

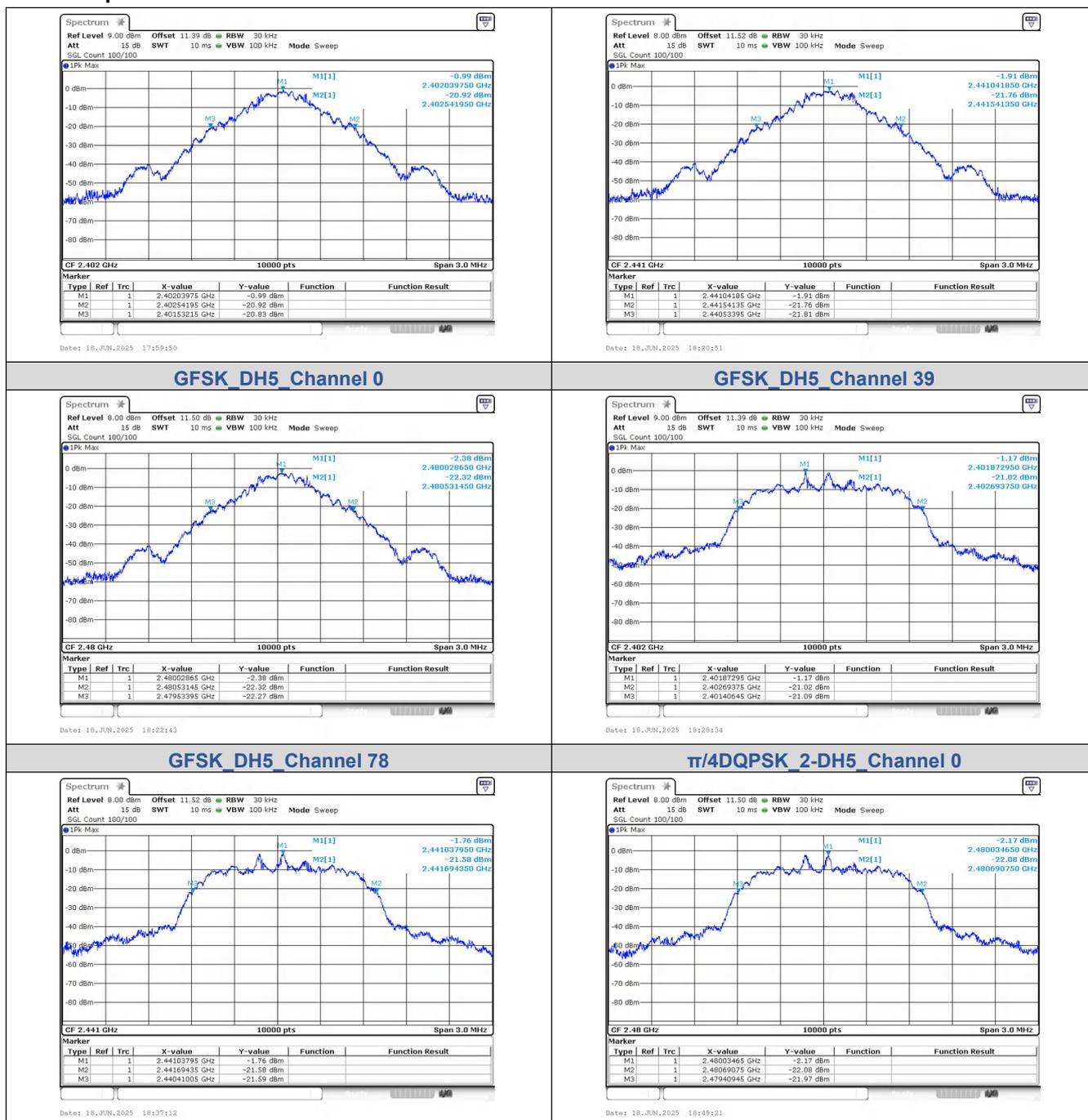
8.5. 20dB Bandwidth

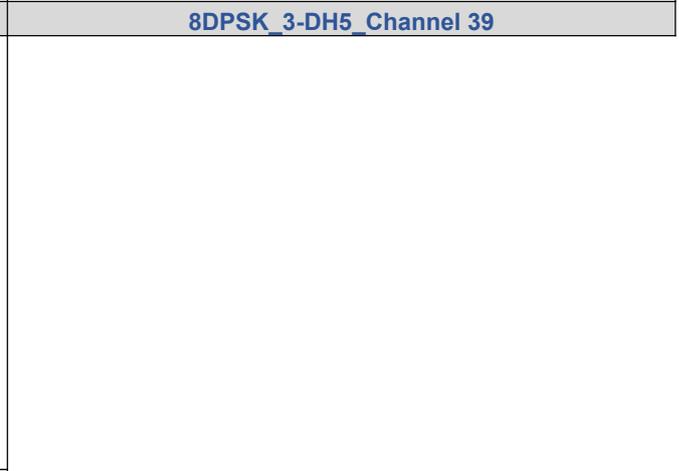
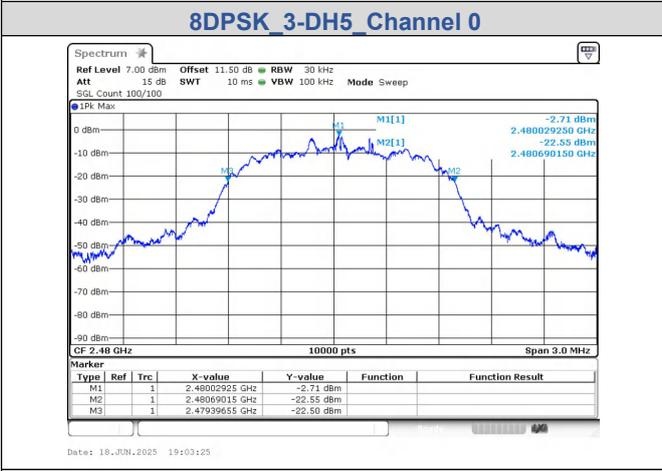
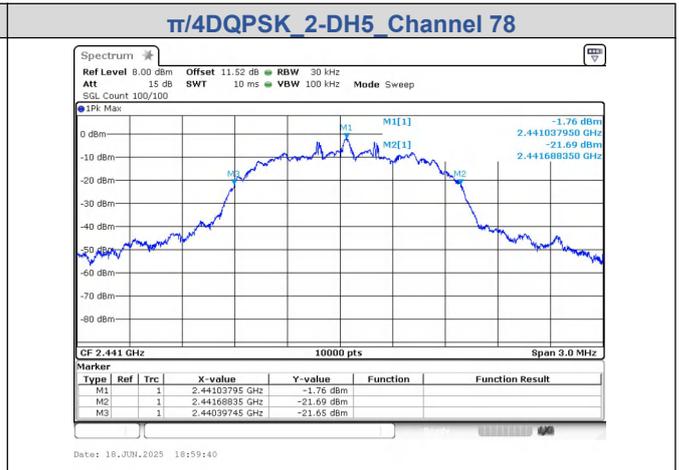
Test Result

Left:

Modulation	Channel	Center Frequency (MHz)	20 dB Bandwidth (MHz)
GFSK	0	2402 MHz	1.01
	39	2441 MHz	1.01
	78	2480 MHz	1.01
$\pi/4$ DQPSK	0	2402 MHz	1.280
	39	2441 MHz	1.280
	78	2480 MHz	1.280
8DPSK	0	2402 MHz	1.290
	39	2441 MHz	1.290
	78	2480 MHz	1.290

Test Graphs

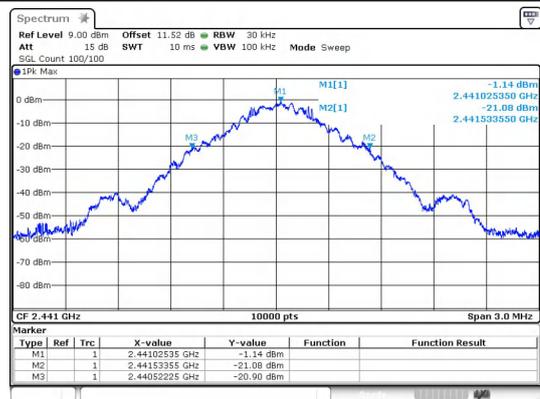
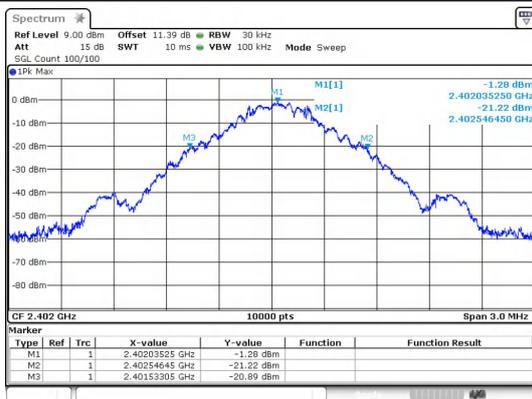




