



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

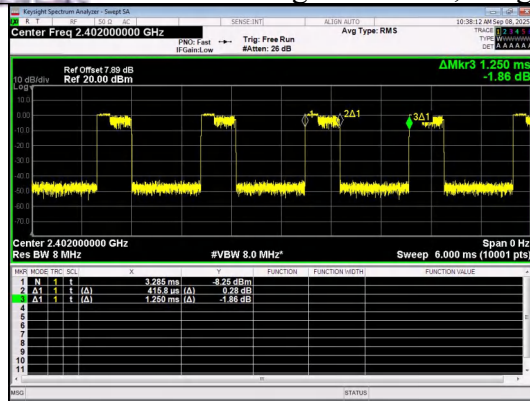
Modulation	Packets	Channel	On Time (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle (linear)	Duty Cycle Factor (dB)	1/T
GFSK	DH1	0	0.406	1.249	32.47	0.3247	4.8852	2.4631
		39	0.406	1.250	32.45	0.3245	4.8879	2.4631
		78	0.406	1.249	32.47	0.3247	4.8852	2.4631
π /4DQPSK	2-DH1	0	0.415	1.250	33.22	0.3322	4.786	2.4096
		39	0.415	1.249	33.24	0.3324	4.7834	2.4096
		78	0.416	1.250	33.27	0.3327	4.7795	2.4038
8DPSK	3-DH1	0	0.416	1.250	33.27	0.3327	4.7795	2.4038
		39	0.415	1.250	33.22	0.3322	4.786	2.4096
		78	0.415	1.249	33.24	0.3324	4.7834	2.4096

Test Graphs

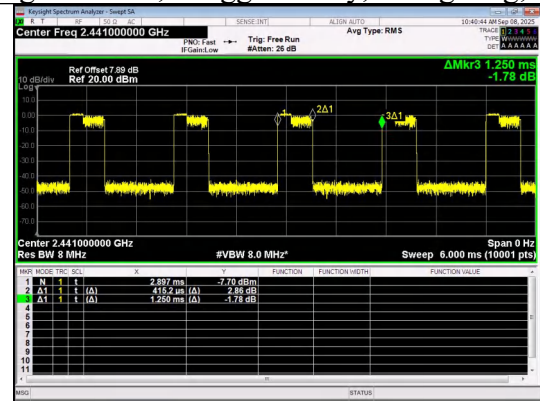




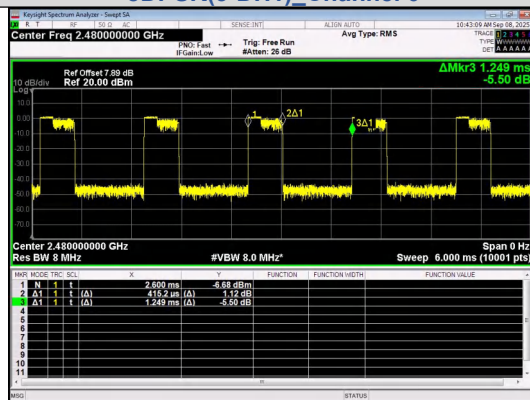
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8DPSK(3-DH1)_Channel 0



8DPSK(3-DH1)_Channel 39



8DPSK(3-DH1)_Channel 78



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A.2 DWELL TIME

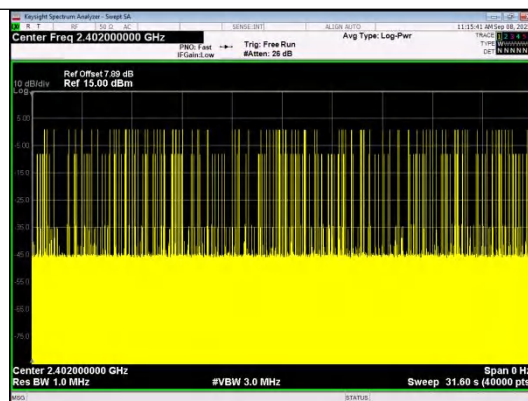
Test Result

Modulation	Packet	Channel	Pulse Width (ms)	Number of Pulses in 31.6 seconds	Dwell Time (ms)	Limit (ms)	Result
GFSK	DH5	Hopping	2.896	101	292.5	< 400	PASS
	DH5		2.896	113	327.25		PASS
	DH5		2.896	96	278.02		PASS
$\pi/4$ DQPSK	2-DH5		2.912	97	282.46		PASS
	2-DH5		2.912	110	320.32		PASS
	2-DH5		2.912	117	340.7		PASS
8DPSK	3-DH5		2.920	95	277.4		PASS
	3-DH5		2.912	111	323.23		PASS
	3-DH5		2.928	123	360.14		PASS

Test Graphs



Pulse Width
GFSK_DH5



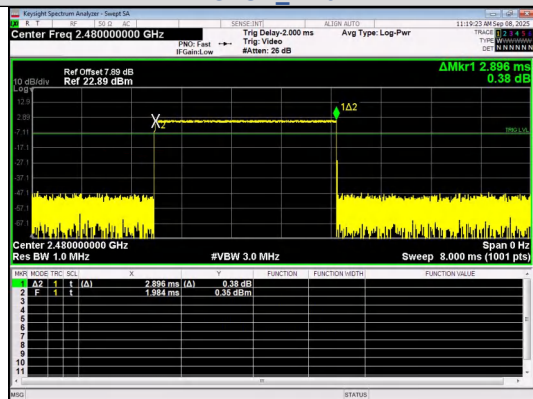
Number of Pulses in 31.6 seconds
GFSK_DH5



Pulse Width
GFSK_DH5



Number of Pulses in 31.6 seconds
GFSK_DH5



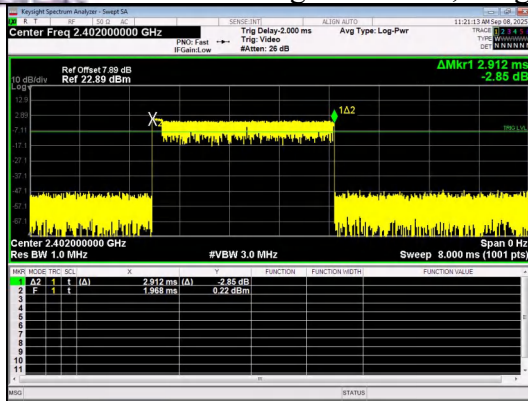
Pulse Width
GFSK_DH5



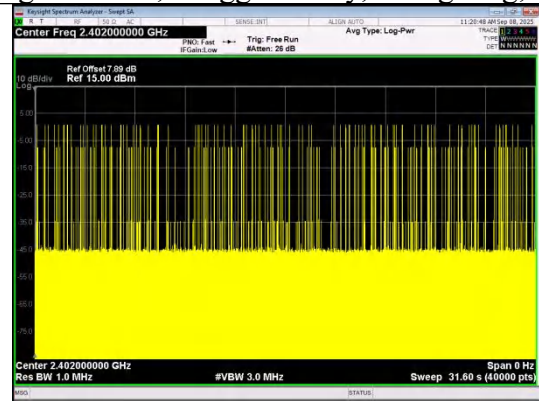
Number of Pulses in 31.6 seconds
GFSK_DH5



