

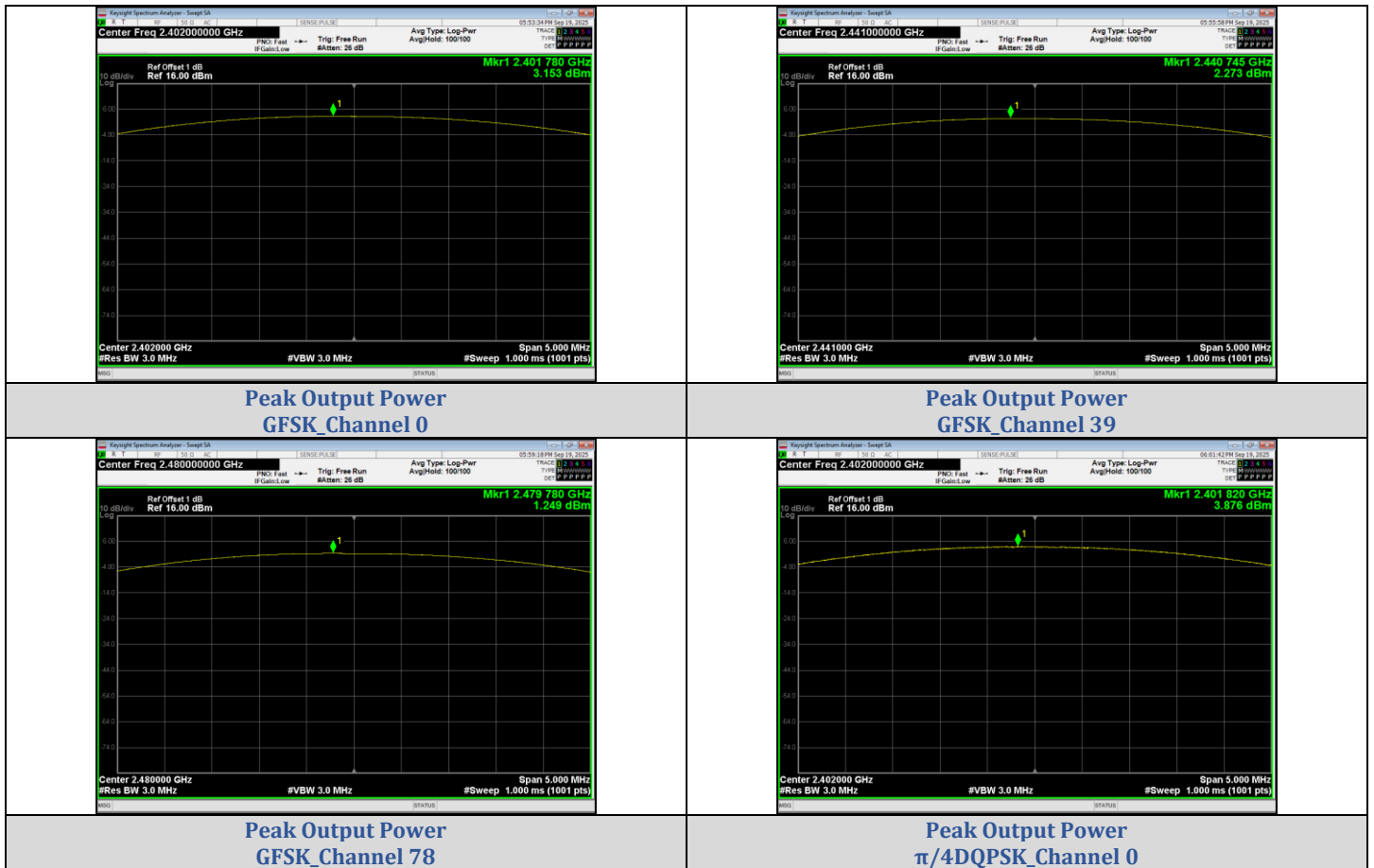
Appendix RF test data for BT

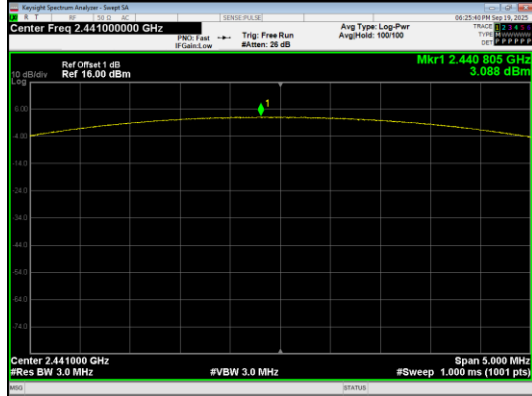
Conducted Output Power

Test Result

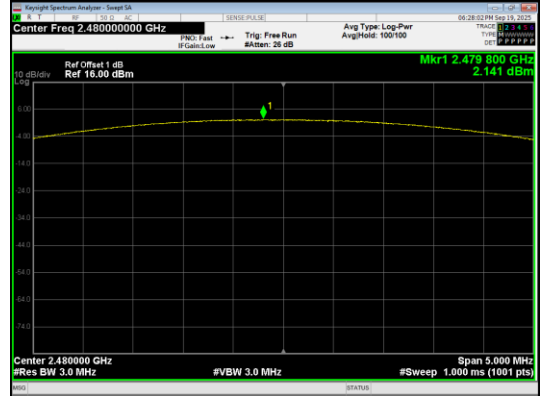
Modulation	Packet Type	Channel	Peak Output Power (dBm)	Peak Output Power (mW)	Limit (dBm)	Result
GFSK	DH5	0	3.15	2.07	≤20.97	PASS
		39	2.27	1.69		PASS
		78	1.25	1.33		PASS
$\pi/4$ DQPSK	2-DH5	0	3.88	2.44		PASS
		39	3.09	2.04		PASS
		78	2.14	1.64		PASS
8DPSK	3-DH5	0	4.25	2.66		PASS
		39	3.45	2.21		PASS
		78	2.52	1.79		PASS

Test Graphs

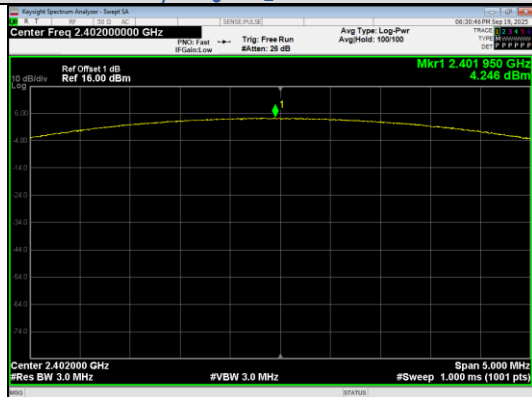




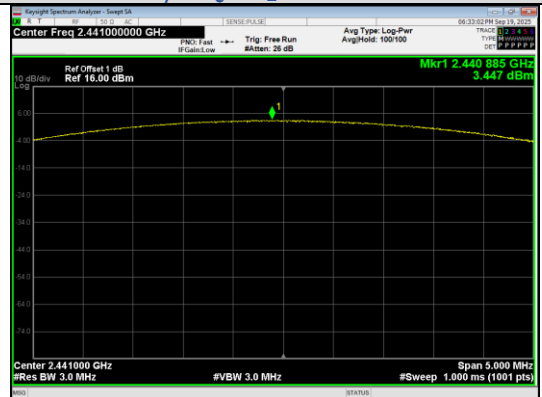
Peak Output Power
 $\pi/4$ DQPSK_Channel 39



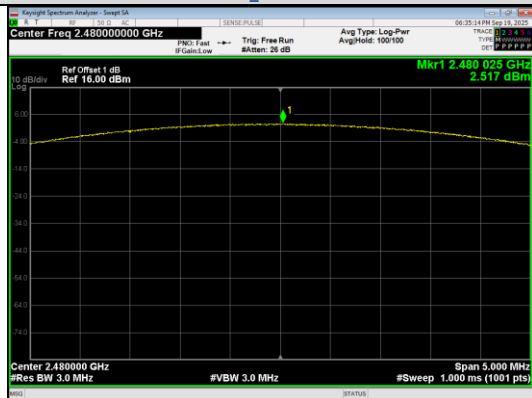
Peak Output Power
 $\pi/4$ DQPSK_Channel 78



