Appendix A

Report No.:	CISRR240122125
FCC ID:	2BC25-HEAR1PRO
Product Name:	Wireless headset
Model No.:	YINPAGE Hear 1 Pro
Test Engineer:	Lucas Huang
Supervised by:	Rory Huang

1) Conducted Peak Output Power

Test Result

Left

Modulation	Packet Type	Channel	Peak Output Power (dBm)	Peak Output Power (mW)	Limit (dBm)	Result
GFSK	DH5	0	0.895	3.087	30	PASS
		39	0.179	3.295		PASS
		78	0.811	3.028		PASS
π/4DQPSK	2-DH5	0	-2.181	3.297	20.97	PASS
		39	-2.639	0.545		PASS
		78	-2.154	0.609		PASS
8DPSK	3-DH5	0	-2.578	0.552		PASS
		39	-2.314	0.587		PASS
		78	-1.730	0.671		PASS

Right

Modulation	Packet Type	Channel	Peak Output Power (dBm)	Peak Output Power (mW)	Limit (dBm)	Result
GFSK	DH5	0	0.501	1.12	30	PASS
		39	0.177	1.04		PASS
		78	0.532	1.13		PASS
π/4DQPSK	2-DH5	0	-2.264	0.59	20.97	PASS
		39	-2.846	0.52		PASS
		78	-2.268	0.59		PASS
8DPSK	3-DH5	0	-2.482	0.56		PASS
		39	-2.447	0.57		PASS
		78	-1.926	0.64		PASS

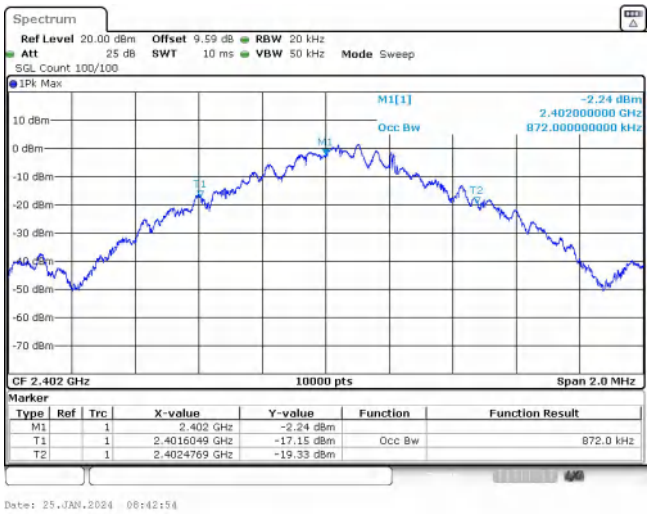
2) 99% Bandwidth

Test Result

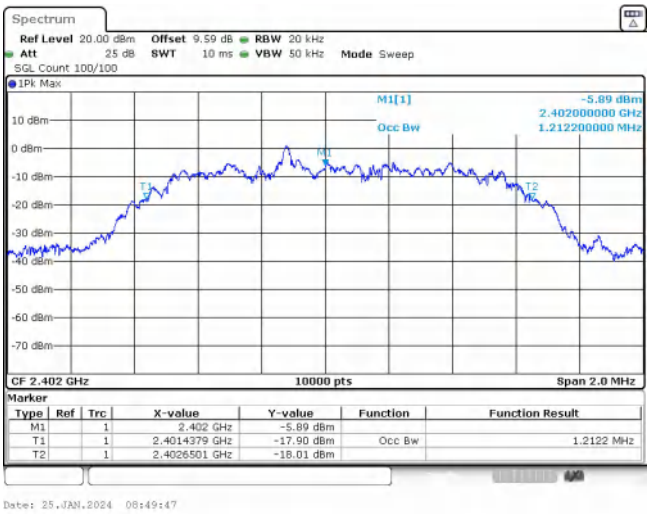
Left

Modulation	Channel	99% BW (MHz)
GFSK	0	0.87200
	39	0.86800
	78	0.87140
π/4DQPSK	0	1.2120
	39	1.1960
	78	1.1620
8DPSK	0	1.1670
	39	1.1780
	78	1.1660

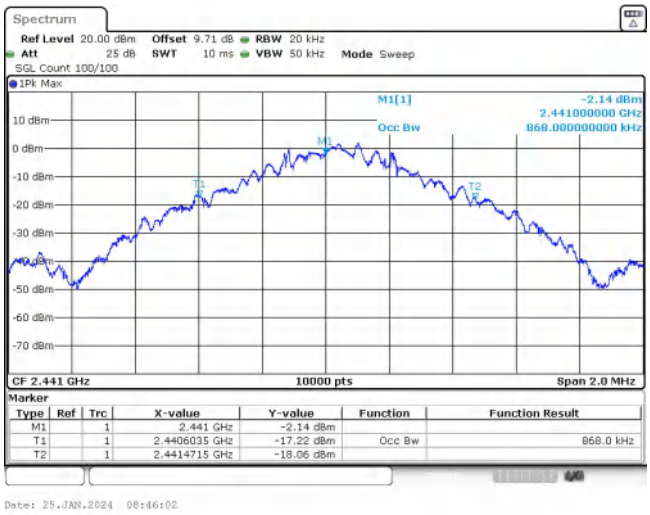
Test Graphs



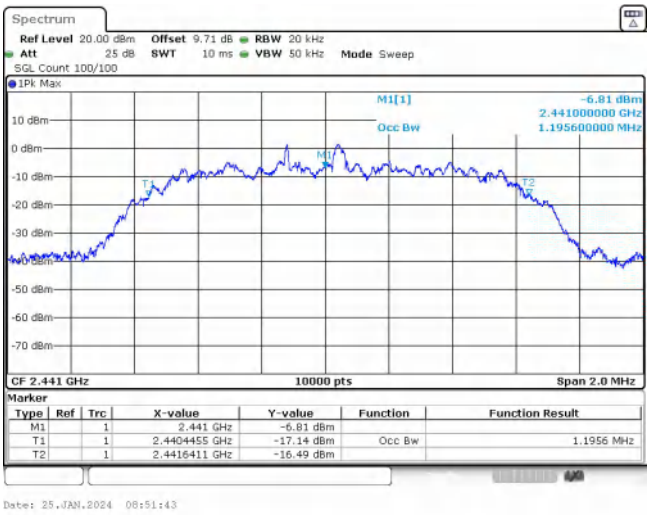
GFSK_DH5_Channel 0



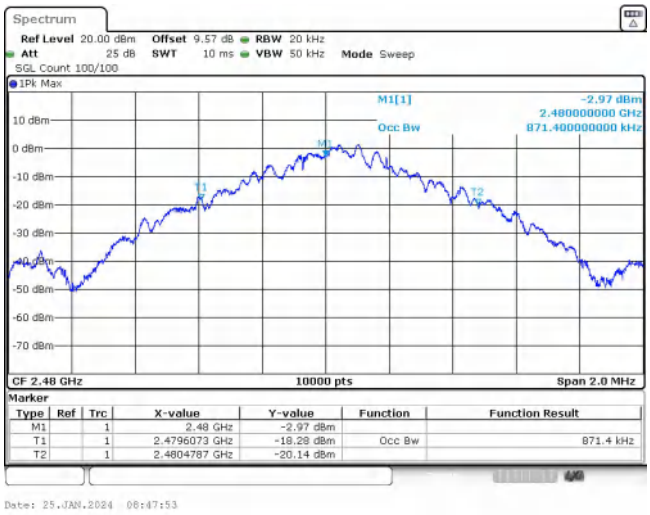
π/4DQPSK_2-DH5_Channel 0



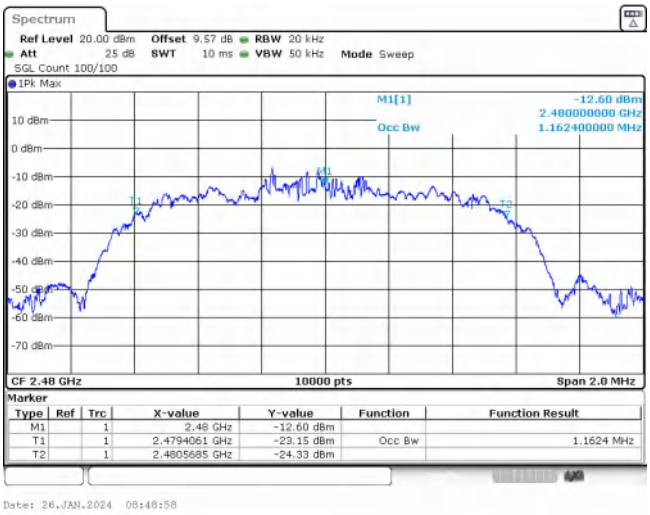
GFSK_DH5_Channel 39



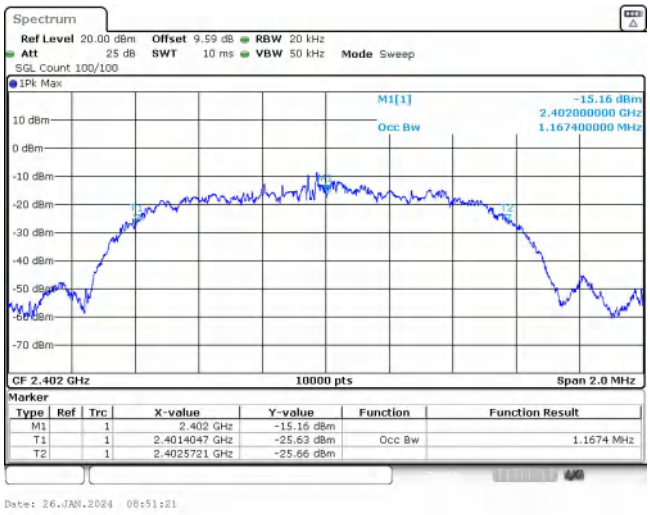
π/4DQPSK_2-DH5_Channel 39



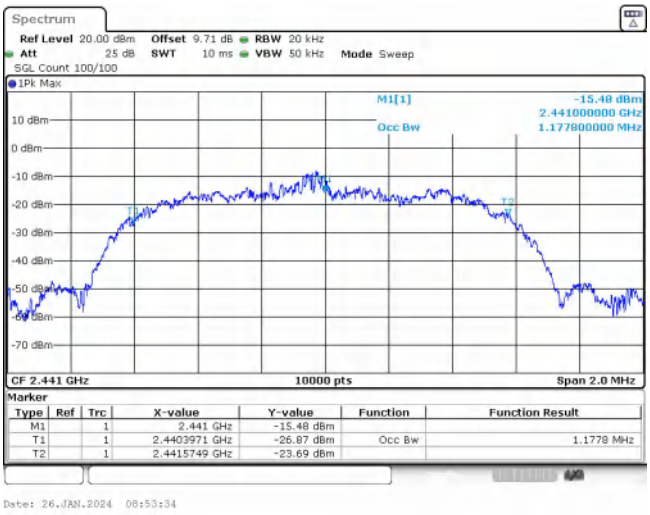
GFSK_DH5_Channel 78



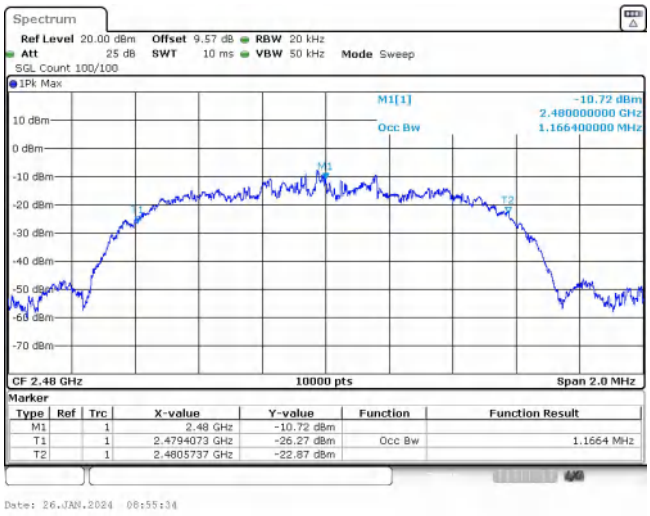
π/4DQPSK_2-DH5_Channel 78



8DPSK_3-DH5_Channel 0



8DPSK_3-DH5_Channel 39



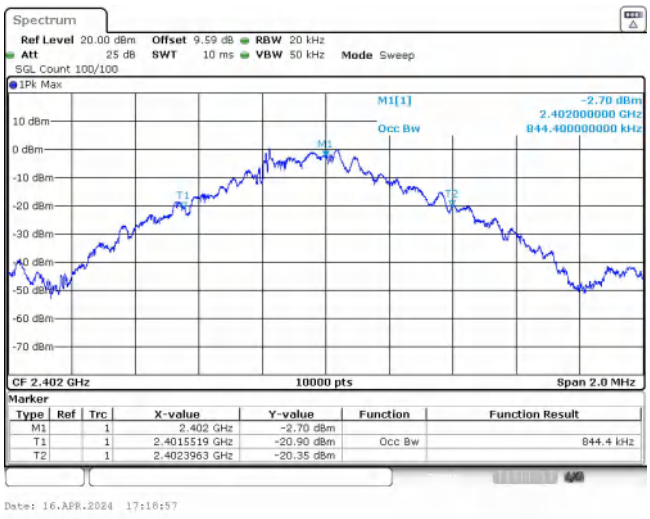
8DPSK_3-DH5_Channel 78

Void

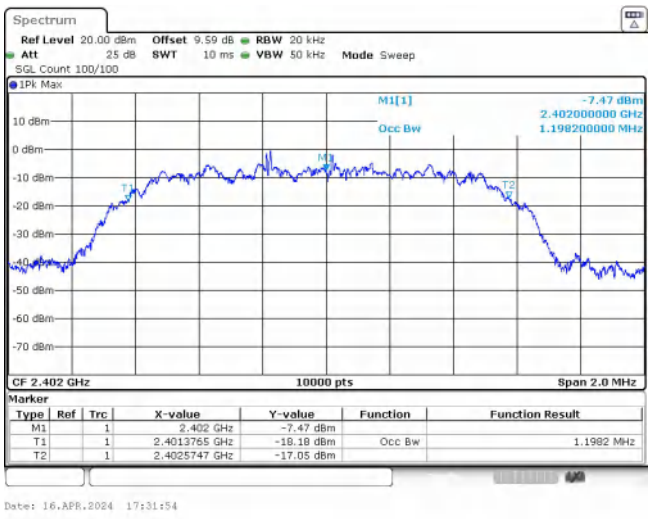
Right

Modulation	Channel	99% BW (MHz)
GFSK	0	0.84440
	39	0.84960
	78	0.84480
π/4DQPSK	0	1.1980
	39	1.1900
	78	1.1810
8DPSK	0	1.1960
	39	1.1960
	78	1.1830

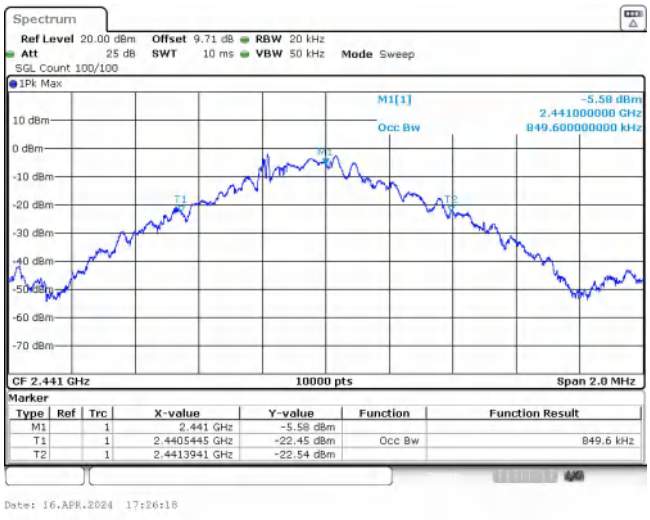
Test Graphs



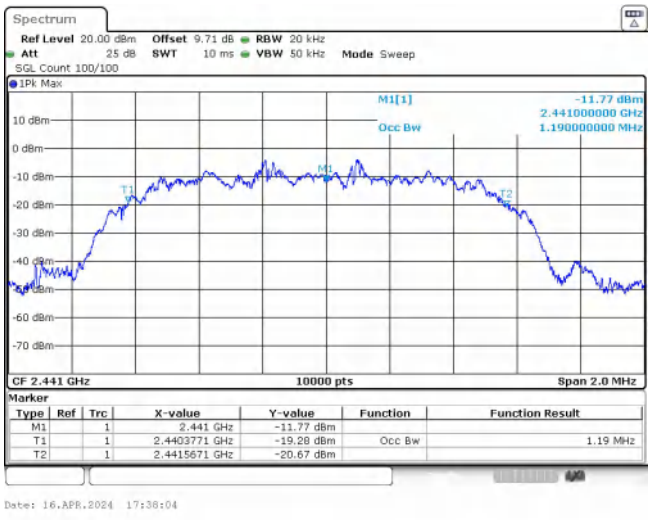
GFSK_DH5_Channel 0



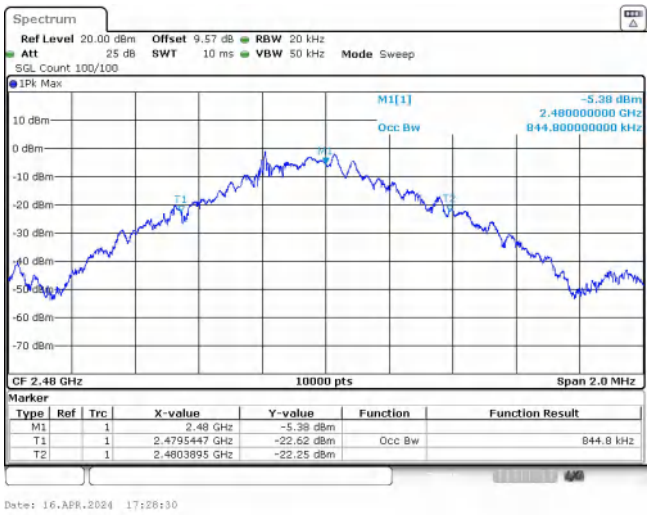
π/4DQPSK_2-DH5_Channel 0



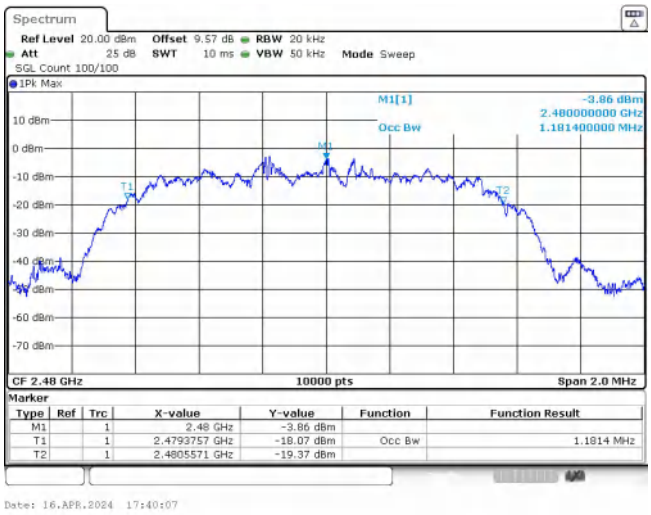
GFSK_DH5_Channel 39



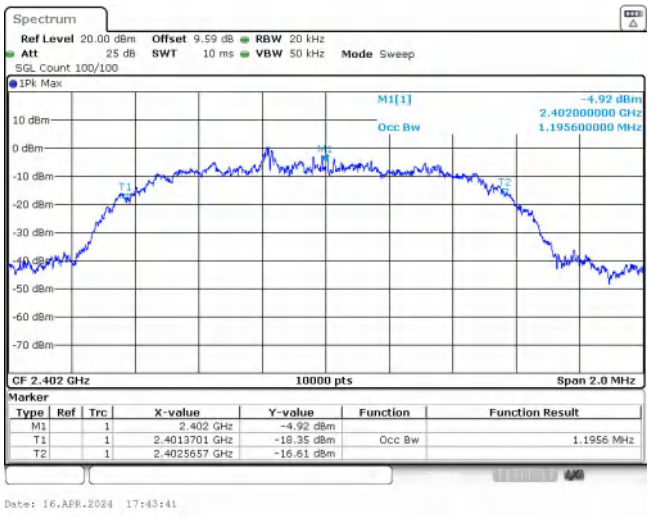
π/4DQPSK_2-DH5_Channel 39



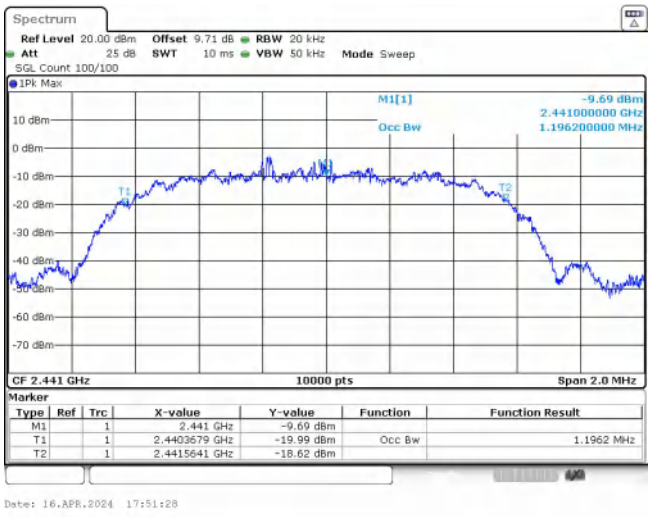
GFSK_DH5_Channel 78



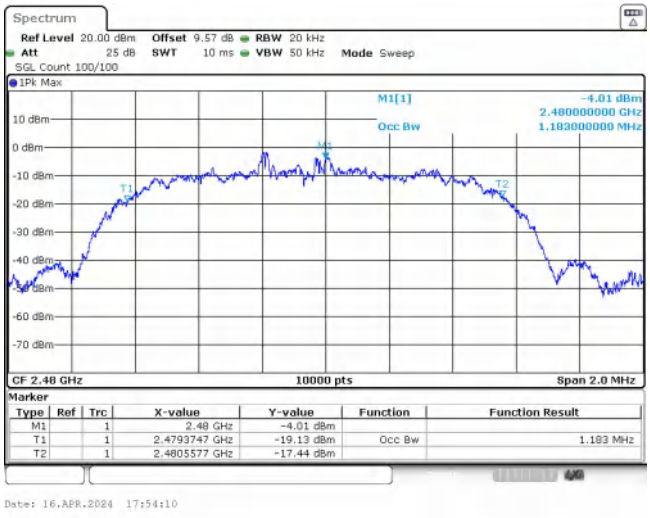
π/4DQPSK_2-DH5_Channel 78



8DPSK_3-DH5_Channel 0



8DPSK_3-DH5_Channel 39



8DPSK_3-DH5_Channel 78

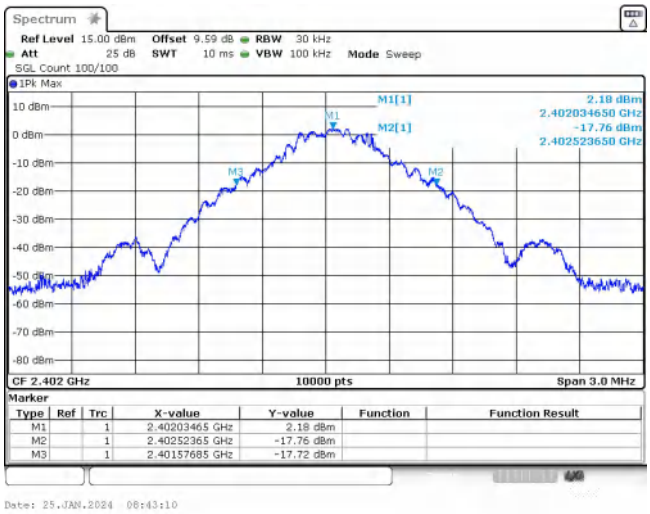
3) 20dB Bandwidth

Test Result

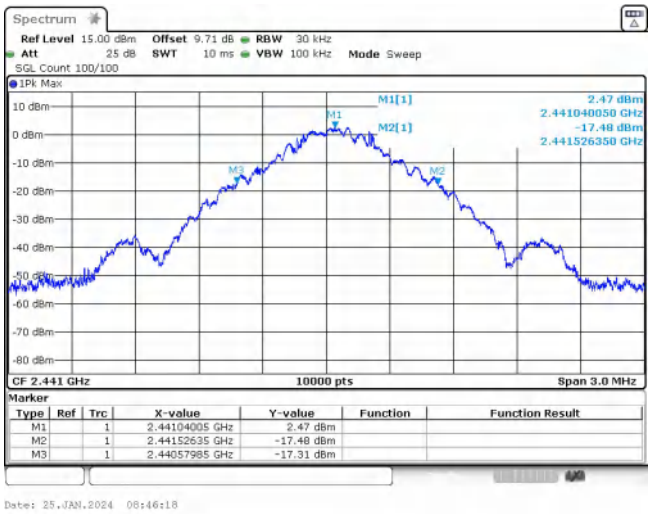
Left

Modulation	Channel	Center Frequency (MHz)	20 dB Bandwidth (MHz)
GFSK	0	2402 MHz	0.9400
	39	2441 MHz	0.9500
	78	2480 MHz	0.9500
π/4DQPSK	0	2402 MHz	1.320
	39	2441 MHz	1.310
	78	2480 MHz	1.240
8DPSK	0	2402 MHz	1.270
	39	2441 MHz	1.280
	78	2480 MHz	1.260

