

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	2.898	3.748	77.32	0.7732	1.1171	0.3451
		39	2.898	3.748	77.32	0.7732	1.1171	0.3451
		78	2.898	3.748	77.32	0.7732	1.1171	0.3451
$\pi/4$ DQPSK	2-DH5	0	2.904	3.748	77.48	0.7748	1.1081	0.3444
		39	2.904	3.750	77.44	0.7744	1.1103	0.3444
		78	2.904	3.748	77.48	0.7748	1.1081	0.3444
8DPSK	3-DH5	0	2.906	3.748	77.53	0.7753	1.1053	0.3441
		39	2.906	3.748	77.53	0.7753	1.1053	0.3441
		78	2.906	3.748	77.53	0.7753	1.1053	0.3441

Test Graphs



GFSK(DH5)_Channel 0



GFSK(DH5)_Channel 39

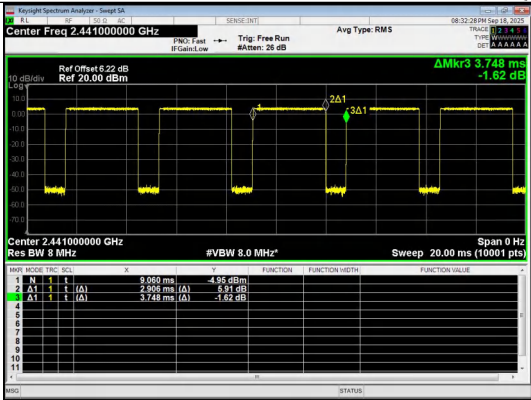


GFSK(DH5)_Channel 78

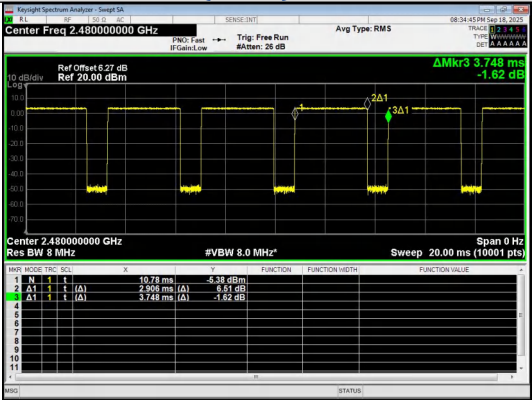
 $\pi/4$ DQPSK(2-DH5)_Channel 0 $\pi/4$ DQPSK(2-DH5)_Channel 39 $\pi/4$ DQPSK(2-DH5)_Channel 78



