

10 Appendix for 15.247

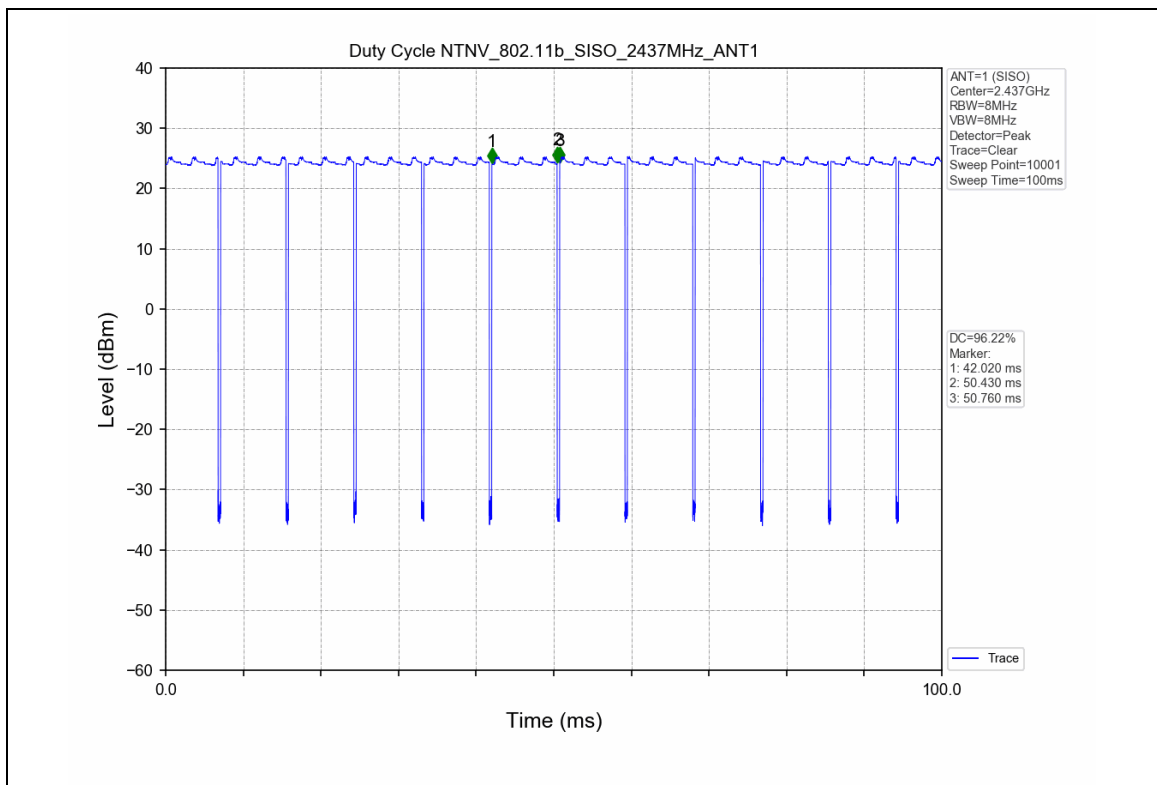
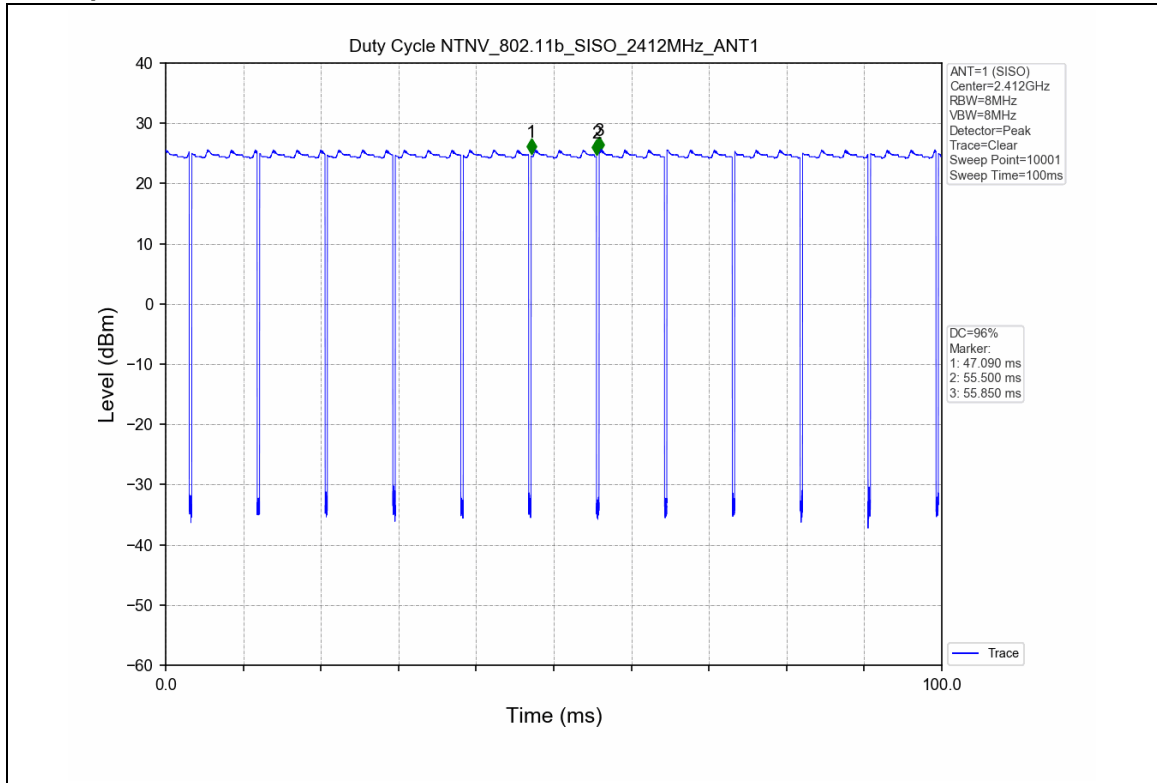
1. Duty Cycle

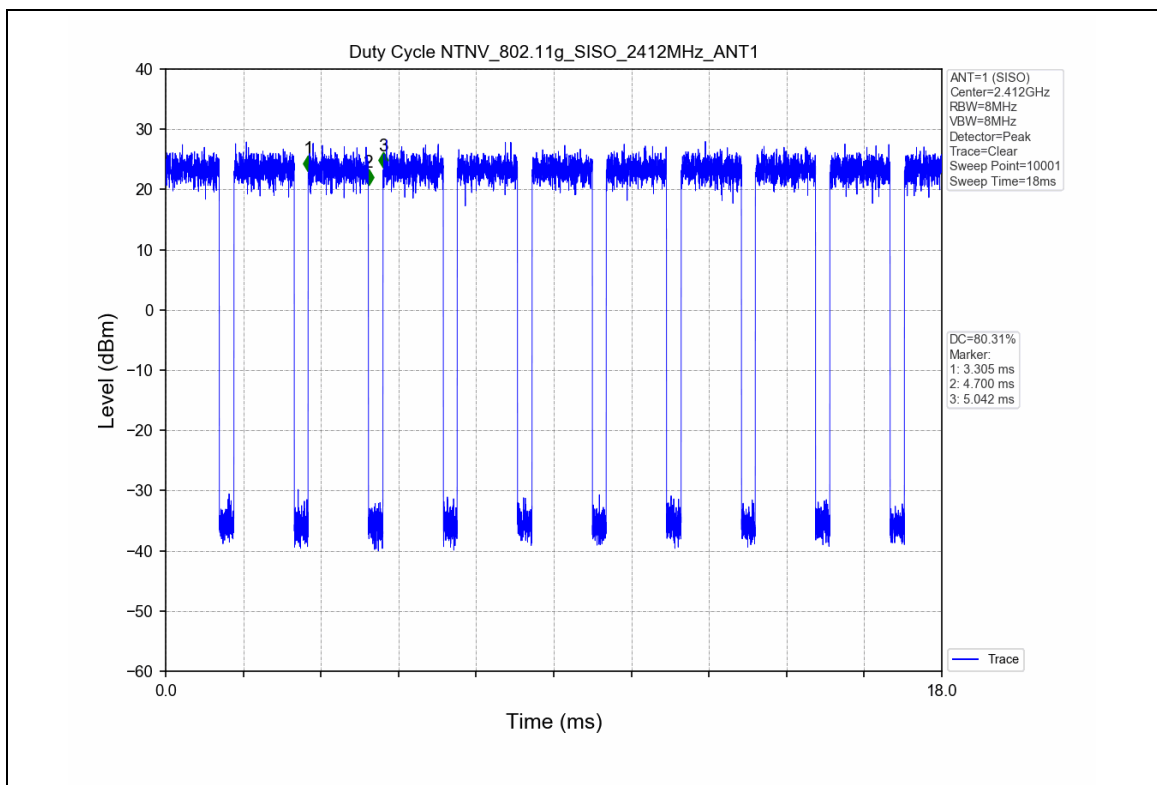
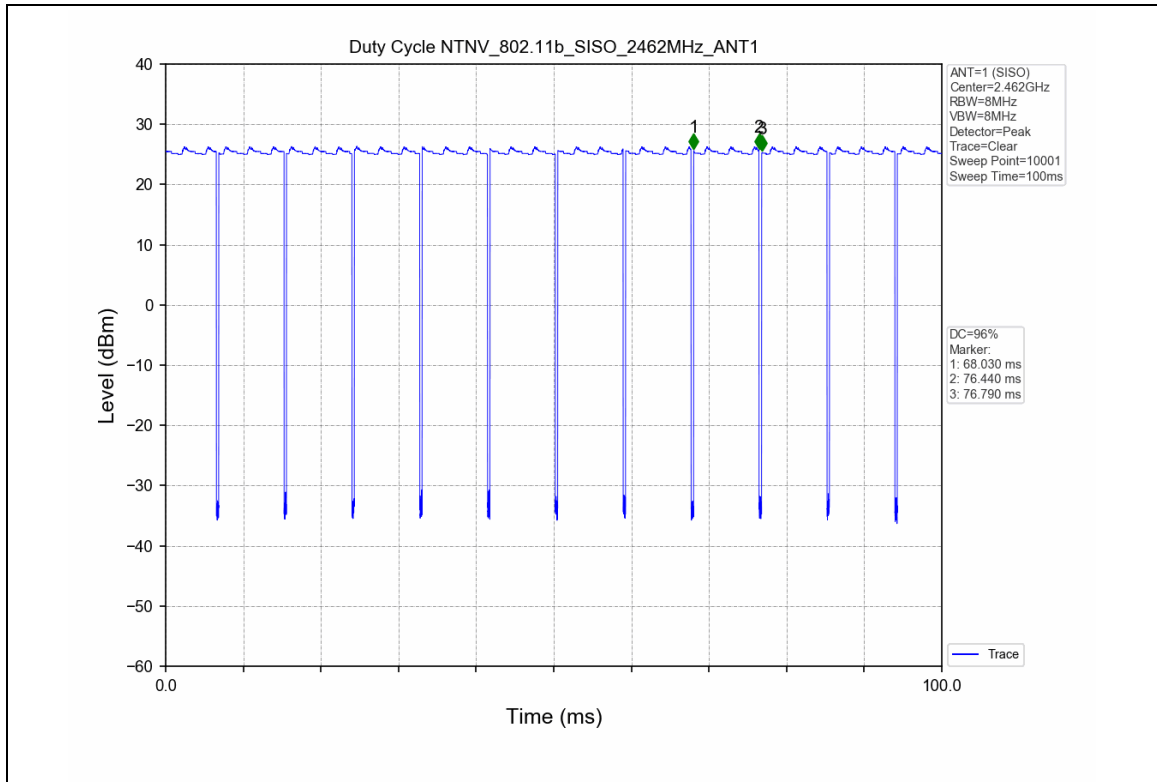
1.1 Test Result

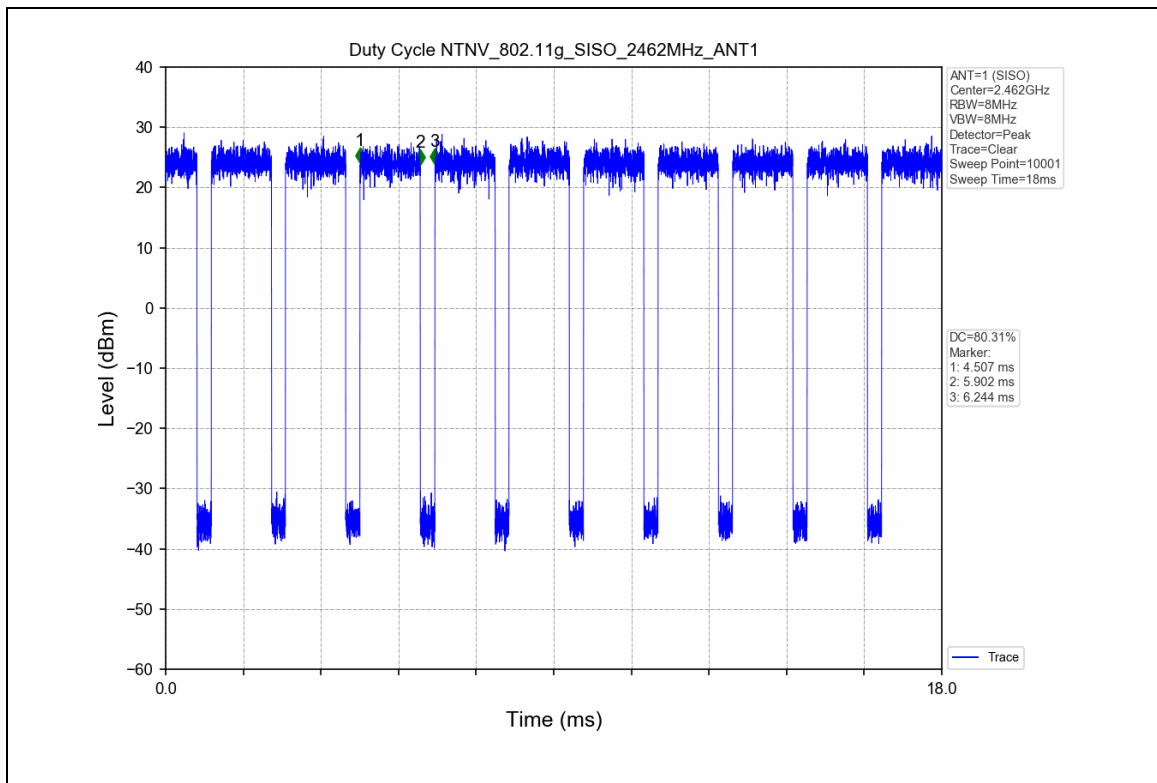
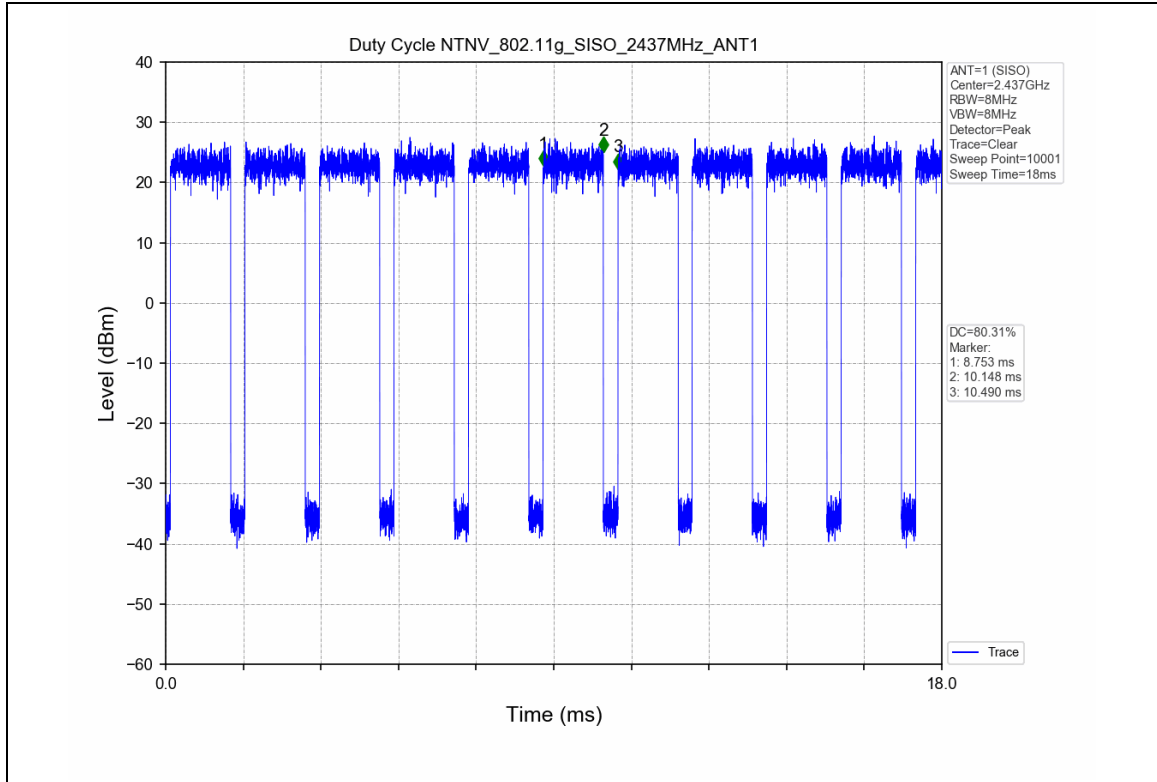
Test Mode	Channel Frequency(MHz)	TX Type	ANT No.	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)
802.11b	2412	SISO	1	8.410	8.760	96.00	0.18
	2437	SISO	1	8.410	8.740	96.22	0.17
	2462	SISO	1	8.410	8.760	96.00	0.18
802.11g	2412	SISO	1	1.395	1.737	80.31	0.95
	2437	SISO	1	1.395	1.737	80.31	0.95
	2462	SISO	1	1.395	1.737	80.31	0.95
802.11n(HT20)	2412	MIMO	1	0.471	0.804	58.58	2.32
	2437	MIMO	1	0.471	0.822	57.30	2.42
	2462	MIMO	1	0.471	0.804	58.58	2.32
802.11n(HT40)	2422	MIMO	1	0.240	0.626	38.34	4.16
	2437	MIMO	1	0.240	0.581	41.31	3.84
	2452	MIMO	1	0.239	0.581	41.14	3.86



1.2 Test Graph

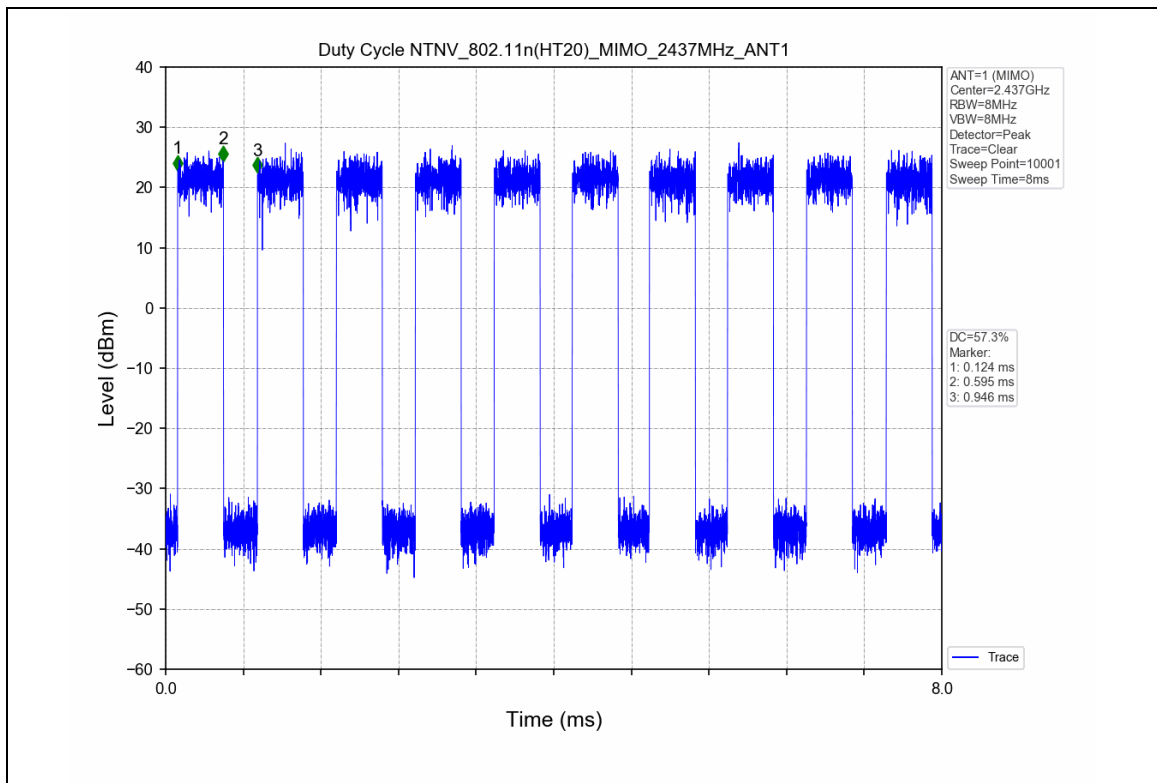
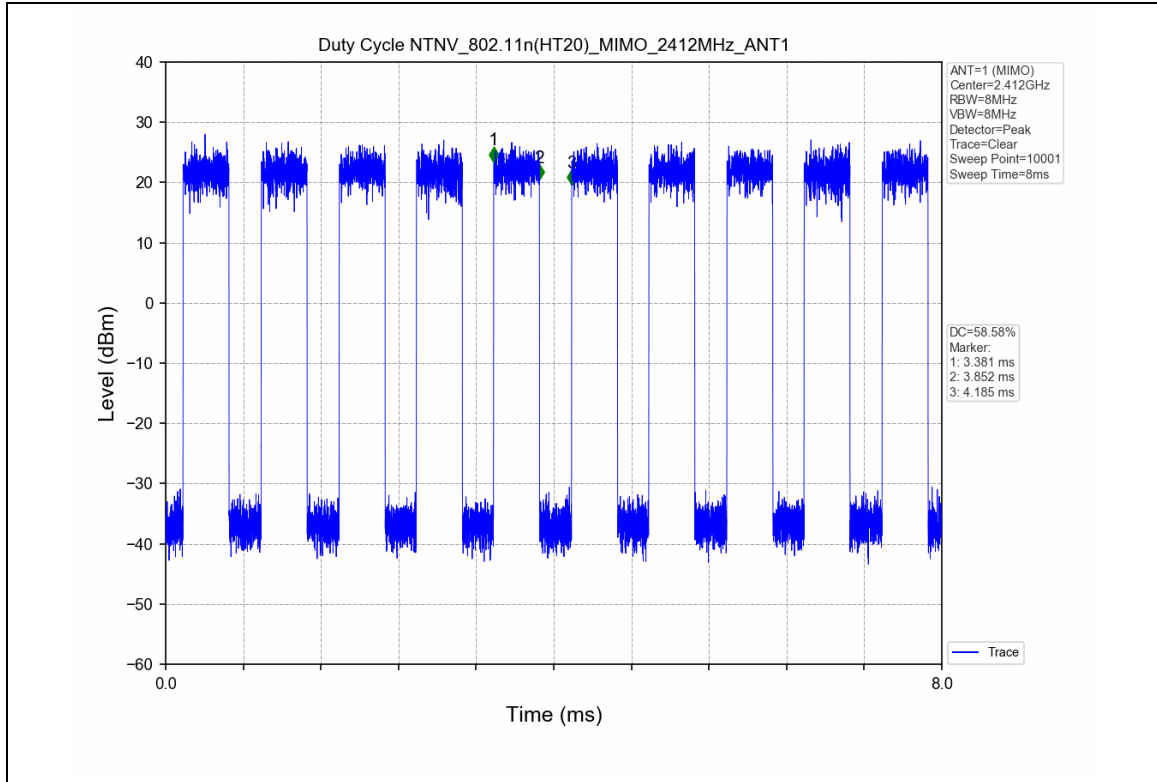


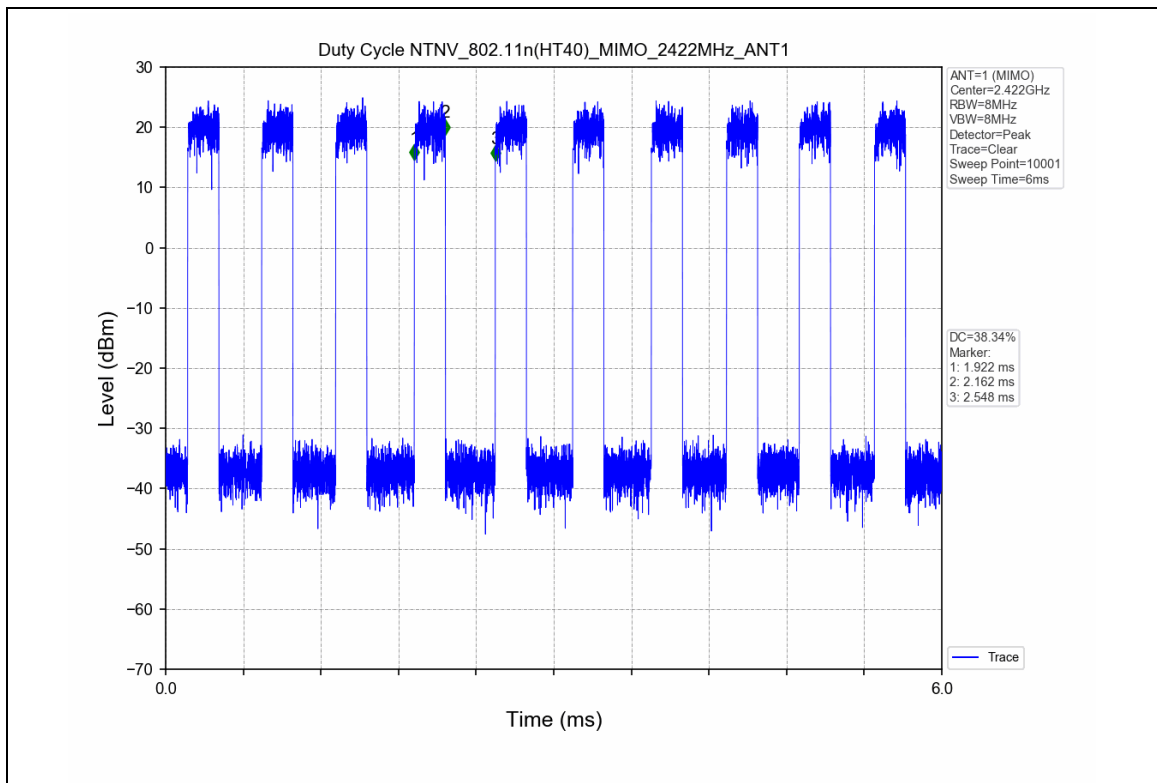
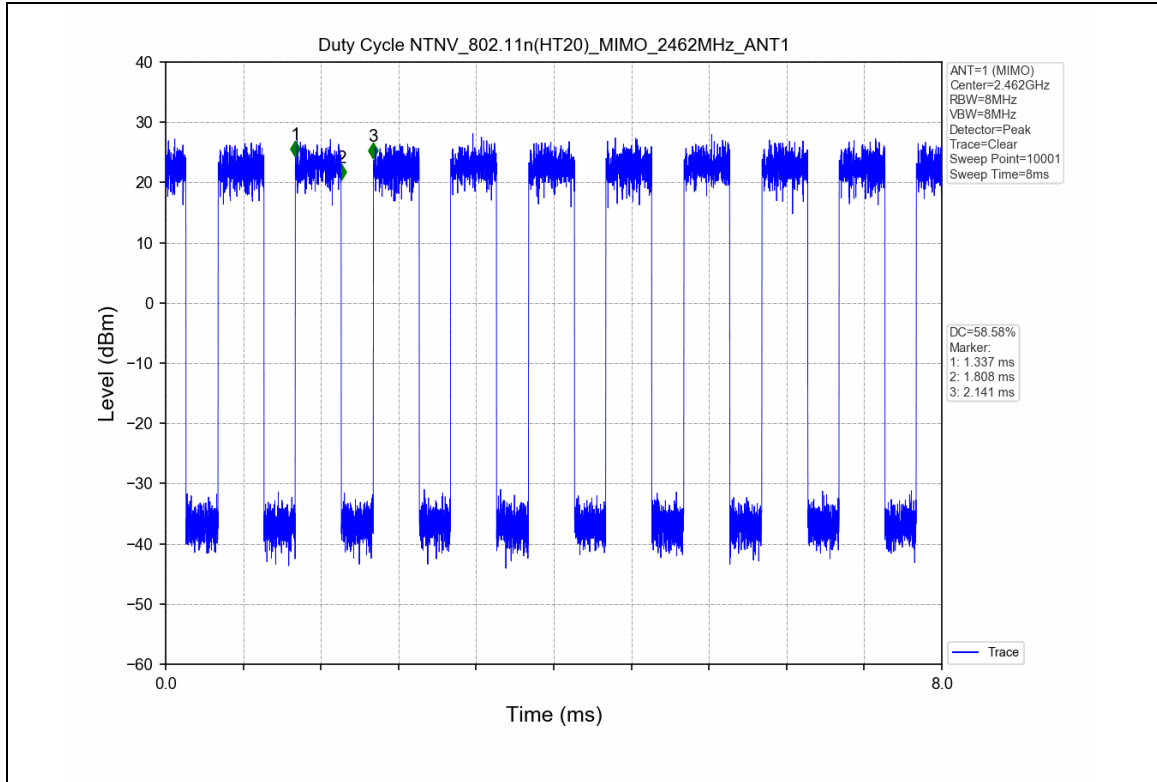




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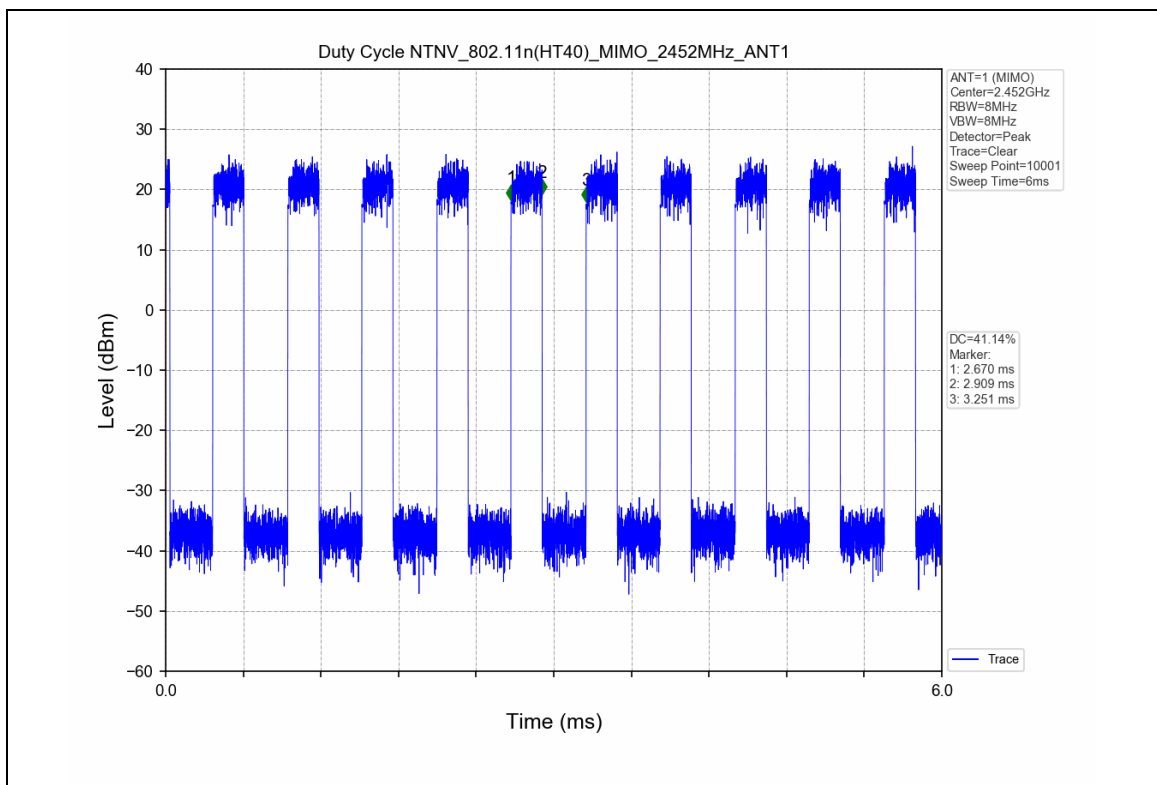
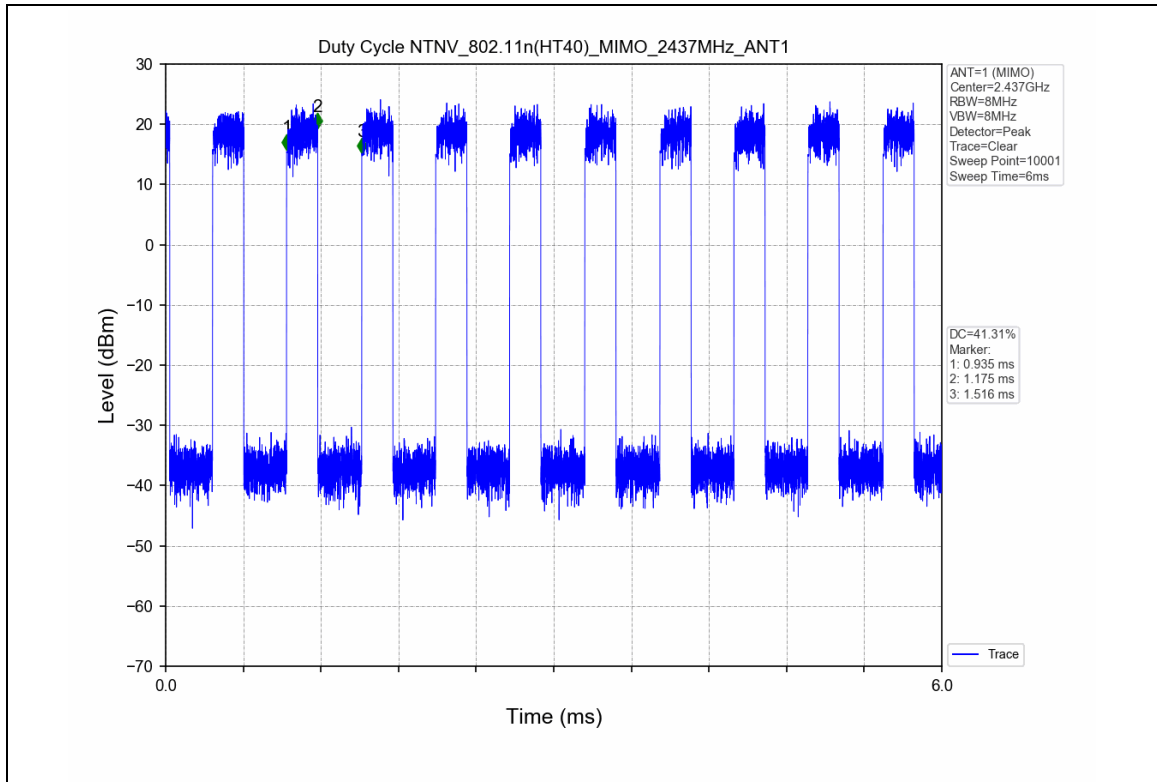
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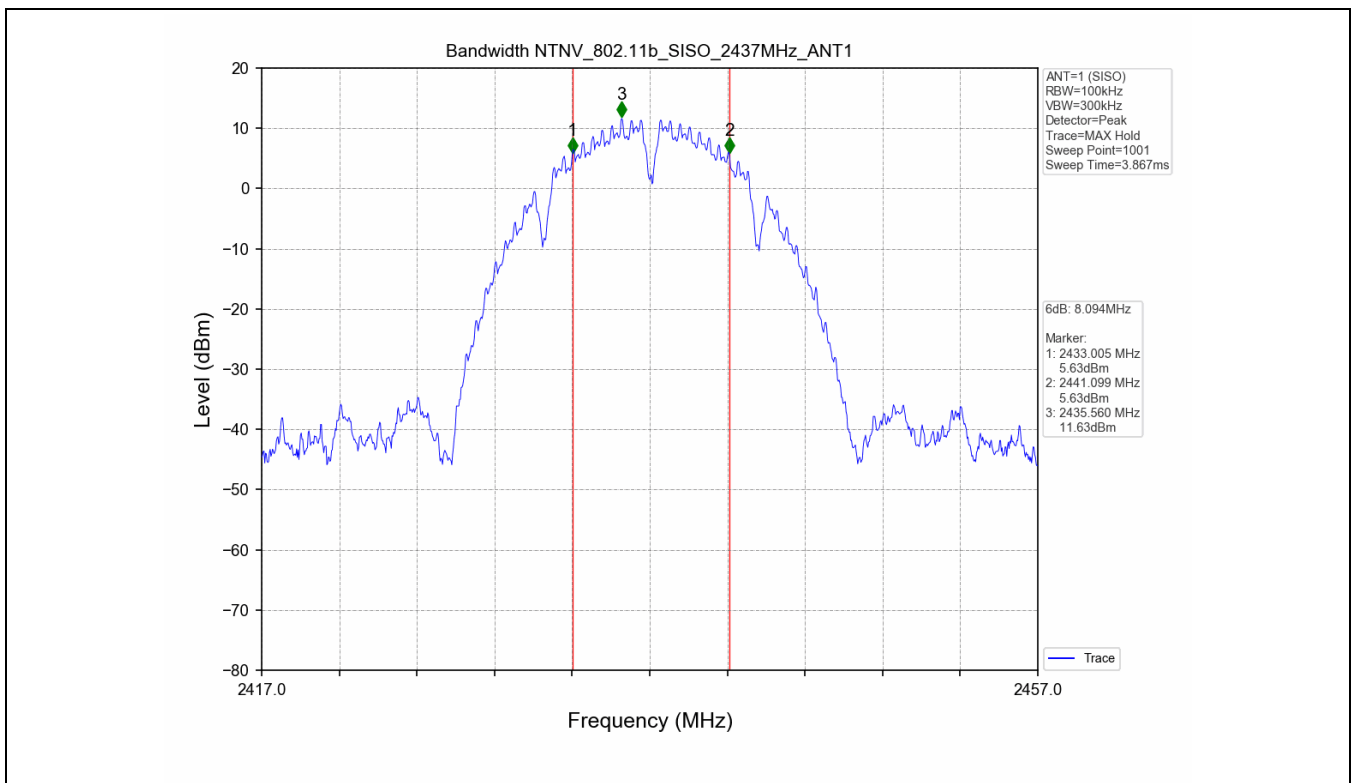
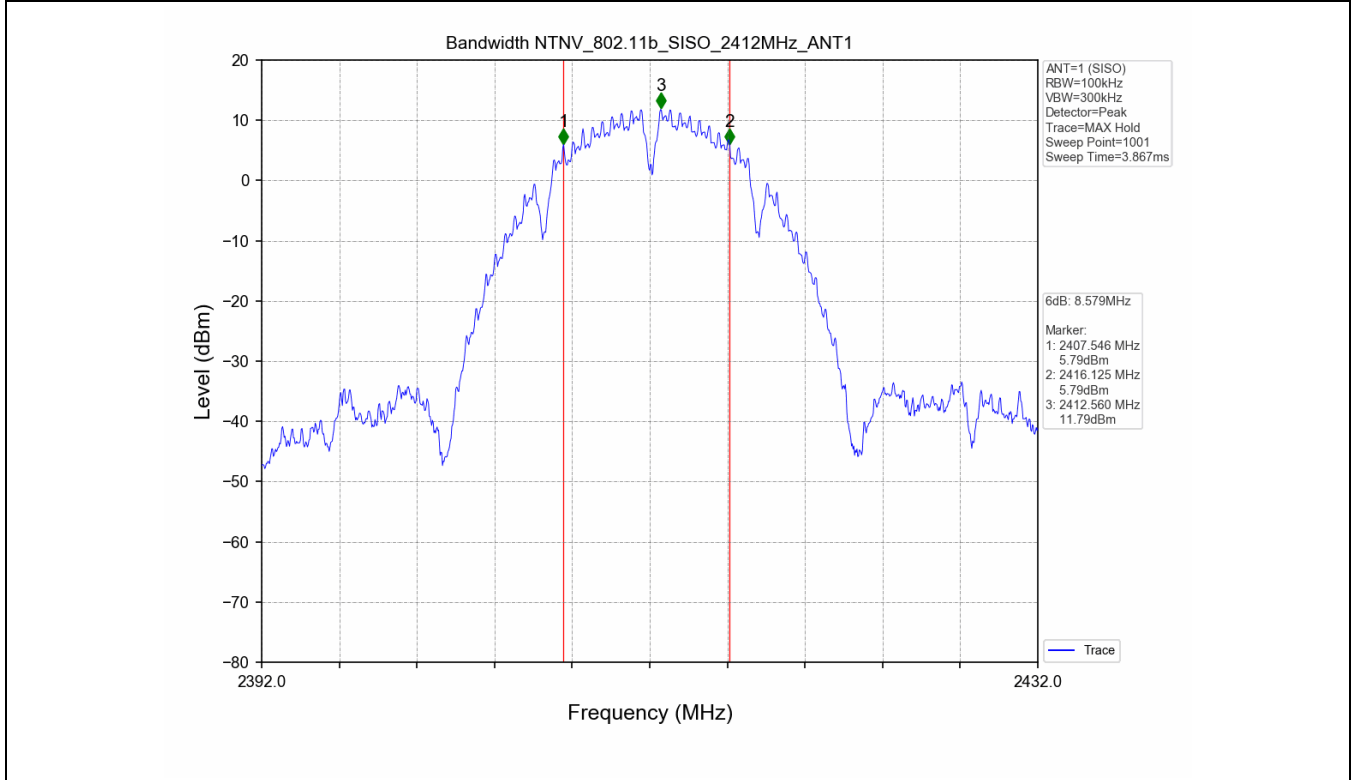
2. Bandwidth

