

1. Bandwidth

1.1 Test Result

1.1.1 OBW

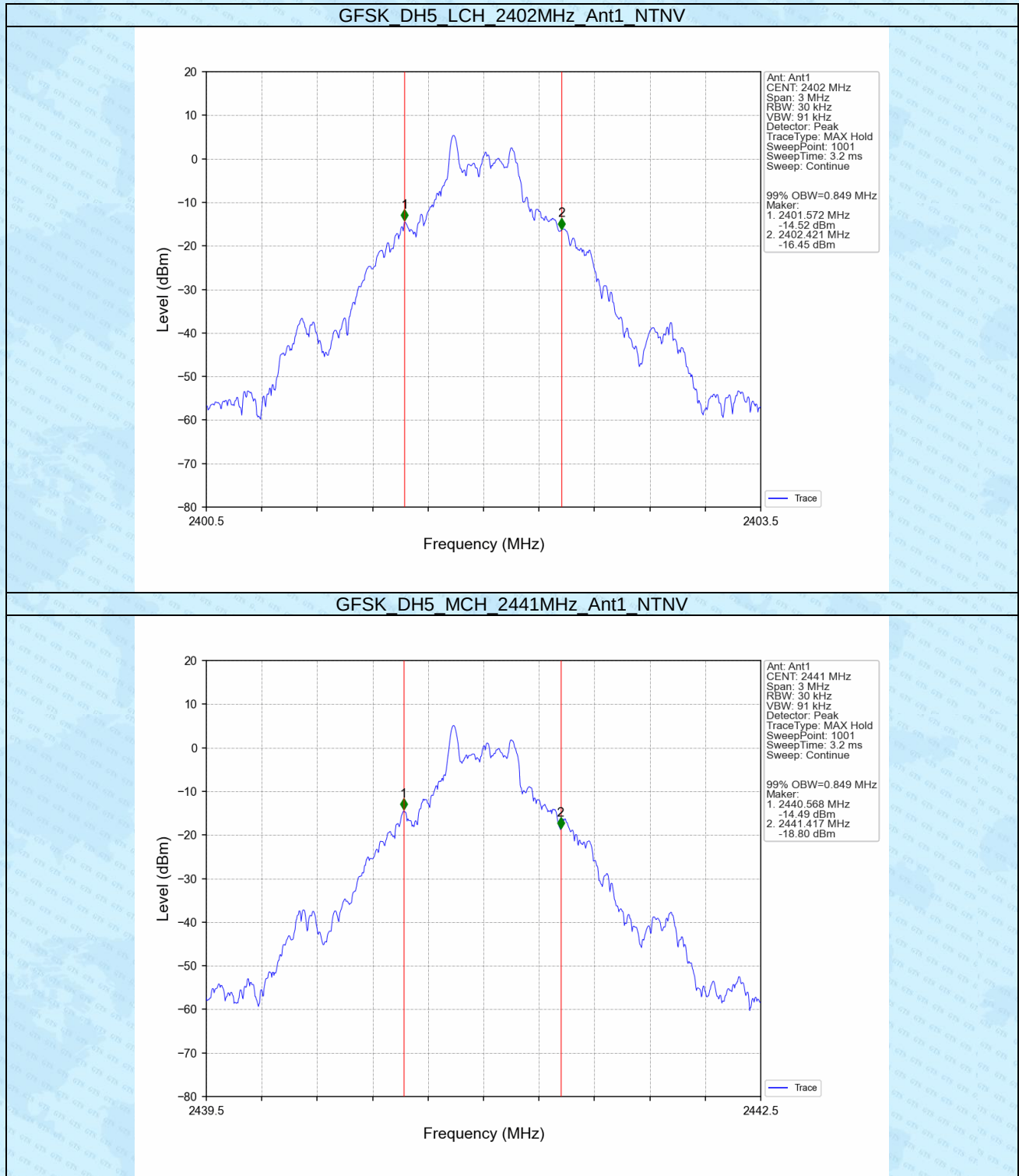
Mode	TX Type	Frequency (MHz)	Packet Type	ANT	99% Occupied Bandwidth (MHz)		Verdict
					Result	Limit	
GFSK	SISO	2402	DH5	1	0.849	/	Pass
		2441	DH5	1	0.849	/	Pass
		2480	DH5	1	0.841	/	Pass
$\pi/4$ -DQPSK	SISO	2402	2DH5	1	1.073	/	Pass
		2441	2DH5	1	1.083	/	Pass
		2480	2DH5	1	1.077	/	Pass
8-DPSK	SISO	2402	3DH5	1	1.077	/	Pass
		2441	3DH5	1	1.070	/	Pass
		2480	3DH5	1	1.073	/	Pass

1.1.2 20dB BW

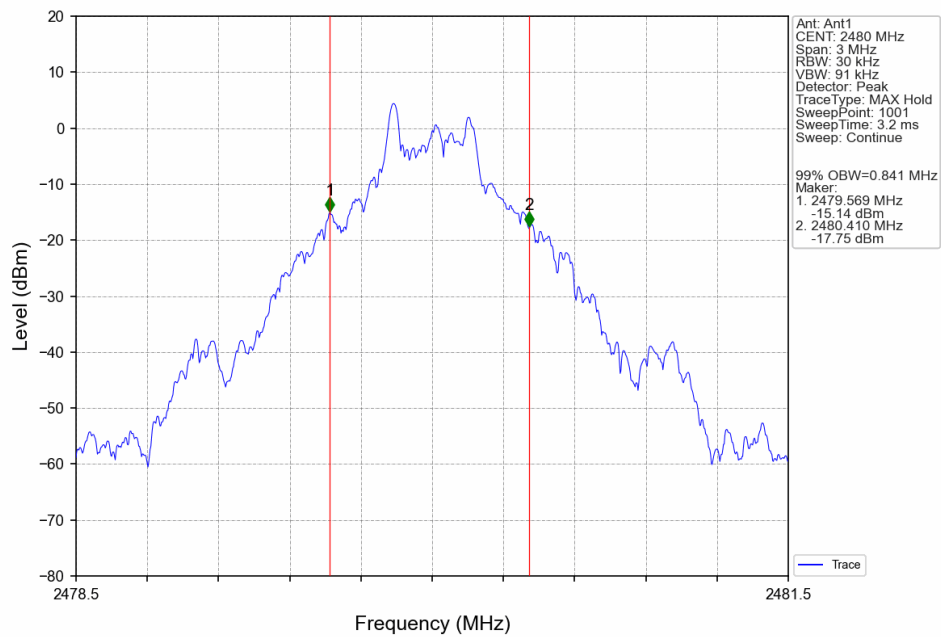
Mode	TX Type	Frequency (MHz)	Packet Type	ANT	20dB Bandwidth (MHz)		Verdict
					Result	Limit	
GFSK	SISO	2402	DH5	1	0.818	/	Pass
		2441	DH5	1	0.833	/	Pass
		2480	DH5	1	0.742	/	Pass
$\pi/4$ -DQPSK	SISO	2402	2DH5	1	1.174	/	Pass
		2441	2DH5	1	1.152	/	Pass
		2480	2DH5	1	1.146	/	Pass
8-DPSK	SISO	2402	3DH5	1	1.162	/	Pass
		2441	3DH5	1	1.160	/	Pass
		2480	3DH5	1	1.160	/	Pass

1.2 Test Graph

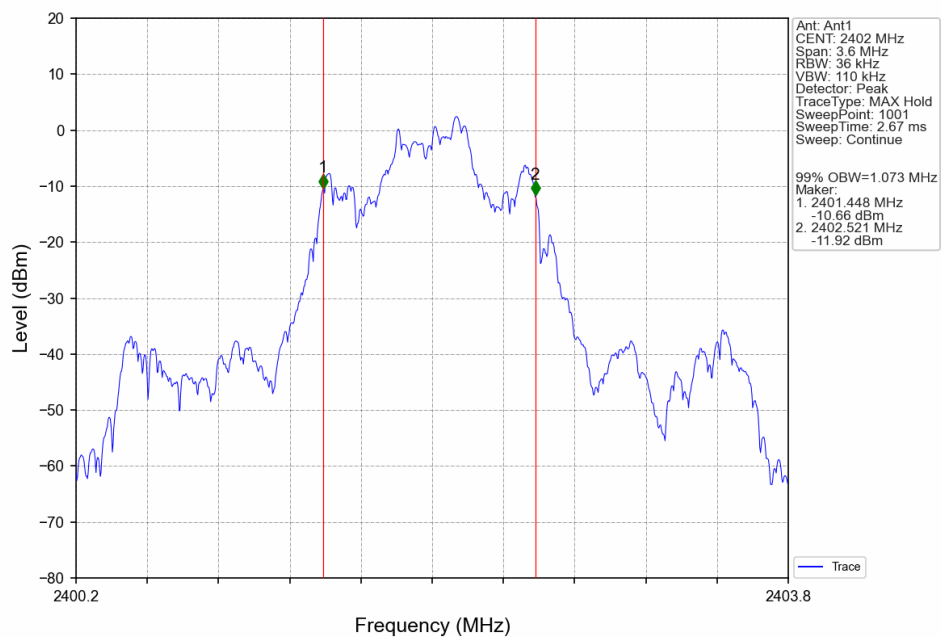
1.2.1 OBW



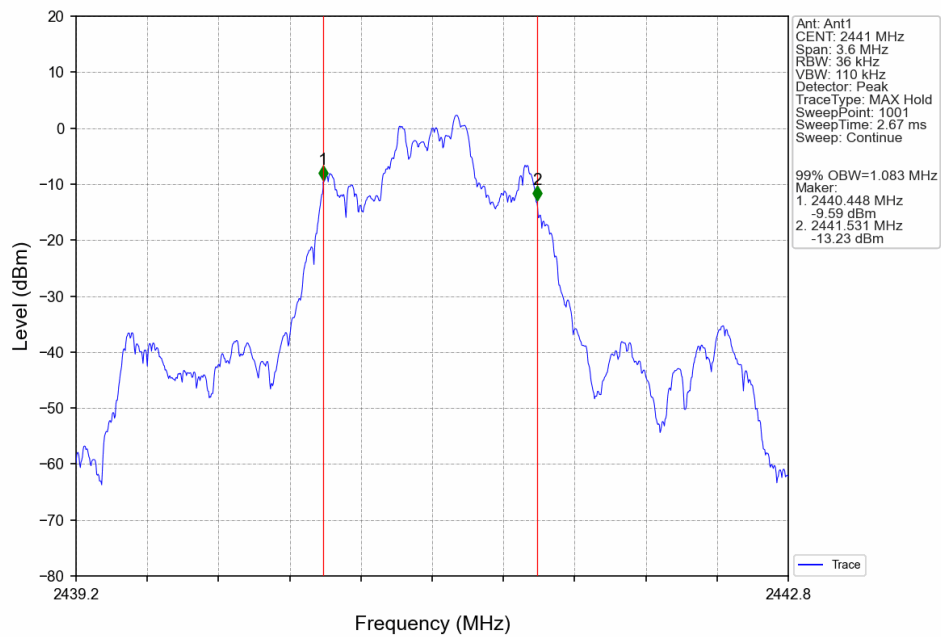
GFSK DH5 HCH 2480MHz Ant1_NTNV



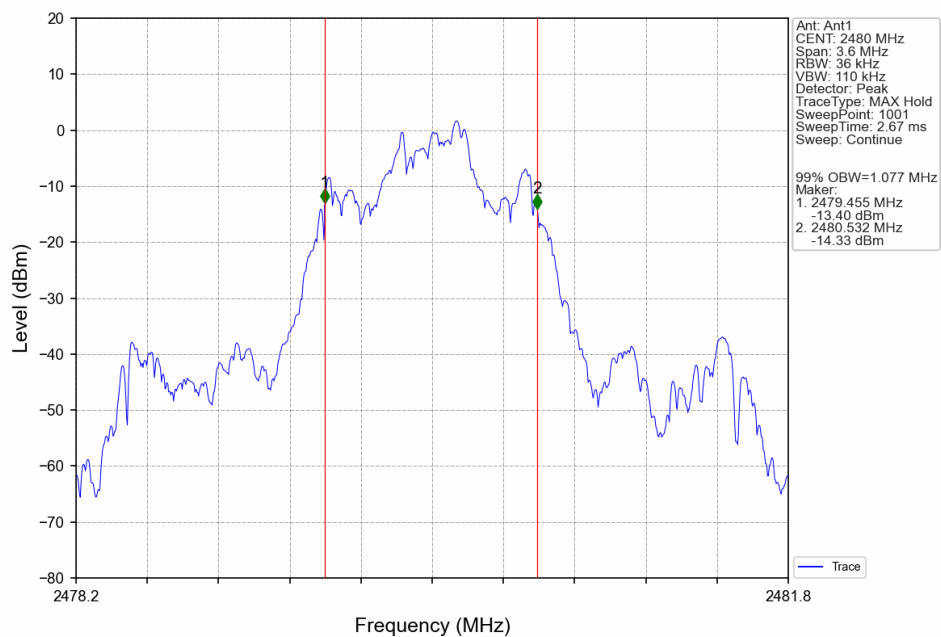
$\pi/4$ -DQPSK 2DH5 LCH 2402MHz Ant1_NTNV



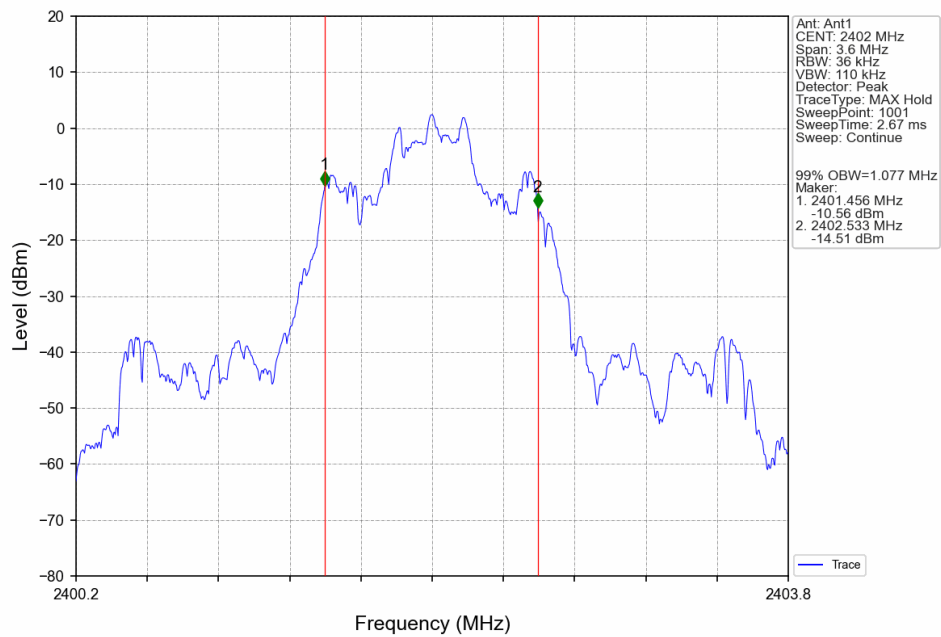
$\pi/4$ -DQPSK_2DH5_MCH_2441MHz_Ant1_NTNV



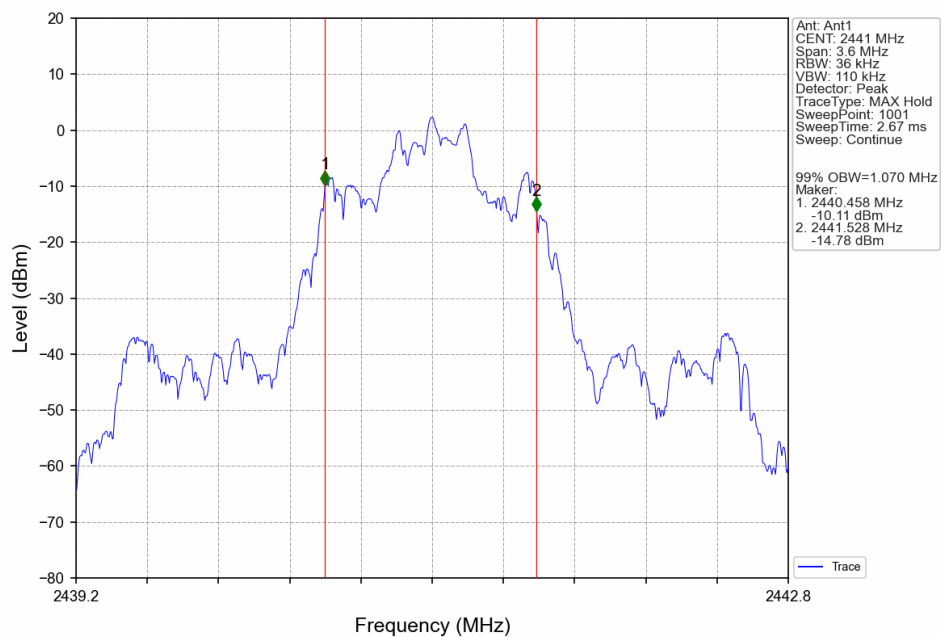
$\pi/4$ -DQPSK_2DH5_HCH_2480MHz_Ant1_NTNV

