

Appendix for 15.247

Report No.: CTL2011301031-WF

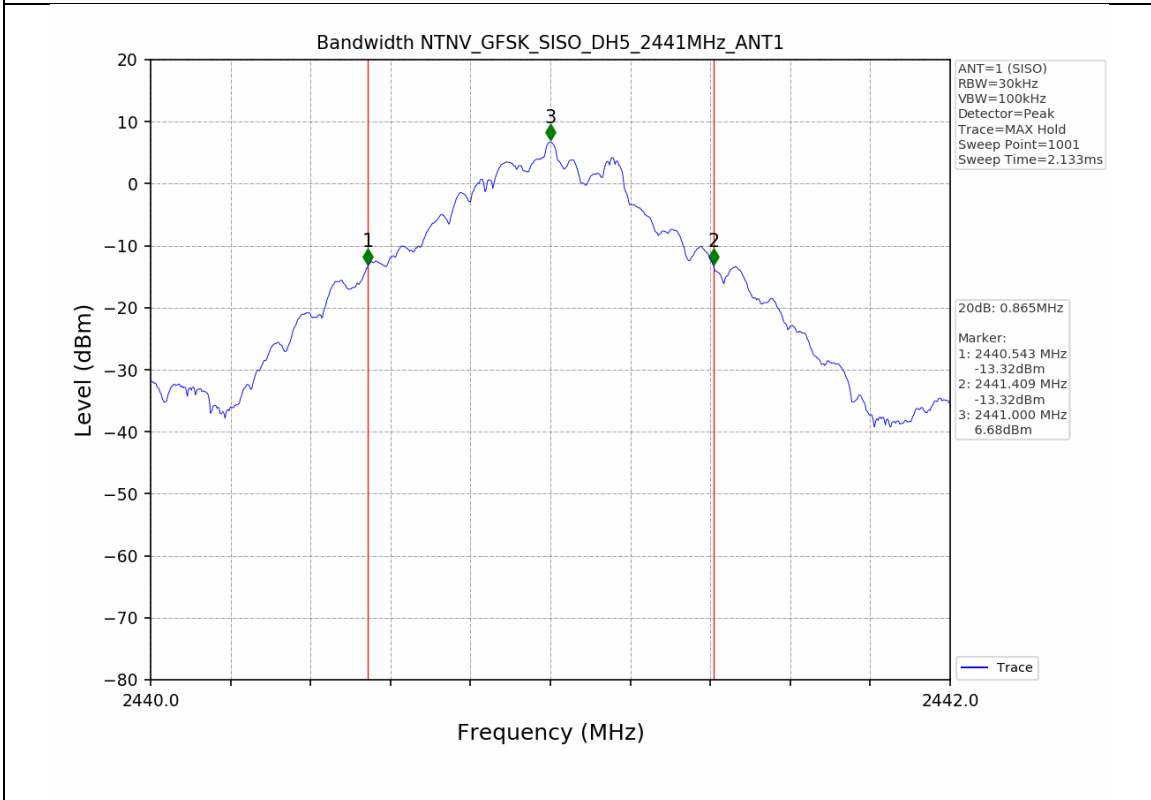
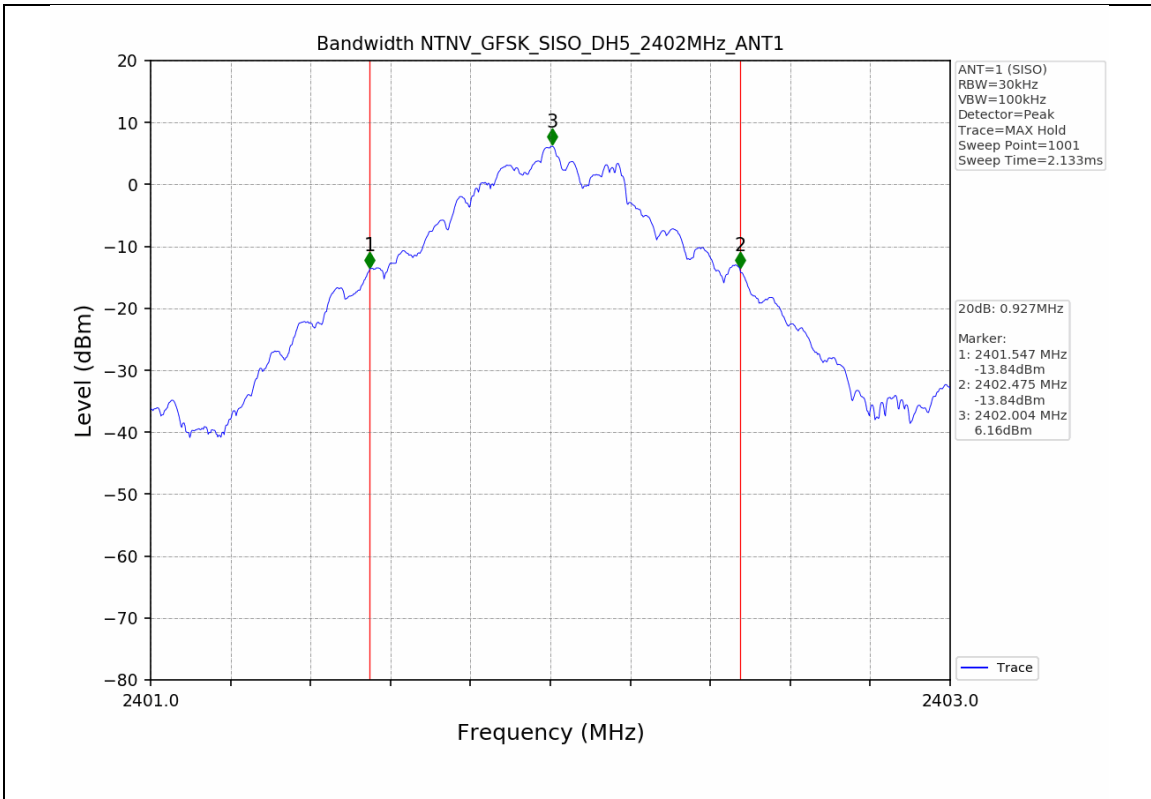
1. Bandwidth

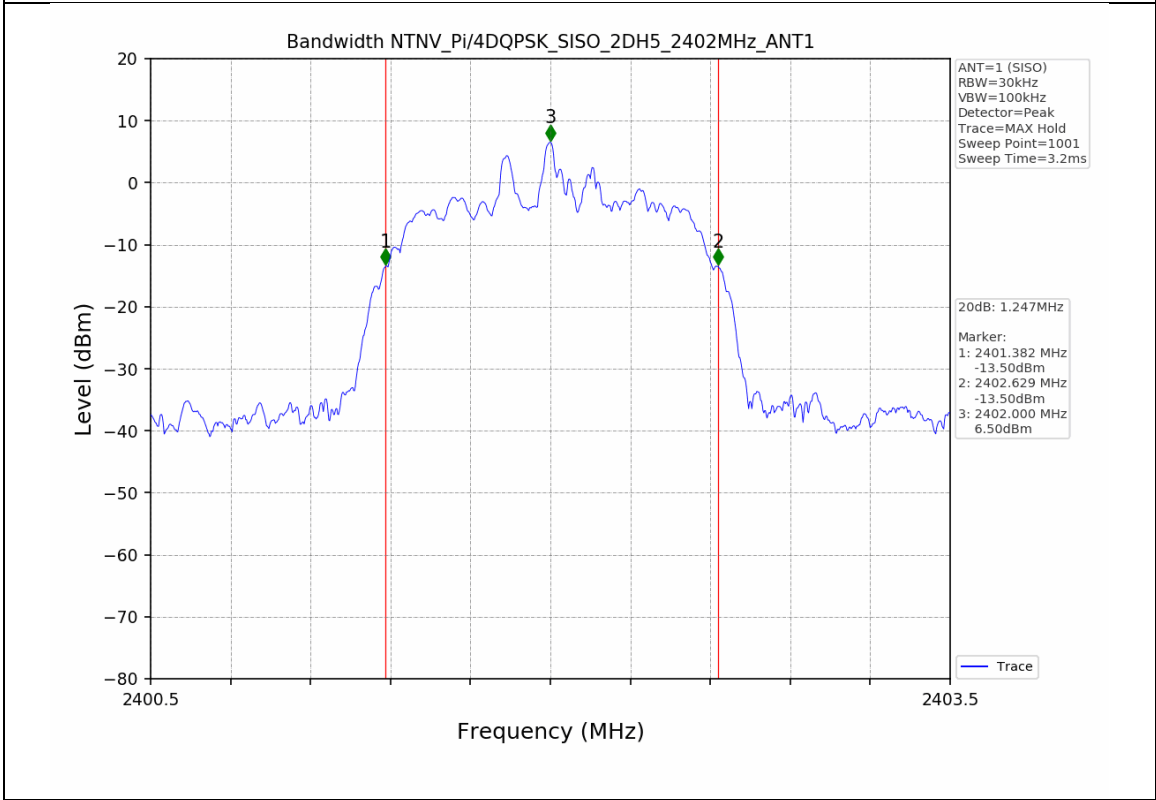
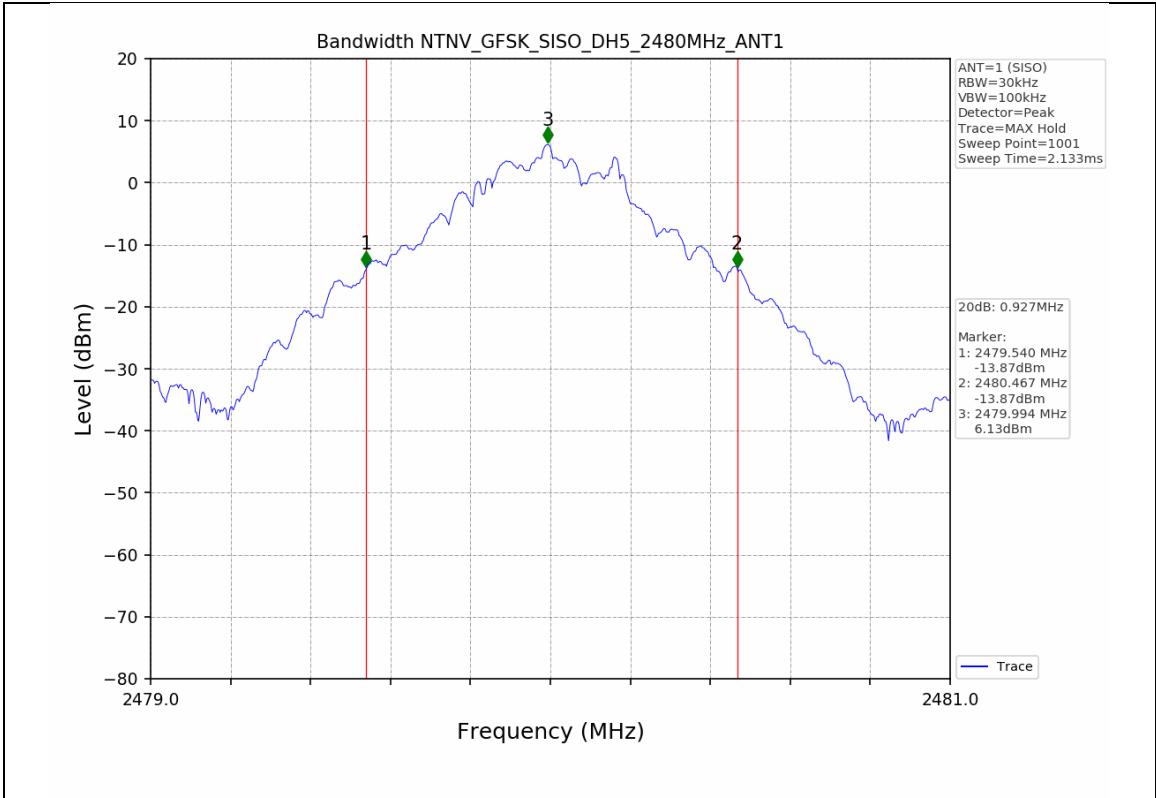
1.1 Test Result

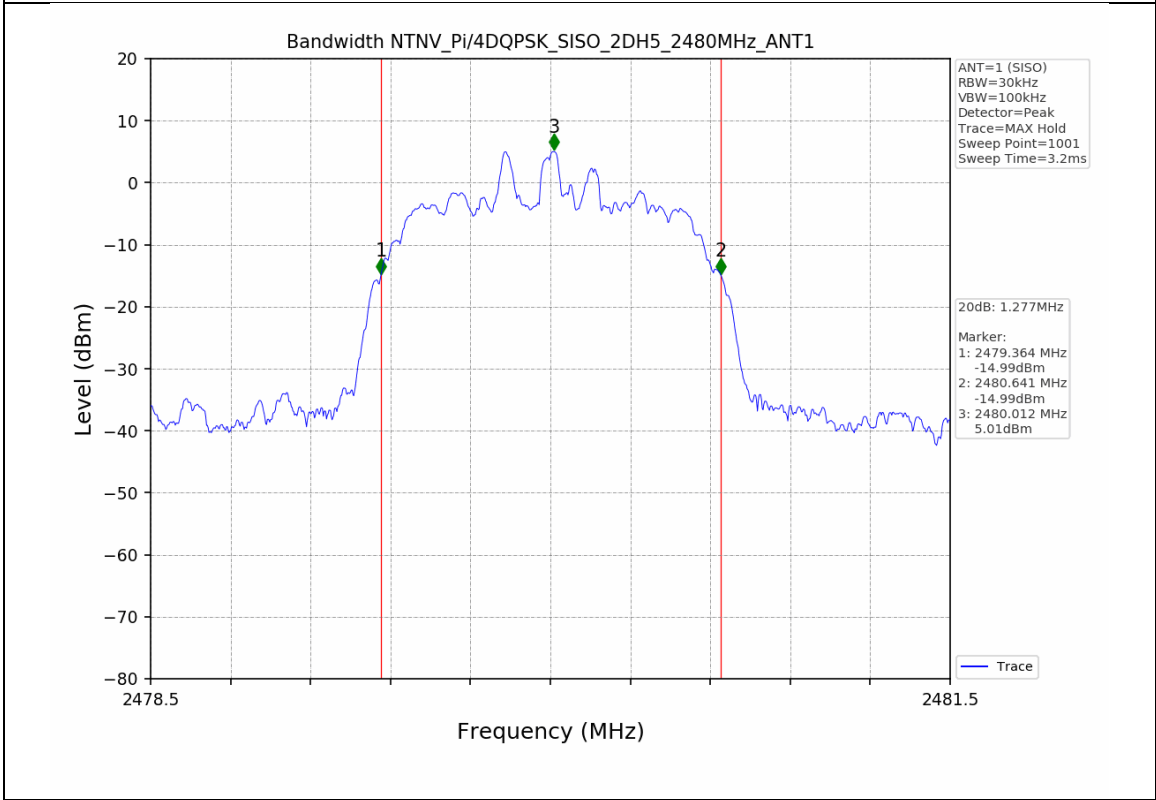
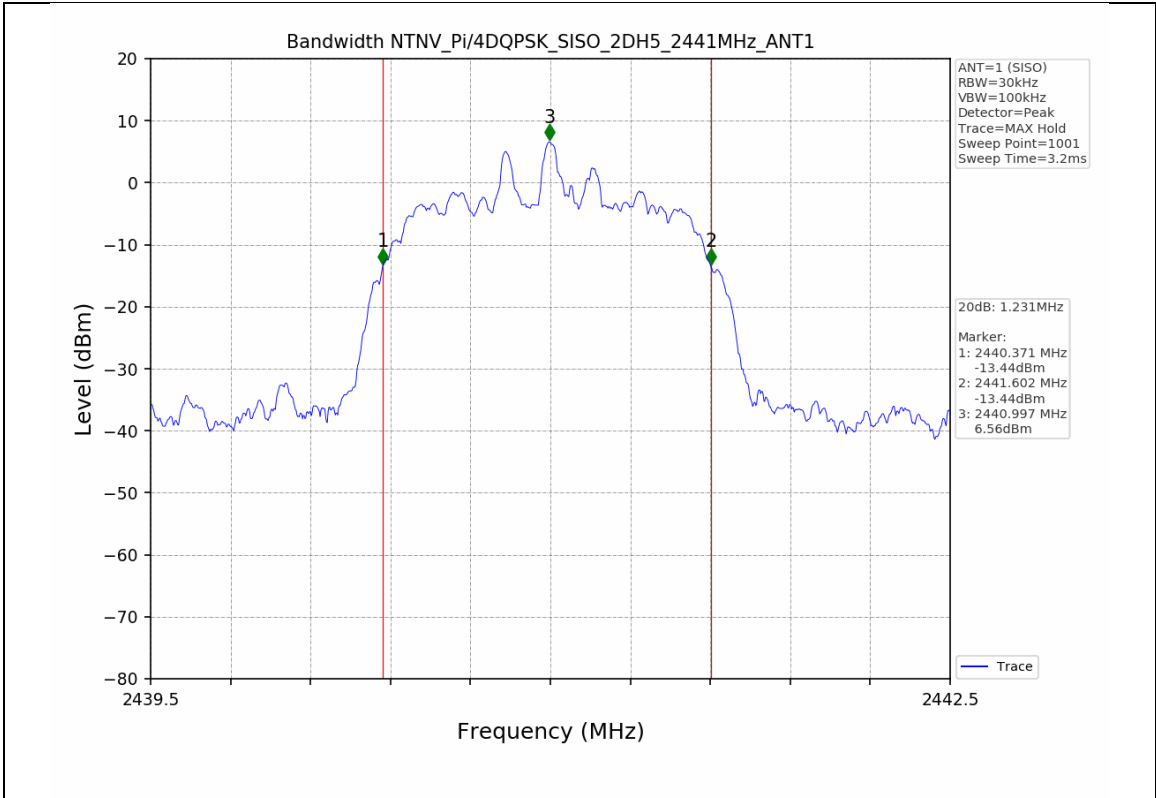
Test Mode	Frequency (MHz)	TX Type	ANT No.	20dB Bandwidth	Verdict
				Test Result (MHz)	
GFSK	2402	SISO	1	0.927	PASS
	2441	SISO	1	0.865	PASS
	2480	SISO	1	0.927	PASS
Pi/4DQPSK	2402	SISO	1	1.247	PASS
	2441	SISO	1	1.231	PASS
	2480	SISO	1	1.277	PASS
8DPSK	2402	SISO	1	1.309	PASS
	2441	SISO	1	1.256	PASS
	2480	SISO	1	1.259	PASS

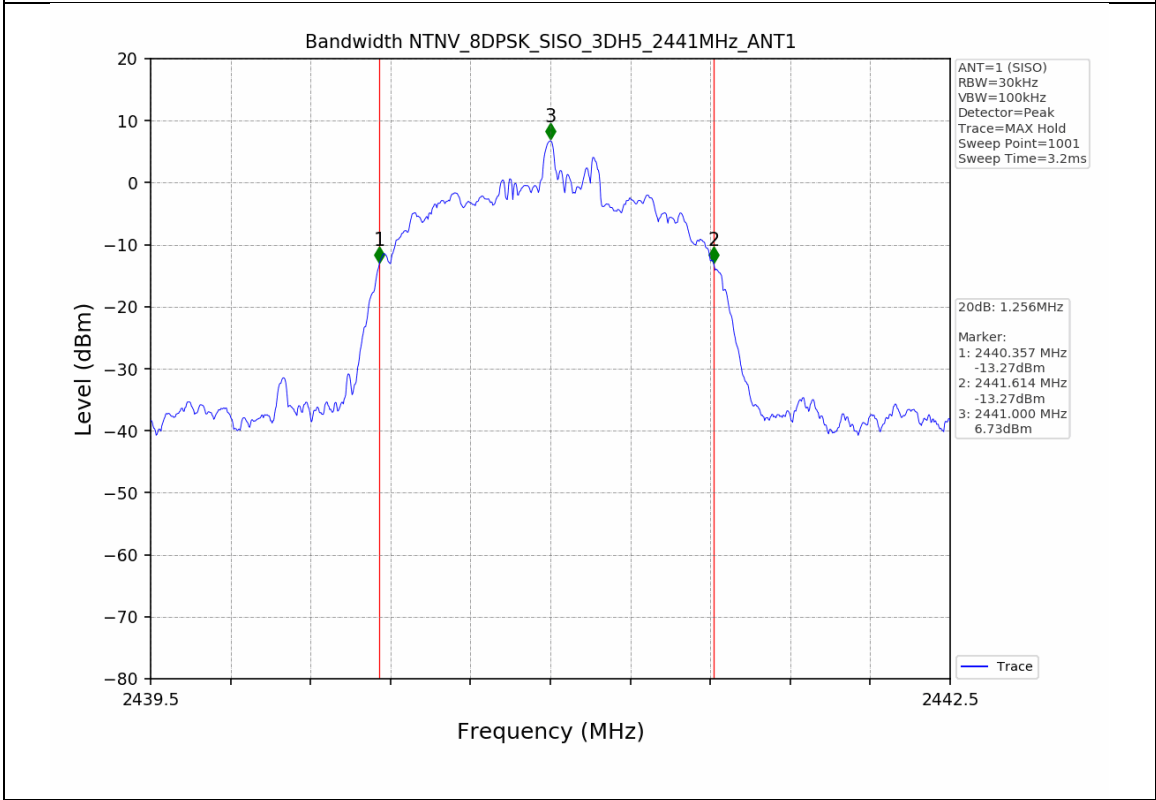
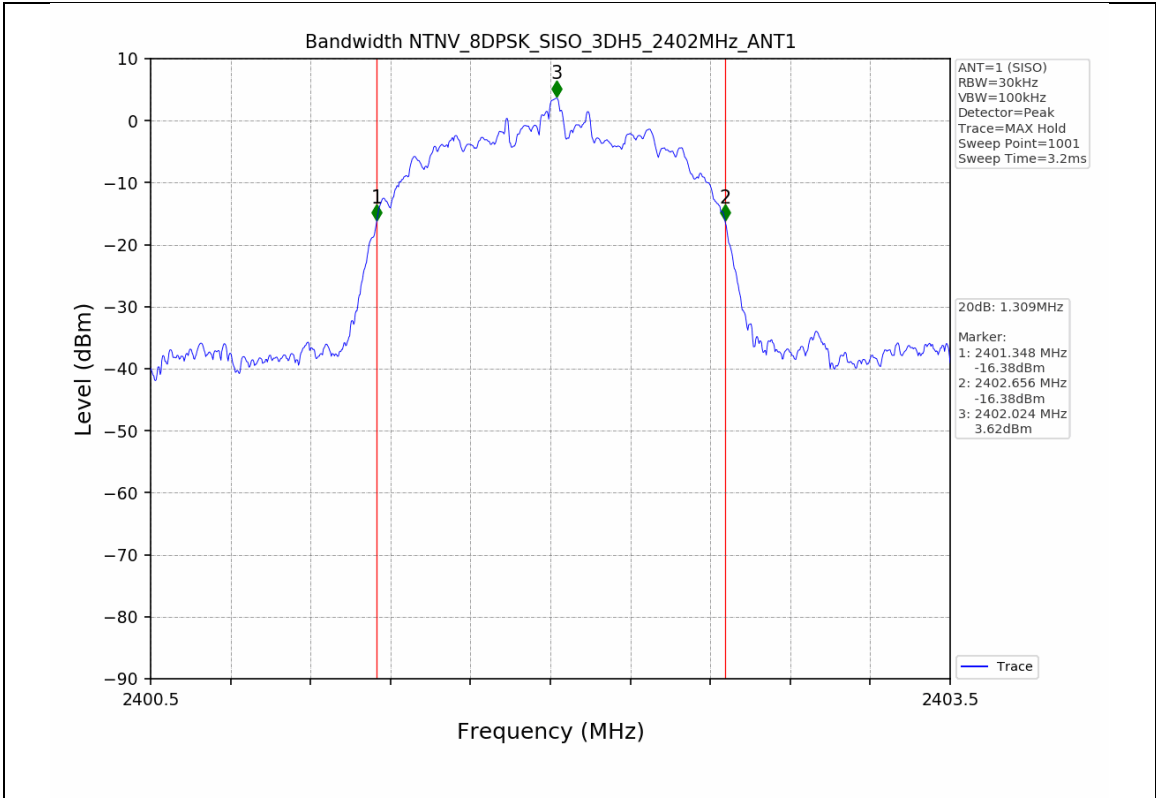
Test Mode	Frequency (MHz)	TX Type	ANT No.	99% Occupied Bandwidth	
				Test Result (MHz)	
GFSK	2402	SISO	1	0.867	Only for Report Use
	2441	SISO	1	0.869	Only for Report Use
	2480	SISO	1	0.859	Only for Report Use
Pi/4DQPSK	2402	SISO	1	1.168	Only for Report Use
	2441	SISO	1	1.181	Only for Report Use
	2480	SISO	1	1.169	Only for Report Use
8DPSK	2402	SISO	1	1.176	Only for Report Use
	2441	SISO	1	1.185	Only for Report Use
	2480	SISO	1	1.178	Only for Report Use

