

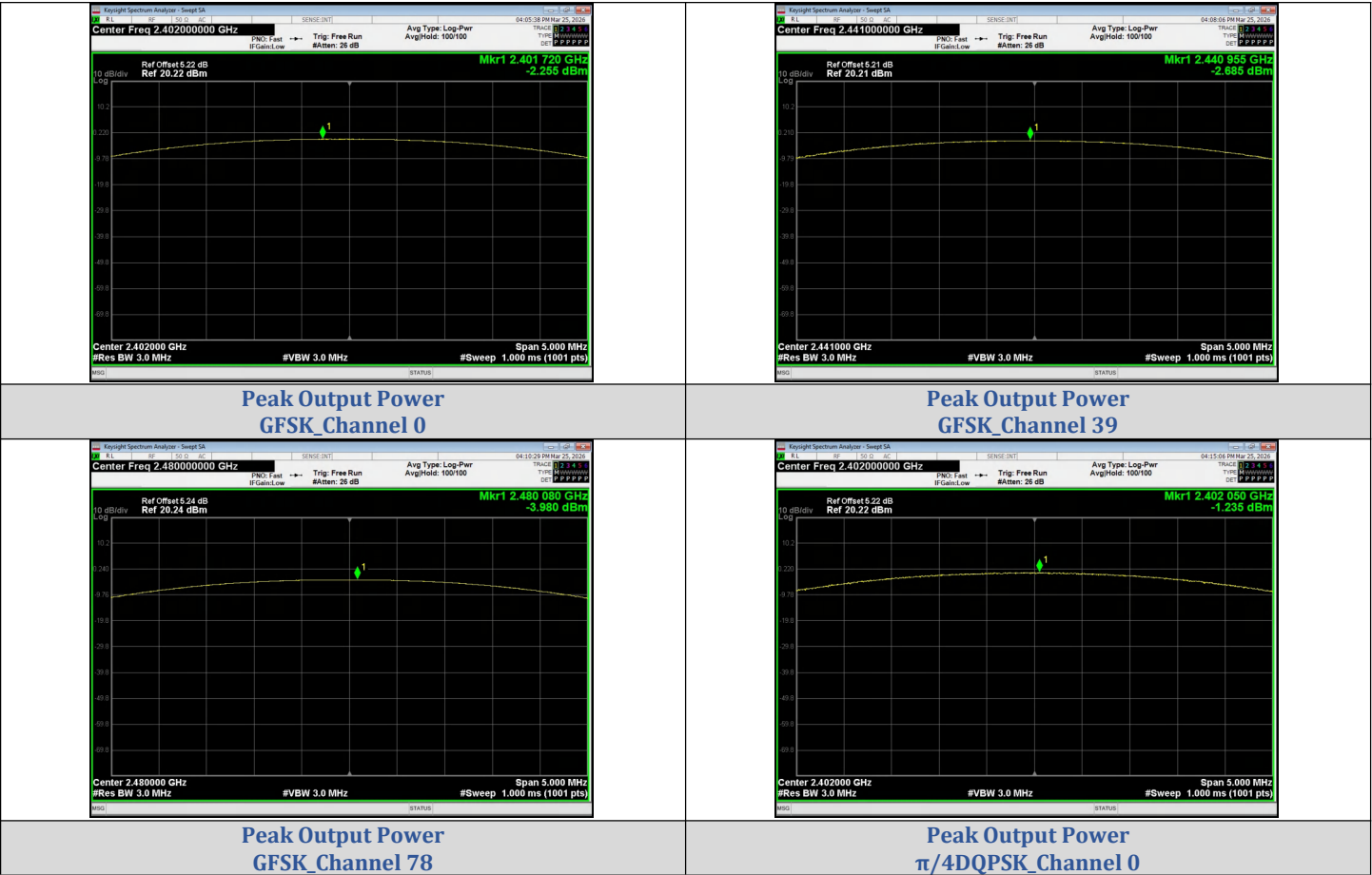
Appendix A:Test Results of Bluetooth BR & EDR

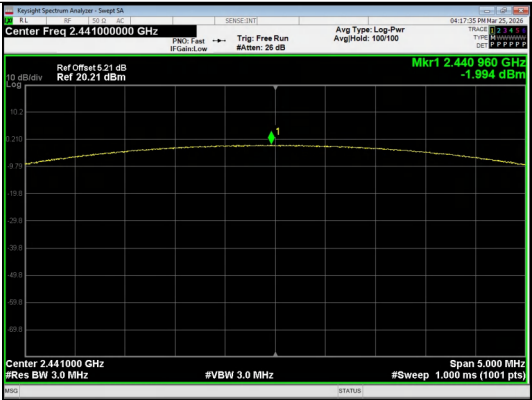
Conducted Output Power

Test Result

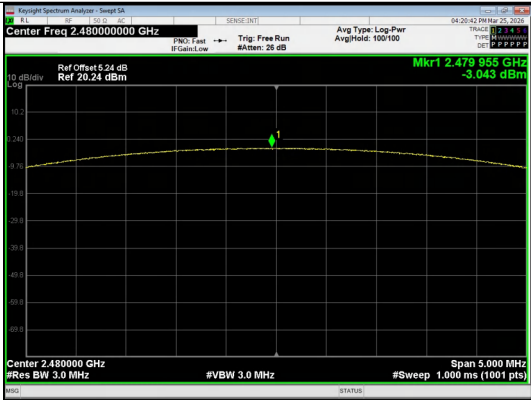
Modulation	Packet Type	Channel	Peak Output Power (dBm)	Peak Output Power (mW)	Max. Avg. Power (dBm)	Limit (dBm)	Result
GFSK	DH5	0	-2.25	0.59	None	≤30	PASS
		39	-2.69	0.54	None		PASS
		78	-3.98	0.40	None		PASS
$\pi/4$ DQPSK	2-DH5	0	-1.24	0.75	None		PASS
		39	-1.99	0.63	None		PASS
		78	-3.04	0.50	None		PASS
8DPSK	3-DH5	0	-2.06	0.62	None		PASS
		39	-2.66	0.54	None		PASS
		78	-3.80	0.42	None		PASS

