

Appendix for 15.247

1. Bandwidth

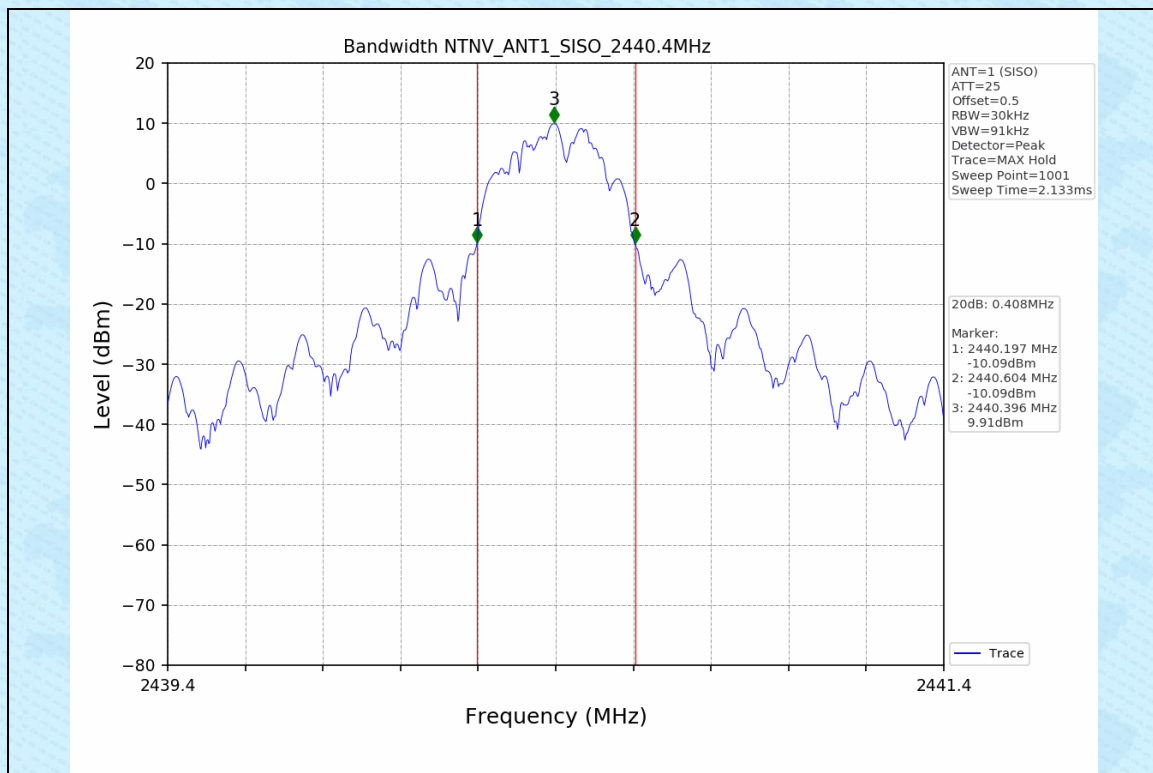
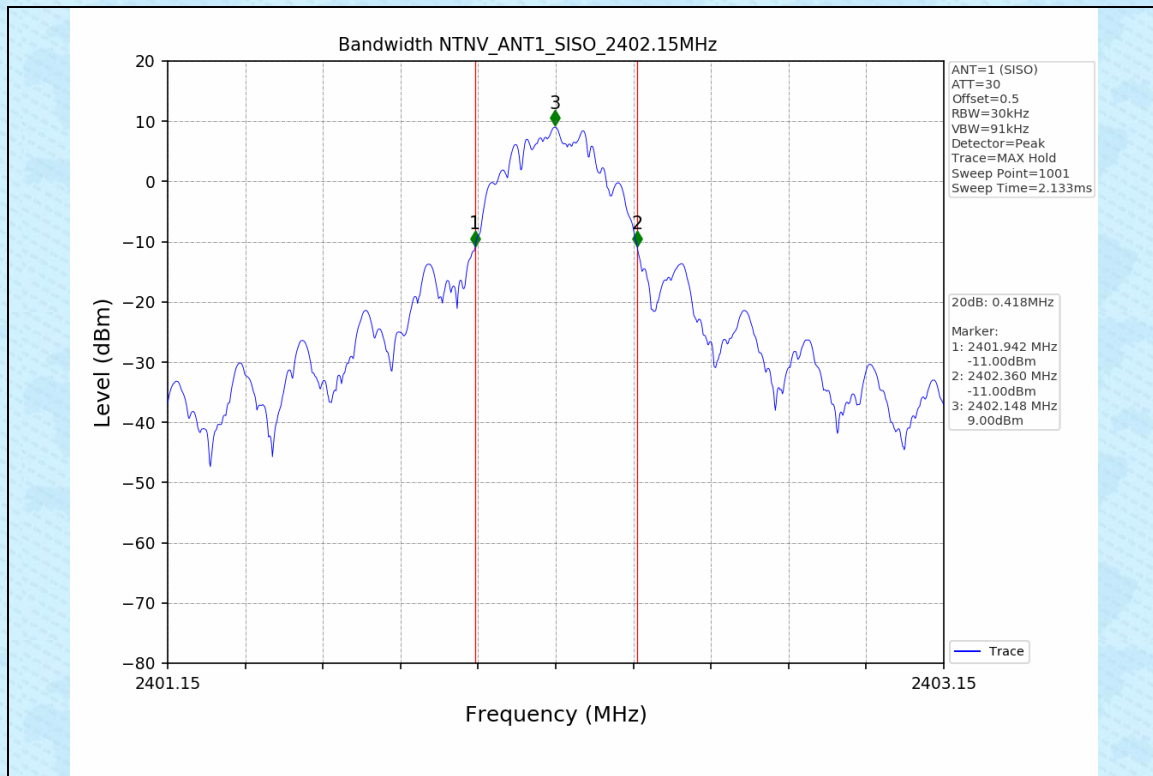
1.1 Test Result

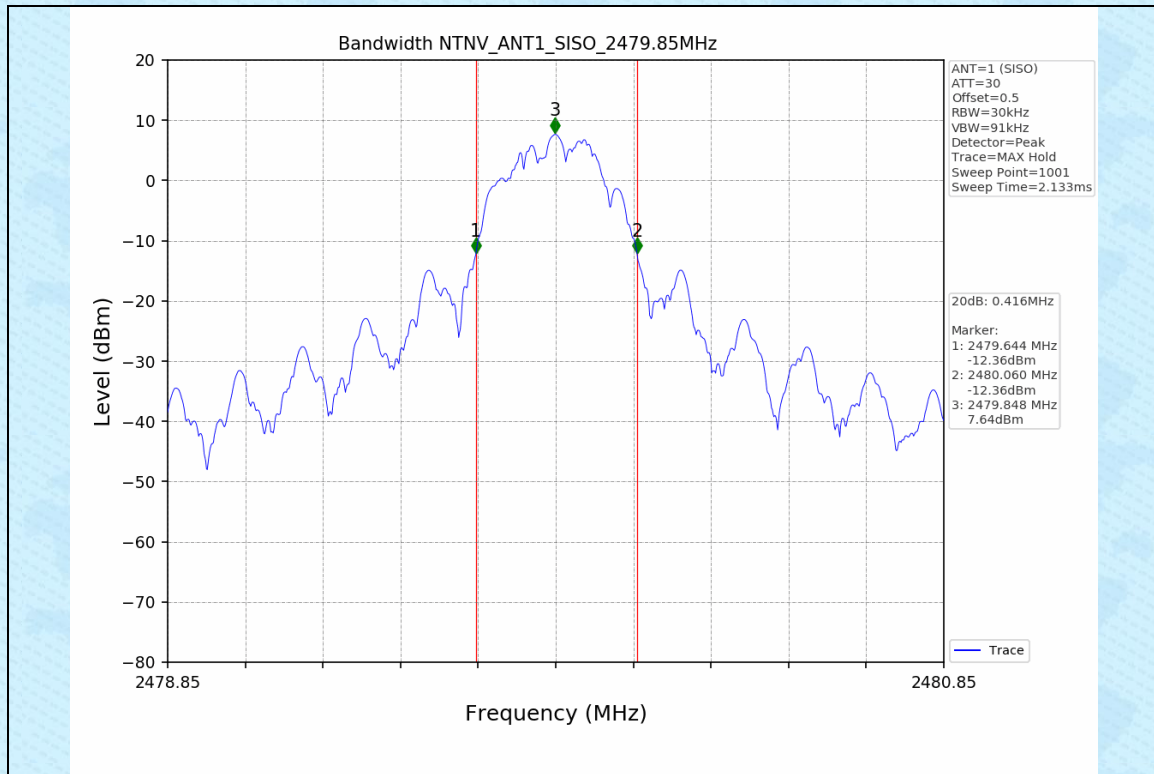
Test Mode	Frequency (MHz)	TX Type	ANT No.	20dB Bandwidth	Verdict
				Test Result (MHz)	
FHSS	2402.15	SISO	ANT1	0.418	PASS
	2440.4	SISO	ANT1	0.408	PASS
	2479.85	SISO	ANT1	0.416	PASS
	2402.15	SISO	ANT2	0.402	PASS
	2440.4	SISO	ANT2	0.404	PASS
	2479.85	SISO	ANT2	0.406	PASS

Test Mode	Frequency (MHz)	TX Type	ANT No.	99% Occupied Bandwidth	
				Test Result (MHz)	
FHSS	2402.15	SISO	1	0.392	Only for Report Use
	2440.4	SISO	1	0.400	Only for Report Use
	2479.85	SISO	1	0.401	Only for Report Use
	2402.15	SISO	1	0.398	Only for Report Use
	2440.4	SISO	1	0.389	Only for Report Use
	2479.85	SISO	1	0.394	Only for Report Use

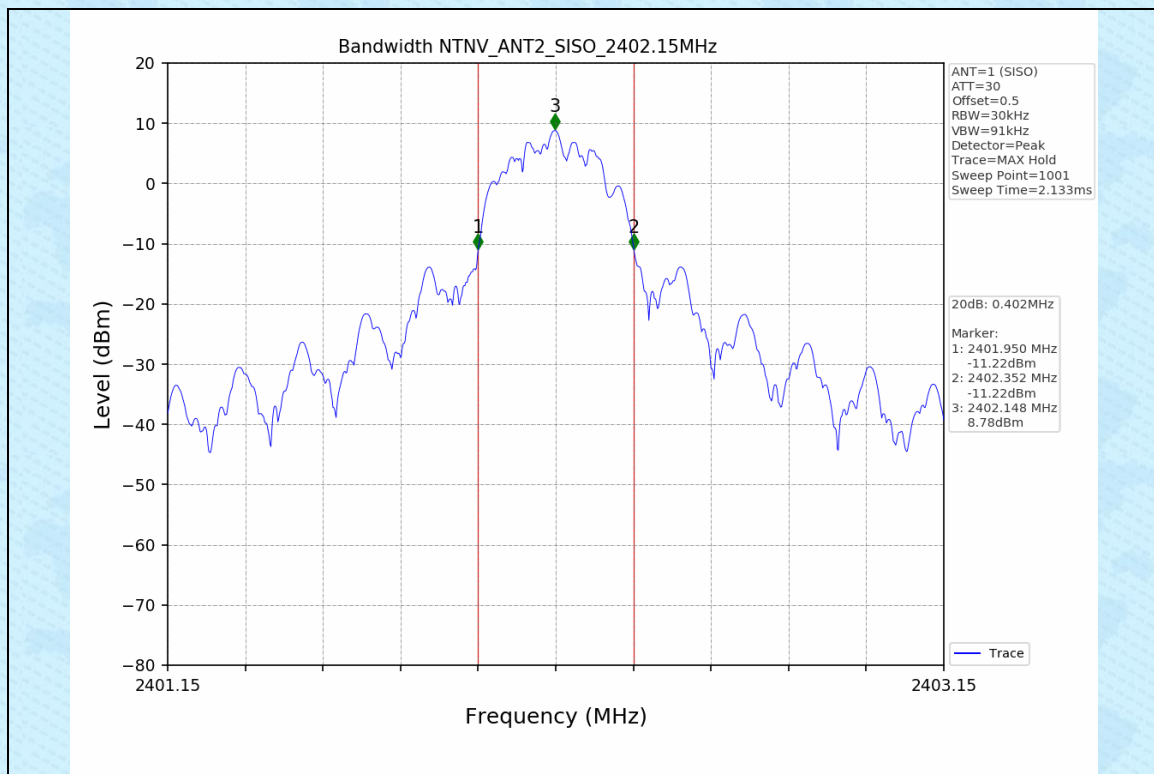
1.2 Test Graph - 20dB Bandwidth

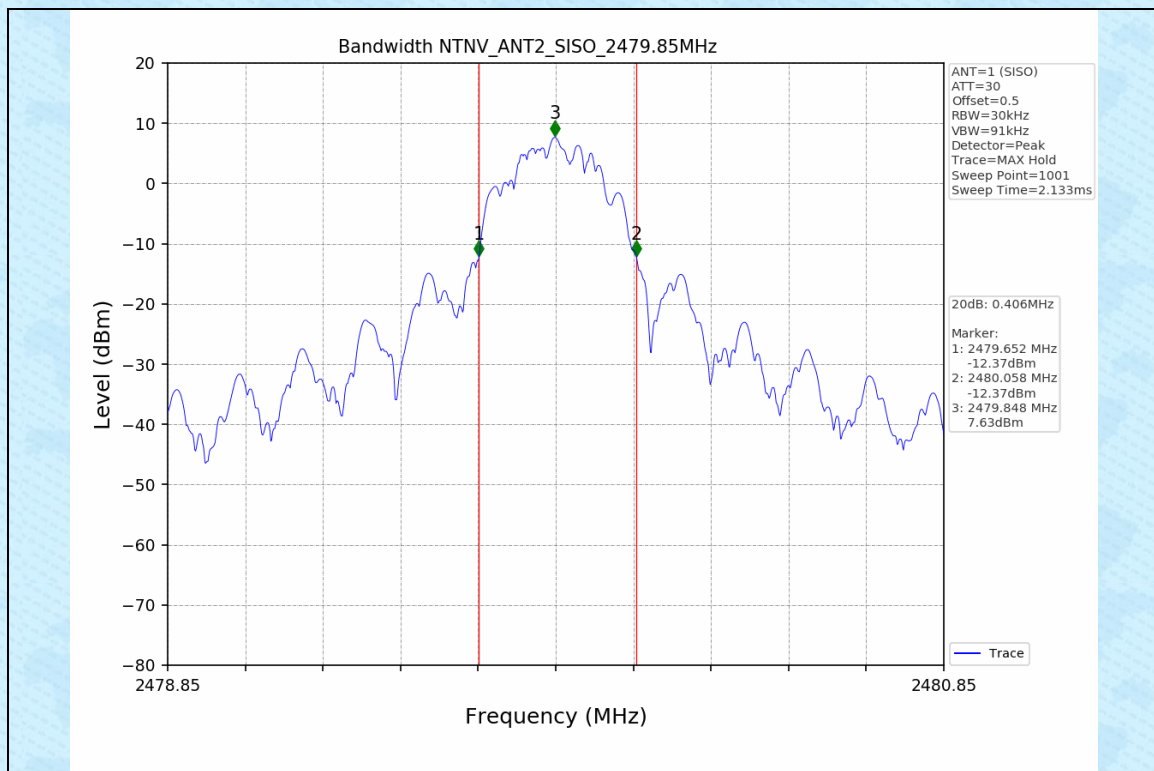
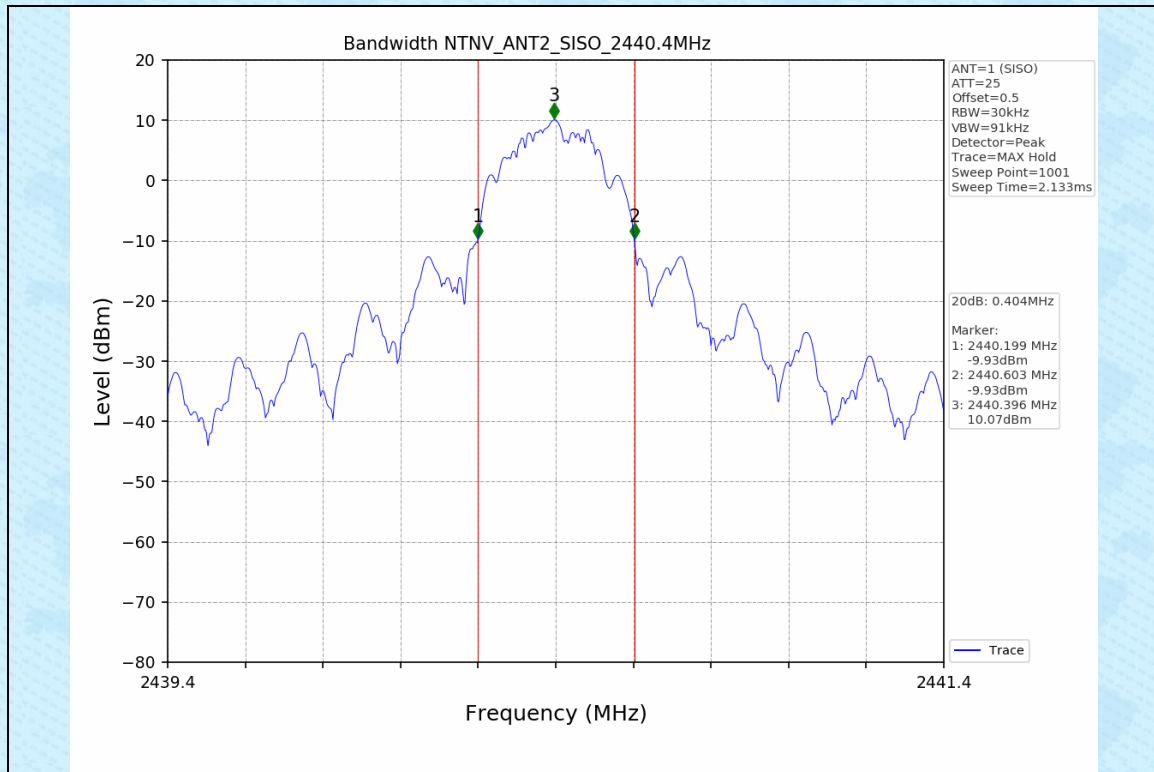
ANT 1:





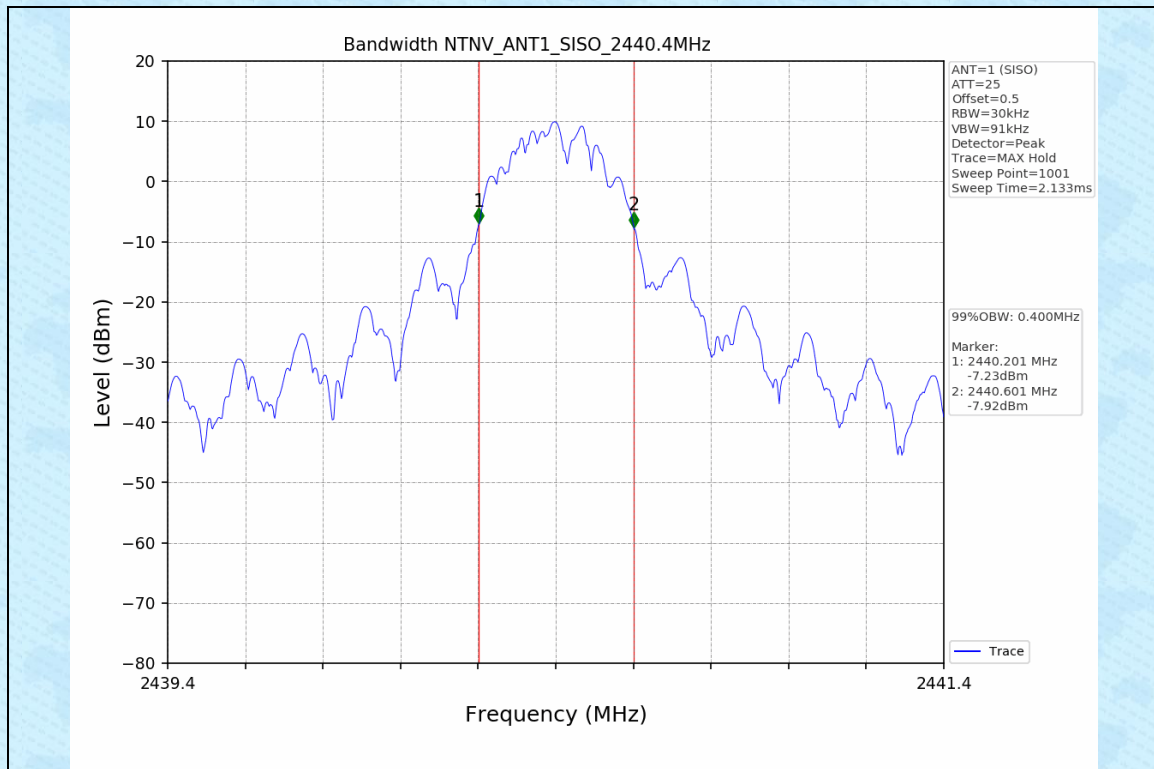
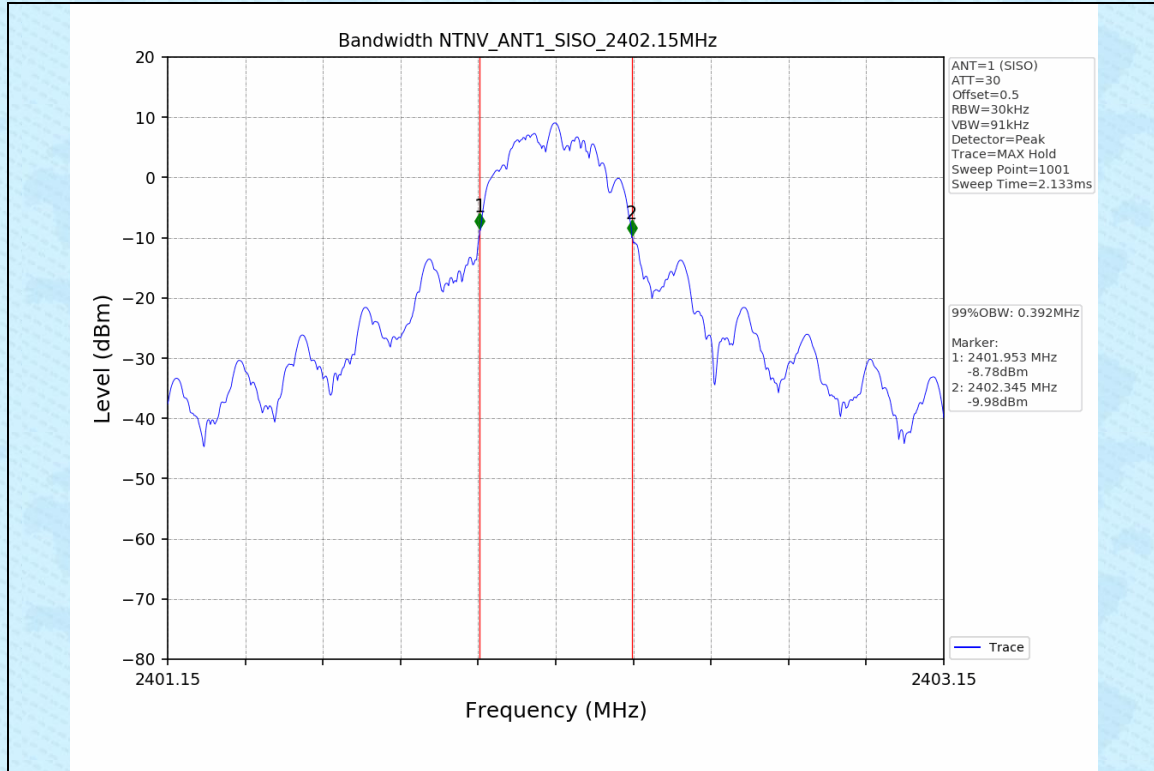
ANT 2:

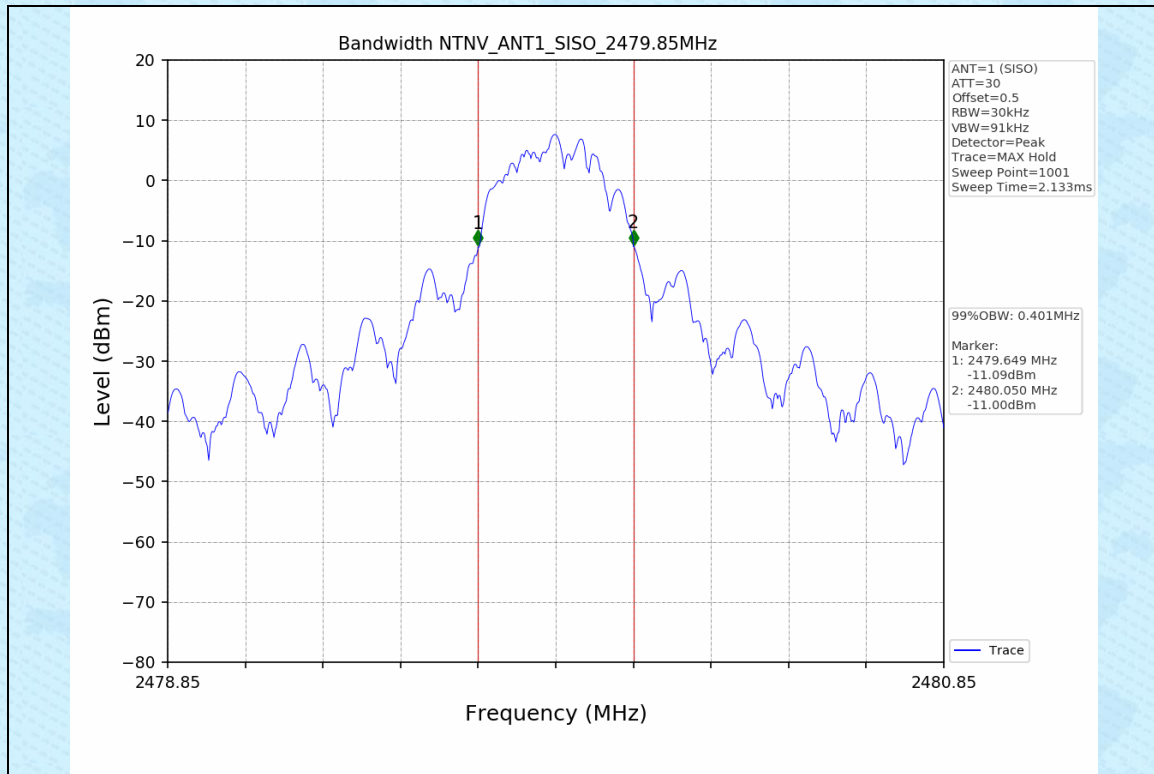




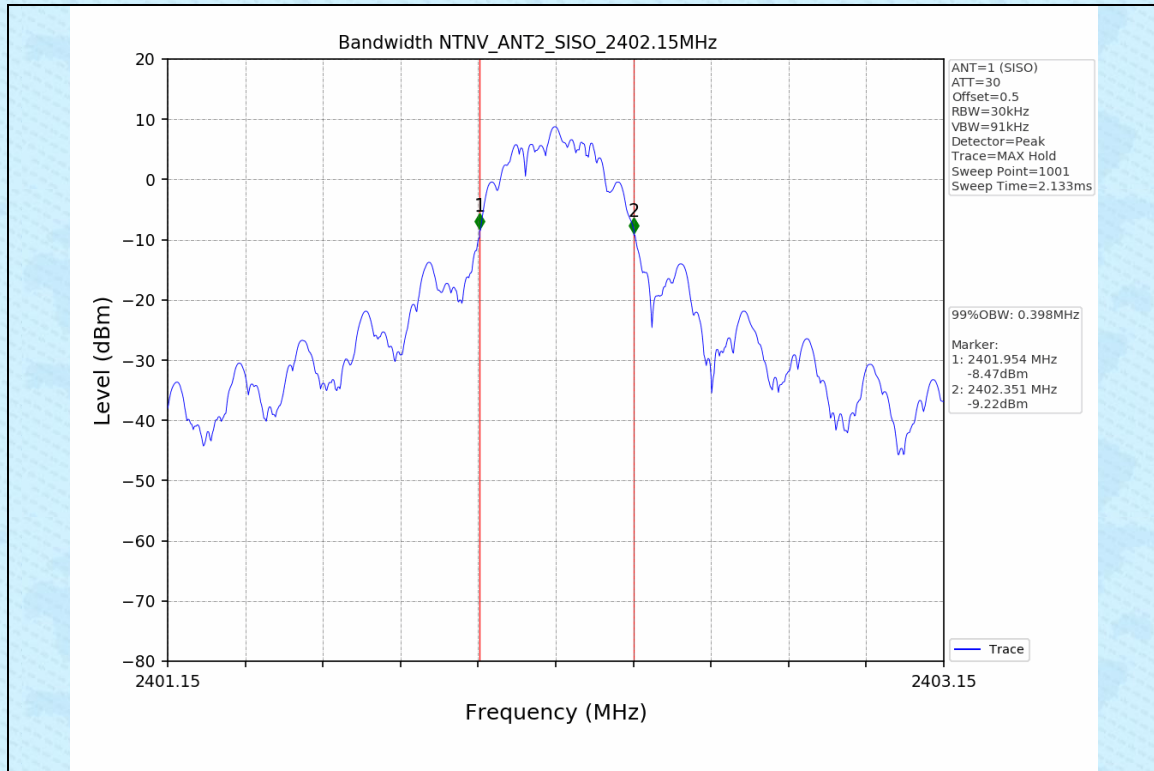
1.3 Test Graph - 99% Occupied Bandwidth

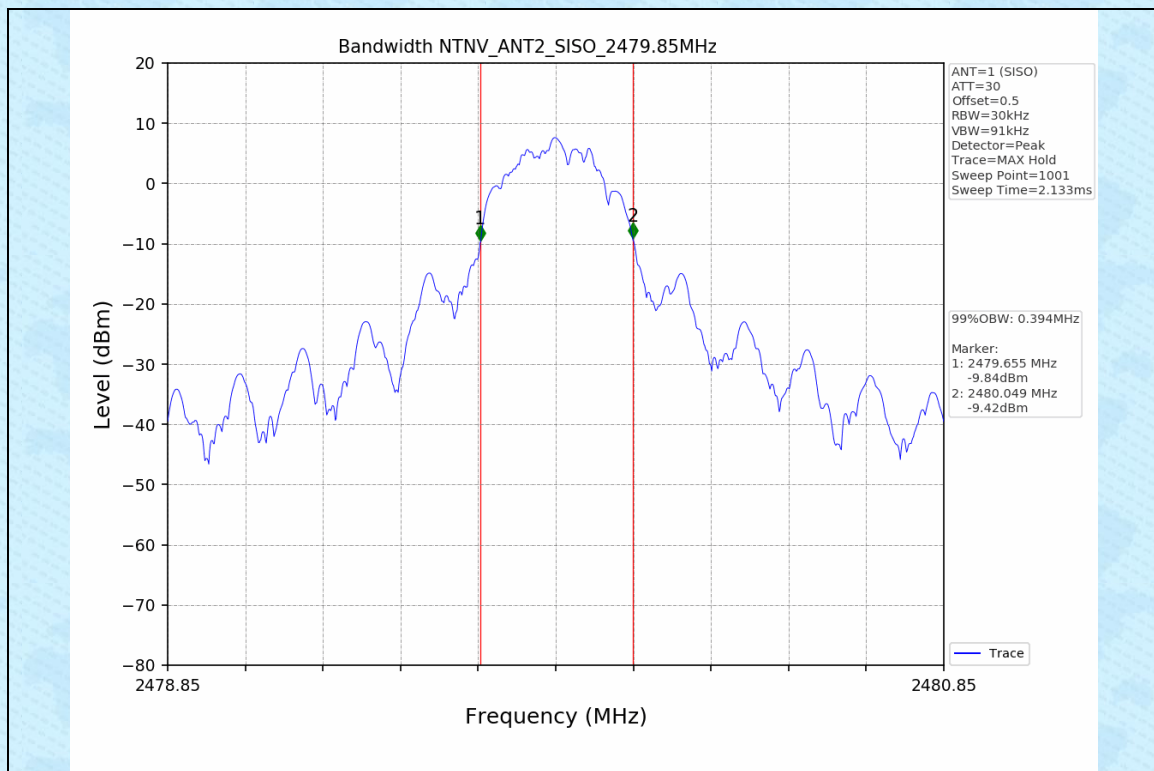
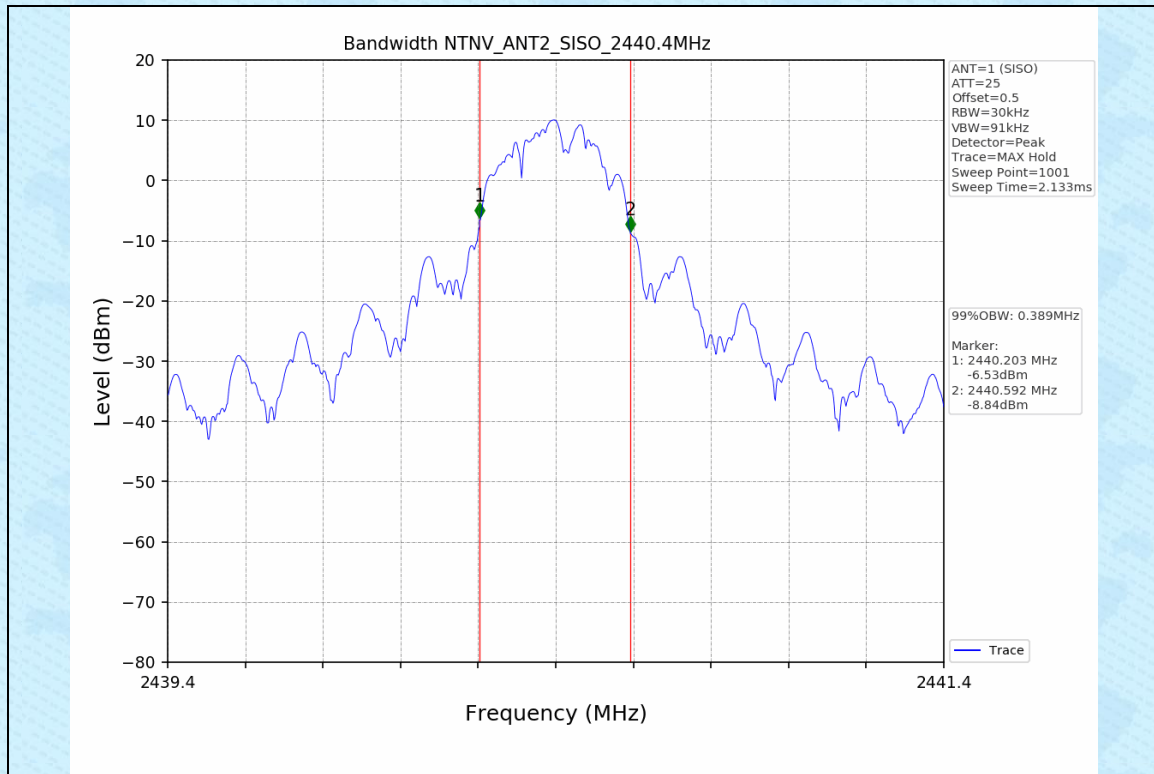
ANT 1:





ANT 2:





2. Maximum Conducted Output Power

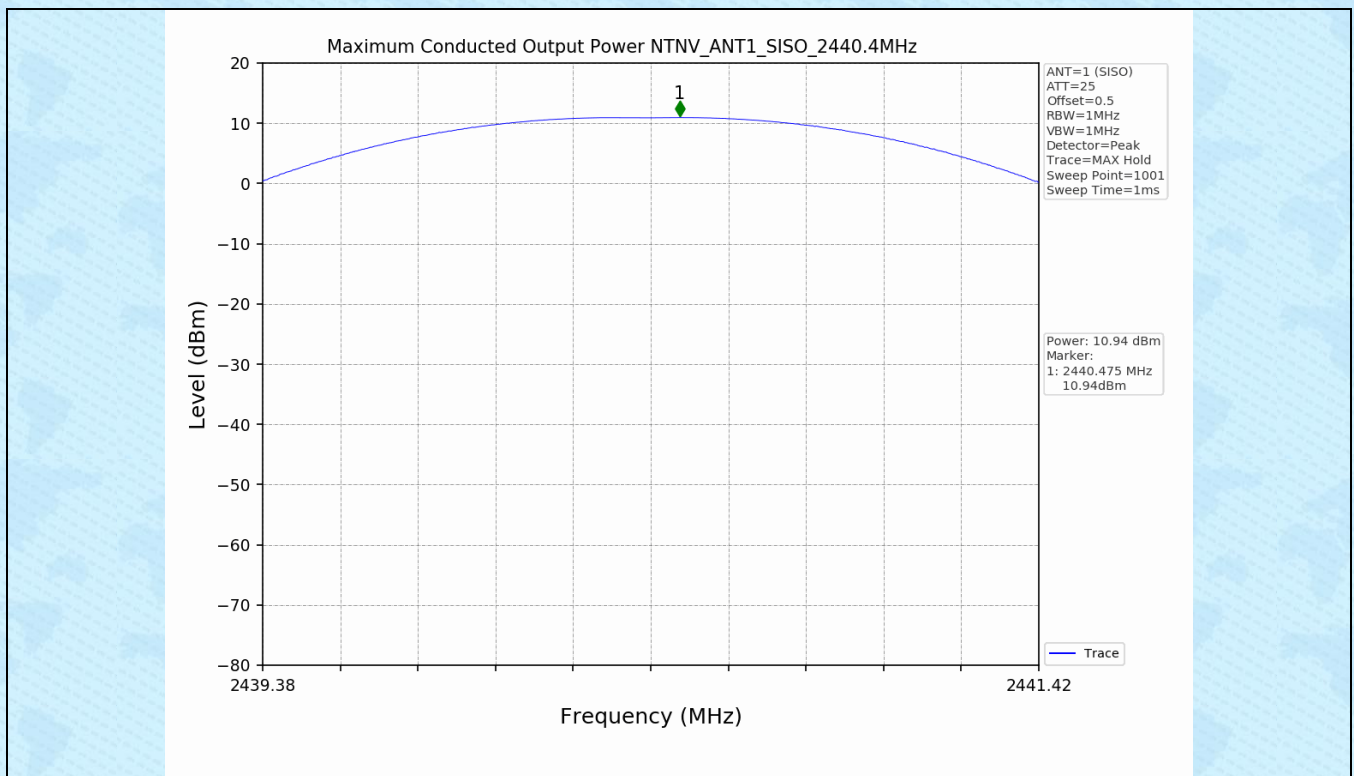
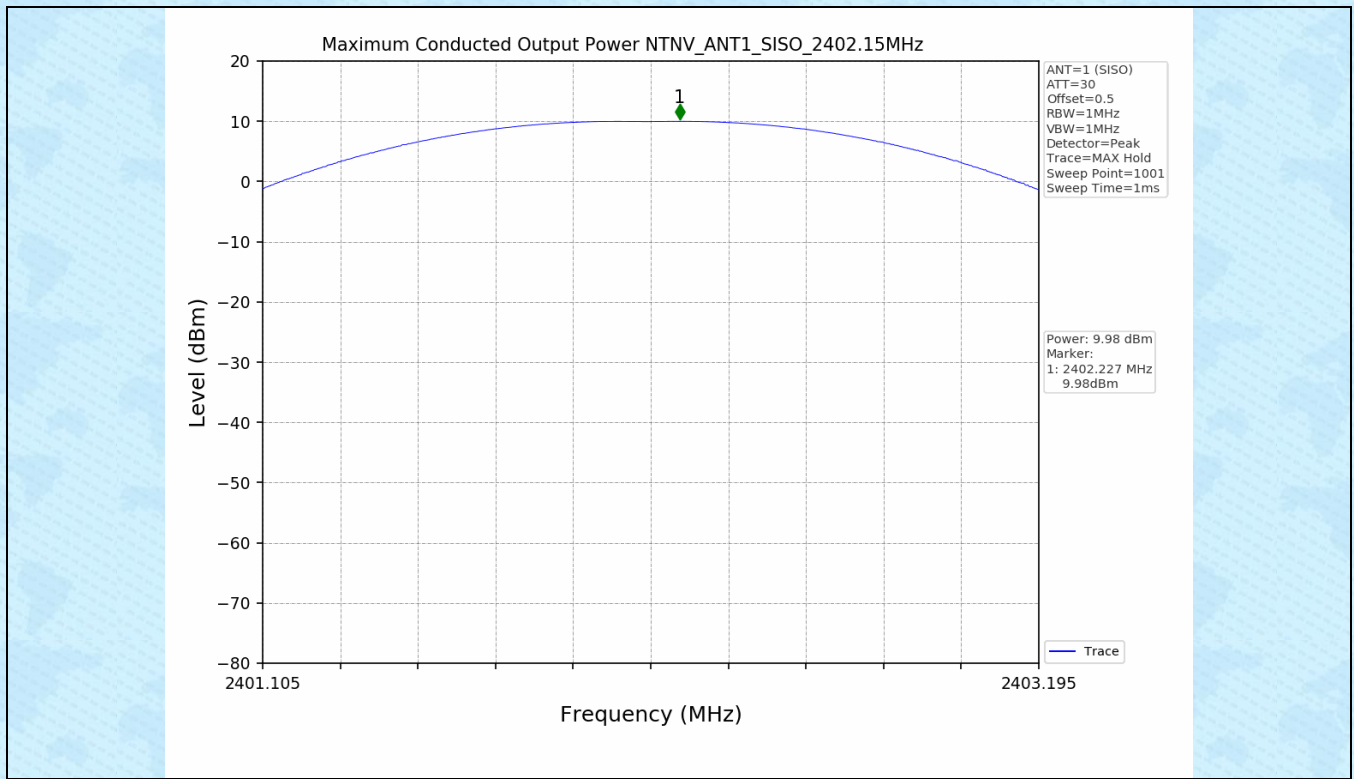
2.1 Test Result

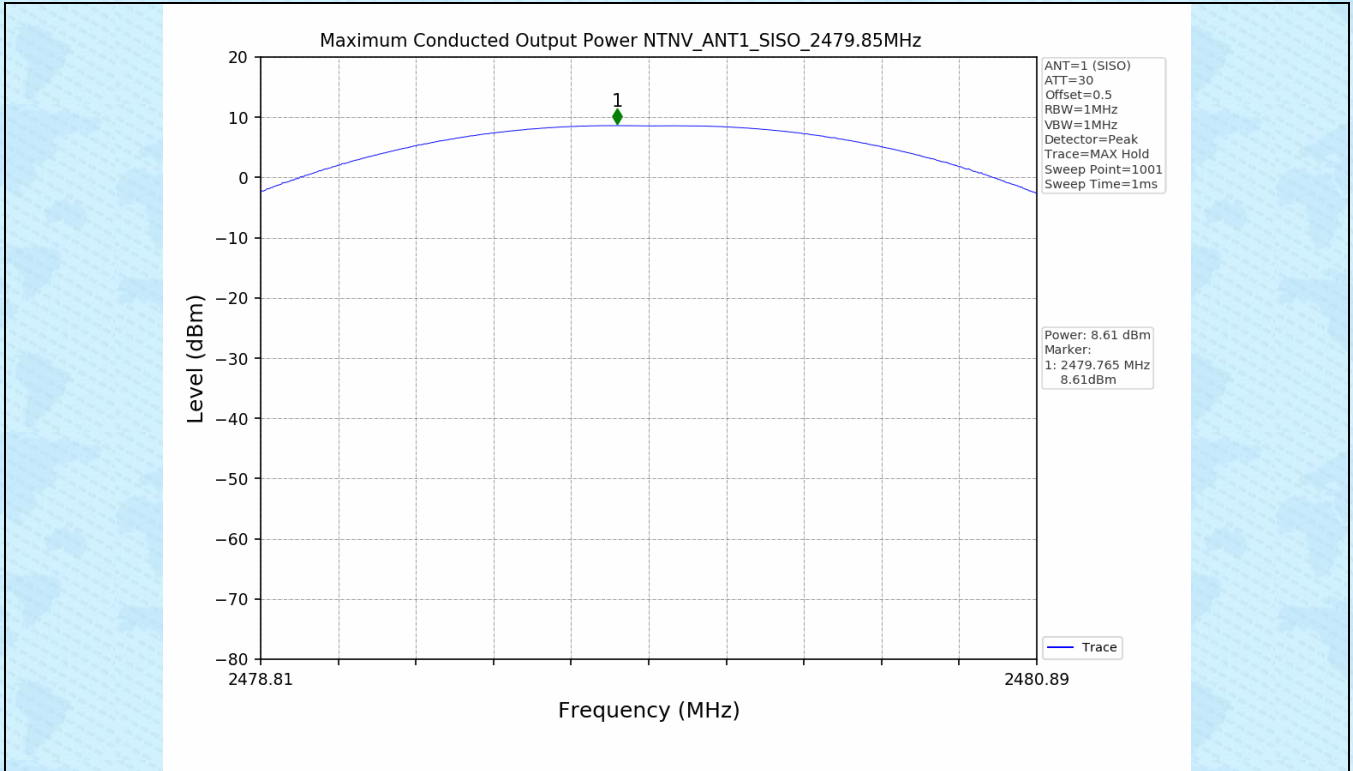
Test Mode	Frequency (MHz)	Tx Type	Measured Peak Output Power (dBm)	Limits (dBm)	Verdict
			Ant 1		
GMSK	2402.15	SISO	9.98	20.97	PASS
	2440.4	SISO	10.94	20.97	PASS
	2479.85	SISO	8.61	20.97	PASS

Test Mode	Frequency (MHz)	Tx Type	Measured Peak Output Power (dBm)	Limits (dBm)	Verdict
			Ant 2		
GMSK	2402.15	SISO	9.75	20.97	PASS
	2440.4	SISO	11.07	20.97	PASS
	2479.85	SISO	8.59	20.97	PASS

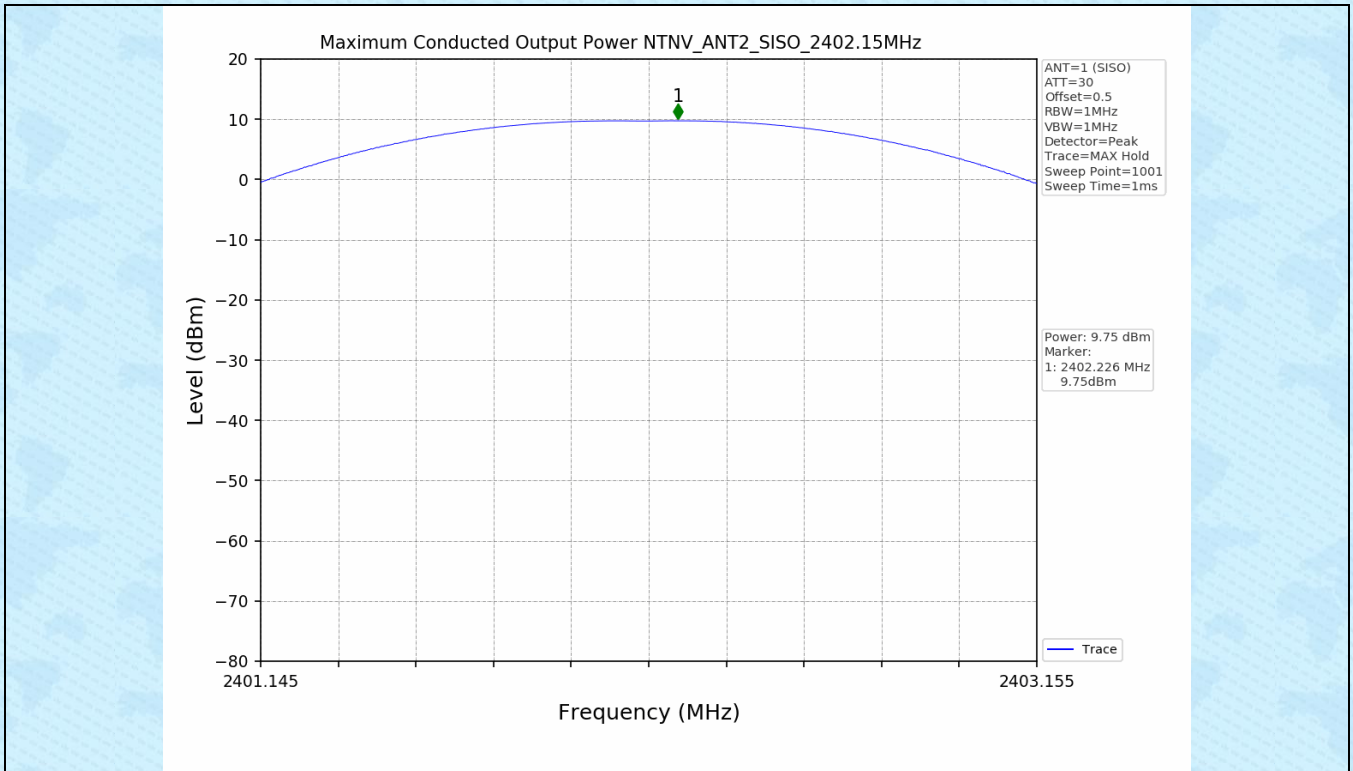
2.2 Test Graph

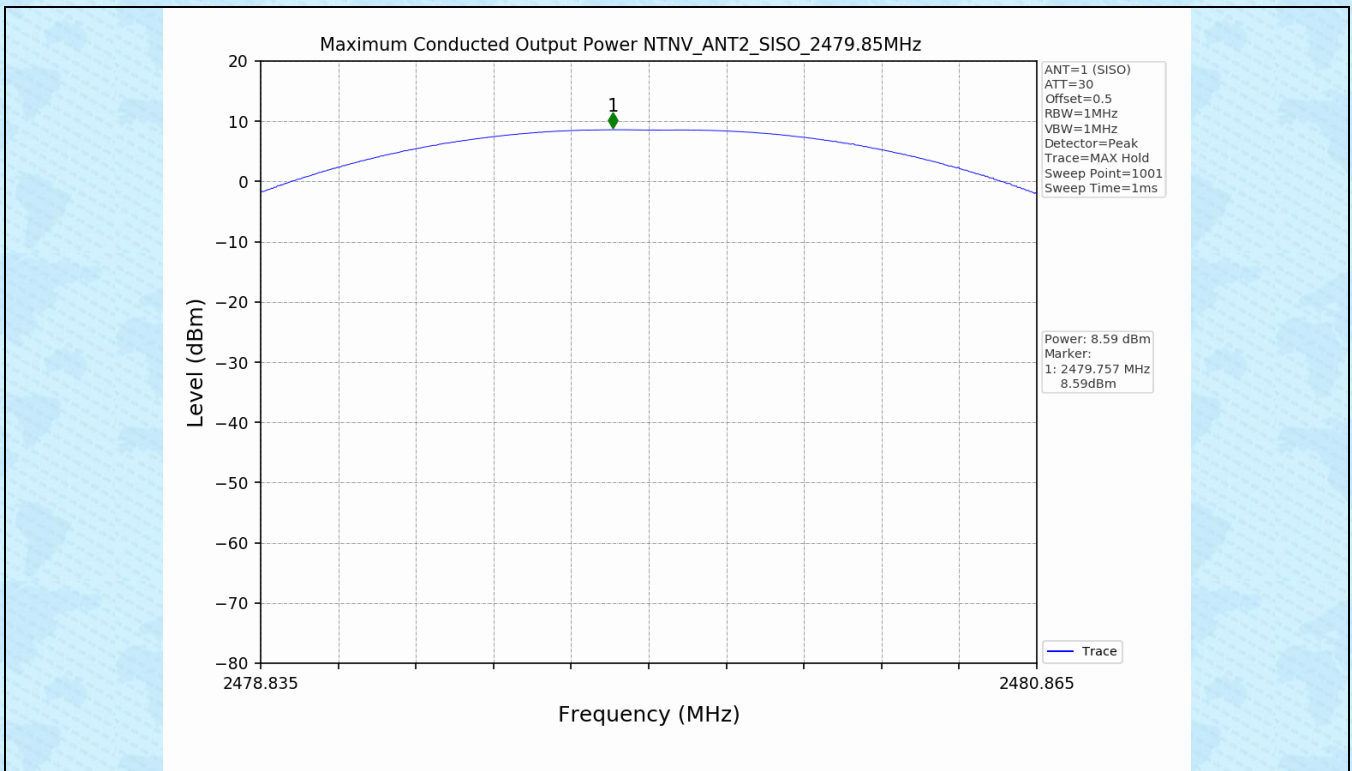
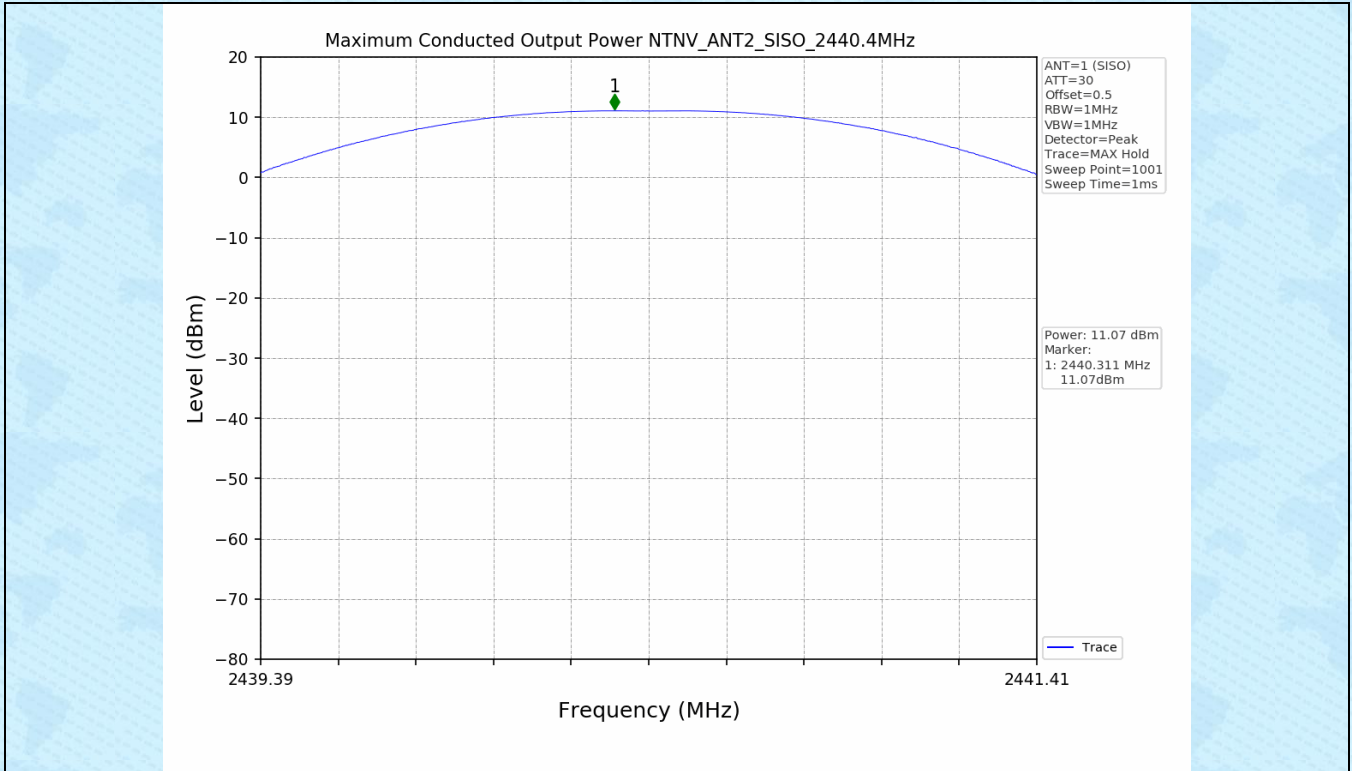
ANT 1:





ANT 2:





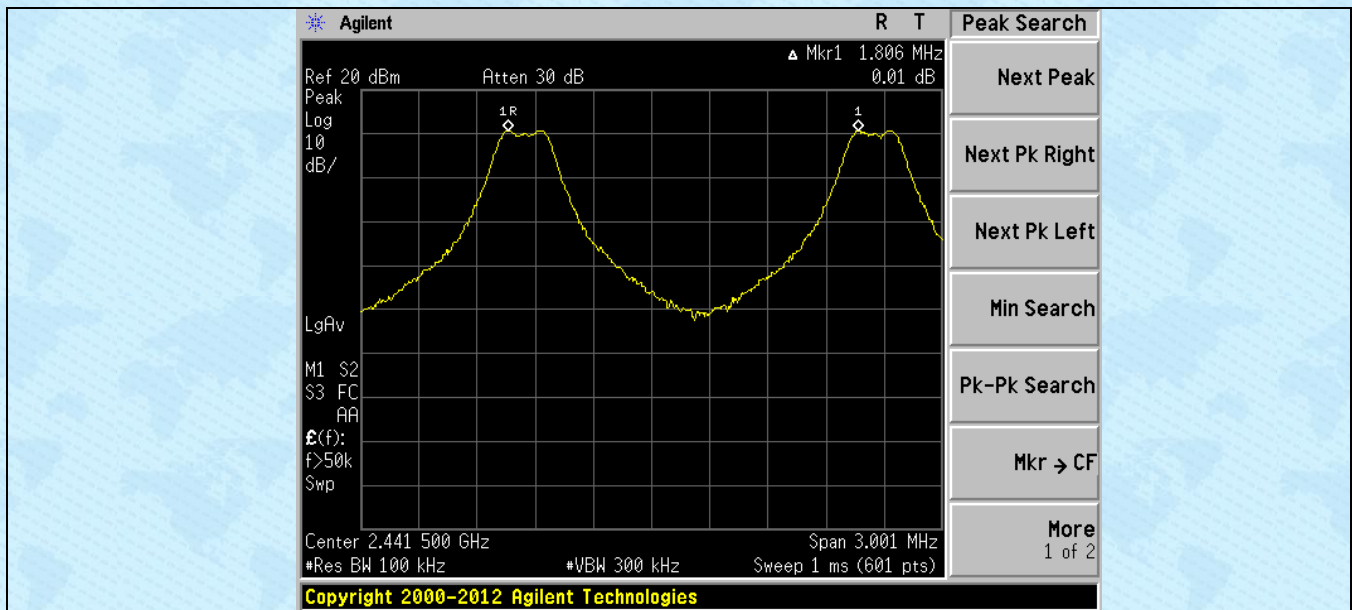
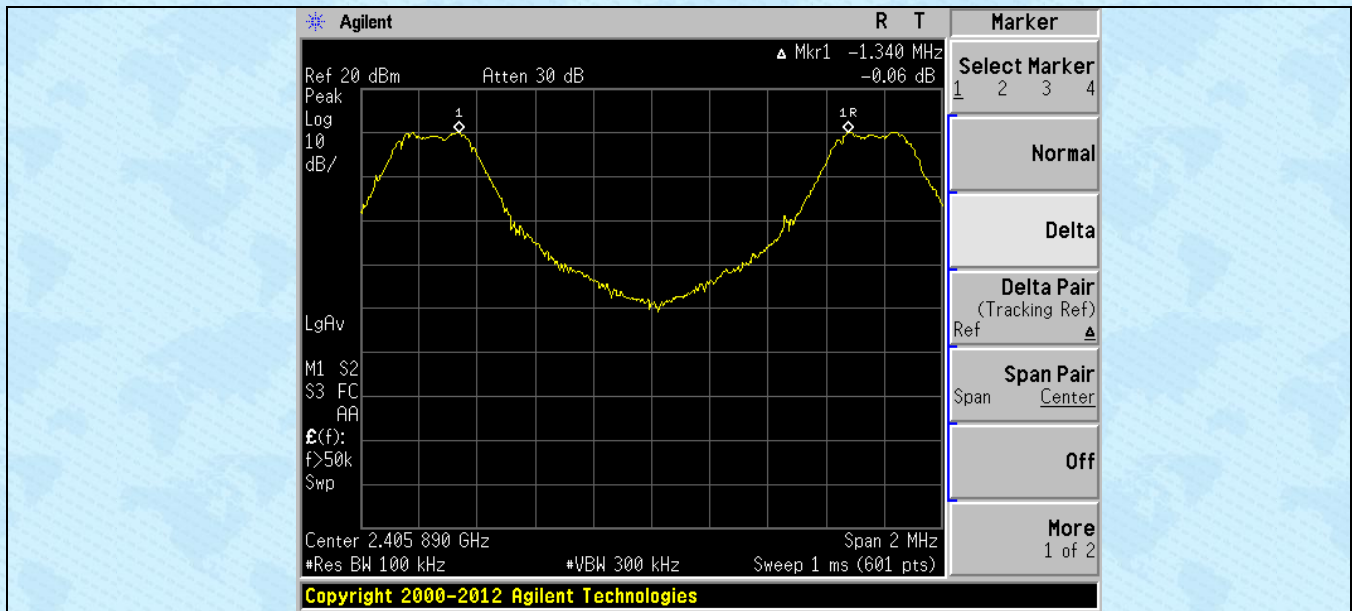
3. Carrier frequency separation

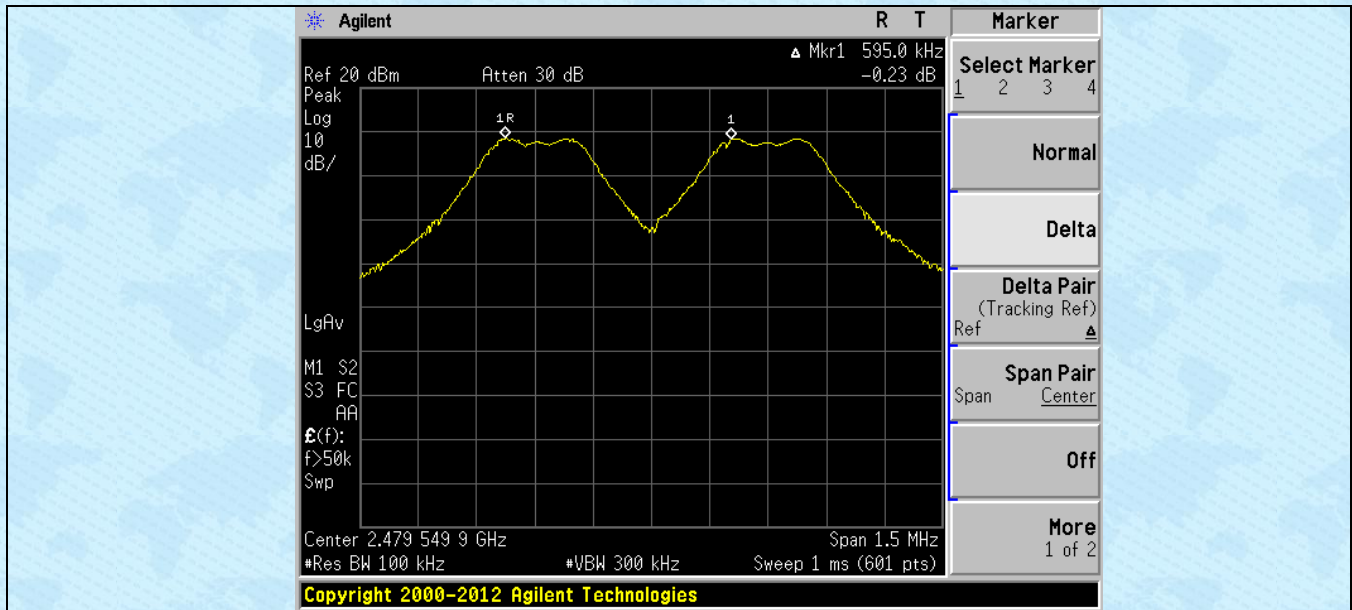
3.1 Test Result

ANT No.	Test channel	Carrier Frequencies Separation (kHz)	Limit (kHz)	Result
1	Lowest	1340	279	Pass
	Middle	1806	279	Pass
	Highest	595	277	Pass
2	Lowest	1513	268	Pass
	Middle	1800	271	Pass
	Highest	607	271	Pass

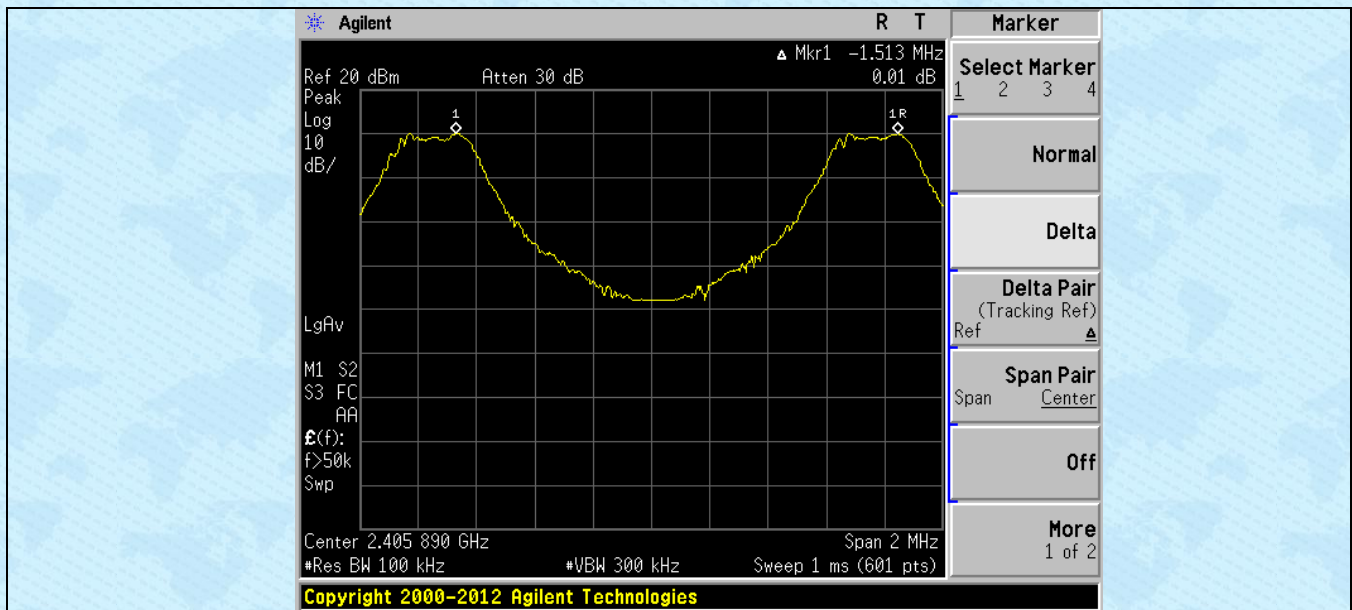
3.2 Test Graph

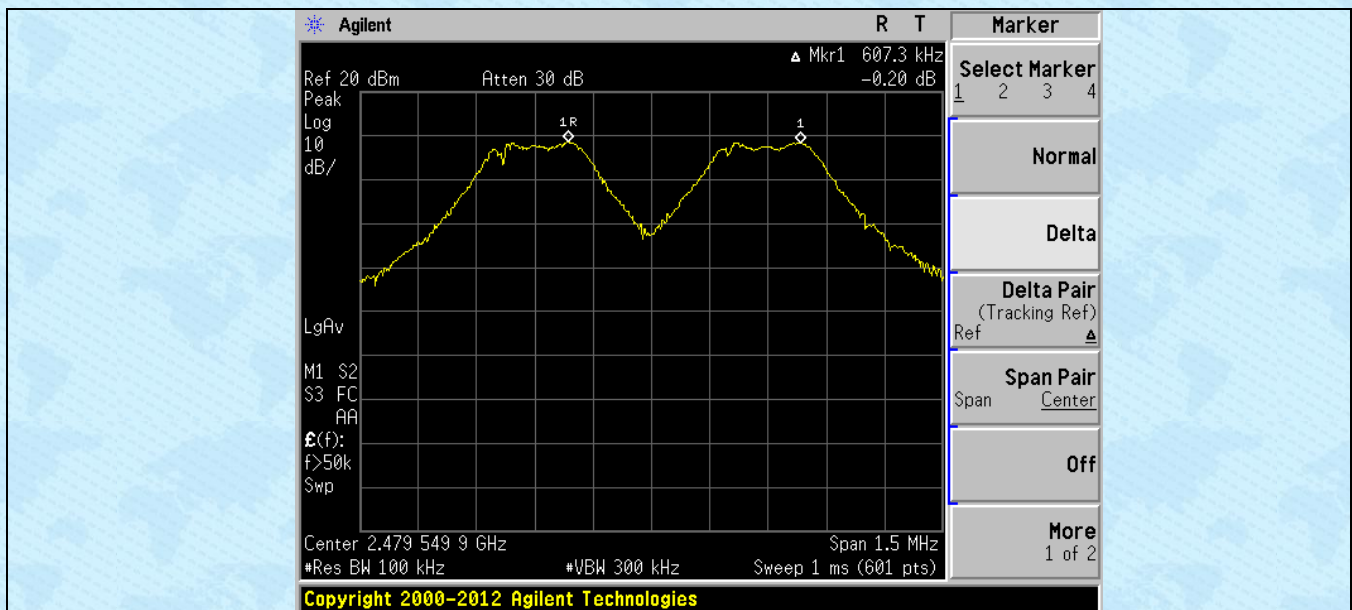
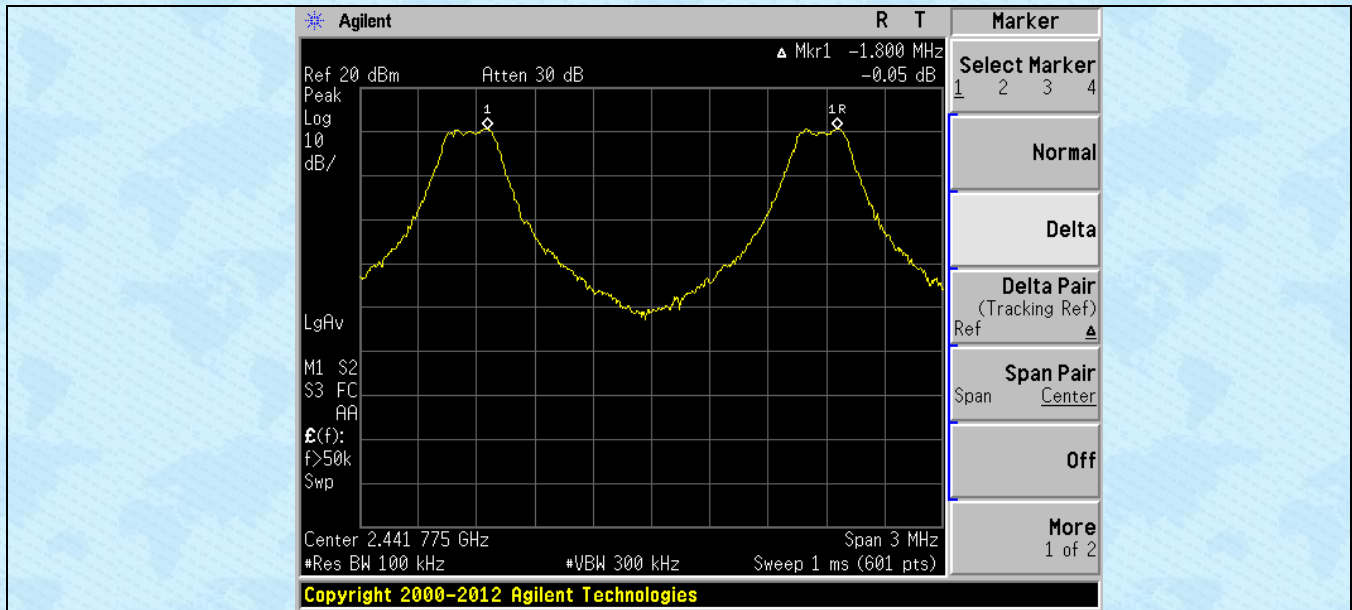
ANT 1:





ANT 2:





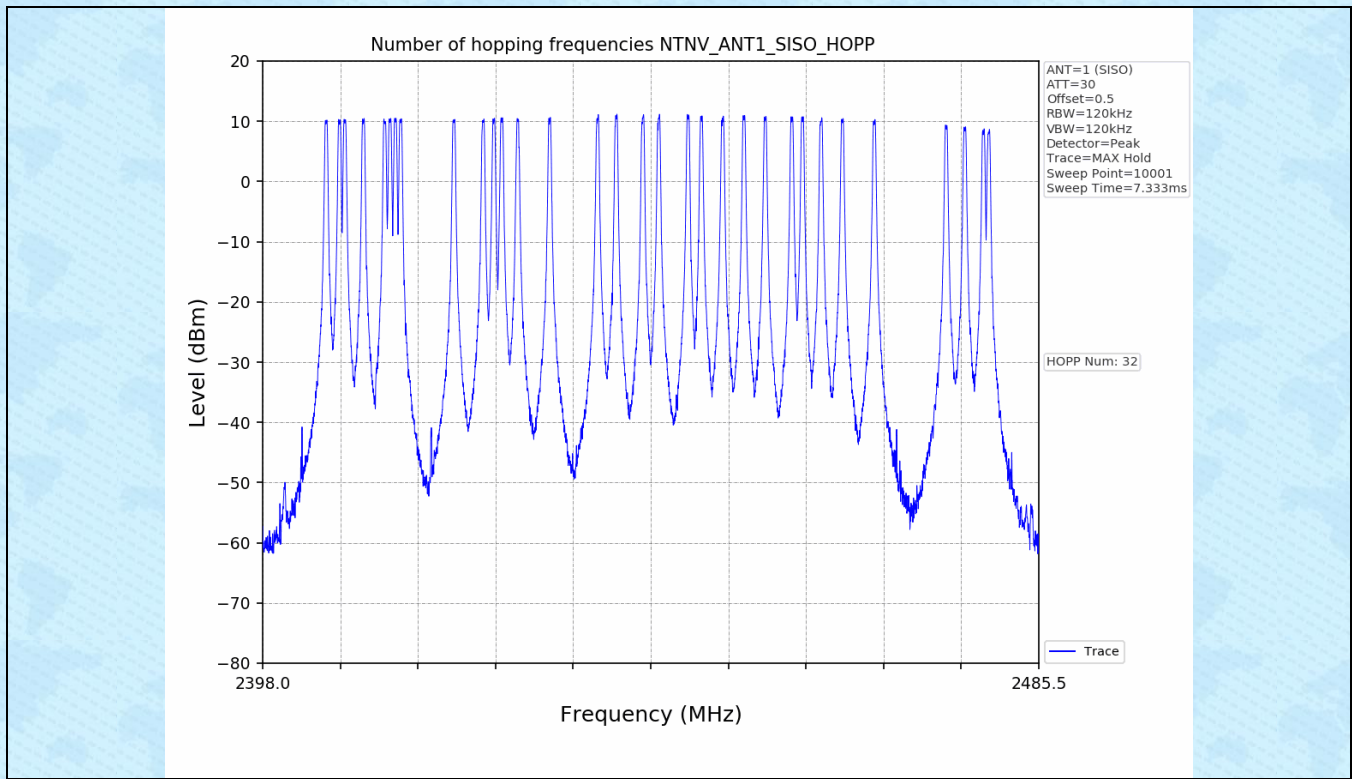
4. Number of hopping frequencies

4.1 Test Result

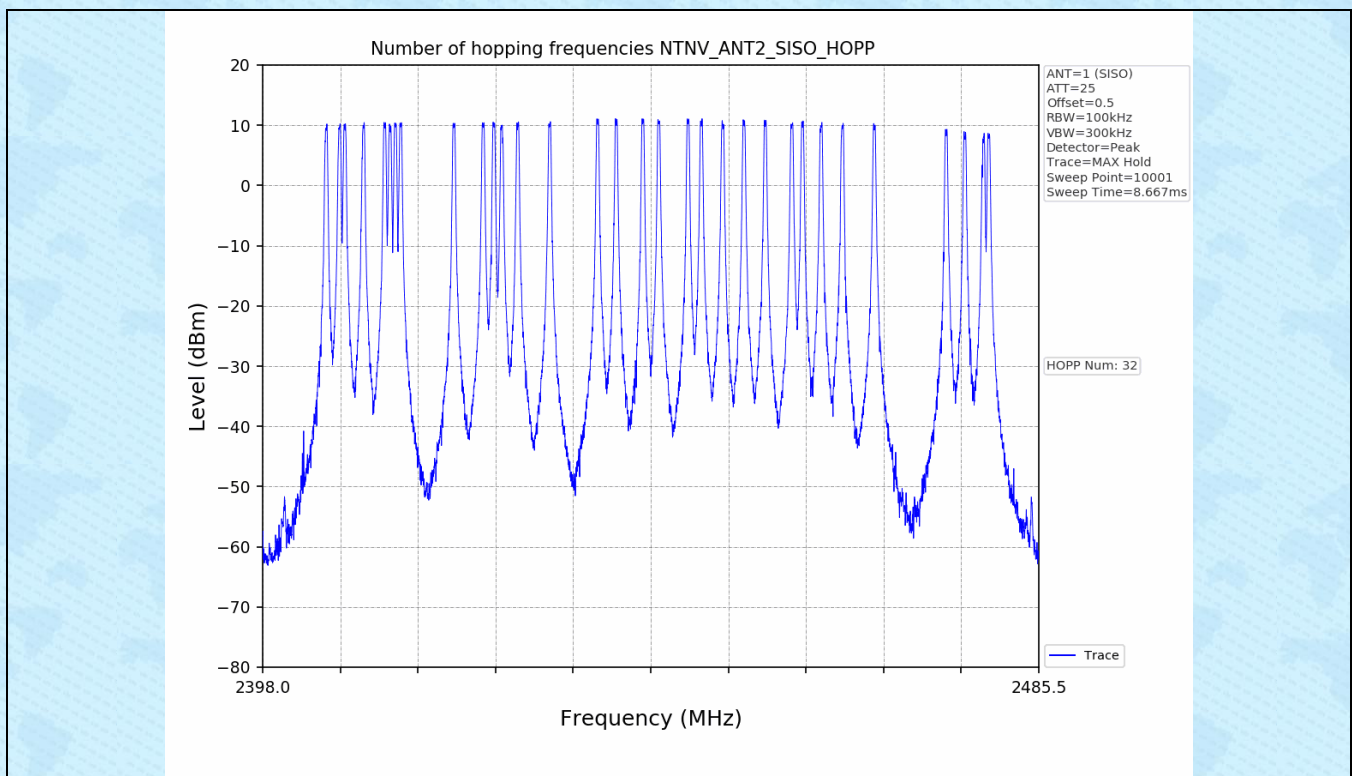
Test Mode	TX Type	ANT No.	Num of Hopping Frequencies	Limits	Verdict
FHSS	SISO	1	32	≥15	PASS
	SISO	1	32	≥15	PASS

4.2 Test Graph

ANT 1:



ANT 2:



5. Time of occupancy (dwell time)

5.1 Test Result

ANT No.	Test channel	Ton (ms)	Dwell time(ms)	Limit(ms)	Result
1	Lowest	1.6000	40.96	400	Pass
	Middle	1.6000	40.96	400	Pass
	Highest	1.6000	61.44	400	Pass
2	Lowest	1.6000	40.96	400	Pass
	Middle	1.6000	40.96	400	Pass
	Highest	1.6000	61.44	400	Pass

The formula as below:

ANT 1:

Lowest: Dwell time = Ton * Ton times in 1s * 0.4s * channel numbers=1.6ms*2*0.4*32=40.96ms

Middle: Dwell time = Ton * Ton times in 1s * 0.4s * channel numbers=1.6ms*2*0.4*32=40.96ms

Highest: Dwell time = Ton * Ton times in 1s * 0.4s * channel numbers=1.6ms*3*0.4*32=61.44ms

ANT 2:

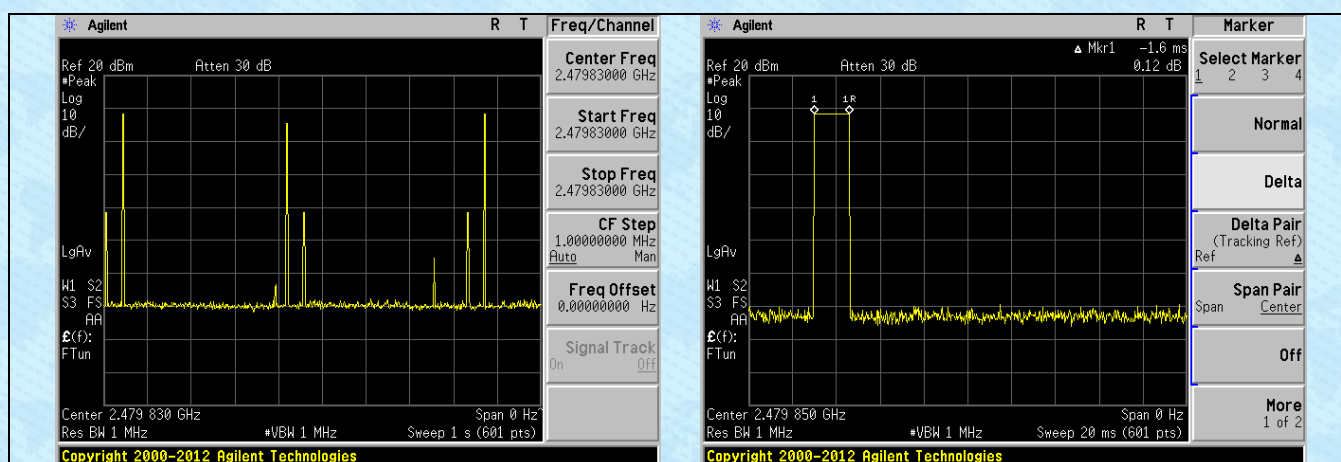
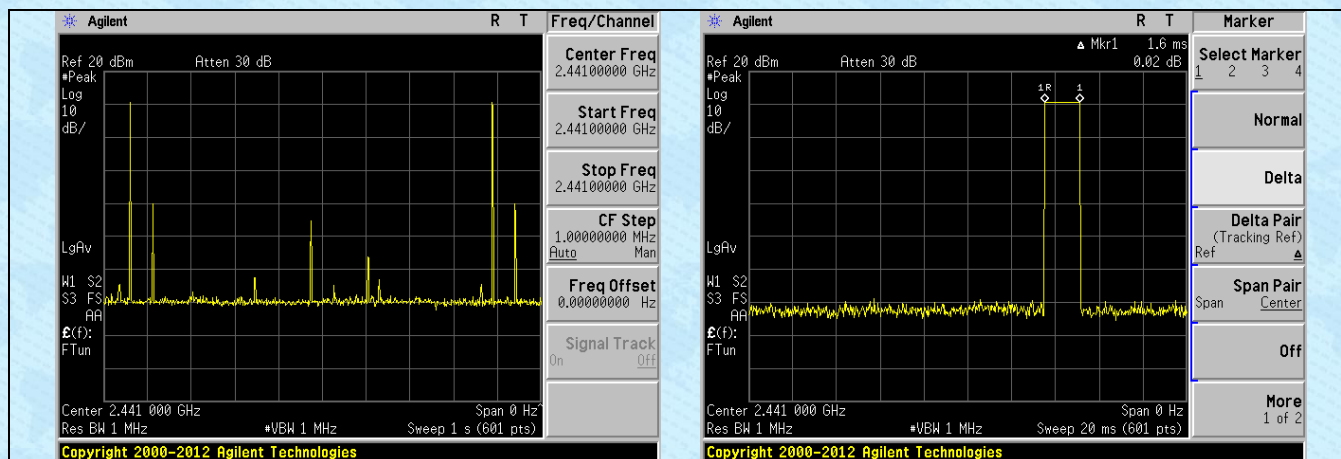
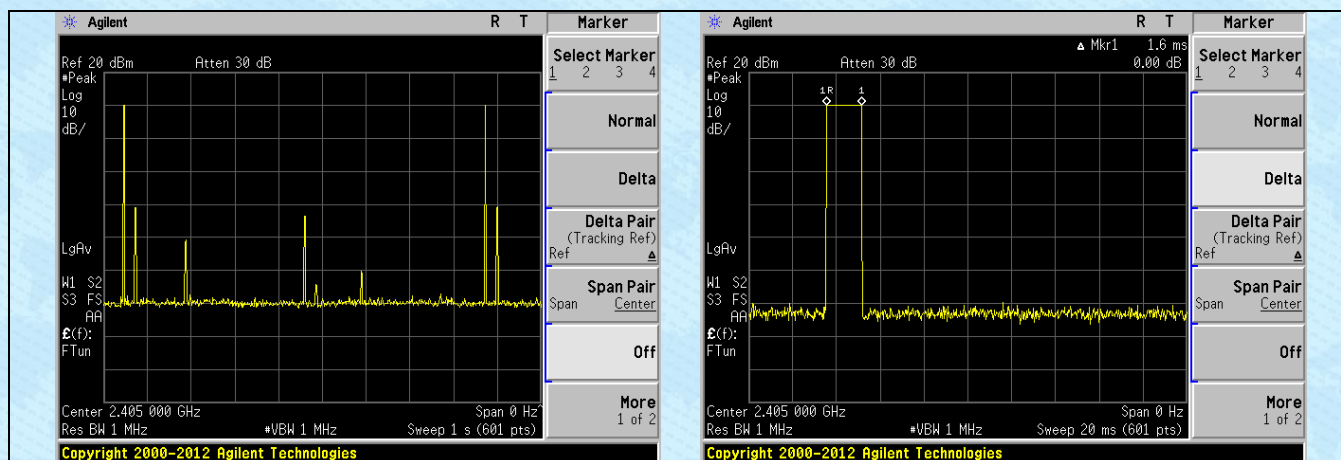
Lowest: Dwell time = Ton * Ton times in 1s * 0.4s * channel numbers=1.6ms*2*0.4*32=40.96ms

Middle: Dwell time = Ton * Ton times in 1s * 0.4s * channel numbers=1.6ms*2*0.4*32=40.96ms

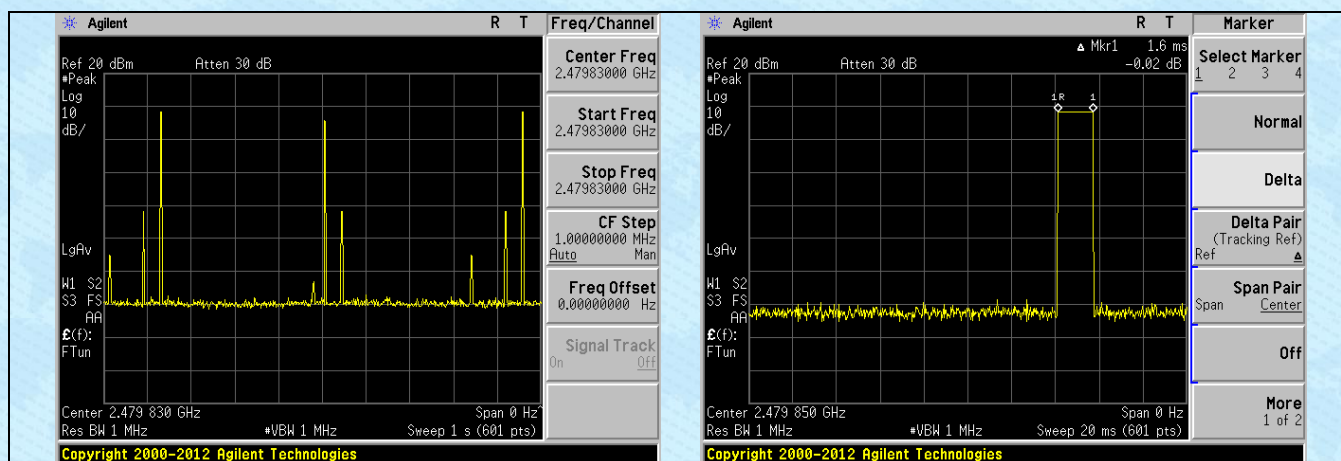
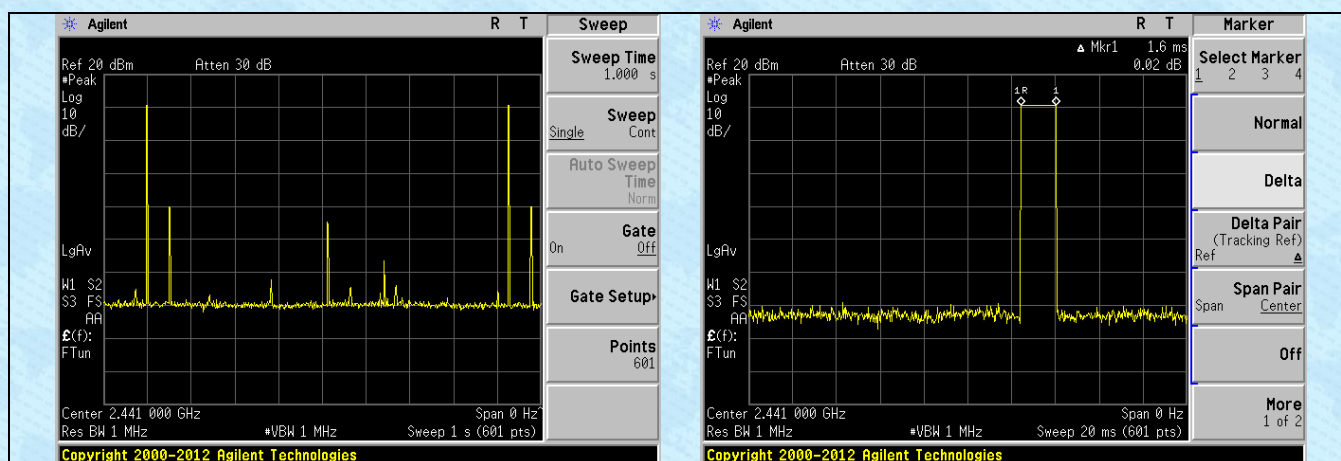
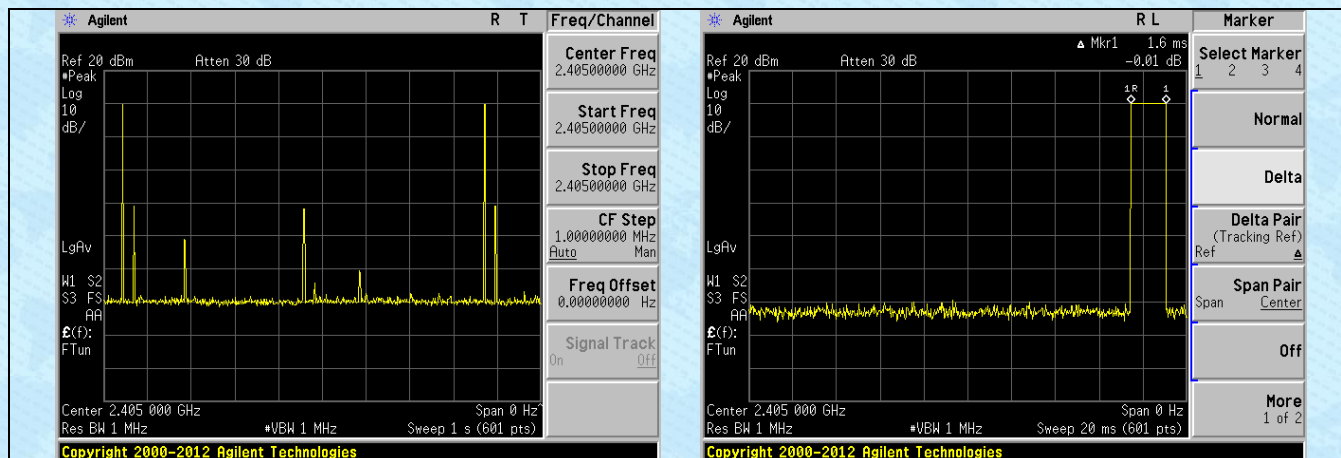
Highest: Dwell time = Ton * Ton times in 1s * 0.4s * channel numbers=1.6ms*3*0.4*32=61.44ms

