

8DPSK

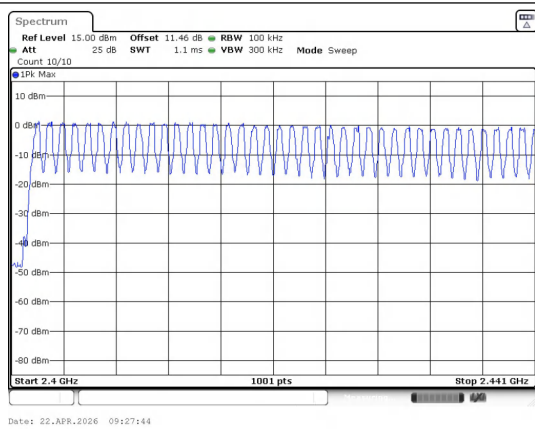
8DPSK

Ant1:

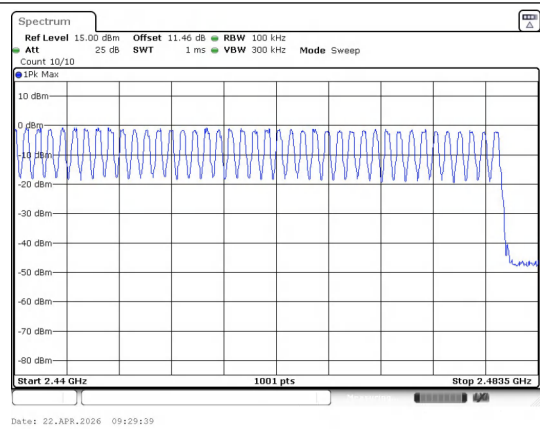
Test Result

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

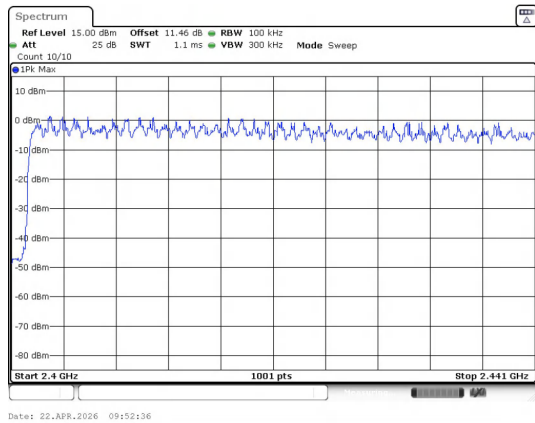
Test Graphs



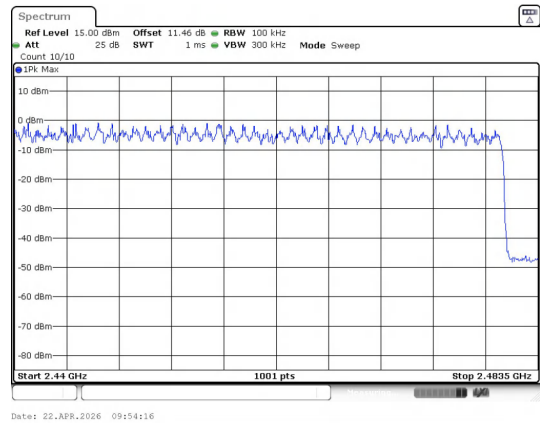
Low End Spectrum Channel Hopping Plot
GFSK



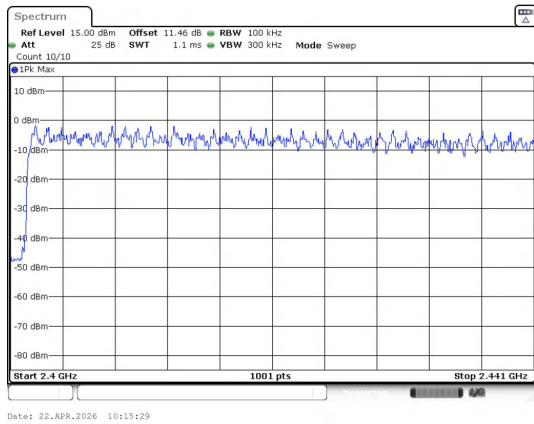
High End Spectrum Channel Hopping Plot
GFSK



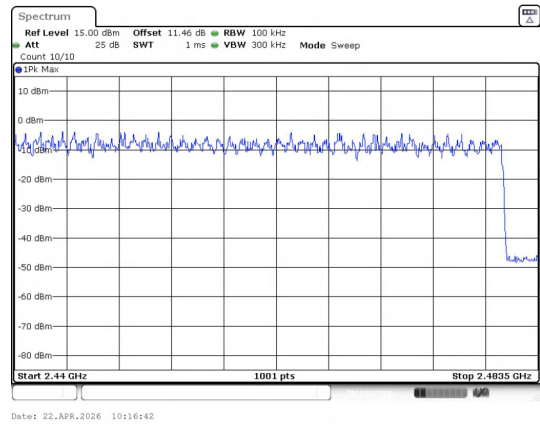
Low End Spectrum Channel Hopping Plot
 $\pi/4$ DQPSK



High End Spectrum Channel Hopping Plot
 $\pi/4$ DQPSK



**Low End Spectrum Channel Hopping Plot
8DPSK**



**High End Spectrum Channel Hopping Plot
8DPSK**

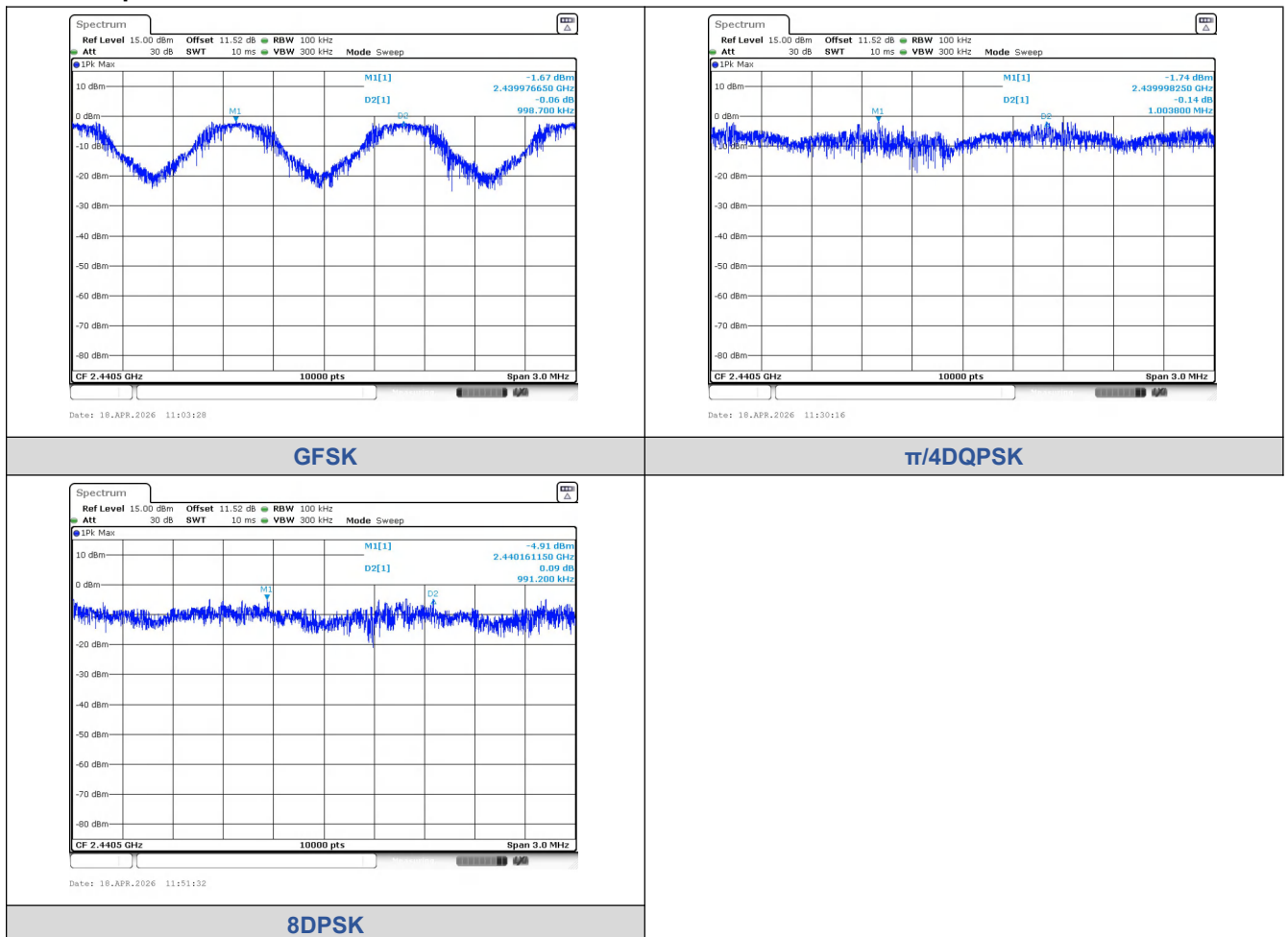
7.4. Carrier Frequencies Separation

Ant0:

Test Result

Modulation	Packet	Left Center frequency (MHz)	Right Center frequency (MHz)	Hopping Frequency Separation (MHz)	Minimum Limit (MHz)	Result
GFSK	DH5	2439.9767	2440.9754	0.9987	0.92	PASS
$\pi/4$ DQPSK	2-DH5	2439.9983	2441.0021	1.0038	0.88	PASS
8DPSK	3-DH5	2440.1611	2441.1523	0.9912	0.86	PASS

