



Shenzhen CTL Testing Technology Co., Ltd.

Tel: +86-755-89486194 E-mail: ctl@ctl-lab.com

Appendix for 15.247

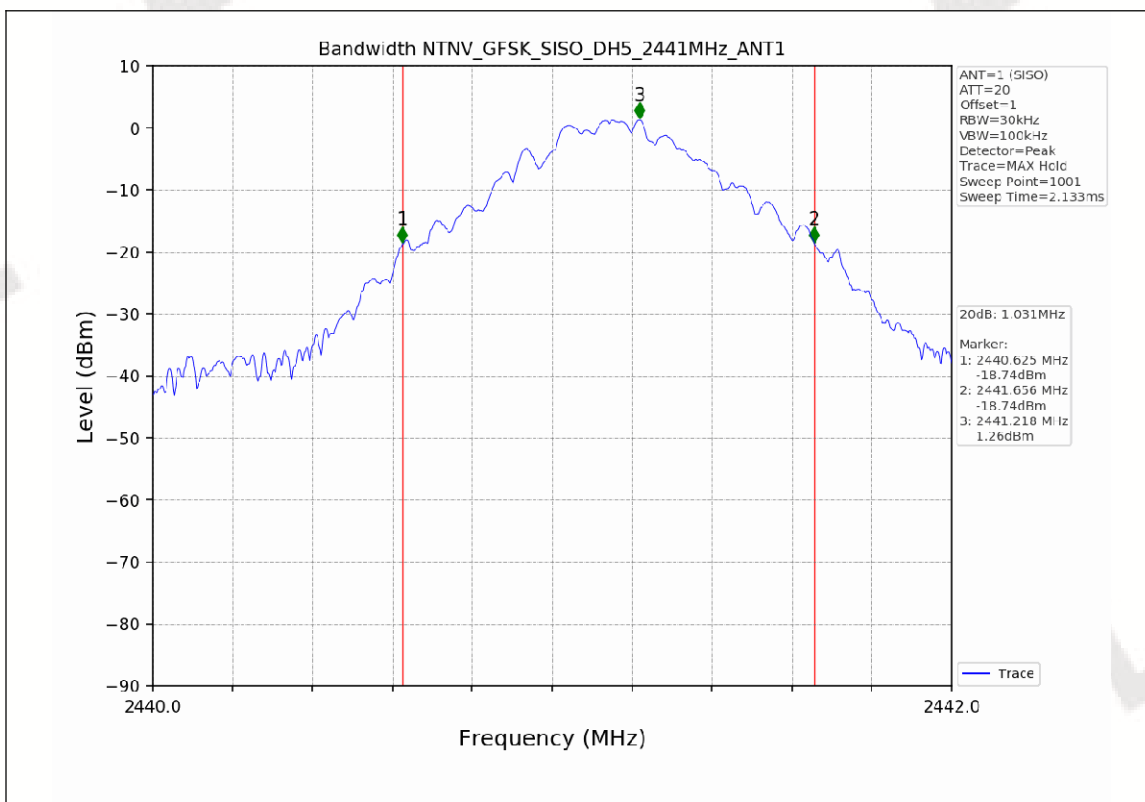
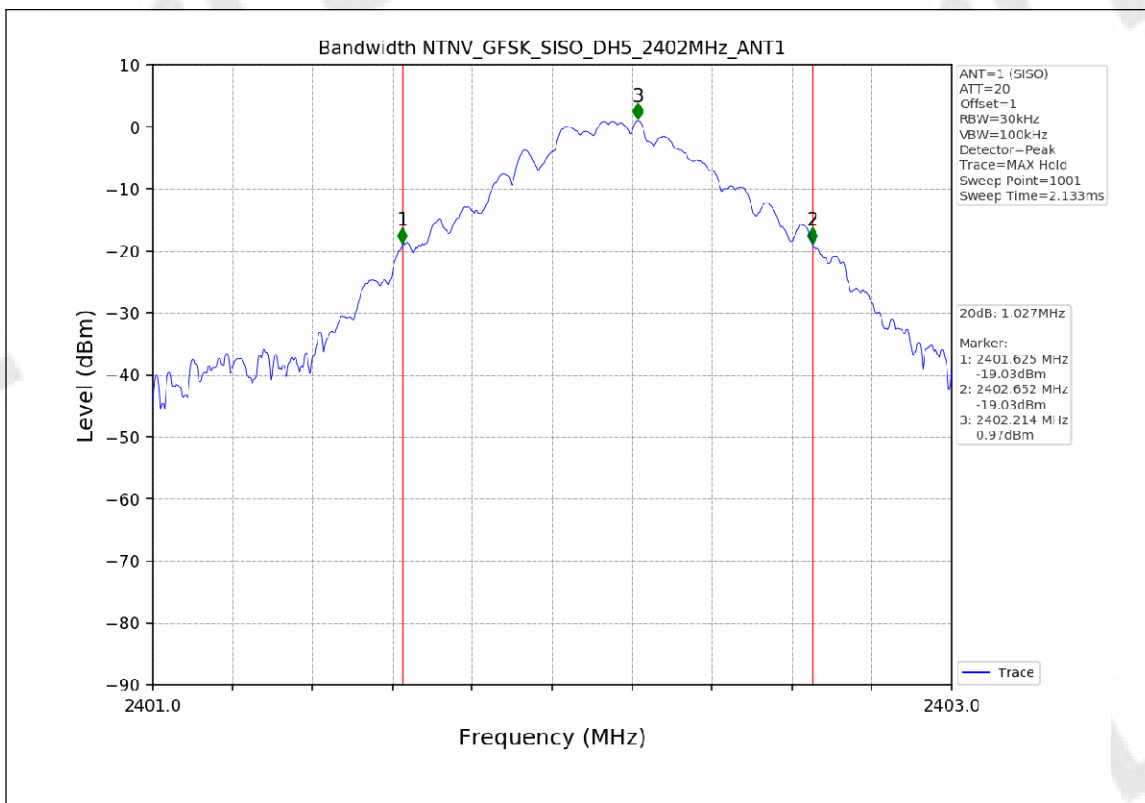
1. Bandwidth

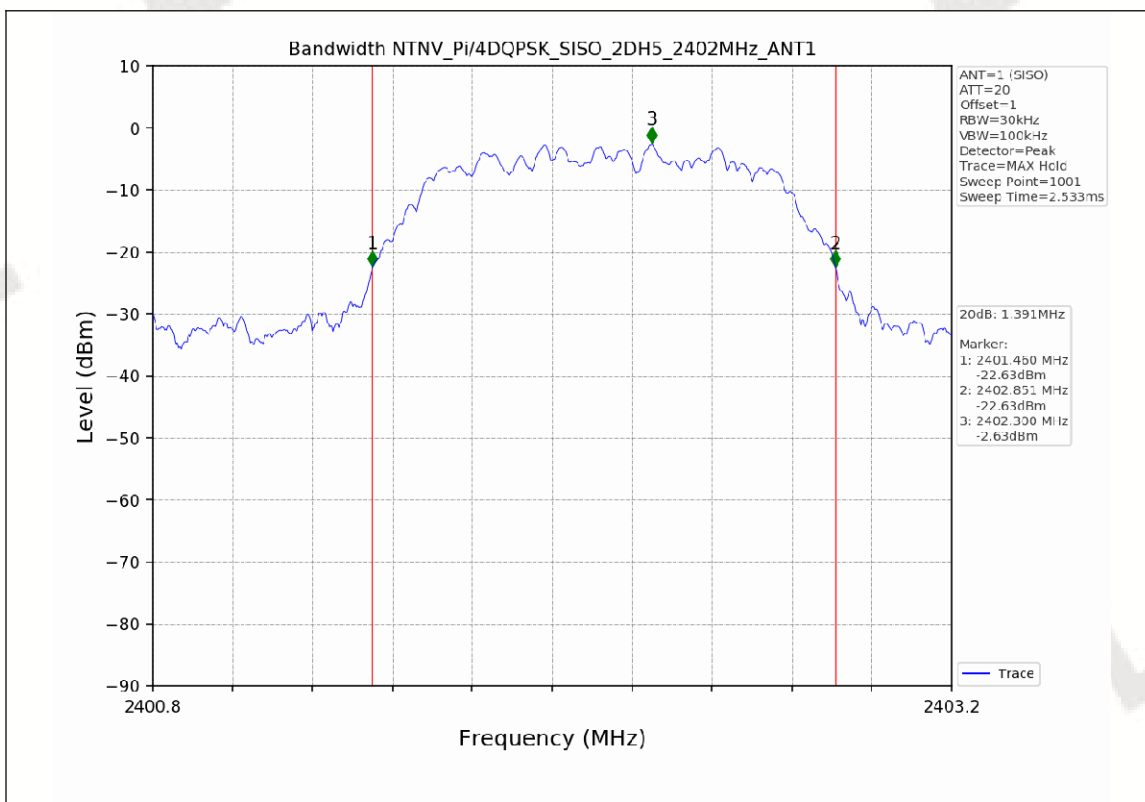
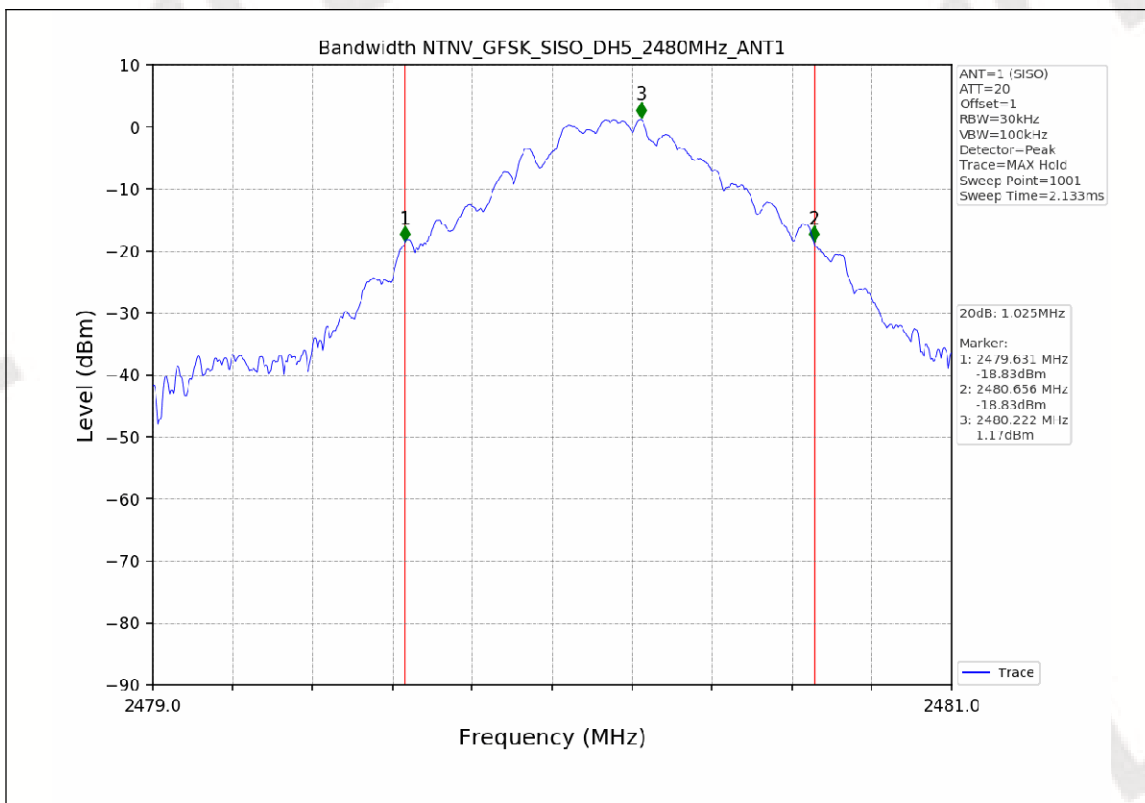
1.1 Test Result

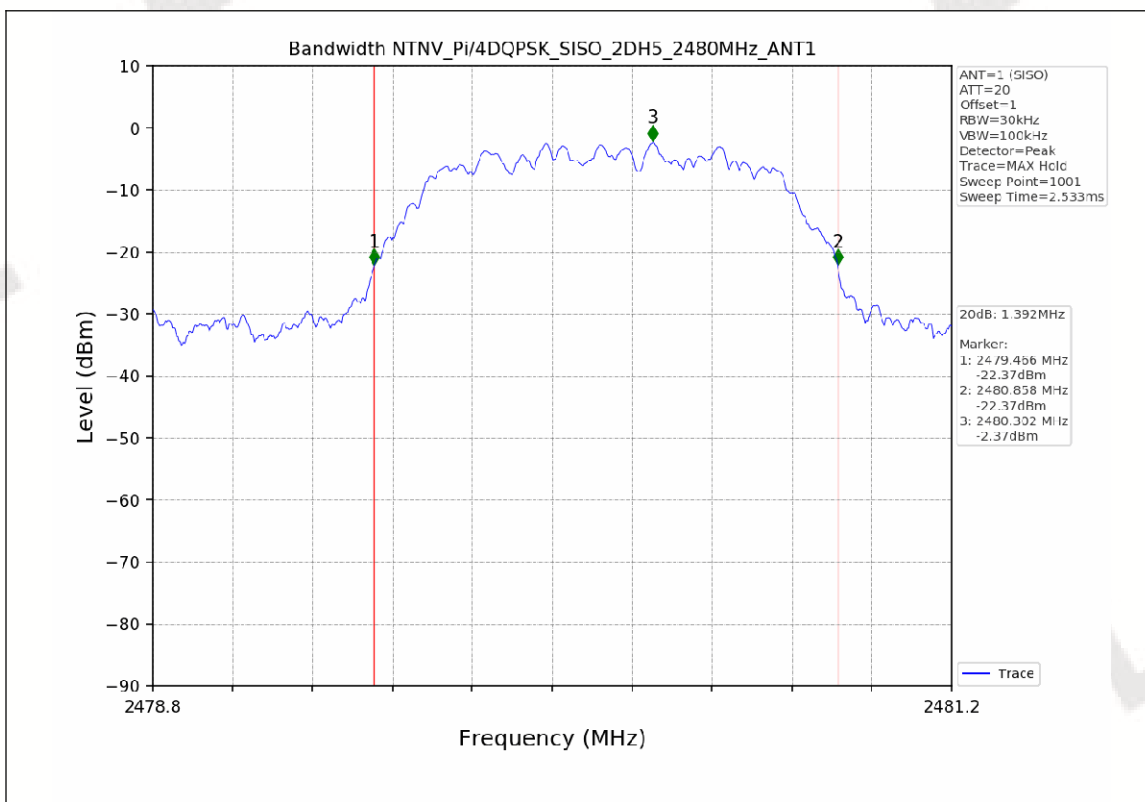
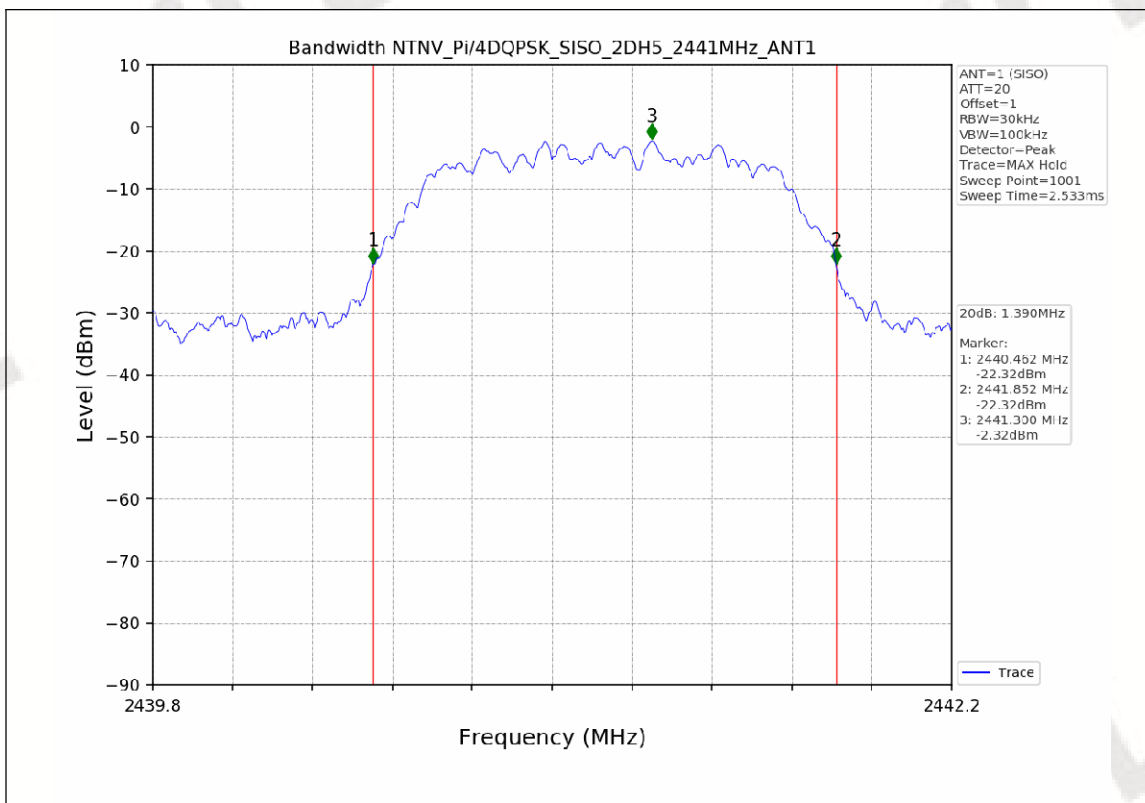
Test Mode	Frequency (MHz)	TX Type	ANT No.	20dB Bandwidth	Verdict
				Test Result (MHz)	
GFSK	2402	SISO	1	1.027	PASS
	2441	SISO	1	1.031	PASS
	2480	SISO	1	1.025	PASS
Pi/4DQPSK	2402	SISO	1	1.391	PASS
	2441	SISO	1	1.390	PASS
	2480	SISO	1	1.392	PASS
8DPSK	2402	SISO	1	1.374	PASS
	2441	SISO	1	1.373	PASS
	2480	SISO	1	1.377	PASS

