APPENDIX VI. 20dB Bandwidth

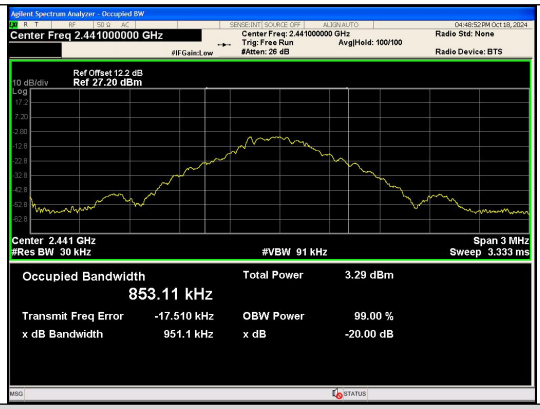
Antenna A

Test Result

Modulation	Channel	Center Frequency (MHz)	20 dB Bandwidth (MHz)
GFSK	0	2402 MHz	0.9533
	39	2441 MHz	0.9511
	78	2480 MHz	0.9534
π/4DQPSK	0	2402 MHz	1.279
	39	2441 MHz	1.280
	78	2480 MHz	1.281
8DPSK	0	2402 MHz	1.296
	39	2441 MHz	1.294
	78	2480 MHz	1.298

