

RF Conducted Test - appendix III Bluetooth_(Class Bluetooth)_Test data.

E.U.T:	USB decoder
Model Number:	iDSD GR 2
Sample ID	33000275288
Sample(s) Status:	Engineer sample
Date of Receipt:	2026.06.10
Date of Test:	2026.06.10 ~ 2026.07.01
FCC ID:	2A5QJ-IDSDGR2
Report No.	2026070117860895-00
Tester	Hugh Zhang

A.1 DUTY CYCLE

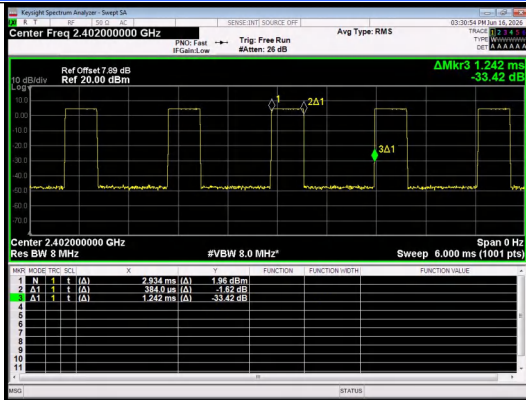
Test Result

Modulation	Packets	Channel	On Time (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle (linear)	Duty Cycle Factor (dB)	1/T
GFSK	DH1	0	0.382	1.250	30.56	0.3056	5.1485	2.6178
		39	0.382	1.249	30.58	0.3058	5.1456	2.6178
		78	0.382	1.250	30.56	0.3056	5.1485	2.6178
π /4DQPSK	2-DH1	0	0.384	1.248	30.77	0.3077	5.1187	2.6042
		39	0.384	1.242	30.92	0.3092	5.0976	2.6042
		78	0.384	1.242	30.92	0.3092	5.0976	2.6042
8DPSK	3-DH1	0	0.384	1.242	30.92	0.3092	5.0976	2.6042
		39	0.378	1.242	30.43	0.3043	5.167	2.6455
		78	0.384	1.242	30.92	0.3092	5.0976	2.6042

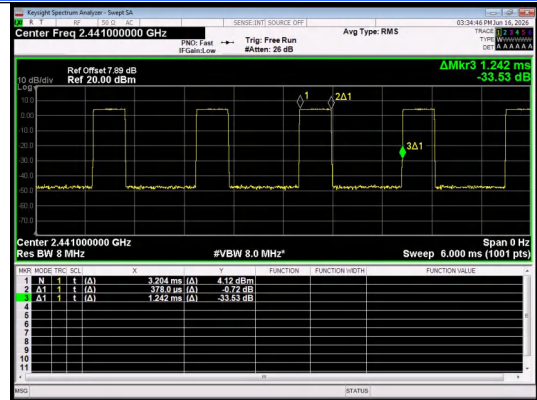
Note: input compensation coefficient (dB)= Cable Loss (dB)

Test Graphs

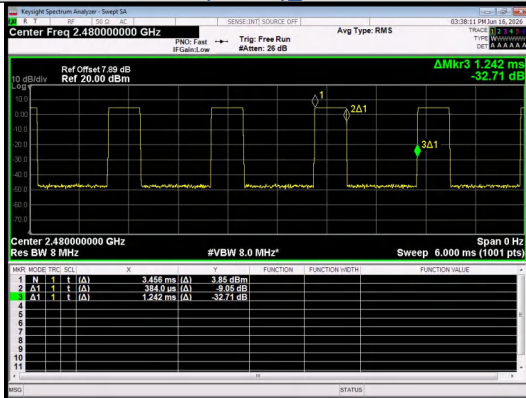




8DPSK(3-DH1)_Channel 0



8DPSK(3-DH1)_Channel 39



8DPSK(3-DH1)_Channel 78

A.2 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	2.880	102	293.76	< 400	PASS
	DH5		2.880	90	259.2		PASS
	DH5		2.896	109	315.66		PASS
π/4DQPSK	2-DH5		2.880	107	308.16		PASS
	2-DH5		2.880	98	282.24		PASS
	2-DH5		2.880	95	273.6		PASS
8DPSK	3-DH5		0.0480	123	5.9		PASS
	3-DH5		0.0800	104	8.32		PASS
	3-DH5		0.0960	105	10.08		PASS

Note: Dwell time= Pulse time(ms)*Number of Pulses in 31.6 seconds

Note: input compensation coefficient (dB)= Cable Loss (dB)

Test Graphs



Pulse Width
GFSK_DH5



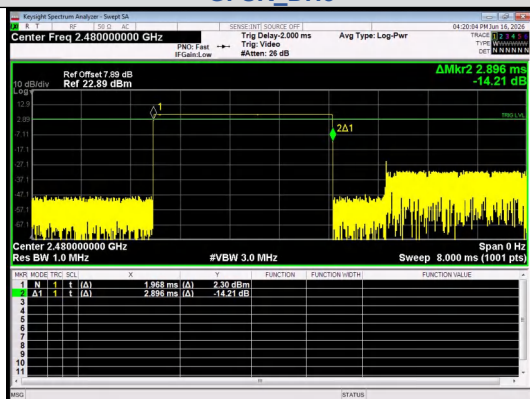
Number of Pulses in 31.6 seconds
GFSK_DH5



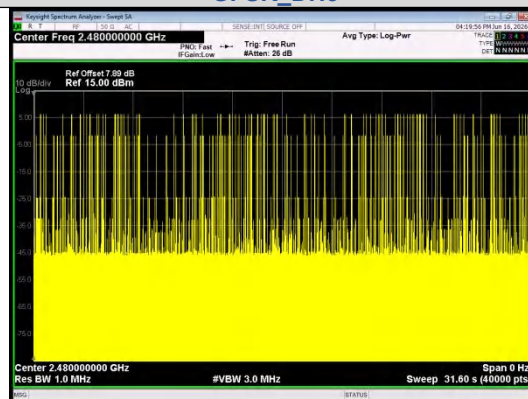
Pulse Width
GFSK_DH5



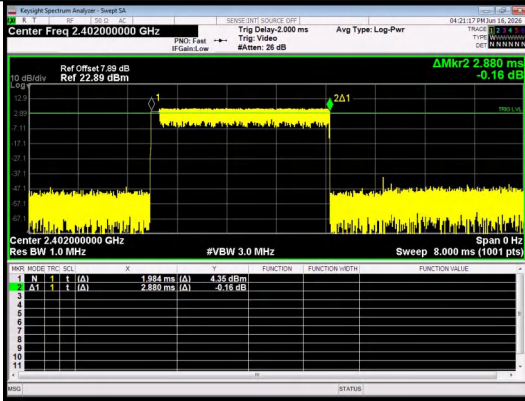
Number of Pulses in 31.6 seconds
GFSK_DH5



