Appendix A

Product Name:	Auto Diagnostic System
Test Model No.:	E81

1. BANDWIDTH 2

2. MAXIMUM CONDUCTED OUTPUT POWER 8

3. CARRIER FREQUENCY SEPARATION 14

4. NUMBER OF HOPPING FREQUENCIES 17

5. TIME OF OCCUPANCY (DWELL TIME) 20

6. UNWANTED EMISSIONS INSTANDARD NON-RESTRICTED FREQUENCY BANDS 30

1. Bandwidth

1.1 OBW

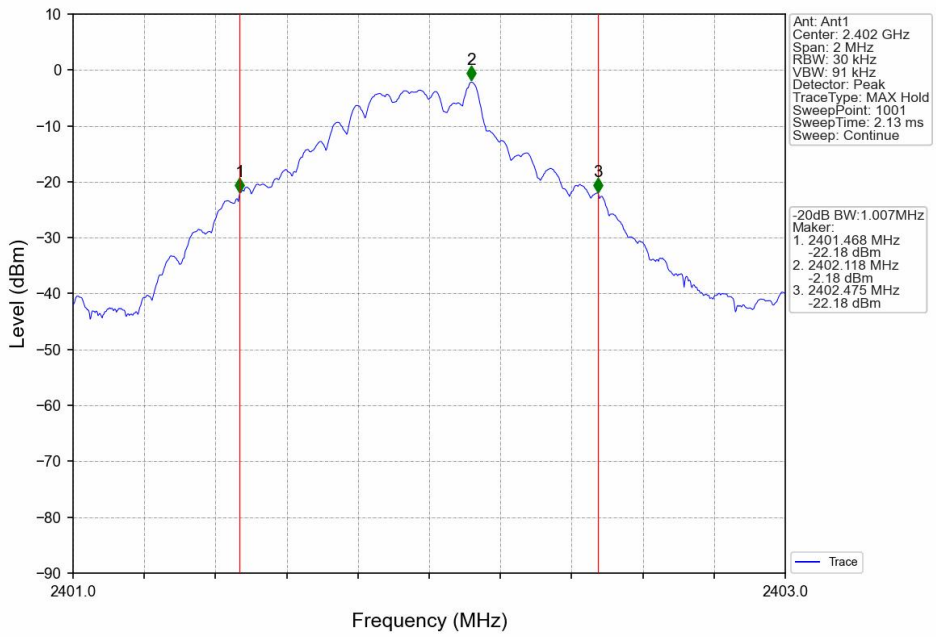
1.1 20dB BW

1.1.1 Test Result

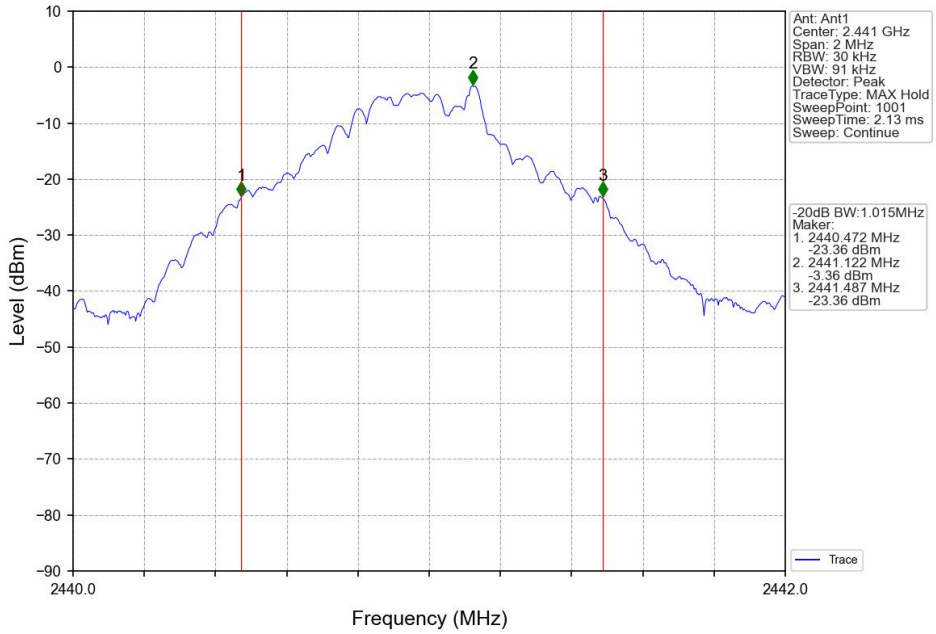
Mode	TX Type	Frequency (MHz)	Packet Type	ANT	20dB Bandwidth (MHz) Result	Verdict
GFSK	SISO	2402	DH5	1	1.007	Pass
		2441	DH5	1	1.015	Pass
		2480	DH5	1	1.009	Pass
Pi/4DQPSK	SISO	2402	2DH5	1	1.074	Pass
		2441	2DH5	1	1.083	Pass
		2480	2DH5	1	1.079	Pass
8DPSK	SISO	2402	3DH5	1	1.049	Pass
		2441	3DH5	1	1.049	Pass
		2480	3DH5	1	1.049	Pass

1.1.2 Test Graph

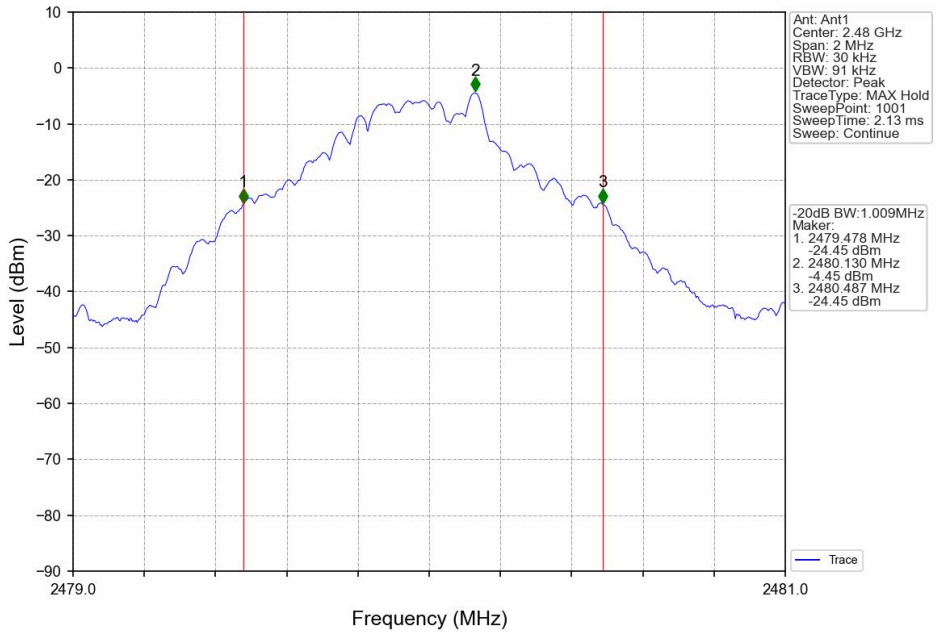
GFSK_DH5_LCH_2402MHz_Ant1_NTNV



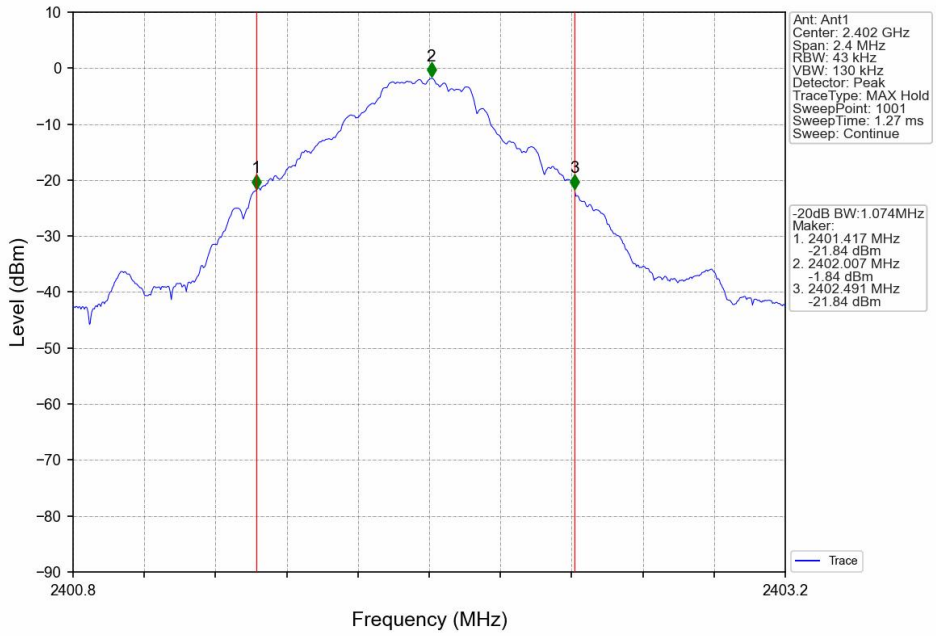
GFSK_DH5_MCH_2441MHz_Ant1_NTNV



GFSK_DH5_HCH_2480MHz_Ant1_NTNV



Pi/4DQPSK_2DH5_LCH_2402MHz_Ant1_NTNV



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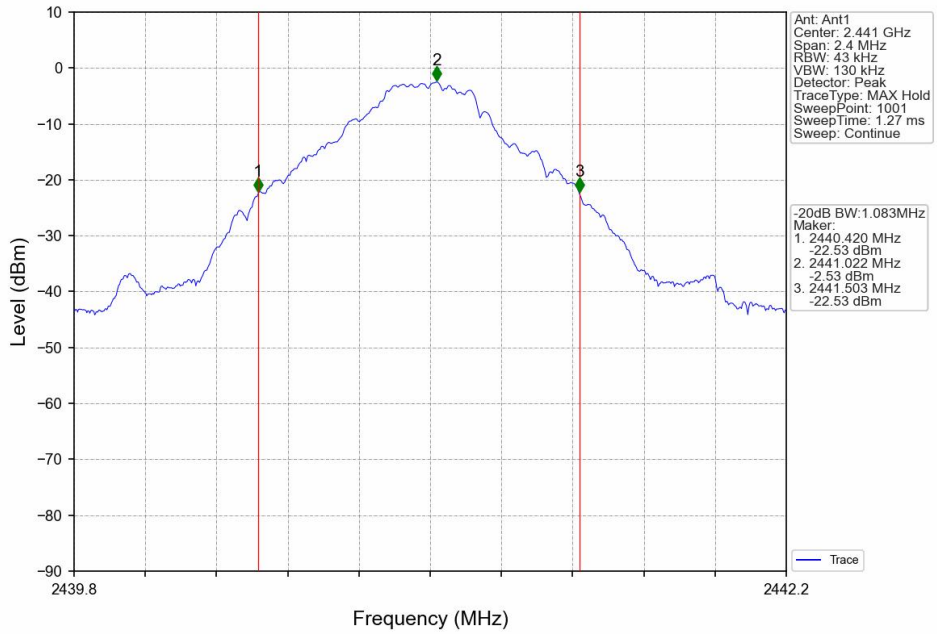