Right:

Modulation	Channel	Center Frequency (MHz)	20 dB Bandwidth (MHz)
GFSK	0	2402 MHz	1.02
	39	2441 MHz	1.02
	78	2480 MHz	1.02
$\pi/4$ DQPSK	0	2402 MHz	1.280
	39	2441 MHz	1.280
	78	2480 MHz	1.310
8DPSK	0	2402 MHz	1.280
	39	2441 MHz	1.300
	78	2480 MHz	1.300

Test Graphs



GFSK_DH5_Channel 0



GFSK_DH5_Channel 39



GFSK_DH5_Channel 78

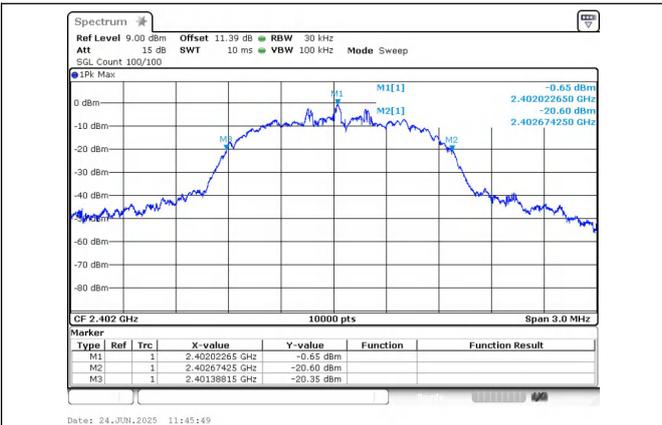


$\pi/4$ DQPSK_2-DH5_Channel 0

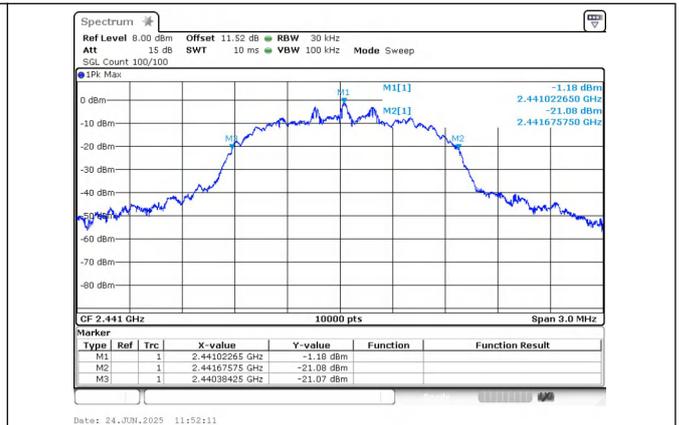


$\pi/4$ DQPSK_2-DH5_Channel 39

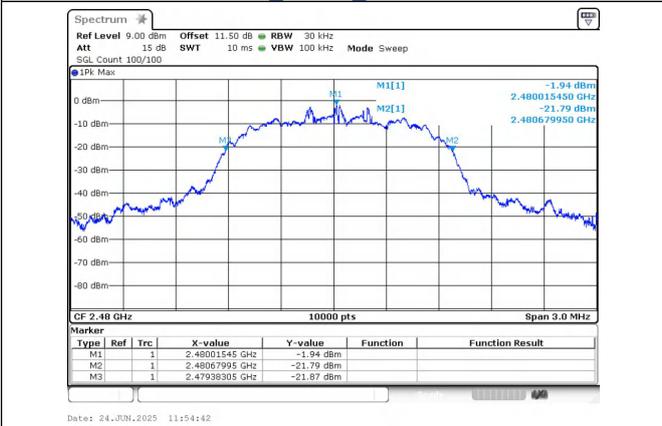
$\pi/4$ DQPSK_2-DH5_Channel 78



8DPSK_3-DH5_Channel 0



8DPSK_3-DH5_Channel 39



8DPSK_3-DH5_Channel 78

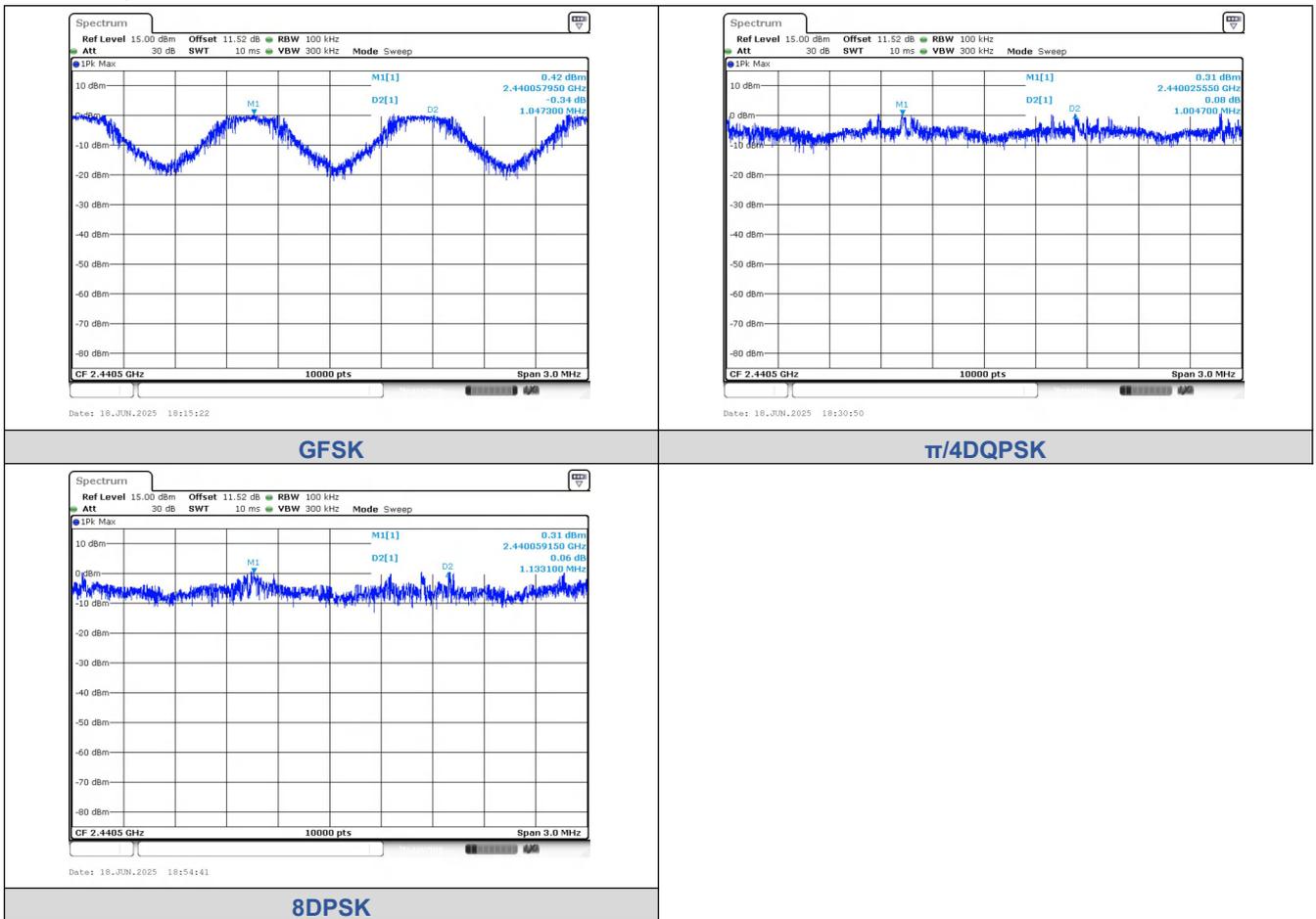
8.6. Carrier Frequencies Separation

Test Result

Left:

Modulation	Packet	Left Center frequency (MHz)	Right Center frequency (MHz)	Hopping Frequency Separation (MHz)	Limit (MHz)	Result
GFSK	DH5	2440.0579	2441.1053	1.0473	1.01	PASS
$\pi/4$ DQPSK	2-DH5	2440.0255	2441.0302	1.0047	0.853	PASS
8DPSK	3-DH5	2440.0592	2441.1923	1.1331	0.86	PASS

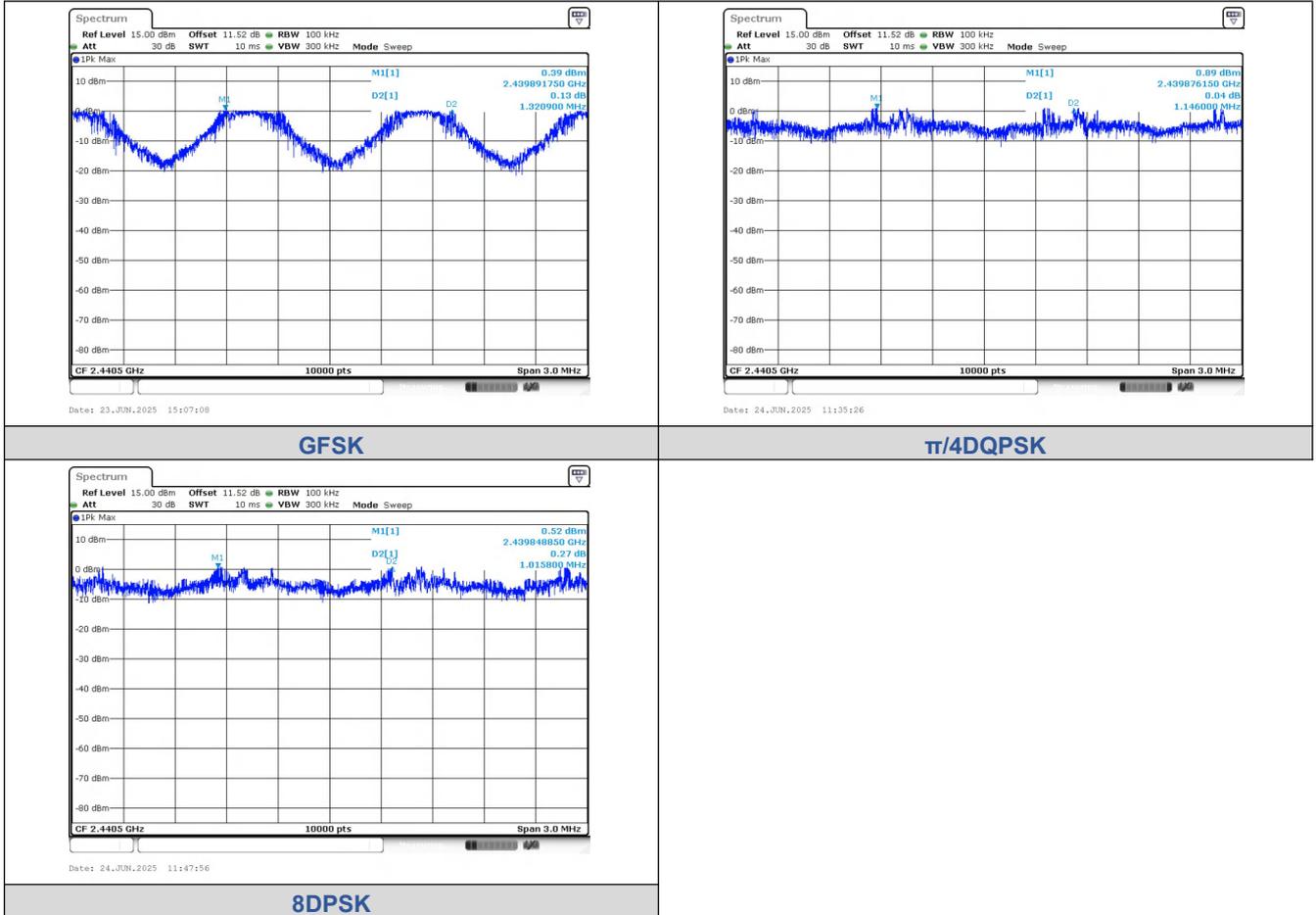
Test Graphs



Right:

Modulation	Packet	Left Center frequency (MHz)	Right Center frequency (MHz)	Hopping Frequency Separation (MHz)	Limit (MHz)	Result
GFSK	DH5	2439.8917	2441.2126	1.3209	1.02	PASS
$\pi/4$ DQPSK	2-DH5	2439.8762	2441.0221	1.1460	0.853	PASS
8DPSK	3-DH5	2439.8488	2440.8646	1.0158	0.86	PASS

Test Graphs



8.7. Conducted Out Of Band Emission

Test Result

Left:

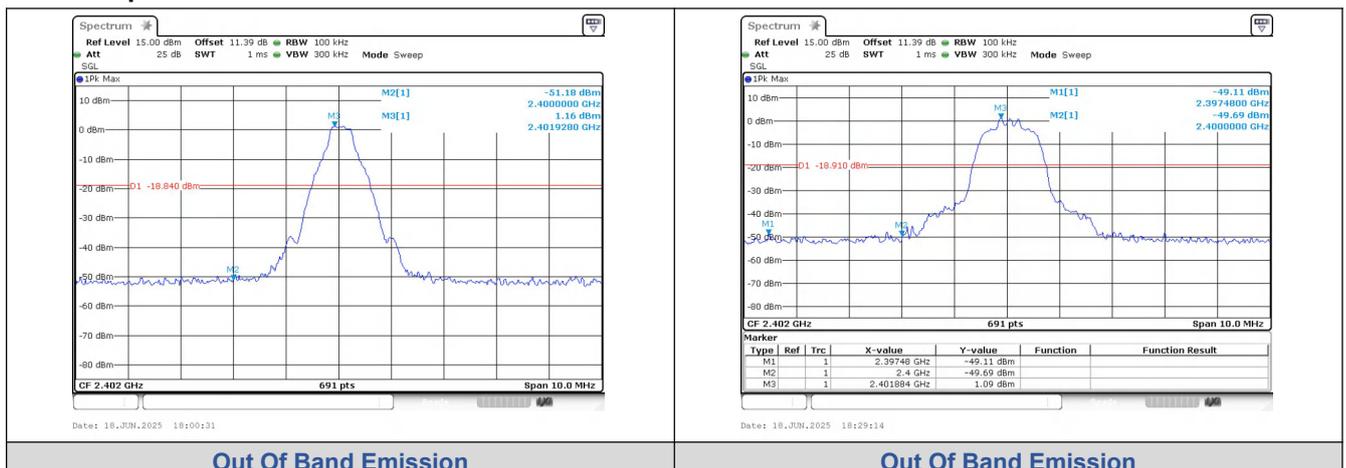
Non-Hopping

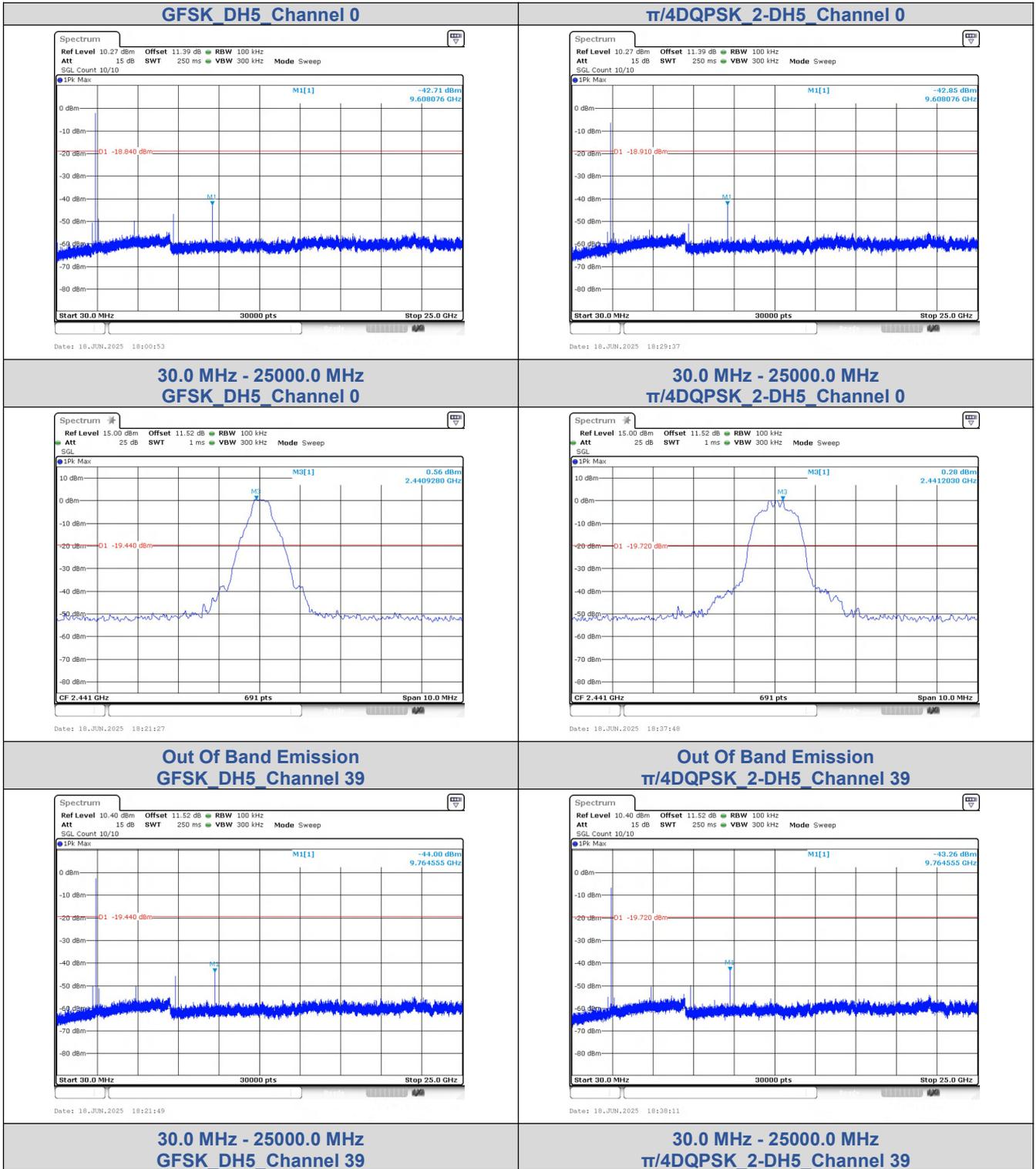
Modulation	Packet	Channel	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result		
GFSK	DH5	0	2399.00	-50.089	-18.84	-31.249	PASS		
			2400.00	-51.180	-18.84	-32.340	PASS		
			9608.10	-42.707	-18.84	-23.867	PASS		
		39	9764.55	-43.995	-19.44	-24.555	PASS		
			78	2483.50	-51.980	-19.73	-32.250	PASS	
				9920.20	-44.785	-19.73	-25.055	PASS	
$\pi/4$ DQPSK	2-DH5	0	2397.48	-49.105	-18.91	-30.195	PASS		
			2400.00	-49.690	-18.91	-30.780	PASS		
			9608.10	-42.851	-18.91	-23.941	PASS		
		39	9764.55	-43.255	-19.72	-23.535	PASS		
			78	2483.50	-50.340	-19.83	-30.510	PASS	
				9920.20	-44.897	-19.83	-25.067	PASS	
		8DPSK	3-DH5	0	2400.00	-47.630	-19.04	-28.590	PASS
					9608.08	-42.624	-19.04	-23.584	PASS
				39	9764.55	-43.025	-19.5	-23.525	PASS
78	2483.50				-51.870	-19.82	-32.050	PASS	
	9920.20			-44.962	-19.82	-25.142	PASS		

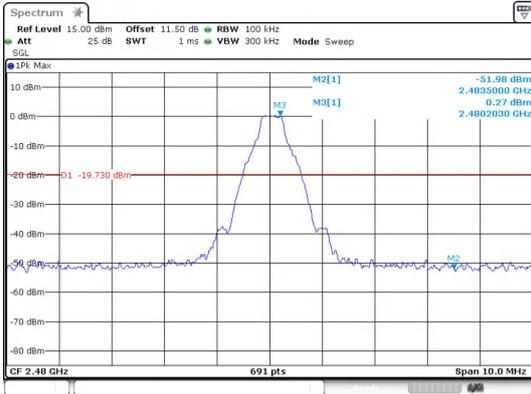
Hopping

Modulation	Packet	Channel	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
GFSK	DH5	Hopping	2396.30	-49.304	-19.31	-29.994	PASS
			2400.00	-51.710	-19.31	-32.400	PASS
			2483.50	-51.340	-19.96	-31.380	PASS
$\pi/4$ DQPSK	2-DH5		2397.50	-48.997	-21.01	-27.987	PASS
			2400.00	-51.510	-21.01	-30.500	PASS
			2483.50	-51.500	-21.32	-30.180	PASS
8DPSK	3-DH5		2396.35	-48.102	-20.28	-27.822	PASS
			2400.00	-50.910	-20.28	-30.630	PASS
			2483.50	-50.870	-20.13	-30.740	PASS

