

Appendix A

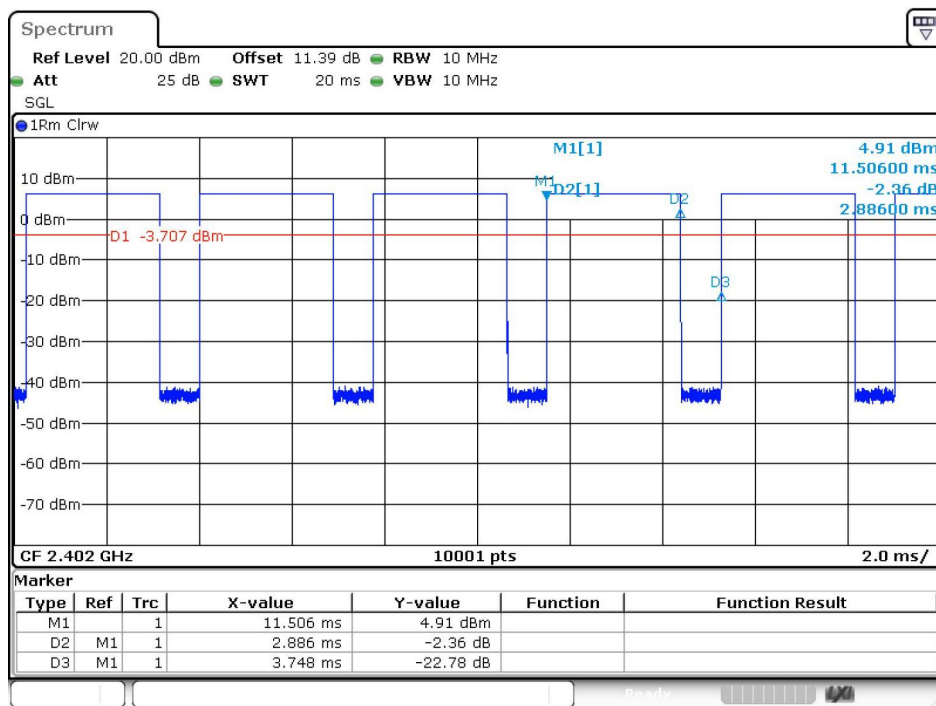
Report No.:	CISRR24082719801
FCC ID:	2BKVY-BCI-AIC
Product Name:	Smart EEG Glasses
Model No.:	BCI-AIC
Test Engineer:	Jimmy Huang
Supervised by:	Rory Huang

1) Duty Cycle

Test Result

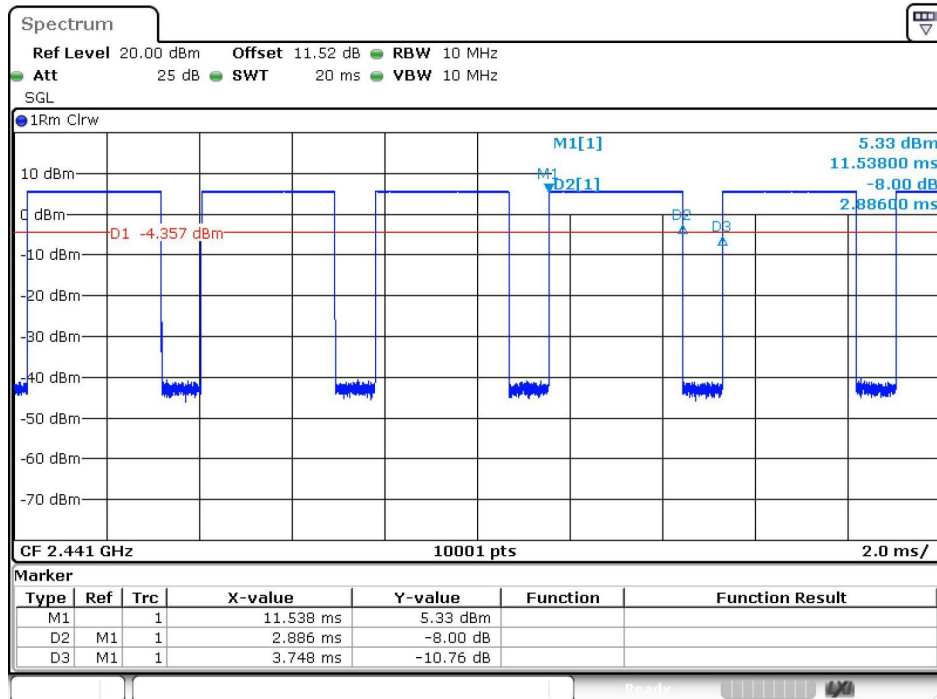
Modulation	Packets	Channel	On Time (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle (linear)	Duty Cycle Factor (dB)	1/T
GFSK	DH5	0	2.886	3.748	77.00	0.7700	1.1351	0.35
		39	2.886	3.748	77.00	0.7700	1.1351	0.35
		78	2.886	3.748	77.00	0.7700	1.1351	0.35
$\pi/4$ DQPSK	2-DH5	0	2.890	3.748	77.11	0.7711	1.1289	0.35
		39	2.890	3.748	77.11	0.7711	1.1289	0.35
		78	2.890	3.748	77.11	0.7711	1.1289	0.35
8DPSK	3-DH5	0	2.894	3.748	77.21	0.7721	1.1233	0.35
		39	2.892	3.748	77.16	0.7716	1.1261	0.35
		78	2.894	3.748	77.21	0.7721	1.1233	0.35