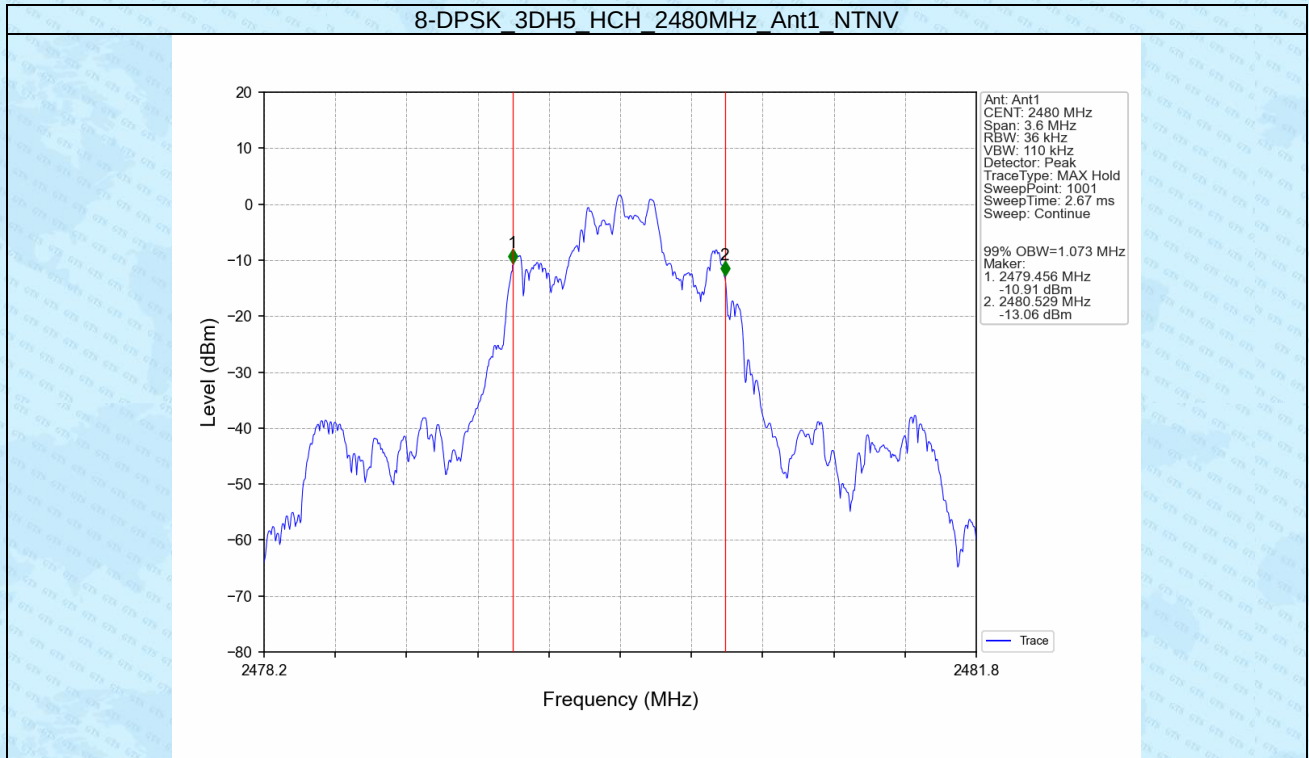


8-DPSK 3DH5 LCH 2402MHz Ant1 NTN

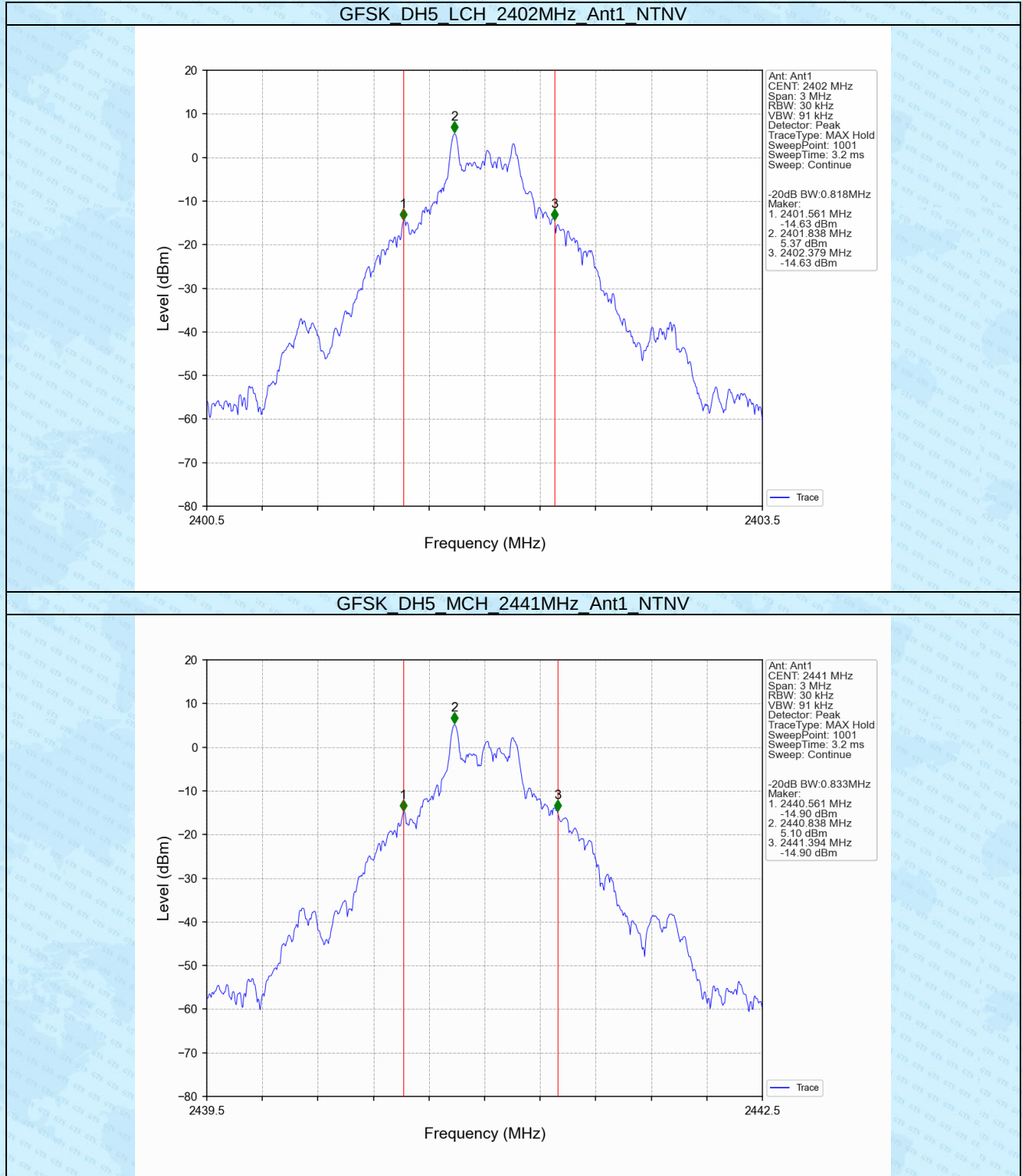


8-DPSK 3DH5 MCH 2441MHz Ant1 NTN

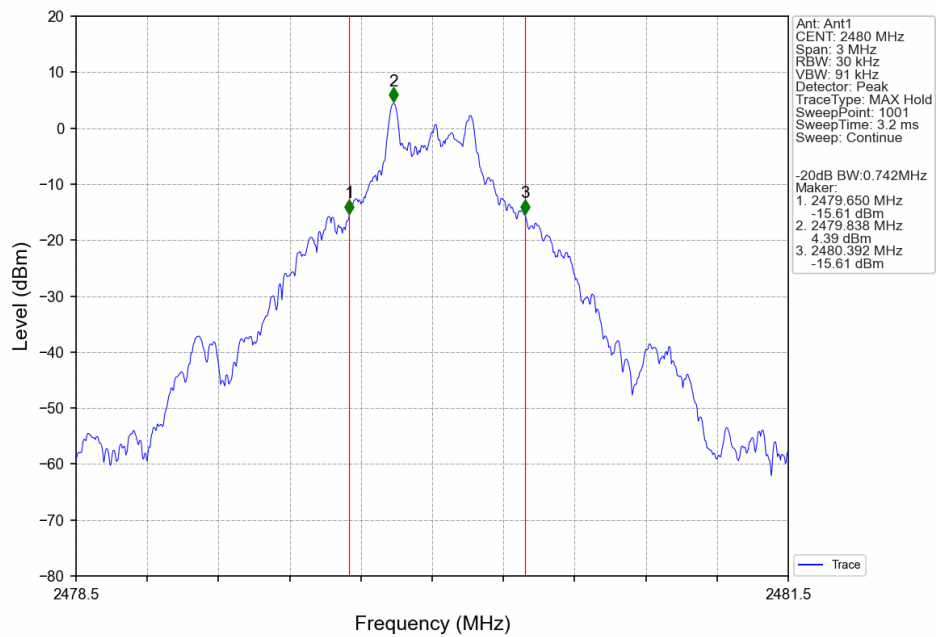
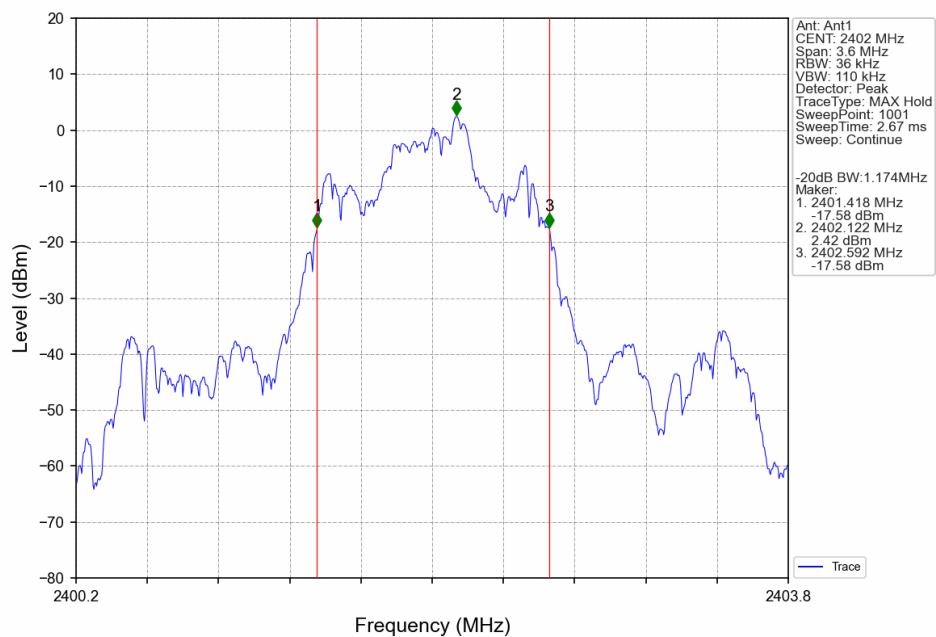




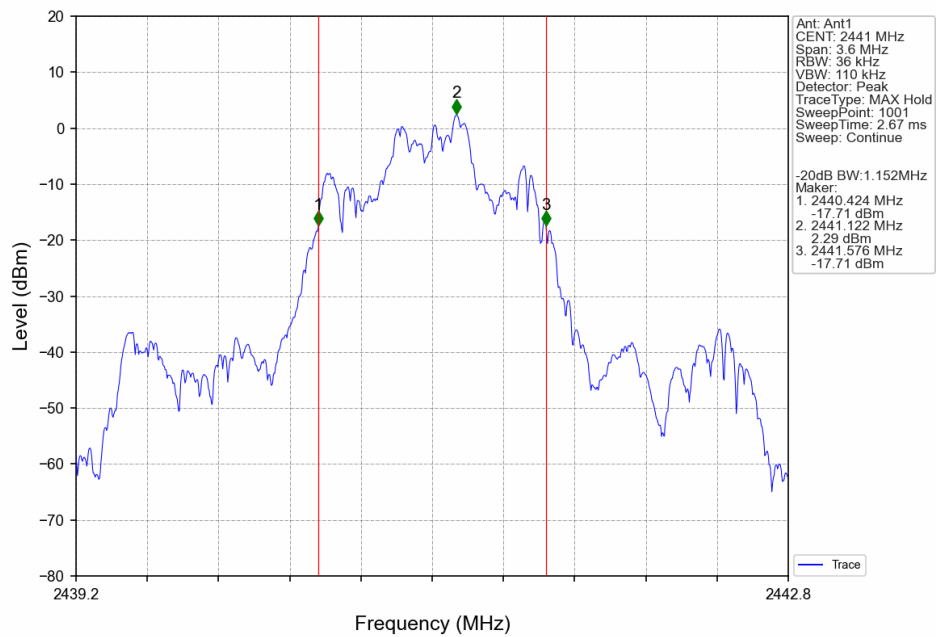
1.2.2 20dB BW



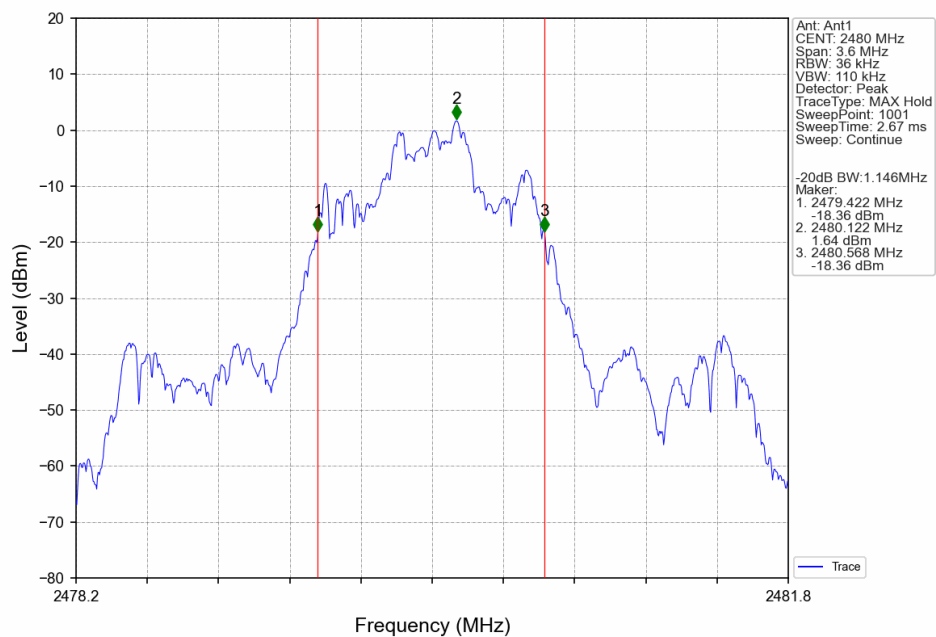
GFSK DH5 HCH 2480MHz Ant1_NTNV

 $\pi/4$ -DQPSK 2DH5 LCH 2402MHz Ant1_NTNV

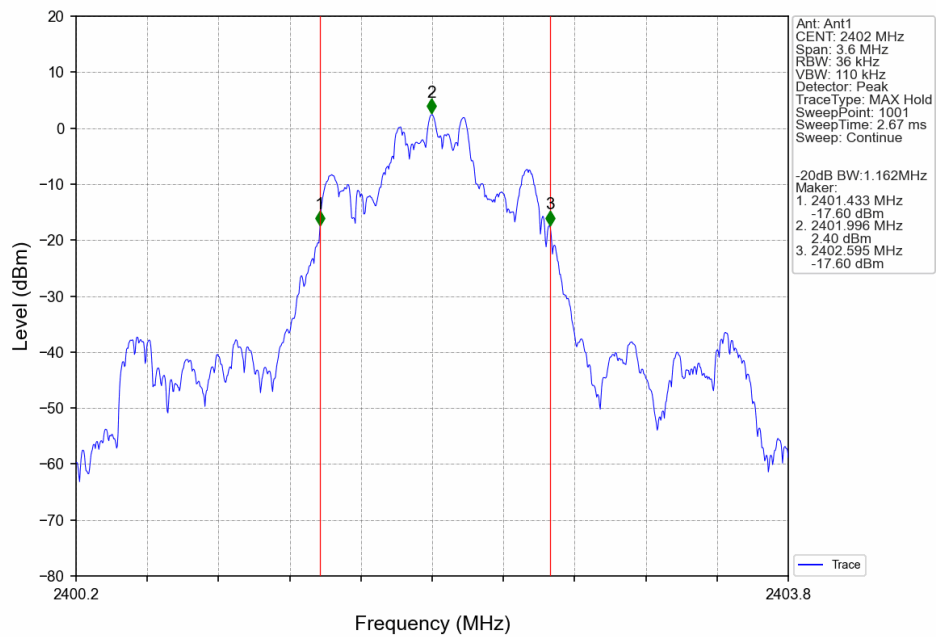
$\pi/4$ -DQPSK_2DH5_MCH_2441MHz_Ant1_NTNV



