

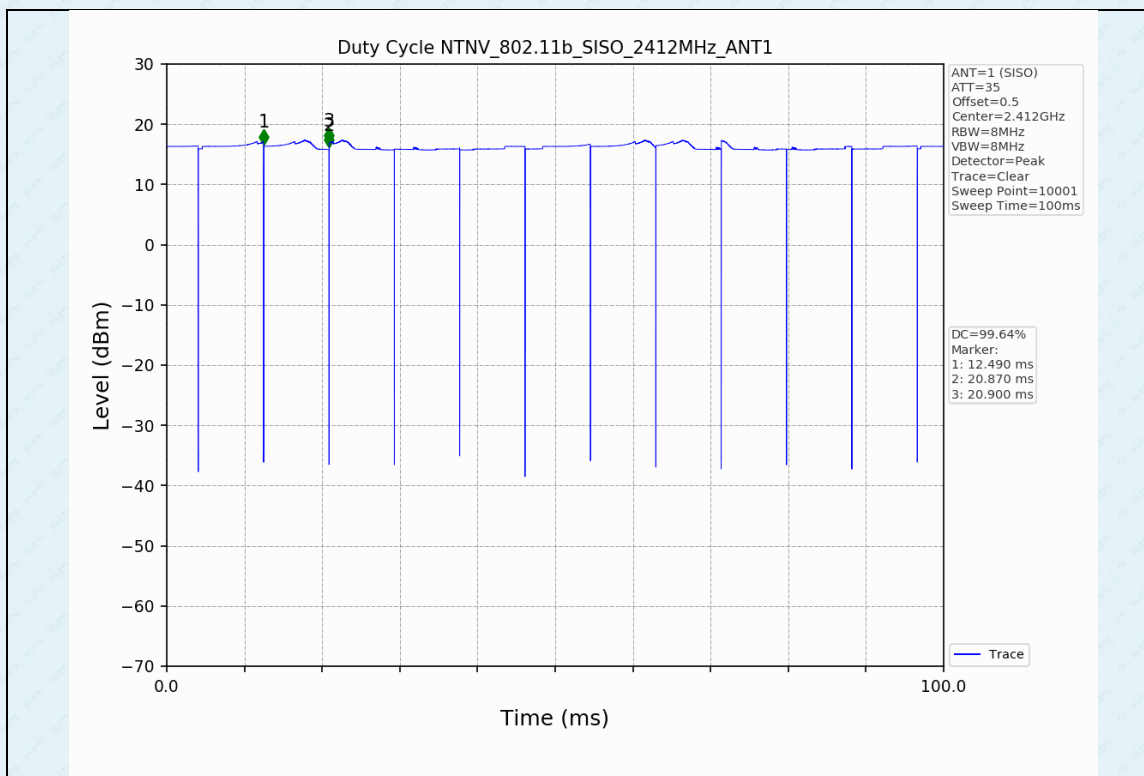
Appendix for 15.247

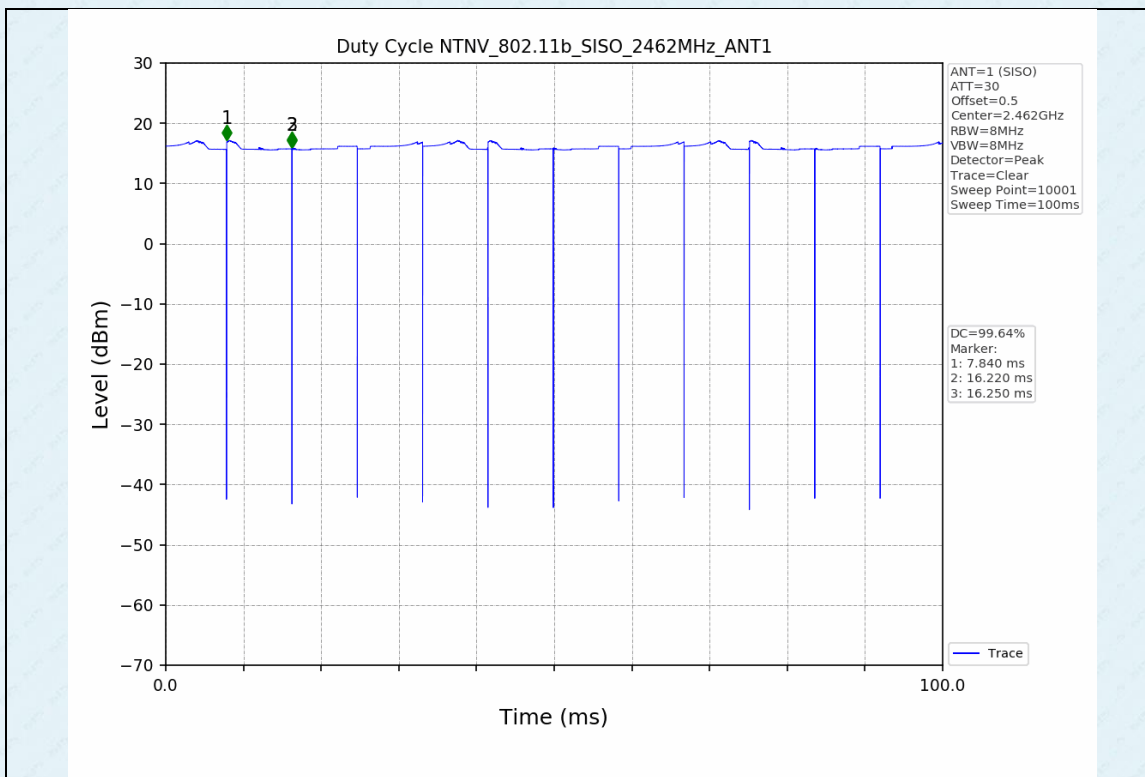
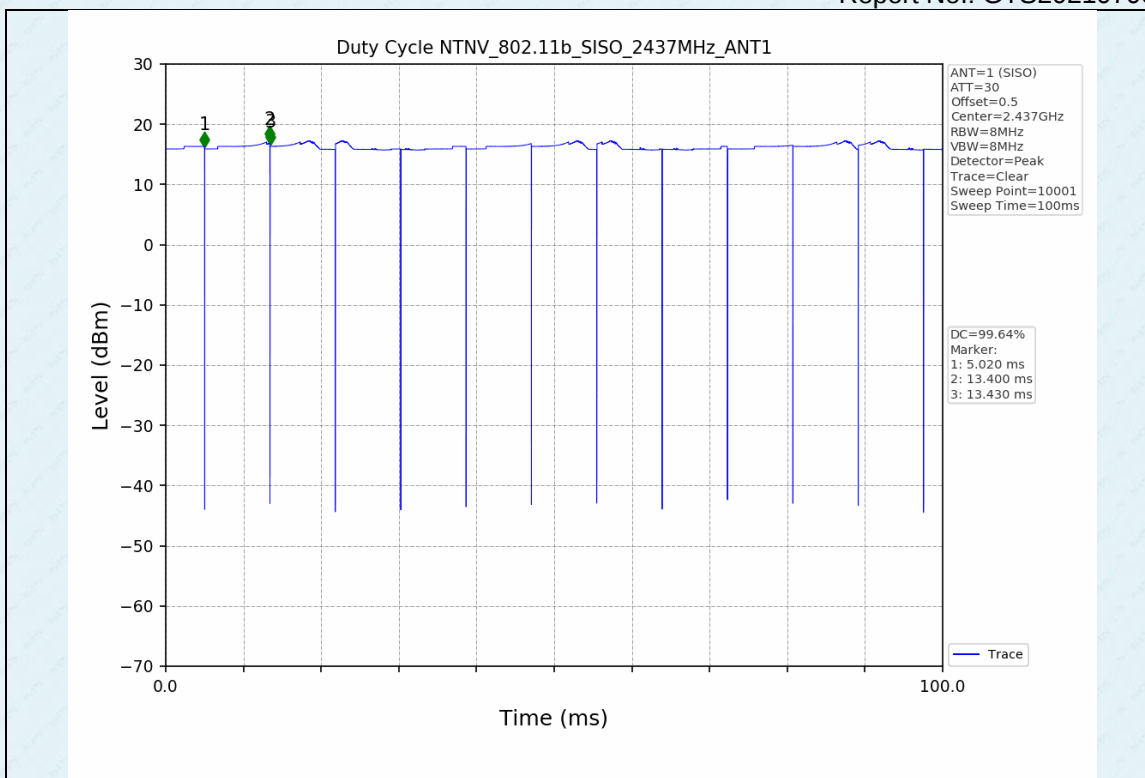
1. Duty Cycle

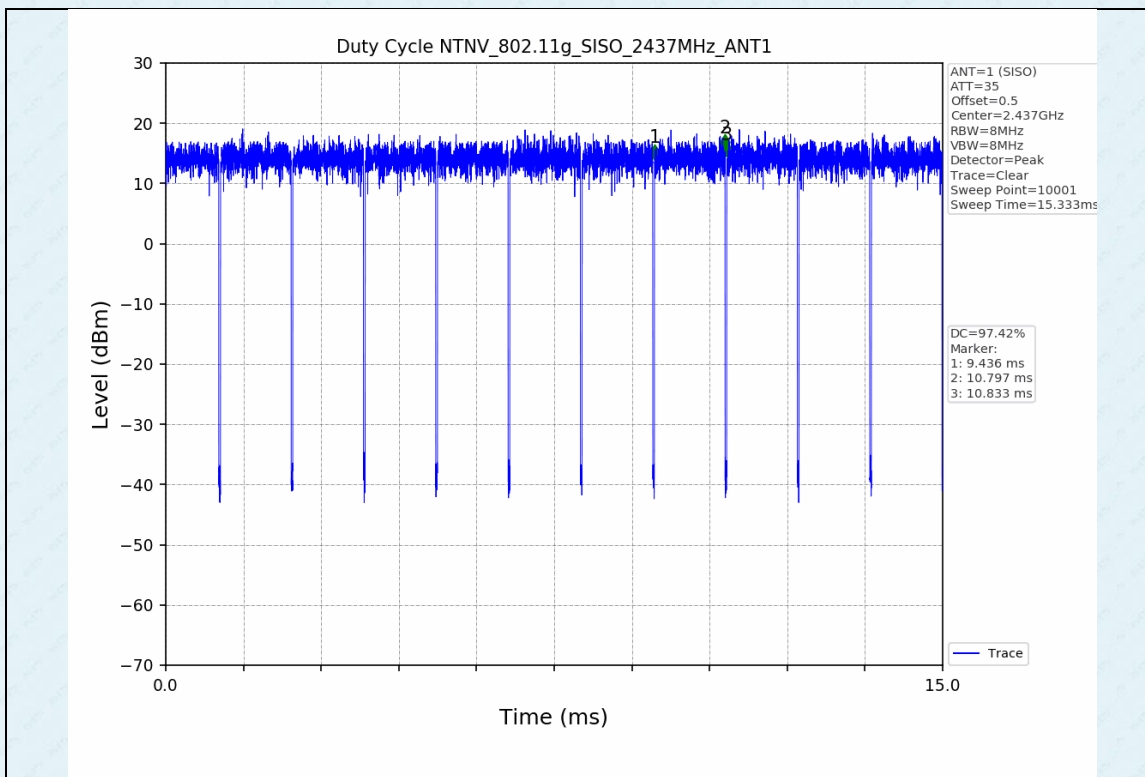
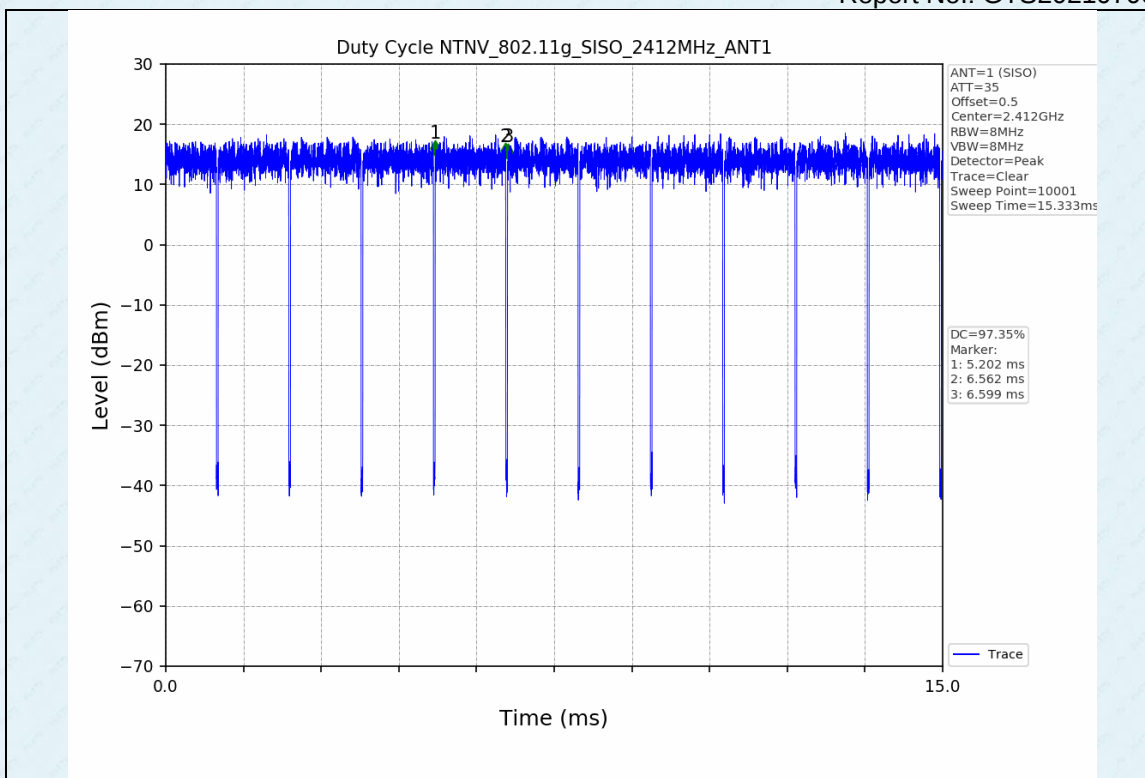
1.1 Test Result

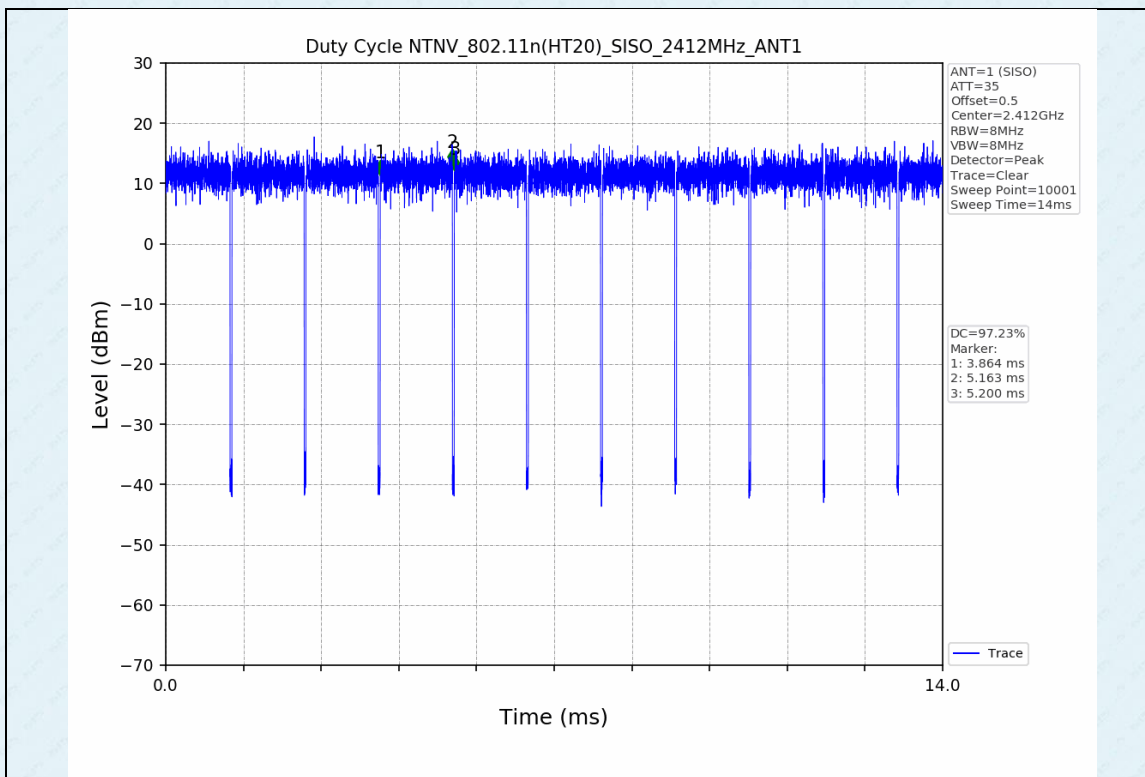
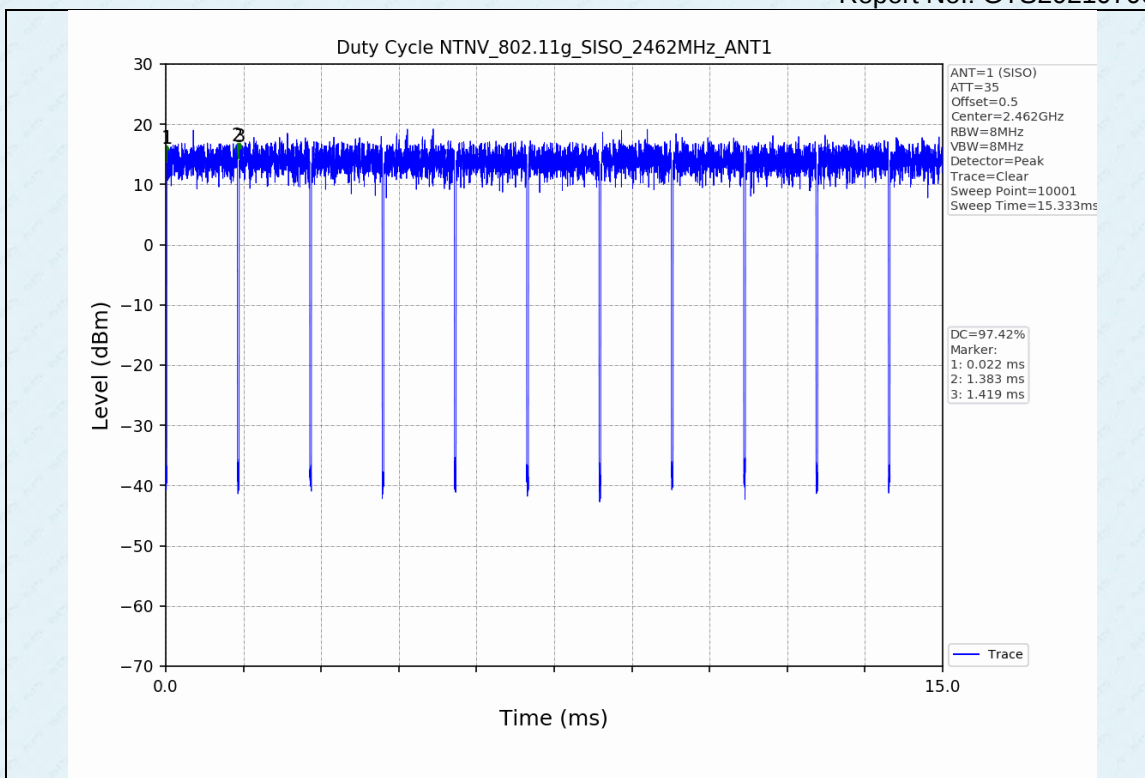
Test Mode	Channel Frequency(MHz)	TX Type	ANT No.	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)
802.11b	2412	SISO	1	8.380	8.410	99.64	0.02
	2437	SISO	1	8.380	8.410	99.64	0.02
	2462	SISO	1	8.380	8.410	99.64	0.02
802.11g	2412	SISO	1	1.360	1.397	97.35	0.12
	2437	SISO	1	1.361	1.397	97.42	0.11
	2462	SISO	1	1.361	1.397	97.42	0.11
802.11n(HT20)	2412	SISO	1	1.299	1.336	97.23	0.12
	2437	SISO	1	1.299	1.335	97.30	0.12
	2462	SISO	1	1.299	1.335	97.30	0.12
802.11n(HT40)	2422	SISO	1	0.348	0.419	83.05	0.81
	2437	SISO	1	0.348	0.410	84.88	0.71
	2452	SISO	1	0.348	0.419	83.05	0.81

