

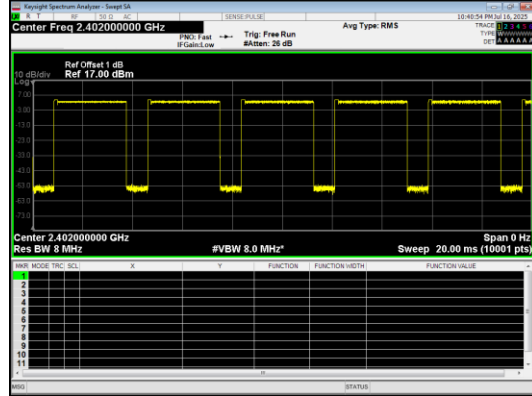
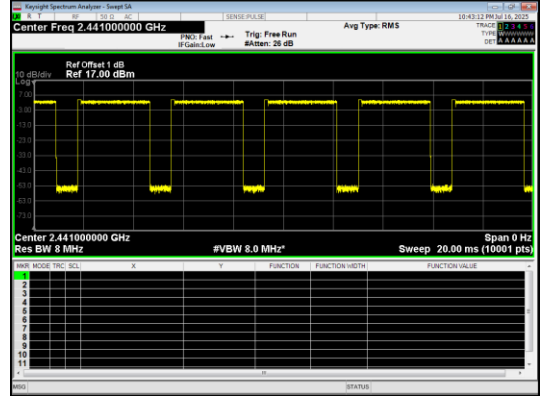
Appendix RF test data for BT

Duty Cycle Test Result

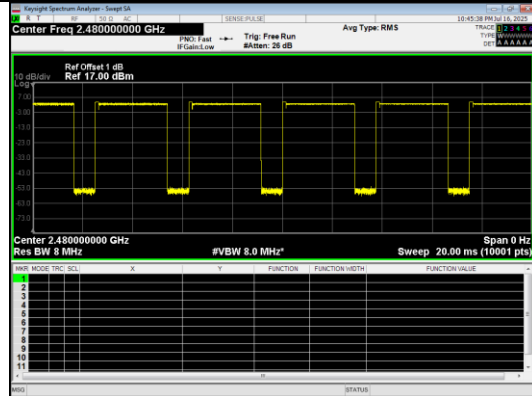
Modulation	Packets	Channel	On Time (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle (linear)	Duty Cycle Factor (dB)	1/T
GFSK	DH5	0	2.886	3.748	77.00	0.7700	1.1351	0.3465
		39	2.886	3.748	77.00	0.7700	1.1351	0.3465
		78	2.884	3.748	76.95	0.7695	1.1379	0.3467
$\pi/4$ DQPSK	2-DH5	0	2.892	3.748	77.16	0.7716	1.1261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

