



Appendix A

RF Test Data for BT(BDR/EDR) (Conducted Measurement)

Product Name: BLUETOOTH EARPHONE

Trade Mark: AMORE

Test Model: pro6

Environmental Conditions

Temperature:	25.8° C
Relative Humidity:	52.5%
ATM Pressure:	100.0 kPa
Test Engineer:	Simba Huang
Supervised by:	Seal Chen



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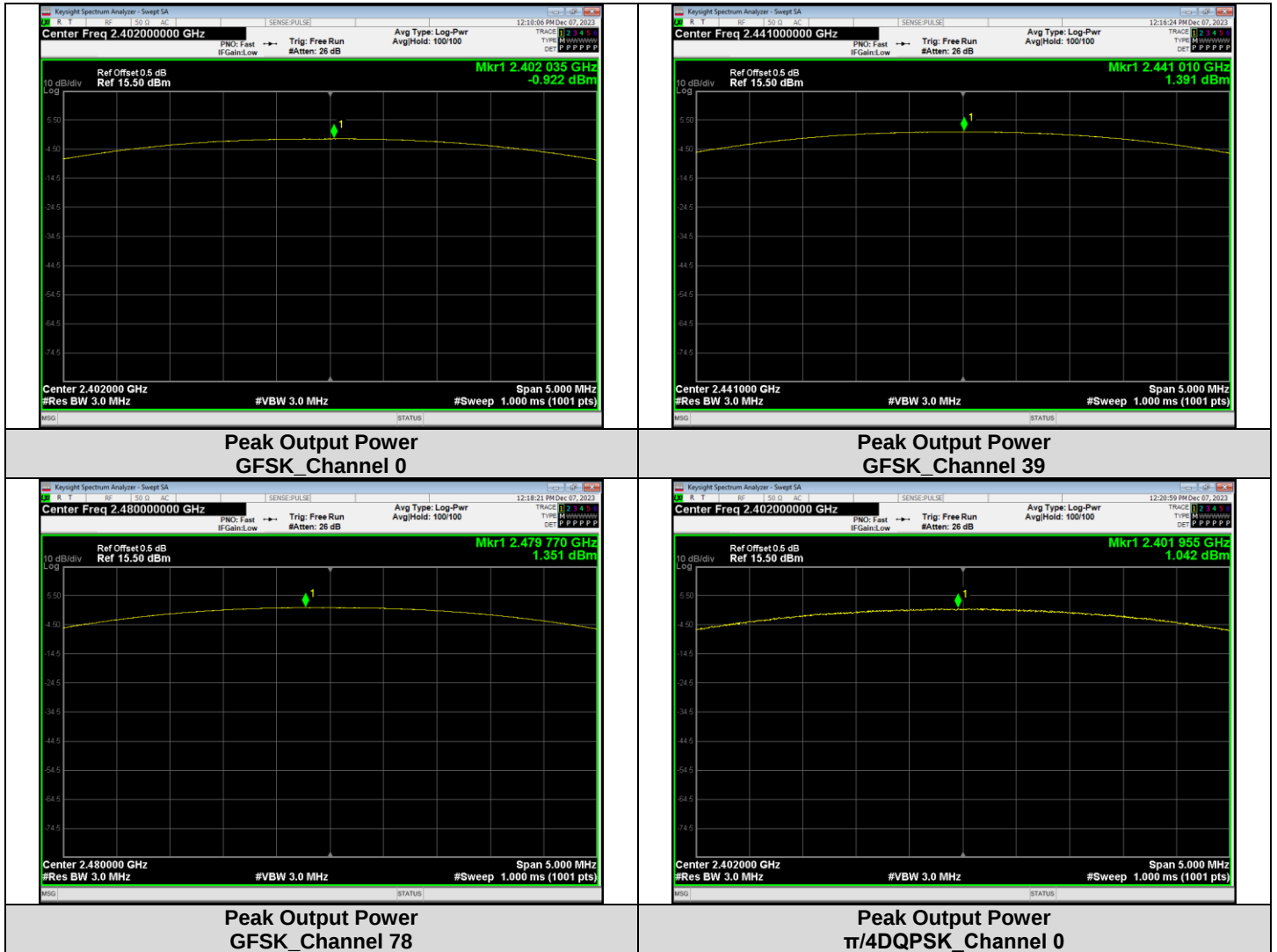


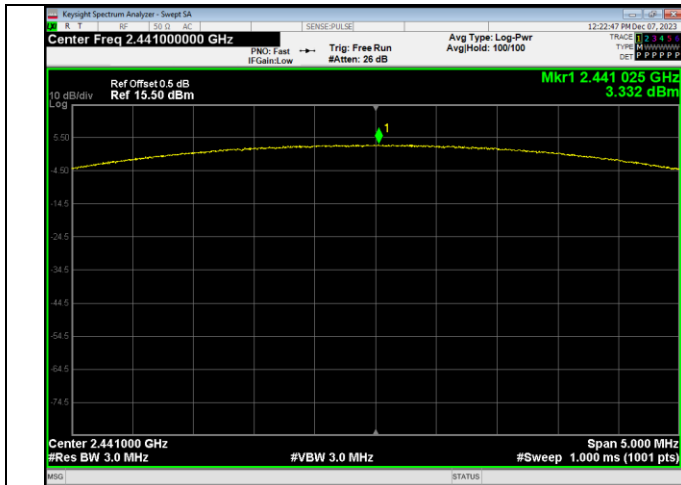
1. Conducted Peak Output Power

1.1 Test Result

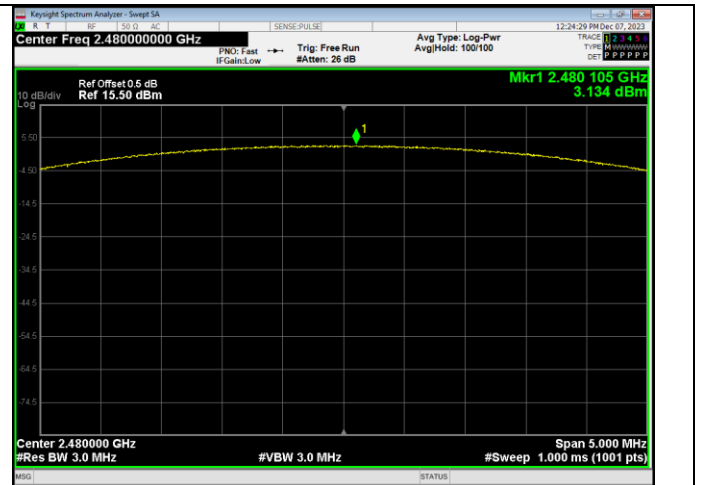
Modulation	Packet Type	Channel	Peak Output Power (dBm)	Peak Output Power (mW)	Max. Avg. Power (dBm)	Limit (dBm)	Result
GFSK	DH5	0	-0.922	0.809	None	30	PASS
		39	1.391	1.378	None		PASS
		78	1.351	1.365	None		PASS
$\pi/4$ DQPSK	2-DH5	0	1.042	1.271	None	20.97	PASS
		39	3.332	2.154	None		PASS
		78	3.134	2.058	None		PASS
8DPSK	3-DH5	0	1.348	1.364	None	20.97	PASS
		39	3.348	2.162	None		PASS
		78	3.189	2.084	None		PASS

1.2 Test Graphs

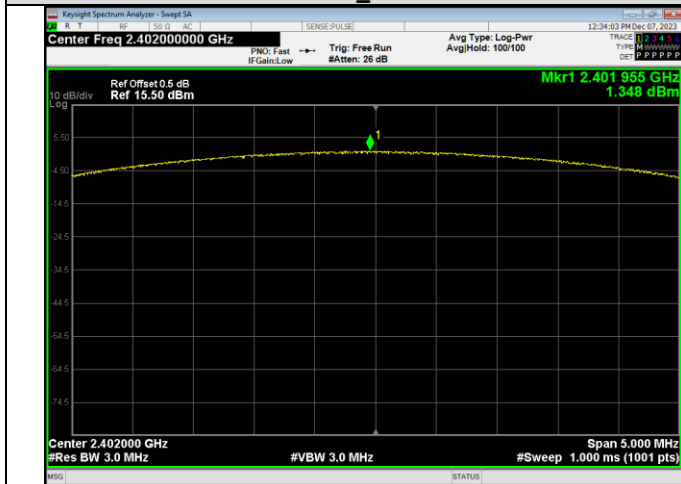




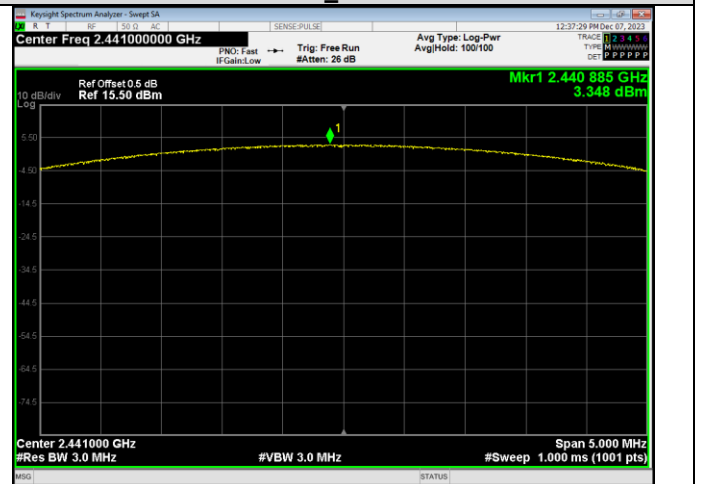
Peak Output Power
 $\pi/4$ DQPSK_Channel 39



