

Appendix A

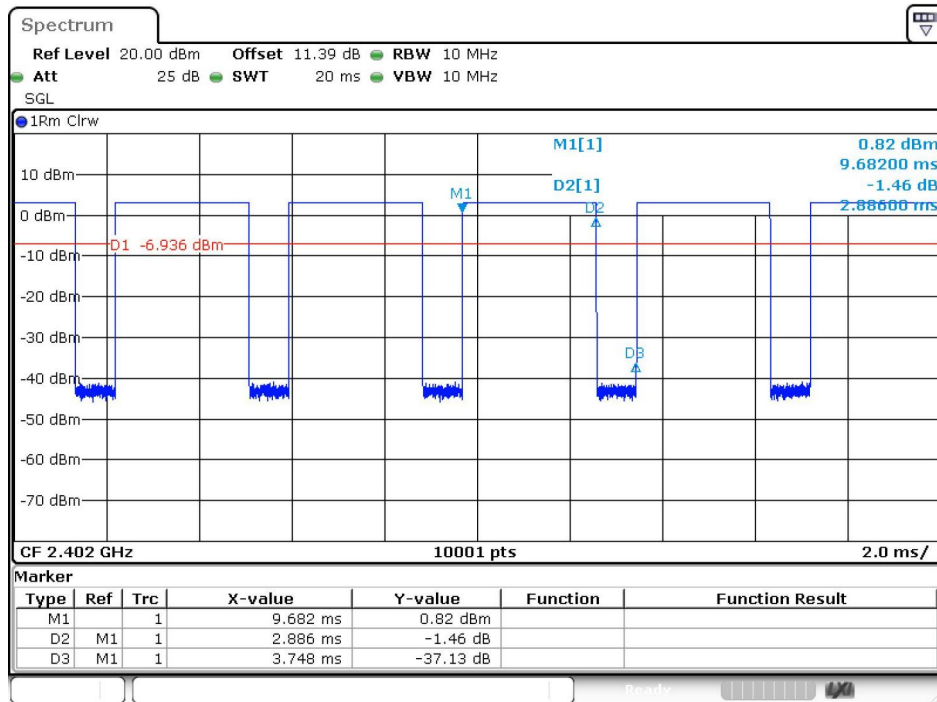
Report No.:	CISRR240814090
FCC ID:	2BKDO-JST-BT035C
Product Name:	Bluetooth headset
Model No.:	JST-BT035C
Test Engineer:	Jimmy Huang
Supervised by:	Rory Huang

1) Duty Cycle

Test Result

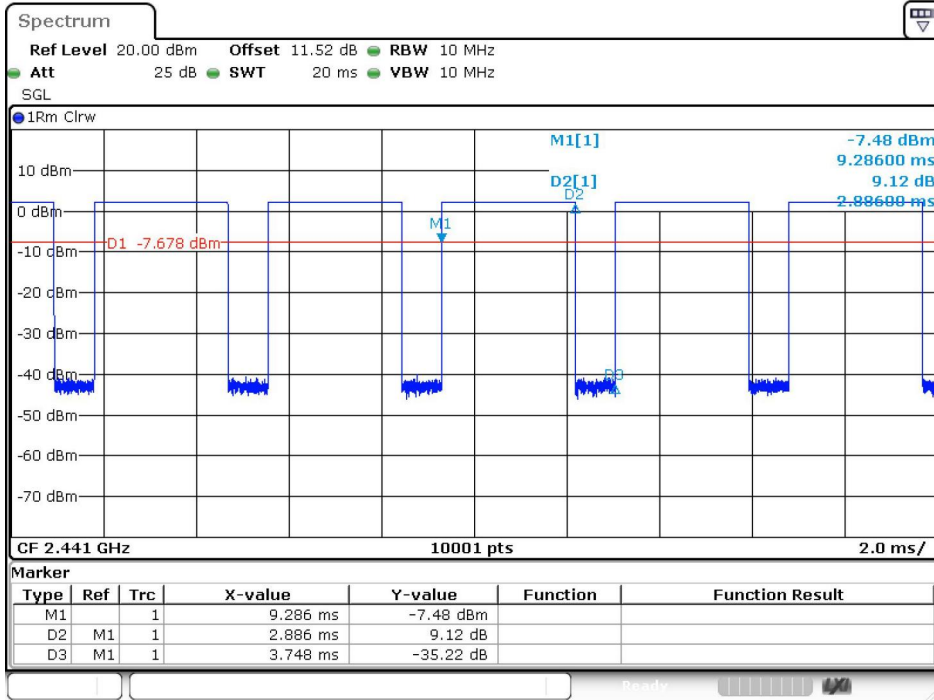
Modulation	Packets	Channel	On Time (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle (linear)	Duty Cycle Factor (dB)	1/T
GFSK	DH5	0	2.886	3.748	77.00	0.7700	1.1351	0.35
		39	2.886	3.748	77.00	0.7700	1.1351	0.35
		78	2.886	3.748	77.00	0.7700	1.1351	0.35
$\pi/4$ DQPSK	2-DH5	0	2.890	3.748	77.11	0.7711	1.1289	0.35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