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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



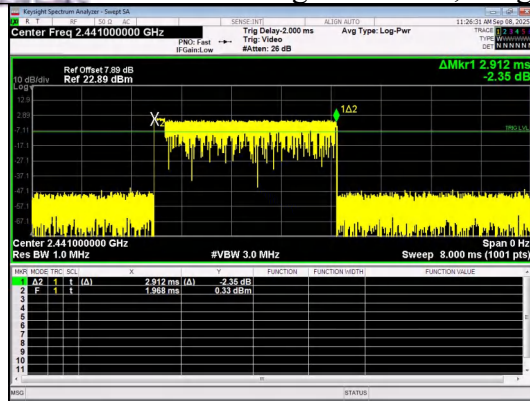
Pulse Width
8DPSK_3-DH5



Number of Pulses in 31.6 seconds
8DPSK_3-DH5



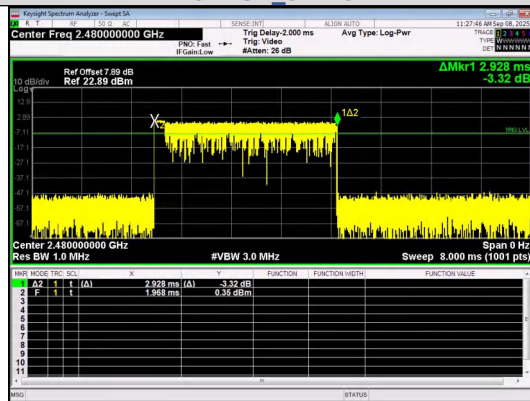
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Pulse Width
8DPSK_3-DH5



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



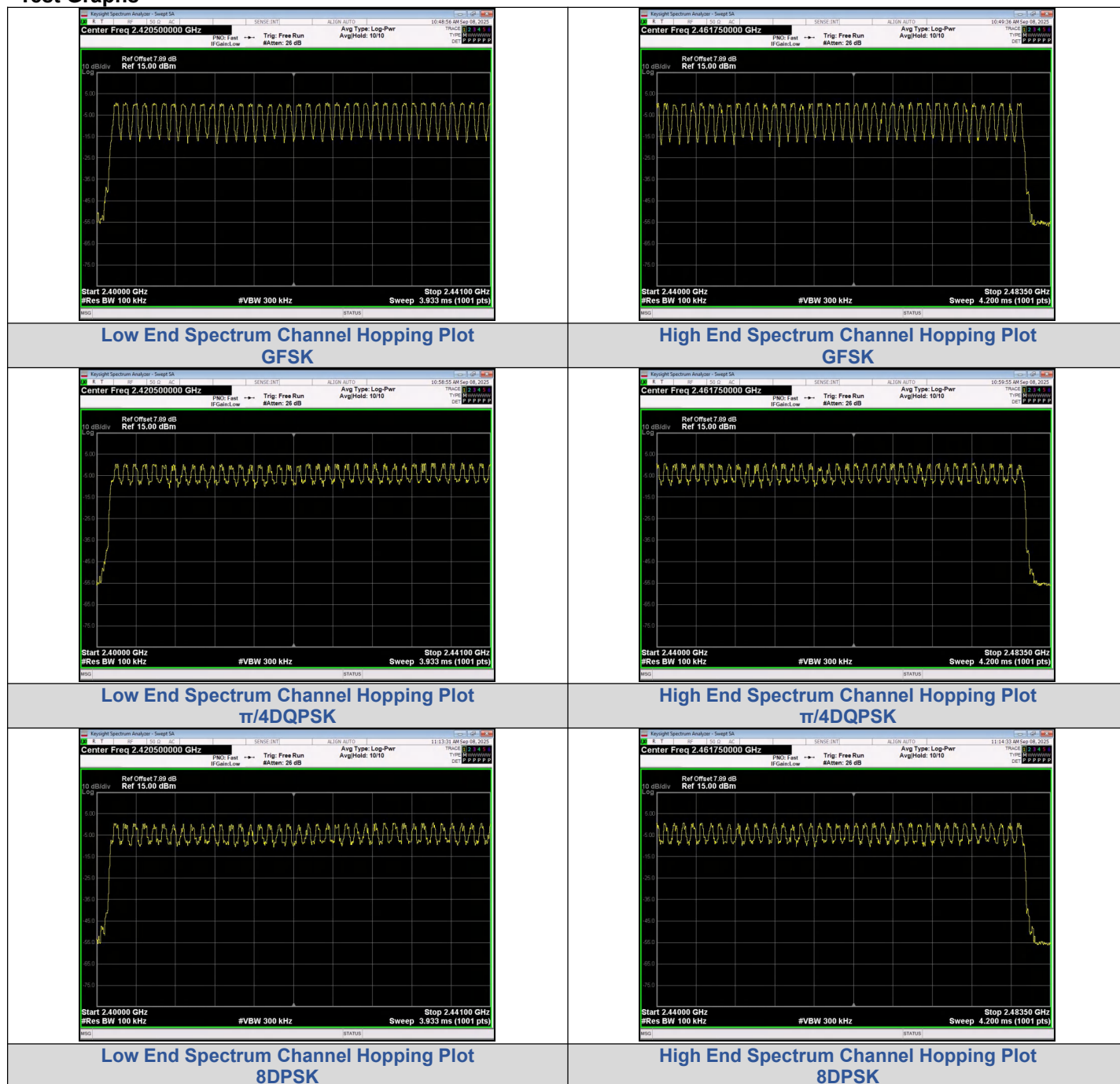
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A.3 NUMBER OF HOPPING CHANNEL