Test Graphs



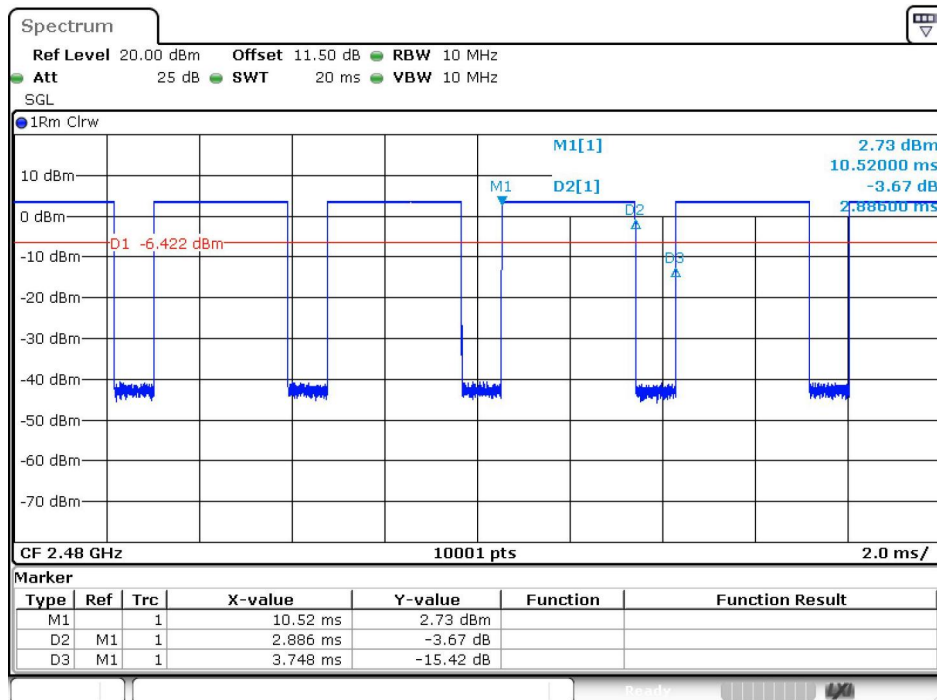
Date: 30.AUG.2024 16:16:48

GFSK(DH5)_Channel 0



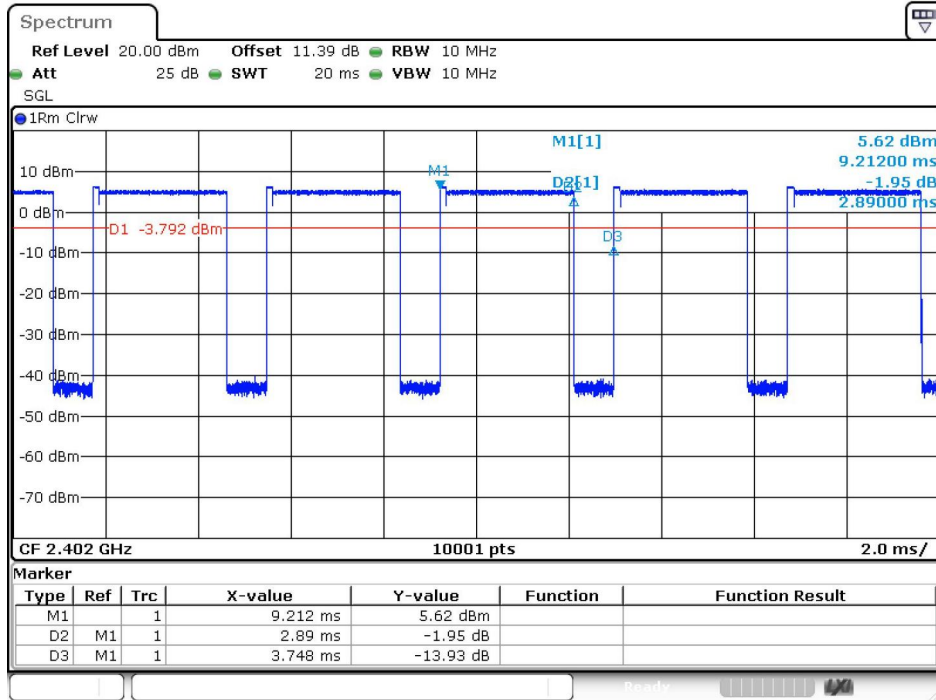
Date: 30.AUG.2024 16:26:28

GFSK(DH5)_Channel 39



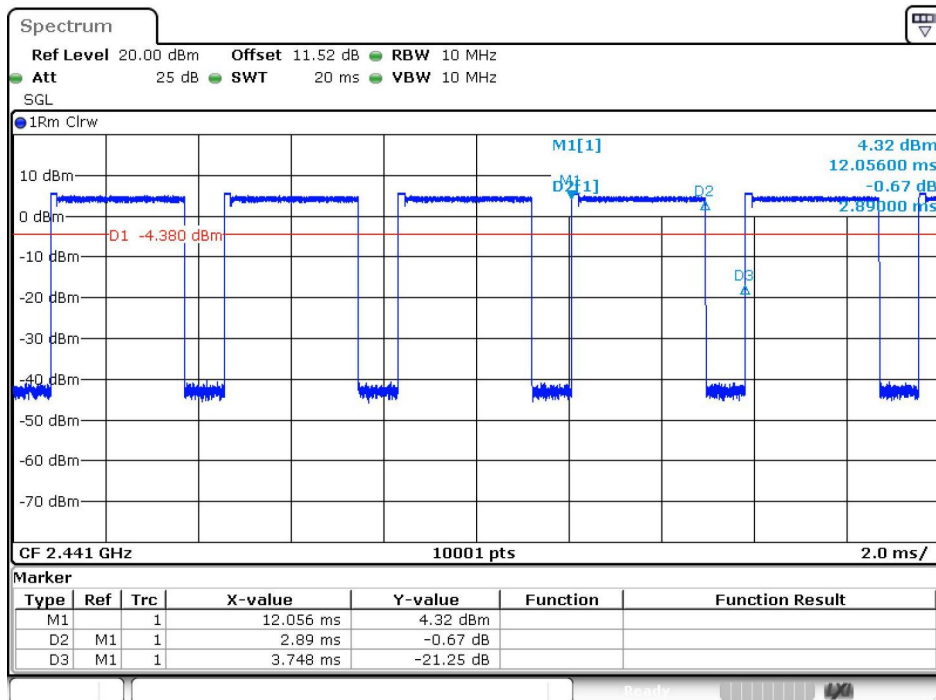
Date: 30.AUG.2024 16:31:29

GFSK(DH5)_Channel 78



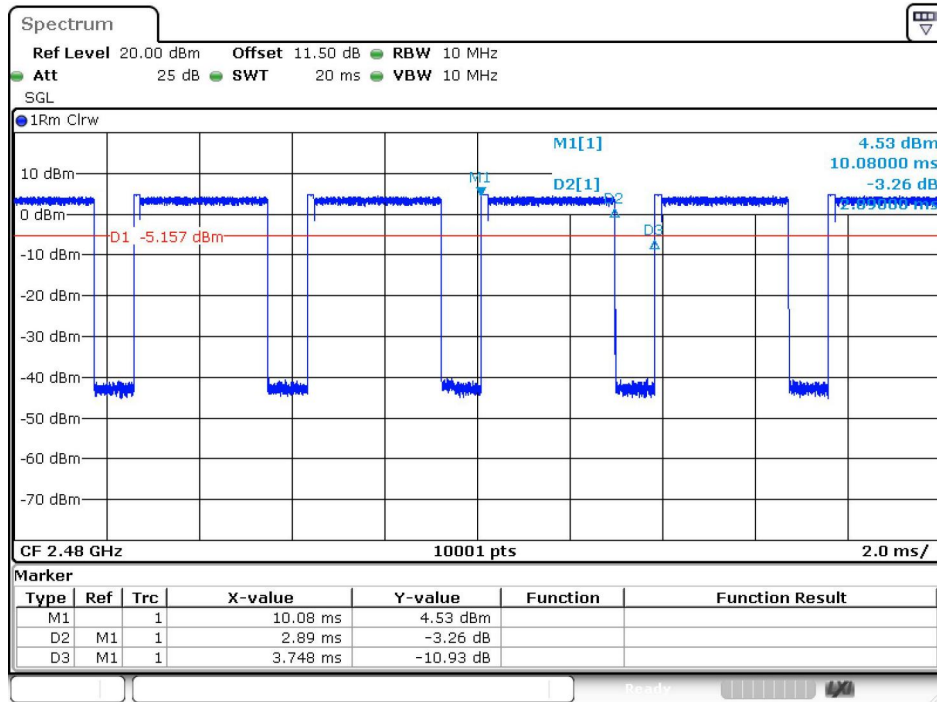
Date: 30.AUG.2024 16:34:10

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



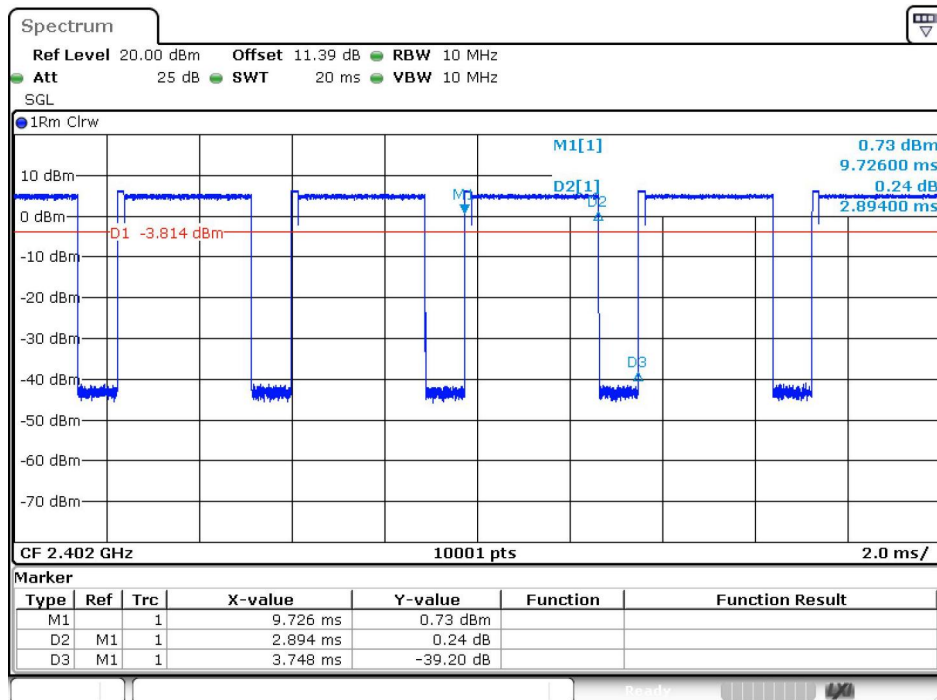
Date: 30.AUG.2024 16:40:17

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



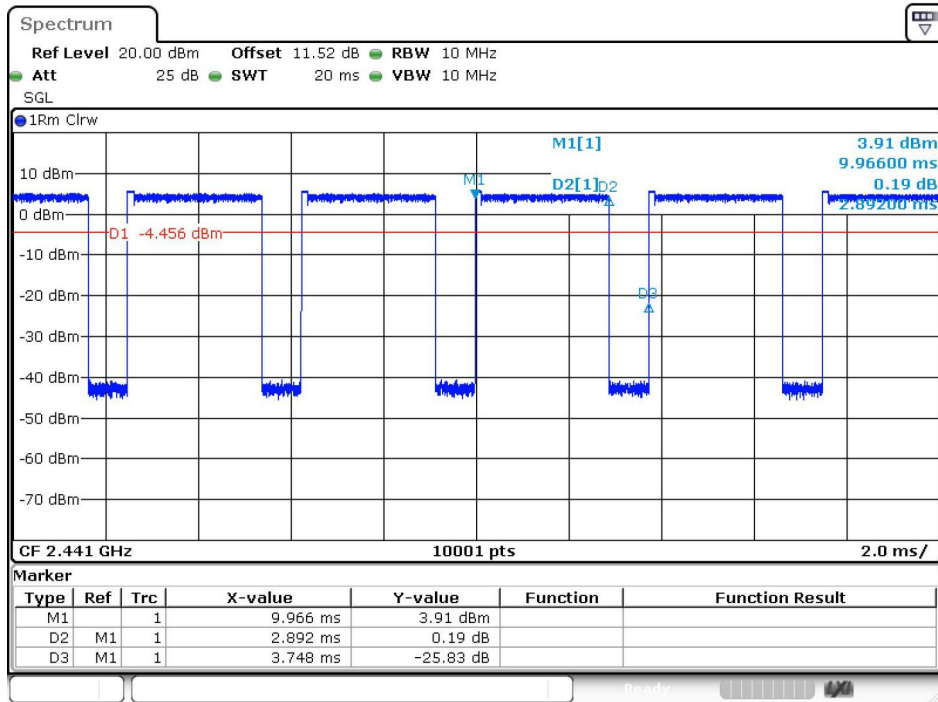
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$\pi/4$ DQPSK(2-DH5)_Channel 78



