

Appendix

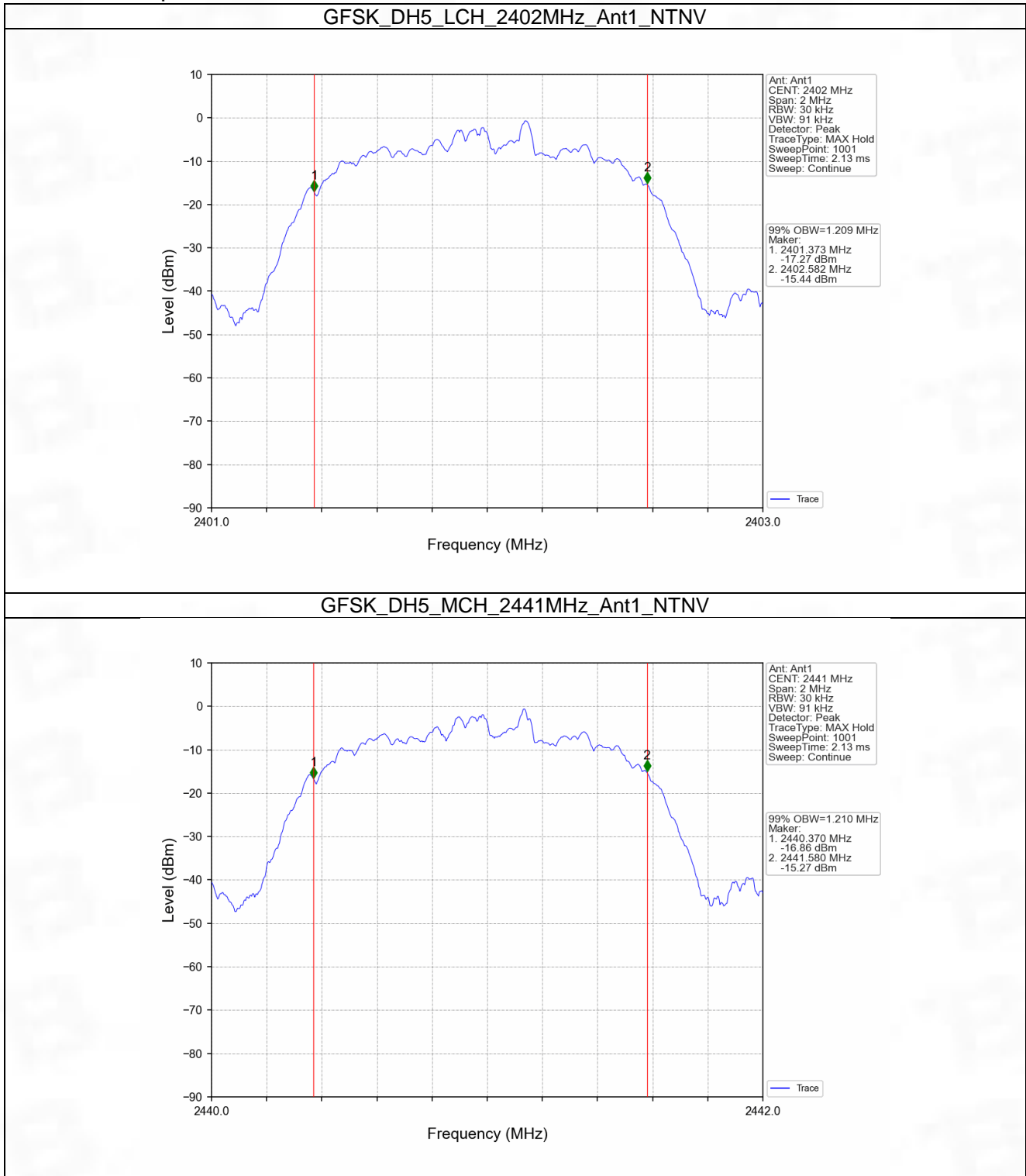
1. Bandwidth

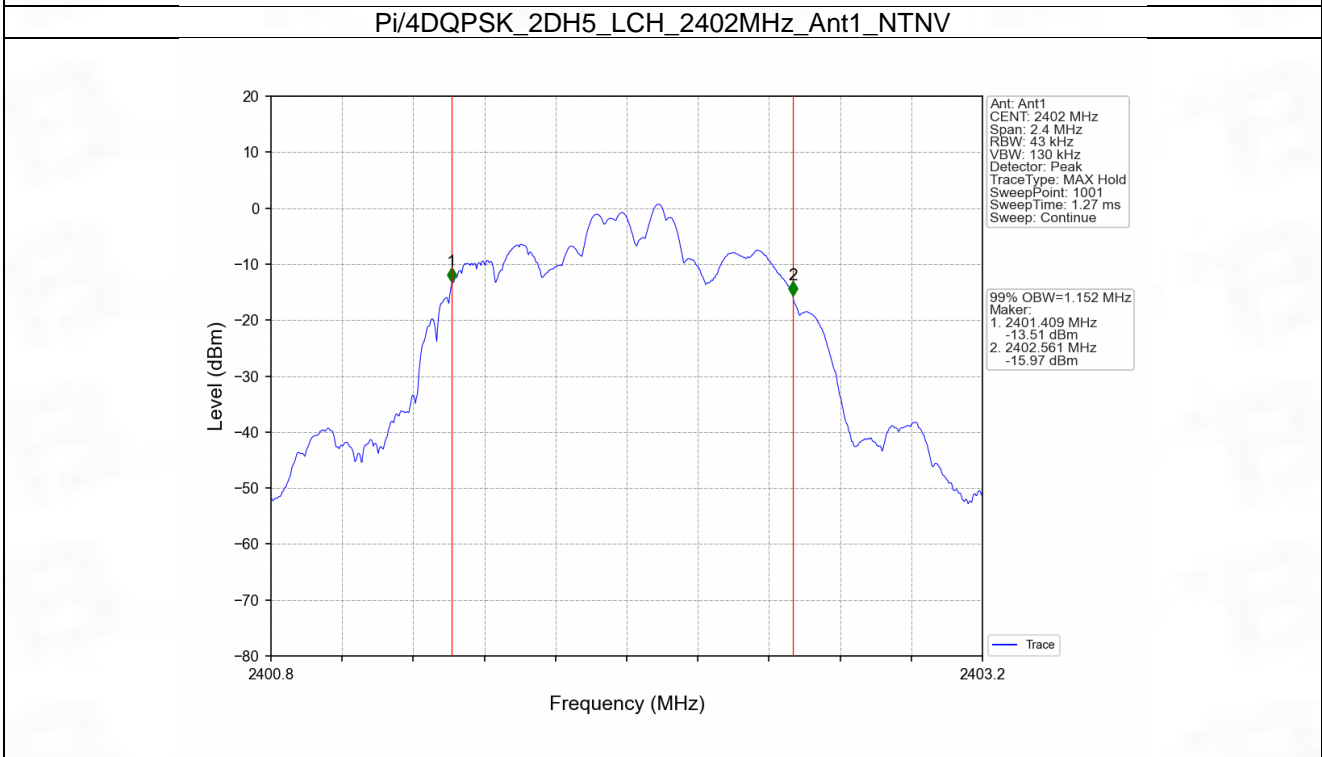
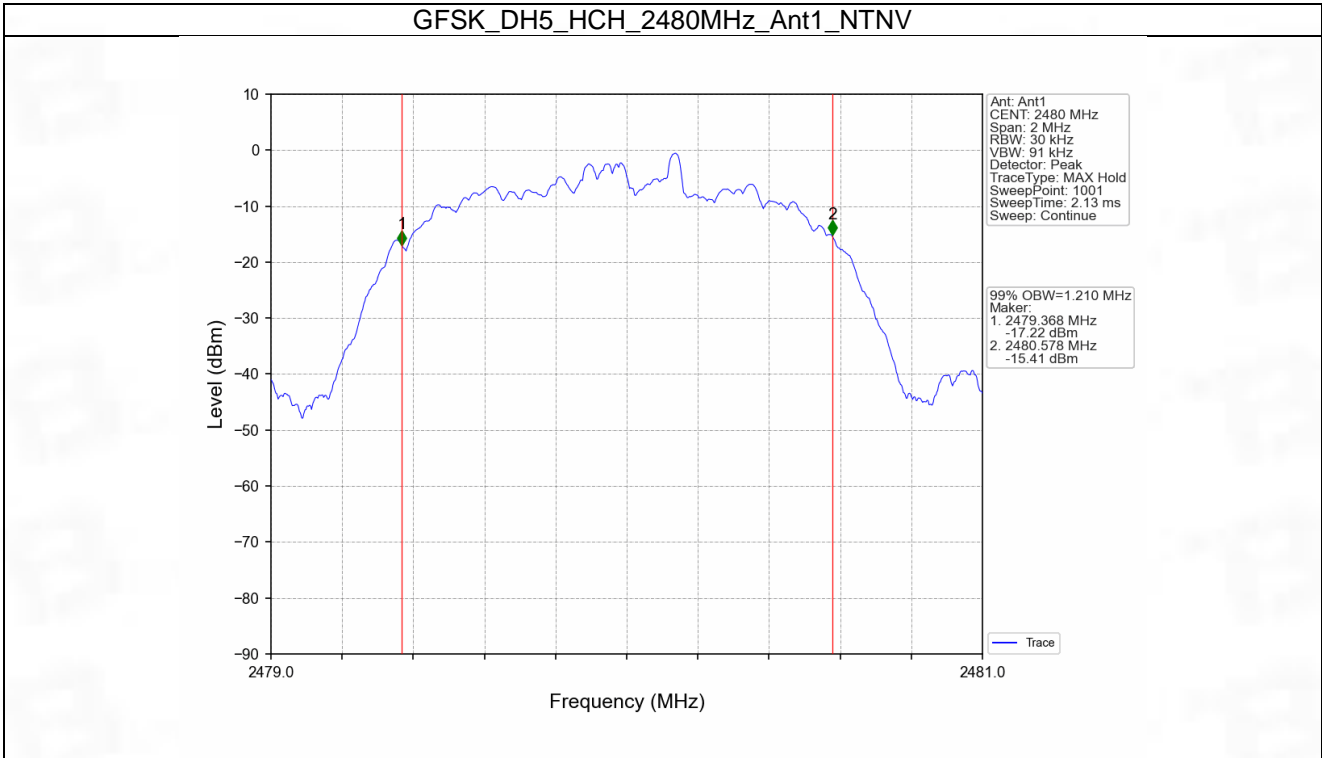
1.1 OBW

1.1.1 Test Result

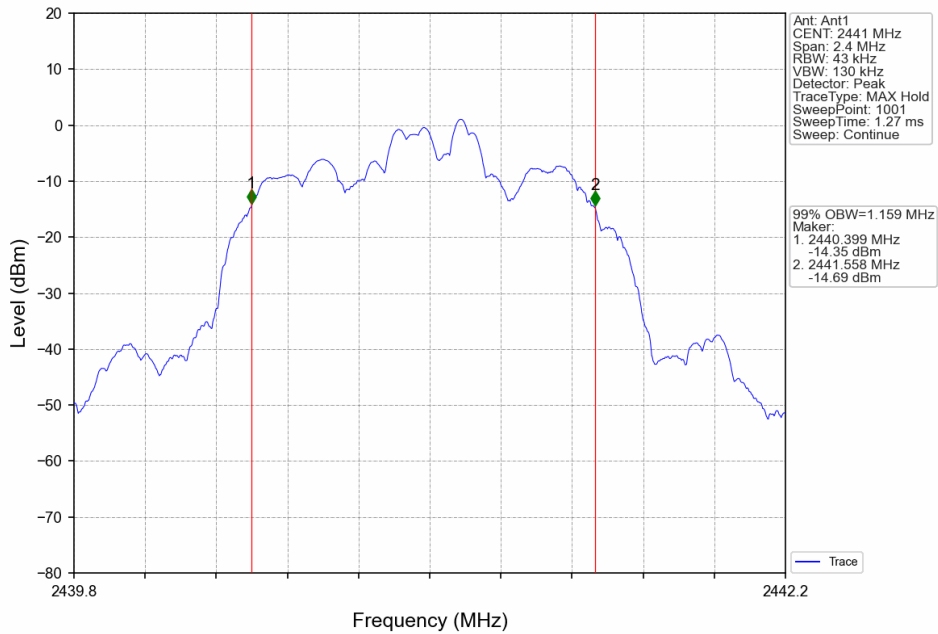
Mode	TX Type	Frequency (MHz)	Packet Type	ANT	99% Occupied Bandwidth (MHz)	Verdict
					Result	
GFSK	SISO	2402	DH5	1	1.209	Pass
		2441	DH5	1	1.210	Pass
		2480	DH5	1	1.210	Pass
Pi/4DQPSK	SISO	2402	2DH5	1	1.152	Pass
		2441	2DH5	1	1.159	Pass
		2480	2DH5	1	1.159	Pass
8DPSK	SISO	2402	3DH5	1	1.207	Pass
		2441	3DH5	1	1.209	Pass
		2480	3DH5	1	1.203	Pass

1.1.2 Test Graph

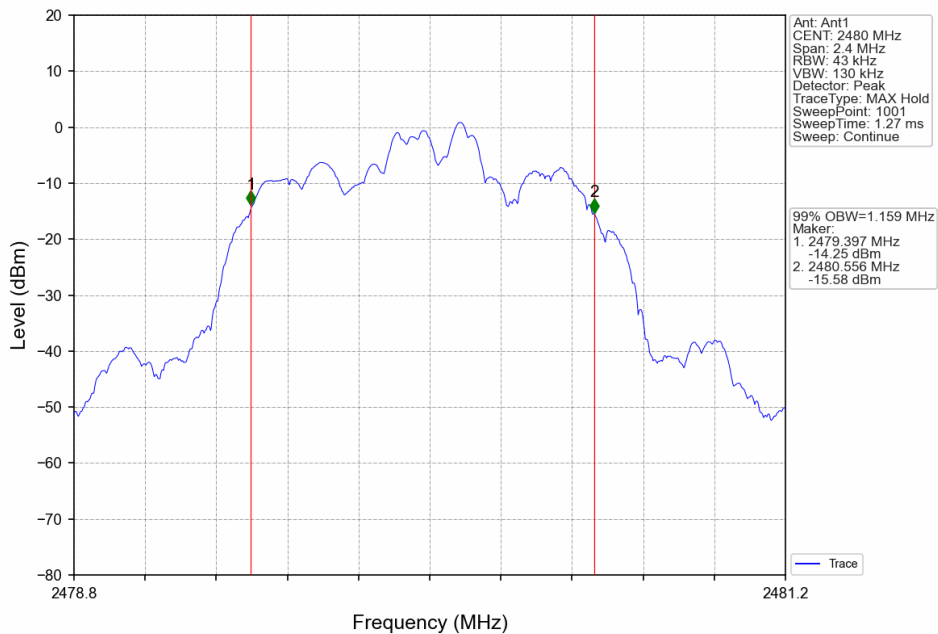




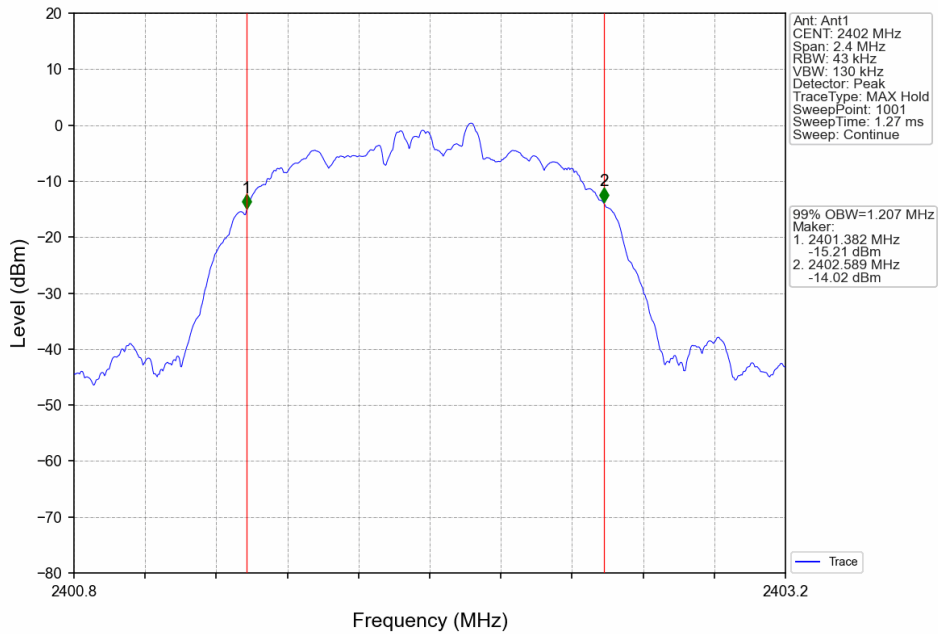
Pi/4DQPSK_2DH5_MCH_2441MHz_Ant1_NTNV



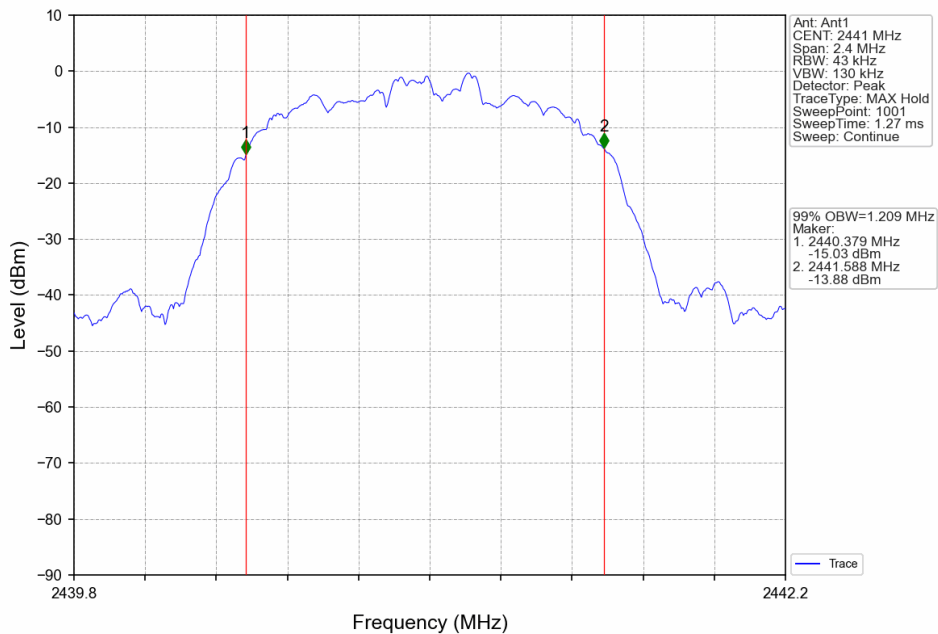
Pi/4DQPSK_2DH5_HCH_2480MHz_Ant1_NTNV

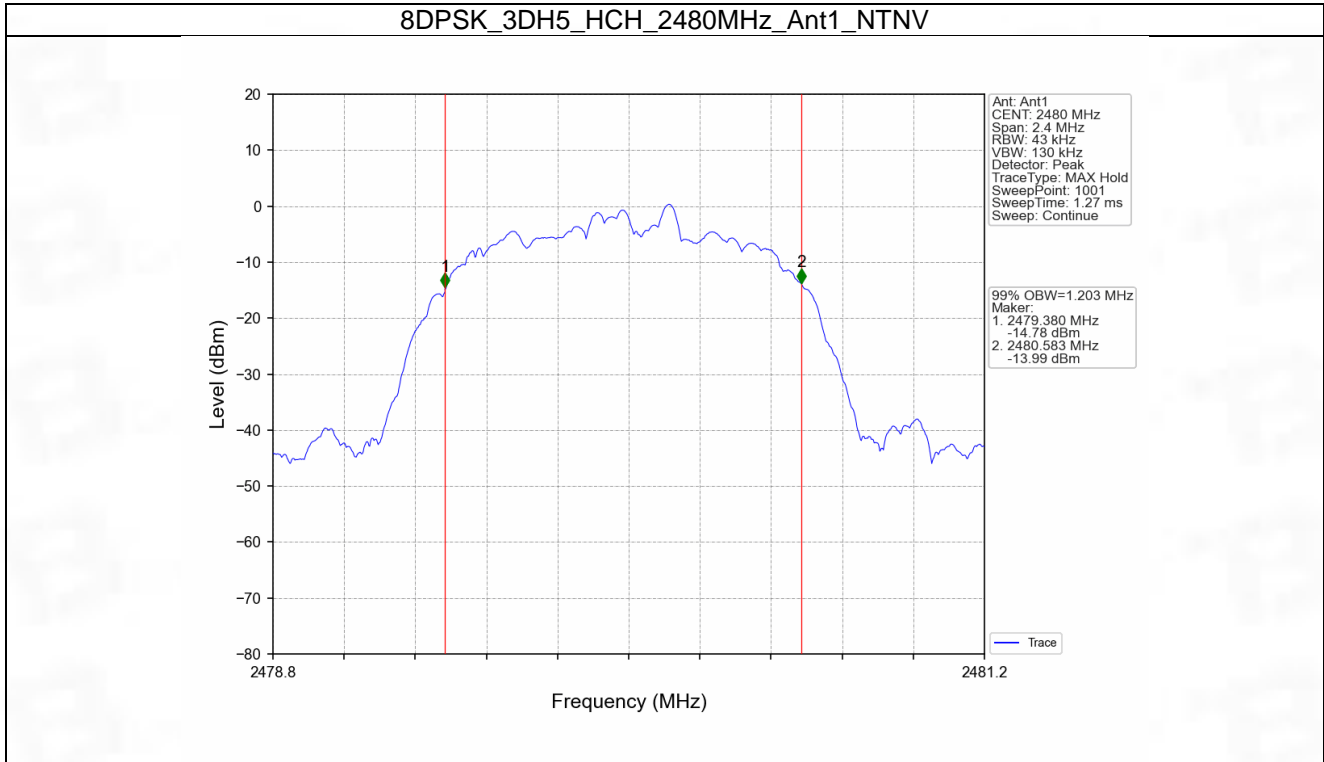


8DPSK_3DH5_LCH_2402MHz_Ant1_NTNV



8DPSK_3DH5_MCH_2441MHz_Ant1_NTNV



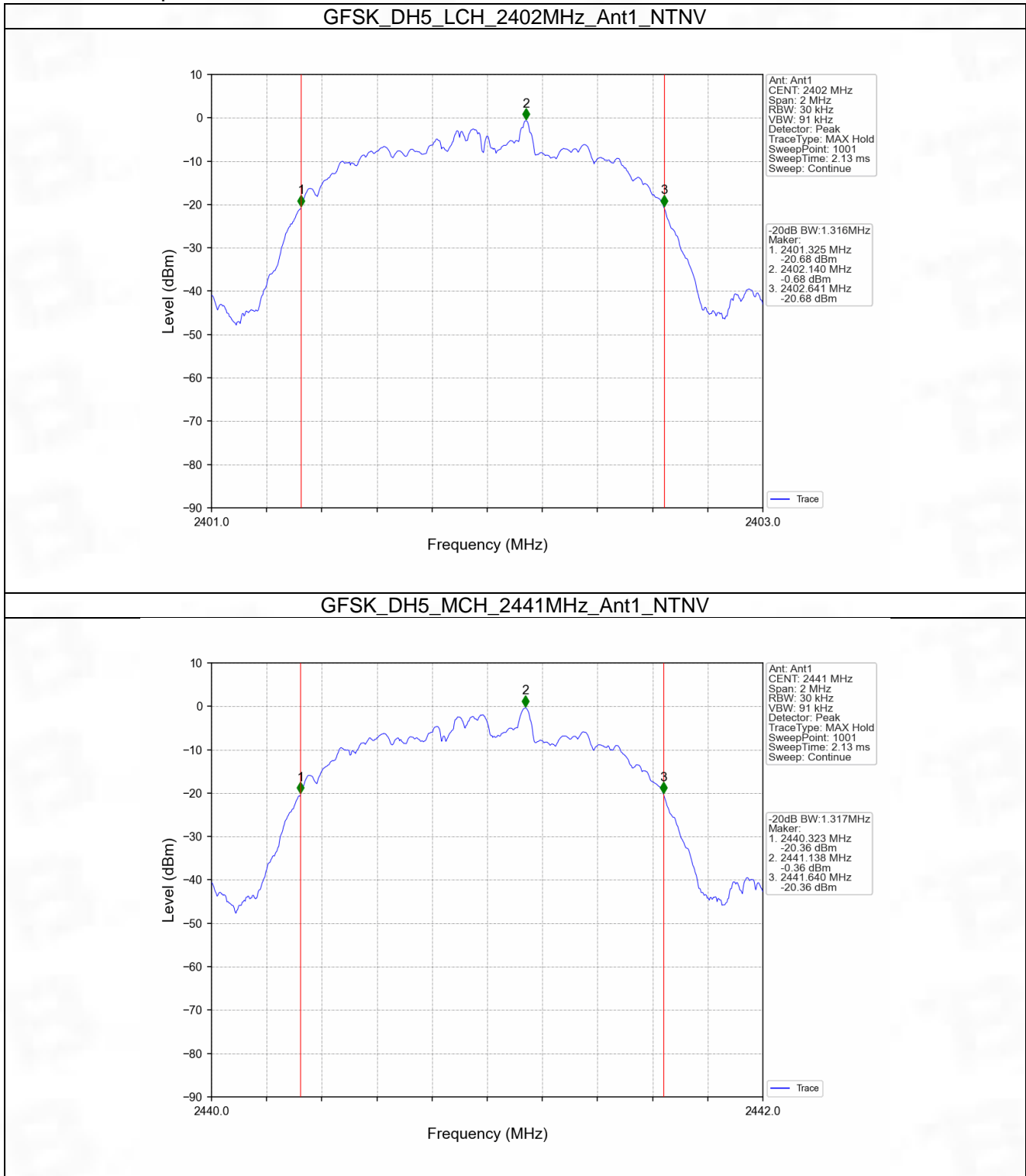


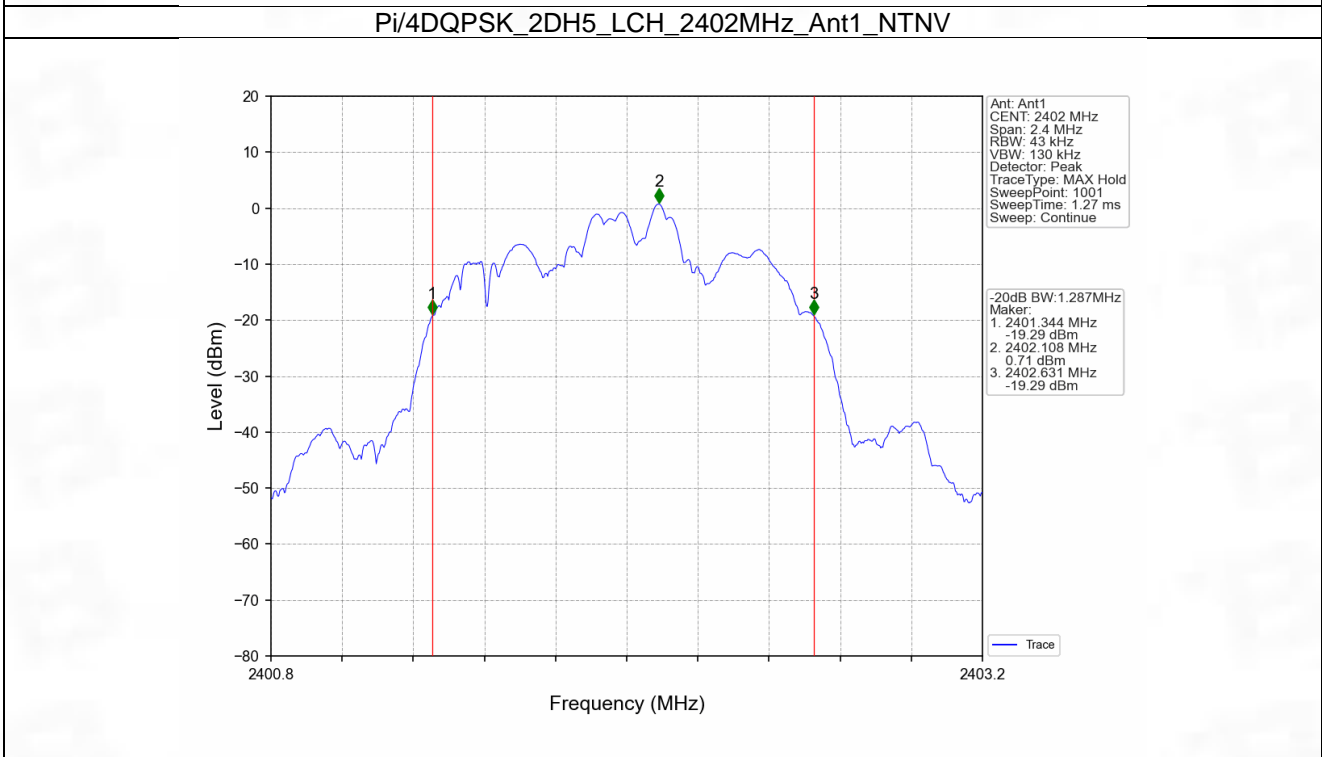
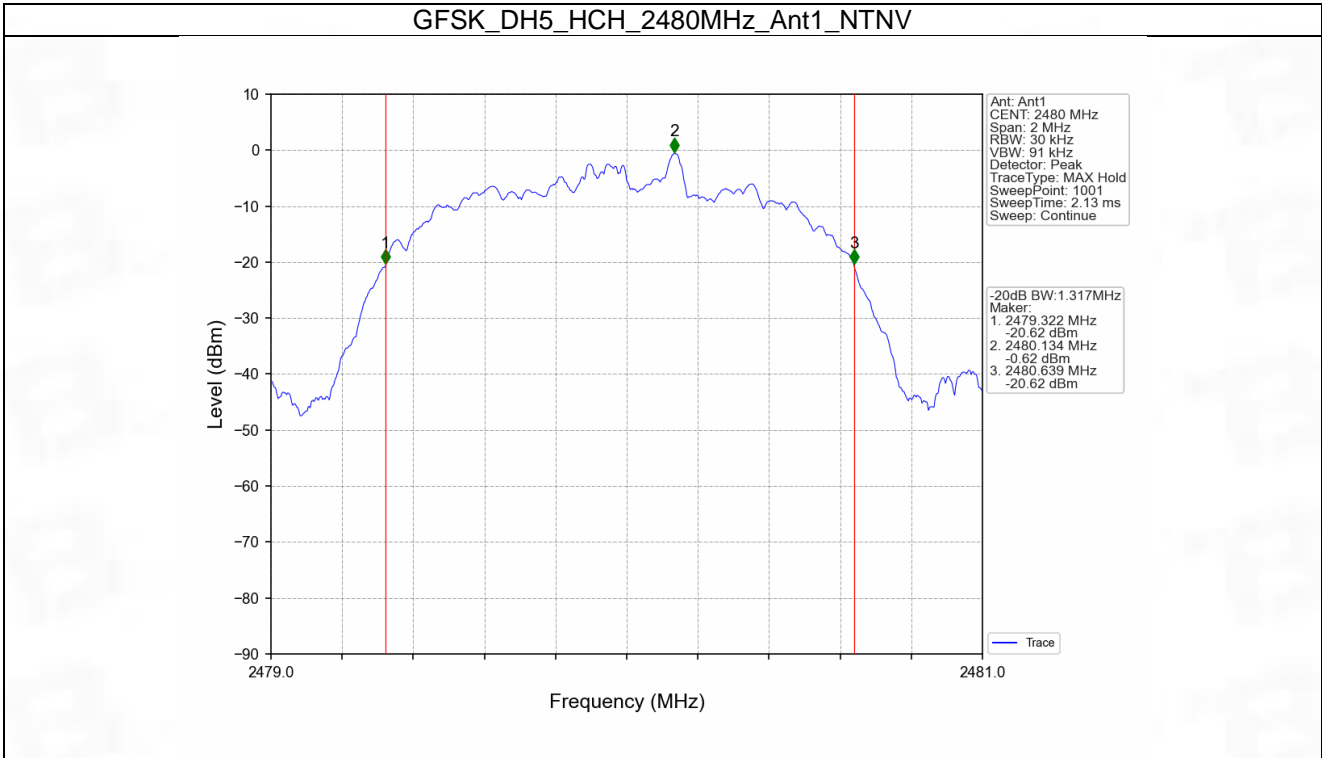
1.2 20dB BW

