



Appendix A

RF Test Data for BT (Conducted Measurement)

Product Name: BLUETOOTH SPEAKER

Test Model: MPD1255XB

Environmental Conditions

Temperature:	24.9°C
Relative Humidity:	53.8%
ATM Pressure:	100.0 kPa
Test Engineer:	Can Kun
Supervised by:	Nick Peng





A.1 20dB Bandwidth

Mode	TX Type	Frequency (MHz)	Packet Type	ANT	20dB Bandwidth (MHz)		Verdict
					Result	Limit	
GFSK	SISO	2402	DH5	1	1.043	/	Pass
		2441	DH5	1	1.042	/	Pass
		2480	DH5	1	1.046	/	Pass
Pi/4DQPSK	SISO	2402	2DH5	1	1.327	/	Pass
		2441	2DH5	1	1.335	/	Pass
		2480	2DH5	1	1.338	/	Pass
8DPSK	SISO	2402	3DH5	1	1.308	/	Pass
		2441	3DH5	1	1.304	/	Pass
		2480	3DH5	1	1.298	/	Pass



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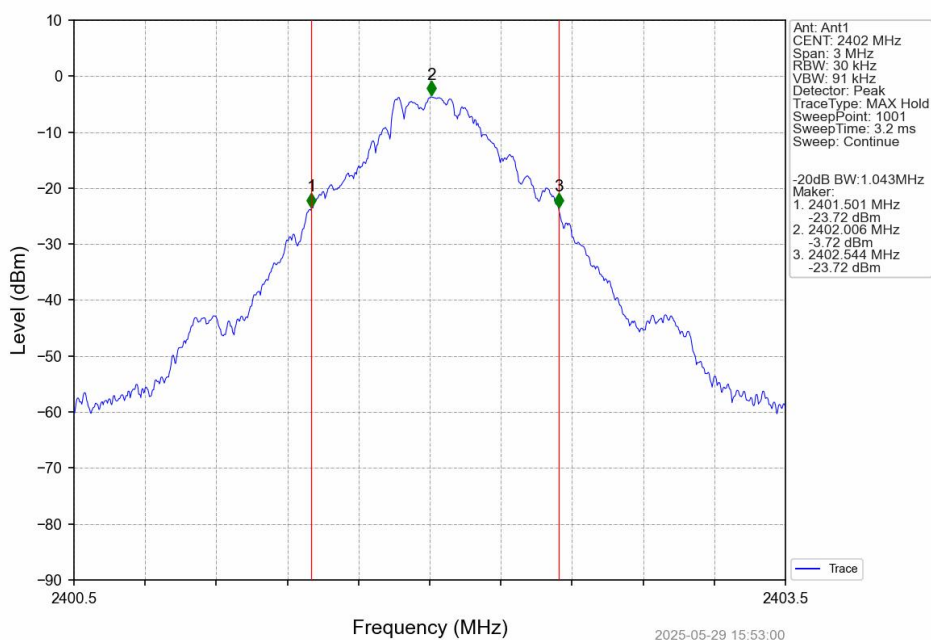
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Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com

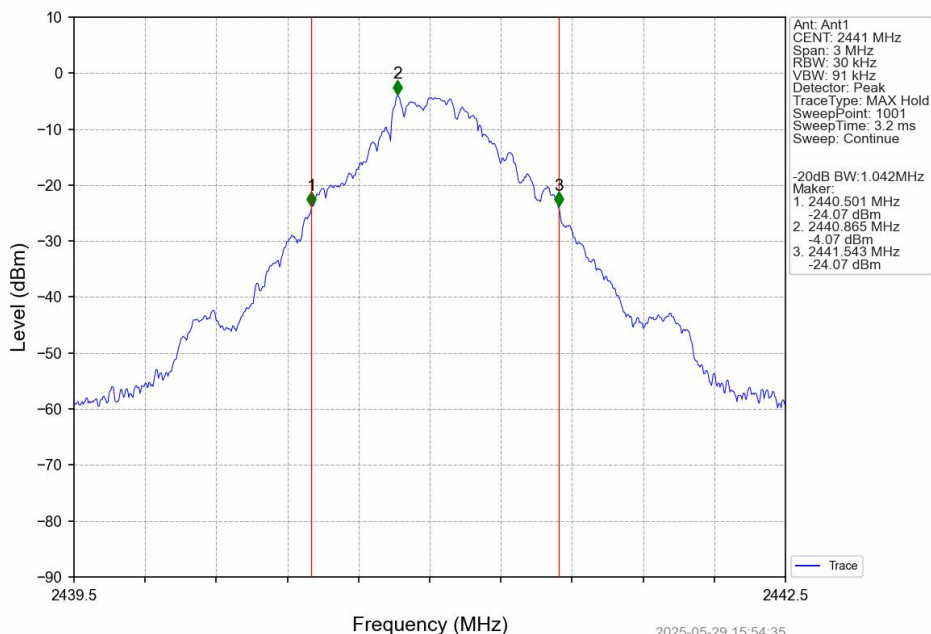
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GFSK_DH5_LCH_2402MHz_Ant1_NTNV

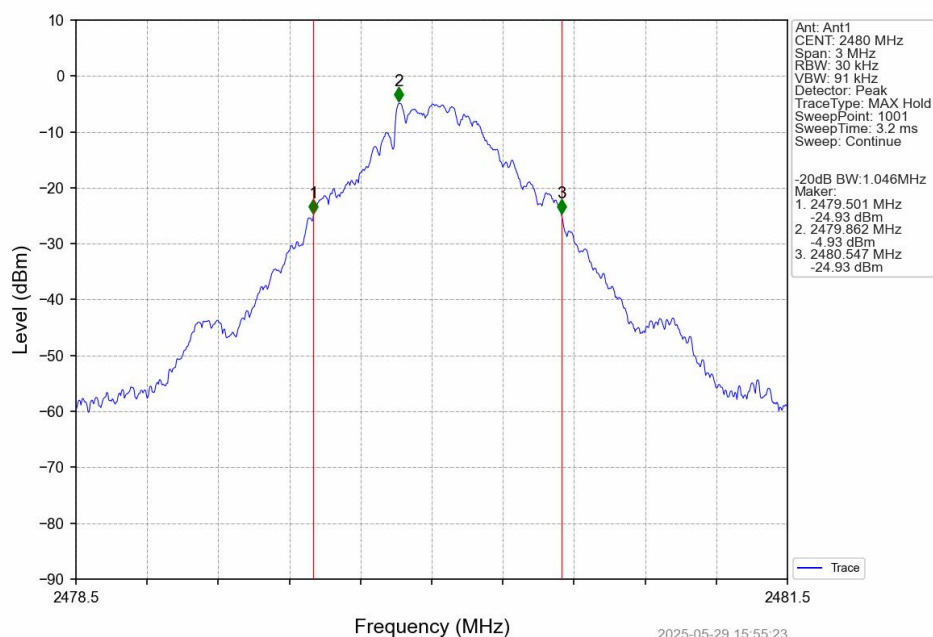


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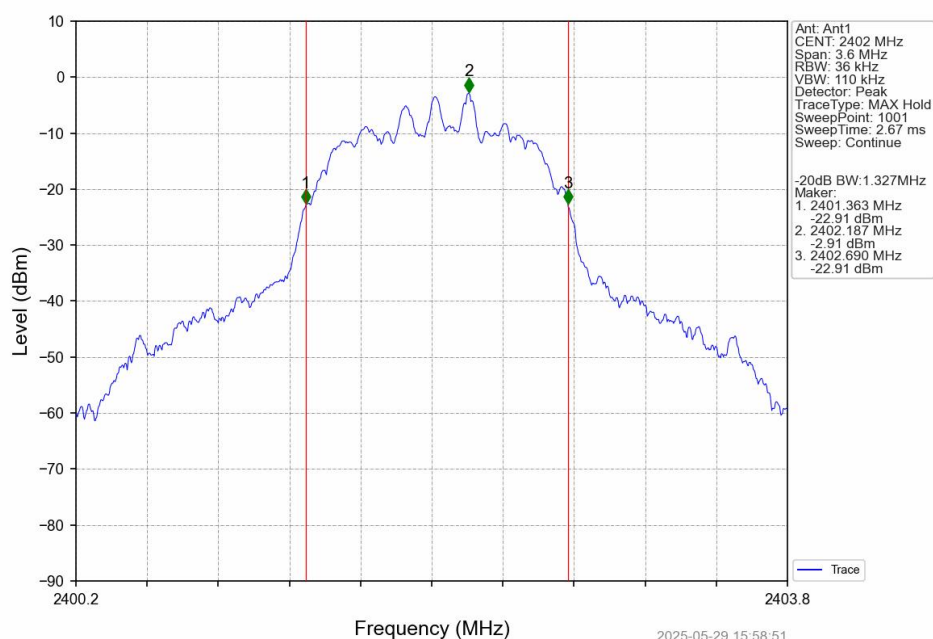




GFSK_DH5_HCH_2480MHz_Ant1_NTNV



Pi/4DQPSK_2DH5_LCH_2402MHz_Ant1_NTNV



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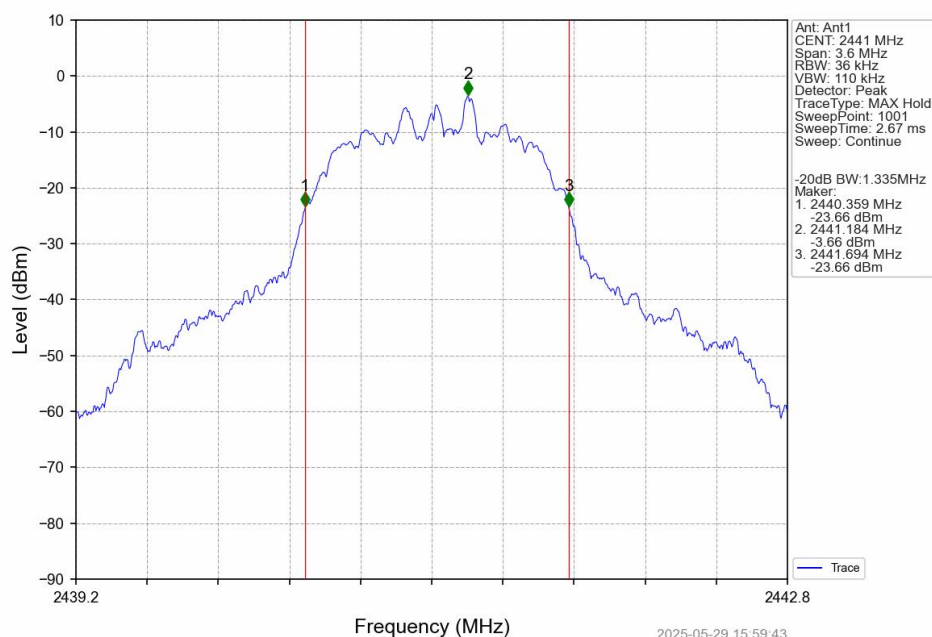
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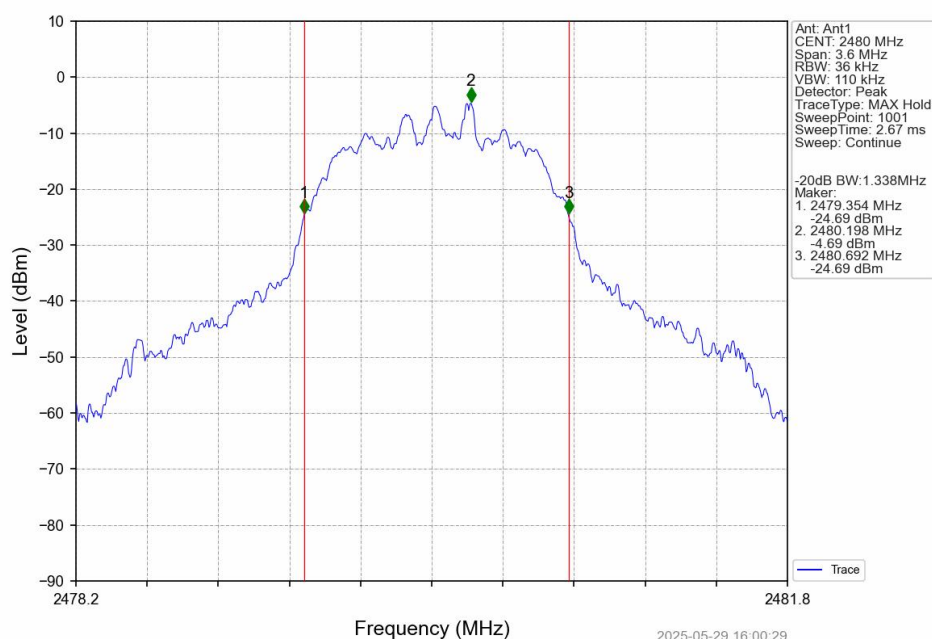
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Pi/4DQPSK_2DH5_MCH_2441MHz_Ant1_NTNV

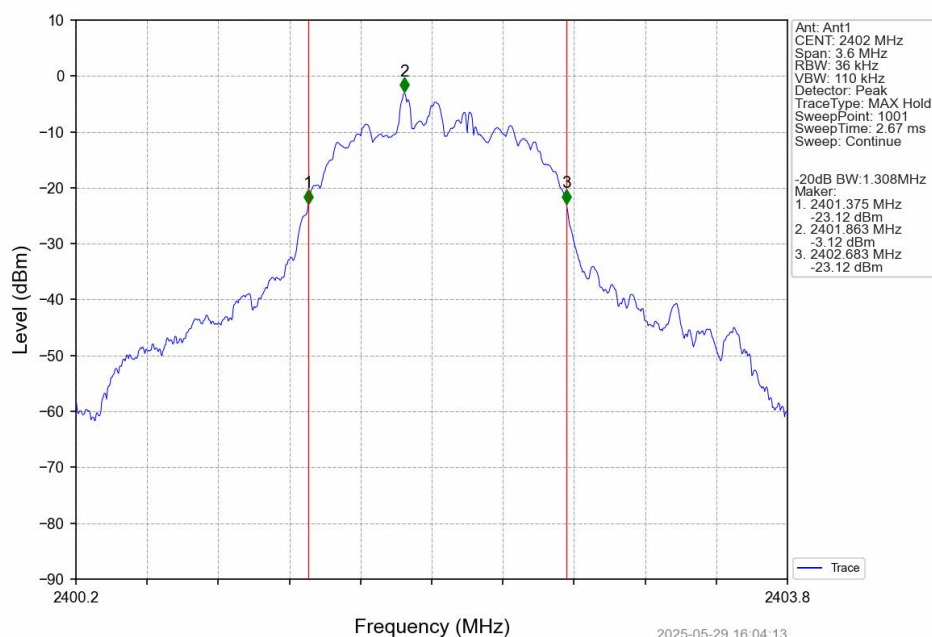


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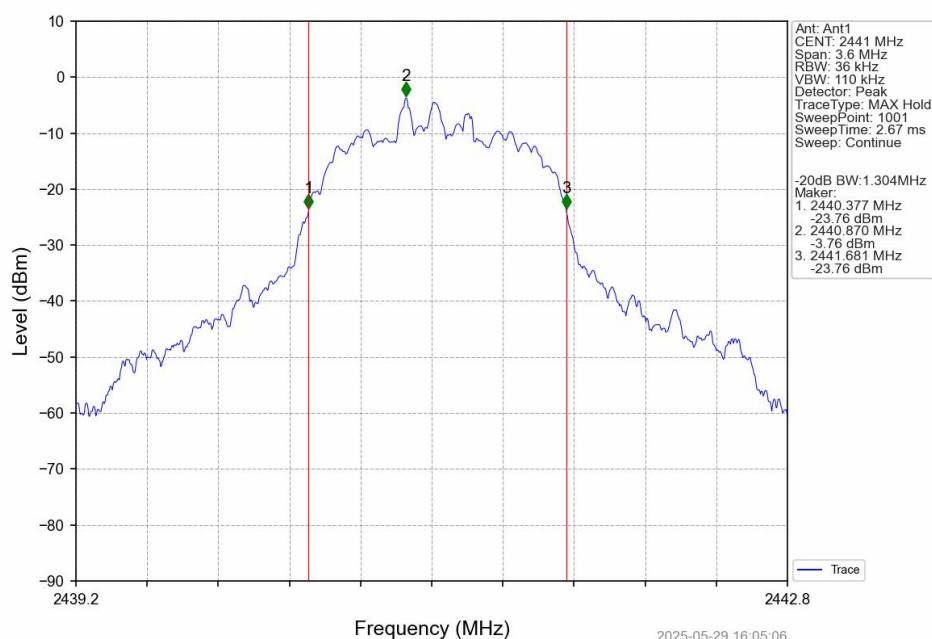