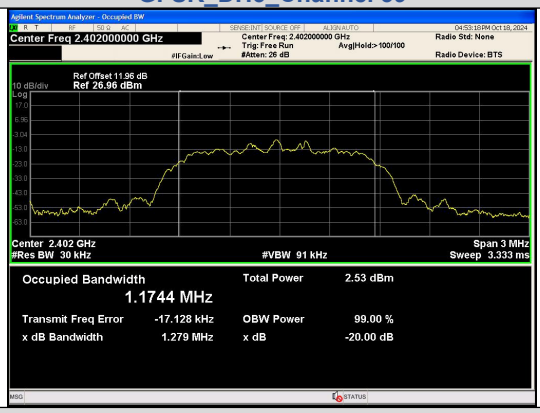
Test Graphs

GFSK_DH5_Channel 0

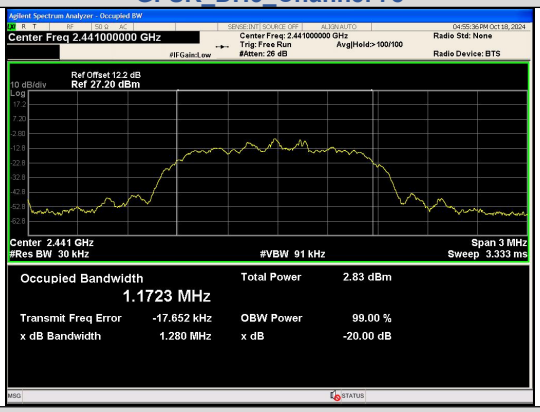


GFSK_DH5_Channel 39

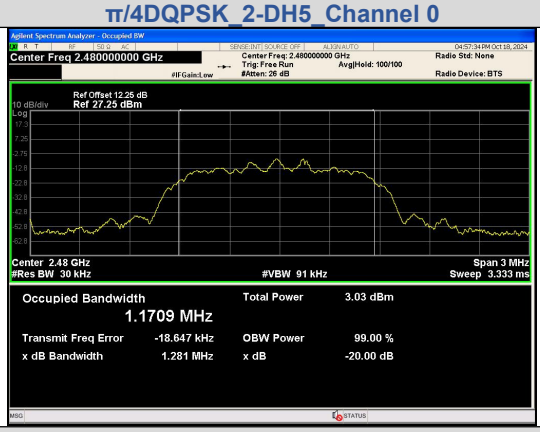
GFSK_DH5_Channel 78



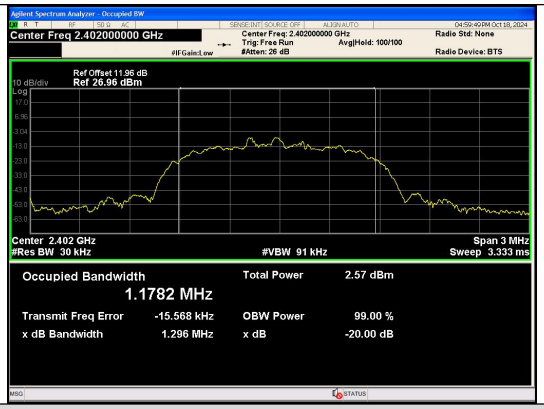
π/4DQPSK_2-DH5_Channel 0



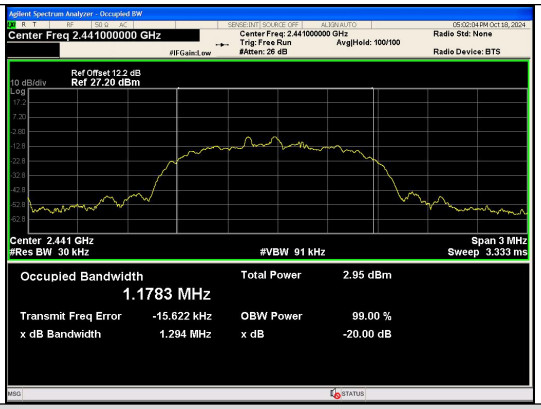
π/4DQPSK_2-DH5_Channel 39



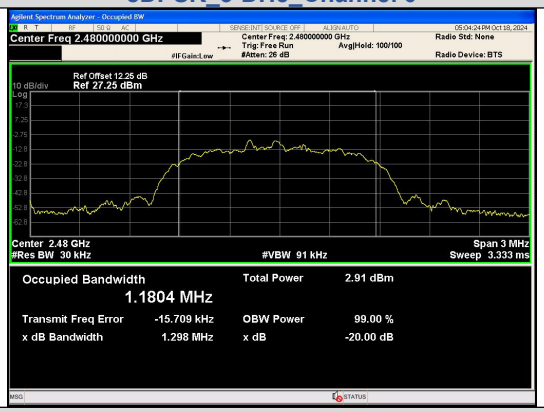
π/4DQPSK_2-DH5_Channel 78



