

Appendix RF test data for BT

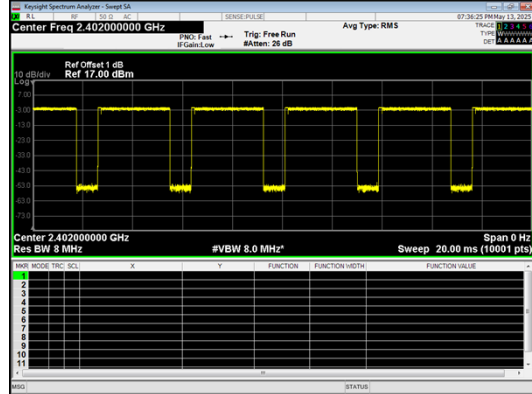
Duty Cycle Test Result

Modulation	Packets	Channel	On Time (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle (linear)	Duty Cycle Factor (dB)	1/T
GFSK	DH5	0	2.896	3.748	77.27	0.7727	1.1199	0.3453
		39	2.894	3.748	77.21	0.7721	1.1233	0.3455
		78	2.896	3.748	77.27	0.7727	1.1199	0.3453
$\pi/4$ DQPSK	2-DH5	0	2.884	3.748	76.95	0.7695	1.1379	0.3467
		39	2.884	3.748	76.95	0.7695	1.1379	0.3467
		78	2.884	3.748	76.95	0.7695	1.1379	0.3467
8DPSK	3-DH5	0	2.882	3.748	76.89	0.7689	1.1413	0.3470
		39	2.882	3.748	76.89	0.7689	1.1413	0.3470
		78	2.882	3.748	76.89	0.7689	1.1413	0.3470