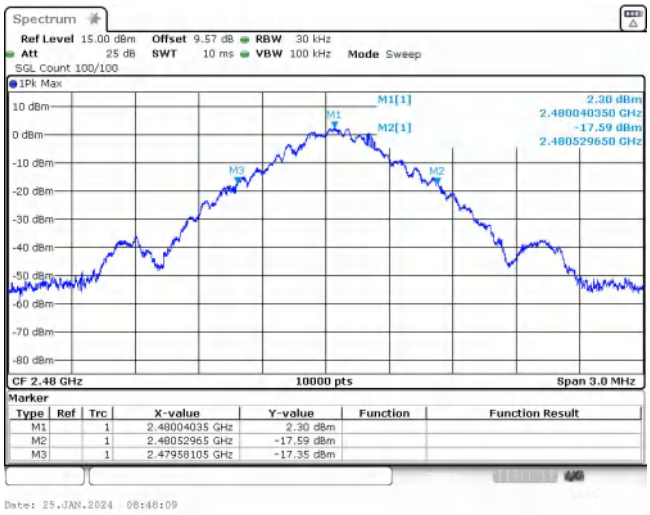
Test Graphs



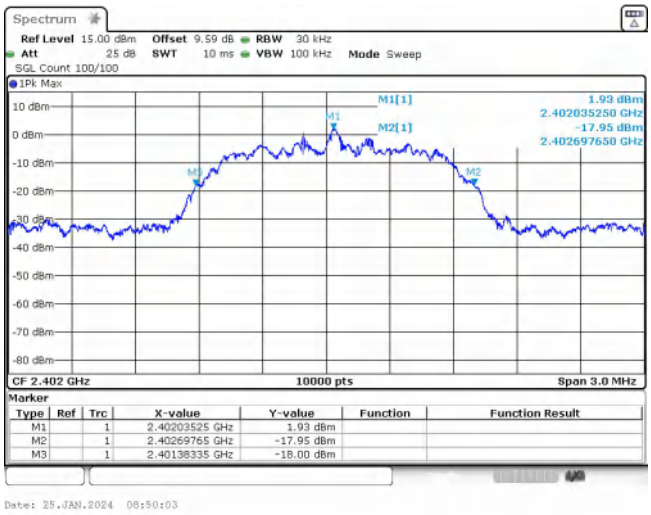
GFSK_DH5_Channel 0



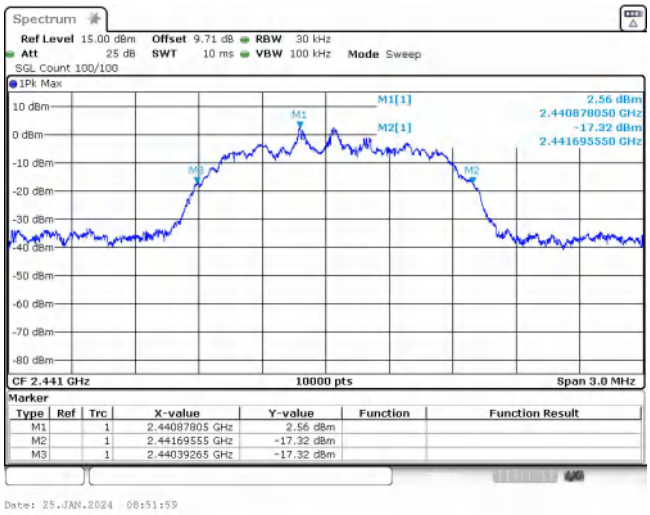
GFSK_DH5_Channel 39



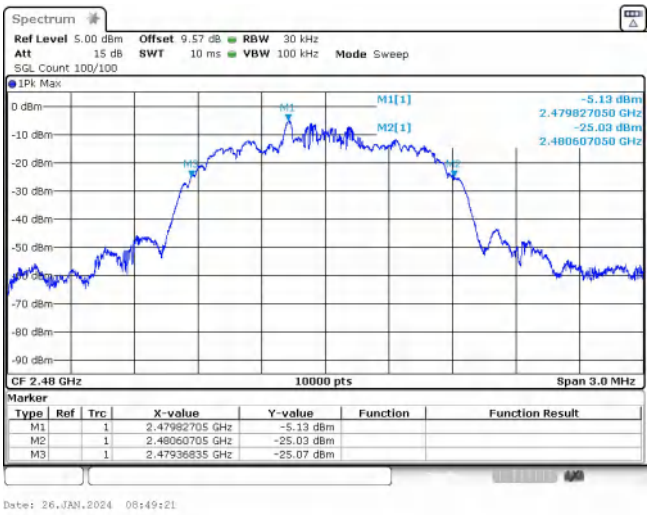
GFSK_DH5_Channel 78



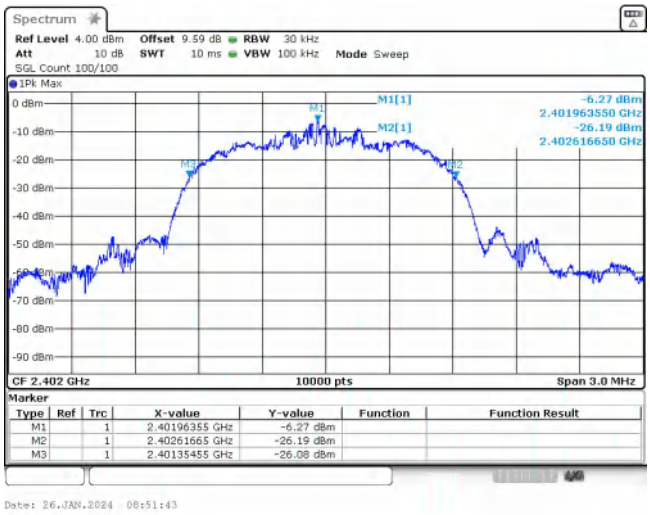
π/4DQPSK_2-DH5_Channel 0



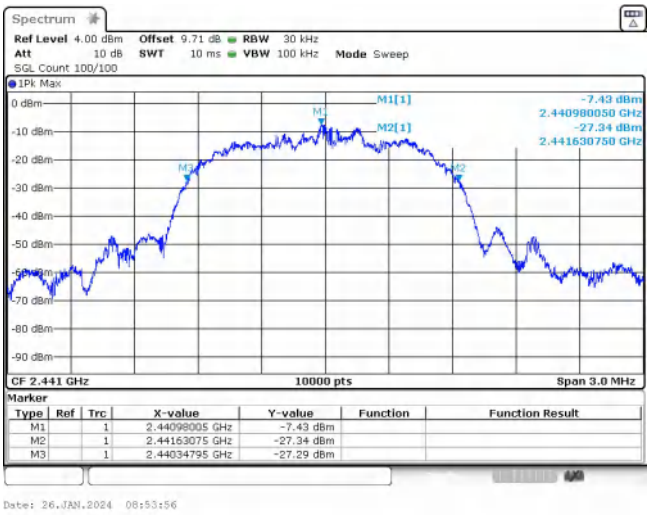
π/4DQPSK_2-DH5_Channel 39



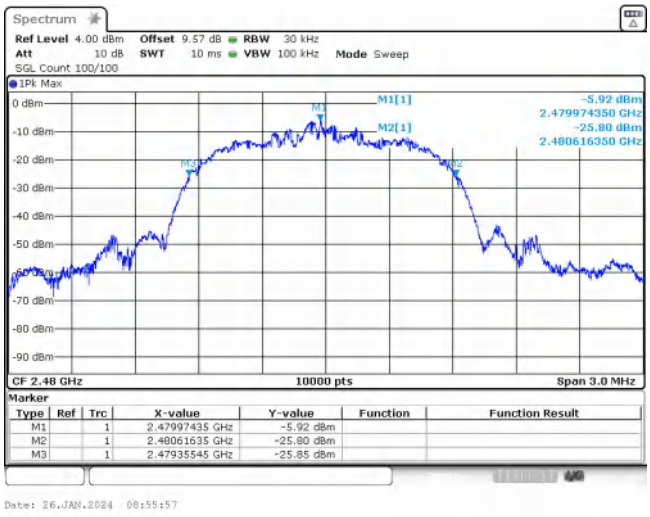
π/4DQPSK_2-DH5_Channel 78



8DPSK_3-DH5_Channel 0



8DPSK_3-DH5_Channel 39



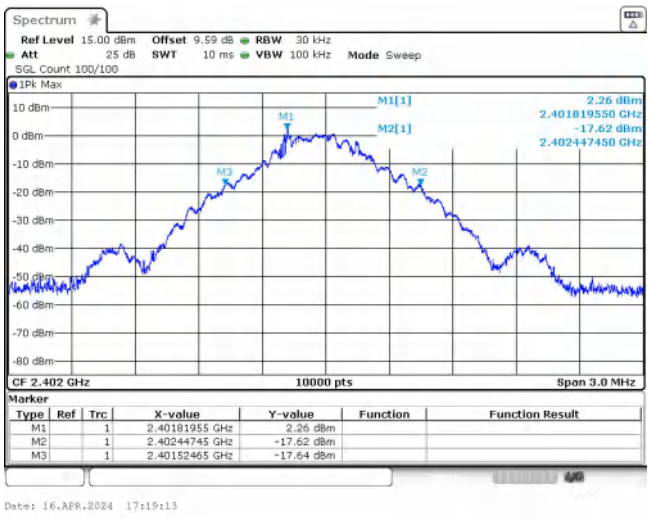
8DPSK_3-DH5_Channel 78

Void

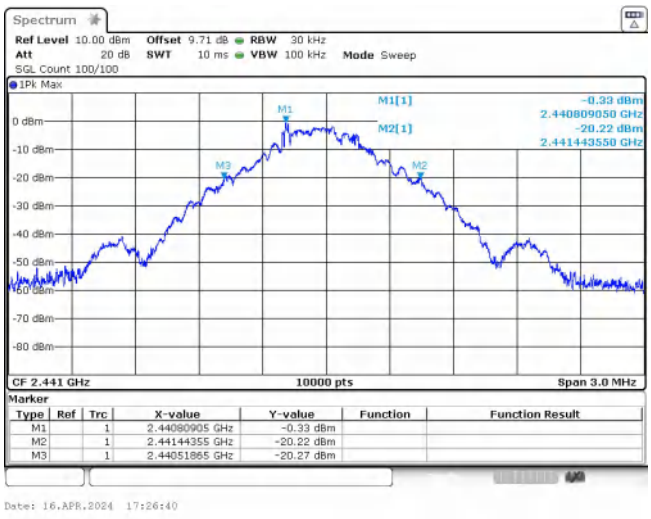
Right

Modulation	Channel	Center Frequency (MHz)	20 dB Bandwidth (MHz)
GFSK	0	2402 MHz	0.9300
	39	2441 MHz	0.9200
	78	2480 MHz	0.9100
π/4DQPSK	0	2402 MHz	1.280
	39	2441 MHz	1.270
	78	2480 MHz	1.300
8DPSK	0	2402 MHz	1.290
	39	2441 MHz	1.280
	78	2480 MHz	1.280

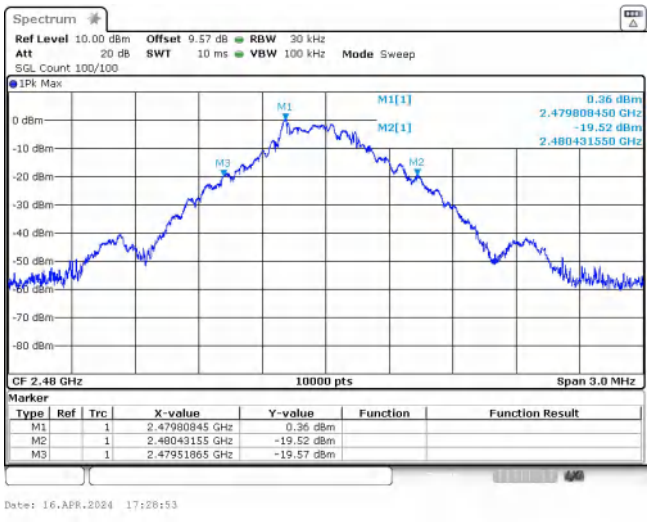
Test Graphs



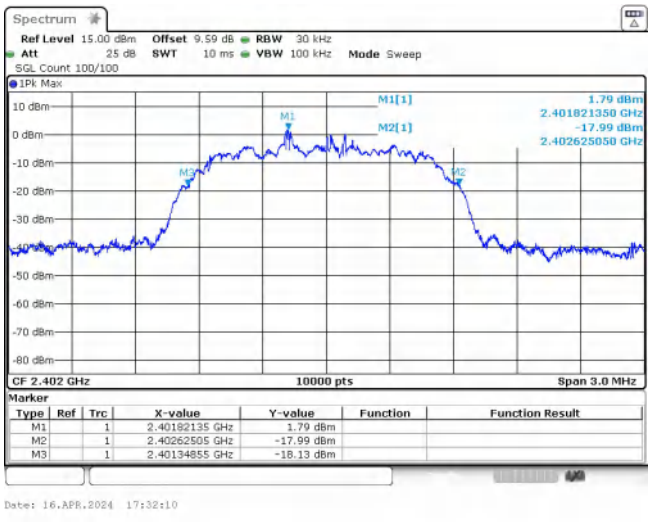
GFSK_DH5_Channel 0



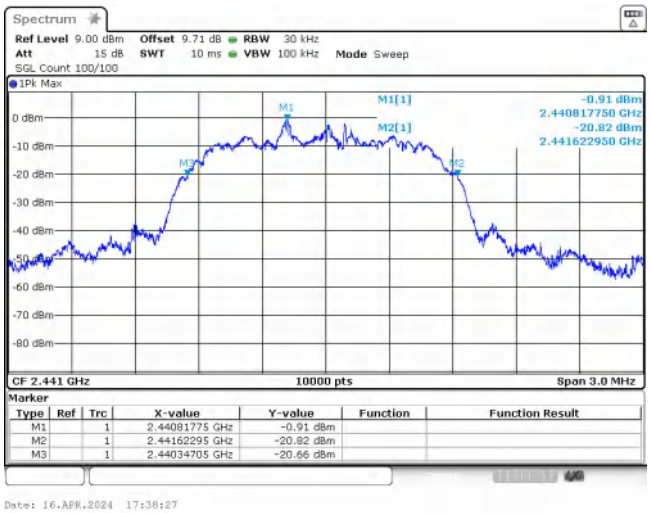
GFSK_DH5_Channel 39



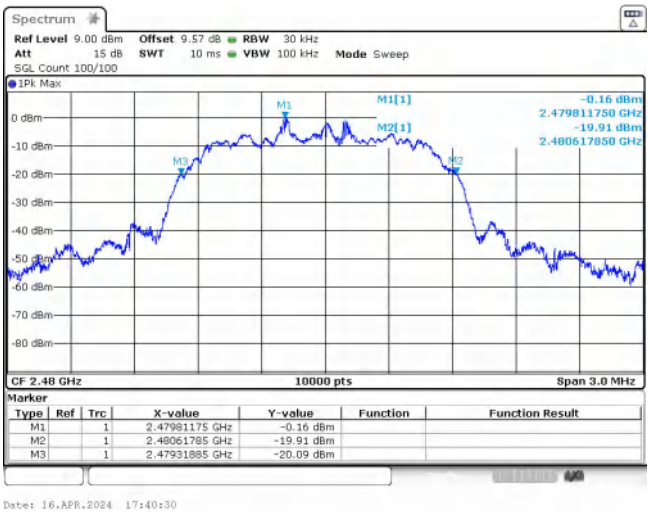
GFSK_DH5_Channel 78



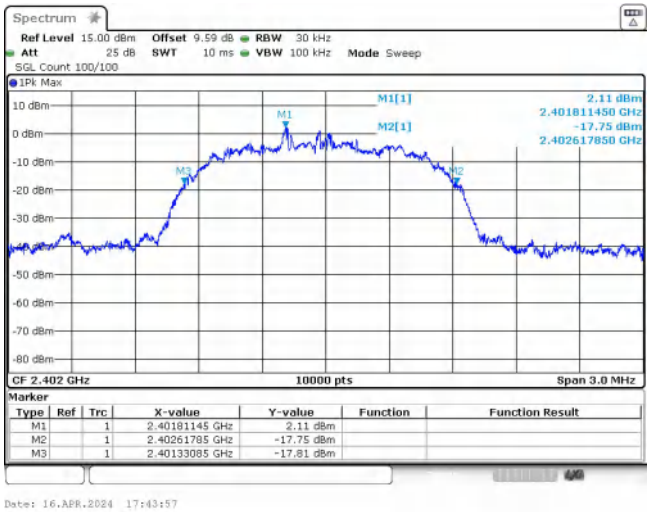
π/4DQPSK_2-DH5_Channel 0



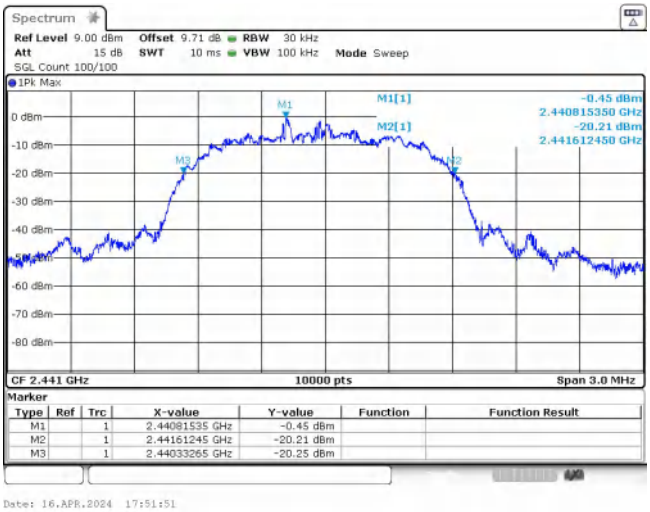
π/4DQPSK_2-DH5_Channel 39



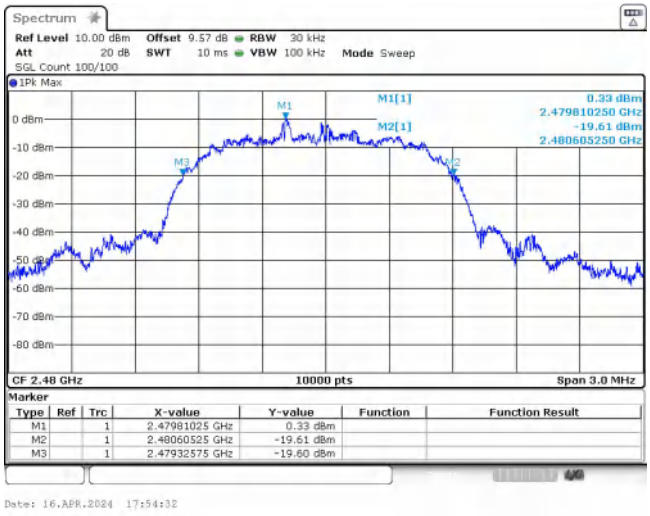
π/4DQPSK_2-DH5_Channel 78



8DPSK_3-DH5_Channel 0



8DPSK_3-DH5_Channel 39



8DPSK_3-DH5_Channel 78

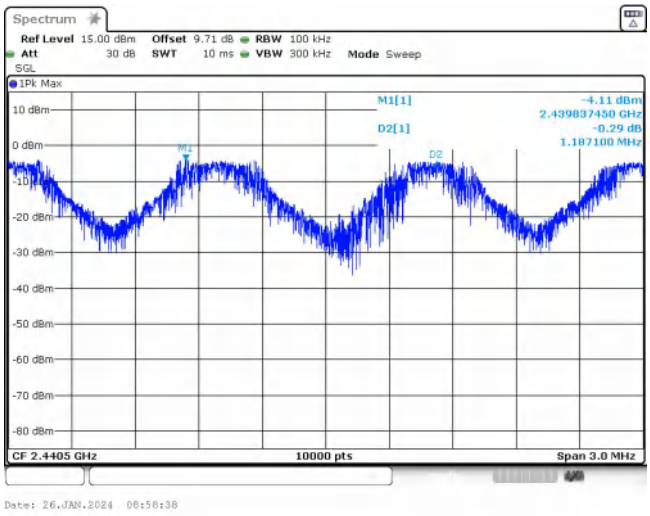
4) Carrier Frequencies Separation

Test Result

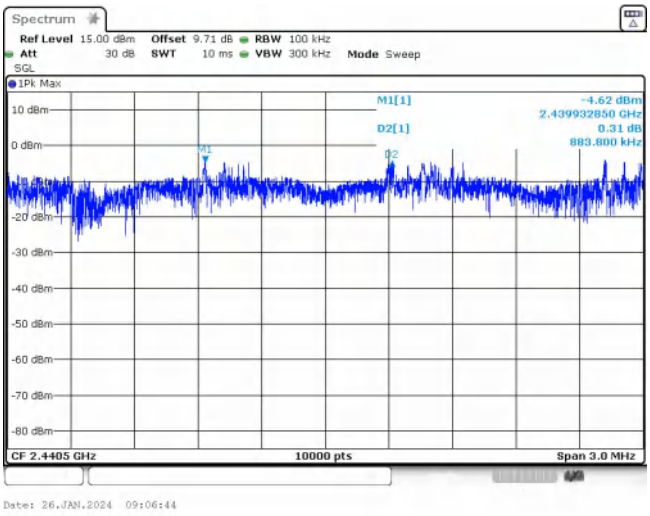
Left

Modulation	Packet	Left Center frequency (MHz)	Right Center frequency (MHz)	Hopping Frequency Separation (MHz)	Limit (MHz)	Result
GFSK	DH5	2439.8374	2441.0246	1.1871	0.627	PASS
π/4DQPSK	2-DH5	2439.9329	2440.8167	0.8838	0.88	PASS
8DPSK	3-DH5	2439.836	2440.9597	1.1238	0.847	PASS

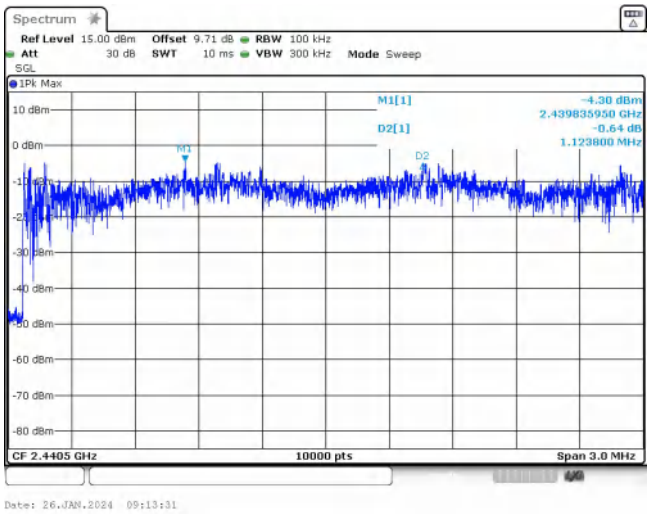
Test Graphs



GFSK



π/4DQPSK



8DPSK

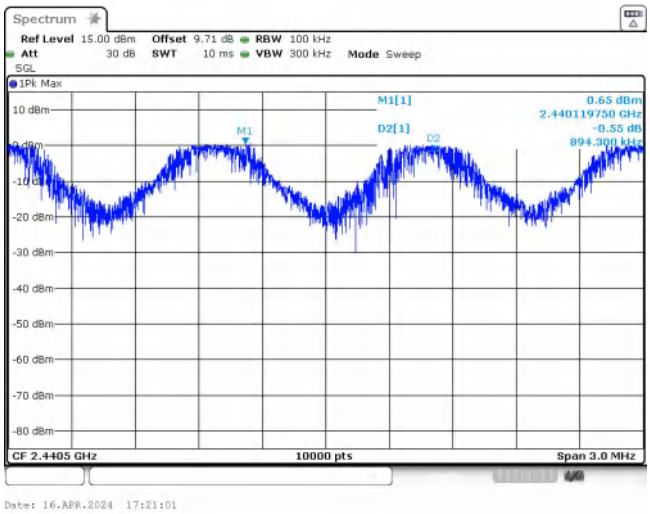
Void

Right

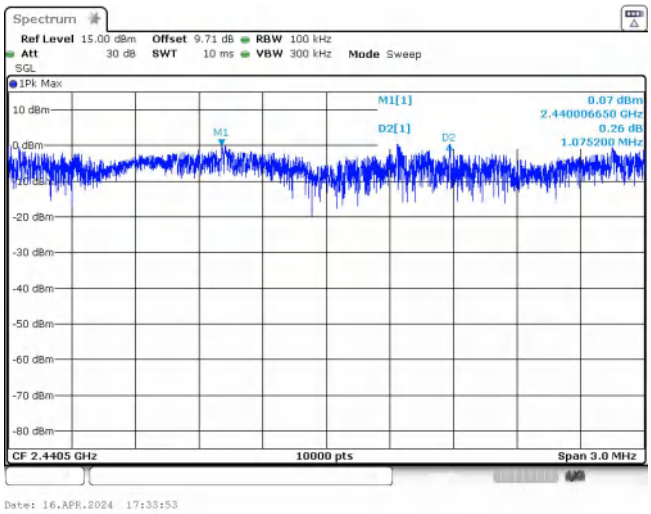
Test Result

Modulation	Packet	Left Center frequency (MHz)	Right Center frequency (MHz)	Hopping Frequency Separation (MHz)	Limit (MHz)	Result
GFSK	DH5	2440.1197	2441.0141	0.8943	0.62	PASS
π/4DQPSK	2-DH5	2440.0066	2441.0819	1.0752	0.853	PASS
8DPSK	3-DH5	2439.9632	2441.1341	1.1709	0.86	PASS