Peak Output Power
8DPSK_Channel 0



Peak Output Power
8DPSK_Channel 39



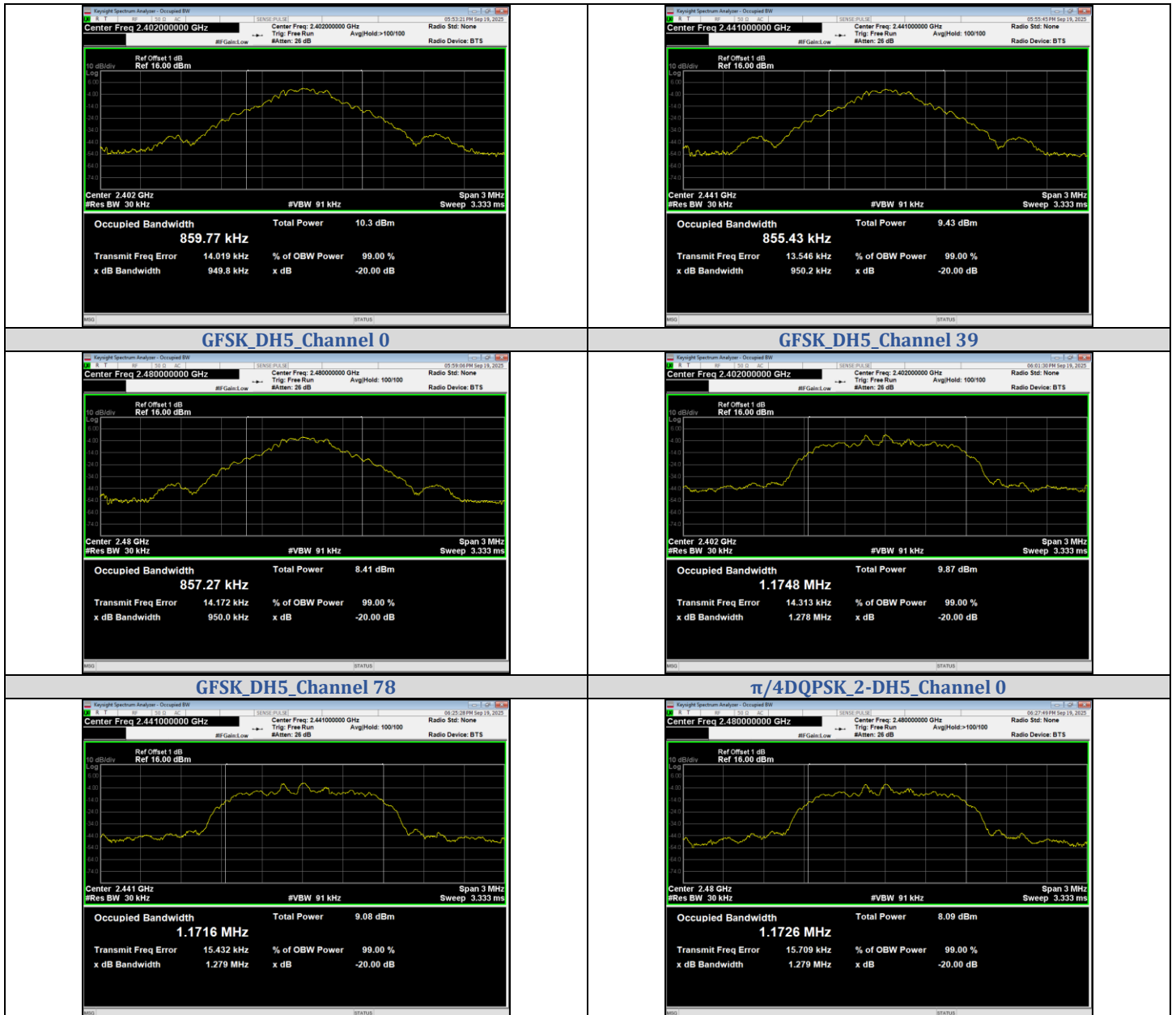
Peak Output Power
8DPSK_Channel 78

20dB Bandwidth

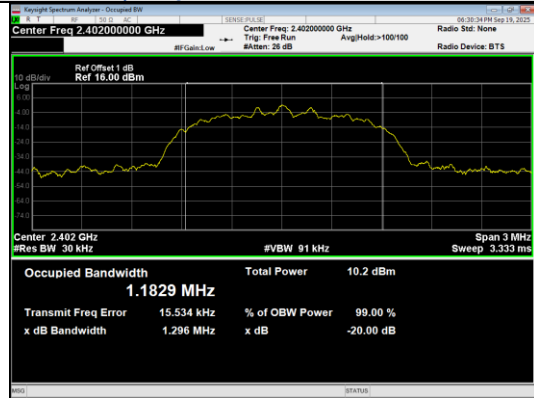
Test Result

Modulation	Channel	Center Frequency (MHz)	20 dB Bandwidth (MHz)
GFSK	0	2402 MHz	0.9500
	39	2441 MHz	0.9500
	78	2480 MHz	0.9500
$\pi/4$ DQPSK	0	2402 MHz	1.280
	39	2441 MHz	1.280
	78	2480 MHz	1.280
8DPSK	0	2402 MHz	1.300
	39	2441 MHz	1.290
	78	2480 MHz	1.290