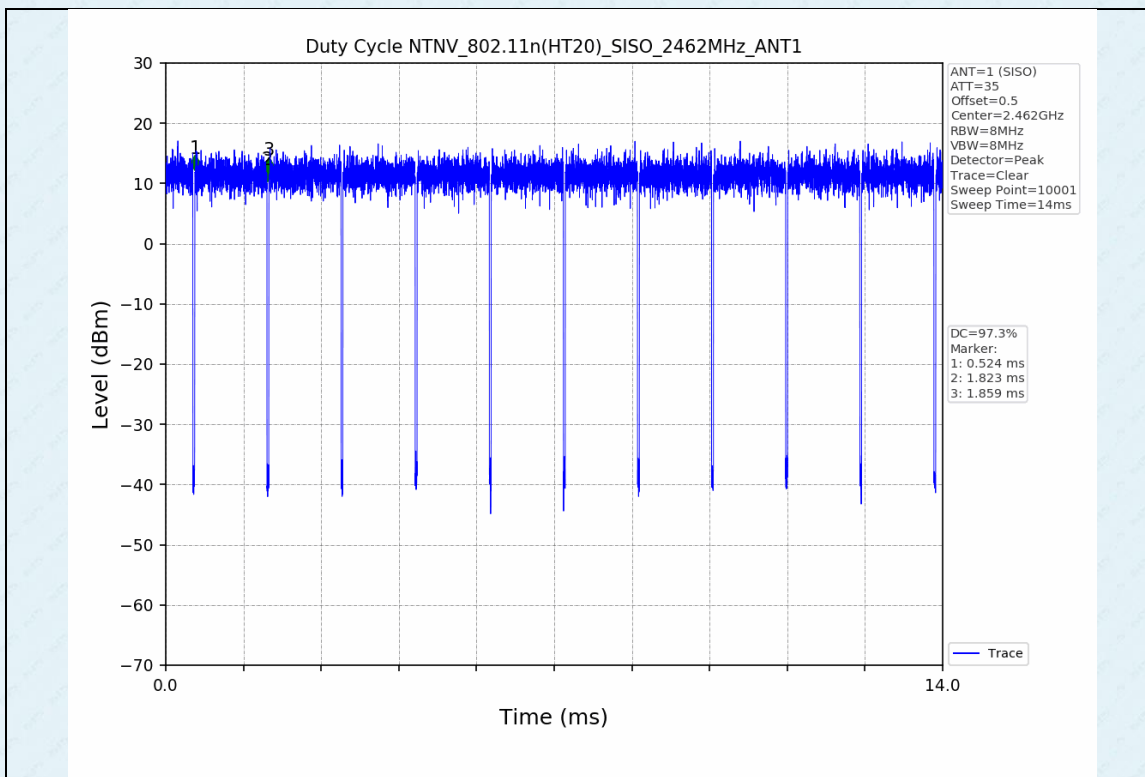
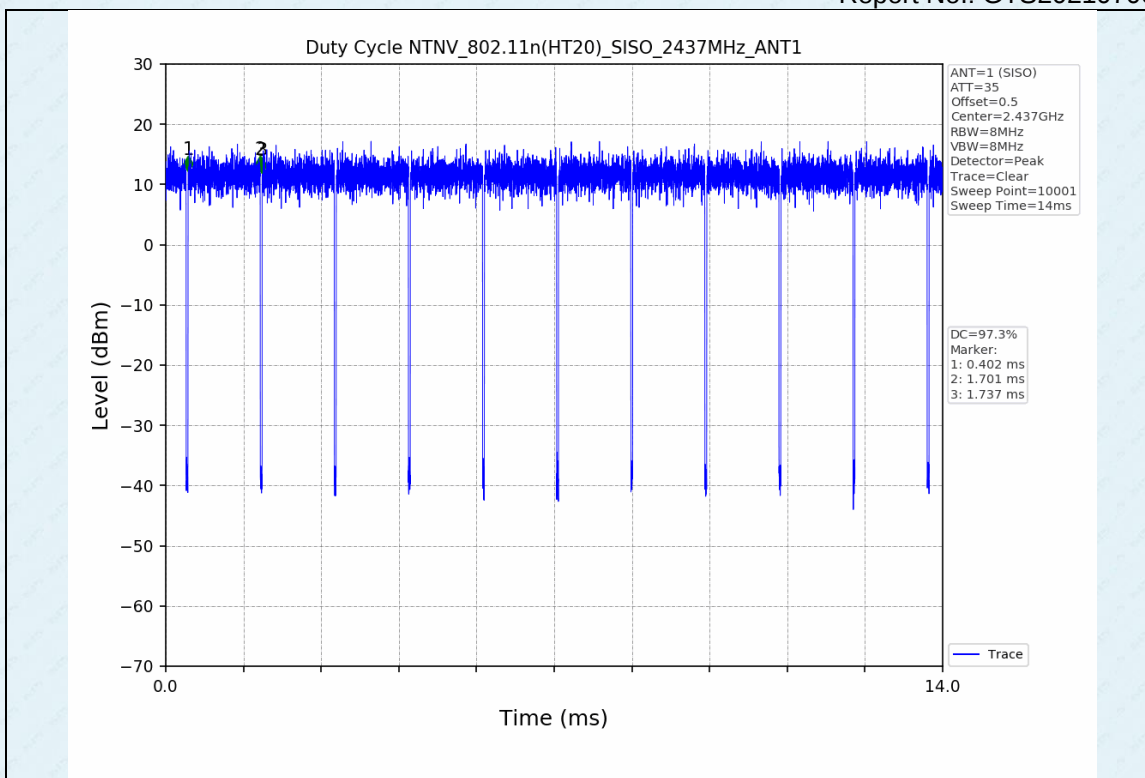
1.2 Test Graph

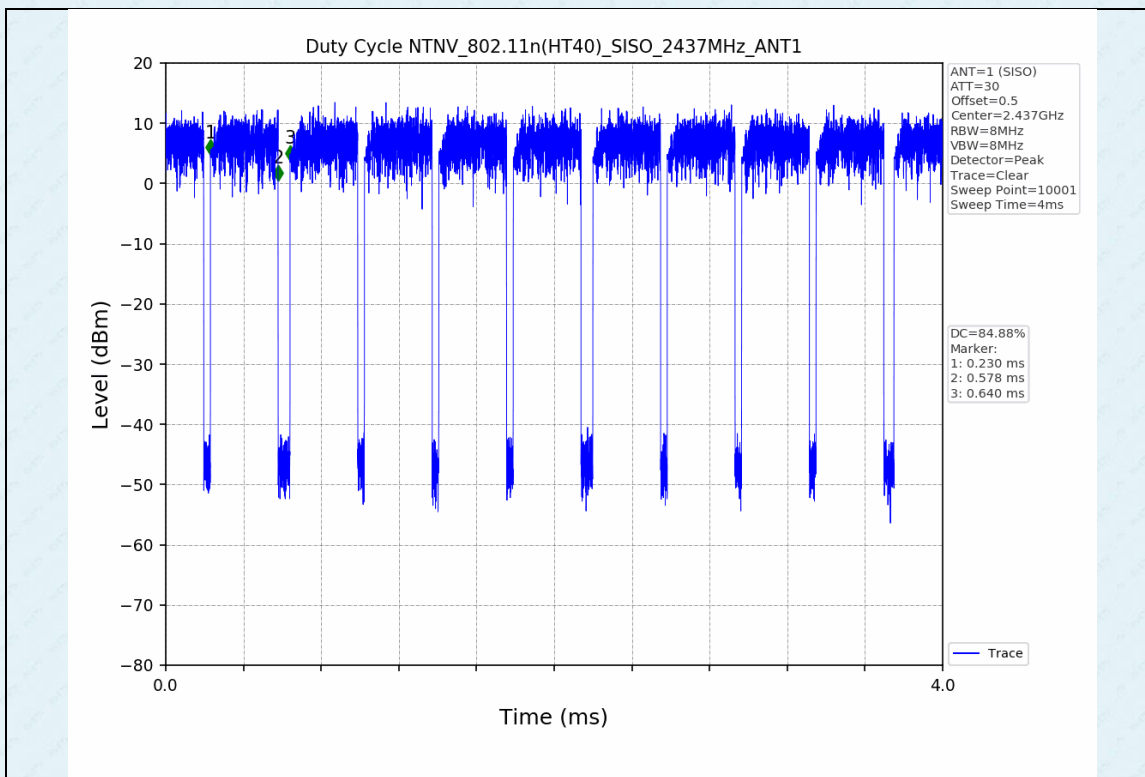
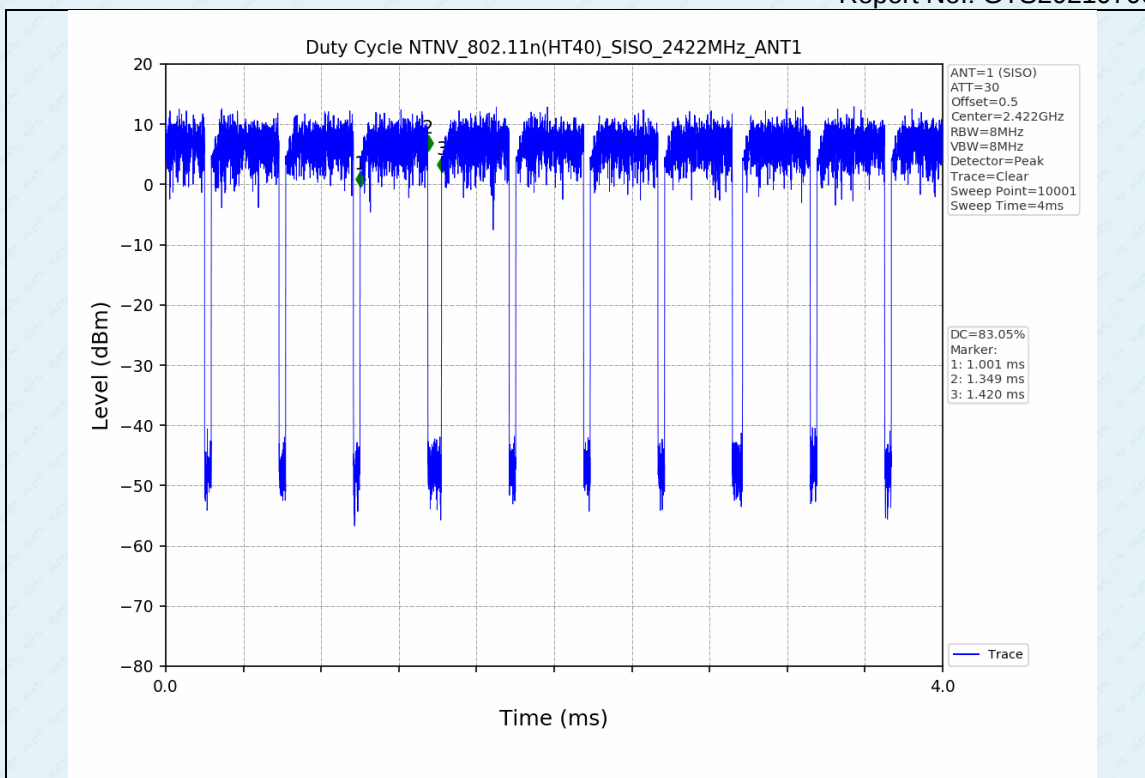


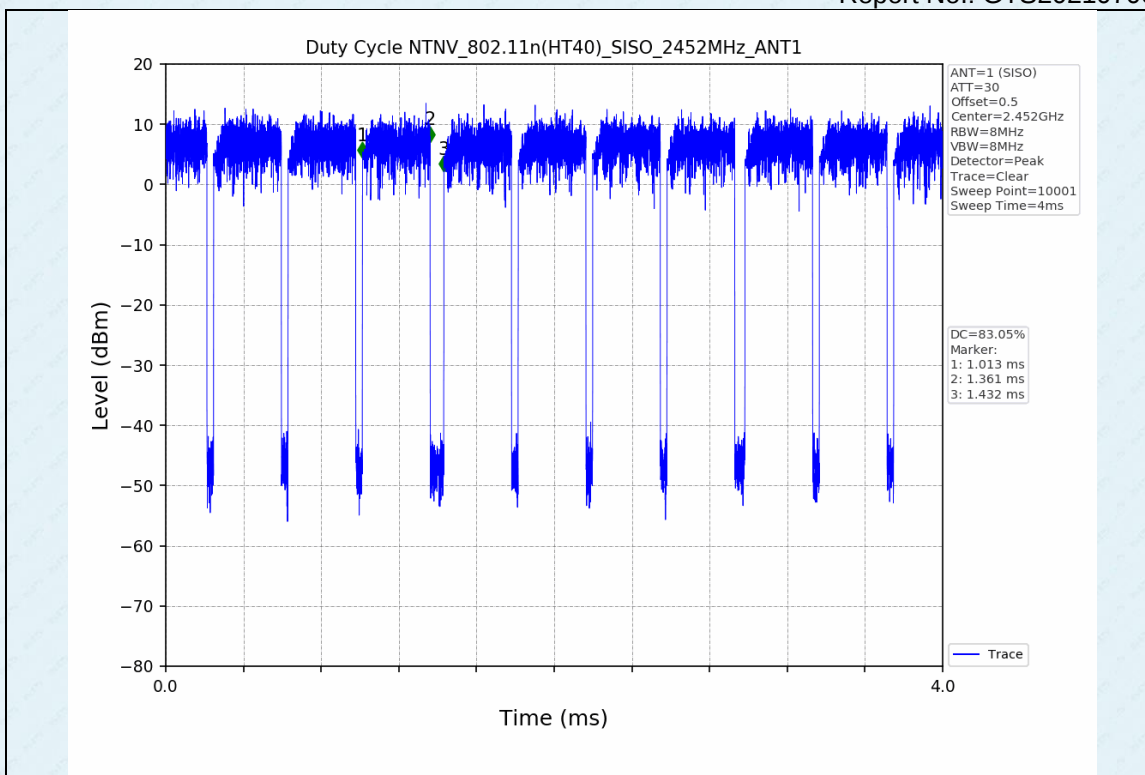












2. Bandwidth

2.1 Test Result

ANT 1:

Test Mode	Frequency (MHz)	TX Type	ANT No.	6dB Bandwidth		Verdict
				Test Result (MHz)	Limits (MHz)	
802.11b	2412	SISO	1	9.096	≥0.5	PASS
	2437	SISO	1	9.088	≥0.5	PASS
	2462	SISO	1	9.090	≥0.5	PASS
802.11g	2412	SISO	1	15.088	≥0.5	PASS
	2437	SISO	1	15.155	≥0.5	PASS
	2462	SISO	1	15.122	≥0.5	PASS
802.11n(HT20)	2412	SISO	1	15.129	≥0.5	PASS
	2437	SISO	1	15.124	≥0.5	PASS
	2462	SISO	1	15.156	≥0.5	PASS
802.11n(HT40)	2422	SISO	1	35.212	≥0.5	PASS
	2437	SISO	1	35.199	≥0.5	PASS
	2452	SISO	1	35.192	≥0.5	PASS

Test Mode	Frequency (MHz)	TX Type	ANT No.	99% Occupied Bandwidth	
				Test Result (MHz)	
802.11b	2412	SISO	1	13.468	Only for Report Use
	2437	SISO	1	13.404	Only for Report Use
	2462	SISO	1	13.437	Only for Report Use
802.11g	2412	SISO	1	16.788	Only for Report Use
	2437	SISO	1	16.774	Only for Report Use
	2462	SISO	1	16.773	Only for Report Use
802.11n(HT20)	2412	SISO	1	17.690	Only for Report Use
	2437	SISO	1	17.661	Only for Report Use
	2462	SISO	1	17.675	Only for Report Use
802.11n(HT40)	2422	SISO	1	36.507	Only for Report Use
	2437	SISO	1	36.382	Only for Report Use
	2452	SISO	1	36.475	Only for Report Use