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





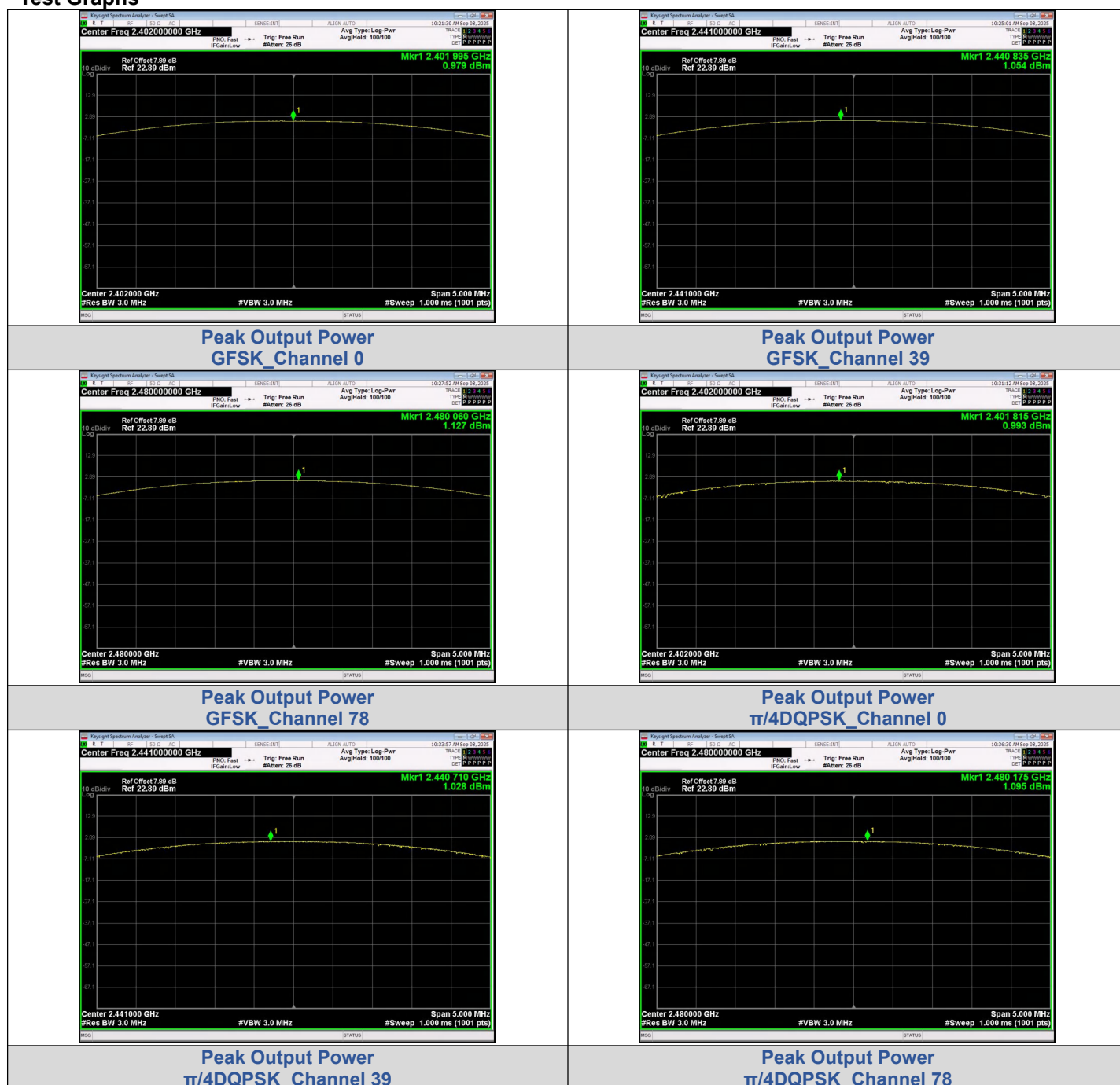
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A.4 CONDUCTED PEAK OUTPUT POWER

Test Result

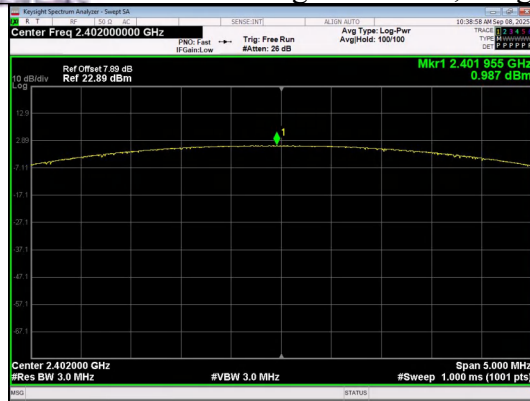
Modulation	Packet Type	Channel	Peak Output Power (dBm)	Peak Output Power (mW)	Max. Avg. Power (dBm)	Limit (dBm)	Result
GFSK	DH1	0	0.98	1.25	None	≤20.97	PASS
		39	1.05	1.27	None		PASS
		78	1.13	1.30	None		PASS
$\pi/4$ DQPSK	2-DH1	0	0.99	1.26	None		PASS
		39	1.03	1.27	None		PASS
		78	1.09	1.29	None		PASS
8DPSK	3-DH1	0	0.99	1.26	None		PASS
		39	1.04	1.27	None		PASS
		78	1.08	1.28	None		PASS

Test Graphs

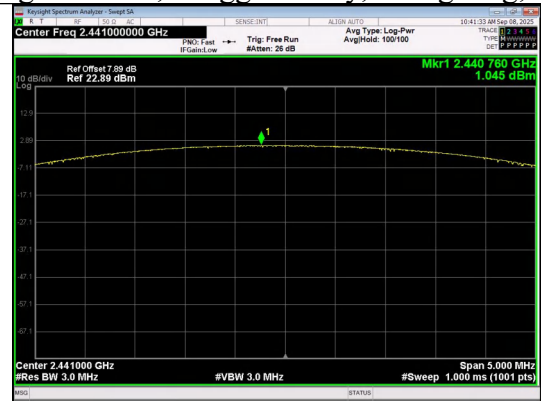




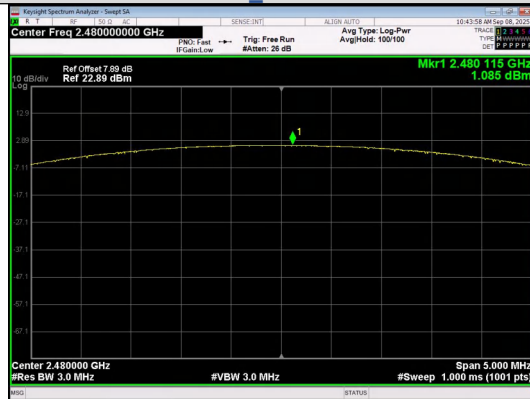
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Peak Output Power
8DPSK_Channel 0



Peak Output Power
8DPSK_Channel 39



Peak Output Power
8DPSK_Channel 78



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A.5 99% BANDWIDTH

Test Result

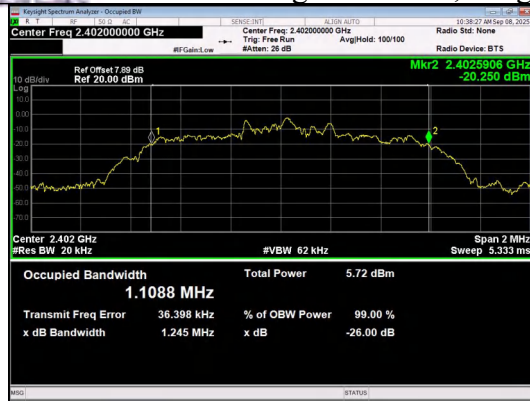
Modulation	Channel	Center Frequency (MHz)	99% BW (MHz)
GFSK	0	2402	0.81038
	39	2441	0.80506
	78	2480	0.82312
π /4DQPSK	0	2402	1.1313
	39	2441	1.1244
	78	2480	1.1155
8DPSK	0	2402	1.1088
	39	2441	1.1071
	78	2480	1.1026

