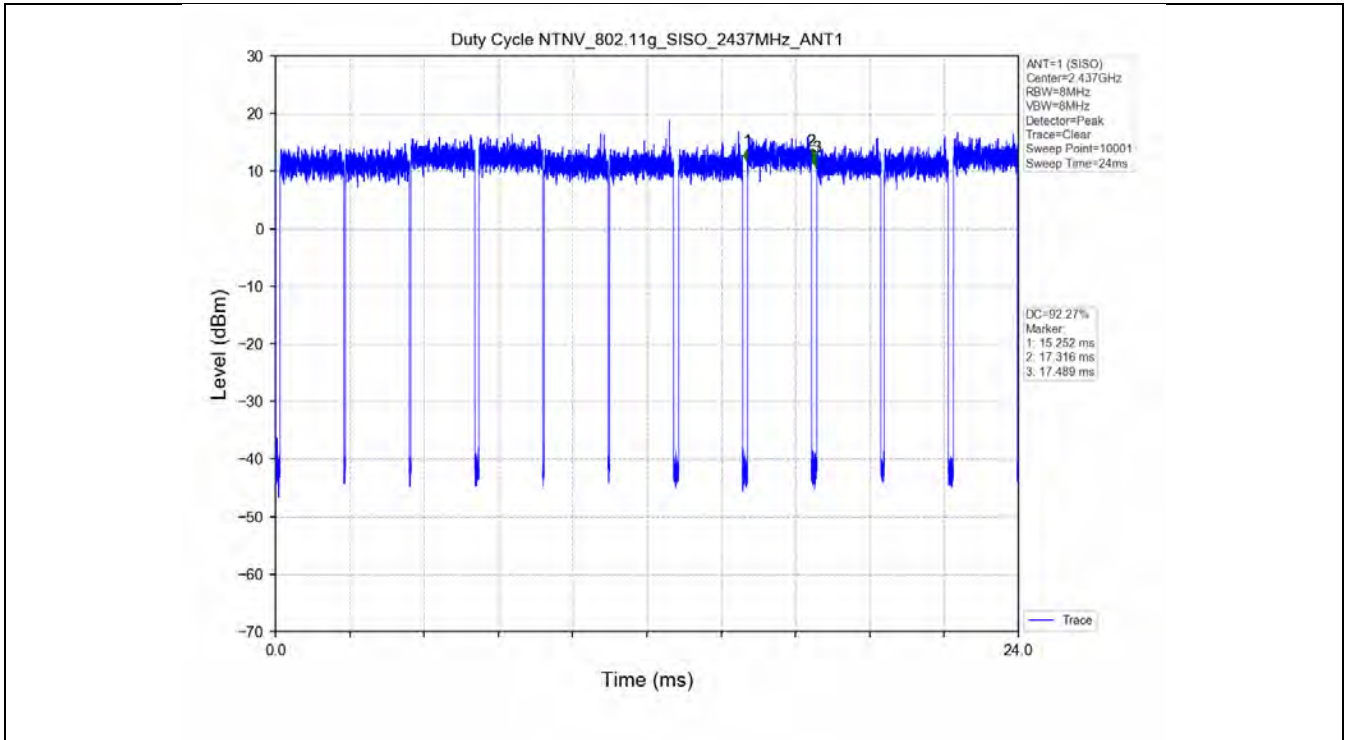
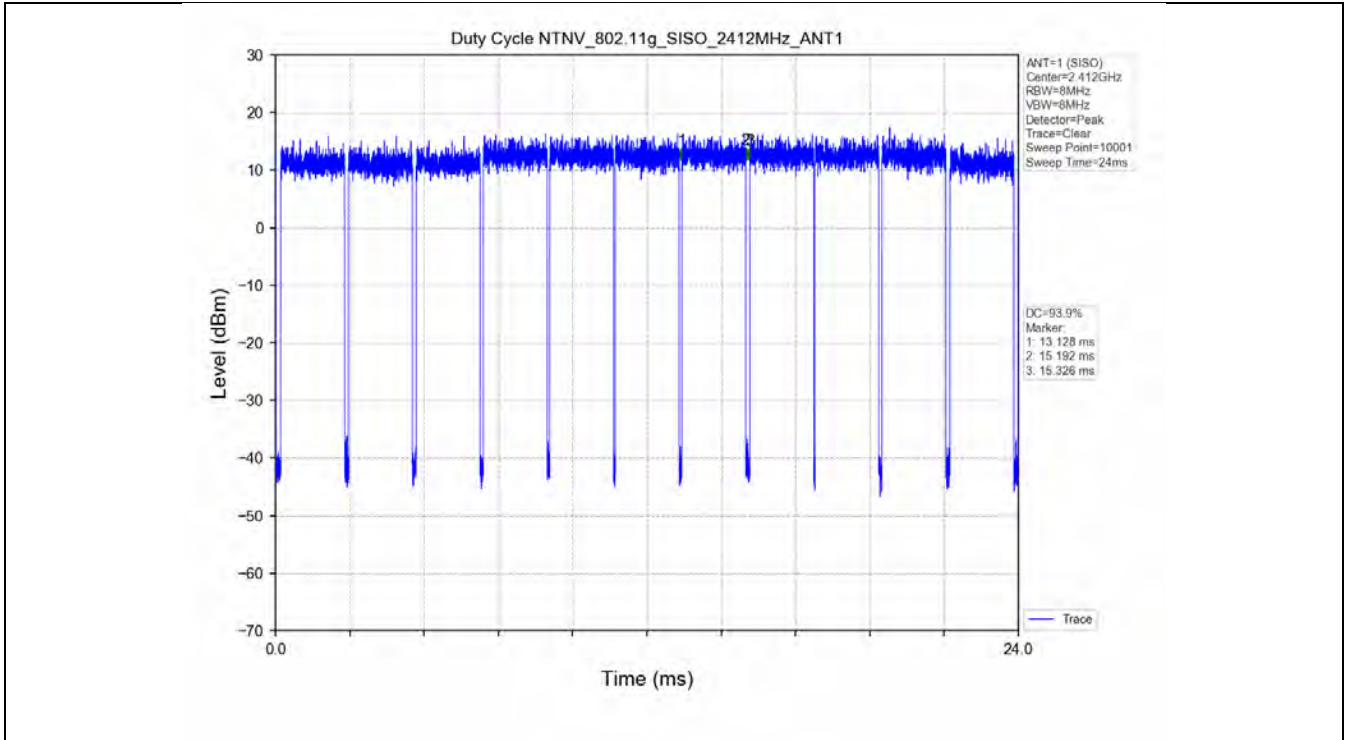
Test Mode	Channel Frequency(MHz)	TX Type	ANT No.	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)
802.11b	2412	SISO	1	12.420	14.650	84.78	0.72
	2437	SISO	1	12.420	14.490	85.71	0.67
	2462	SISO	1	12.420	14.900	83.36	0.79
802.11g	2412	SISO	1	2.064	2.198	93.90	0.27
	2437	SISO	1	2.064	2.237	92.27	0.35
	2462	SISO	1	2.064	2.227	92.68	0.33
802.11n(HT20)	2412	MIMO	1	1.918	2.081	92.17	0.35
	2437	MIMO	1	1.921	2.093	91.78	0.37
	2462	MIMO	1	1.921	2.092	91.83	0.37
802.11n(HT40)	2422	MIMO	1	0.942	1.106	85.17	0.70
	2437	MIMO	1	0.943	1.114	84.65	0.72
	2452	MIMO	1	0.920	1.087	84.64	0.72

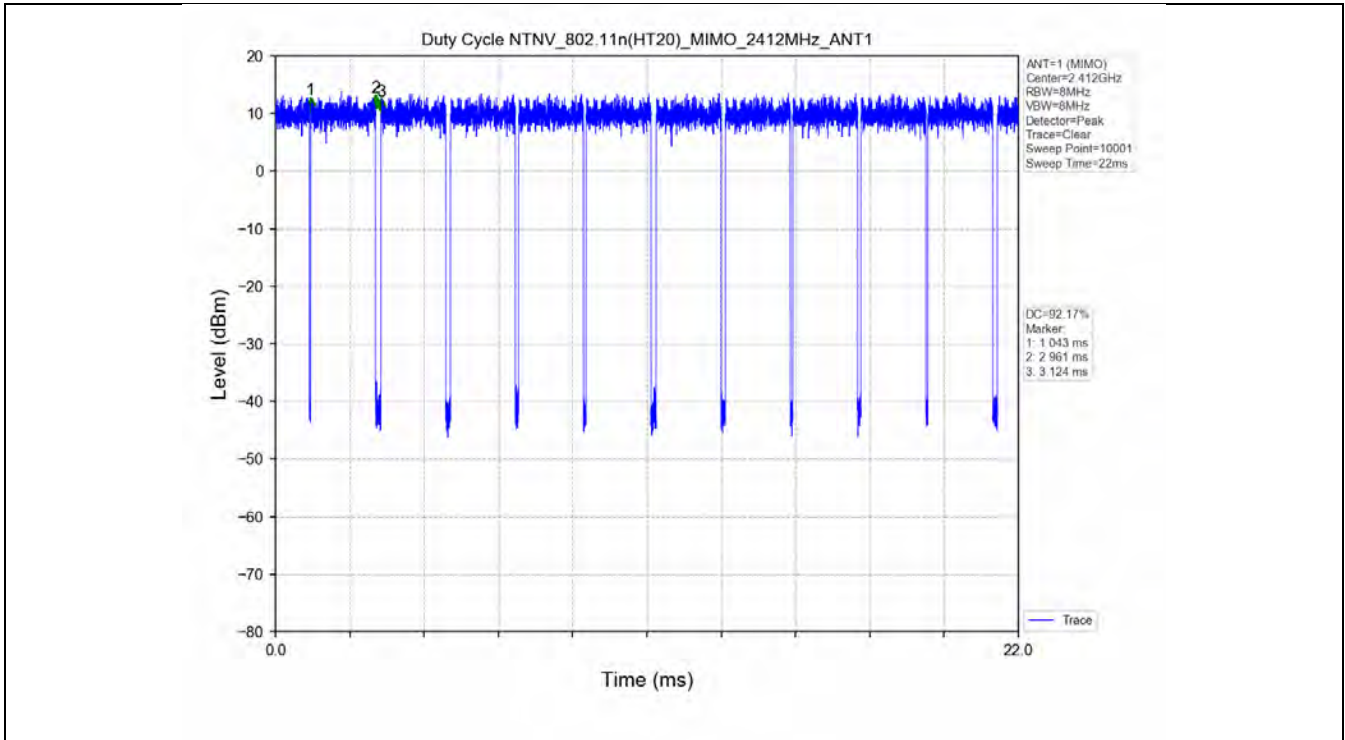
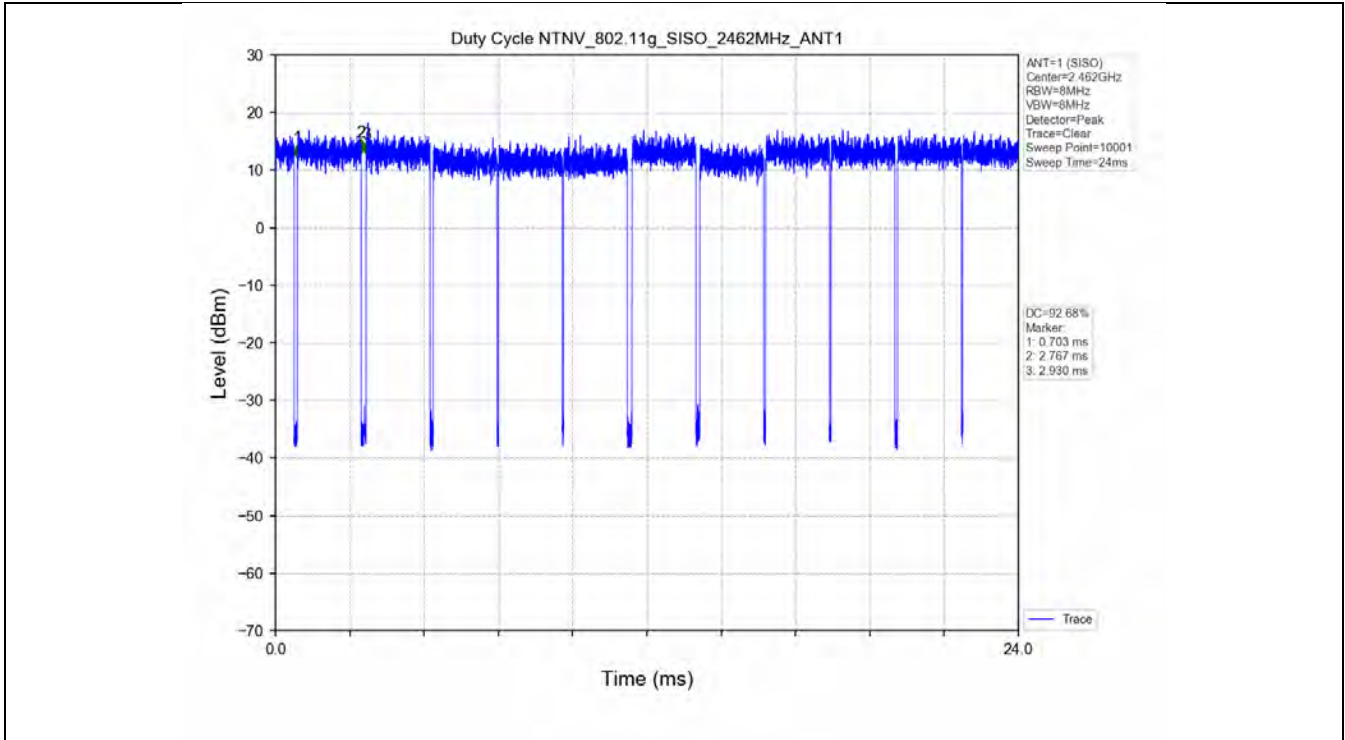
Note: We evaluated all the antennas and only the worst case is given in the report

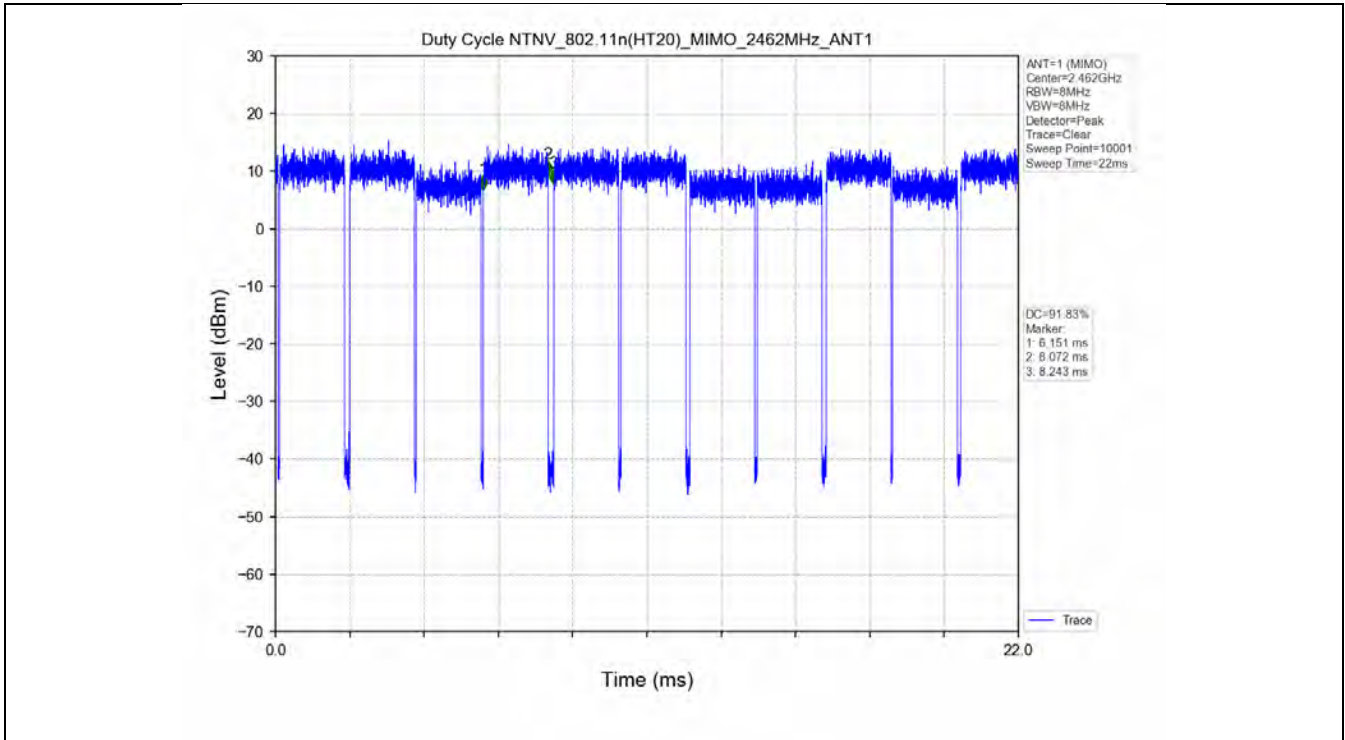
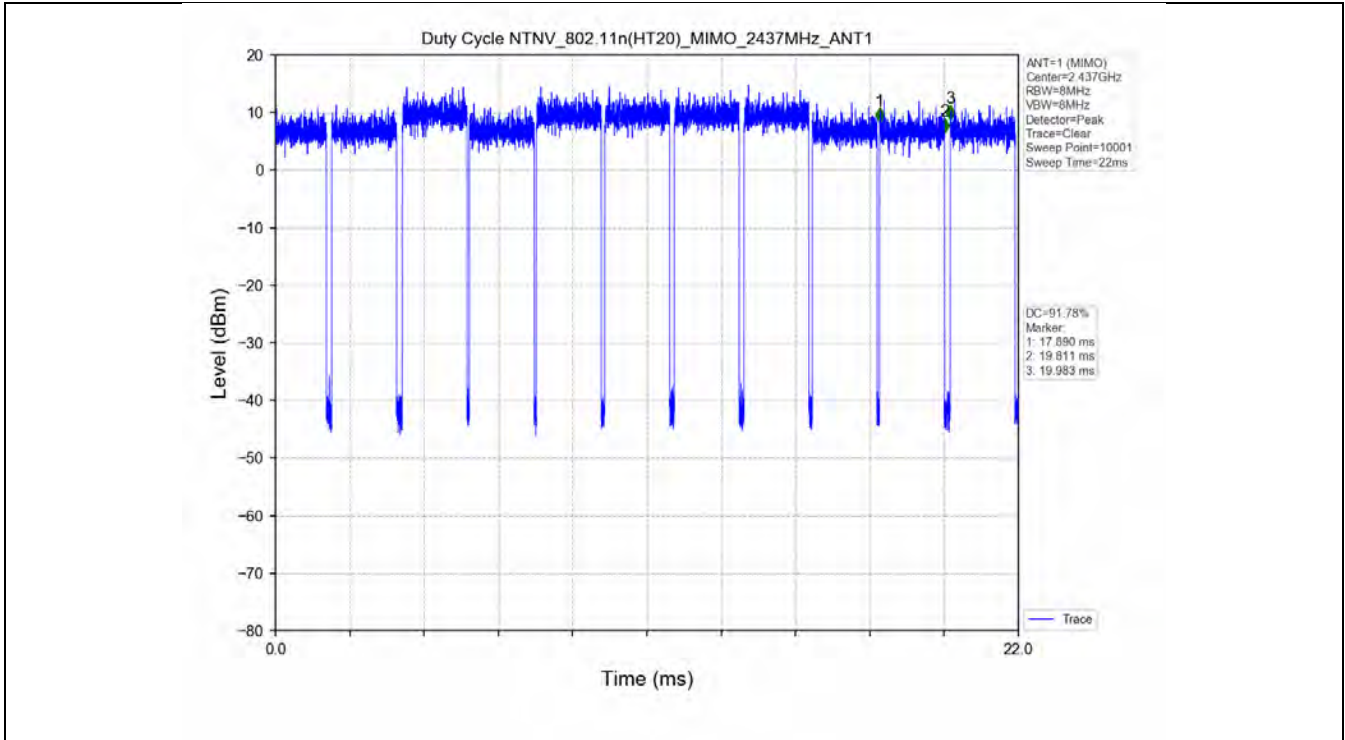
1.2 Test Graph

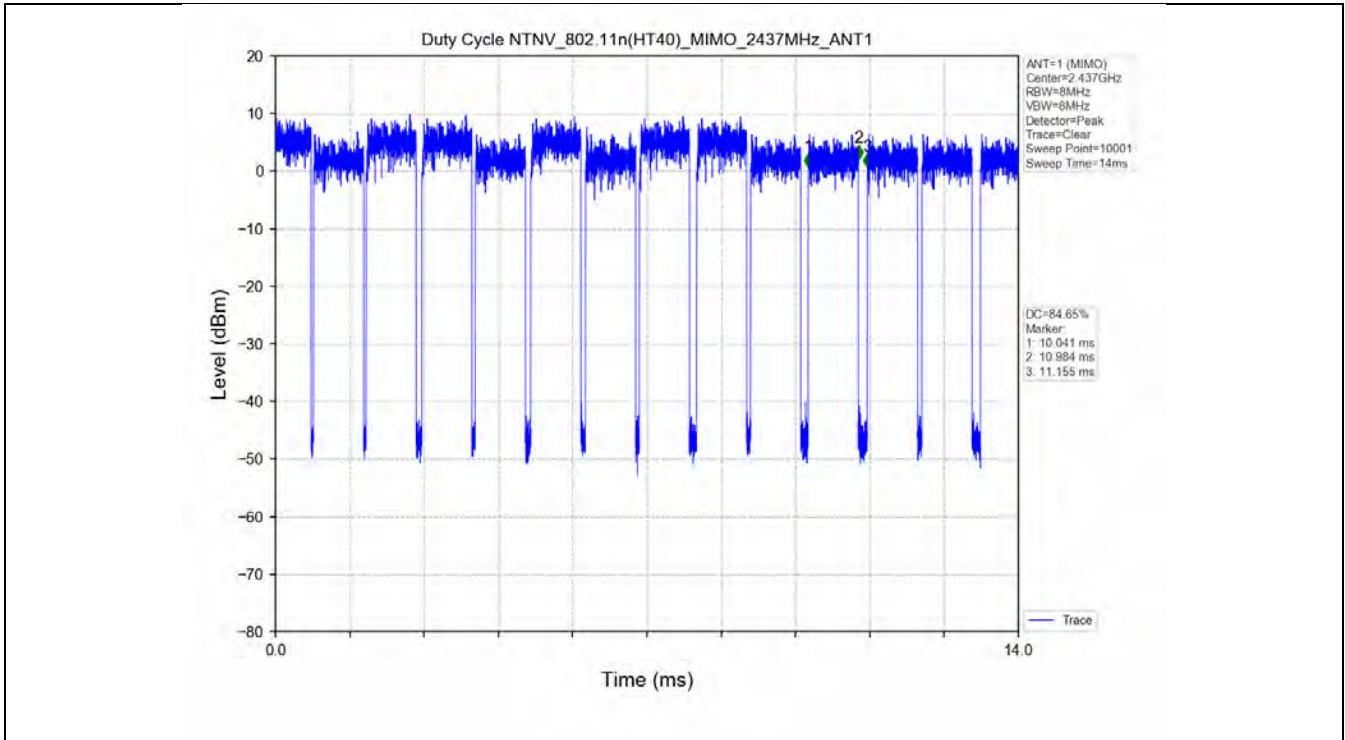
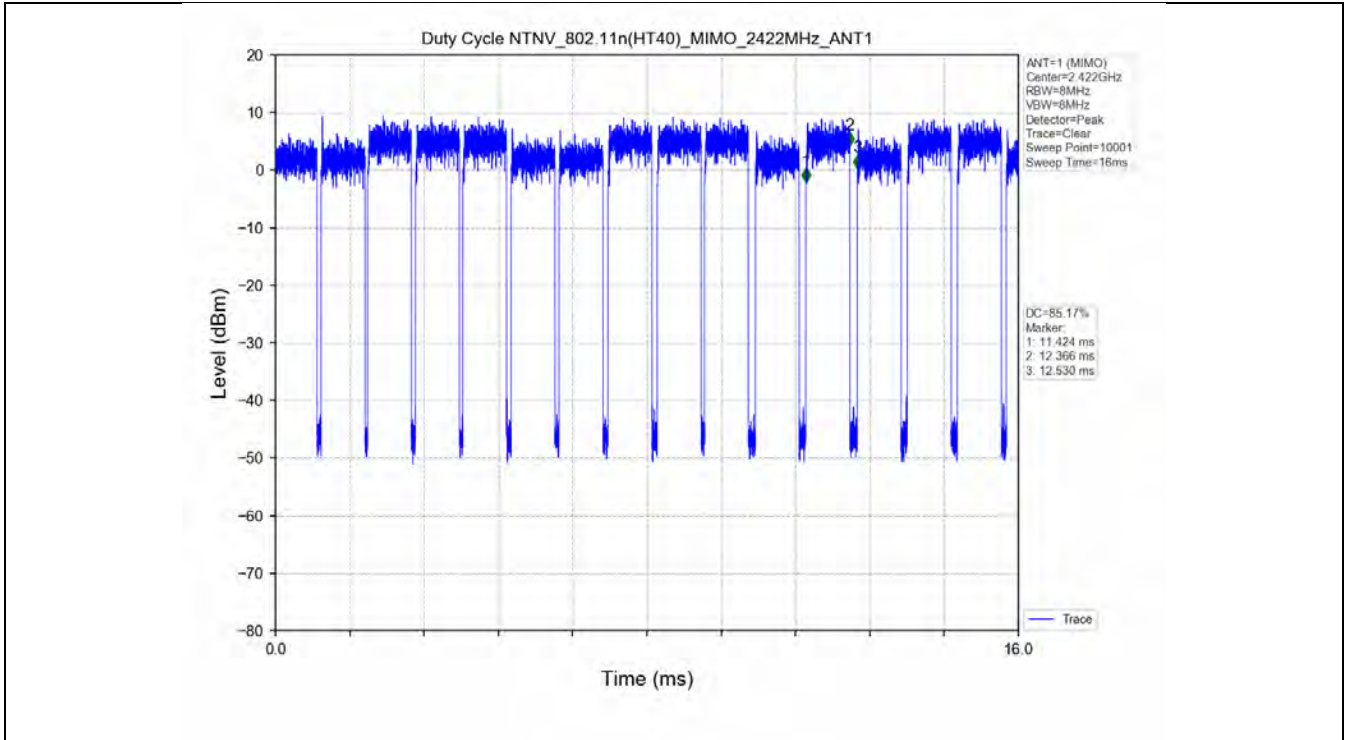


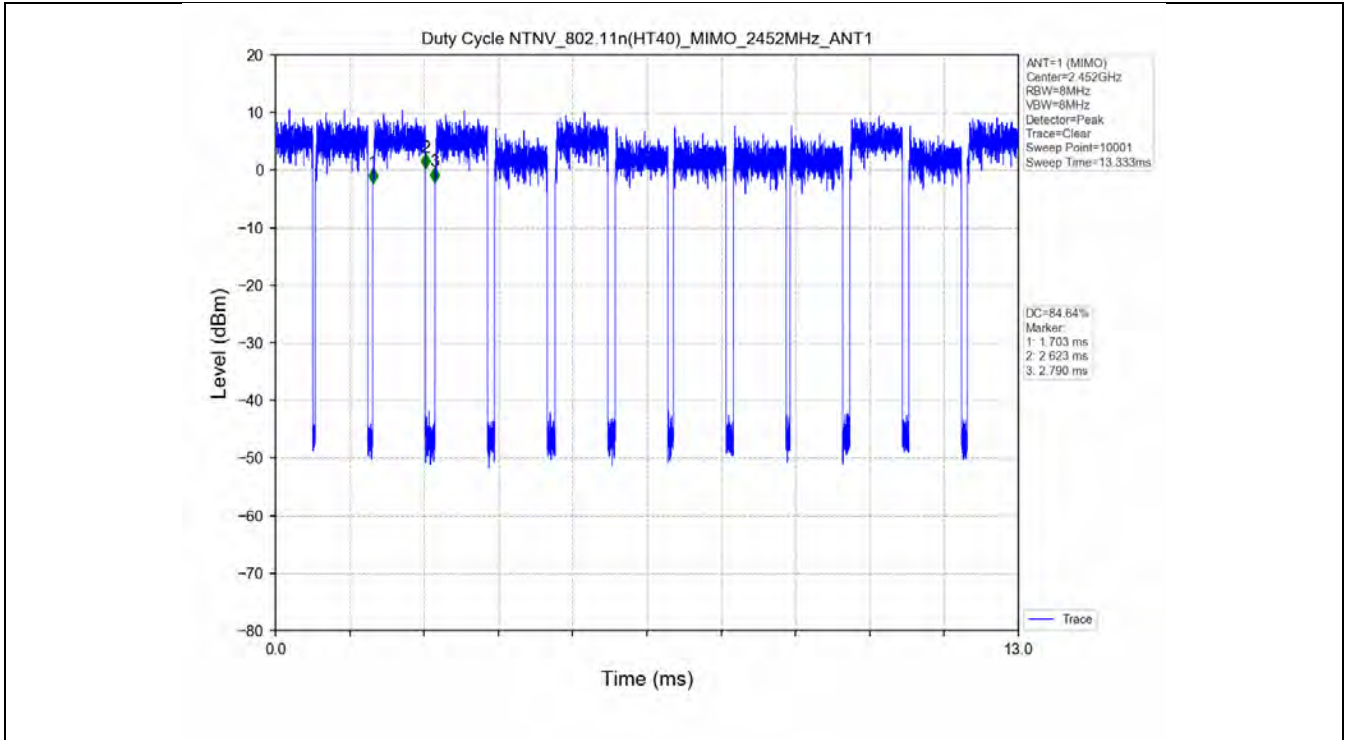












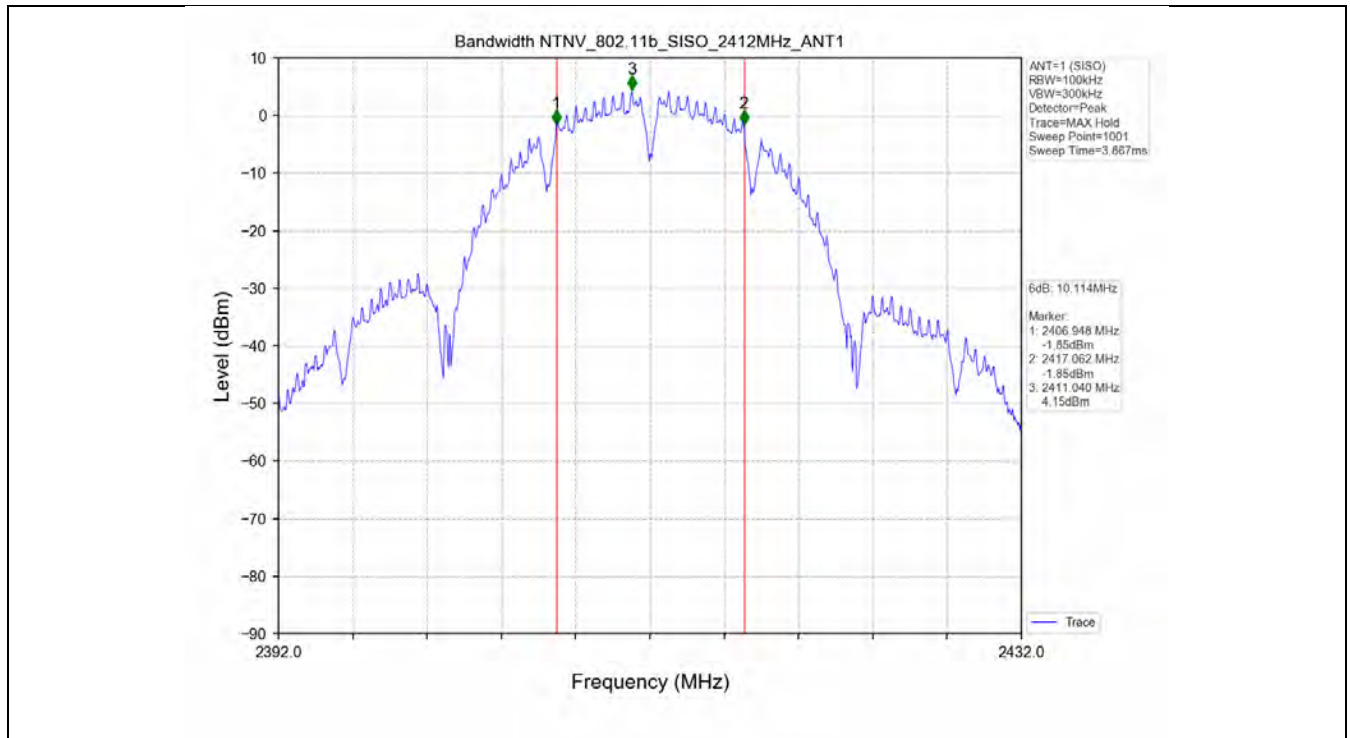
2. Bandwidth

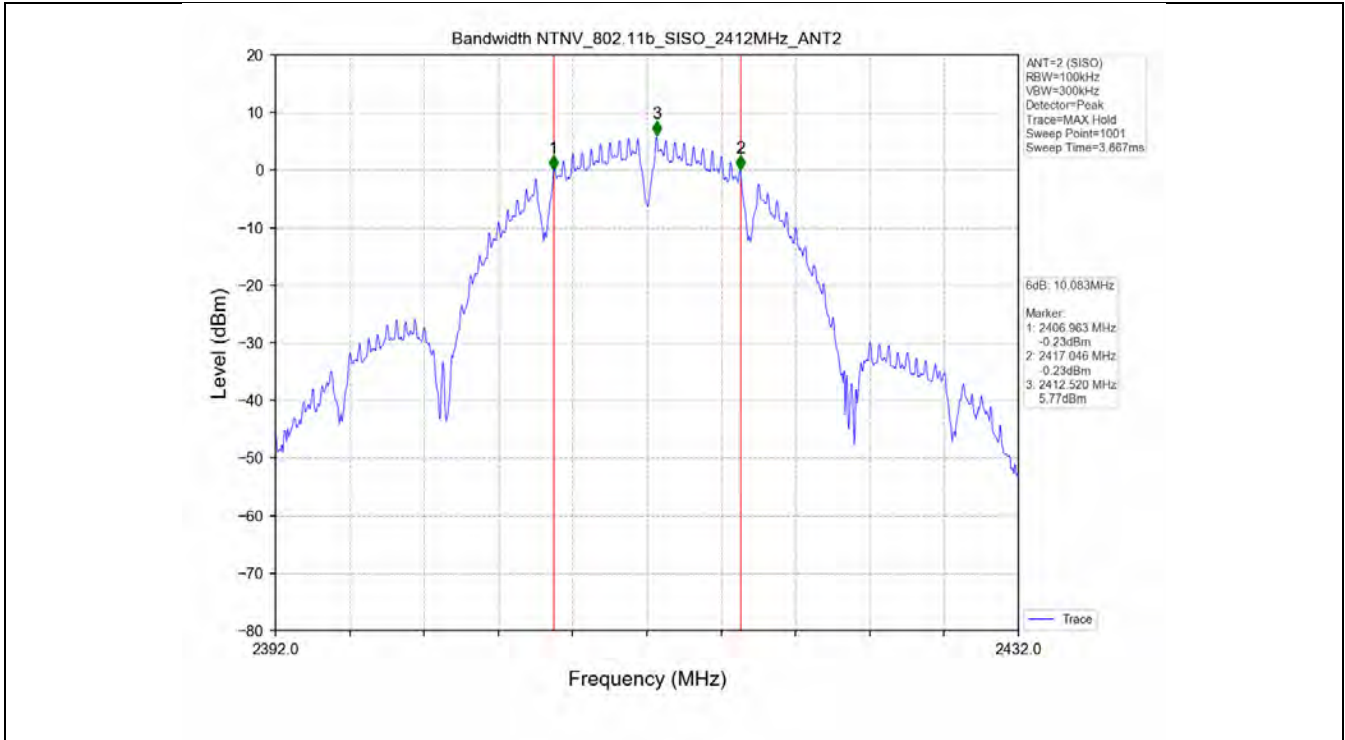
2.1 Test Result

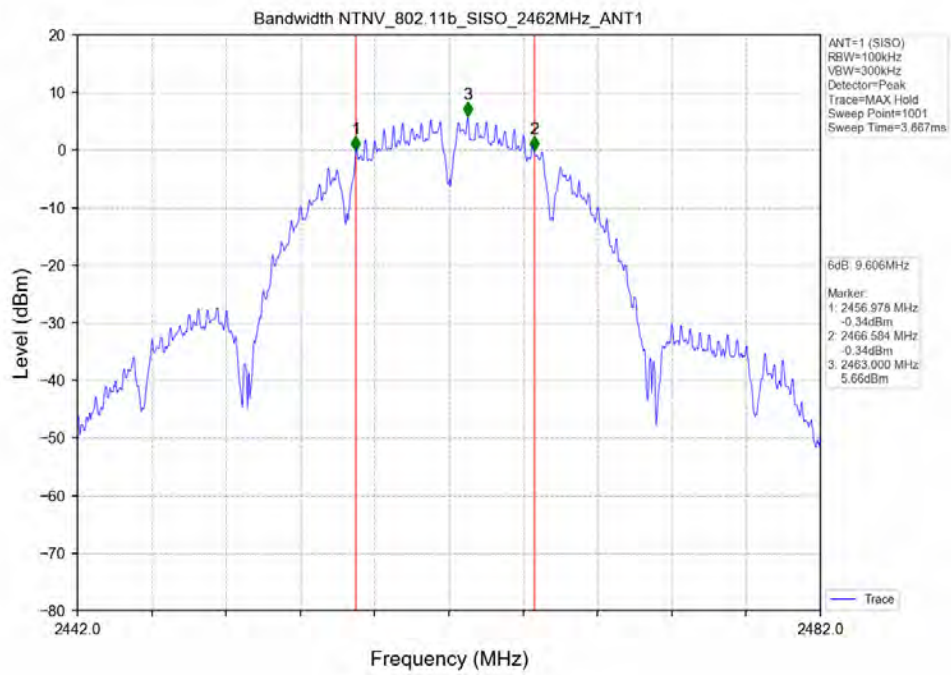
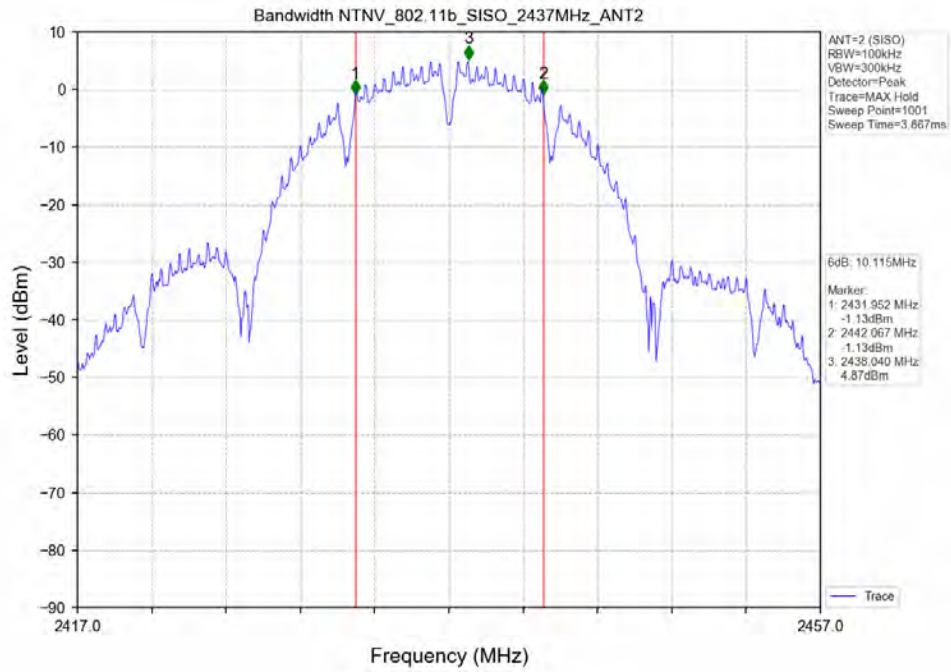
Test Mode	Frequency (MHz)	TX Type	ANT No.	6dB Bandwidth		Verdict
				Test Result (MHz)	Limits (MHz)	
802.11b	2412	SISO	1	10.114	≥0.5	PASS
			2	10.083	≥0.5	PASS
	2437	SISO	1	10.084	≥0.5	PASS
			2	10.115	≥0.5	PASS
	2462	SISO	1	9.606	≥0.5	PASS
			2	10.036	≥0.5	PASS
802.11g	2412	SISO	1	16.390	≥0.5	PASS
			2	16.388	≥0.5	PASS
	2437	SISO	1	16.424	≥0.5	PASS
			2	16.461	≥0.5	PASS
	2462	SISO	1	16.393	≥0.5	PASS
			2	16.412	≥0.5	PASS
802.11n(HT20)	2412	MIMO	1	17.605	≥0.5	PASS
			2	17.599	≥0.5	PASS
	2437	MIMO	1	17.625	≥0.5	PASS
			2	17.620	≥0.5	PASS
	2462	MIMO	1	17.633	≥0.5	PASS
			2	17.601	≥0.5	PASS
802.11n(HT40)	2422	MIMO	1	36.123	≥0.5	PASS
			2	35.838	≥0.5	PASS
	2437	MIMO	1	35.793	≥0.5	PASS
			2	35.530	≥0.5	PASS
	2452	MIMO	1	35.259	≥0.5	PASS
			2	35.376	≥0.5	PASS

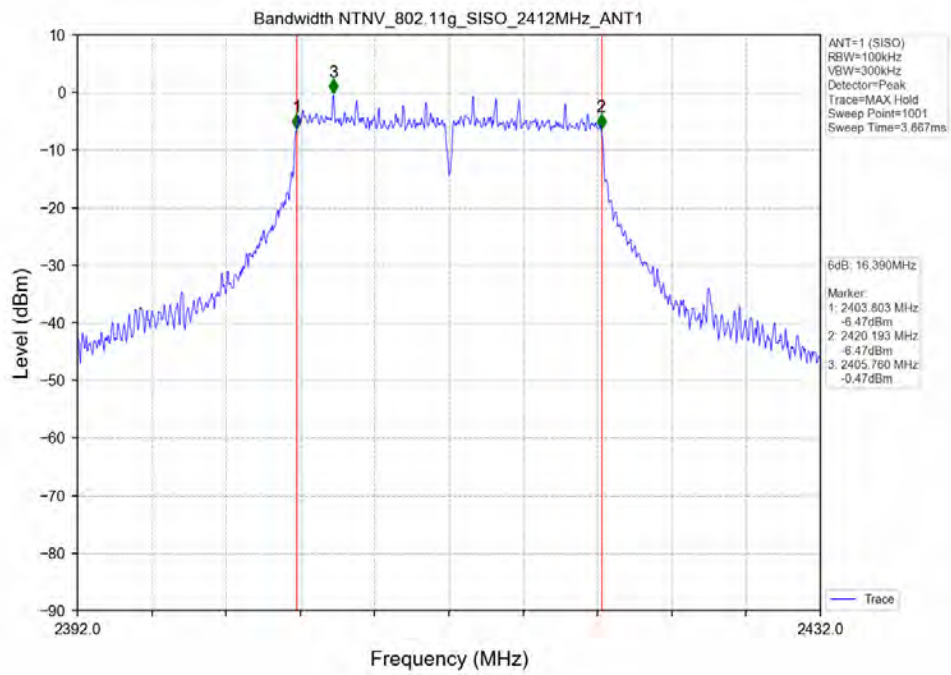
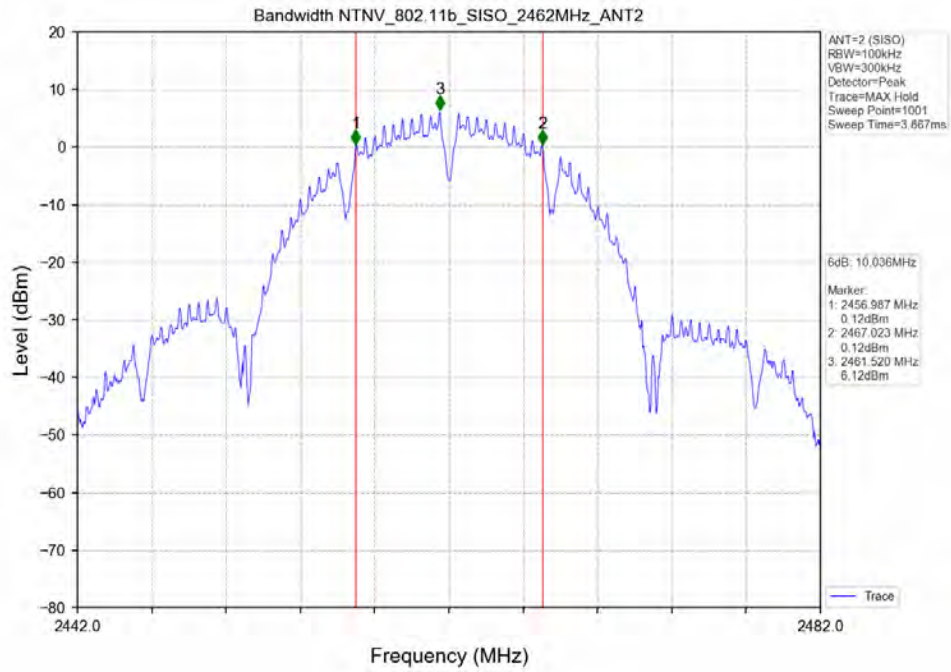
Test Mode	Frequency (MHz)	TX Type	ANT No.	99% Occupied Bandwidth	
				Test Result (MHz)	
802.11b	2412	SISO	1	15.429	Only for Report Use
			2	15.468	Only for Report Use
	2437	SISO	1	15.309	Only for Report Use
			2	15.423	Only for Report Use
	2462	SISO	1	15.311	Only for Report Use
			2	15.327	Only for Report Use
802.11g	2412	SISO	1	17.098	Only for Report Use
			2	17.074	Only for Report Use
	2437	SISO	1	17.092	Only for Report Use
			2	17.238	Only for Report Use
	2462	SISO	1	17.011	Only for Report Use
			2	17.078	Only for Report Use
802.11n(HT20)	2412	MIMO	1	18.195	Only for Report Use
			2	18.256	Only for Report Use
	2437	MIMO	1	18.166	Only for Report Use
			2	18.123	Only for Report Use
	2462	MIMO	1	18.141	Only for Report Use
			2	18.156	Only for Report Use
802.11n(HT40)	2422	MIMO	1	36.687	Only for Report Use
			2	36.631	Only for Report Use
	2437	MIMO	1	36.439	Only for Report Use
			2	36.511	Only for Report Use
	2452	MIMO	1	36.403	Only for Report Use
			2	36.534	Only for Report Use