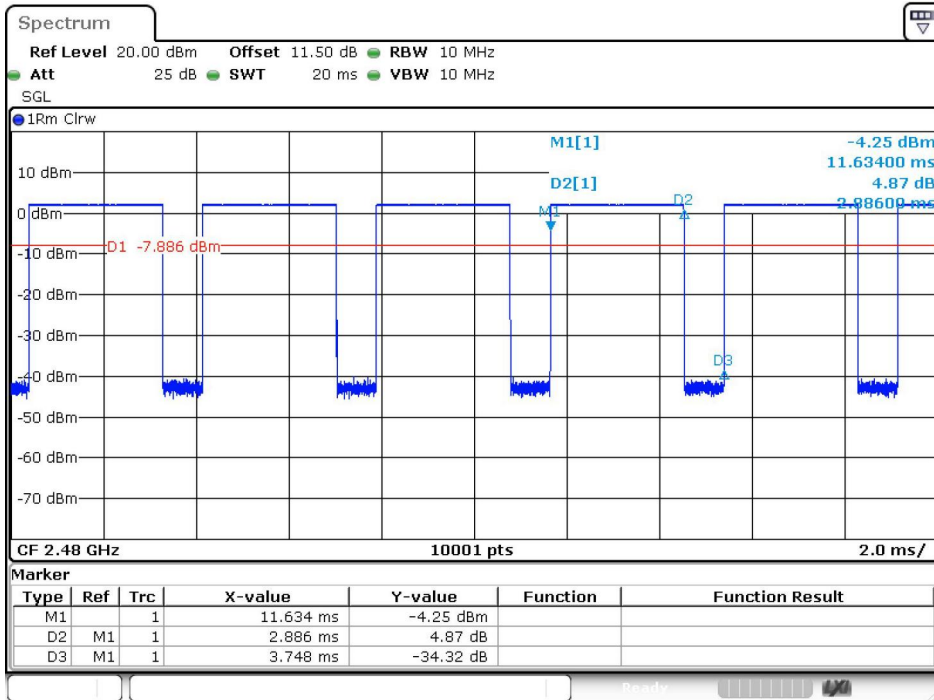
Date: 15.AUG.2024 09:18:43

GFSK(DH5)_Channel 0



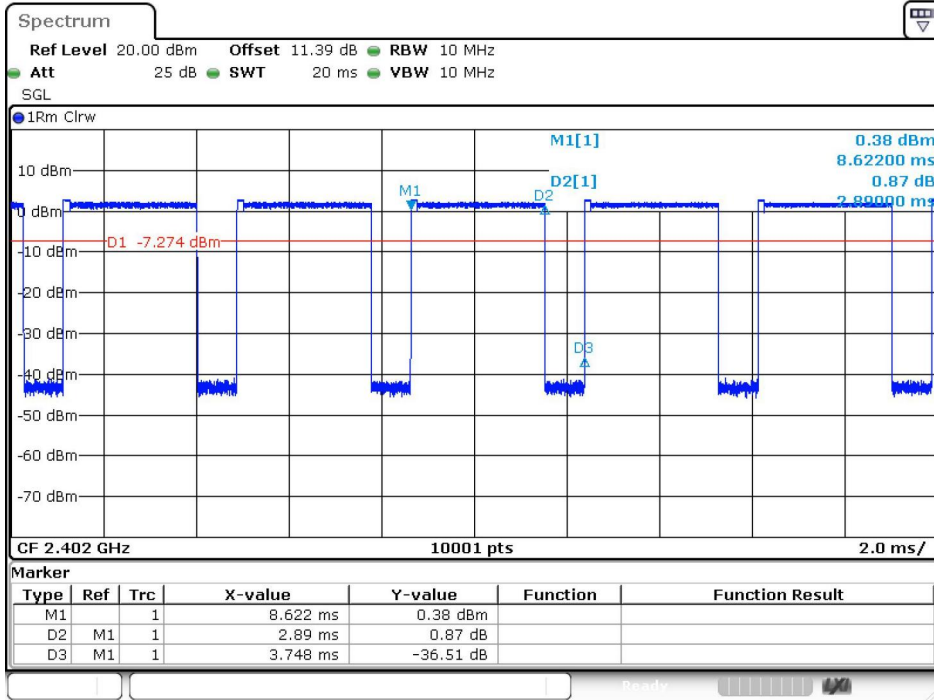
Date: 15.AUG.2024 09:36:07

GFSK(DH5)_Channel 39



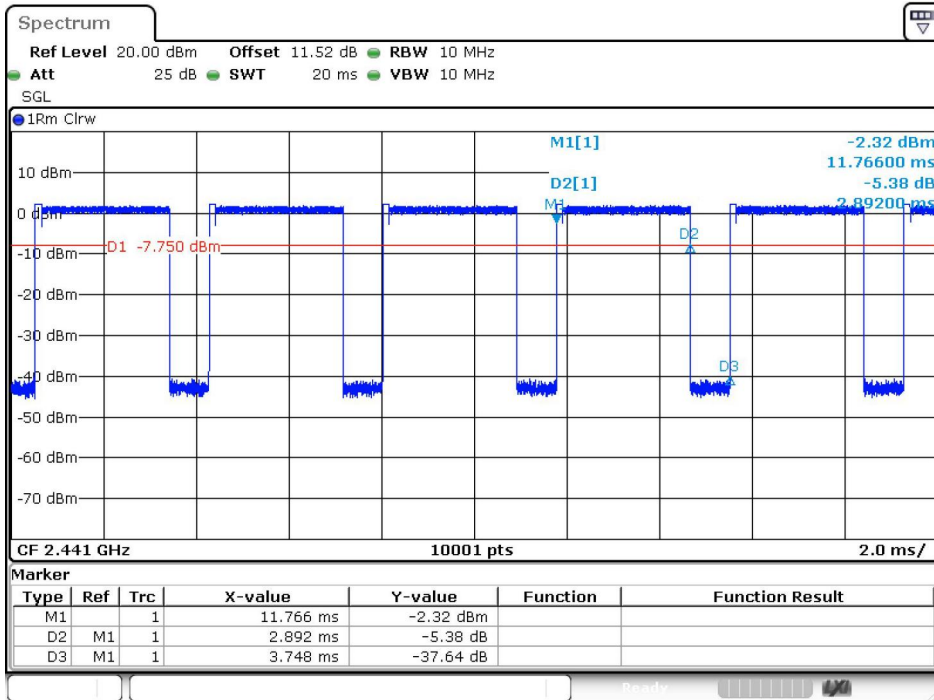
Date: 15.AUG.2024 09:39:18

GFSK(DH5)_Channel 78



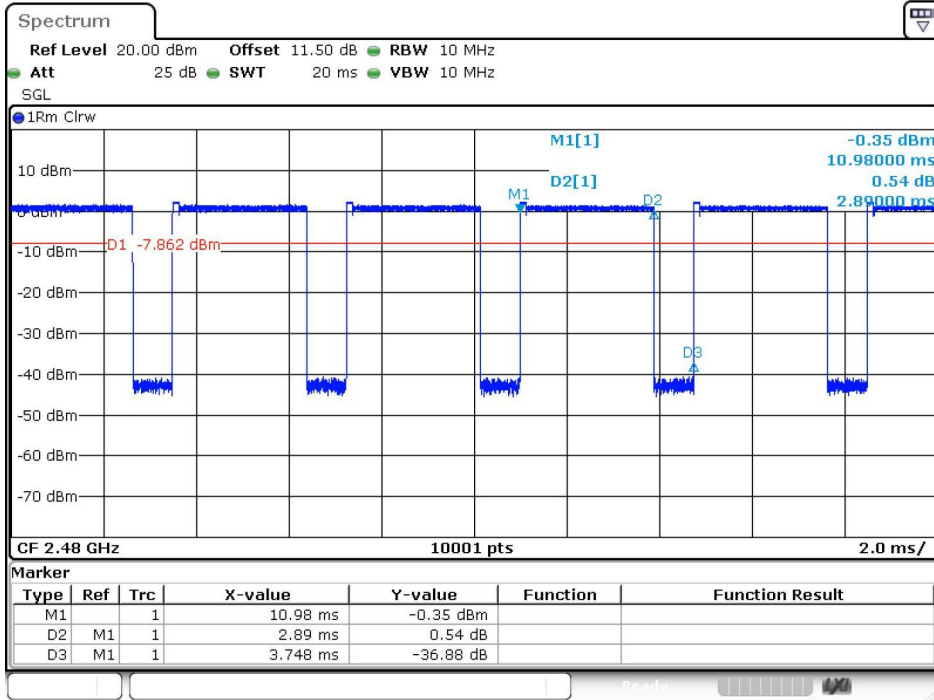
Date: 15.AUG.2024 09:45:07

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



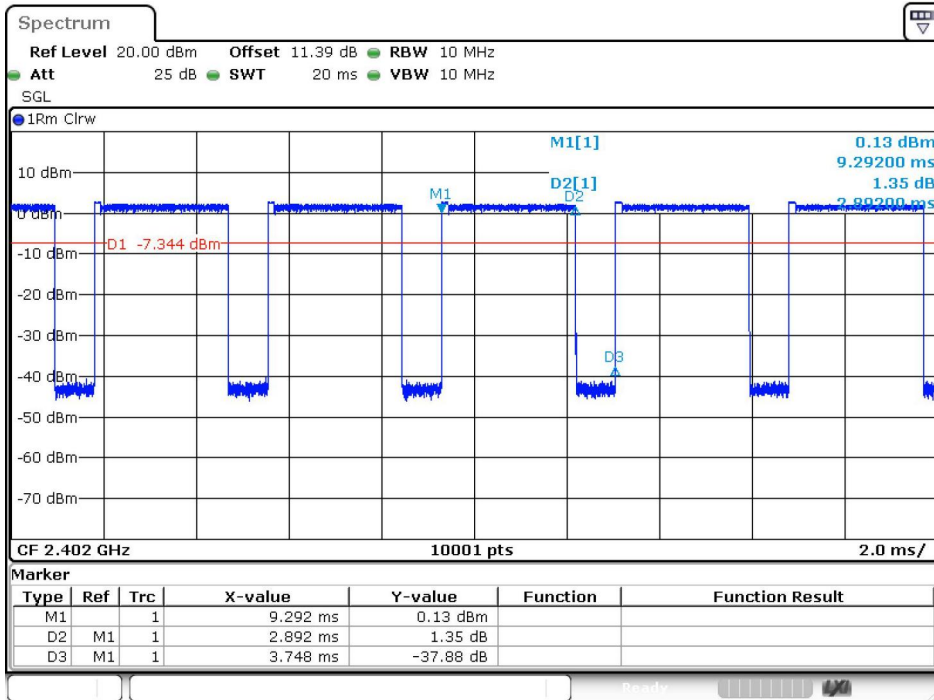
Date: 15.AUG.2024 09:52:27

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



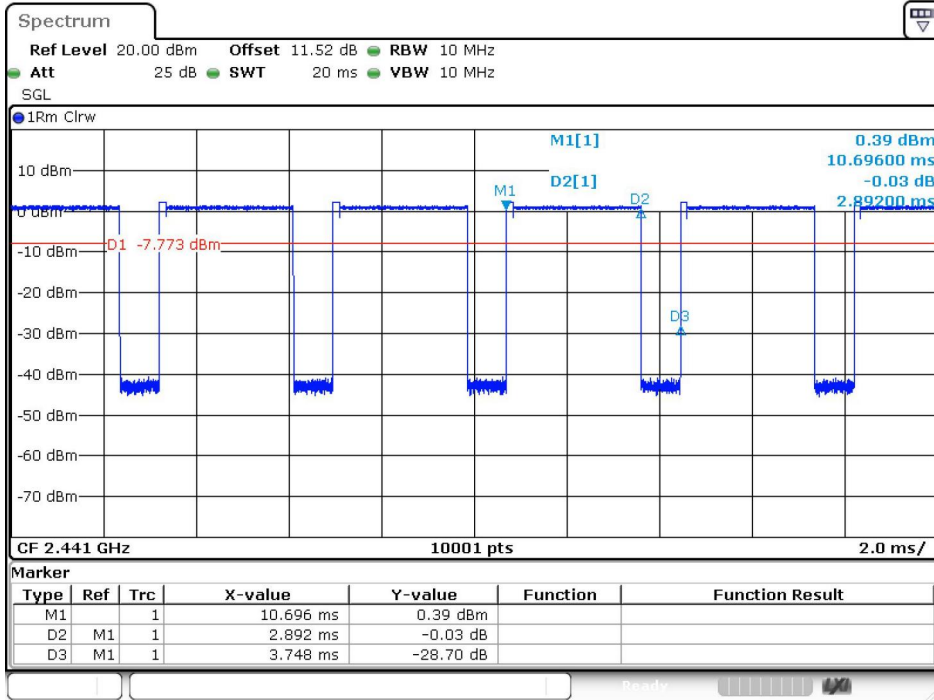
Date: 15.AUG.2024 09:54:58