8DPSK_3-DH5_Channel 0



8DPSK_3-DH5_Channel 39



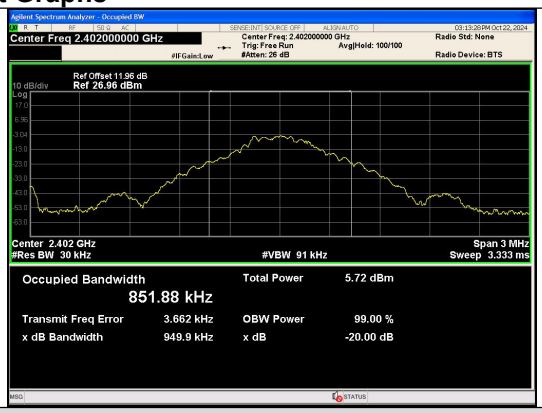
8DPSK_3-DH5_Channel 78

Antenna B

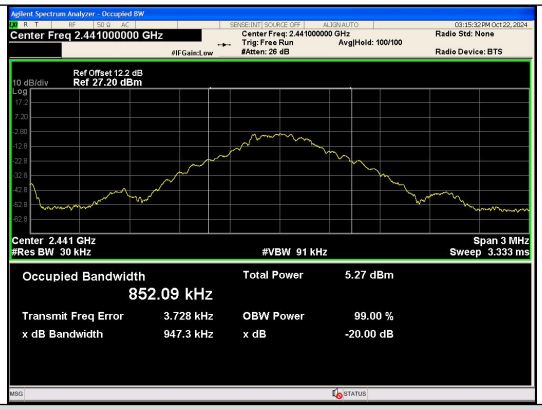
Test Result

Modulation	Channel	Center Frequency (MHz)	20 dB Bandwidth (MHz)
GFSK	0	2402 MHz	0.9499
	39	2441 MHz	0.9473
	78	2480 MHz	0.9543
π/4DQPSK	0	2402 MHz	1.309
	39	2441 MHz	1.306
	78	2480 MHz	1.309
8DPSK	0	2402 MHz	1.295
	39	2441 MHz	1.301
	78	2480 MHz	1.301