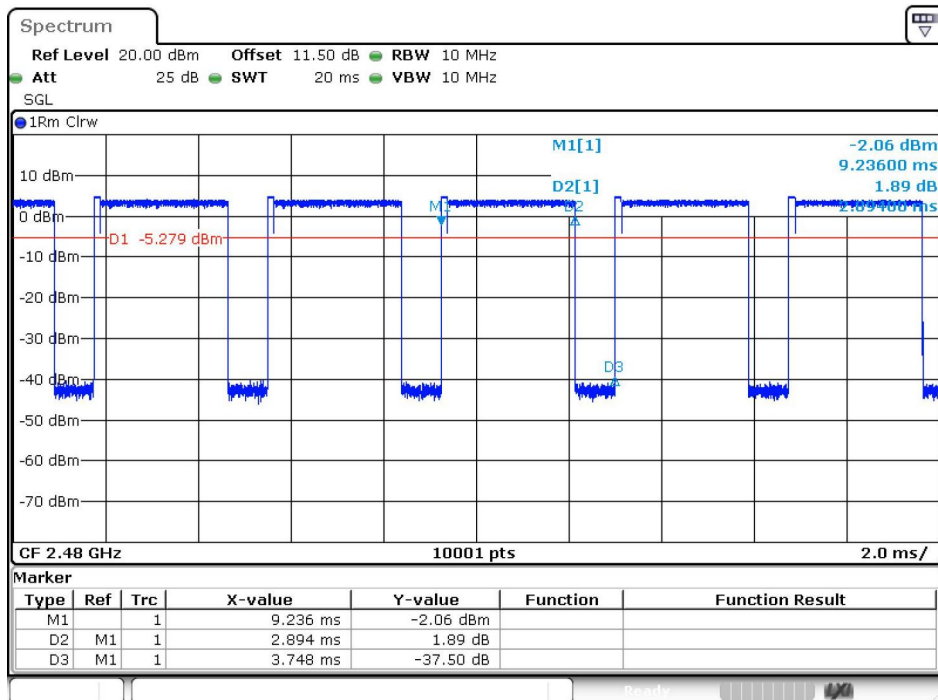
Date: 30.AUG.2024 16:44:44

8DPSK(3-DH5)_Channel 0



Date: 30.AUG.2024 16:52:12

8DPSK(3-DH5)_Channel 39



Date: 30.AUG.2024 16:54:22

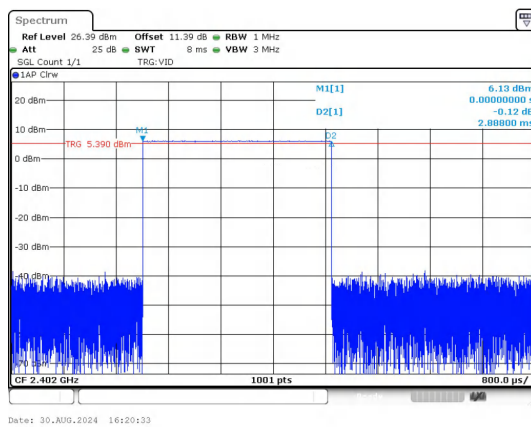
8DPSK(3-DH5)_Channel 78

2) Dwell Time

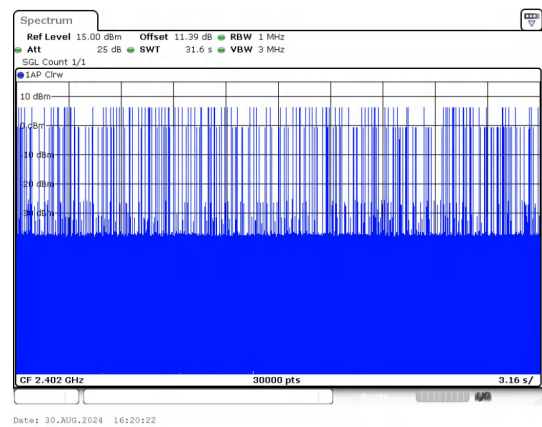
Test Result

Modulation	Packet	Channel	Pulse Width (ms)	Number of Pulses in 31.6 seconds	Dwell Time (ms)	Limit (ms)	Result
GFSK	DH5	CH0 (2402MHz)	2.888	117	337.9	< 400	PASS
$\pi/4$ DQPSK	2-DH5		2.896	109	315.66		PASS
8DPSK	3-DH5		2.896	100	289.6		PASS

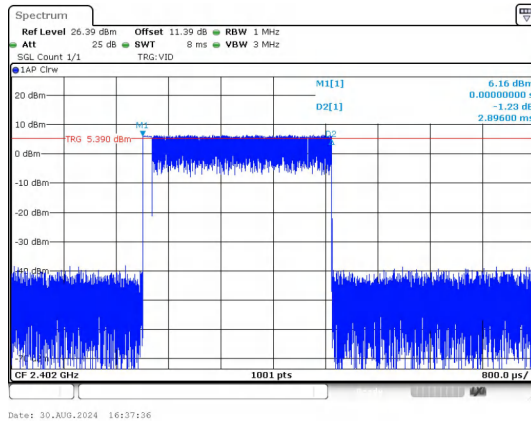
Test Graphs



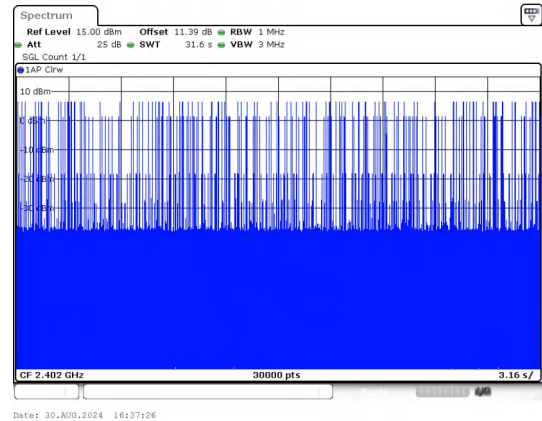
Pulse Width
GFSK_DH5



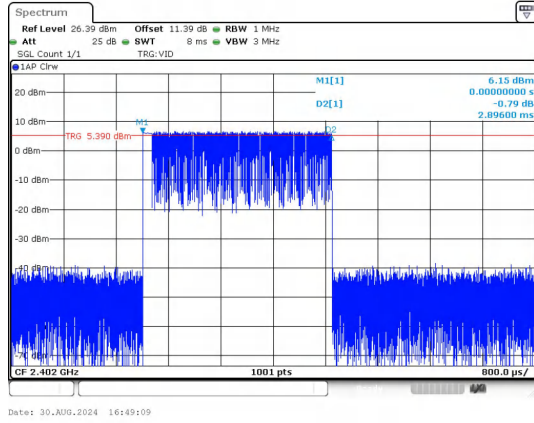
Number of Pulses in 31.6 seconds
GFSK_DH5



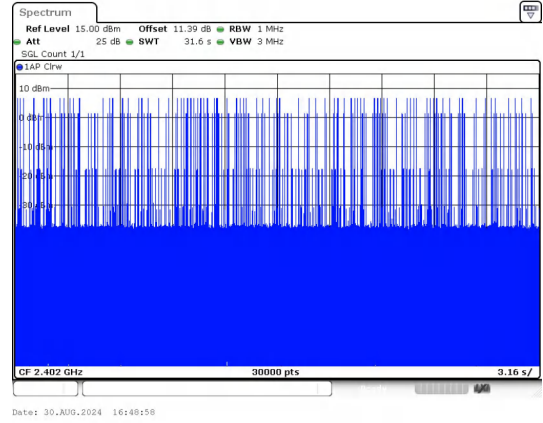
Pulse Width
 $\pi/4$ DQPSK_2-DH5



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



Pulse Width
8DPSK_3-DH5



Number of Pulses in 31.6 seconds
8DPSK_3-DH5

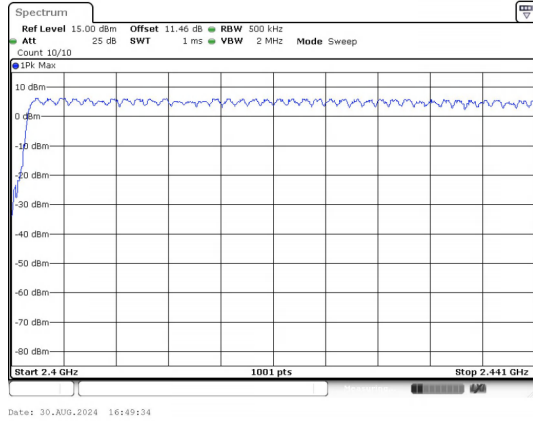
3) Number Of Hopping Channel

Test Result

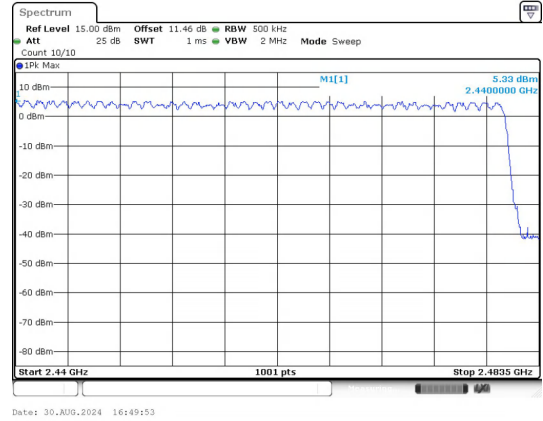
Modulation	Packet	Number of Hopping Channel	Limit	Result
GFSK	DH5	79	15	PASS
$\pi/4$ DQPSK	2-DH5	79	15	PASS
8DPSK	3-DH5	79	15	PASS

Test Graphs





Low End Spectrum Channel Hopping Plot
8DPSK



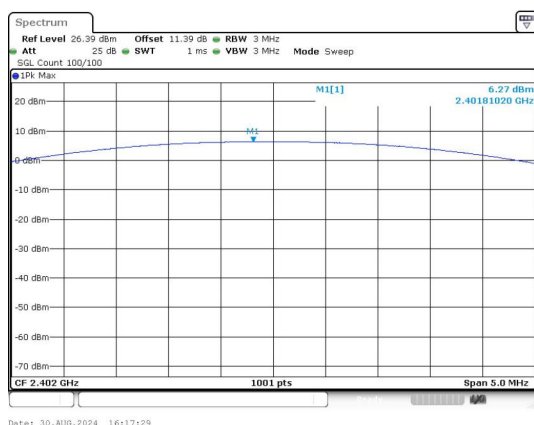
High End Spectrum Channel Hopping Plot
8DPSK