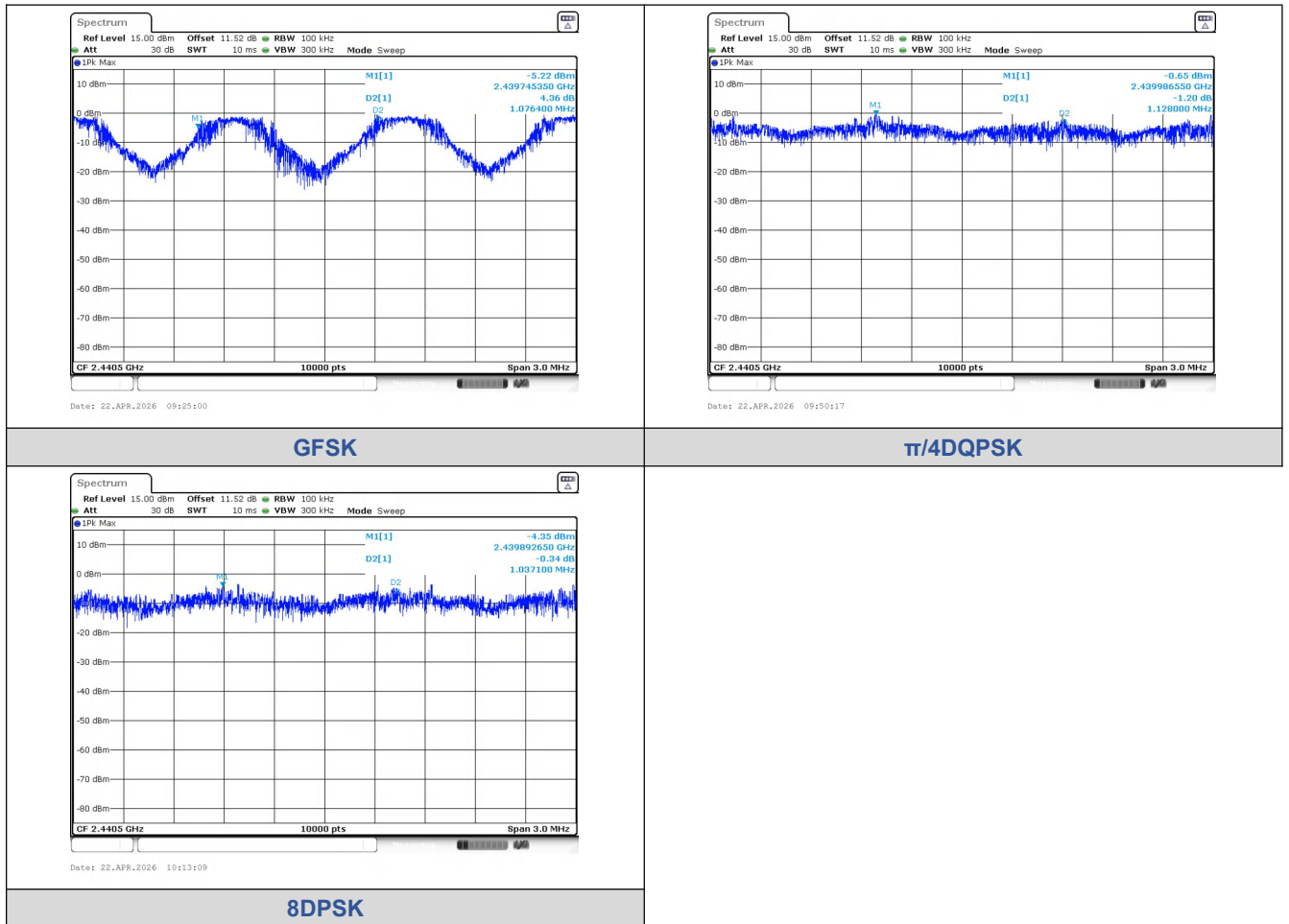
Test Graphs



Ant1:
Test Result

Modulation	Packet	Left Center frequency (MHz)	Right Center frequency (MHz)	Hopping Frequency Separation (MHz)	Minimum Limit (MHz)	Result
GFSK	DH5	2439.7454	2440.8218	1.0764	0.95	PASS
$\pi/4$ DQPSK	2-DH5	2439.9866	2441.1145	1.1280	0.873	PASS
8DPSK	3-DH5	2439.8926	2440.9297	1.0371	0.867	PASS

Test Graphs



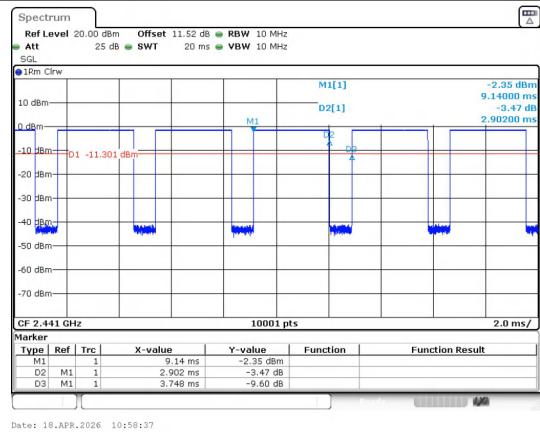
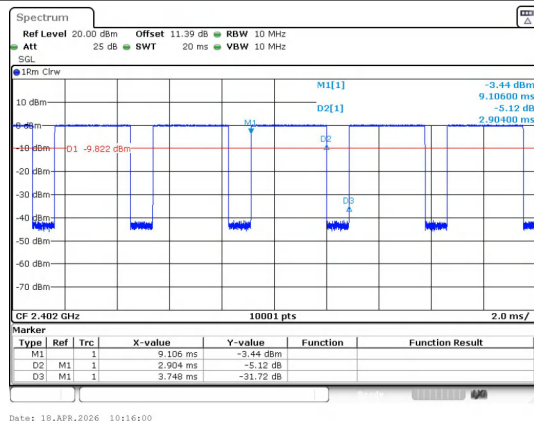
7.5. Duty Cycle

Ant0:

Test Result

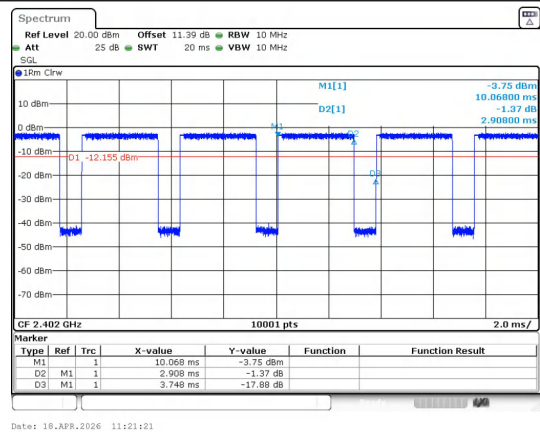
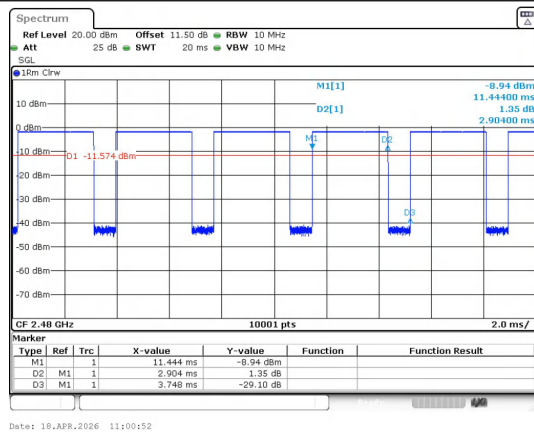
Modulation	Packets	Channel	On Time (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle (linear)	Duty Cycle Factor (dB)	1/T
GFSK	DH5	0	2.904	3.748	77.48	0.7748	1.1081	0.3444
		39	2.902	3.748	77.43	0.7743	1.1109	0.3446
		78	2.904	3.748	77.48	0.7748	1.1081	0.3444
$\pi/4$ DQPSK	2-DH5	0	2.908	3.748	77.59	0.7759	1.1019	0.3439
		39	2.910	3.748	77.64	0.7764	1.0991	0.3436
		78	2.908	3.748	77.59	0.7759	1.1019	0.3439
8DPSK	3-DH5	0	2.910	3.748	77.64	0.7764	1.0991	0.3436
		39	2.912	3.748	77.69	0.7769	1.0963	0.3434
		78	2.910	3.748	77.64	0.7764	1.0991	0.3436