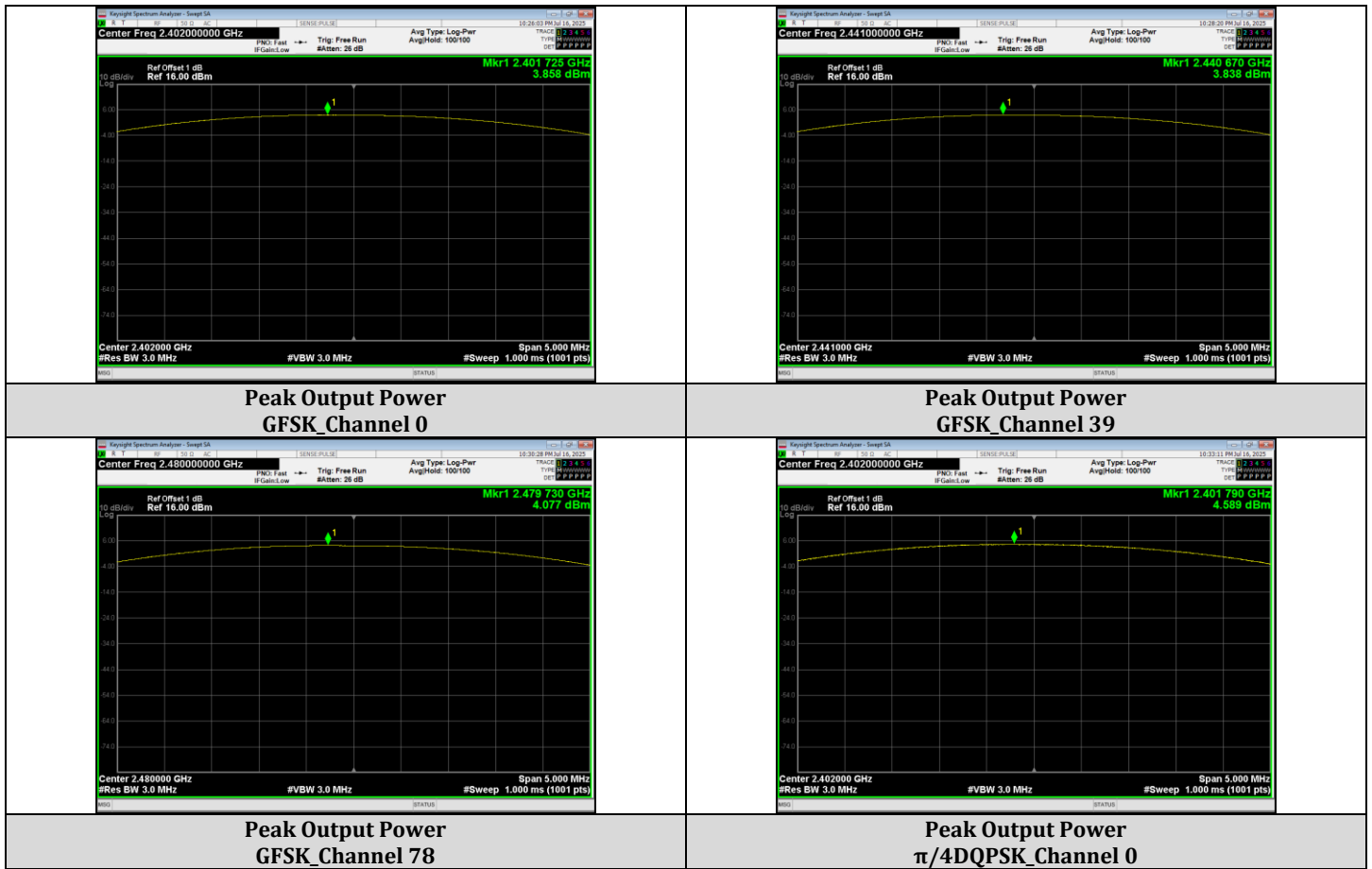
8DPSK(3-DH5)_Channel 78

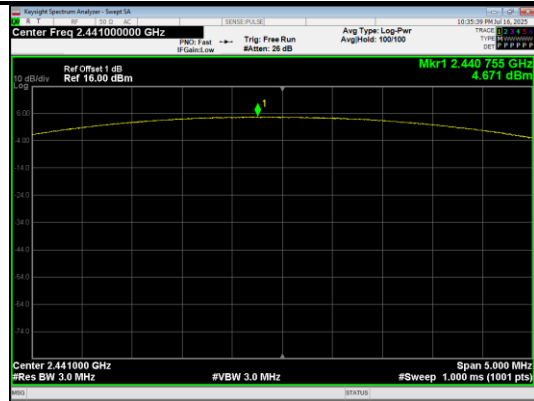
Conducted Output Power

Test Result

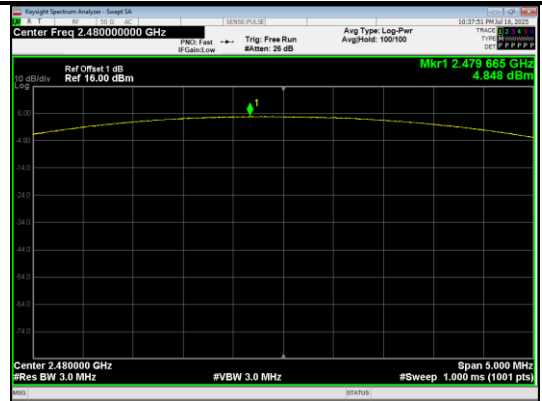
Modulation	Packet Type	Channel	Peak Output Power (dBm)	Peak Output Power (mW)	Limit (dBm)	Result
GFSK	DH5	0	3.86	2.43	≤30	PASS
		39	3.84	2.42		PASS
		78	4.08	2.56		PASS
$\pi/4$ DQPSK	2-DH5	0	4.59	2.88	≤20.97	PASS
		39	4.67	2.93		PASS
		78	4.85	3.05		PASS
8DPSK	3-DH5	0	4.89	3.08		PASS
		39	5.03	3.18		PASS
		78	5.25	3.35		PASS

Test Graphs

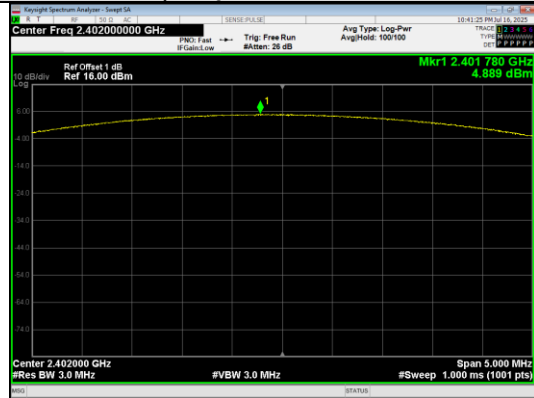




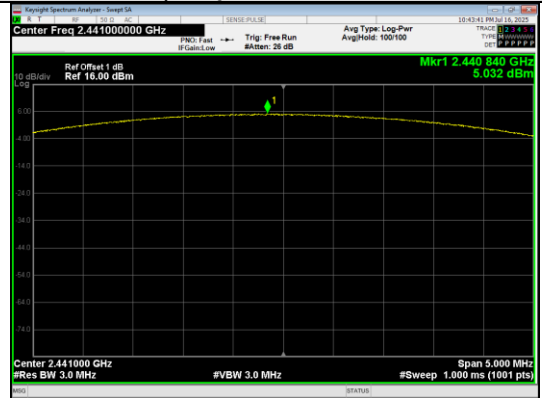
Peak Output Power
 $\pi/4$ DQPSK_Channel 39