Pulse Width
GFSK_DH5



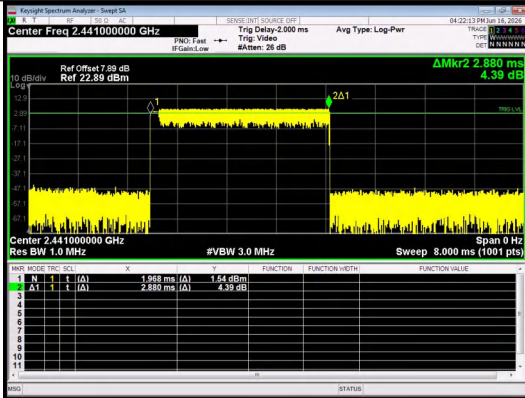
Number of Pulses in 31.6 seconds
GFSK_DH5



Pulse Width
 $\pi/4$ DQPSK_2-DH5



Number of Pulses in 31.6 seconds
 $\pi/4$ DQPSK_2-DH5



Pulse Width
 $\pi/4$ DQPSK_2-DH5



Number of Pulses in 31.6 seconds
 $\pi/4$ DQPSK_2-DH5



Pulse Width
 $\pi/4$ DQPSK_2-DH5



Number of Pulses in 31.6 seconds
 $\pi/4$ DQPSK_2-DH5



Pulse Width
8DPSK_3-DH5



Number of Pulses in 31.6 seconds
8DPSK_3-DH5



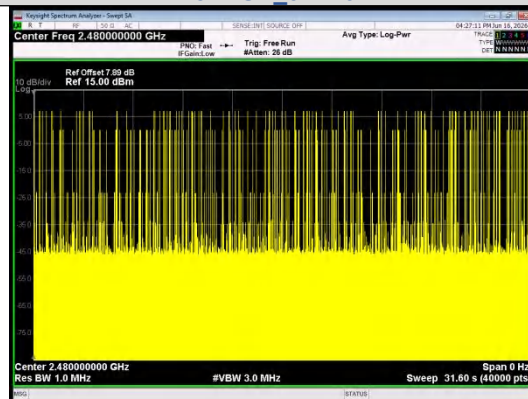
**Pulse Width
8DPSK_3-DH5**



**Number of Pulses in 31.6 seconds
8DPSK_3-DH5**



**Pulse Width
8DPSK_3-DH5**



**Number of Pulses in 31.6 seconds
8DPSK_3-DH5**

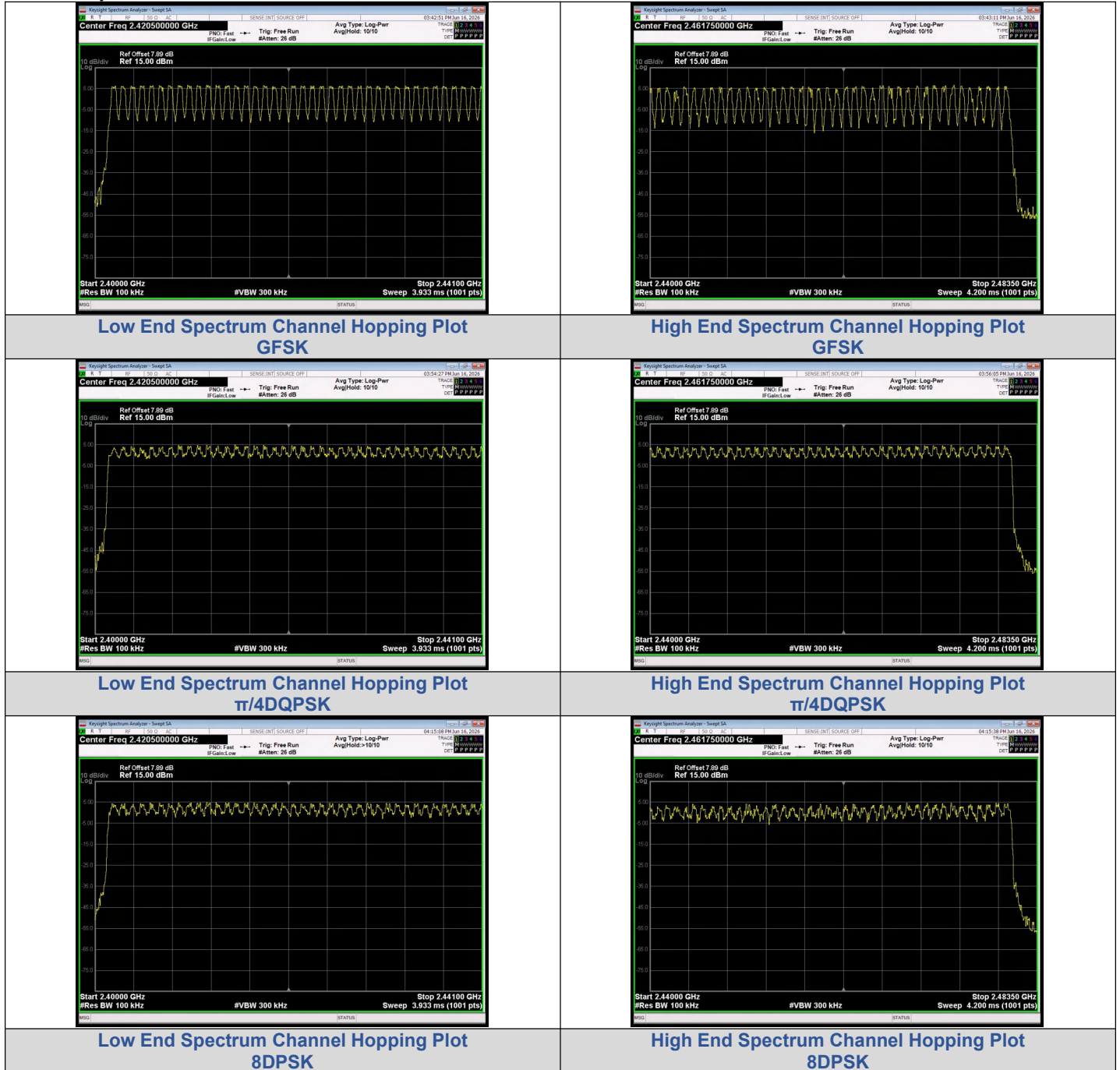
A.3 NUMBER OF HOPPING CHANNEL

Test Result

Modulation	Packet	Number of Hopping Channel	Limit	Result
GFSK	DH1	79	15	PASS
$\pi/4$ DQPSK	2-DH1	79	15	PASS
8DPSK	3-DH1	79	15	PASS

Note: input compensation coefficient (dB)= Cable Loss (dB)