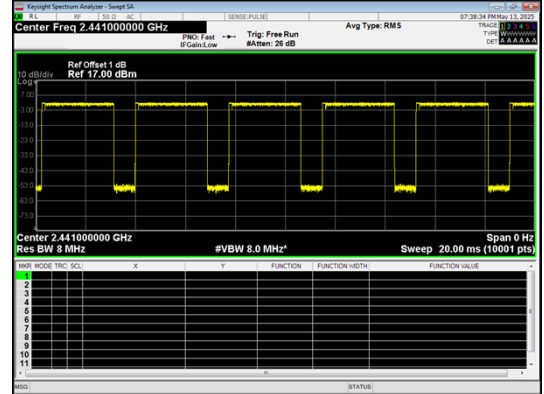
Test Graphs



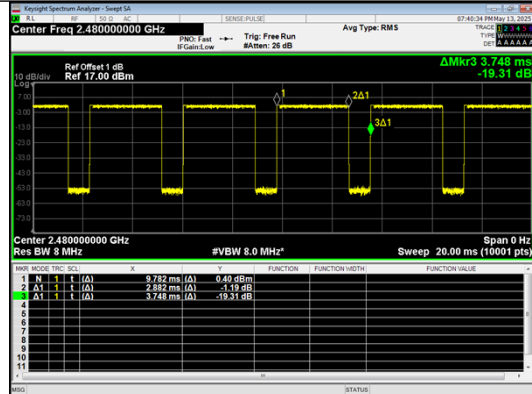
$\pi/4$ DQPSK(2-DH5)_Channel 39



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



8DPSK(3-DH5)_Channel 0



8DPSK(3-DH5)_Channel 39

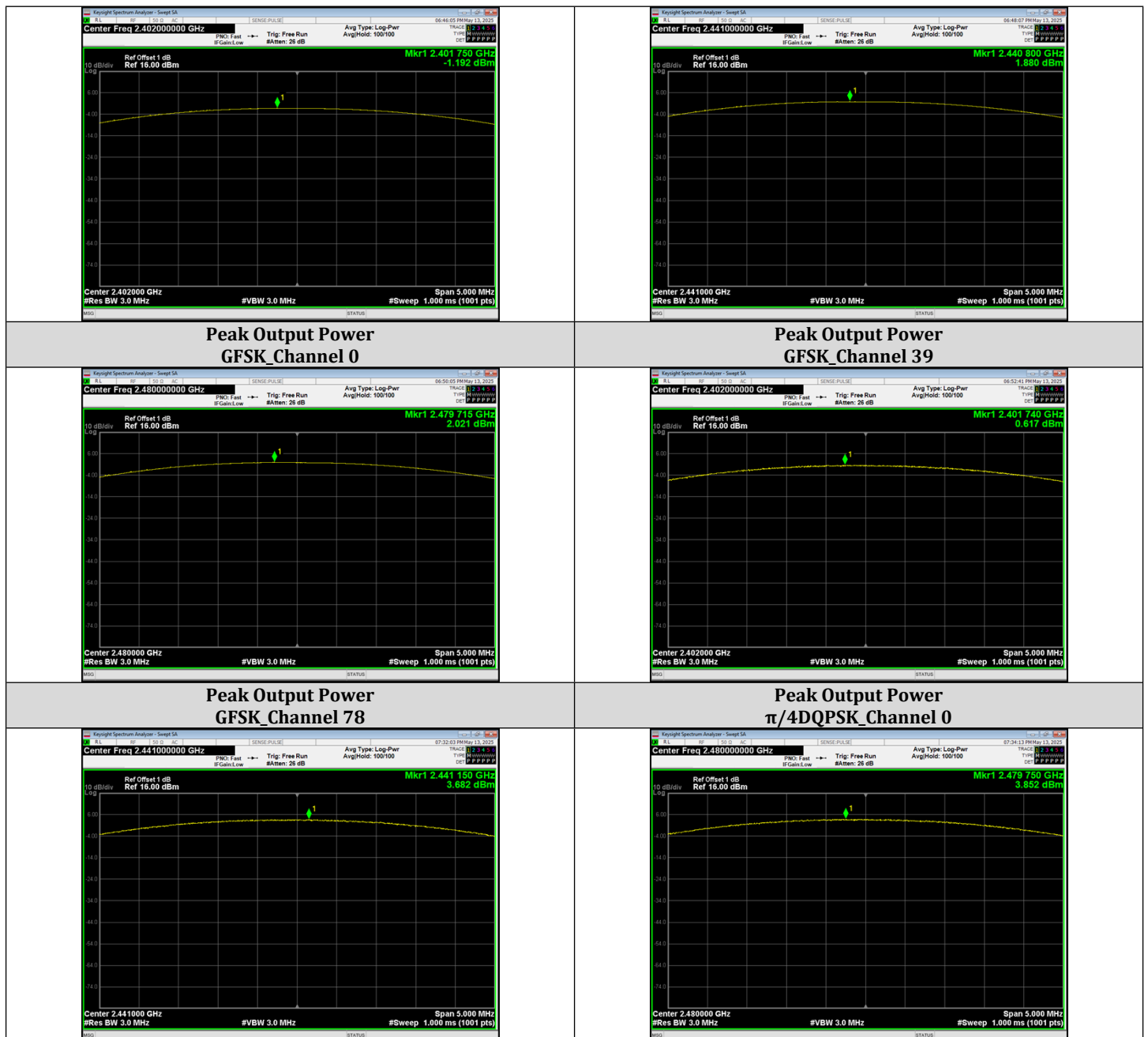
8DPSK(3-DH5)_Channel 78

Conducted Output Power

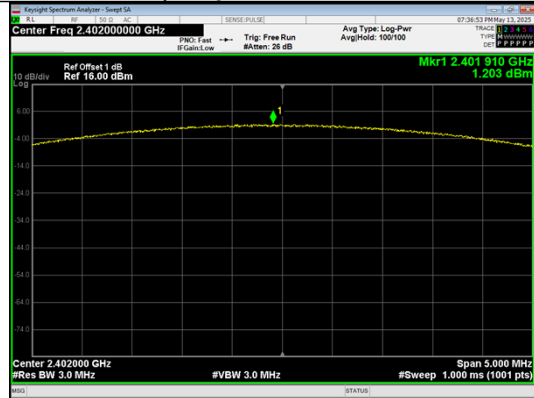
Test Result

Modulation	Packet Type	Channel	Peak Output Power (dBm)	Peak Output Power (mW)	Limit (dBm)	Result
GFSK	DH5	0	-1.19	0.76	≤30	PASS
		39	1.88	1.54		PASS
		78	2.02	1.59		PASS
$\pi/4$ DQPSK	2-DH5	0	0.62	1.15	≤20.97	PASS
		39	3.68	2.33		PASS
		78	3.85	2.43		PASS
8DPSK	3-DH5	0	1.20	1.32	≤20.97	PASS
		39	4.08	2.56		PASS
		78	4.24	2.65		PASS

