

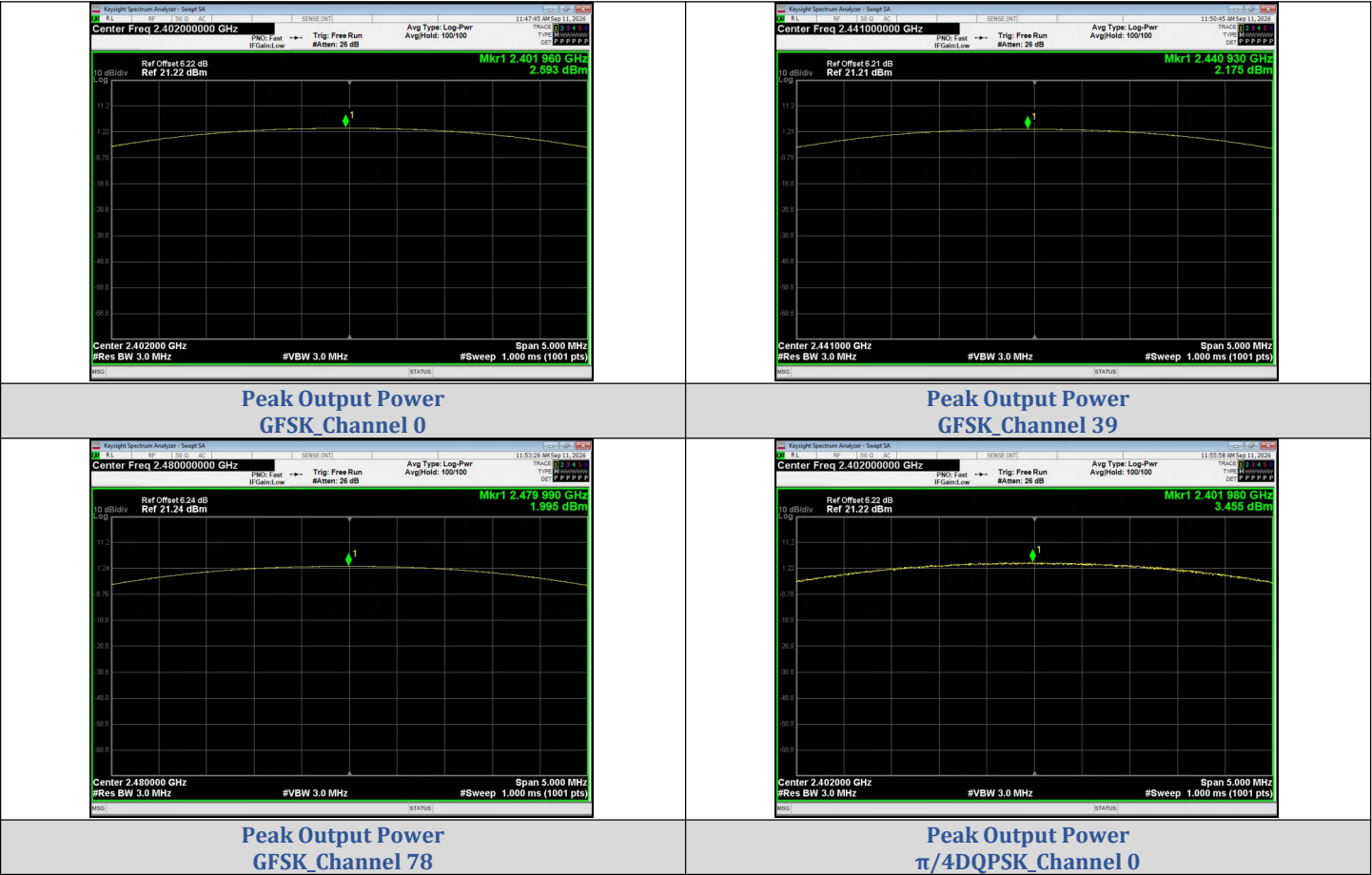
Appendix A:Test Results of Bluetooth BR & EDR

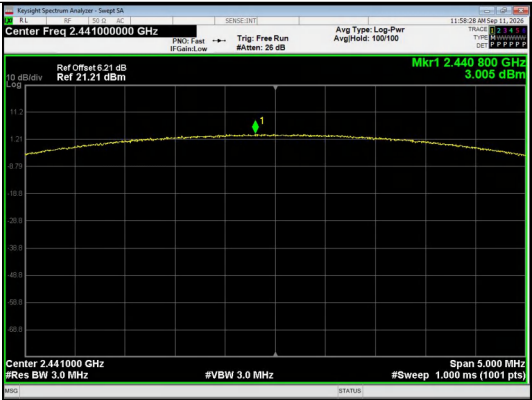
Conducted Output Power

Test Result

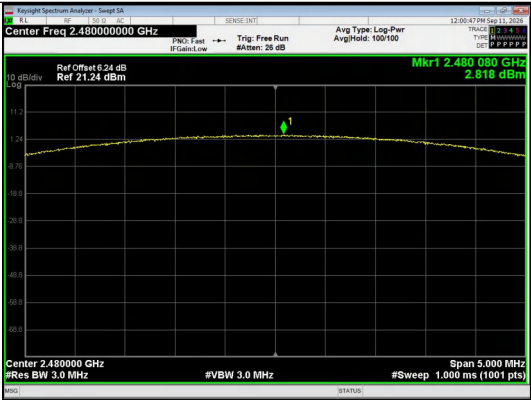
Modulation	Packet Type	Channel	Peak Output Power (dBm)	Peak Output Power (mW)	Max. Avg. Power (dBm)	Limit (dBm)	Verdict
GFSK	DH5	0	2.593	1.82	None	30	PASS
		39	2.175	1.65	None		PASS
		78	1.995	1.58	None		PASS
π /4DQPSK	2-DH5	0	3.455	2.22	None		PASS
		39	3.005	2.00	None		PASS
		78	2.818	1.91	None		PASS
8DPSK	3-DH5	0	3.977	2.50	None		PASS
		39	3.462	2.22	None		PASS
		78	3.285	2.13	None		PASS