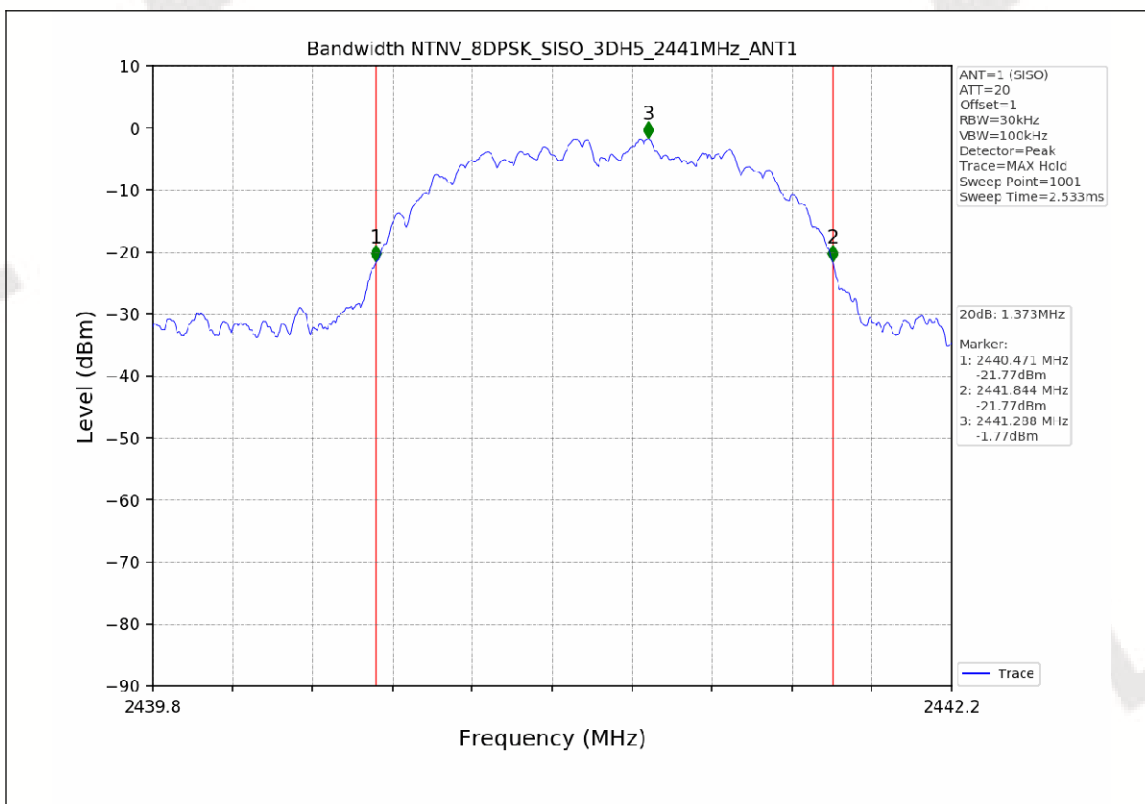
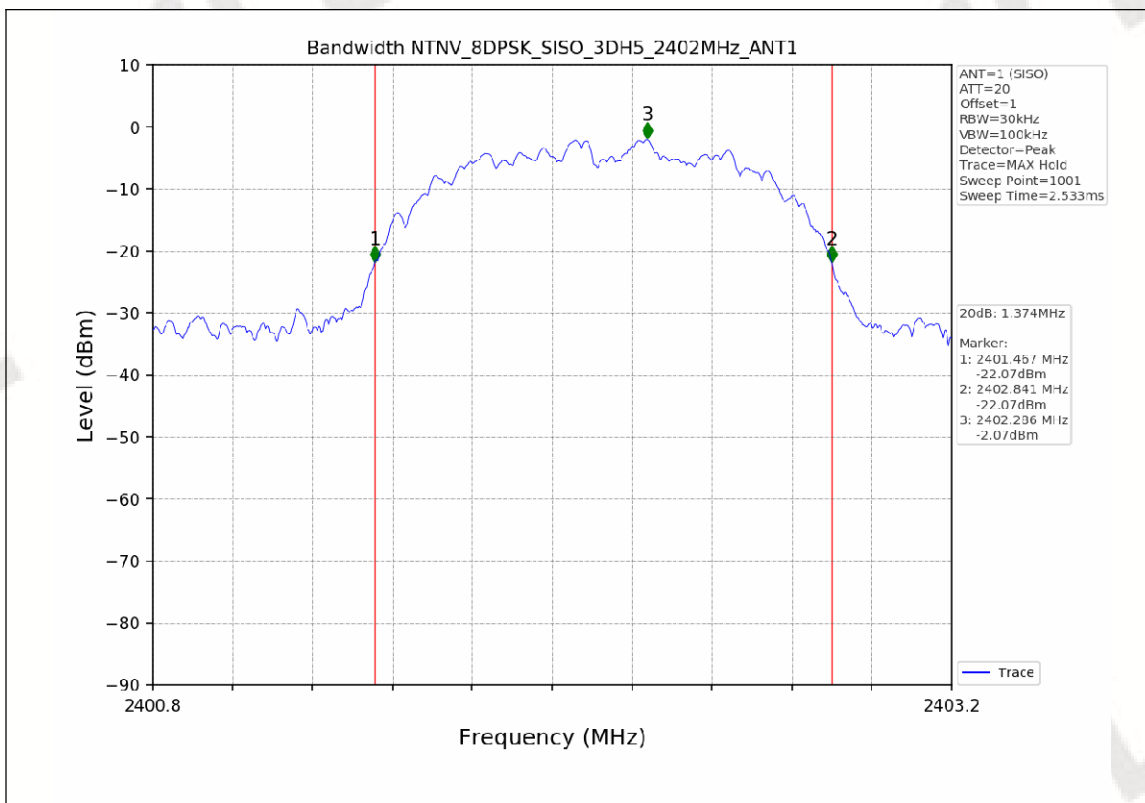
Test Mode	Frequency (MHz)	TX Type	ANT No.	99% Occupied Bandwidth	
				Test Result (MHz)	
GFSK	2402	SISO	1	0.903	Only for Report Use
	2441	SISO	1	0.905	Only for Report Use
	2480	SISO	1	0.905	Only for Report Use
Pi/4DQPSK	2402	SISO	1	1.229	Only for Report Use
	2441	SISO	1	1.233	Only for Report Use
	2480	SISO	1	1.232	Only for Report Use
8DPSK	2402	SISO	1	1.234	Only for Report Use
	2441	SISO	1	1.235	Only for Report Use
	2480	SISO	1	1.237	Only for Report Use

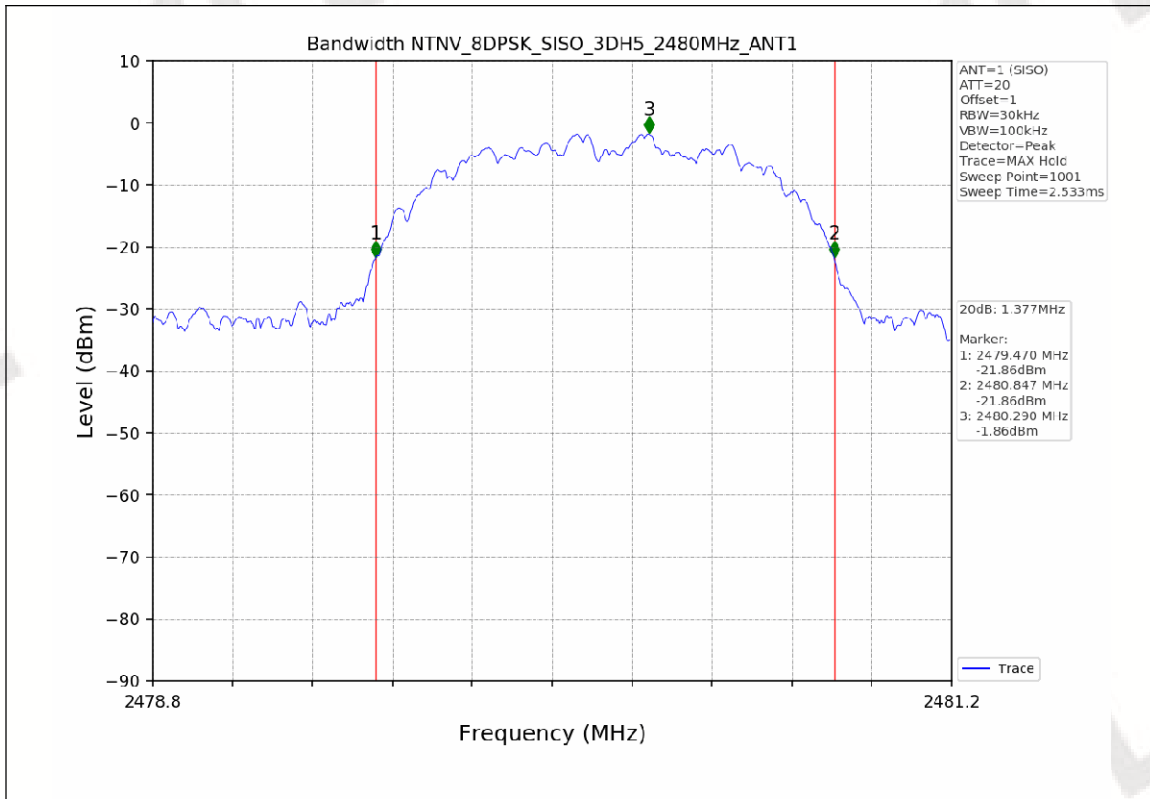
1.2 Test Graph - 20dB Bandwidth



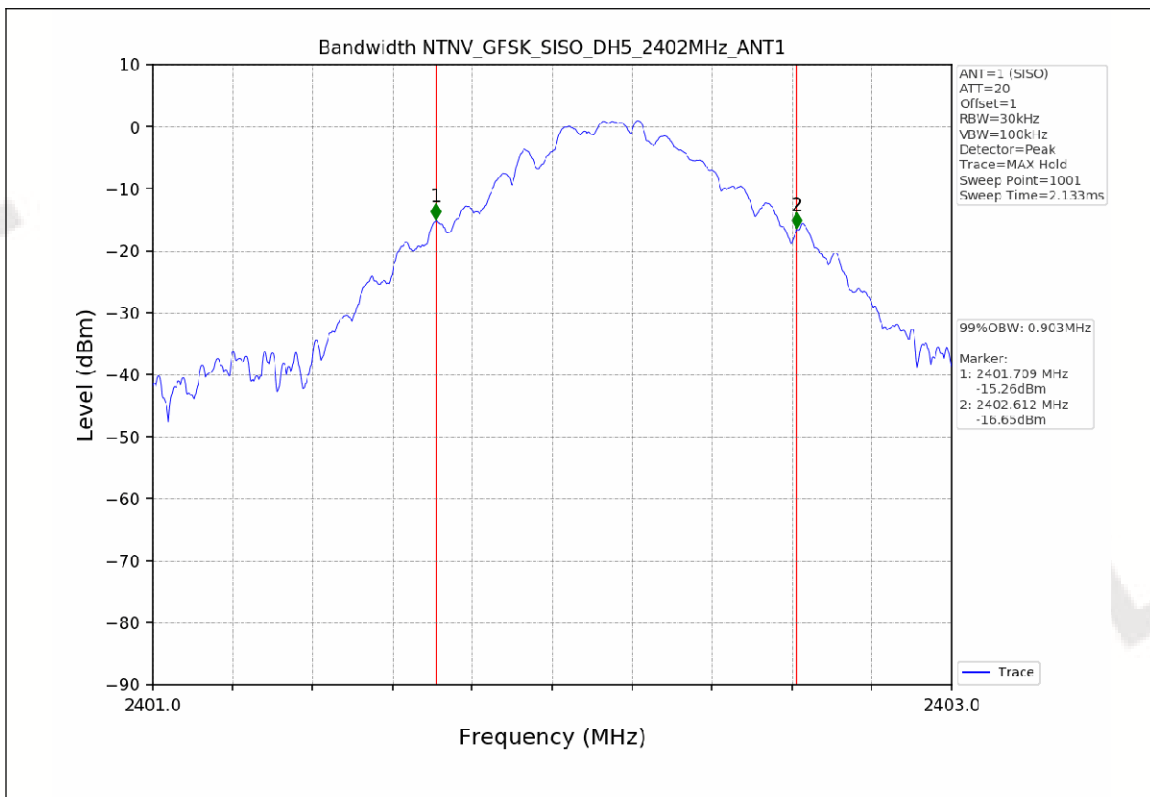


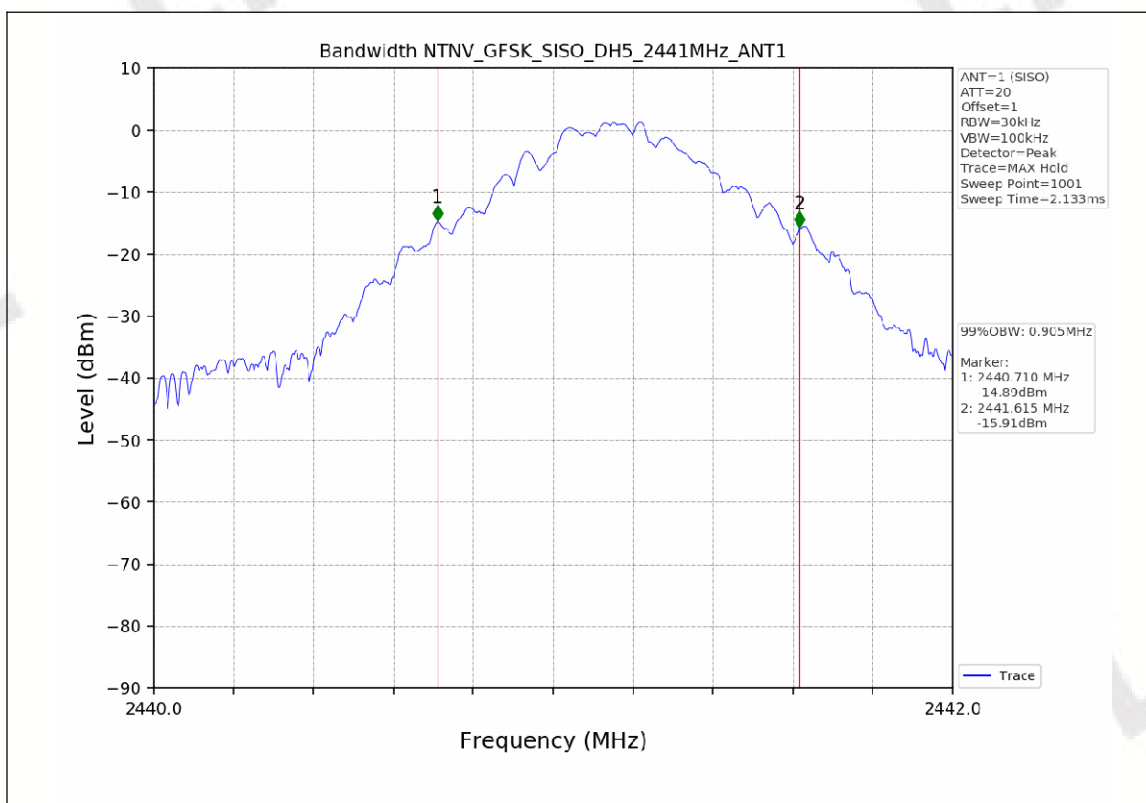


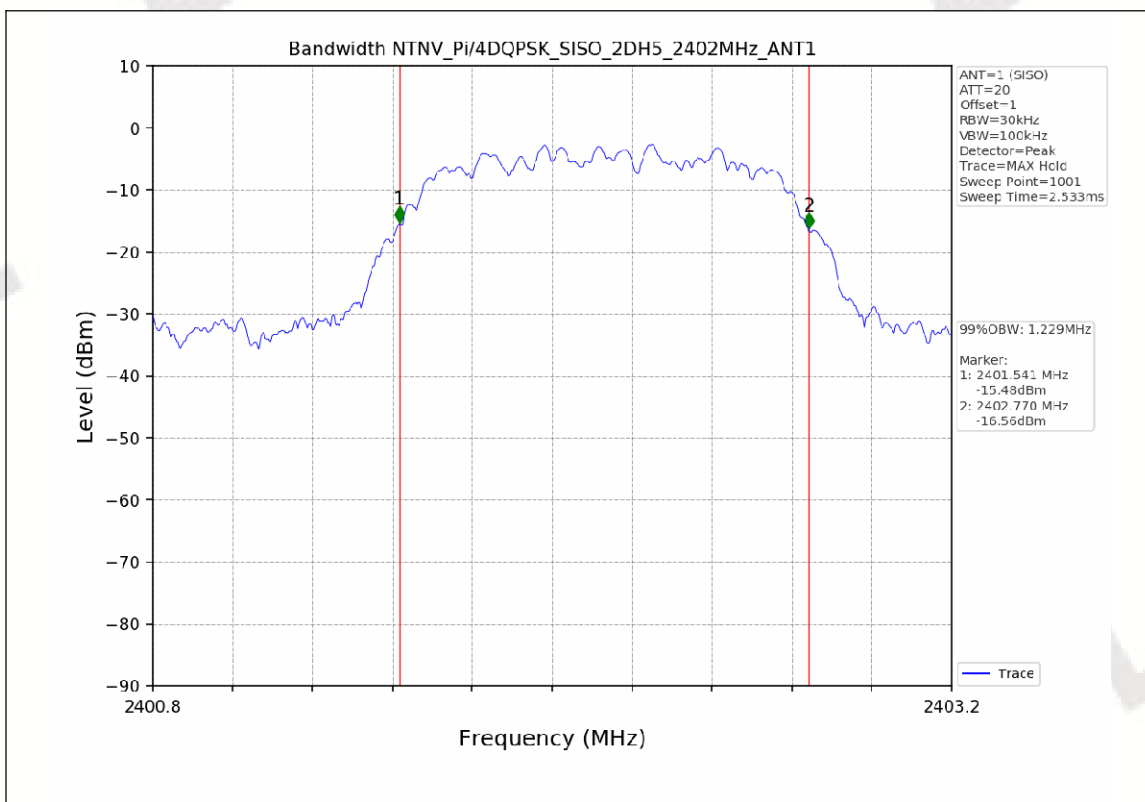
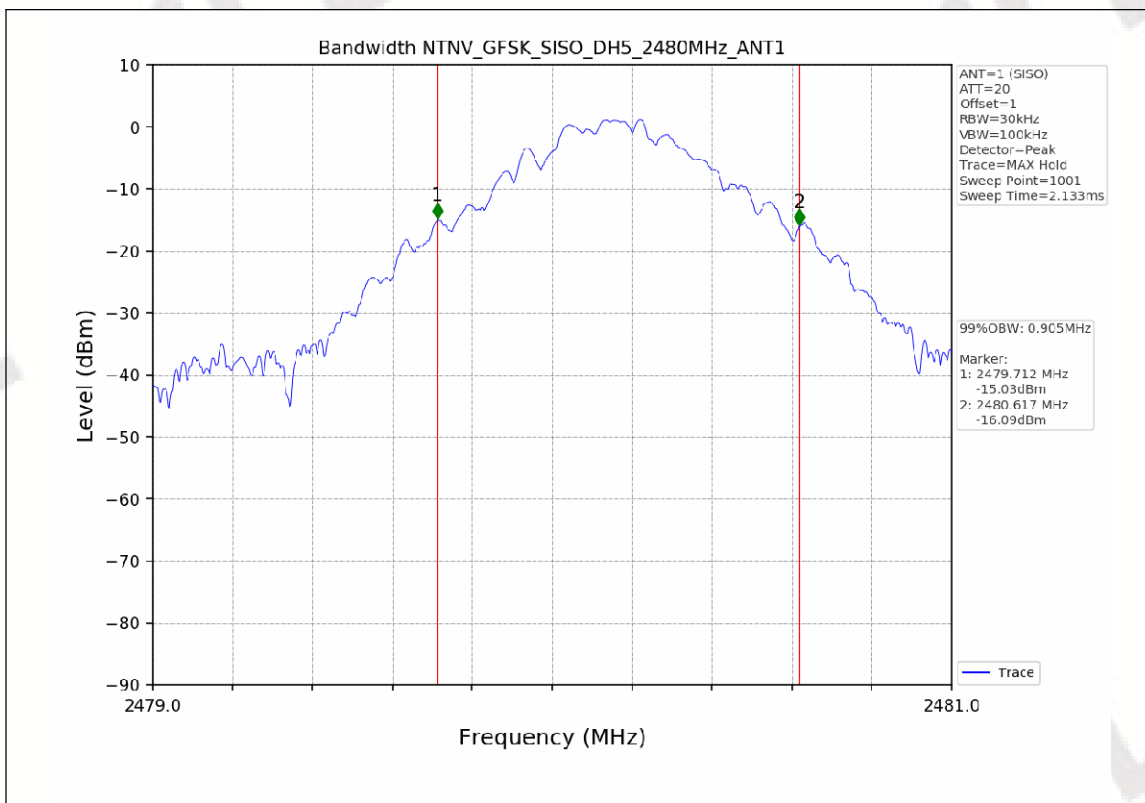