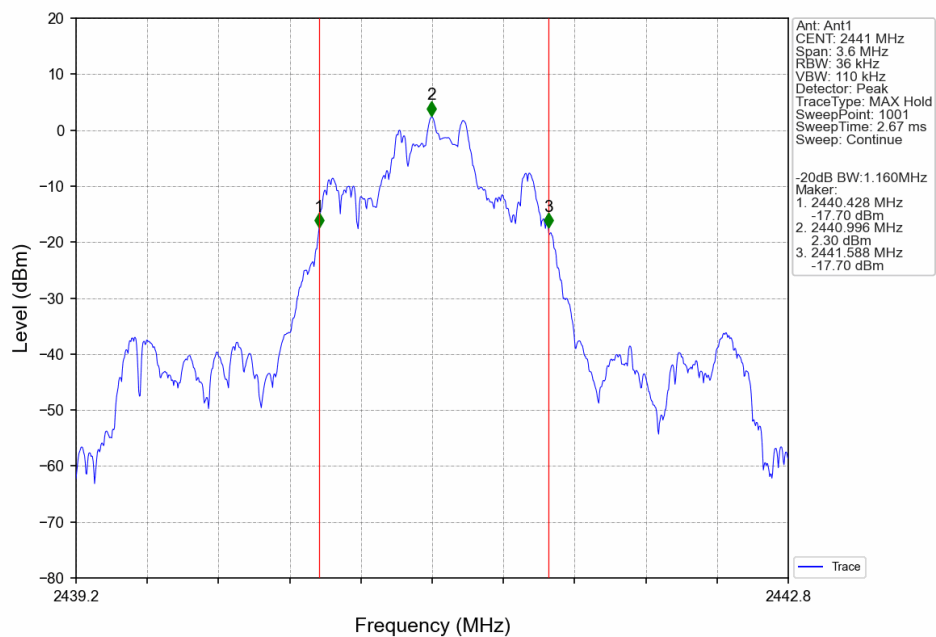
Pi/4DQPSK_2DH5_HCH_2480MHz_Ant1_NTNV



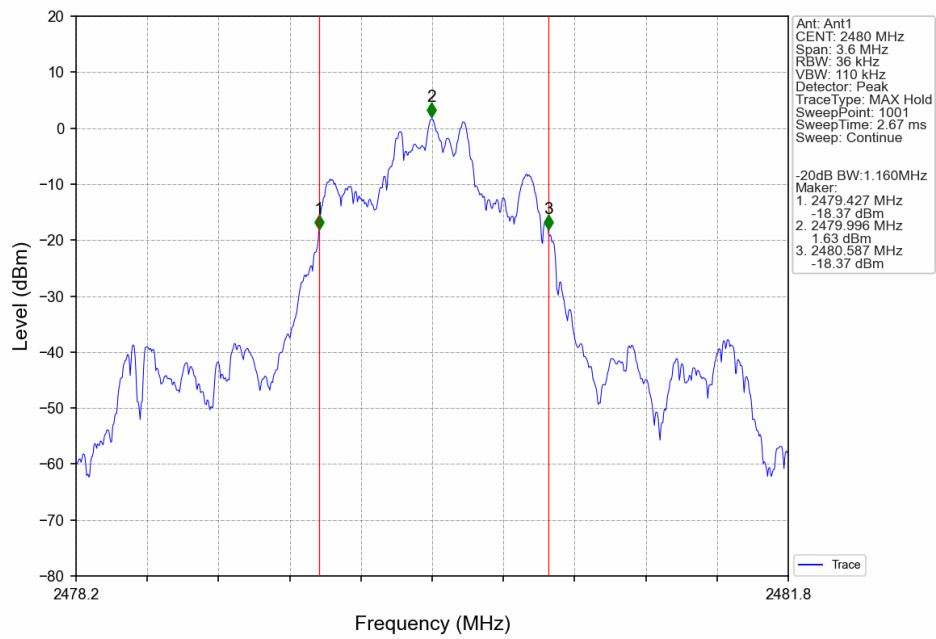
8-DPSK 3DH5 LCH 2402MHz Ant1 NTN



8-DPSK 3DH5 MCH 2441MHz Ant1 NTN



8-DPSK_3DH5_HCH_2480MHz_Ant1_NTNV



2. Maximum Conducted Output Power

2.1 Test Result

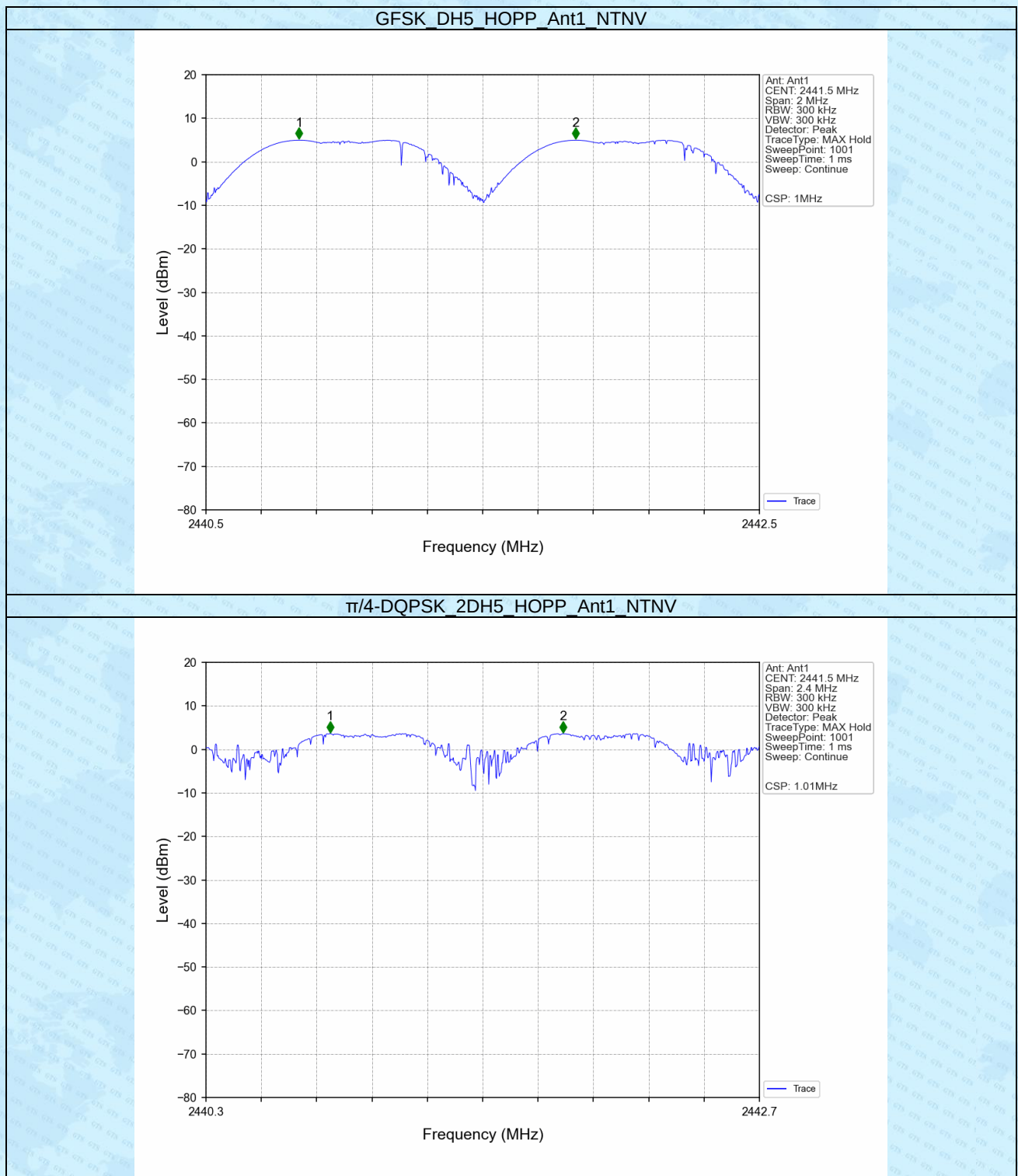
Mode	TX Type	Frequency (MHz)	Packet Type	Maximum Peak Conducted Output Power (dBm)		Verdict
				ANT1	Limit	
GFSK	SISO	2402	DH5	4.66	<=30	Pass
		2441	DH5	4.58	<=30	Pass
		2480	DH5	4.52	<=30	Pass
$\pi/4$ -DQPSK	SISO	2402	2DH5	3.97	<=20.97	Pass
		2441	2DH5	3.77	<=20.97	Pass
		2480	2DH5	3.11	<=20.97	Pass
8-DPSK	SISO	2402	3DH5	3.94	<=20.97	Pass
		2441	3DH5	3.77	<=20.97	Pass
		2480	3DH5	3.11	<=20.97	Pass

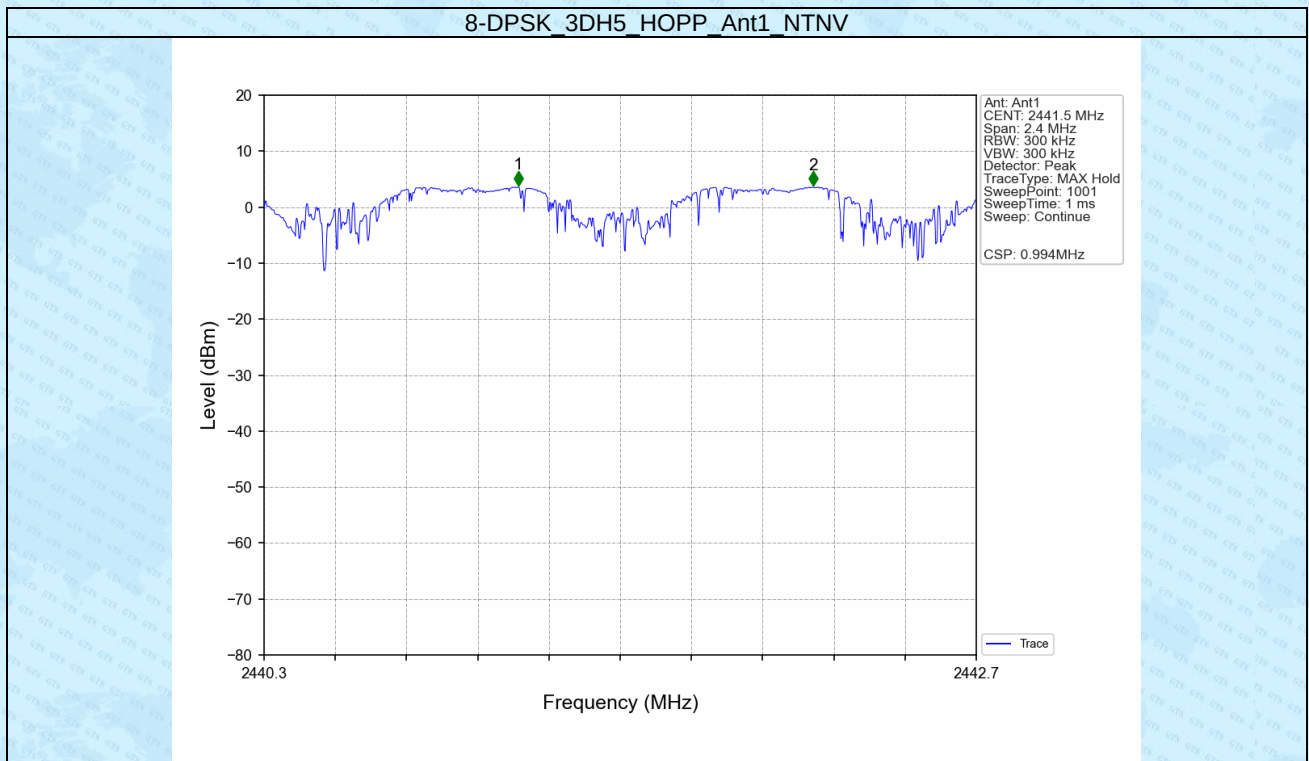
3. Carrier Frequency Separation

3.1 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	0.833	≥ 0.833	Pass
$\pi/4$ -DQPSK	SISO	HOPP	2DH5	1.010	1.174	≥ 0.783	Pass
8-DPSK	SISO	HOPP	3DH5	0.994	1.162	≥ 0.775	Pass

3.2 Test Graph



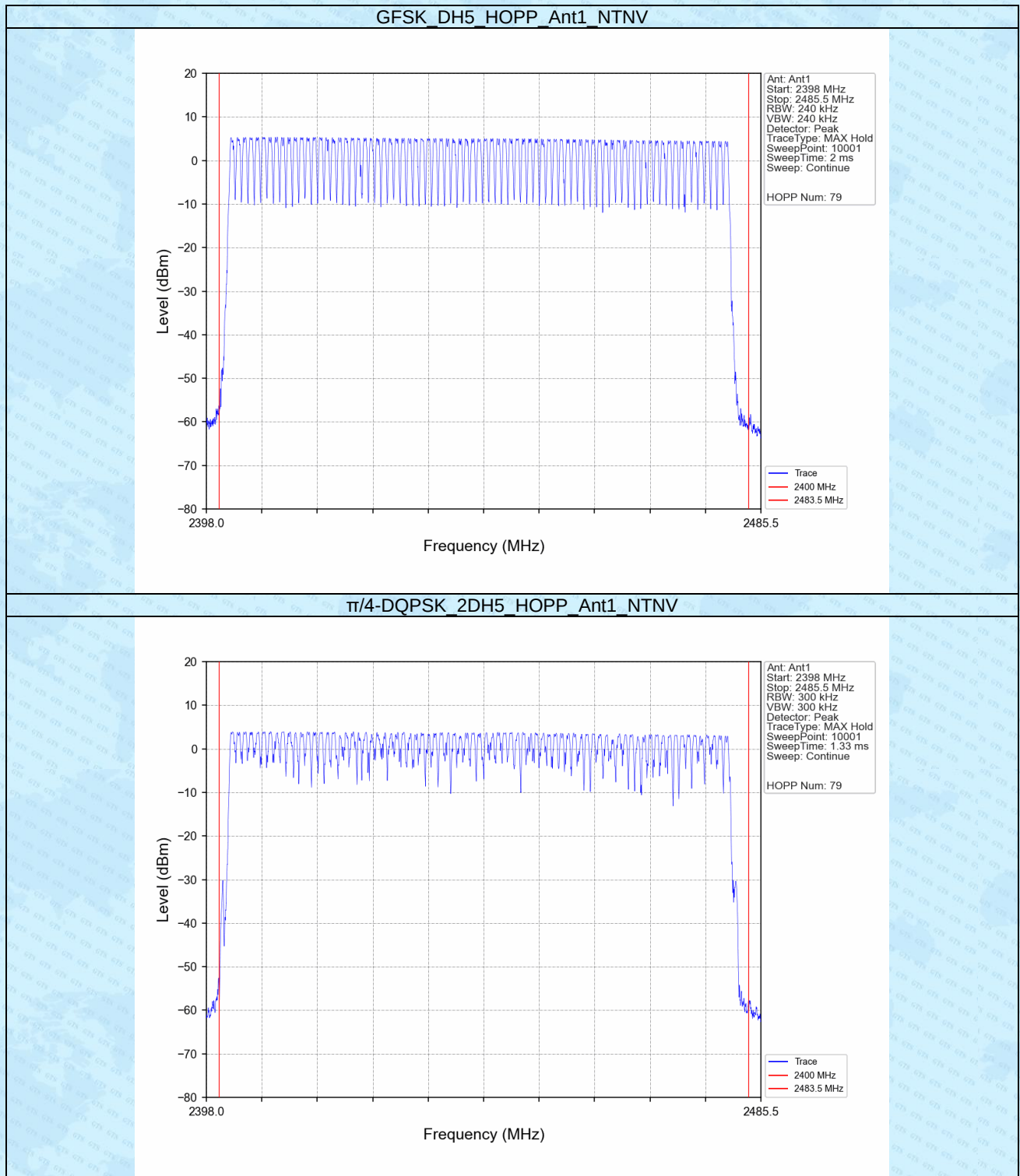


4. Number of Hopping Frequencies

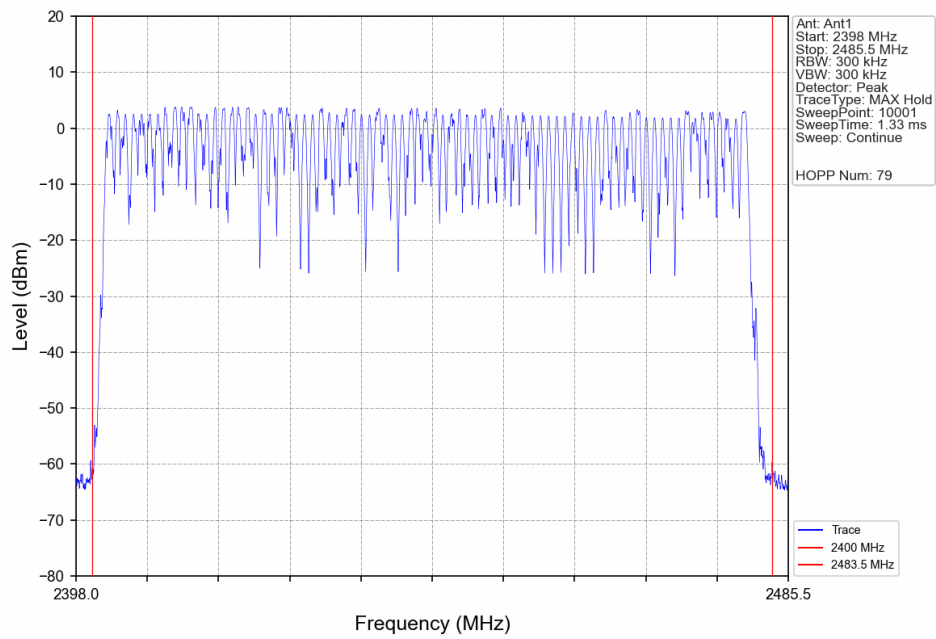
4.1 Test Result

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

4.2 Test Graph



8-DPSK 3DH5 HOPP_Ant1 NTN

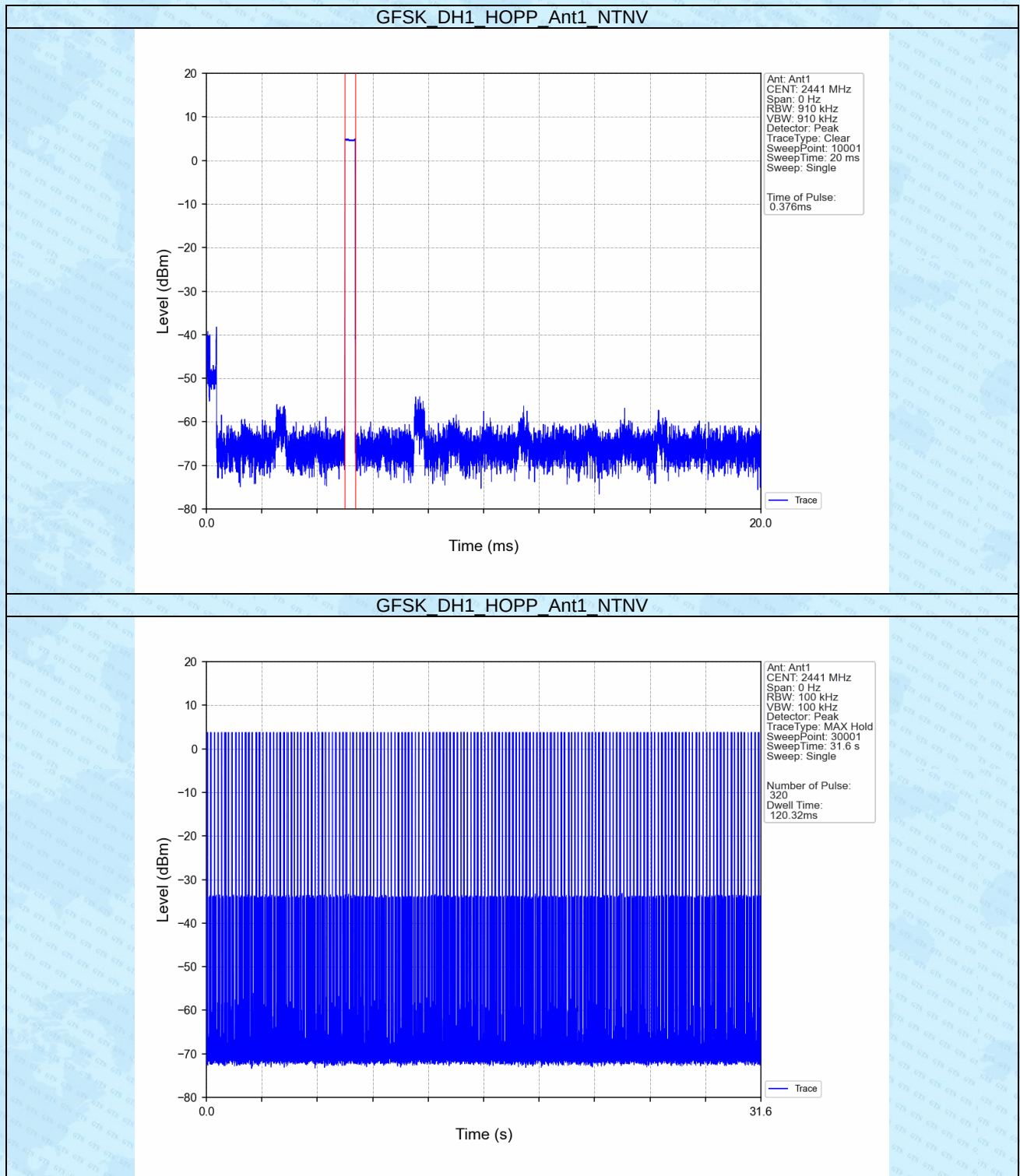


5. Time of Occupancy (Dwell Time)

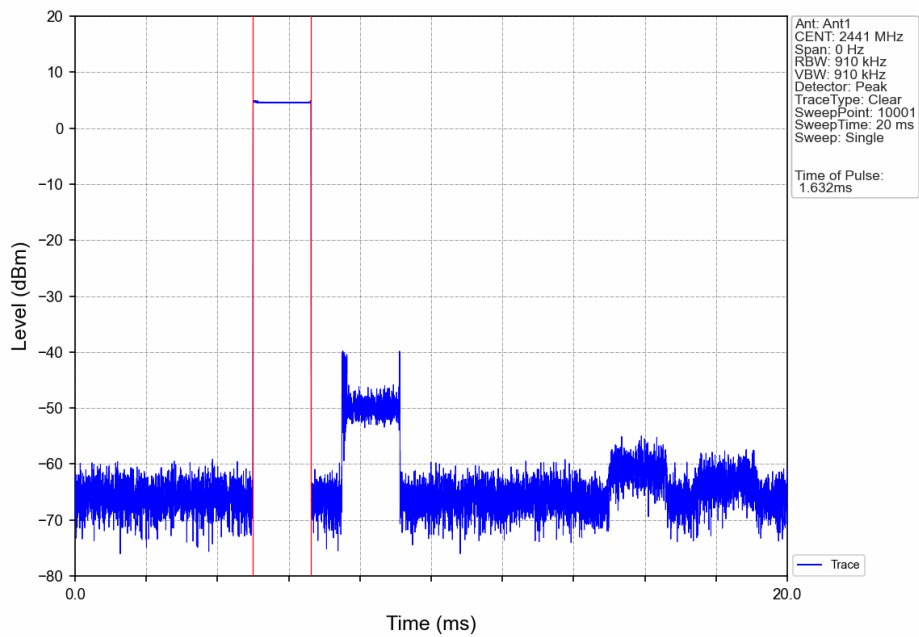
5.1 Test Result

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	0.376	31.600	320	120.320	<=400	Pass
			DH3	1.632	31.600	159	259.488	<=400	Pass
			DH5	2.888	31.600	101	291.688	<=400	Pass
$\pi/4$ -DQPSK	SISO	HOPP	2DH1	0.386	31.600	320	123.520	<=400	Pass
			2DH3	1.634	31.600	162	264.708	<=400	Pass
			2DH5	2.892	31.600	101	292.092	<=400	Pass
8-DPSK	SISO	HOPP	3DH1	0.384	31.600	320	122.880	<=400	Pass
			3DH3	1.632	31.600	160	261.120	<=400	Pass
			3DH5	2.884	31.600	105	302.820	<=400	Pass