Test Graphs



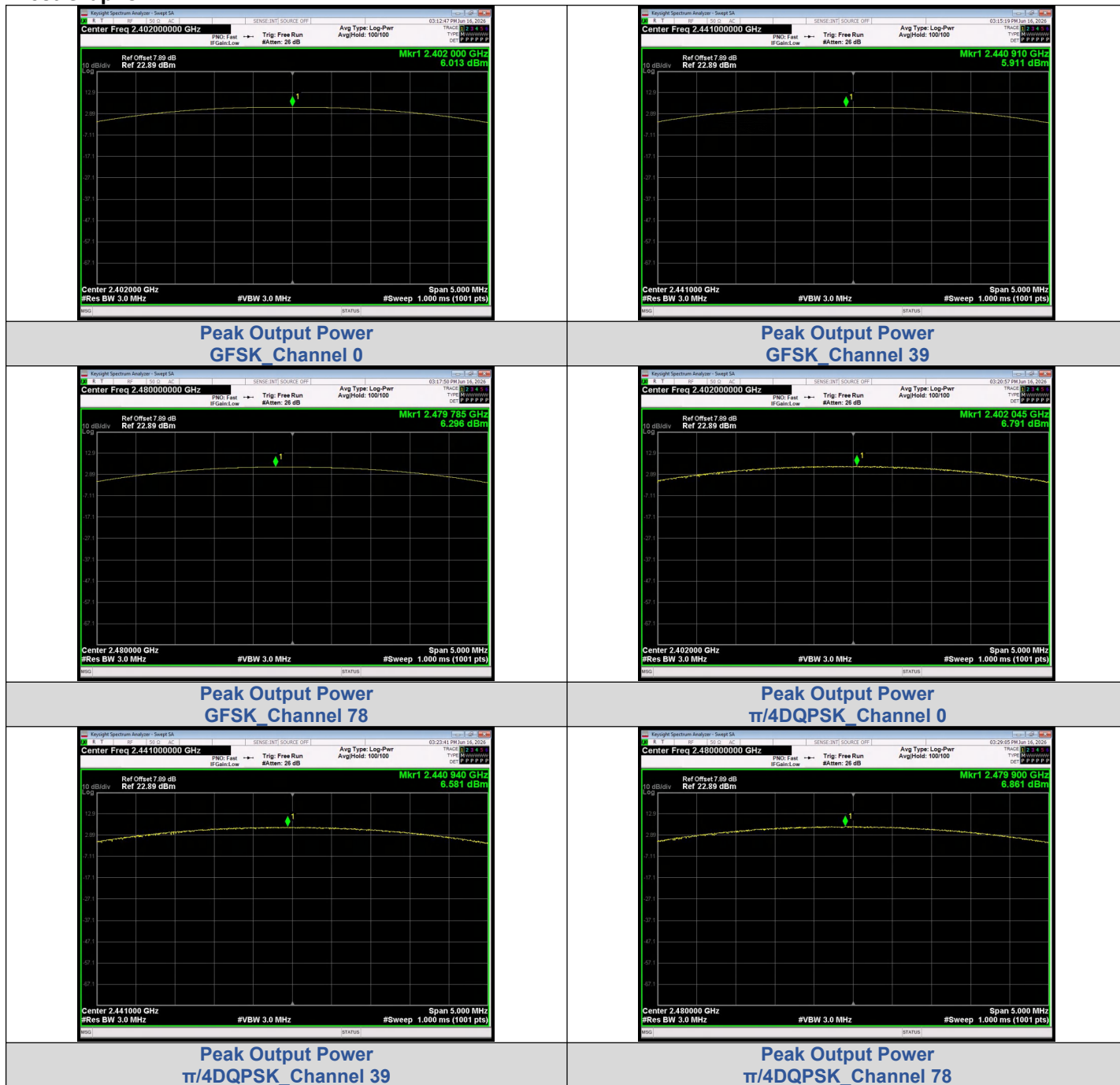
A.4 CONDUCTED PEAK OUTPUT POWER

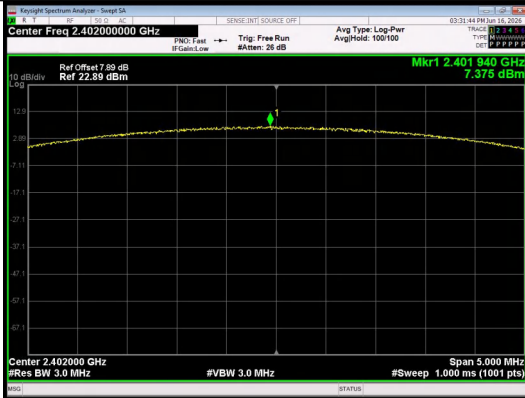
Test Result

Modulation	Packet Type	Channel	Peak Output Power (dBm)	Peak Output Power (mW)	Max. Avg. Power (dBm)	Limit	Result
GFSK	DH1	0	6.01	3.99	None	0.125w	PASS
		39	5.91	3.90	None		PASS
		78	6.30	4.26	None		PASS
$\pi/4$ DQPSK	2-DH1	0	6.79	4.78	None		PASS
		39	6.58	4.55	None		PASS
		78	6.86	4.85	None		PASS
8DPSK	3-DH1	0	7.38	5.46	None		PASS
		39	7.17	5.21	None		PASS
		78	7.46	5.57	None		PASS

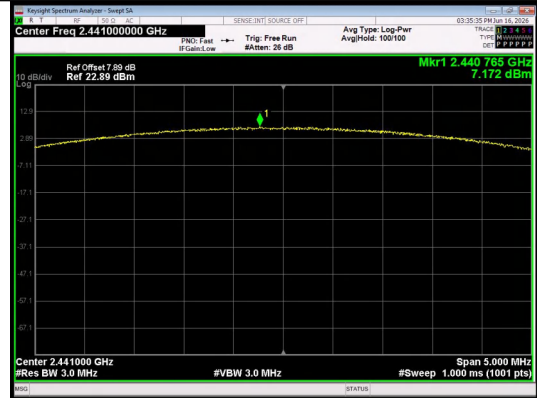
Note: input compensation coefficient (dB)= Cable Loss (dB)