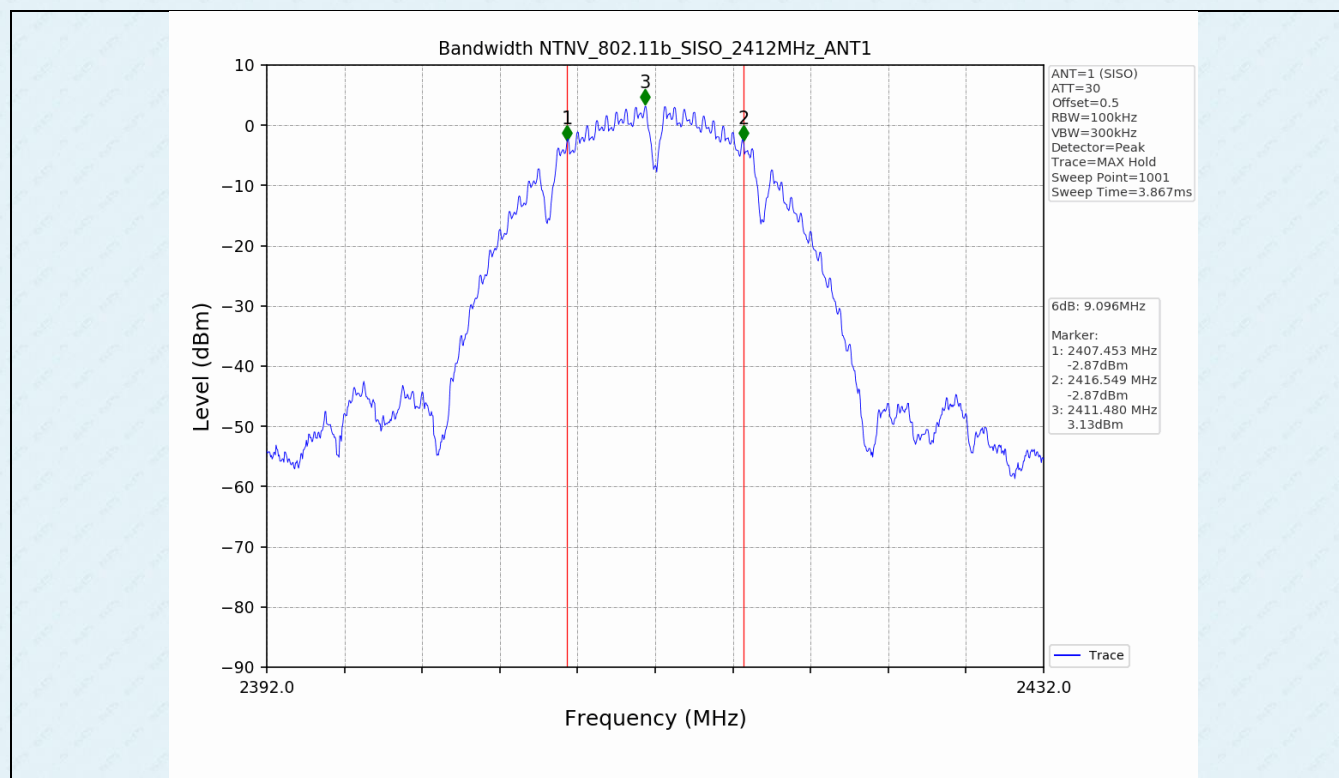
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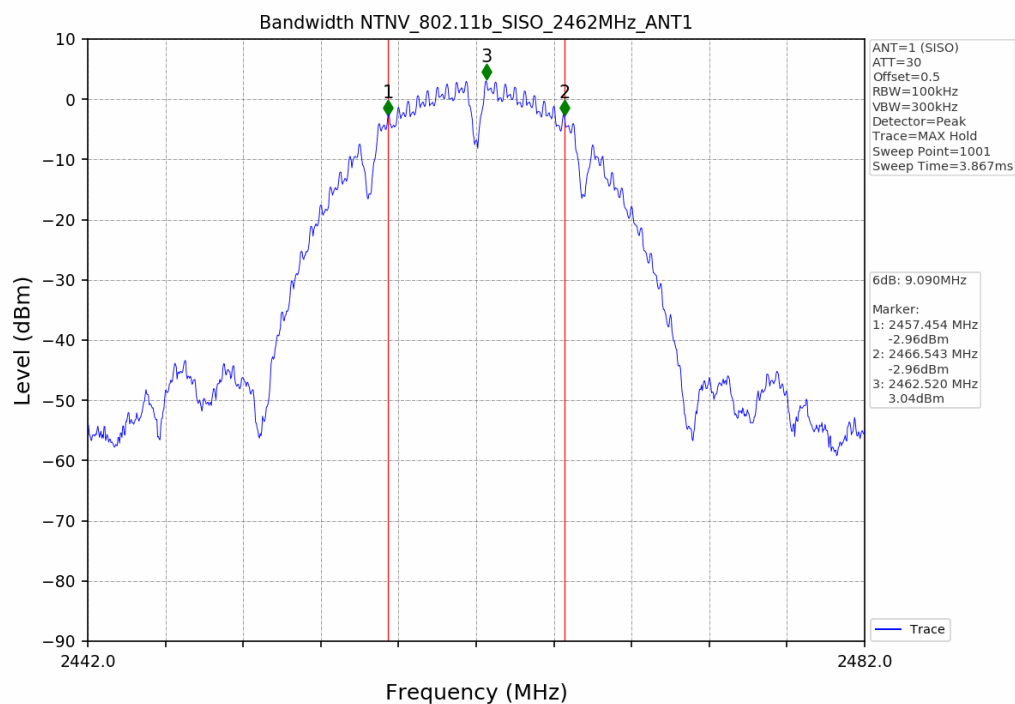
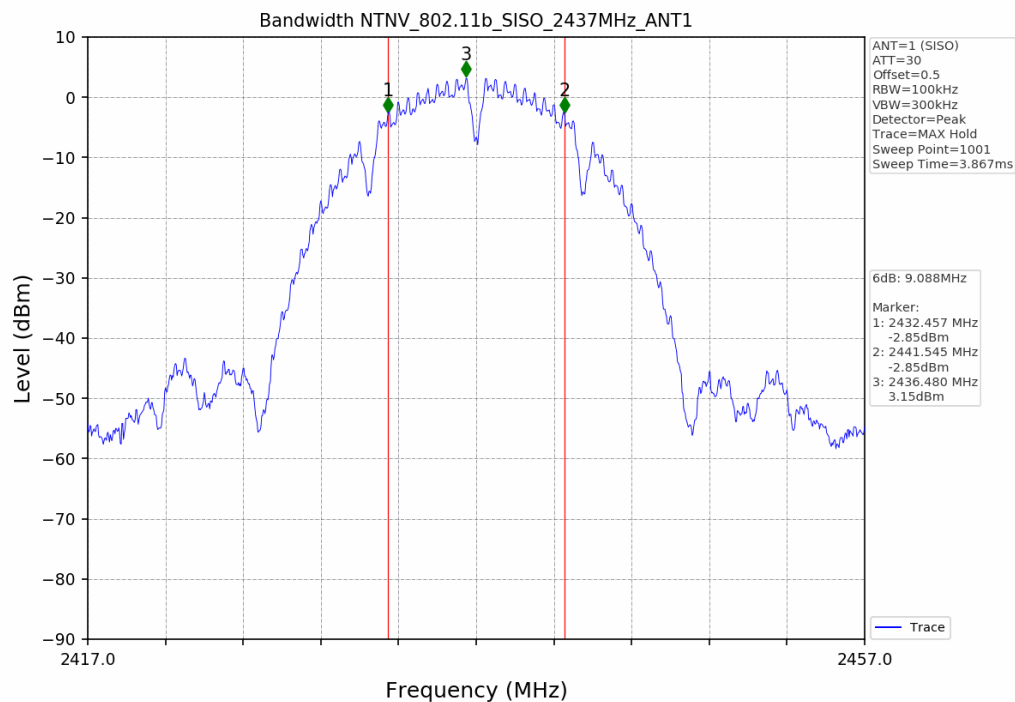
Test Mode	Frequency (MHz)	TX Type	ANT No.	6dB Bandwidth		Verdict
				Test Result (MHz)	Limits (MHz)	
802.11b	2412	SISO	1	9.097	≥0.5	PASS
	2437	SISO	1	8.120	≥0.5	PASS
	2462	SISO	1	9.097	≥0.5	PASS
802.11g	2412	SISO	1	15.173	≥0.5	PASS
	2437	SISO	1	15.128	≥0.5	PASS
	2462	SISO	1	15.141	≥0.5	PASS
802.11n(HT20)	2412	SISO	1	15.123	≥0.5	PASS
	2437	SISO	1	15.159	≥0.5	PASS
	2462	SISO	1	15.127	≥0.5	PASS
802.11n(HT40)	2422	SISO	1	35.203	≥0.5	PASS
	2437	SISO	1	35.191	≥0.5	PASS
	2452	SISO	1	35.212	≥0.5	PASS

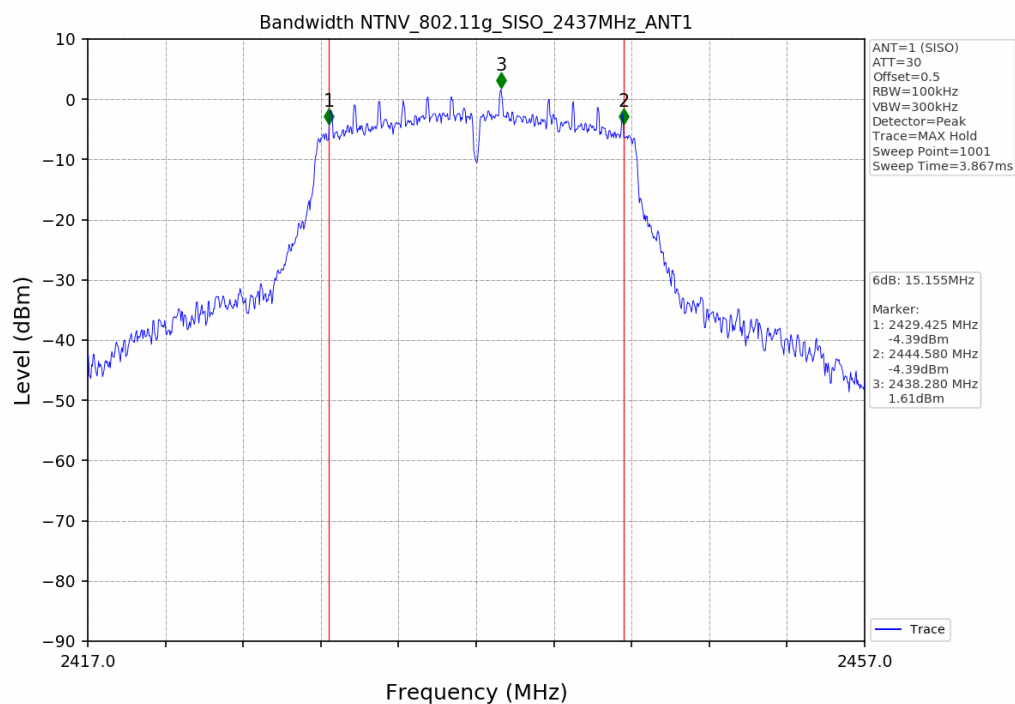
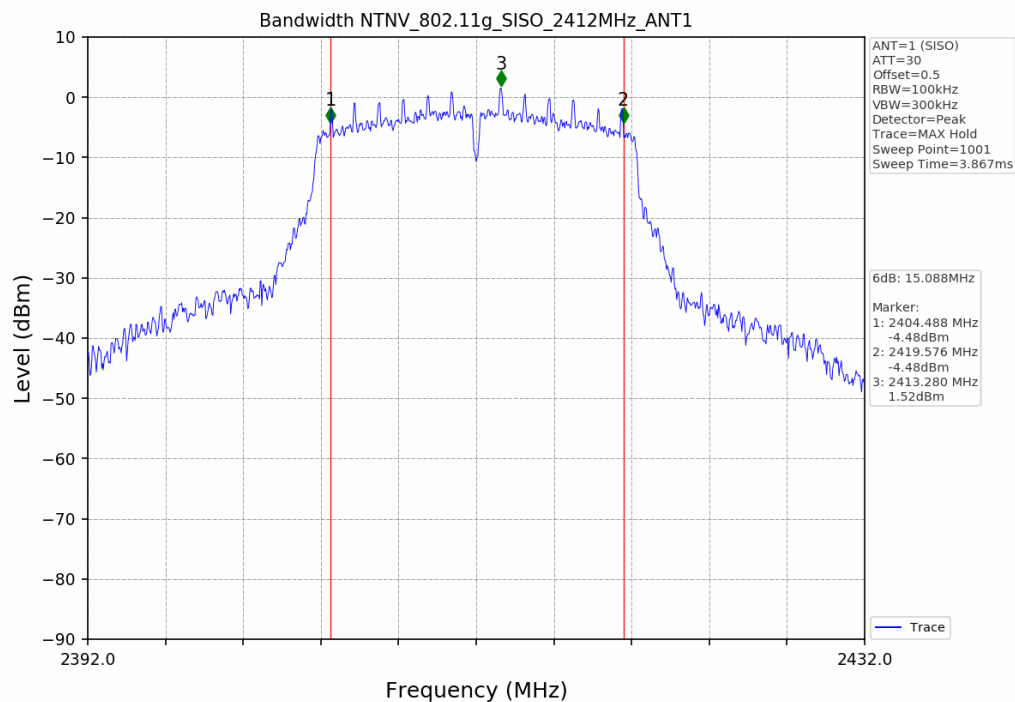
Test Mode	Frequency (MHz)	TX Type	ANT No.	99% Occupied Bandwidth	
				Test Result (MHz)	
802.11b	2412	SISO	2	13.382	Only for Report Use
	2437	SISO	2	13.356	Only for Report Use
	2462	SISO	2	13.385	Only for Report Use
802.11g	2412	SISO	2	16.775	Only for Report Use
	2437	SISO	2	16.763	Only for Report Use
	2462	SISO	2	16.759	Only for Report Use
802.11n(HT20)	2412	SISO	2	17.669	Only for Report Use
	2437	SISO	2	17.664	Only for Report Use
	2462	SISO	2	17.666	Only for Report Use
802.11n(HT40)	2422	SISO	2	36.343	Only for Report Use
	2437	SISO	2	36.288	Only for Report Use
	2452	SISO	2	36.354	Only for Report Use

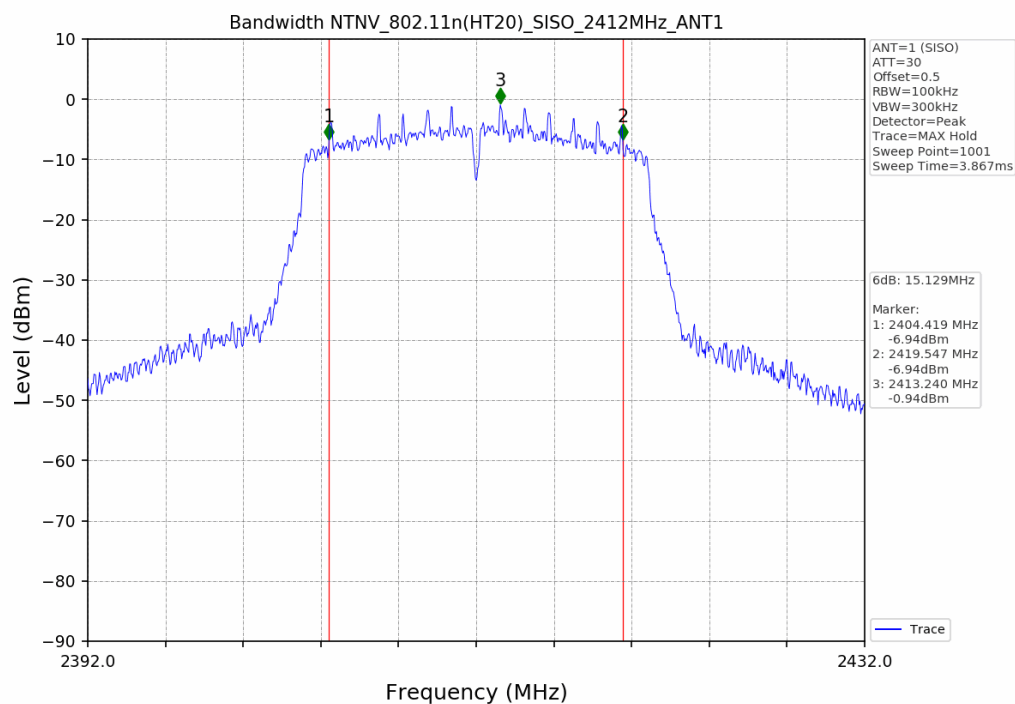
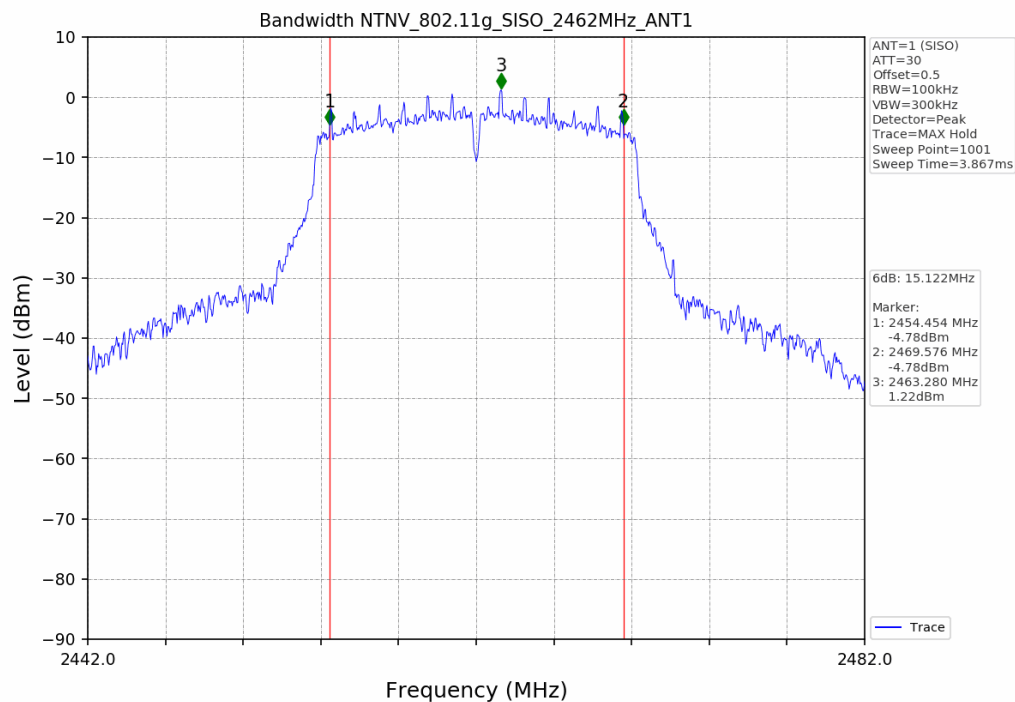
2.2 Test Graph - 6dB Bandwidth