1.2.1 Test Result

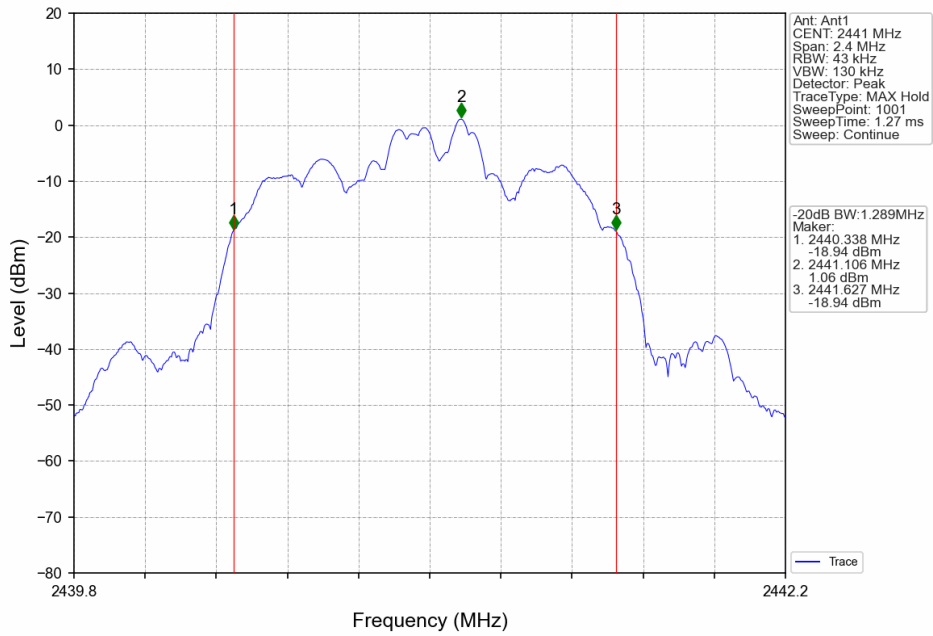
Mode	TX Type	Frequency (MHz)	Packet Type	ANT	20dB Bandwidth (MHz)	Verdict
					Result	
GFSK	SISO	2402	DH5	1	1.316	Pass
		2441	DH5	1	1.317	Pass
		2480	DH5	1	1.317	Pass
Pi/4DQPSK	SISO	2402	2DH5	1	1.287	Pass
		2441	2DH5	1	1.289	Pass
		2480	2DH5	1	1.287	Pass
8DPSK	SISO	2402	3DH5	1	1.329	Pass
		2441	3DH5	1	1.325	Pass
		2480	3DH5	1	1.328	Pass

1.2.2 Test Graph

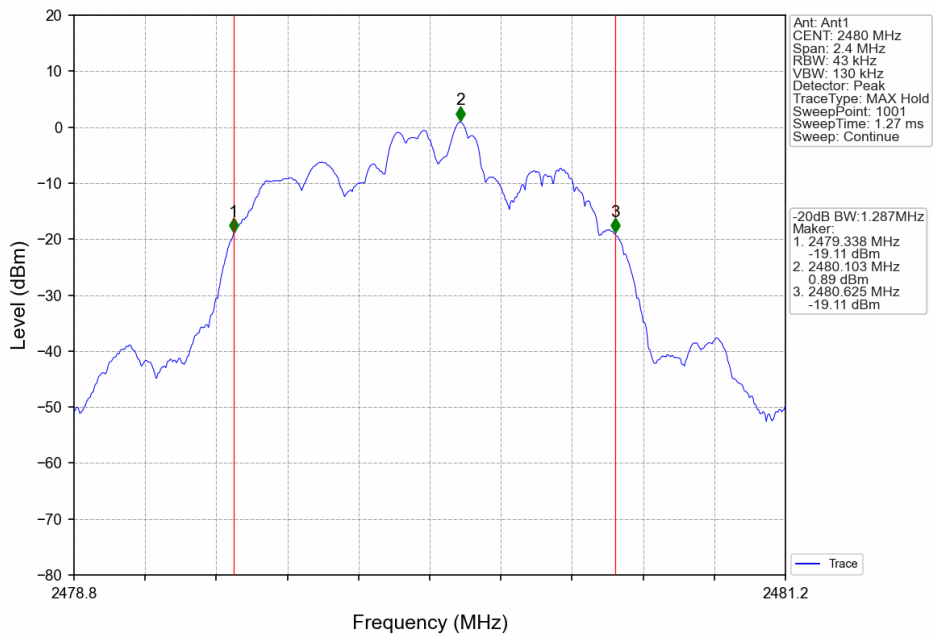




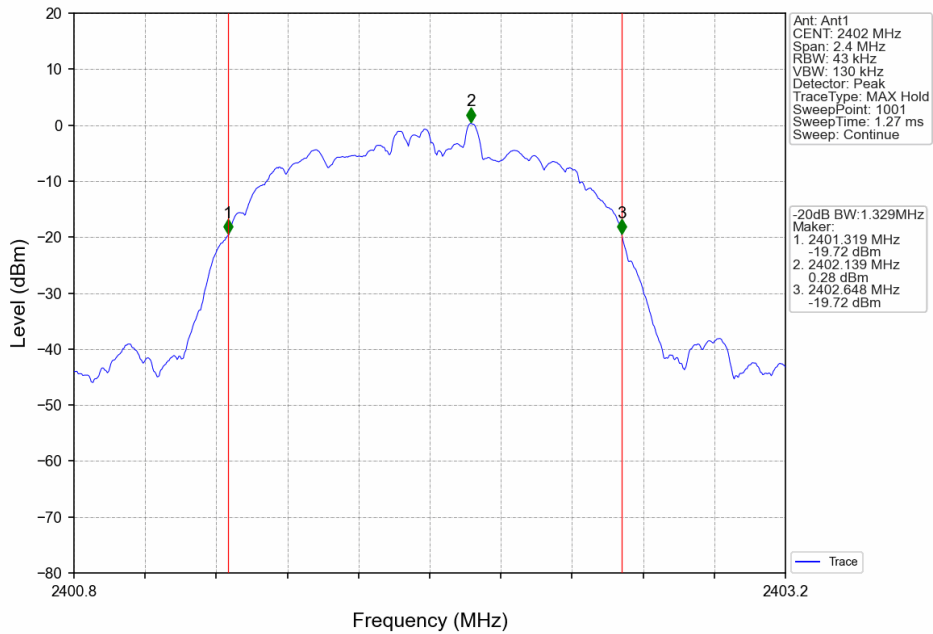
Pi/4DQPSK_2DH5_MCH_2441MHz_Ant1_NTNV



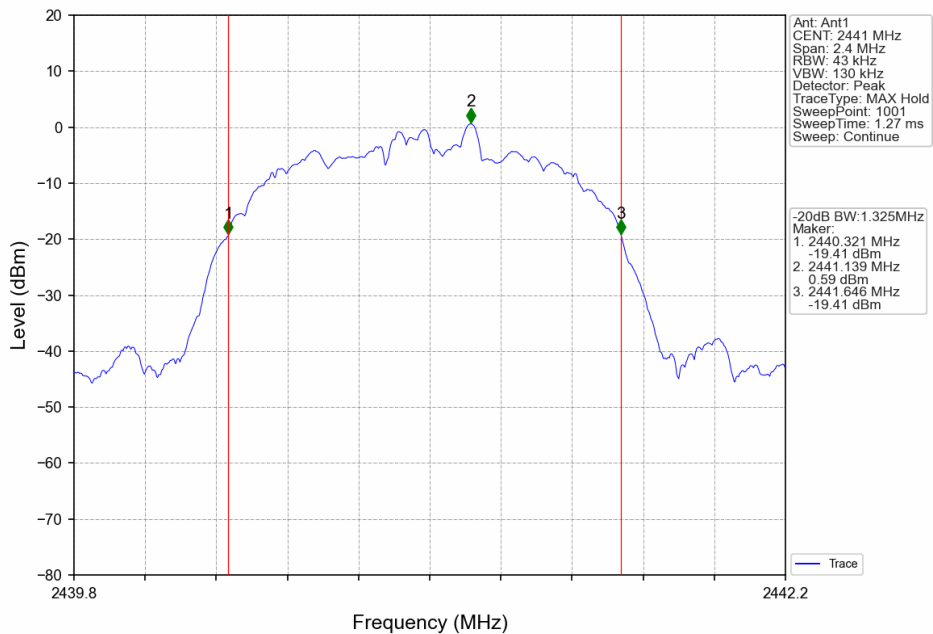
Pi/4DQPSK_2DH5_HCH_2480MHz_Ant1_NTNV

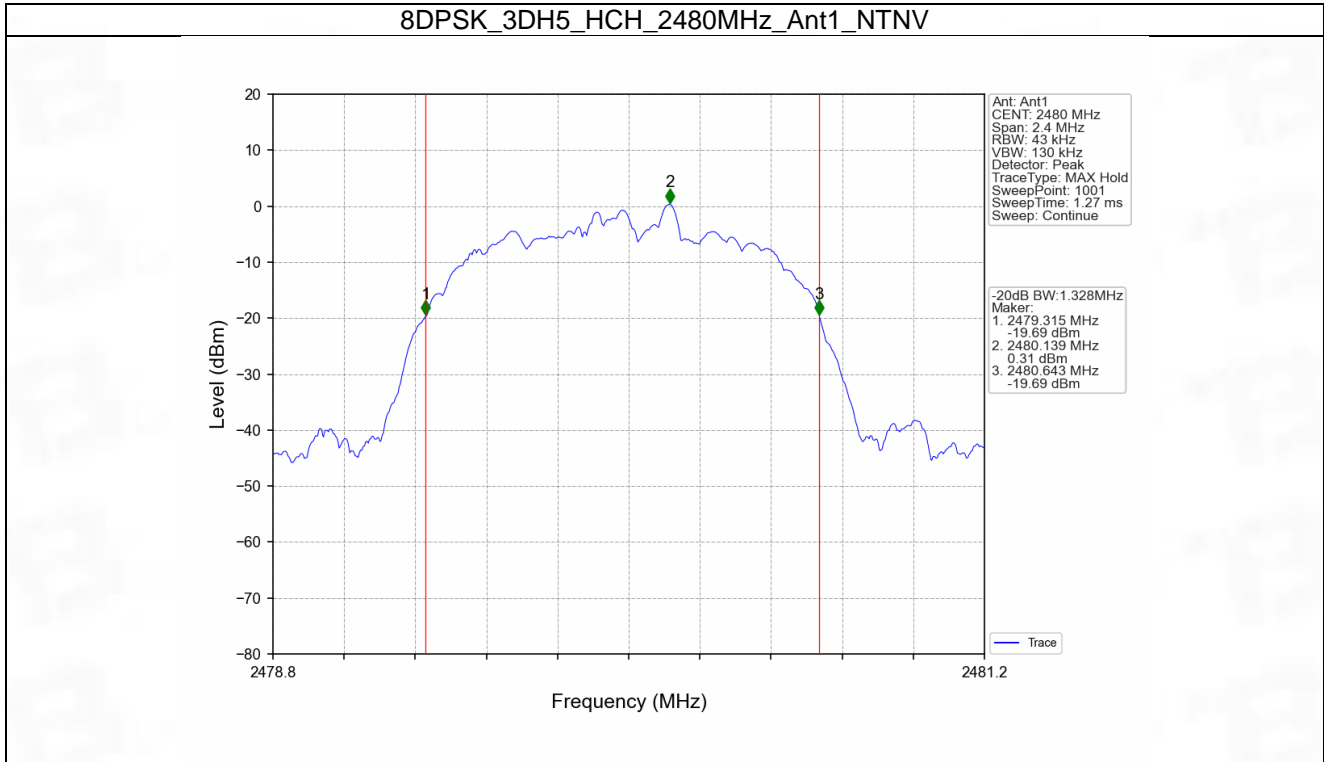


8DPSK_3DH5_LCH_2402MHz_Ant1_NTNV



8DPSK_3DH5_MCH_2441MHz_Ant1_NTNV





2. Maximum Conducted Output Power

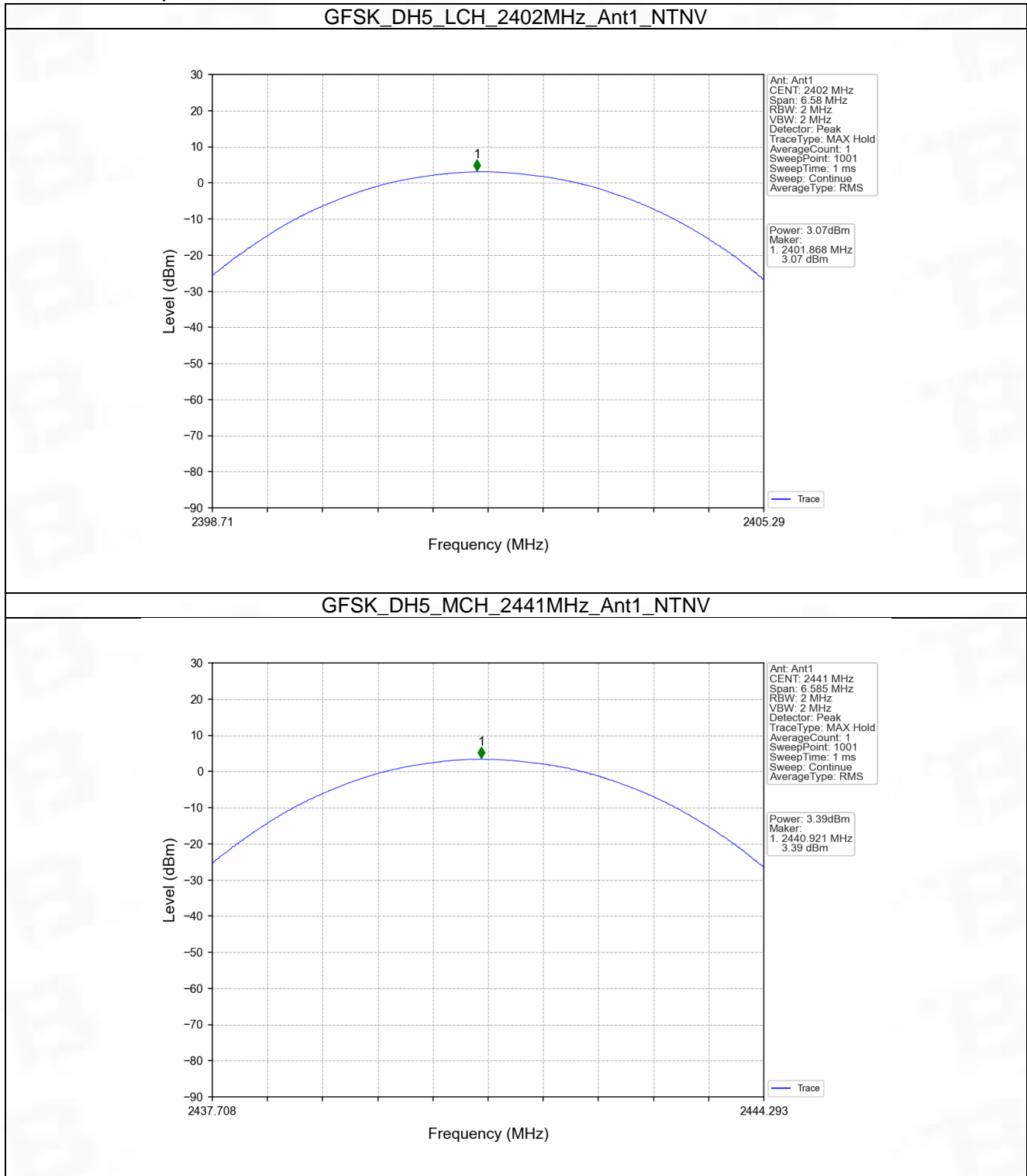
2.1 Power

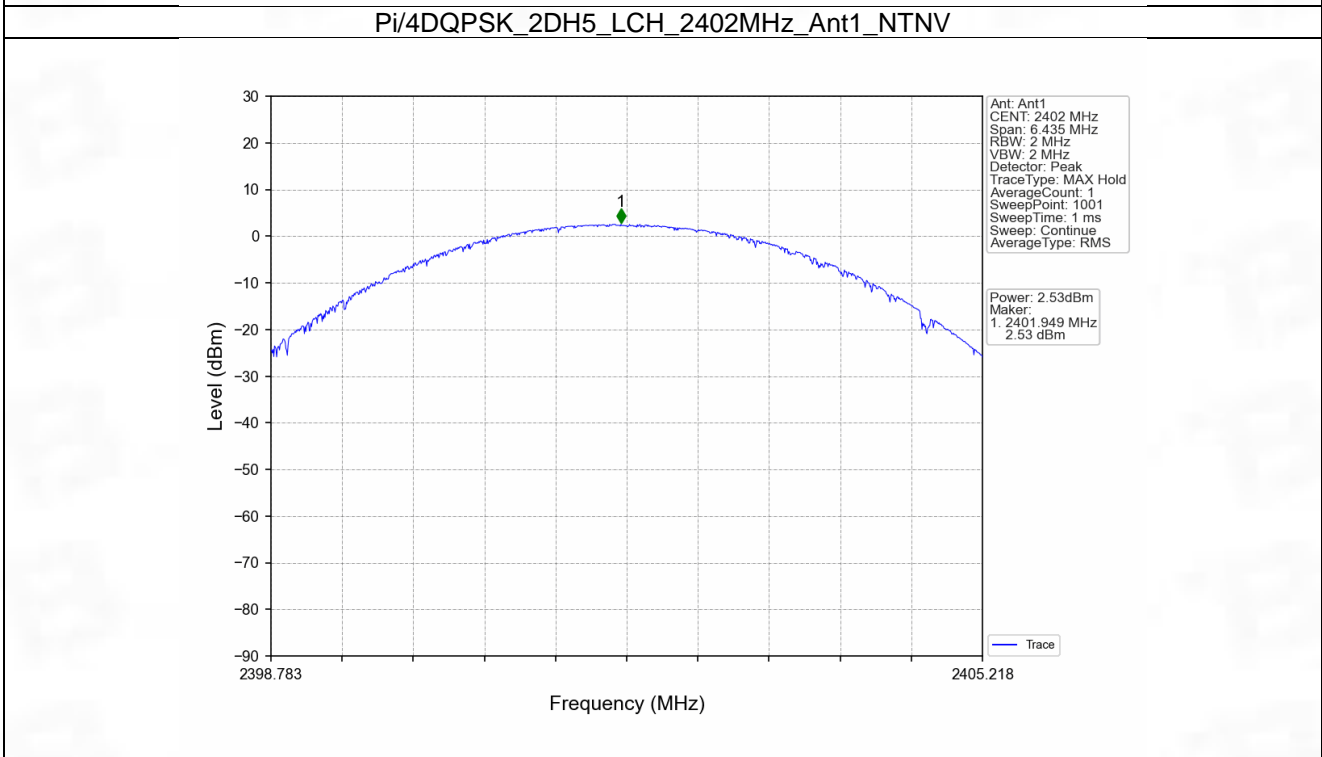
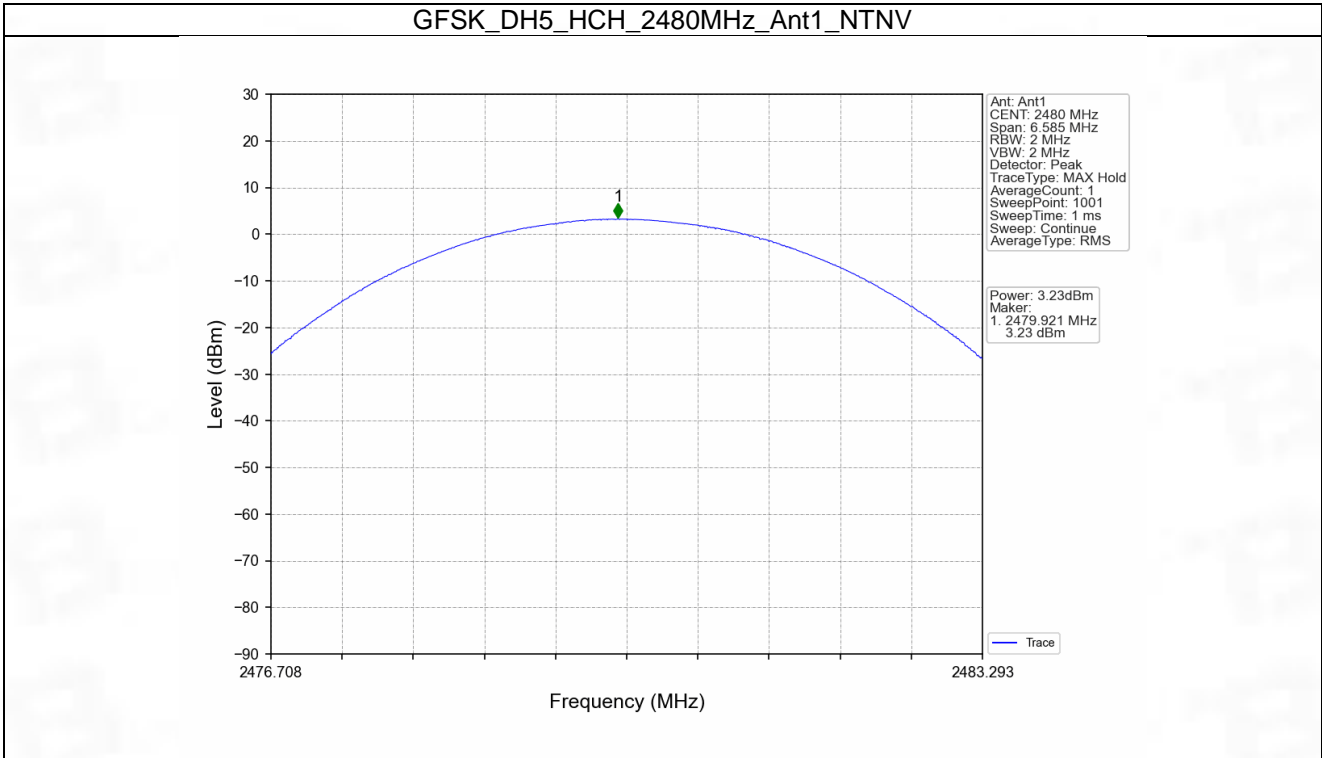
2.1.1 Test Result

Mode	TX Type	Frequency (MHz)	Packet Type	Maximum Peak Conducted Output Power (dBm)		Verdict
				ANT1	Limit	
GFSK	SISO	2402	DH5	3.07	<=20.97	Pass
		2441	DH5	3.39	<=20.97	Pass
		2480	DH5	3.23	<=20.97	Pass
Pi/4DQPSK	SISO	2402	2DH5	2.53	<=20.97	Pass
		2441	2DH5	2.93	<=20.97	Pass
		2480	2DH5	2.72	<=20.97	Pass
8DPSK	SISO	2402	3DH5	3.25	<=20.97	Pass
		2441	3DH5	3.46	<=20.97	Pass
		2480	3DH5	3.24	<=20.97	Pass

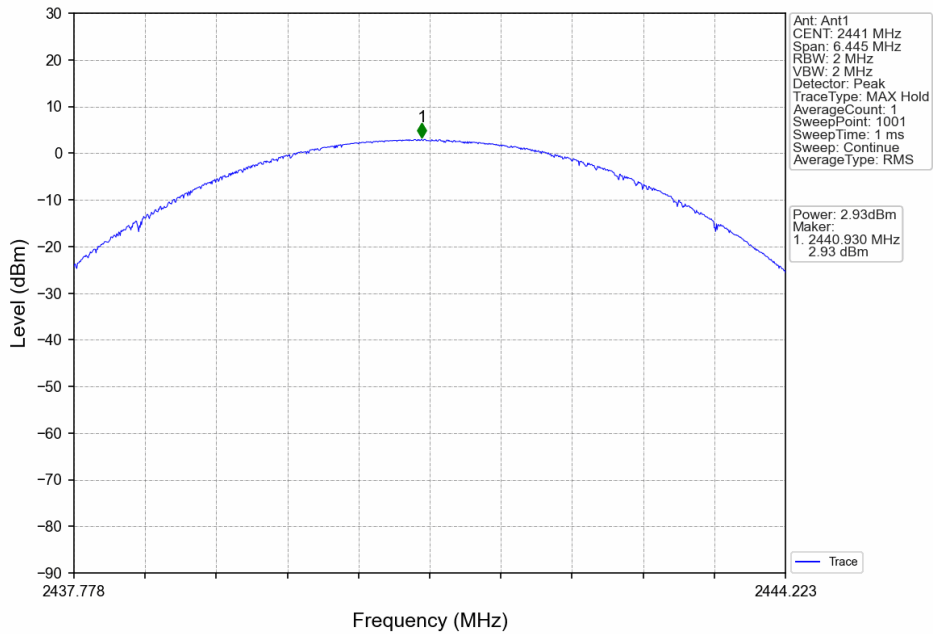
Note1: Antenna Gain: Ant1: 3.00dBi;