Test Graphs

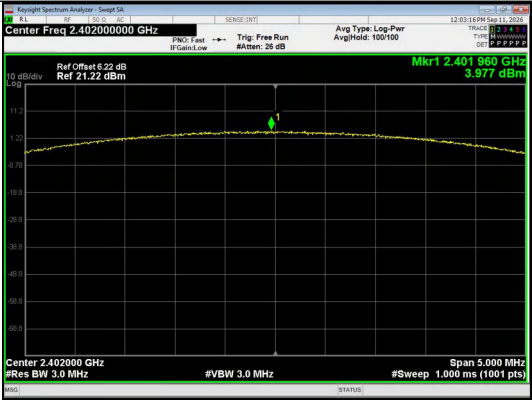




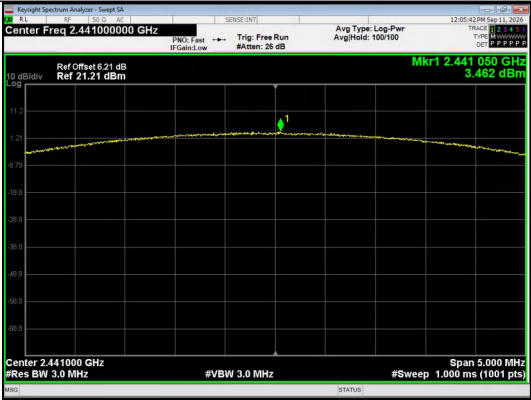
Peak Output Power
 $\pi/4$ DQPSK_Channel 39



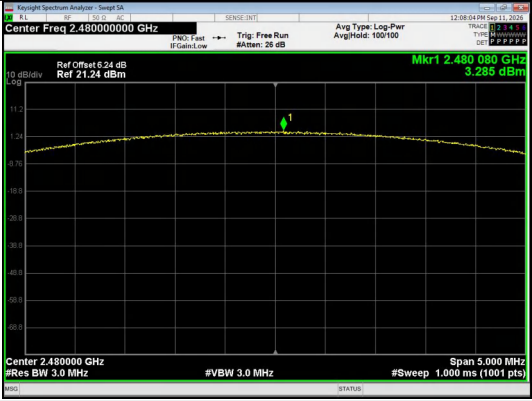
Peak Output Power
 $\pi/4$ DQPSK_Channel 78



Peak Output Power
8DPSK_Channel 0



Peak Output Power
8DPSK_Channel 78



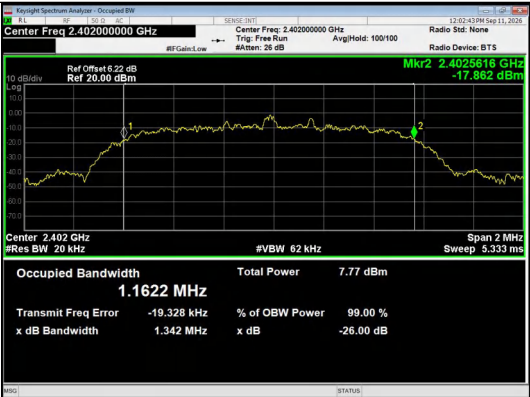
Peak Output Power
8DPSK_Channel 39

FCC ID:2BYEI-S9
99% Bandwidth
Test Result

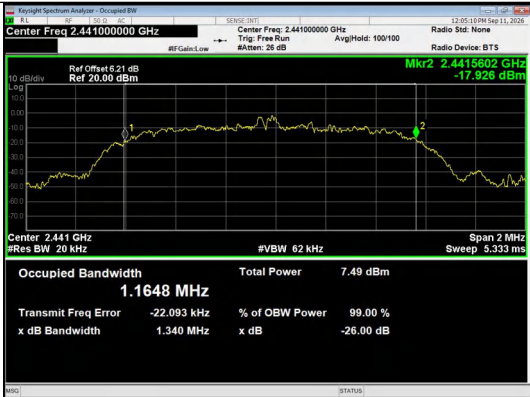
Modulation	Channel	Center Frequency (MHz)	99% BW (MHz)
GFSK	0	2402	0.86
	39	2441	0.85
	78	2480	0.86
$\pi/4$ DQPSK	0	2402	1.17
	39	2441	1.17
	78	2480	1.18
8DPSK	0	2402	1.16
	39	2441	1.16
	78	2480	1.17