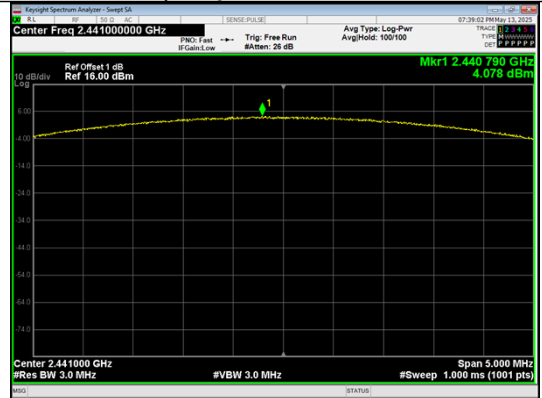
Test Graphs



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

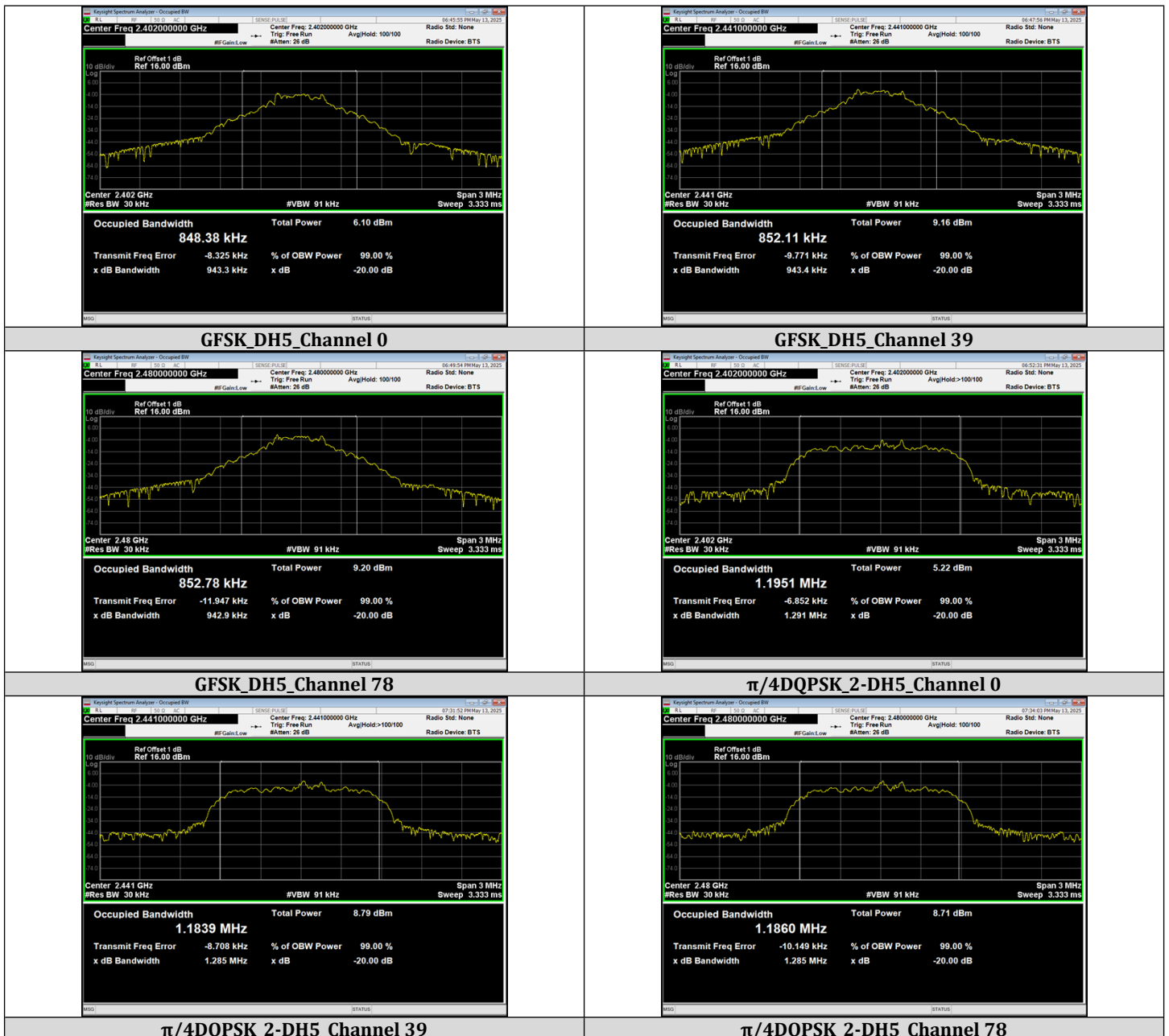
Peak Output Power 8DPSK_Channel 78

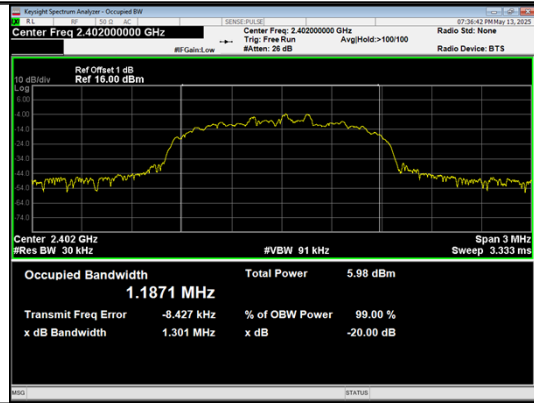
20dB Bandwidth

Test Result

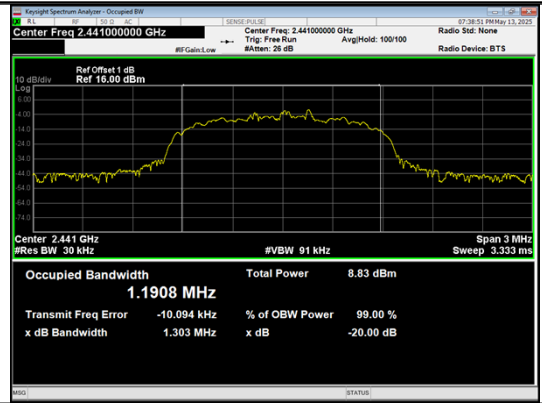
Modulation	Channel	Center Frequency (MHz)	20 dB Bandwidth (MHz)
GFSK	0	2402 MHz	0.9433
	39	2441 MHz	0.9434
	78	2480 MHz	0.9429
$\pi/4$ DQPSK	0	2402 MHz	1.291
	39	2441 MHz	1.285
	78	2480 MHz	1.285
8DPSK	0	2402 MHz	1.301
	39	2441 MHz	1.303
	78	2480 MHz	1.299