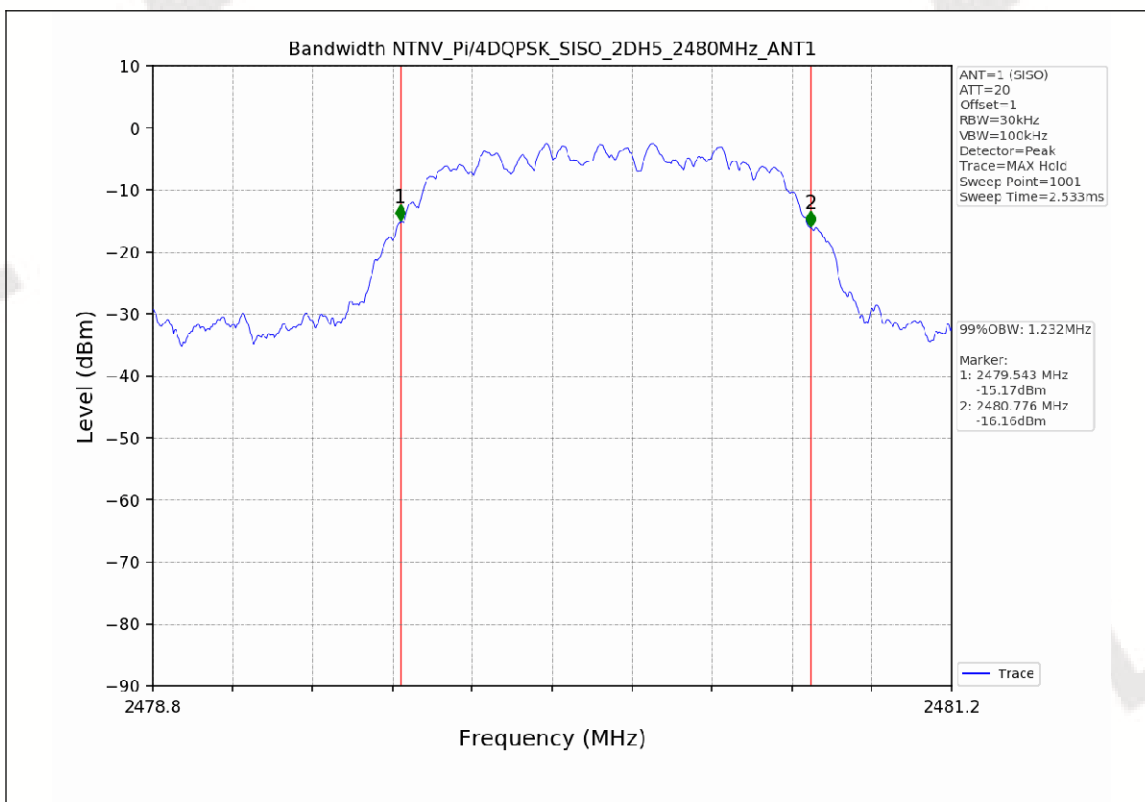
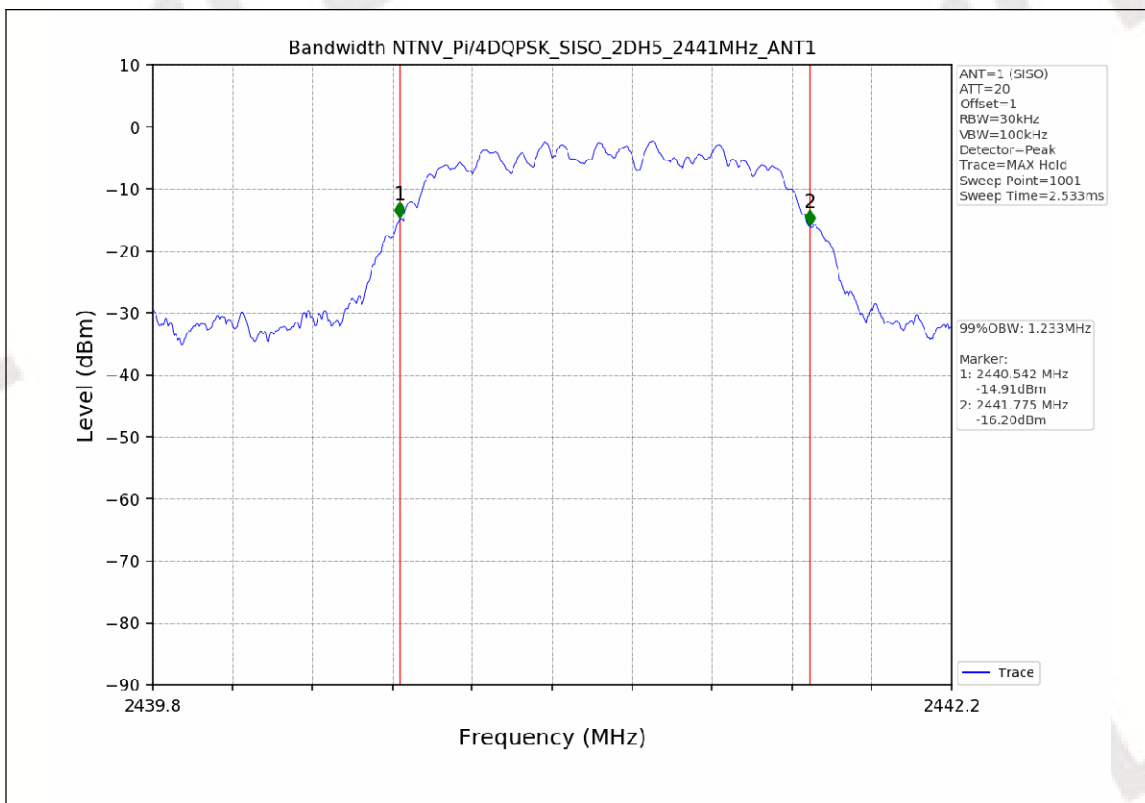


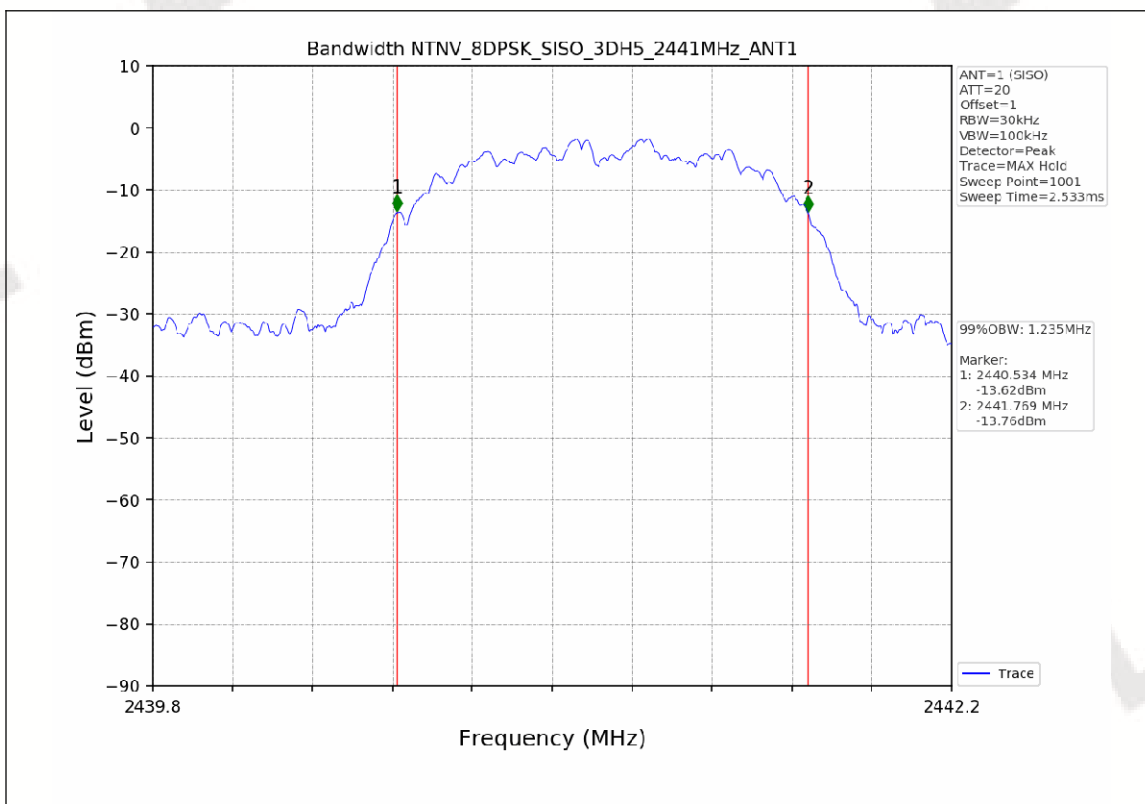
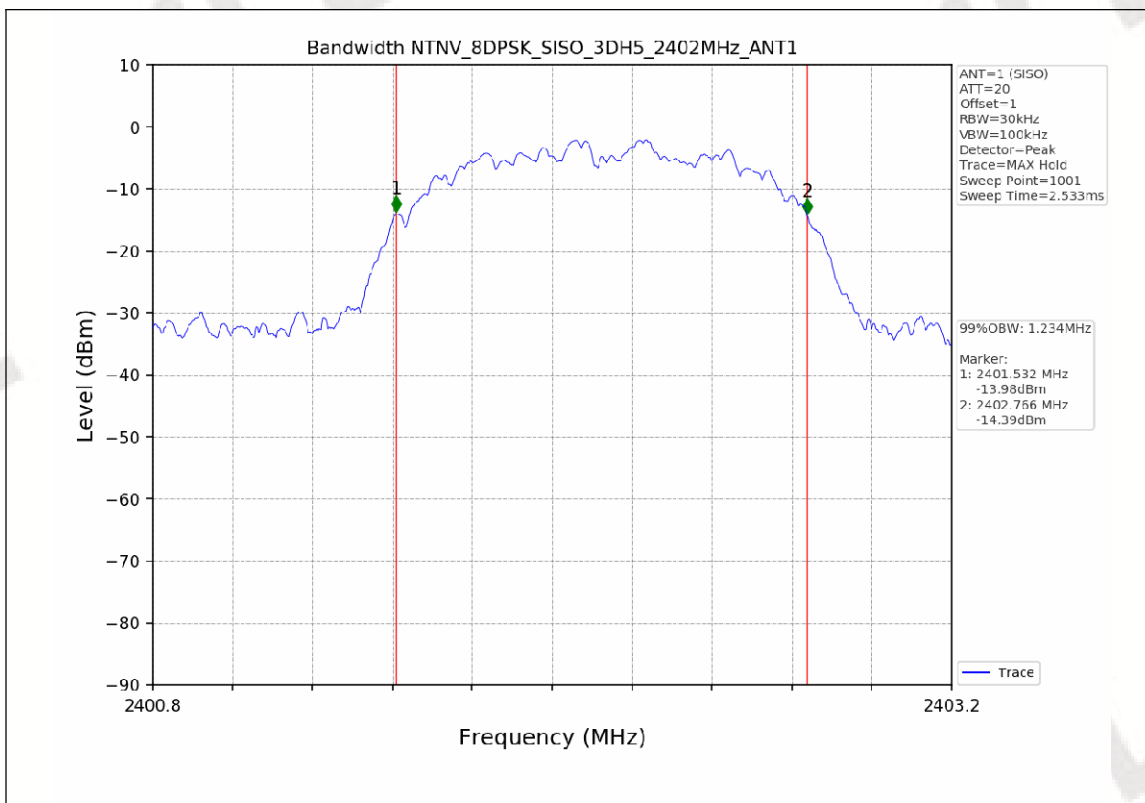
1.3 Test Graph - 99% Occupied Bandwidth

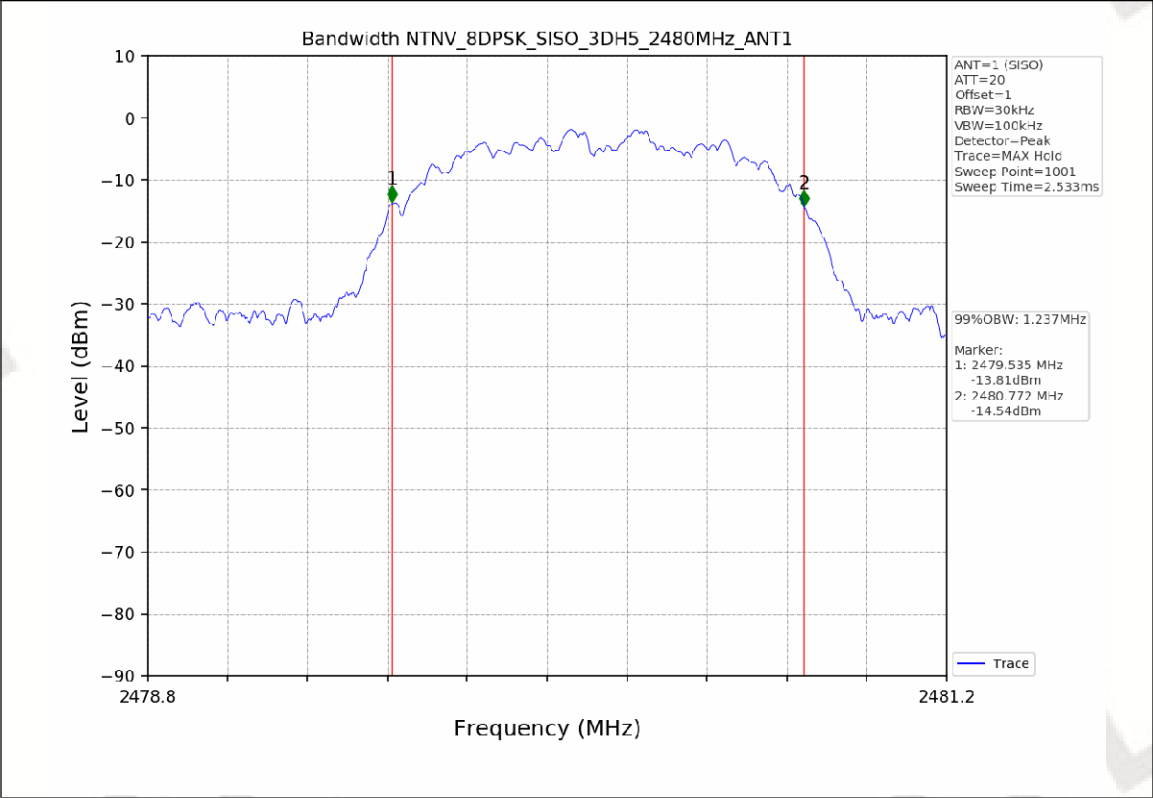










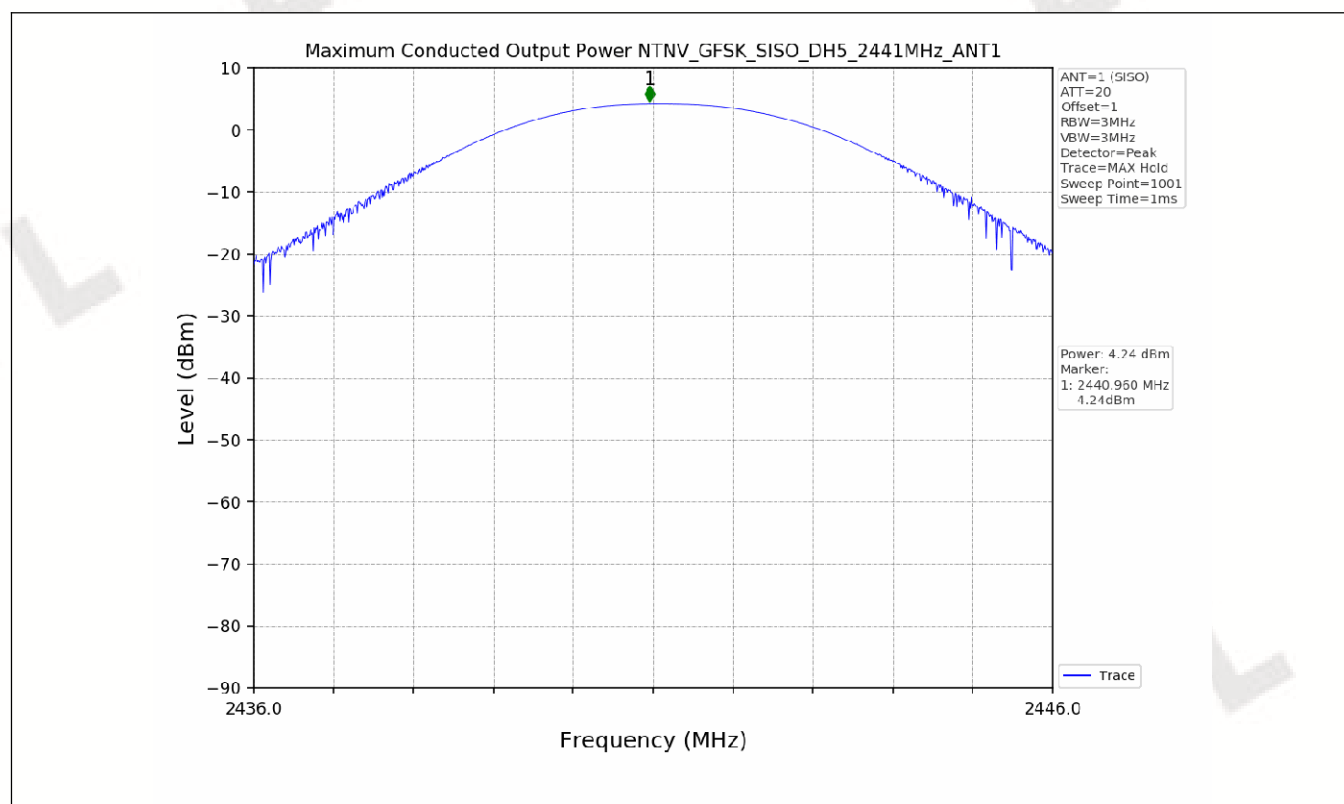
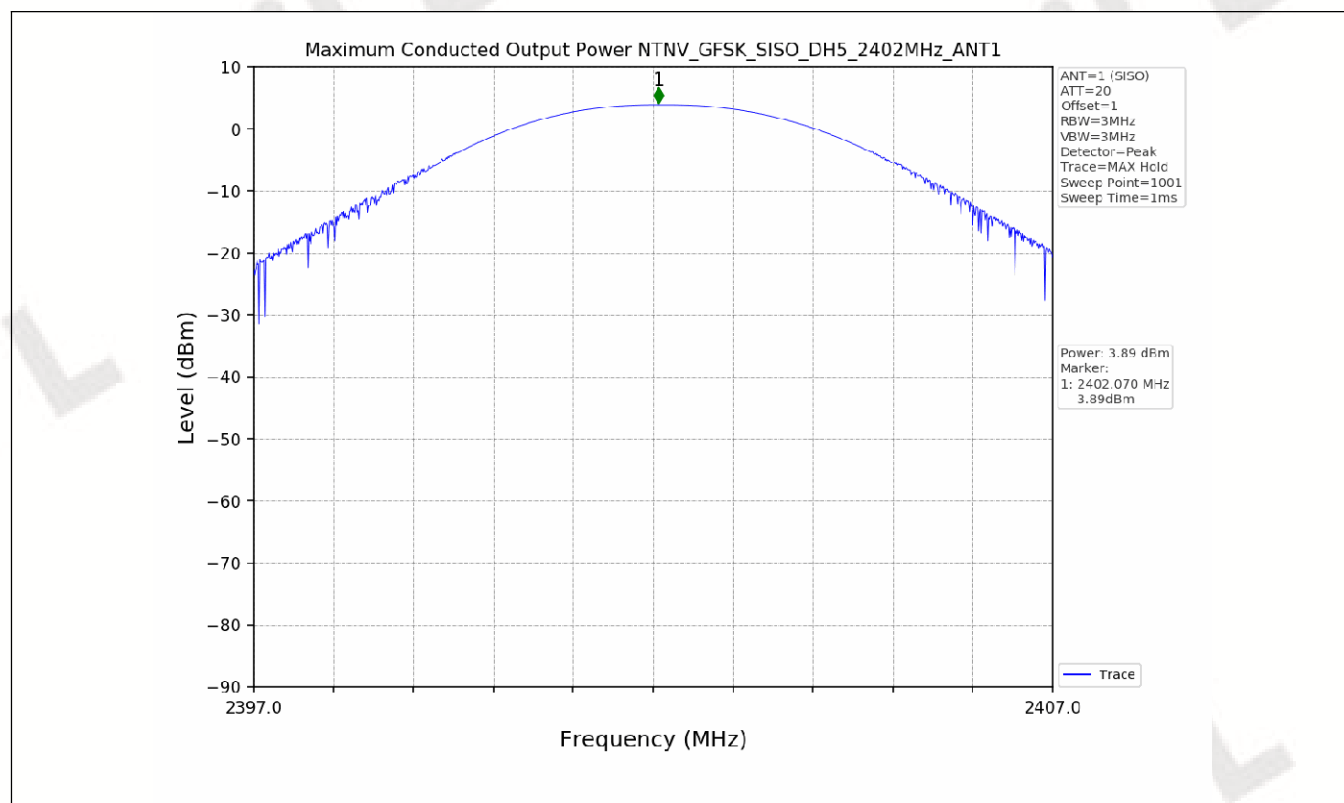


