

Appendix Test Data for Bluetooth BR&EDR

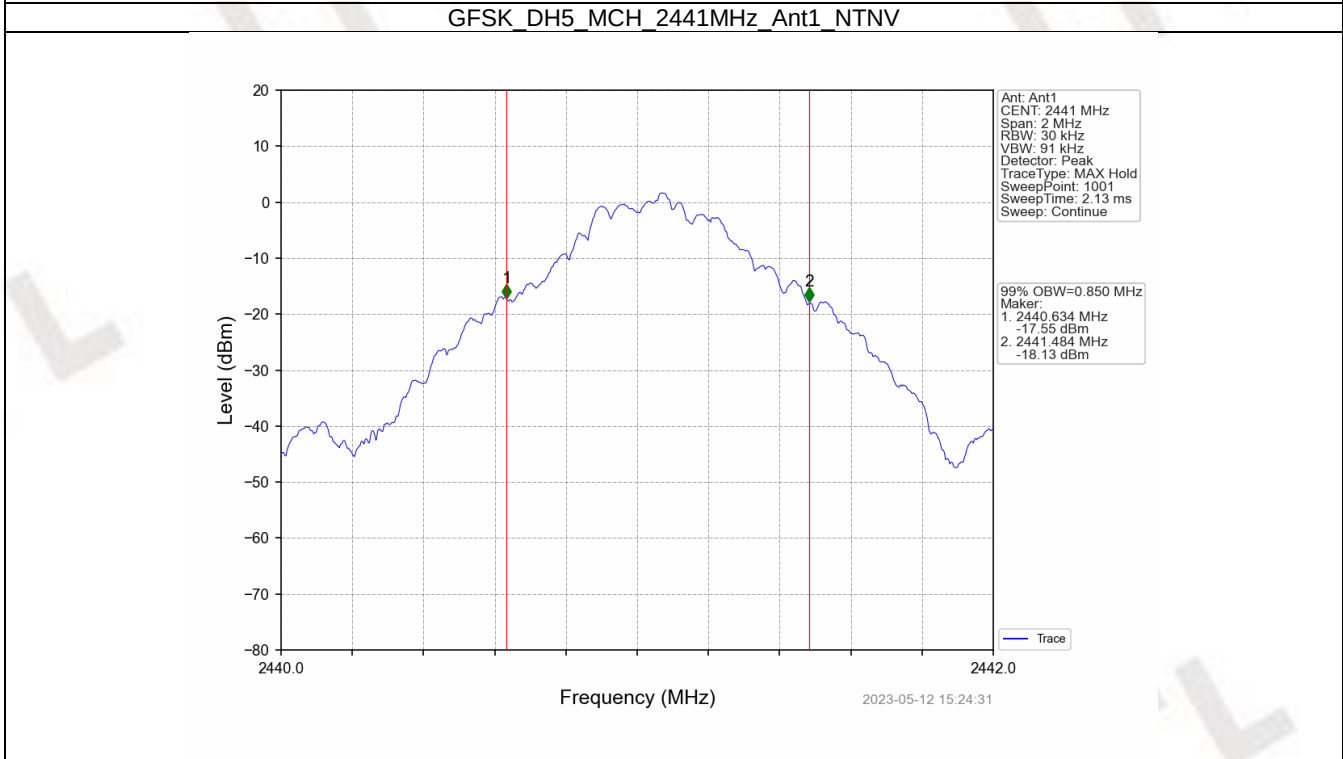
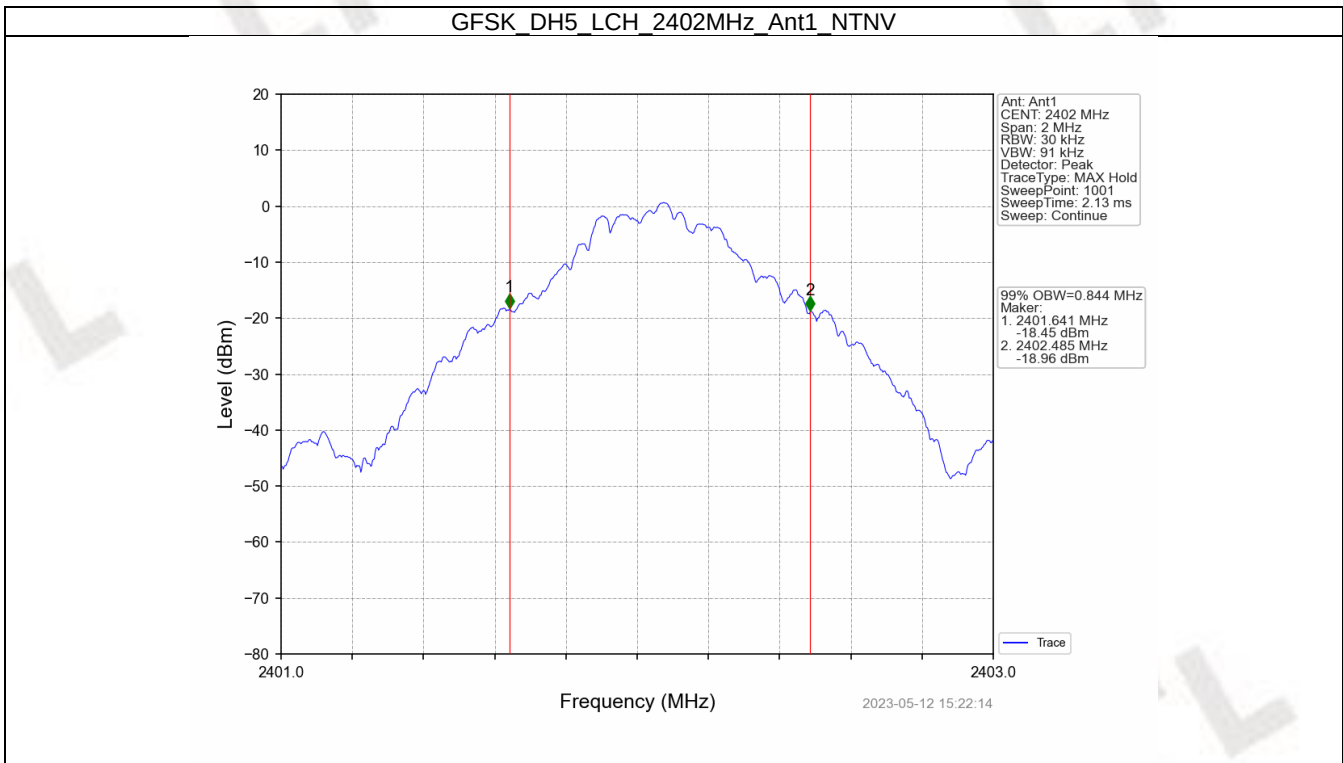
1 Bandwidth

1.1 OBW

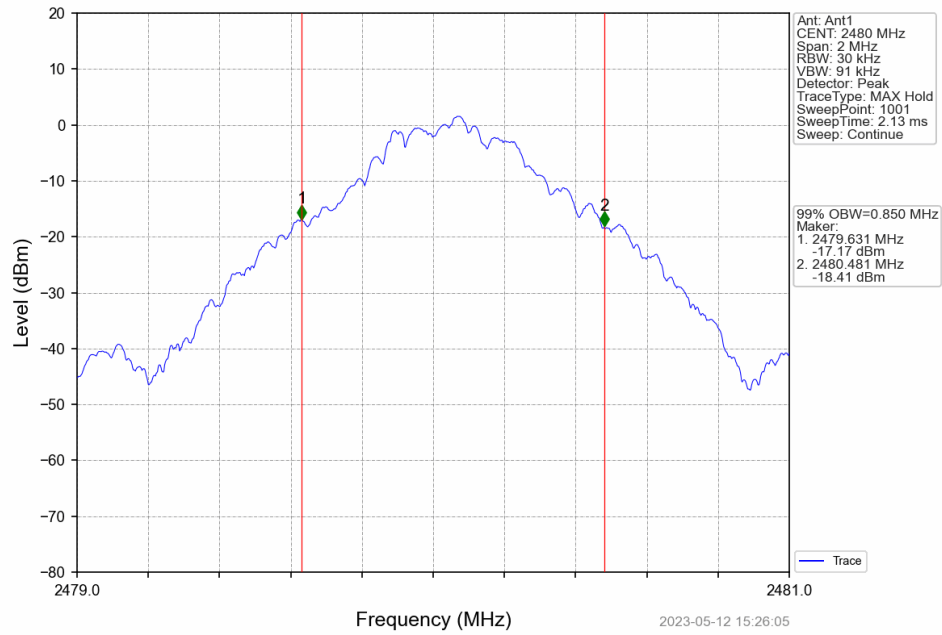
1.1.1 Test Result

Mode	TX Type	Frequency (MHz)	Packet Type	ANT	99% Occupied Bandwidth (MHz)	Verdict
					Result	
GFSK	SISO	2402	DH5	1	0.844	Pass
		2441	DH5	1	0.850	Pass
		2480	DH5	1	0.850	Pass
Pi/4DQPSK	SISO	2402	2DH5	1	1.187	Pass
		2441	2DH5	1	1.184	Pass
		2480	2DH5	1	1.189	Pass
8DPSK	SISO	2402	3DH5	1	1.194	Pass
		2441	3DH5	1	1.191	Pass
		2480	3DH5	1	1.193	Pass