Test Graphs

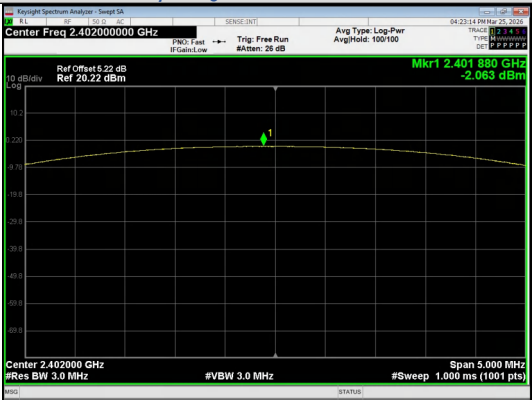




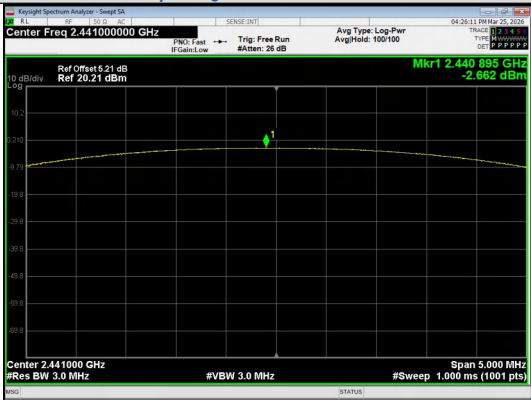
Peak Output Power
 $\pi/4$ DQPSK_Channel 39



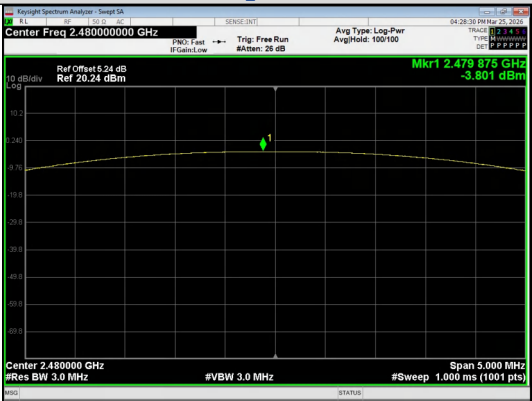
Peak Output Power
 $\pi/4$ DQPSK_Channel 78