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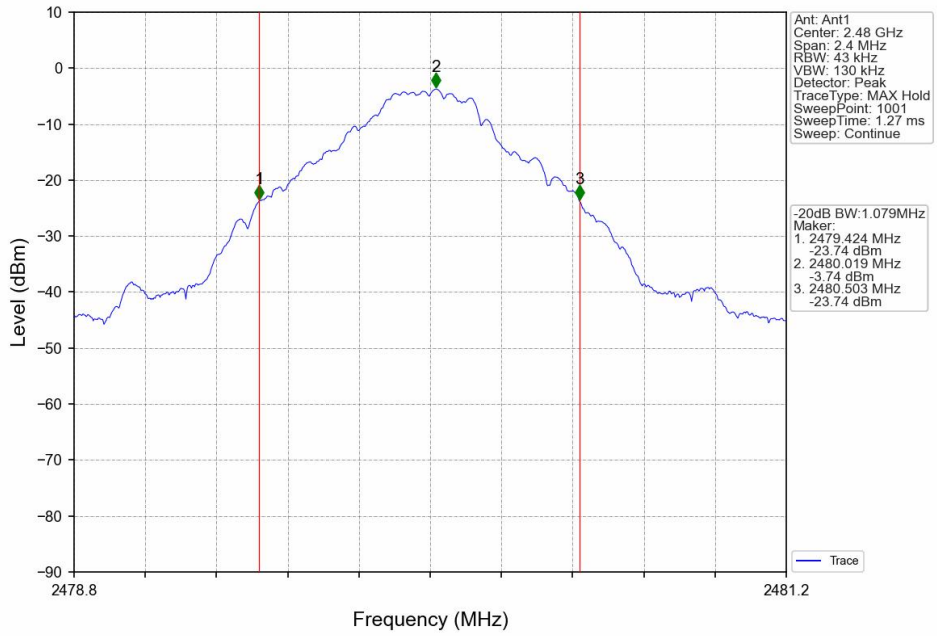
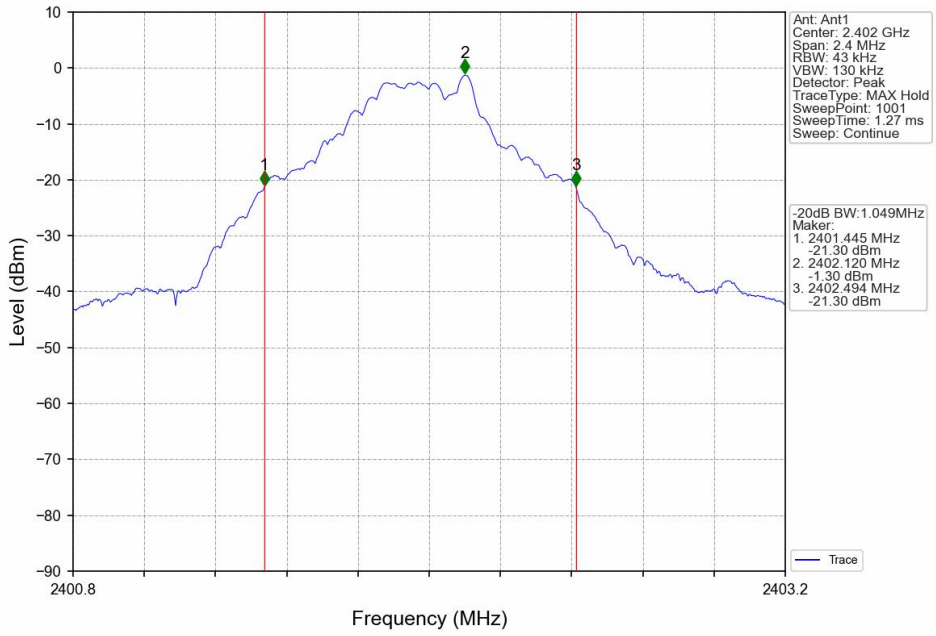
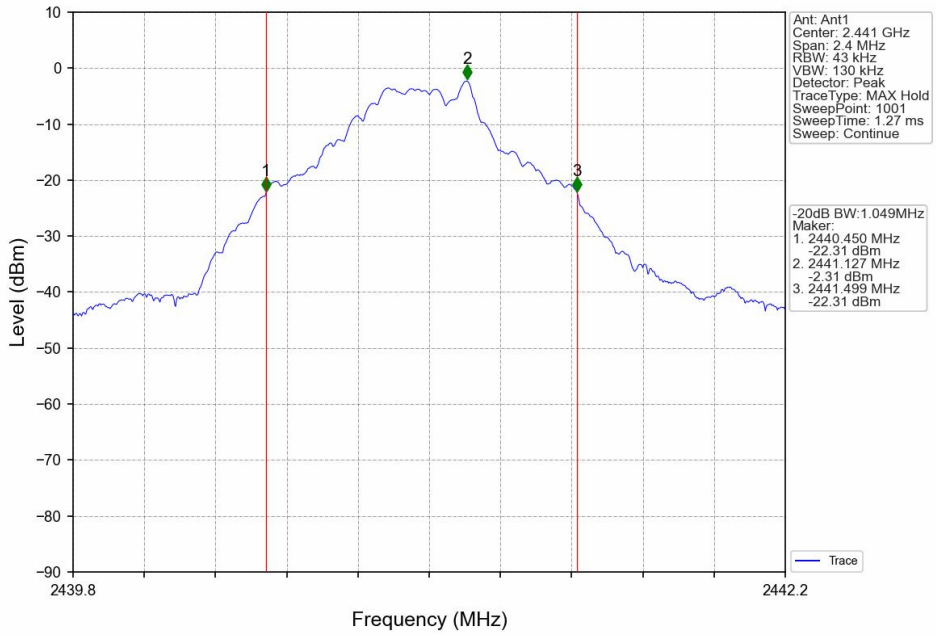