Test Graphs

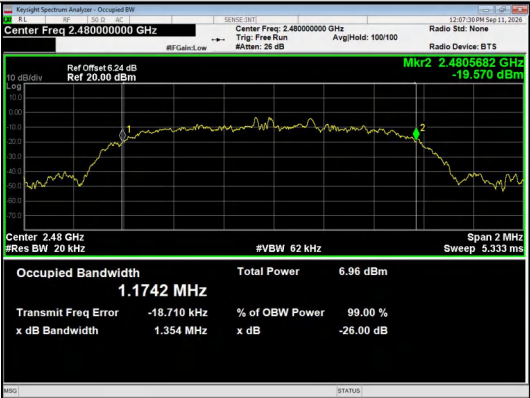




8DPSK_3-DH5_Channel 0



8DPSK_3-DH5_Channel 39

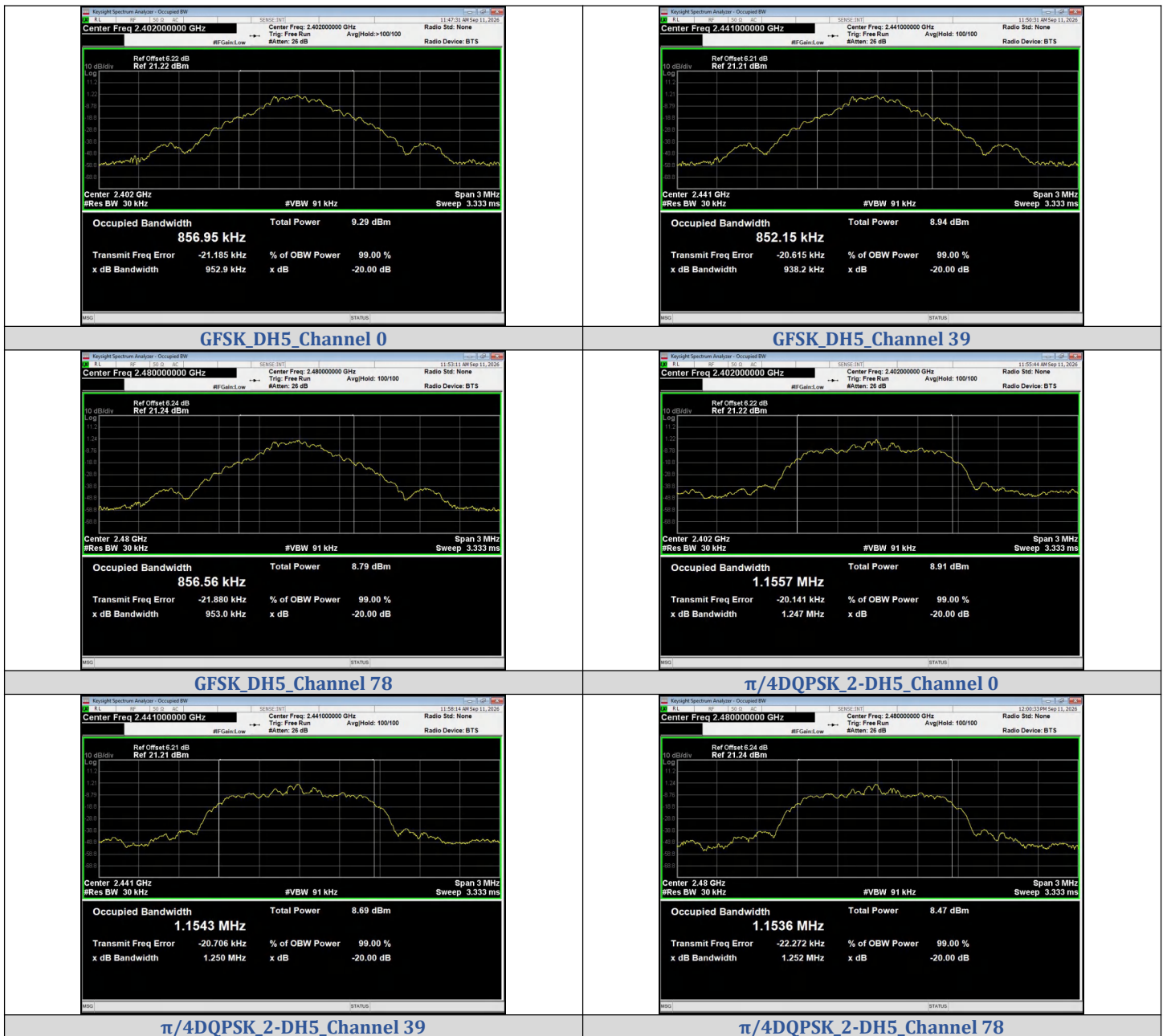


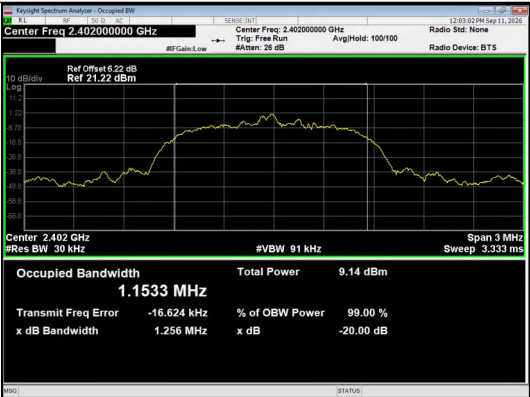
8DPSK_3-DH5_Channel 78

FCC ID:2BYEI-S9
20dB Bandwidth
Test Result

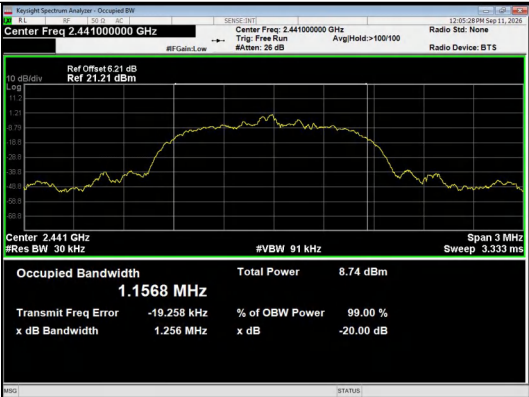
Modulation	Channel	Center Frequency (MHz)	20 dB Bandwidth (MHz)
GFSK	0	2402 MHz	0.9529
	39	2441 MHz	0.9382
	78	2480 MHz	0.9530
$\pi/4$ DQPSK	0	2402 MHz	1.247
	39	2441 MHz	1.250
	78	2480 MHz	1.252
8DPSK	0	2402 MHz	1.256
	39	2441 MHz	1.256
	78	2480 MHz	1.263