Peak Output Power
8DPSK_Channel 0



Peak Output Power
8DPSK_Channel 78



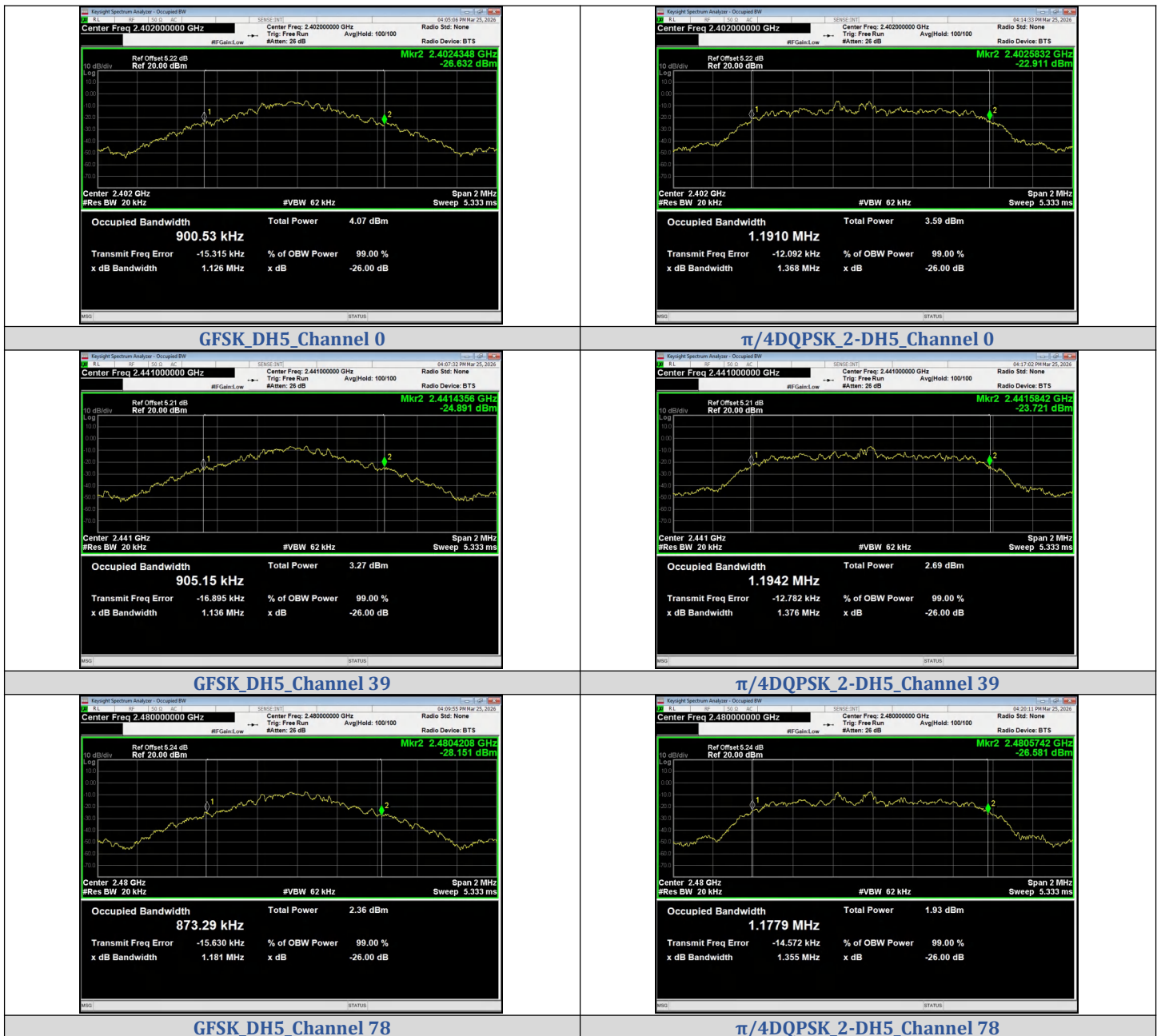
Peak Output Power
8DPSK_Channel 78

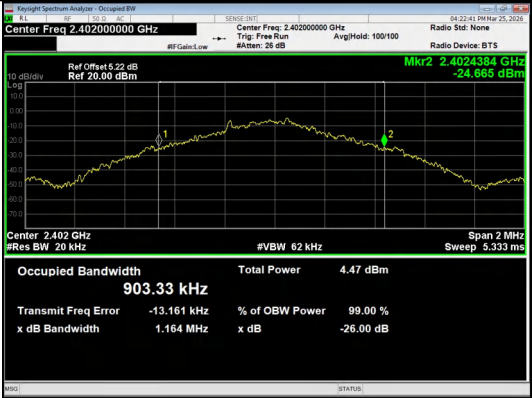
99% Bandwidth

Test Result

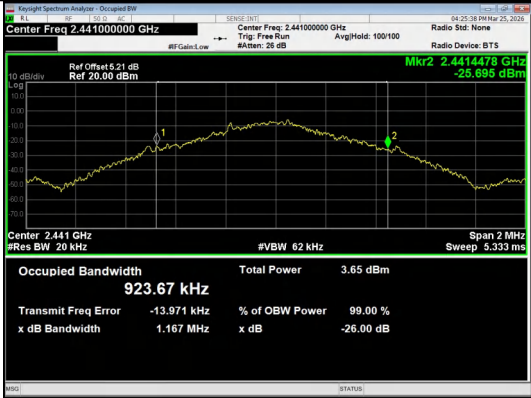
Modulation	Channel	Center Frequency (MHz)	99% BW (MHz)
GFSK	0	2402	0.90053
	39	2441	0.90515
	78	2480	0.87329
$\pi/4$ DQPSK	0	2402	1.1910
	39	2441	1.1942
	78	2480	1.1779
8DPSK	0	2402	0.90333
	39	2441	0.92367
	78	2480	0.89265