Test Graphs



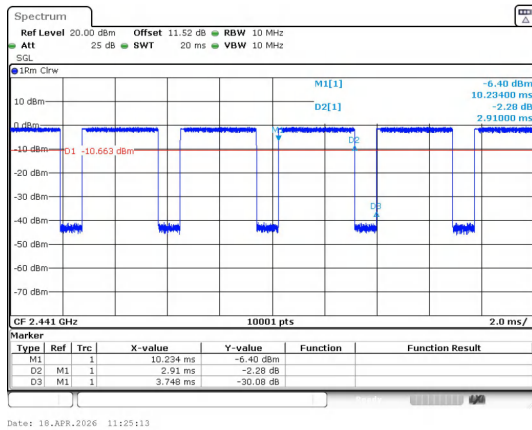
GFSK(DH5)_Channel 0

GFSK(DH5)_Channel 39

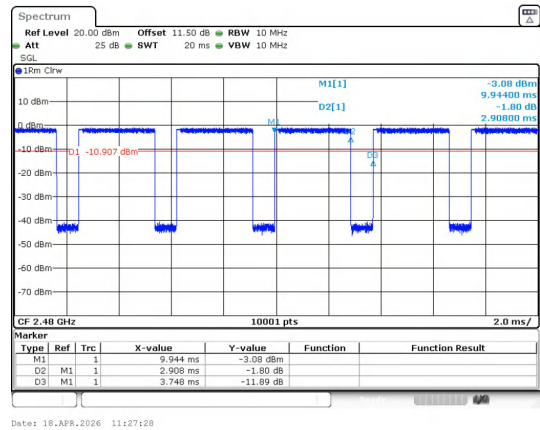


GFSK(DH5)_Channel 78

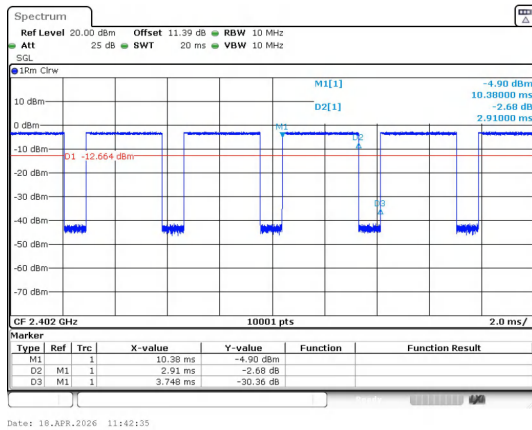
 $\pi/4$ DQPSK(2-DH5)_Channel 0



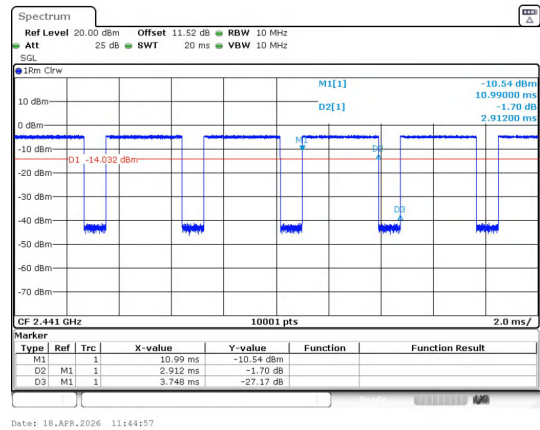
$\pi/4$ DQPSK(2-DH5)_Channel 39



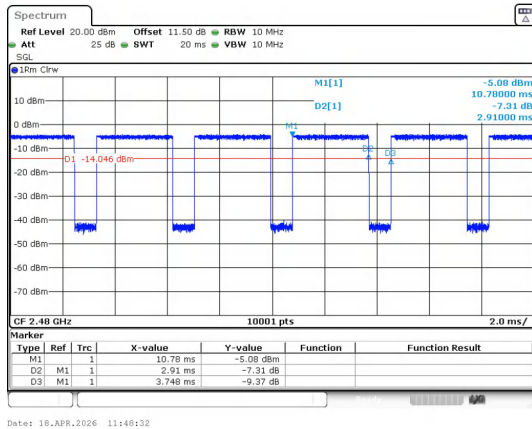
$\pi/4$ DQPSK(2-DH5)_Channel 78



8DPSK(3-DH5)_Channel 0



8DPSK(3-DH5)_Channel 39

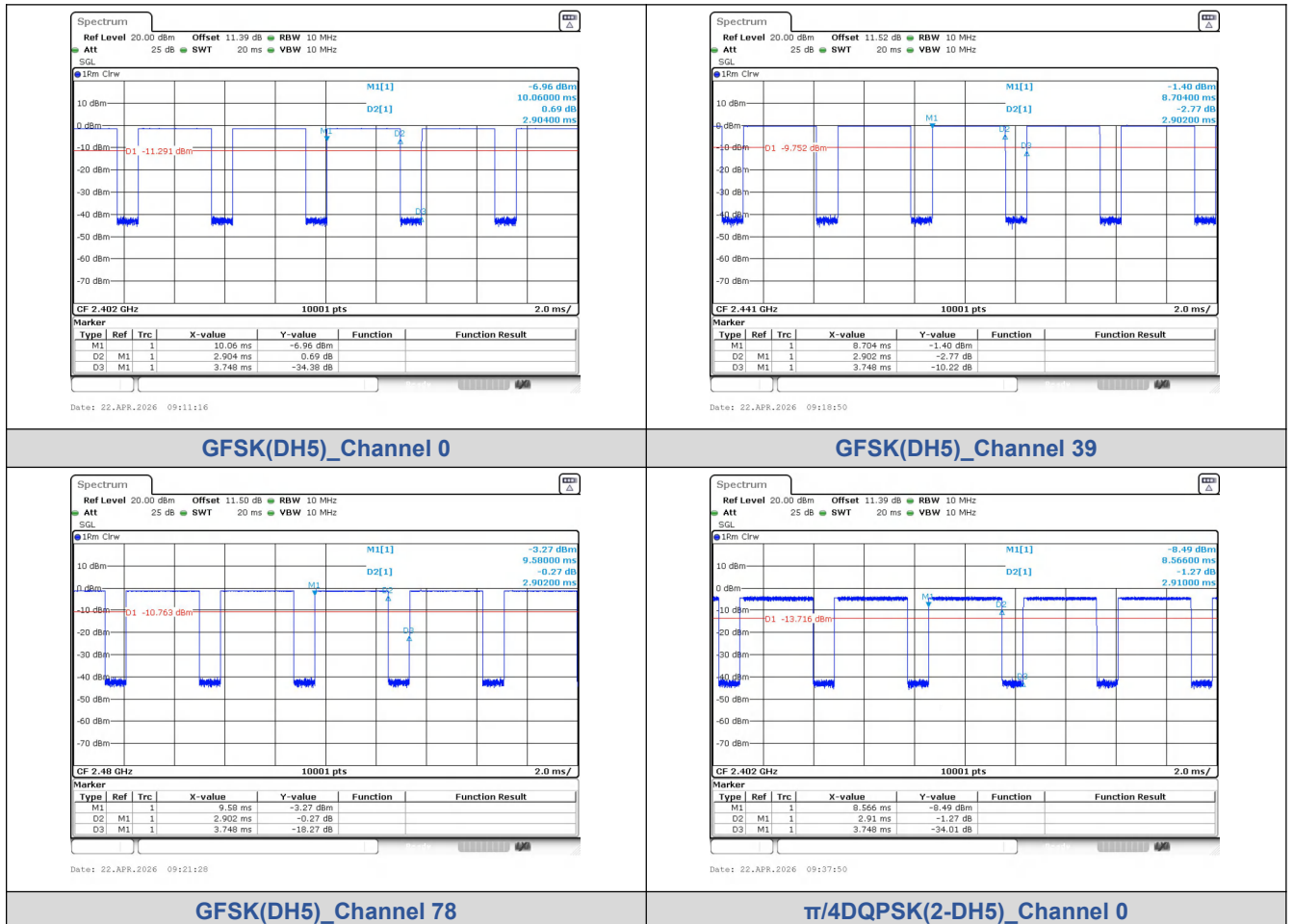


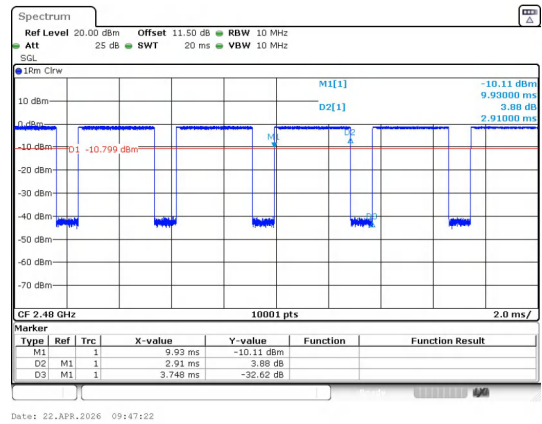
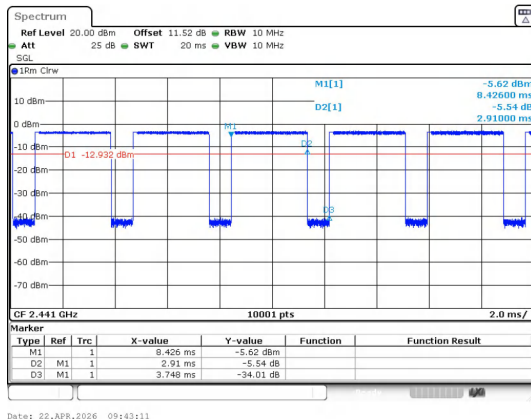
8DPSK(3-DH5)_Channel 78

Ant1:
Test Result

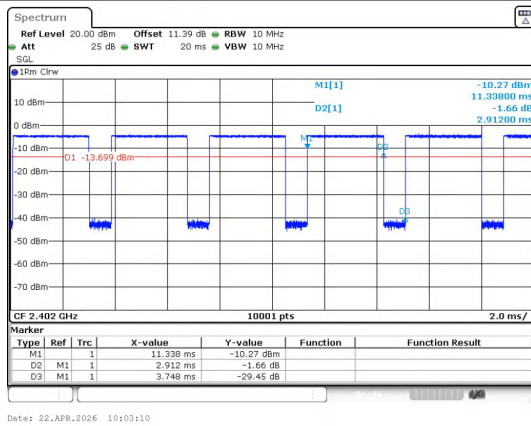
Modulation	Packets	Channel	On Time (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle (linear)	Duty Cycle Factor (dB)	1/T
GFSK	DH5	0	2.904	3.748	77.48	0.7748	1.1081	0.3444
		39	2.902	3.748	77.43	0.7743	1.1109	0.3446
		78	2.902	3.748	77.43	0.7743	1.1109	0.3446
$\pi/4$ DQPSK	2-DH5	0	2.910	3.748	77.64	0.7764	1.0991	0.3436
		39	2.910	3.748	77.64	0.7764	1.0991	0.3436
		78	2.910	3.748	77.64	0.7764	1.0991	0.3436
8DPSK	3-DH5	0	2.912	3.748	77.69	0.7769	1.0963	0.3434
		39	2.910	3.748	77.64	0.7764	1.0991	0.3436
		78	2.912	3.748	77.69	0.7769	1.0963	0.3434