8DPSK_3DH5_LCH_2402MHz_Ant1_NTNV



8DPSK_3DH5_MCH_2441MHz_Ant1_NTNV



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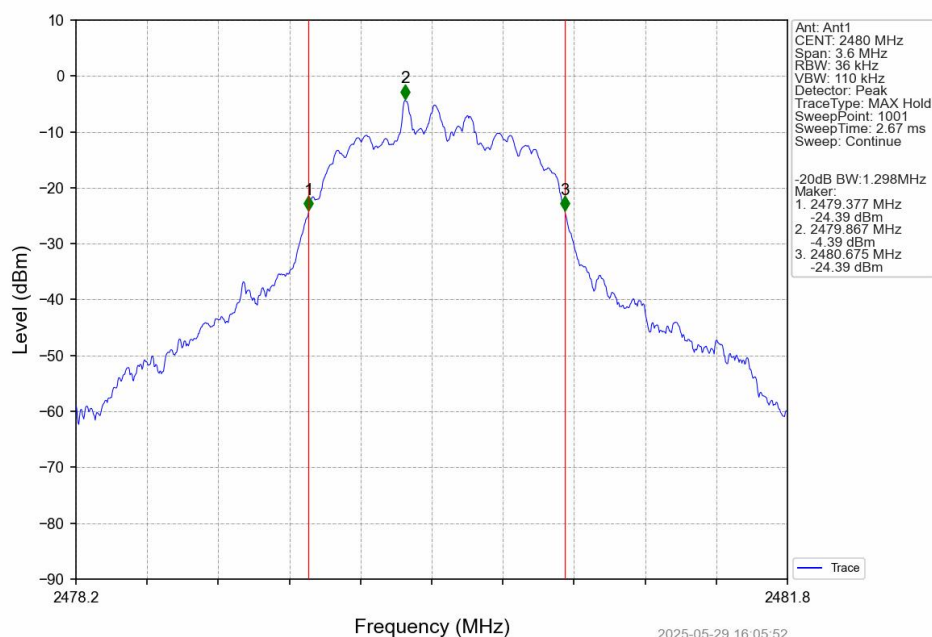
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8DPSK_3DH5_HCH_2480MHz_Ant1_NTNV



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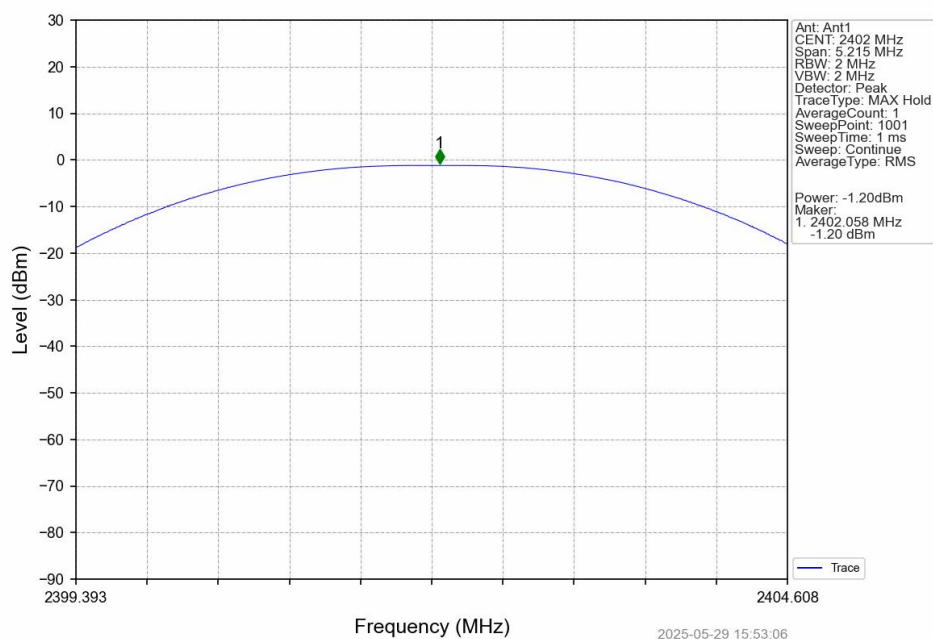
A.2 Maximum Peak Conducted Output Power

Mode	TX Type	Frequency (MHz)	Packet Type	Maximum Peak Conducted Output Power (dBm)		Verdict
				ANT1	Limit	
GFSK	SISO	2402	DH5	-1.20	≤ 21	Pass
		2441	DH5	-1.76	≤ 21	Pass
		2480	DH5	-2.48	≤ 21	Pass
Pi/4DQPSK	SISO	2402	2DH5	-0.40	≤ 21	Pass
		2441	2DH5	-0.95	≤ 21	Pass
		2480	2DH5	-1.65	≤ 21	Pass
8DPSK	SISO	2402	3DH5	-0.05	≤ 21	Pass
		2441	3DH5	-0.59	≤ 21	Pass
		2480	3DH5	-1.32	≤ 21	Pass

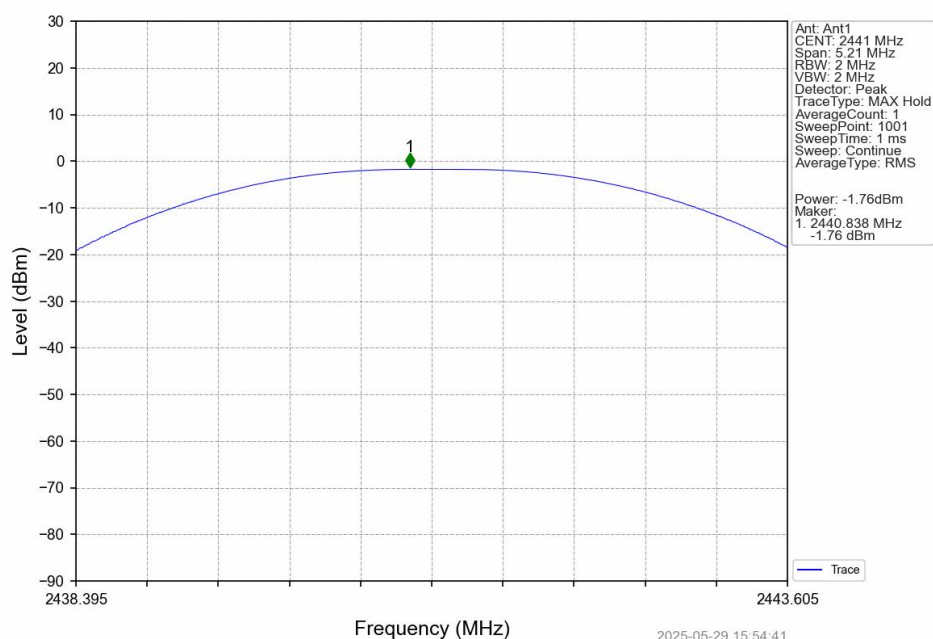




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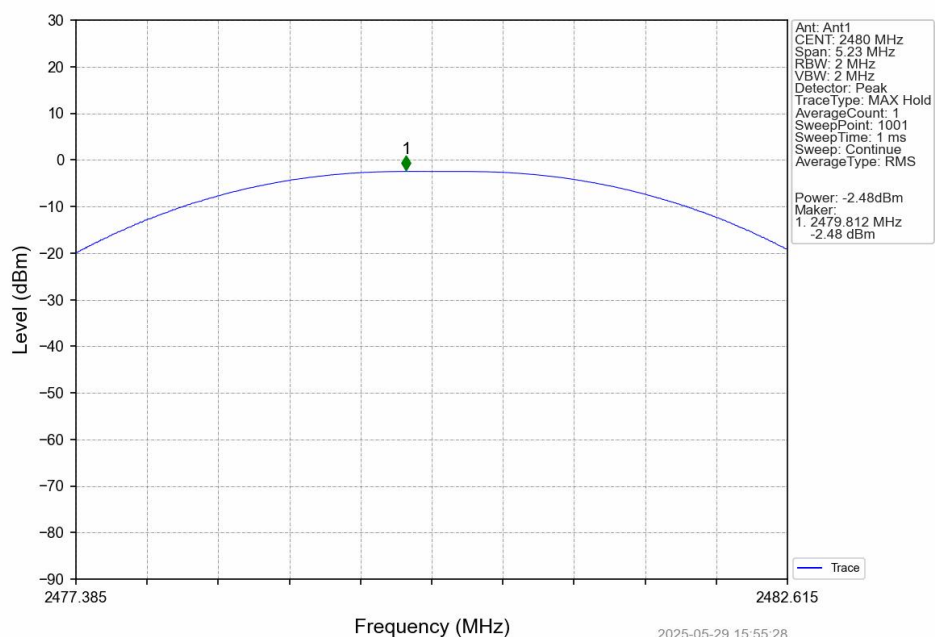


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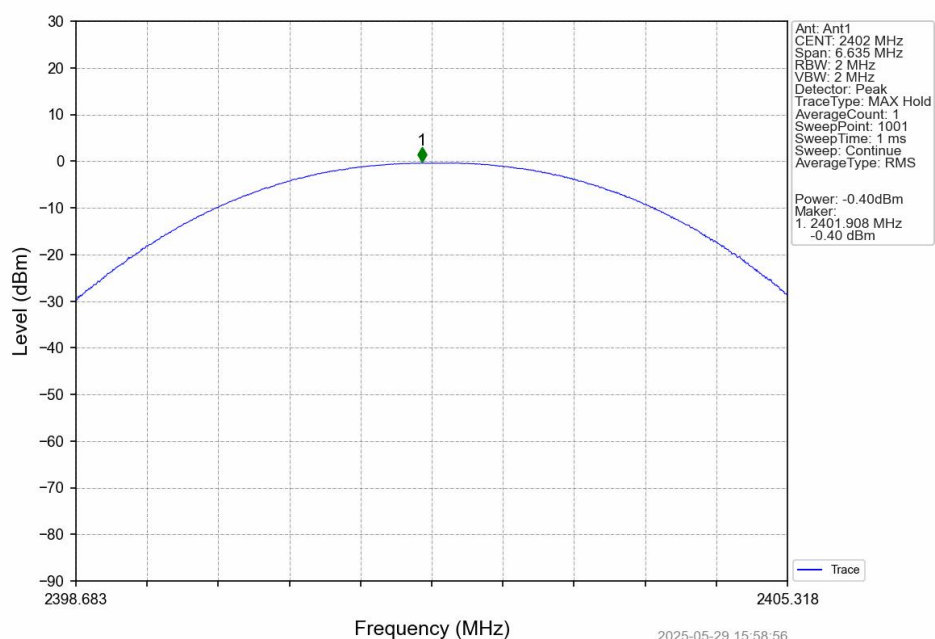




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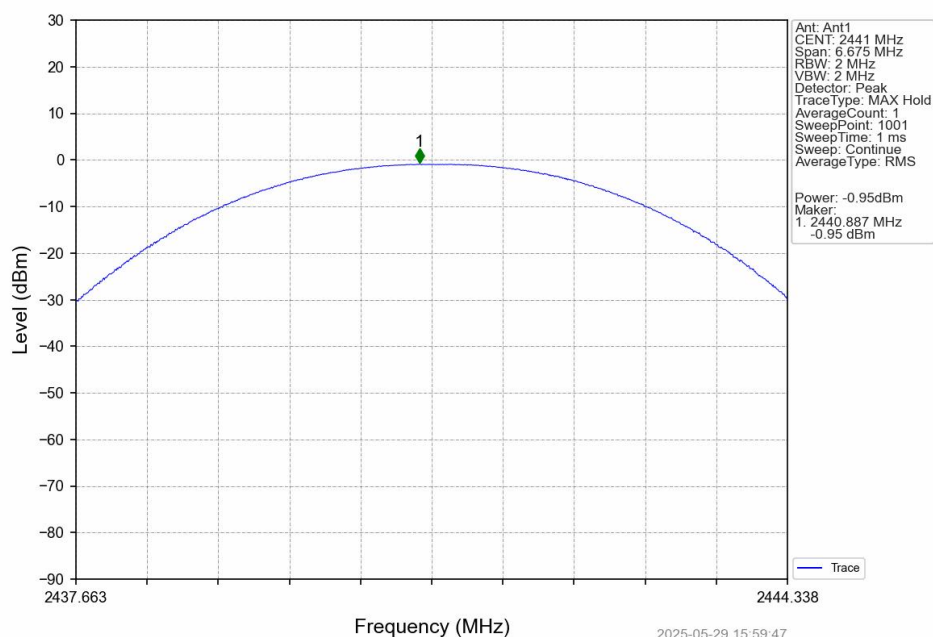


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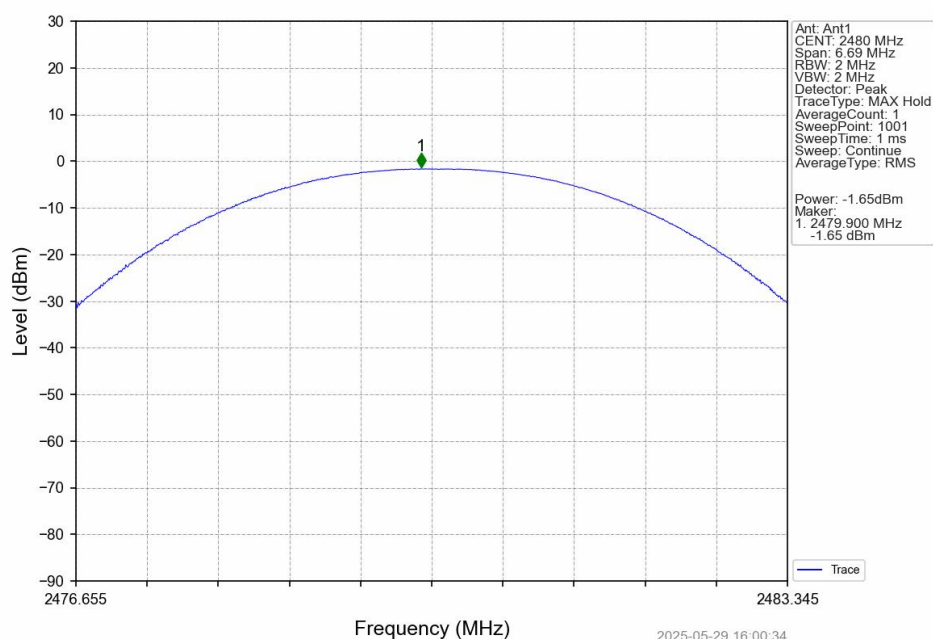