Test Graphs

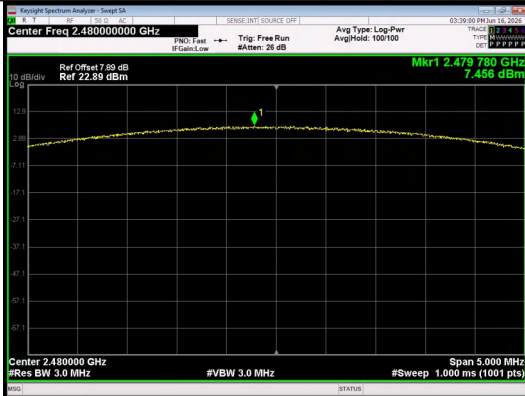




**Peak Output Power
8DPSK_Channel 0**



**Peak Output Power
8DPSK_Channel 39**



**Peak Output Power
8DPSK_Channel 78**

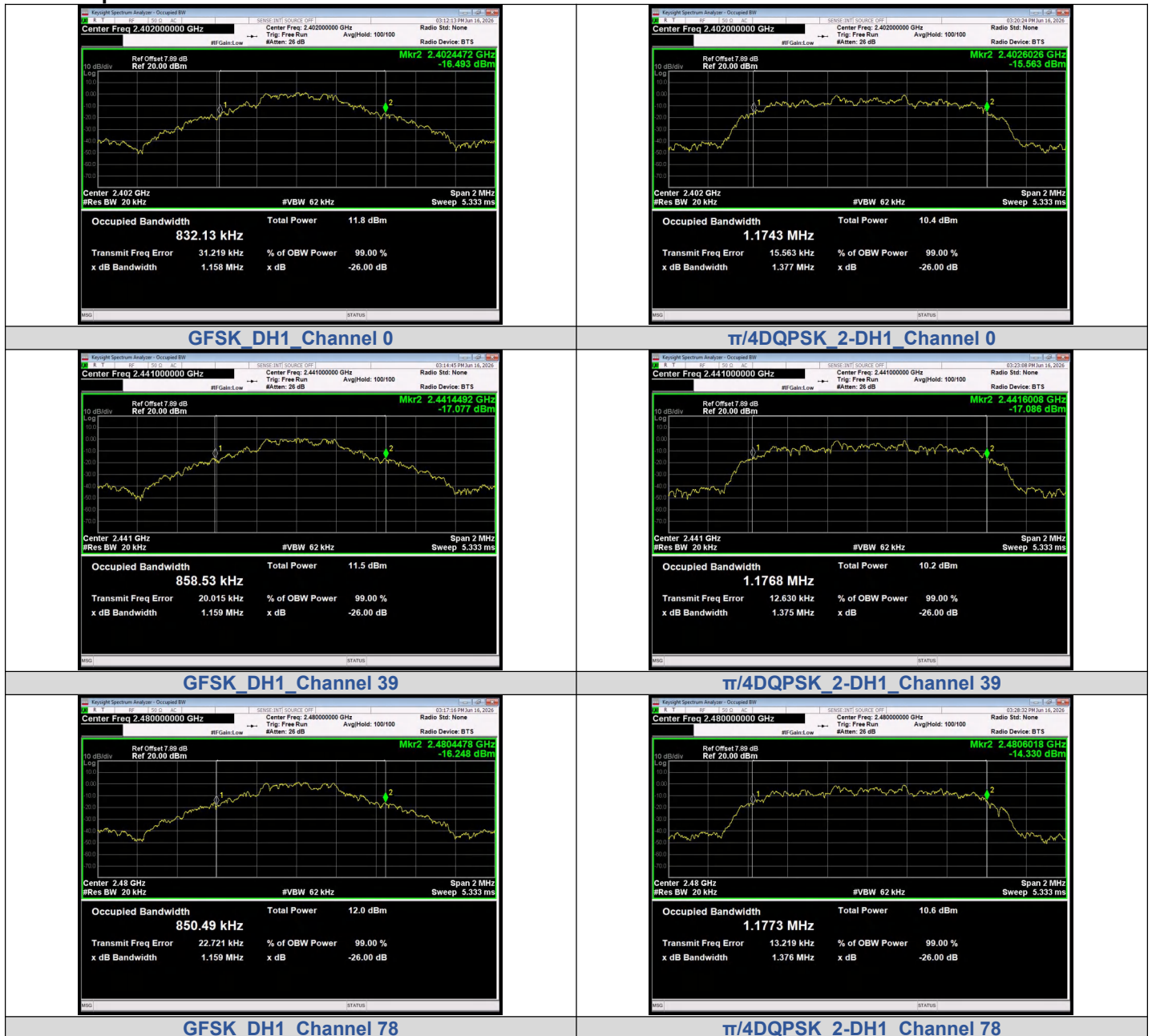
A.5 99% BANDWIDTH

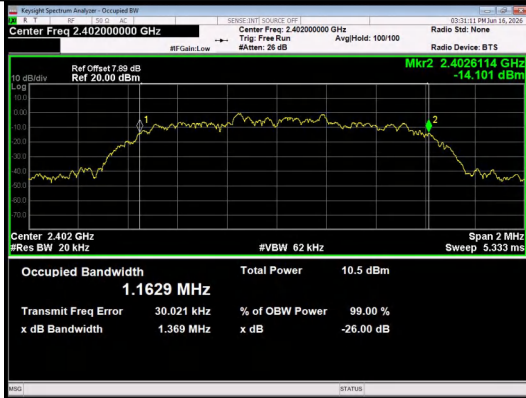
Test Result

Modulation	Channel	Center Frequency (MHz)	99% BW (MHz)
GFSK	0	2402	0.83213
	39	2441	0.85853
	78	2480	0.85049
π /4DQPSK	0	2402	1.1743
	39	2441	1.1768
	78	2480	1.1773
8DPSK	0	2402	1.1629
	39	2441	1.1653
	78	2480	1.1624

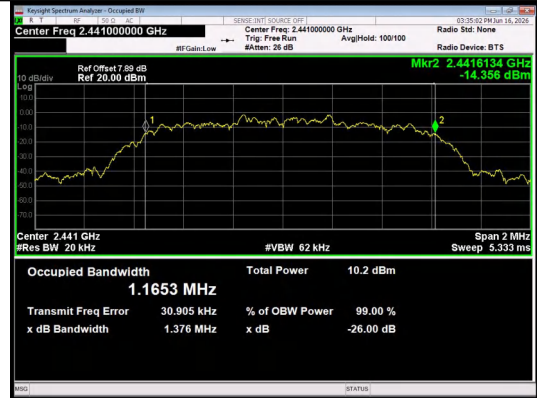
Note: input compensation coefficient (dB)= Cable Loss (dB)

Test Graphs

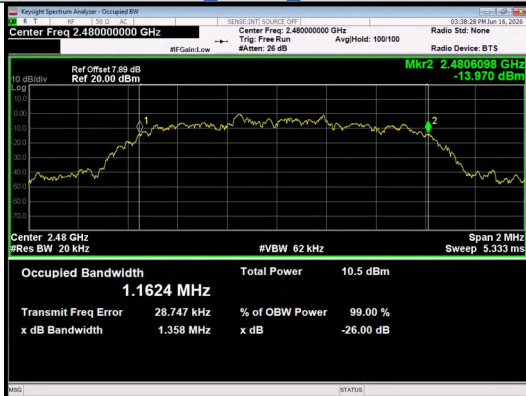




8DPSK_3-DH1_Channel 0



8DPSK_3-DH1_Channel 39



8DPSK_3-DH1_Channel 78

A.6 20DB BANDWIDTH

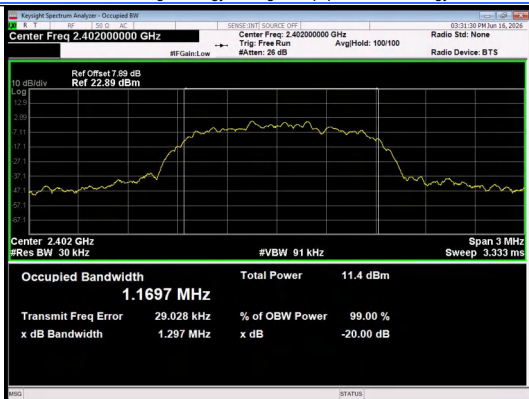
Test Result

Modulation	Channel	Center Frequency (MHz)	20 dB Bandwidth (MHz)
GFSK	0	2402 MHz	0.9529
	39	2441 MHz	0.9445
	78	2480 MHz	0.9505
π /4DQPSK	0	2402 MHz	1.346
	39	2441 MHz	1.343
	78	2480 MHz	1.342
8DPSK	0	2402 MHz	1.297
	39	2441 MHz	1.302
	78	2480 MHz	1.305