Test Graphs

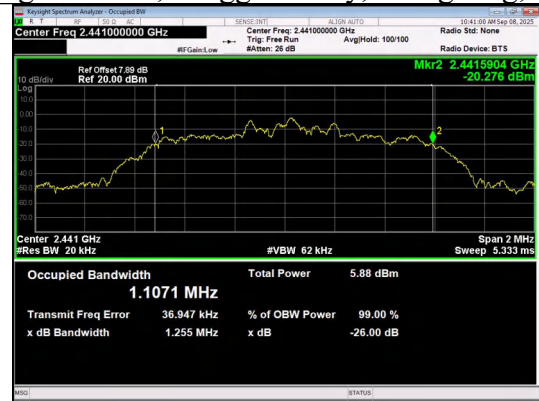




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8DPSK_3-DH1_Channel 0



8DPSK_3-DH1_Channel 39



8DPSK_3-DH1_Channel 78

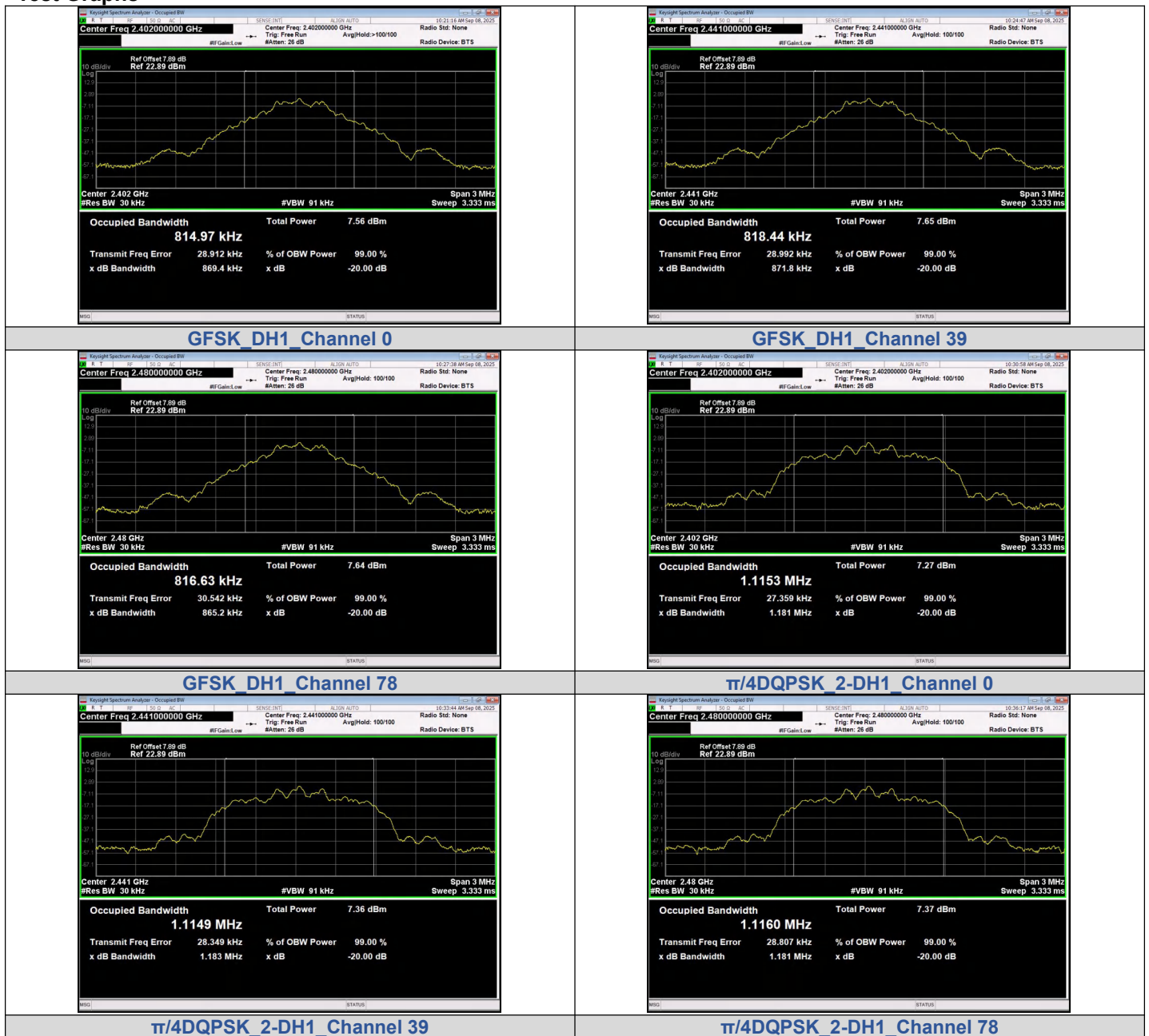


A.6 20DB BANDWIDTH

Test Result

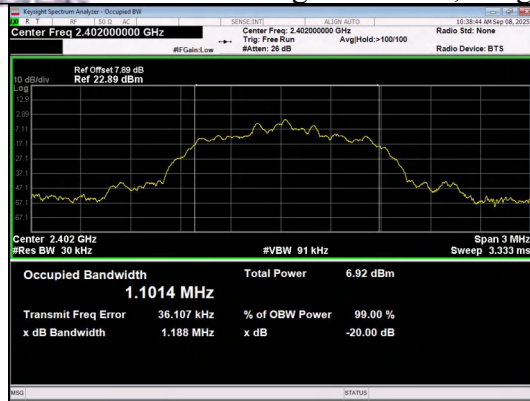
Modulation	Channel	Center Frequency (MHz)	20 dB Bandwidth (MHz)
GFSK	0	2402 MHz	0.8700
	39	2441 MHz	0.8700
	78	2480 MHz	0.8700
π /4DQPSK	0	2402 MHz	1.180
	39	2441 MHz	1.180
	78	2480 MHz	1.180
8DPSK	0	2402 MHz	1.190
	39	2441 MHz	1.180
	78	2480 MHz	1.190

