

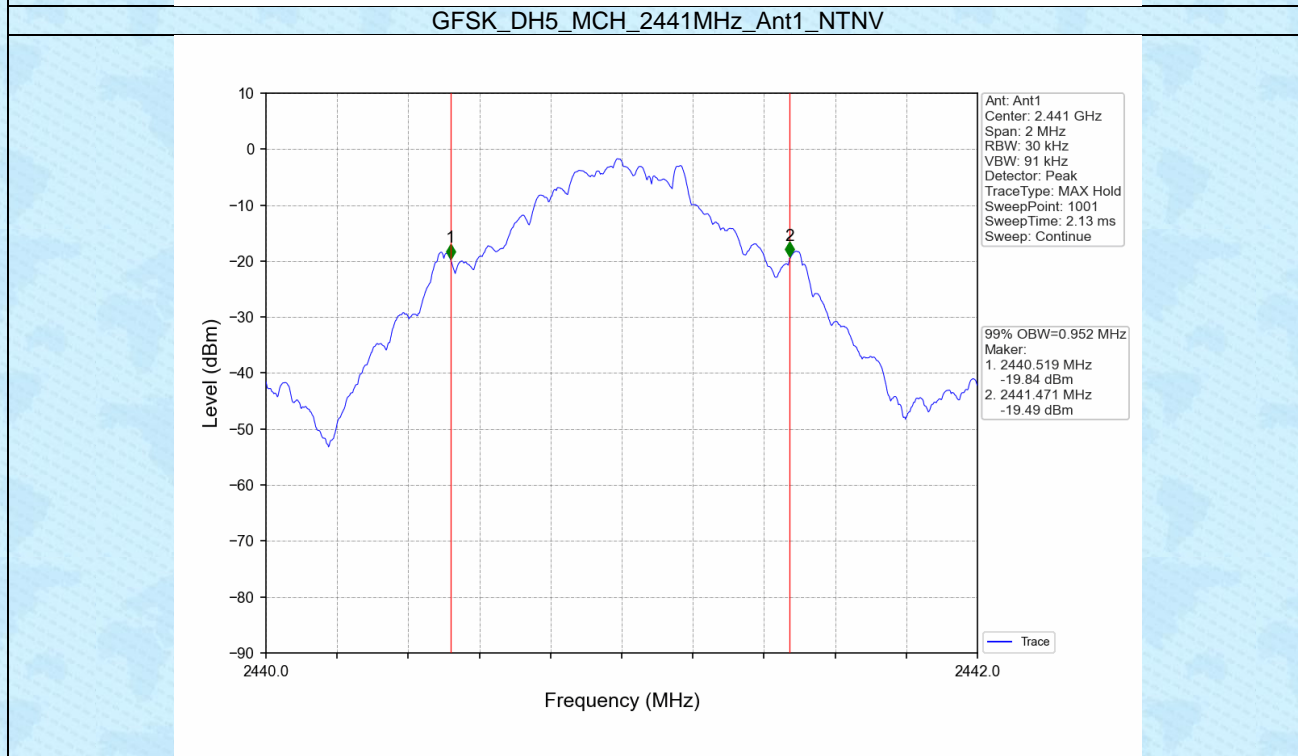
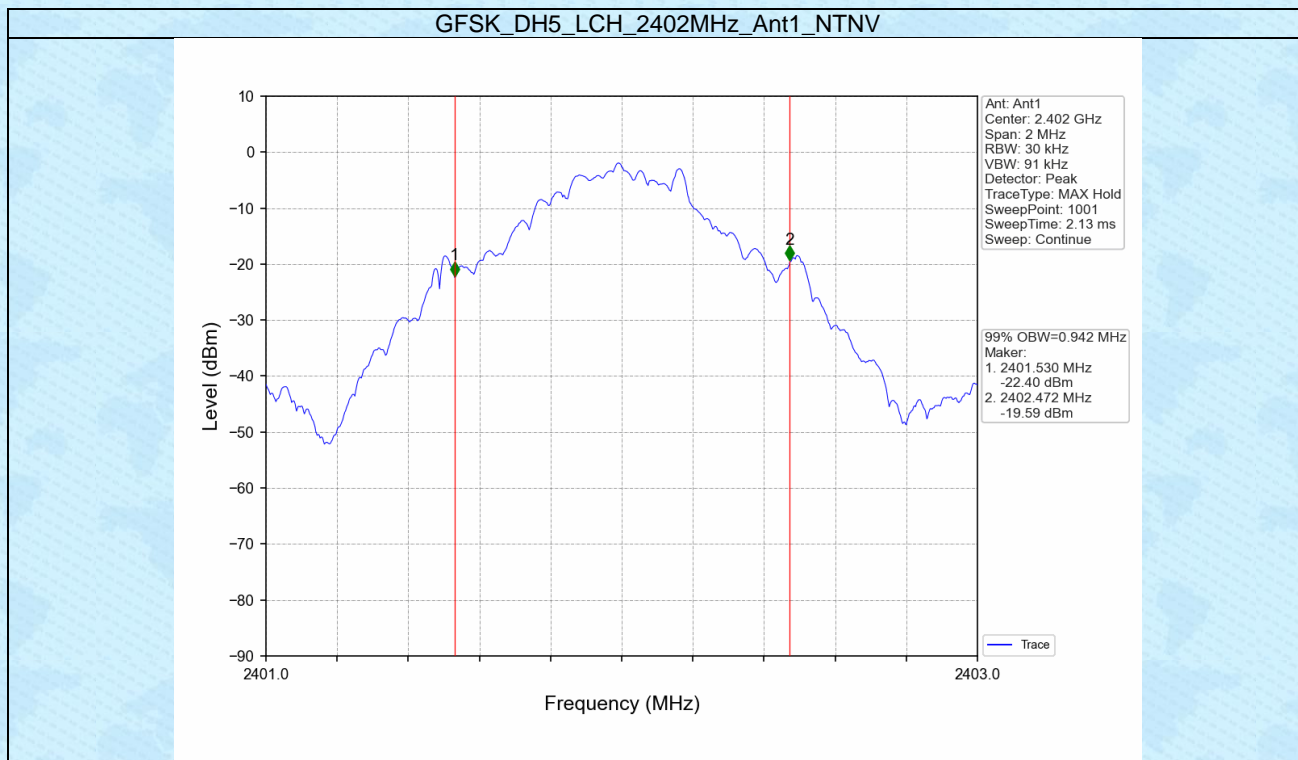
1. Bandwidth

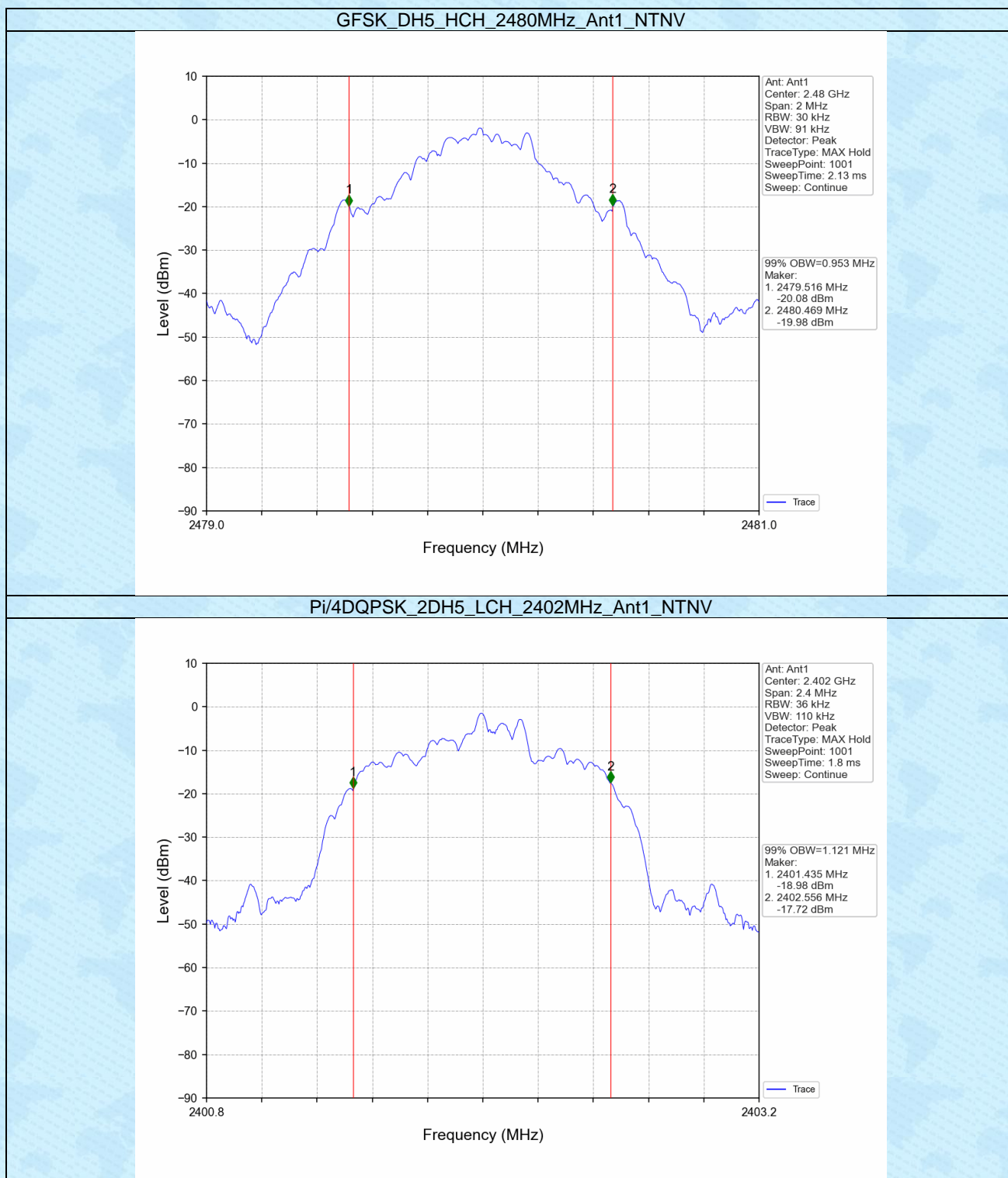
1.1 OBW

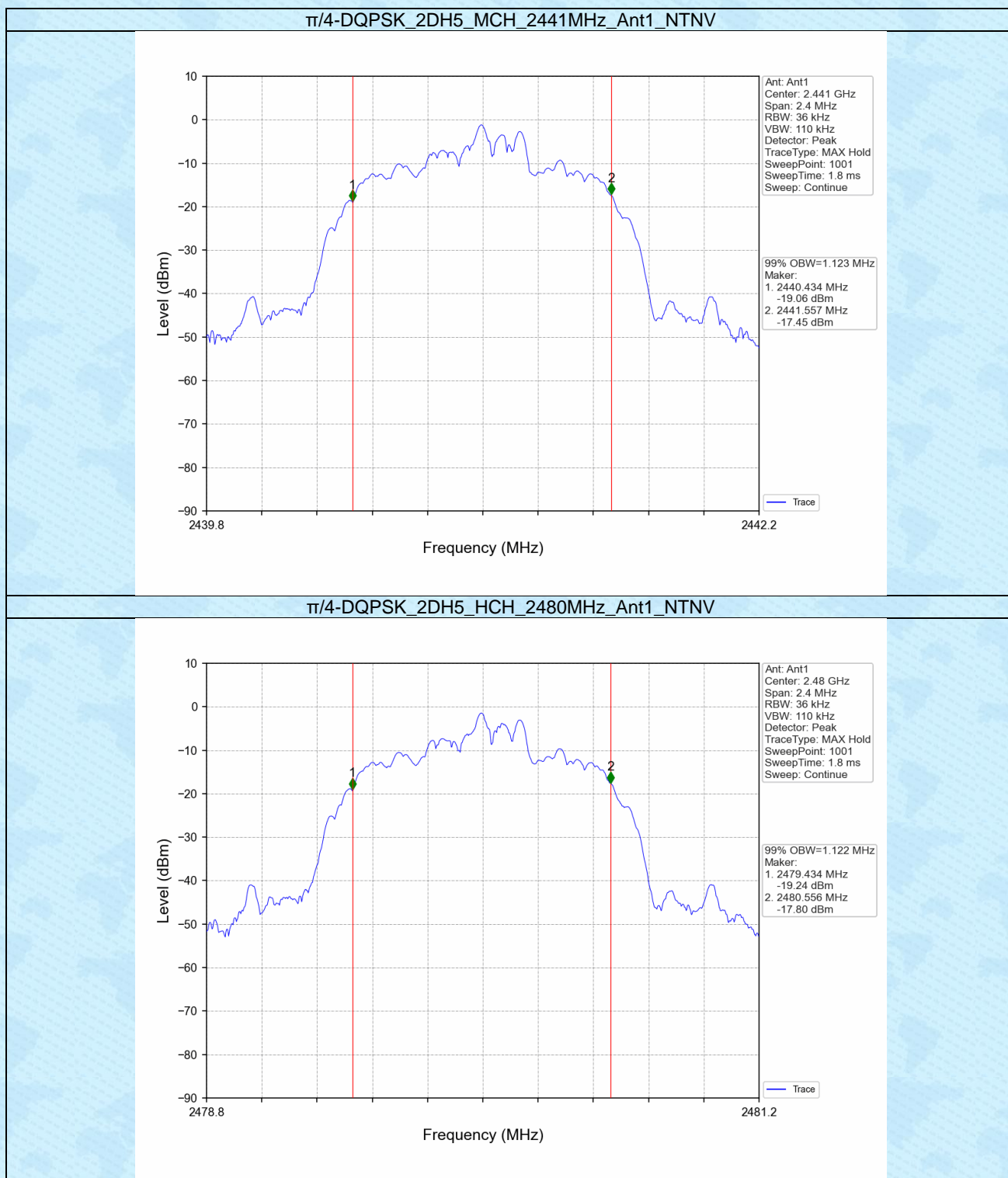
1.1.1 Test Result

Mode	TX Type	Frequency (MHz)	Packet Type	Ant	99% Occupied Bandwidth (MHz)	Verdict
					Result	
GFSK	SISO	2402	DH5	1	0.942	Pass
		2441	DH5	1	0.952	Pass
		2480	DH5	1	0.953	Pass
$\pi/4$ -DQPSK	SISO	2402	2DH5	1	1.121	Pass
		2441	2DH5	1	1.123	Pass
		2480	2DH5	1	1.122	Pass
8-DPSK	SISO	2402	3DH5	1	1.135	Pass
		2441	3DH5	1	1.135	Pass
		2480	3DH5	1	1.134	Pass

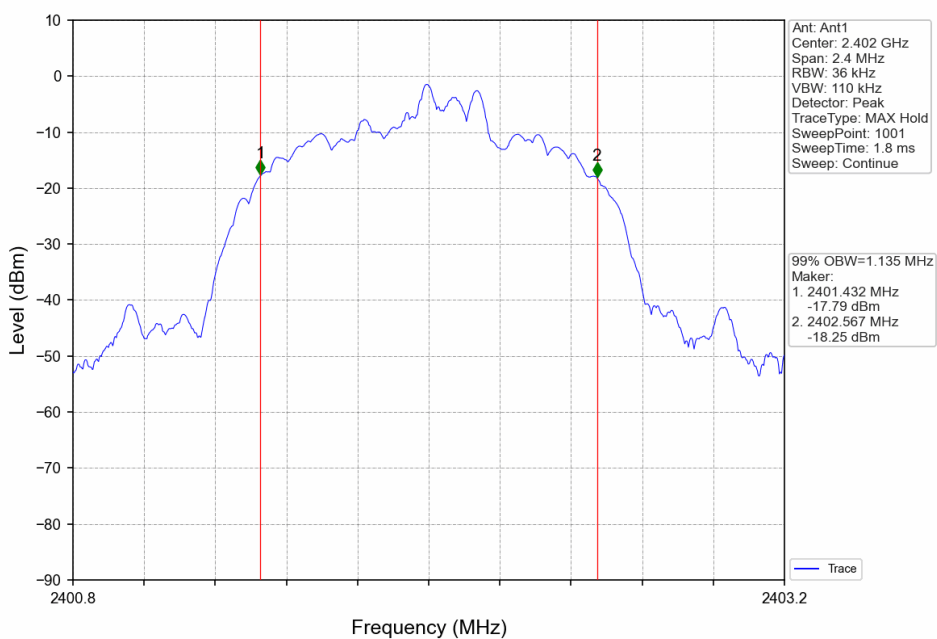
1.1.2 Test Graph



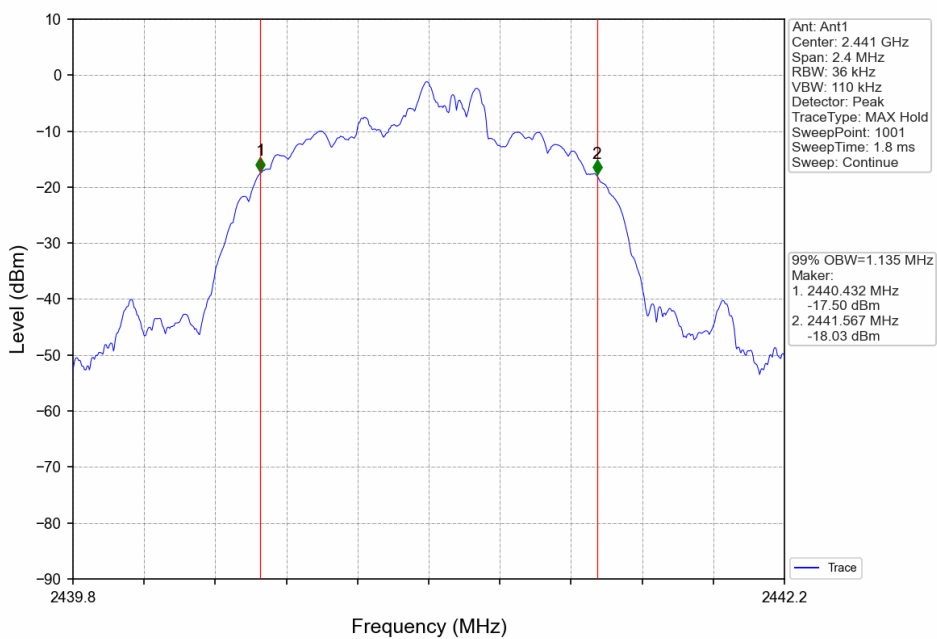


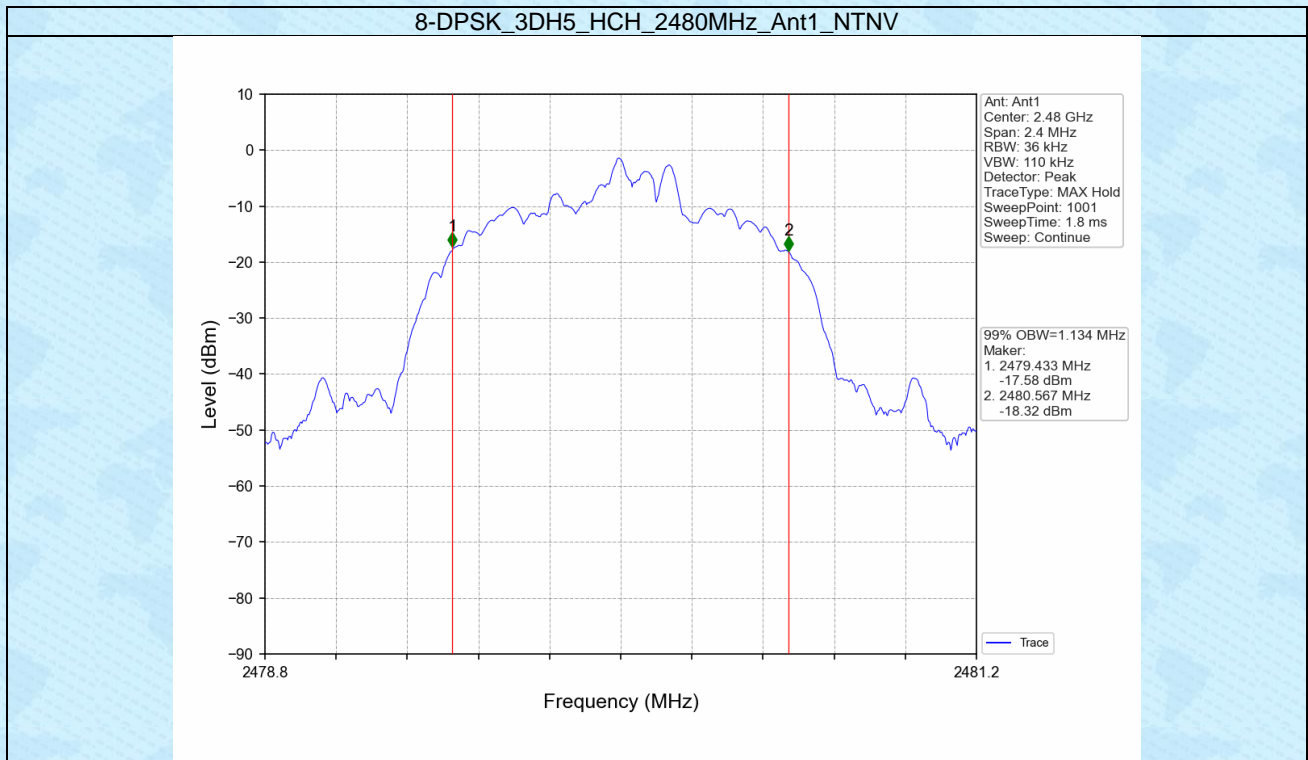


8-DPSK_3DH5_LCH_2402MHz_Ant1_NTNV



8-DPSK_3DH5_MCH_2441MHz_Ant1_NTNV



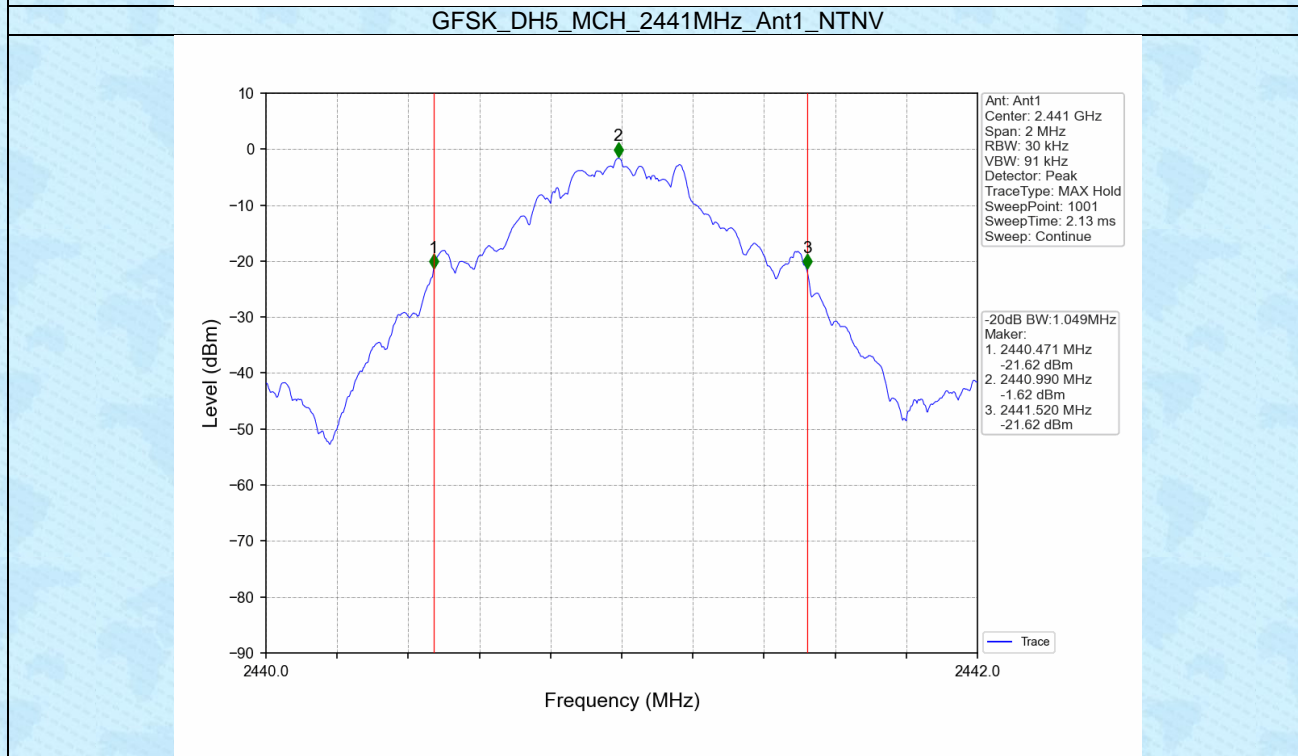
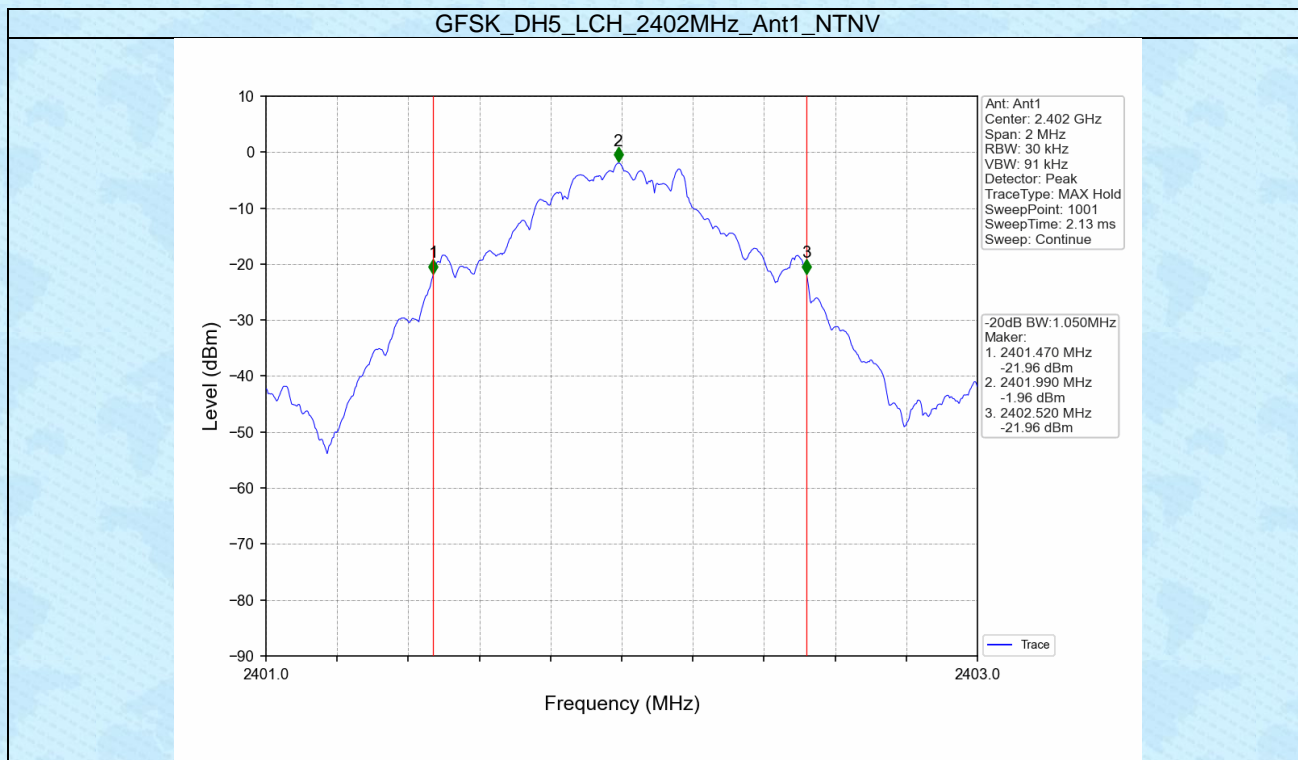