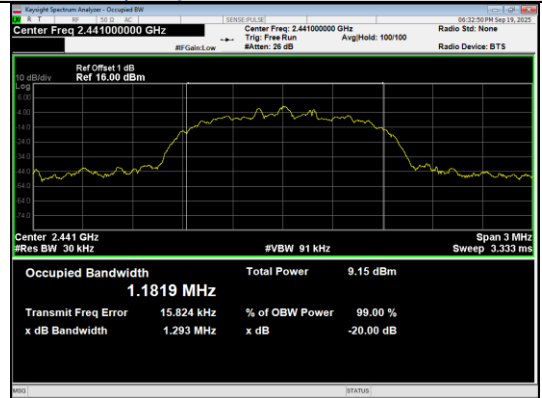
Test Graphs



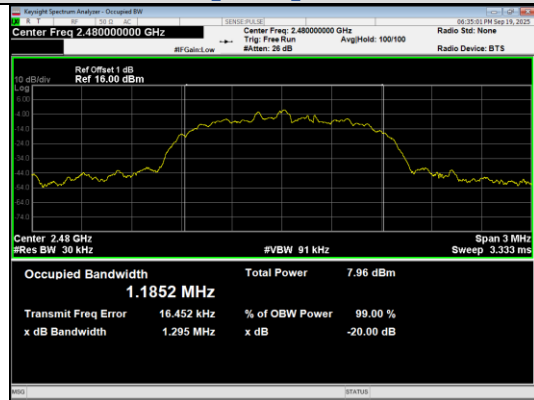
$\pi/4$ DQPSK 2-DH5_Channel 39



$\pi/4$ DQPSK 2-DH5_Channel 78



8DPSK 3-DH5_Channel 0



8DPSK 3-DH5_Channel 39

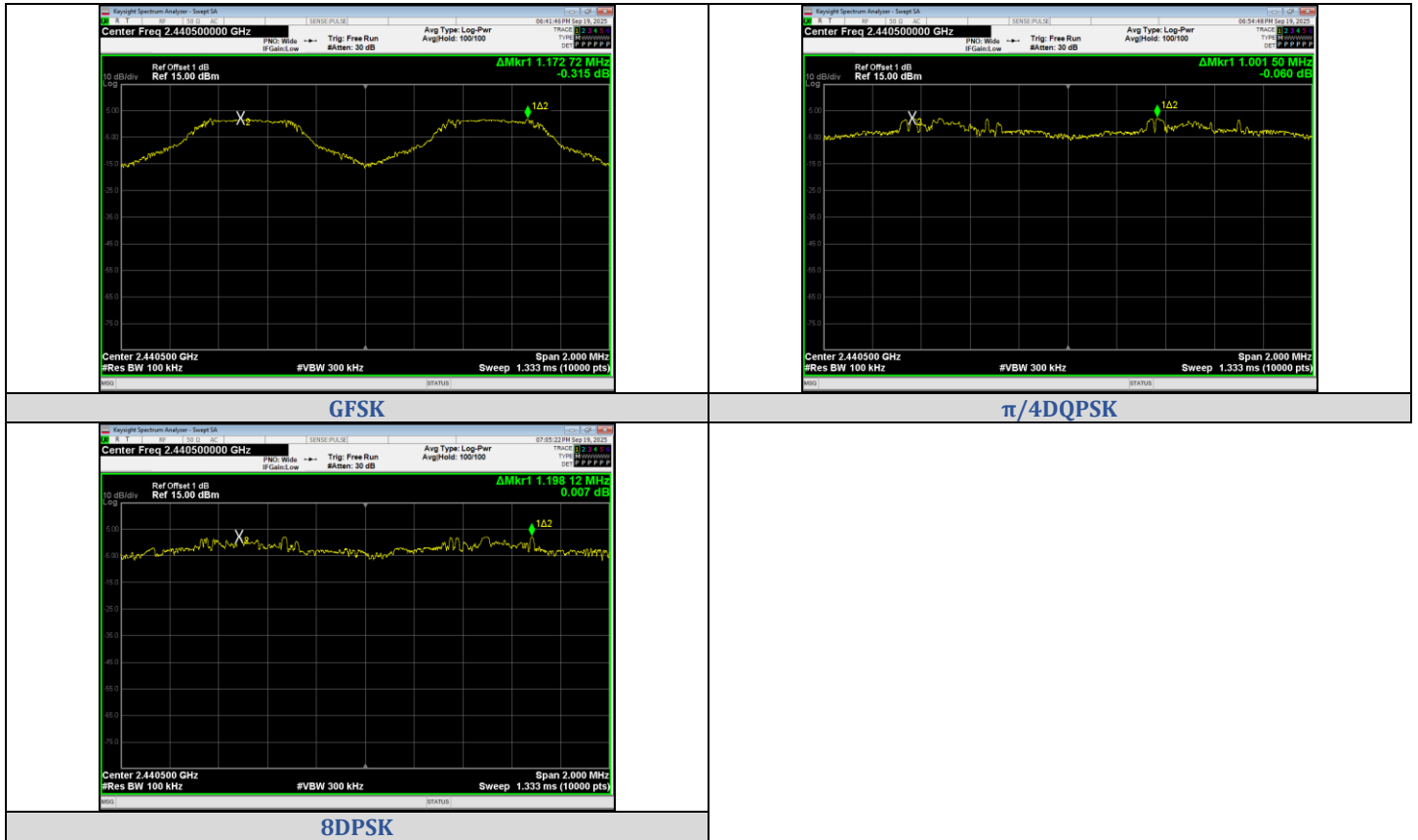
8DPSK 3-DH5_Channel 78

Carrier Frequencies Separation

Test Result

Modulation	Packet	Left Center frequency (MHz)	Right Center frequency (MHz)	Hopping Frequency Separation (MHz)	Limit (MHz)	Result
GFSK	DH5	2439.9906	2441.1634	1.1727	0.633	PASS
$\pi/4$ DQPSK	2-DH5	2439.8636	2440.8651	1.0015	0.853	PASS
8DPSK	3-DH5	2439.983	2441.1812	1.1981	0.867	PASS

Test Graphs



Conducted Out Of Band Emission

Test Result

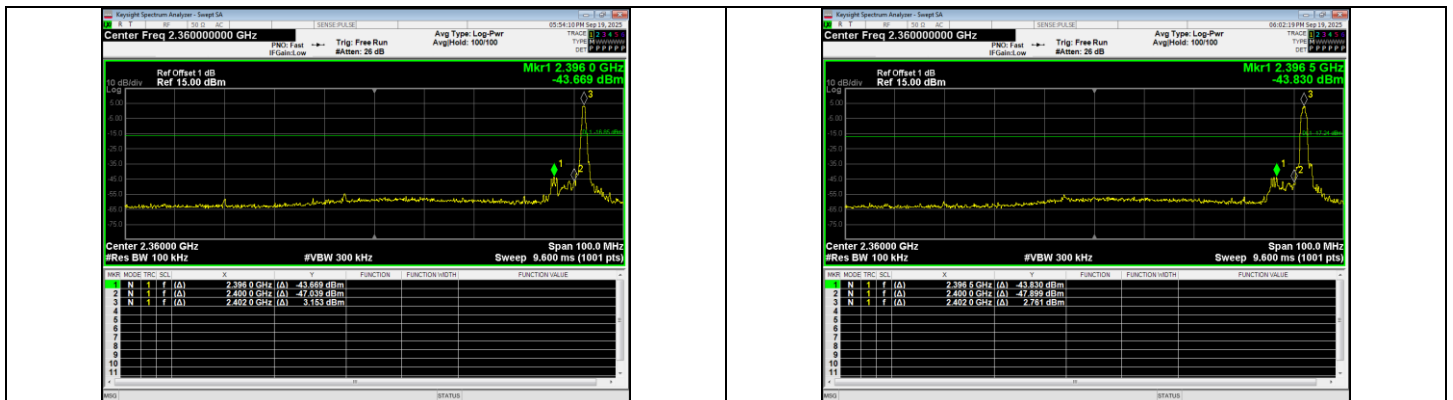
Non-Hopping

Modulation	Packet	Channel	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
GFSK	DH5	0	2396.00	-43.669	-16.85	-26.819	PASS
			2400.00	-47.040	-16.85	-30.190	PASS
			9602.20	-31.893	-16.85	-15.043	PASS
		39	9758.31	-31.447	-17.87	-13.577	PASS
		78	2483.50	-50.810	-18.85	-31.960	PASS
			9914.37	-30.873	-18.85	-12.023	PASS
$\pi/4$ DQPSK	2-DH5	0	2396.50	-43.830	-17.24	-26.590	PASS
			2400.00	-47.900	-17.24	-30.660	PASS
			9602.20	-31.922	-17.24	-14.682	PASS
		39	9758.31	-31.224	-17.81	-13.414	PASS
		78	2483.50	-50.580	-18.78	-31.800	PASS
			9914.37	-30.717	-18.78	-11.937	PASS
8DPSK	3-DH5	0	2396.00	-44.047	-16.86	-27.187	PASS
			2400.00	-44.810	-16.86	-27.950	PASS
			9602.20	-31.710	-16.86	-14.850	PASS
		39	9758.31	-31.339	-18.21	-13.129	PASS
		78	2483.50	-51.520	-18.78	-32.740	PASS
			9914.37	-30.791	-18.78	-12.011	PASS

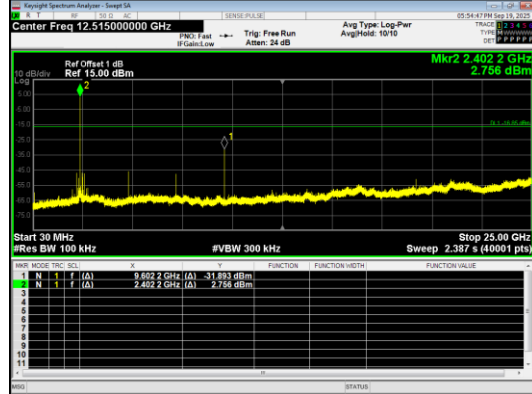
Hopping

Modulation	Packet	Channel	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
GFSK	DH5	Hopping	2400.00	-43.840	-17.02	-26.820	PASS
π/4DQPSK	2-DH5		2483.50	-51.610	-18.63	-32.980	PASS
			2397.00	-43.951	-16.92	-27.031	PASS
			2400.00	-45.780	-16.92	-28.860	PASS
			2483.50	-57.140	-18.62	-38.520	PASS
8DPSK	3-DH5		2400.00	-43.690	-17.13	-26.560	PASS
			2483.50	-55.040	-18.65	-36.390	PASS

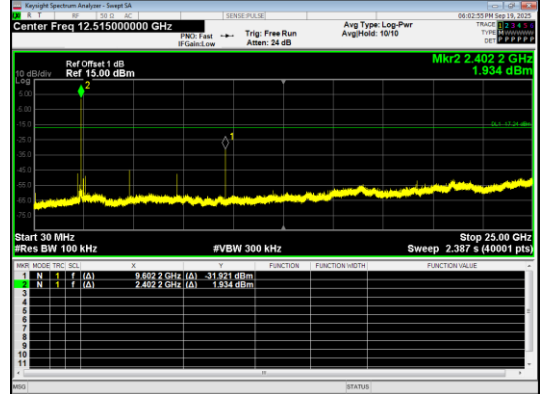
Test Graphs



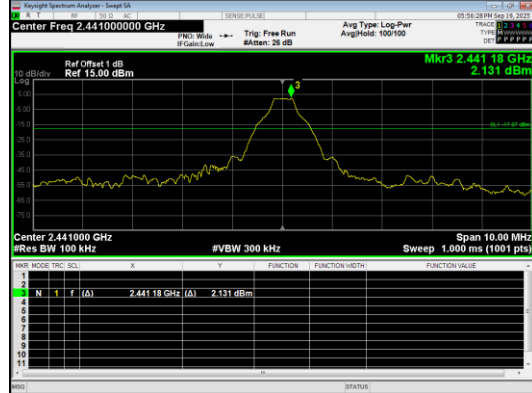
Out Of Band Emission GFSK_DH5_Channel 0



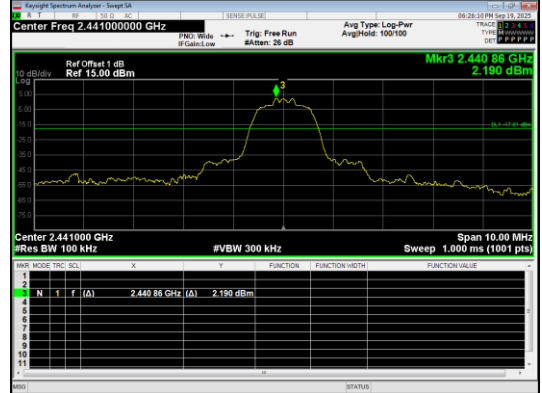
Out Of Band Emission $\pi/4$ DQPSK_2-DH5_Channel 0