Test Graphs

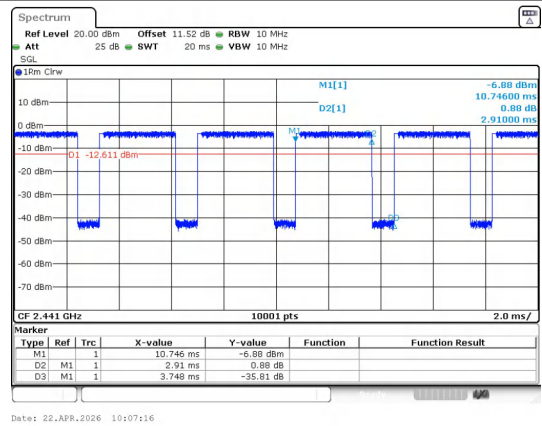




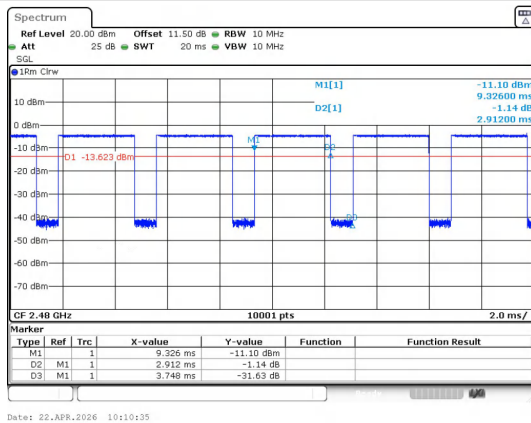
$\pi/4$ DQPSK(2-DH5)_Channel 39



$\pi/4$ DQPSK(2-DH5)_Channel 78



8DPSK(3-DH5)_Channel 0



8DPSK(3-DH5)_Channel 39

8DPSK(3-DH5)_Channel 78

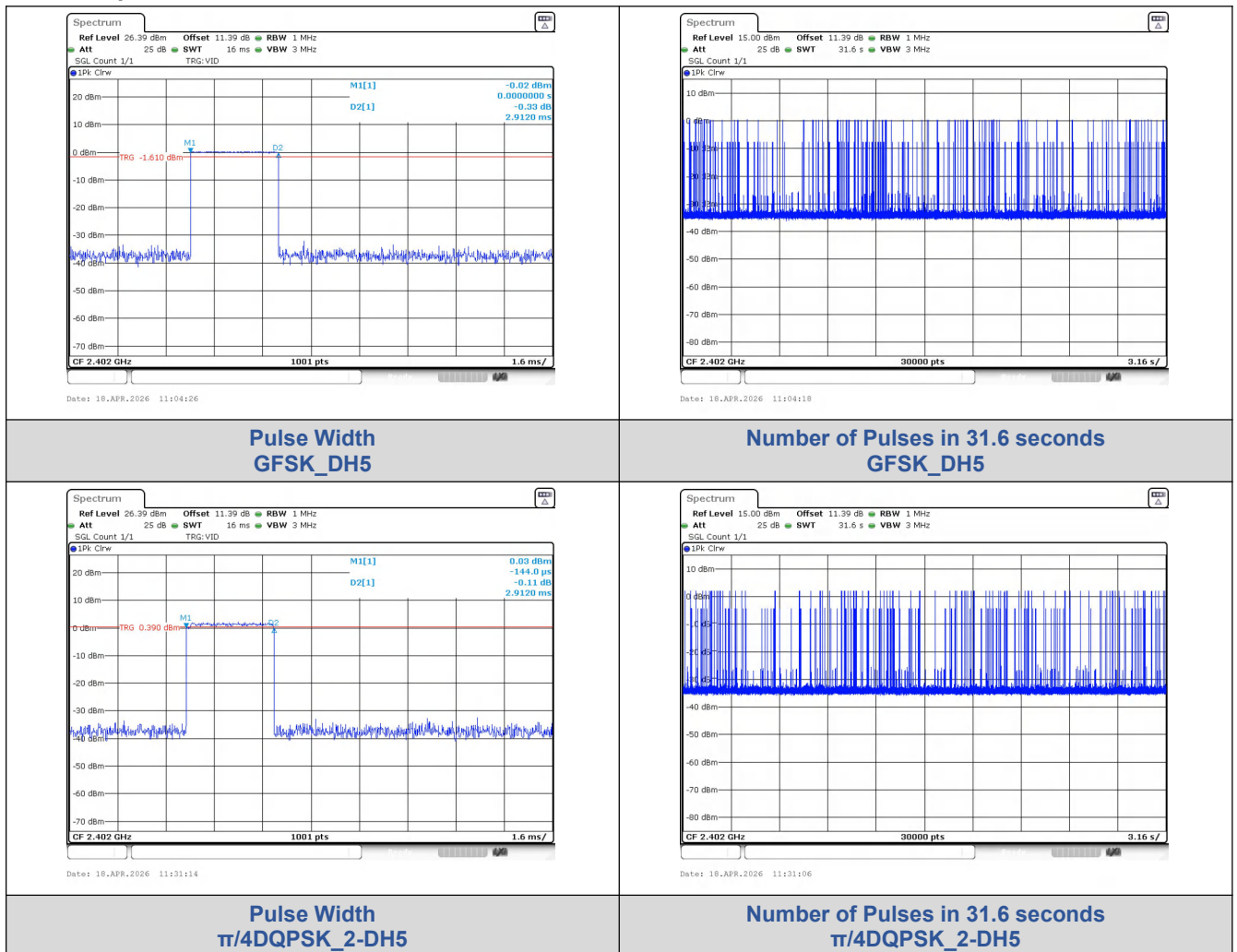
7.6. Dwell Time

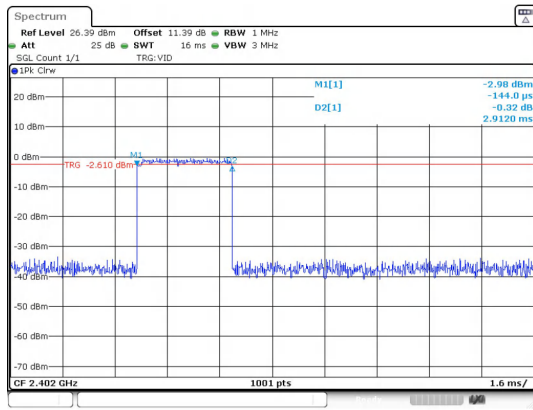
Ant0:

Test Result

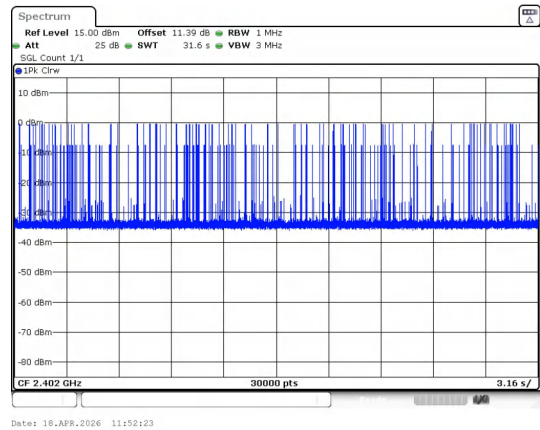
Modulation	Packet	Channel	Pulse Width (ms)	Number of Pulses in 31.6 seconds	Dwell Time (ms)	Limit (ms)	Result
GFSK	DH5	Hopping	2.912	116	337.79	< 400	PASS
π/4DQPSK	2-DH5		2.912	101	294.11		PASS
8DPSK	3-DH5		2.912	108	314.5		PASS
Note: Dwell time=Pulse time(ms)*Number of Pulses in 31.6 seconds							

Test Graphs





Pulse Width
8DPSK_3-DH5



Number of Pulses in 31.6 seconds
8DPSK_3-DH5

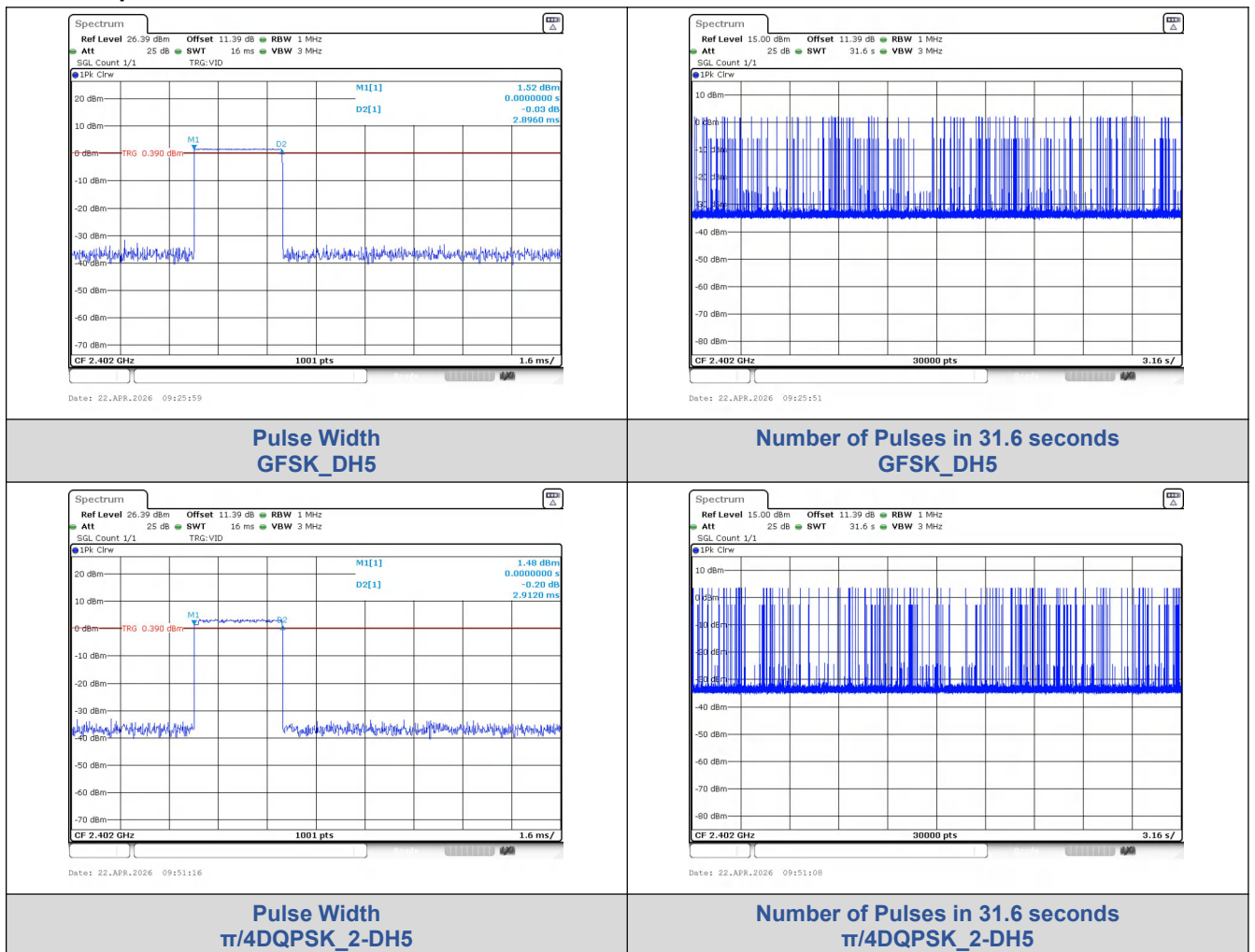
Ant1:

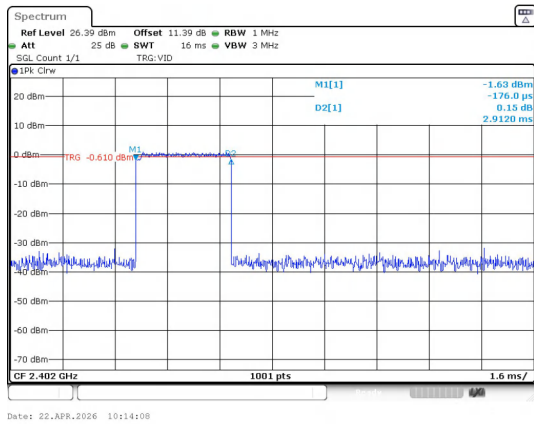
Test Result

Modulation	Packet	Channel	Pulse Width (ms)	Number of Pulses in 31.6 seconds	Dwell Time (ms)	Limit (ms)	Result
GFSK	DH5	Hopping	2.896	109	315.66	< 400	PASS
$\pi/4$ DQPSK	2-DH5		2.912	115	334.88		PASS
8DPSK	3-DH5		2.912	98	285.38		PASS

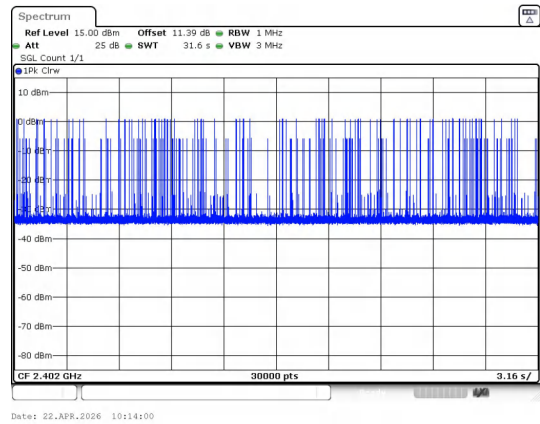
Note: Dwell time=Pulse time(ms)*Number of Pulses in 31.6 seconds

Test Graphs





**Pulse Width
8DPSK_3-DH5**



**Number of Pulses in 31.6 seconds
8DPSK_3-DH5**

7.7. Conducted Spurious & Band Edge Emission

Ant0:

Test Result

Non-Hopping

Modulation	Packet	Channel	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
GFSK	DH5	0	2397.83	-45.635	-20.04	-25.595	PASS
			2400.00	-48.370	-20.04	-28.330	PASS
			4803.80	-34.226	-20.04	-14.186	PASS
		39	4882.09	-34.214	-21.49	-12.724	PASS
		78	2483.50	-48.620	-21.89	-26.730	PASS
			4959.49	-38.662	-21.89	-16.772	PASS
$\pi/4$ DQPSK	2-DH5	0	2399.00	-47.090	-23.1	-23.989	PASS
			2400.00	-48.500	-23.1	-25.400	PASS
			4803.80	-38.991	-23.1	-15.891	PASS
		39	4882.09	-35.673	-21.48	-14.193	PASS
		78	2483.50	-49.380	-21.91	-27.470	PASS
			4960.33	-38.822	-21.91	-16.912	PASS
8DPSK	3-DH5	0	2398.05	-47.513	-23.09	-24.423	PASS
			2400.00	-49.140	-23.09	-26.050	PASS
			4803.80	-39.267	-23.09	-16.177	PASS
		39	4882.09	-43.322	-24.53	-18.792	PASS
		78	2483.50	-48.250	-24.72	-23.530	PASS
			4960.33	-44.649	-24.72	-19.929	PASS

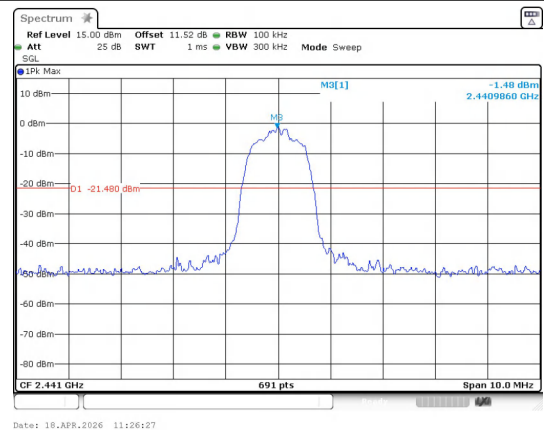
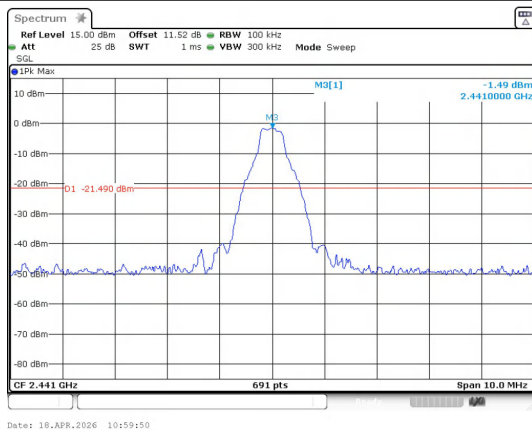
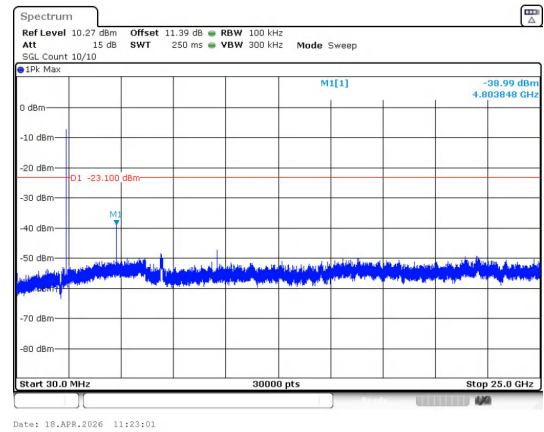
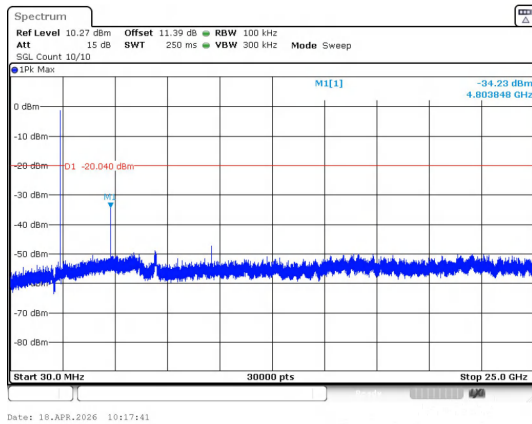
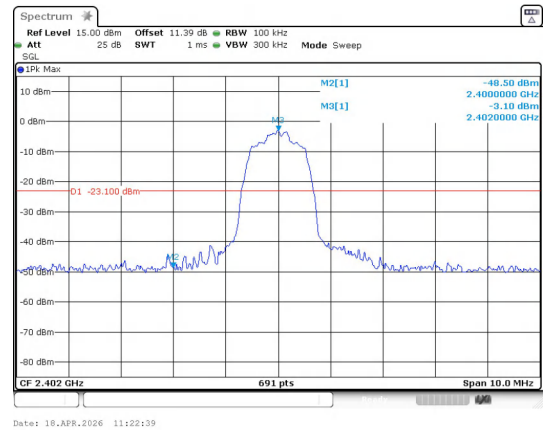
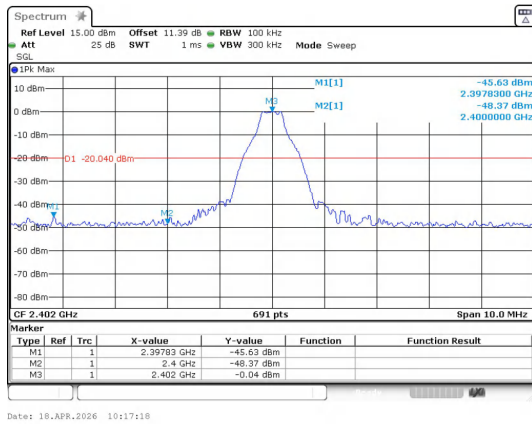
Note: input compensation coefficient (dB)= Cable Loss (dB)

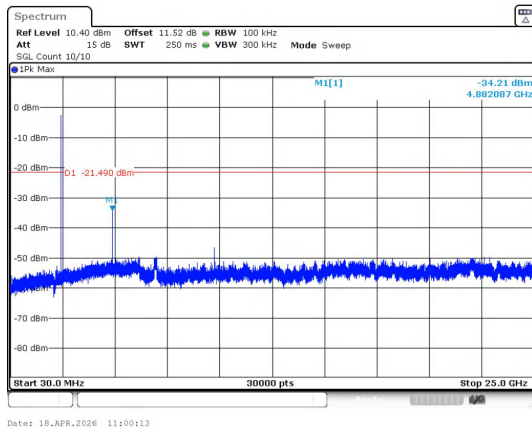
Hopping

Modulation	Packet	Channel	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
GFSK	DH5	Hopping	2398.76	-45.675	-20.13	-25.545	PASS
			2400.00	-46.460	-20.13	-26.330	PASS
			2483.50	-47.430	-21.74	-25.690	PASS
π/4DQPSK	2-DH5		2396.37	-45.794	-20.09	-25.704	PASS
			2400.00	-47.820	-20.09	-27.730	PASS
			2483.50	-46.960	-22.08	-24.880	PASS
8DPSK	3-DH5		2397.13	-45.490	-23.12	-22.370	PASS
			2400.00	-46.270	-23.12	-23.150	PASS
			2483.50	-47.400	-24.71	-22.690	PASS

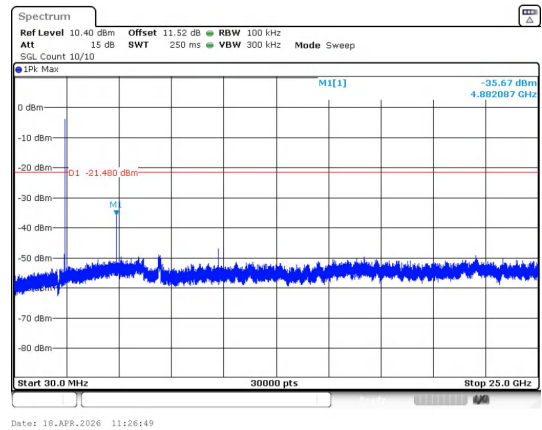
Note: input compensation coefficient (dB)= Cable Loss (dB)

Test Graphs

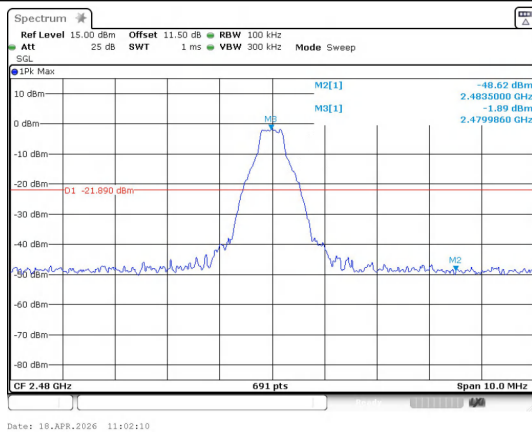




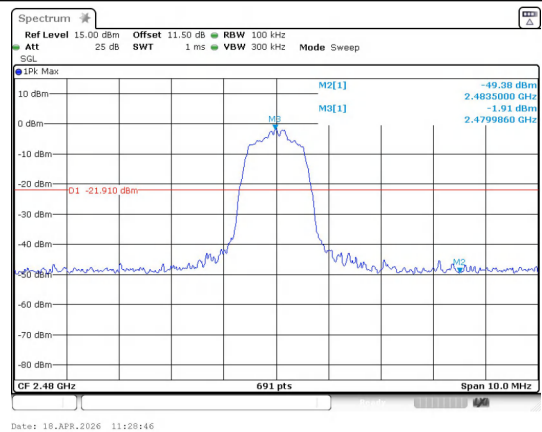
30.0 MHz - 25000.0 MHz
GFSK_DH5_Channel 39



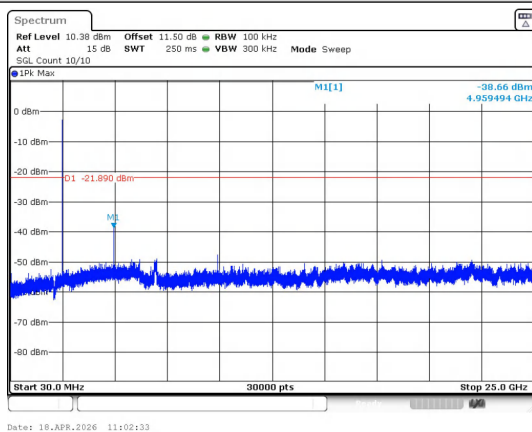
30.0 MHz - 25000.0 MHz
 $\pi/4$ DQPSK_2-DH5_Channel 39