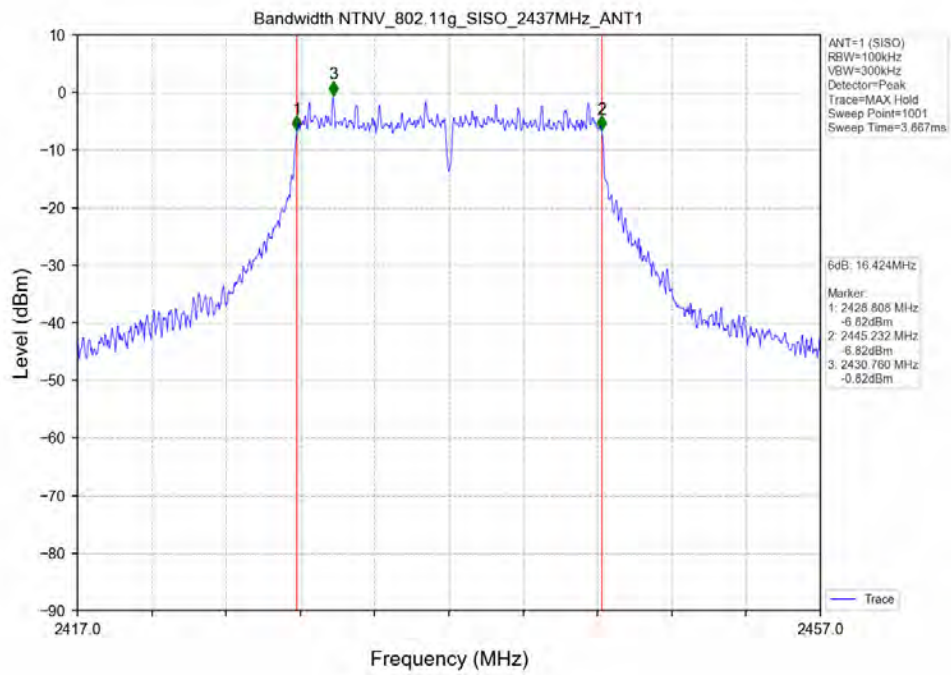
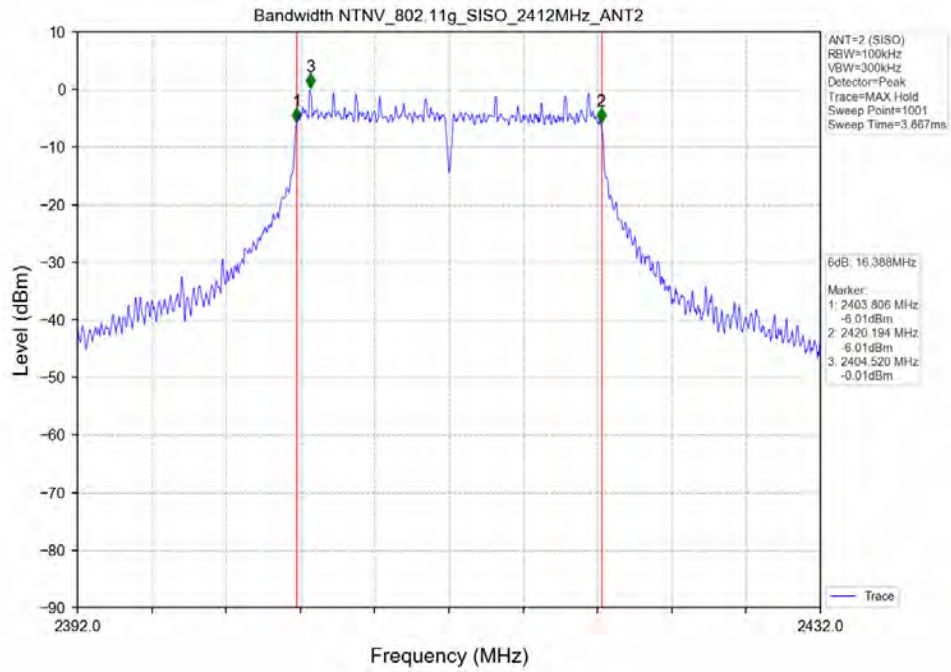
2.2 Test Graph - 6dB Bandwidth

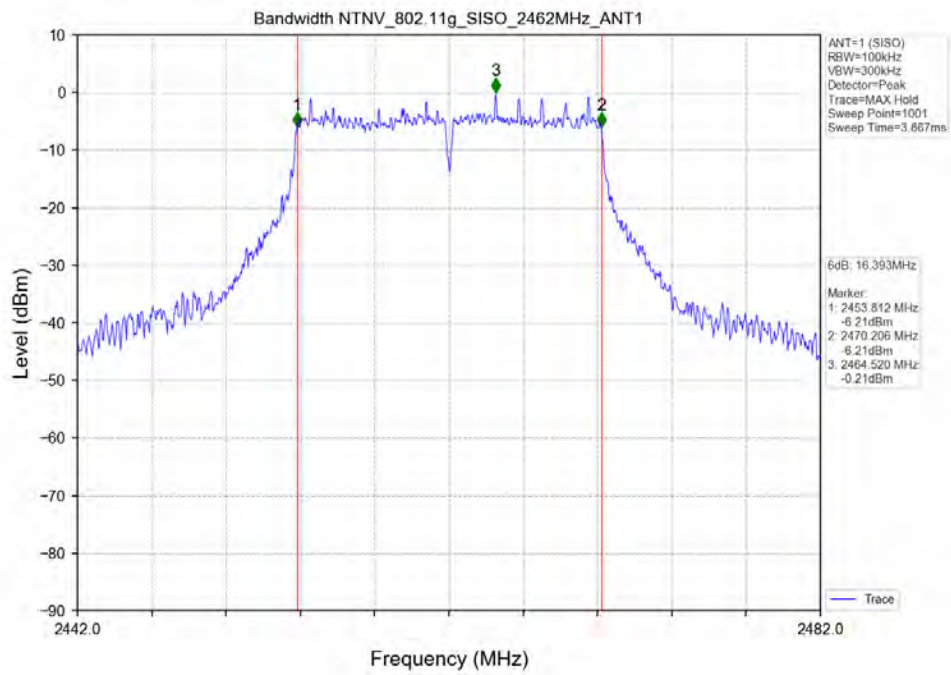
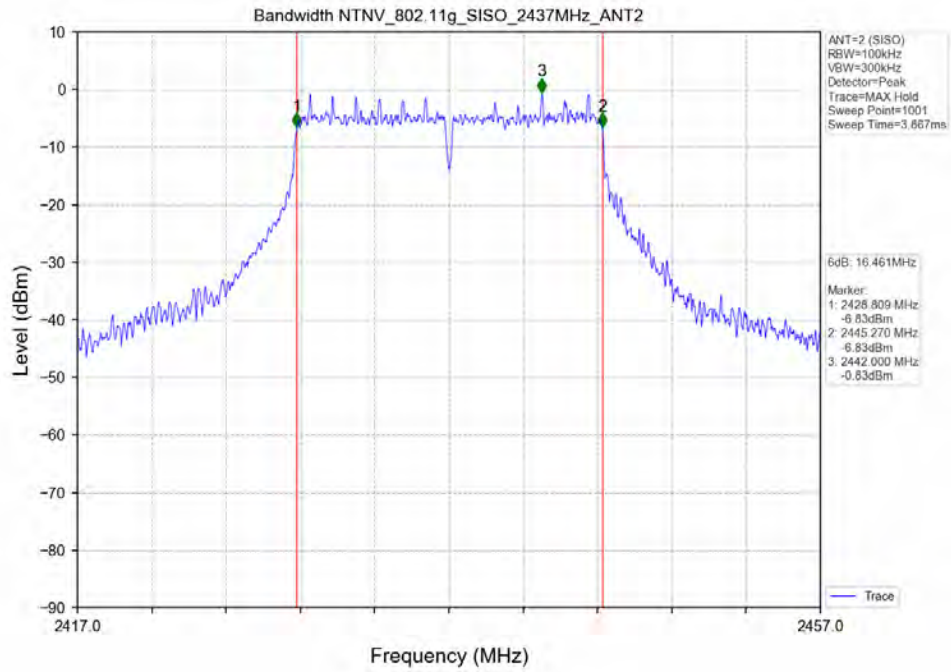


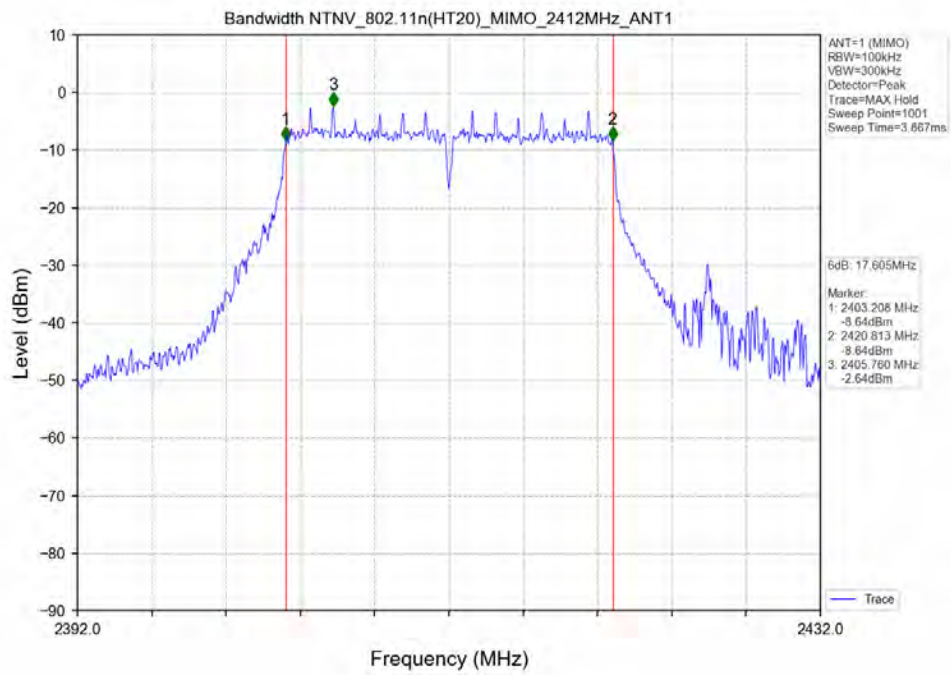
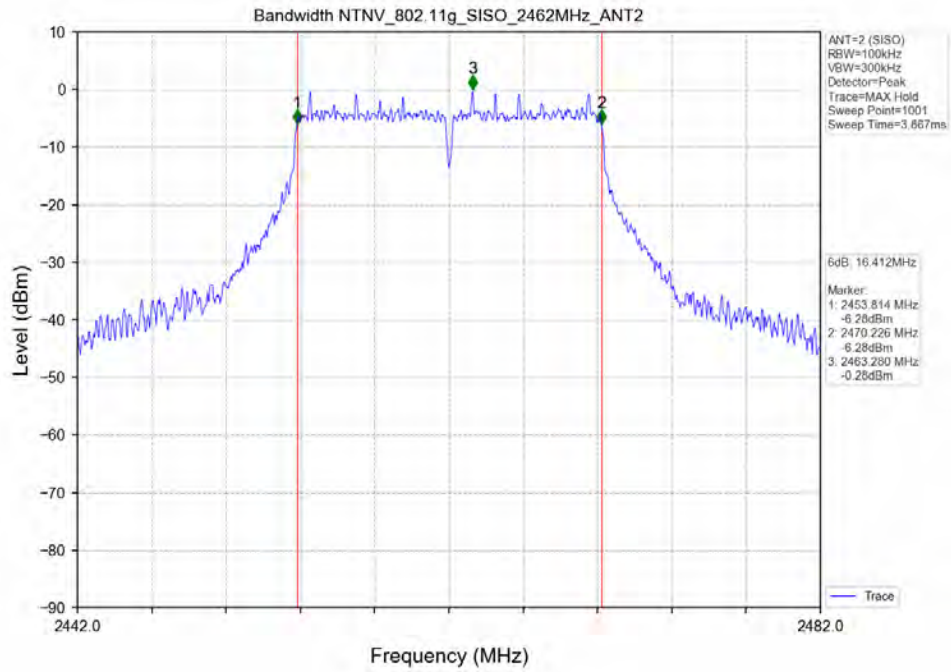


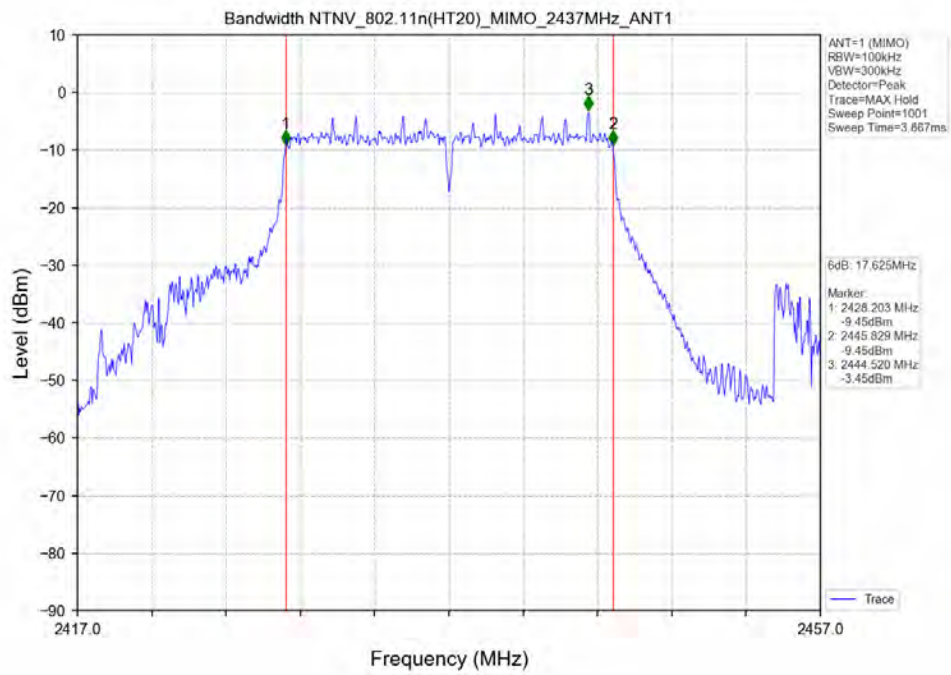
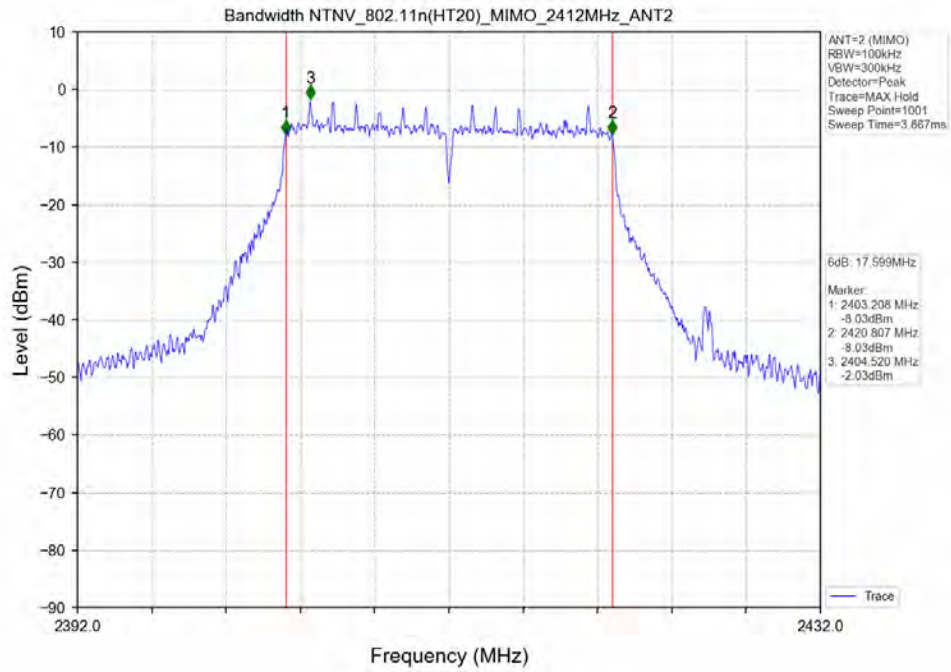


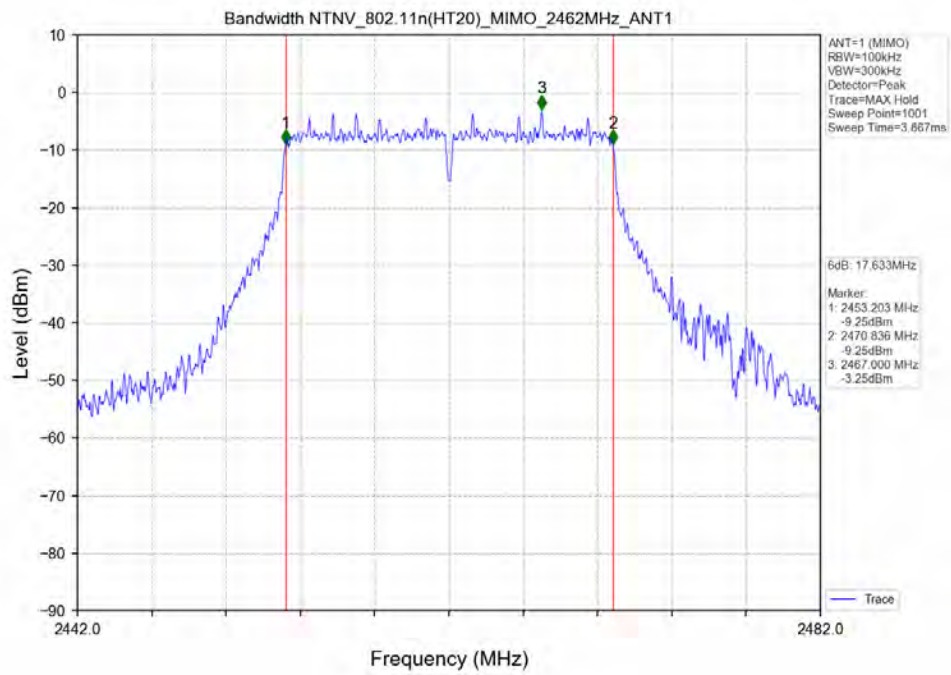
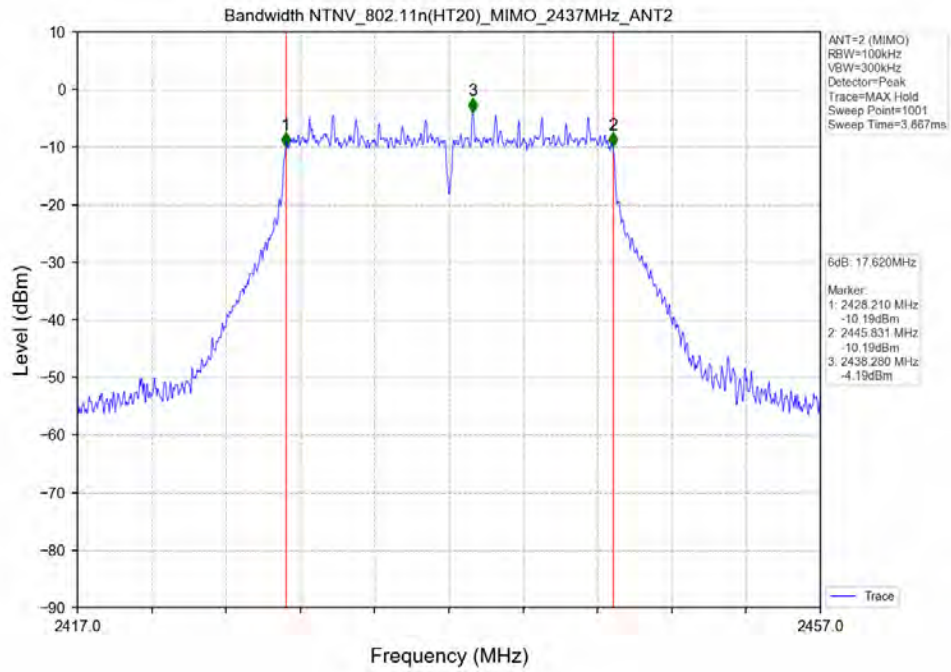


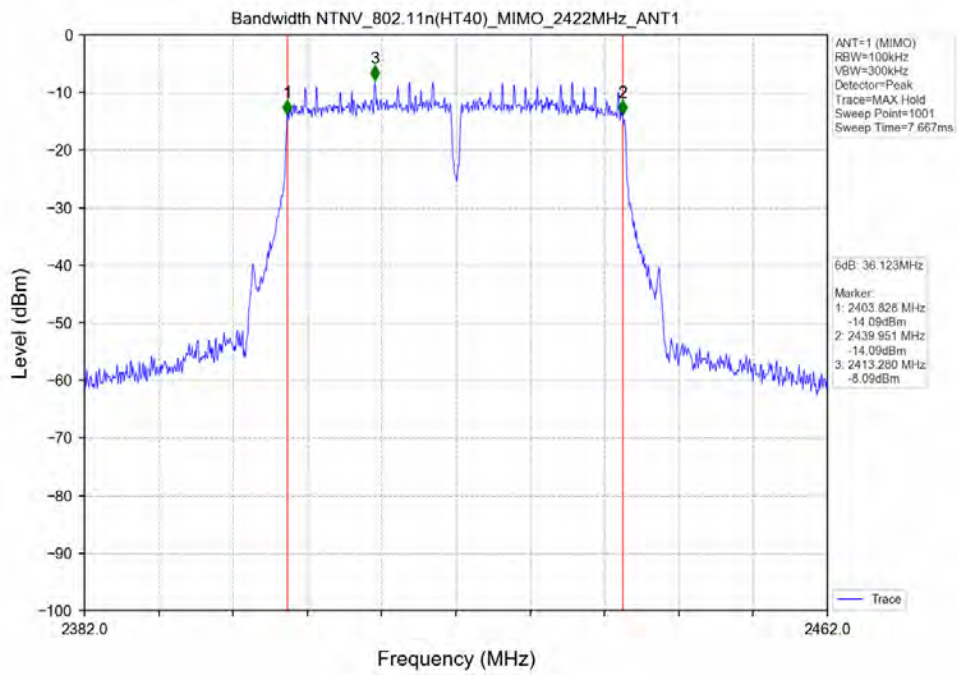
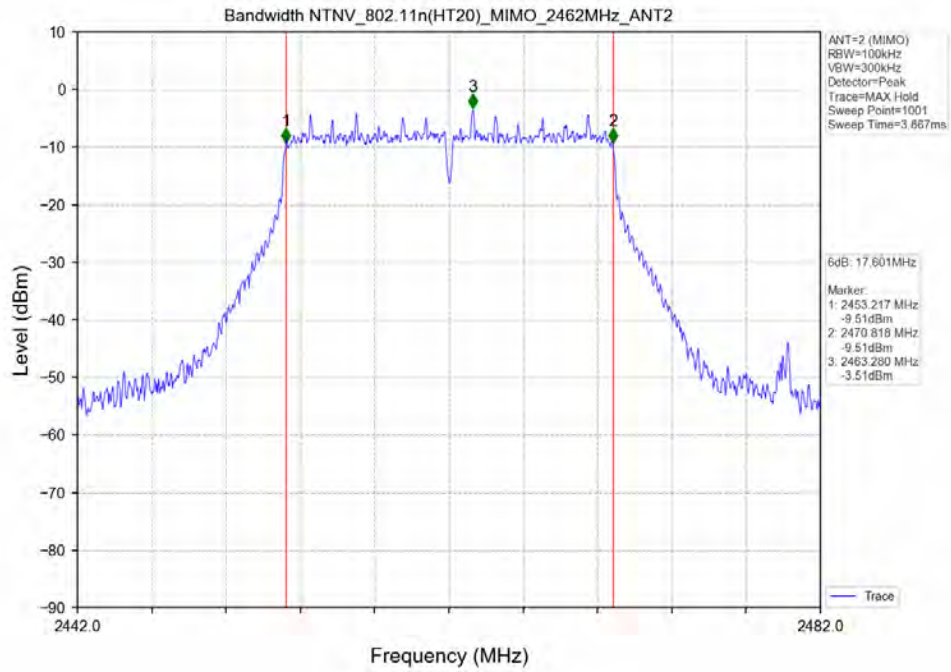


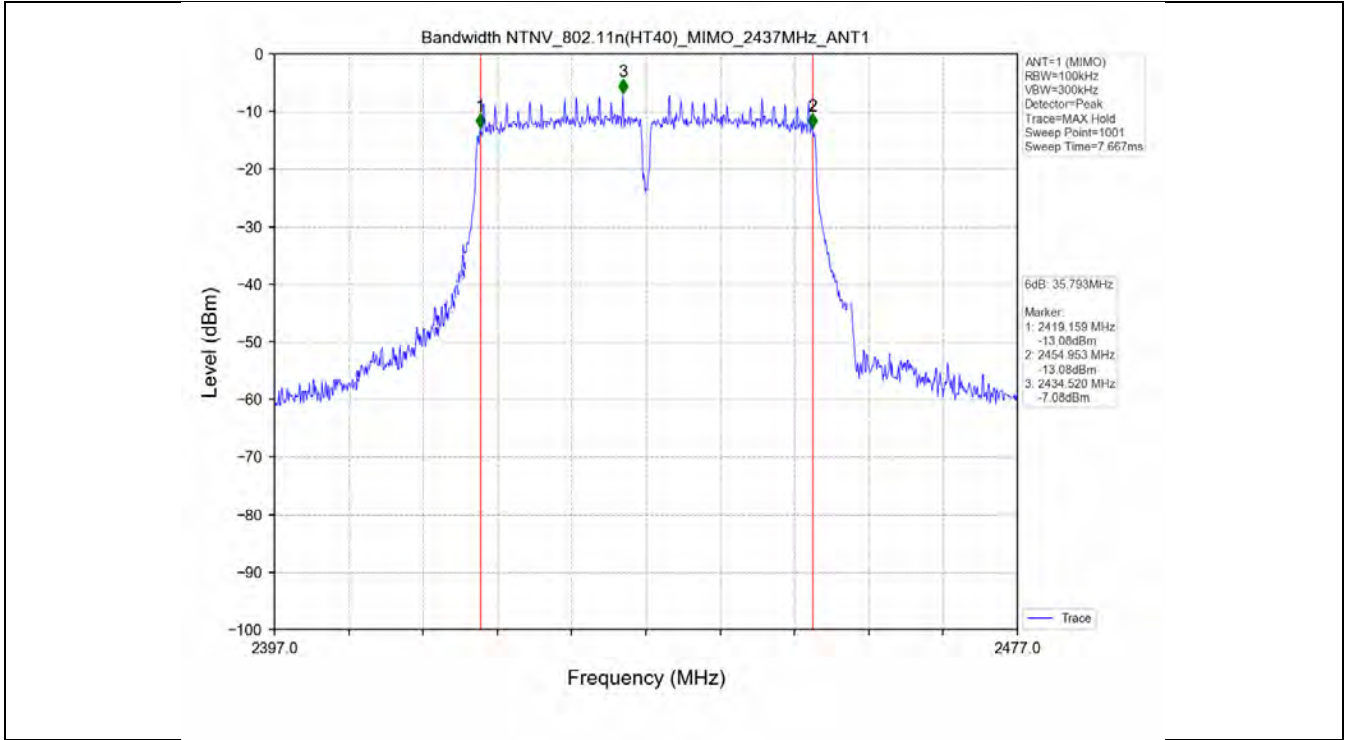
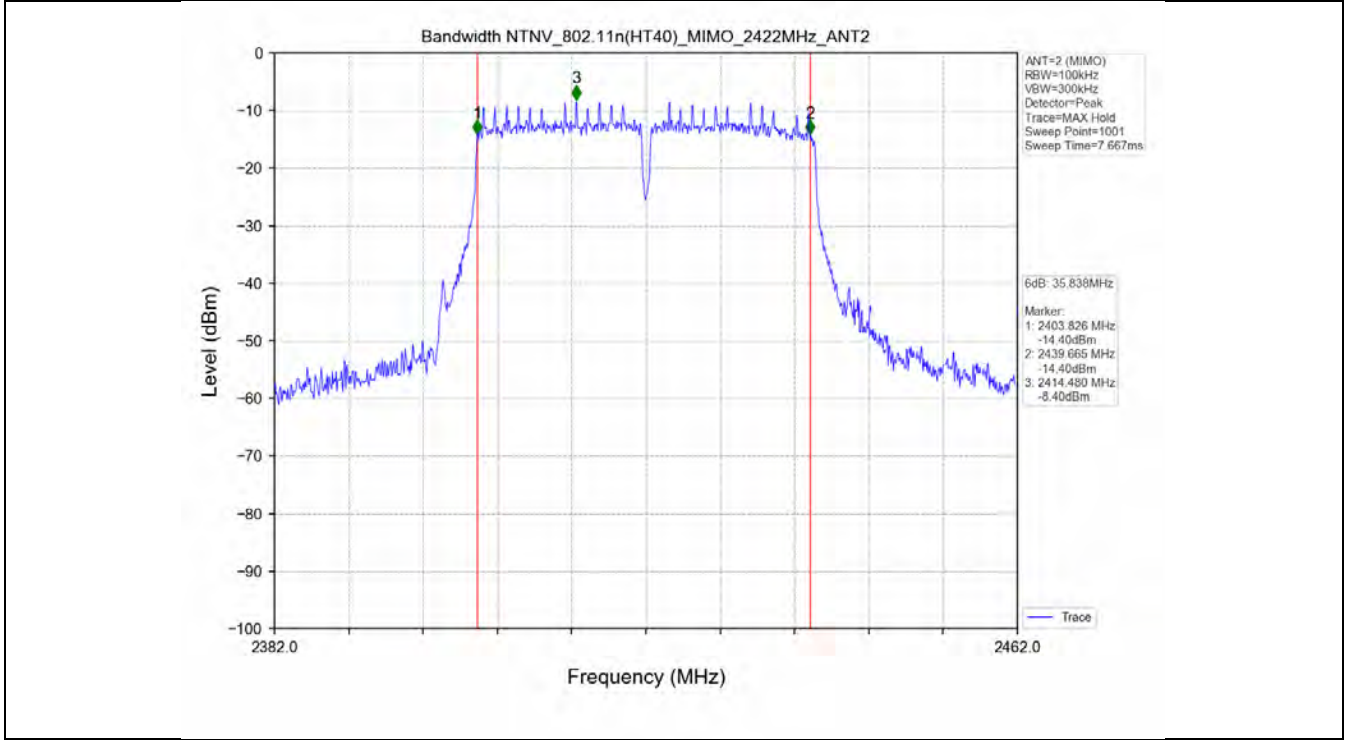


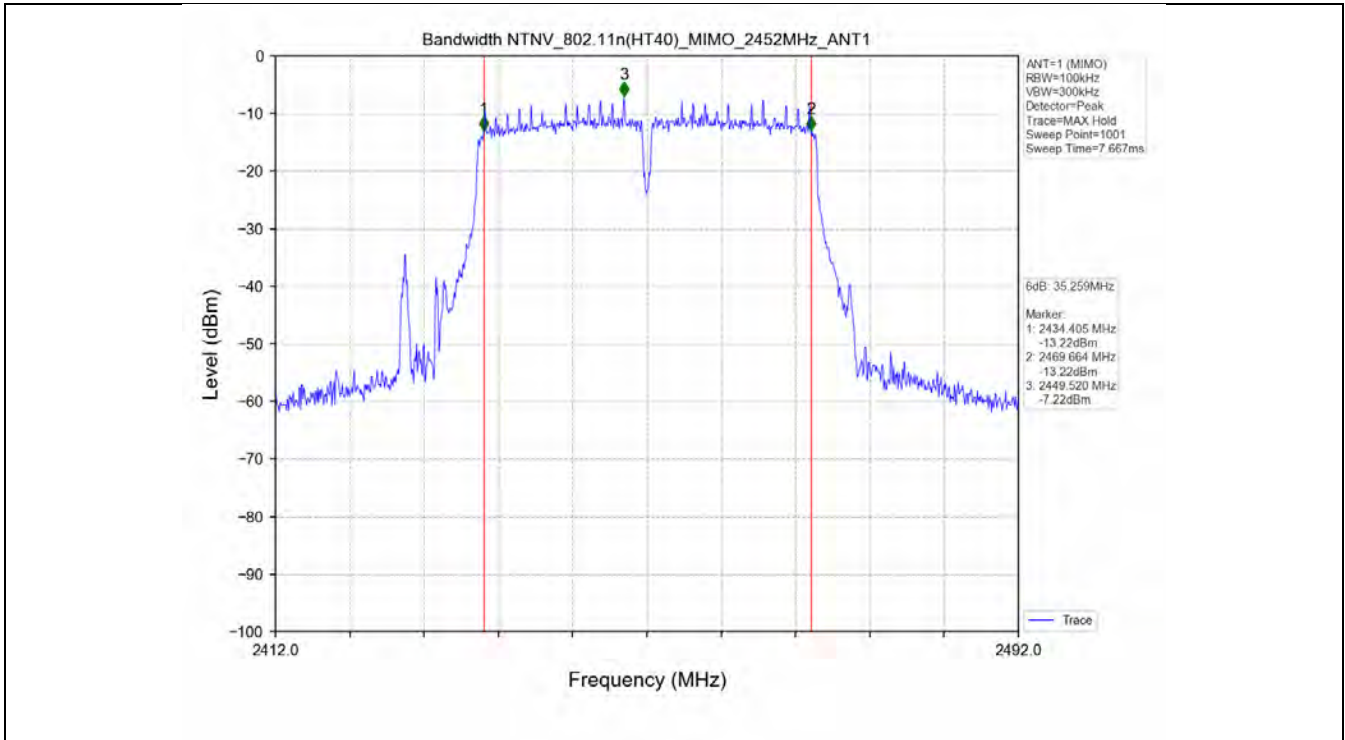
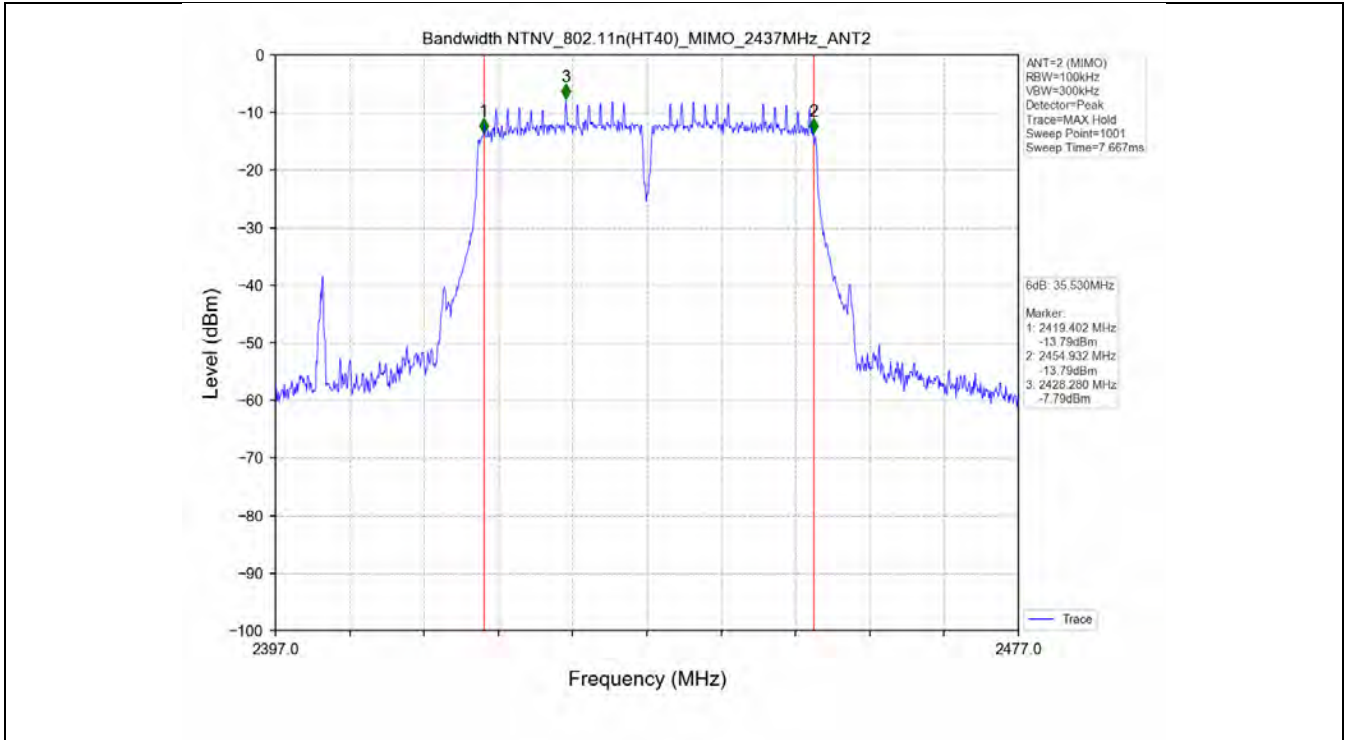


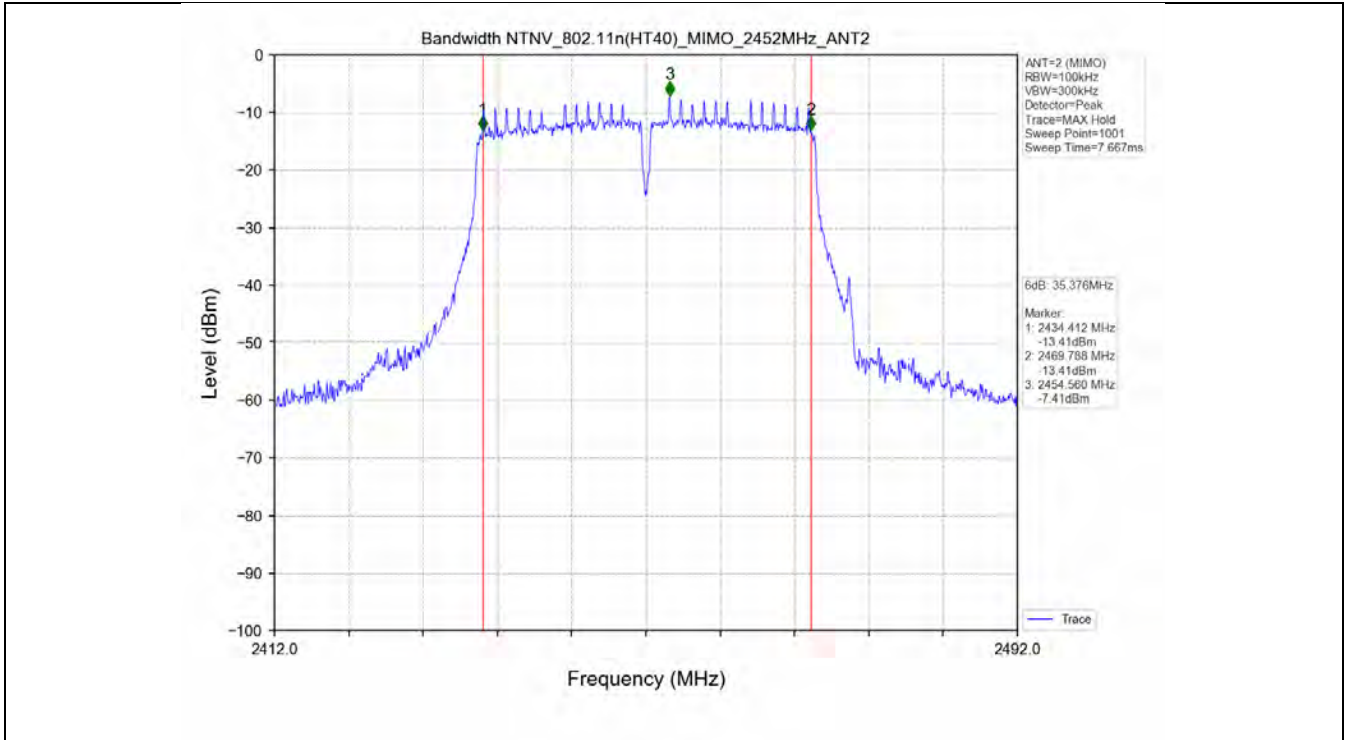




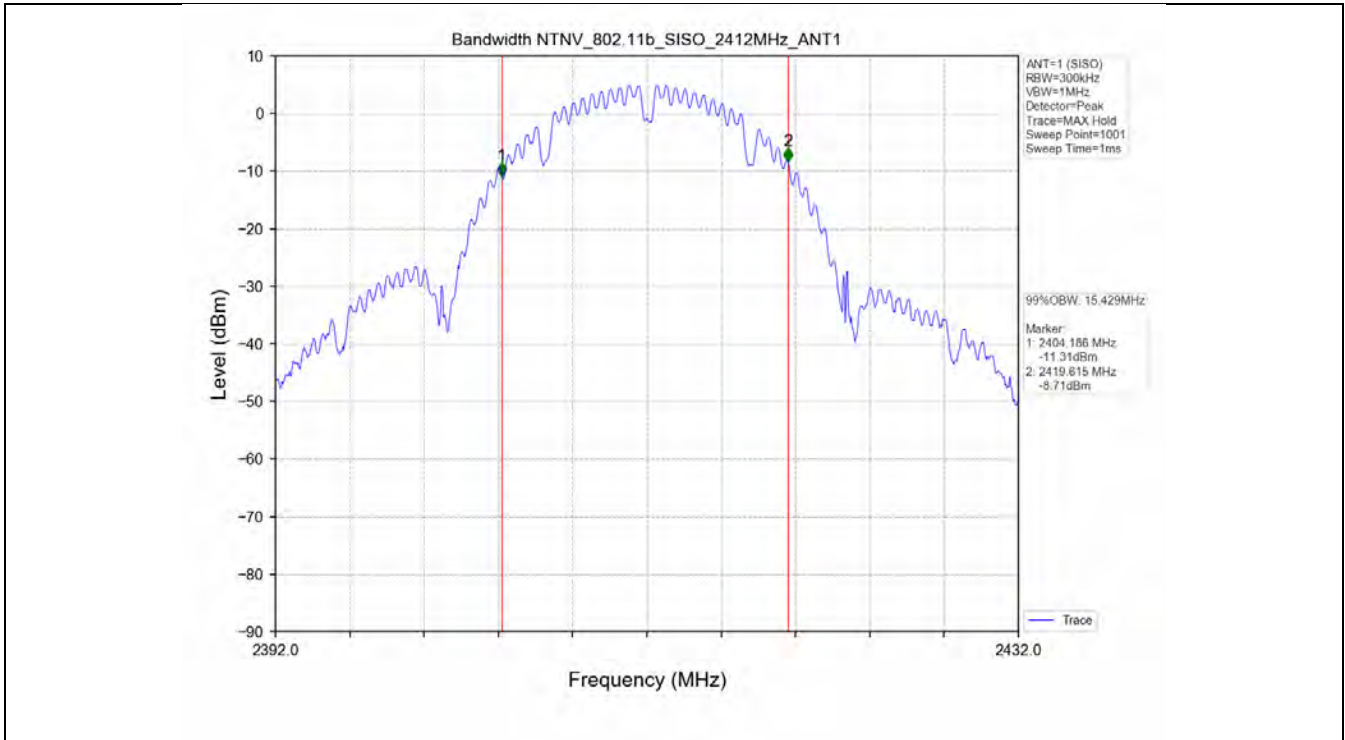


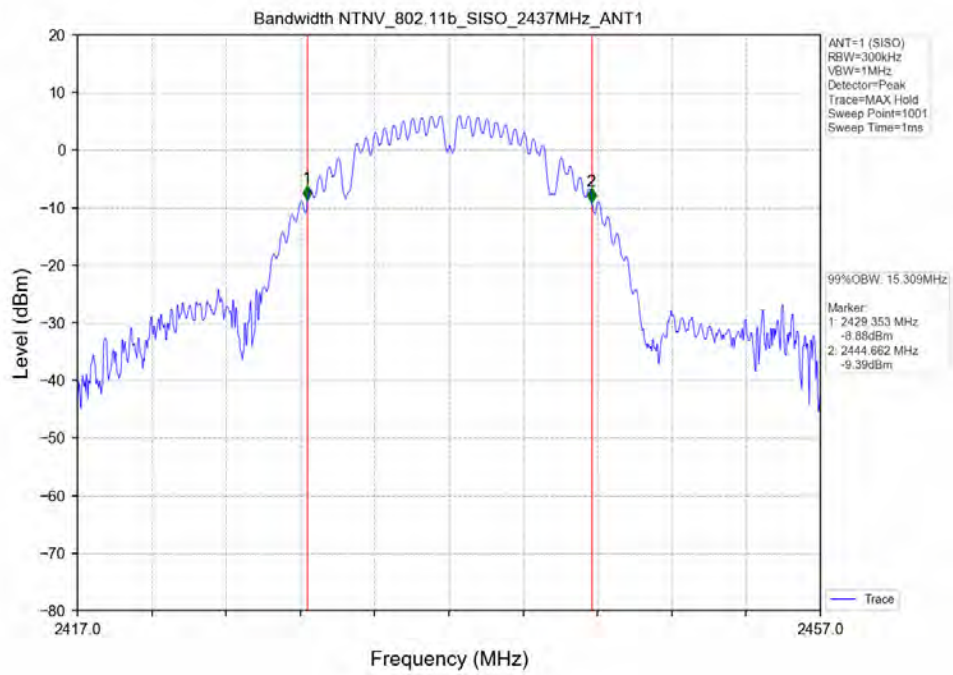
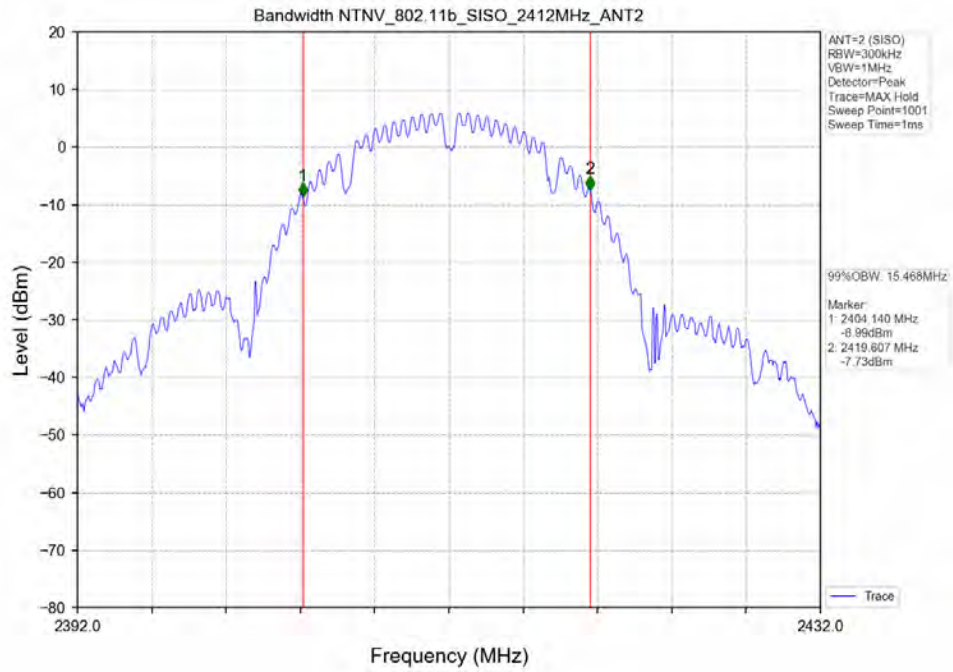