Test Graphs

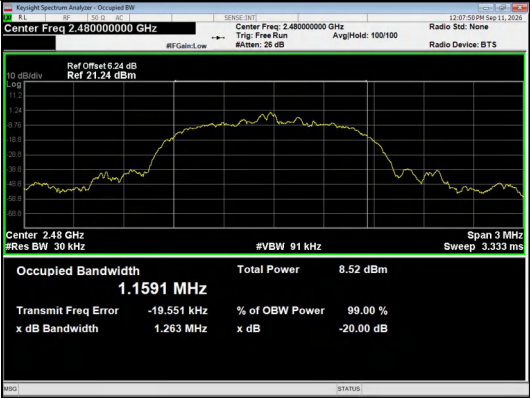




8DPSK_3-DH5_Channel 0



8DPSK_3-DH5_Channel 39



8DPSK_3-DH5_Channel 78

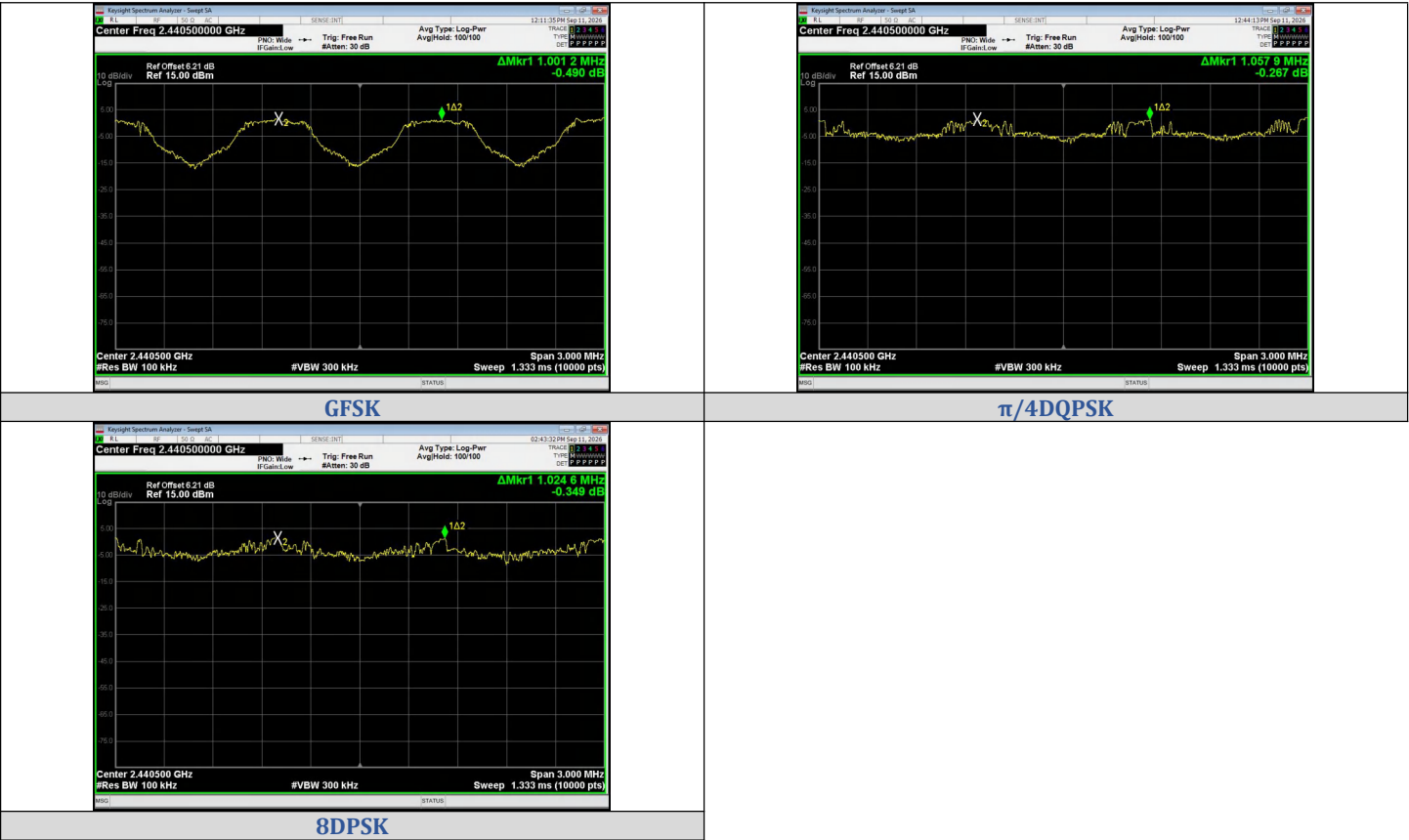
FCC ID:2BYEI-S9

Carrier Frequencies Separation

Test Result

Modulation	Packet	Left Center frequency (MHz)	Right Center frequency (MHz)	Hopping Frequency Separation (MHz)	Minimum Limit (MHz)	Verdict
GFSK	DH5	2440.0009	2441.0021	1.0012	0.635	PASS
$\pi/4$ DQPSK	2-DH5	2439.9712	2441.0291	1.0579	0.835	PASS
8DPSK	3-DH5	2439.9949	2441.0195	1.0246	0.842	PASS