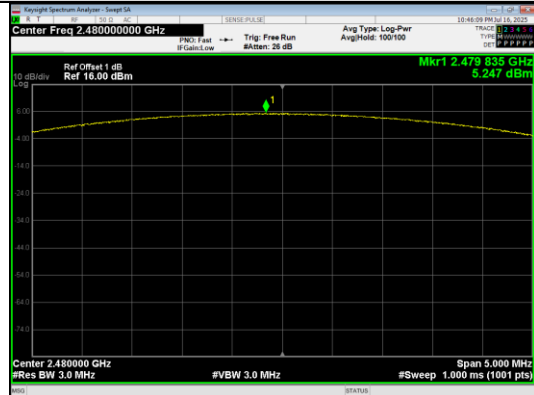
Peak Output Power
 $\pi/4$ DQPSK_Channel 78



Peak Output Power
8DPSK_Channel 0



Peak Output Power
8DPSK_Channel 39



Peak Output Power
8DPSK_Channel 78

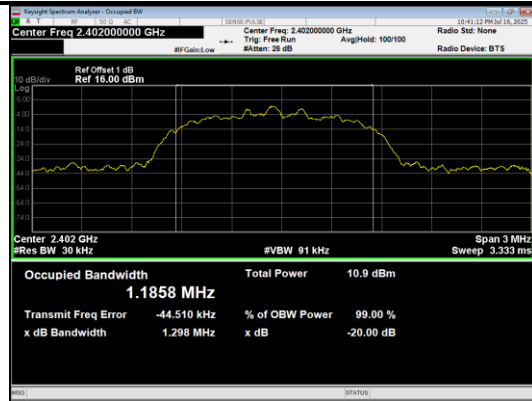
20dB Bandwidth

Test Result

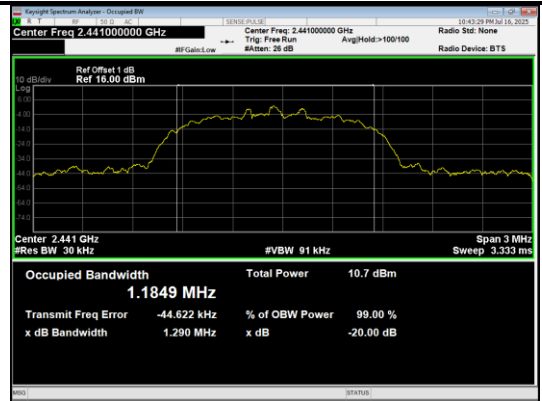
Modulation	Channel	Center Frequency (MHz)	20 dB Bandwidth (MHz)
GFSK	0	2402 MHz	0.9400
	39	2441 MHz	0.9500
	78	2480 MHz	0.9500
$\pi/4$ DQPSK	0	2402 MHz	1.310
	39	2441 MHz	1.310
	78	2480 MHz	1.280
8DPSK	0	2402 MHz	1.300
	39	2441 MHz	1.290
	78	2480 MHz	1.300

