



Keyway Testing Technology (Guangdong) Co., Ltd
Room 2102,Building 6,Dongyi Intelligent Equipment New Energy Vehicle Park,N.30
of Tangxia District,Dongshen Road,Tangxia Town,Dongguan City,Guangdong,China

E.U.T:	OWS Bluetooth Headphones
Model Number:	MLF-M018
Trade Name:	MLF
Date of Receipt:	Aug 26, 2025
Date of Test:	Aug 26 ~ Sep 17, 2025
FCC ID:	2BRZO-MLF-M018



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	0.406	1.249	32.47	0.3247	4.8852	2.4631
		39	0.406	1.250	32.45	0.3245	4.8879	2.4631
		78	0.406	1.250	32.45	0.3245	4.8879	2.4631
π /4DQPSK	2-DH1	0	0.415	1.249	33.24	0.3324	4.7834	2.4096
		39	0.415	1.250	33.22	0.3322	4.786	2.4096
		78	0.415	1.250	33.22	0.3322	4.786	2.4096
8DPSK	3-DH1	0	0.415	1.249	33.24	0.3324	4.7834	2.4096
		39	0.415	1.249	33.24	0.3324	4.7834	2.4096
		78	0.415	1.250	33.22	0.3322	4.786	2.4096

Test Graphs





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8DPSK(3-DH1)_Channel 0



8DPSK(3-DH1)_Channel 39



8DPSK(3-DH1)_Channel 78



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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	2.912	108	314.5	< 400	PASS
	DH5		2.912	113	329.06		PASS
	DH5		2.912	112	326.14		PASS
$\pi/4$ DQPSK	2-DH5		2.928	104	304.51		PASS
	2-DH5		2.912	107	311.58		PASS
	2-DH5		2.912	109	317.41		PASS
8DPSK	3-DH5		2.912	120	349.44		PASS
	3-DH5		2.912	101	294.11		PASS
	3-DH5		2.920	122	356.24		PASS

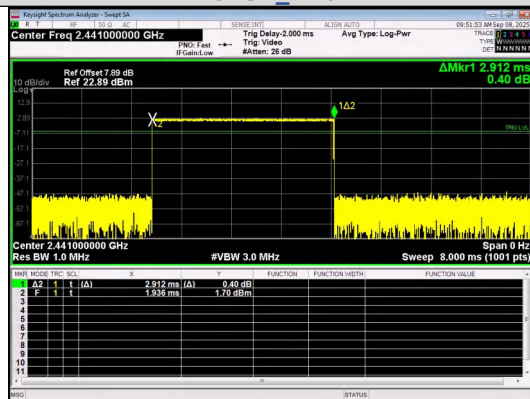
Test Graphs



Pulse Width
GFSK_DH5



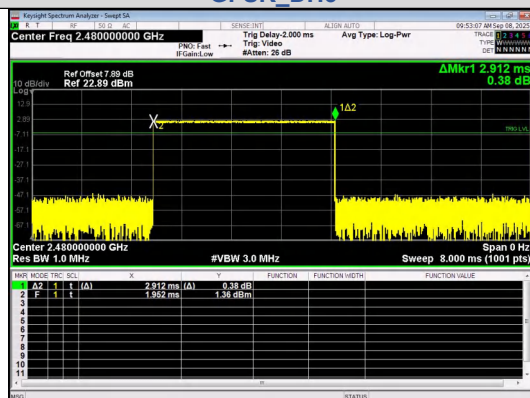
Number of Pulses in 31.6 seconds
GFSK_DH5



Pulse Width
GFSK_DH5



Number of Pulses in 31.6 seconds
GFSK_DH5



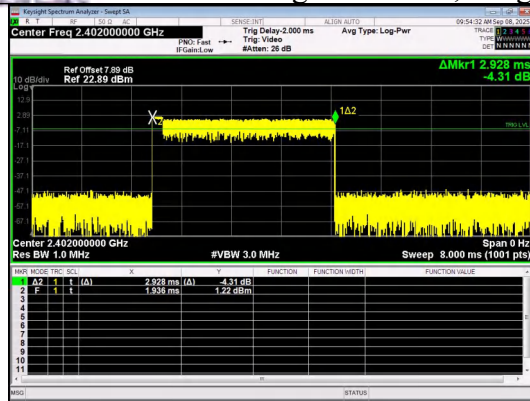
Pulse Width
GFSK_DH5



Number of Pulses in 31.6 seconds
GFSK_DH5



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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



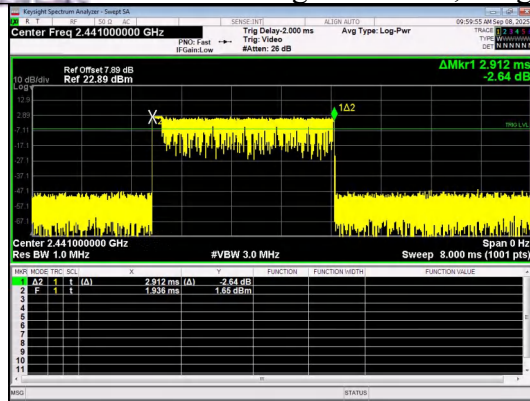
Pulse Width
8DPSK_3-DH5



Number of Pulses in 31.6 seconds
8DPSK_3-DH5



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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