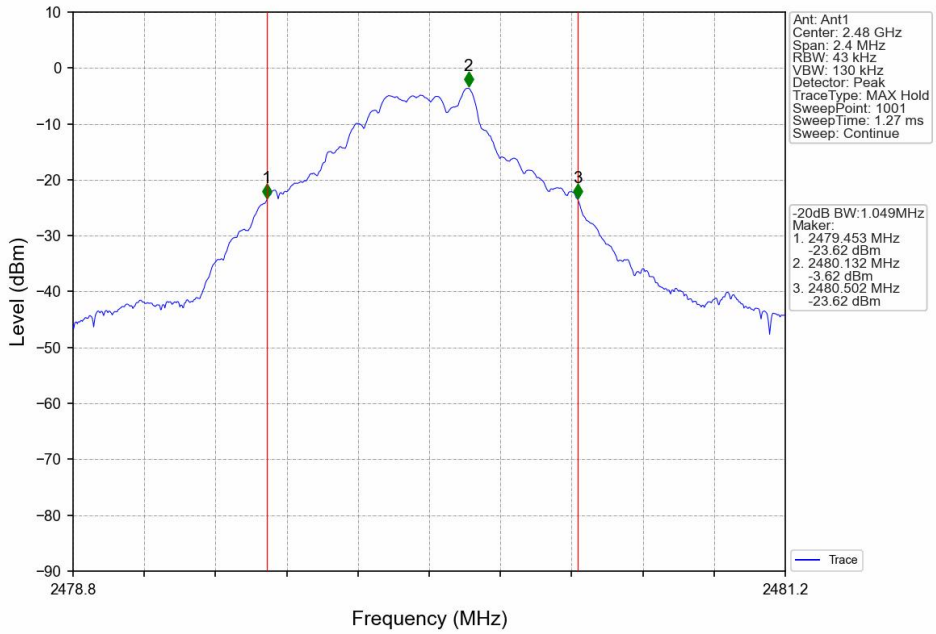
8DPSK_3DH5_LCH_2402MHz_Ant1_NTNV



8DPSK_3DH5_MCH_2441MHz_Ant1_NTNV



8DPSK_3DH5_HCH_2480MHz_Ant1_NTNV



2. Maximum Conducted Output Power

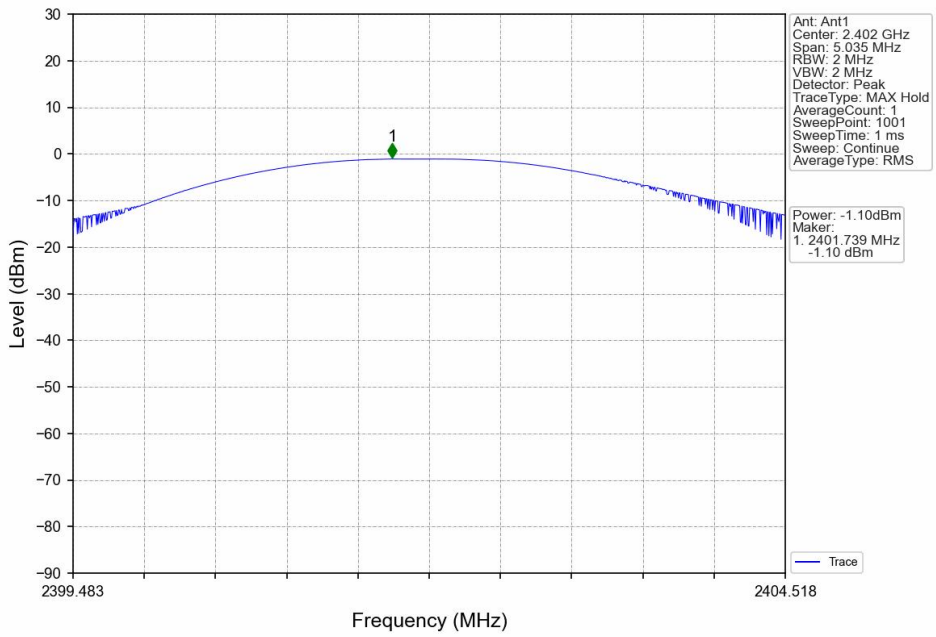
2.1 Power

2.1.1 Test Result

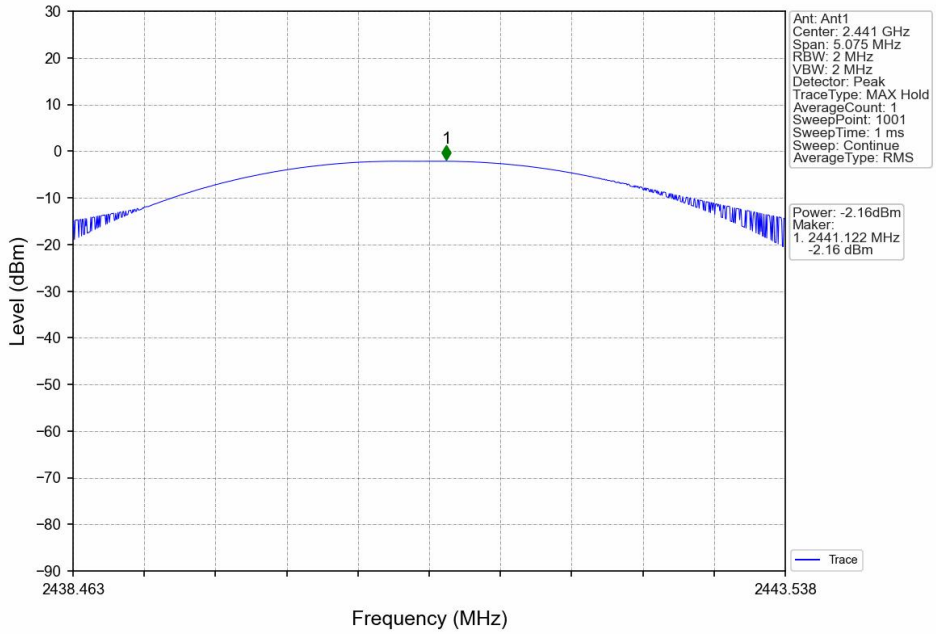
Mode	TX Type	Frequency (MHz)	Packet Type	Maximum Peak Conducted Output Power (dBm)		Verdict
				ANT1	Limit	
GFSK	SISO	2402	DH5	-1.10	<=20.97	Pass
		2441	DH5	-2.16	<=20.97	Pass
		2480	DH5	-3.34	<=20.97	Pass
Pi/4DQPSK	SISO	2402	2DH5	-1.11	<=20.97	Pass
		2441	2DH5	-1.66	<=20.97	Pass
		2480	2DH5	-3.03	<=20.97	Pass
8DPSK	SISO	2402	3DH5	-0.99	<=20.97	Pass
		2441	3DH5	-1.98	<=20.97	Pass
		2480	3DH5	-3.28	<=20.97	Pass
Note1: Antenna Gain: Ant1: 2.21dBi;						