2.1.2 Test Graph

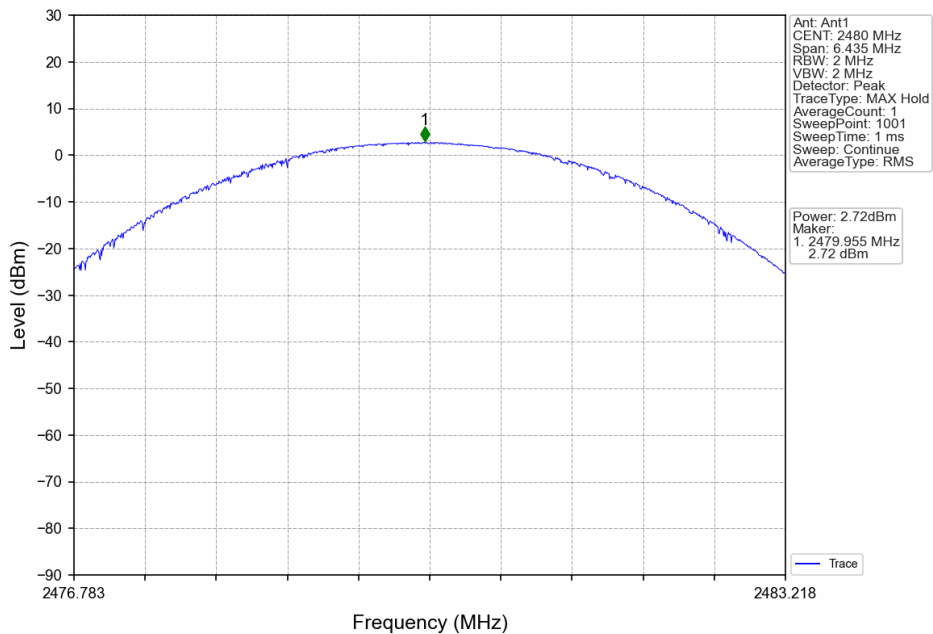


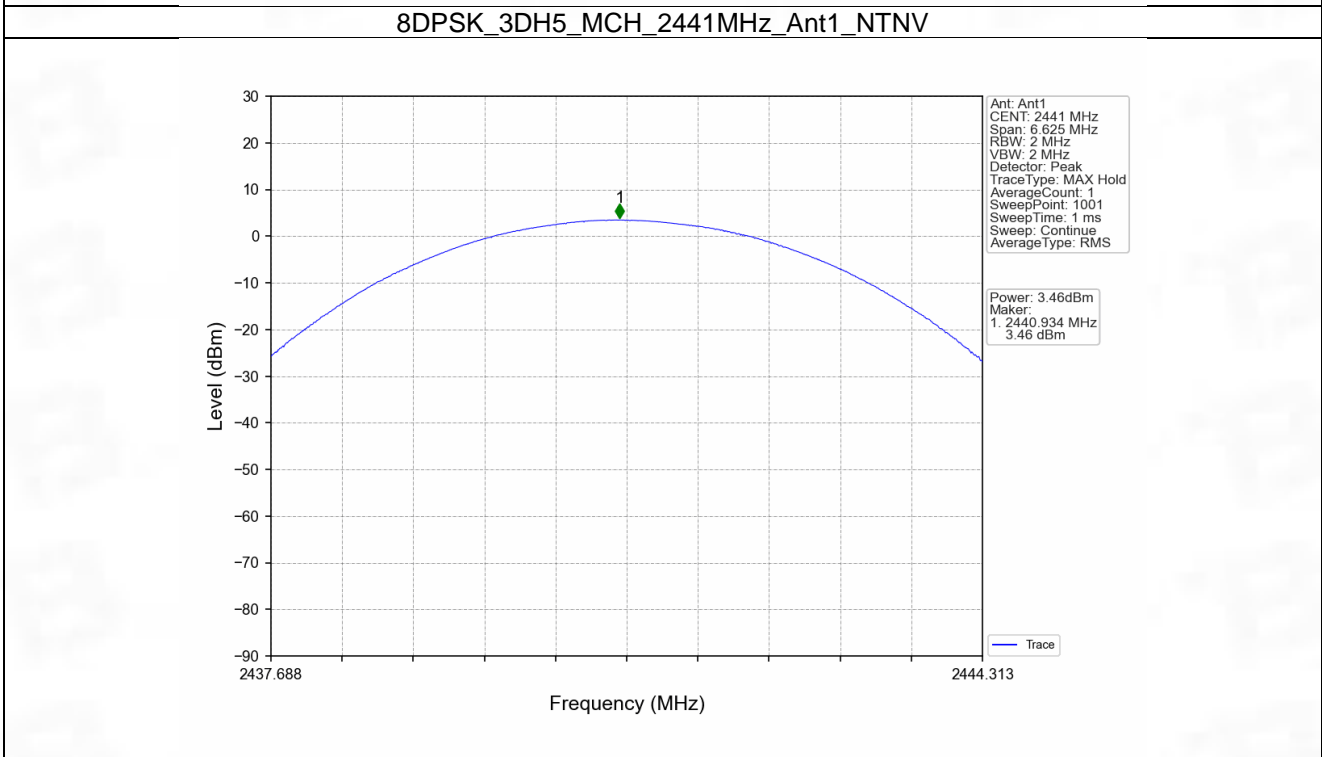
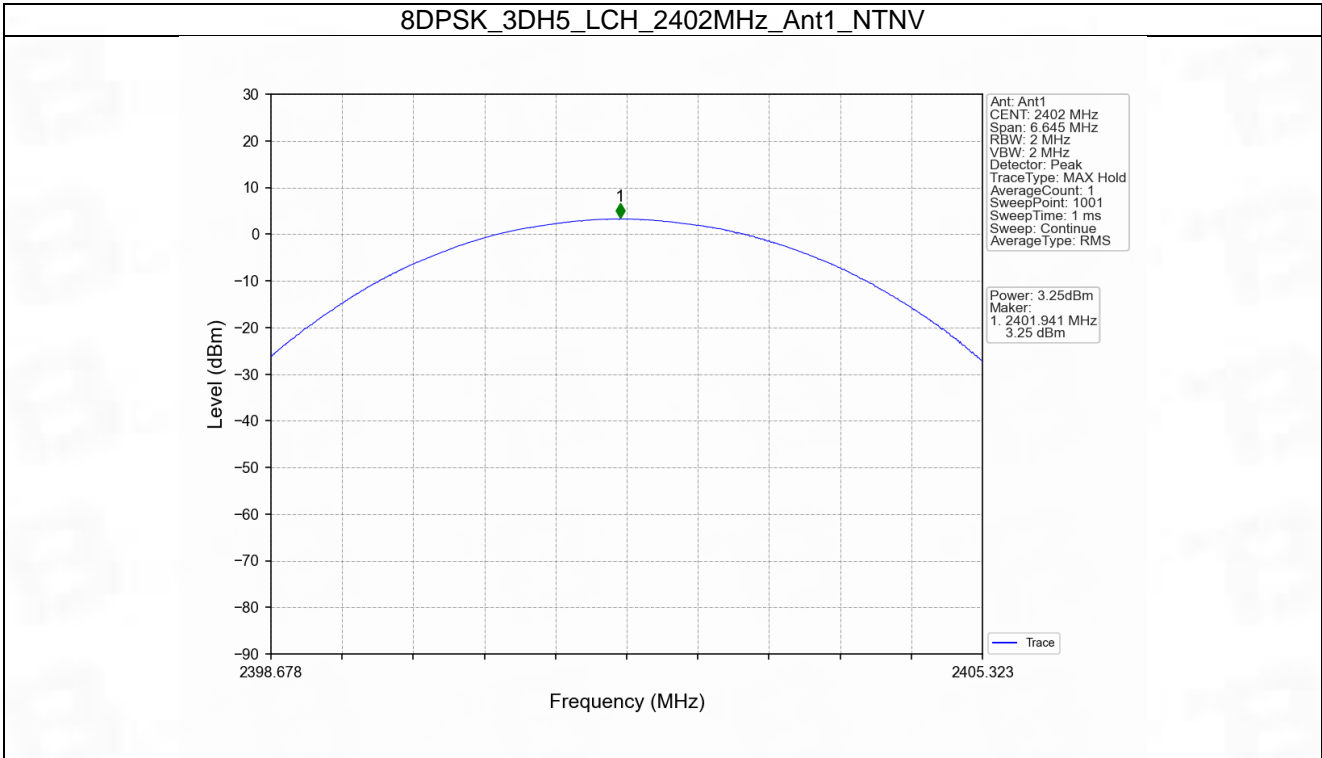


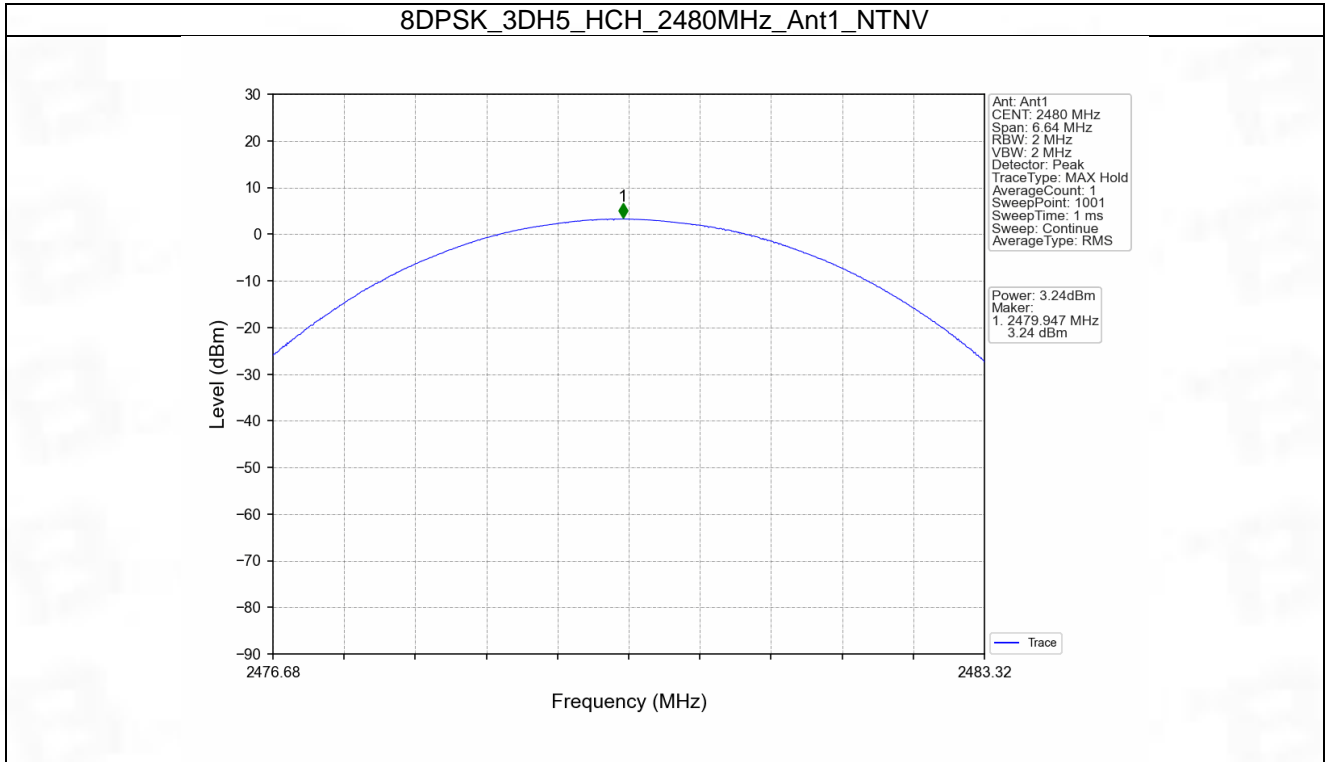
Pi/4DQPSK_2DH5_MCH_2441MHz_Ant1_NTNV



Pi/4DQPSK_2DH5_HCH_2480MHz_Ant1_NTNV







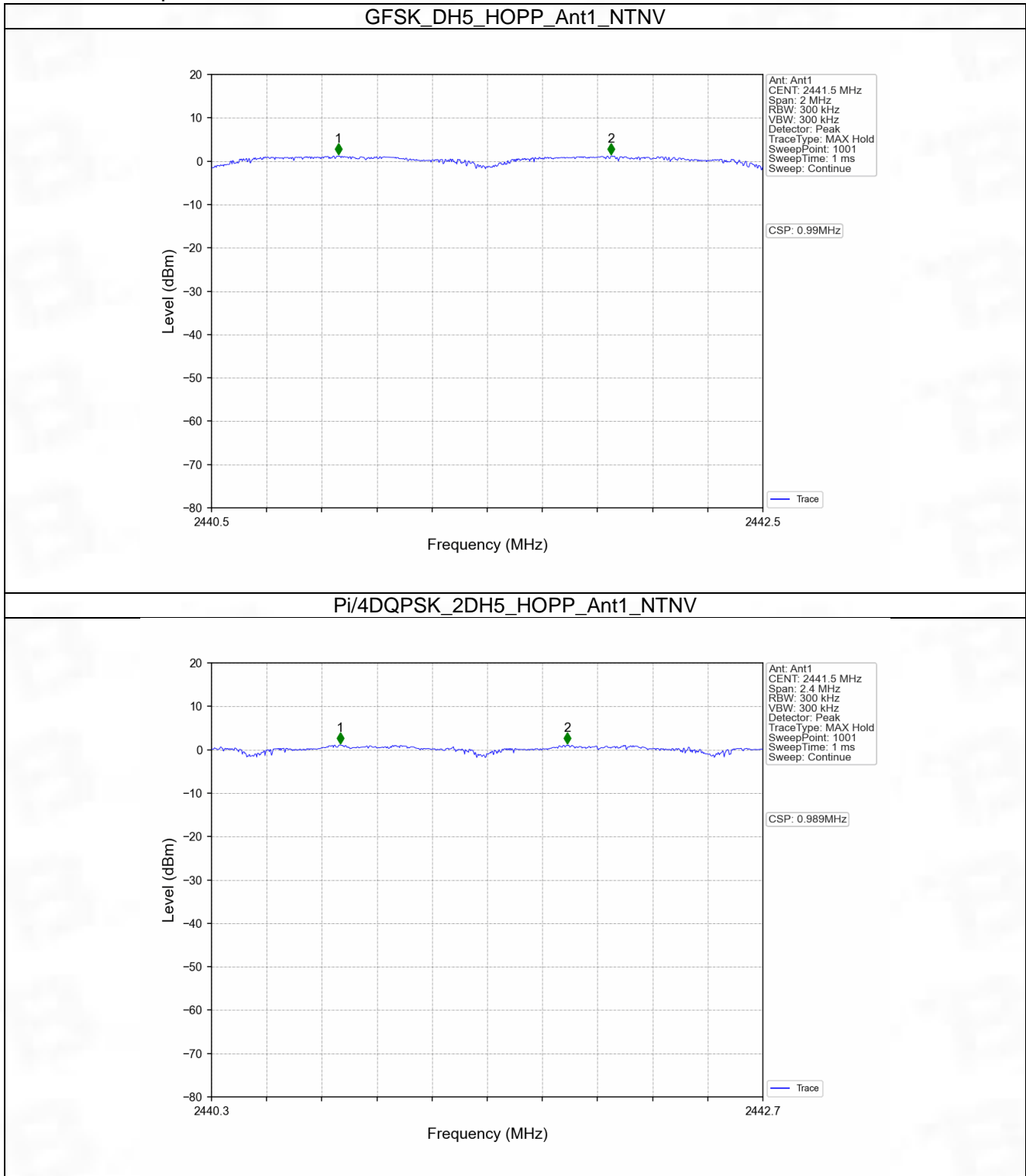
3. Carrier Frequency Separation

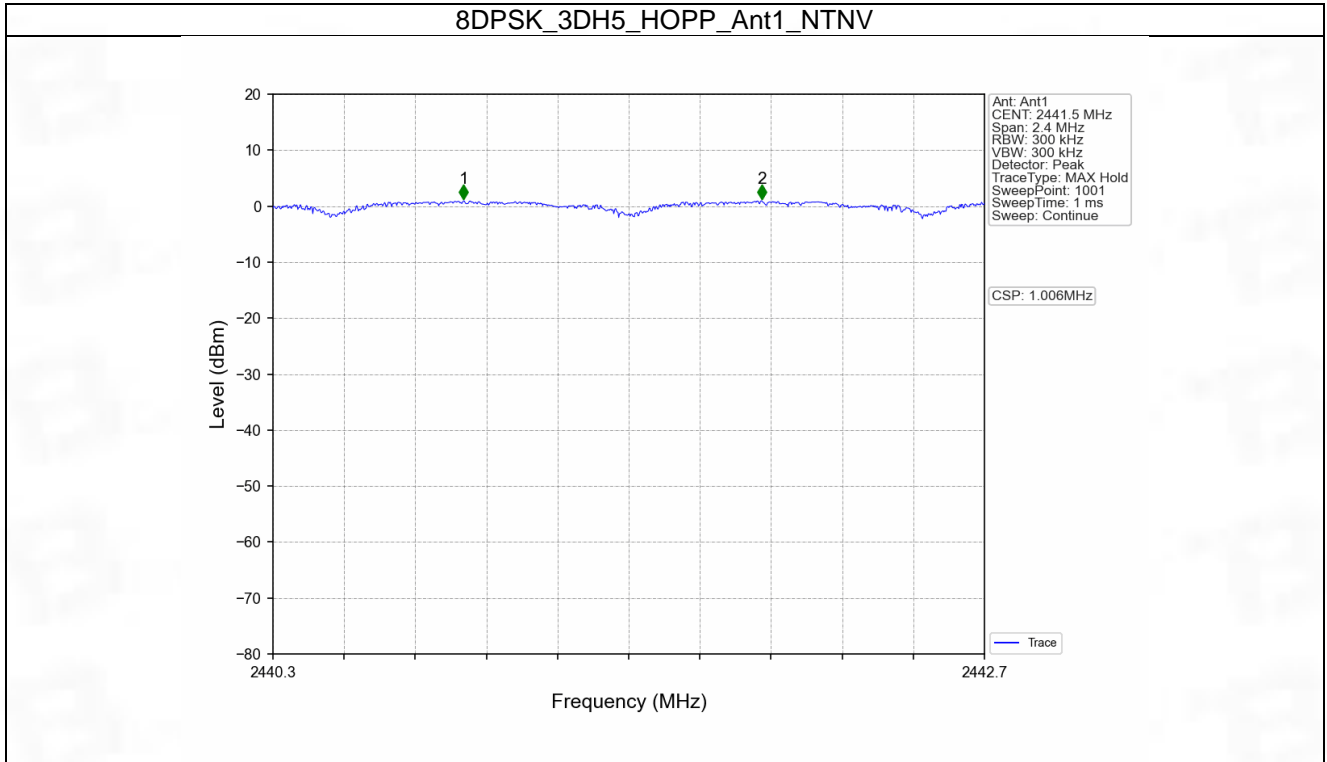
3.1 Ant1

3.1.1 Test Result

Ant1							
Mode	TX Type	Frequency (MHz)	Packet Type	Channel Separation (MHz)	20dB Bandwidth (MHz)	Limit (MHz)	Verdict
GFSK	SISO	HOPP	DH5	0.990	1.317	≥ 0.878	Pass
Pi/4DQPSK	SISO	HOPP	2DH5	0.989	1.289	≥ 0.859	Pass
8DPSK	SISO	HOPP	3DH5	1.006	1.329	≥ 0.886	Pass

3.1.2 Test Graph





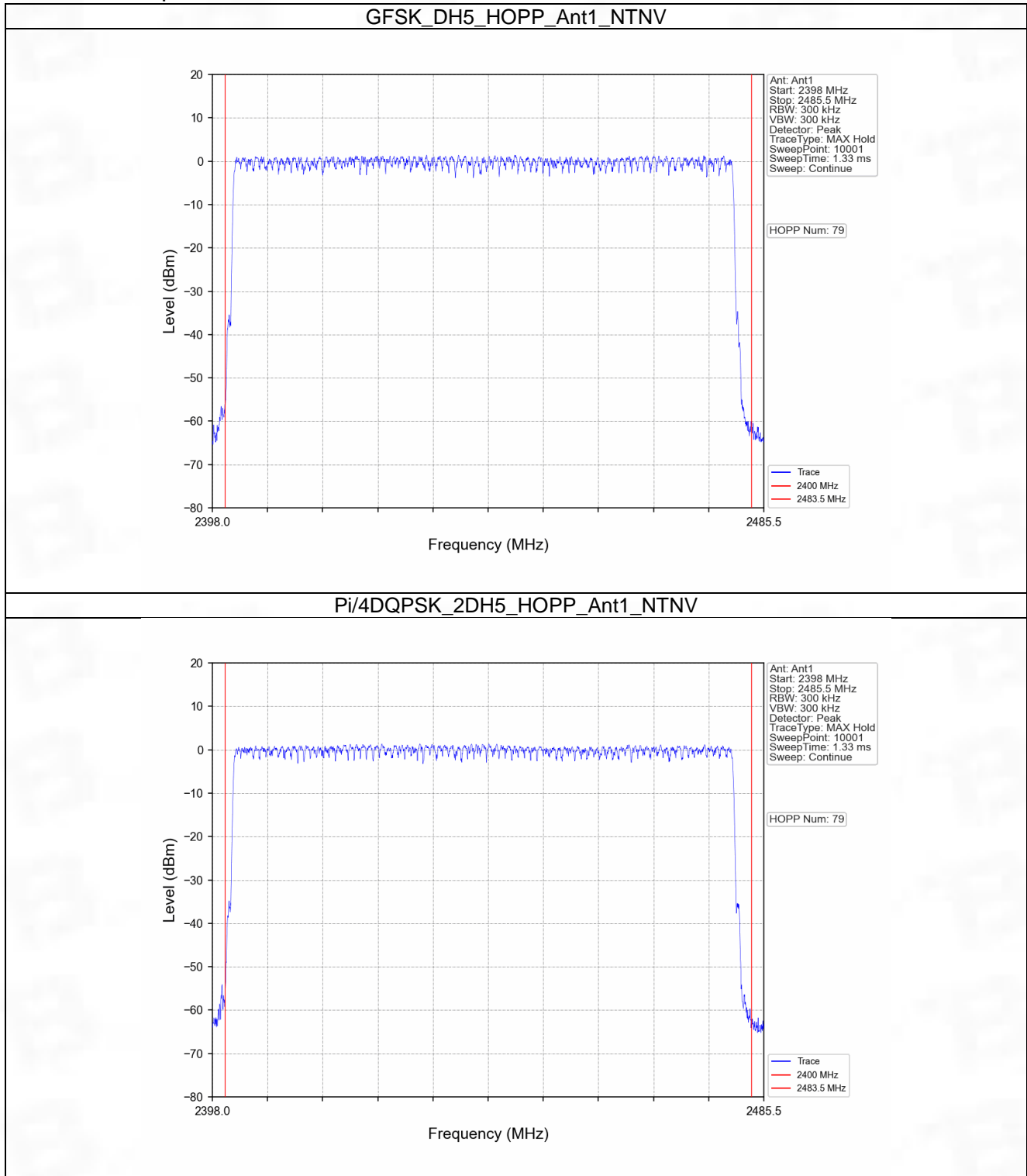
4. Number of Hopping Frequencies

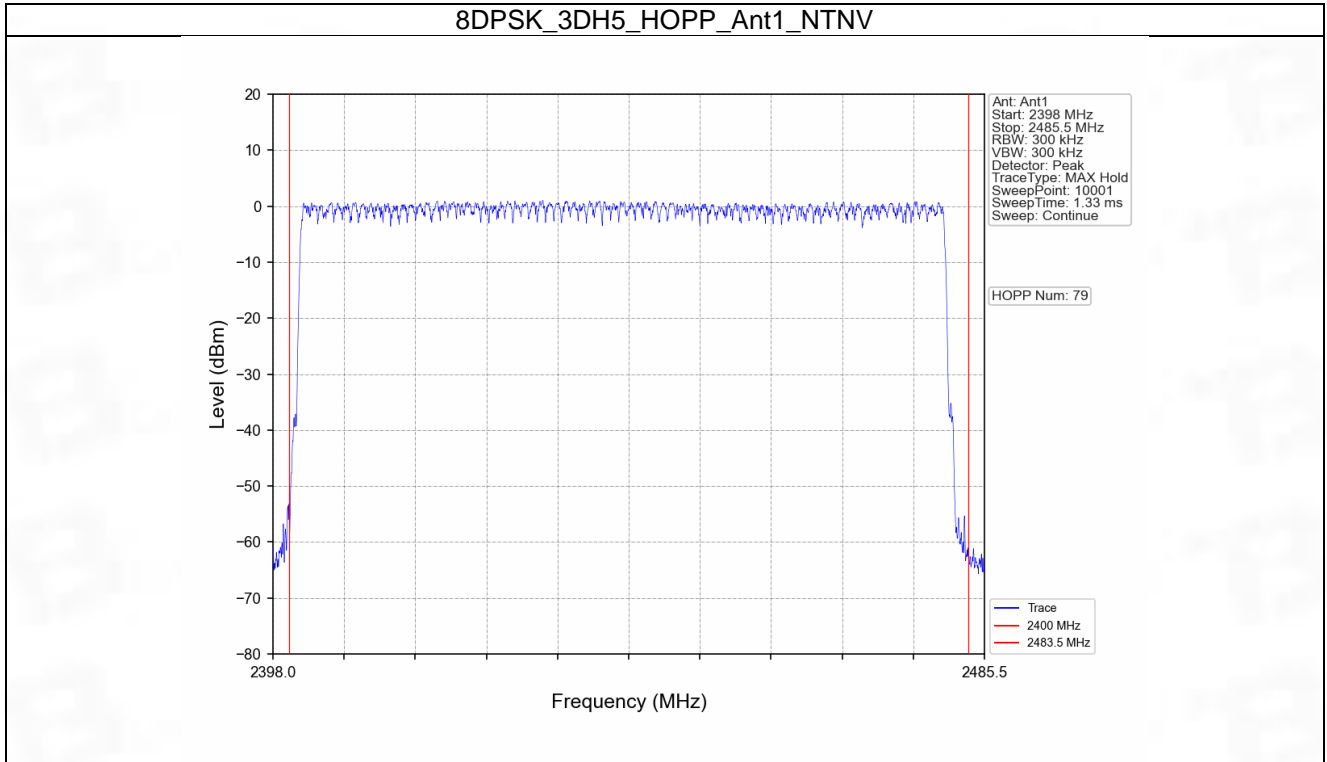
4.1 HoppNum

4.1.1 Test Result

Mode	TX Type	Frequency (MHz)	Packet Type	Num of Hopping Frequencies		Verdict
				ANT1	Limit	
GFSK	SISO	HOPP	DH5	79	≥ 15	Pass
Pi/4DQPSK	SISO	HOPP	2DH5	79	≥ 15	Pass
8DPSK	SISO	HOPP	3DH5	79	≥ 15	Pass

4.1.2 Test Graph





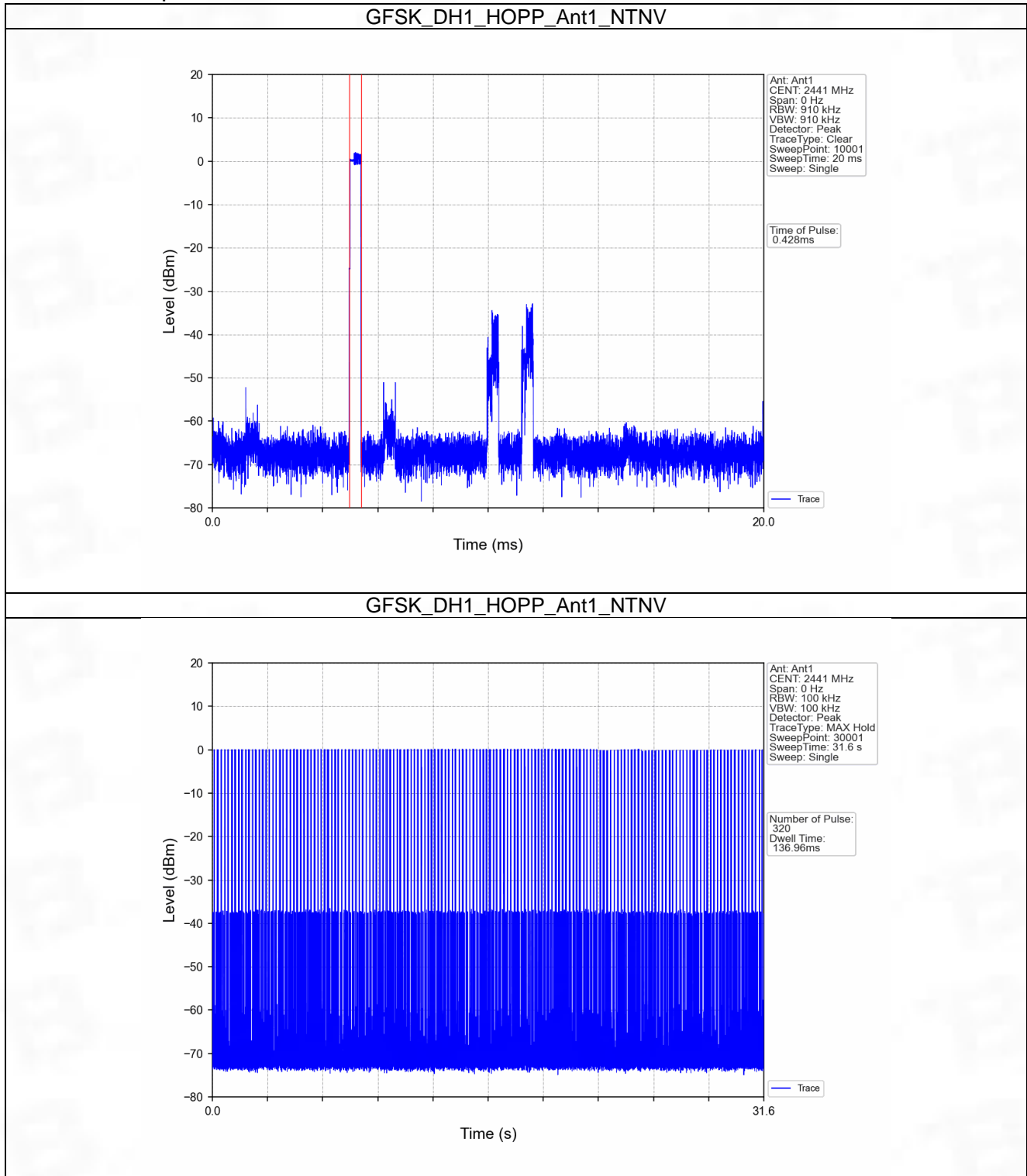
5. Time of Occupancy (Dwell Time)