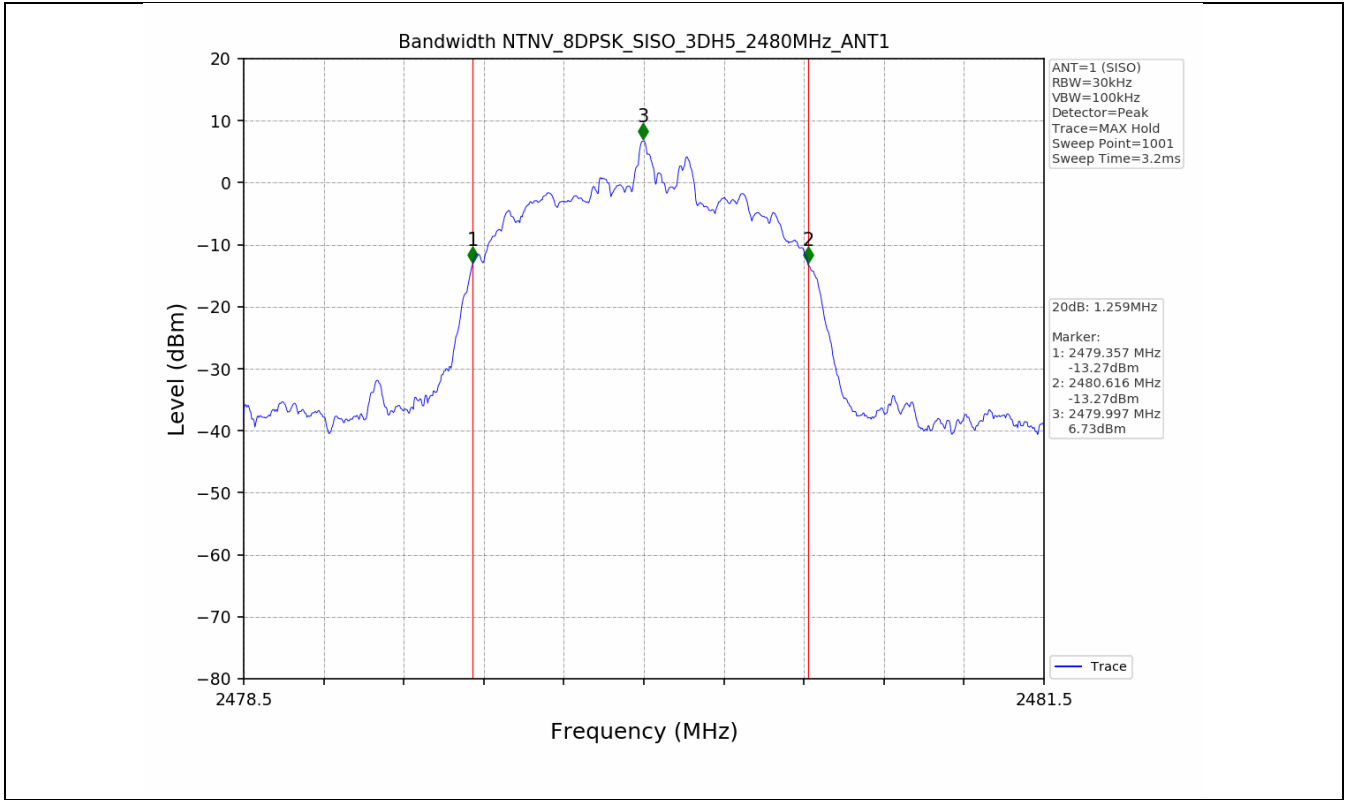
1.2 Test Graph - 20dB Bandwidth



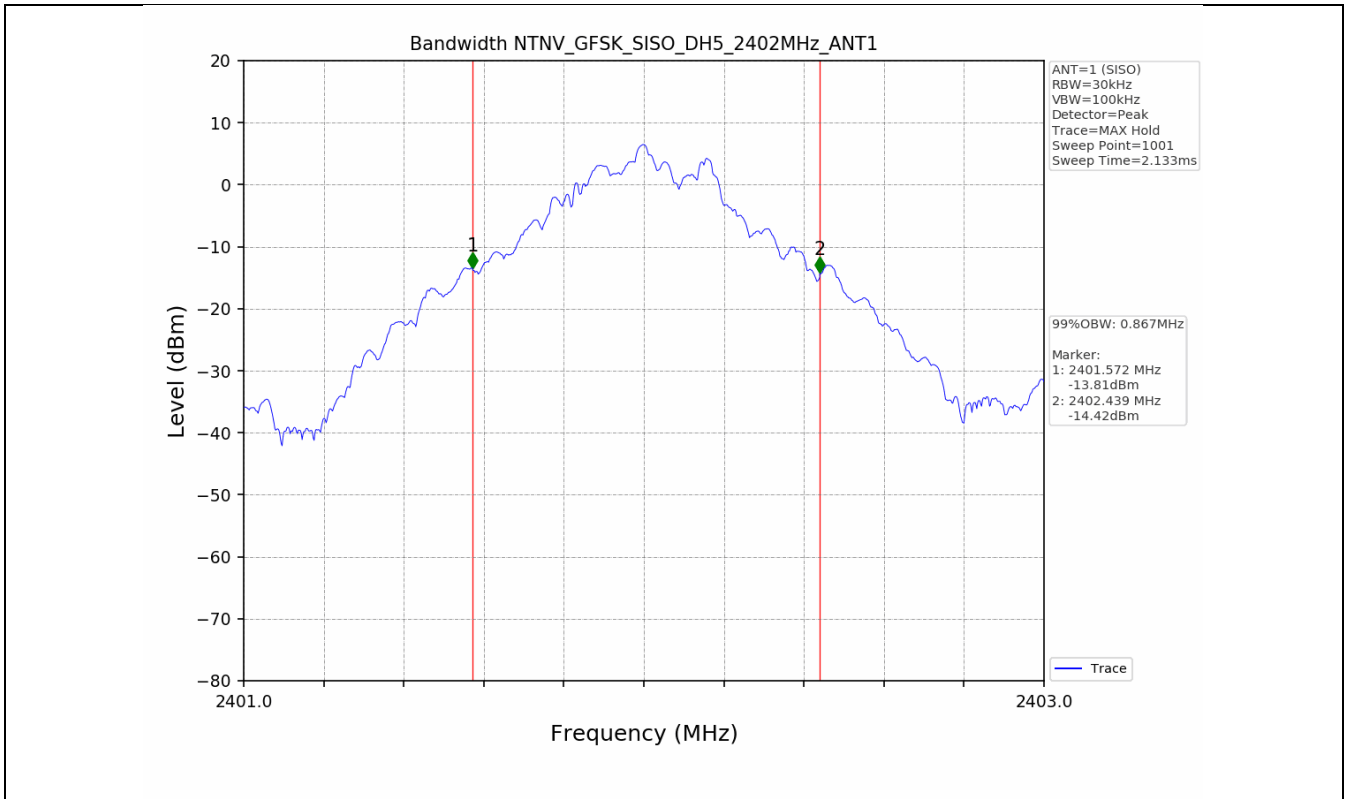


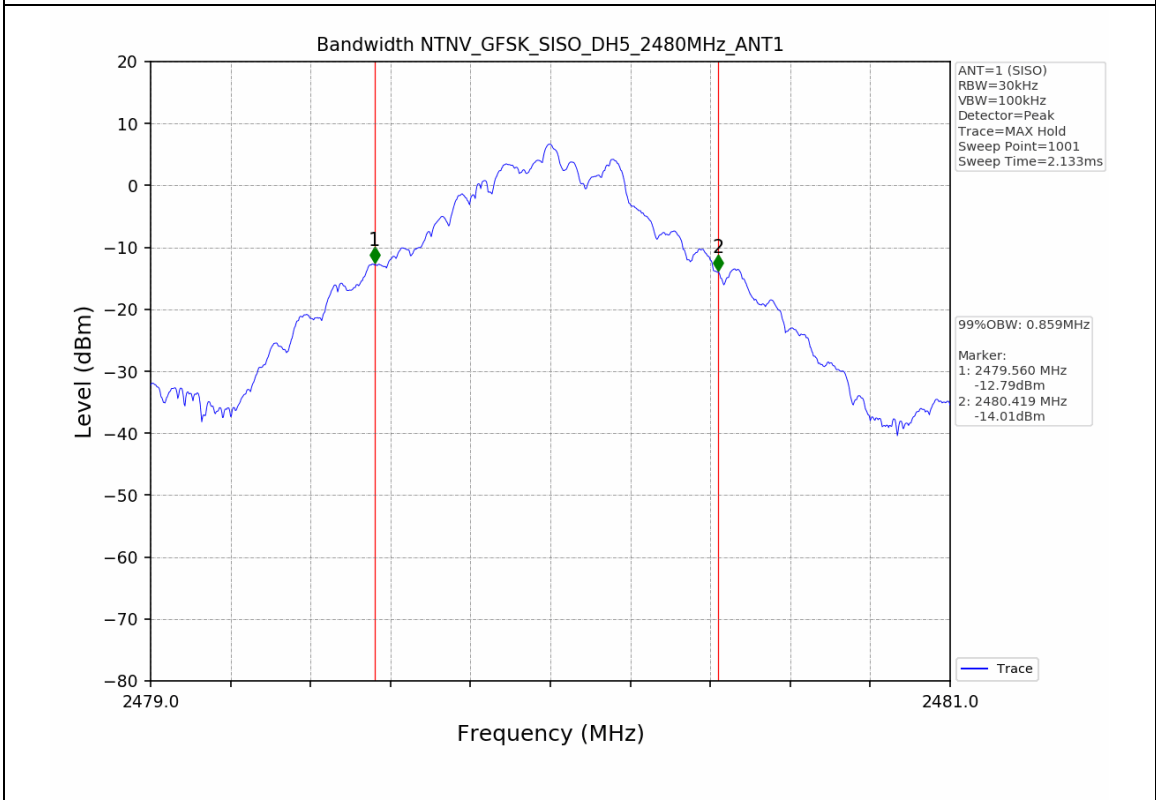
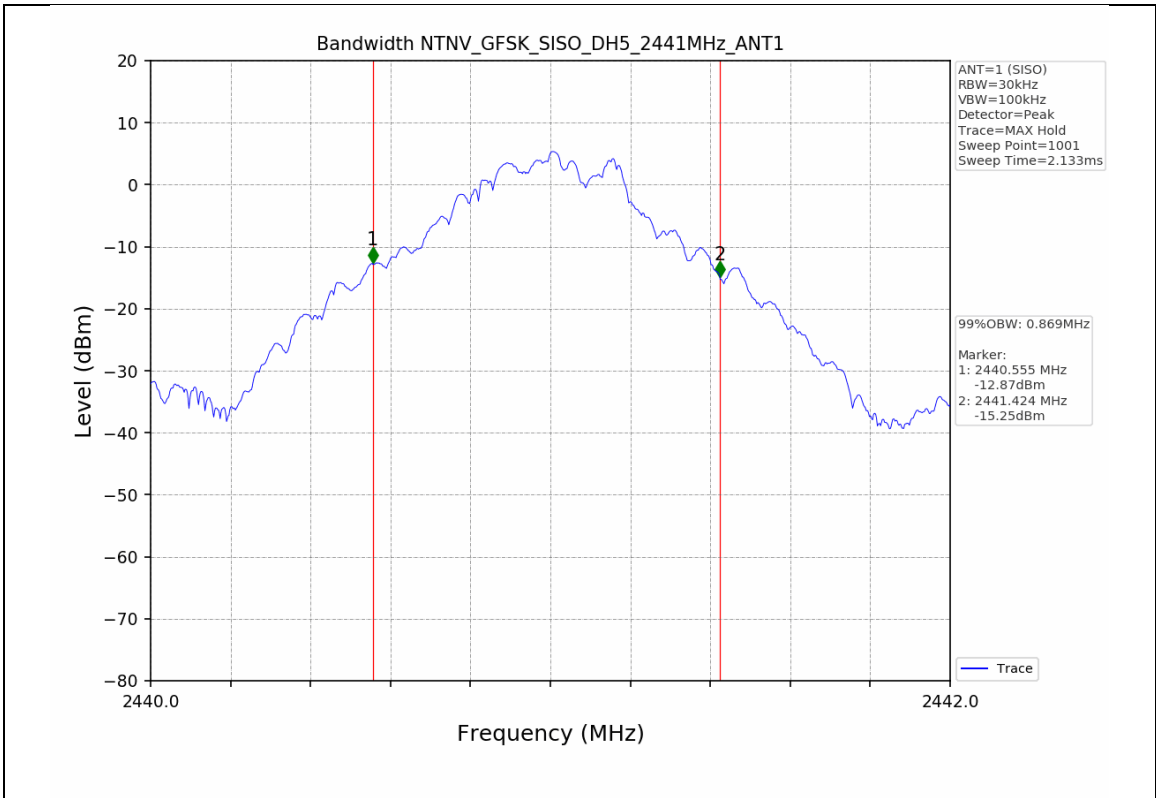


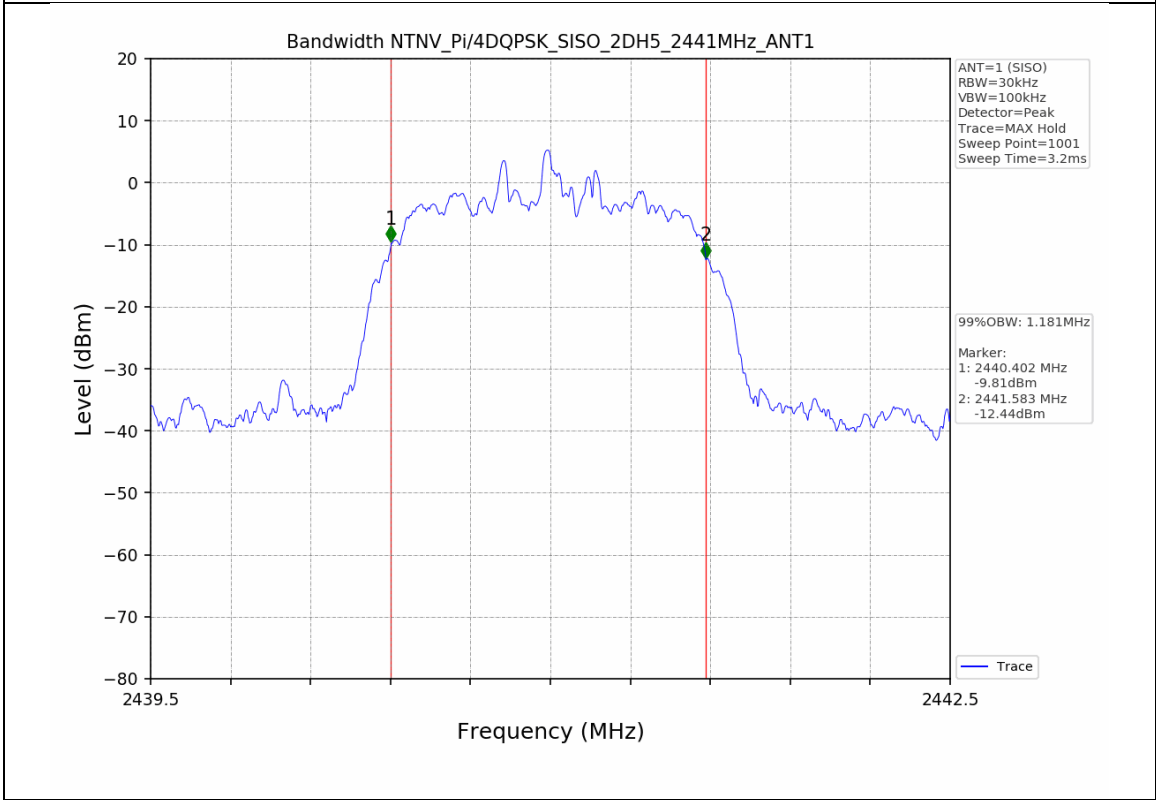
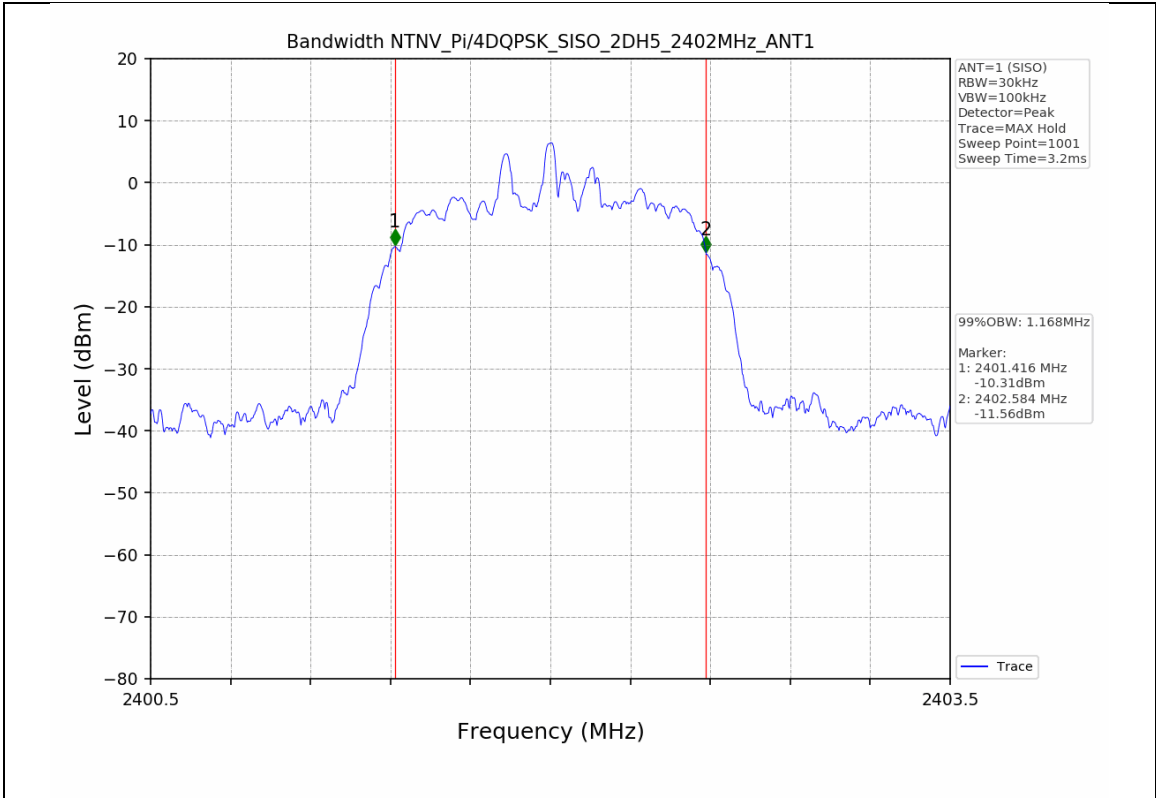


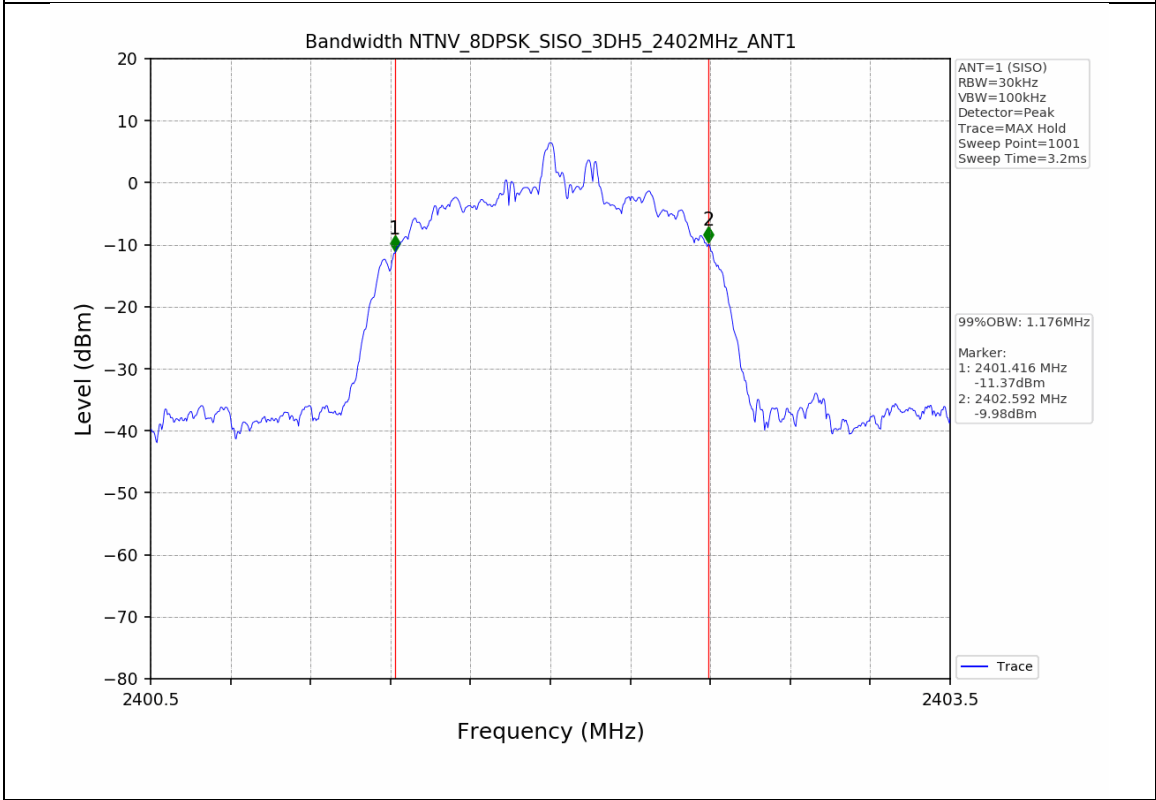
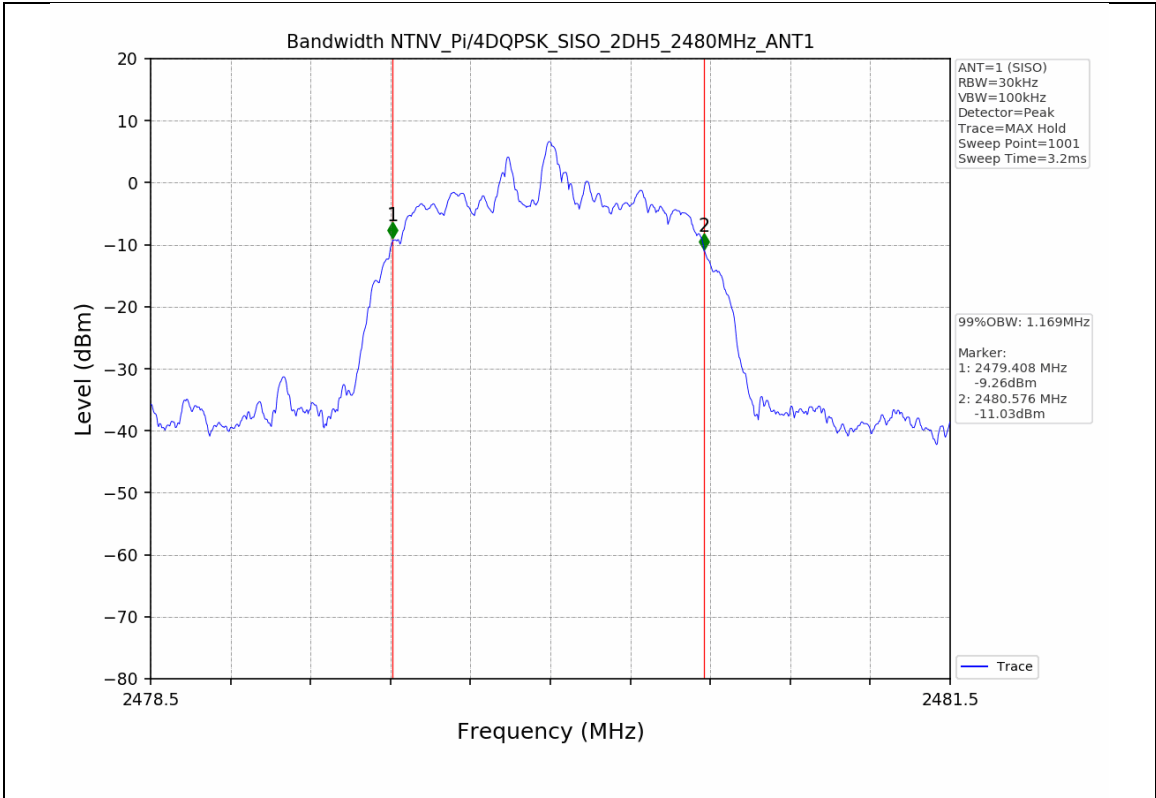