2.1.2 Test Graph

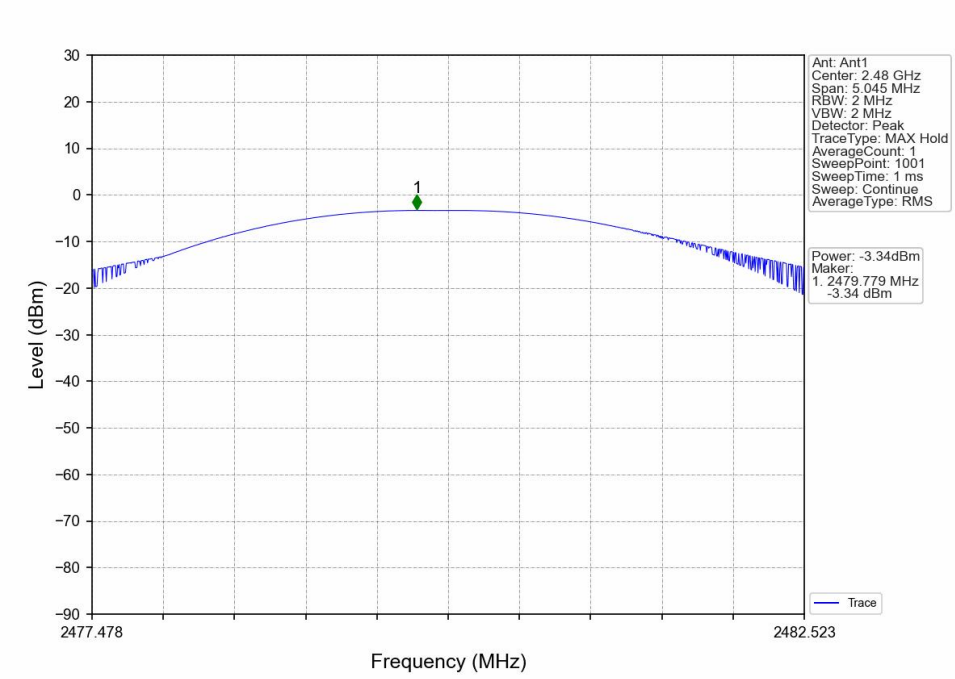
GFSK_DH5_LCH_2402MHz_Ant1_NTNV



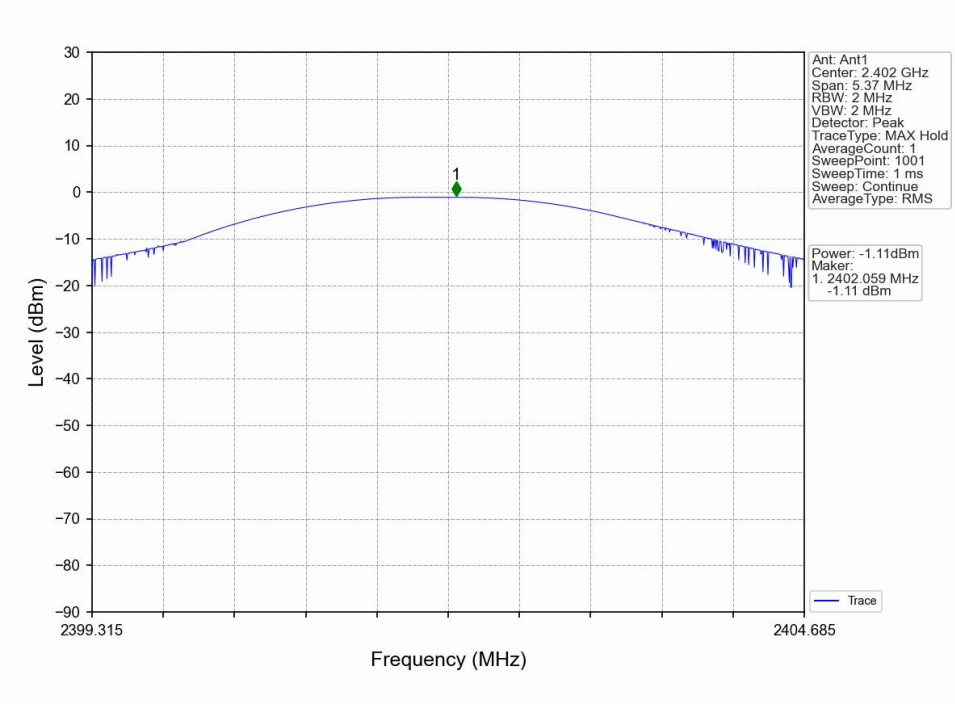
GFSK_DH5_MCH_2441MHz_Ant1_NTNV



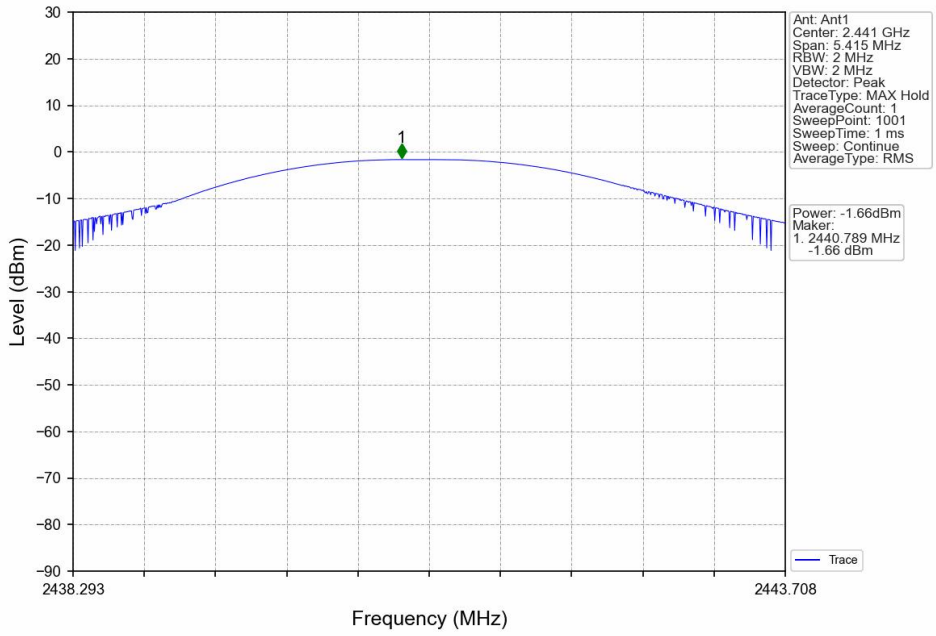
GFSK_DH5_HCH_2480MHz_Ant1_NTNV



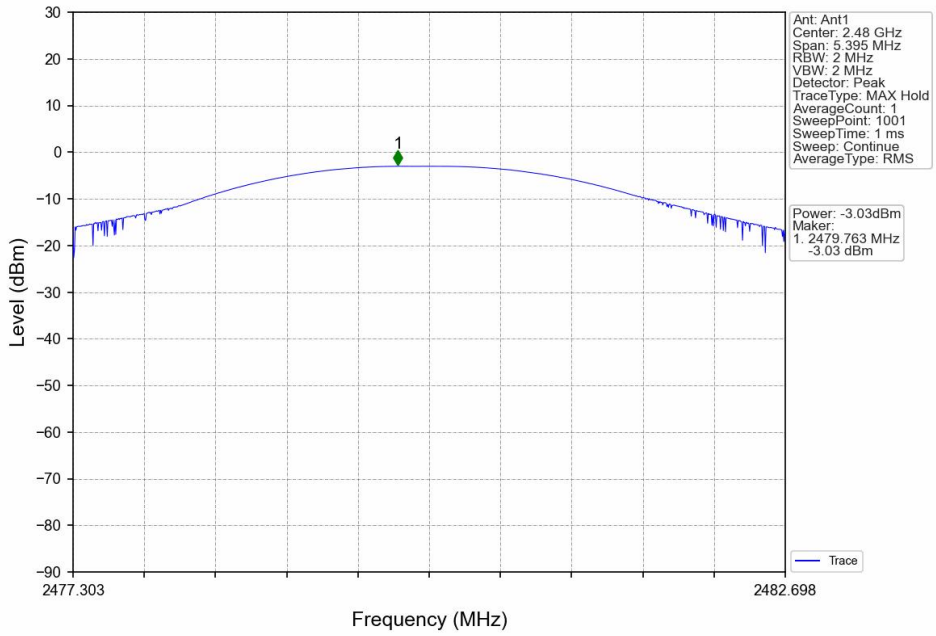
Pi/4DQPSK_2DH5_LCH_2402MHz_Ant1_NTNV



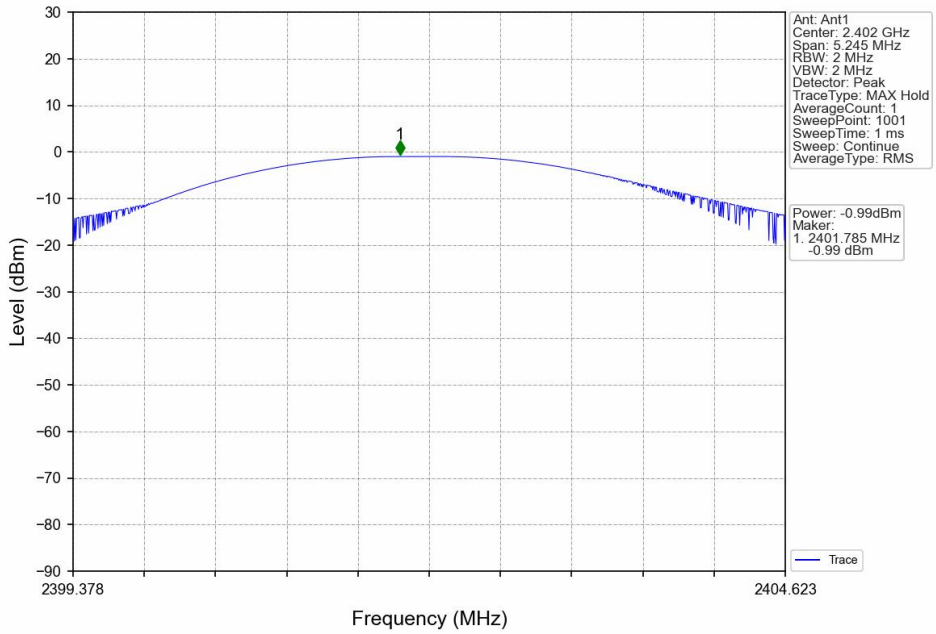
Pi/4DQPSK_2DH5_MCH_2441MHz_Ant1_NTNV



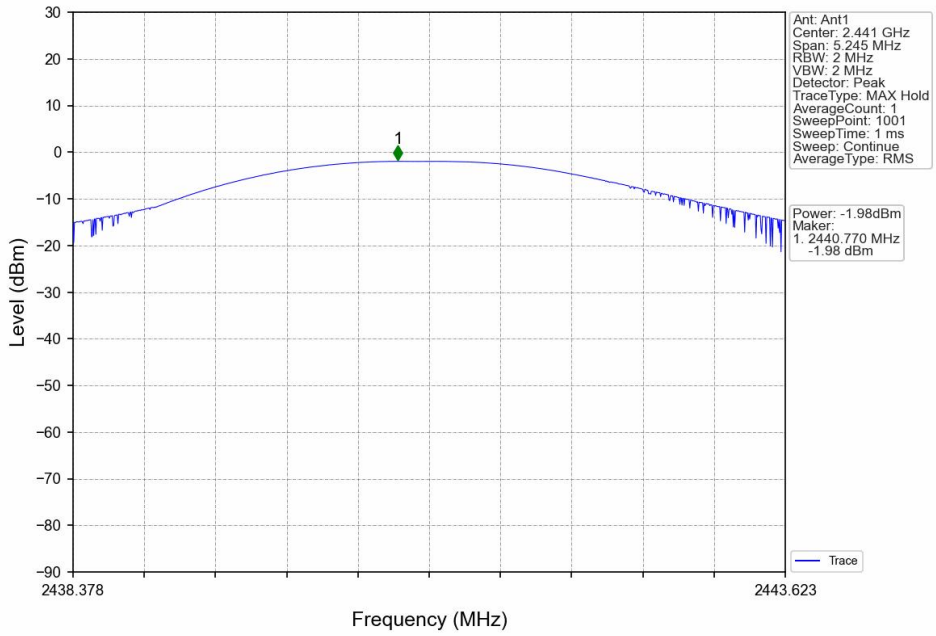
Pi/4DQPSK_2DH5_HCH_2480MHz_Ant1_NTNV



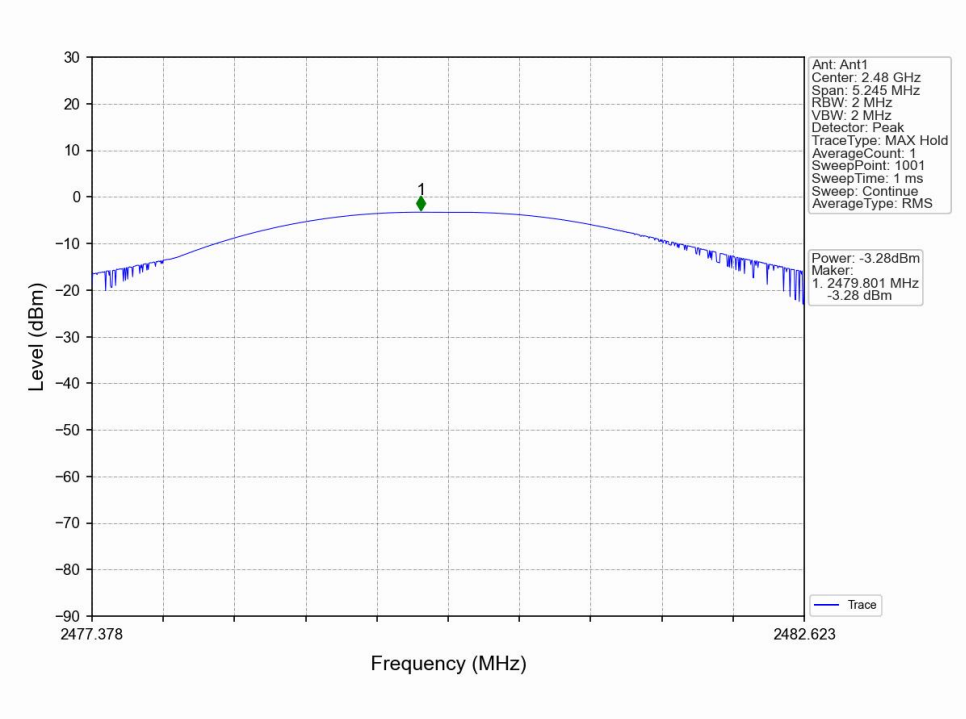
8DPSK_3DH5_LCH_2402MHz_Ant1_NTNV



8DPSK_3DH5_MCH_2441MHz_Ant1_NTNV



8DPSK_3DH5_HCH_2480MHz_Ant1_NTNV



3. Carrier Frequency Separation

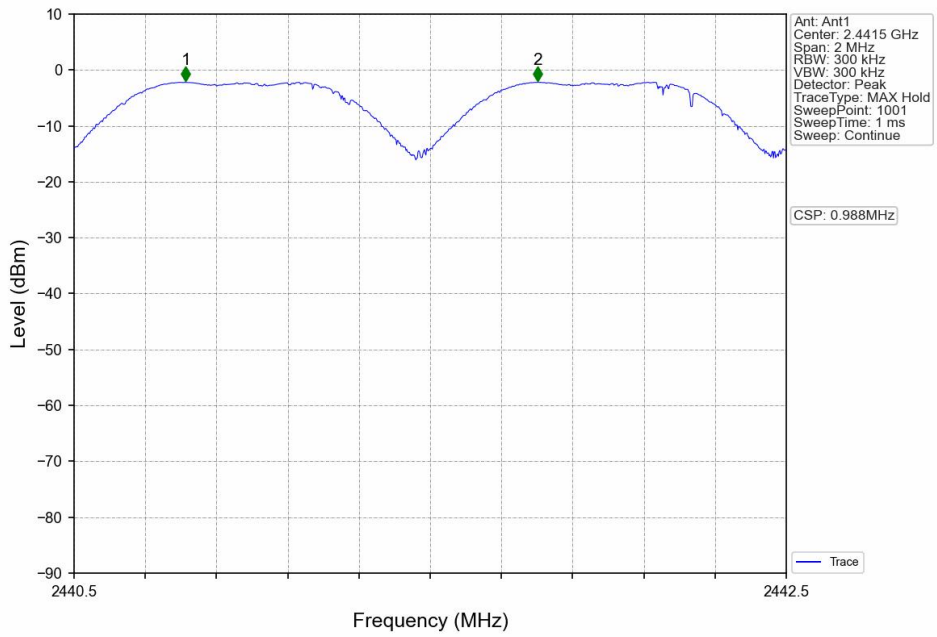
3.1 Ant1

3.1.1 Test Result

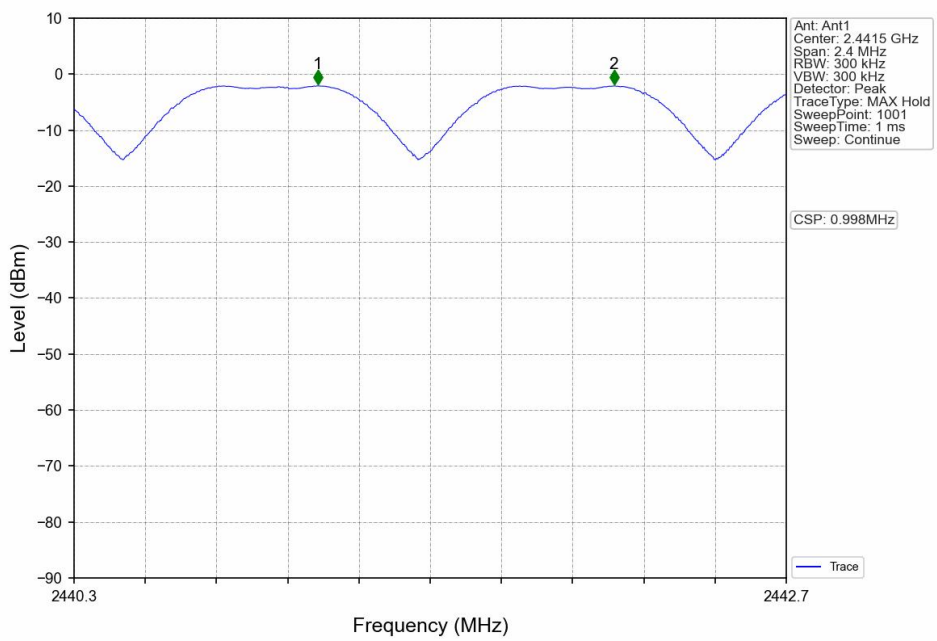
Ant1							
Mode	TX Type	Frequency (MHz)	Packet Type	Channel Separation (MHz)	20dB Bandwidth (MHz)	Limit (MHz)	Verdict
GFSK	SISO	HOPP	DH5	0.988	1.015	>=0.677	Pass
Pi/4DQPSK	SISO	HOPP	2DH5	0.998	1.083	>=0.722	Pass
8DPSK	SISO	HOPP	3DH5	1.001	1.049	>=0.699	Pass