Test Graphs

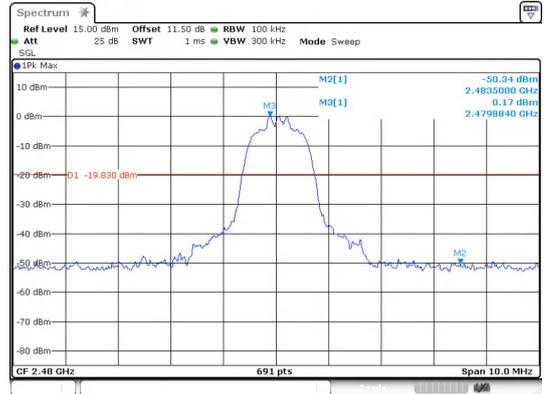






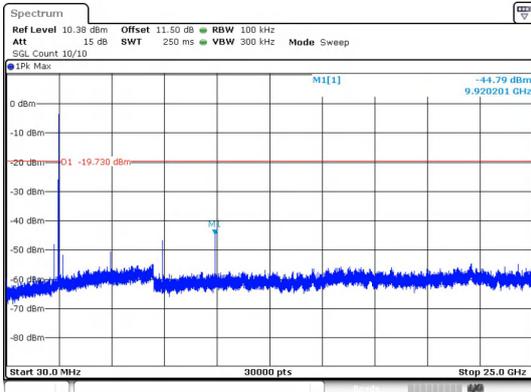
Date: 18 JUN 2025 18:23:24

**Out Of Band Emission
GFSK_DH5_Channel 78**



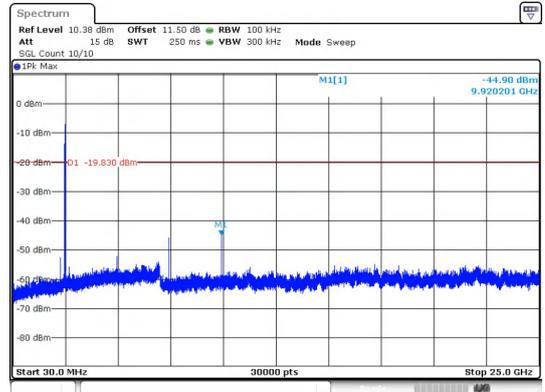
Date: 18 JUN 2025 18:50:02

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



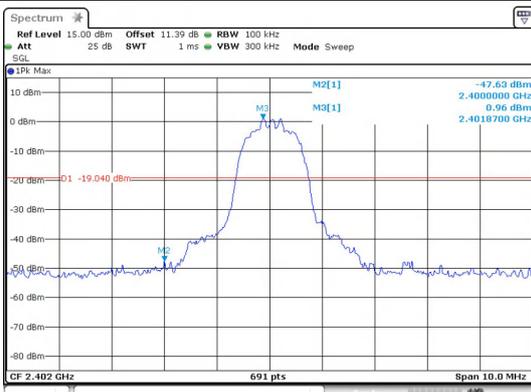
Date: 18 JUN 2025 18:23:46

**30.0 MHz - 25000.0 MHz
GFSK_DH5_Channel 78**



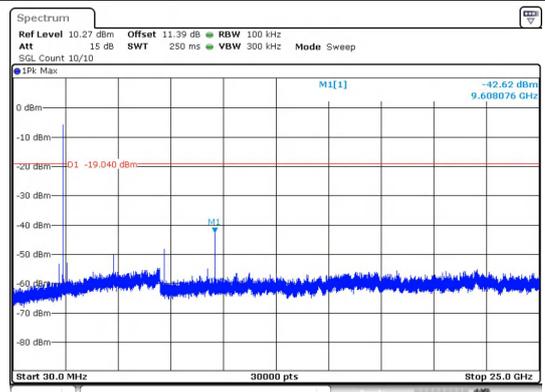
Date: 18 JUN 2025 18:50:24

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



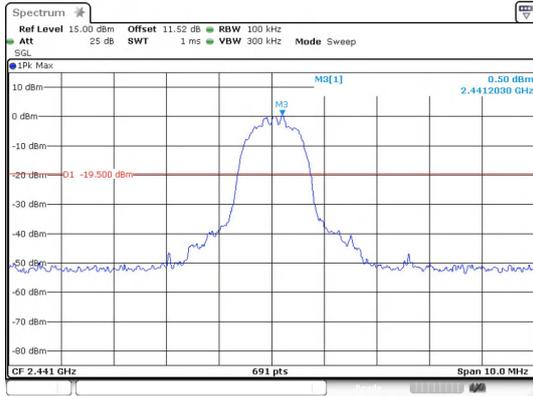
Date: 18 JUN 2025 18:53:16

**Out Of Band Emission
8DPSK_3-DH5_Channel 0**



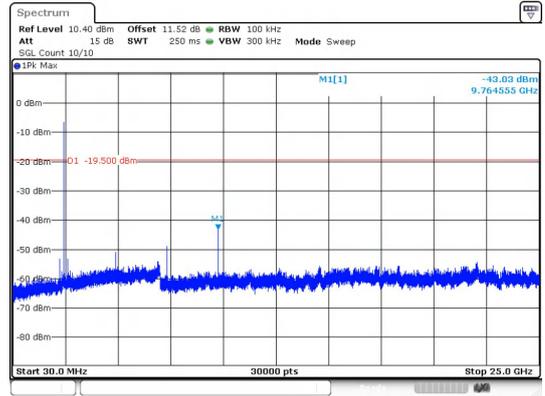
Date: 18 JUN 2025 18:53:39

**30.0 MHz - 25000.0 MHz
8DPSK_3-DH5_Channel 0**



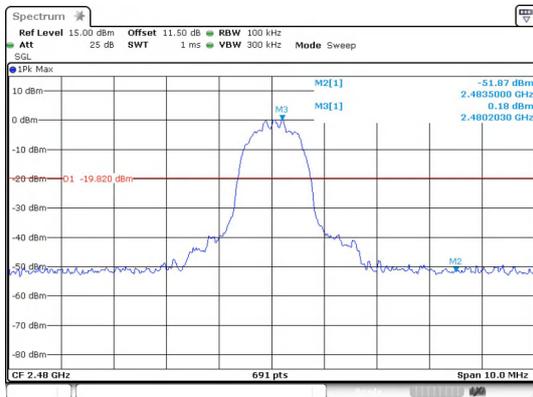
Date: 18 JUN 2025 19:00:15

**Out Of Band Emission
8DPSK_3-DH5_Channel 39**



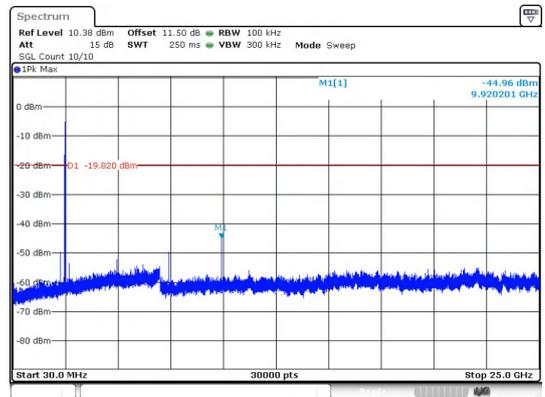
Date: 18 JUN 2025 19:00:27

**30.0 MHz - 25000.0 MHz
8DPSK_3-DH5_Channel 39**



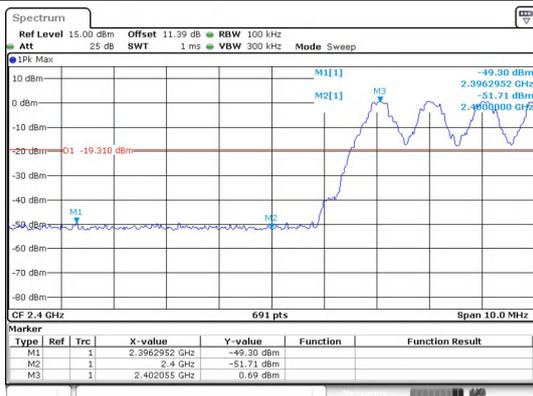
Date: 18 JUN 2025 19:04:06

**Out Of Band Emission
8DPSK_3-DH5_Channel 78**



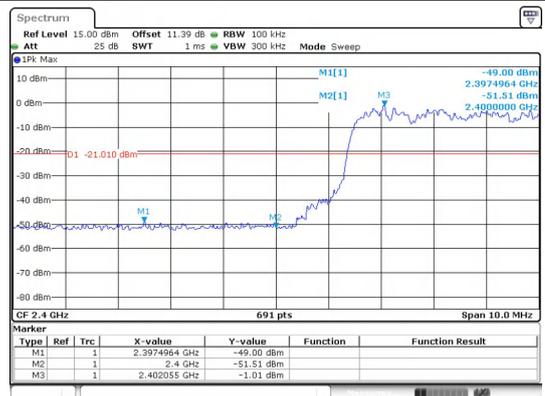
Date: 18 JUN 2025 19:04:28

**30.0 MHz - 25000.0 MHz
8DPSK_3-DH5_Channel 78**



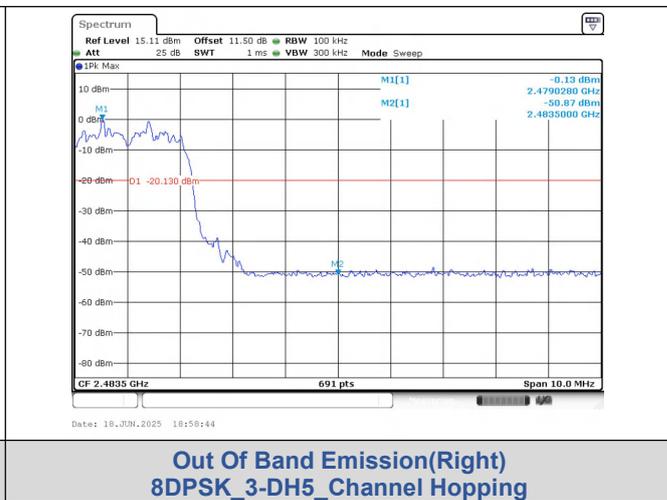
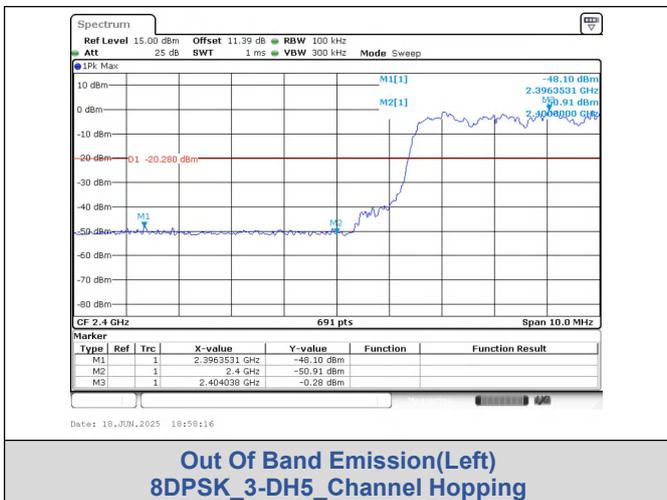
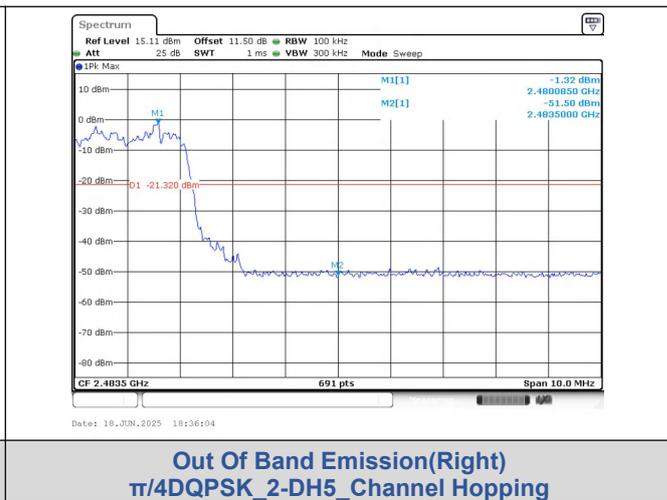
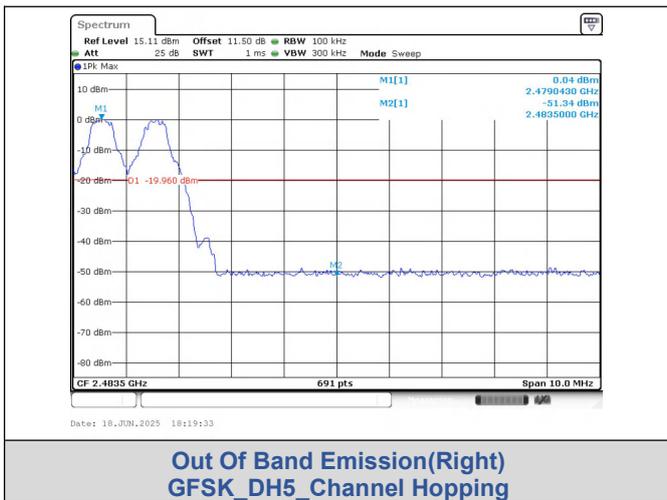
Date: 18 JUN 2025 18:18:59