5.2 Test Graph

ANT 1:



ANT 2:



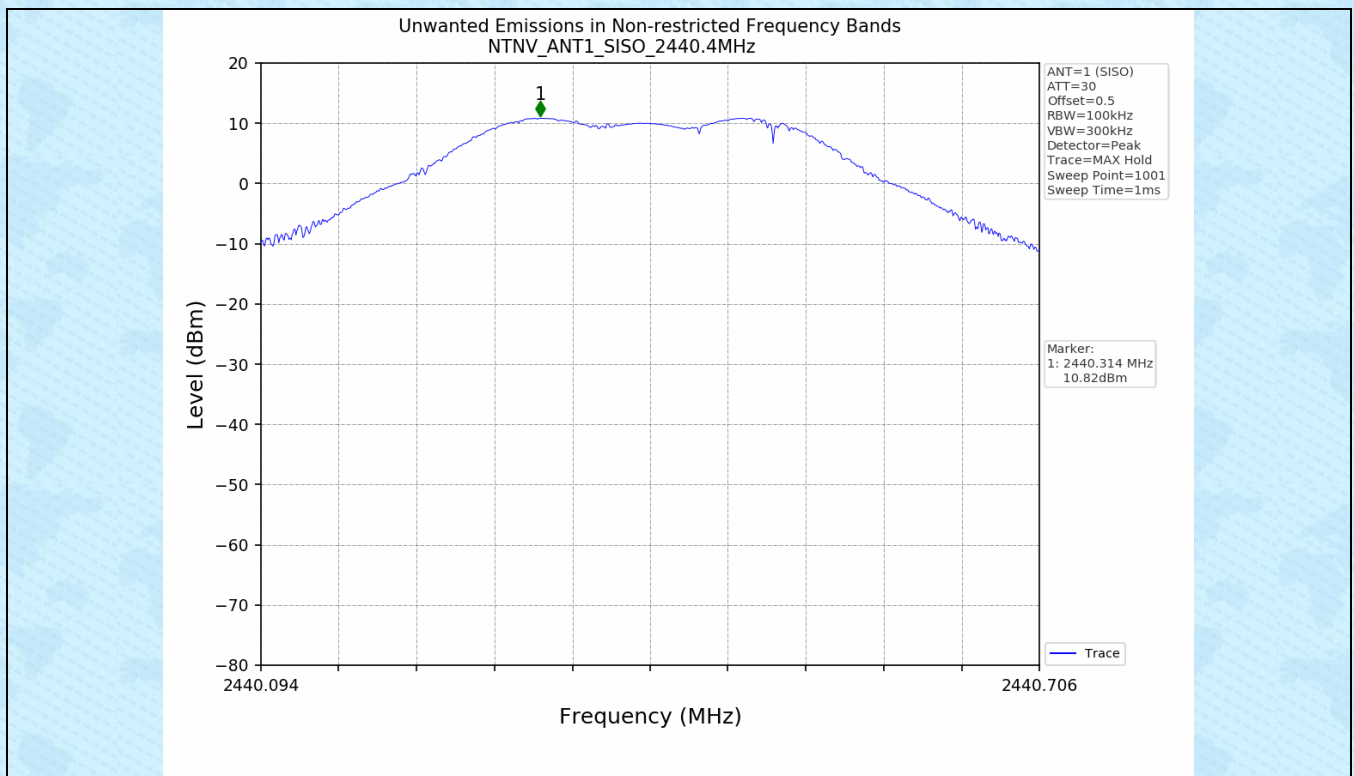
6. Unwanted Emissions in Non-restricted Frequency Bands

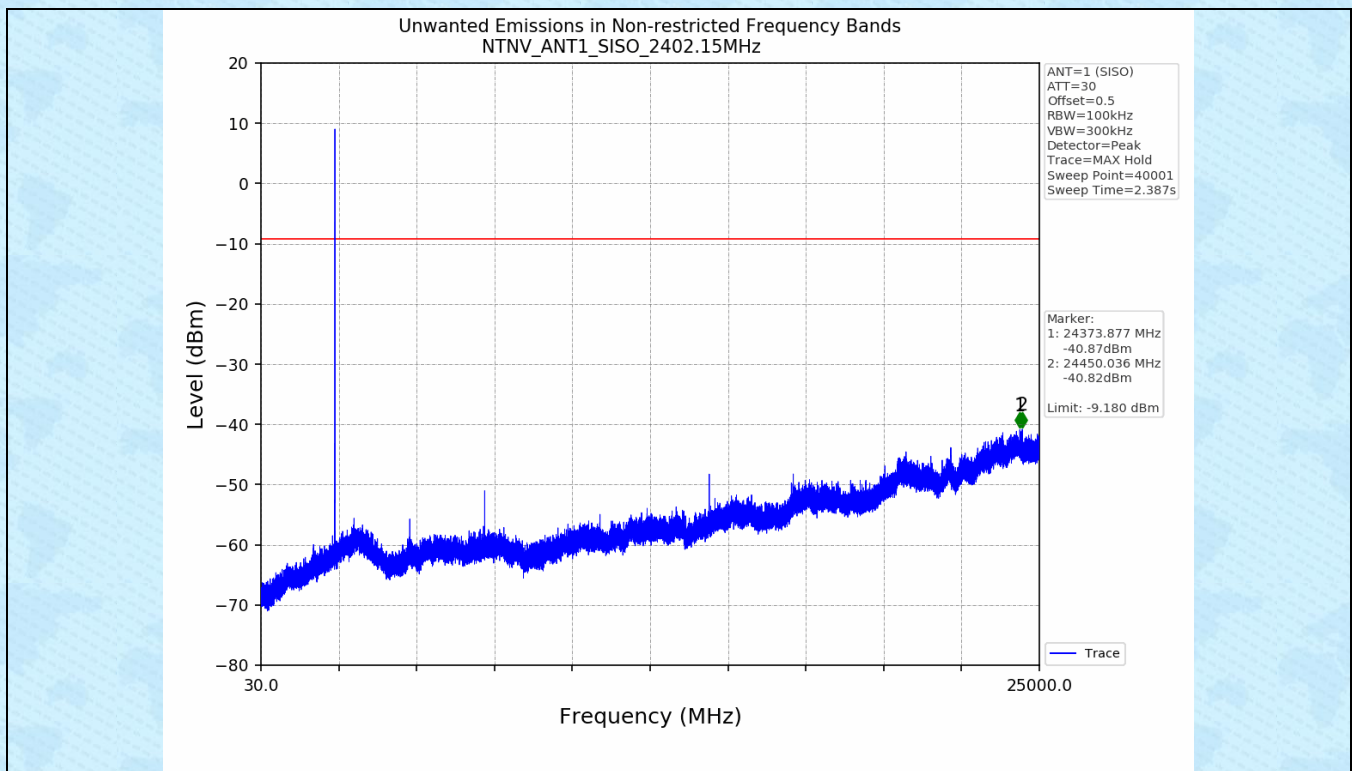
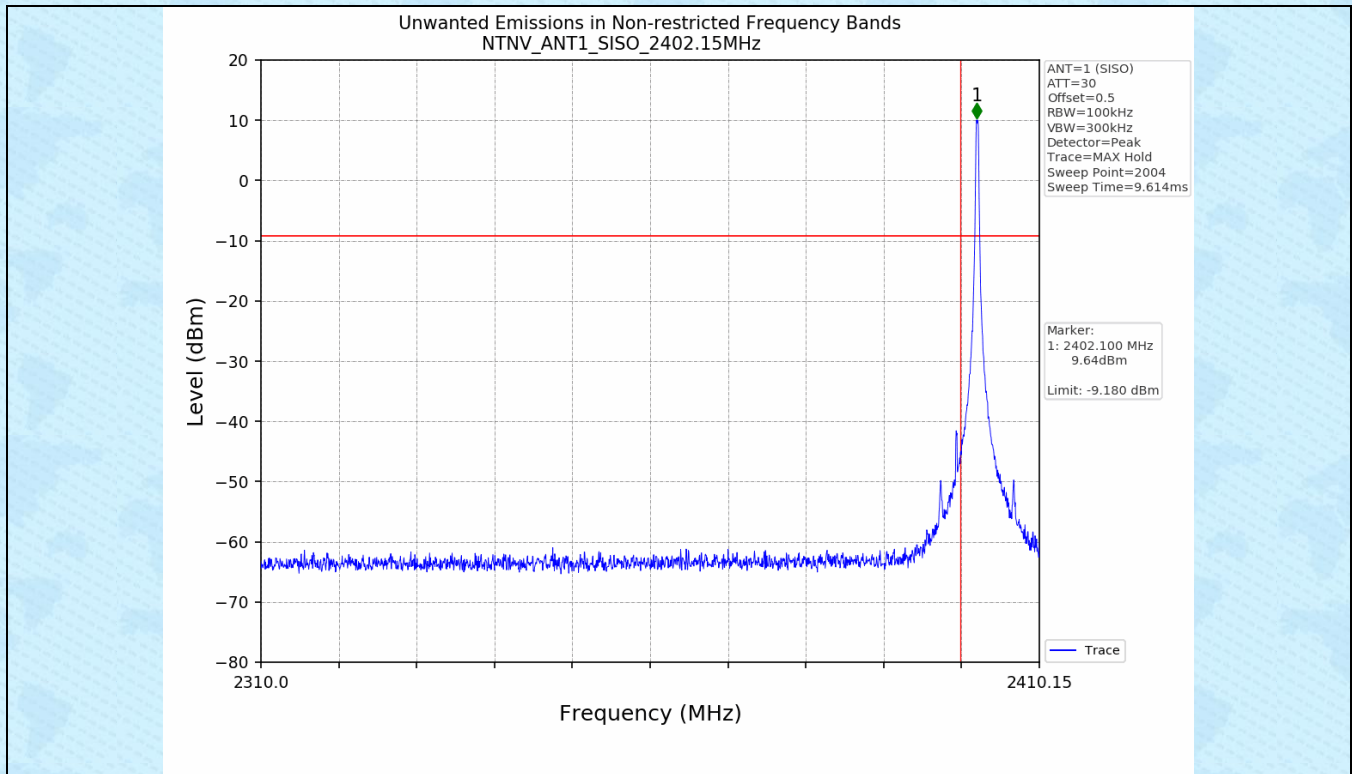
6.1 Test Result

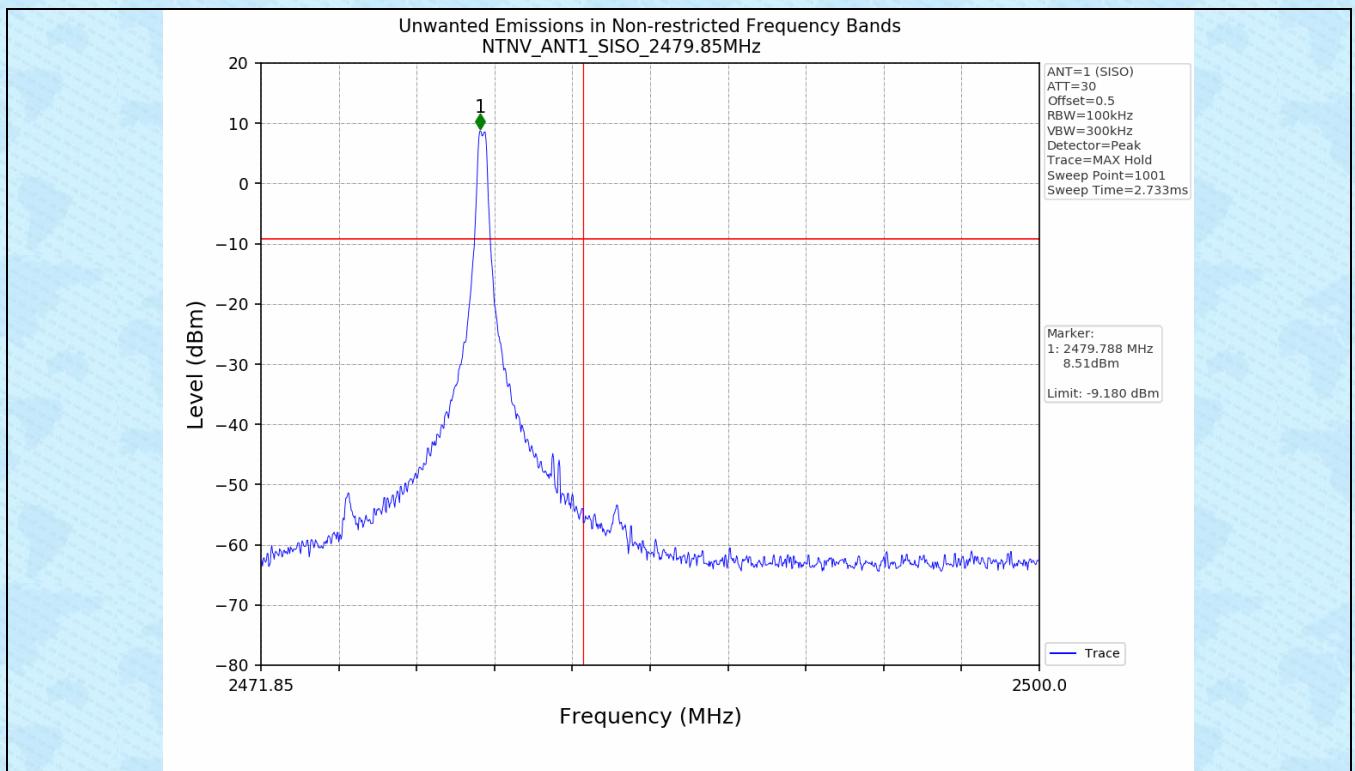
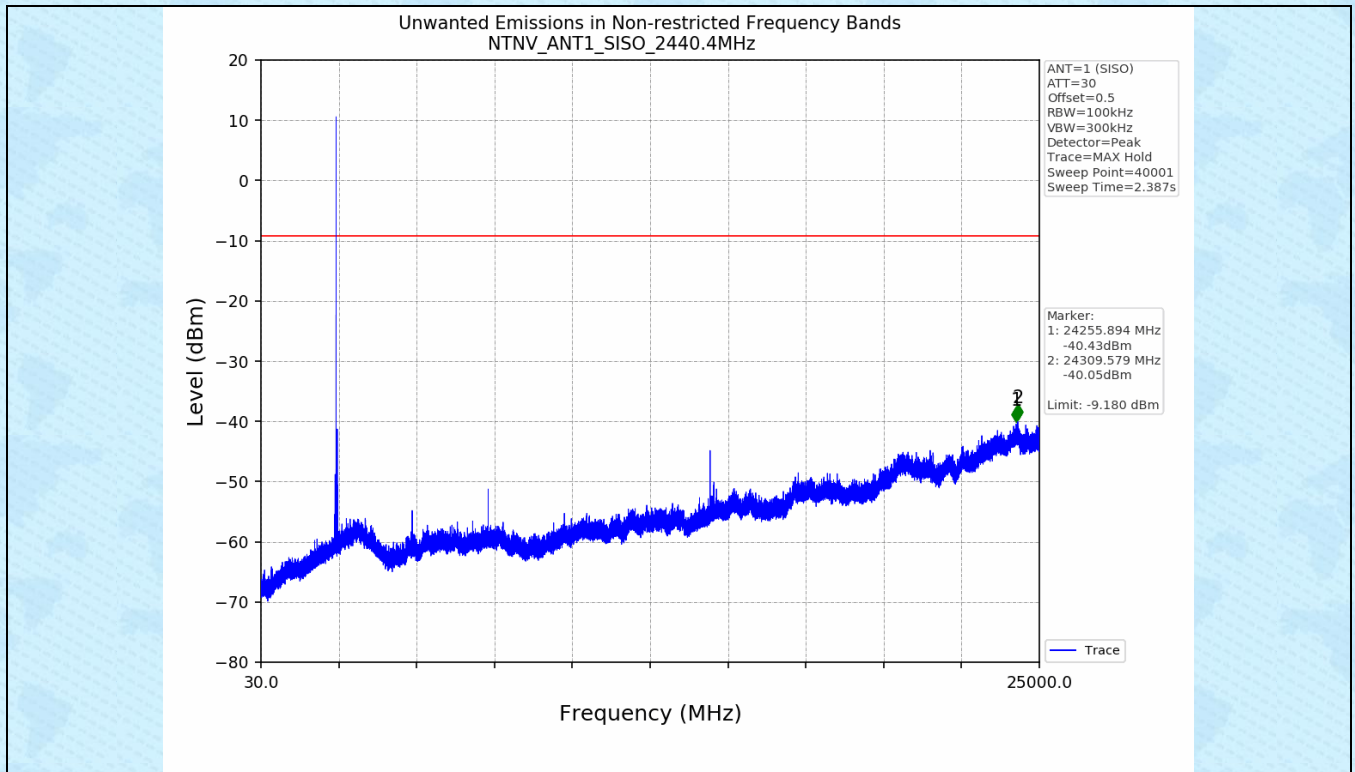
Test Mode	Frequency (MHz)	TX Type	ANT No.	Spurious Conducted Emission (dBm)	Limits (dBm)	Verdict
FHSS	2402.15	SISO	1	Refer to test graph	-9.18	PASS
	2440.4	SISO	1	Refer to test graph	-9.18	PASS
	2479.85	SISO	1	Refer to test graph	-9.18	PASS
	Hopping	SISO	1	Refer to test graph	-9.18	PASS
	2402.15	SISO	2	Refer to test graph	-9.05	PASS
	2440.4	SISO	2	Refer to test graph	-9.05	PASS
	2479.85	SISO	2	Refer to test graph	-9.05	PASS
	Hopping	SISO	2	Refer to test graph	-9.05	PASS