3.1.2 Test Graph

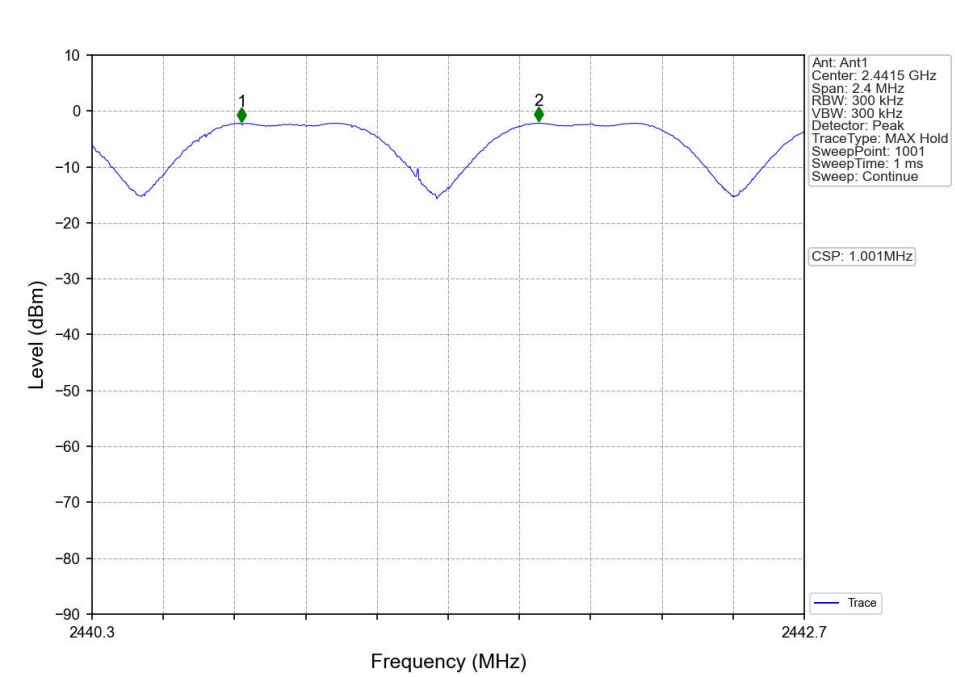
GFSK_DH5_HOPP_Ant1_NTNV



Pi/4DQPSK_2DH5_HOPP_Ant1_NTNV



8DPSK_3DH5_HOPP_Ant1_NTNV



4. Number of Hopping Frequencies

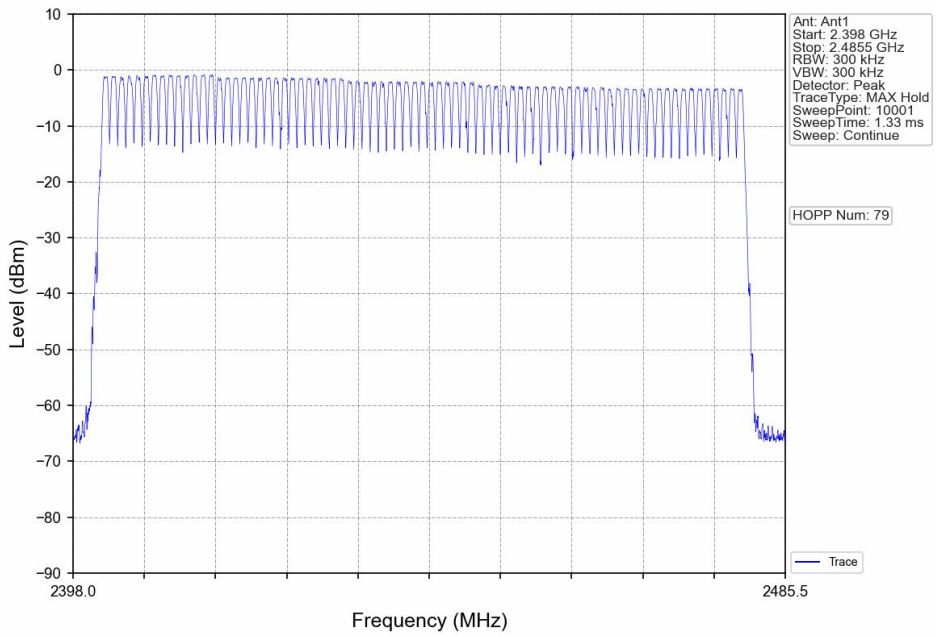
4.1 HoppNum

4.1.1 Test Result

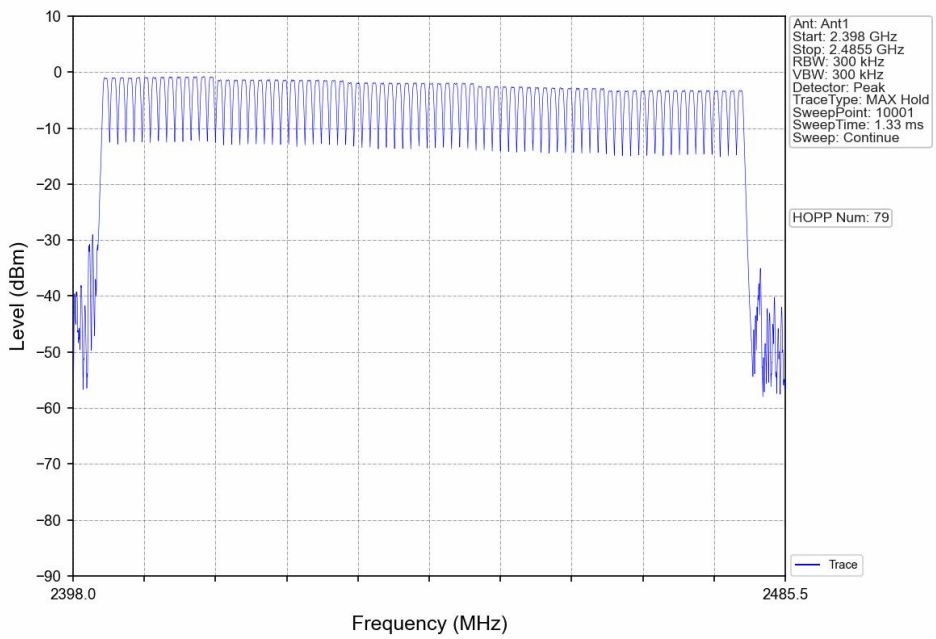
Mode	TX Type	Frequency (MHz)	Packet Type	Num of Hopping Frequencies		Verdict
				ANT1	Limit	
GFSK	SISO	HOPP	DH5	79	>=15	Pass
Pi/4DQPSK	SISO	HOPP	2DH5	79	>=15	Pass
8DPSK	SISO	HOPP	3DH5	79	>=15	Pass

4.1.2 Test Graph

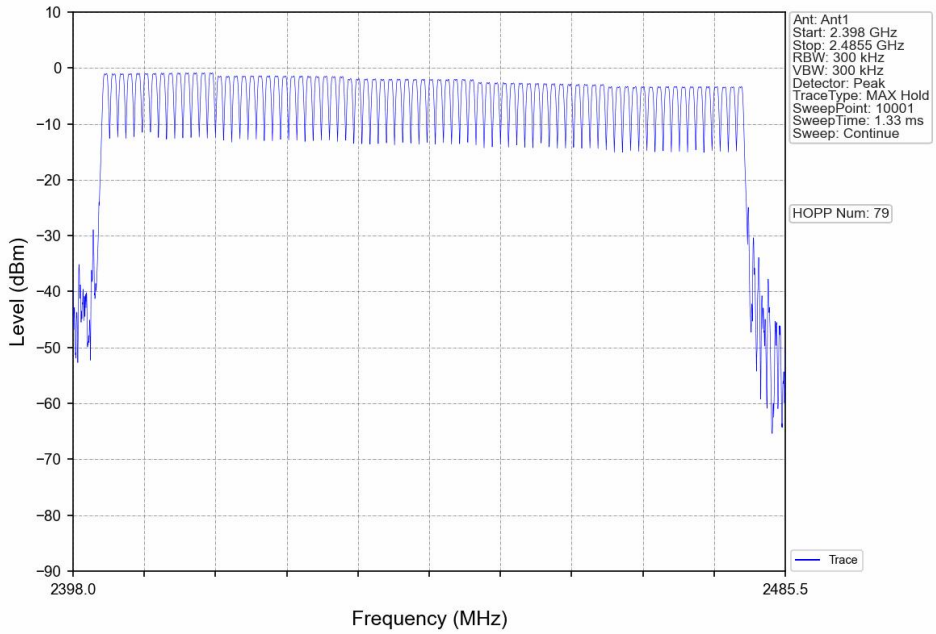
GFSK_DH5_HOPP_Ant1_NTNV



Pi/4DQPSK_2DH5_HOPP_Ant1_NTNV



8DPSK_3DH5_HOPP_Ant1_NTNV



5. Time of Occupancy (Dwell Time)

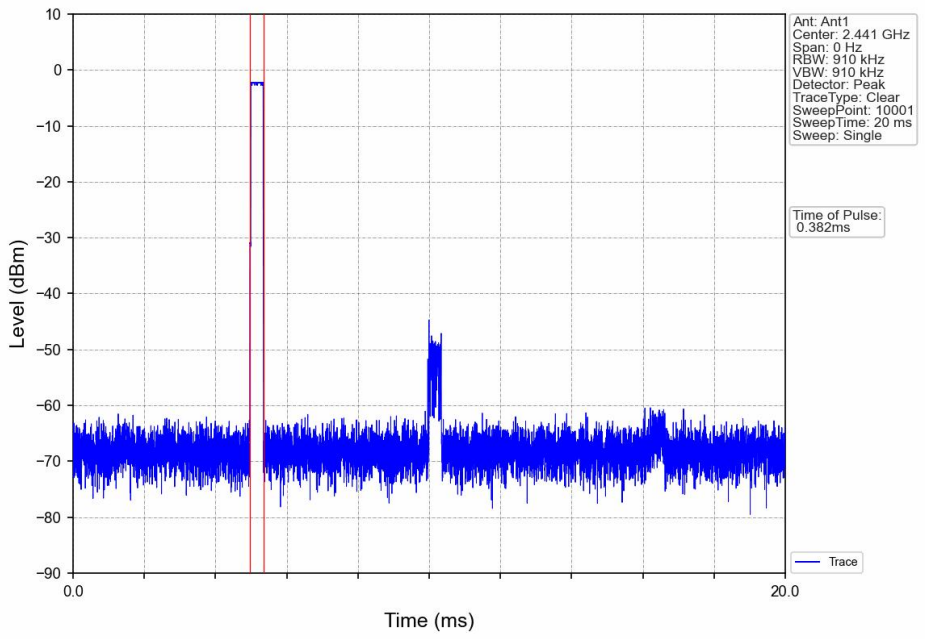
5.1 Ant1

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	0.382	31.600	320	122.240	<=400	Pass
			DH3	1.800	31.600	163	293.400	<=400	Pass
			DH5	0.176	31.600	320	56.320	<=400	Pass
Pi/4DQPSK	SISO	HOPP	2DH1	0.380	31.600	320	121.600	<=400	Pass
			2DH3	1.800	31.600	159	286.200	<=400	Pass
			2DH5	3.080	31.600	104	320.320	<=400	Pass
8DPSK	SISO	HOPP	3DH1	0.454	31.600	320	145.280	<=400	Pass
			3DH3	1.798	31.600	159	285.882	<=400	Pass
			3DH5	3.080	31.600	100	308.000	<=400	Pass