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



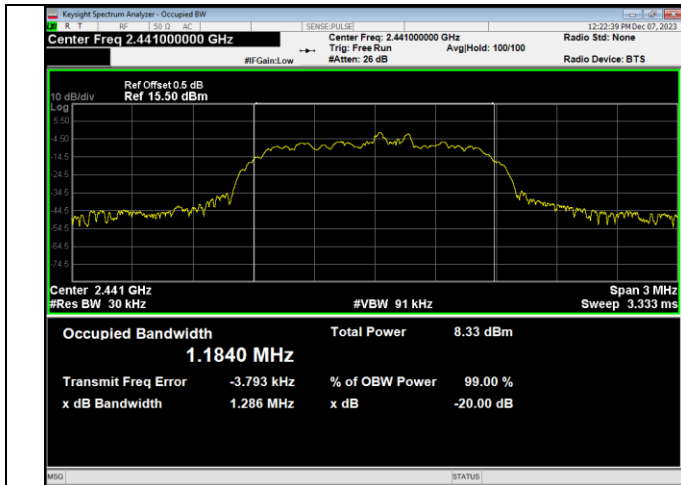
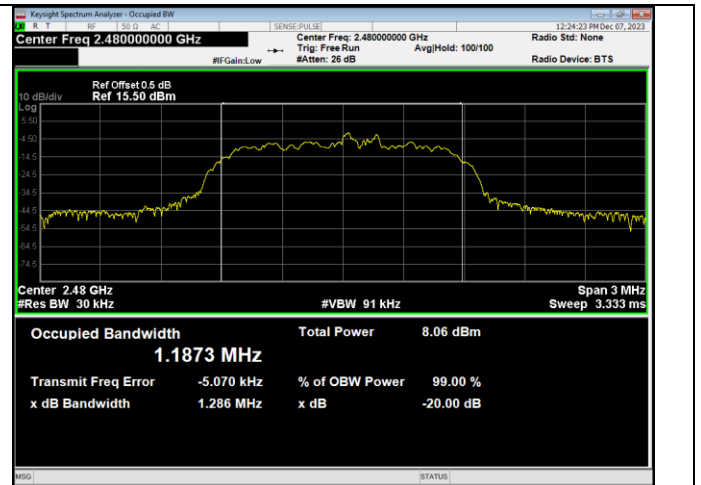
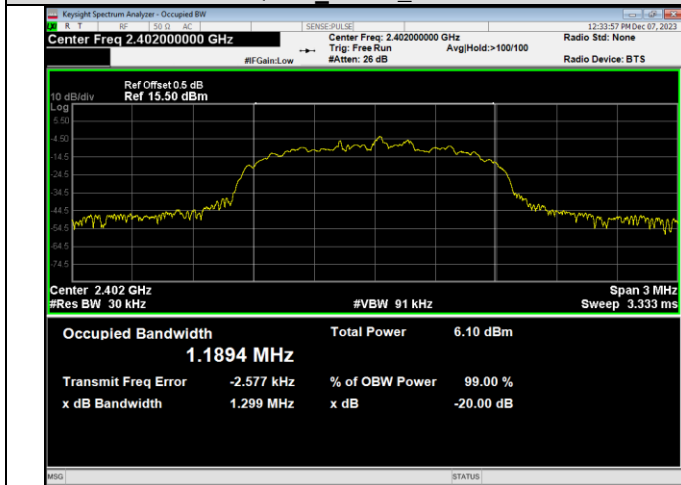
2. 20dB Bandwidth

2.1 Test Result

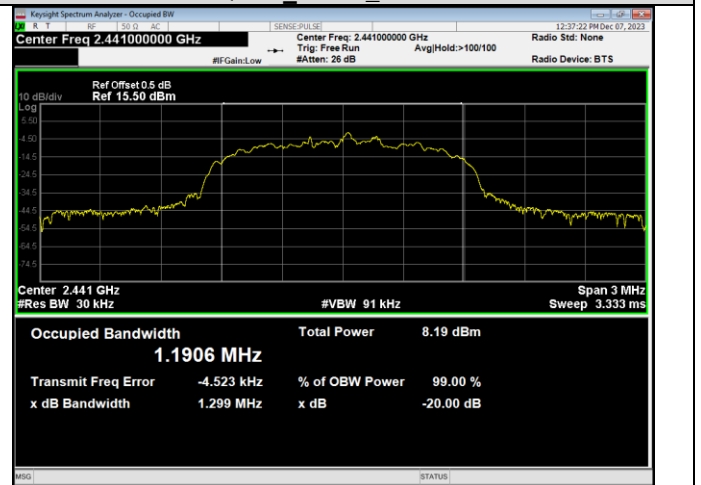
Modulation	Channel	Center Frequency (MHz)	20 dB Bandwidth (MHz)
GFSK	0	2402 MHz	0.9439
	39	2441 MHz	0.9441
	78	2480 MHz	0.9397
π /4DQPSK	0	2402 MHz	1.286
	39	2441 MHz	1.286
	78	2480 MHz	1.286
8DPSK	0	2402 MHz	1.299
	39	2441 MHz	1.299
	78	2480 MHz	1.297

2.2 Test Graphs

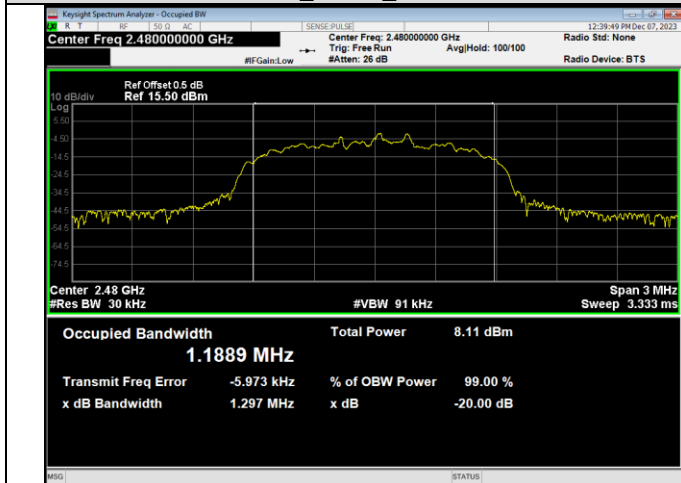


 $\pi/4$ DQPSK 2-DH5_Channel 39 $\pi/4$ DQPSK 2-DH5_Channel 78

8DPSK 3-DH5_Channel 0



8DPSK 3-DH5_Channel 39



8DPSK 3-DH5_Channel 78

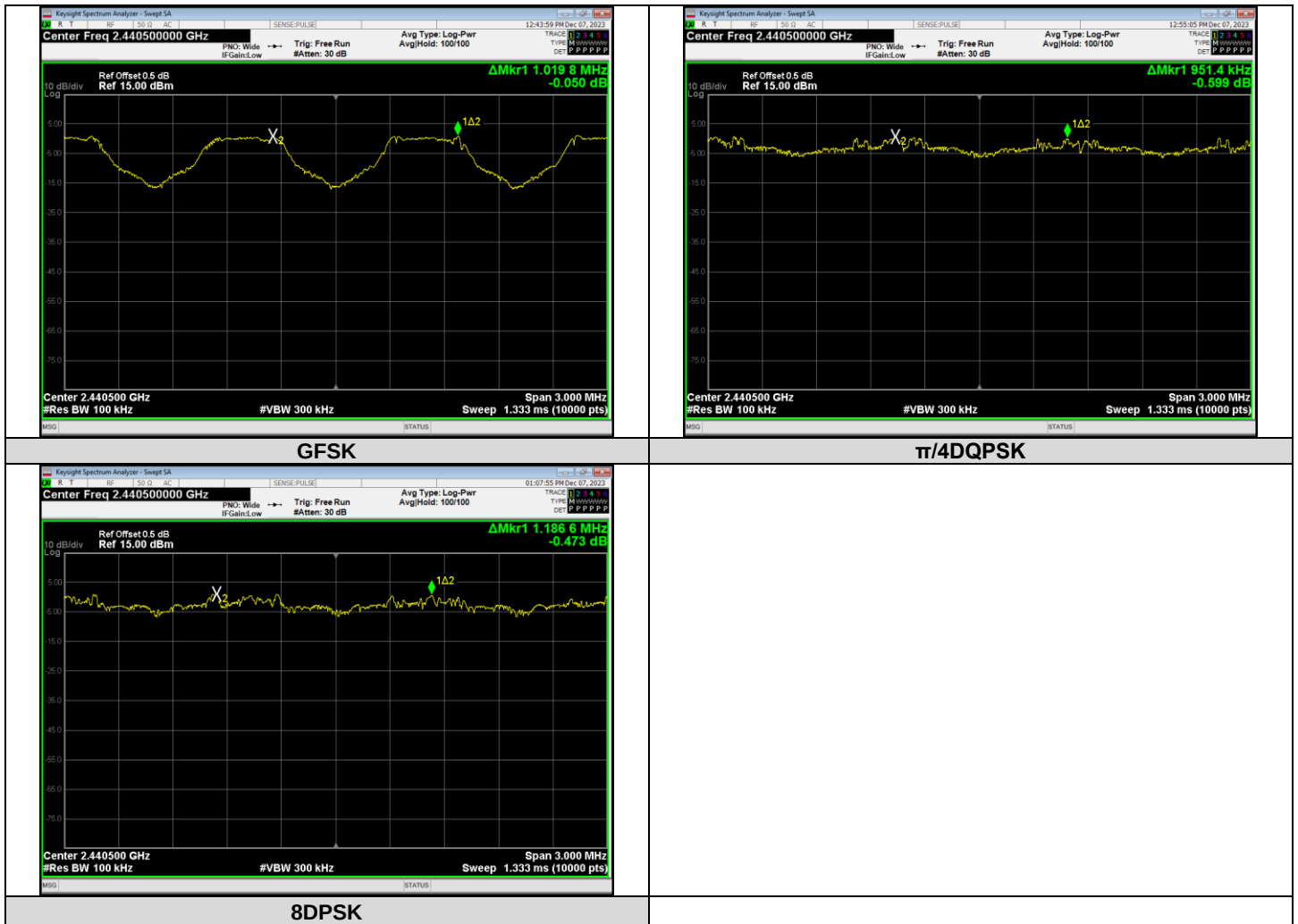


3. Carrier Frequencies Separation

3.1 Test Result

Modulation	Packet	Left Center frequency (MHz)	Right Center frequency (MHz)	Hopping Frequency Separation (MHz)	Limit (MHz)	Result
GFSK	DH5	2440.1533	2441.1731	1.0198	0.629	PASS
$\pi/4$ DQPSK	2-DH5	2440.0351	2440.9865	0.9514	0.857	PASS
8DPSK	3-DH5	2439.8413	2441.0279	1.1866	0.866	PASS