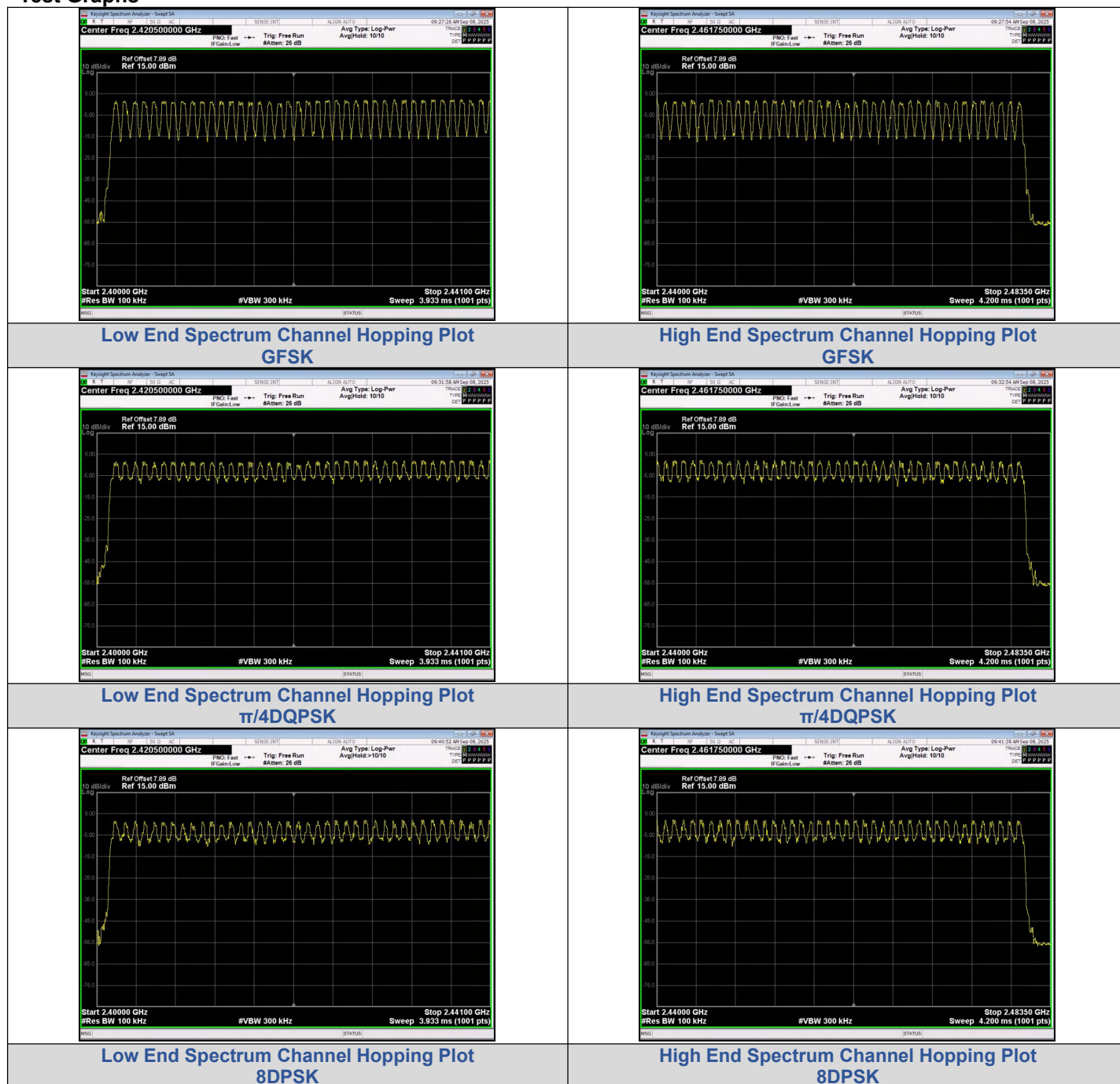


A.3 NUMBER OF HOPPING CHANNEL

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

Test Graphs



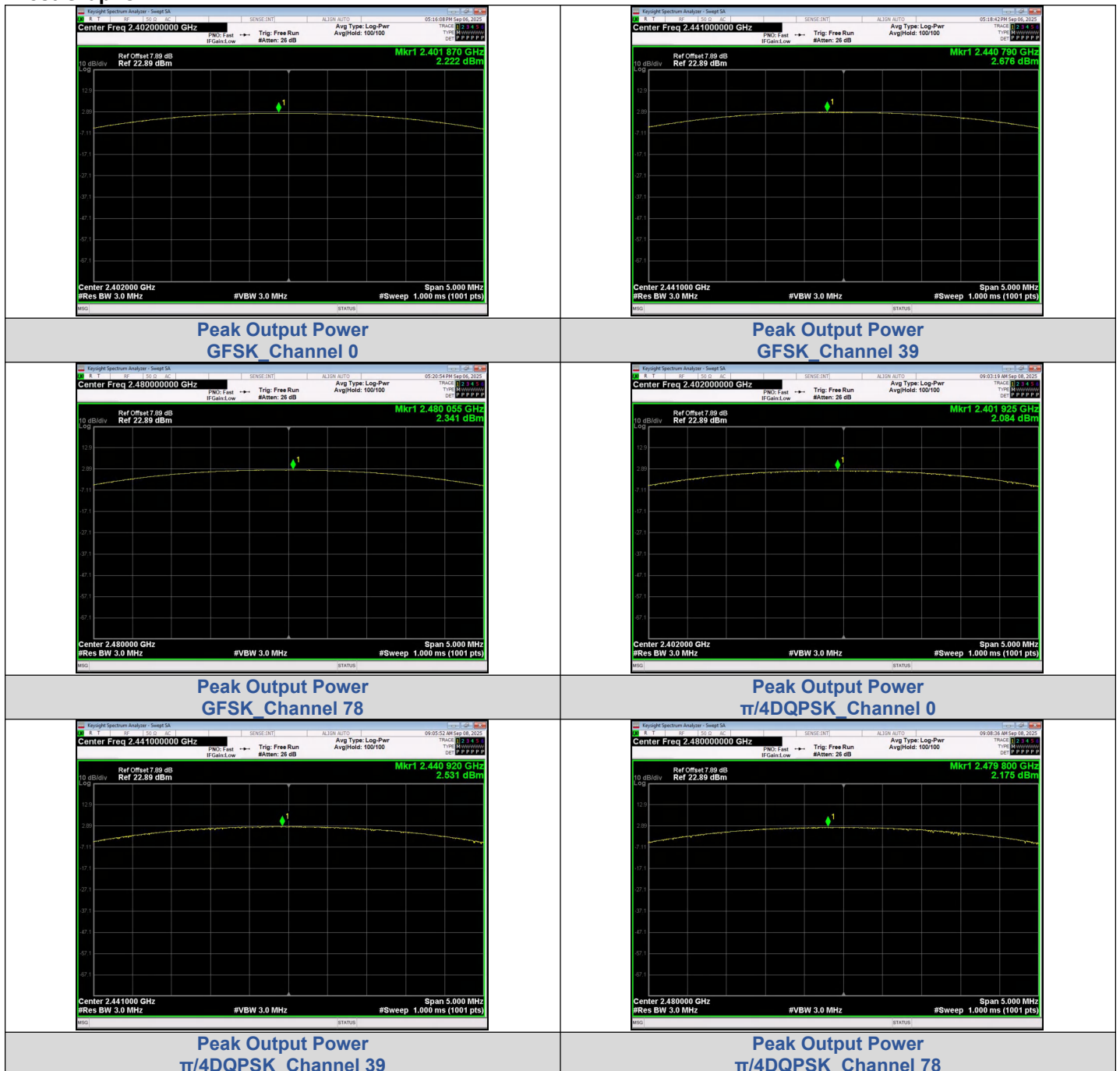


A.4 CONDUCTED PEAK OUTPUT POWER

Test Result

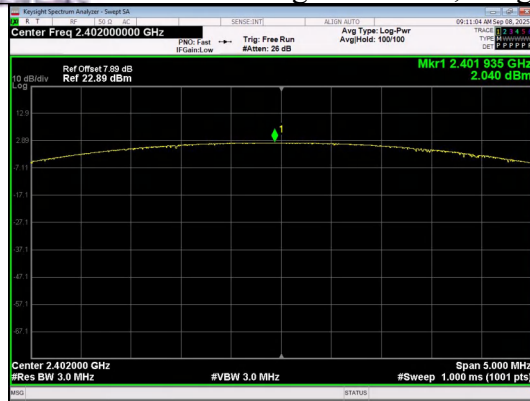
Modulation	Packet Type	Channel	Peak Output Power (dBm)	Peak Output Power (mW)	Max. Avg. Power (dBm)	Limit (dBm)	Result
GFSK	DH1	0	2.22	1.67	None	≤20.97	PASS
		39	2.68	1.85	None		PASS
		78	2.34	1.71	None		PASS
$\pi/4$ DQPSK	2-DH1	0	2.08	1.61	None		PASS
		39	2.53	1.79	None		PASS
		78	2.17	1.65	None		PASS
8DPSK	3-DH1	0	2.04	1.60	None		PASS
		39	2.48	1.77	None		PASS