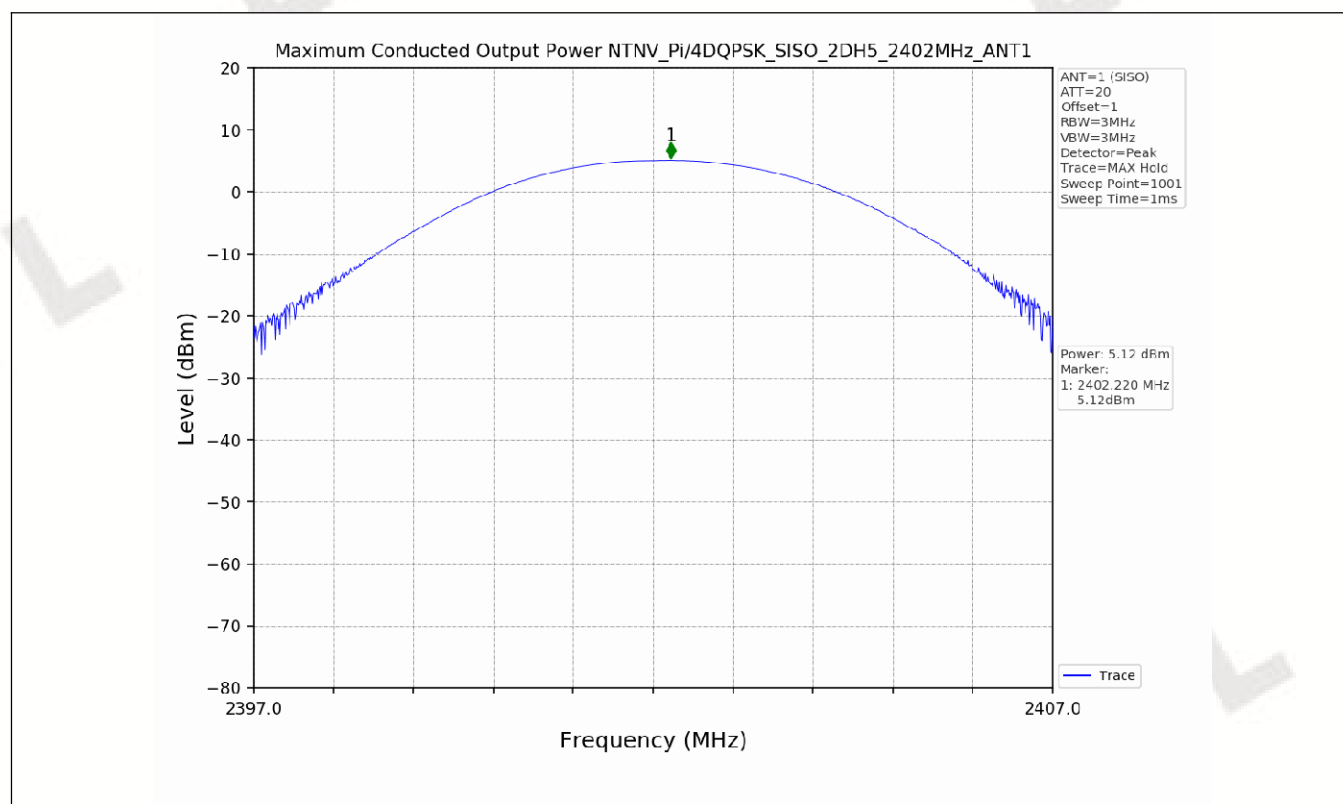
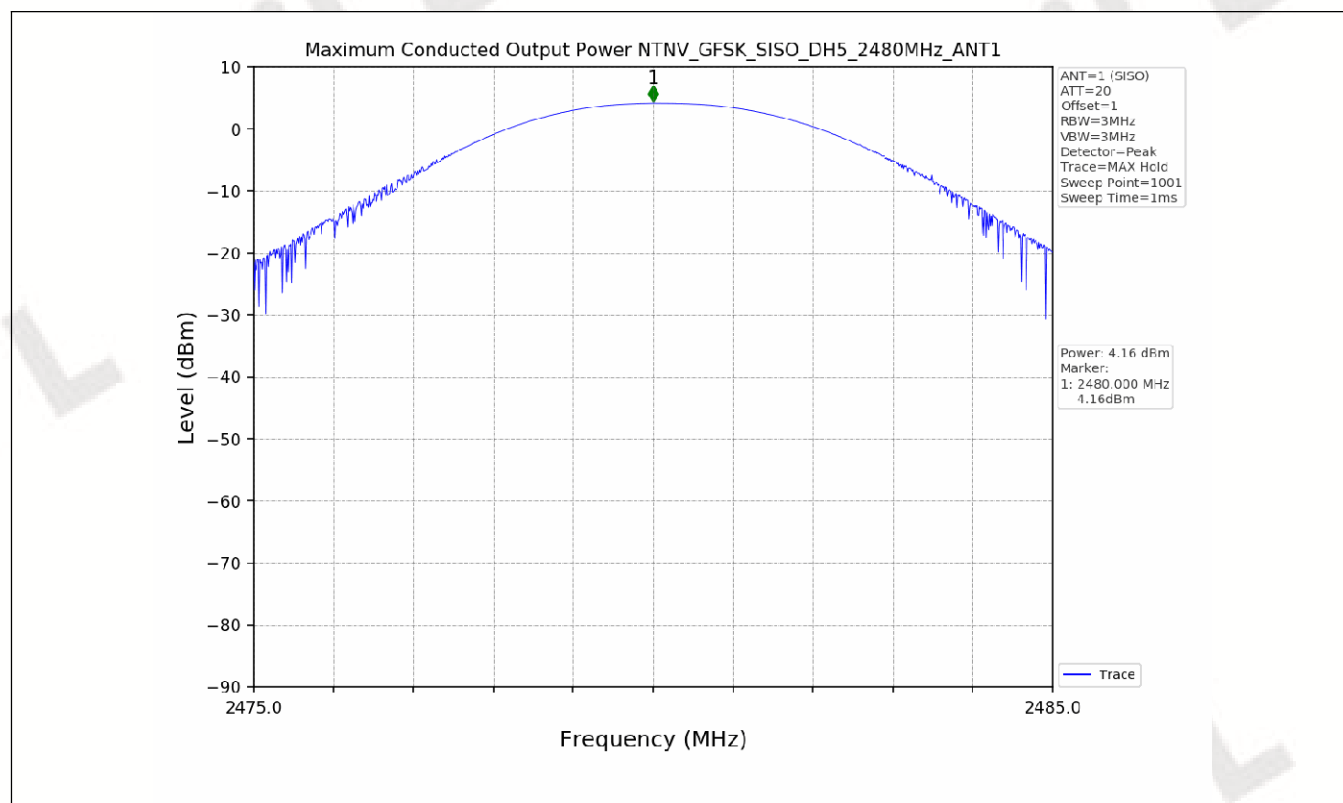
2. Maximum Conducted Output Power

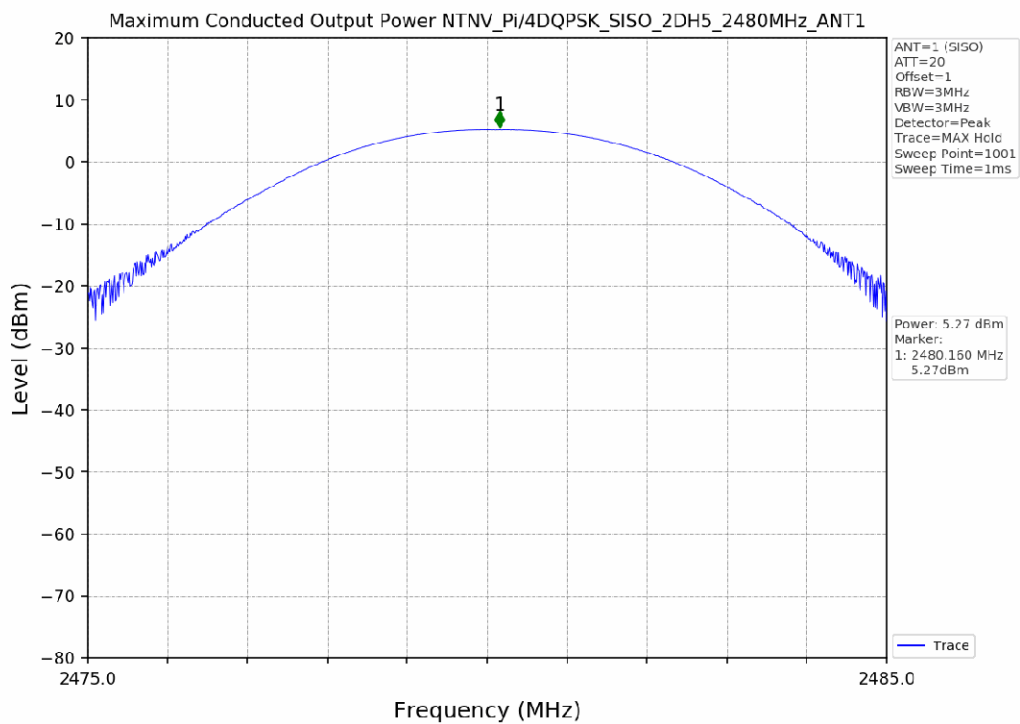
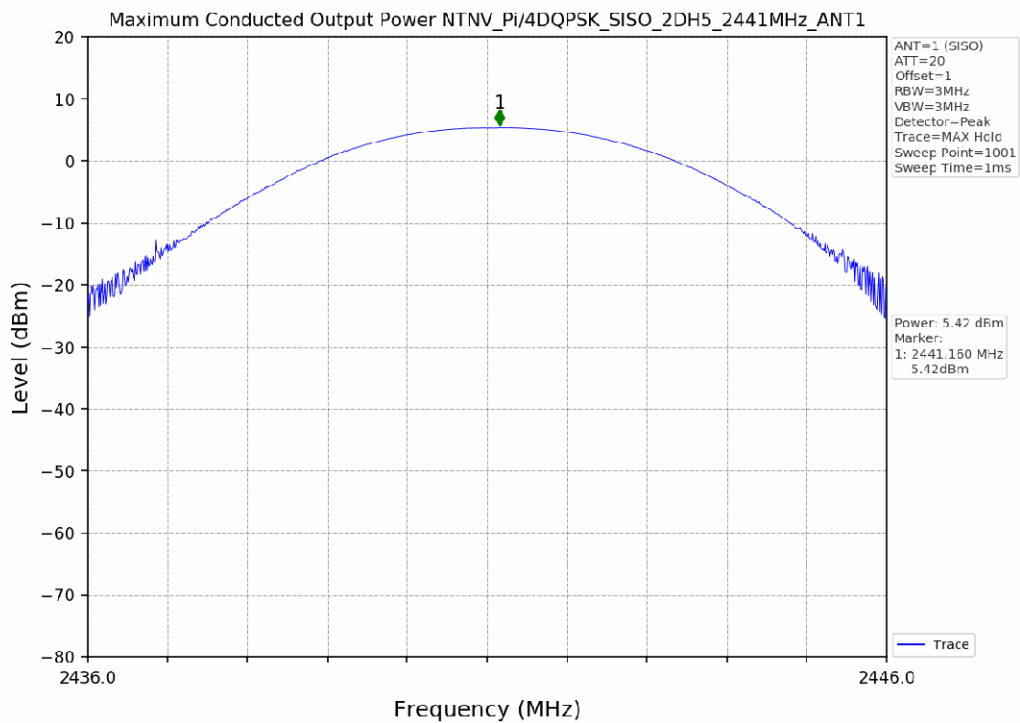
2.1 Test Result

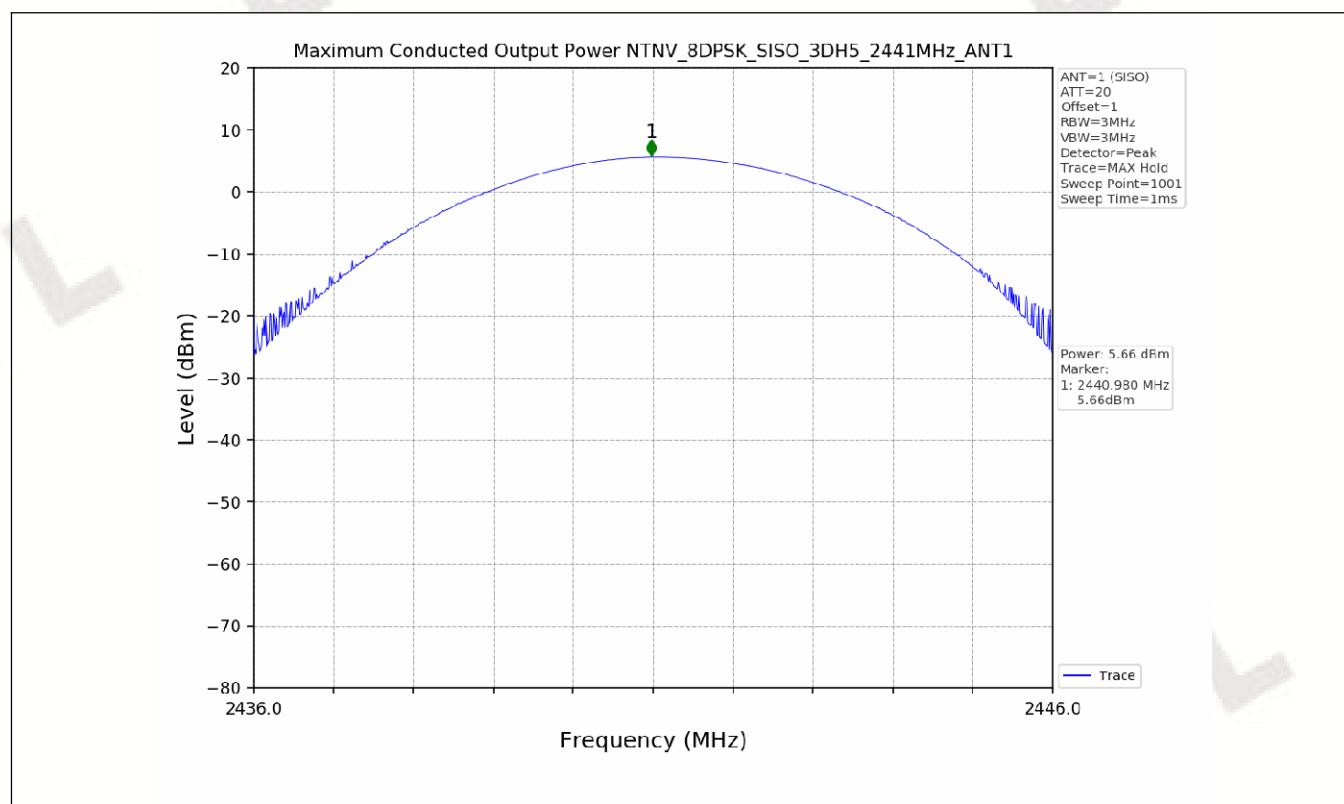
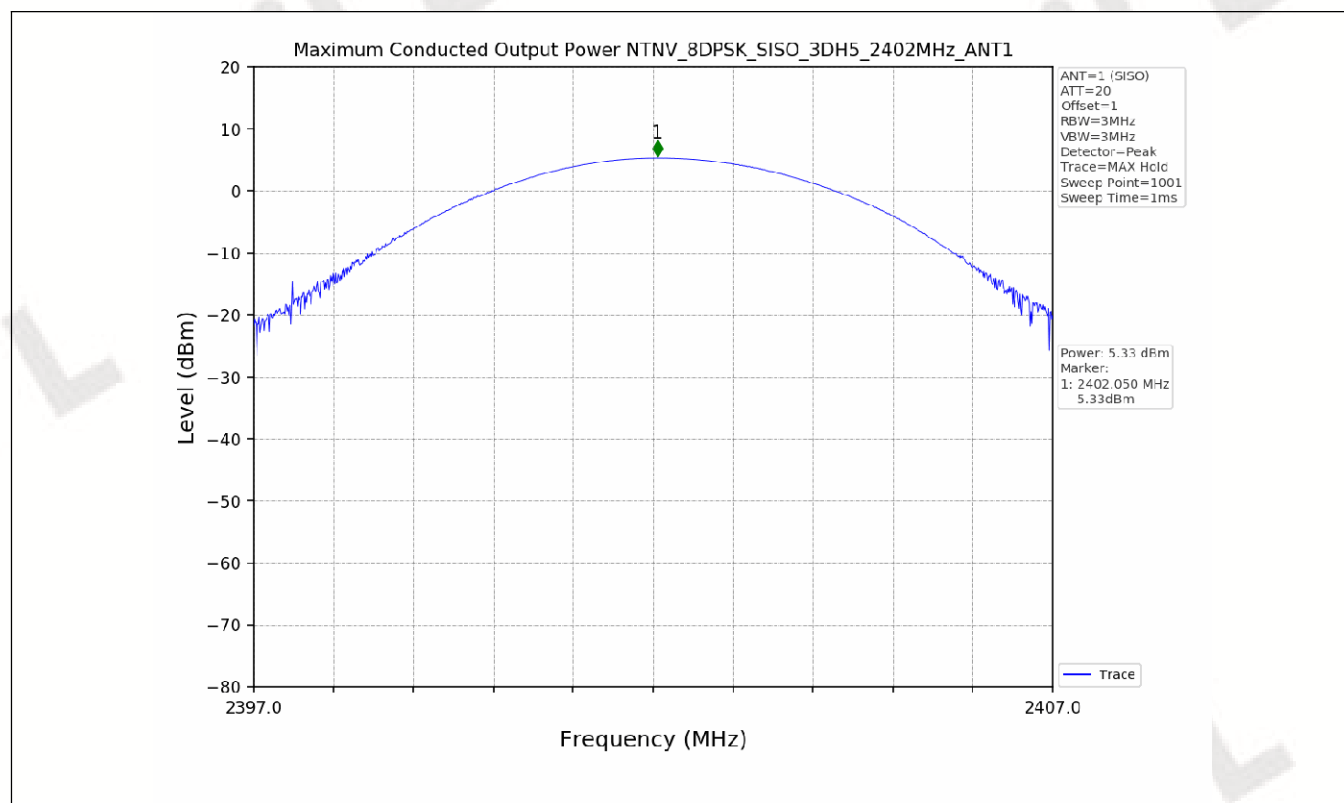
Test Mode	Frequency (MHz)	Tx Type	Measured Peak Output Power (dBm)	Limits (dBm)	Verdict
			Ant 1		
GFSK	2402	SISO	3.89	20.97	PASS
	2441	SISO	4.24	20.97	PASS
	2480	SISO	4.16	20.97	PASS
Pi/4DQPSK	2402	SISO	5.12	20.97	PASS
	2441	SISO	5.42	20.97	PASS
	2480	SISO	5.27	20.97	PASS
8DPSK	2402	SISO	5.33	20.97	PASS
	2441	SISO	5.66	20.97	PASS
	2480	SISO	5.54	20.97	PASS