Test Graphs

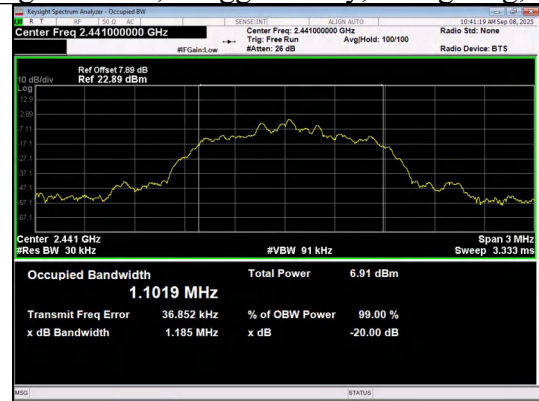




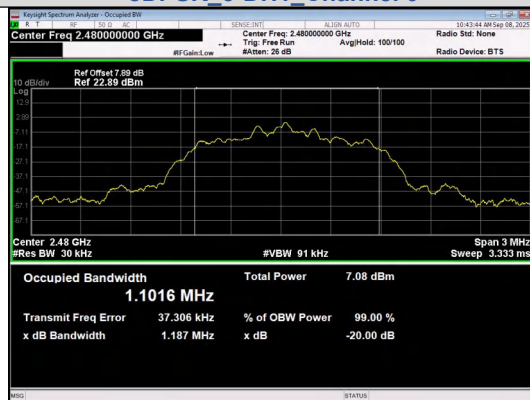
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8DPSK_3-DH1_Channel 0



8DPSK_3-DH1_Channel 39



8DPSK_3-DH1_Channel 78



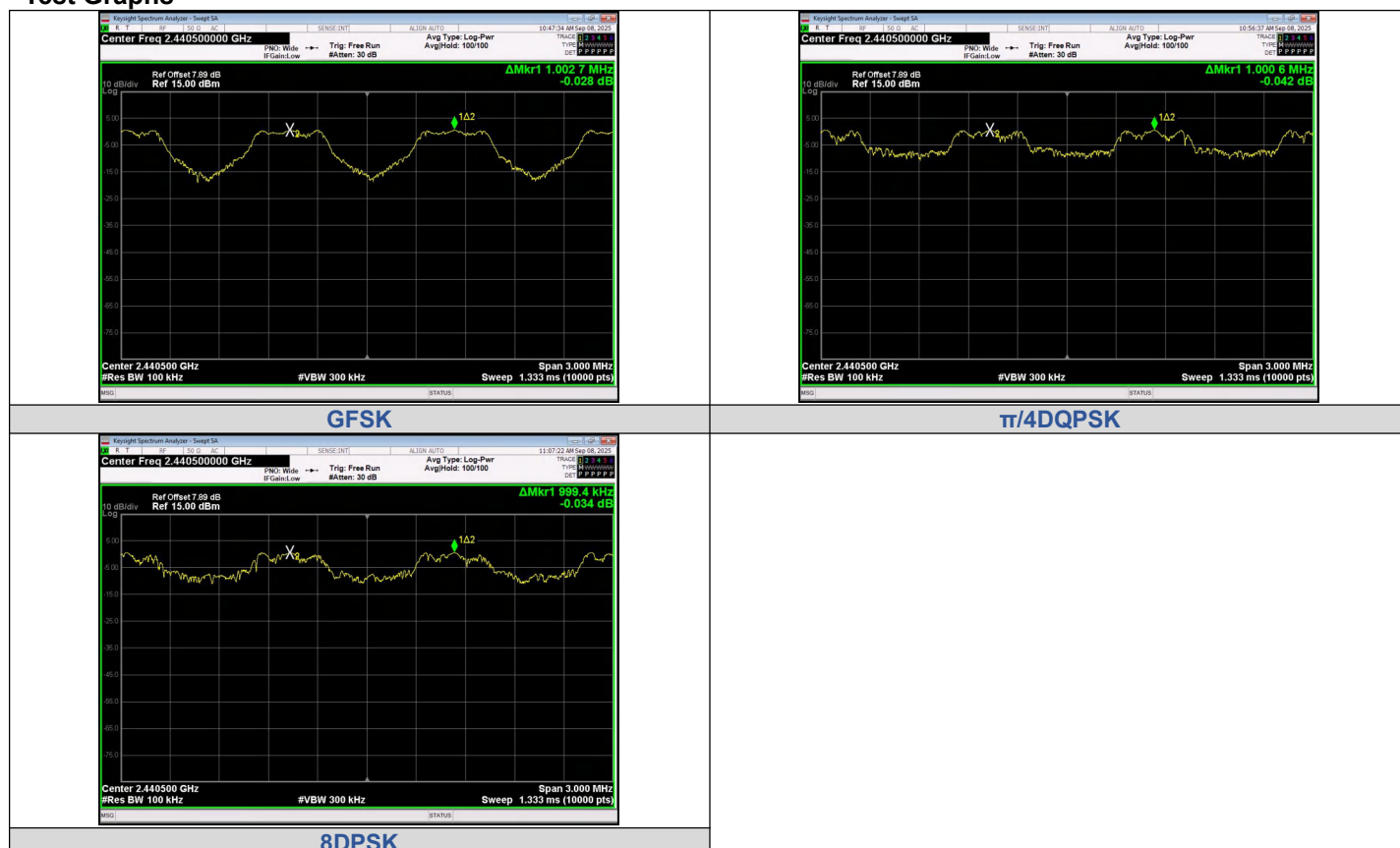
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A.7 CARRIER FREQUENCIES SEPARATION

Test Result

Modulation	Packet	Left Center frequency (MHz)	Right Center frequency (MHz)	Hopping Frequency Separation (MHz)	Limit (MHz)	Result
GFSK	DH1	2440.03	2441.0327	1.0027	0.58	PASS
$\pi/4$ DQPSK	2-DH1	2440.03	2441.0306	1.0006	0.787	PASS
8DPSK	3-DH1	2440.0309	2441.0303	0.9994	0.793	PASS