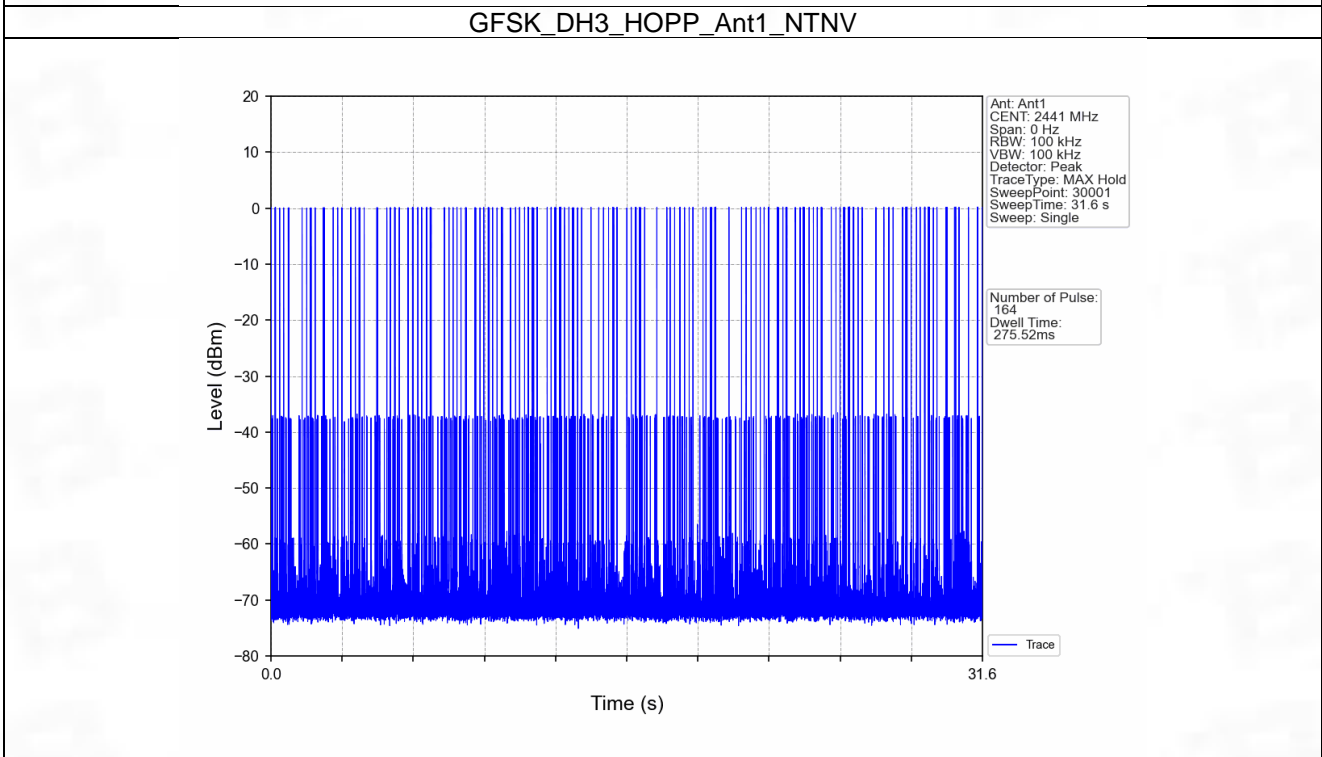
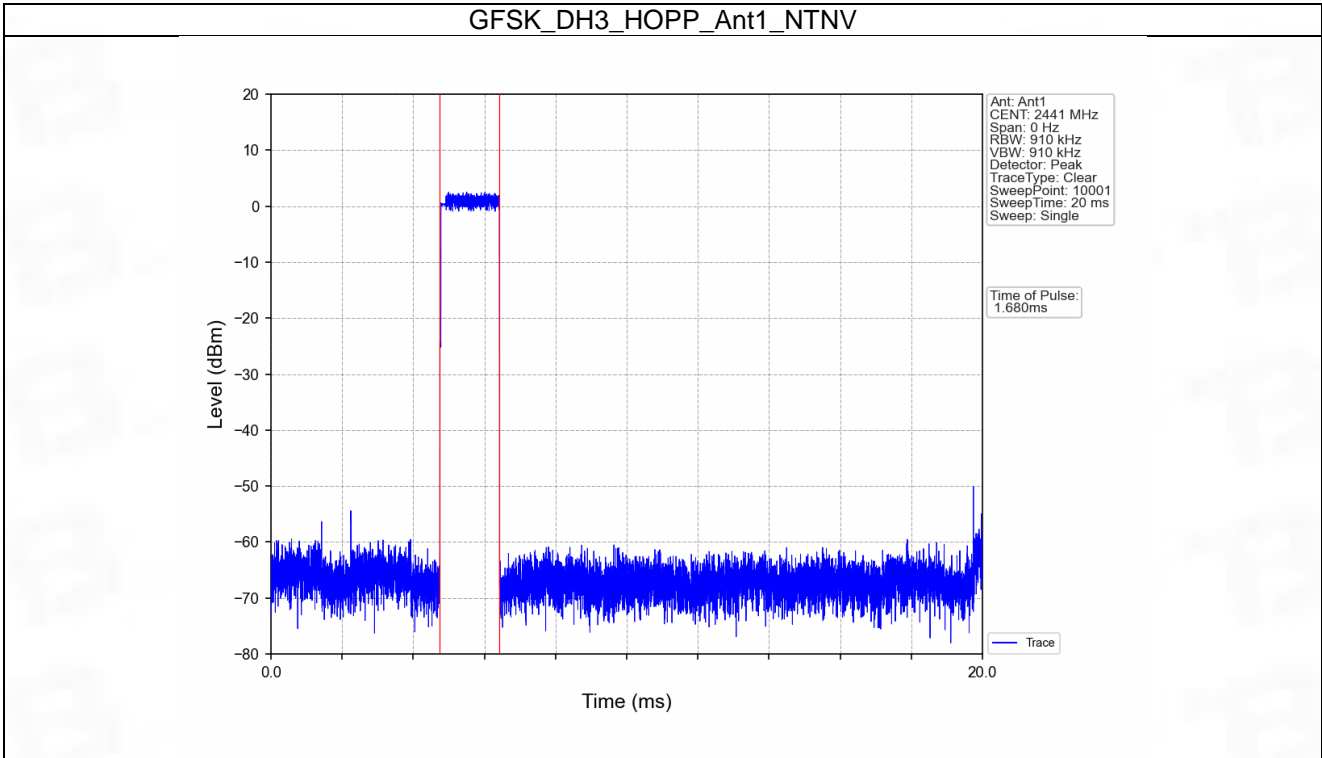
5.1 Ant1

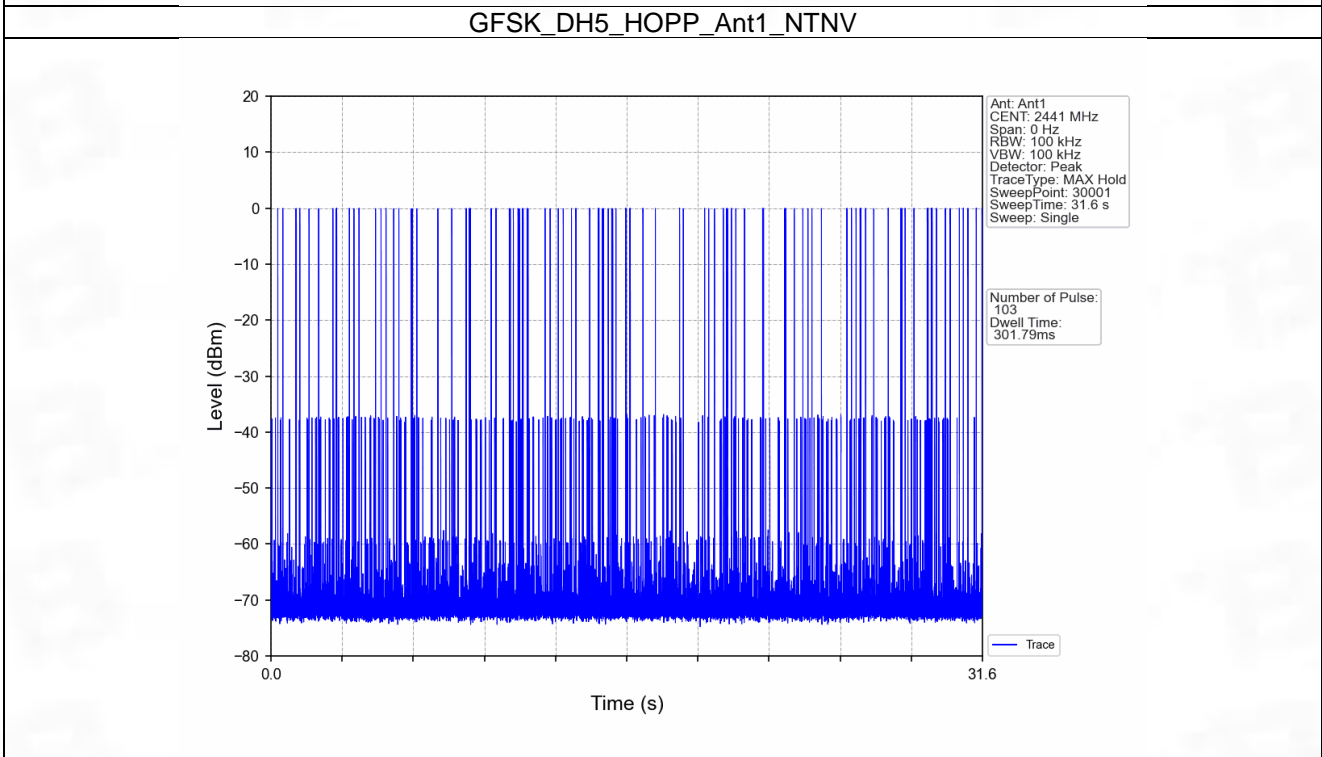
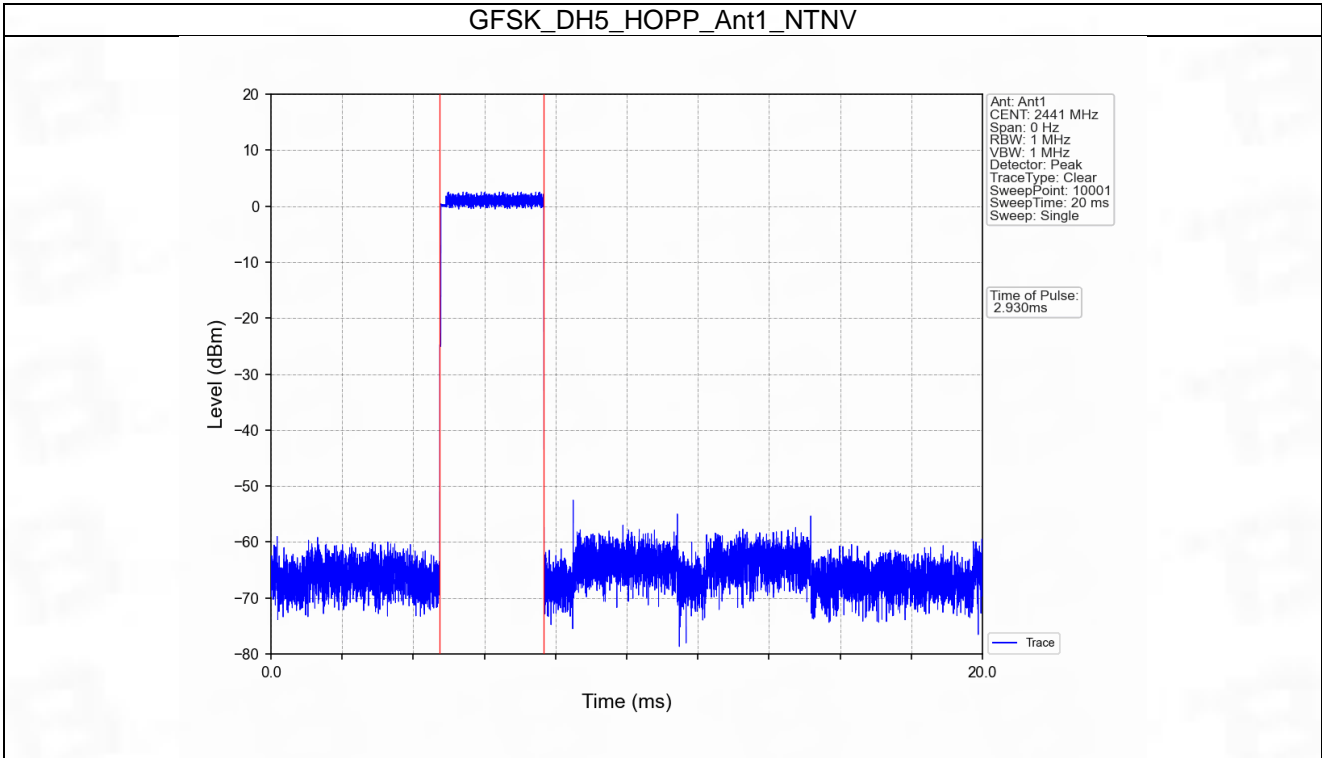
5.1.1 Test Result

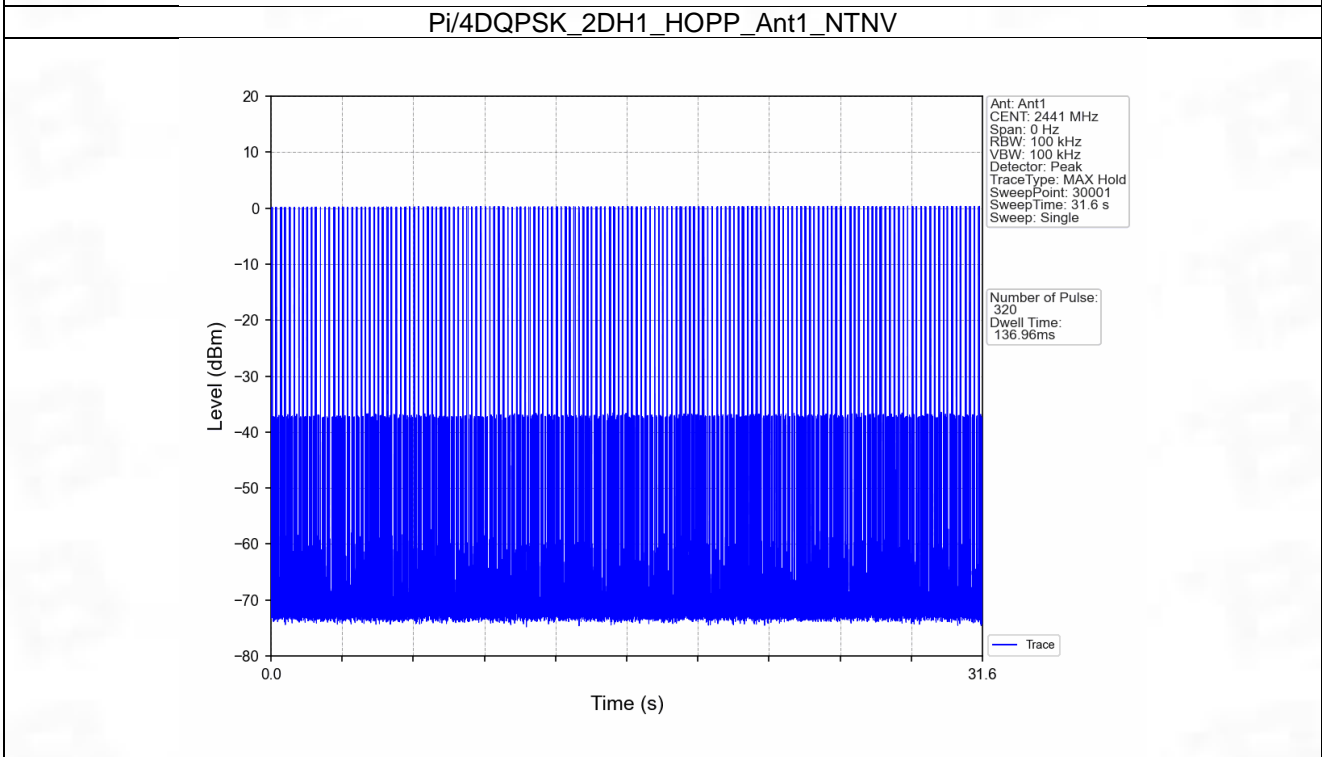
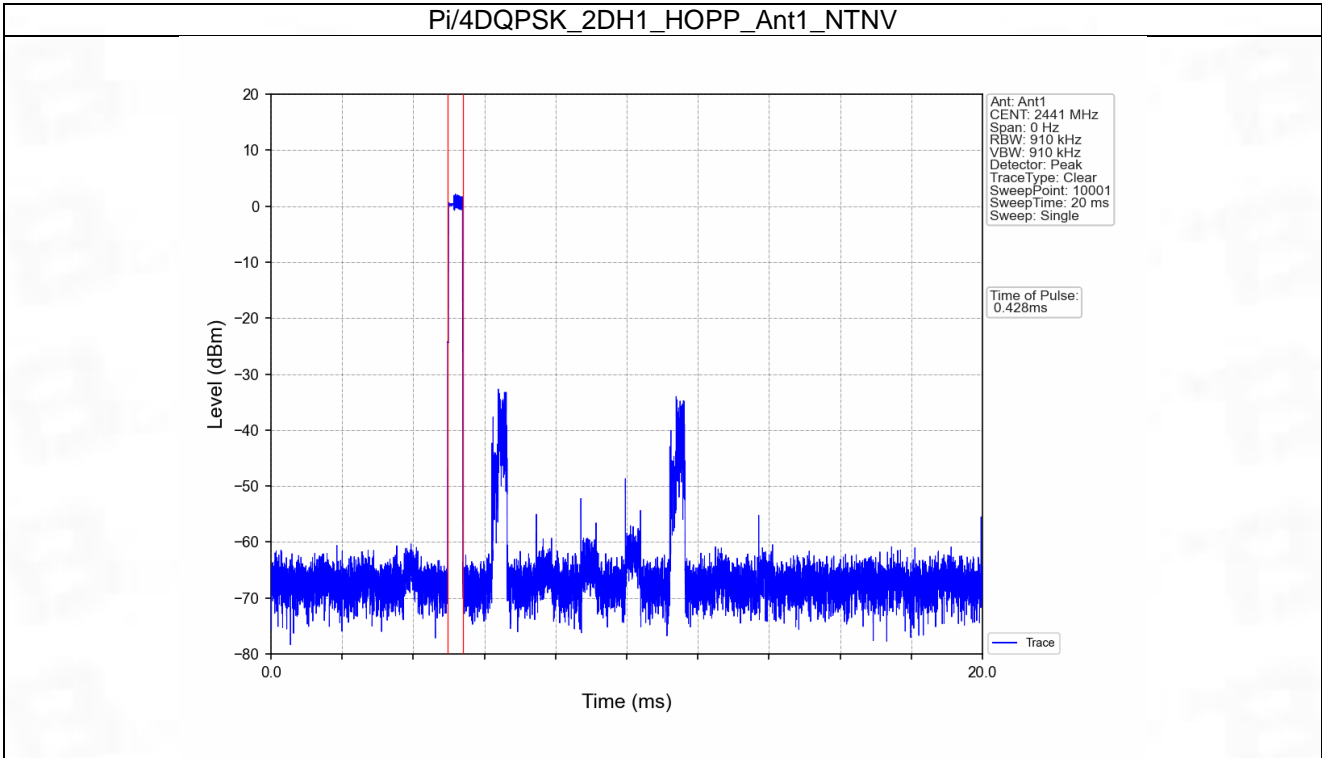
Ant1									
Mode	TX Type	Frequency (MHz)	Packet Type	Duration of Single Pulse (ms)	Observation Period (s)	Num of Pulse in Observation Period	Dwell Time (ms)	Limit (ms)	Verdict
GFSK	SISO	HOPP	DH1	0.428	31.600	320	136.960	<=400	Pass
			DH3	1.680	31.600	164	275.520	<=400	Pass
			DH5	2.930	31.600	103	301.790	<=400	Pass
Pi/4DQPSK	SISO	HOPP	2DH1	0.428	31.600	320	136.960	<=400	Pass
			2DH3	1.680	31.600	151	253.680	<=400	Pass
			2DH5	2.930	31.600	105	307.650	<=400	Pass
8DPSK	SISO	HOPP	3DH1	0.392	31.600	320	125.440	<=400	Pass
			3DH3	1.680	31.600	157	263.760	<=400	Pass
			3DH5	2.932	31.600	101	296.132	<=400	Pass

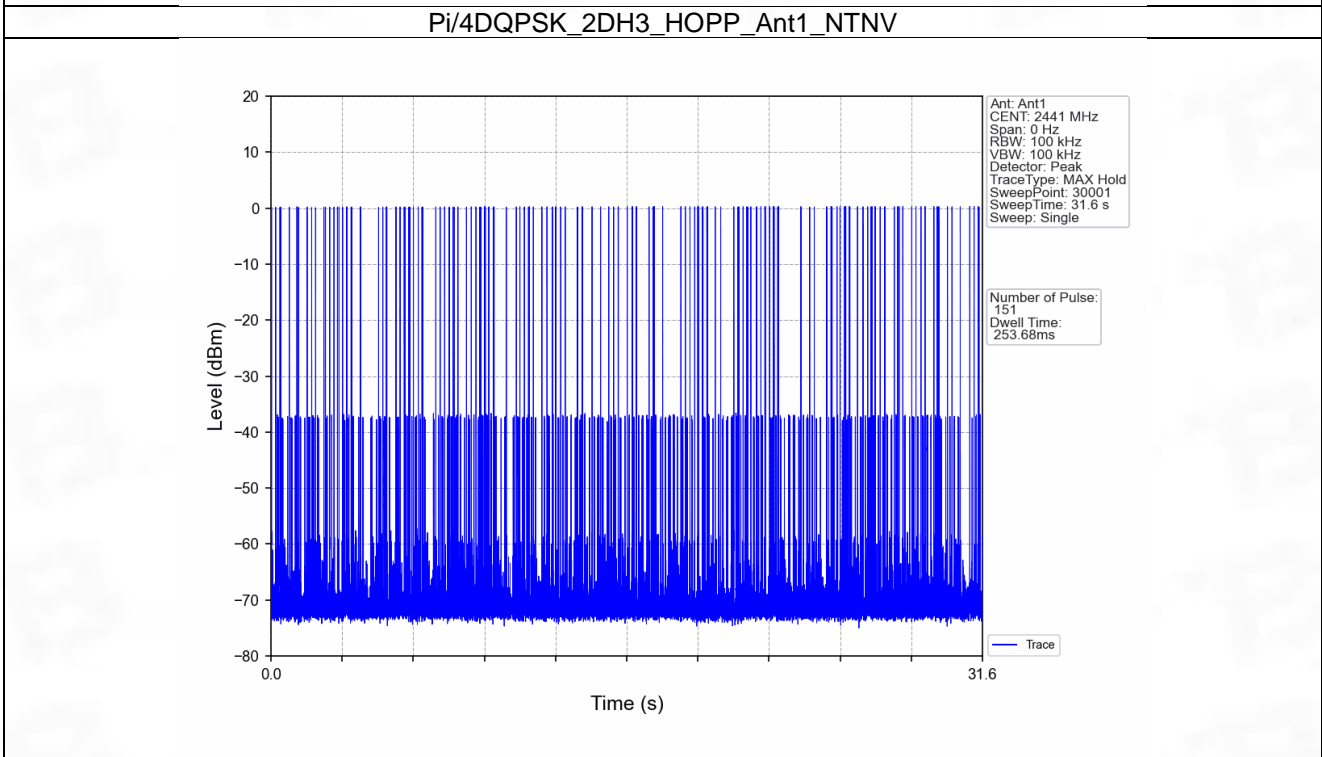
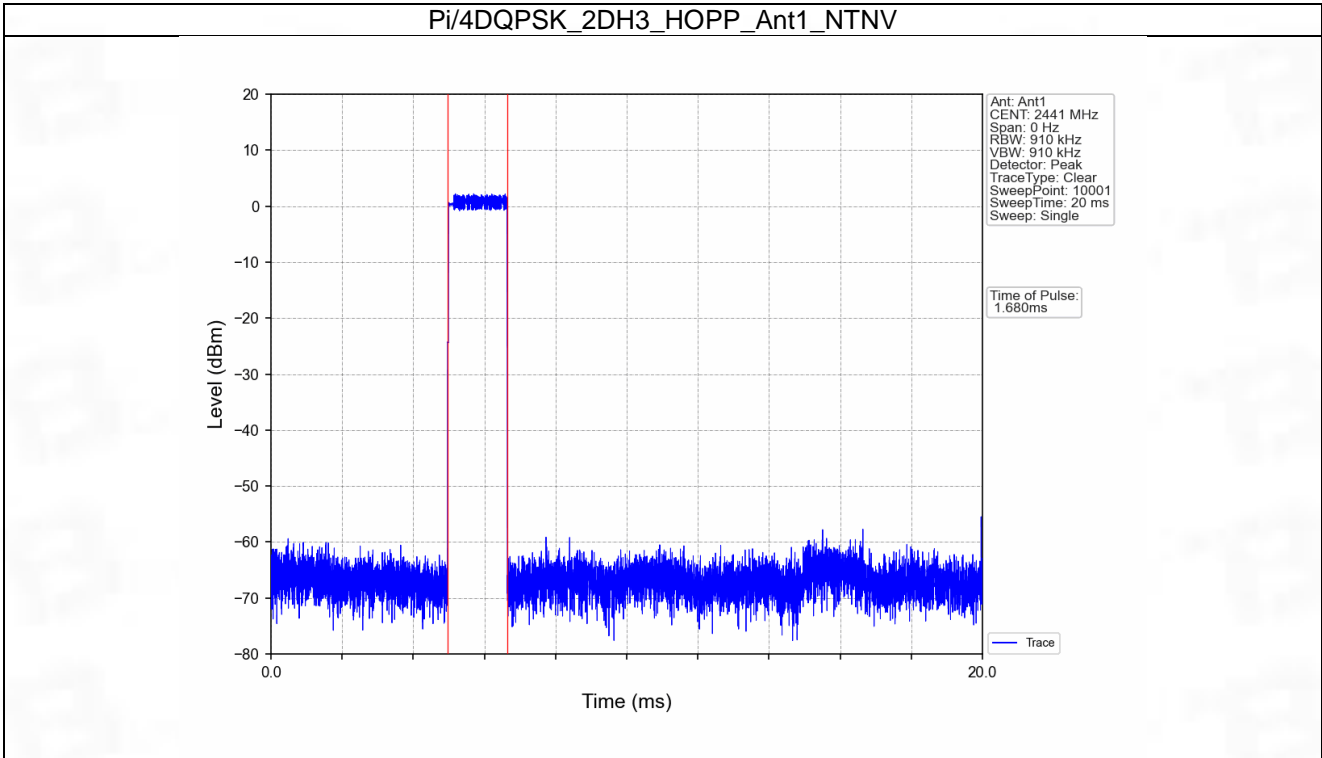
5.1.2 Test Graph