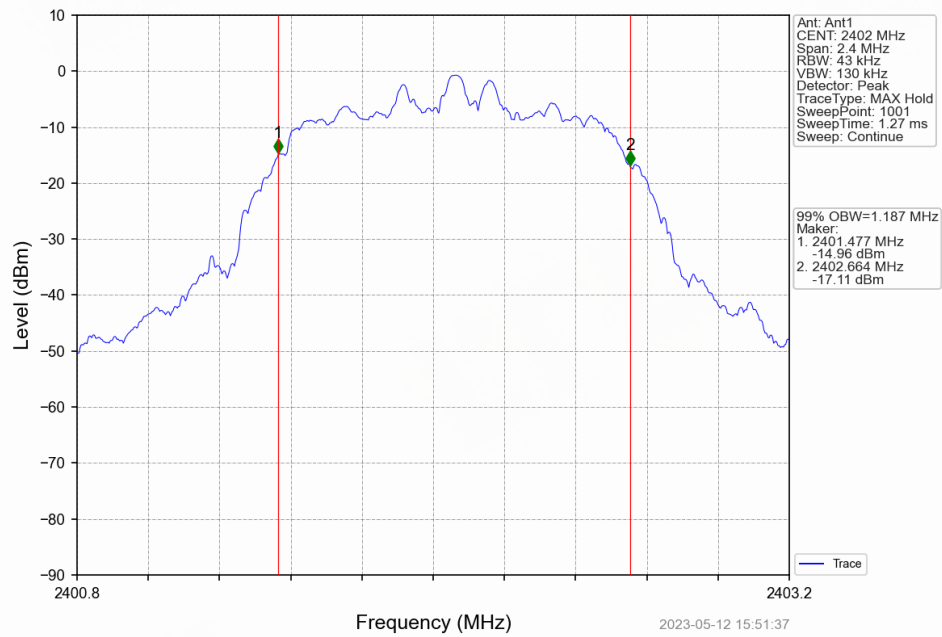
1.1.2 Test Graph



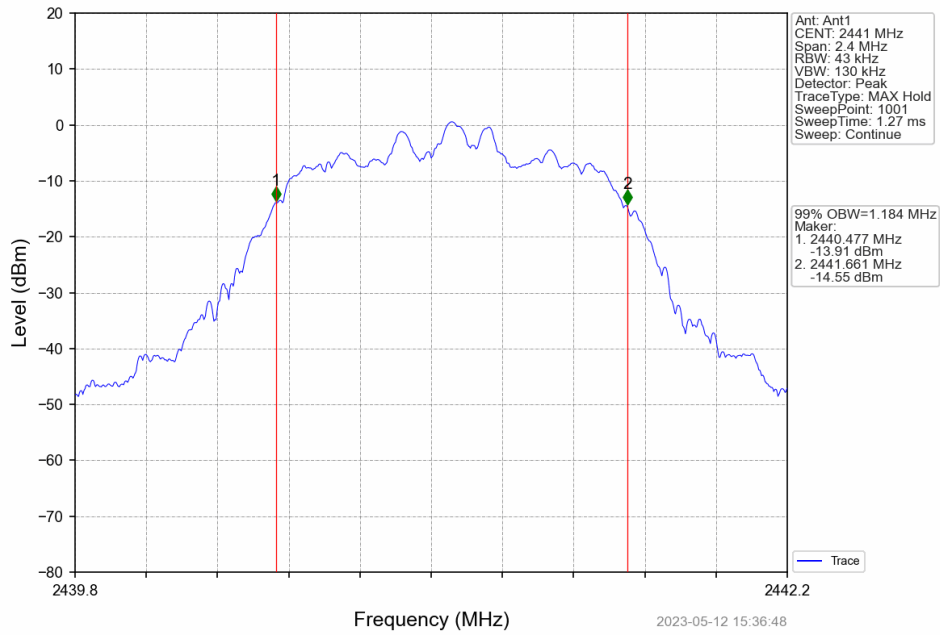
GFSK DH5 HCH 2480MHz Ant1 NTN



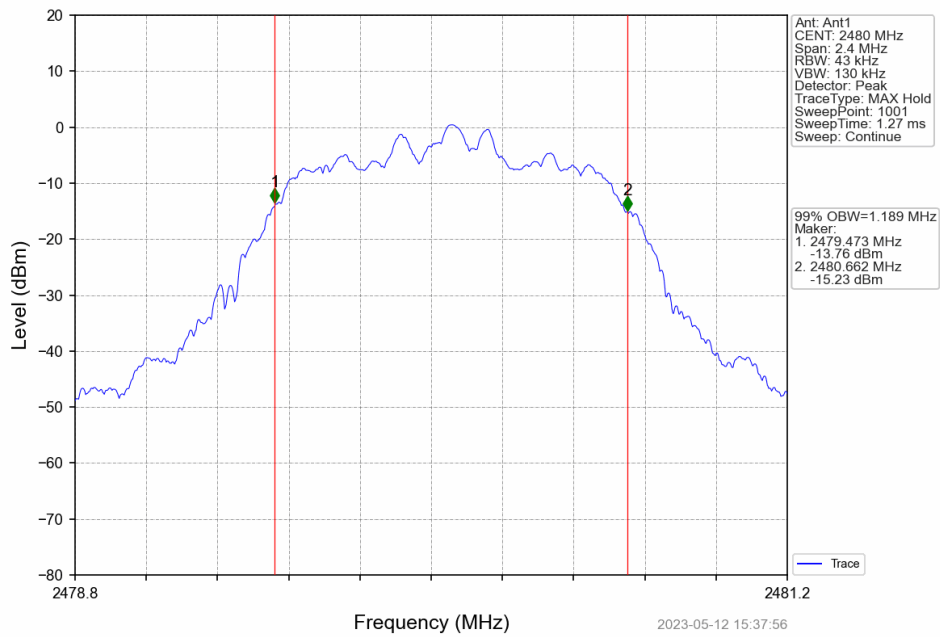
PI/4DQPSK_2DH5_LCH_2402MHz_Ant1 NTN



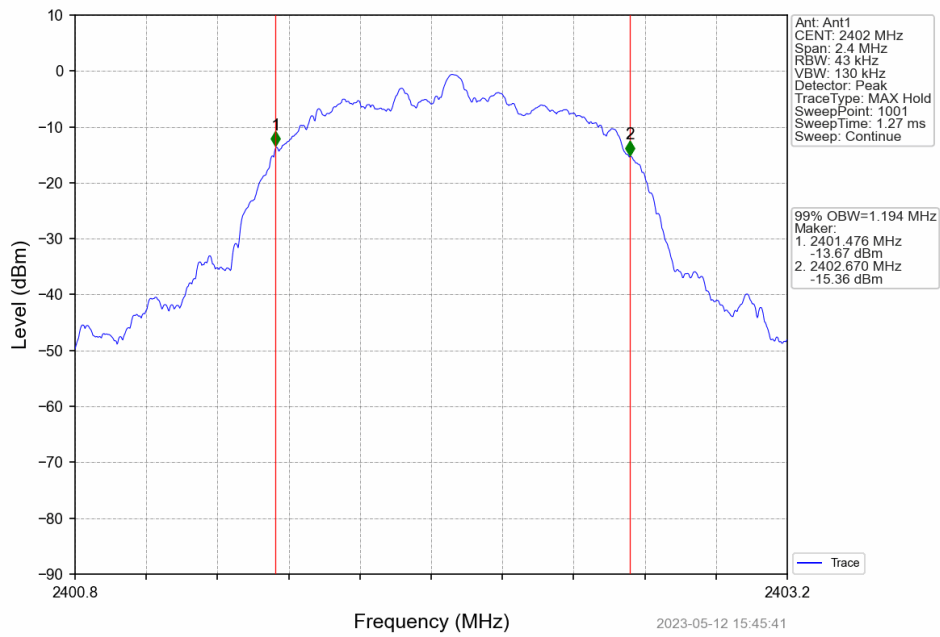
Pi/4DQPSK_2DH5_MCH_2441MHz_Ant1_NTNV



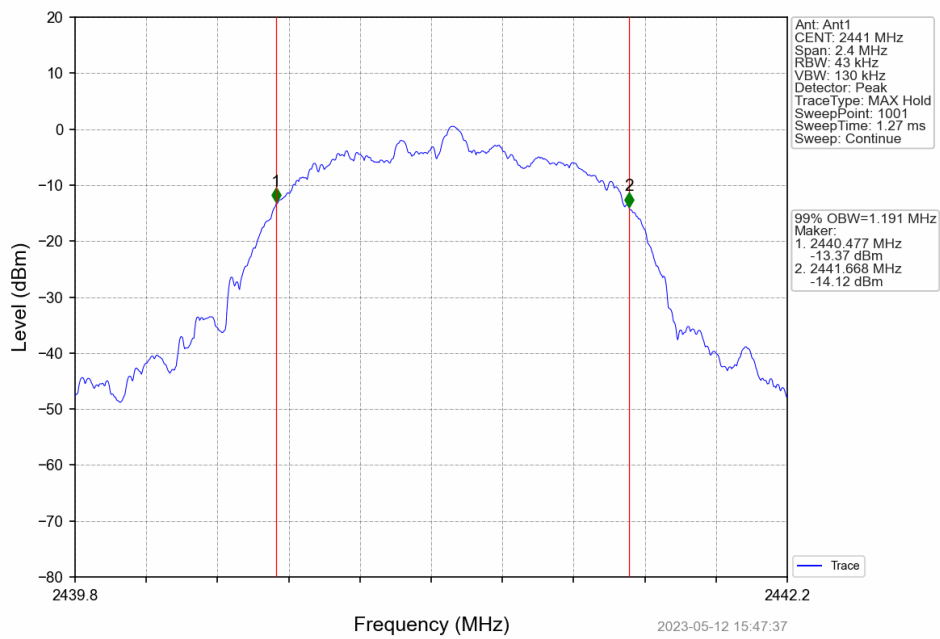
Pi/4DQPSK_2DH5_HCH_2480MHz_Ant1_NTNV

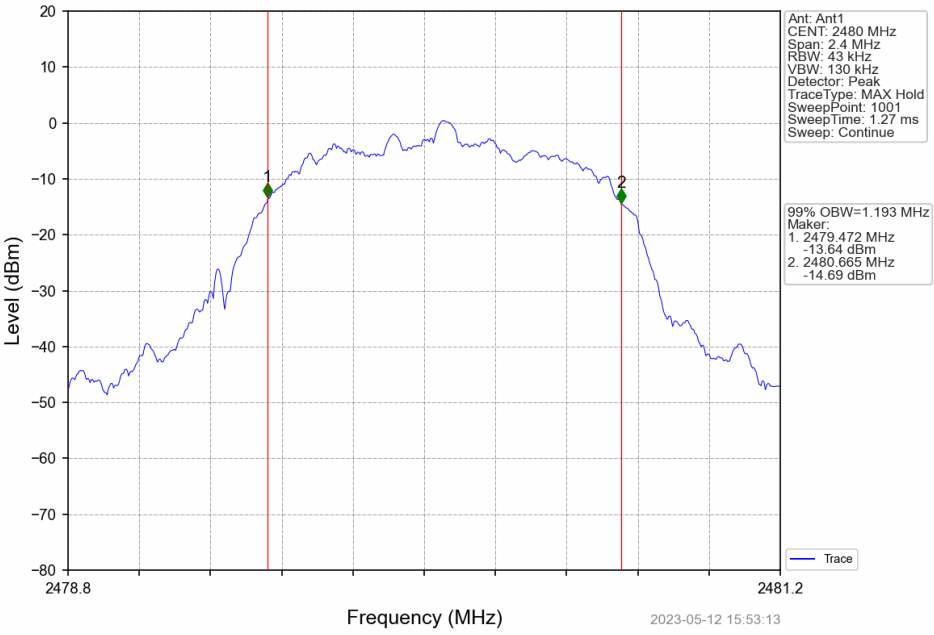


8DPSK 3DH5 LCH 2402MHz Ant1 NTNV



8DPSK 3DH5 MCH 2441MHz Ant1 NTNV



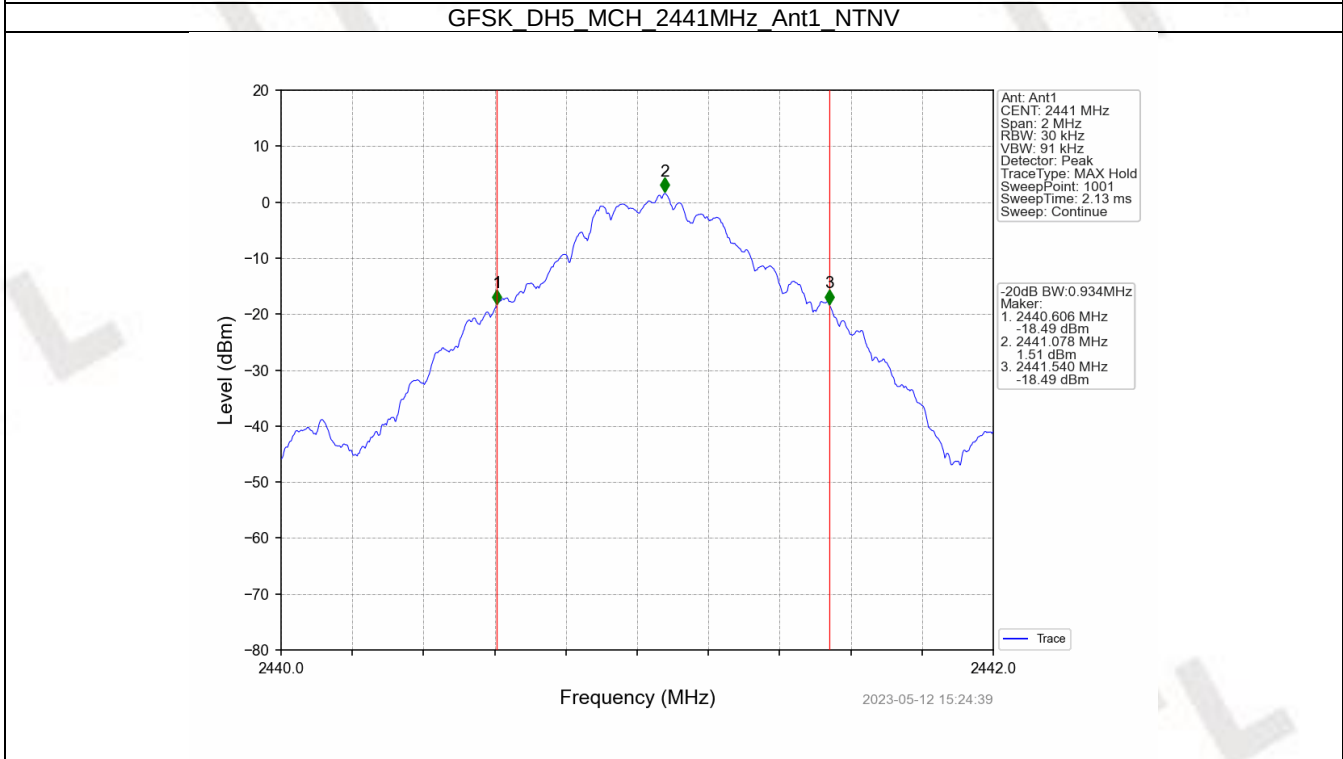
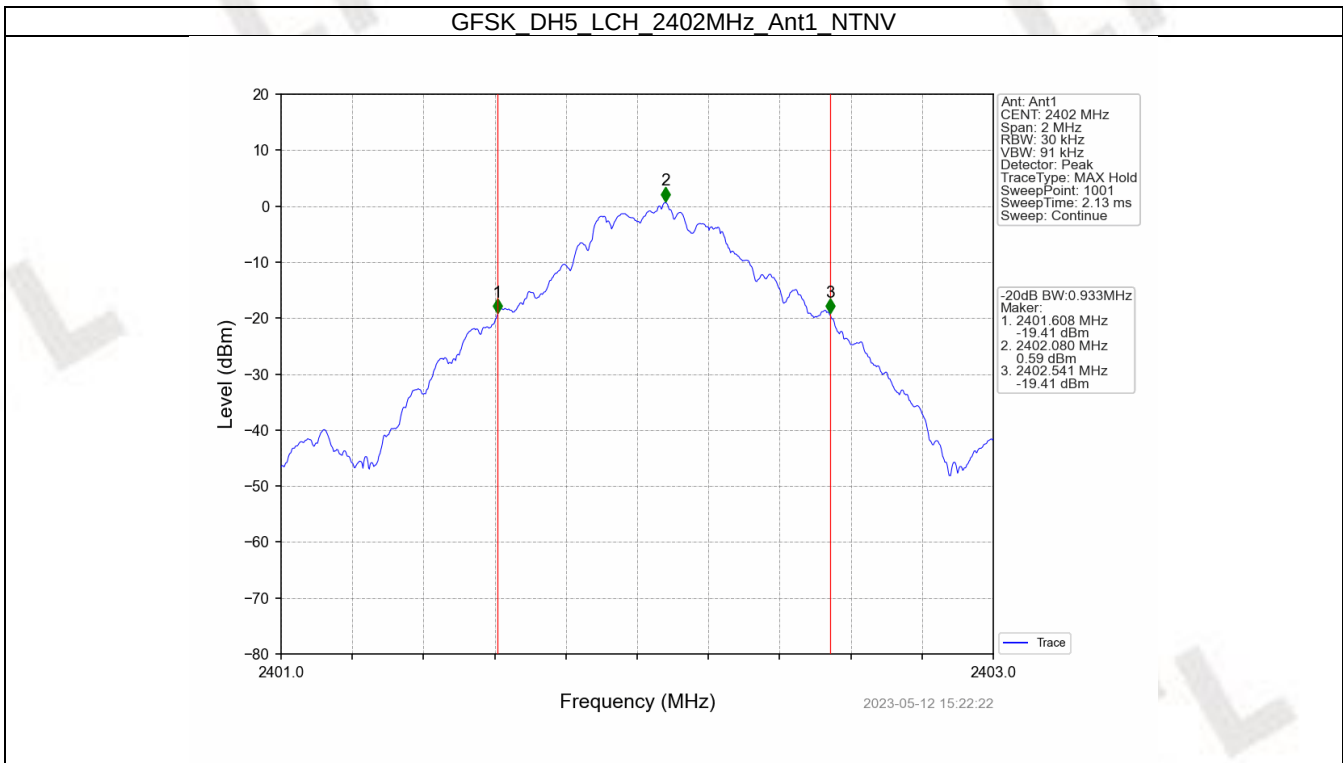


1.2 20dB BW

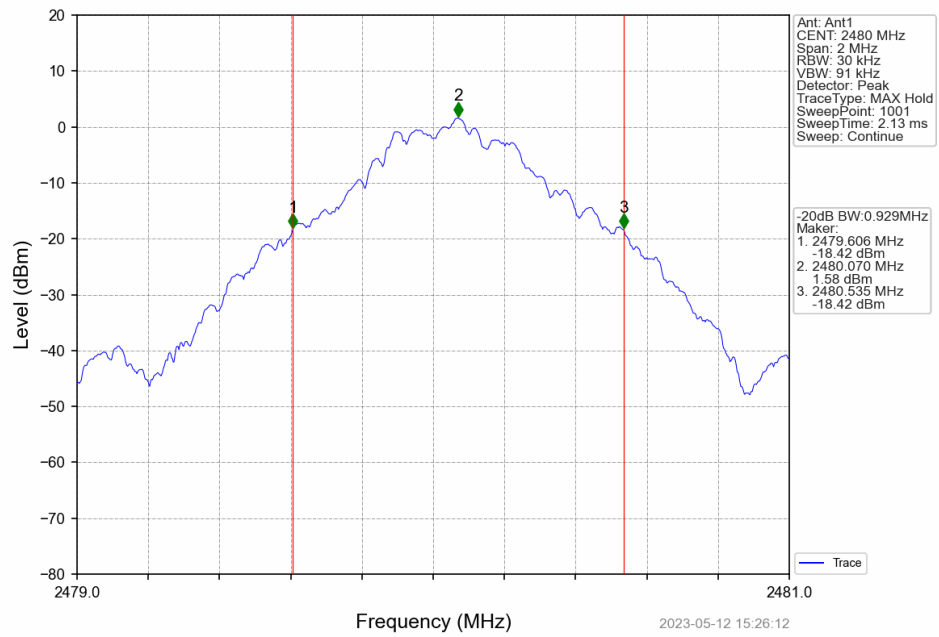
1.2.1 Test Result

Mode	TX Type	Frequency (MHz)	Packet Type	ANT	20dB Bandwidth (MHz)	Verdict
					Result	
GFSK	SISO	2402	DH5	1	0.933	Pass
		2441	DH5	1	0.934	Pass
		2480	DH5	1	0.929	Pass
Pi/4DQPSK	SISO	2402	2DH5	1	1.306	Pass
		2441	2DH5	1	1.300	Pass
		2480	2DH5	1	1.307	Pass
8DPSK	SISO	2402	3DH5	1	1.313	Pass
		2441	3DH5	1	1.315	Pass
		2480	3DH5	1	1.317	Pass

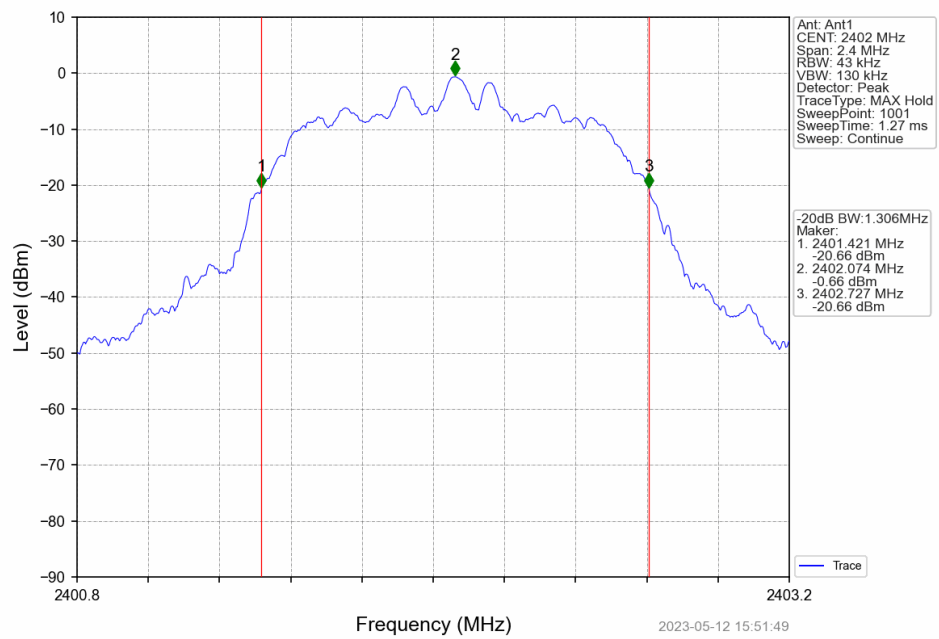
1.2.2 Test Graph



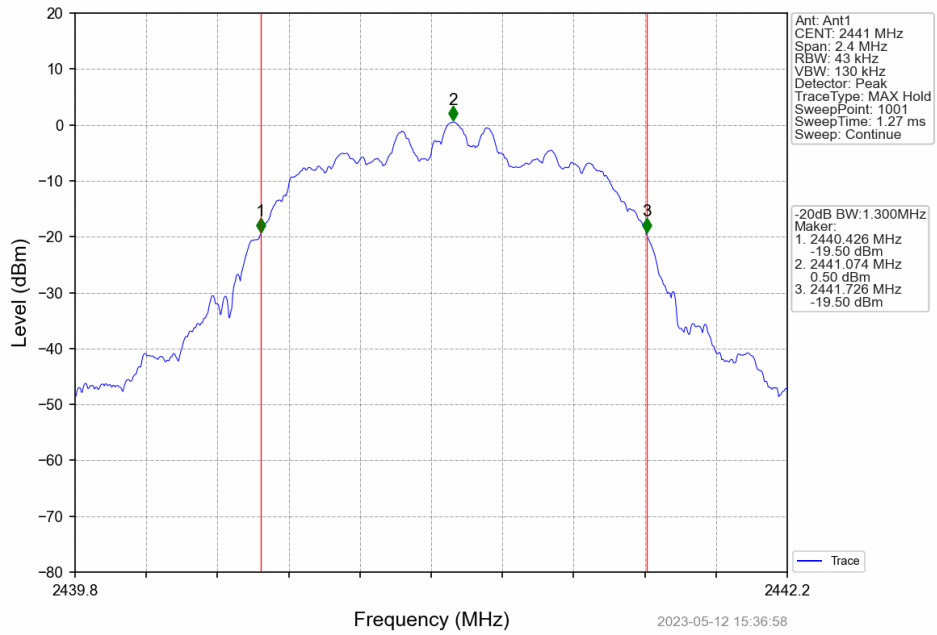
GFSK DH5 HCH 2480MHz Ant1 NTN



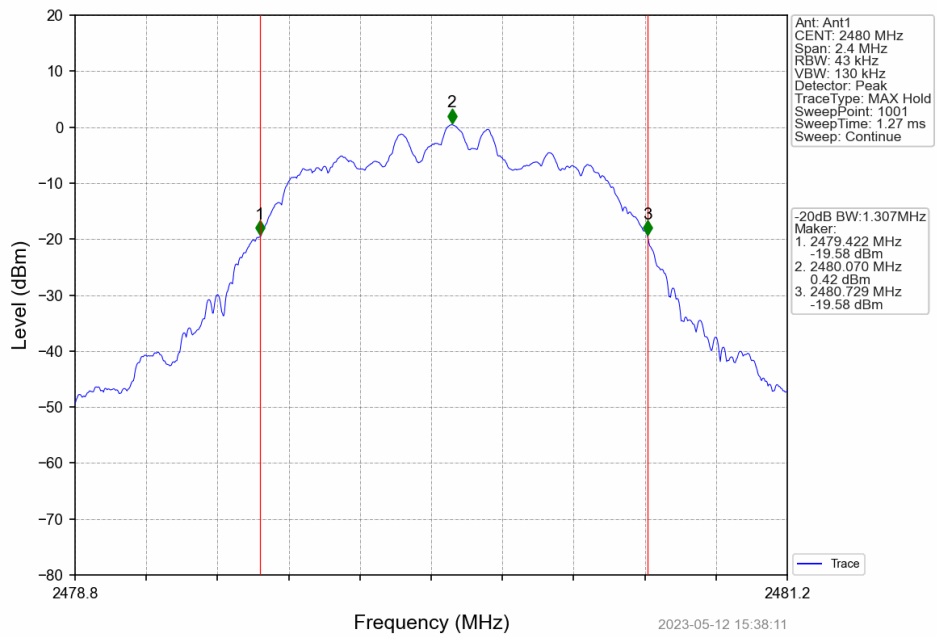
PI/4DQPSK 2DH5 LCH 2402MHz Ant1 NTN



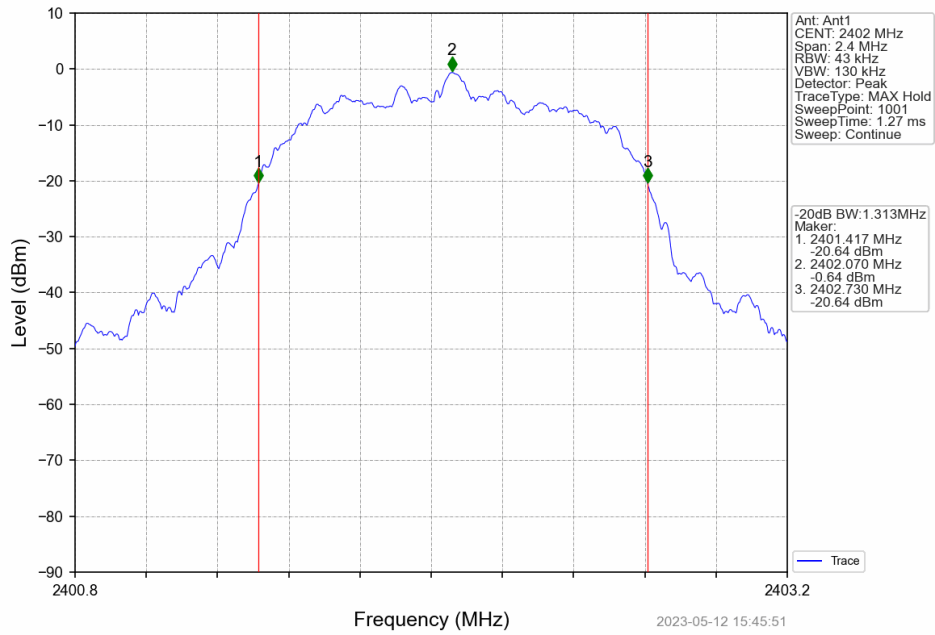
Pi/4DQPSK 2DH5 MCH 2441MHz Ant1 NTN



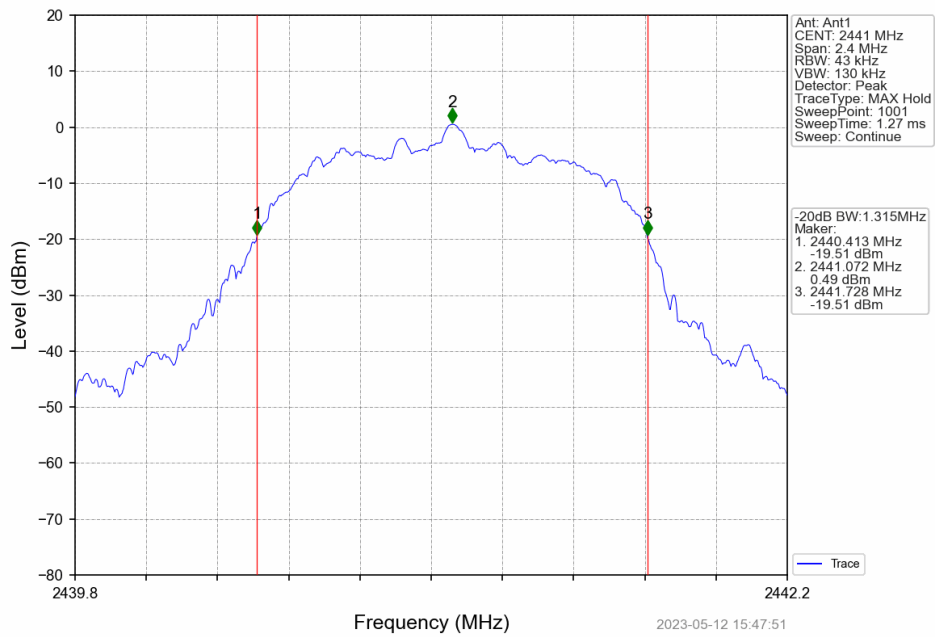
Pi/4DQPSK 2DH5 HCH 2480MHz Ant1 NTN

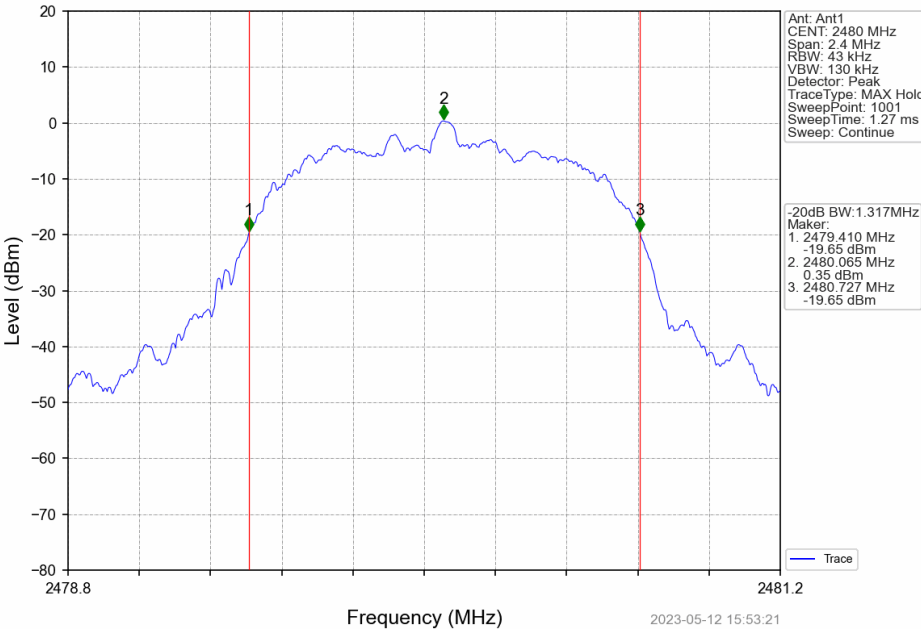


8DPSK 3DH5 LCH 2402MHz Ant1 NTN



8DPSK 3DH5 MCH 2441MHz Ant1 NTN





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	1.81	<=30	Pass
		2441	DH5	2.80	<=30	Pass
		2480	DH5	2.65	<=30	Pass
Pi/4DQPSK	SISO	2402	2DH5	1.89	<=20.97	Pass
		2441	2DH5	3.06	<=20.97	Pass
		2480	2DH5	2.96	<=20.97	Pass
8DPSK	SISO	2402	3DH5	2.52	<=20.97	Pass
		2441	3DH5	3.58	<=20.97	Pass
		2480	3DH5	3.51	<=20.97	Pass