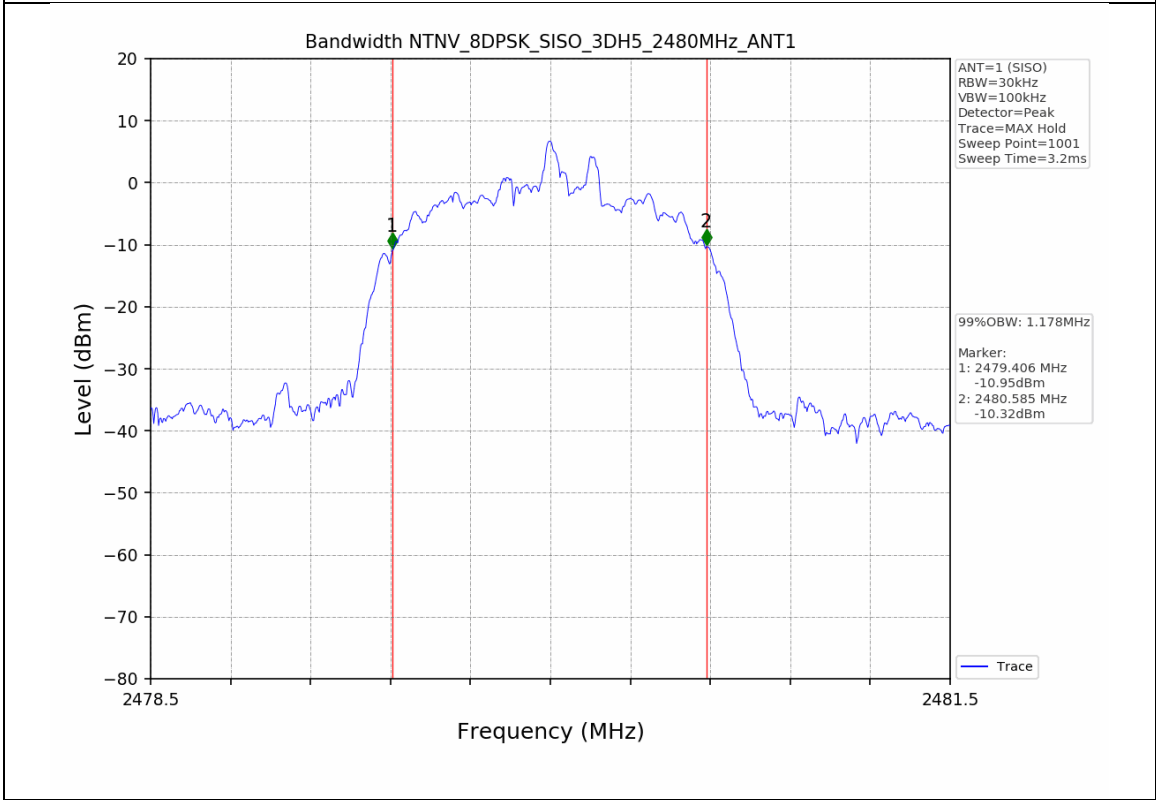
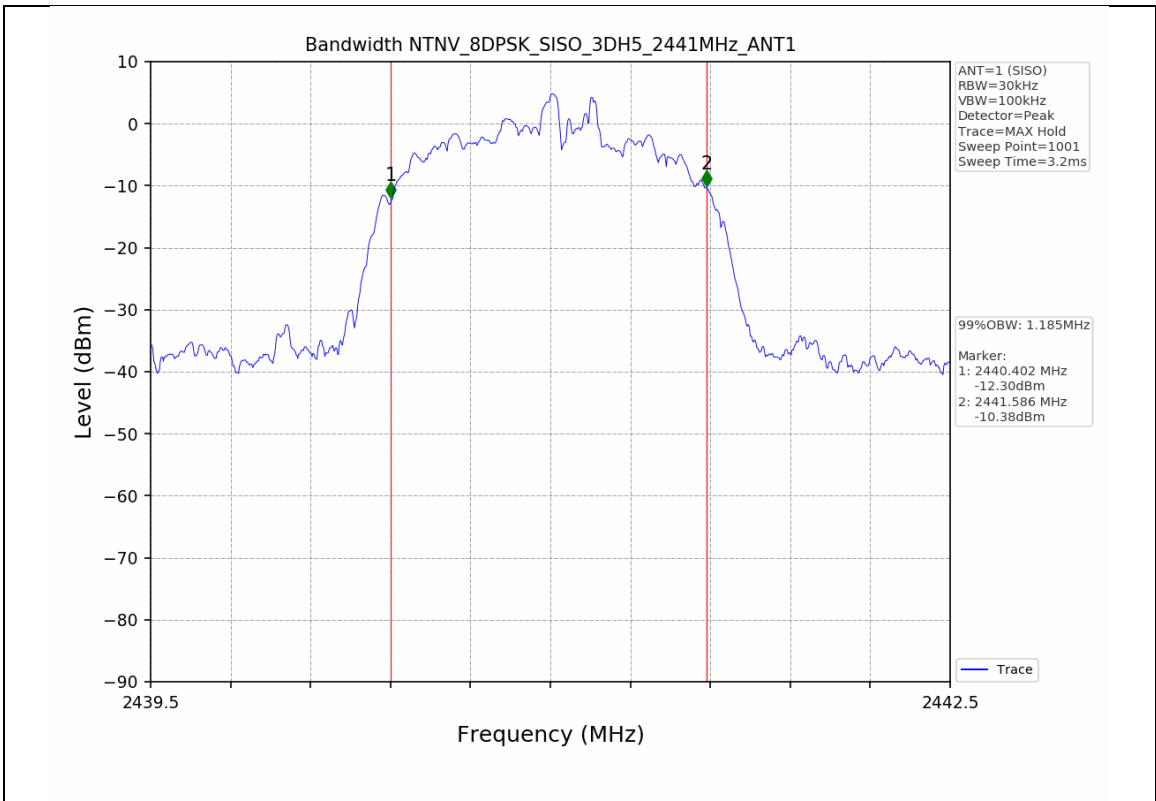
1.3 Test Graph - 99% Occupied Bandwidth









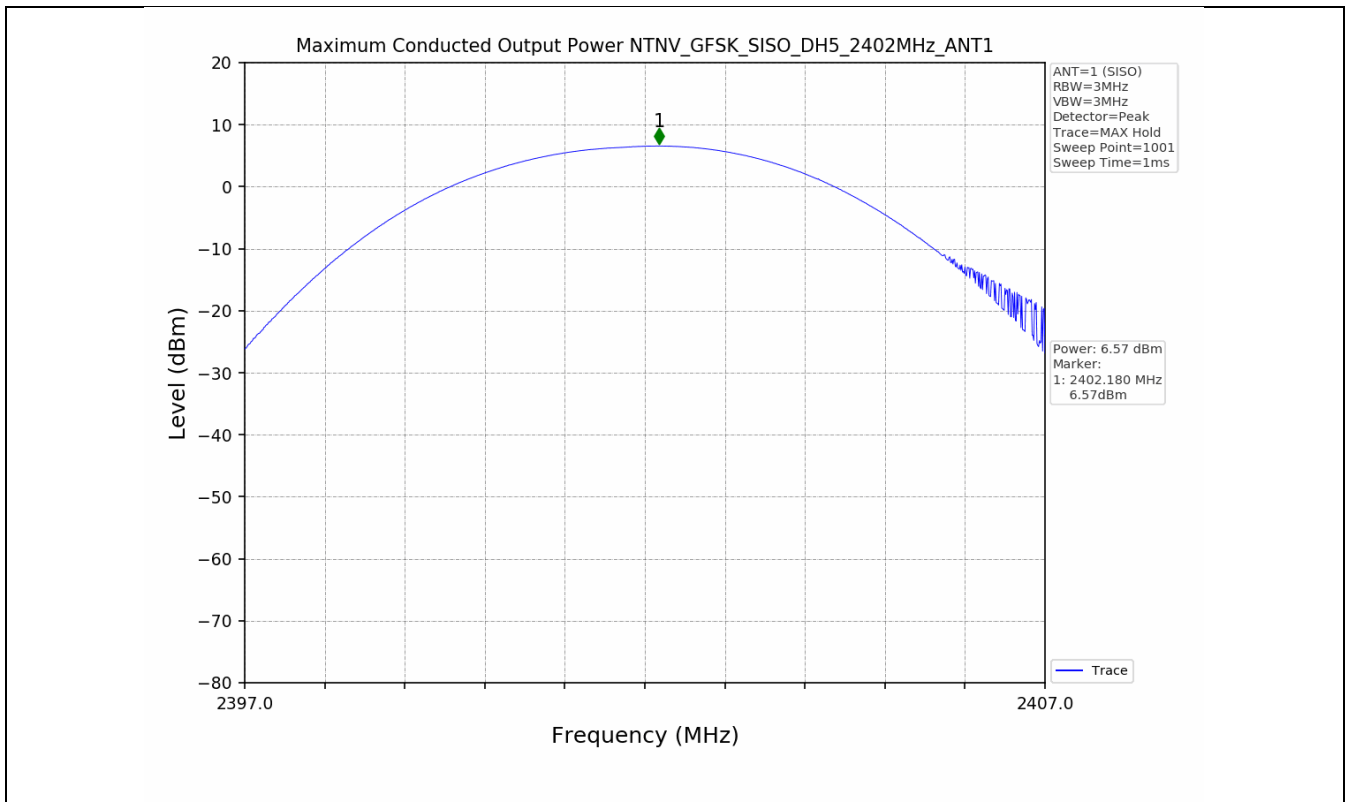


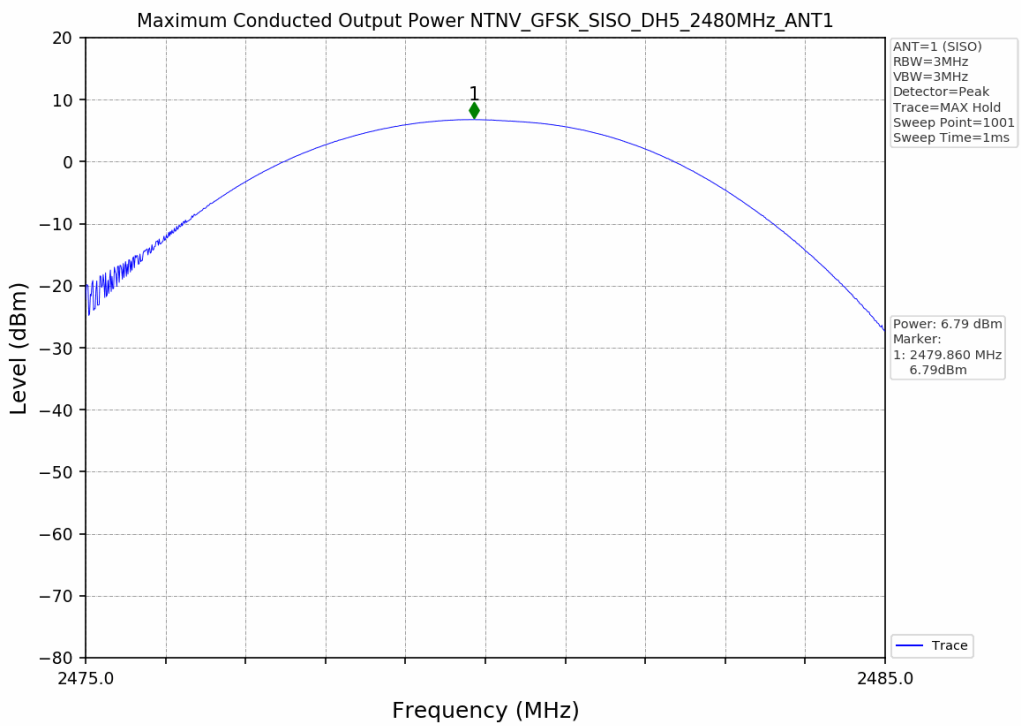
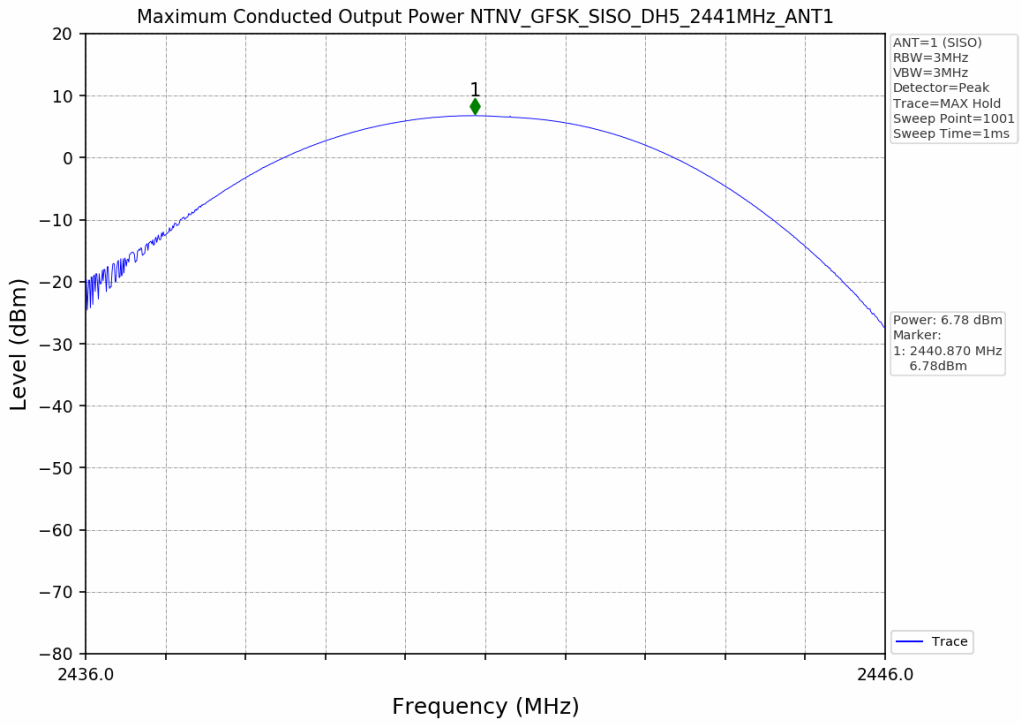
2. Maximum Conducted Output Power

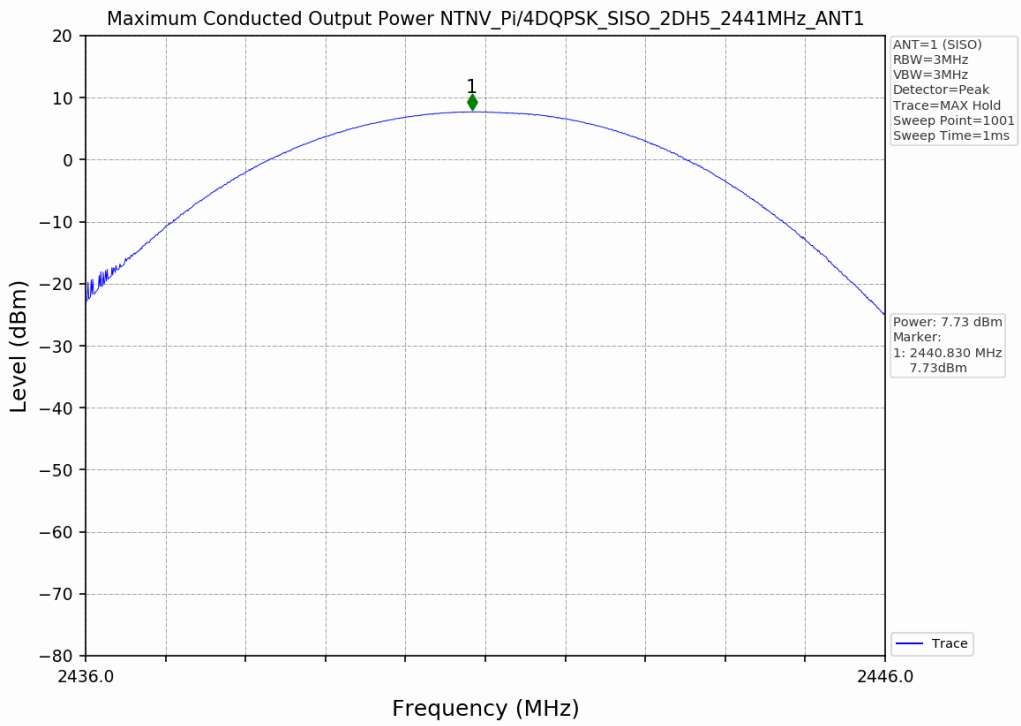
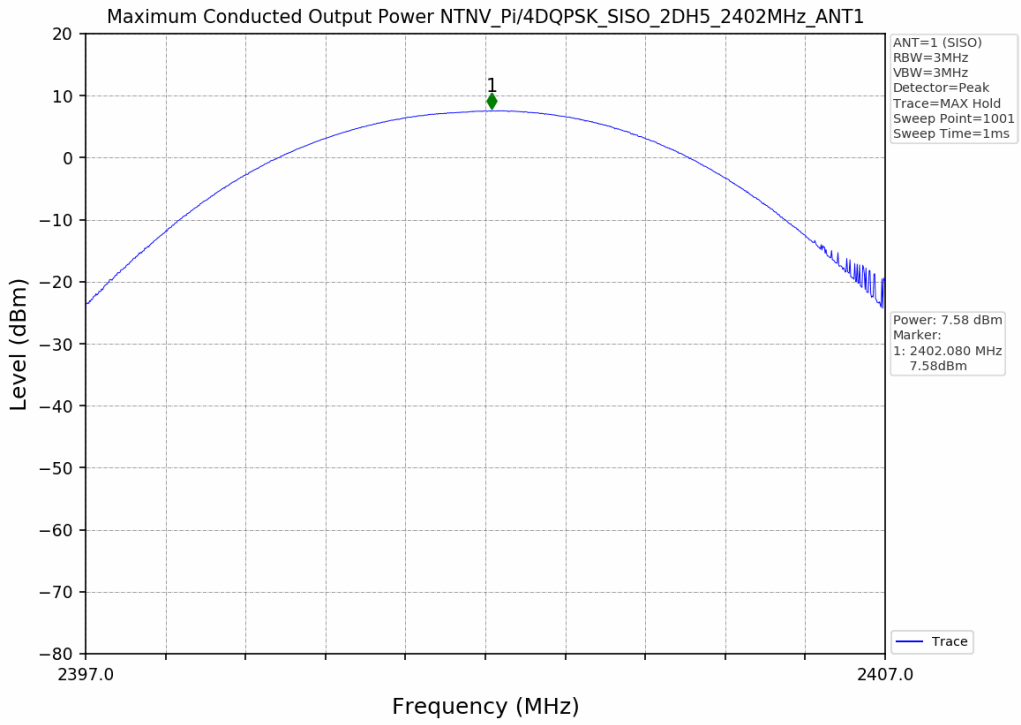
2.1 Test Result

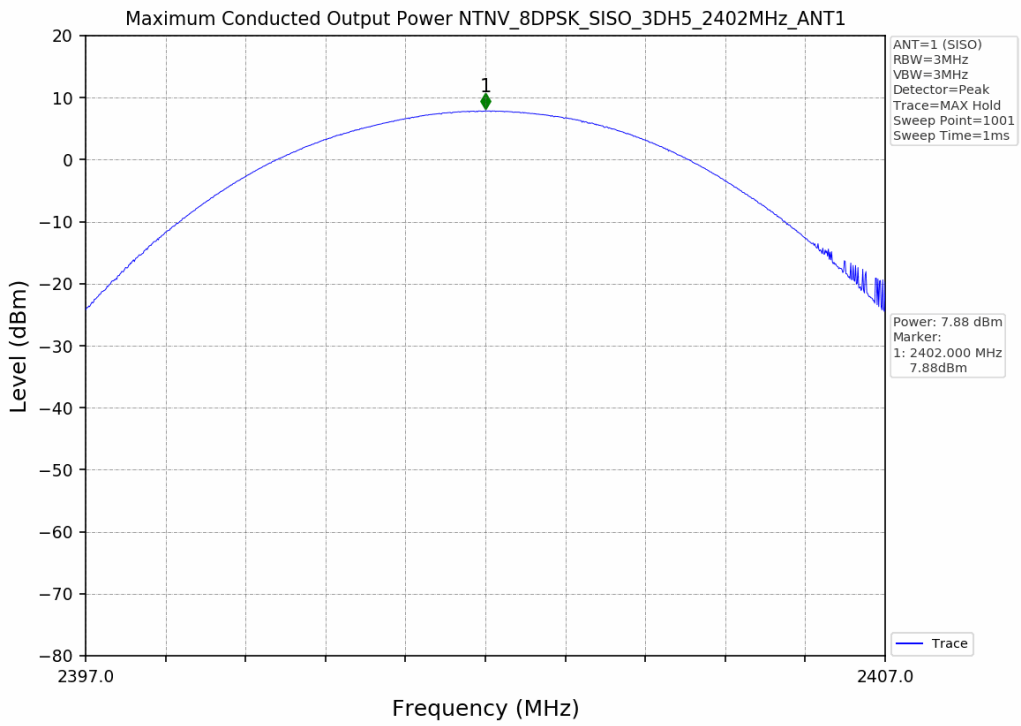
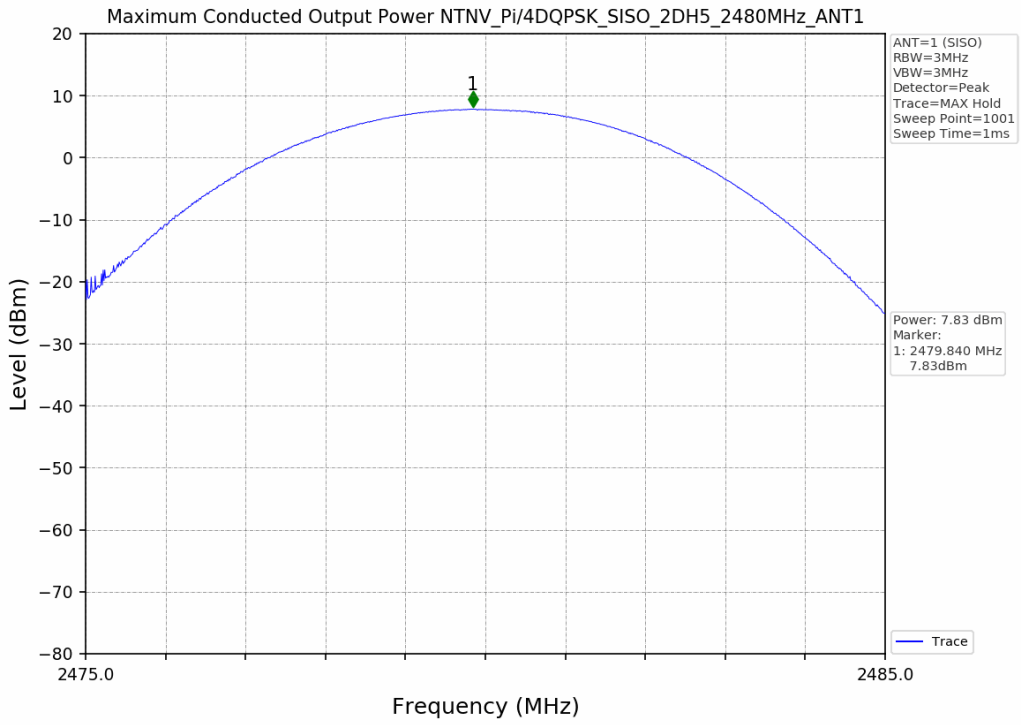
Test Mode	Frequency (MHz)	Tx Type	Measured Peak Output Power (dBm)	Limits (dBm)	Verdict
			Ant 1		
GFSK	2402	SISO	6.57	30	PASS
	2441	SISO	6.78	30	PASS
	2480	SISO	6.79	30	PASS
Pi/4DQPSK	2402	SISO	7.58	20.97	PASS
	2441	SISO	7.73	20.97	PASS
	2480	SISO	7.83	20.97	PASS
8DPSK	2402	SISO	7.88	20.97	PASS
	2441	SISO	8.04	20.97	PASS
	2480	SISO	8.11	20.97	PASS