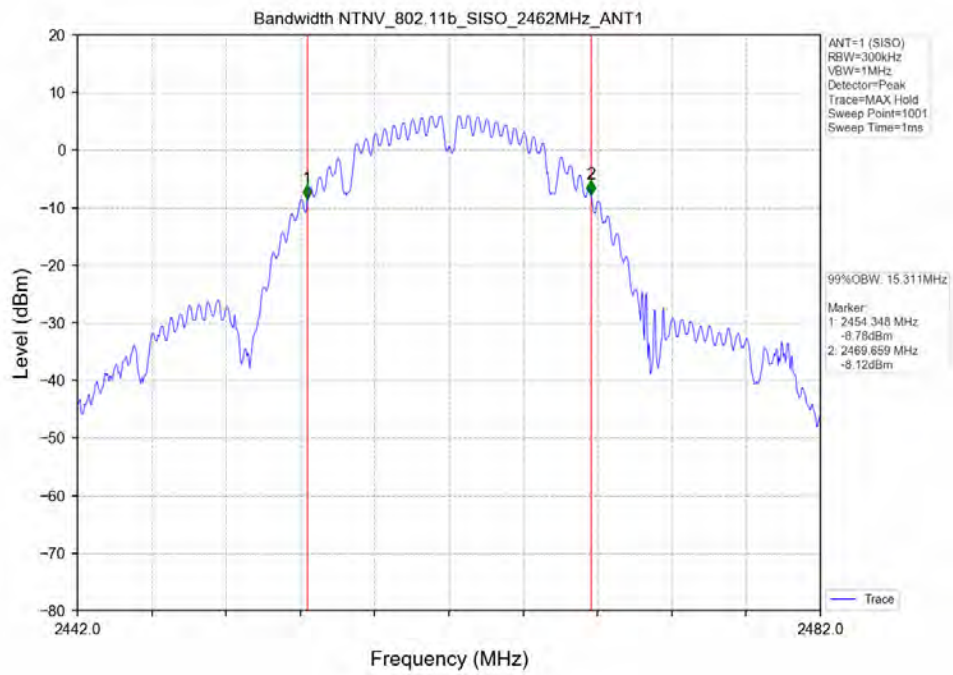
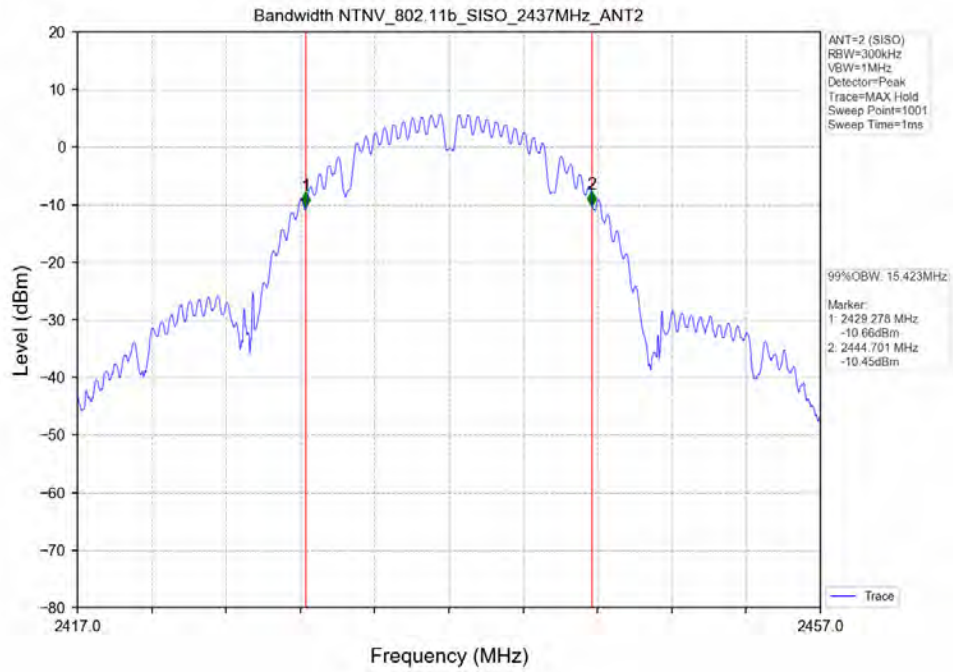


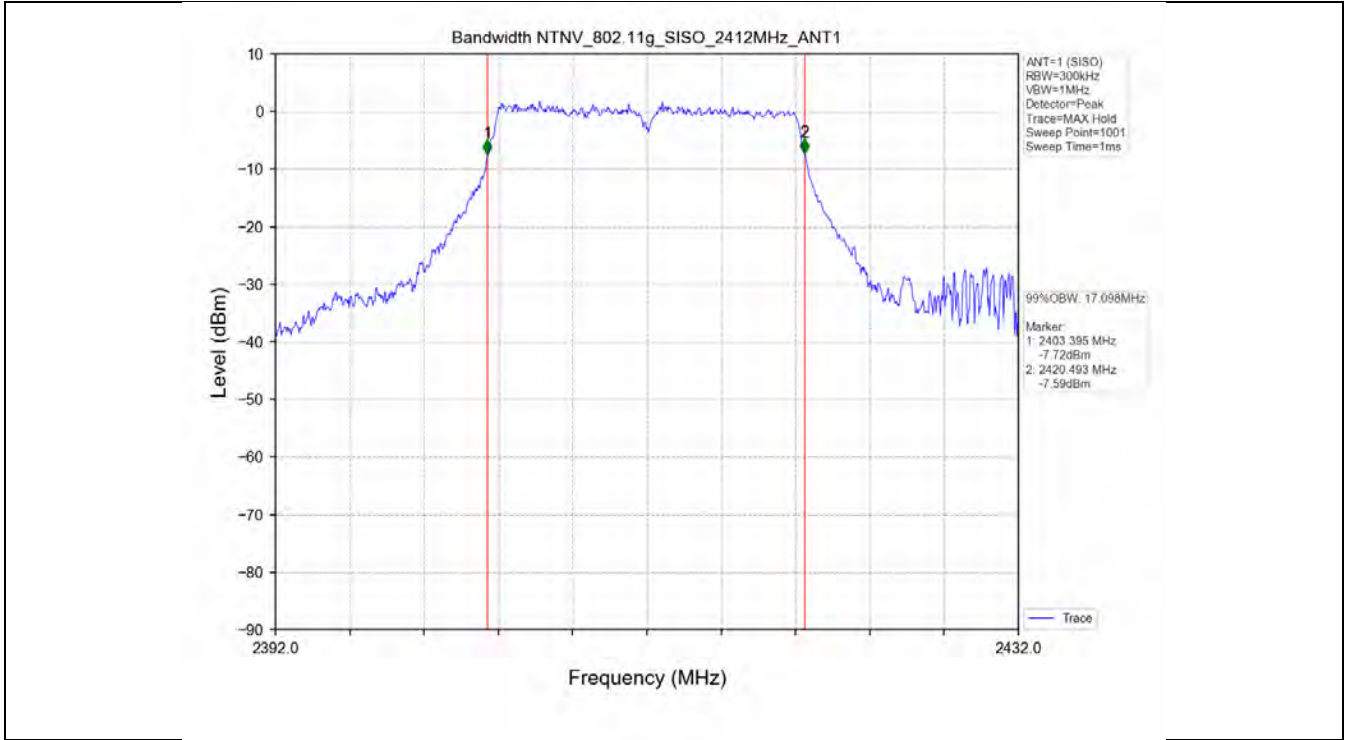
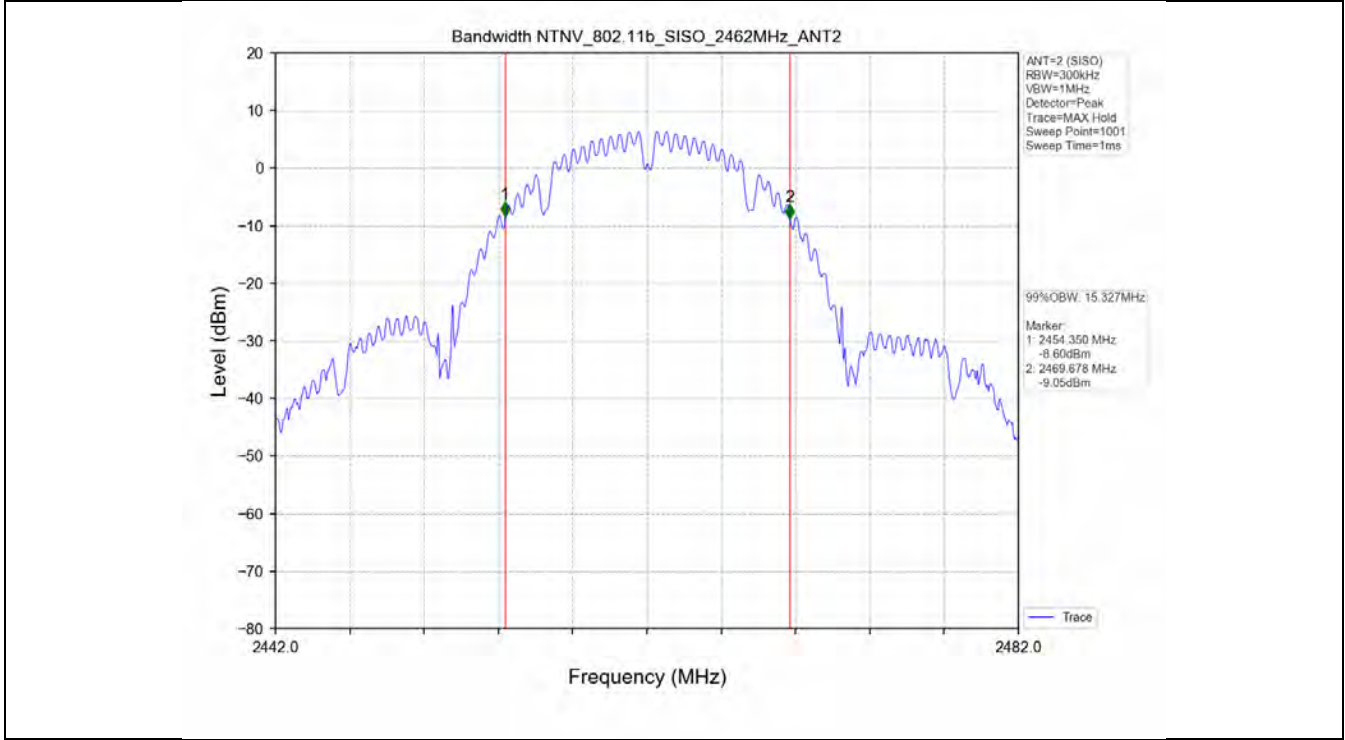


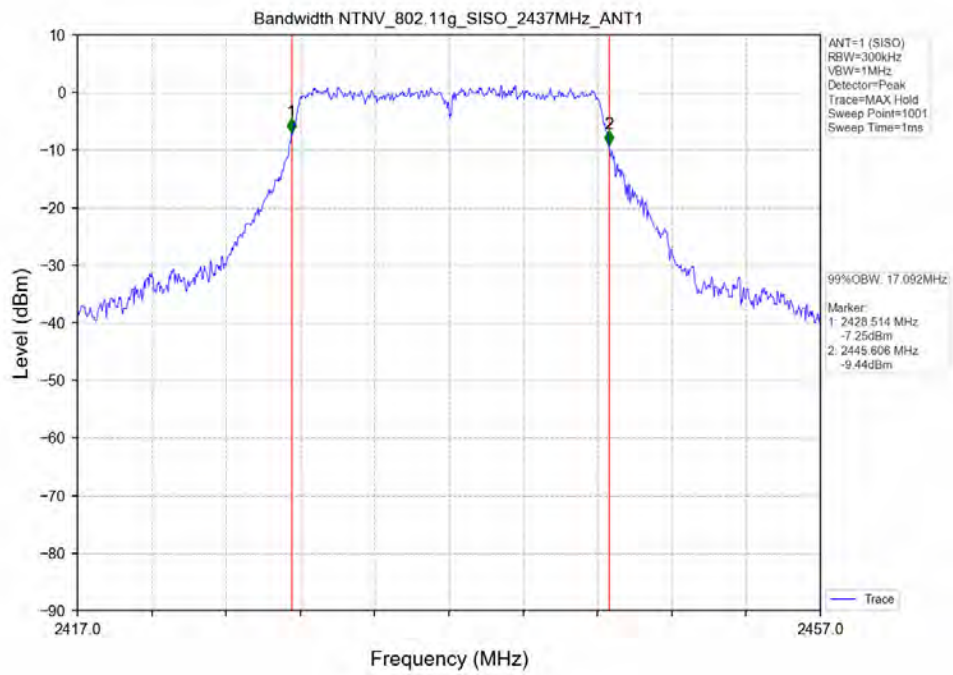
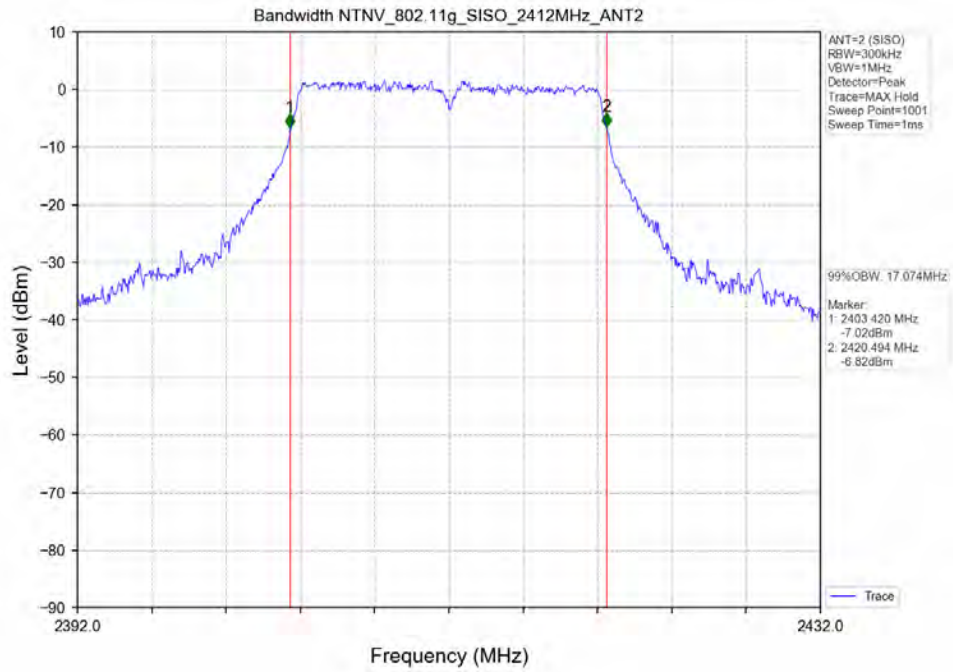
2.3 Test Graph - 99% Occupied Bandwidth

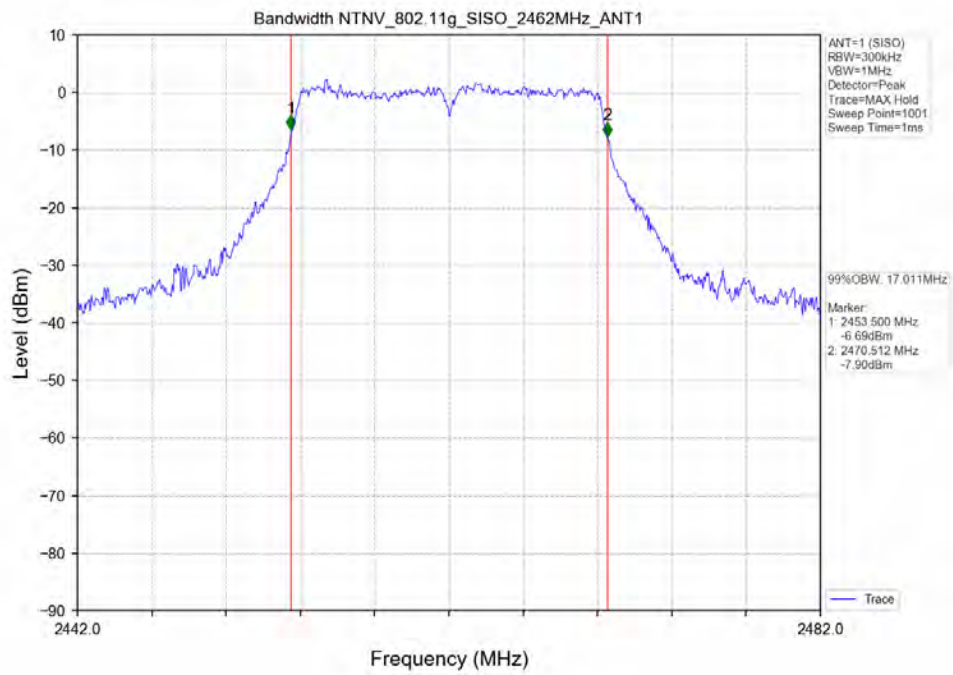
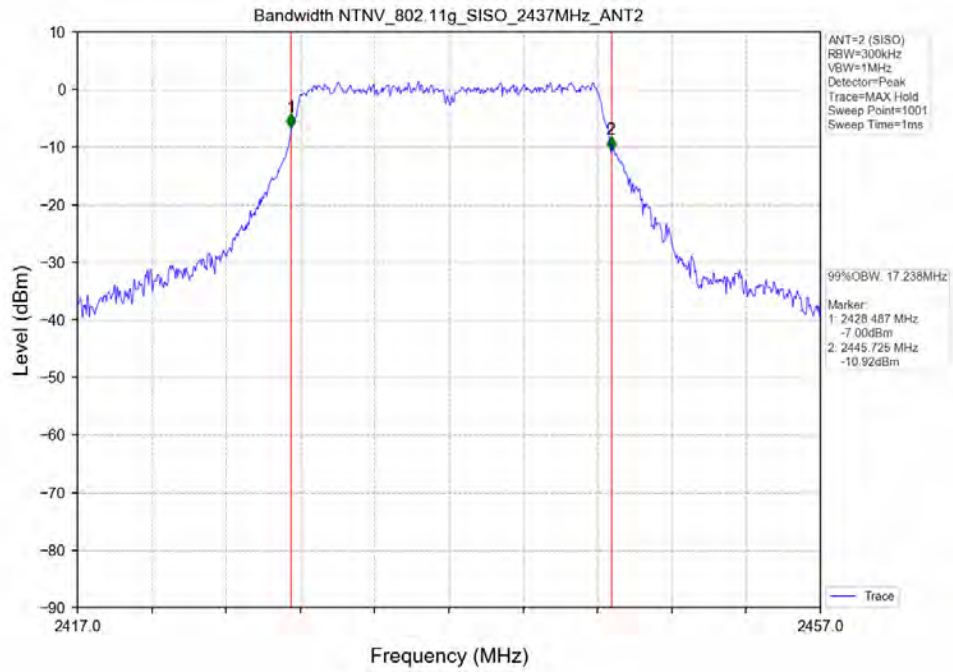


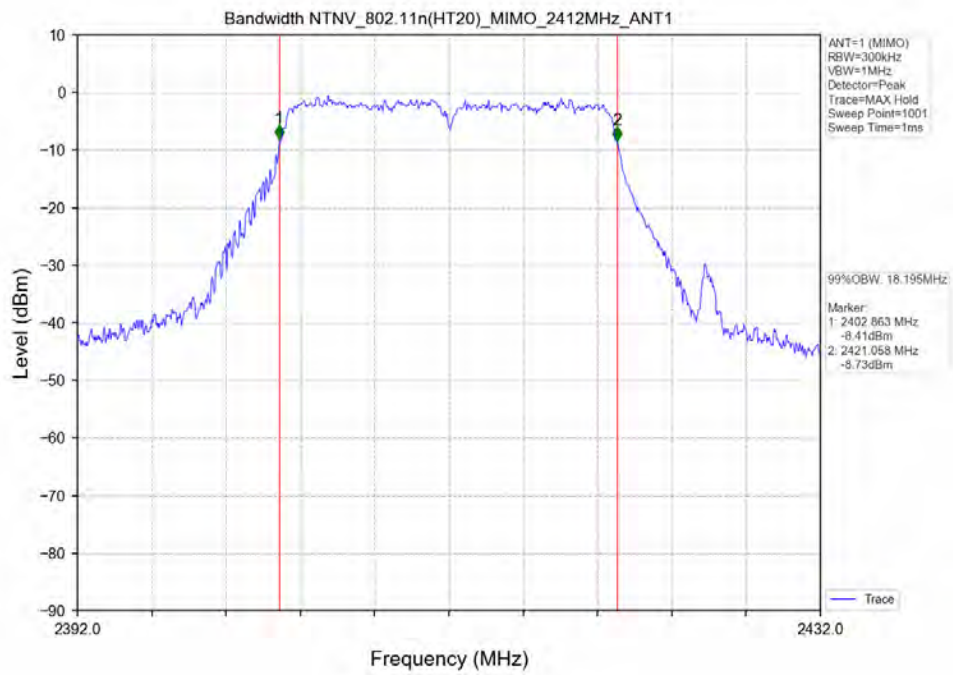
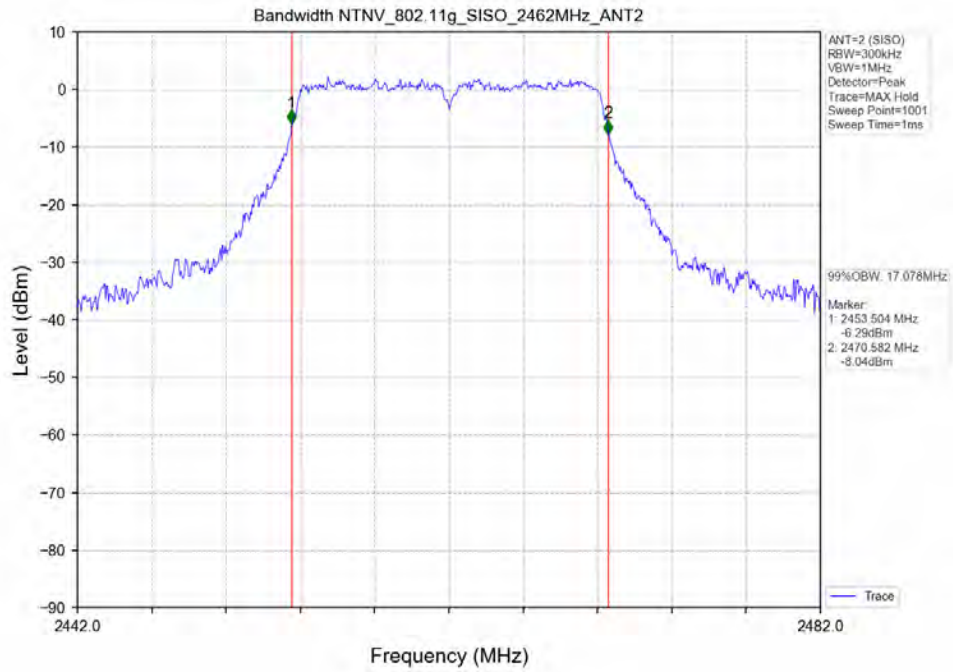


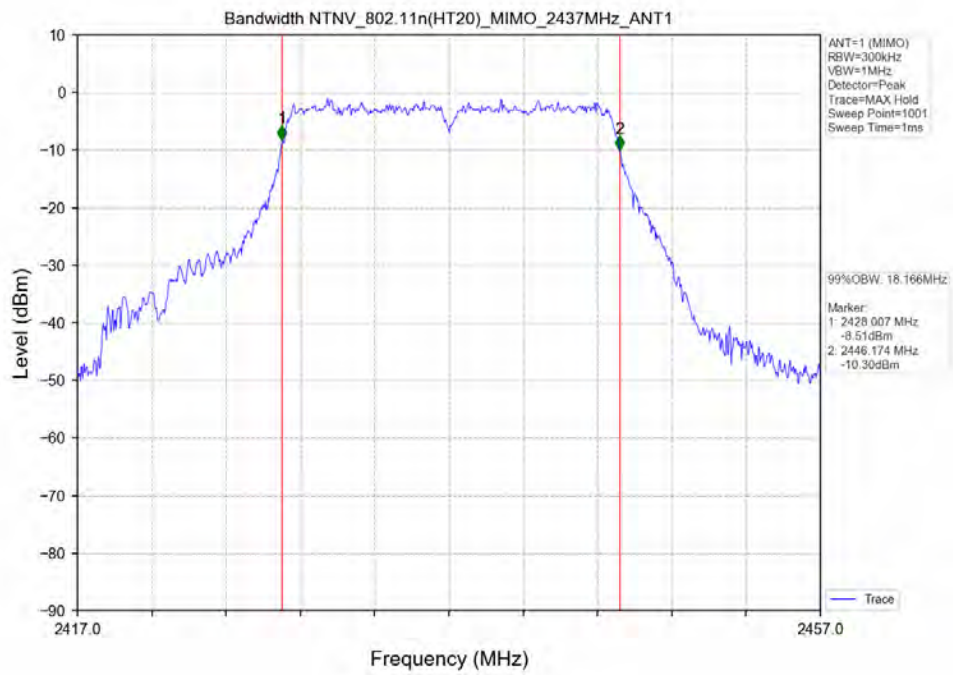
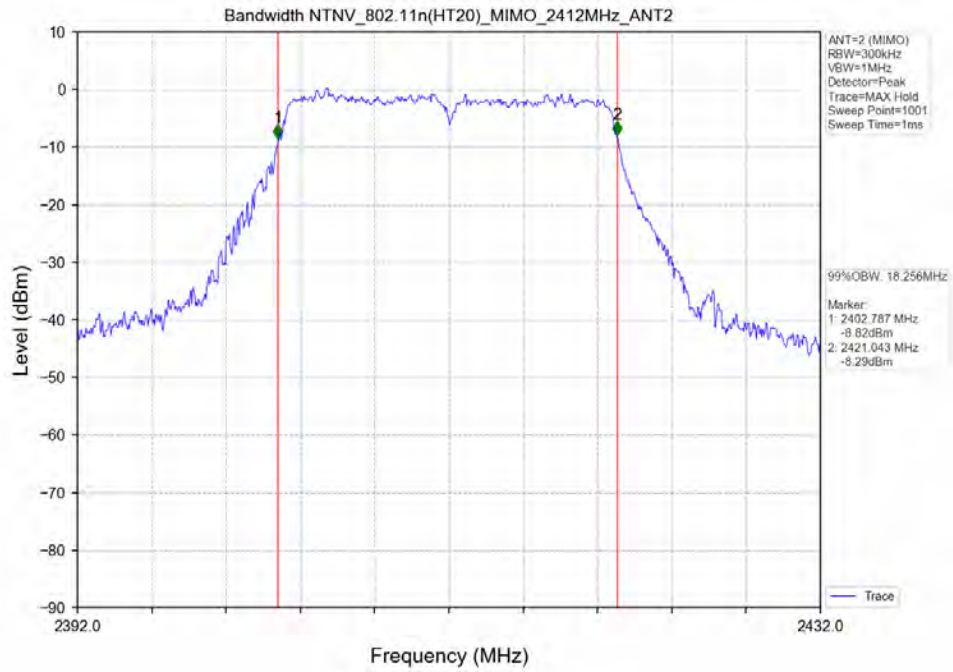


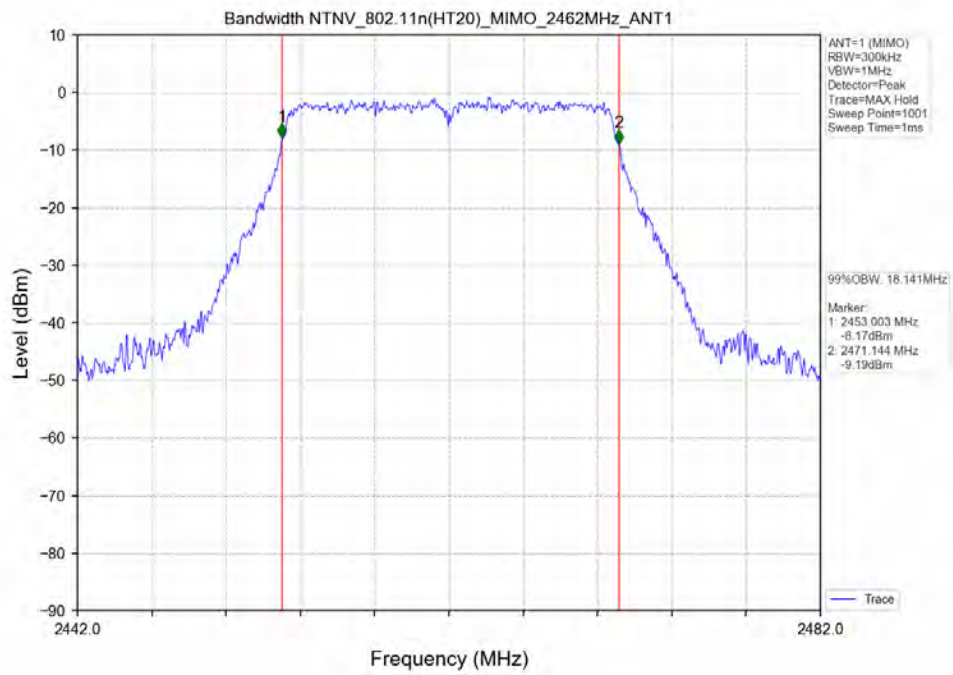
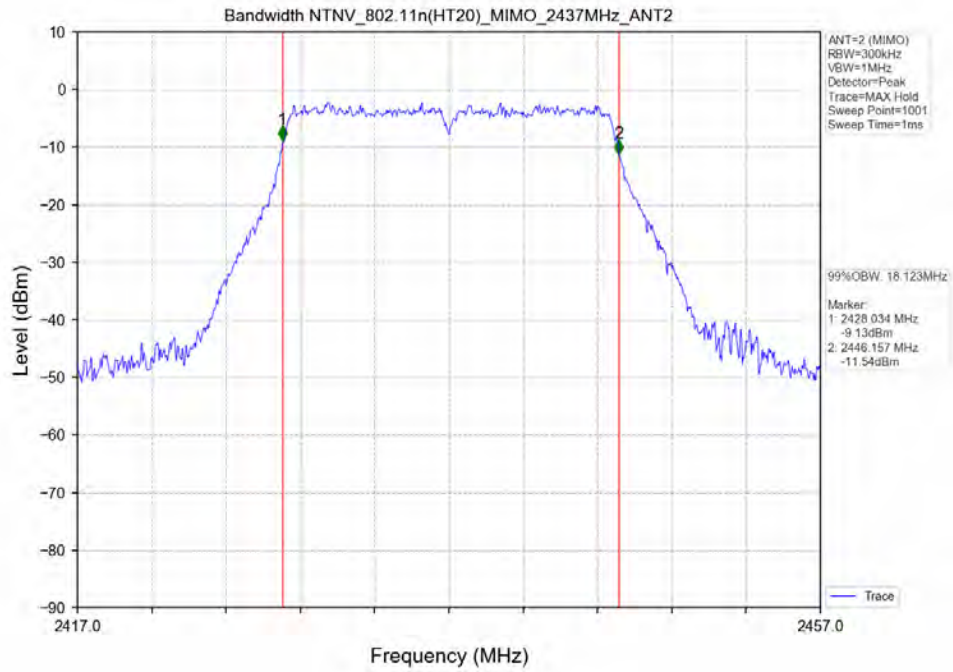


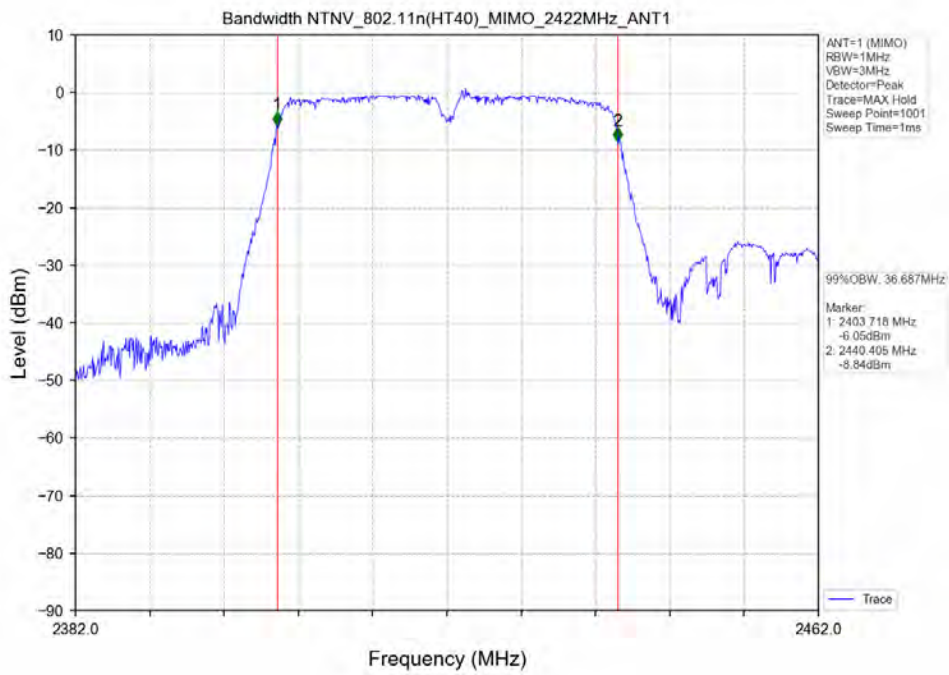
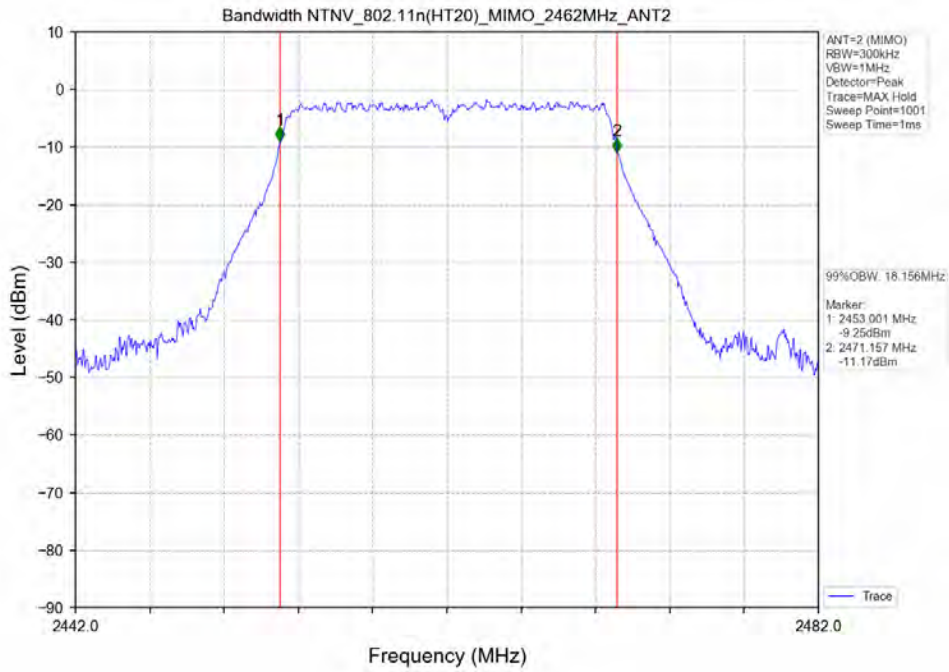


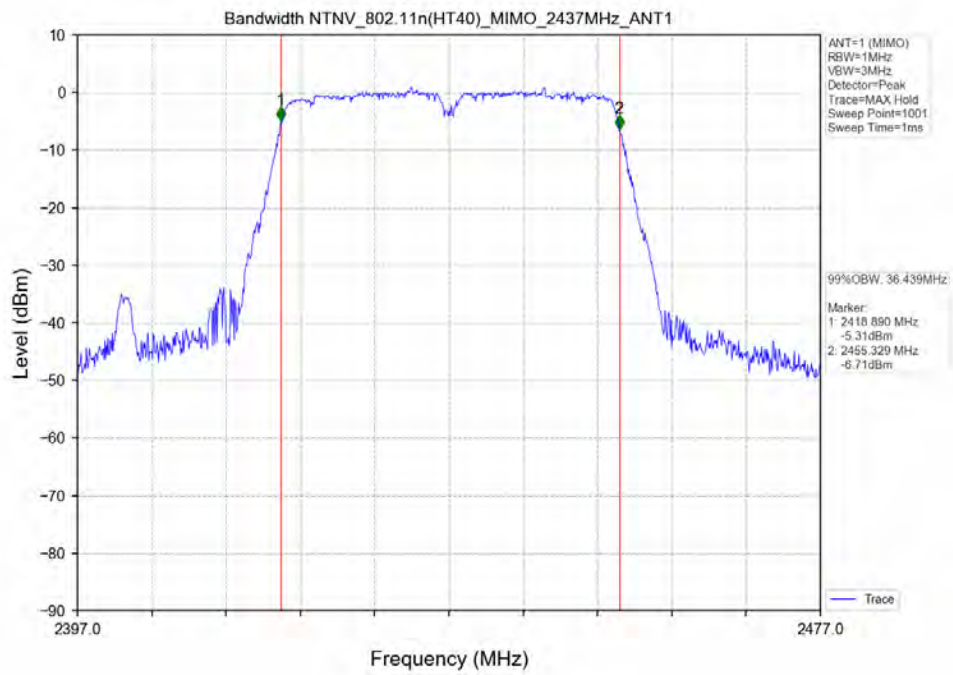
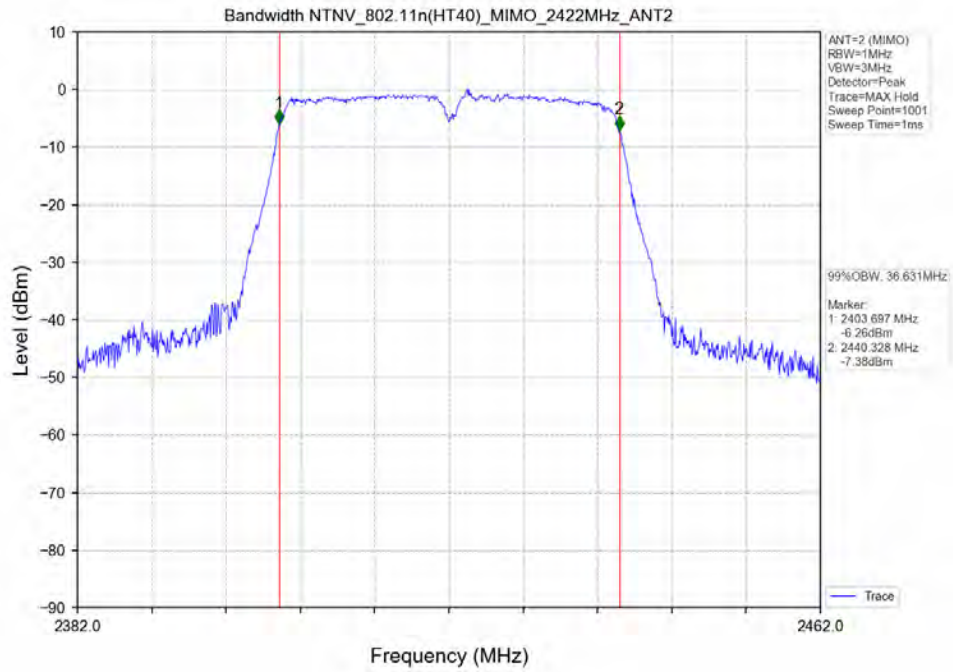


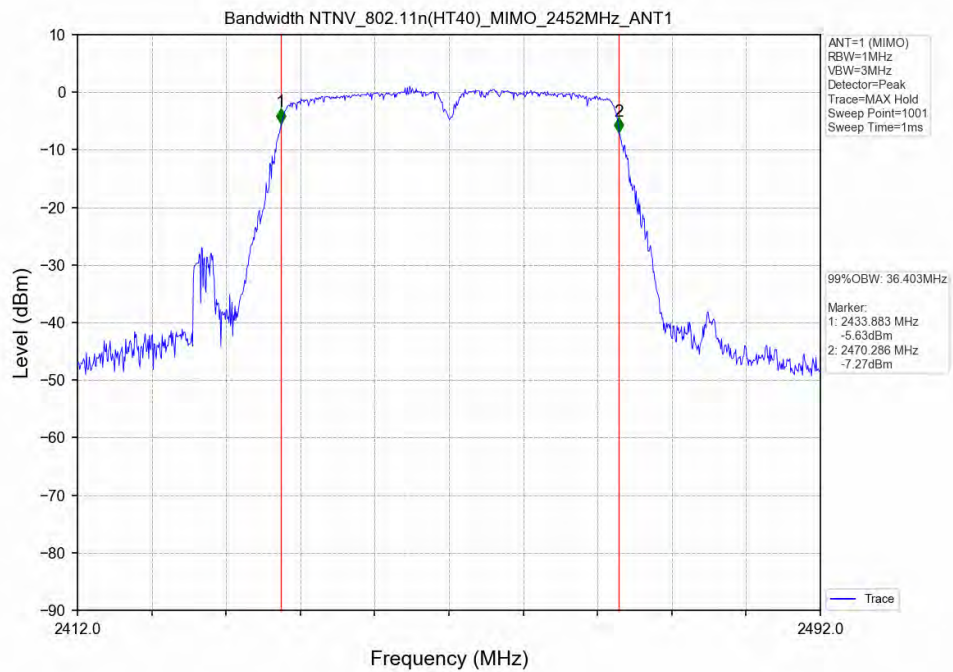
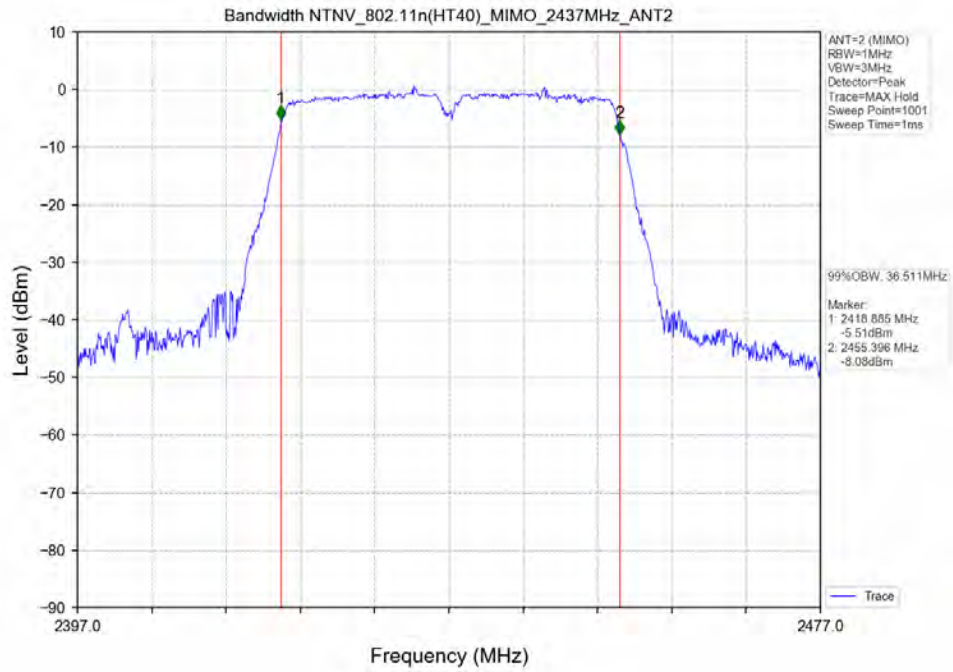


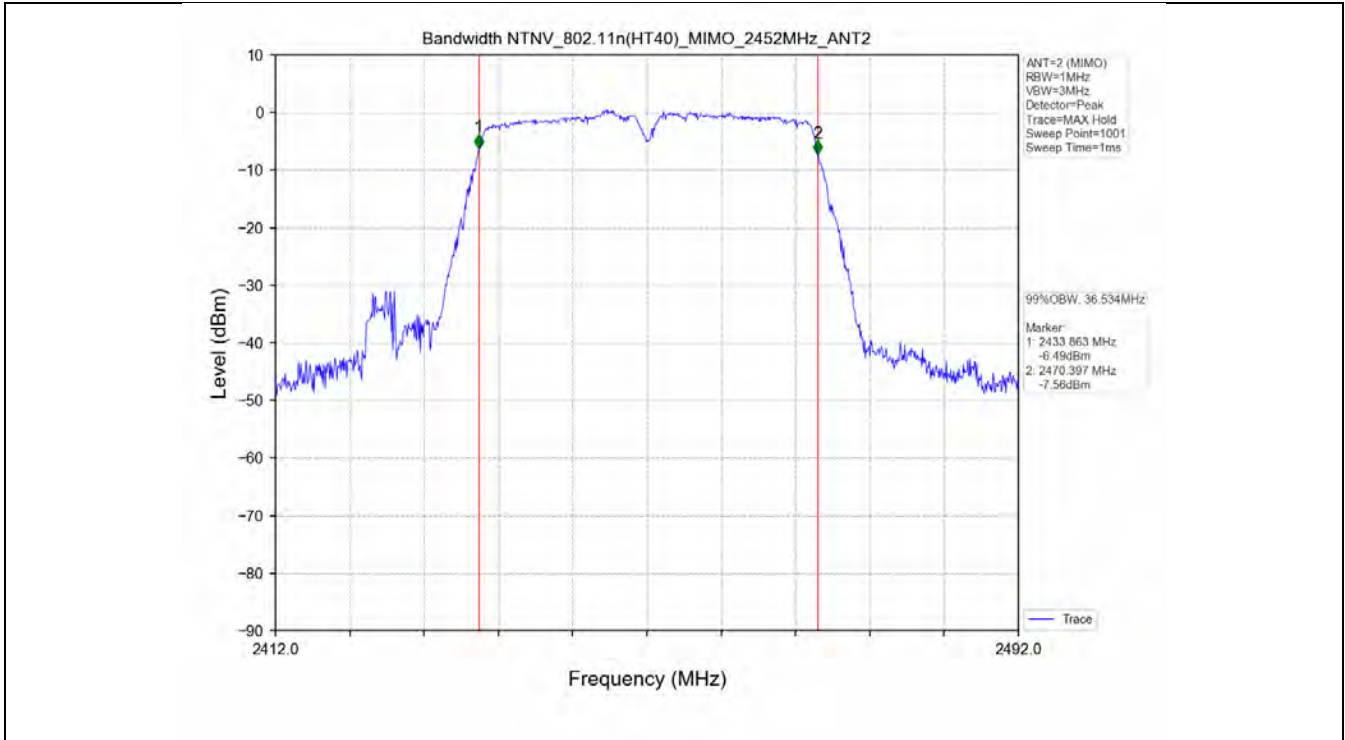










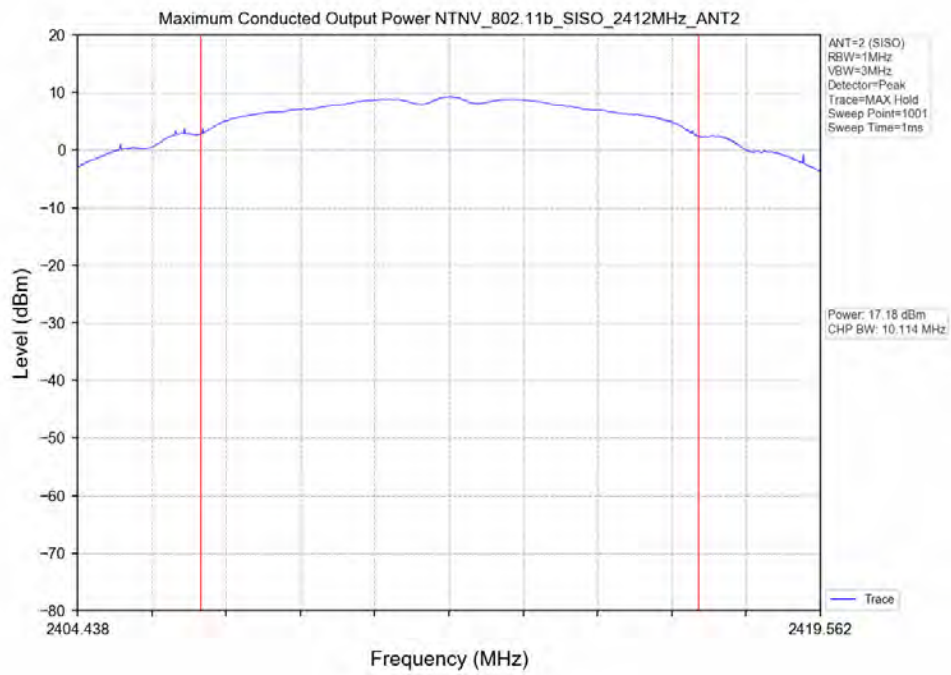
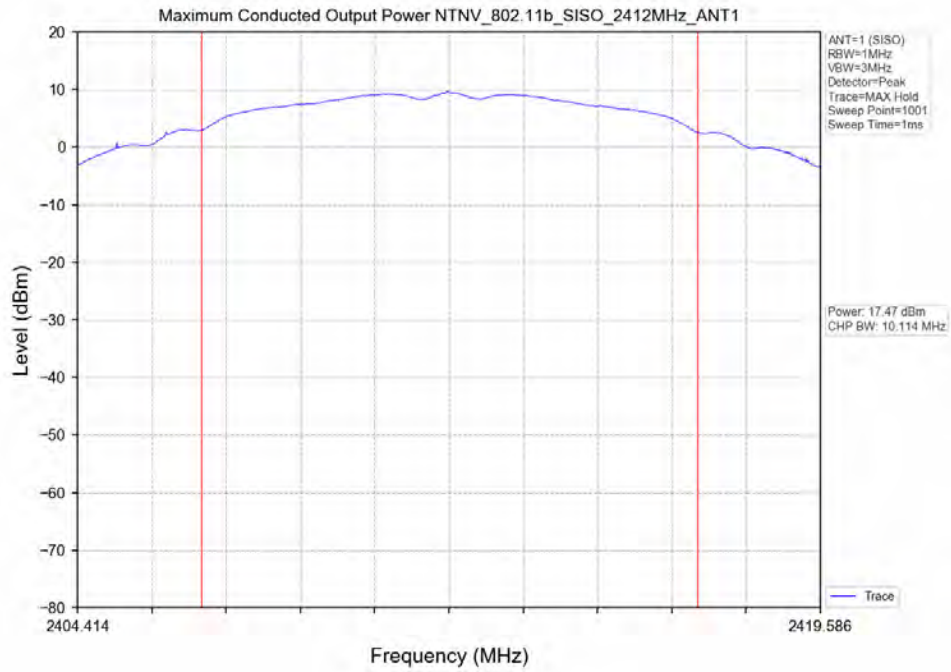