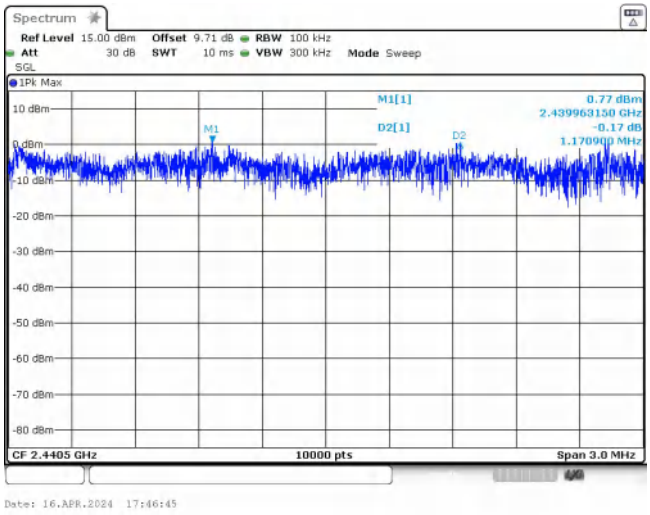
Test Graphs



GFSK



π/4DQPSK



8DPSK

5) Conducted Out Of Band Emission

Test Result

Left

Non-Hopping

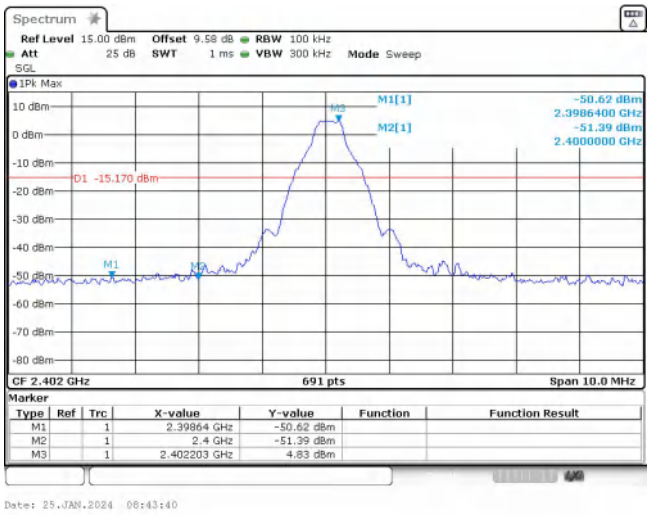
Modulation	Packet	Channel	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
GFSK	DH5	0	2400.00	-51.394	-15.17	-36.224	PASS
			2398.64	-50.617	-15.17	-35.447	PASS
			7206.00	-34.104	-15.17	-18.934	PASS
		39	9764.55	-37.401	-14.86	-22.541	PASS
		78	2483.50	-51.754	-15.22	-36.534	PASS
			7439.85	-40.697	-15.22	-25.477	PASS
π/4DQPSK	2-DH5	0	2400.00	-45.314	-15.41	-29.904	PASS
			7205.96	-39.368	-15.41	-23.958	PASS
		39	9612.24	-47.953	-23.54	-24.413	PASS
		78	2483.50	-51.847	-23.11	-28.737	PASS
			9920.20	-48.674	-23.11	-25.564	PASS
8DPSK	3-DH5	0	2400.00	-52.944	-24.28	-28.664	PASS
			2398.80	-50.438	-24.28	-26.158	PASS
			9608.10	-46.177	-24.28	-21.897	PASS
		39	16280.1	-49.130	-23.96	-25.170	PASS
		78	2483.50	-52.755	-23.41	-29.345	PASS
			18286.0	-49.066	-23.41	-25.656	PASS

Hopping

Modulation	Packet	Channel	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
GFSK	DH5	Hopping	2395.24	-50.115	-24.22	-25.895	PASS
			2400.00	-52.263	-24.22	-28.043	PASS
			2483.50	-51.899	-23.3	-28.599	PASS
			2396.16	-50.416	-24.29	-26.126	PASS
			2400.00	-51.901	-24.29	-27.611	PASS
			2483.50	-51.635	-23.54	-28.095	PASS
π/4DQPSK	2-DH5		2395.11	-50.520	-25.93	-24.590	PASS
			2400.00	-53.004	-25.93	-27.074	PASS
			2483.50	-50.926	-23.58	-27.346	PASS
			2395.15	-49.205	-24.45	-24.755	PASS
			2400.00	-52.008	-24.45	-27.558	PASS
			2483.50	-52.151	-23.45	-28.701	PASS
8DPSK	3-DH5		2395.95	-49.991	-25.76	-24.231	PASS
			2400.00	-51.517	-25.76	-25.757	PASS
			2483.50	-52.015	-27.29	-24.725	PASS

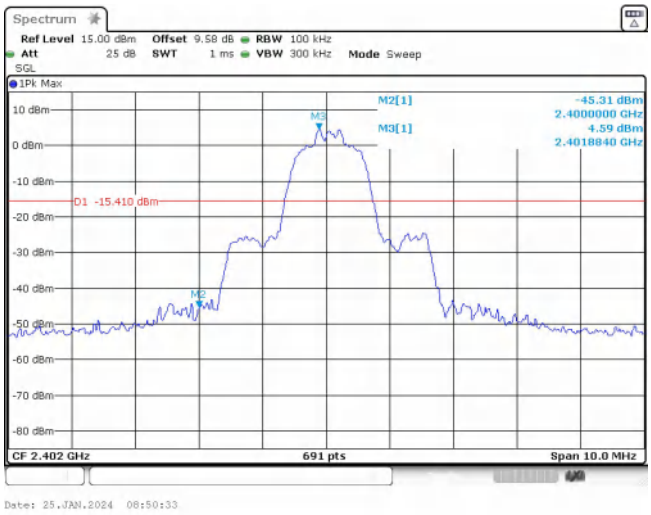
			2398.83	-50.197	-24.54	-25.657	PASS
			2400.00	-52.515	-24.54	-27.975	PASS
			2483.50	-52.175	-24.34	-27.835	PASS

Test Graphs



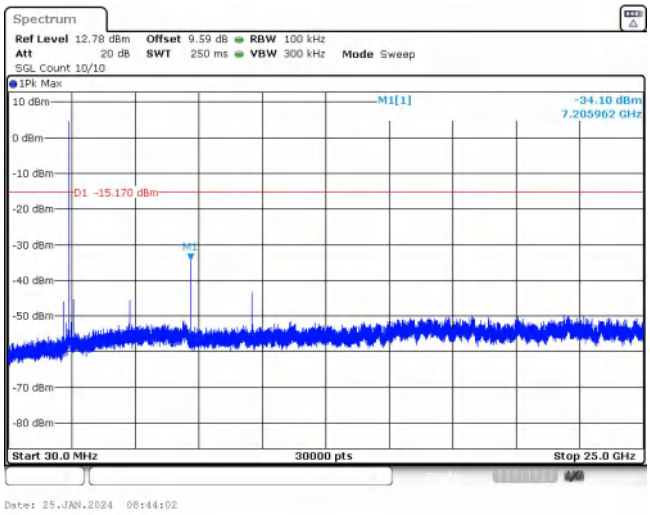
Out Of Band Emission

GFSK_DH5_Channel 0



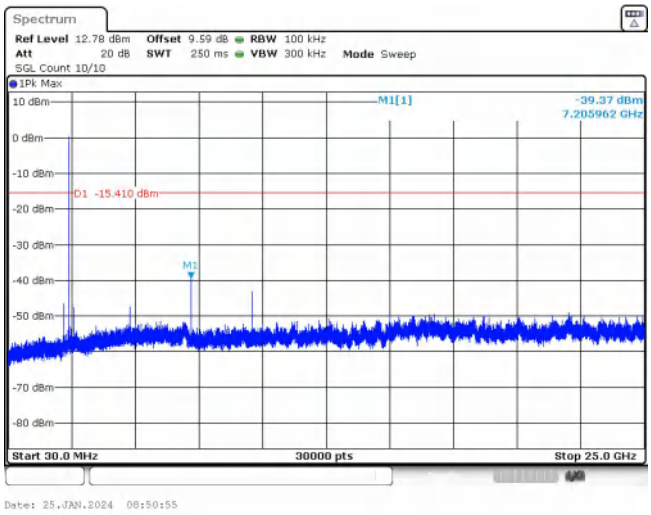
Out Of Band Emission

π/4DQPSK_2-DH5_Channel 0



Spurious Emission

GFSK_DH5_Channel 0



Spurious Emission

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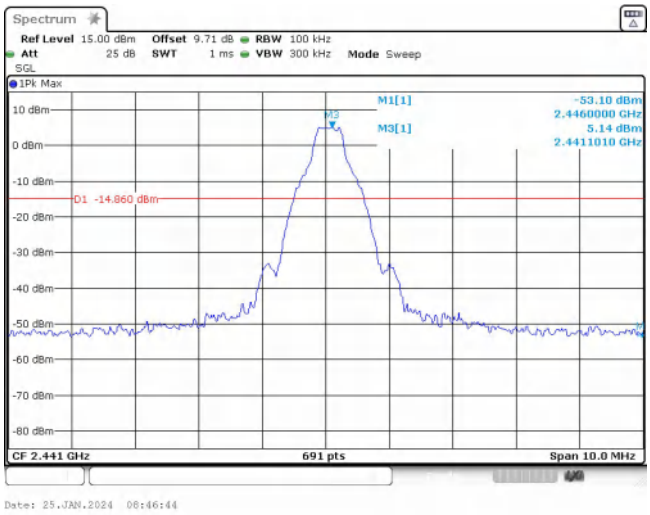
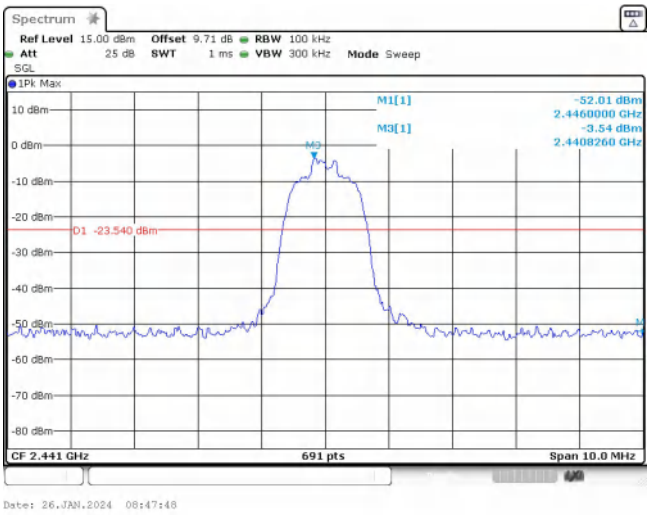