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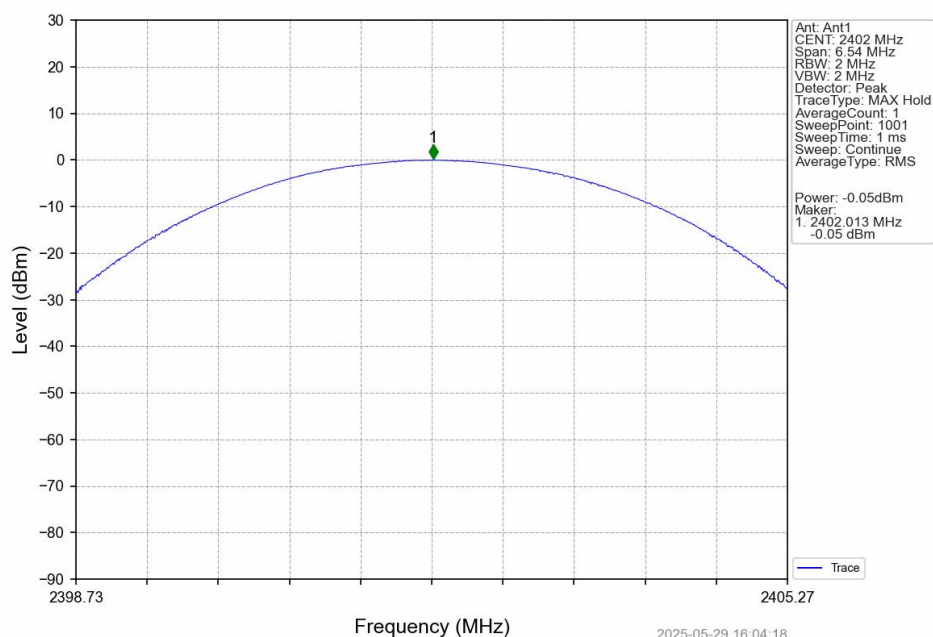


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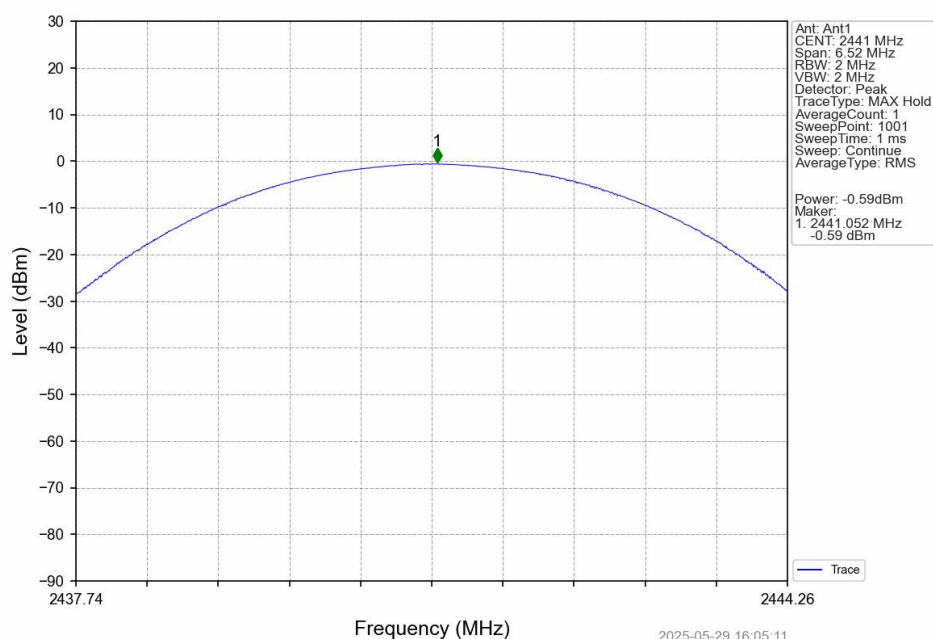




8DPSK_3DH5_LCH_2402MHz_Ant1_NTNV



8DPSK_3DH5_MCH_2441MHz_Ant1_NTNV



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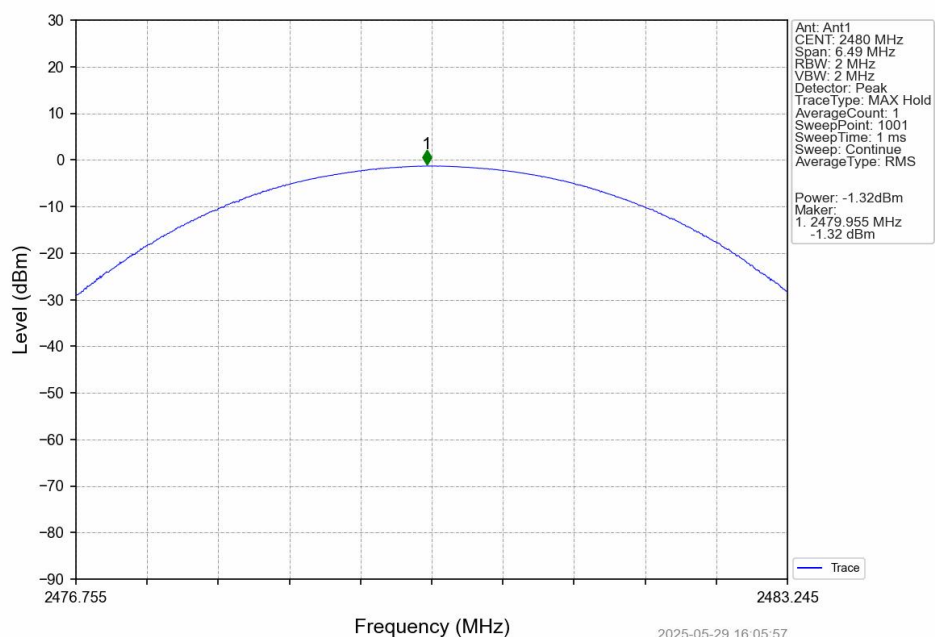
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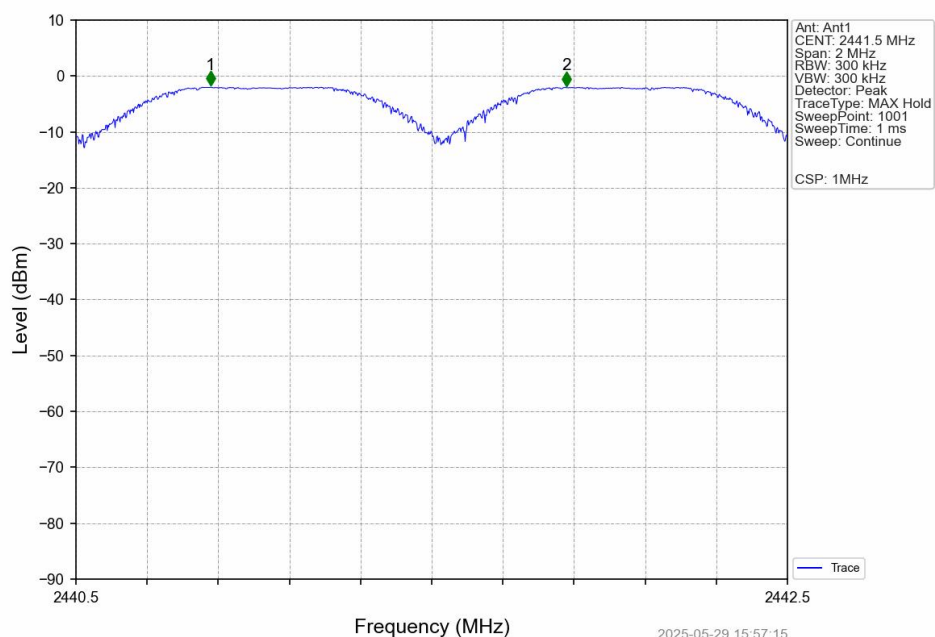
A.3 Frequency Separation

Ant1							
Mode	TX Type	Frequency (MHz)	Packet Type	Channel Separation (MHz)	20dB Bandwidth (MHz)	Limit (MHz)	Verdict
GFSK	SISO	HOPP	DH5	1.000	1.046	≥ 0.697	Pass
Pi/4DQPSK	SISO	HOPP	2DH5	1.001	1.338	≥ 0.892	Pass
8DPSK	SISO	HOPP	3DH5	1.006	1.308	≥ 0.872	Pass

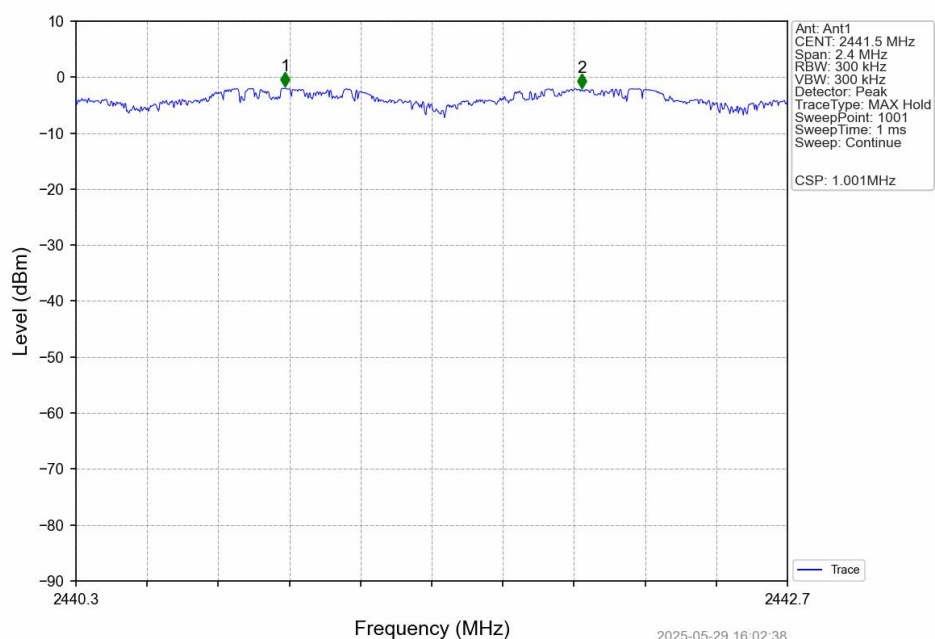




GFSK_DH5_HOPP_Ant1_NTNV

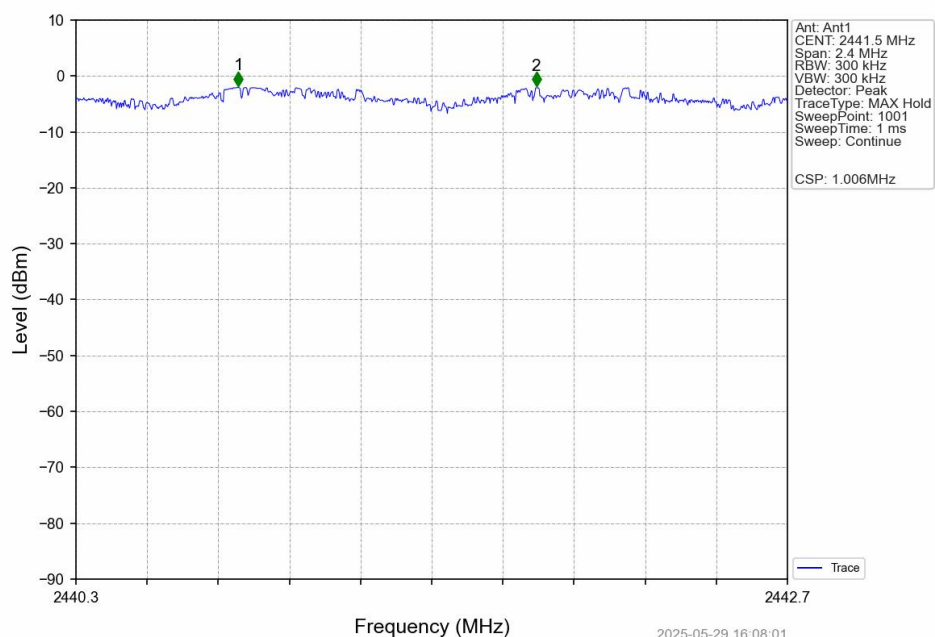


Pi/4DQPSK_2DH5_HOPP_Ant1_NTNV





8DPSK_3DH5_HOPP_Ant1_NTNV





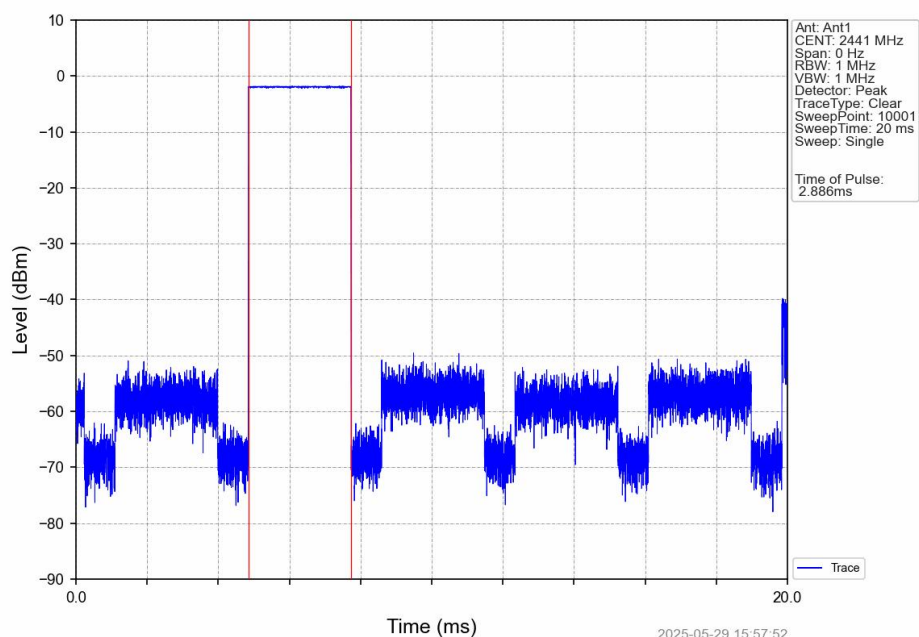
A.4 Time of Occupancy (Dwell Time)

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	DH5	2.886	31.600	100	288.600	<=400	Pass
Pi/4DQPSK	SISO	HOPP	2DH5	2.896	31.600	111	321.456	<=400	Pass
8DPSK	SISO	HOPP	3DH5	2.898	31.600	102	295.596	<=400	Pass

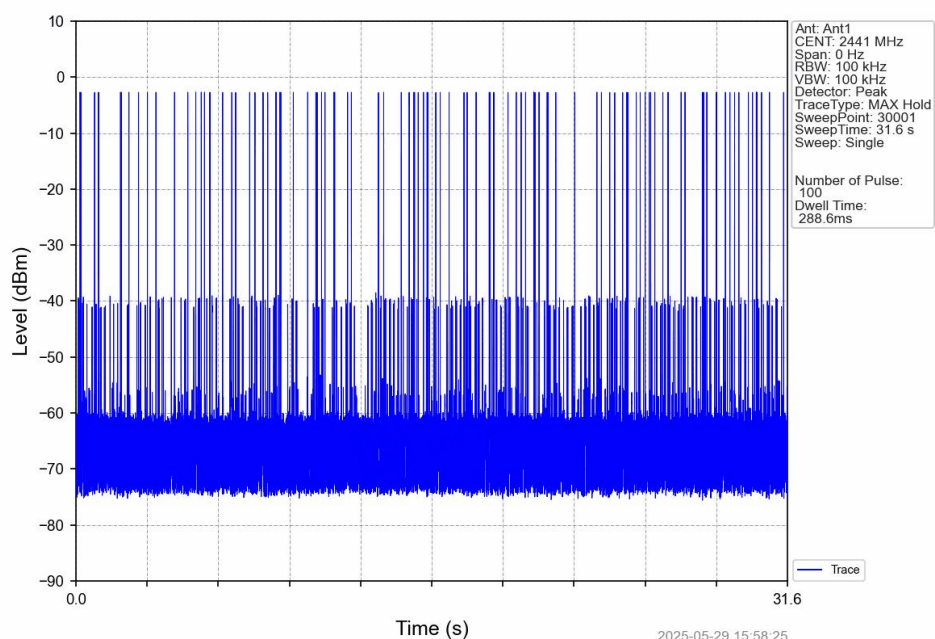




GFSK_DH5_HOPP_Ant1_NTNV



GFSK_DH5_HOPP_Ant1_NTNV



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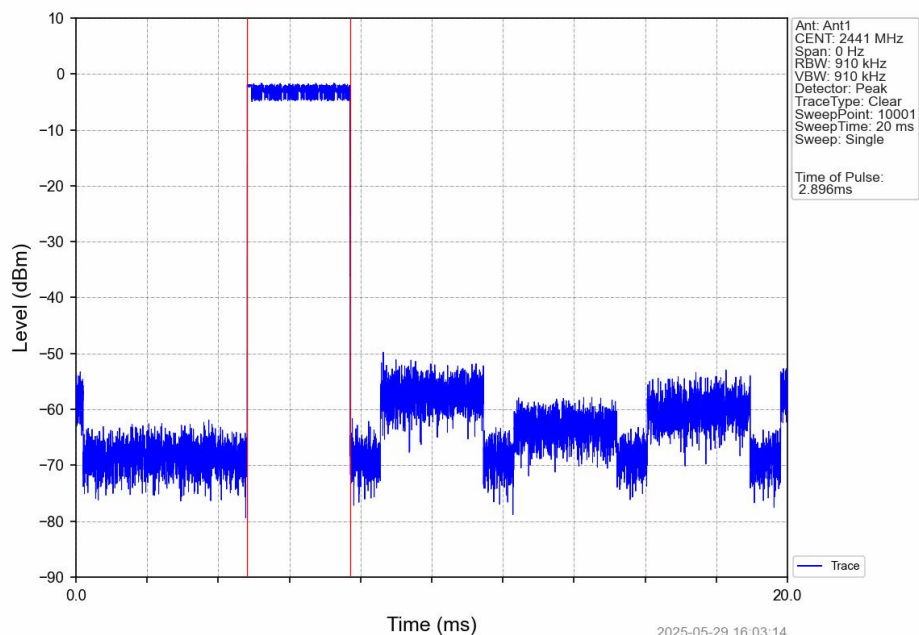
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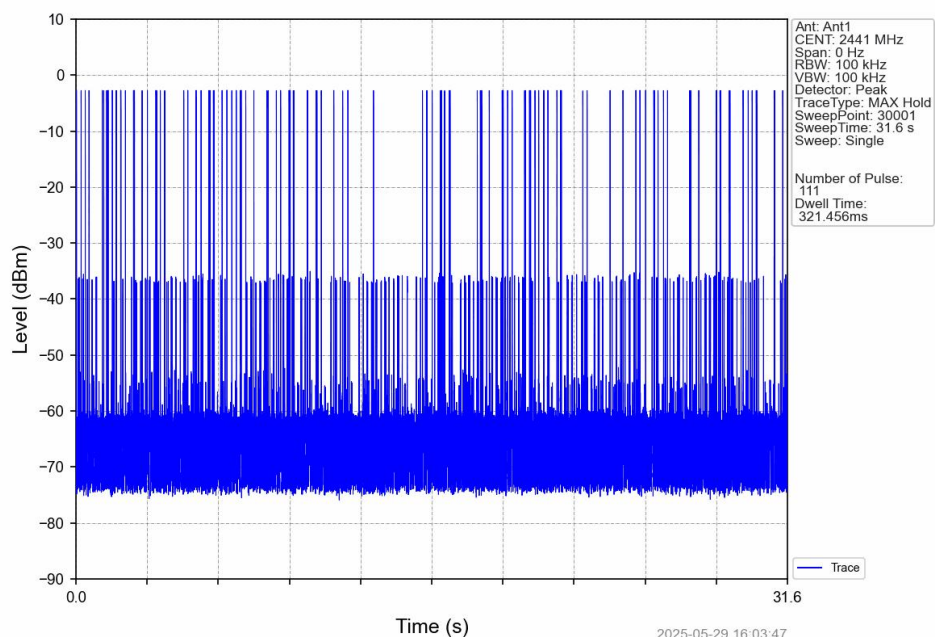
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Pi/4DQPSK_2DH5_HOPP_Ant1_NTNV



Pi/4DQPSK_2DH5_HOPP_Ant1_NTNV



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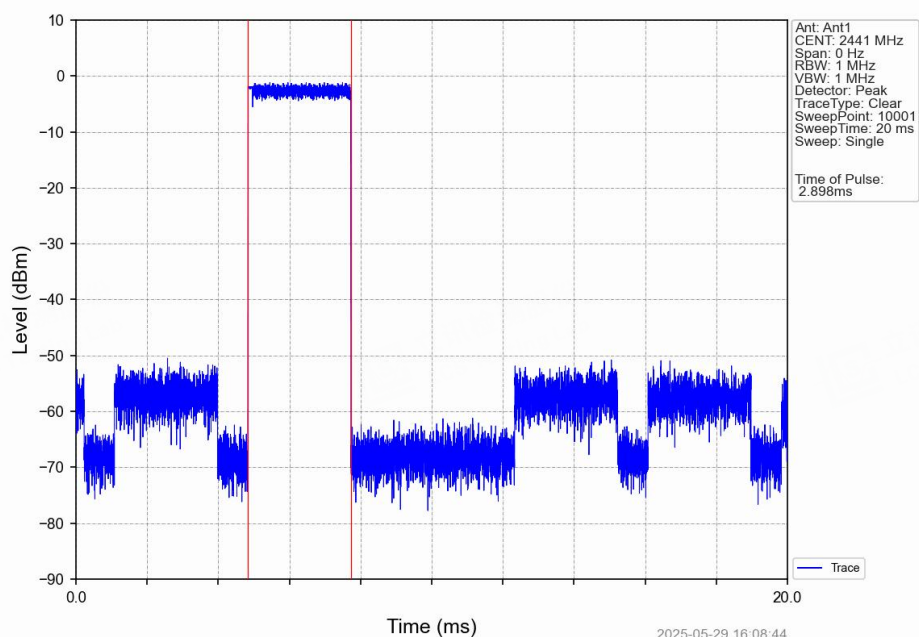
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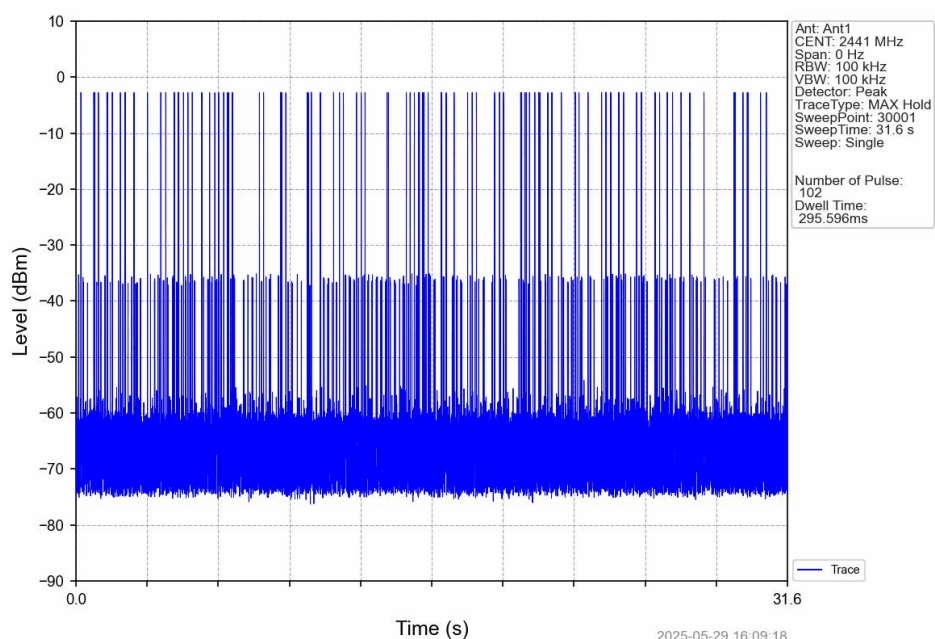
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8DPSK_3DH5_HOPP_Ant1_NTNV



8DPSK_3DH5_HOPP_Ant1_NTNV





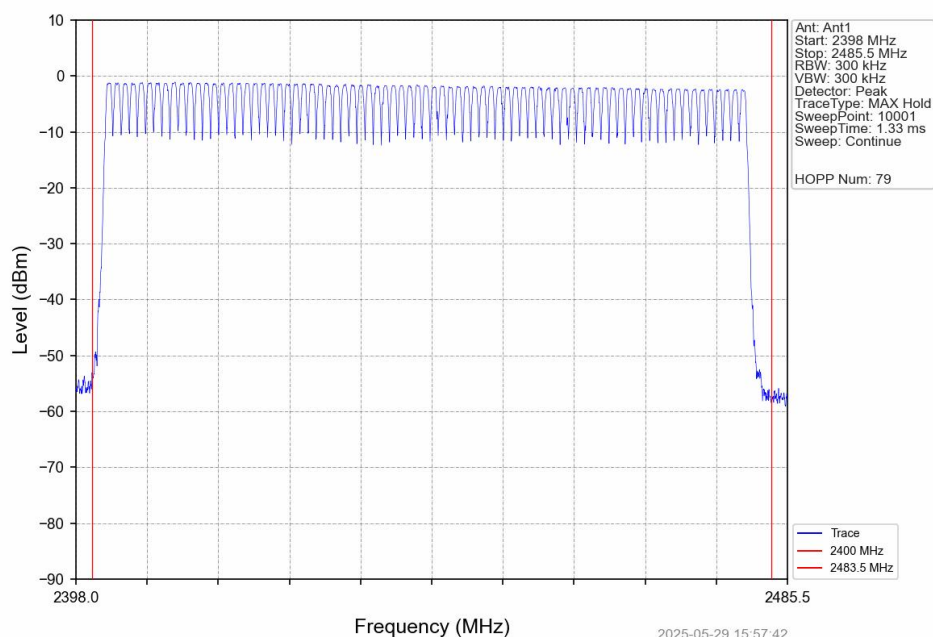
A.5 Number of Hopping Frequencies

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

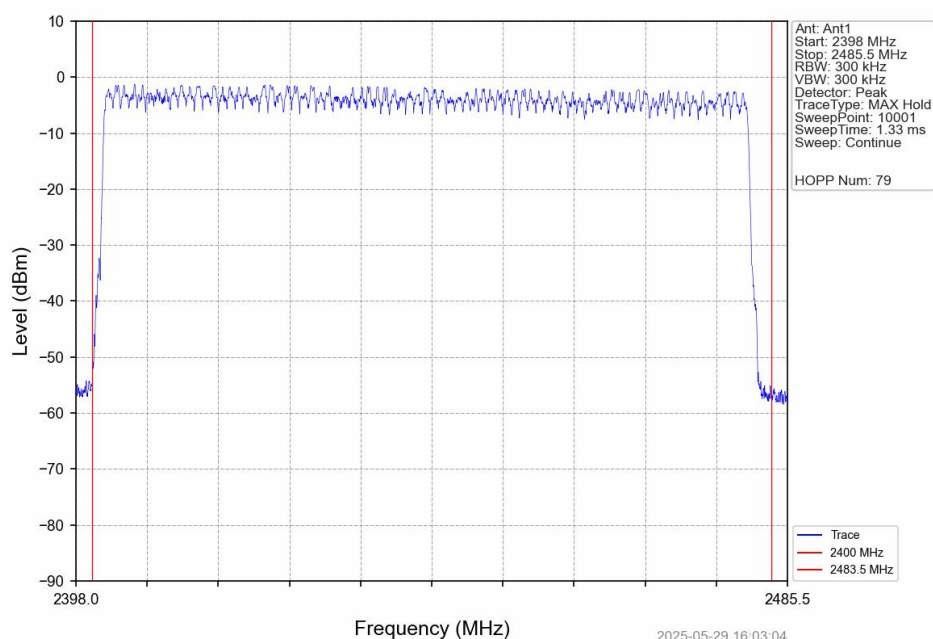




GFSK_DH5_HOPP_Ant1_NTNV

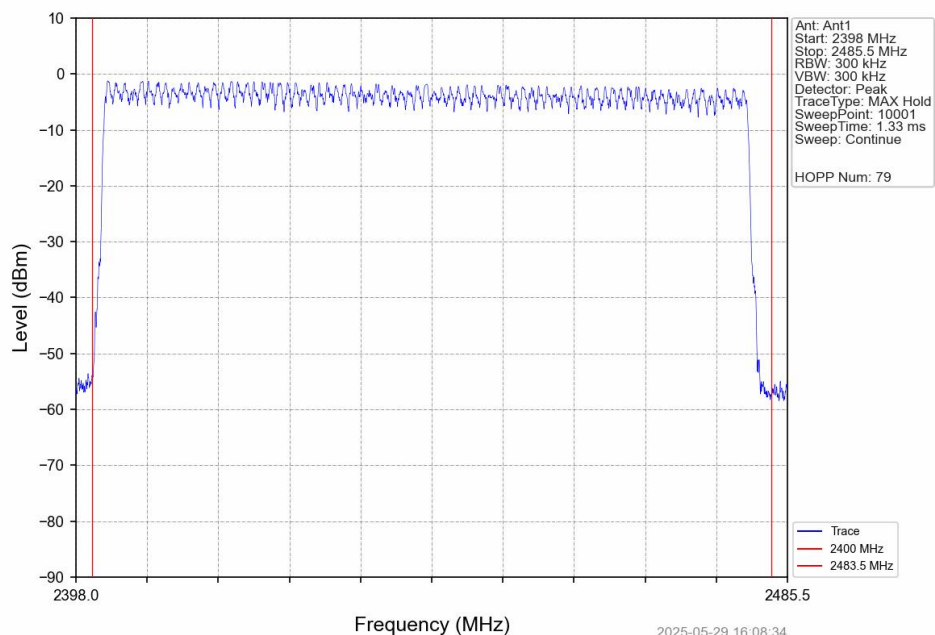


Pi/4DQPSK_2DH5_HOPP_Ant1_NTNV





8DPSK_3DH5_HOPP_Ant1_NTNV





A.6 Band Edge

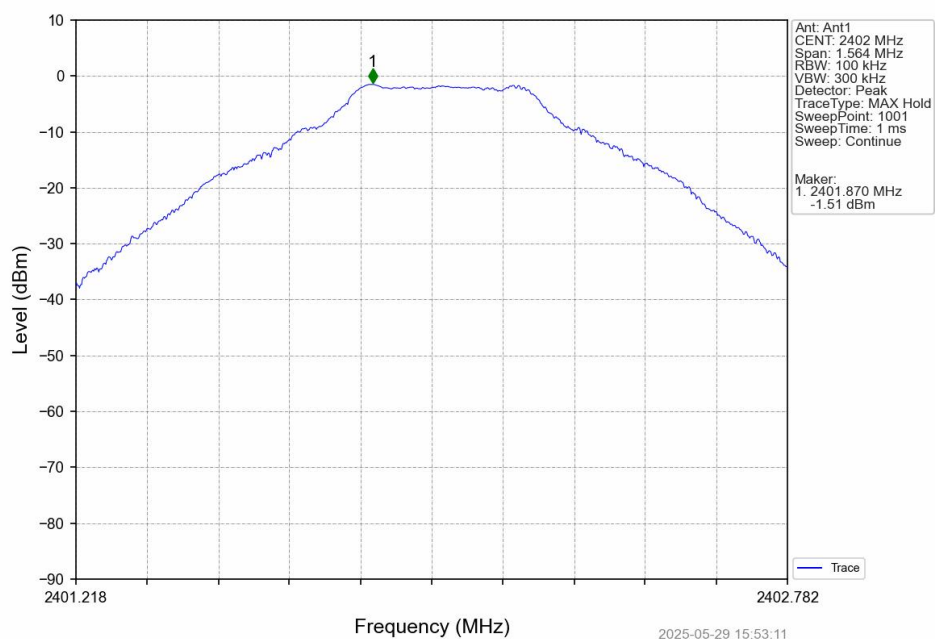
Mode	TX Type	Frequency (MHz)	Packet Type	ANT	Level of Reference (dBm)	Limit (dBm)	Verdict
GFSK	SISO	2402	DH5	1	-1.51	-21.51	Pass
		2441	DH5	1	-2.09	-22.09	Pass
		2480	DH5	1	-2.83	-22.83	Pass
		HOPP	DH5	1	-1.72	-21.72	Pass
					-1.72	-21.72	Pass
Pi/4DQPSK	SISO	2402	2DH5	1	-1.52	-21.52	Pass
		2441	2DH5	1	-2.11	-22.11	Pass
		2480	2DH5	1	-2.87	-22.87	Pass
		HOPP	2DH5	1	-2.01	-22.01	Pass
					-2.01	-22.01	Pass
8DPSK	SISO	2402	3DH5	1	-1.55	-21.55	Pass
		2441	3DH5	1	-2.14	-22.14	Pass
		2480	3DH5	1	-2.85	-22.85	Pass
		HOPP	3DH5	1	-1.51	-21.51	Pass
					-1.51	-21.51	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.

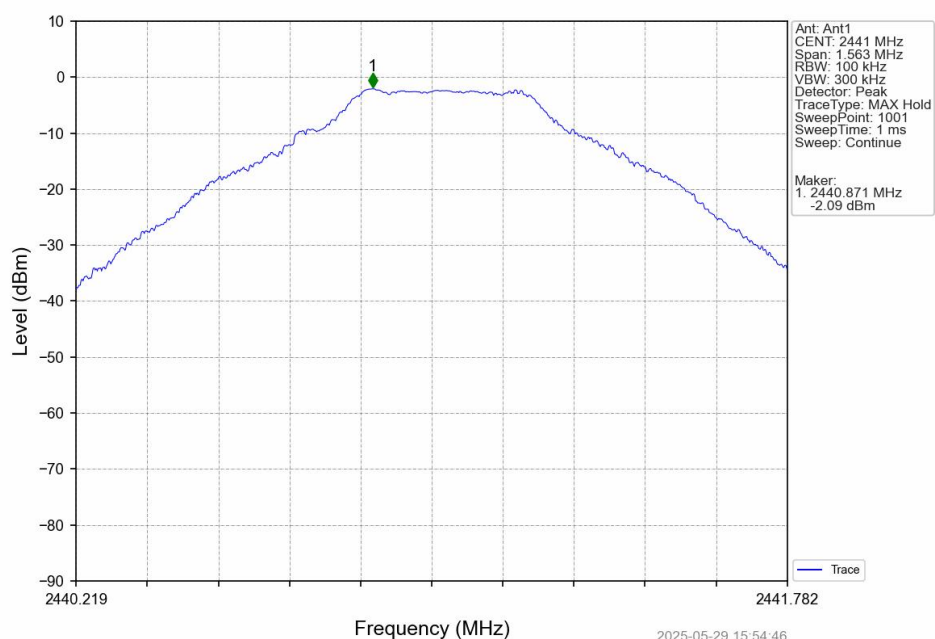




GFSK_DH5_LCH_2402MHz_Ant1_NTNV

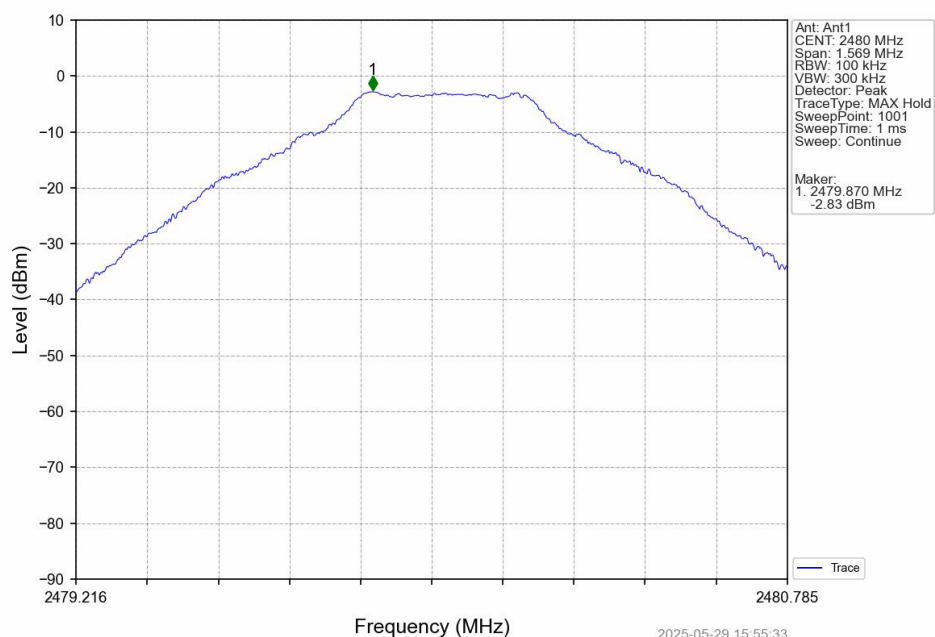


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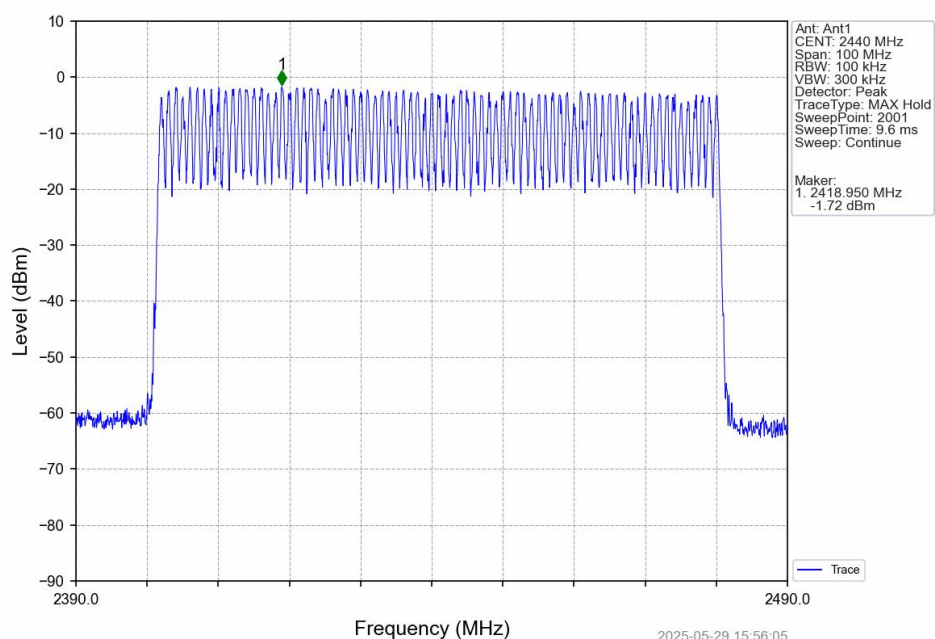




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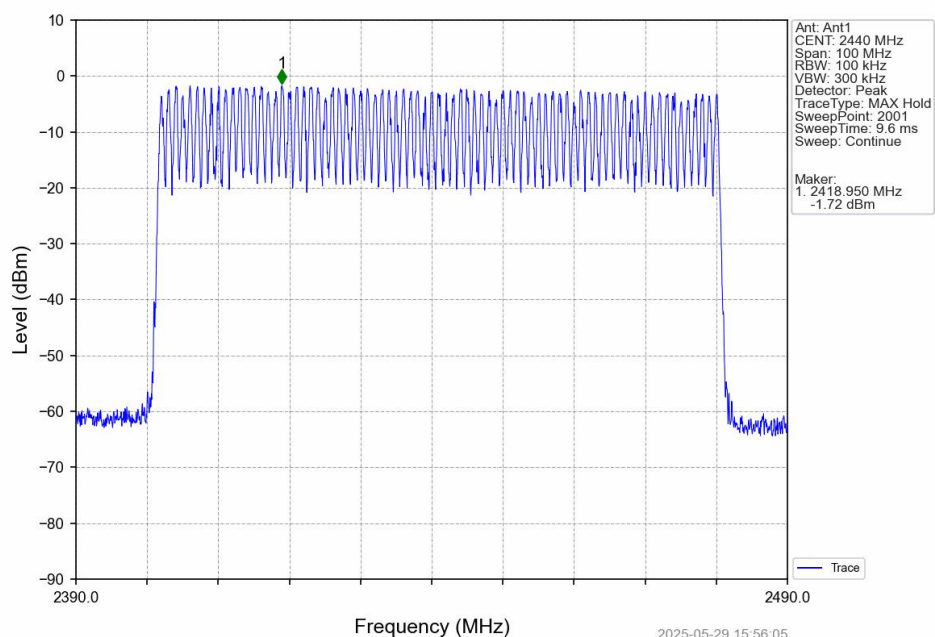


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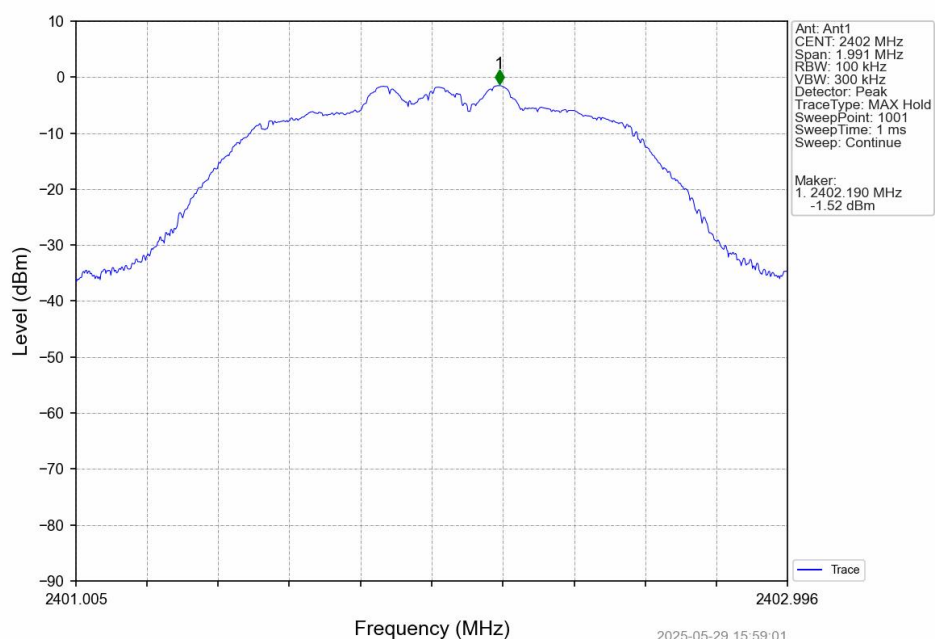




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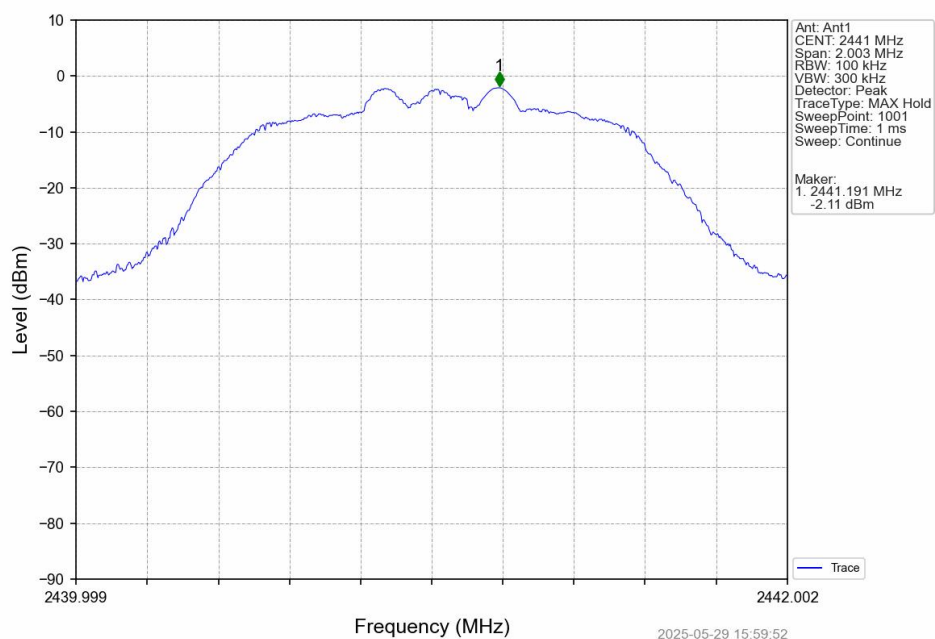


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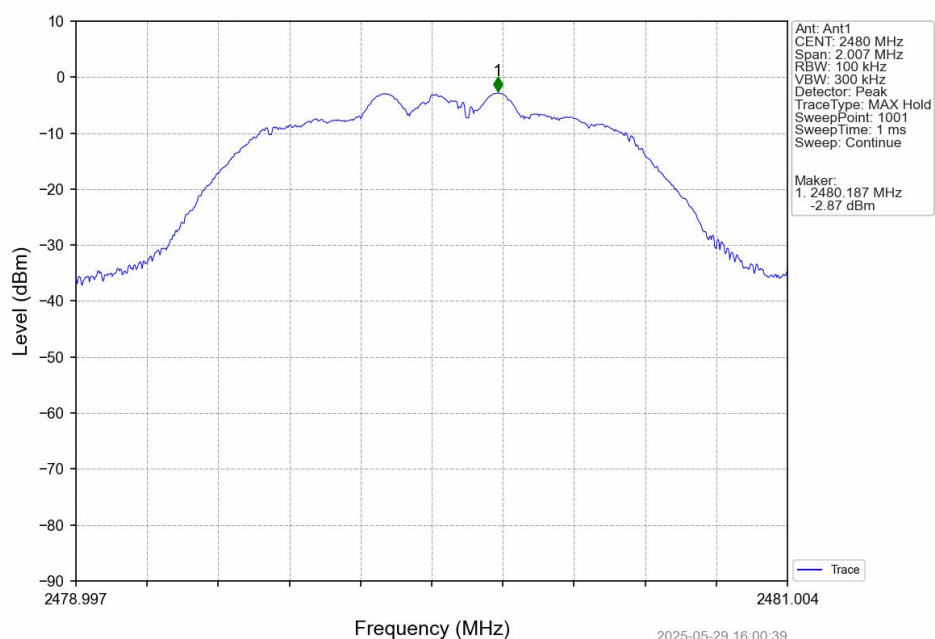




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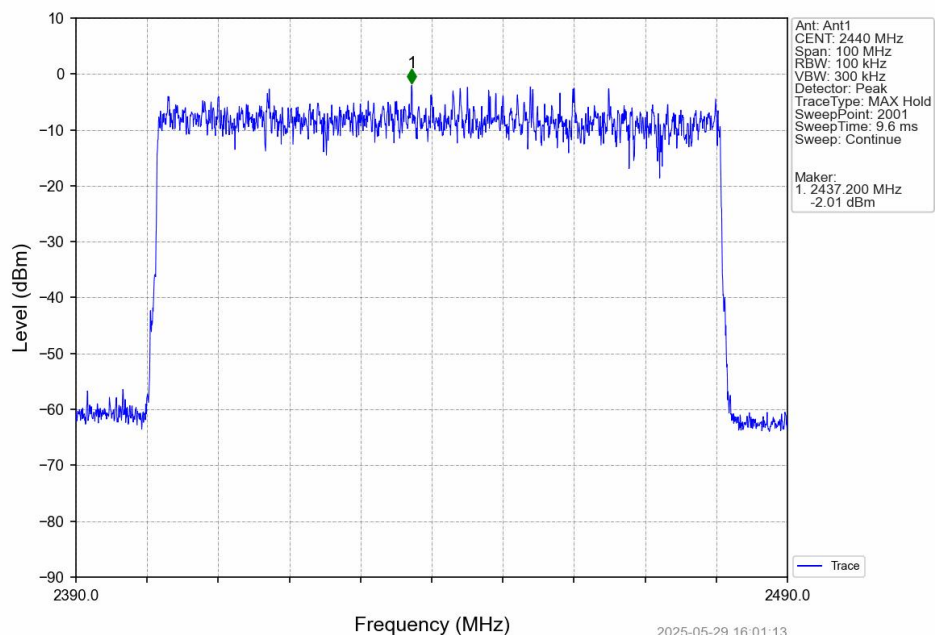


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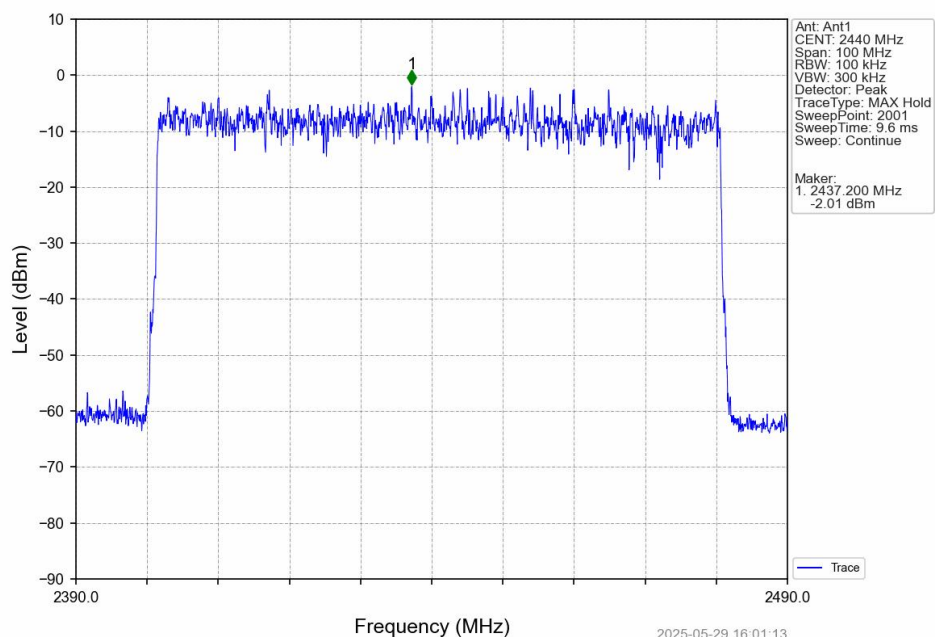




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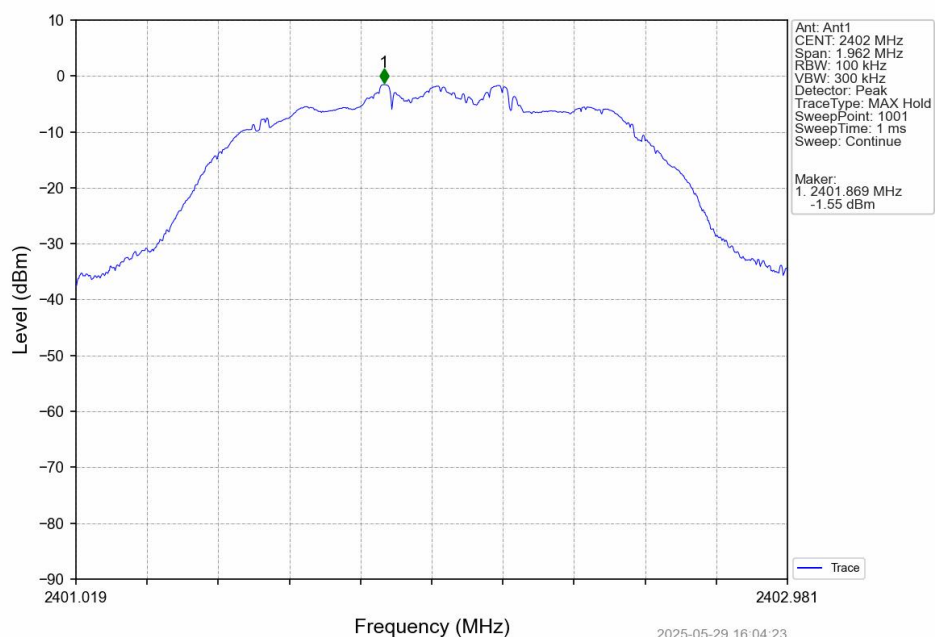


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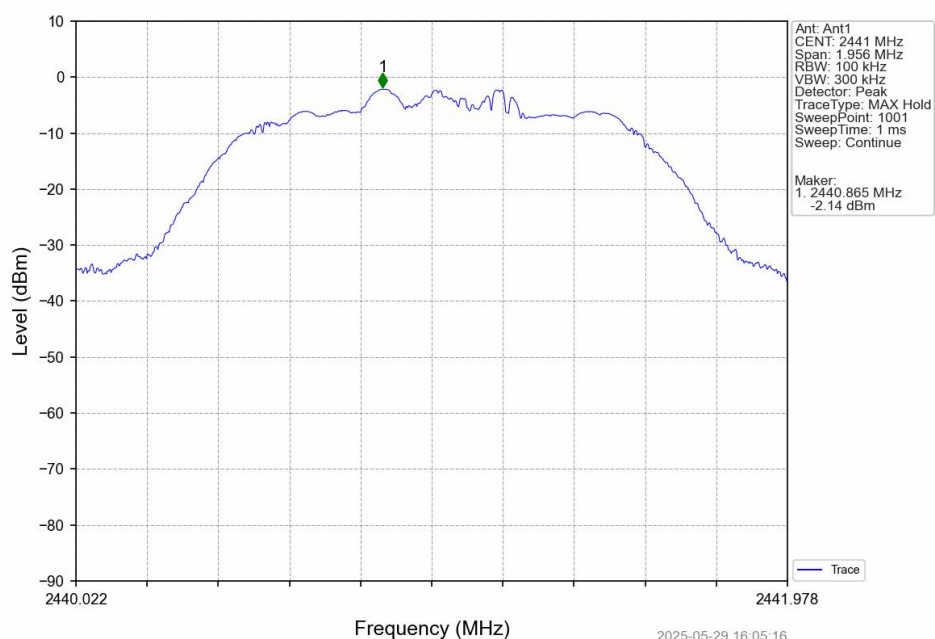




8DPSK_3DH5_LCH_2402MHz_Ant1_NTNV

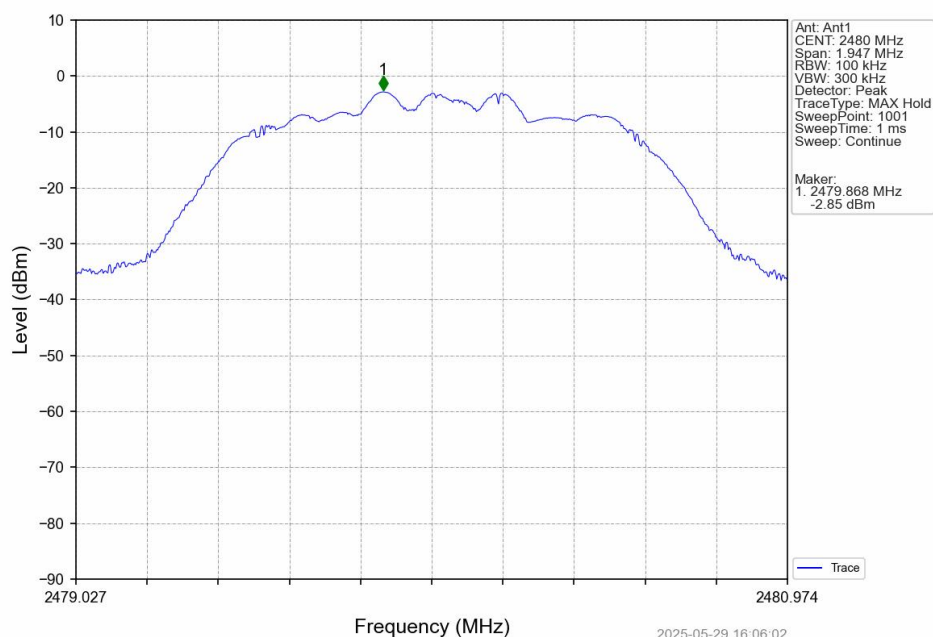


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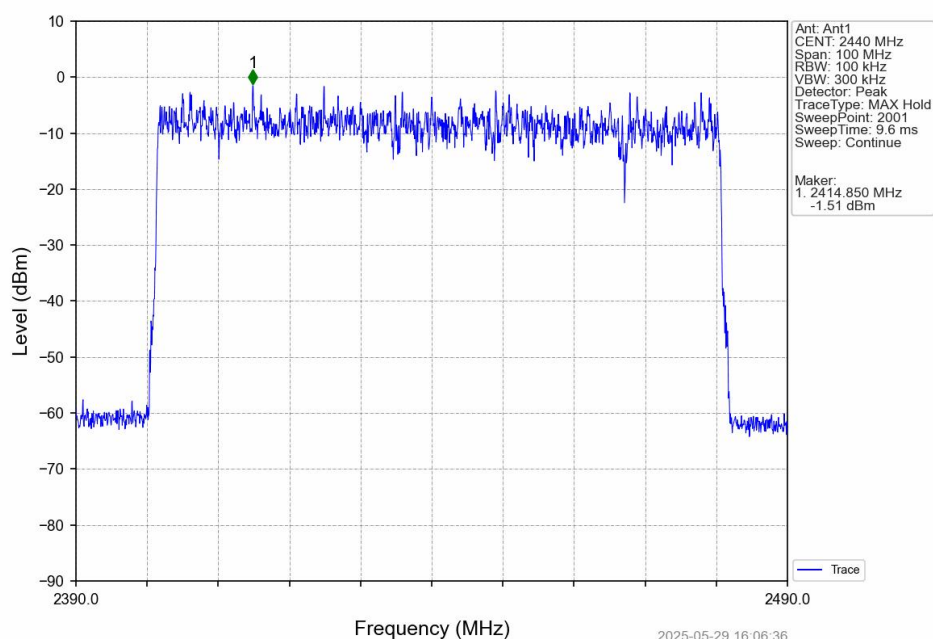




8DPSK_3DH5_HCH_2480MHz_Ant1_NTNV



8DPSK_3DH5_HOPP_Ant1_NTNV



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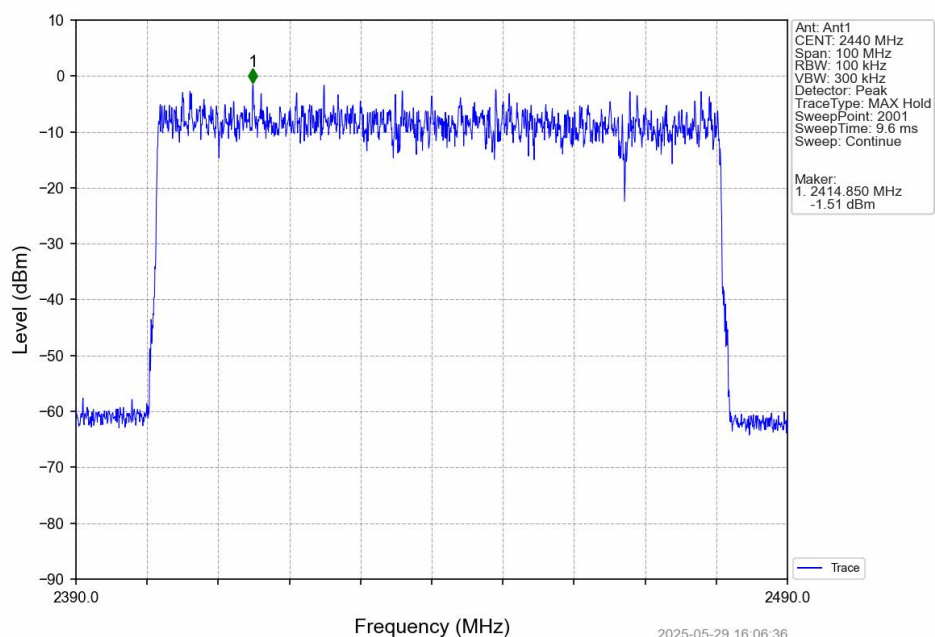
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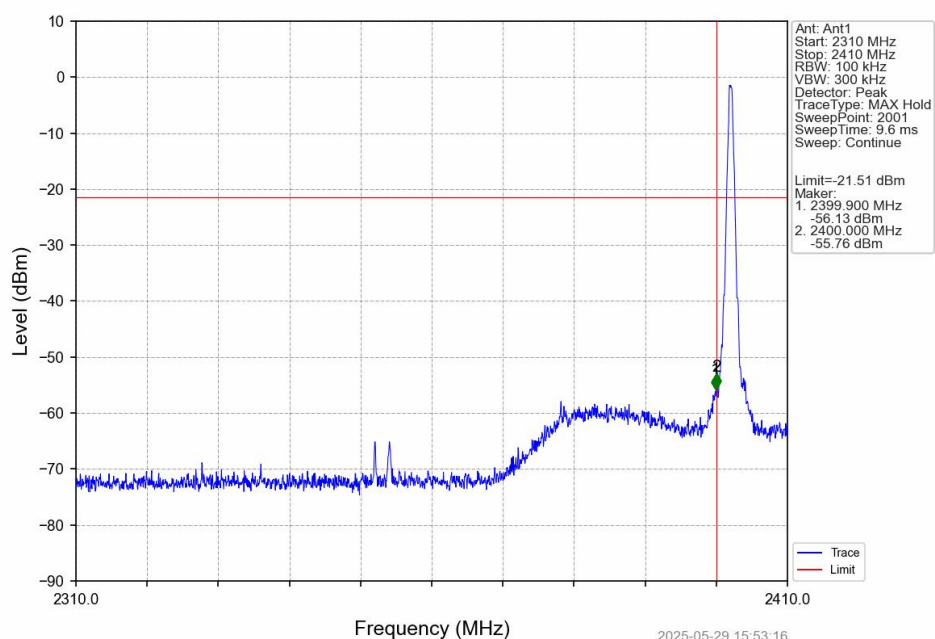
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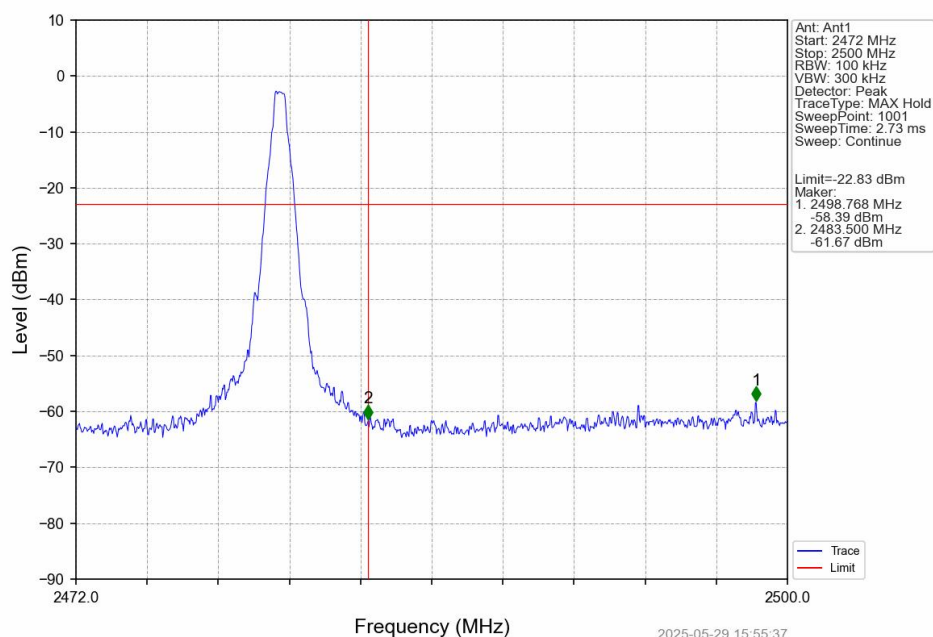


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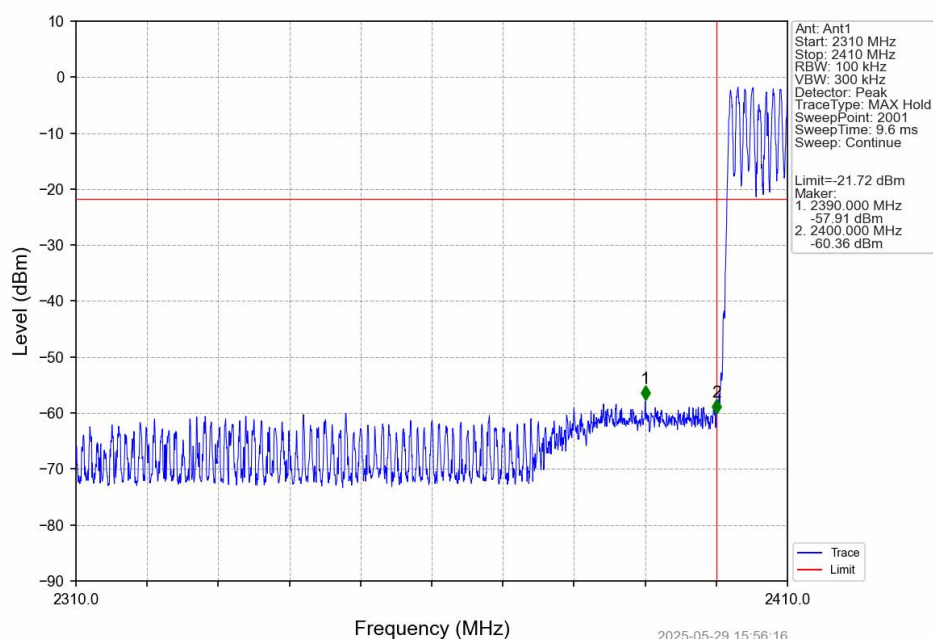




GFSK_DH5_HCH_2480MHz_Ant1_NTNV



GFSK_DH5_HOPP_Ant1_NTNV



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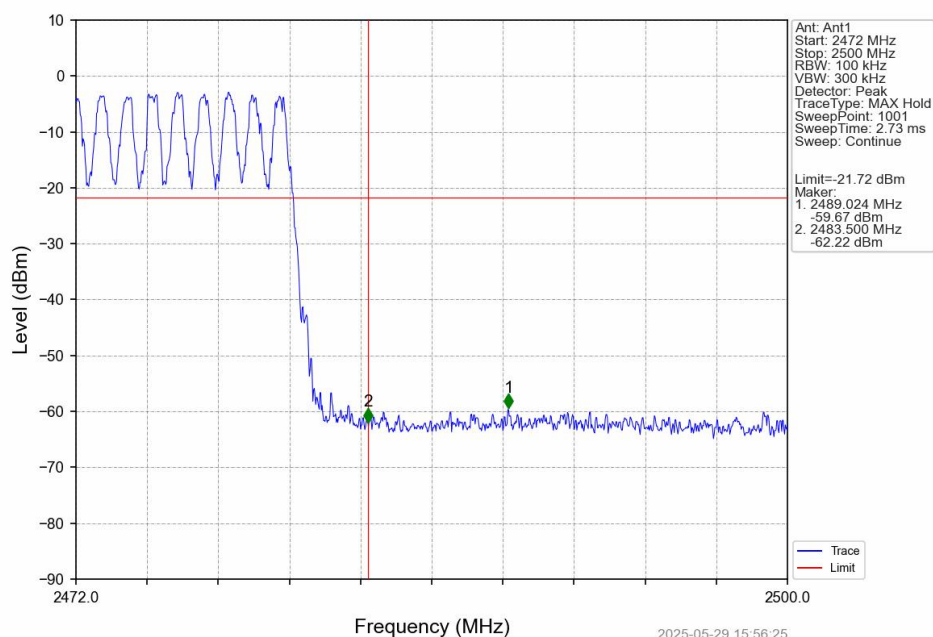
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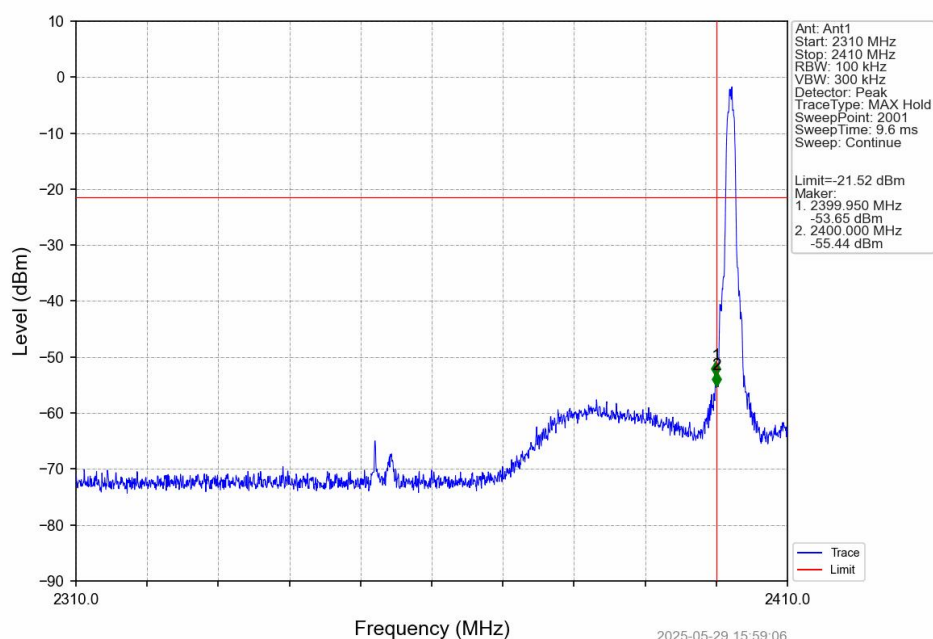
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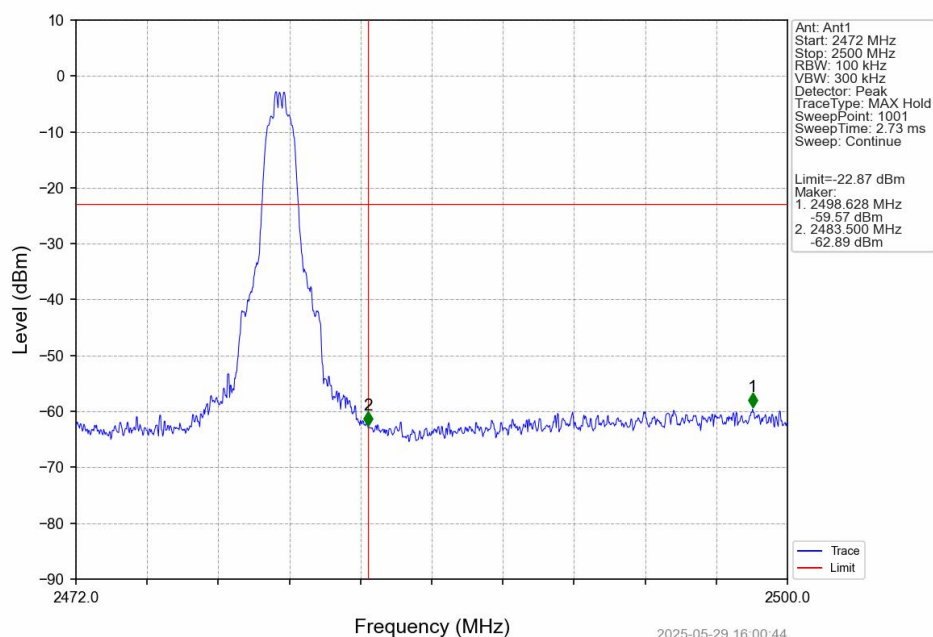


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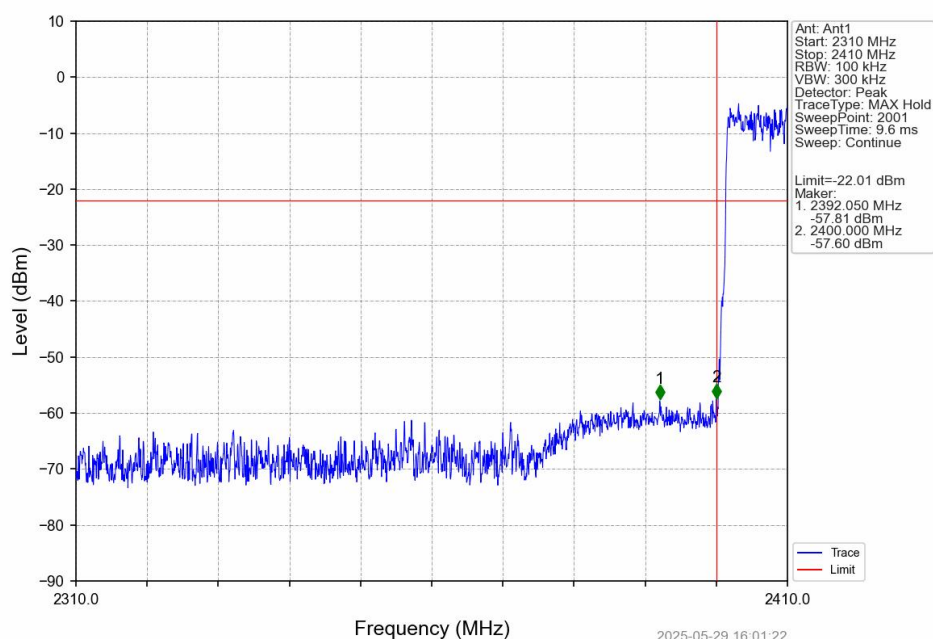




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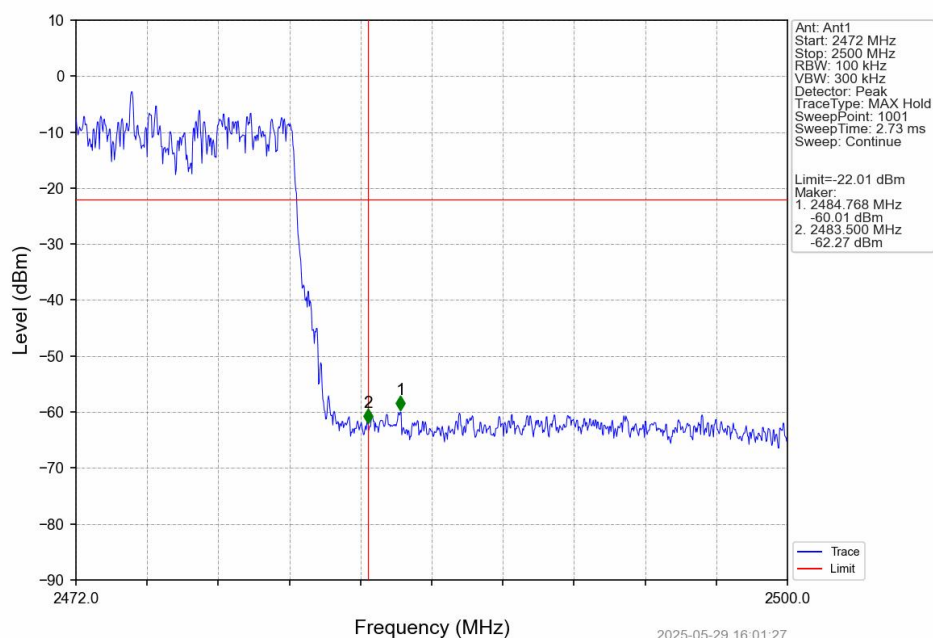


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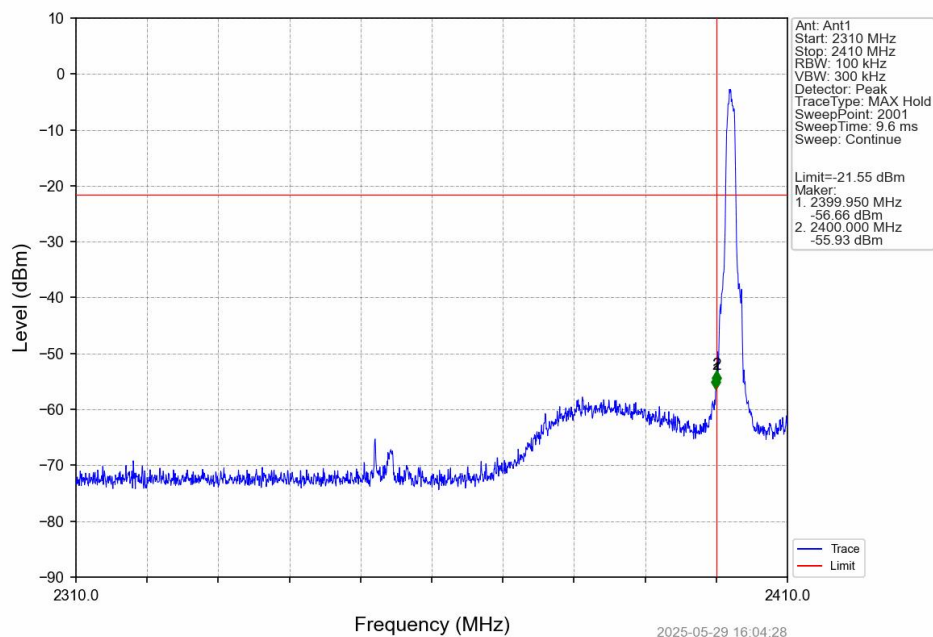


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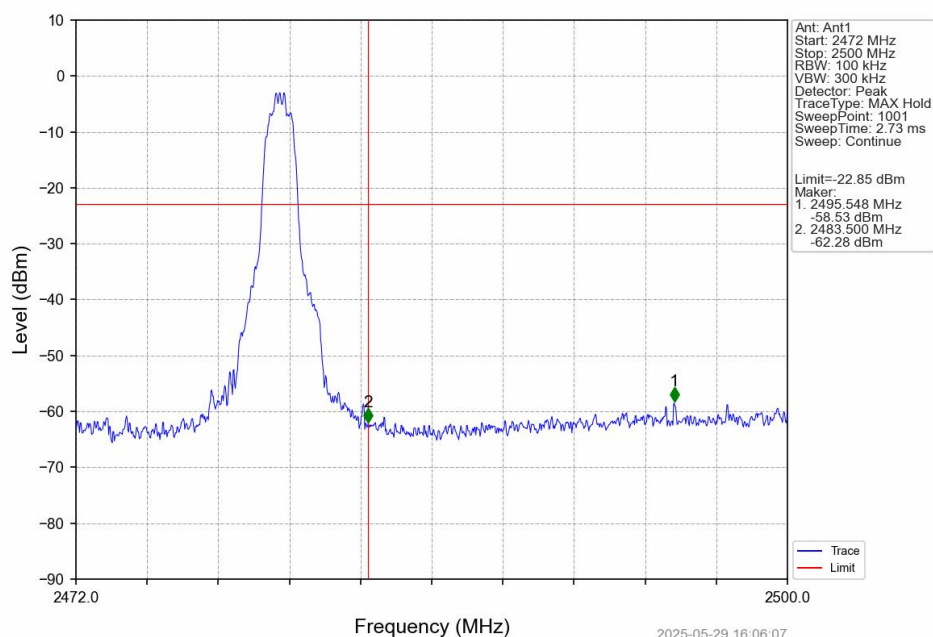


8DPSK_3DH5_LCH_2402MHz_Ant1_NTNV

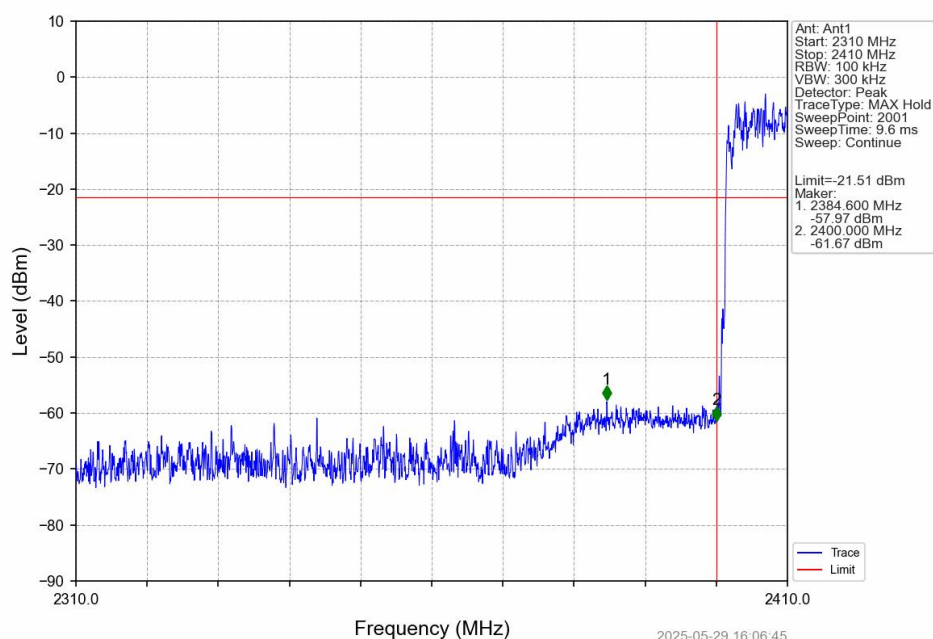




8DPSK_3DH5_HCH_2480MHz_Ant1_NTNV

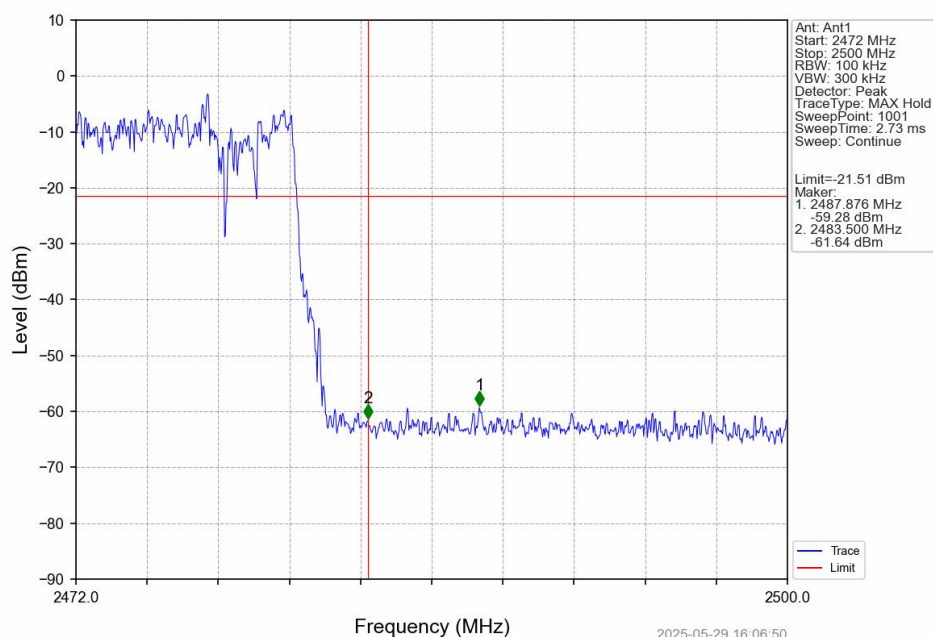


8DPSK_3DH5_HOPP_Ant1_NTNV





8DPSK_3DH5_HOPP_Ant1_NTNV





A.7 Conducted RF Spurious Emission

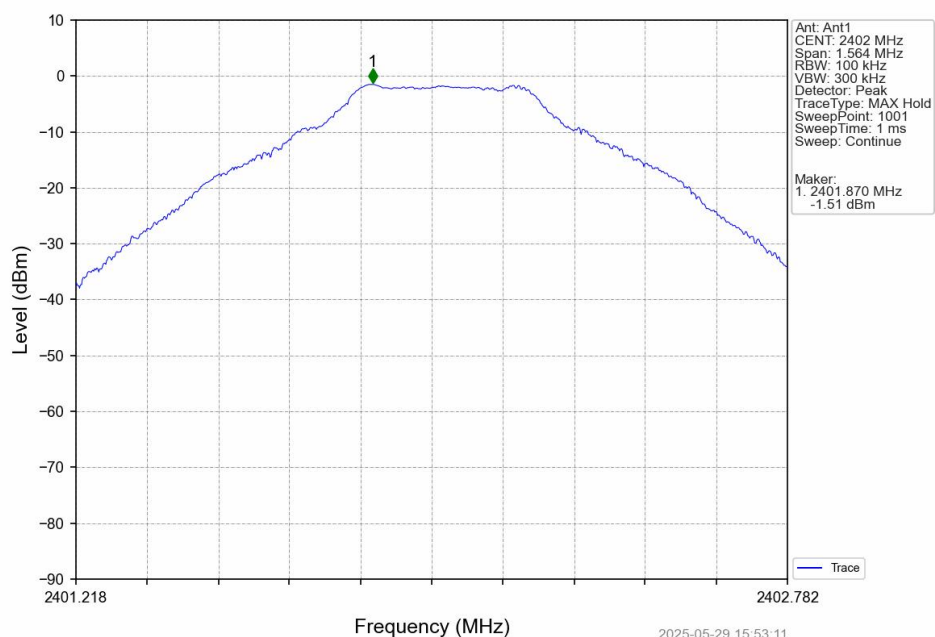
Mode	TX Type	Frequency (MHz)	Packet Type	ANT	Level of Reference (dBm)
GFSK	SISO	2402	DH5	1	-1.51
		2441	DH5	1	-2.09
		2480	DH5	1	-2.83
		HOPP	DH5	1	-1.72
					-1.72
Pi/4DQPSK	SISO	2402	2DH5	1	-1.52
		2441	2DH5	1	-2.11
		2480	2DH5	1	-2.87
		HOPP	2DH5	1	-2.01
					-2.01
8DPSK	SISO	2402	3DH5	1	-1.55
		2441	3DH5	1	-2.14
		2480	3DH5	1	-2.85
		HOPP	3DH5	1	-1.51
					-1.51

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.

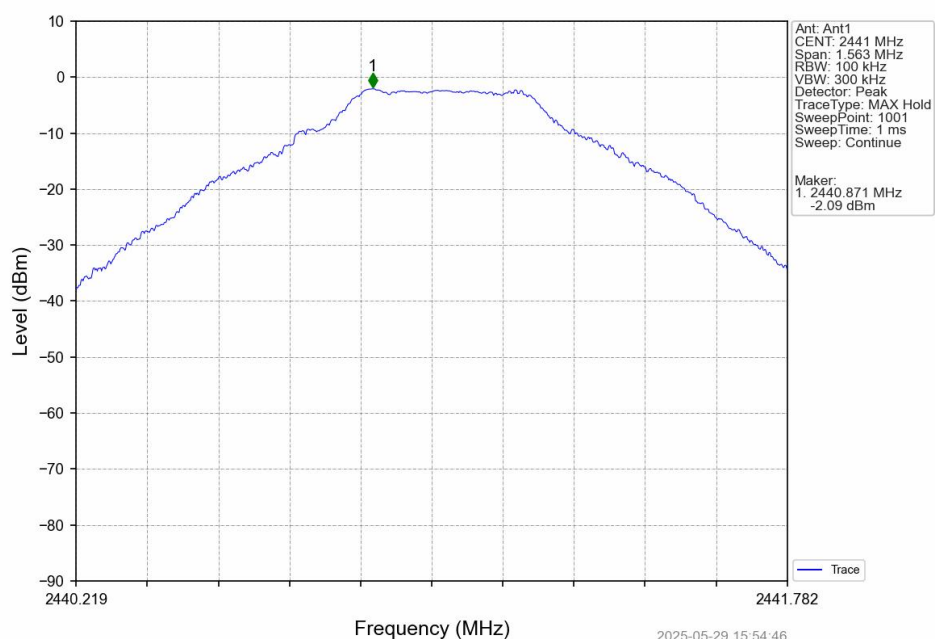




GFSK_DH5_LCH_2402MHz_Ant1_NTNV

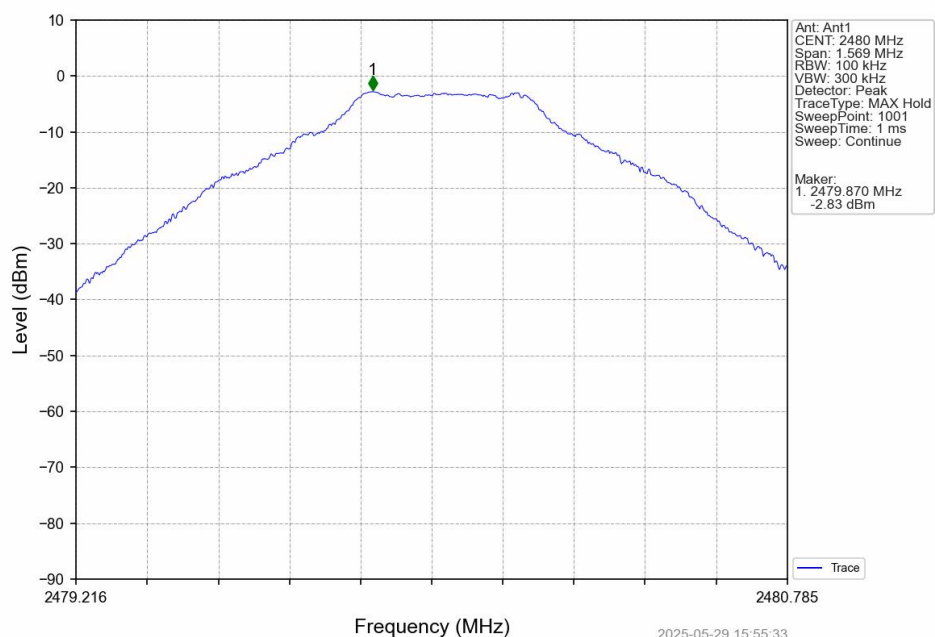


GFSK_DH5_MCH_2441MHz_Ant1_NTNV

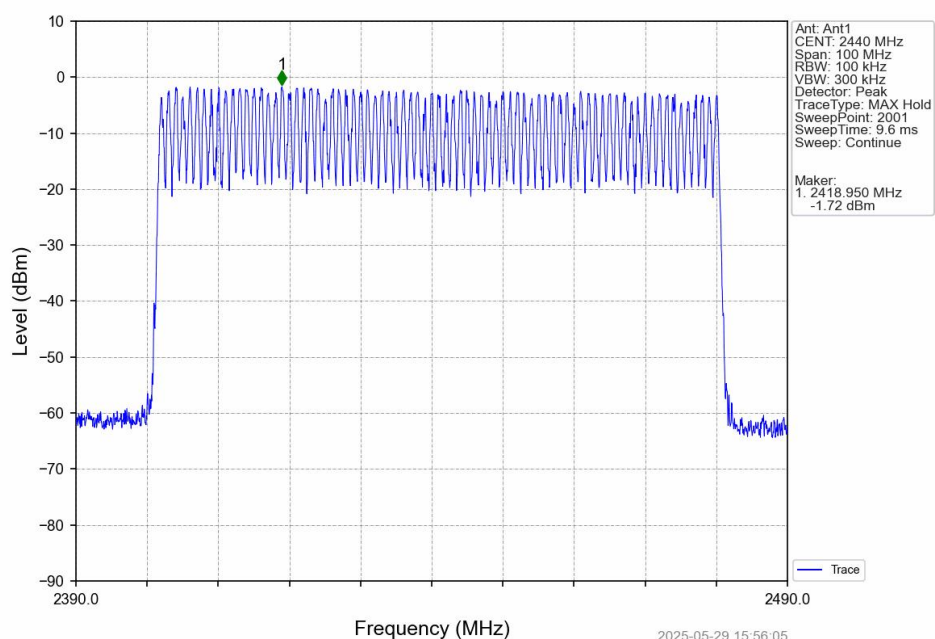




GFSK_DH5_HCH_2480MHz_Ant1_NTNV

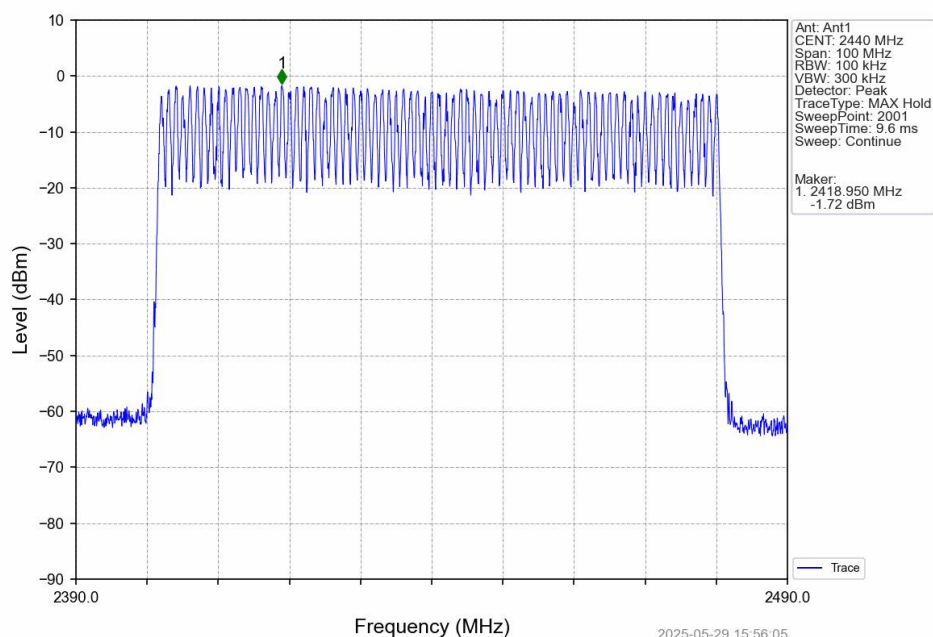


GFSK_DH5_HOPP_Ant1_NTNV





GFSK_DH5_HOPP_Ant1_NTNV



Pi/4DQPSK_2DH5_LCH_2402MHz_Ant1_NTNV