		78	2.15	1.64	None		PASS

Test Graphs

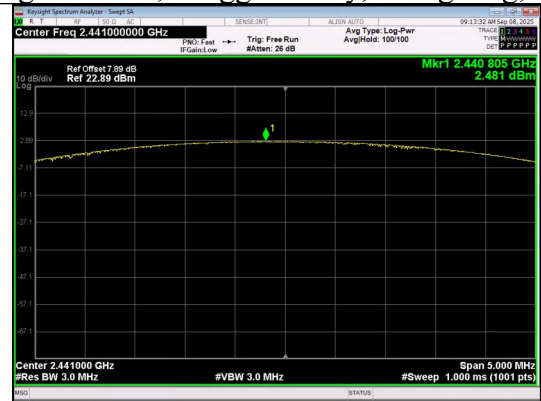




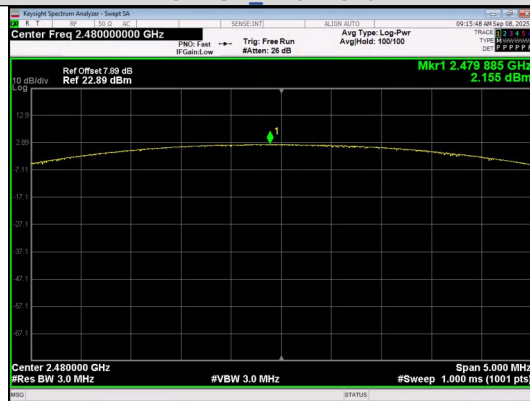
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Peak Output Power
8DPSK_Channel 0



Peak Output Power
8DPSK_Channel 39



Peak Output Power
8DPSK_Channel 78



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A.5 99% BANDWIDTH

Test Result

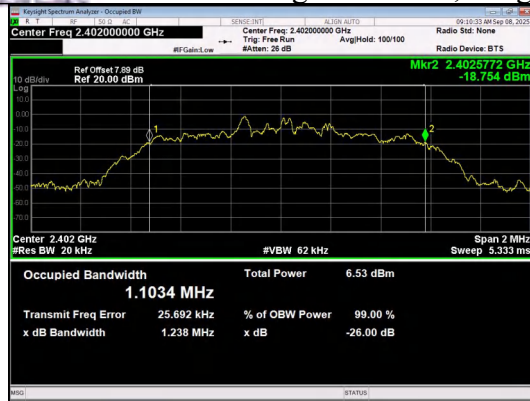
Modulation	Channel	Center Frequency (MHz)	99% BW (MHz)
GFSK	0	2402	0.80018
	39	2441	0.82784
	78	2480	0.81097
$\pi/4$ DQPSK	0	2402	1.1151
	39	2441	1.1211
	78	2480	1.1198
8DPSK	0	2402	1.1034
	39	2441	1.0974
	78	2480	1.0928