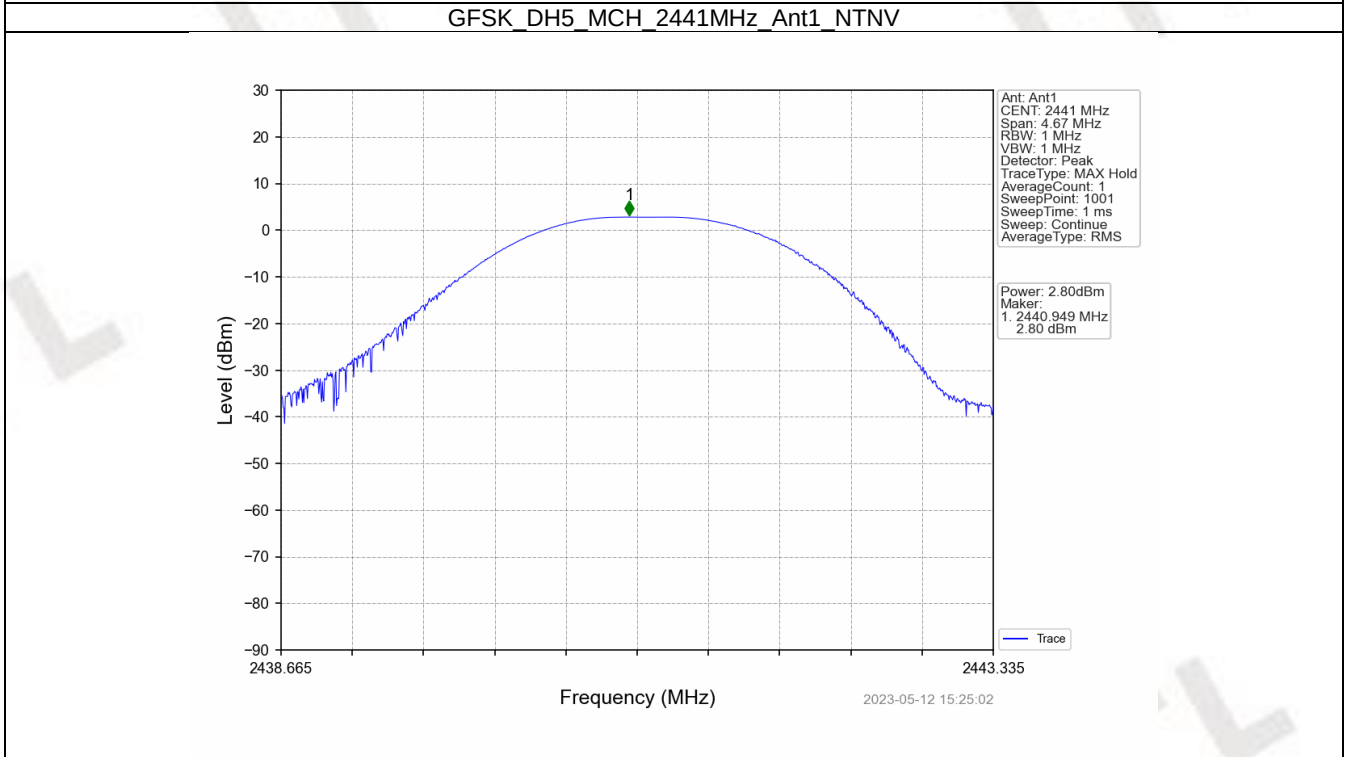
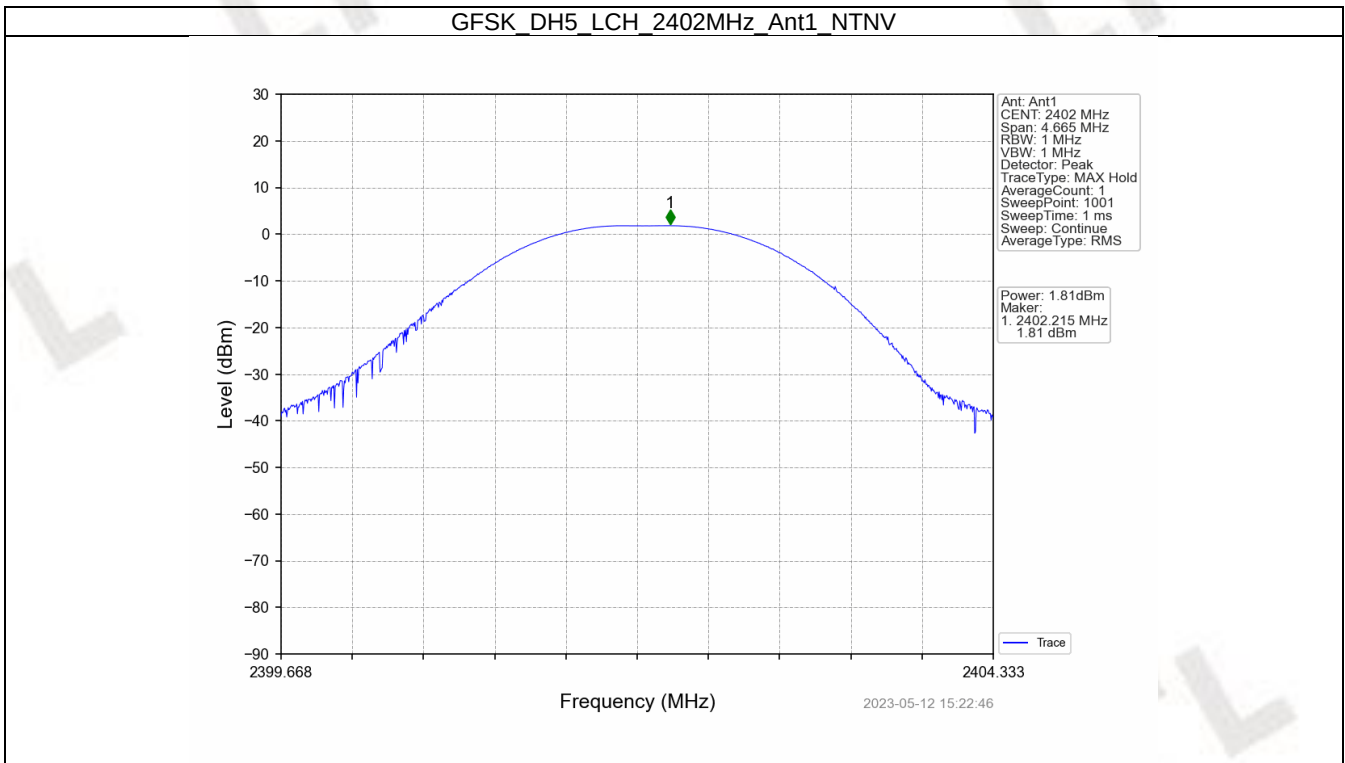
Note1: Antenna Gain: Ant1: 1.70dBi;

EIRP

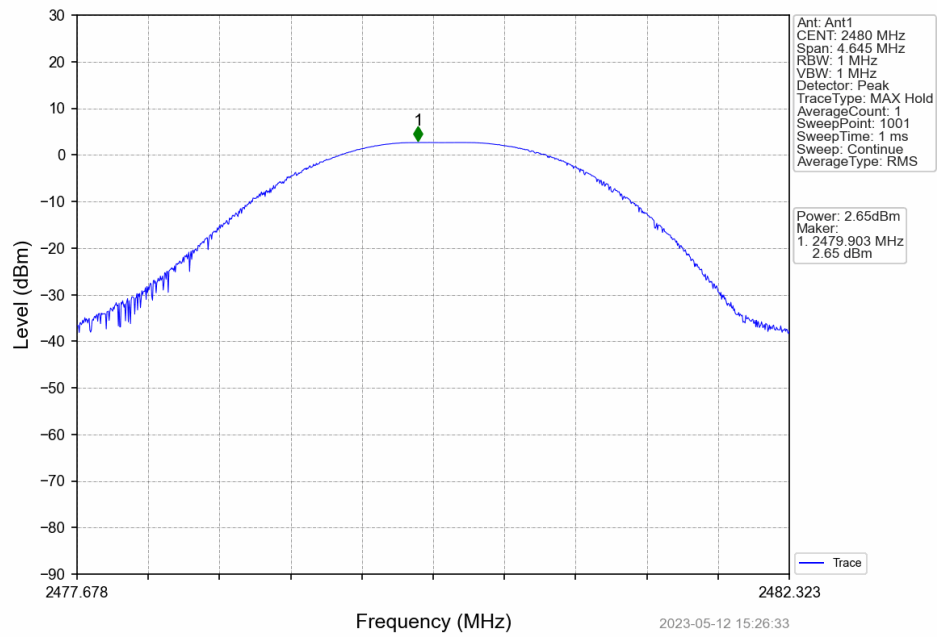
Mode	TX Type	Frequency (MHz)	Packet Type	E.I.R.P (dBm)		Verdict
				ANT1	Limit	
GFSK	SISO	2402	DH5	3.51	<=36.02	Pass
		2441	DH5	4.50	<=36.02	Pass
		2480	DH5	4.35	<=36.02	Pass
Pi/4DQPSK	SISO	2402	2DH5	3.59	<=36.02	Pass
		2441	2DH5	4.76	<=36.02	Pass
		2480	2DH5	4.66	<=36.02	Pass
8DPSK	SISO	2402	3DH5	4.22	<=36.02	Pass
		2441	3DH5	5.28	<=36.02	Pass
		2480	3DH5	5.21	<=36.02	Pass

Note1: Antenna Gain: Ant1: 1.70dBi;
Note2: E.I.R.P = Measured Power + Antenna Gain