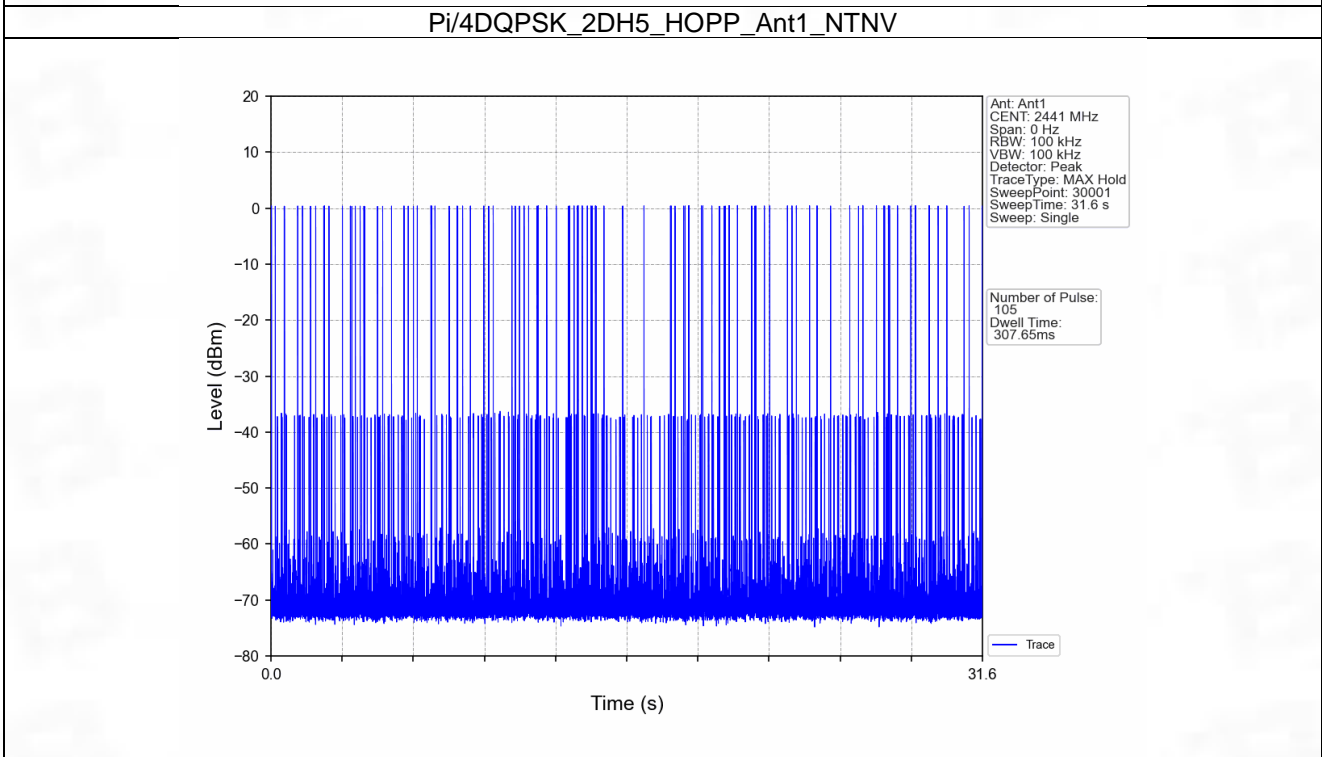
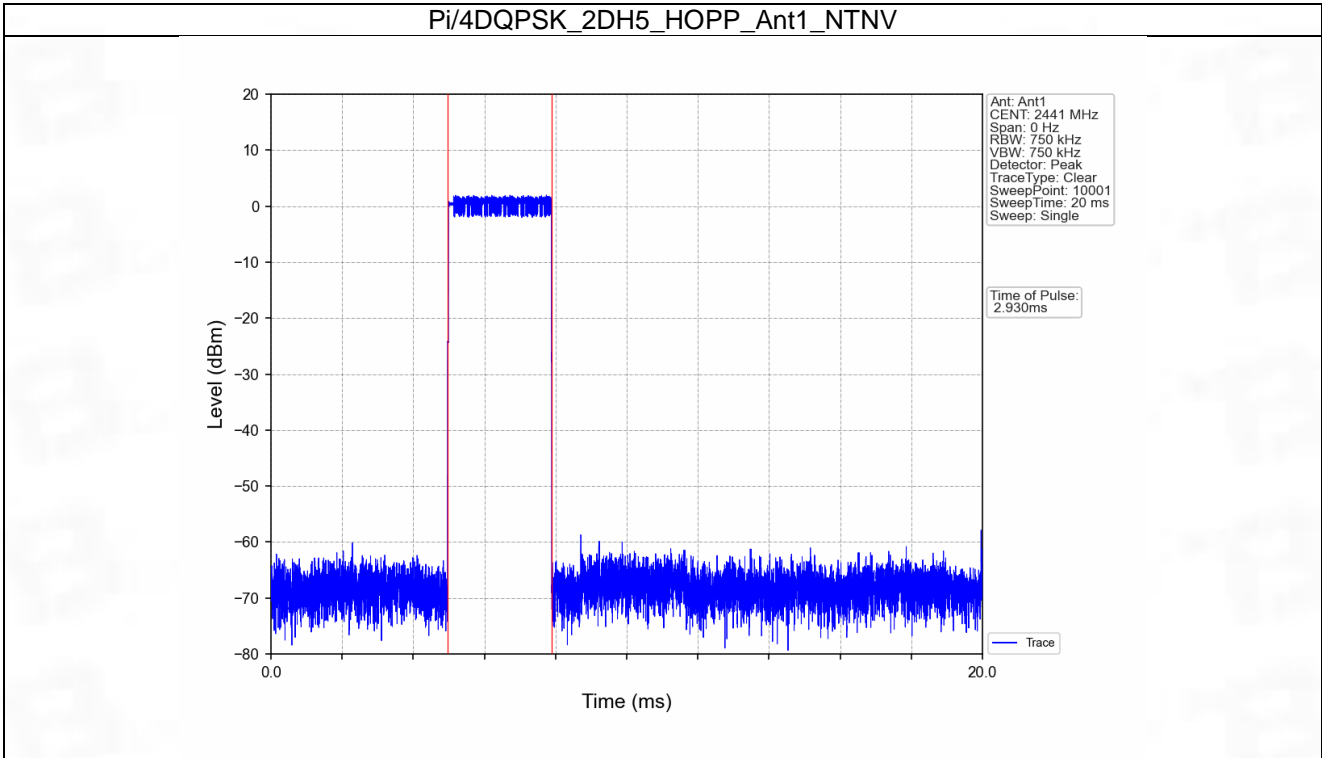


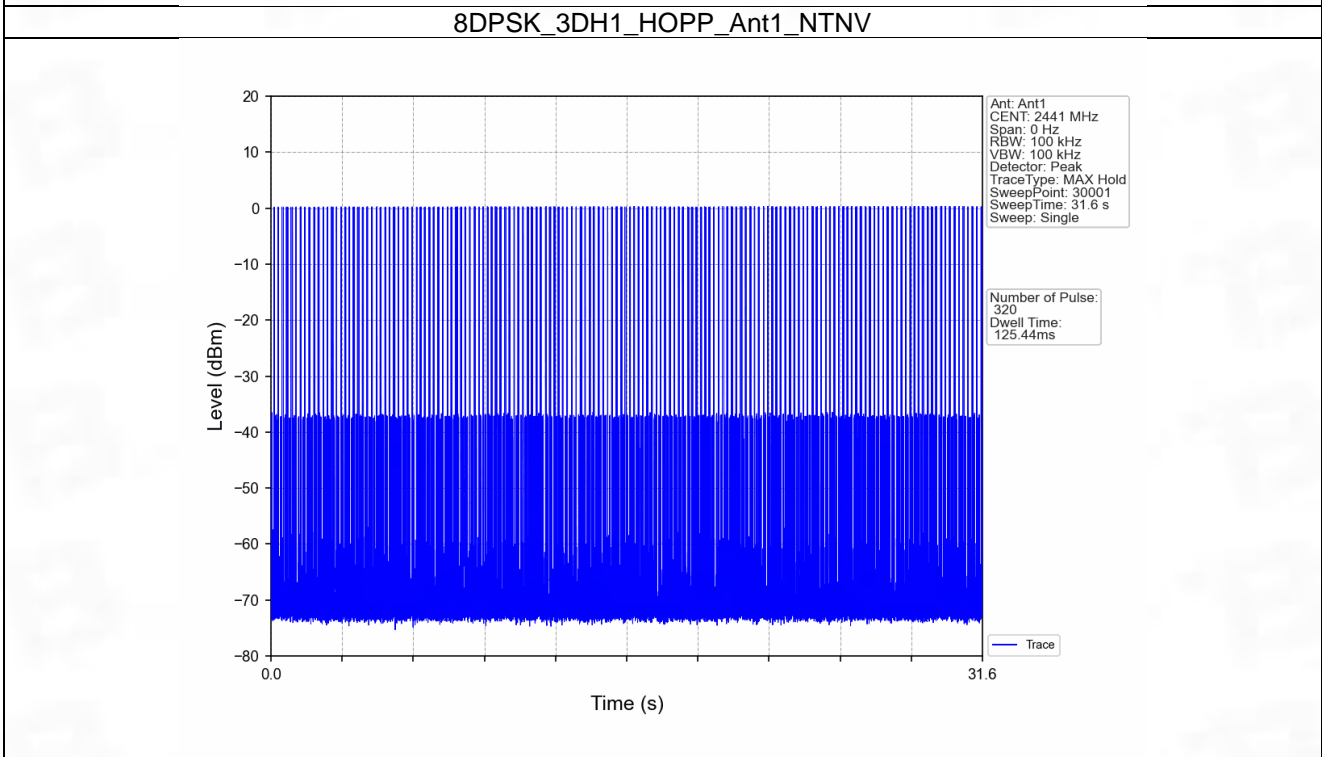
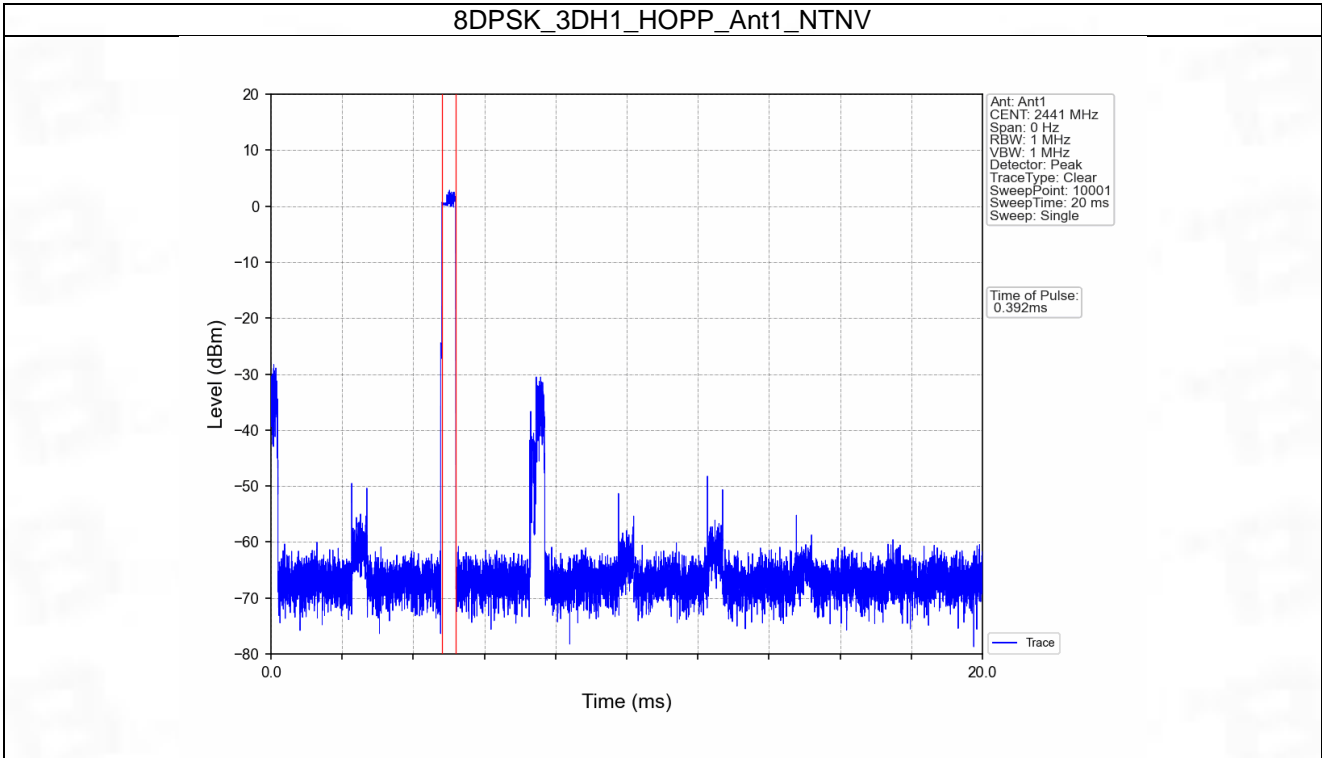


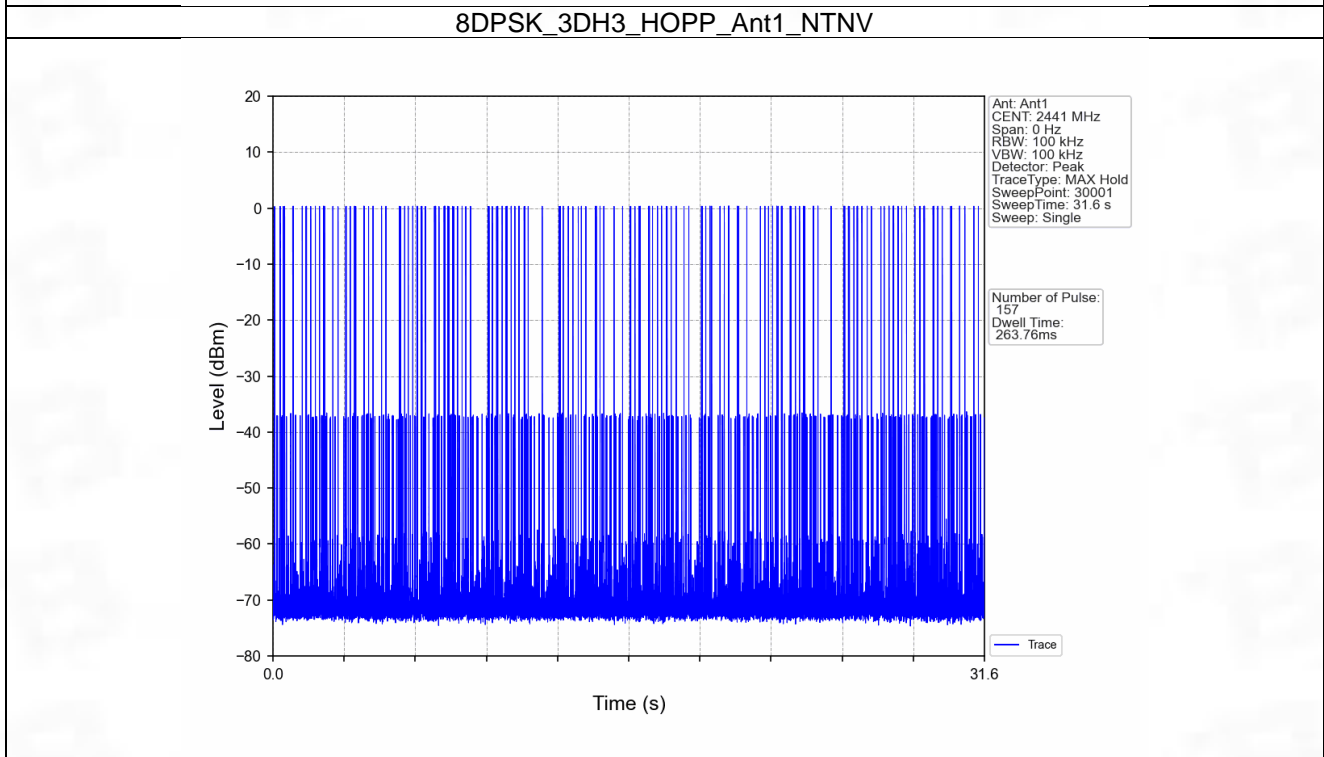
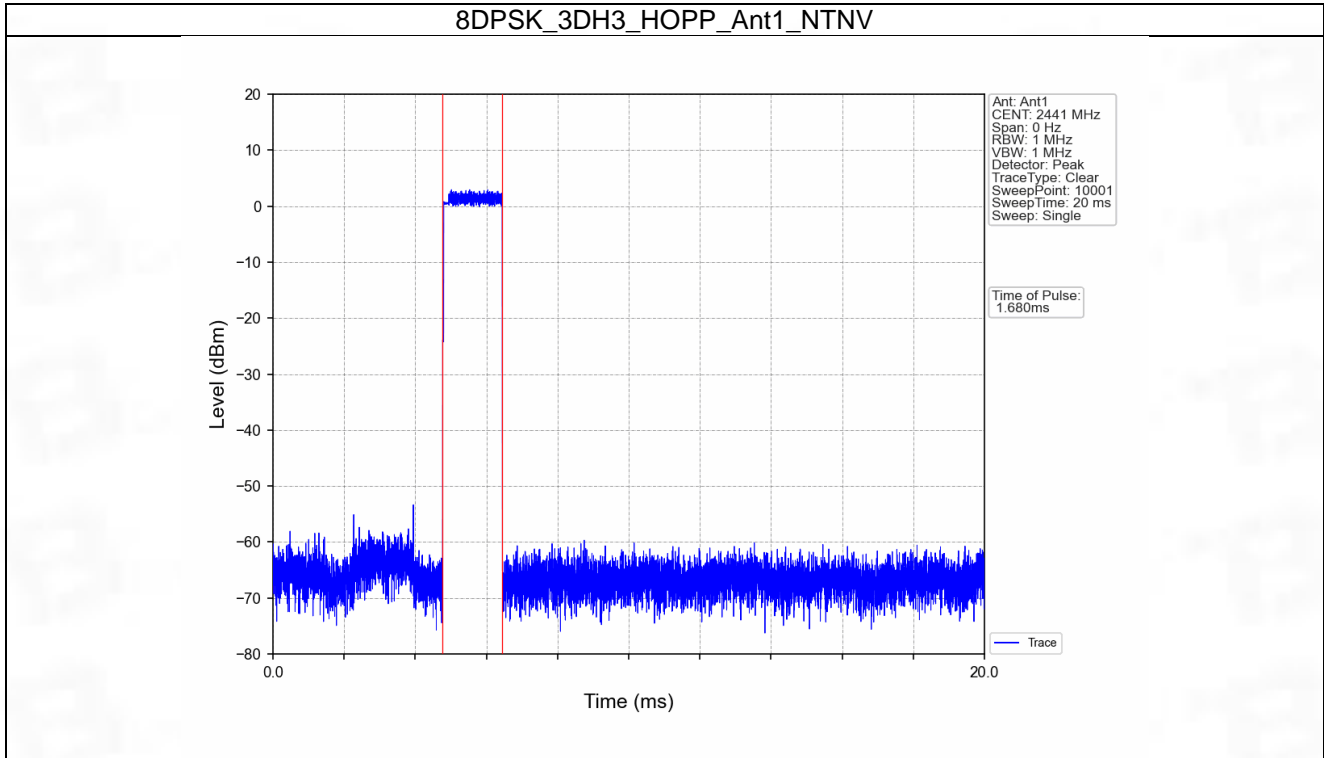


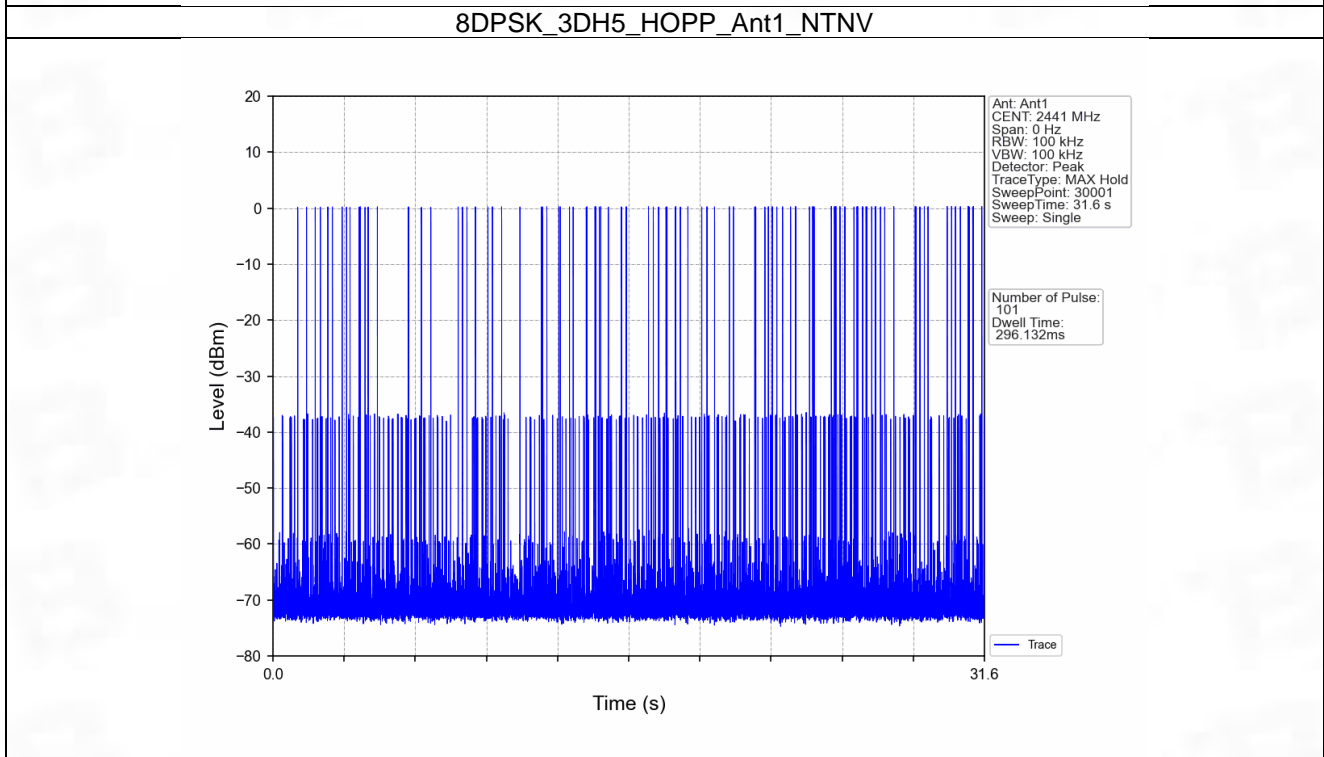
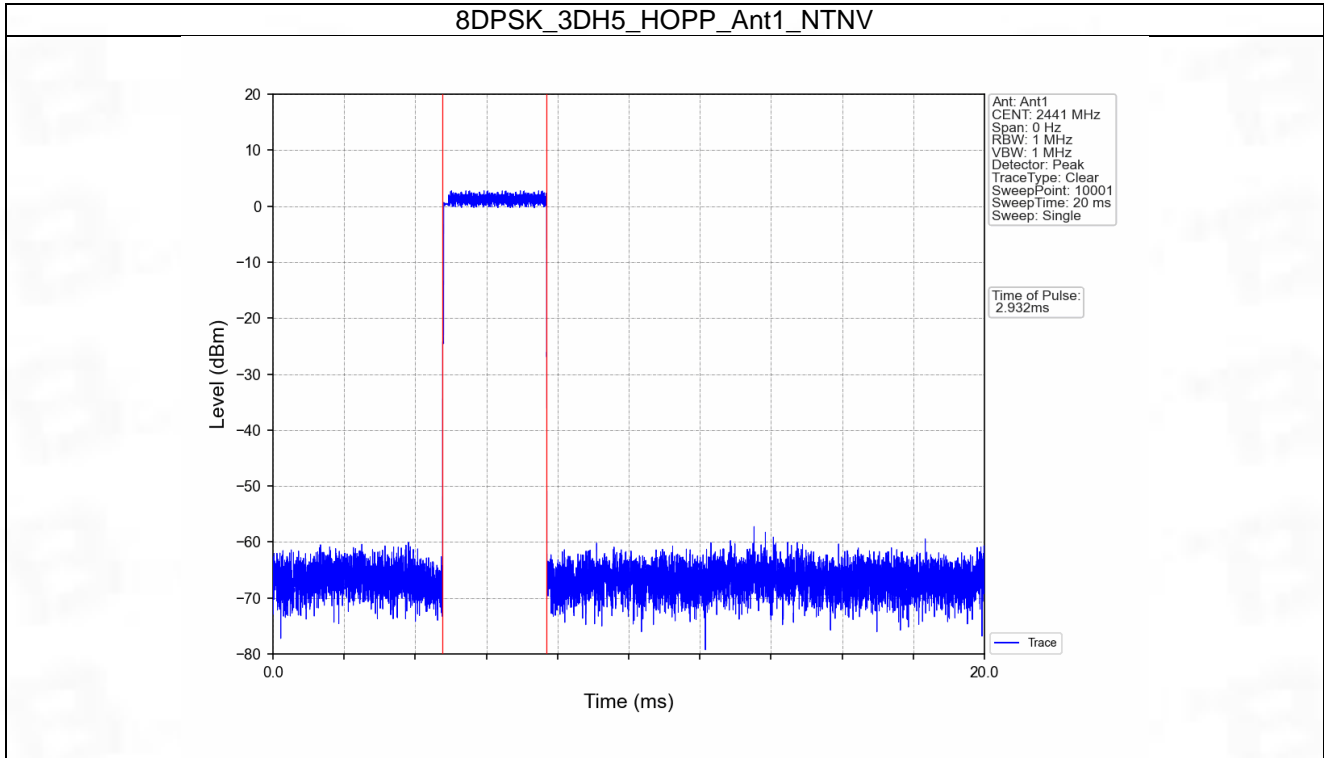