Test Graphs

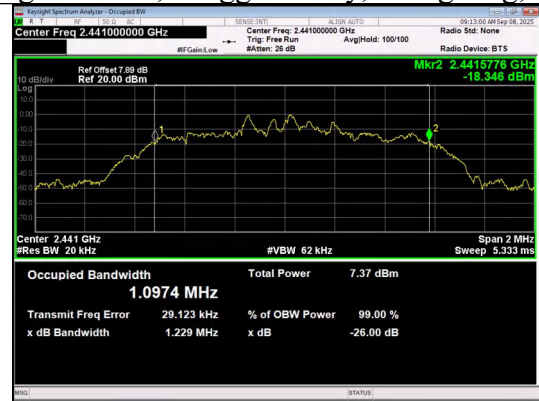




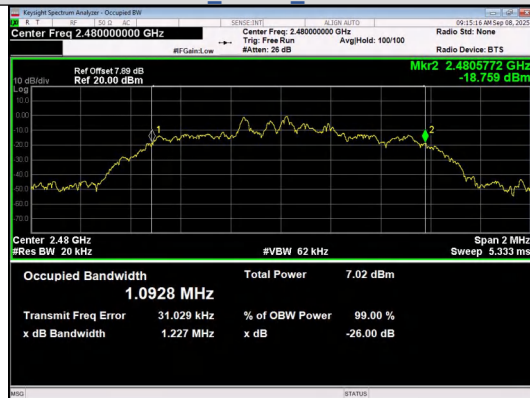
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8DPSK_3-DH1_Channel 0



8DPSK_3-DH1_Channel 39



8DPSK_3-DH1_Channel 78



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A.6 20DB BANDWIDTH

Test Result

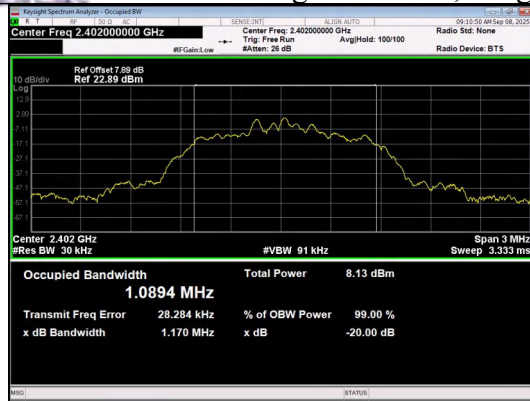
Modulation	Channel	Center Frequency (MHz)	20 dB Bandwidth (MHz)
GFSK	0	2402 MHz	0.8700
	39	2441 MHz	0.8700
	78	2480 MHz	0.8700
π /4DQPSK	0	2402 MHz	1.180
	39	2441 MHz	1.170
	78	2480 MHz	1.180
8DPSK	0	2402 MHz	1.170
	39	2441 MHz	1.170
	78	2480 MHz	1.170

Test Graphs

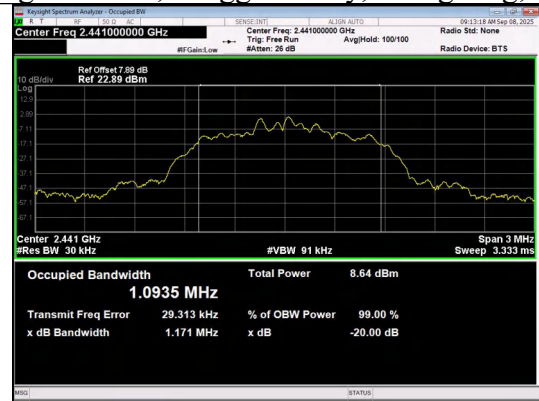




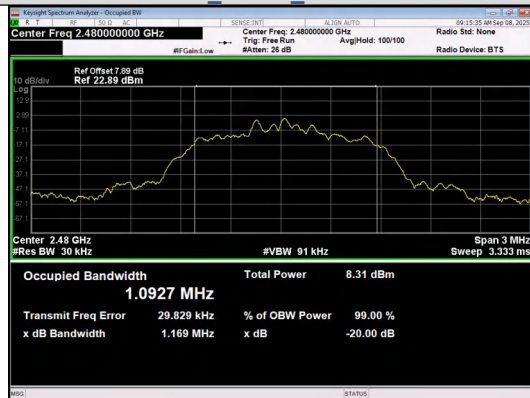
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8DPSK_3-DH1_Channel 0



8DPSK_3-DH1_Channel 39



8DPSK_3-DH1_Channel 78



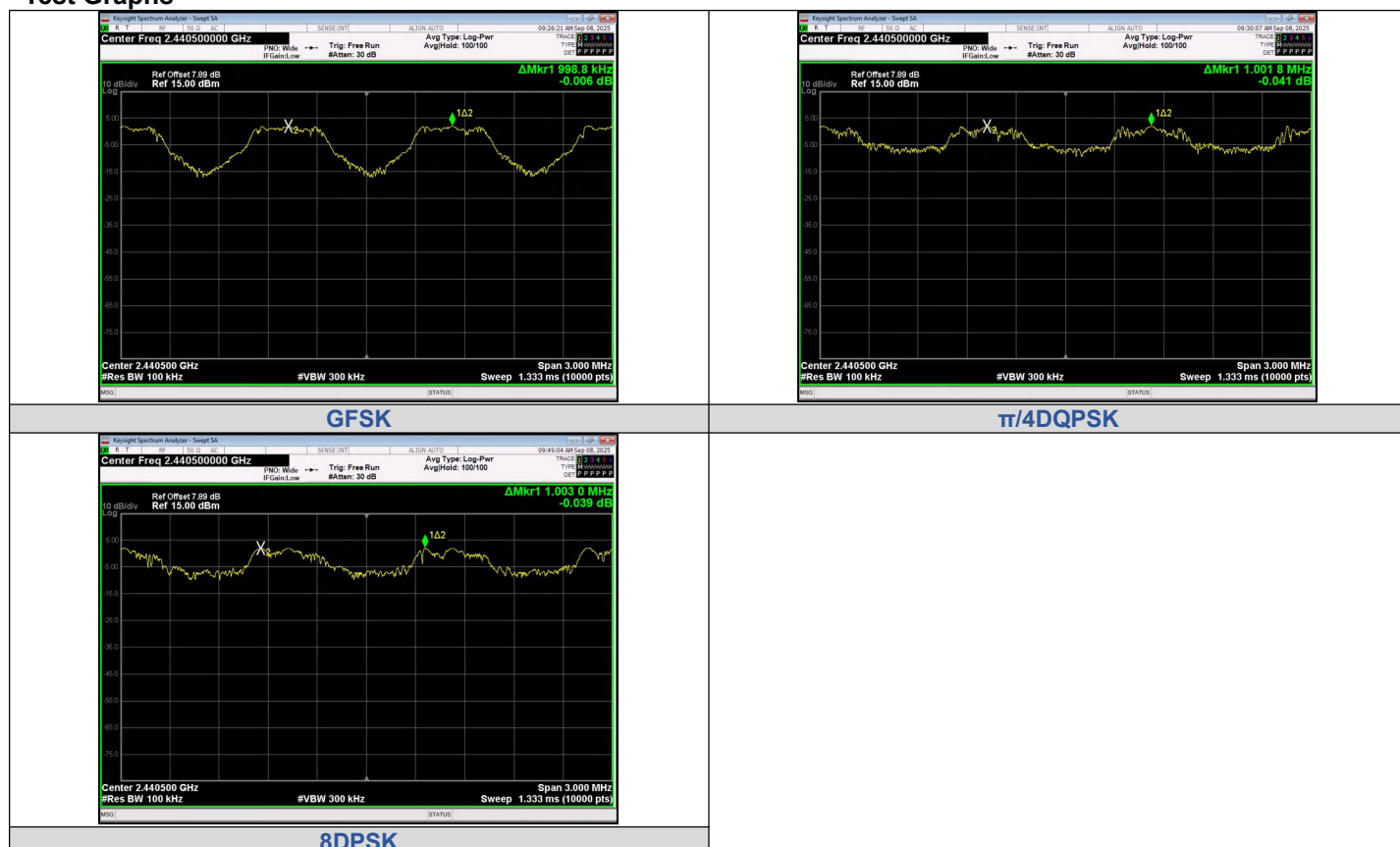
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A.7 CARRIER FREQUENCIES SEPARATION