Test Graphs

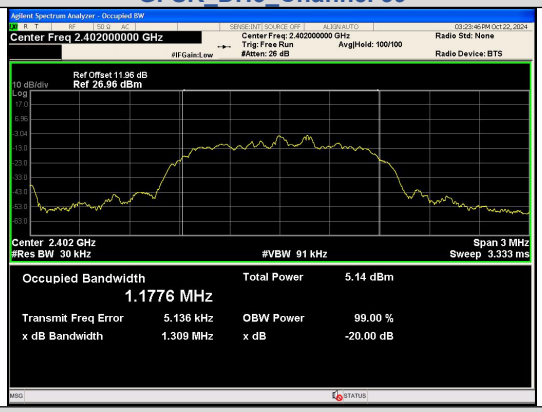


GFSK_DH5_Channel 0

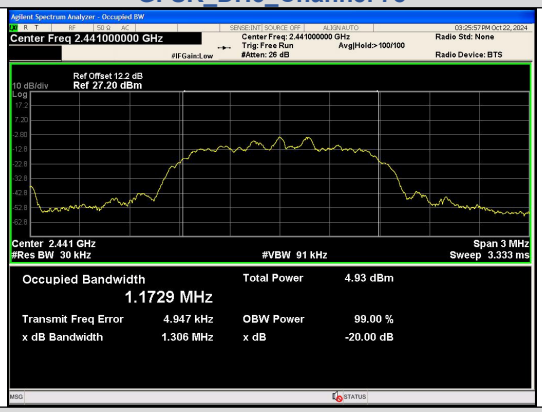


GFSK_DH5_Channel 39

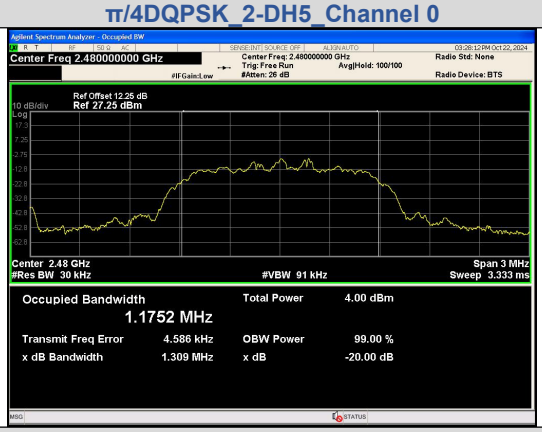
GFSK_DH5_Channel 78



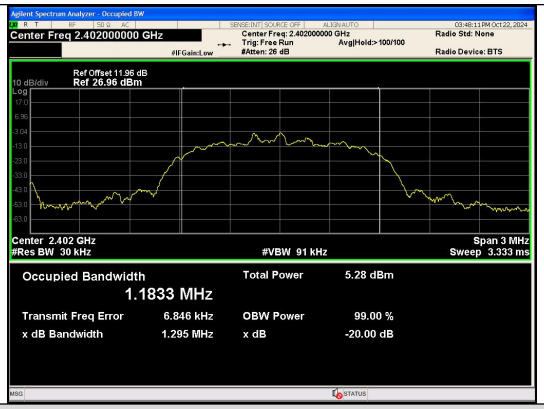
π/4DQPSK_2-DH5_Channel 0



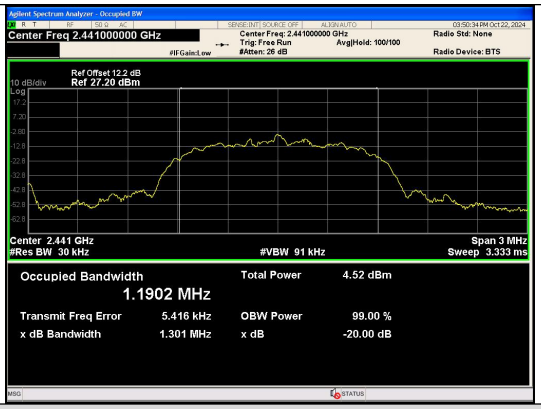
π/4DQPSK_2-DH5_Channel 39



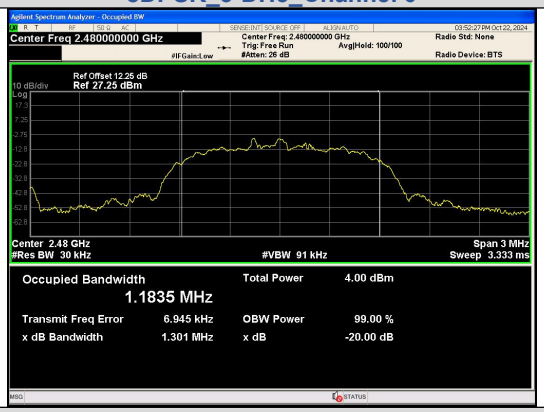
π/4DQPSK_2-DH5_Channel 78



8DPSK_3-DH5_Channel 0



8DPSK_3-DH5_Channel 39



8DPSK_3-DH5_Channel 78

APPENDIX VII. Carrier Frequencies Separation

Antenna A

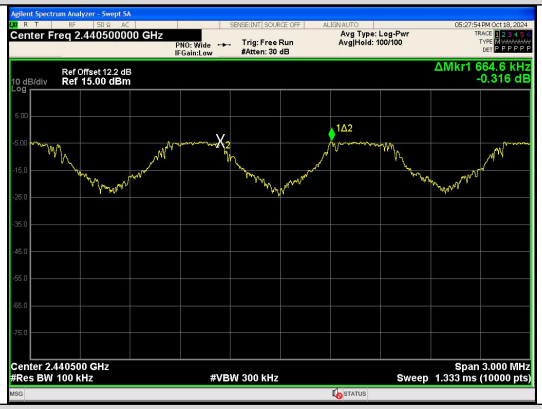
Test Result

Modulation	Packet	Left Center frequency (MHz)	Right Center frequency (MHz)	Hopping Frequency Separation (MHz)	Limit (MHz)	Result
GFSK	DH5	2439.9931	2440.8266	0.8335	0.636	PASS
GFSK	DH5	2440.0339	2440.823	0.7891	0.634	PASS
GFSK	DH5	2440.1416	2440.8062	0.6646	0.636	PASS
π/4DQPSK	2-DH5	2440.1614	2441.0435	0.8821	0.853	PASS
π/4DQPSK	2-DH5	2439.8344	2440.8404	1.0060	0.853	PASS
π/4DQPSK	2-DH5	2439.9829	2440.8611	0.8782	0.854	PASS
8DPSK	3-DH5	2440.129	2441.1275	0.9985	0.864	PASS
8DPSK	3-DH5	2439.8227	2440.8548	1.0321	0.863	PASS
8DPSK	3-DH5	2439.9181	2440.9667	1.0486	0.865	PASS