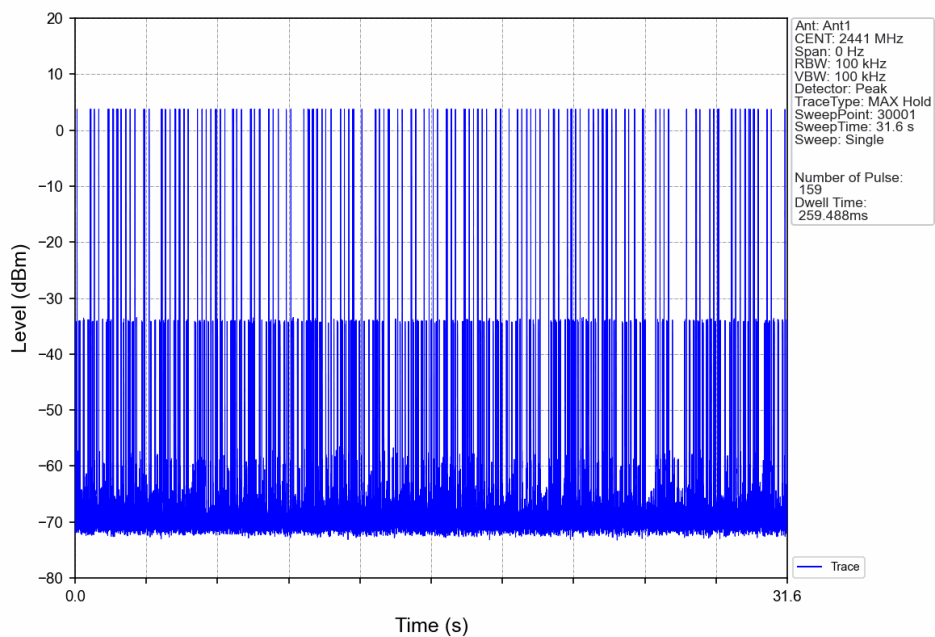
5.2 Test Graph



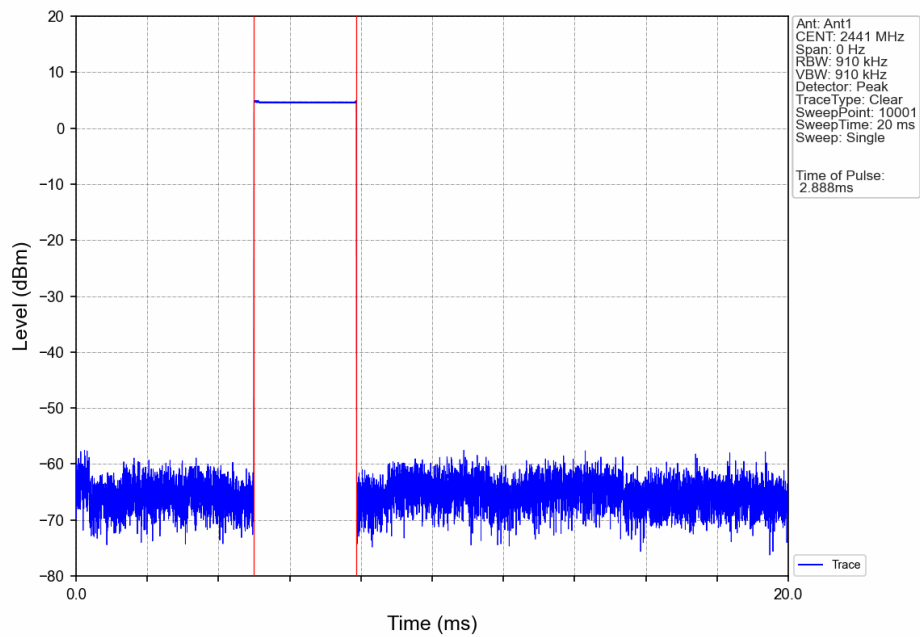
GFSK DH3 HOPP Ant1 NTN



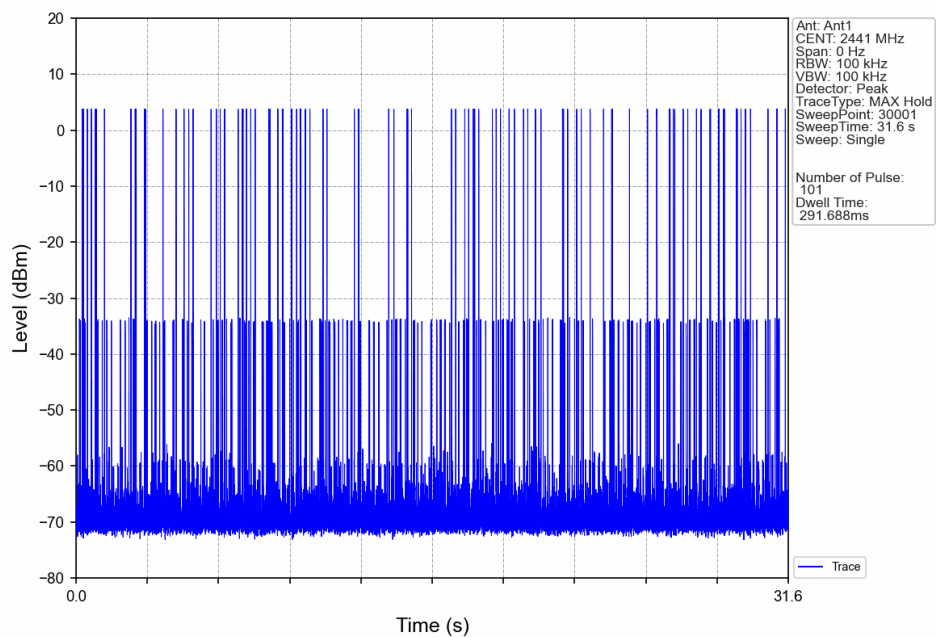
GFSK DH3 HOPP Ant1 NTN

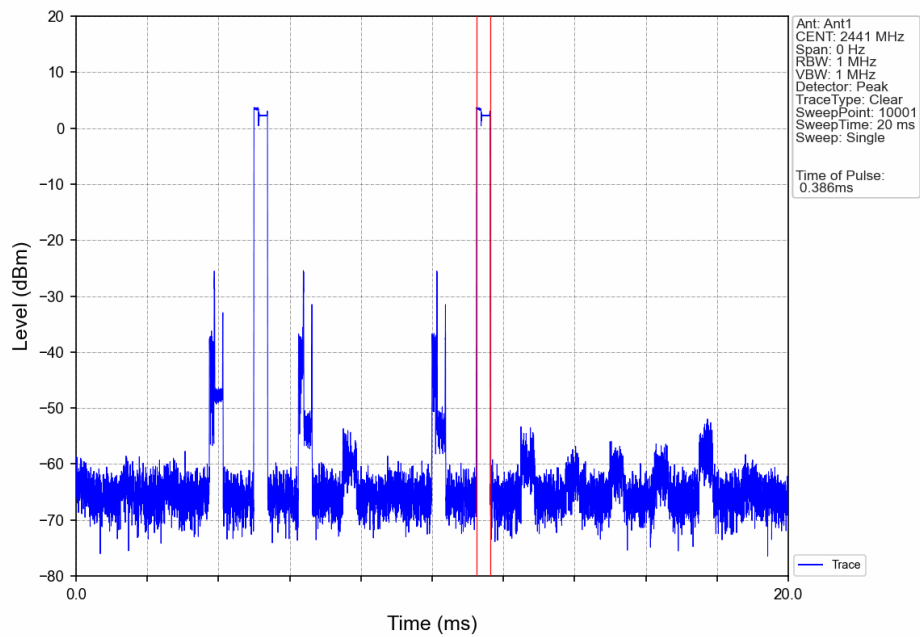
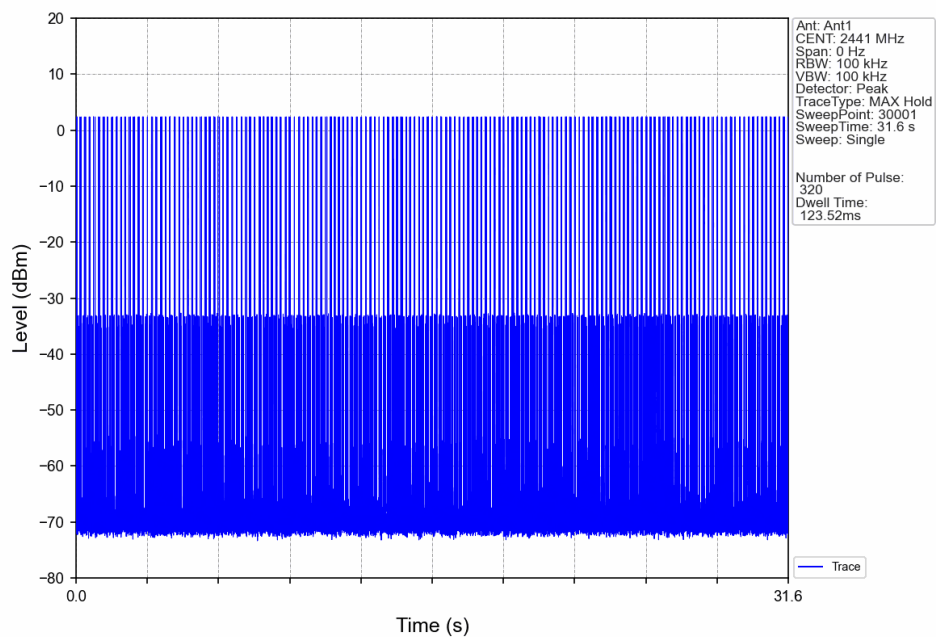


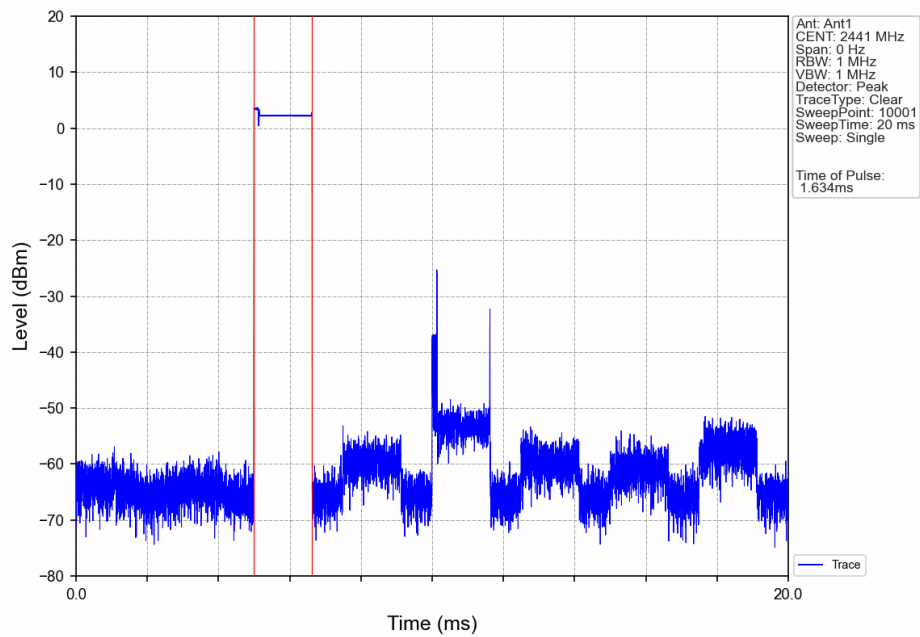
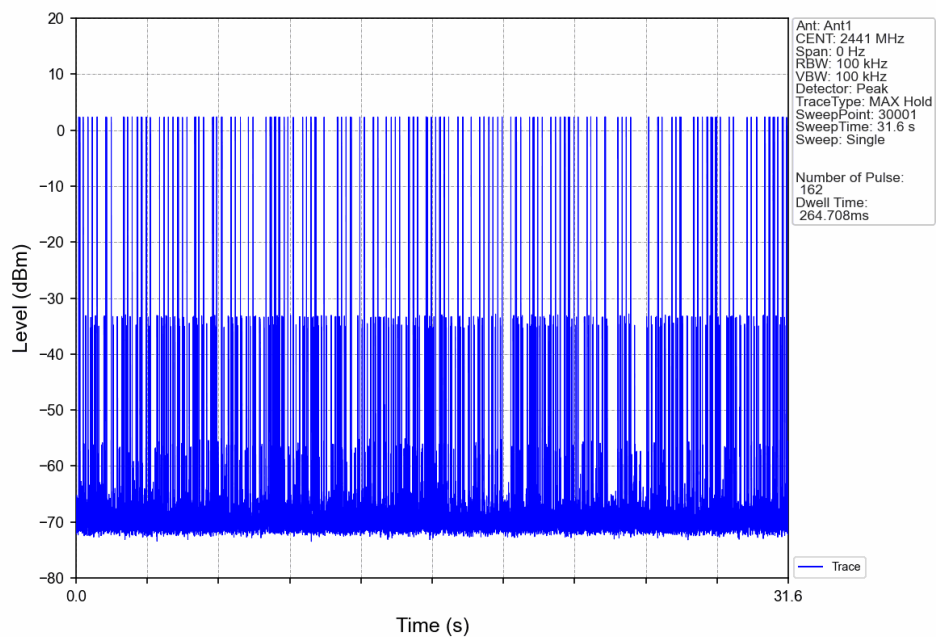
GFSK DH5 HOPP Ant1 NTN

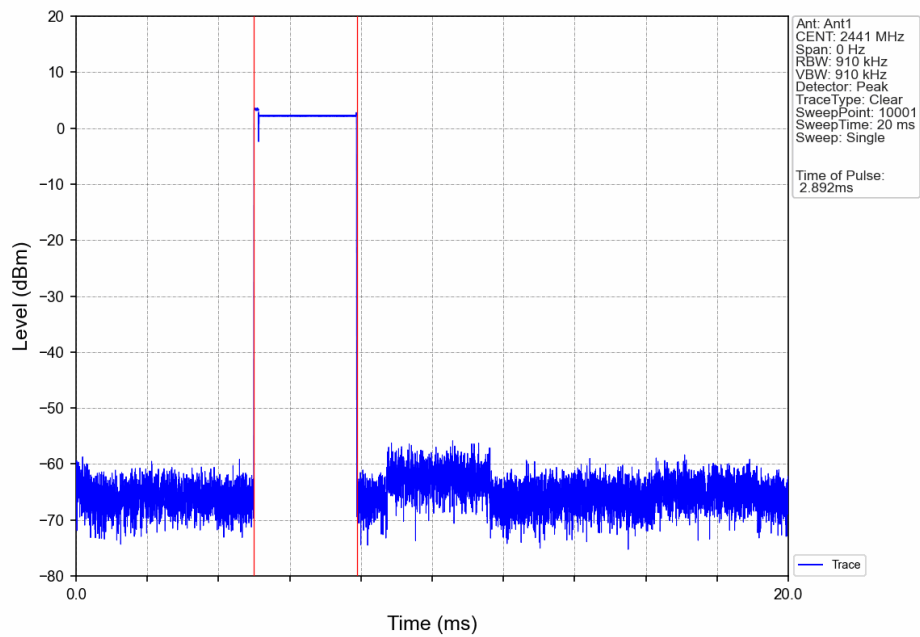
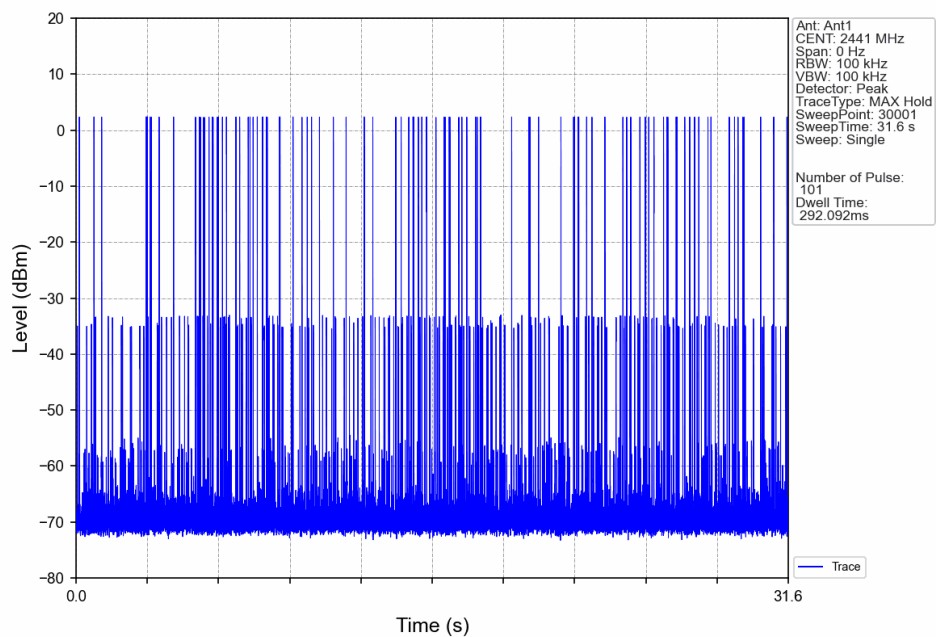