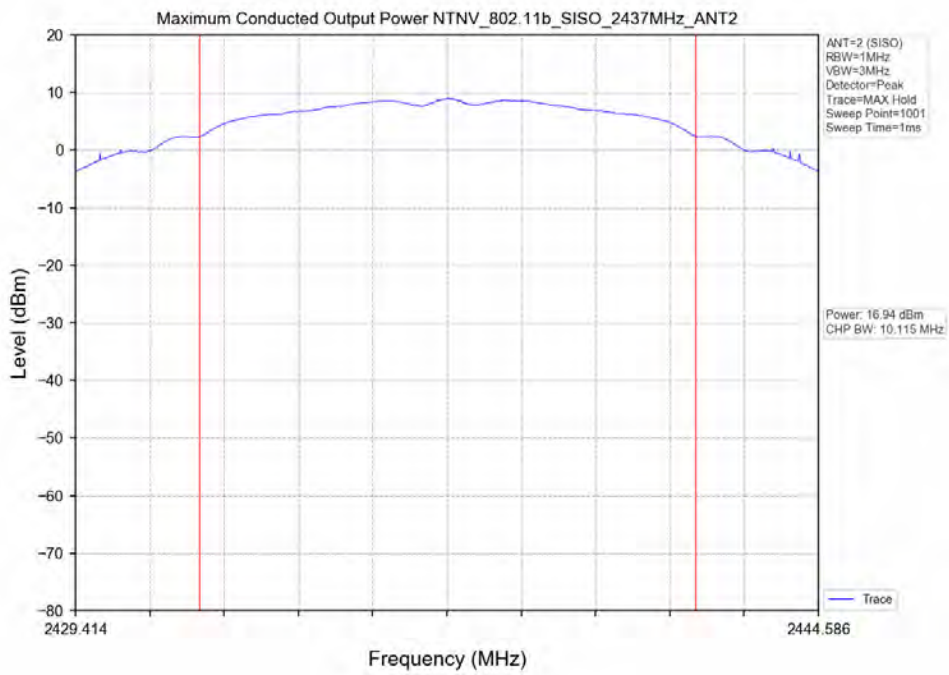
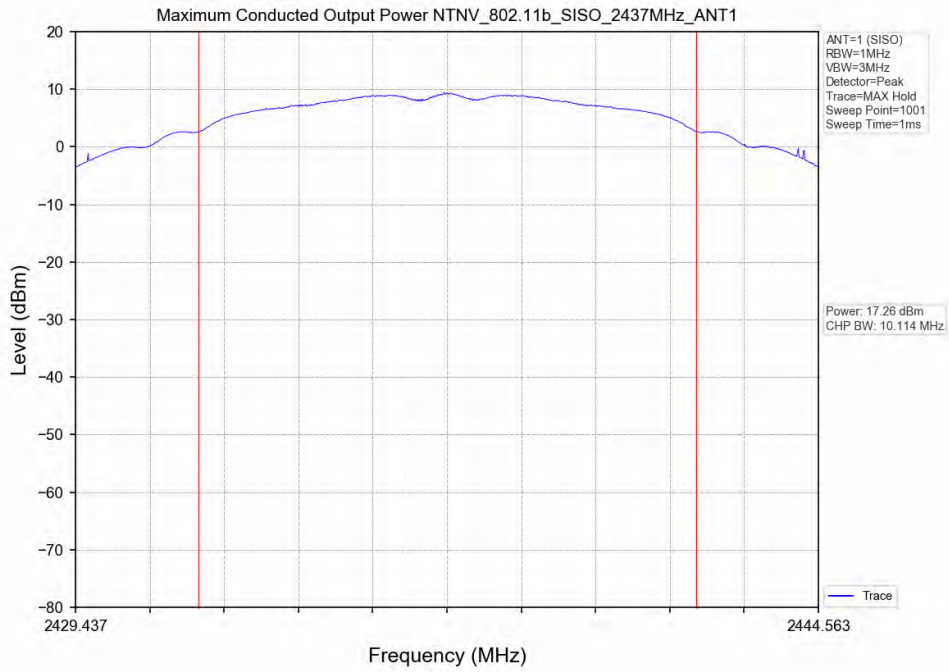
3. Maximum Conducted Output Power

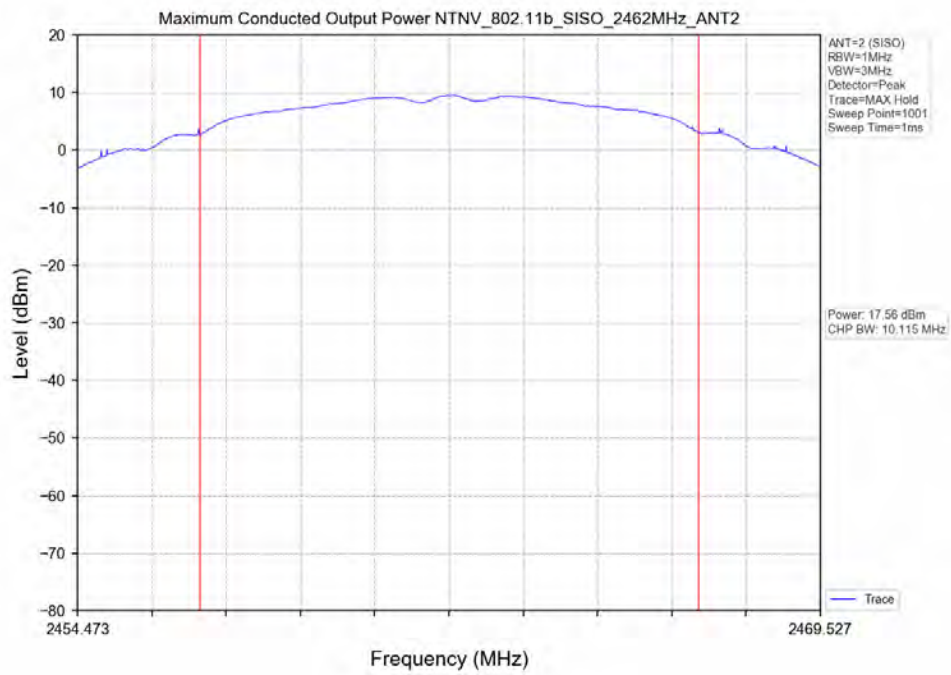
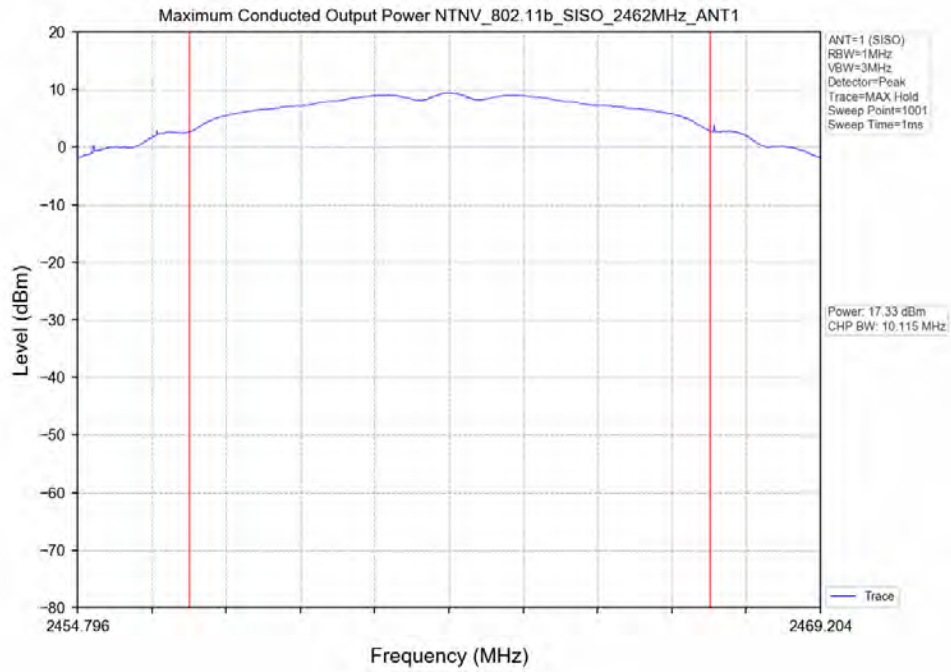
3.1 Test Result

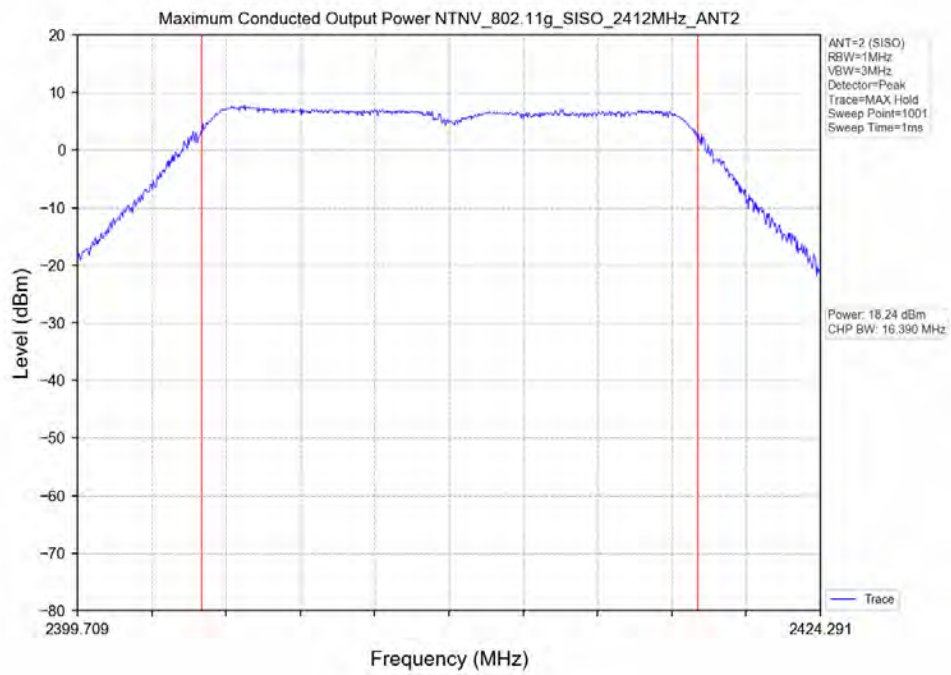
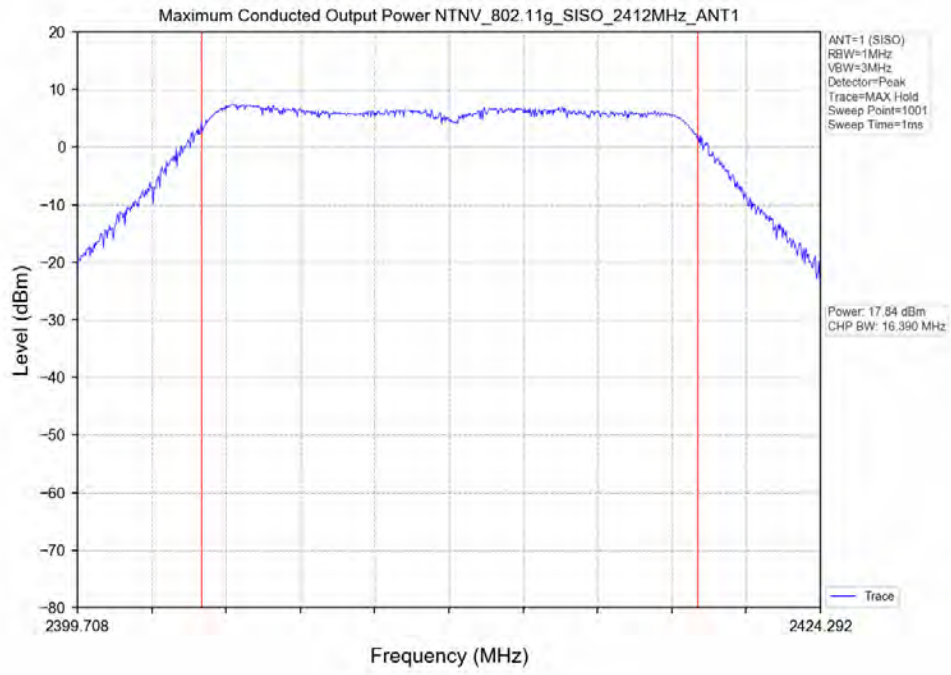
Test Mode	Frequency (MHz)	Tx Type	Measured Peak Output Power (dBm)			Limits (dBm)	Verdict
			Ant 1	Ant 2	Total		
802.11b	2412	SISO	17.47	17.18	/	30	PASS
	2437	SISO	17.26	16.94	/	30	PASS
	2462	SISO	17.33	17.56	/	30	PASS
802.11g	2412	SISO	17.84	18.24	/	30	PASS
	2437	SISO	17.56	17.92	/	30	PASS
	2462	SISO	17.49	17.45	/	30	PASS
802.11n(HT20)	2412	MIMO	14.70	15.43	18.09	30	PASS
	2437	MIMO	15.28	14.49	17.91	30	PASS
	2462	MIMO	15.99	15.08	18.57	30	PASS
802.11n(HT40)	2422	MIMO	13.75	13.33	16.56	30	PASS
	2437	MIMO	14.33	13.71	17.04	30	PASS
	2452	MIMO	14.30	13.85	17.09	30	PASS

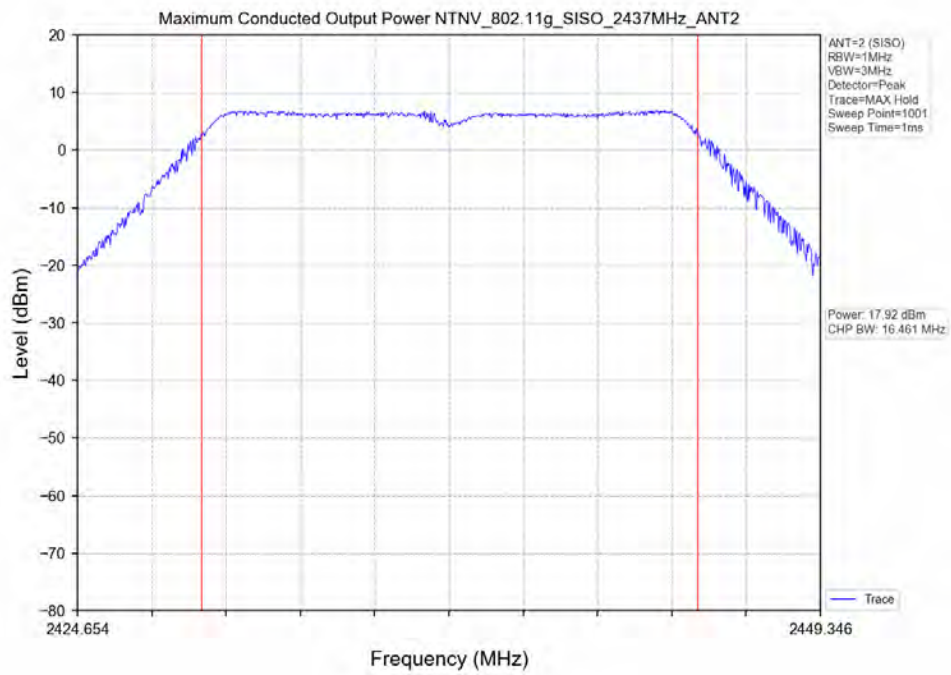
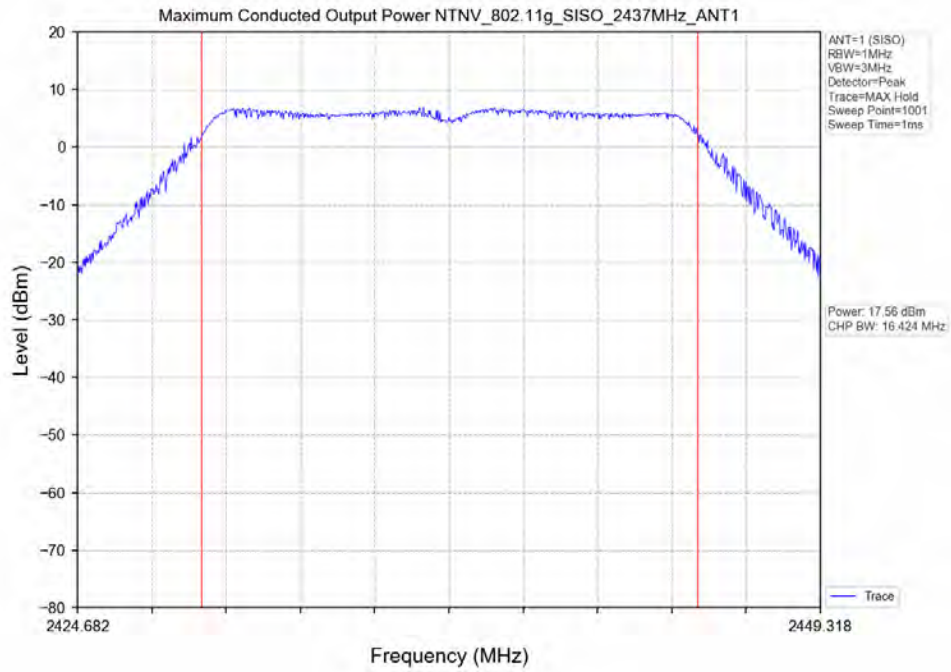
3.2 Test Graph

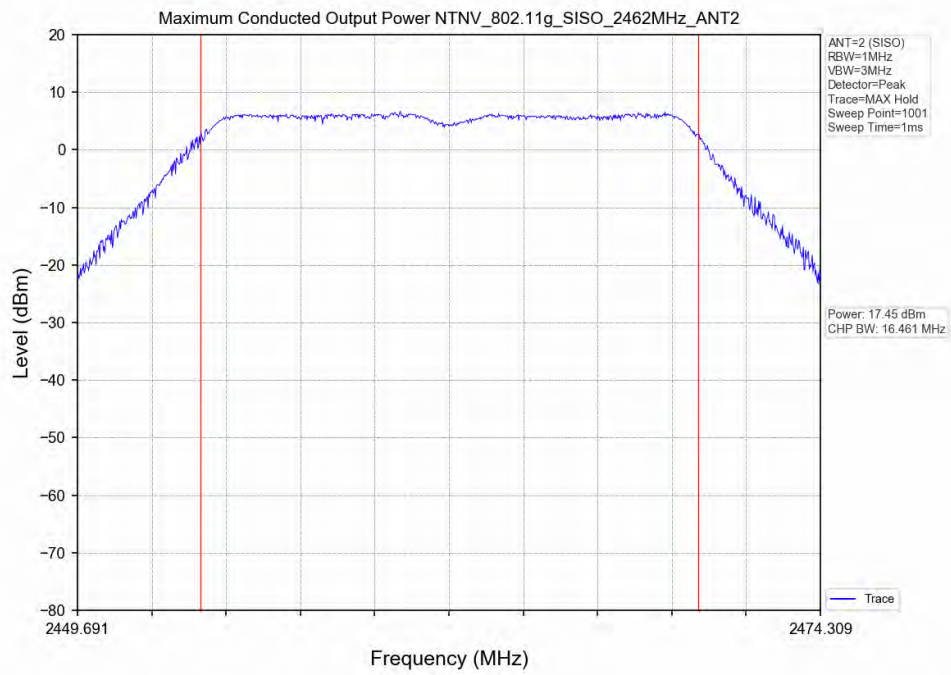
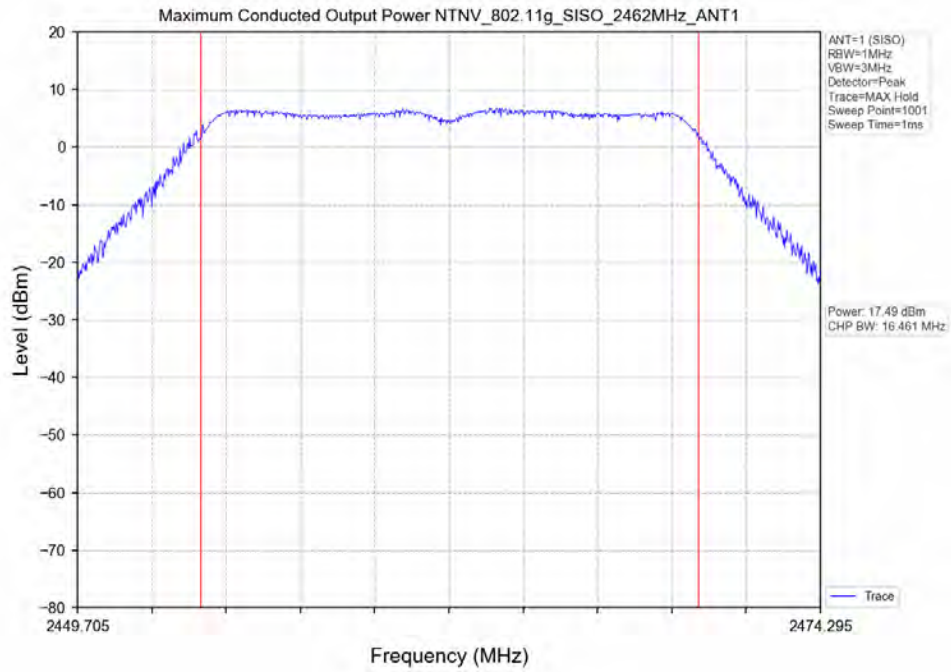


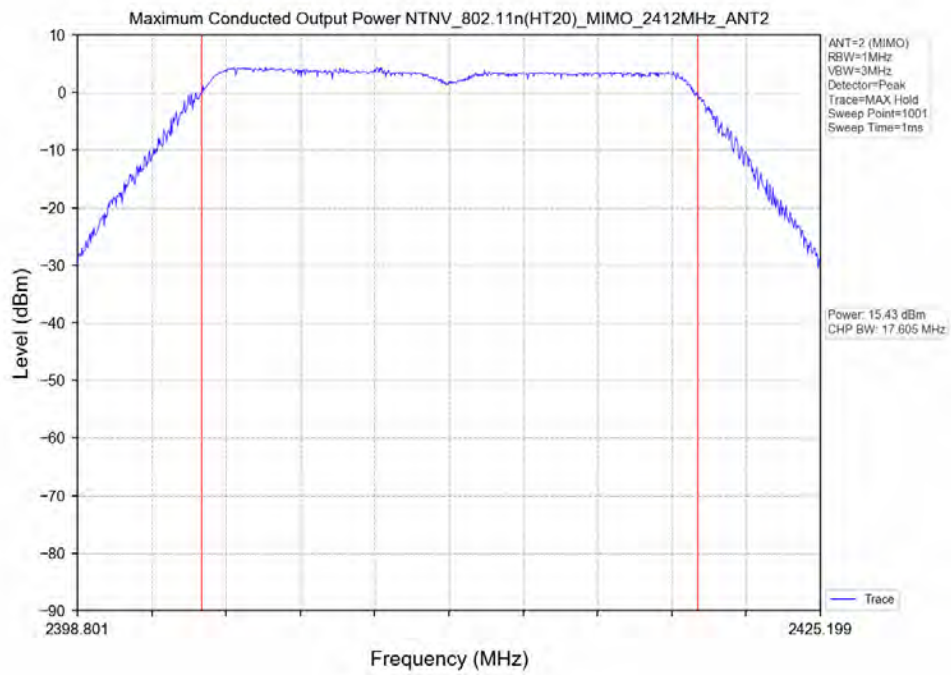


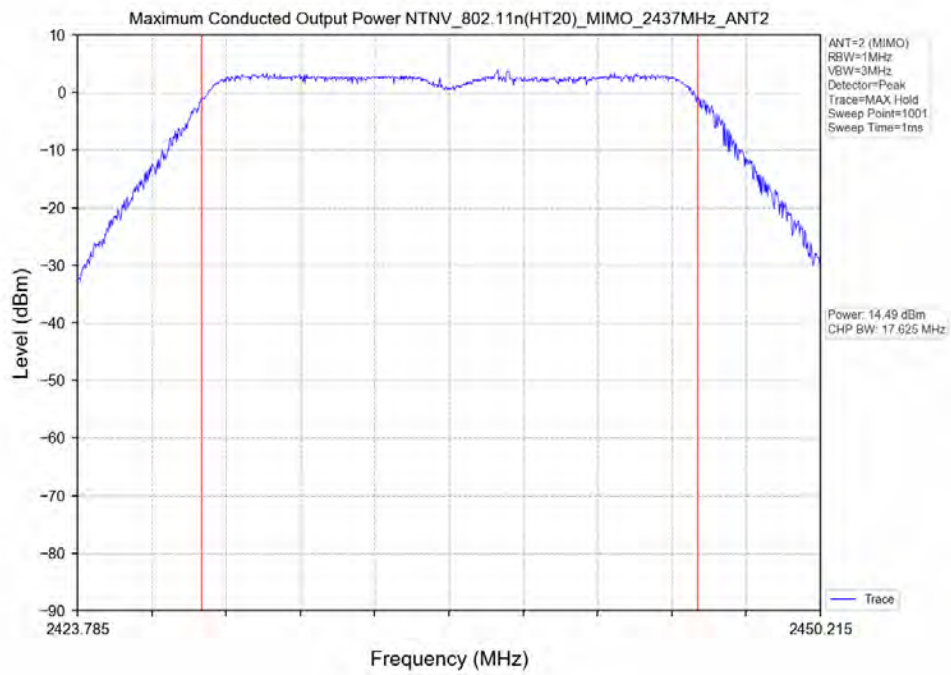
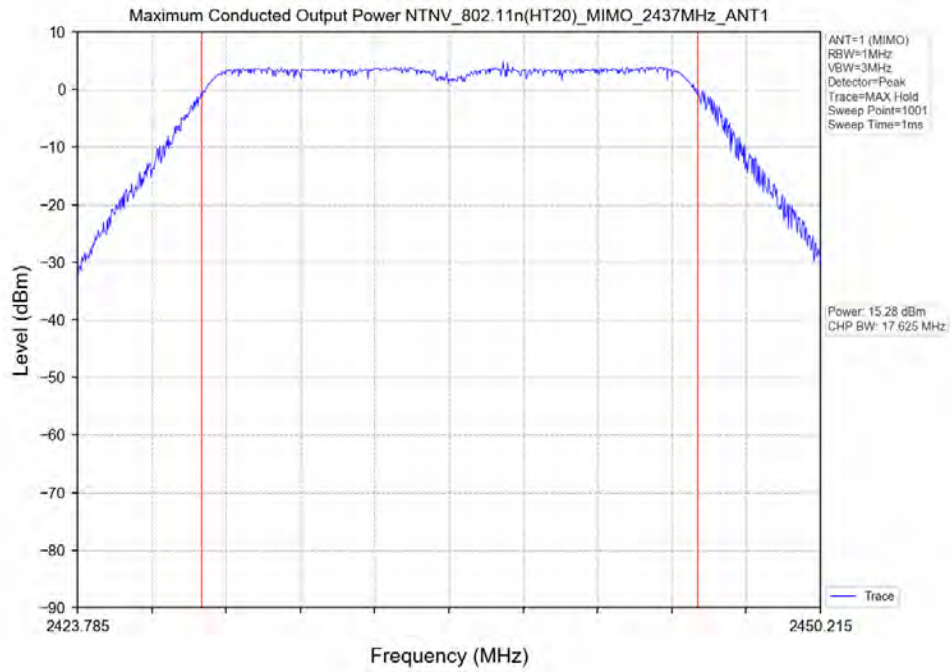


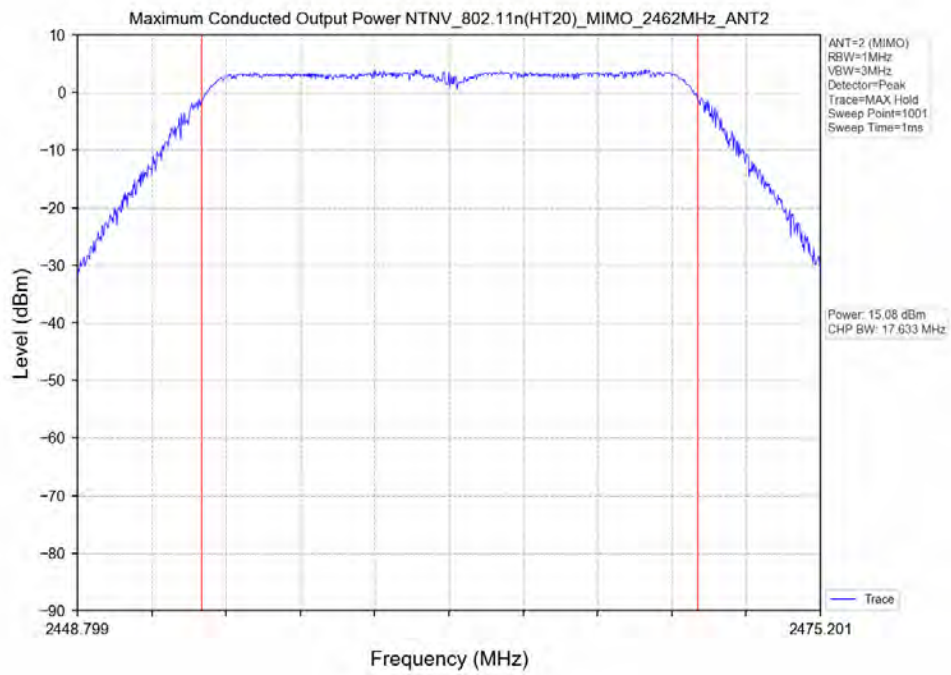
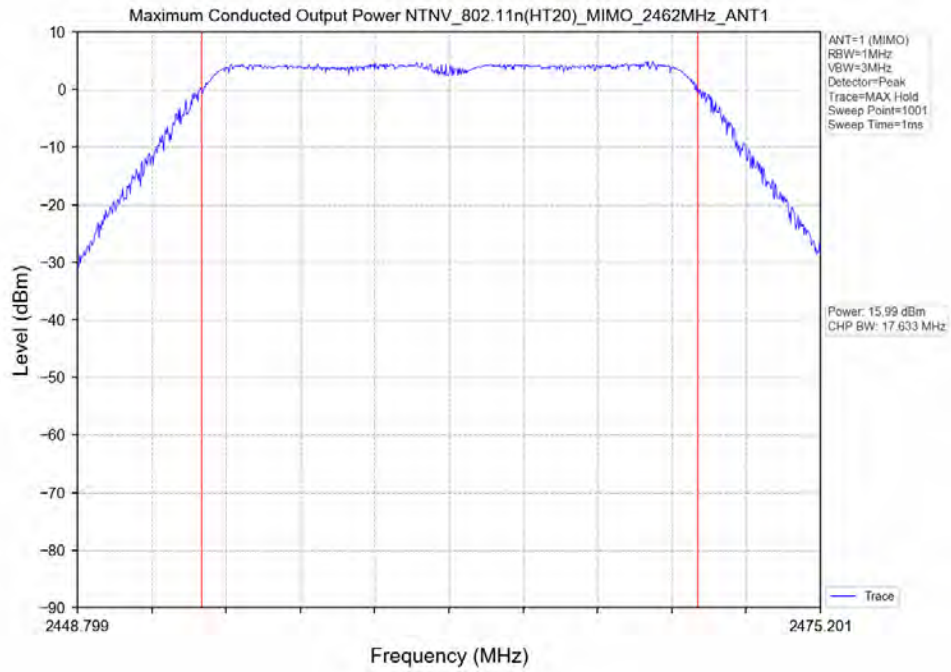


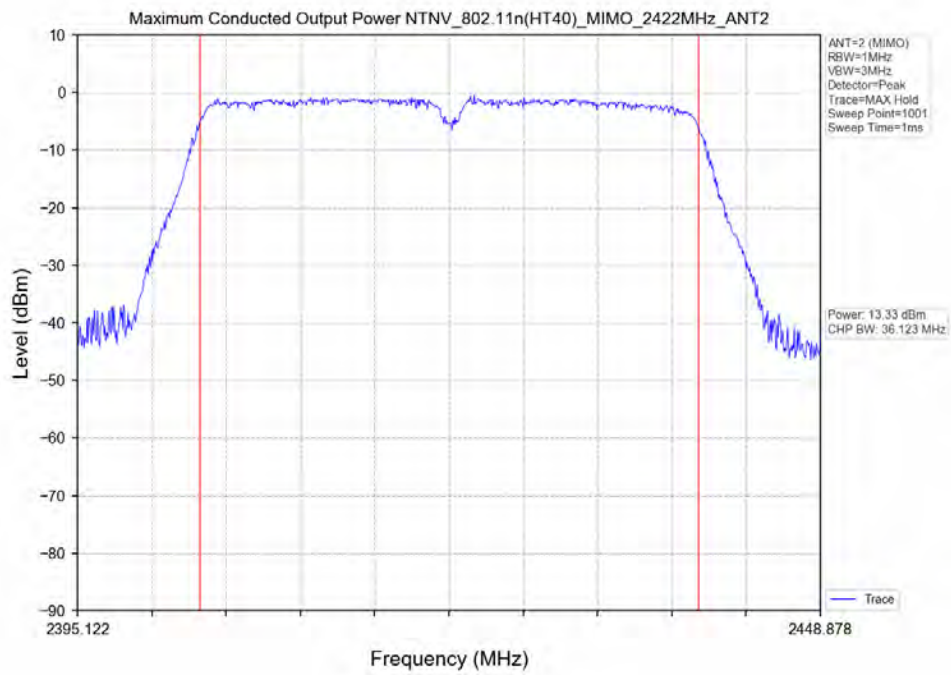
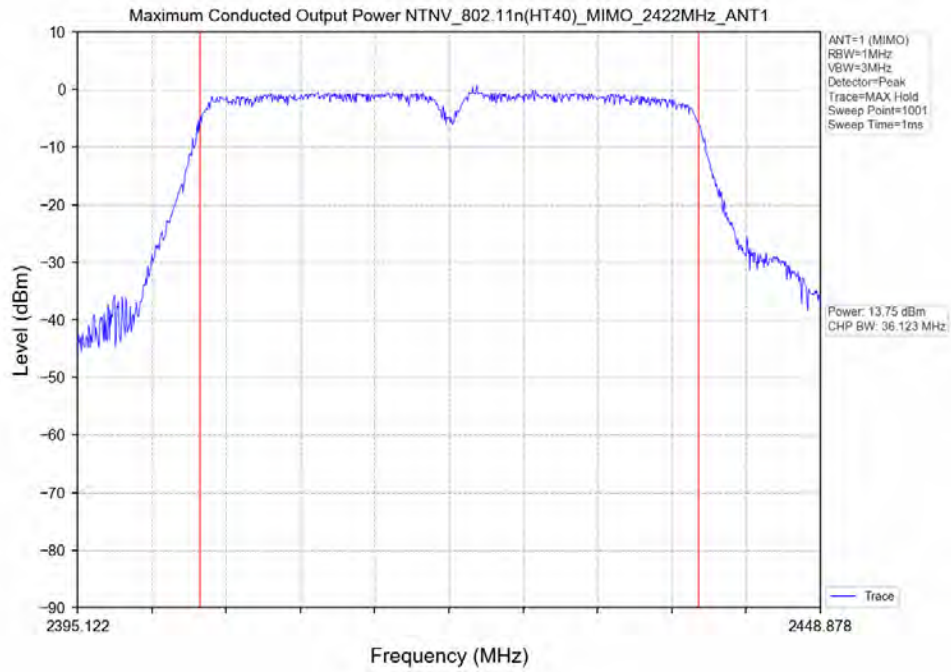


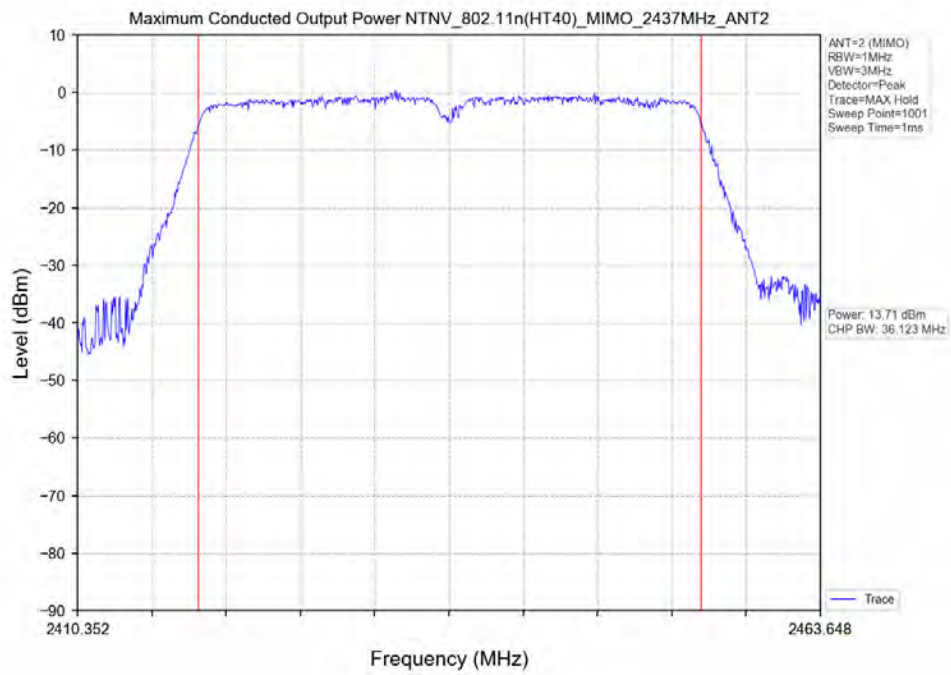
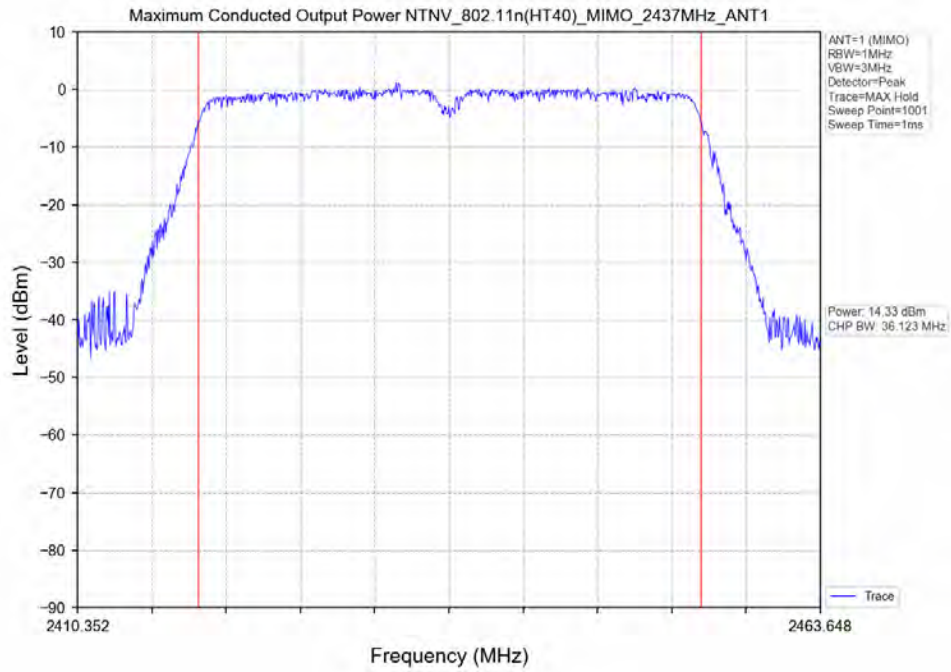


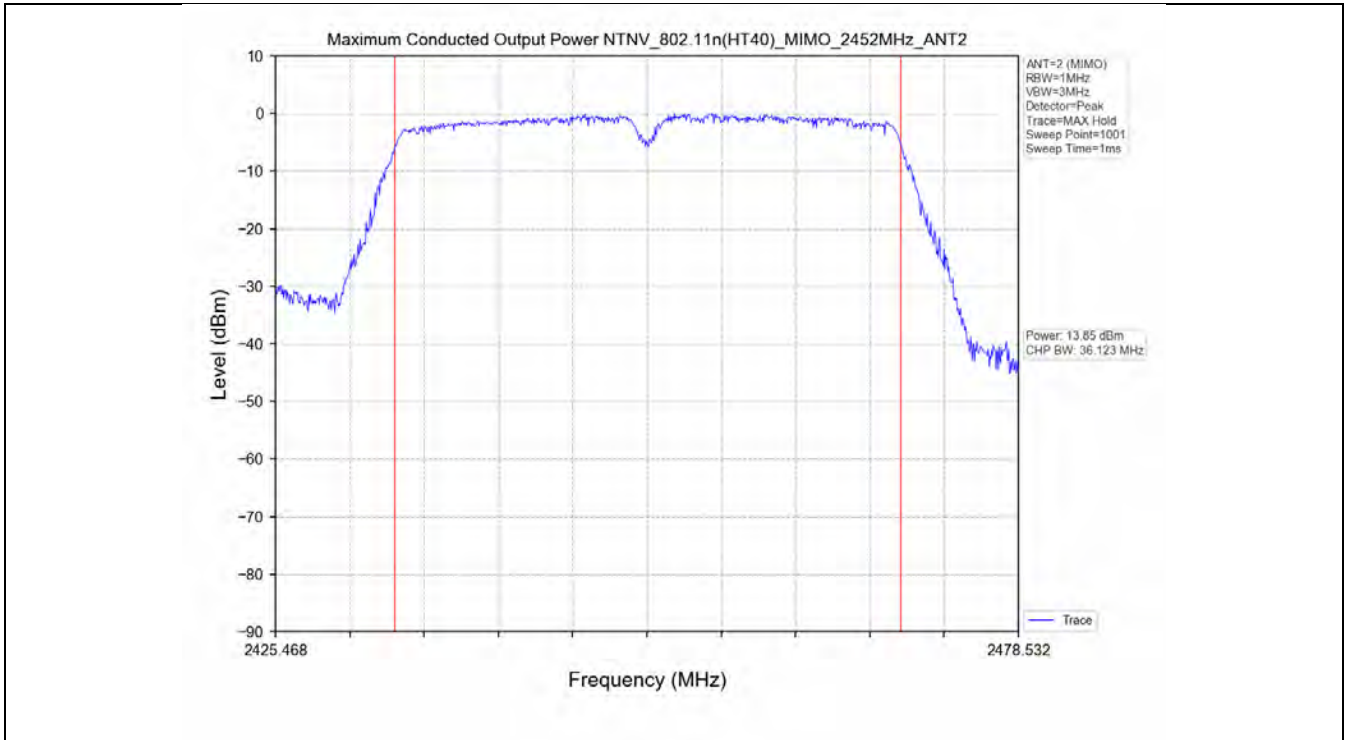
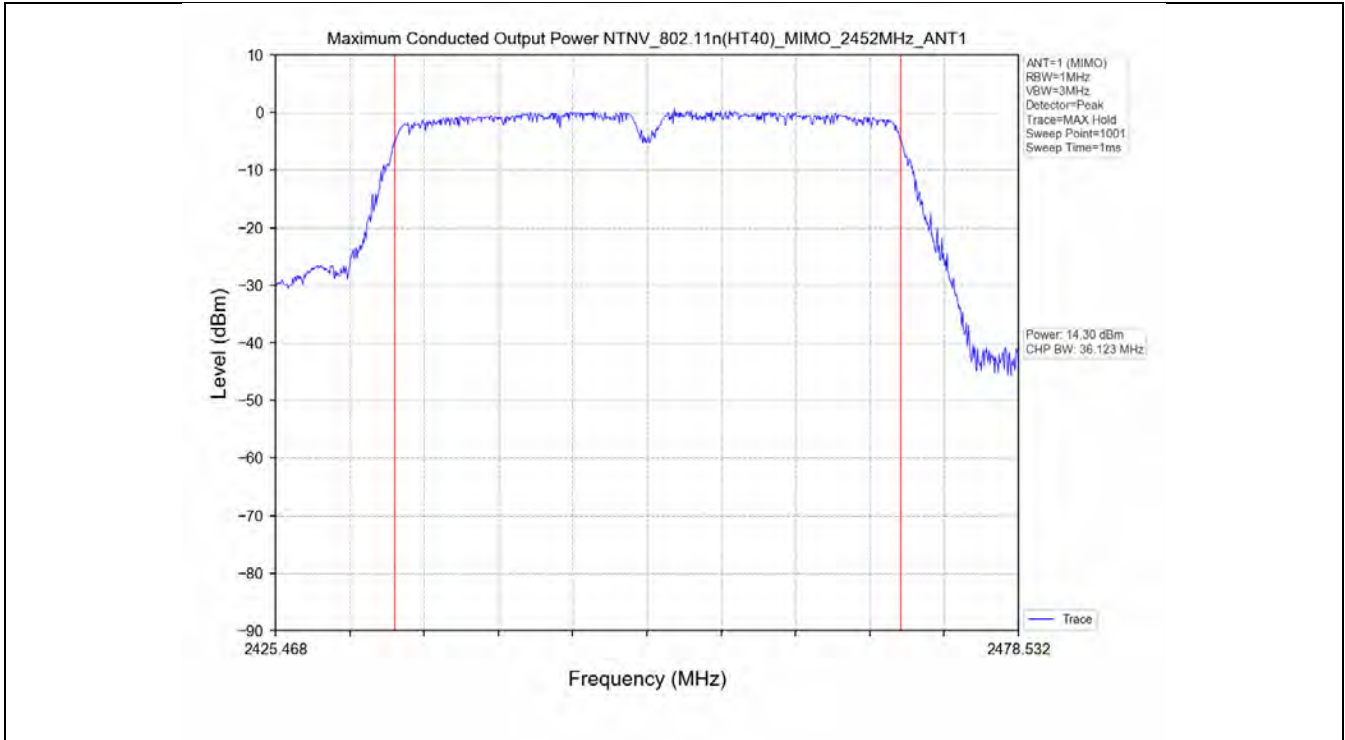