1.2 20dB BW

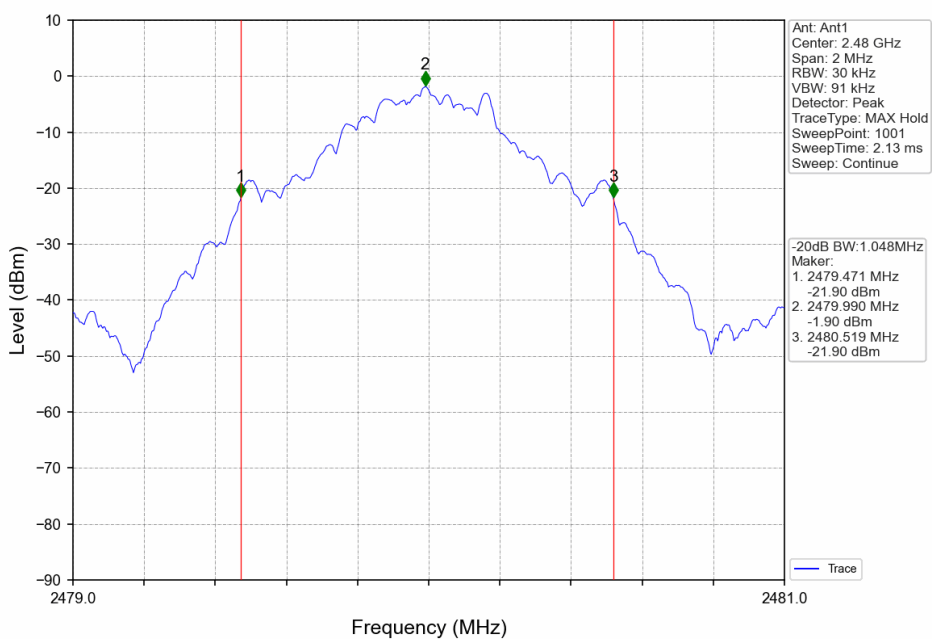
1.2.1 Test Result

Mode	TX Type	Frequency (MHz)	Packet Type	Ant	20dB Bandwidth (MHz)	Verdict
					Result	
GFSK	SISO	2402	DH5	1	1.050	Pass
		2441	DH5	1	1.049	Pass
		2480	DH5	1	1.048	Pass
$\pi/4$ -DQPSK	SISO	2402	2DH5	1	1.198	Pass
		2441	2DH5	1	1.196	Pass
		2480	2DH5	1	1.210	Pass
8-DPSK	SISO	2402	3DH5	1	1.216	Pass
		2441	3DH5	1	1.210	Pass
		2480	3DH5	1	1.211	Pass

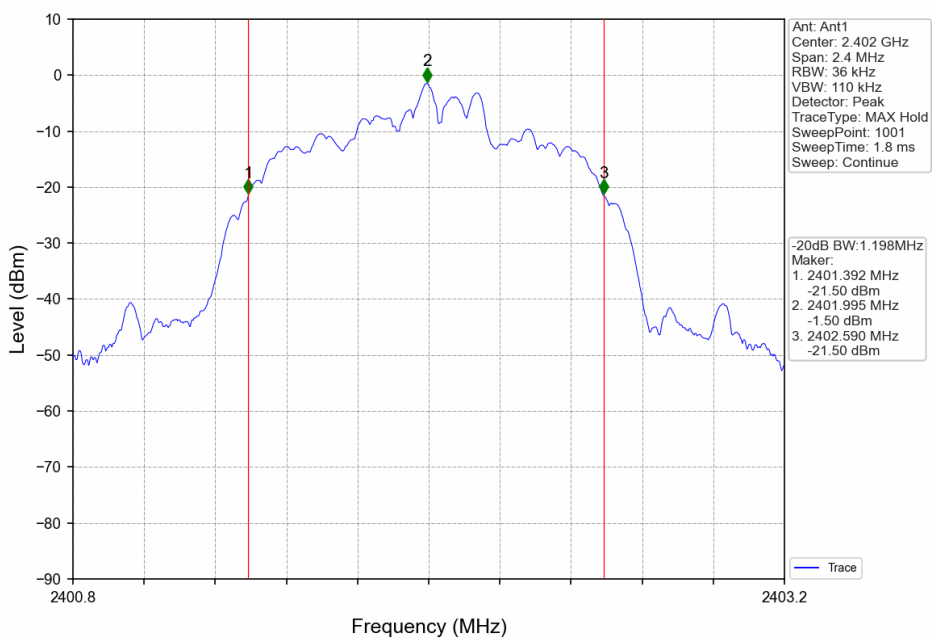
1.2.2 Test Graph



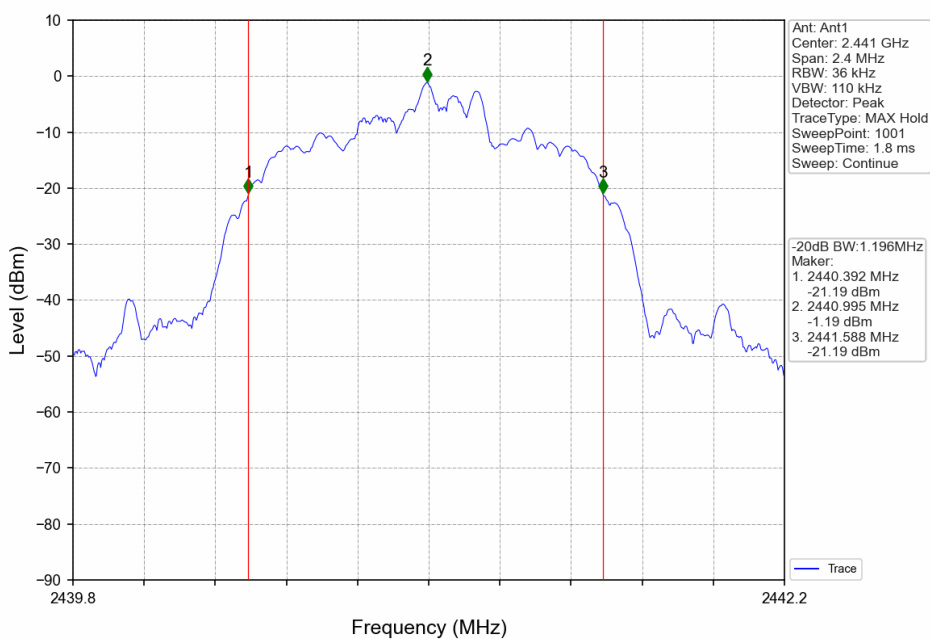
GFSK_DH5_HCH_2480MHz_Ant1_NTNV



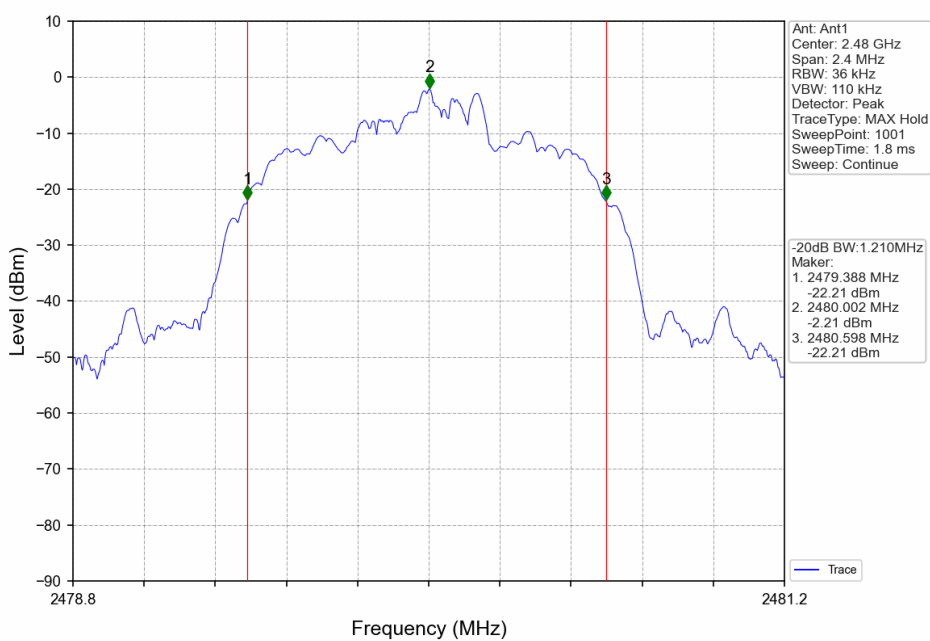
$\pi/4$ -DQPSK_2DH5_LCH_2402MHz_Ant1_NTNV



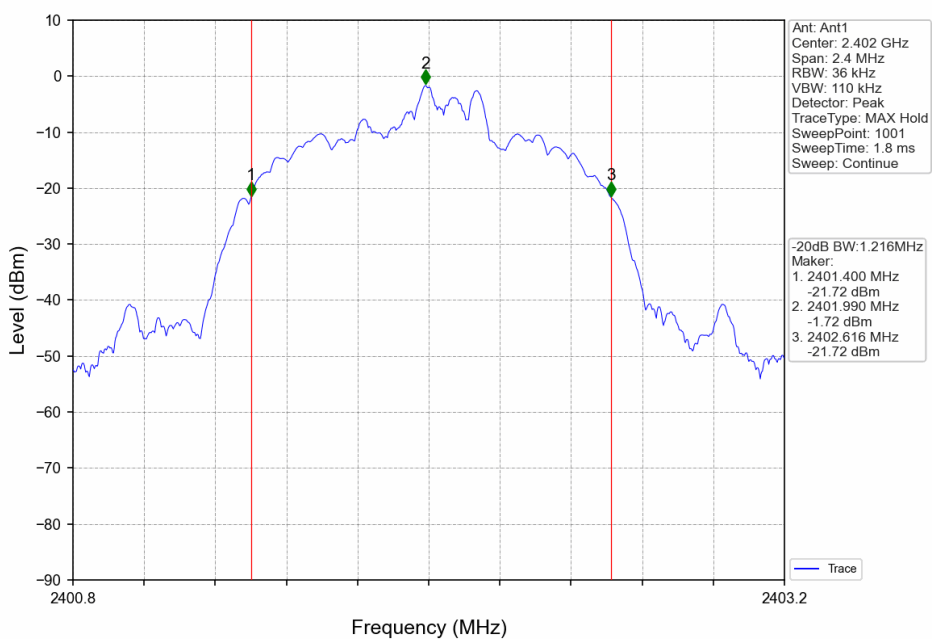
$\pi/4$ -DQPSK_2DH5_MCH_2441MHz_Ant1_NTNV



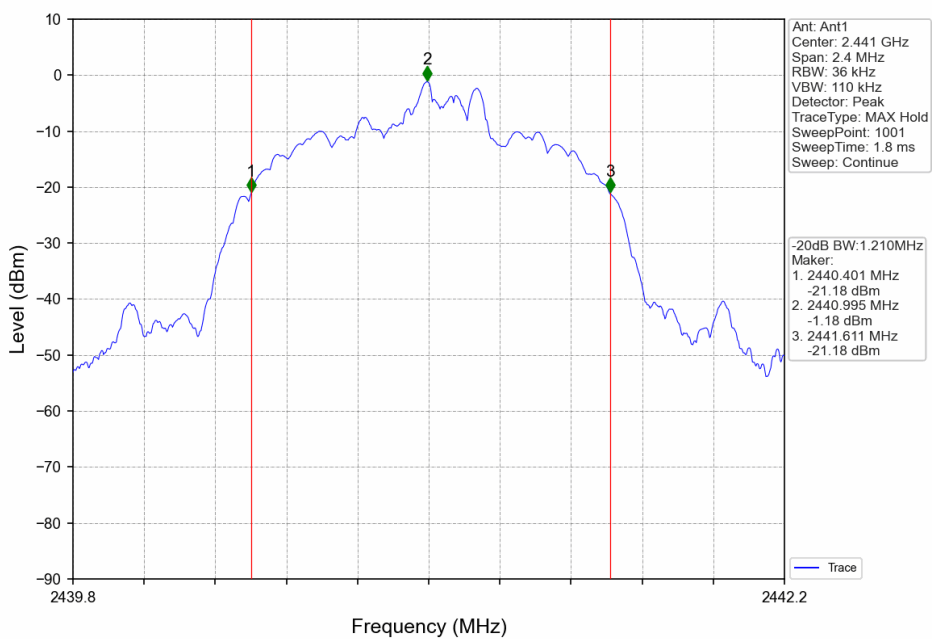
Pi/4DQPSK_2DH5_HCH_2480MHz_Ant1_NTNV

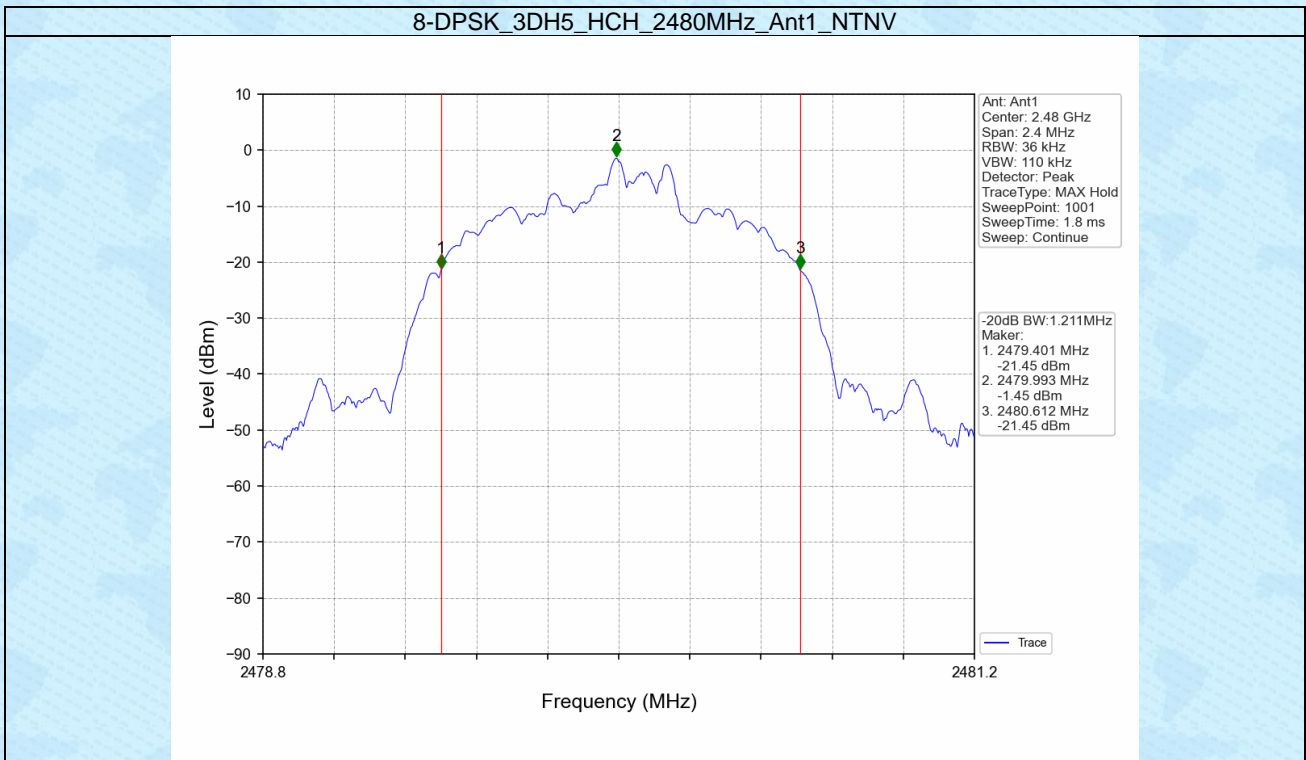


8-DPSK_3DH5_LCH_2402MHz_Ant1_NTNV



8-DPSK_3DH5_MCH_2441MHz_Ant1_NTNV





2. Maximum Conducted Output Power

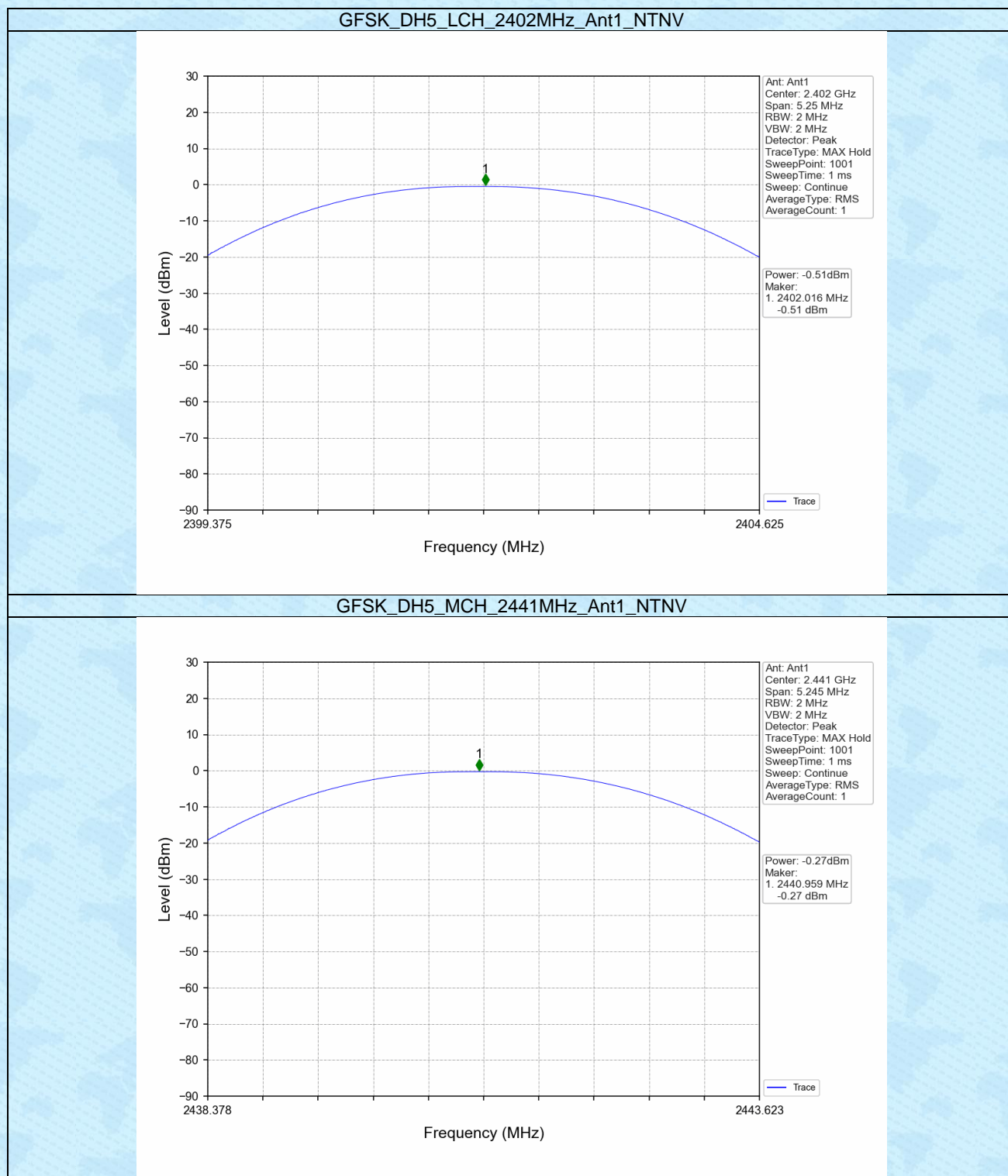
2.1 Power

2.1.1 Test Result

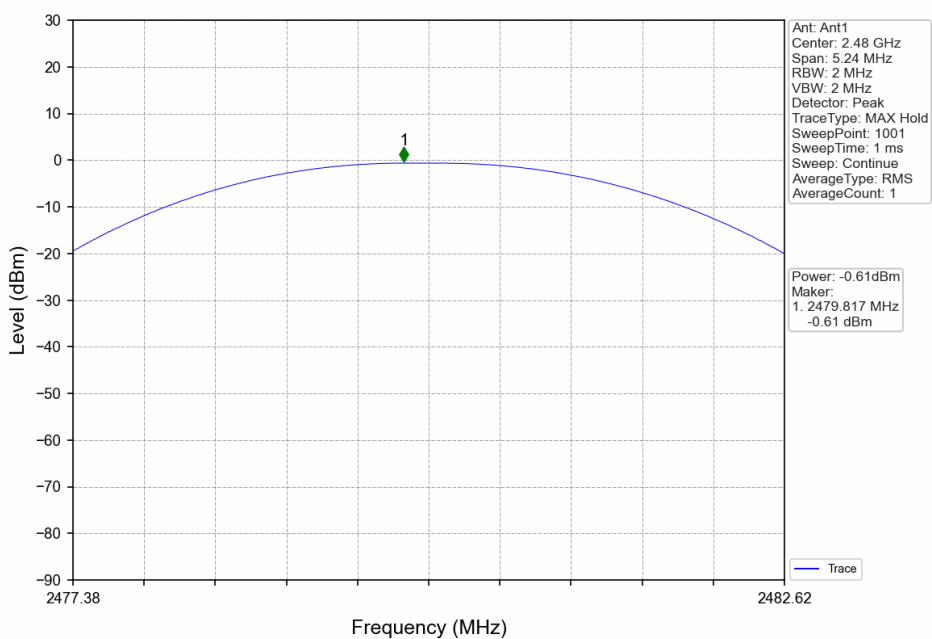
Mode	TX Type	Frequency (MHz)	Packet Type	Maximum Peak Conducted Output Power (dBm)		Verdict
				Ant1	Limit	
GFSK	SISO	2402	DH5	-0.51	<=20.97	Pass
		2441	DH5	-0.27	<=20.97	Pass
		2480	DH5	-0.61	<=20.97	Pass
$\pi/4$ -DQPSK	SISO	2402	2DH5	-0.51	<=20.97	Pass
		2441	2DH5	-0.28	<=20.97	Pass
		2480	2DH5	-0.63	<=20.97	Pass
8-DPSK	SISO	2402	3DH5	-0.51	<=20.97	Pass
		2441	3DH5	-0.28	<=20.97	Pass
		2480	3DH5	-0.61	<=20.97	Pass