3.2 Test Graphs





4. Conducted Out Of Band Emission

4.1 Test Result

Non-Hopping

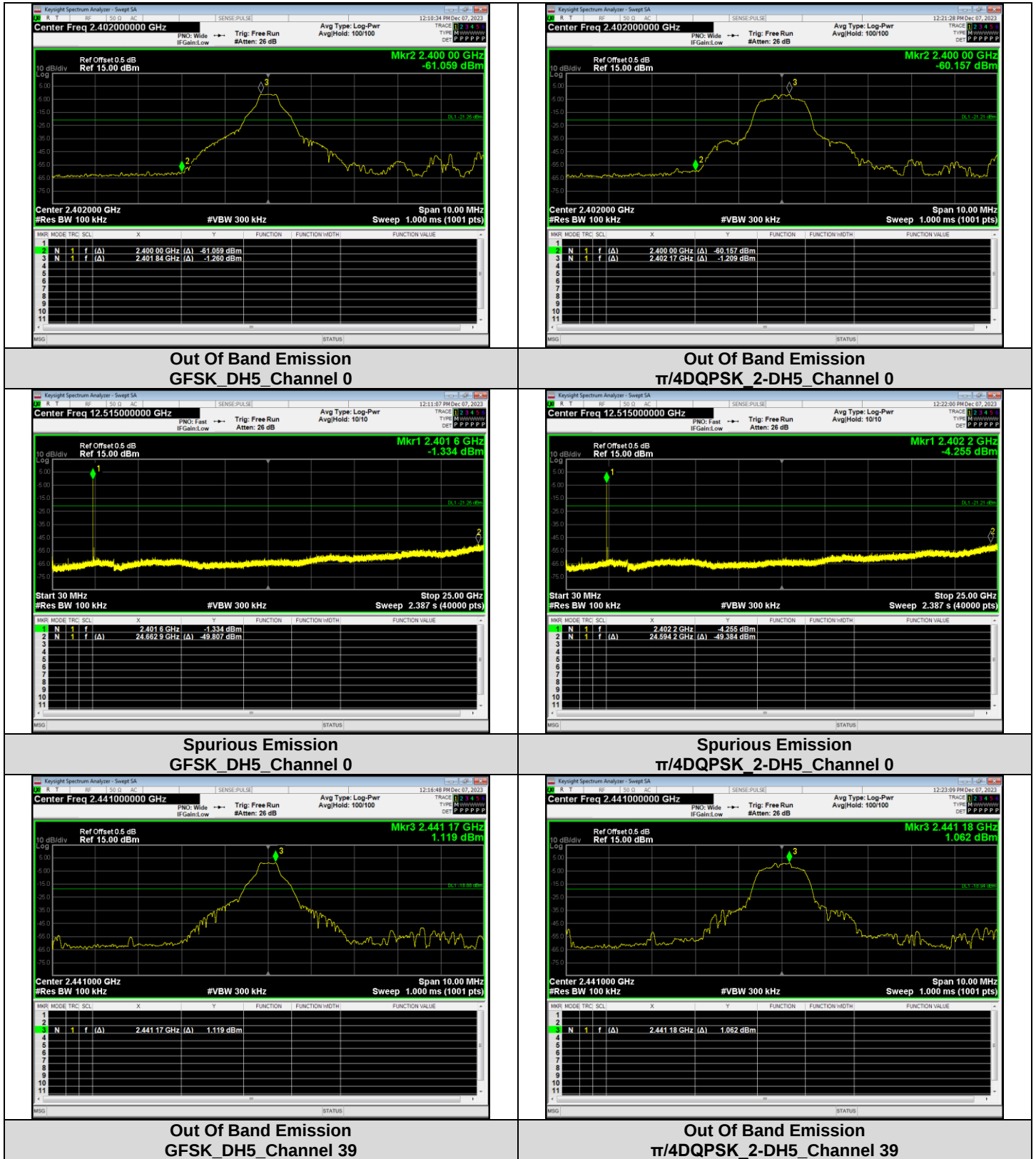
Modulation	Packet	Channel	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
GFSK	DH5	0	2400.00	-61.059	-21.26	-39.799	PASS
			24662.9	-49.807	-21.26	-28.547	PASS
		39	24946.3	-49.864	-18.88	-30.984	PASS
		78	2483.50	-61.940	-18.91	-43.030	PASS
			24898.9	-49.034	-18.91	-30.124	PASS
$\pi/4$ DQPSK	2-DH5	0	2400.00	-60.157	-21.21	-38.947	PASS
			24594.2	-49.384	-21.21	-28.174	PASS
		39	24470.6	-49.874	-18.94	-30.934	PASS
		78	2483.50	-61.559	-19.04	-42.519	PASS
			24590.5	-47.711	-19.04	-28.671	PASS
8DPSK	3-DH5	0	2400.00	-59.583	-21.02	-38.563	PASS
			24906.4	-49.254	-21.02	-28.234	PASS
		39	24853.9	-49.512	-19.02	-30.492	PASS
		78	2483.50	-62.577	-19.21	-43.367	PASS
			24968.8	-49.624	-19.21	-30.414	PASS

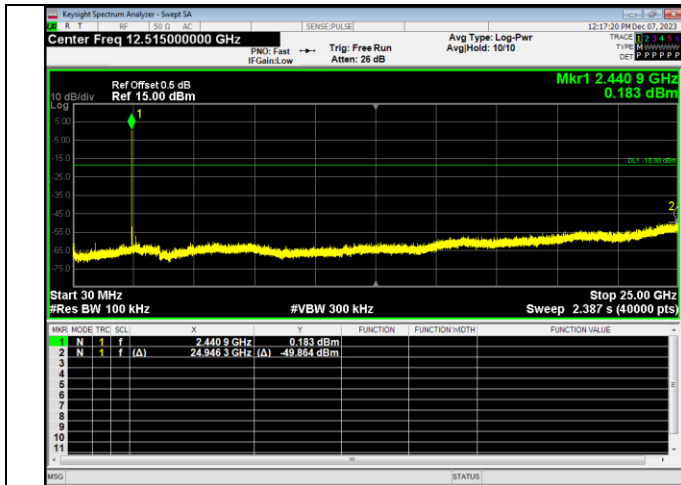
Hopping

Modulation	Packet	Channel	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
GFSK	DH5	Hopping	2396.44	-61.244	-20.7	-40.544	PASS
			2400.00	-61.721	-20.7	-41.021	PASS
			2483.50	-62.418	-19.04	-43.378	PASS
π/4DQPSK	2-DH5		2400.00	-61.078	-20.81	-40.268	PASS
			2483.50	-62.294	-19.15	-43.144	PASS
8DPSK	3-DH5		2400.00	-60.623	-20.79	-39.833	PASS
			2483.50	-62.618	-18.91	-43.708	PASS