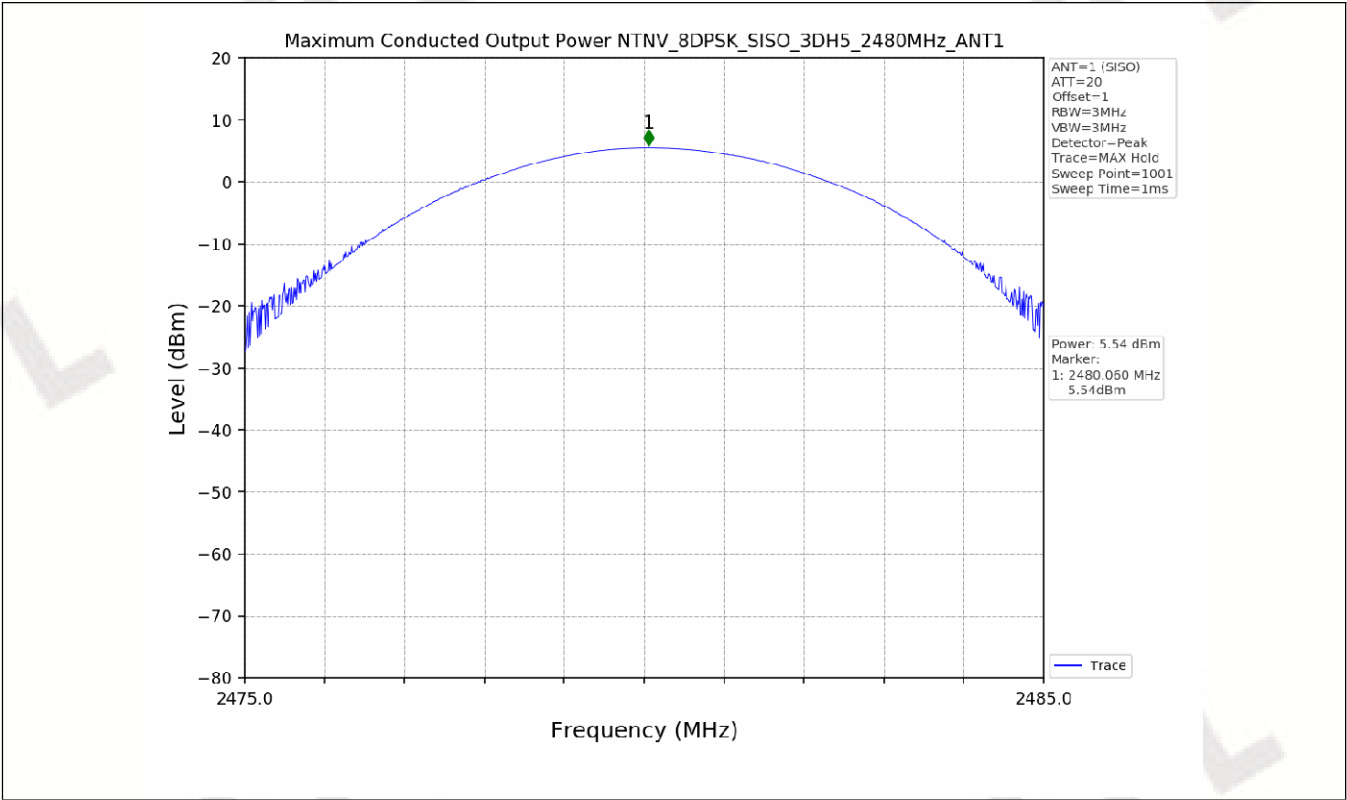
2.2 Test Graph









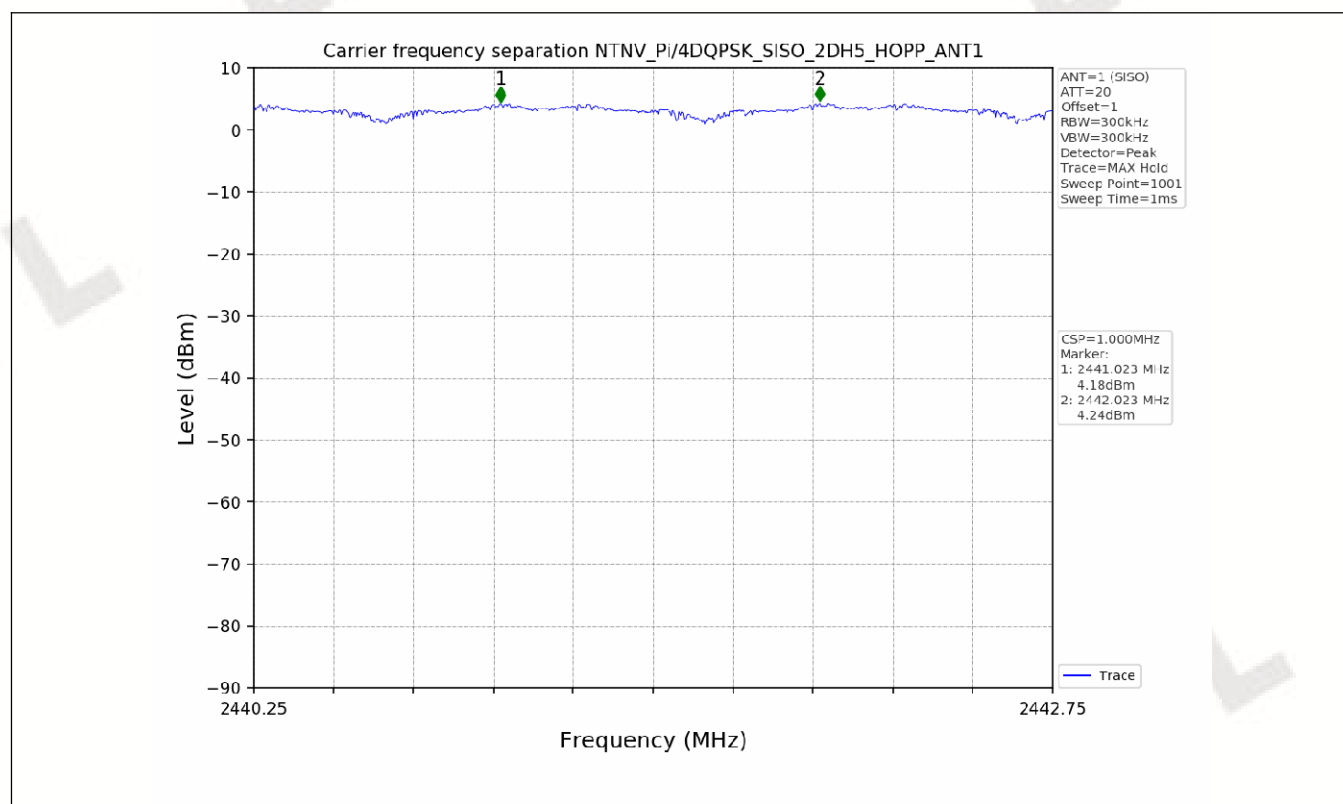
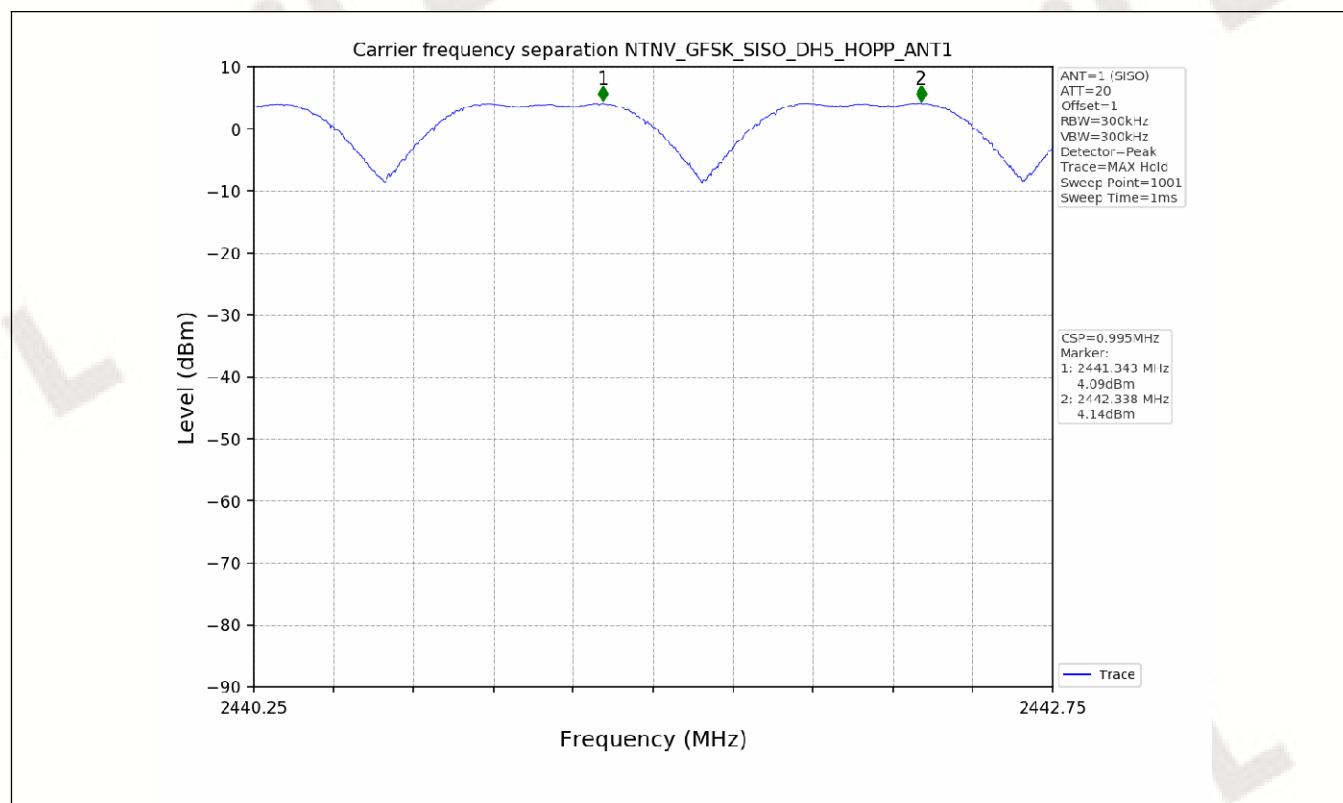


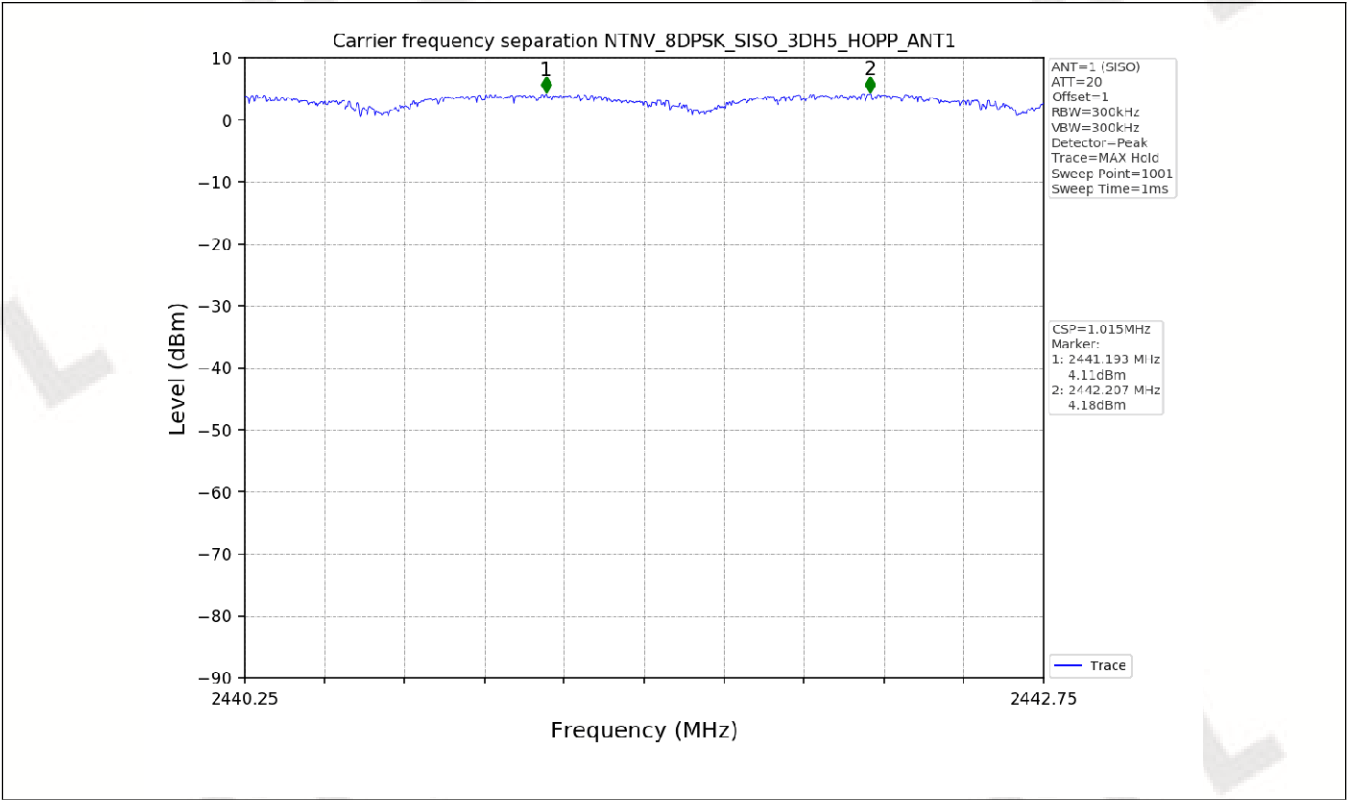
3. Carrier frequency separation

3.1 Test Result

Test Mode	TX Type	ANT No.	Channel Separation (MHz)	20dB Bandwidth (MHz)	Limits (MHz)	Verdict
GFSK	SISO	1	0.995	1.031	≥ 0.687	PASS
Pi/4DQPSK	SISO	1	1.000	1.392	≥ 0.928	PASS
8DPSK	SISO	1	1.015	1.377	≥ 0.918	PASS