8DPSK(3-DH5)_Channel 0



8DPSK(3-DH5)_Channel 39



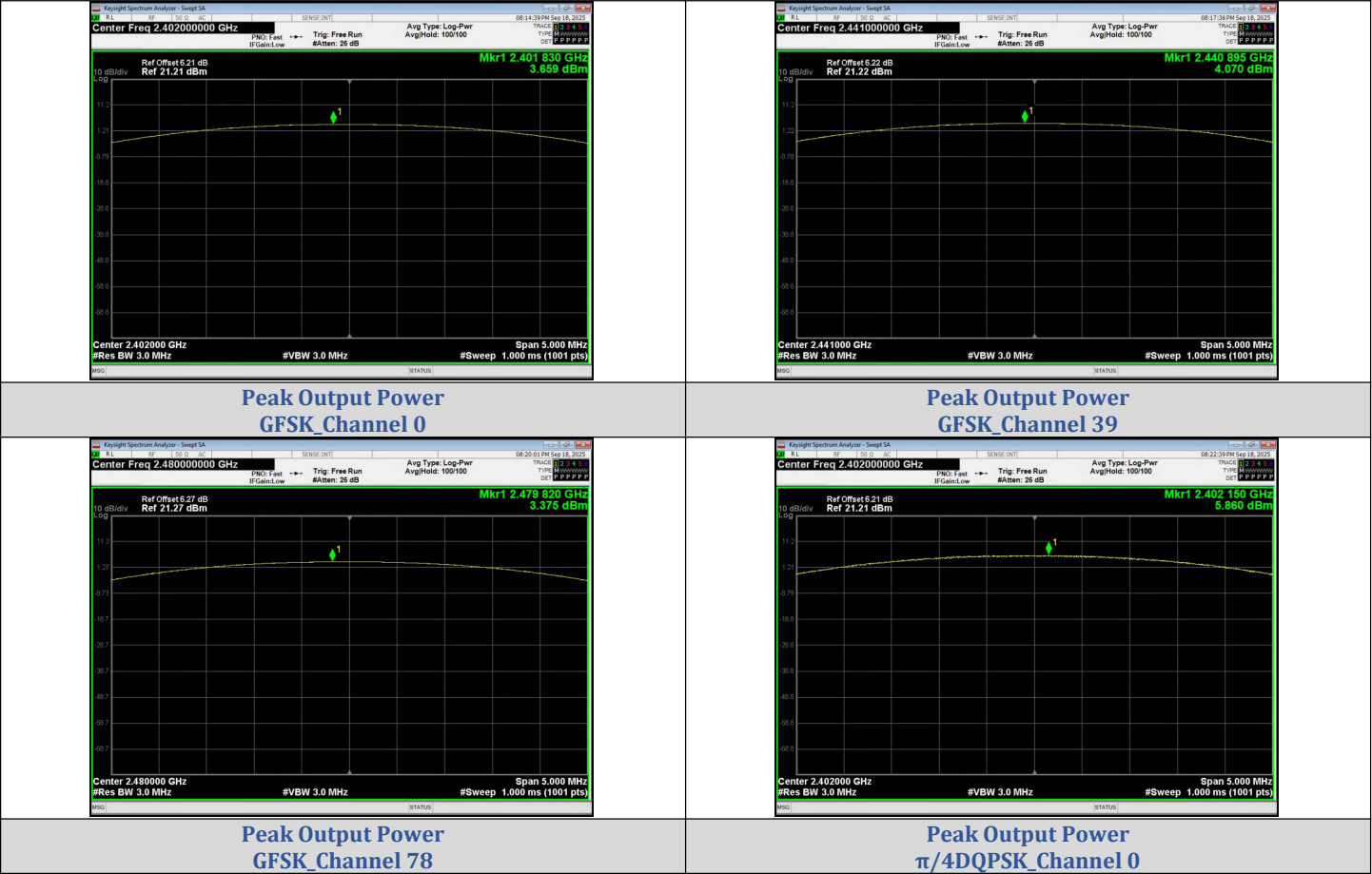
8DPSK(3-DH5)_Channel 78

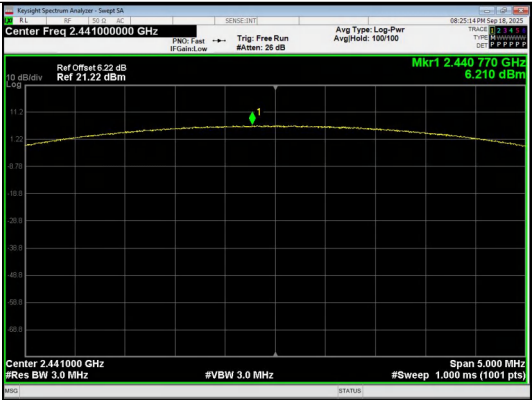
Conducted Output Power

Test Result

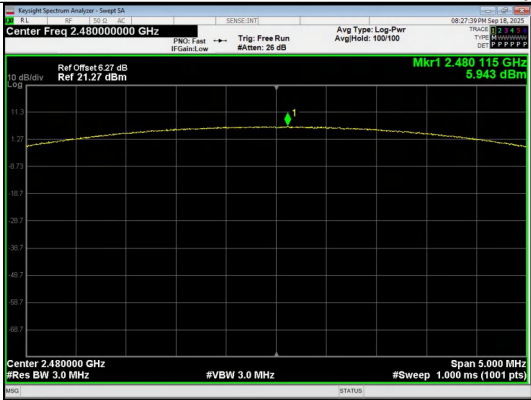
Modulation	Packet Type	Channel	Peak Output Power (dBm)	Peak Output Power (mW)	Max. Avg. Power (dBm)	Limit (dBm)	Result
GFSK	DH5	0	3.66	2.32	None	≤30	PASS
		39	4.07	2.55	None		PASS
		78	3.38	2.18	None		PASS
$\pi/4$ DQPSK	2-DH5	0	5.86	3.85	None		PASS
		39	6.21	4.18	None		PASS
		78	5.94	3.93	None		PASS
8DPSK	3-DH5	0	6.42	4.38	None		PASS
		39	6.69	4.67	None		PASS
		78	6.47	4.44	None		PASS

Test Graphs

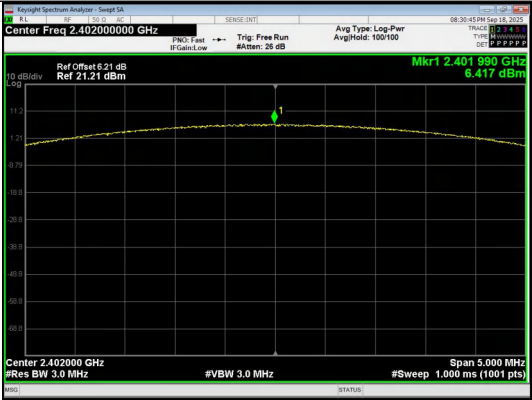




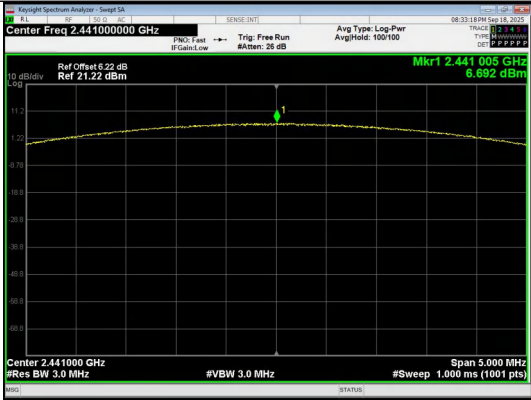
Peak Output Power
 $\pi/4$ DQPSK_Channel 39



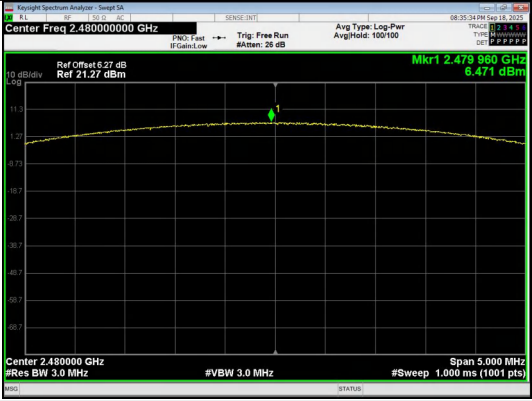
Peak Output Power
 $\pi/4$ DQPSK_Channel 78