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



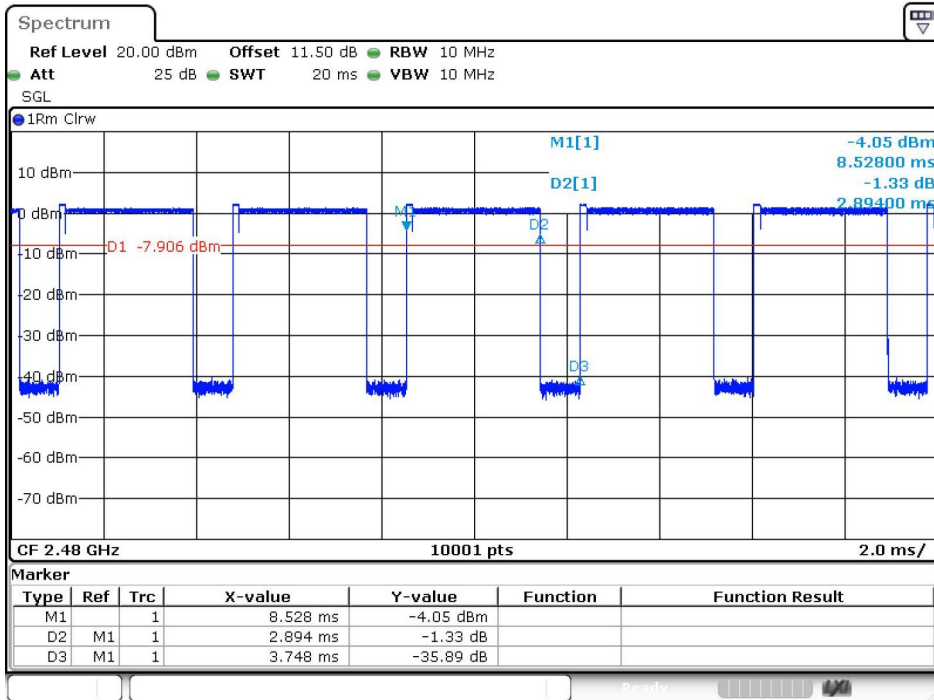
Date: 15.AUG.2024 10:04:49

8DPSK(3-DH5)_Channel 0



Date: 15.AUG.2024 10:12:20

8DPSK(3-DH5)_Channel 39



Date: 15.AUG.2024 10:14:47

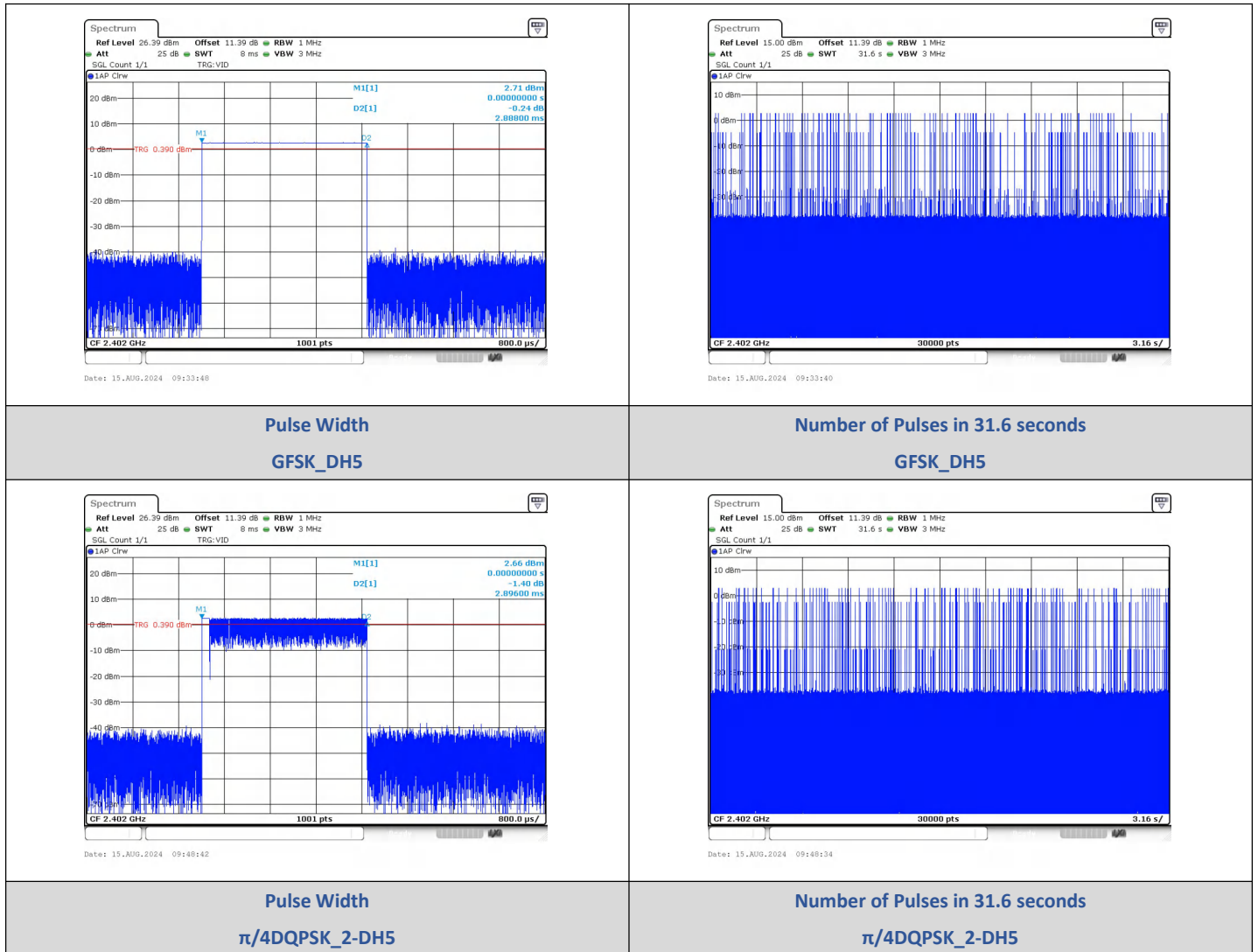
8DPSK(3-DH5)_Channel 78

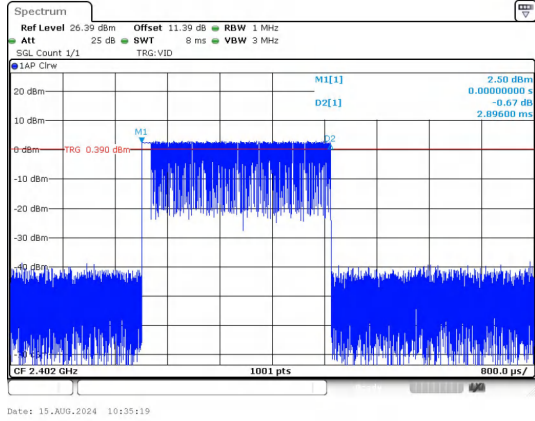
2) Dwell Time

Test Result

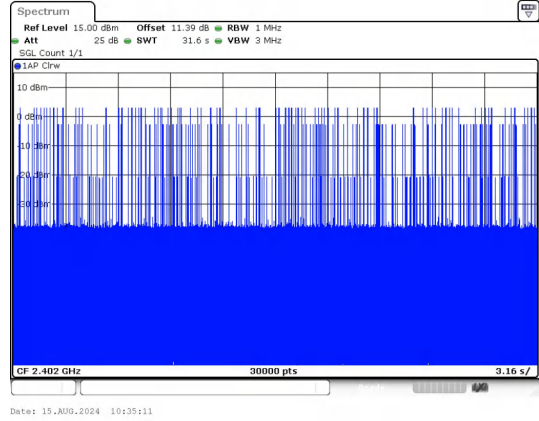
Modulation	Packet	Channel	Pulse Width (ms)	Number of Pulses in 31.6 seconds	Dwell Time (ms)	Limit (ms)	Result
GFSK	DH5	CHO (2402MHz)	2.888	96	277.25	< 400	PASS
$\pi/4$ DQPSK	2-DH5		2.896	106	306.98		PASS
8DPSK	3-DH5		2.896	108	312.77		PASS