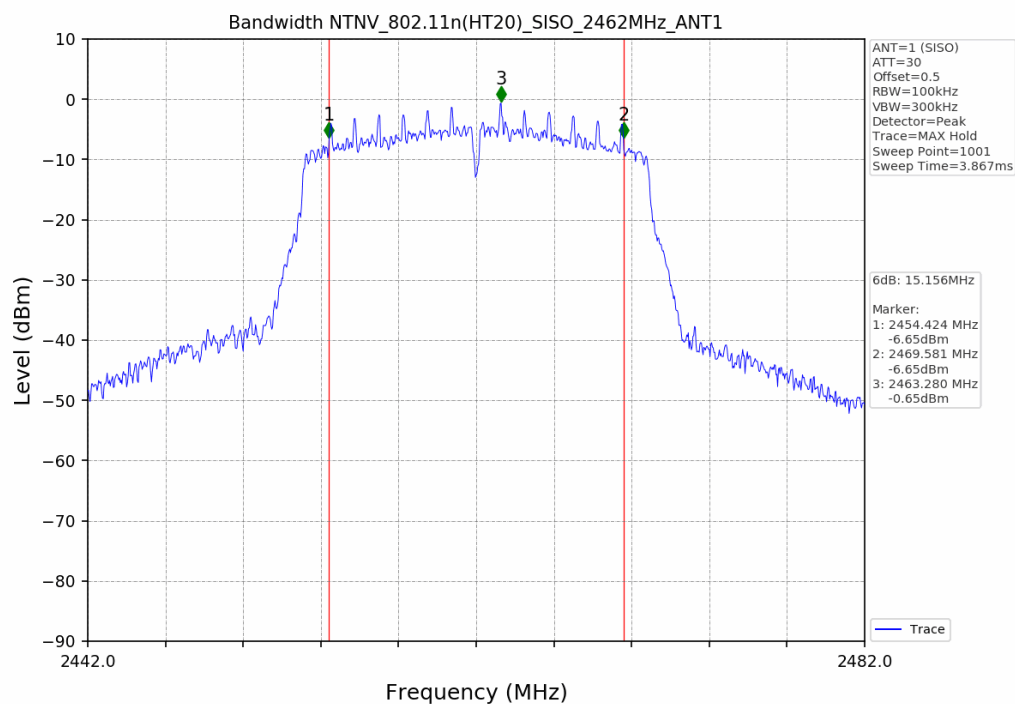
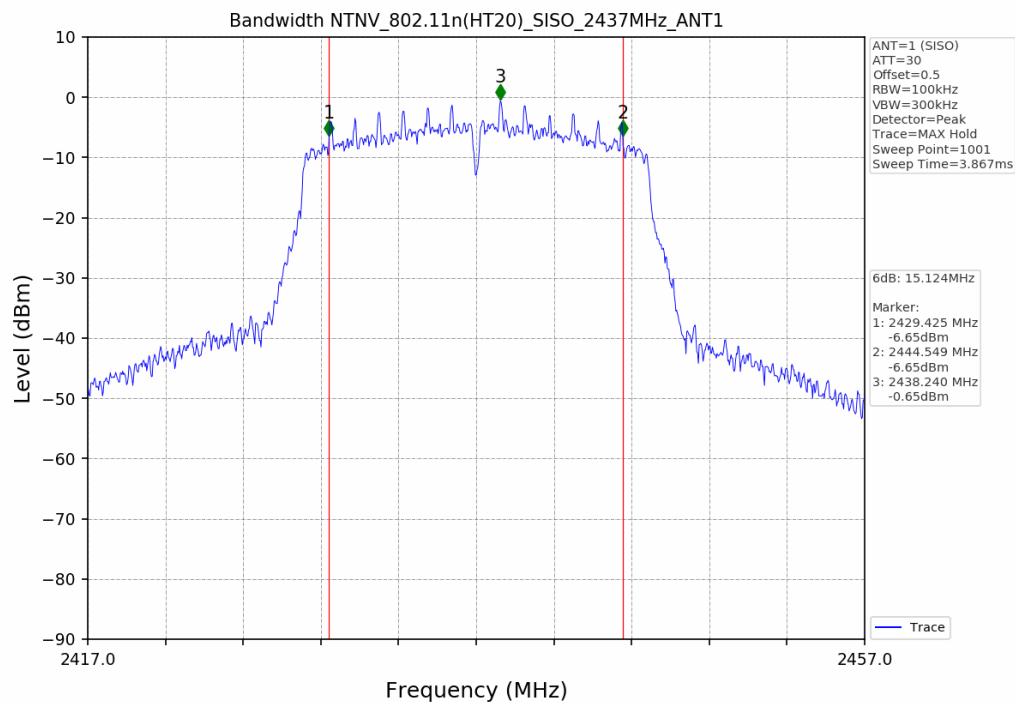
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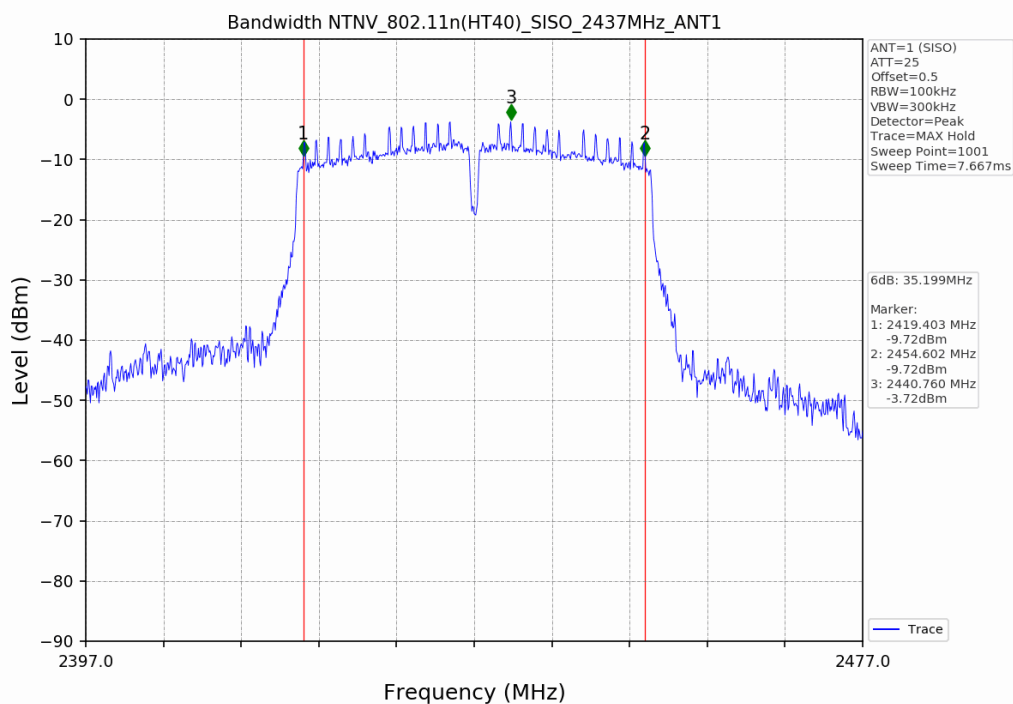
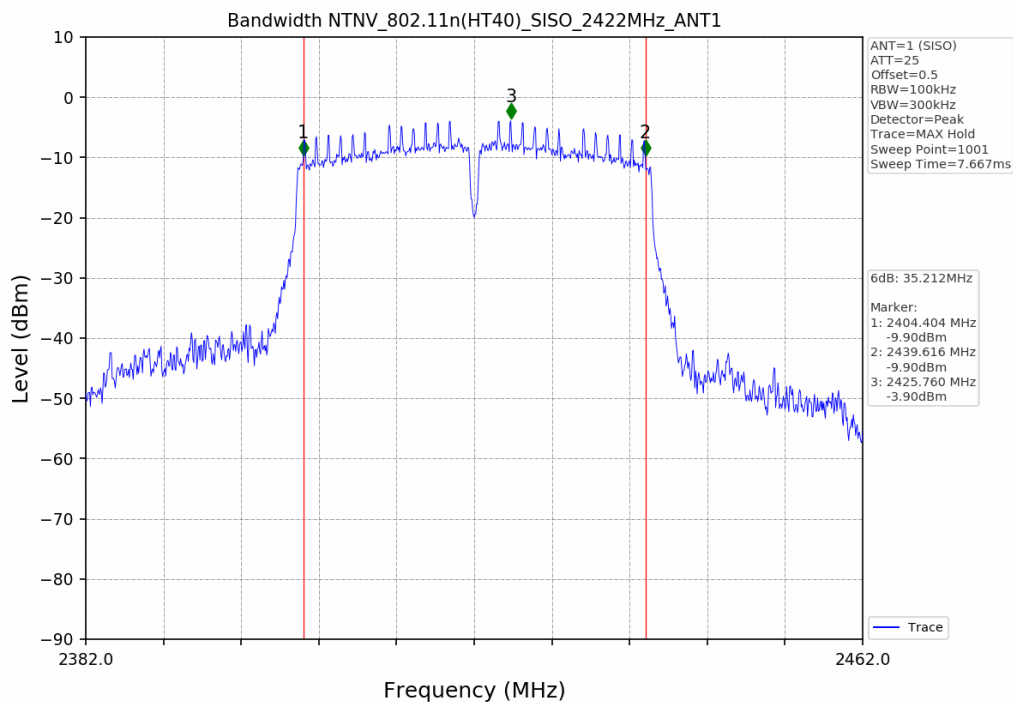


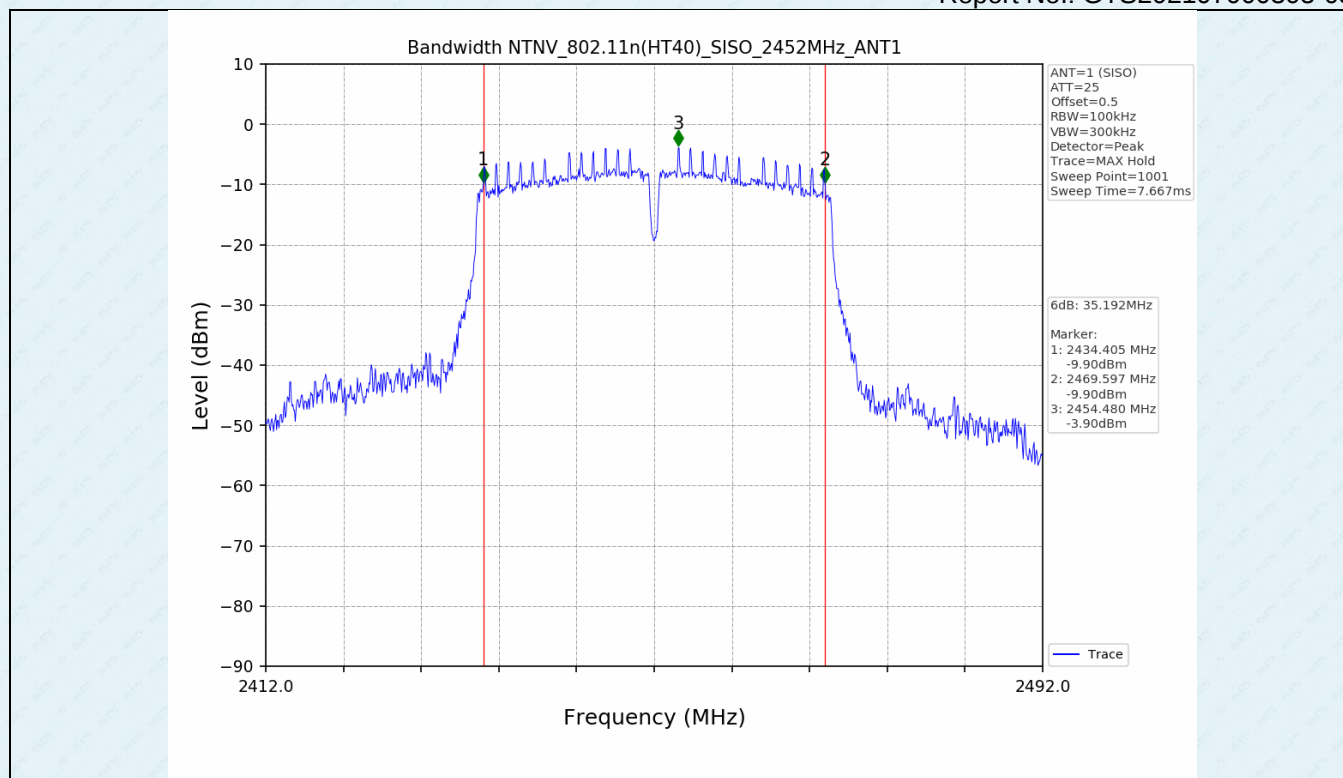




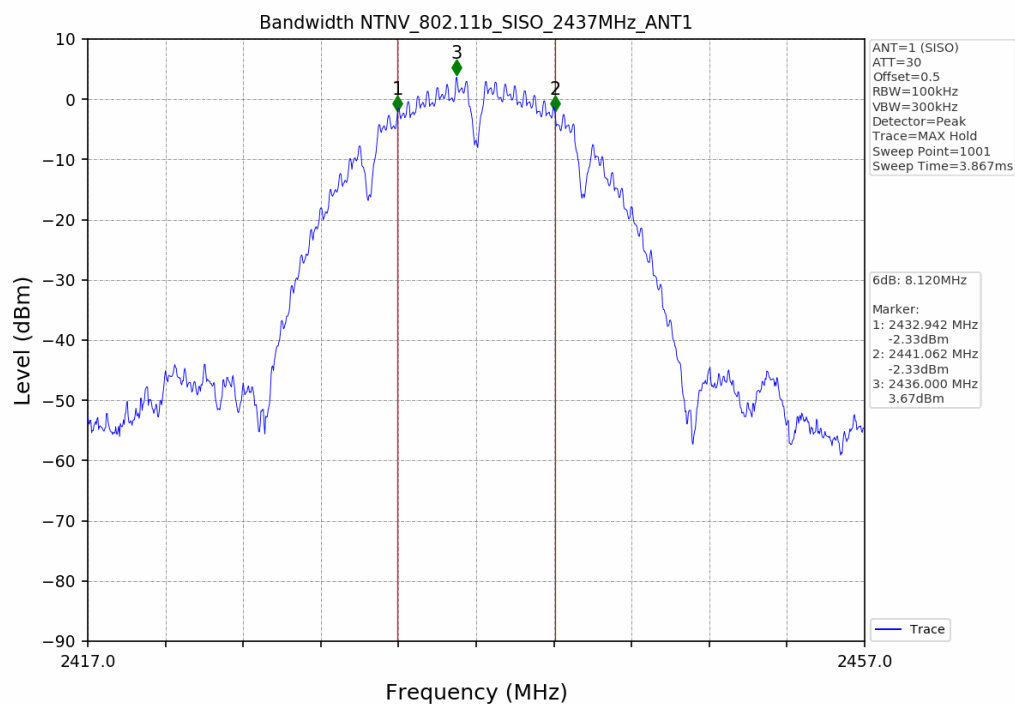
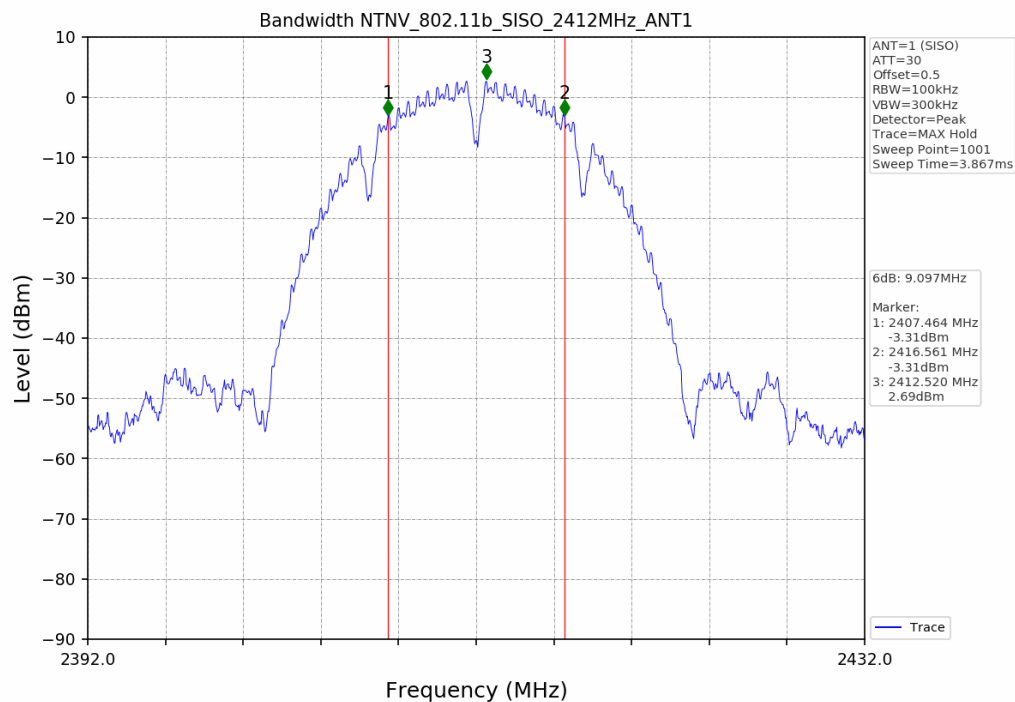


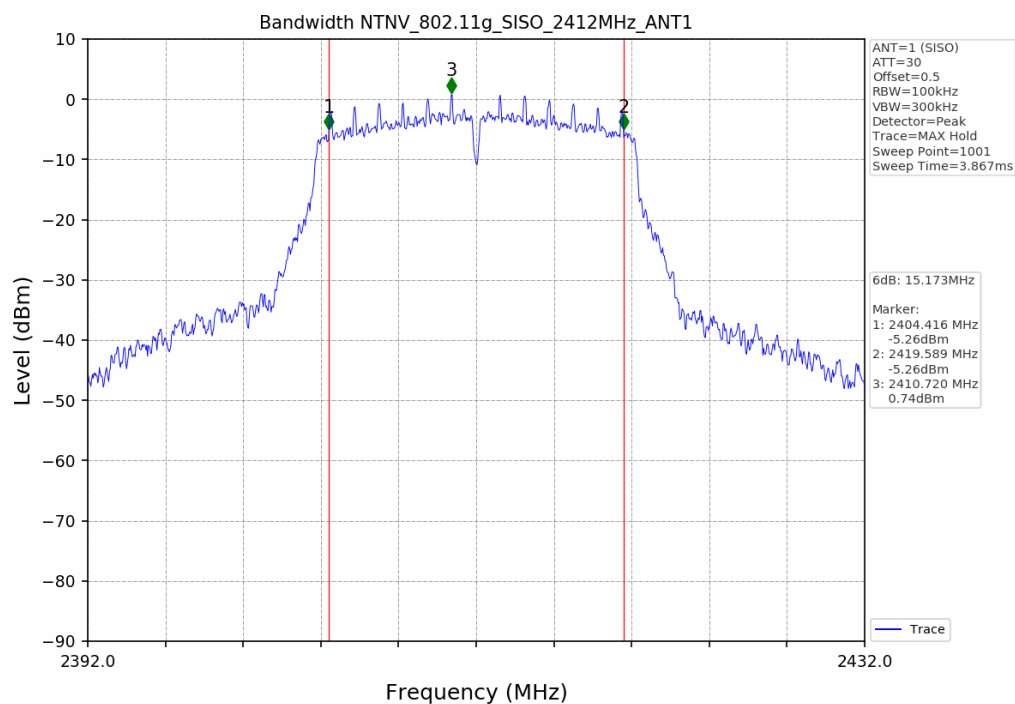
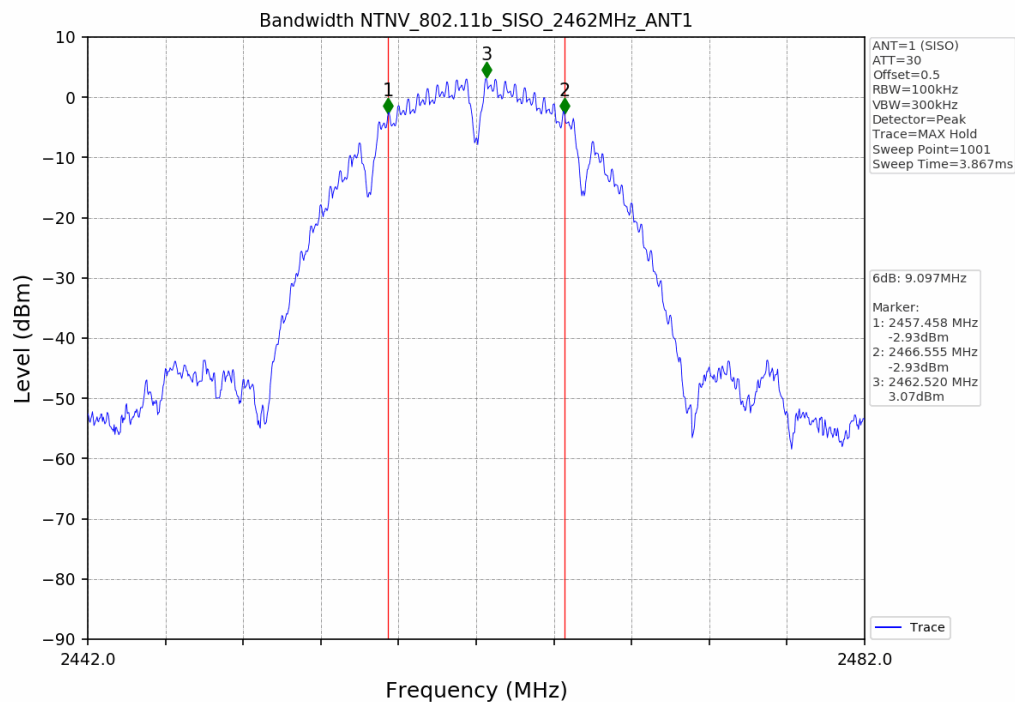