GFSK DH5 HOPP Ant1 NTN

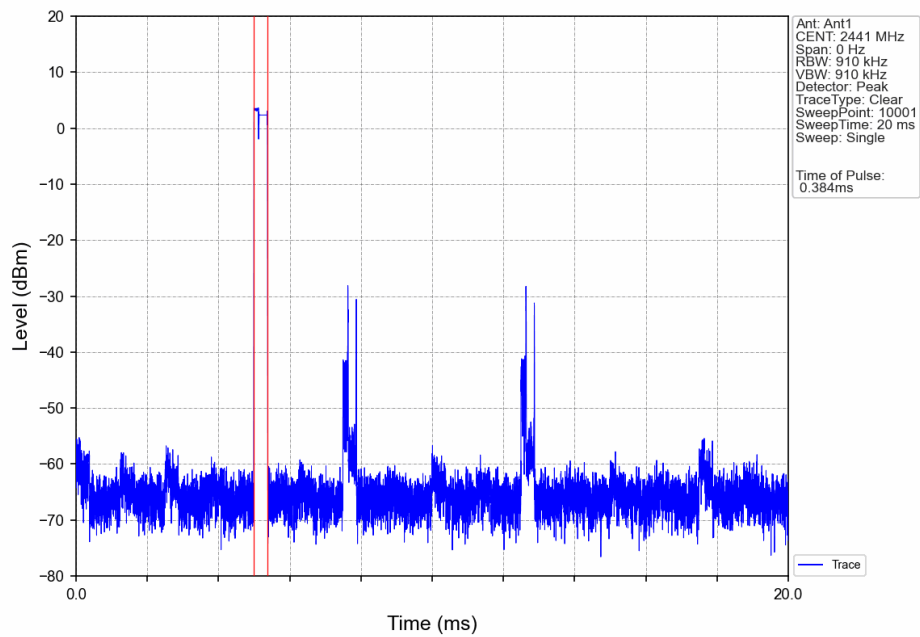


$\pi/4$ -DQPSK_2DH1_HOPP_Ant1_NTNV $\pi/4$ -DQPSK_2DH1_HOPP_Ant1_NTNV

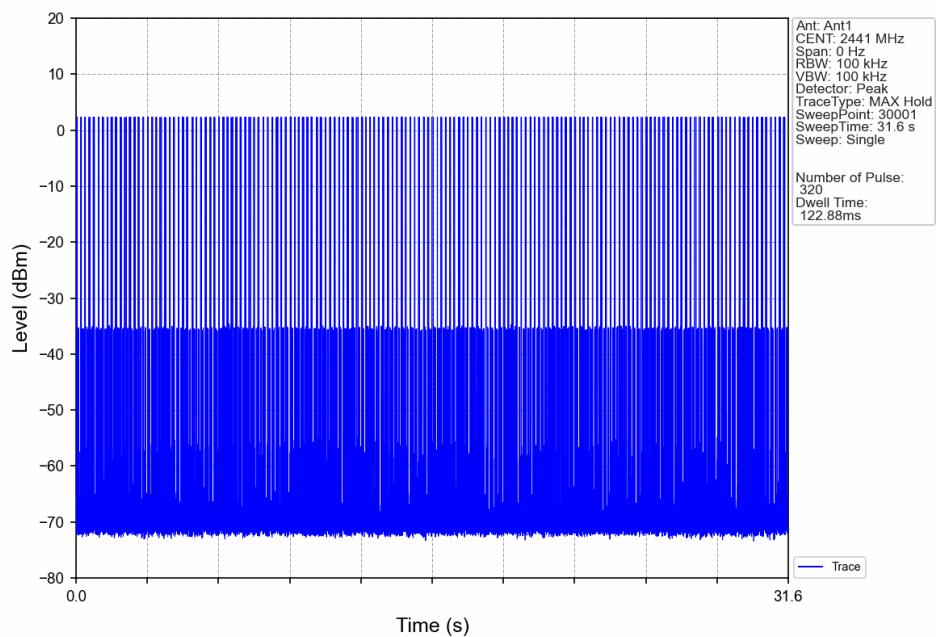
$\pi/4$ -DQPSK_2DH3_HOPP_Ant1_NTNV $\pi/4$ -DQPSK_2DH3_HOPP_Ant1_NTNV

$\pi/4$ -DQPSK_2DH5_HOPP_Ant1_NTNV $\pi/4$ -DQPSK_2DH5_HOPP_Ant1_NTNV

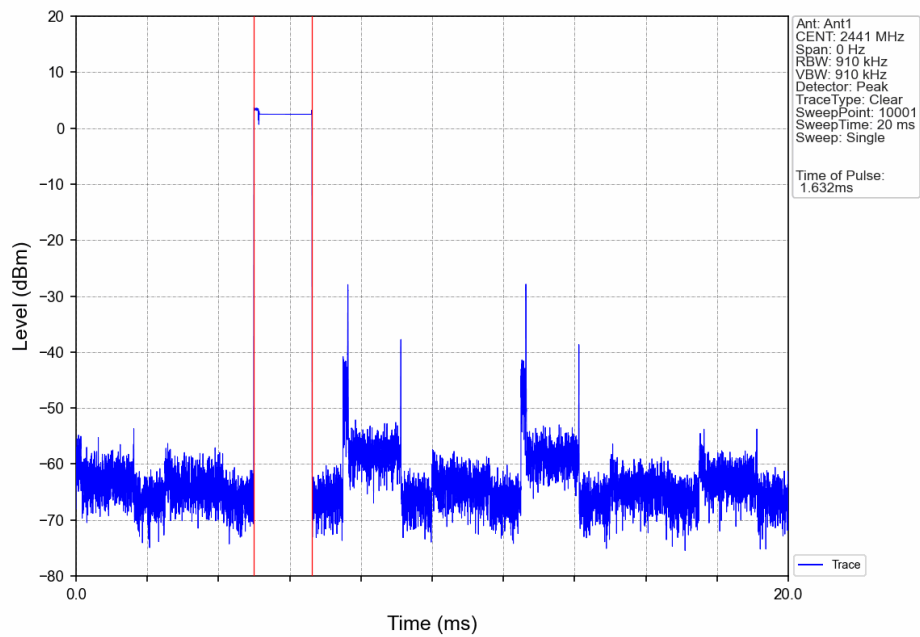
8-DPSK 3DH1 HOPP_Ant1_NTNV



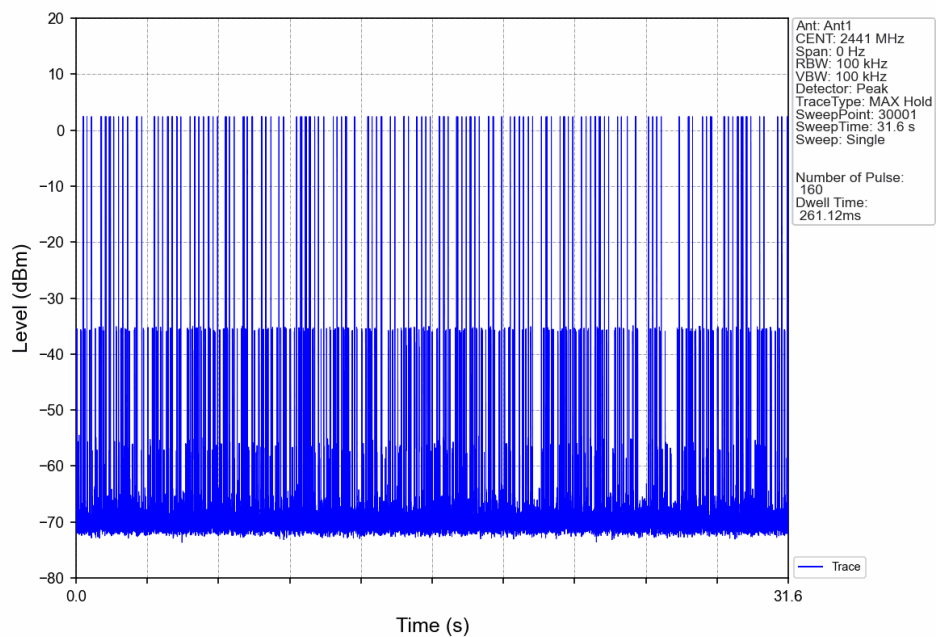
8-DPSK 3DH1 HOPP_Ant1_NTNV



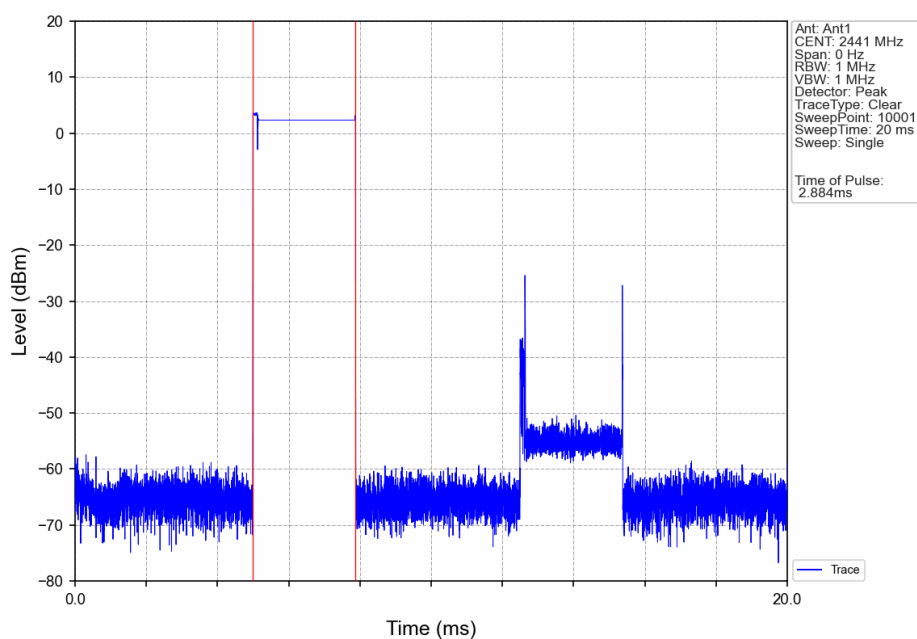
8-DPSK 3DH3 HOPP_Ant1_NTNV



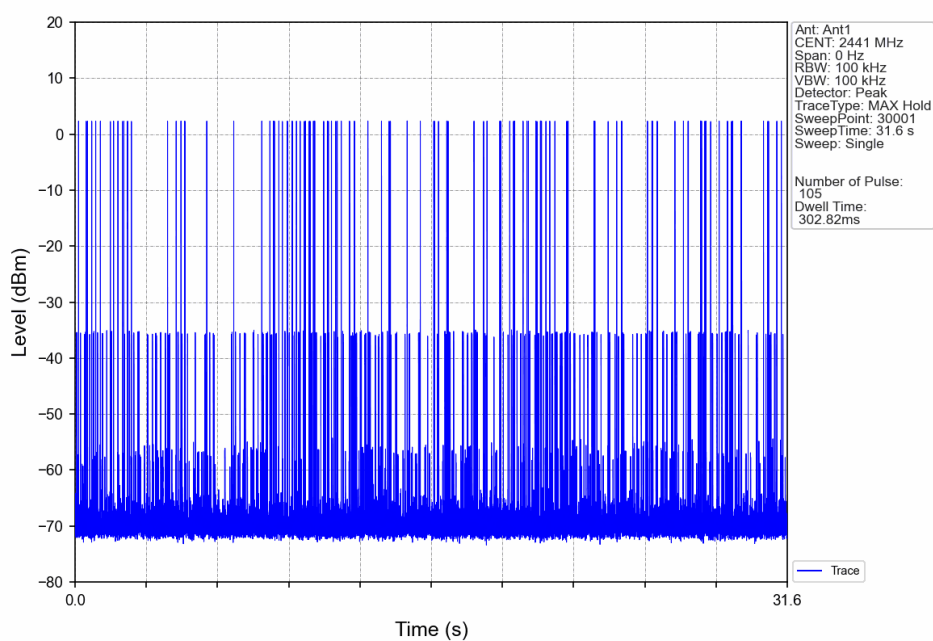
8-DPSK 3DH3 HOPP_Ant1_NTNV



8-DPSK 3DH5 HOPP_Ant1_NTNV



8-DPSK 3DH5 HOPP_Ant1_NTNV



6. Unwanted Emissions In Non-restricted Frequency Bands

6.1 Test Result

6.1.1 Ref

Mode	TX Type	Frequency (MHz)	Packet Type	ANT	Level of Reference (dBm)
GFSK	SISO	2402	DH5	1	3.35
		2441	DH5	1	3.09
		2480	DH5	1	2.43
Pi/4DQPSK	SISO	2402	2DH5	1	1.80
		2441	2DH5	1	1.71
		2480	2DH5	1	0.98
8DPSK	SISO	2402	3DH5	1	1.61
		2441	3DH5	1	1.48
		2480	3DH5	1	0.94

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.

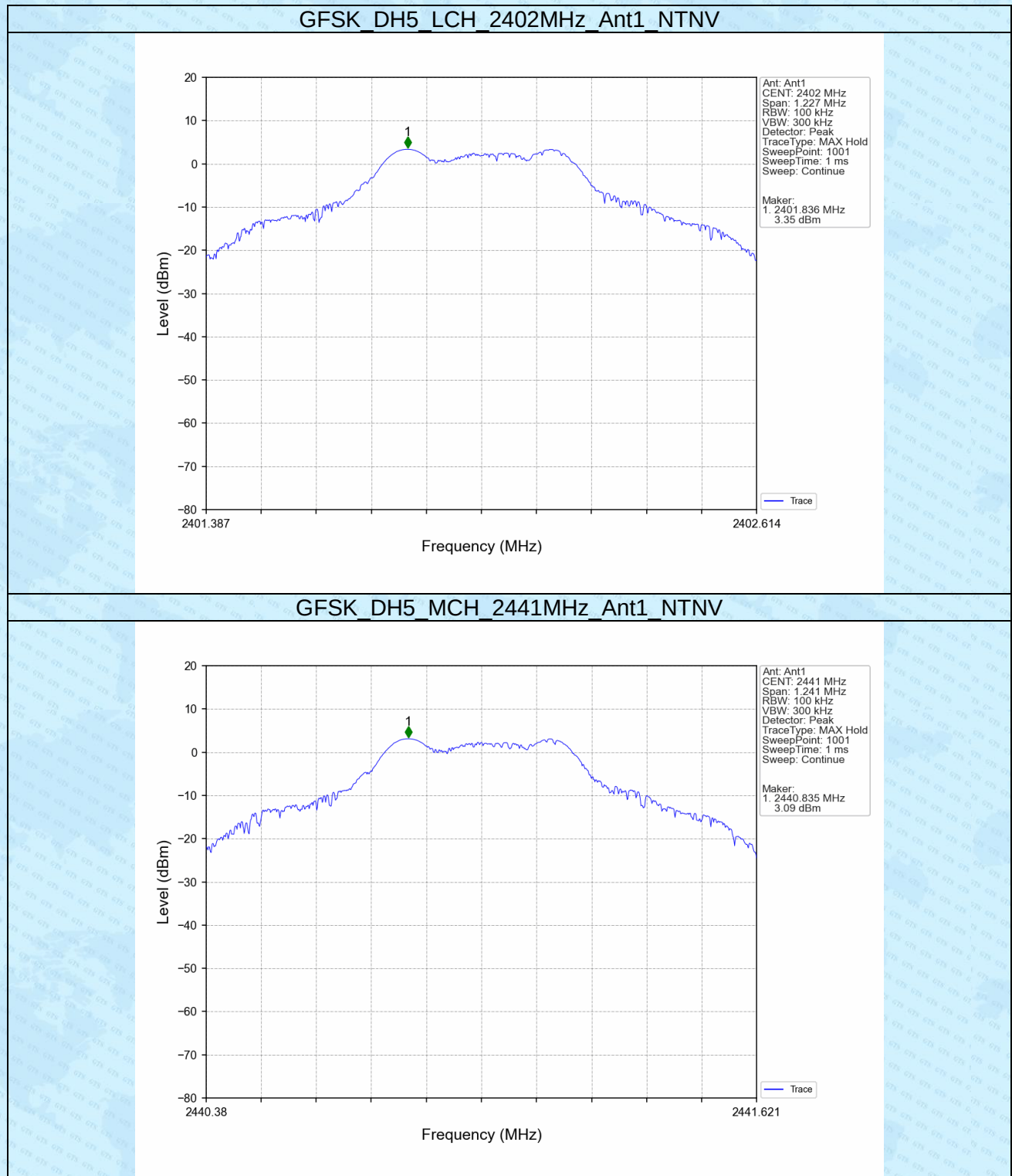
5.1.2 CSE

Mode	TX Type	Frequency (MHz)	Packet Type	ANT	Level of Reference (dBm)	Limit (dBm)	Verdict
GFSK	SISO	2402	DH5	1	3.35	-16.65	Pass
		2441	DH5	1	3.35	-16.65	Pass
		2480	DH5	1	3.35	-16.65	Pass
		HOPP	DH5	1	3.35	-16.65	Pass
					3.35	-16.65	Pass
Pi/4DQPSK	SISO	2402	2DH5	1	1.80	-18.20	Pass
		2441	2DH5	1	1.80	-18.20	Pass
		2480	2DH5	1	1.80	-18.20	Pass
		HOPP	2DH5	1	1.80	-18.20	Pass
					1.80	-18.20	Pass
8DPSK	SISO	2402	3DH5	1	1.61	-18.39	Pass
		2441	3DH5	1	1.61	-18.39	Pass
		2480	3DH5	1	1.61	-18.39	Pass
		HOPP	3DH5	1	1.61	-18.39	Pass
					1.61	-18.39	Pass

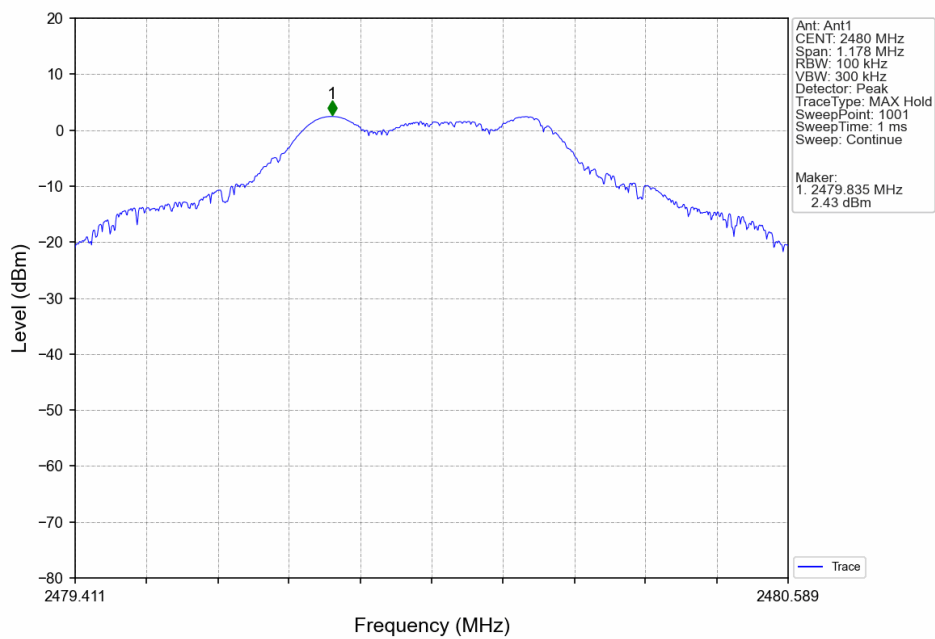
Note1: Refer to FCC Part 15.247 (d) and ANSI C63.10-2013, the channel contains the maximum PSD level was used to establish the reference level.