**Out Of Band Emission(Left)
GFSK_DH5_Channel Hopping**



Date: 18 JUN 2025 18:35:35

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



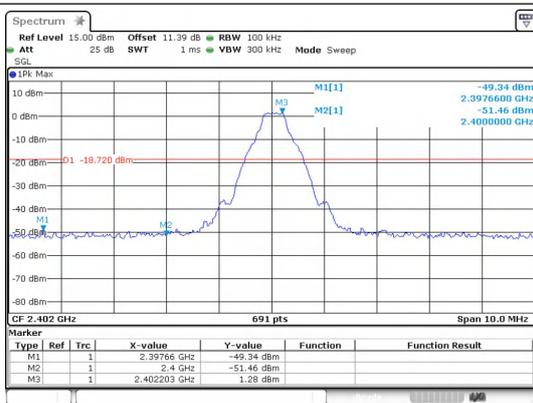
Right:
Non-Hopping

Modulation	Packet	Channel	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result	
GFSK	DH5	0	2397.66	-49.338	-18.72	-30.618	PASS	
			2400.00	-51.460	-18.72	-32.740	PASS	
			9608.10	-43.419	-18.72	-24.699	PASS	
		39	9764.55	-43.428	-18.98	-24.448	PASS	
			78	2483.50	-50.370	-18.98	-31.390	PASS
				9920.20	-44.208	-18.98	-25.228	PASS
π /4DQPSK	2-DH5	0	2398.50	-49.697	-18.57	-31.127	PASS	
			2400.00	-50.070	-18.57	-31.500	PASS	
			9608.10	-42.958	-18.57	-24.388	PASS	
		39	9764.55	-42.737	-18.99	-23.747	PASS	
			78	2483.50	-50.950	-18.94	-32.010	PASS
				9920.20	-44.074	-18.94	-25.134	PASS
8DPSK	3-DH5	0	2400.00	-49.710	-18.65	-31.060	PASS	
			9608.08	-42.736	-18.65	-24.086	PASS	
		39	9763.72	-42.672	-19.07	-23.602	PASS	
			78	2483.50	-50.360	-19.08	-31.280	PASS
		9920.20		-44.297	-19.08	-25.217	PASS	

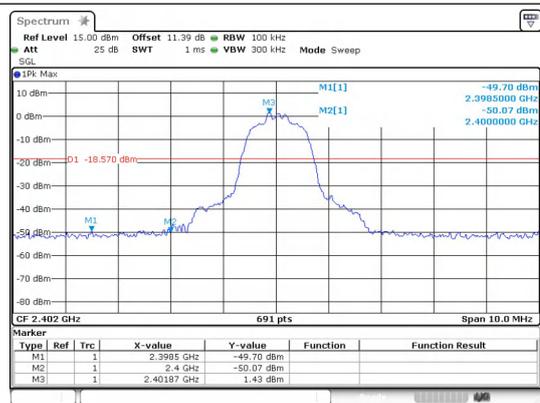
Hopping

Modulation	Packet	Channel	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
GFSK	DH5	Hopping	2396.31	-49.352	-18.79	-30.562	PASS
			2400.00	-49.640	-18.79	-30.850	PASS
			2483.50	-50.300	-19.73	-30.570	PASS
π /4DQPSK	2-DH5		2398.67	-48.694	-18.99	-29.704	PASS
			2400.00	-50.710	-18.99	-31.720	PASS
			2483.50	-50.300	-18.95	-31.350	PASS
8DPSK	3-DH5		2396.69	-49.069	-18.58	-30.489	PASS
			2400.00	-51.010	-18.58	-32.430	PASS
			2483.50	-51.060	-19.59	-31.470	PASS

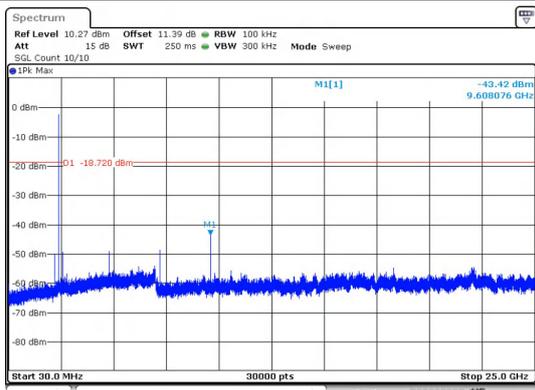
Test Graphs



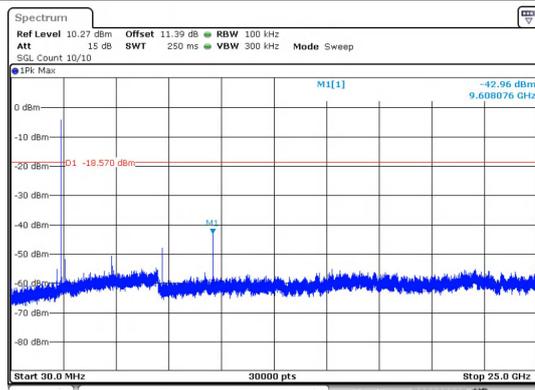
**Out Of Band Emission
GFSK_DH5_Channel 0**



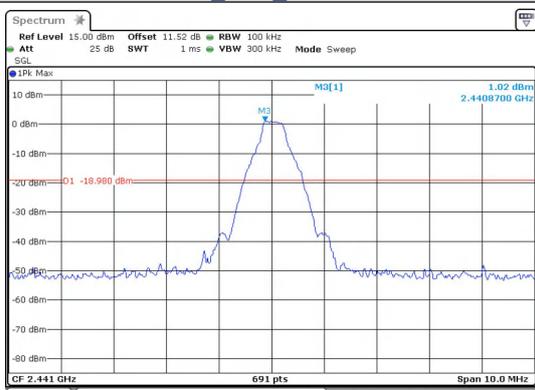
**Out Of Band Emission
 π /4DQPSK_2-DH5_Channel 0**



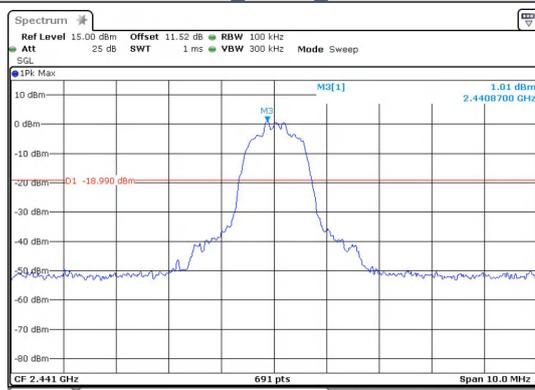
30.0 MHz - 25000.0 MHz
GFSK_DH5_Channel 0