Test Graphs

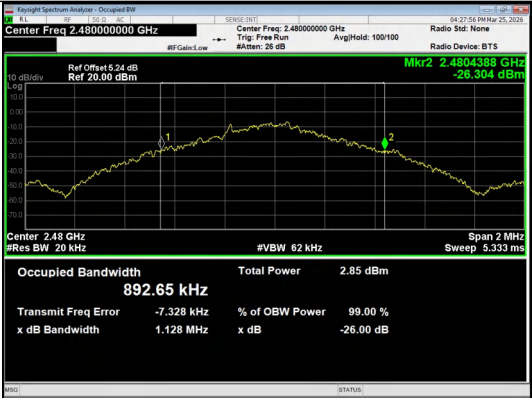




8DPSK_3-DH5_Channel 0



8DPSK_3-DH5_Channel 39



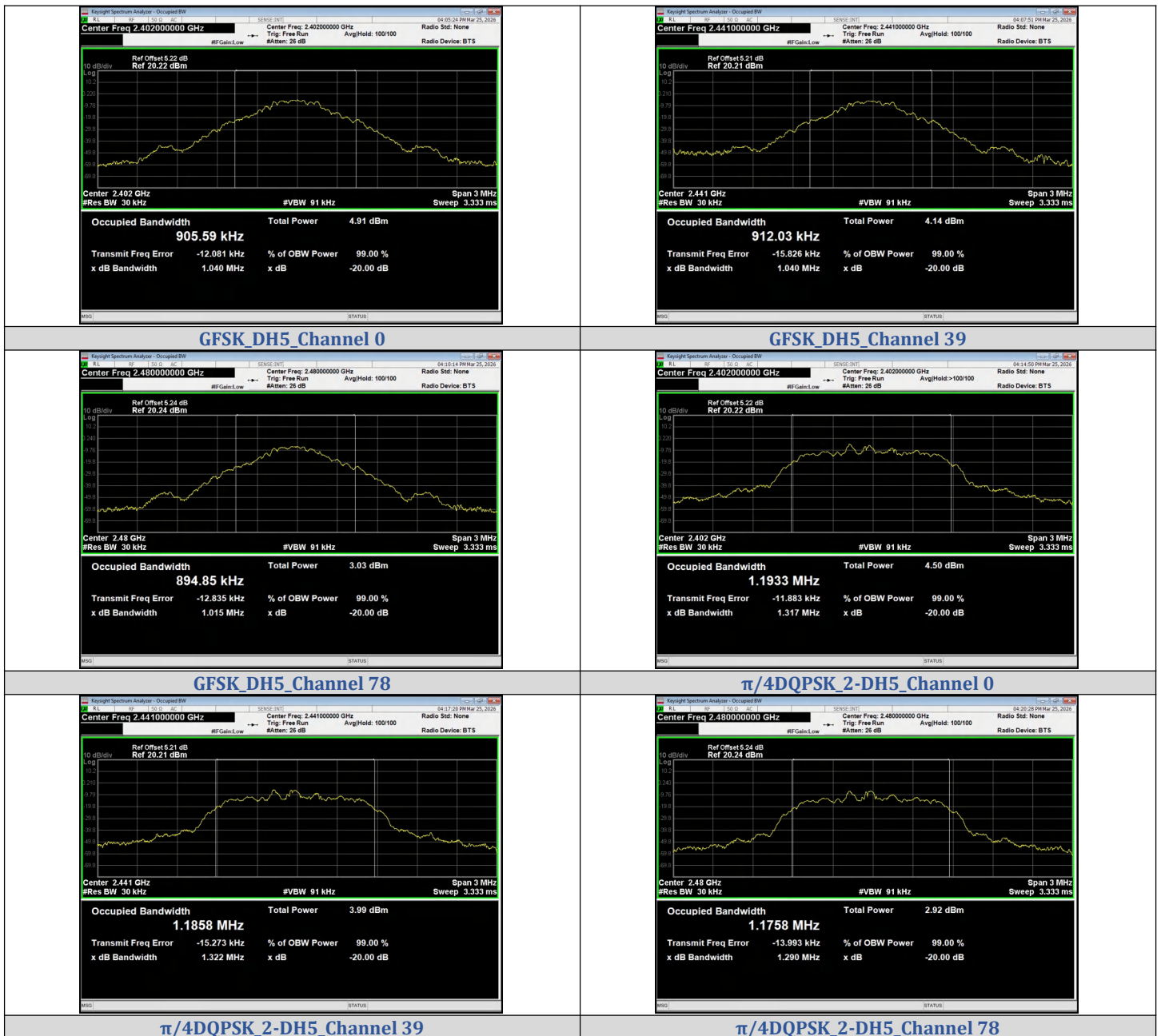
8DPSK_3-DH5_Channel 78

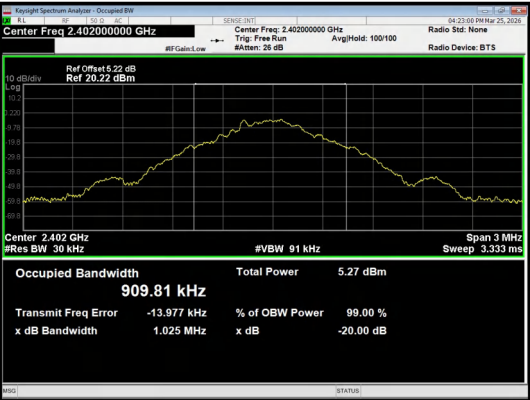
20dB Bandwidth

Test Result

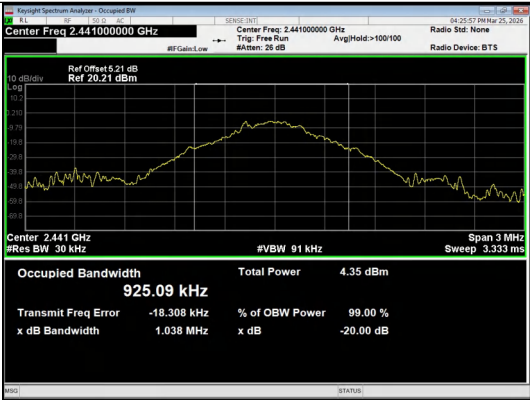
Modulation	Channel	Center Frequency (MHz)	20 dB Bandwidth (MHz)
GFSK	0	2402 MHz	1.040
	39	2441 MHz	1.040
	78	2480 MHz	1.015
$\pi/4$ DQPSK	0	2402 MHz	1.317
	39	2441 MHz	1.322
	78	2480 MHz	1.290
8DPSK	0	2402 MHz	1.025
	39	2441 MHz	1.038
	78	2480 MHz	1.016

Test Graphs

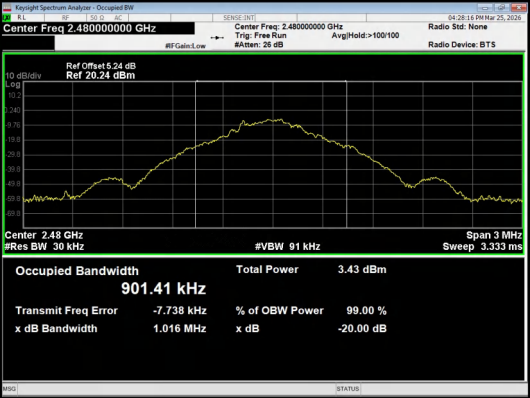




8DPSK_3-DH5_Channel 0



8DPSK_3-DH5_Channel 39



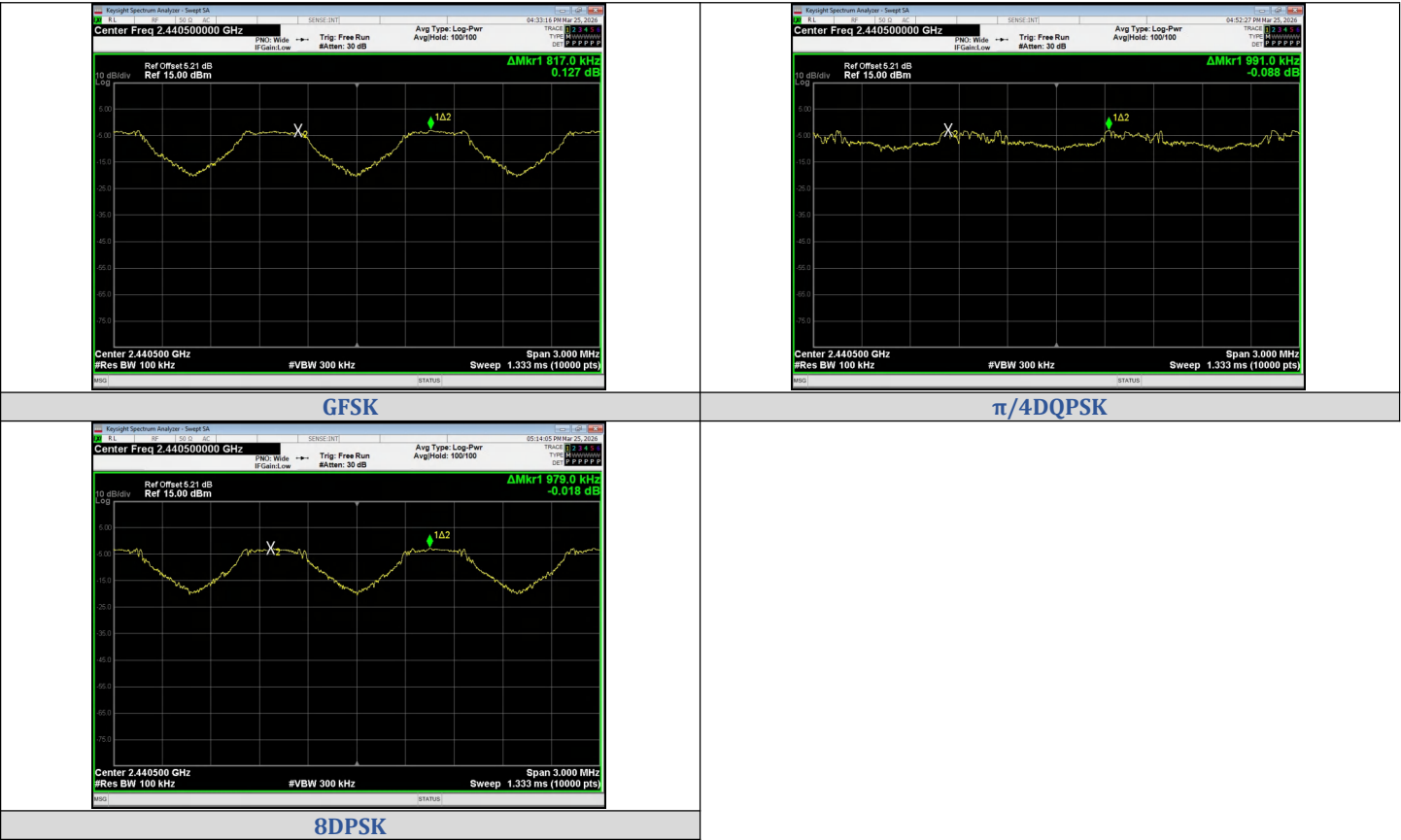
8DPSK_3-DH5_Channel 78

Carrier Frequencies Separation

Test Result

Modulation	Packet	Left Center frequency (MHz)	Right Center frequency (MHz)	Hopping Frequency Separation (MHz)	Limit (MHz)	Result
GFSK	DH5	2440.1386	2440.9556	0.8170	0.693	PASS
$\pi/4$ DQPSK	2-DH5	2439.8329	2440.8239	0.9910	0.881	PASS
8DPSK	3-DH5	2439.9685	2440.9475	0.9790	0.692	PASS