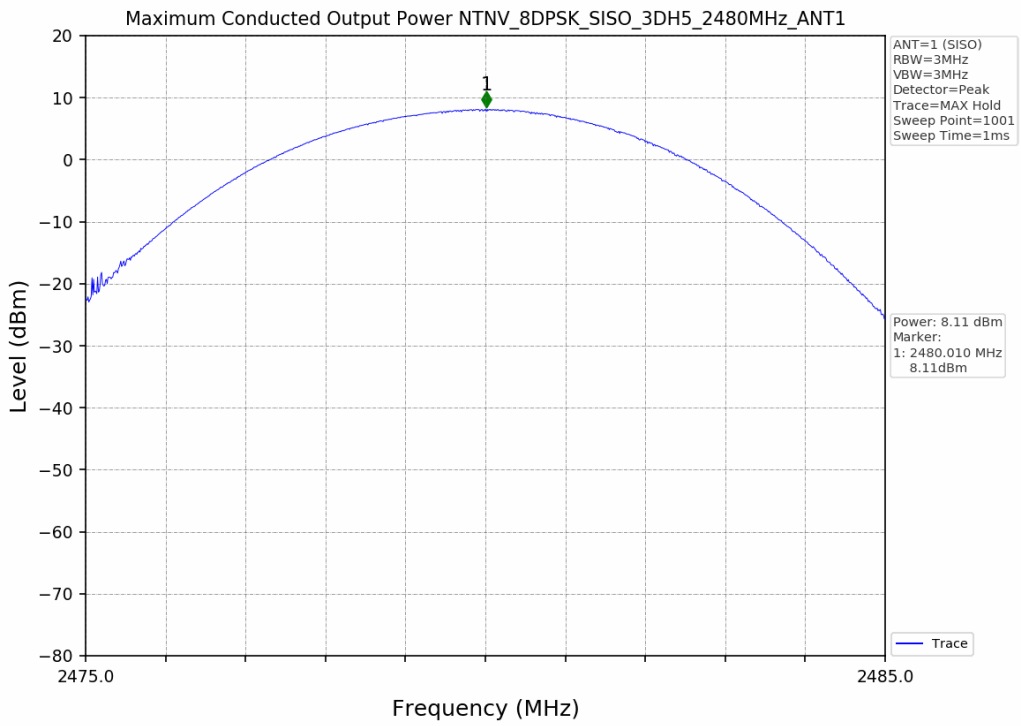
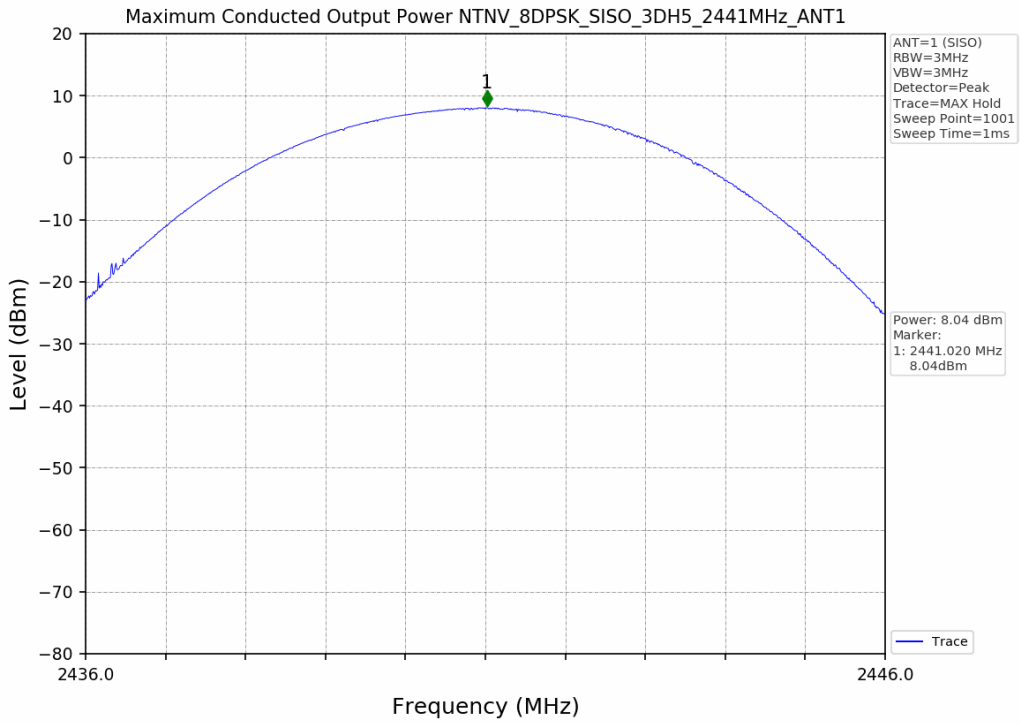
2.2 Test Graph









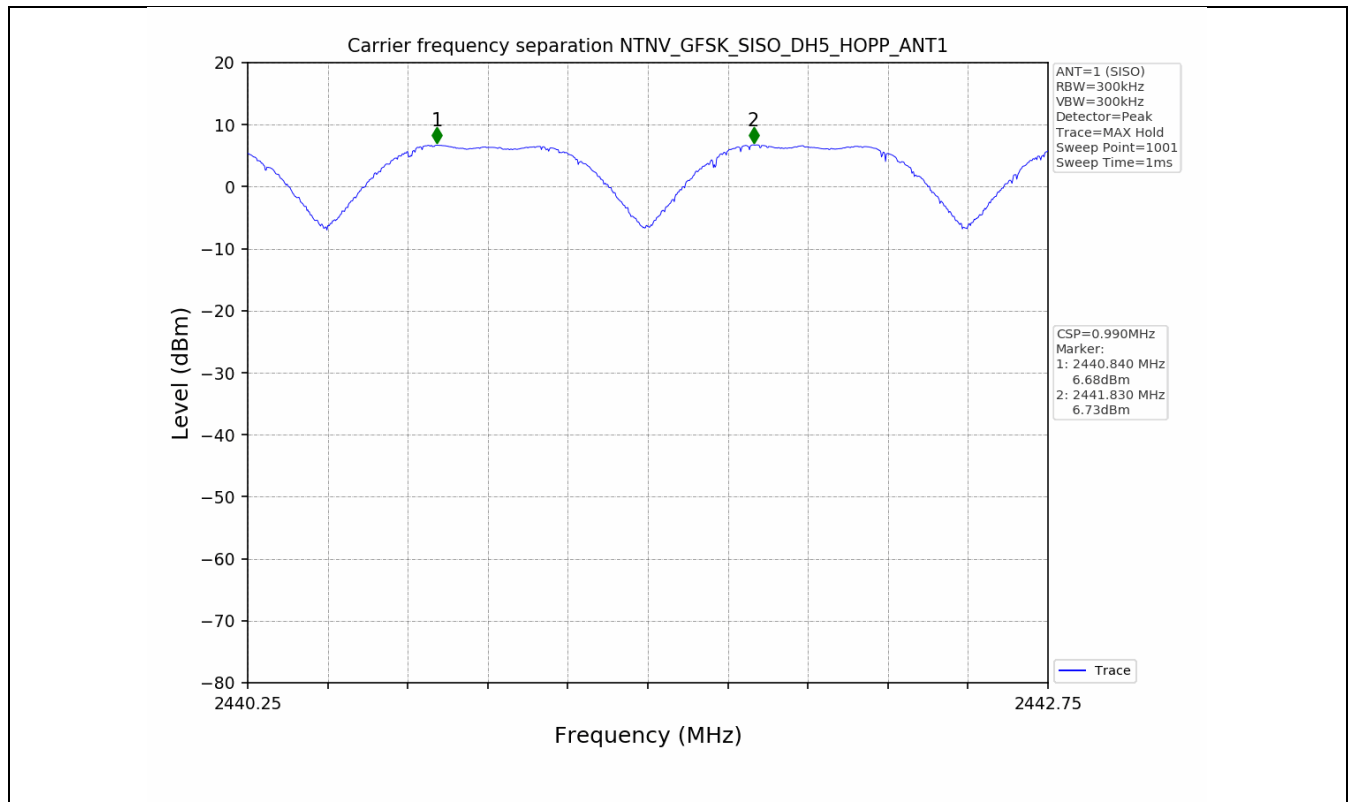


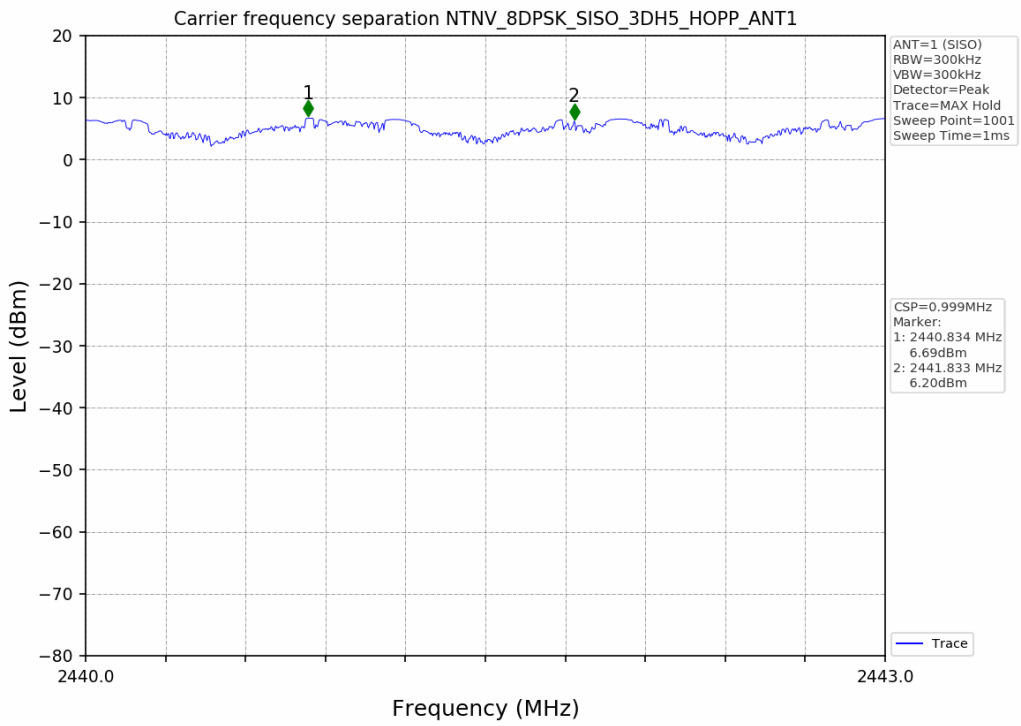
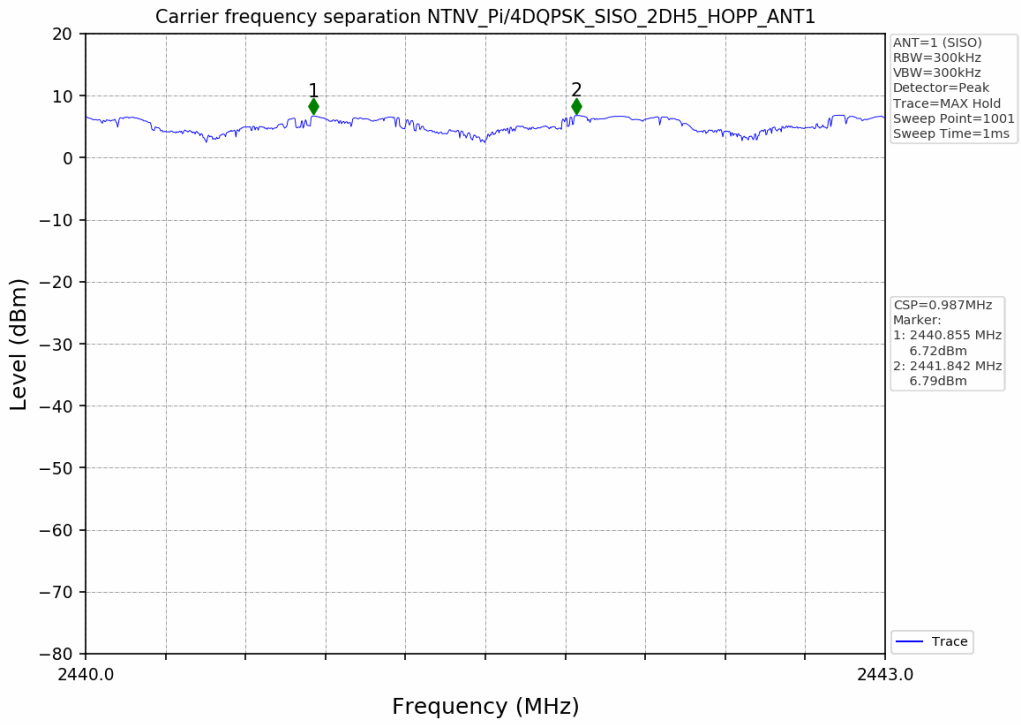
3. Carrier frequency separation

3.1 Test Result

Test Mode	TX Type	ANT No.	Channel Separation (MHz)	20dB Bandwidth (MHz)	Limits (MHz)	Verdict
GFSK	SISO	1	0.990	0.927	≥ 0.927	PASS
Pi/4DQPSK	SISO	1	0.987	1.277	≥ 0.851	PASS
8DPSK	SISO	1	0.999	1.309	≥ 0.873	PASS

3.2 Test Graph



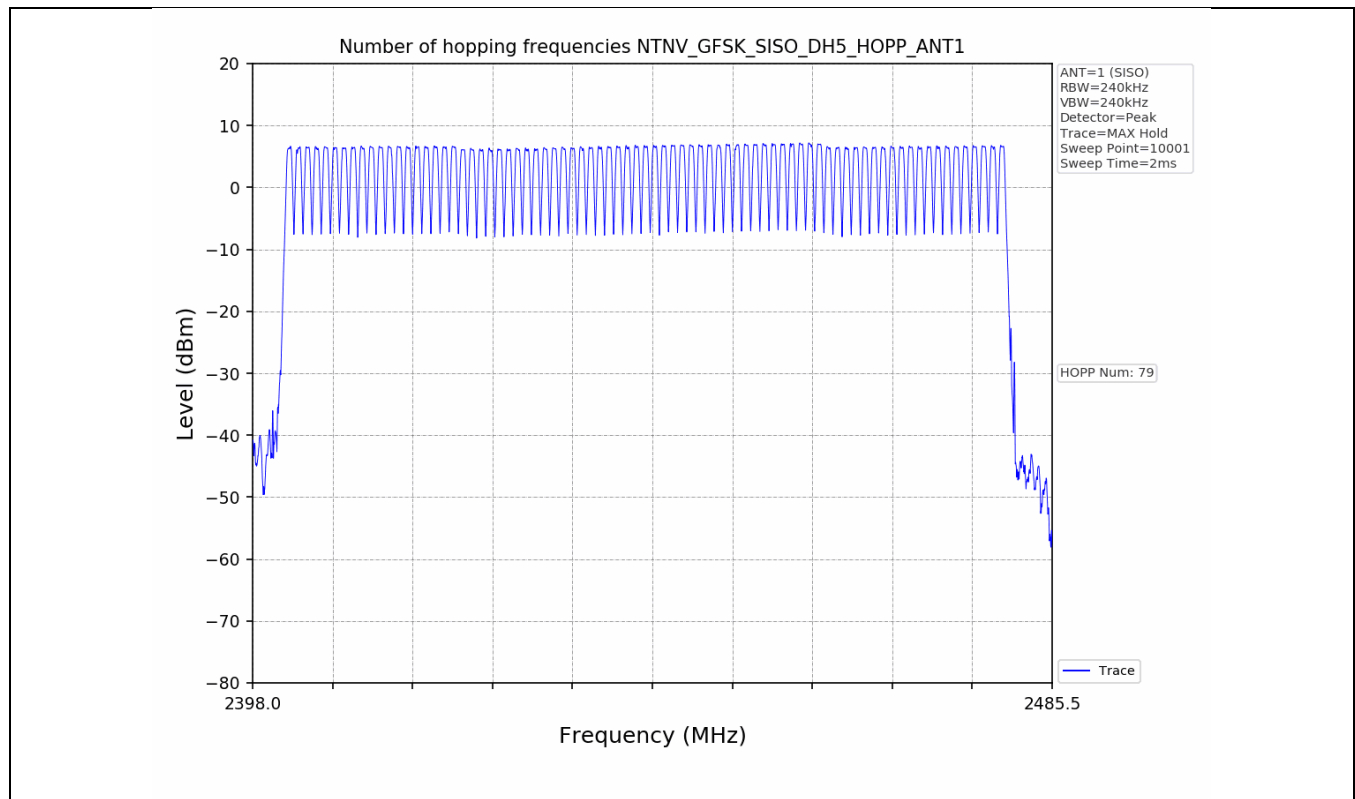


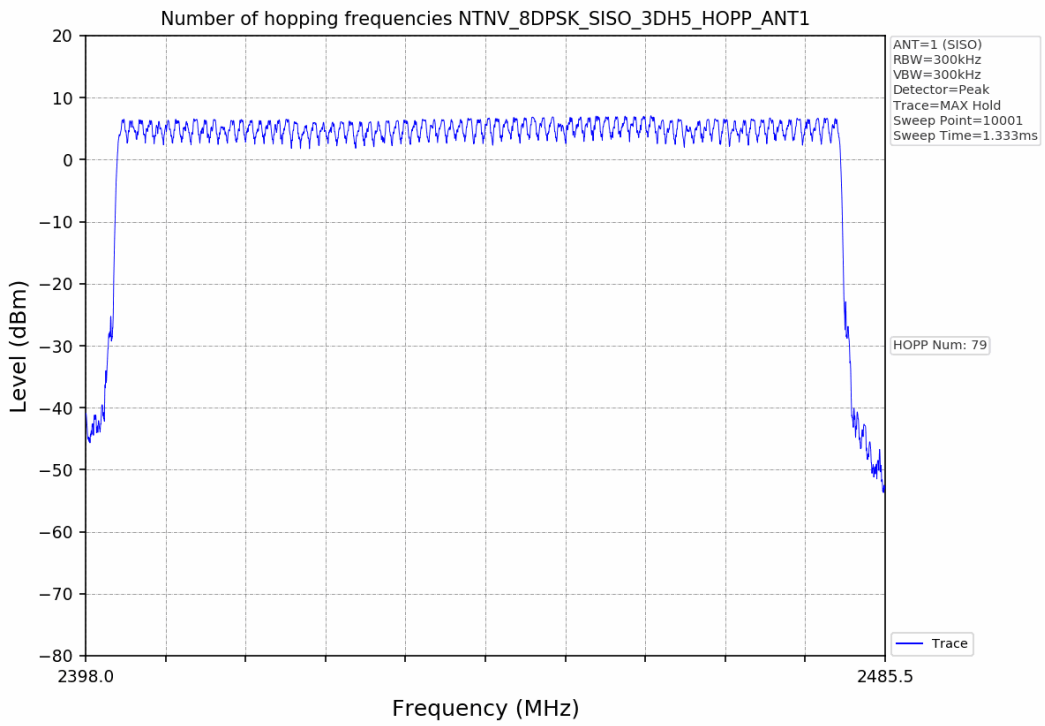
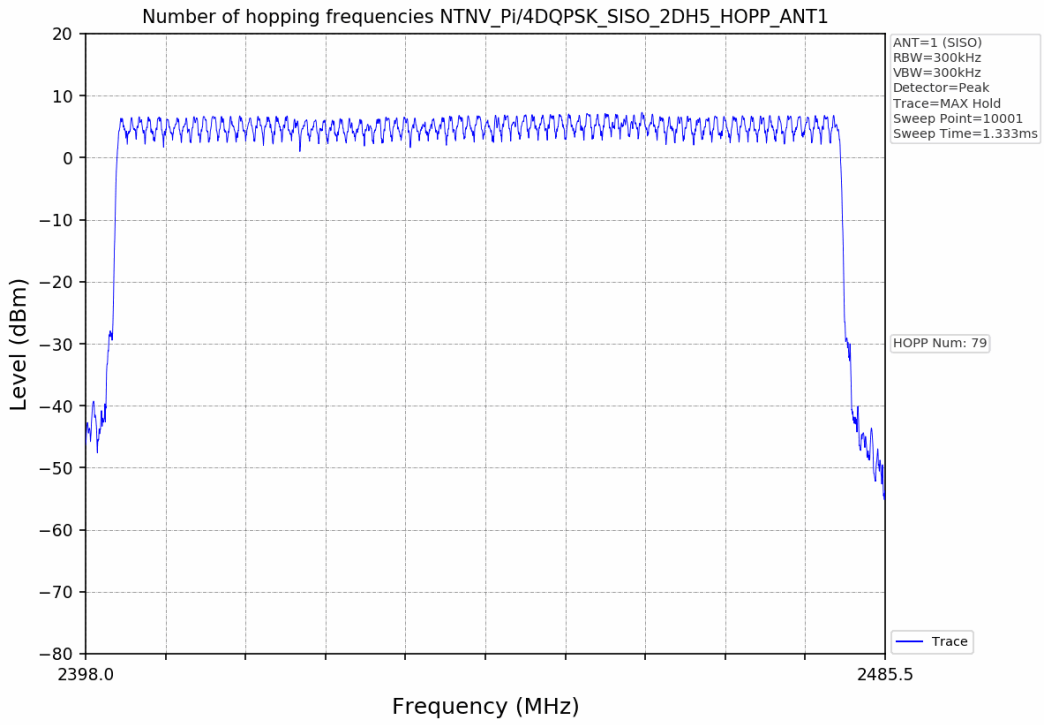
4. Number of hopping frequencies

4.1 Test Result

Test Mode	TX Type	ANT No.	Num of Hopping Frequencies	Limits	Verdict
GFSK	SISO	1	79	≥ 15	PASS
Pi/4DQPSK	SISO	1	79	≥ 15	PASS
8DPSK	SISO	1	79	≥ 15	PASS

4.2 Test Graph



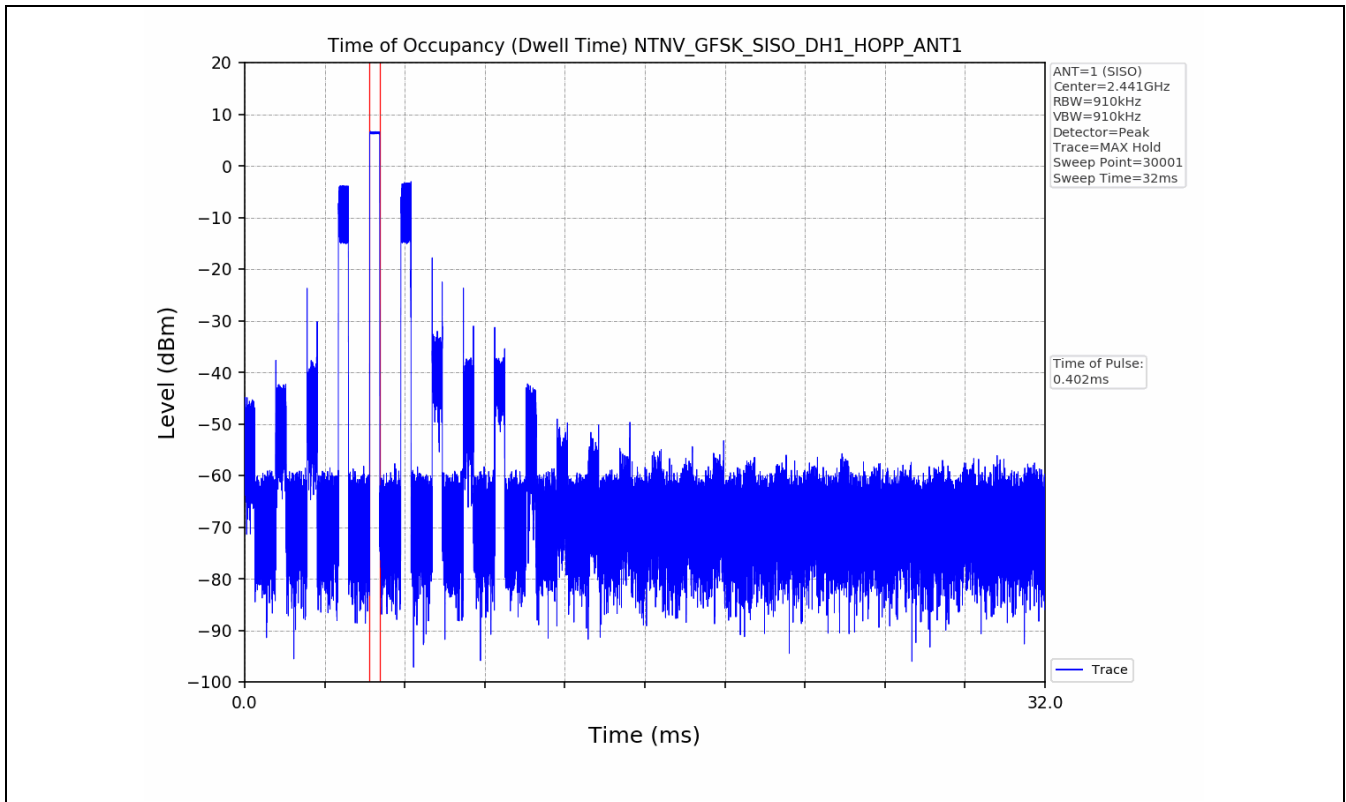


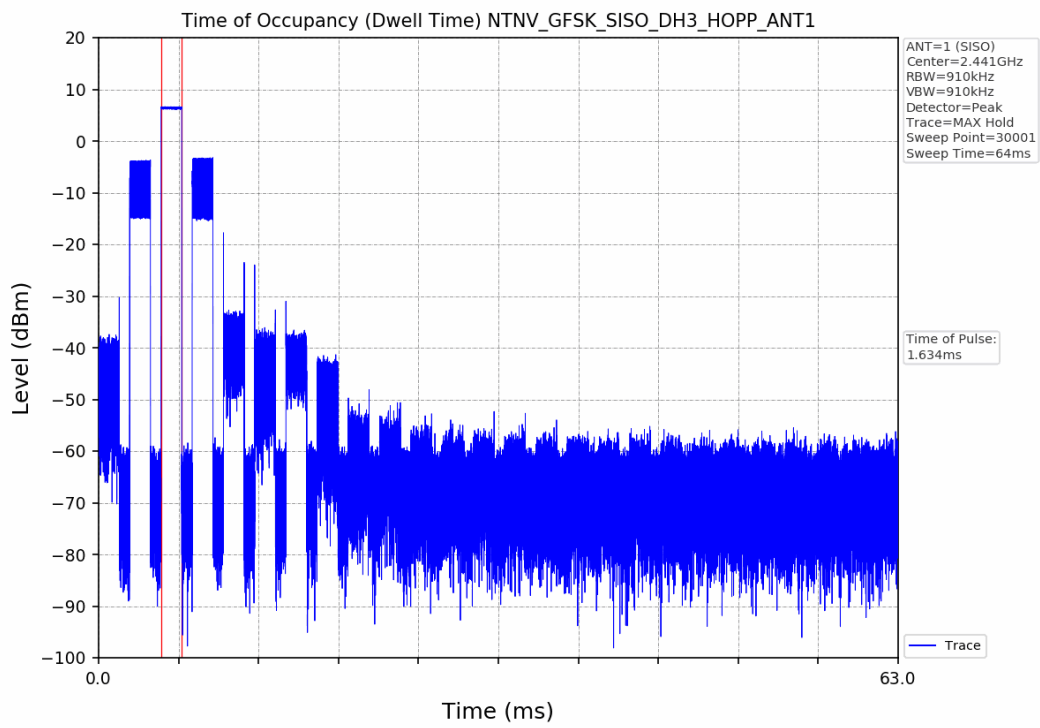
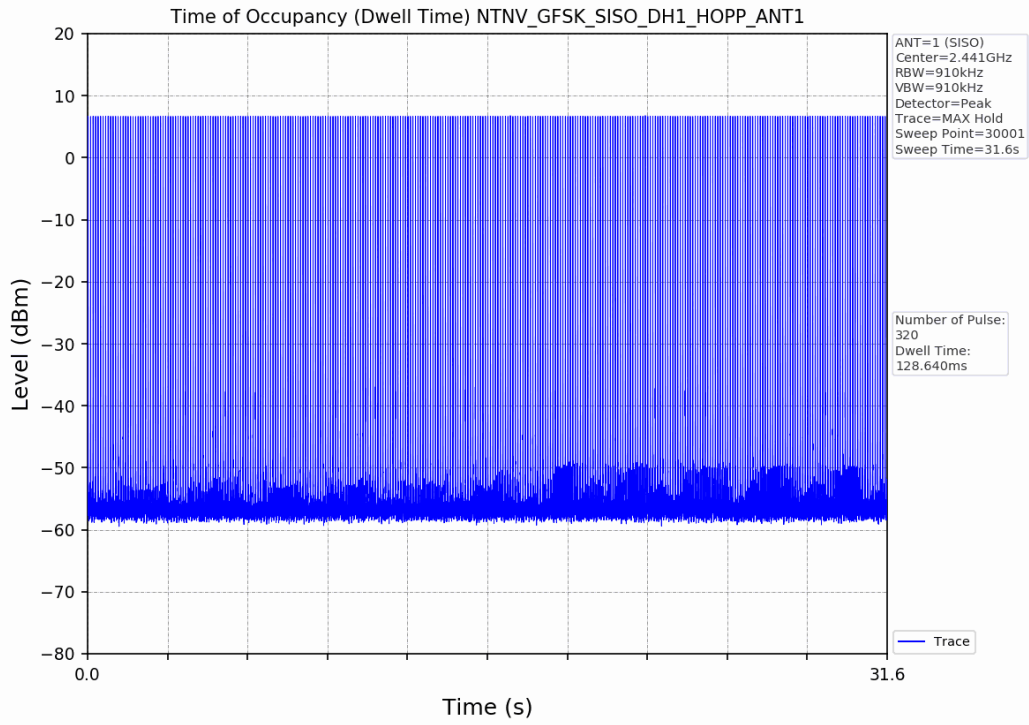
5. Time of Occupancy (Dwell Time)