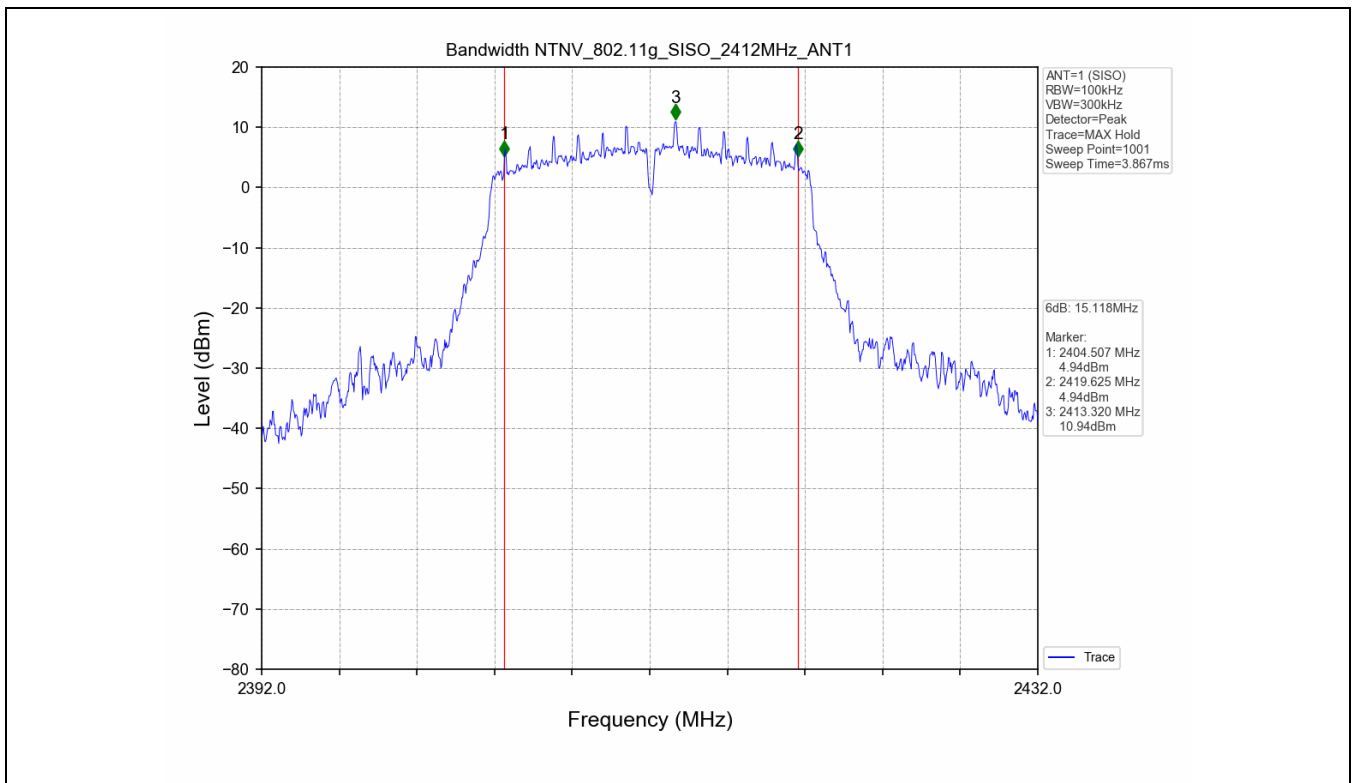
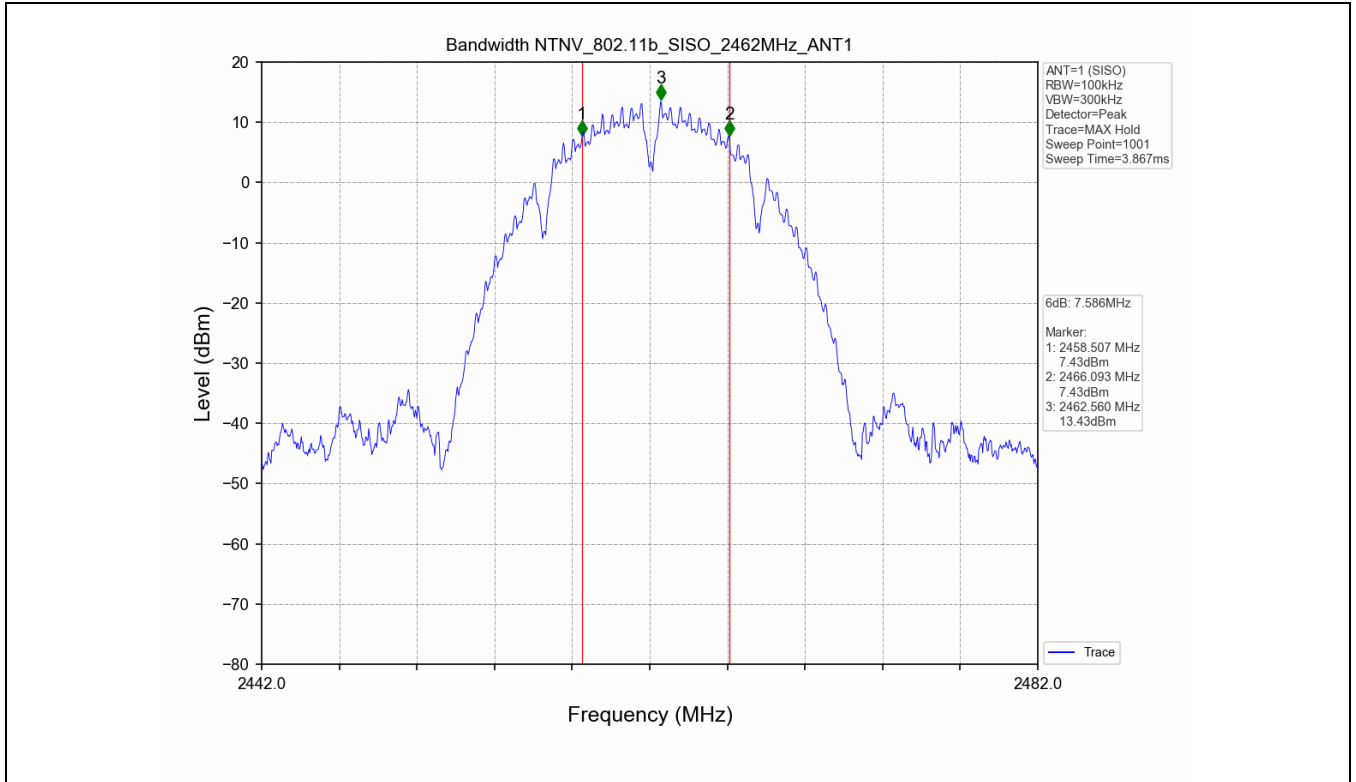
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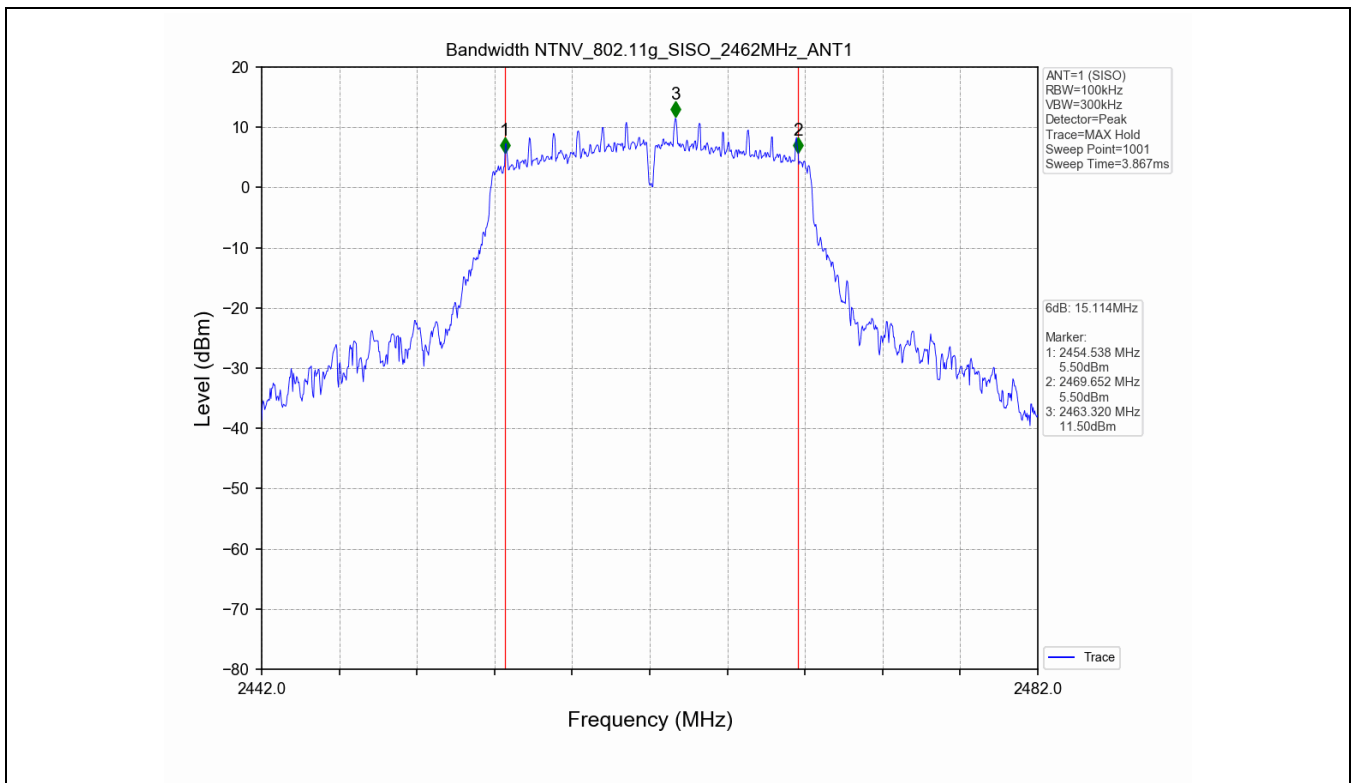
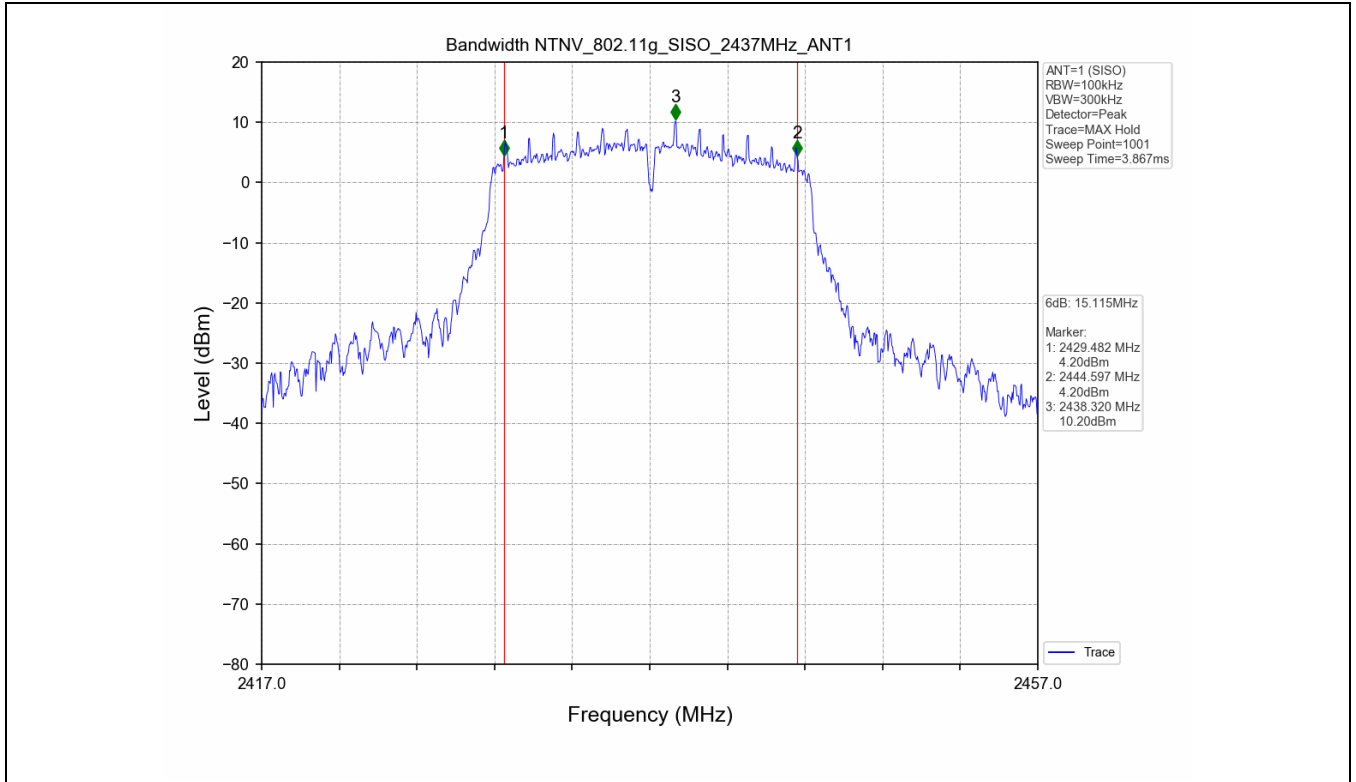
Test Mode	Frequency (MHz)	TX Type	ANT No.	6dB Bandwidth		Verdict
				Test Result (MHz)	Limits (MHz)	
802.11b	2412	SISO	1	8.579	≥0.5	PASS
	2437	SISO	1	8.094	≥0.5	PASS
	2462	SISO	1	7.586	≥0.5	PASS
802.11g	2412	SISO	1	15.118	≥0.5	PASS
	2437	SISO	1	15.115	≥0.5	PASS
	2462	SISO	1	15.114	≥0.5	PASS
802.11n(HT20)	2412	MIMO	1	15.131	≥0.5	PASS
	2437	MIMO	1	15.150	≥0.5	PASS
	2462	MIMO	1	15.148	≥0.5	PASS
802.11n(HT40)	2422	MIMO	1	35.104	≥0.5	PASS
	2437	MIMO	1	35.186	≥0.5	PASS
	2452	MIMO	1	35.177	≥0.5	PASS

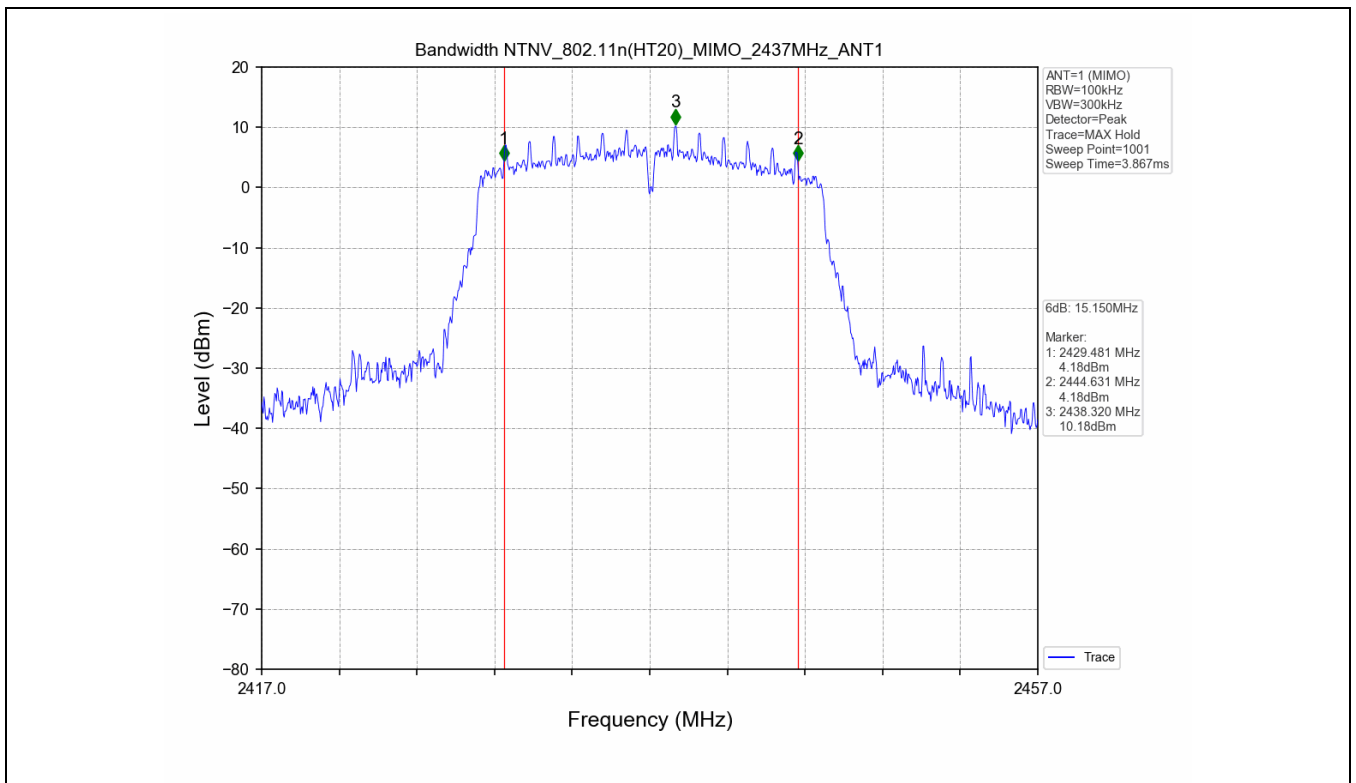
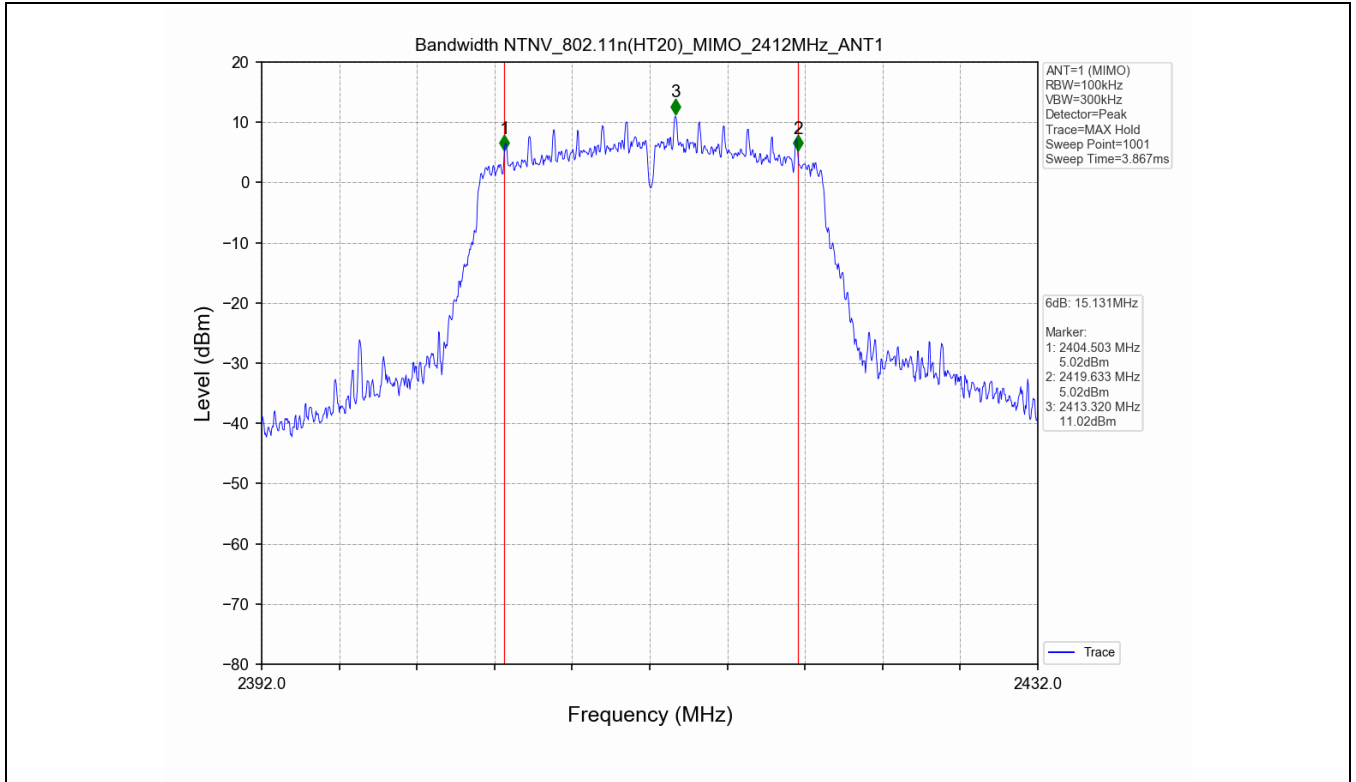


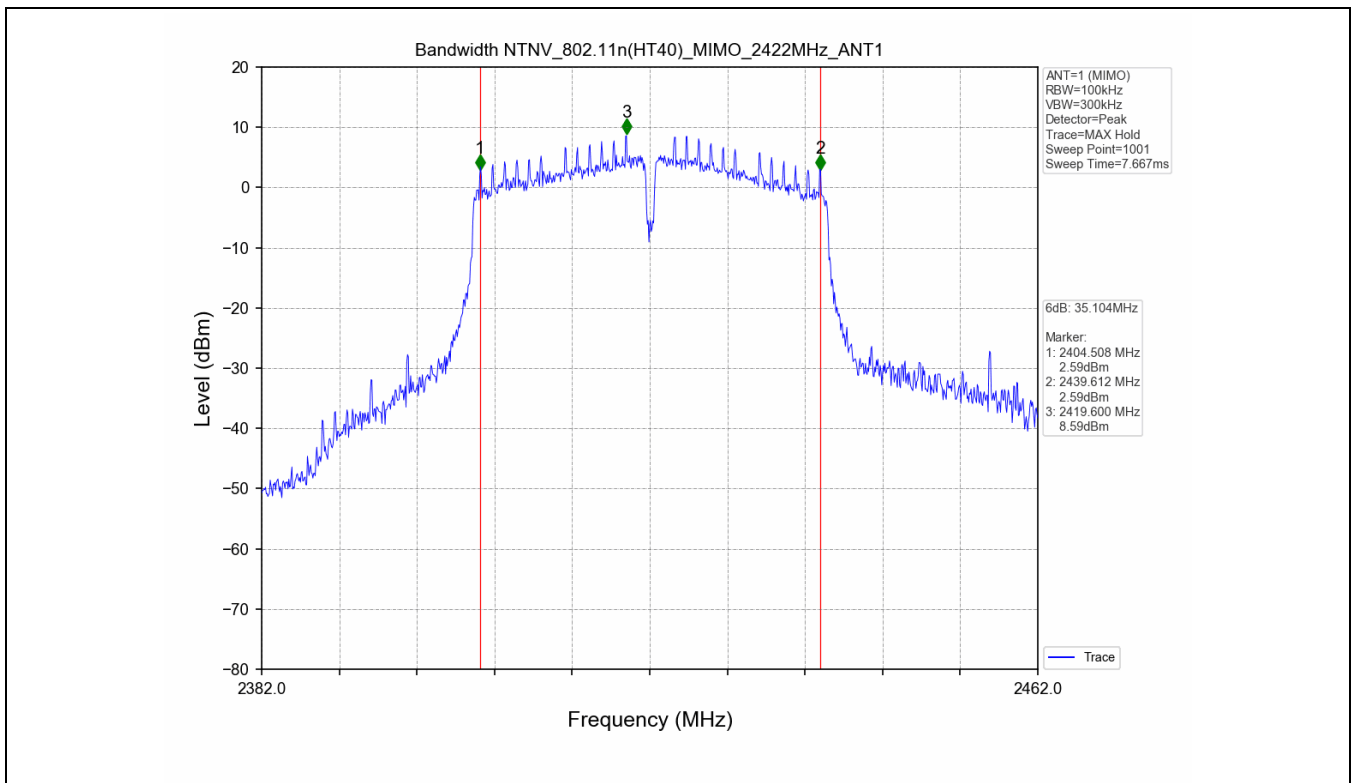
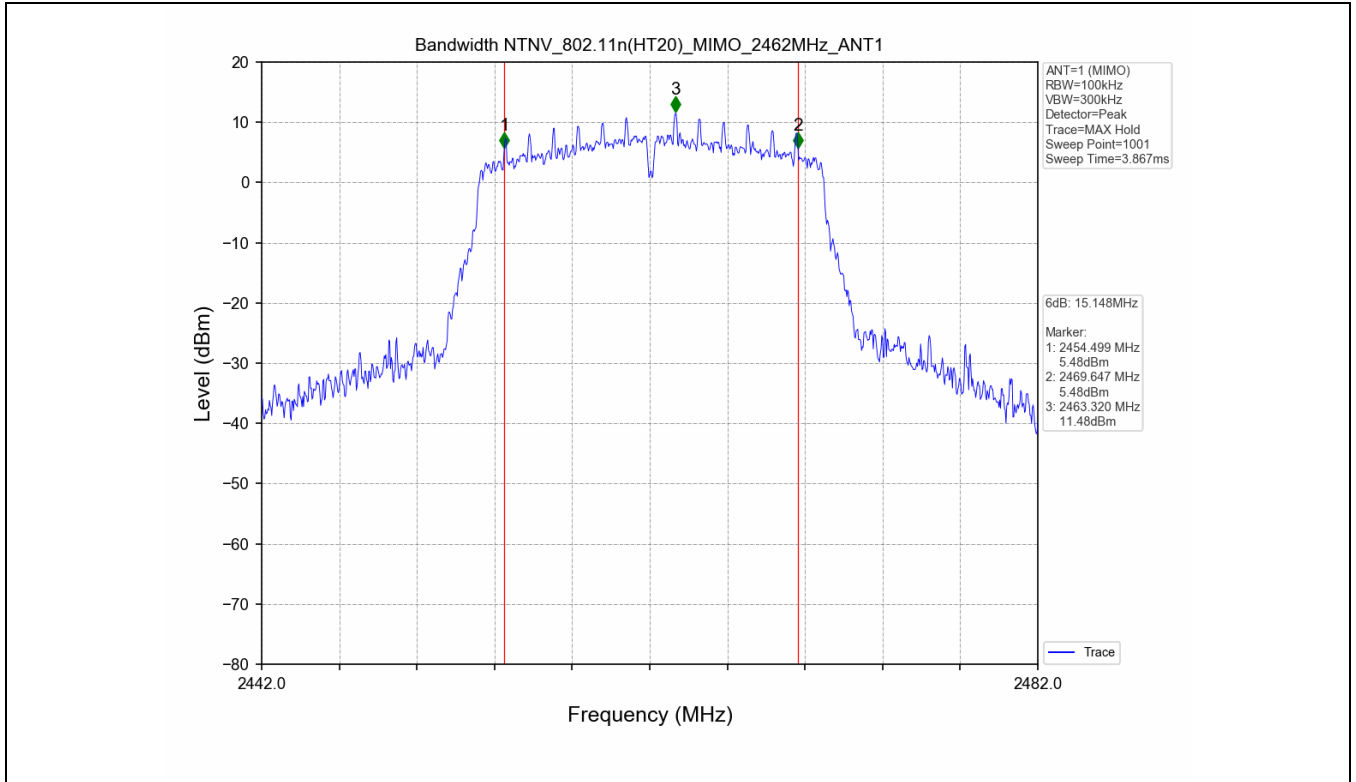
2.2 Test Graph - 6dB Bandwidth