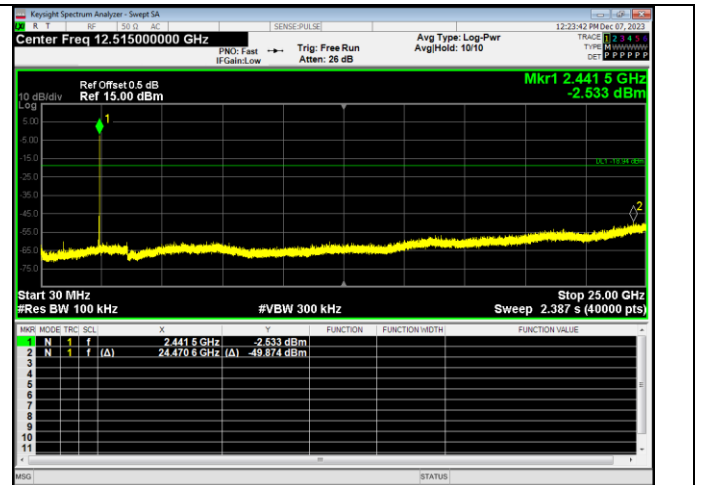


4.2 Test Graphs

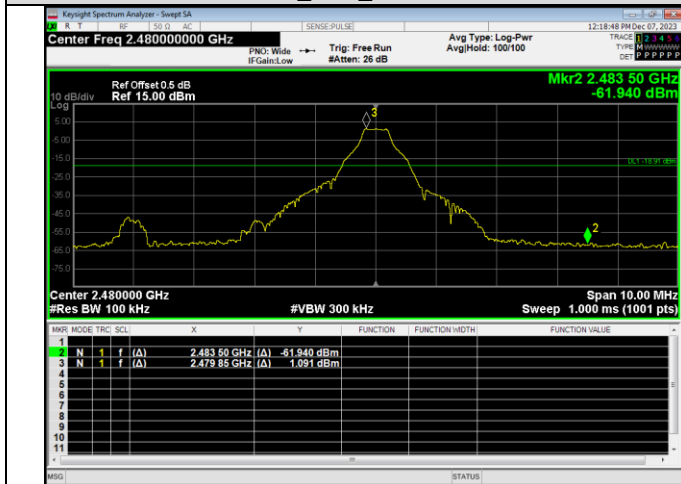




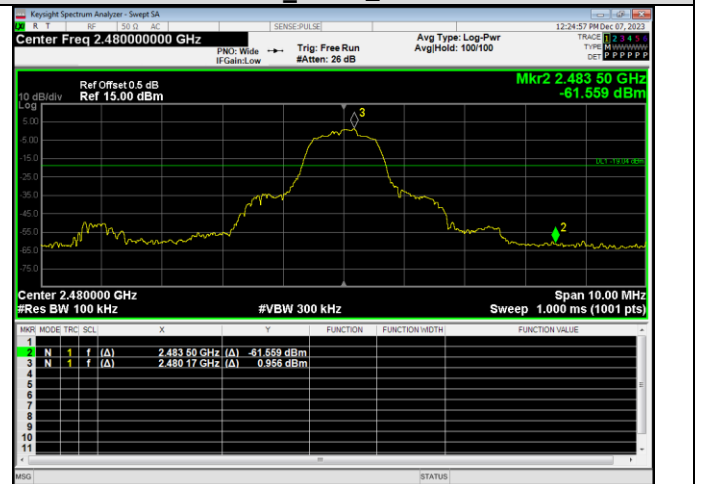
Spurious Emissions
GFSK_DH5_Channel 39



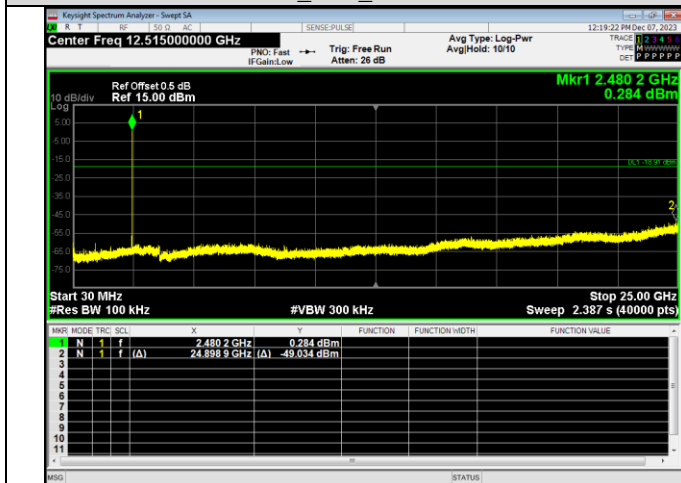
Spurious Emissions
 $\pi/4$ DQPSK_2-DH5_Channel 39



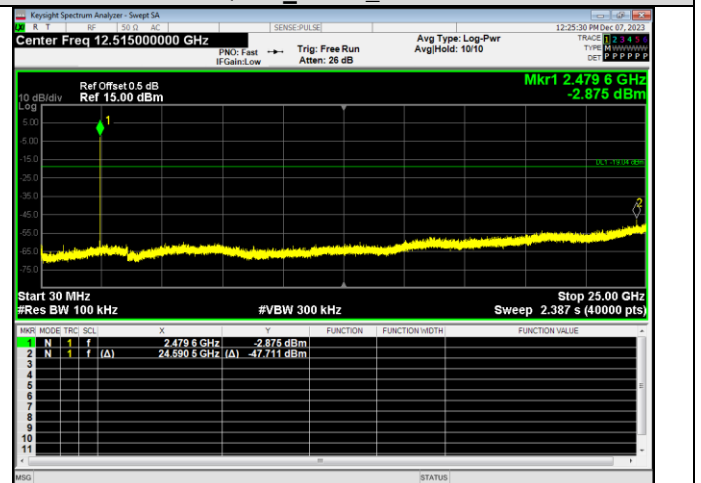
Out Of Band Emission
GFSK_DH5_Channel 78



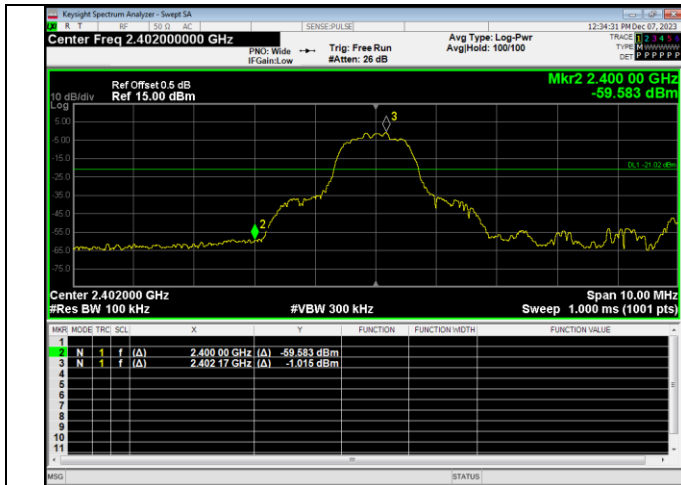
Out Of Band Emission
 $\pi/4$ DQPSK_2-DH5_Channel 78



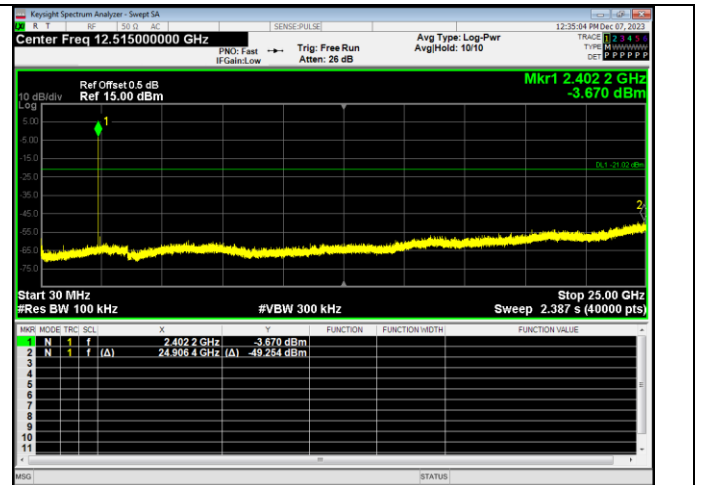
Spurious Emission
GFSK_DH5_Channel 78



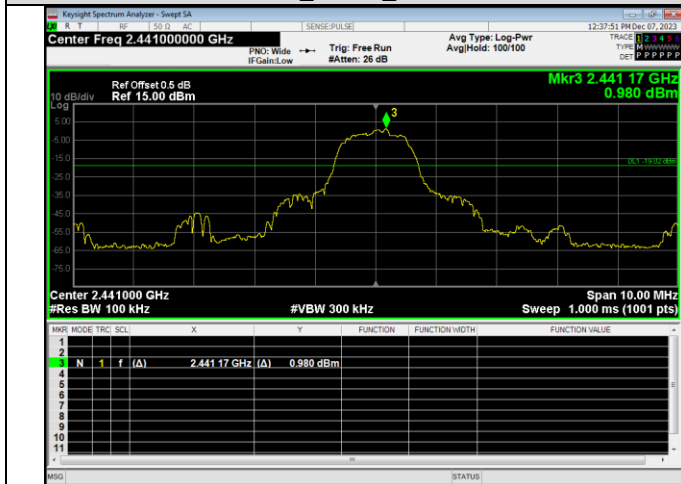
Spurious Emission
 $\pi/4$ DQPSK_2-DH5_Channel 78



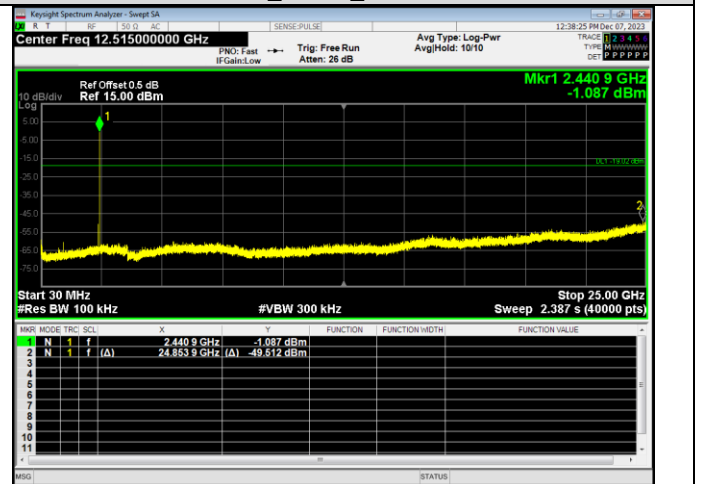
Out Of Band Emission
8DPSK_3-DH5_Channel 0



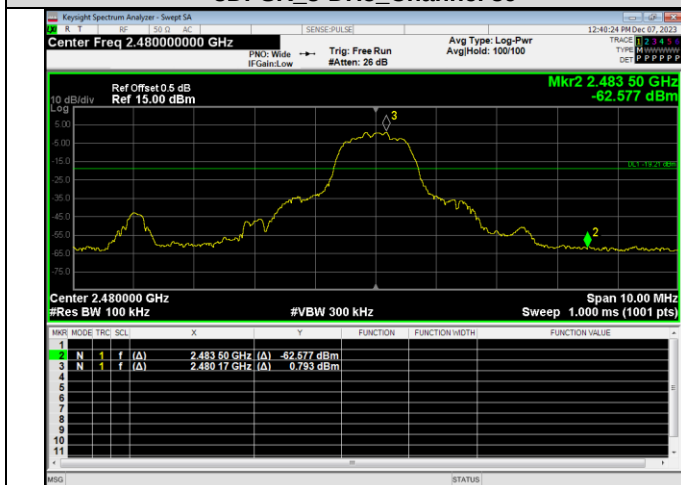
Spurious Emission
8DPSK_3-DH5_Channel 0



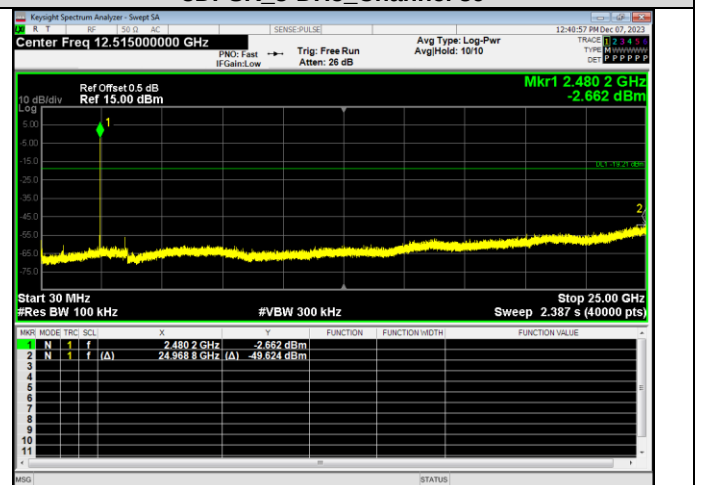
Out Of Band Emission
8DPSK_3-DH5_Channel 39