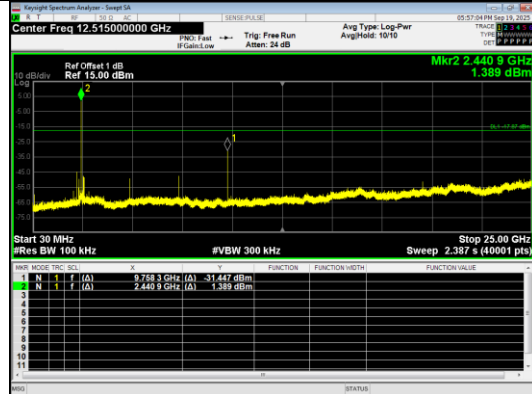
30.0 MHz - 25000.0 MHz GFSK_DH5_Channel 0



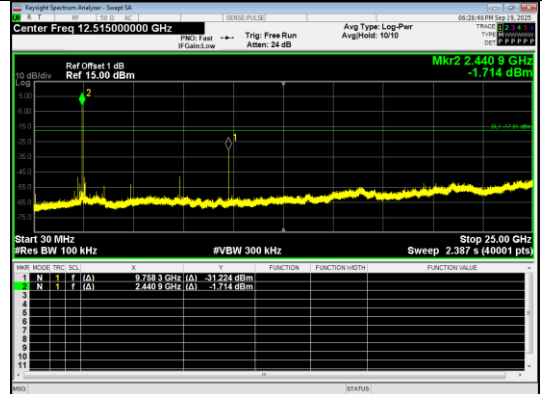
30.0 MHz - 25000.0 MHz $\pi/4$ DQPSK_2-DH5_Channel 0



Out Of Band Emission GFSK_DH5_Channel 39

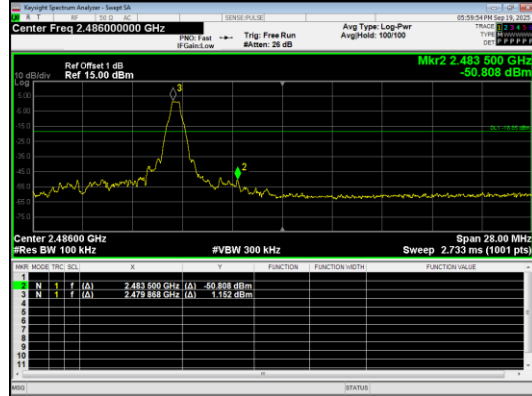


Out Of Band Emission $\pi/4$ DQPSK_2-DH5_Channel 39

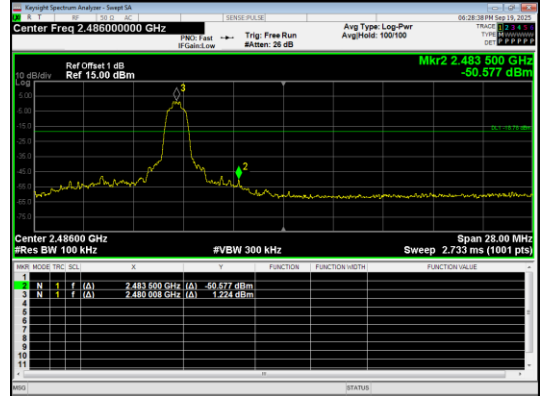


30.0 MHz - 25000.0 MHz GFSK_DH5_Channel 39

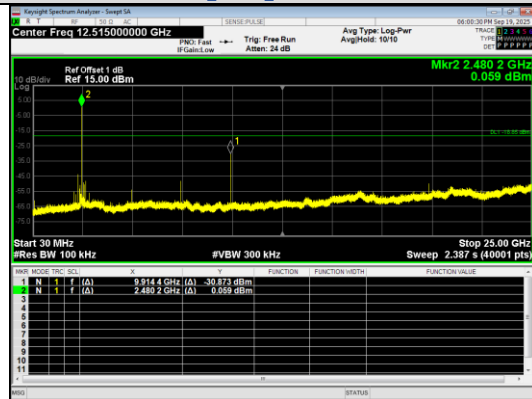
30.0 MHz - 25000.0 MHz $\pi/4$ DQPSK_2-DH5_Channel 39



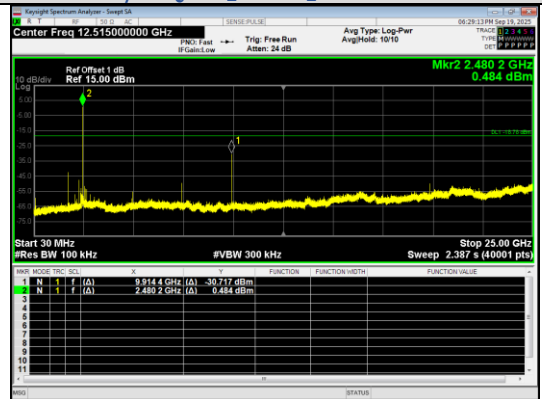
Out Of Band Emission
GFSK_DH5_Channel 78



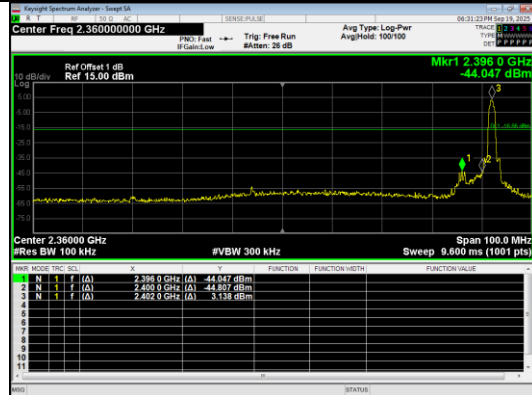
Out Of Band Emission
 $\pi/4$ DQPSK_2-DH5_Channel 78



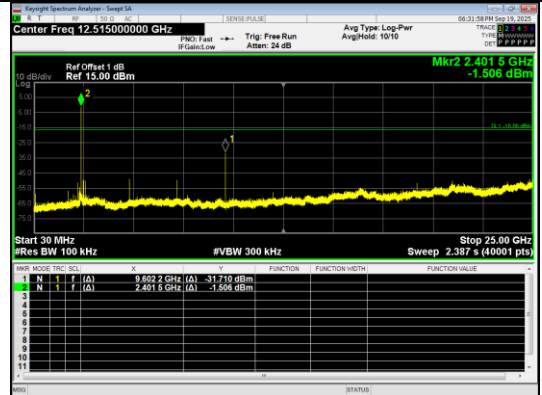
30.0 MHz - 25000.0 MHz
GFSK_DH5_Channel 78



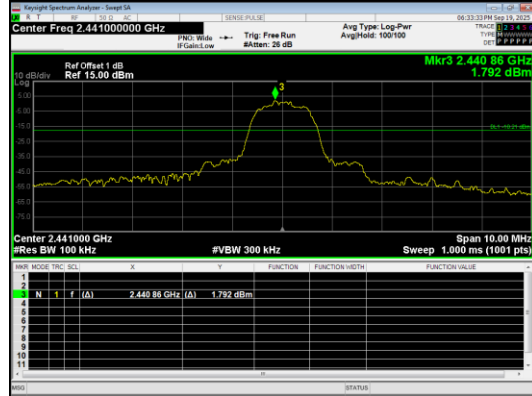
30.0 MHz - 25000.0 MHz
 $\pi/4$ DQPSK_2-DH5_Channel 78



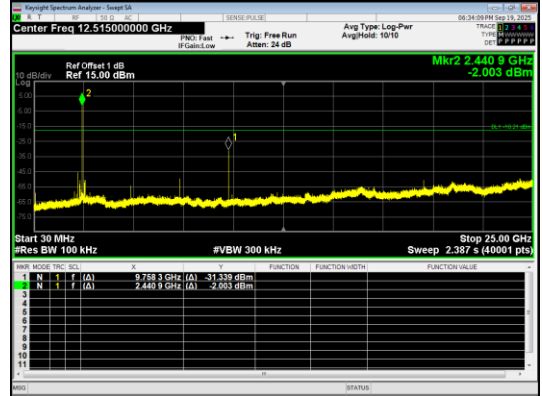
Out Of Band Emission
8DPSK_3-DH5_Channel 0