Test Graphs



Conducted Spurious & Band Edge 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	2400.00	-53.414	-22.33	-31.084	PASS
			4804.26	-42.727	-22.33	-20.397	PASS
		39	4881.67	-44.463	-22.82	-21.643	PASS
		78	2483.50	-58.347	-23.83	-34.517	PASS
			4959.70	-46.344	-23.83	-22.514	PASS
$\pi/4$ DQPSK	2-DH5	0	2400.00	-51.091	-22.18	-28.911	PASS
			4804.26	-42.651	-22.18	-20.471	PASS
		39	4881.67	-44.387	-22.78	-21.607	PASS
		78	2483.50	-59.404	-23.94	-35.464	PASS
			4959.70	-45.835	-23.94	-21.895	PASS
8DPSK	3-DH5	0	2400.00	-51.980	-21.88	-30.100	PASS
			4804.26	-42.086	-21.88	-20.206	PASS
		39	4882.30	-44.261	-22.56	-21.701	PASS
		78	2483.50	-59.876	-23.63	-36.246	PASS
			4959.70	-45.722	-23.63	-22.092	PASS

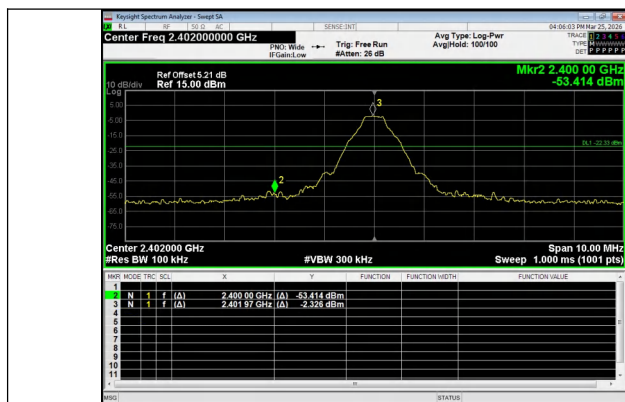
Note: input compensation coefficient (dB)= Cable Loss (dB)

Hopping

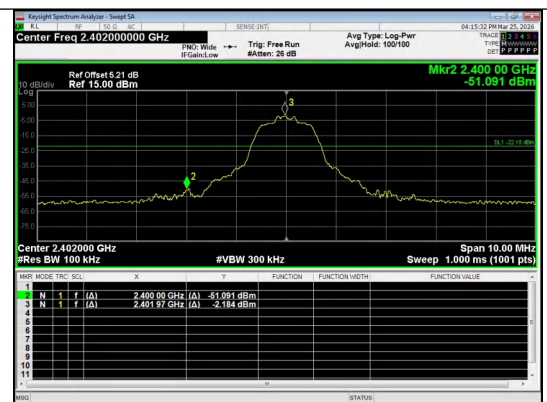
Modulation	Packet	Channel	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
GFSK	DH5	Hopping	2400.00	-54.619	-21.96	-32.659	PASS
			2483.50	-57.493	-23.59	-33.903	PASS
$\pi/4$ DQPSK	2-DH5		2391.45	-54.879	-21.86	-33.019	PASS
			2400.00	-54.919	-21.86	-33.059	PASS
			2483.50	-58.213	-23.69	-34.523	PASS
8DPSK	3-DH5		2400.00	-53.934	-21.7	-32.234	PASS
			2483.50	-58.218	-23.91	-34.308	PASS
Note: input compensation coefficient (dB)= Cable Loss (dB)							

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

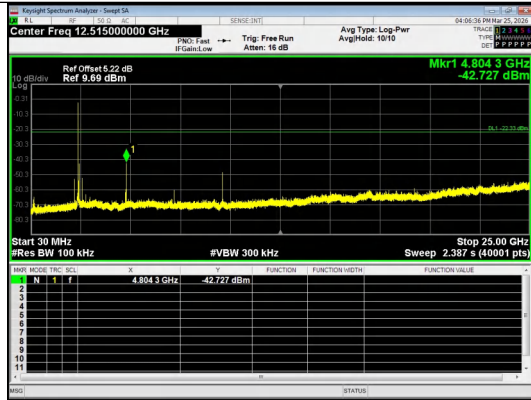
Test Graphs



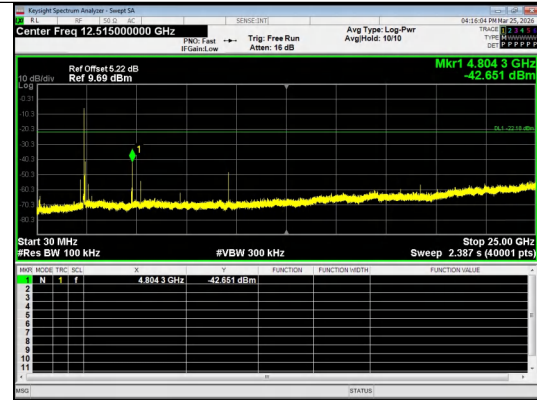
Out Of Band Emission
GFSK_DH5_Channel 0



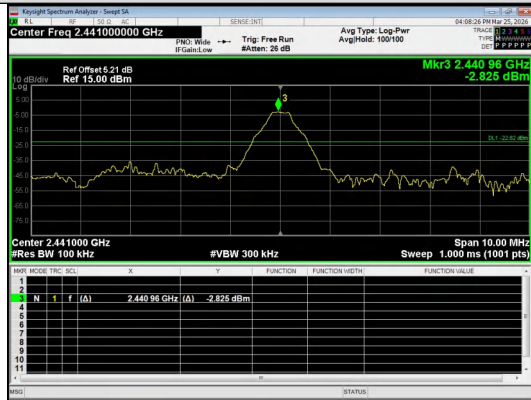
Out Of Band Emission
 $\pi/4$ DQPSK_2-DH5_Channel 0



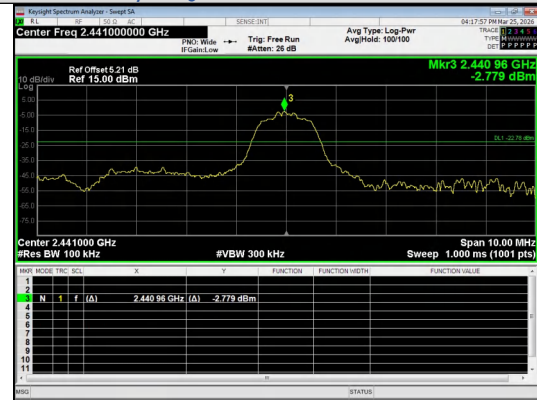
30.0 MHz - 25000.0 MHz
GFSK_DH5_Channel 0