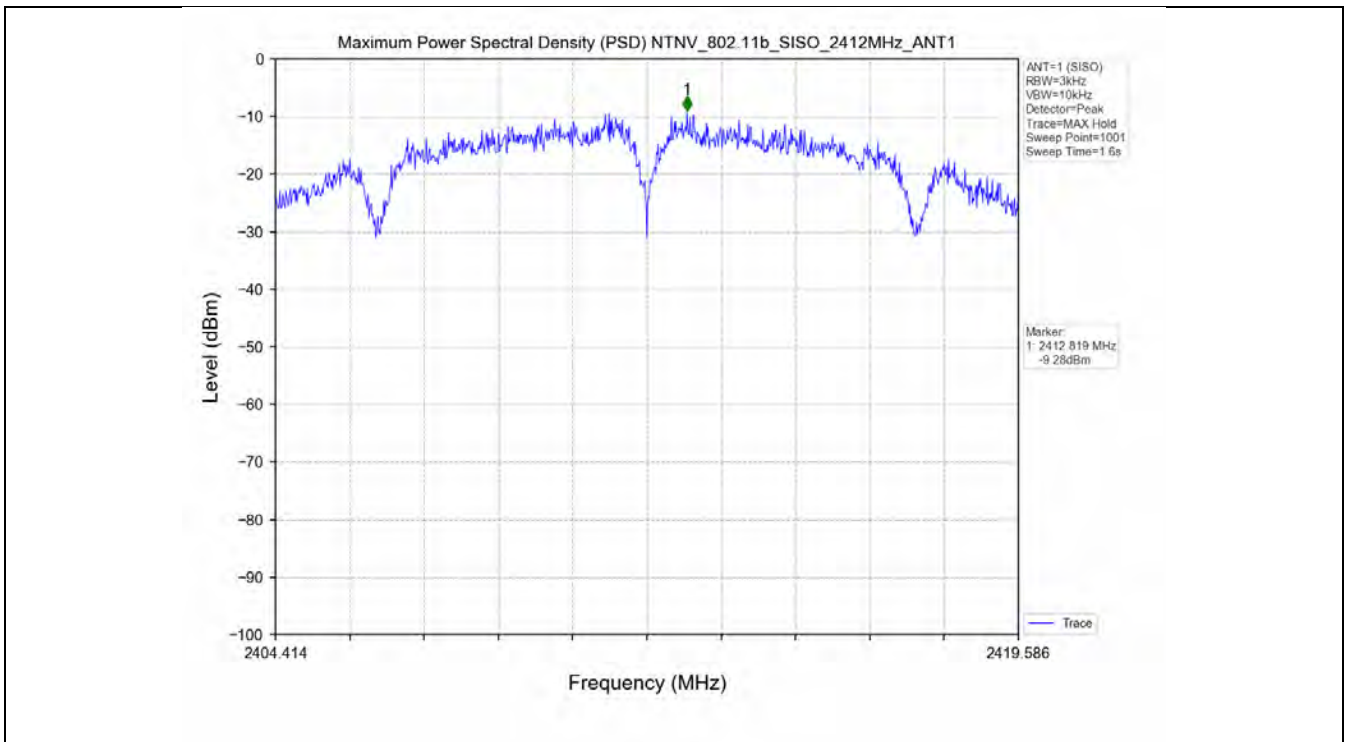


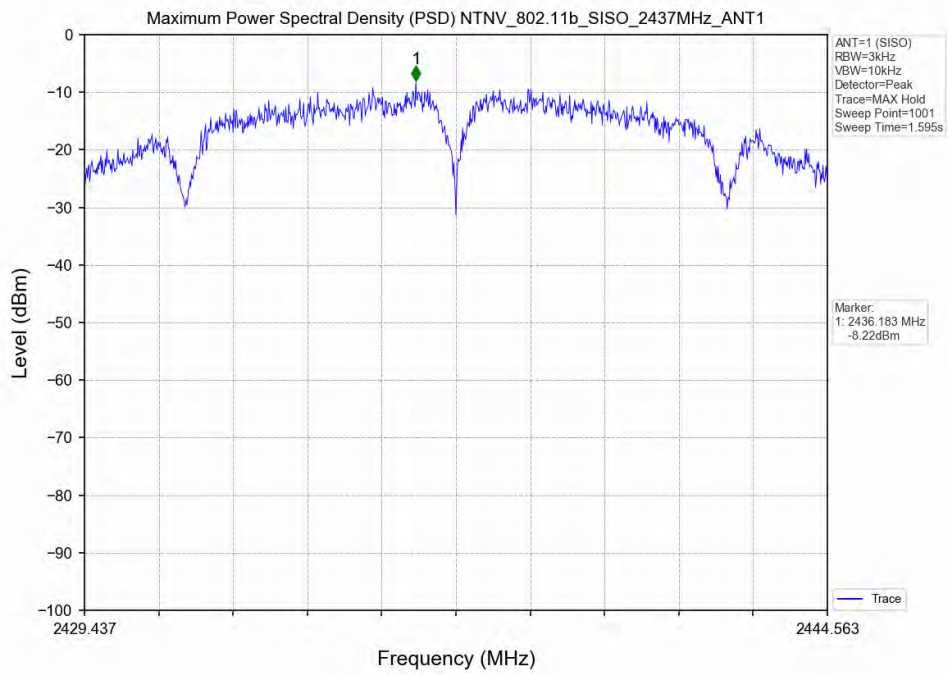
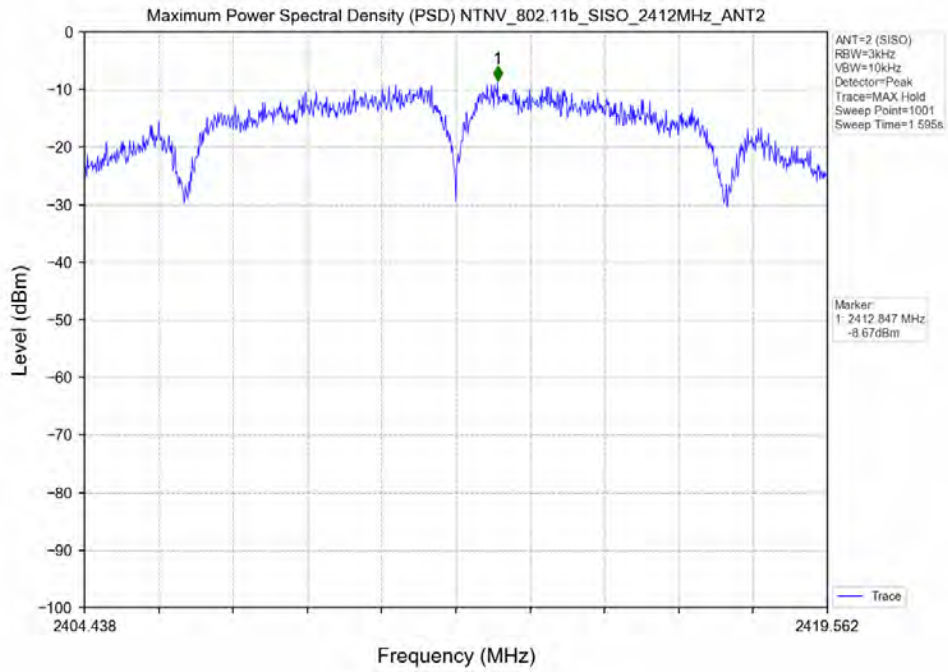
4. Maximum Power Spectral Density (PSD)

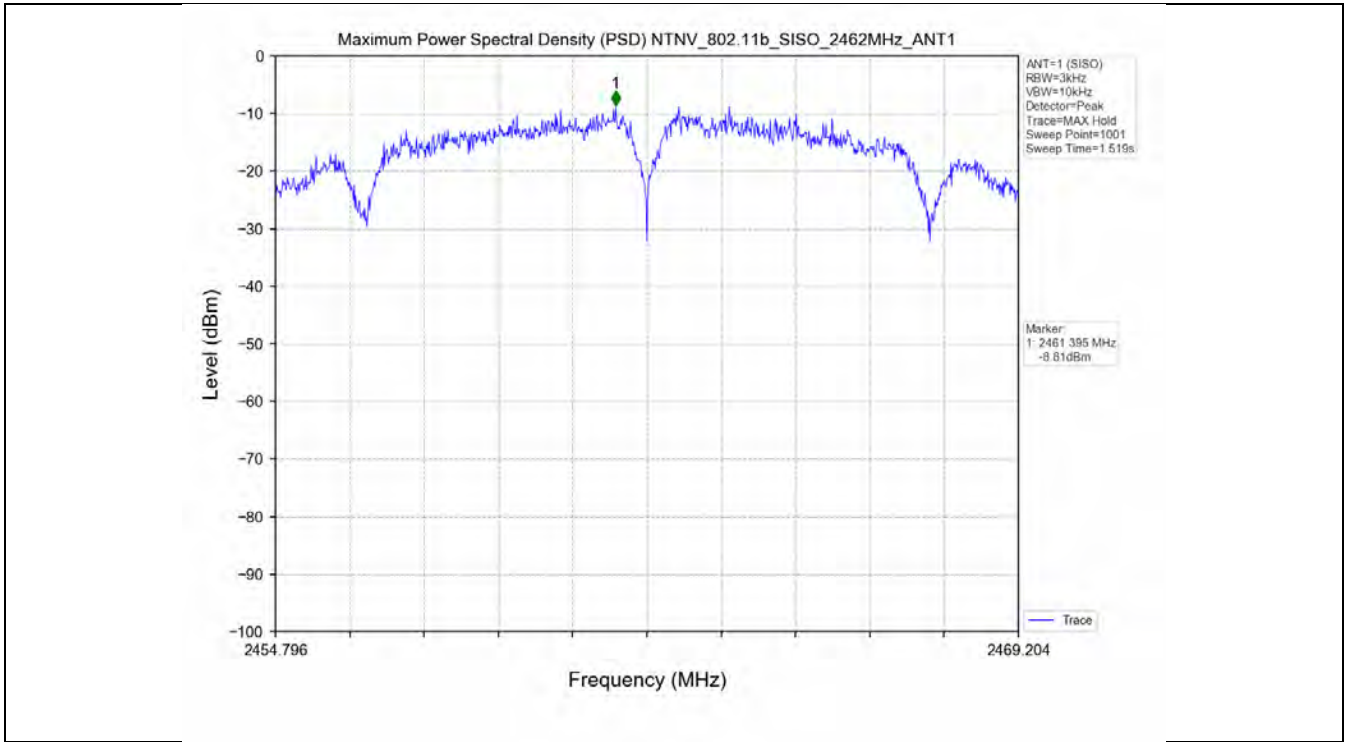
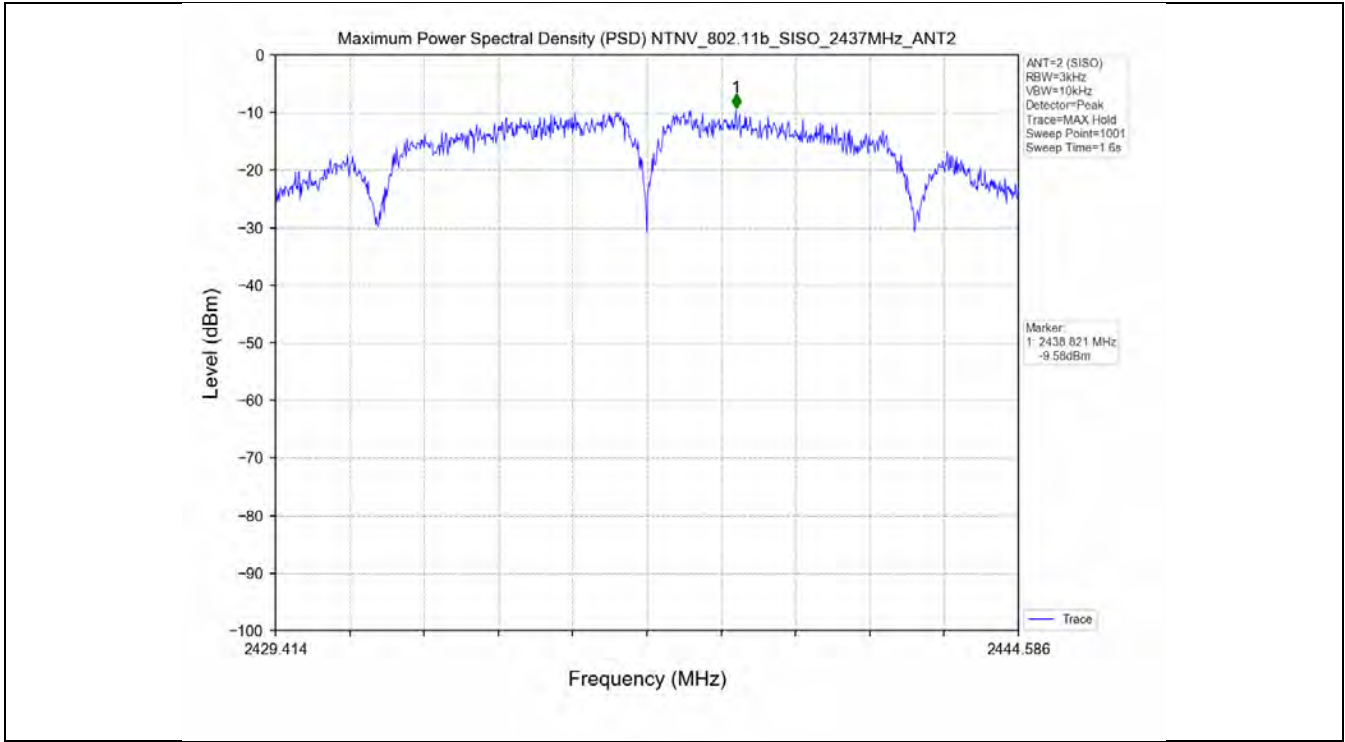
4.1 Test Result

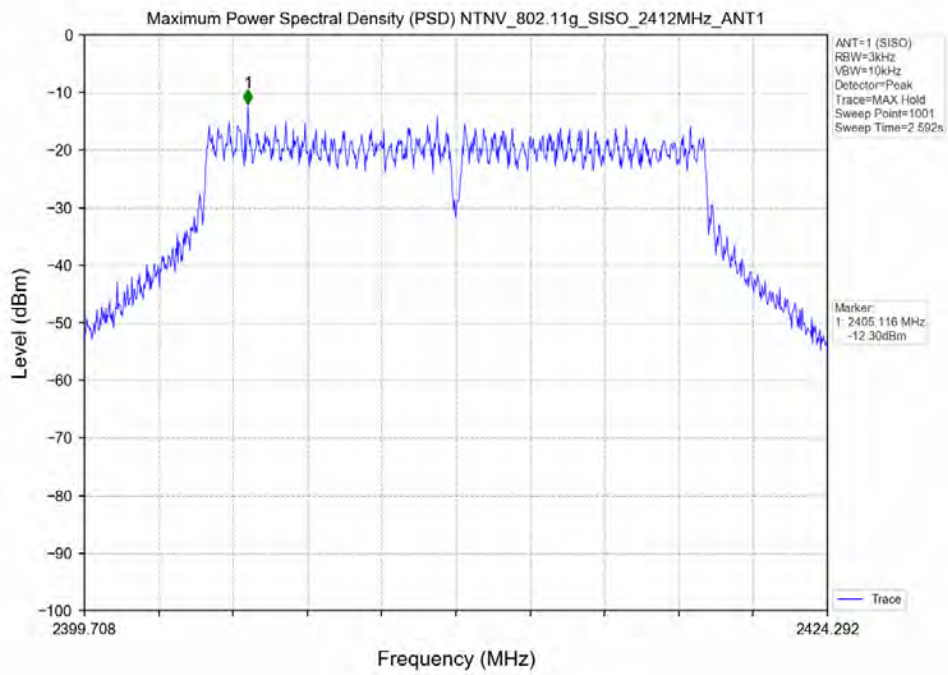
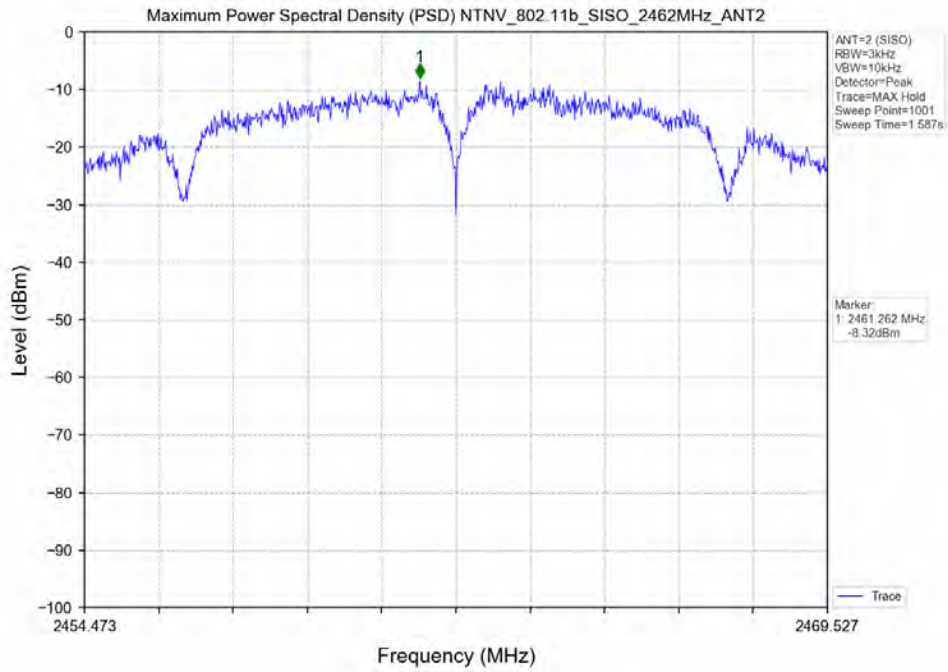
Test Mode	Frequency (MHz)	Tx Type	Maximum Power Spectral Density (dBm/3KHz)			Limits (dBm/3kHz)	Verdict
			Ant 1	Ant 2	Total		
802.11b	2412	SISO	-9.28	-8.67	/	≤8	PASS
	2437	SISO	-8.22	-9.58	/	≤8	PASS
	2462	SISO	-8.81	-8.32	/	≤8	PASS
802.11g	2412	SISO	-12.30	-12.14	/	≤8	PASS
	2437	SISO	-15.83	-14.94	/	≤8	PASS
	2462	SISO	-15.01	-14.64	/	≤8	PASS
802.11n(HT20)	2412	MIMO	-17.02	-16.93	-13.96	≤8	PASS
	2437	MIMO	-17.59	-18.89	-15.61	≤8	PASS
	2462	MIMO	-16.61	-18.02	-14.25	≤8	PASS
802.11n(HT40)	2422	MIMO	-22.88	-23.07	-20.11	≤8	PASS
	2437	MIMO	-20.96	-21.79	-19.07	≤8	PASS
	2452	MIMO	-21.01	-21.30	-18.14	≤8	PASS

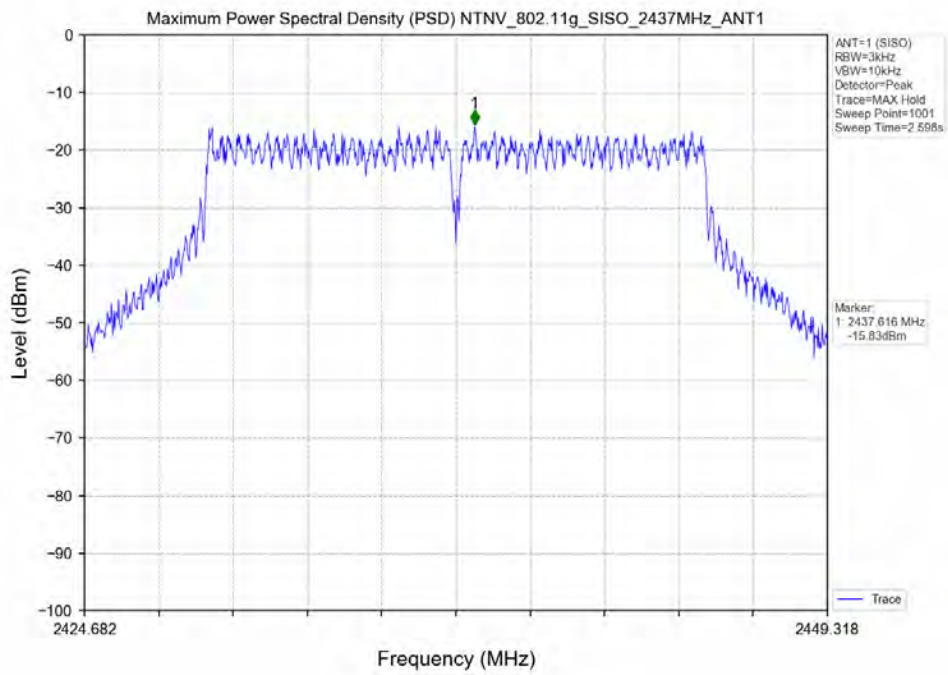
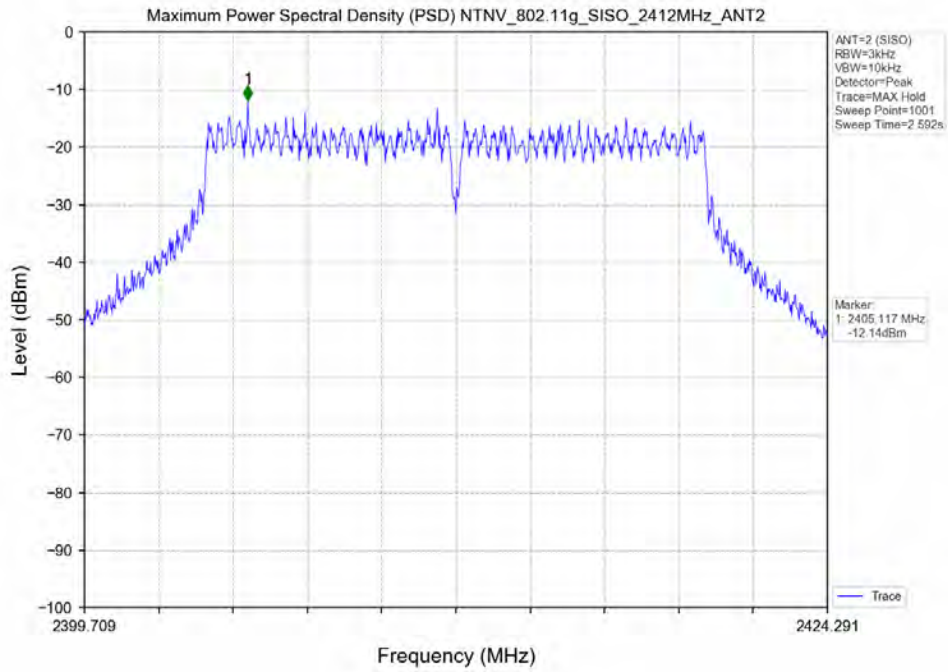
4.2 Test Graph

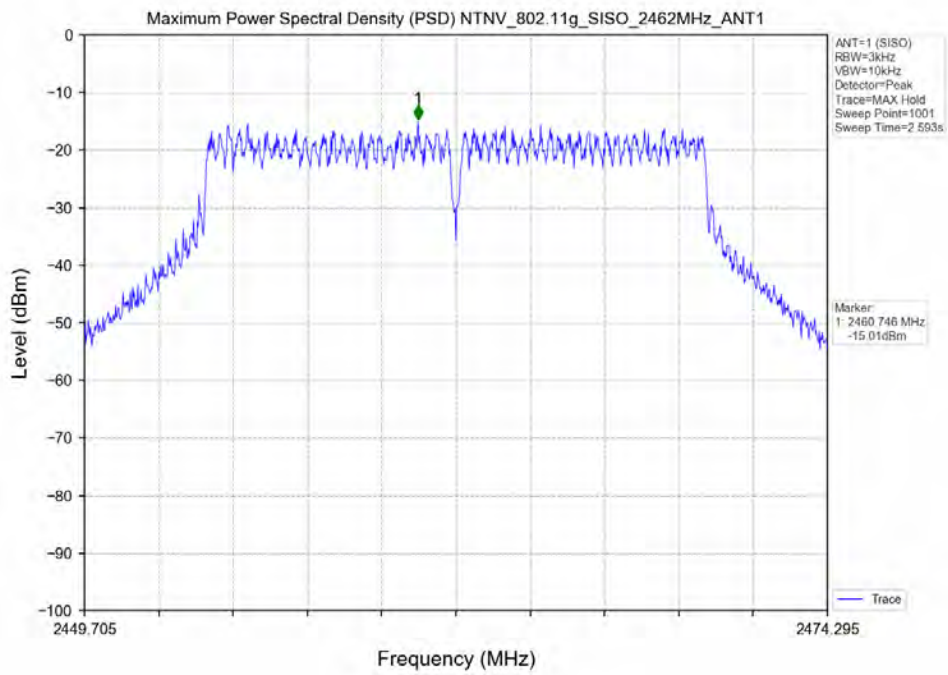
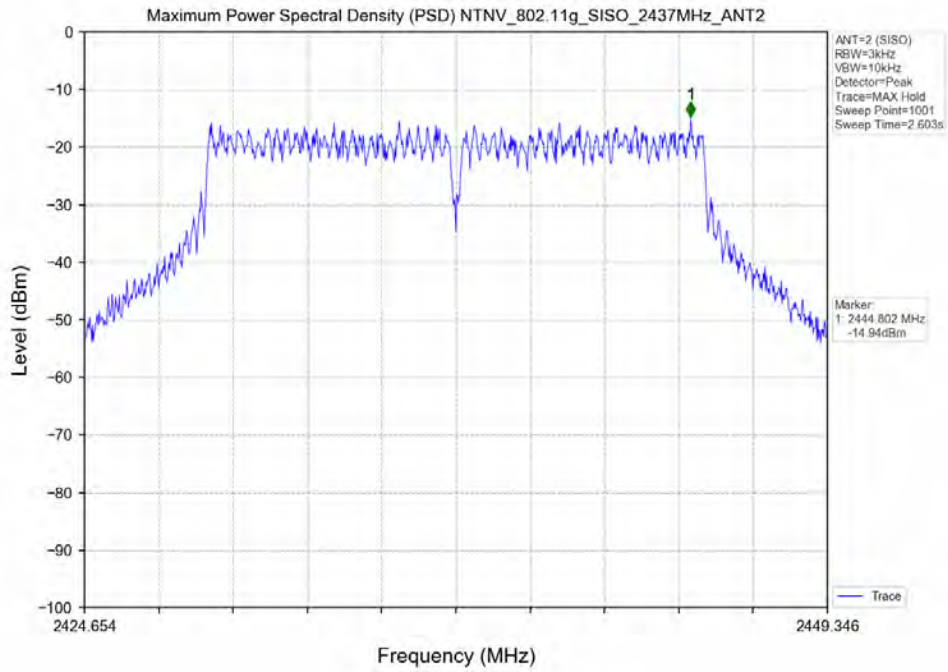


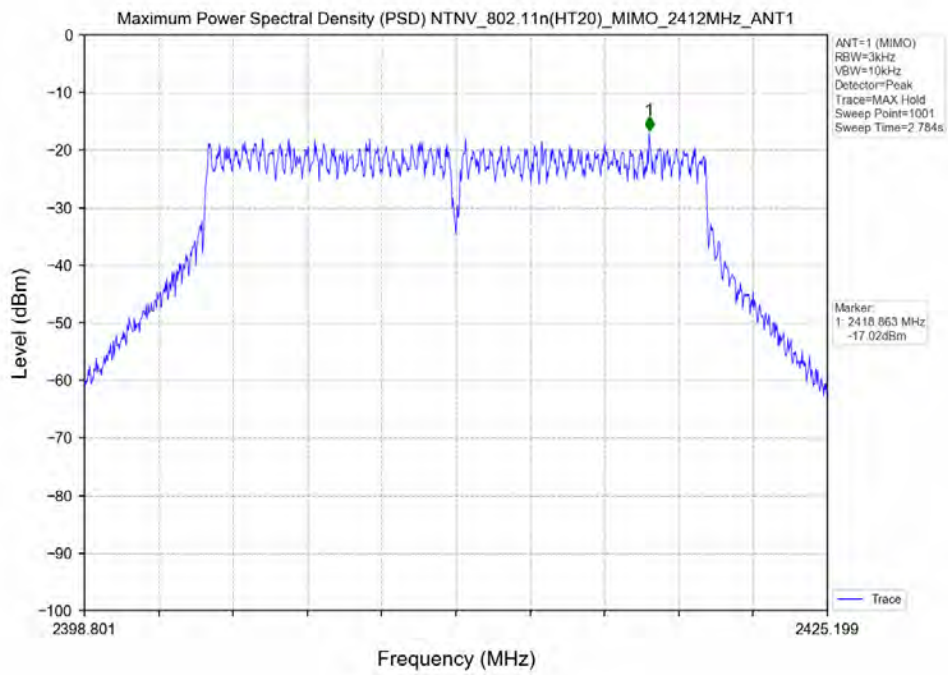
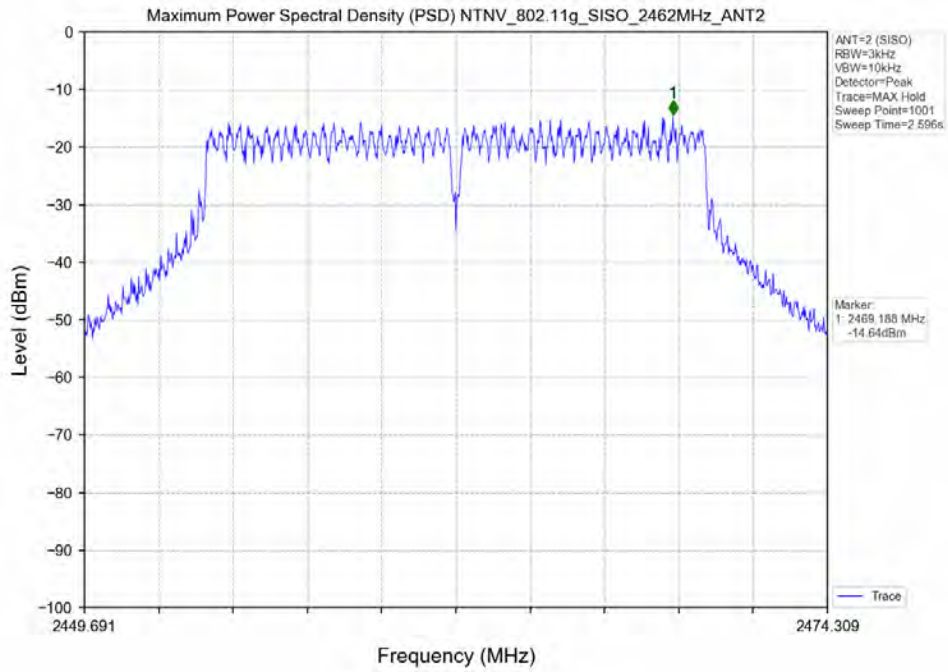


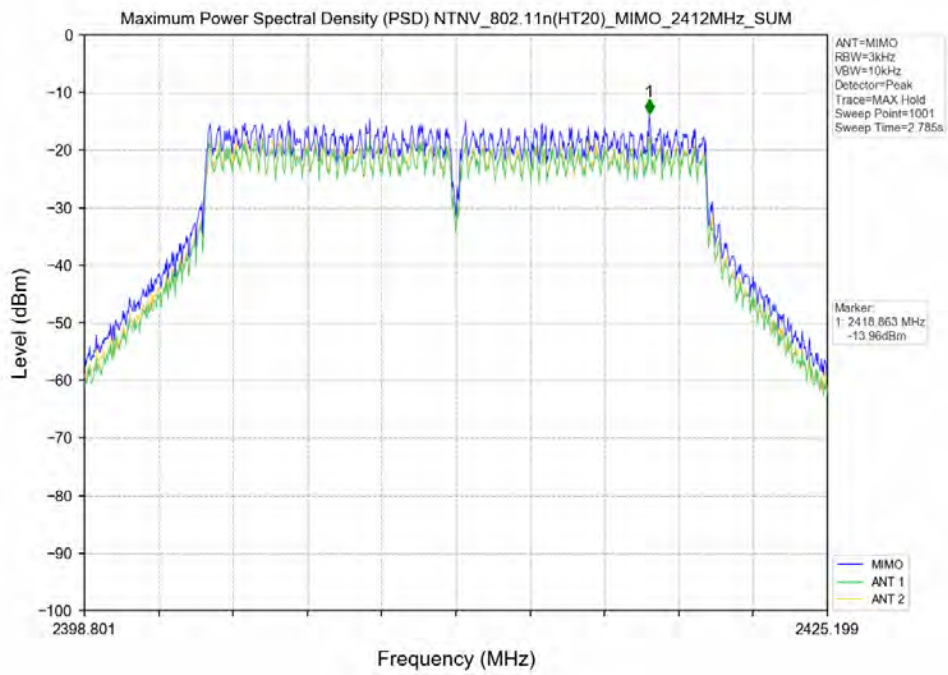
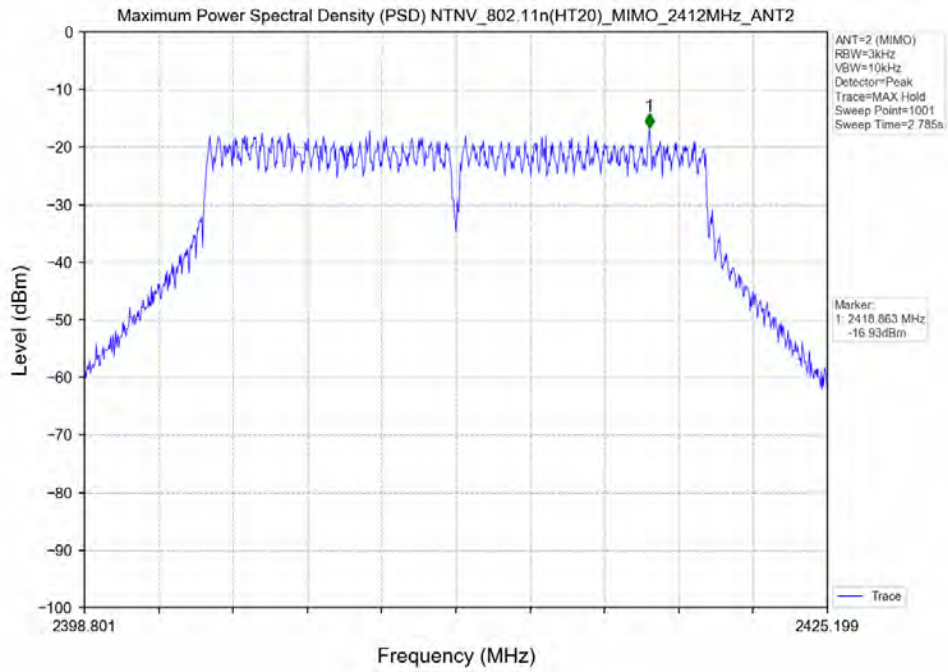


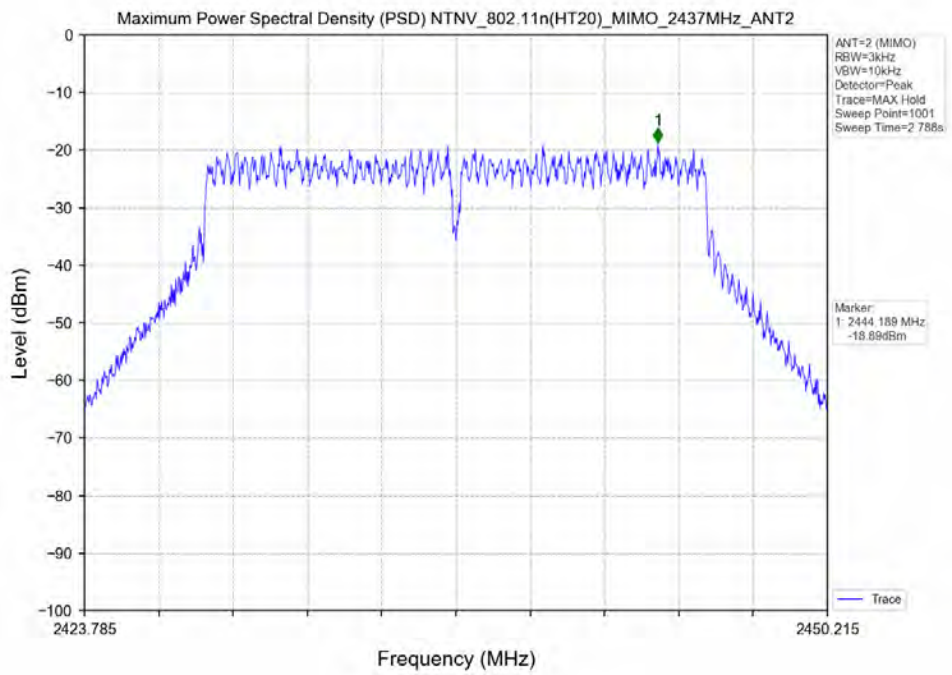
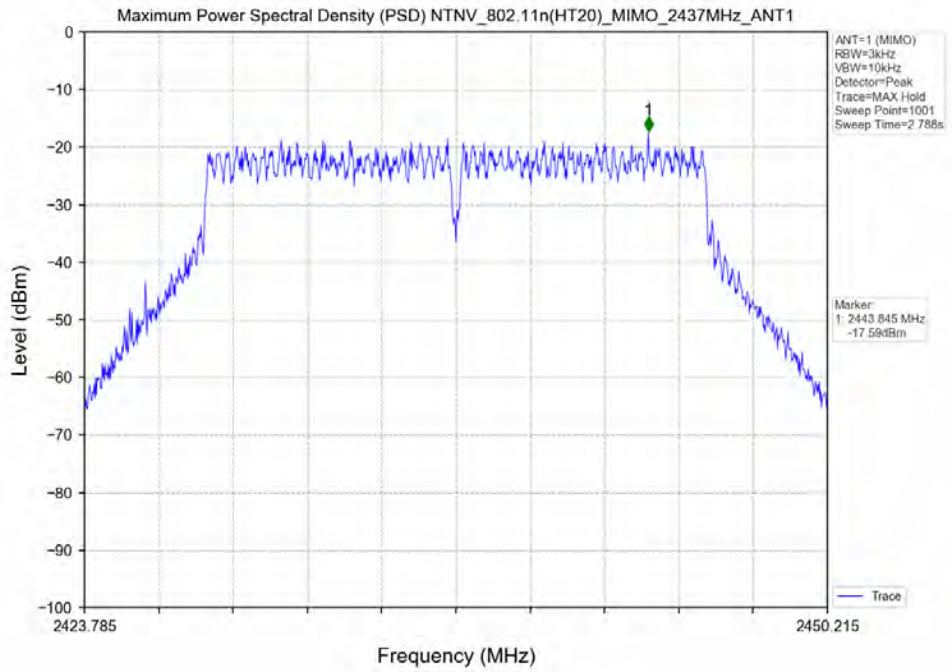


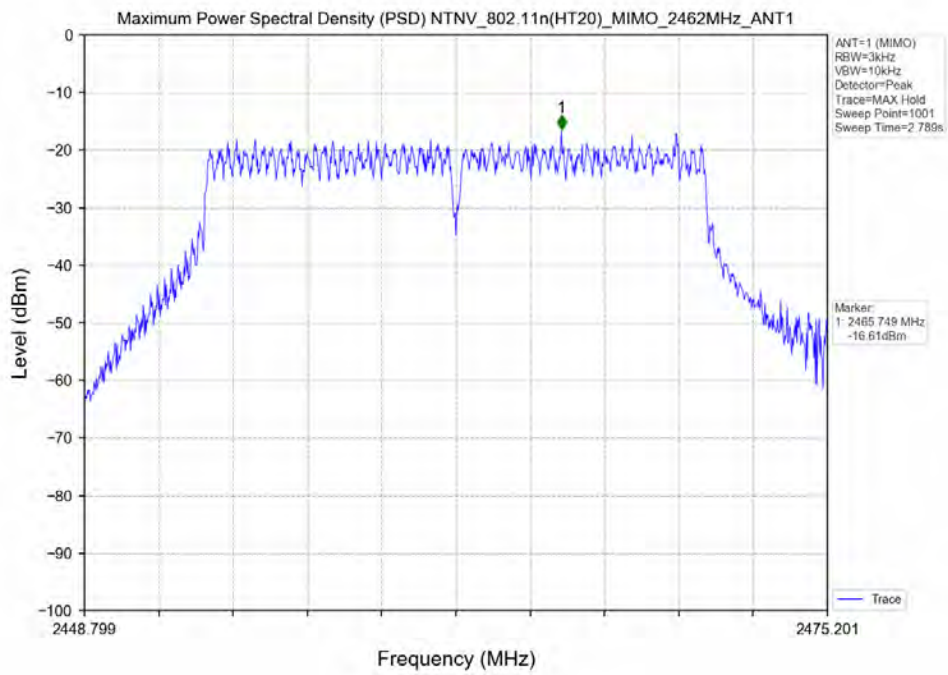
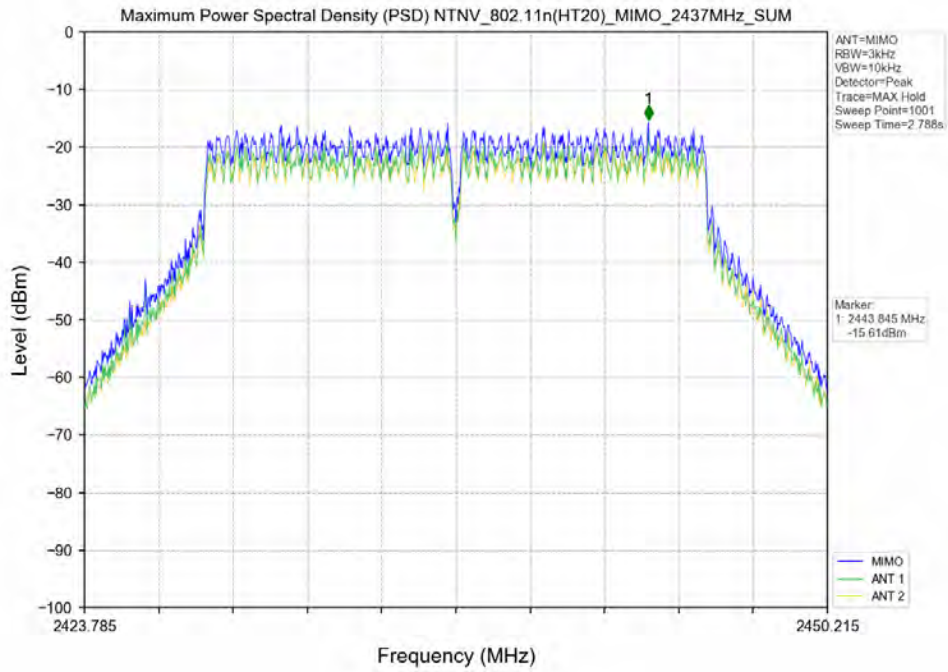


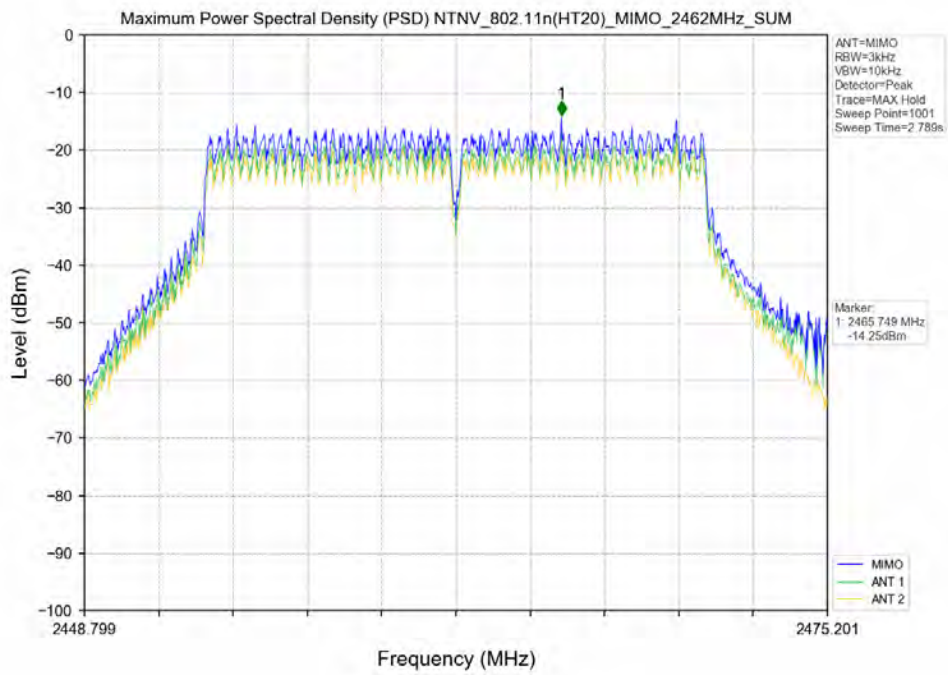
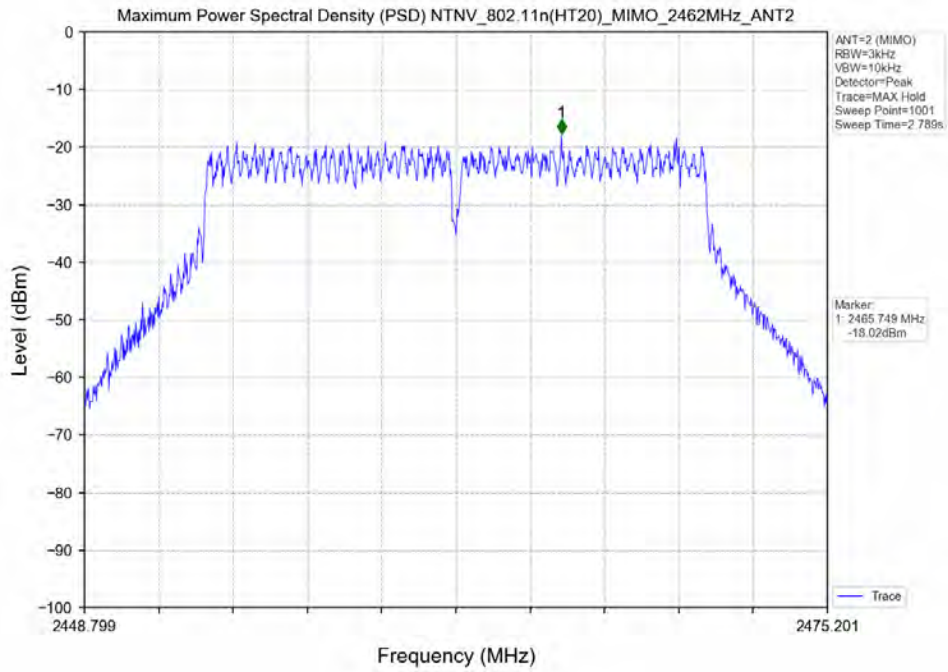