Test Graphs



FCC ID:2BYEI-S9

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)	Verdict
GFSK	DH5	0	2400.00	-49.939	-17.75	-32.189	PASS
			4803.64	-37.051	-17.75	-19.301	PASS
		39	4882.30	-35.894	-18.16	-17.734	PASS
		78	2483.50	-56.541	-18.29	-38.251	PASS
			4959.70	-37.472	-18.29	-19.182	PASS
π /4DQPSK	2-DH5	0	2400.00	-47.942	-17.73	-30.212	PASS
			4804.26	-38.764	-17.73	-21.034	PASS
		39	4881.67	-34.979	-18.18	-16.799	PASS
		78	2483.50	-57.287	-18.38	-38.907	PASS
			4959.70	-41.304	-18.38	-22.924	PASS
8DPSK	3-DH5	0	2400.00	-50.489	-17.79	-32.699	PASS
			4804.26	-42.295	-17.79	-24.505	PASS
		39	4882.30	-40.428	-18.37	-22.058	PASS
		78	2483.50	-56.830	-18.32	-38.510	PASS
			4959.70	-41.323	-18.32	-23.003	PASS

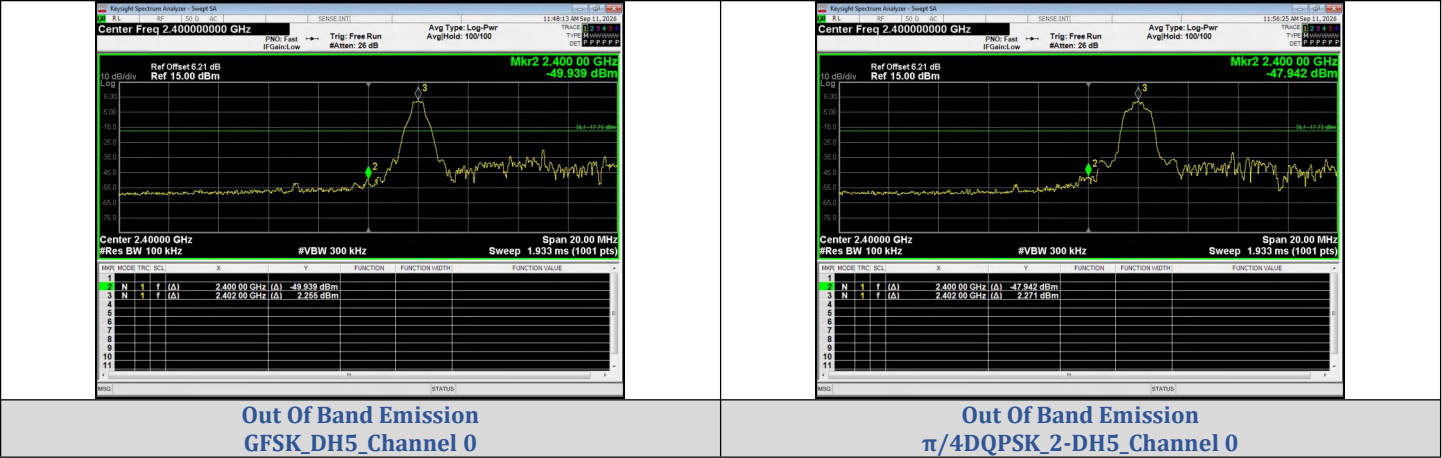
Note: input compensation coefficient (dB)= Cable Loss (dB)

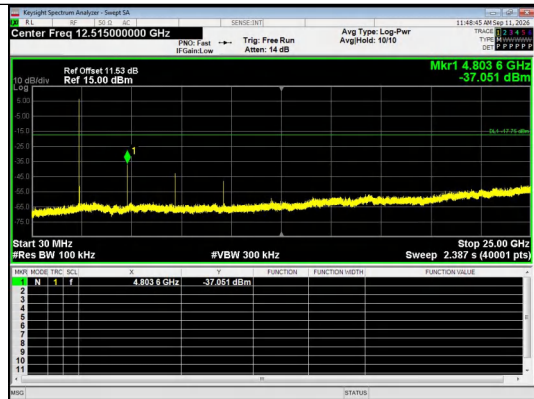
Hopping

Modulation	Packet	Channel	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Verdict
GFSK	DH5	Hopping	2400.00	-51.580	-17.80	-33.780	PASS
			2483.50	-55.936	-18.41	-37.526	PASS
π /4DQPSK	2-DH5		2400.00	-47.882	-17.65	-30.232	PASS
			2483.50	-56.371	-18.30	-38.071	PASS
8DPSK	3-DH5		2400.00	-52.363	-18.00	-34.363	PASS
			2483.50	-55.396	-18.71	-36.686	PASS

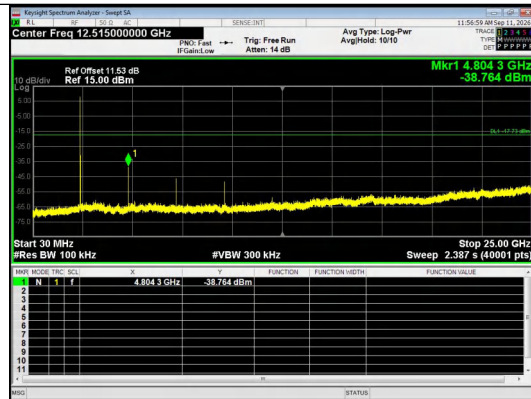
Note: input compensation coefficient (dB)= Cable Loss (dB)