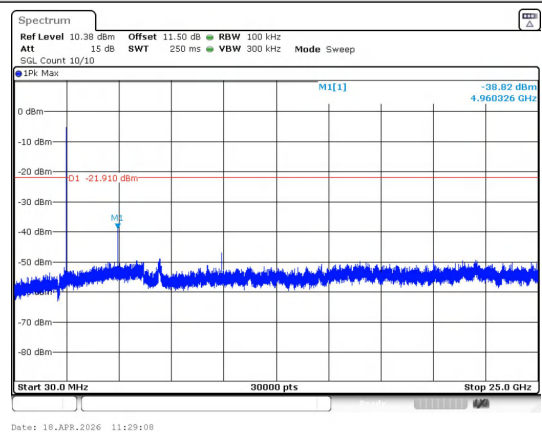
Out Of Band Emission
GFSK_DH5_Channel 78



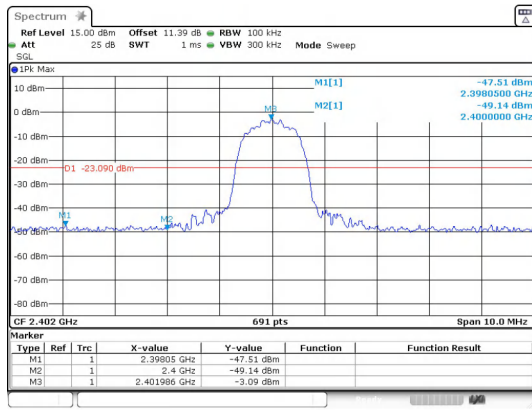
Out Of Band Emission
 $\pi/4$ DQPSK_2-DH5_Channel 78



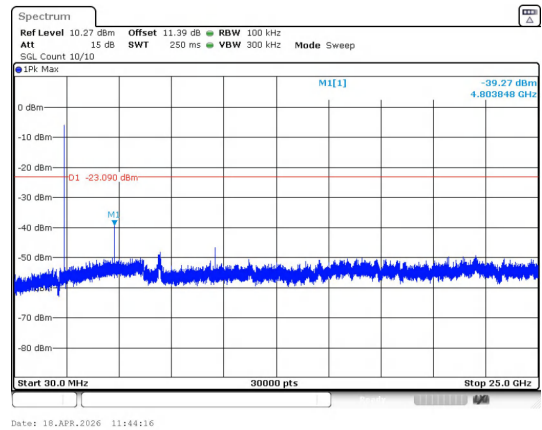
30.0 MHz - 25000.0 MHz
GFSK_DH5_Channel 78



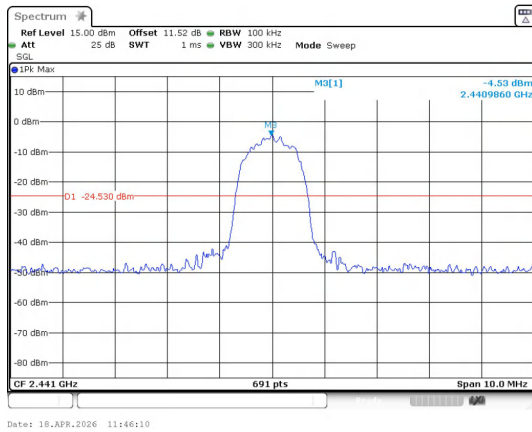
30.0 MHz - 25000.0 MHz
 $\pi/4$ DQPSK_2-DH5_Channel 78



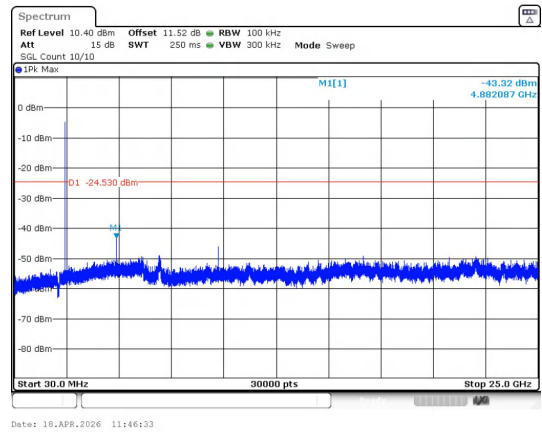
**Out Of Band Emission
8DPSK_3-DH5_Channel 0**



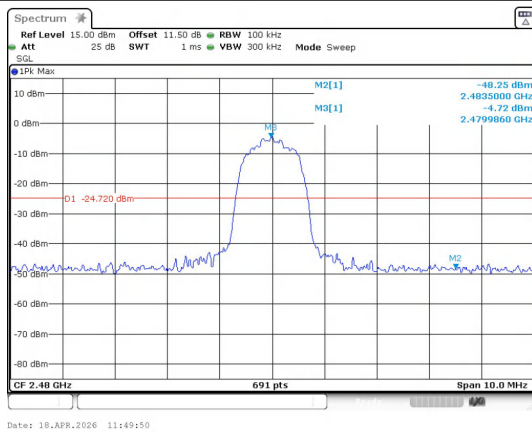
**30.0 MHz - 25000.0 MHz
8DPSK_3-DH5_Channel 0**



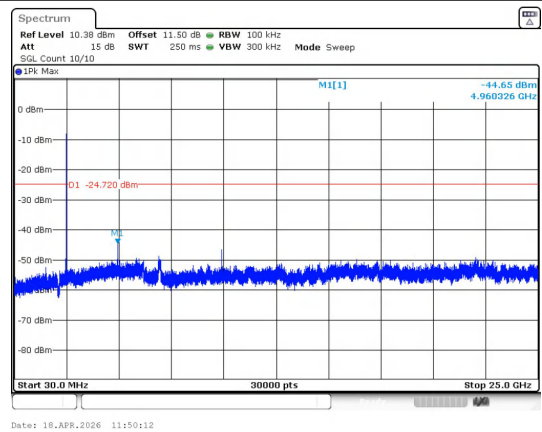
**Out Of Band Emission
8DPSK_3-DH5_Channel 39**



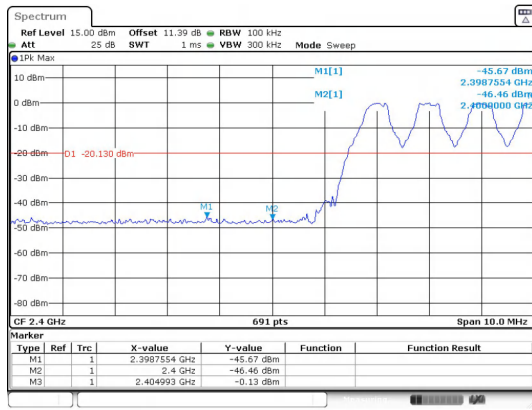
**30.0 MHz - 25000.0 MHz
8DPSK_3-DH5_Channel 39**