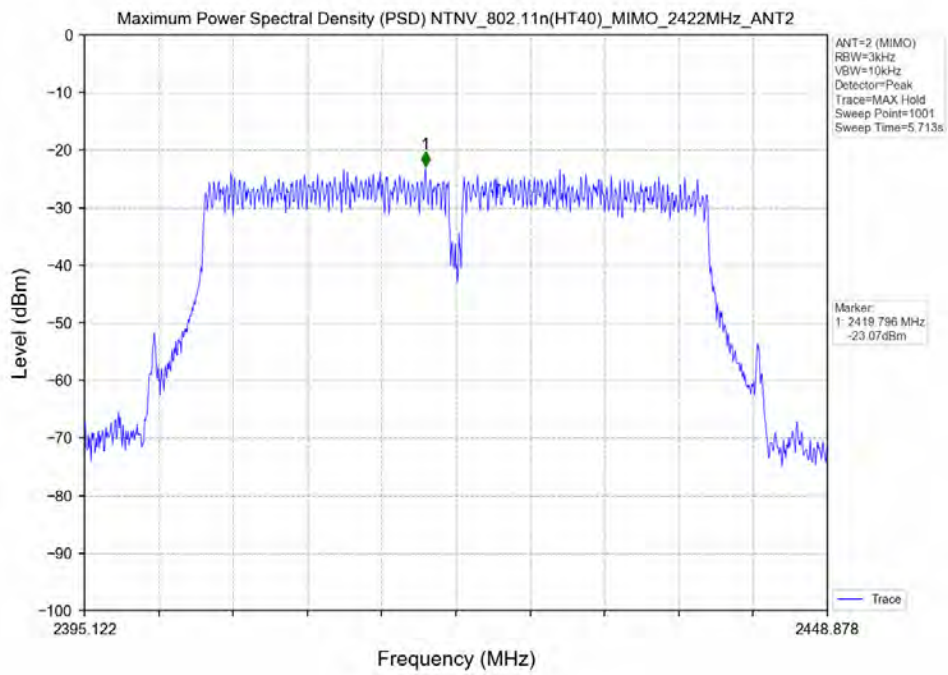
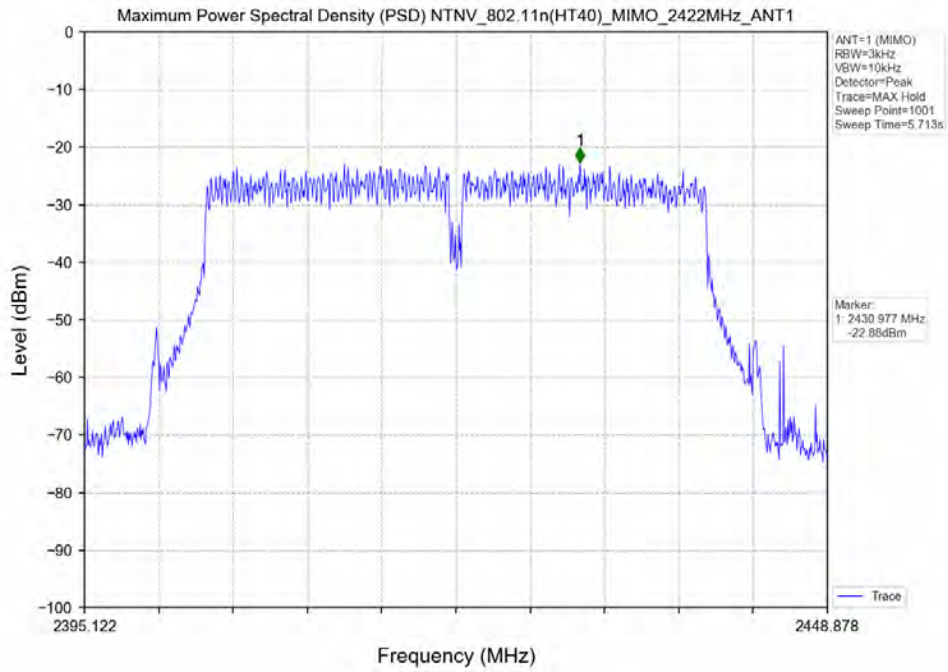


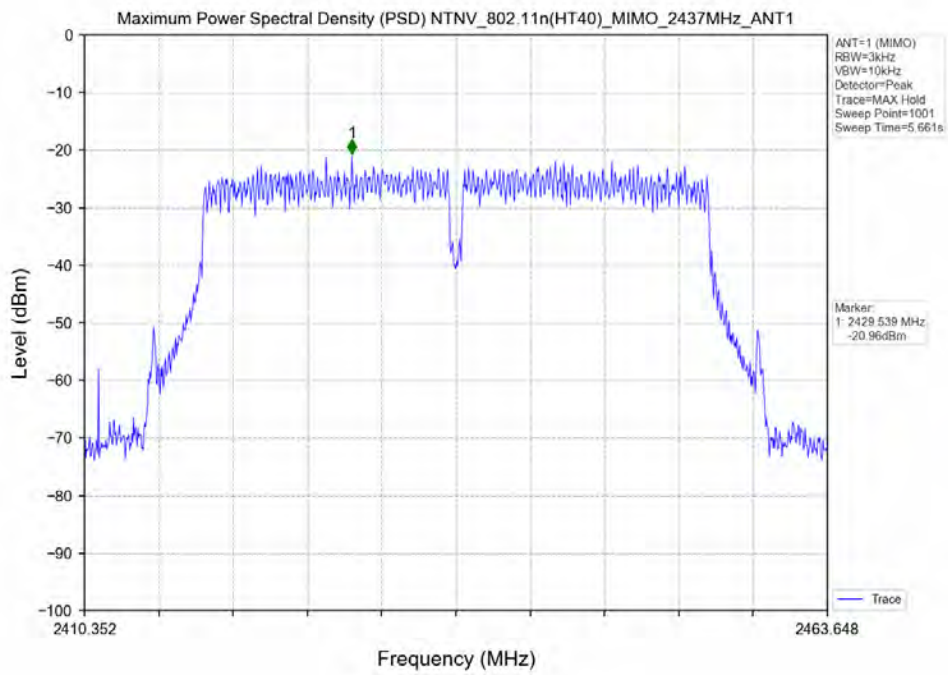
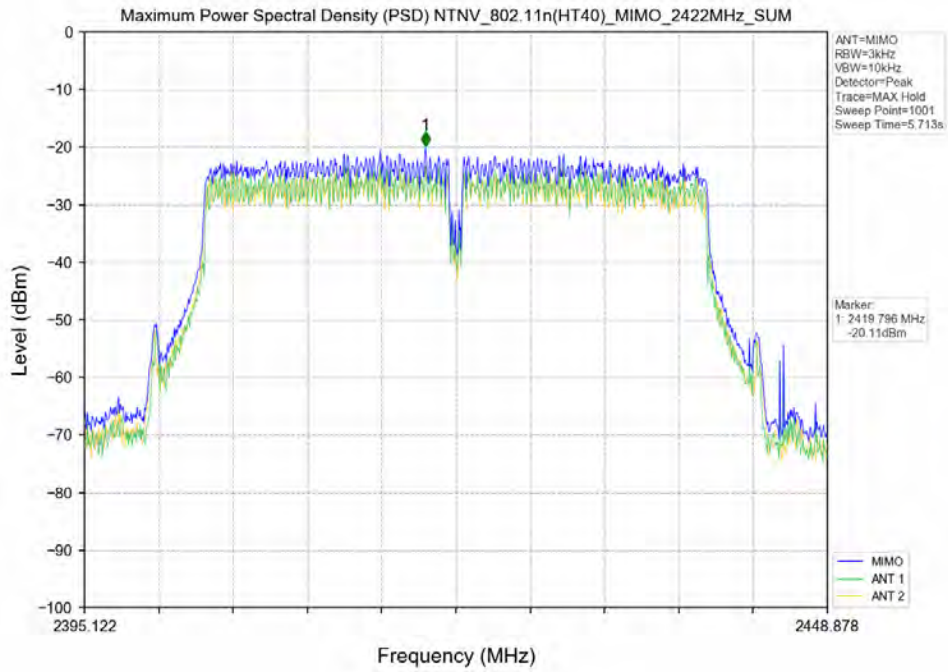


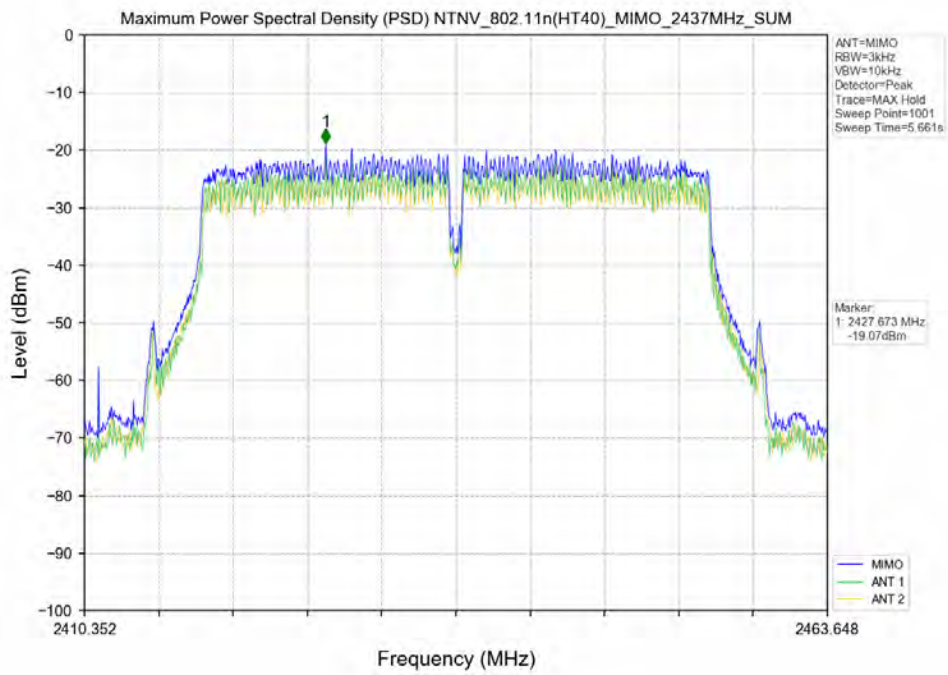
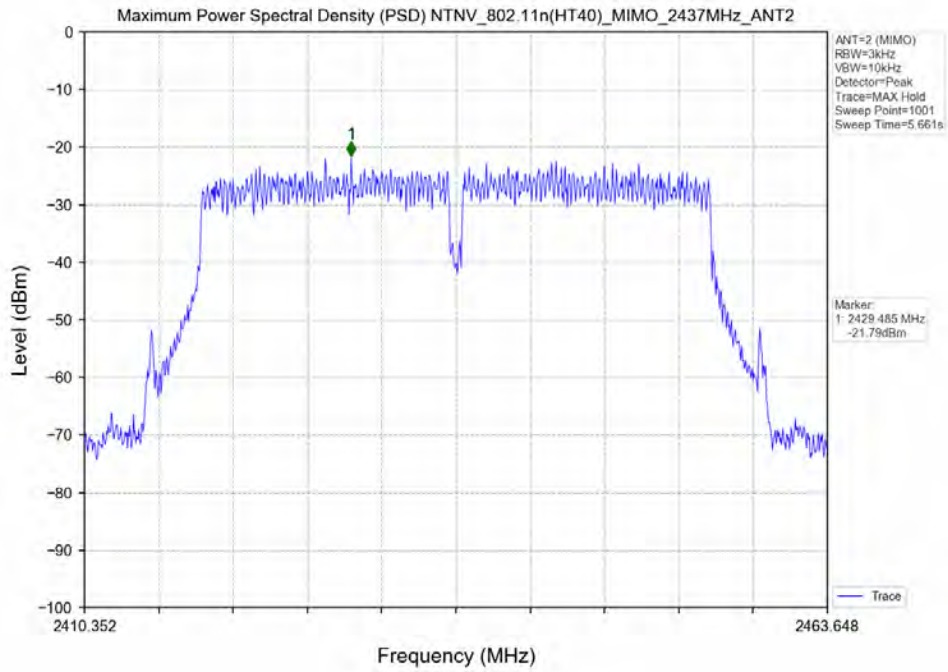


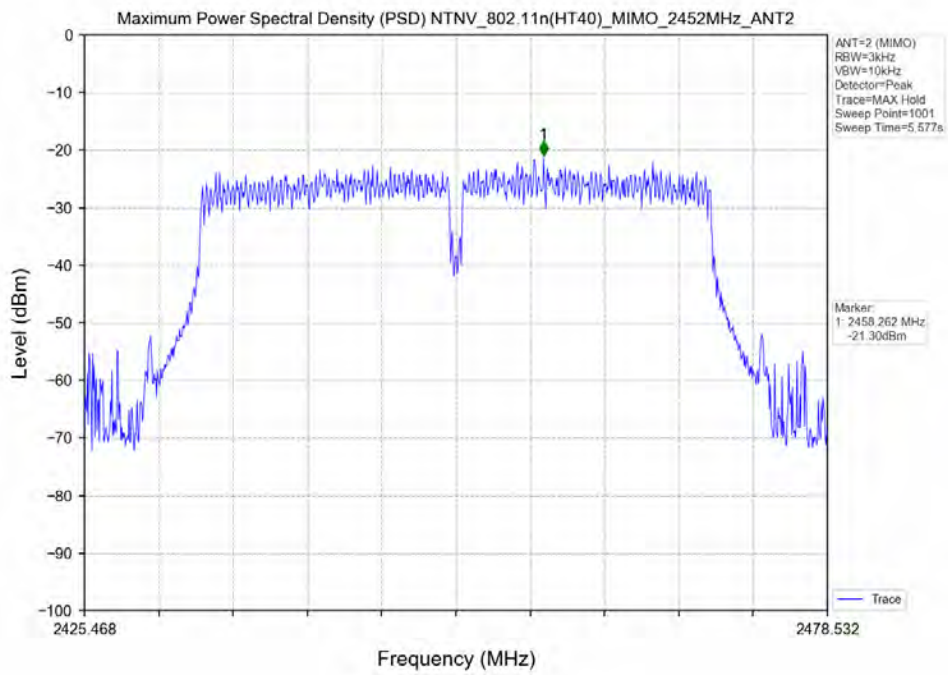
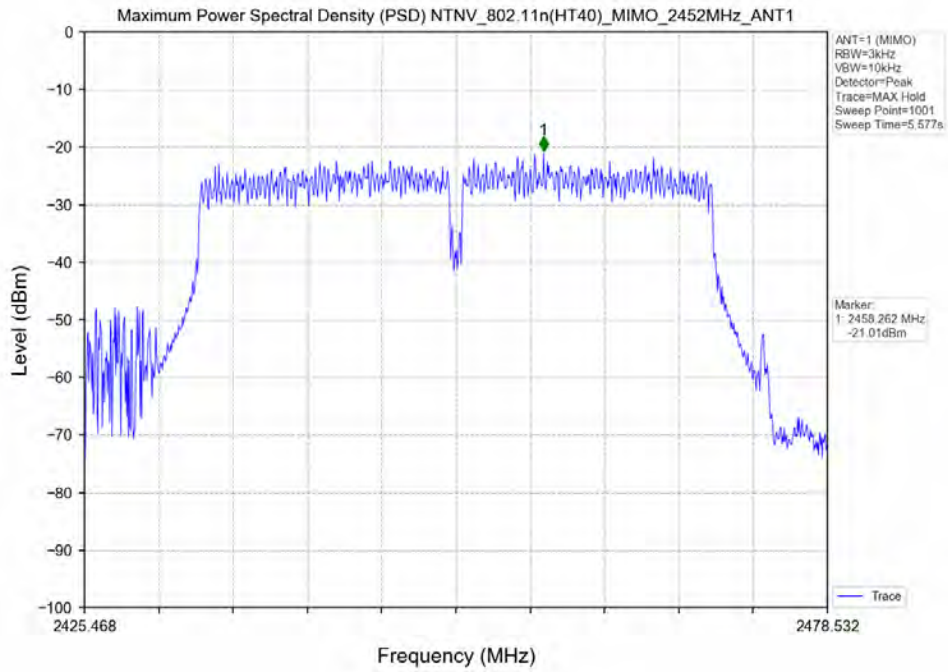


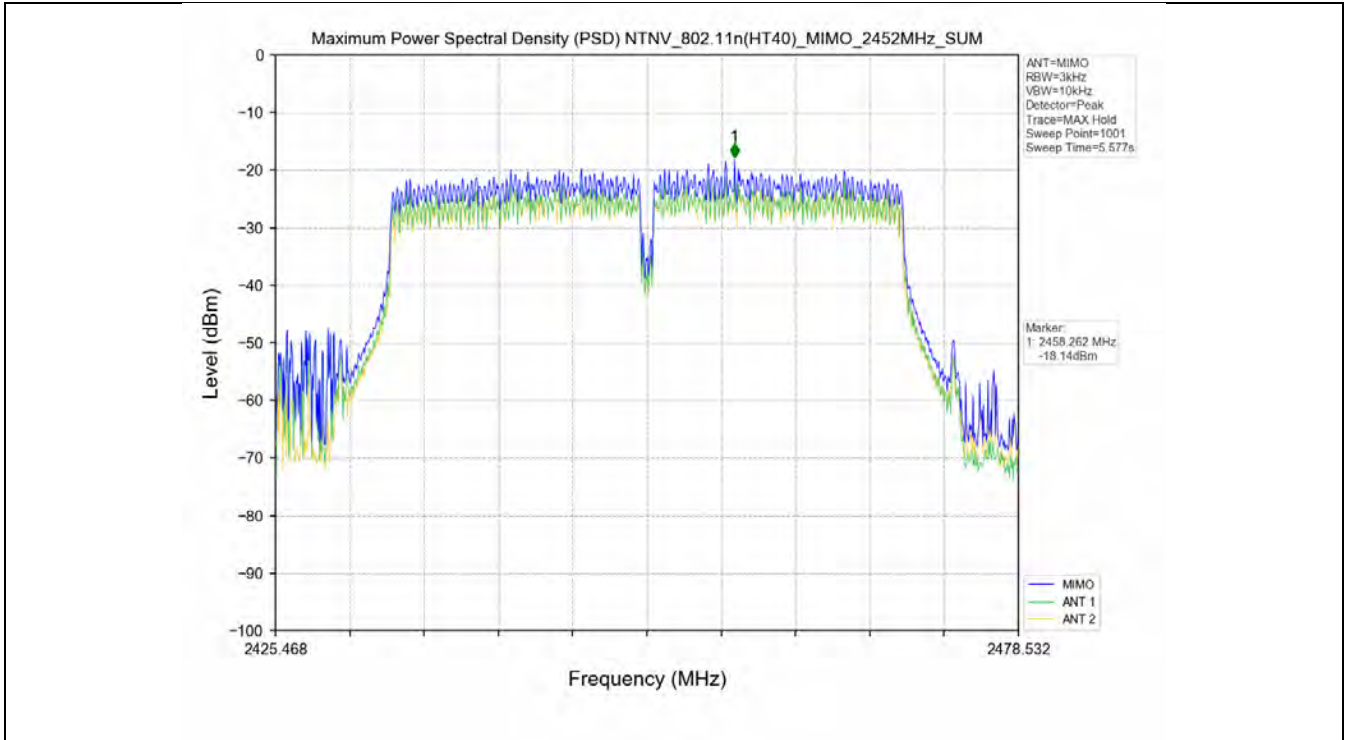










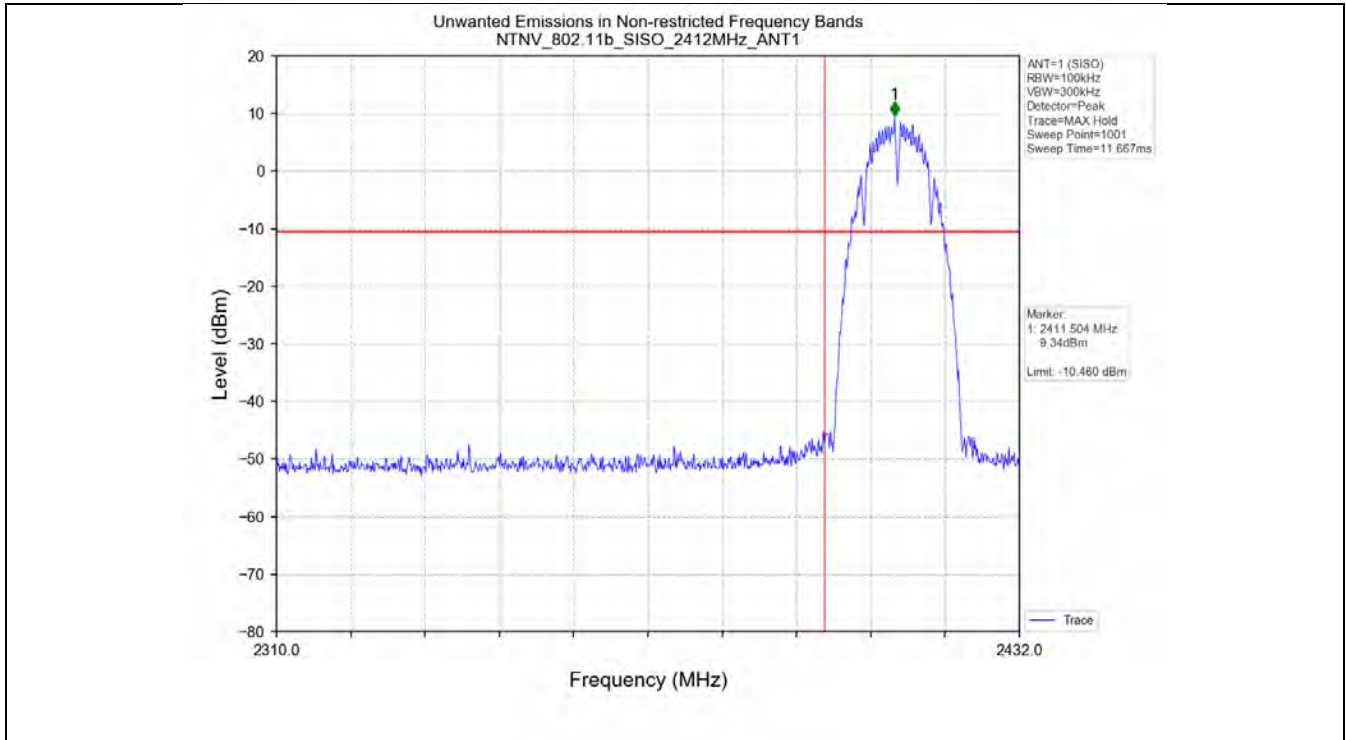
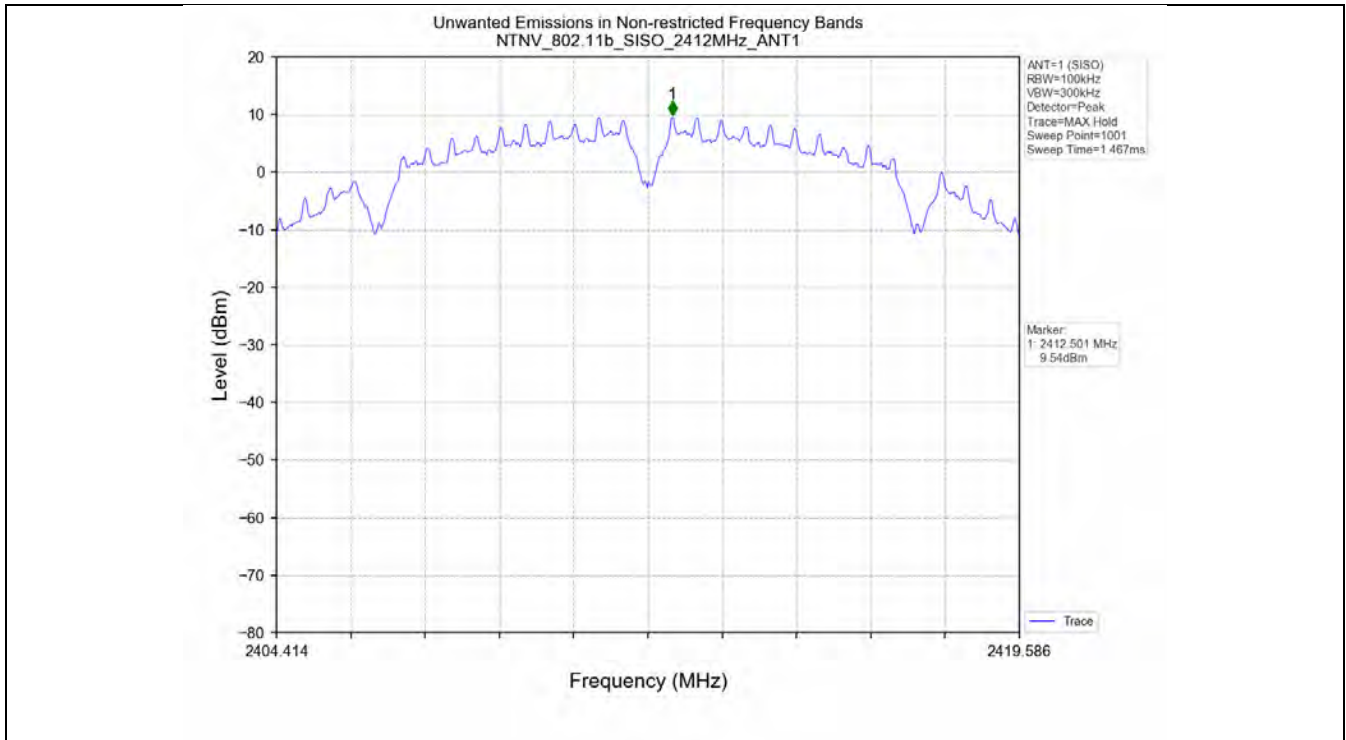


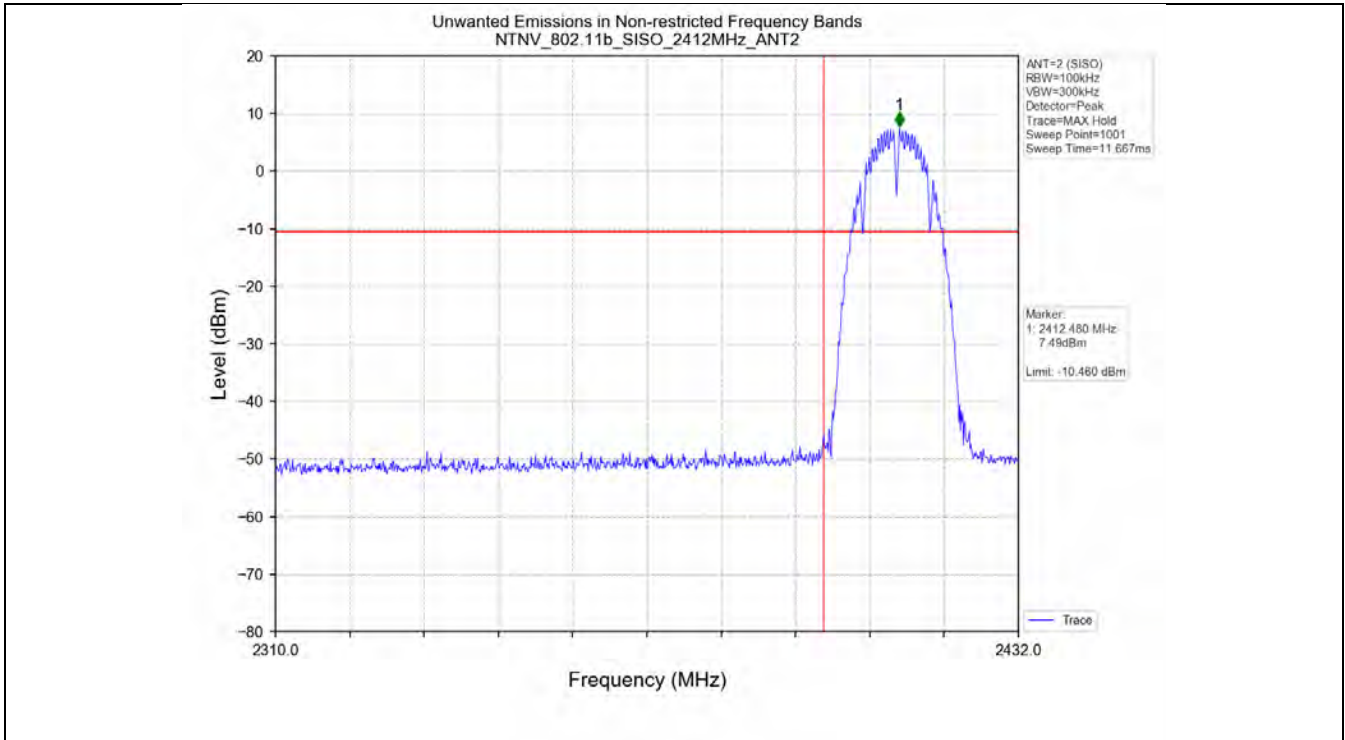
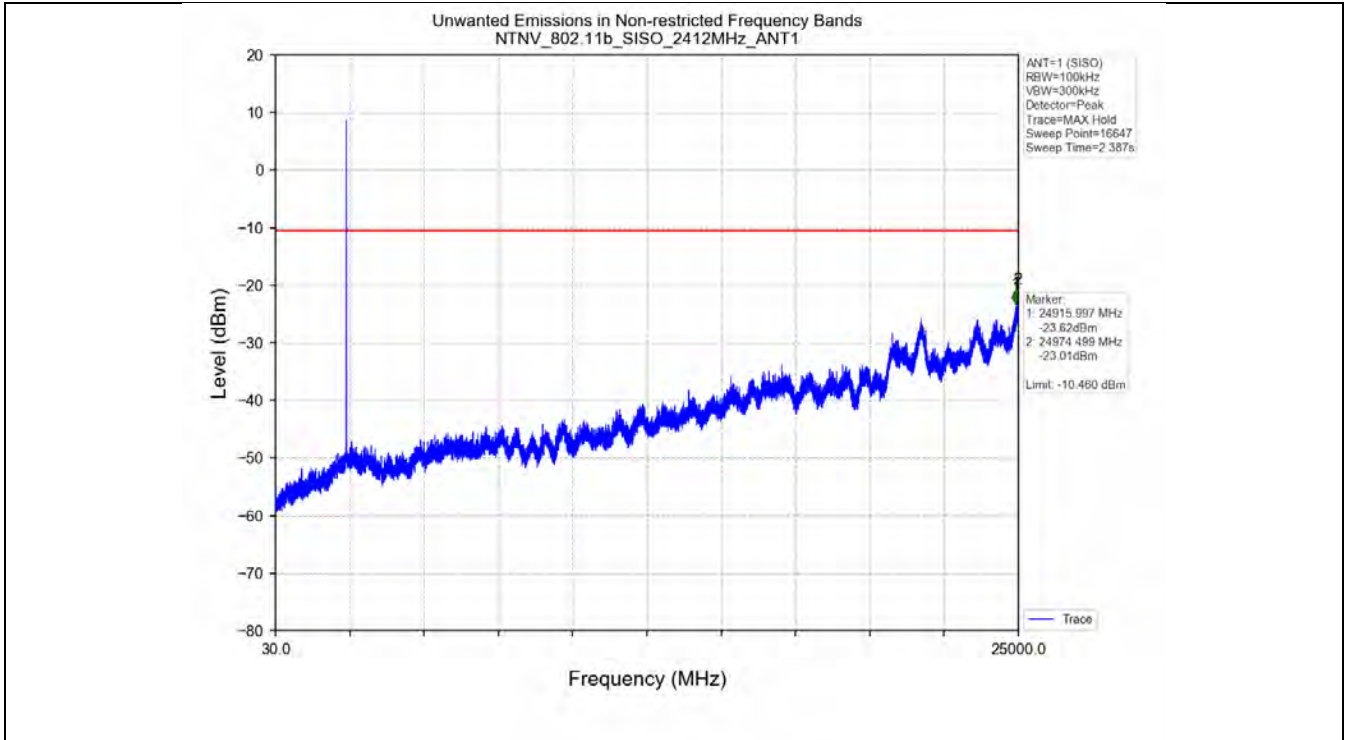
5. Unwanted Emissions in Non-restricted Frequency Bands

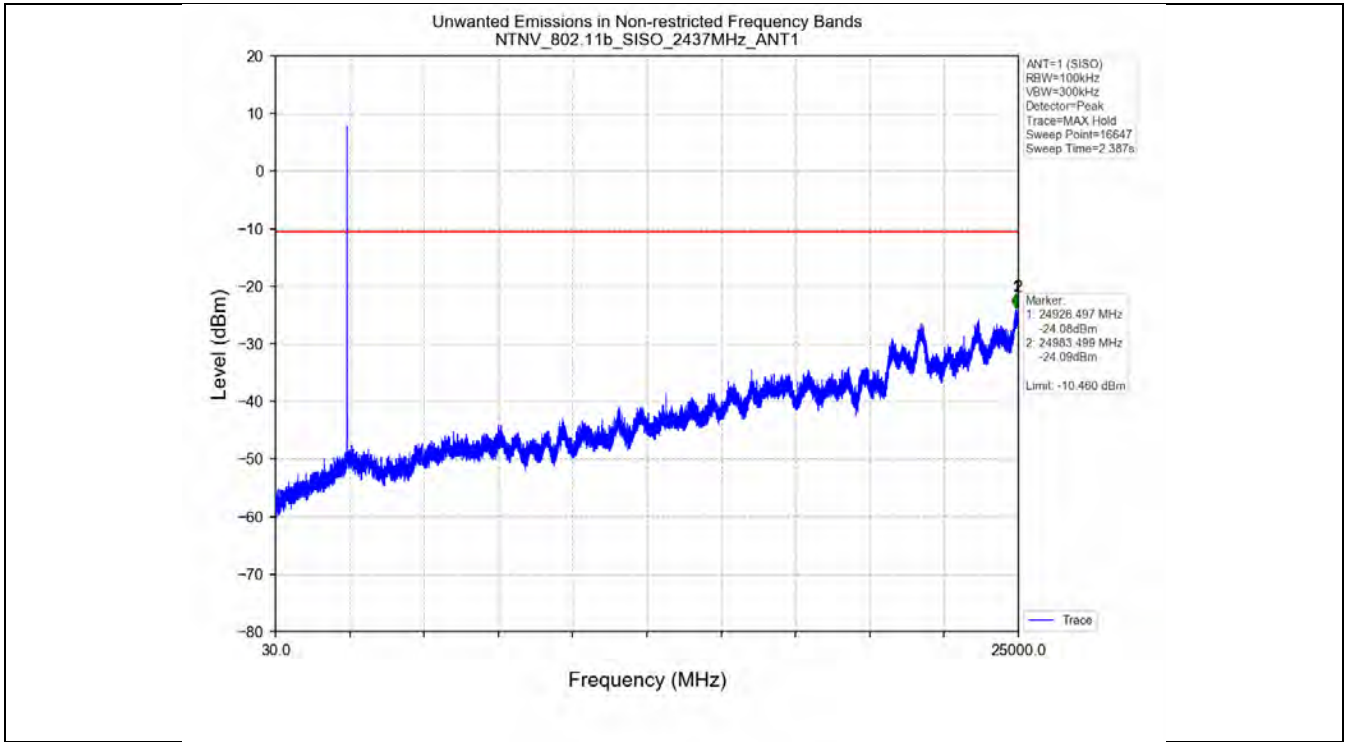
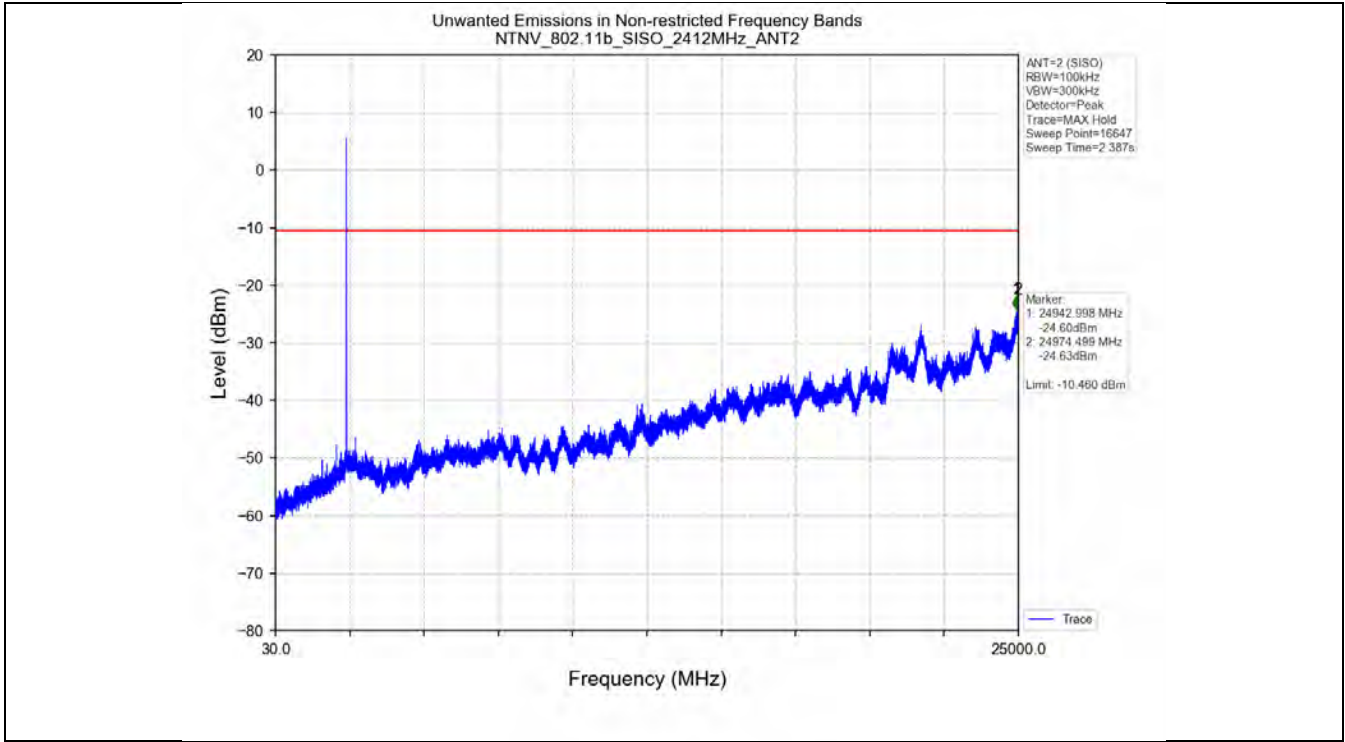
5.1 Test Result

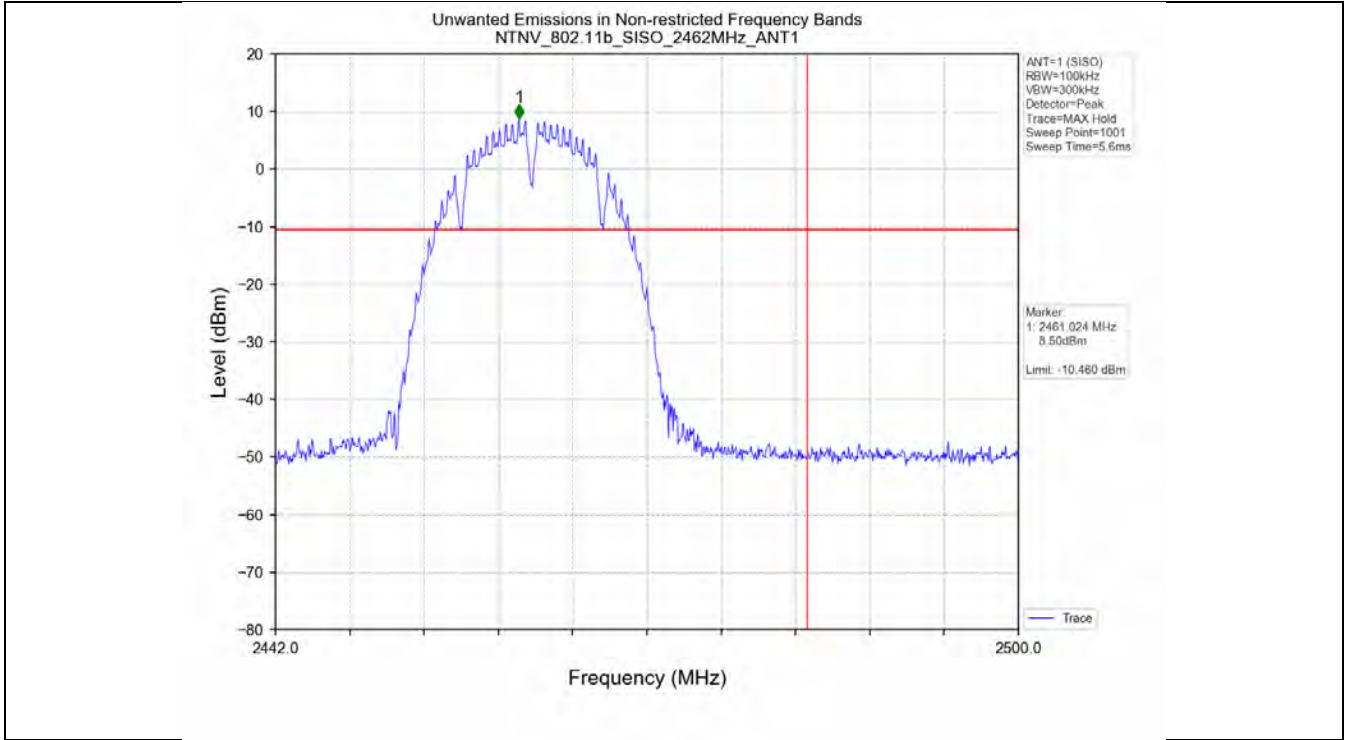
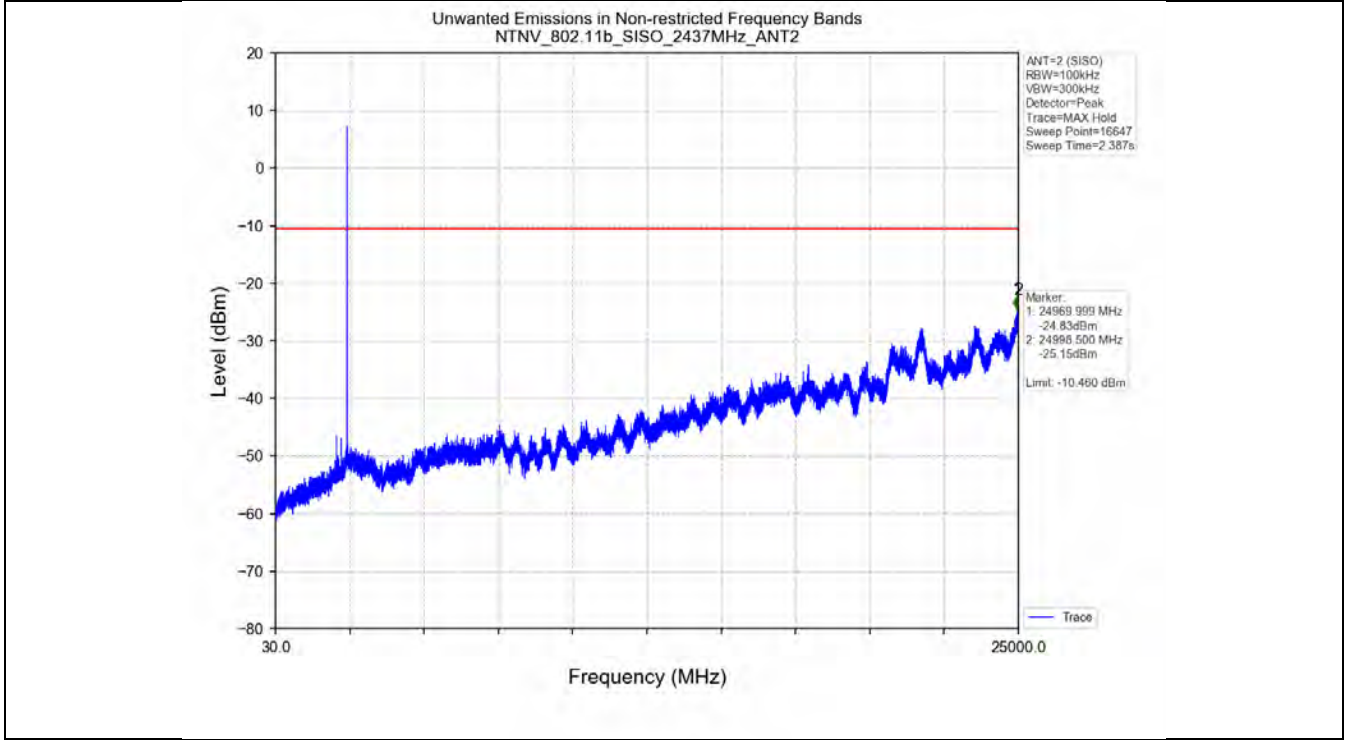
Test Mode	Frequency (MHz)	TX Type	ANT No.	Spurious Conducted Emission (dBm)	Limits (dBm)	Verdict
802.11b	2412	SISO	1	Refer to test graph	-10.46	PASS
			2	Refer to test graph	-10.46	PASS
	2437	SISO	1	Refer to test graph	-10.46	PASS
			2	Refer to test graph	-10.46	PASS
	2462	SISO	1	Refer to test graph	-10.46	PASS
			2	Refer to test graph	-10.46	PASS
802.11g	2412	SISO	1	Refer to test graph	-16.73	PASS
			2	Refer to test graph	-16.73	PASS
	2437	SISO	1	Refer to test graph	-16.73	PASS
			2	Refer to test graph	-16.73	PASS
	2462	SISO	1	Refer to test graph	-16.73	PASS
			2	Refer to test graph	-16.73	PASS
802.11n(HT20)	2412	MIMO	1	Refer to test graph	-17.21	PASS
			2	Refer to test graph	-17.21	PASS
	2437	MIMO	1	Refer to test graph	-17.21	PASS
			2	Refer to test graph	-17.21	PASS
	2462	MIMO	1	Refer to test graph	-17.21	PASS
			2	Refer to test graph	-17.21	PASS
802.11n(HT40)	2422	MIMO	1	Refer to test graph	-19.97	PASS
			2	Refer to test graph	-19.97	PASS
	2437	MIMO	1	Refer to test graph	-19.97	PASS
			2	Refer to test graph	-19.97	PASS
	2452	MIMO	1	Refer to test graph	-19.97	PASS
			2	Refer to test graph	-19.97	PASS