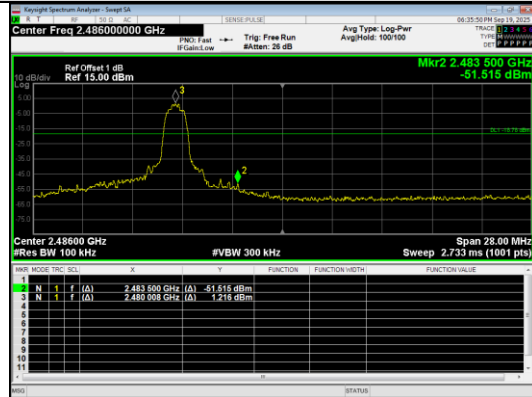
30.0 MHz - 25000.0 MHz
8DPSK_3-DH5_Channel 0



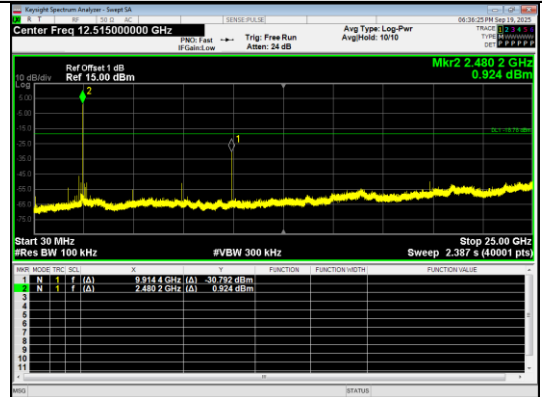
Out Of Band Emission
8DPSK_3-DH5_Channel 39



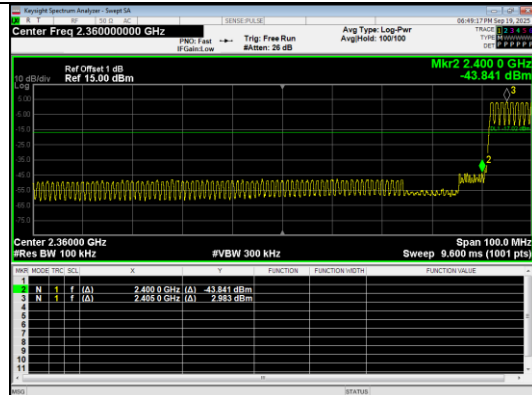
30.0 MHz - 25000.0 MHz
8DPSK_3-DH5_Channel 39



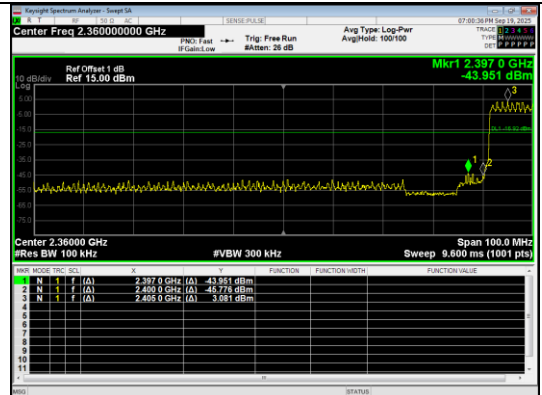
Out Of Band Emission
8DPSK_3-DH5_Channel 78



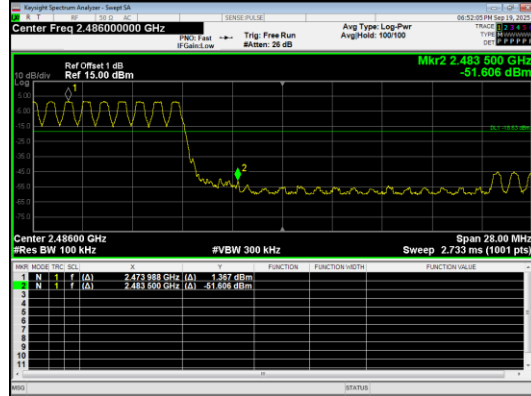
30.0 MHz - 25000.0 MHz
8DPSK_3-DH5_Channel 78



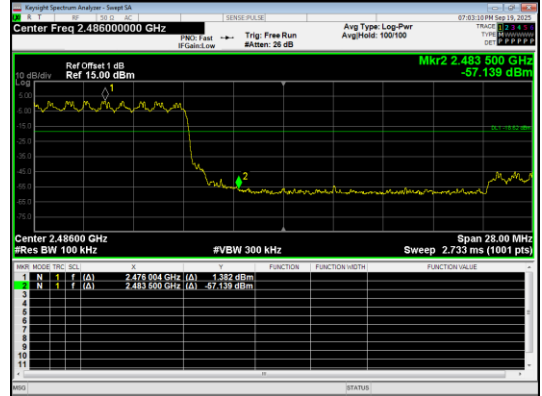
Out Of Band Emission(Left)
GFSK_DH5_Channel Hopping



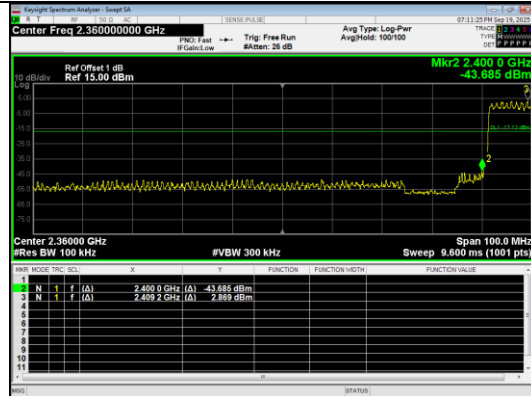
Out Of Band Emission(Left)
 $\pi/4$ DQPSK_2-DH5_Channel Hopping



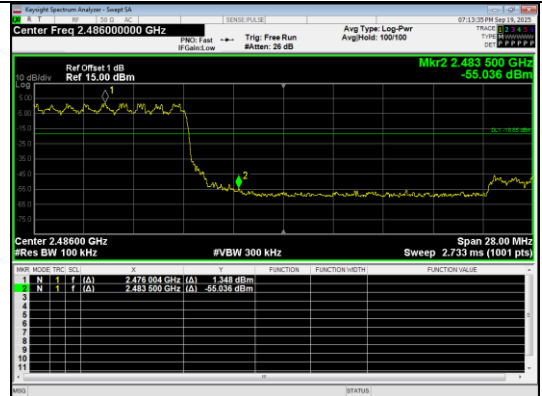
Out Of Band Emission(Right)
GFSK_DH5_Channel Hopping