Test Graphs





A.8 CONDUCTED OUT OF BAND EMISSION

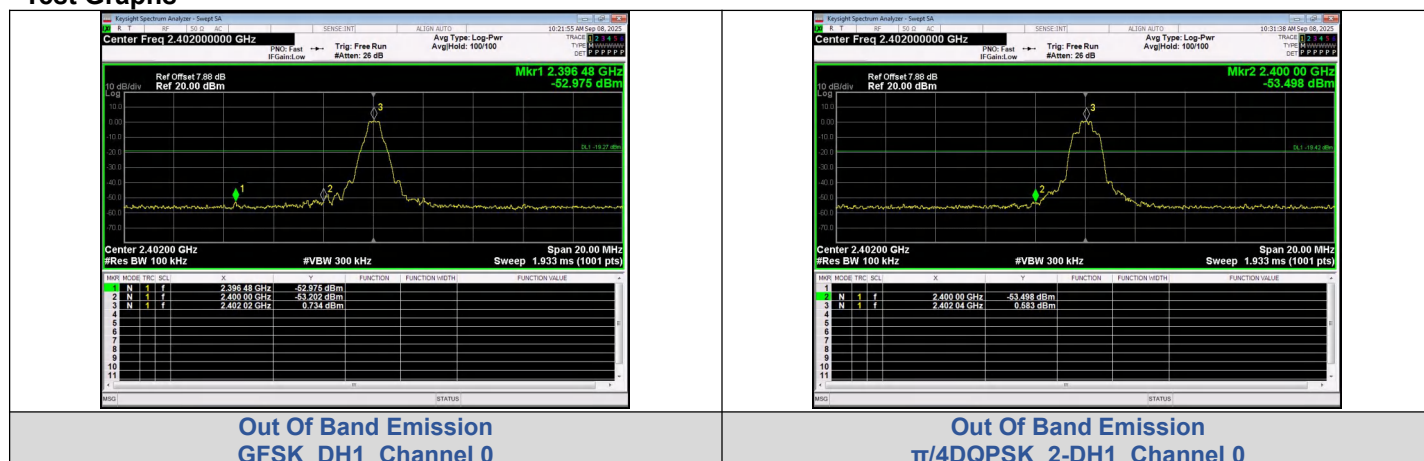
Test Result Non-Hopping

Modulation	Packet	Channel	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
GFSK	DH1	0	2396.48	-52.975	-19.27	-33.705	PASS
			2400.00	-53.200	-19.27	-33.930	PASS
			4803.80	-36.251	-19.27	-16.981	PASS
		39	4881.79	-36.015	-19.17	-16.845	PASS
			2483.50	-53.720	-19.12	-34.600	PASS
			4960.45	-34.858	-19.12	-15.738	PASS
$\pi/4$ DQPSK	2-DH1	0	2400.00	-53.500	-19.42	-34.080	PASS
			4804.38	-33.467	-19.42	-14.047	PASS
			4882.42	-39.751	-19.37	-20.381	PASS
		39	2483.50	-55.860	-19.24	-36.620	PASS
			4960.45	-33.609	-19.24	-14.369	PASS
			4960.45	-33.609	-19.24	-14.369	PASS
8DPSK	3-DH1	0	2397.64	-54.556	-19.42	-35.136	PASS
			2400.00	-54.800	-19.42	-35.380	PASS
			4804.40	-35.270	-19.42	-15.850	PASS
		39	4881.79	-41.105	-19.33	-21.775	PASS
			2483.50	-56.810	-19.35	-37.460	PASS
			4959.83	-37.703	-19.35	-18.353	PASS

Hopping

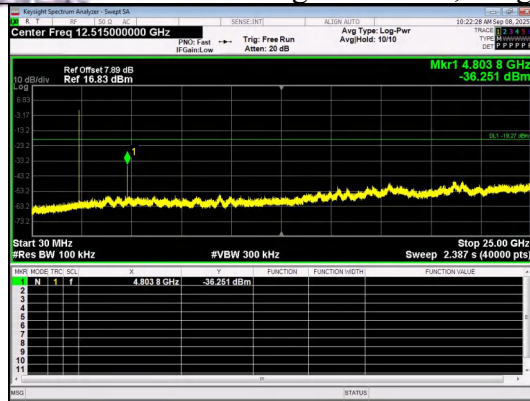
Modulation	Packet	Channel	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
GFSK	DH1	Hopping	2400.00	-51.490	-19.27	-32.220	PASS
			2483.50	-54.690	-19.07	-35.620	PASS
π/4DQPSK	2-DH1		2394.72	-53.530	-19.5	-34.030	PASS
			2400.00	-55.490	-19.5	-35.990	PASS
			2483.50	-55.610	-19.33	-36.280	PASS
8DPSK	3-DH1		2392.08	-53.328	-19.48	-33.848	PASS
			2400.00	-55.190	-19.48	-35.710	PASS
			2483.50	-55.550	-19.22	-36.330	PASS

Test Graphs

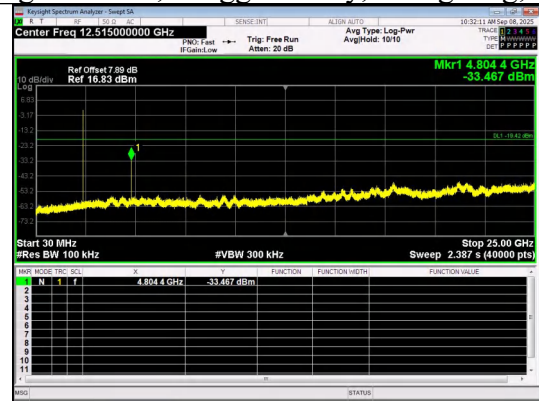




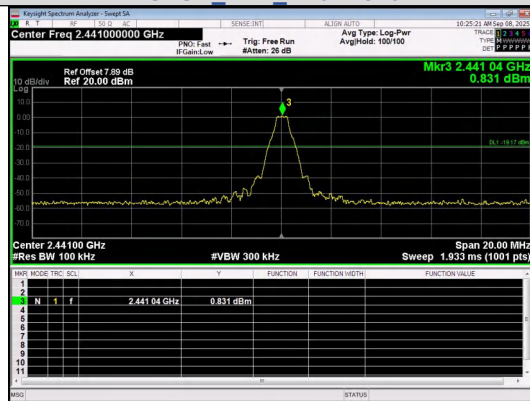
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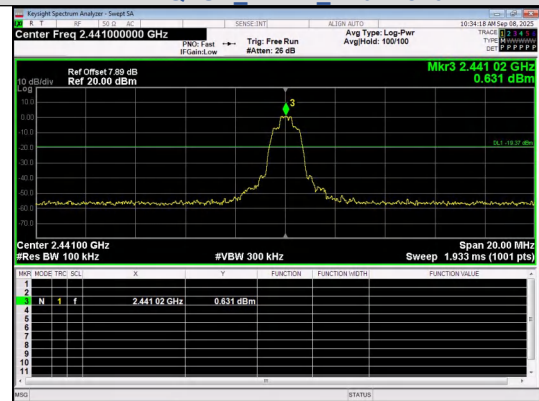
30.0 MHz - 25000.0 MHz
GFSK_DH1_Channel 0



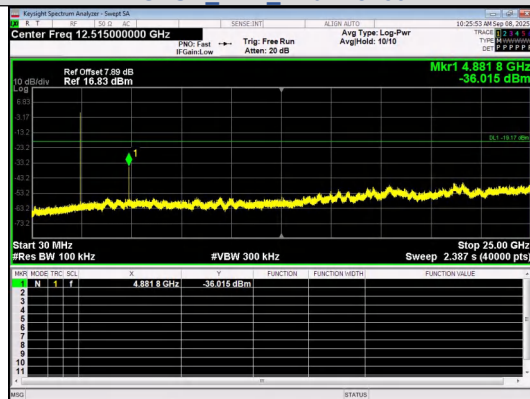
30.0 MHz - 25000.0 MHz
 $\pi/4$ DQPSK_2-DH1_Channel 0