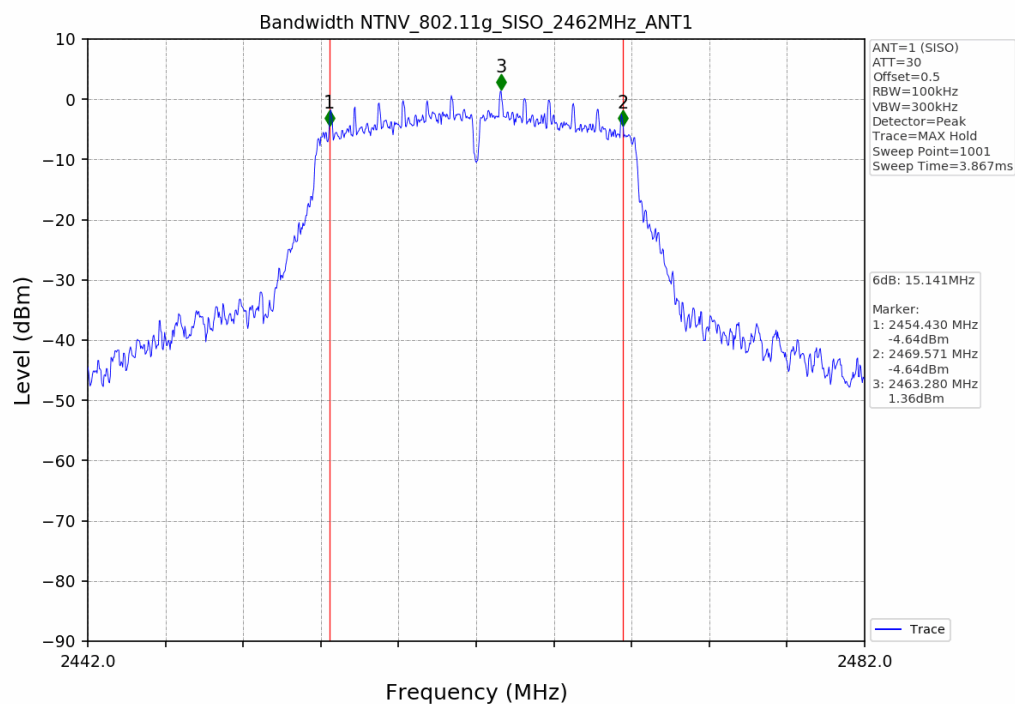
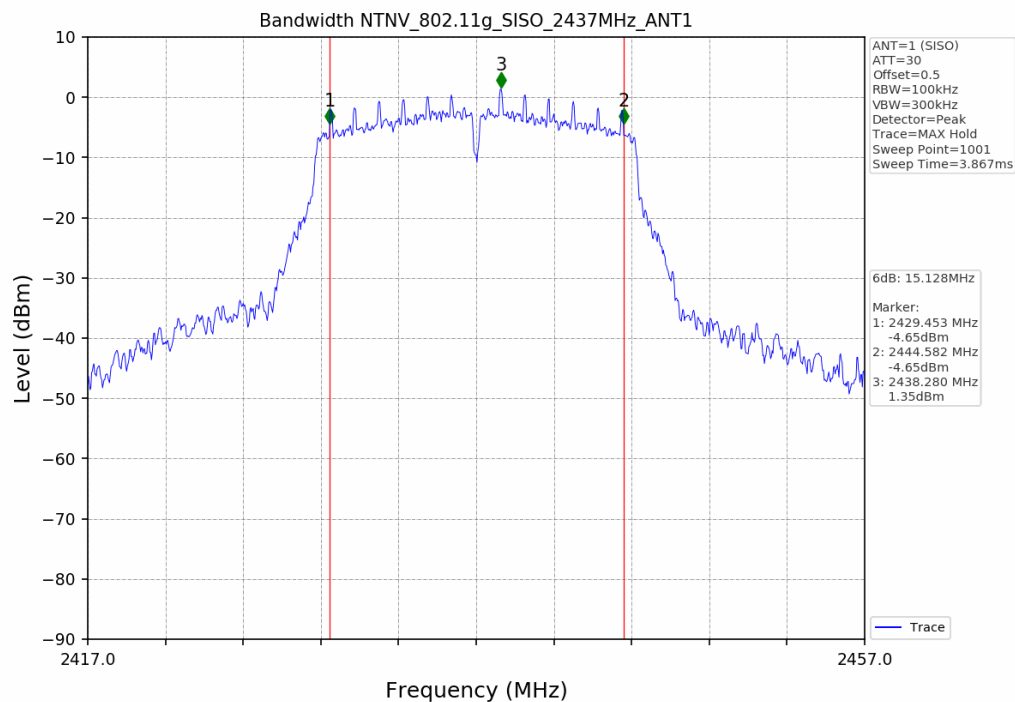


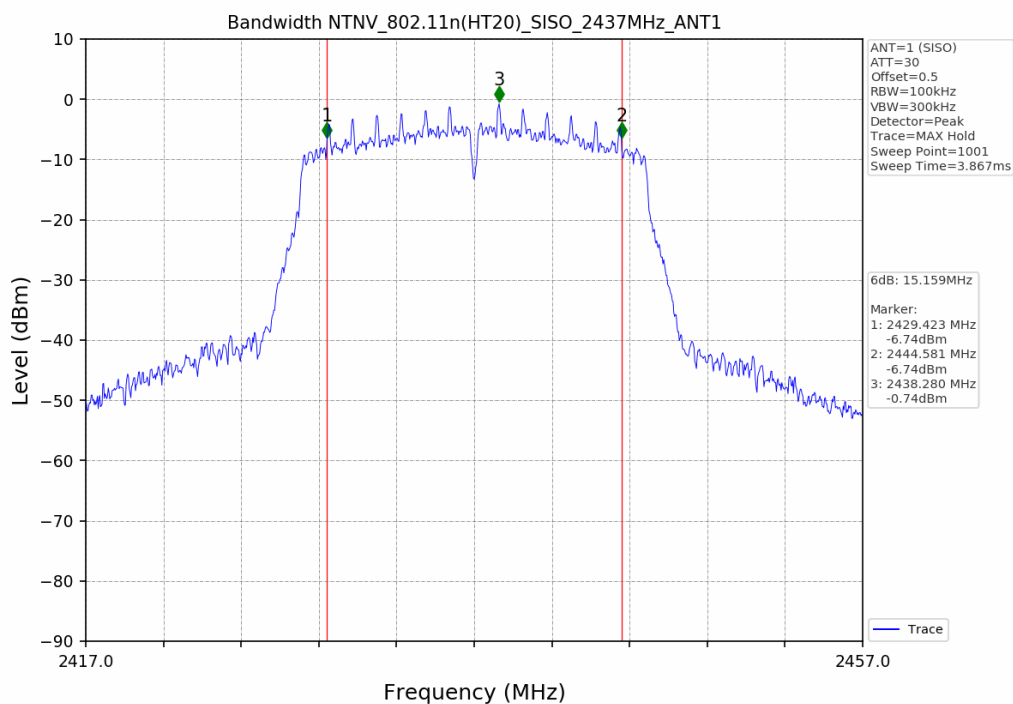
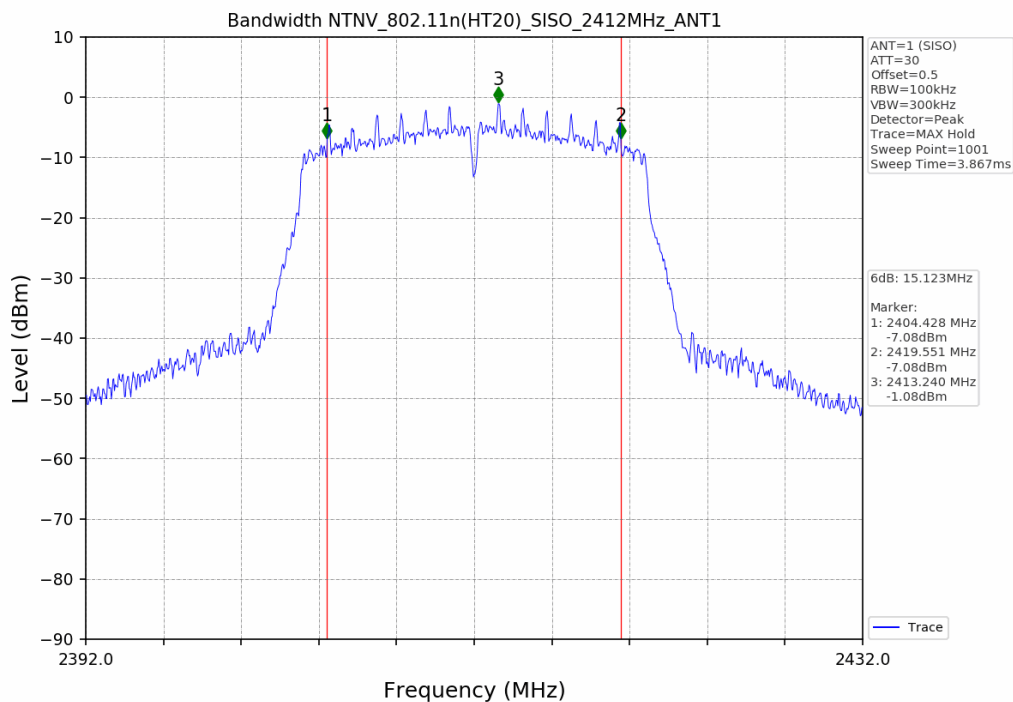


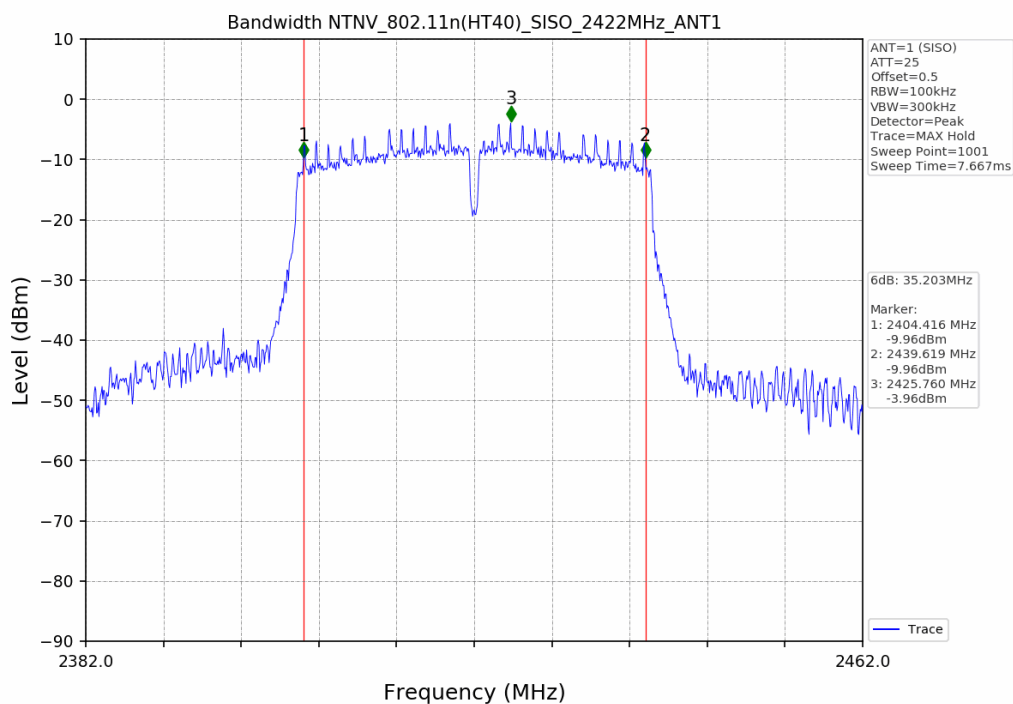
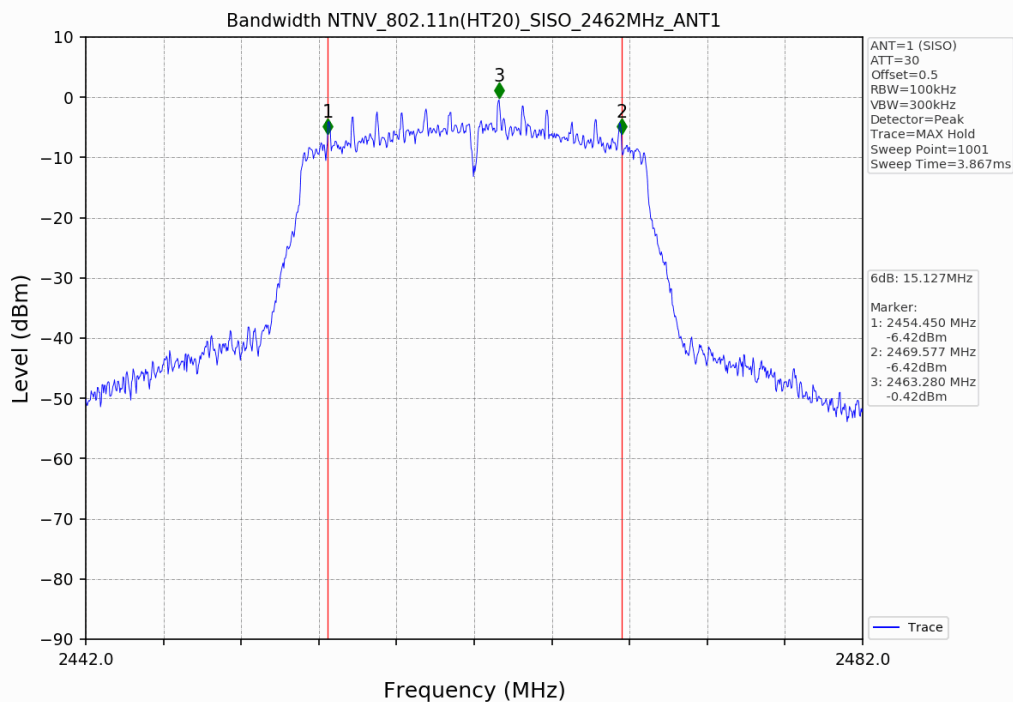
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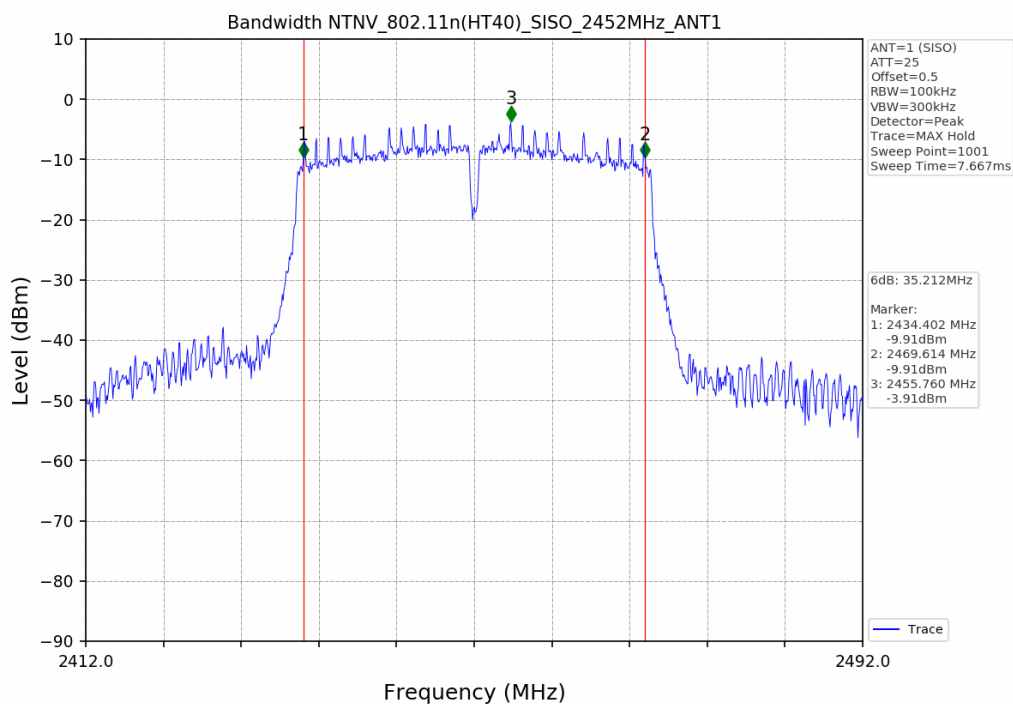
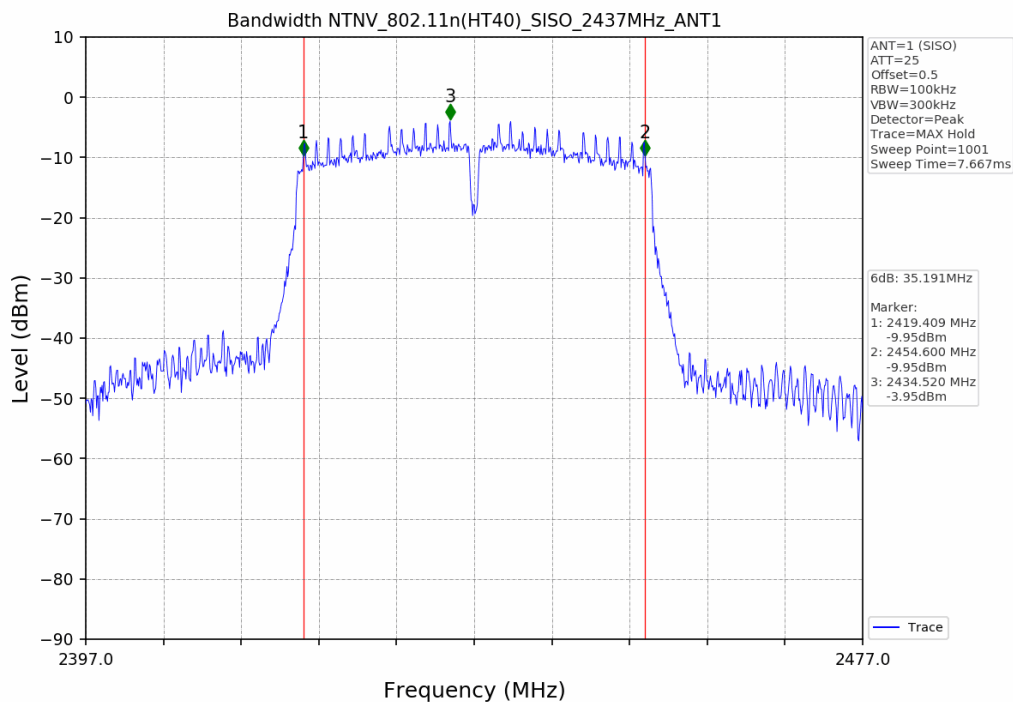