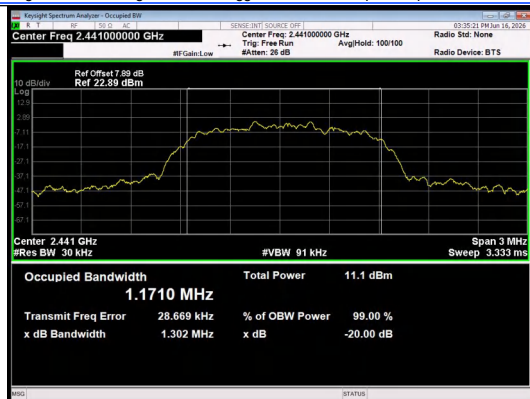
Note: input compensation coefficient (dB)= Cable Loss (dB)

Test Graphs

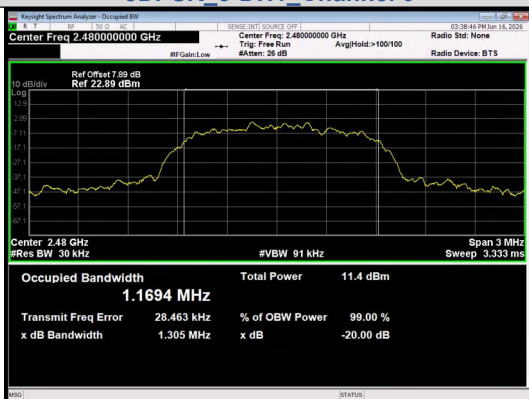




8DPSK_3-DH1_Channel 0



8DPSK_3-DH1_Channel 39



8DPSK_3-DH1_Channel 78

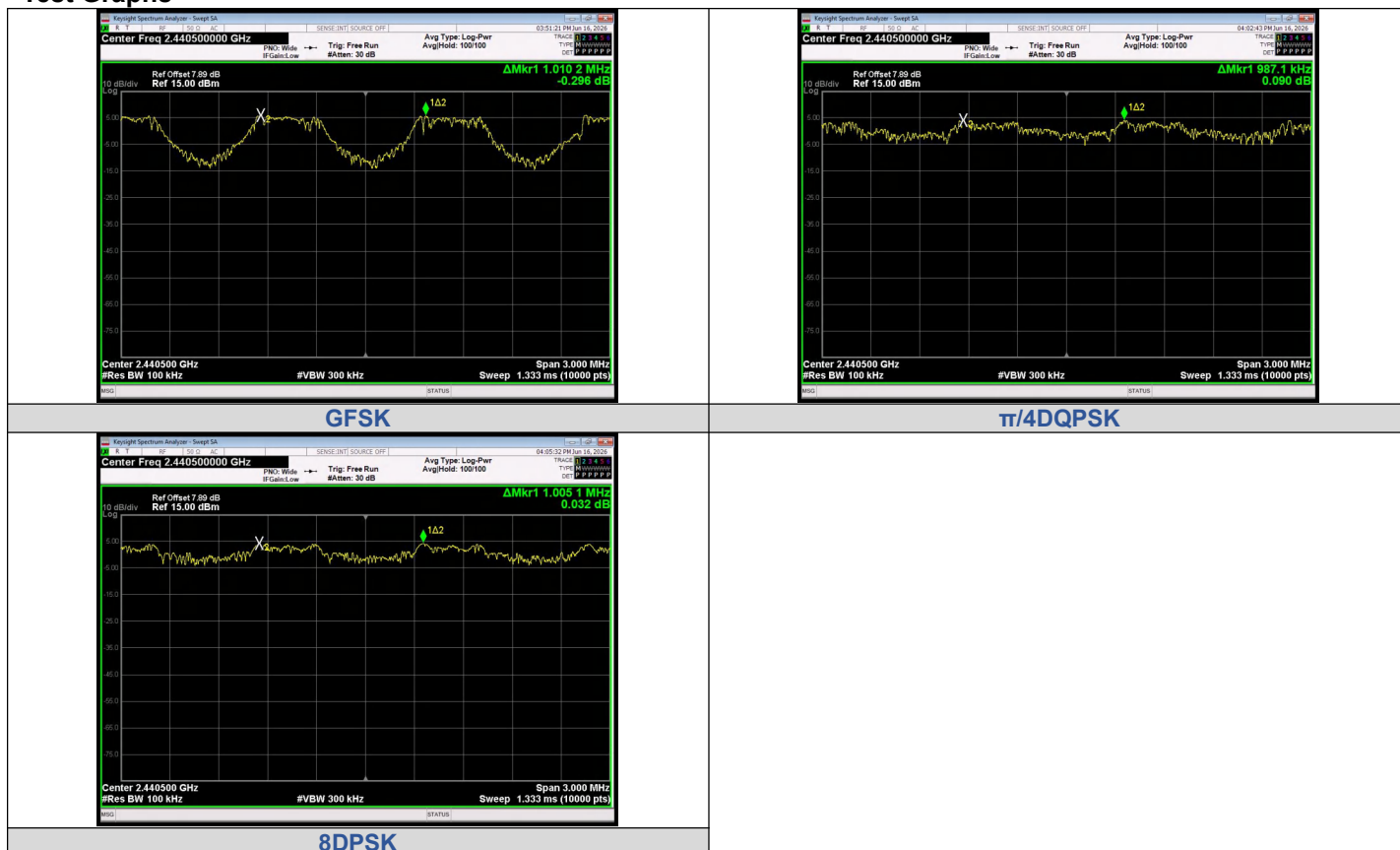
A.7 CARRIER FREQUENCIES SEPARATION

Test Result

Modulation	Packet	Left Center frequency (MHz)	Right Center frequency (MHz)	Hopping Frequency Separation (MHz)	Minimum Limit (MHz)	Result
GFSK	DH1	2439.8581	2440.8683	1.0102	0.635	PASS
$\pi/4$ DQPSK	2-DH1	2439.8662	2440.8533	0.9871	0.897	PASS
8DPSK	3-DH1	2439.8494	2440.8545	1.0051	0.87	PASS

Note: input compensation coefficient (dB)= Cable Loss (dB)

Test Graphs



A.8 CONDUCTED SPURIOUS & BAND EDGE EMISSION

Test Result

Non-Hopping

Modulation	Packet	Channel	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
GFSK	DH1	0	2400.00	-48.534	-13.98	-34.554	PASS
			23556.7	-49.333	-13.98	-35.353	PASS
		39	24583.6	-49.840	-14.1	-35.740	PASS
			2483.50	-54.608	-13.72	-40.888	PASS
			23782.7	-49.509	-13.72	-35.789	PASS
$\pi/4$ DQPSK	2-DH1	0	2400.00	-47.768	-15.75	-32.018	PASS
			23702.8	-49.347	-15.75	-33.597	PASS
		39	24641.7	-49.554	-15.89	-33.664	PASS
			2483.50	-52.378	-15.65	-36.728	PASS
			23764.6	-50.211	-15.65	-34.561	PASS
8DPSK	3-DH1	0	2400.00	-47.618	-15.66	-31.958	PASS
			24973.8	-49.675	-15.66	-34.015	PASS
		39	23646.0	-49.531	-15.86	-33.671	PASS
			2483.50	-54.290	-15.54	-38.750	PASS
			21193.2	-50.043	-15.54	-34.503	PASS