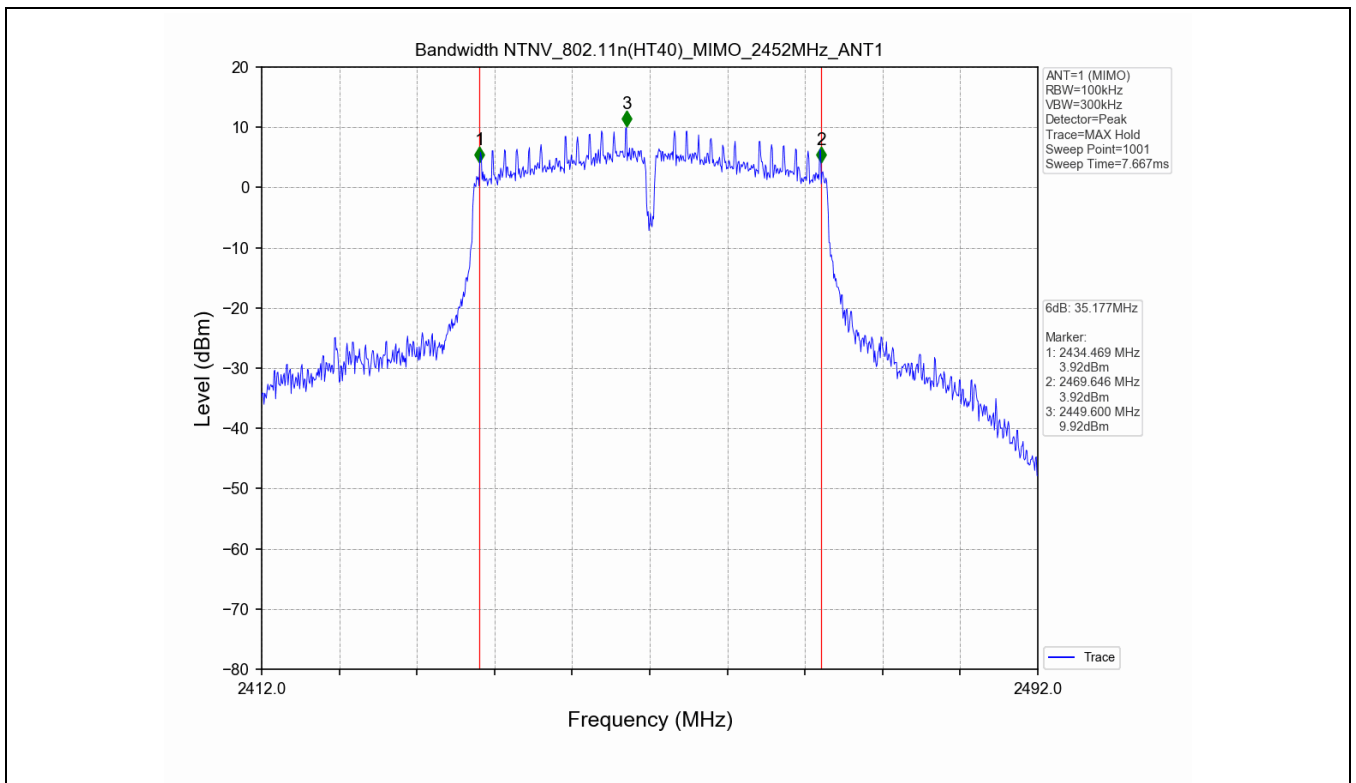
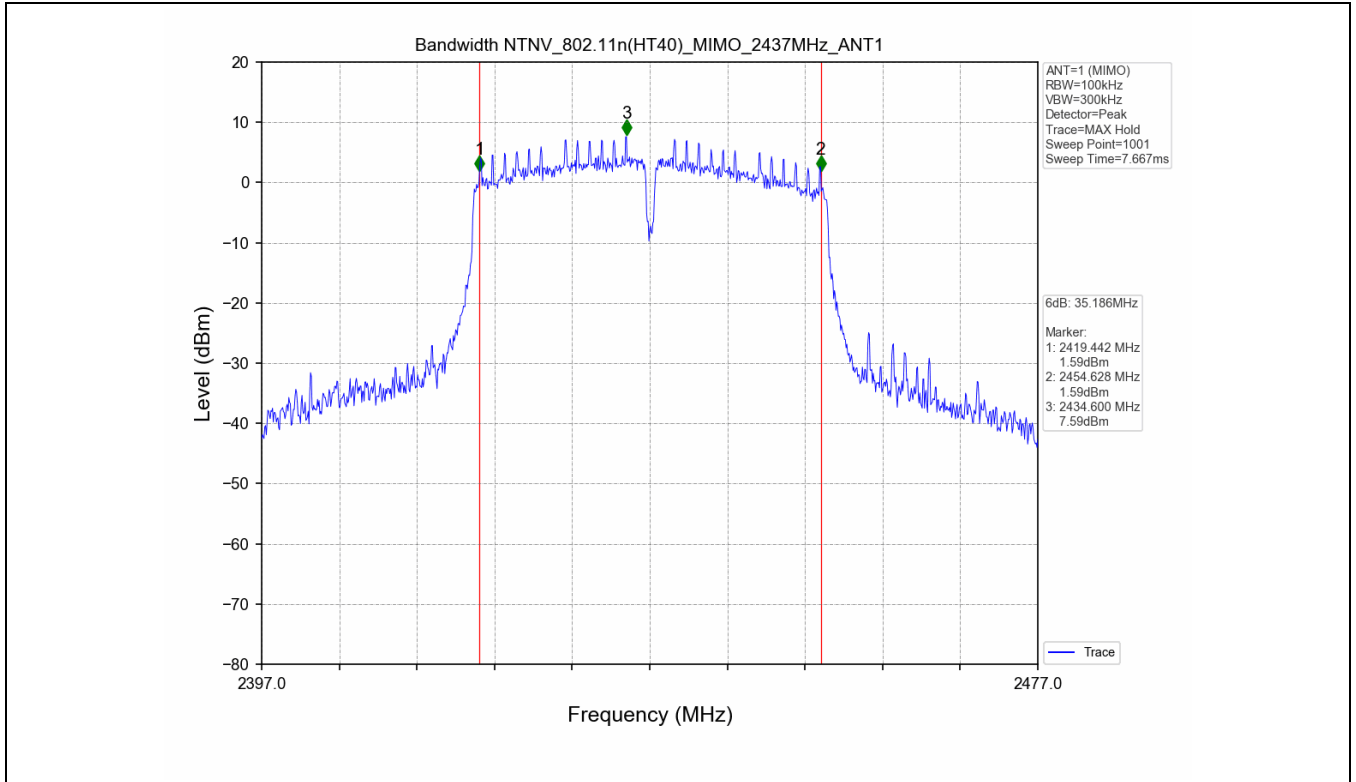












3. Maximum Conducted Output Power

3.1 Test Result for WG04

Test Mode	Frequency (MHz)	Tx Type	Power Setting	Measured Average Output Power (dBm)				Limits (dBm)	Verdict
				Ant 1	Ant 2	Ant 3	Total		
802.11b	2412	SISO	26	16.86	16.59	14.62	/	30	PASS
	2437	SISO	26	15.88	16.95	14.54	/	30	PASS
	2462	SISO	26	17.20	17.92	16.82	/	30	PASS
802.11g	2412	SISO	26	20.37	20.35	18.76	/	30	PASS
	2437	SISO	26	20.03	21.28	19.23	/	30	PASS
	2462	SISO	26	20.97	22.46	21.43	/	30	PASS
802.11n(HT20)	2412	MIMO	26	20.20	20.07	18.86	24.52	30	PASS
	2437	MIMO	26	19.88	20.82	19.21	24.79	30	PASS
	2462	MIMO	26	20.96	21.85	21.54	26.24	30	PASS
802.11n(HT40)	2422	MIMO	26	21.08	21.83	20.75	26.02	30	PASS
	2437	MIMO	26	20.55	21.91	20.62	25.84	30	PASS
	2452	MIMO	26	20.47	20.87	19.60	25.12	30	PASS

3.2 Test Result for WG02

Test Mode	Frequency (MHz)	Tx Type	Power Setting	Measured Average Output Power (dBm)				Limits (dBm)	Verdict
				Ant 1	Ant 2	Ant 3	Total		
802.11b	2412	SISO	26	16.35	16.56	14.57	/	30	PASS
	2437	SISO	26	15.84	16.93	14.52	/	30	PASS
	2462	SISO	26	17.17	17.88	16.81	/	30	PASS
802.11g	2412	SISO	26	20.36	20.32	18.65	/	30	PASS
	2437	SISO	26	20.01	21.13	19.21	/	30	PASS
	2462	SISO	26	20.95	22.42	21.41	/	30	PASS
802.11n(HT20)	2412	MIMO	26	20.14	19.89	18.77	24.41	30	PASS
	2437	MIMO	26	19.85	20.80	19.25	24.79	30	PASS
	2462	MIMO	26	20.91	21.82	21.52	26.20	30	PASS
802.11n(HT40)	2422	MIMO	26	21.02	21.80	20.71	25.97	30	PASS
	2437	MIMO	26	20.51	21.90	20.61	25.83	30	PASS
	2452	MIMO	26	20.43	20.86	19.55	25.08	30	PASS

Note: Since the number of transmit antennas is less than 4, Array gain=0dB.



4. Maximum Power Spectral Density (PSD)

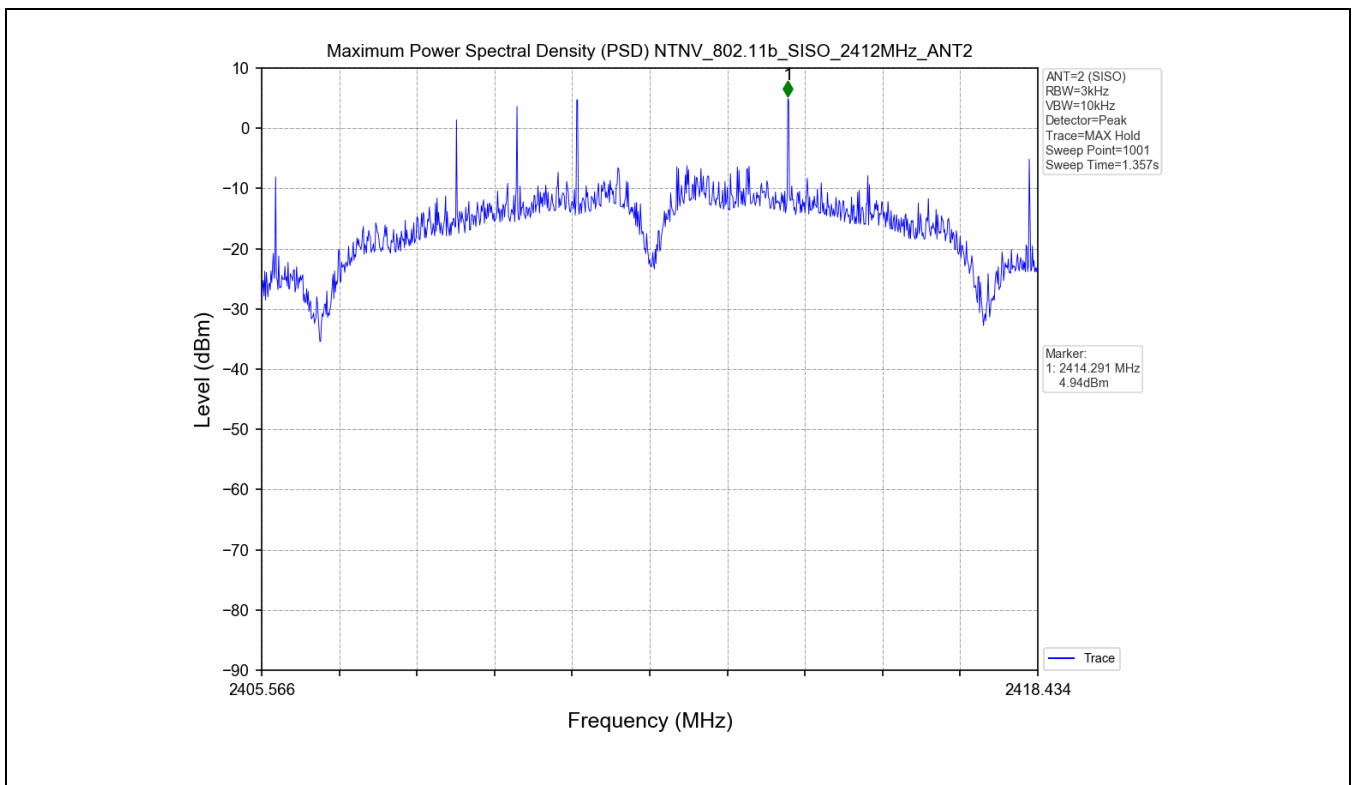
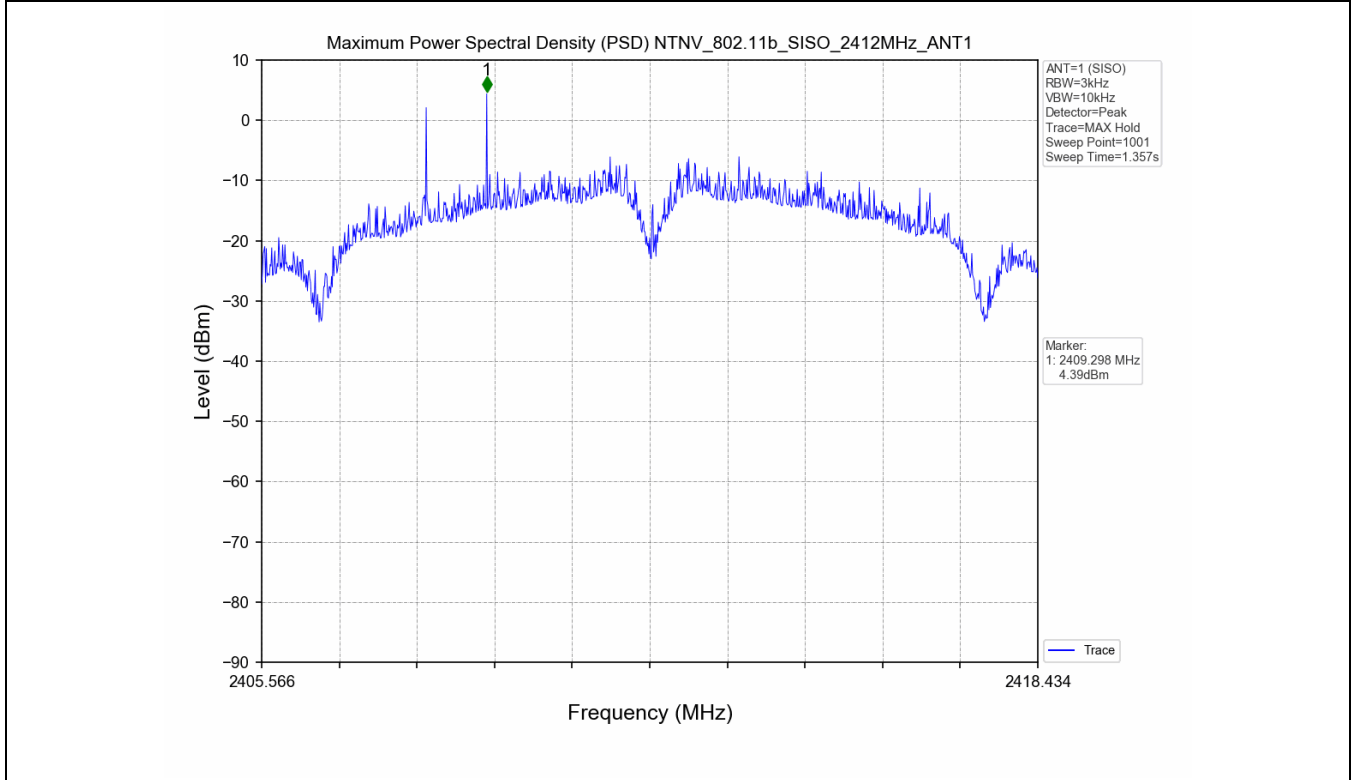
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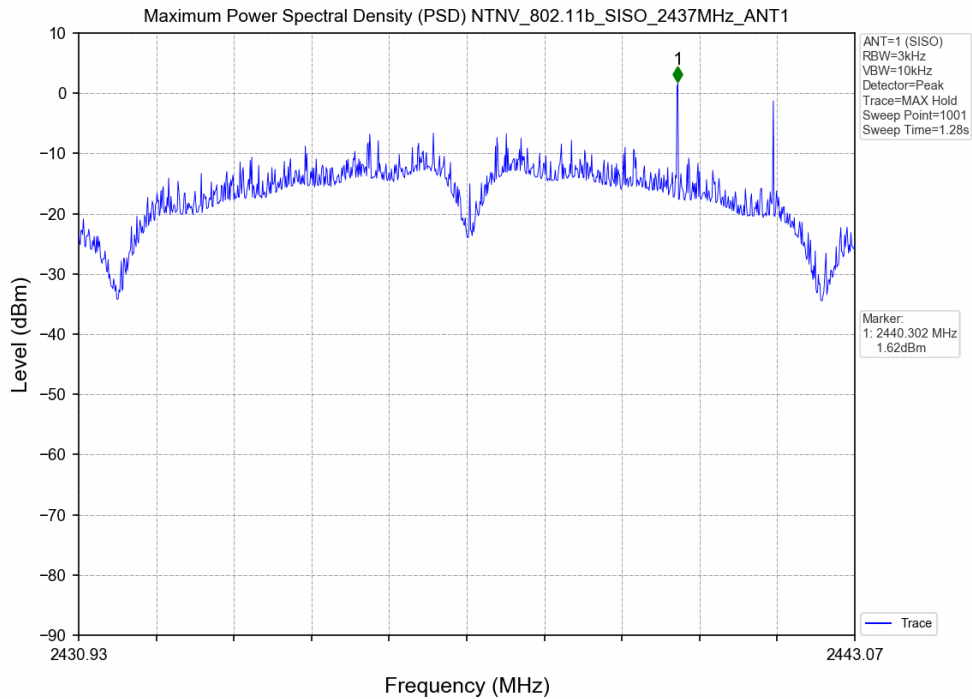
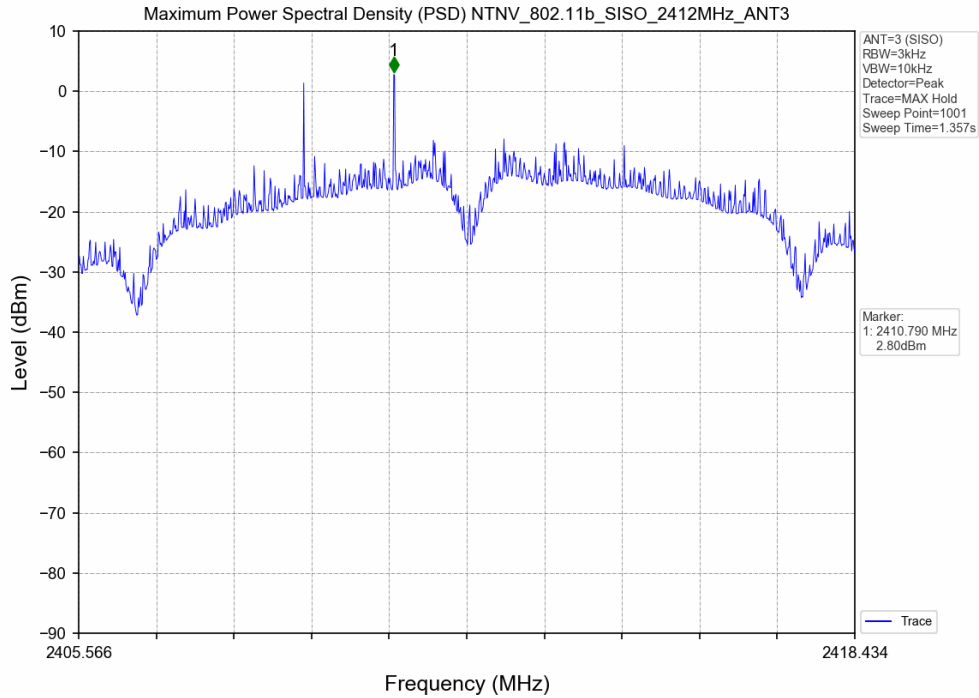
Test Mode	Frequency (MHz)	Tx Type	Maximum Power Spectral Density (dBm/3KHz)				Limits (dBm/3kHz)		Verdict
			Ant 1	Ant 2	Ant 3	Total	SISO	MIMO	
802.11b	2412	SISO	4.39	4.94	2.80	/	≤8	/	PASS
	2437	SISO	1.62	6.14	2.21	/	≤8	/	PASS
	2462	SISO	4.81	6.36	6.03	/	≤8	/	PASS
802.11g	2412	SISO	-5.97	-6.41	-7.67	/	≤8	/	PASS
	2437	SISO	-6.34	-5.37	-7.23	/	≤8	/	PASS
	2462	SISO	-3.96	-3.37	-5.09	/	≤8	/	PASS
802.11n(HT20)	2412	MIMO	-5.09	-5.21	-6.61	-1.46	/	≤8	PASS
	2437	MIMO	-5.25	-5.04	-6.47	-0.92	/	≤8	PASS
	2462	MIMO	-4.85	-2.18	-2.81	1.26	/	≤8	PASS
802.11n(HT40)	2422	MIMO	-7.93	-6.17	-7.39	-2.87	/	≤8	PASS
	2437	MIMO	-9.10	-7.38	-8.83	-4.54	/	≤8	PASS
	2452	MIMO	-6.83	-6.42	-6.14	-2.26	/	≤8	PASS

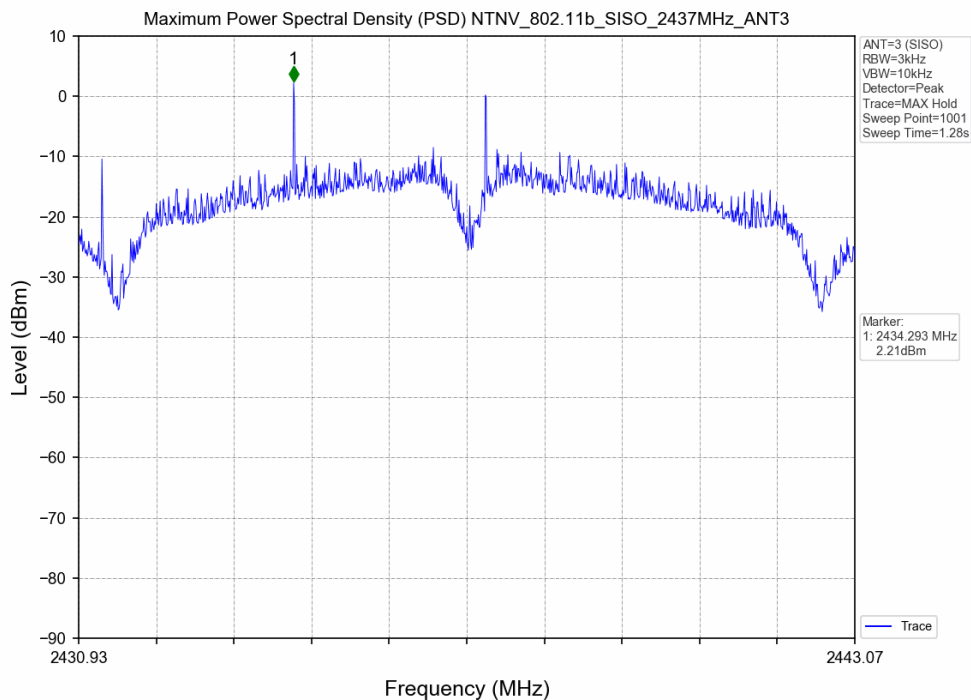
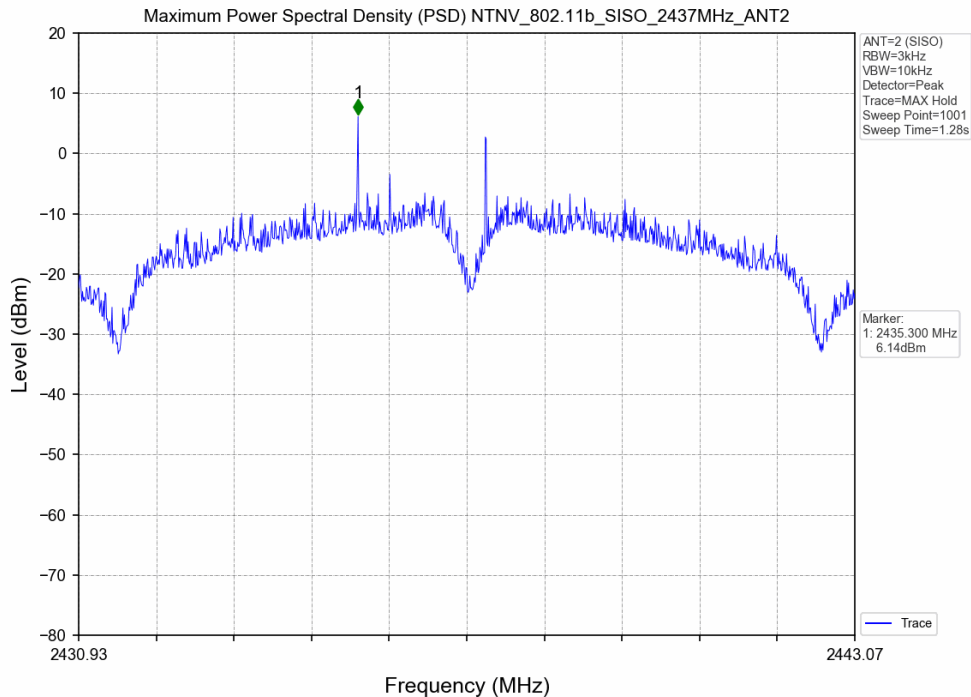
Note: Directional Gain= $G_{ANT} + \text{Array Gain} = G_{ANT} + 10 \cdot \log(N_{ANT}/N_{SS}) = 3.2 + 10 \cdot \log(3/1) = 7.97\text{dBi}$.

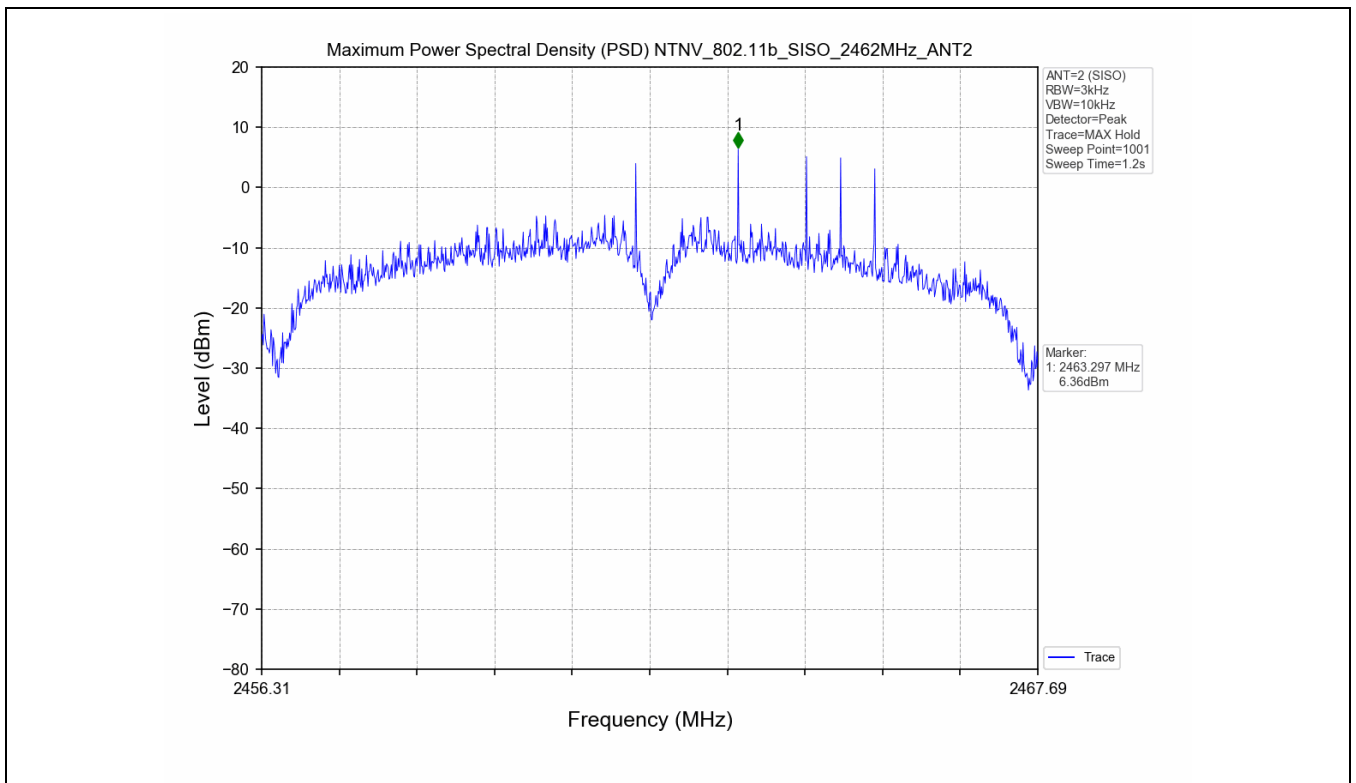
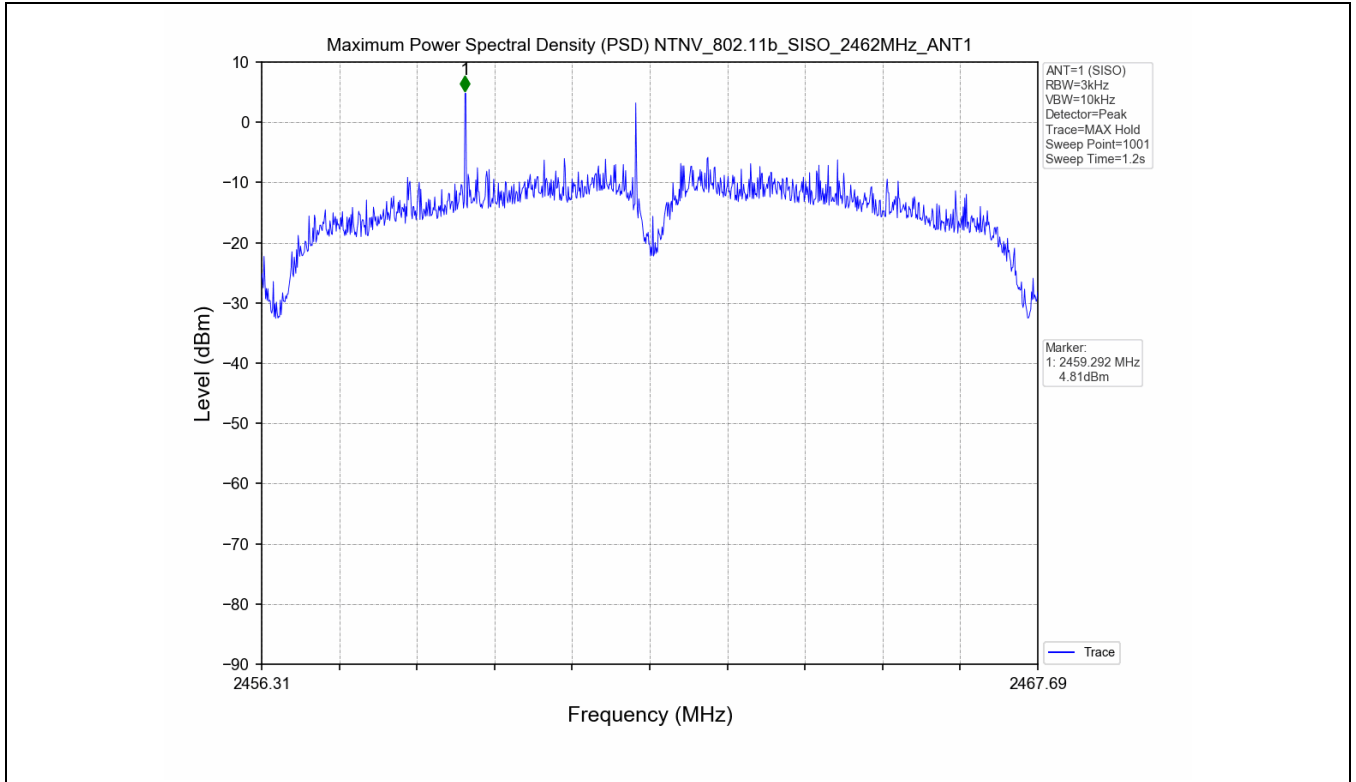


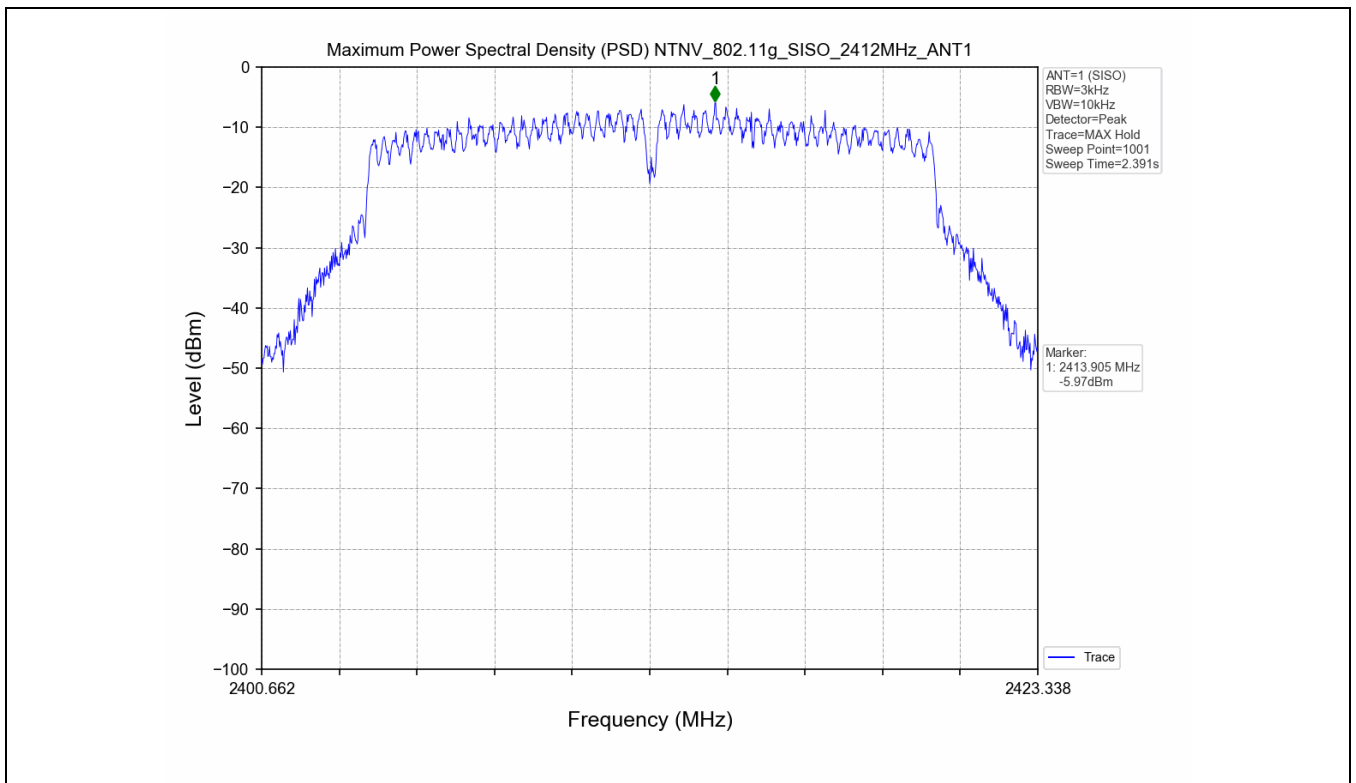
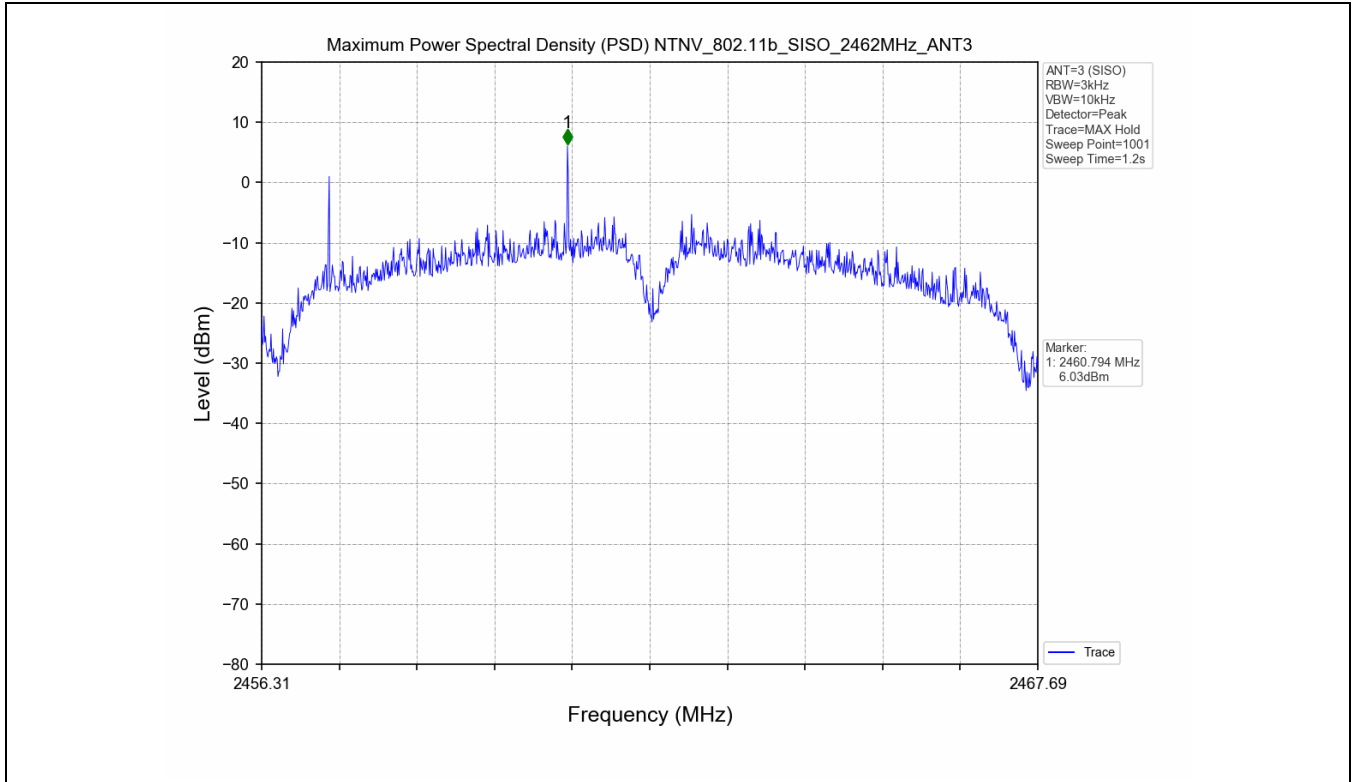
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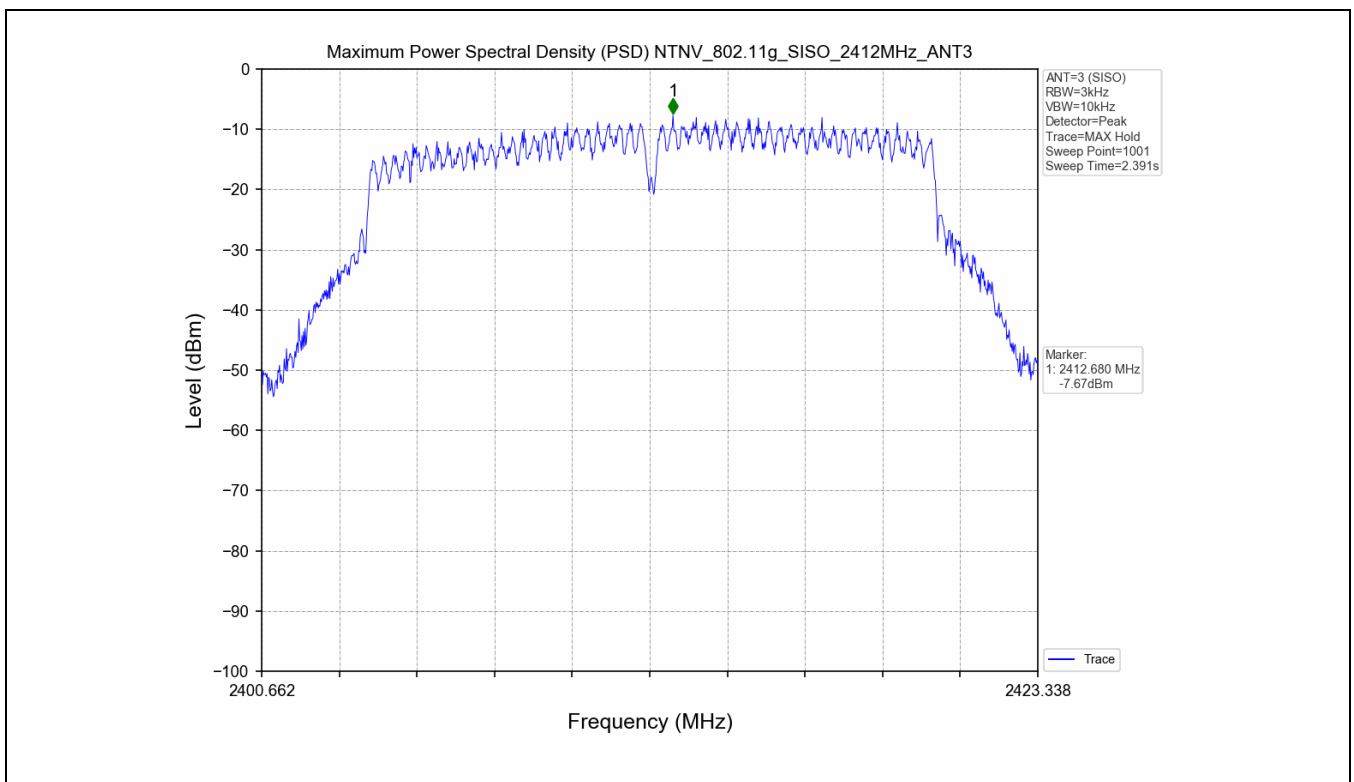
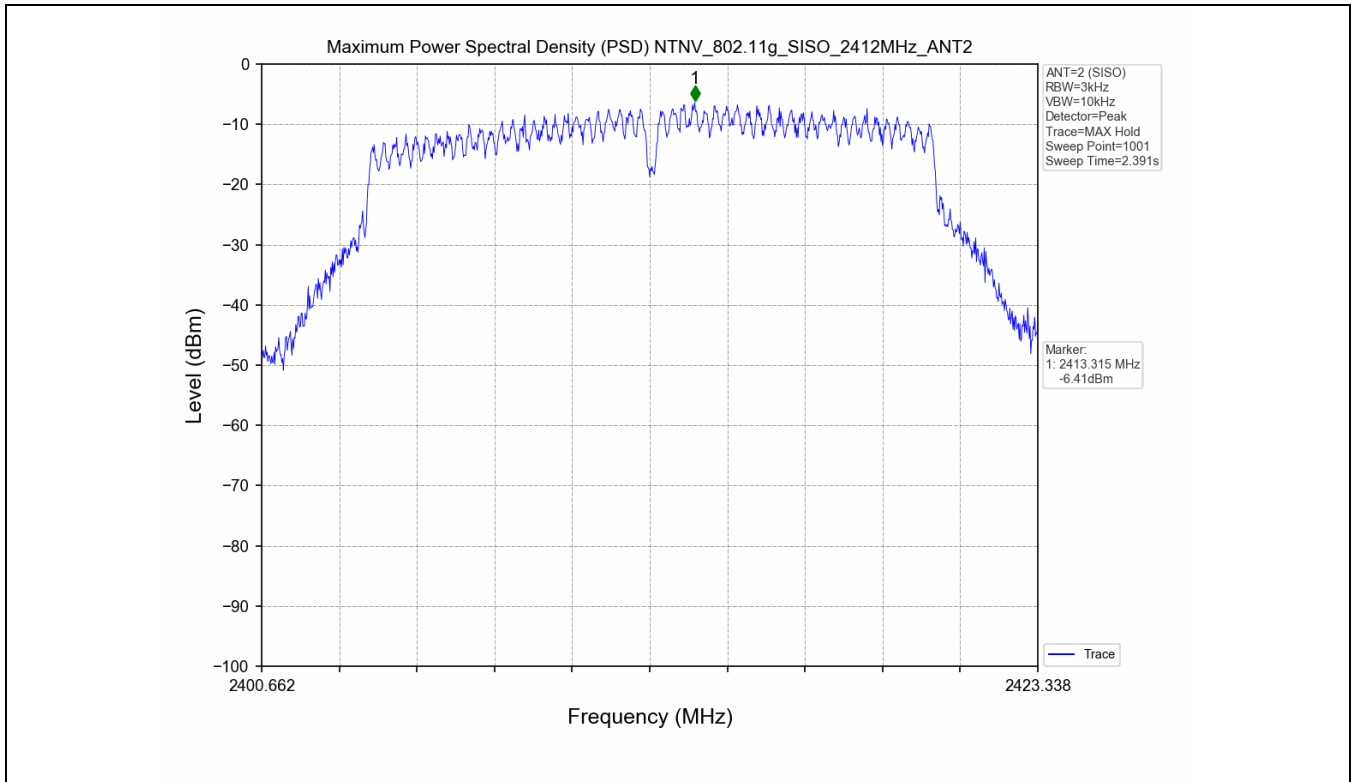