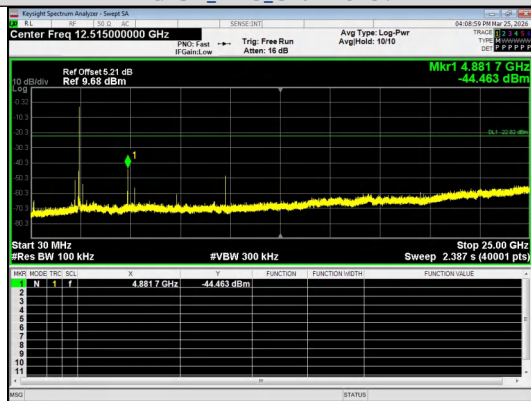
30.0 MHz - 25000.0 MHz
 $\pi/4$ DQPSK_2-DH5_Channel 0



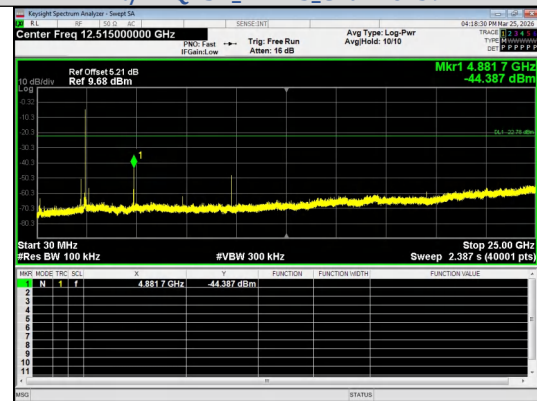
Out Of Band Emission
GFSK_DH5_Channel 39



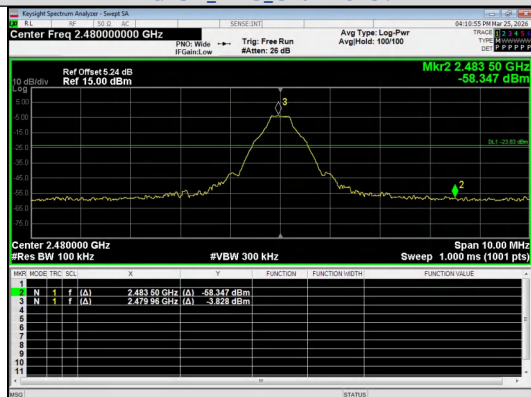
Out Of Band Emission
 $\pi/4$ DQPSK_2-DH5_Channel 39



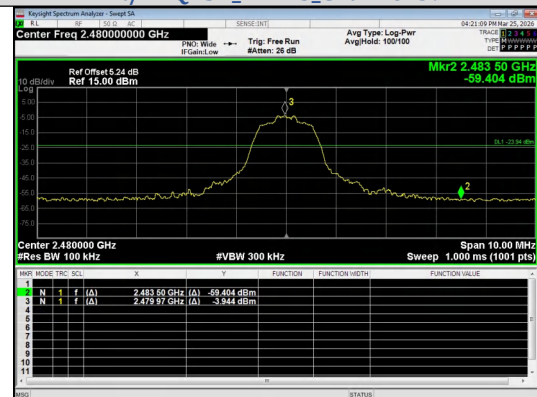
30.0 MHz - 25000.0 MHz
GFSK_DH5_Channel 39



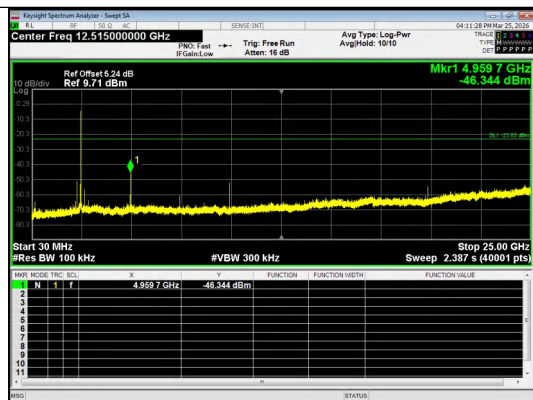
30.0 MHz - 25000.0 MHz
 $\pi/4$ DQPSK_2-DH5_Channel 39



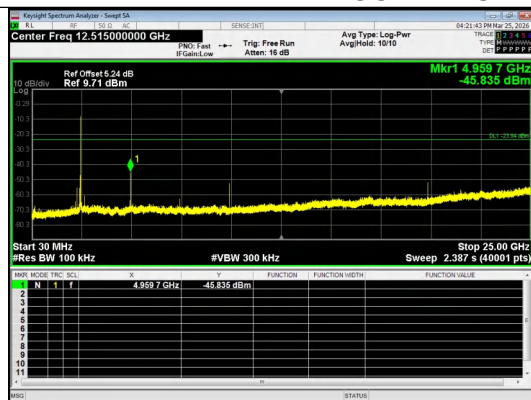
Out Of Band Emission
GFSK_DH5_Channel 78



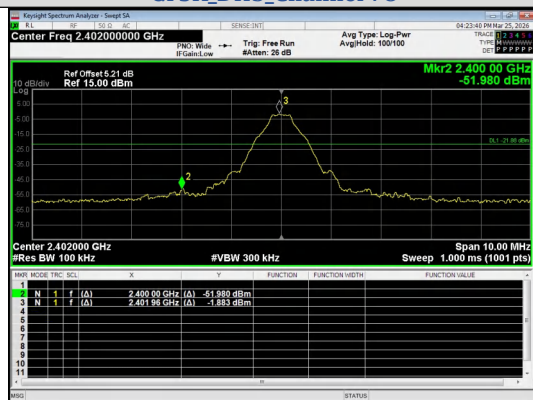
Out Of Band Emission
 $\pi/4$ DQPSK_2-DH5_Channel 78



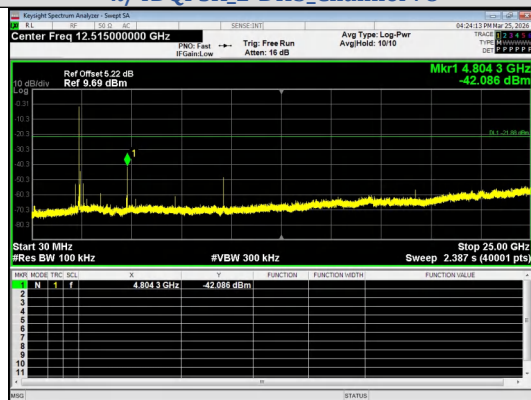
30.0 MHz - 25000.0 MHz
GFSK_DH5_Channel 78