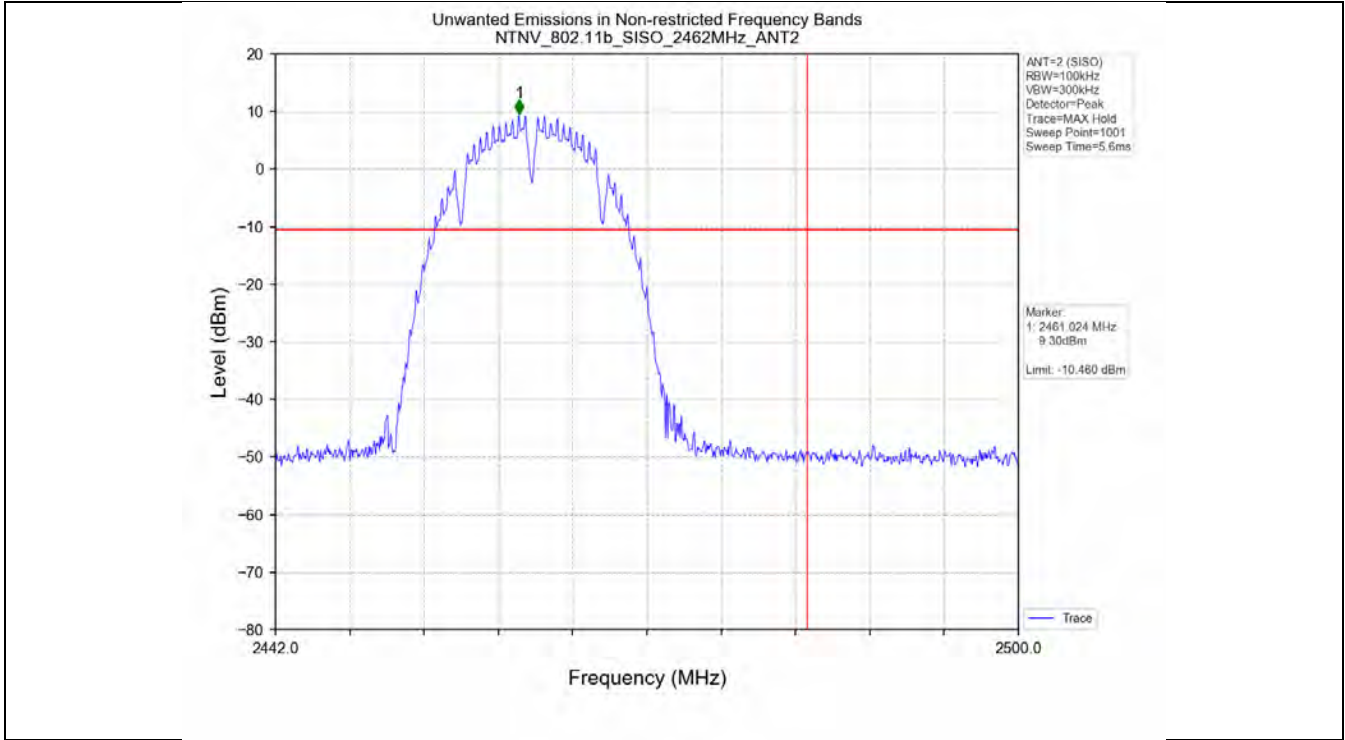
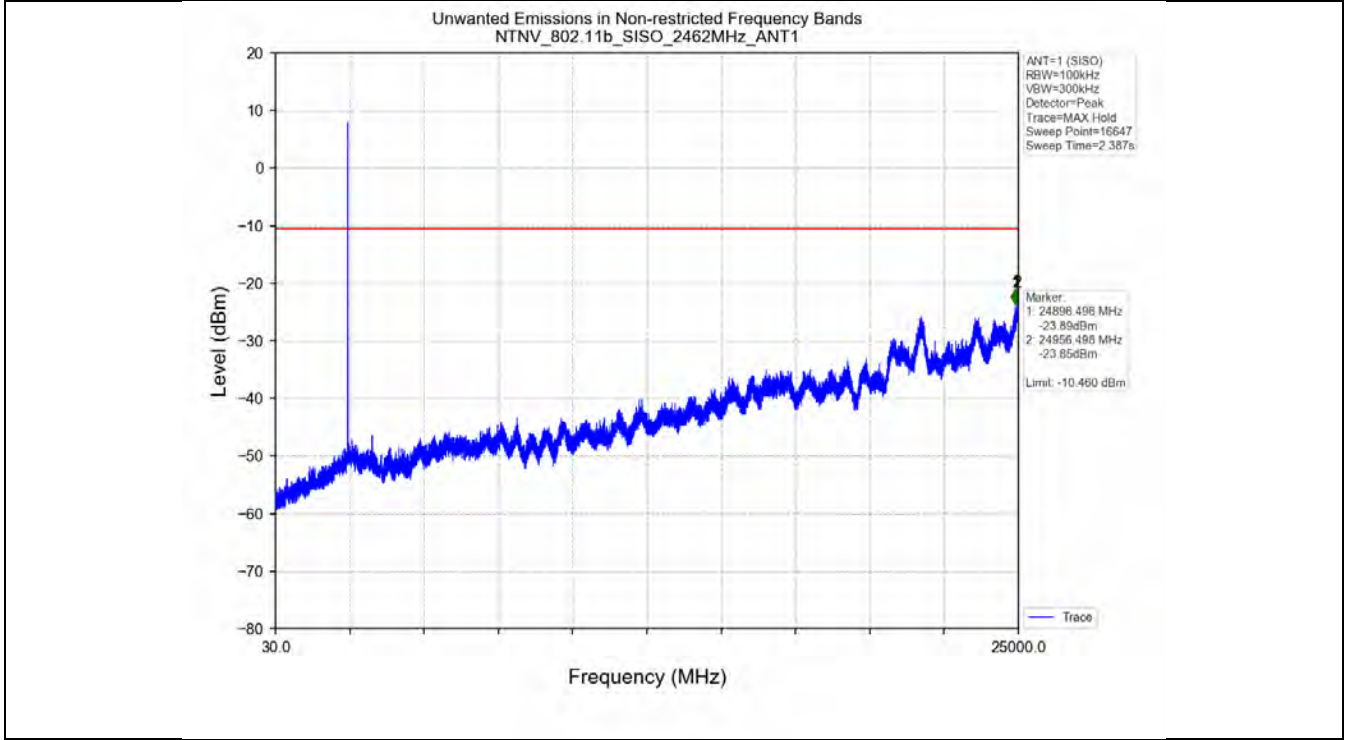
5.2 Test Graph

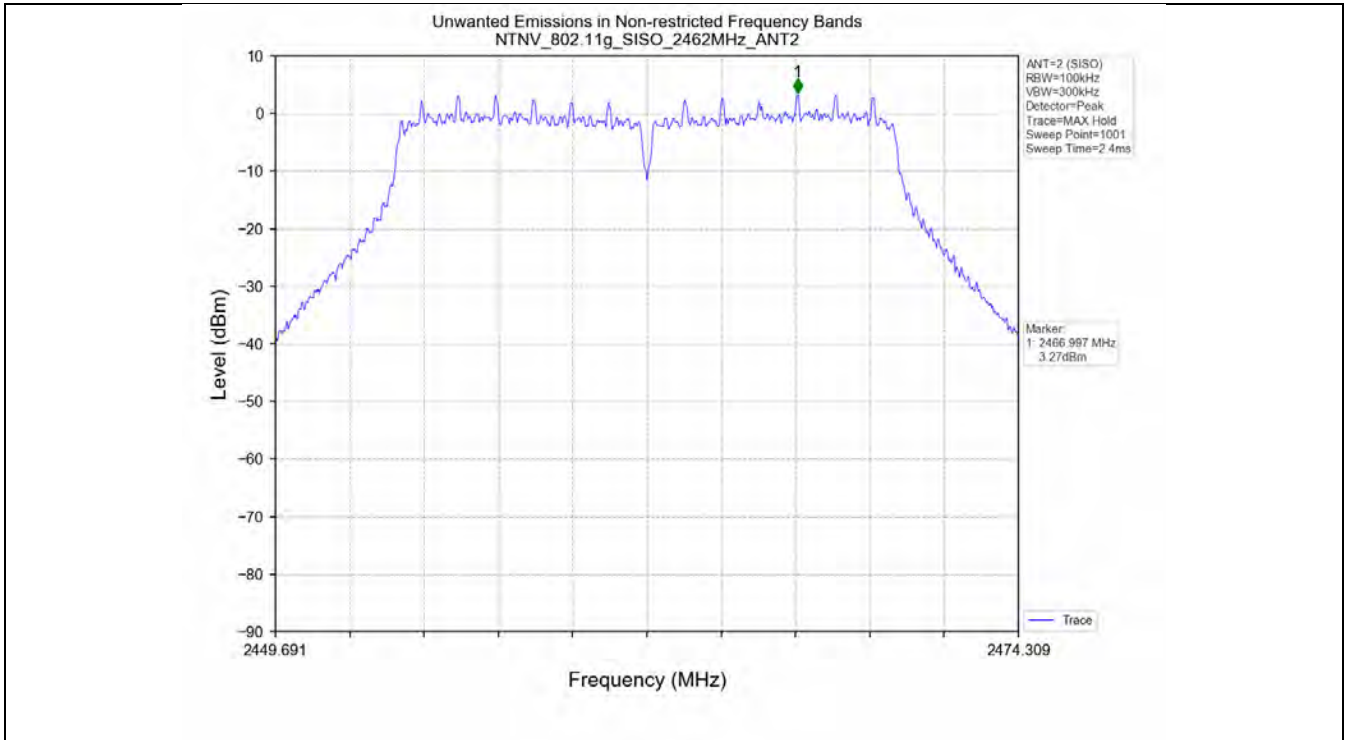
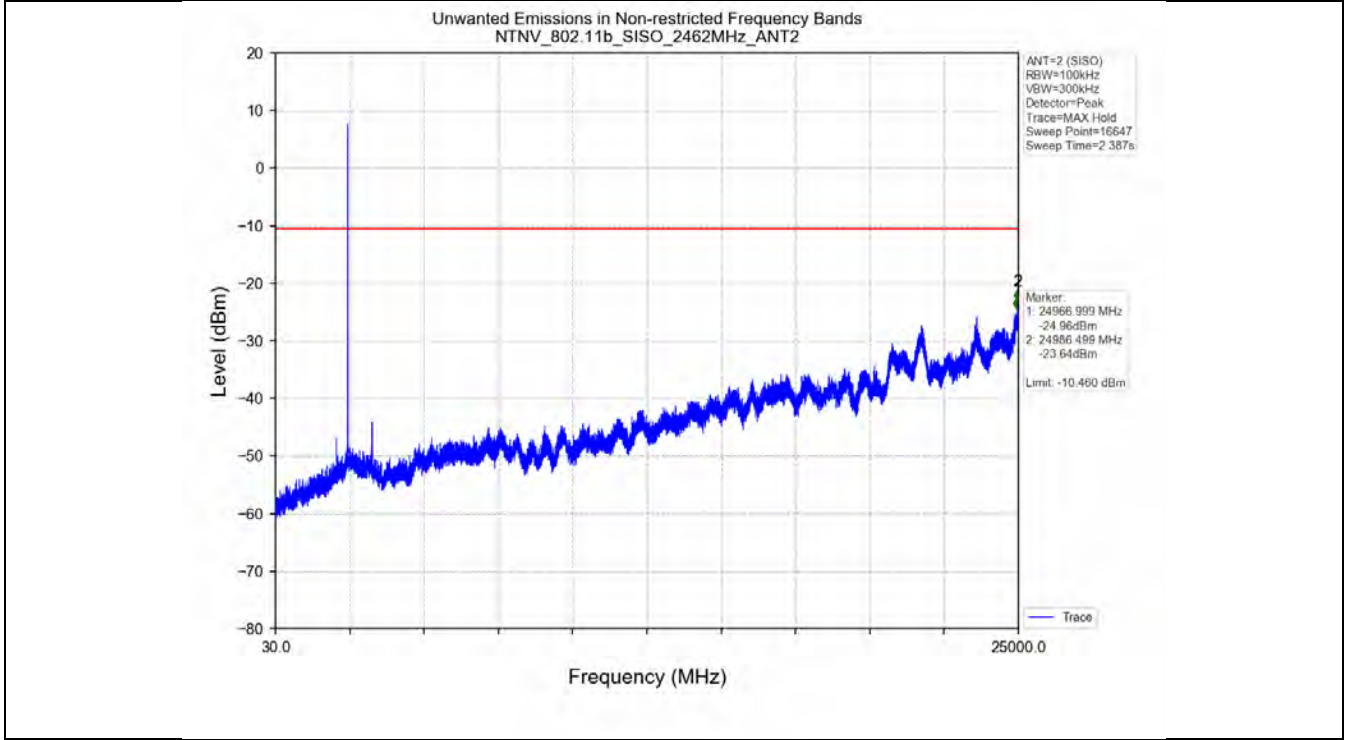


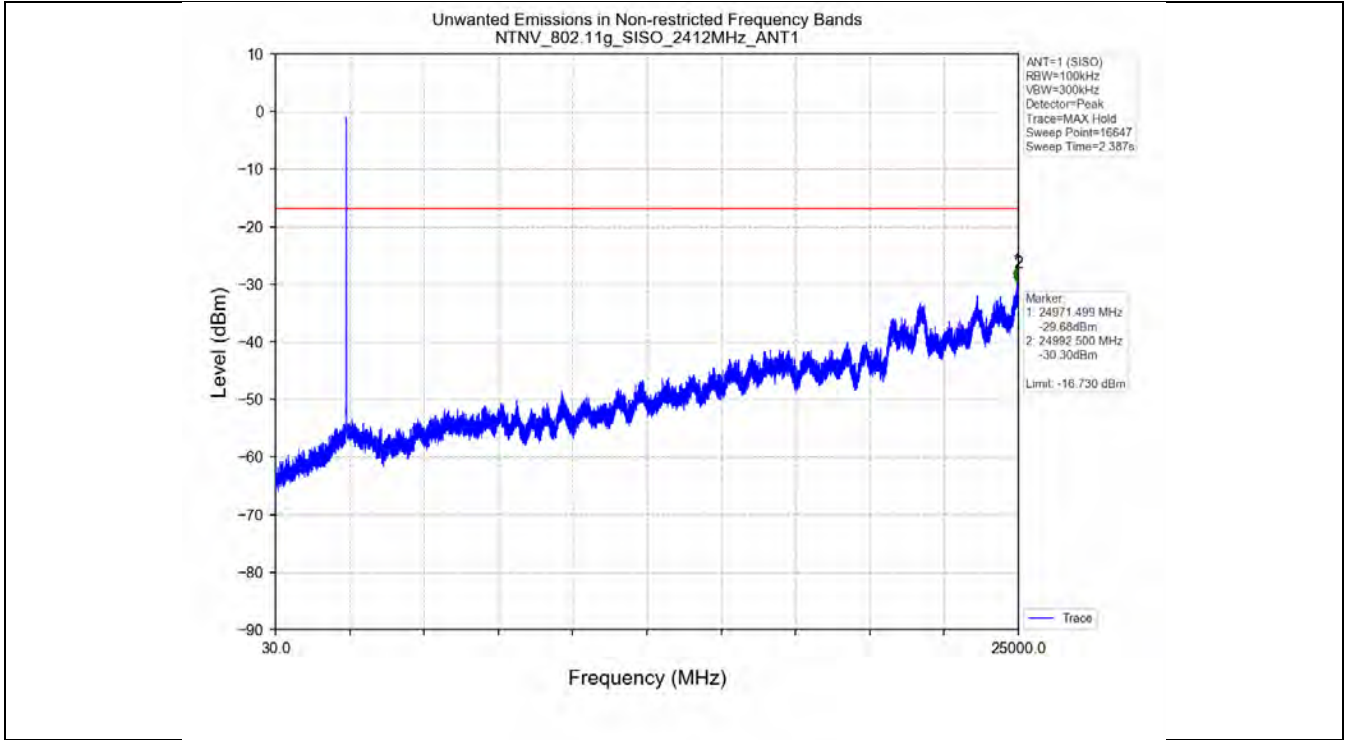
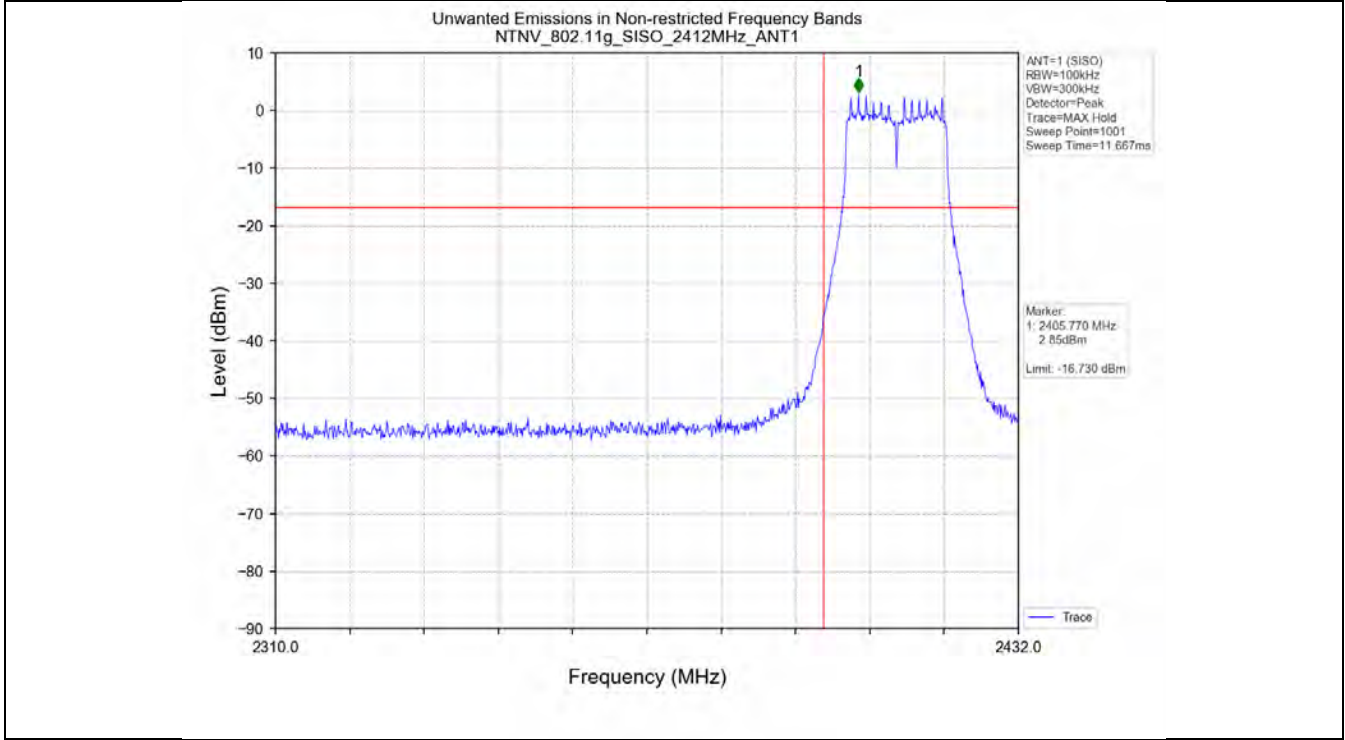


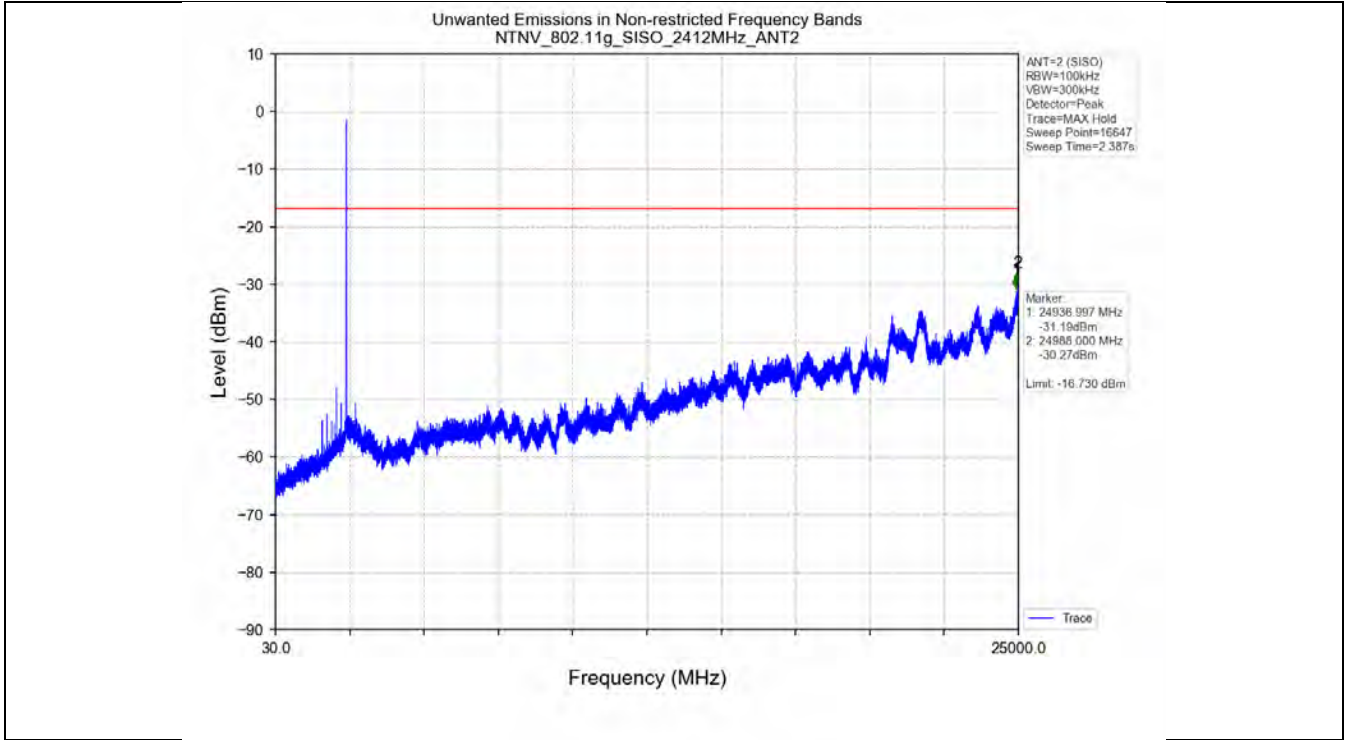
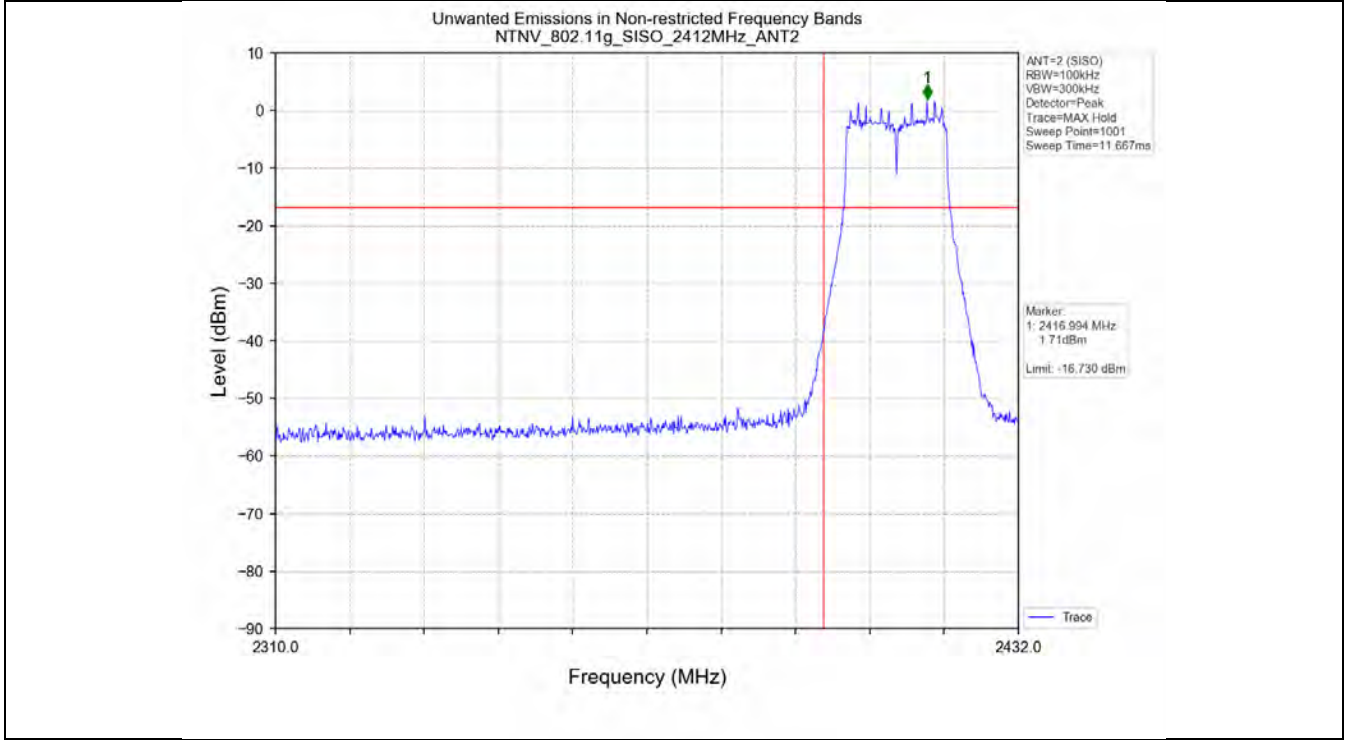


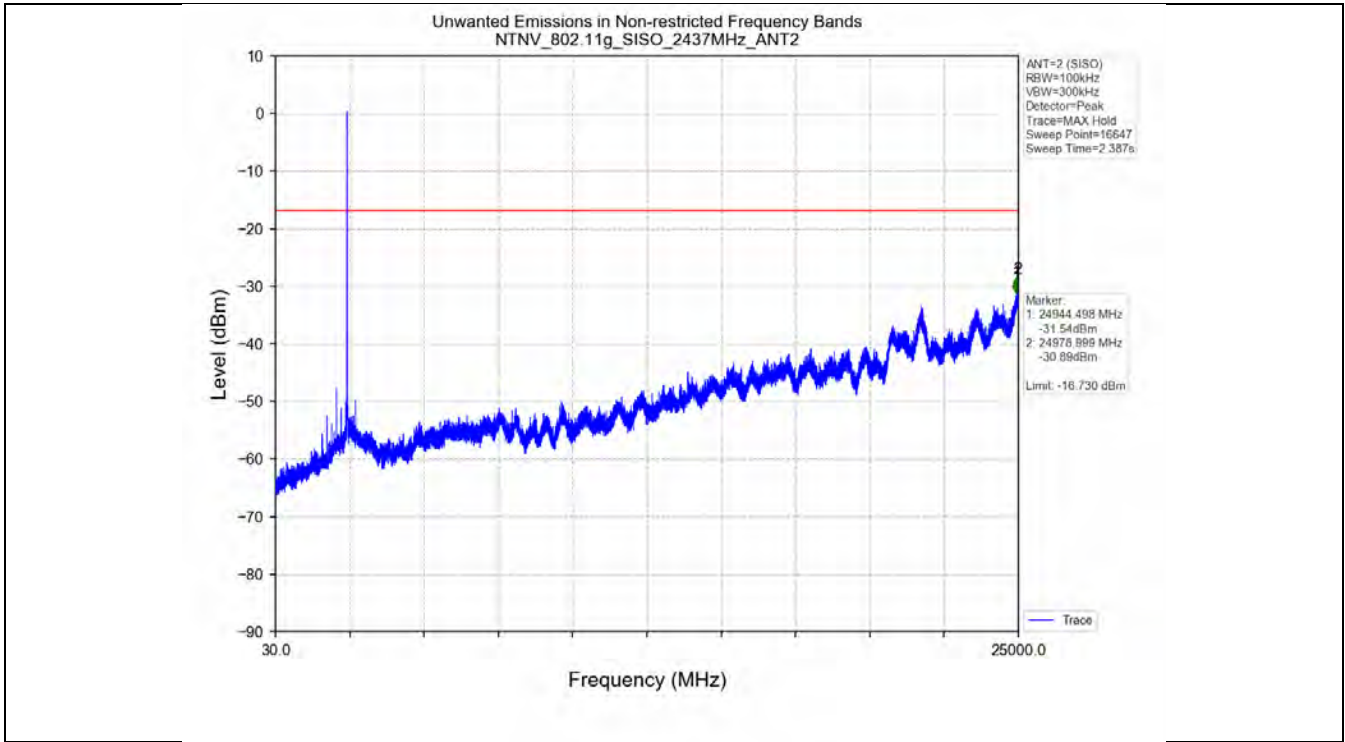
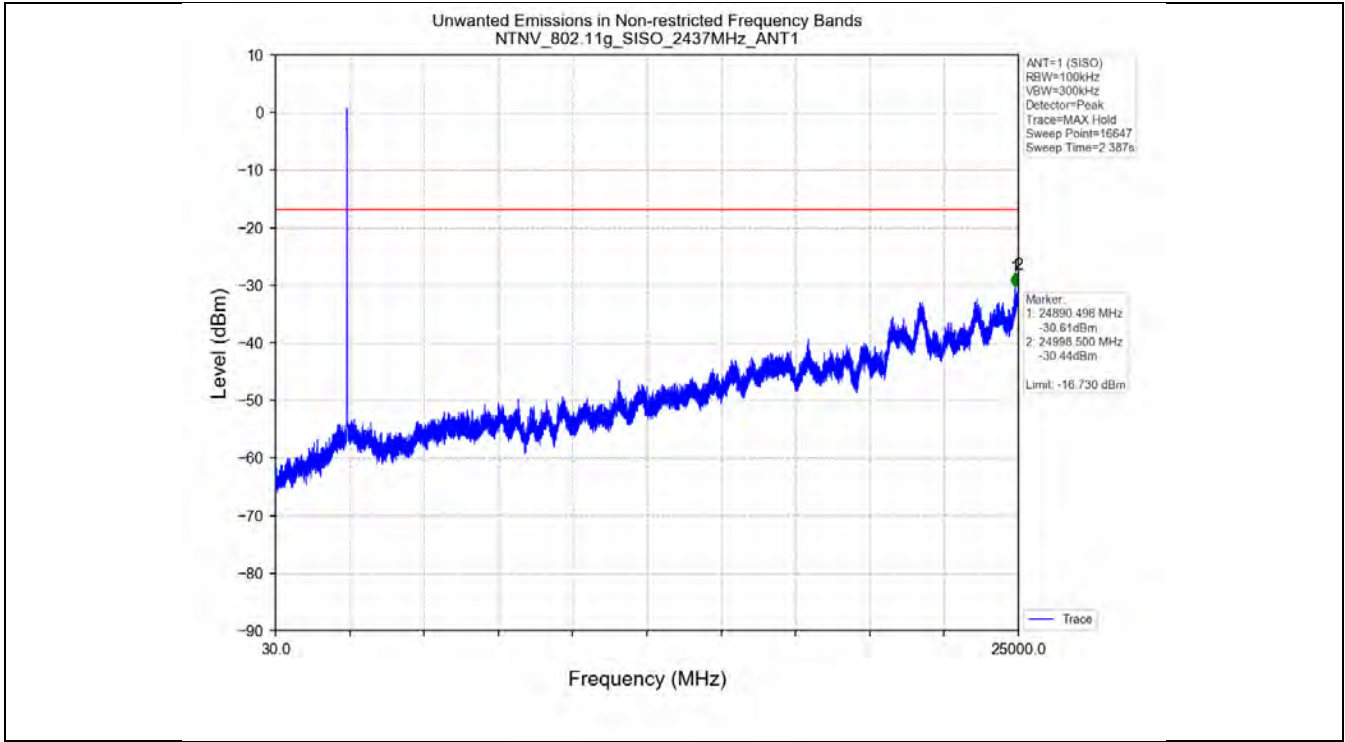


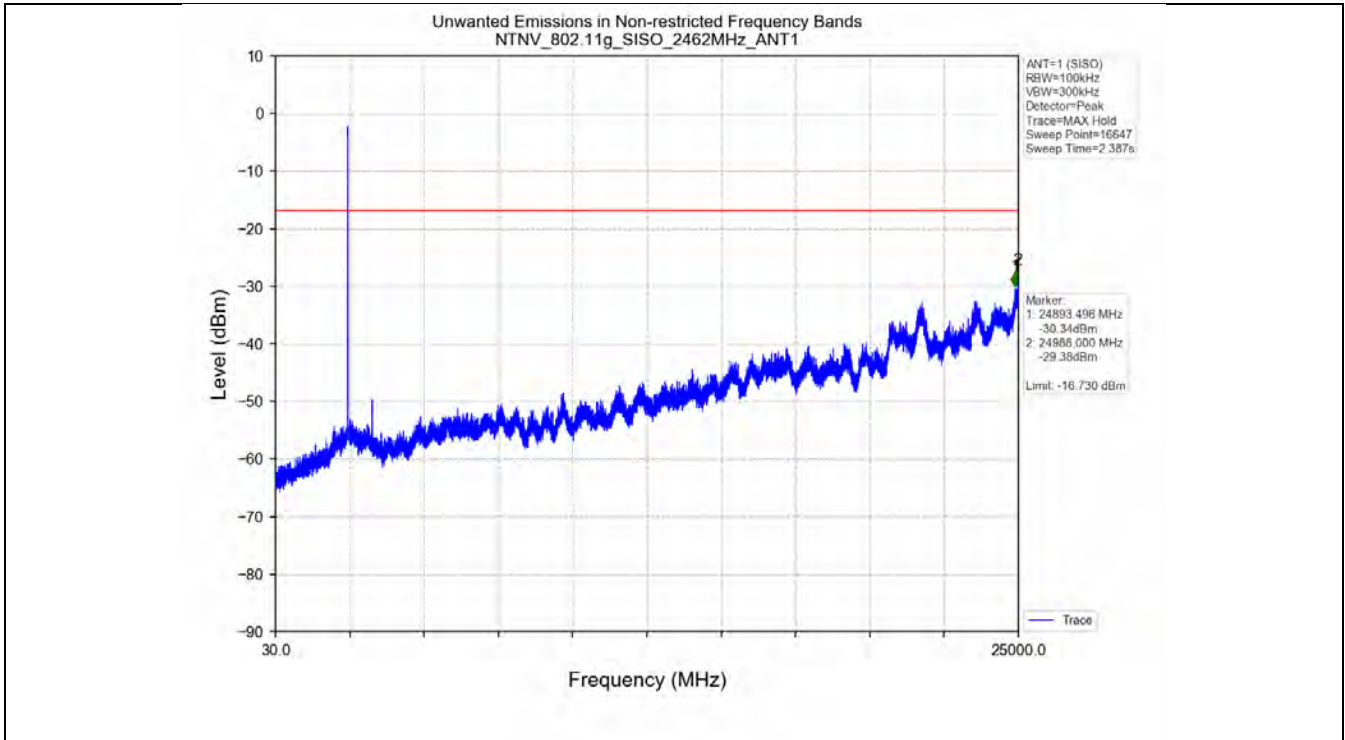
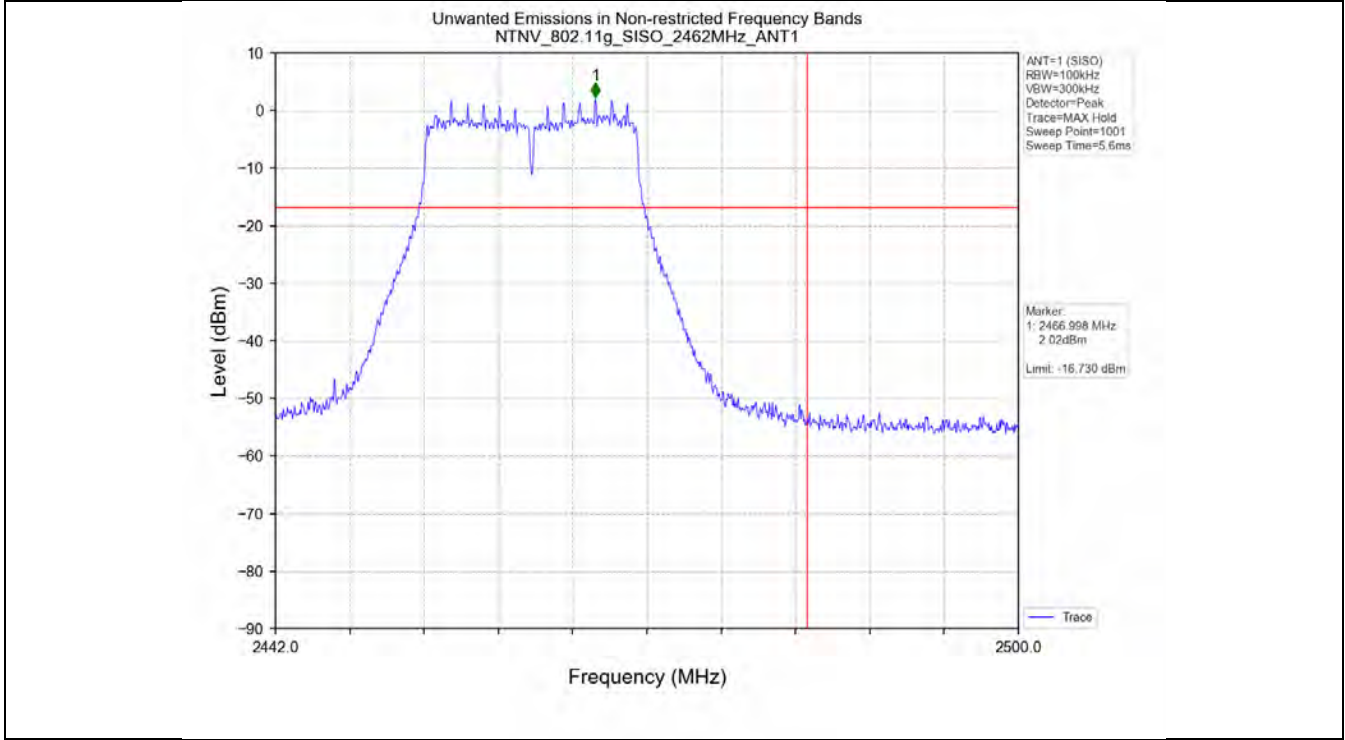


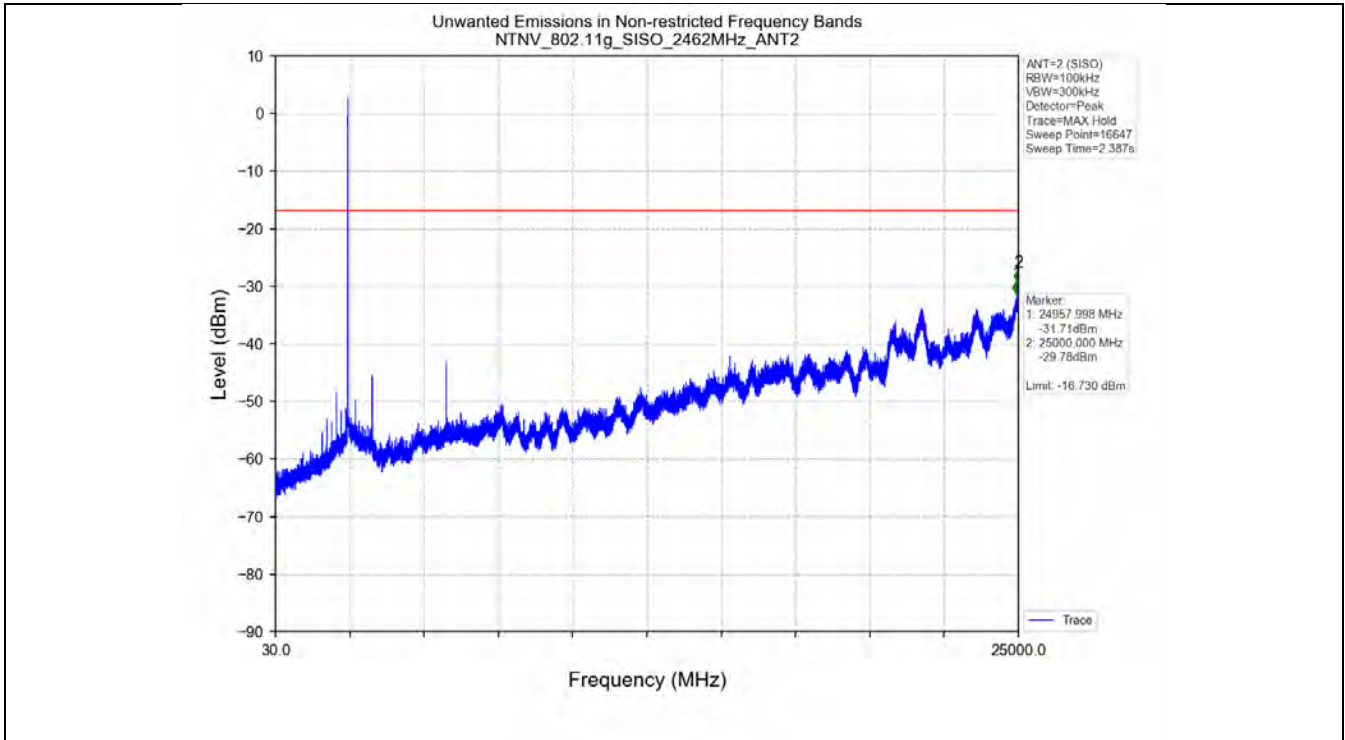
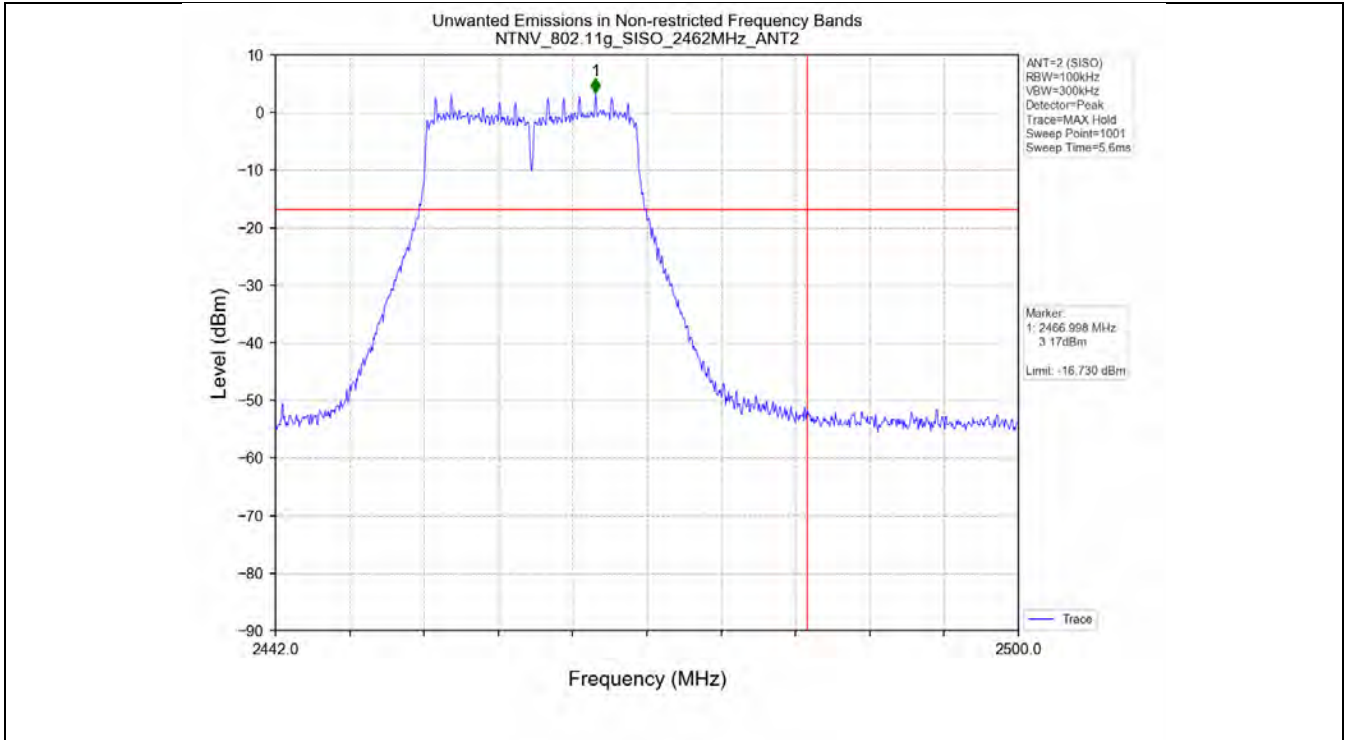


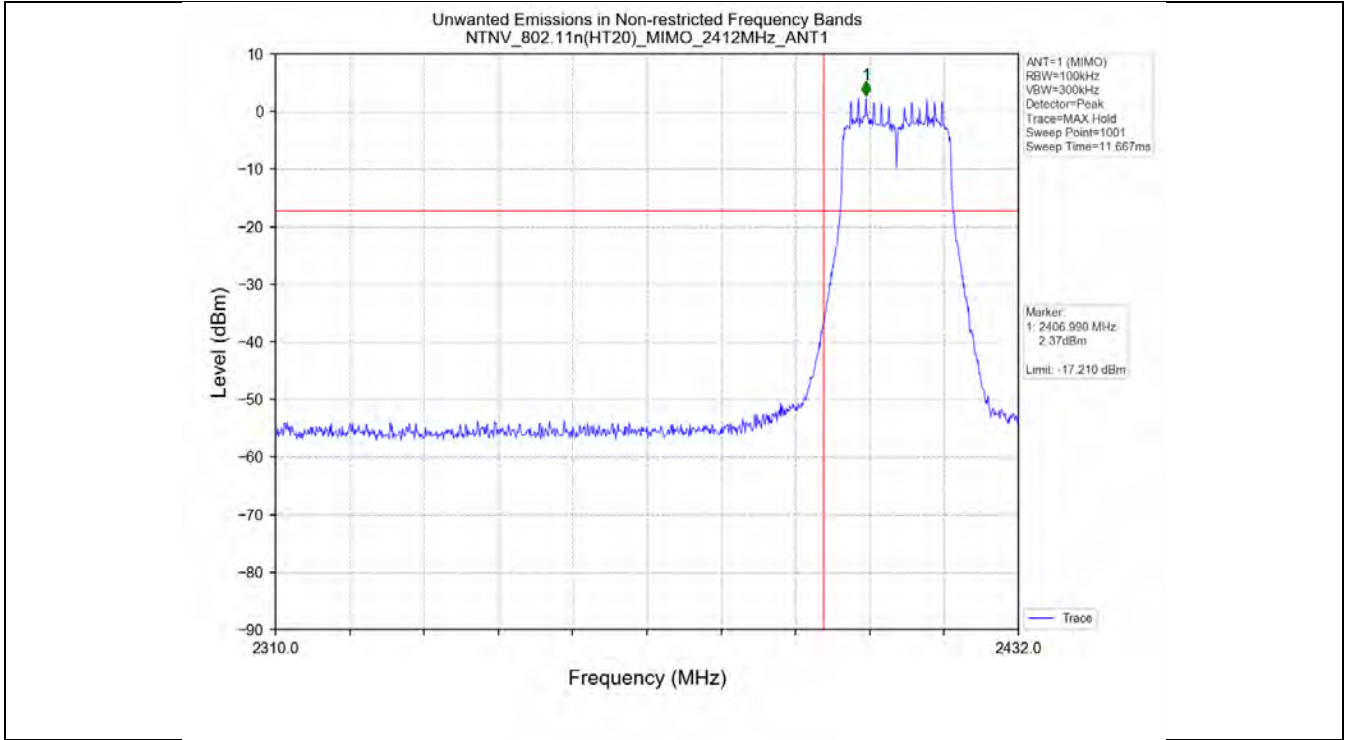
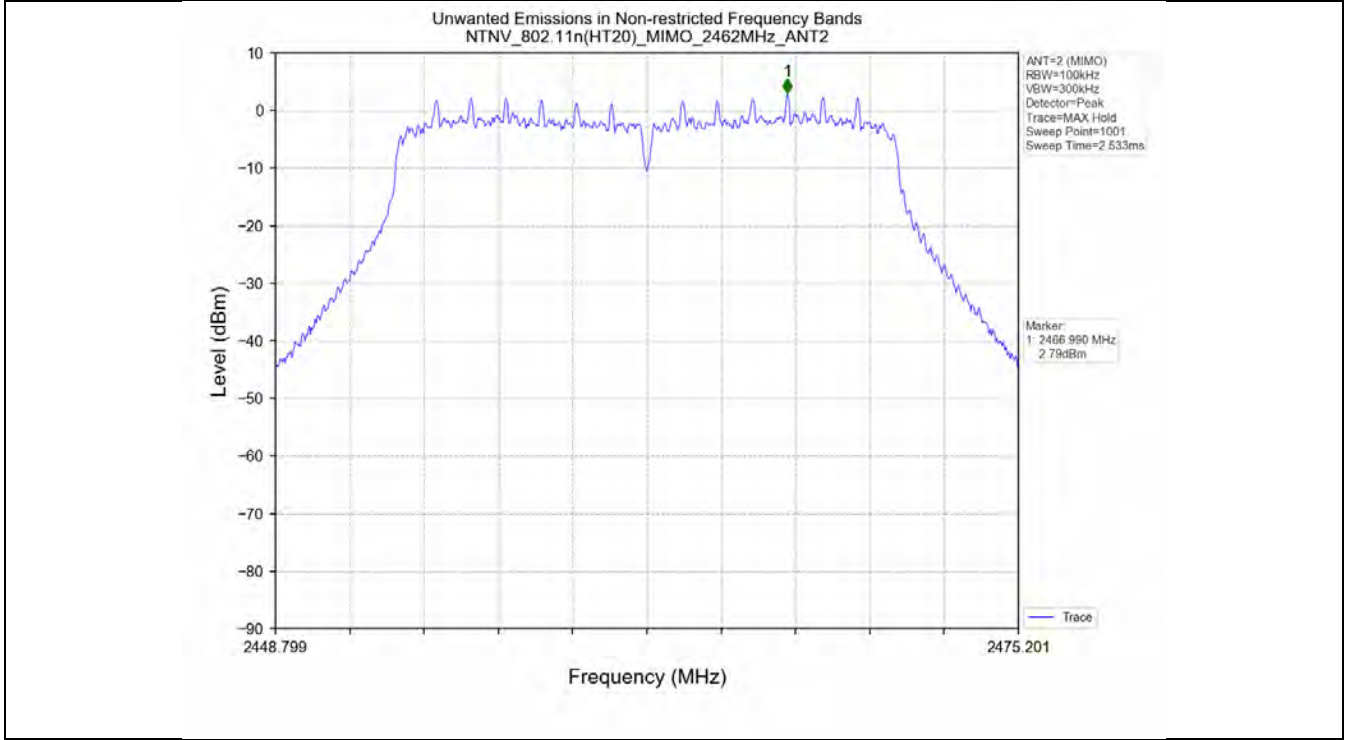