6. Unwanted Emissions In Non-restricted Frequency Bands

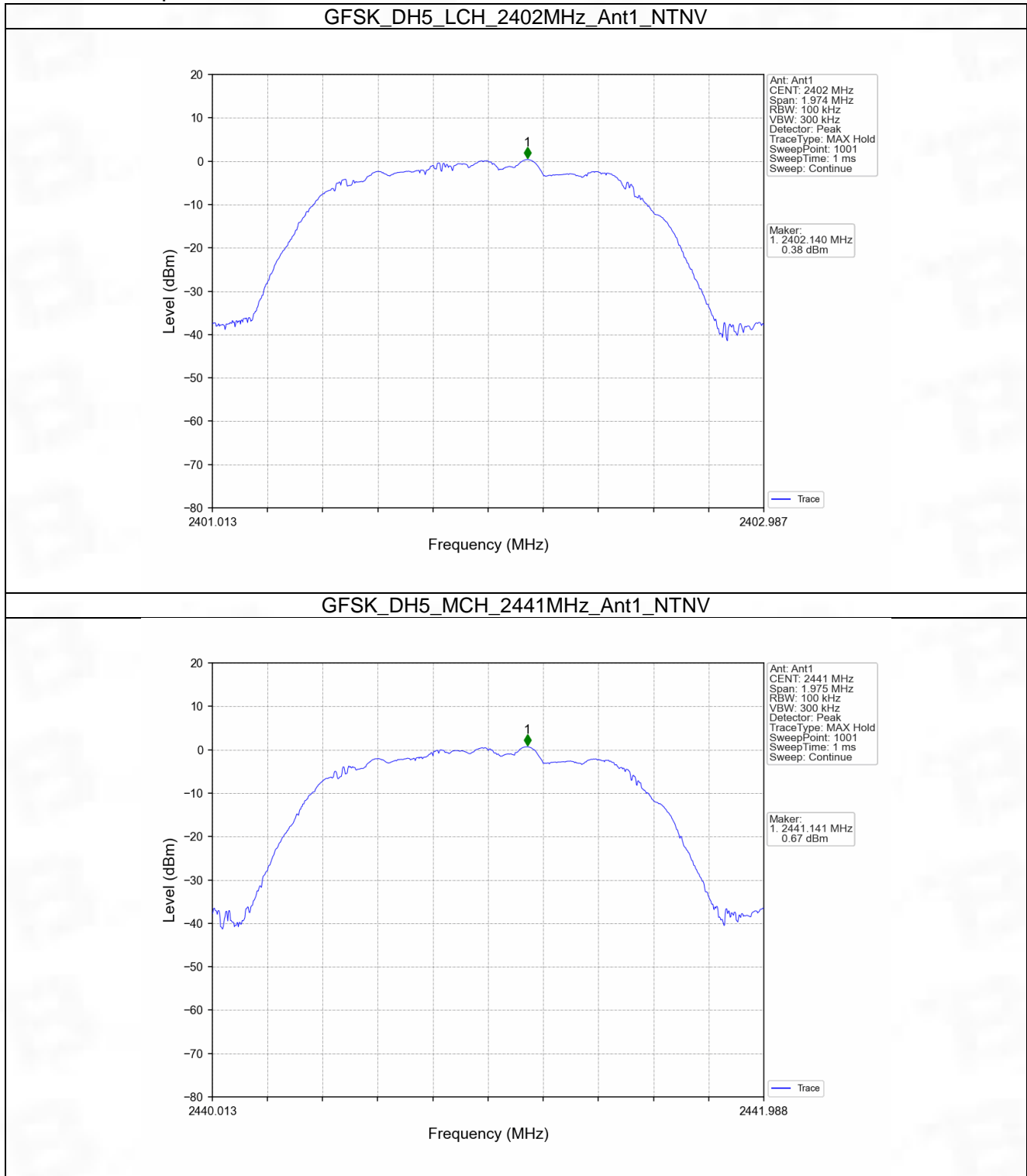
6.1 Ref

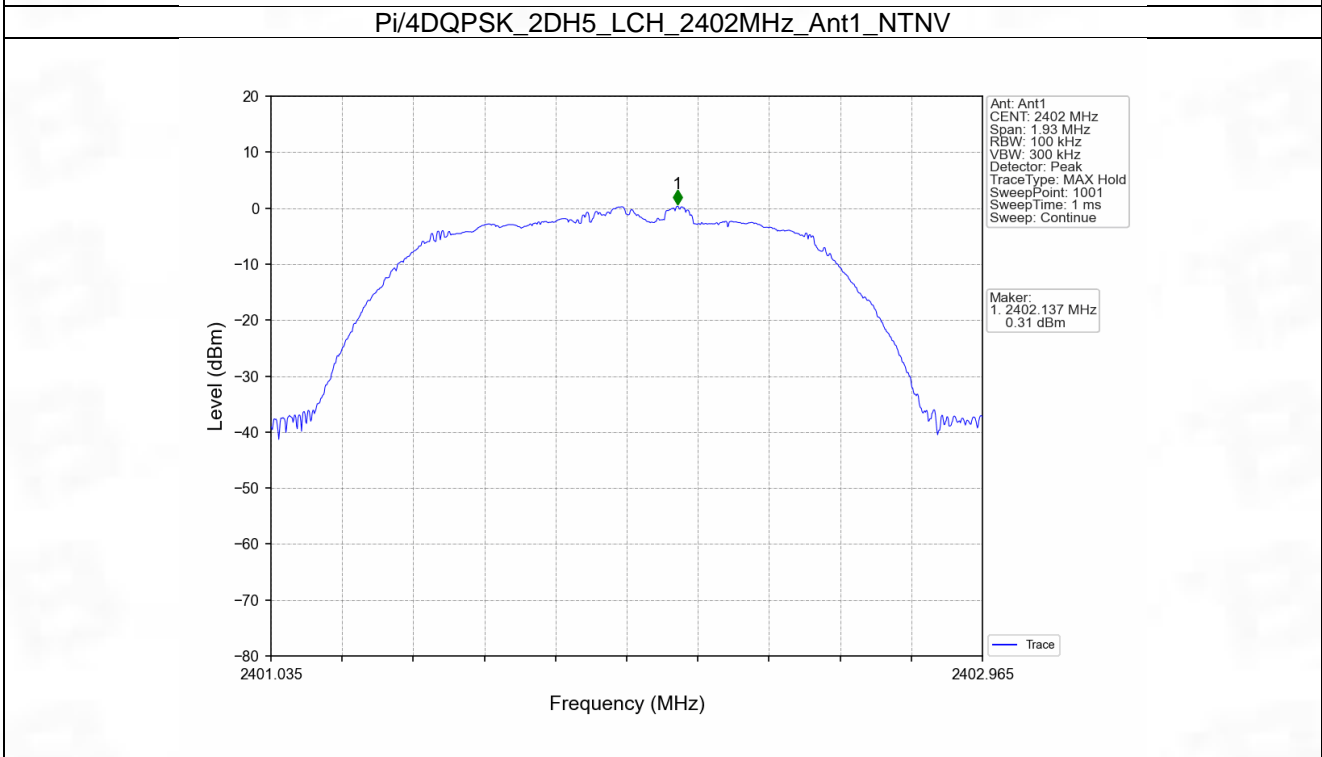
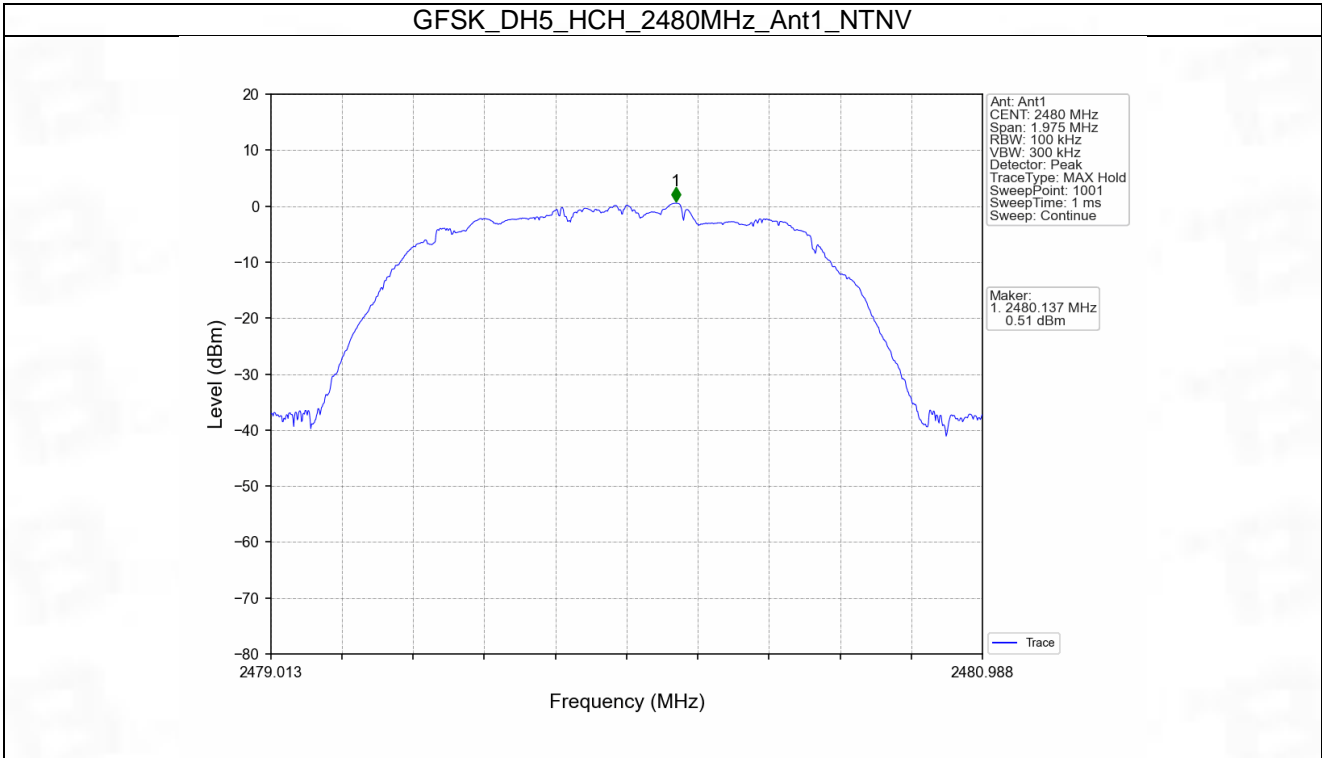
6.1.1 Test Result

Mode	TX Type	Frequency (MHz)	Packet Type	ANT	Level of Reference (dBm)
GFSK	SISO	2402	DH5	1	0.38
		2441	DH5	1	0.67
		2480	DH5	1	0.51
Pi/4DQPSK	SISO	2402	2DH5	1	0.31
		2441	2DH5	1	0.53
		2480	2DH5	1	0.39
8DPSK	SISO	2402	3DH5	1	0.54
		2441	3DH5	1	0.50
		2480	3DH5	1	0.53

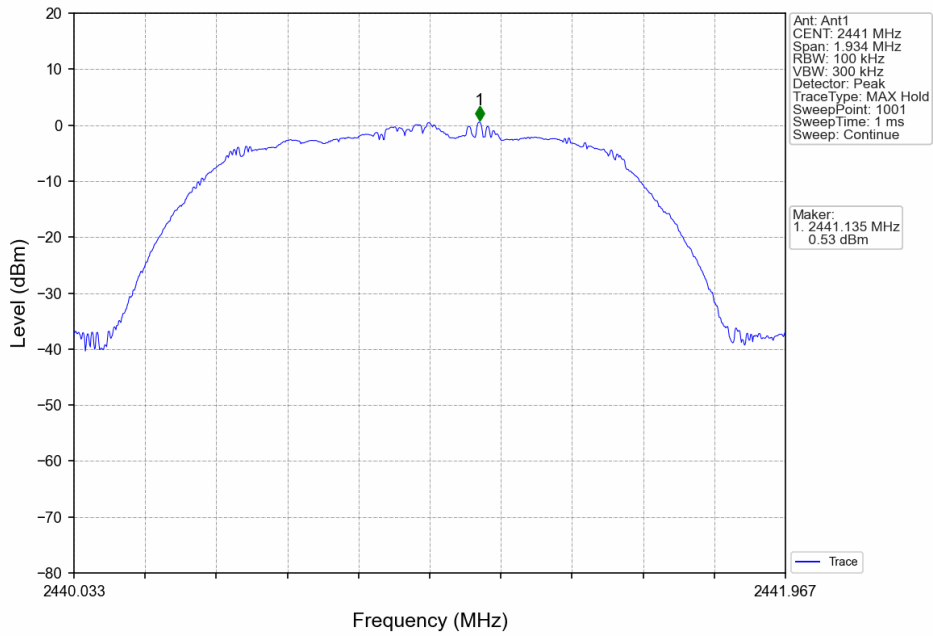
Note1: Refer to FCC Part 15.247 (d) and ANSI C63.10-2013, the channel contains the maximum PSD level was used to establish the reference level.

6.1.2 Test Graph

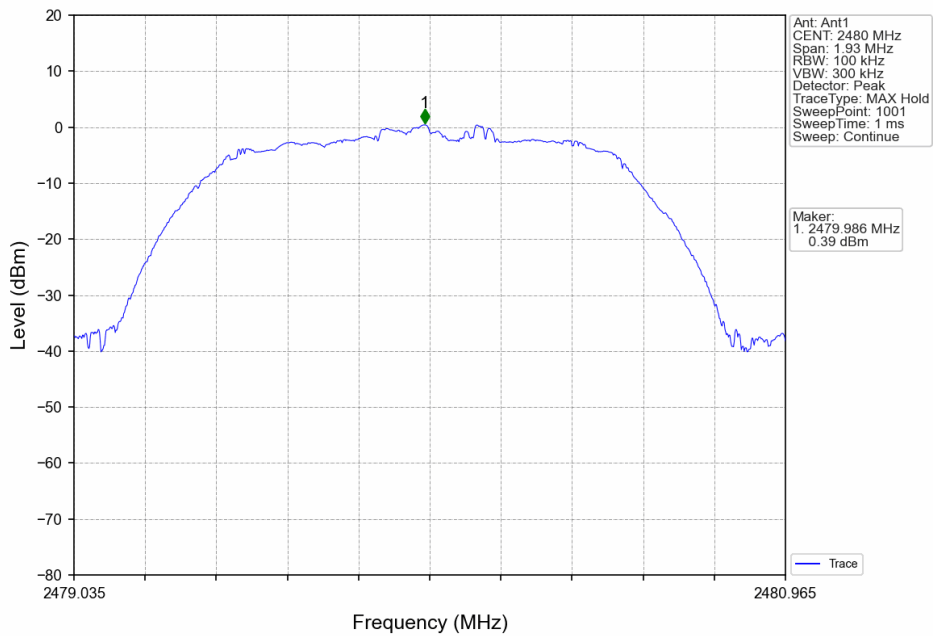




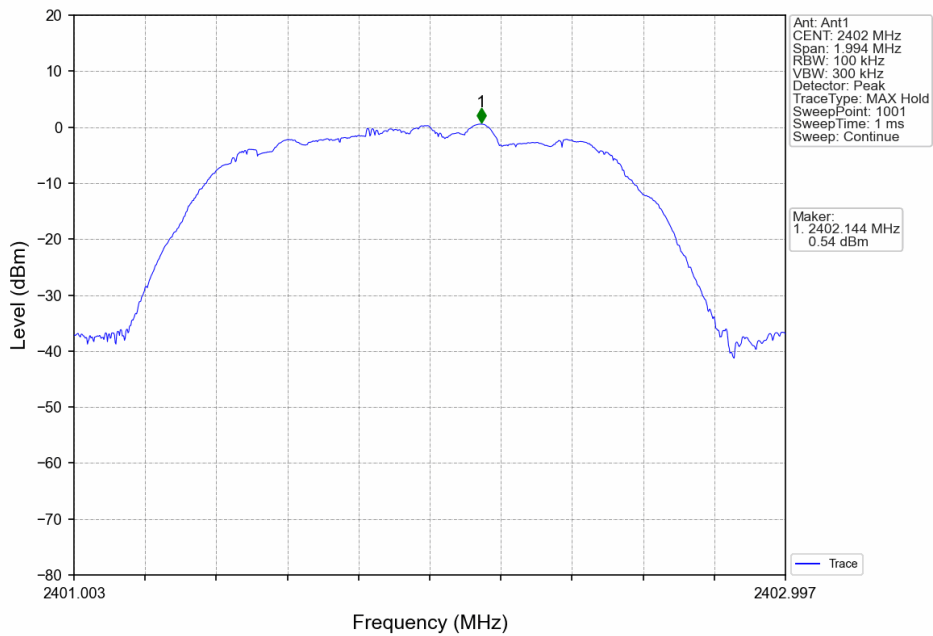
Pi/4DQPSK_2DH5_MCH_2441MHz_Ant1_NTNV



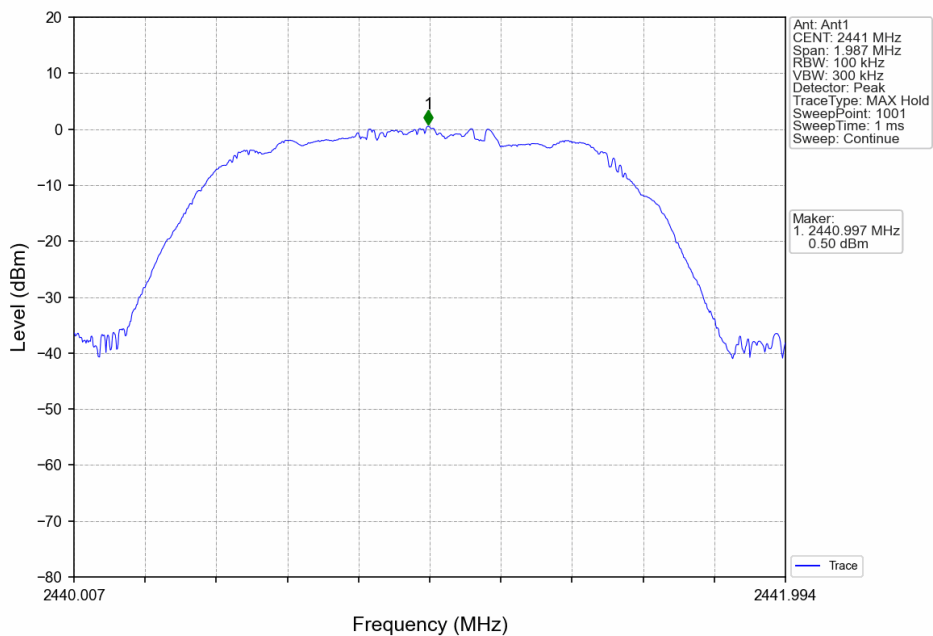
Pi/4DQPSK_2DH5_HCH_2480MHz_Ant1_NTNV

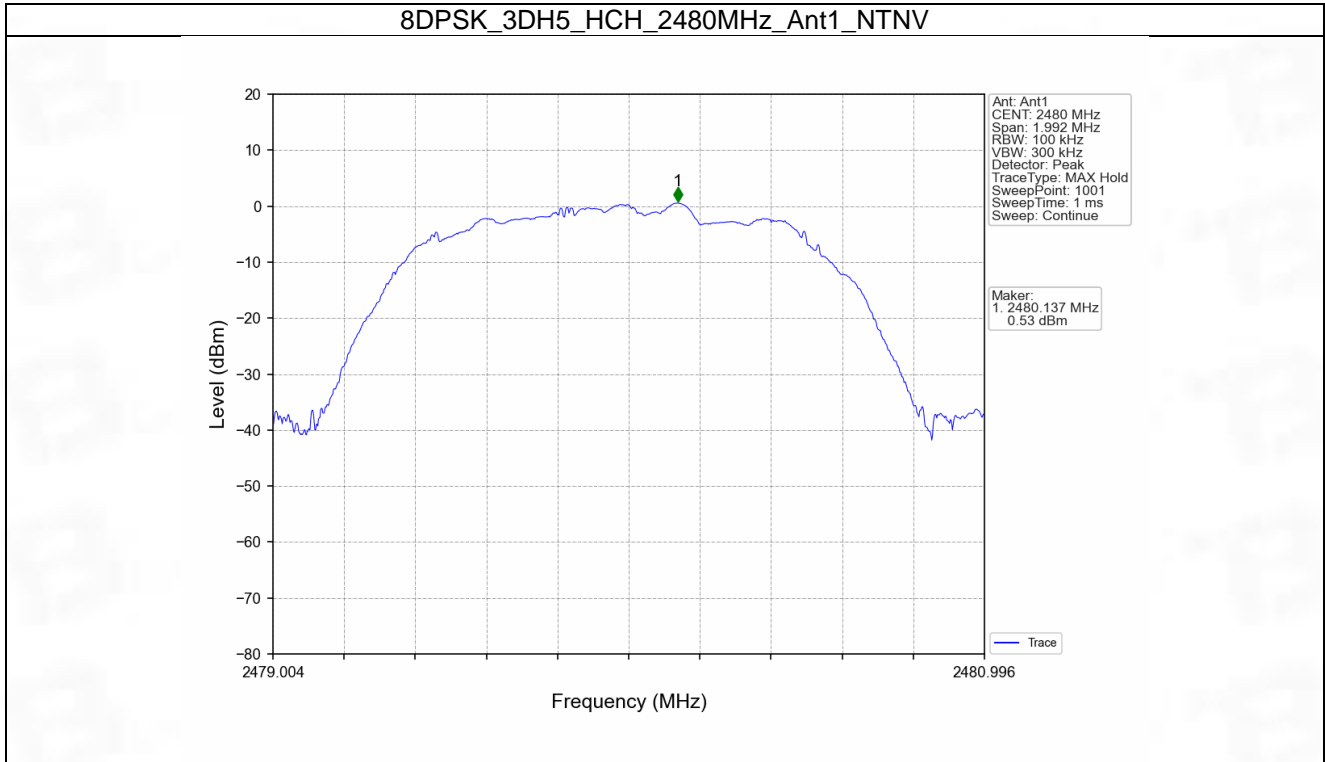


8DPSK_3DH5_LCH_2402MHz_Ant1_NTNV



8DPSK_3DH5_MCH_2441MHz_Ant1_NTNV





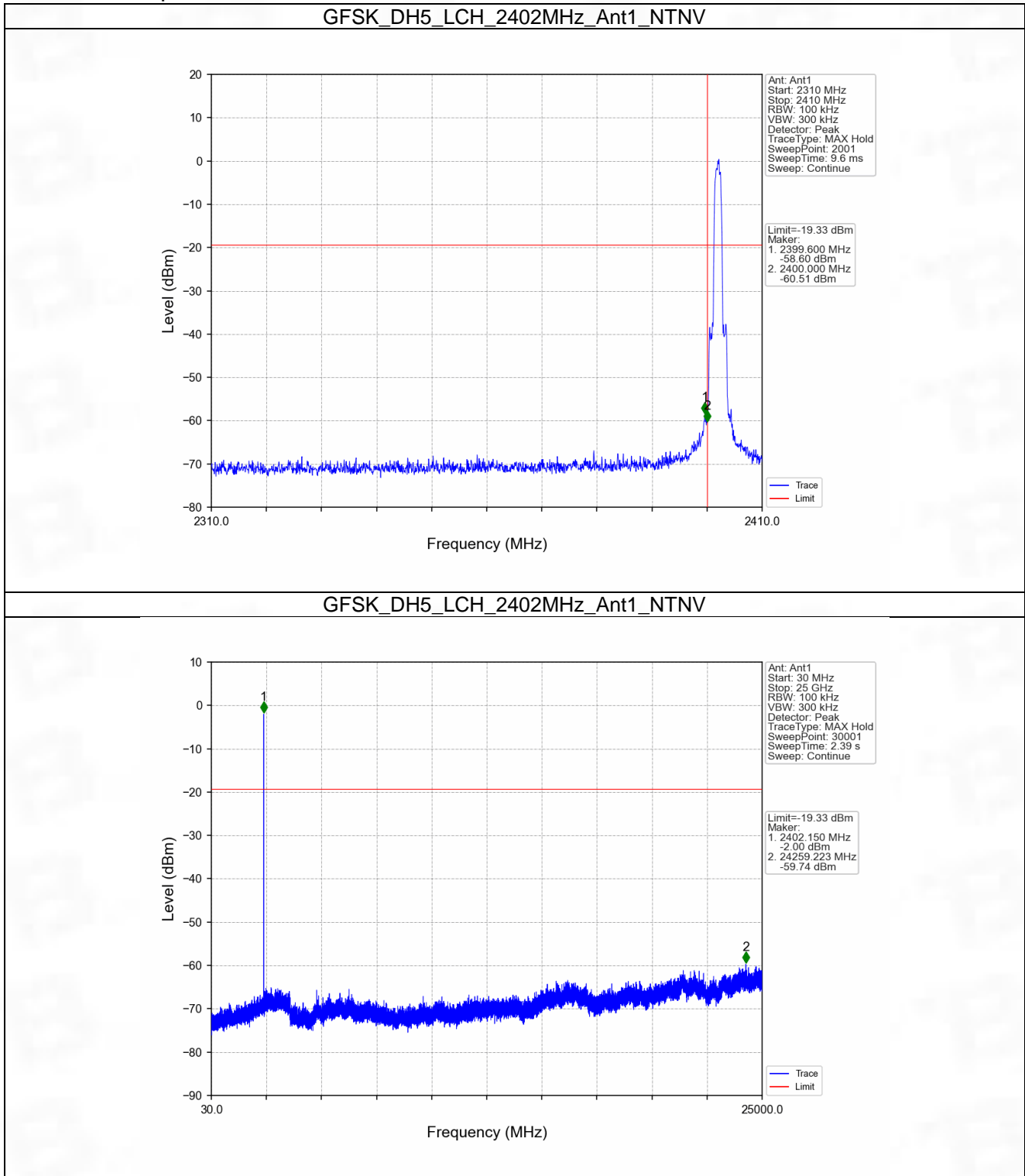
6.2 CSE

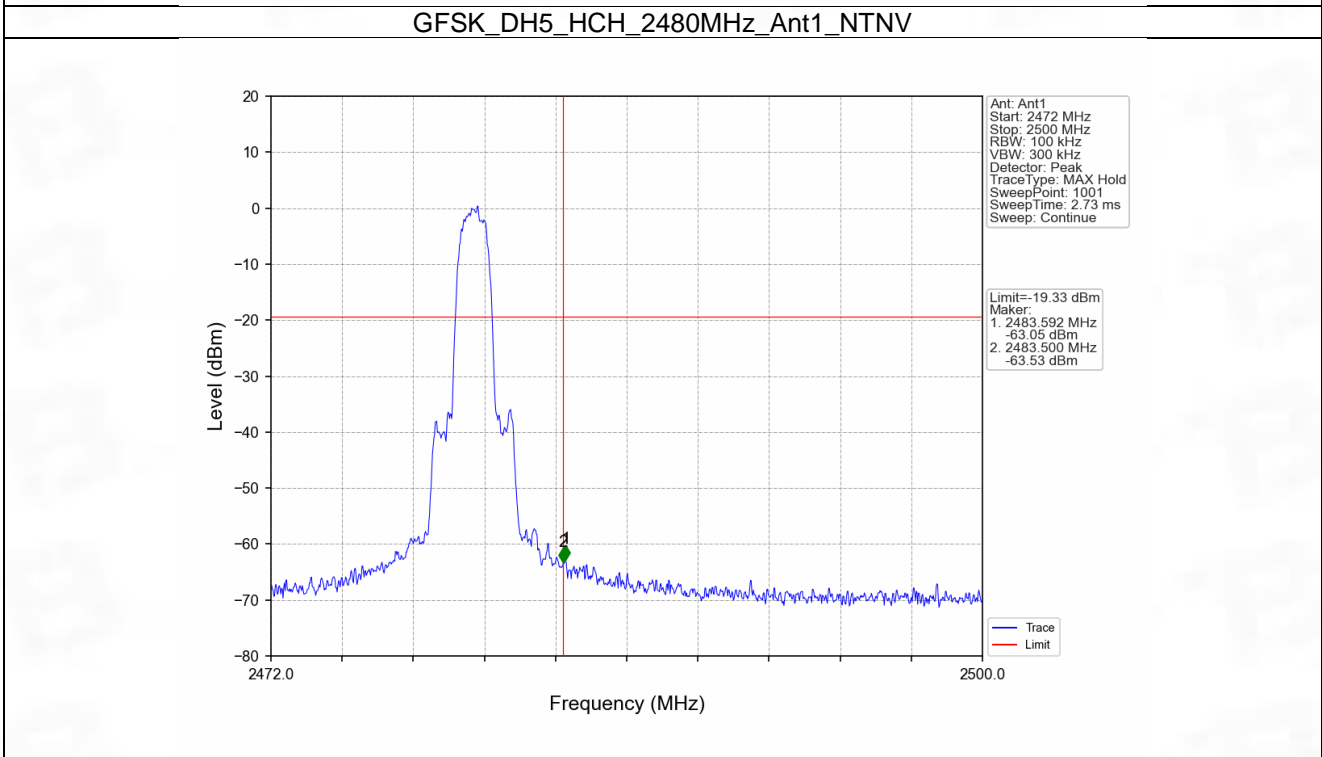
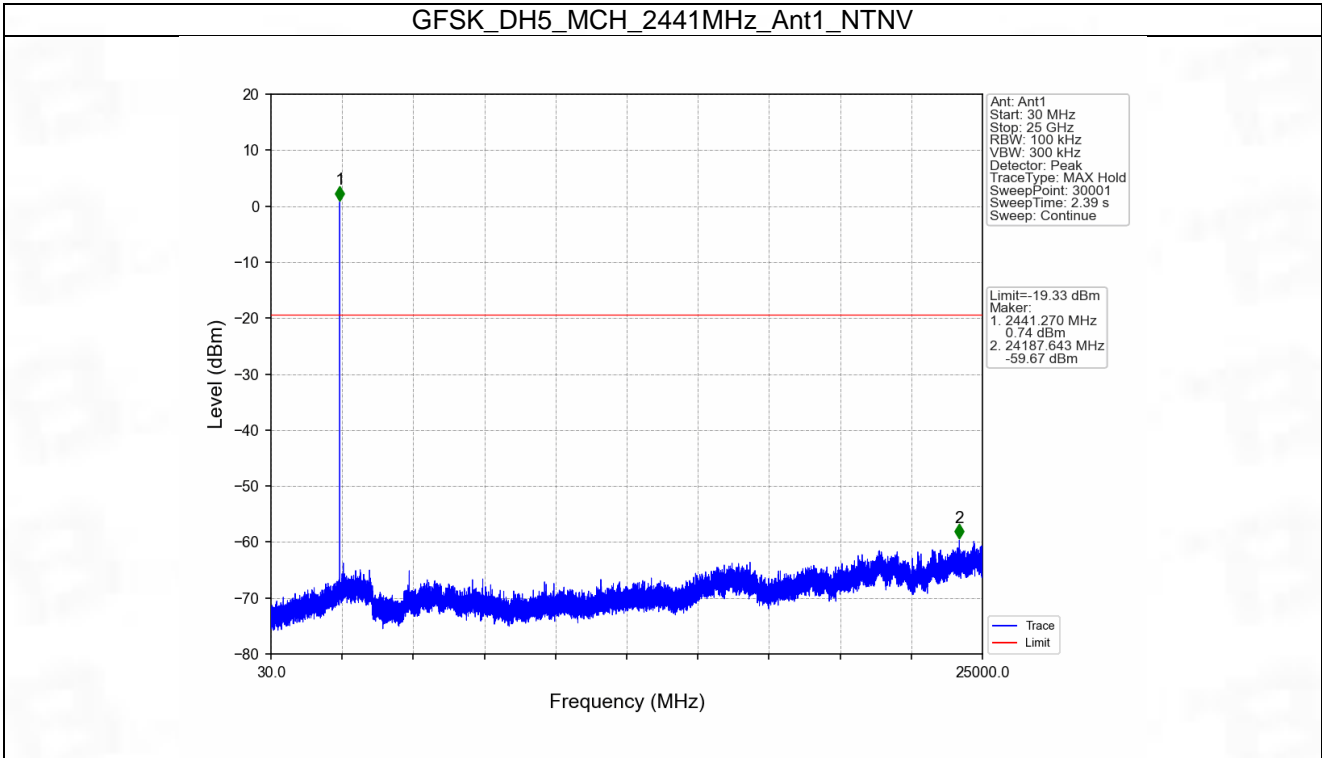
6.2.1 Test Result