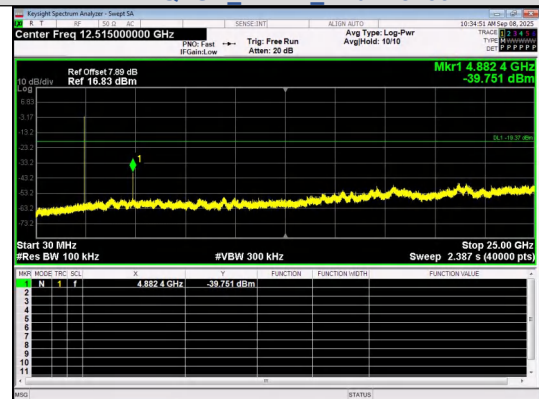
Out Of Band Emission
GFSK_DH1_Channel 39



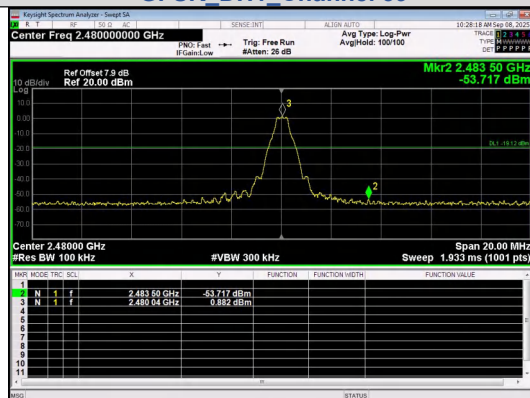
Out Of Band Emission
 $\pi/4$ DQPSK_2-DH1_Channel 39



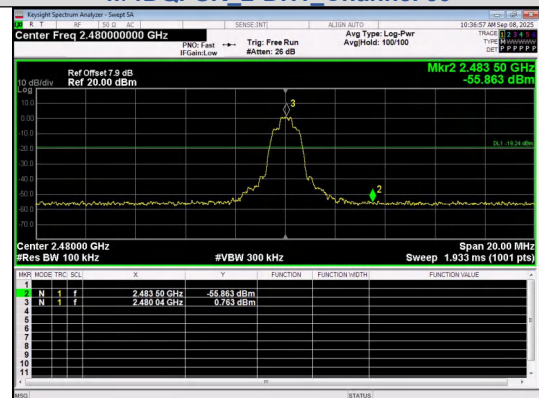
30.0 MHz - 25000.0 MHz
GFSK_DH1_Channel 39



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



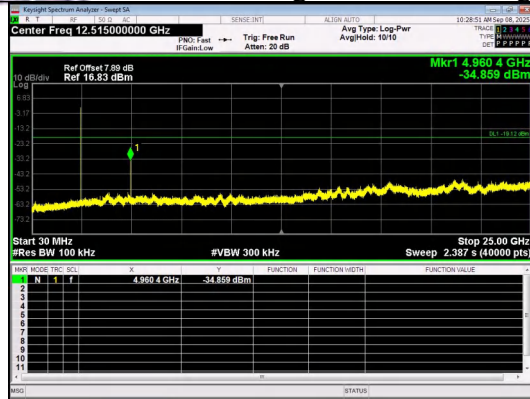
Out Of Band Emission
GFSK_DH1_Channel 78



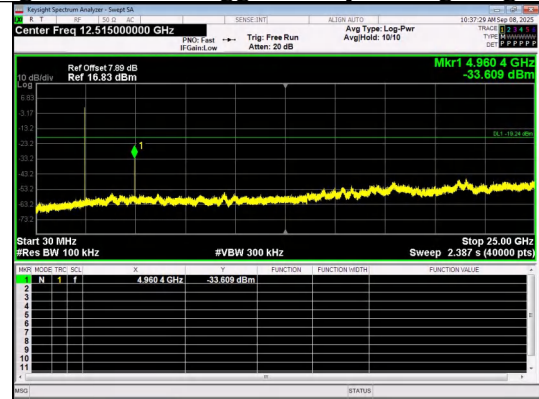
Out Of Band Emission
 $\pi/4$ DQPSK_2-DH1_Channel 78



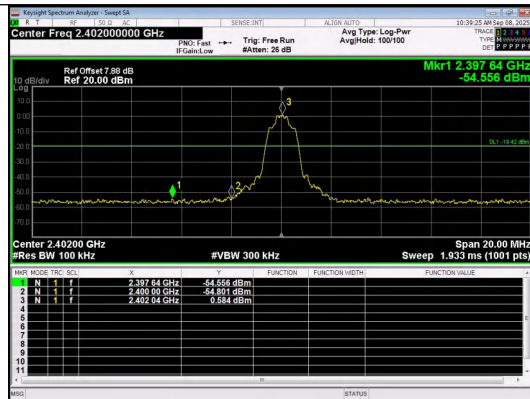
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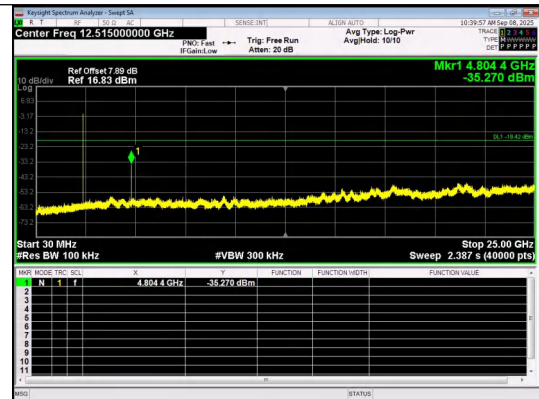
30.0 MHz - 25000.0 MHz
GFSK_DH1_Channel 78



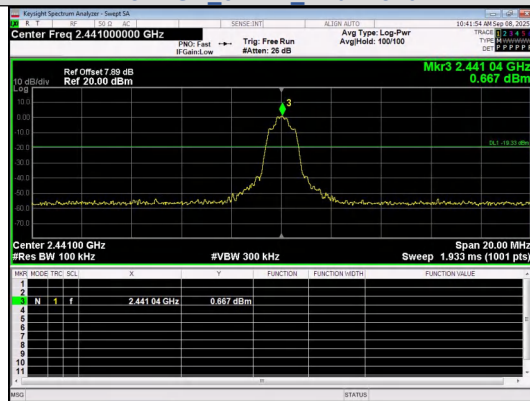
30.0 MHz - 25000.0 MHz
 $\pi/4$ DQPSK_2-DH1_Channel 78



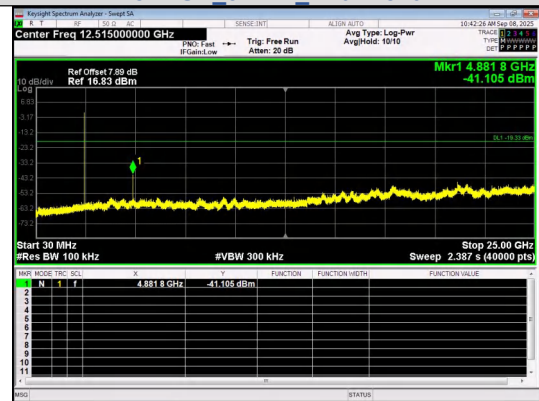
Out Of Band Emission
8DPSK_3-DH1_Channel 0