3.2 Test Graph



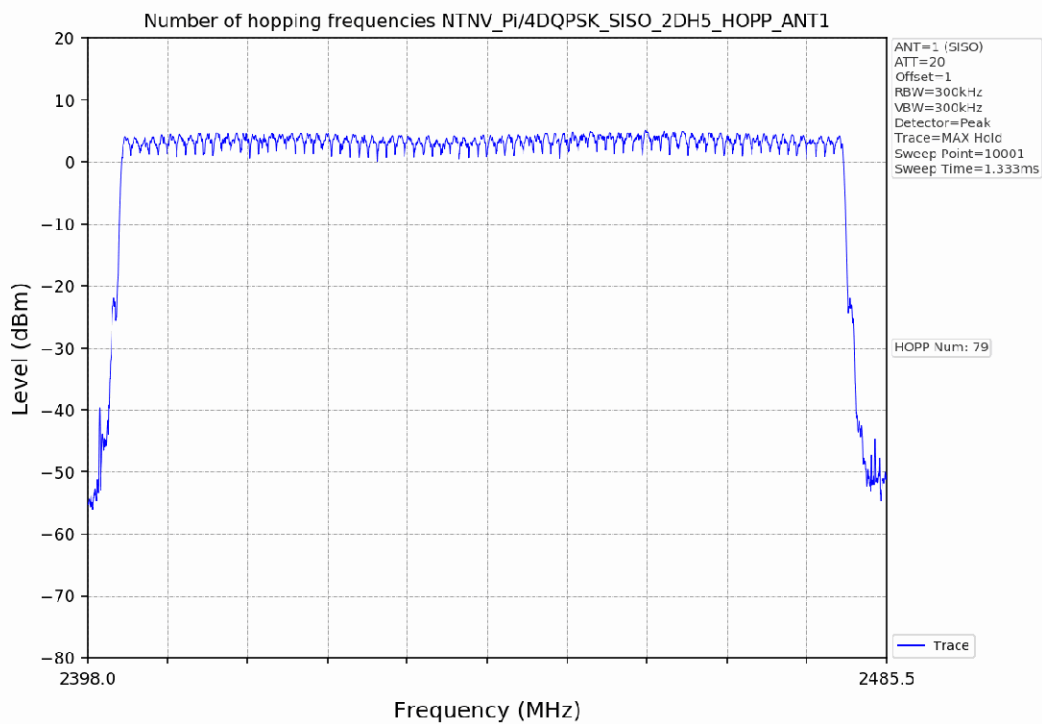
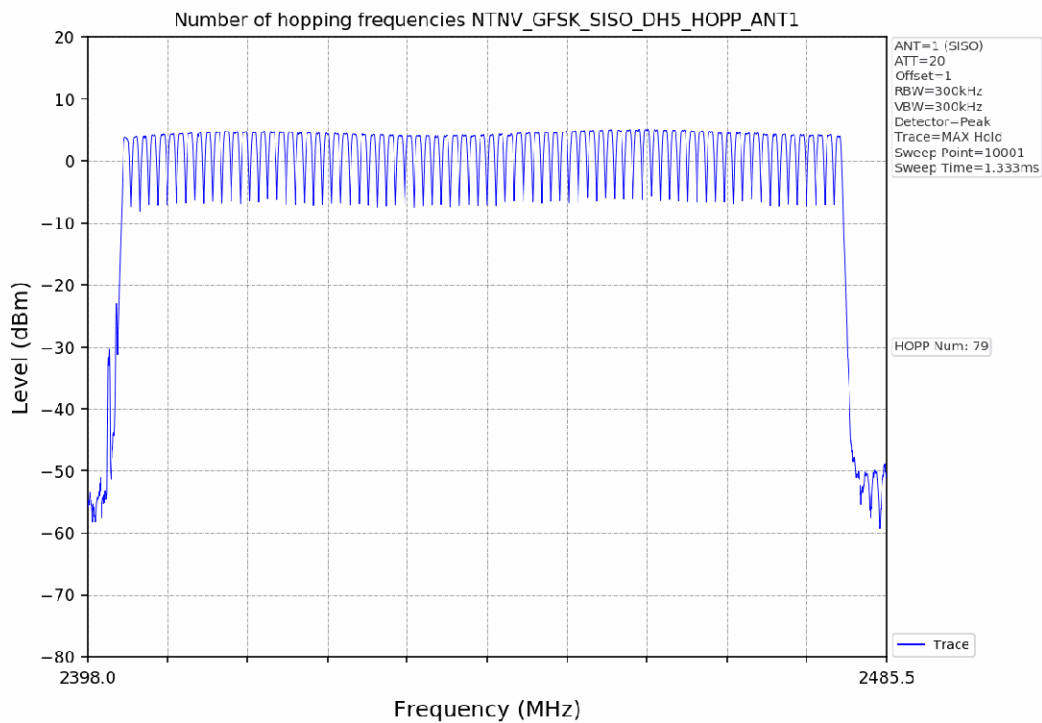


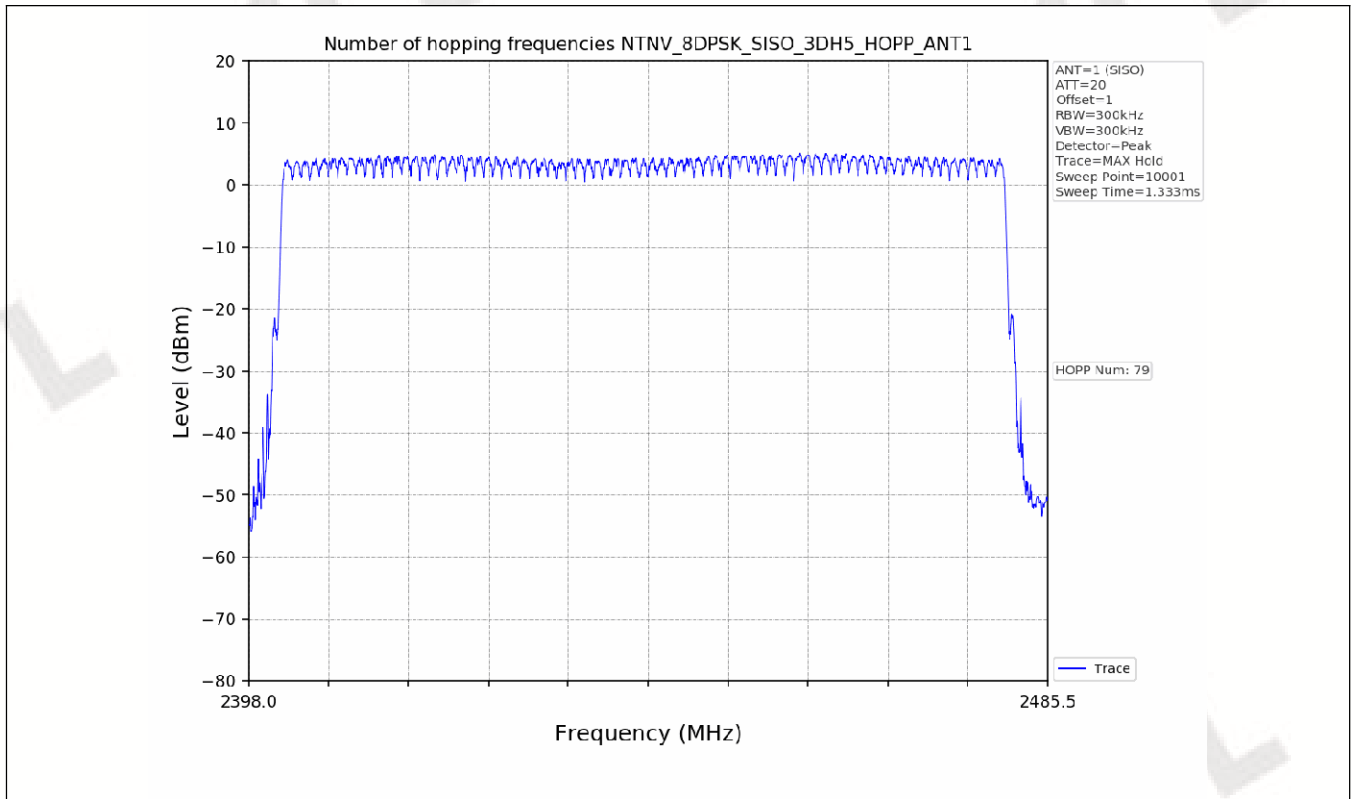
4. Number of hopping frequencies

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



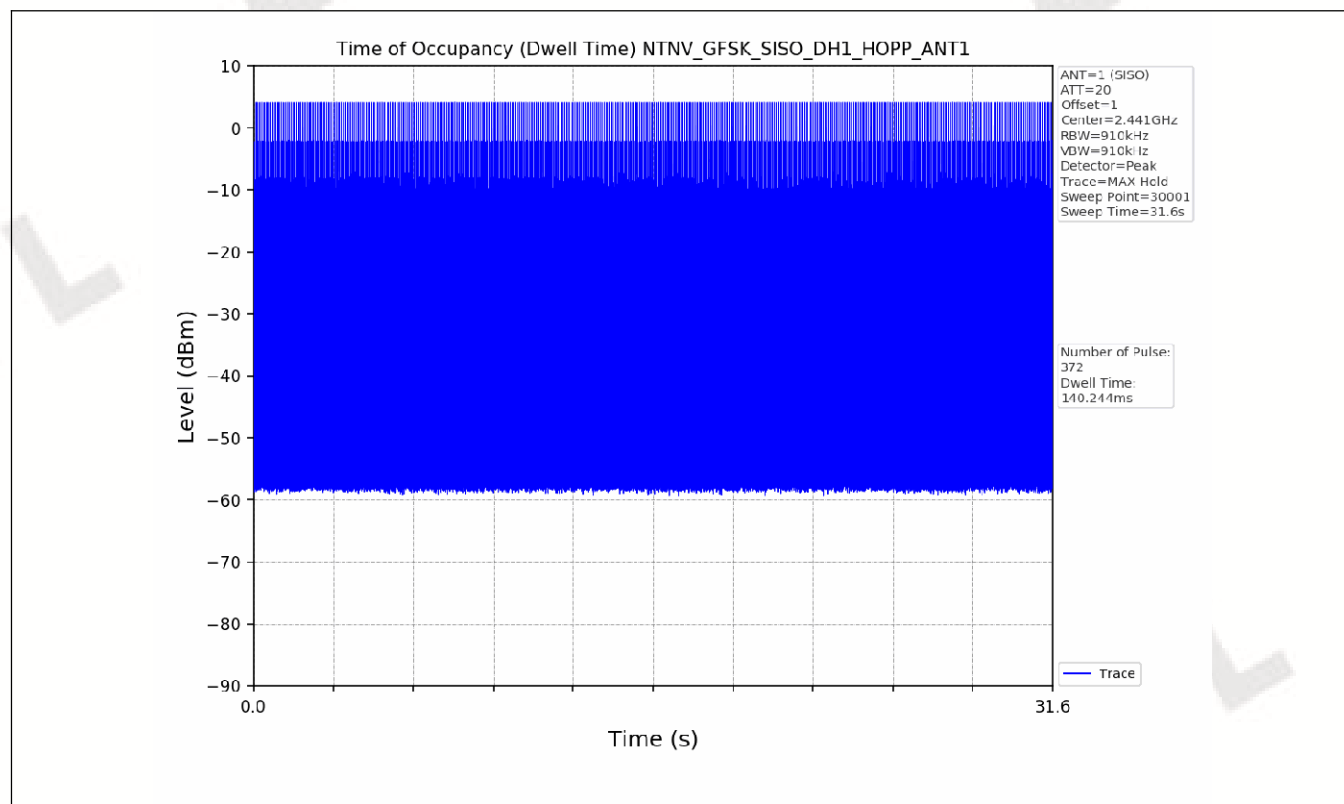
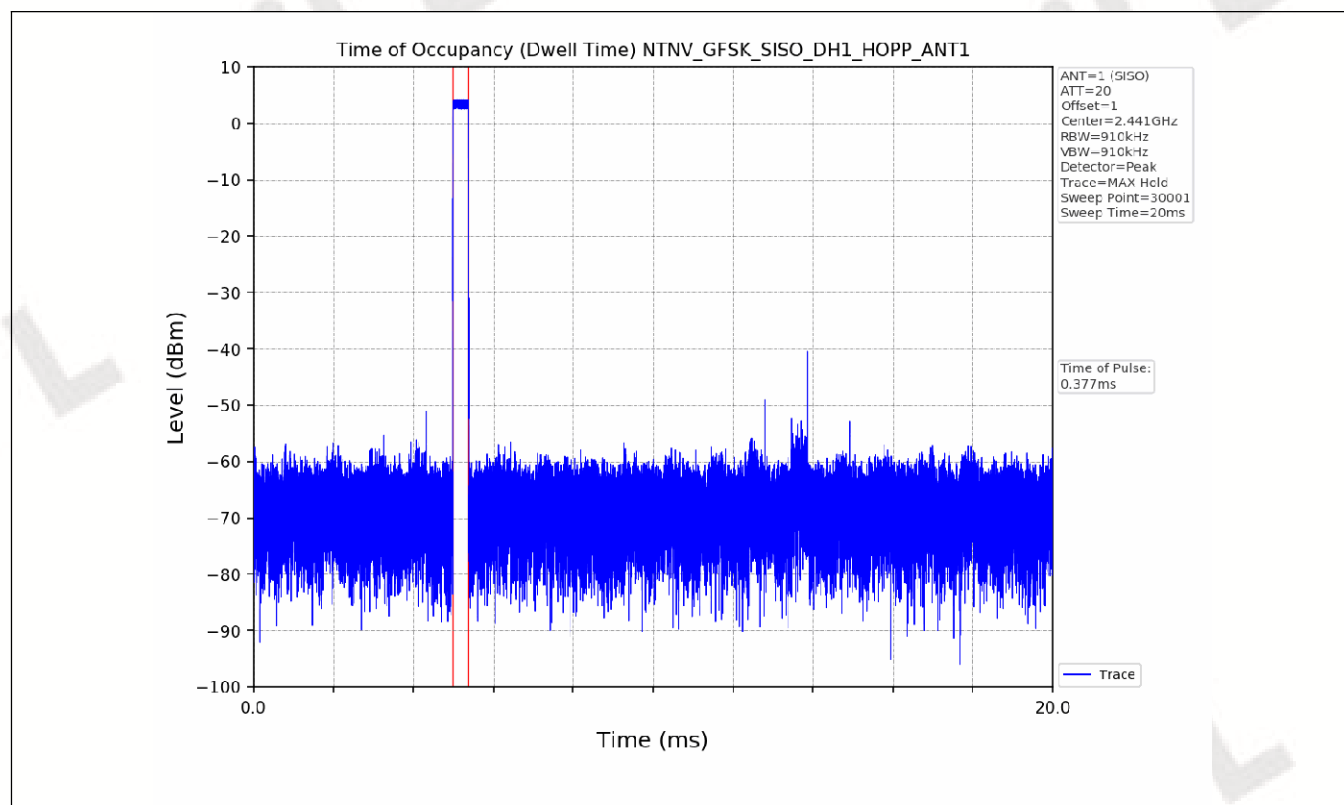


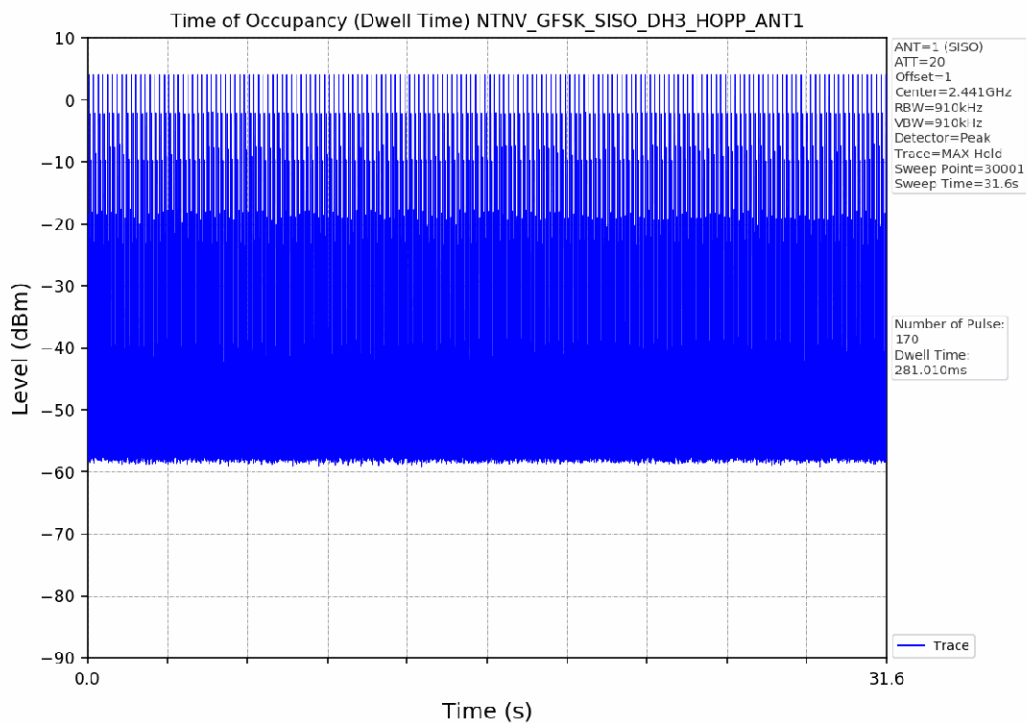
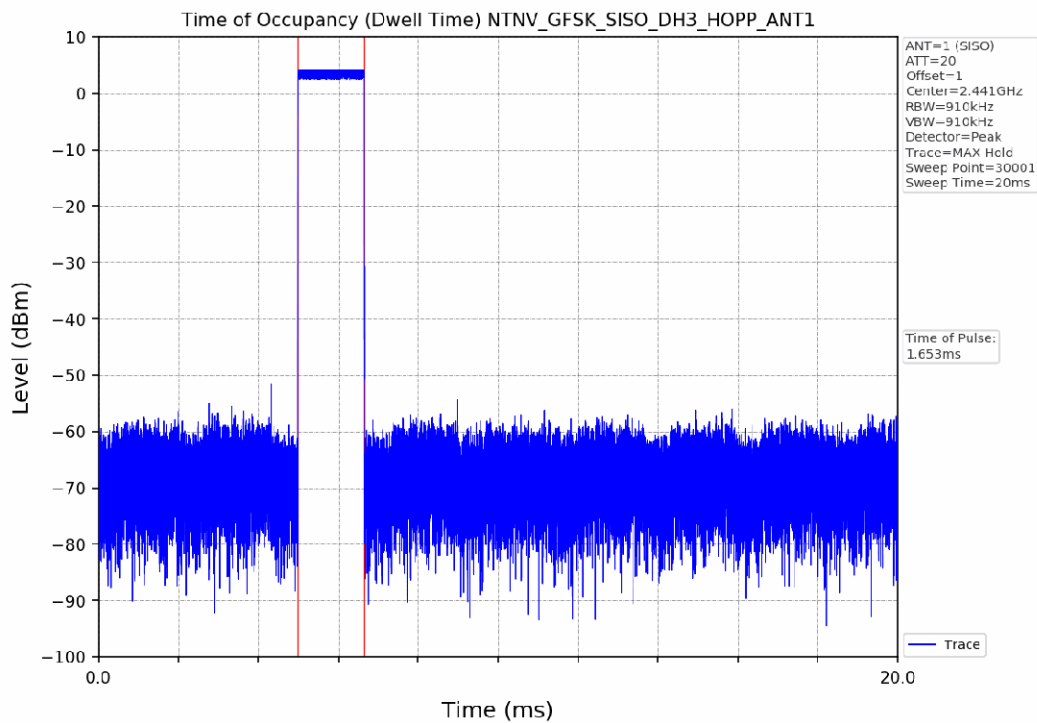
5. Time of Occupancy (Dwell Time)