**Out Of Band Emission
8DPSK_3-DH5_Channel 78**

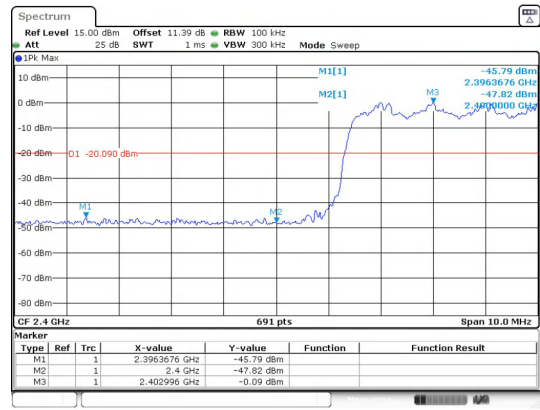


**30.0 MHz - 25000.0 MHz
8DPSK_3-DH5_Channel 78**



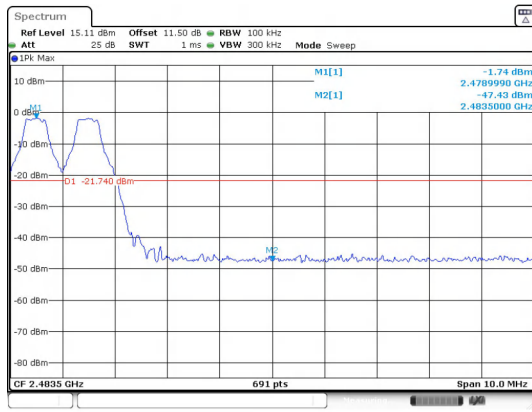
Date: 18.APR.2026 11:11:57

**Out Of Band Emission(Left)
GFSK_DH5_Channel Hopping**



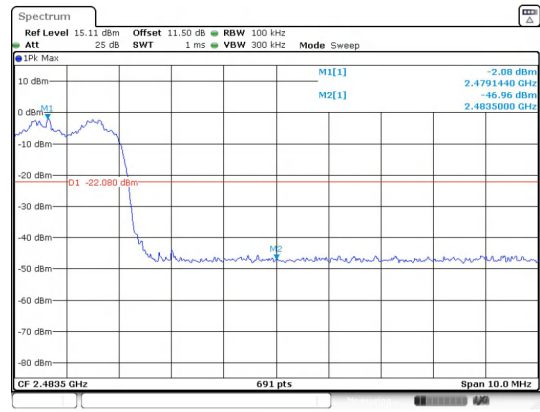
Date: 18.APR.2026 11:38:08

**Out Of Band Emission(Left)
 $\pi/4$ DQPSK_2-DH5_Channel Hopping**



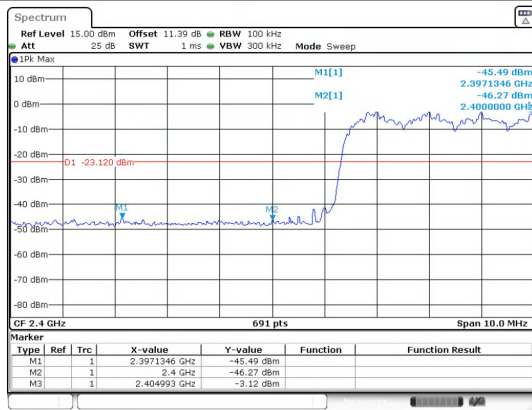
Date: 18.APR.2026 11:15:25

**Out Of Band Emission(Right)
GFSK_DH5_Channel Hopping**



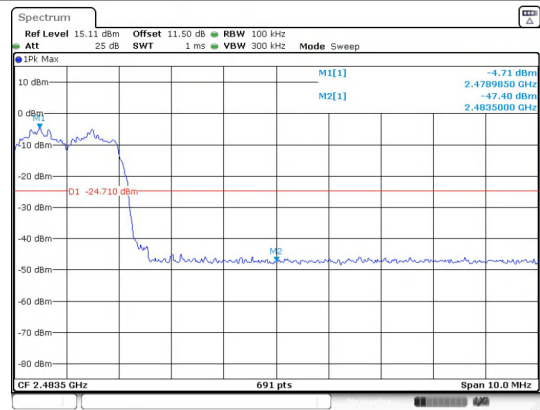
Date: 18.APR.2026 11:40:27

**Out Of Band Emission(Right)
 $\pi/4$ DQPSK_2-DH5_Channel Hopping**



Date: 18.APR.2026 11:58:53

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



Date: 18.APR.2026 12:01:08

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

Ant1:
Test Result
Non-Hopping

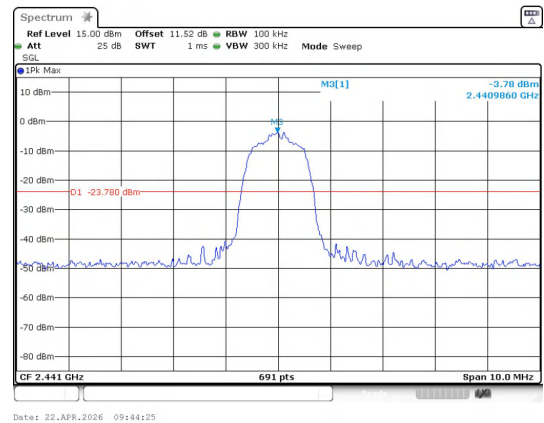
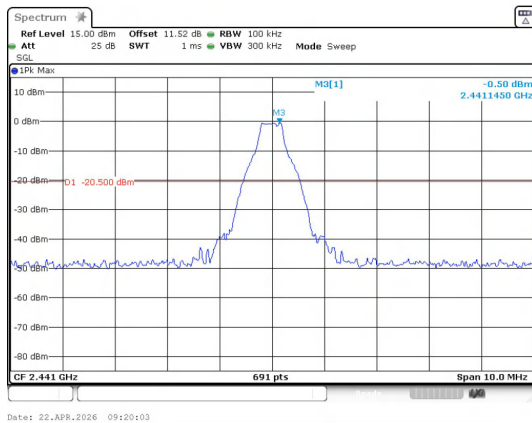
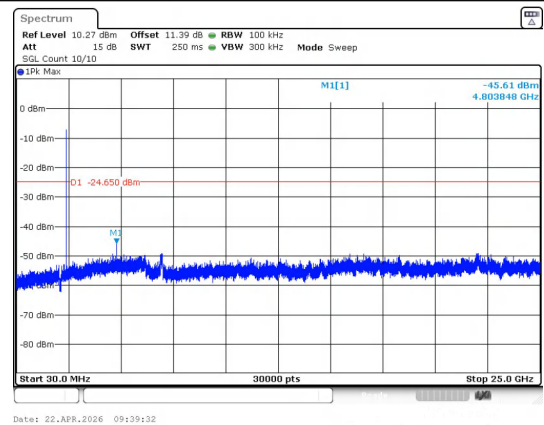
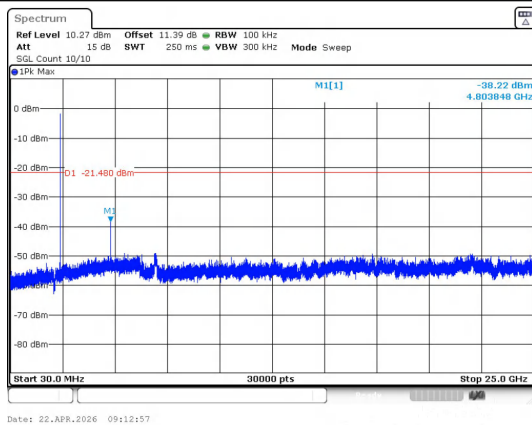
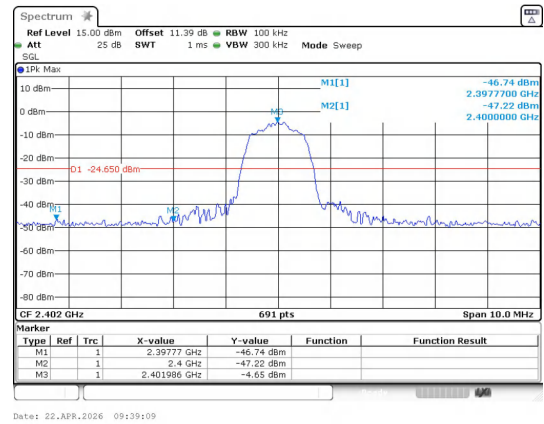
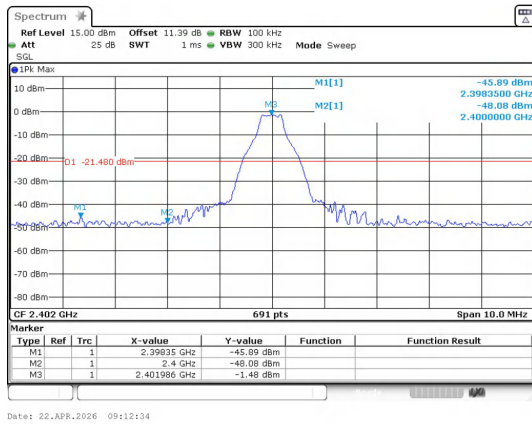
Modulation	Packet	Channel	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
GFSK	DH5	0	2398.35	-45.888	-21.48	-24.408	PASS
			2400.00	-48.080	-21.48	-26.600	PASS
			4803.80	-38.220	-21.48	-16.740	PASS
		39	4882.09	-33.822	-20.5	-13.322	PASS
		78	2483.50	-48.560	-21.43	-27.130	PASS
			4959.49	-37.294	-21.43	-15.864	PASS
$\pi/4$ DQPSK	2-DH5	0	2397.77	-46.736	-24.65	-22.086	PASS
			2400.00	-47.220	-24.65	-22.570	PASS
			4803.80	-45.610	-24.65	-20.960	PASS
		39	4882.09	-40.366	-23.78	-16.586	PASS
		78	2483.50	-48.460	-21.36	-27.100	PASS
			4959.49	-38.234	-21.36	-16.874	PASS
8DPSK	3-DH5	0	2398.34	-46.096	-24.45	-21.646	PASS
			2400.00	-48.390	-24.45	-23.940	PASS
			4803.80	-44.668	-24.45	-20.218	PASS
		39	4882.09	-42.758	-23.54	-19.218	PASS
		78	2483.50	-48.240	-24.46	-23.780	PASS
			4960.33	-43.979	-24.46	-19.519	PASS

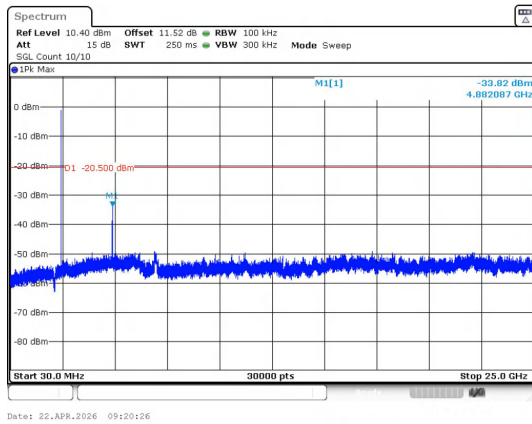
Note: input compensation coefficient (dB)= Cable Loss (dB)

Hopping

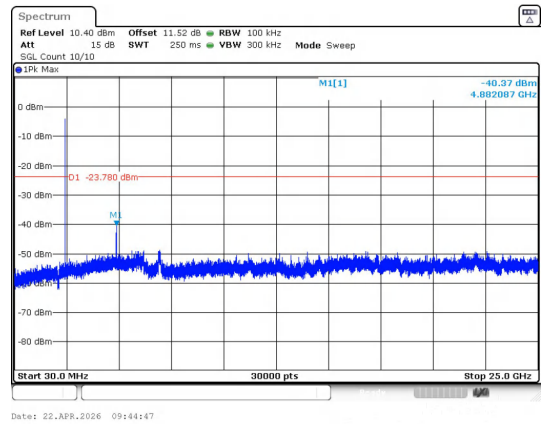
Modulation	Packet	Channel	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
GFSK	DH5	Hopping	2395.09	-45.638	-18.5	-27.138	PASS
			2400.00	-45.900	-18.5	-27.400	PASS
			2483.50	-46.110	-21.32	-24.790	PASS
π/4DQPSK	2-DH5		2398.76	-45.823	-18.68	-27.143	PASS
			2400.00	-47.750	-18.68	-29.070	PASS
			2483.50	-46.800	-21.3	-25.500	PASS
8DPSK	3-DH5		2397.26	-45.554	-21.63	-23.924	PASS
			2400.00	-47.310	-21.63	-25.680	PASS
			2483.50	-46.660	-24.53	-22.130	PASS
Note: input compensation coefficient (dB)= Cable Loss (dB)							

Test Graphs

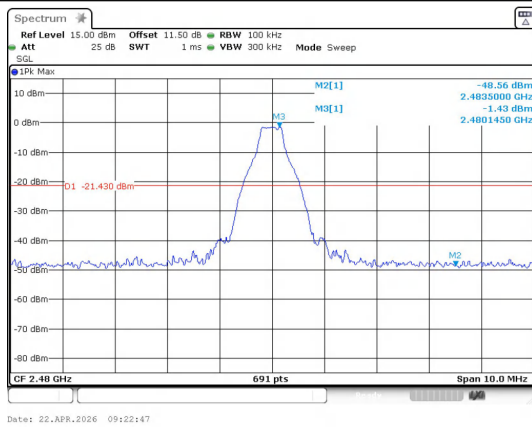




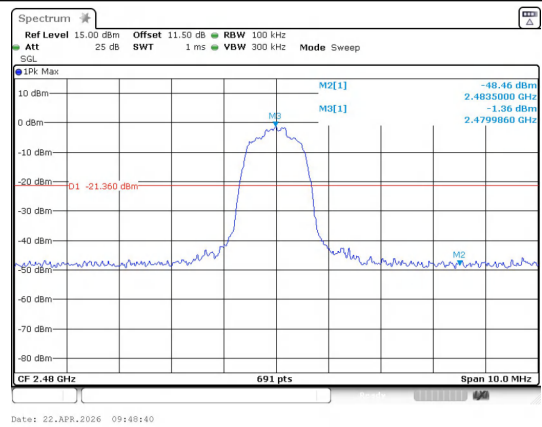
30.0 MHz - 25000.0 MHz
GFSK_DH5_Channel 39



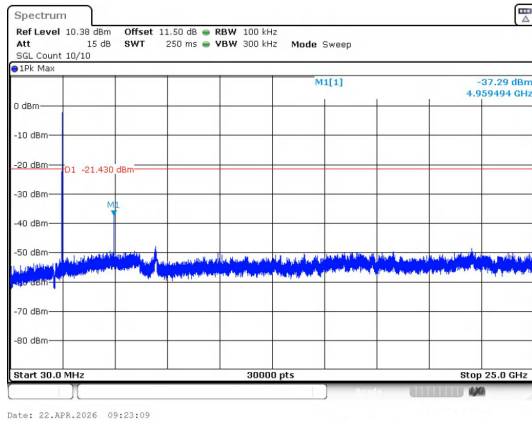
30.0 MHz - 25000.0 MHz
 $\pi/4$ DQPSK_2-DH5_Channel 39