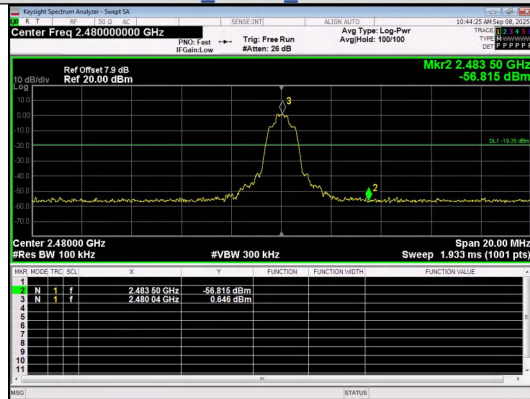
30.0 MHz - 25000.0 MHz
8DPSK_3-DH1_Channel 0



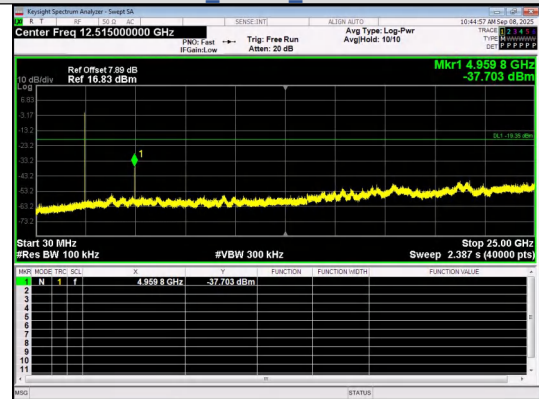
Out Of Band Emission
8DPSK_3-DH1_Channel 39



30.0 MHz - 25000.0 MHz
8DPSK_3-DH1_Channel 39



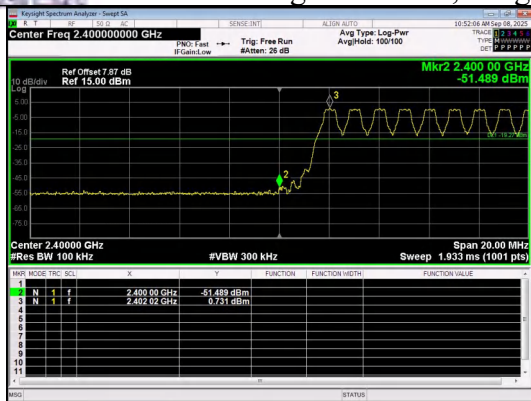
Out Of Band Emission
8DPSK_3-DH1_Channel 78



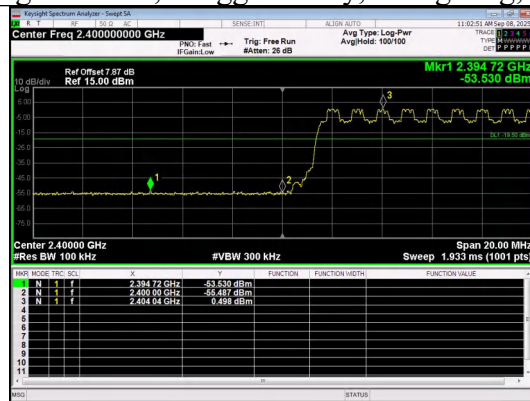
30.0 MHz - 25000.0 MHz
8DPSK_3-DH1_Channel 78



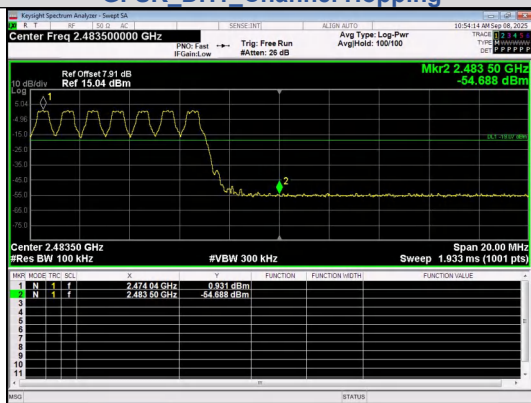
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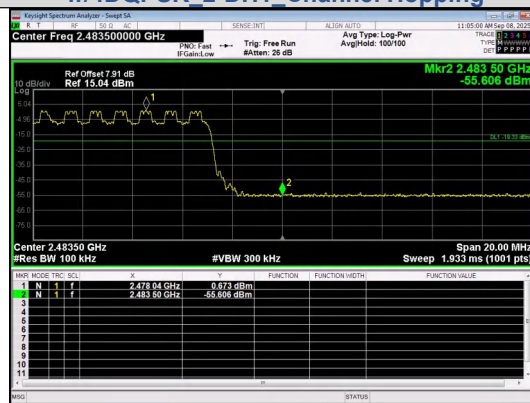
Out Of Band Emission(Left)
GFSK DH1 Channel Hopping



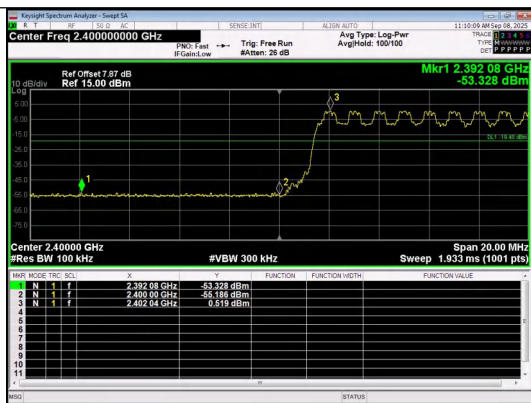
Out Of Band Emission(Left)
 $\pi/4$ DQPSK 2-DH1 Channel Hopping



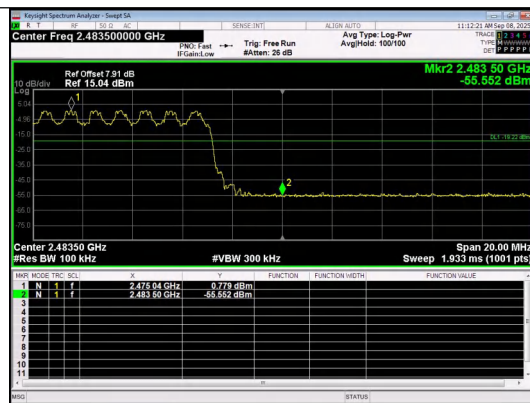
Out Of Band Emission(Right)
GFSK DH1 Channel Hopping



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