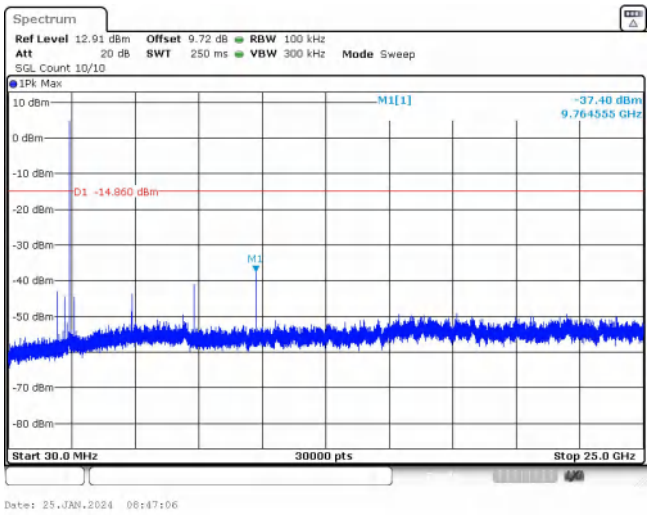
Out Of Band Emission

GFSK_DH5_Channel 39



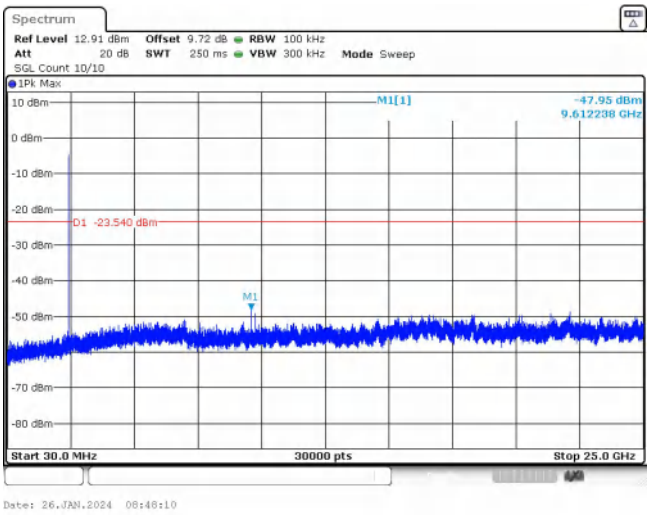
Out Of Band Emission

π/4DQPSK_2-DH5_Channel 39



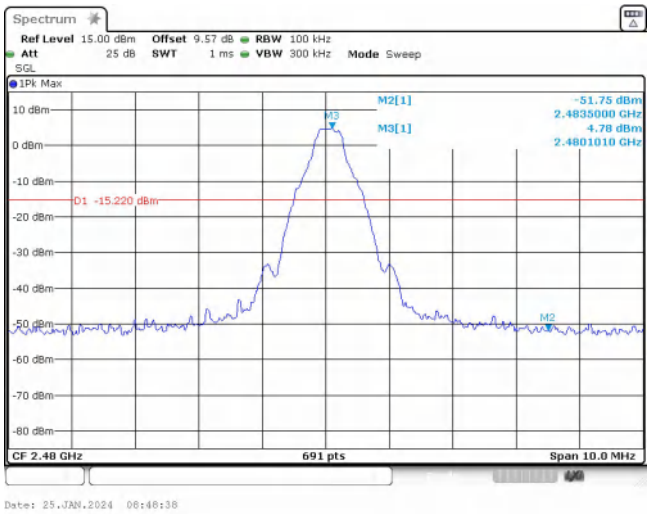
Spurious Emissions

GFSK_DH5_Channel 39



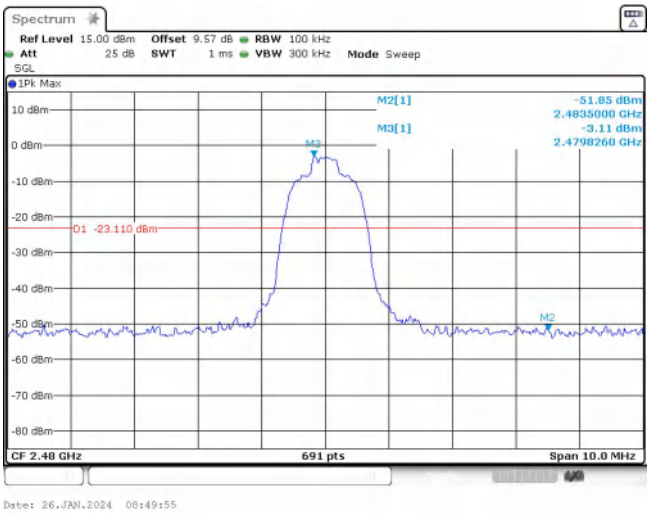
Spurious Emissions

π/4DQPSK_2-DH5_Channel 39



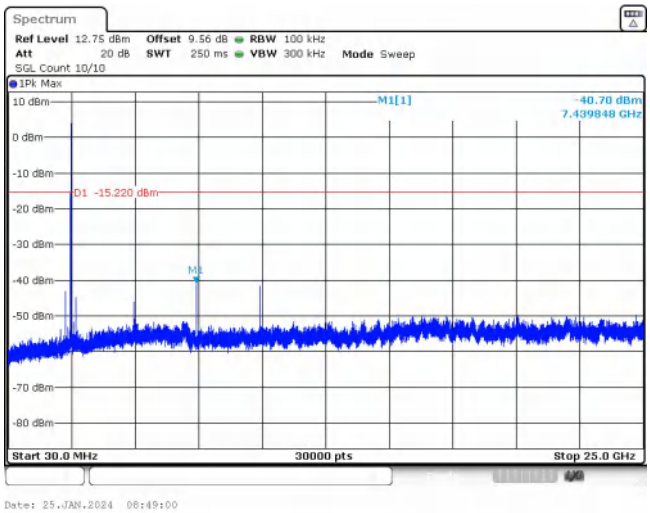
Out Of Band Emission

GFSK_DH5_Channel 78



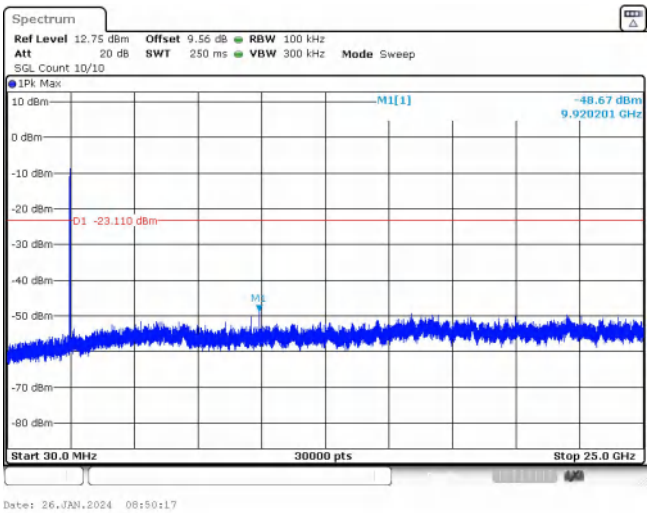
Out Of Band Emission

π/4DQPSK_2-DH5_Channel 78



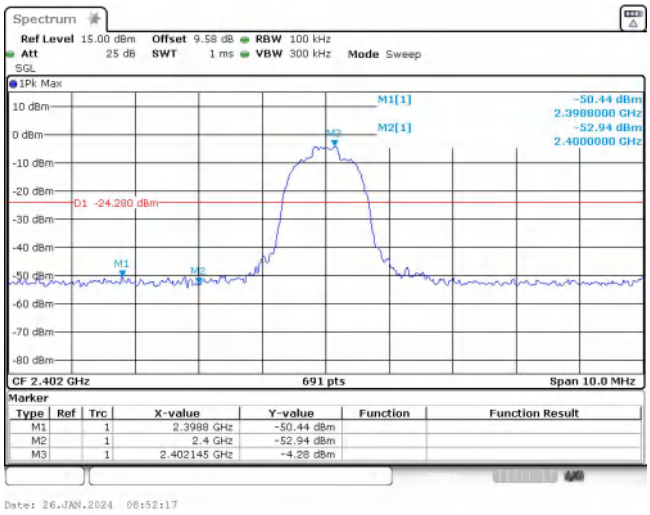
Spurious Emission

GFSK_DH5_Channel 78



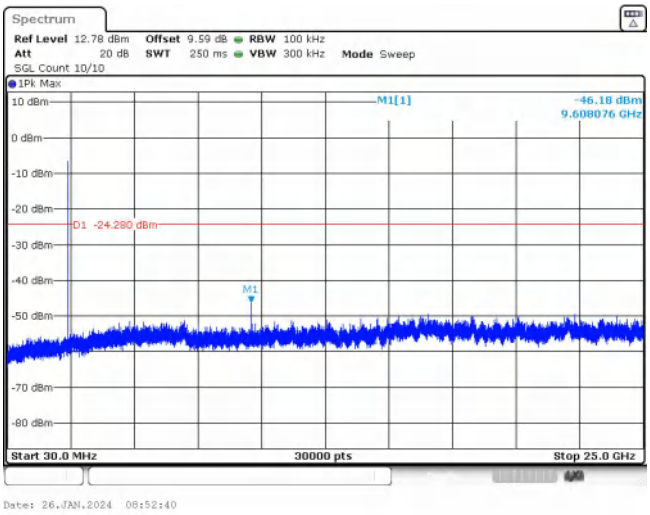
Spurious Emission

π/4DQPSK_2-DH5_Channel 78



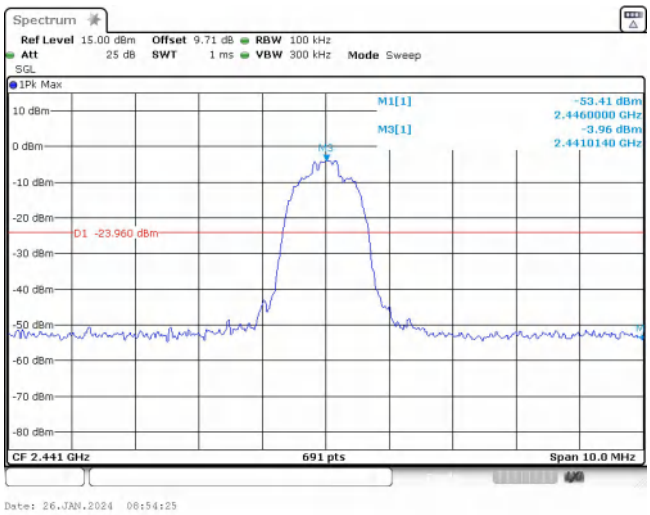
Out Of Band Emission

8DPSK_3-DH5_Channel 0



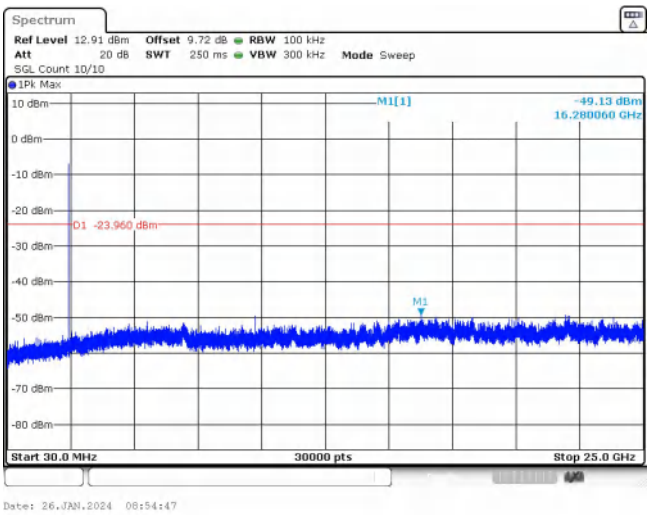
Spurious Emission

8DPSK_3-DH5_Channel 0



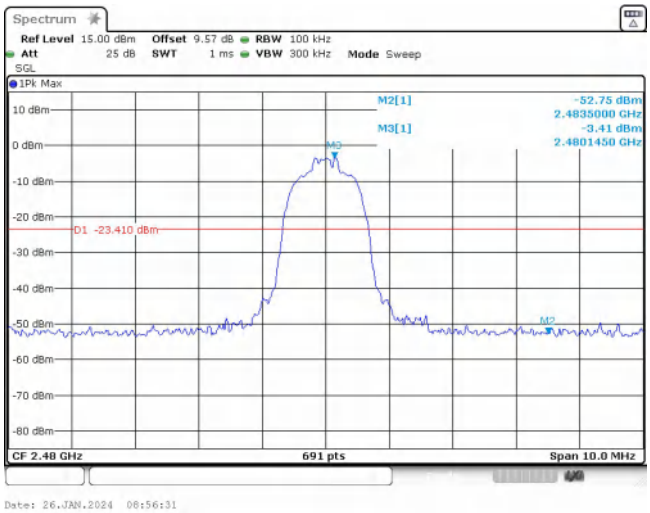
Out Of Band Emission

8DPSK_3-DH5_Channel 39



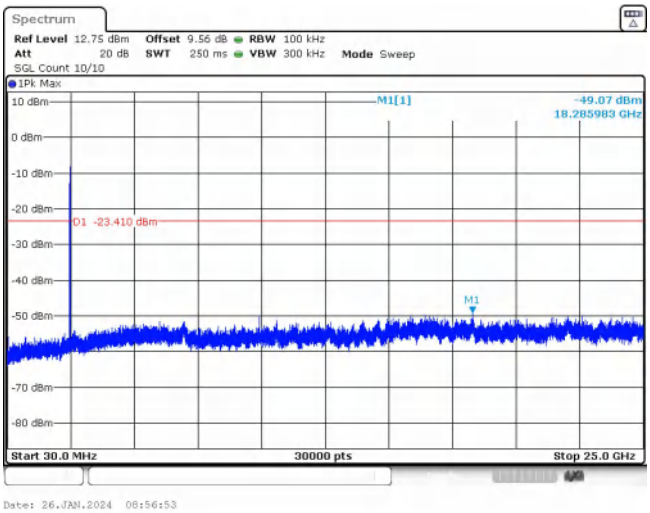
Spurious Emissions

8DPSK_3-DH5_Channel 39



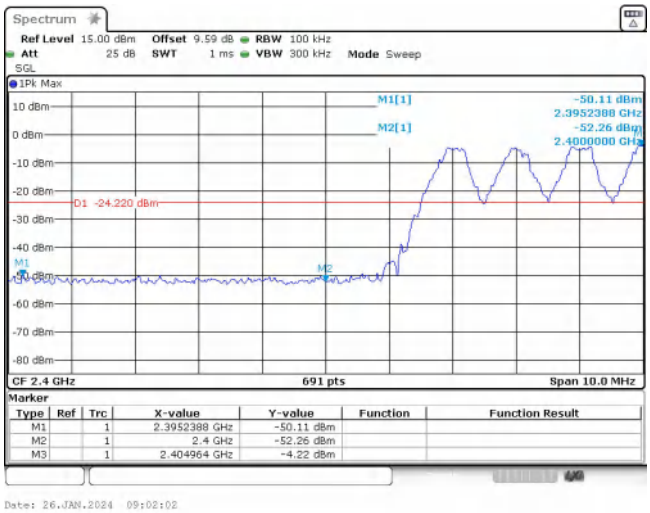
Out Of Band Emission

8DPSK_3-DH5_Channel 78



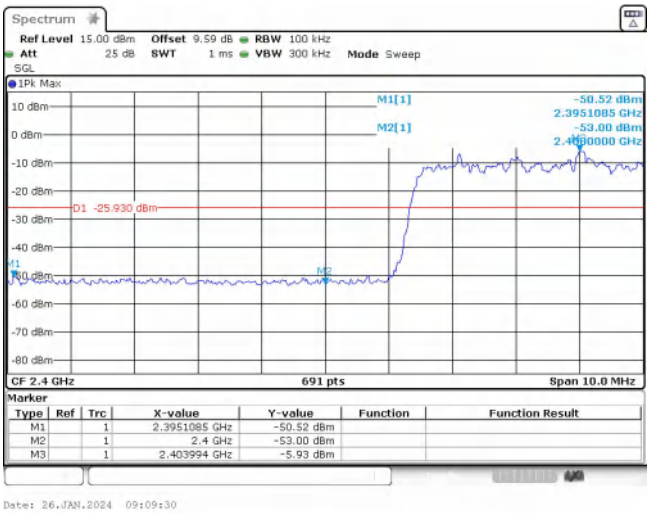
Spurious Emission

8DPSK_3-DH5_Channel 78



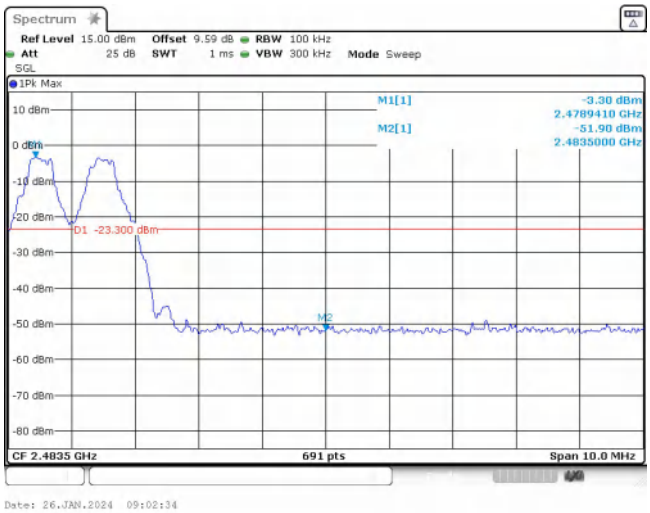
Out Of Band Emission(Left)

GFSK_DH5_Channel Hopping

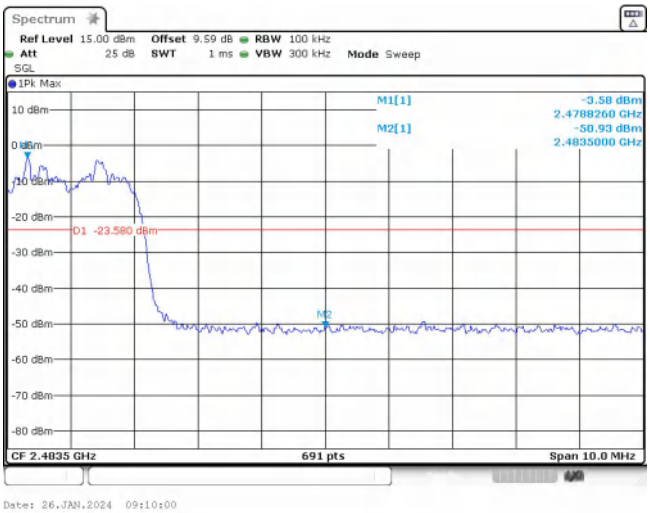


Out Of Band Emission(Left)

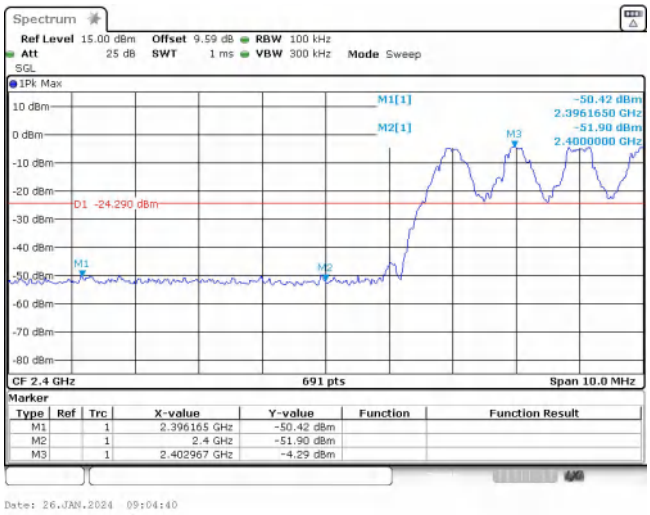
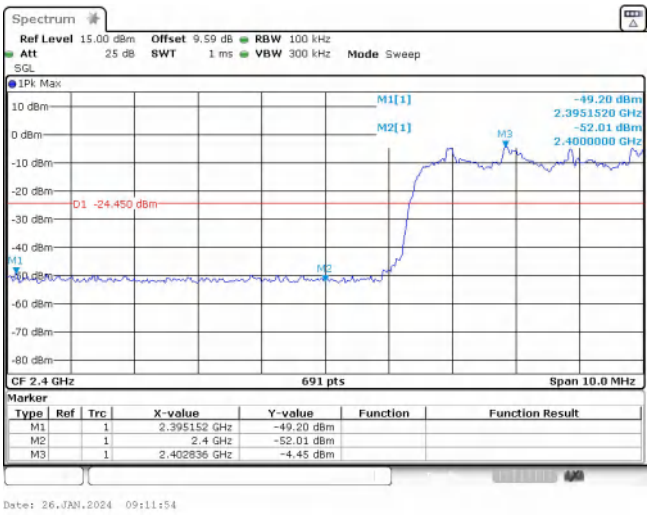
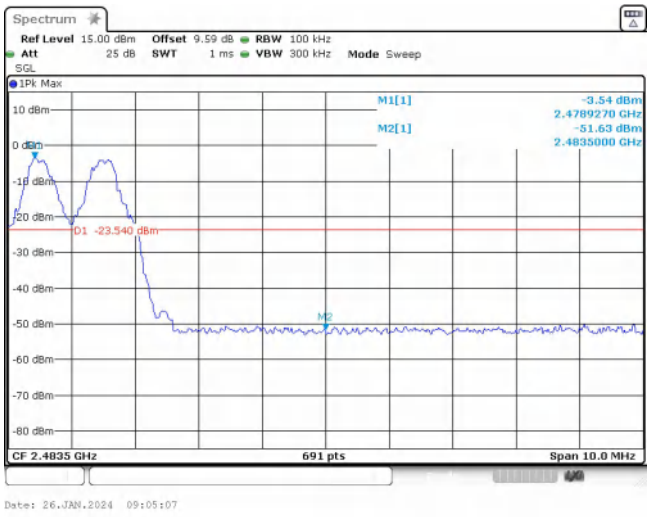
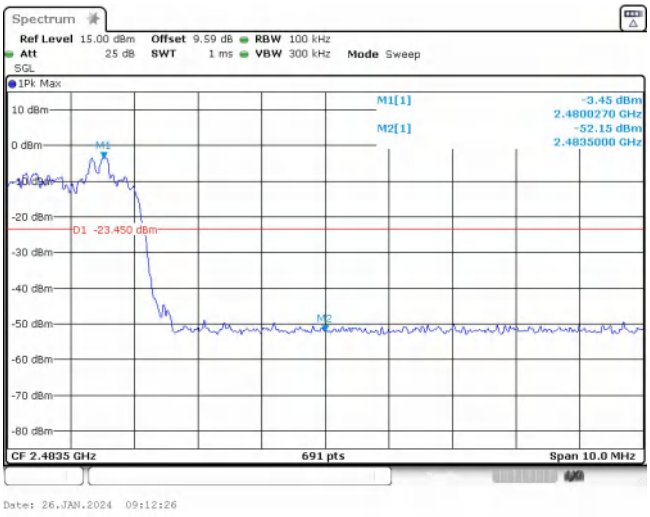
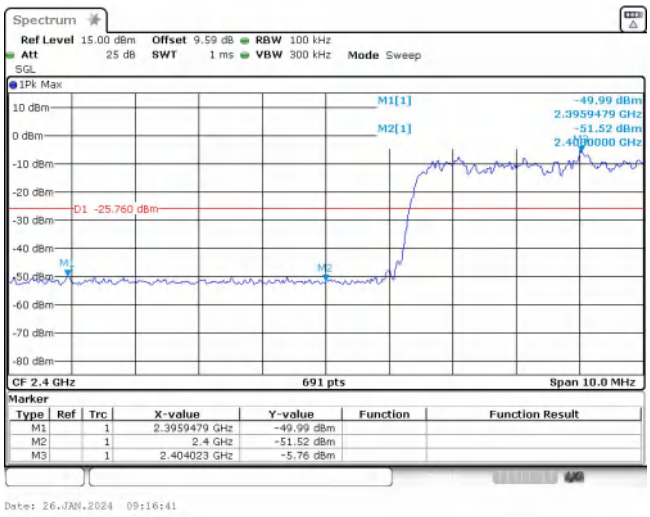
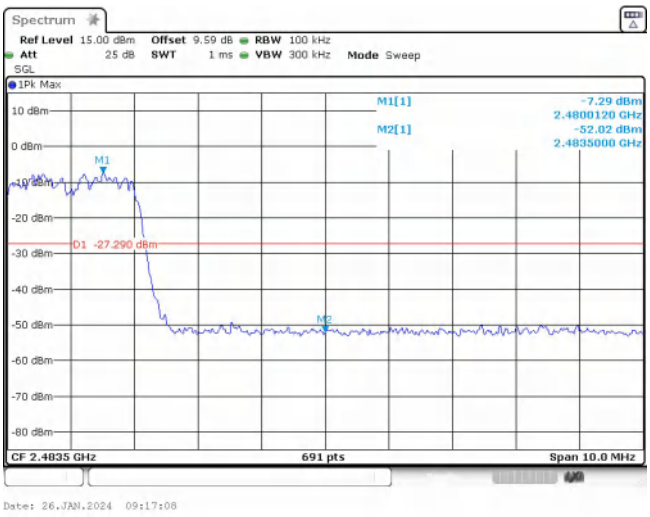
π/4DQPSK_2-DH5_Channel Hopping

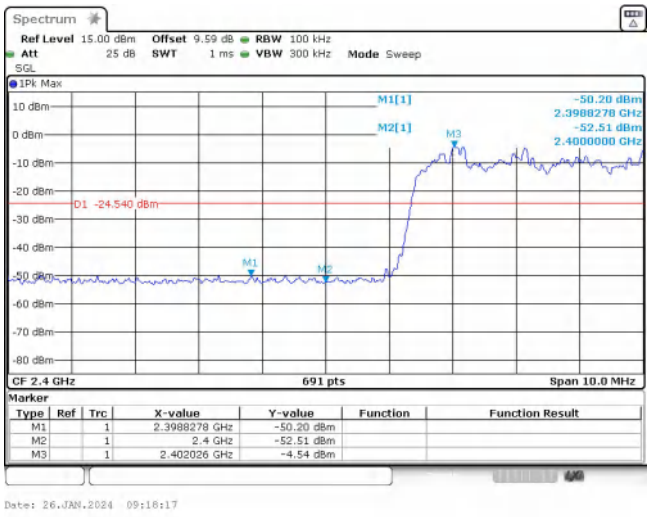
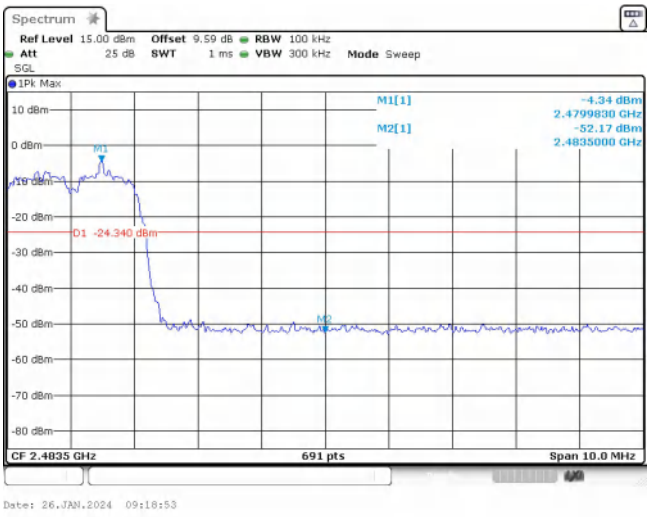


Out Of Band Emission(Right)



Out Of Band Emission(Right)

GFSK_DH5_Channel Hopping	π/4DQPSK_2-DH5_Channel Hopping
	
Out Of Band Emission(Left) GFSK_DH5_Channel Hopping	Out Of Band Emission(Left) π/4DQPSK_2-DH5_Channel Hopping
	
Out Of Band Emission(Right) GFSK_DH5_Channel Hopping	Out Of Band Emission(Right) π/4DQPSK_2-DH5_Channel Hopping
	
Out Of Band Emission(Left)	Out Of Band Emission(Right)

8DPSK_3-DH5_Channel Hopping	8DPSK_3-DH5_Channel Hopping
	
Out Of Band Emission(Left) 8DPSK_3-DH5_Channel Hopping	Out Of Band Emission(Right) 8DPSK_3-DH5_Channel Hopping

Right

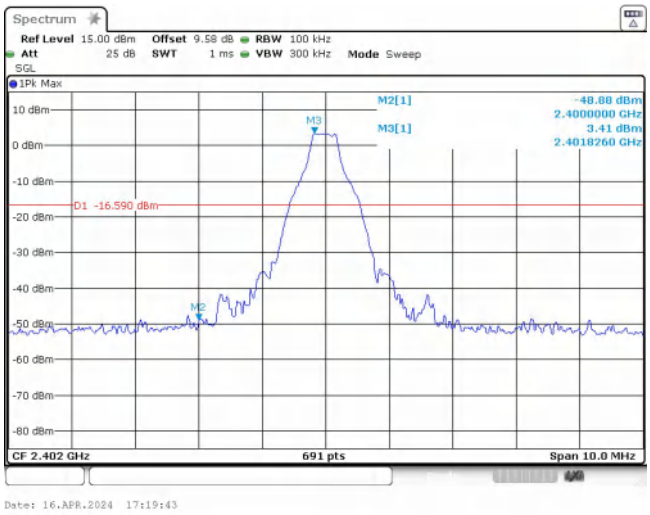
Non-Hopping

Modulation	Packet	Channel	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
GFSK	DH5	0	2400.00	-48.883	-16.59	-32.293	PASS
			4803.85	-27.216	-16.59	-10.626	PASS
		39	4881.25	-30.338	-19.18	-11.158	PASS
		78	2483.50	-51.954	-18.55	-33.404	PASS
			4959.49	-32.957	-18.55	-14.407	PASS
π/4DQPSK	2-DH5	0	2400.00	-48.684	-16.54	-32.144	PASS
			4803.85	-26.793	-16.54	-10.253	PASS
		39	4881.25	-29.606	-19.2	-10.406	PASS
		78	2483.50	-51.334	-18.52	-32.814	PASS
			4959.49	-33.745	-18.52	-15.225	PASS
8DPSK	3-DH5	0	2400.00	-49.213	-16.59	-32.623	PASS
			4803.85	-25.974	-16.59	-9.384	PASS
		39	4882.09	-33.074	-19.1	-13.974	PASS
		78	2483.50	-51.022	-18.56	-32.462	PASS
			4960.33	-33.684	-18.56	-15.124	PASS

Hopping

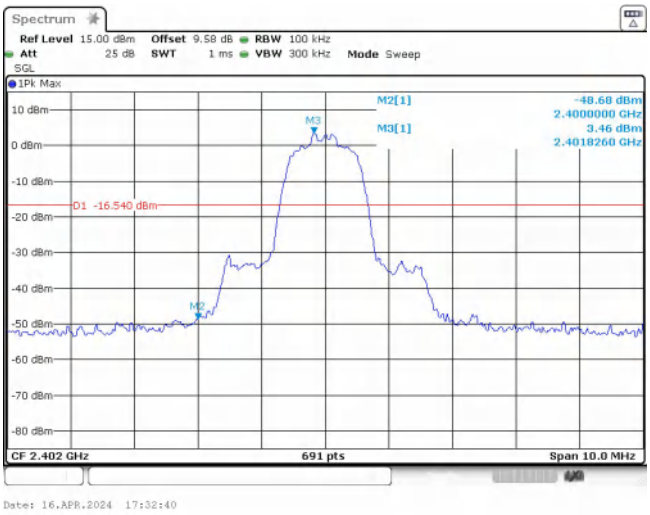
Modulation	Packet	Channel	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
GFSK	DH5	Hopping	2395.28	-50.451	-16.6	-33.851	PASS
			2400.00	-52.523	-16.6	-35.923	PASS
			2483.50	-51.855	-18.6	-33.255	PASS
			2397.99	-50.796	-16.84	-33.956	PASS
			2400.00	-52.658	-16.84	-35.818	PASS
			2483.50	-51.999	-18.59	-33.409	PASS
π/4DQPSK	2-DH5		2398.35	-50.027	-16.94	-33.087	PASS
			2400.00	-52.432	-16.94	-35.492	PASS
			2483.50	-52.596	-18.64	-33.956	PASS
			2398.67	-50.530	-18.6	-31.930	PASS
			2400.00	-53.259	-18.6	-34.659	PASS
			2483.50	-51.377	-18.57	-32.807	PASS
8DPSK	3-DH5		2397.70	-50.570	-17.32	-33.250	PASS
			2400.00	-50.822	-17.32	-33.502	PASS
			2483.50	-51.906	-18.62	-33.286	PASS
			2398.73	-50.476	-16.92	-33.556	PASS
			2400.00	-52.966	-16.92	-36.046	PASS
			2483.50	-51.238	-19.62	-31.618	PASS