Peak Output Power
8DPSK_Channel 0



Peak Output Power
8DPSK_Channel 39



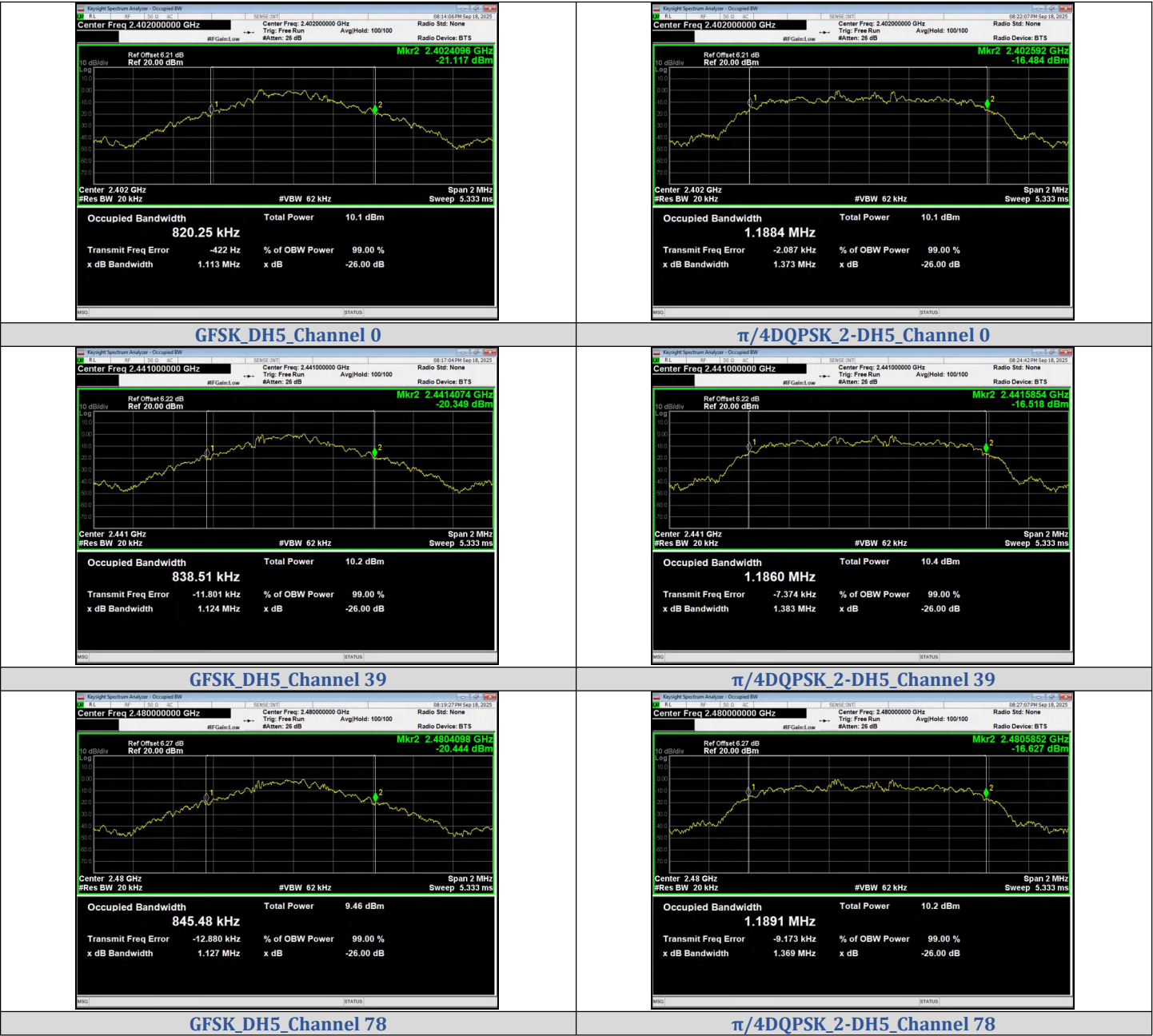
Peak Output Power
8DPSK_Channel 78

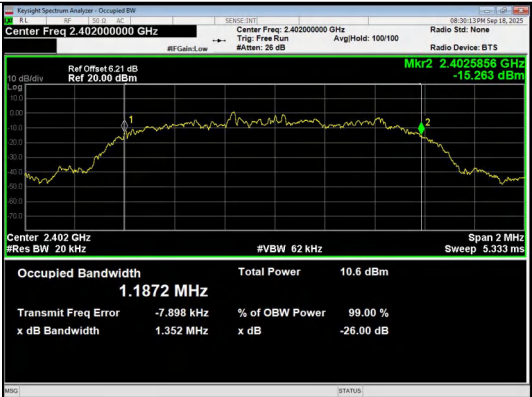
99% Bandwidth

Test Result

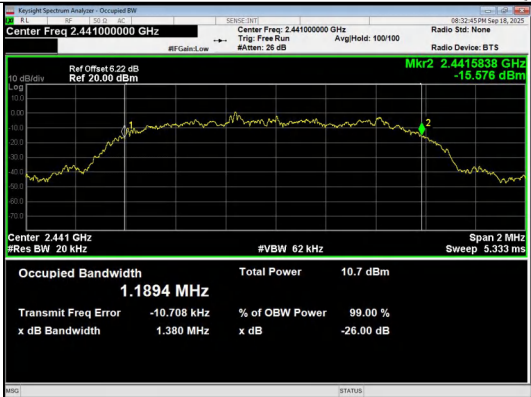
Modulation	Channel	Center Frequency (MHz)	99% BW (MHz)
GFSK	0	2402	0.82025
	39	2441	0.83851
	78	2480	0.84548
$\pi/4$ DQPSK	0	2402	1.1884
	39	2441	1.1860
	78	2480	1.1891
8DPSK	0	2402	1.1872
	39	2441	1.1894
	78	2480	1.1904