Note1: Antenna Gain: Ant1: 0.25dBi;

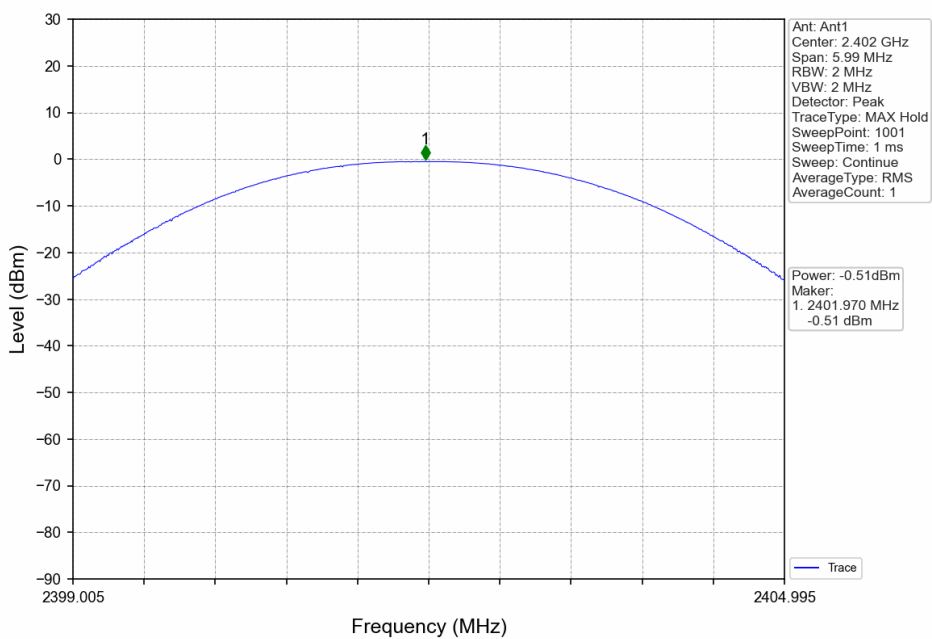
2.1.2 Test Graph

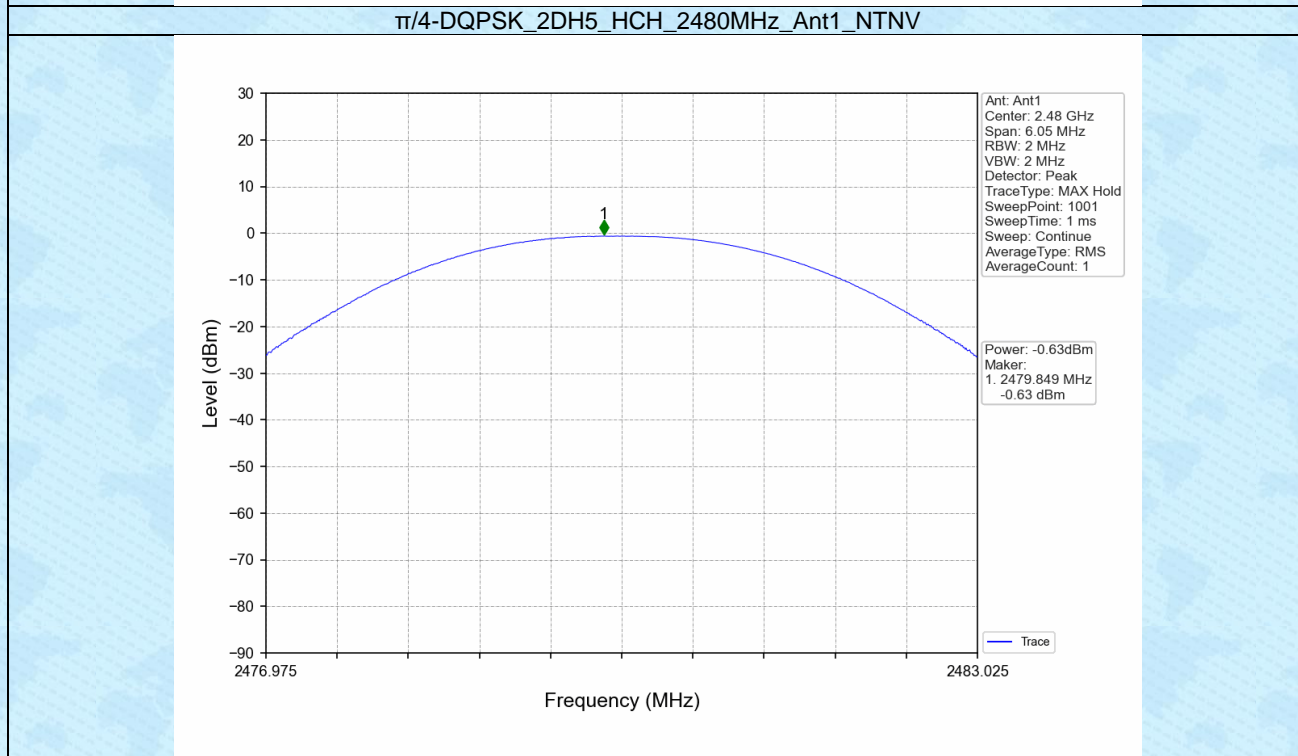
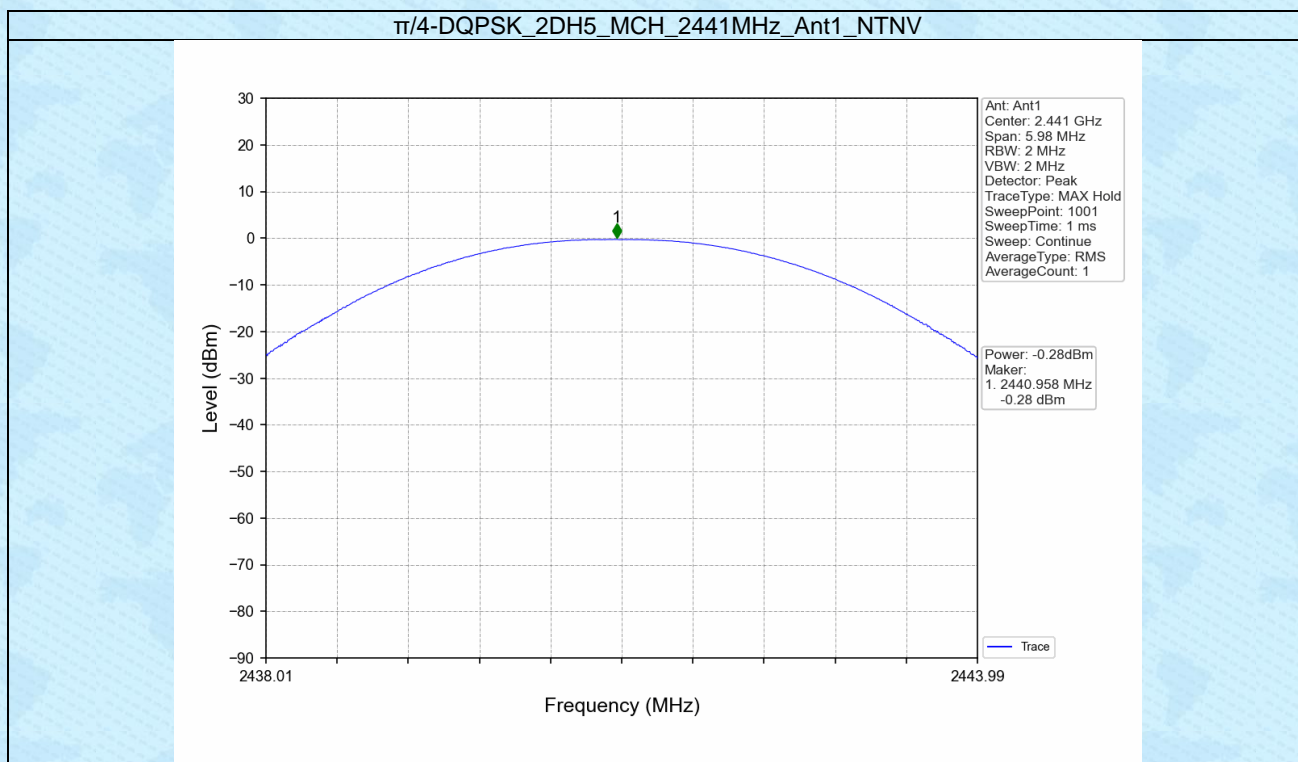


GFSK_DH5_HCH_2480MHz_Ant1_NTNV

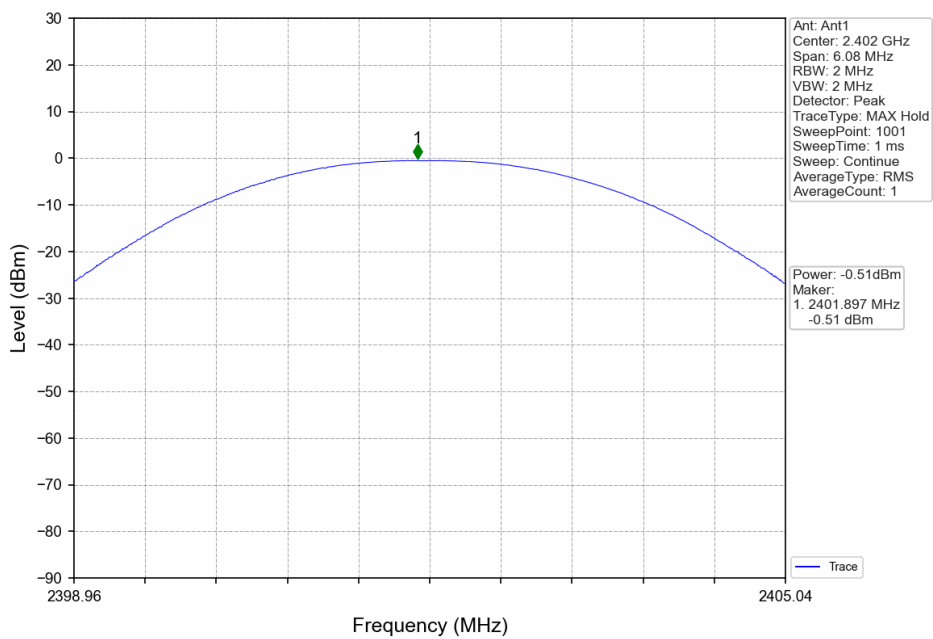


$\pi/4$ -DQPSK_2DH5_LCH_2402MHz_Ant1_NTNV

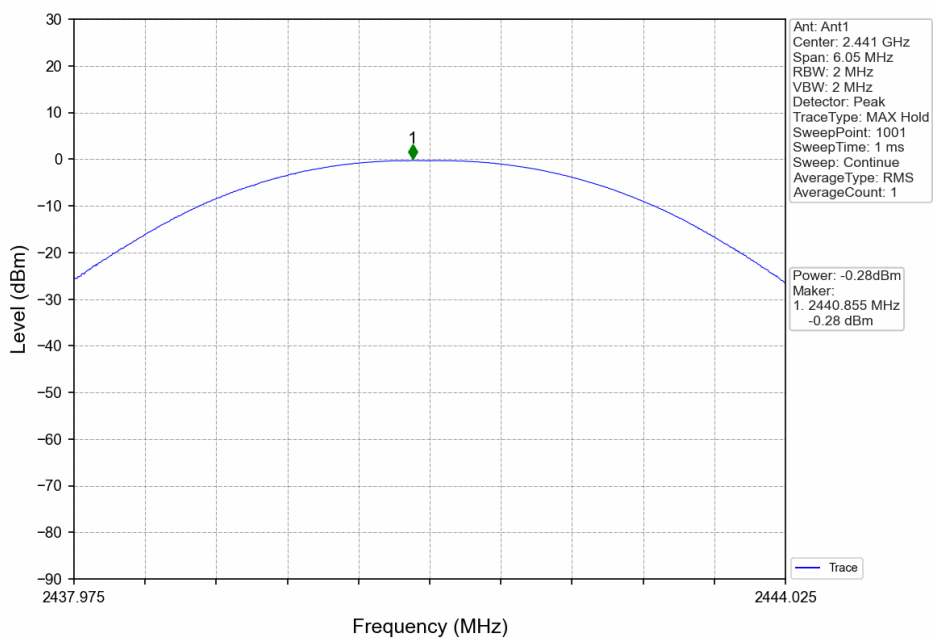


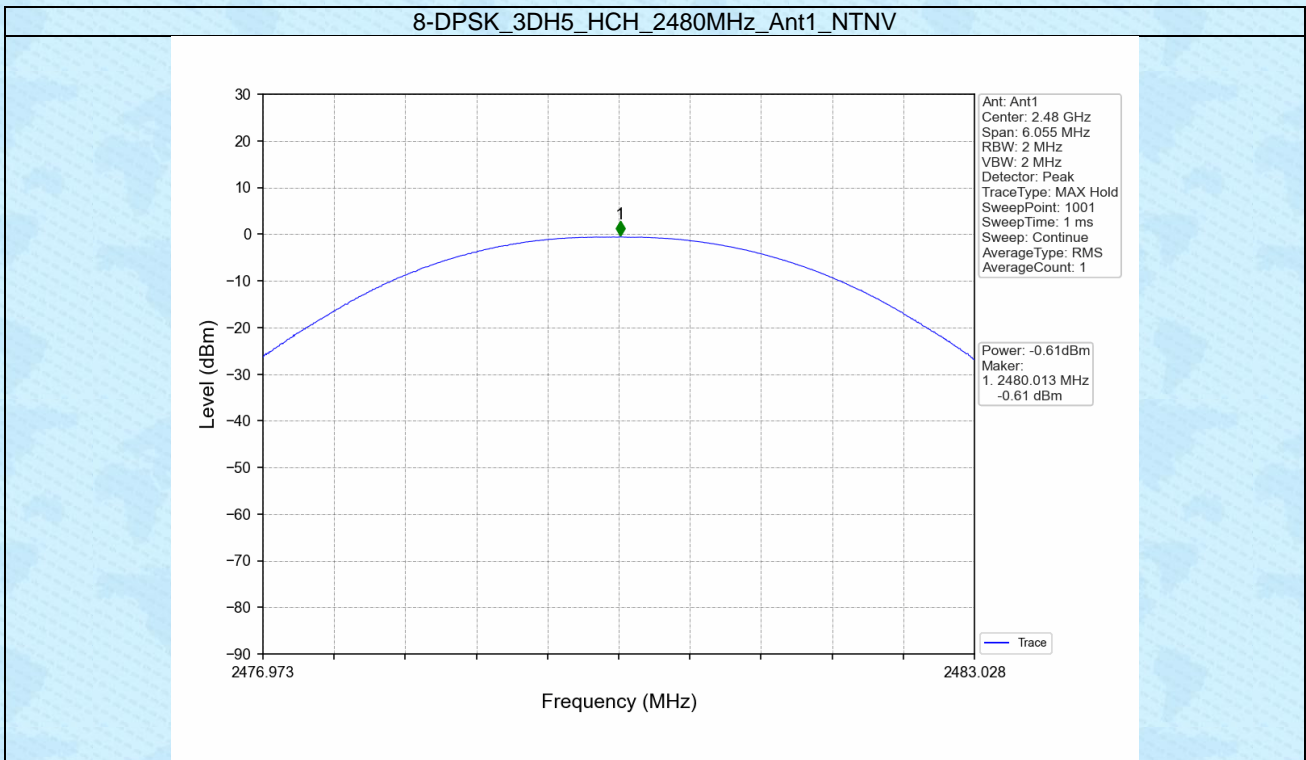


8-DPSK_3DH5_LCH_2402MHz_Ant1_NTNV



8-DPSK_3DH5_MCH_2441MHz_Ant1_NTNV





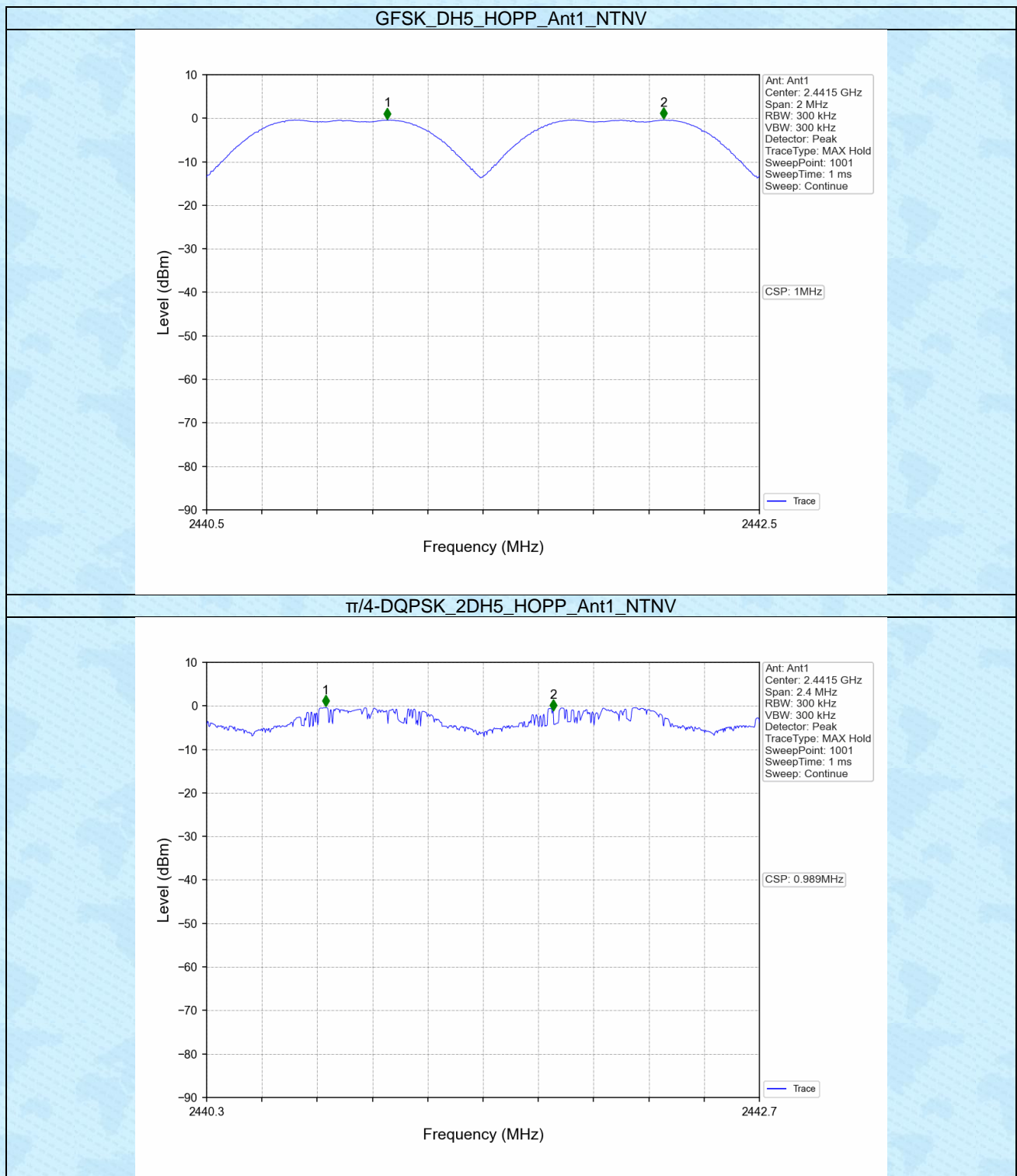
3. Carrier Frequency Separation

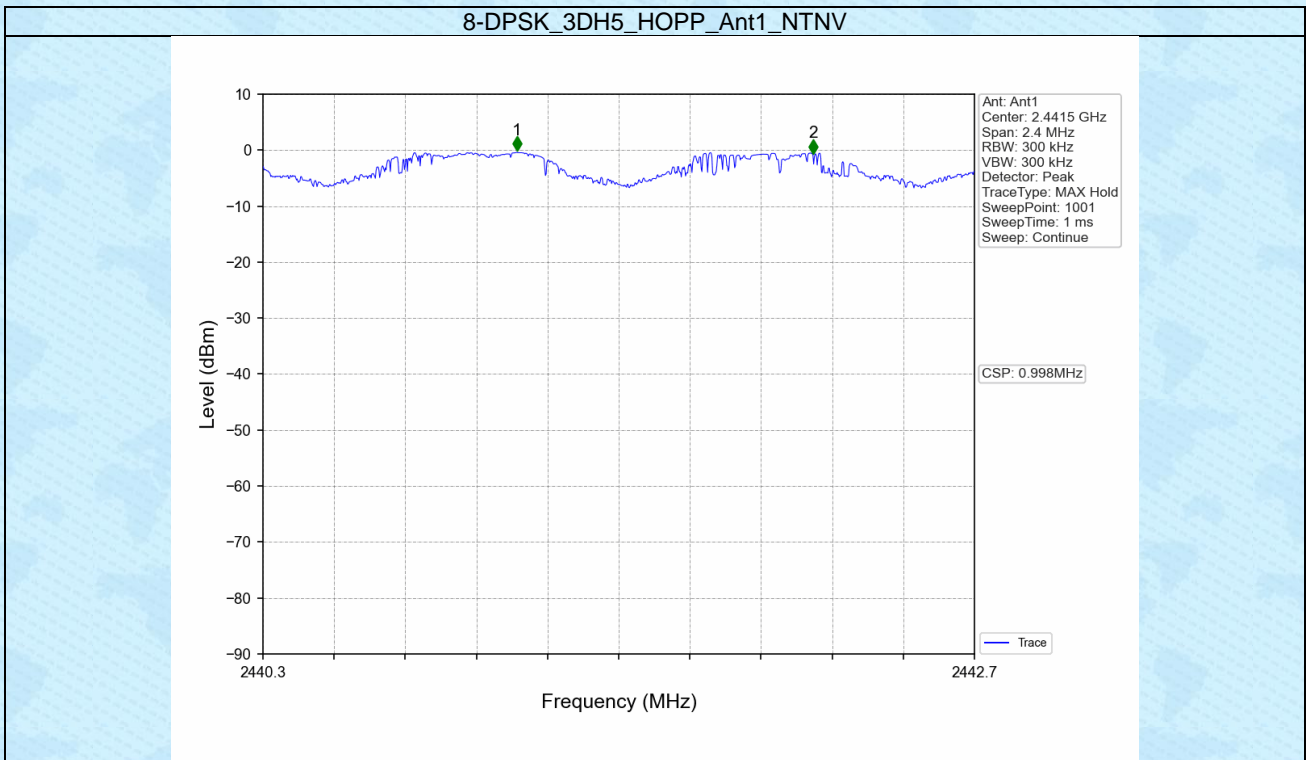
3.1 Ant1

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	1.000	1.050	≥ 0.7	Pass
$\pi/4$ -DQPSK	SISO	HOPP	2DH5	0.989	1.210	≥ 0.807	Pass
8-DPSK	SISO	HOPP	3DH5	0.998	1.216	≥ 0.811	Pass