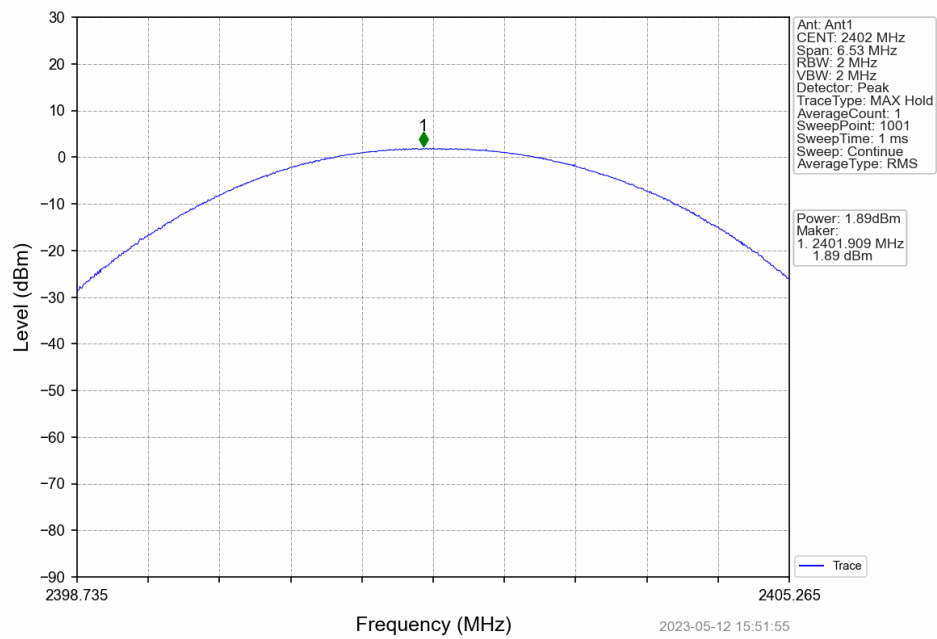
2.1.2 Test Graph



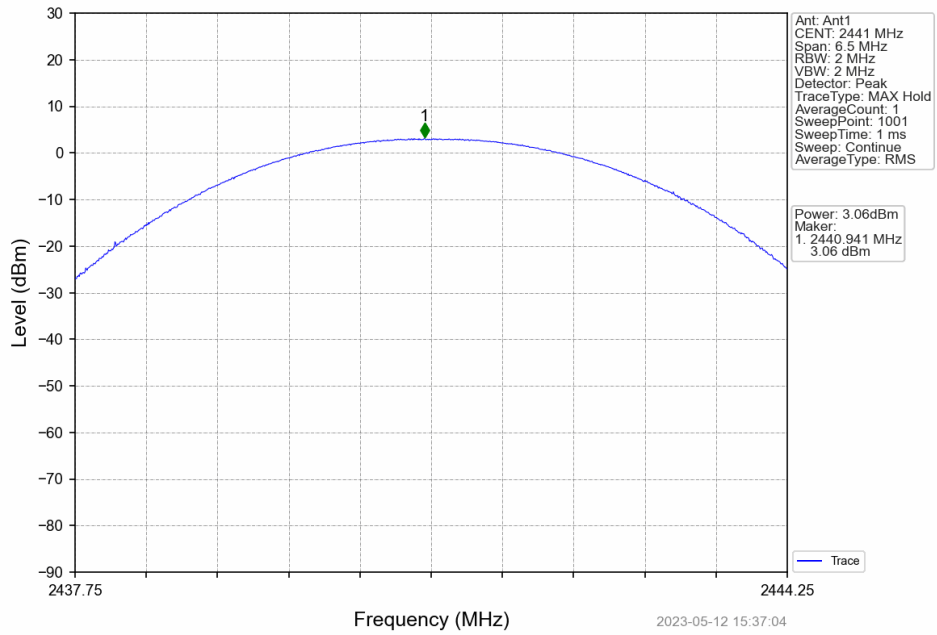
GFSK DH5 HCH 2480MHz Ant1 NTN



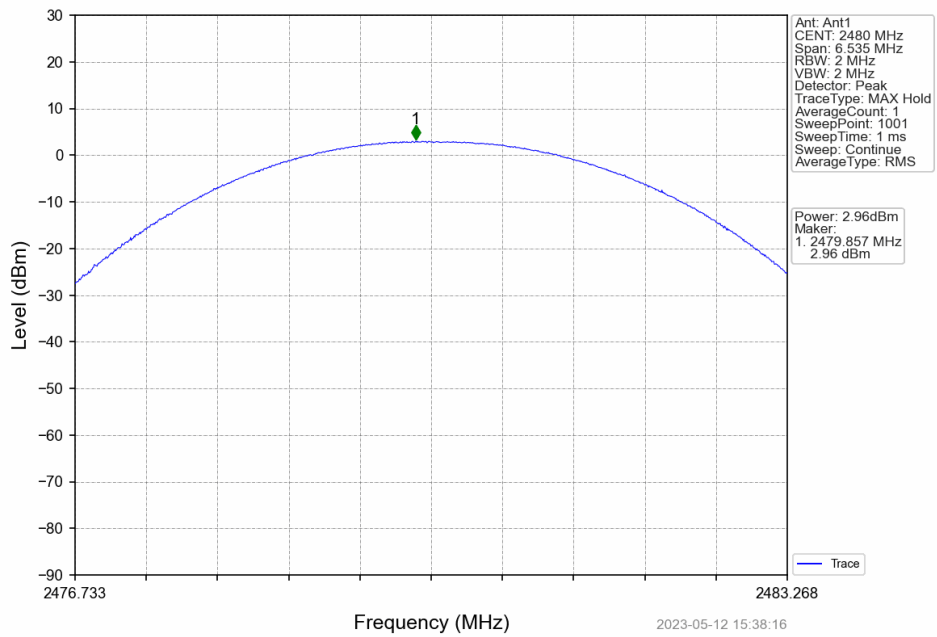
PI/4DQPSK 2DH5_LCH 2402MHz Ant1 NTN



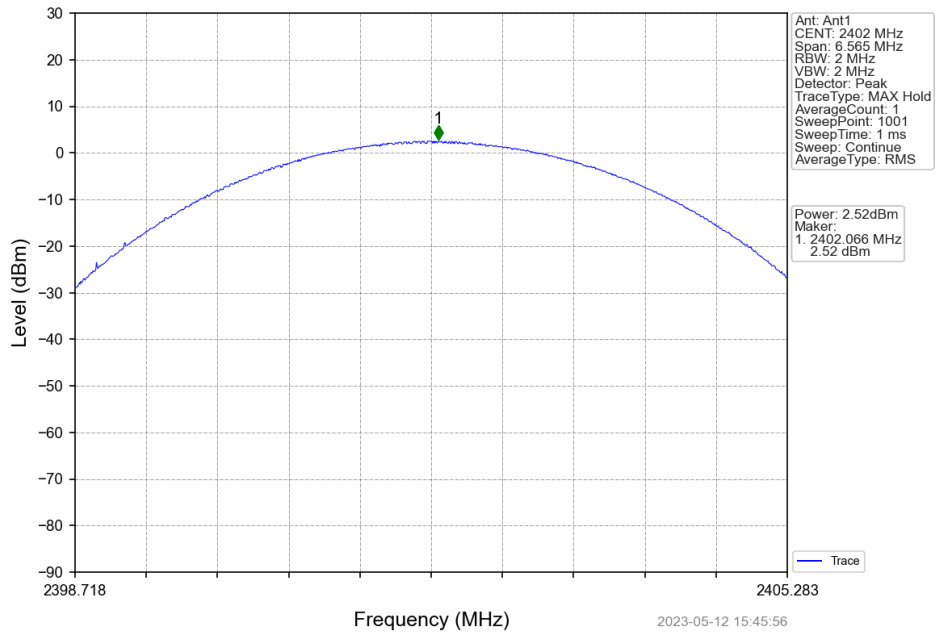
Pi/4DQPSK_2DH5_MCH_2441MHz_Ant1_NTNV



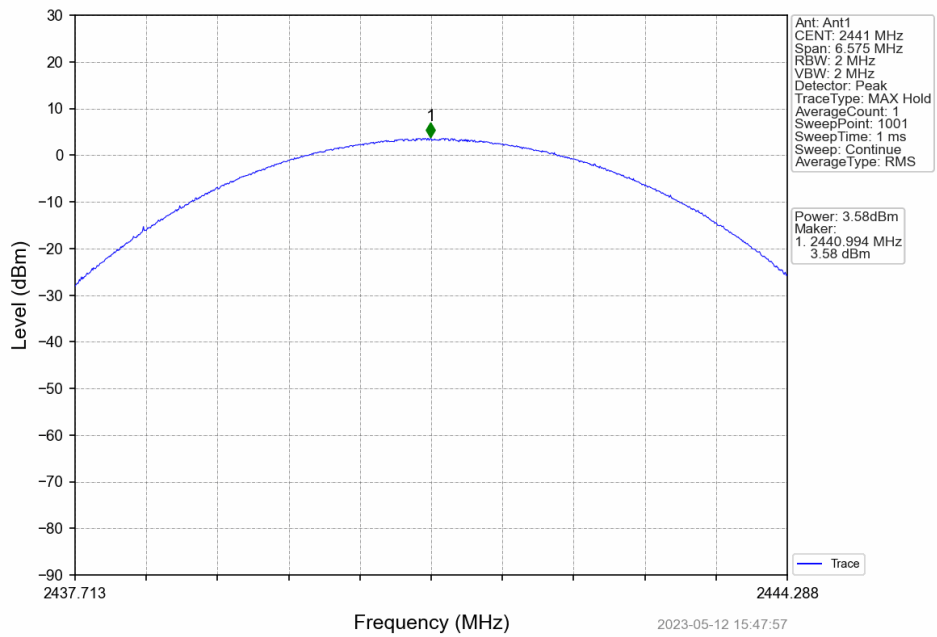
Pi/4DQPSK_2DH5_HCH_2480MHz_Ant1_NTNV

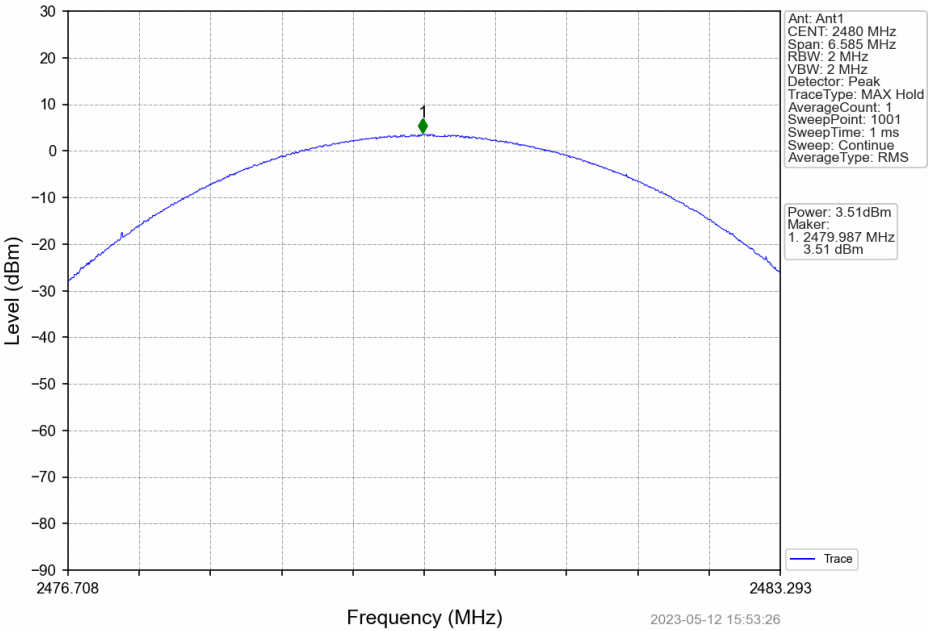


8DPSK_3DH5_LCH_2402MHz_Ant1_NTNV



8DPSK_3DH5_MCH_2441MHz_Ant1_NTNV





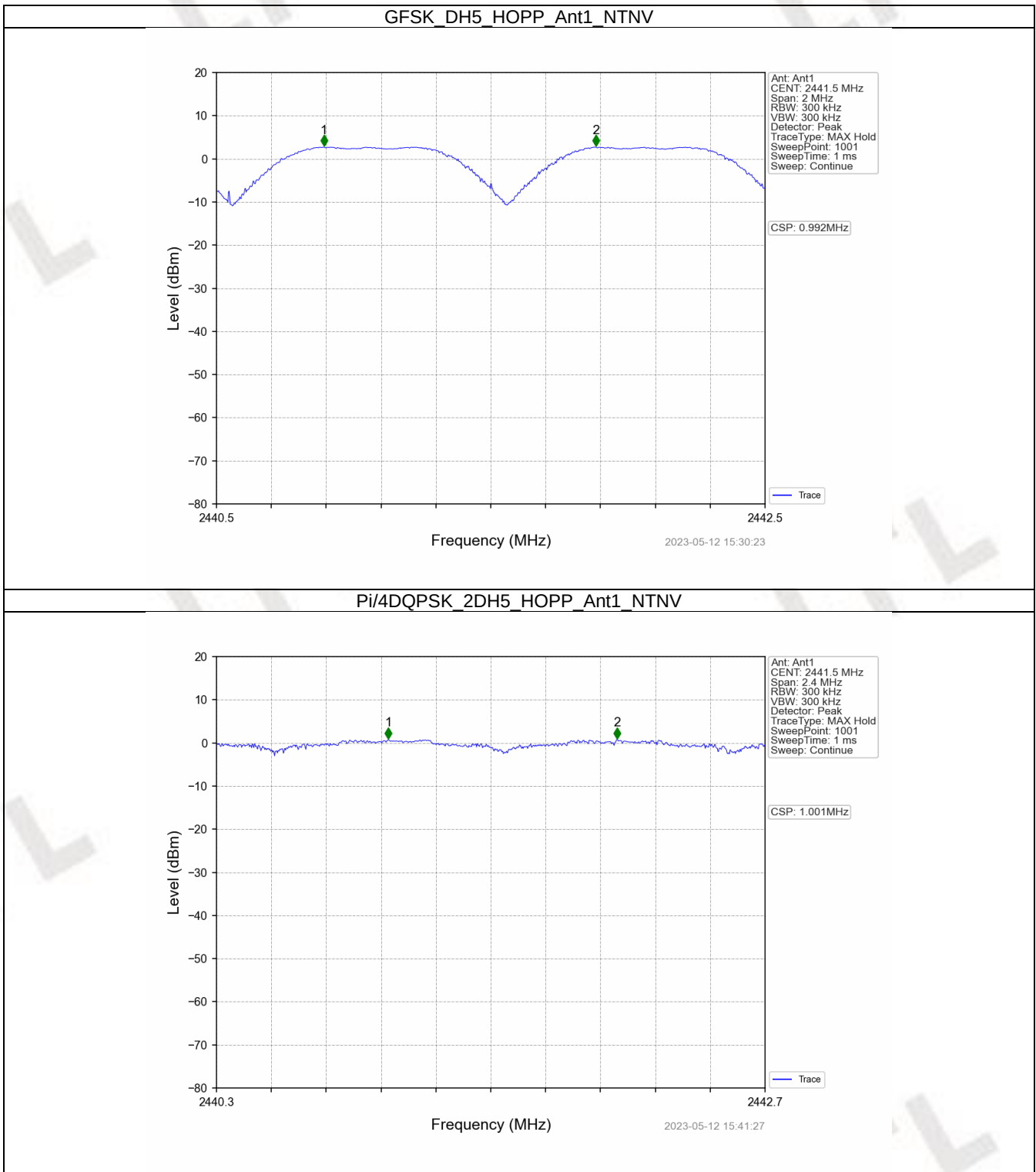
3 Carrier Frequency Separation

3.1 Ant1

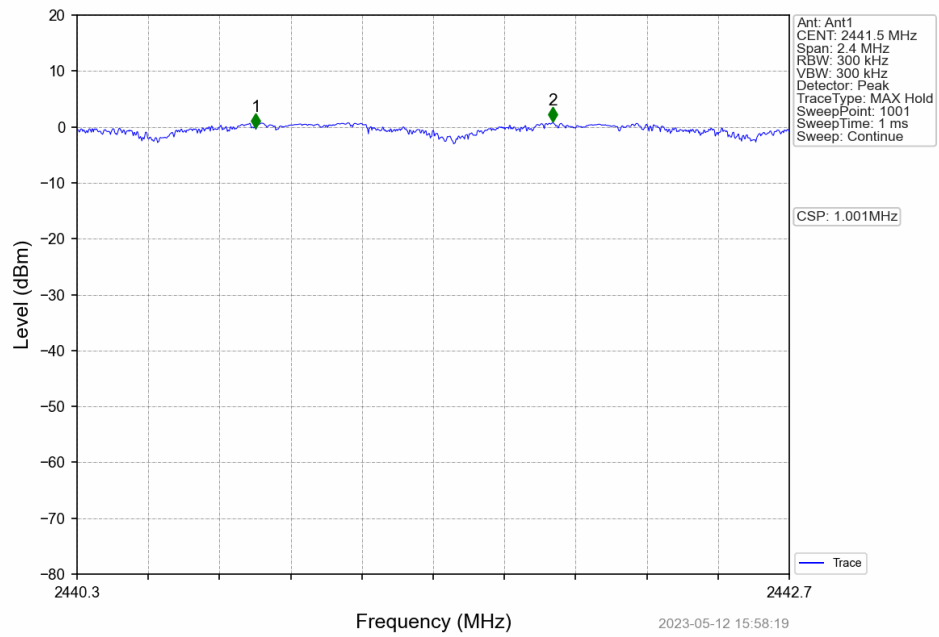
3.1.1 Test Result

Ant1							
Mode	TX Type	Frequency (MHz)	Packet Type	Channel Separation (MHz)	20dB Bandwidth (MHz)	Limit (MHz)	Verdict
GFSK	SISO	HOPP	DH5	0.992	0.934	≥ 0.934	Pass
Pi/4DQPSK	SISO	HOPP	2DH5	1.001	1.307	≥ 0.871	Pass
8DPSK	SISO	HOPP	3DH5	1.001	1.317	≥ 0.878	Pass

3.1.2 Test Graph



8DPSK 3DH5 HOPP Ant1 NTNV



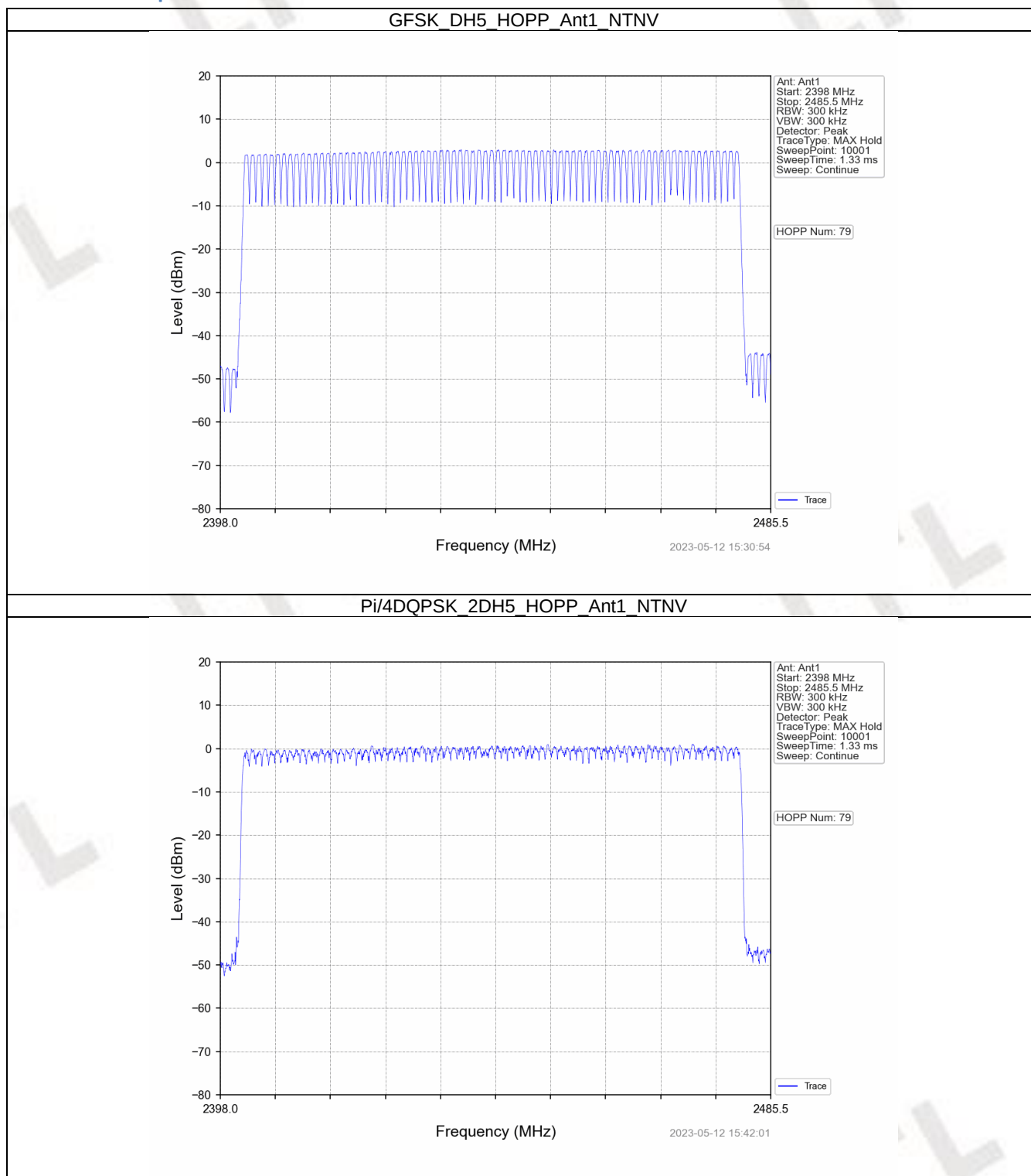
4 Number of Hopping Frequencies

4.1 HoppNum

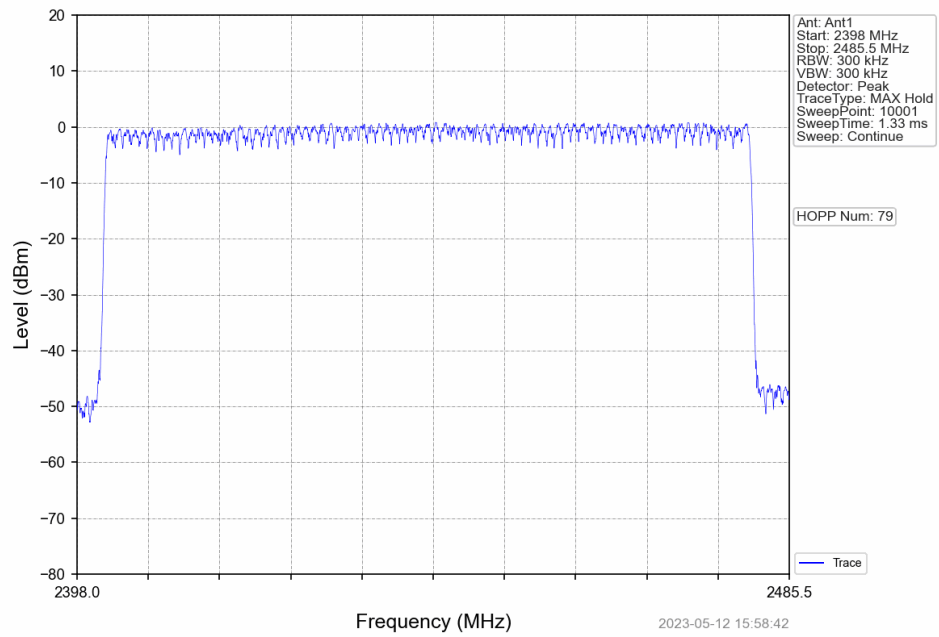
4.1.1 Test Result

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



8DPSK 3DH5 HOPP Ant1 NTNV



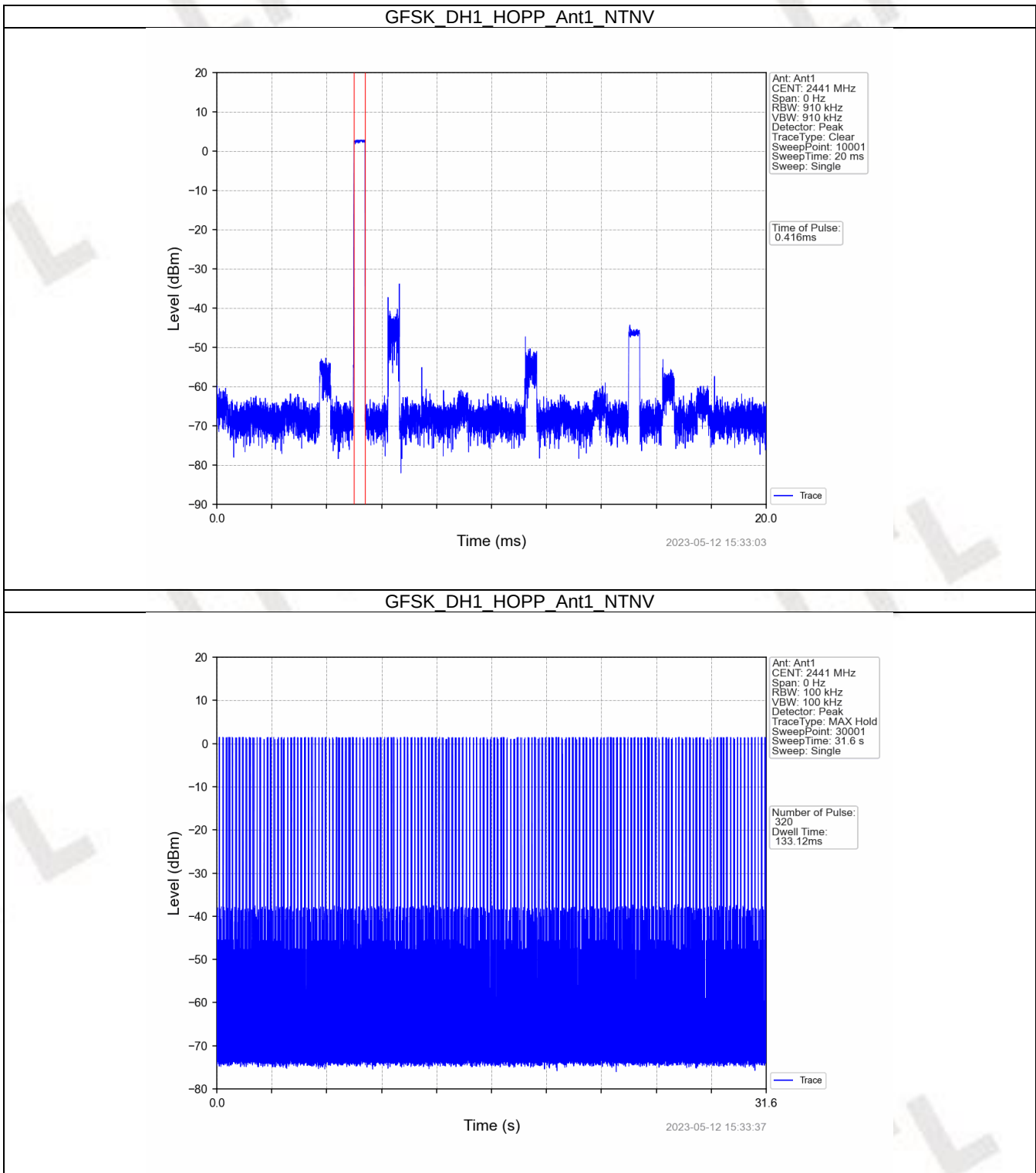
5 Time of Occupancy (Dwell Time)

5.1 Ant1

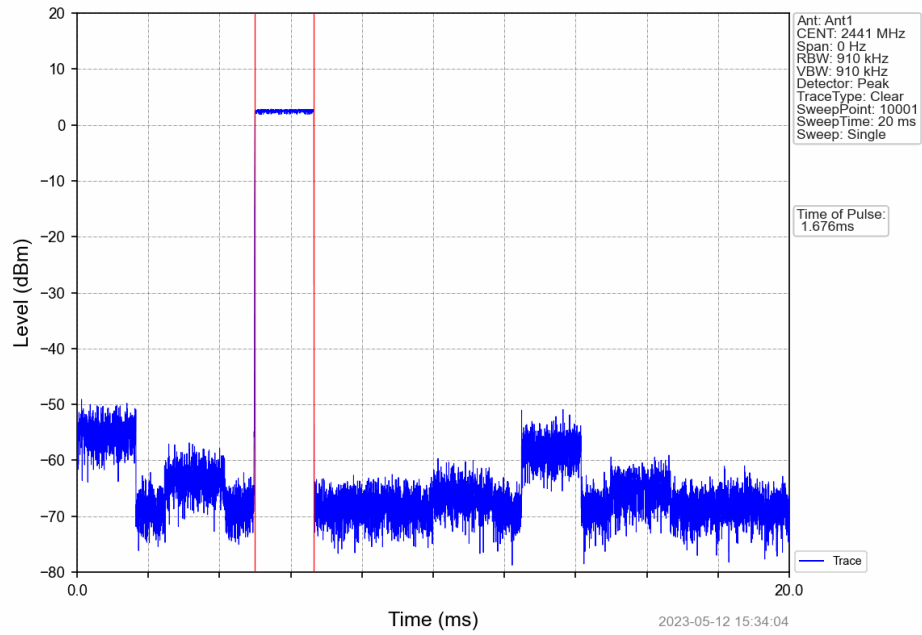
5.1.1 Test Result

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	0.416	31.600	320	133.120	<=400	Pass
			DH3	1.676	31.600	157	263.132	<=400	Pass
			DH5	2.924	31.600	106	309.944	<=400	Pass
Pi/4DQPSK	SISO	HOPP	2DH1	0.426	31.600	320	136.320	<=400	Pass
			2DH3	1.682	31.600	157	264.074	<=400	Pass
			2DH5	2.930	31.600	100	293.000	<=400	Pass
8DPSK	SISO	HOPP	3DH1	0.428	31.600	320	136.960	<=400	Pass
			3DH3	1.684	31.600	156	262.704	<=400	Pass
			3DH5	2.920	31.600	111	324.120	<=400	Pass