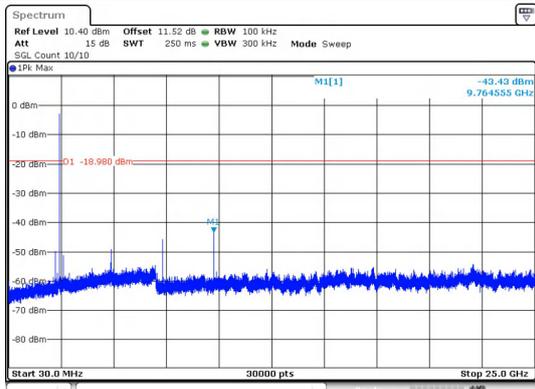
30.0 MHz - 25000.0 MHz
 $\pi/4$ DQPSK_2-DH5_Channel 0



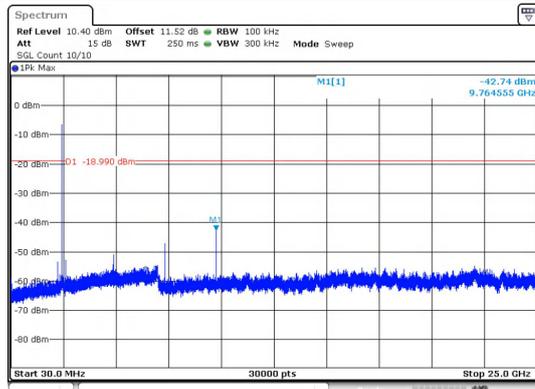
Out Of Band Emission
GFSK_DH5_Channel 39



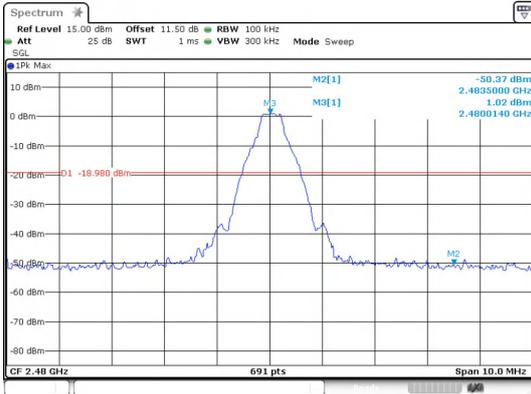
Out Of Band Emission
 $\pi/4$ DQPSK_2-DH5_Channel 39