3.1.2 Test Graph





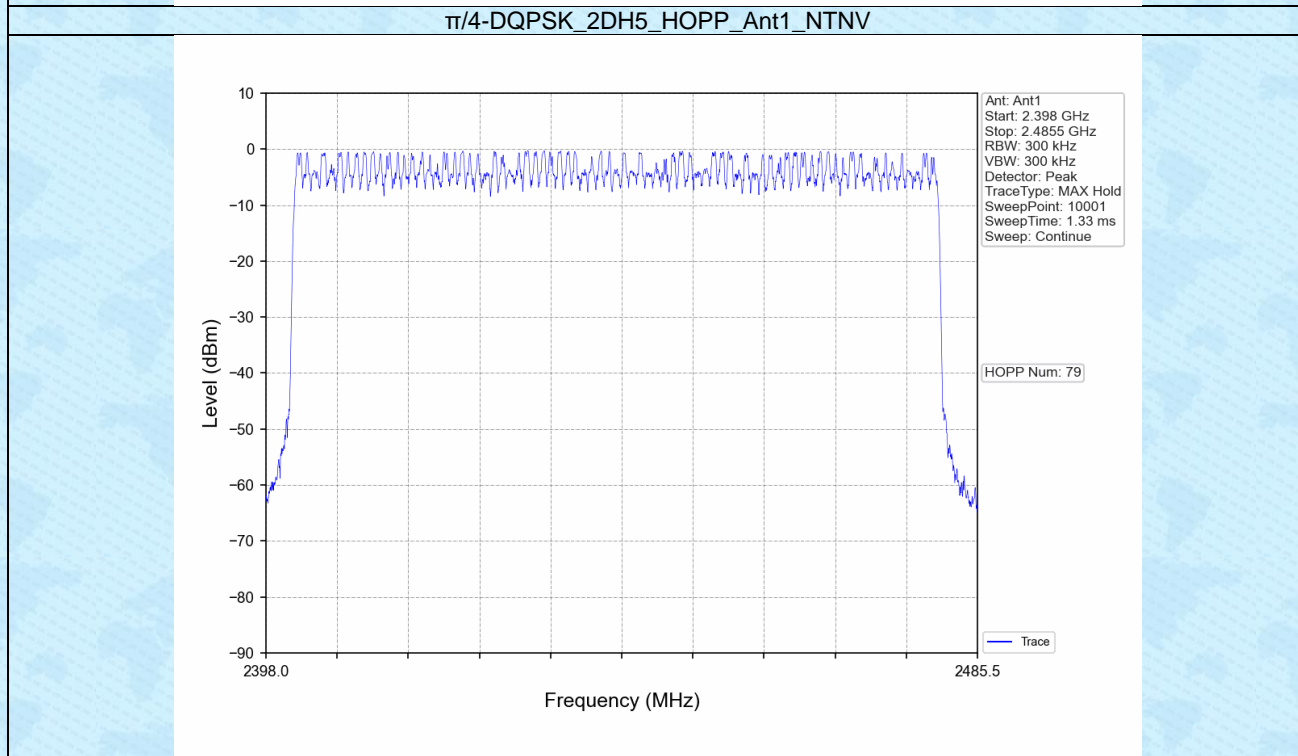
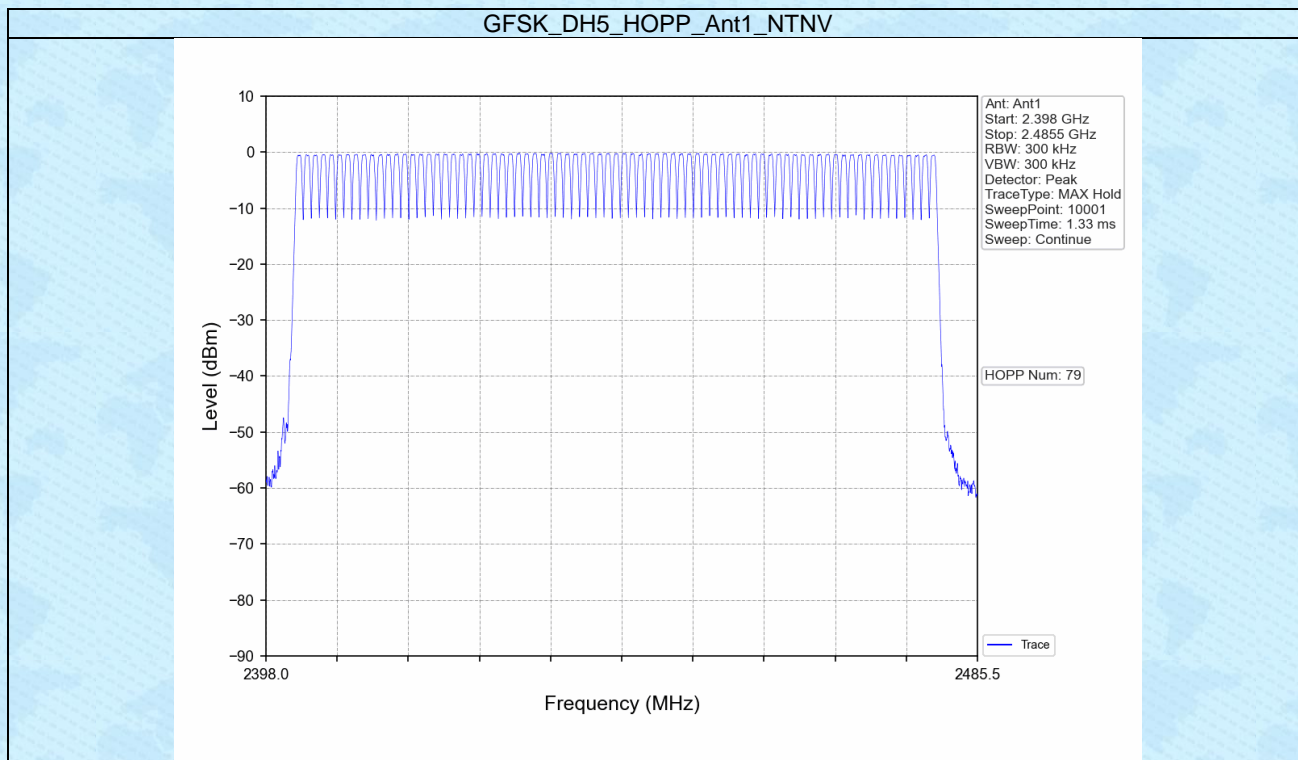
4. Number of Hopping Frequencies

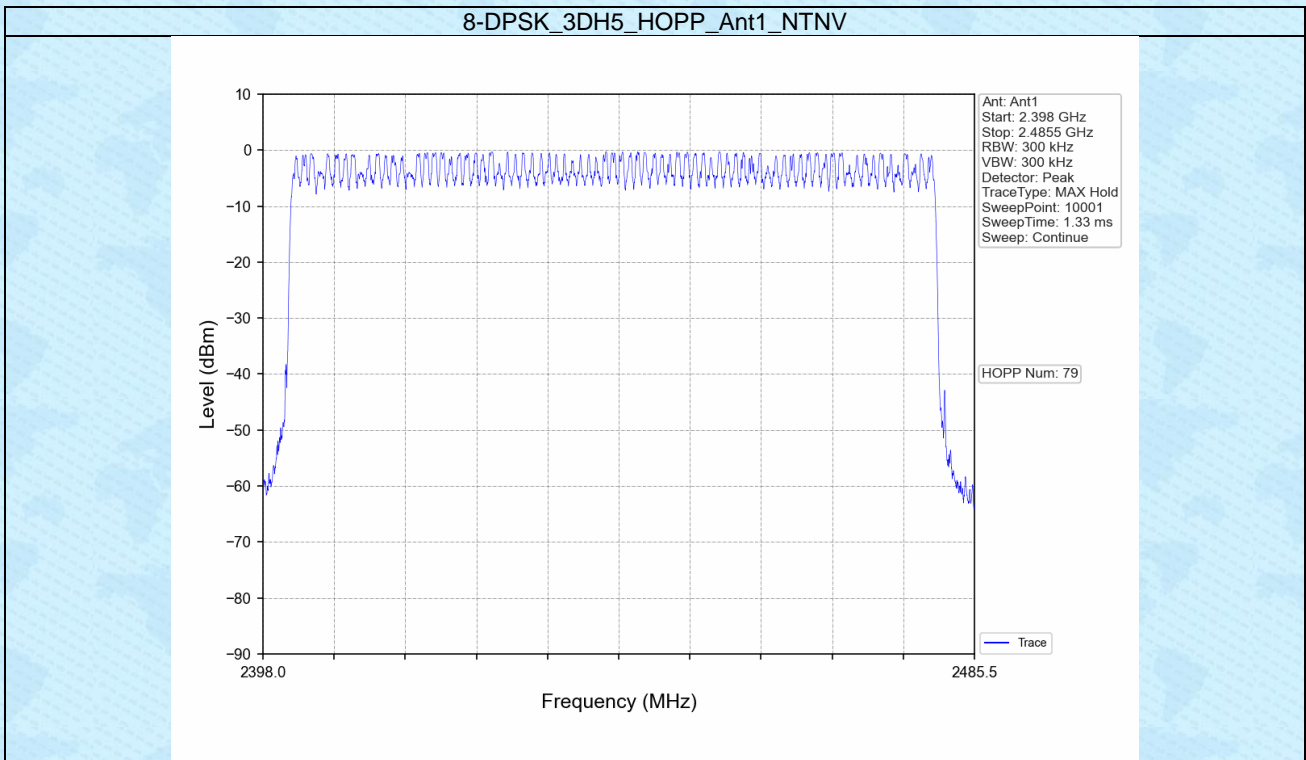
4.1 HoppNum

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
$\pi/4$ -DQPSK	SISO	HOPP	2DH5	79	>=15	Pass
8-DPSK	SISO	HOPP	3DH5	79	>=15	Pass

4.1.2 Test Graph





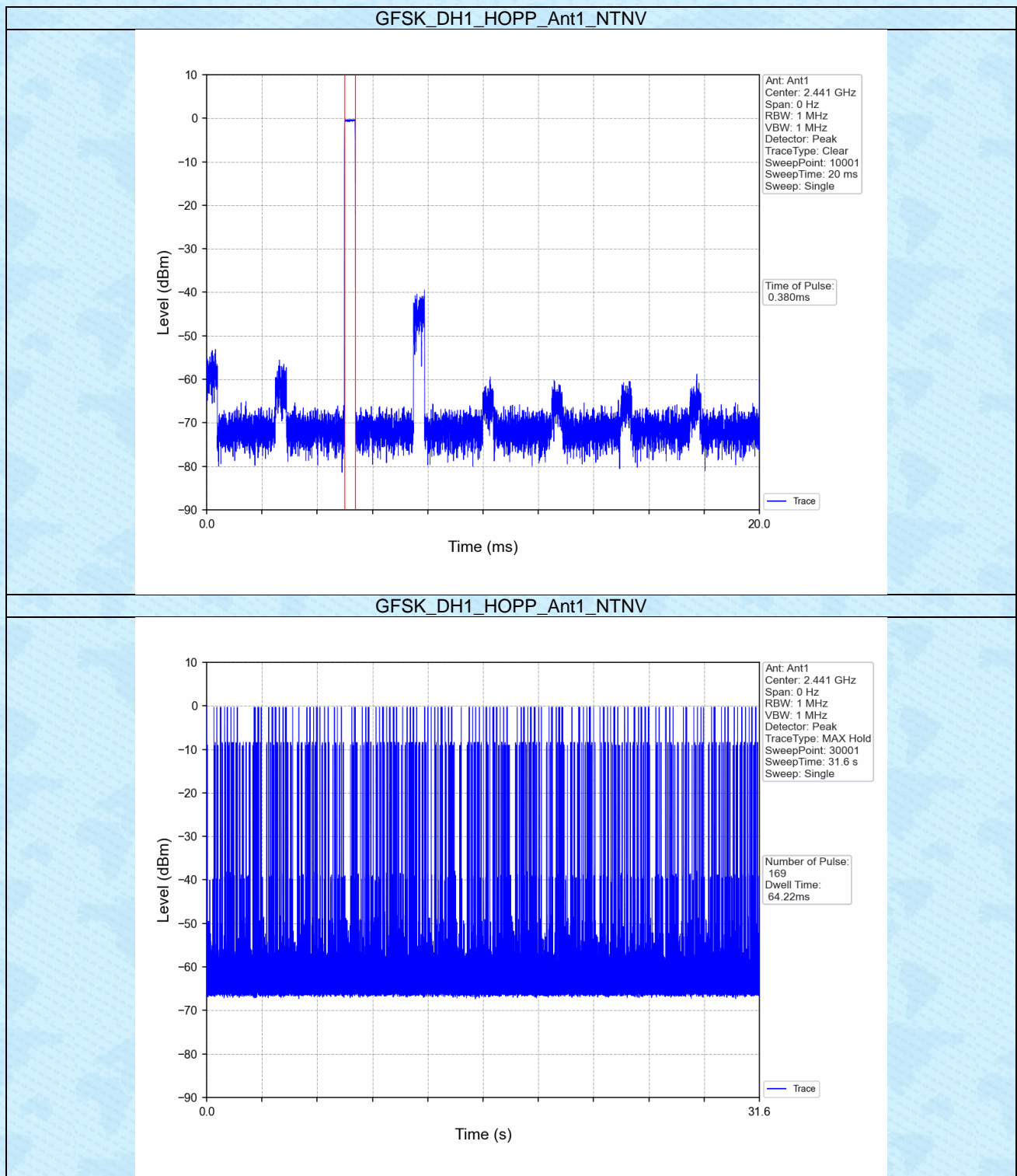
5. Time of Occupancy (Dwell Time)

5.1 Ant1

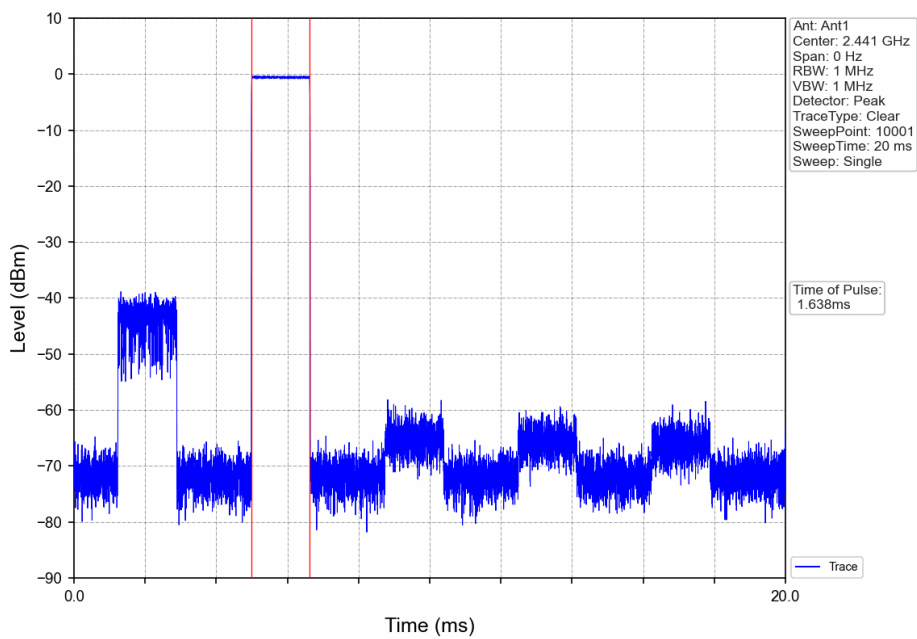
5.1.1 Test Result

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	0.380	31.600	169	64.220	<=400	Pass
			DH3	1.638	31.600	109	178.542	<=400	Pass
			DH5	2.884	31.600	81	233.604	<=400	Pass
$\pi/4$ -DQPSK	SISO	HOPP	2DH1	0.392	31.600	168	65.856	<=400	Pass
			2DH3	1.646	31.600	99	162.954	<=400	Pass
			2DH5	2.892	31.600	76	219.792	<=400	Pass
8-DPSK	SISO	HOPP	3DH1	0.394	31.600	153	60.282	<=400	Pass
			3DH3	1.644	31.600	98	161.112	<=400	Pass
			3DH5	2.894	31.600	89	257.566	<=400	Pass

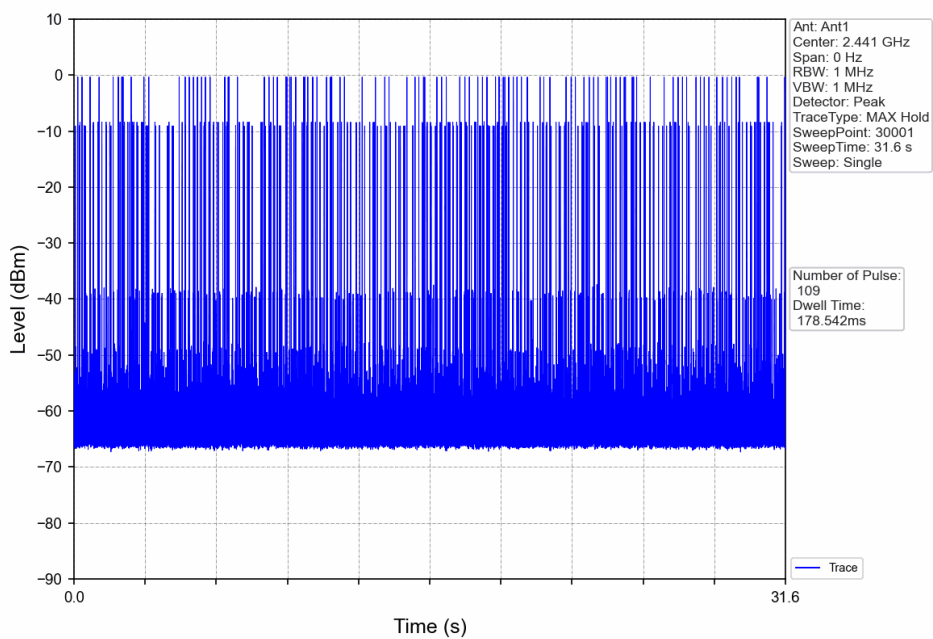
5.1.2 Test Graph



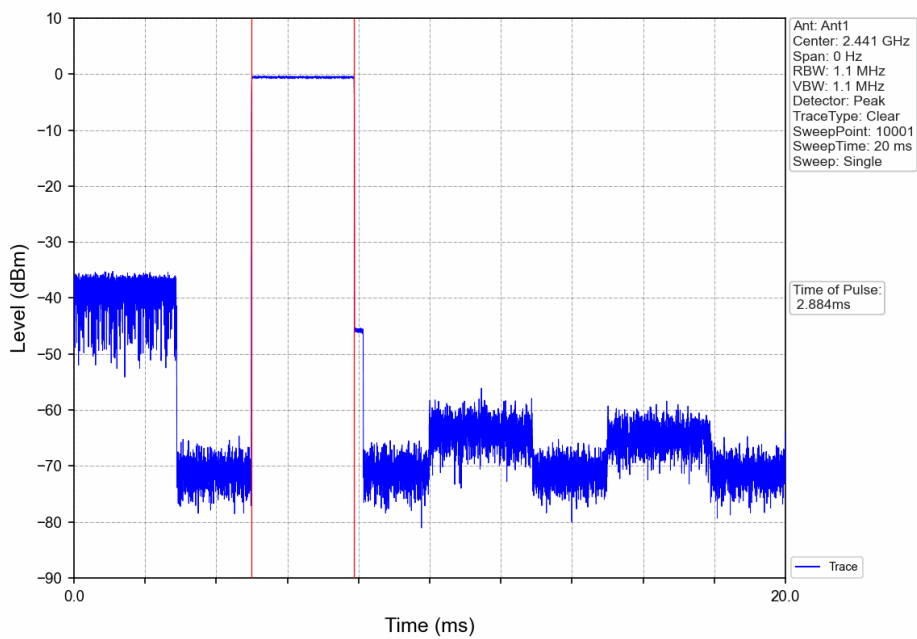
GFSK_DH3_HOPP_Ant1_NTNV



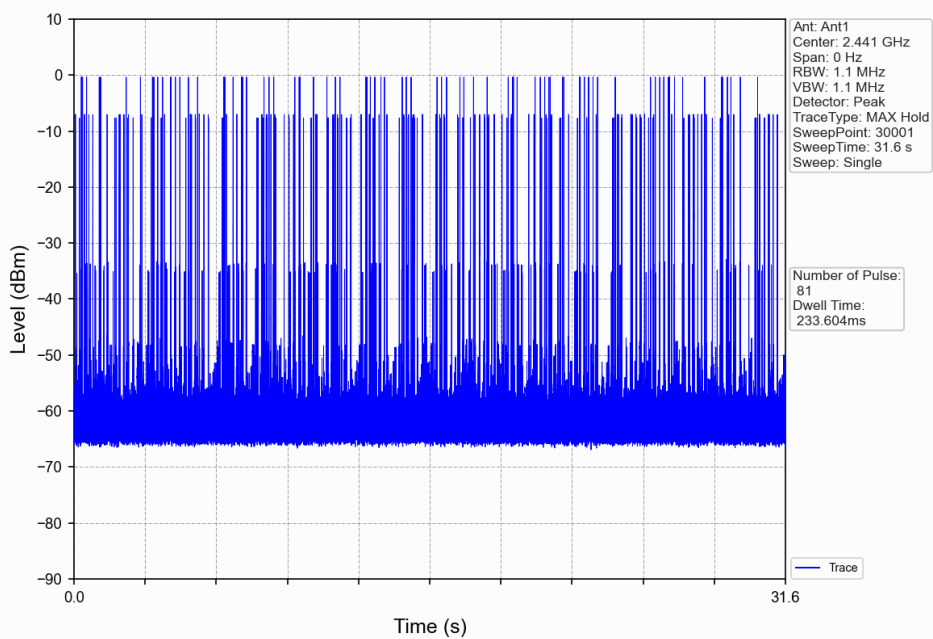
GFSK_DH3_HOPP_Ant1_NTNV

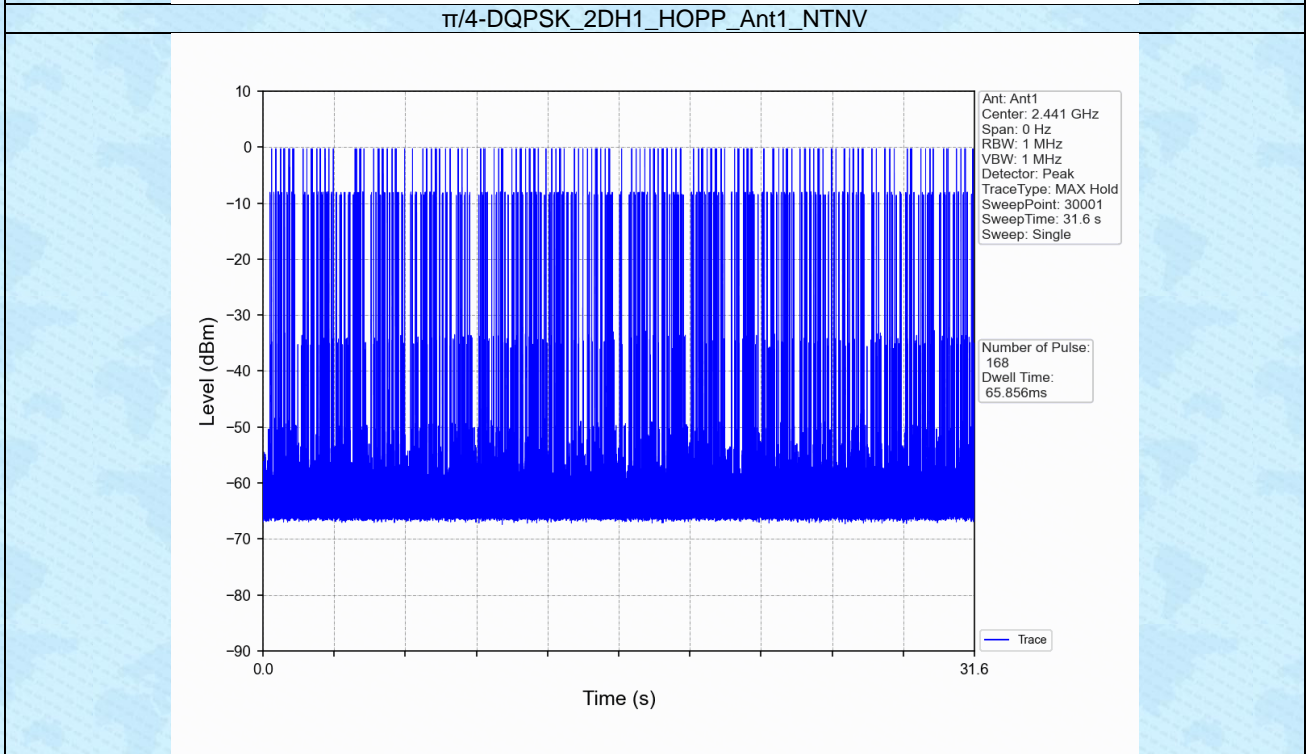
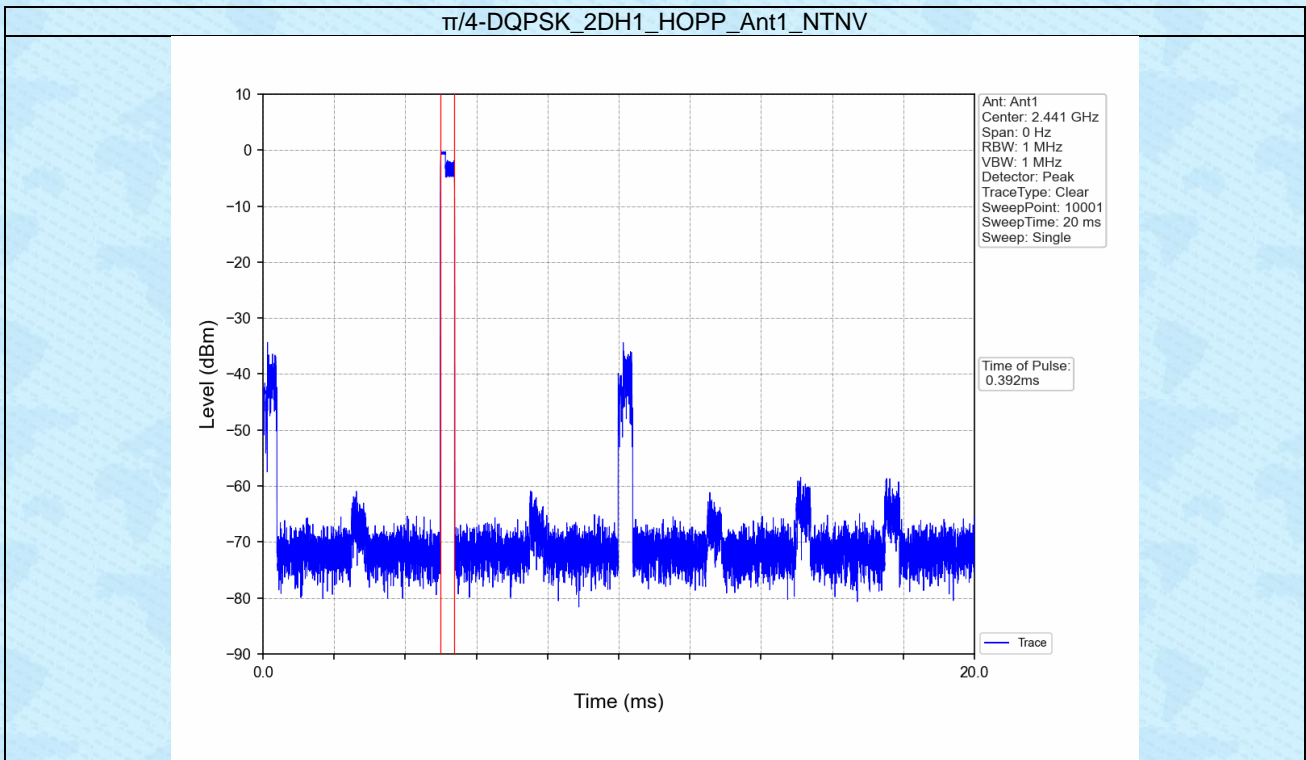