5.2 Test Graph

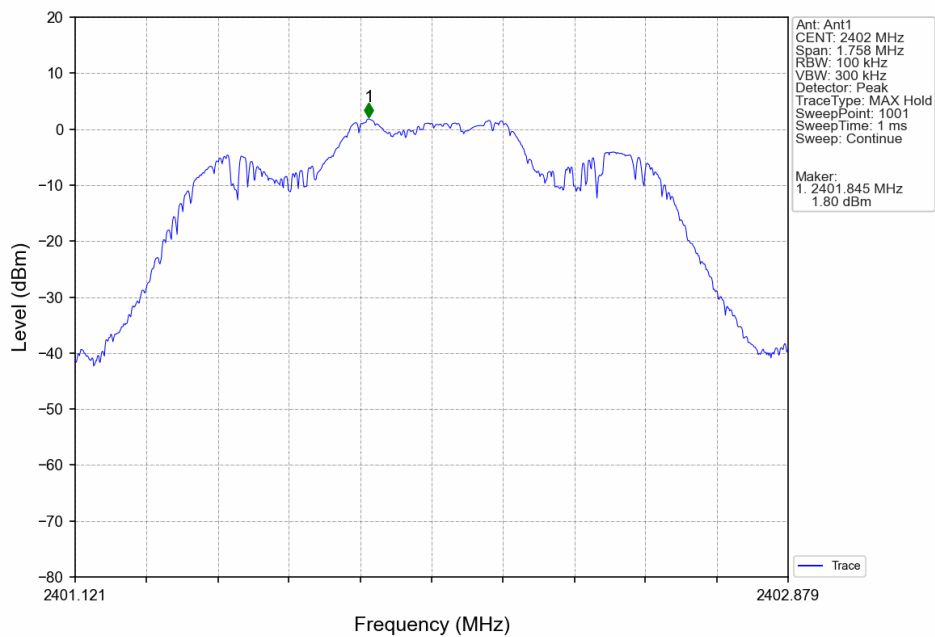
5.2.1 Ref



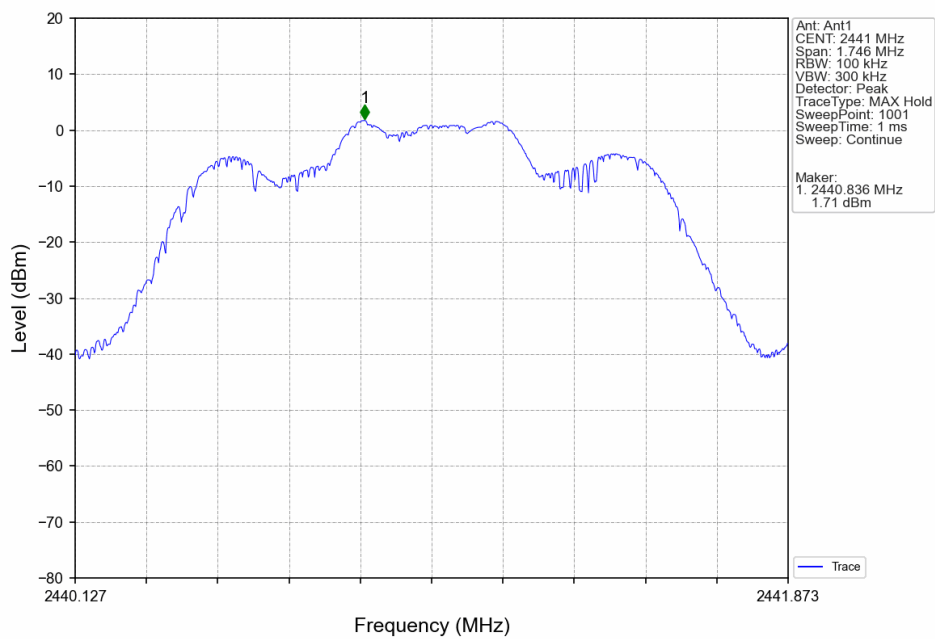
GFSK_DH5_HCH_2480MHz_Ant1_NTNV



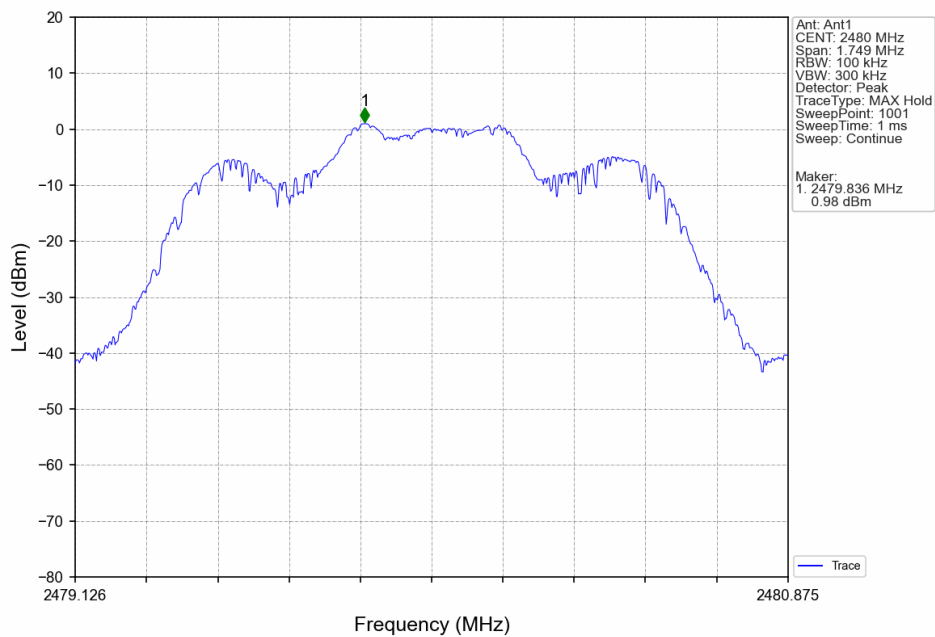
Pi/4DQPSK_2DH5_LCH_2402MHz_Ant1_NTNV



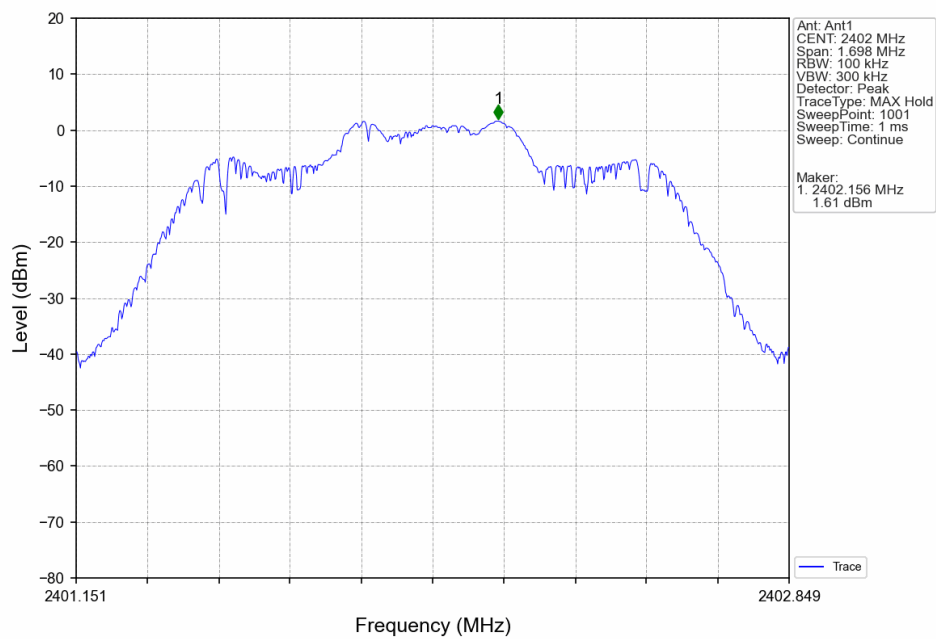
Pi/4DQPSK_2DH5_MCH_2441MHz_Ant1_NTNV



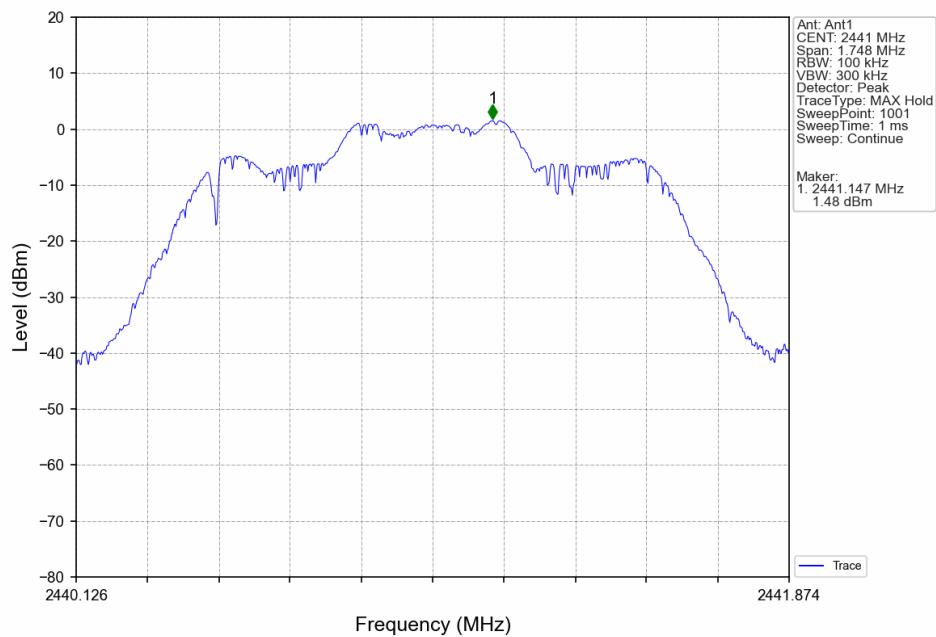
Pi/4DQPSK_2DH5_HCH_2480MHz_Ant1_NTNV



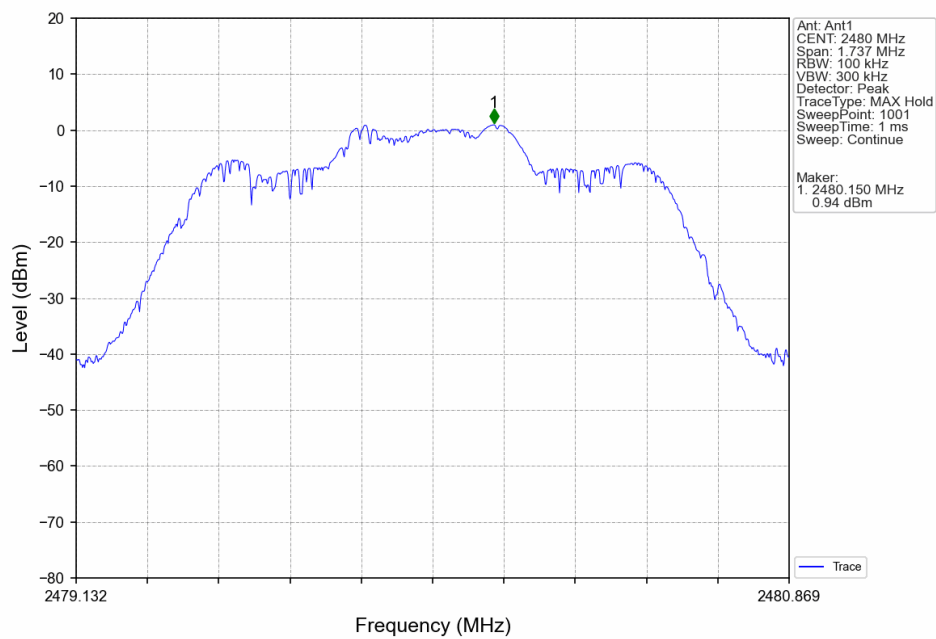
8DPSK_3DH5_LCH_2402MHz_Ant1_NTNV



8DPSK_3DH5_MCH_2441MHz_Ant1_NTNV

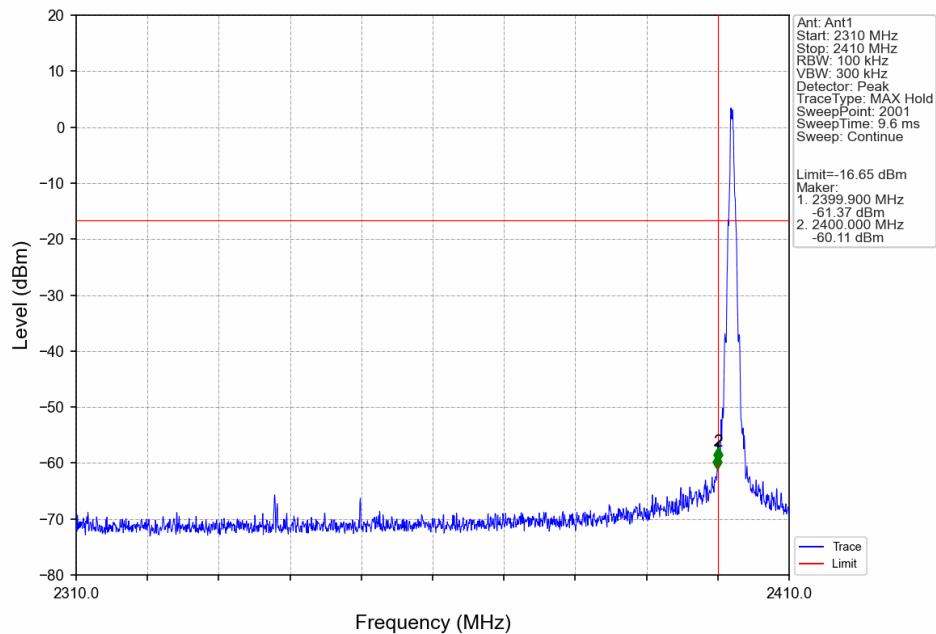


8DPSK_3DH5_HCH_2480MHz_Ant1_NTNV