Test Graphs





Pulse Width
8DPSK_3-DH5



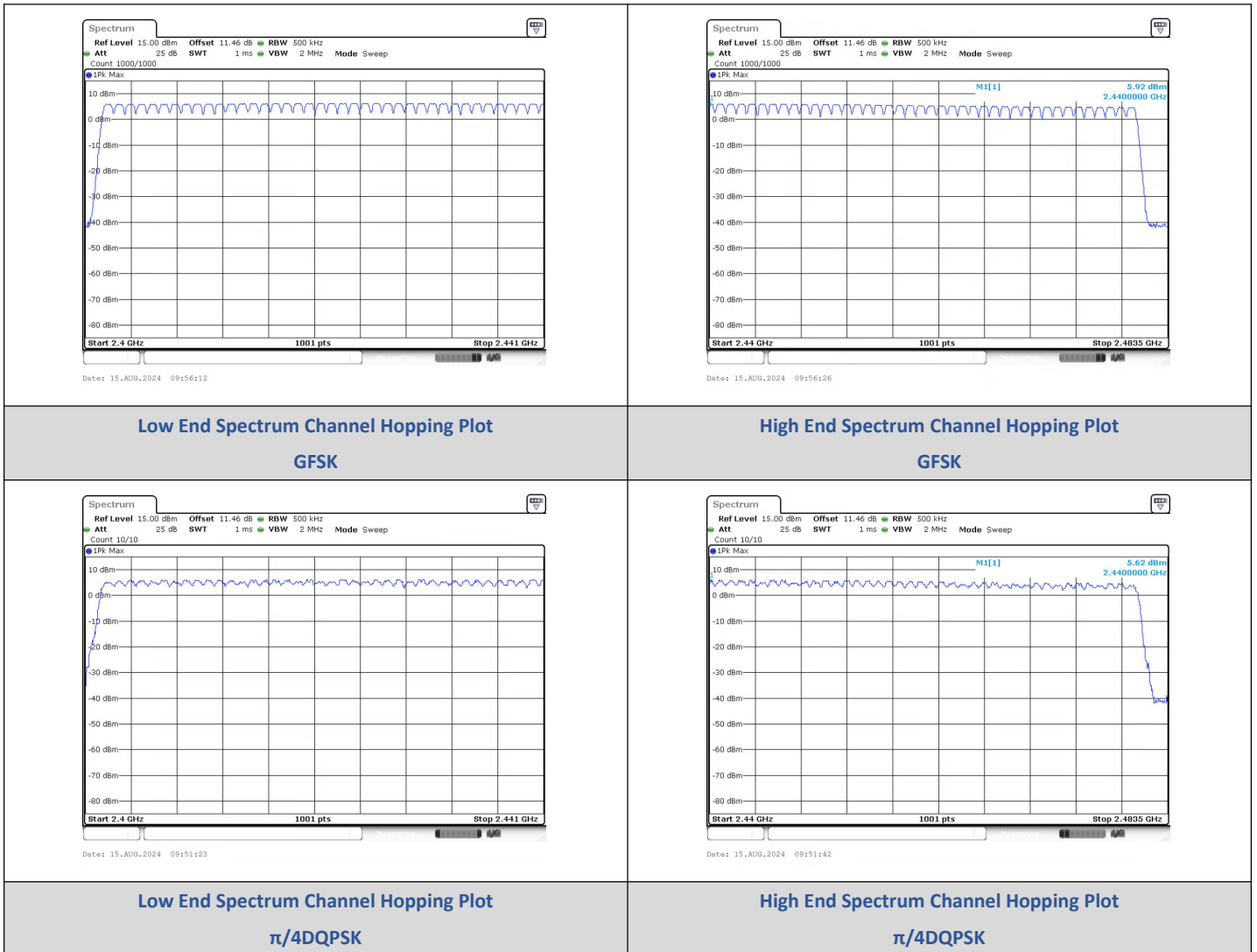
Number of Pulses in 31.6 seconds
8DPSK_3-DH5

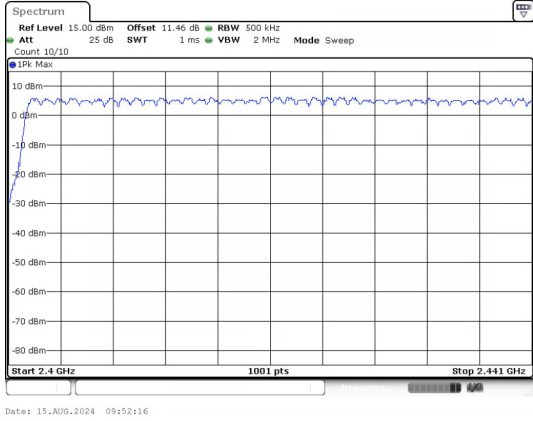
3) Number Of Hopping Channel

Test Result

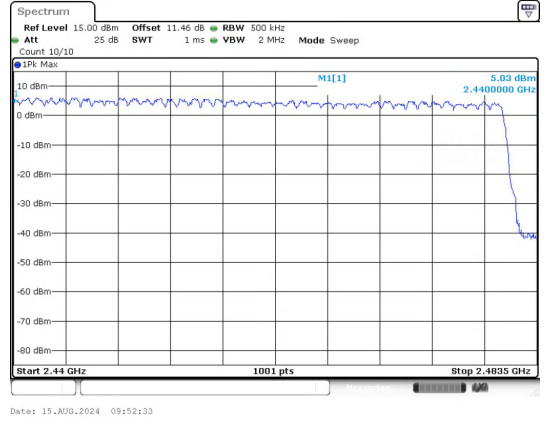
Modulation	Packet	Number of Hopping Channel	Limit	Result
GFSK	DH5	79	15	PASS
$\pi/4$ DQPSK	2-DH5	79	15	PASS
8DPSK	3-DH5	79	15	PASS

Test Graphs





Low End Spectrum Channel Hopping Plot
8DPSK



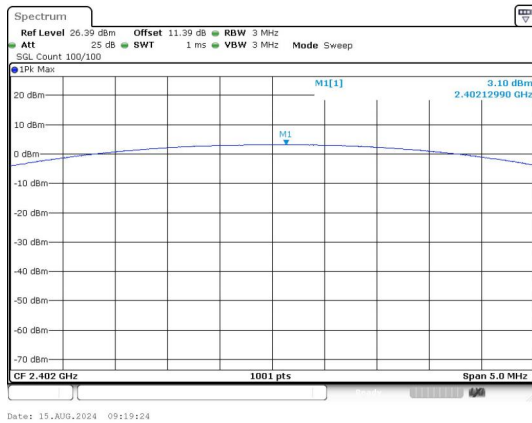
High End Spectrum Channel Hopping Plot
8DPSK

4) Conducted Peak Output Power

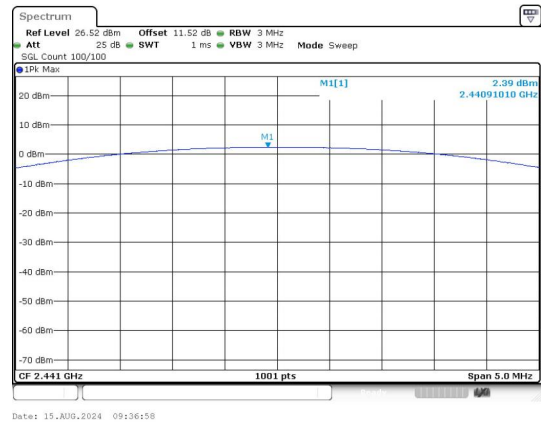
Test Result

Modulation	Packet Type	Channel	Peak Output Power (dBm)	Peak Output Power (mW)	Limit (dBm)	Result
GFSK	DH5	0	3.10	2.04	≤30	PASS
		39	2.39	1.73		PASS
		78	2.16	1.65		PASS
π/4DQPSK	2-DH5	0	3.29	2.13	≤20.97	PASS
		39	2.95	1.97		PASS
		78	2.85	1.93		PASS
8DPSK	3-DH5	0	3.39	2.18		PASS
		39	3.13	2.05		PASS
		78	3.01	2.00		PASS