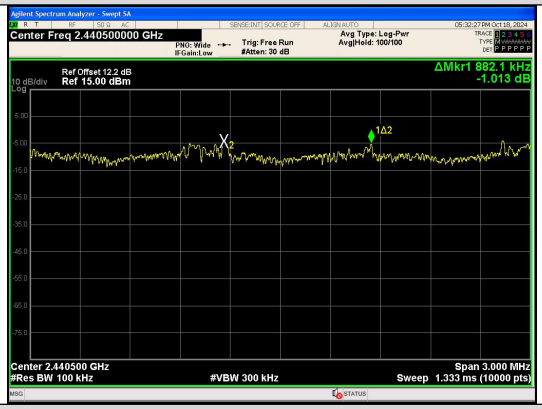
Test Graphs

GFSK

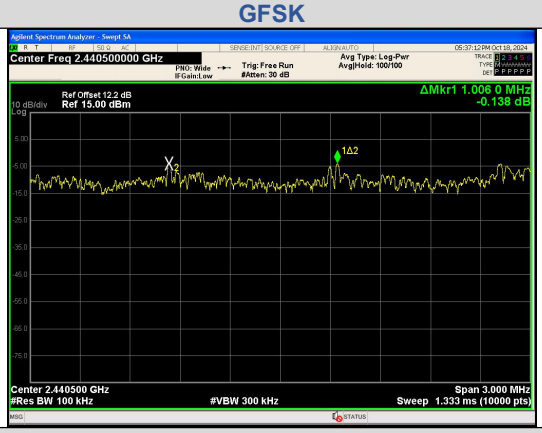
GFSK



GFSK

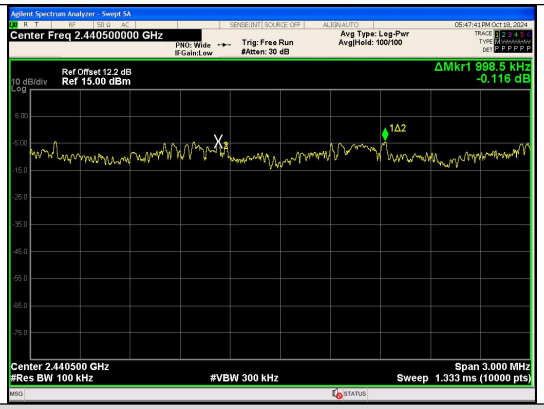


π/4DQPSK

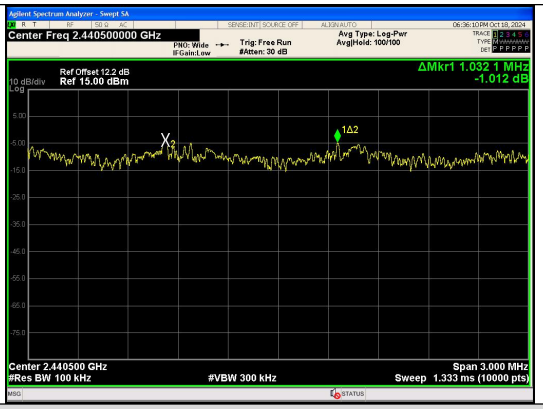


π/4DQPSK

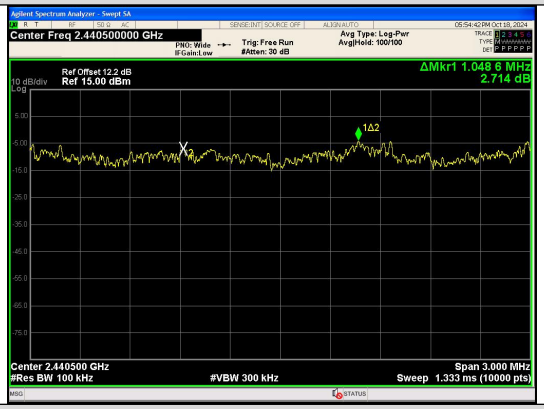
π/4DQPSK



8DPSK



8DPSK



8DPSK

Antenna B
Test Result

Modulation	Packet	Left Center frequency (MHz)	Right Center frequency (MHz)	Hopping Frequency Separation (MHz)	Limit (MHz)	Result
GFSK	DH5	2440.0084	2440.964	0.9556	0.633	PASS
GFSK	DH5	2439.838	2440.8485	1.0105	0.632	PASS
GFSK	DH5	2439.9844	2441.0546	1.0702	0.636	PASS
π/4DQPSK	2-DH5	2439.8635	2440.8752	1.0117	0.873	PASS
π/4DQPSK	2-DH5	2440.0027	2440.9478	0.9451	0.871	PASS
π/4DQPSK	2-DH5	2439.9724	2441.1494	1.1770	0.873	PASS
8DPSK	3-DH5	2439.8578	2440.8503	0.9925	0.863	PASS
8DPSK	3-DH5	2439.9919	2441.1791	1.1872	0.867	PASS
8DPSK	3-DH5	2439.991	2440.8665	0.8755	0.867	PASS