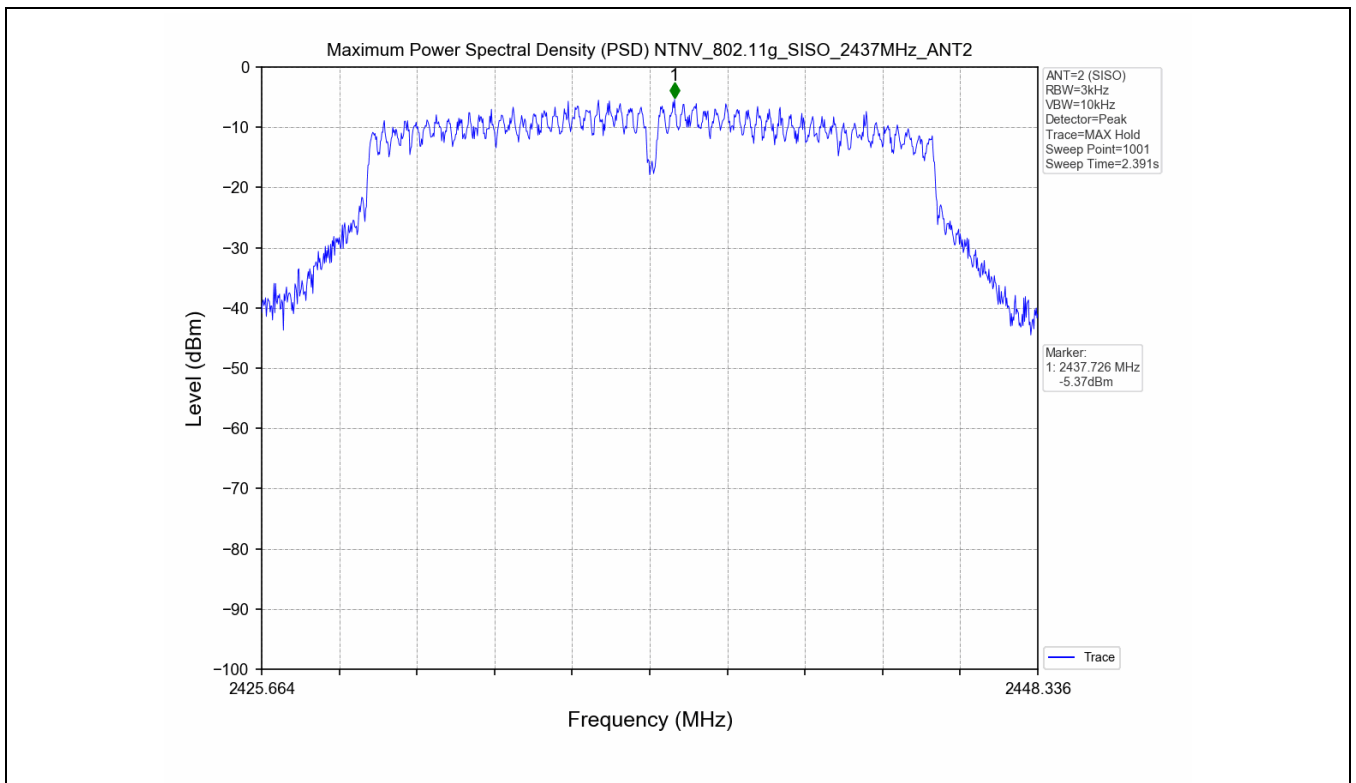
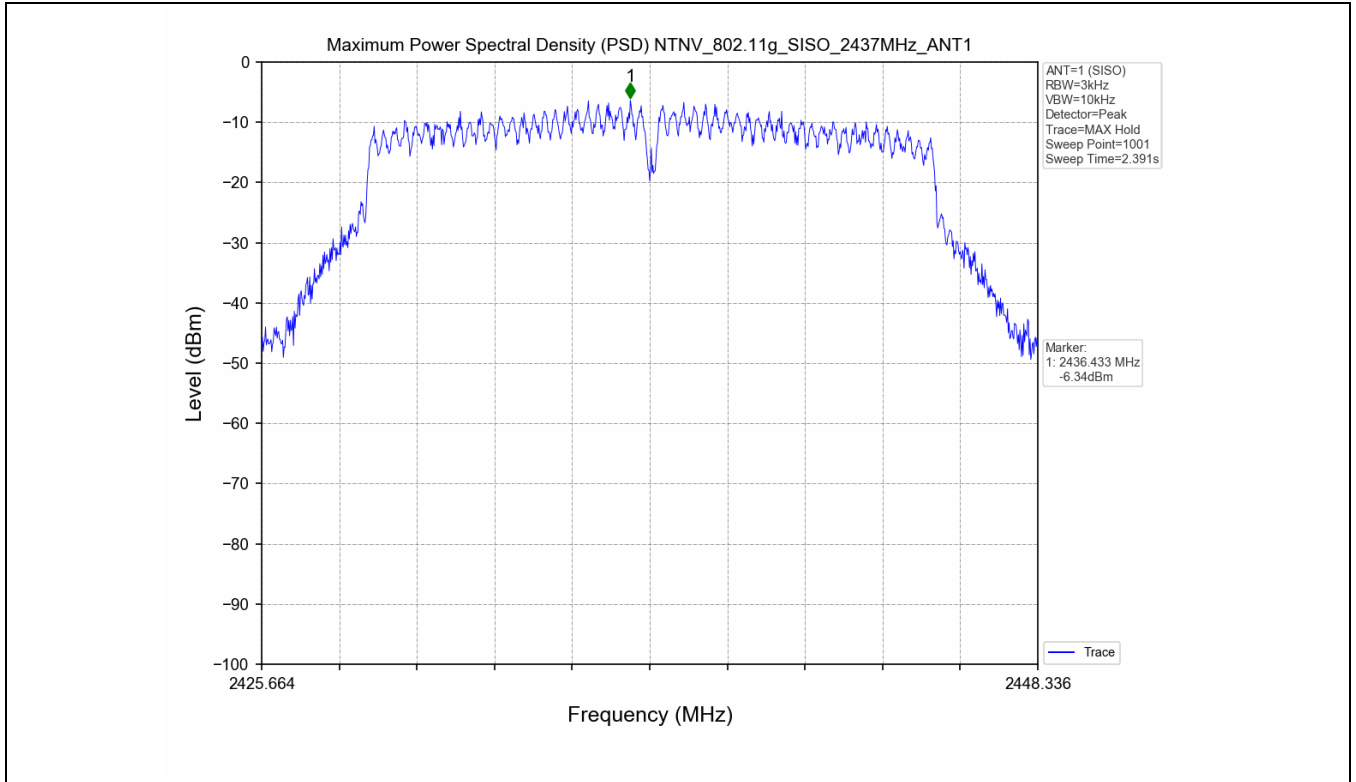


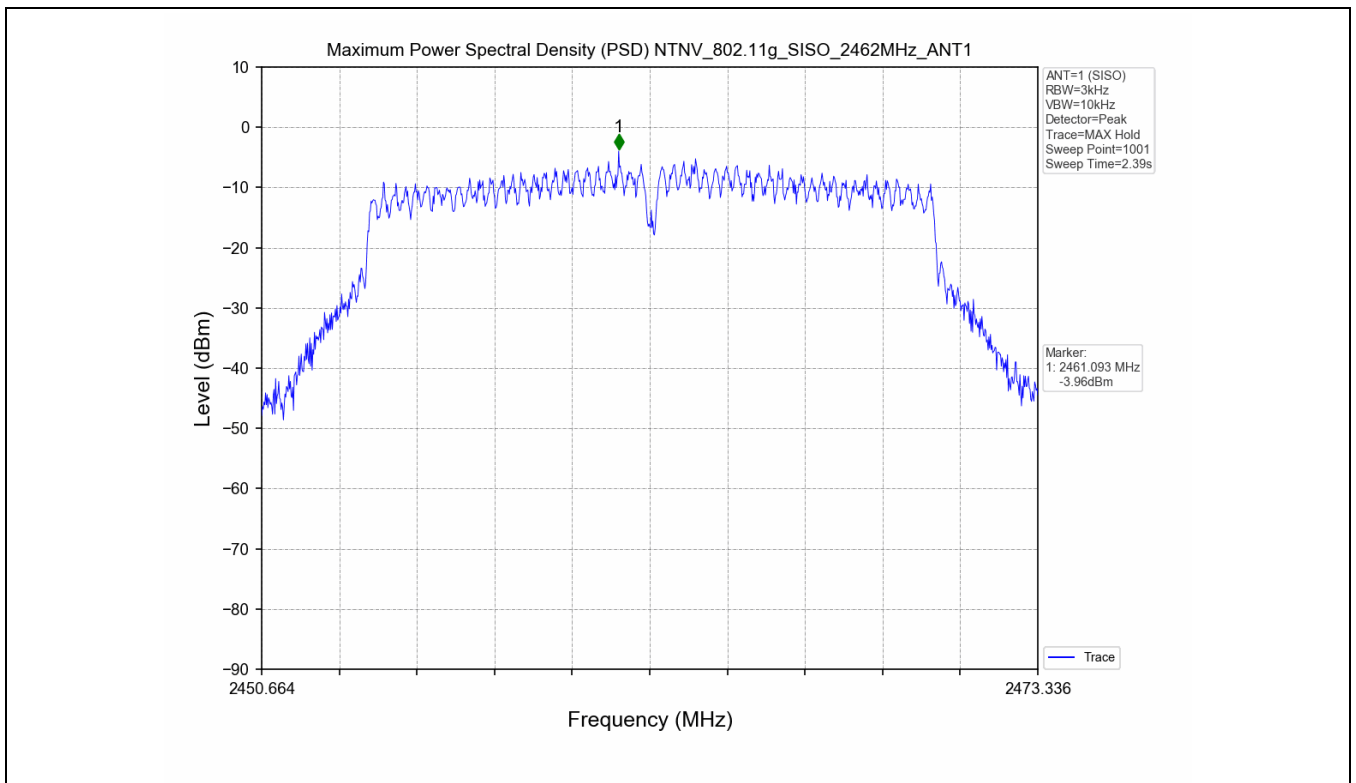
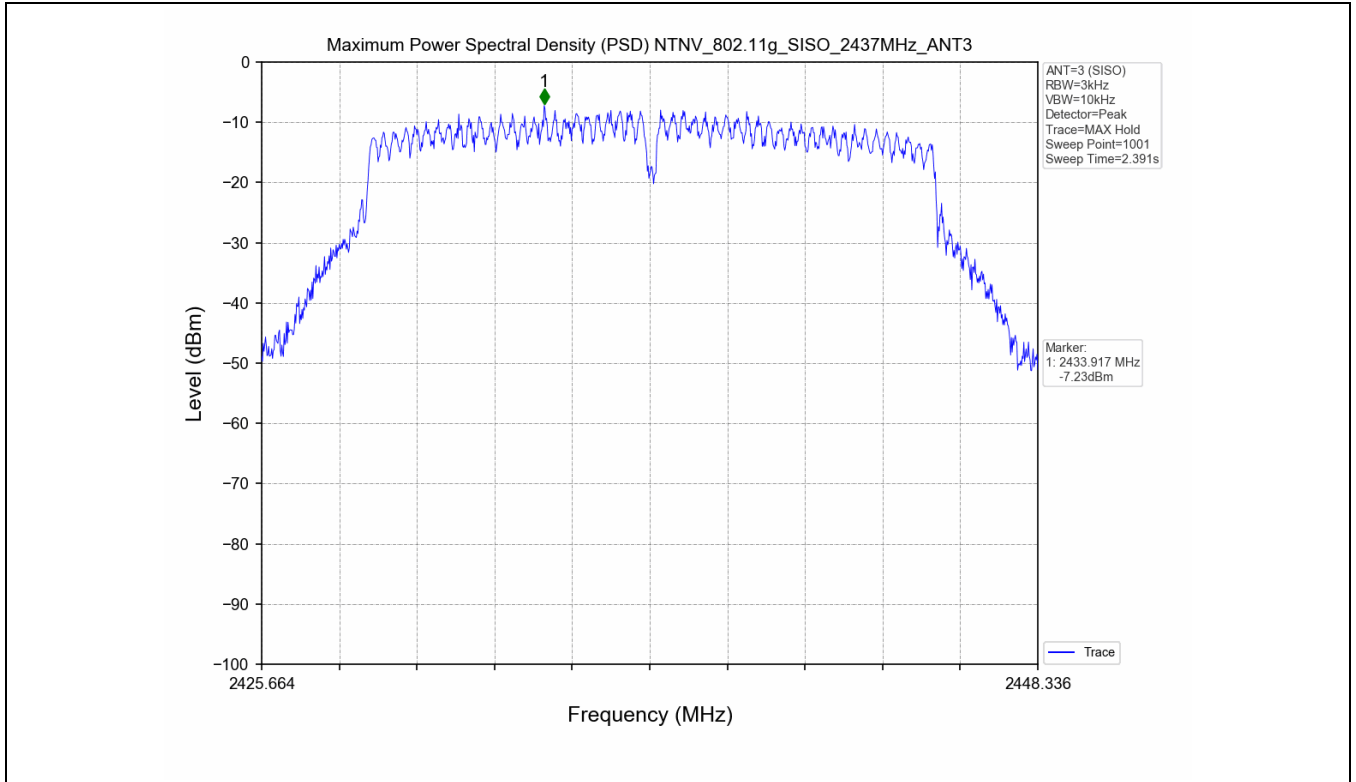


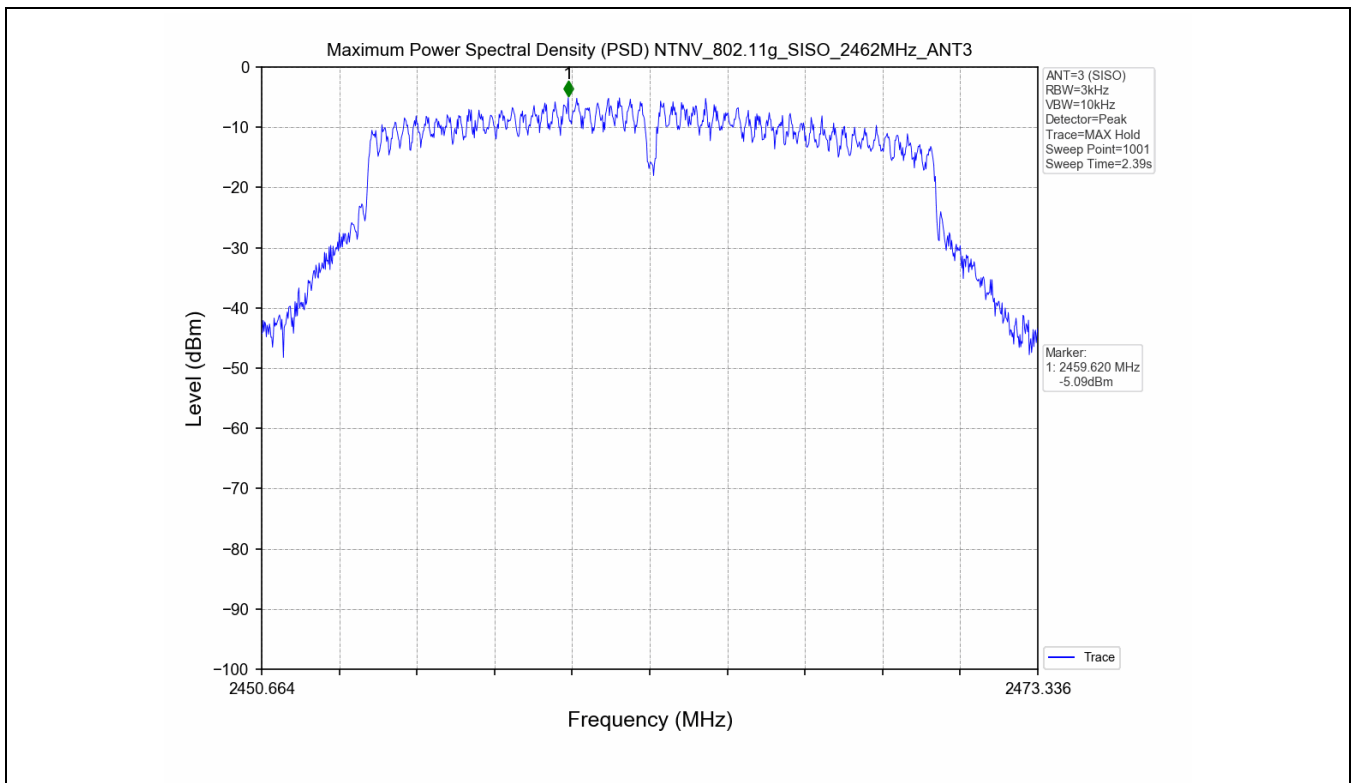
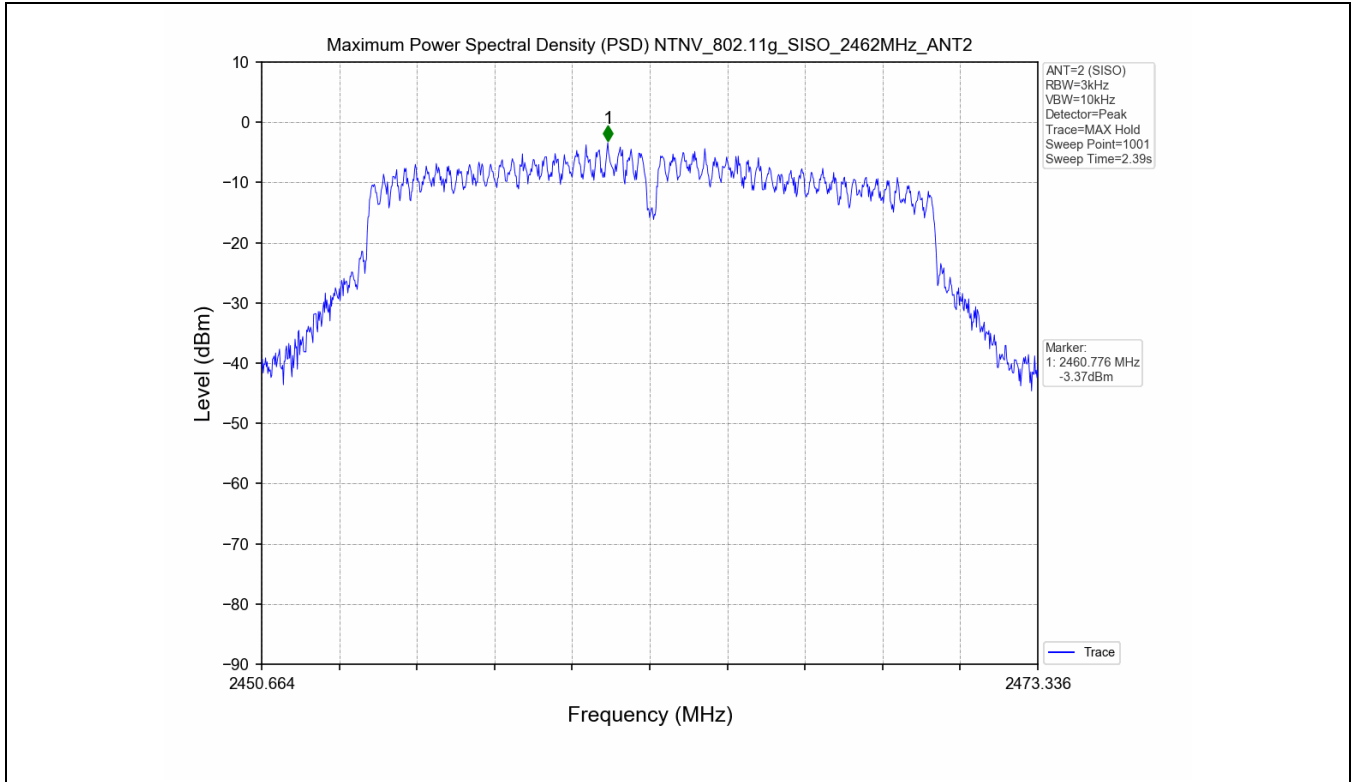


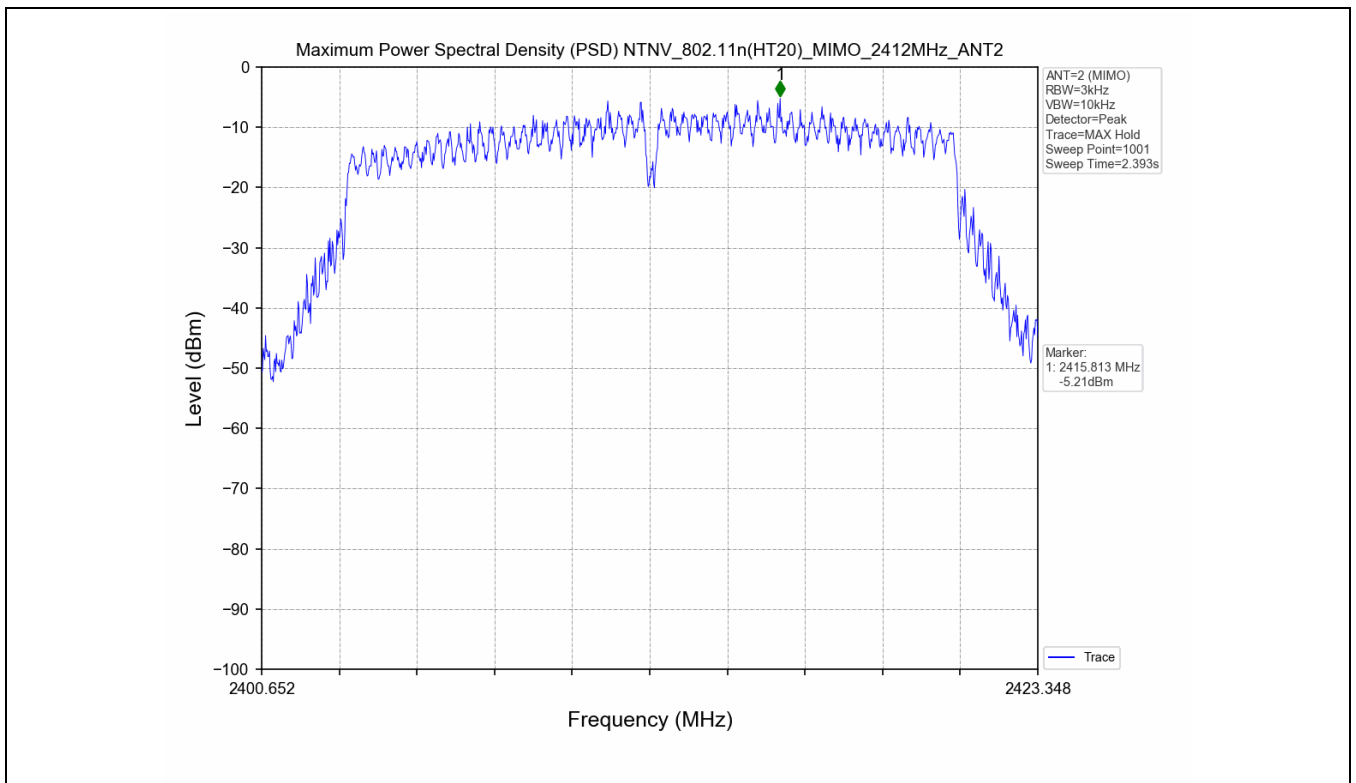
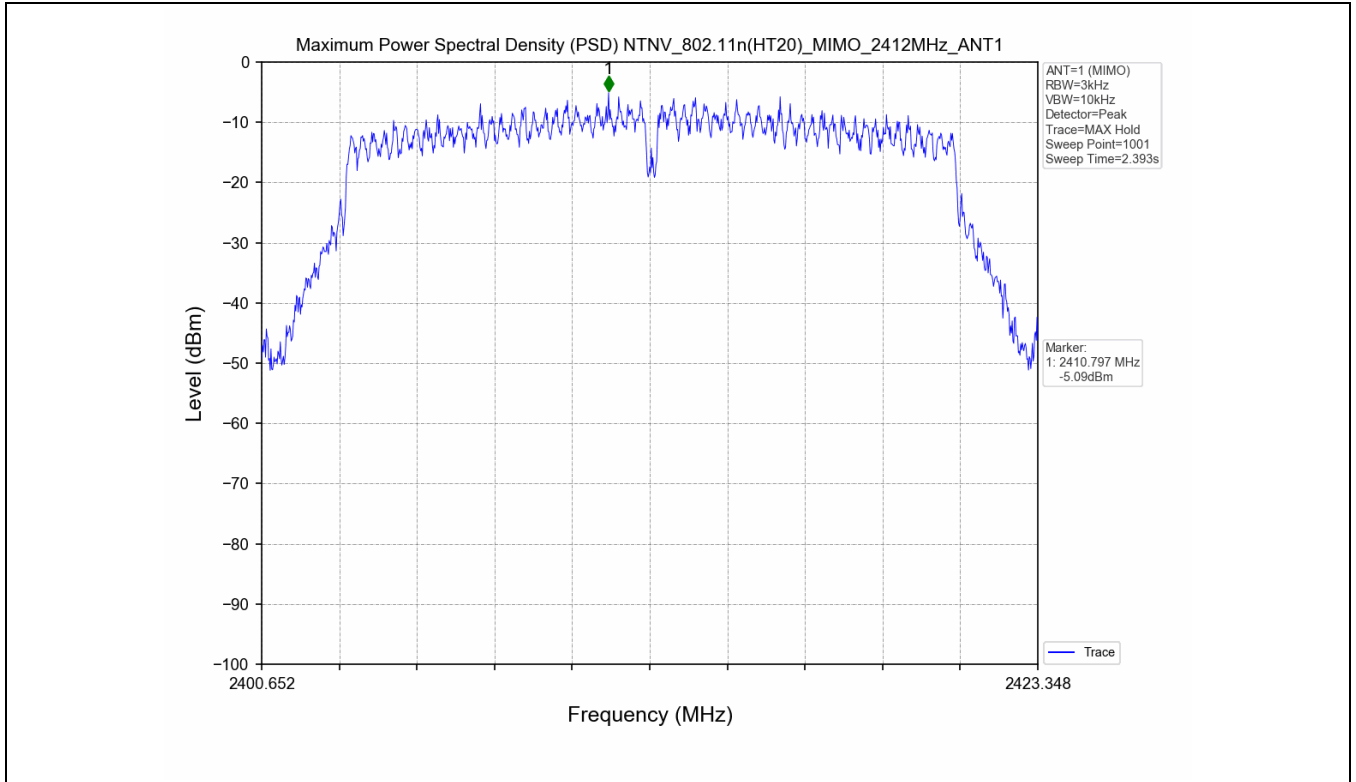


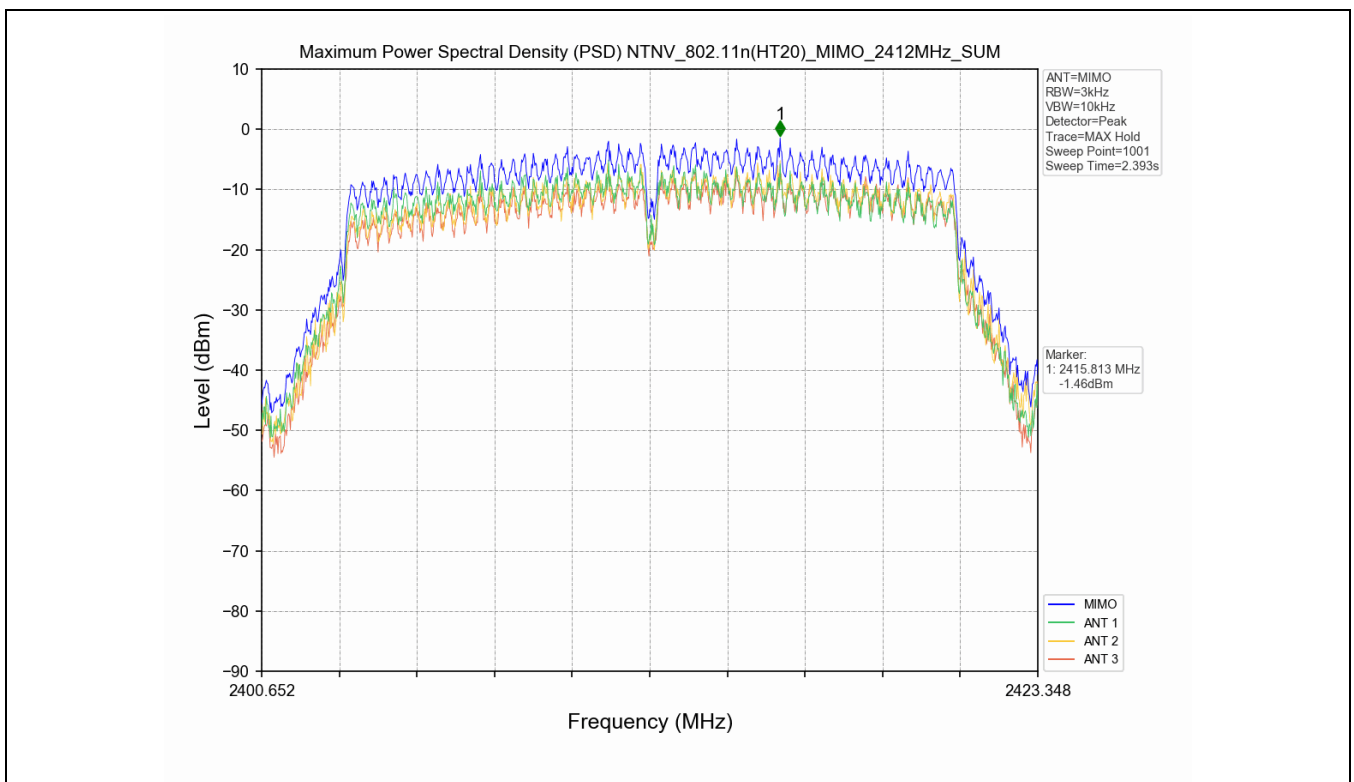
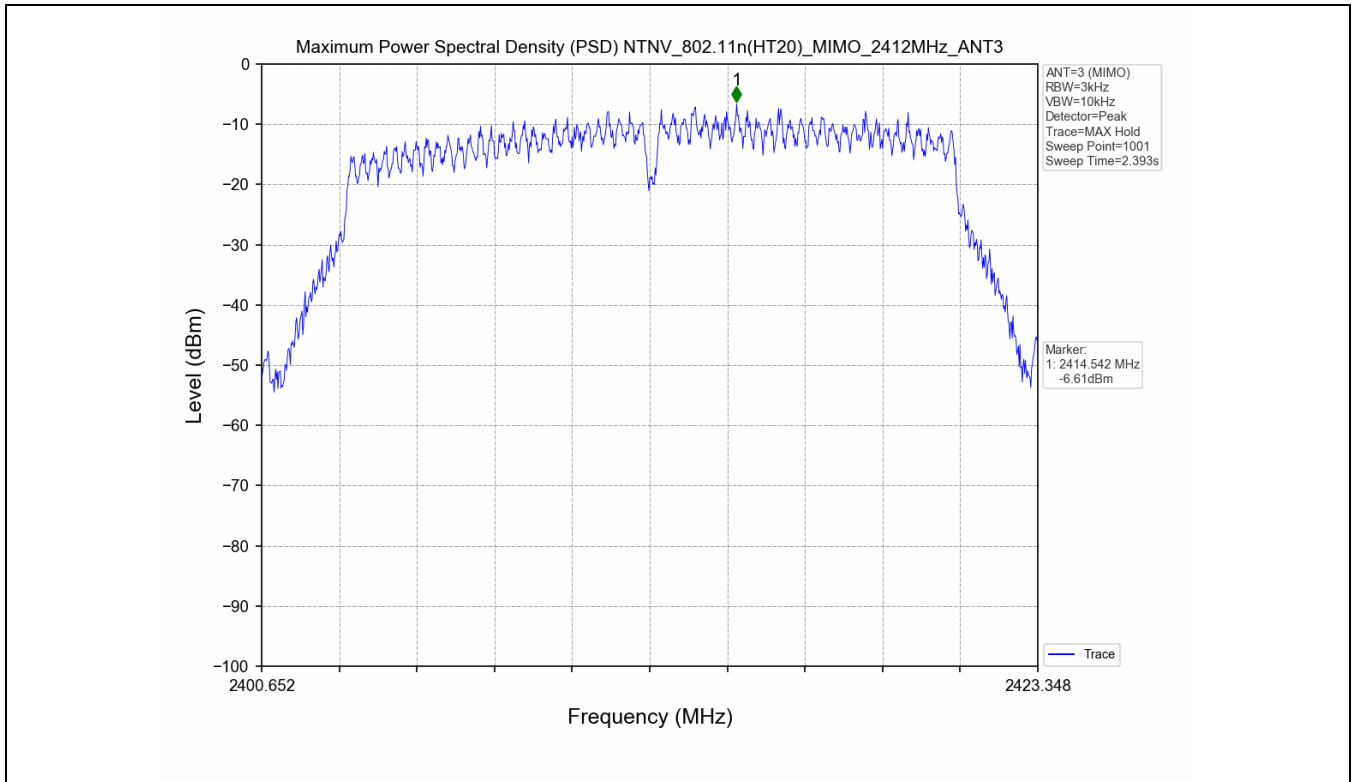