Test Result

Modulation	Packet	Left Center frequency (MHz)	Right Center frequency (MHz)	Hopping Frequency Separation (MHz)	Limit (MHz)	Result
GFSK	DH1	2440.0237	2441.0225	0.9988	0.58	PASS
$\pi/4$ DQPSK	2-DH1	2440.0219	2441.0237	1.0018	0.787	PASS
8DPSK	3-DH1	2439.8533	2440.8563	1.0030	0.78	PASS

Test Graphs





A.8 CONDUCTED OUT OF BAND EMISSION

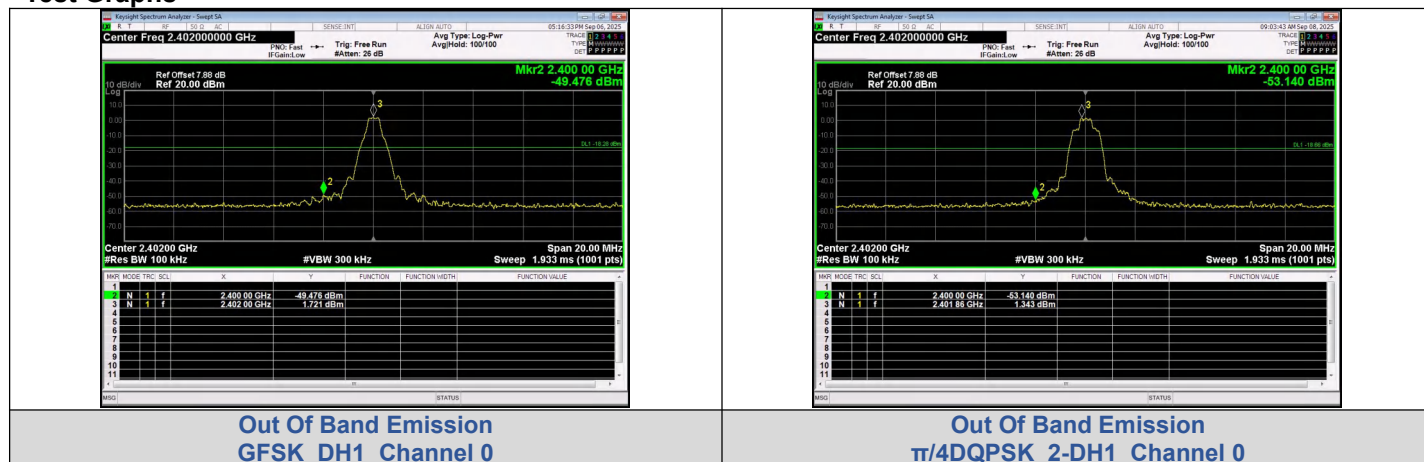
Test Result Non-Hopping

Modulation	Packet	Channel	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
GFSK	DH1	0	2400.00	-49.480	-18.28	-31.200	PASS
			4804.38	-35.880	-18.28	-17.600	PASS
		39	4960.45	-36.969	-17.85	-19.119	PASS
		78	2483.50	-55.900	-18.13	-37.770	PASS
			4959.83	-37.800	-18.13	-19.670	PASS
$\pi/4$ DQPSK	2-DH1	0	2400.00	-53.140	-18.66	-34.480	PASS
			4803.76	-36.462	-18.66	-17.802	PASS
		39	4881.79	-36.992	-18.24	-18.752	PASS
		78	2483.50	-56.510	-18.54	-37.970	PASS
			4960.45	-39.232	-18.54	-20.692	PASS
8DPSK	3-DH1	0	2396.10	-53.886	-18.63	-35.257	PASS
			2400.00	-54.450	-18.63	-35.820	PASS
			4804.40	-43.421	-18.63	-24.791	PASS
		39	4882.42	-36.591	-18.19	-18.401	PASS
		78	2483.50	-56.470	-18.47	-38.000	PASS
			4959.83	-36.366	-18.47	-17.896	PASS