Test Graphs

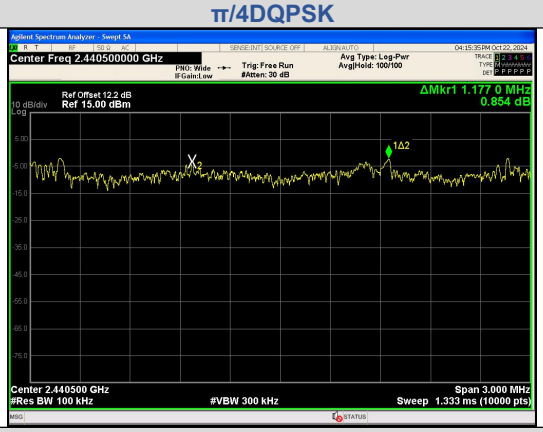
GFSK

GFSK

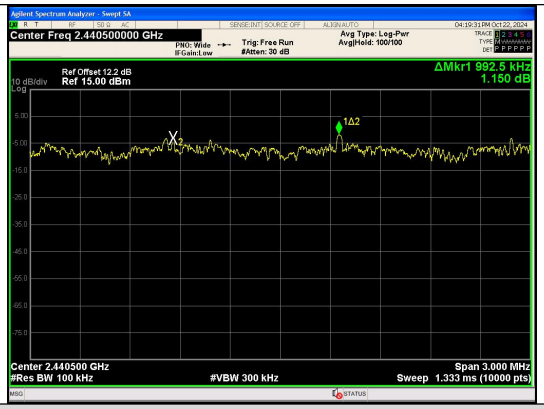
GFSK

π/4DQPSK

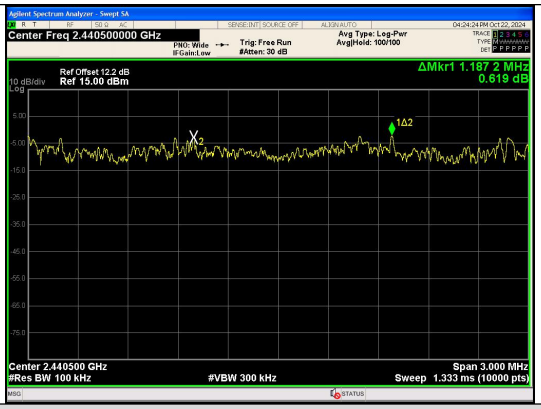
π/4DQPSK



π/4DQPSK



8DPSK



8DPSK

8DPSK

APPENDIX VIII. Conducted Out Of Band Emission

Antenna A

Test Result

Non-Hopping

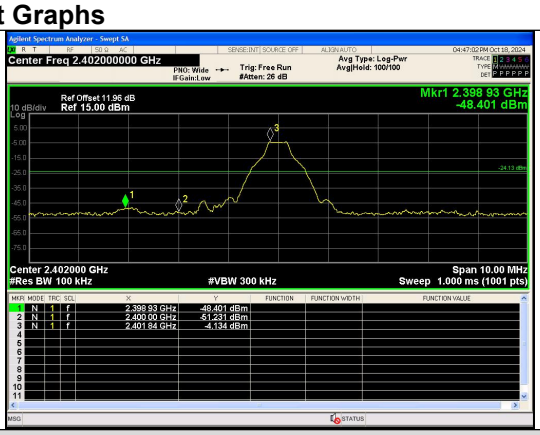
Modulation	Packet	Channel	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
GFSK	DH5	0	2398.93	-48.401	-24.13	-24.271	PASS
			2400.00	-51.231	-24.13	-27.101	PASS
			4803.80	-58.153	-24.13	-34.023	PASS
			7205.90	-62.021	-24.13	-37.891	PASS
			9608.70	-63.663	-24.13	-39.533	PASS
			24903.2	-44.846	-24.13	-20.716	PASS
		39	4881.79	-55.632	-23.82	-31.812	PASS
			7322.05	-63.192	-23.82	-39.372	PASS
			9757.93	-45.339	-23.82	-21.519	PASS
			9763.55	-63.303	-23.82	-39.483	PASS
		78	2483.50	-48.319	-23.76	-24.559	PASS
			4959.83	-54.466	-23.76	-30.706	PASS
			7440.66	-62.538	-23.76	-38.778	PASS
			9914.00	-45.184	-23.76	-21.424	PASS
			9920.24	-63.725	-23.76	-39.965	PASS
π/4DQPSK	2-DH5	0	2399.00	-49.381	-24.17	-25.211	PASS
			2400.00	-51.309	-24.17	-27.139	PASS
			4804.40	-60.340	-24.17	-36.170	PASS
			7205.30	-62.201	-24.17	-38.031	PASS
			9608.10	-63.577	-24.17	-39.407	PASS
			24928.2	-45.458	-24.17	-21.288	PASS
		39	4882.42	-58.095	-23.87	-34.225	PASS
			7323.30	-62.373	-23.87	-38.503	PASS
			9757.93	-45.492	-23.87	-21.622	PASS
			9764.17	-63.332	-23.87	-39.462	PASS
		78	2483.50	-50.317	-23.78	-26.537	PASS
			4959.83	-56.854	-23.78	-33.074	PASS
			7440.66	-62.998	-23.78	-39.218	PASS
			9914.00	-45.497	-23.78	-21.717	PASS
			9920.24	-62.819	-23.78	-39.039	PASS
8DPSK	3-DH5	0	2398.96	-48.597	-24.13	-24.467	PASS
			2400.00	-51.600	-24.13	-27.470	PASS