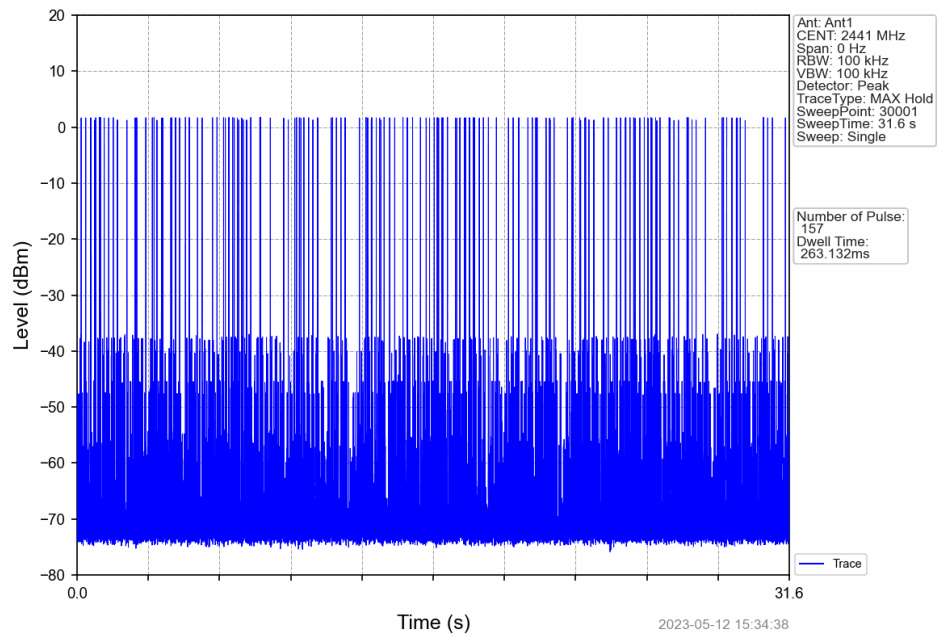
5.1.2 Test Graph



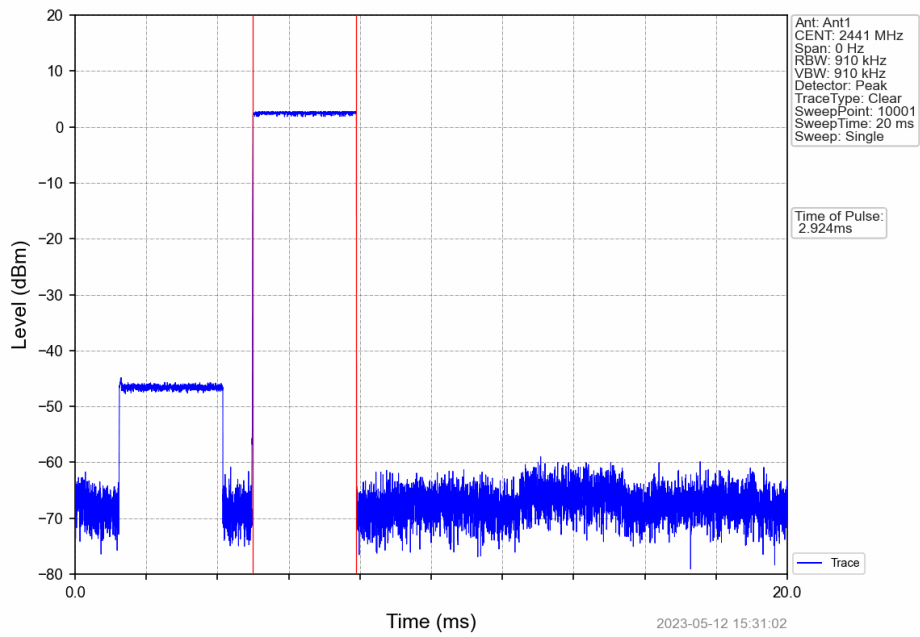
GFSK DH3 HOPP Ant1 NTN



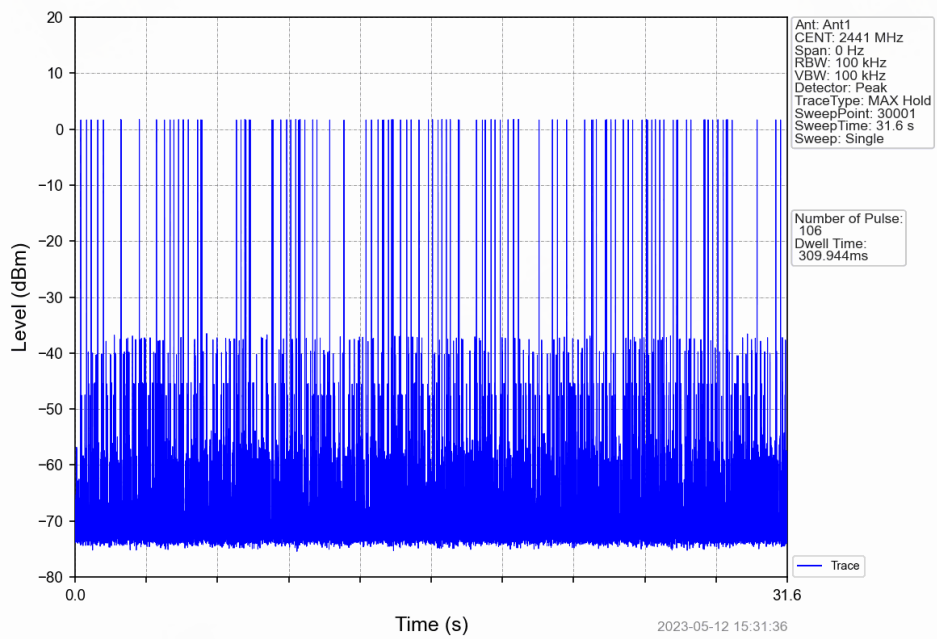
GFSK DH3 HOPP Ant1 NTN



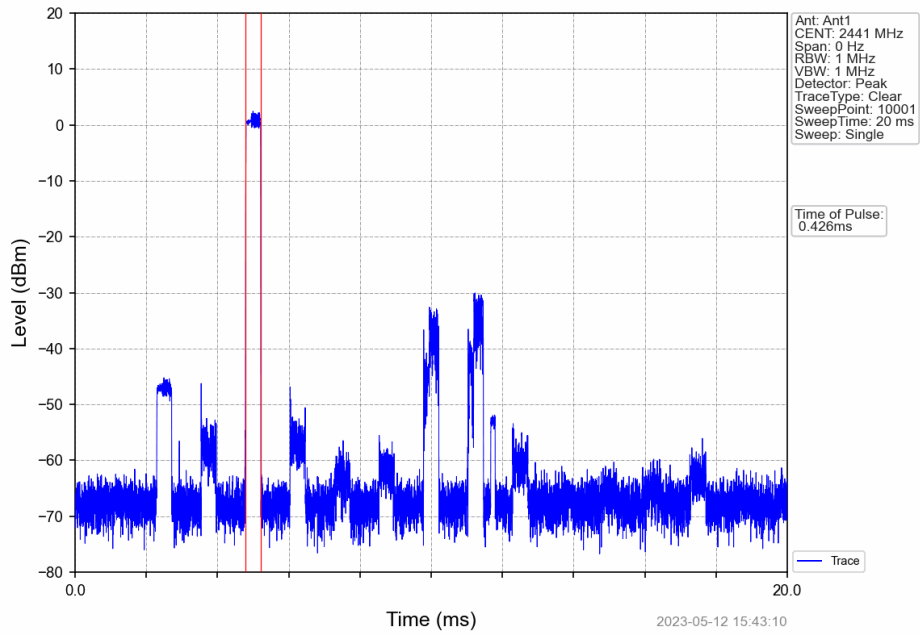
GFSK DH5 HOPP Ant1 NTN



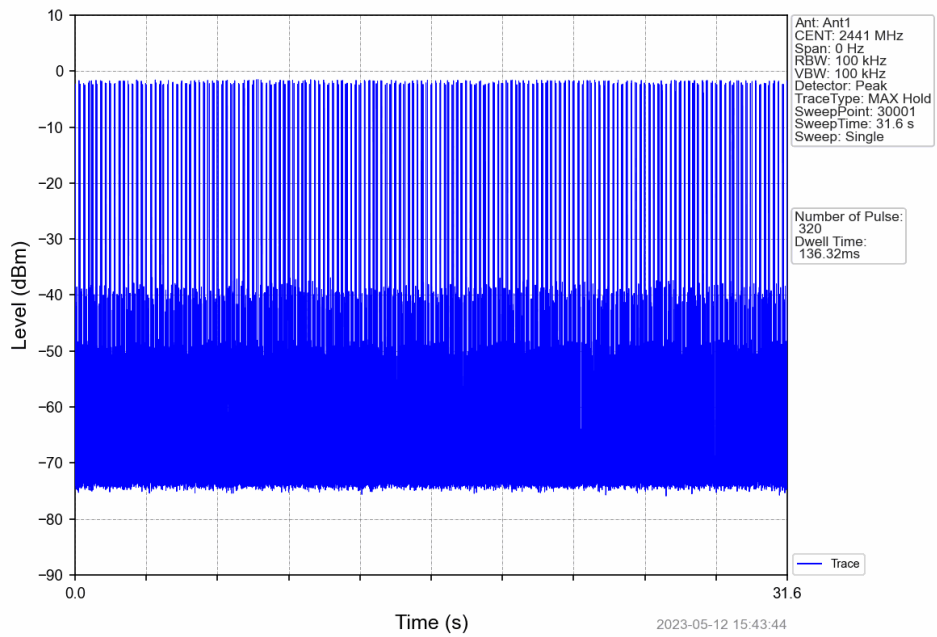
GFSK_DH5_HOPP_Ant1_NTNV



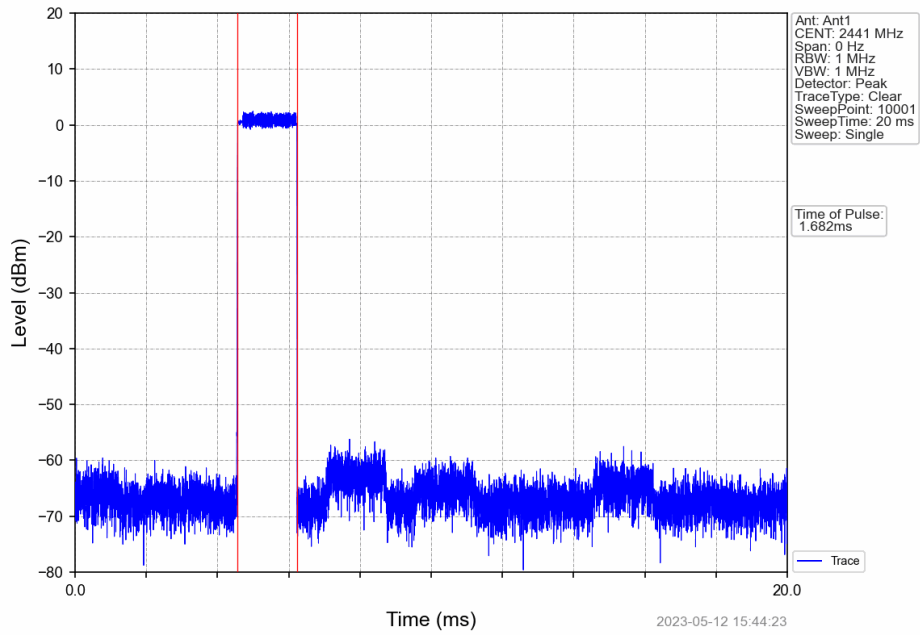
Pi/4DQPSK_2DH1_HOPP_Ant1_NTNV



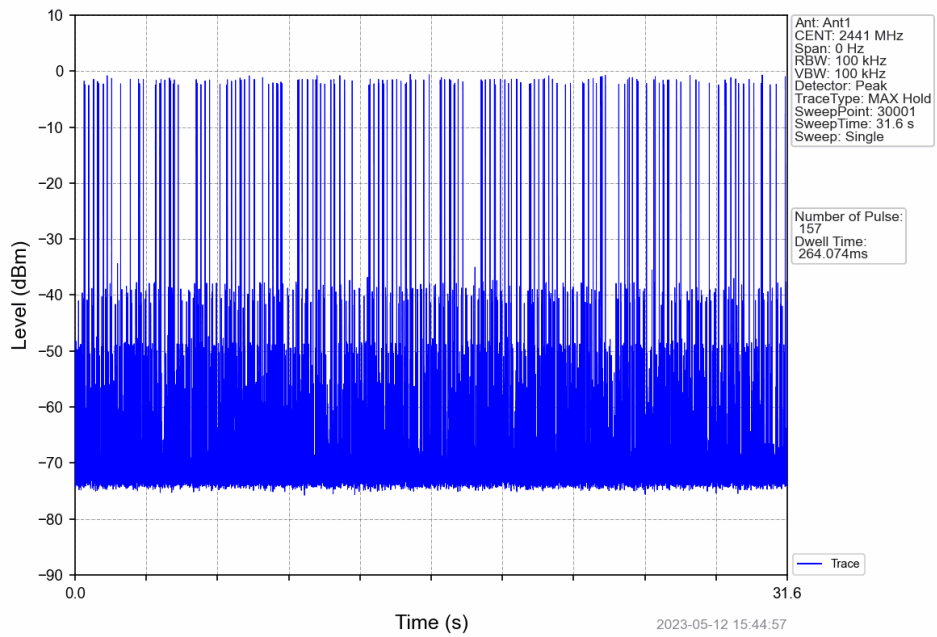
Pi/4DQPSK_2DH1_HOPP_Ant1_NTNV



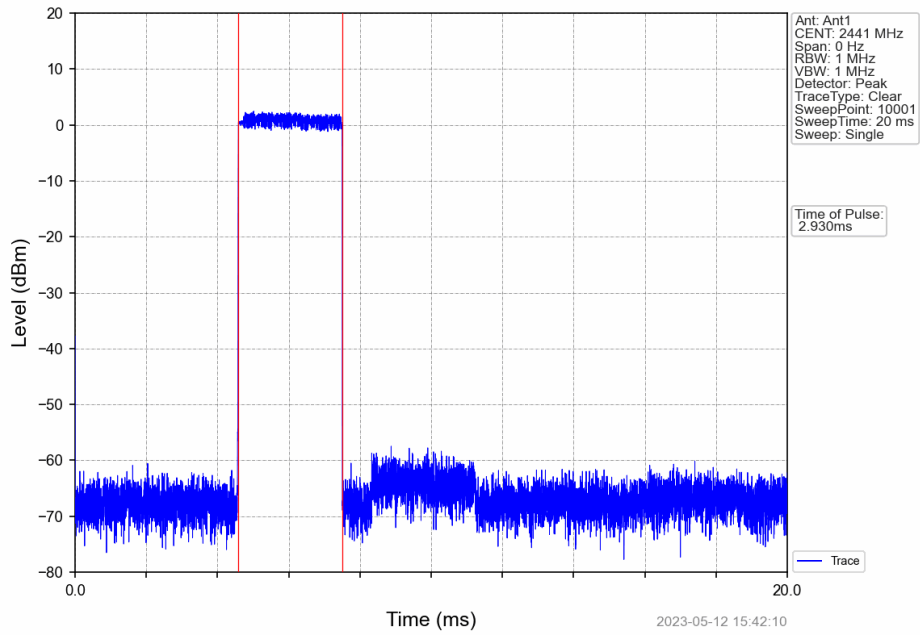
Pi/4DQPSK_2DH3_HOPP_Ant1_NTNV



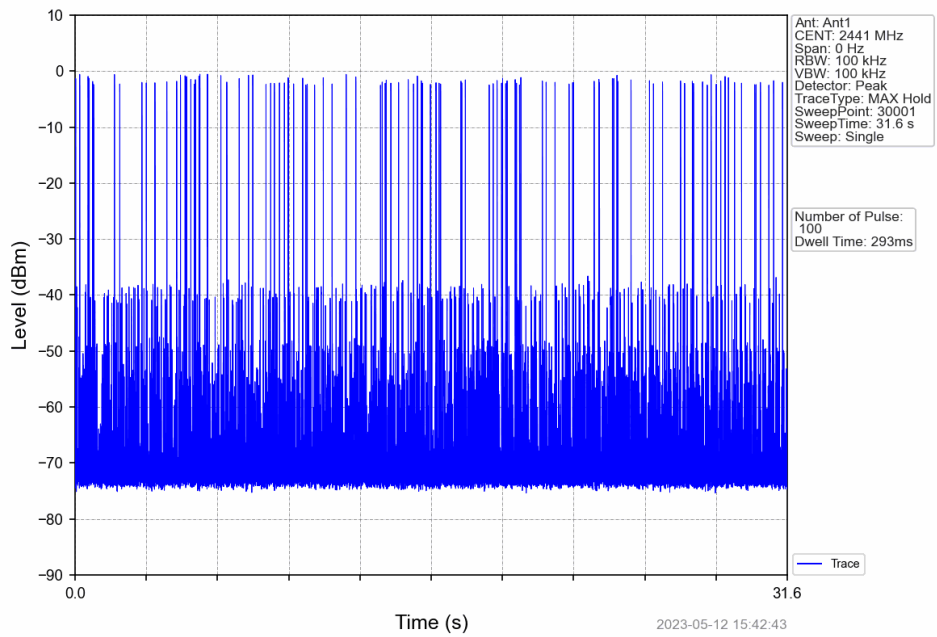
Pi/4DQPSK_2DH3_HOPP_Ant1_NTNV



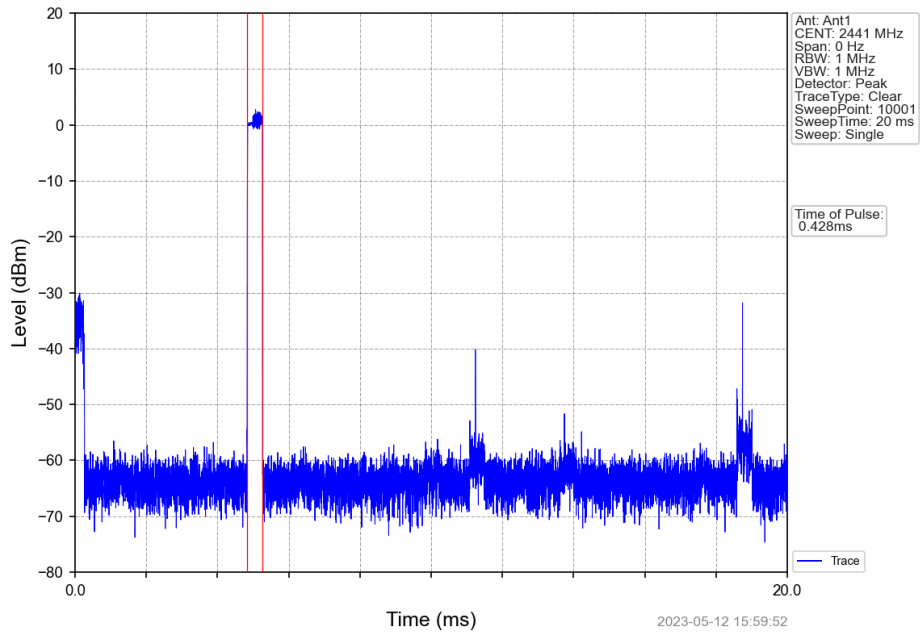
Pi/4DQPSK_2DH5_HOPP_Ant1_NTNV



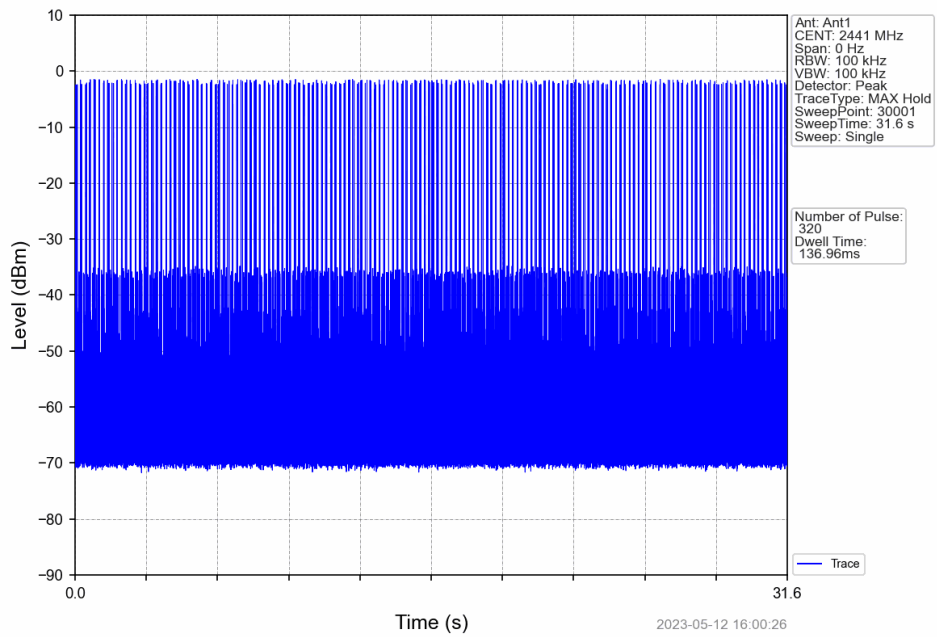
Pi/4DQPSK_2DH5_HOPP_Ant1_NTNV



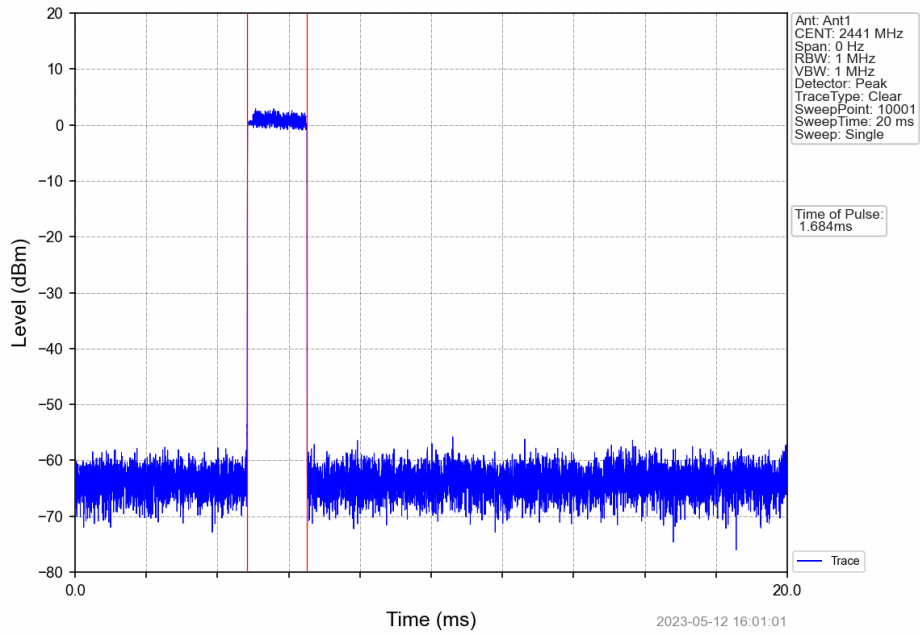
8DPSK 3DH1 HOPP Ant1 NTN



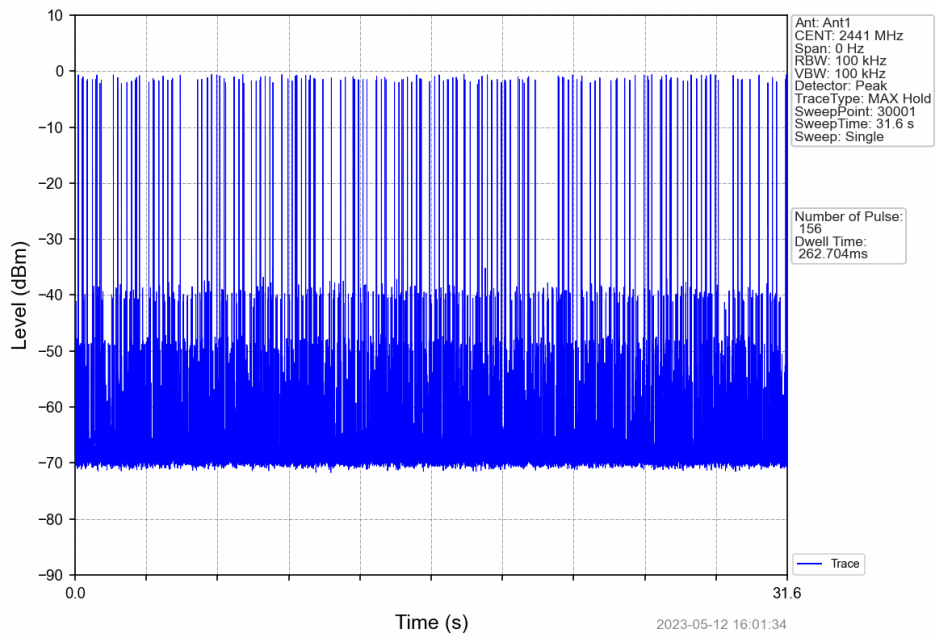