Hopping

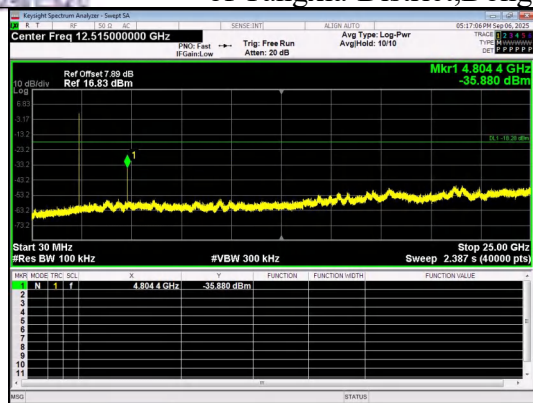
Hopping							
Modulation	Packet	Channel	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
GFSK	DH1	Hopping	2398.76	-53.306	-18.37	-34.936	PASS
			2400.00	-54.390	-18.37	-36.020	PASS
			2483.50	-55.290	-18.1	-37.190	PASS
π/4DQPSK	2-DH1		2400.00	-53.250	-18.65	-34.600	PASS
			2483.50	-55.950	-18.32	-37.630	PASS
8DPSK	3-DH1		2391.04	-52.414	-18.6	-33.814	PASS
			2400.00	-54.680	-18.6	-36.080	PASS
			2483.50	-55.380	-18.25	-37.130	PASS

Test Graphs

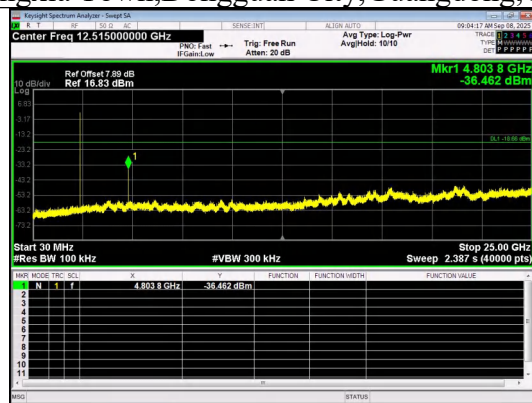




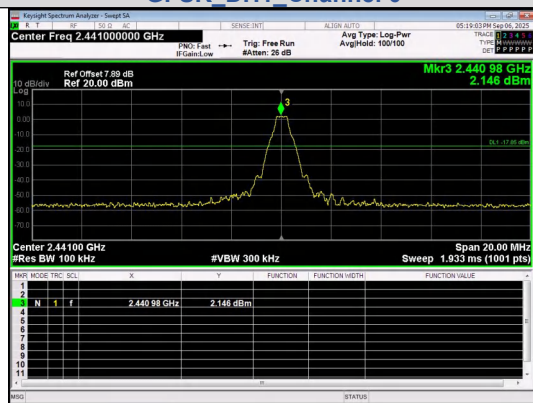
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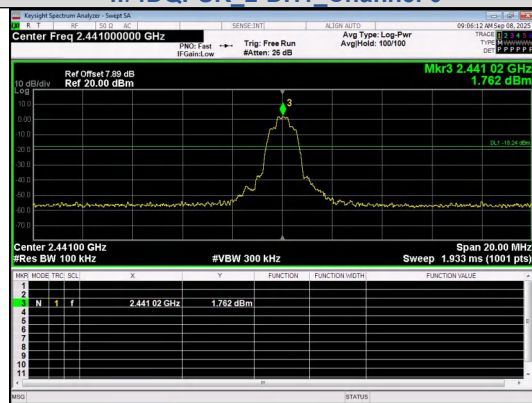
30.0 MHz - 25000.0 MHz
GFSK_DH1_Channel 0



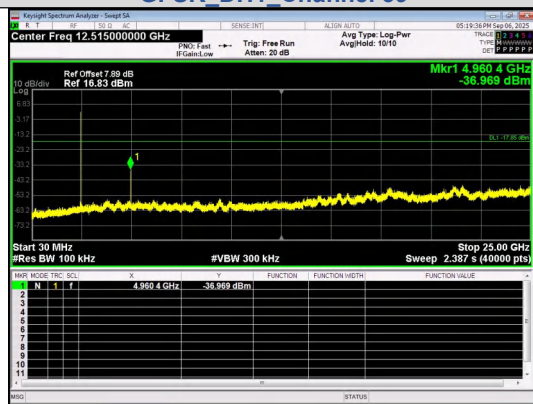
30.0 MHz - 25000.0 MHz
 $\pi/4$ DQPSK_2-DH1_Channel 0



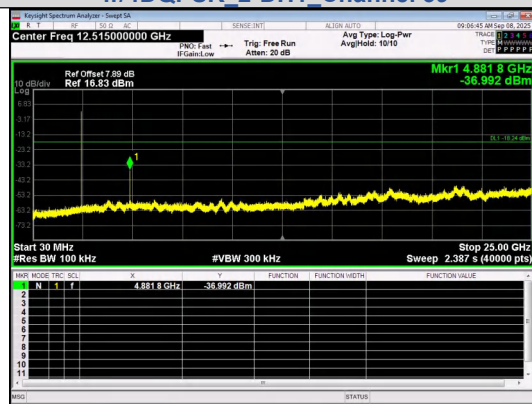
Out Of Band Emission
GFSK_DH1_Channel 39



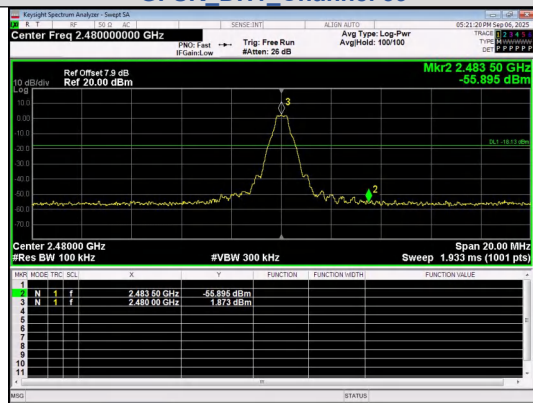
Out Of Band Emission
 $\pi/4$ DQPSK_2-DH1_Channel 39