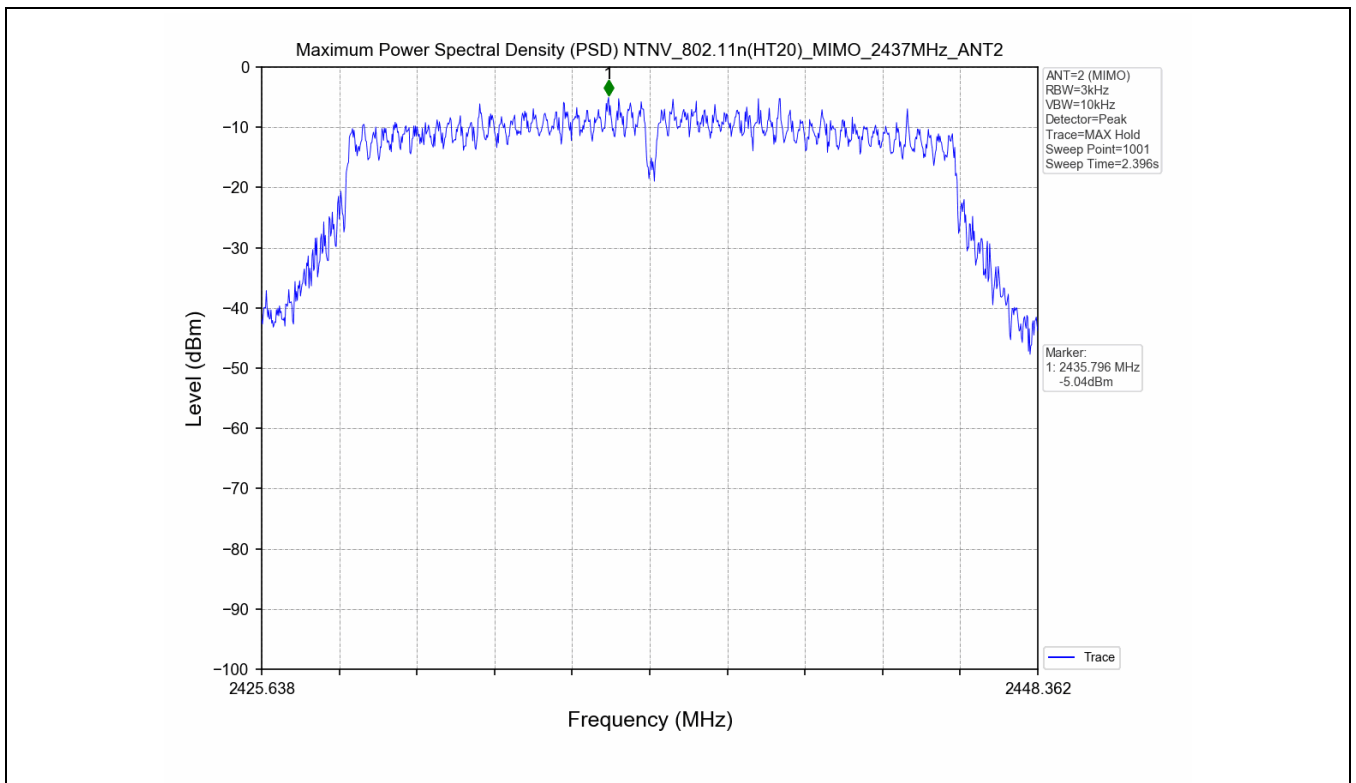
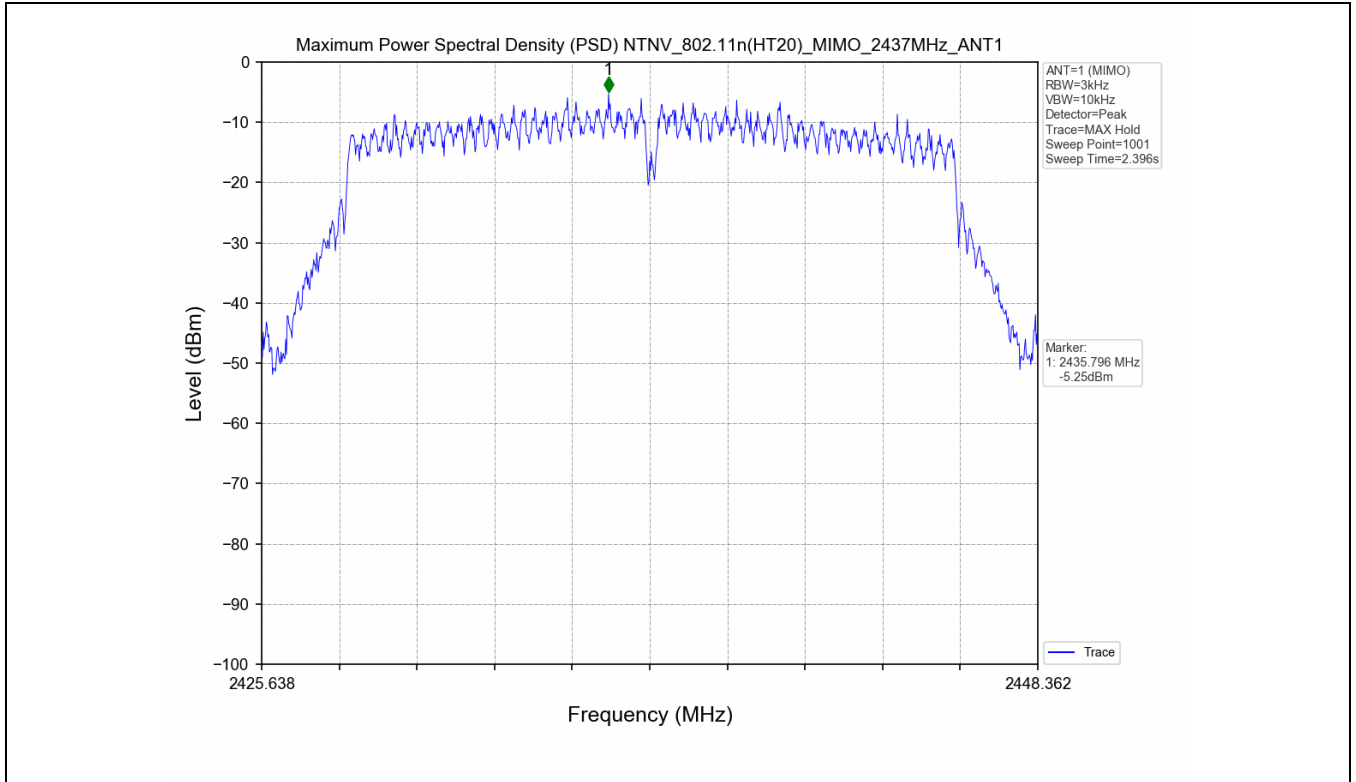


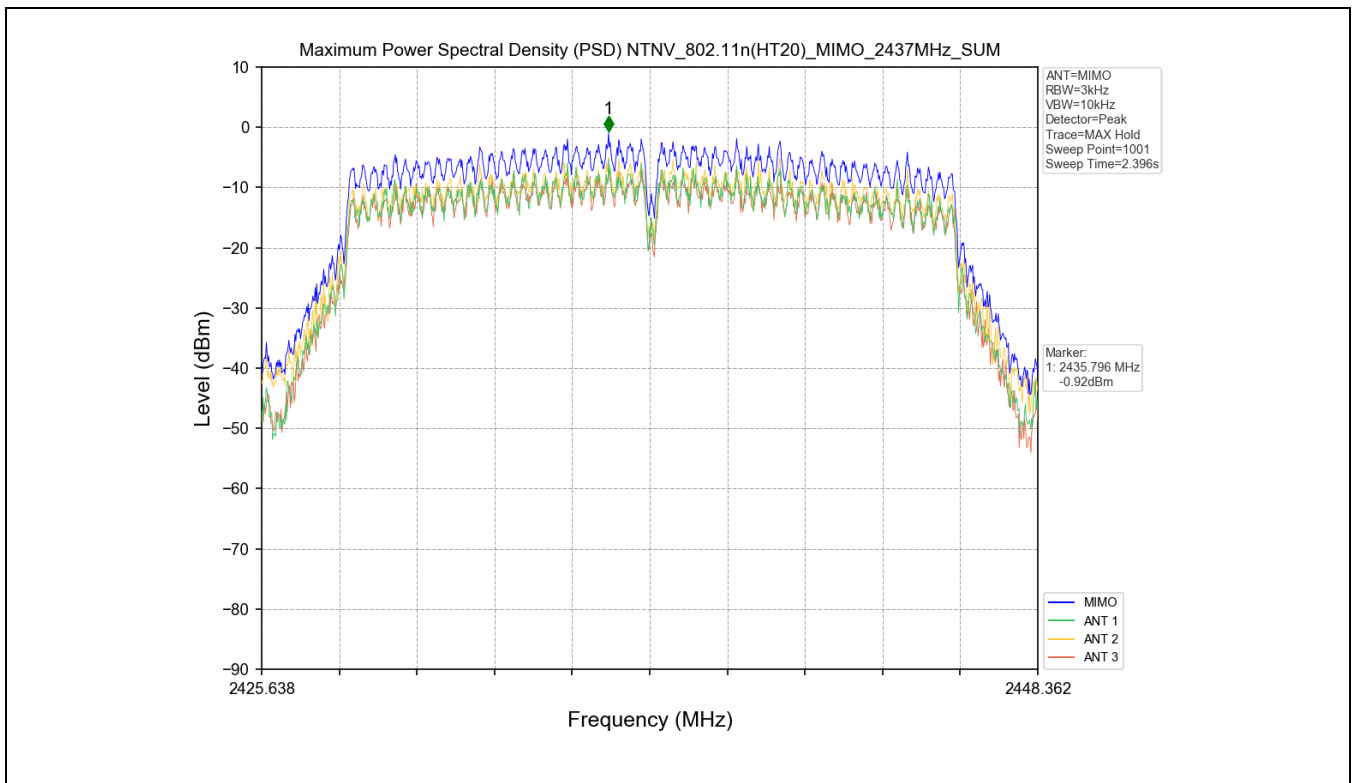
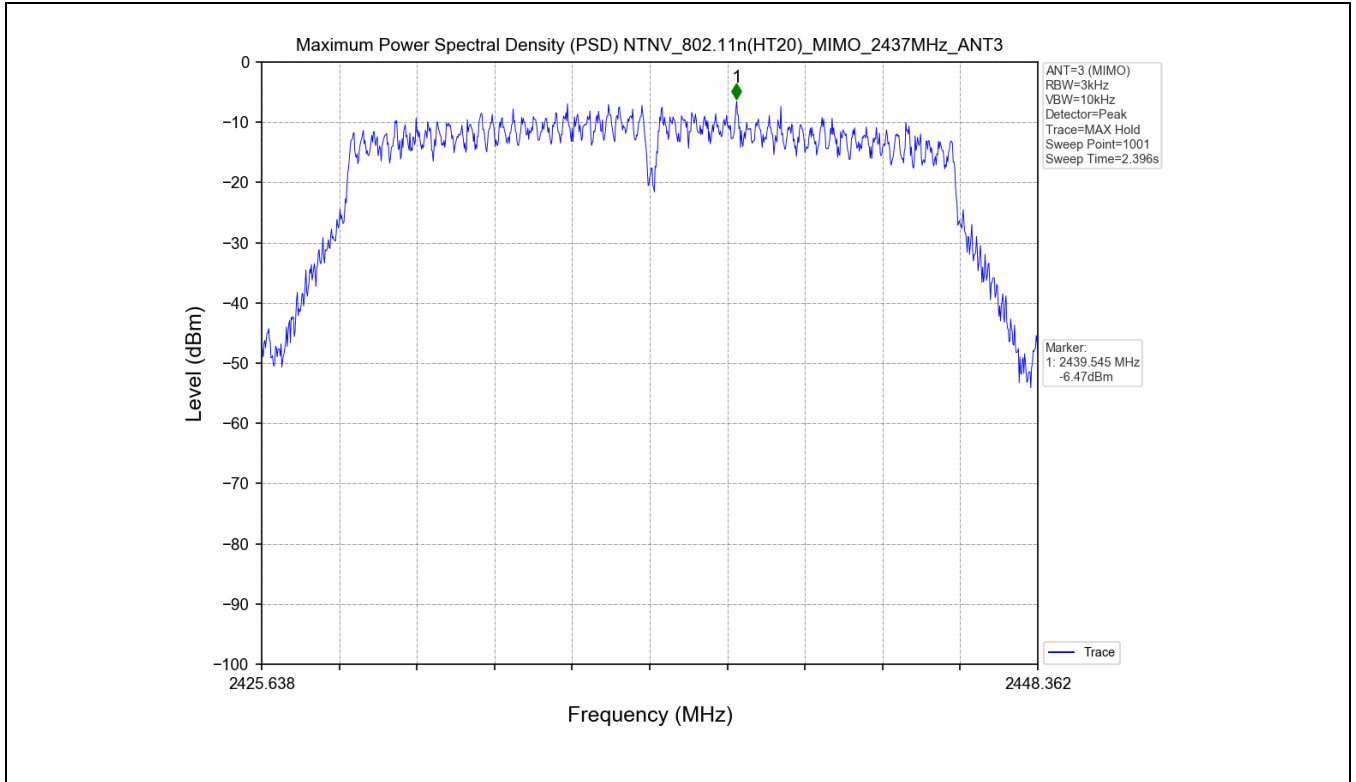


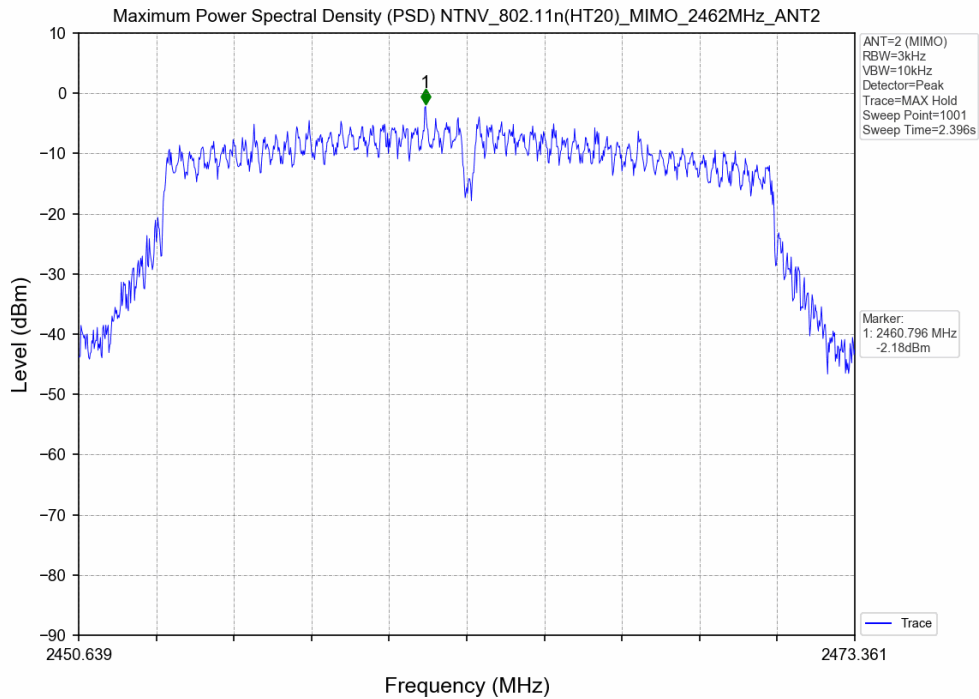
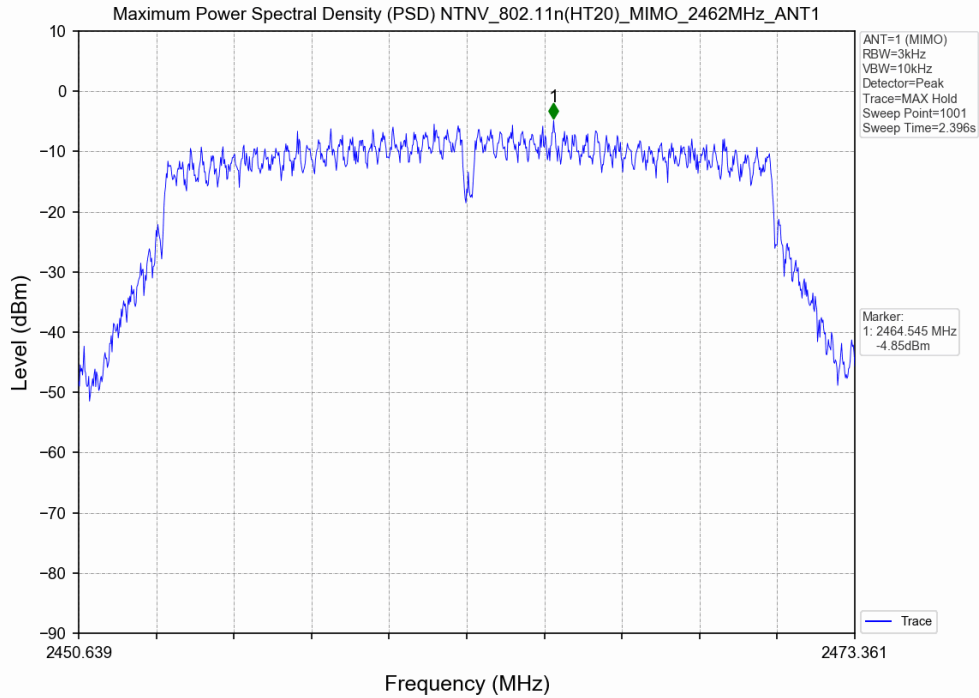








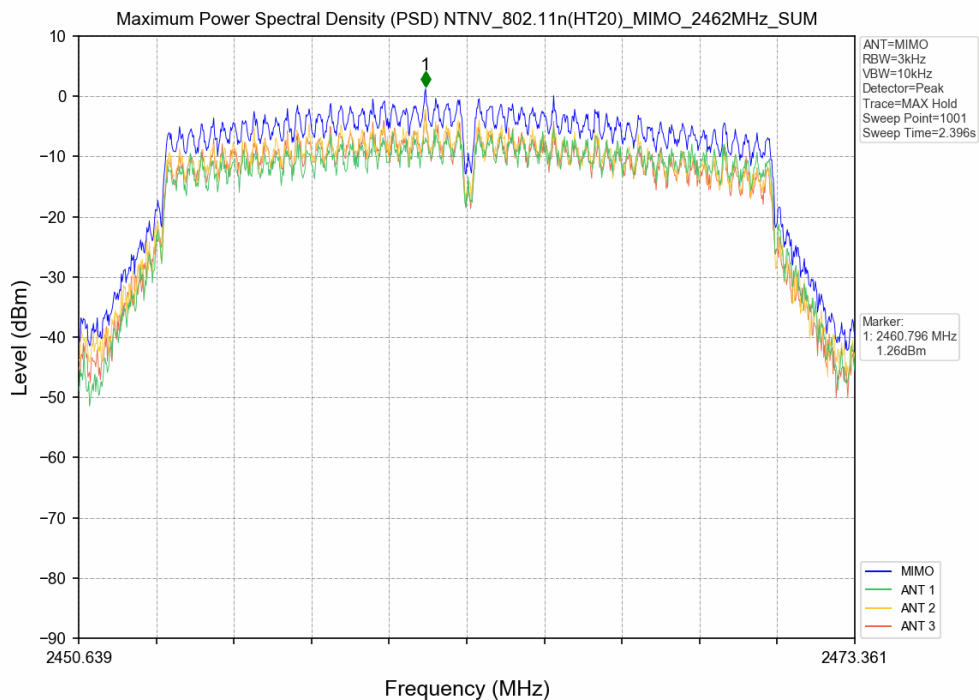
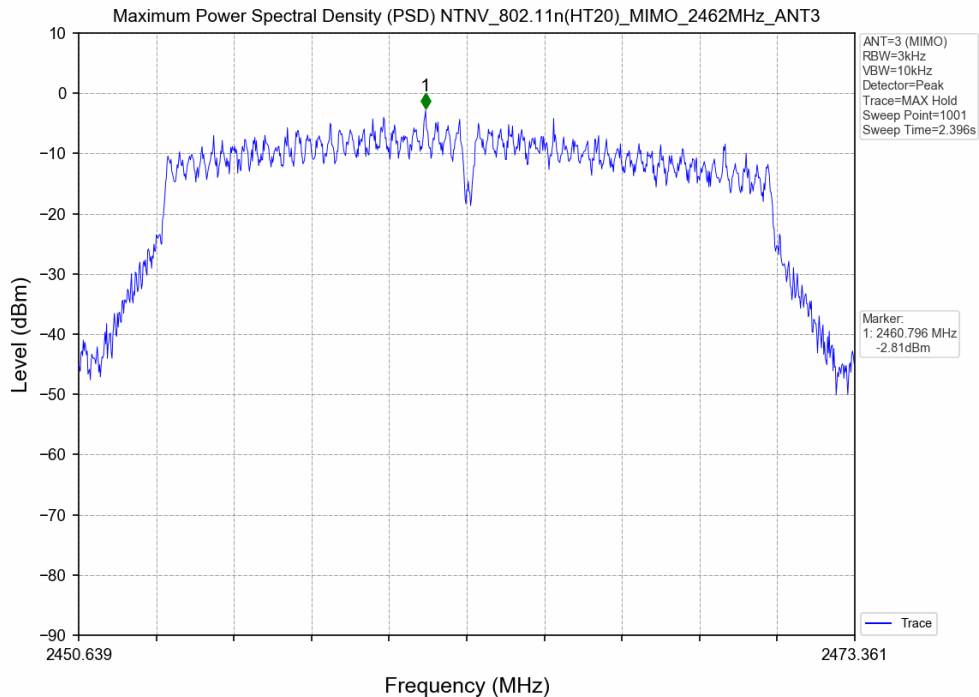


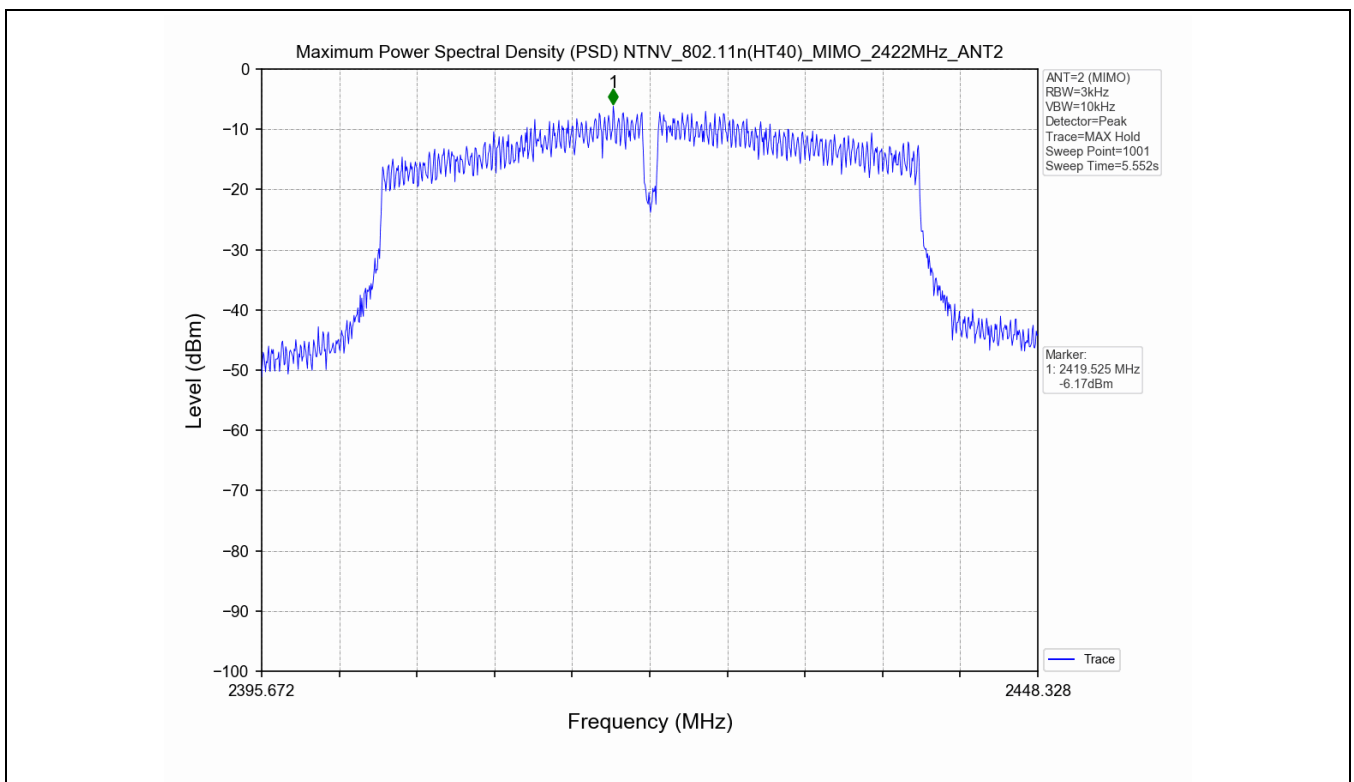
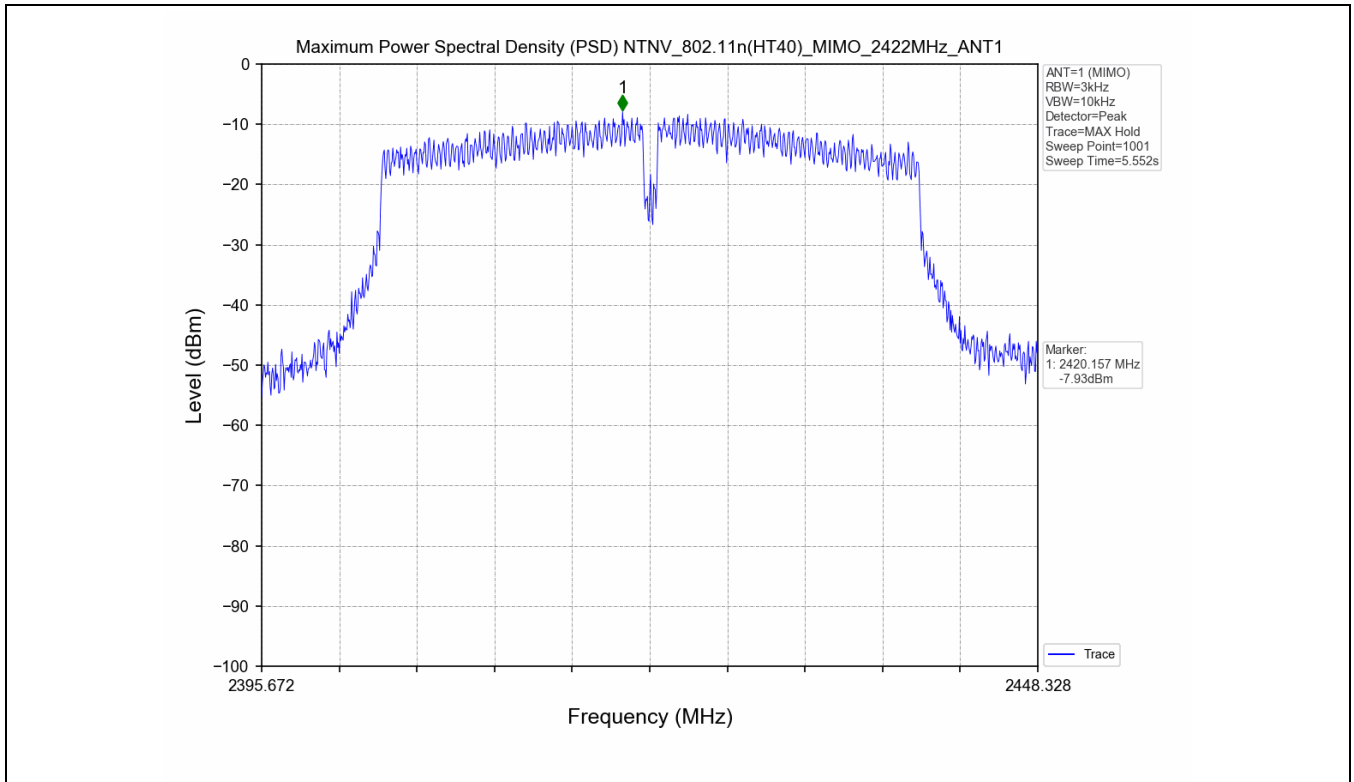