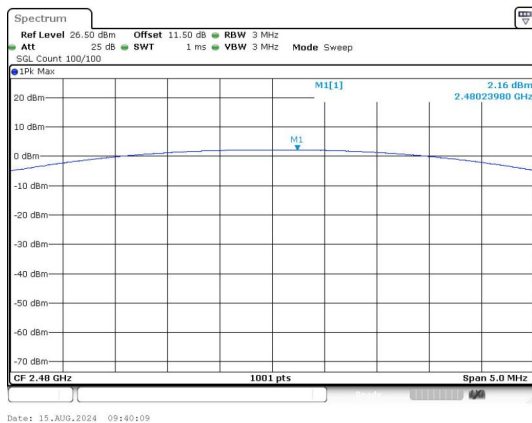
Test Graphs



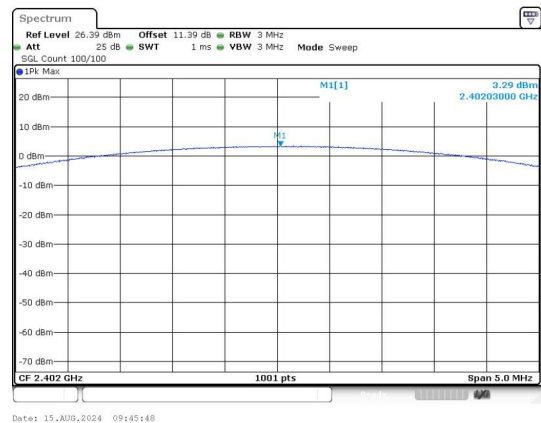
Peak Output Power
GFSK_Channel 0



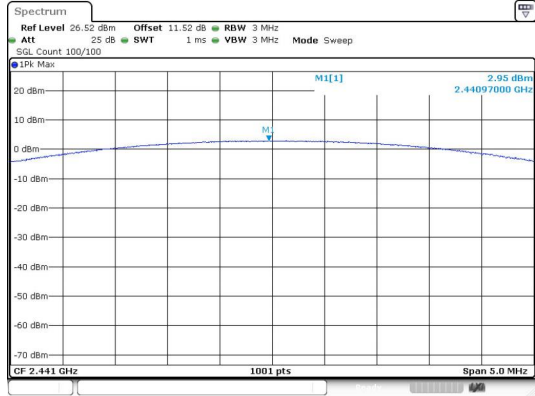
Peak Output Power
GFSK_Channel 39



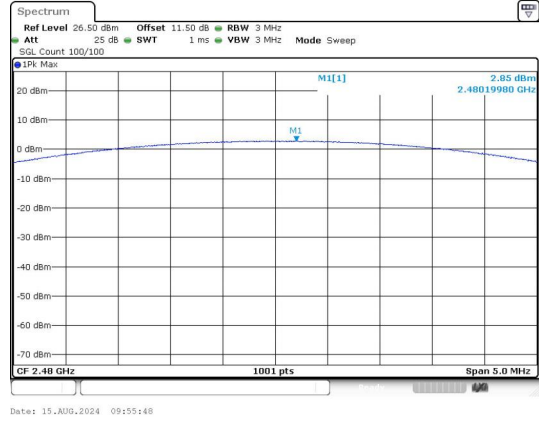
Peak Output Power
GFSK_Channel 78



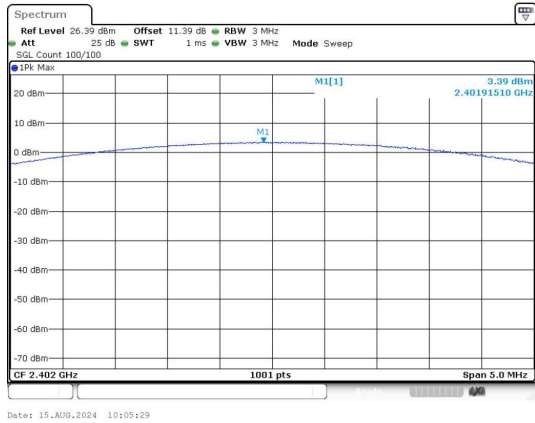
Peak Output Power
π/4DQPSK_Channel 0



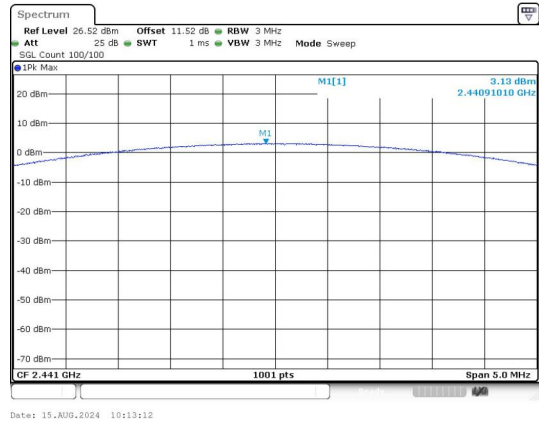
Peak Output Power
 $\pi/4$ DQPSK_Channel 39



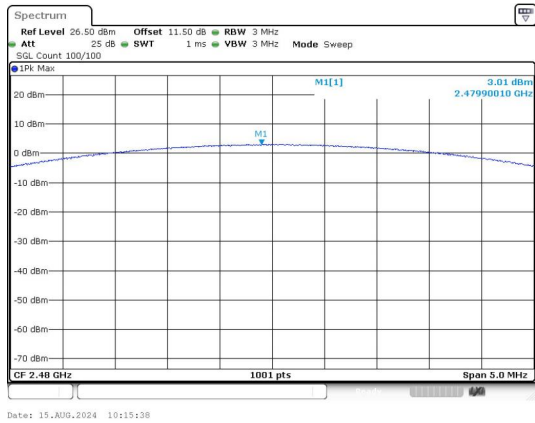
Peak Output Power
 $\pi/4$ DQPSK_Channel 78



Peak Output Power
8DPSK_Channel 0



Peak Output Power
8DPSK_Channel 39



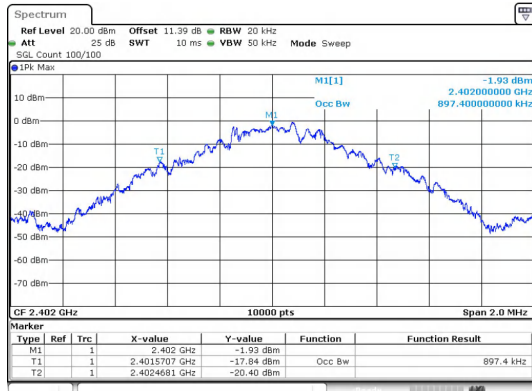
Peak Output Power
8DPSK_Channel 78

5) 99% Bandwidth

Test Result

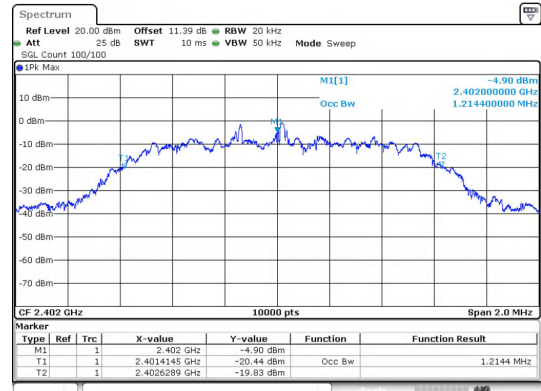
Modulation	Channel	Center Frequency (MHz)	99% BW (MHz)
GFSK	0	2402	0.89740
	39	2441	0.89820
	78	2480	0.88760
$\pi/4$ DQPSK	0	2402	1.2144
	39	2441	1.2148
	78	2480	1.2032
8DPSK	0	2402	1.2200
	39	2441	1.2178
	78	2480	1.2102

Test Graphs



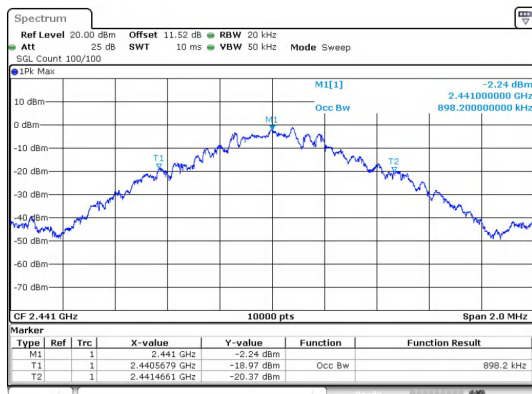
Date: 15.AUG.2024 09:18:57

GFSK_DH5_Channel 0



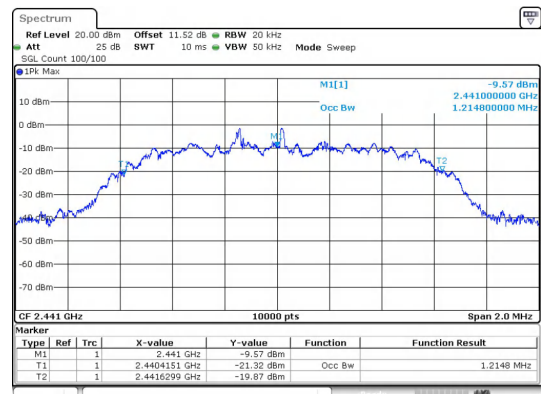
Date: 15.AUG.2024 09:15:21

$\pi/4$ DQPSK_2-DH5_Channel 0



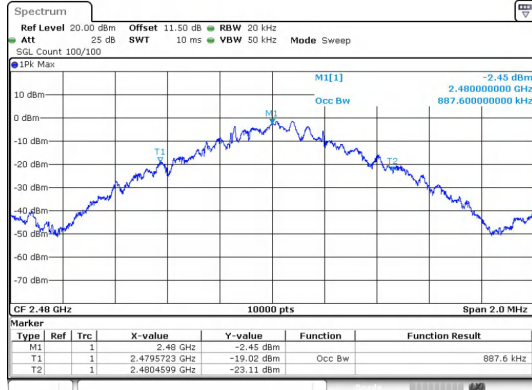
Date: 15.AUG.2024 09:13:21

GFSK_DH5_Channel 39



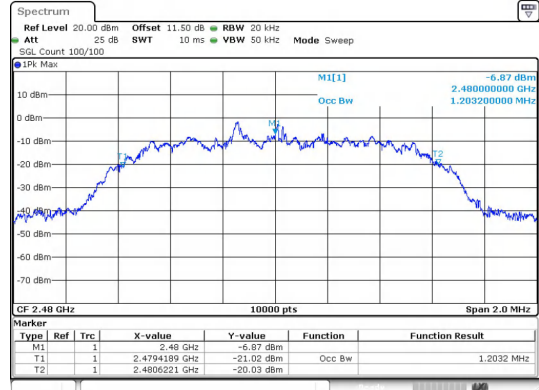
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$\pi/4$ DQPSK_2-DH5_Channel 39