5.1.2 Test Graph

GFSK_DH1_HOPP_Ant1_NTNV



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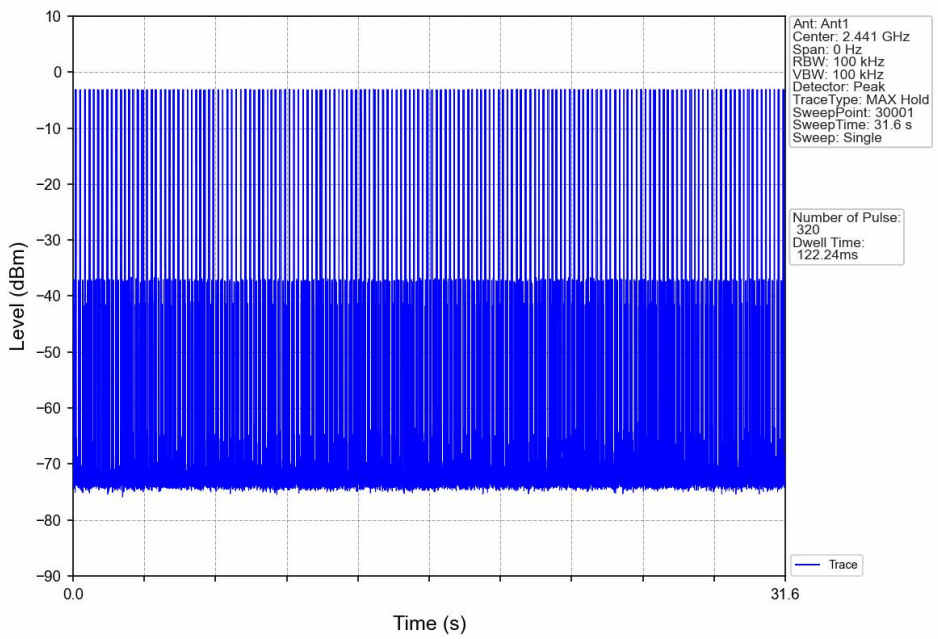

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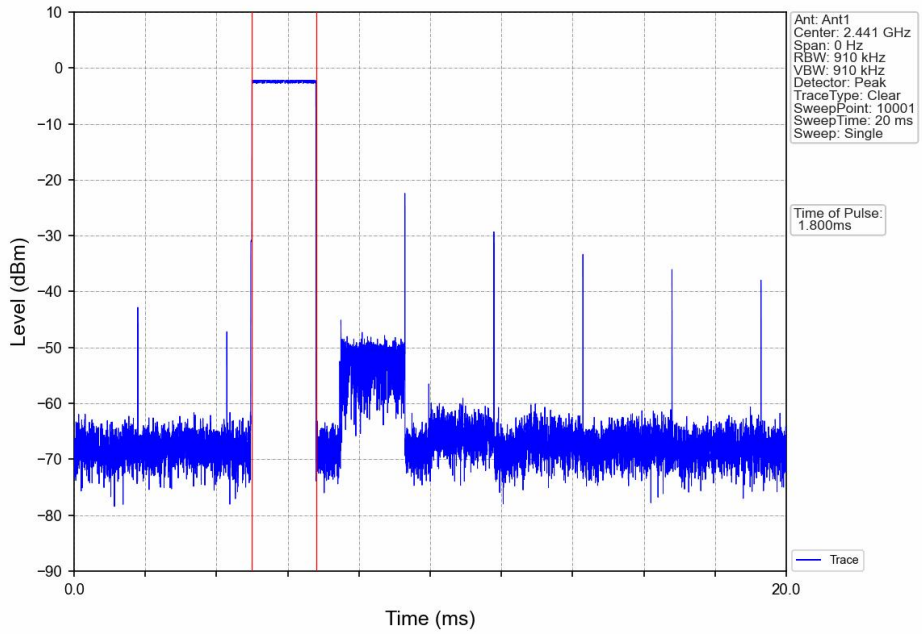

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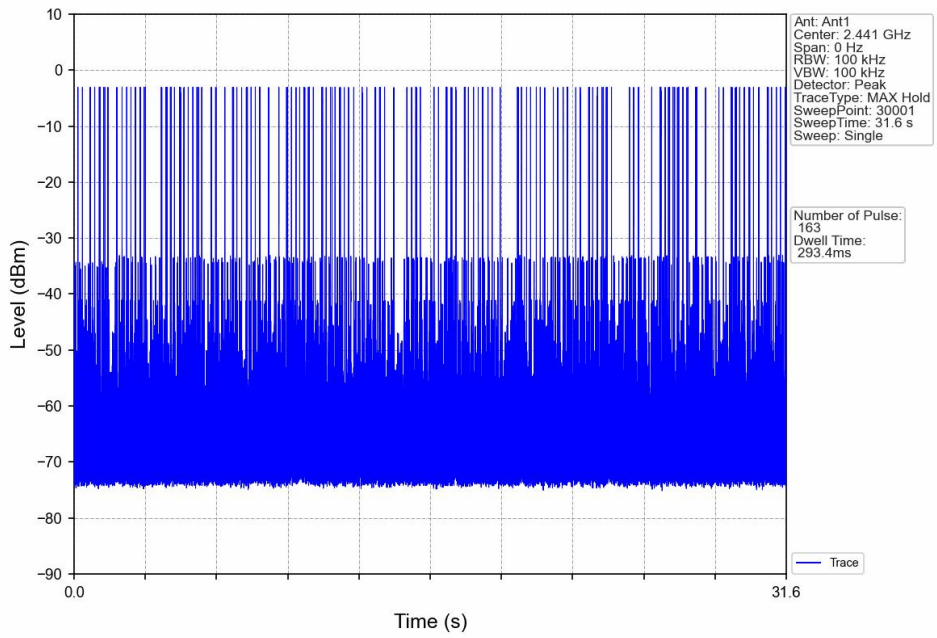

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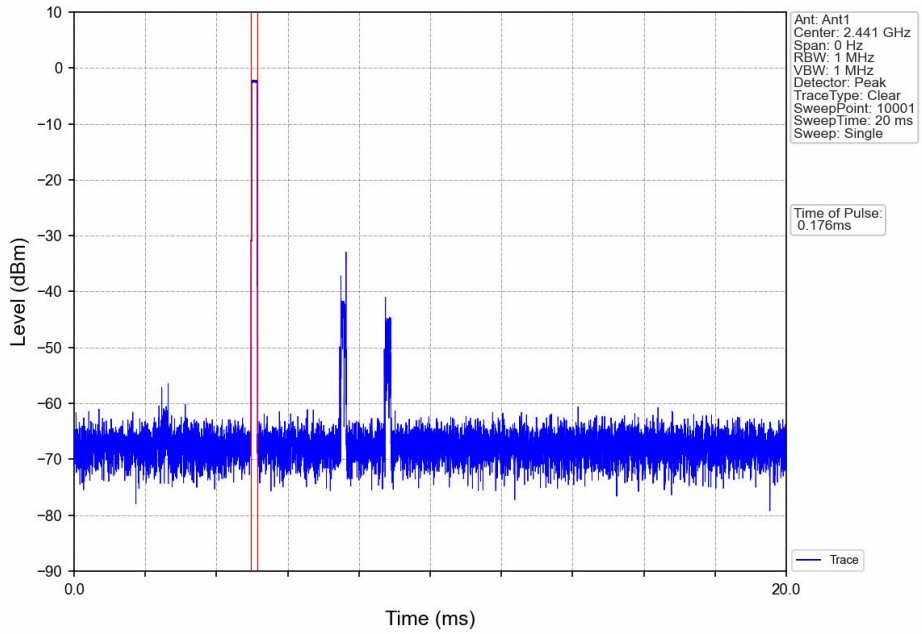

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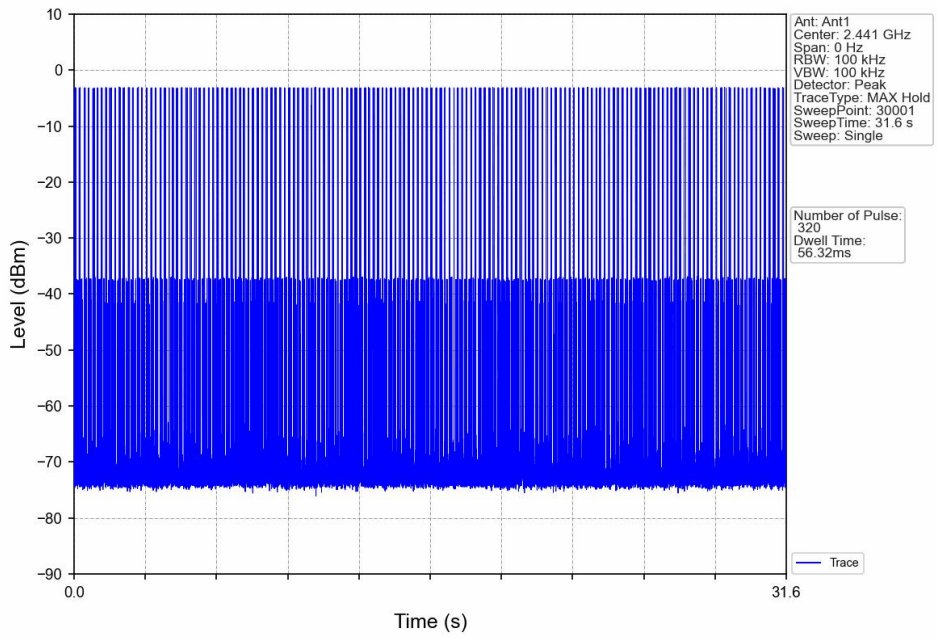

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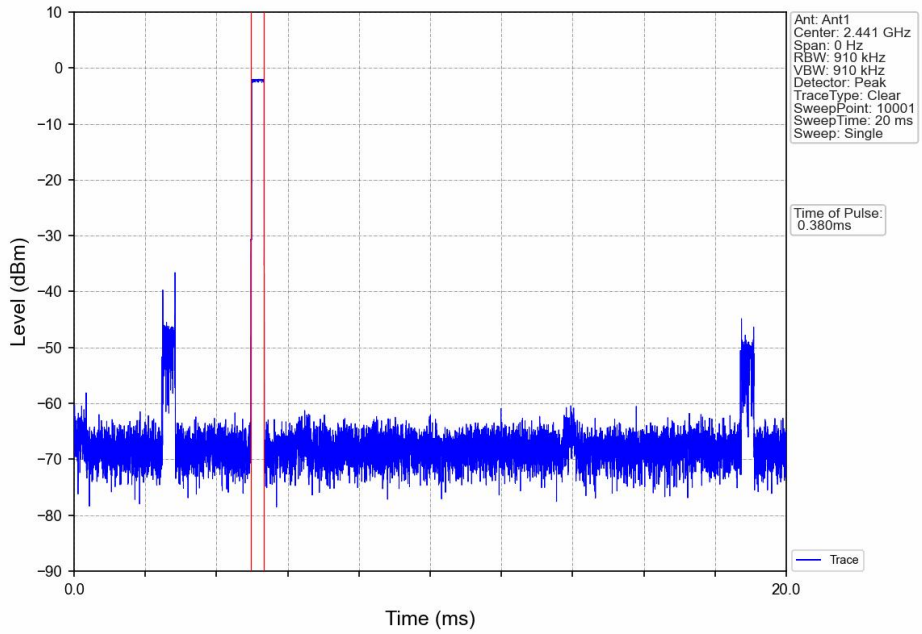