8DPSK 3DH1 HOPP Ant1 NTN



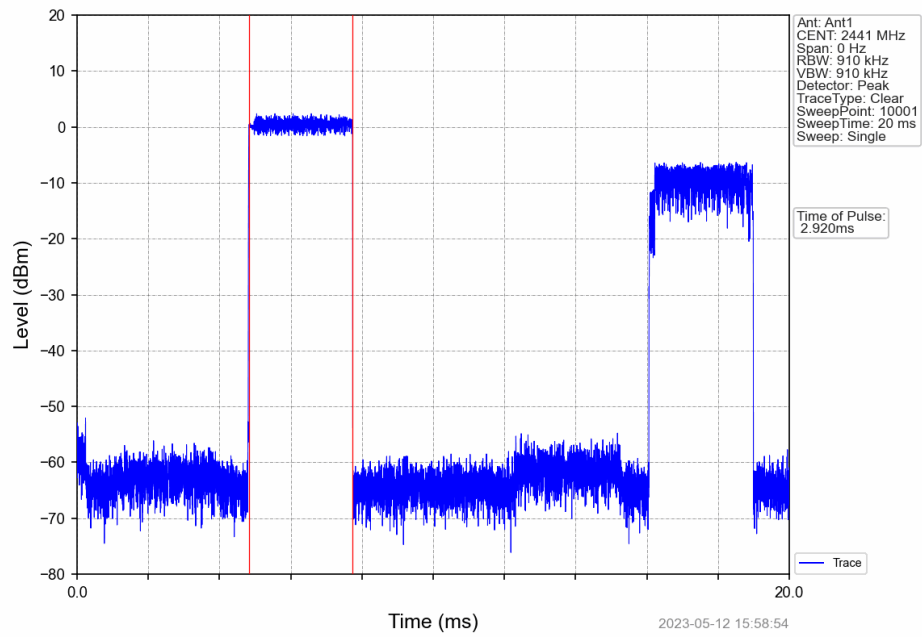
8DPSK 3DH3 HOPP Ant1 NTN



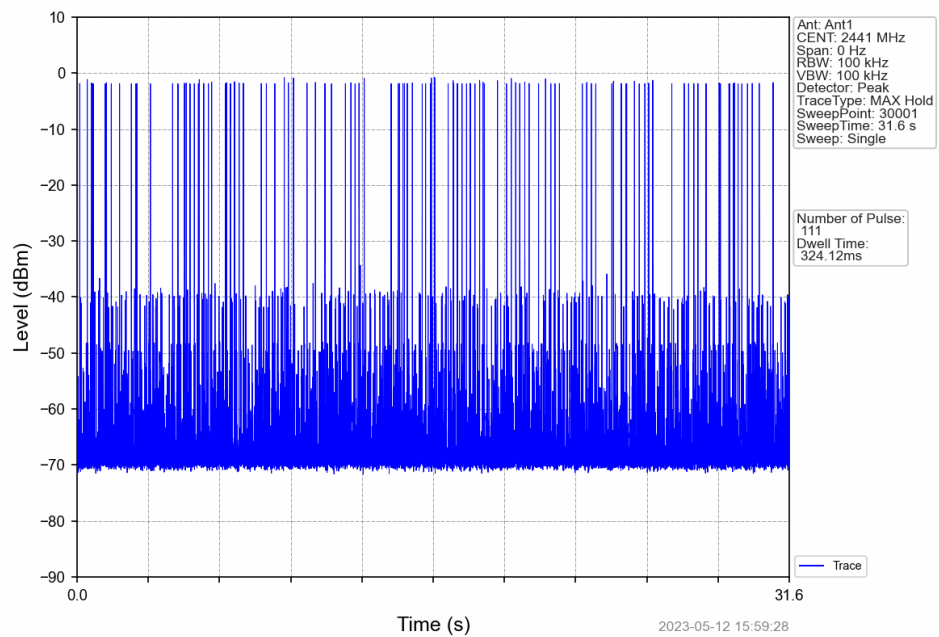
8DPSK 3DH3 HOPP Ant1 NTN



8DPSK 3DH5 HOPP Ant1 NTN



8DPSK 3DH5 HOPP Ant1 NTN



6 Unwanted Emissions In Non-restricted Frequency Bands

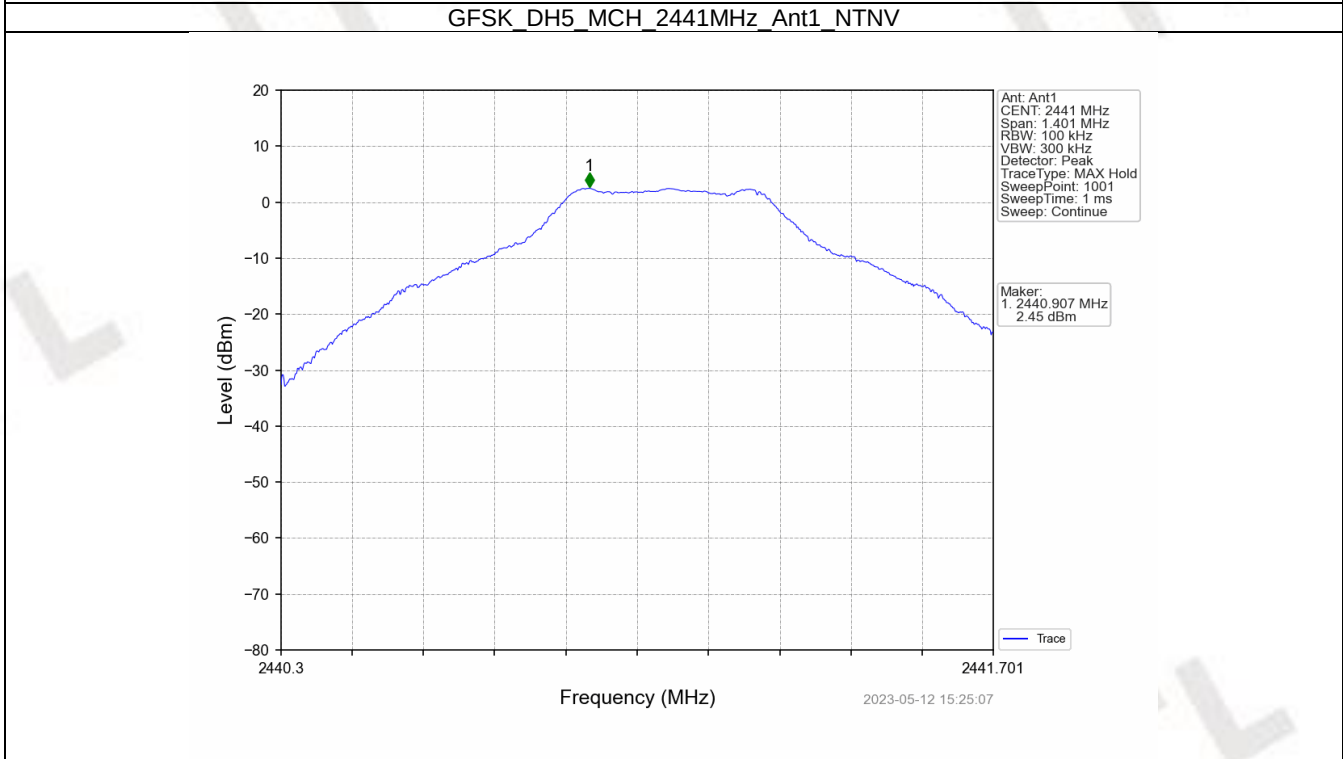
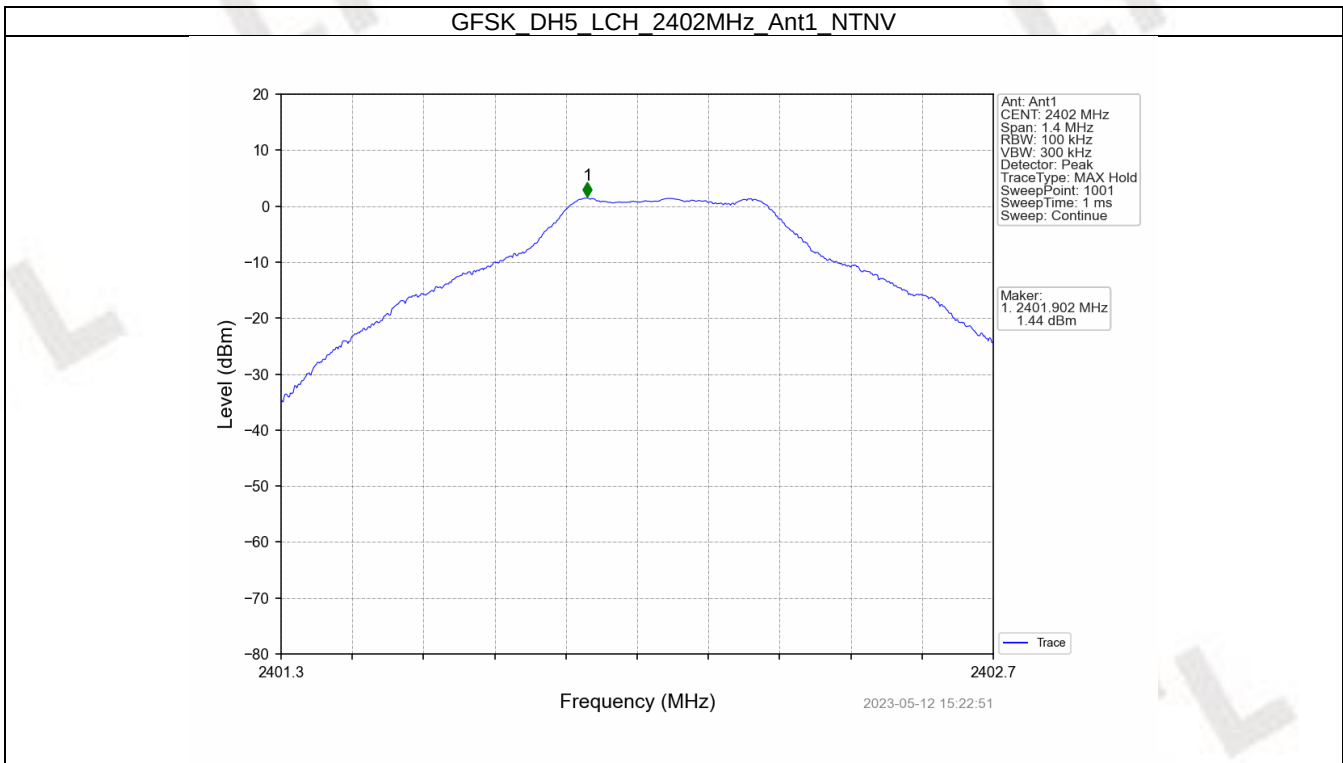
6.1 Ref

6.1.1 Test Result

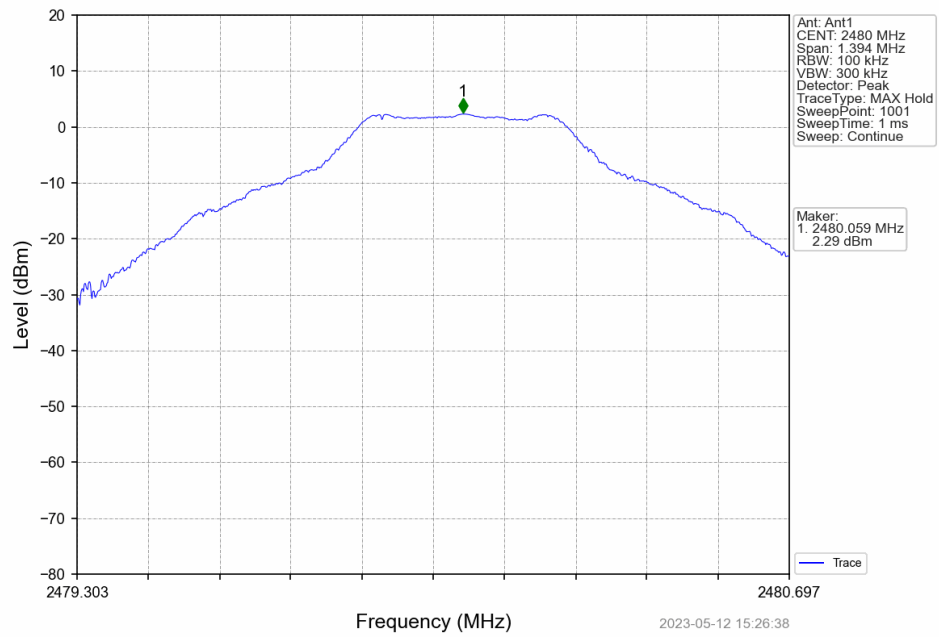
Mode	TX Type	Frequency (MHz)	Packet Type	ANT	Level of Reference (dBm)
GFSK	SISO	2402	DH5	1	1.44
		2441	DH5	1	2.45
		2480	DH5	1	2.29
Pi/4DQPSK	SISO	2402	2DH5	1	-0.74
		2441	2DH5	1	0.51
		2480	2DH5	1	0.41
8DPSK	SISO	2402	3DH5	1	-0.71
		2441	3DH5	1	0.39
		2480	3DH5	1	0.33

Note1: Refer to RSS-247 Issue 2 section 5.5 and ANSI C63.10-2013, the channel contains the maximum PSD level was used to establish the reference level.