4) Conducted Peak Output Power

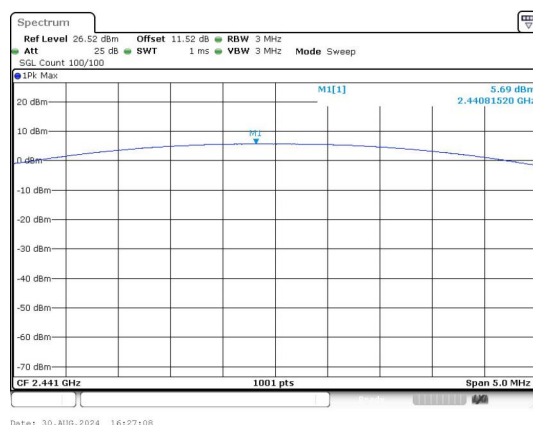
Test Result

Modulation	Packet Type	Channel	Peak Output Power (dBm)	Peak Output Power (mW)	Limit (dBm)	Result
GFSK	DH5	0	6.27	4.24	≤30	PASS
		39	5.69	3.71		PASS
		78	4.87	3.07		PASS
$\pi/4$ DQPSK	2-DH5	0	6.86	4.85	≤20.97	PASS
		39	6.16	4.13		PASS
		78	5.57	3.61		PASS
8DPSK	3-DH5	0	7.01	5.03		PASS
		39	6.37	4.34		PASS
		78	3.43	2.20		PASS

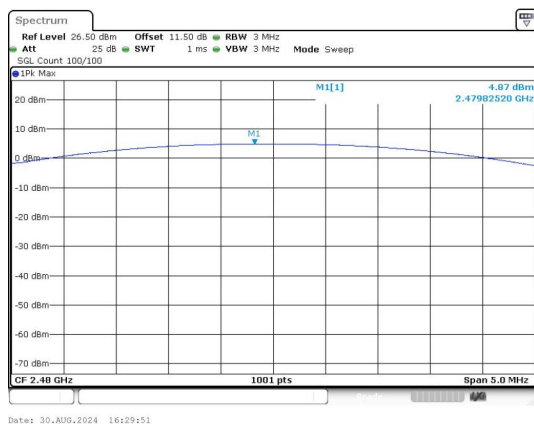
Test Graphs



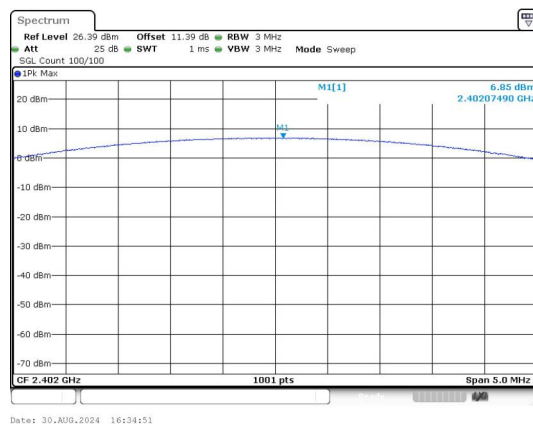
Peak Output Power
GFSK_Channel 0



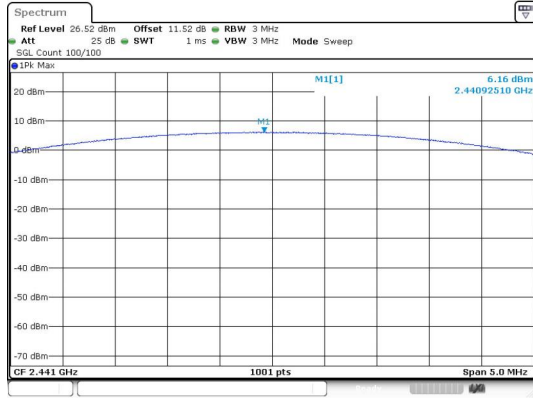
Peak Output Power
GFSK_Channel 39



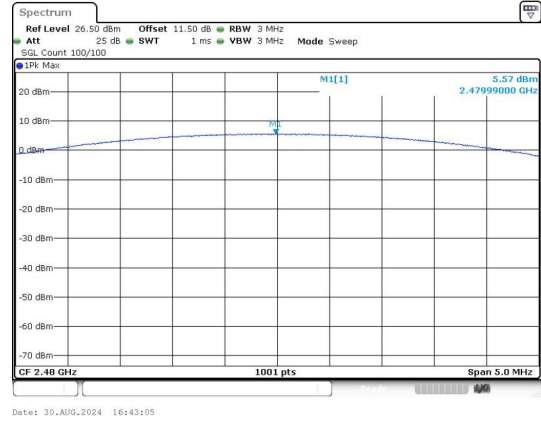
Peak Output Power
GFSK_Channel 78



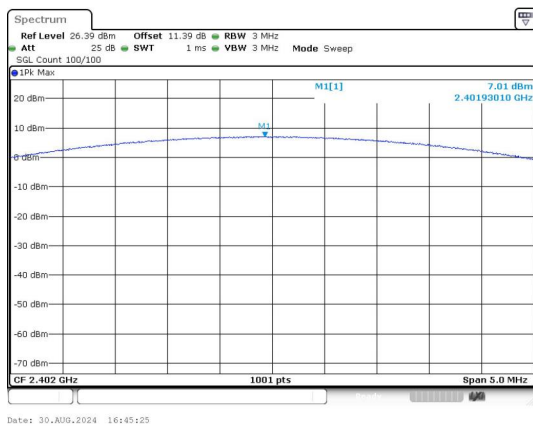
Peak Output Power
 $\pi/4$ DQPSK_Channel 0



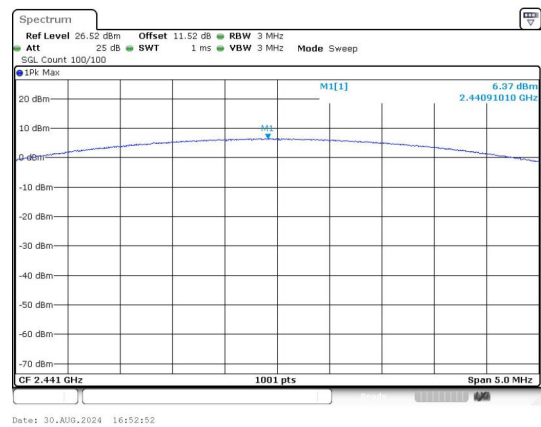
Peak Output Power
 $\pi/4$ DQPSK_Channel 39



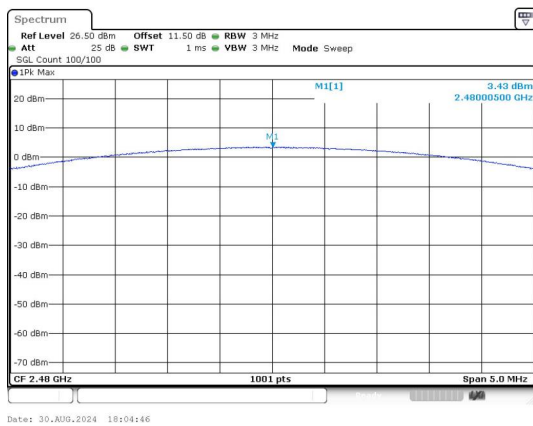
Peak Output Power
 $\pi/4$ DQPSK_Channel 78



Peak Output Power
8DPSK_Channel 0



Peak Output Power
8DPSK_Channel 39



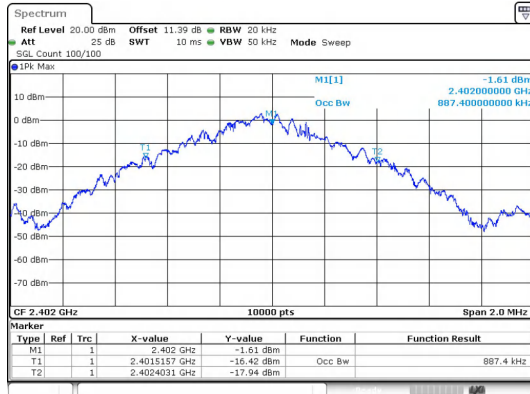
Peak Output Power
8DPSK_Channel 78

5) 99% Bandwidth

Test Result

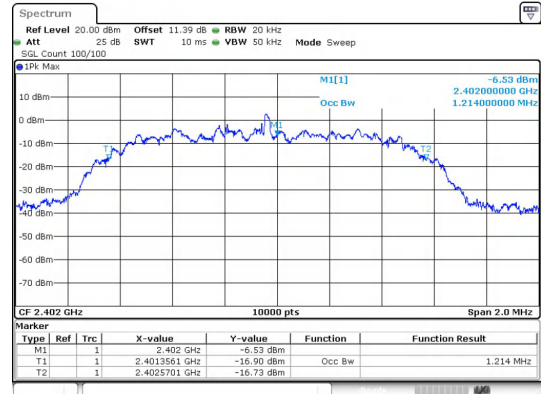
Modulation	Channel	Center Frequency (MHz)	99% BW (MHz)
GFSK	0	2402	0.88740
	39	2441	0.89420
	78	2480	0.87720
π /4DQPSK	0	2402	1.2140
	39	2441	1.2044
	78	2480	1.1972
8DPSK	0	2402	1.2168
	39	2441	1.2086
	78	2480	1.2046