Test Graphs



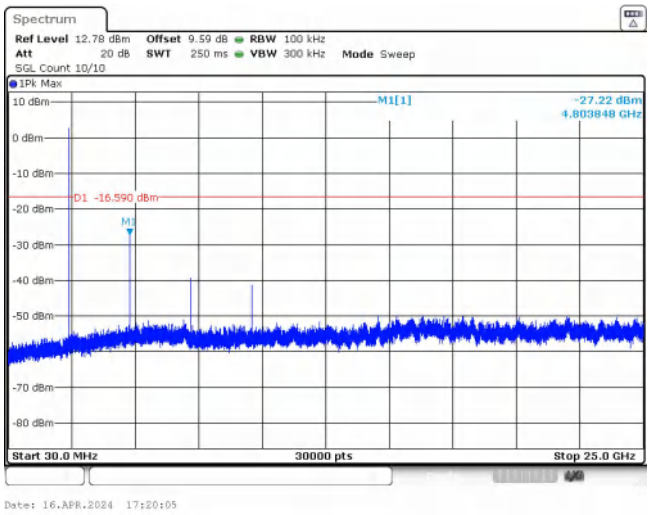
Out Of Band Emission

GFSK_DH5_Channel 0



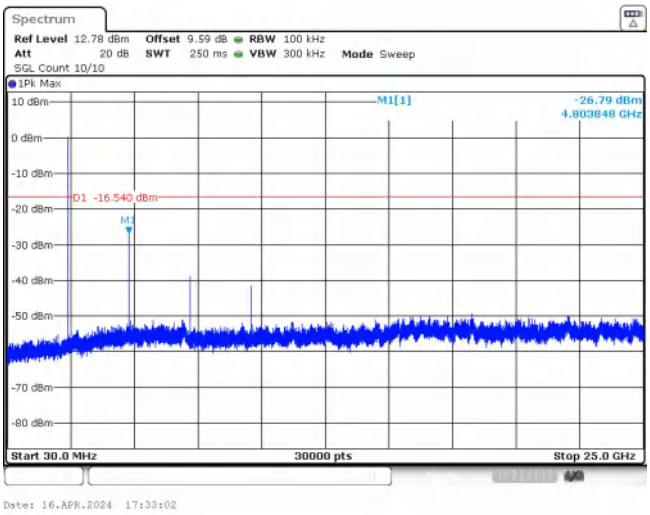
Out Of Band Emission

π/4DQPSK_2-DH5_Channel 0



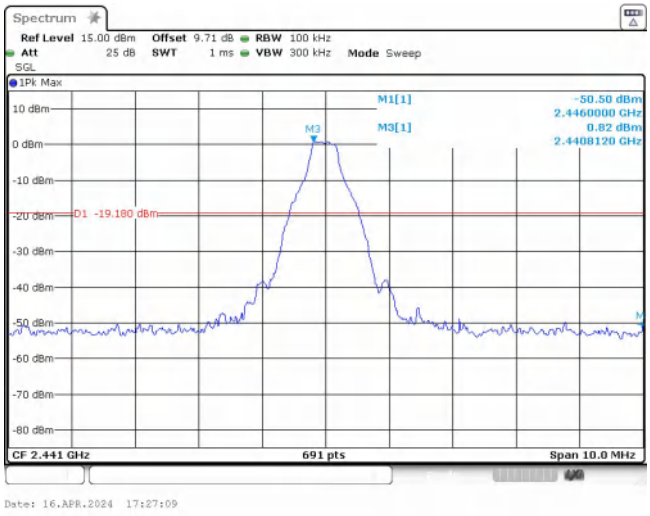
Spurious Emission

GFSK_DH5_Channel 0



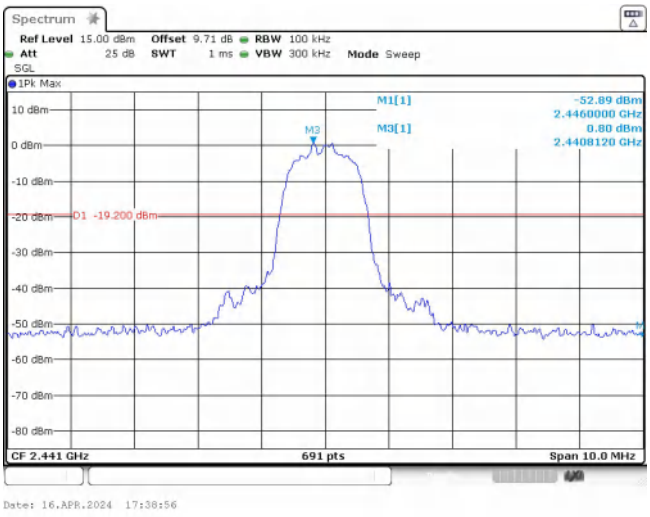
Spurious Emission

π/4DQPSK_2-DH5_Channel 0



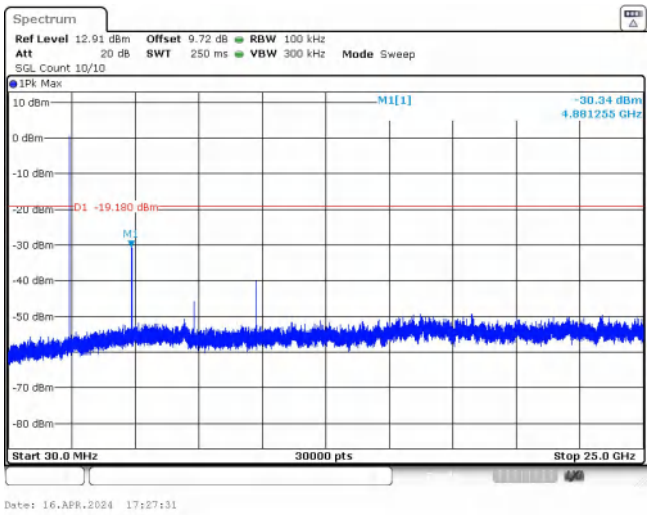
Out Of Band Emission

GFSK_DH5_Channel 39



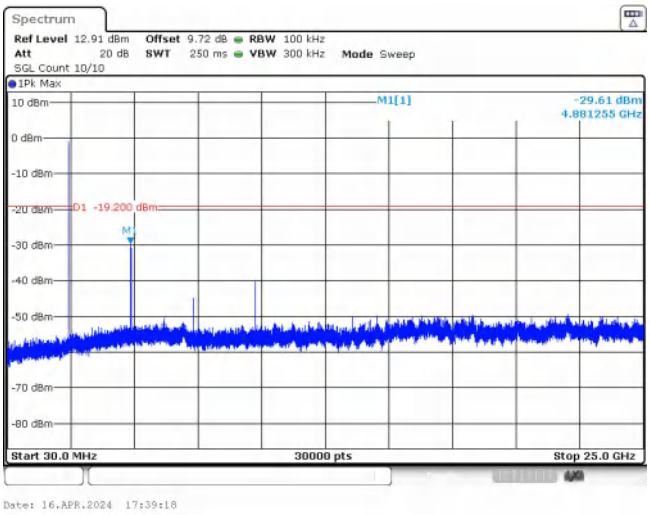
Out Of Band Emission

π/4DQPSK_2-DH5_Channel 39



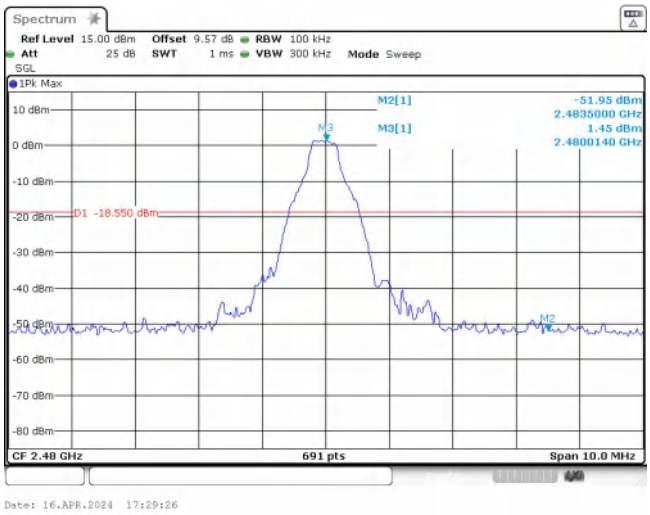
Spurious Emissions

GFSK_DH5_Channel 39



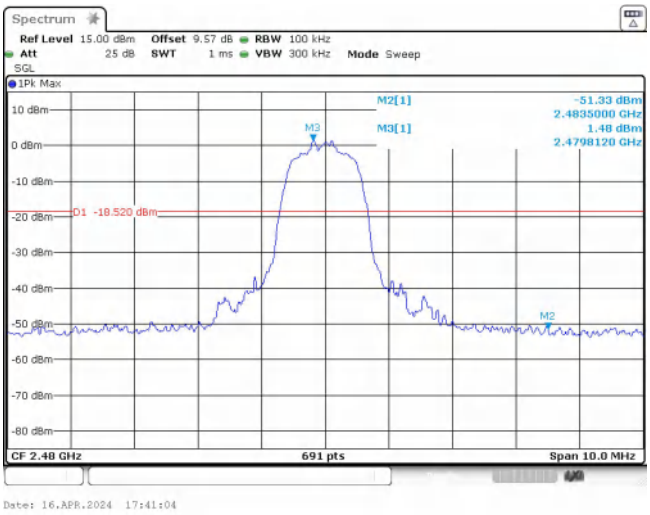
Spurious Emissions

π/4DQPSK_2-DH5_Channel 39



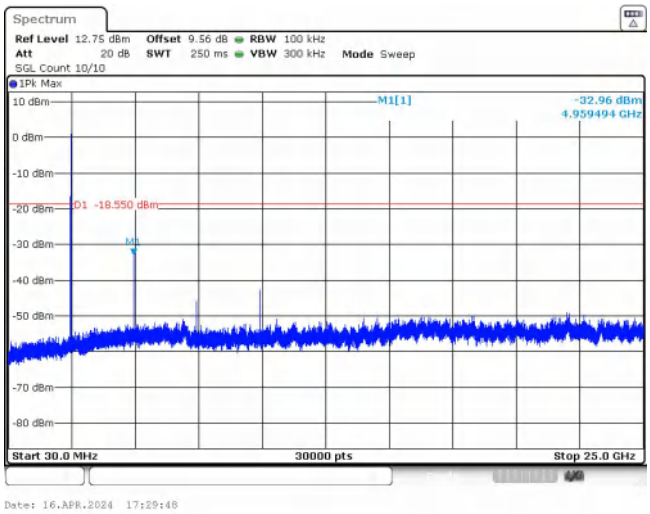
Out Of Band Emission

GFSK_DH5_Channel 78



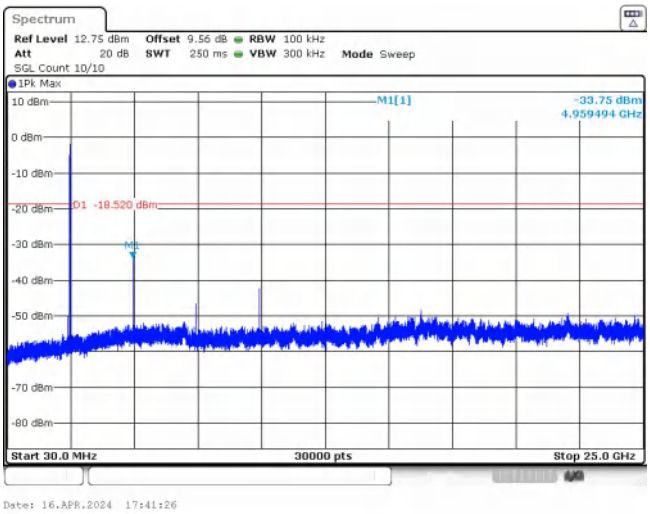
Out Of Band Emission

π/4DQPSK_2-DH5_Channel 78



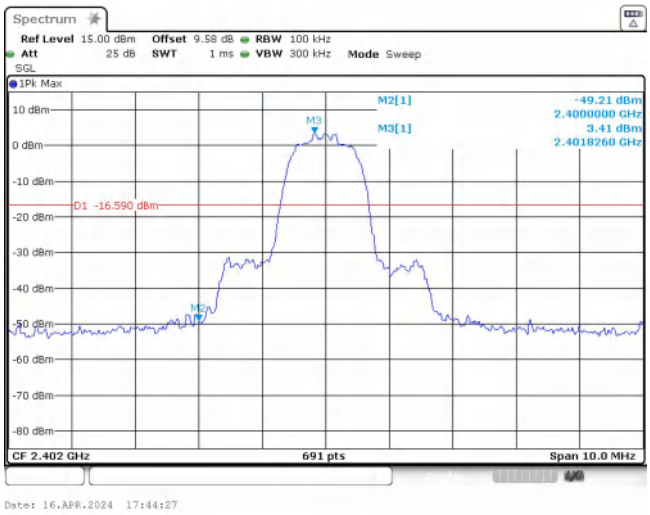
Spurious Emission

GFSK_DH5_Channel 78



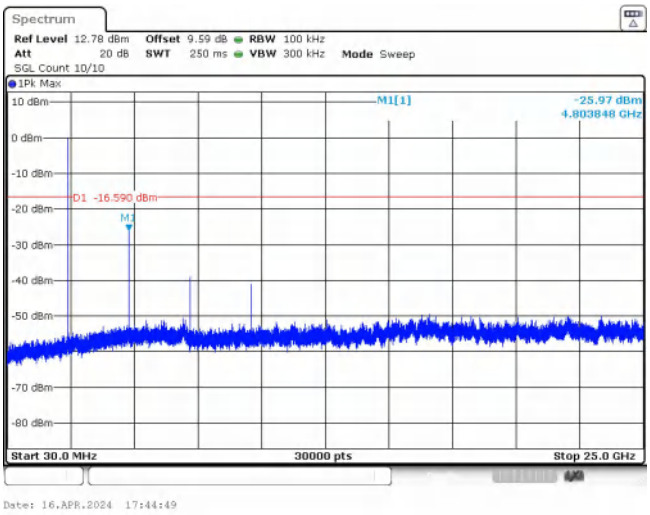
Spurious Emission

π/4DQPSK_2-DH5_Channel 78



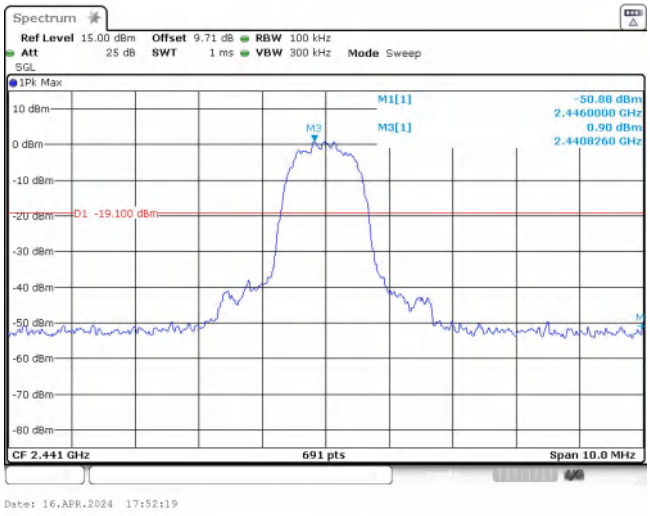
Out Of Band Emission

8DPSK_3-DH5_Channel 0



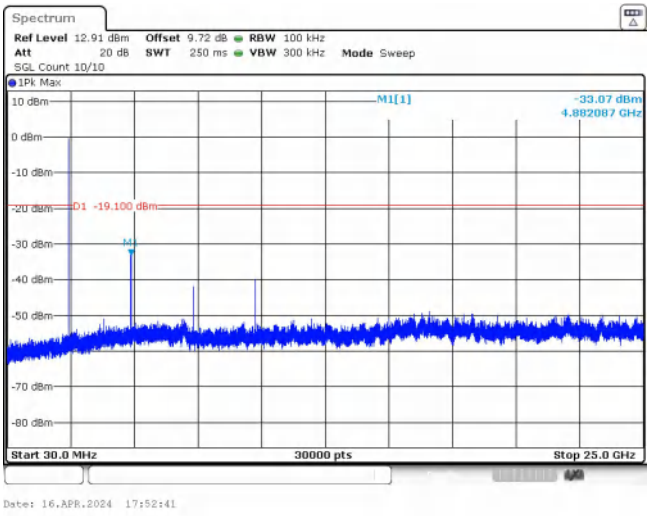
Spurious Emission

8DPSK_3-DH5_Channel 0



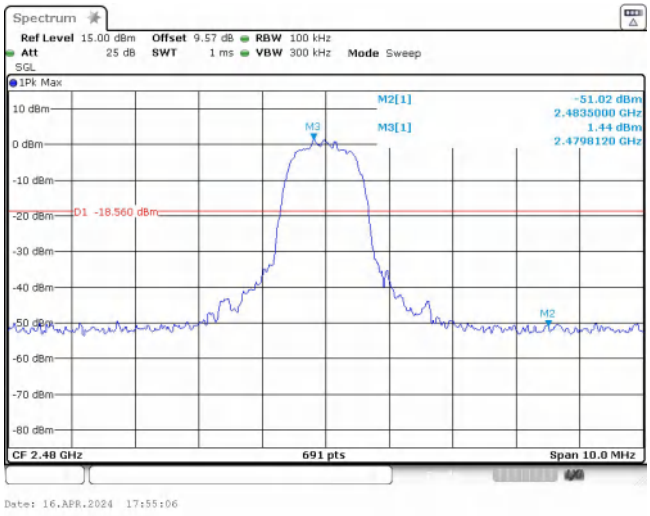
Out Of Band Emission

8DPSK_3-DH5_Channel 39



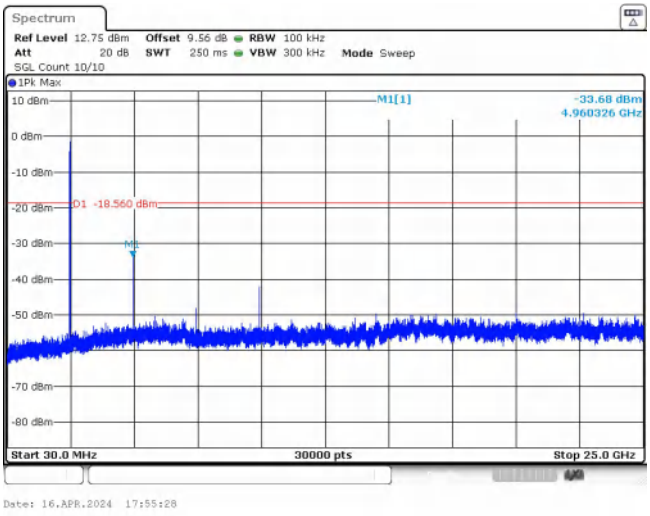
Spurious Emissions

8DPSK_3-DH5_Channel 39



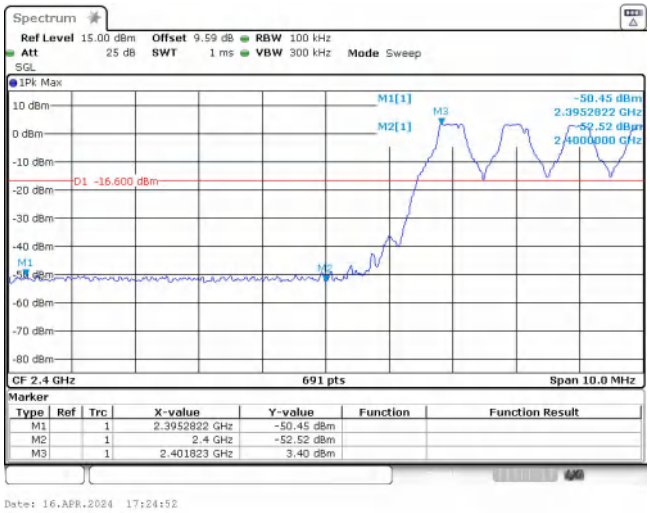
Out Of Band Emission

8DPSK_3-DH5_Channel 78



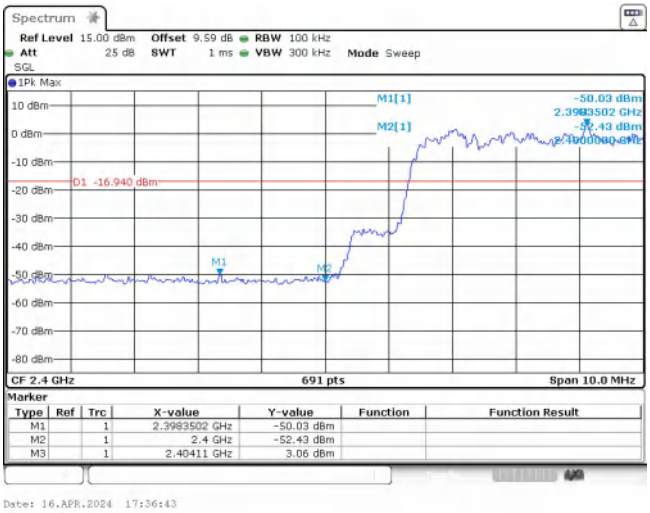
Spurious Emission

8DPSK_3-DH5_Channel 78



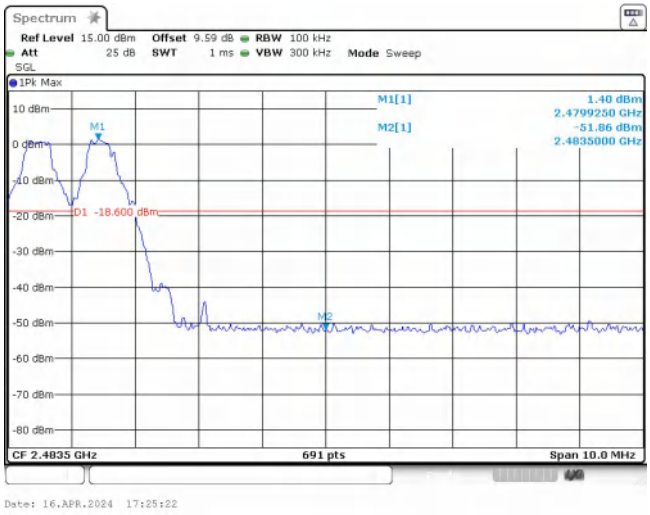
Out Of Band Emission(Left)

GFSK_DH5_Channel Hopping



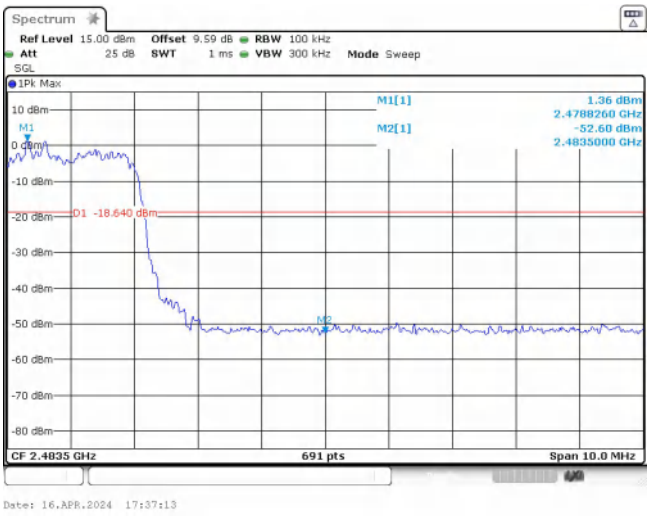
Out Of Band Emission(Left)

π/4DQPSK_2-DH5_Channel Hopping



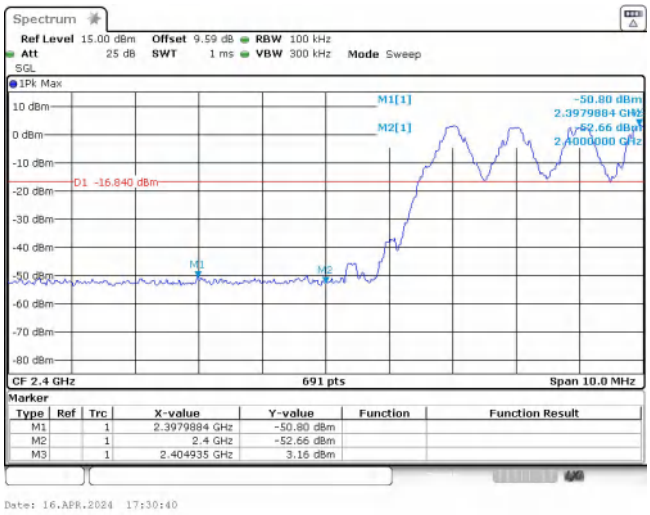
Out Of Band Emission(Right)

GFSK_DH5_Channel Hopping



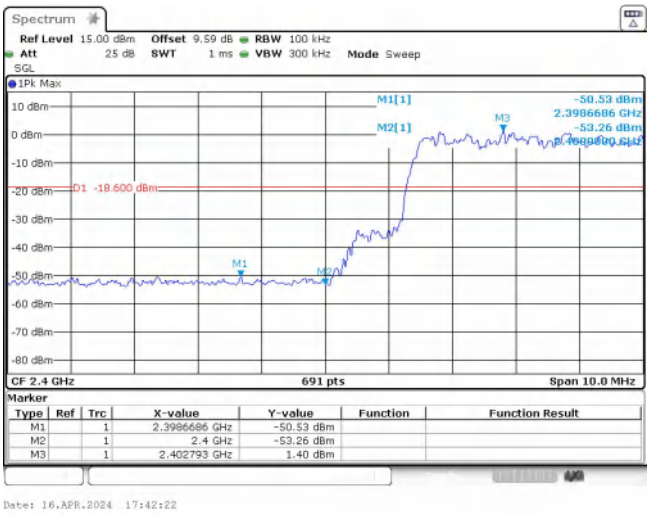
Out Of Band Emission(Right)

π/4DQPSK_2-DH5_Channel Hopping



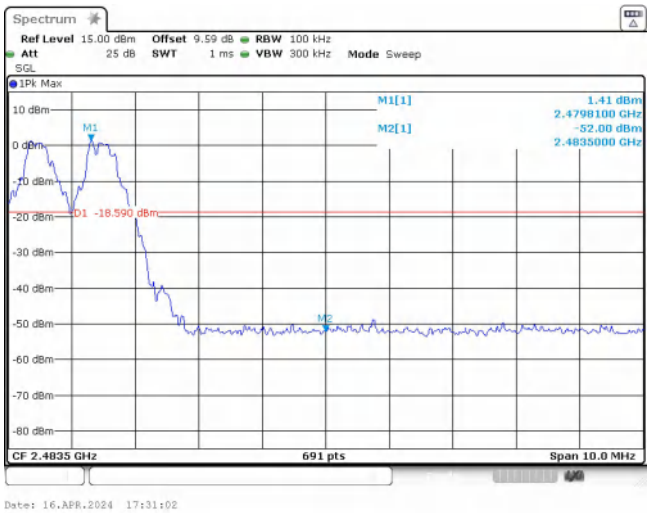
Out Of Band Emission(Left)

GFSK_DH5_Channel Hopping



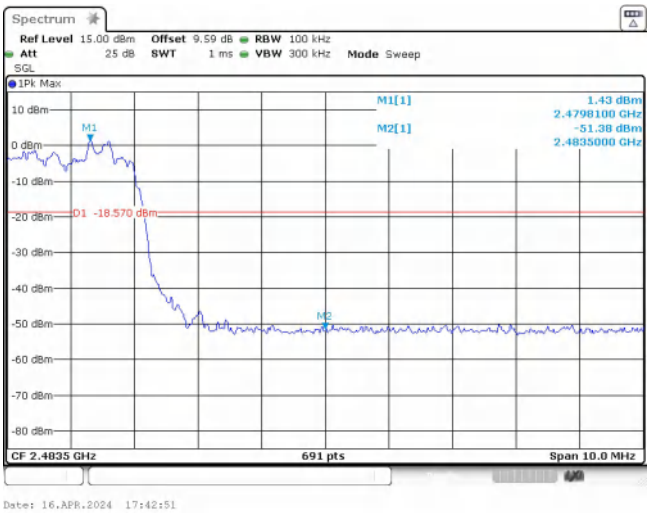
Out Of Band Emission(Left)

π/4DQPSK_2-DH5_Channel Hopping



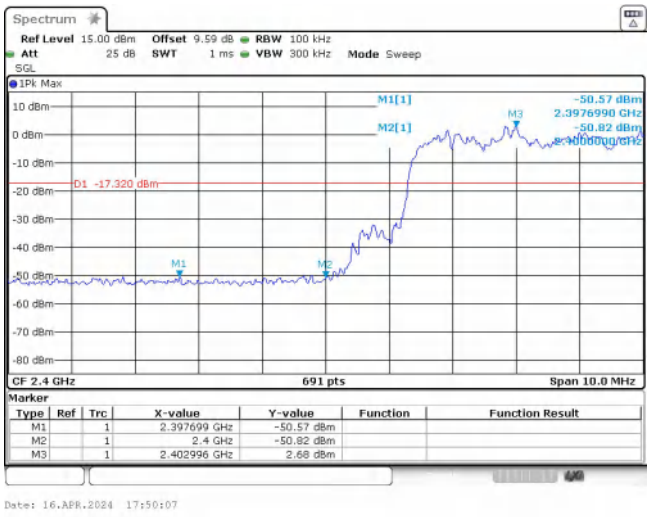
Out Of Band Emission(Right)

GFSK_DH5_Channel Hopping



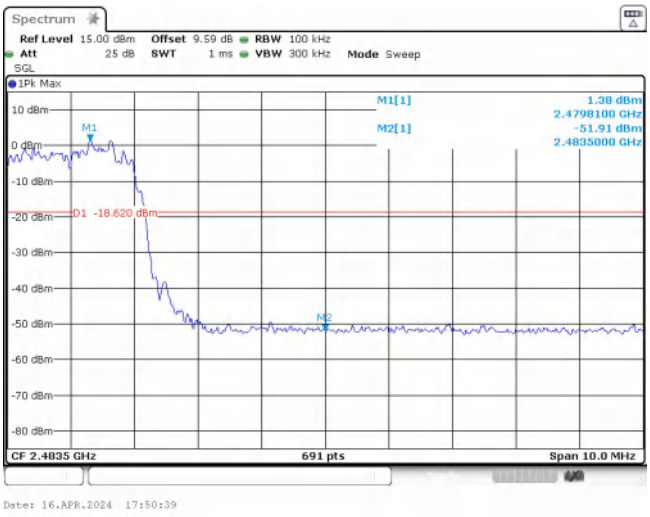
Out Of Band Emission(Right)