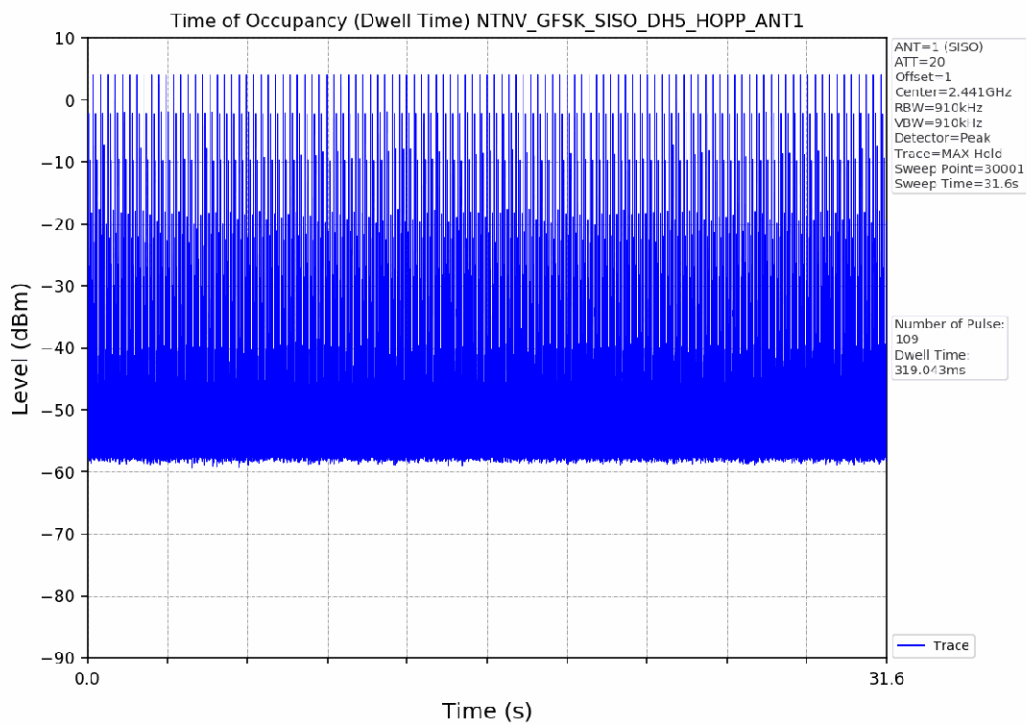
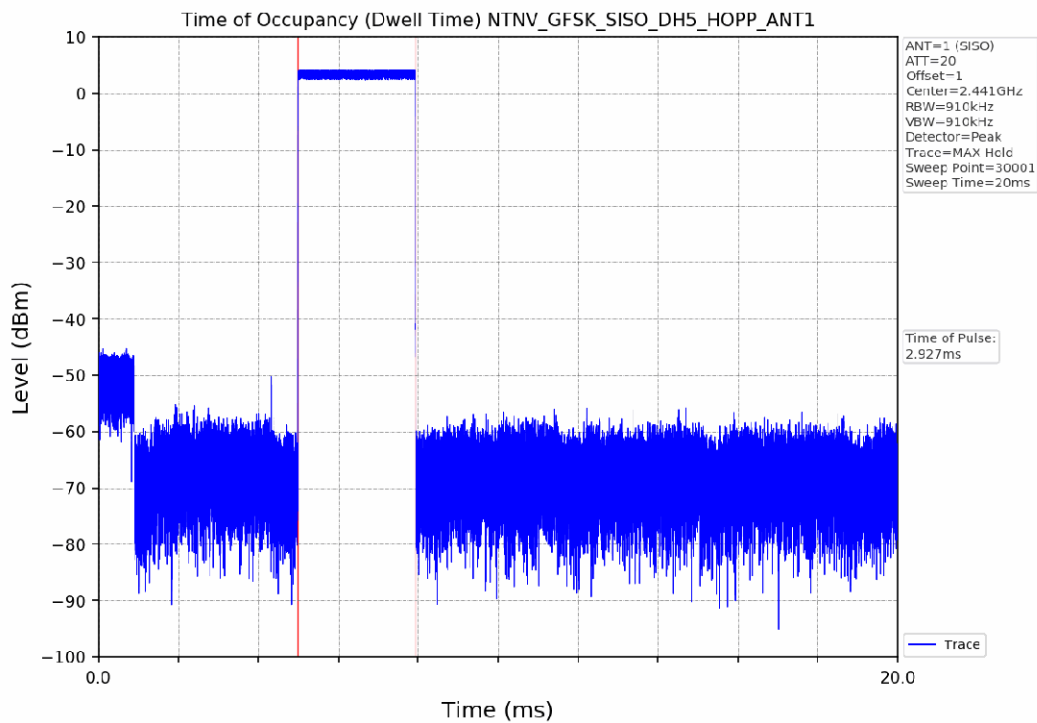
5.1 Test Result

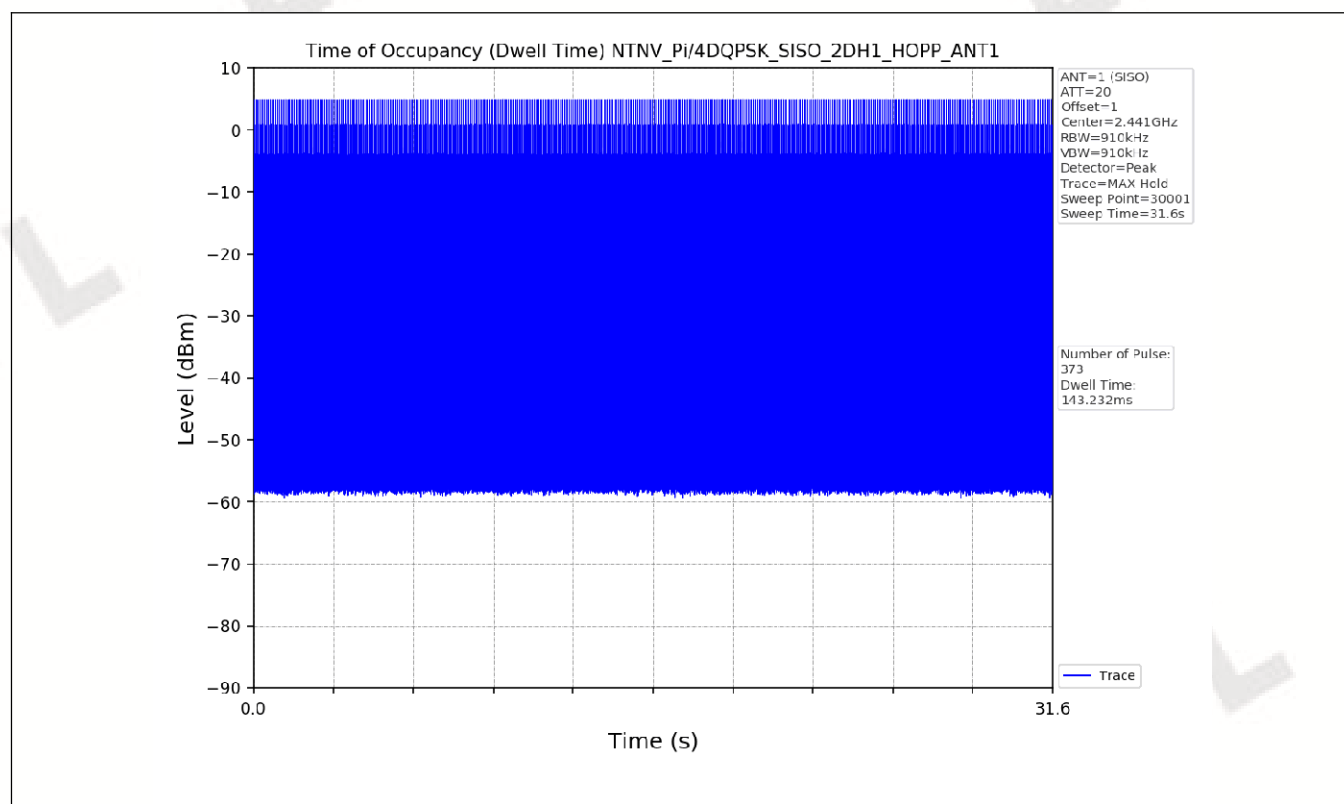
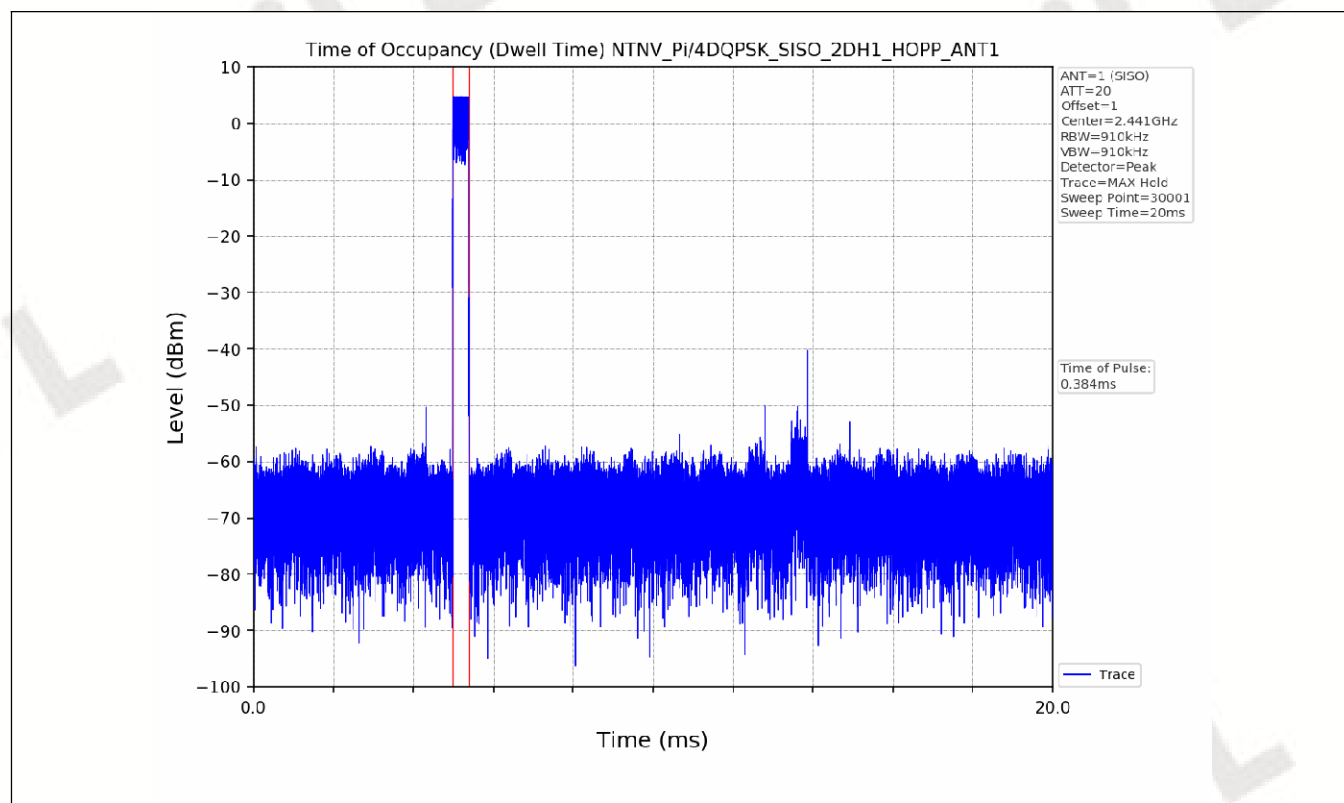
Test Mode	Packet Type	TX Type	ANT No.	Duration of Single Pulse (ms)	Observation Period (s)	Num of Pulse in Observation Period	Dwell Time (ms)	Limits (ms)	Verdict
GFSK	DH1	SISO	1	0.377	31.6	372	140.244	≤400	PASS
	DH3	SISO	1	1.653	31.6	170	281.010	≤400	PASS
	DH5	SISO	1	2.927	31.6	109	319.043	≤400	PASS
Pi/4DQPSK	2DH1	SISO	1	0.384	31.6	373	143.232	≤400	PASS
	2DH3	SISO	1	1.656	31.6	169	279.864	≤400	PASS
	2DH5	SISO	1	2.936	31.6	110	322.960	≤400	PASS
8DPSK	3DH1	SISO	1	0.388	31.6	372	144.336	≤400	PASS
	3DH3	SISO	1	1.657	31.6	169	280.033	≤400	PASS
	3DH5	SISO	1	2.944	31.6	109	320.896	≤400	PASS

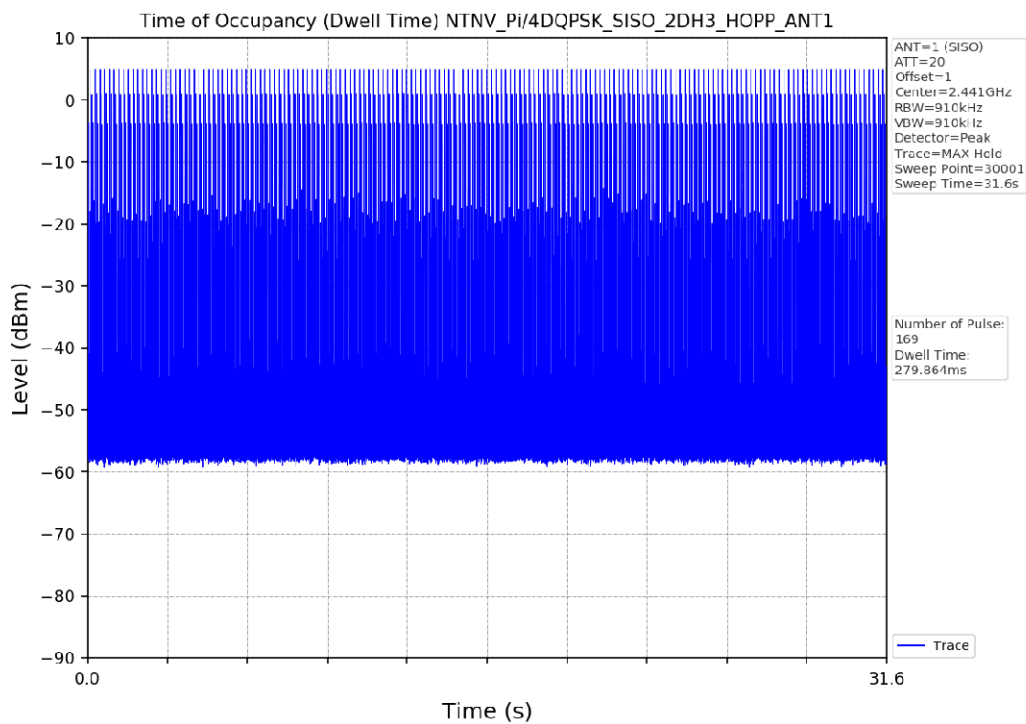
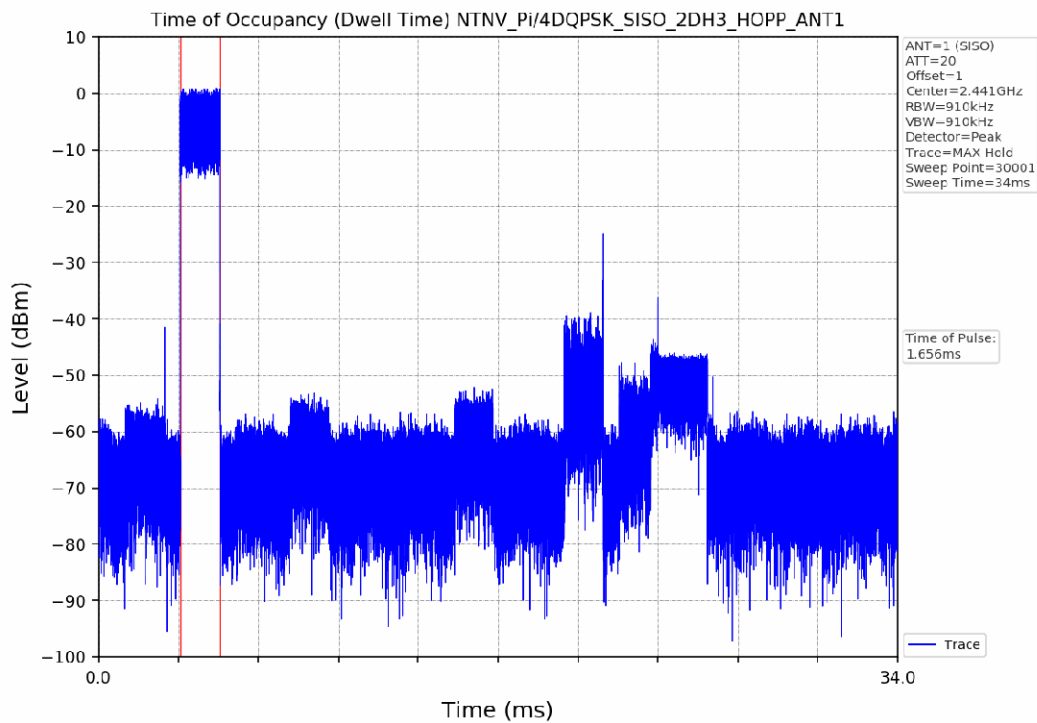
5.2 Test Graph

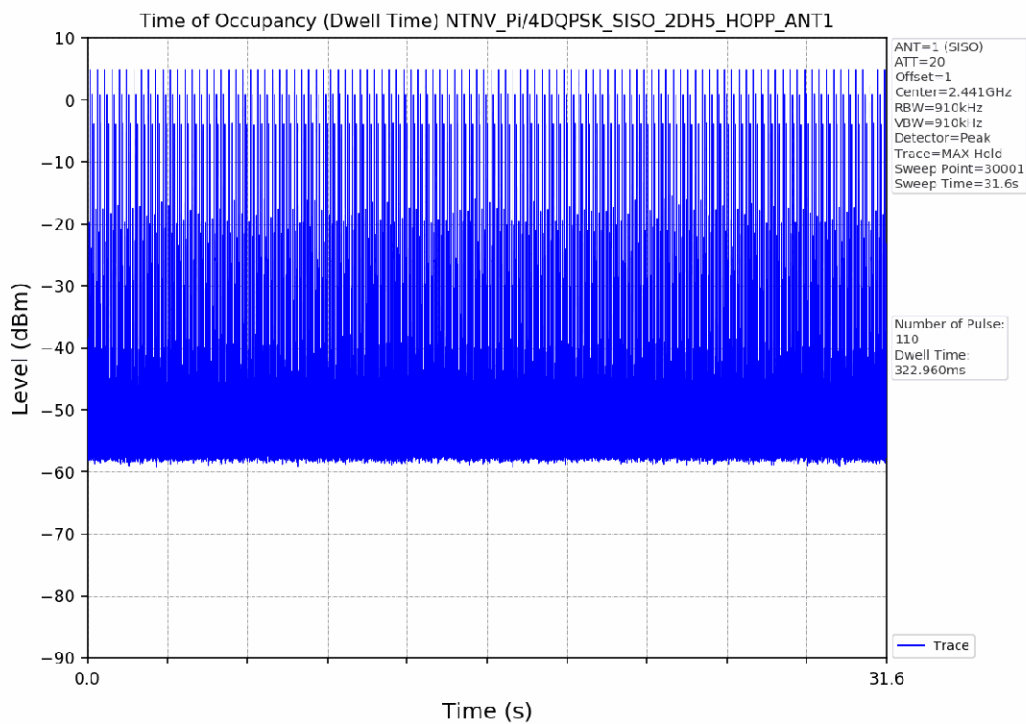
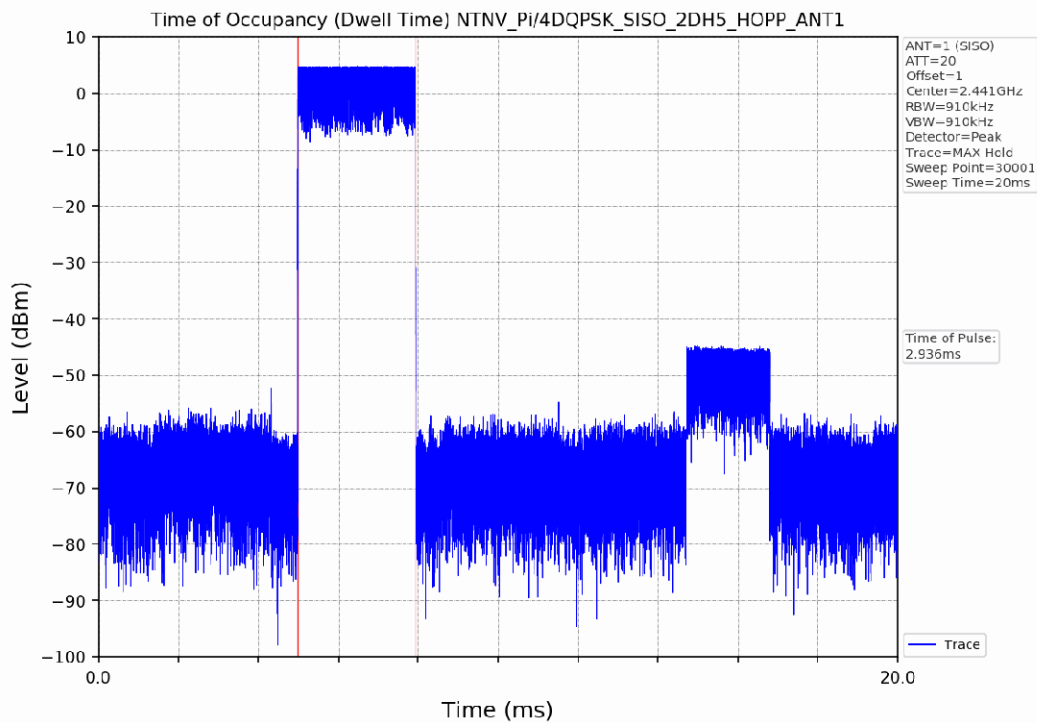