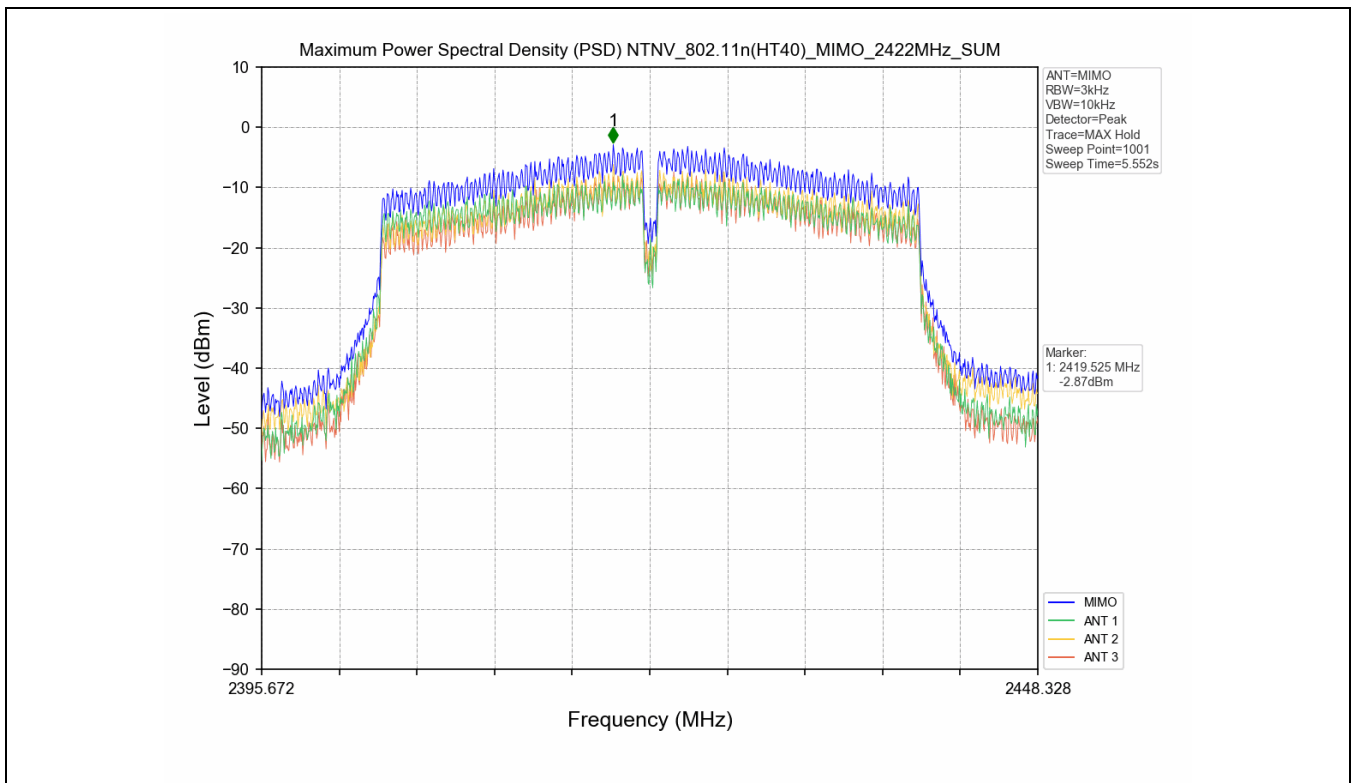
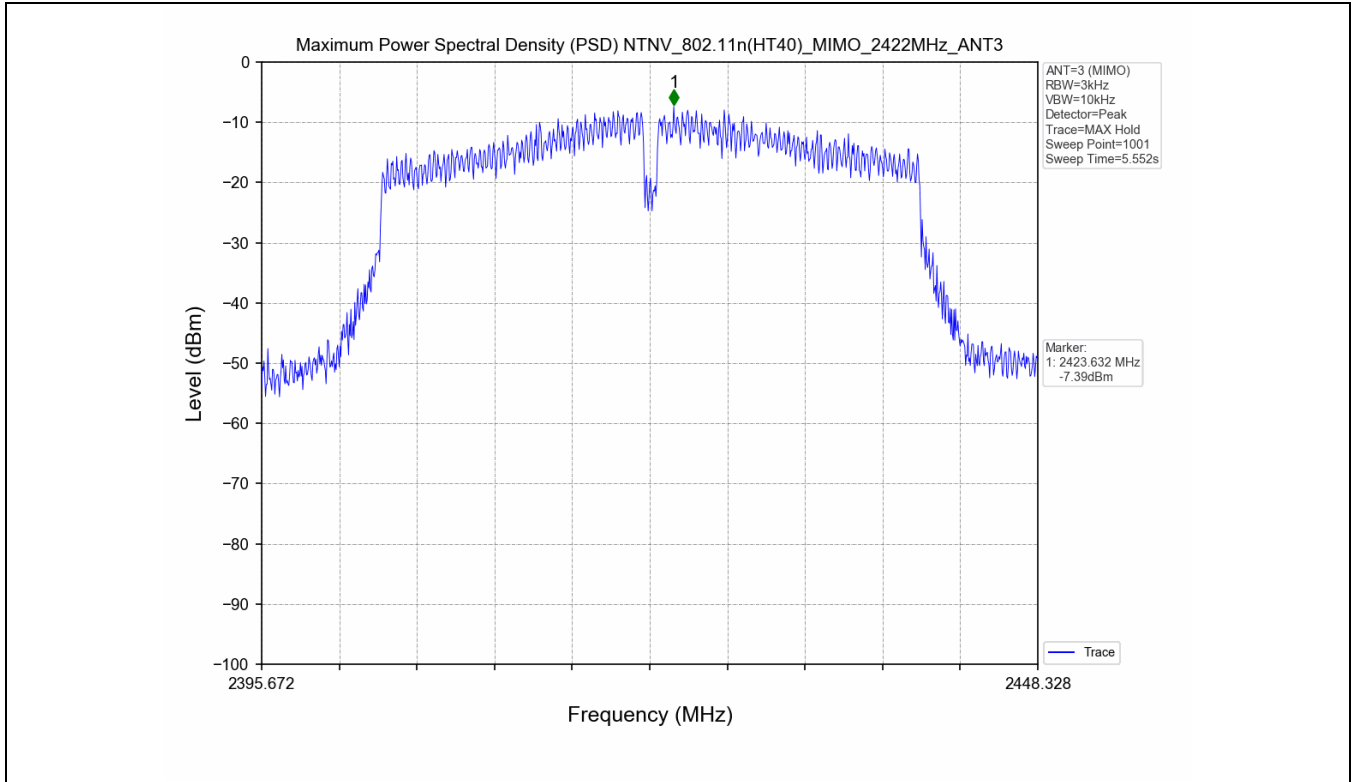
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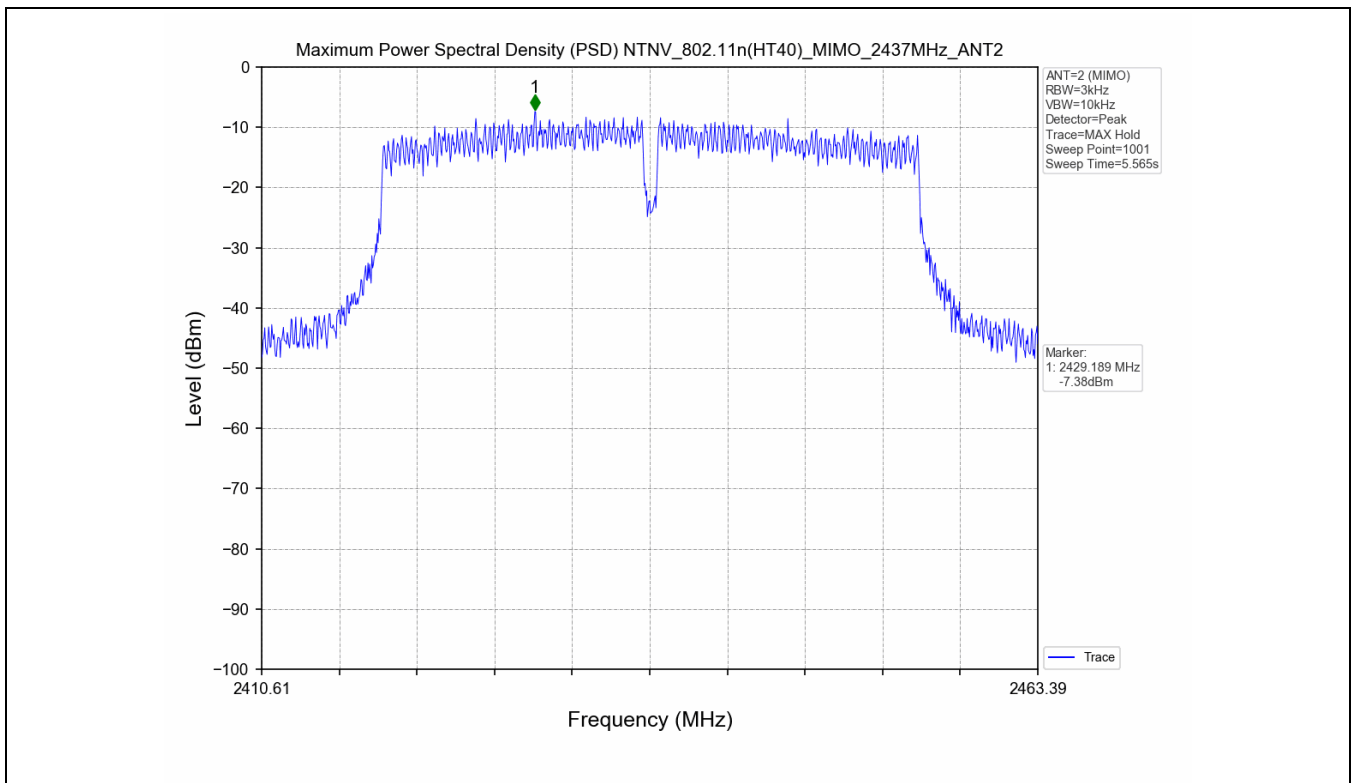
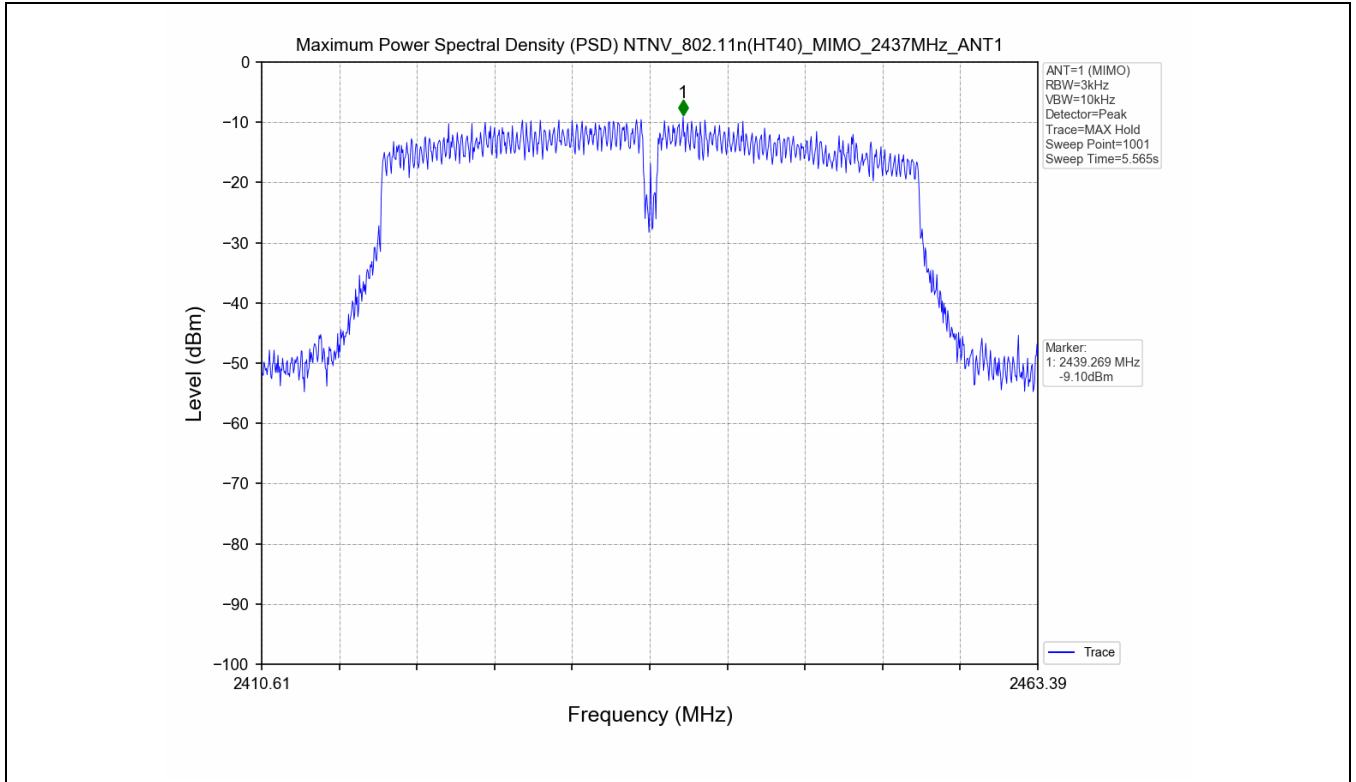
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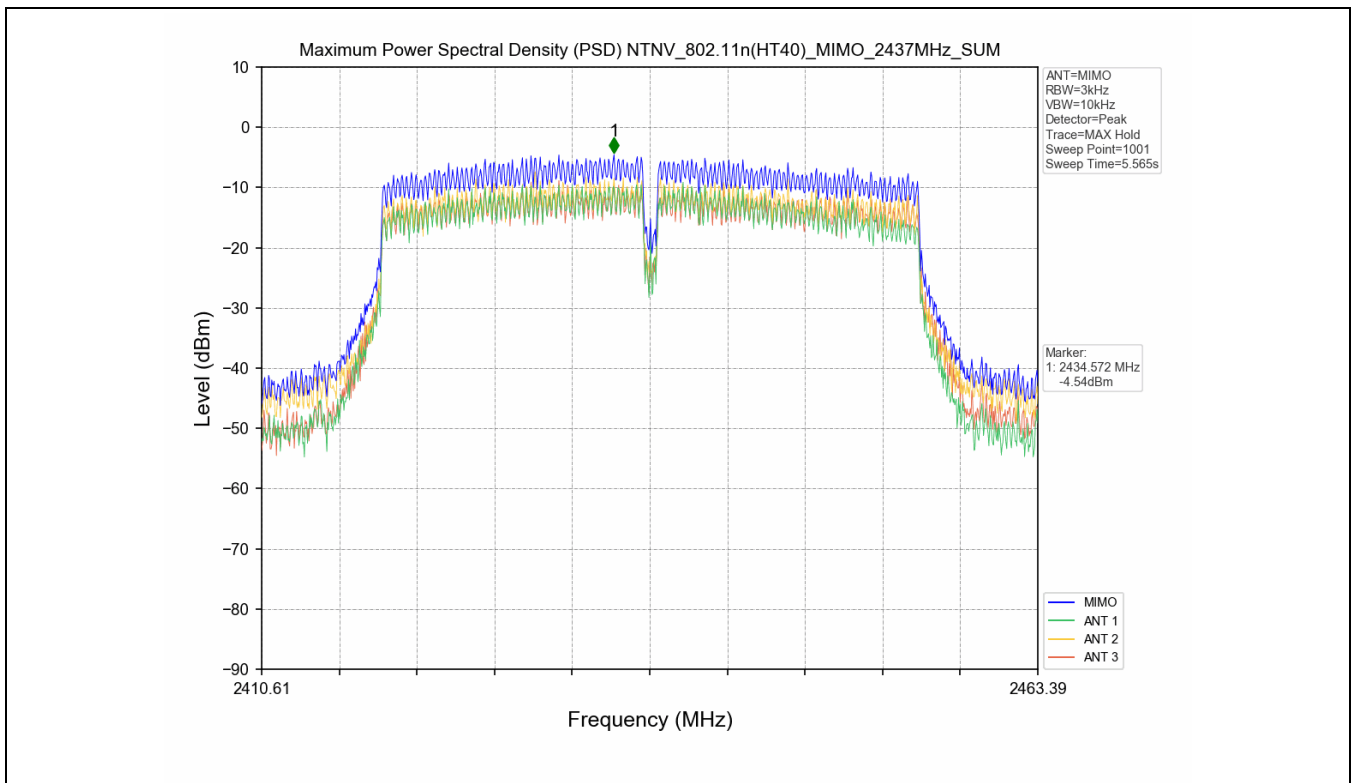
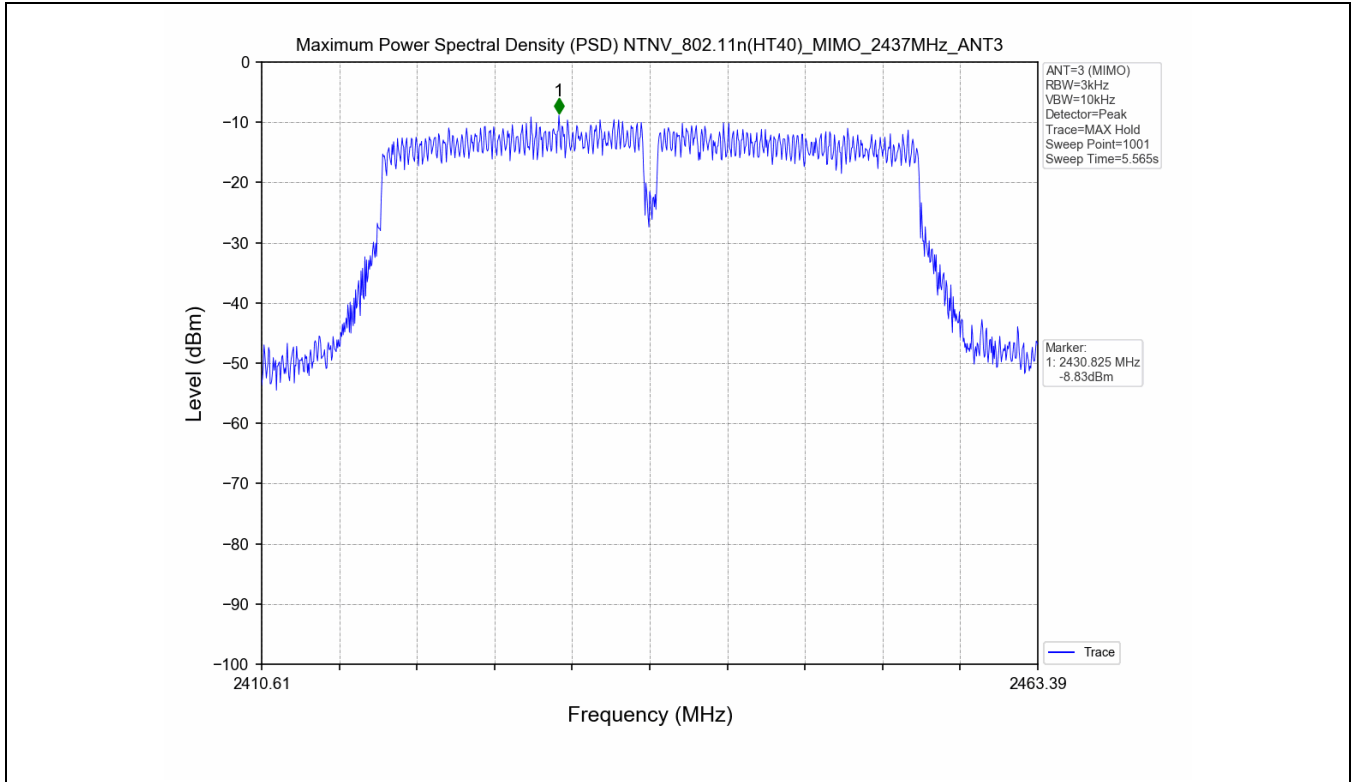
No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86-755) 26012053 f (86-755) 26710594 www.sgs.com.cn
中国·深圳·科技园中区M-10栋一号厂房 邮编: 518057 t (86-755) 26012053 f (86-755) 26710594 sgs.china@sgs.com

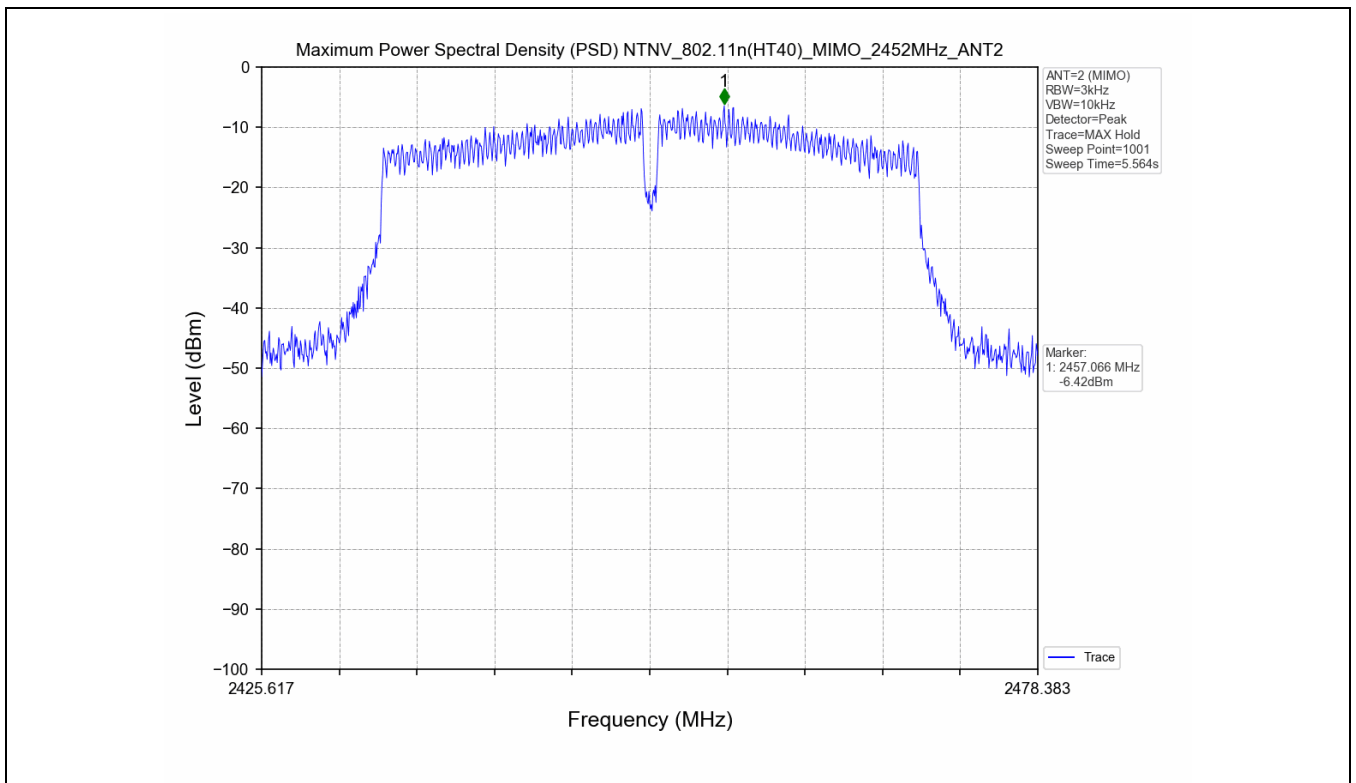
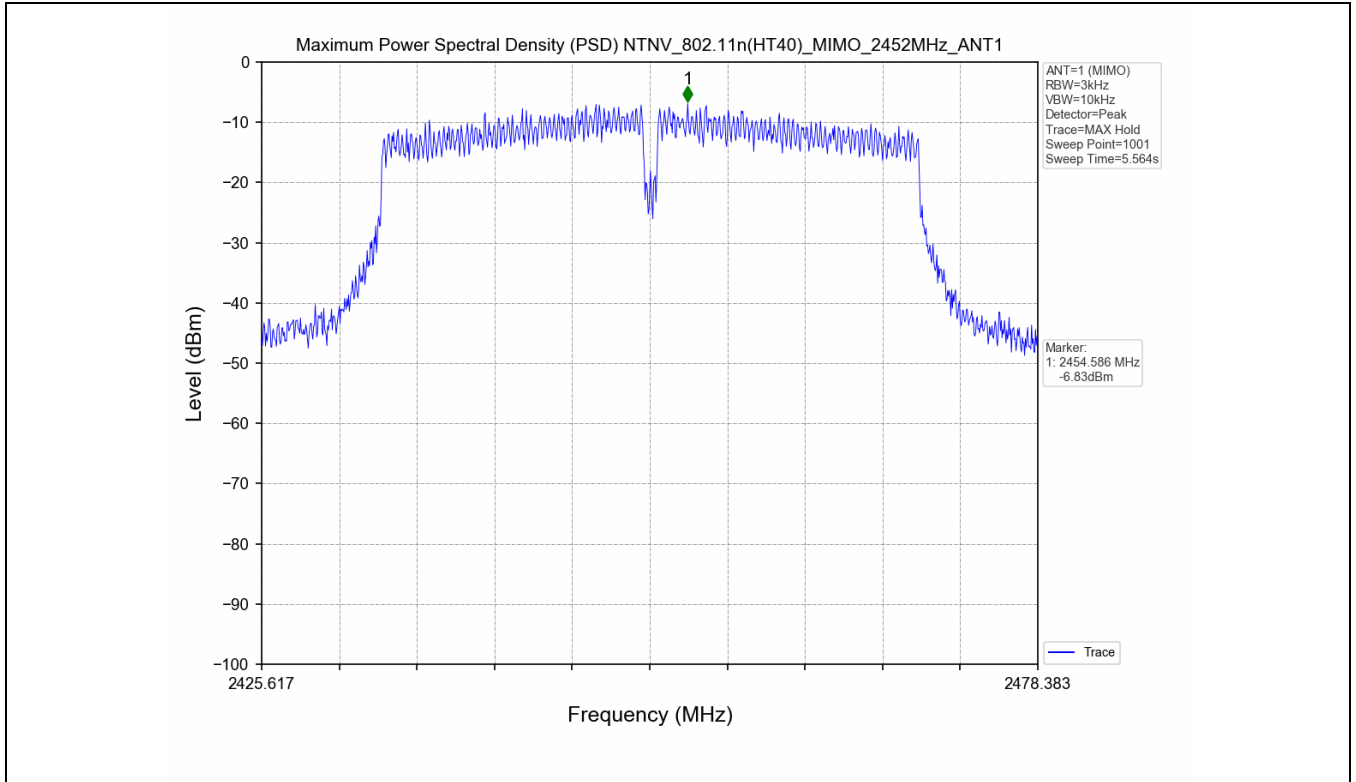


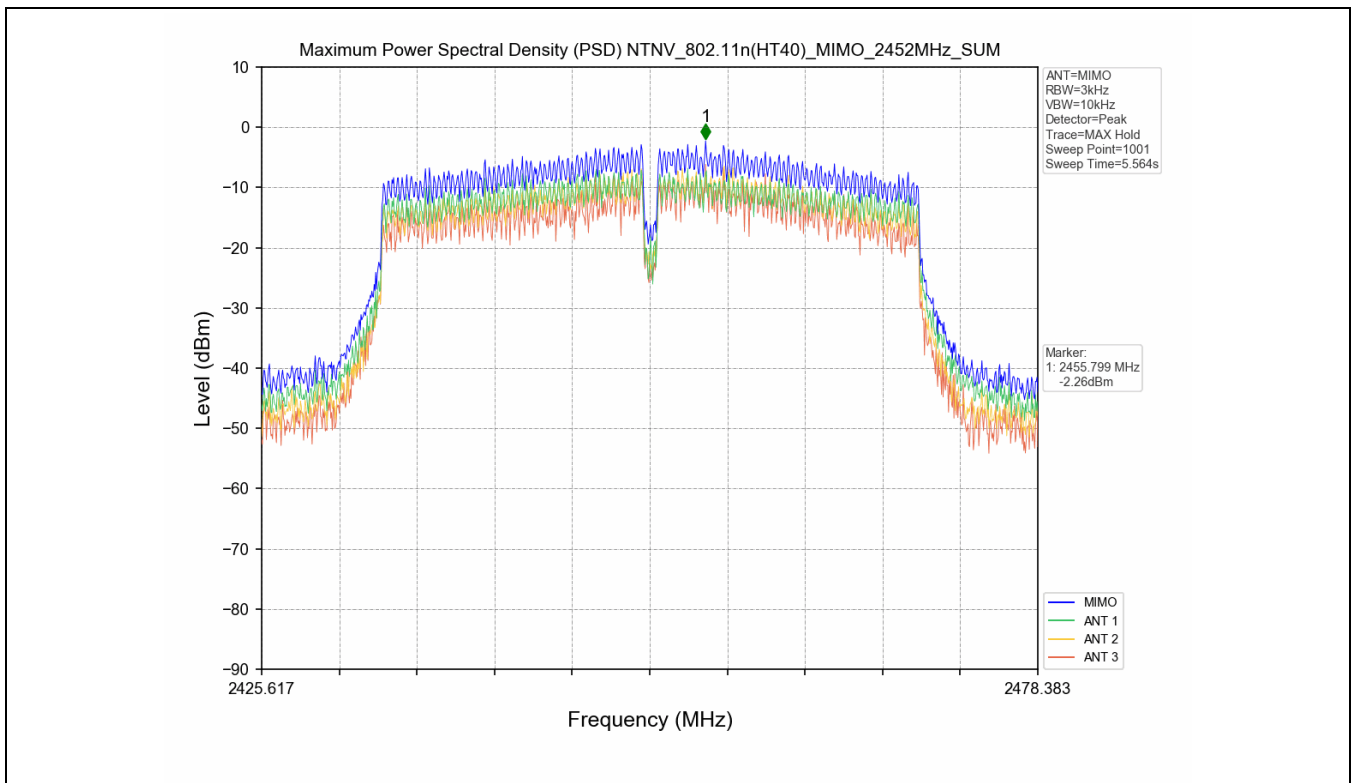
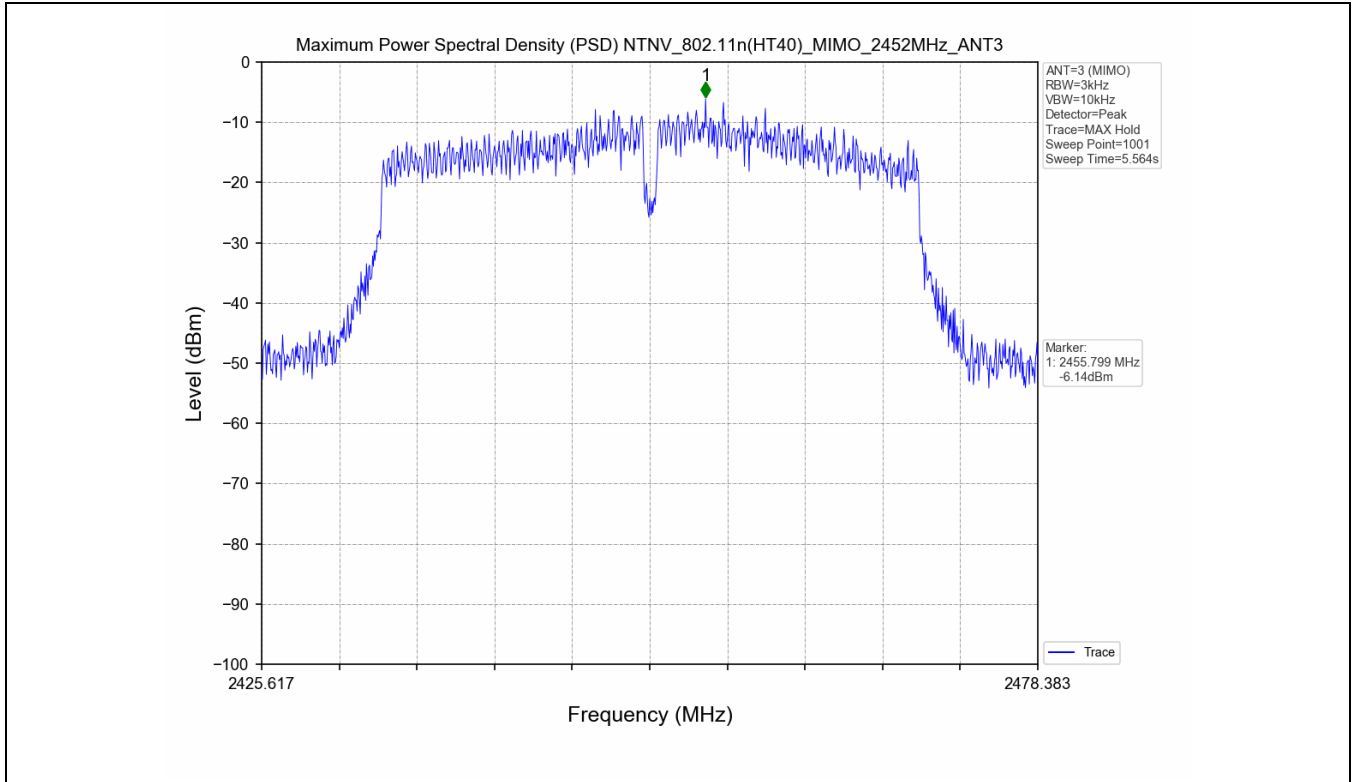












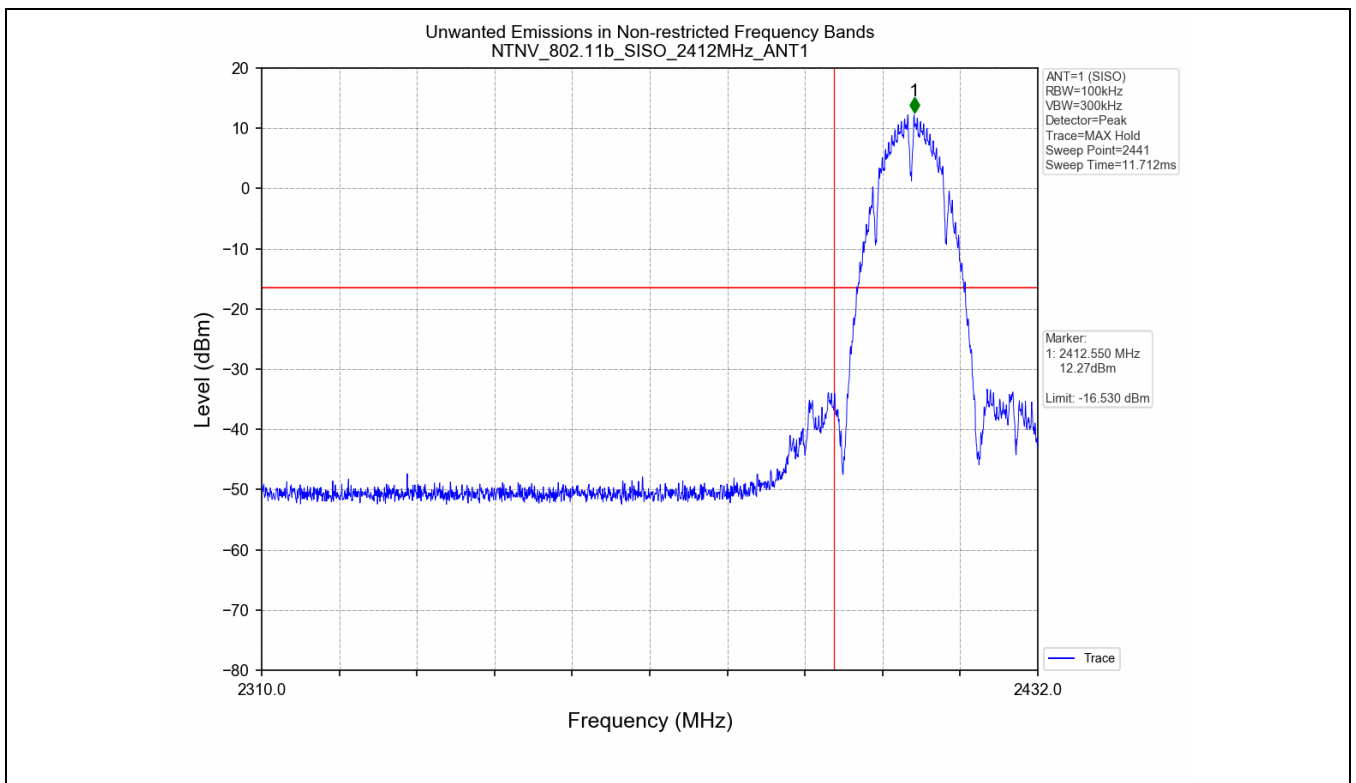
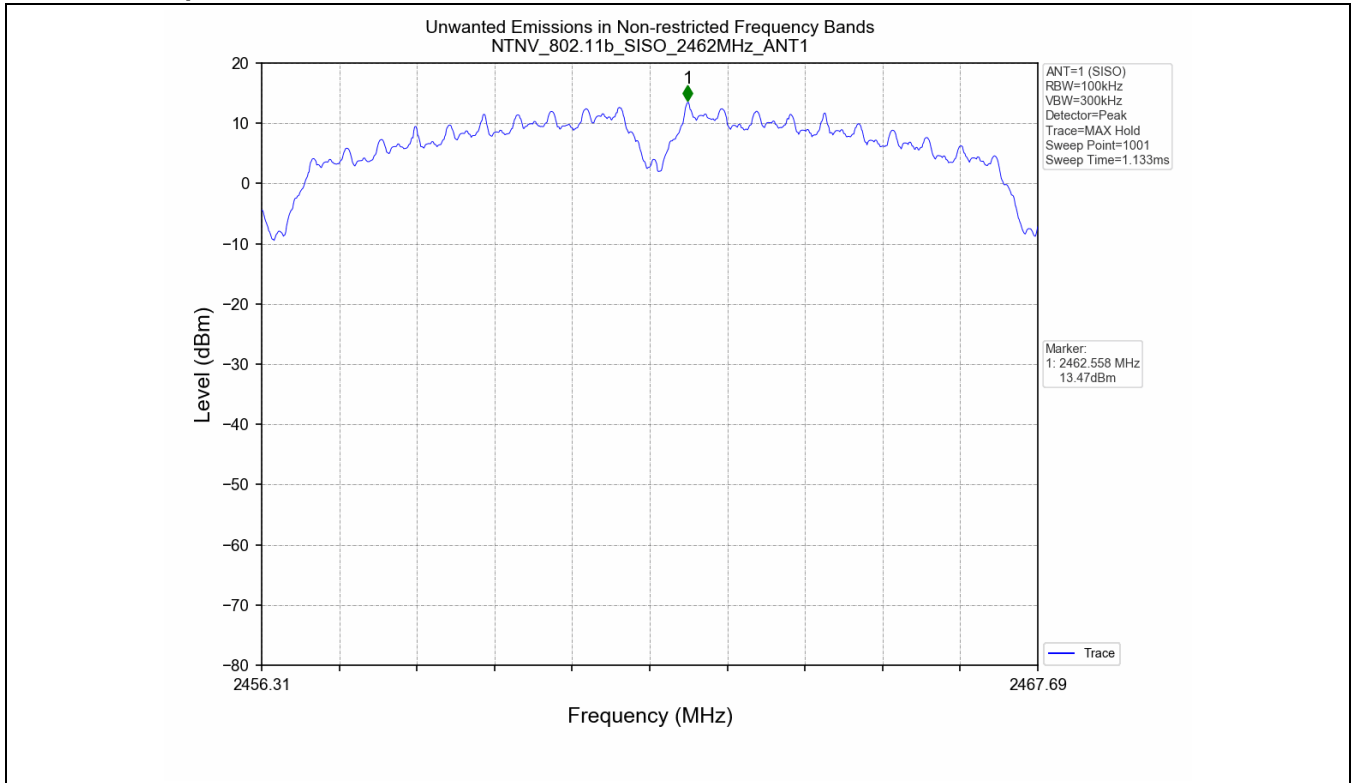
5. Unwanted Emissions in Non-restricted Frequency Bands