Test Graphs

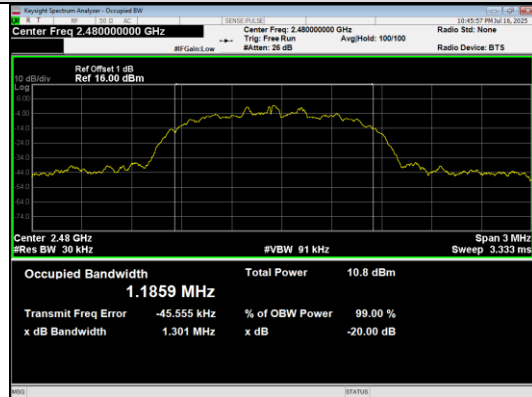




8DPSK_3-DH5_Channel 0



8DPSK_3-DH5_Channel 39



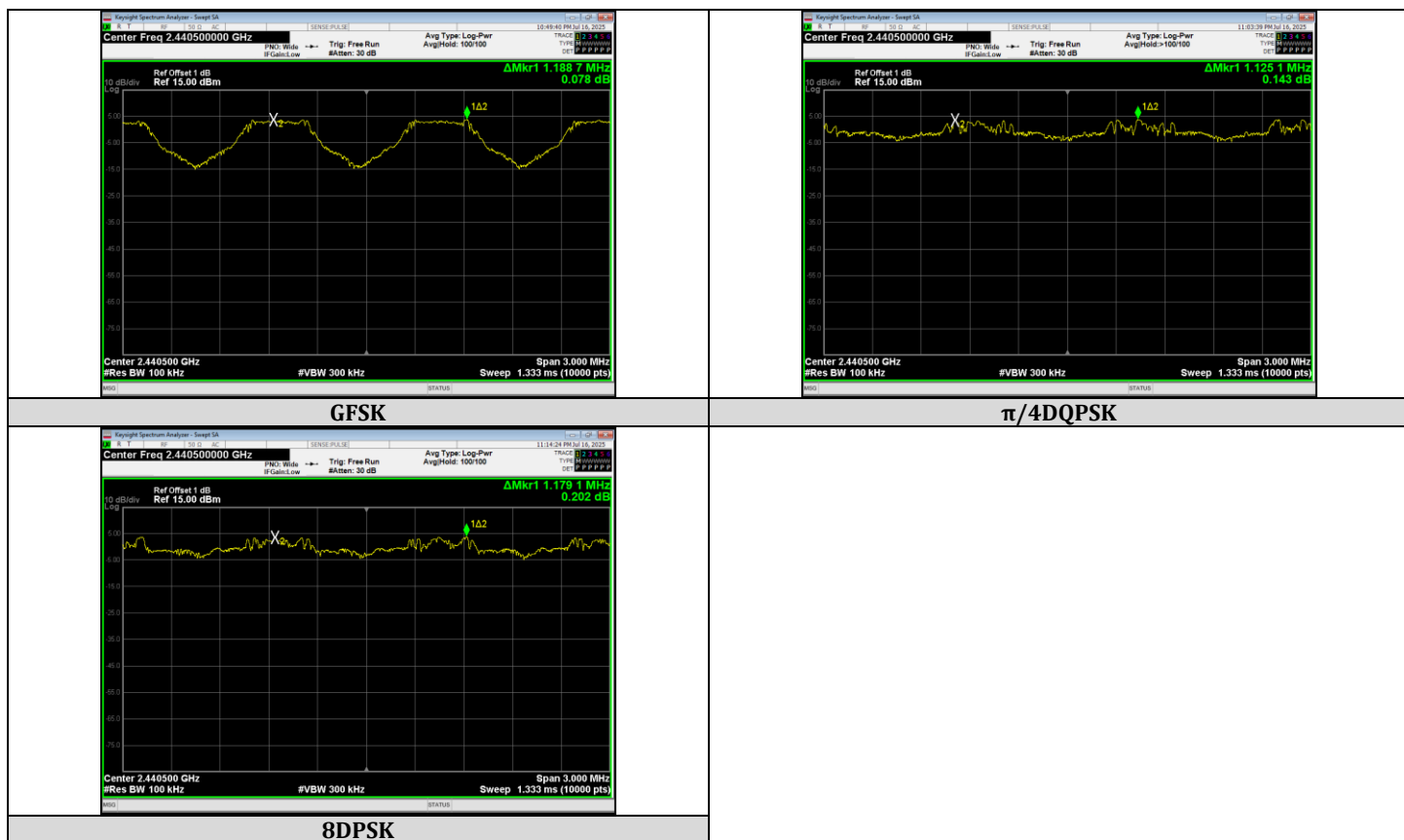
8DPSK_3-DH5_Channel 78

Carrier Frequencies Separation

Test Result

Modulation	Packet	Left Center frequency (MHz)	Right Center frequency (MHz)	Hopping Frequency Separation (MHz)	Limit (MHz)	Result
GFSK	DH5	2439.9295	2441.1182	1.1887	0.99	PASS
$\pi/4$ DQPSK	2-DH5	2439.8071	2440.9322	1.1251	0.99	PASS
8DPSK	3-DH5	2439.9364	2441.1155	1.1791	0.99	PASS