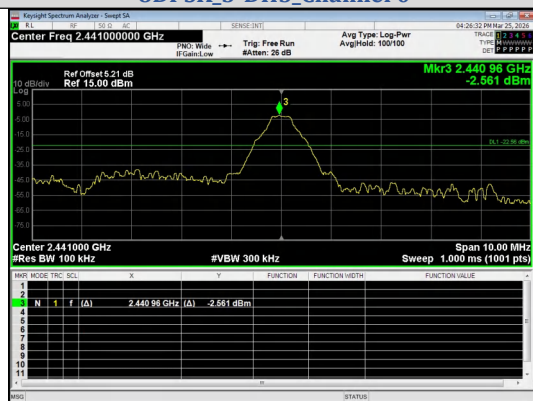
30.0 MHz - 25000.0 MHz
 $\pi/4$ DQPSK_2-DH5_Channel 78



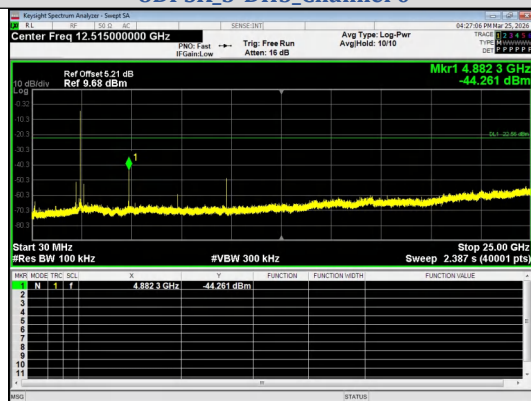
Out Of Band Emission
8DPSK_3-DH5_Channel 0



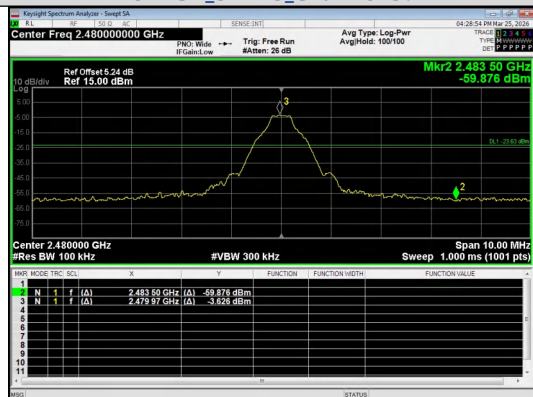
30.0 MHz - 25000.0 MHz
 $\pi/4$ DQPSK_2-DH5_Channel 78



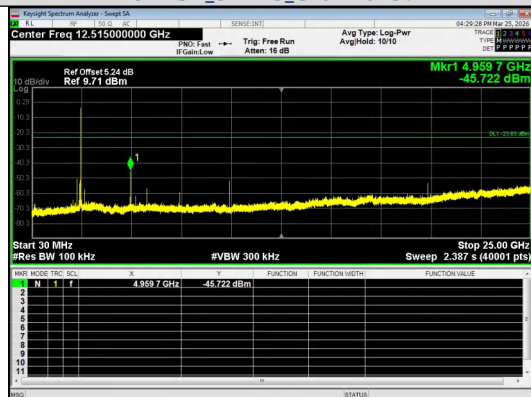
Out Of Band Emission
8DPSK_3-DH5_Channel 0



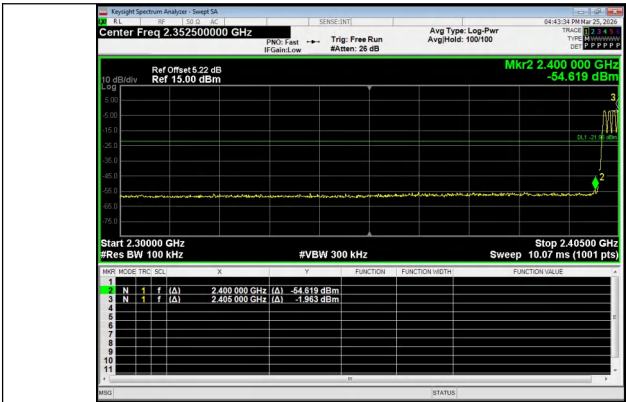
30.0 MHz - 25000.0 MHz
8DPSK_3-DH5_Channel 0



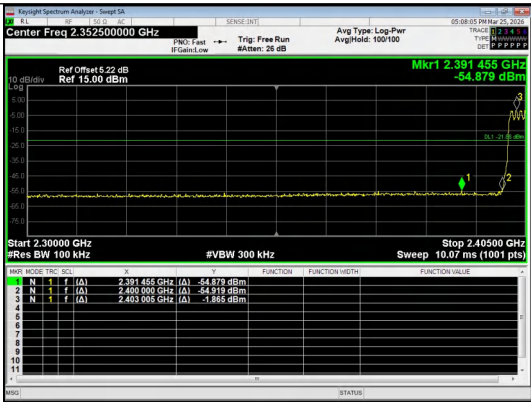
Out Of Band Emission
8DPSK_3-DH5_Channel 39



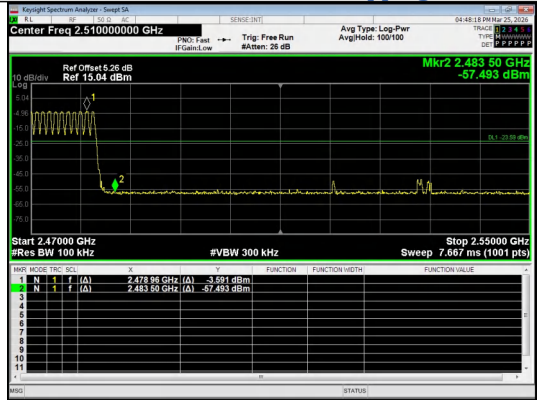
30.0 MHz - 25000.0 MHz
8DPSK_3-DH5_Channel 39



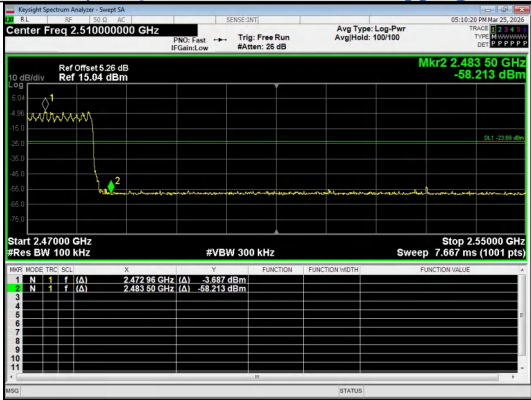
Out Of Band Emission(Left)
GFSK_DH5_Channel Hopping