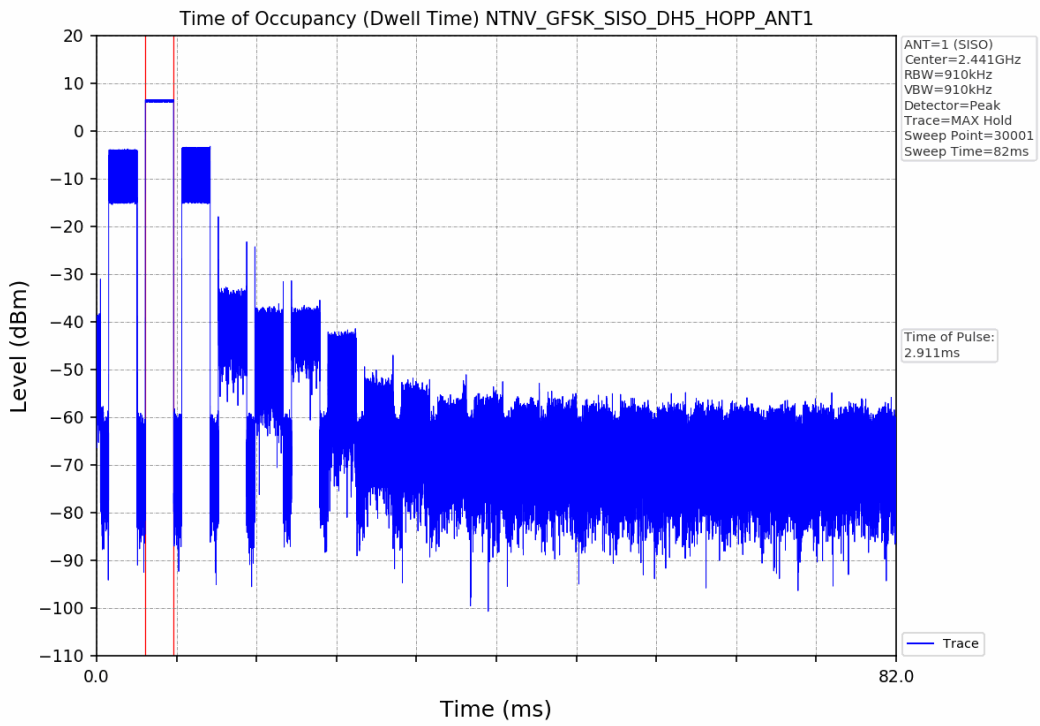
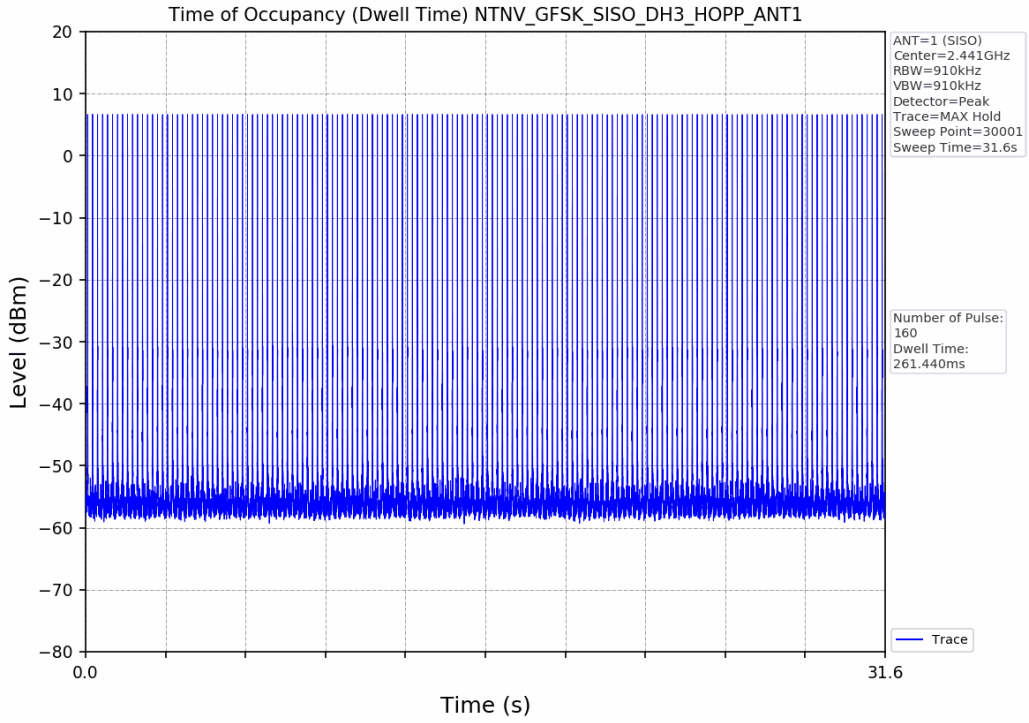
5.1 Test Result

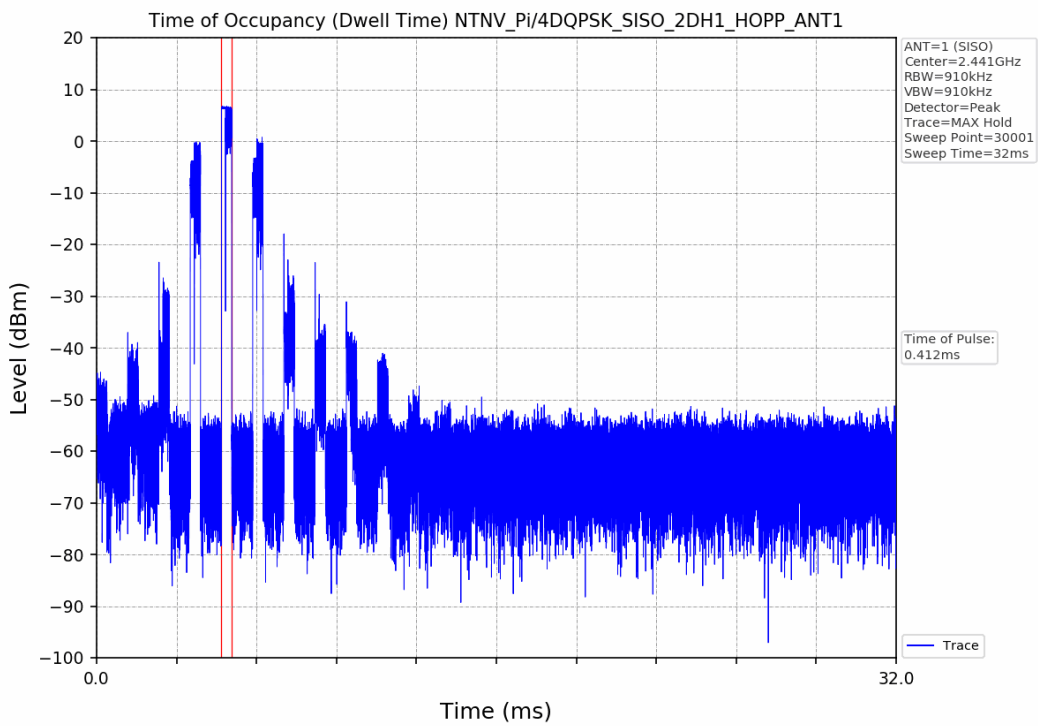
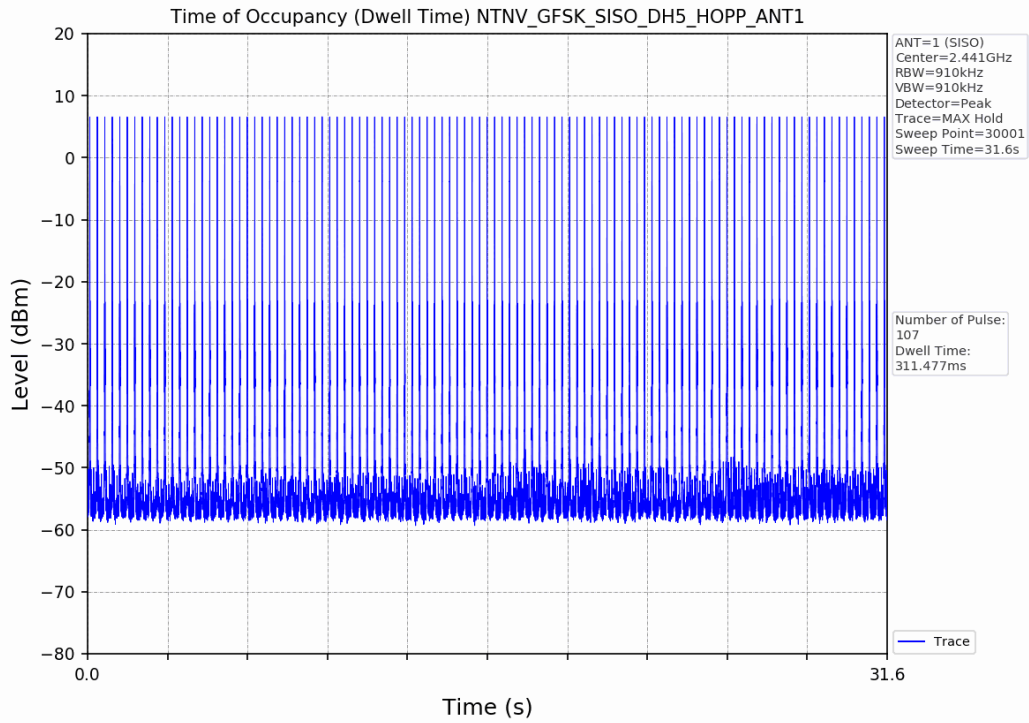
Test Mode	Packet Type	TX Type	ANT No.	Duration of Single Pulse (ms)	Obeservation Period (s)	Num of Pulse in Observation Period	Dwell Time (ms)	Limits (ms)	Verdict
GFSK	DH1	SISO	1	0.402	31.6	320	128.640	≤400	PASS
	DH3	SISO	1	1.634	31.6	160	261.440	≤400	PASS
	DH5	SISO	1	2.911	31.6	107	311.477	≤400	PASS
Pi/4D QPS K	2DH1	SISO	1	0.412	31.6	320	131.840	≤400	PASS
	2DH3	SISO	1	1.636	31.6	160	261.760	≤400	PASS
	2DH5	SISO	1	2.747	31.6	106	291.182	≤400	PASS
8DPS K	3DH1	SISO	1	0.411	31.6	320	131.520	≤400	PASS
	3DH3	SISO	1	1.640	31.6	160	262.400	≤400	PASS
	3DH5	SISO	1	2.917	31.6	106	309.202	≤400	PASS

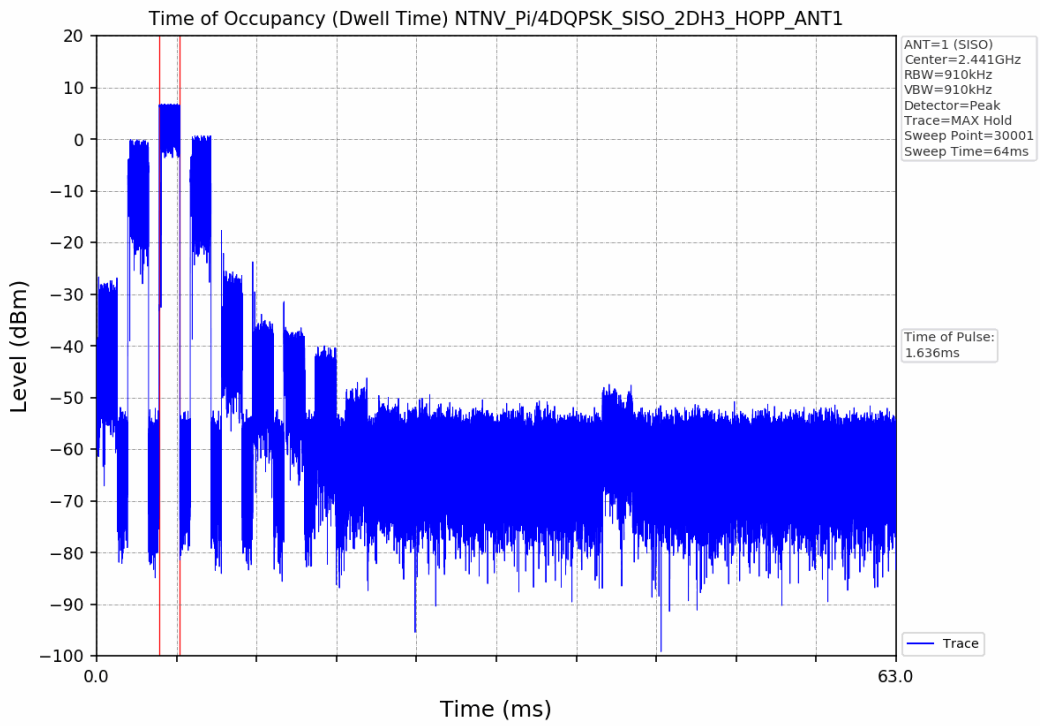
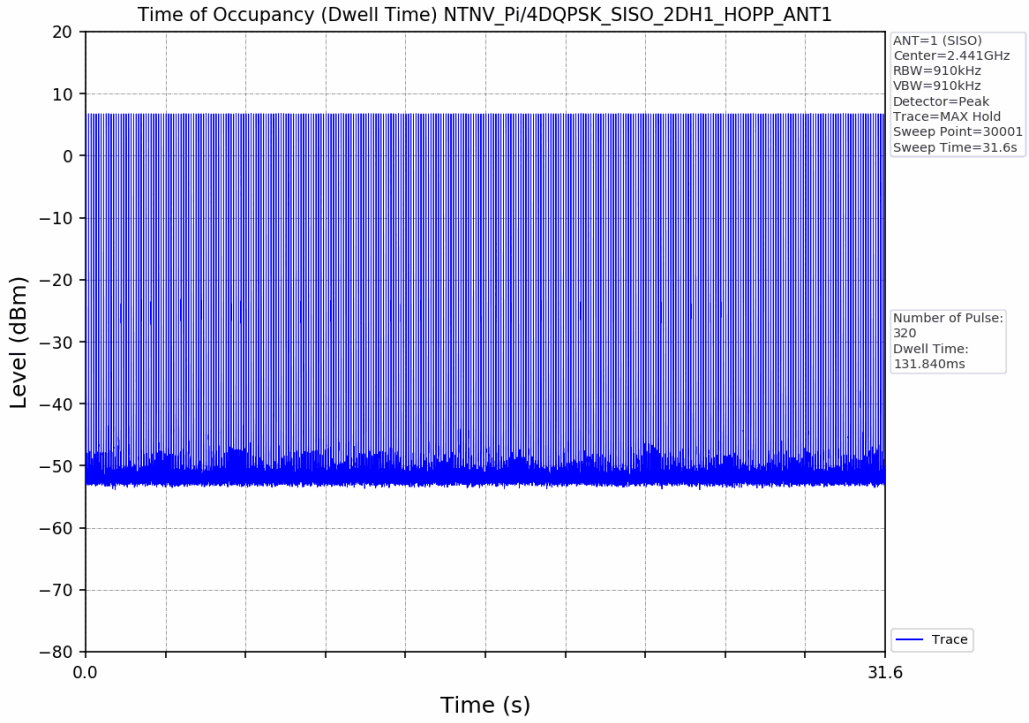
5.2 Test Graph

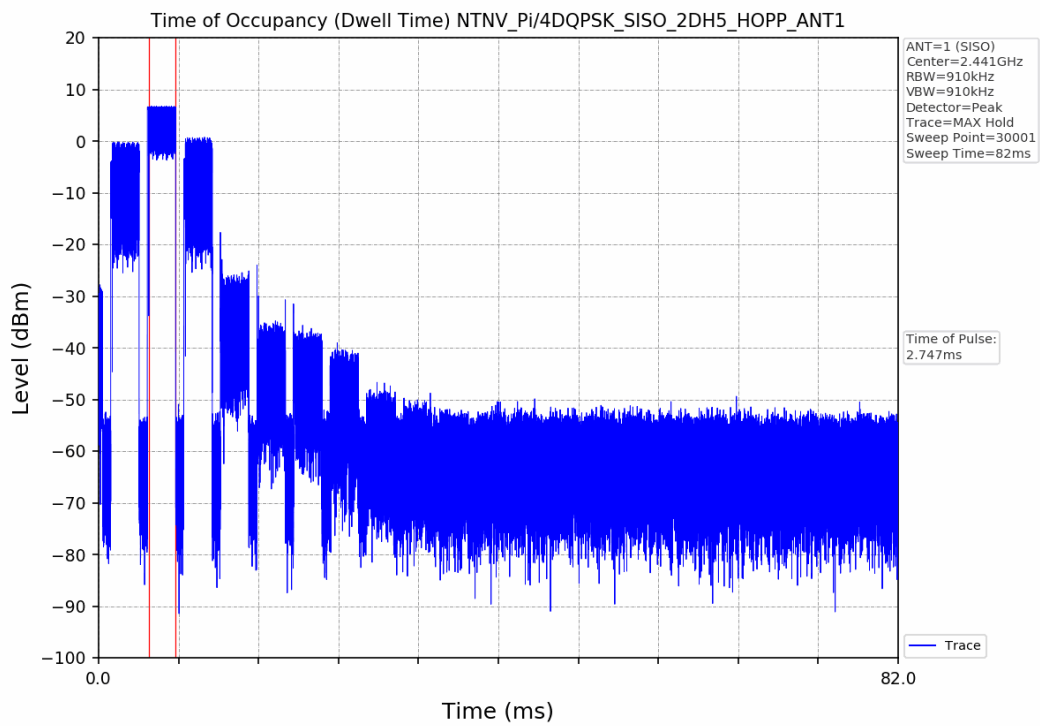
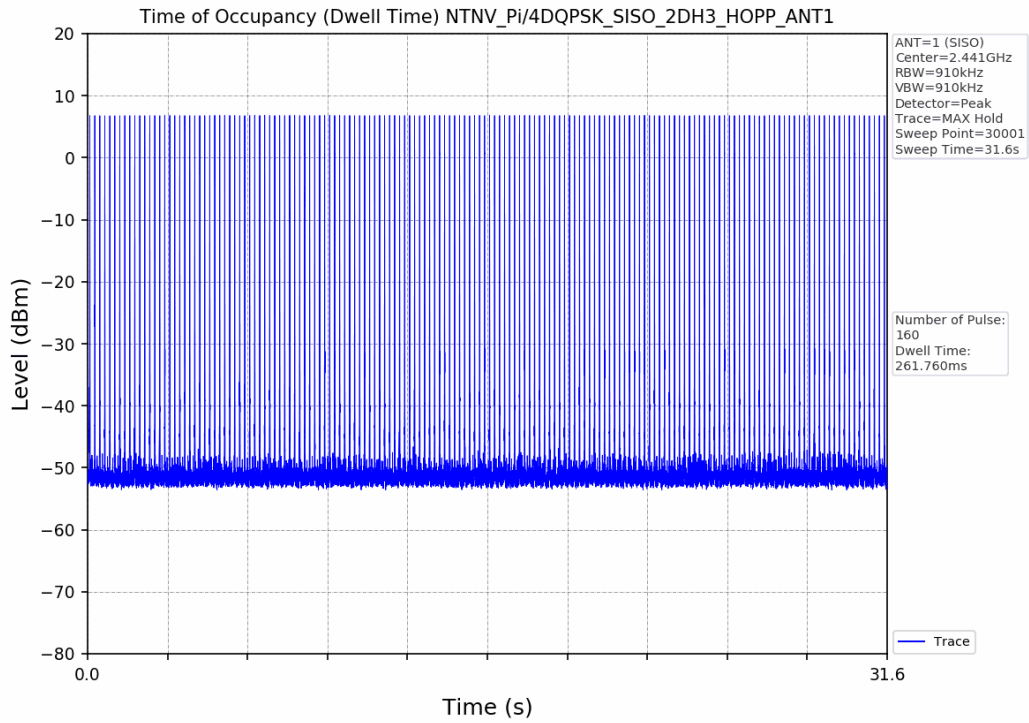