Test Graphs

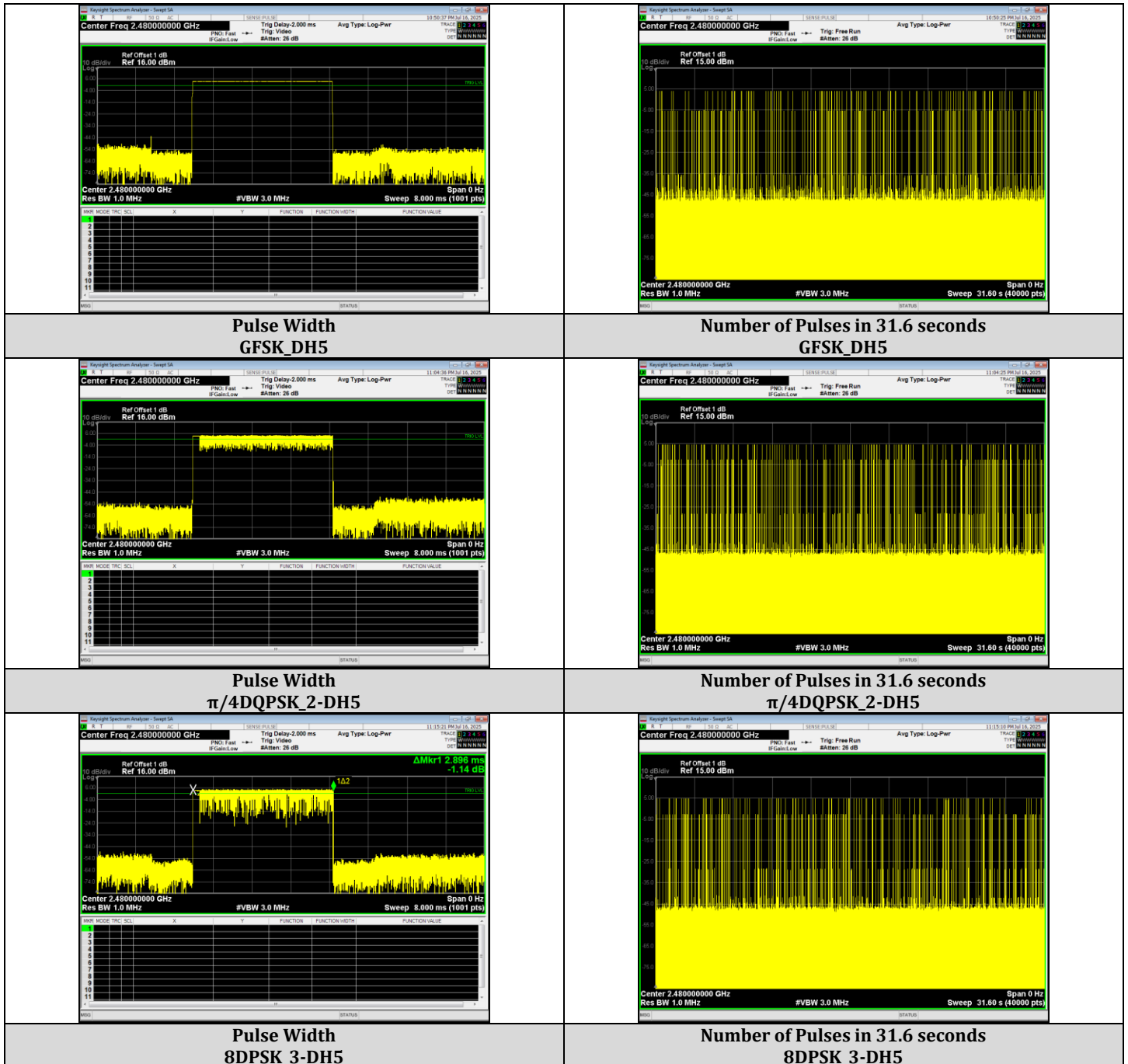


Dwell Time

Test Result

Modulation	Packet	Channel	Pulse Width (ms)	Number of Pulses in 31.6 seconds	Dwell Time (ms)	Limit (ms)	Result
GFSK	DH5	Hopping	2.872	111	318.79	< 400	PASS
$\pi/4$ DQPSK	2-DH5		2.880	122	351.36		PASS
8DPSK	3-DH5		2.896	99	286.7		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



Conducted Out Of Band Emission

Test Result

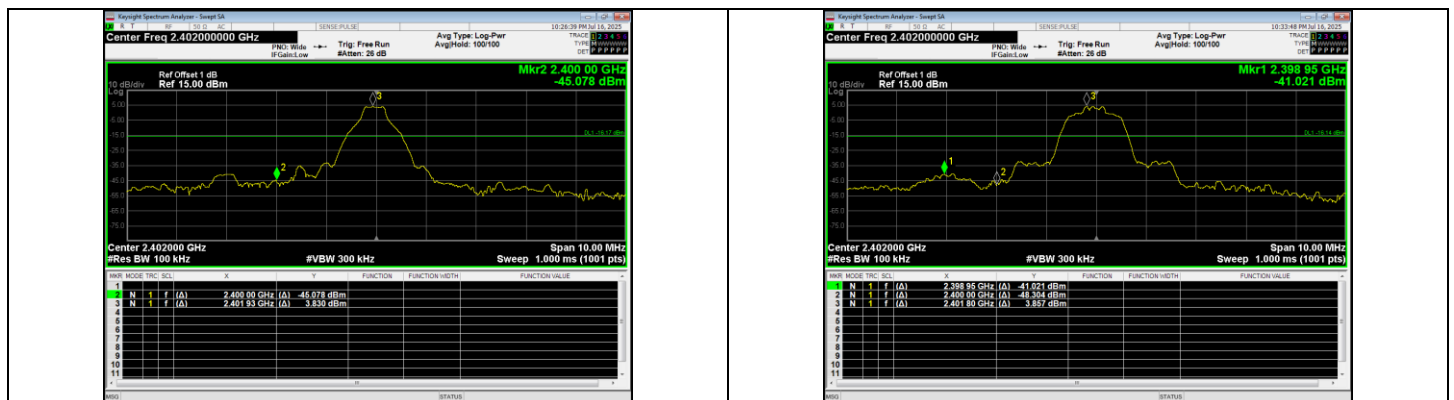
Non-Hopping

Modulation	Packet	Channel	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
GFSK	DH5	0	2399.00	-40.833	-16.17	-24.663	PASS
			2400.00	-45.080	-16.17	-28.910	PASS
			9601.90	-34.284	-16.17	-18.114	PASS
		39	9757.93	-34.585	-16.13	-18.455	PASS
		78	2483.50	-50.030	-15.91	-34.120	PASS
			9914.00	-36.073	-15.91	-20.163	PASS
$\pi/4$ DQPSK	2-DH5	0	2398.95	-41.021	-16.14	-24.881	PASS
			2400.00	-48.300	-16.14	-32.160	PASS
			9601.90	-34.186	-16.14	-18.046	PASS
		39	9757.93	-34.434	-16.18	-18.254	PASS
		78	2483.50	-53.490	-16.01	-37.480	PASS
			9914.00	-35.838	-16.01	-19.828	PASS
8DPSK	3-DH5	0	2398.93	-41.013	-16.12	-24.893	PASS
			2400.00	-45.070	-16.12	-28.950	PASS
			9601.90	-34.075	-16.12	-17.955	PASS
		39	9757.93	-34.492	-16.15	-18.343	PASS
		78	2483.50	-50.430	-15.92	-34.510	PASS
			9914.00	-35.895	-15.92	-19.975	PASS