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



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



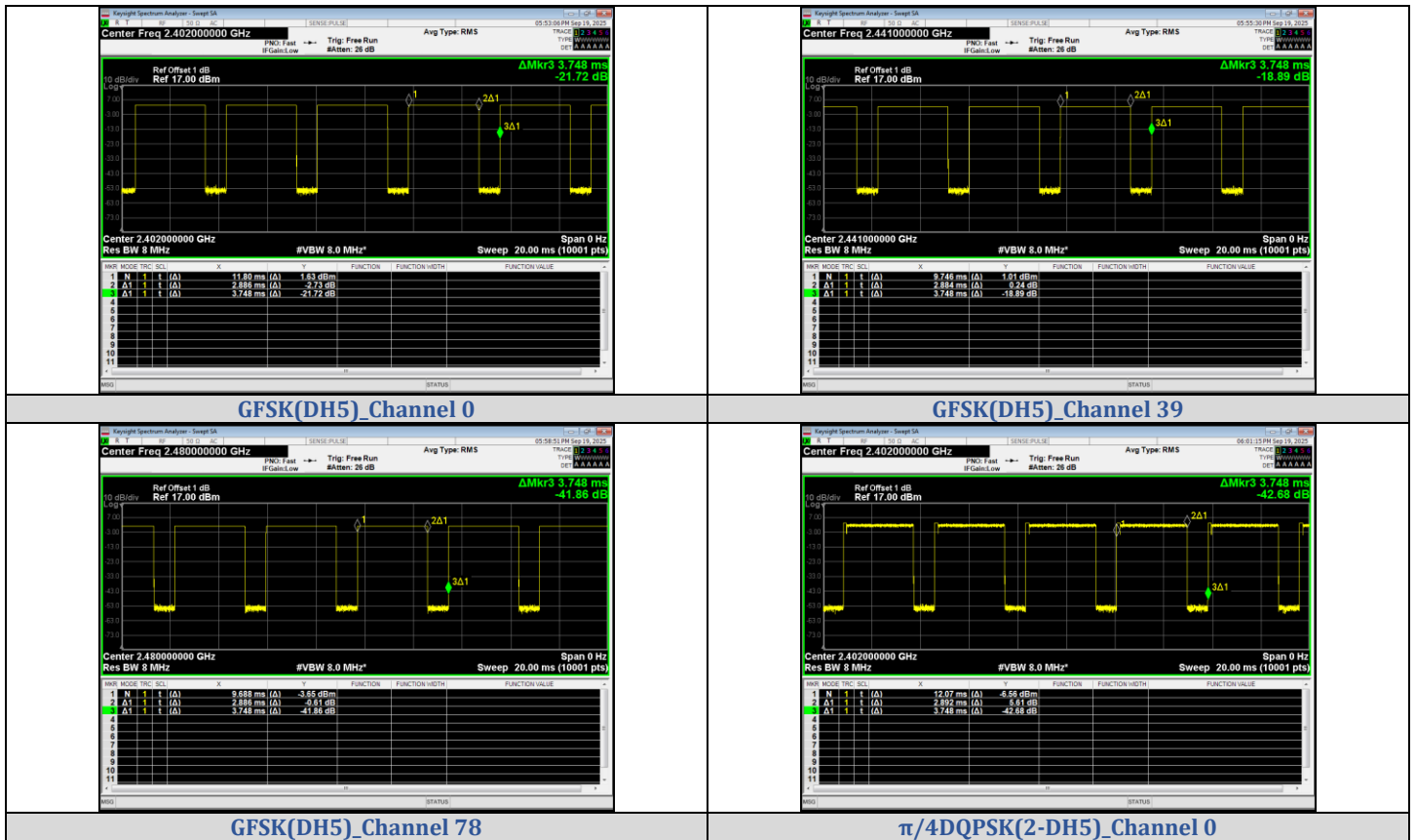
Out Of Band Emission(Right)
8DPSK_3-DH5_Channel Hopping

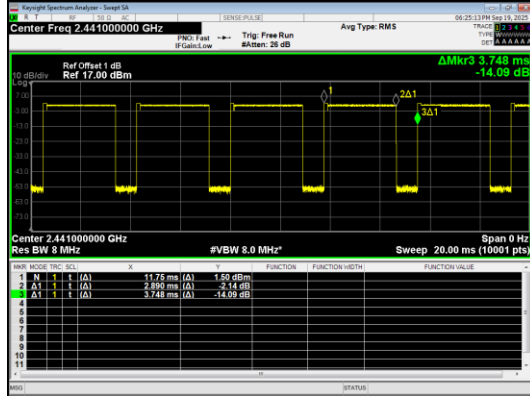
Duty Cycle

Test Result

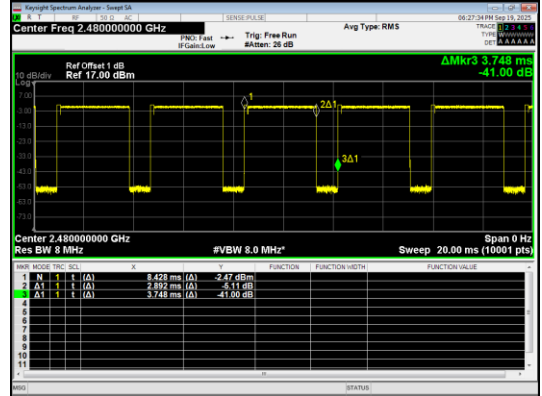
Modulation	Packets	Channel	On Time (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle (linear)	Duty Cycle Factor (dB)	1/T
GFSK	DH5	0	2.886	3.748	77.00	0.7700	1.1351	0.3465
		39	2.884	3.748	76.95	0.7695	1.1379	0.3467
		78	2.886	3.748	77.00	0.7700	1.1351	0.3465
$\pi/4$ DQPSK	2-DH5	0	2.892	3.748	77.16	0.7716	1.1261	0.3458
		39	2.890	3.748	77.11	0.7711	1.1289	0.3460
		78	2.892	3.748	77.16	0.7716	1.1261	0.3458
8DPSK	3-DH5	0	2.894	3.748	77.21	0.7721	1.1233	0.3455
		39	2.892	3.748	77.16	0.7716	1.1261	0.3458
		78	2.892	3.748	77.16	0.7716	1.1261	0.3458