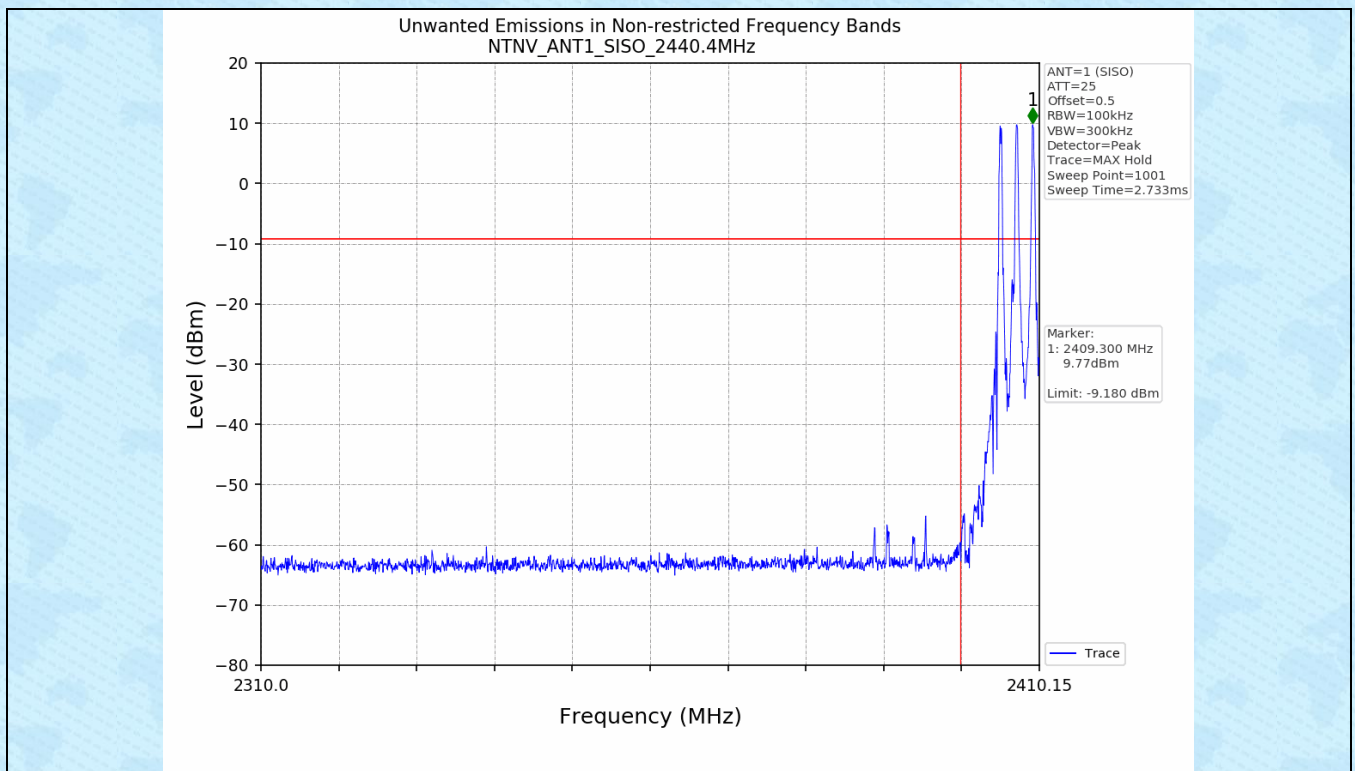
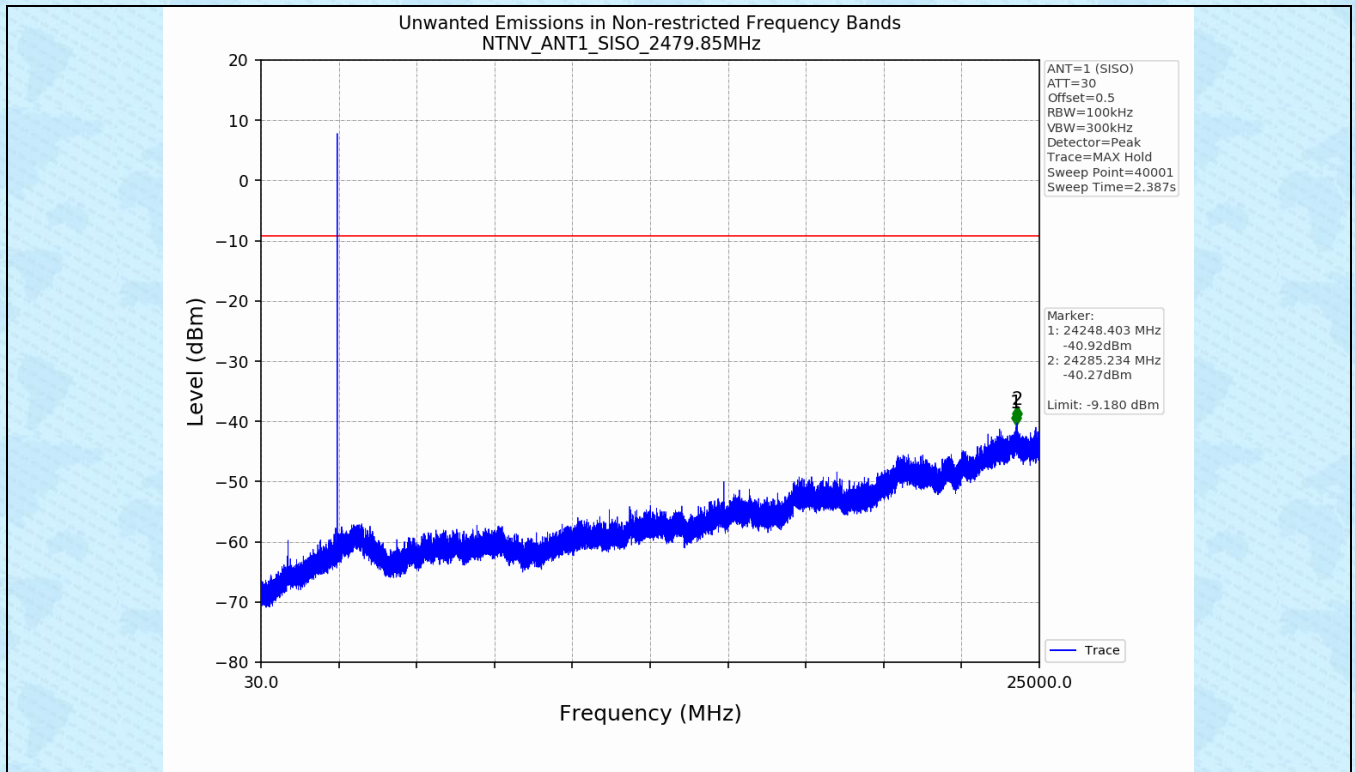
6.2 Test Graph

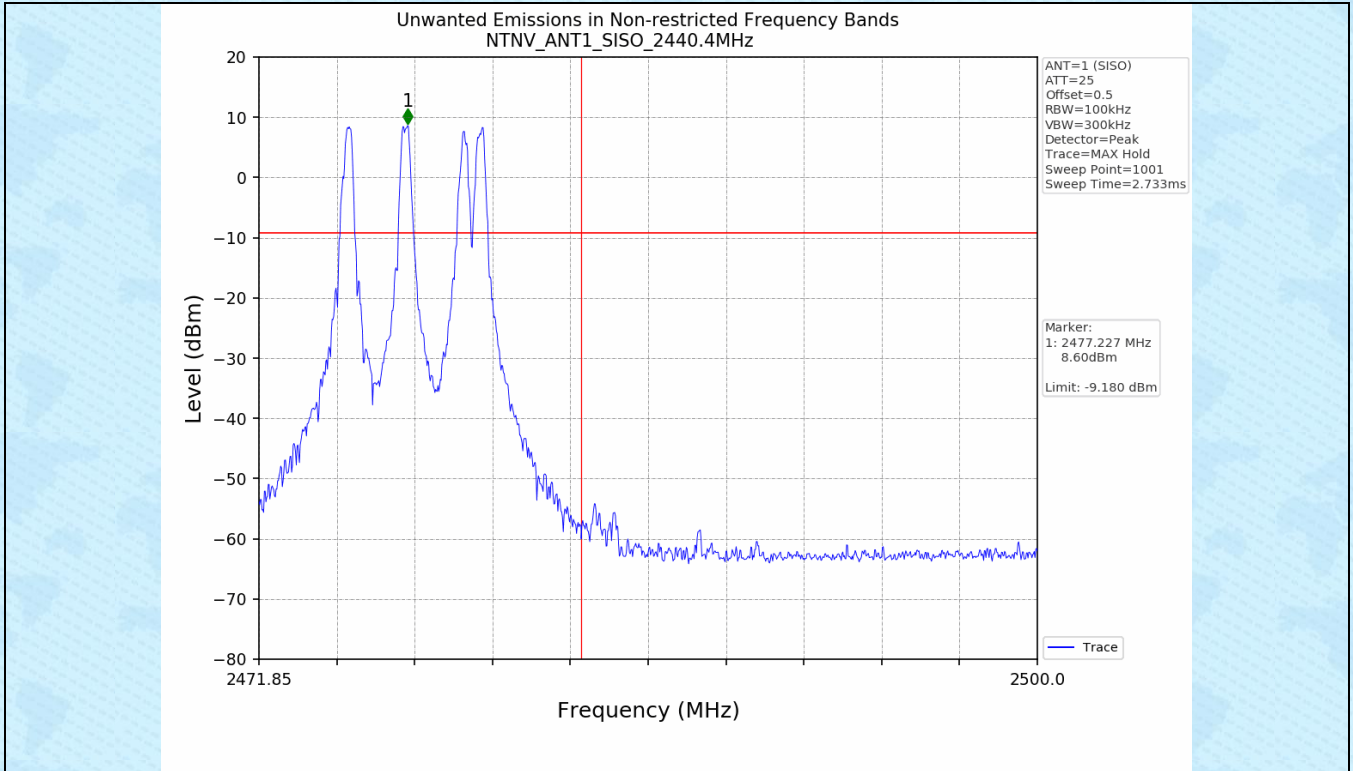
ANT1:



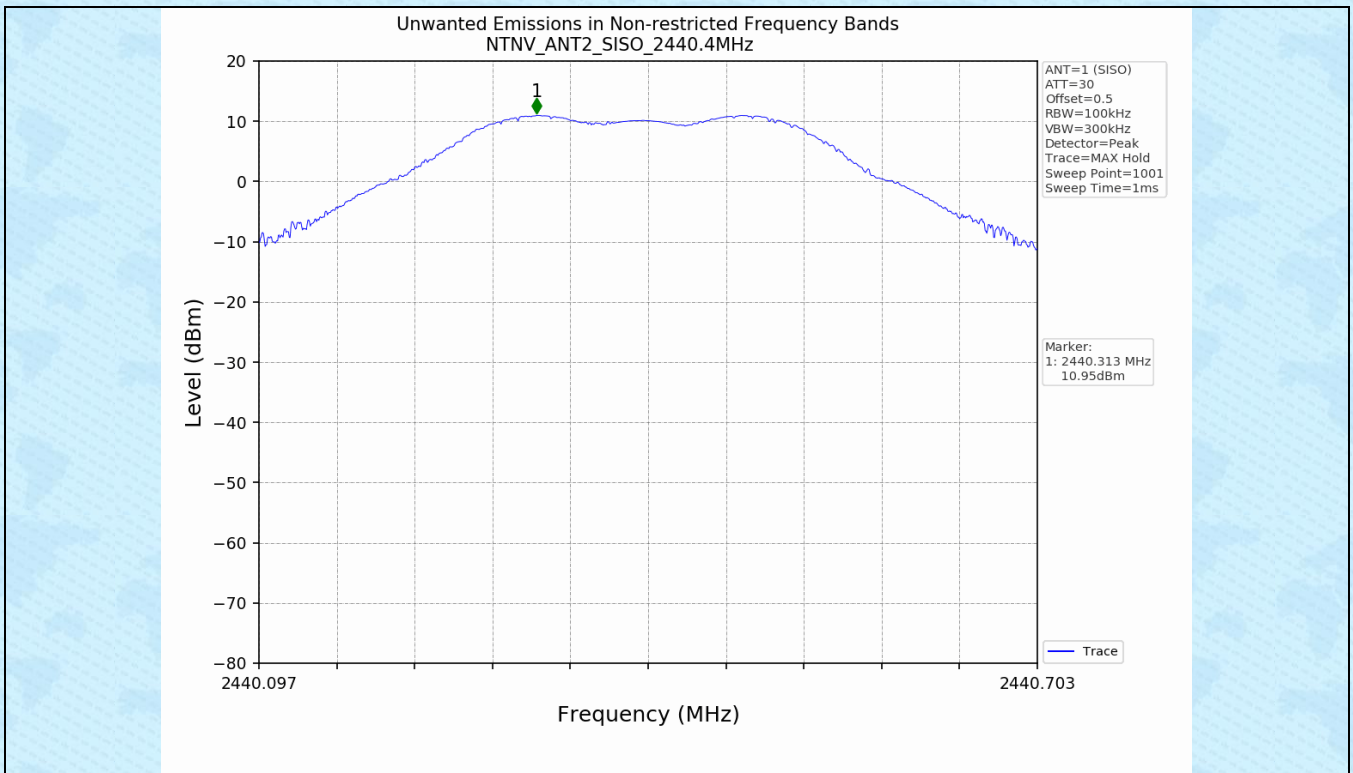


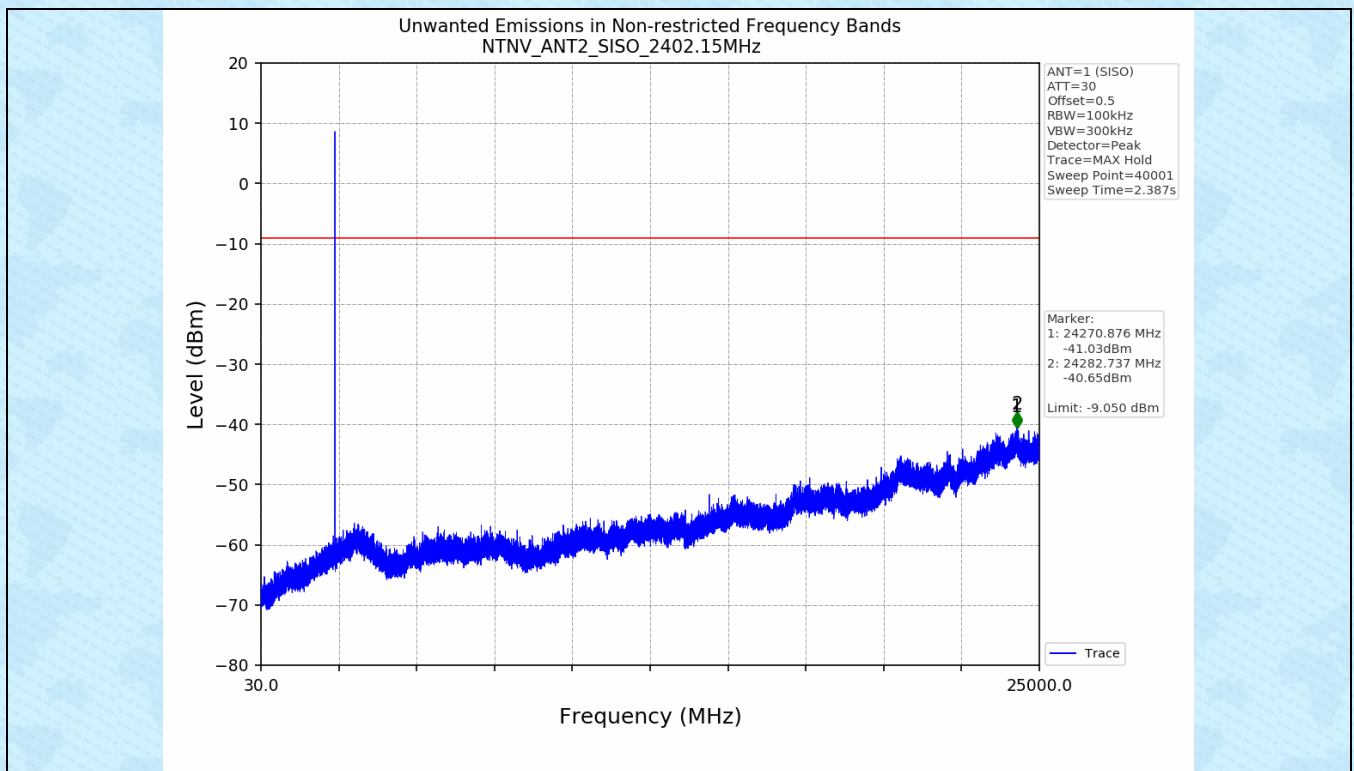
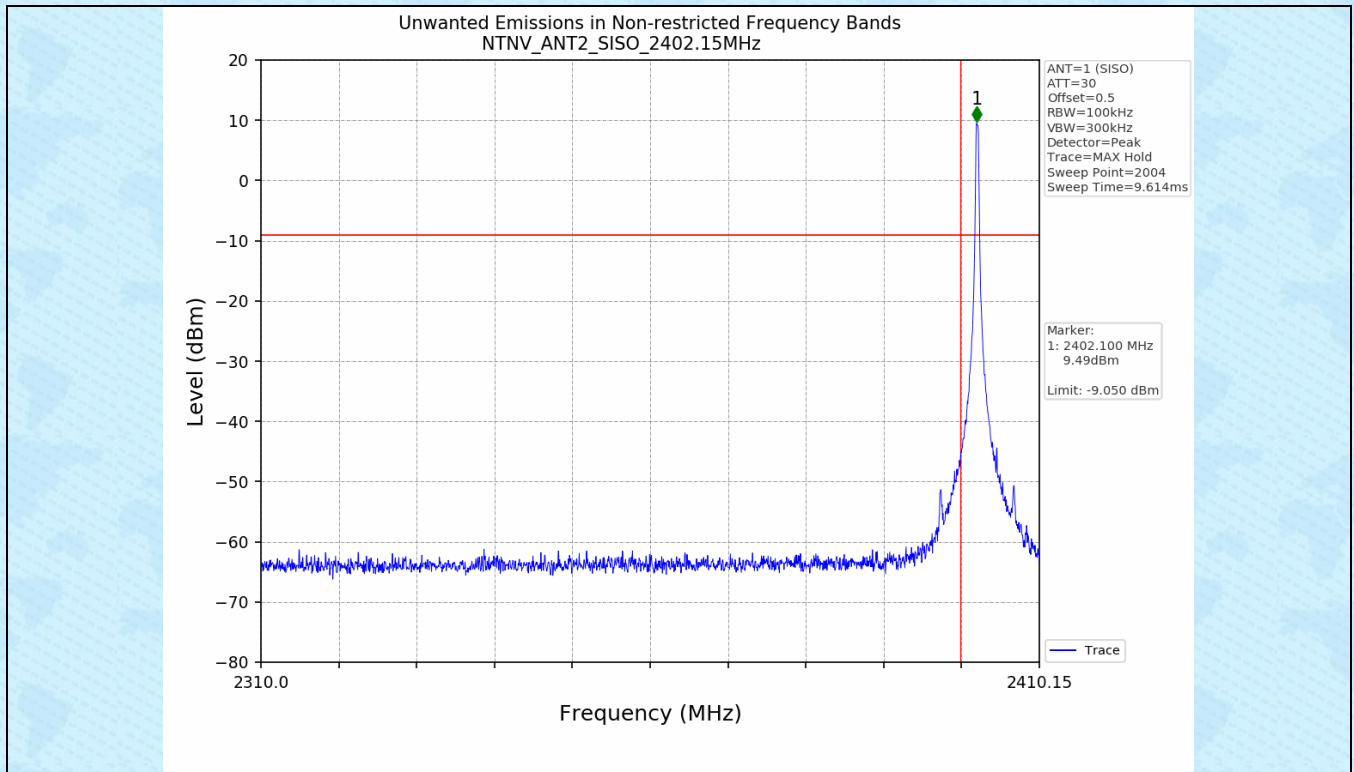