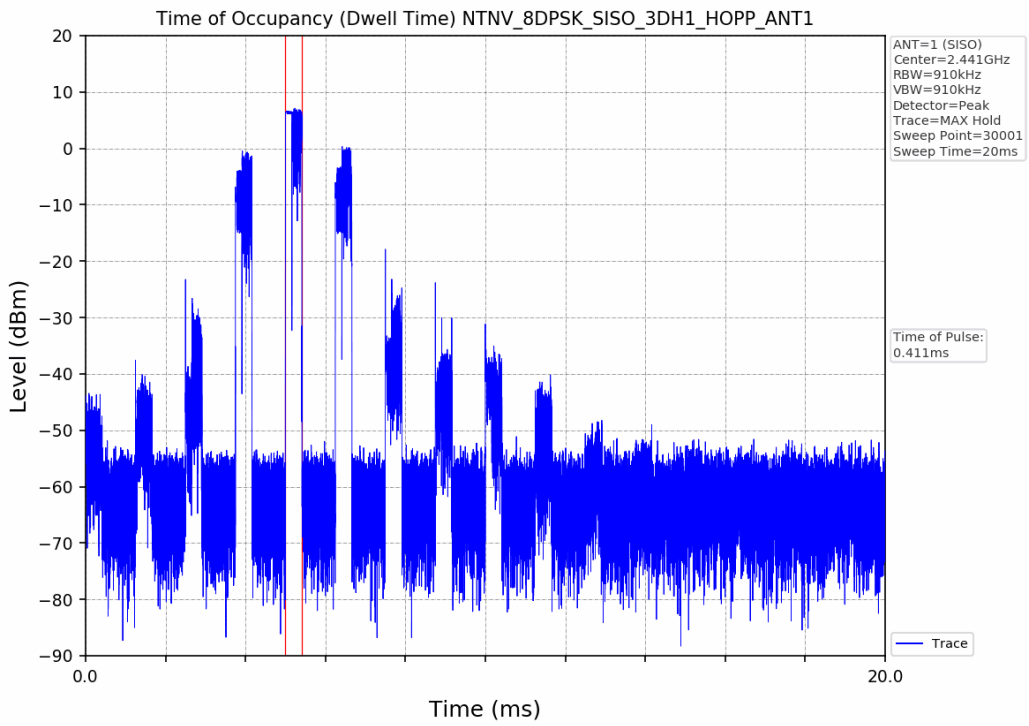
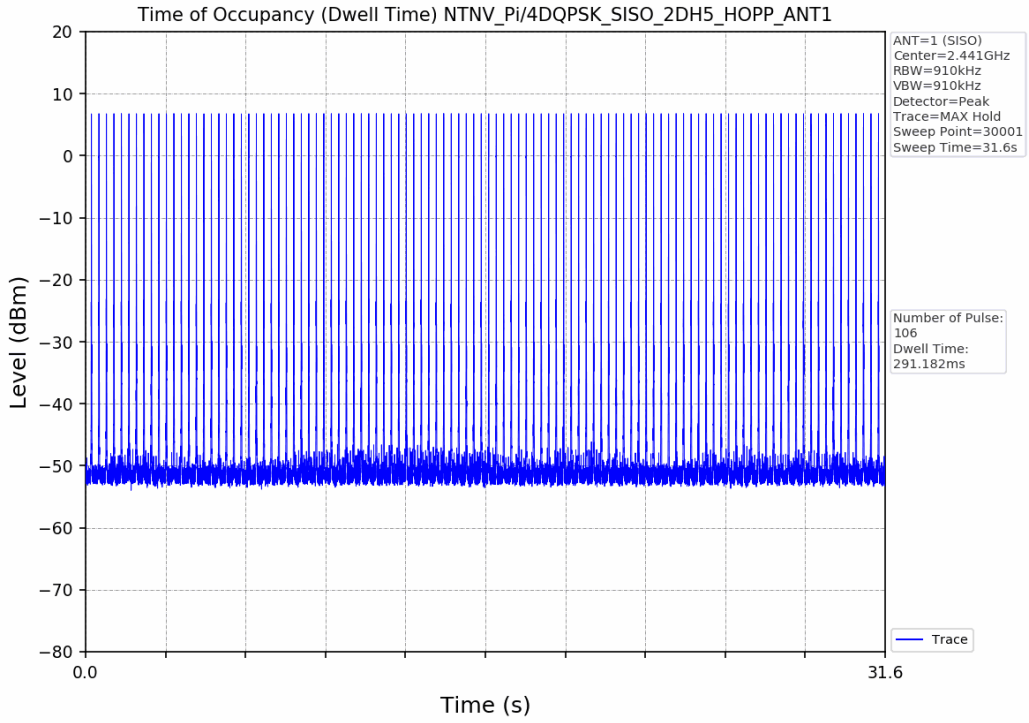


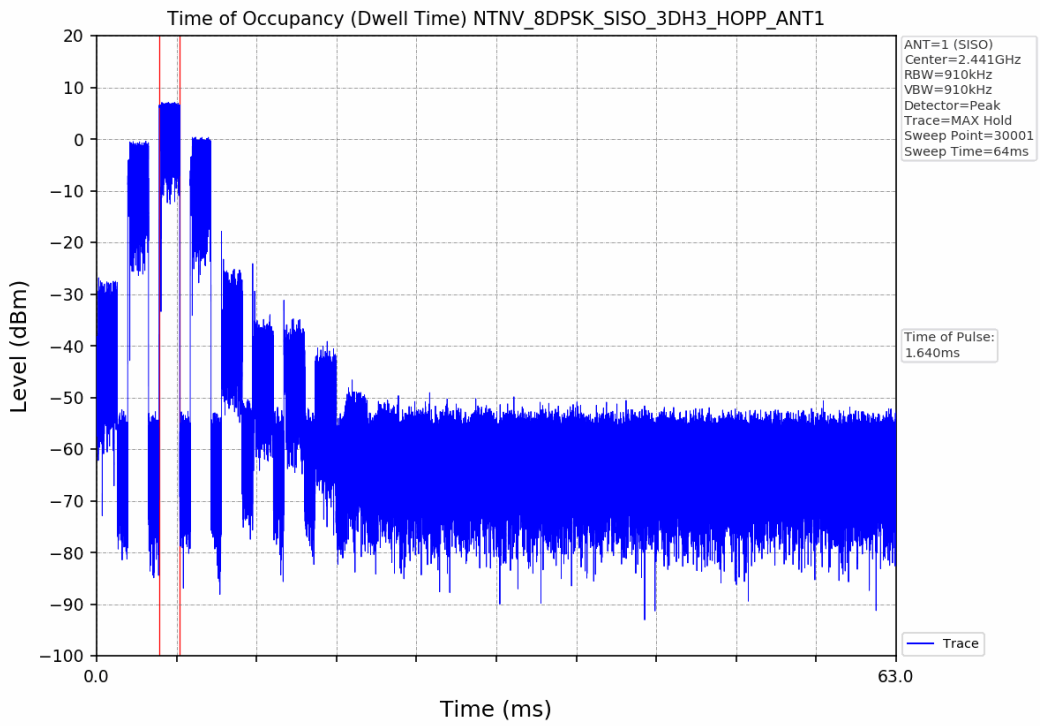
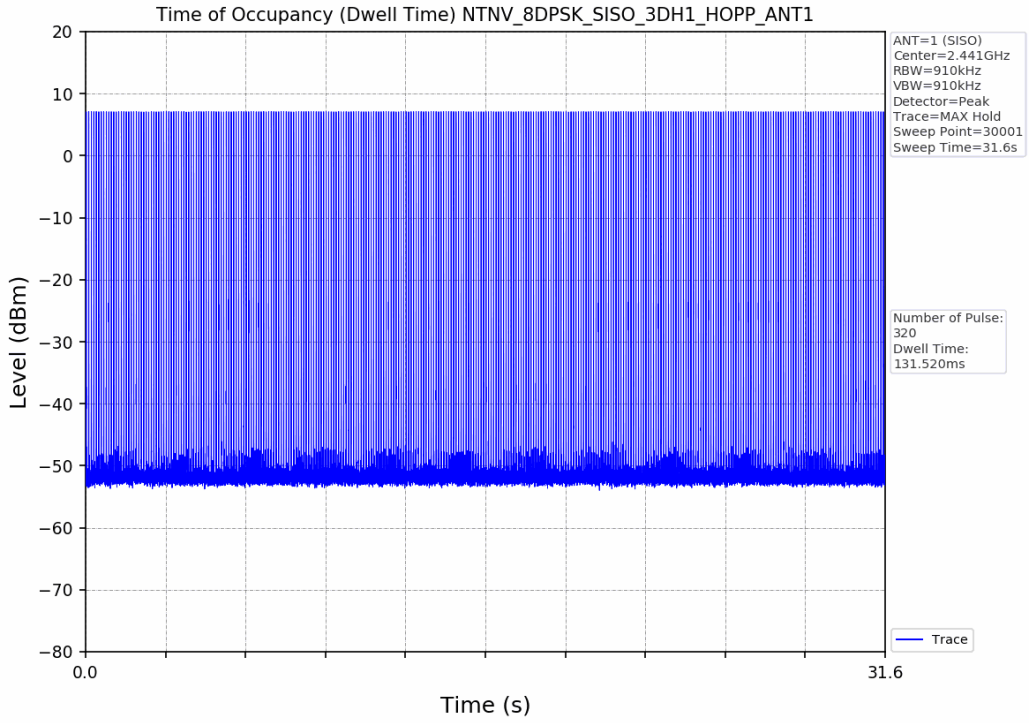


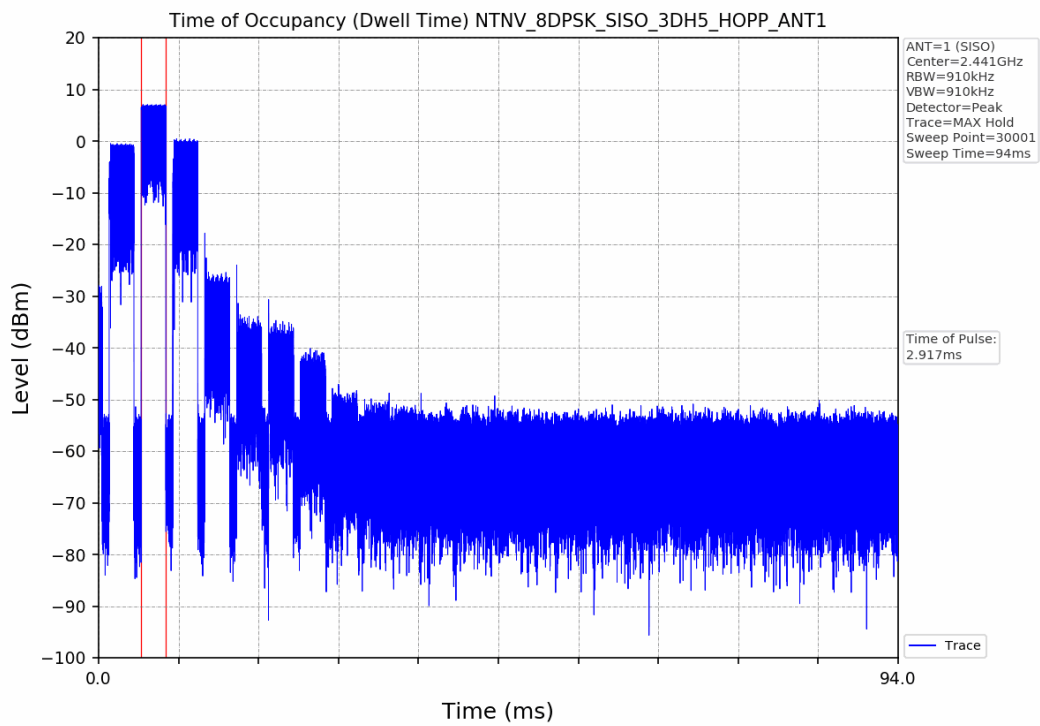
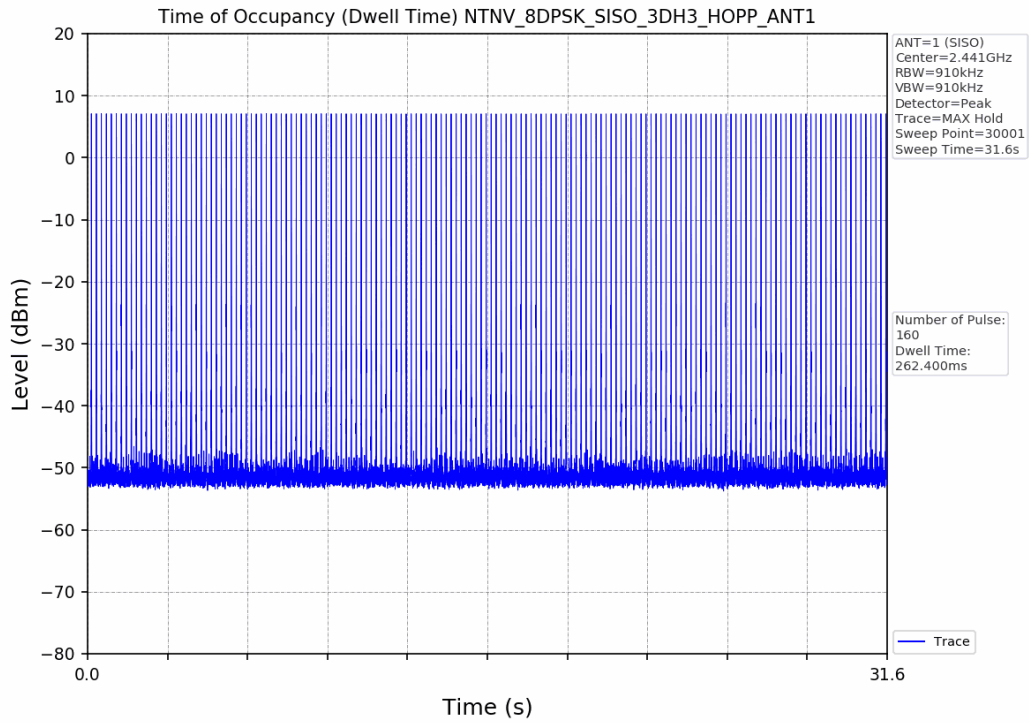


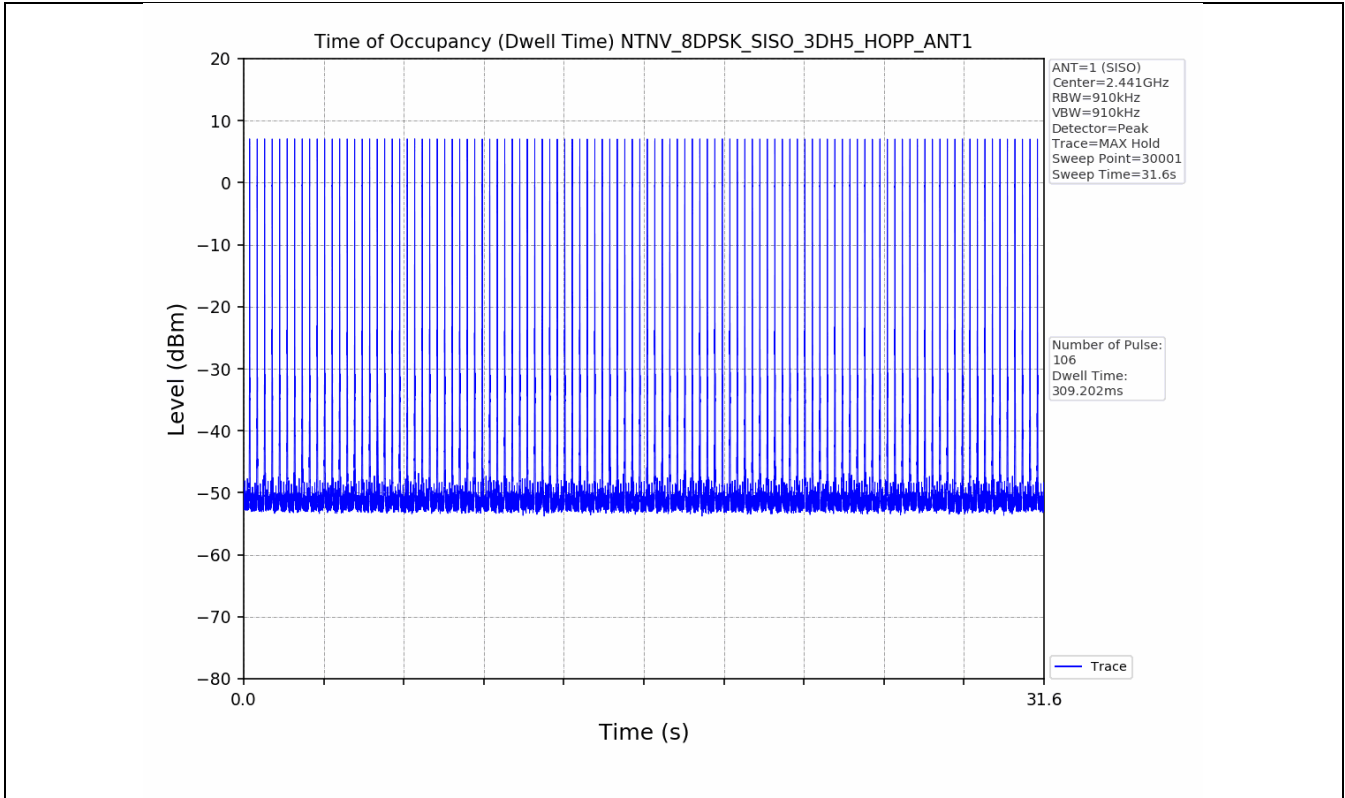










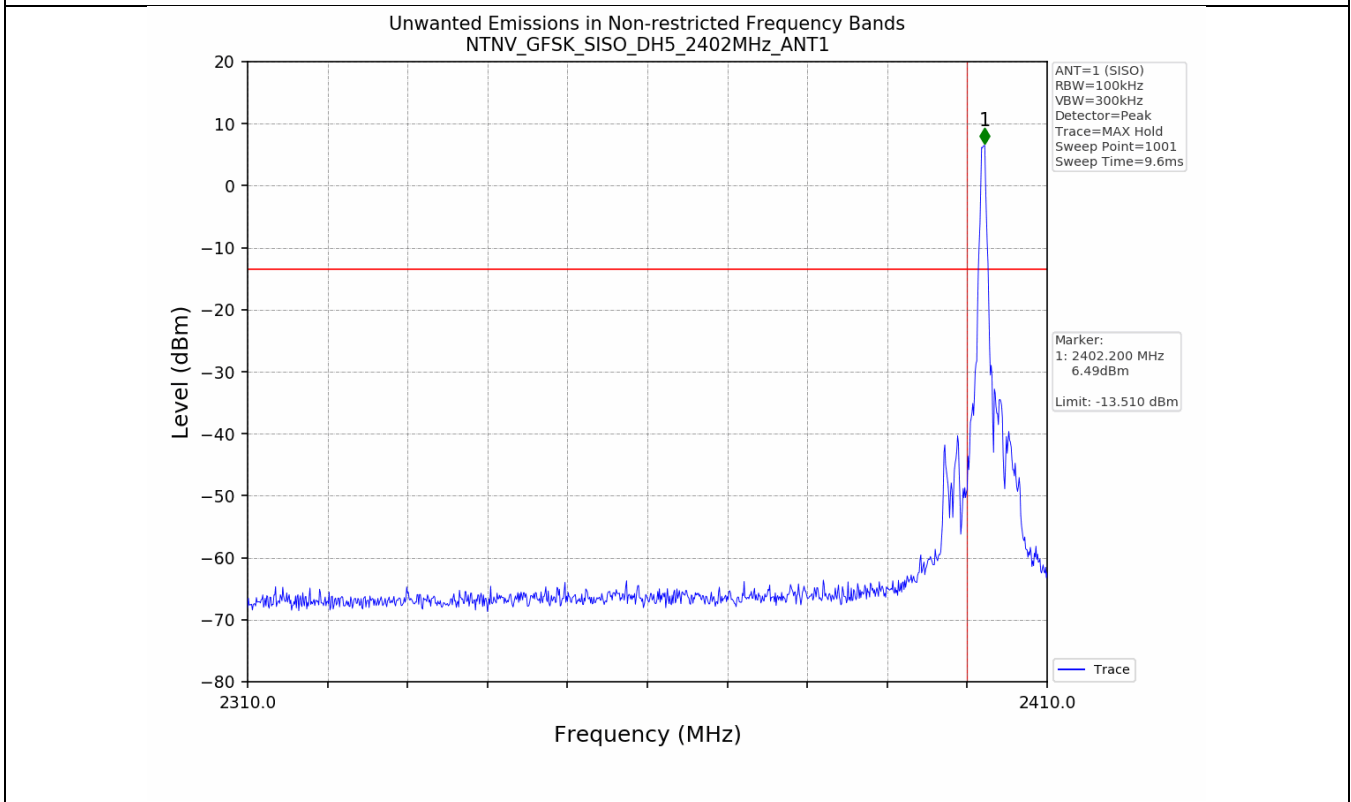
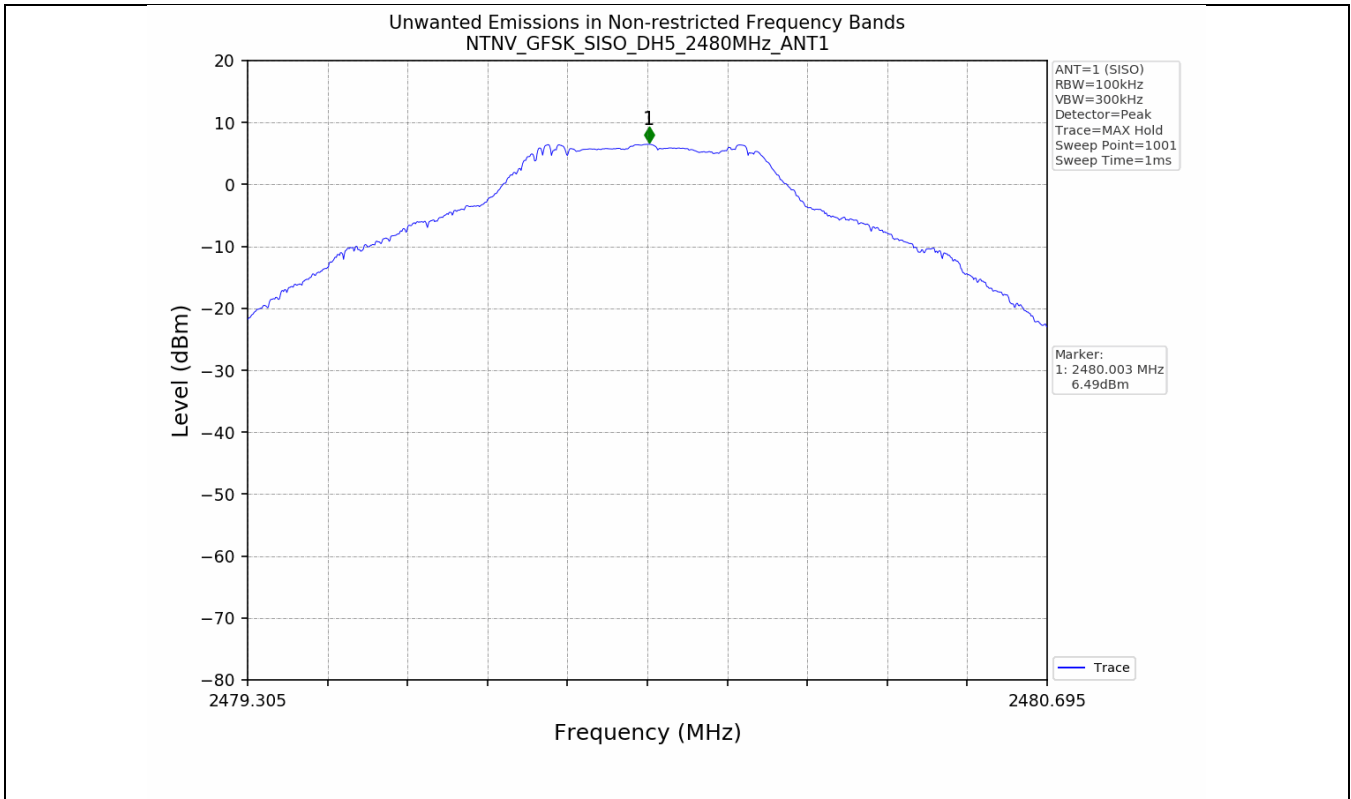


6. Unwanted Emissions in Non-restricted Frequency Bands

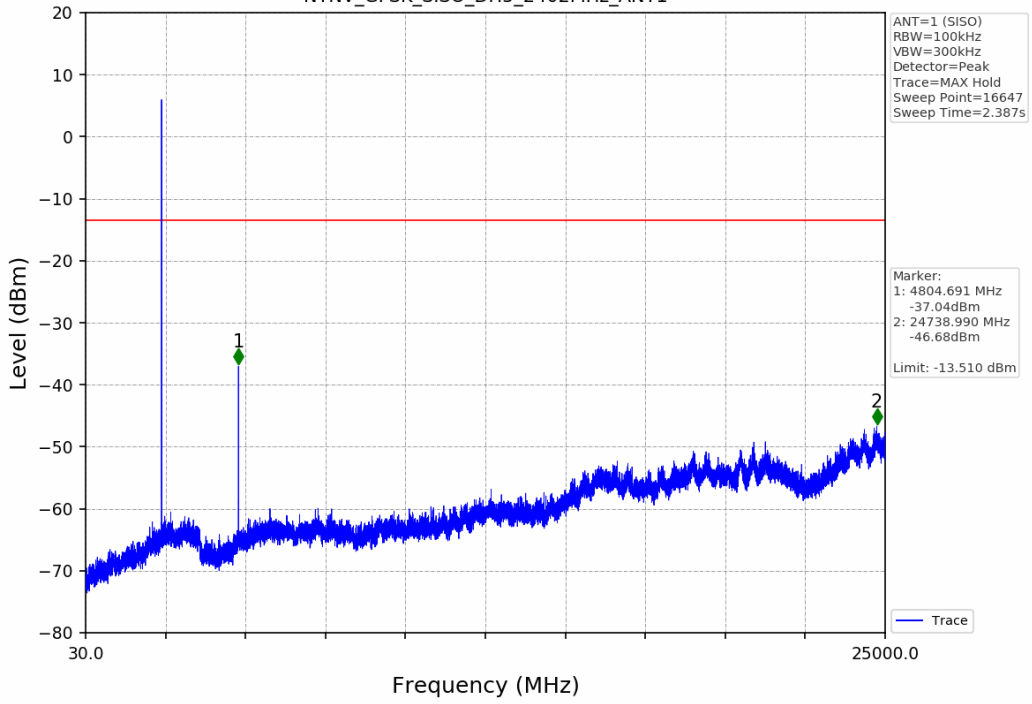
6.1 Test Result

Test Mode	Frequency (MHz)	TX Type	ANT No.	Spurious Conducted Emission (dBm)	Limits (dBm)	Verdict
GFSK	2402	SISO	1	Refer to test graph	-13.51	PASS
	2441	SISO	1	Refer to test graph	-13.51	PASS
	2480	SISO	1	Refer to test graph	-13.51	PASS
	Hopping	SISO	1	Refer to test graph	-13.51	PASS
Pi/4DQPSK	2402	SISO	1	Refer to test graph	-13.23	PASS
	2441	SISO	1	Refer to test graph	-13.23	PASS
	2480	SISO	1	Refer to test graph	-13.23	PASS
	Hopping	SISO	1	Refer to test graph	-13.23	PASS
8DPSK	2402	SISO	1	Refer to test graph	-13.43	PASS
	2441	SISO	1	Refer to test graph	-13.43	PASS
	2480	SISO	1	Refer to test graph	-13.43	PASS
	Hopping	SISO	1	Refer to test graph	-13.43	PASS