Test Graphs

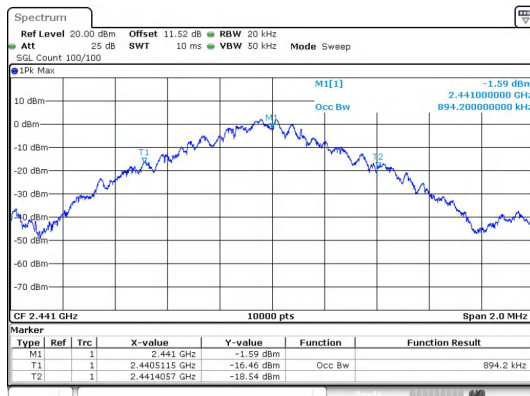


Date: 30.AUG.2024 16:17:02

GFSK_DH5_Channel 0

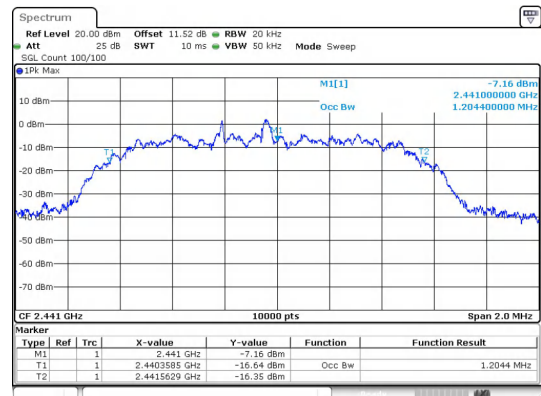


Date: 30.AUG.2024 16:14:25

 π /4DQPSK_2-DH5_Channel 0


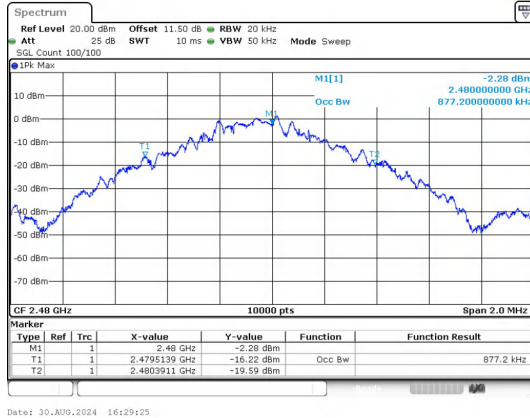
Date: 30.AUG.2024 16:26:42

GFSK_DH5_Channel 39

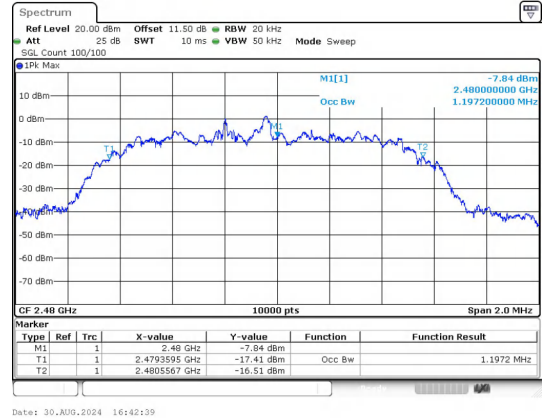


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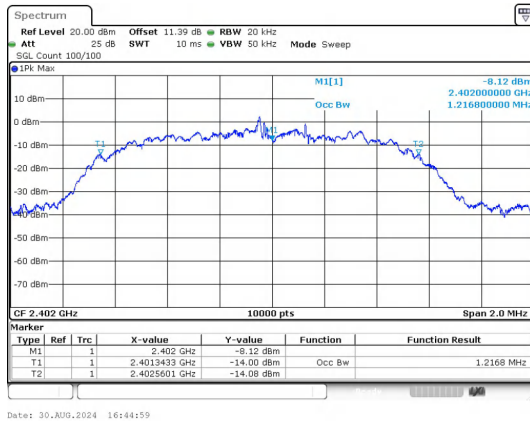
 π /4DQPSK_2-DH5_Channel 39



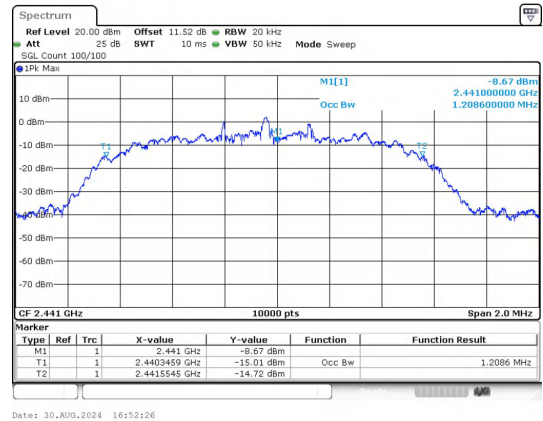
GFSK_DH5_Channel 78



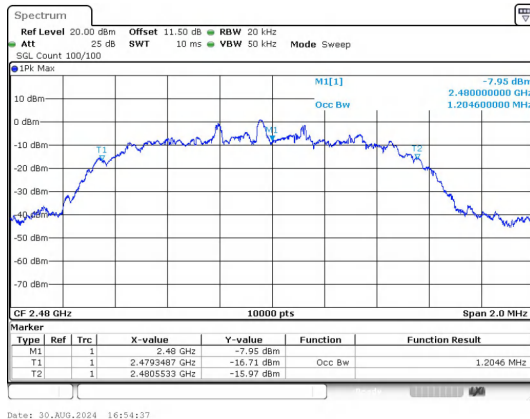
$\pi/4$ DQPSK_2-DH5_Channel 78



8DPSK_3-DH5_Channel 0



8DPSK_3-DH5_Channel 39



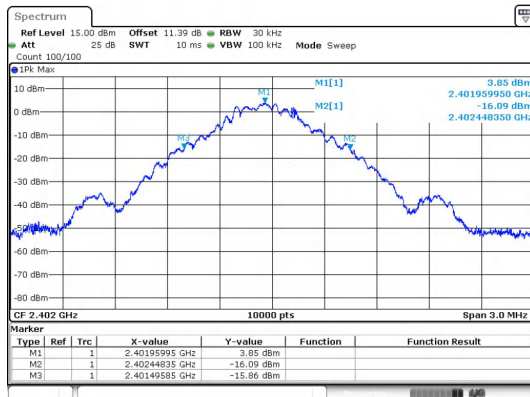
8DPSK_3-DH5_Channel 78

6) 20dB Bandwidth

Test Result

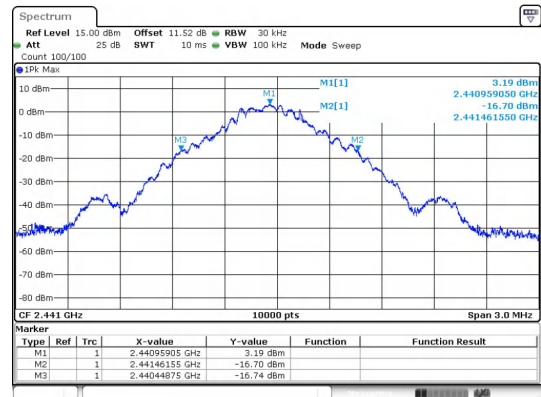
Modulation	Channel	Center Frequency (MHz)	20 dB Bandwidth (MHz)
GFSK	0	2402 MHz	0.9500
	39	2441 MHz	1.010
	78	2480 MHz	0.9800
$\pi/4$ DQPSK	0	2402 MHz	1.310
	39	2441 MHz	1.310
	78	2480 MHz	1.300
8DPSK	0	2402 MHz	1.300
	39	2441 MHz	1.300
	78	2480 MHz	1.300

Test Graphs



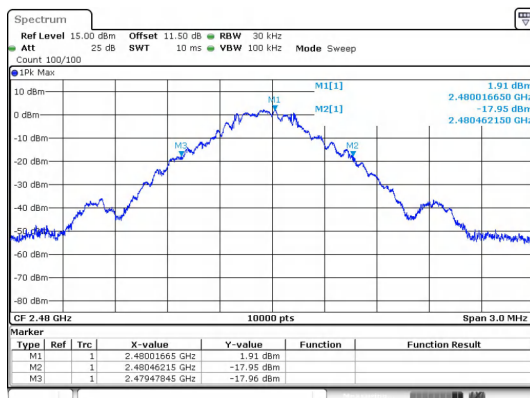
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GFSK_DH5_Channel 0



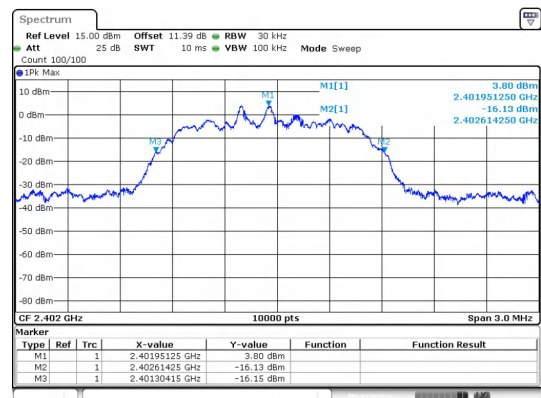
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GFSK_DH5_Channel 39



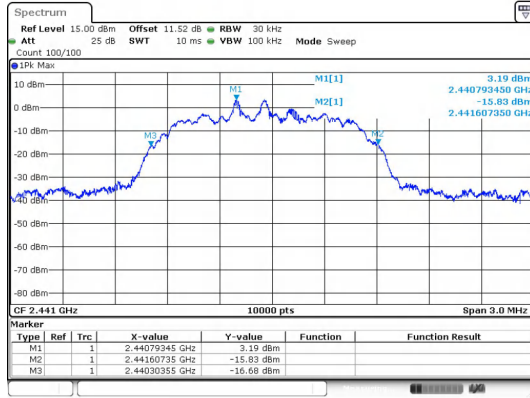
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GFSK_DH5_Channel 78