			4803.80	-56.605	-24.13	-32.475	PASS
			7205.30	-64.121	-24.13	-39.991	PASS
			9601.90	-46.423	-24.13	-22.293	PASS
			9608.10	-62.308	-24.13	-38.178	PASS
		39	4881.79	-57.979	-23.88	-34.099	PASS
			7322.05	-62.952	-23.88	-39.072	PASS
			9757.93	-45.071	-23.88	-21.191	PASS
			9764.80	-63.934	-23.88	-40.054	PASS
		78	2483.50	-49.843	-23.79	-26.053	PASS
			4959.83	-57.893	-23.79	-34.103	PASS
			7440.03	-62.998	-23.79	-39.208	PASS
			9919.62	-63.376	-23.79	-39.586	PASS
			24972.5	-45.586	-23.79	-21.796	PASS

Hopping

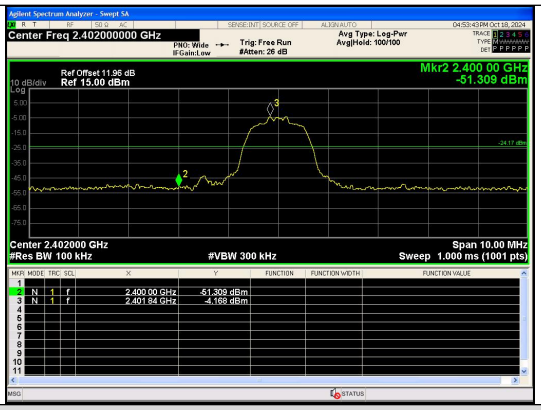
Modulation	Packet	Channel	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
GFSK	DH5	Hopping	2398.98	-48.172	-24.15	-24.022	PASS
			2400.00	-49.351	-24.15	-25.201	PASS
			2483.50	-48.866	-24.07	-24.796	PASS
			2398.91	-49.429	-24.44	-24.989	PASS
			2400.00	-49.496	-24.44	-25.056	PASS
			2483.50	-50.193	-24.18	-26.013	PASS
			2395.11	-49.493	-24.46	-25.033	PASS
			2400.00	-50.581	-24.46	-26.121	PASS

			2483.50	-48.706	-24.25	-24.456	PASS
π/4DQPSK	2-DH5		2396.50	-49.461	-24.2	-25.261	PASS
			2400.00	-49.826	-24.2	-25.626	PASS
			2483.50	-50.892	-23.9	-26.992	PASS
			2398.58	-49.457	-24.24	-25.217	PASS
			2400.00	-49.967	-24.24	-25.727	PASS
			2483.50	-50.709	-23.89	-26.819	PASS
			2398.66	-49.729	-24.24	-25.489	PASS
			2400.00	-49.984	-24.24	-25.744	PASS
			2483.50	-50.710	-23.91	-26.800	PASS
8DPSK	3-DH5		2398.99	-49.441	-24.21	-25.231	PASS
			2400.00	-50.159	-24.21	-25.949	PASS
			2483.50	-50.164	-25.01	-25.154	PASS
			2395.19	-49.337	-24.5	-24.837	PASS
			2400.00	-50.813	-24.5	-26.313	PASS
			2483.50	-49.738	-26.76	-22.978	PASS
			2398.03	-48.788	-24.2	-24.588	PASS
			2400.00	-49.441	-24.2	-25.241	PASS
			2483.50	-50.837	-24.67	-26.167	PASS