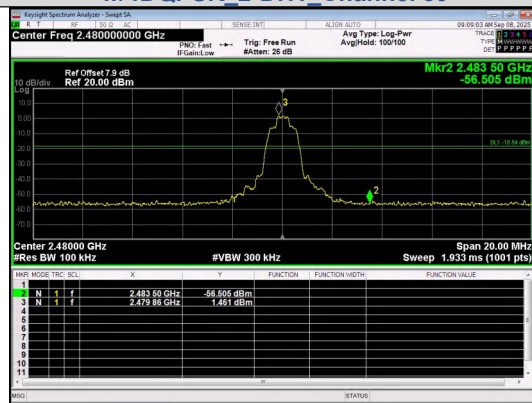
30.0 MHz - 25000.0 MHz
GFSK_DH1_Channel 39



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



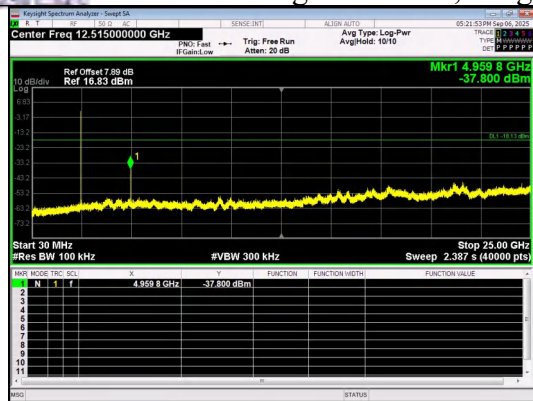
Out Of Band Emission
GFSK_DH1_Channel 78



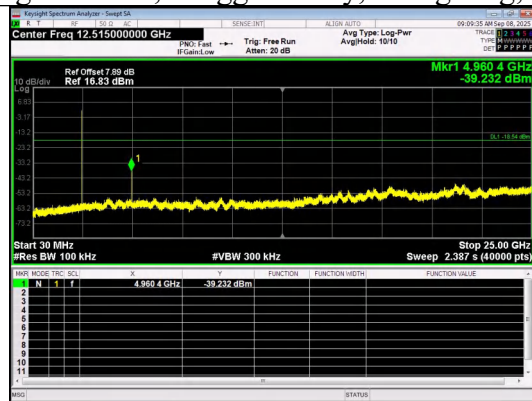
Out Of Band Emission
 $\pi/4$ DQPSK_2-DH1_Channel 78



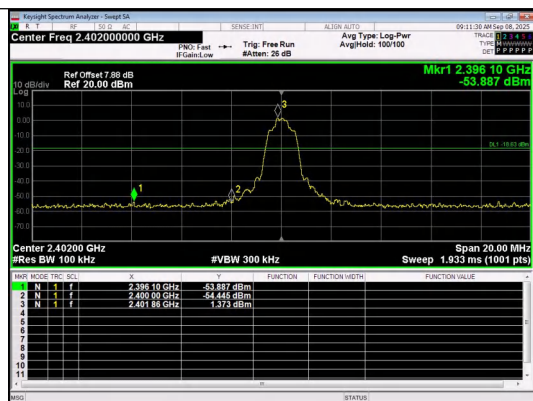
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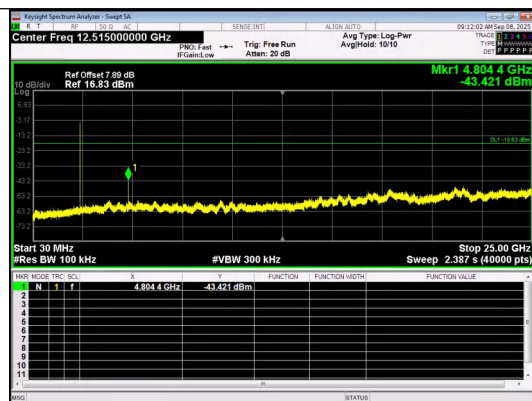
30.0 MHz - 25000.0 MHz
GFSK_DH1_Channel 78



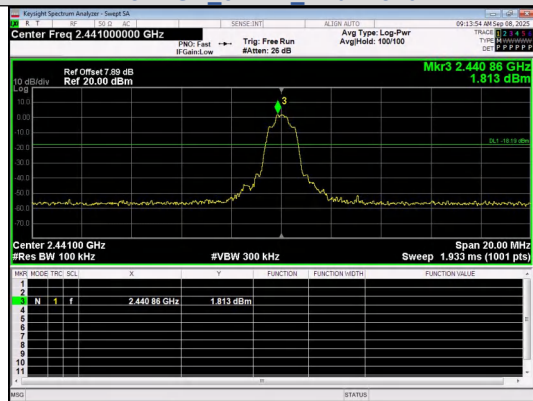
30.0 MHz - 25000.0 MHz
 $\pi/4$ DQPSK_2-DH1_Channel 78



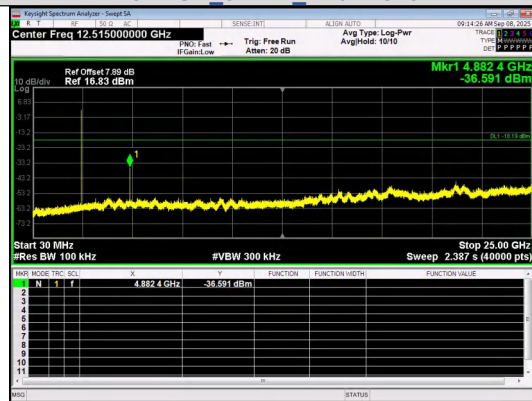
Out Of Band Emission
8DPSK_3-DH1_Channel 0



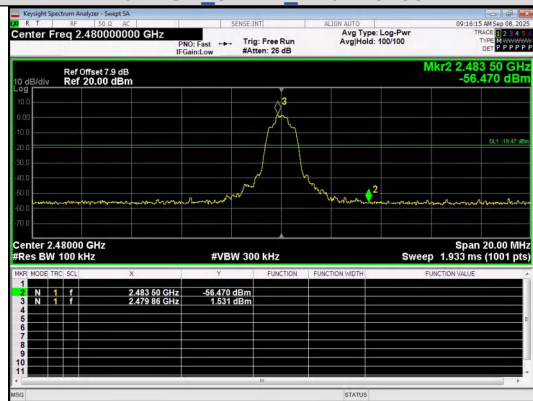
30.0 MHz - 25000.0 MHz
8DPSK_3-DH1_Channel 0