Test Graphs

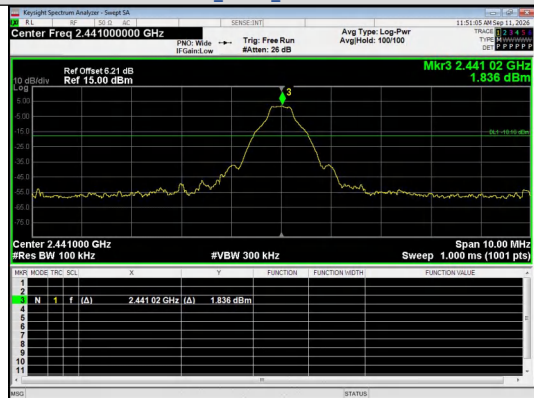




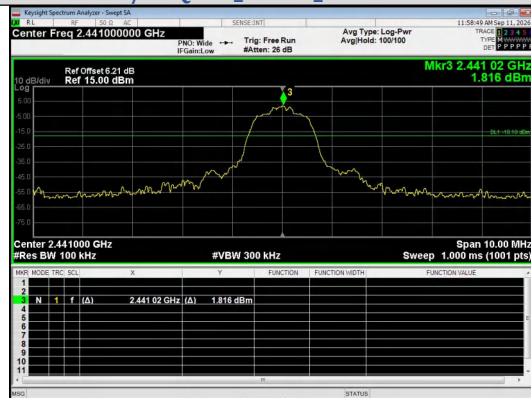
30.0 MHz - 25000.0 MHz
GFSK_DH5_Channel 0



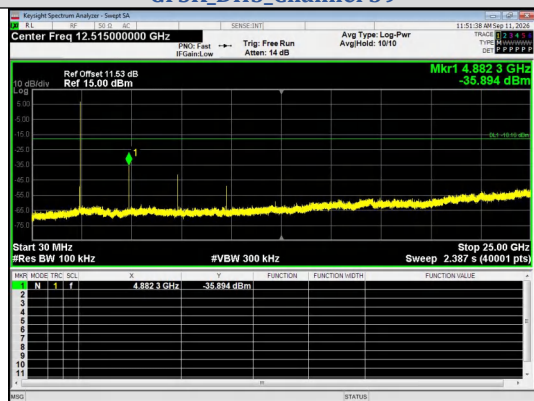
30.0 MHz - 25000.0 MHz
 $\pi/4$ DQPSK_2-DH5_Channel 0



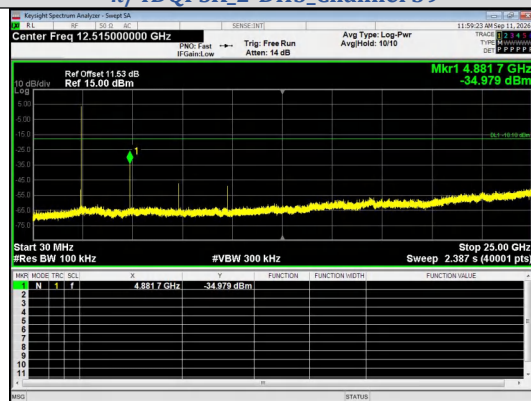
Out Of Band Emission
GFSK_DH5_Channel 39



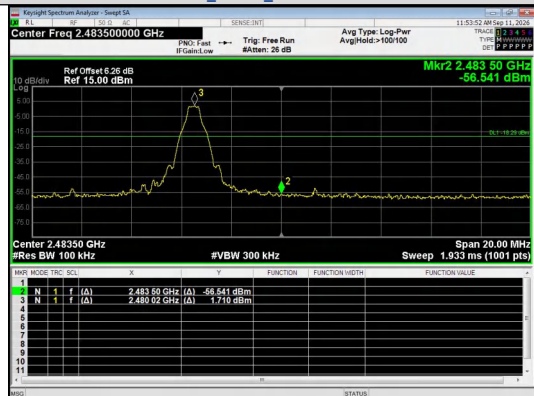
Out Of Band Emission
 $\pi/4$ DQPSK_2-DH5_Channel 39



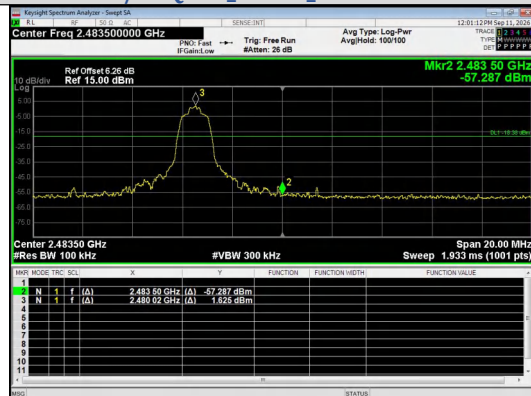
30.0 MHz - 25000.0 MHz
GFSK_DH5_Channel 39



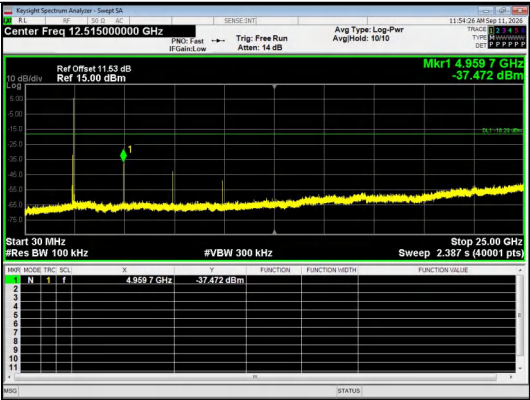
30.0 MHz - 25000.0 MHz
 $\pi/4$ DQPSK_2-DH5_Channel 39