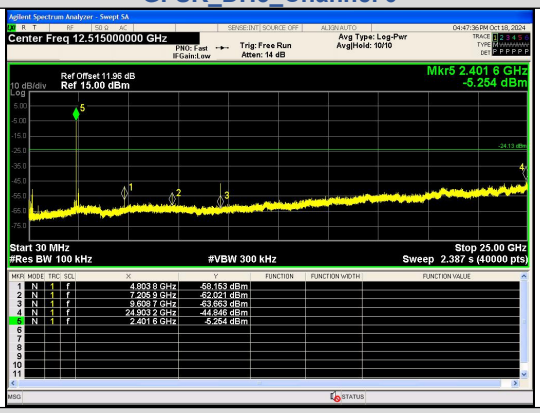
Test Graphs



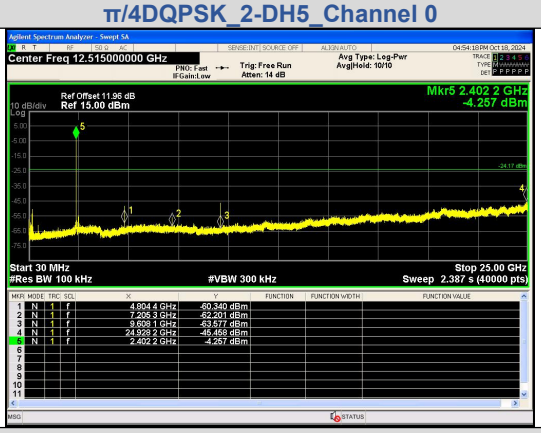
Out Of Band Emission
GFSK_DH5_Channel 0



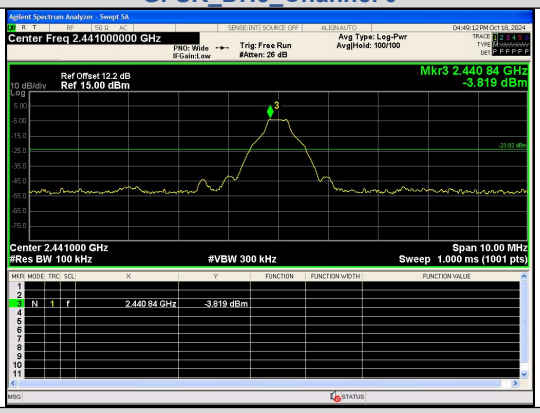
Out Of Band Emission
π/4DQPSK_2-DH5_Channel 0



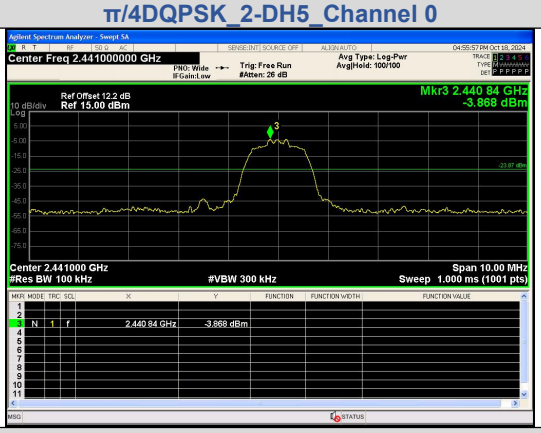
30.0 MHz - 25000.0 MHz
GFSK_DH5_Channel 0



30.0 MHz - 25000.0 MHz
π/4DQPSK_2-DH5_Channel 0



Out Of Band Emission
GFSK_DH5_Channel 39



Out Of Band Emission
π/4DQPSK_2-DH5_Channel 39