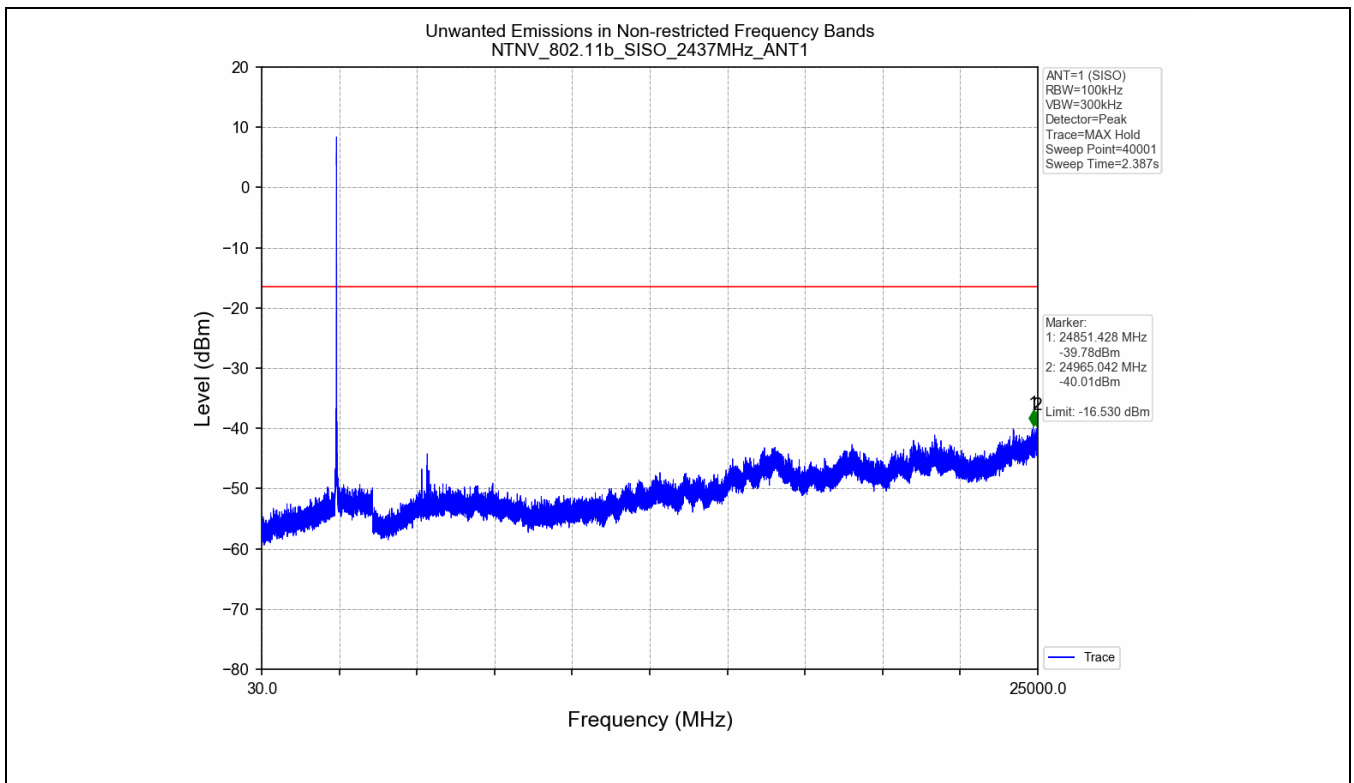
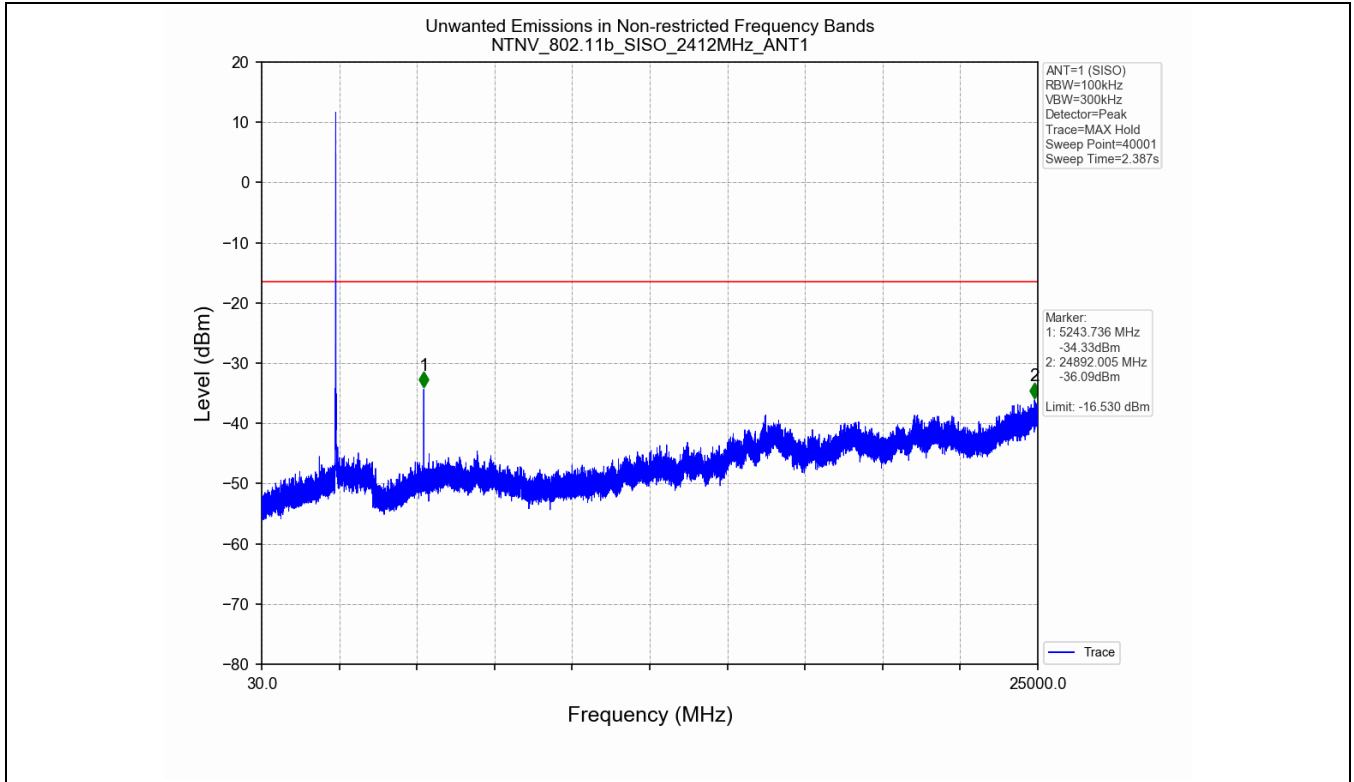
5.1 Test Result

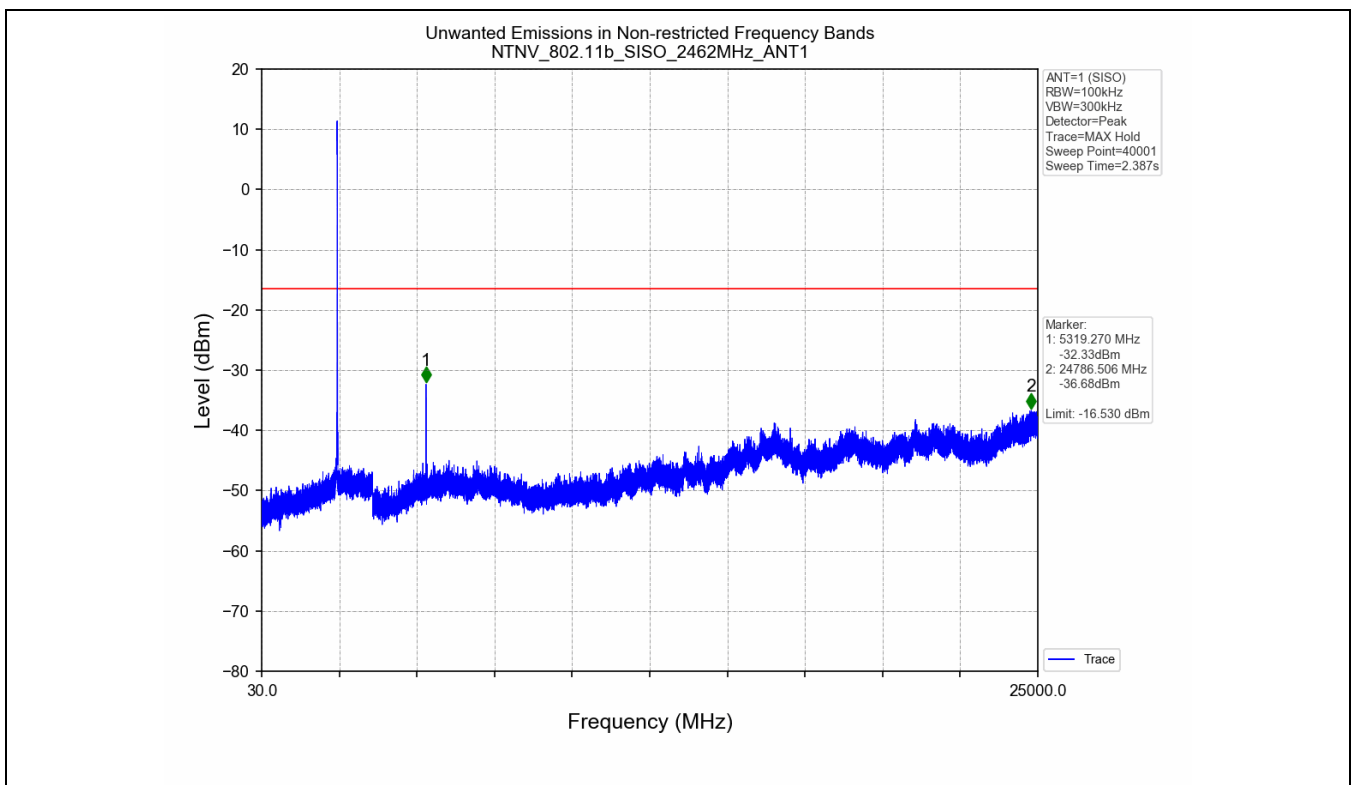
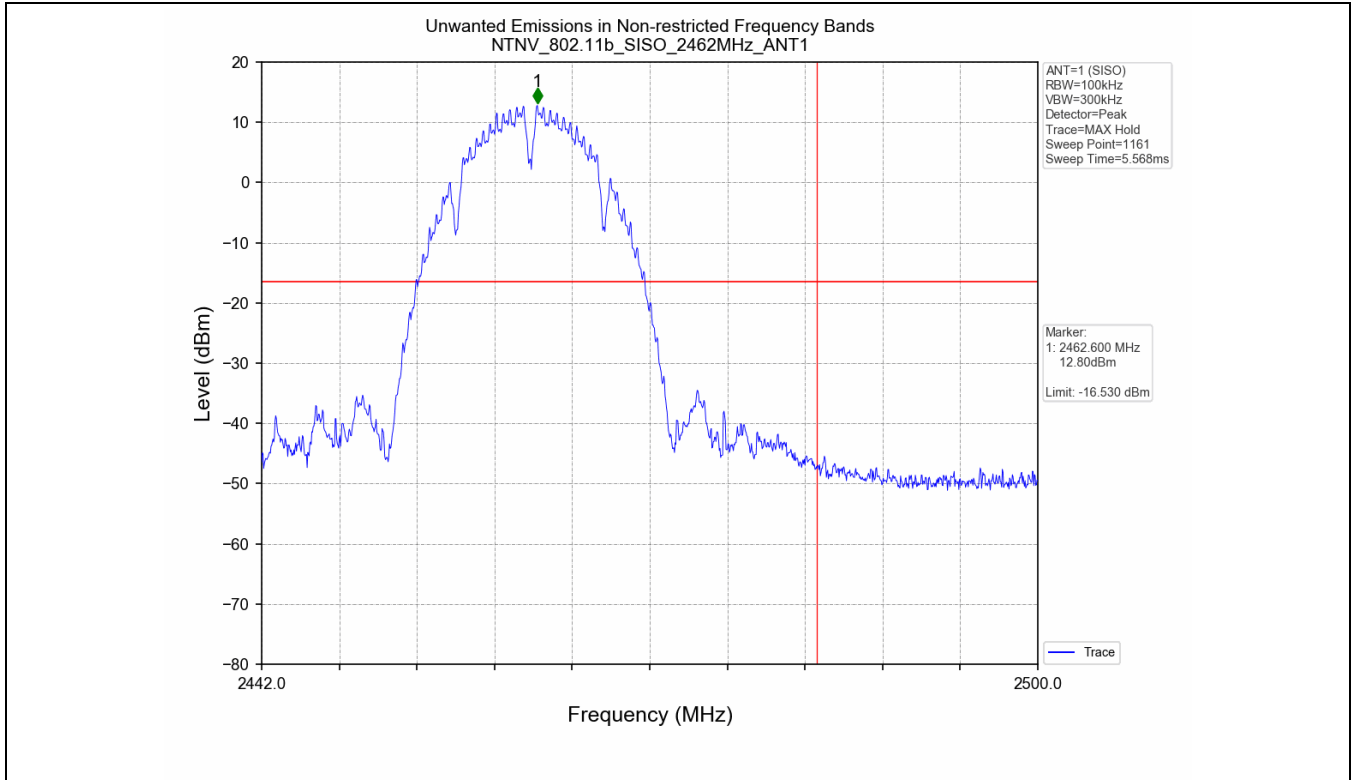
Test Mode	Frequency (MHz)	TX Type	ANT No.	Spurious Conducted Emission (dBm)	Limits (dBm)	Verdict
802.11b	2412	SISO	1	Refer to test graph	-16.53	PASS
	2437	SISO	1	Refer to test graph	-16.53	PASS
	2462	SISO	1	Refer to test graph	-16.53	PASS
802.11g	2412	SISO	1	Refer to test graph	-18.42	PASS
	2437	SISO	1	Refer to test graph	-18.42	PASS
	2462	SISO	1	Refer to test graph	-18.42	PASS
802.11n(HT20)	2412	MIMO	MIMO	Refer to test graph	-19.01	PASS
	2437	MIMO	MIMO	Refer to test graph	-19.01	PASS
	2462	MIMO	MIMO	Refer to test graph	-19.01	PASS
802.11n(HT40)	2422	MIMO	MIMO	Refer to test graph	-20.08	PASS
	2437	MIMO	MIMO	Refer to test graph	-20.08	PASS
	2452	MIMO	MIMO	Refer to test graph	-20.08	PASS

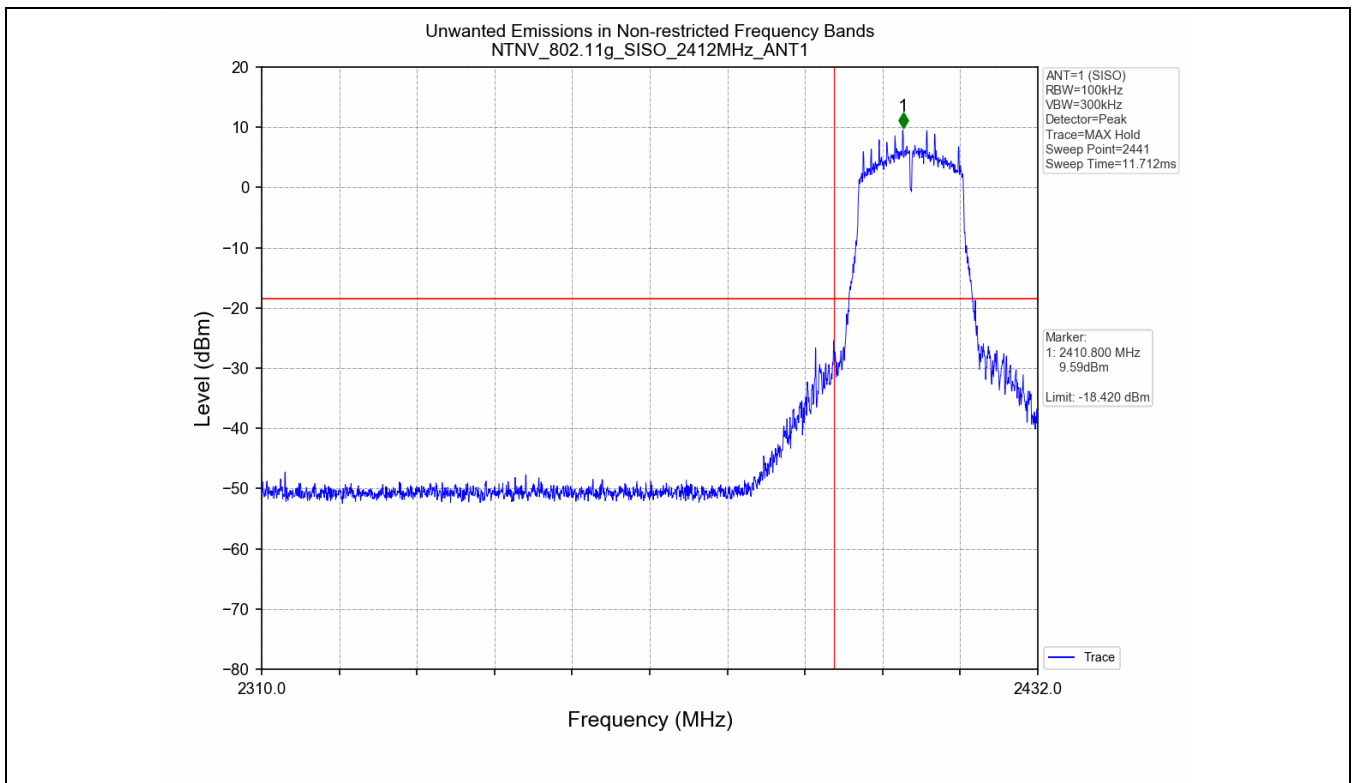
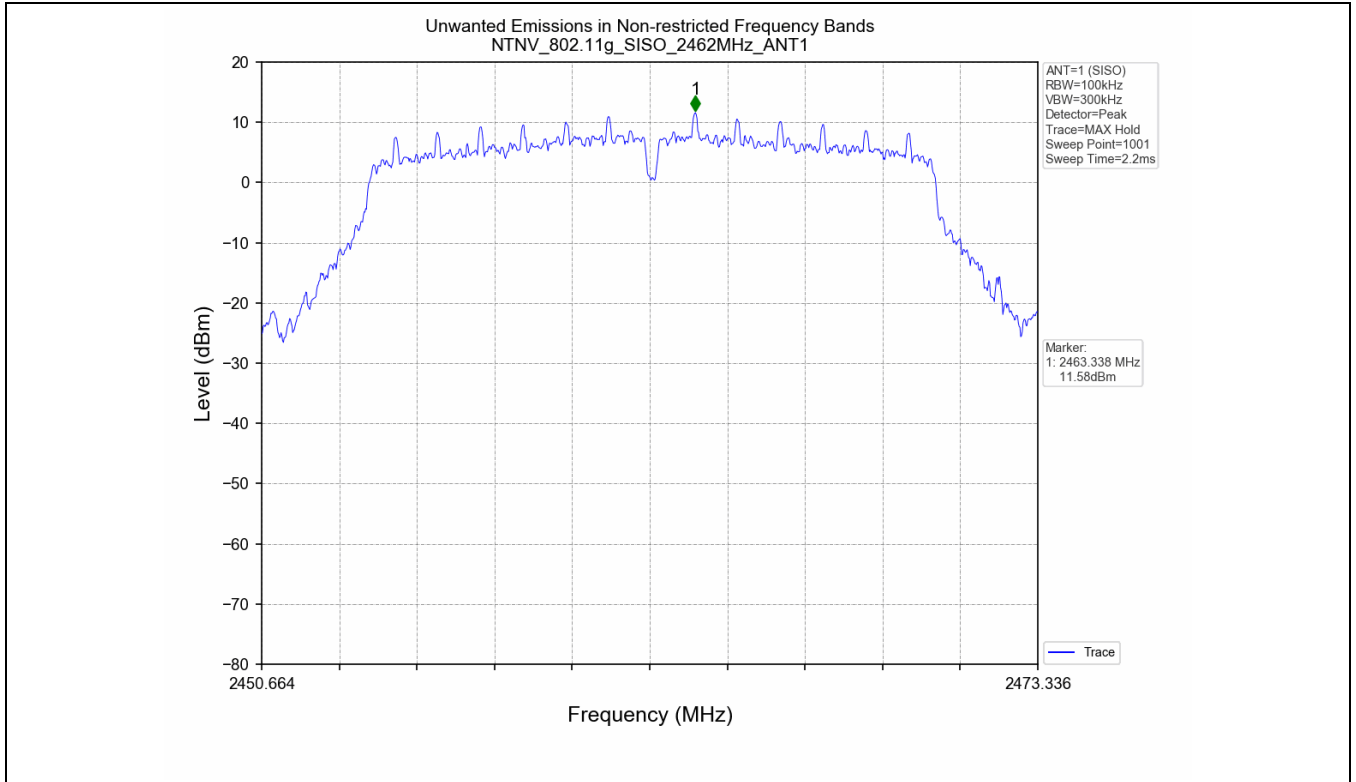


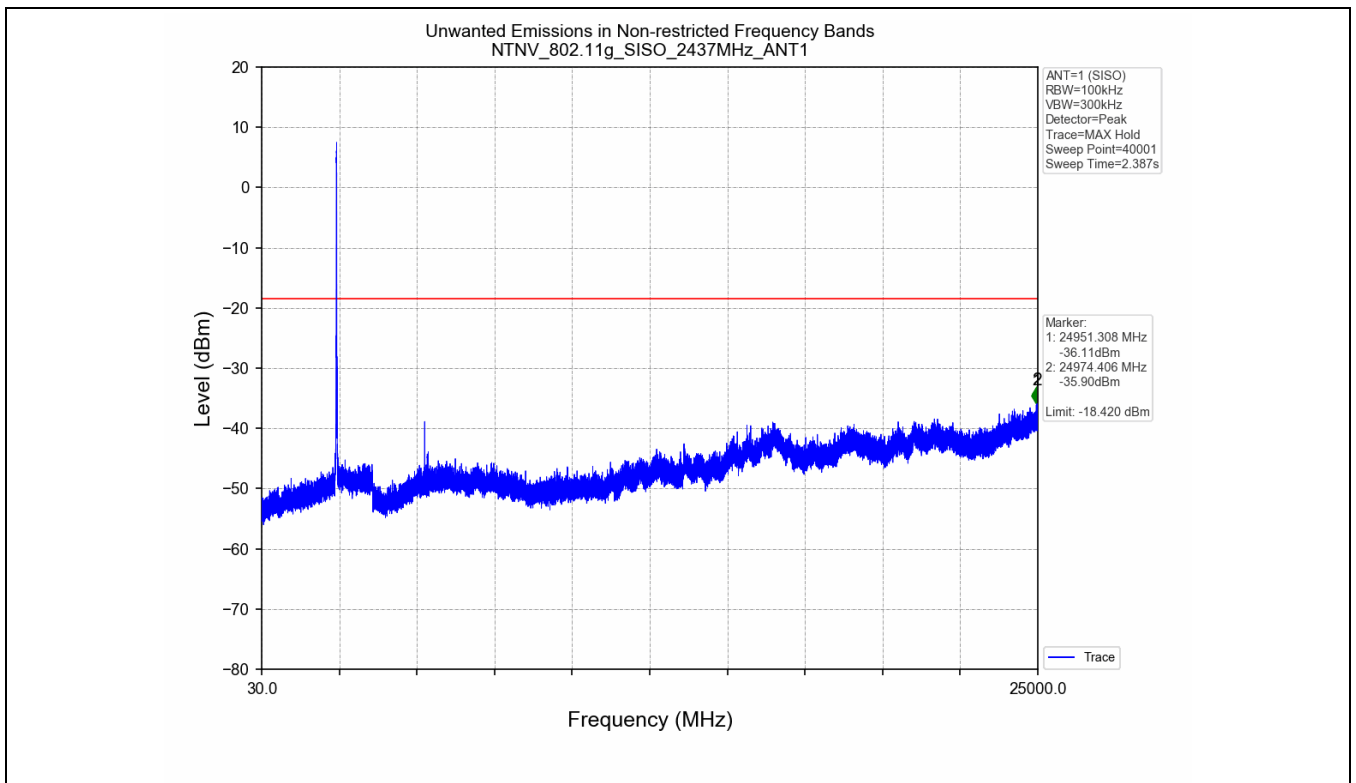
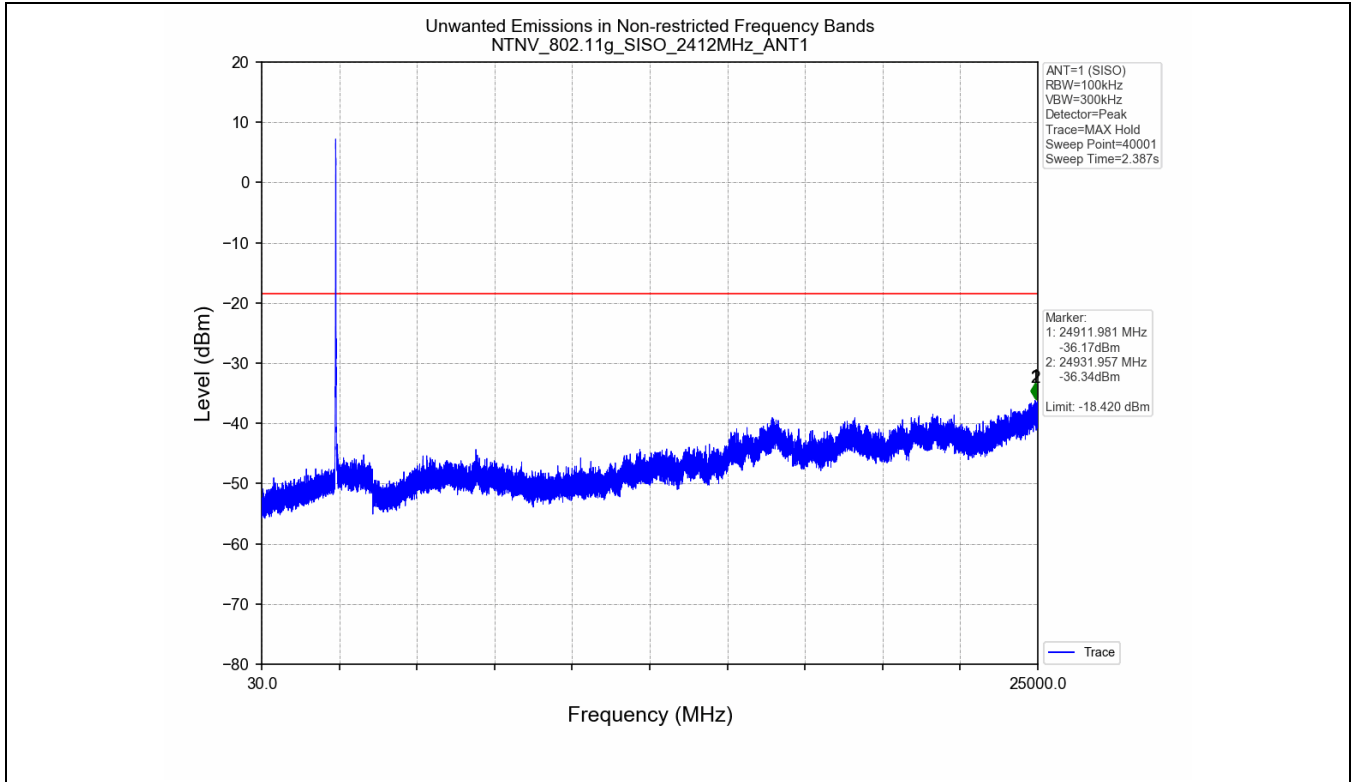
5.2 Test Graph

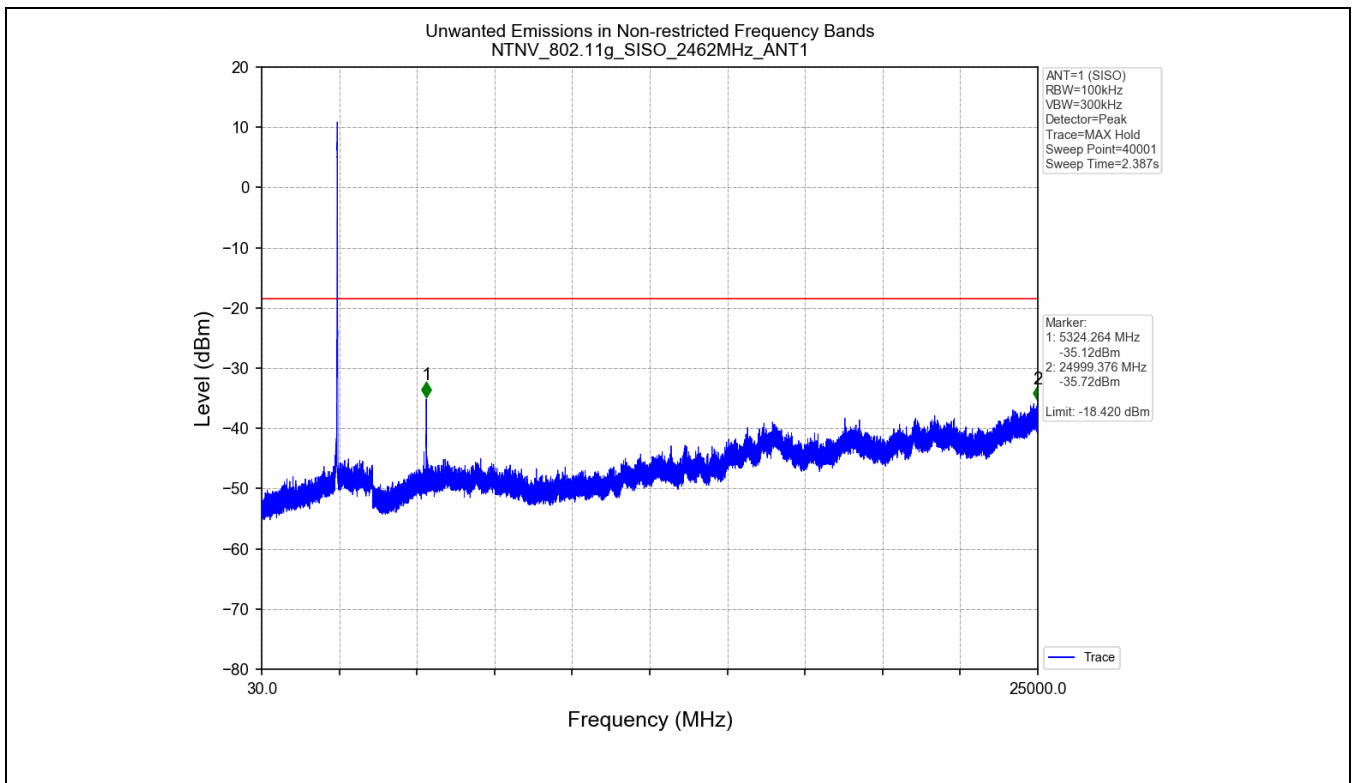
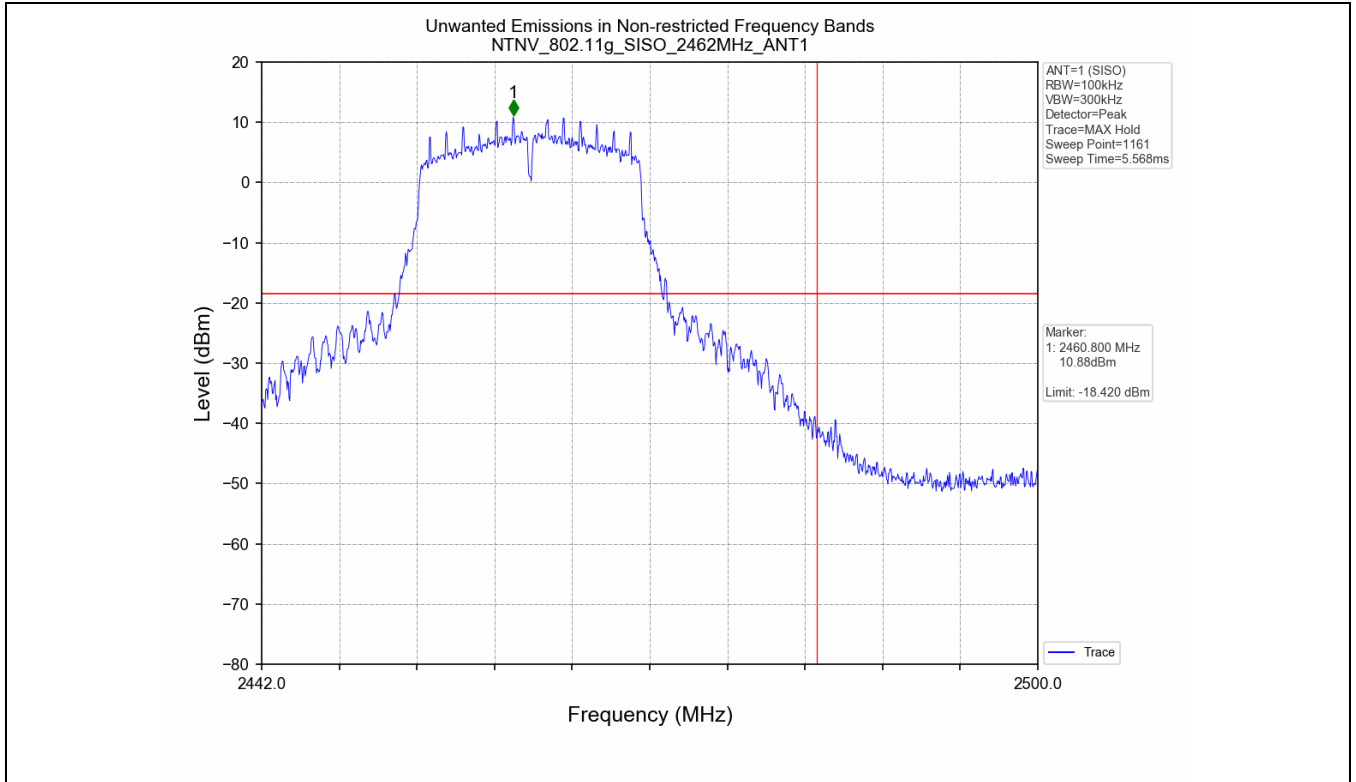


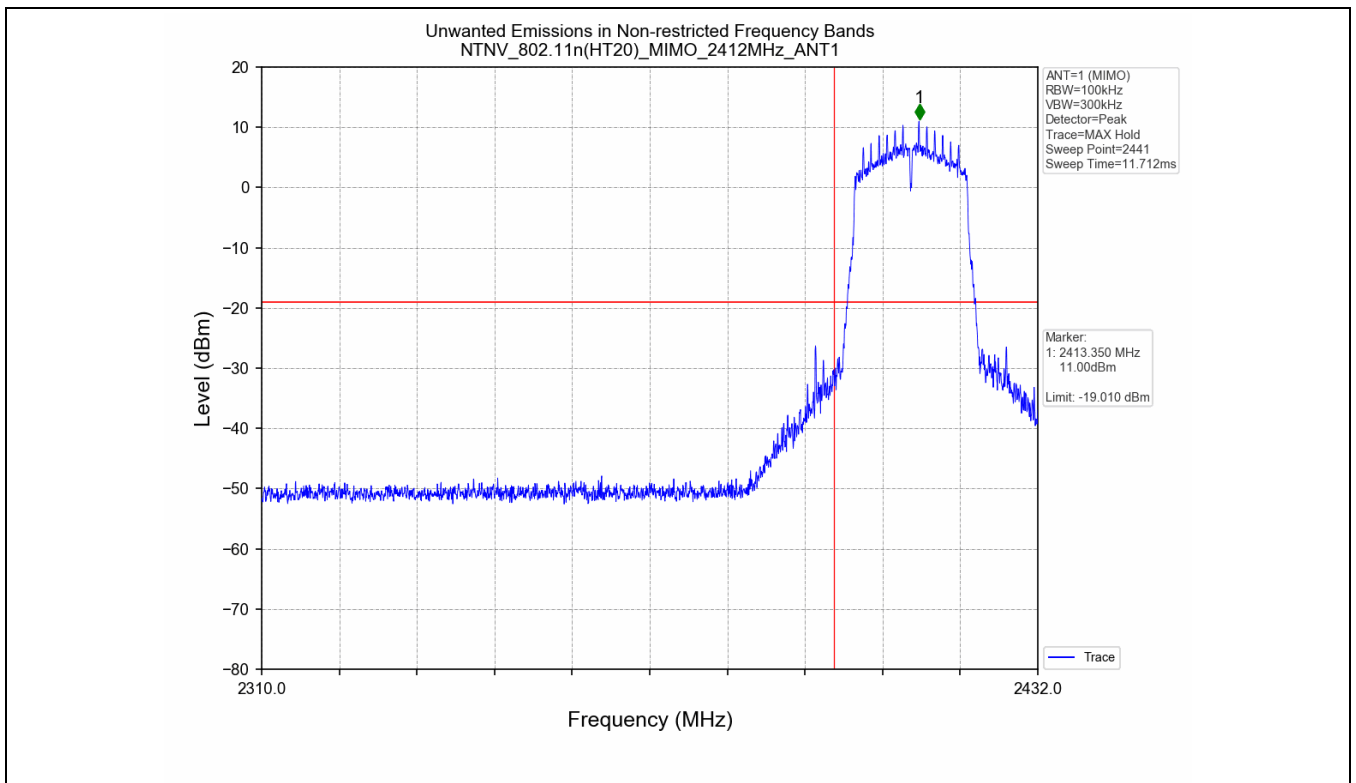
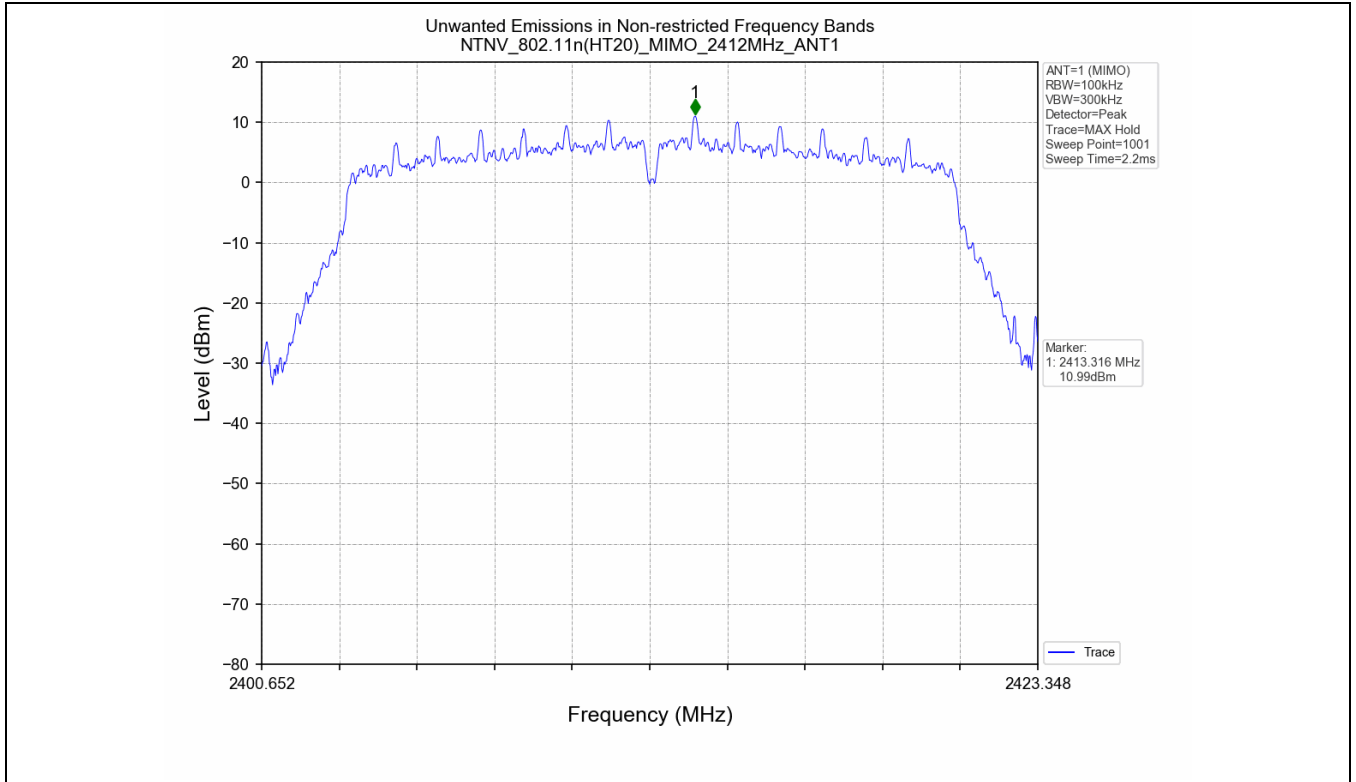