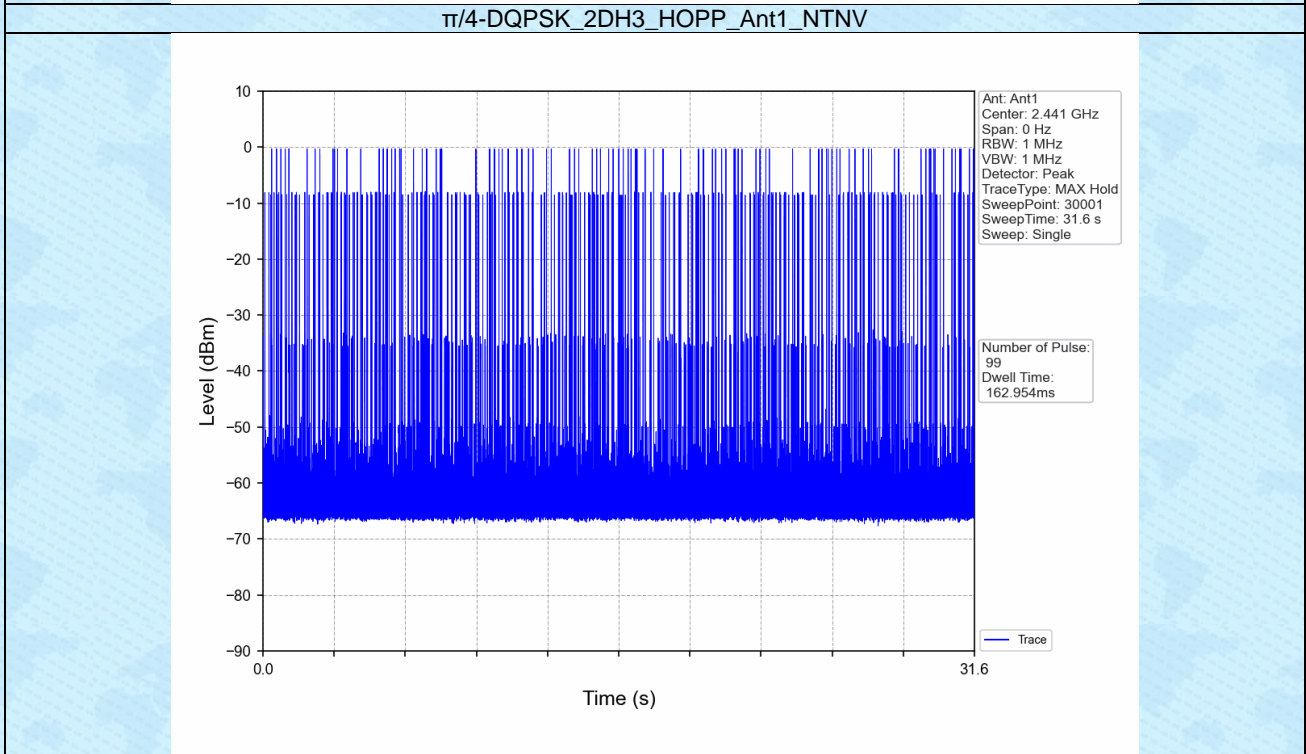
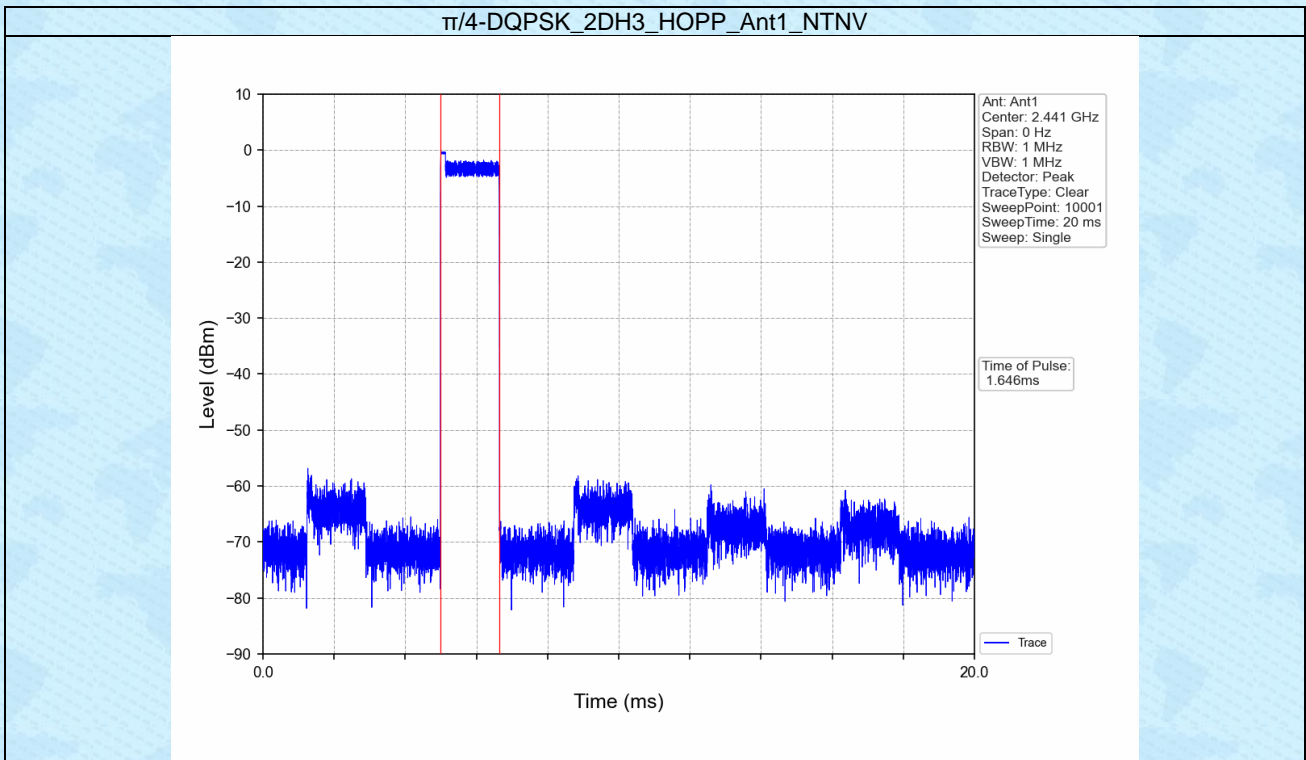
GFSK_DH5_HOPP_Ant1_NTNV