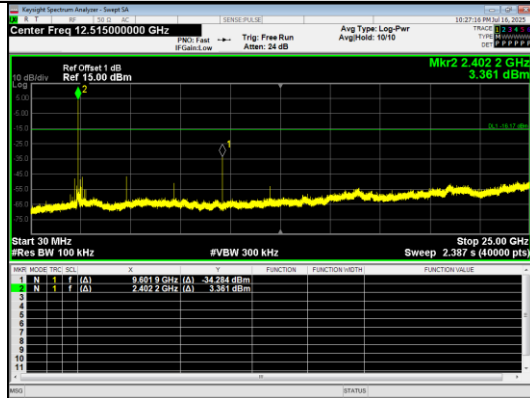
Hopping

Modulation	Packet	Channel	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
GFSK	DH5	Hopping	2400.00	-41.130	-16.09	-25.040	PASS
π/4DQPSK	2-DH5		2483.50	-51.120	-16.16	-34.960	PASS
			2398.45	-41.780	-16.16	-25.620	PASS
			2400.00	-42.160	-16.16	-26.000	PASS
			2483.50	-54.880	-16.1	-38.780	PASS
8DPSK	3-DH5		2398.96	-41.447	-16.23	-25.217	PASS
			2400.00	-43.270	-16.23	-27.040	PASS
			2483.50	-53.570	-15.98	-37.590	PASS

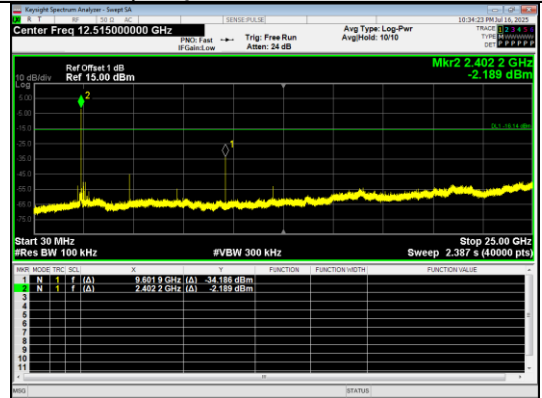
Test Graphs



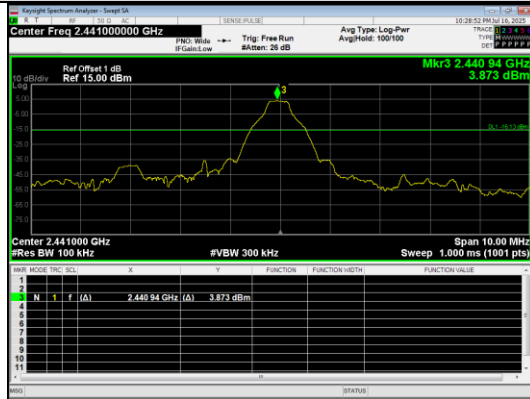
Out Of Band Emission GFSK_DH5_Channel 0



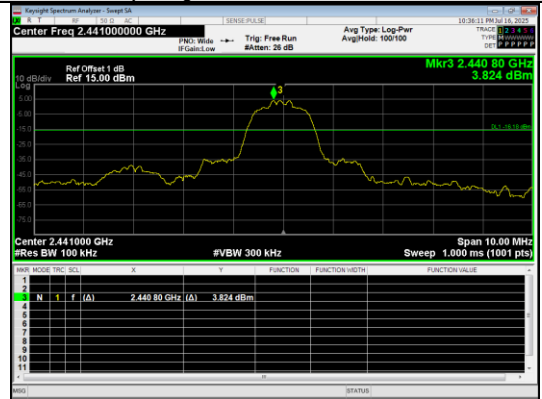
Out Of Band Emission $\pi/4$ DQPSK_2-DH5_Channel 0



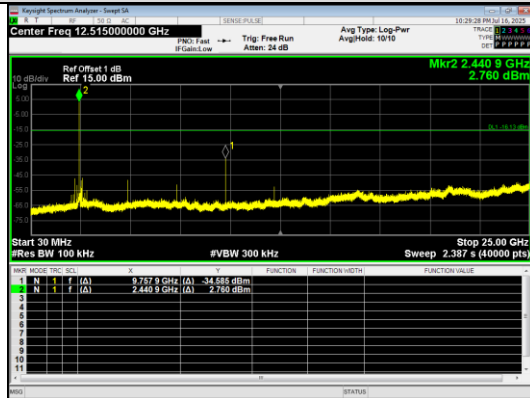
30.0 MHz - 25000.0 MHz GFSK_DH5_Channel 0



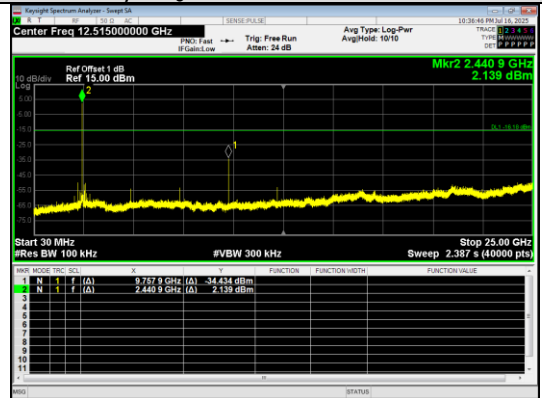
30.0 MHz - 25000.0 MHz $\pi/4$ DQPSK_2-DH5_Channel 0