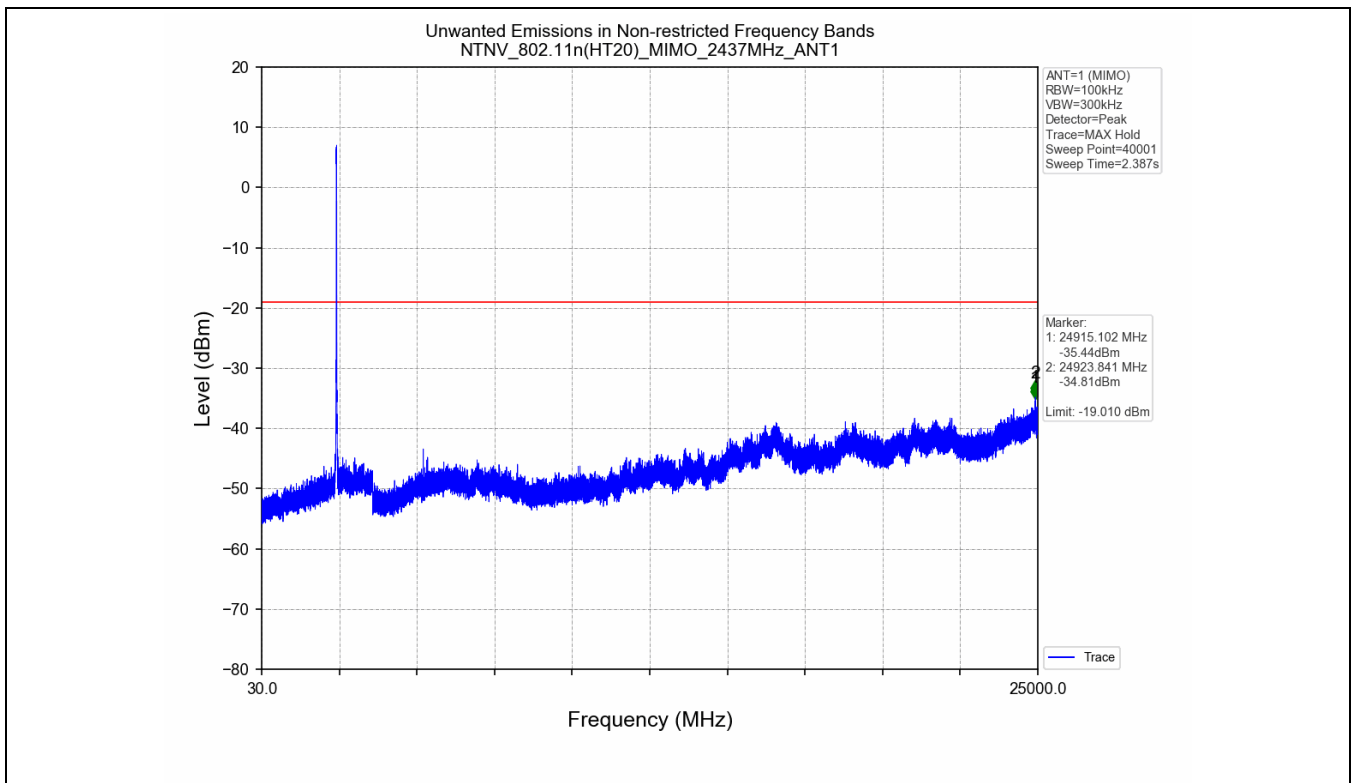
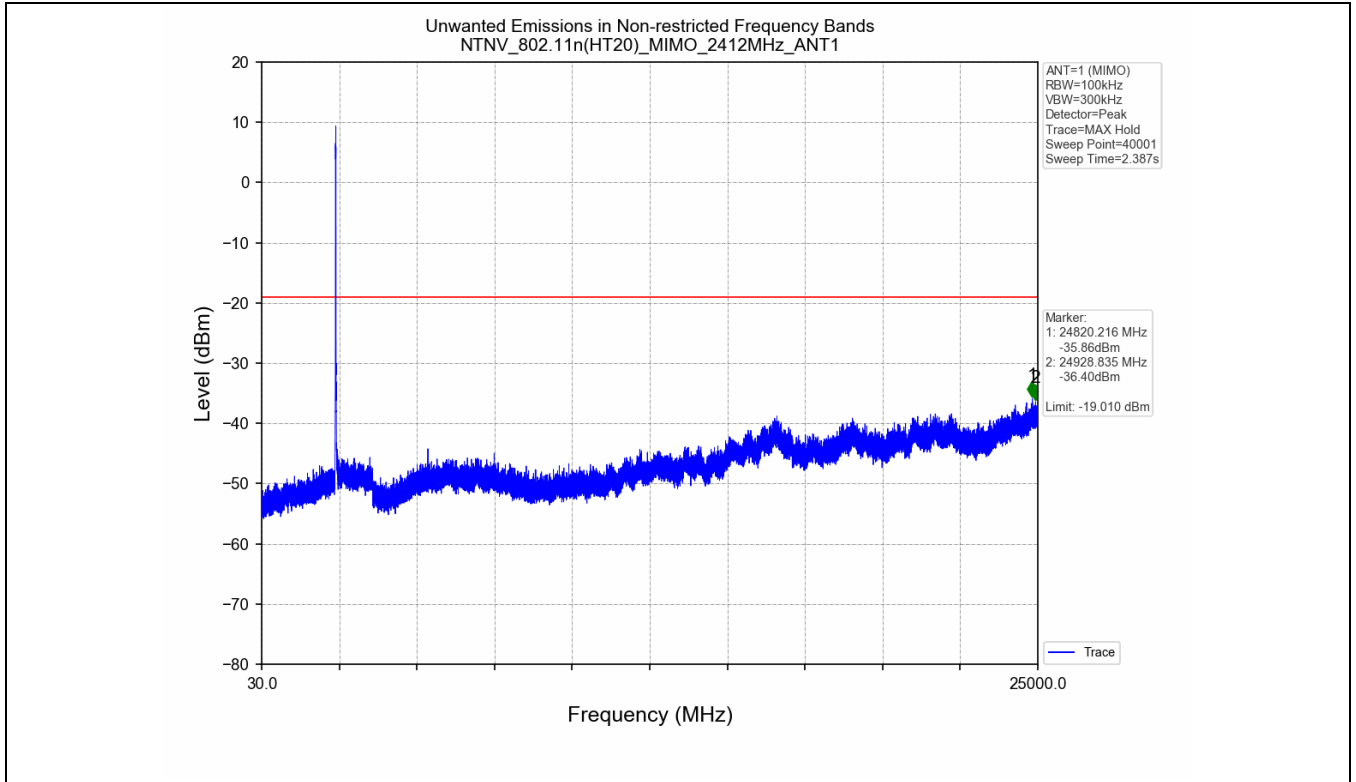


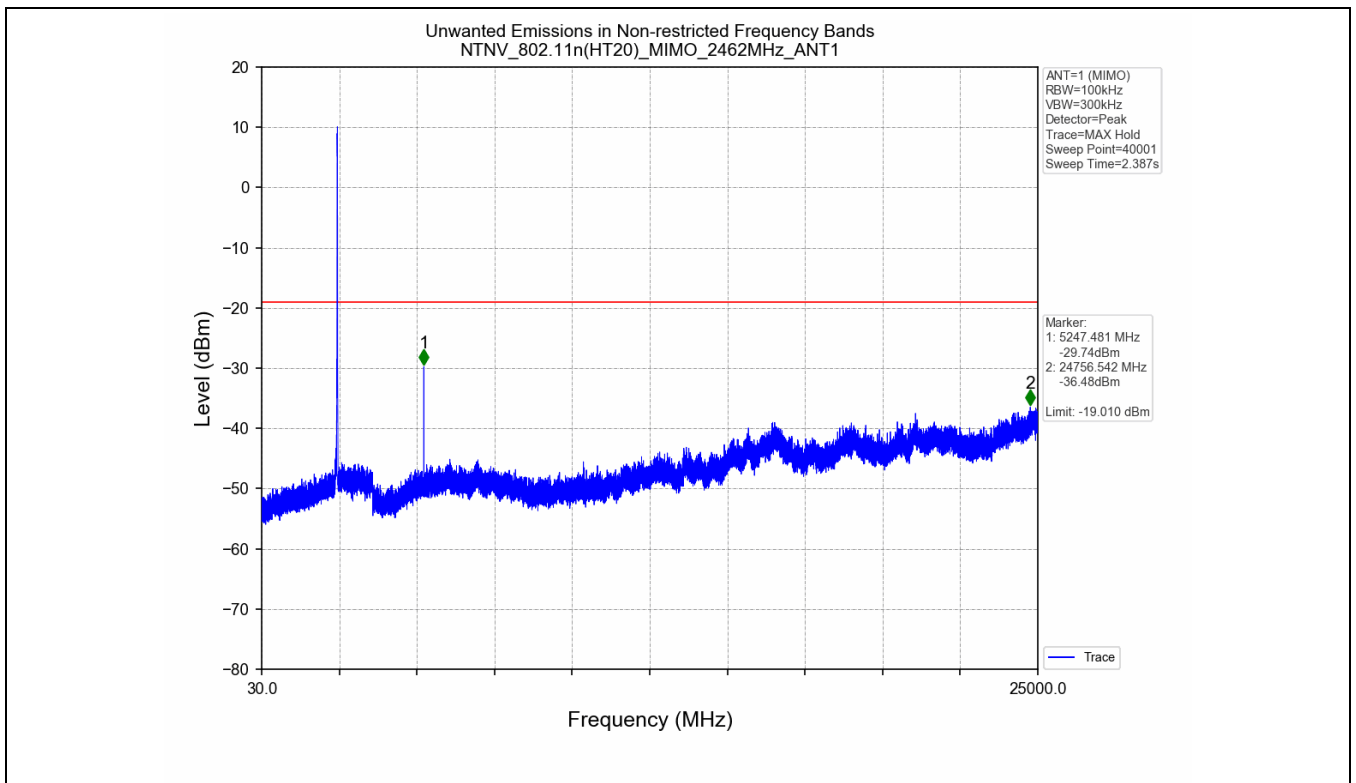
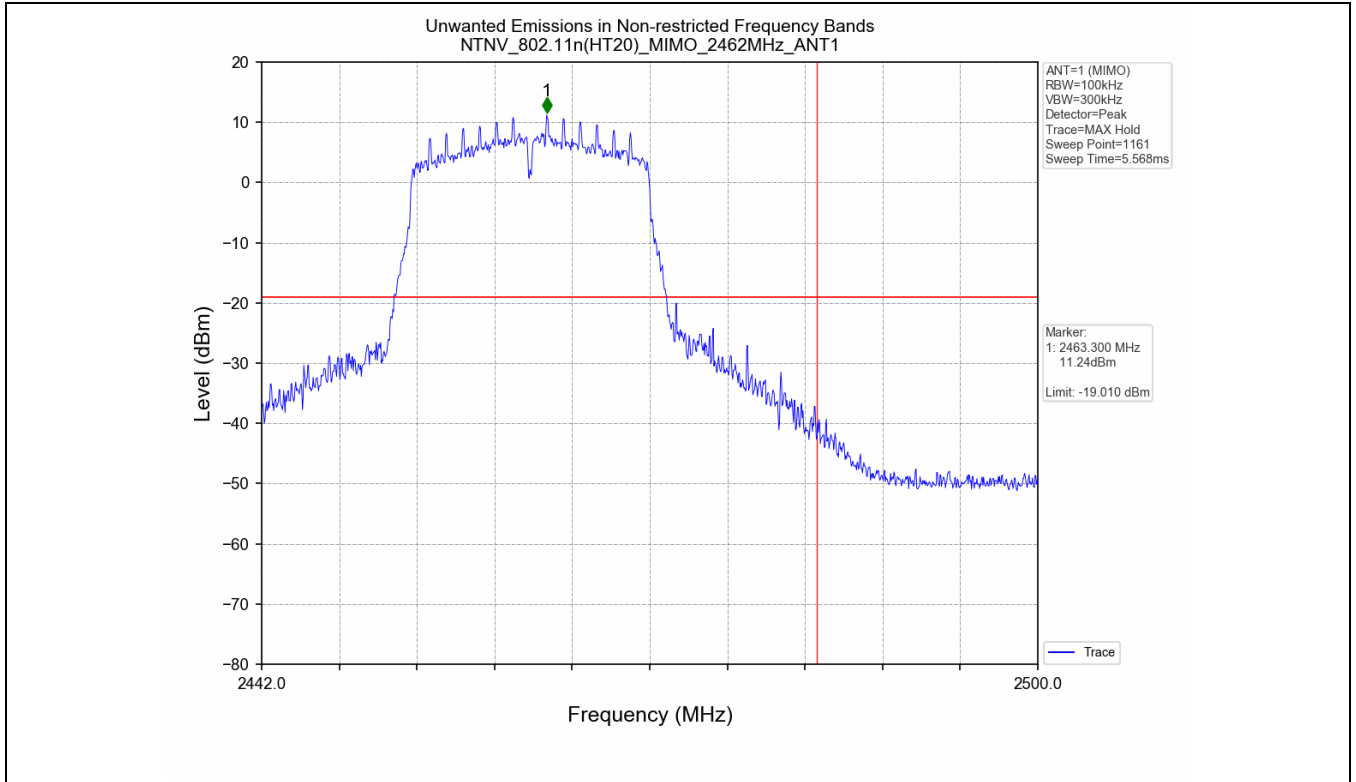


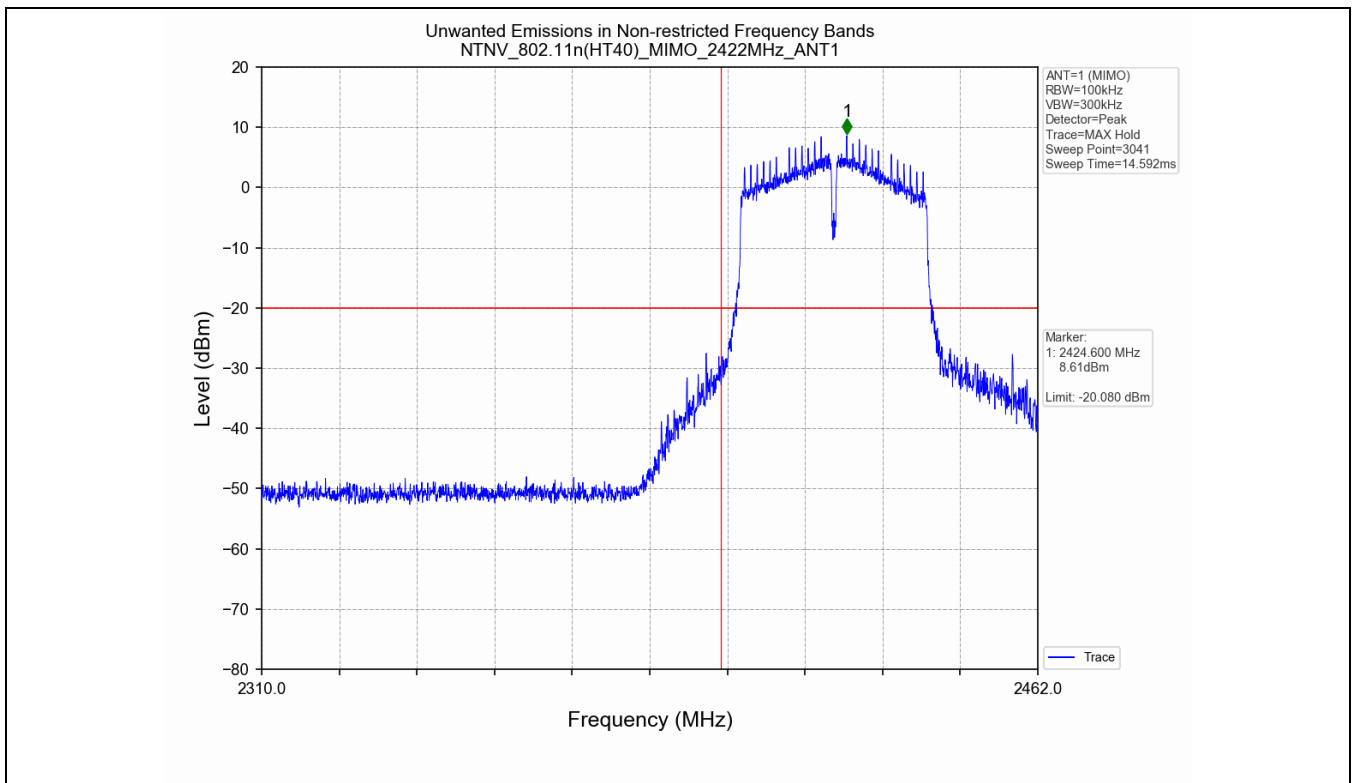
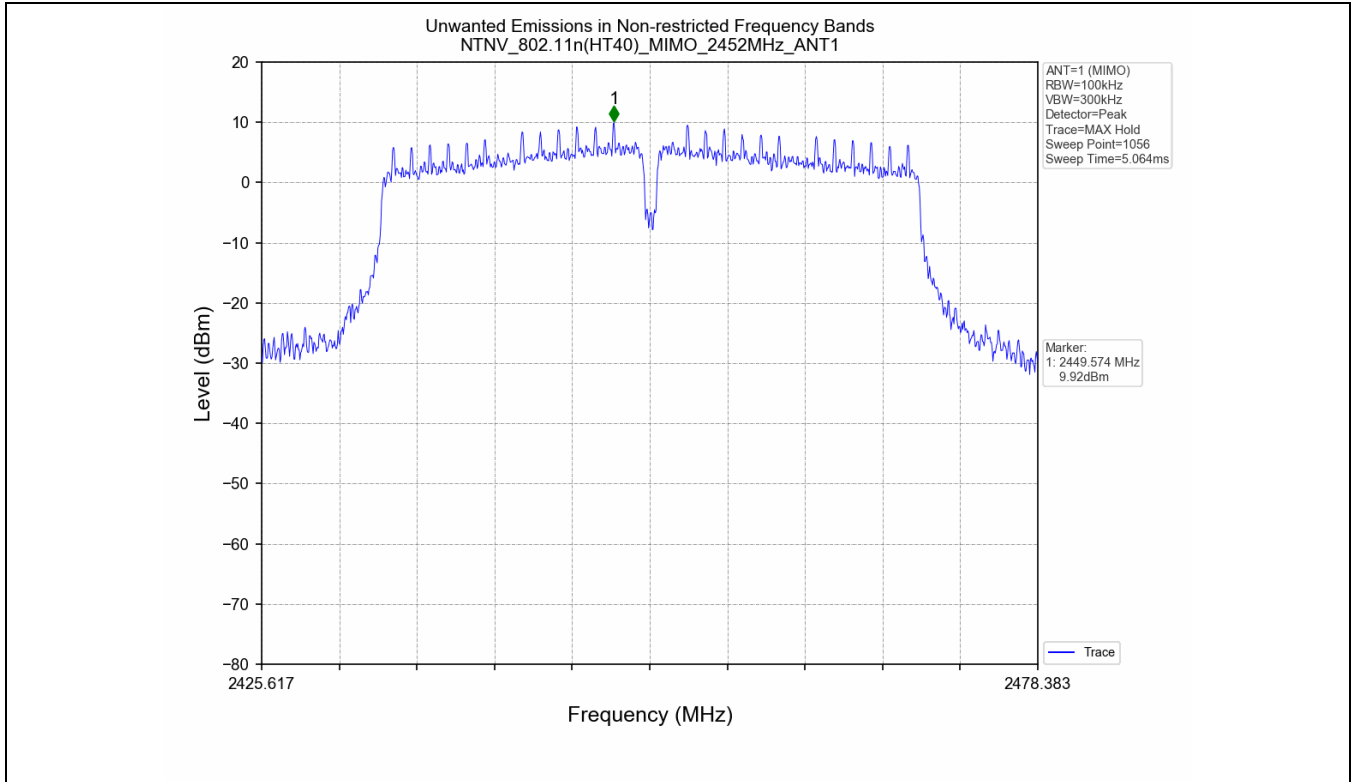


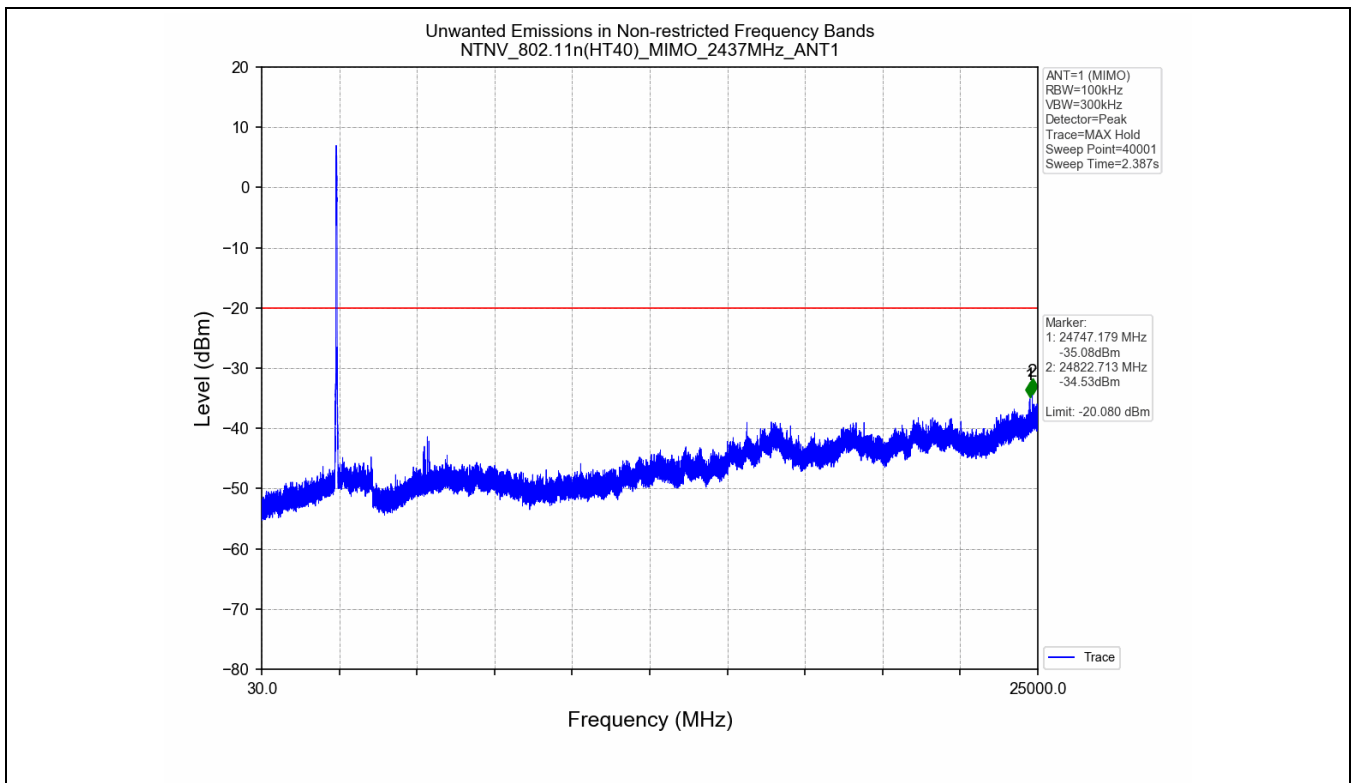
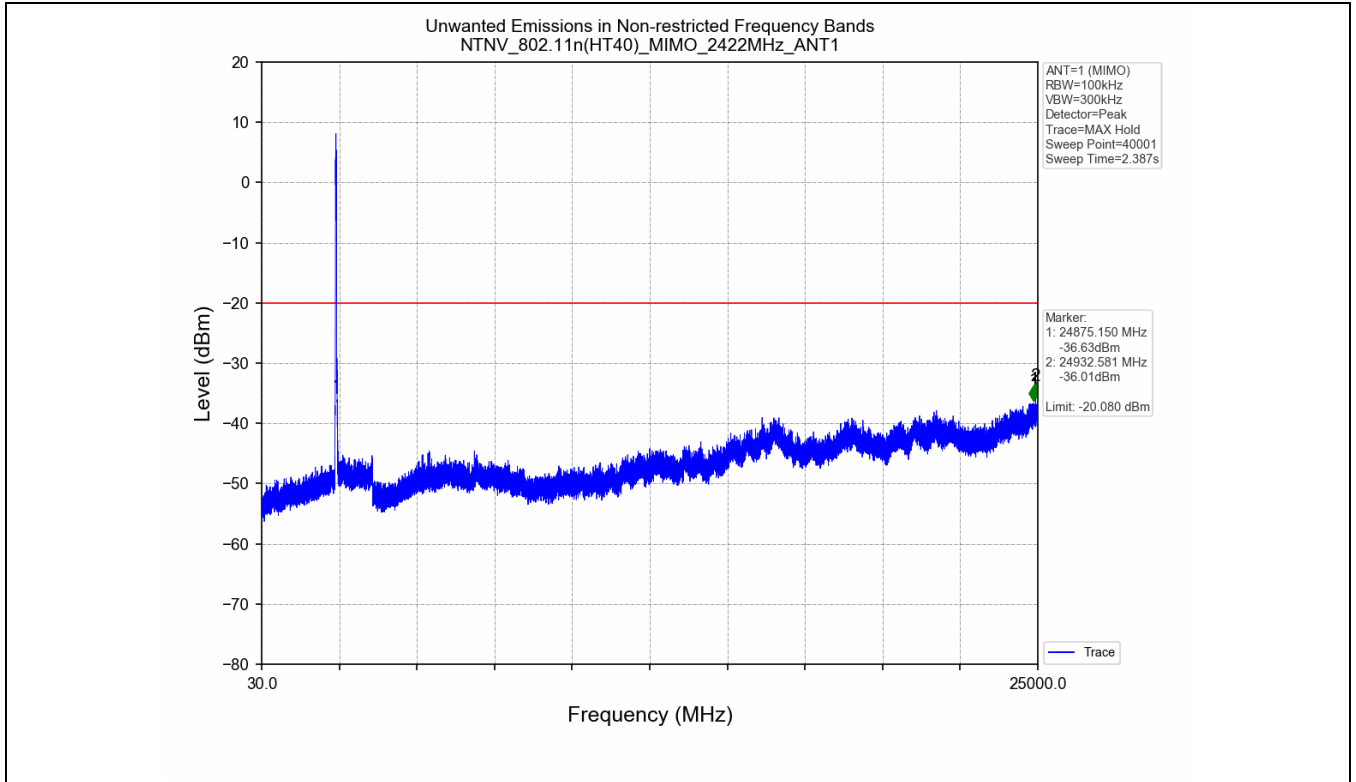


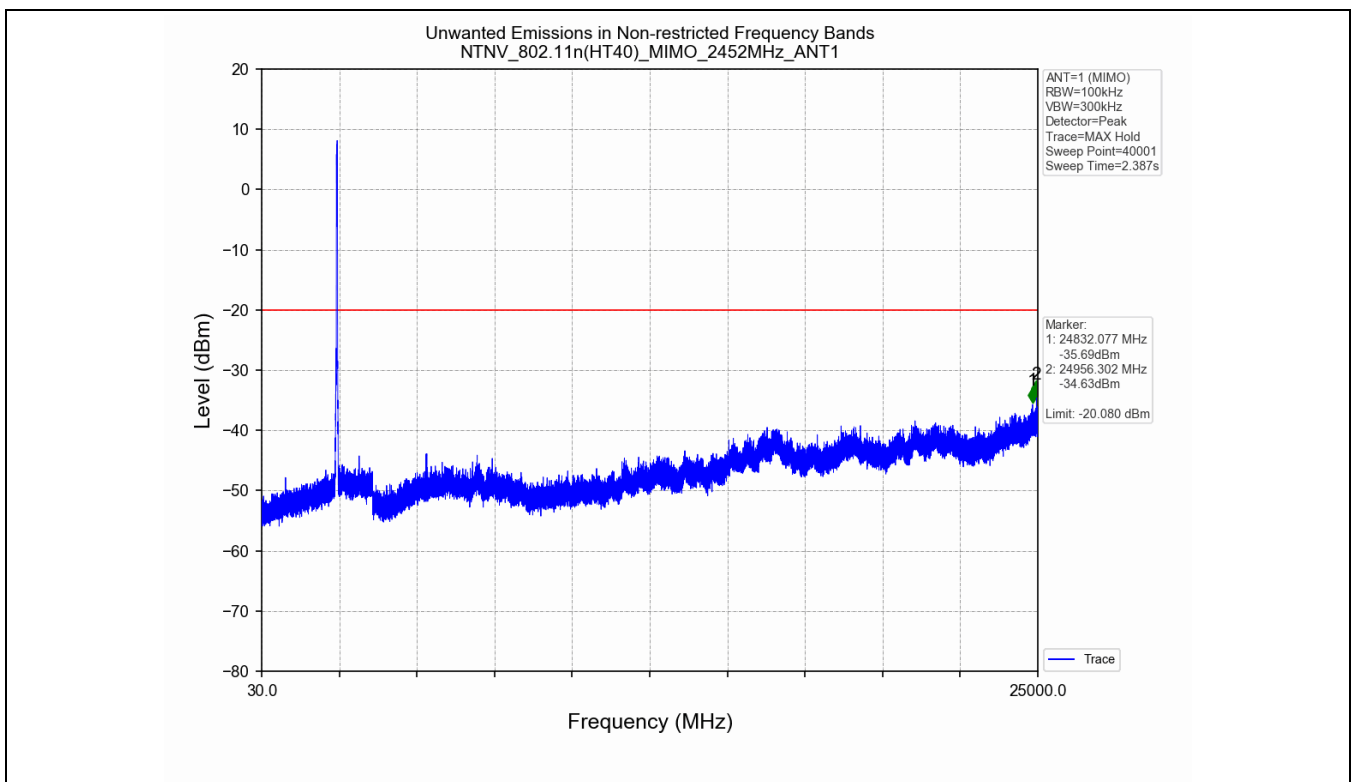
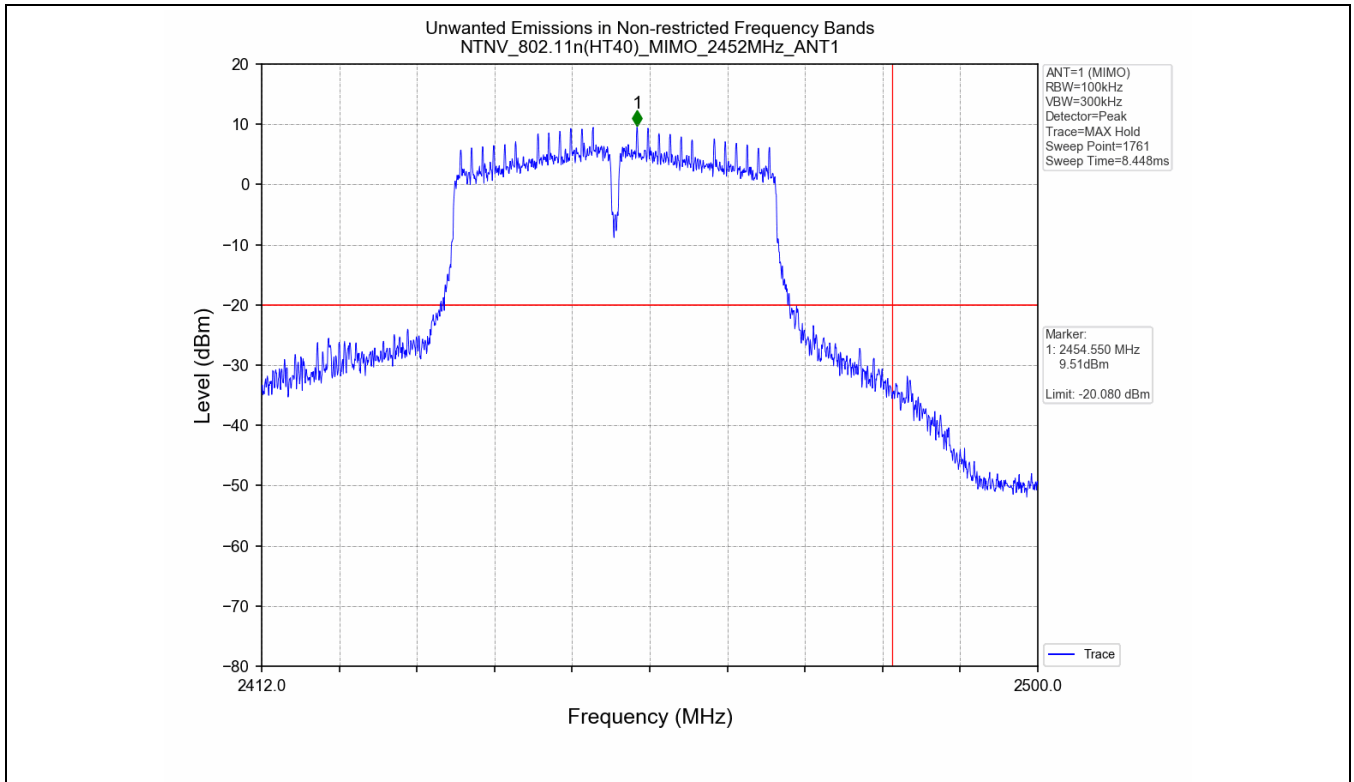












- End of the Report -