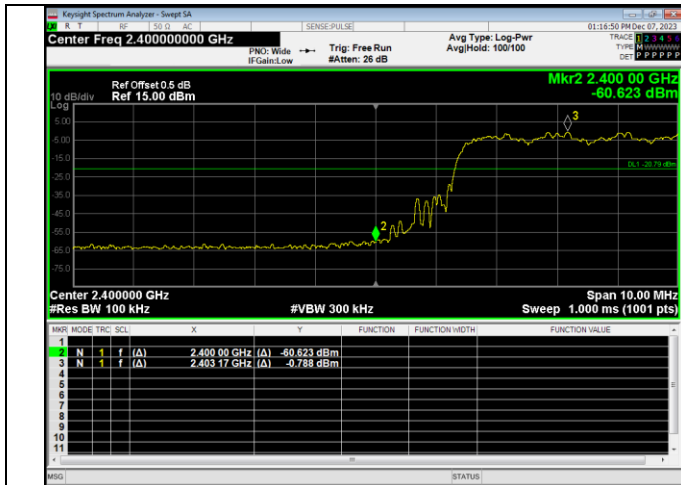
Spurious Emissions
8DPSK_3-DH5_Channel 39



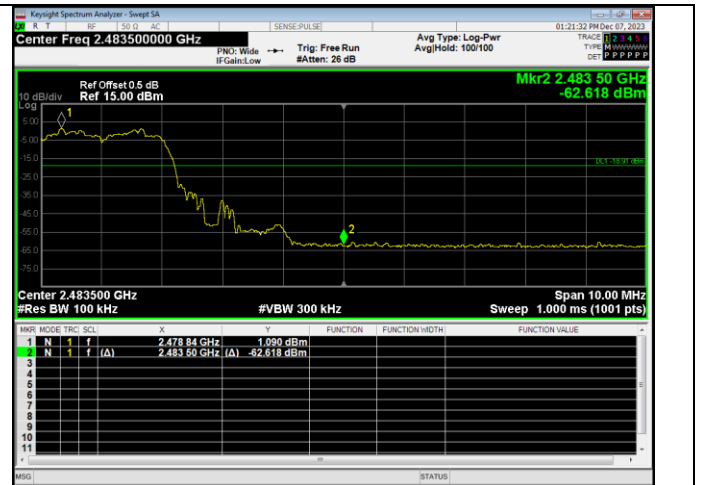
Out Of Band Emission
8DPSK_3-DH5_Channel 78