Test Graphs

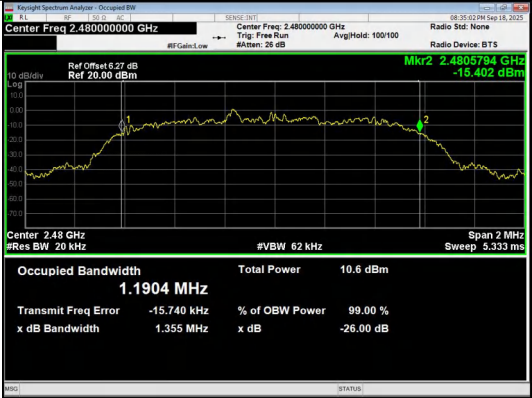




8DPSK_3-DH5_Channel 0



8DPSK_3-DH5_Channel 39



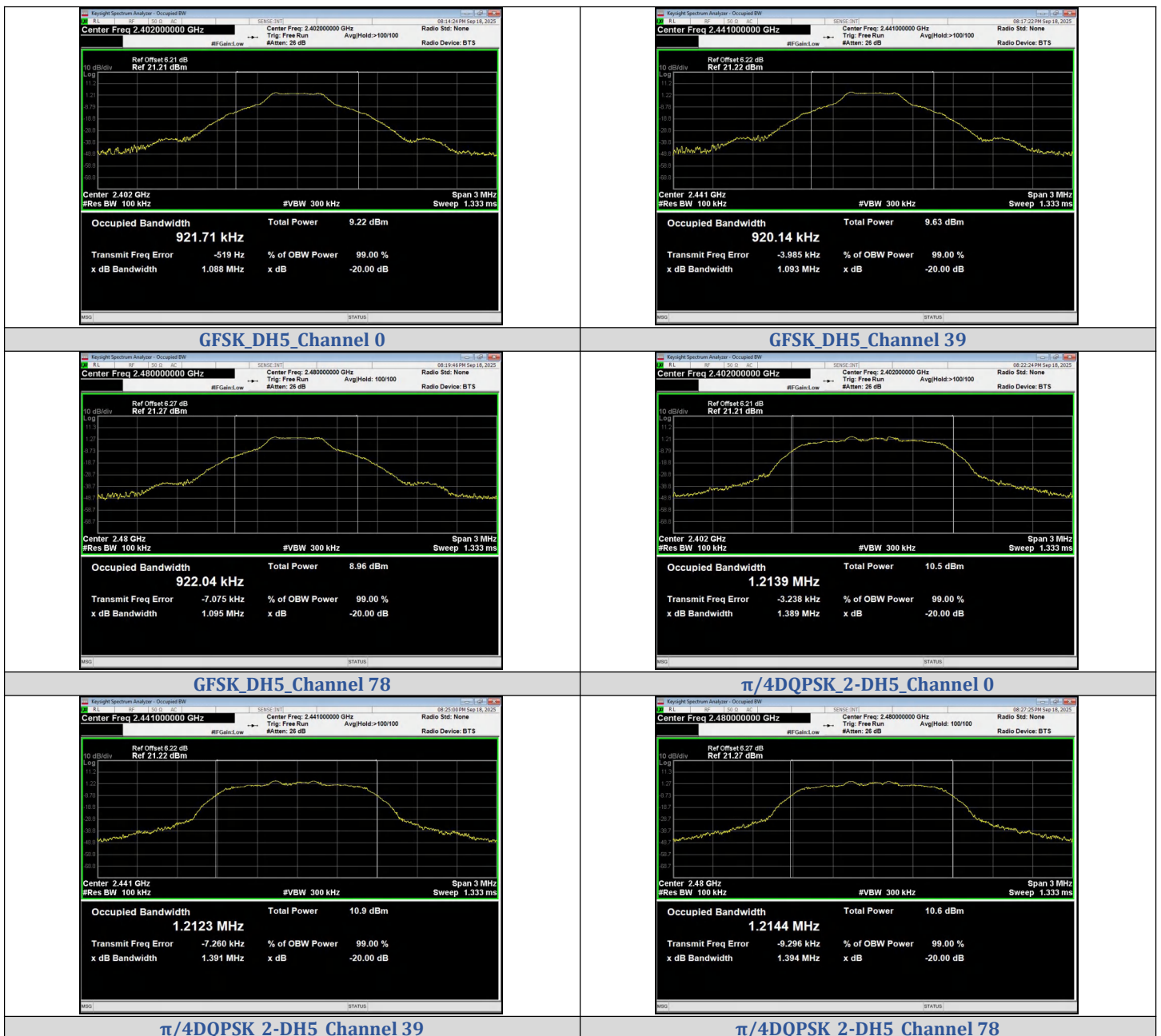
8DPSK_3-DH5_Channel 78

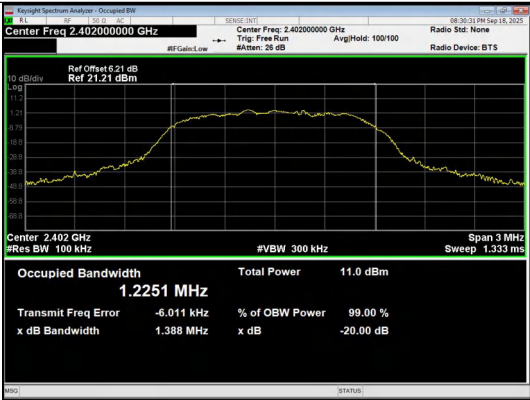
20dB Bandwidth

Test Result

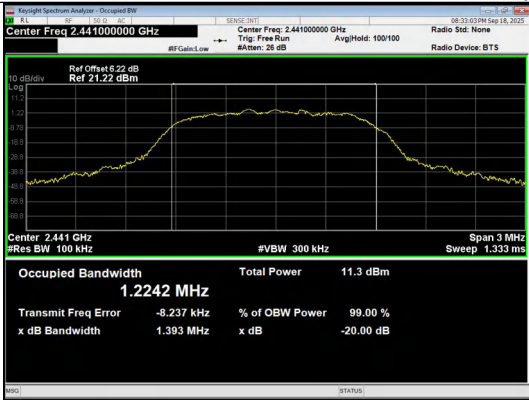
Modulation	Channel	Center Frequency (MHz)	20 dB Bandwidth (MHz)
GFSK	0	2402 MHz	1.090
	39	2441 MHz	1.090
	78	2480 MHz	1.090
$\pi/4$ DQPSK	0	2402 MHz	1.390
	39	2441 MHz	1.390
	78	2480 MHz	1.390
8DPSK	0	2402 MHz	1.390
	39	2441 MHz	1.390
	78	2480 MHz	1.390

Test Graphs

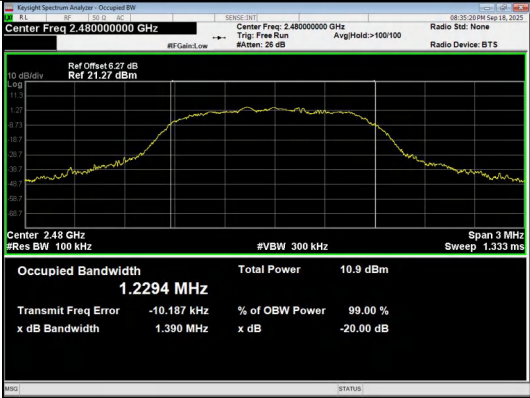




8DPSK_3-DH5_Channel 0



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	2439.835	2440.8344	0.9994	0.727	PASS
$\pi/4$ DQPSK	2-DH5	2439.8479	2440.8455	0.9976	0.927	PASS
8DPSK	3-DH5	2439.8359	2440.8407	1.0048	0.927	PASS

Note: For conducted power less than 0.125 W(20.97 dBm), the limit can be set using hopping channel carrier frequencies that are separated by 25 kHz or two thirds of the 20 dB bandwidth of the hopping channel, whichever is greater.