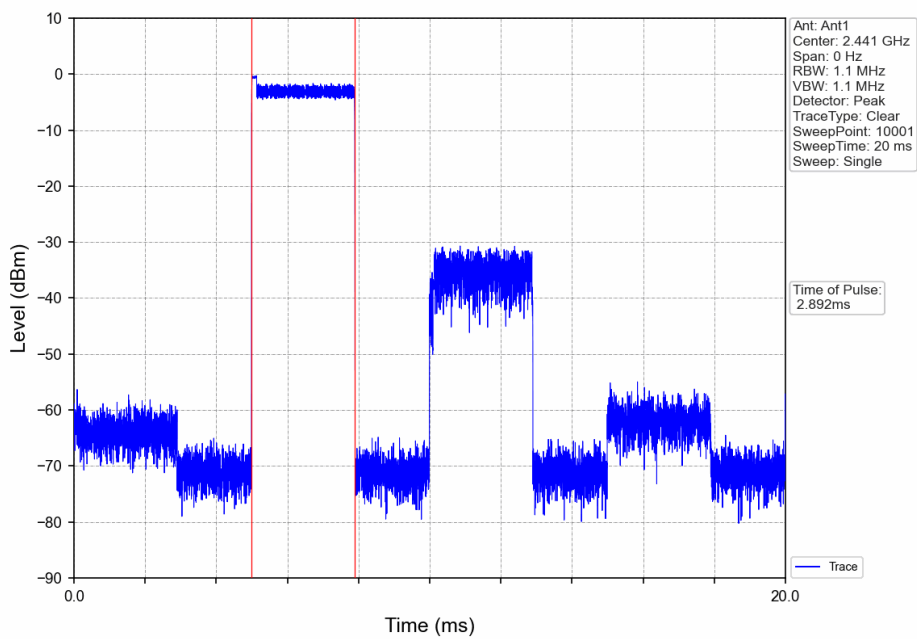
GFSK_DH5_HOPP_Ant1_NTNV



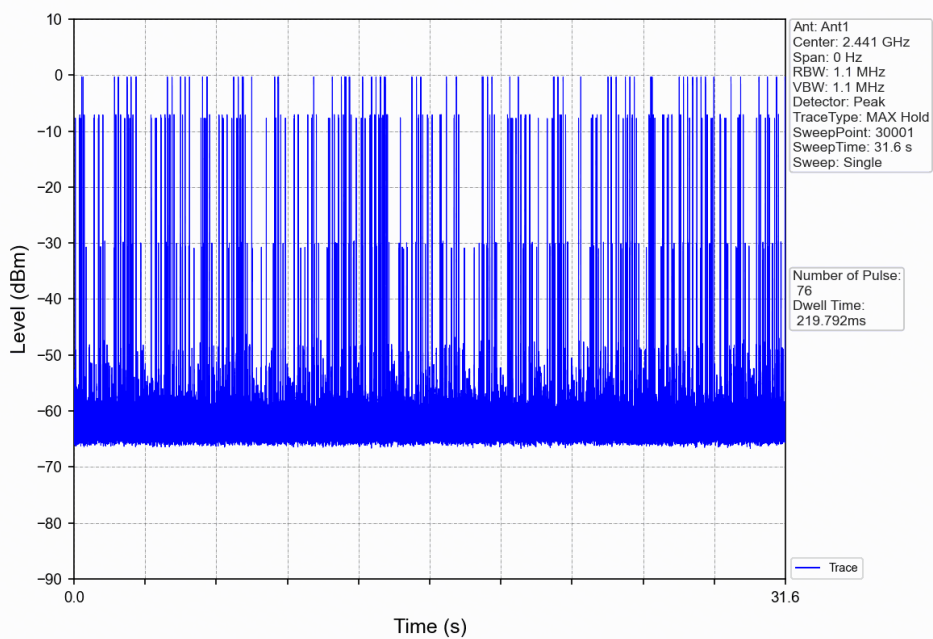




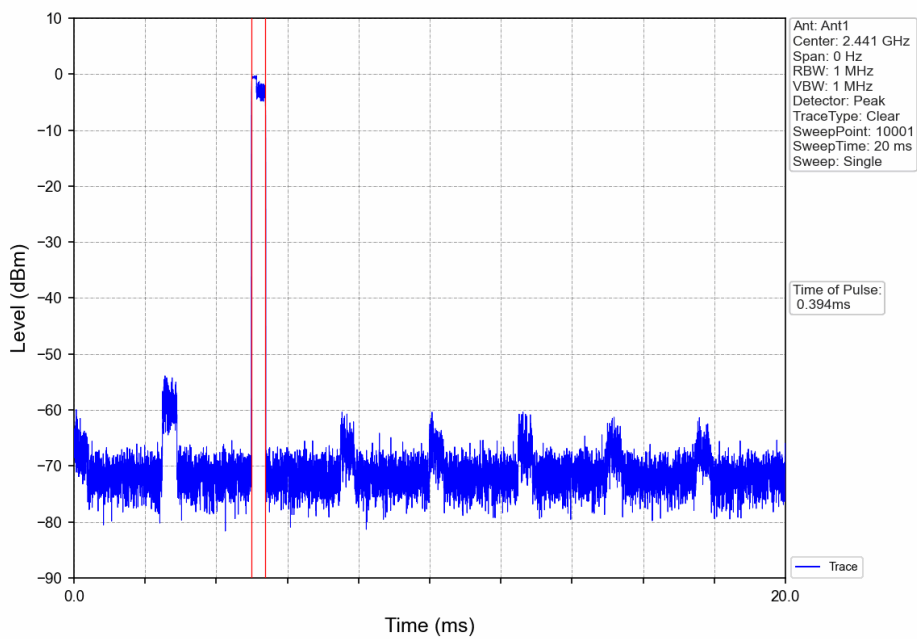
$\pi/4$ -DQPSK_2DH5_HOPP_Ant1_NTNV



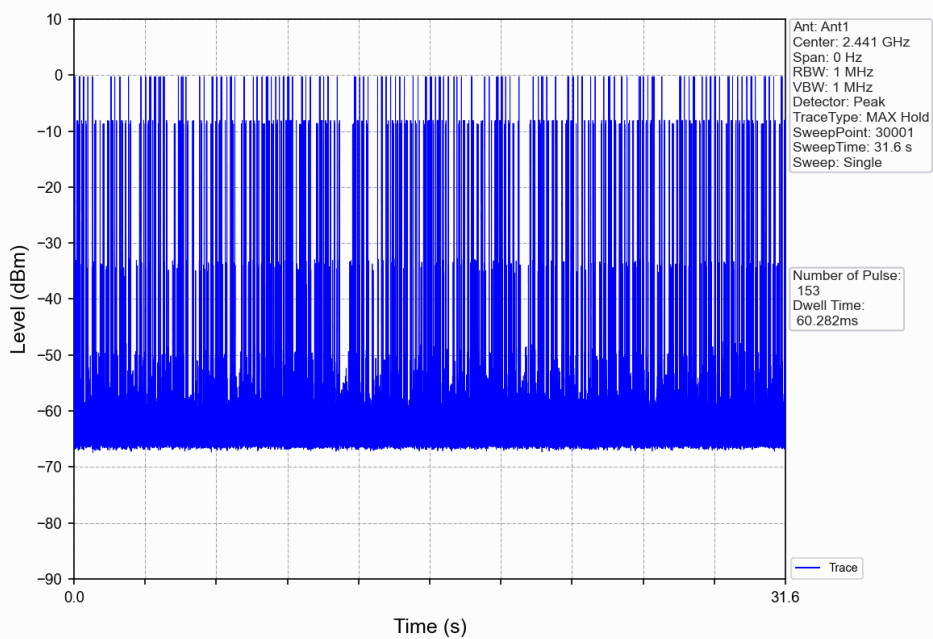
$\pi/4$ -DQPSK_2DH5_HOPP_Ant1_NTNV



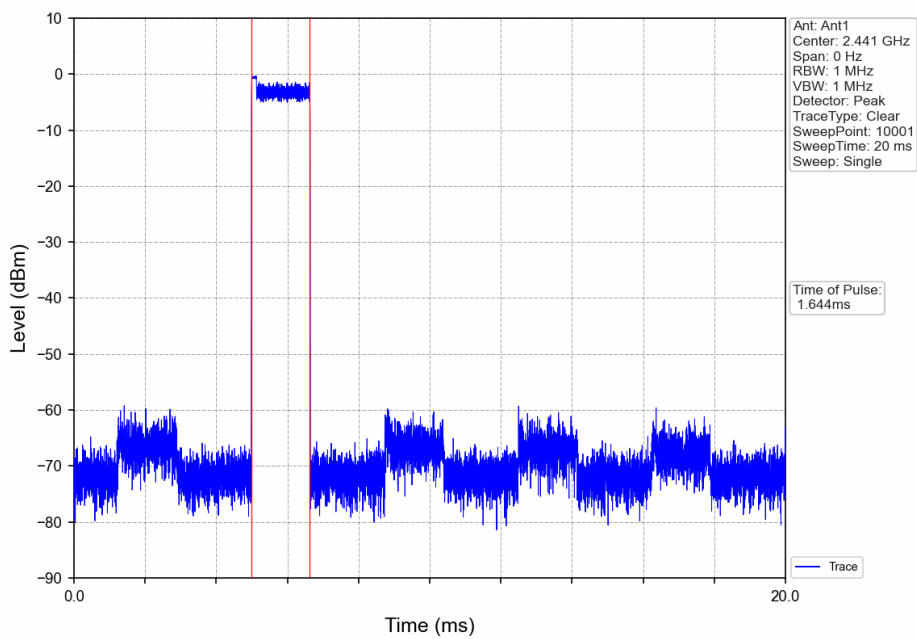
8-DPSK_3DH1_HOPP_Ant1_NTNV



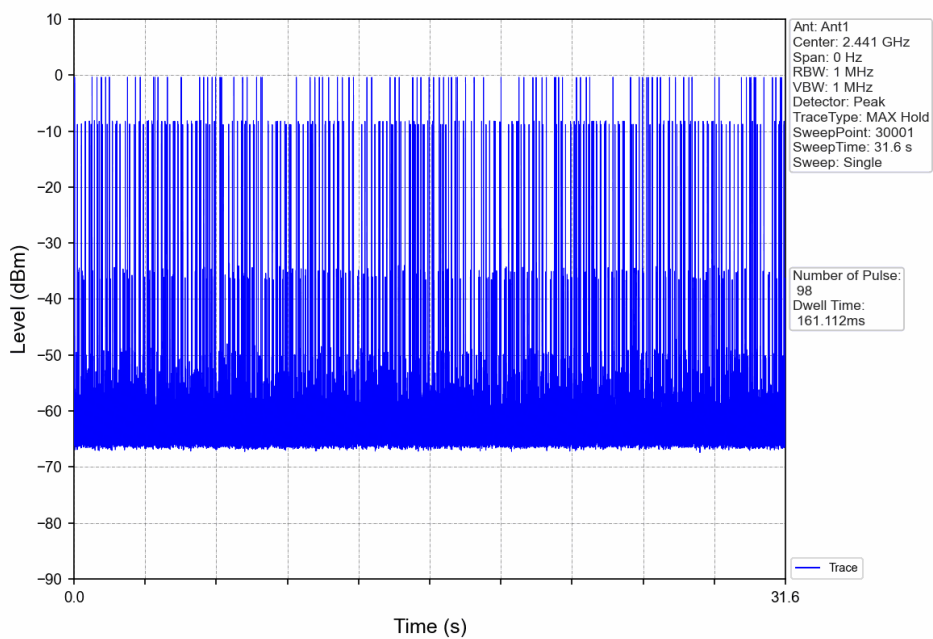
8-DPSK_3DH1_HOPP_Ant1_NTNV



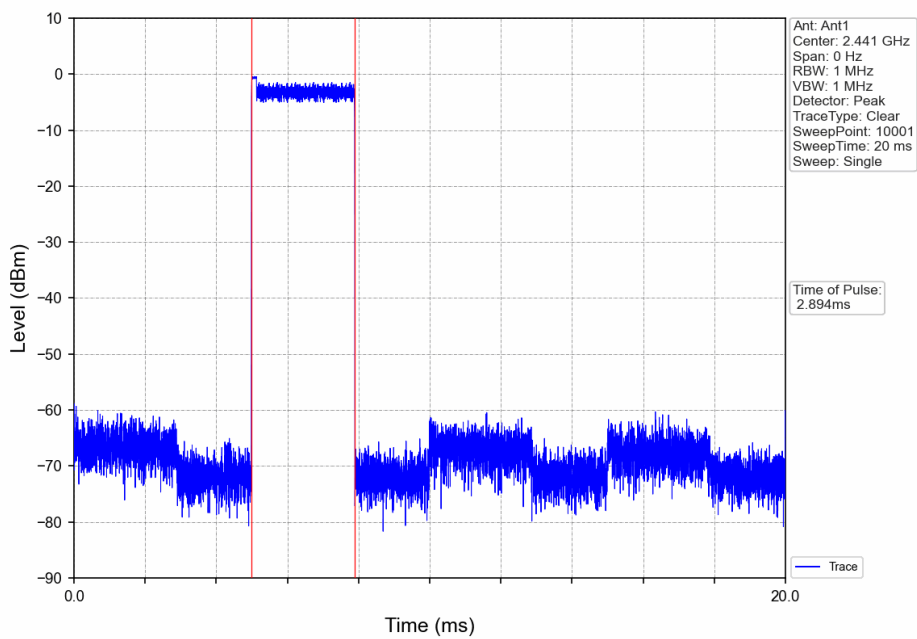
8-DPSK_3DH3_HOPP_Ant1_NTNV



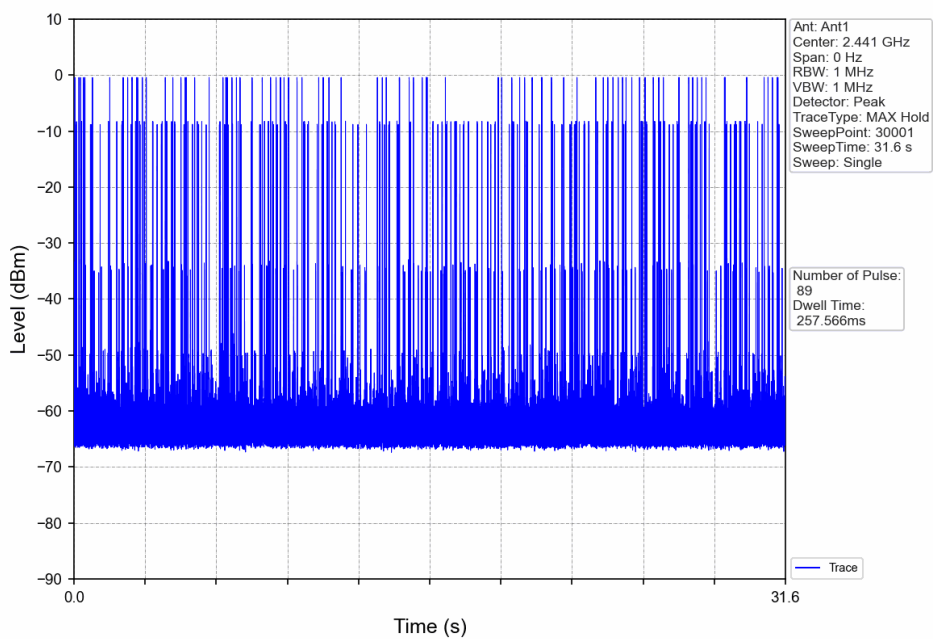
8-DPSK_3DH3_HOPP_Ant1_NTNV



8-DPSK_3DH5_HOPP_Ant1_NTNV



8-DPSK_3DH5_HOPP_Ant1_NTNV



6. Unwanted Emissions In Non-restricted Frequency Bands

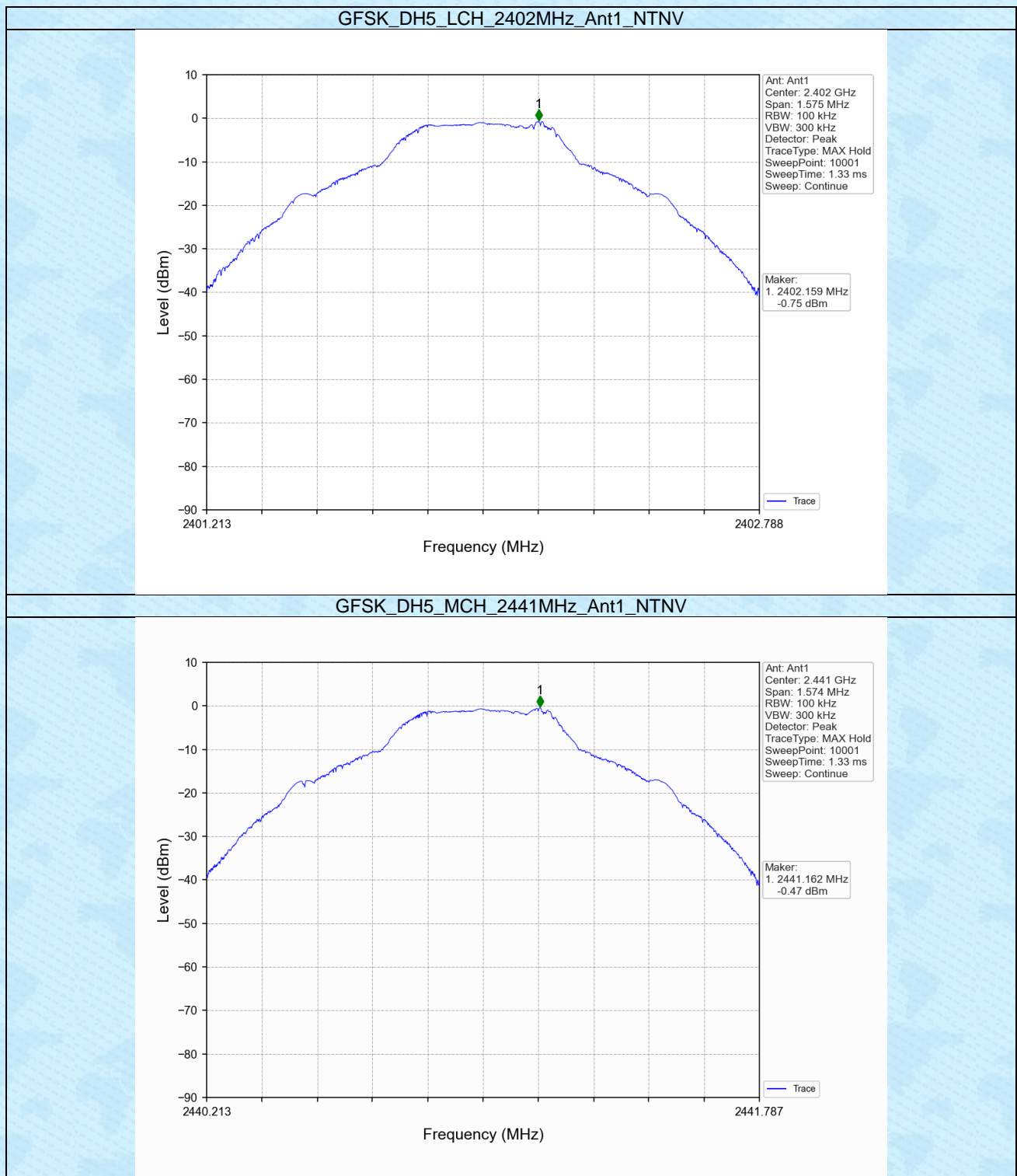
6.1 Ref

6.1.1 Test Result

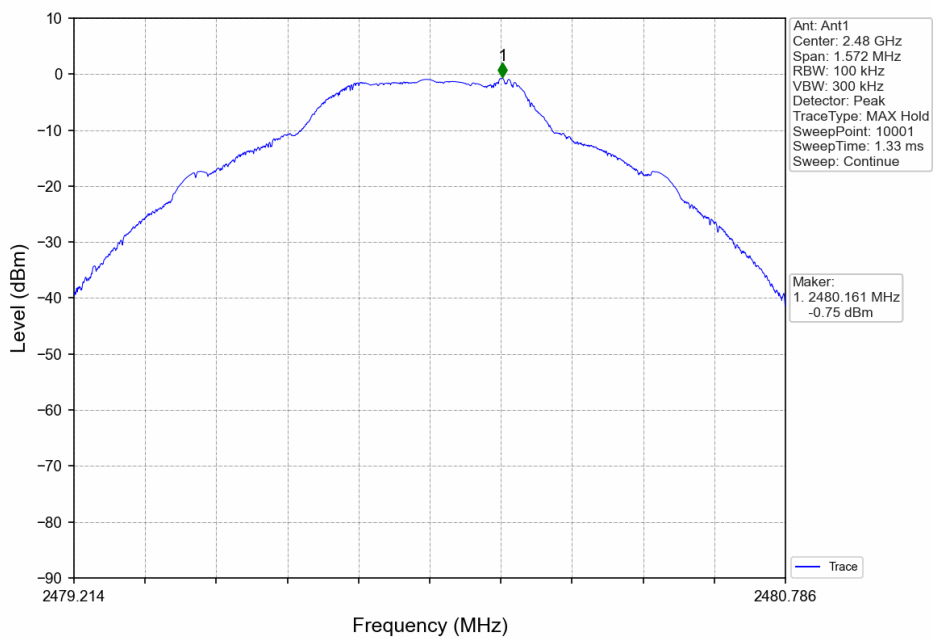
Mode	TX Type	Frequency (MHz)	Packet Type	Ant	Level of Reference (dBm)
GFSK	SISO	2402	DH5	1	-0.75
		2441	DH5	1	-0.47
		2480	DH5	1	-0.75
$\pi/4$ -DQPSK	SISO	2402	2DH5	1	-0.93
		2441	2DH5	1	-0.61
		2480	2DH5	1	-1.03
8-DPSK	SISO	2402	3DH5	1	-0.87
		2441	3DH5	1	-0.45
		2480	3DH5	1	-0.74

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.
 Note2: RBW = 1MHz was used during the pre-test. The final test will be performed at RBW=100kHz while the margin is less than 3dB.

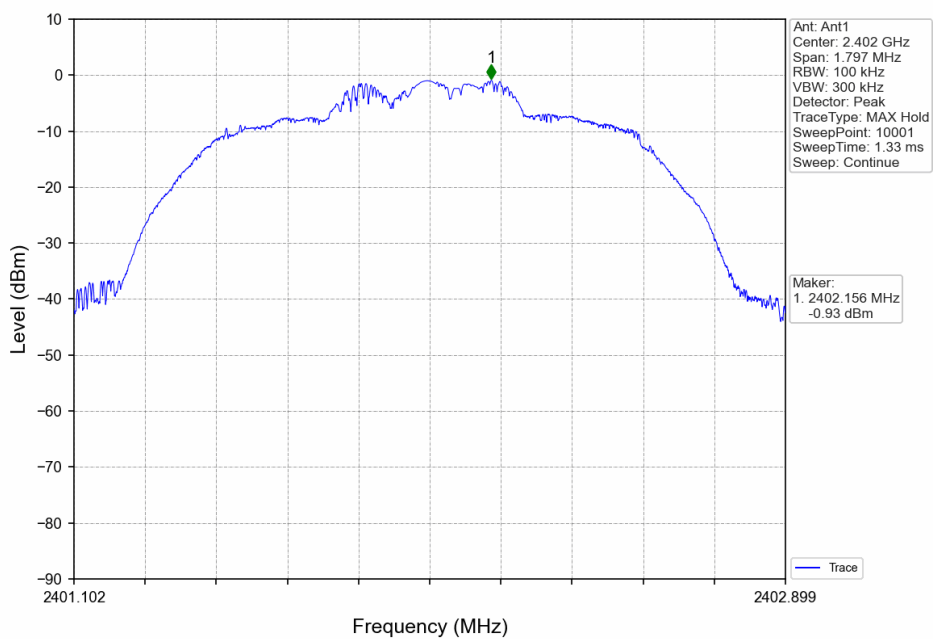
6.1.2 Test Graph



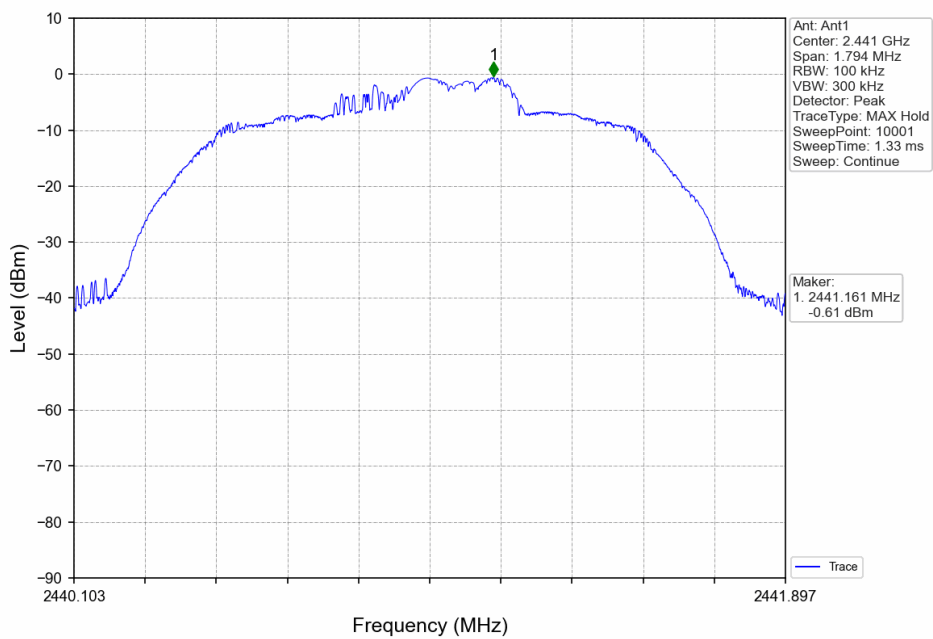
GFSK_DH5_HCH_2480MHz_Ant1_NTNV



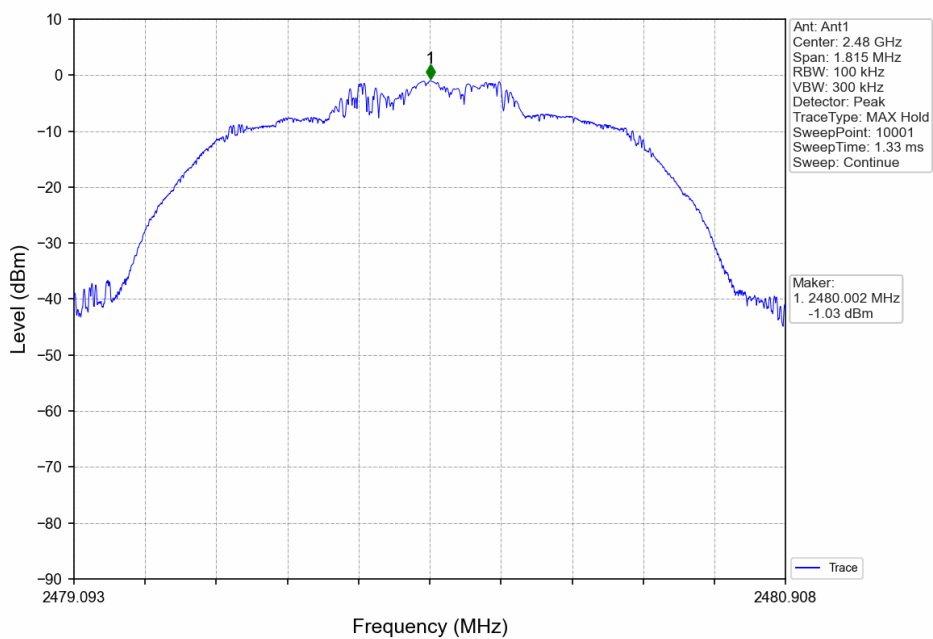
Pi/4DQPSK_2DH5_LCH_2402MHz_Ant1_NTNV



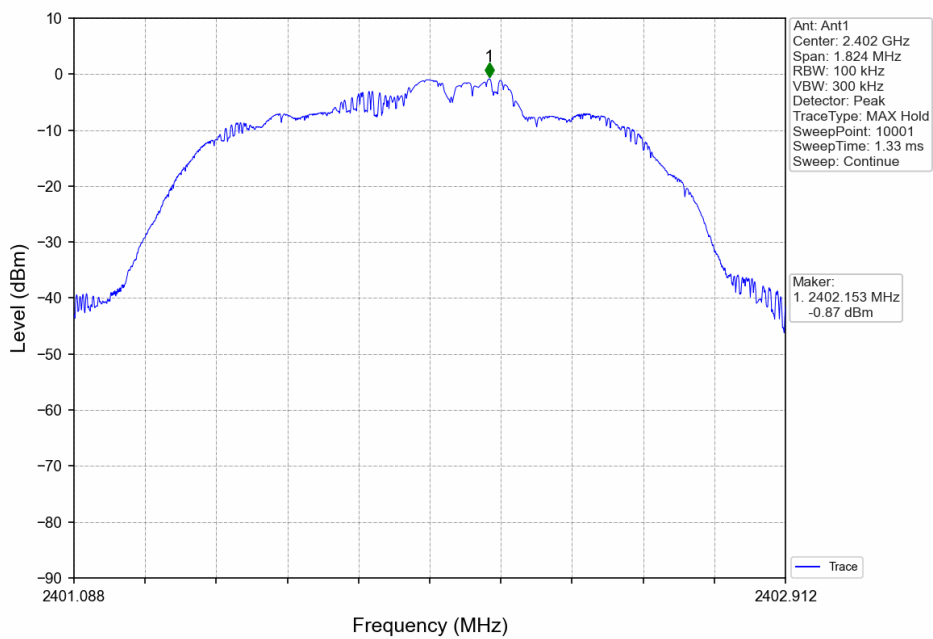
$\pi/4$ -DQPSK_2DH5_MCH_2441MHz_Ant1_NTNV



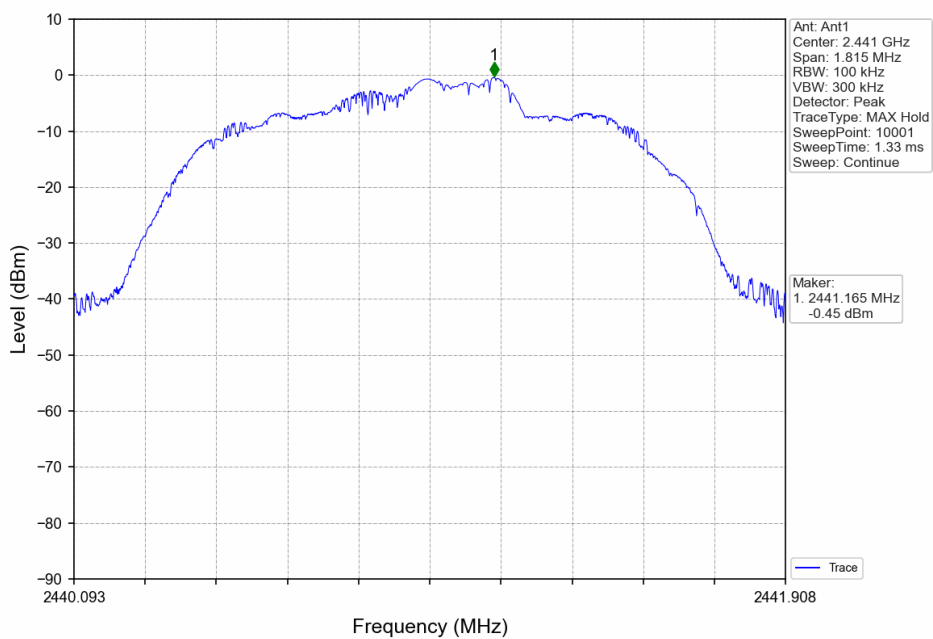
$\pi/4$ -DQPSK_2DH5_HCH_2480MHz_Ant1_NTNV

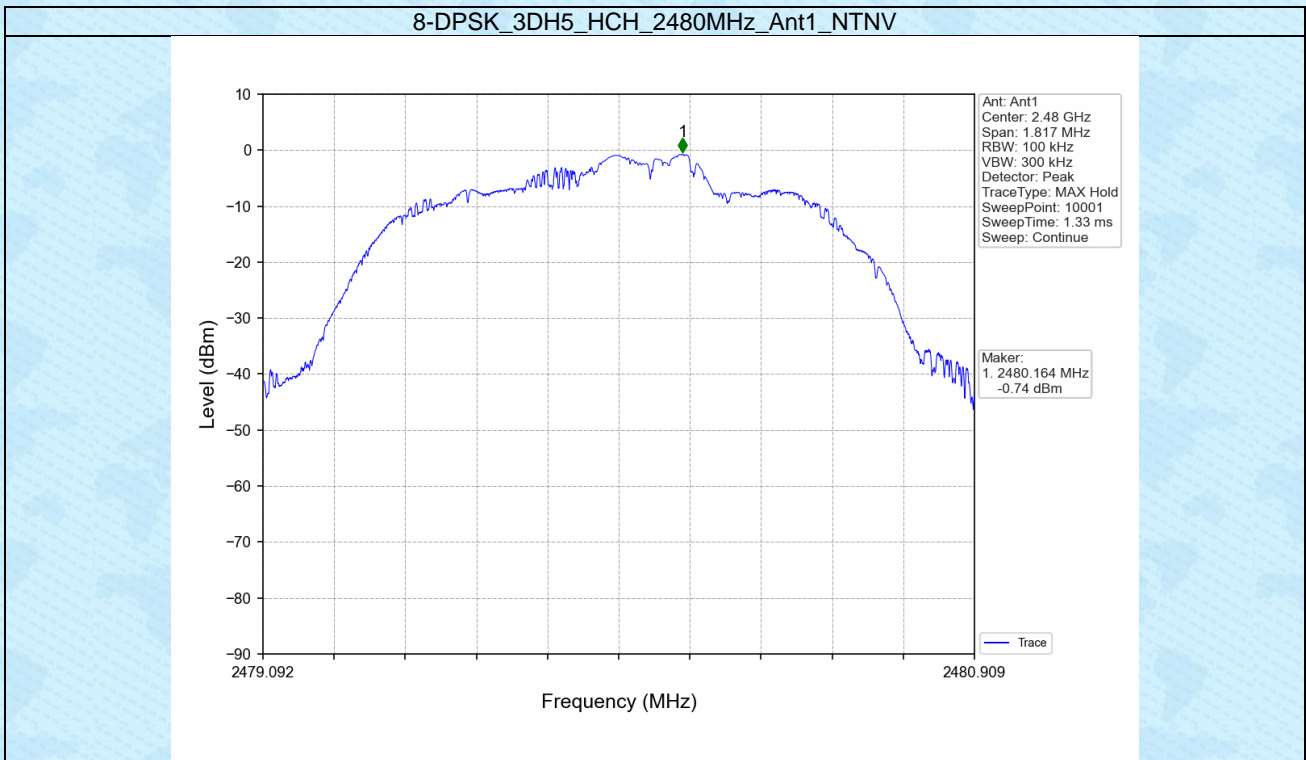


8-DPSK_3DH5_LCH_2402MHz_Ant1_NTNV



8-DPSK_3DH5_MCH_2441MHz_Ant1_NTNV





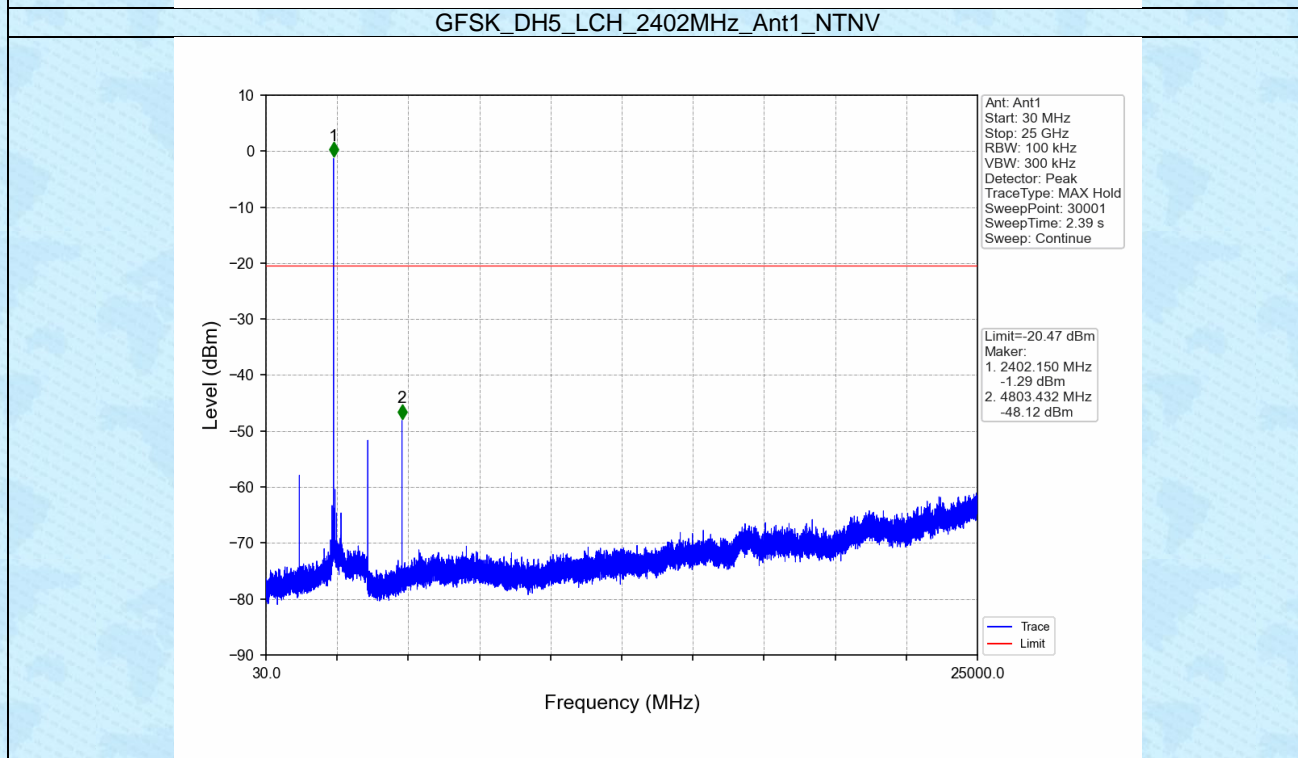
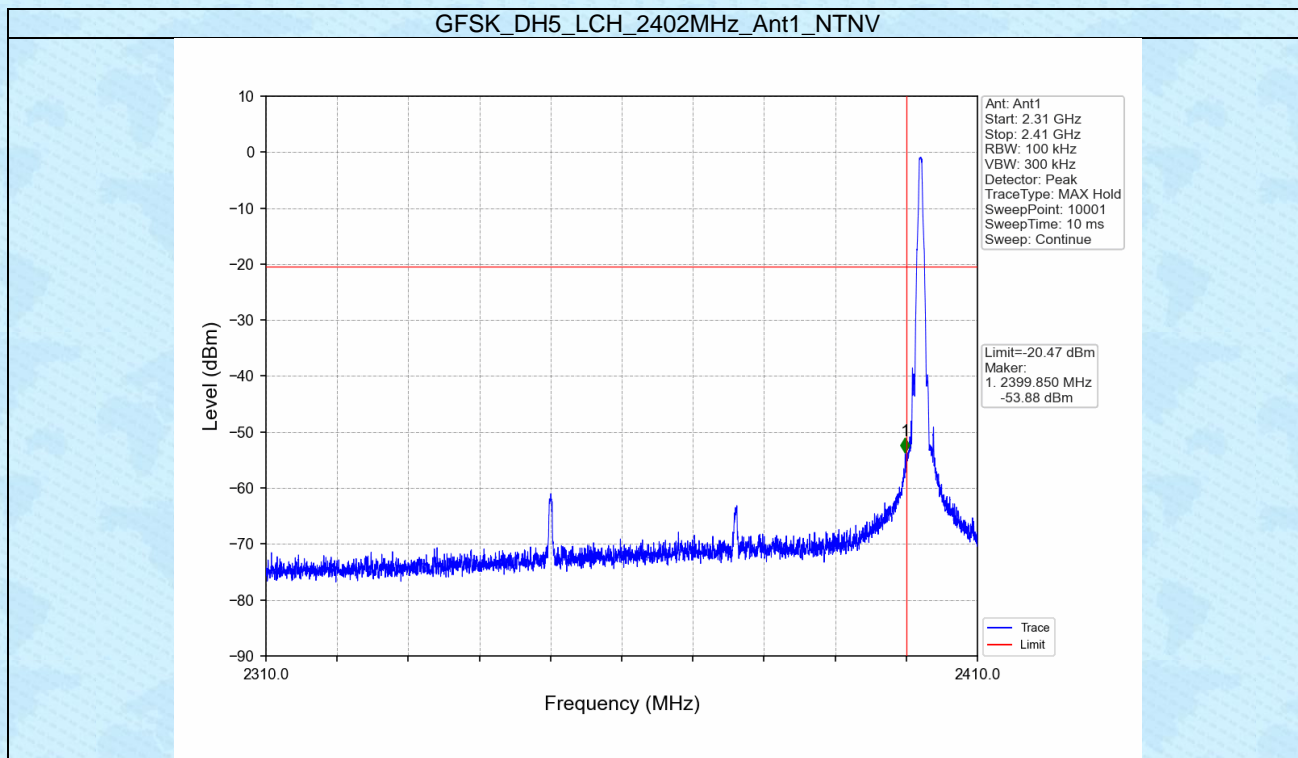
6.2 CSE