Spurious Emission
8DPSK_3-DH5_Channel 78



Out Of Band Emission(Left)
8DPSK_3-DH5_Channel Hopping



Out Of Band Emission(Right)
8DPSK_3-DH5_Channel Hopping

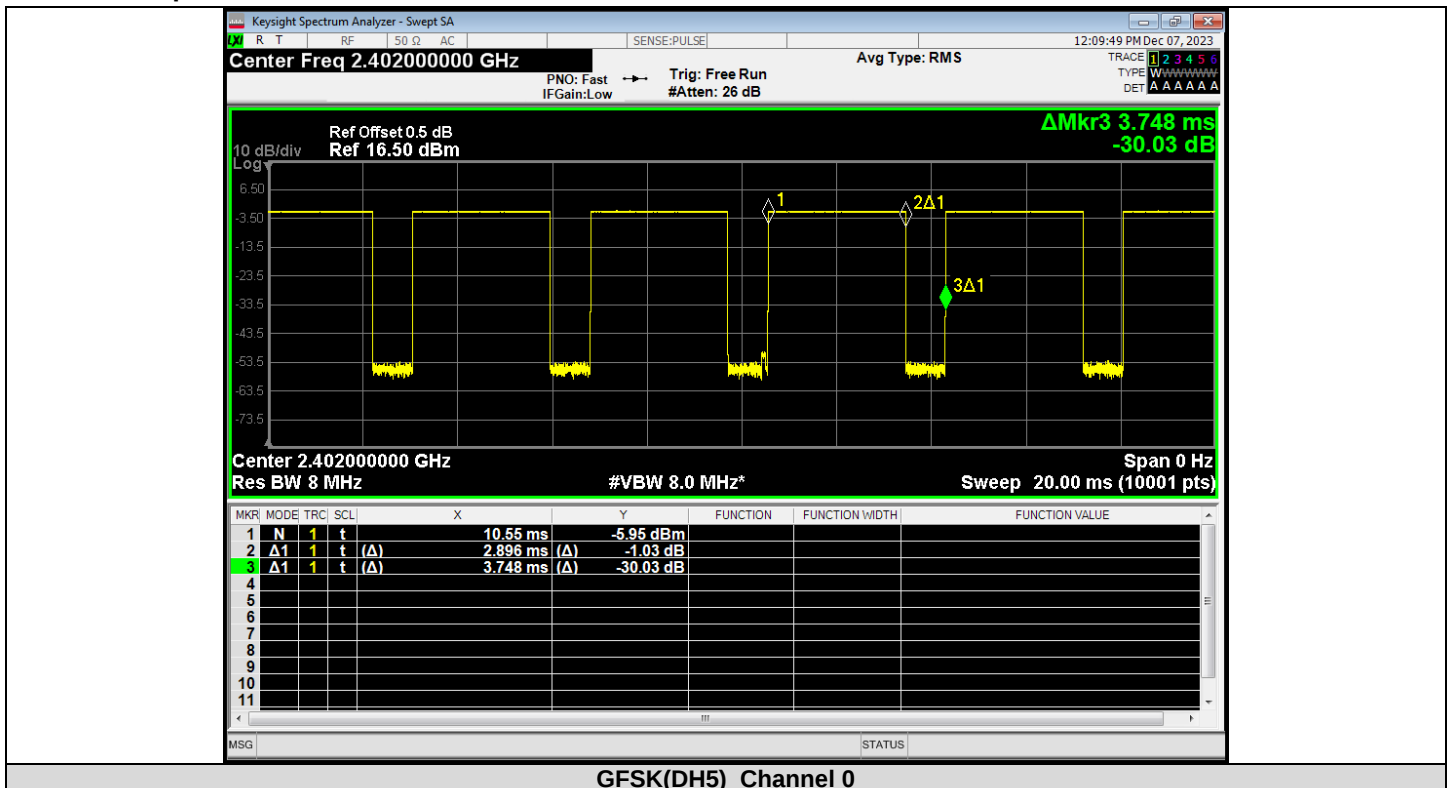


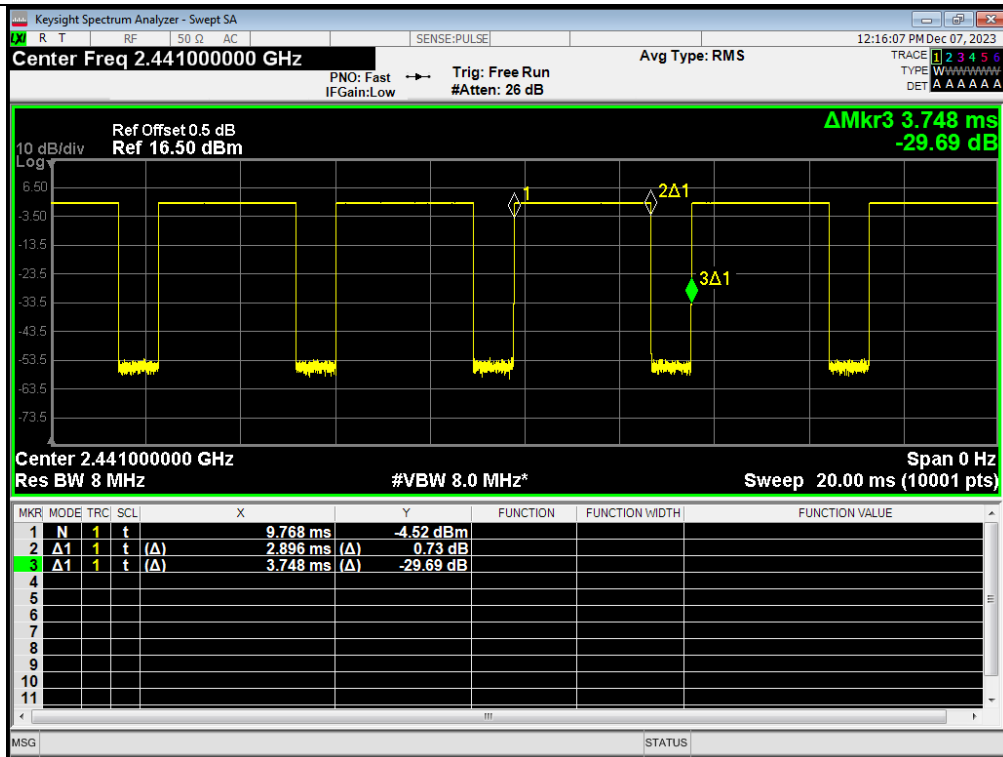
5. Duty Cycle

5.1 Test Result

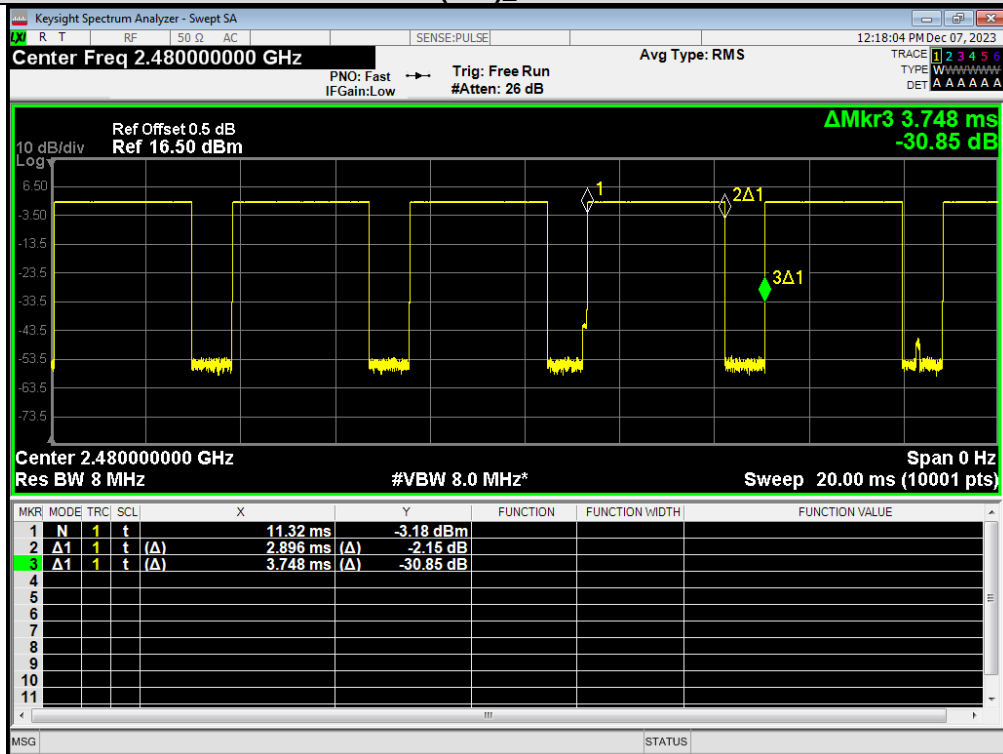
Modulation	Packets	Channel	On Time (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle (linear)	Duty Cycle Factor (dB)
GFSK	DH5	0	2.896	3.748	77.27	0.7727	1.1199
		39	2.896	3.748	77.27	0.7727	1.1199
		78	2.896	3.748	77.27	0.7727	1.1199
$\pi/4$ DQPSK	2-DH5	0	2.884	3.748	76.95	0.7695	1.1379
		39	2.882	3.748	76.89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