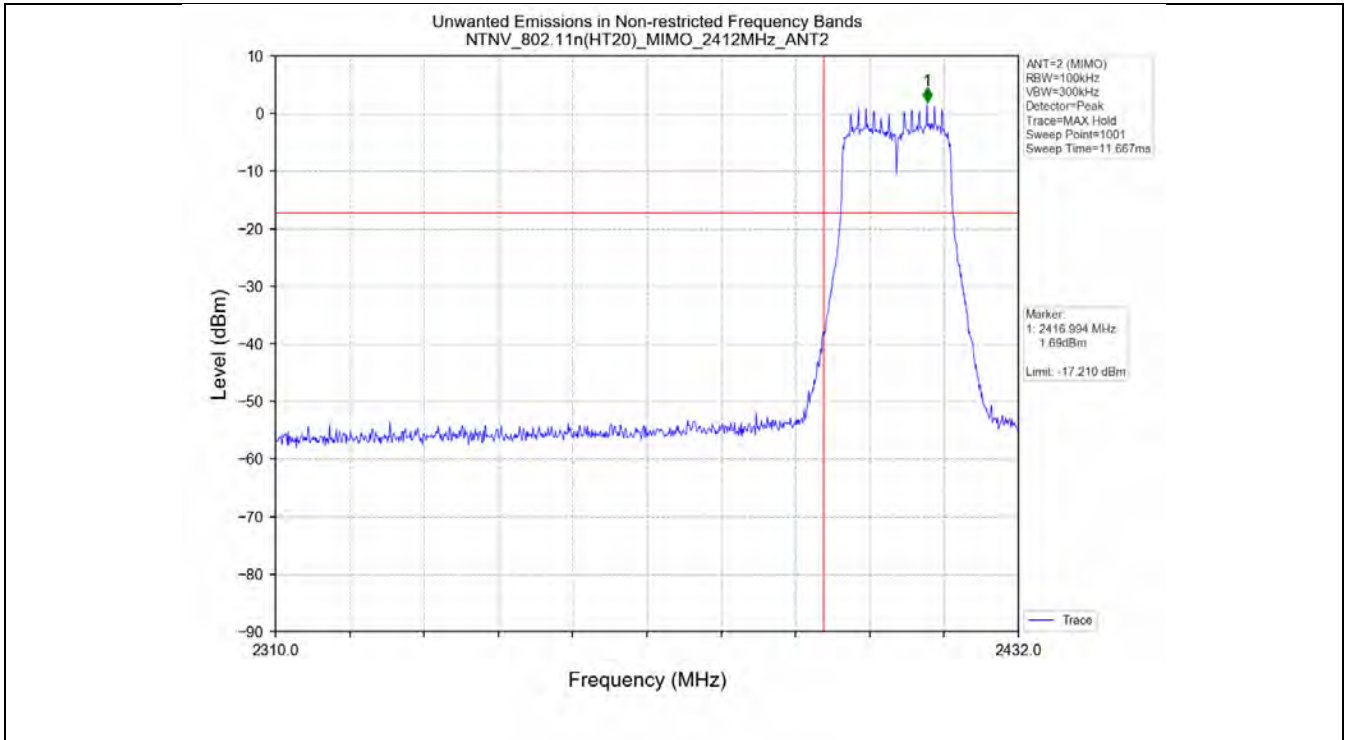
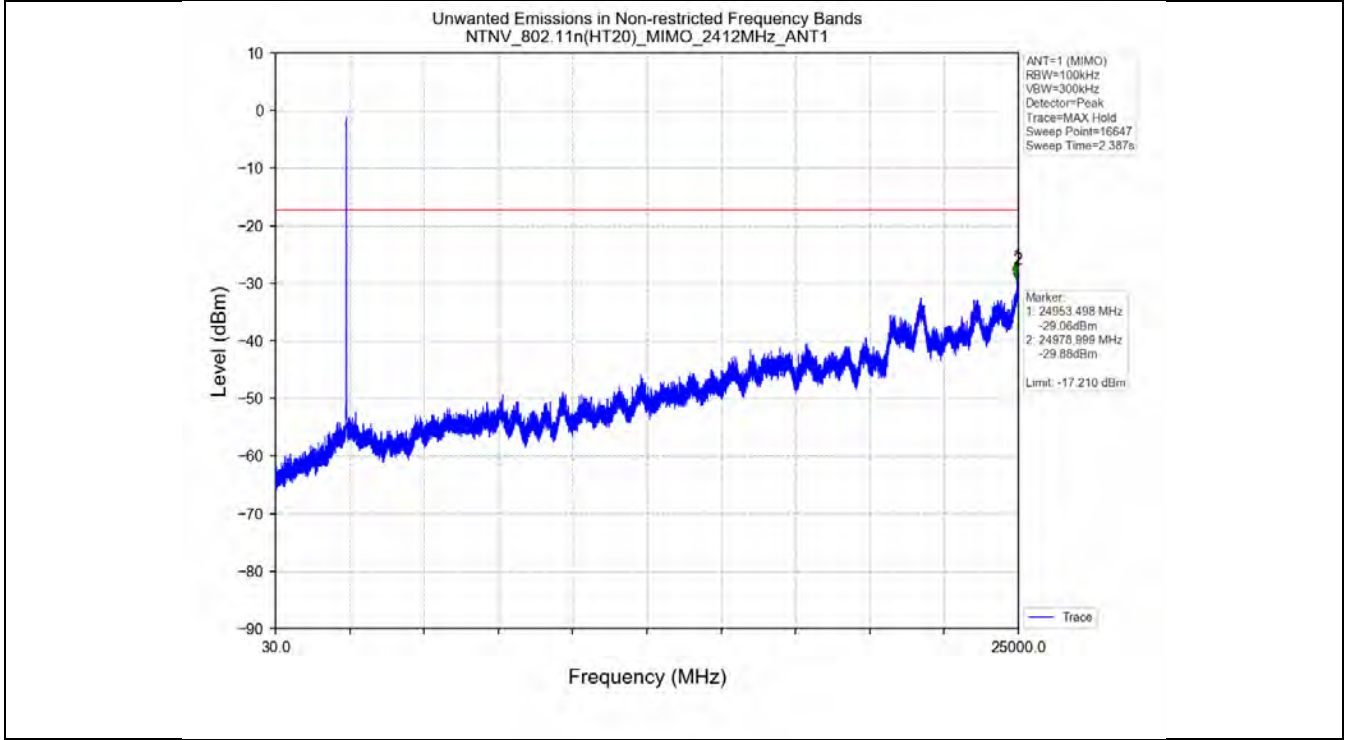




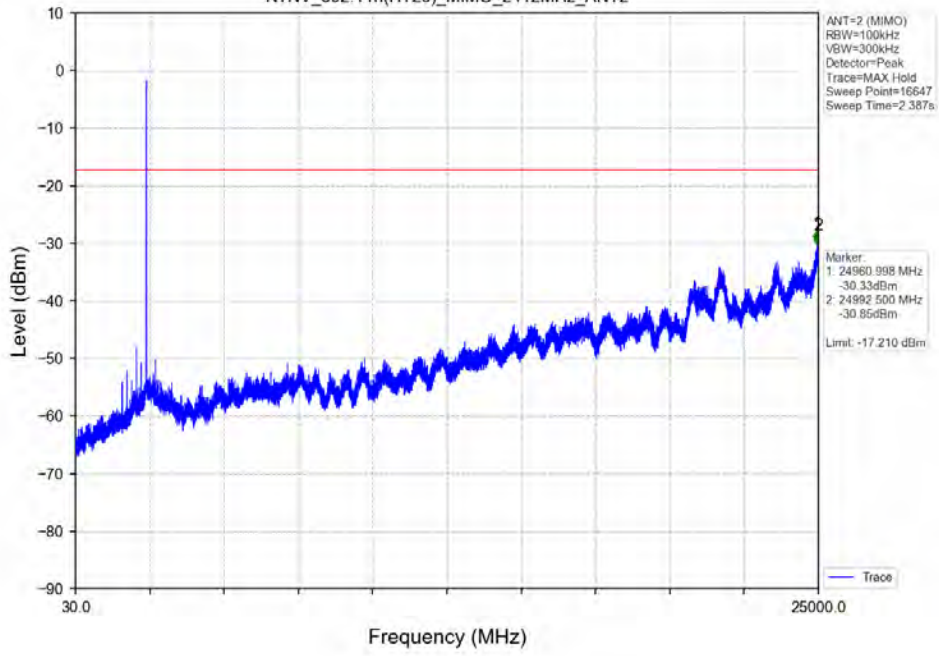




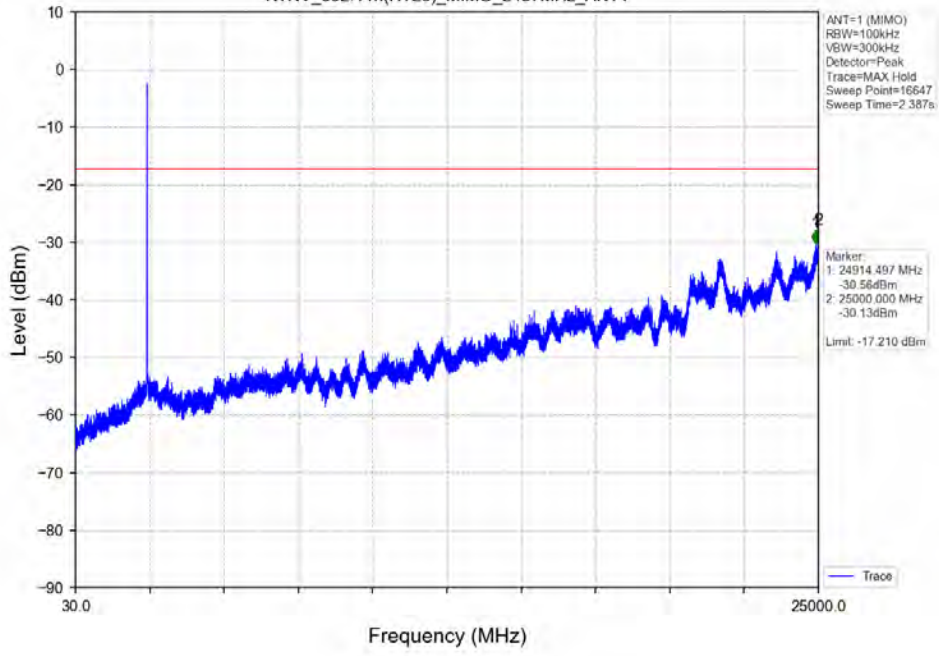


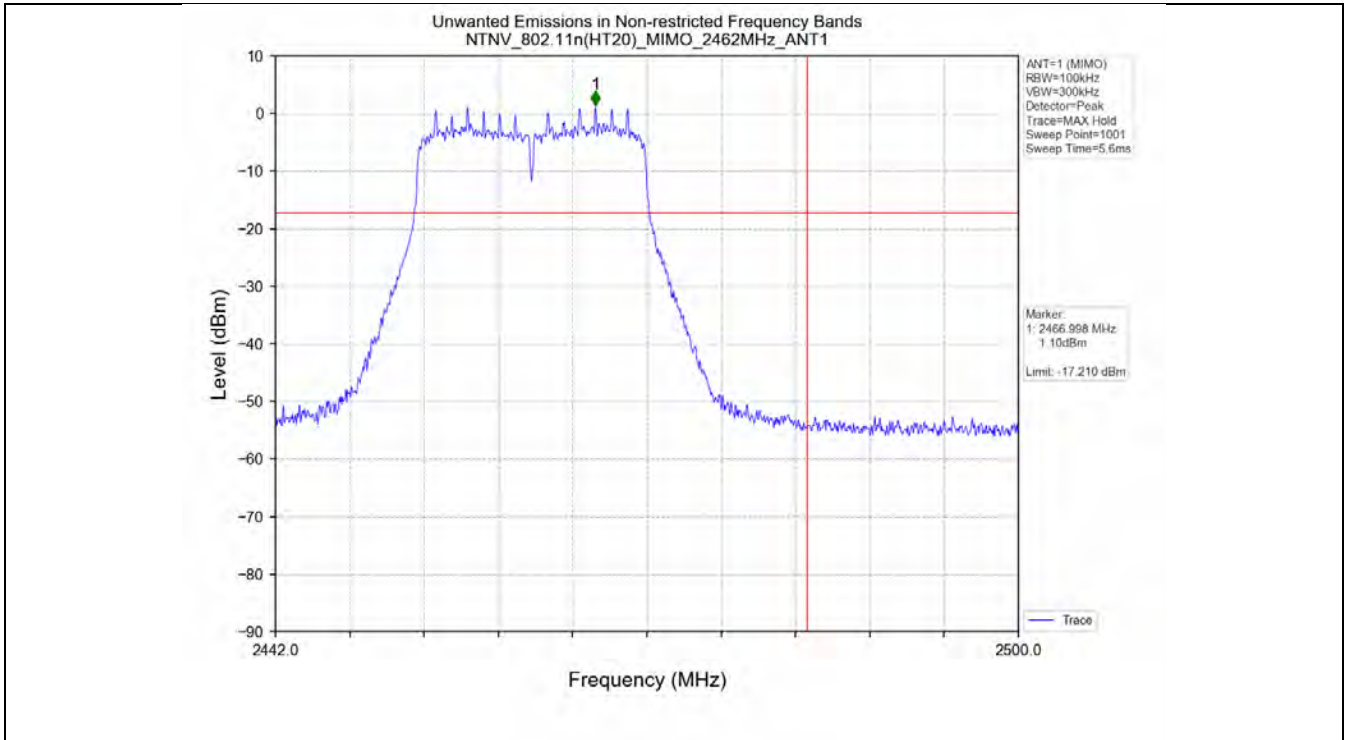
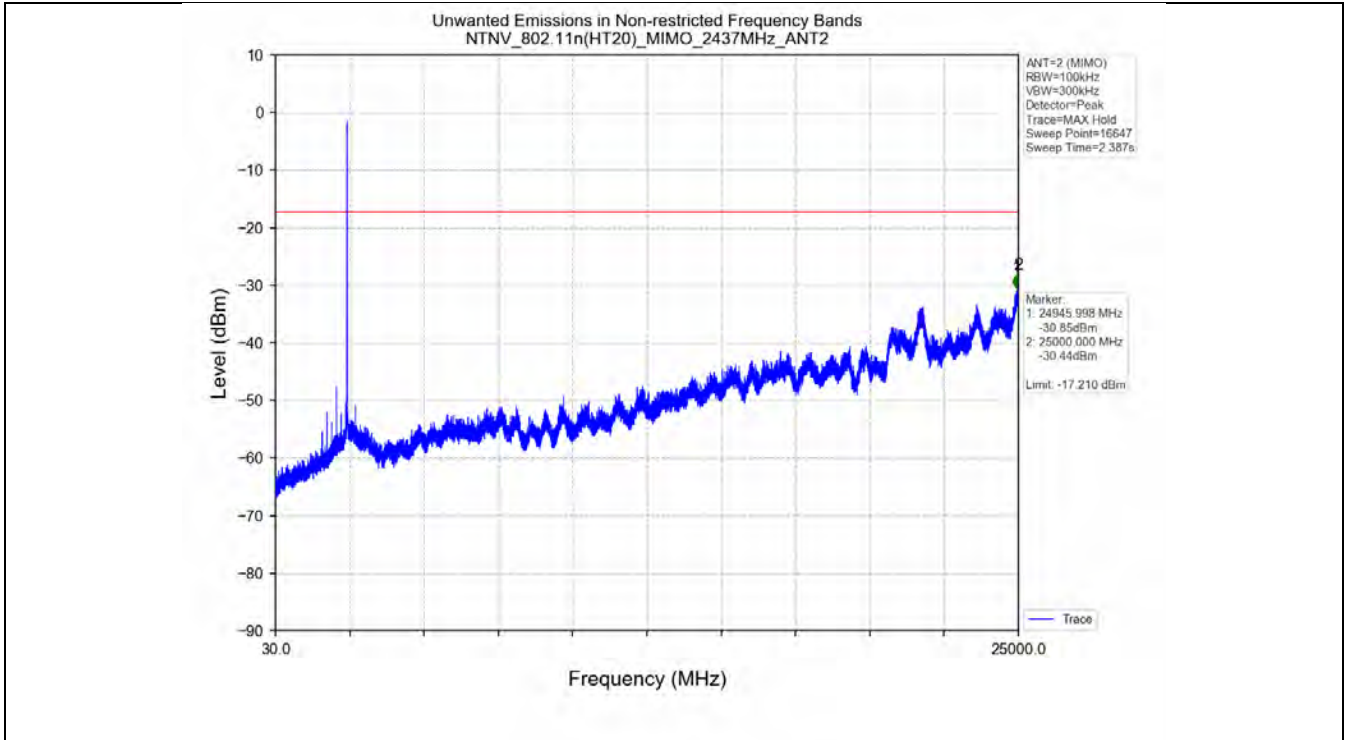


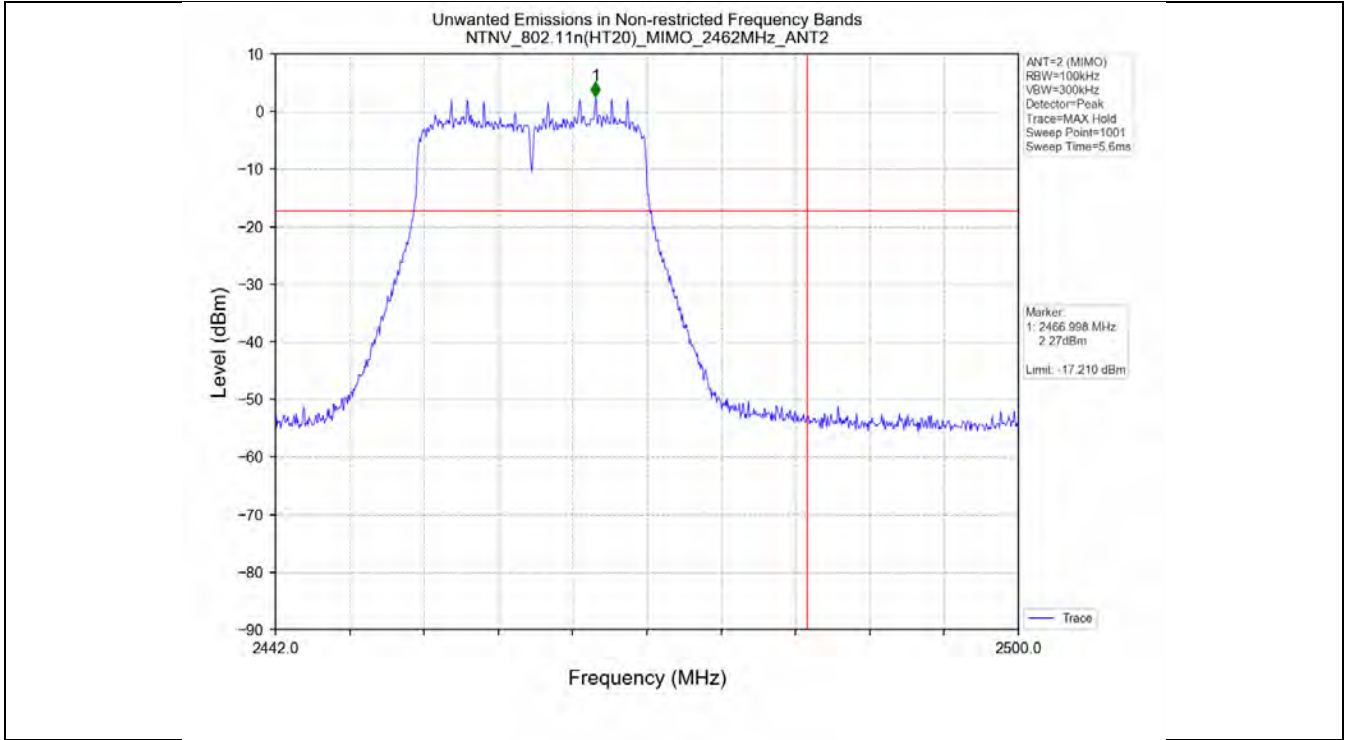
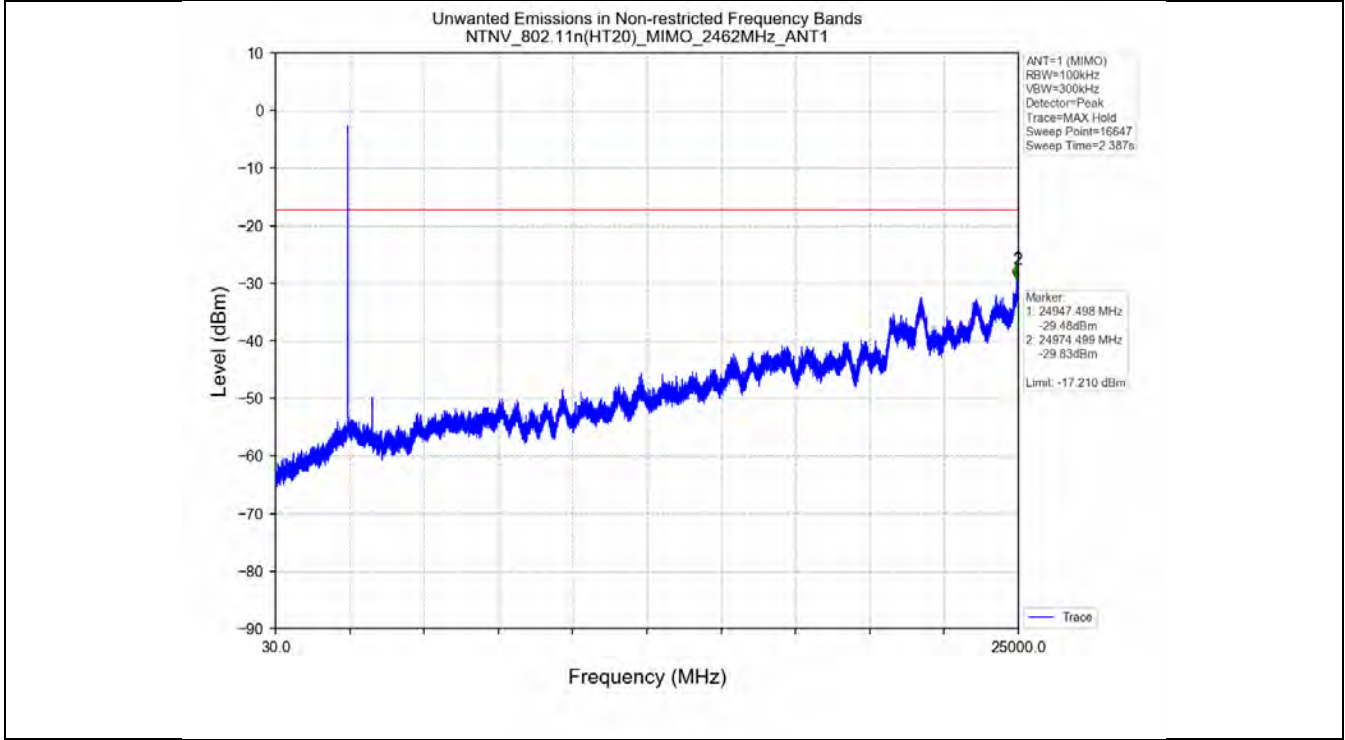
Unwanted Emissions in Non-restricted Frequency Bands
NTNV_802.11n(HT20)_MIMO_2412MHz_ANT2

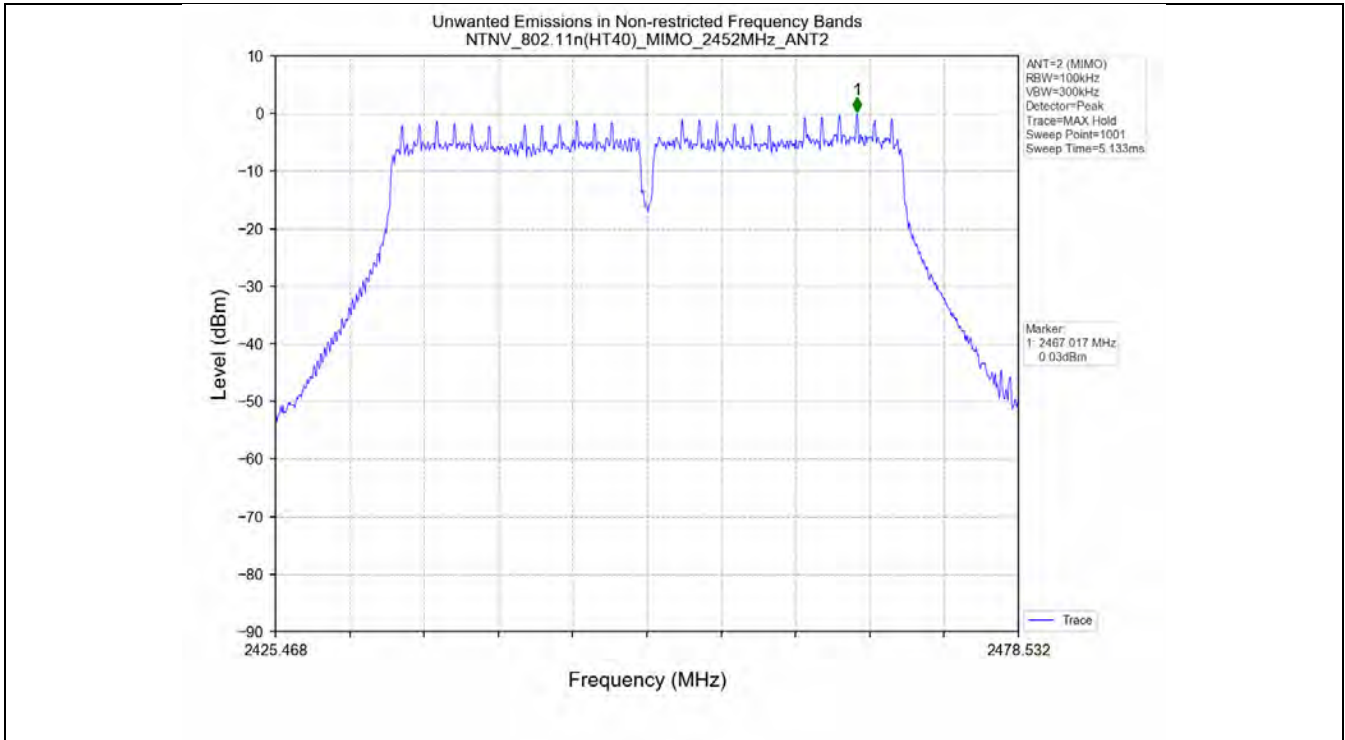
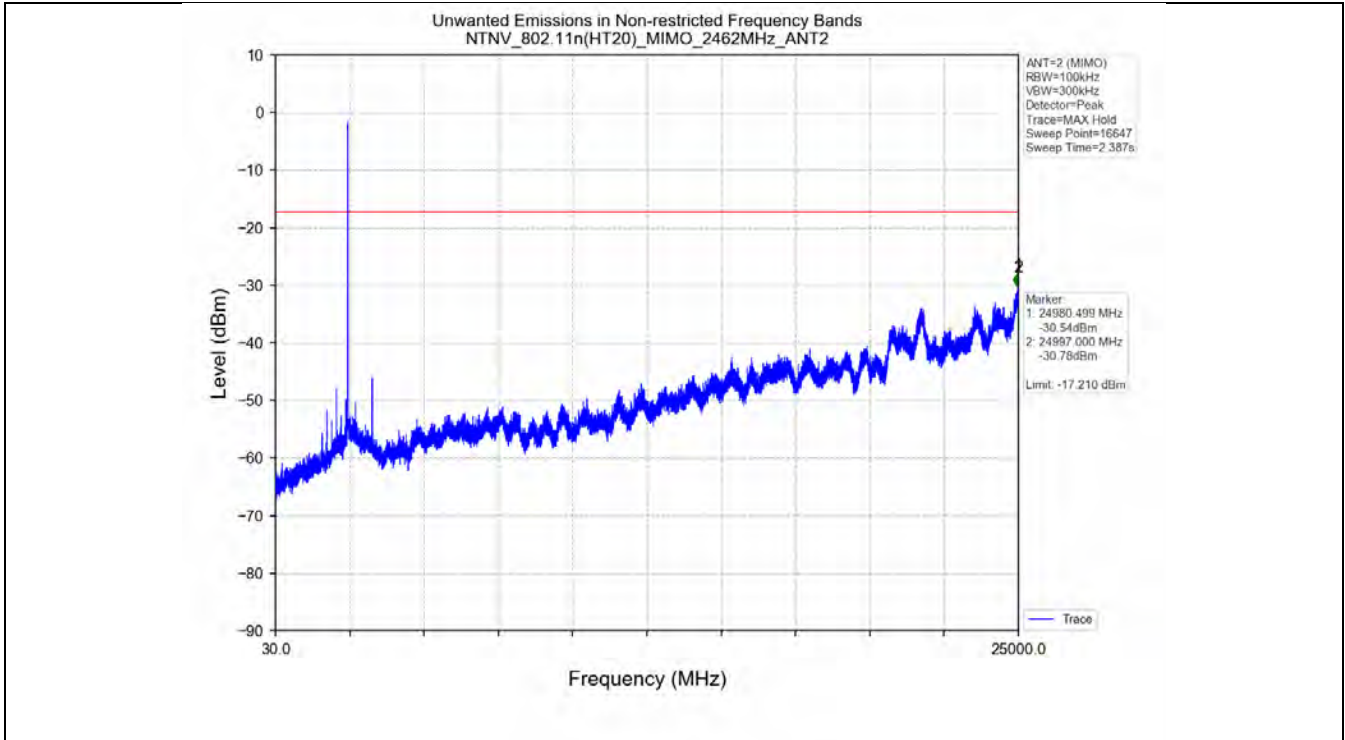


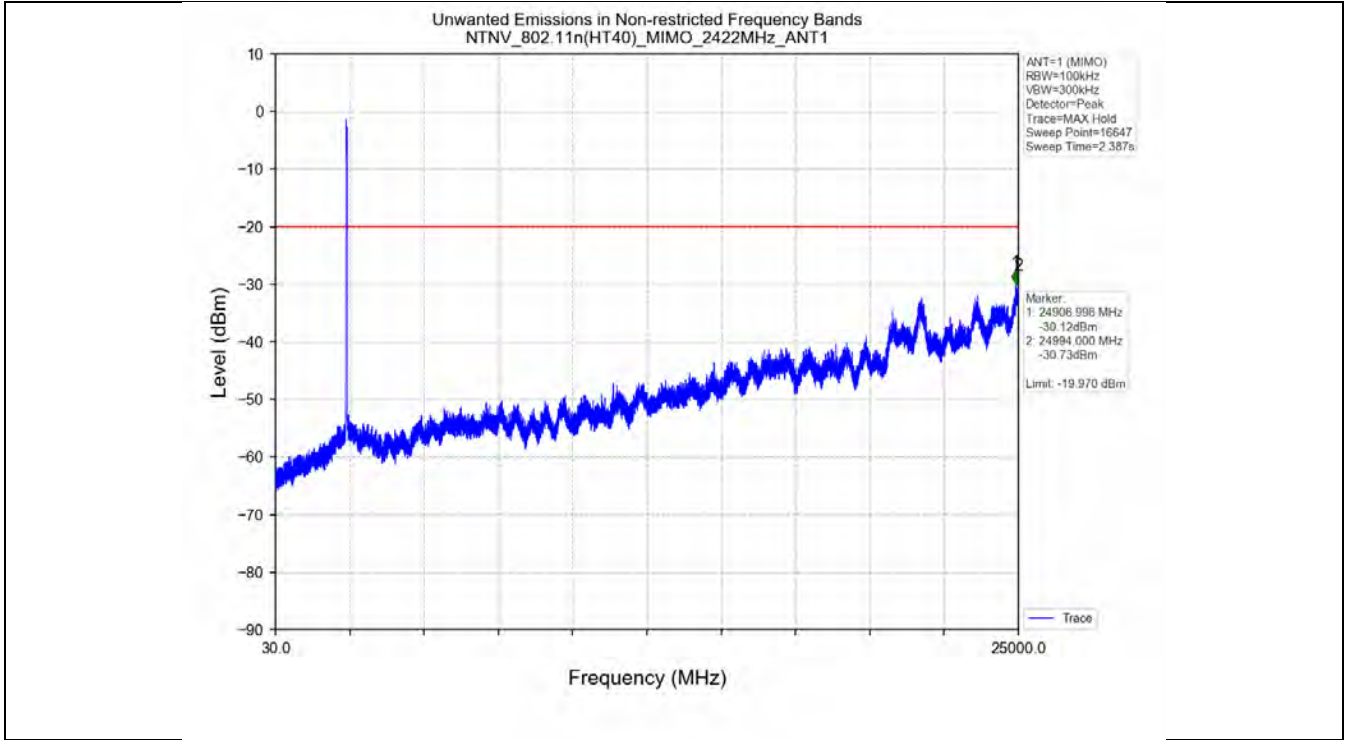
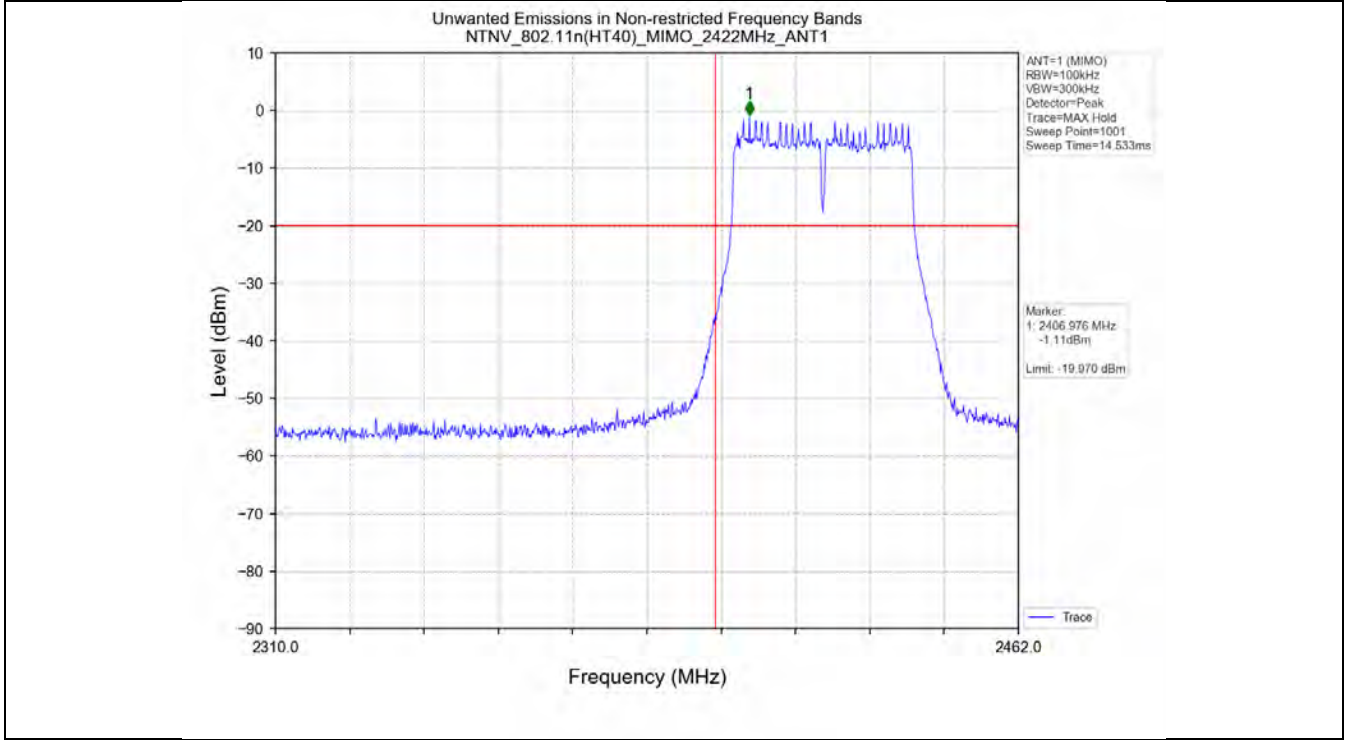
Unwanted Emissions in Non-restricted Frequency Bands
NTNV_802.11n(HT20)_MIMO_2437MHz_ANT1

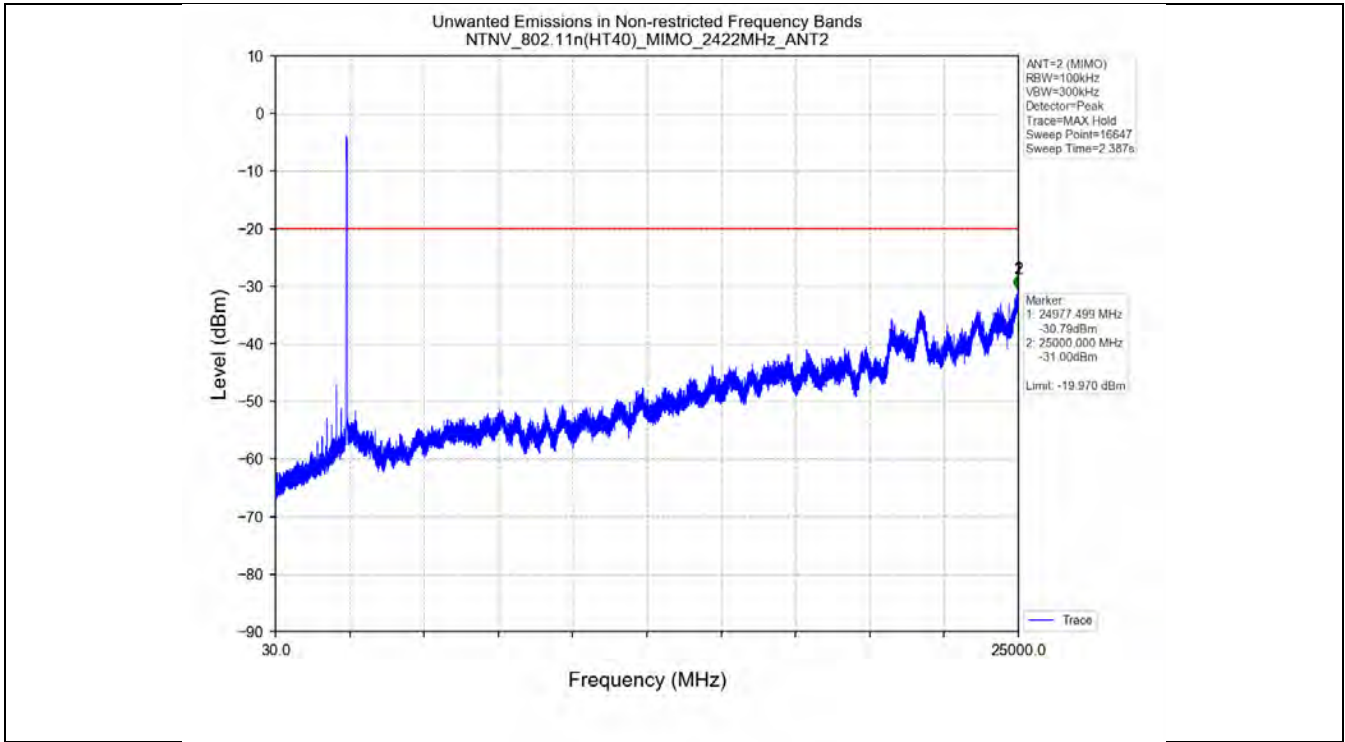
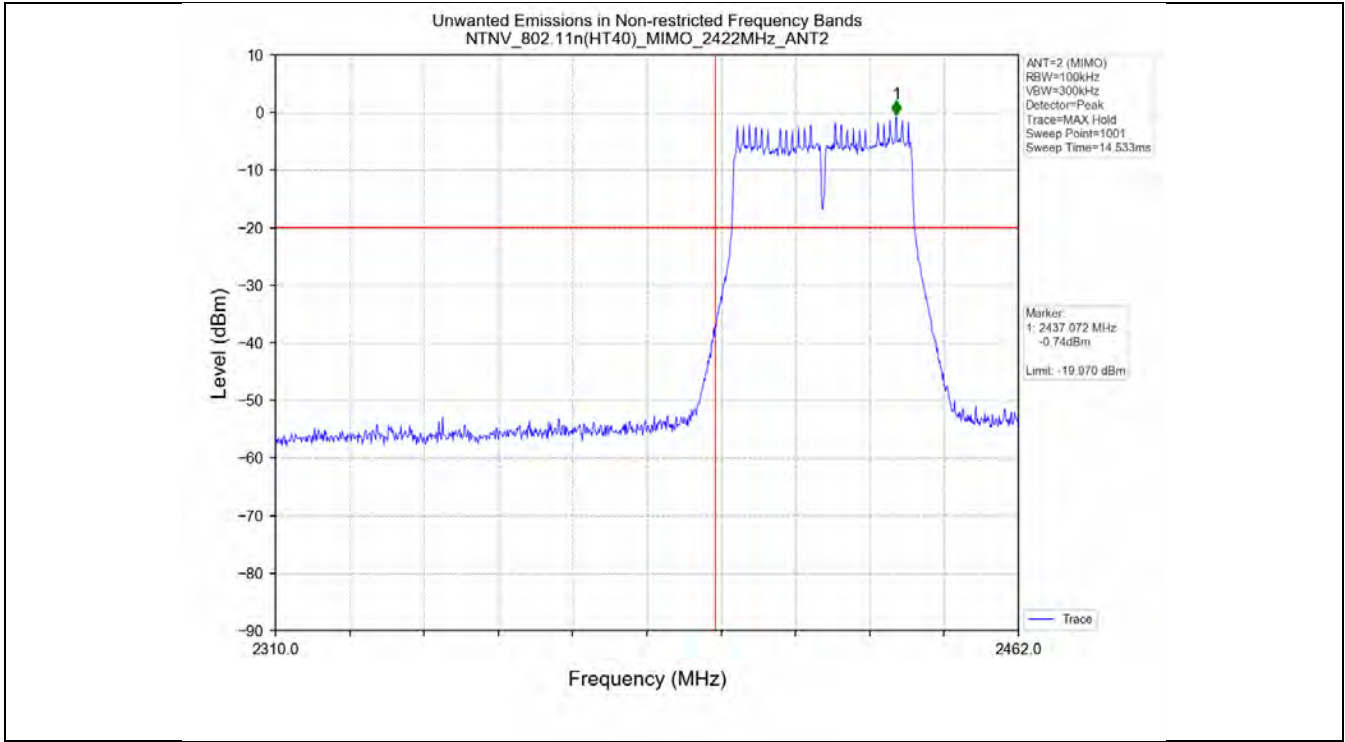




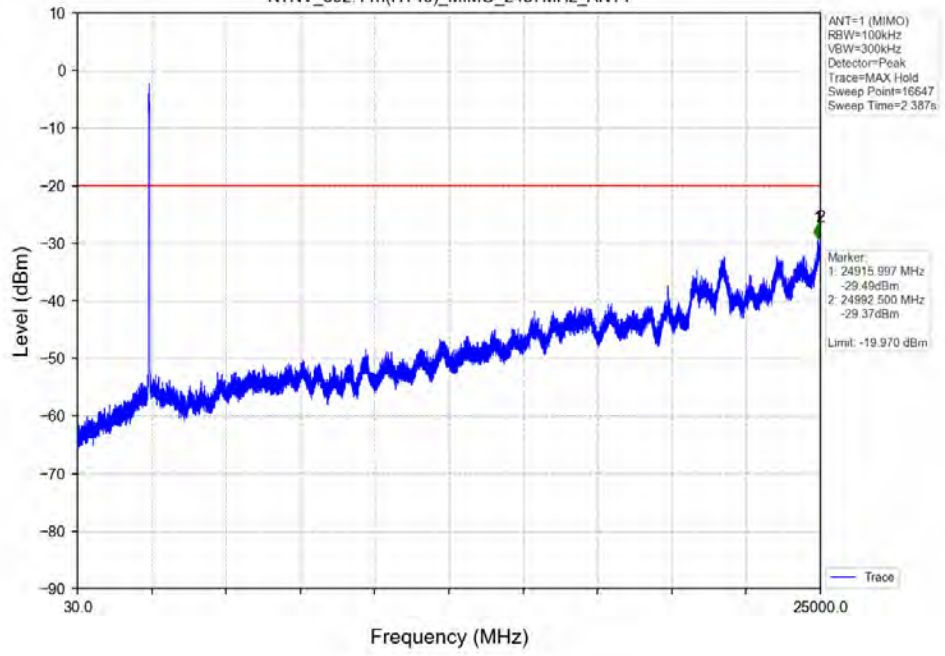








Unwanted Emissions in Non-restricted Frequency Bands
NTNV_802.11n(HT40)_MIMO_2437MHz_ANT1



Unwanted Emissions in Non-restricted Frequency Bands
NTNV_802.11n(HT40)_MIMO_2437MHz_ANT2