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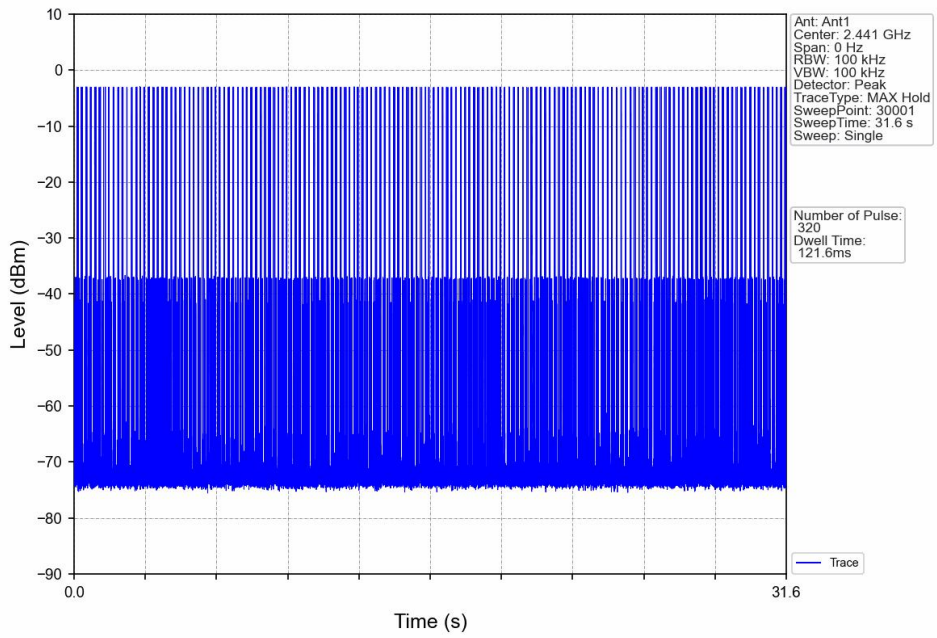

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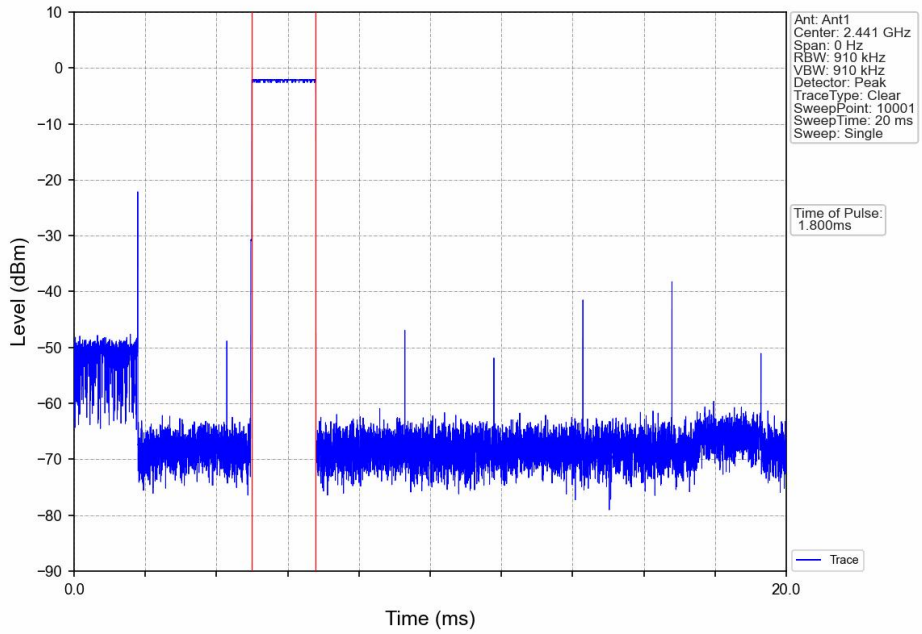

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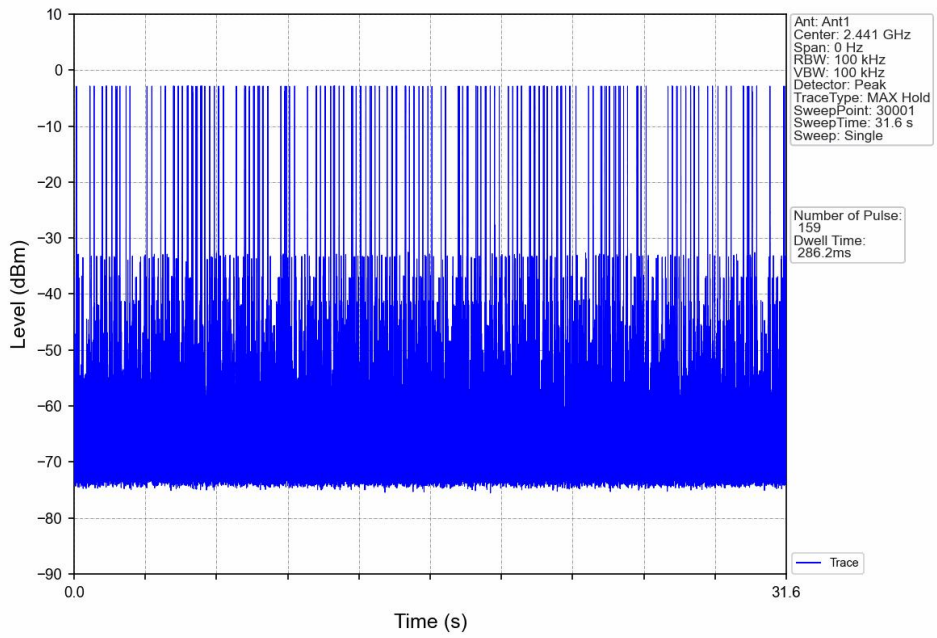

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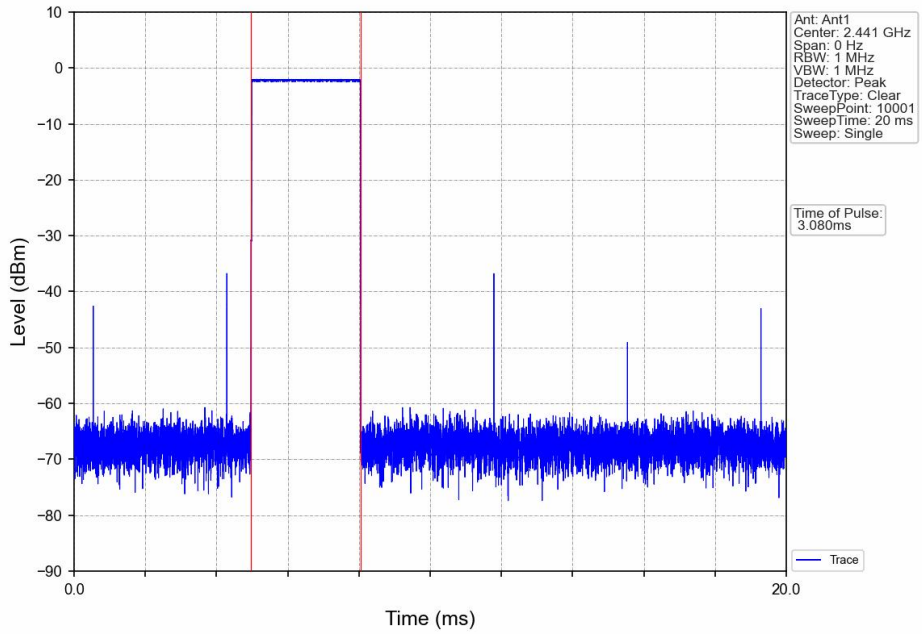

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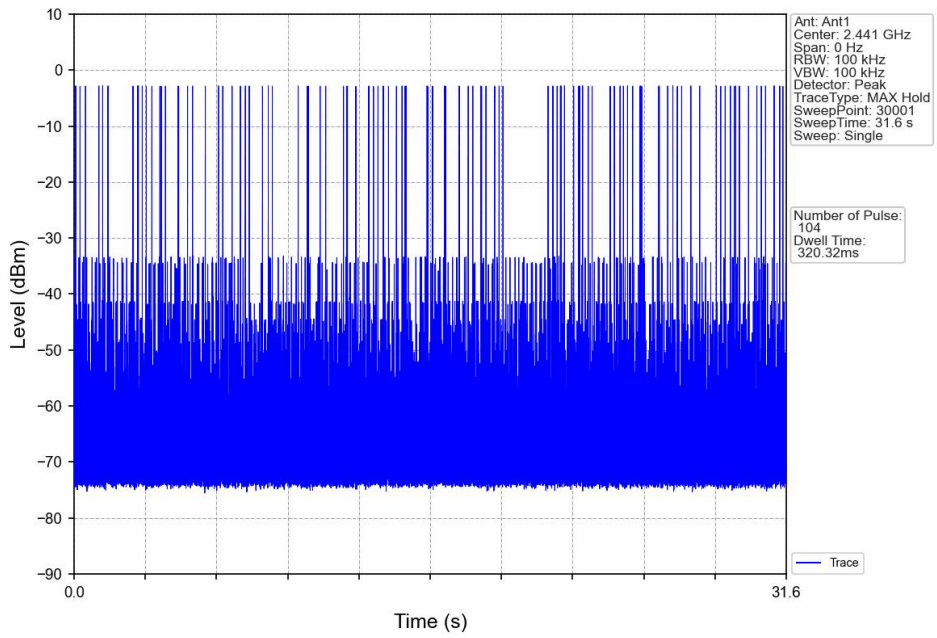