Test Graphs

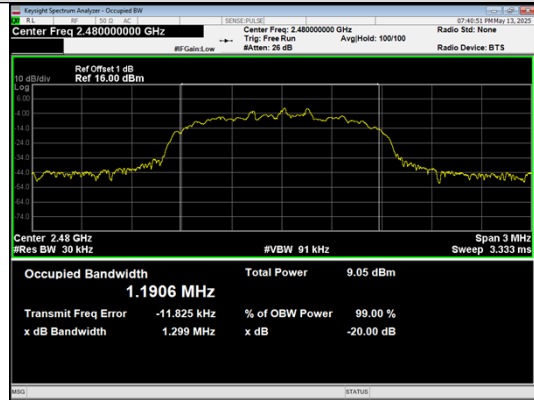




8DPSK_3-DH5_Channel 0



8DPSK_3-DH5_Channel 39



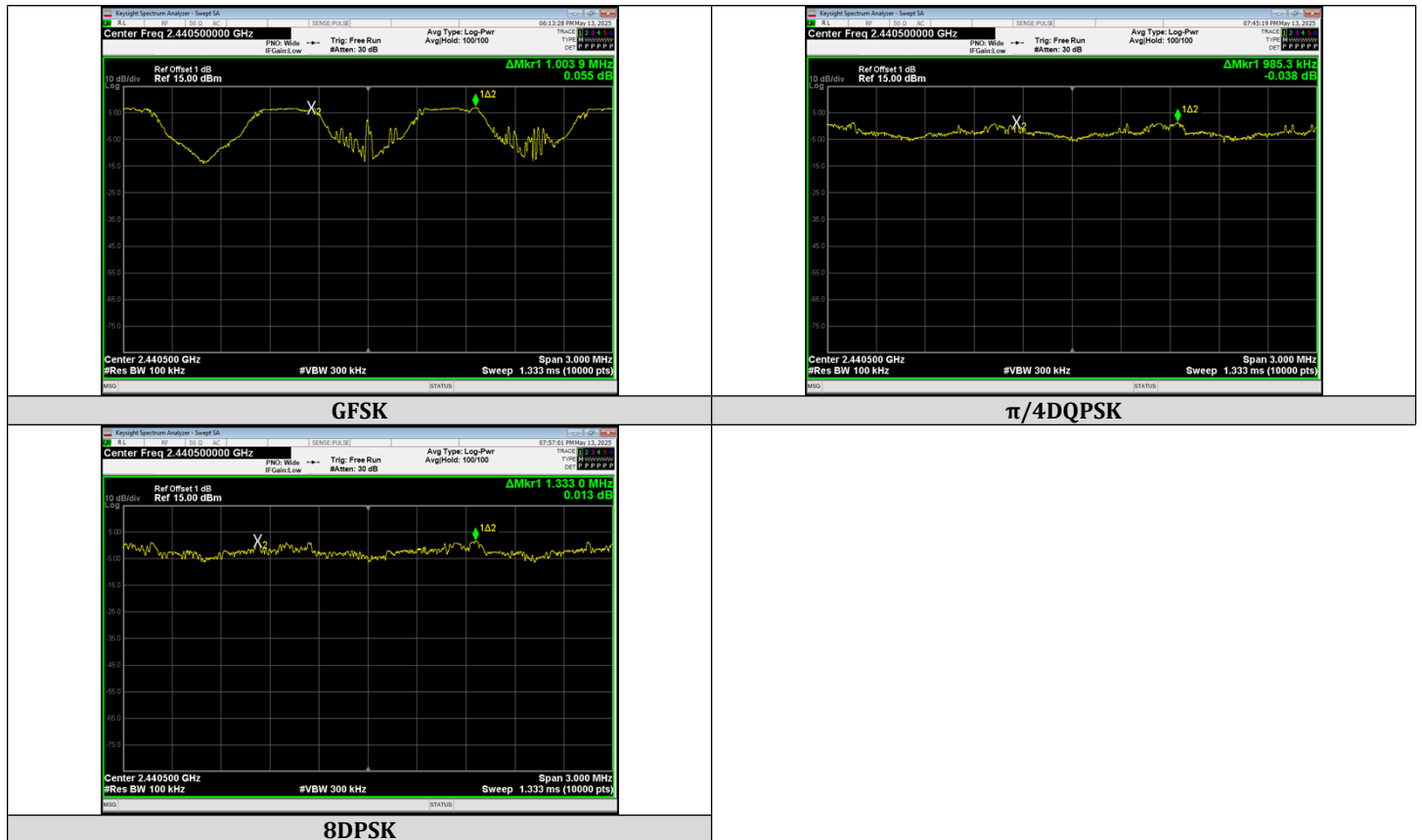
8DPSK_3-DH5_Channel 78

Carrier Frequencies Separation

Test Result

Modulation	Packet	Left Center frequency (MHz)	Right Center frequency (MHz)	Hopping Frequency Separation (MHz)	Limit (MHz)	Result
GFSK	DH5	2440.1536	2441.1575	1.0039	0.601	PASS
$\pi/4$ DQPSK	2-DH5	2440.1602	2441.1455	0.9853	0.861	PASS
8DPSK	3-DH5	2439.8251	2441.1581	1.3330	0.869	PASS