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	2367.20	-28.277	-16.59	-11.687	PASS
			2398.76	-50.779	-16.59	-34.189	PASS
			2400.00	-51.845	-16.59	-35.255	PASS
		39	4881.67	-34.428	-16.21	-18.218	PASS
		78	2483.50	-53.967	-16.9	-37.067	PASS
			4959.70	-35.121	-16.9	-18.221	PASS
π /4DQPSK	2-DH5	0	2367.19	-29.855	-16.65	-13.205	PASS
			2400.00	-49.892	-16.65	-33.242	PASS
		39	4881.67	-38.404	-16.3	-22.104	PASS
		78	2483.50	-53.635	-16.55	-37.085	PASS
			4959.70	-33.633	-16.55	-17.083	PASS
8DPSK	3-DH5	0	2365.32	-29.455	-16.57	-12.885	PASS
			2400.00	-49.746	-16.57	-33.176	PASS
		39	4882.30	-33.463	-16.28	-17.183	PASS
		78	2483.50	-55.182	-16.55	-38.632	PASS
			4959.70	-37.220	-16.55	-20.670	PASS

Hopping

Modulation	Packet	Channel	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
GFSK	DH5	Hopping	2366.05	-25.550	-16.45	-9.100	PASS
			2400.00	-27.511	-16.45	-11.061	PASS
			2483.50	-37.988	-16.84	-21.148	PASS
$\pi/4$ DQPSK	2-DH5		2367.09	-26.082	-16.58	-9.502	PASS
			2400.00	-29.234	-16.58	-12.654	PASS
			2483.50	-38.576	-16.81	-21.766	PASS
8DPSK	3-DH5		2368.14	-25.577	-16.43	-9.147	PASS
			2400.00	-30.844	-16.43	-14.414	PASS
			2483.50	-39.042	-16.55	-22.492	PASS

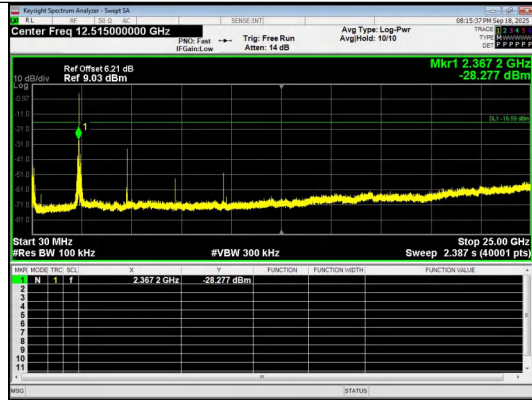
Test Graphs

Marker	Frequency (GHz)	Level (dBm)
Mkr1	2.39878	-50.780

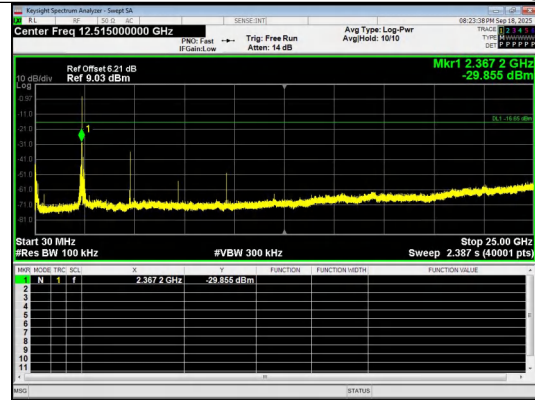
Out Of Band Emission
GFSK_DH5_Channel 0

Marker	Frequency (GHz)	Level (dBm)
Mkr2	2.40000	-49.892

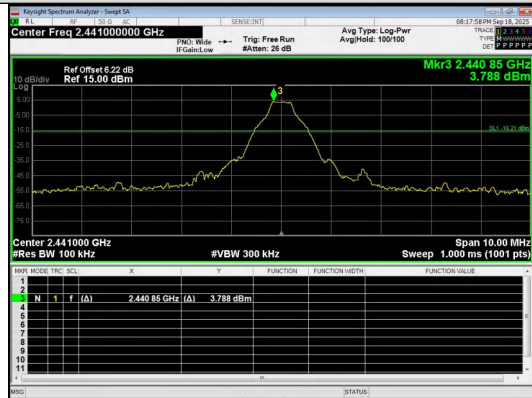
Out Of Band Emission
 π /4DQPSK_2-DH5_Channel 0



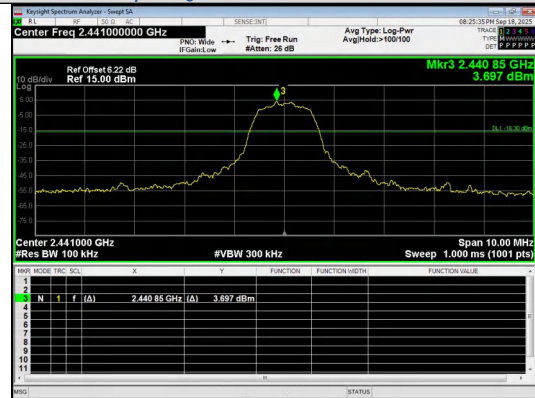
30.0 MHz - 25000.0 MHz
GFSK_DH5_Channel 0



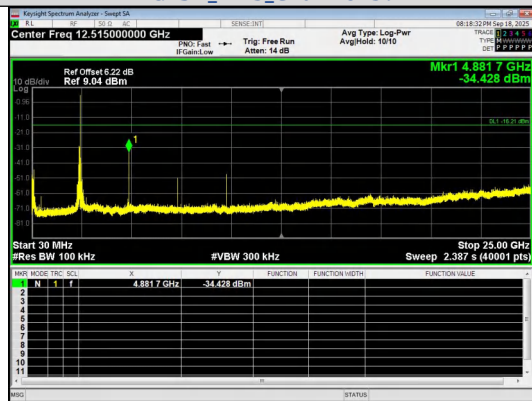
30.0 MHz - 25000.0 MHz
 $\pi/4$ DQPSK_2-DH5_Channel 0