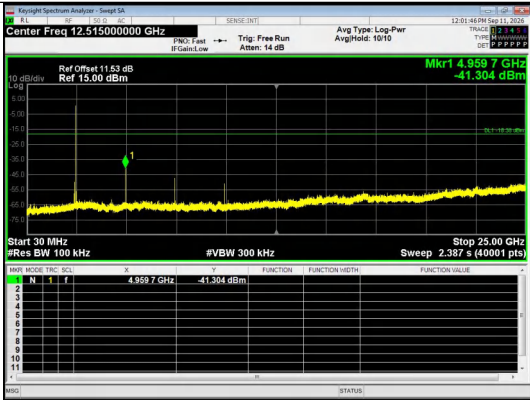
Out Of Band Emission
GFSK_DH5_Channel 78



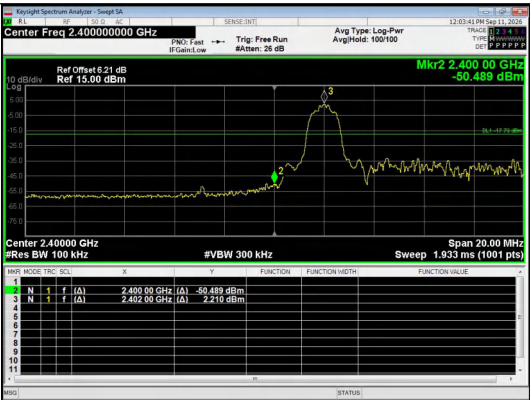
Out Of Band Emission
 $\pi/4$ DQPSK_2-DH5_Channel 78



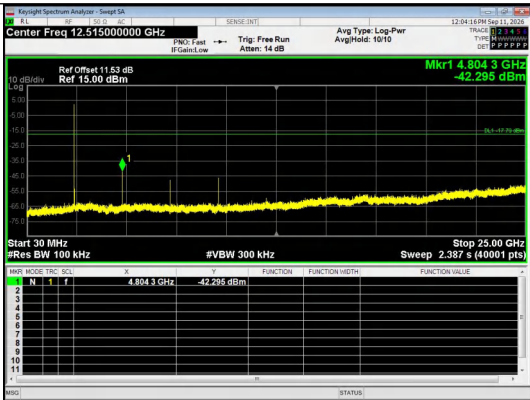
30.0 MHz - 25000.0 MHz
GFSK_DH5_Channel 78



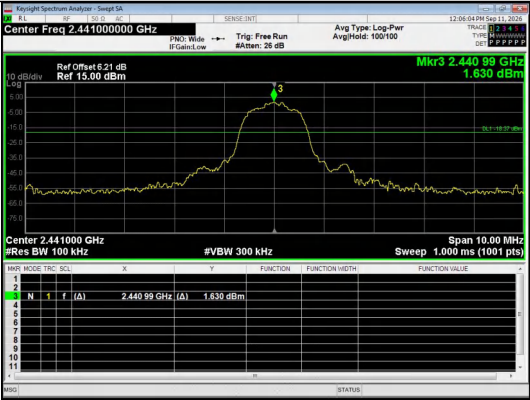
30.0 MHz - 25000.0 MHz
 $\pi/4$ DQPSK_2-DH5_Channel 78



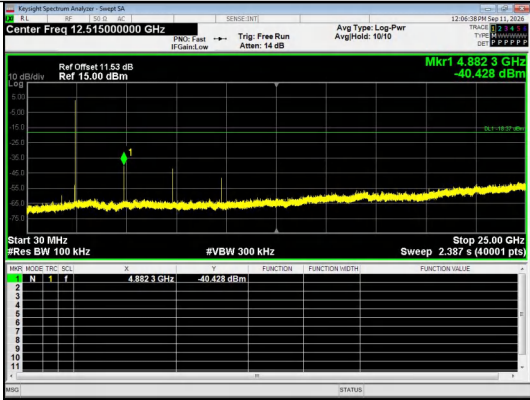
Out Of Band Emission
8DPSK_3-DH5_Channel 0



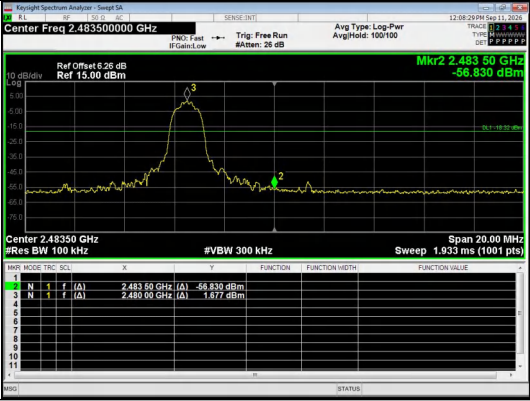
30.0 MHz - 25000.0 MHz
8DPSK_3-DH5_Channel 0



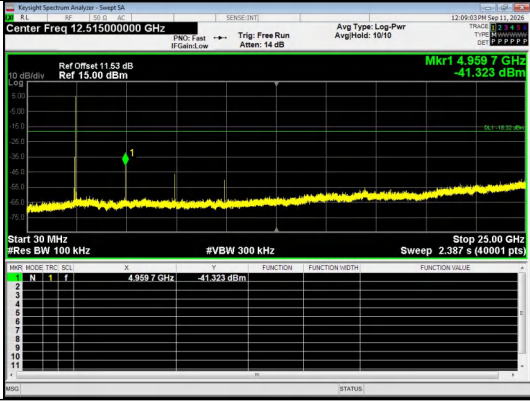
Out Of Band Emission
8DPSK_3-DH5_Channel 39