Test Graphs

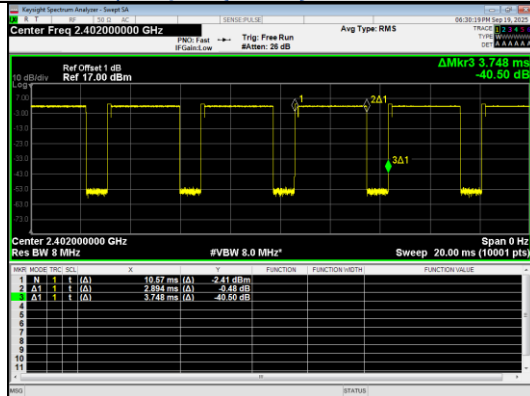




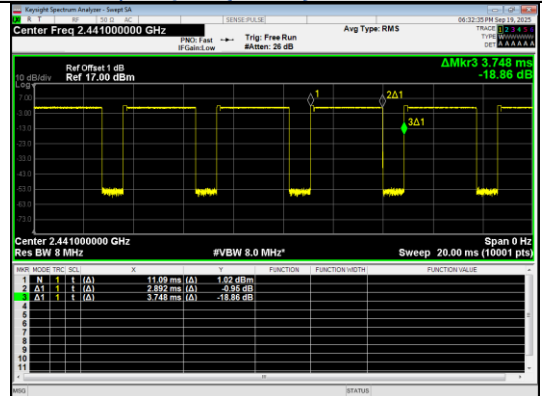
$\pi/4$ DQPSK(2-DH5)_Channel 39



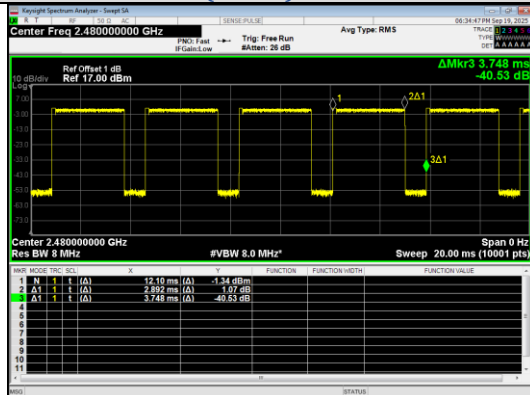
$\pi/4$ DQPSK(2-DH5)_Channel 78



8DPSK(3-DH5)_Channel 0



8DPSK(3-DH5)_Channel 39



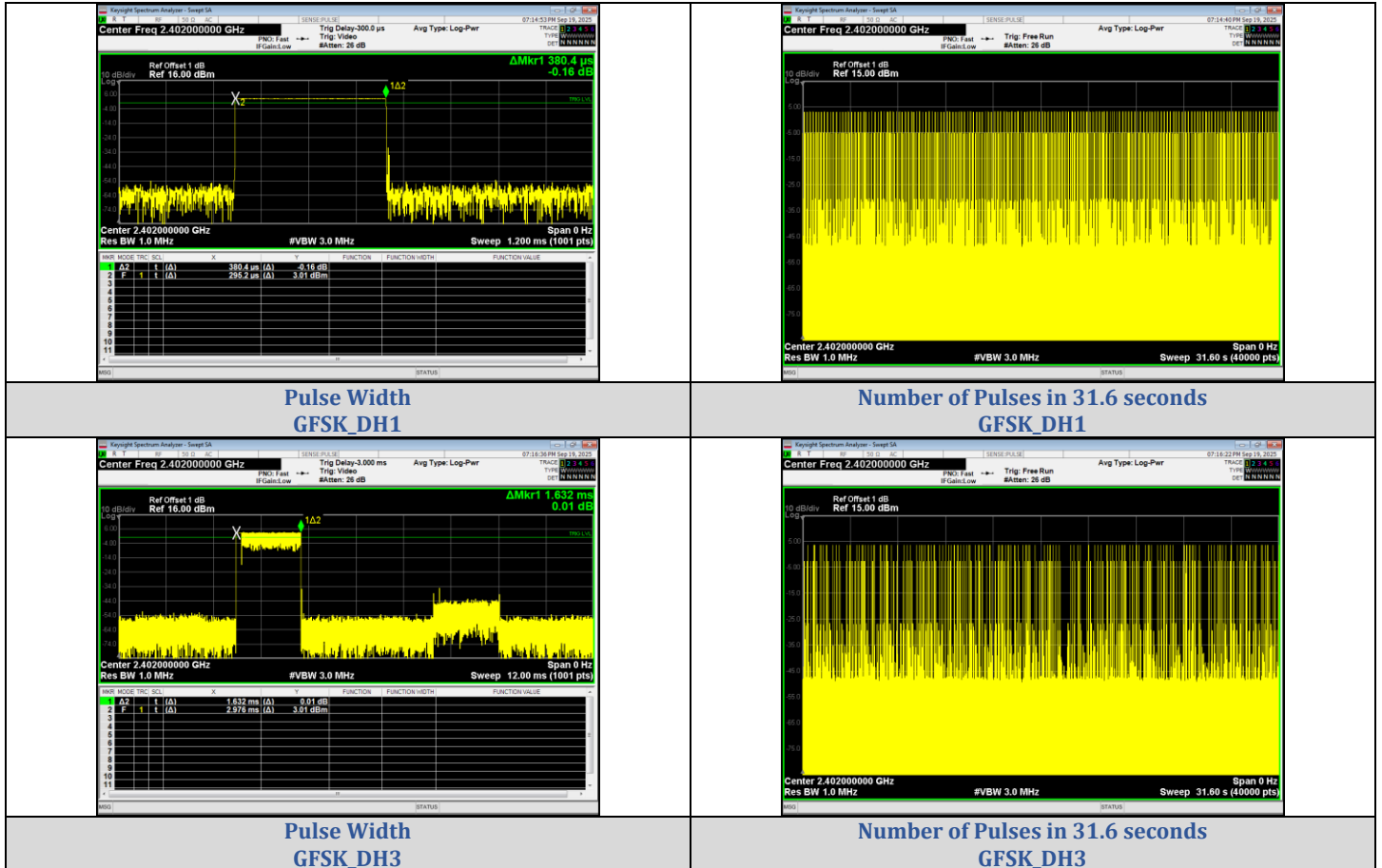
8DPSK(3-DH5)_Channel 78

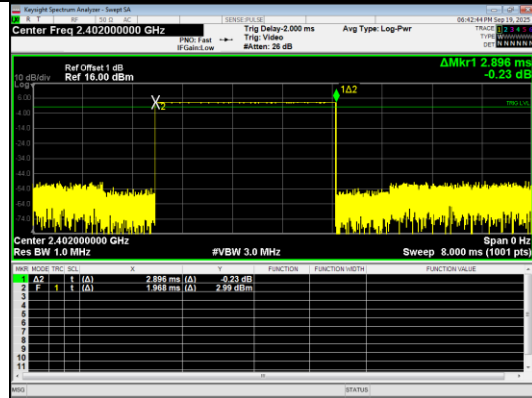
Dwell Time

Test Result

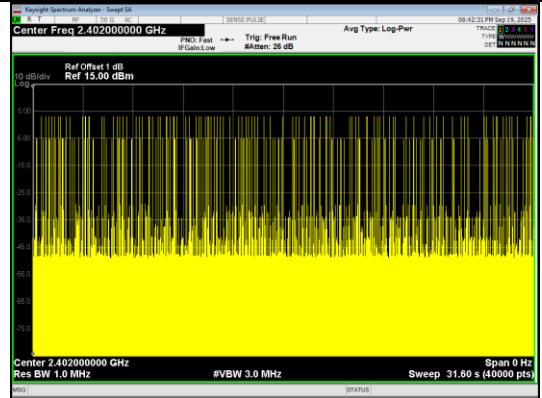
Modulation	Packet	Channel	Pulse Width (ms)	Number of Pulses in 31.6 seconds	Dwell Time (ms)	Limit (ms)	Result
GFSK	DH1	Hopping	0.3804	314	119.45	< 400	PASS
	DH3		1.632	155	252.96		PASS
	DH5		2.896	99	286.7		PASS
$\pi/4$ DQPSK	2-DH1		0.3900	316	123.24		PASS
	2-DH3		1.632	156	254.59		PASS
	2-DH5		2.896	99	286.7		PASS
8DPSK	3-DH1		0.3912	319	124.79		PASS
	3-DH3		1.656	152	251.71		PASS
	3-DH5		2.896	101	292.5		PASS

Test Graphs

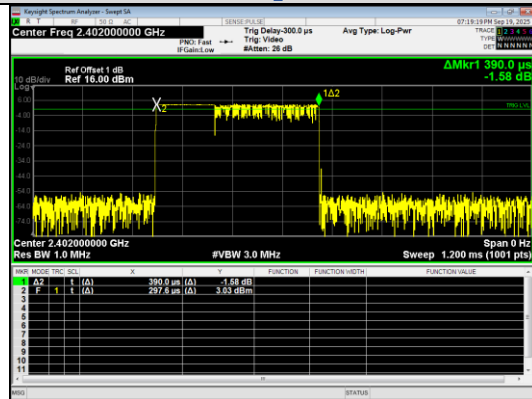




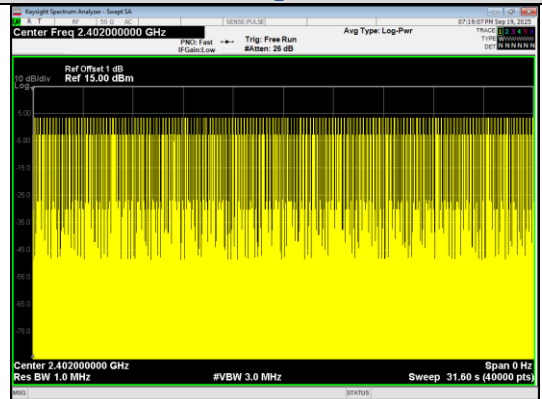
Pulse Width
GFSK_DH5



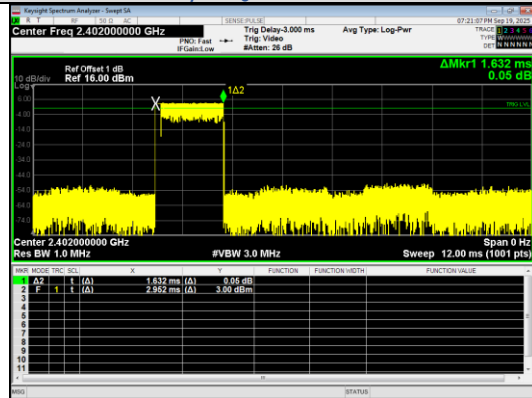
Number of Pulses in 31.6 seconds
GFSK_DH5



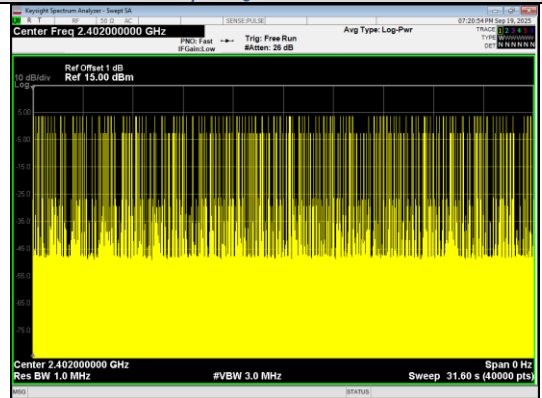
Pulse Width
 $\pi/4$ DQPSK_2-DH1



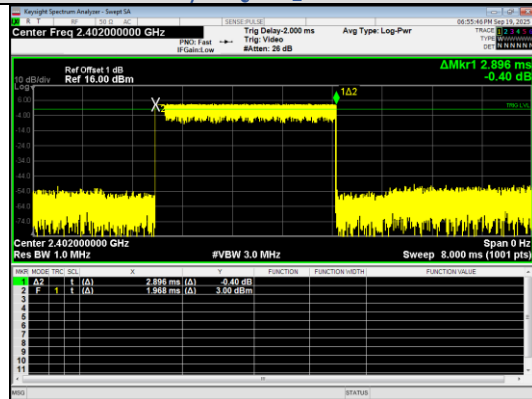
Number of Pulses in 31.6 seconds
 $\pi/4$ DQPSK_2-DH1