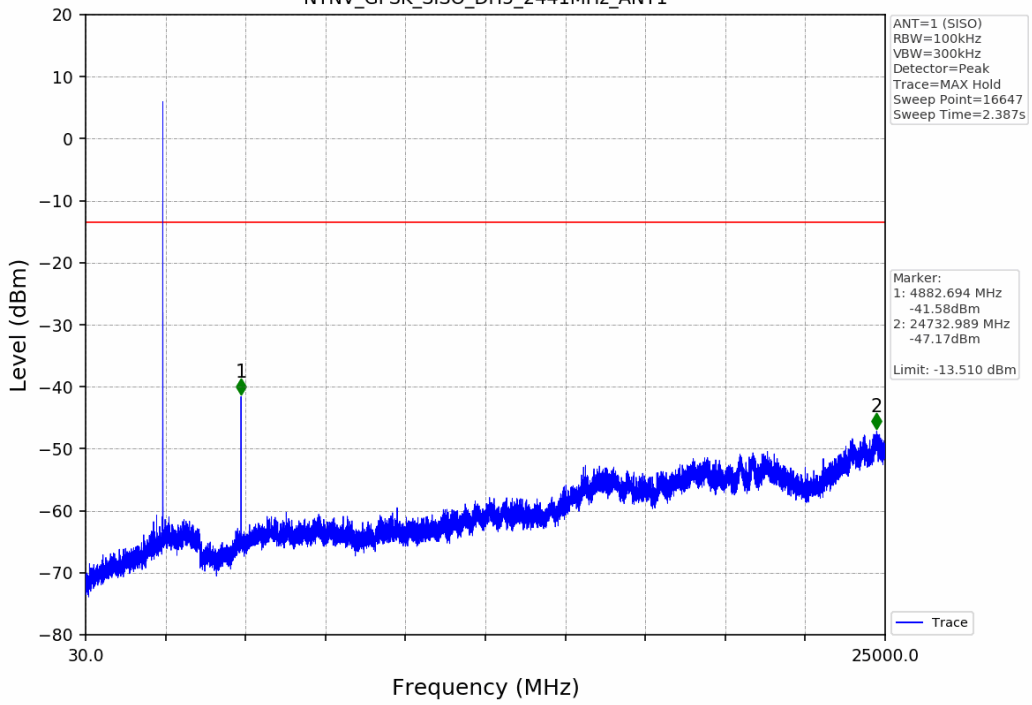
6.2 Test Graph



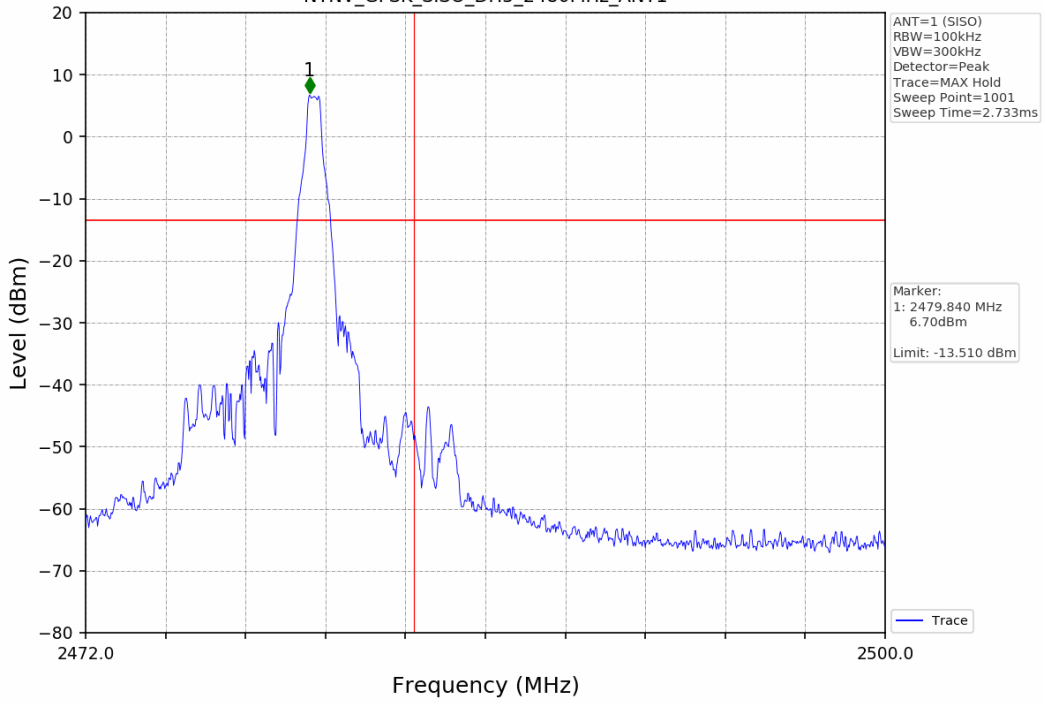
Unwanted Emissions in Non-restricted Frequency Bands
NTNV_GFSK_SISO_DH5_2402MHz_ANT1



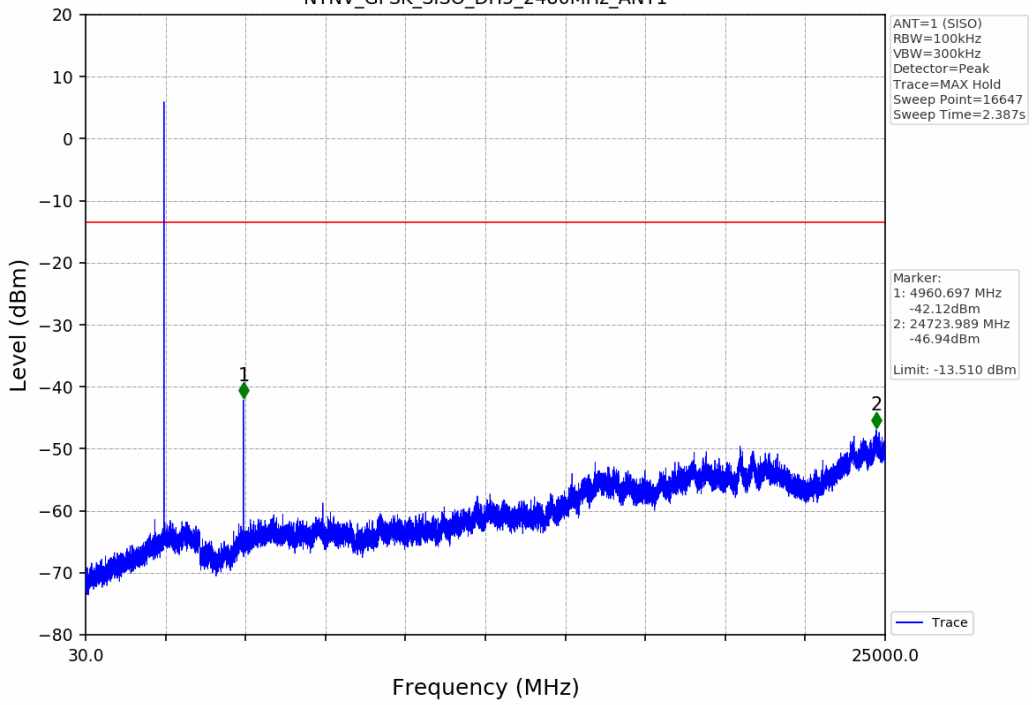
Unwanted Emissions in Non-restricted Frequency Bands
NTNV_GFSK_SISO_DH5_2441MHz_ANT1



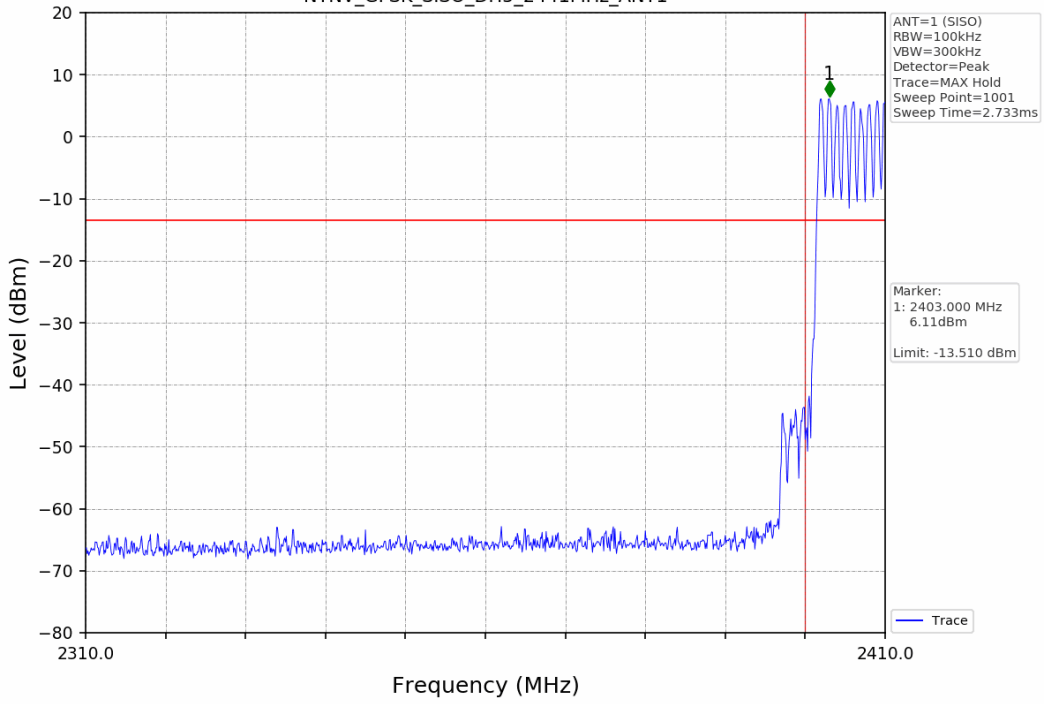
Unwanted Emissions in Non-restricted Frequency Bands
NTNV_GFSK_SISO_DH5_2480MHz_ANT1



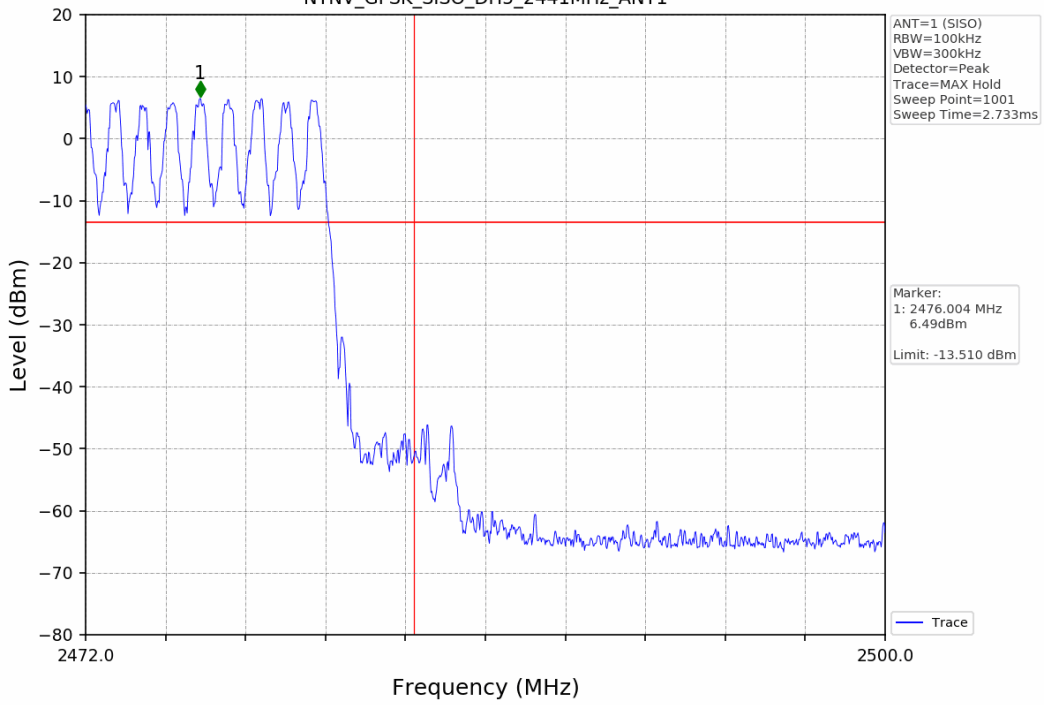
Unwanted Emissions in Non-restricted Frequency Bands
NTNV_GFSK_SISO_DH5_2480MHz_ANT1



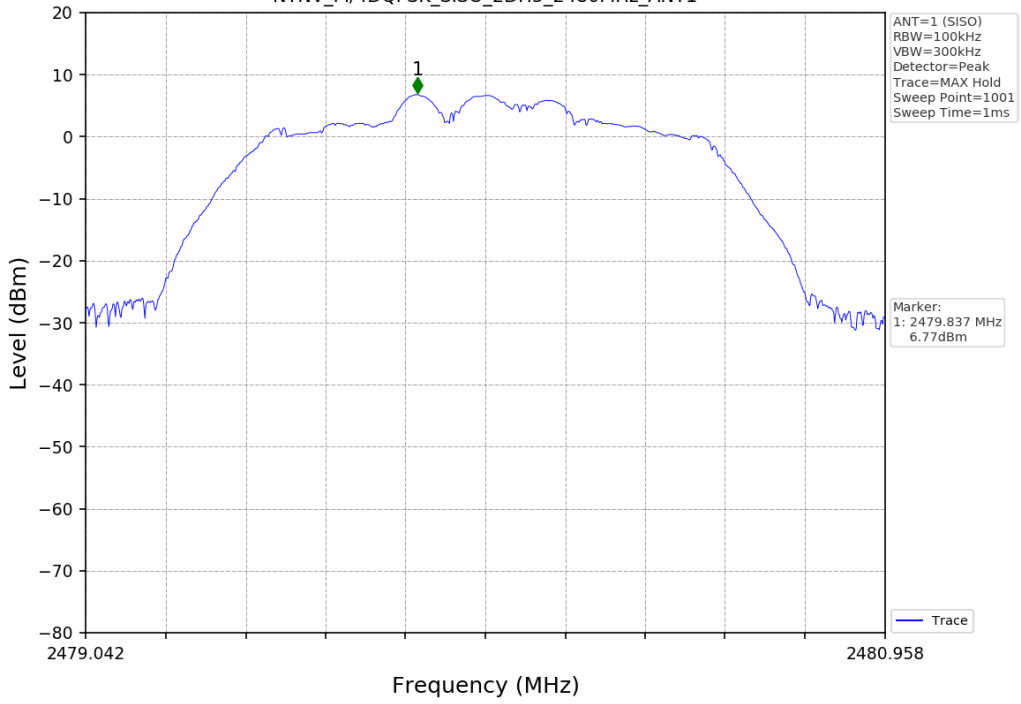
Unwanted Emissions in Non-restricted Frequency Bands
NTNV_GFSK_SISO_DH5_2441MHz_ANT1



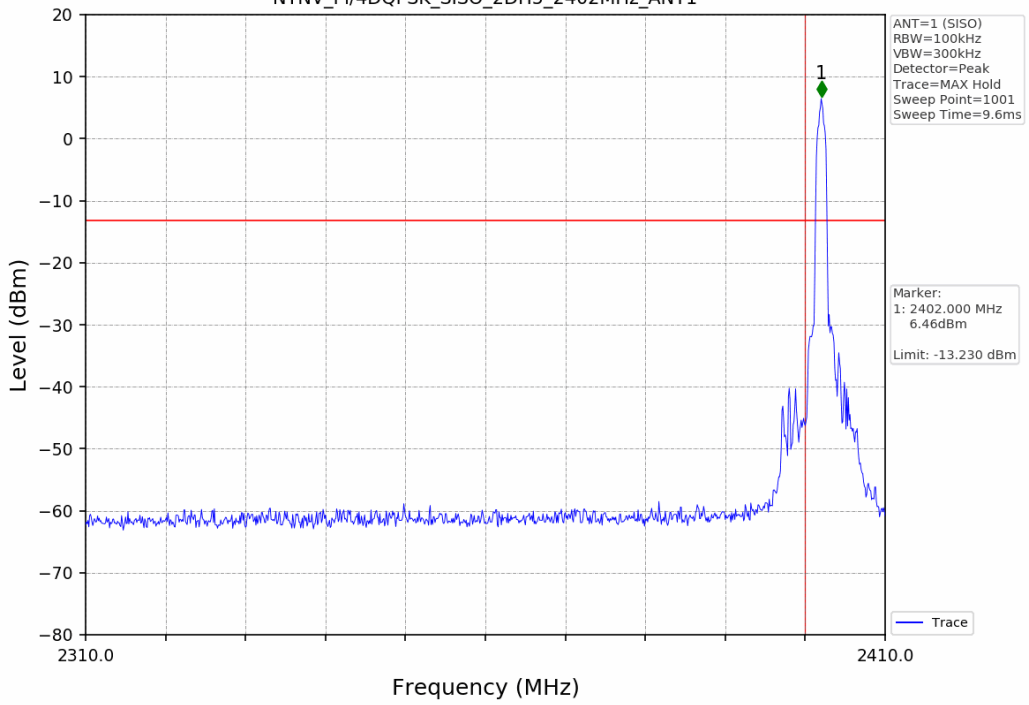
Unwanted Emissions in Non-restricted Frequency Bands
NTNV_GFSK_SISO_DH5_2441MHz_ANT1



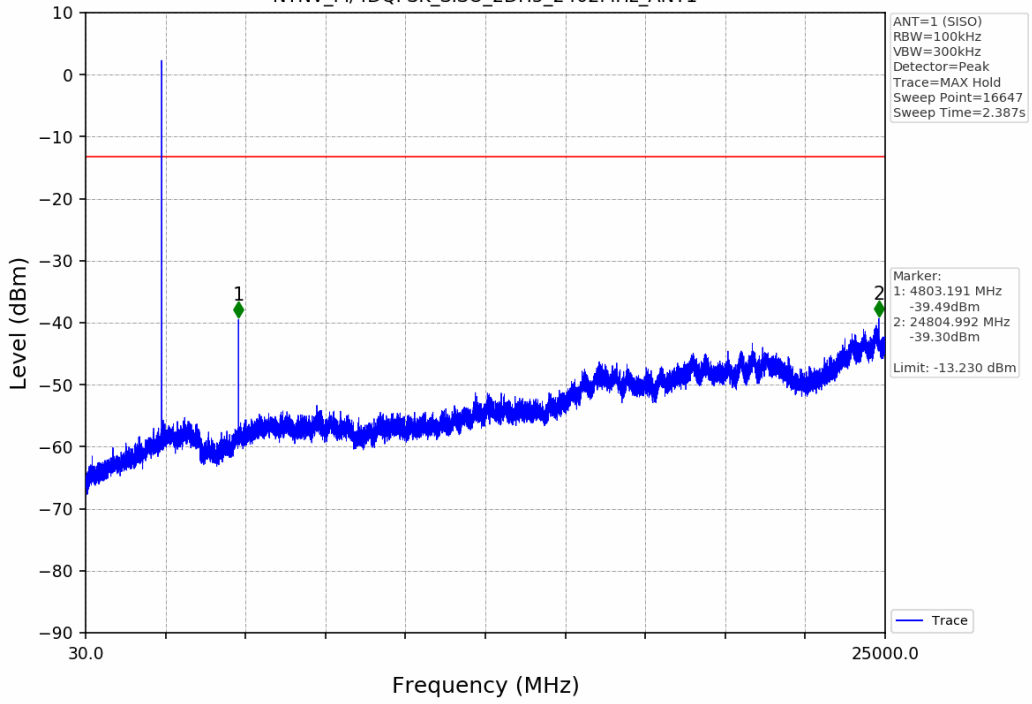
Unwanted Emissions in Non-restricted Frequency Bands
NTNV_Pi/4DQPSK_SISO_2DH5_2480MHz_ANT1



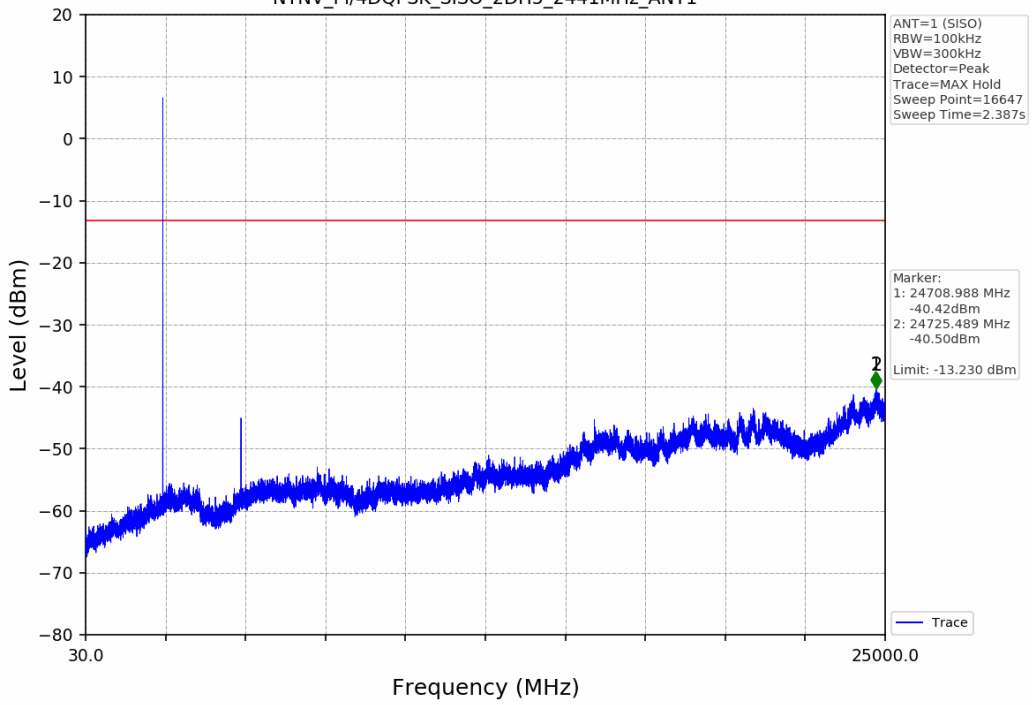
Unwanted Emissions in Non-restricted Frequency Bands
NTNV_Pi/4DQPSK_SISO_2DH5_2402MHz_ANT1



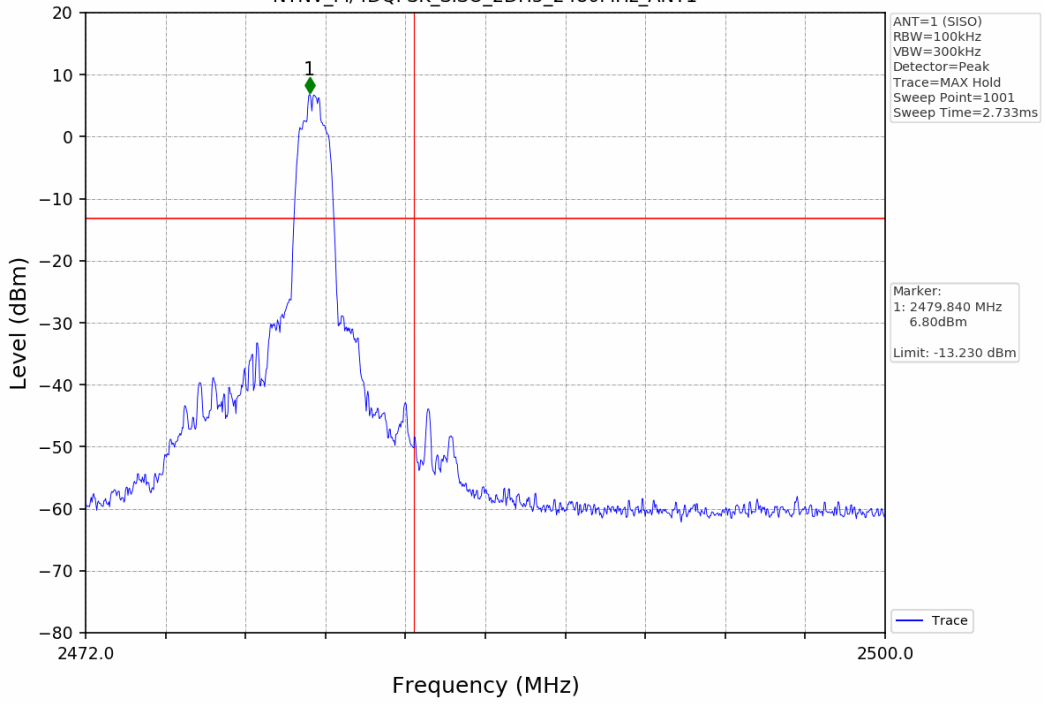
Unwanted Emissions in Non-restricted Frequency Bands
NTNV_Pi/4DQPSK_SISO_2DH5_2402MHz_ANT1