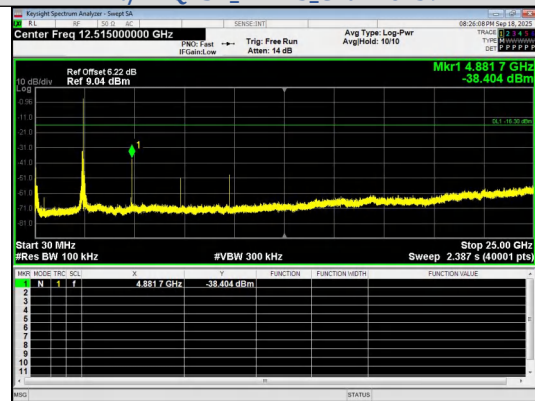
Out Of Band Emission
GFSK_DH5_Channel 39



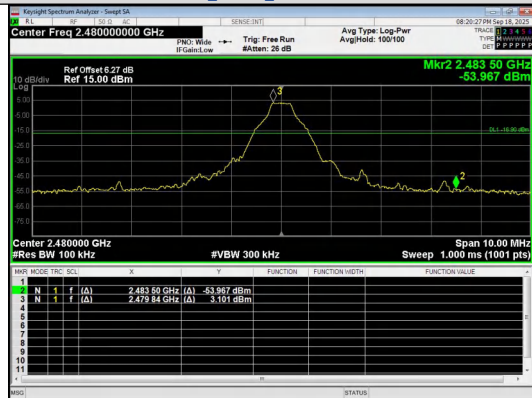
Out Of Band Emission
 $\pi/4$ DQPSK_2-DH5_Channel 39



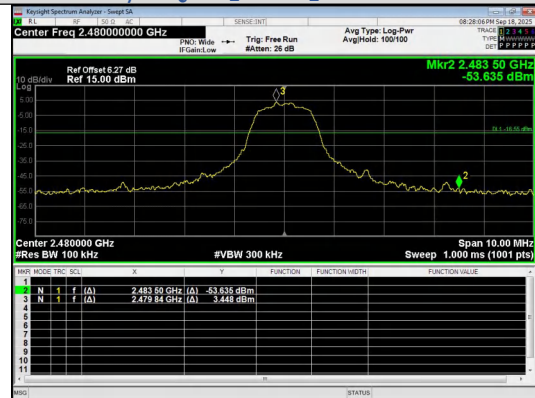
30.0 MHz - 25000.0 MHz
GFSK_DH5_Channel 39



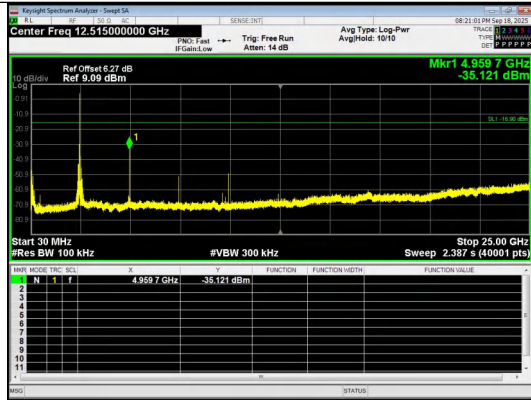
30.0 MHz - 25000.0 MHz
 $\pi/4$ DQPSK_2-DH5_Channel 39



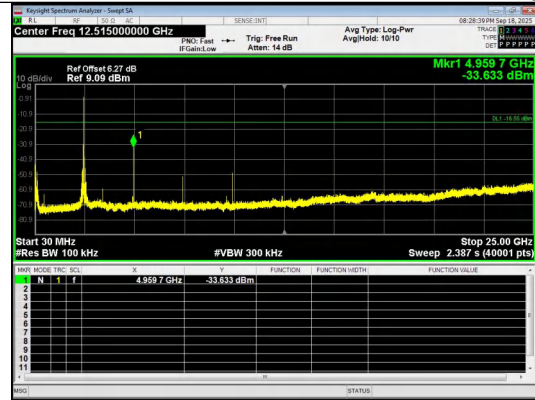
Out Of Band Emission
GFSK_DH5_Channel 78



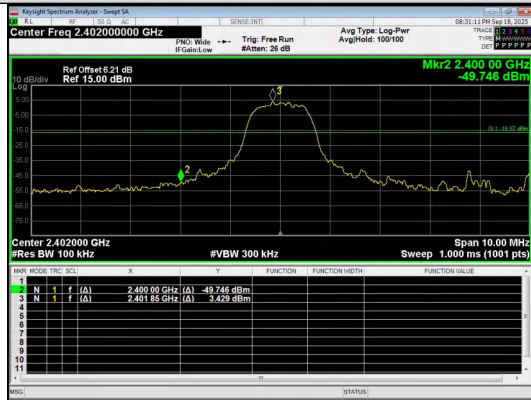
Out Of Band Emission
 $\pi/4$ DQPSK_2-DH5_Channel 78



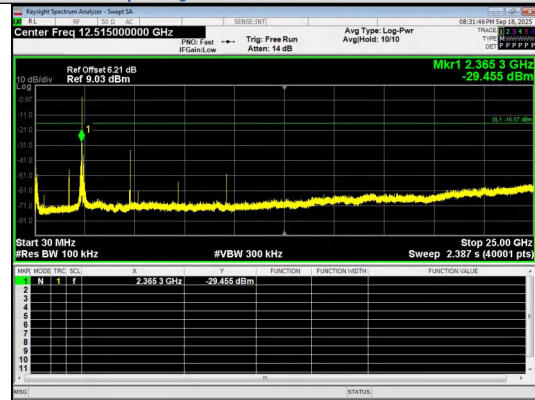
30.0 MHz - 25000.0 MHz
GFSK_DH5_Channel 78