Test Graphs

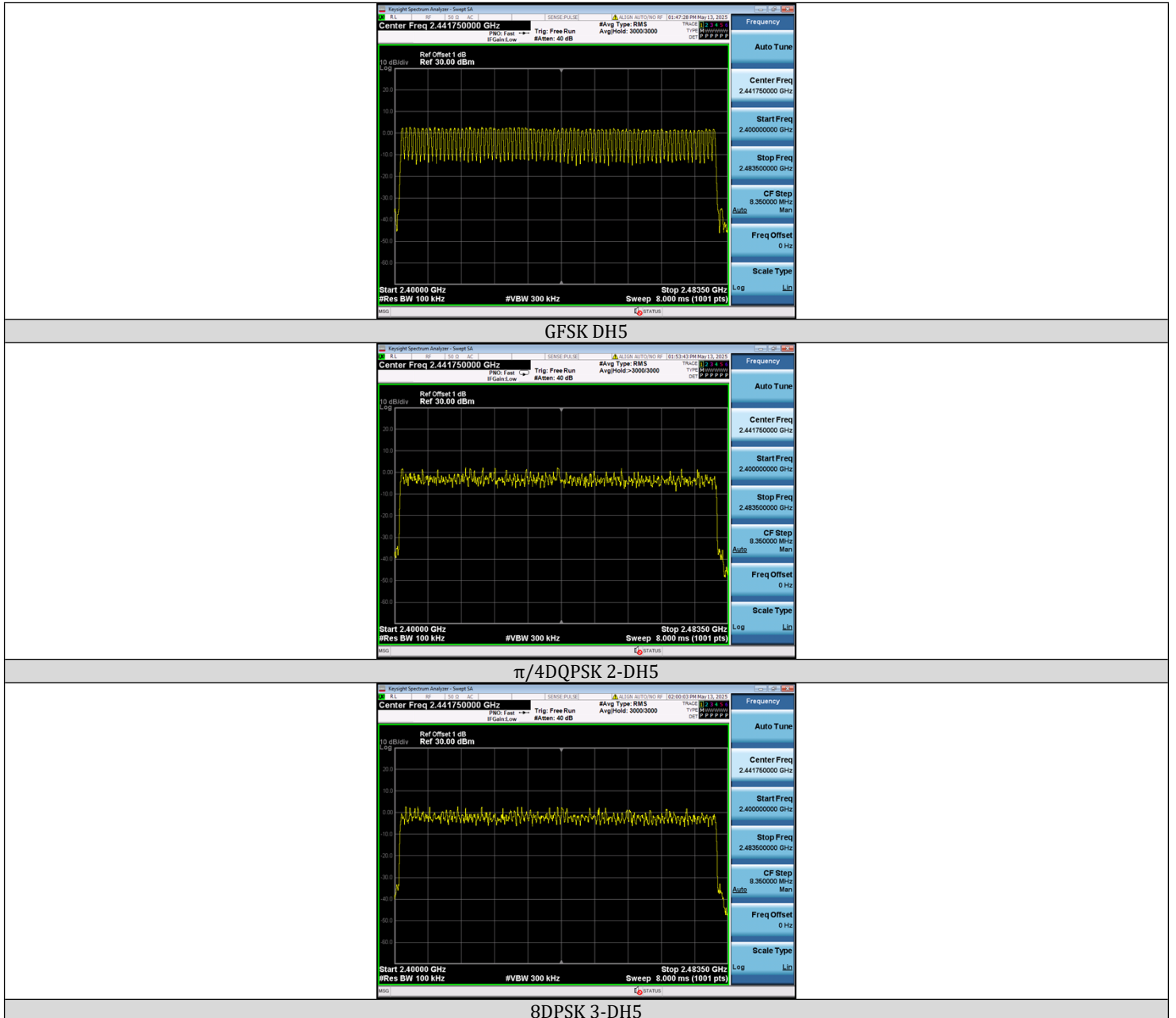


Number Of Hopping Channel

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

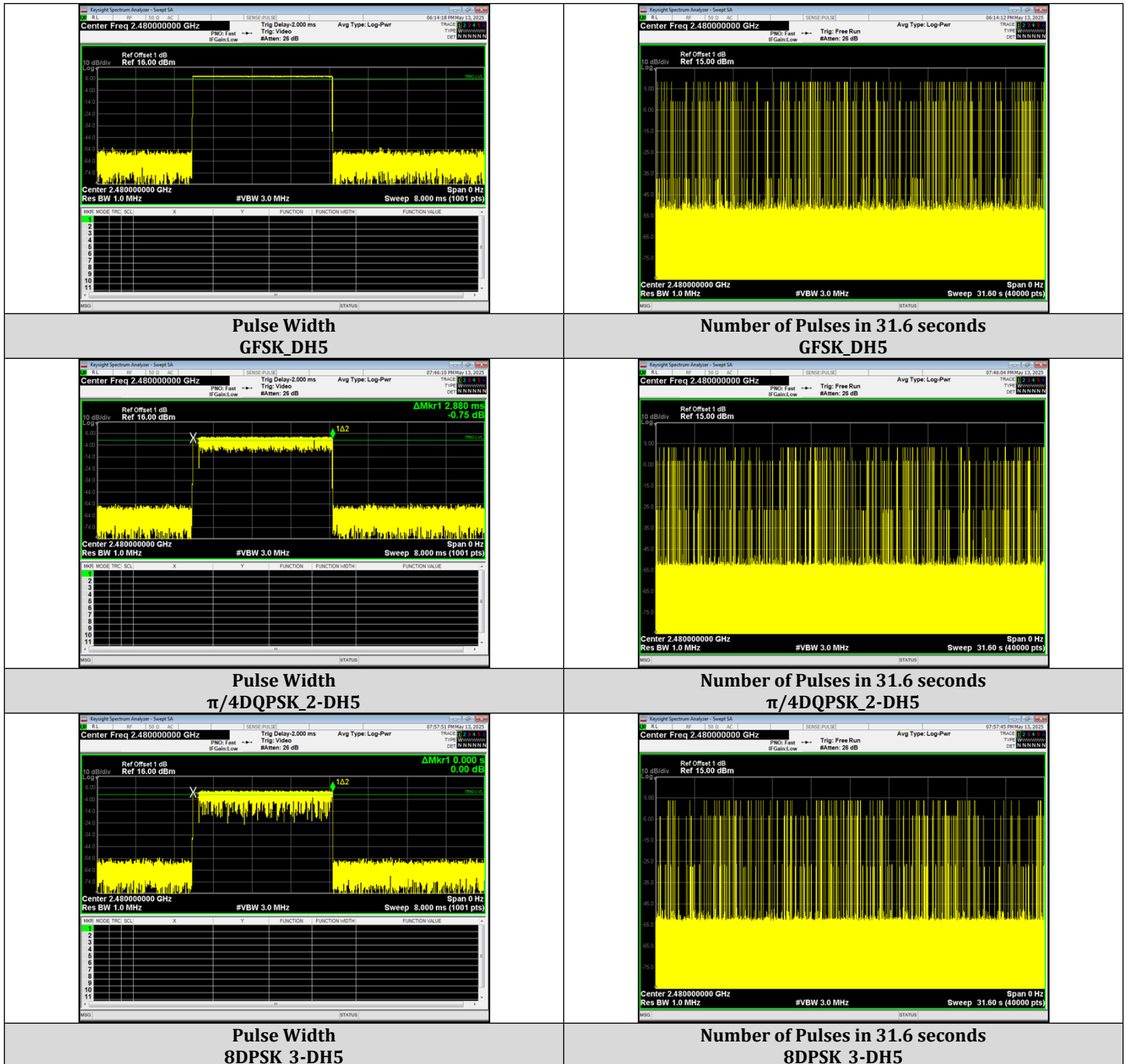


Dwell Time

Test Result

Modulation	Packet	Channel	Pulse Width (ms)	Number of Pulses in 31.6 seconds	Dwell Time (ms)	Limit (ms)	Result
GFSK	DH5	CH78 (2480MHz)	2.880	110	316.8	< 400	PASS
$\pi/4$ DQPSK	2-DH5		2.880	109	313.92		PASS
8DPSK	3-DH5		2.880	97	279.36		PASS