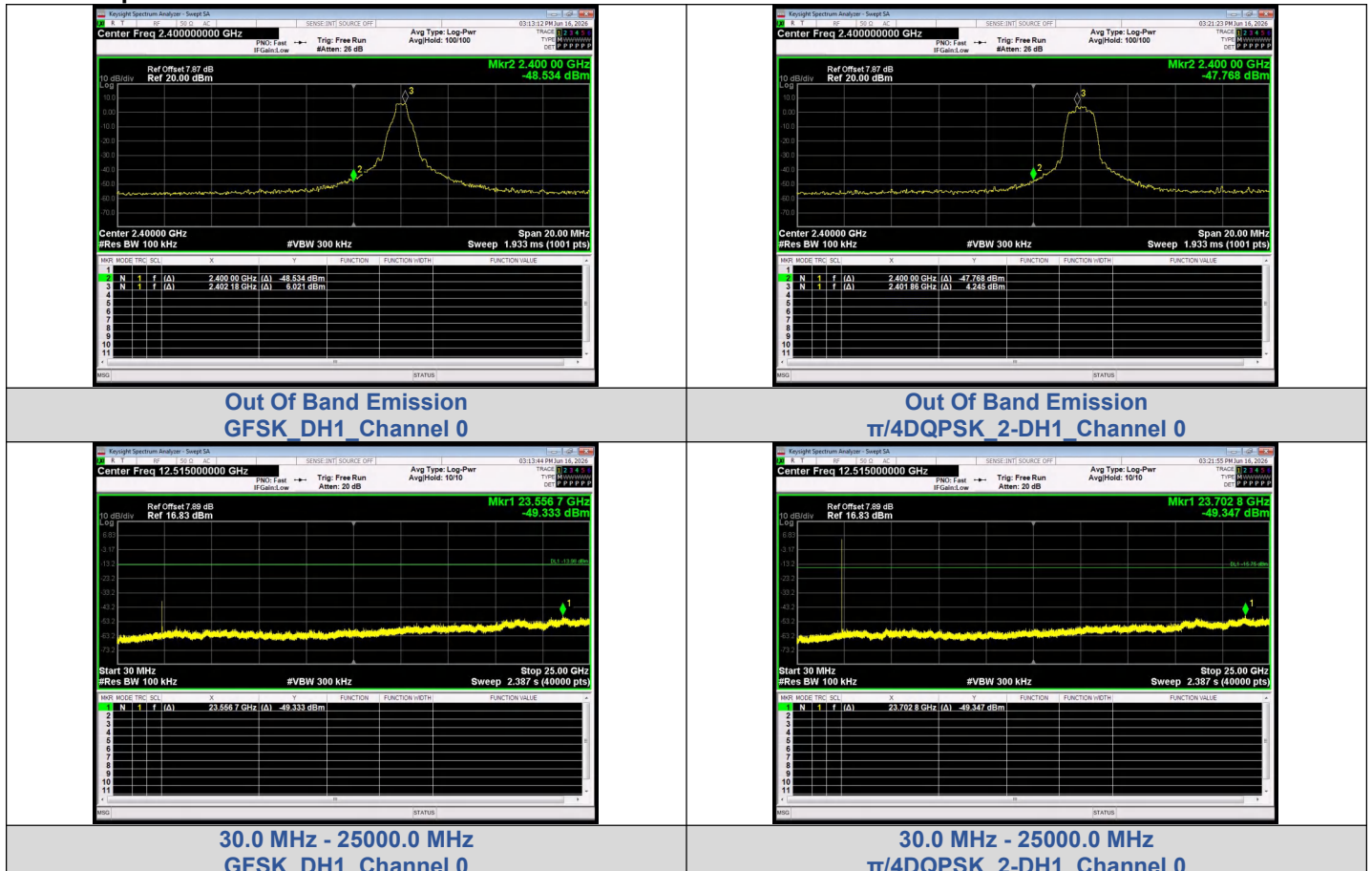
Note: input compensation coefficient (dB)= Cable Loss (dB)

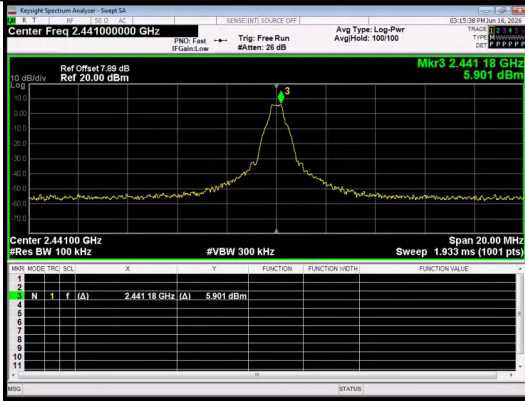
Hopping

Modulation	Packet	Channel	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
GFSK	DH1	Hopping	2400.00	-48.000	-13.56	-34.440	PASS
			2483.50	-54.734	-13.45	-41.284	PASS
π/4DQPSK	2-DH1		2400.00	-49.641	-15.43	-34.211	PASS
			2483.50	-53.682	-15.36	-38.322	PASS
8DPSK	3-DH1		2400.00	-47.917	-15.24	-32.677	PASS
			2483.50	-53.304	-15.26	-38.044	PASS

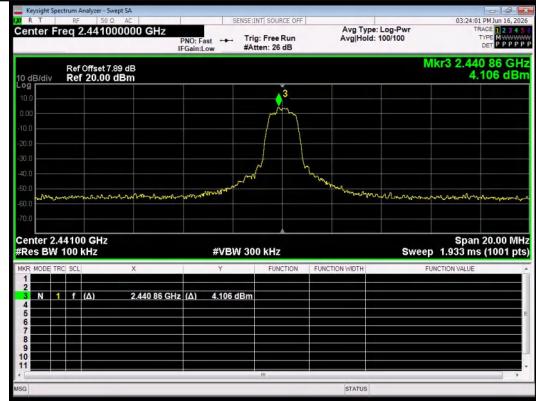
Note: input compensation coefficient (dB)= Cable Loss (dB)

Test Graphs

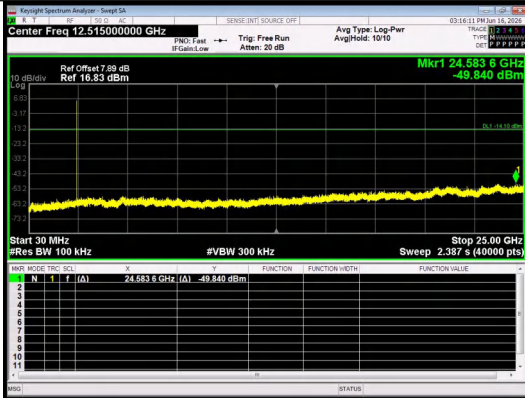




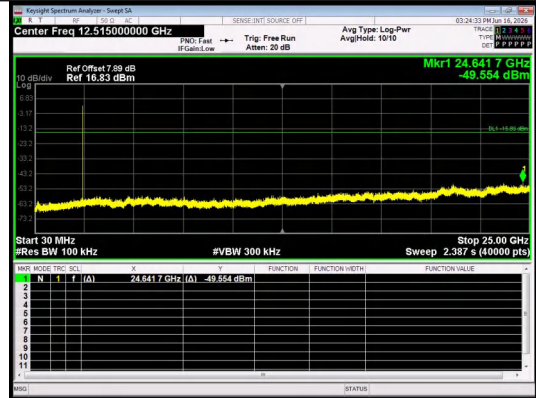
**Out Of Band Emission
GFSK_DH1_Channel 39**