6.2.1 Test Result

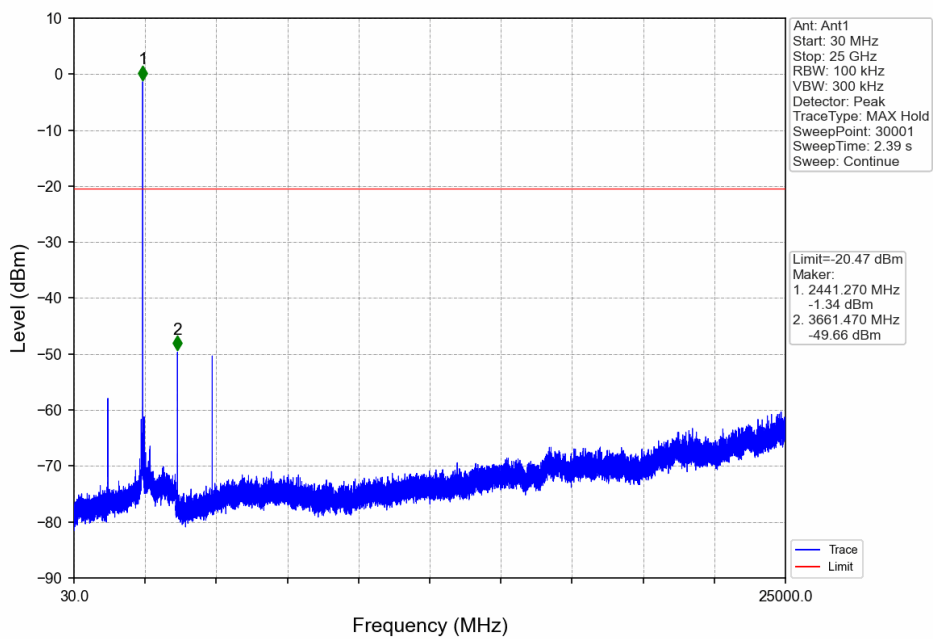
Mode	TX Type	Frequency (MHz)	Packet Type	Ant	Level of Reference (dBm)	Limit (dBm)	Verdict
GFSK	SISO	2402	DH5	1	-0.47	-20.47	Pass
		2441	DH5	1	-0.47	-20.47	Pass
		2480	DH5	1	-0.47	-20.47	Pass
		HOPP	DH5	1	-0.47	-20.47	Pass
$\pi/4$ -DQPSK	SISO	2402	2DH5	1	-0.61	-20.61	Pass
		2441	2DH5	1	-0.61	-20.61	Pass
		2480	2DH5	1	-0.61	-20.61	Pass
		HOPP	2DH5	1	-0.61	-20.61	Pass
8-DPSK	SISO	2402	3DH5	1	-0.45	-20.45	Pass
		2441	3DH5	1	-0.45	-20.45	Pass
		2480	3DH5	1	-0.45	-20.45	Pass
		HOPP	3DH5	1	-0.45	-20.45	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.
 Note2: RBW = 1MHz was used during the pre-test. The final test will be performed at RBW=100kHz while the margin is less than 3dB.

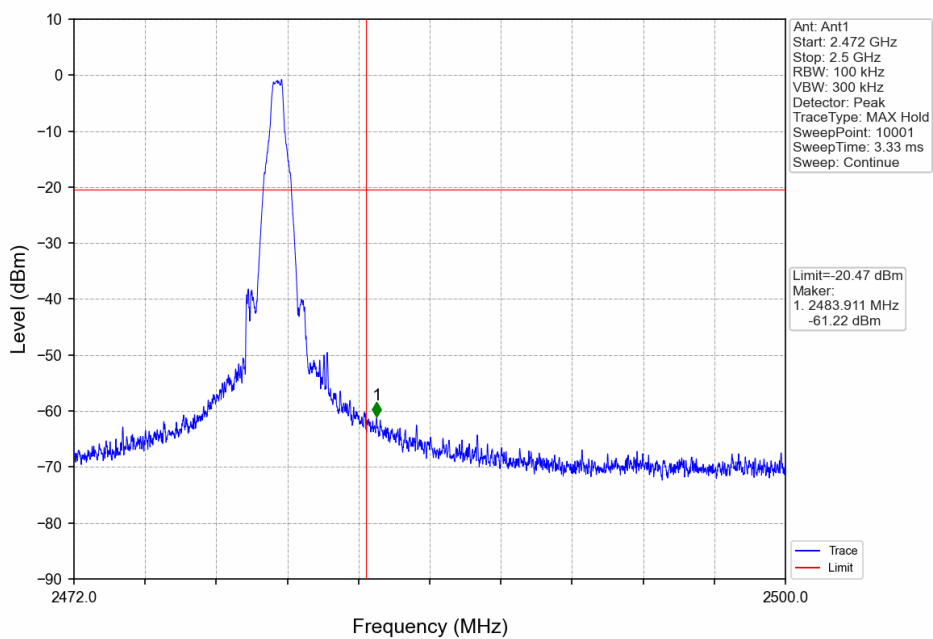
6.2.2 Test Graph



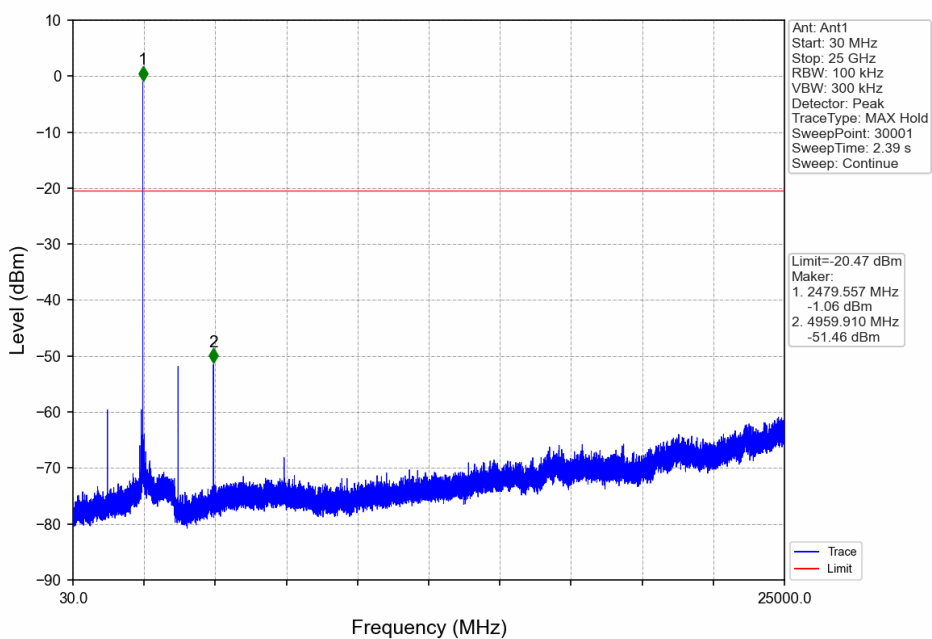
GFSK_DH5_MCH_2441MHz_Ant1_NTNV



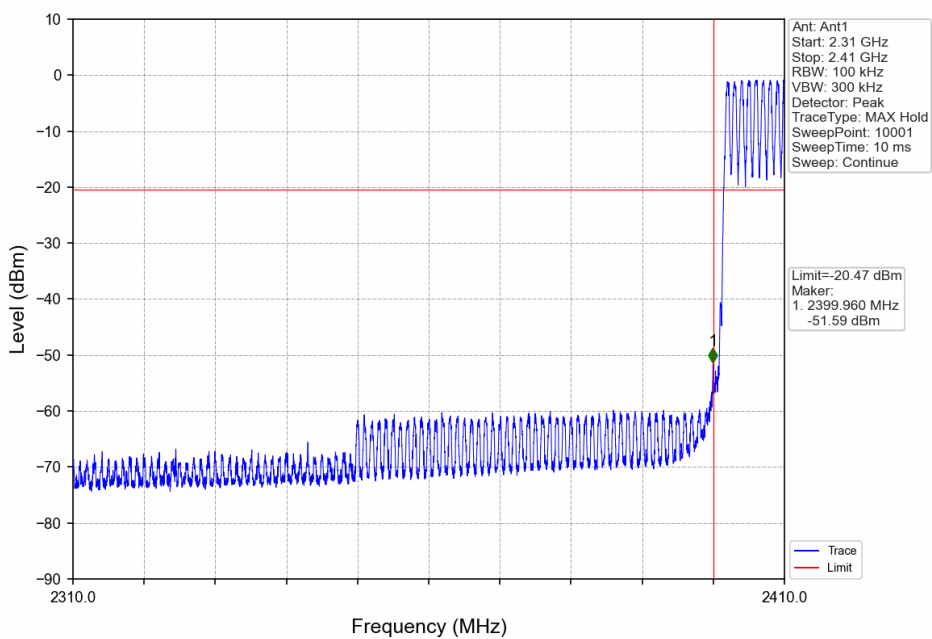
GFSK_DH5_HCH_2480MHz_Ant1_NTNV

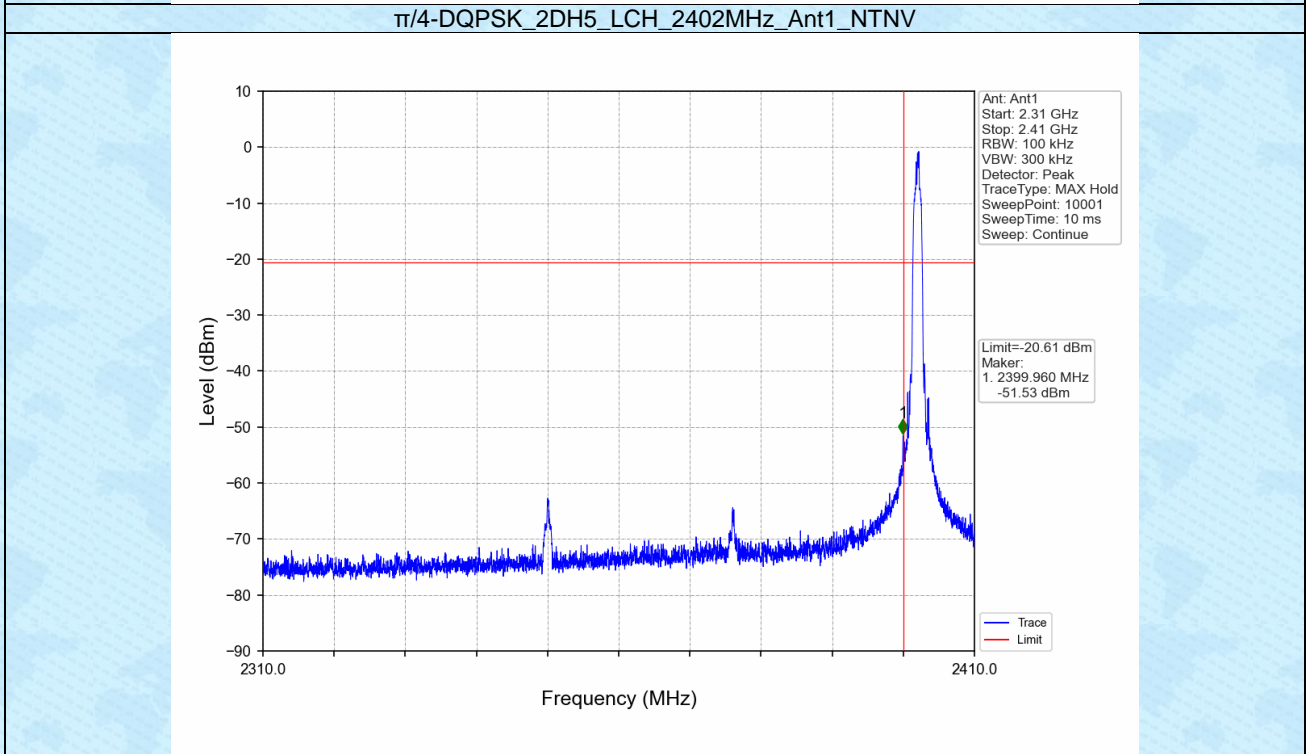
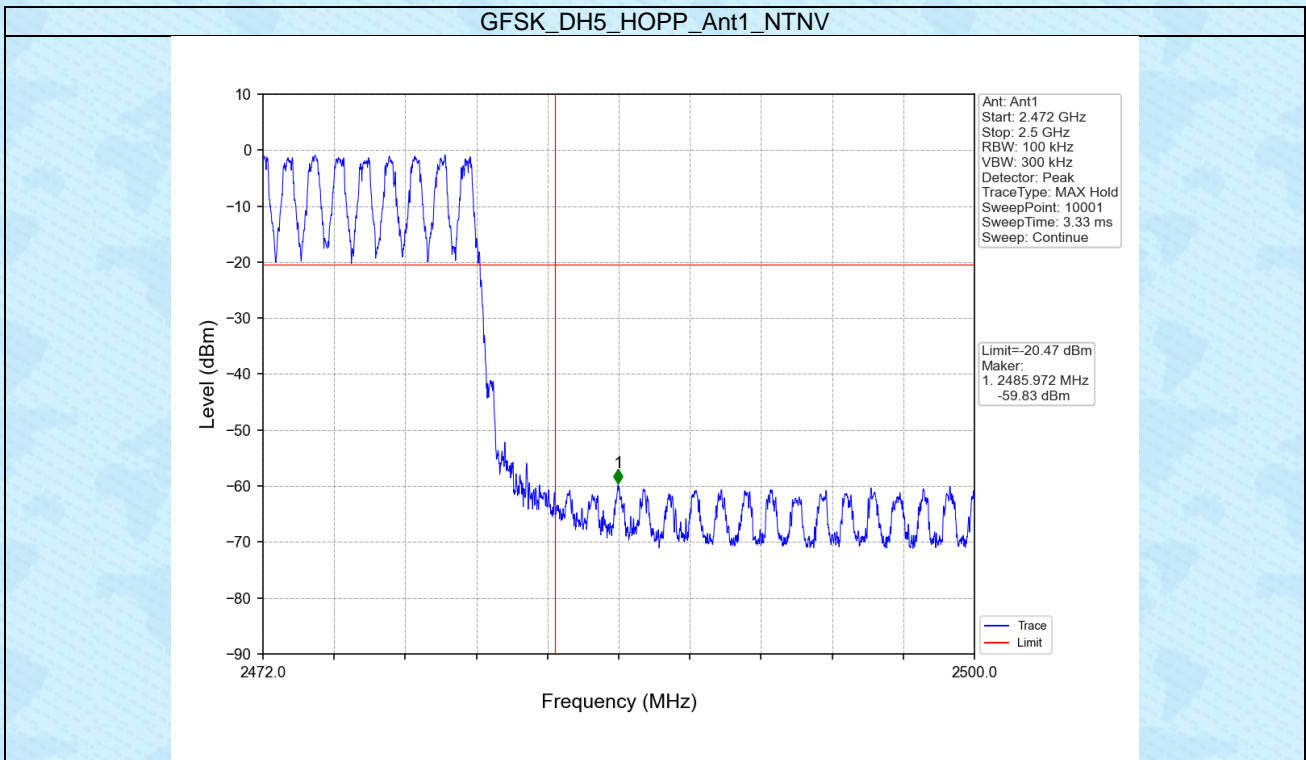


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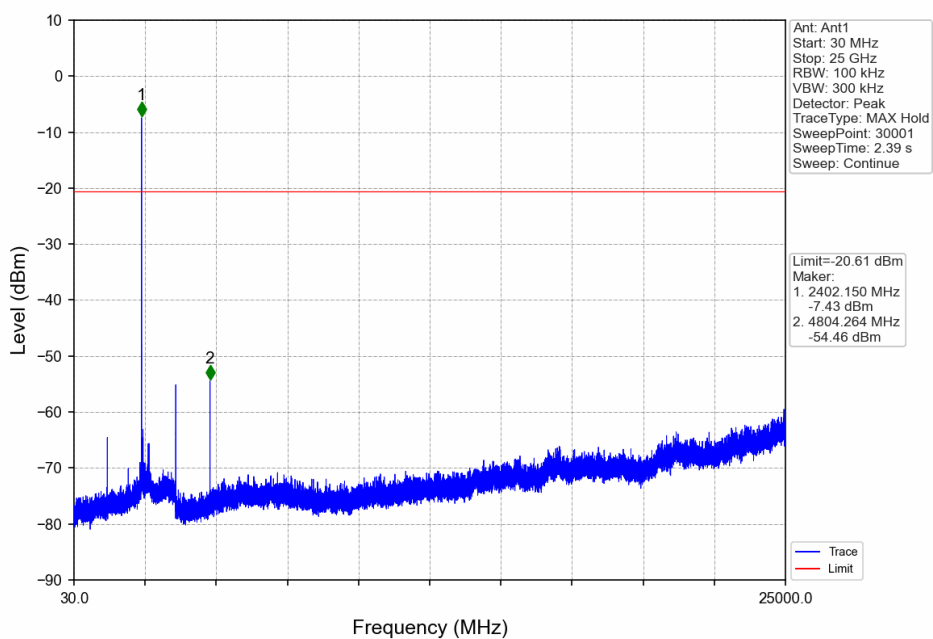


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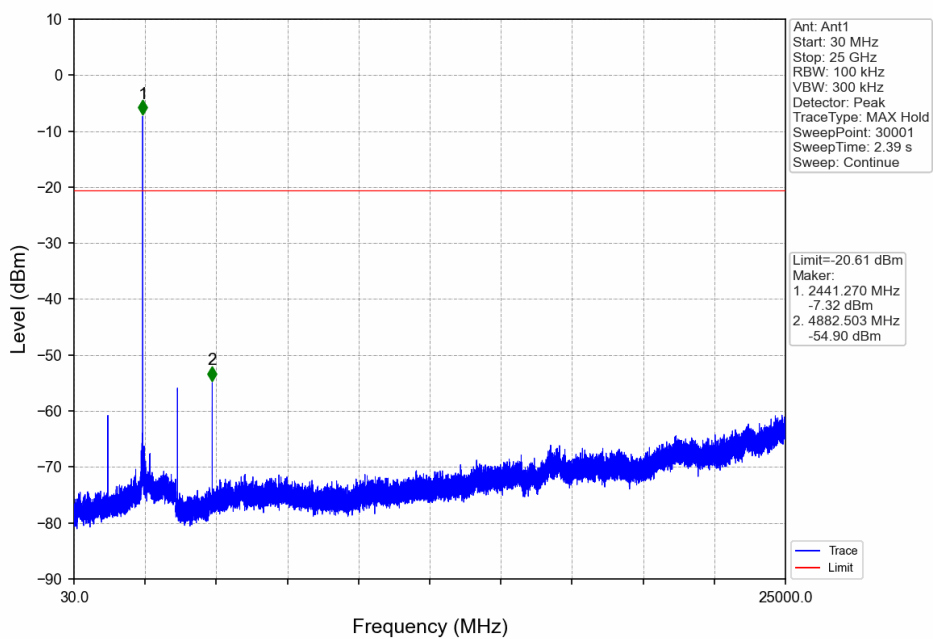