Test Graphs



Conducted Out Of Band Emission

Test Result

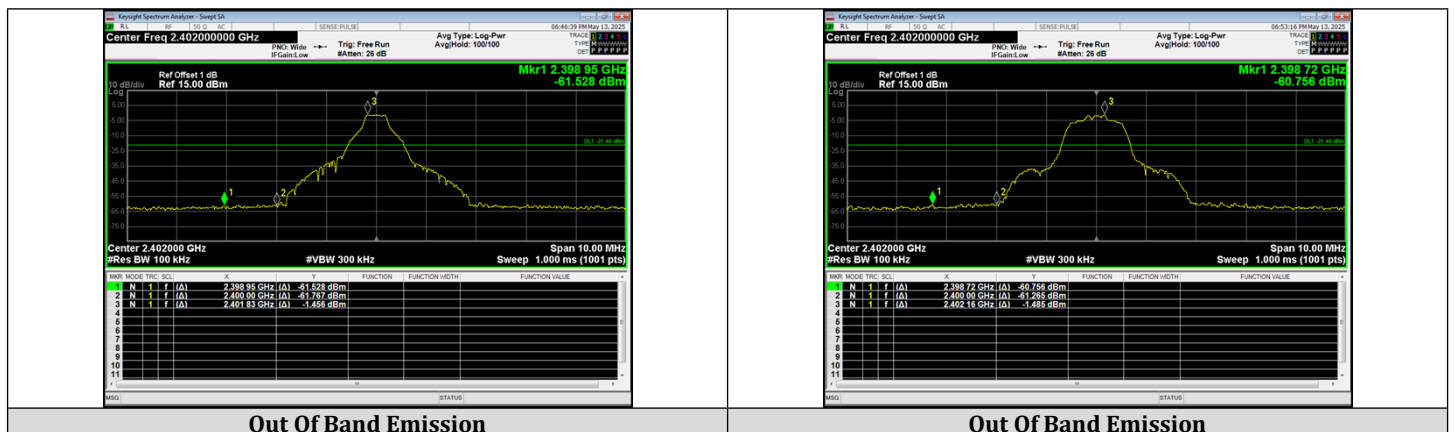
Non-Hopping

Modulation	Packet	Channel	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
GFSK	DH5	0	2398.95	-61.528	-21.46	-40.068	PASS
			2400.00	-61.767	-21.46	-40.307	PASS
			24978.2	-49.153	-21.46	-27.693	PASS
		39	24736.6	-50.332	-18.36	-31.972	PASS
		78	2483.50	-62.329	-18.26	-44.069	PASS
			24932.6	-48.660	-18.26	-30.400	PASS
$\pi/4$ DQPSK	2-DH5	0	2398.72	-60.756	-21.48	-39.276	PASS
			2400.00	-61.265	-21.48	-39.785	PASS
			24872.6	-49.357	-21.48	-27.877	PASS
		39	24939.5	-49.757	-18.68	-31.077	PASS
		78	2483.50	-60.852	-18.29	-42.562	PASS
			24932.6	-49.610	-18.29	-31.320	PASS
8DPSK	3-DH5	0	2400.00	-59.636	-21.33	-38.306	PASS
			24785.9	-50.178	-21.33	-28.848	PASS
		39	24897.6	-49.161	-18.38	-30.781	PASS
		78	2483.50	-60.918	-18.15	-42.768	PASS
			24950.7	-48.646	-18.15	-30.496	PASS

Hopping

Modulation	Packet	Channel	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
GFSK	DH5	Hopping	2400.00	-55.893	-10.61	-45.283	PASS
			2483.50	-59.506	-11.96	-47.546	PASS
$\pi/4$ DQPSK	2-DH5		2396.99	-61.255	-21.63	-39.625	PASS
			2400.00	-62.349	-21.63	-40.719	PASS
			2483.50	-61.593	-18.57	-43.023	PASS
8DPSK	3-DH5		2397.37	-60.675	-21.18	-39.495	PASS
			2400.00	-61.405	-21.18	-40.225	PASS
			2483.50	-61.419	-18.01	-43.409	PASS

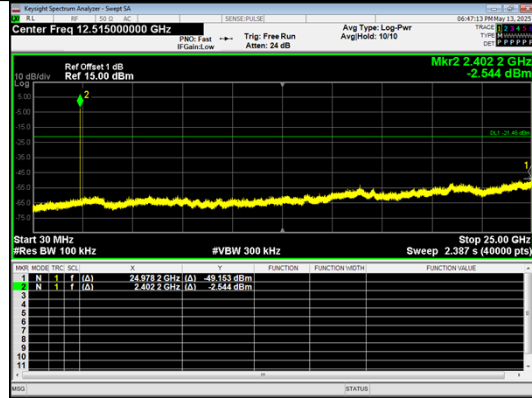
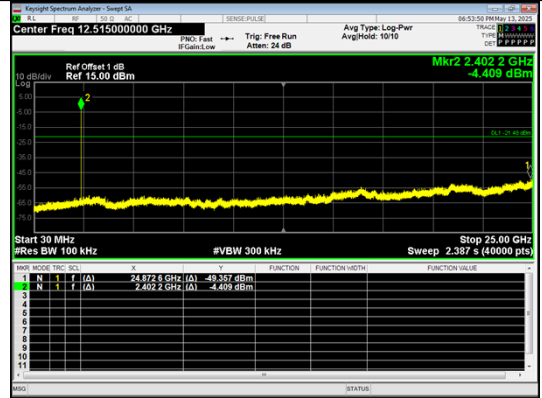
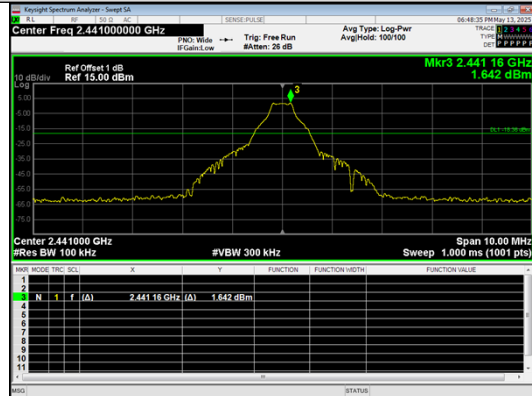
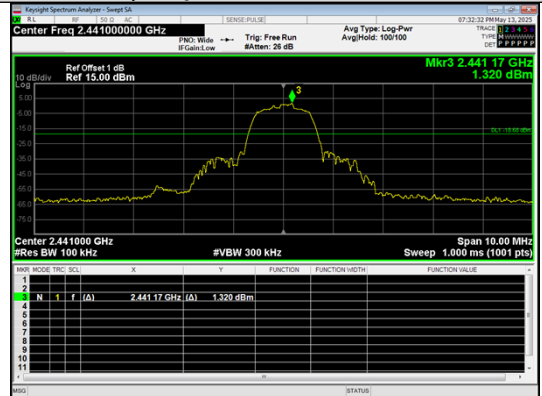
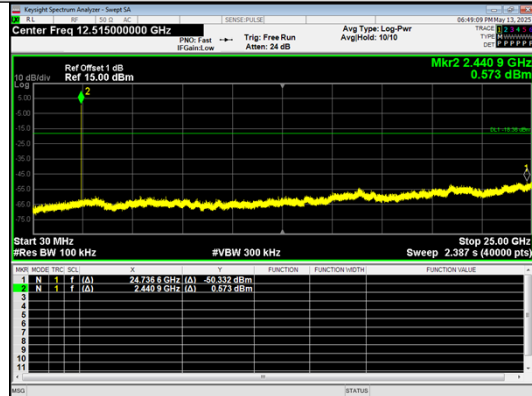
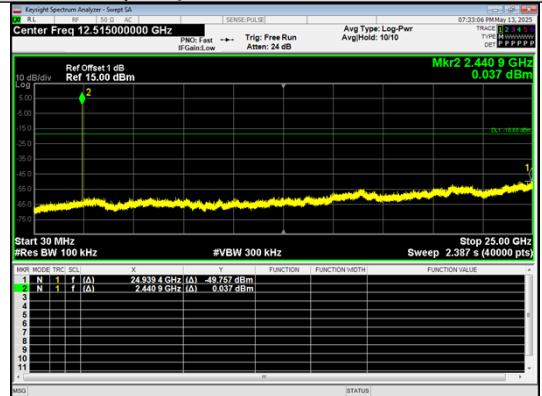
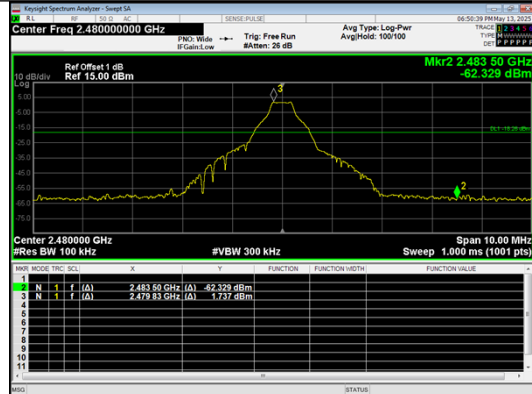
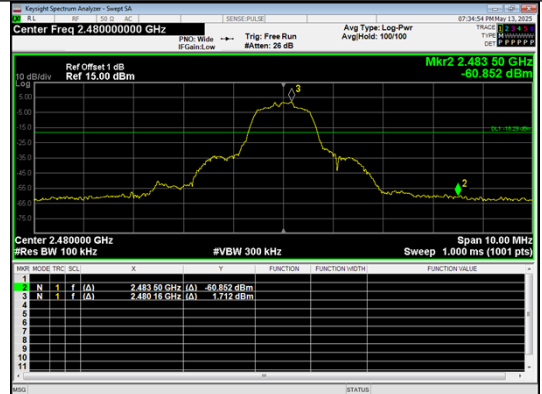
Test Graphs