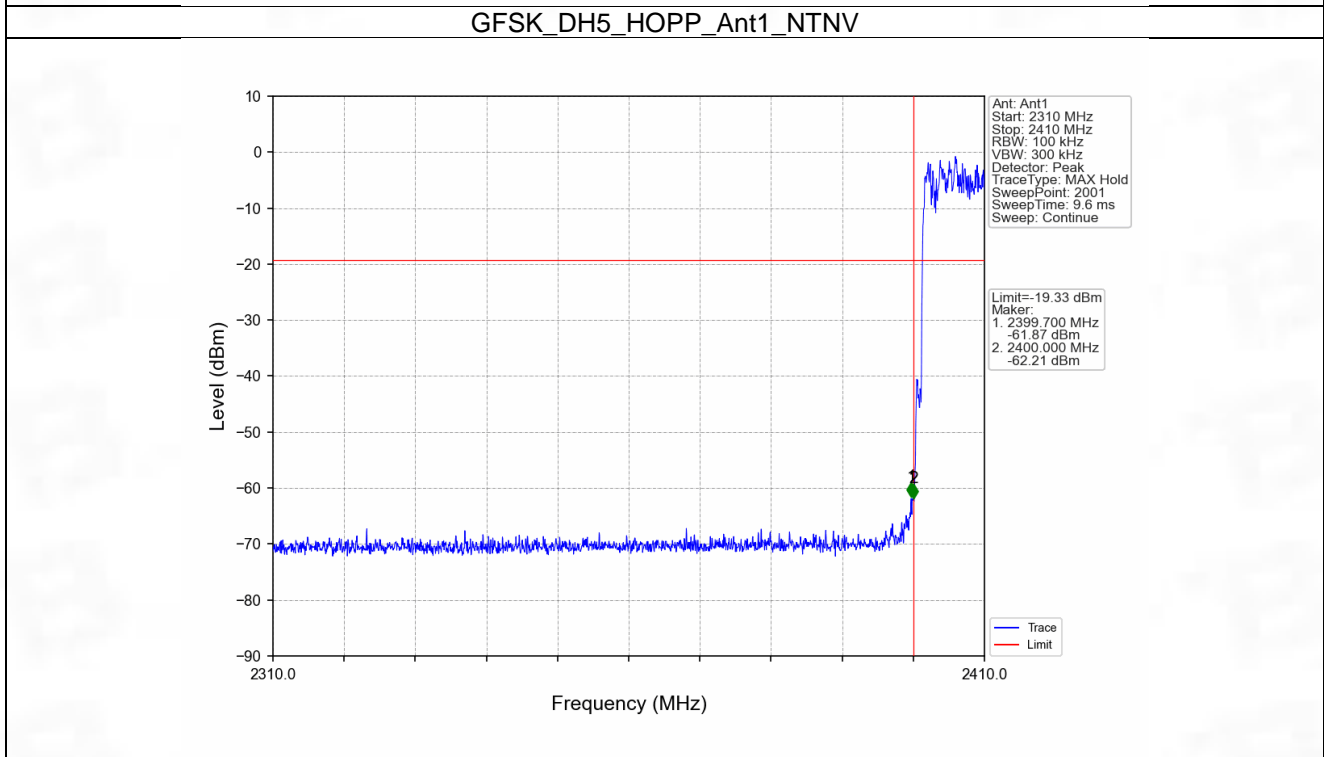
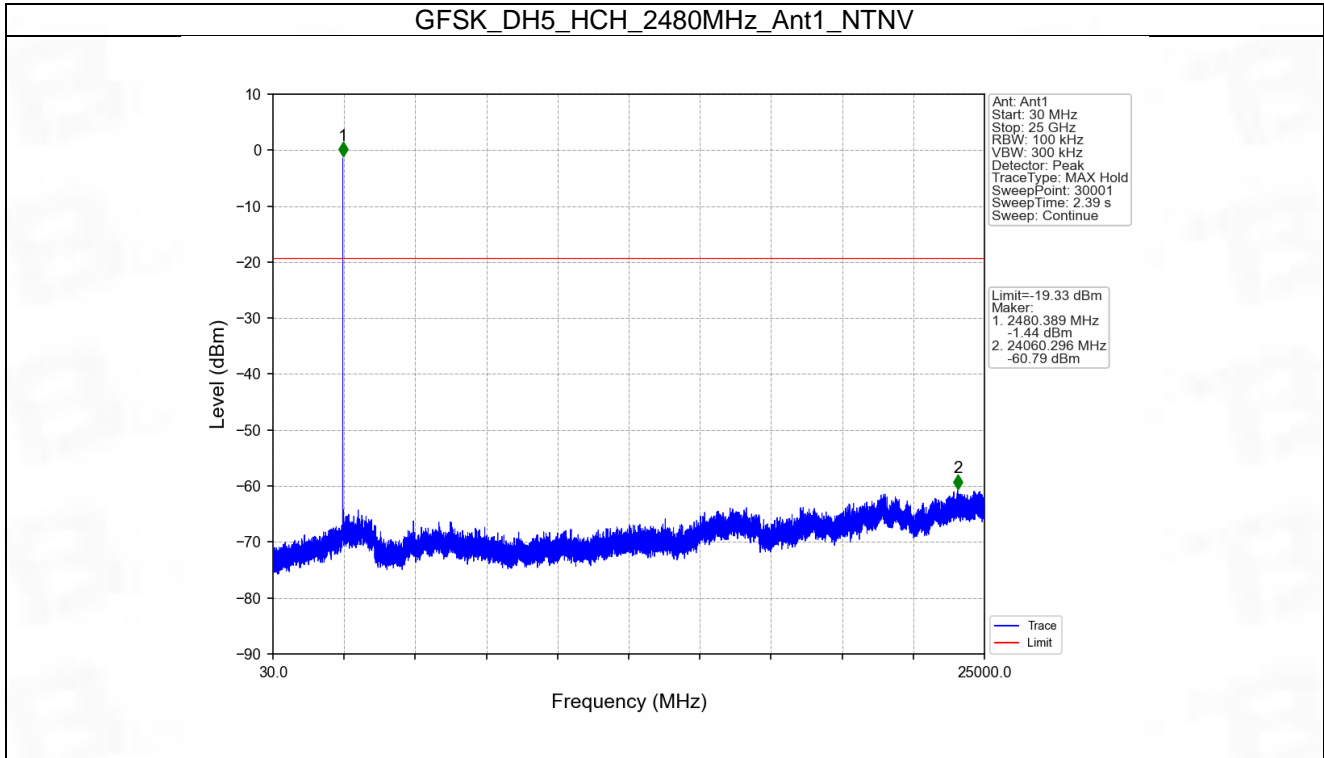
Mode	TX Type	Frequency (MHz)	Packet Type	ANT	Level of Reference (dBm)	Limit (dBm)	Verdict
GFSK	SISO	2402	DH5	1	0.67	-19.33	Pass
		2441	DH5	1	0.67	-19.33	Pass
		2480	DH5	1	0.67	-19.33	Pass
		HOPP	DH5	1	0.67	-19.33	Pass
Pi/4DQPSK	SISO	2402	2DH5	1	0.53	-19.47	Pass
		2441	2DH5	1	0.53	-19.47	Pass
		2480	2DH5	1	0.53	-19.47	Pass
		HOPP	2DH5	1	0.53	-19.47	Pass
8DPSK	SISO	2402	3DH5	1	0.54	-19.46	Pass
		2441	3DH5	1	0.54	-19.46	Pass
		2480	3DH5	1	0.54	-19.46	Pass
		HOPP	3DH5	1	0.54	-19.46	Pass

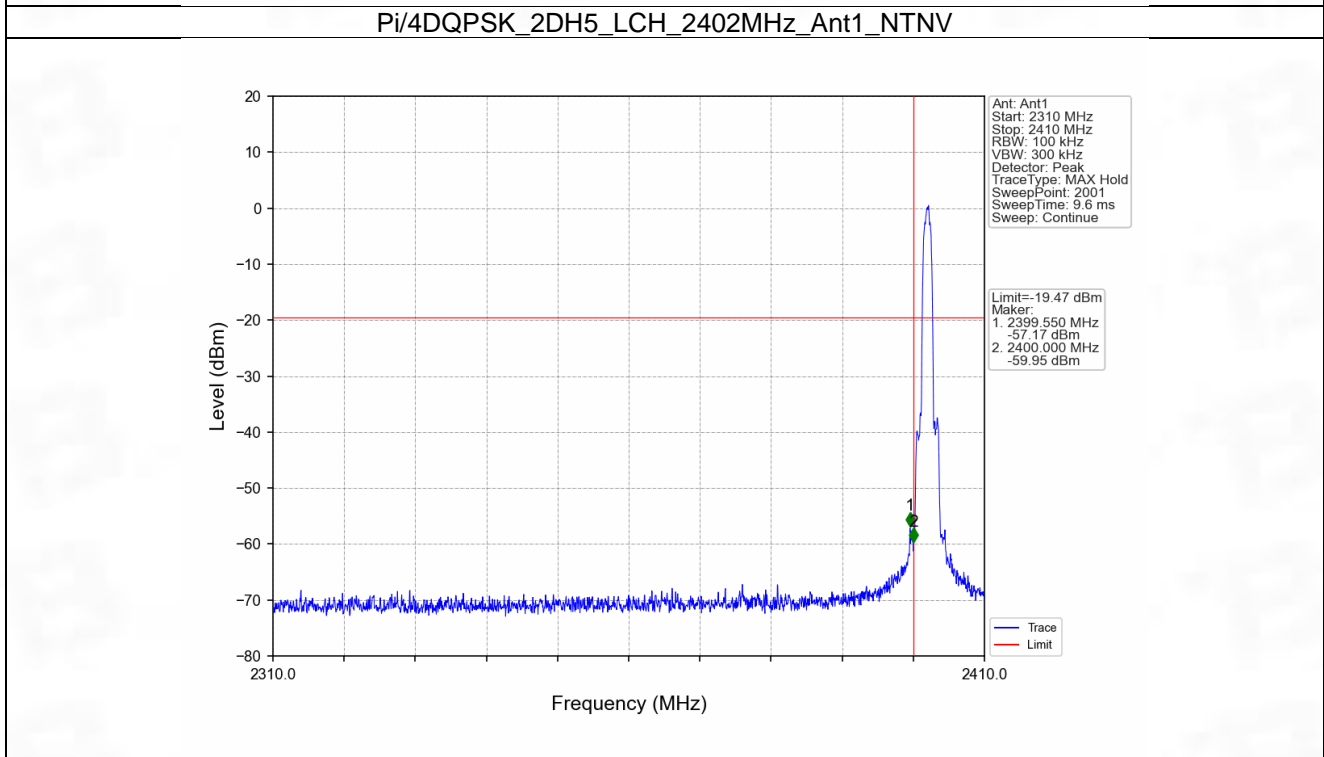
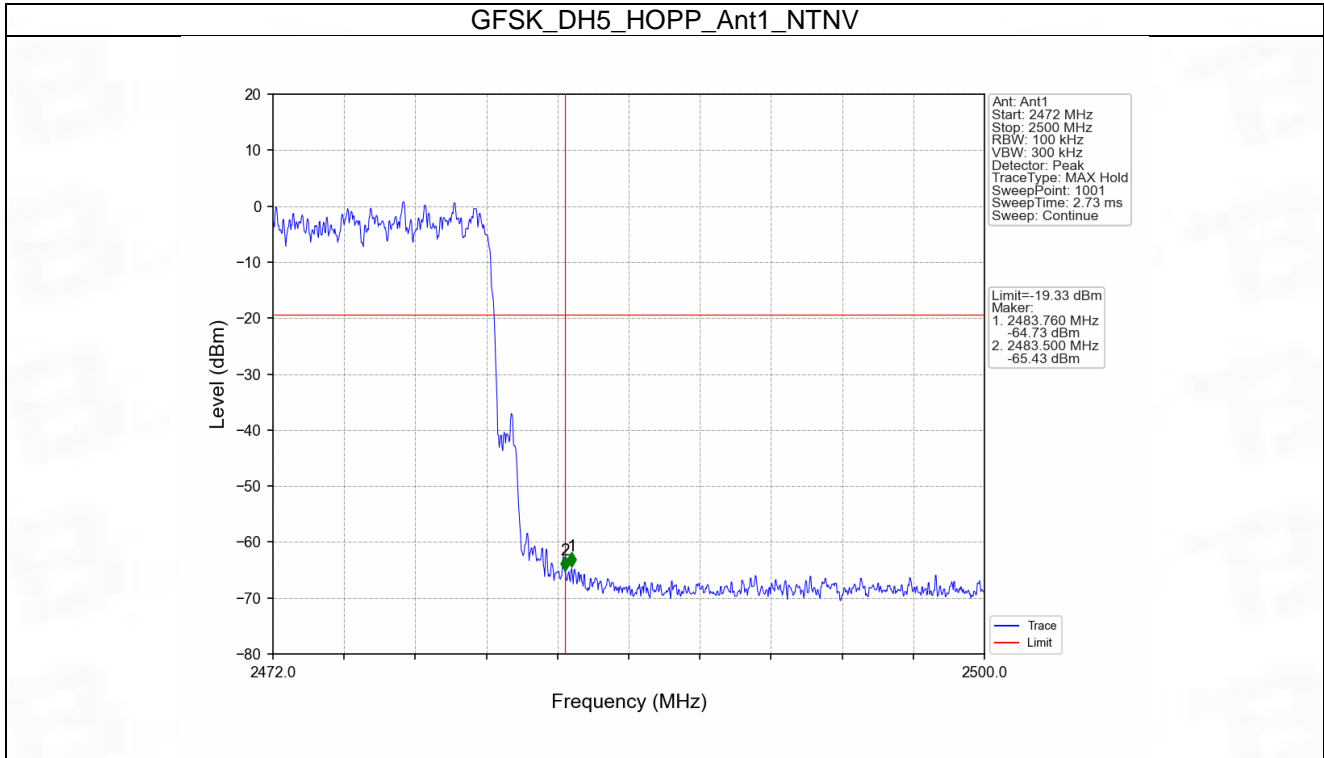
Note1: Refer to FCC Part 15.247 (d) and ANSI C63.10-2013, the channel contains the maximum PSD level was used to establish the reference level.

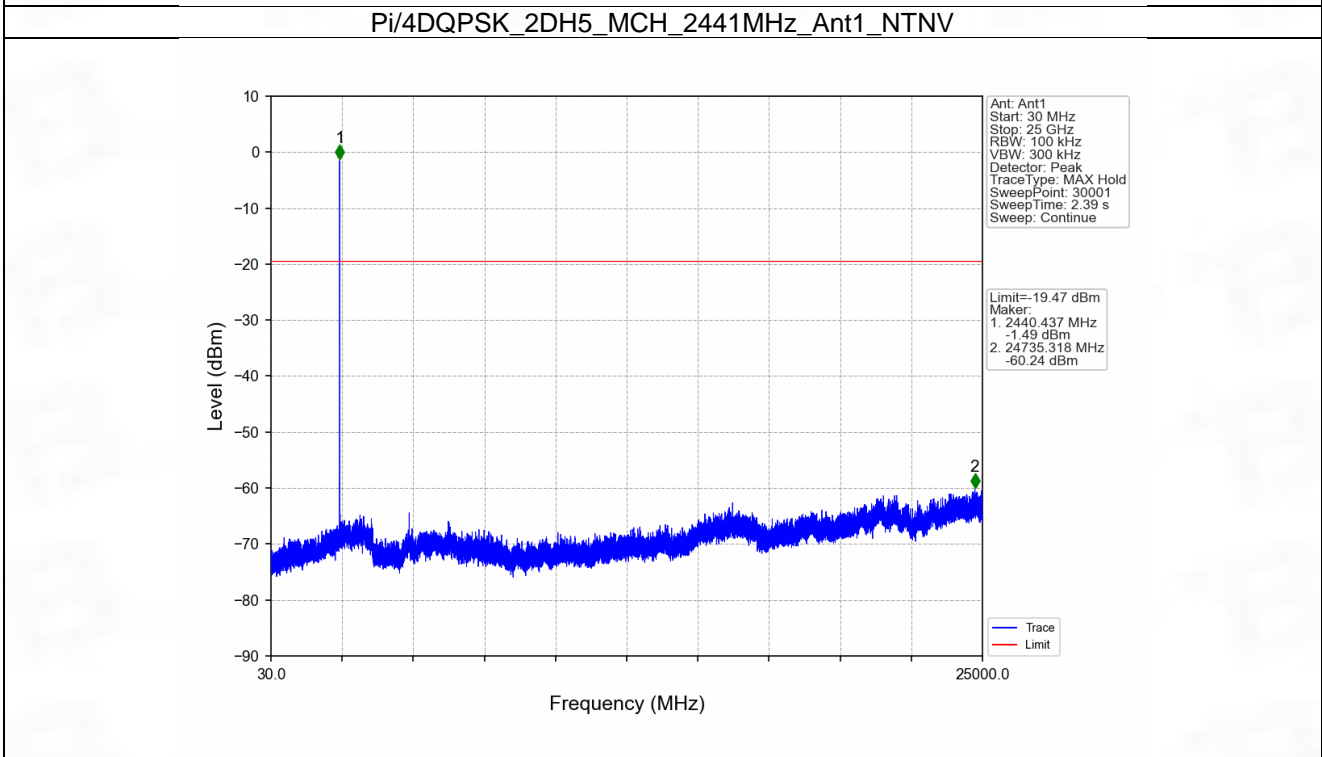
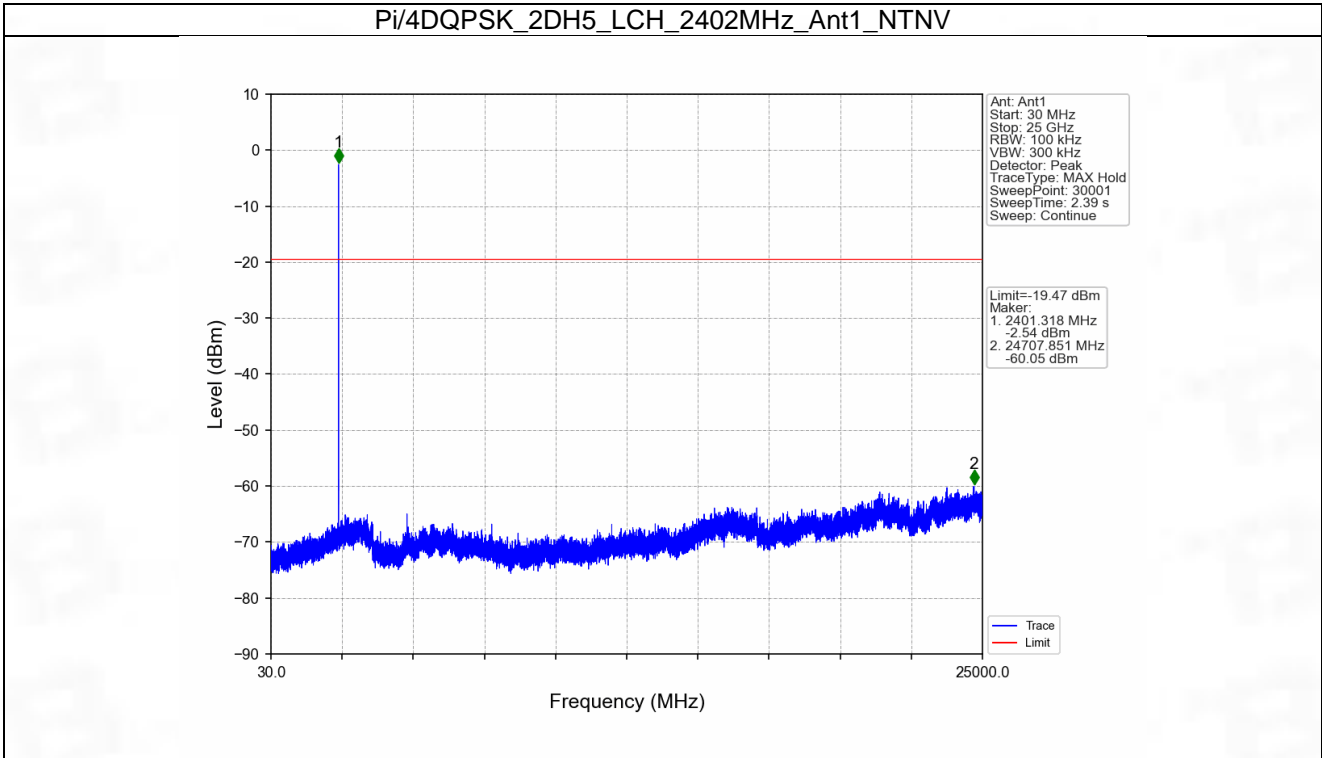
6.2.2 Test Graph

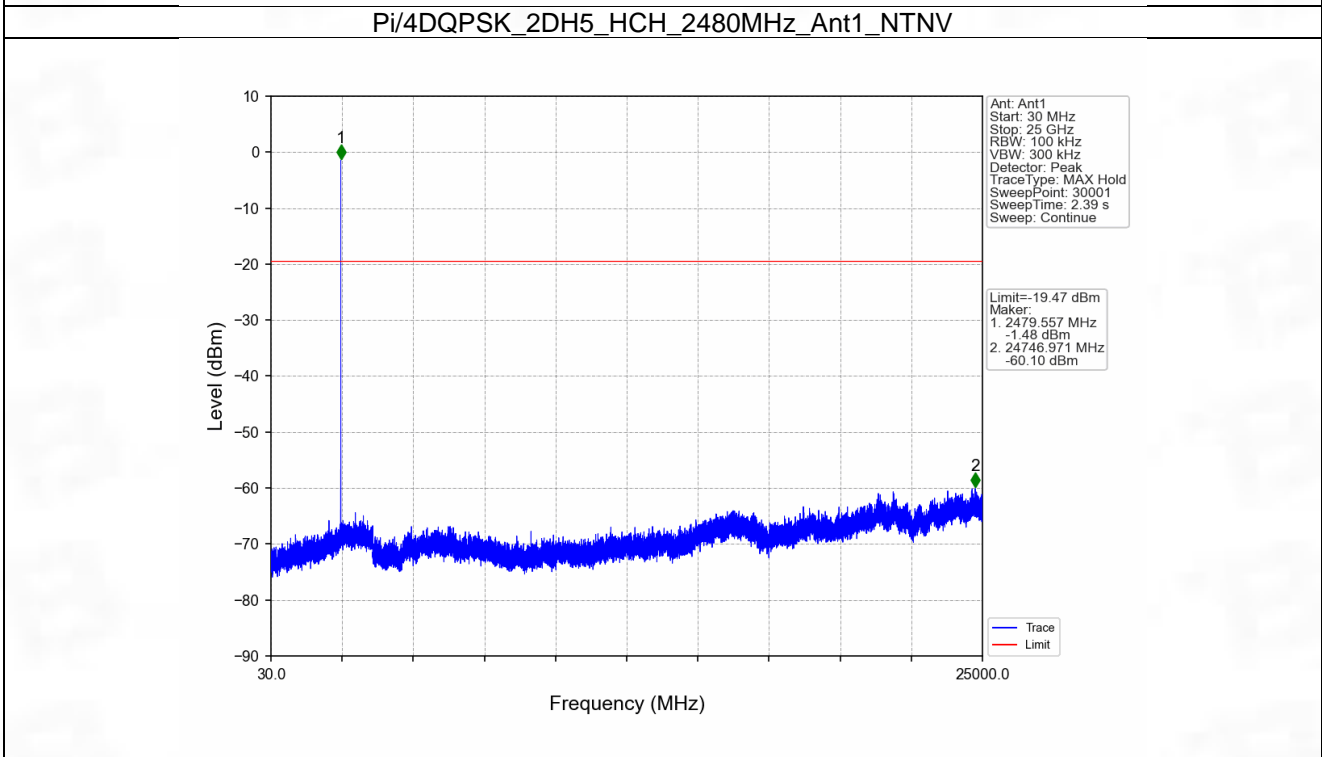
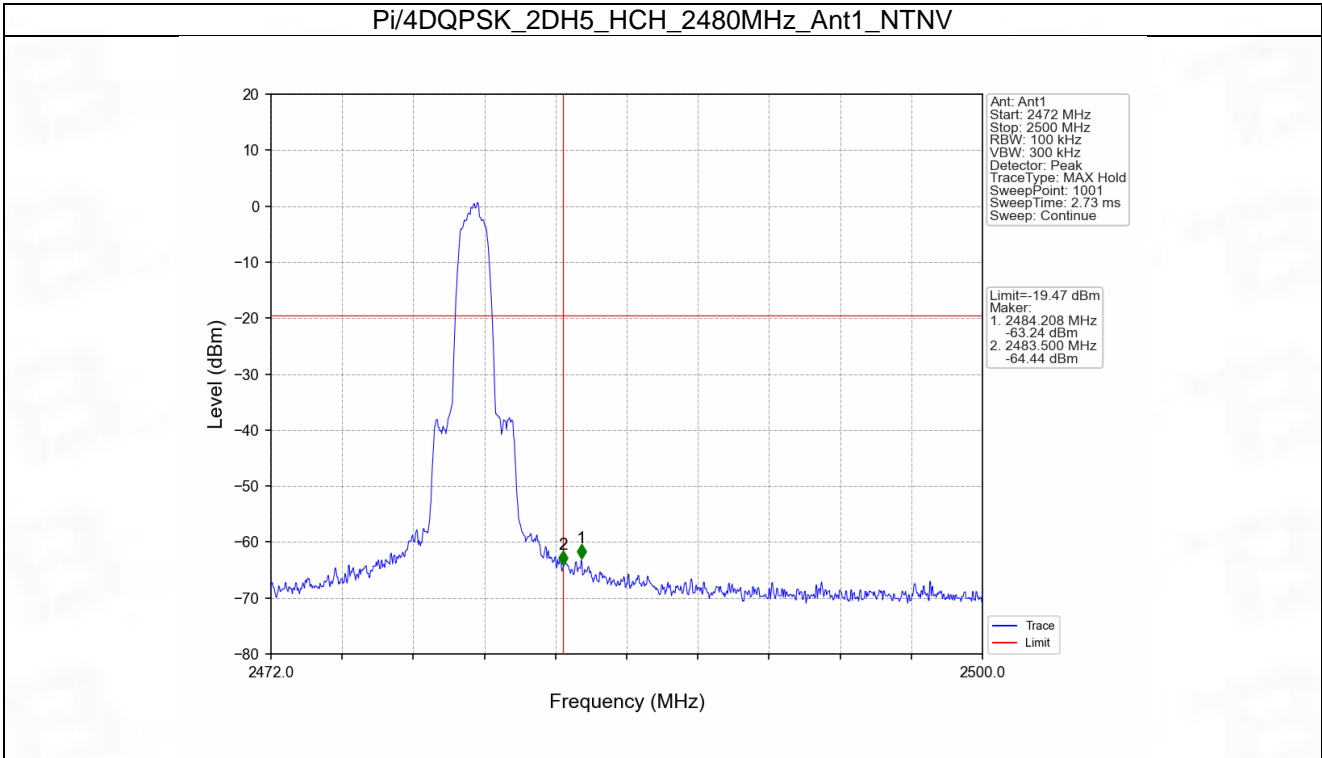