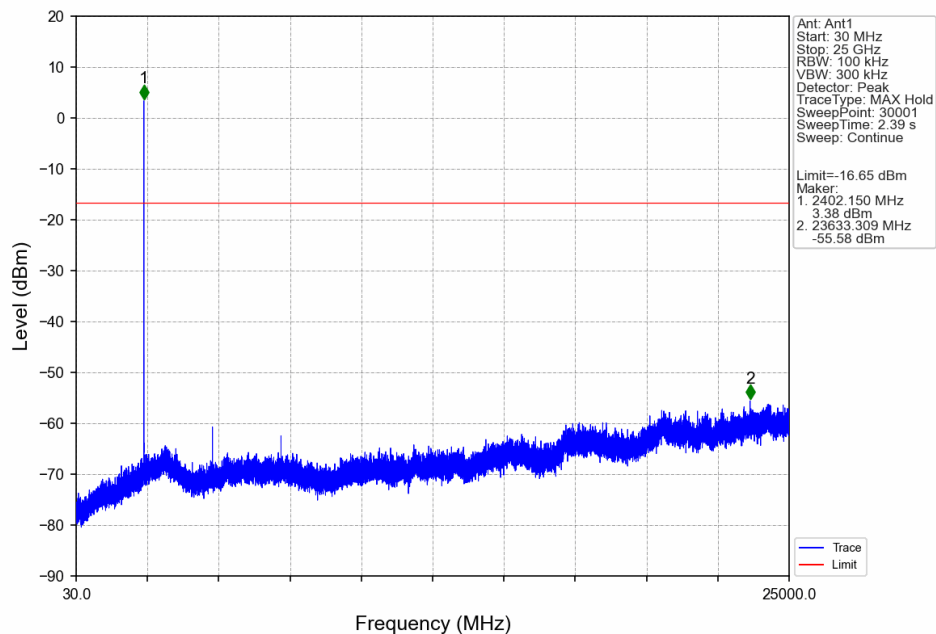


5.2.2 CSE

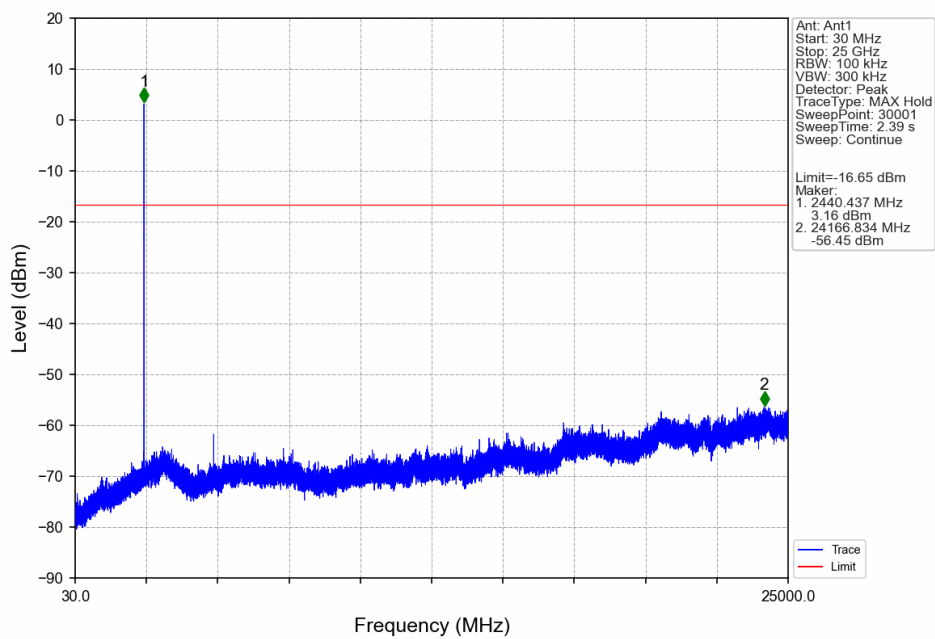
GFSK_DH5_LCH_2402MHz_Ant1_NTNV



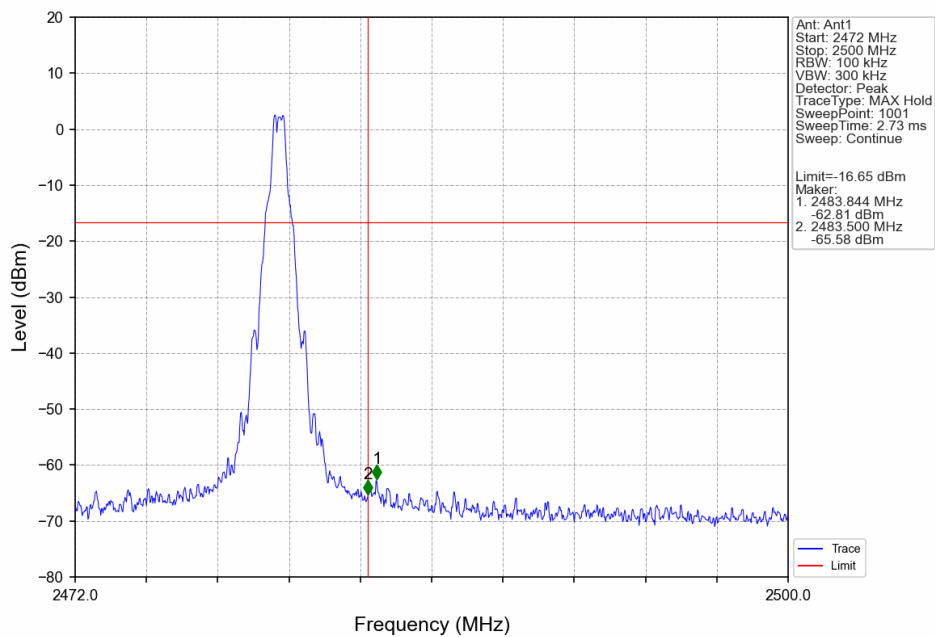
GFSK_DH5_LCH_2402MHz_Ant1_NTNV



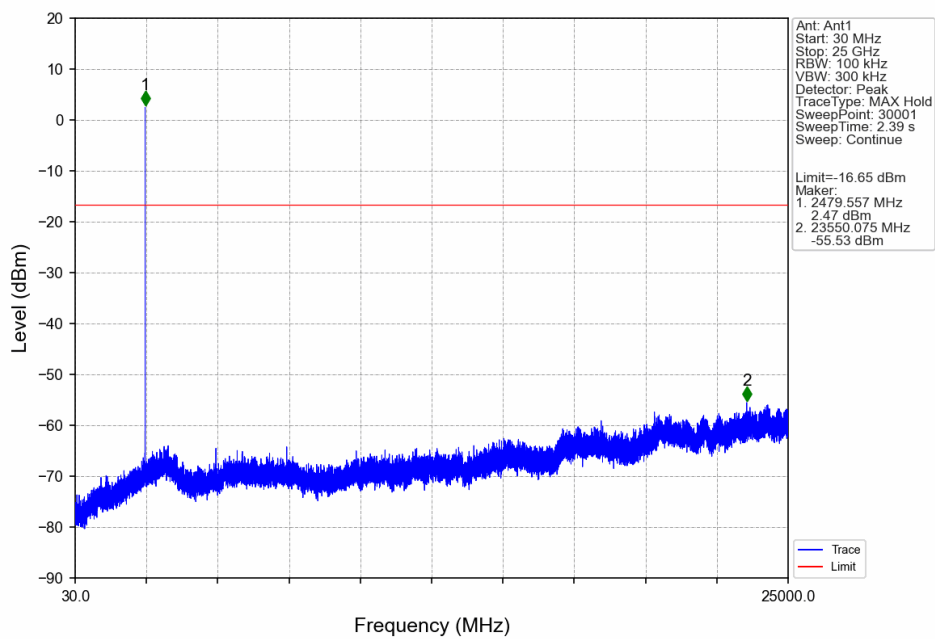
GFSK_DH5_MCH_2441MHz_Ant1_NTNV



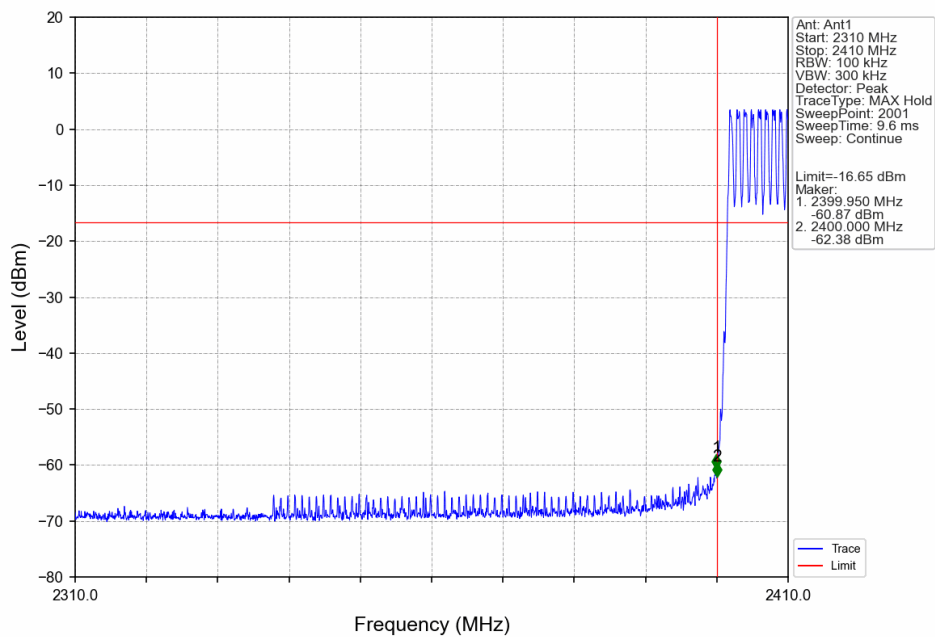
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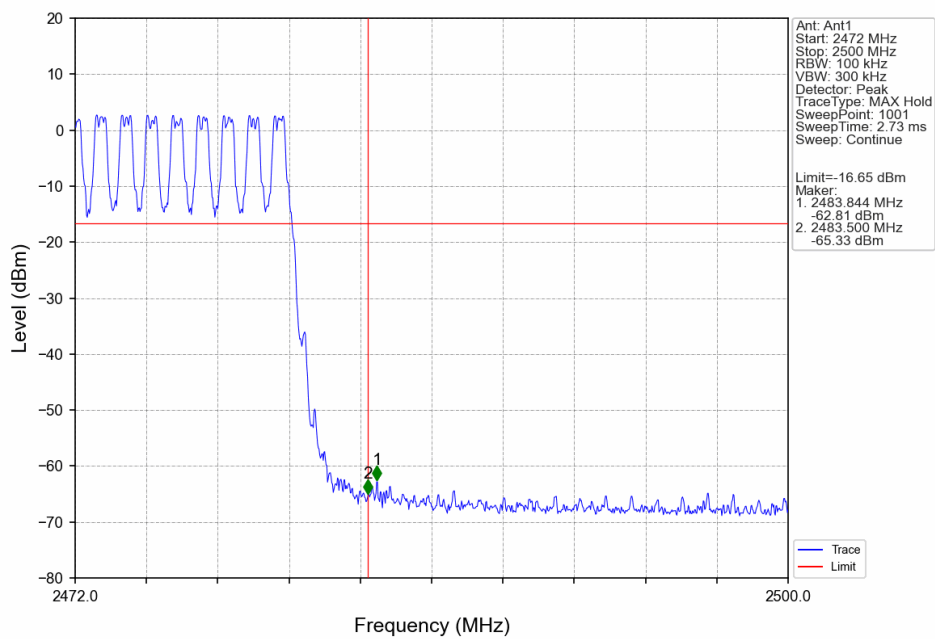
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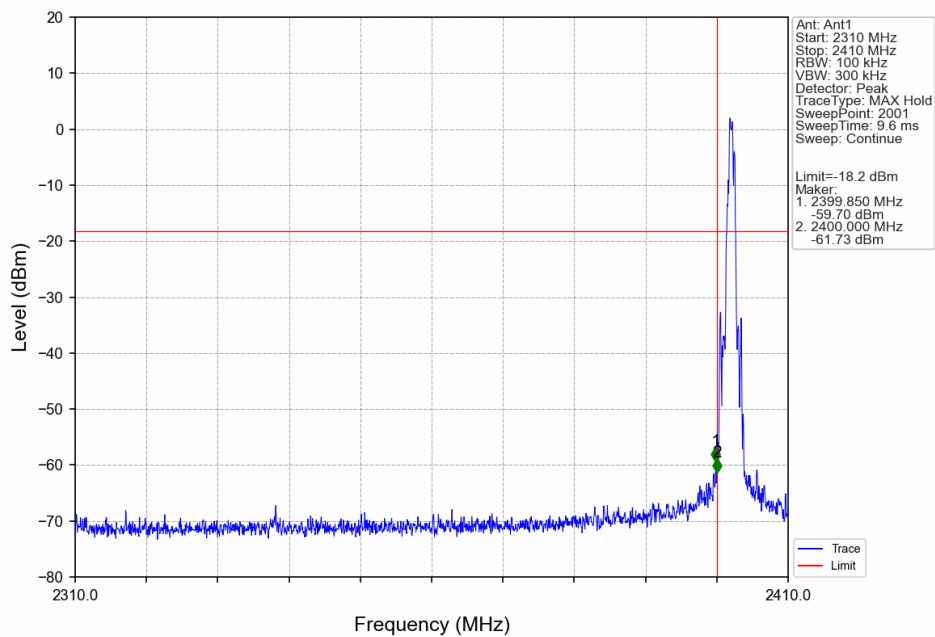
GFSK_DH5_HOPP_2410MHz_Ant1_NTNV