Out Of Band Emission

Out Of Band Emission

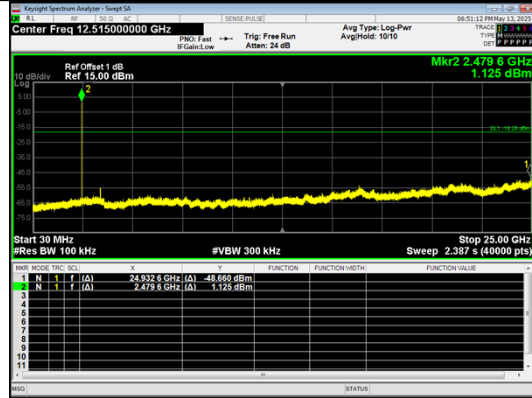
GFSK_DH5_Channel 0


 $\pi/4$ 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

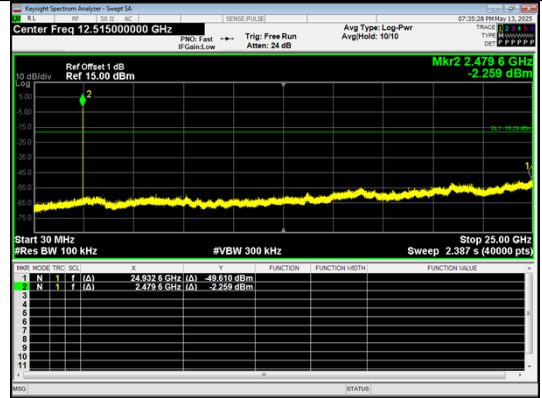
Out Of Band Emission

GFSK_DH5_Channel 78

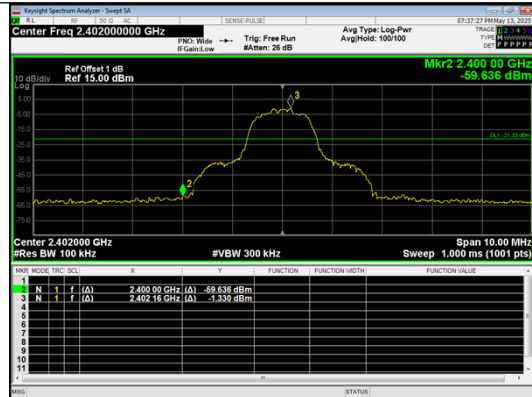


30.0 MHz - 25000.0 MHz
GFSK_DH5_Channel 78

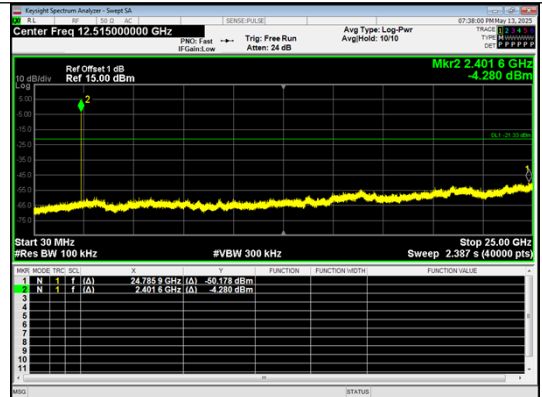
$\pi/4$ DQPSK 2-DH5_Channel 78



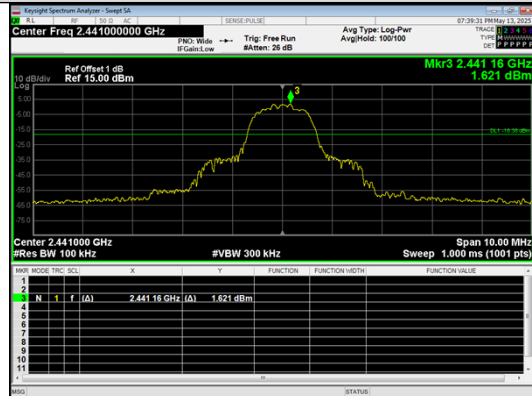
30.0 MHz - 25000.0 MHz
 $\pi/4$ DQPSK 2-DH5_Channel 78