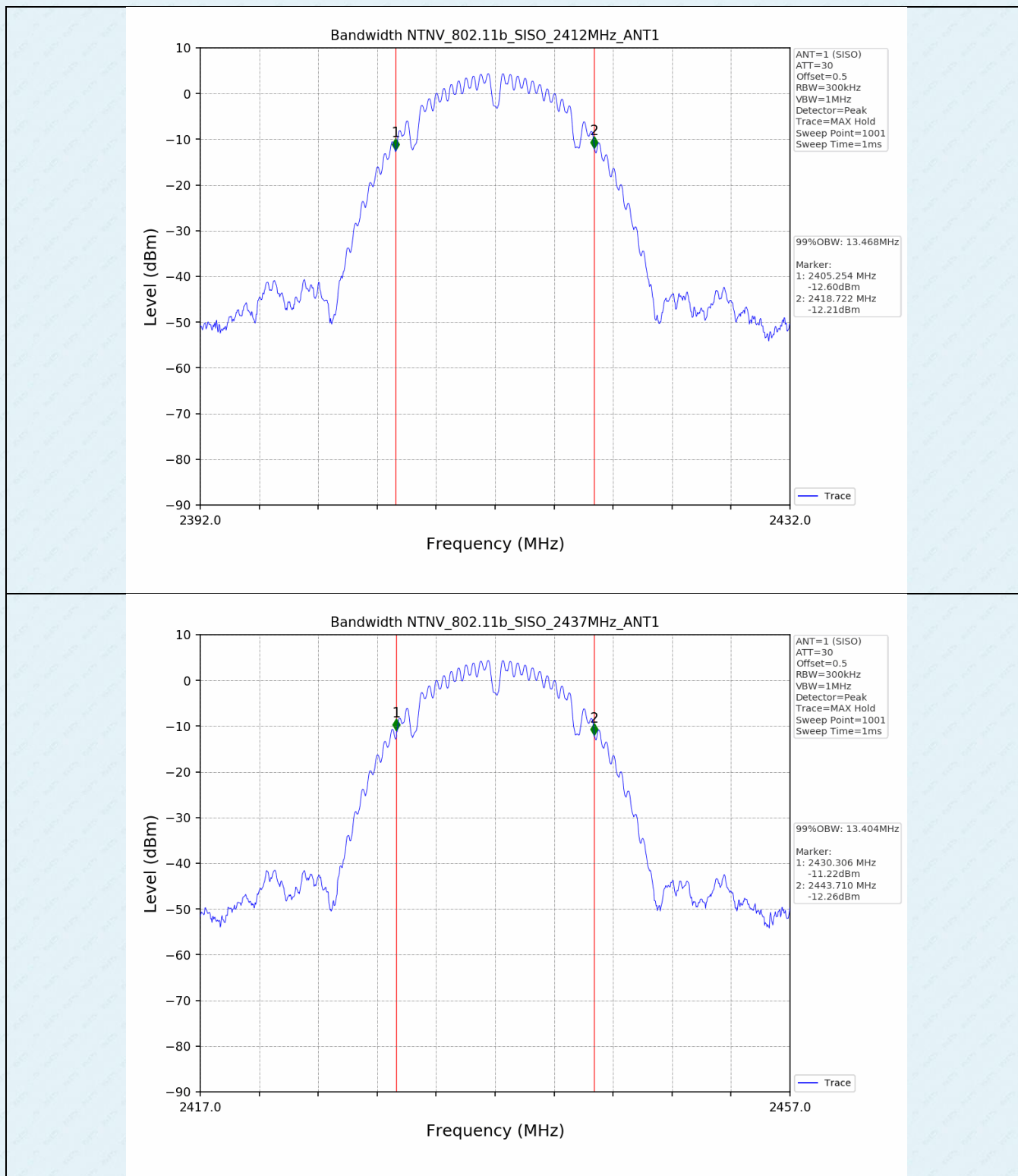


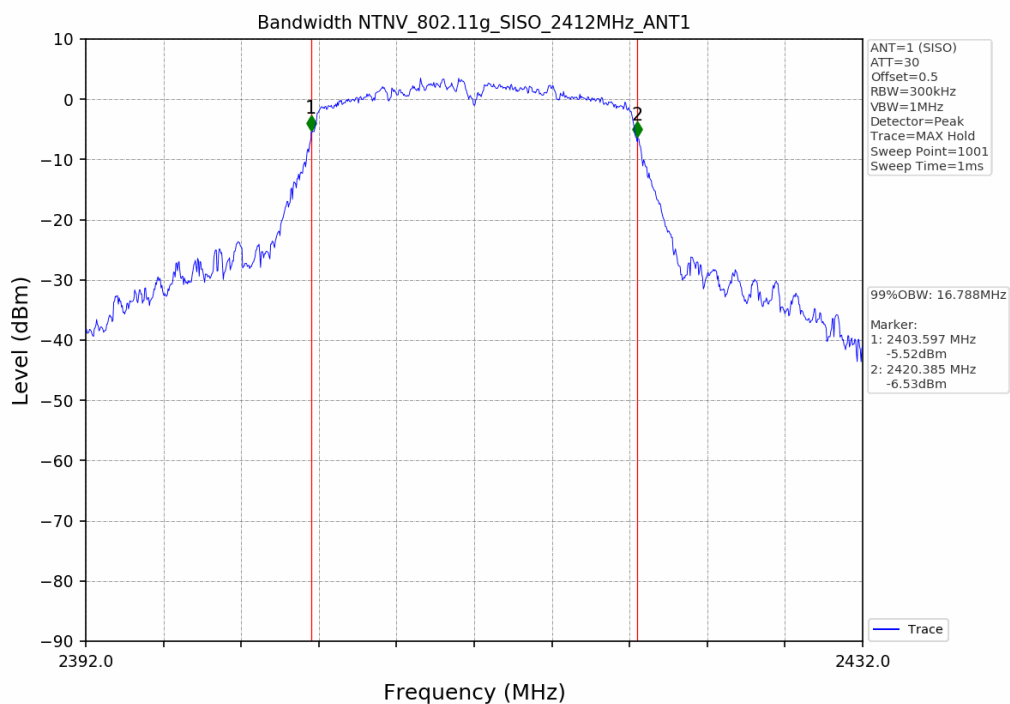
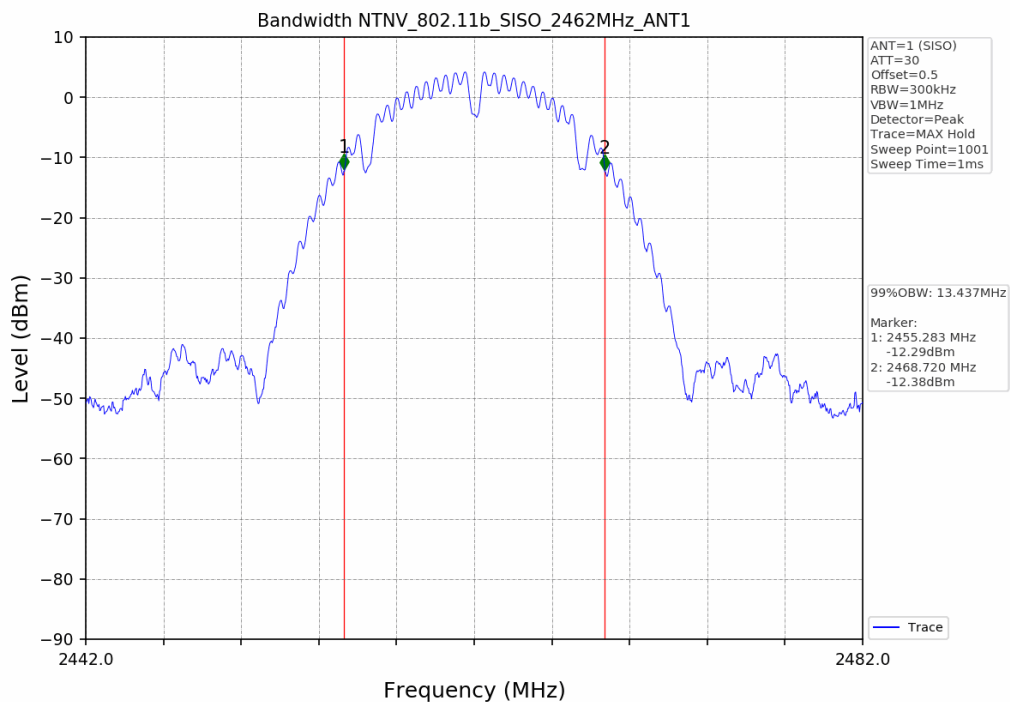


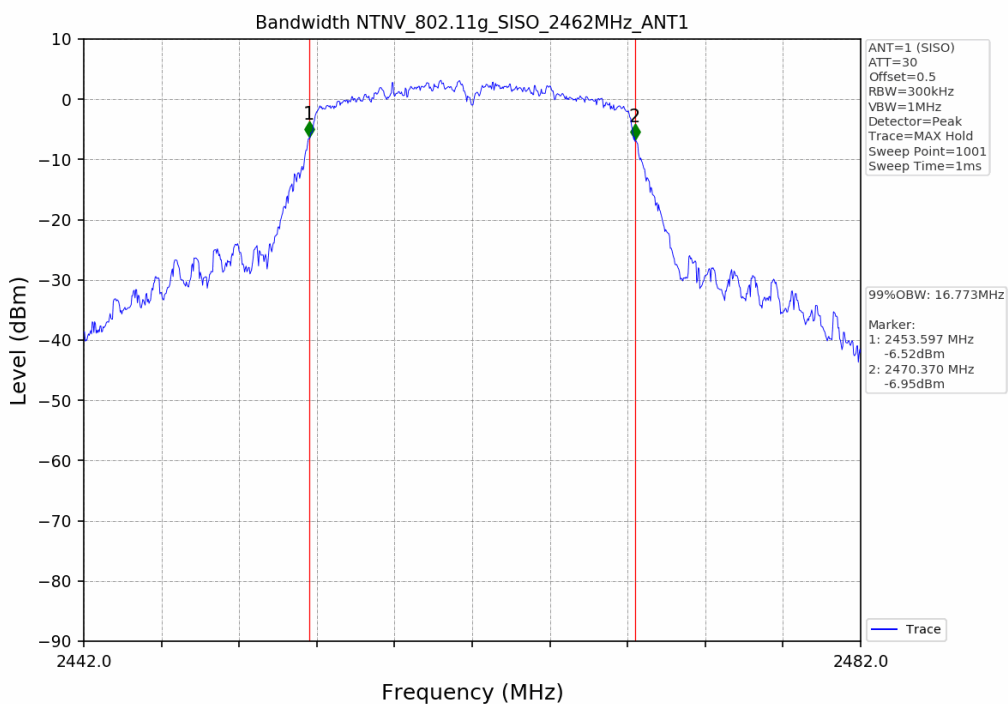
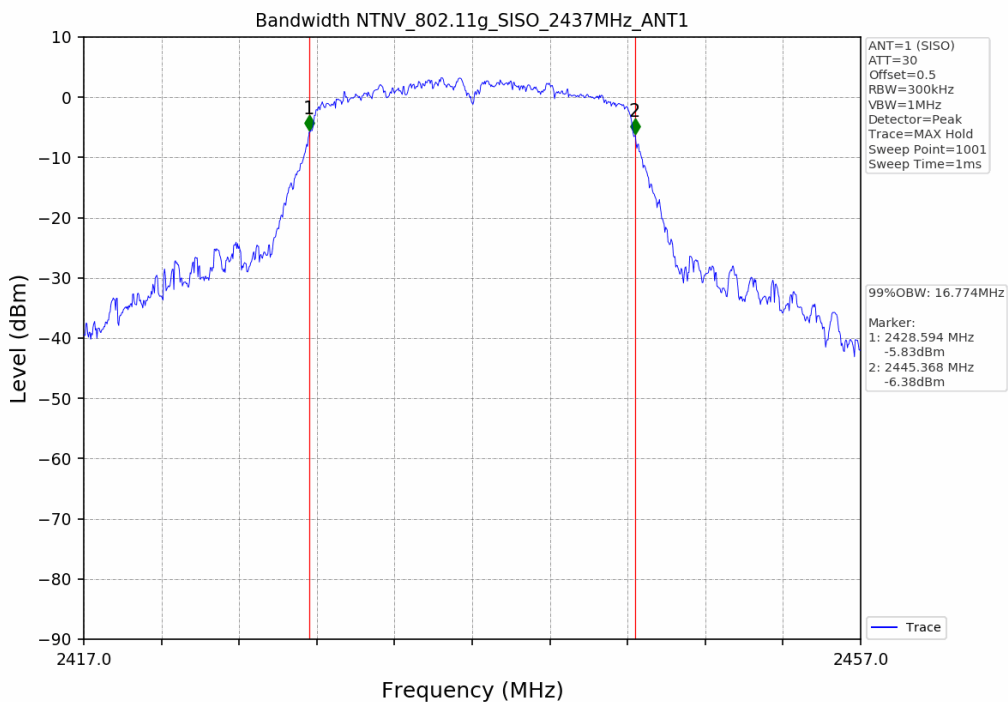


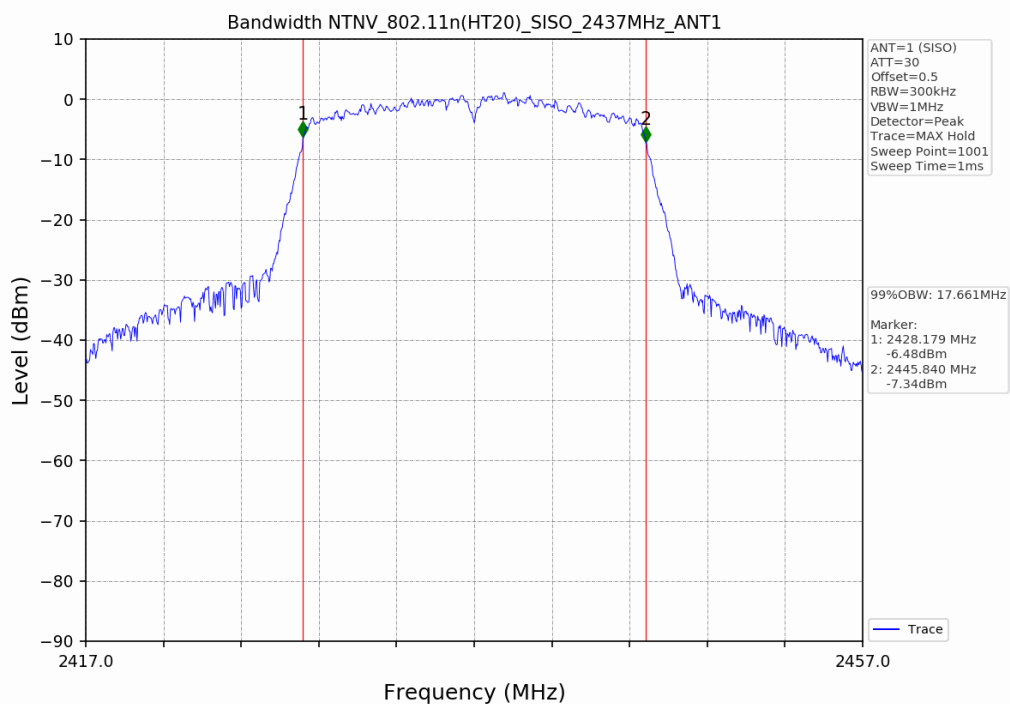
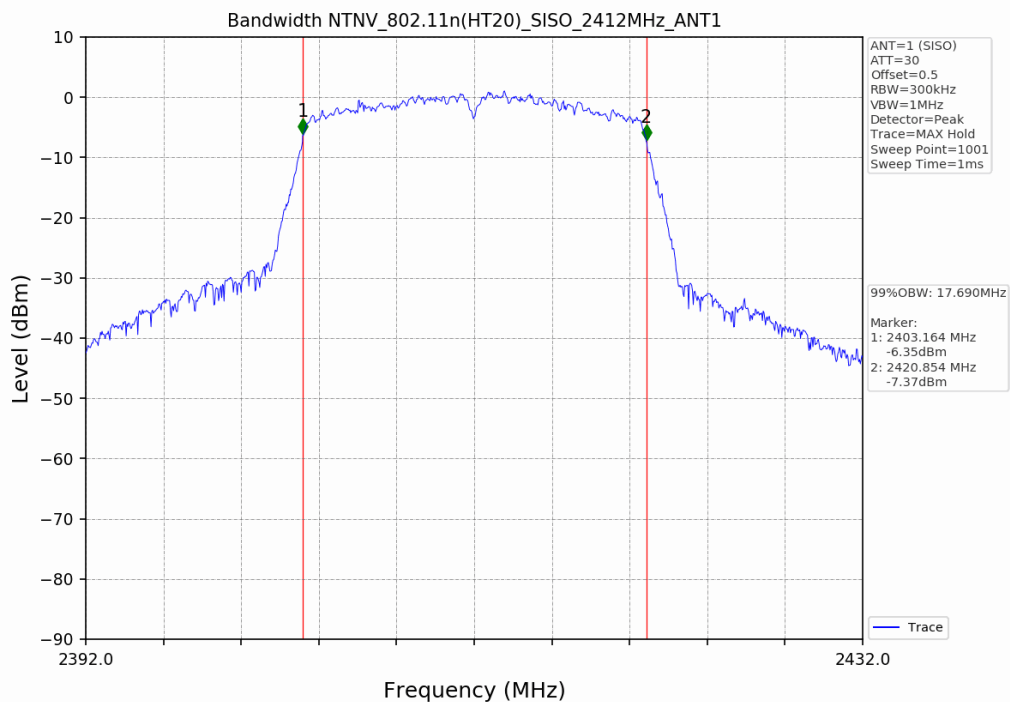
2.3 Test Graph - 99% Occupied Bandwidth