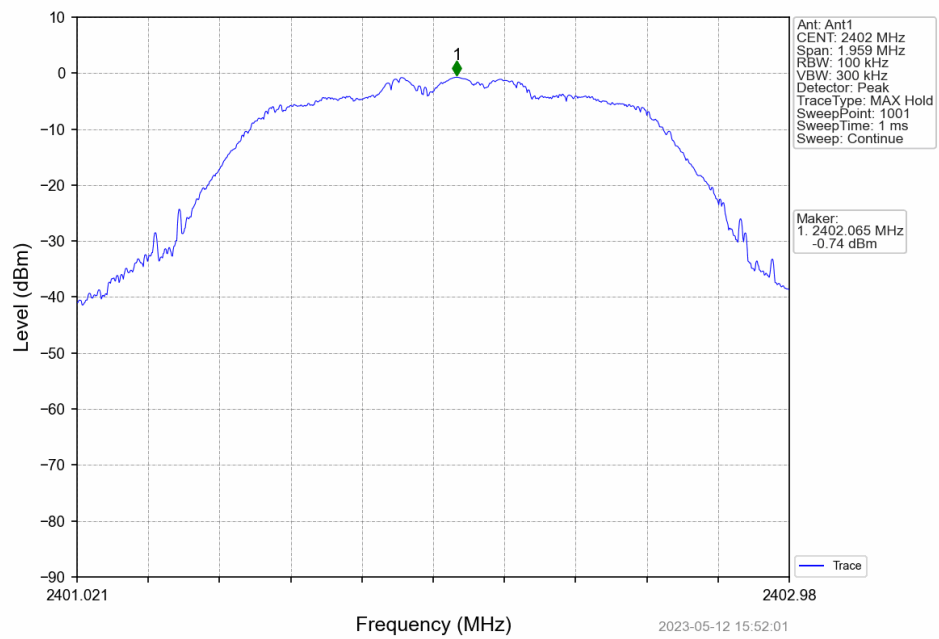
6.1.2 Test Graph



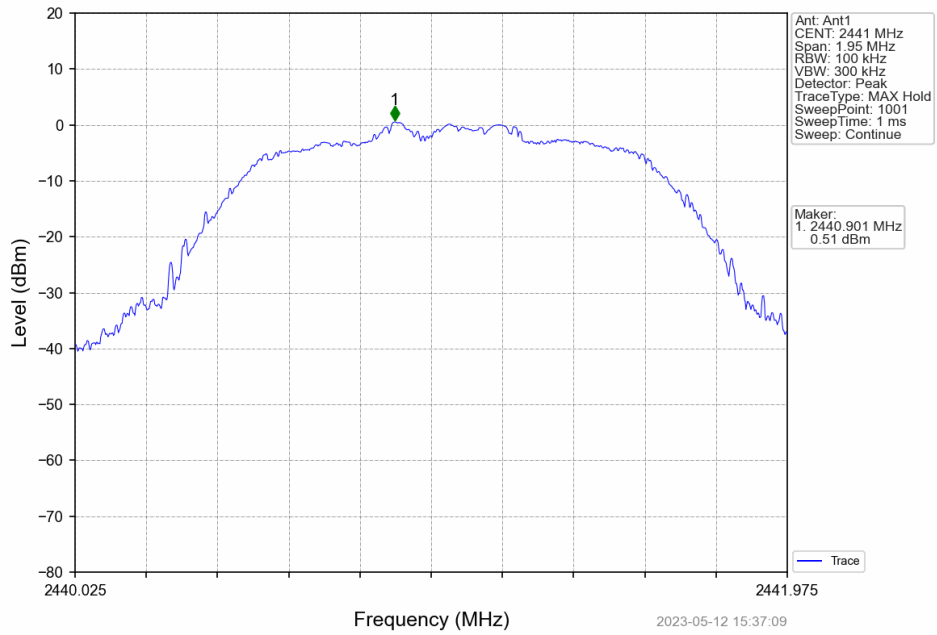
GFSK DH5 HCH 2480MHz Ant1 NTN



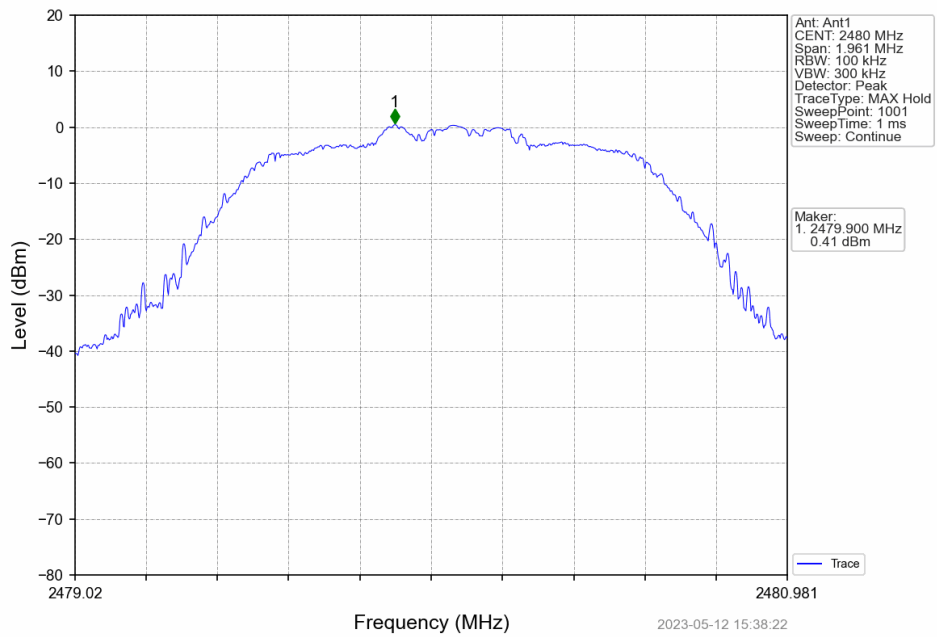
PI/4DQPSK_2DH5_LCH_2402MHz_Ant1_NTN



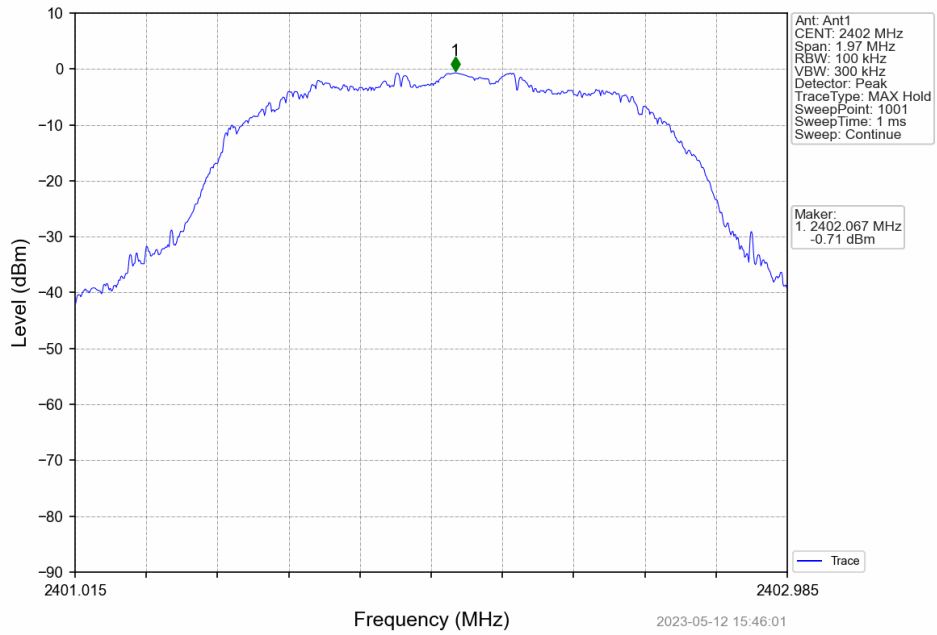
Pi/4DQPSK_2DH5_MCH_2441MHz_Ant1_NTNV



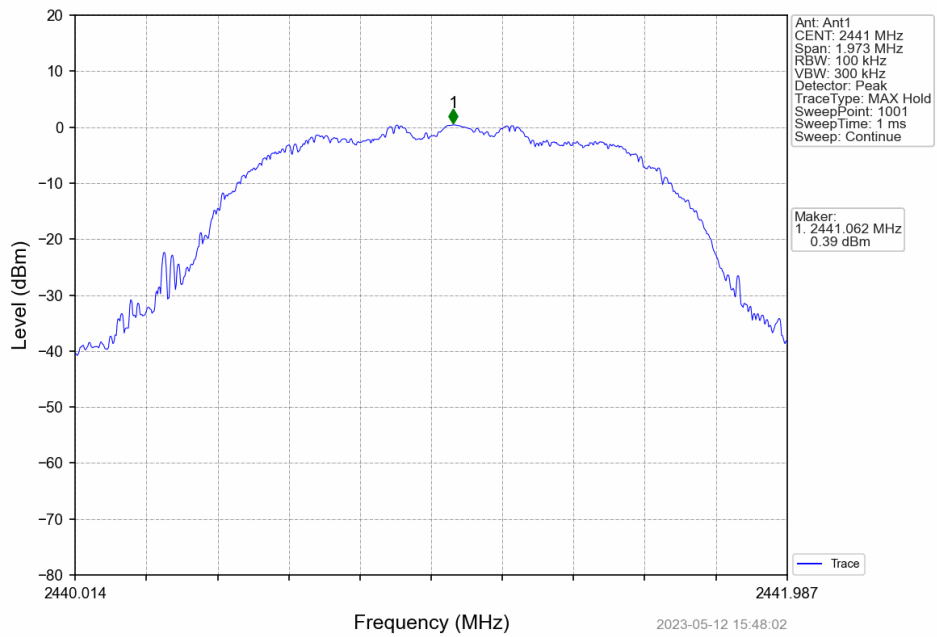
Pi/4DQPSK_2DH5_HCH_2480MHz_Ant1_NTNV

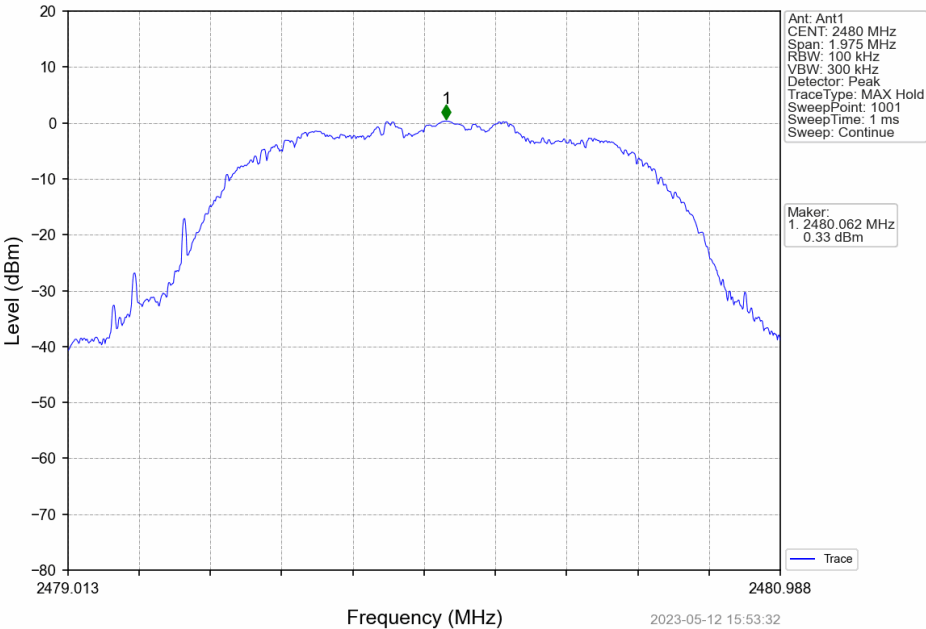


8DPSK_3DH5_LCH_2402MHz_Ant1_NTNV



8DPSK_3DH5_MCH_2441MHz_Ant1_NTNV



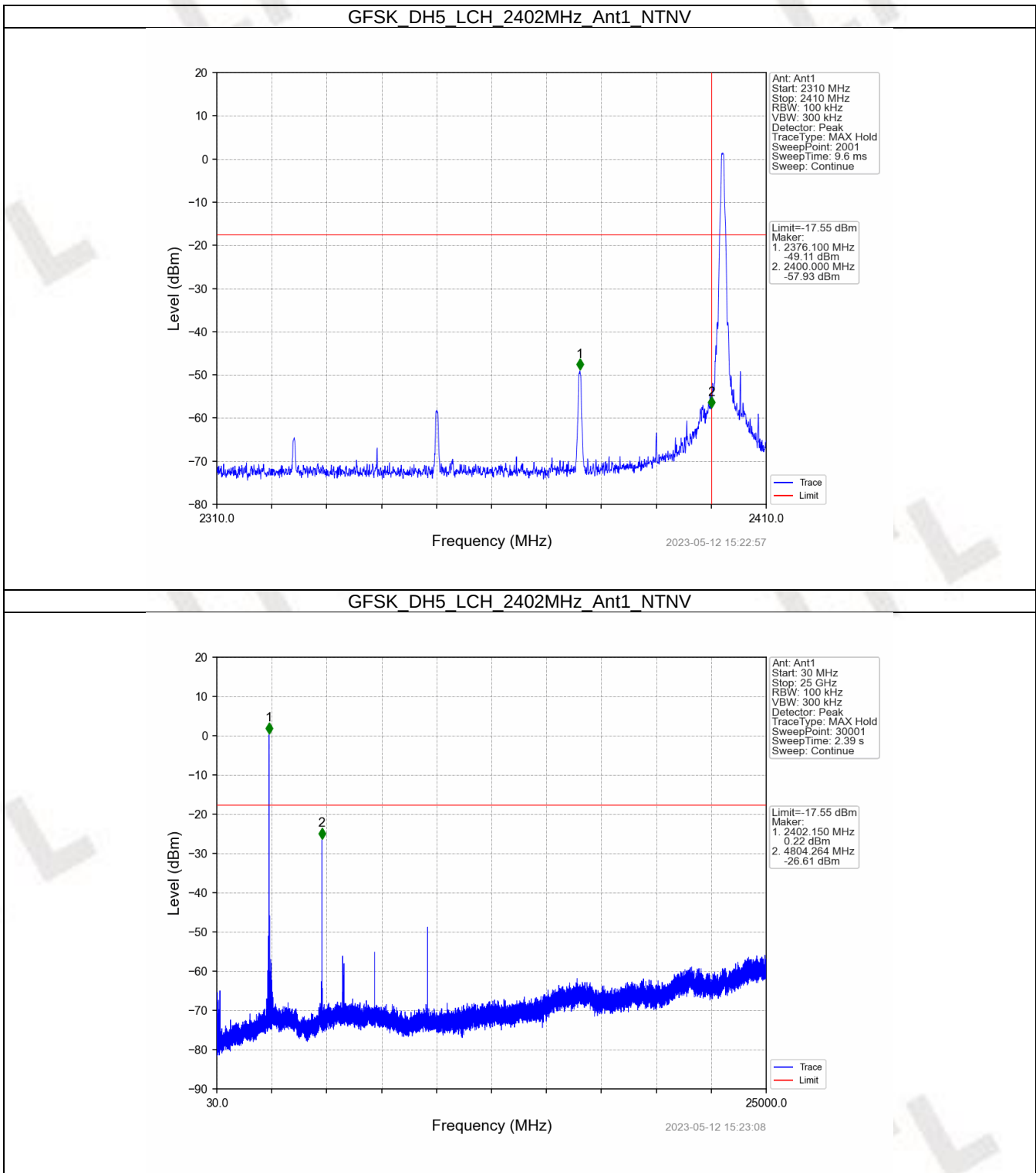


6.2 CSE

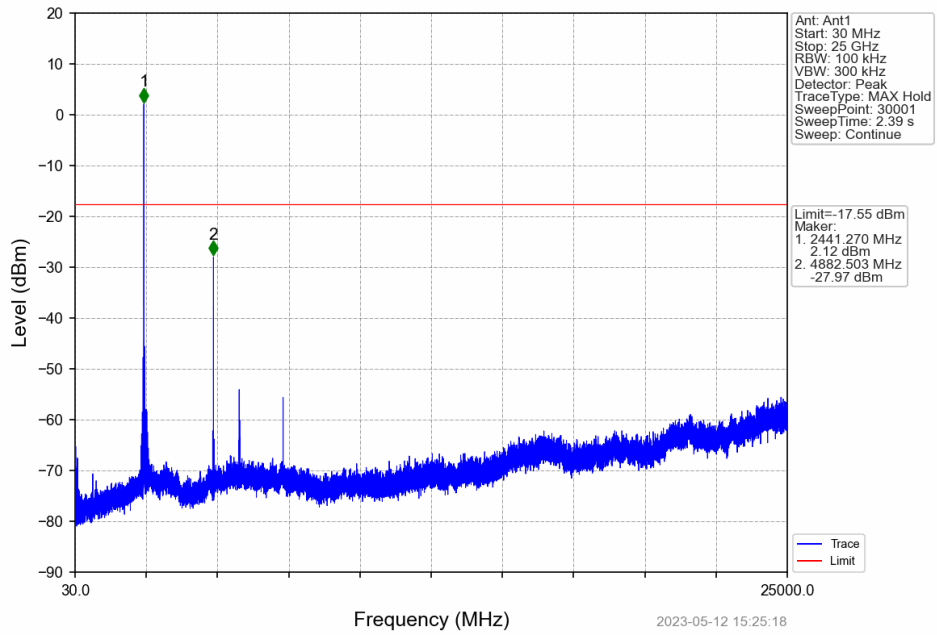
6.2.1 Test Result

Mode	TX Type	Frequency (MHz)	Packet Type	ANT	Level of Reference (dBm)	Limit (dBm)	Verdict
GFSK	SISO	2402	DH5	1	2.45	-17.55	Pass
		2441	DH5	1	2.45	-17.55	Pass
		2480	DH5	1	2.45	-17.55	Pass
		HOPP	DH5	1	2.45	-17.55	Pass
Pi/4DQPSK	SISO	2402	2DH5	1	0.51	-19.49	Pass
		2441	2DH5	1	0.51	-19.49	Pass
		2480	2DH5	1	0.51	-19.49	Pass
		HOPP	2DH5	1	0.51	-19.49	Pass
8DPSK	SISO	2402	3DH5	1	0.39	-19.61	Pass
		2441	3DH5	1	0.39	-19.61	Pass
		2480	3DH5	1	0.39	-19.61	Pass
		HOPP	3DH5	1	0.39	-19.61	Pass
Note1: Refer to RSS-247 Issue 2 section 5.5 and ANSI C63.10-2013, the channel contains the maximum PSD level was used to establish the reference level.							