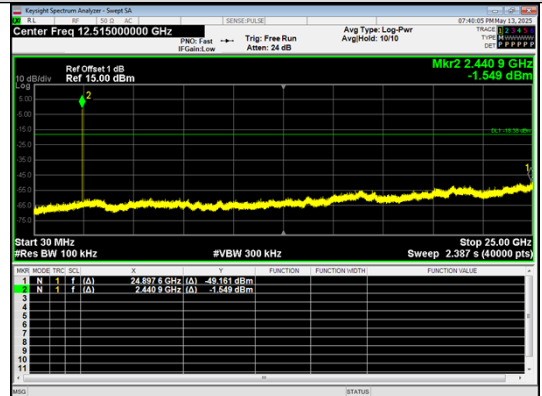
Out Of Band Emission
8DPSK_3-DH5_Channel 0



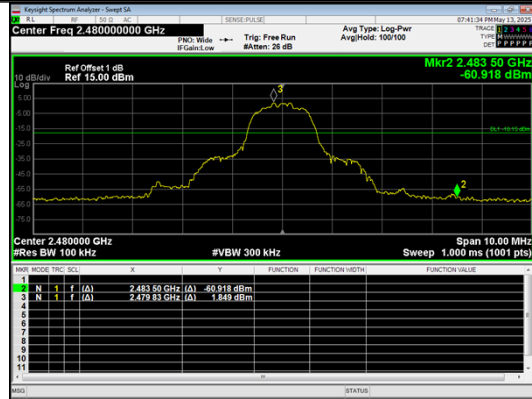
30.0 MHz - 25000.0 MHz
8DPSK_3-DH5_Channel 0



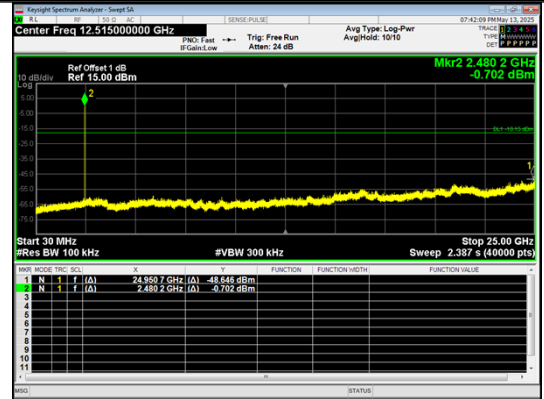
Out Of Band Emission
8DPSK_3-DH5_Channel 39



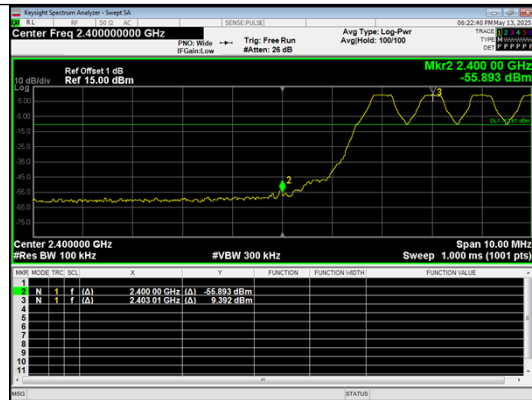
30.0 MHz - 25000.0 MHz
8DPSK_3-DH5_Channel 39



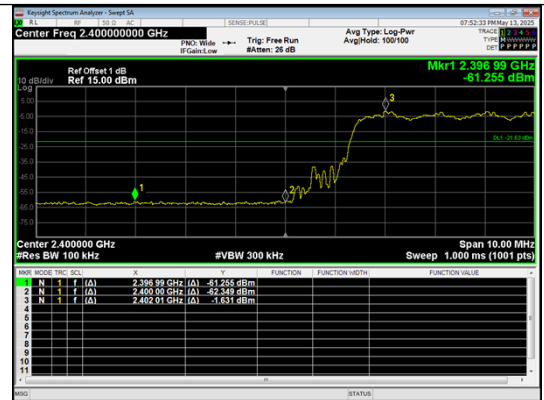
Out Of Band Emission
8DPSK_3-DH5_Channel 78



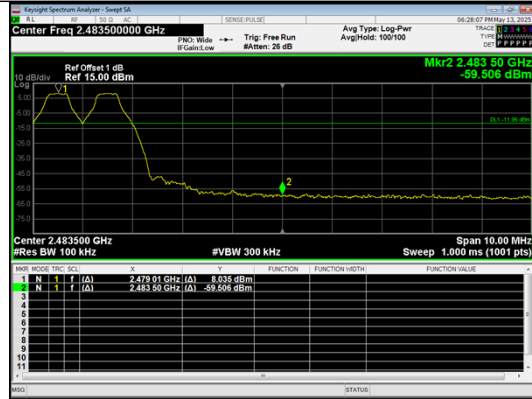
30.0 MHz - 25000.0 MHz
8DPSK_3-DH5_Channel 78



Out Of Band Emission(Left)
GFSK_DH5_Channel Hopping



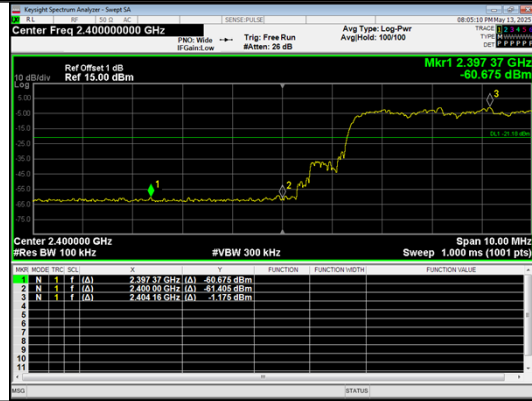
Out Of Band Emission(Left)
 $\pi/4$ DQPSK_2-DH5_Channel Hopping



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 *****