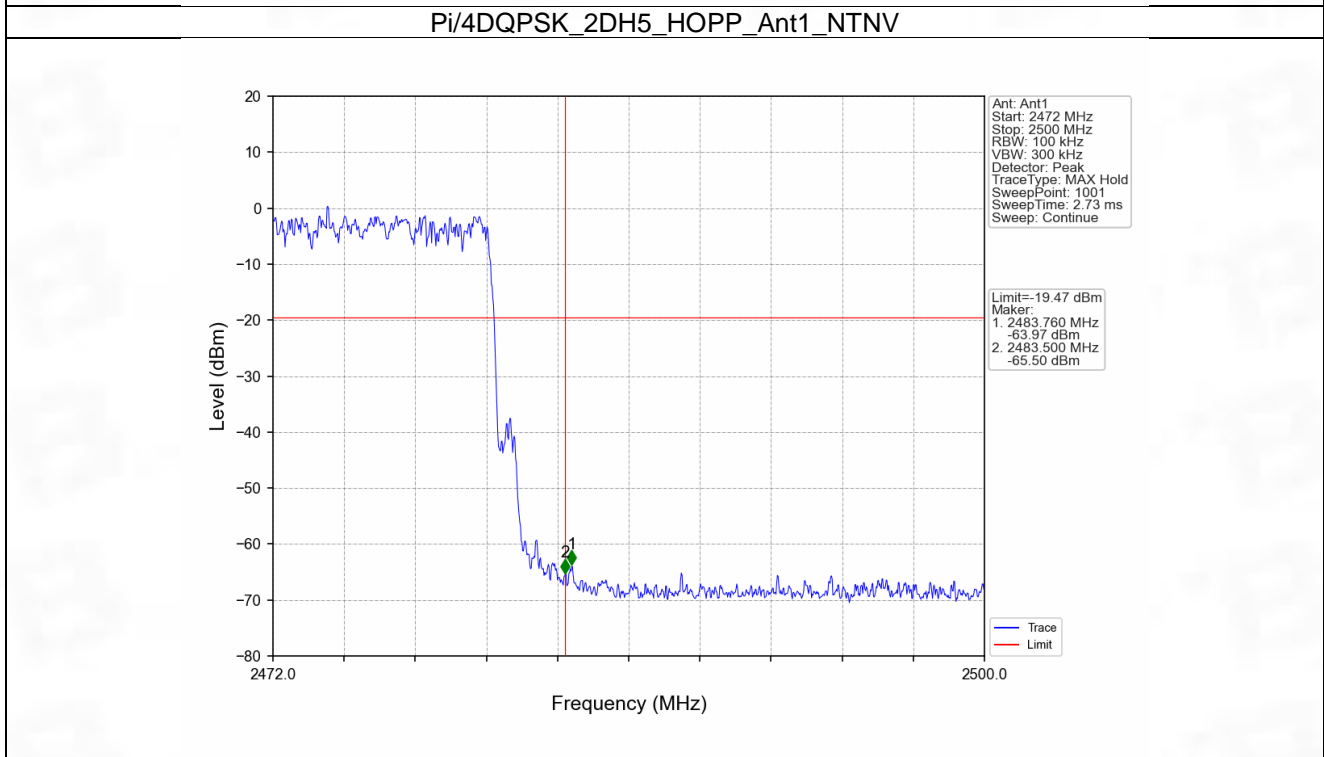
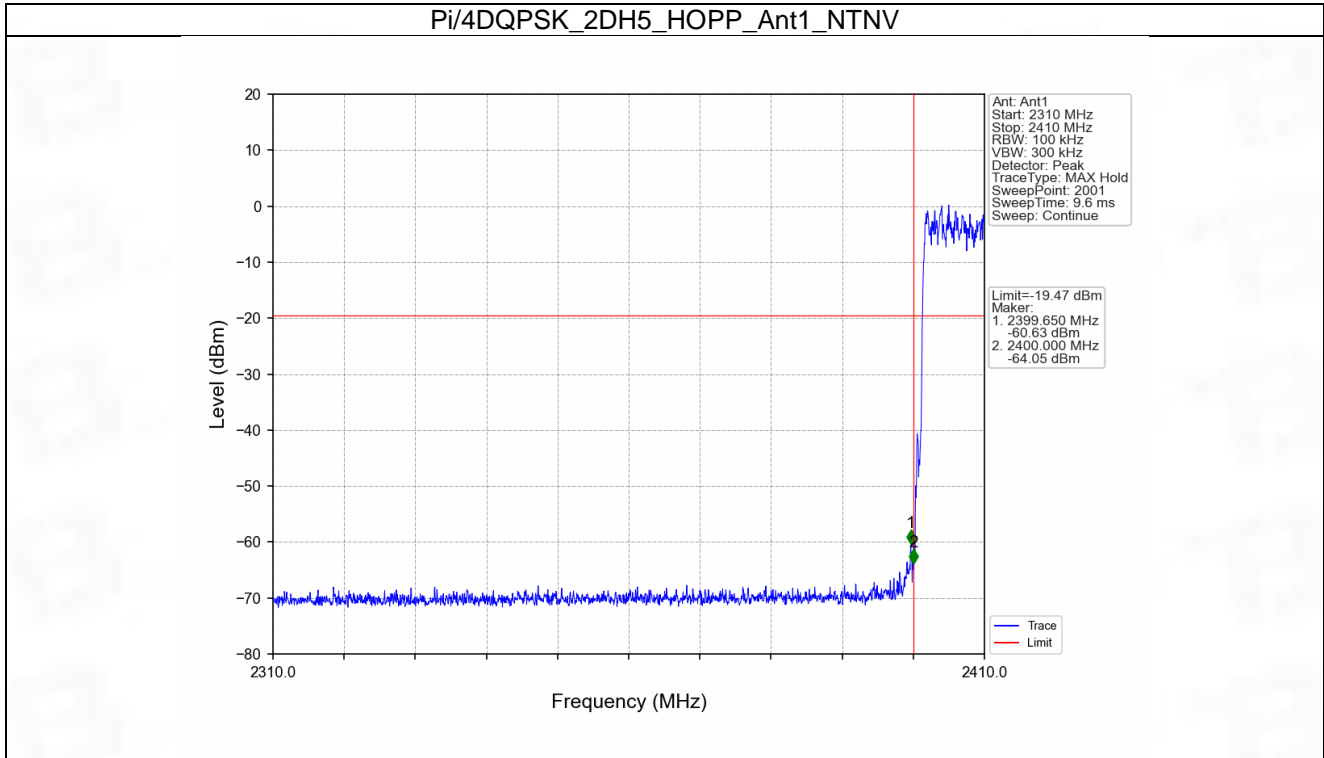


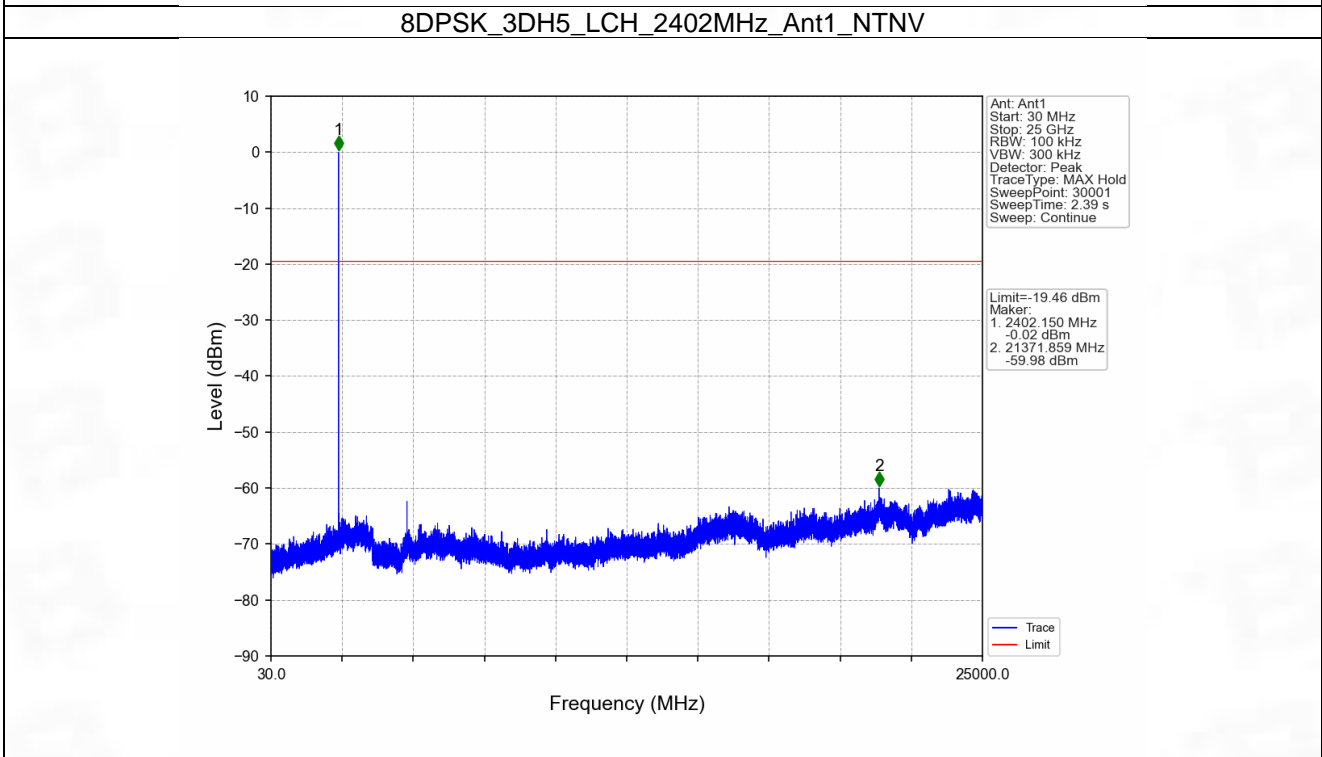
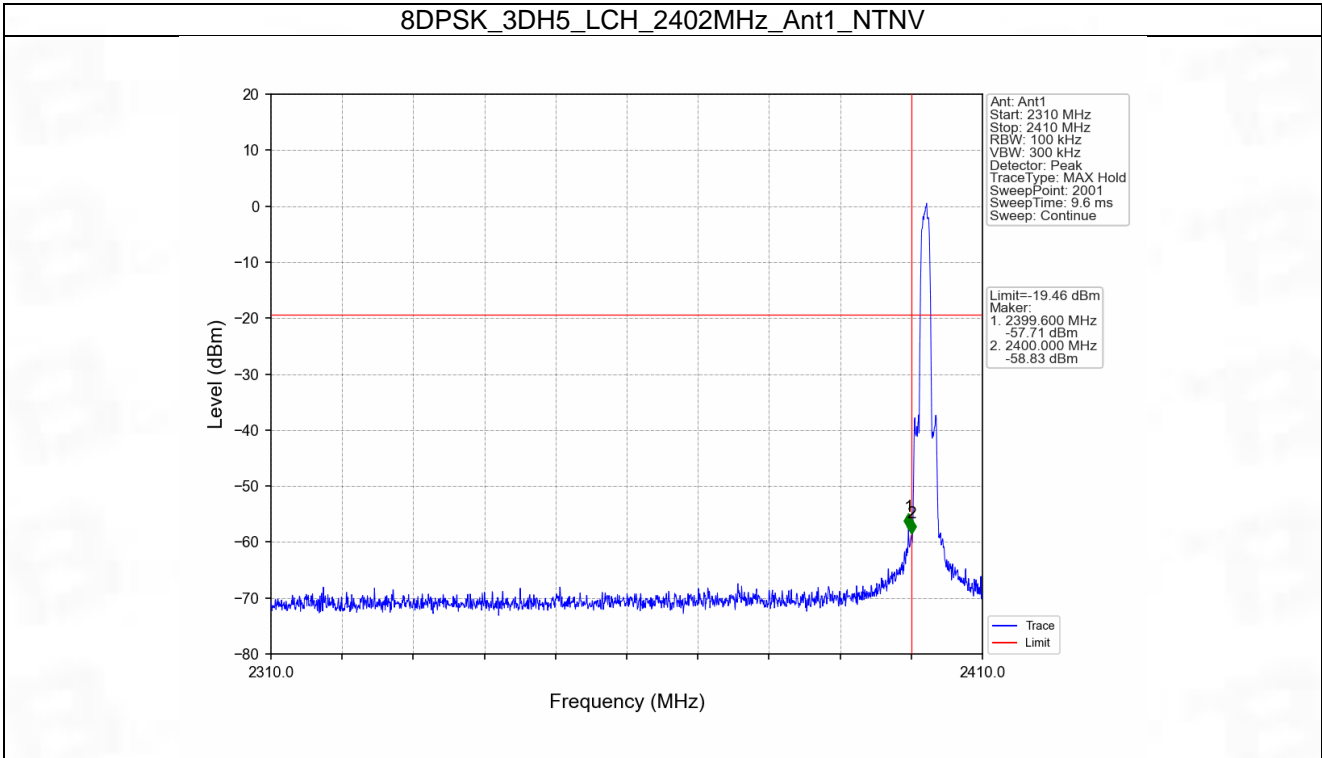


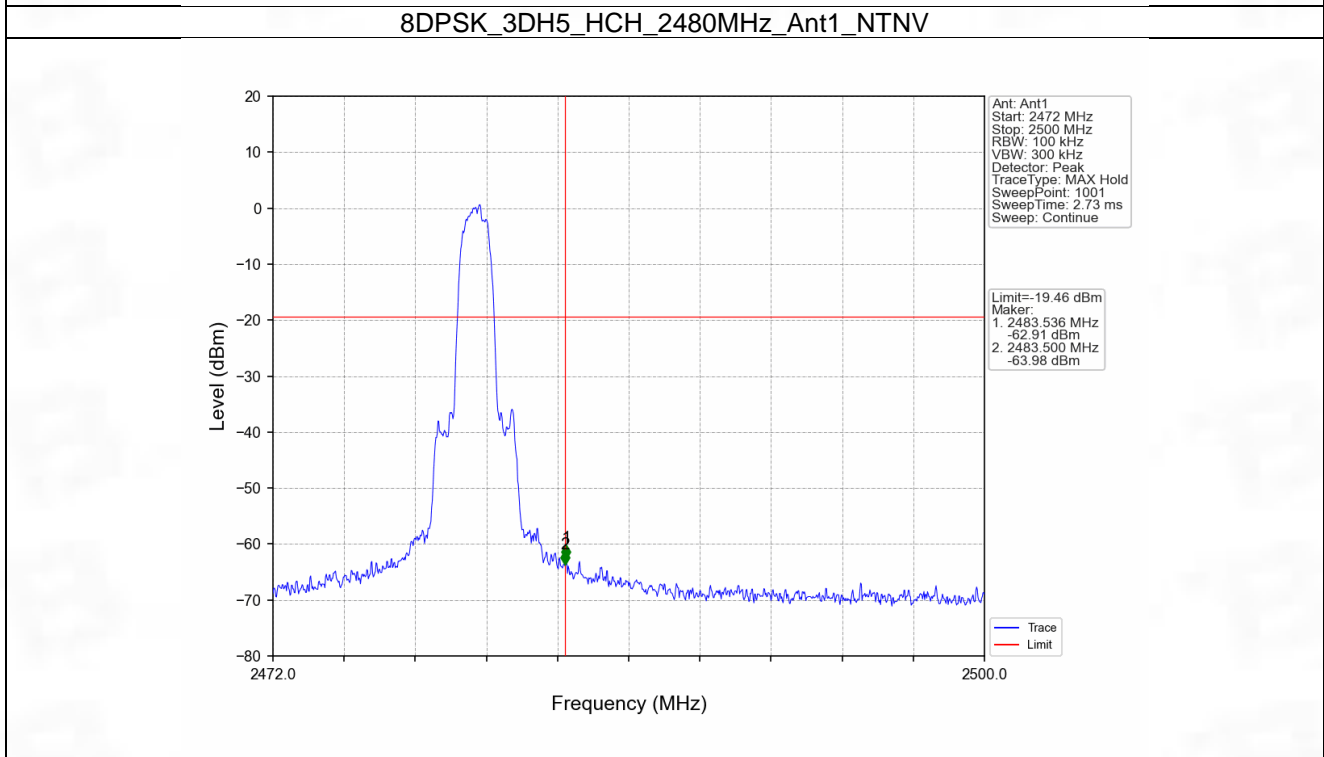
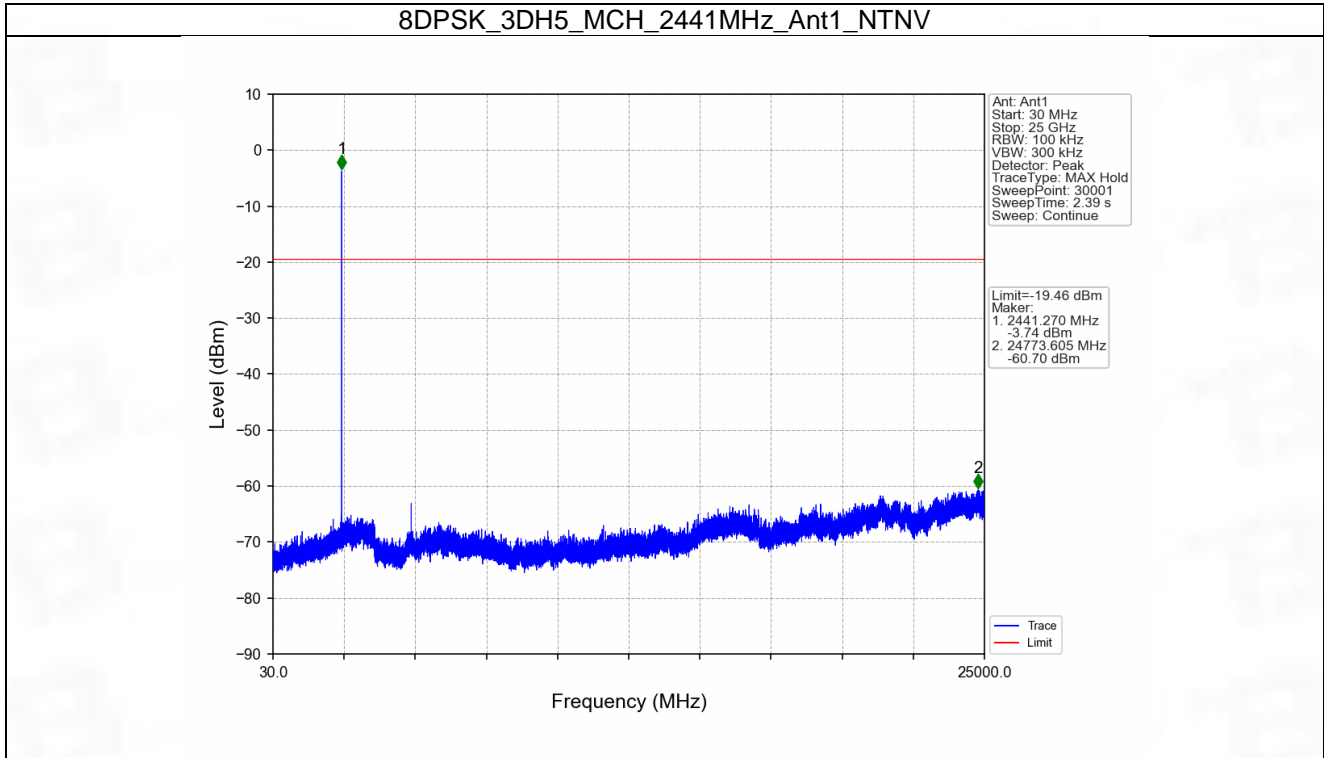


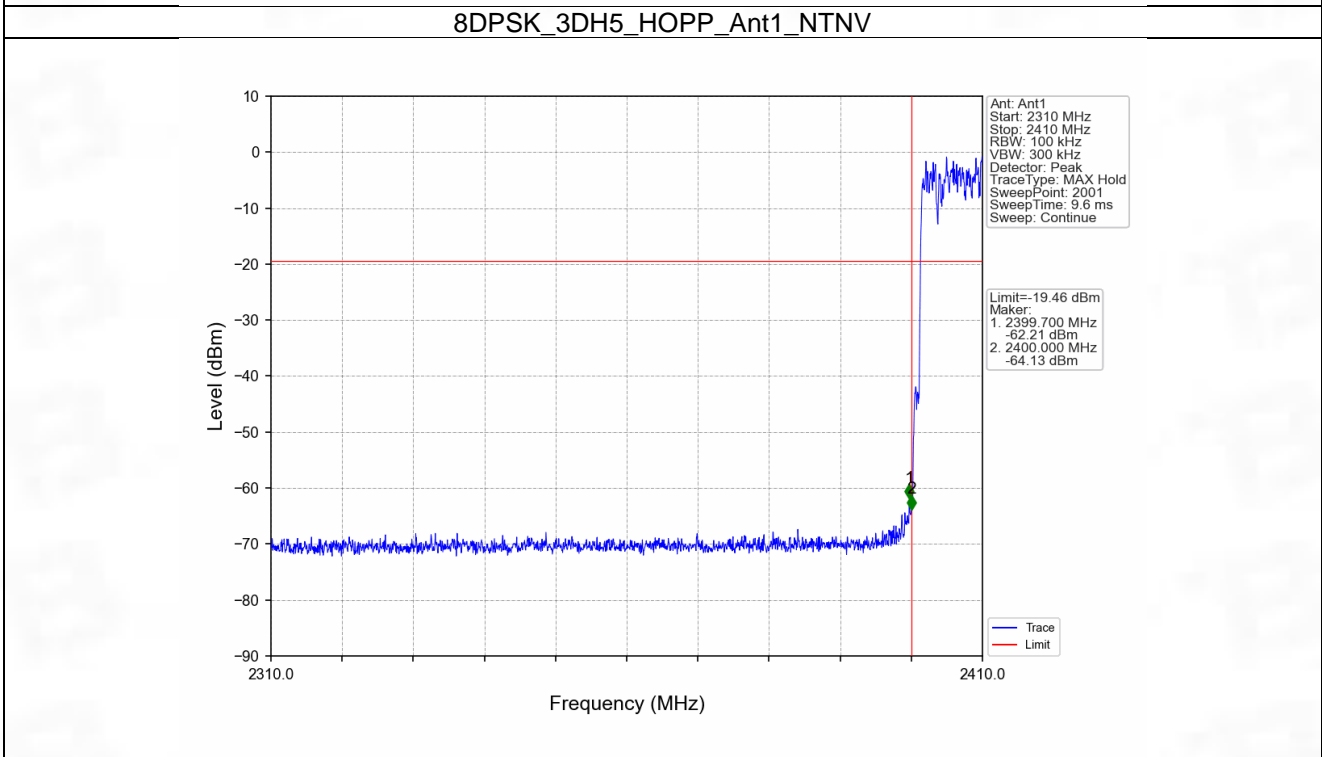
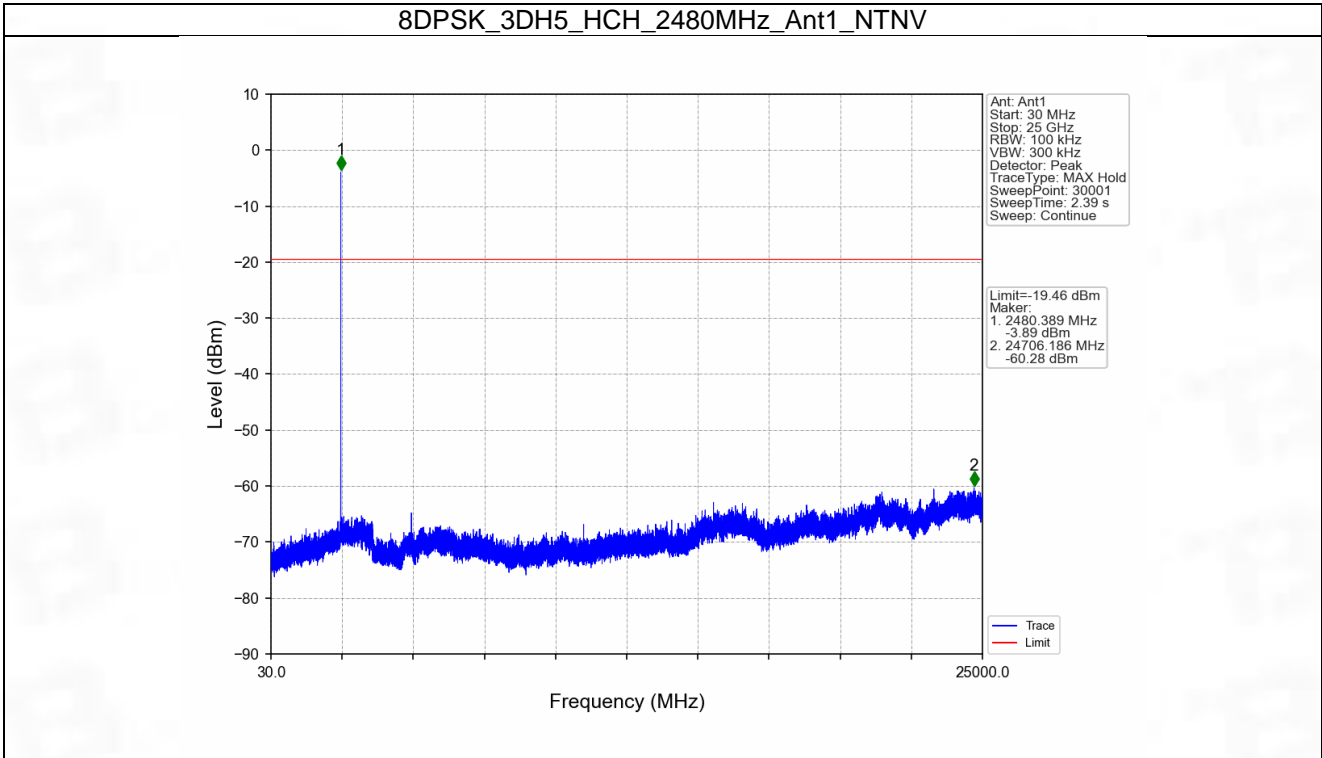


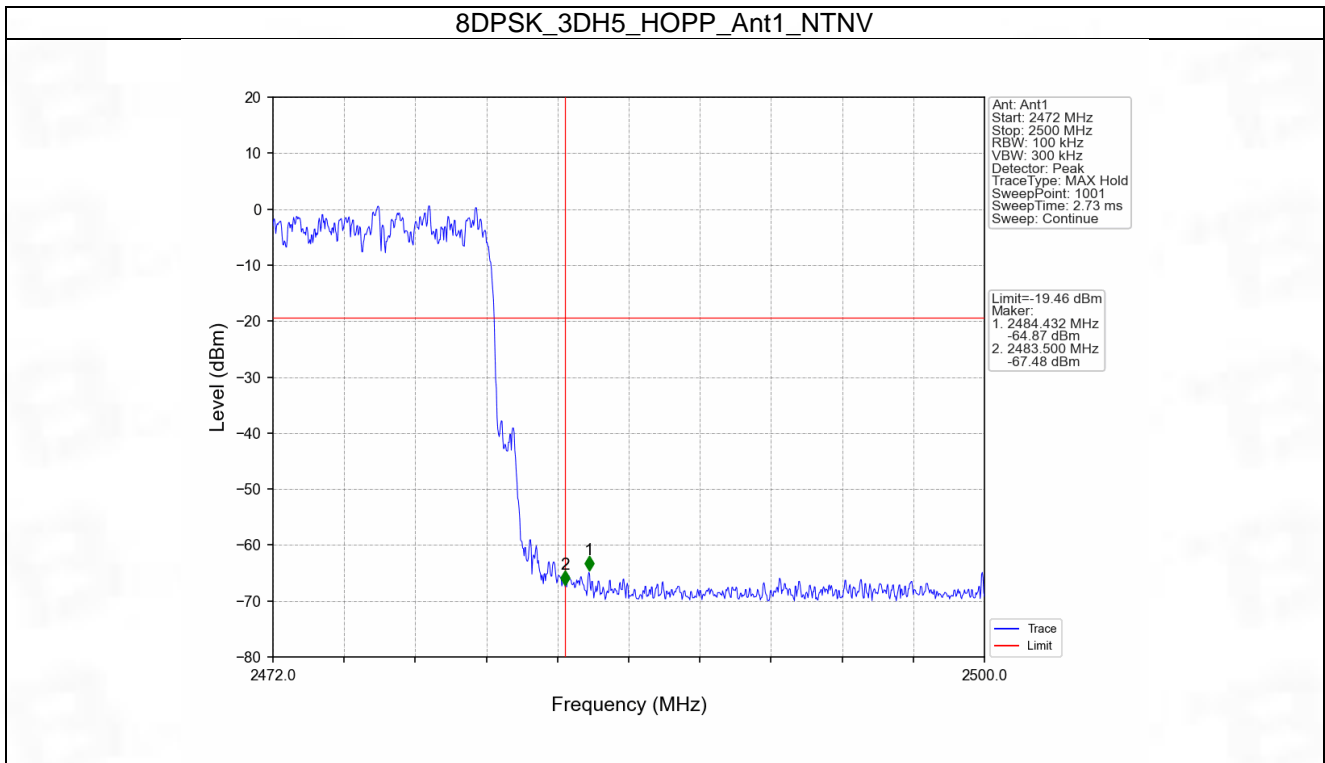












7. Form731

7.1 Form731

7.1.1 Test Result

Lower Freq (MHz)	High Freq (MHz)	MAX Power (W)	MAX Power (dBm)
2402	2480	0.0022	3.46



Test Report Number: BTF230831R00101



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