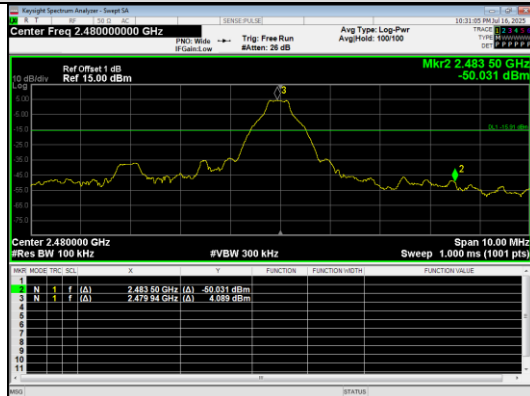
Out Of Band Emission GFSK_DH5_Channel 39



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



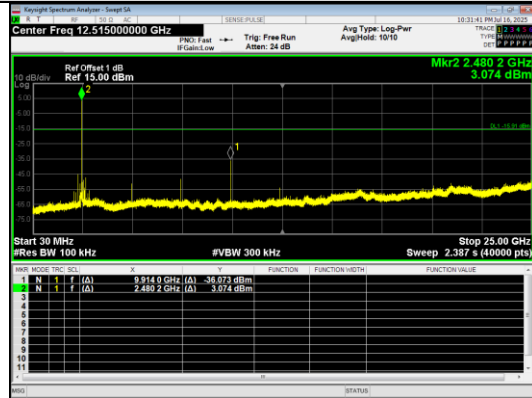
30.0 MHz - 25000.0 MHz GFSK_DH5_Channel 39



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

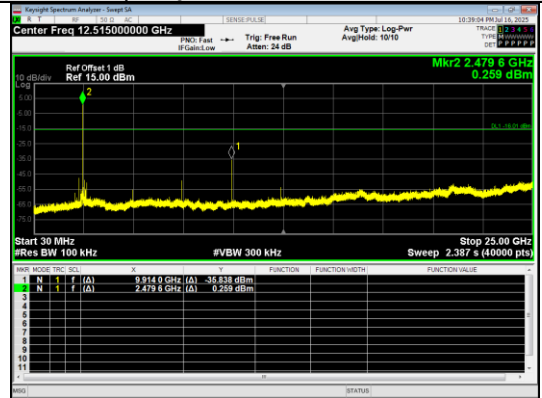


Out Of Band Emission GFSK_DH5_Channel 78

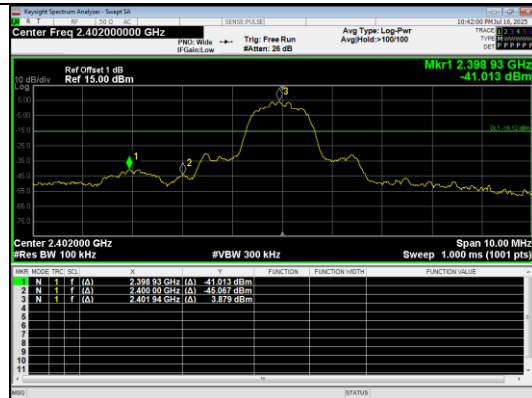


30.0 MHz - 25000.0 MHz
GFSK_DH5_Channel 78

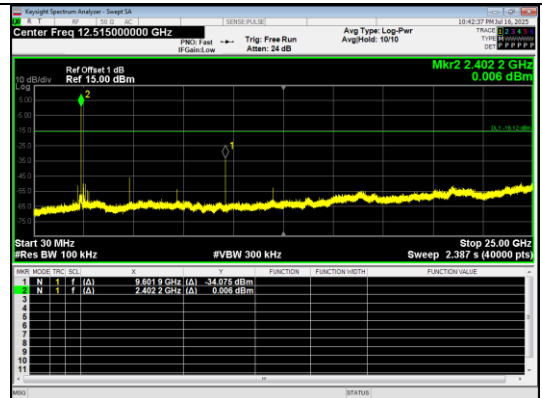
Out Of Band Emission $\pi/4$ DQPSK_2-DH5_Channel 78



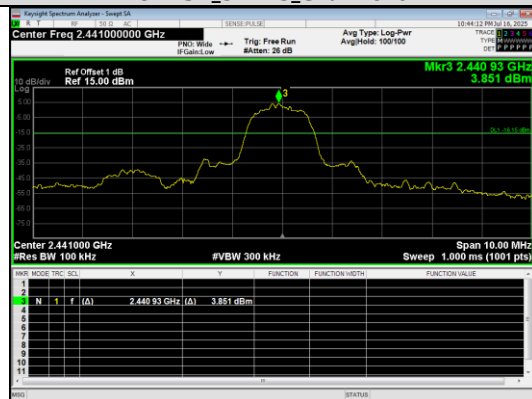
30.0 MHz - 25000.0 MHz
 $\pi/4$ DQPSK_2-DH5_Channel 78



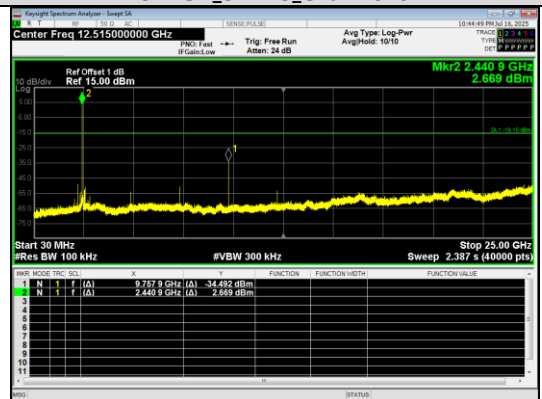
Out Of Band Emission
8DPSK_3-DH5_Channel 0