π/4DQPSK_2-DH5_Channel Hopping



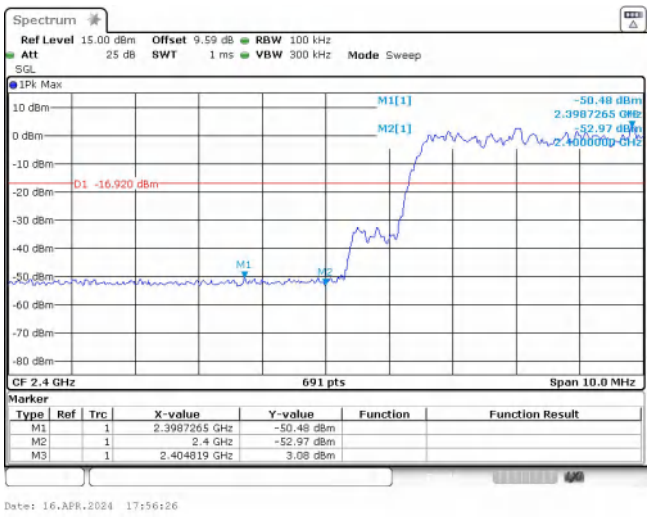
Out Of Band Emission(Left)

8DPSK_3-DH5_Channel Hopping



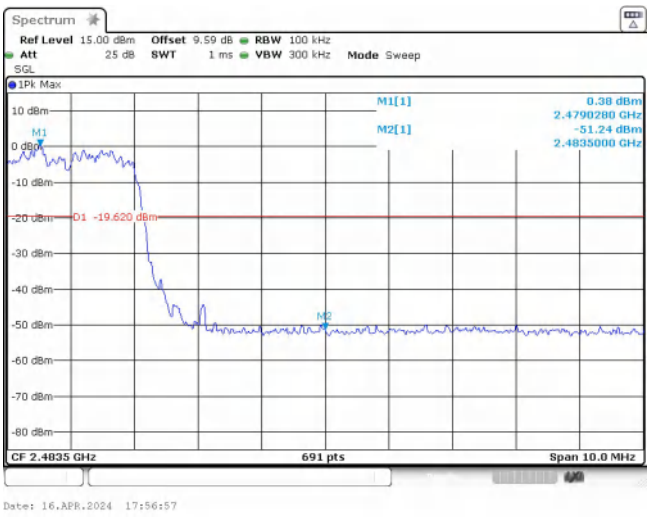
Out Of Band Emission(Right)

8DPSK_3-DH5_Channel Hopping



Out Of Band Emission(Left)

8DPSK_3-DH5_Channel Hopping



Out Of Band Emission(Right)

8DPSK_3-DH5_Channel Hopping

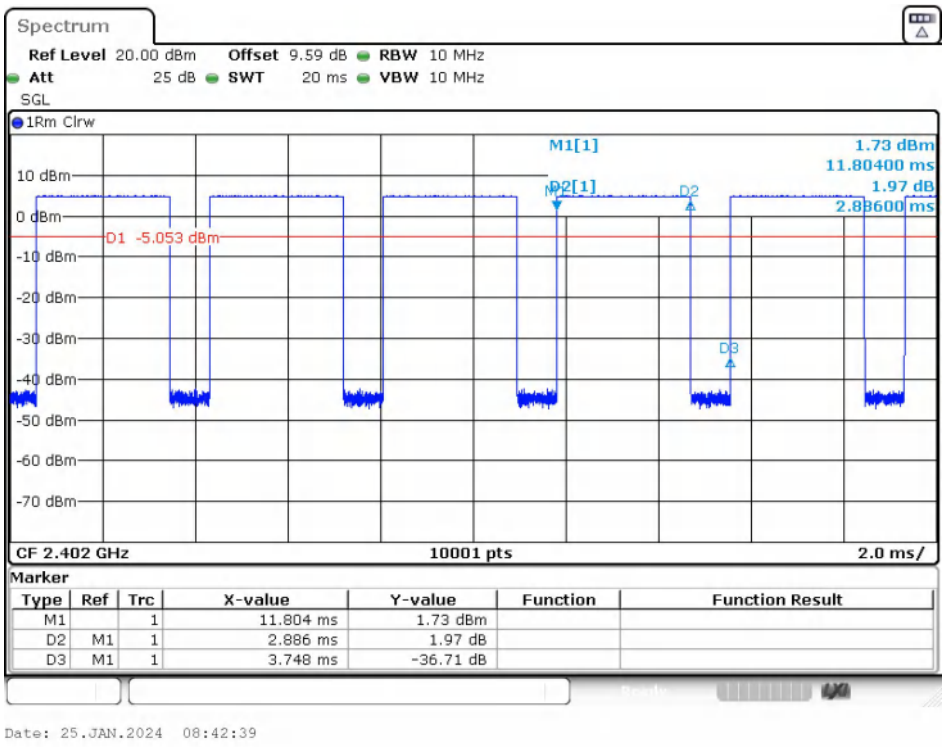
6) Duty Cycle

Test Result

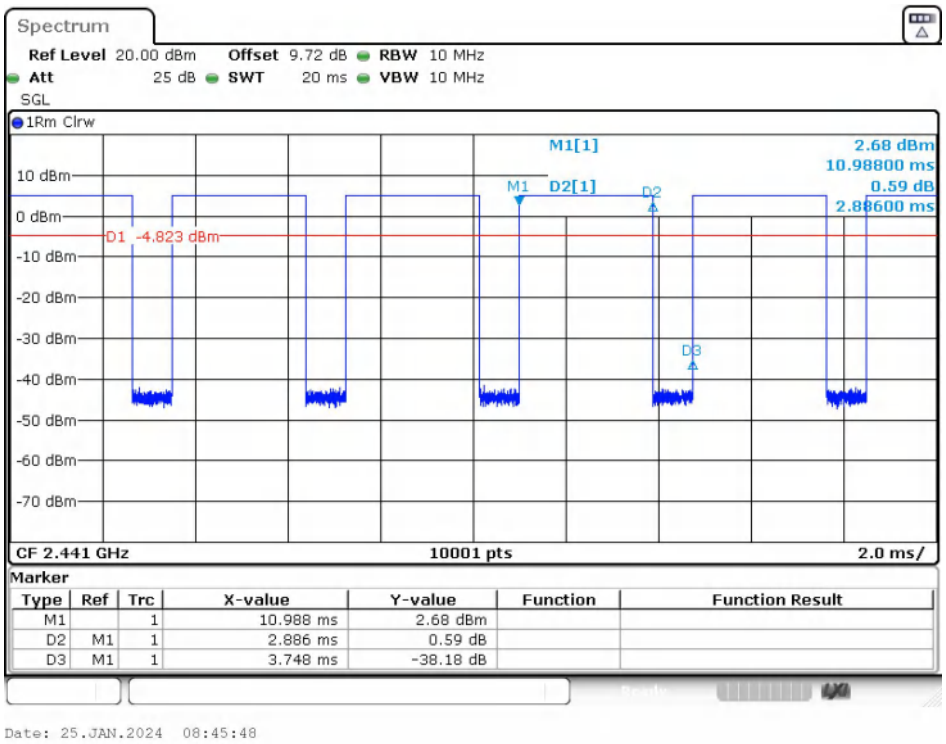
Left

Modulation	Packets	Channel	On Time (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle (linear)	Duty Cycle Factor (dB)	1/T
GFSK	DH5	0	2.886	3.748	77.00	0.7700	1.1351	0.35
		39	2.886	3.748	77.00	0.7700	1.1351	0.35
		78	2.886	3.748	77.00	0.7700	1.1351	0.35
π/4DQPSK	2-DH5	0	2.892	3.748	77.16	0.7716	1.1261	0.35
		39	2.892	3.748	77.16	0.7716	1.1261	0.35
		78	2.902	3.748	77.43	0.7743	1.1109	0.34
8DPSK	3-DH5	0	2.904	3.748	77.48	0.7748	1.1081	0.34
		39	2.904	3.748	77.48	0.7748	1.1081	0.34
		78	2.904	3.748	77.48	0.7748	1.1081	0.34