Pulse Width
 $\pi/4$ DQPSK_2-DH3



Number of Pulses in 31.6 seconds
 $\pi/4$ DQPSK_2-DH3

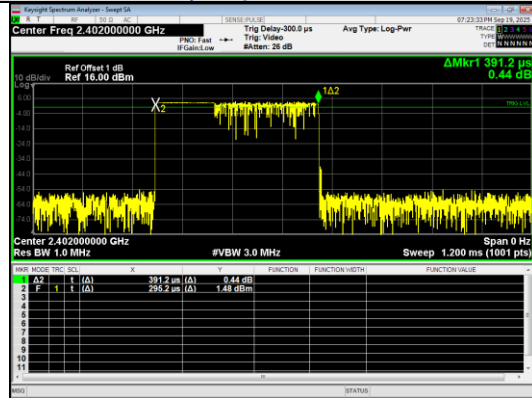


Pulse Width

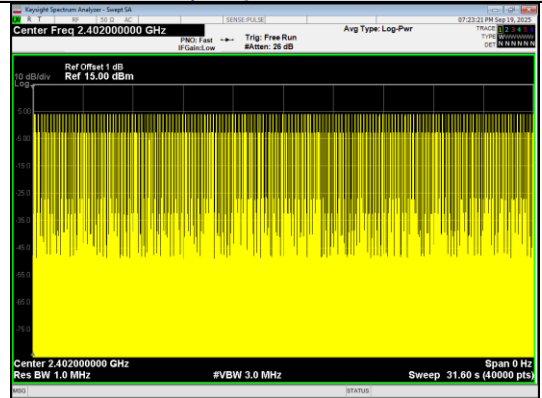


Number of Pulses in 31.6 seconds

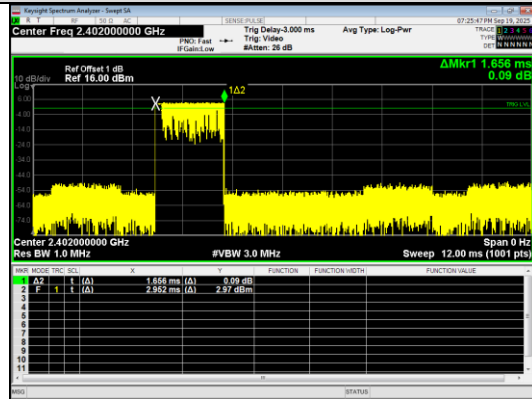
$\pi/4$ DQPSK_2-DH5



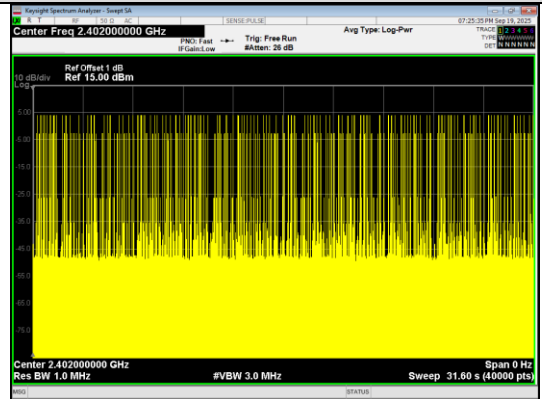
$\pi/4$ DQPSK_2-DH5



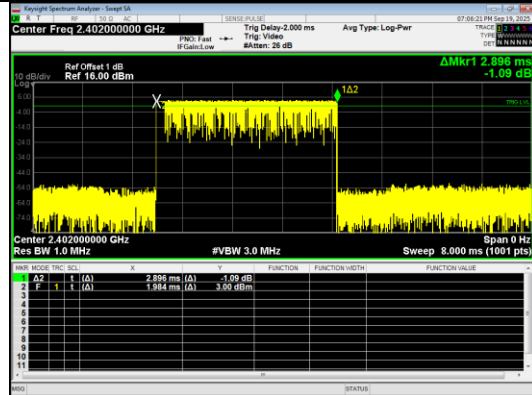
Pulse Width 8DPSK_3-DH1



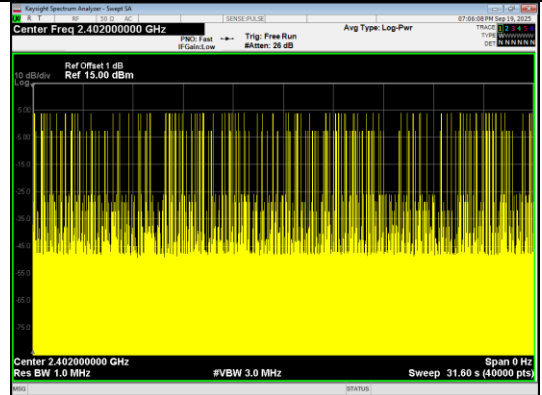
Number of Pulses in 31.6 seconds 8DPSK_3-DH1



Pulse Width 8DPSK_3-DH3



Number of Pulses in 31.6 seconds 8DPSK_3-DH3



Pulse Width 8DPSK_3-DH5

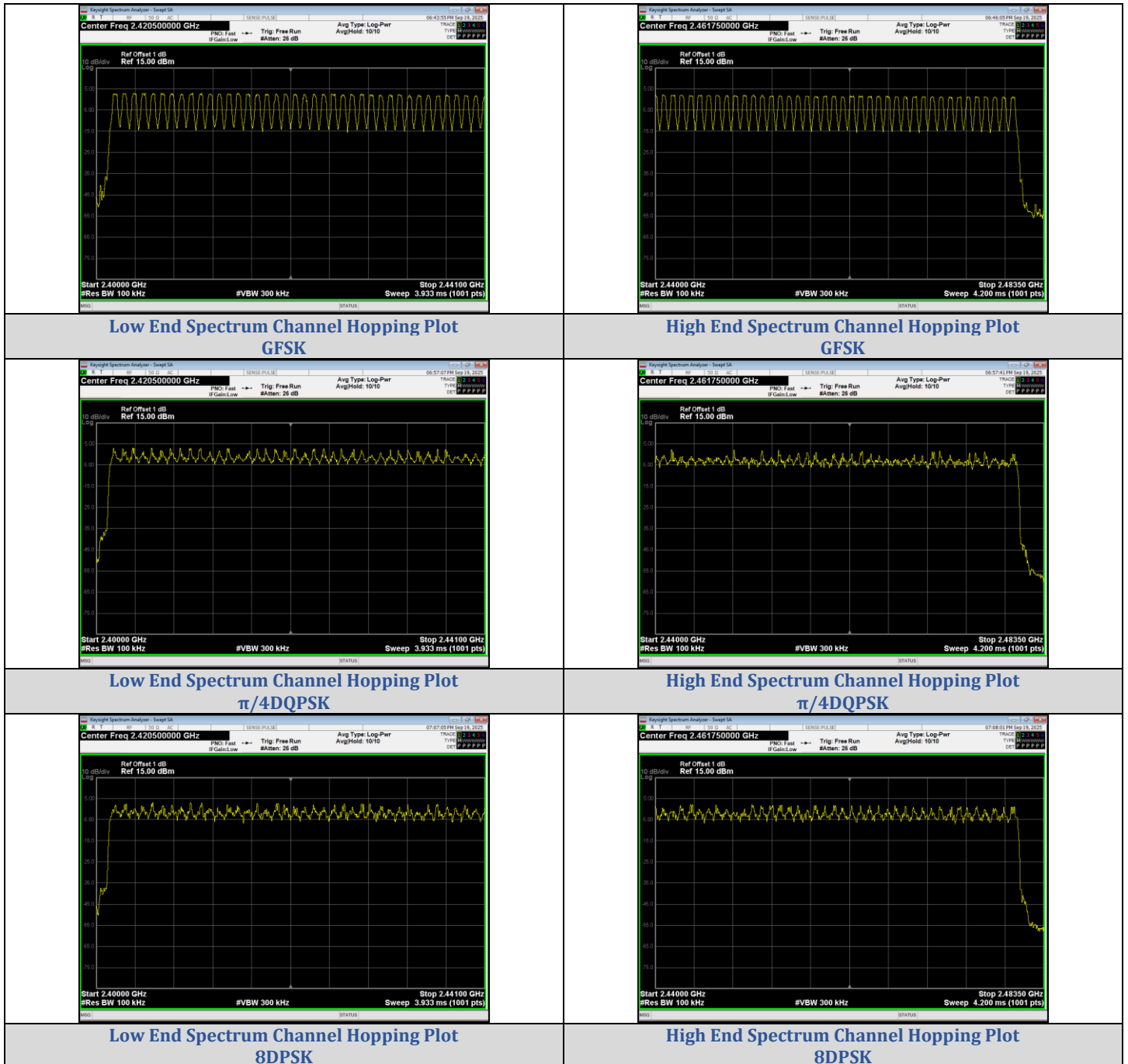
Number of Pulses in 31.6 seconds 8DPSK_3-DH5

Number Of Hopping Channel

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



***** End of Report *****