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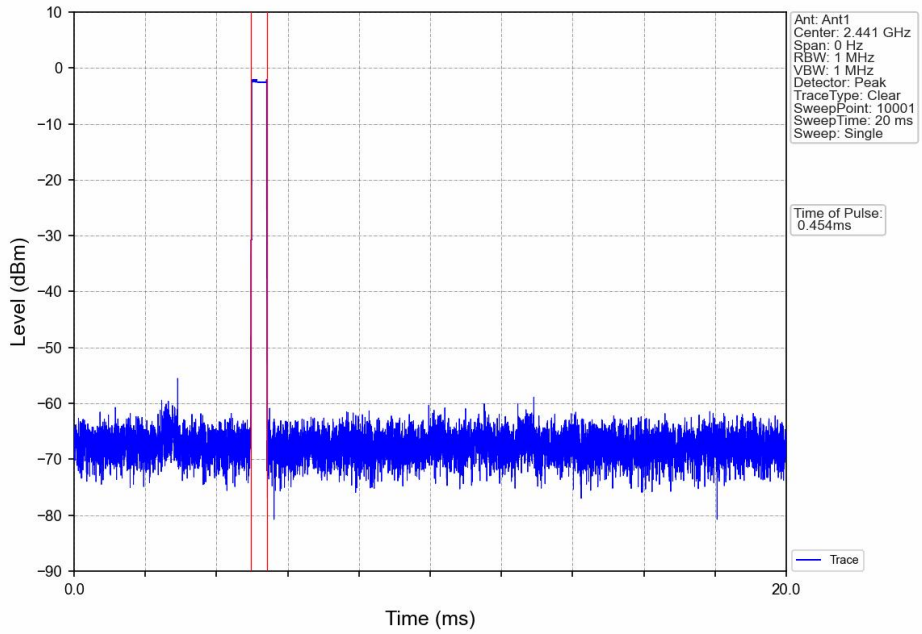

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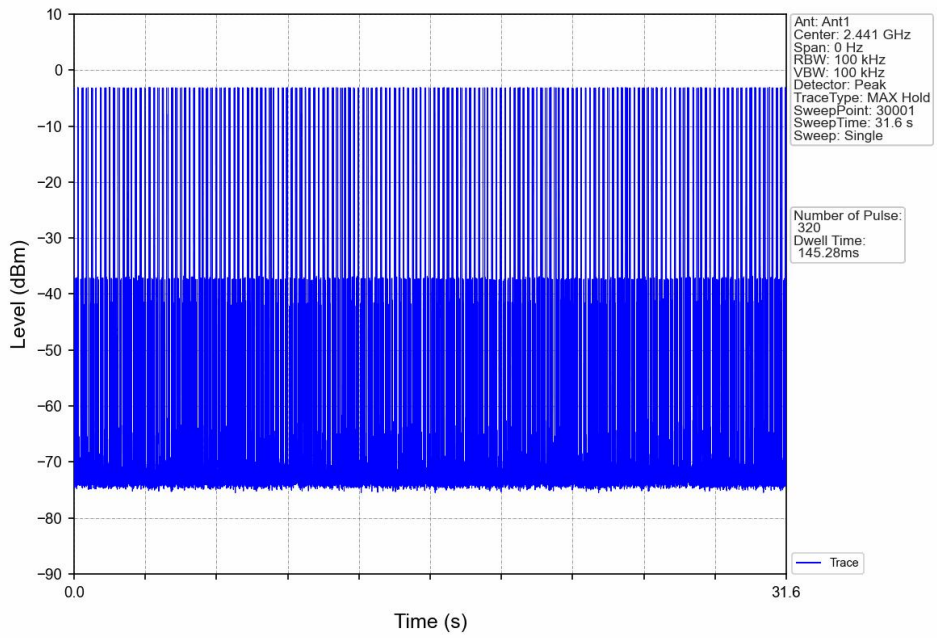

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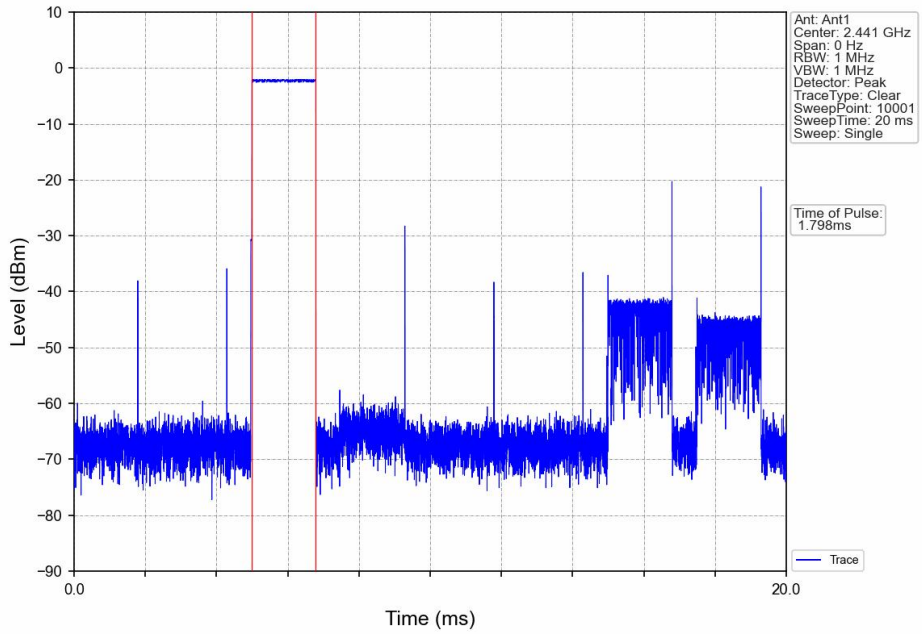

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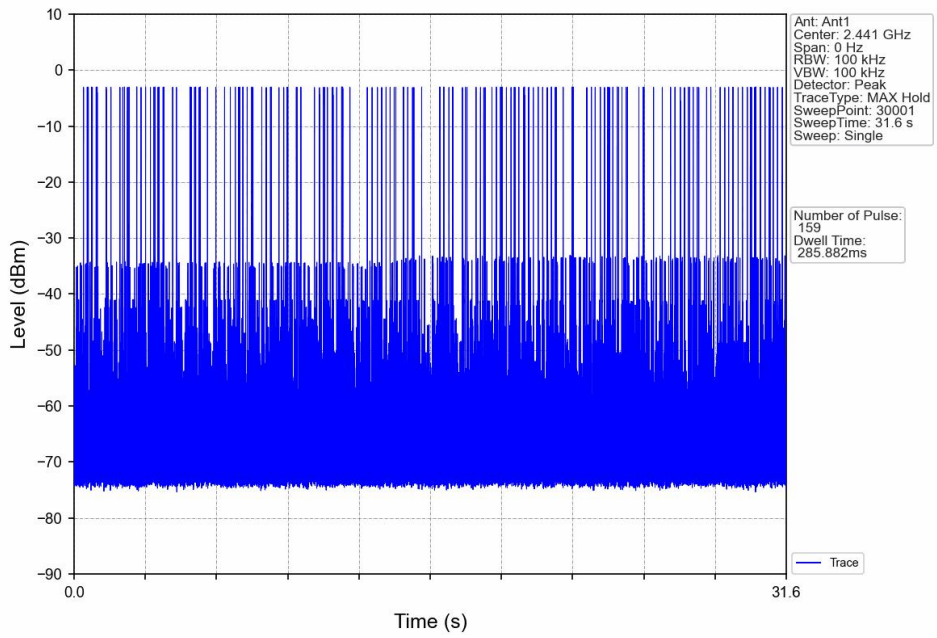

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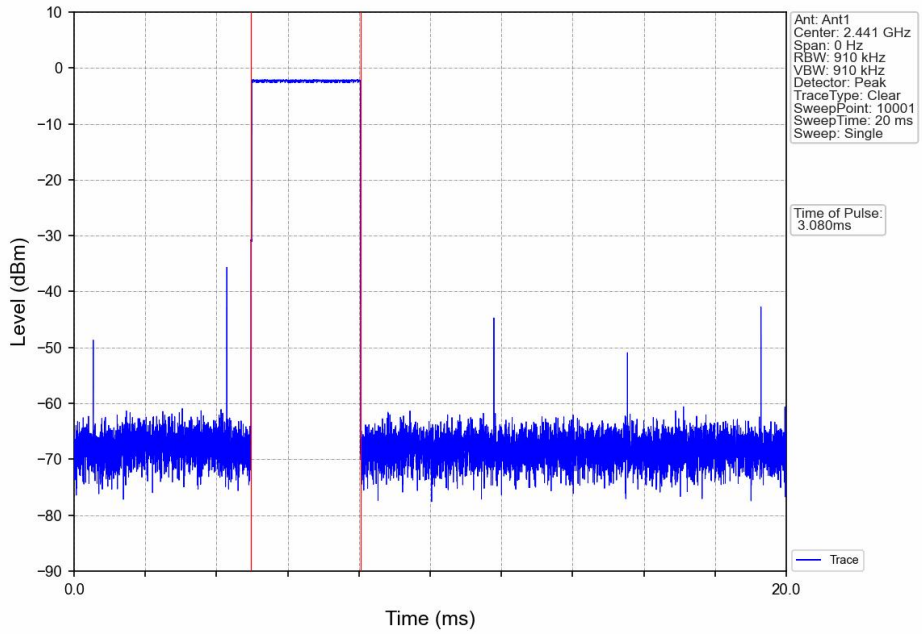
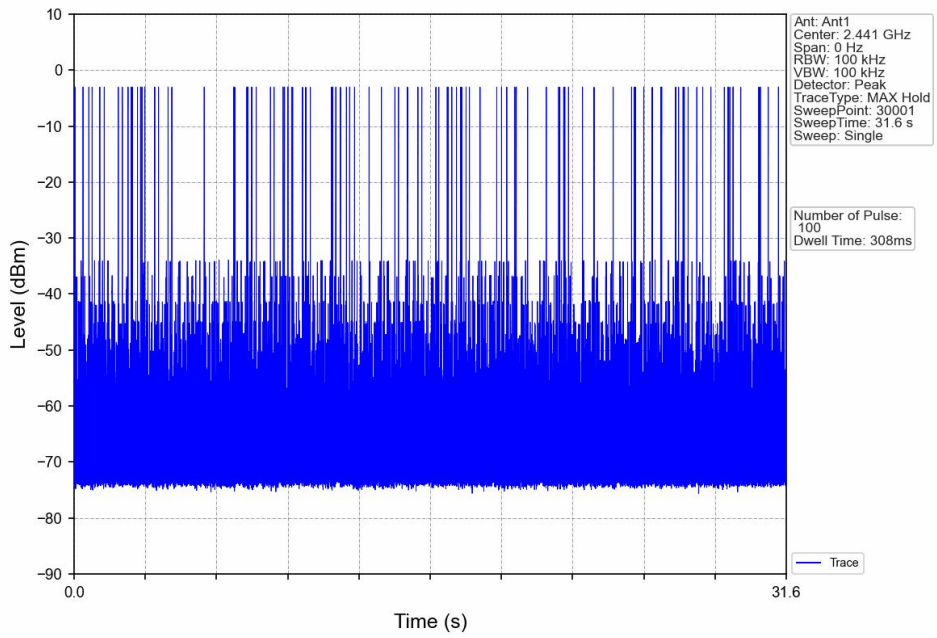
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