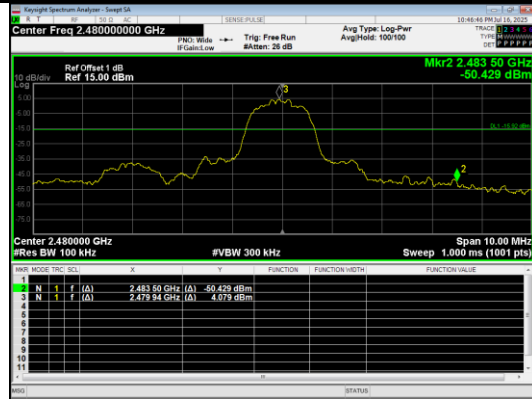
30.0 MHz - 25000.0 MHz
8DPSK_3-DH5_Channel 0



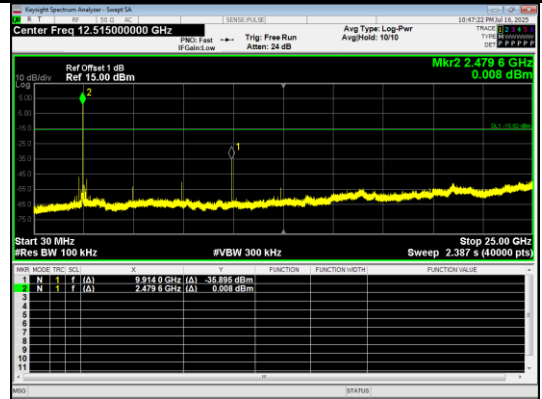
Out Of Band Emission
8DPSK_3-DH5_Channel 39



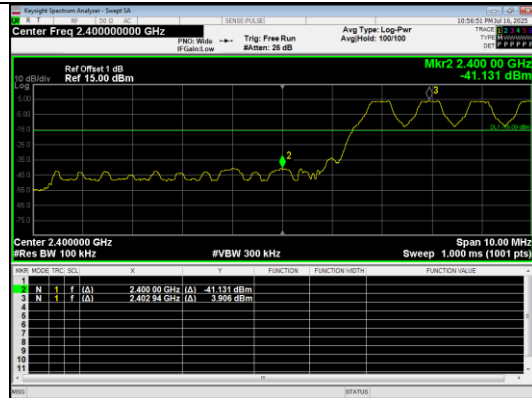
30.0 MHz - 25000.0 MHz
8DPSK_3-DH5_Channel 39



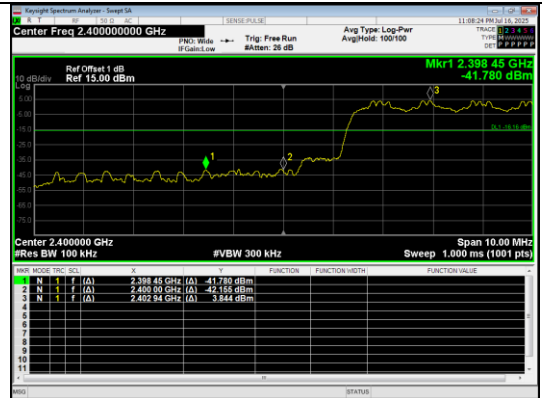
Out Of Band Emission
8DPSK_3-DH5_Channel 78



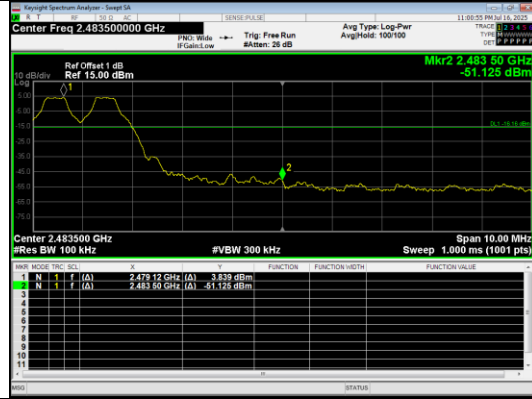
30.0 MHz - 25000.0 MHz
8DPSK_3-DH5_Channel 78



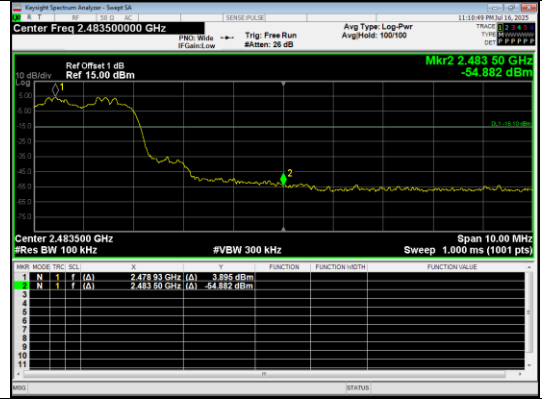
Out Of Band Emission (Left)
GFSK_DH5_Channel Hopping



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

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