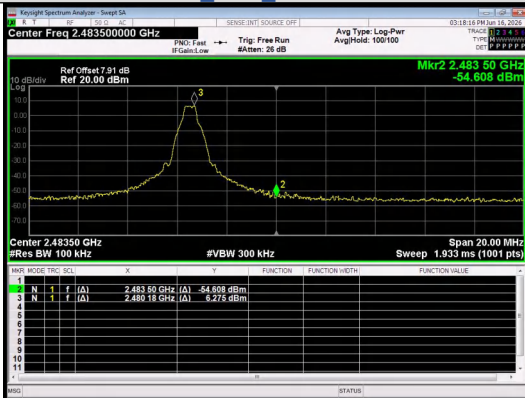
**Out Of Band Emission
 $\pi/4$ DQPSK_2-DH1_Channel 39**



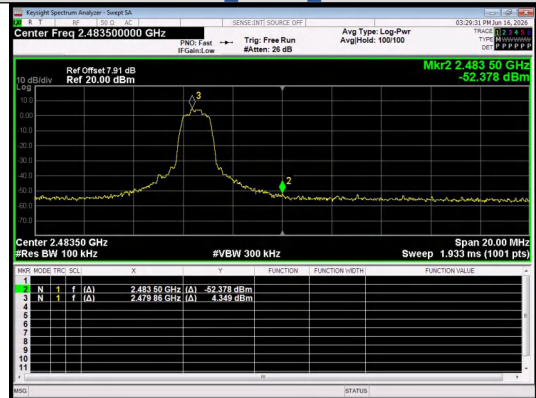
**30.0 MHz - 25000.0 MHz
GFSK_DH1_Channel 39**



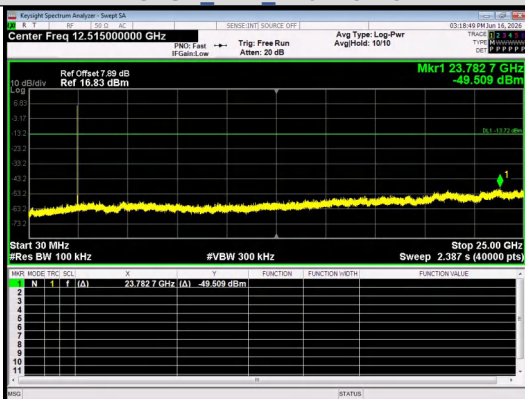
**30.0 MHz - 25000.0 MHz
 $\pi/4$ DQPSK_2-DH1_Channel 39**



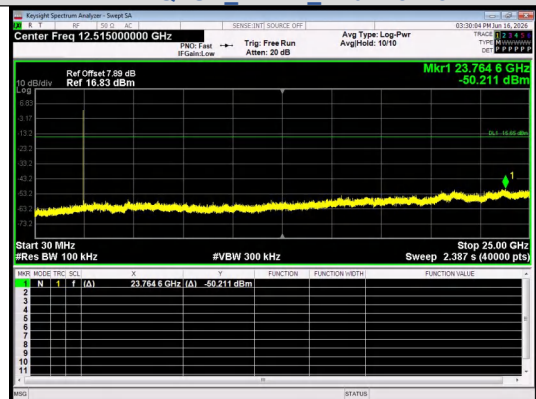
**Out Of Band Emission
GFSK_DH1_Channel 78**



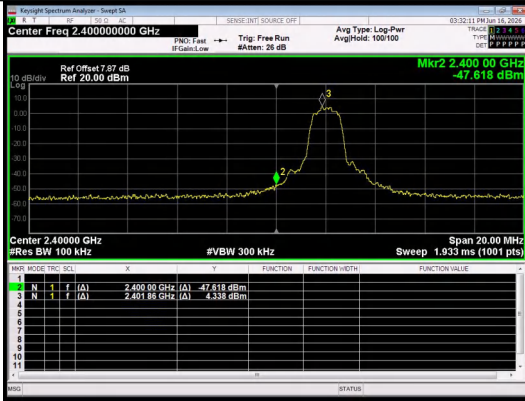
**Out Of Band Emission
 $\pi/4$ DQPSK_2-DH1_Channel 78**



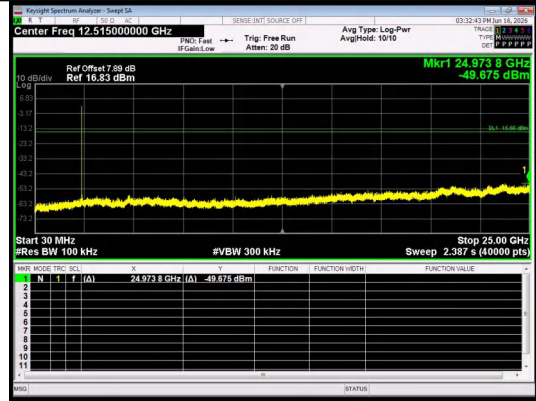
**30.0 MHz - 25000.0 MHz
GFSK_DH1_Channel 78**



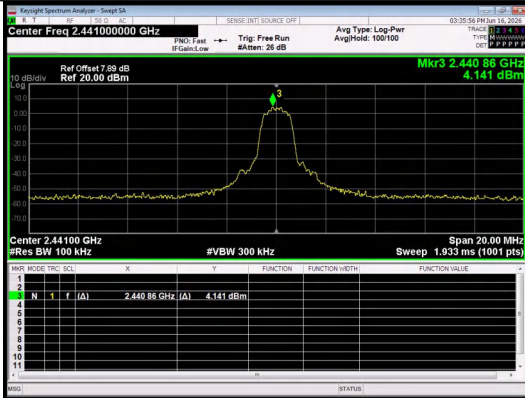
**30.0 MHz - 25000.0 MHz
 $\pi/4$ DQPSK_2-DH1_Channel 78**



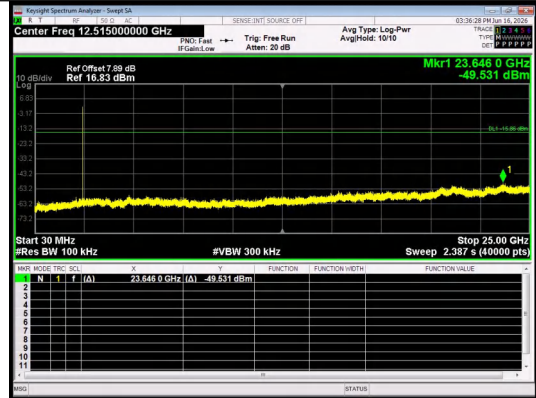
**Out Of Band Emission
8DPSK_3-DH1_Channel 0**