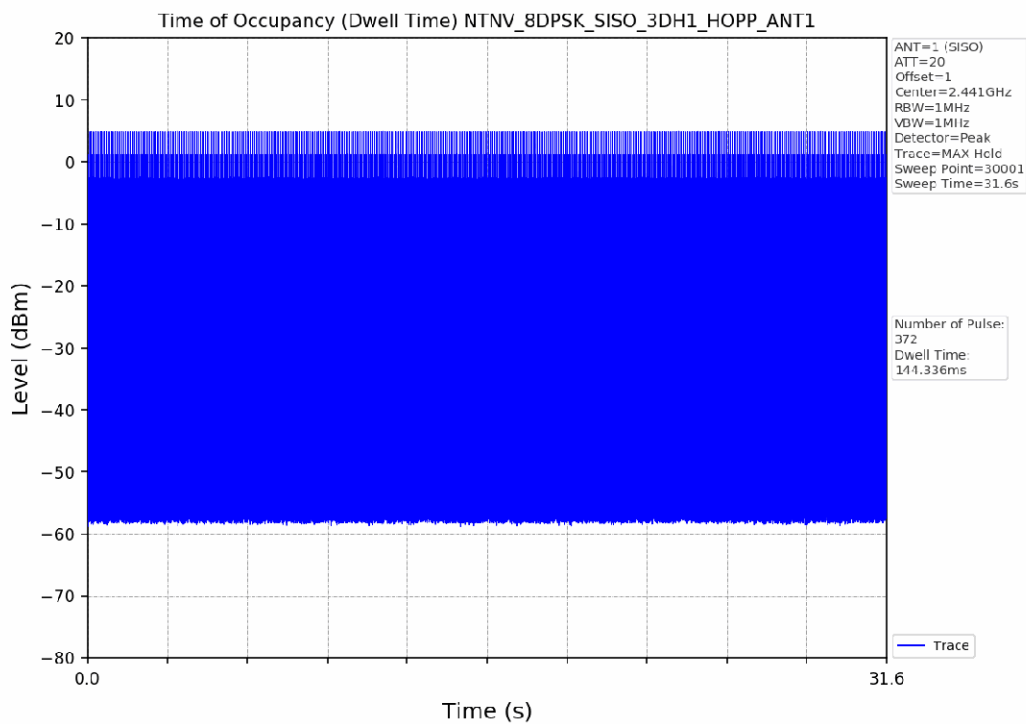
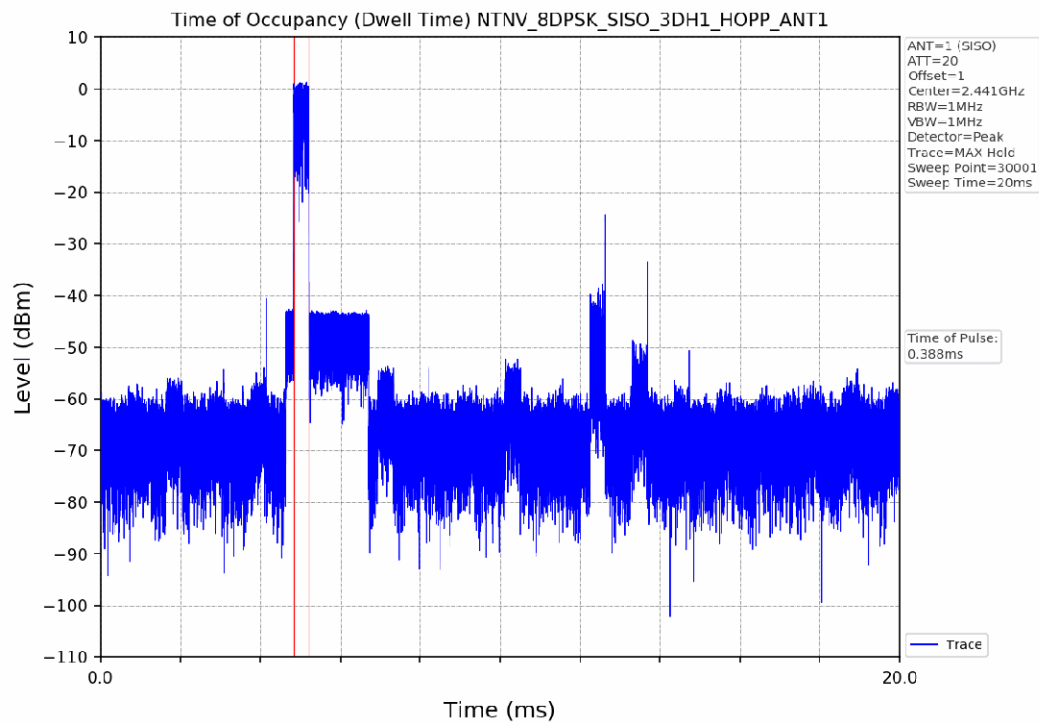


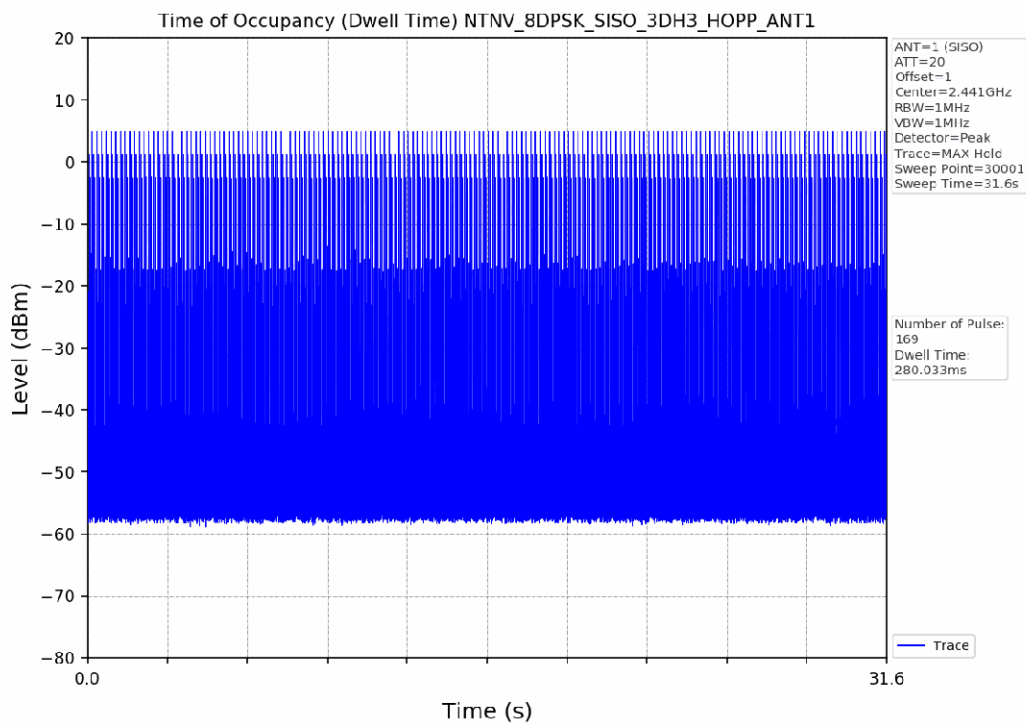
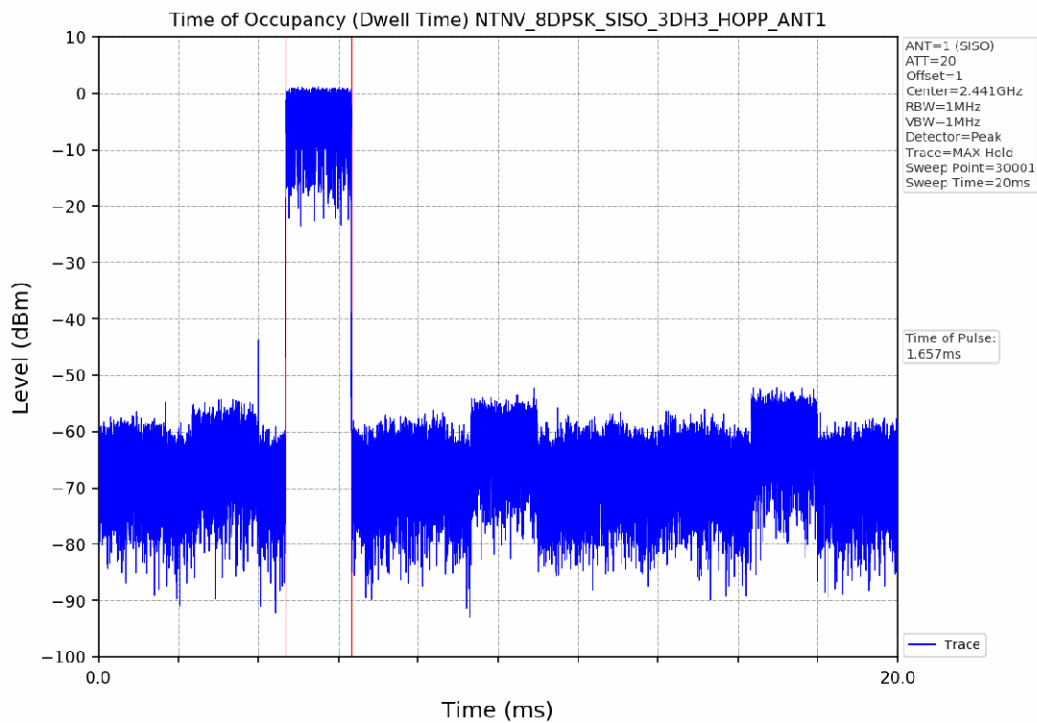


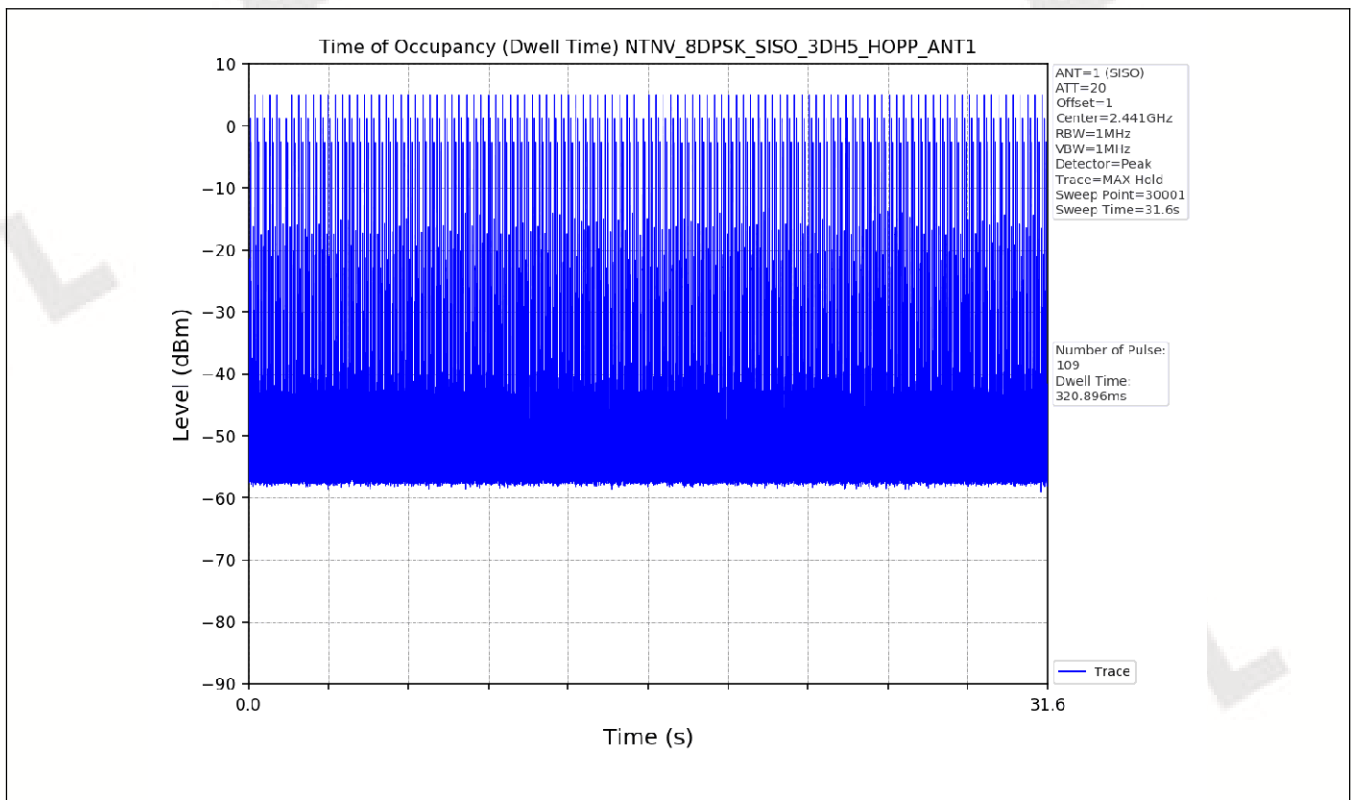
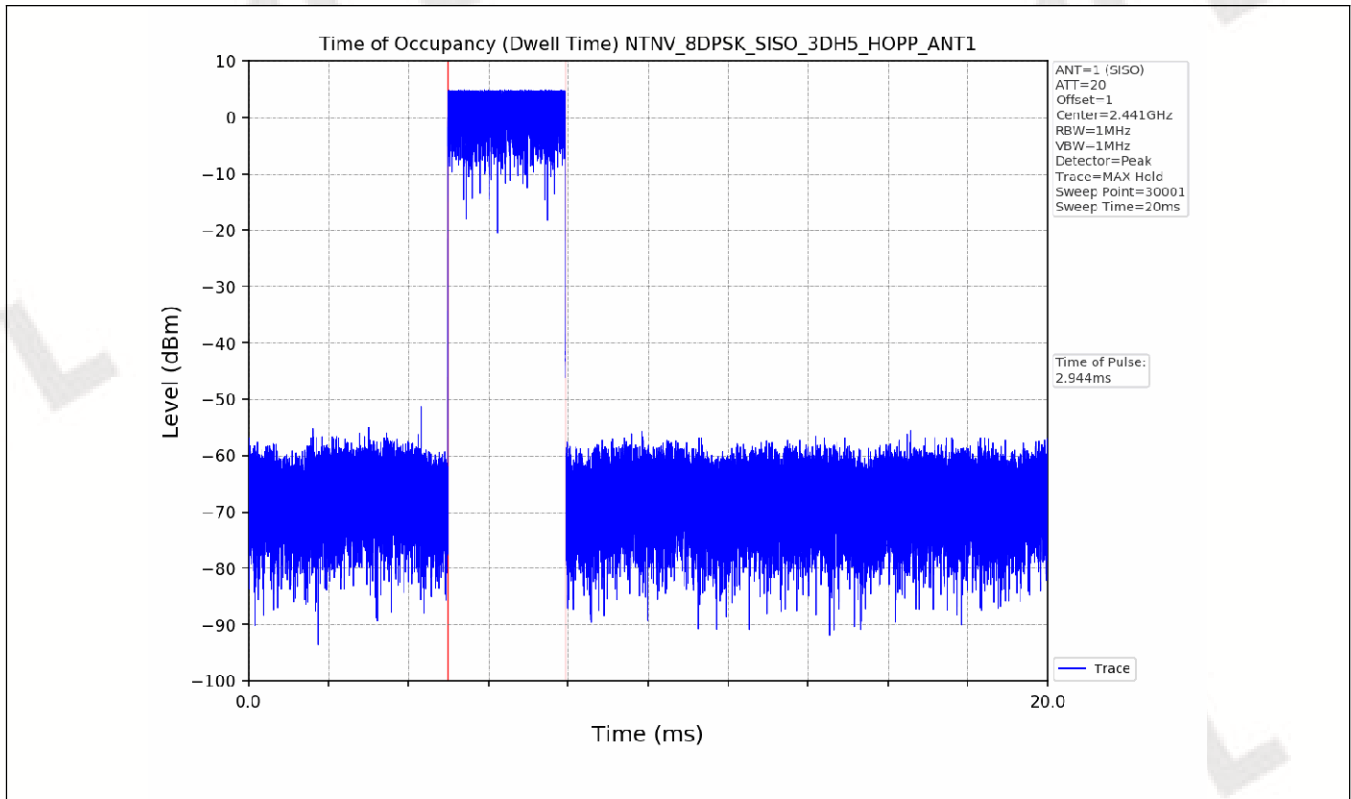












6. Unwanted Emissions in Non-restricted Frequency Bands

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	-16.40	PASS
	2441	SISO	1	Refer to test graph	-16.40	PASS
	2480	SISO	1	Refer to test graph	-16.40	PASS
	Hopping	SISO	1	Refer to test graph	-16.40	PASS
Pi/4DQPSK	2402	SISO	1	Refer to test graph	-17.66	PASS
	2441	SISO	1	Refer to test graph	-17.66	PASS
	2480	SISO	1	Refer to test graph	-17.66	PASS
	Hopping	SISO	1	Refer to test graph	-17.66	PASS
8DPSK	2402	SISO	1	Refer to test graph	-17.70	PASS
	2441	SISO	1	Refer to test graph	-17.70	PASS
	2480	SISO	1	Refer to test graph	-17.70	PASS
	Hopping	SISO	1	Refer to test graph	-17.70	PASS

6.2 Test Graph