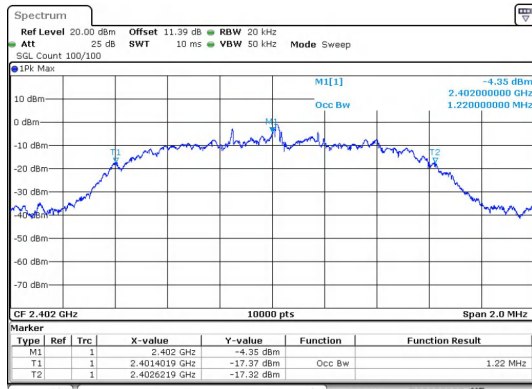
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GFSK_DH5_Channel 78



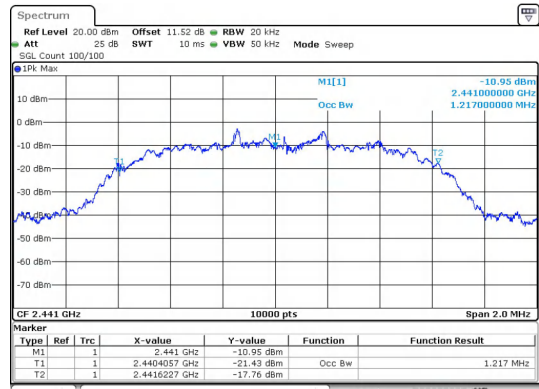
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$\pi/4$ DQPSK_2-DH5_Channel 78



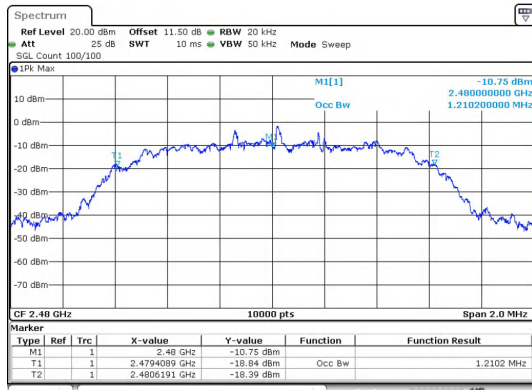
Date: 15.AUG.2024 10:05:03

8DPSK_3-DH5_Channel 0



Date: 15.AUG.2024 10:12:35

8DPSK_3-DH5_Channel 39



Date: 15.AUG.2024 10:15:01

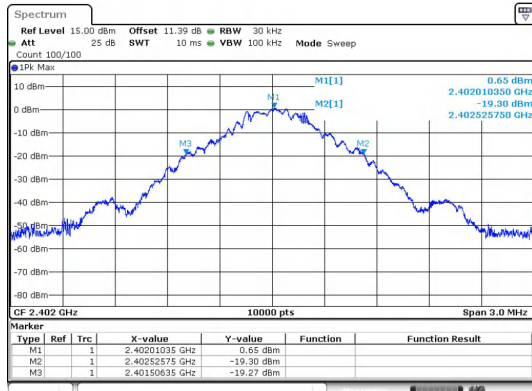
8DPSK_3-DH5_Channel 78

6) 20dB Bandwidth

Test Result

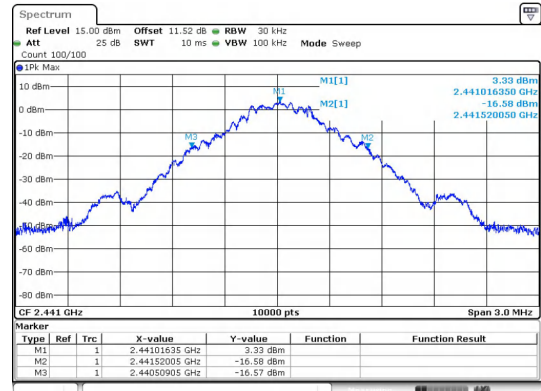
Modulation	Channel	Center Frequency (MHz)	20 dB Bandwidth (MHz)
GFSK	0	2402 MHz	1.020
	39	2441 MHz	1.010
	78	2480 MHz	1.000
$\pi/4$ DQPSK	0	2402 MHz	1.320
	39	2441 MHz	1.310
	78	2480 MHz	1.320
8DPSK	0	2402 MHz	1.300
	39	2441 MHz	1.290
	78	2480 MHz	1.300

Test Graphs



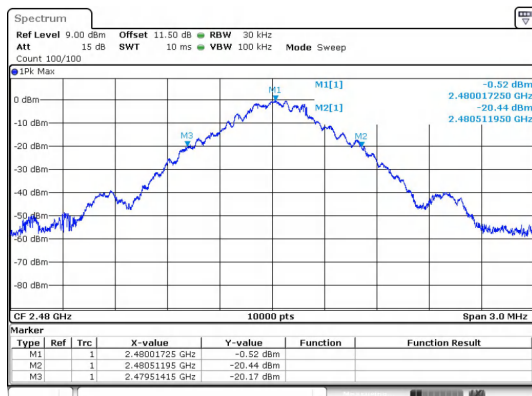
Date: 15.AUG.2024 09:11:13

GFSK_DH5_Channel 0



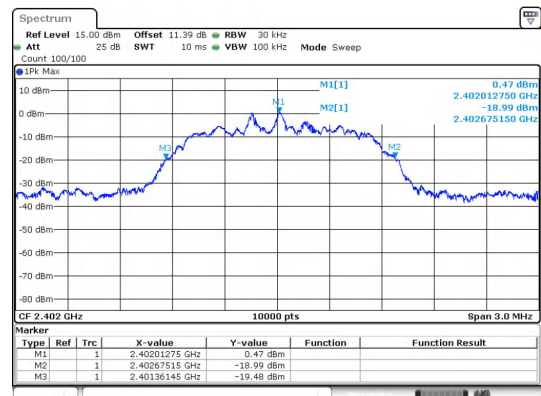
Date: 20.AUG.2024 17:19:57

GFSK_DH5_Channel 39



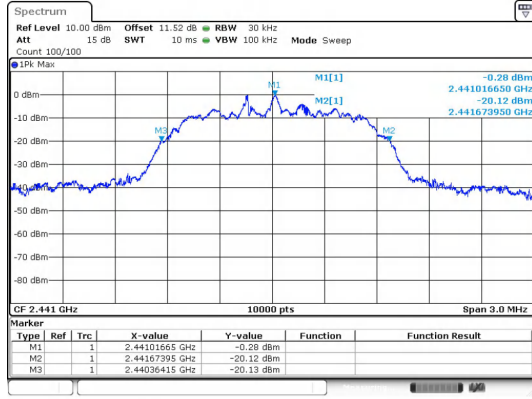
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GFSK_DH5_Channel 78



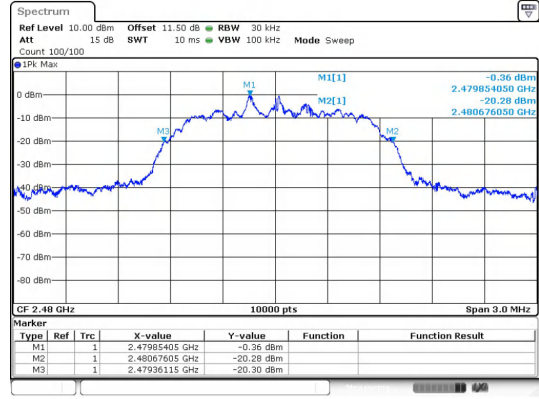
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$\pi/4$ DQPSK_2-DH5_Channel 0



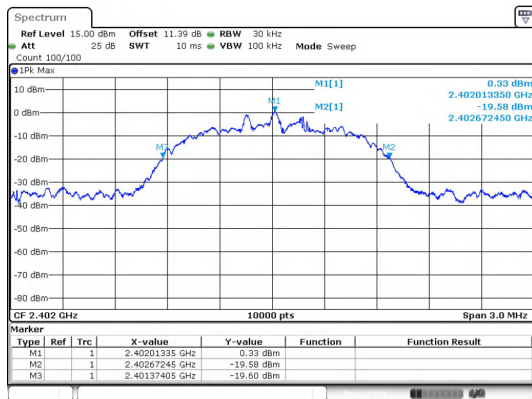
Date: 15.AUG.2024 09:53:04

$\pi/4$ DQPSK_2-DH5_Channel 39



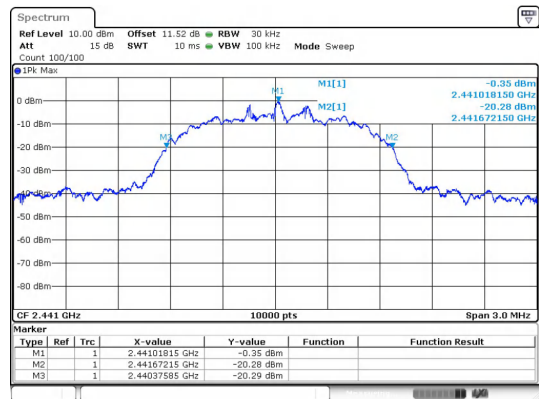
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$\pi/4$ DQPSK_2-DH5_Channel 78