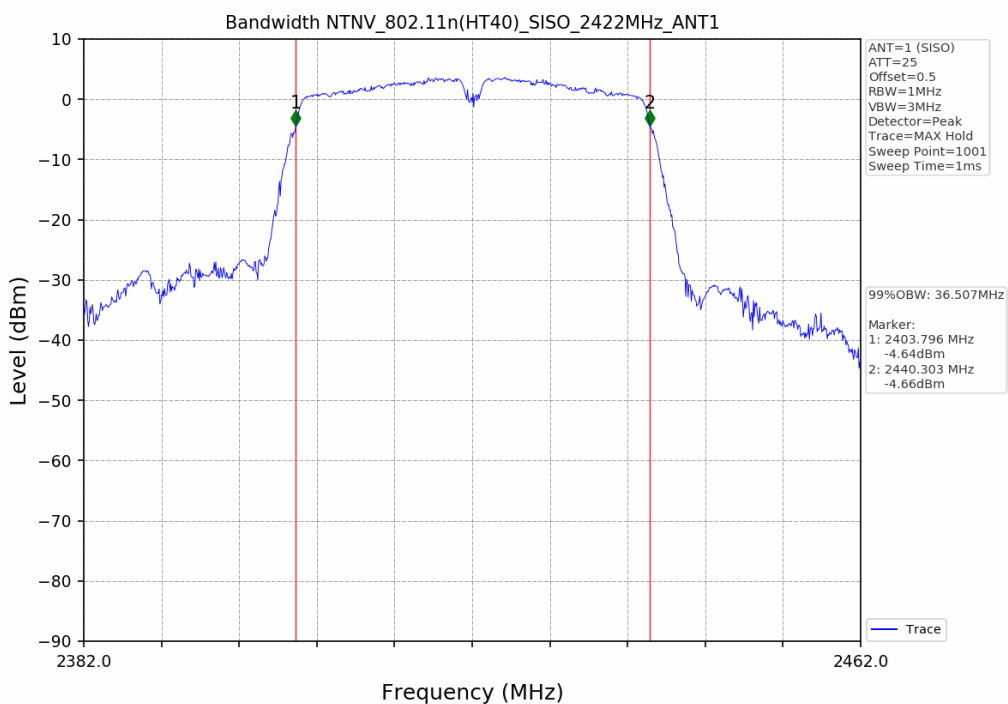
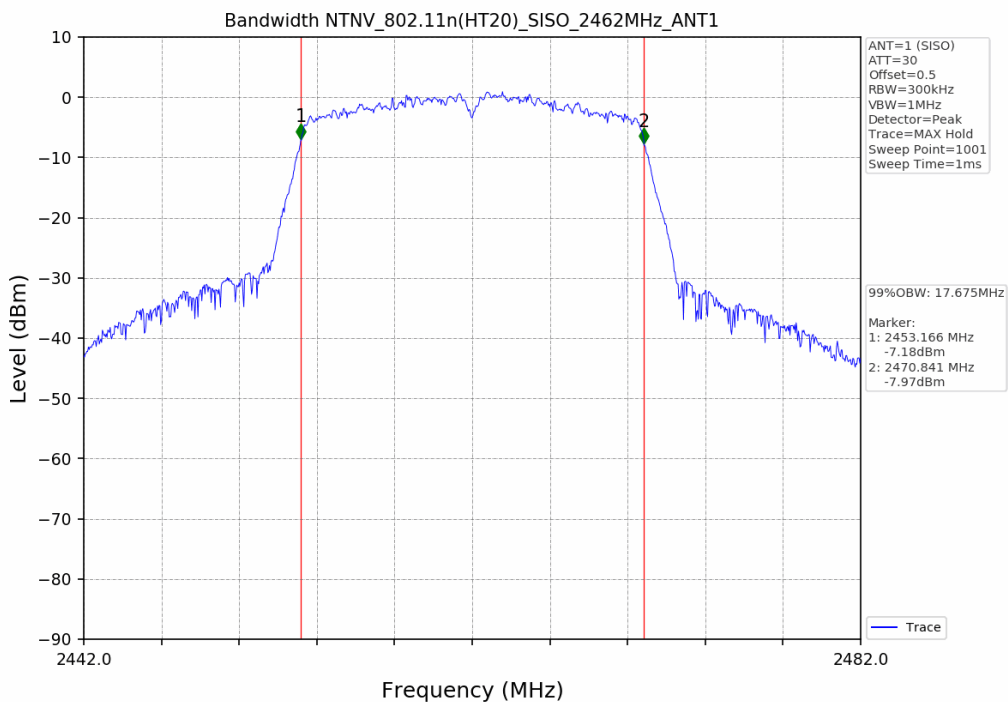
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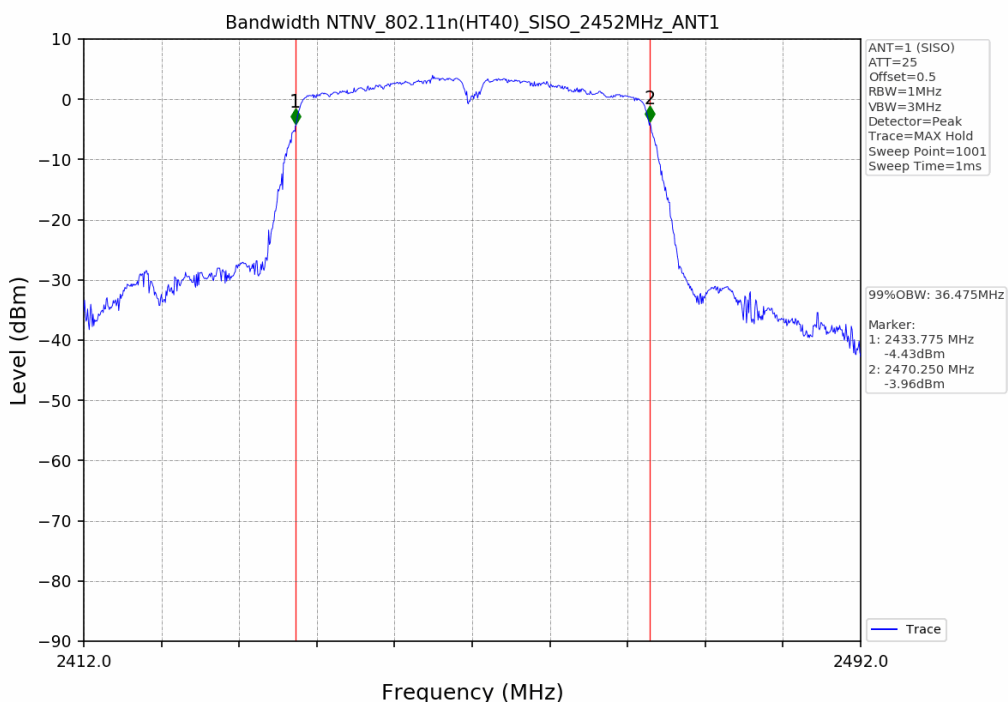
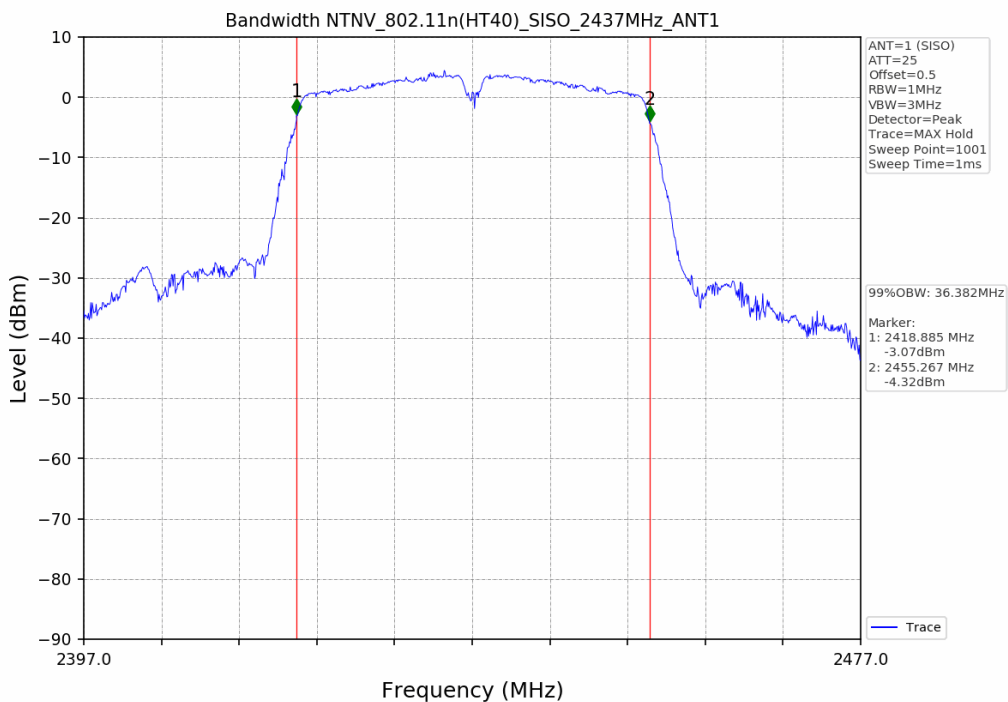




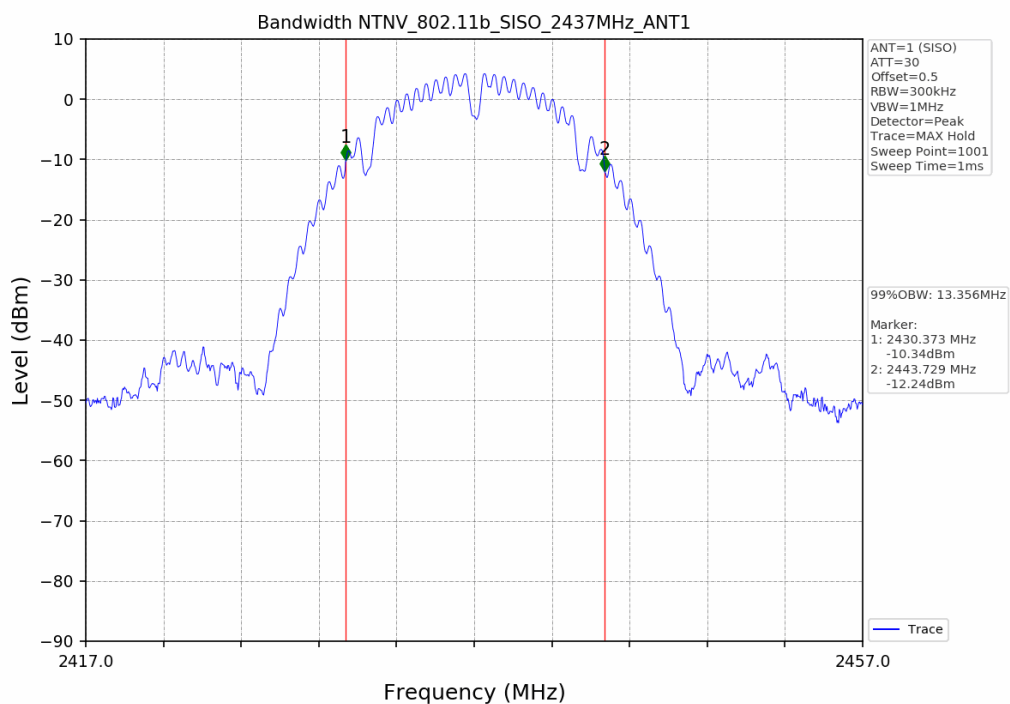
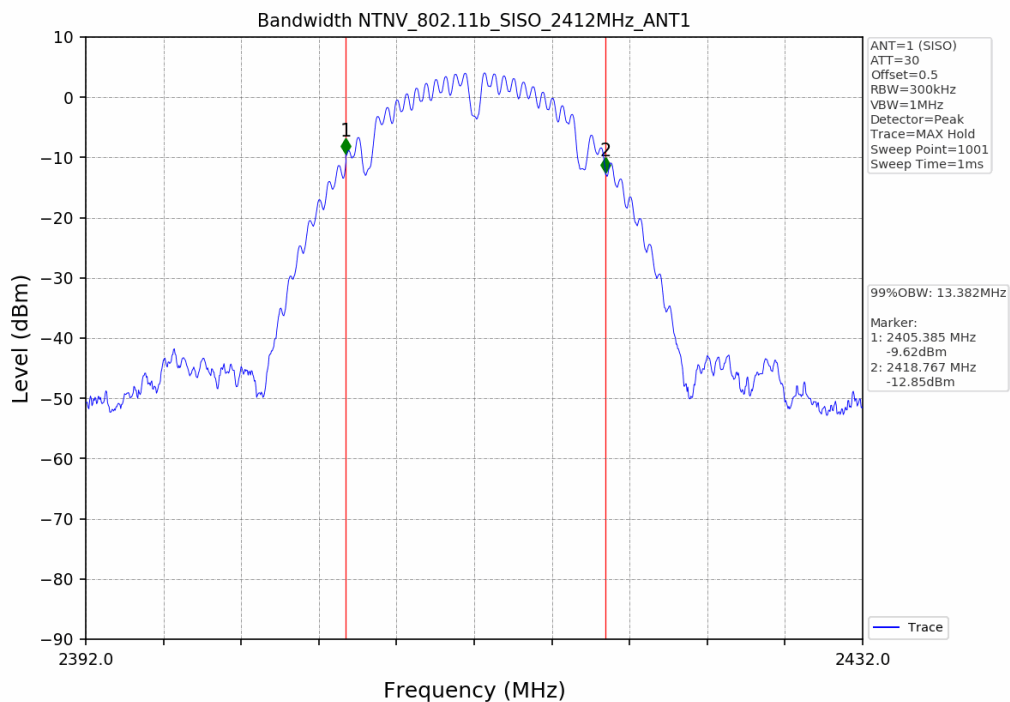


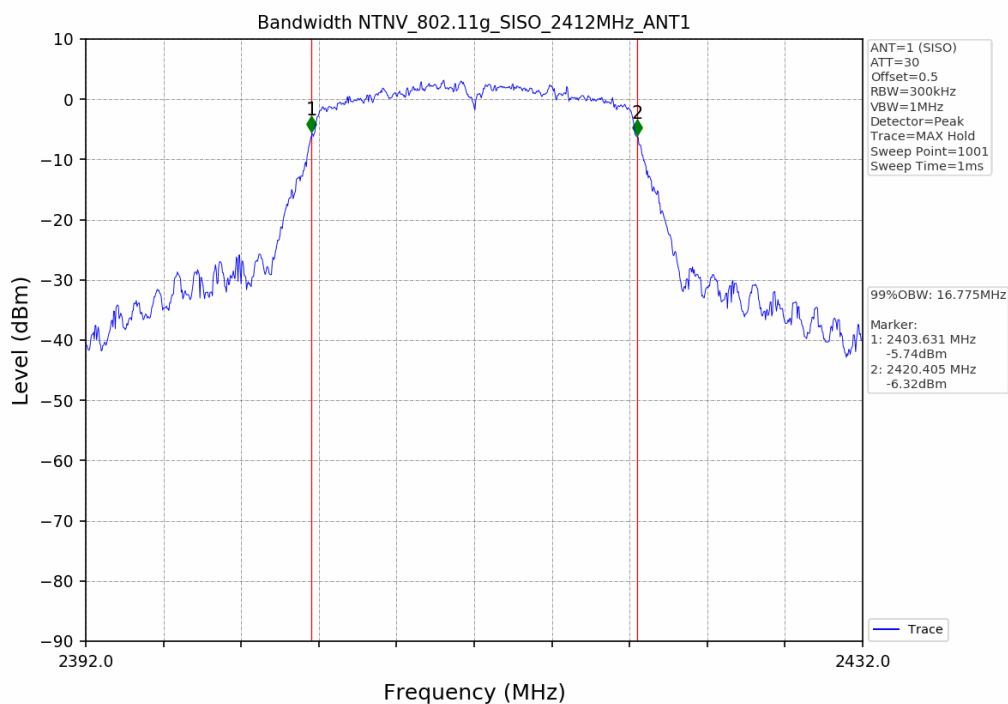
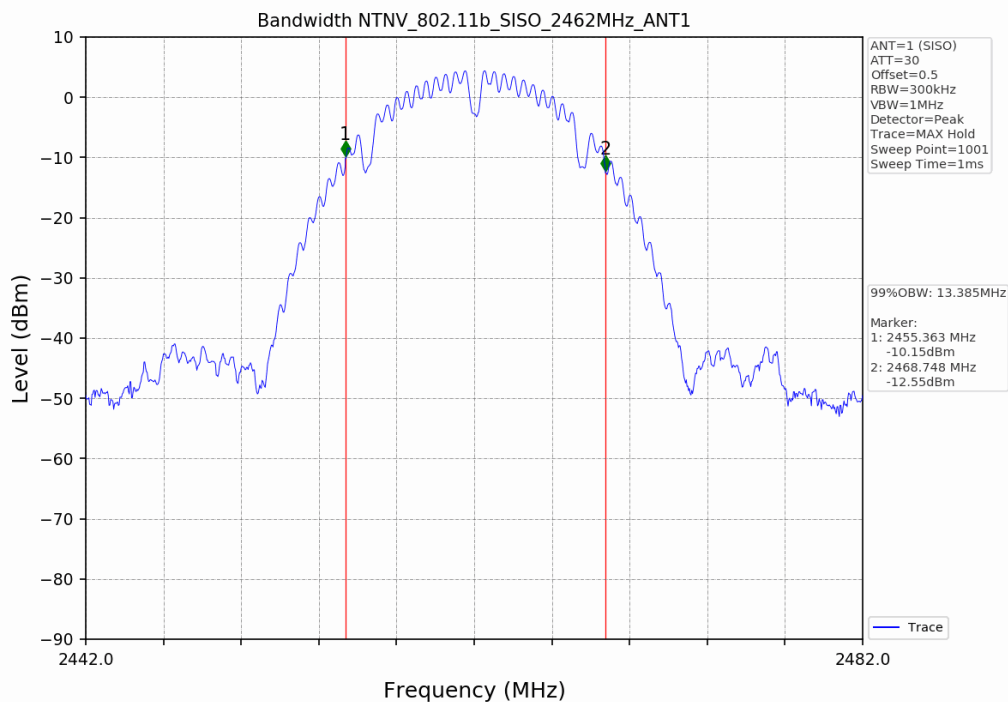


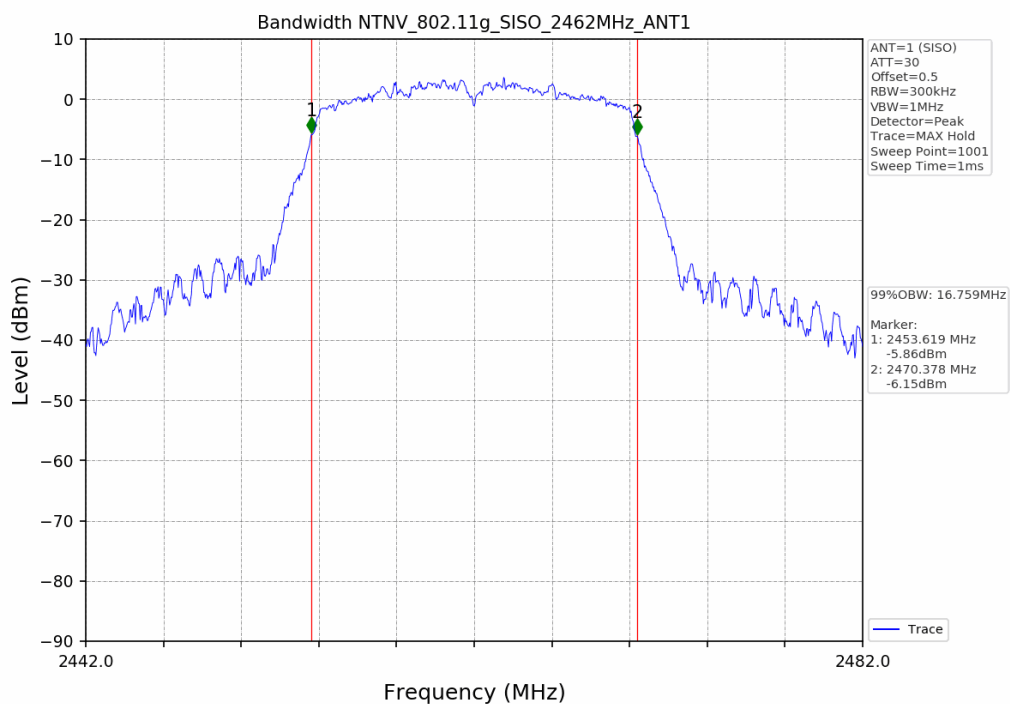
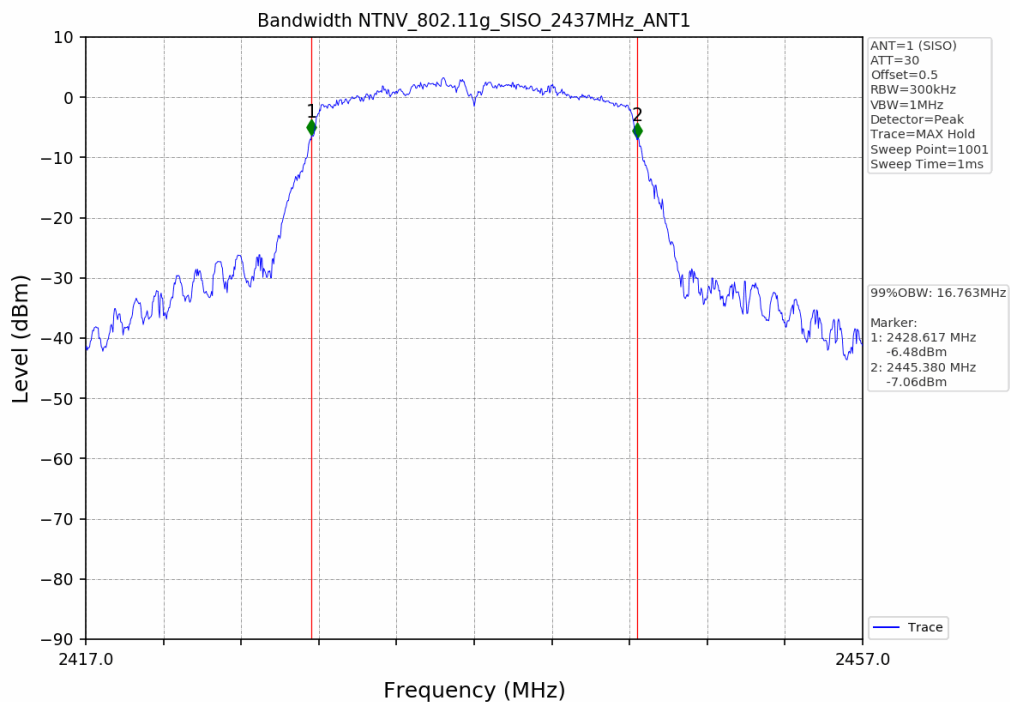