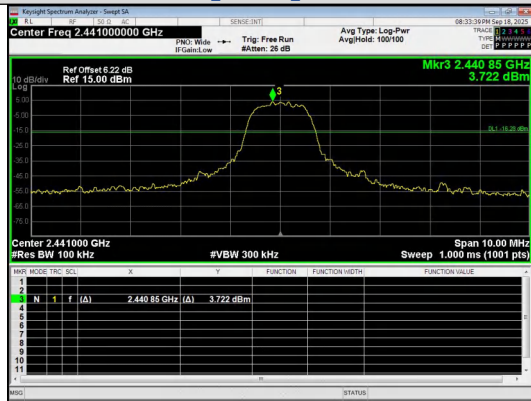
30.0 MHz - 25000.0 MHz
 $\pi/4$ DQPSK_2-DH5_Channel 78



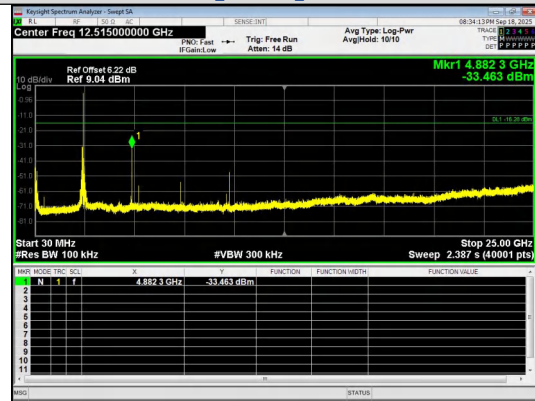
Out Of Band Emission
8DPSK_3-DH5_Channel 0



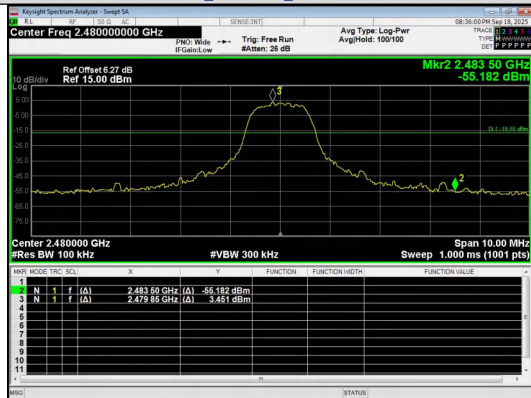
30.0 MHz - 25000.0 MHz
 $\pi/4$ DQPSK_2-DH5_Channel 78



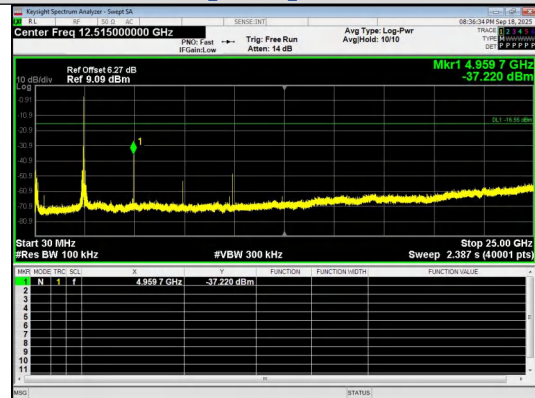
Out Of Band Emission
8DPSK_3-DH5_Channel 0



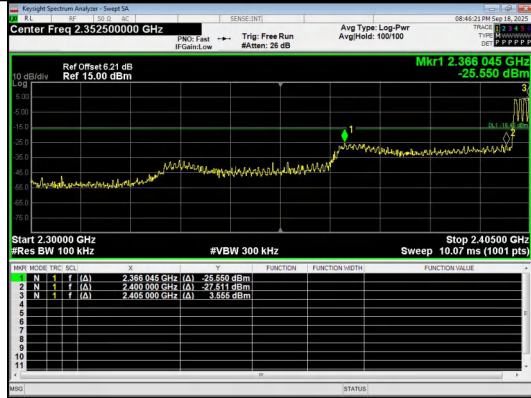
30.0 MHz - 25000.0 MHz
8DPSK_3-DH5_Channel 0



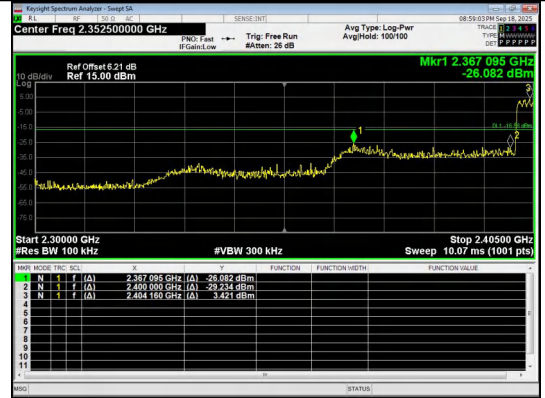
Out Of Band Emission
8DPSK_3-DH5_Channel 39



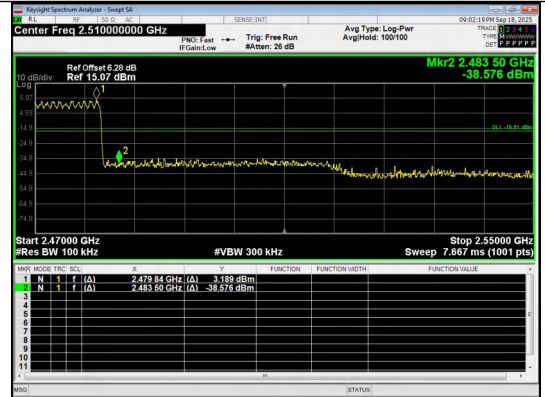
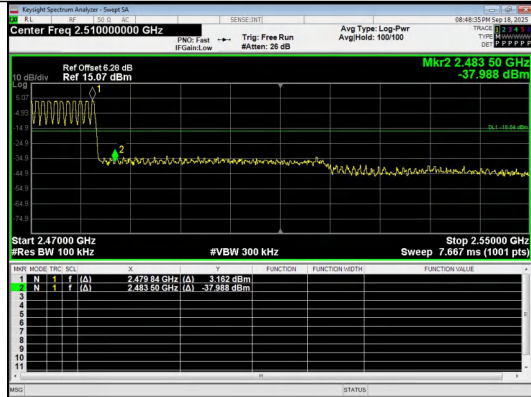
30.0 MHz - 25000.0 MHz
8DPSK_3-DH5_Channel 39