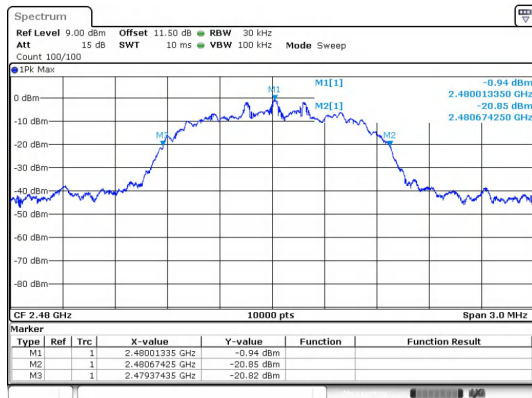
Date: 15.AUG.2024 10:05:19

8DPSK_3-DH5_Channel 30



Date: 15.AUG.2024 10:12:57

8DPSK_3-DH5_Channel 39



Date: 15.AUG.2024 10:15:23

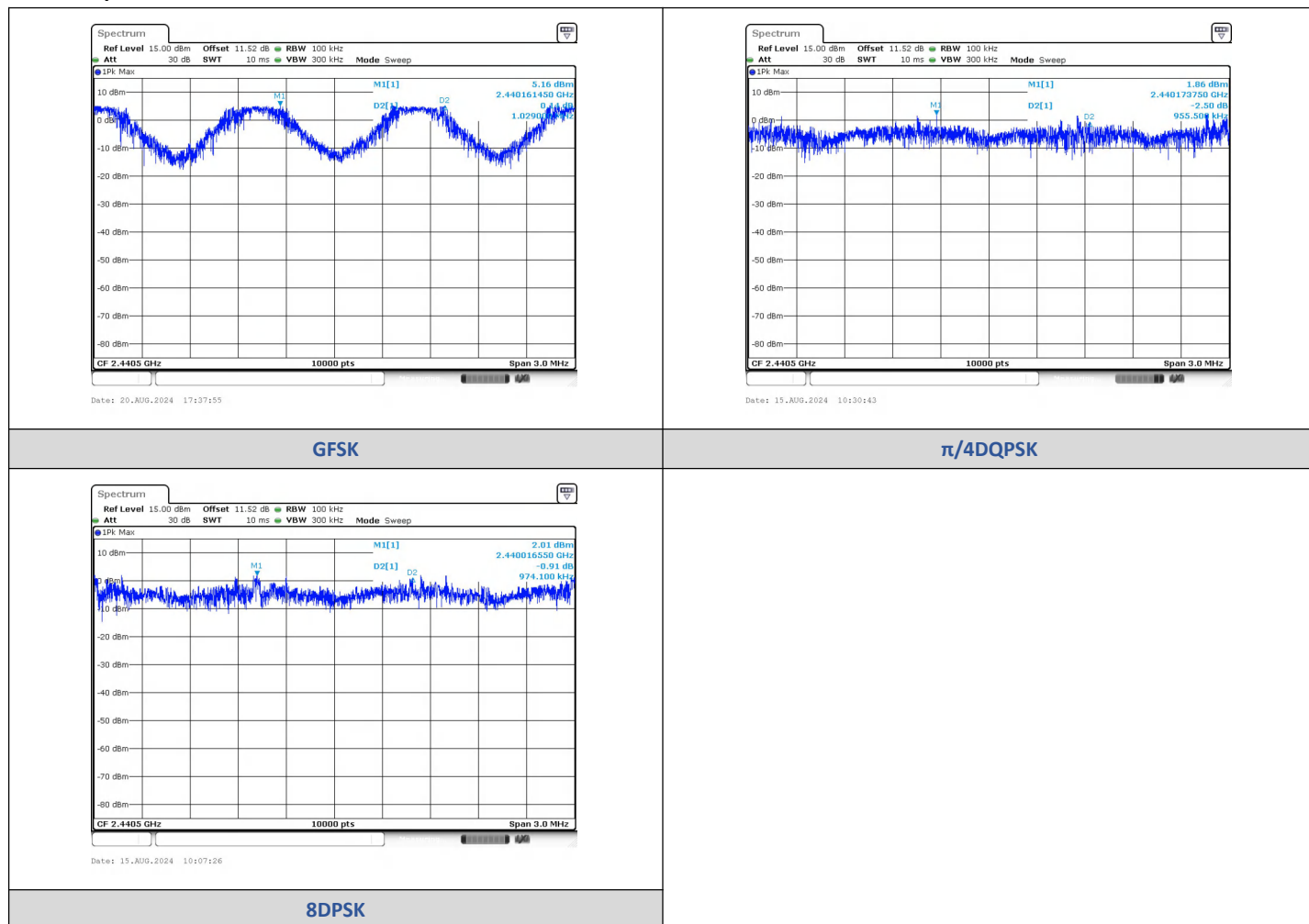
8DPSK_3-DH5_Channel 78

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	2440.1615	2441.1905	1.0290	1.020	PASS
$\pi/4$ DQPSK	2-DH5	2440.1737	2441.1292	0.9555	0.880	PASS
8DPSK	3-DH5	2440.0165	2440.9907	0.9741	0.867	PASS

Test Graphs



8) Conducted Out Of Band Emission

Test Result

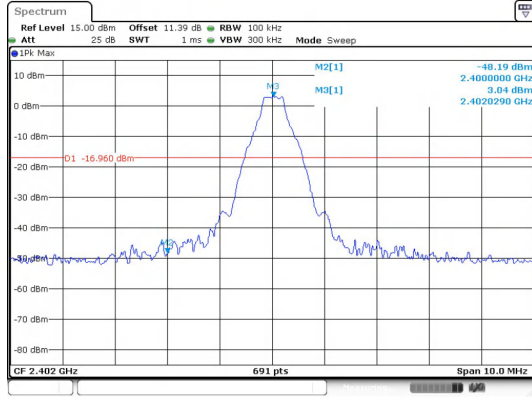
Non-Hopping

Modulation	Packet	Channel	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
GFSK	DH5	0	2400.00	-48.187	-16.96	-31.227	PASS
			7206.79	-40.647	-16.96	-23.687	PASS
		39	9764.55	-40.419	-17.74	-22.679	PASS
		78	2483.50	-49.601	-18.02	-31.581	PASS
			9920.20	-38.753	-18.02	-20.733	PASS
$\pi/4$ DQPSK	2-DH5	0	2400.00	-47.291	-17.34	-29.951	PASS
			7205.96	-35.359	-17.34	-18.019	PASS
		39	9763.72	-40.386	-18.01	-22.376	PASS
		78	2483.50	-50.568	-18.0	-32.568	PASS
			9920.20	-39.320	-18.0	-21.320	PASS
8DPSK	3-DH5	0	2400.00	-47.956	-17.43	-30.526	PASS
			7206.79	-43.241	-17.43	-25.811	PASS
		39	9763.72	-40.698	-17.9	-22.798	PASS
		78	2483.50	-49.260	-18.12	-31.140	PASS
			9920.20	-39.389	-18.12	-21.269	PASS

Hopping

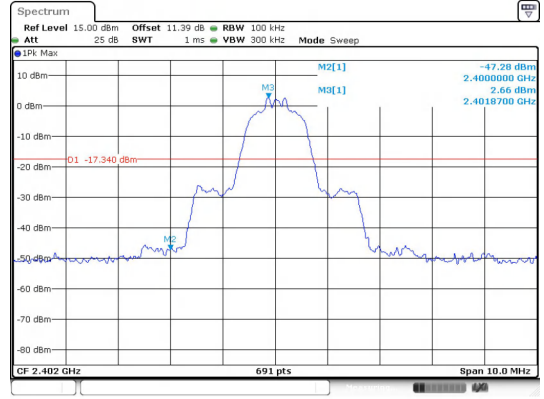
Modulation	Packet	Channel	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
GFSK	DH5	Hopping	2396.22	-48.728	-17.29	-31.438	PASS
			2400.00	-50.610	-17.29	-33.320	PASS
			2483.50	-48.994	-18.09	-30.904	PASS
$\pi/4$ DQPSK	2-DH5		2400.00	-47.613	-18.28	-29.333	PASS
			2483.50	-49.060	-18.16	-30.900	PASS
8DPSK	3-DH5		2396.44	-47.950	-17.52	-30.430	PASS
			2400.00	-48.892	-17.52	-31.372	PASS
			2483.50	-49.455	-18.41	-31.045	PASS