5.2 Test Graphs

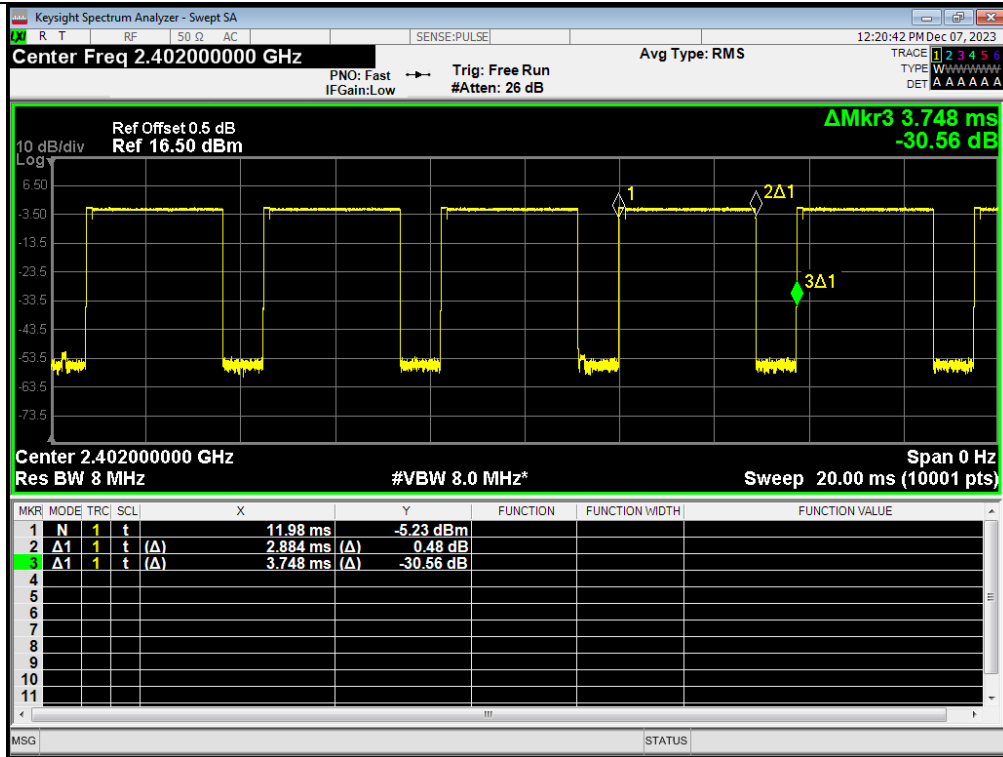




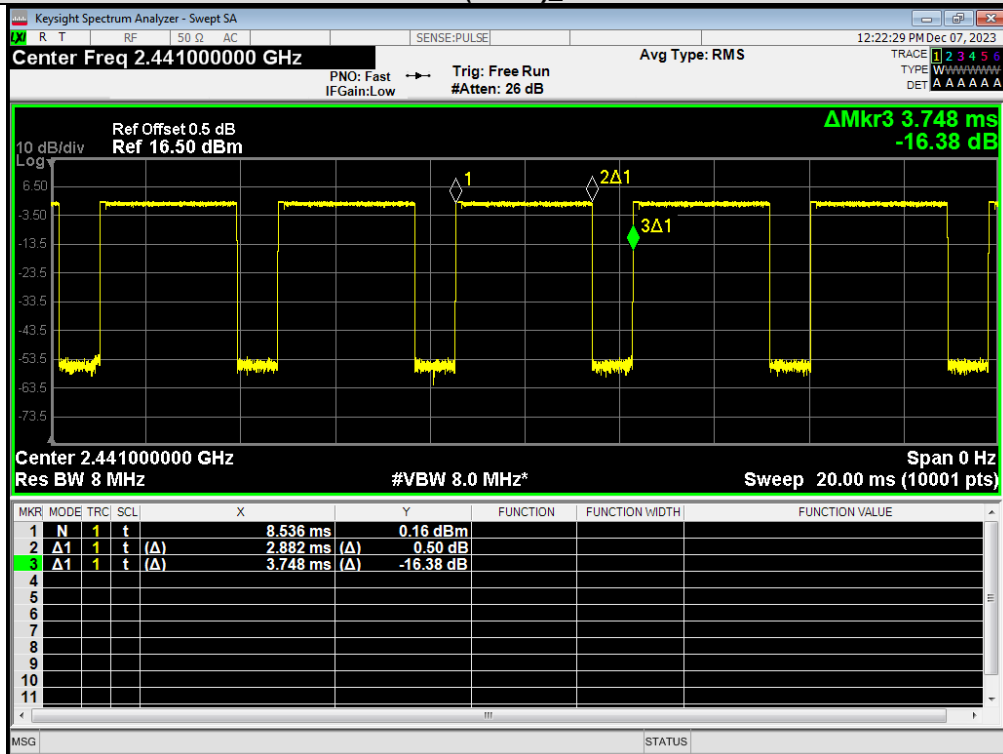
GFSK(DH5)_Channel 39



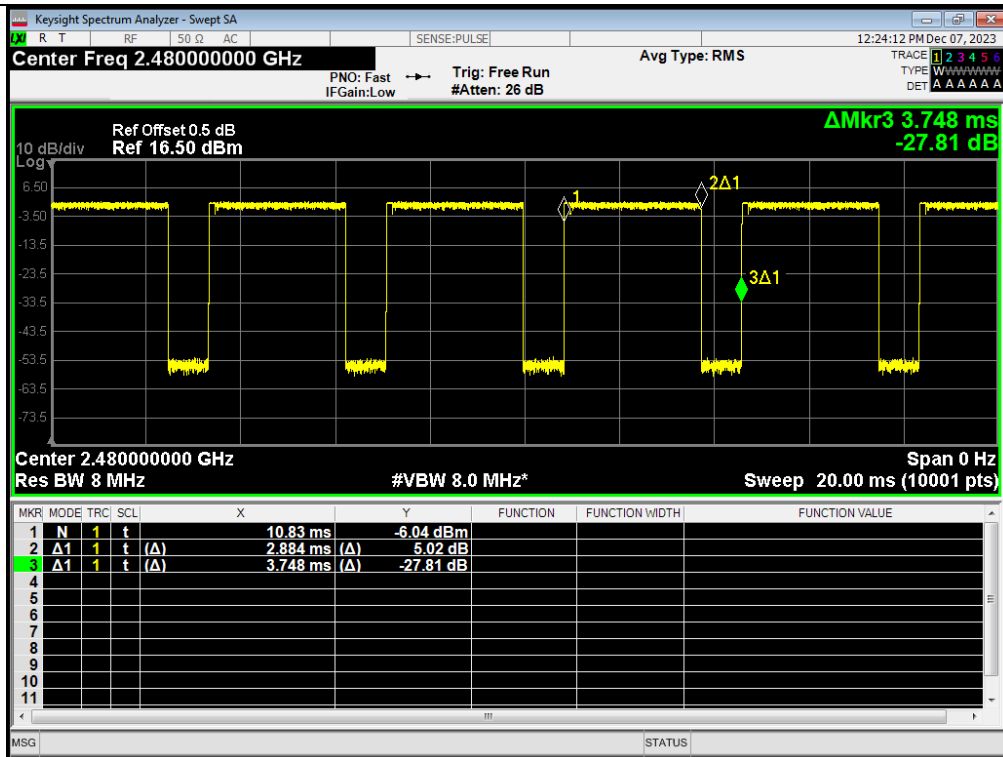
GFSK(DH5)_Channel 78



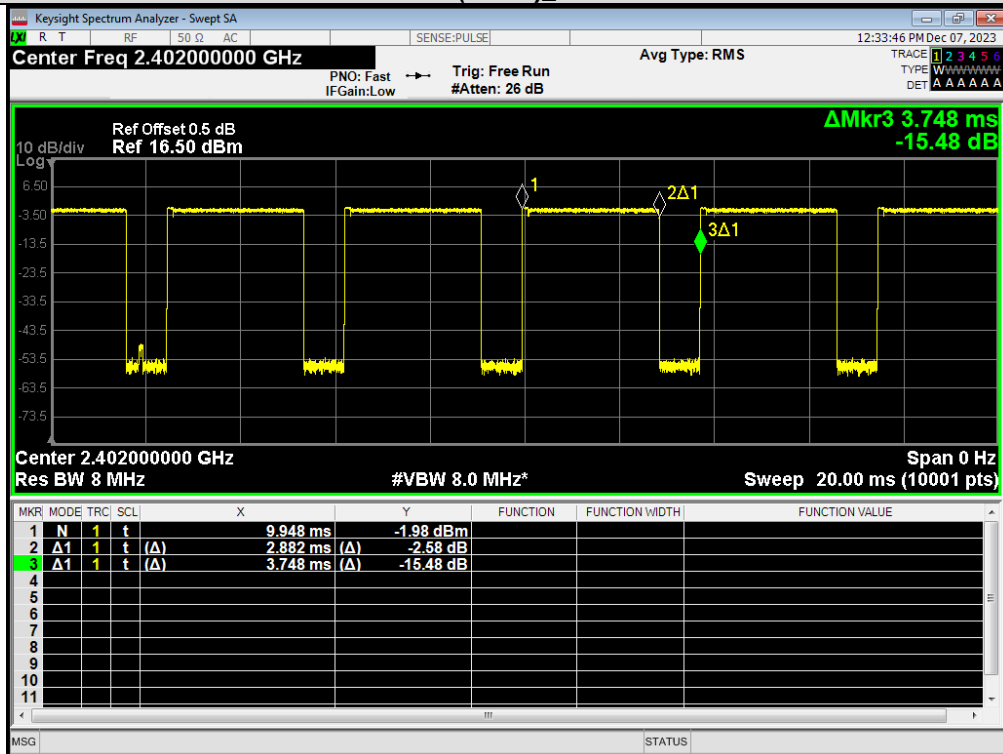
$\pi/4$ DQPSK(2-DH5)_Channel 0



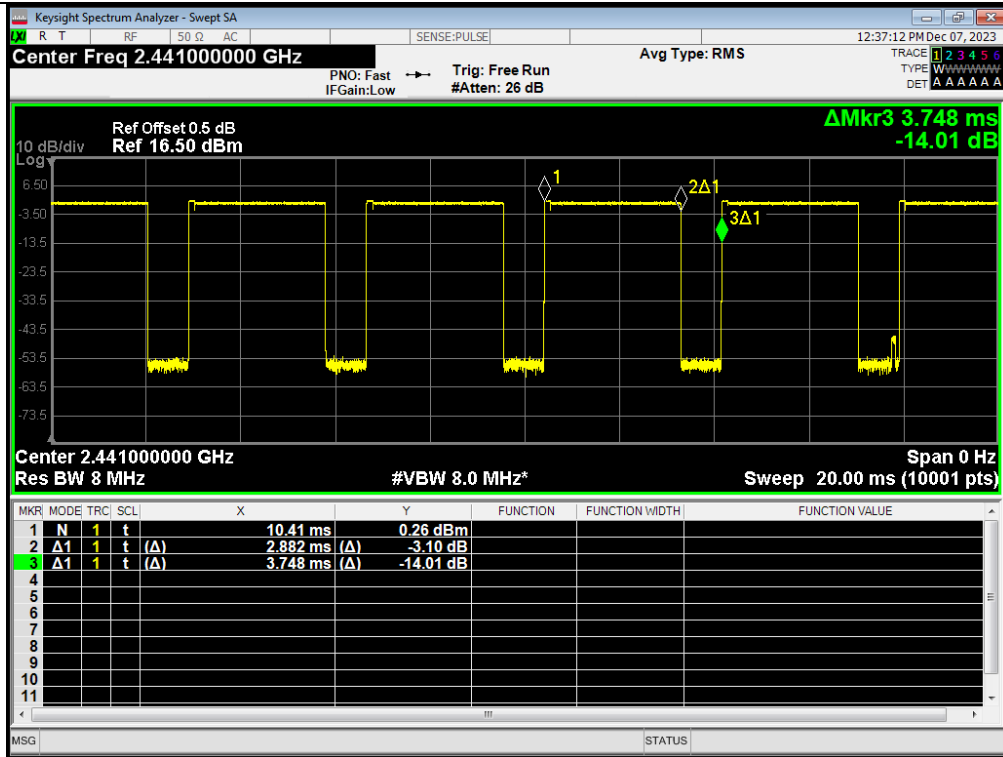
$\pi/4$ DQPSK(2-DH5)_Channel 39



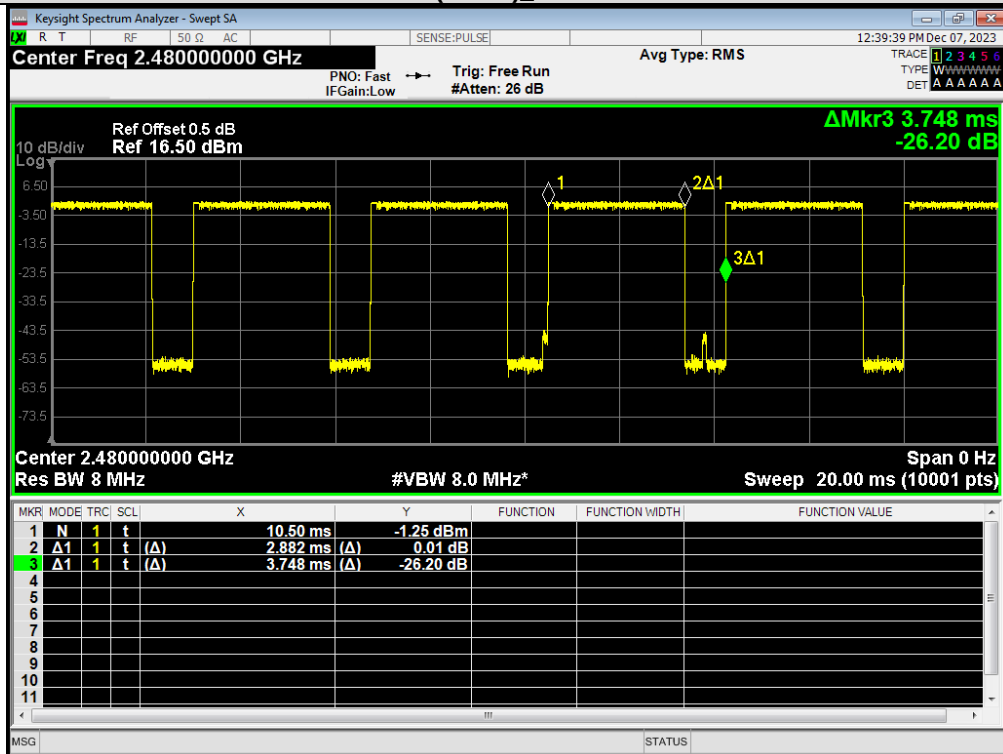
$\pi/4$ DQPSK(2-DH5)_Channel 78



8DPSK(3-DH5)_Channel 0



8DPSK(3-DH5)_Channel 39



8DPSK(3-DH5)_Channel 78

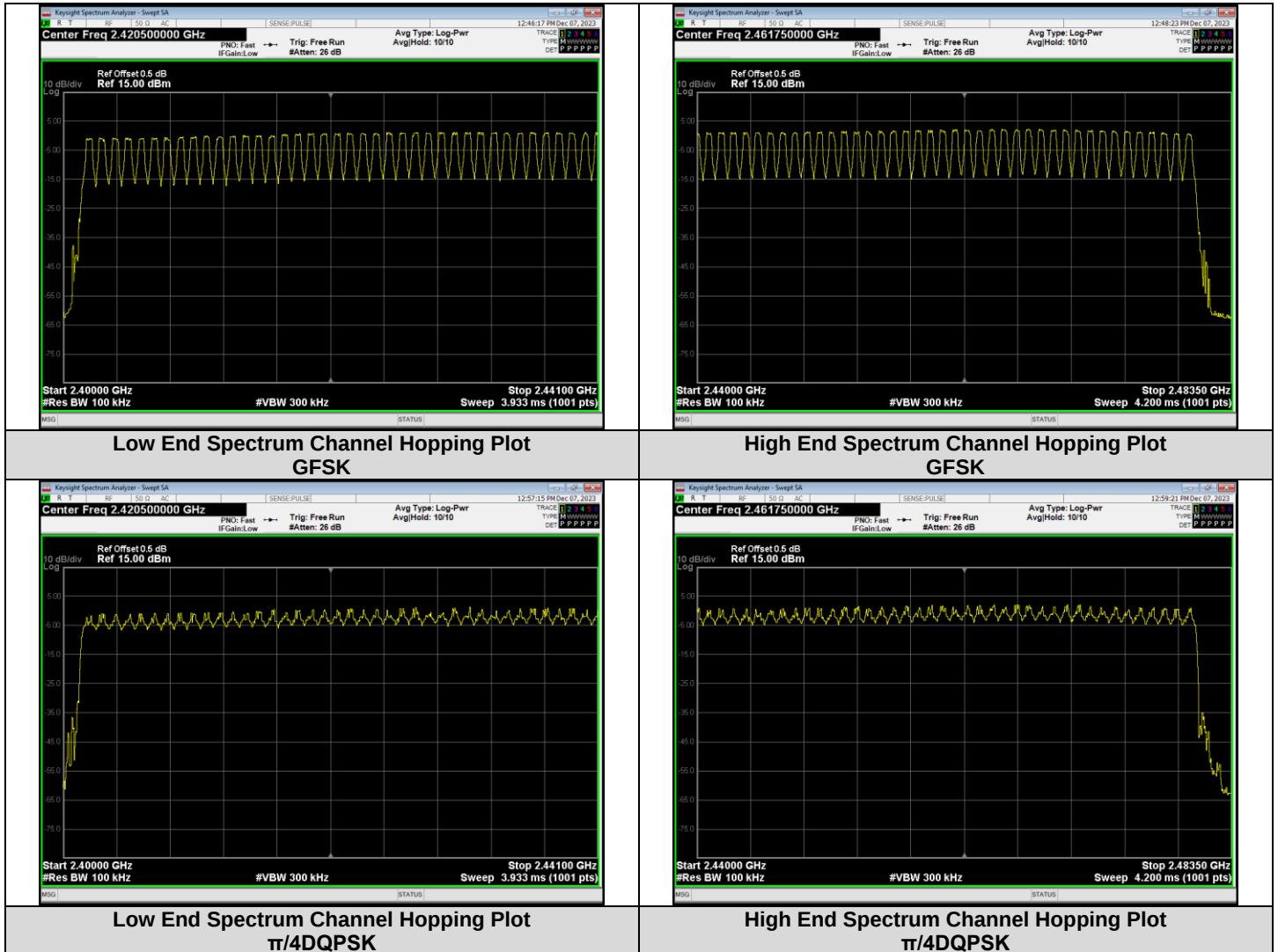


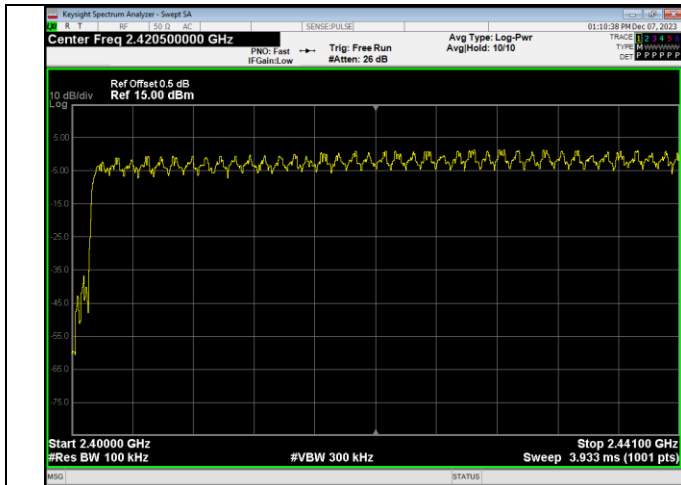
6. Number Of Hopping Channel

6.1 Test Result

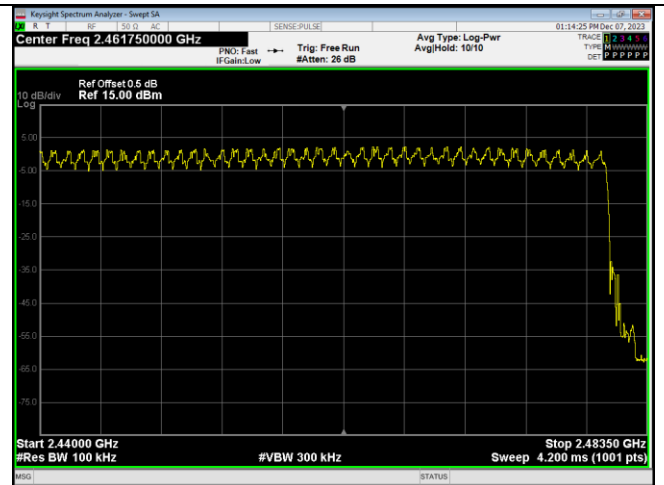
Modulation	Packet	Number of Hopping Channel	Limit	Result