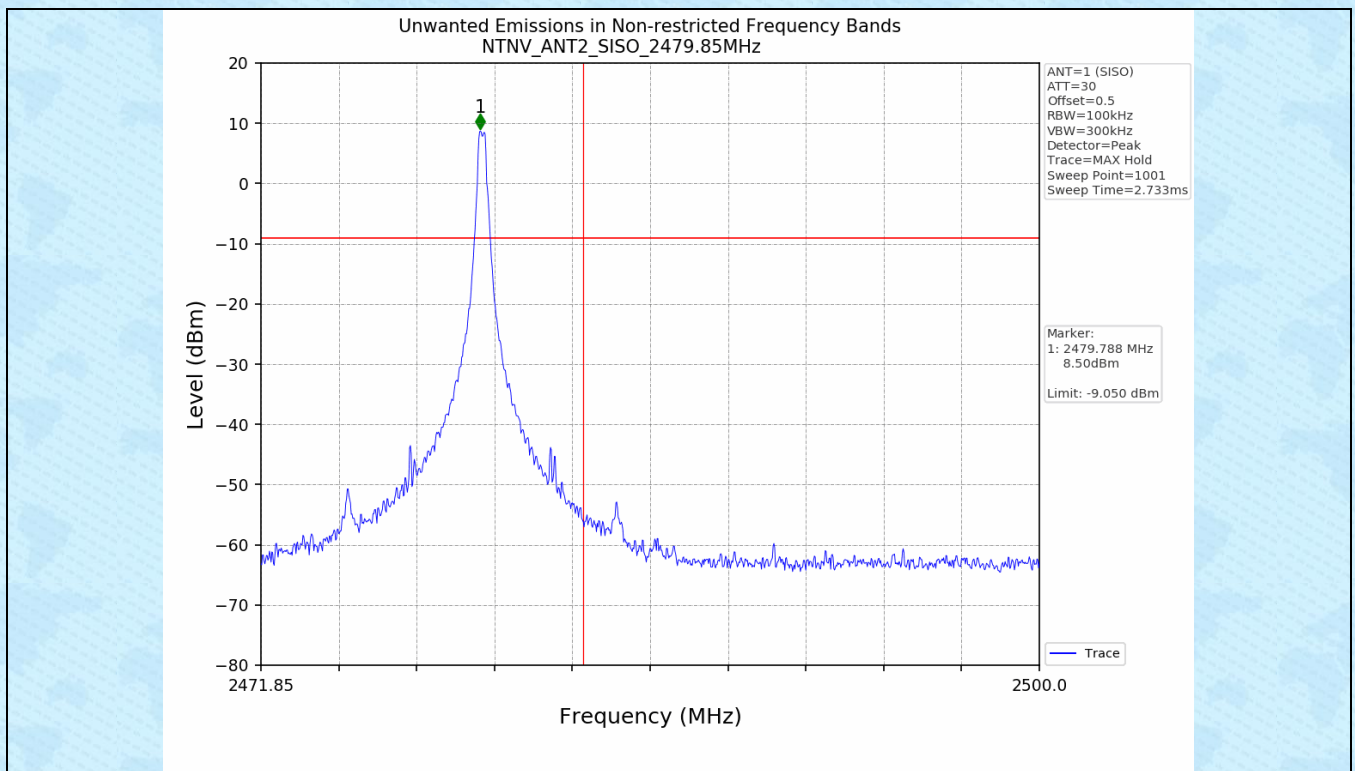
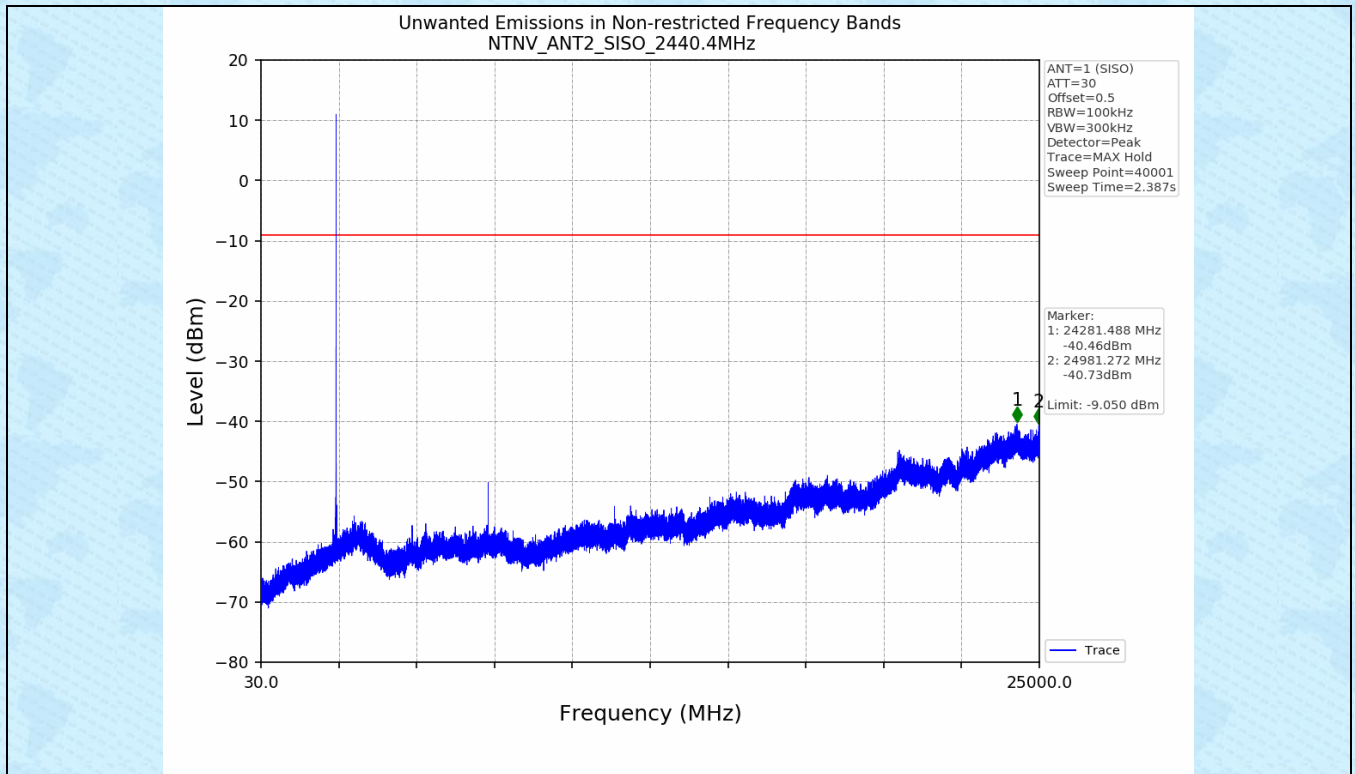


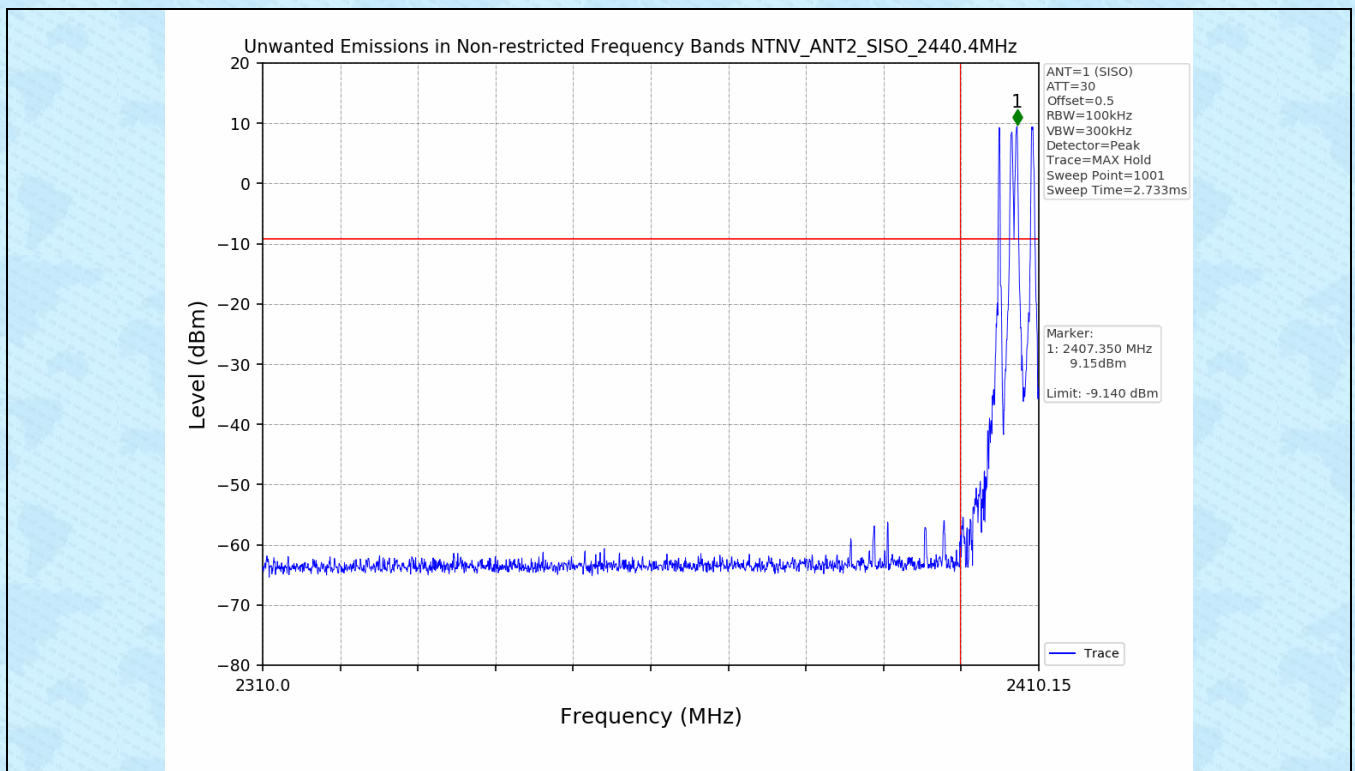
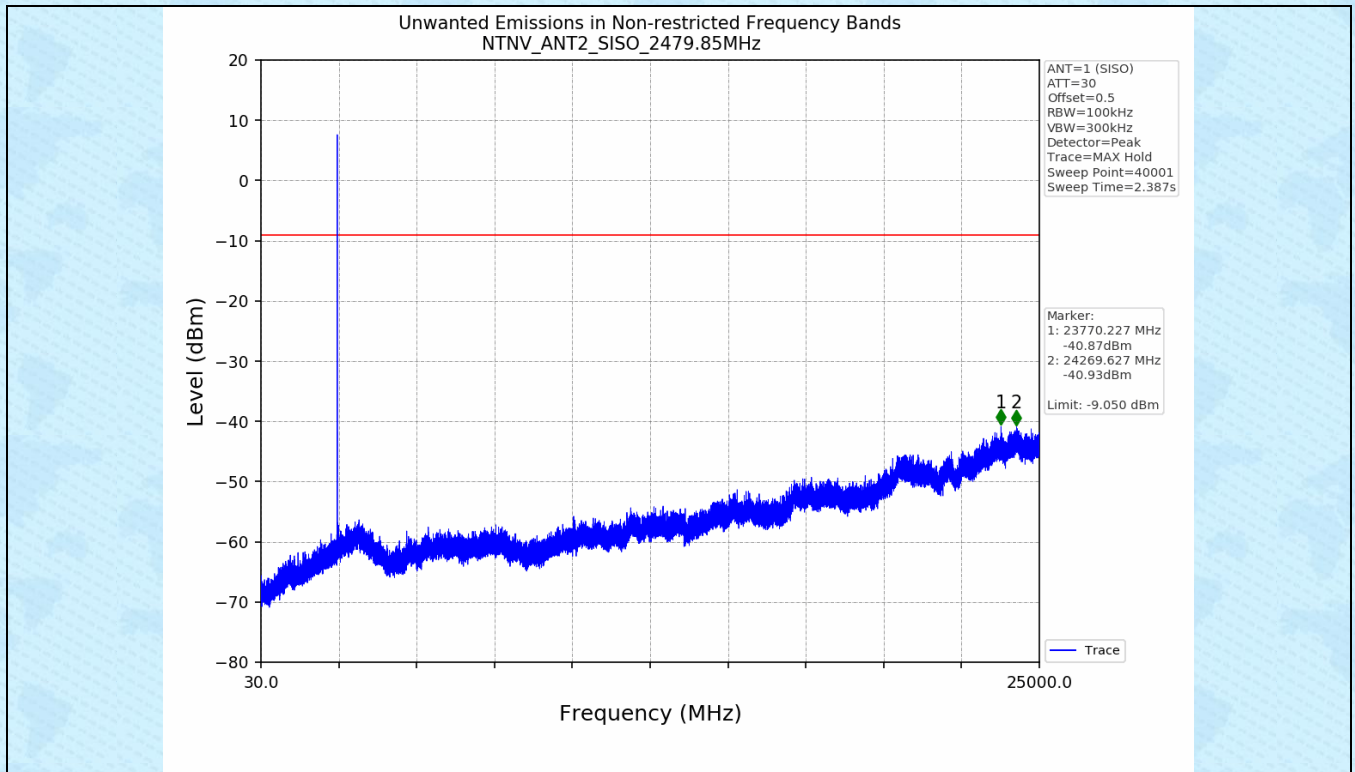


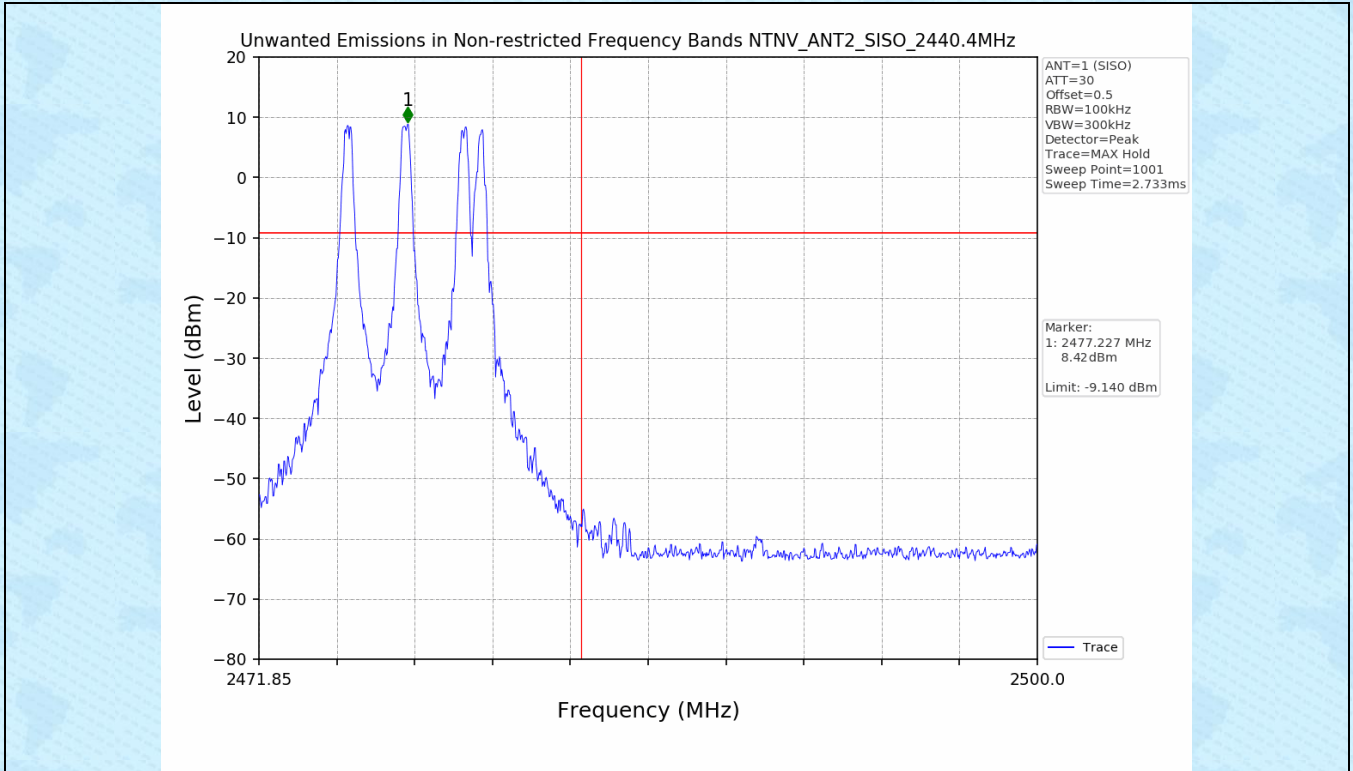
ANT2:











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