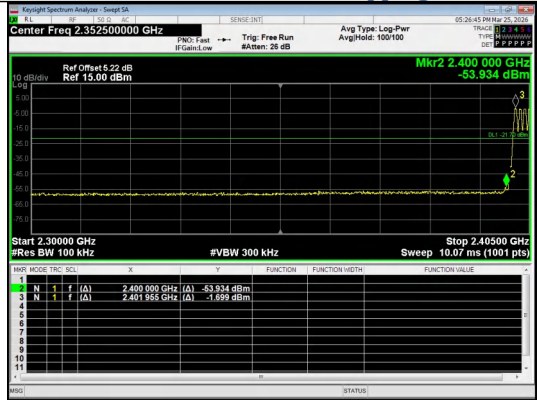
Out Of Band Emission(Left)
 $\pi/4$ DQPSK_2-DH5_Channel Hopping



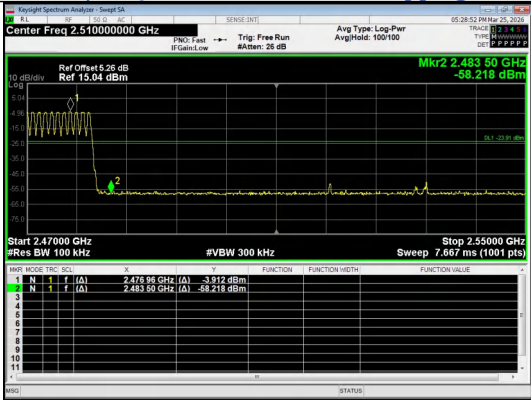
Out Of Band Emission(Right)
GFSK_DH5_Channel Hopping



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



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



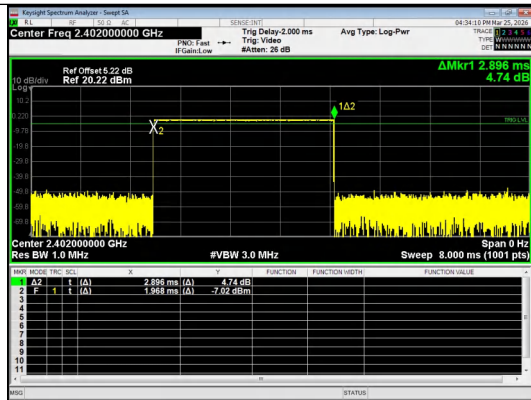
Out Of Band Emission(Right)
8DPSK_3-DH5_Channel Hopping

Dwell Time

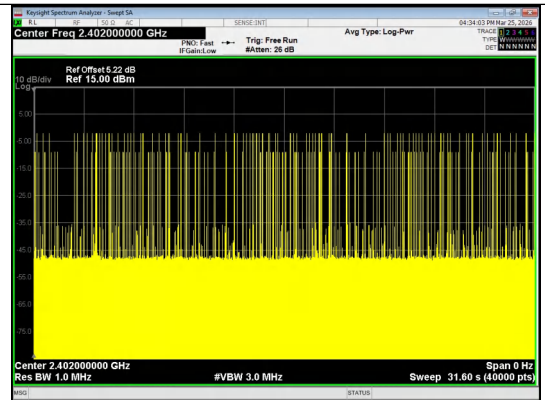
Test Result

Modulation	Packet	Channel	Pulse Width (ms)	Number of Pulses in 31.6 seconds	Dwell Time (ms)	Limit (ms)	Result
GFSK	DH5	Hopping	2.896	105	304.08	< 400	PASS
$\pi/4$ DQPSK	2-DH5		2.880	116	334.08		PASS
8DPSK	3-DH5		2.368	110	260.48		PASS
Note: Dwell time=Pulse time(ms)*Number of Pulses in 31.6 seconds							

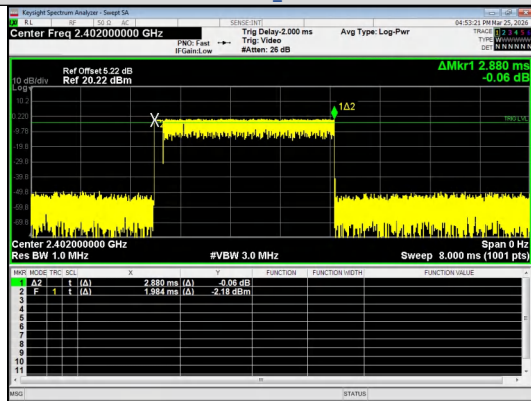
Test Graphs



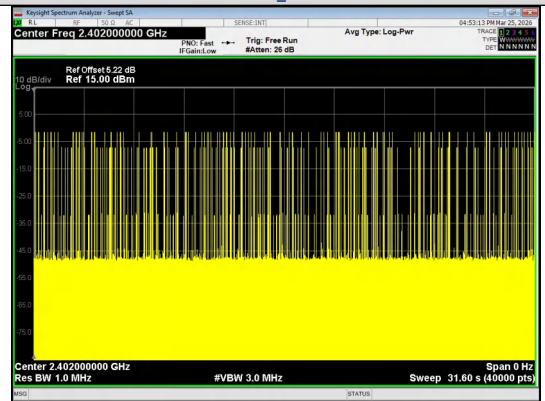
Pulse Width
GFSK_DH5



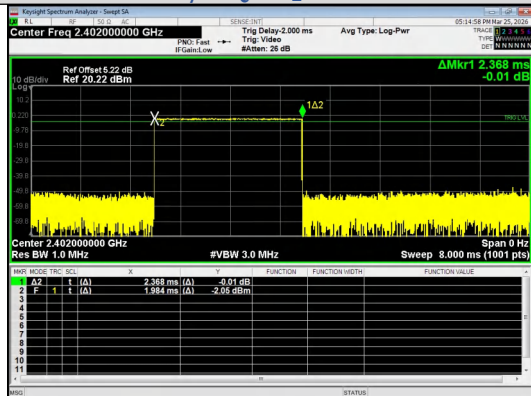
Number of Pulses in 31.6 seconds
GFSK_DH5



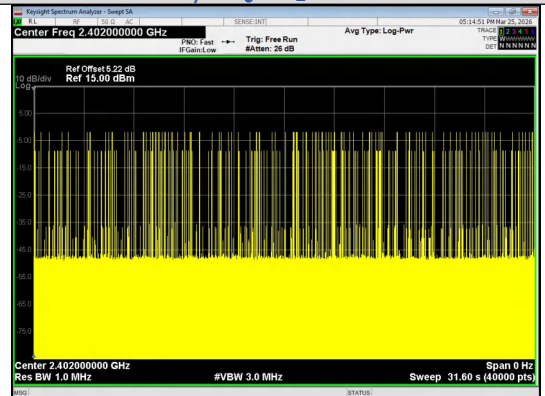
Pulse Width
 $\pi/4$ DQPSK_2-DH5



Number of Pulses in 31.6 seconds
 $\pi/4$ DQPSK_2-DH5



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