Out Of Band Emission(Left)
GFSK_DH5_Channel Hopping

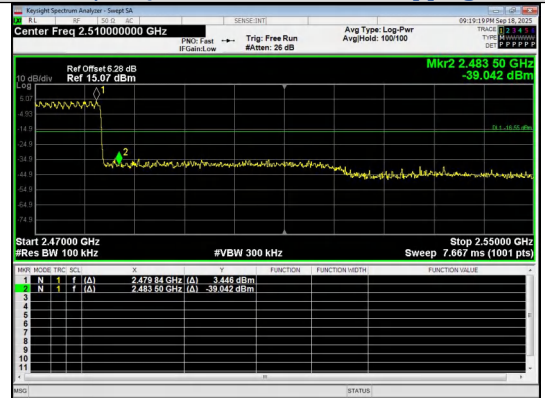
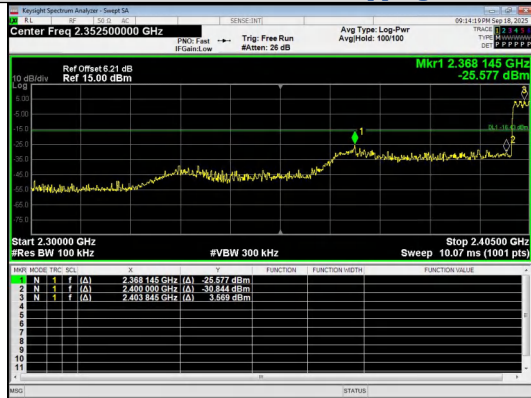


Out Of Band Emission(Left)
 $\pi/4$ DQPSK_2-DH5_Channel Hopping



Out Of Band Emission(Right)
GFSK_DH5_Channel Hopping

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



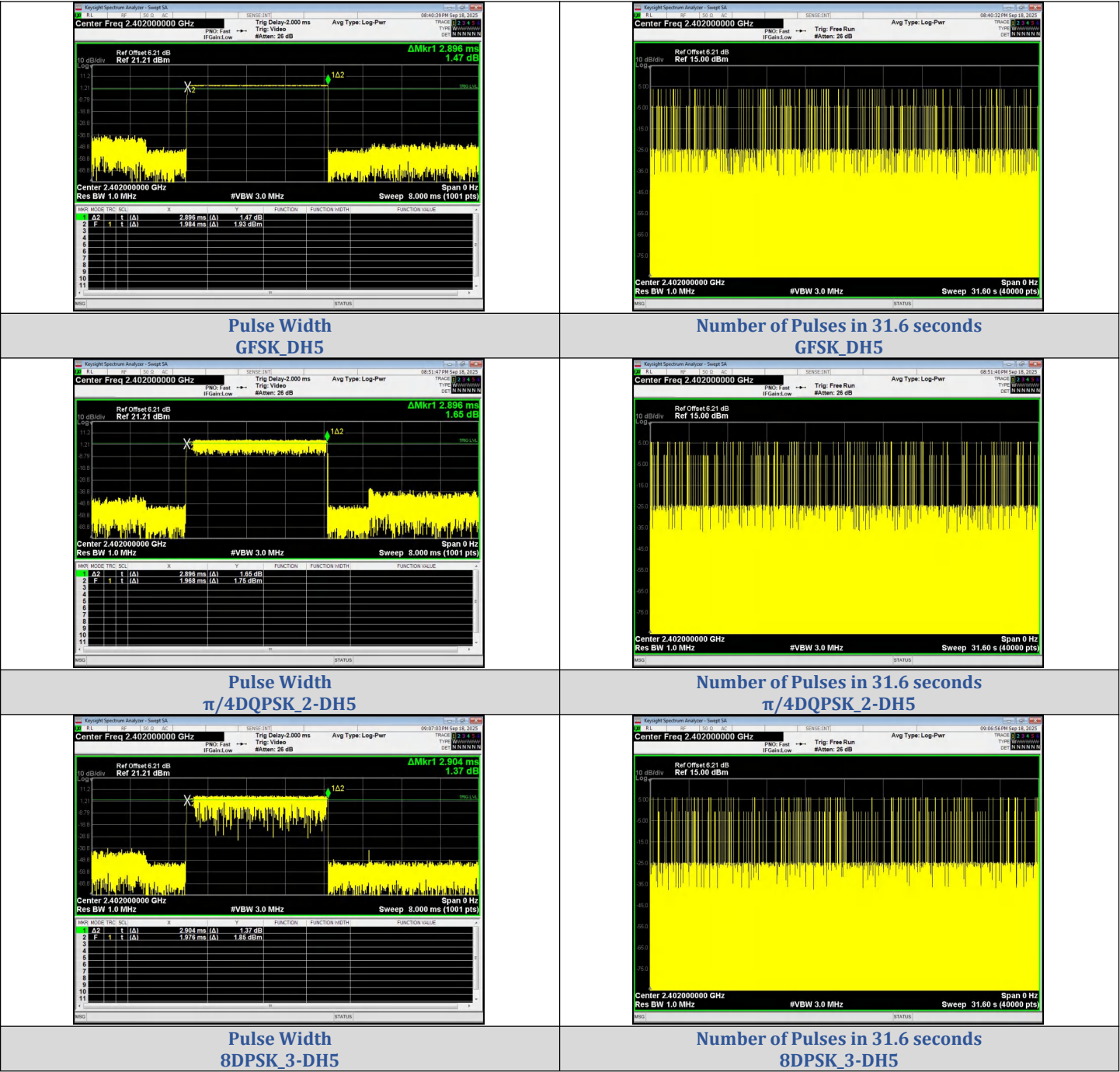
Out Of Band Emission(Left)
8DPSK_3-DH5_Channel Hopping

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

Dwell Time
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	114	330.14	< 400	PASS
$\pi/4$ DQPSK	2-DH5		2.896	108	312.77		PASS
8DPSK	3-DH5		2.904	108	313.63		PASS

Test Graphs



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