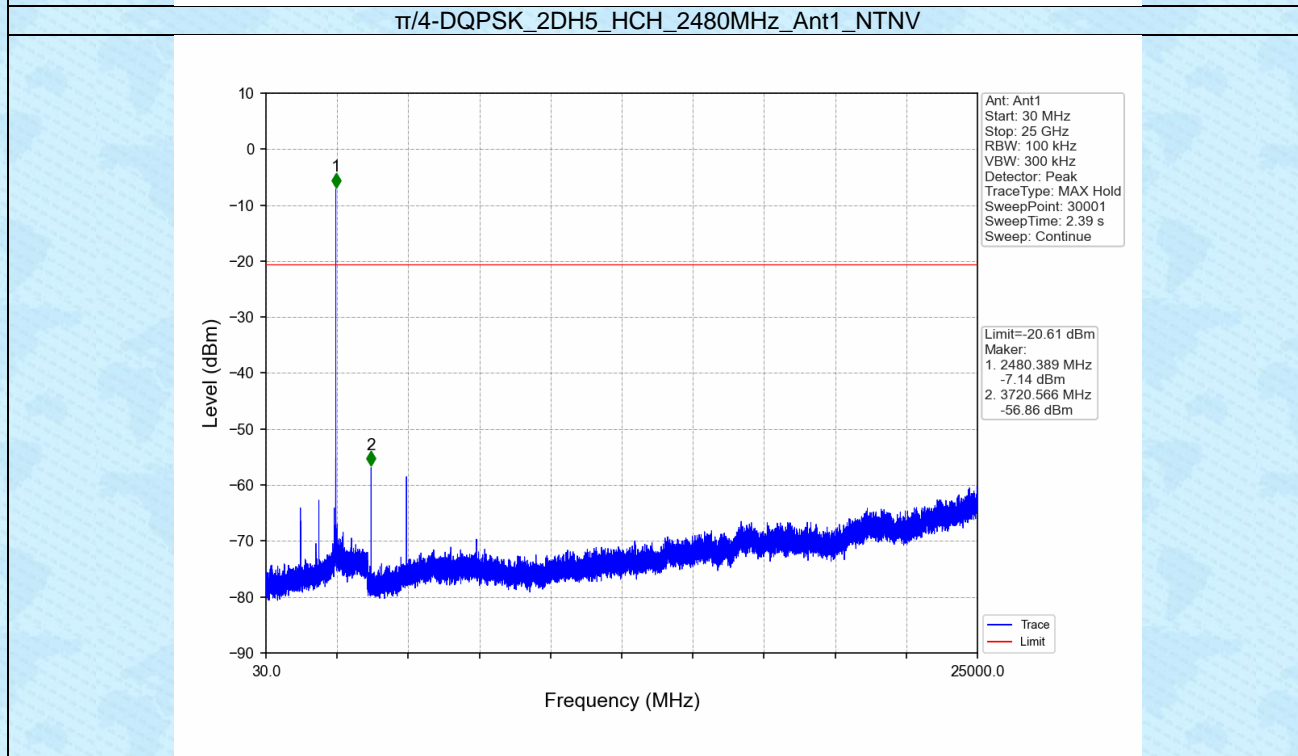
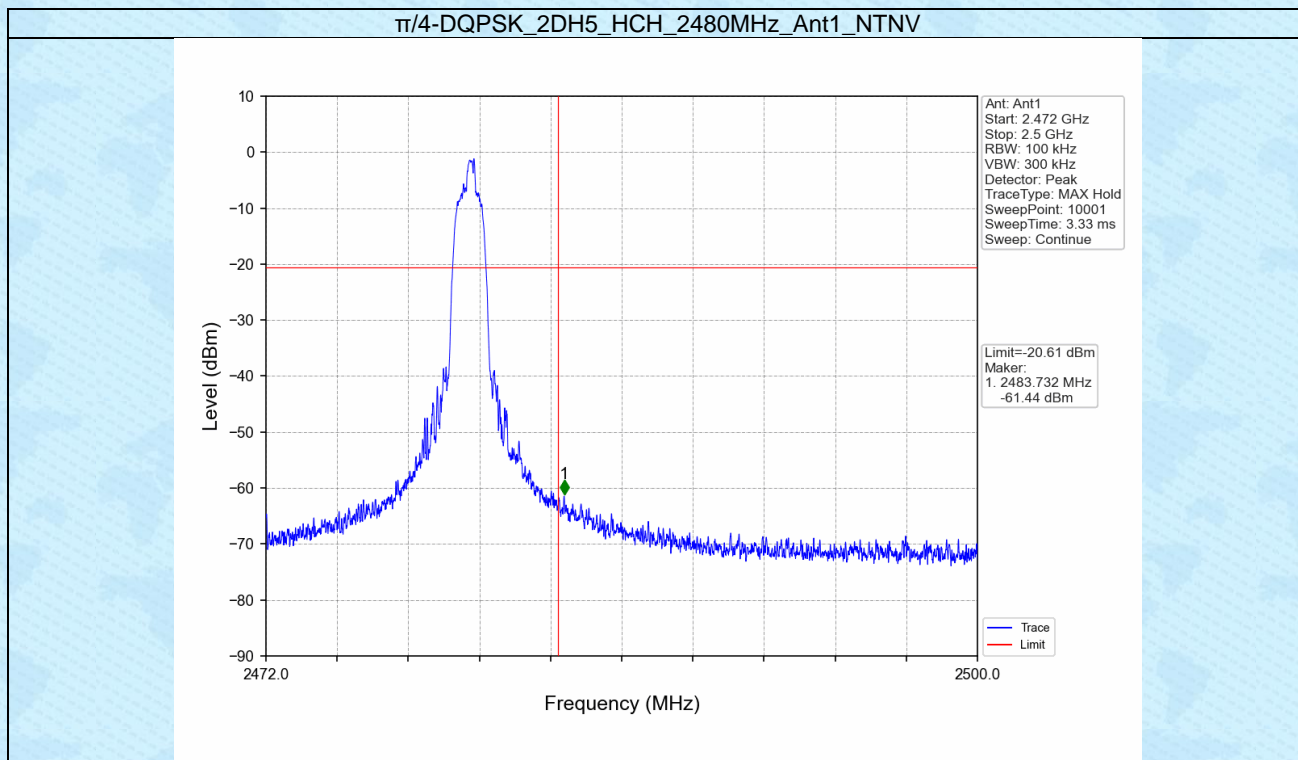


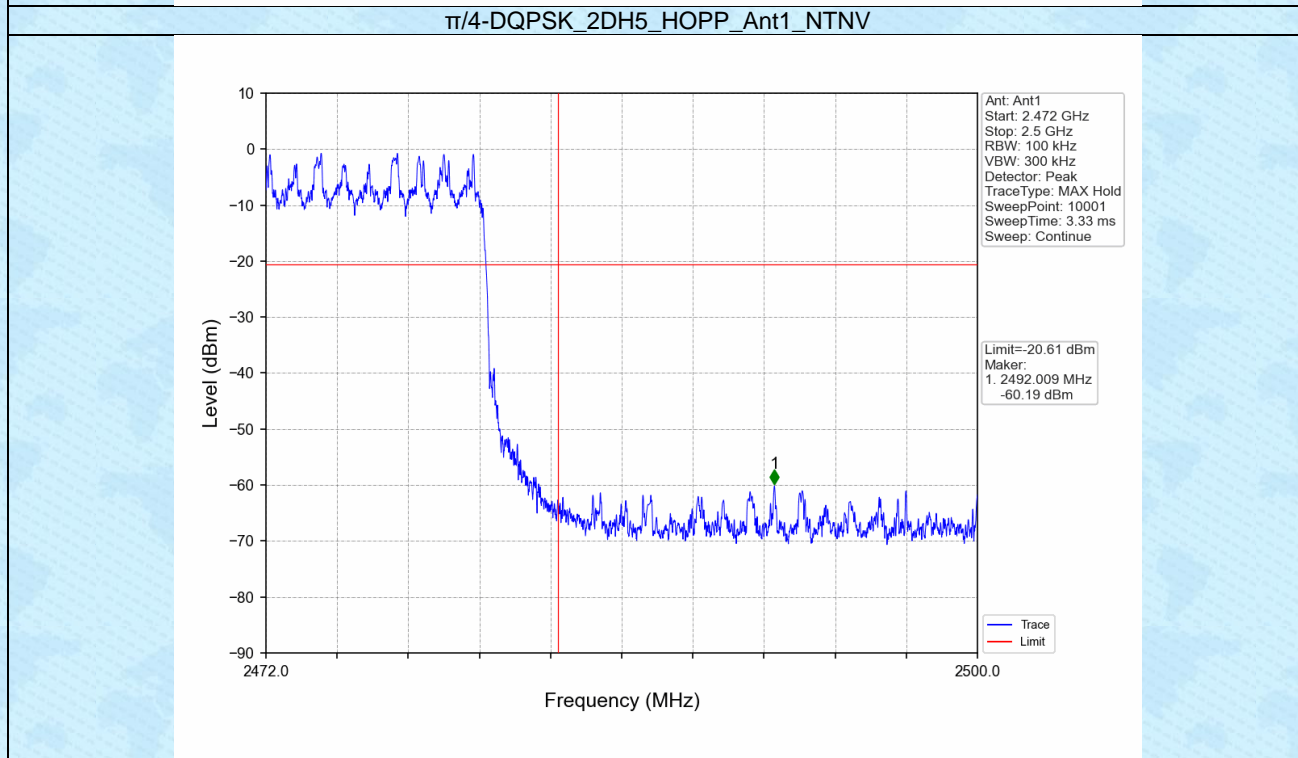
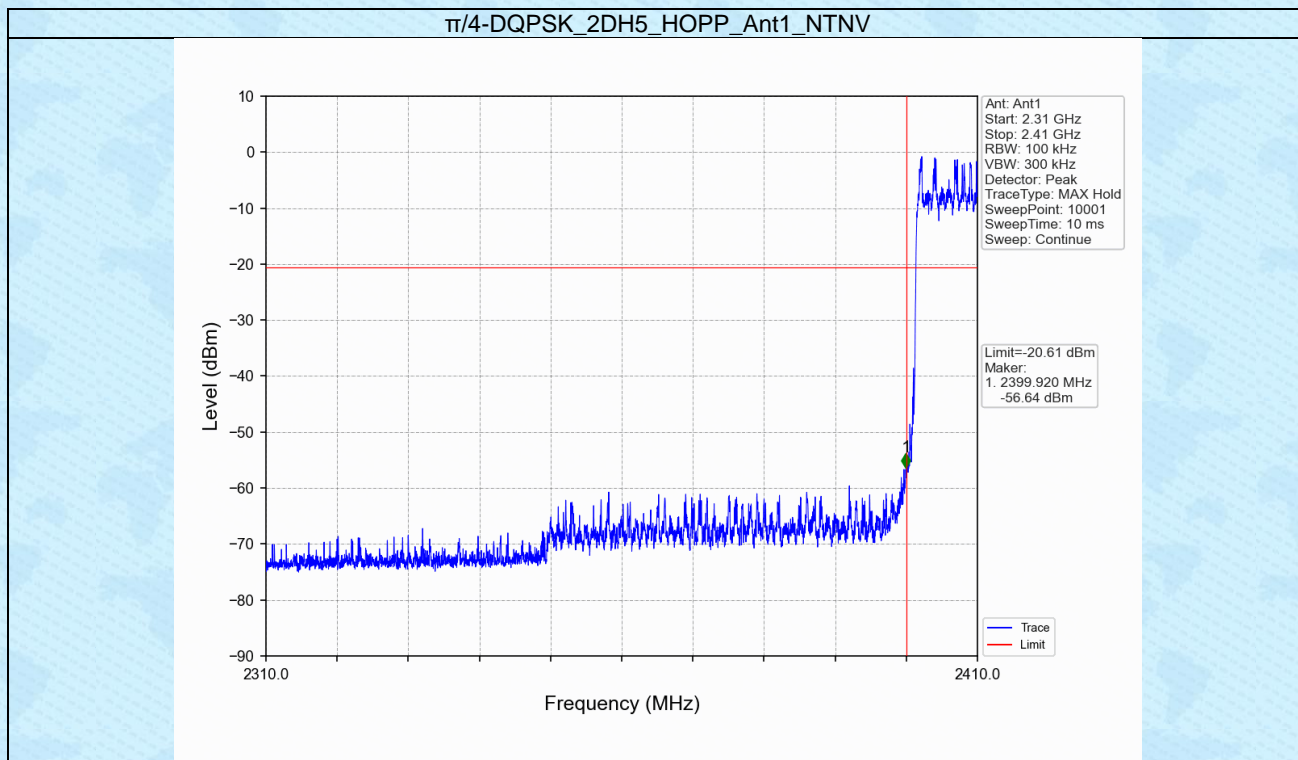
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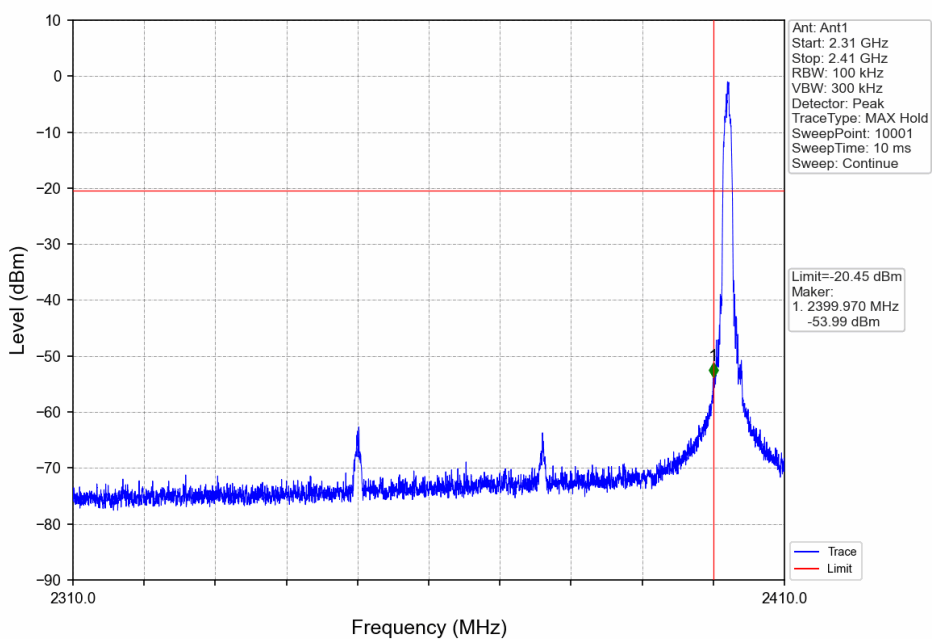
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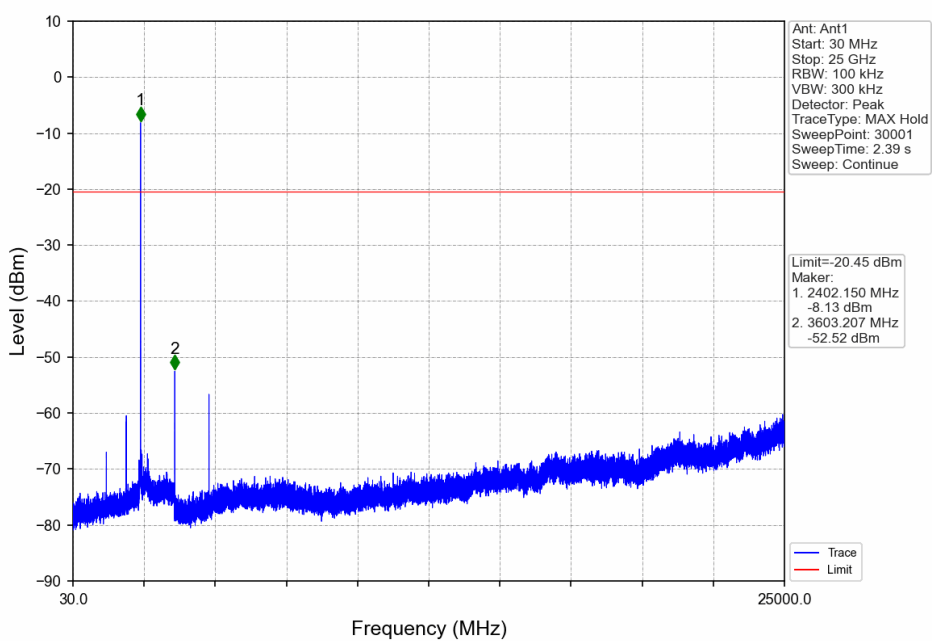




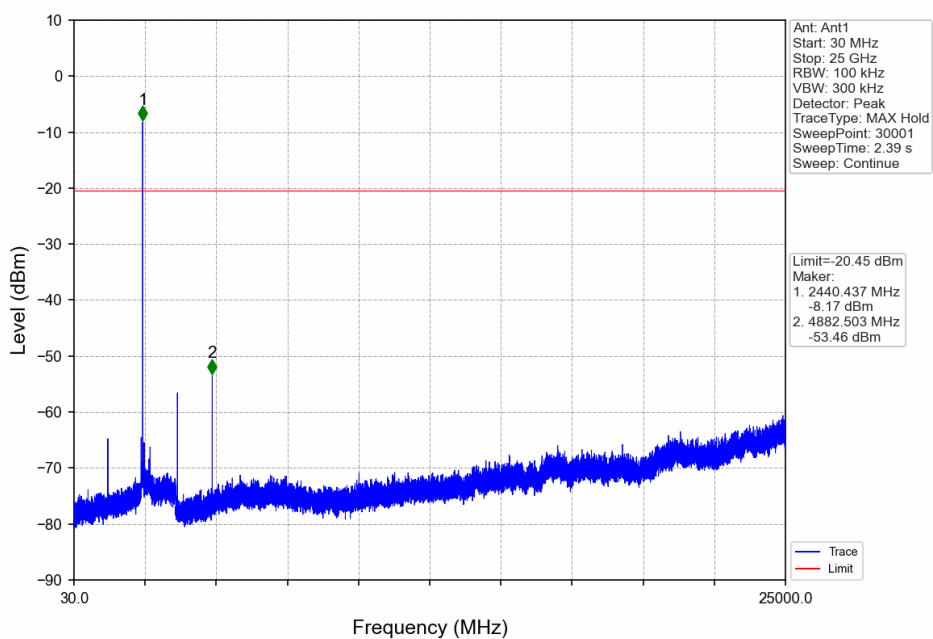
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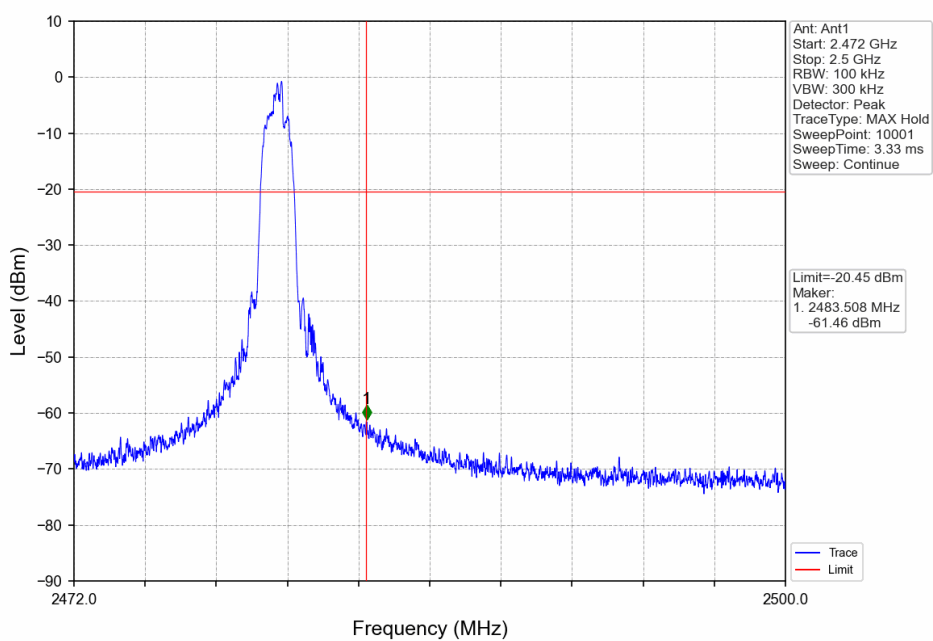
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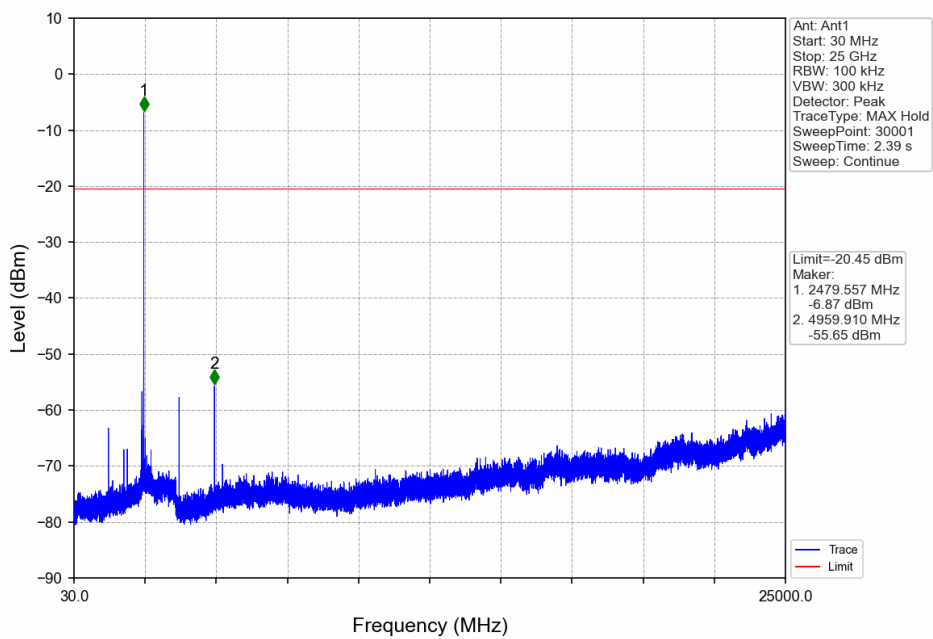
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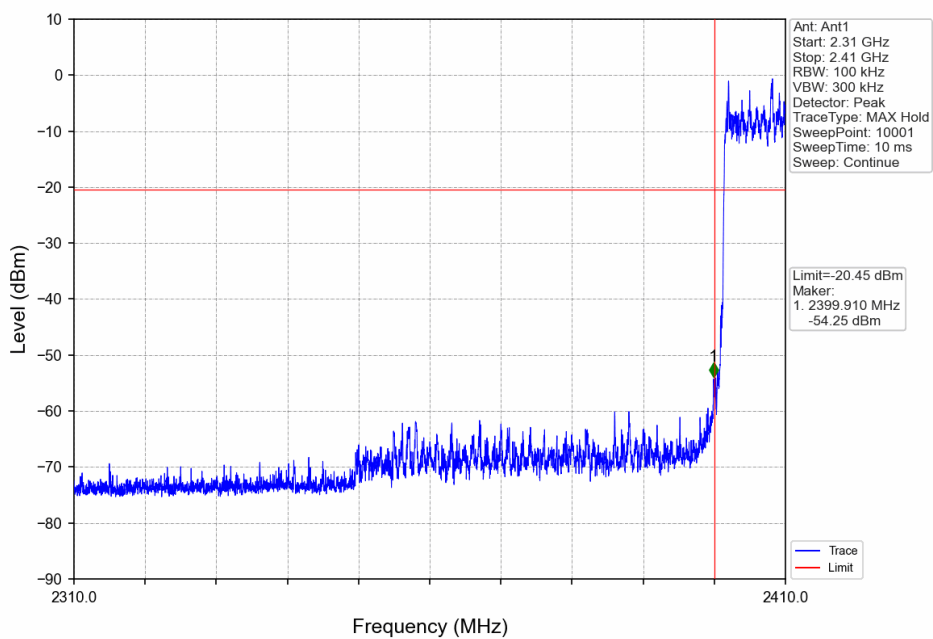
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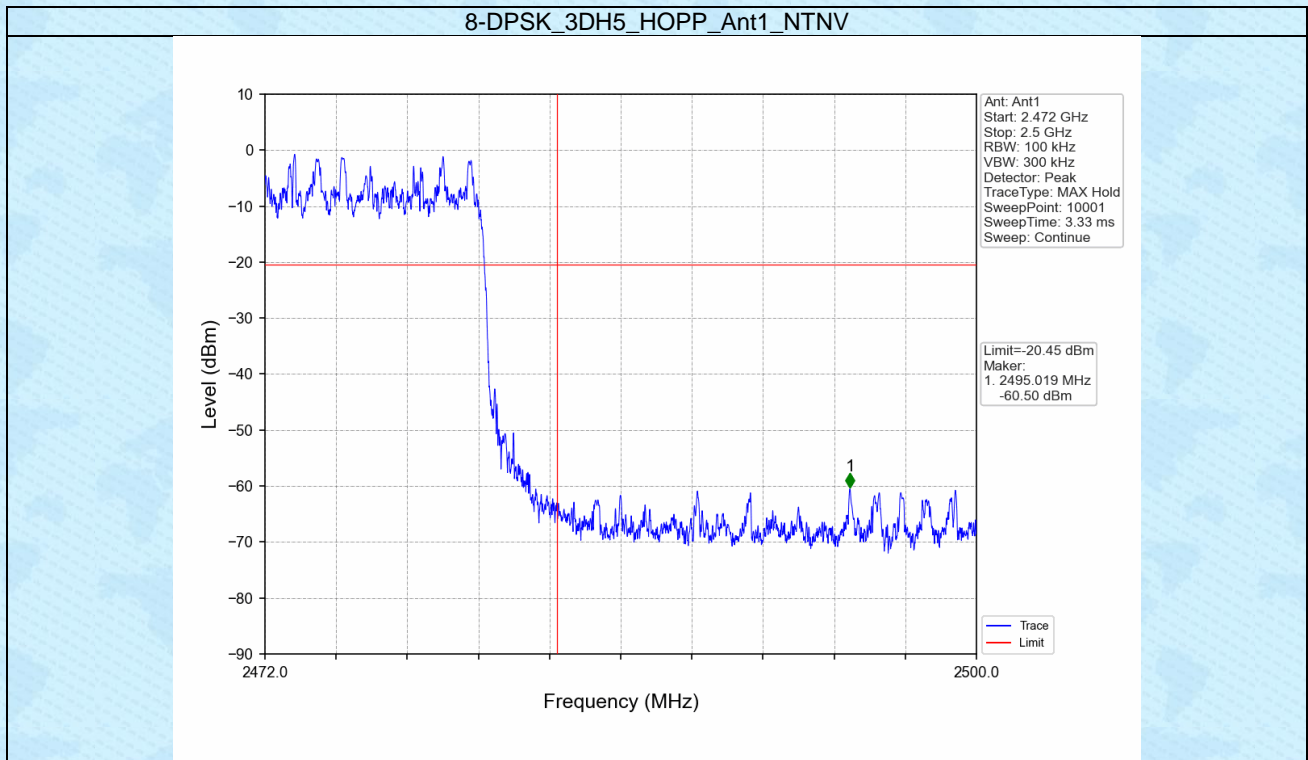


8-DPSK_3DH5_HCH_2480MHz_Ant1_NTNV



8-DPSK_3DH5_HOPP_Ant1_NTNV





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