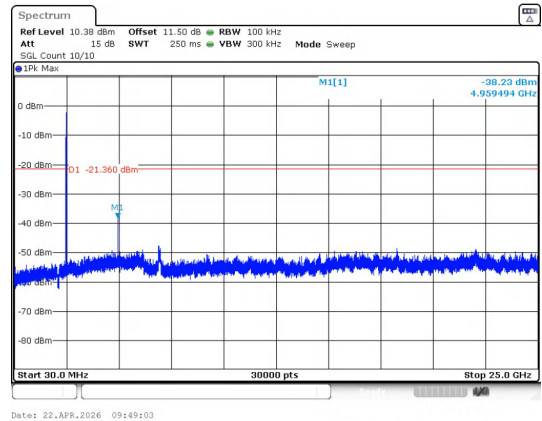
Out Of Band Emission
GFSK_DH5_Channel 78



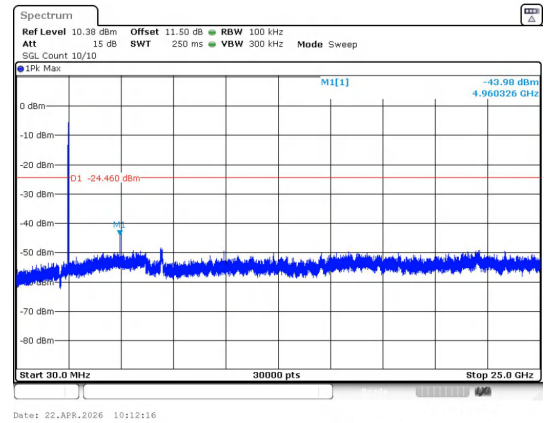
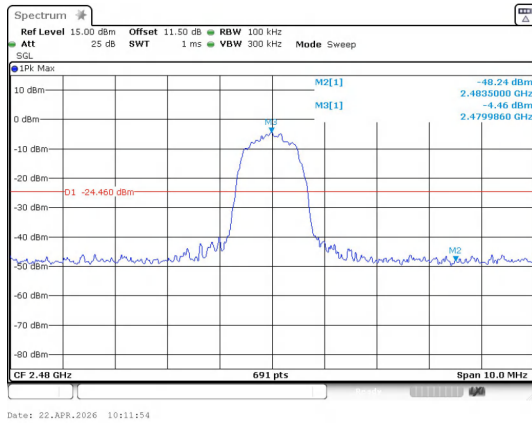
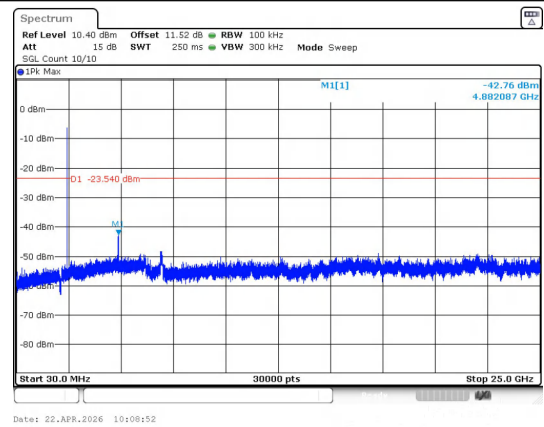
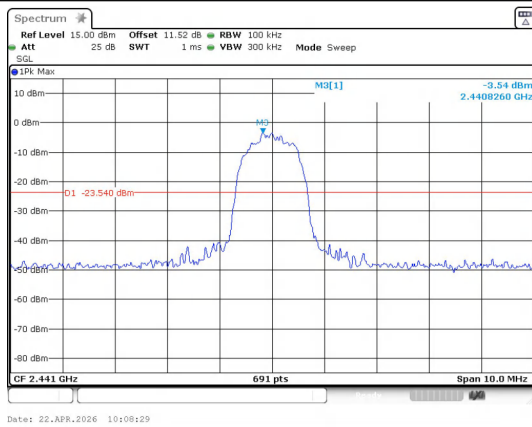
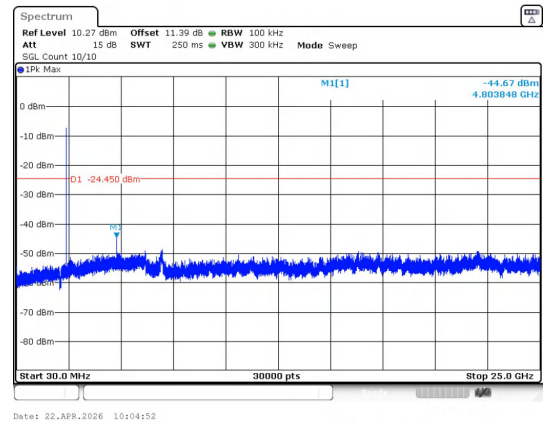
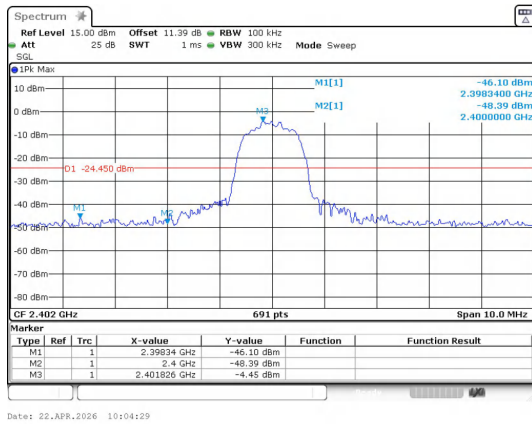
Out Of Band Emission
 $\pi/4$ DQPSK_2-DH5_Channel 78

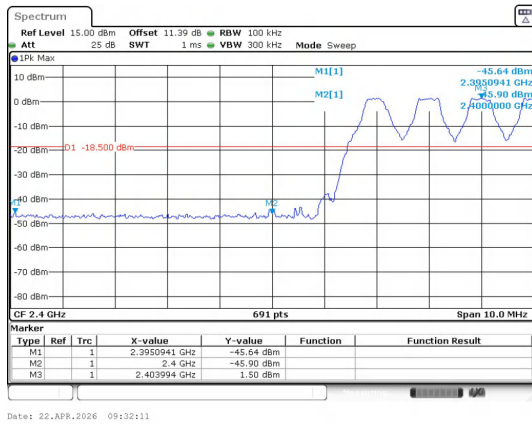


30.0 MHz - 25000.0 MHz
GFSK_DH5_Channel 78

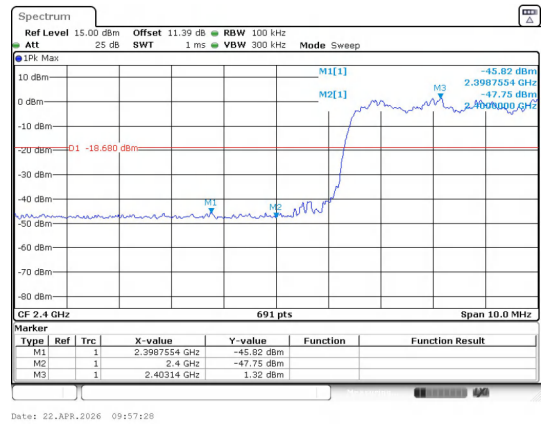


30.0 MHz - 25000.0 MHz
 $\pi/4$ DQPSK_2-DH5_Channel 78

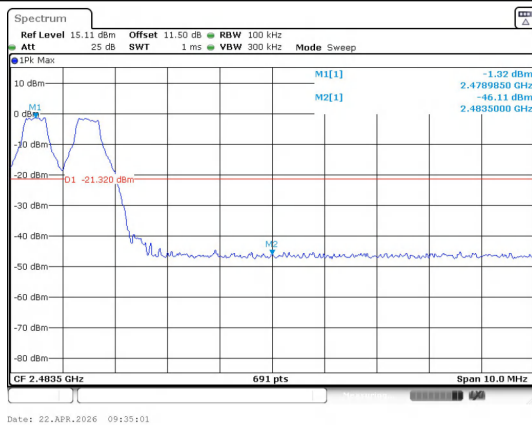




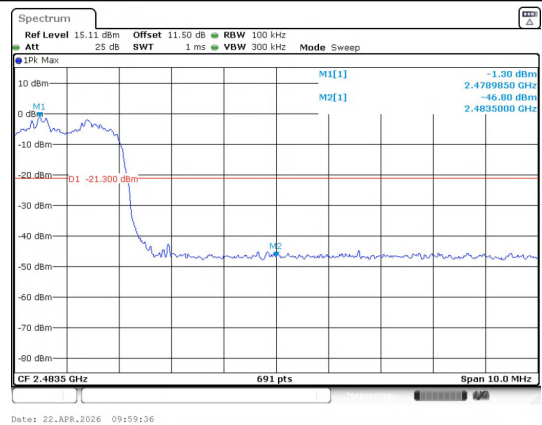
Out Of Band Emission(Left)
GFSK_DH5_Channel Hopping



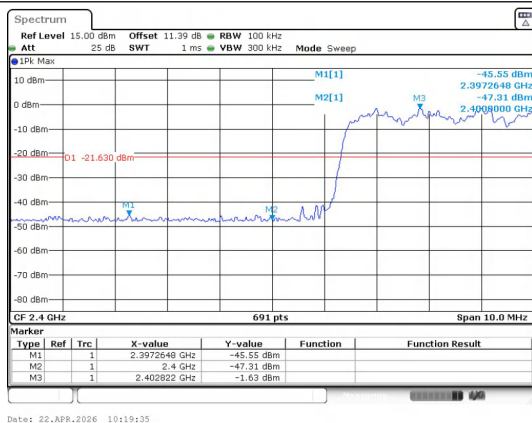
Out Of Band Emission(Left)
 $\pi/4$ DQPSK_2-DH5_Channel Hopping



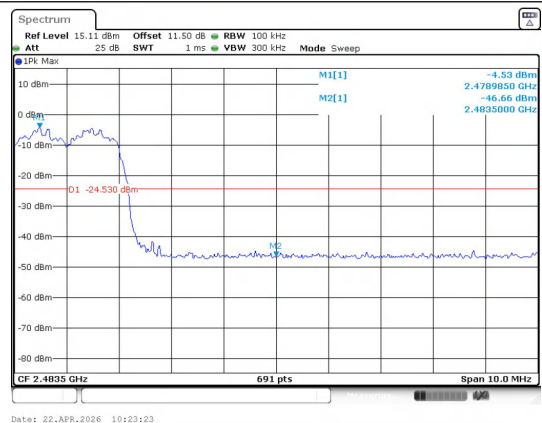
Out Of Band Emission(Right)
GFSK_DH5_Channel Hopping



Out Of Band Emission(Right)
 $\pi/4$ DQPSK_2-DH5_Channel Hopping



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



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

-----End of the report-----