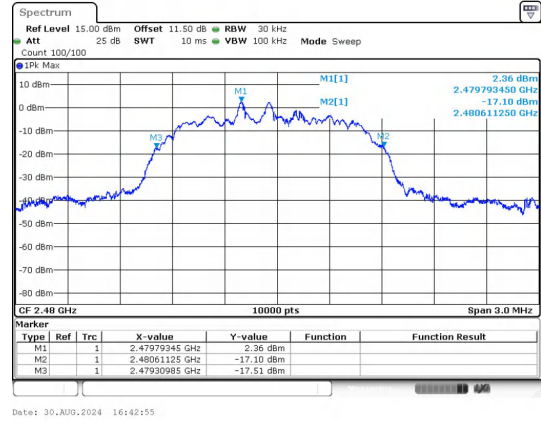


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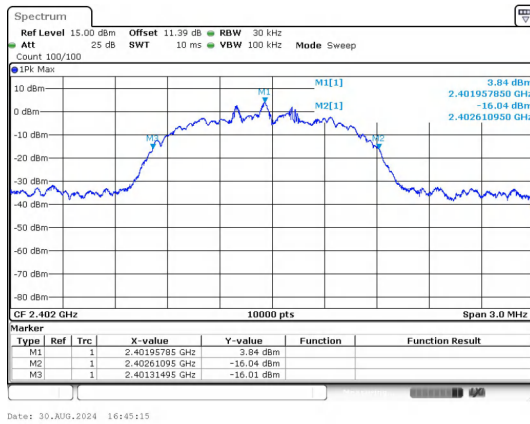
 $\pi/4$ DQPSK_2-DH5_Channel 0



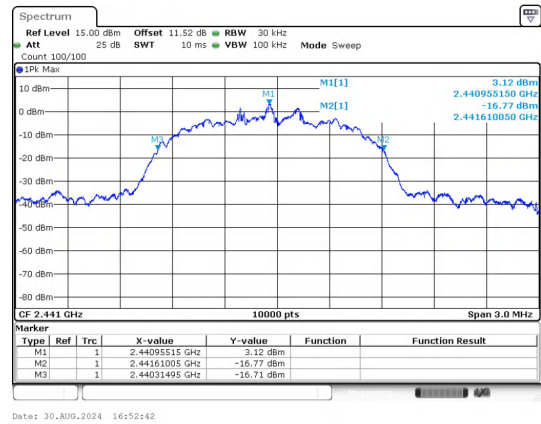
$\pi/4$ DQPSK_2-DH5_Channel 39



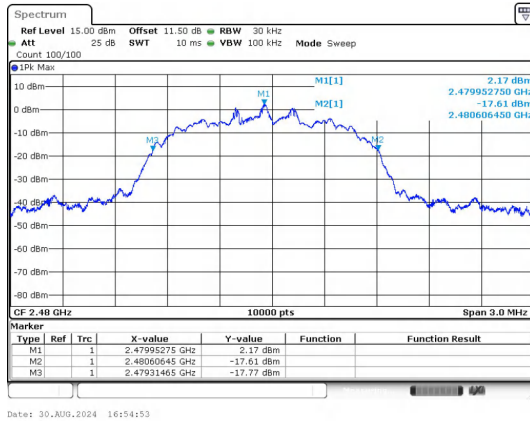
$\pi/4$ DQPSK_2-DH5_Channel 78



8DPSK_3-DH5_Channel 0



8DPSK_3-DH5_Channel 39



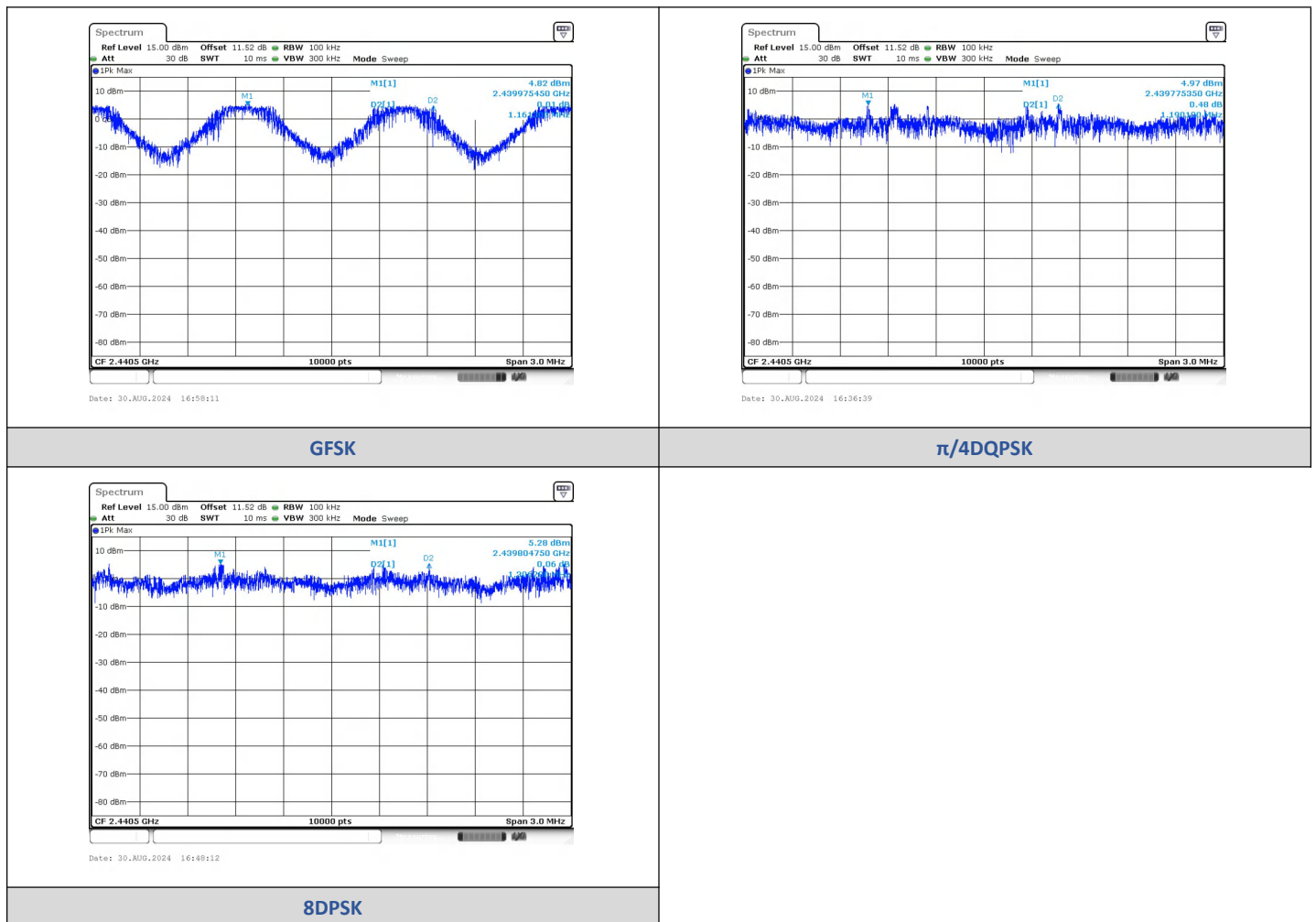
8DPSK_3-DH5_Channel 78

7) Carrier Frequencies Separation

Test Result

Modulation	Packet	Left Center frequency (MHz)	Right Center frequency (MHz)	Hopping Frequency Separation (MHz)	Limit (MHz)	Result
GFSK	DH5	2439.9754	2441.1368	1.1613	1.010	PASS
$\pi/4$ QPSK	2-DH5	2439.7753	2440.9655	1.1901	0.873	PASS
8DPSK	3-DH5	2439.8047	2441.1109	1.3062	0.867	PASS

Test Graphs



8) Conducted Out Of Band Emission

Test Result

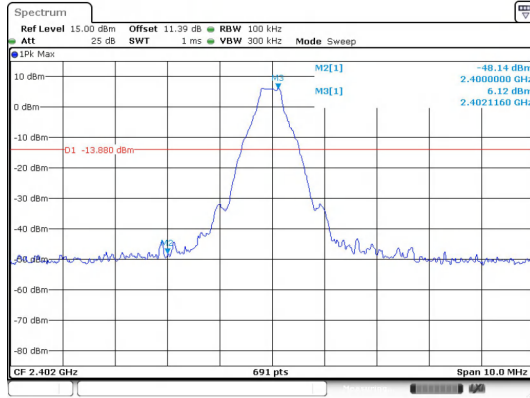
Non-Hopping

Modulation	Packet	Channel	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
GFSK	DH5	0	2400.00	-48.143	-13.88	-34.263	PASS
			7206.79	-38.542	-13.88	-24.662	PASS
		39	2249.42	-41.845	-14.47	-27.375	PASS
		78	2287.70	-40.976	-15.29	-25.686	PASS
			2483.50	-49.639	-15.29	-34.349	PASS
$\pi/4$ DQPSK	2-DH5	0	2400.00	-44.524	-13.9	-30.624	PASS
			7205.13	-43.644	-13.9	-29.744	PASS
		39	2248.58	-42.106	-14.7	-27.406	PASS
		78	2287.70	-41.905	-15.28	-26.625	PASS
			2483.50	-50.152	-15.28	-34.872	PASS
8DPSK	3-DH5	0	2400.00	-43.617	-13.88	-29.736	PASS
			7205.96	-41.559	-13.88	-27.679	PASS
		39	2248.58	-45.932	-14.6	-31.332	PASS
		78	2483.50	-50.876	-17.61	-33.266	PASS
			9920.20	-38.128	-17.61	-20.518	PASS