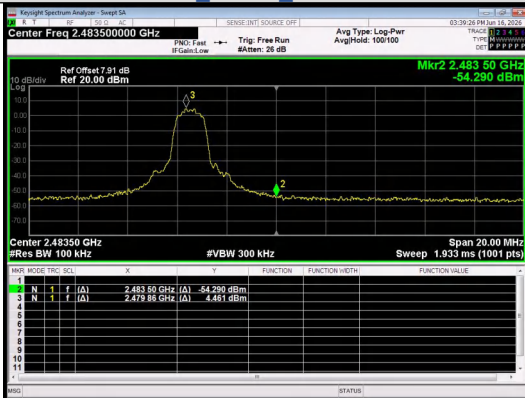
**30.0 MHz - 25000.0 MHz
8DPSK_3-DH1_Channel 0**



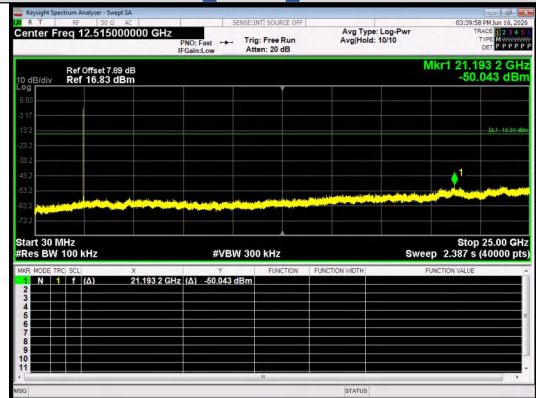
**Out Of Band Emission
8DPSK_3-DH1_Channel 39**



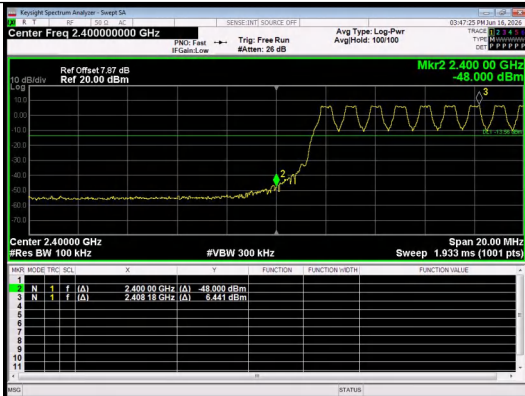
**30.0 MHz - 25000.0 MHz
8DPSK_3-DH1_Channel 39**



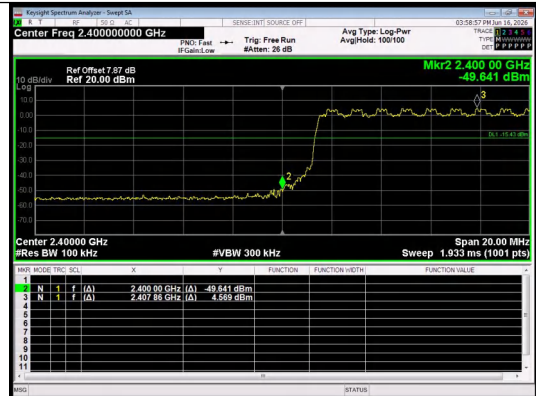
**Out Of Band Emission
8DPSK_3-DH1_Channel 78**



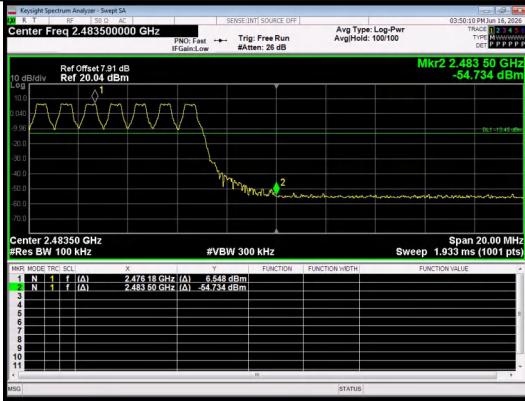
**30.0 MHz - 25000.0 MHz
8DPSK_3-DH1_Channel 78**



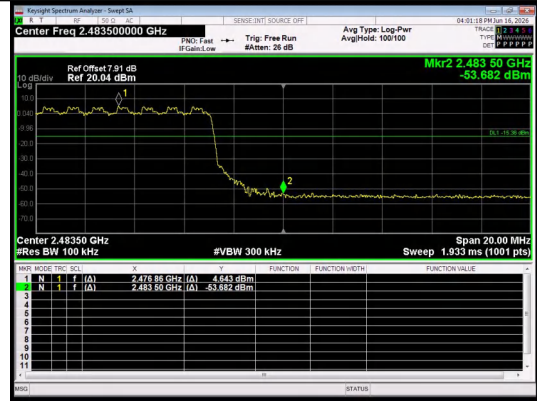
**Out Of Band Emission(Left)
GFSK_DH1_Channel Hopping**



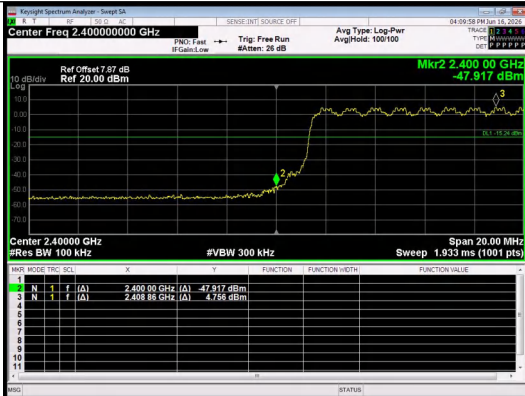
**Out Of Band Emission(Left)
 $\pi/4$ DQPSK_2-DH1_Channel Hopping**



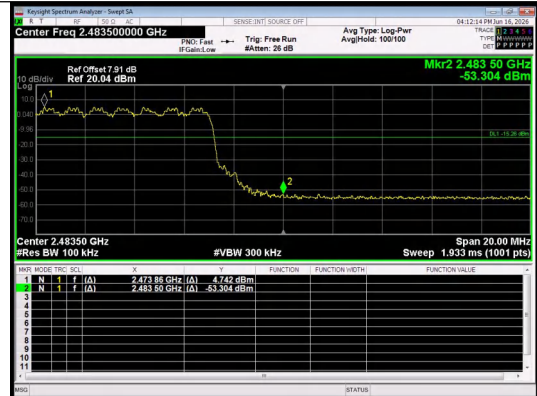
**Out Of Band Emission(Right)
GFSK_DH1_Channel Hopping**



**Out Of Band Emission(Right)
 $\pi/4$ DQPSK_2-DH1_Channel Hopping**



**Out Of Band Emission(Left)
8DPSK_3-DH1_Channel Hopping**



**Out Of Band Emission(Right)
8DPSK_3-DH1_Channel Hopping**