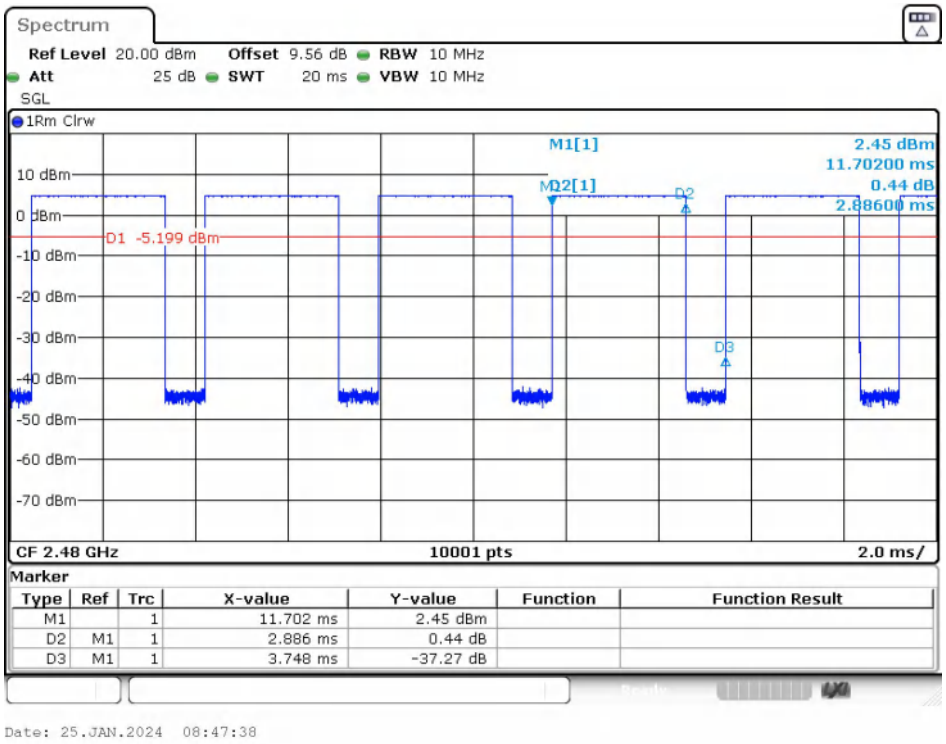
Test Graphs



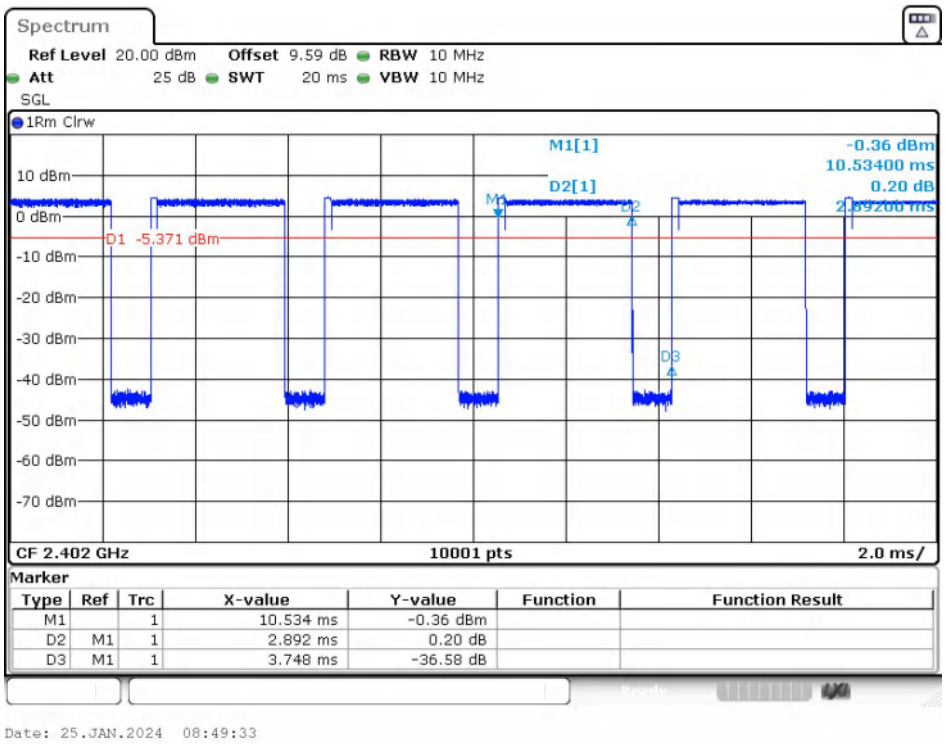
GFSK(DH5)_Channel 0



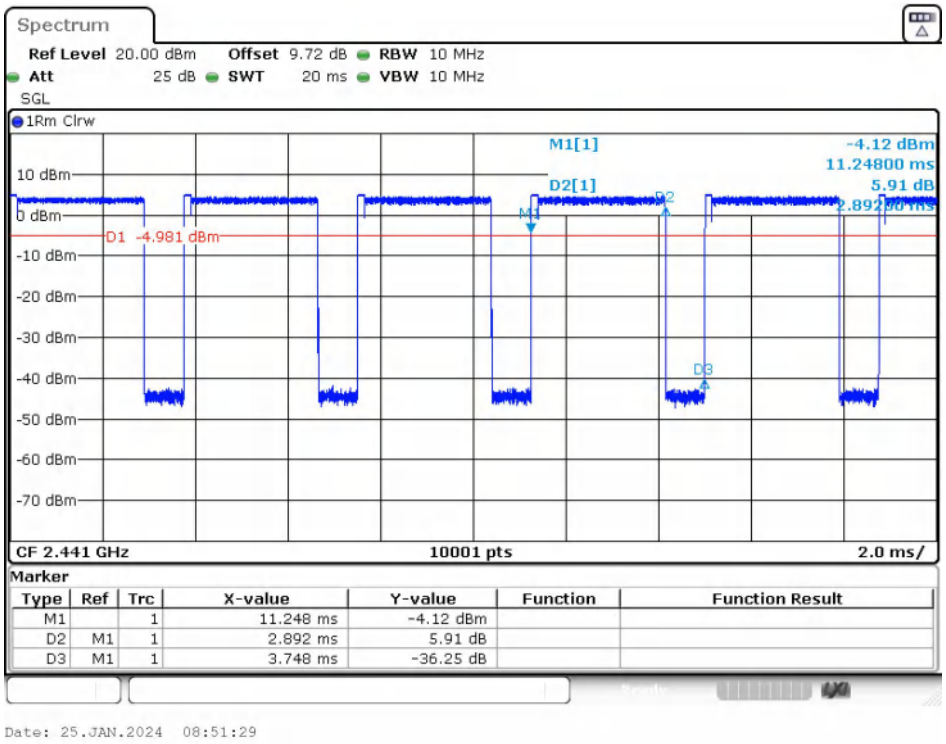
GFSK(DH5)_Channel 39



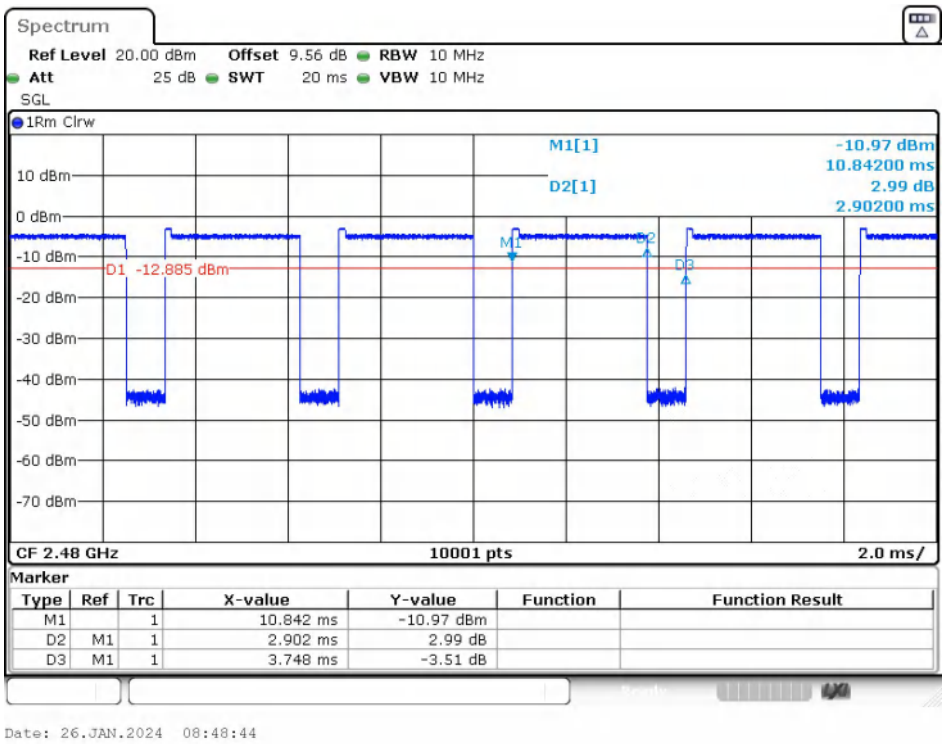
GFSK(DH5)_Channel 78



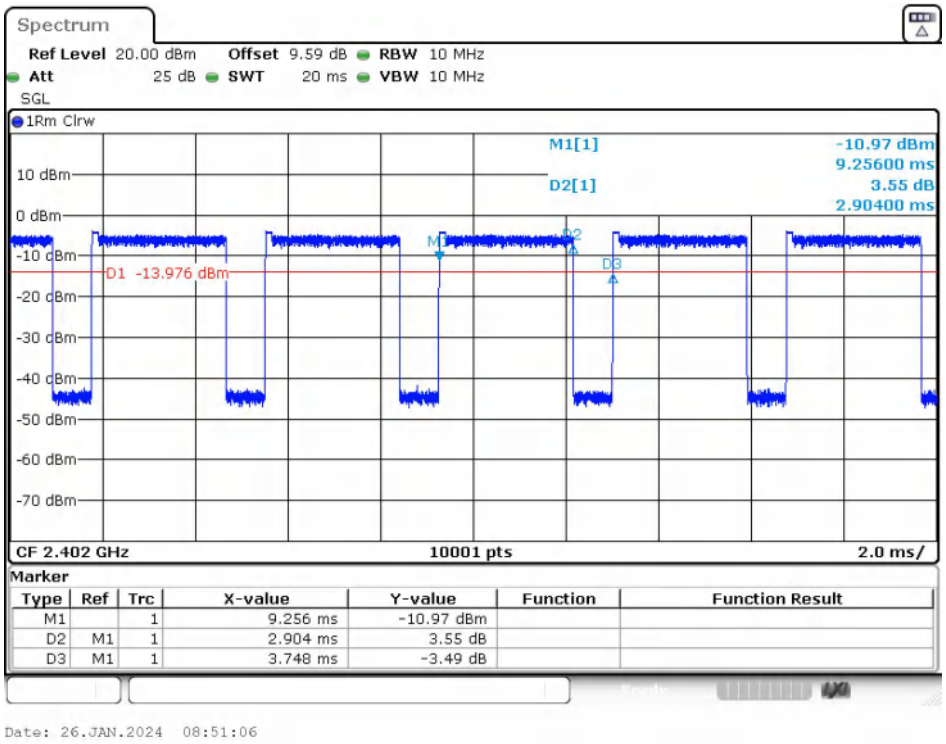
π/4DQPSK(2-DH5)_Channel 0



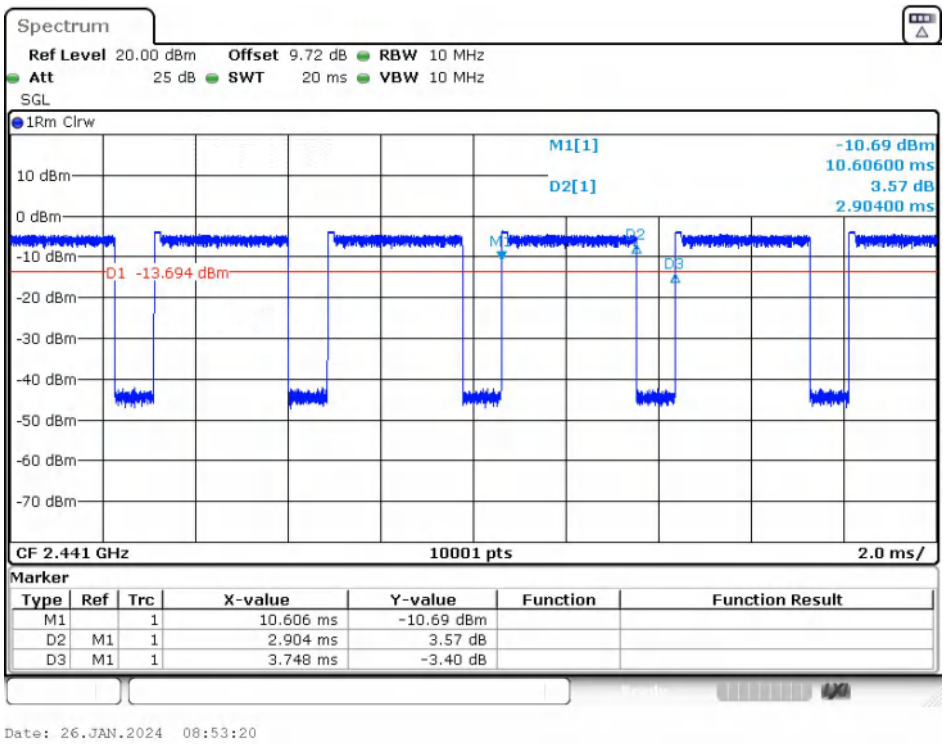
π/4DQPSK(2-DH5)_Channel 39



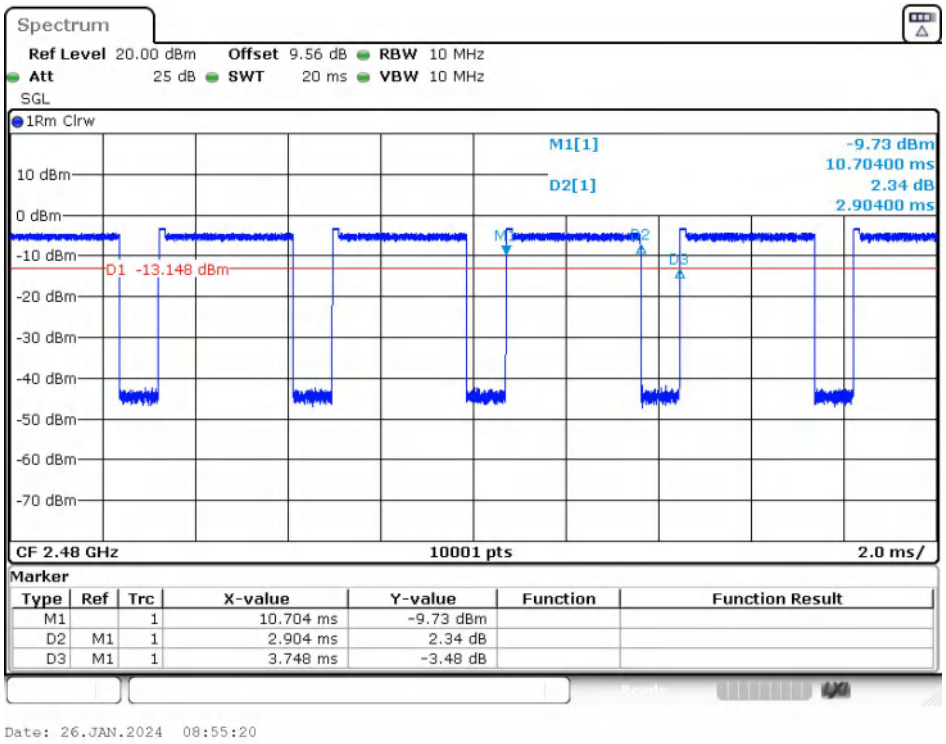
π/4DQPSK(2-DH5)_Channel 78



8DPSK(3-DH5)_Channel 0



8DPSK(3-DH5)_Channel 39

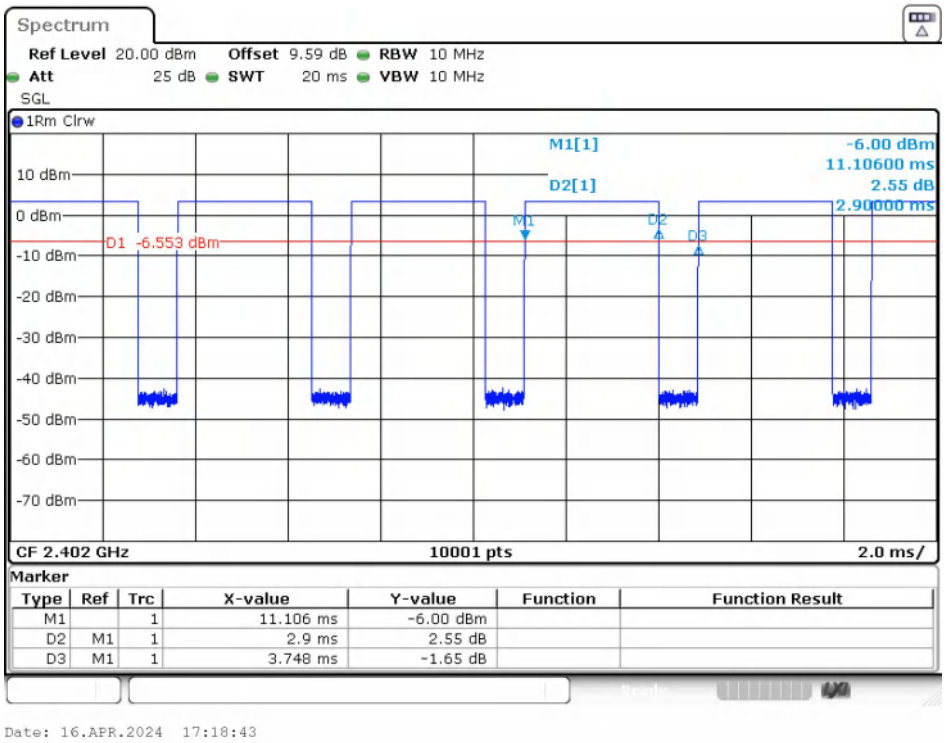


8DPSK(3-DH5)_Channel 78

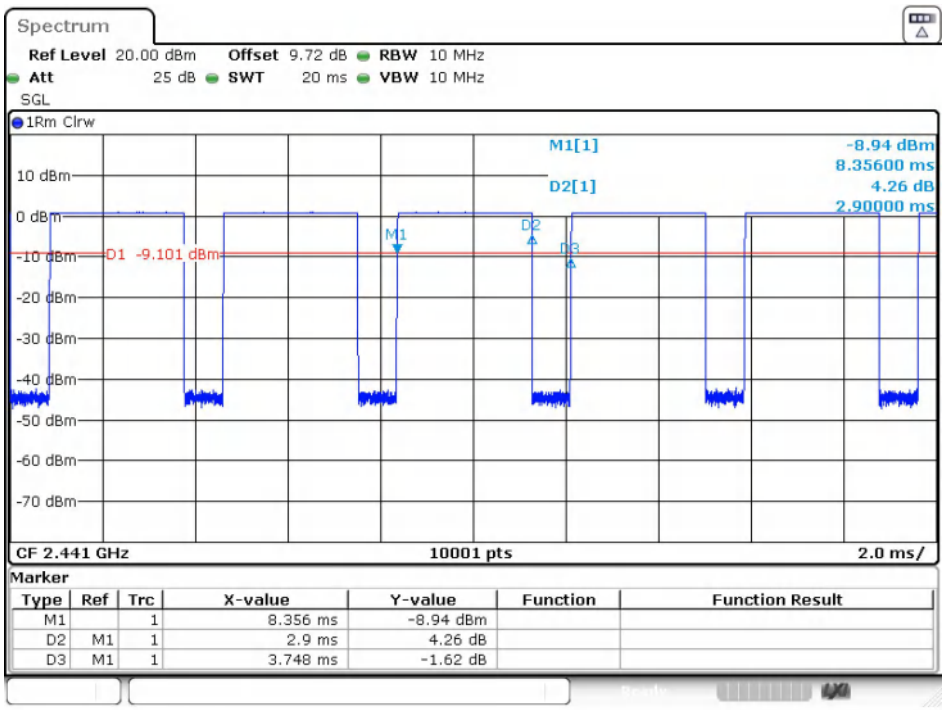
Right

Modulation	Packets	Channel	On Time (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle (linear)	Duty Cycle Factor (dB)
GFSK	DH5	0	2.900	3.748	77.37	0.7737	1.1143
		39	2.900	3.748	77.37	0.7737	1.1143
		78	2.898	3.748	77.32	0.7732	1.1171
π/4DQPSK	2-DH5	0	2.904	3.748	77.48	0.7748	1.1081
		39	2.904	3.748	77.48	0.7748	1.1081
		78	2.902	3.748	77.43	0.7743	1.1109
8DPSK	3-DH5	0	2.906	3.748	77.53	0.7753	1.1053
		39	2.906	3.748	77.53	0.7753	1.1053
		78	2.906	3.748	77.53	0.7753	1.1053

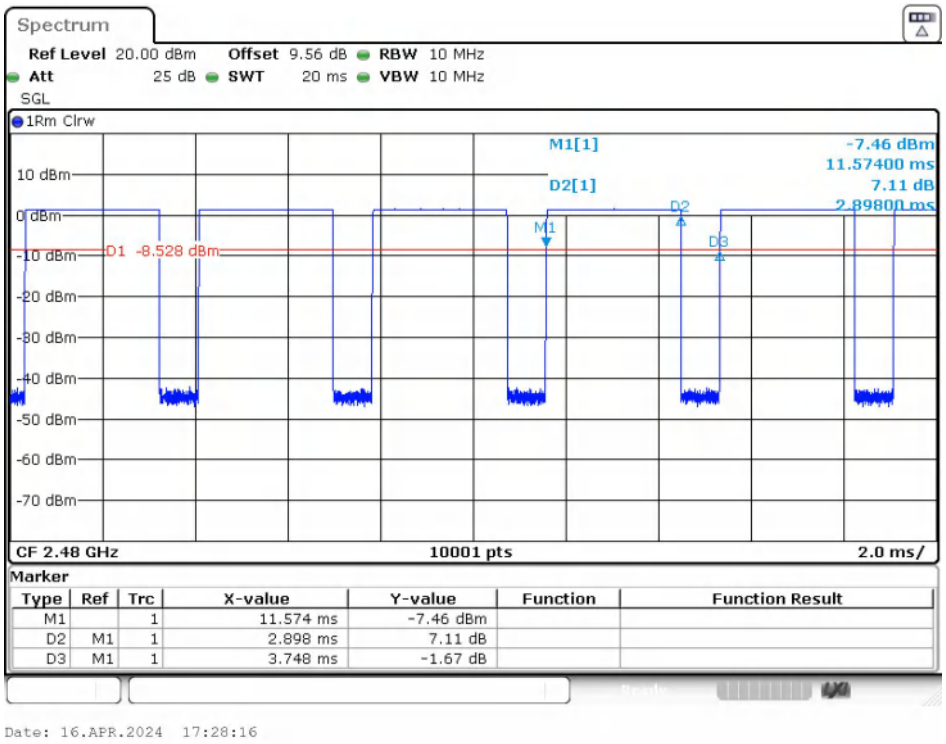
Test Graphs



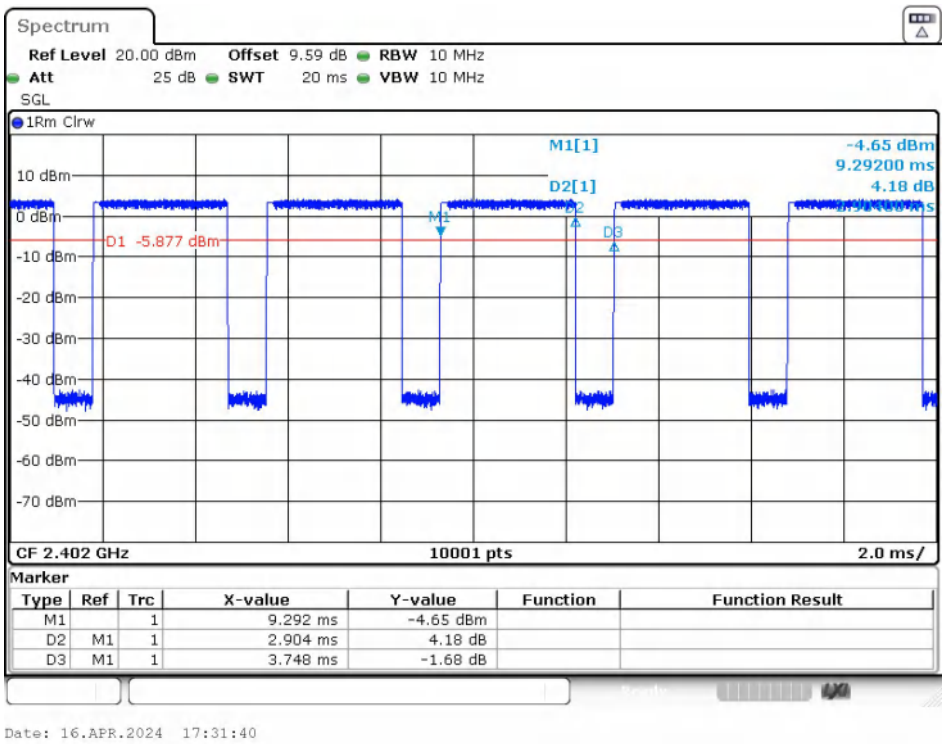
GFSK(DH5)_Channel 0



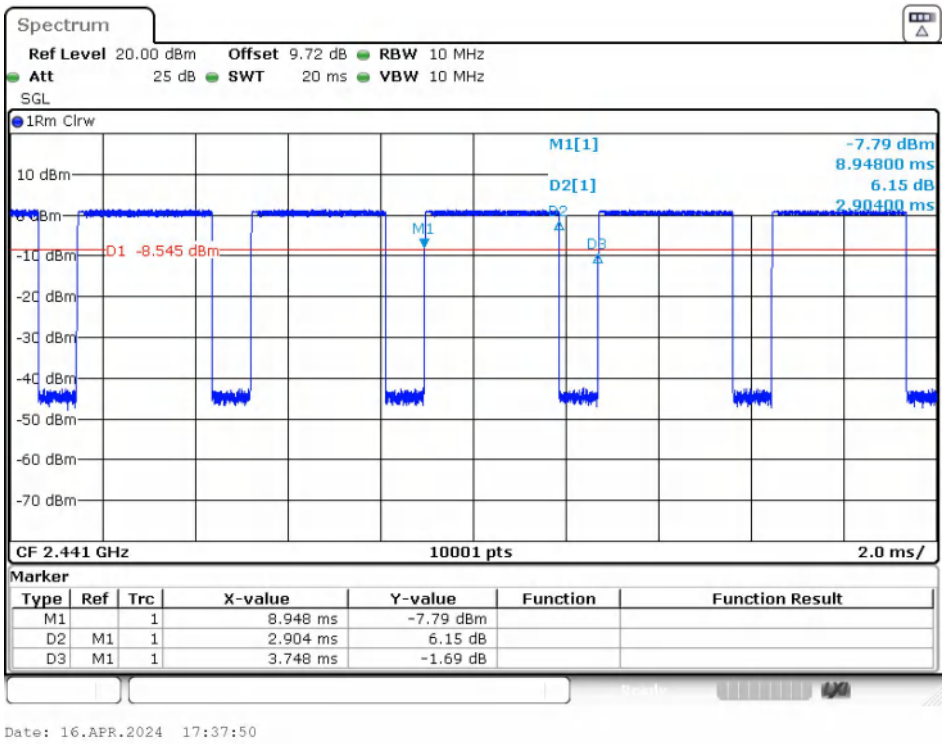
GFSK(DH5)_Channel 39



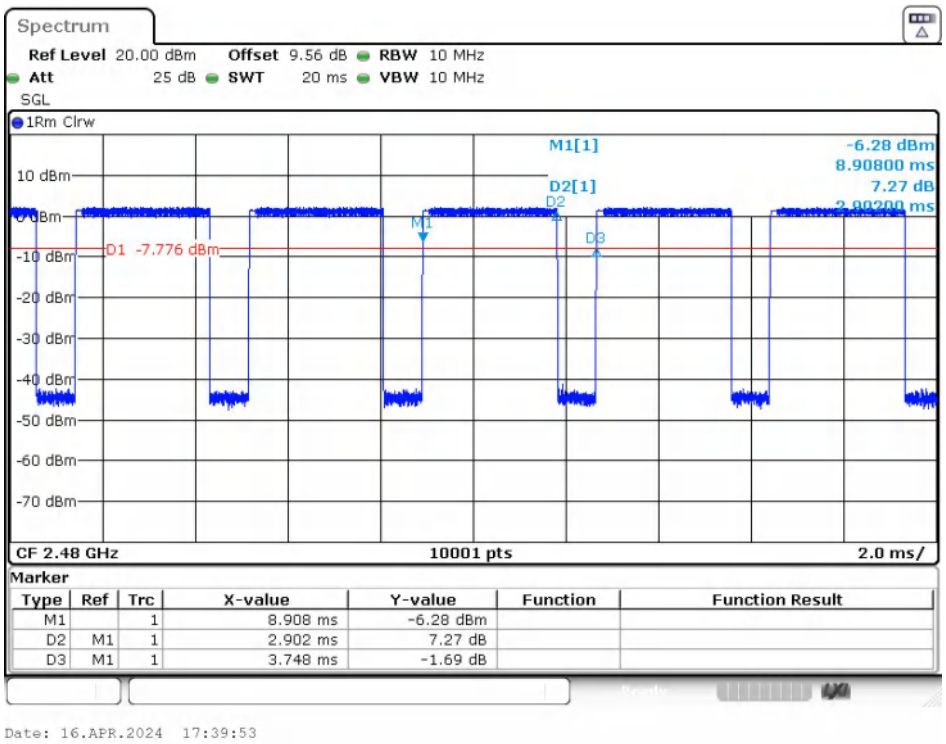
GFSK(DH5)_Channel 78



π/4DQPSK(2-DH5)_Channel 0

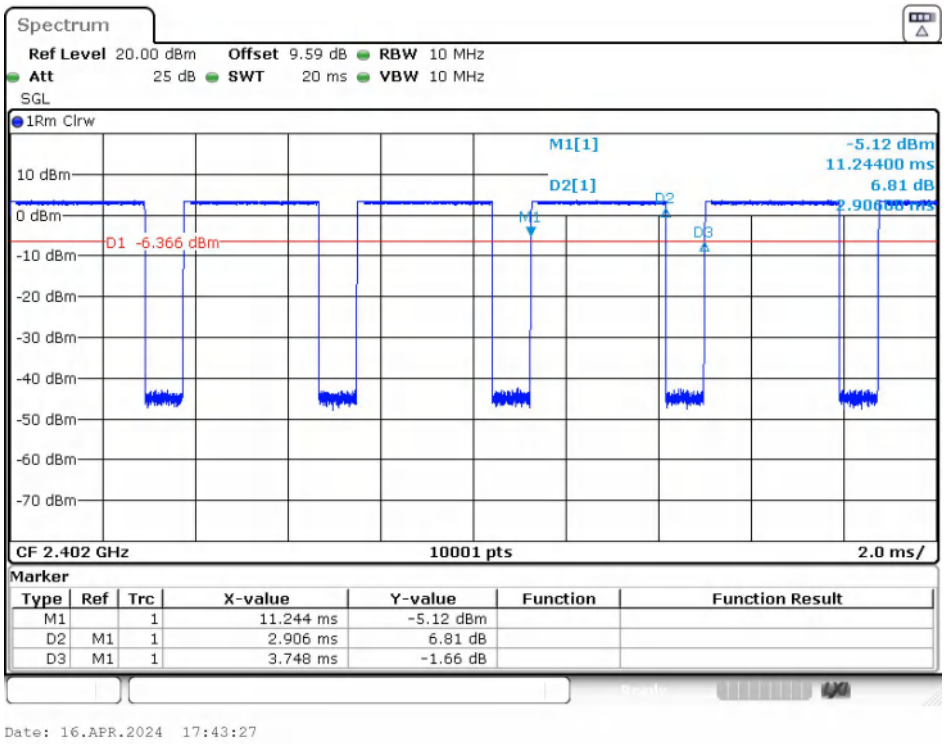


π/4DQPSK(2-DH5)_Channel 39



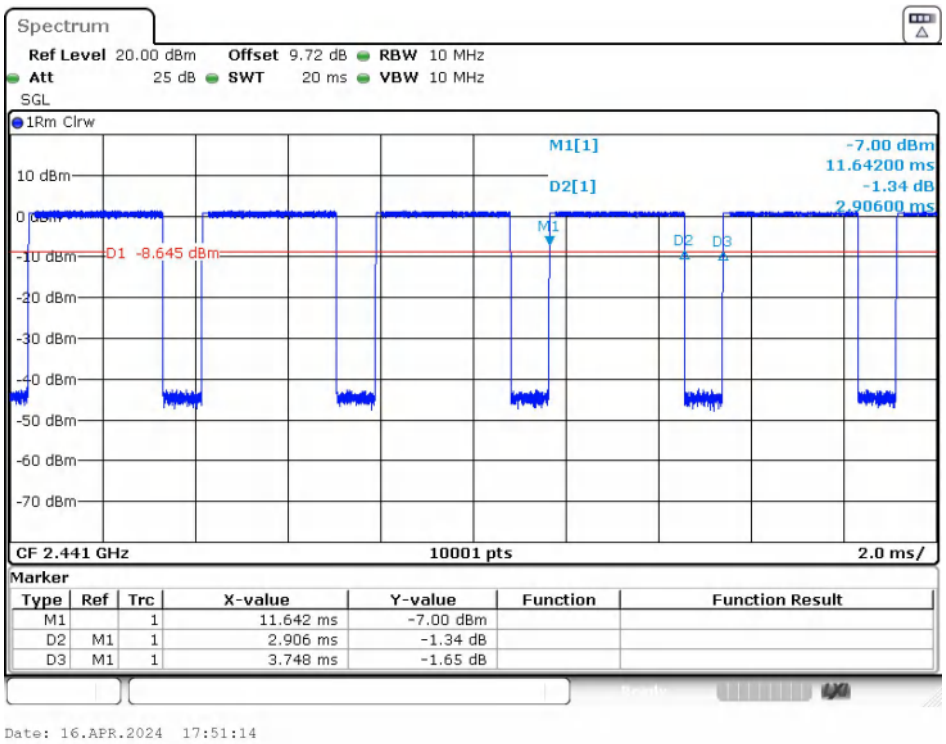
Date: 16.APR.2024 17:39:53

π/4DQPSK(2-DH5)_Channel 78

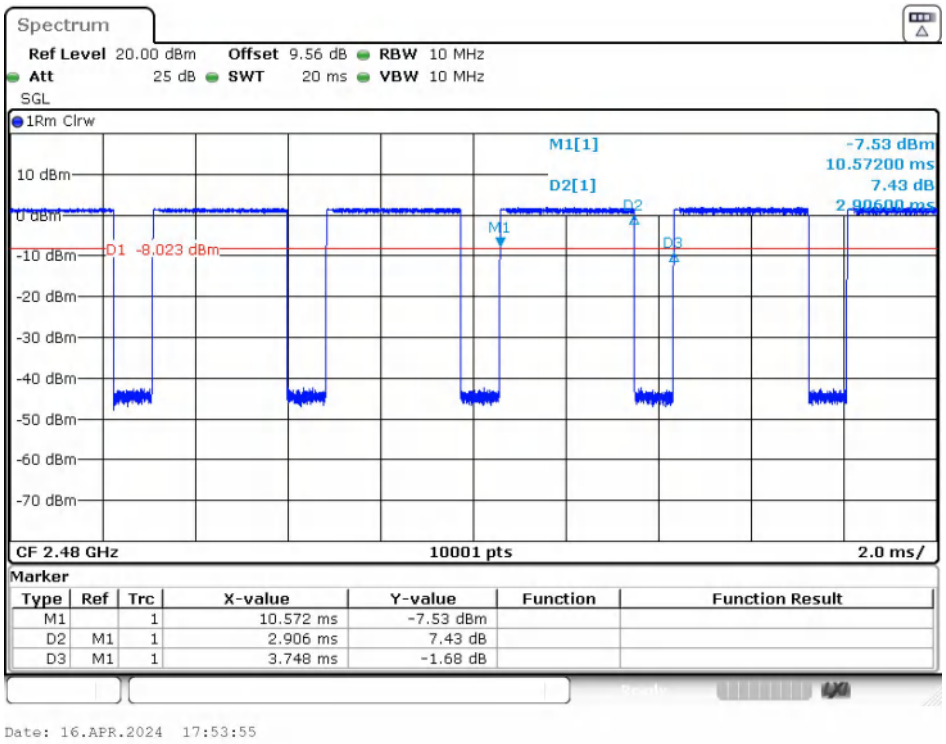


Date: 16.APR.2024 17:43:27

8DPSK(3-DH5)_Channel 0



8DPSK(3-DH5)_Channel 39



8DPSK(3-DH5)_Channel 78

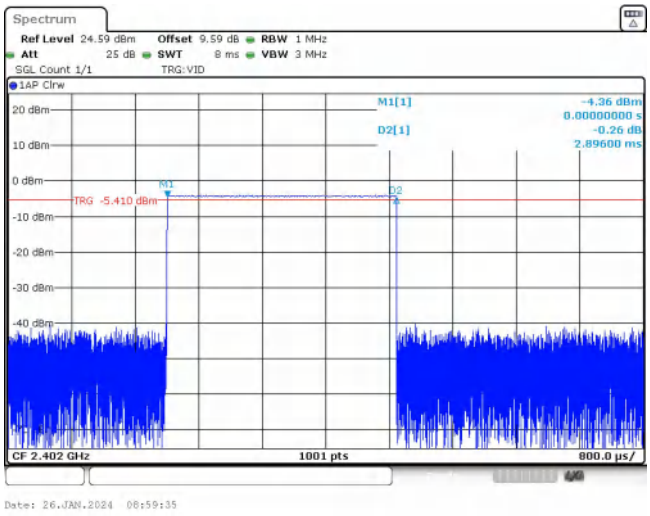
7) Dwell Time

Test Result

Left

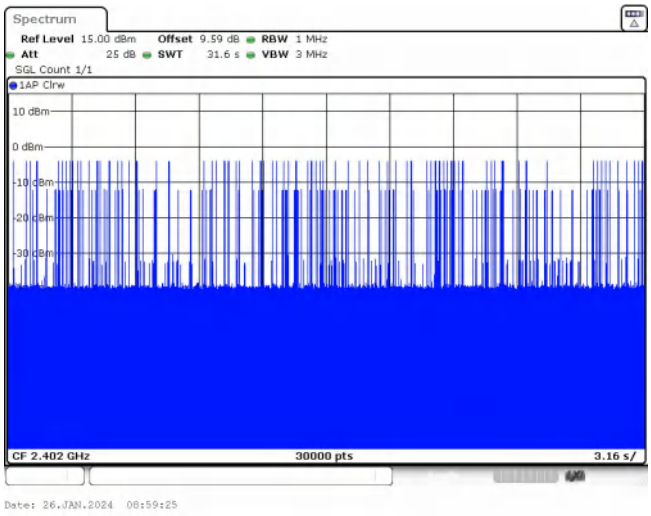
Modulation	Packet	Channel	Pulse Width (ms)	Number of Pulses in 31.6 seconds	Dwell Time (ms)	Limit (ms)	Result
GFSK	DH5	CH0 (2402MHz)	2.896	89	257.74	< 400	PASS
π/4DQPSK	2-DH5		2.160	115	248.4		PASS
8DPSK	3-DH5		2.904	114	331.06		PASS