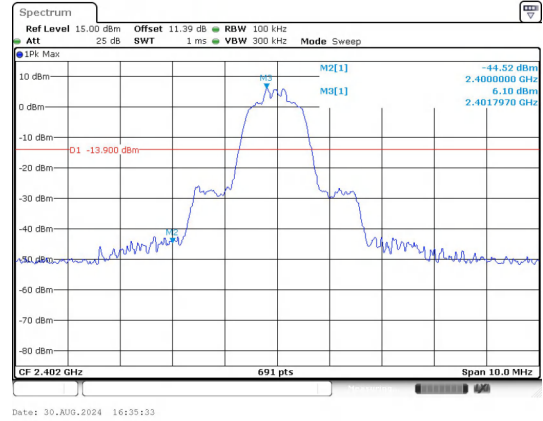
Hopping

Modulation	Packet	Channel	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
GFSK	DH5	Hopping	2397.48	-48.017	-14.25	-33.767	PASS
			2400.00	-48.230	-14.25	-33.980	PASS
			2483.50	-48.352	-15.33	-33.022	PASS
$\pi/4$ DQPSK	2-DH5		2397.79	-47.664	-14.0	-33.664	PASS
			2400.00	-49.655	-14.0	-35.655	PASS
			2483.50	-49.061	-15.25	-33.811	PASS
8DPSK	3-DH5		2395.14	-47.199	-14.03	-33.169	PASS
			2400.00	-49.181	-14.03	-35.151	PASS
			2483.50	-50.521	-15.38	-35.141	PASS

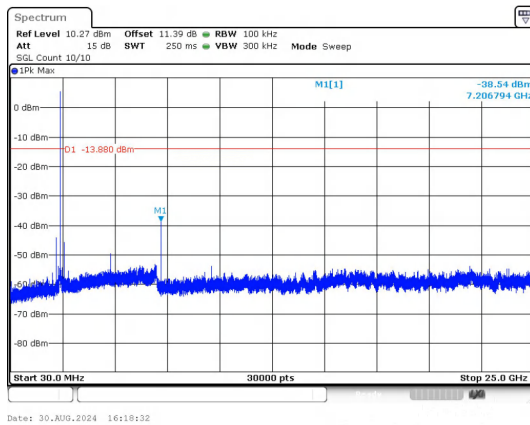
Test Graphs



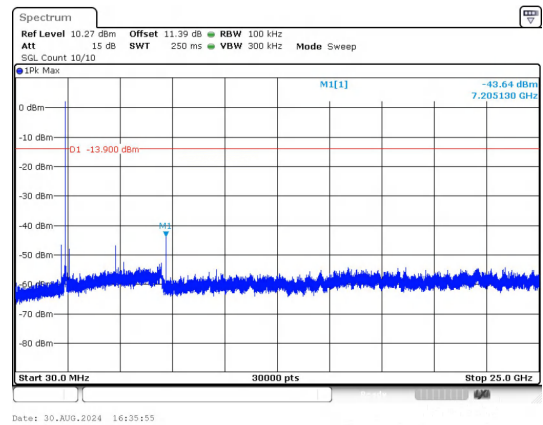
Out Of Band Emission
GFSK_DH5_Channel 0



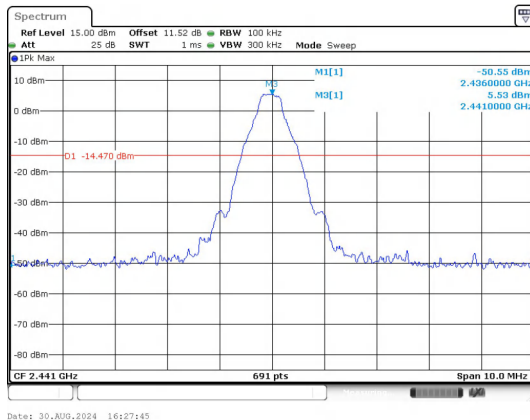
Out Of Band Emission
 $\pi/4$ DQPSK_2-DH5_Channel 0



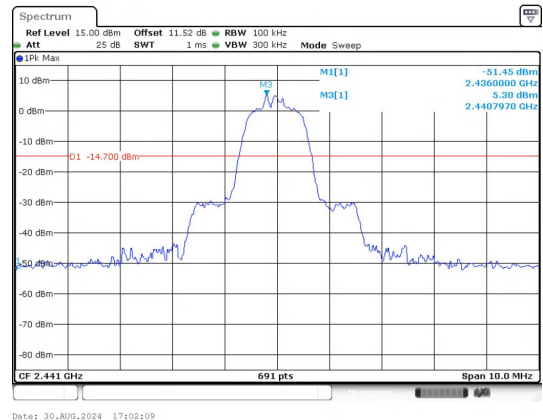
30.0 MHz - 25000.0 MHz
GFSK_DH5_Channel 0



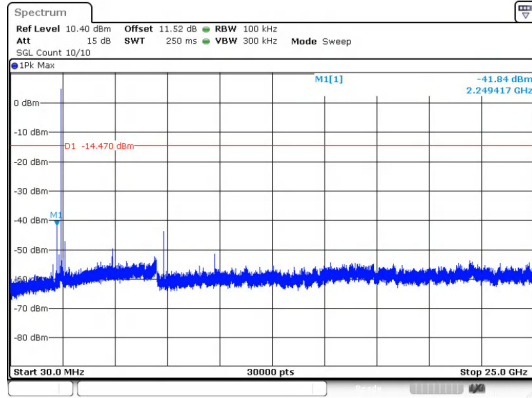
30.0 MHz - 25000.0 MHz
 $\pi/4$ DQPSK_2-DH5_Channel 0



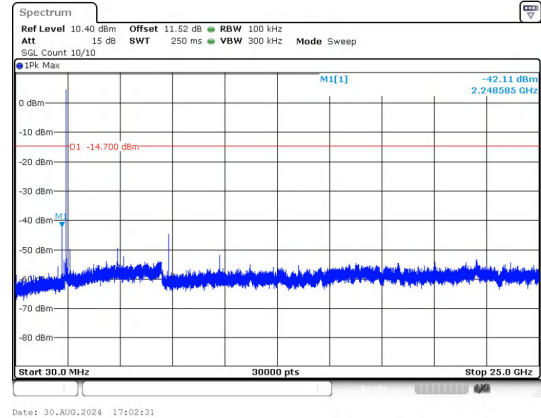
Out Of Band Emission
GFSK_DH5_Channel 39



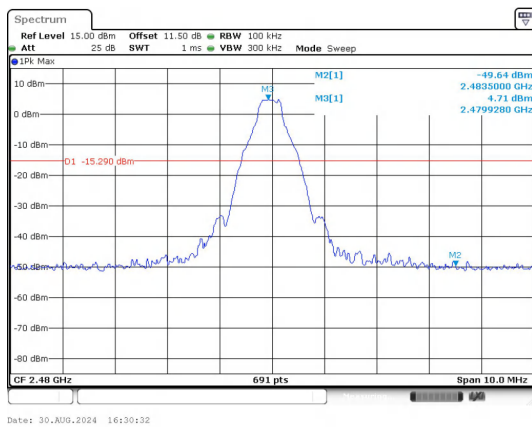
Out Of Band Emission
 $\pi/4$ DQPSK_2-DH5_Channel 39



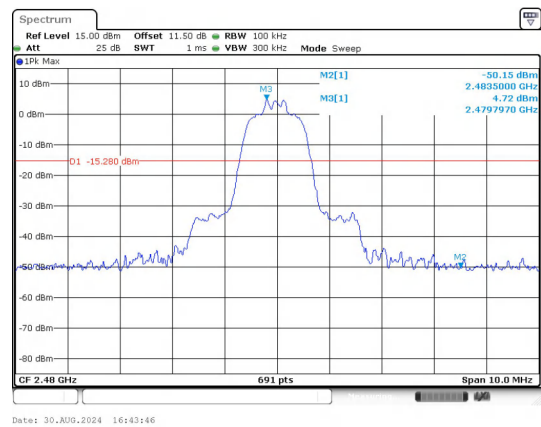
30.0 MHz - 25000.0 MHz
GFSK_DH5_Channel 39



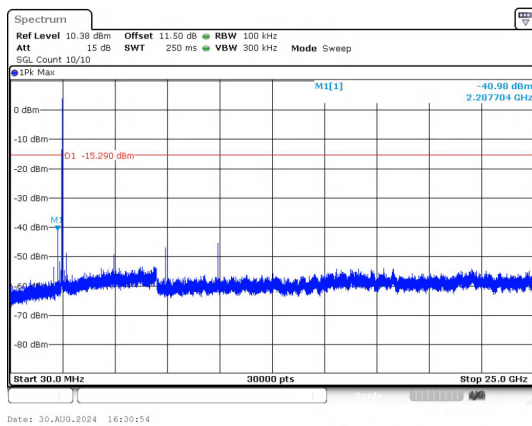
30.0 MHz - 25000.0 MHz
 $\pi/4$ DQPSK_2-DH5_Channel 39



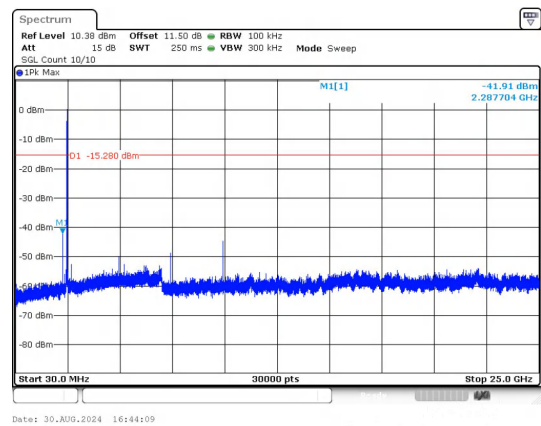
Out Of Band Emission
GFSK_DH5_Channel 78



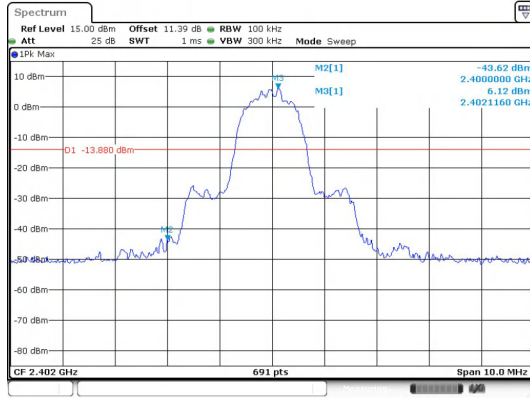
Out Of Band Emission
 $\pi/4$ DQPSK_2-DH5_Channel 78



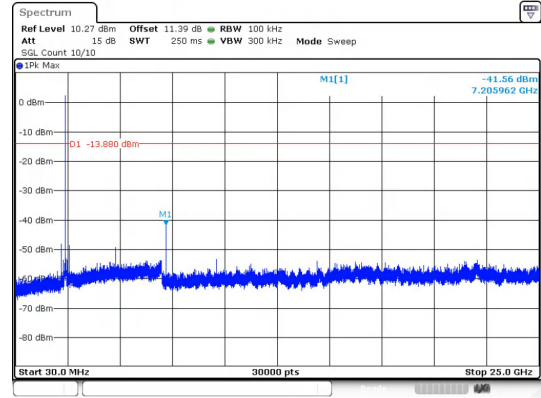
30.0 MHz - 25000.0 MHz
GFSK_DH5_Channel 78



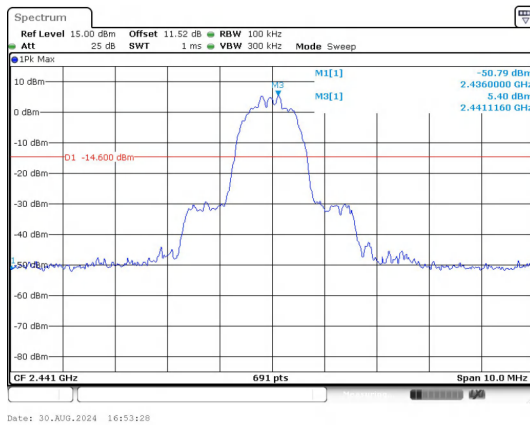
30.0 MHz - 25000.0 MHz
 $\pi/4$ DQPSK_2-DH5_Channel 78



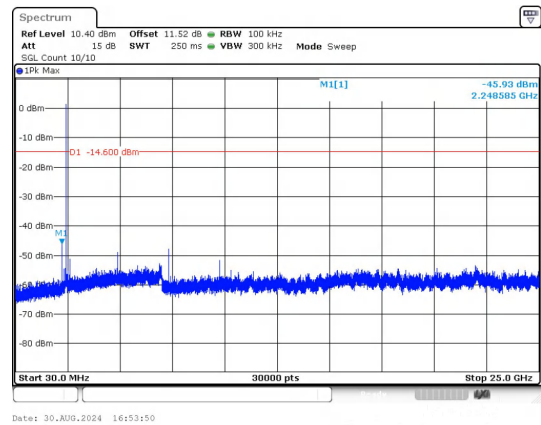
Out Of Band Emission
8DPSK_3-DH5_Channel 0



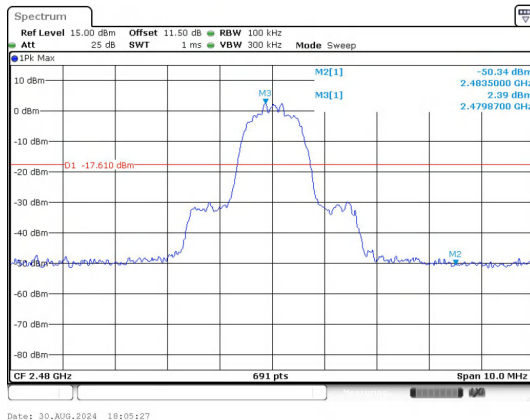
30.0 MHz - 25000.0 MHz
8DPSK_3-DH5_Channel 0



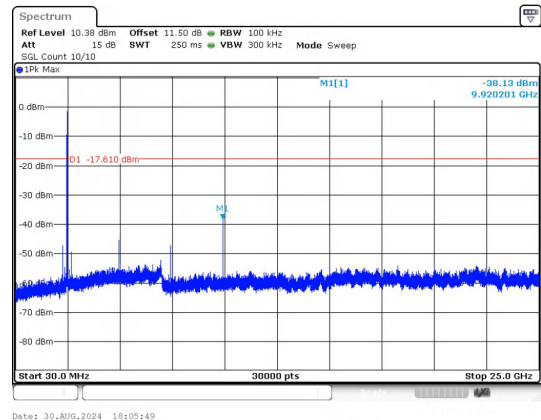
Out Of Band Emission
8DPSK_3-DH5_Channel 39



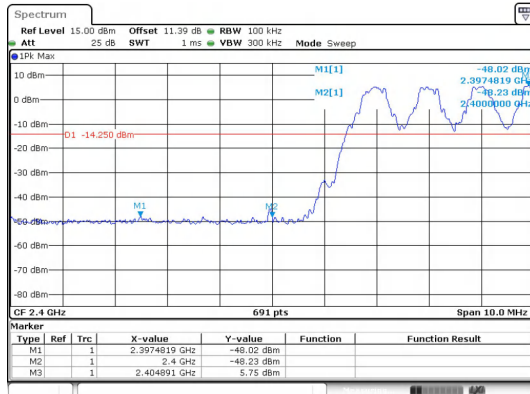
30.0 MHz - 25000.0 MHz
8DPSK_3-DH5_Channel 39



Out Of Band Emission
8DPSK_3-DH5_Channel 78



30.0 MHz - 25000.0 MHz
8DPSK_3-DH5_Channel 78



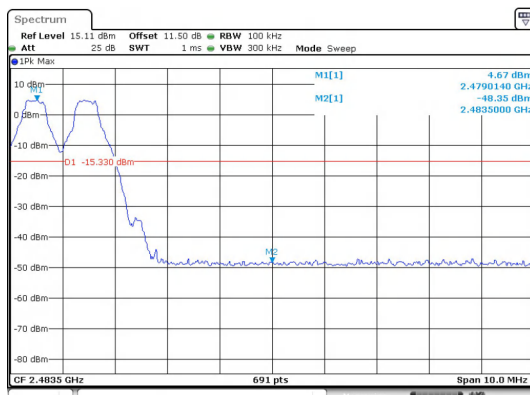
Date: 30.AUG.2024 16:22:51

Out Of Band Emission(Left)
GFSK_DH5_Channel Hopping



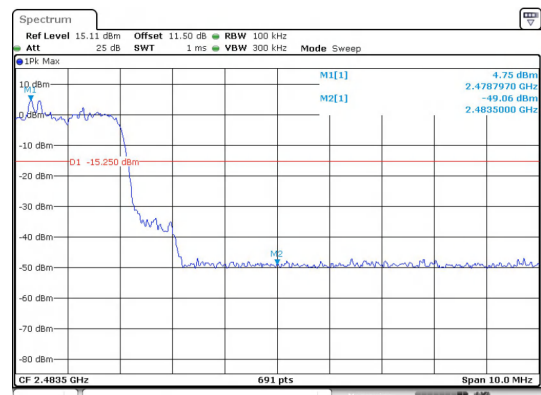
Date: 30.AUG.2024 16:38:54

Out Of Band Emission(Left)
 $\pi/4$ DQPSK_2-DH5_Channel Hopping



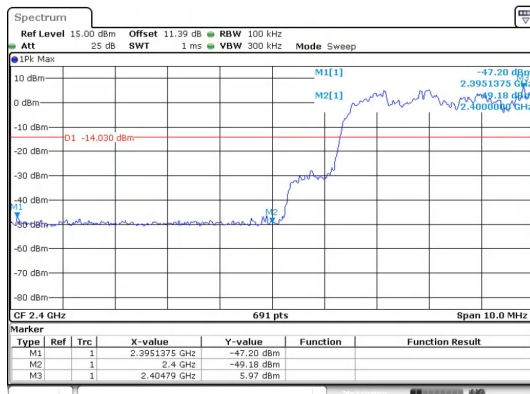
Date: 30.AUG.2024 16:25:52

Out Of Band Emission(Right)
GFSK_DH5_Channel Hopping



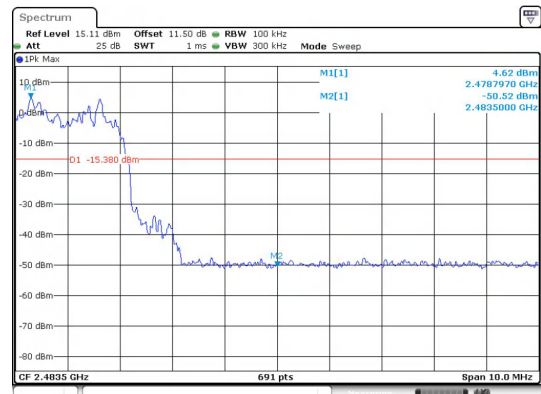
Date: 30.AUG.2024 16:39:43

Out Of Band Emission(Right)
 $\pi/4$ DQPSK_2-DH5_Channel Hopping



Date: 30.AUG.2024 16:51:15

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



Date: 30.AUG.2024 16:51:36

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