30.0 MHz - 25000.0 MHz
8DPSK_3-DH5_Channel 39



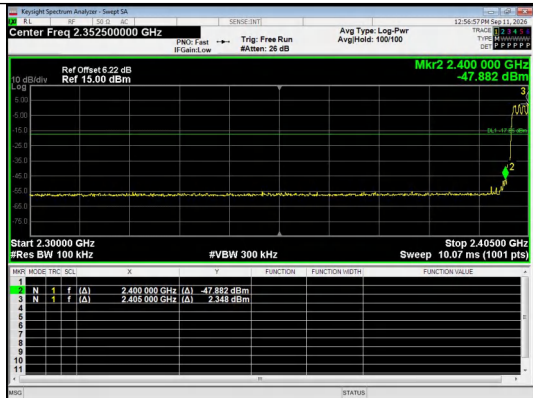
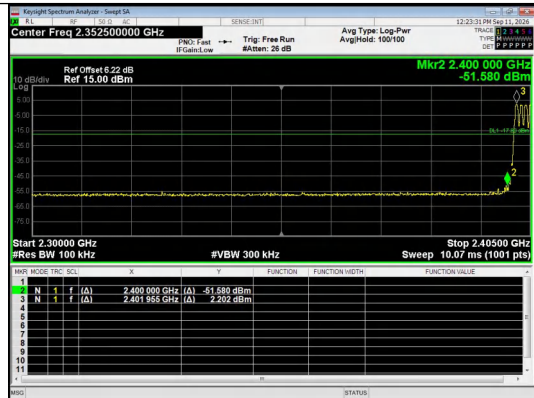
Out Of Band Emission



30.0 MHz - 25000.0 MHz

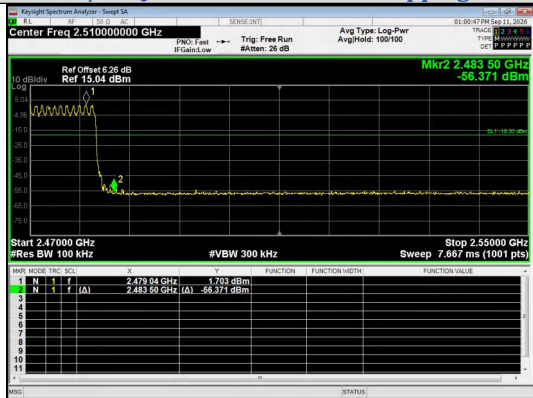
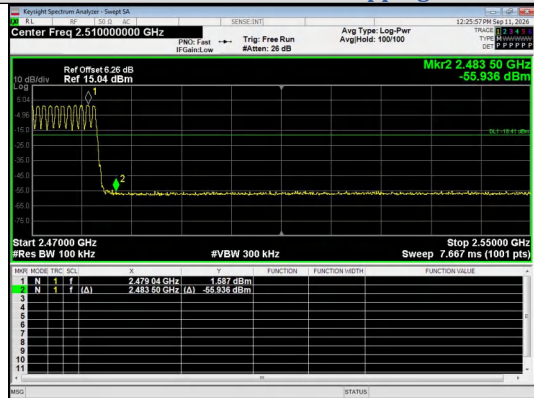
8DPSK_3-DH5_Channel 78

8DPSK_3-DH5_Channel 78



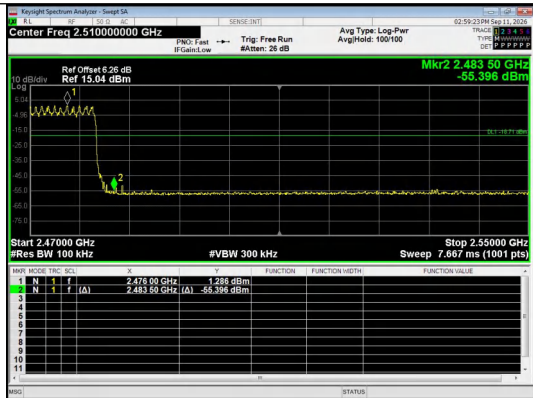
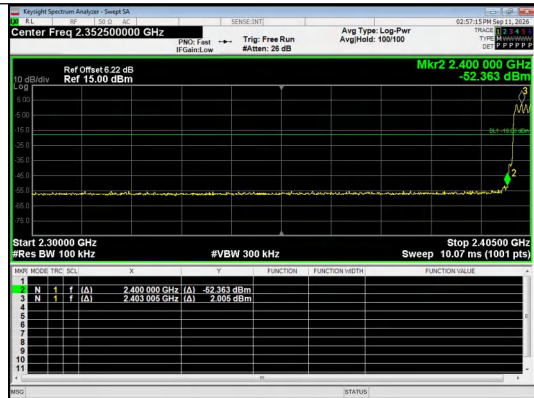
Out Of Band Emission(Left)
GFSK_DH5_Channel Hopping

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

Dwell Time

Test Result

Modulation	Packet	Channel	Pulse Width (ms)	Number of Pulses in 31.6 seconds	Dwell Time (ms)	Limit (ms)	Verdict
GFSK	DH5	Hopping	2.9120	107	311.58	< 400	PASS
$\pi/4$ DQPSK	2-DH5		2.9120	119	346.53		PASS
8DPSK	3-DH5		2.9200	102	297.84		PASS
Note: Dwell time=Pulse time(ms)*Number of Pulses in 31.6 seconds							

Test Graphs