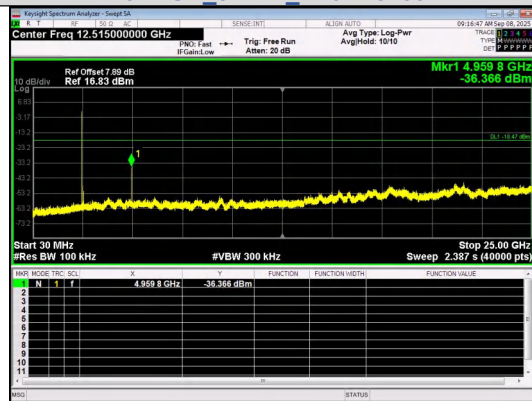
Out Of Band Emission
8DPSK_3-DH1_Channel 39



30.0 MHz - 25000.0 MHz
8DPSK_3-DH1_Channel 39



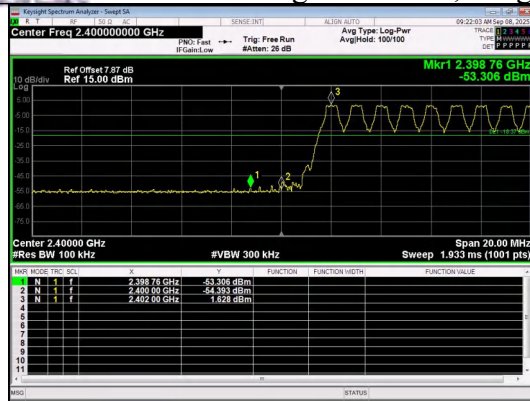
Out Of Band Emission
8DPSK_3-DH1_Channel 78



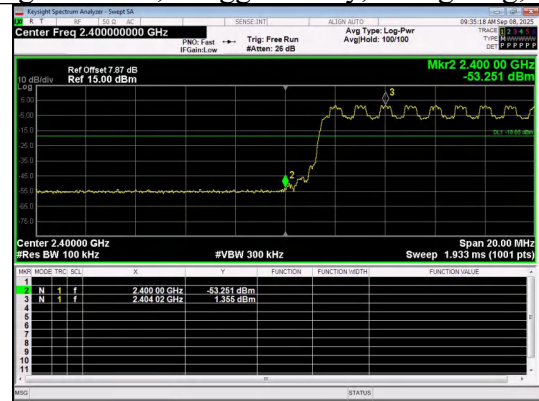
30.0 MHz - 25000.0 MHz
8DPSK_3-DH1_Channel 78



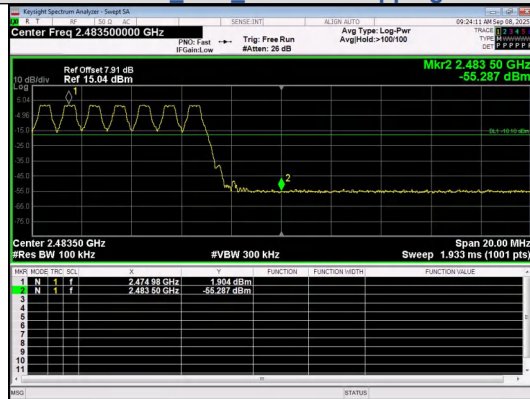
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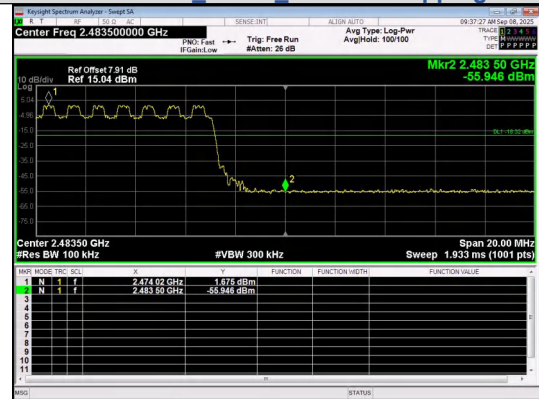
Out Of Band Emission(Left)
GFSK_DH1_Channel Hopping



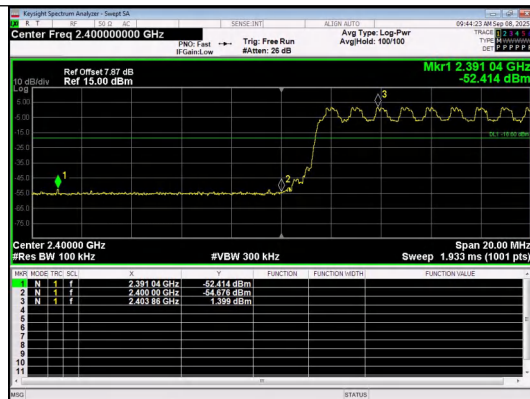
Out Of Band Emission(Left)
 $\pi/4$ DQPSK_2-DH1_Channel Hopping



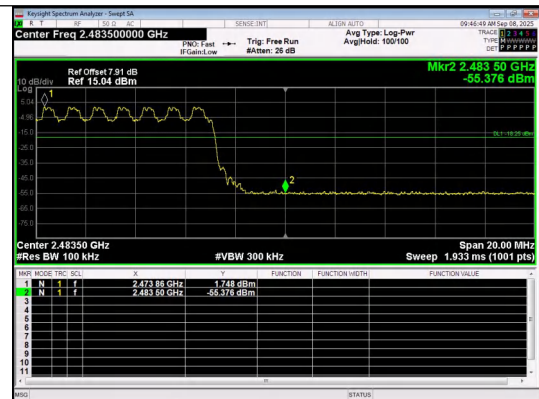
Out Of Band Emission(Right)
GFSK_DH1_Channel Hopping



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