GFSK	DH5	79	15	PASS
$\pi/4$ DQPSK	2-DH5	79	15	PASS
8DPSK	3-DH5	79	15	PASS

6.2 Test Graphs





Low End Spectrum Channel Hopping Plot
8DPSK



High End Spectrum Channel Hopping Plot
8DPSK

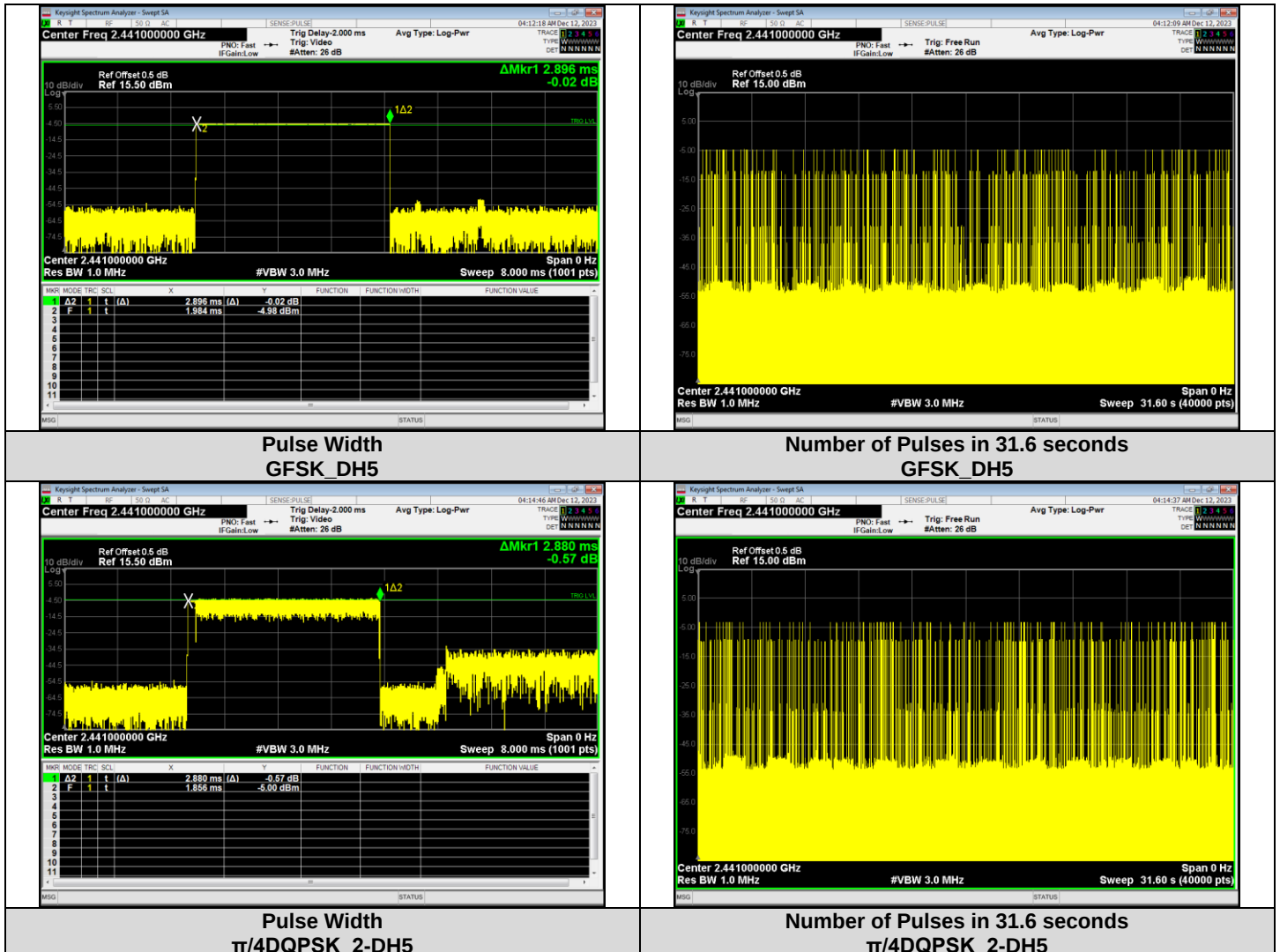


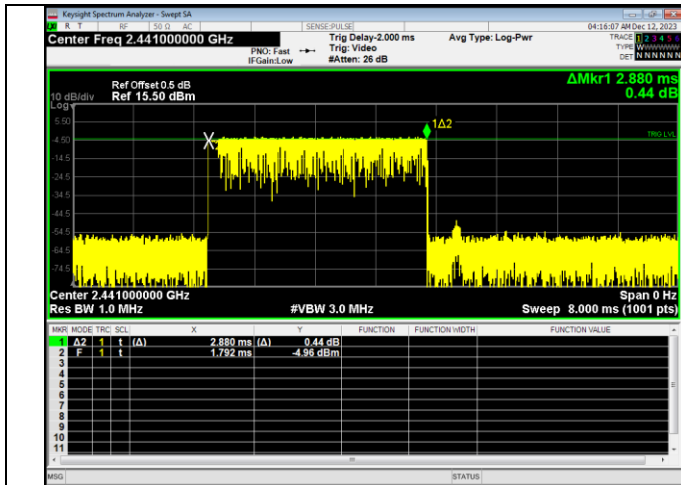
7. Dwell Time

7.1 Test Result

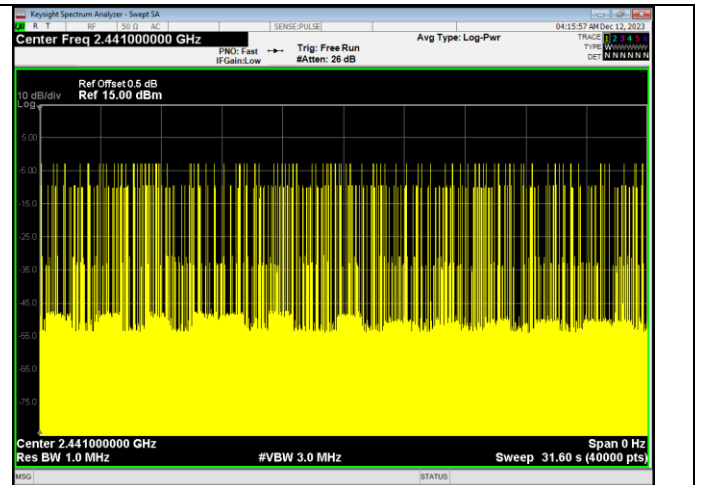
Modulation	Packet	Channel	Pulse Width (ms)	Number of Pulses in 31.6 seconds	Dwell Time (ms)	Limit (ms)	Result
GFSK	DH5	CH39 (2441MHz)	2.896	107	309.87	< 400	PASS
$\pi/4$ DQPSK	2-DH5		2.880	122	351.36		PASS
8DPSK	3-DH5		2.880	113	325.44		PASS

7.2 Test Graphs





Pulse Width
8DPSK_3-DH5



Number of Pulses in 31.6 seconds
8DPSK_3-DH5

---The End---