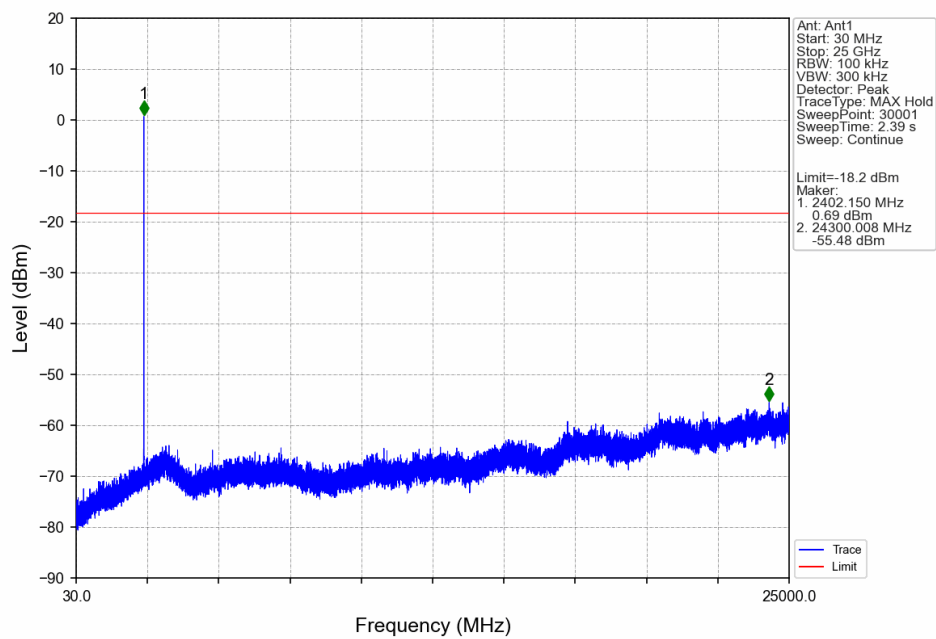
GFSK DH5 HOPP Ant1 NTN



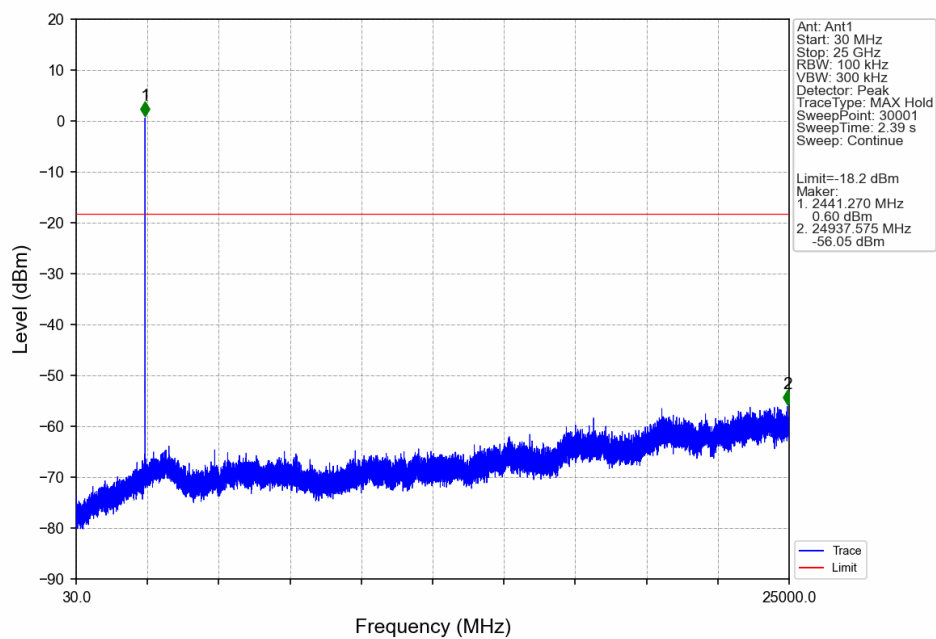
Pi/4DQPSK 2DH5 LCH 2402MHz Ant1 NTN



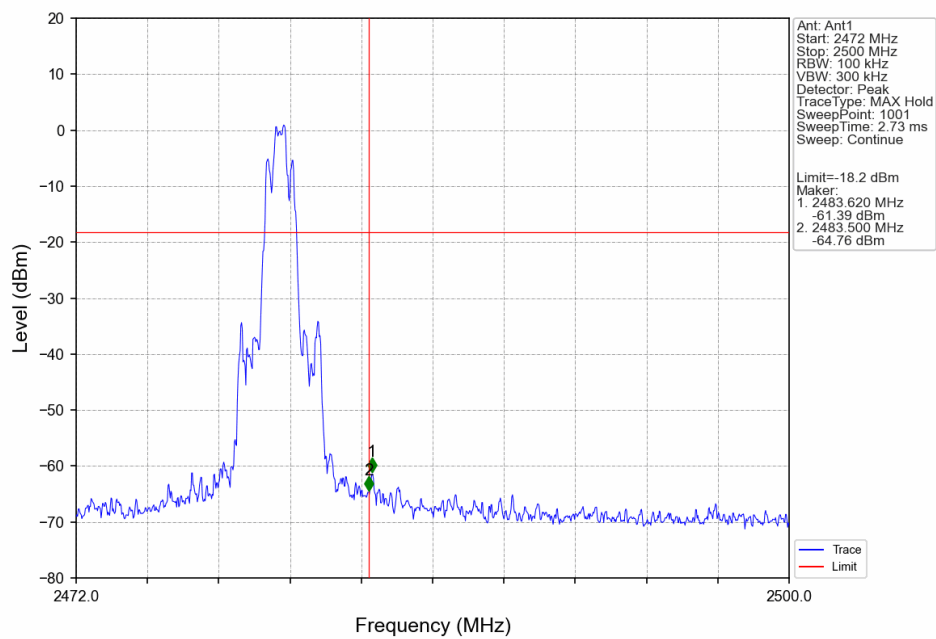
Pi/4DQPSK_2DH5_LCH_2402MHz_Ant1_NTNV



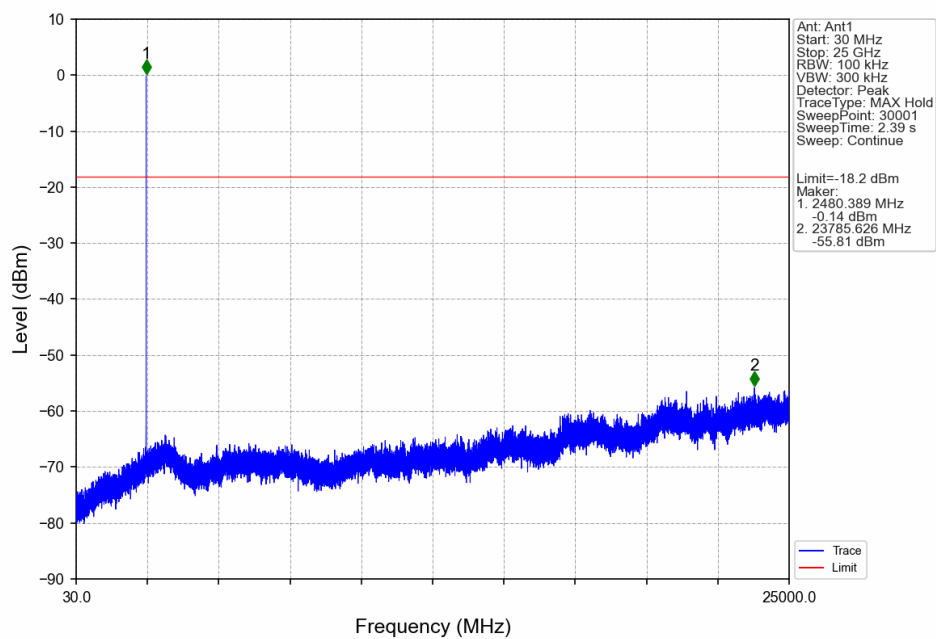
Pi/4DQPSK_2DH5_MCH_2441MHz_Ant1_NTNV



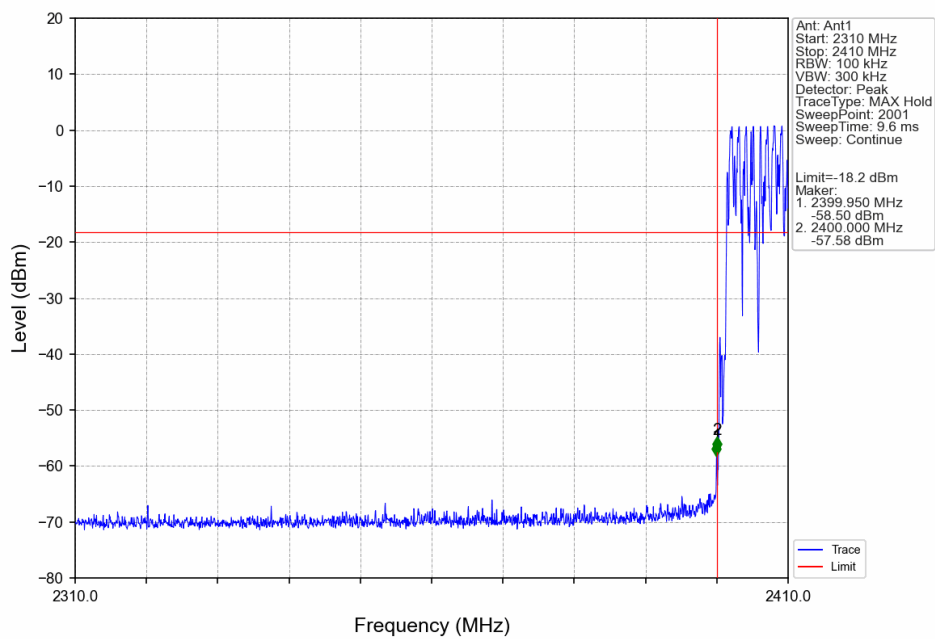
Pi/4DQPSK 2DH5 HCH 2480MHz Ant1 NTN



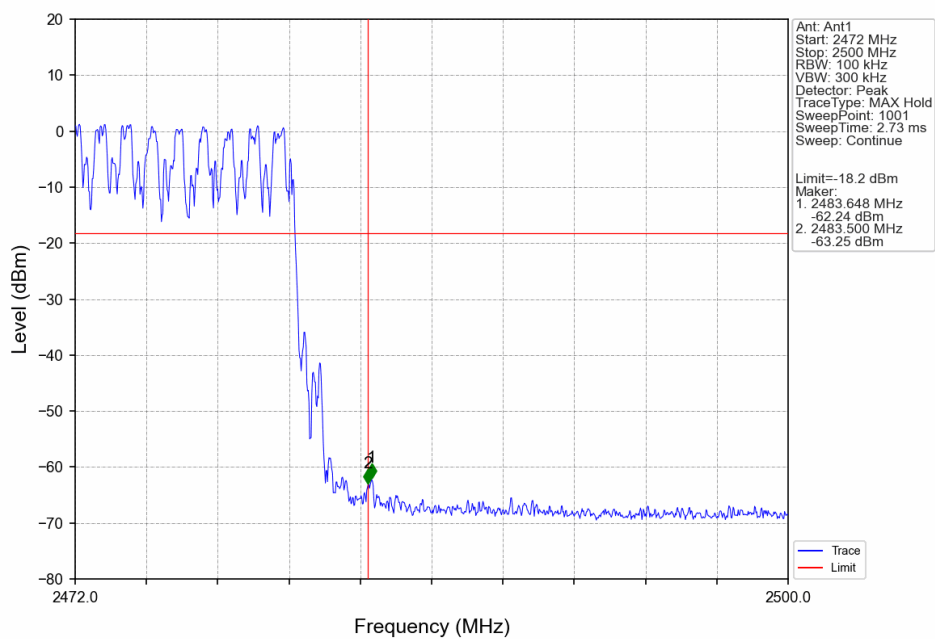
Pi/4DQPSK 2DH5 HCH 2480MHz Ant1 NTN



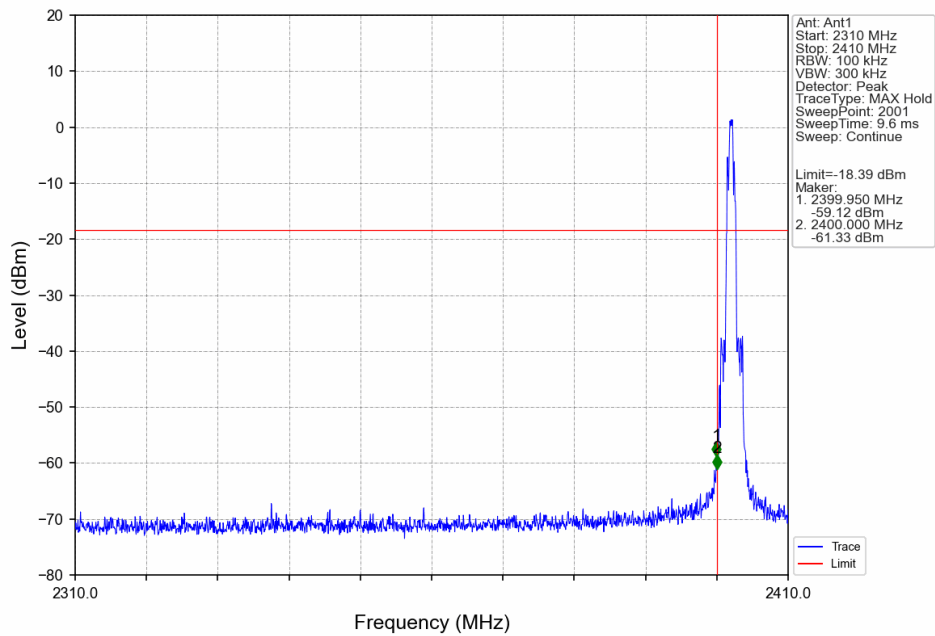
Pi/4DQPSK_2DH5_HOPP_Ant1_NTNV



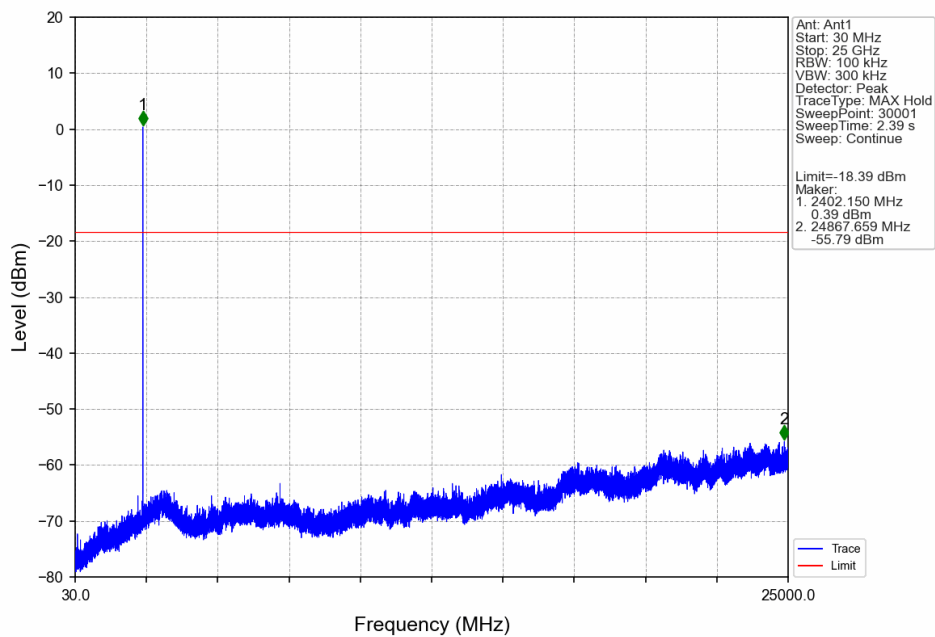
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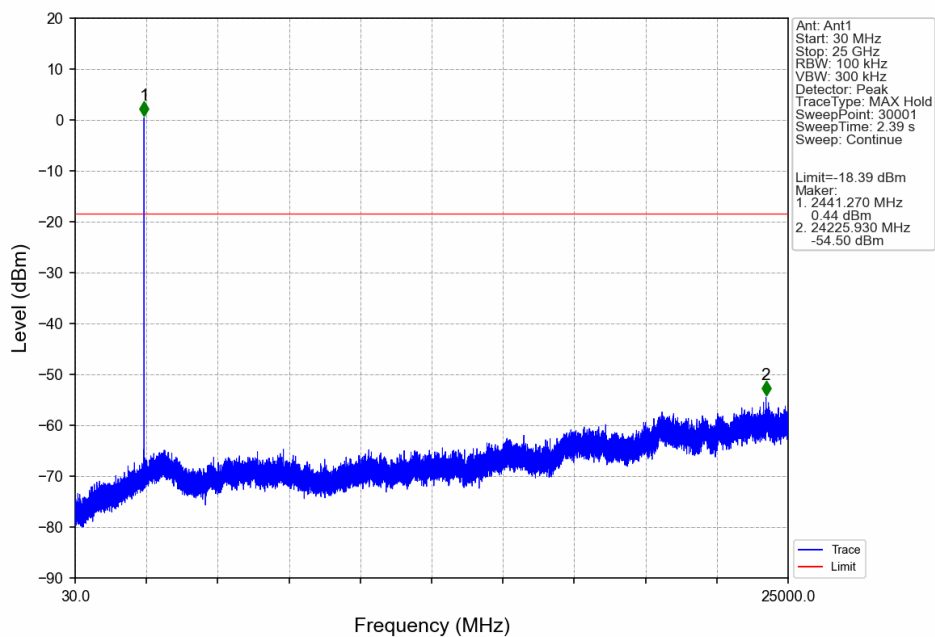
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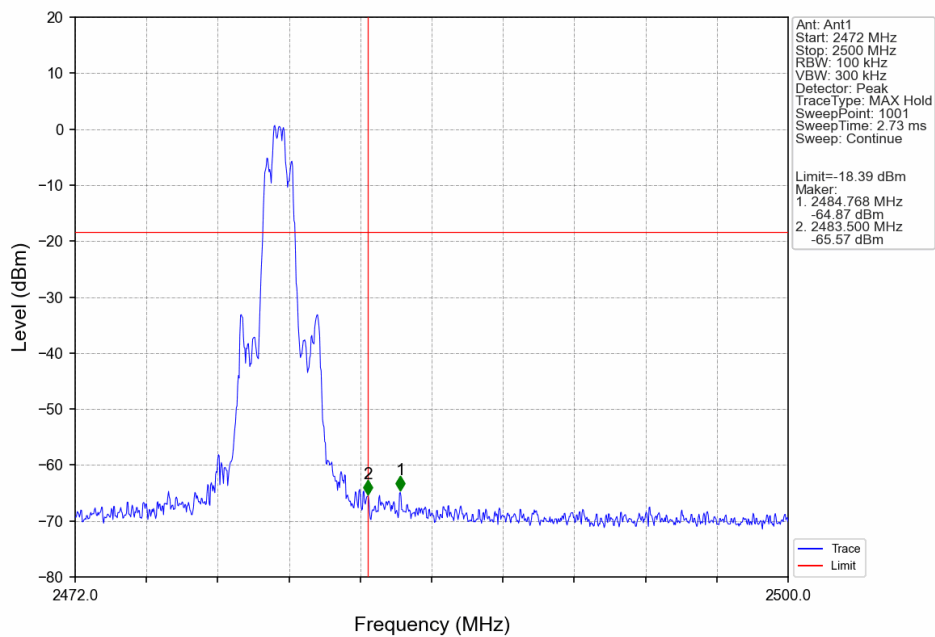
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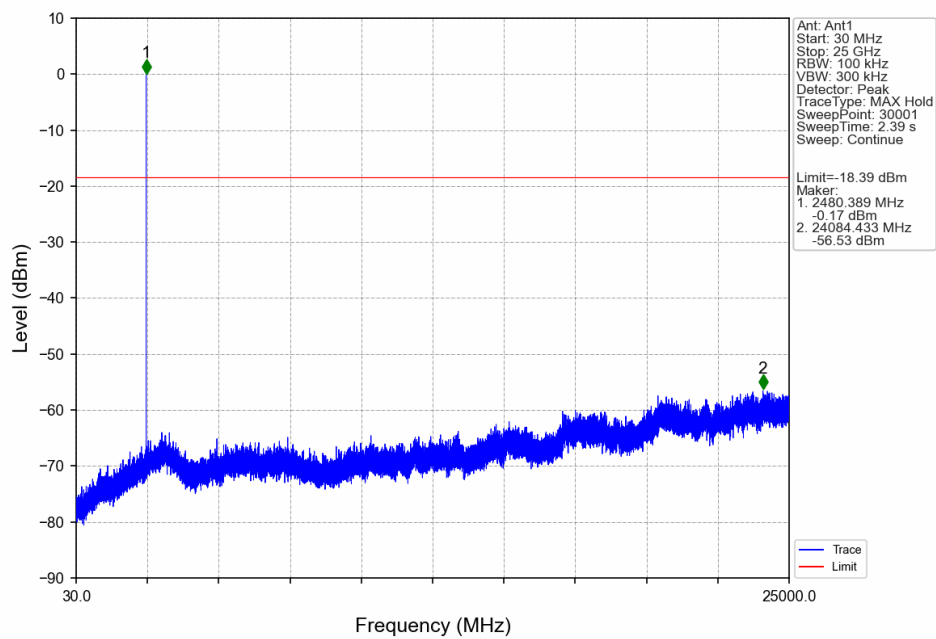
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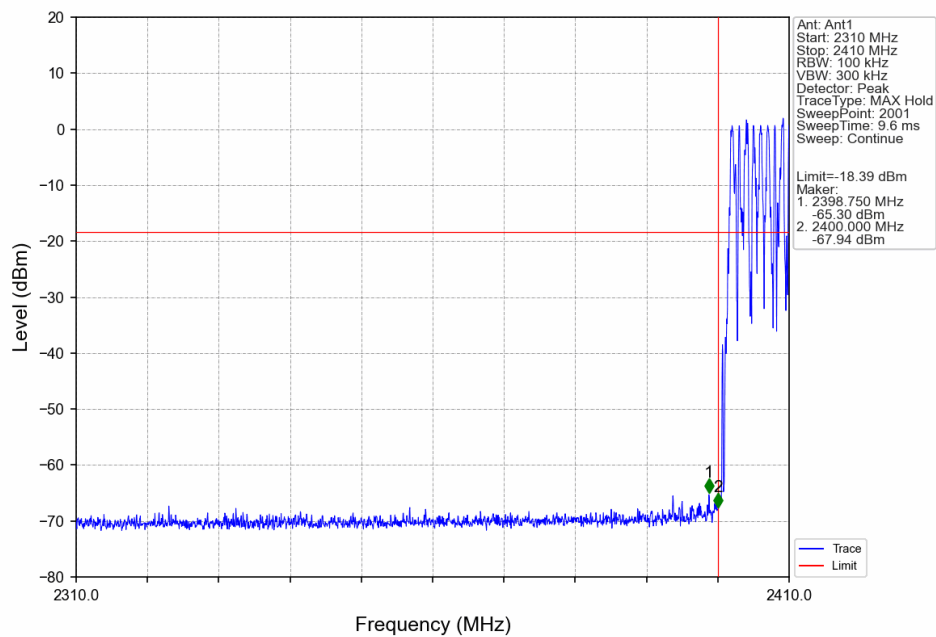
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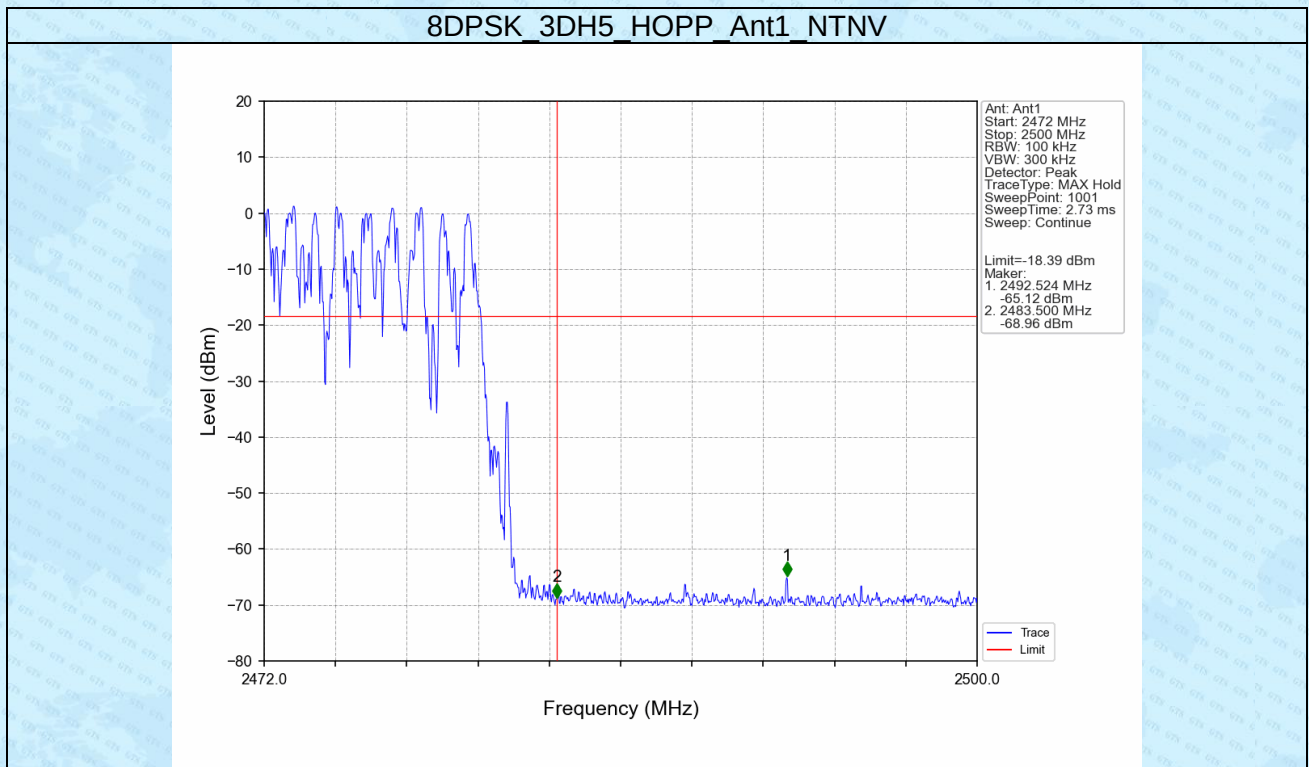
8DPSK_3DH5_HCH_2480MHz_Ant1_NTNV



8DPSK_3DH5_HOPP_Ant1_NTNV



8DPSK 3DH5 HOPP Ant1 NTV



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