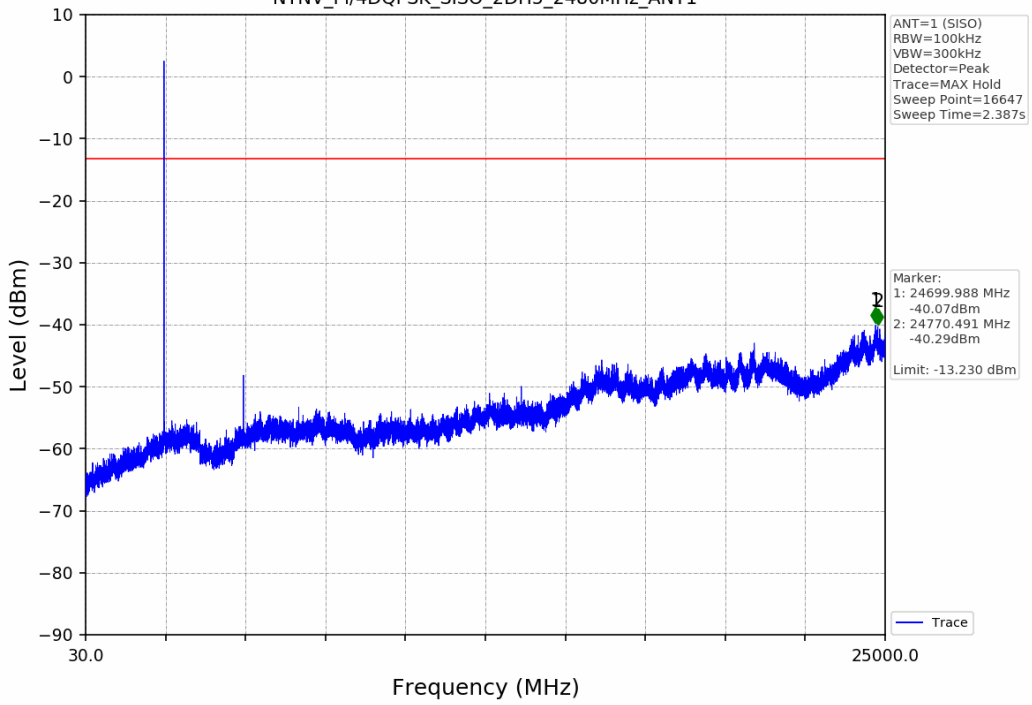
Unwanted Emissions in Non-restricted Frequency Bands
NTNV_Pi/4DQPSK_SISO_2DH5_2441MHz_ANT1



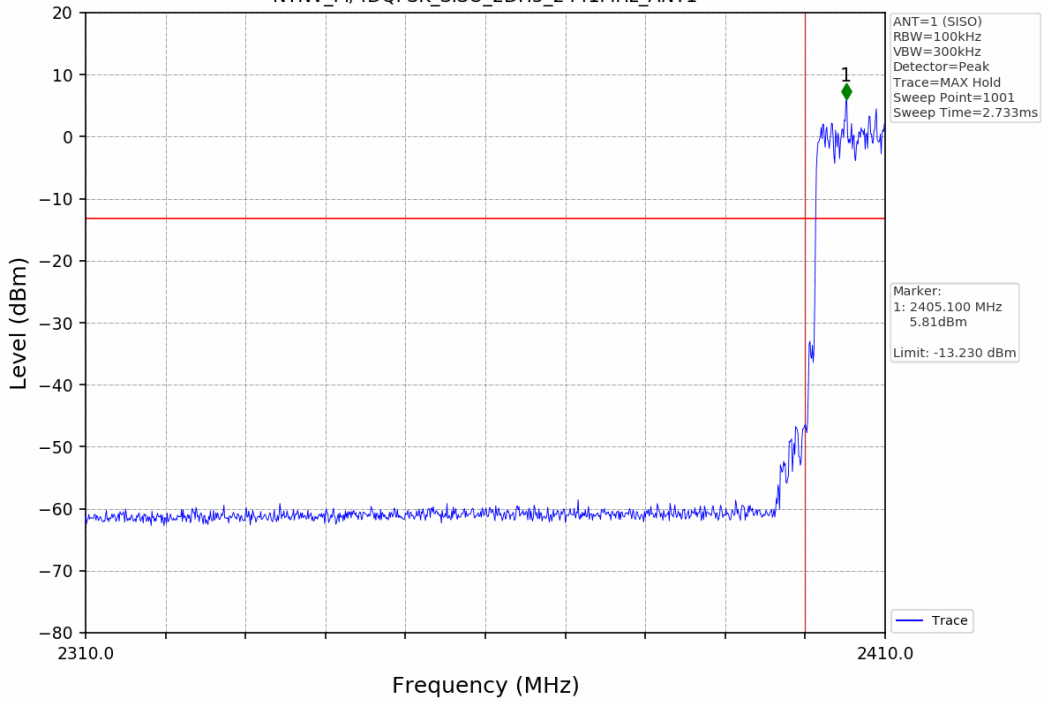
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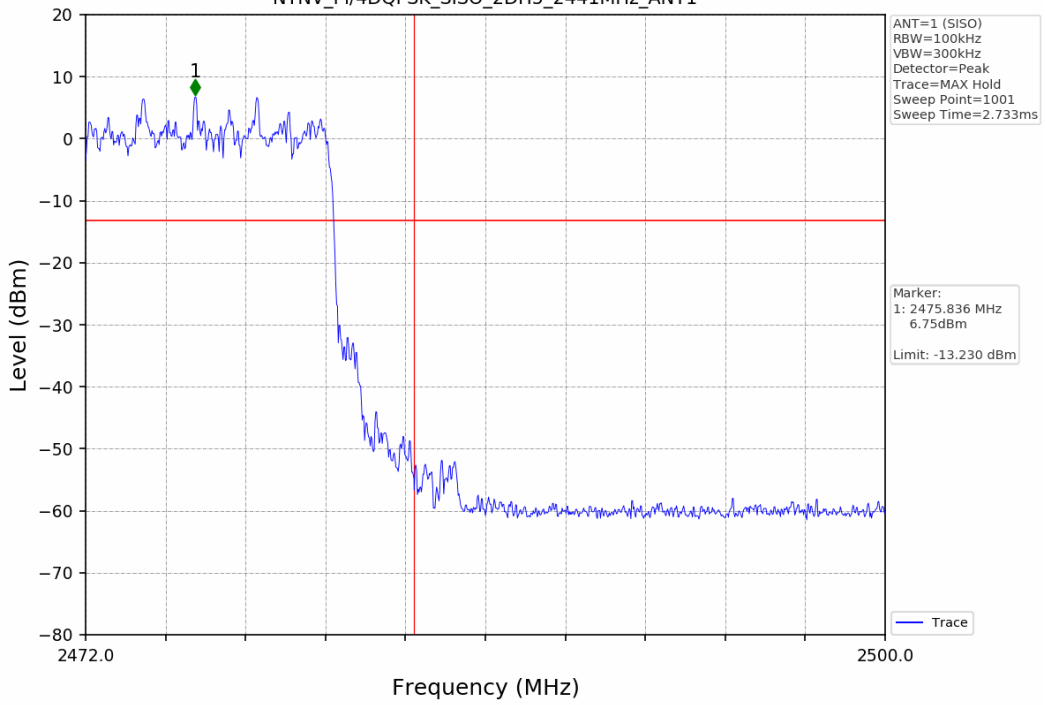
Unwanted Emissions in Non-restricted Frequency Bands
NTNV_Pi/4DQPSK_SISO_2DH5_2480MHz_ANT1



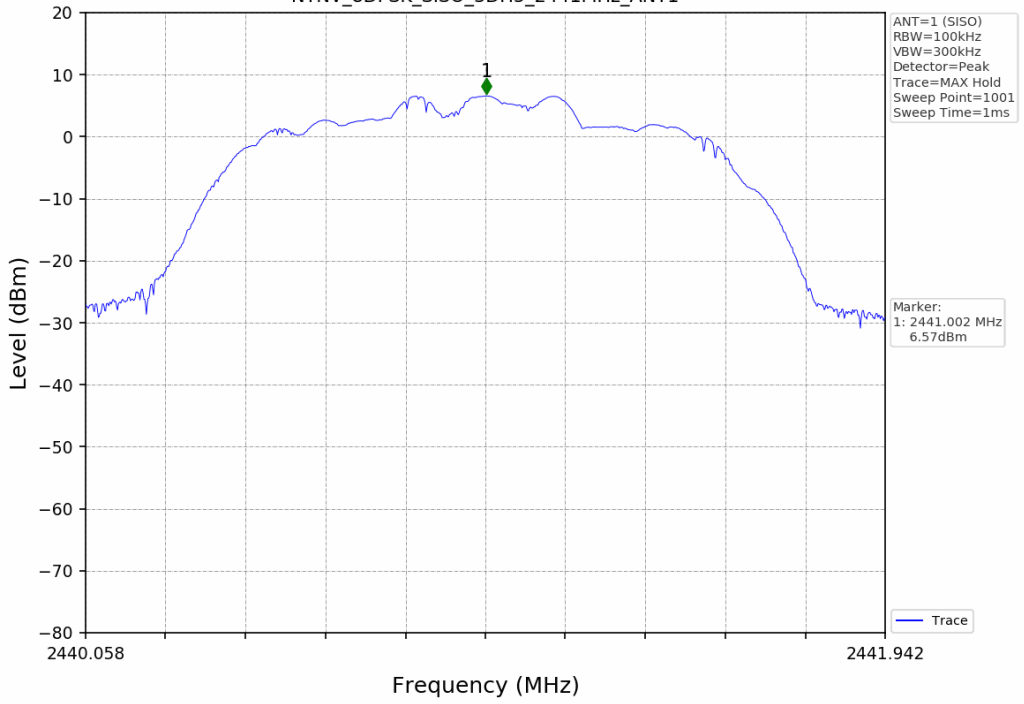
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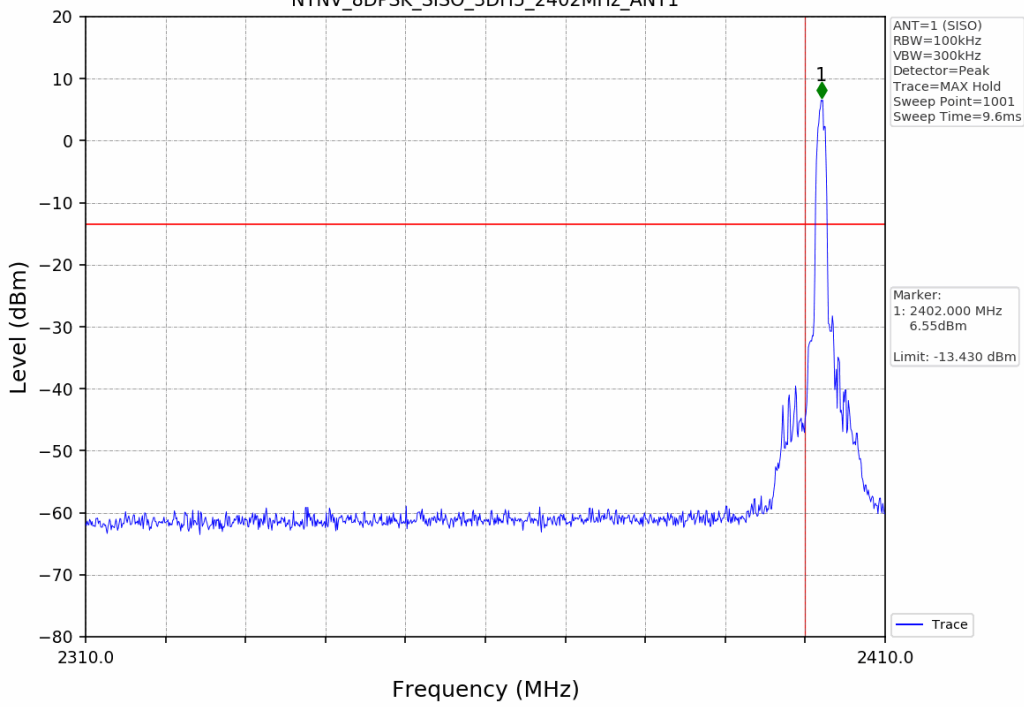
Unwanted Emissions in Non-restricted Frequency Bands
NTNV_Pi/4DQPSK_SISO_2DH5_2441MHz_ANT1



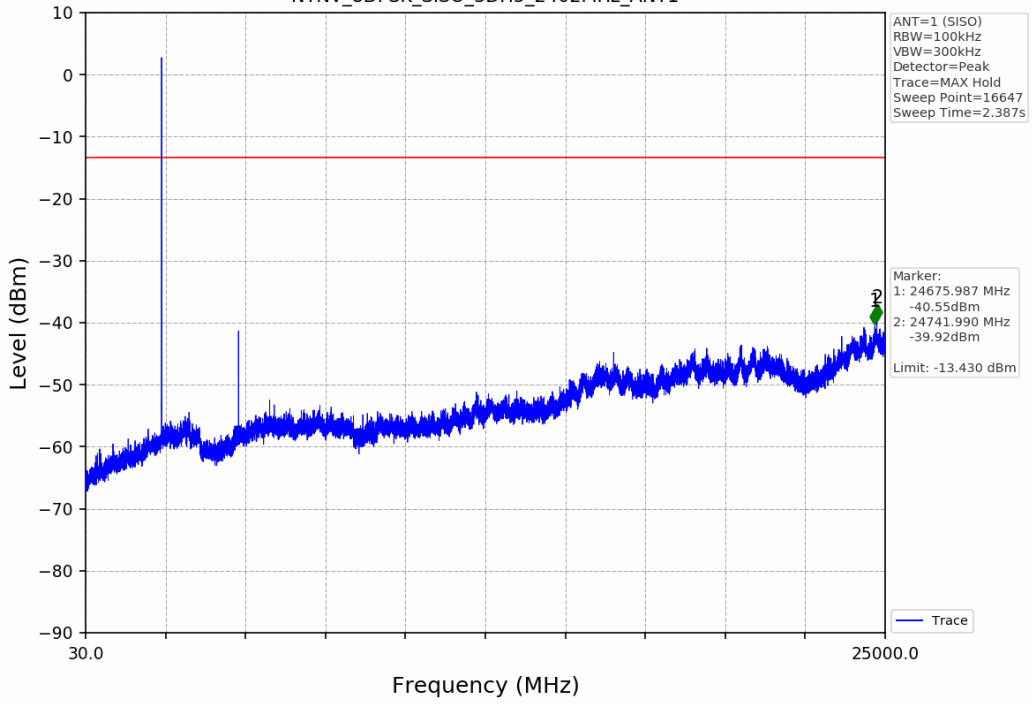
Unwanted Emissions in Non-restricted Frequency Bands
NTNV_8DPSK_SISO_3DH5_2441MHz_ANT1



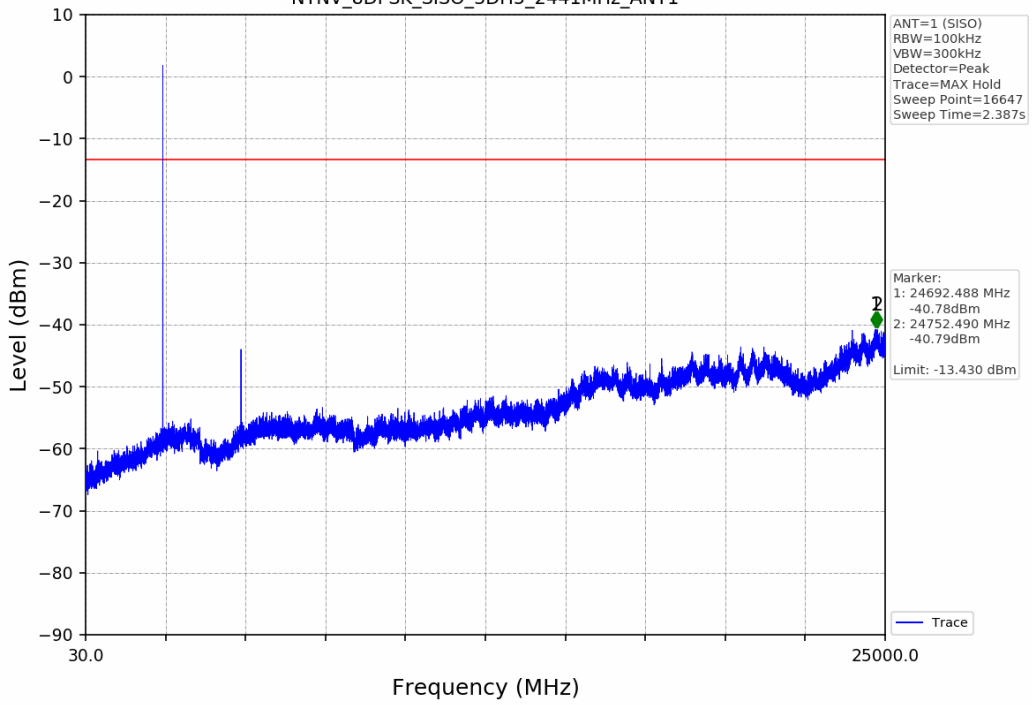
Unwanted Emissions in Non-restricted Frequency Bands
NTNV_8DPSK_SISO_3DH5_2402MHz_ANT1



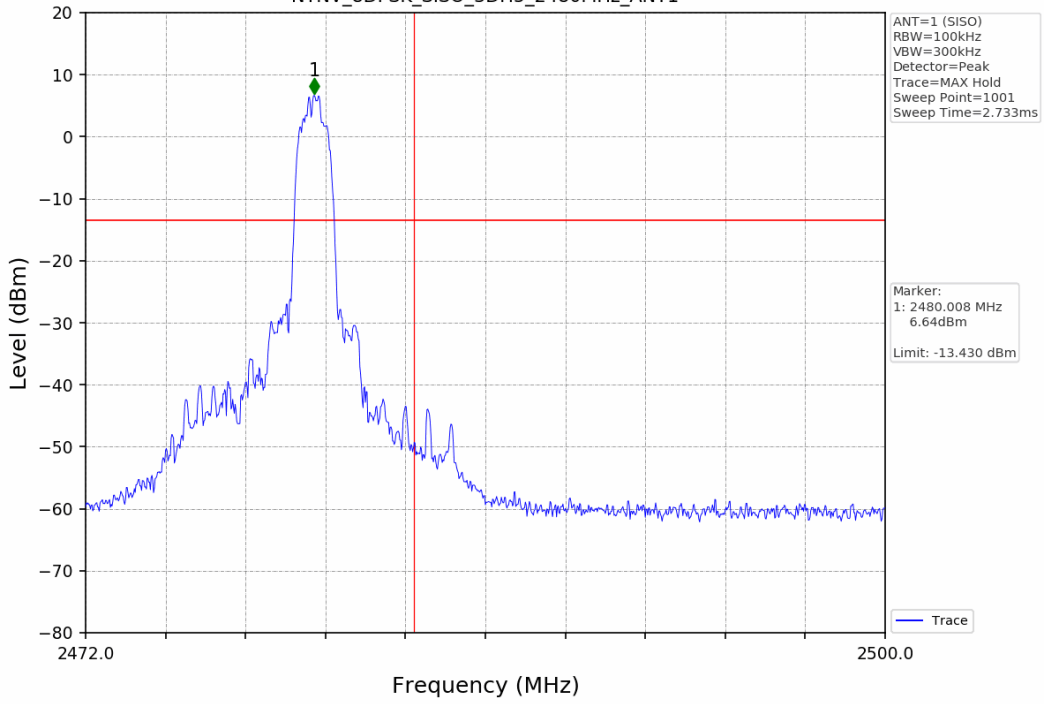
Unwanted Emissions in Non-restricted Frequency Bands
NTNV_8DPSK_SISO_3DH5_2402MHz_ANT1



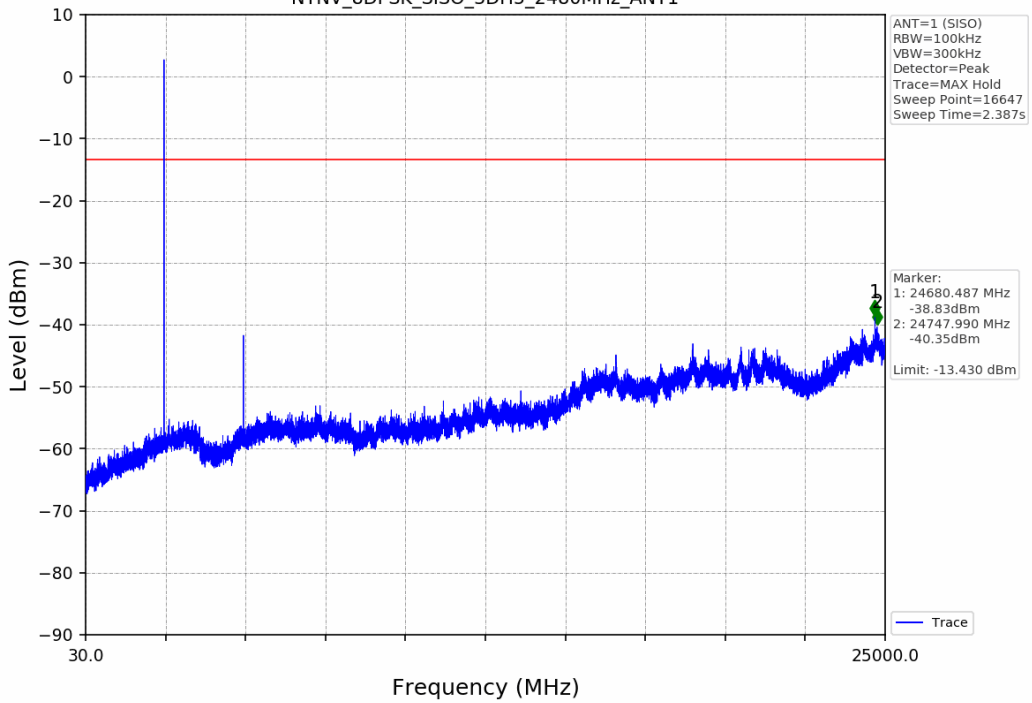
Unwanted Emissions in Non-restricted Frequency Bands
NTNV_8DPSK_SISO_3DH5_2441MHz_ANT1



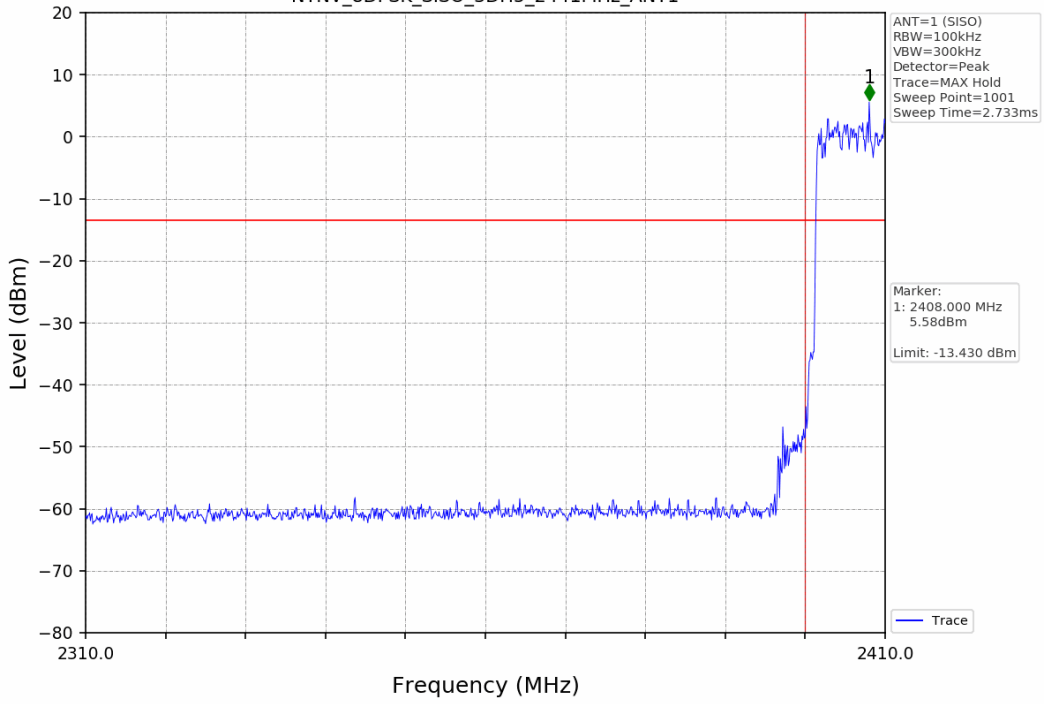
Unwanted Emissions in Non-restricted Frequency Bands
NTNV_8DPSK_SISO_3DH5_2480MHz_ANT1



Unwanted Emissions in Non-restricted Frequency Bands
NTNV_8DPSK_SISO_3DH5_2480MHz_ANT1



Unwanted Emissions in Non-restricted Frequency Bands
NTNV_8DPSK_SISO_3DH5_2441MHz_ANT1



Unwanted Emissions in Non-restricted Frequency Bands
NTNV_8DPSK_SISO_3DH5_2441MHz_ANT1