Test Graphs



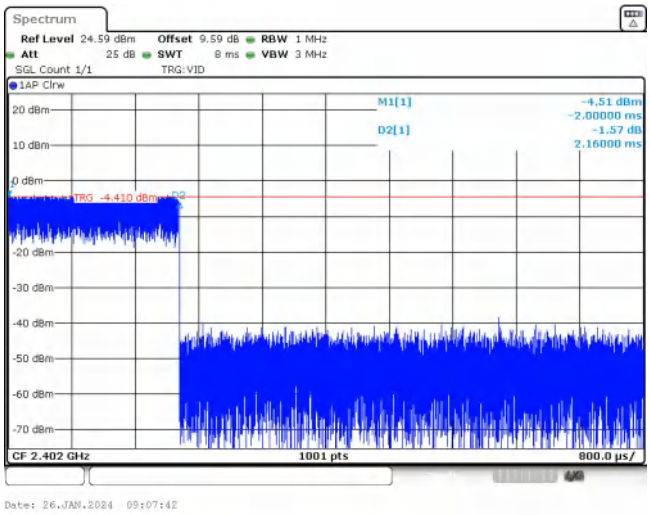
Pulse Width

GFSK_DH5



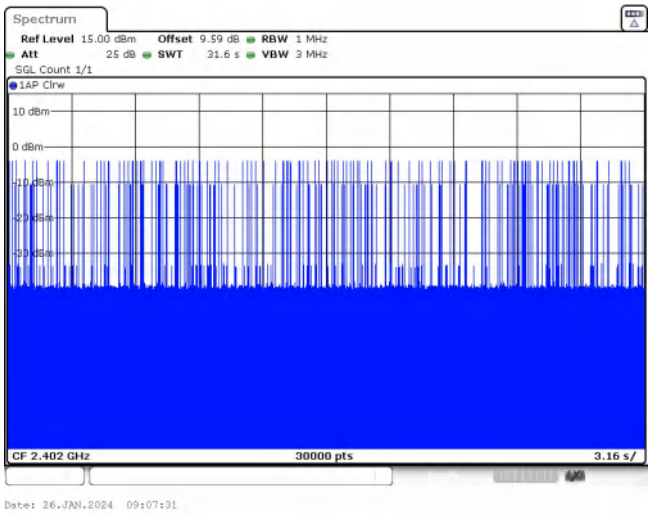
Number of Pulses in 31.6 seconds

GFSK_DH5



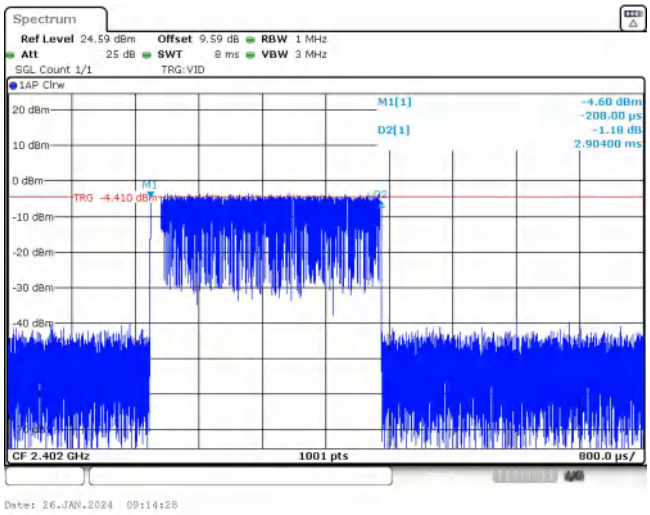
Pulse Width

π/4DQPSK_2-DH5



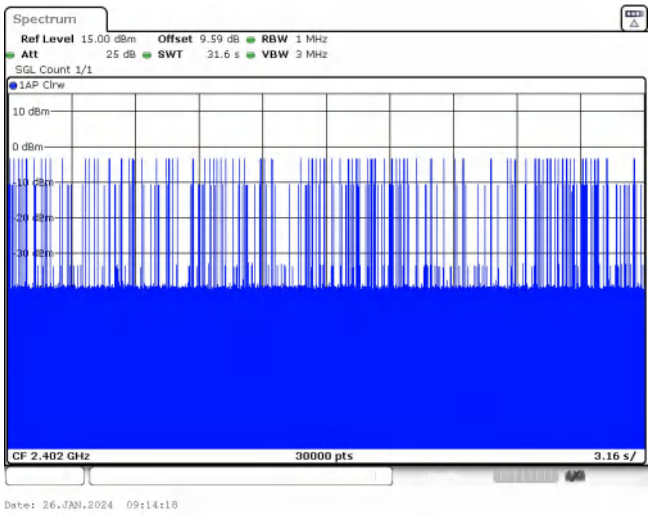
Number of Pulses in 31.6 seconds

π/4DQPSK_2-DH5



Pulse Width

8DPSK_3-DH5



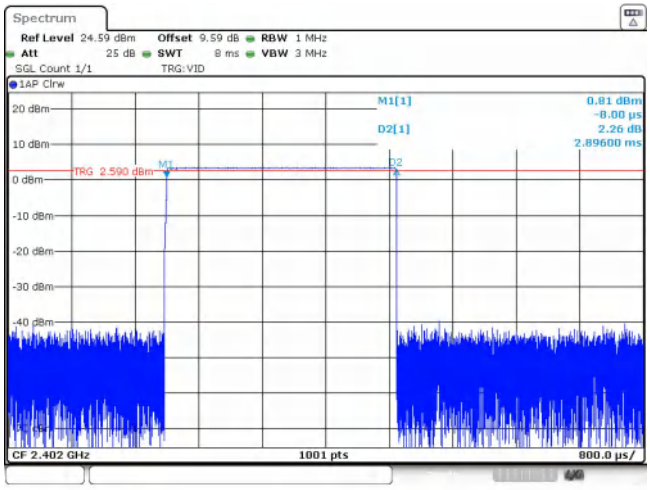
Number of Pulses in 31.6 seconds

8DPSK_3-DH5

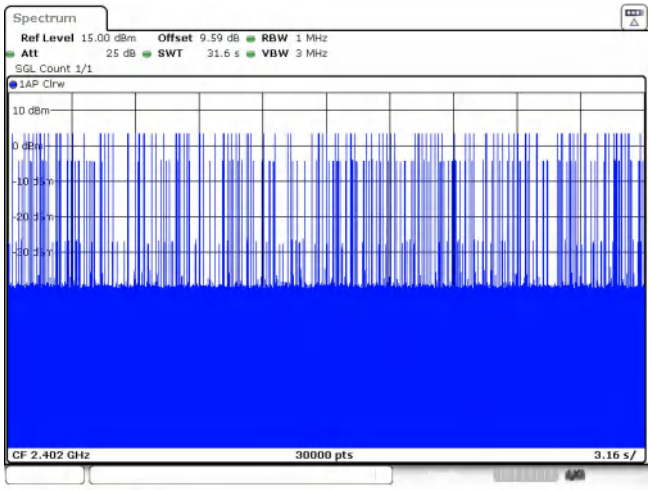
Right

Modulation	Packet	Channel	Pulse Width (ms)	Number of Pulses in 31.6 seconds	Dwell Time (ms)	Limit (ms)	Result
GFSK	DH5	CH0 (2402MHz)	2.896	124	359.1	< 400	PASS
π/4DQPSK	2-DH5		2.904	98	284.59		PASS
8DPSK	3-DH5		2.896	102	295.39		PASS

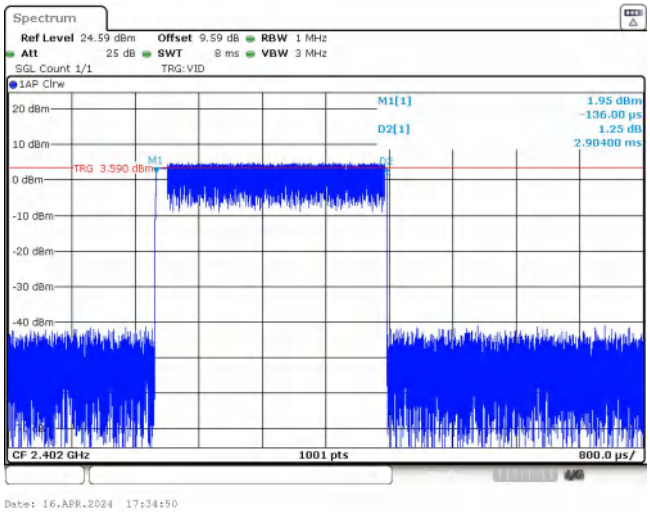
Test Graphs



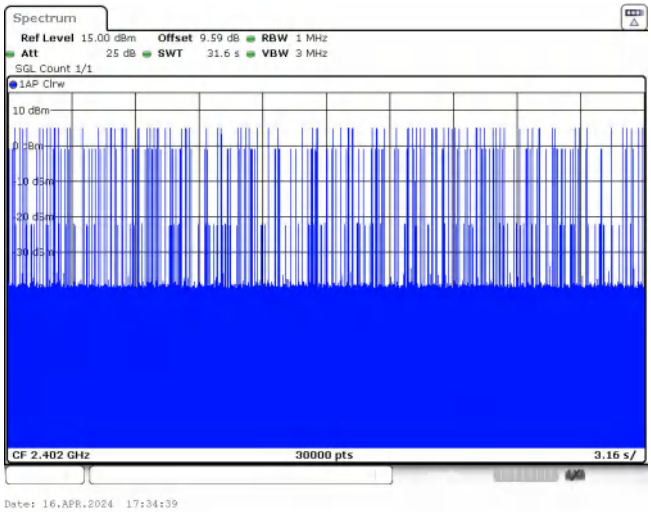
Pulse Width
GFSK_DH5



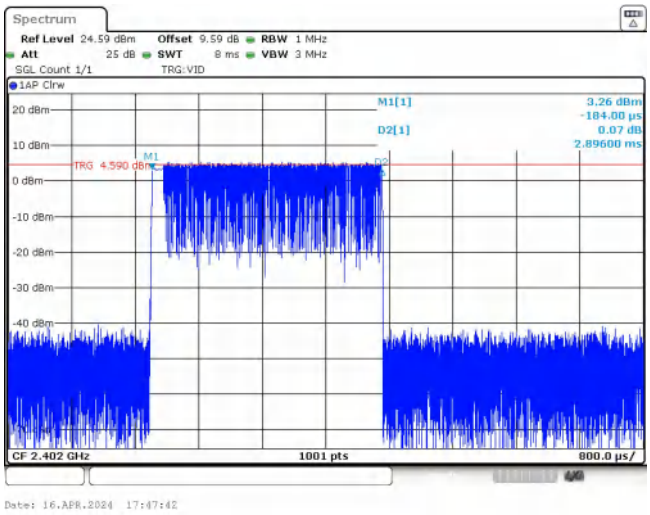
Number of Pulses in 31.6 seconds
GFSK_DH5



Pulse Width
π/4DQPSK_2-DH5

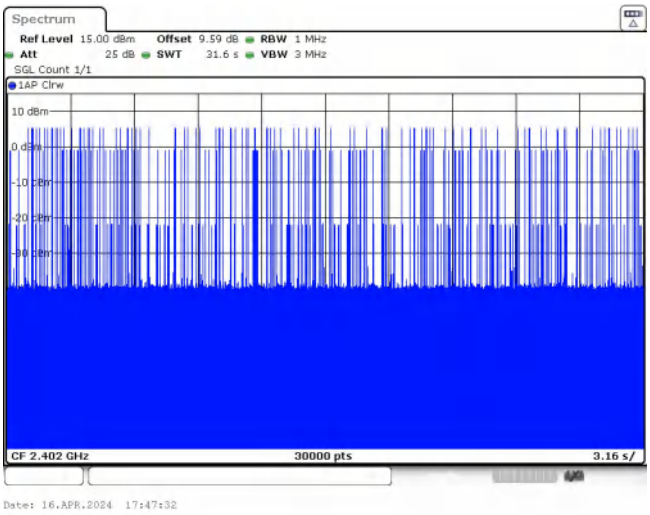


Number of Pulses in 31.6 seconds
π/4DQPSK_2-DH5



Pulse Width

8DPSK_3-DH5



Number of Pulses in 31.6 seconds

8DPSK_3-DH5

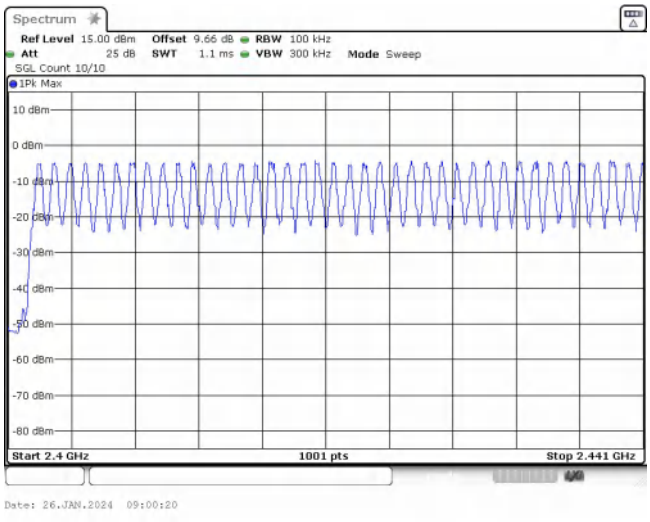
8) Number Of Hopping Channel

Test Result

Left

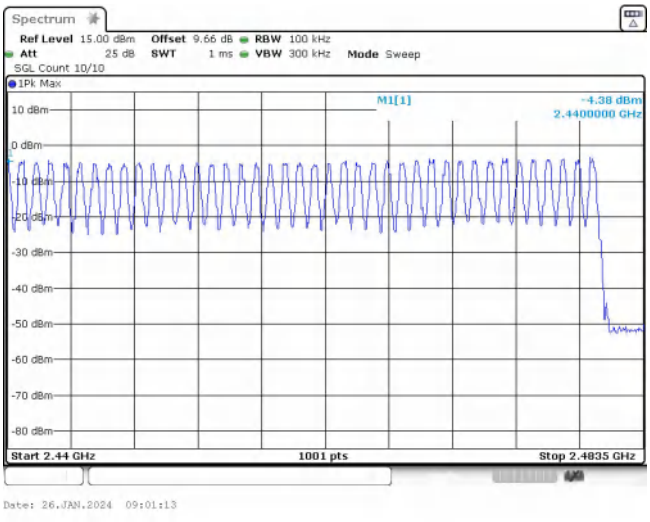
Modulation	Packet	Number of Hopping Channel	Limit	Result
GFSK	DH5	79	15	PASS
π/4DQPSK	2-DH5	79	15	PASS
8DPSK	3-DH5	79	15	PASS

Test Graphs



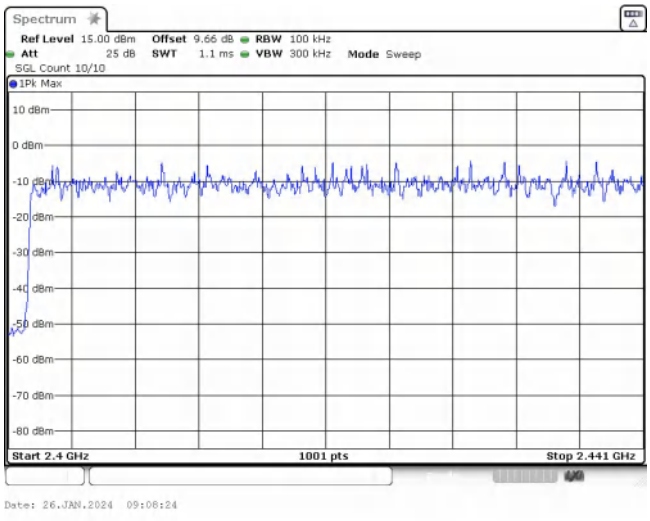
Low End Spectrum Channel Hopping Plot

GFSK



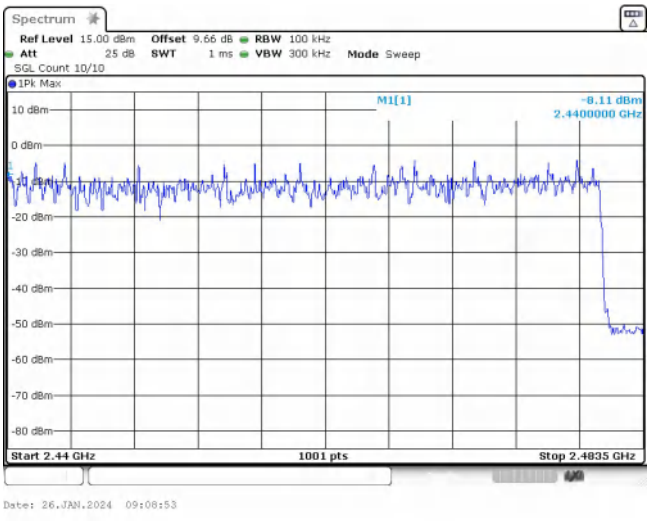
High End Spectrum Channel Hopping Plot

GFSK



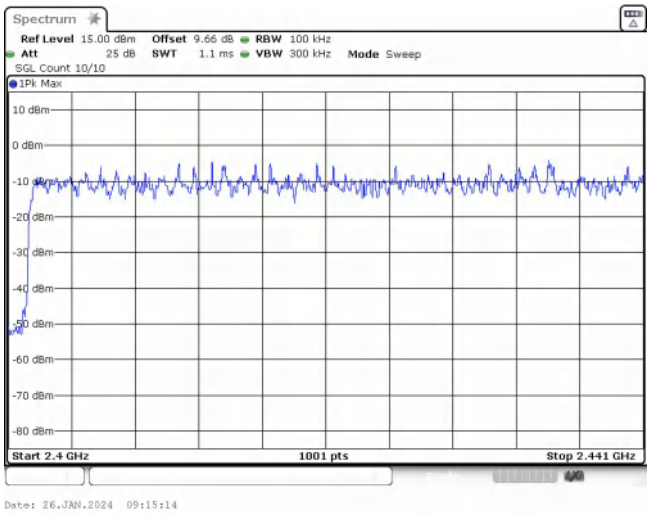
Low End Spectrum Channel Hopping Plot

π/4DQPSK



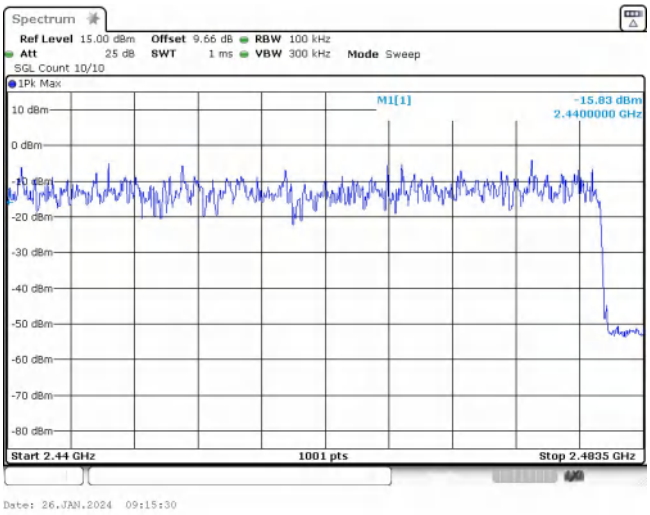
High End Spectrum Channel Hopping Plot

π/4DQPSK



Low End Spectrum Channel Hopping Plot

8DPSK



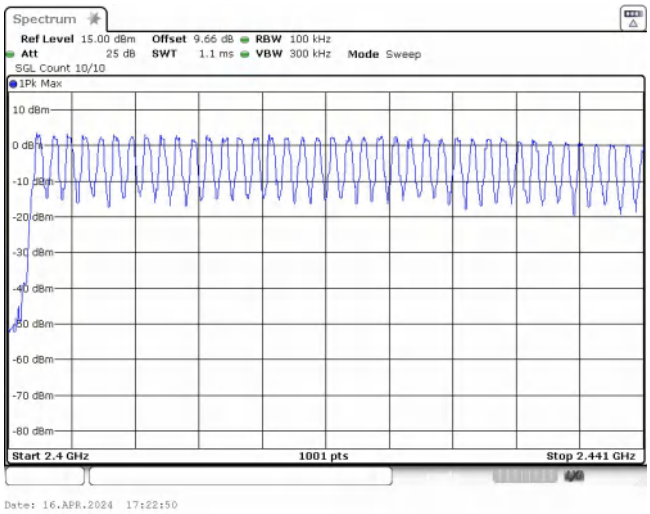
High End Spectrum Channel Hopping Plot

8DPSK

Right

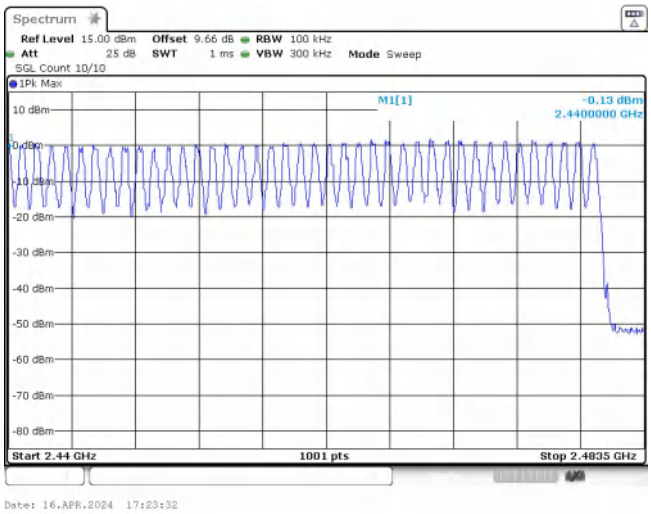
Modulation	Packet	Number of Hopping Channel	Limit	Result
GFSK	DH5	79	15	PASS
π/4DQPSK	2-DH5	79	15	PASS
8DPSK	3-DH5	79	15	PASS

Test Graphs



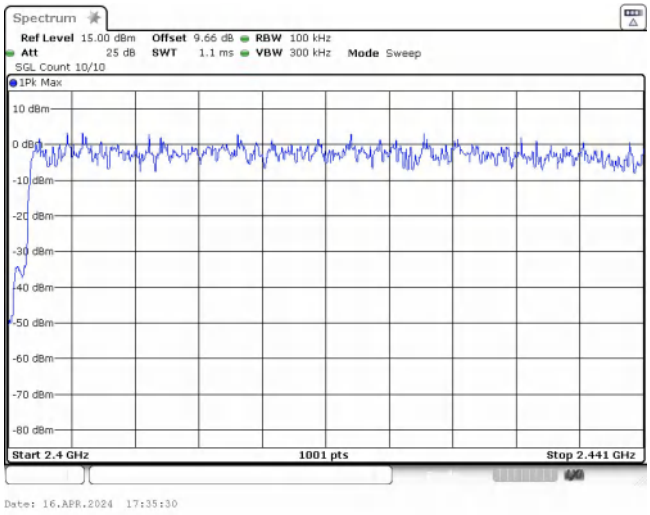
Low End Spectrum Channel Hopping Plot

GFSK



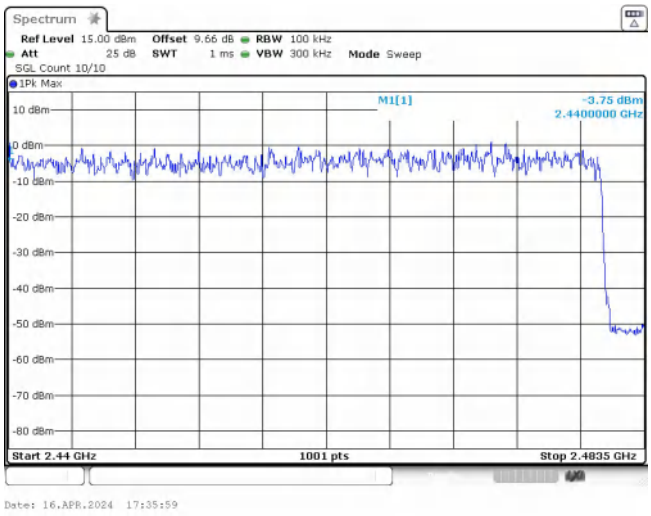
High End Spectrum Channel Hopping Plot

GFSK



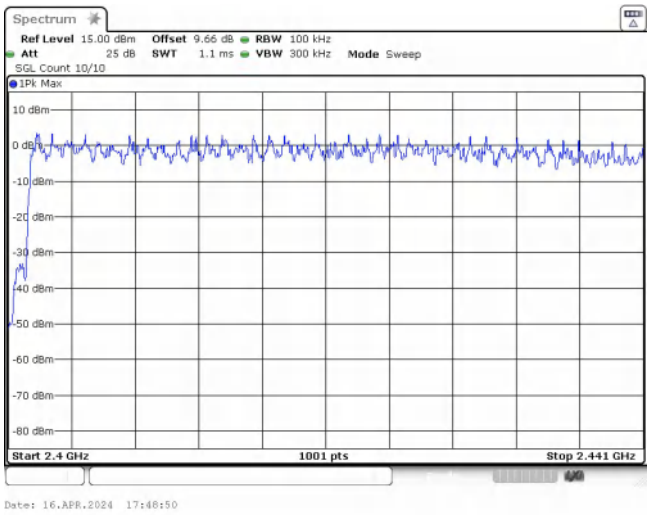
Low End Spectrum Channel Hopping Plot

π/4DQPSK



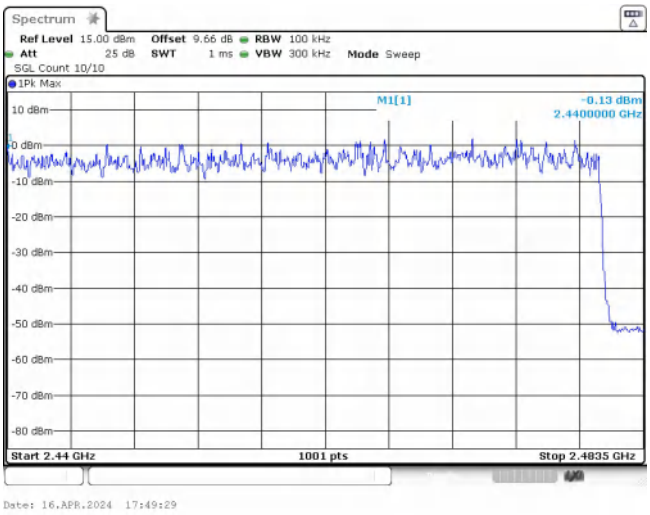
High End Spectrum Channel Hopping Plot

π/4DQPSK



Low End Spectrum Channel Hopping Plot

8DPSK



High End Spectrum Channel Hopping Plot

8DPSK