30.0 MHz - 25000.0 MHz
GFSK_DH5_Channel 39

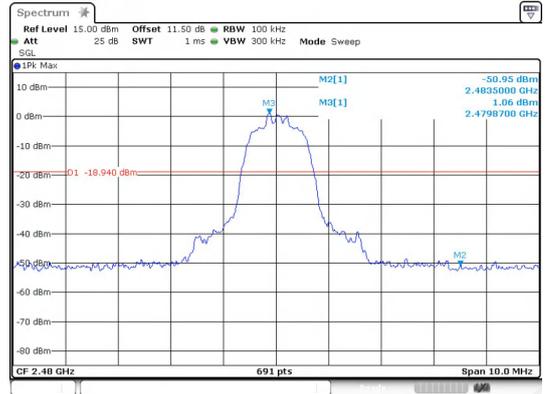


30.0 MHz - 25000.0 MHz
 $\pi/4$ DQPSK_2-DH5_Channel 39



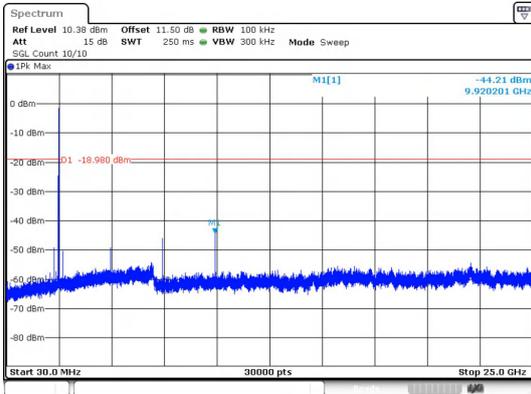
Date: 24 JUN 2025 11:32:22

**Out Of Band Emission
GFSK_DH5_Channel 78**



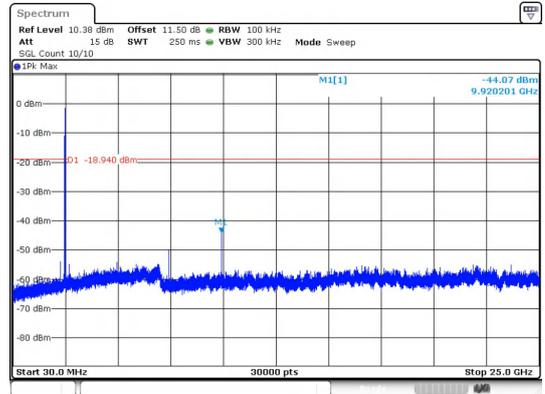
Date: 24 JUN 2025 11:43:58

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



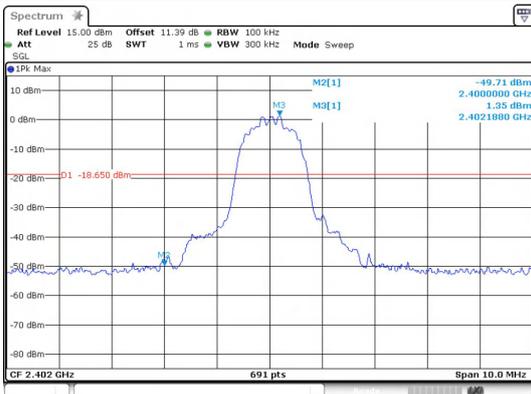
Date: 24 JUN 2025 11:32:44

**30.0 MHz - 25000.0 MHz
GFSK_DH5_Channel 78**



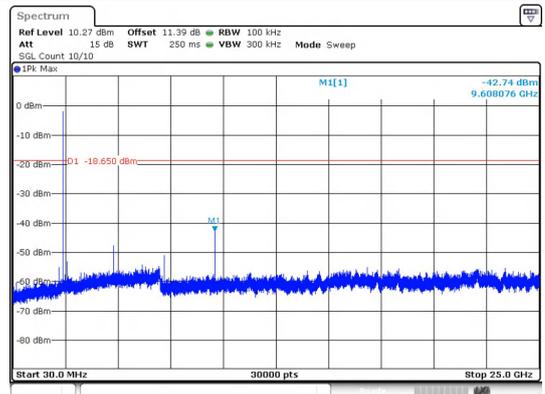
Date: 24 JUN 2025 11:44:20

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



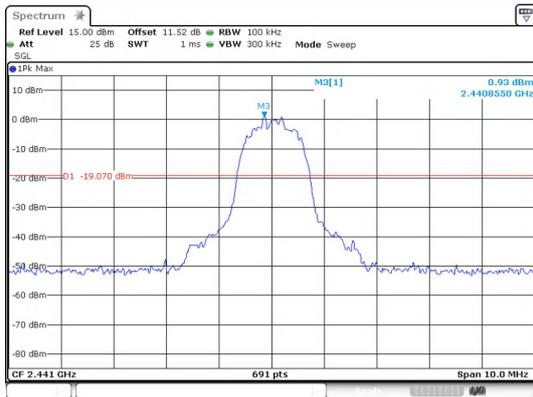
Date: 24 JUN 2025 11:46:30

**Out Of Band Emission
8DPSK_3-DH5_Channel 0**



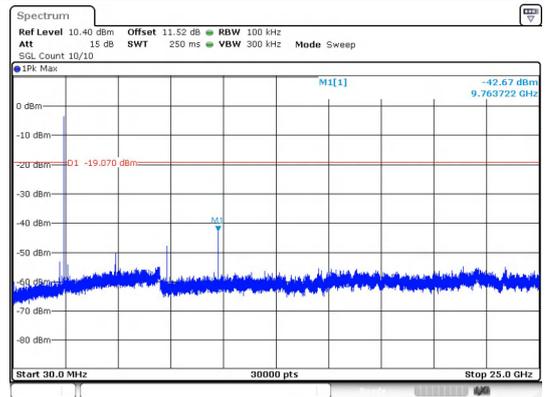
Date: 24 JUN 2025 11:46:52

**30.0 MHz - 25000.0 MHz
8DPSK_3-DH5_Channel 0**



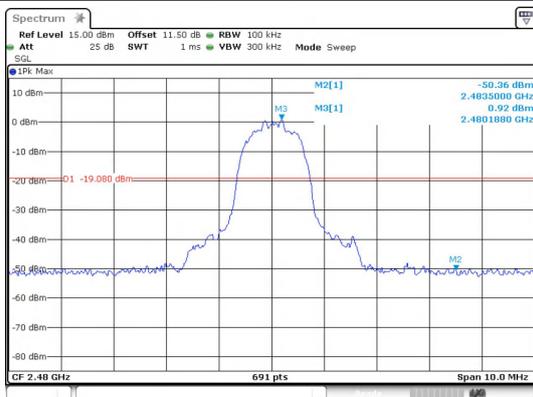
Date: 24 JUN 2025 11:52:47

**Out Of Band Emission
8DPSK_3-DH5_Channel 39**



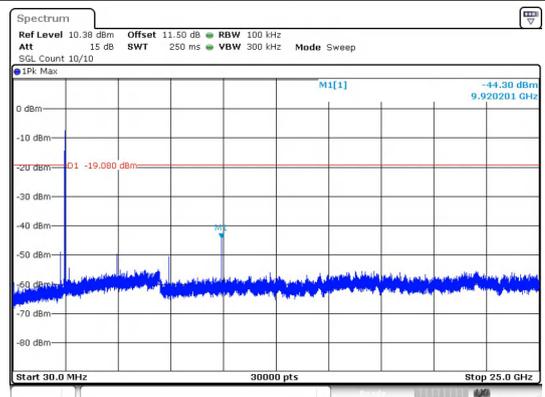
Date: 24 JUN 2025 11:53:09

**30.0 MHz - 25000.0 MHz
8DPSK_3-DH5_Channel 39**



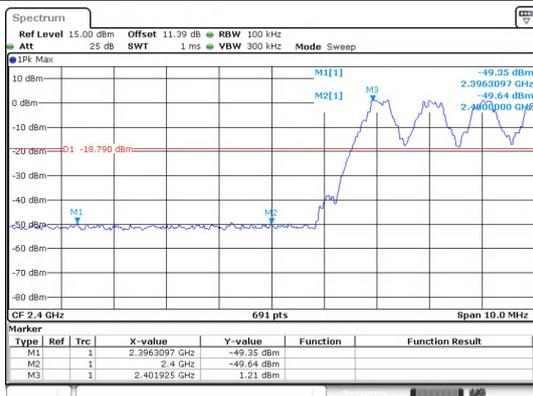
Date: 24 JUN 2025 11:55:22

**Out Of Band Emission
8DPSK_3-DH5_Channel 78**



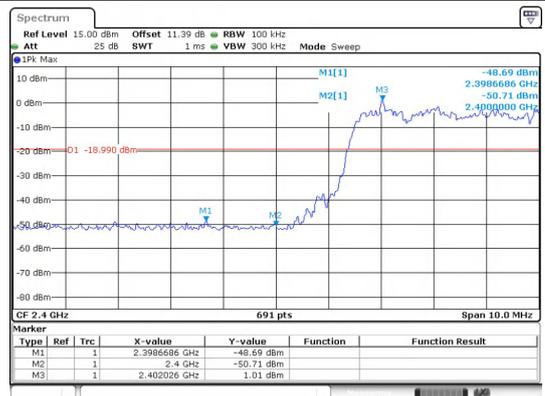
Date: 24 JUN 2025 11:55:45

**30.0 MHz - 25000.0 MHz
8DPSK_3-DH5_Channel 78**



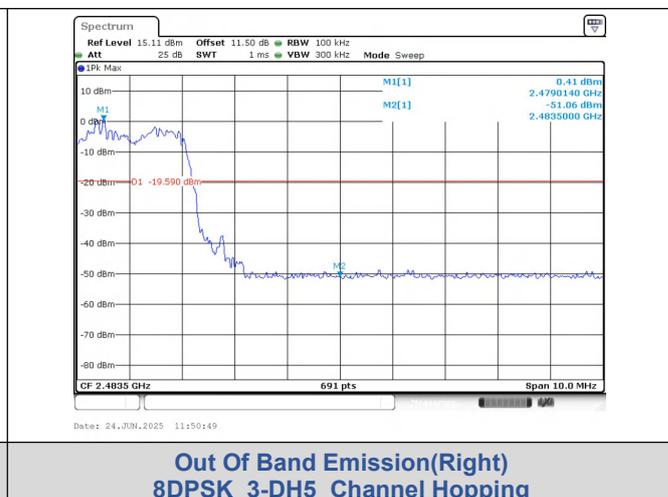
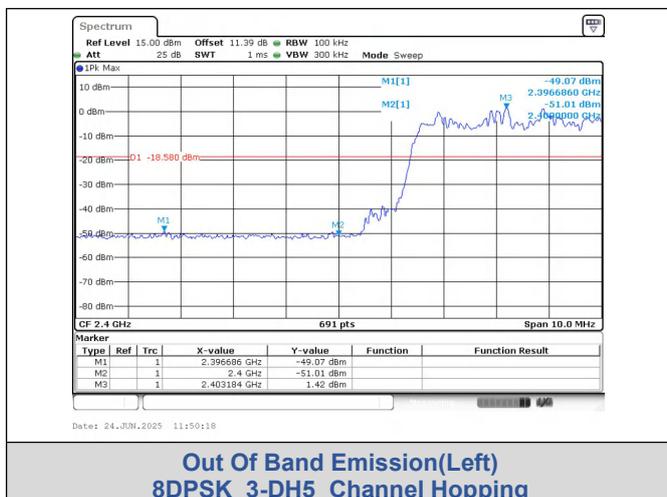
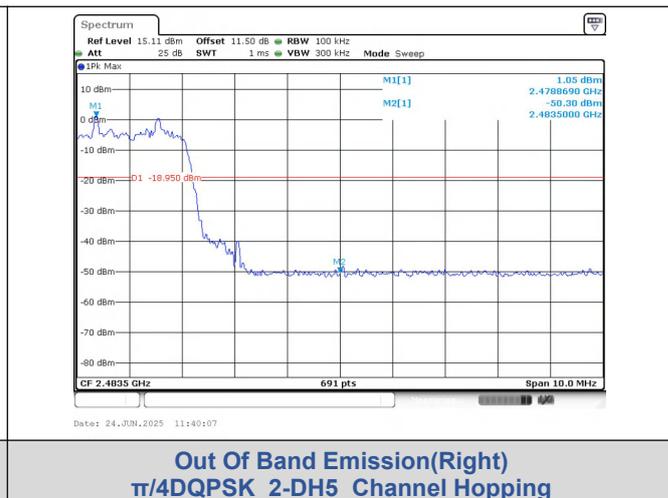
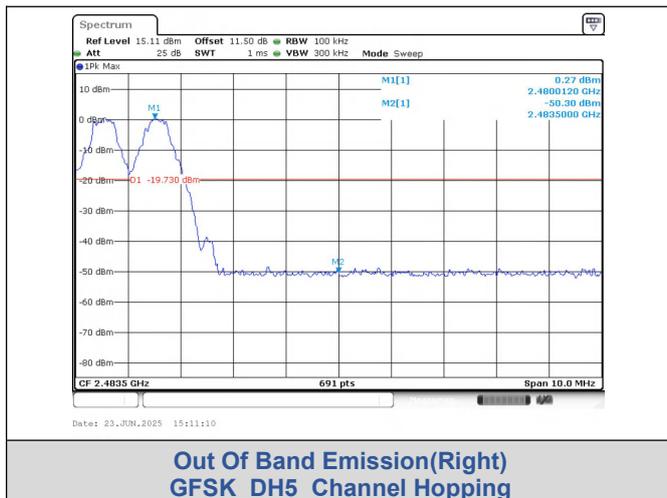
Date: 23 JUN 2025 15:10:37

**Out Of Band Emission(Left)
GFSK_DH5_Channel Hopping**



Date: 24 JUN 2025 11:39:38

**Out Of Band Emission(Left)
π/4DQPSK_2-DH5_Channel Hopping**



-----End of the report-----