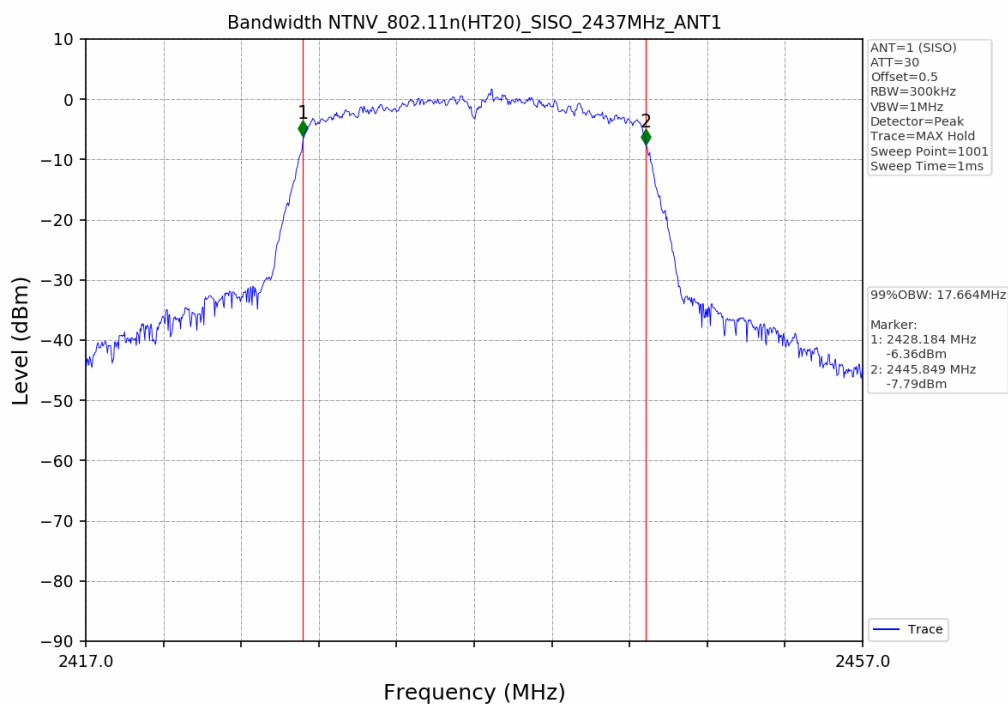
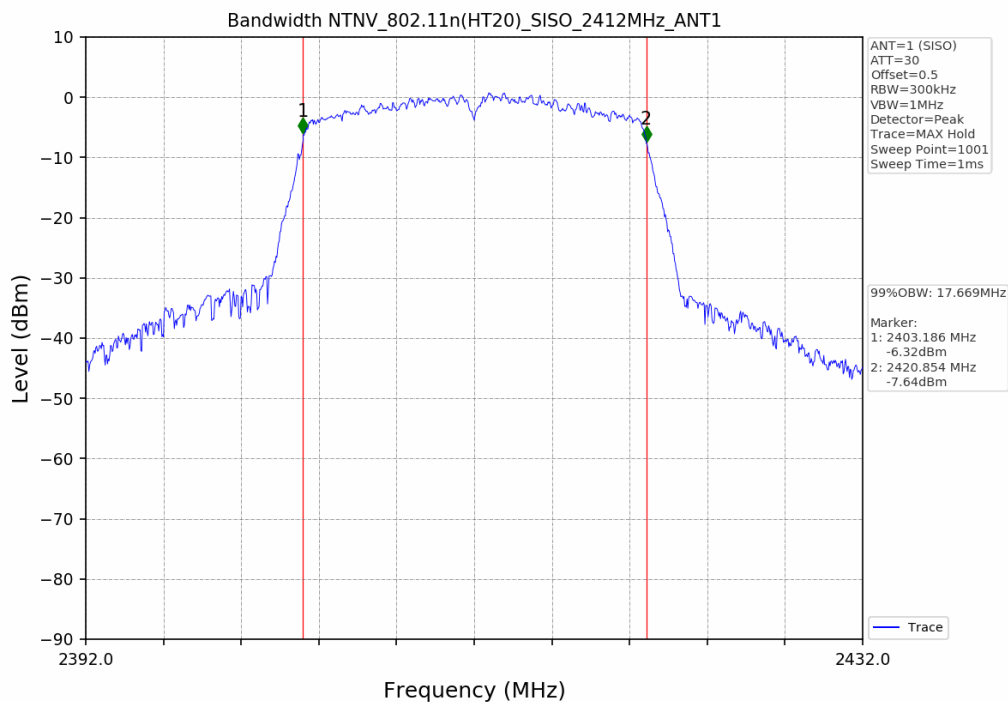


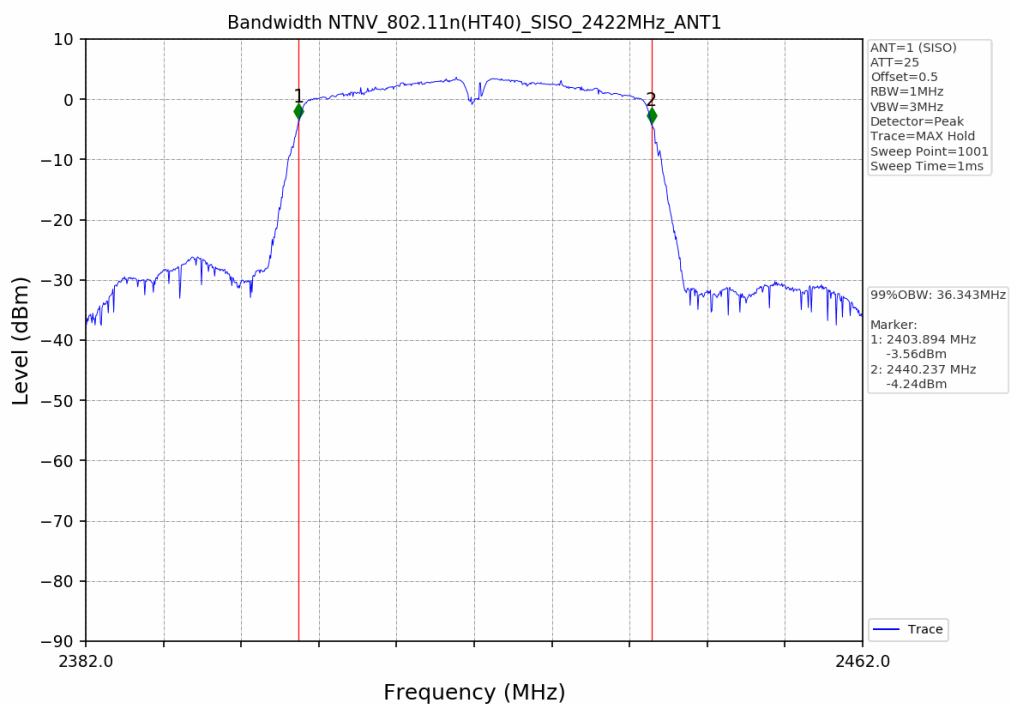
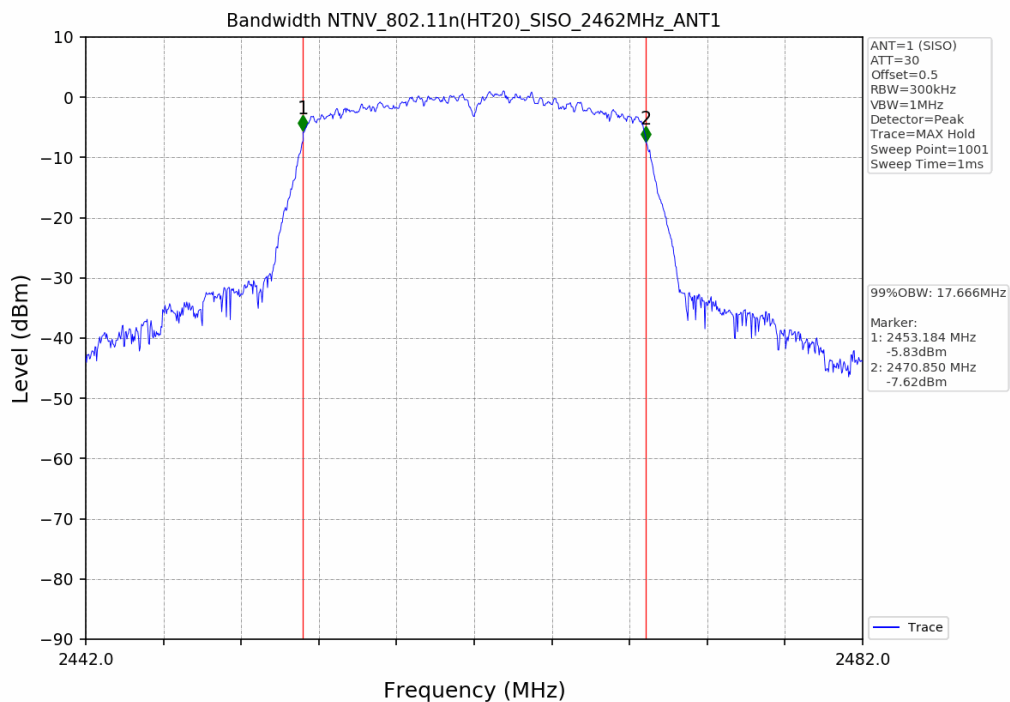
ANT 2:

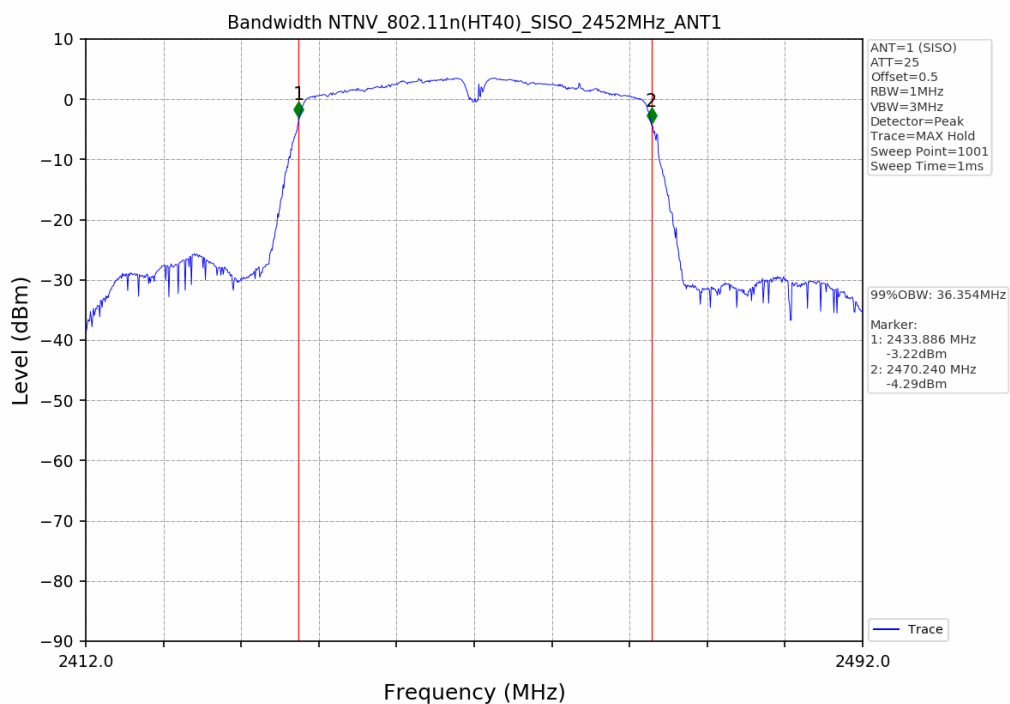
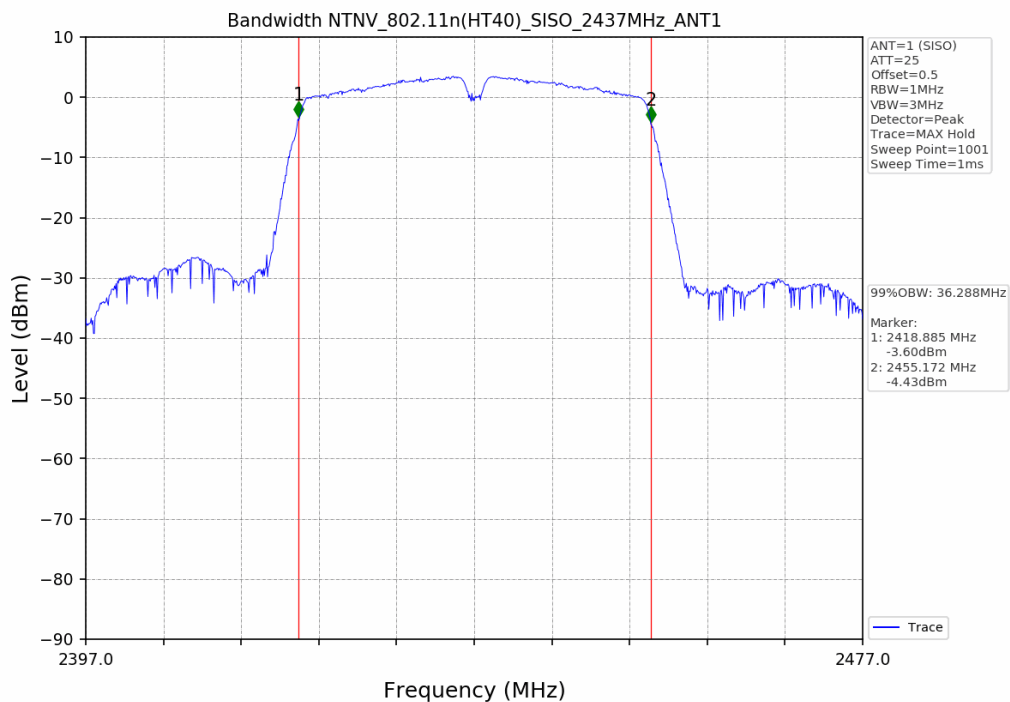












3. Maximum Conducted Output Power

3.1 Test Result

ANT 1:

Test Mode	Frequency (MHz)	Tx Type	Measured Peak Output Power (dBm)	Limits (dBm)	EIRP Limits (dBm)	EIRP Limits (dBm)	Verdict
802.11b	2412	SISO	14.94	30	19.34	36	PASS
	2437	SISO	14.94	30	19.34	36	PASS
	2462	SISO	14.79	30	19.19	36	PASS
802.11g	2412	SISO	19.09	30	23.49	36	PASS
	2437	SISO	19.10	30	23.5	36	PASS
	2462	SISO	18.97	30	23.37	36	PASS
802.11n(HT20)	2412	SISO	16.66	30	21.06	36	PASS
	2437	SISO	16.70	30	21.1	36	PASS
	2462	SISO	16.59	30	20.99	36	PASS
802.11n(HT40)	2422	SISO	17.12	30	21.52	36	PASS
	2437	SISO	17.23	30	21.63	36	PASS
	2452	SISO	17.10	30	21.5	36	PASS

ANT 2:

Test Mode	Frequency (MHz)	Tx Type	Measured Peak Output Power (dBm)	Limits (dBm)	EIRP (dBm)	EIRP Limits (dBm)	Verdict
802.11b	2412	SISO	14.46	30	18.66	36	PASS
	2437	SISO	14.46	30	18.66	36	PASS
	2462	SISO	14.84	30	19.04	36	PASS
802.11g	2412	SISO	18.85	30	23.05	36	PASS
	2437	SISO	18.82	30	23.02	36	PASS
	2462	SISO	19.01	30	23.21	36	PASS
802.11n(HT20)	2412	SISO	16.39	30	20.59	36	PASS
	2437	SISO	16.57	30	20.77	36	PASS
	2462	SISO	16.69	30	20.89	36	PASS
802.11n(HT40)	2422	SISO	16.95	30	21.15	36	PASS
	2437	SISO	16.91	30	21.11	36	PASS
	2452	SISO	17.07	30	21.27	36	PASS

MIMO:

Test Mode	Frequency (MHz)	Tx Type	Cal. Power (dBm)	Limits (dBm)	EIRP (dBm)	EIRP Limits (dBm)	Verdict
802.11n(HT20)	2412	MIMO	19.54	28.69	23.84	34.69	PASS
	2437	MIMO	19.65	28.69	23.95	34.69	PASS
	2462	MIMO	19.65	28.69	23.95	34.69	PASS
802.11n(HT40)	2422	MIMO	20.05	28.69	24.35	34.69	PASS
	2437	MIMO	20.08	28.69	24.39	34.69	PASS
	2452	MIMO	20.10	28.69	24.40	34.69	PASS

Note: transmit signals are completely *correlated*,
Directional gain= $10 \times \log[(10^{4.4/20} + 10^{4.2/20})^2/2] = 7.31\text{dBi}$

4. Maximum Power Spectral Density (PSD)

4.1 Test Result

ANT 1:

Test Mode	Frequency (MHz)	Tx Type	Maximum Power Spectral Density (dBm/3KHz)	EIRP PSD(dBm/3KHz)	Limits (dBm/3kHz)	Verdict
802.11b	2412	SISO	-0.37	4.05	≤ 8	PASS
	2437	SISO	-1.91	2.51	≤ 8	PASS
	2462	SISO	1.91	6.33	≤ 8	PASS
802.11g	2412	SISO	-14.96	-10.44	≤ 8	PASS
	2437	SISO	-13.72	-9.21	≤ 8	PASS
	2462	SISO	-14.64	-10.13	≤ 8	PASS
802.11n(HT20)	2412	SISO	-16.06	-11.54	≤ 8	PASS
	2437	SISO	-16.88	-12.36	≤ 8	PASS
	2462	SISO	-15.95	-11.43	≤ 8	PASS
802.11n(HT40)	2422	SISO	-18.73	-13.52	≤ 8	PASS
	2437	SISO	-18.92	-13.81	≤ 8	PASS
	2452	SISO	-18.88	-13.67	≤ 8	PASS

ANT 2:

Test Mode	Frequency (MHz)	Tx Type	Maximum Power Spectral Density (dBm/3KHz)	EIRP PSD (dBm/3KHz)	Limits (dBm/3kHz)	Verdict
802.11b	2412	SISO	-2.14	2.08	≤ 8	PASS
	2437	SISO	-2.70	1.52	≤ 8	PASS
	2462	SISO	0.94	5.16	≤ 8	PASS
802.11g	2412	SISO	-14.06	-9.75	≤ 8	PASS
	2437	SISO	-14.77	-10.46	≤ 8	PASS
	2462	SISO	-13.87	-9.56	≤ 8	PASS
802.11n(HT20)	2412	SISO	-15.62	-11.3	≤ 8	PASS
	2437	SISO	-17.33	-13.01	≤ 8	PASS
	2462	SISO	-16.29	-11.97	≤ 8	PASS
802.11n(HT40)	2422	SISO	-20.28	-15.85	≤ 8	PASS
	2437	SISO	-19.17	-14.74	≤ 8	PASS
	2452	SISO	-19.73	-13.98	≤ 8	PASS

MIMO:

Test Mode	Frequency (MHz)	Tx Type	Cal. Power Spectral Density (dBm/3KHz)	EIRP PSD(dBm/3KHz)	Limits (dBm/3kHz)	Verdict
802.11n(HT20)	2412	MIMO	-12.70	-8.41	≤ 6.69	PASS

802.11n(HT40)	2437	MIMO	-13.97	-9.66	≤6.69	PASS
	2462	MIMO	-12.99	-8.68	≤6.69	PASS
	2422	MIMO	-15.85	-11.52	≤6.69	PASS
	2437	MIMO	-15.55	-11.24	≤6.69	PASS
	2452	MIMO	-15.11	-10.81	≤6.69	PASS

4.2 Test Graph

ANT 1:

