Appendix A

RF Test Data for BT (Conducted Measurement)

Product Name: Bone Conduction Headphones

Test Model: BH328

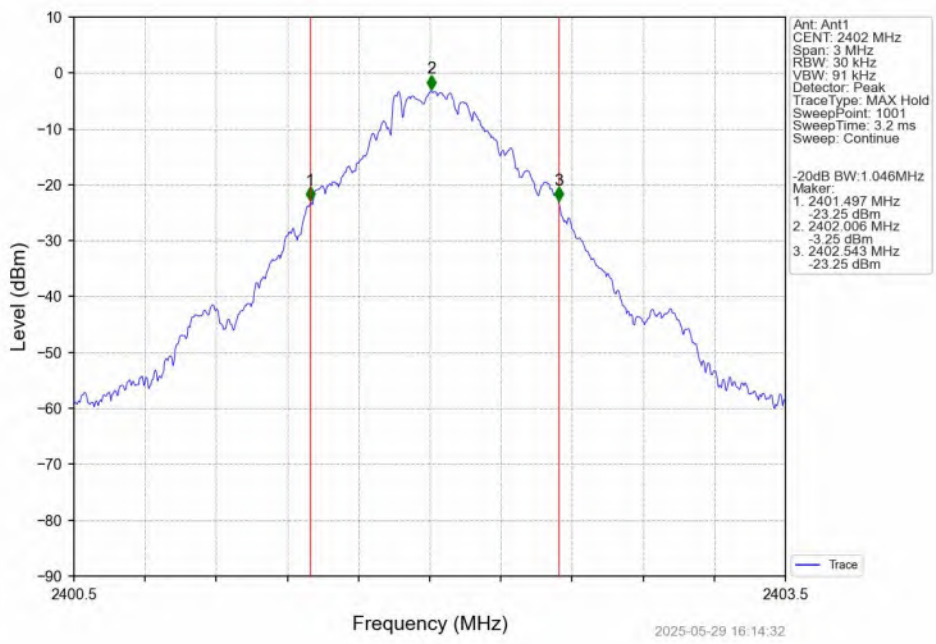
Environmental Conditions

Temperature:	23.8°C
Relative Humidity:	52.5%
ATM Pressure:	100.0 kPa
Test Engineer:	Jerry Chu
Supervised by:	Nick Peng

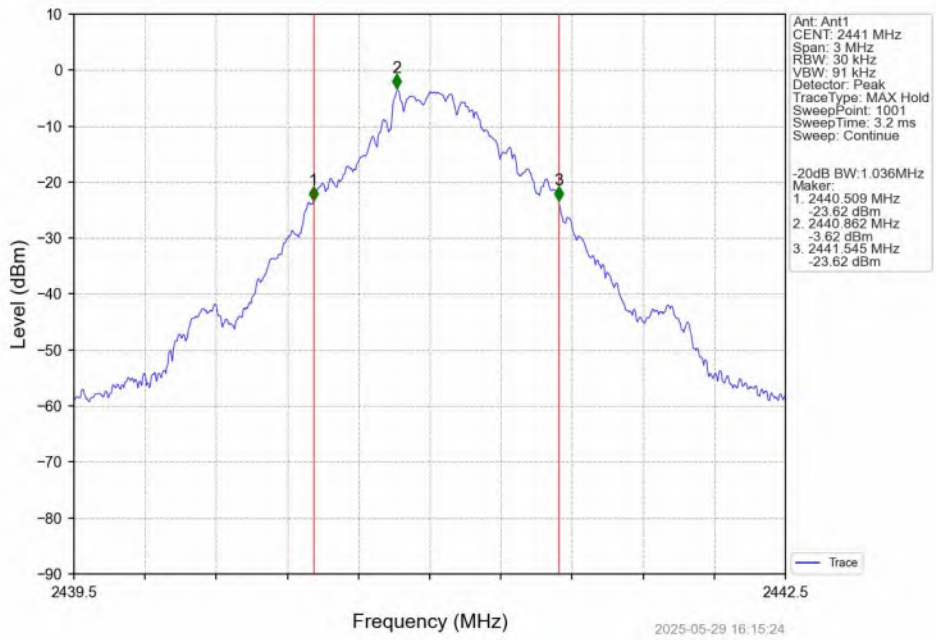
A.1 -20dB Bandwidth

Mode	TX Type	Frequency (MHz)	Packet Type	ANT	20dB Bandwidth (MHz)		Verdict
					Result	Limit	
GFSK	SISO	2402	DH5	1	1.046	/	Pass
		2441	DH5	1	1.036	/	Pass
		2480	DH5	1	1.046	/	Pass
Pi/4DQPSK	SISO	2402	2DH5	1	1.326	/	Pass
		2441	2DH5	1	1.332	/	Pass
		2480	2DH5	1	1.340	/	Pass

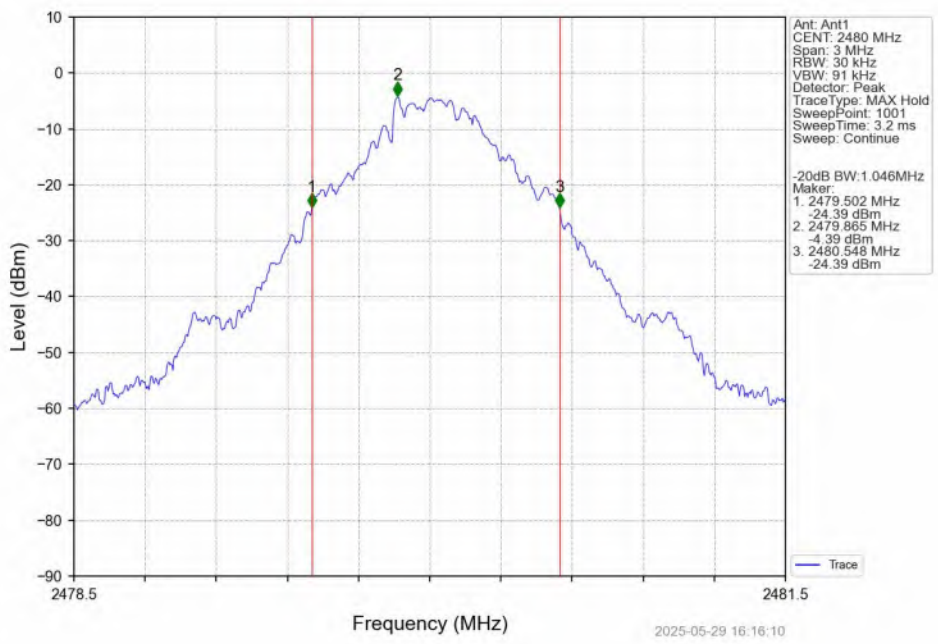
GFSK_DH5_LCH_2402MHz_Ant1_NTNV



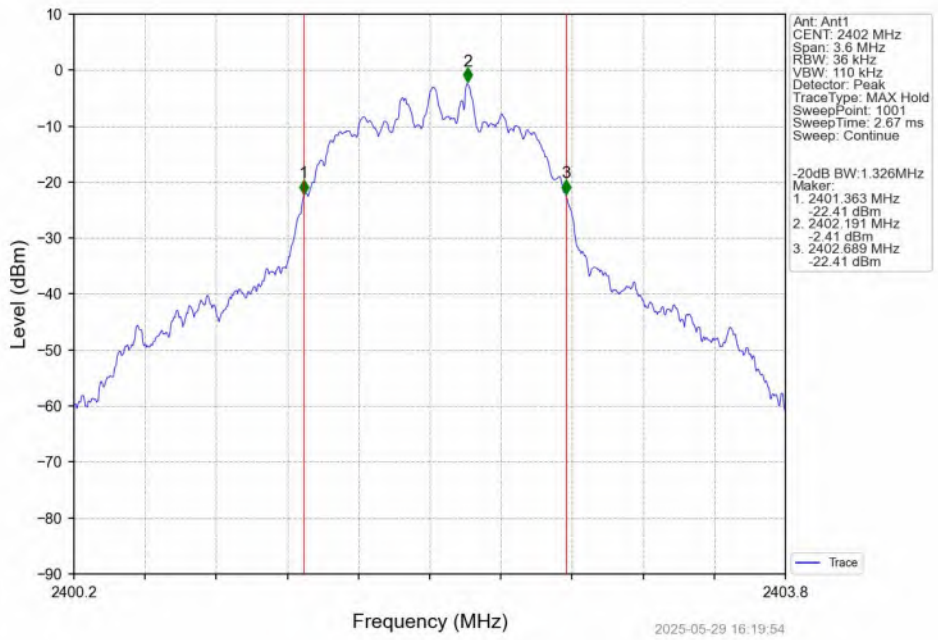
GFSK_DH5_MCH_2441MHz_Ant1_NTNV



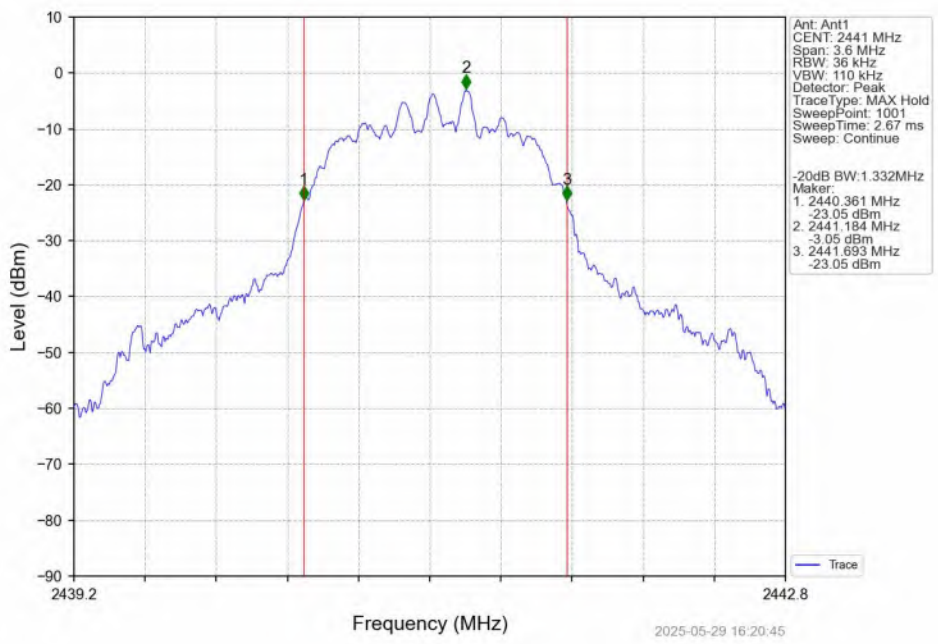
GFSK_DH5_HCH_2480MHz_Ant1_NTNV



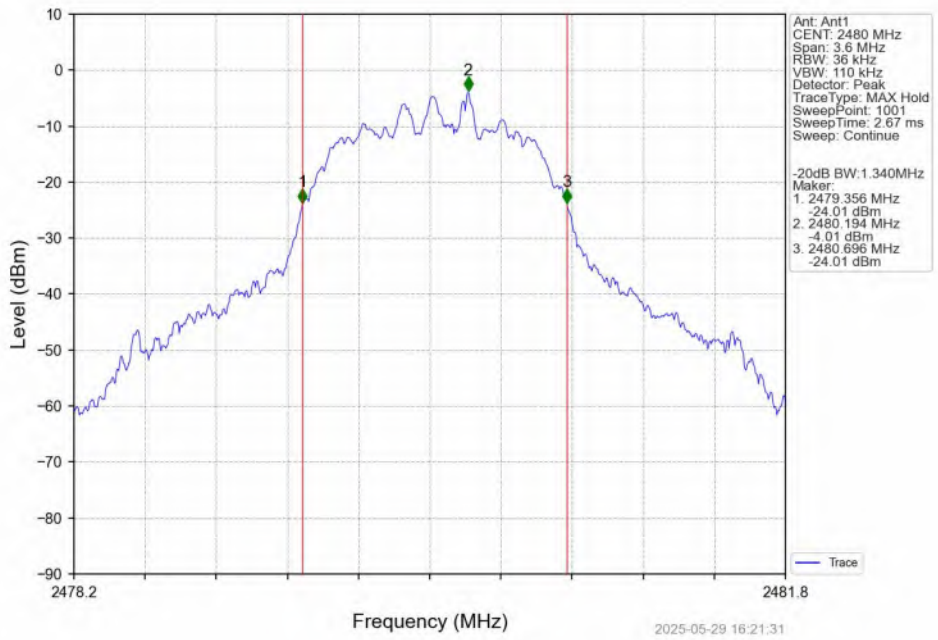
Pi/4DQPSK_2DH5_LCH_2402MHz_Ant1_NTNV



Pi/4DQPSK_2DH5_MCH_2441MHz_Ant1_NTNV



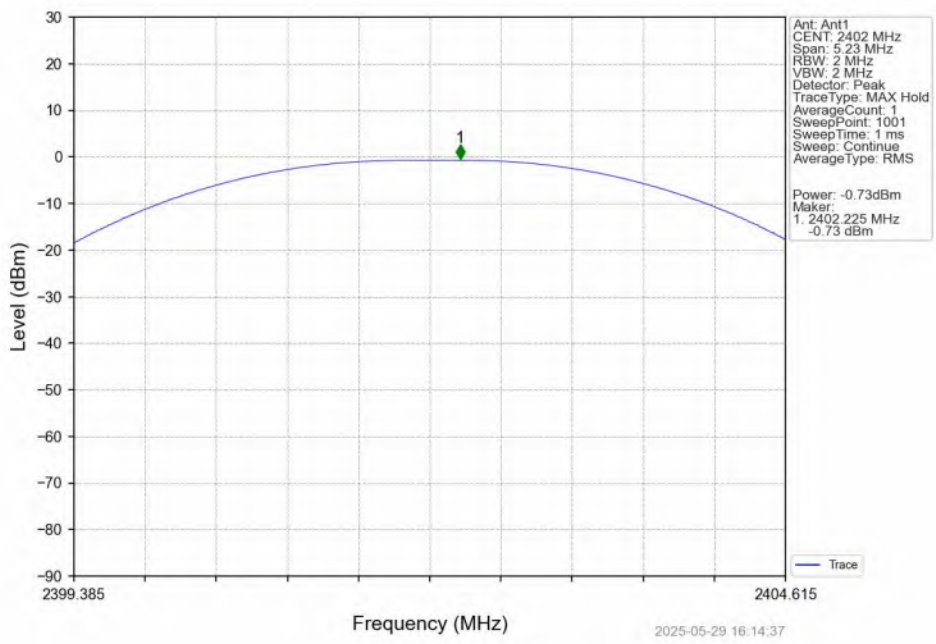
Pi/4DQPSK_2DH5_HCH_2480MHz_Ant1_NTNV



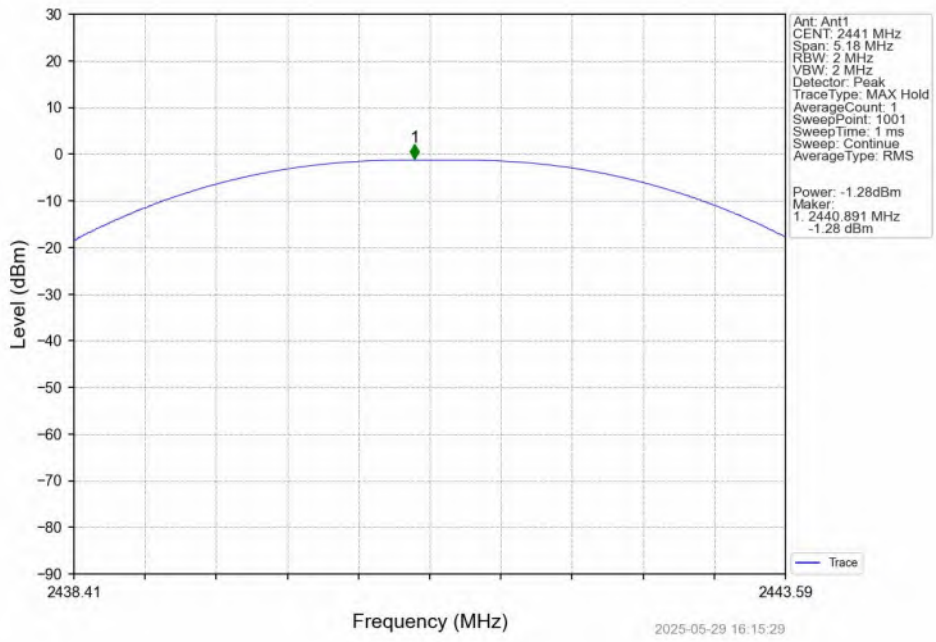
A.2 Maximum Peak Conducted Output Power

Mode	TX Type	Frequency (MHz)	Packet Type	Maximum Peak Conducted Output Power (dBm)		Verdict
				ANT1	Limit	
GFSK	SISO	2402	DH5	-0.73	<=20.97	Pass
		2441	DH5	-1.28	<=20.97	Pass
		2480	DH5	-1.99	<=20.97	Pass
Pi/4DQPSK	SISO	2402	2DH5	0.13	<=20.97	Pass
		2441	2DH5	-0.43	<=20.97	Pass
		2480	2DH5	-1.12	<=20.97	Pass

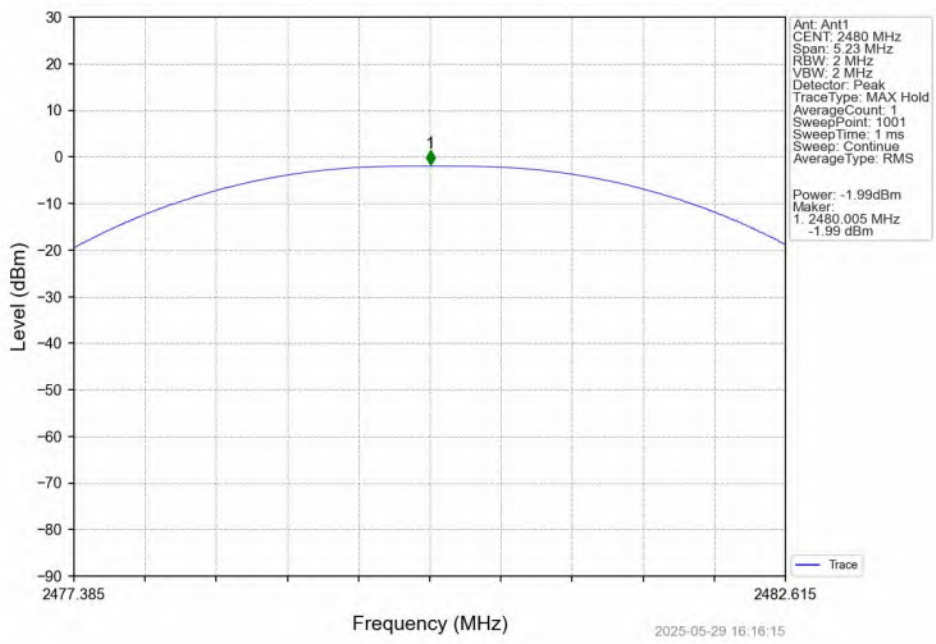
GFSK_DH5_LCH_2402MHz_Ant1_NTNV



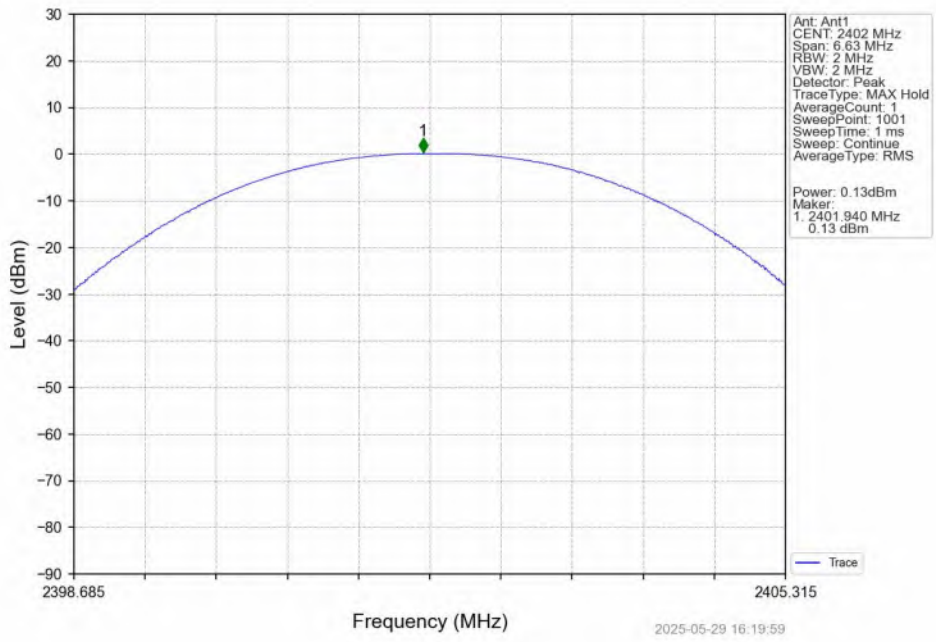
GFSK_DH5_MCH_2441MHz_Ant1_NTNV



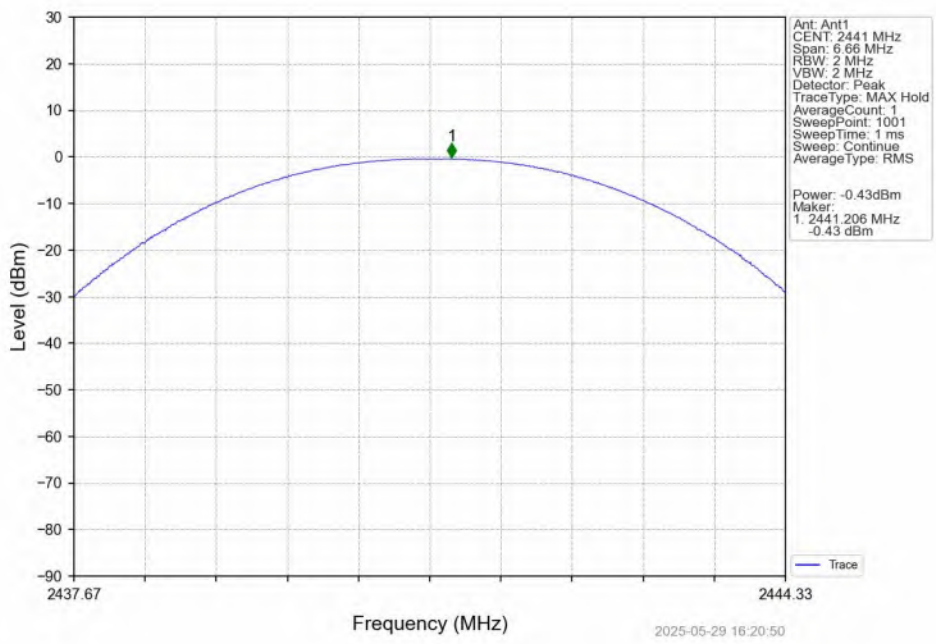
GFSK_DH5_HCH_2480MHz_Ant1_NTNV



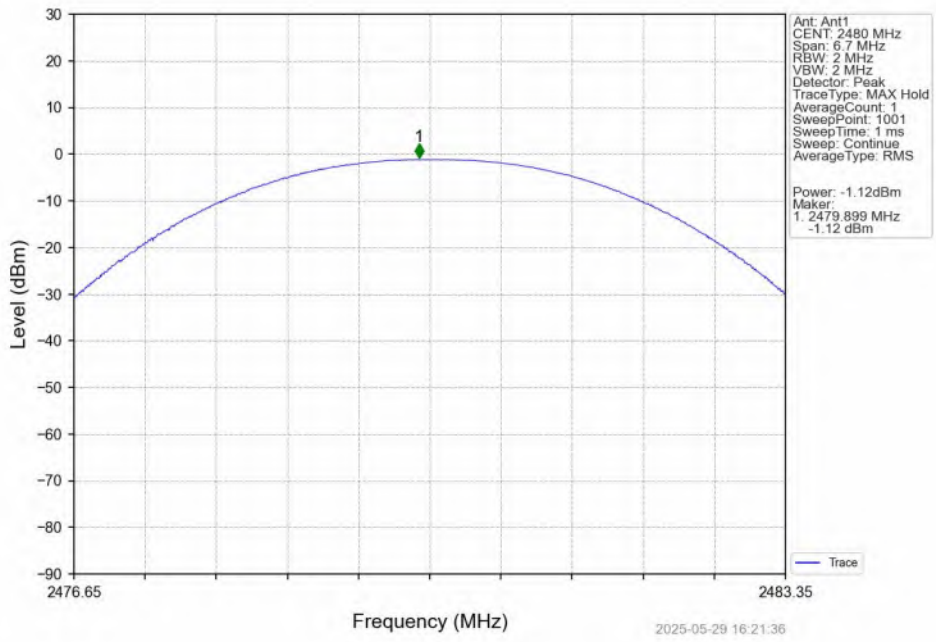
Pi/4DQPSK_2DH5_LCH_2402MHz_Ant1_NTNV



Pi/4DQPSK_2DH5_MCH_2441MHz_Ant1_NTNV



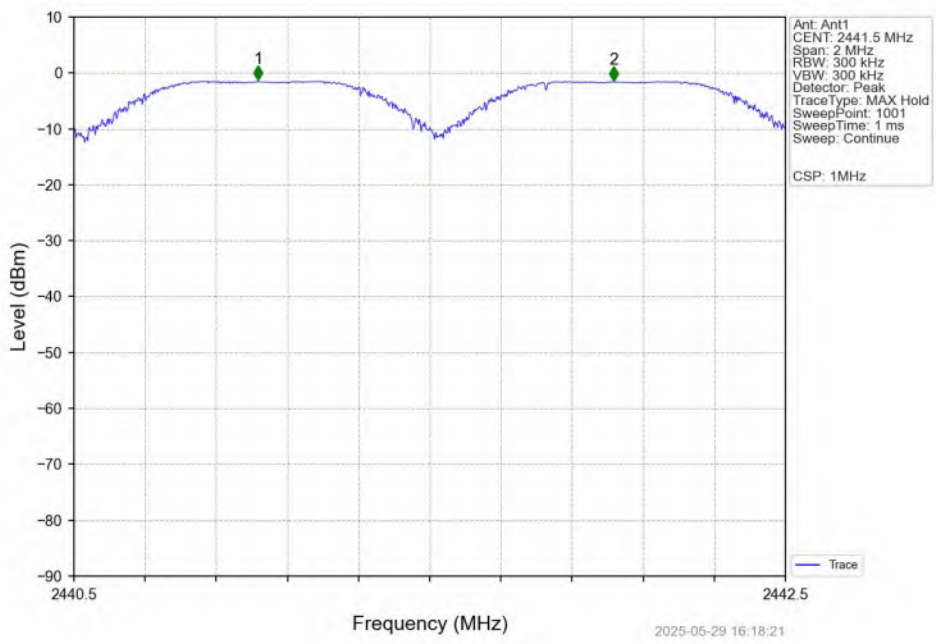
Pi/4DQPSK_2DH5_HCH_2480MHz_Ant1_NTNV



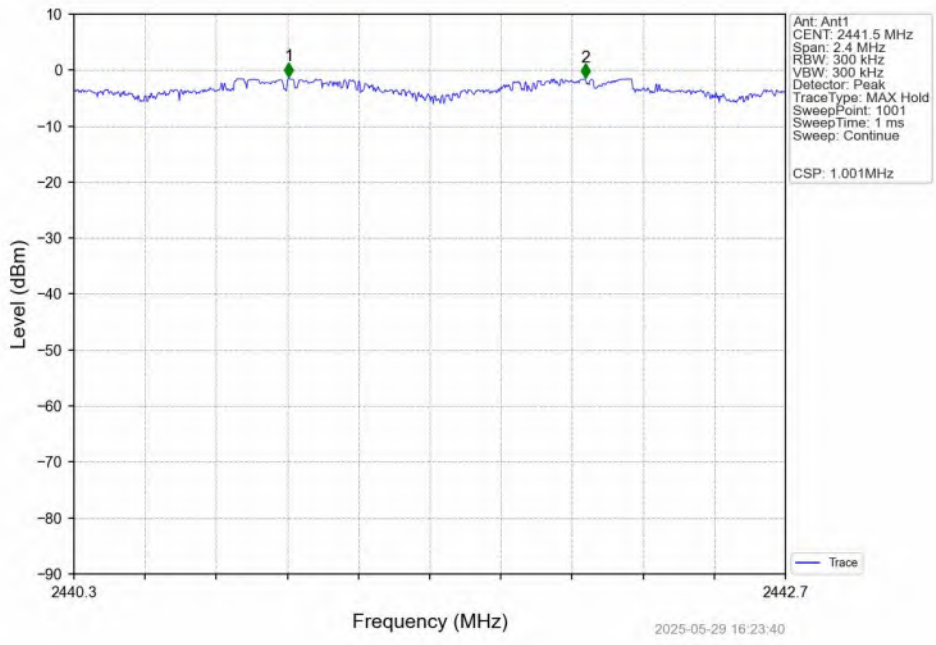
A.3 Carrier Frequencies Separation

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	1.340	>=0.893	Pass

GFSK_DH5_HOPP_Ant1_NTNV



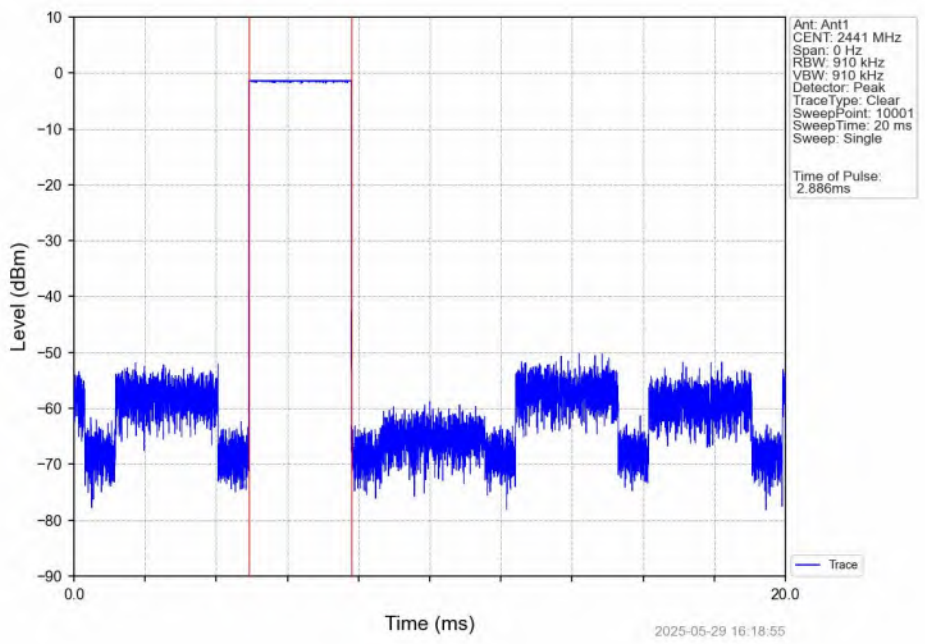
Pi/4DQPSK_2DH5_HOPP_Ant1_NTNV



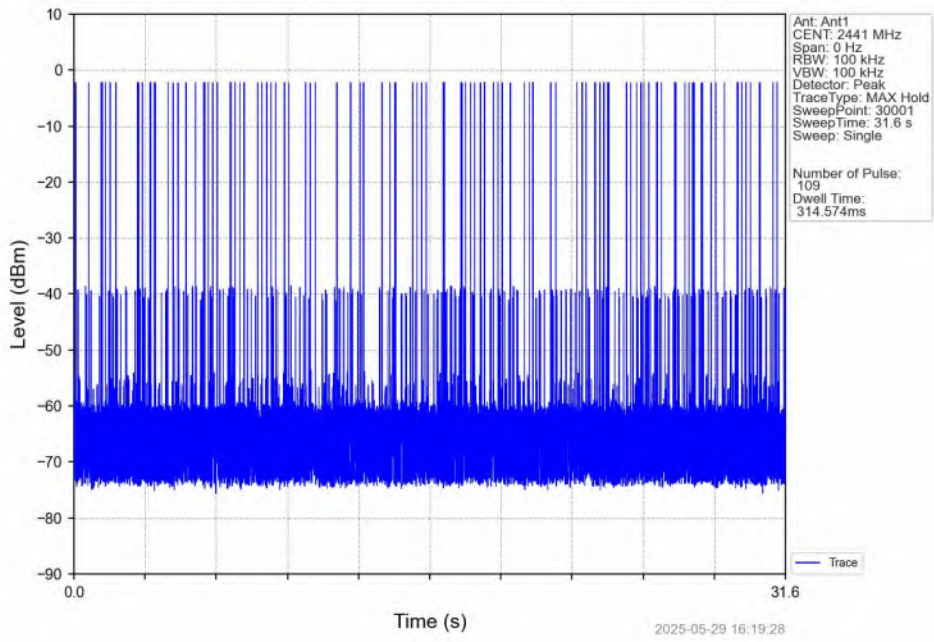
A.4 Dwell Time

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	109	314.574	<=400	Pass
Pi/4DQPSK	SISO	HOPP	2DH5	2.896	31.600	101	292.496	<=400	Pass

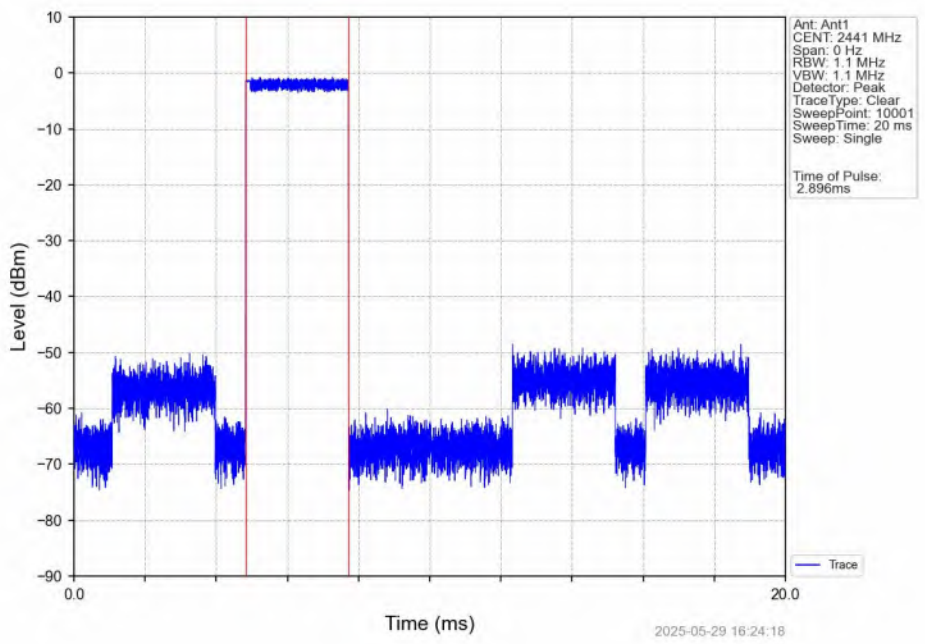
GFSK_DH5_HOPP_Ant1_NTNV



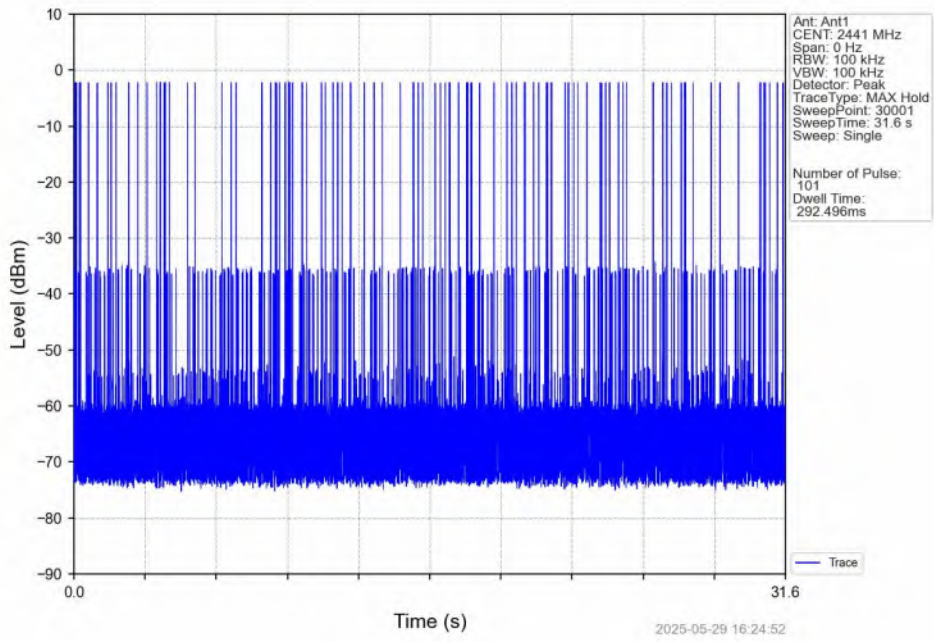
GFSK_DH5_HOPP_Ant1_NTNV



Pi/4DQPSK_2DH5_HOPP_Ant1_NTNV



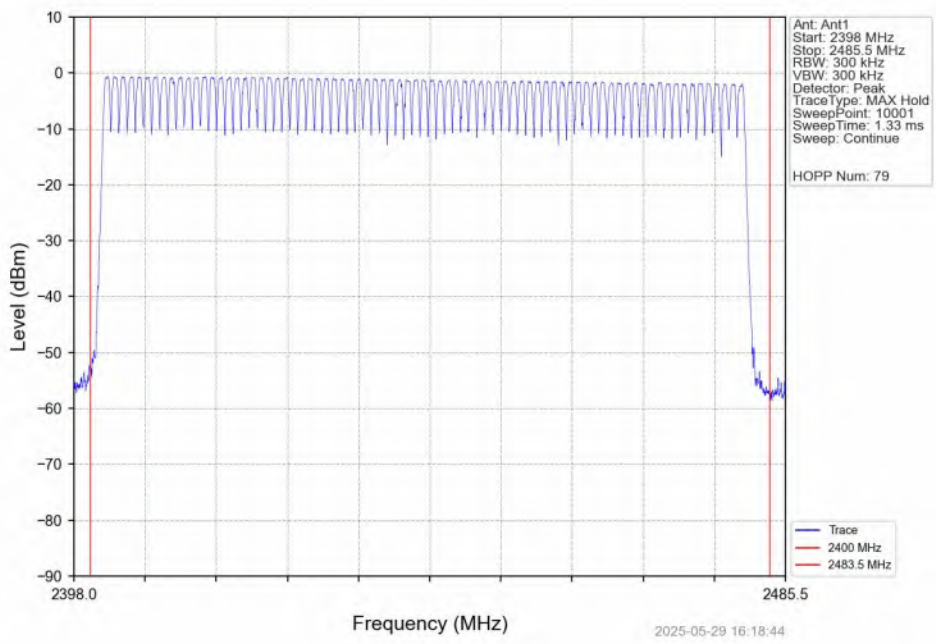
Pi/4DQPSK_2DH5_HOPP_Ant1_NTNV



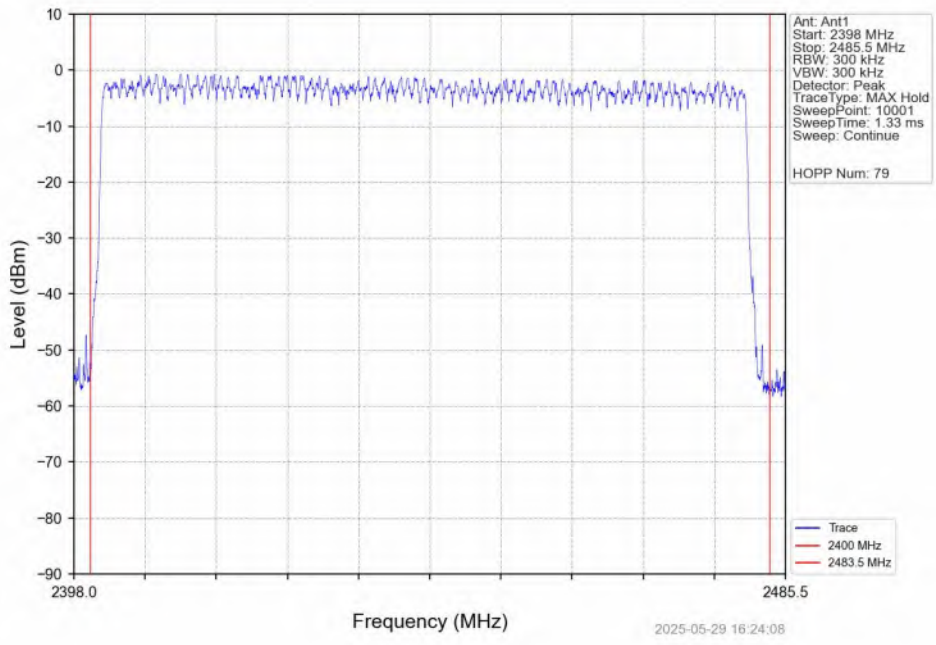
A.5 Number of Hopping Channel

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

GFSK_DH5_HOPP_Ant1_NTNV



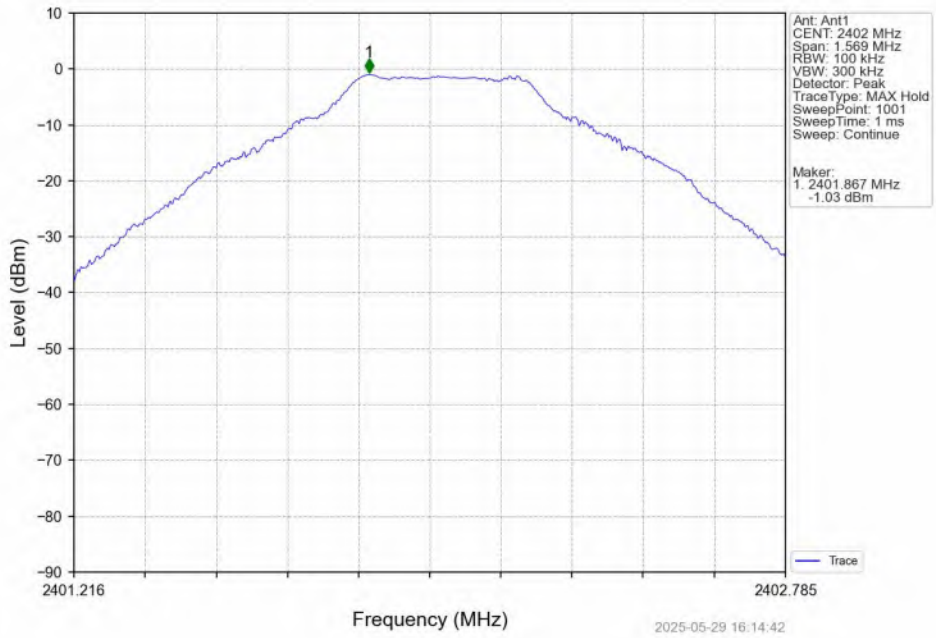
Pi/4DQPSK_2DH5_HOPP_Ant1_NTNV



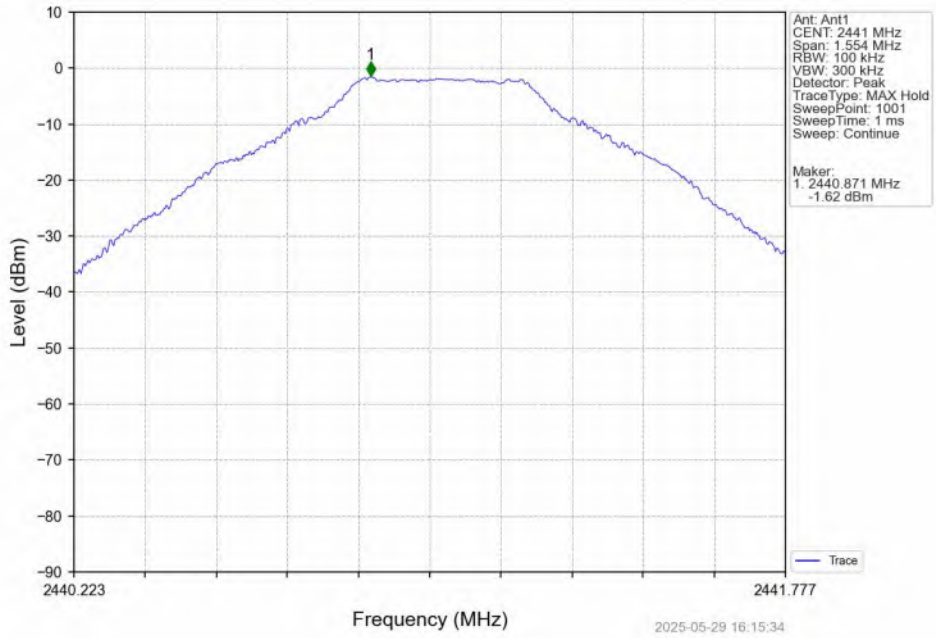
A.6 Band Edge

Mode	TX Type	Frequency (MHz)	Packet Type	ANT	Level of Reference (dBm)	Limit (dBm)	Verdict
GFSK	SISO	2402	DH5	1	-1.03	-21.03	Pass
		2441	DH5	1	-1.62	-21.62	Pass
		2480	DH5	1	-2.37	-22.37	Pass
		HOPP	DH5	1	-1.18	-21.18	Pass
					-1.18	-21.18	Pass
Pi/4DQPSK	SISO	2402	2DH5	1	-1.03	-21.03	Pass
		2441	2DH5	1	-1.61	-21.61	Pass
		2480	2DH5	1	-2.36	-22.36	Pass
		HOPP	2DH5	1	-1.73	-21.73	Pass
					-1.73	-21.73	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.							

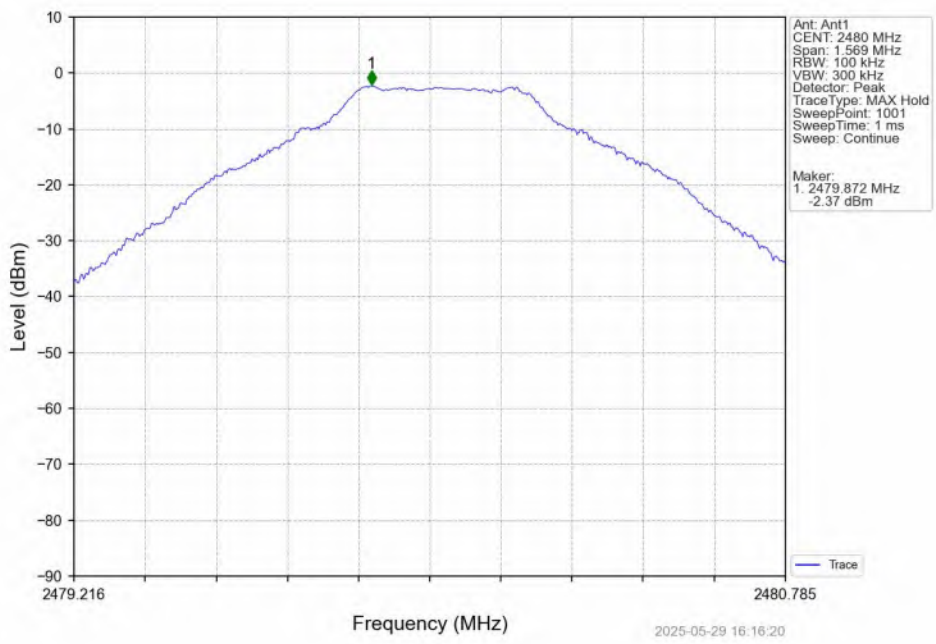
GFSK_DH5_LCH_2402MHz_Ant1_NTNV



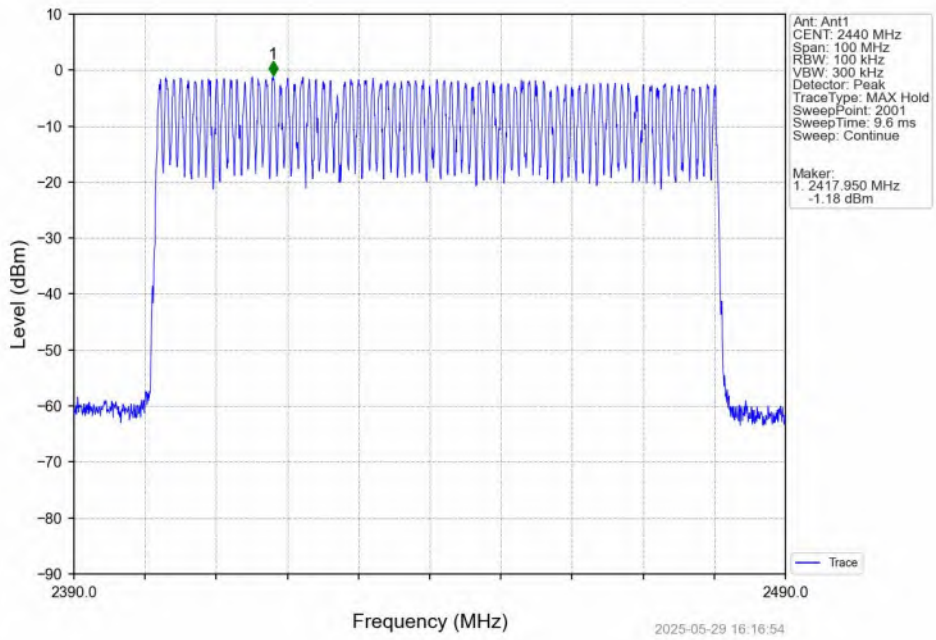
GFSK_DH5_MCH_2441MHz_Ant1_NTNV



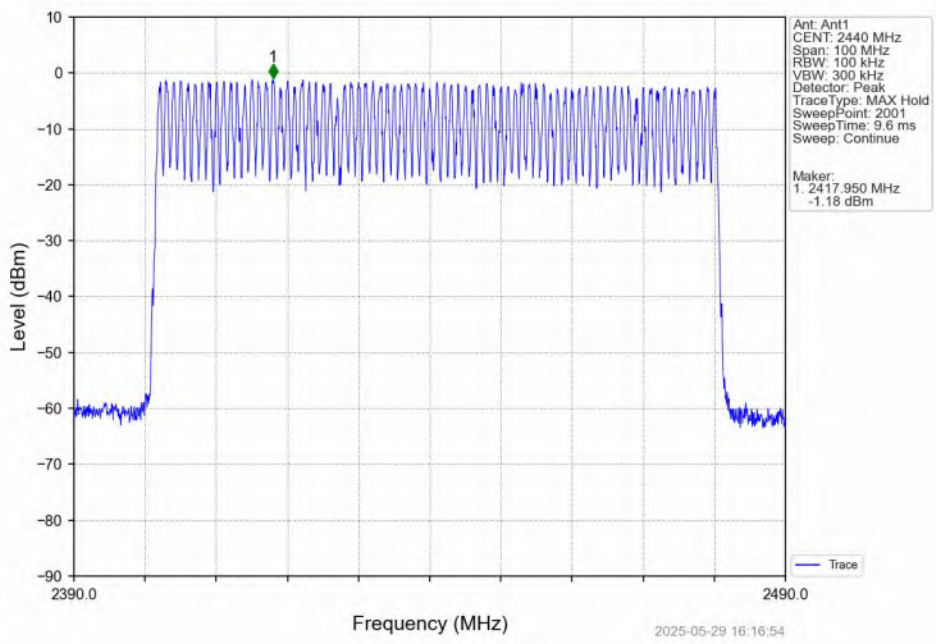
GFSK_DH5_HCH_2480MHz_Ant1_NTNV



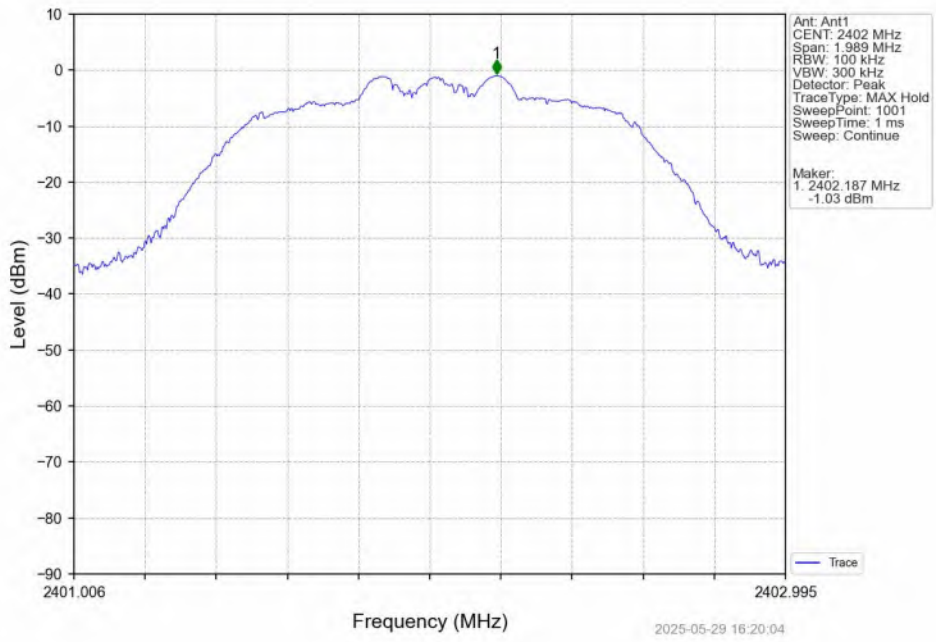
GFSK_DH5_HOPP_Ant1_NTNV



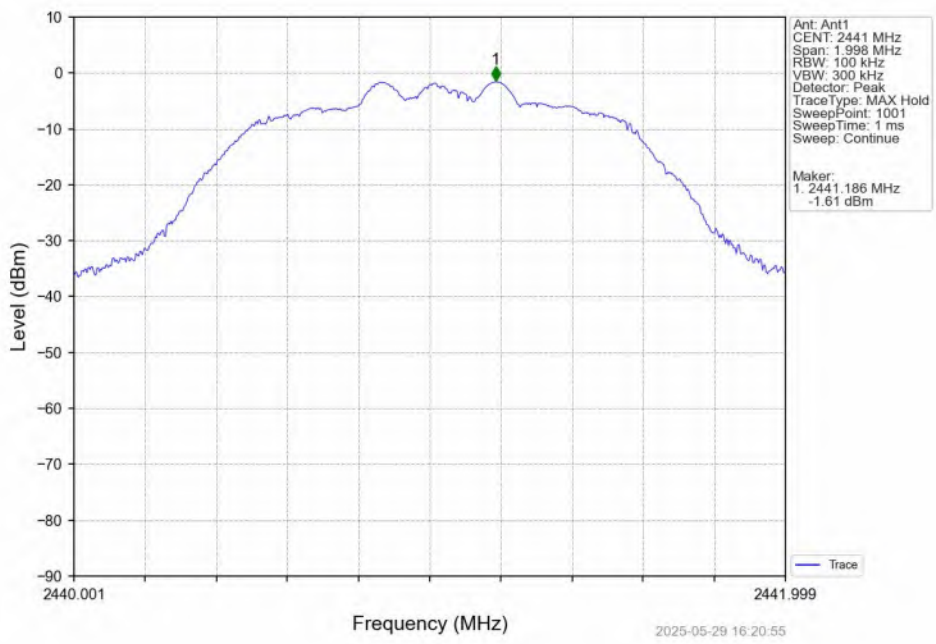
GFSK_DH5_HOPP_Ant1_NTNV



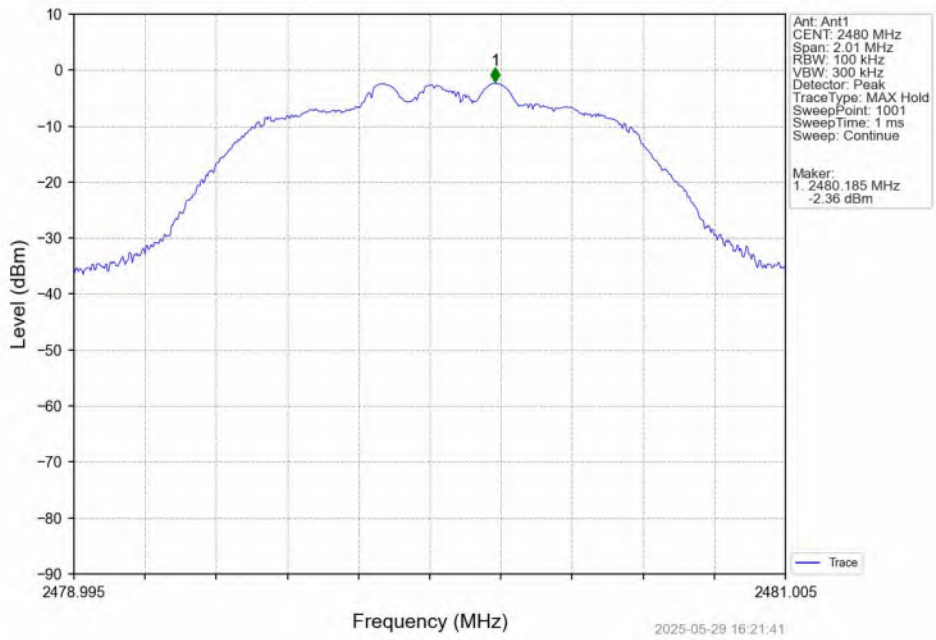
Pi/4DQPSK_2DH5_LCH_2402MHz_Ant1_NTNV



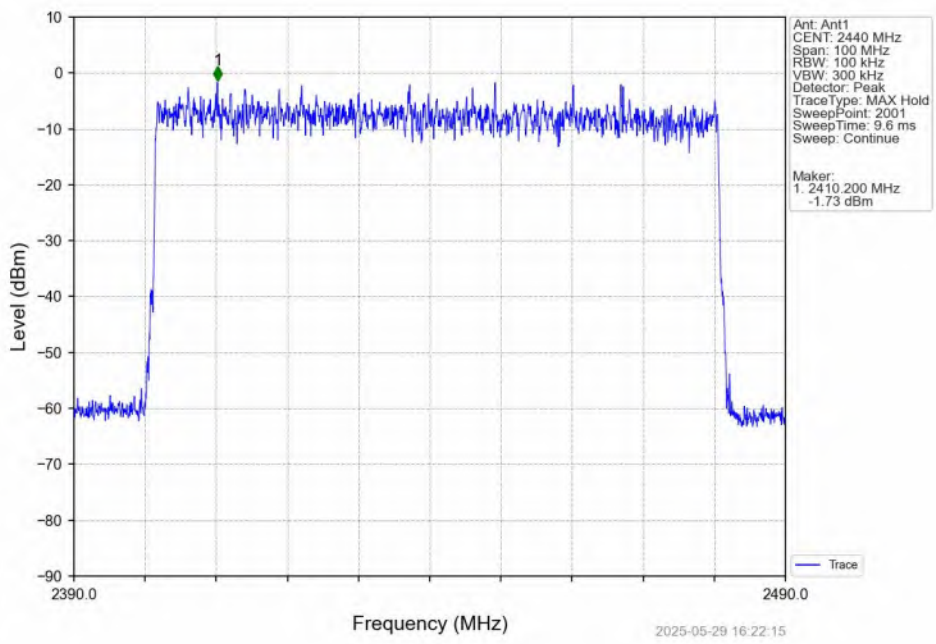
Pi/4DQPSK_2DH5_MCH_2441MHz_Ant1_NTNV



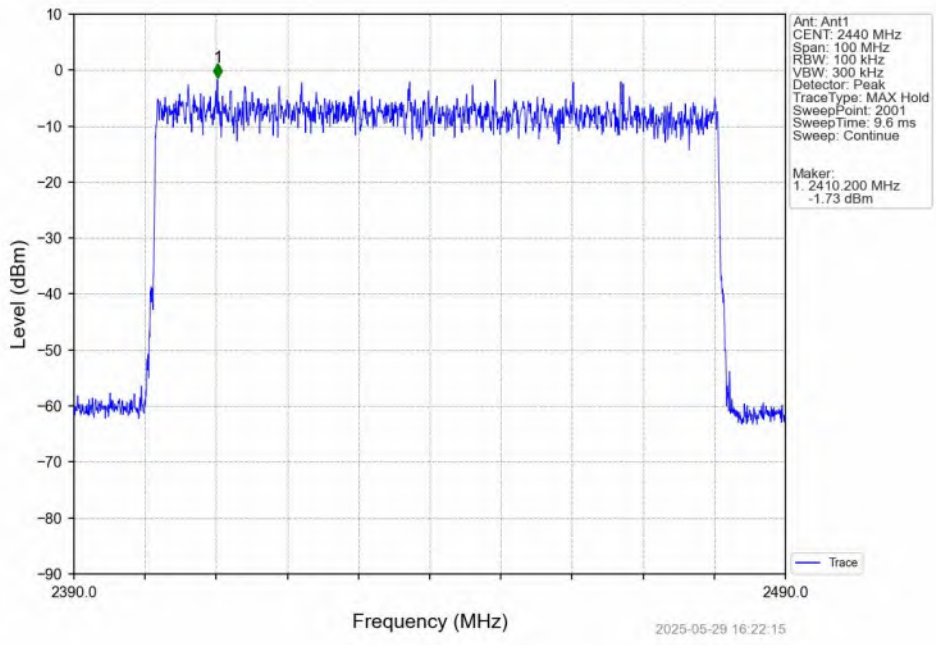
Pi/4DQPSK_2DH5_HCH_2480MHz_Ant1_NTNV



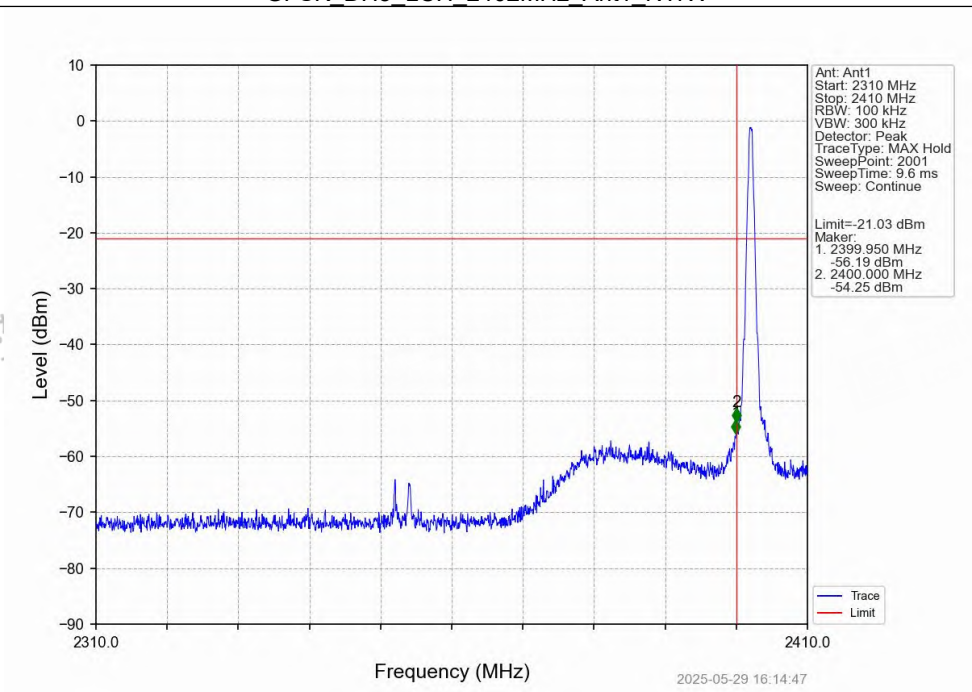
Pi/4DQPSK_2DH5_HOPP_Ant1_NTNV



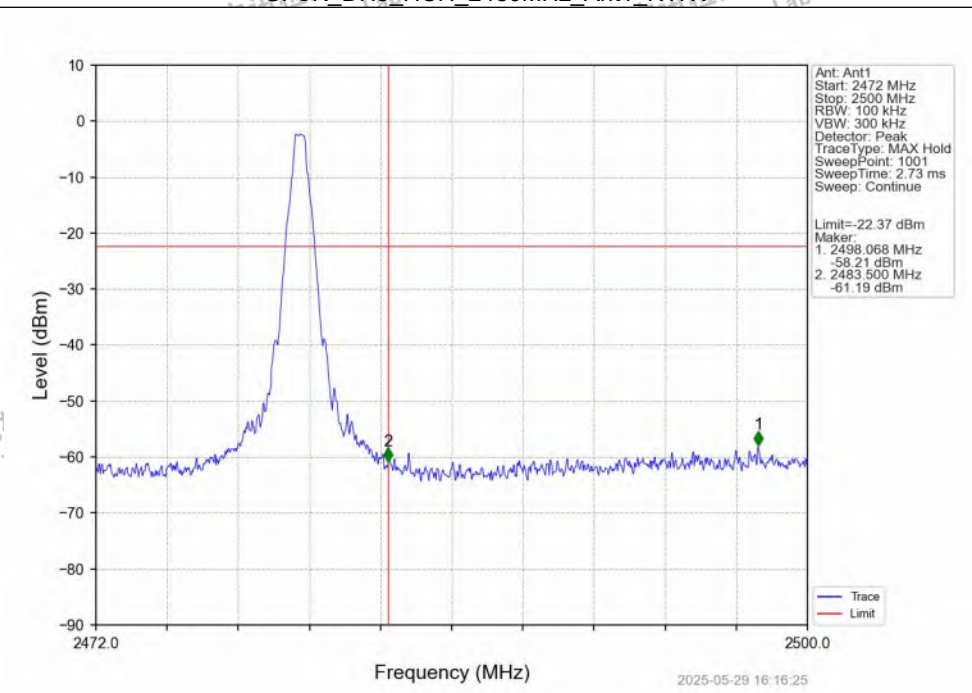
Pi/4DQPSK_2DH5_HOPP_Ant1_NTNV



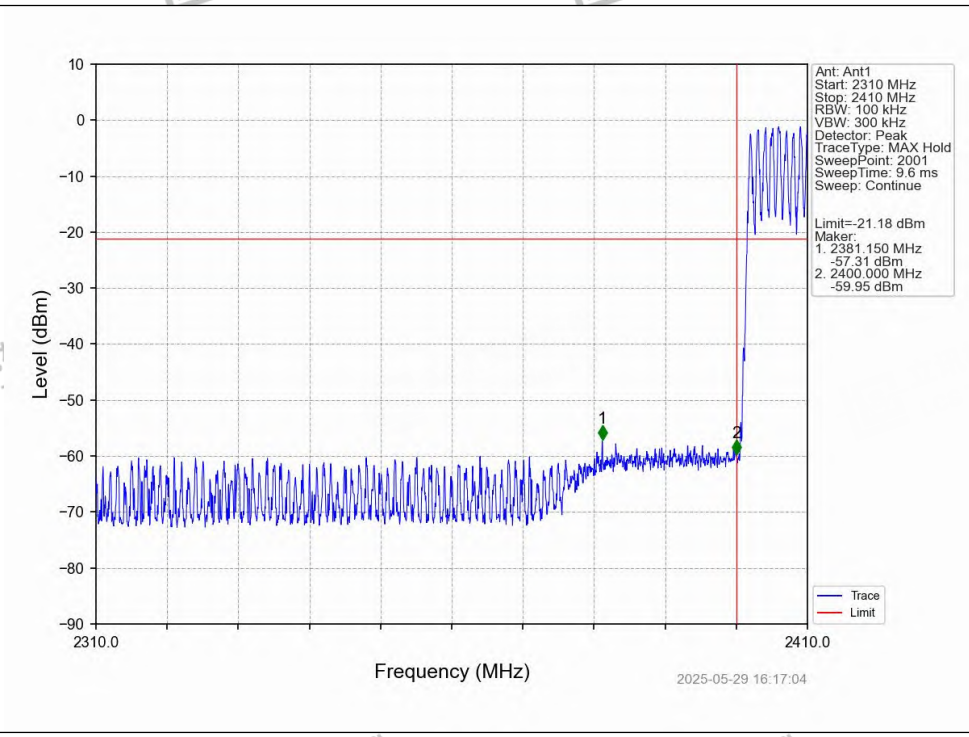
GFSK_DH5_LCH_2402MHz_Ant1_NTNV



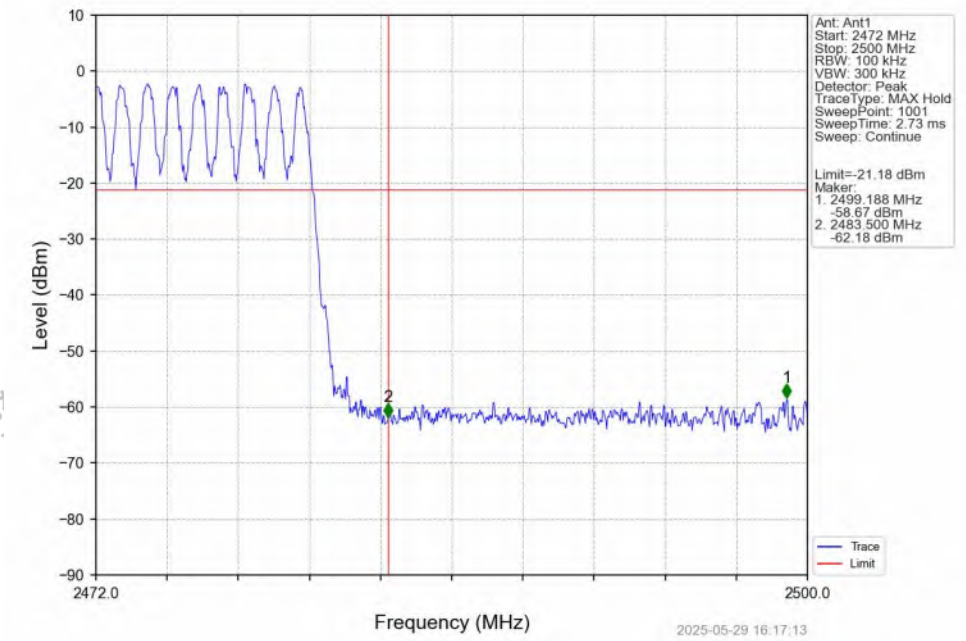
GFSK_DH5_HCH_2480MHz_Ant1_NTNV



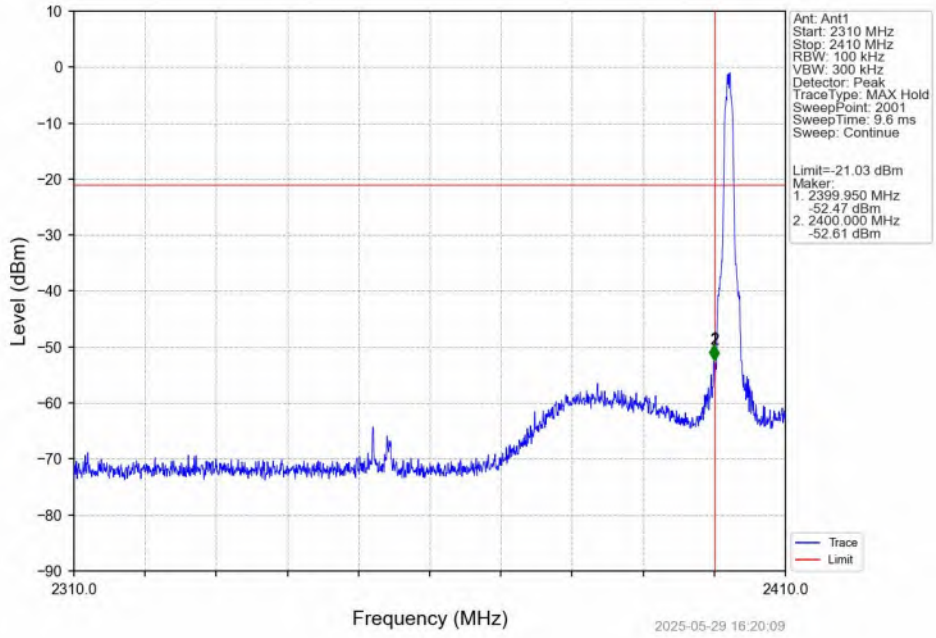
GFSK_DH5_HOPP_Ant1_NTNV



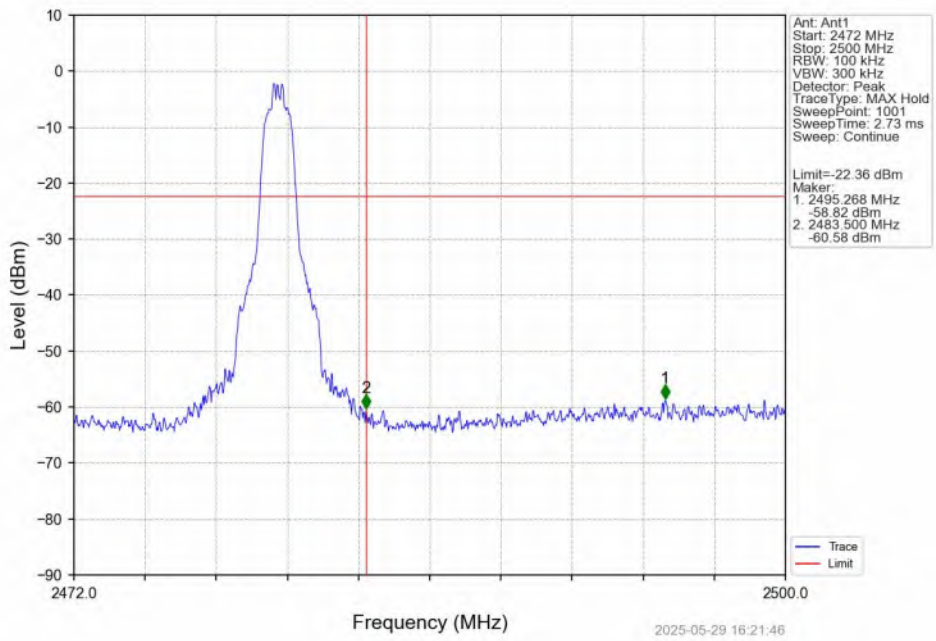
GFSK_DH5_HOPP_Ant1_NTNV



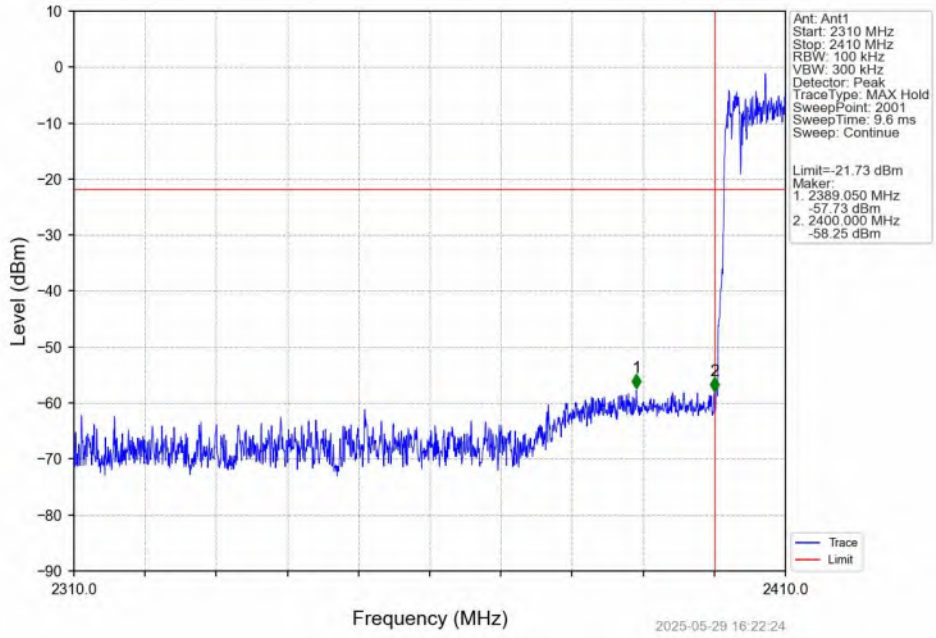
Pi/4DQPSK_2DH5_LCH_2402MHz_Ant1_NTNV



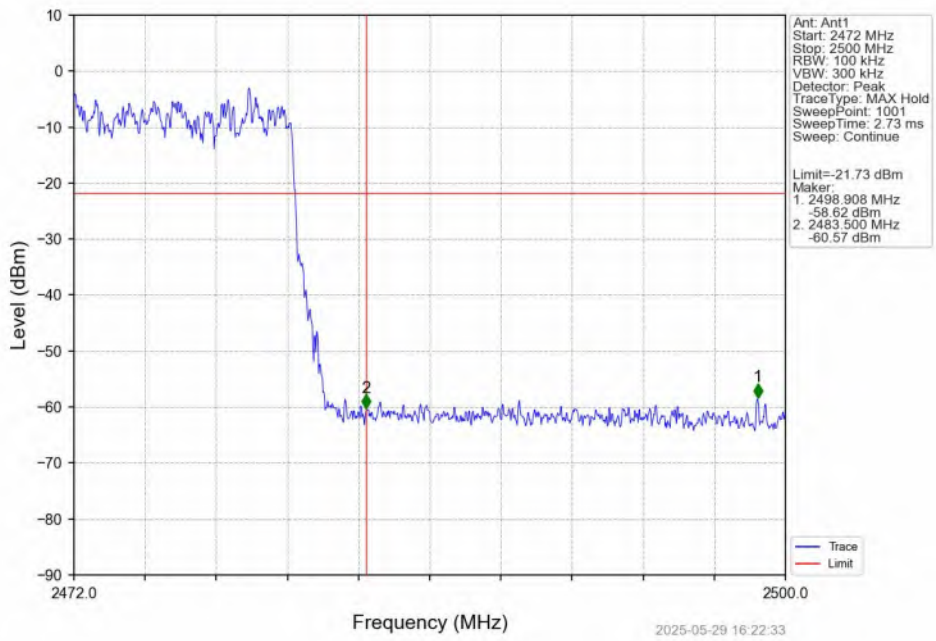
Pi/4DQPSK_2DH5_HCH_2480MHz_Ant1_NTNV



Pi/4DQPSK_2DH5_HOPP_Ant1_NTNV



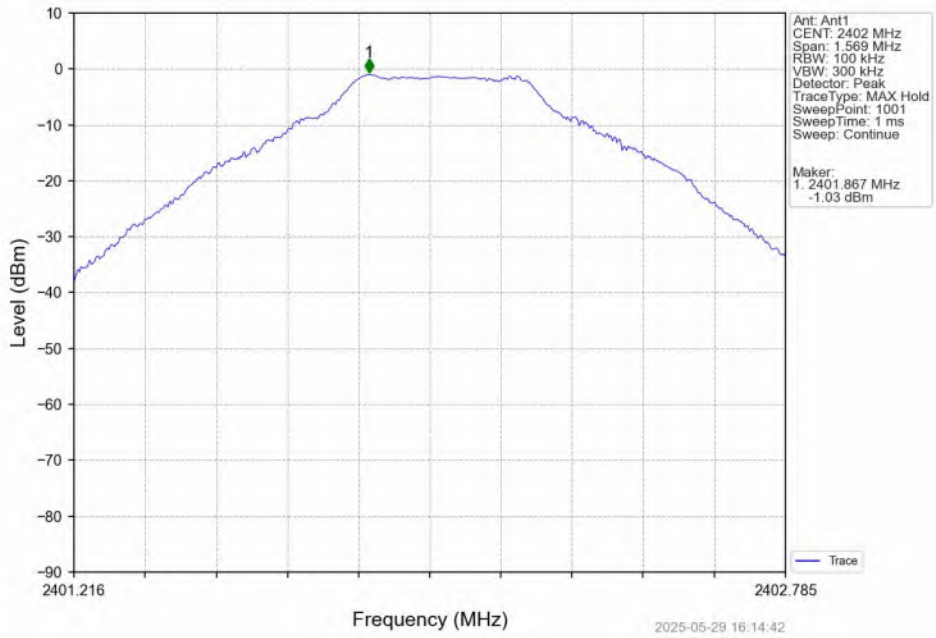
Pi/4DQPSK_2DH5_HOPP_Ant1_NTNV



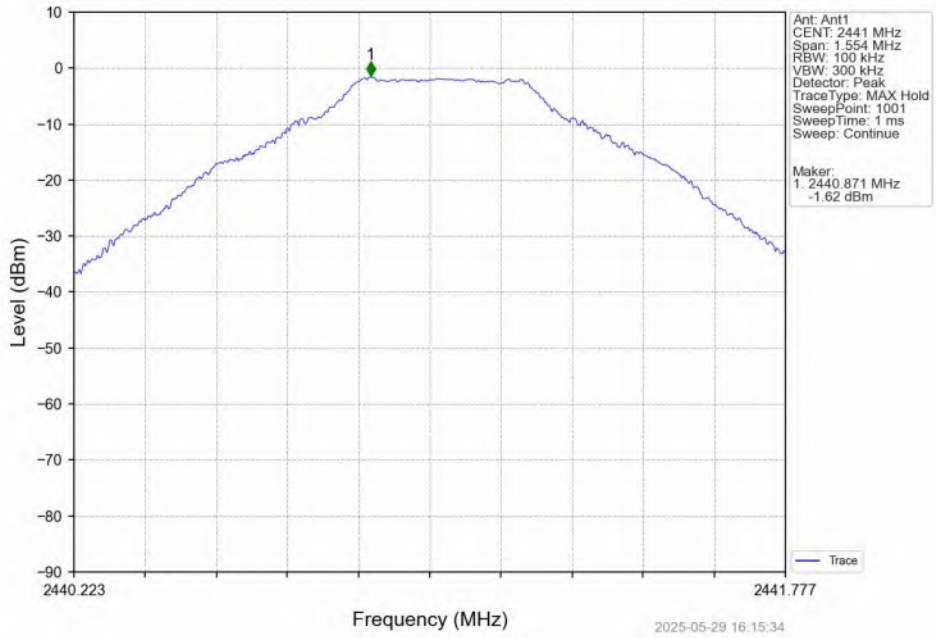
A.7 Conducted RF Spurious Emission

Mode	TX Type	Frequency (MHz)	Packet Type	ANT	Level of Reference (dBm)
GFSK	SISO	2402	DH5	1	-1.03
		2441	DH5	1	-1.62
		2480	DH5	1	-2.37
		HOPP	DH5	1	-1.18
					-1.18
Pi/4DQPSK	SISO	2402	2DH5	1	-1.03
		2441	2DH5	1	-1.61
		2480	2DH5	1	-2.36
		HOPP	2DH5	1	-1.73
					-1.73
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.					

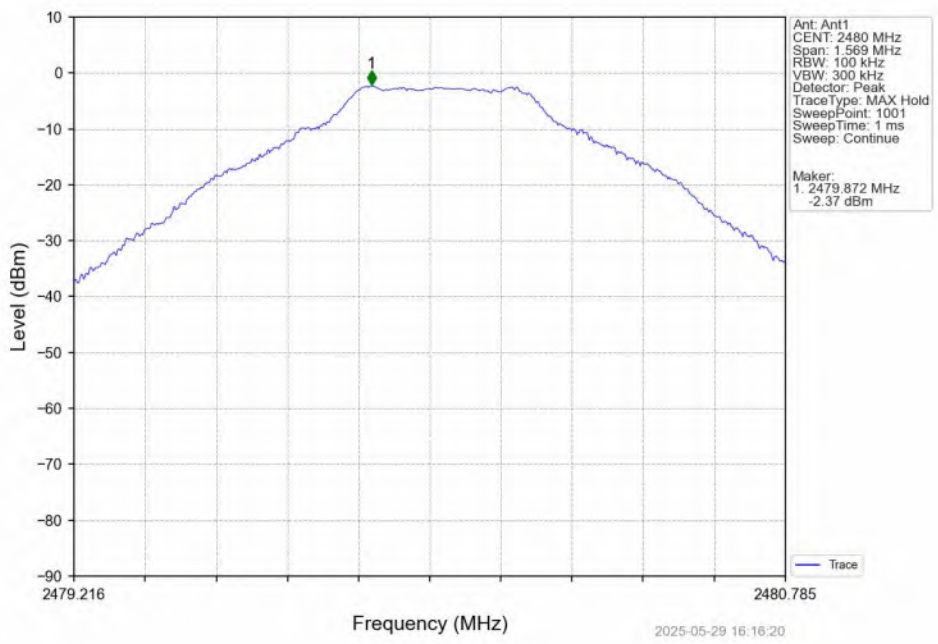
GFSK_DH5_LCH_2402MHz_Ant1_NTNV



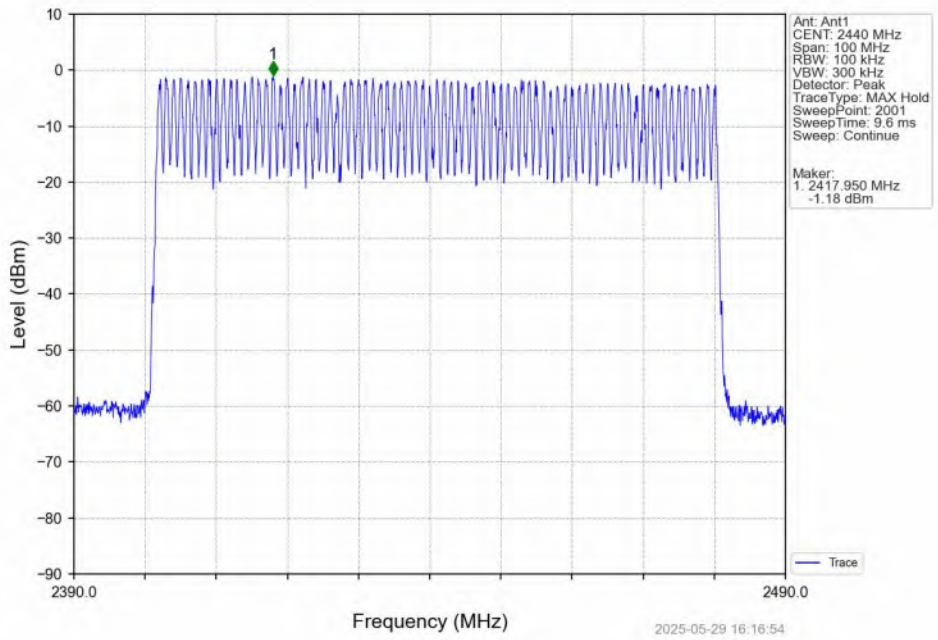
GFSK_DH5_MCH_2441MHz_Ant1_NTNV



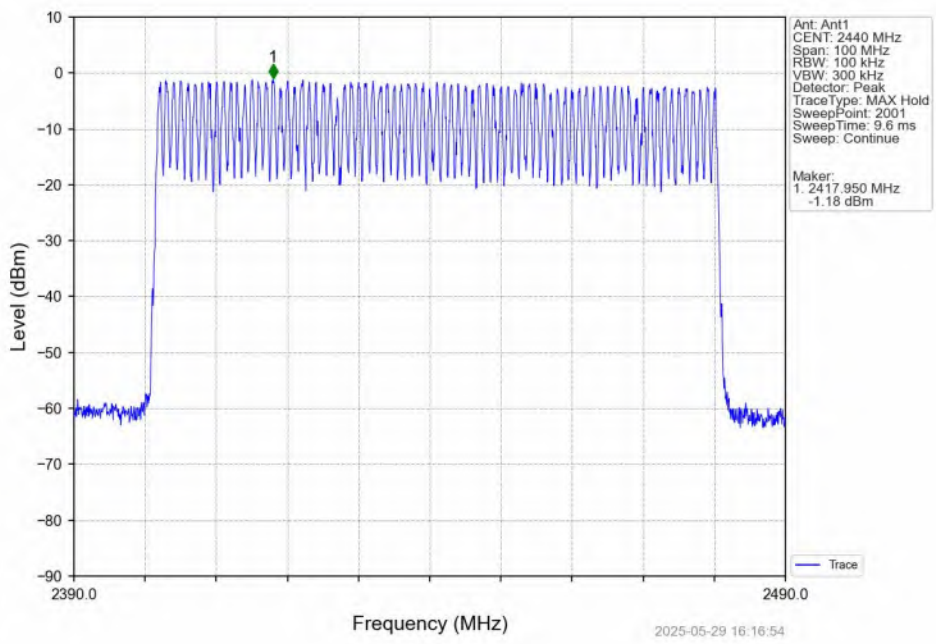
GFSK_DH5_HCH_2480MHz_Ant1_NTNV



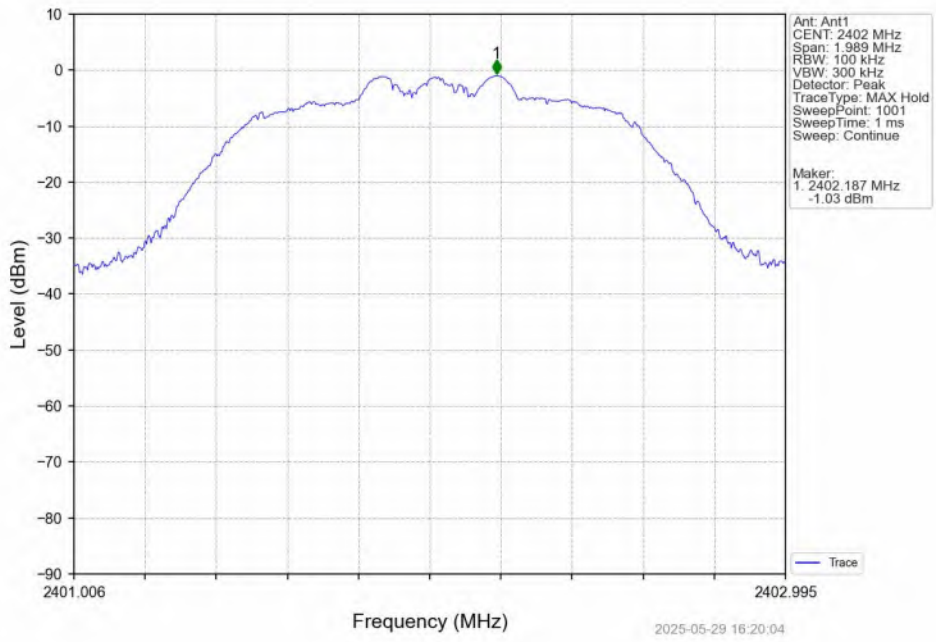
GFSK_DH5_HOPP_Ant1_NTNV



GFSK_DH5_HOPP_Ant1_NTNV



Pi/4DQPSK_2DH5_LCH_2402MHz_Ant1_NTNV



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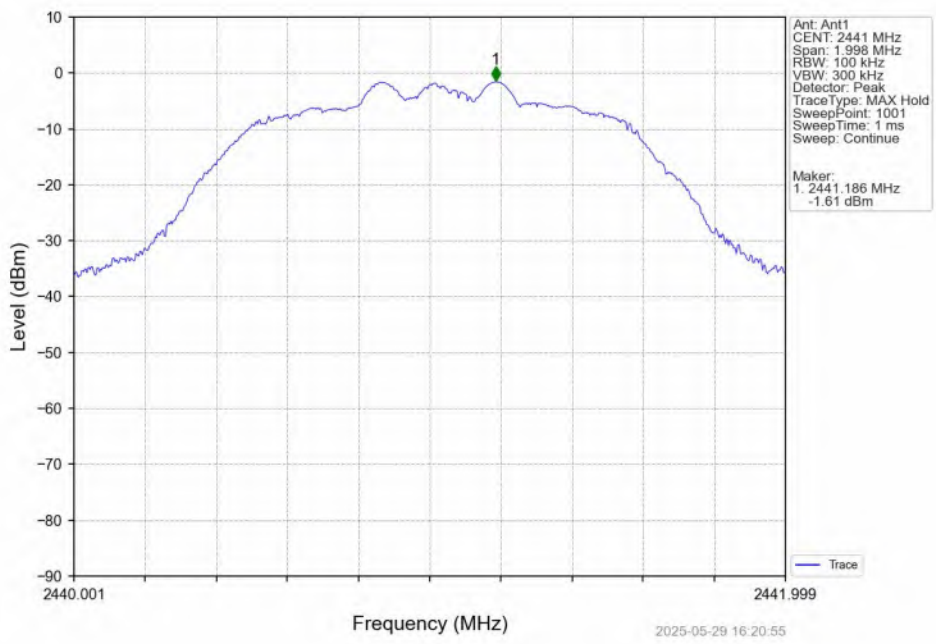

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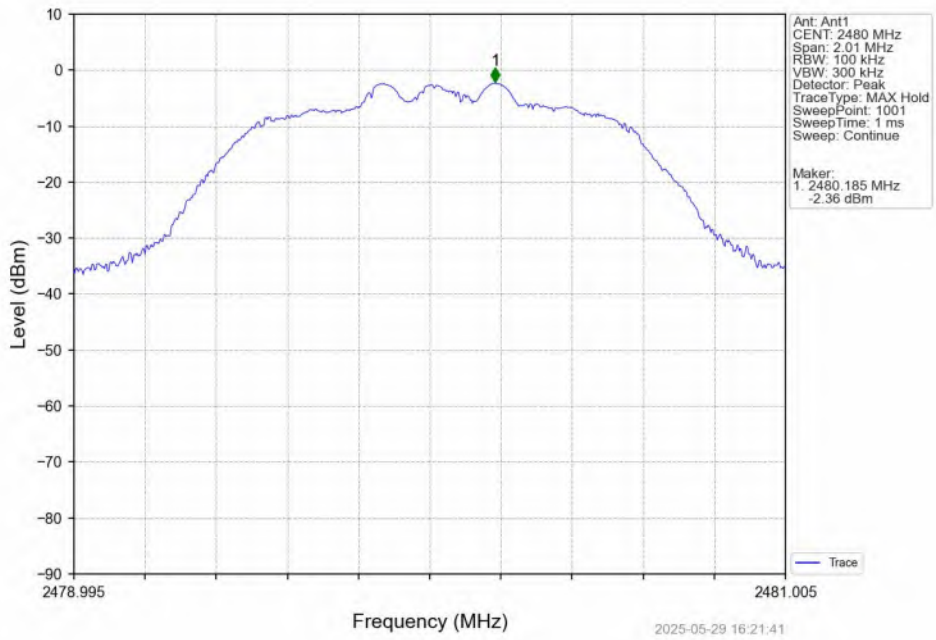

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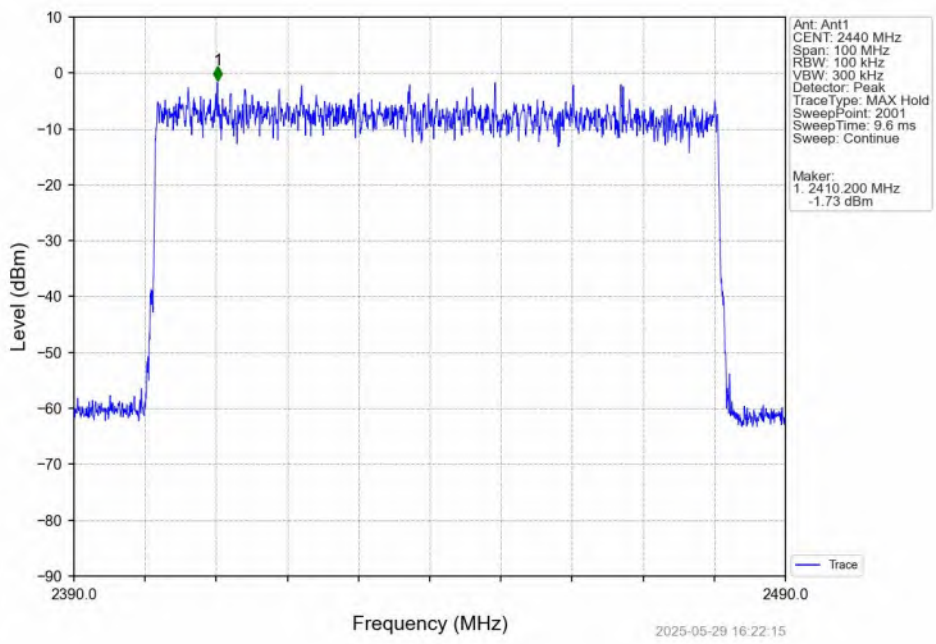

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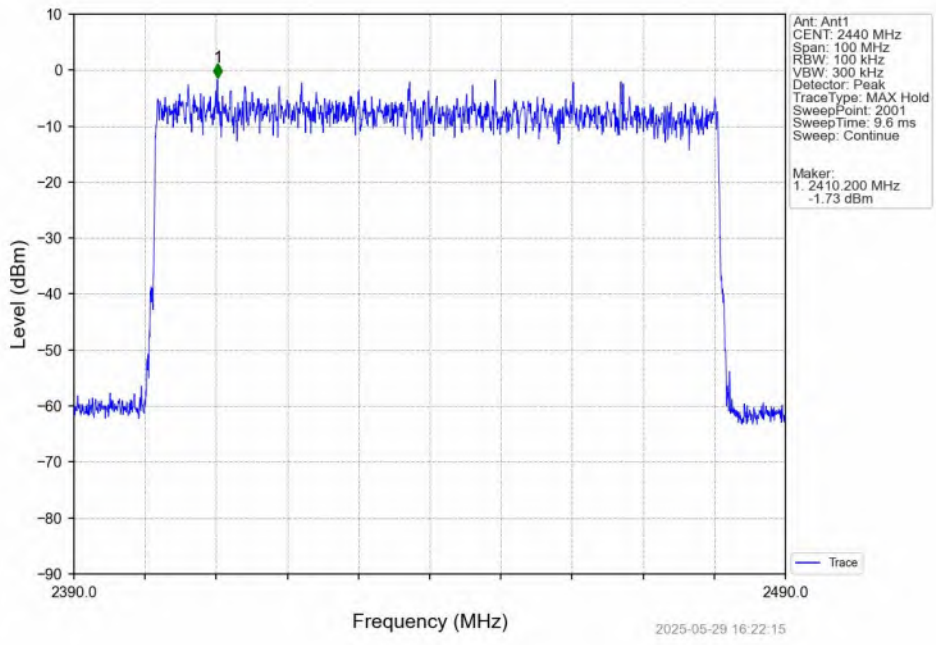
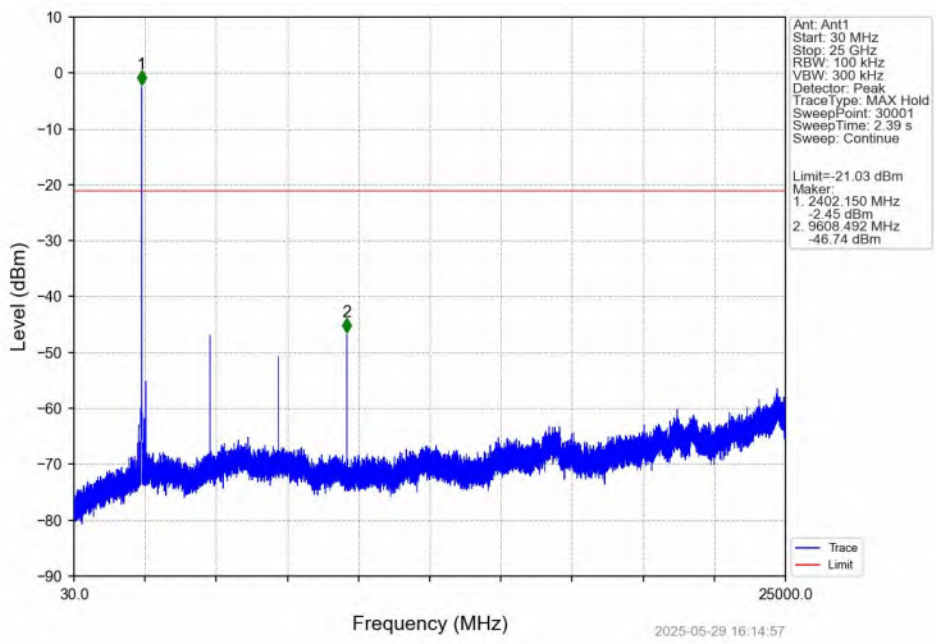


GFSK_DH5_LCH_2402MHz_Ant1_NTNV



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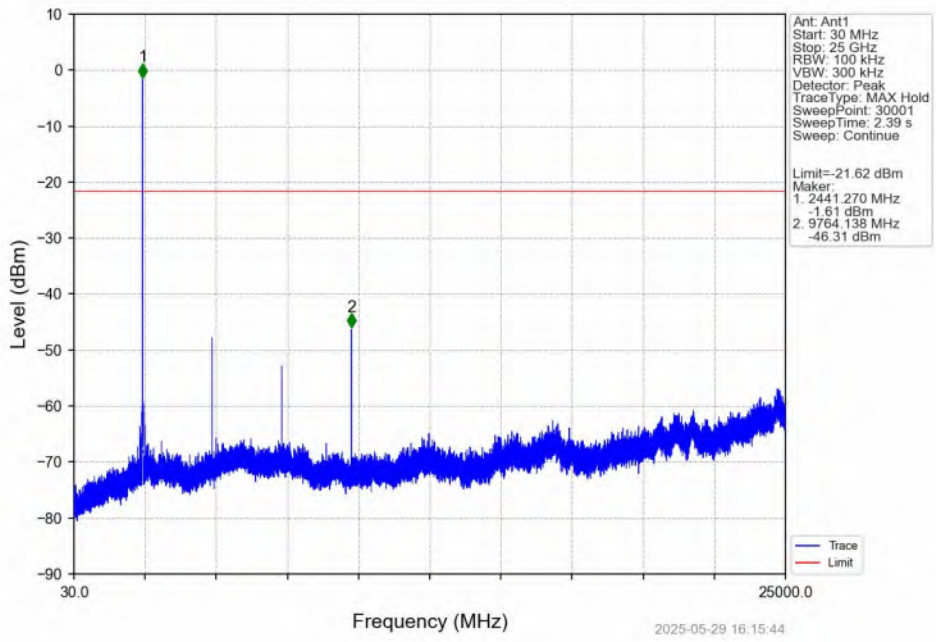

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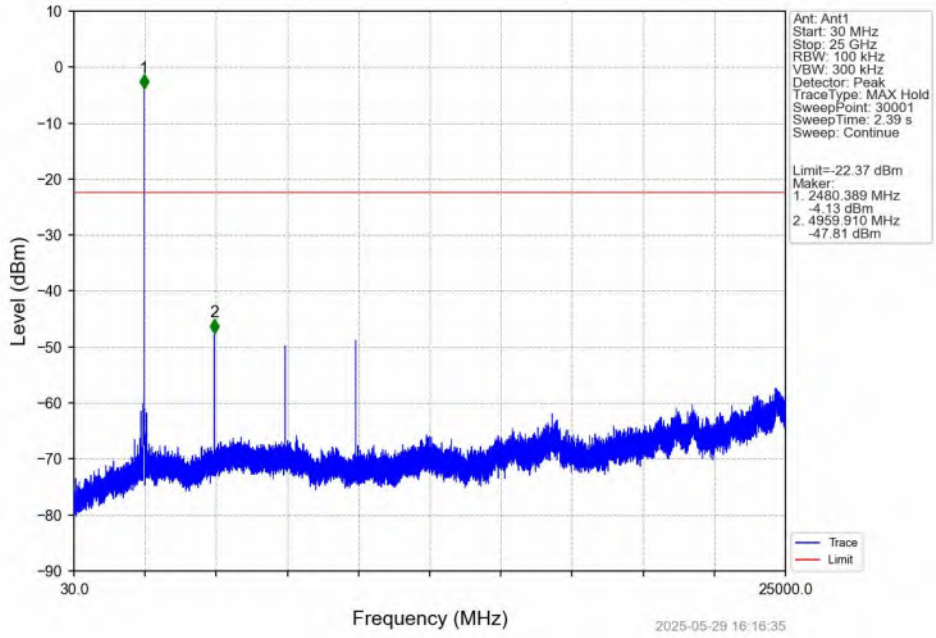
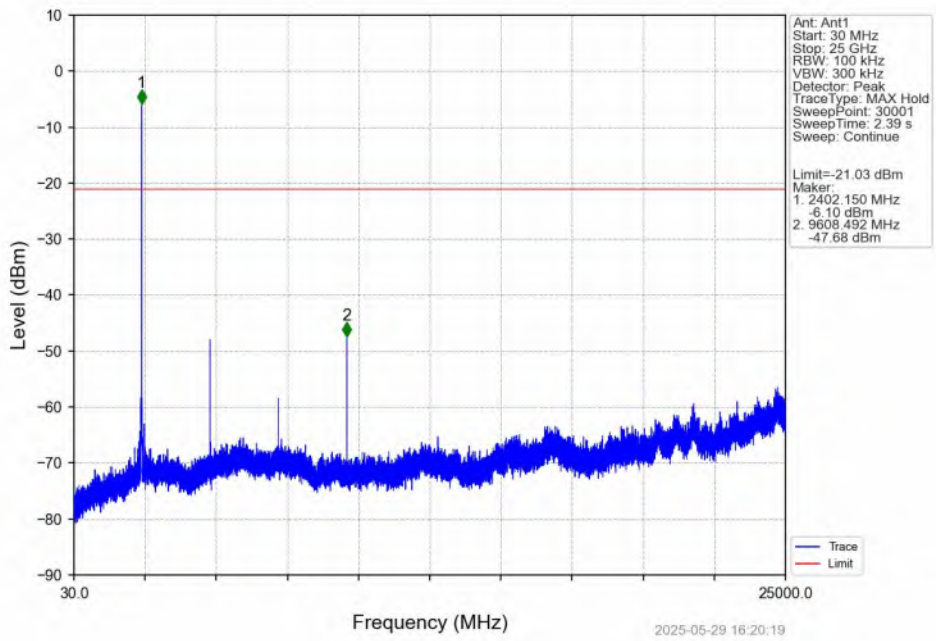
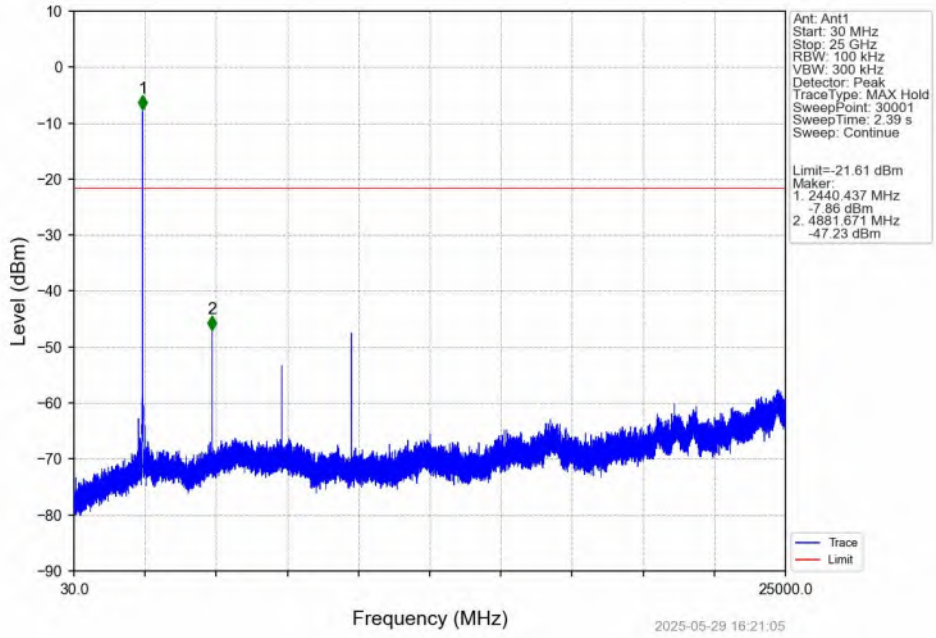


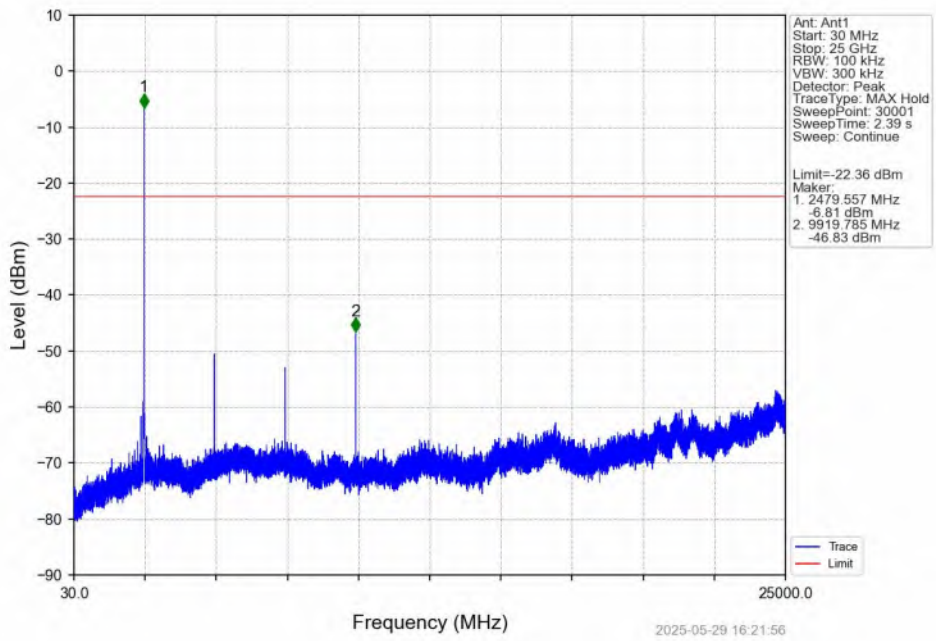
Pi/4DQPSK_2DH5_LCH_2402MHz_Ant1_NTNV



Pi/4DQPSK_2DH5_MCH_2441MHz_Ant1_NTNV



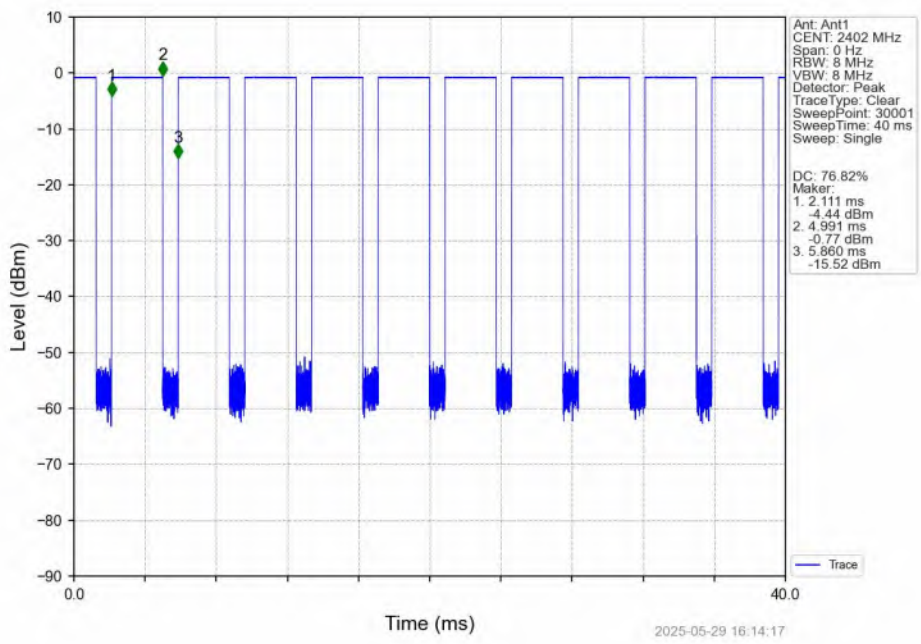
Pi/4DQPSK_2DH5_HCH_2480MHz_Ant1_NTNV



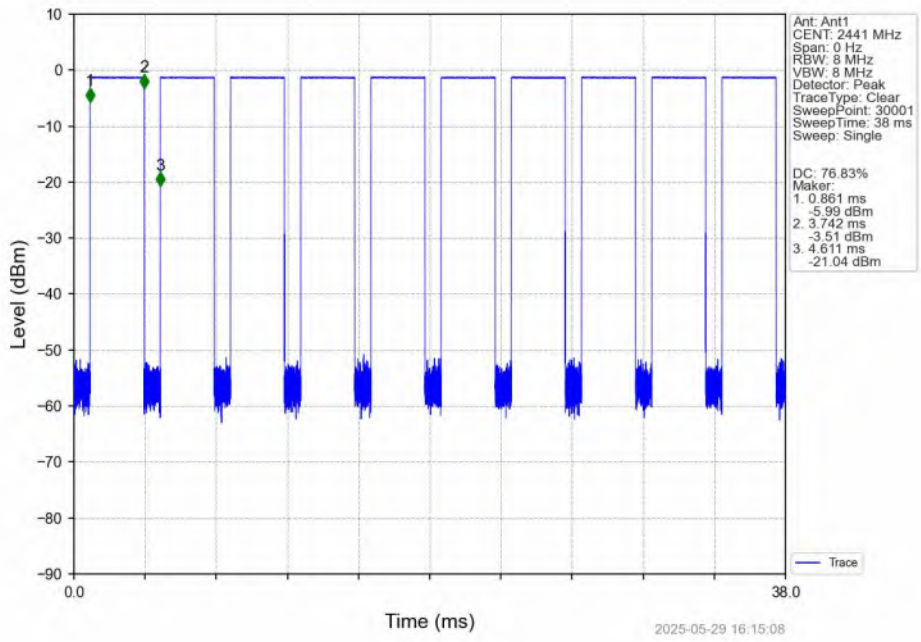
A.8 Duty Cycle

Ant1								
Mode	TX Type	Frequency (MHz)	Packet Type	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
GFSK	SISO	2402	DH5	2.880	3.749	76.82	1.15	0.01
		2441	DH5	2.881	3.750	76.83	1.14	0.01
		2480	DH5	2.887	3.749	77.01	1.13	0.03
Pi/4DQPSK	SISO	2402	2DH5	2.887	3.751	76.97	1.14	0.03
		2441	2DH5	2.885	3.749	76.95	1.14	0.04
		2480	2DH5	2.887	3.751	76.97	1.14	0.03

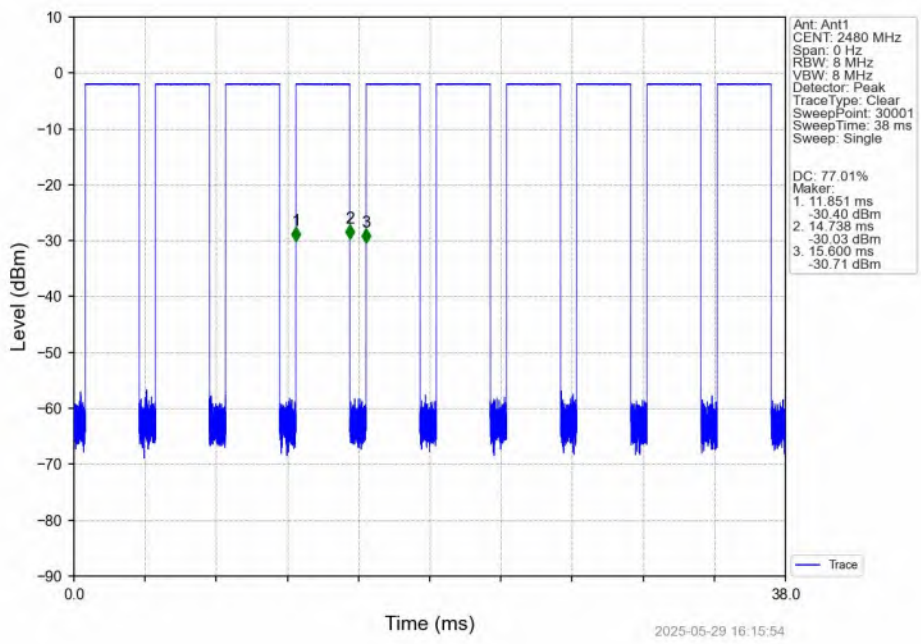
GFSK_DH5_LCH_2402MHz_Ant1_NTNV



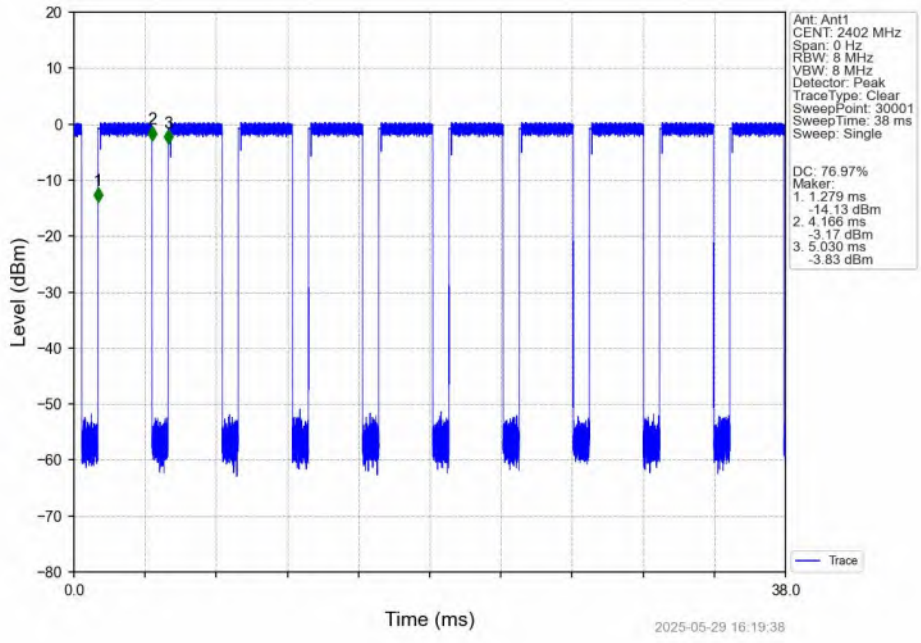
GFSK_DH5_MCH_2441MHz_Ant1_NTNV



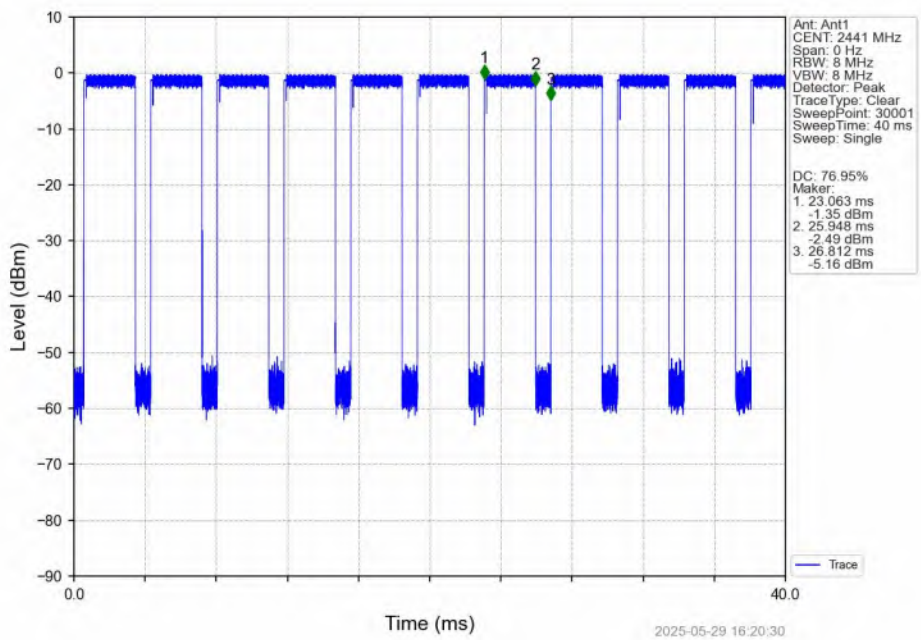
GFSK_DH5_HCH_2480MHz_Ant1_NTNV



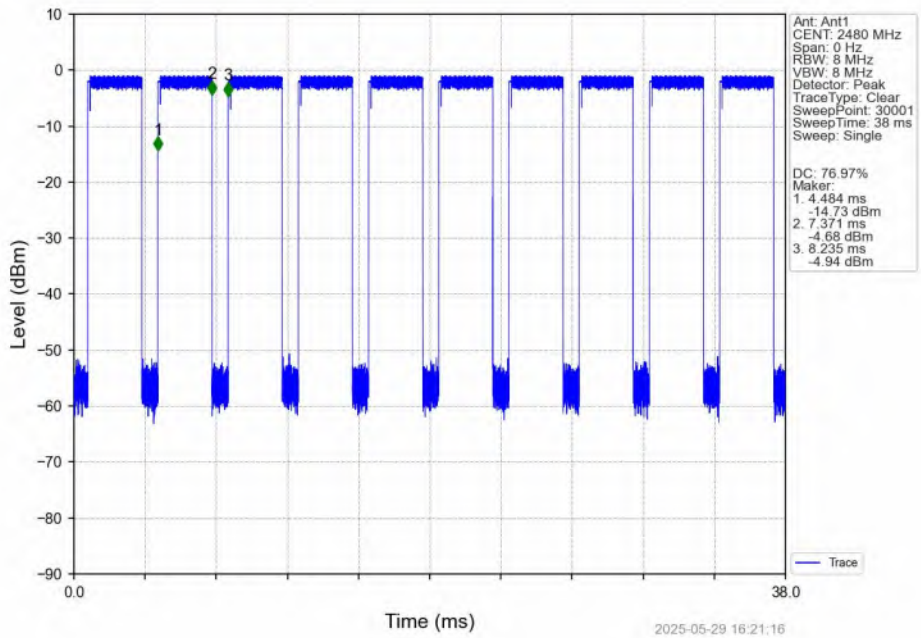
Pi/4DQPSK_2DH5_LCH_2402MHz_Ant1_NTNV



Pi/4DQPSK_2DH5_MCH_2441MHz_Ant1_NTNV



Pi/4DQPSK_2DH5_HCH_2480MHz_Ant1_NTNV

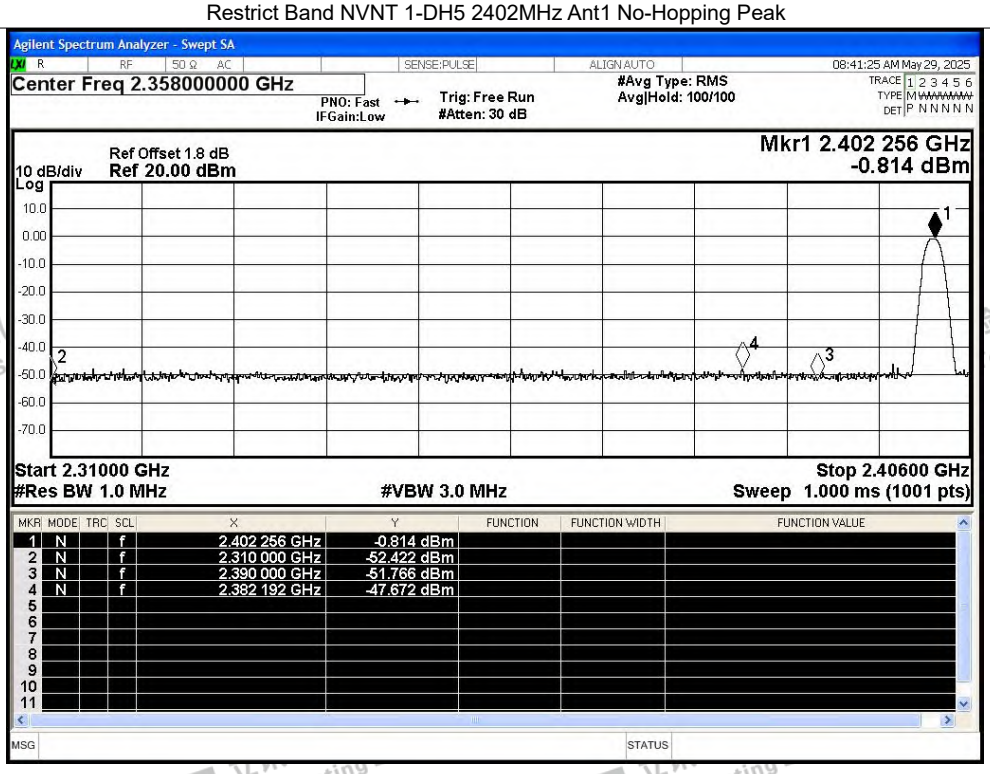


A.9 Restrict Band

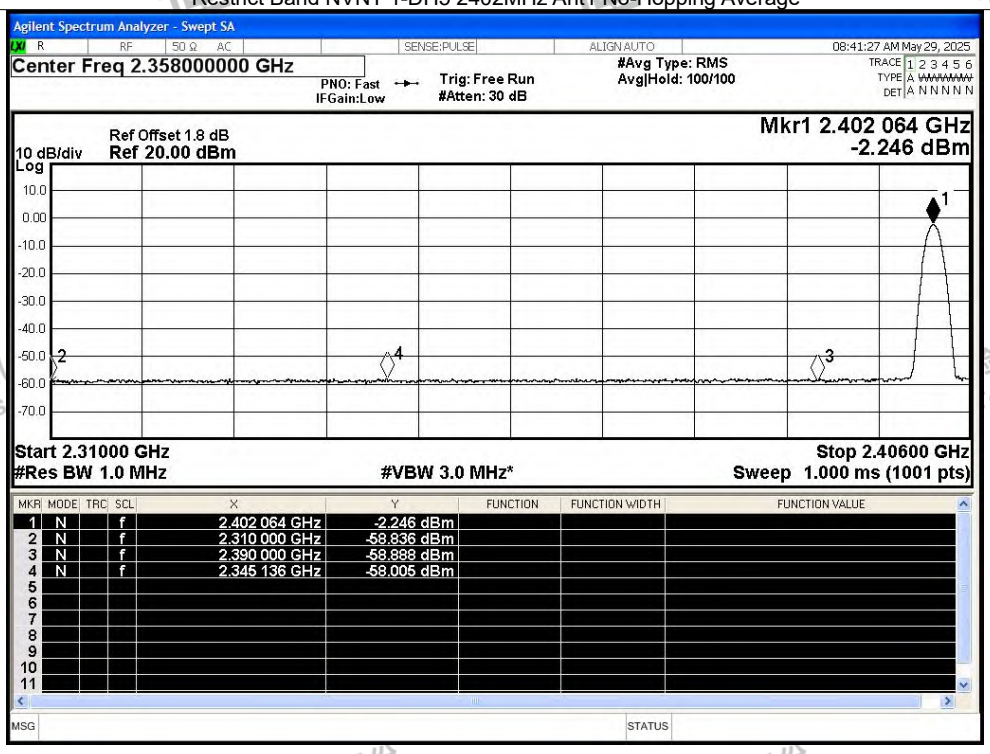
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	Duty Factor (dB)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	1-DH5	2402	Ant1	No-Hopping	2310	-52.42	2.7	-	45.54	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2310	-58.84	2.7	1.5	42.12	Average	54	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2382.192	-47.67	2.7	-	50.29	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2345.136	-58.01	2.7	1.5	42.95	Average	54	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2390	-51.77	2.7	-	46.19	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2390	-58.89	2.7	1.4	41.87	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.5	-50.47	2.7	-	47.49	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.5	-57.75	2.7	1.4	43.01	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2484.664	-44.4	2.7	-	53.56	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2485.144	-57.21	2.7	1.3	43.35	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2500	-49.34	2.7	-	48.62	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2500	-57.93	2.7	1.3	42.63	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2310	-50.96	2.7	-	47	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2310	-58.68	2.7	1.14	41.65	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2371.824	-48.22	2.7	-	49.74	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2377.776	-57.84	2.7	1.14	42.49	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2390	-51.25	2.7	-	46.71	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2390	-58.74	2.7	1.14	41.59	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.5	-44.46	2.7	-	53.5	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.5	-56.86	2.7	1.14	43.56	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.752	-43.52	2.7	-	54.44	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.584	-56.31	2.7	1.14	44.11	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2500	-49.19	2.7	-	48.77	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2500	-58.17	2.7	1.14	42.25	Average	54	Pass

Test Graphs

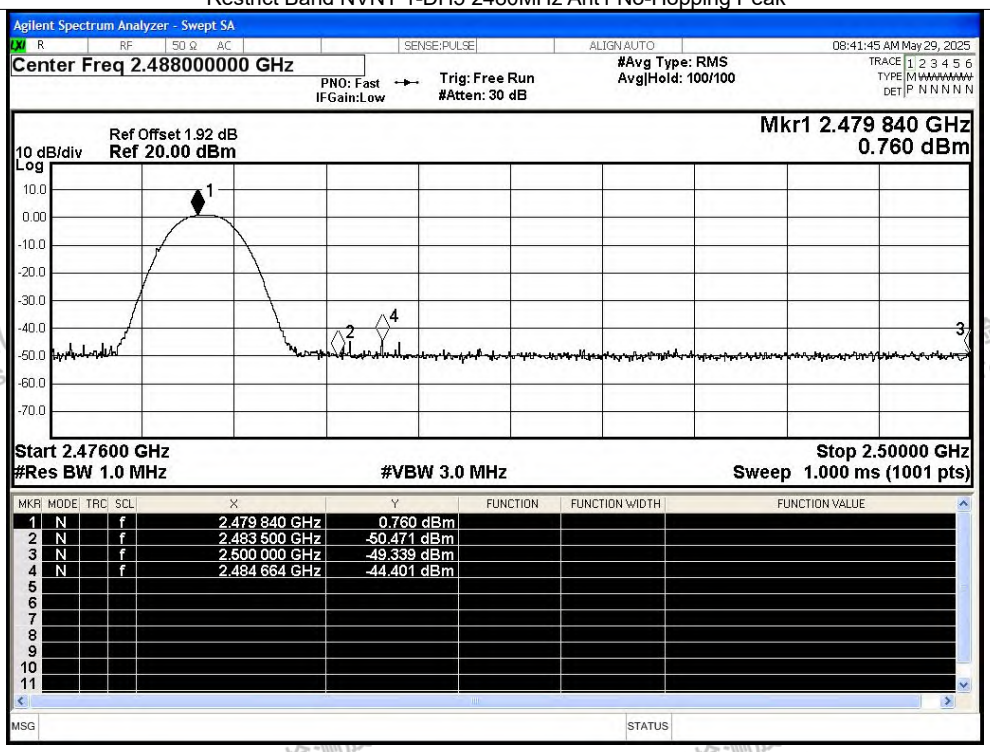
Restrict Band NVNT 1-DH5 2402MHz Ant1 No-Hopping Peak



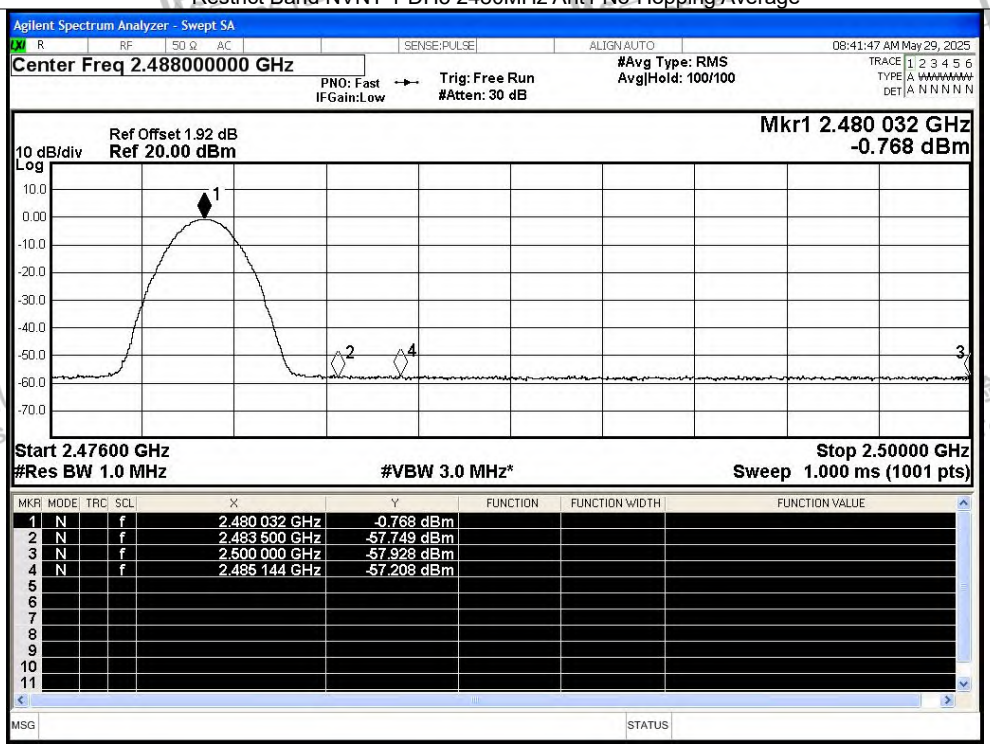
Restrict Band NVNT 1-DH5 2402MHz Ant1 No-Hopping Average



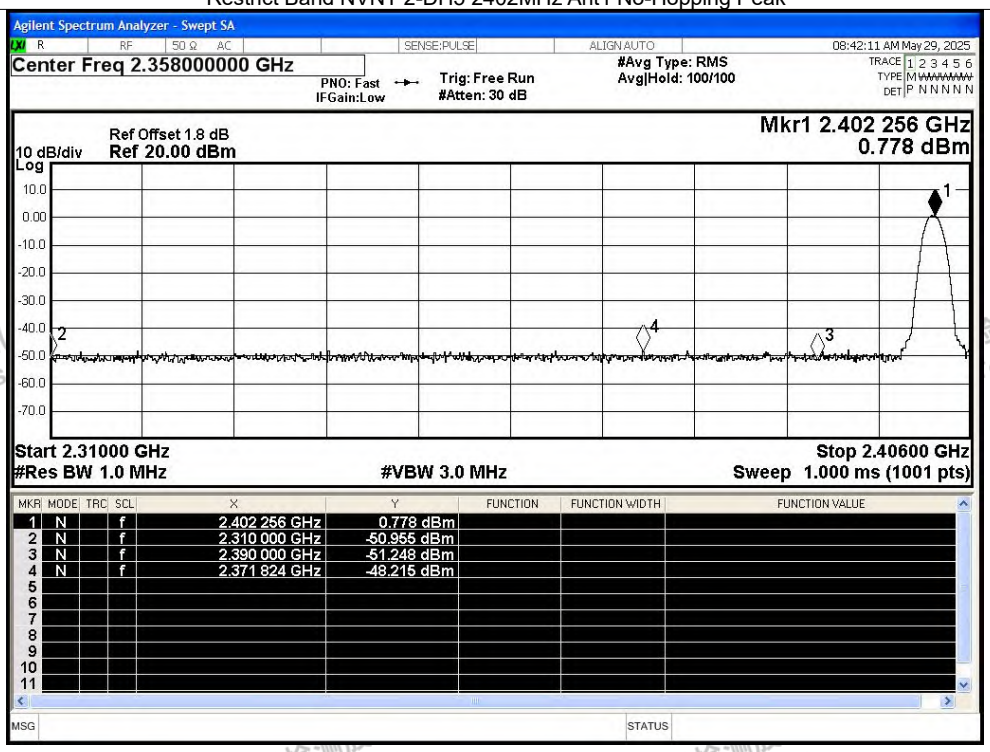
Restrict Band NVNT 1-DH5 2480MHz Ant1 No-Hopping Peak



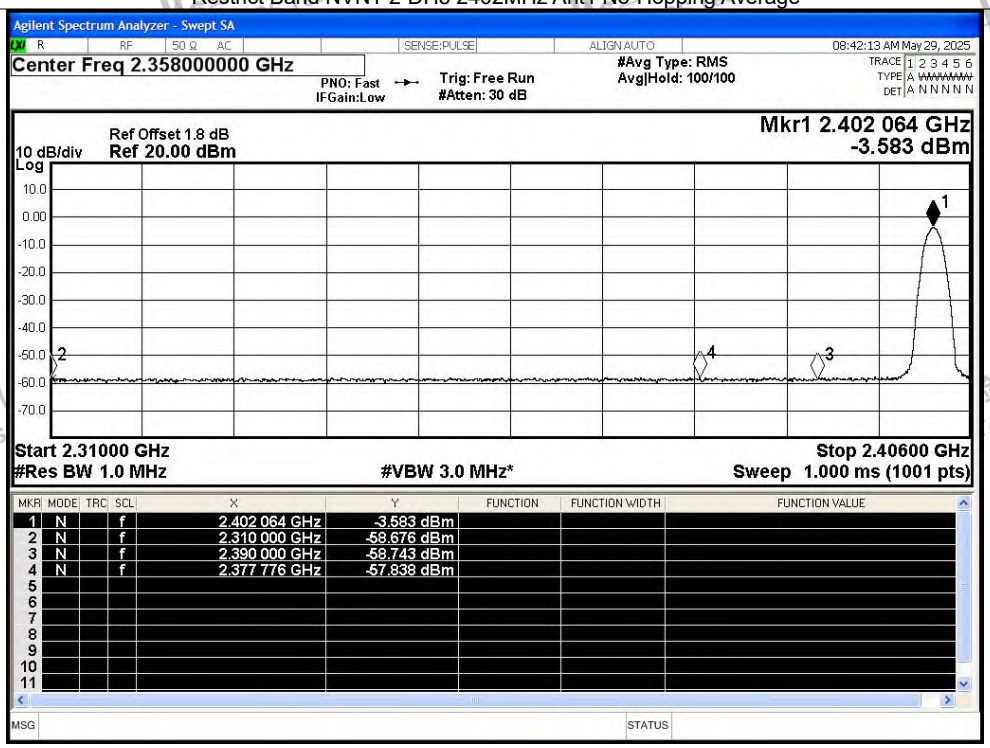
Restrict Band NVNT 1-DH5 2480MHz Ant1 No-Hopping Average



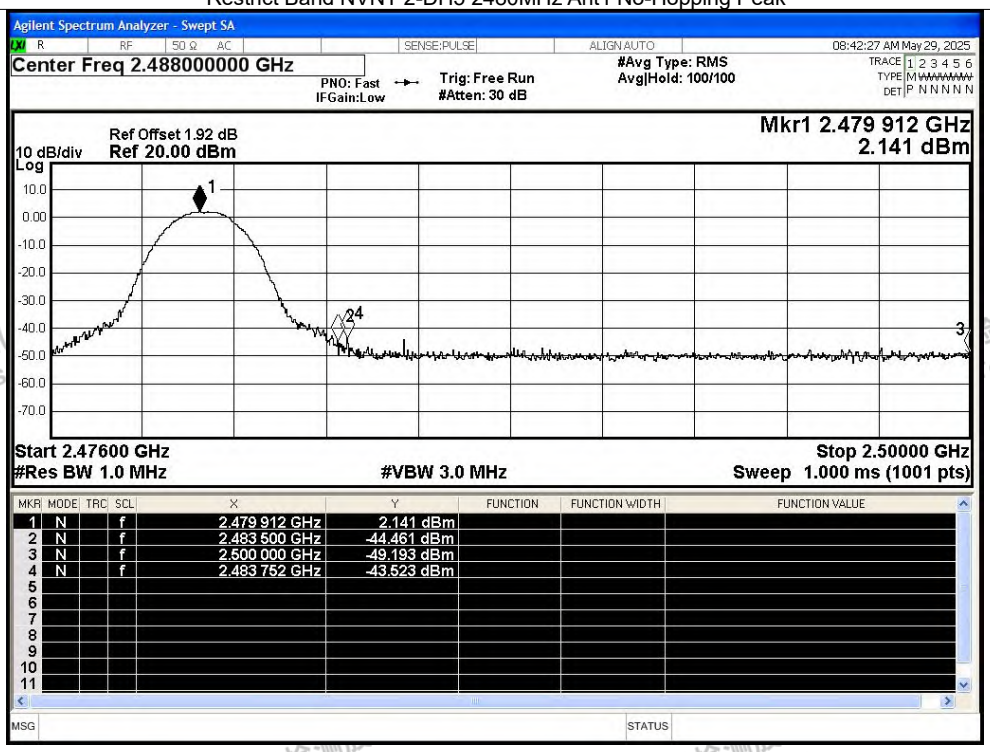
Restrict Band NVNT 2-DH5 2402MHz Ant1 No-Hopping Peak



Restrict Band NVNT 2-DH5 2402MHz Ant1 No-Hopping Average



Restrict Band NVNT 2-DH5 2480MHz Ant1 No-Hopping Peak



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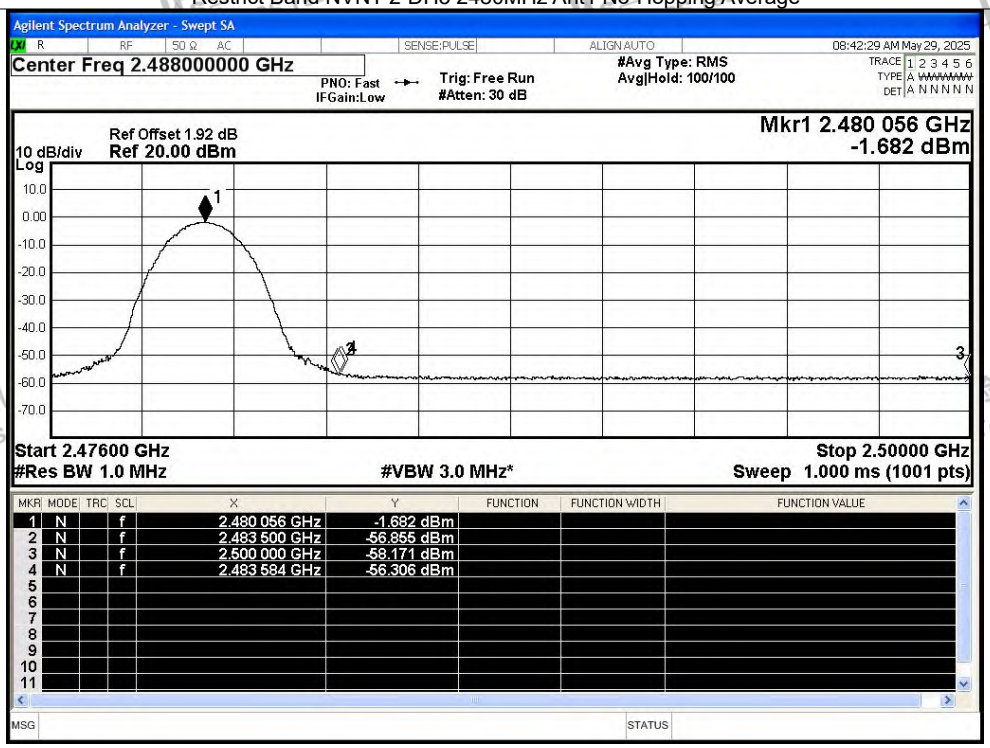
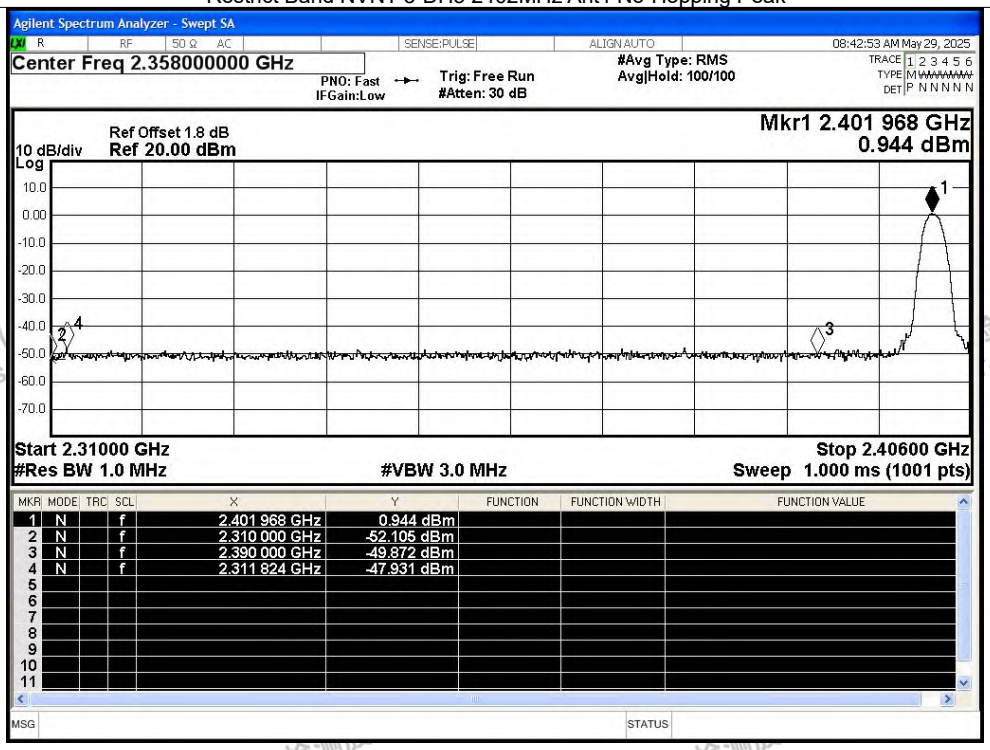
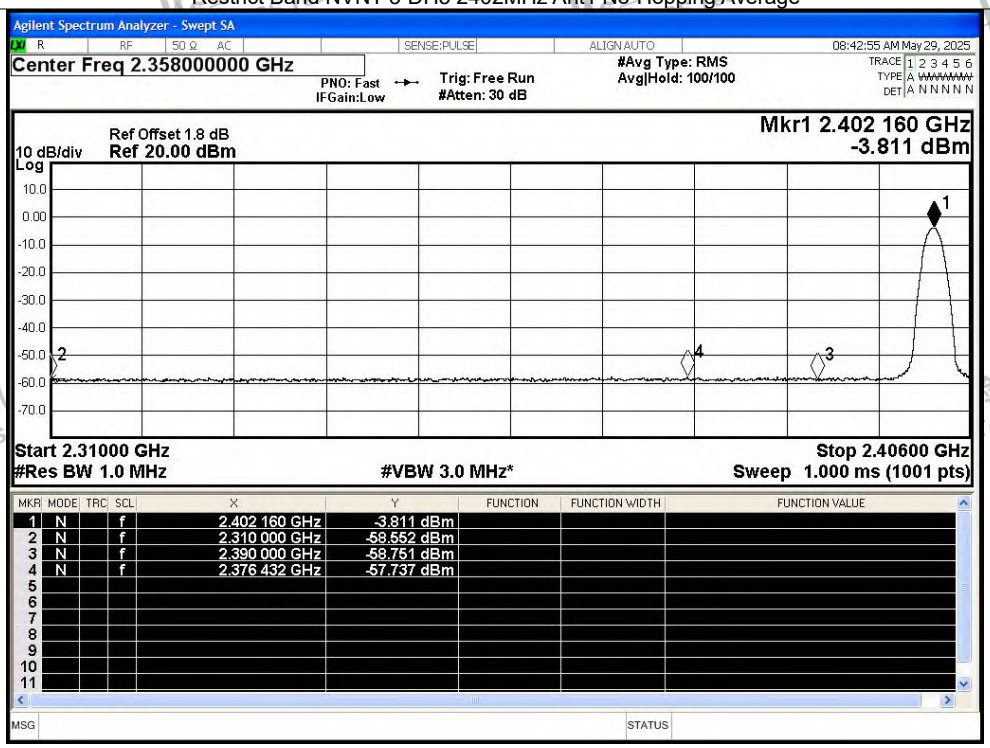


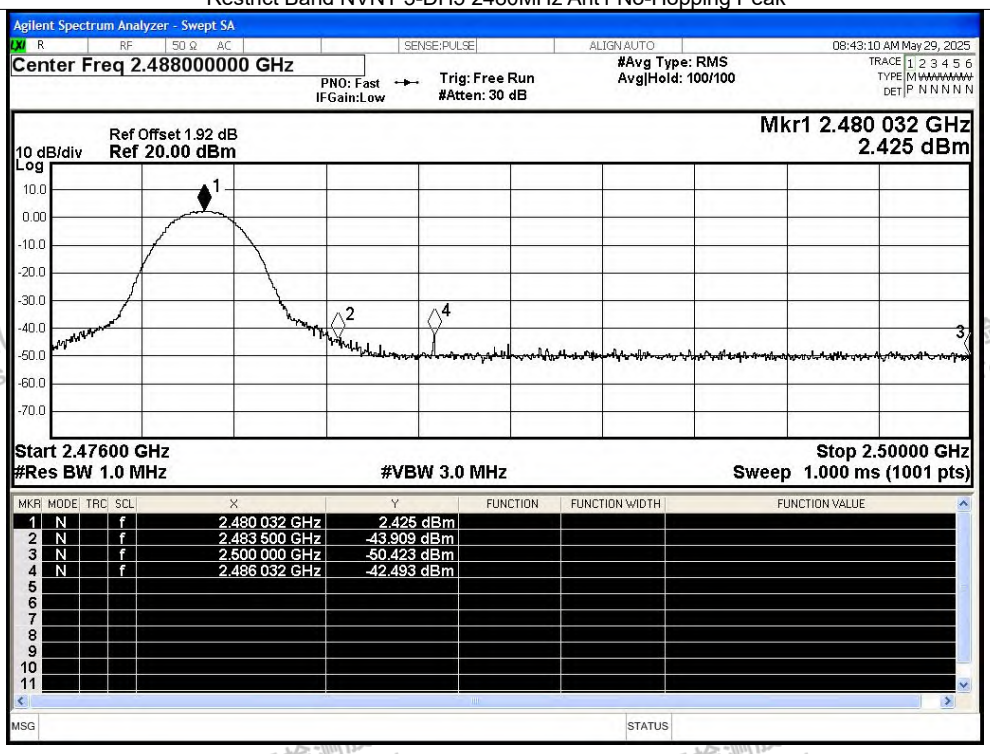
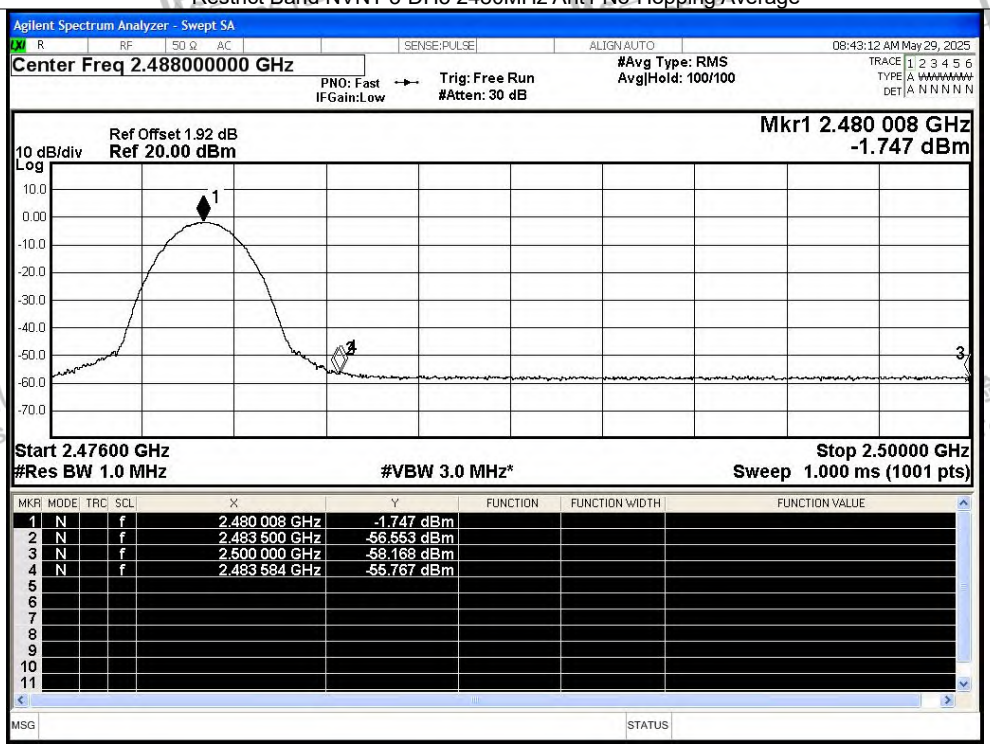
Restrict Band NVNT 3-DH5 2402MHz Ant1 No-Hopping Peak



Restrict Band NVNT 3-DH5 2402MHz Ant1 No-Hopping Average



Restrict Band NVNT 3-DH5 2480MHz Ant1 No-Hopping Peak



Restrict Band NVNT 3-DH5 2480MHz Ant1 No-Hopping Average