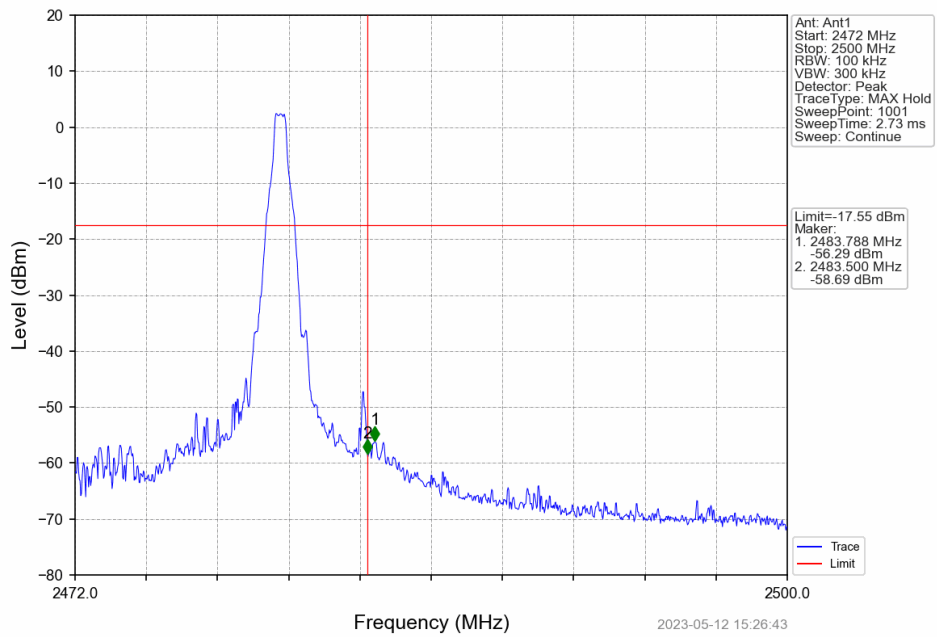
6.2.2 Test Graph



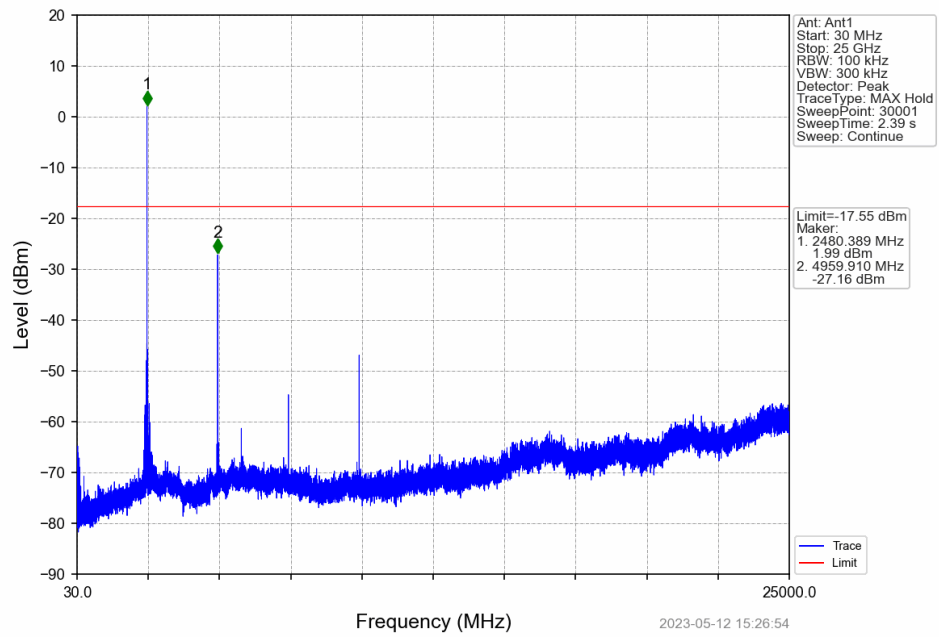
GFSK DH5 MCH 2441MHz Ant1 NTN



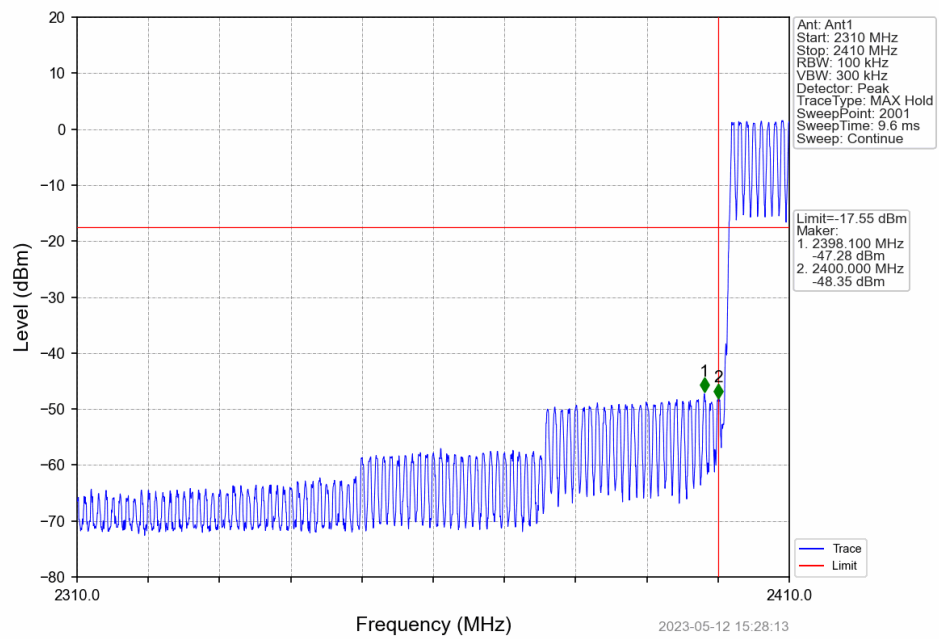
GFSK_DH5_HCH_2480MHz_Ant1_NTN



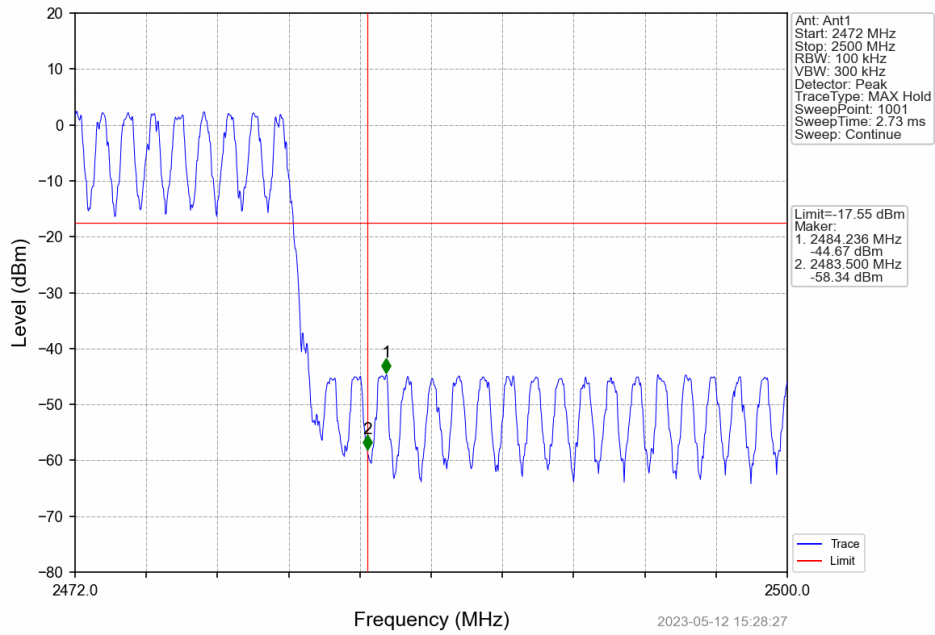
GFSK DH5 HCH 2480MHz Ant1 NTV



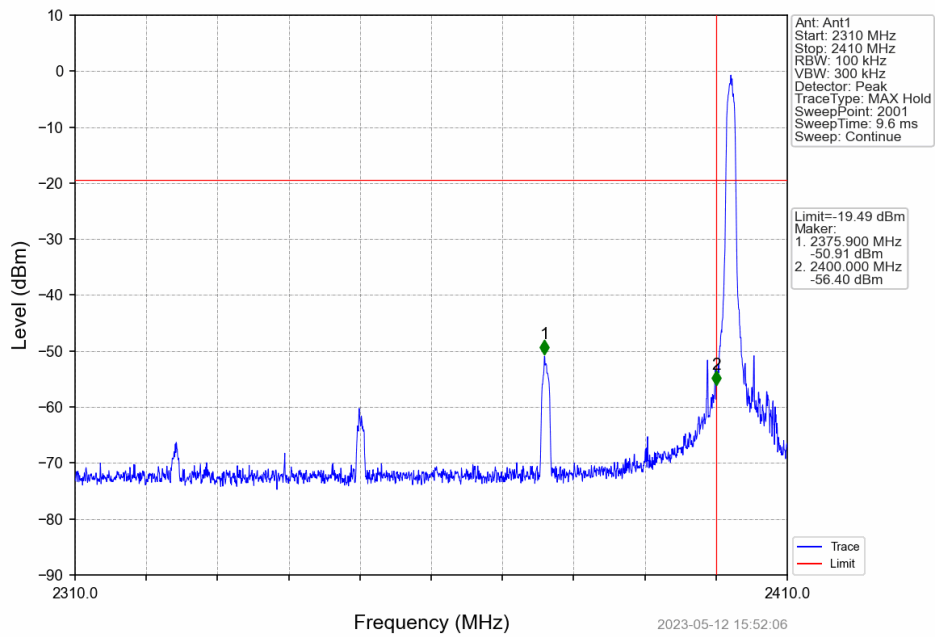
GFSK_DH5_HOPP_Ant1_NTNV



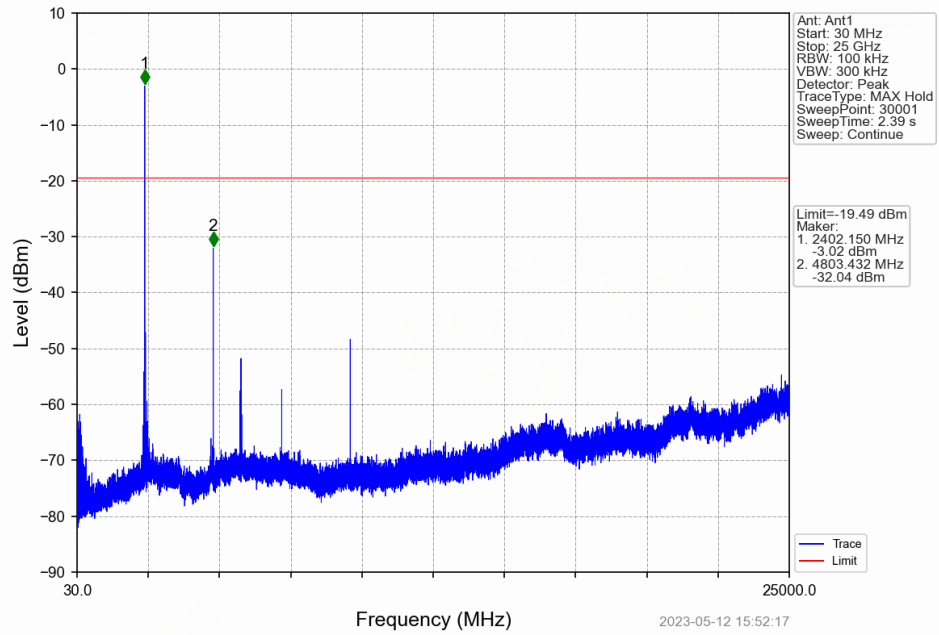
GFSK DH5 HOPP Ant1 NTN



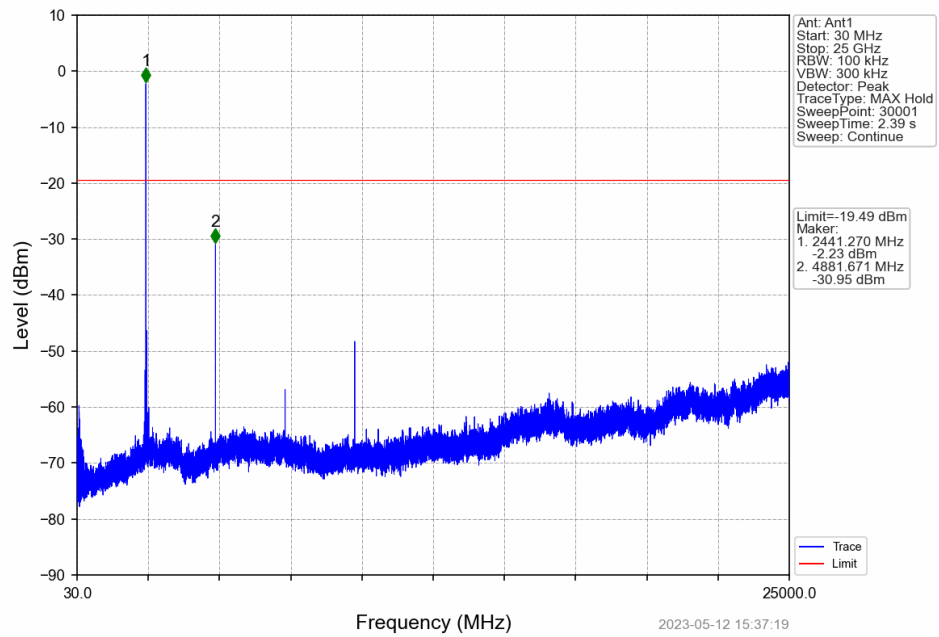
Pi/4DQPSK_2DH5_LCH_2402MHz_Ant1 NTN



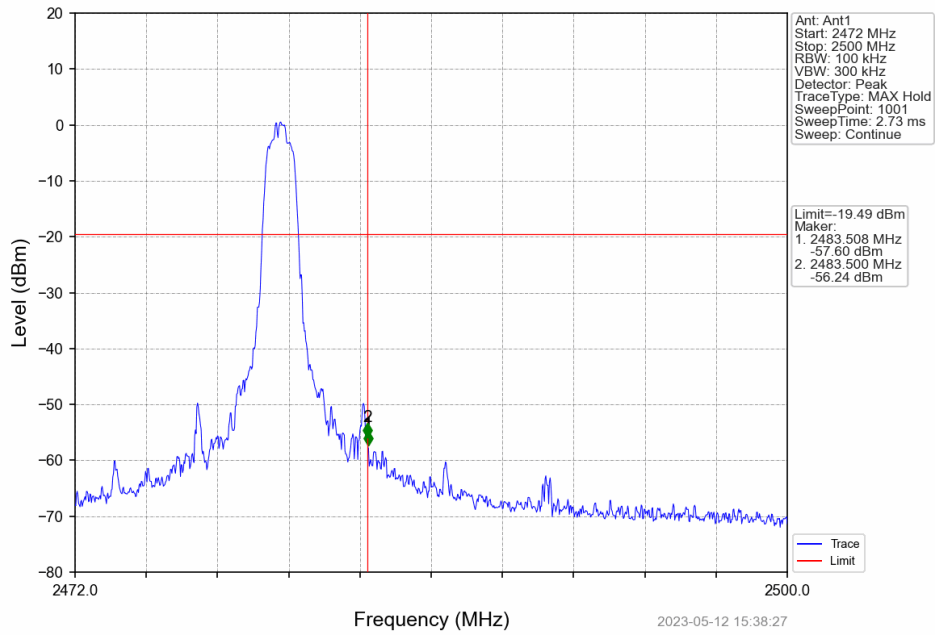
Pi/4DQPSK_2DH5_LCH_2402MHz_Ant1_NTNV



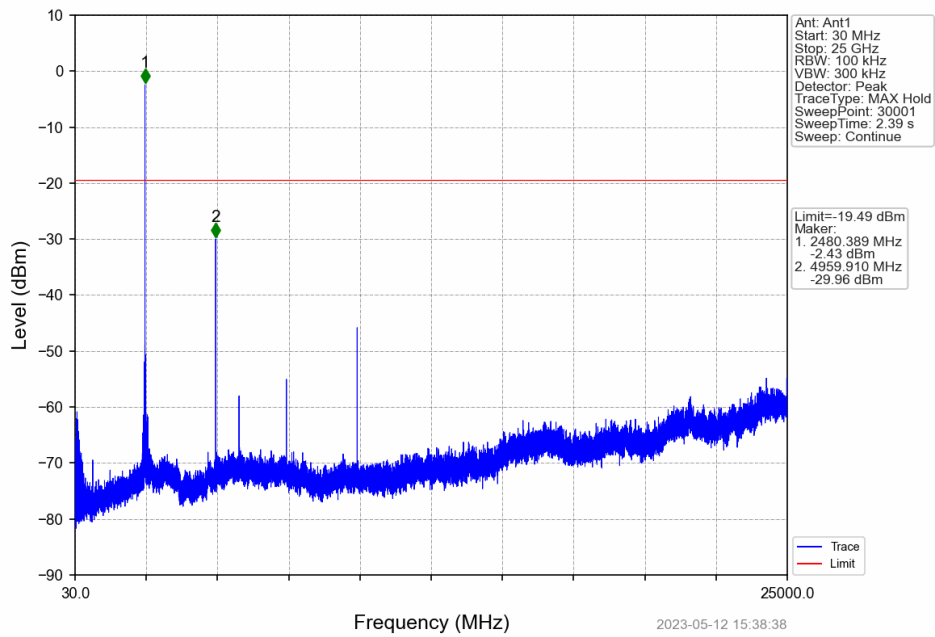
Pi/4DQPSK_2DH5_MCH_2441MHz_Ant1_NTNV



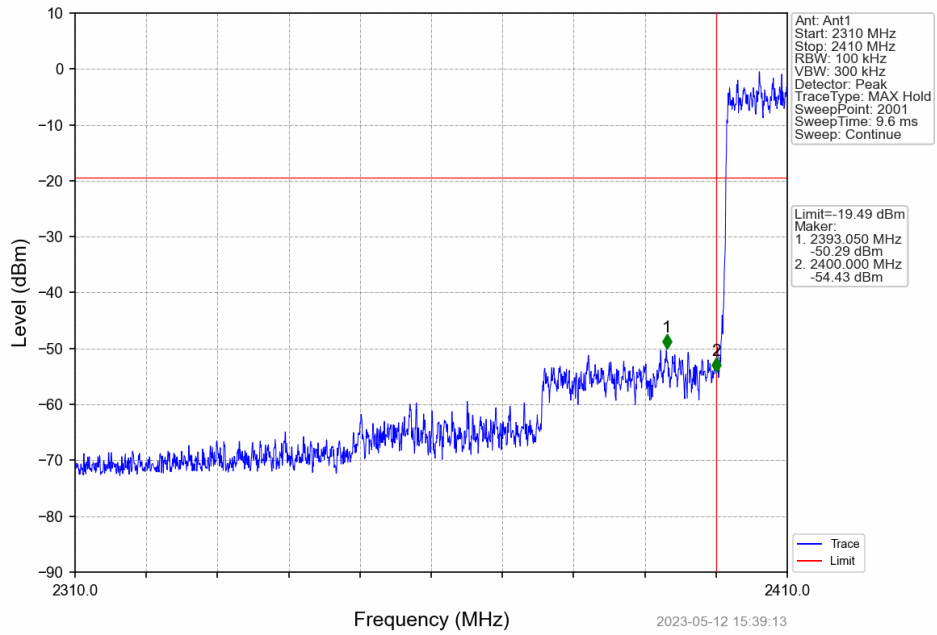
Pi/4DQPSK_2DH5_HCH_2480MHz_Ant1_NTNV



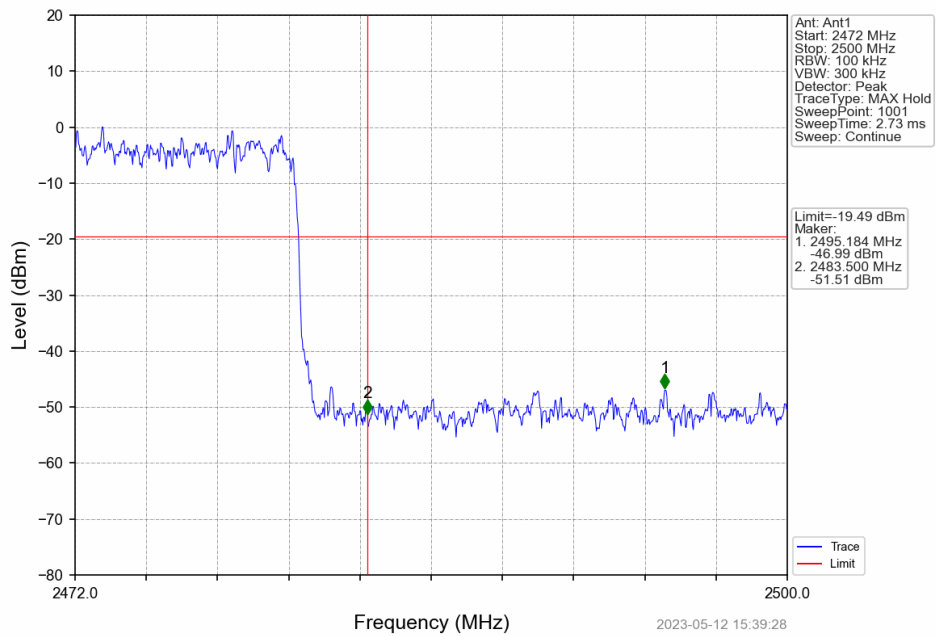
Pi/4DQPSK_2DH5_HCH_2480MHz_Ant1_NTNV



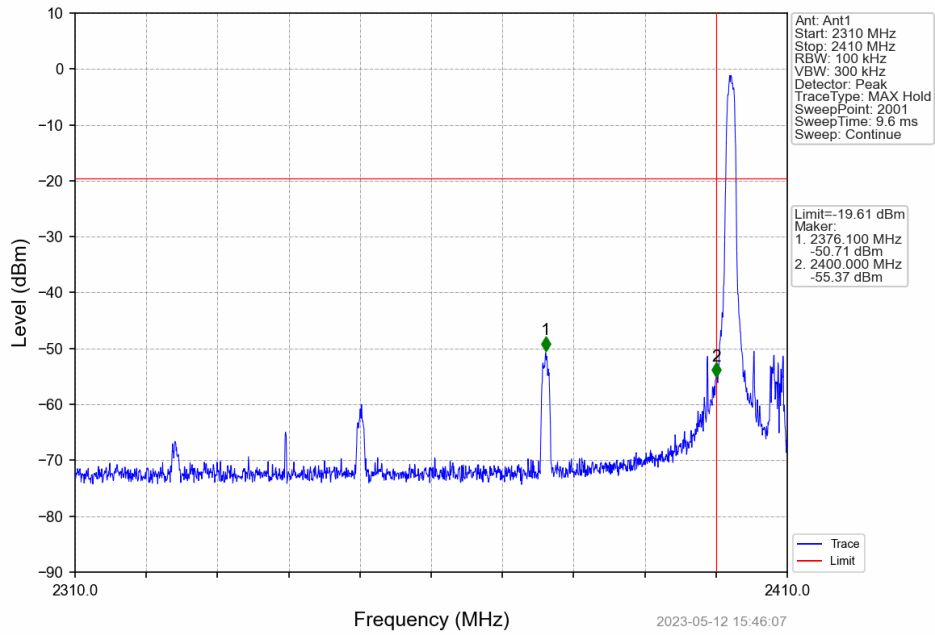
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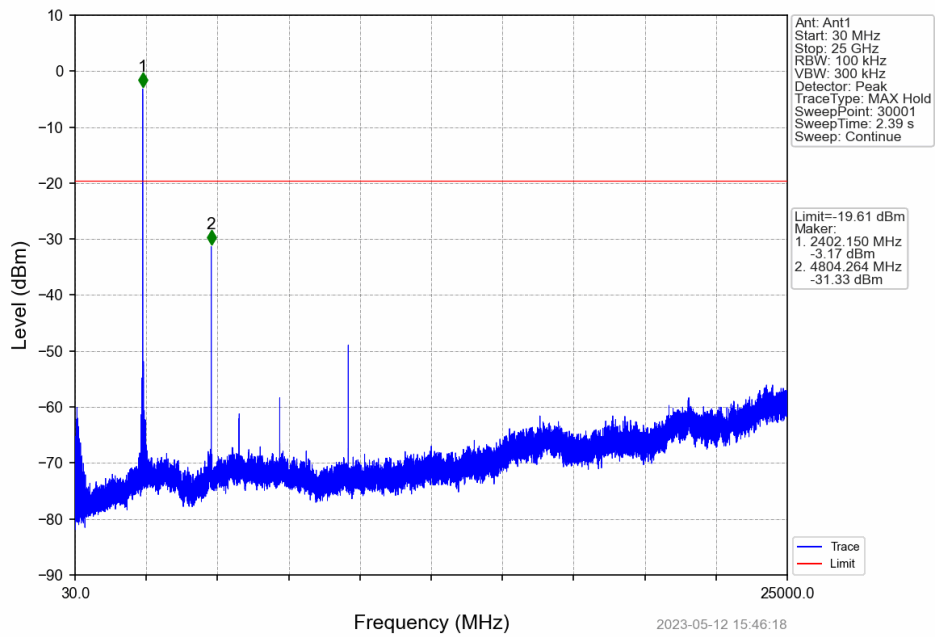
Pi/4DQPSK_2DH5_HOPP_Ant1_NTNV



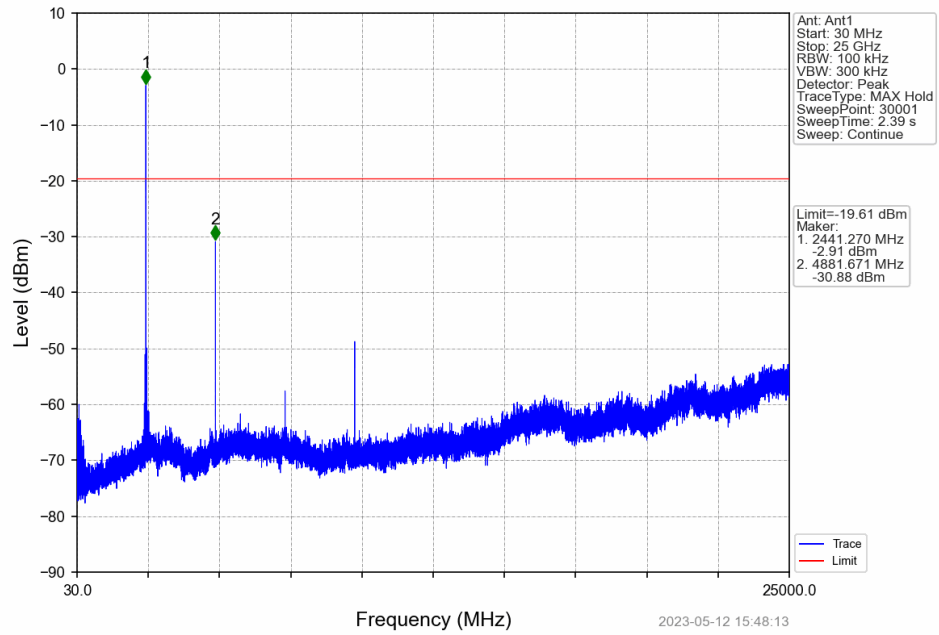
8DPSK 3DH5 LCH 2402MHz Ant1 NTN



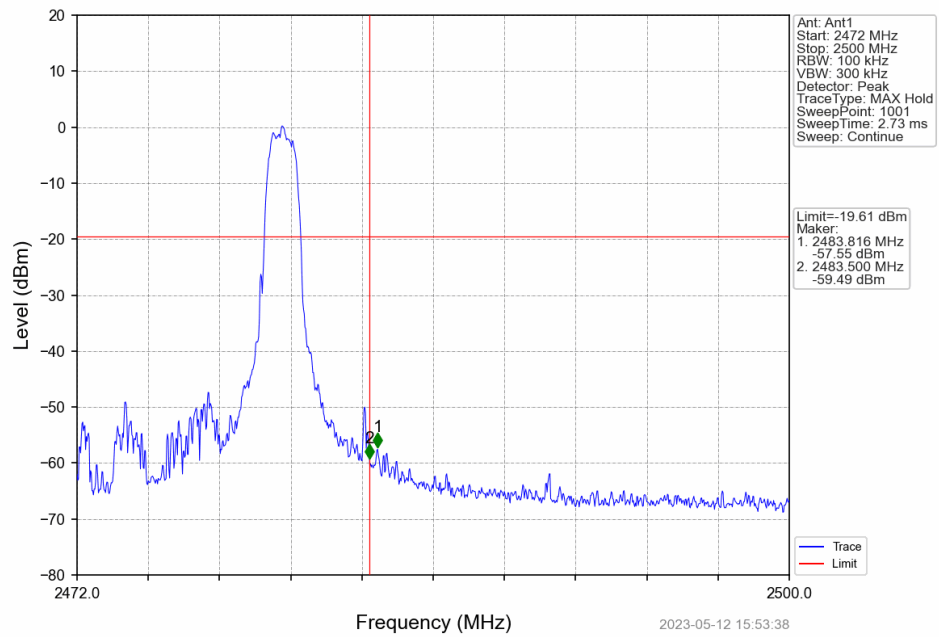
8DPSK 3DH5 LCH 2402MHz Ant1 NTN



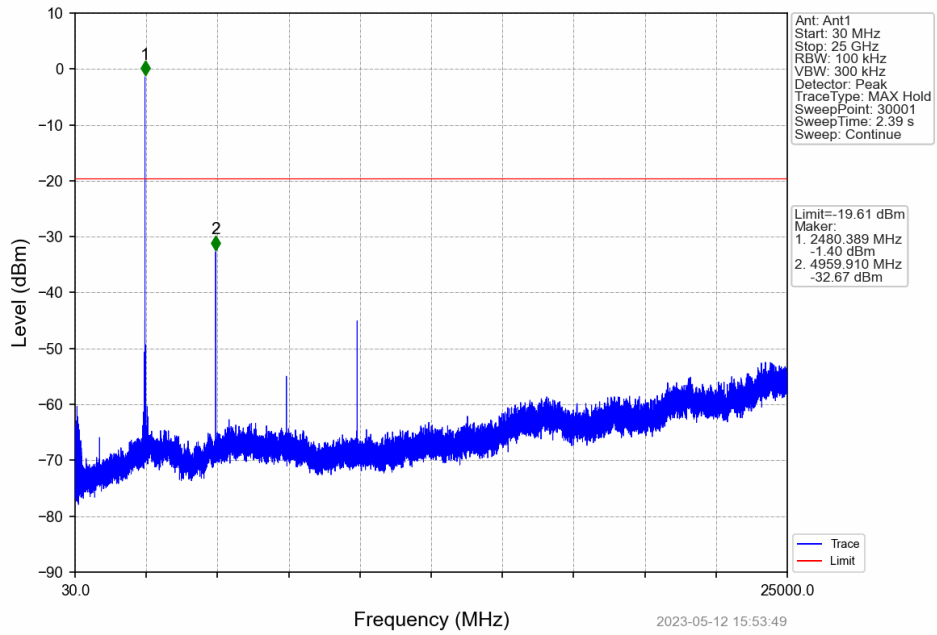
8DPSK 3DH5 MCH 2441MHz Ant1 NTN



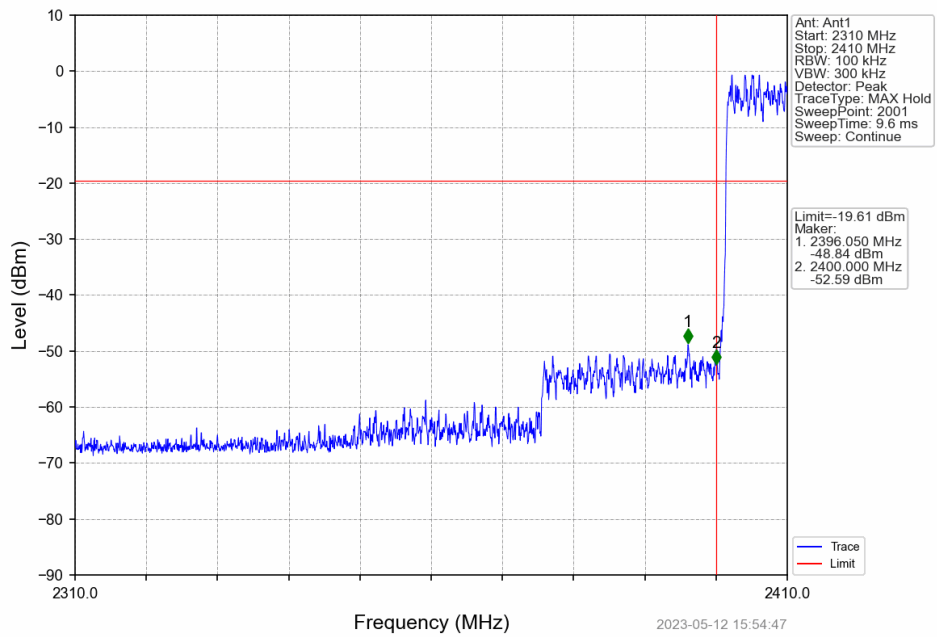
8DPSK 3DH5 HCH 2480MHz Ant1 NTN



8DPSK 3DH5 HCH 2480MHz Ant1 NTN



8DPSK 3DH5 HOPP Ant1 NTN



8DPSK 3DH5 HOPP Ant1 NTN