Test Graphs



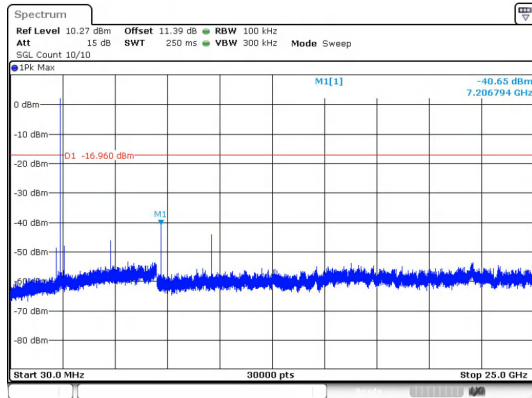
Date: 15.AUG.2024 09:12:06

**Out Of Band Emission
GFSK_DH5_Channel 0**



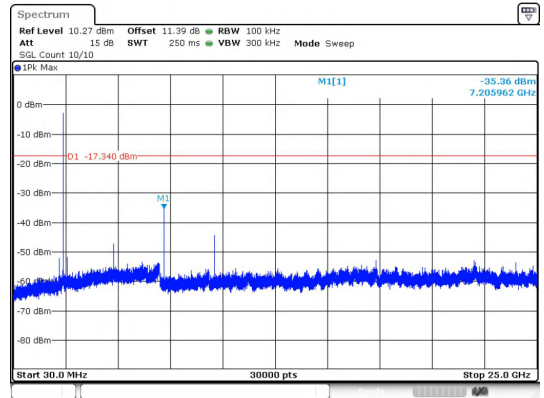
Date: 15.AUG.2024 09:46:29

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



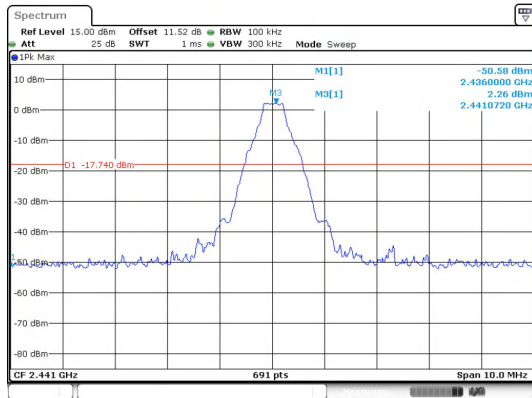
Date: 15.AUG.2024 09:20:28

**30.0 MHz - 25000.0 MHz
GFSK_DH5_Channel 0**



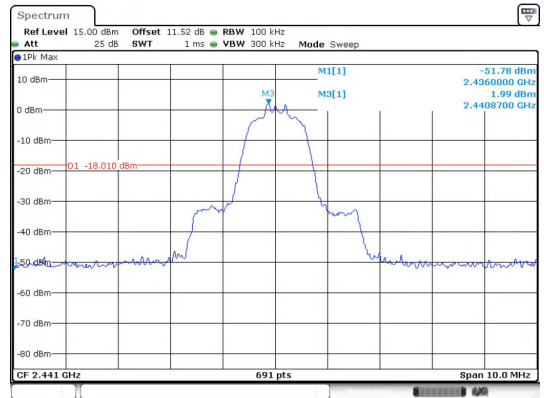
Date: 15.AUG.2024 09:46:51

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



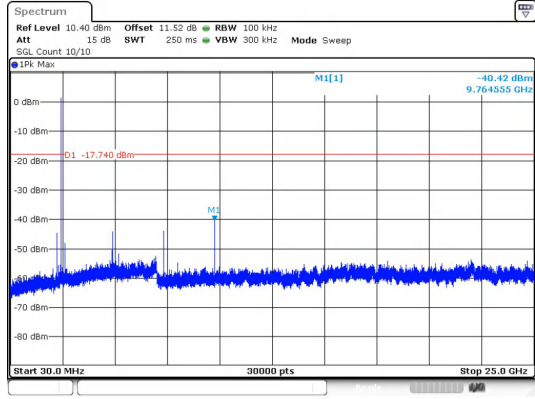
Date: 15.AUG.2024 09:13:35

**Out Of Band Emission
GFSK_DH5_Channel 39**

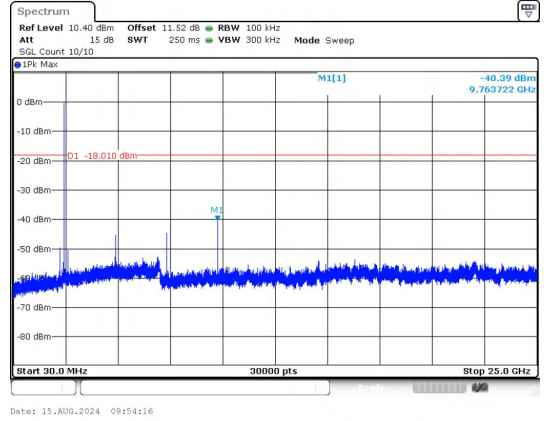


Date: 15.AUG.2024 09:53:54

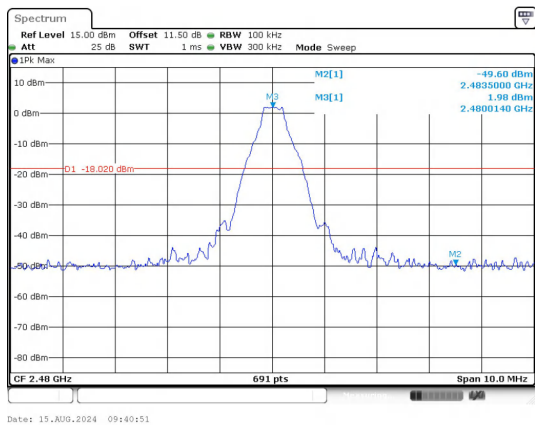
**Out Of Band Emission
 $\pi/4$ DQPSK_2-DH5_Channel 39**



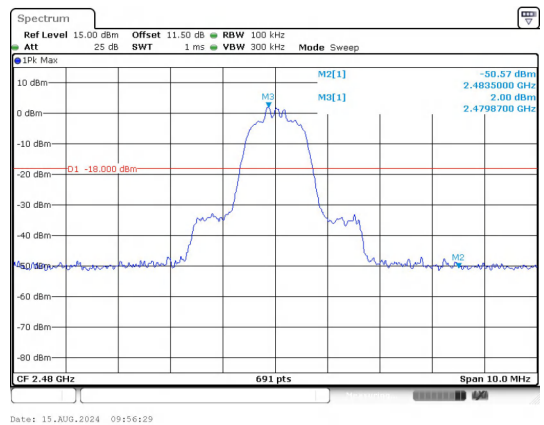
30.0 MHz - 25000.0 MHz
GFSK_DH5_Channel 39



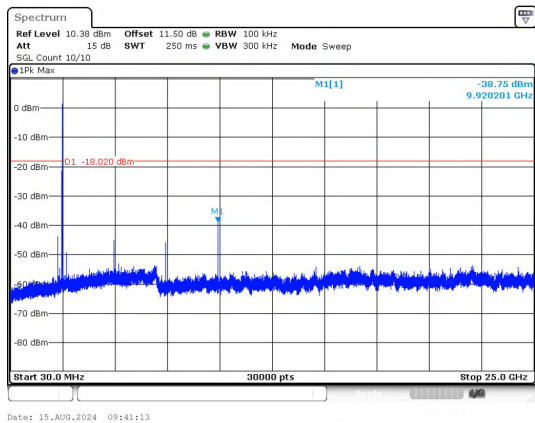
30.0 MHz - 25000.0 MHz
 $\pi/4$ DQPSK_2-DH5_Channel 39



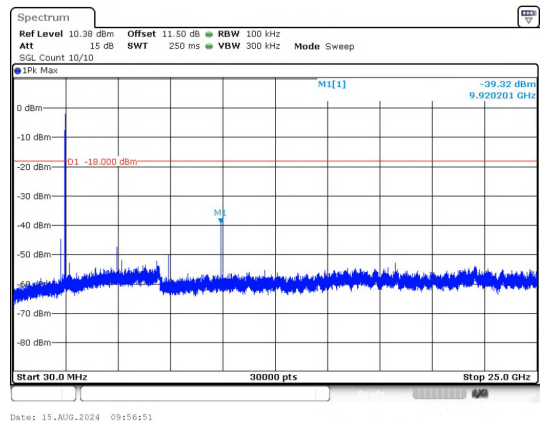
Out Of Band Emission
GFSK_DH5_Channel 78



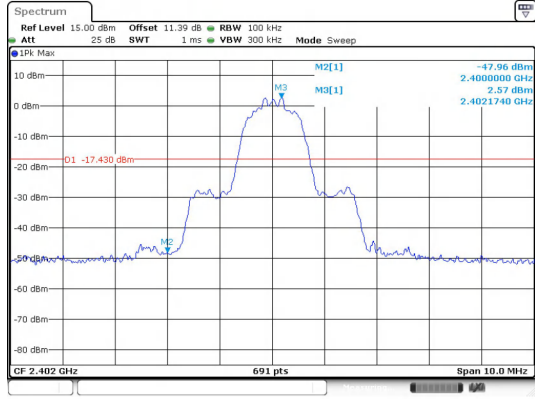
Out Of Band Emission
 $\pi/4$ DQPSK_2-DH5_Channel 78



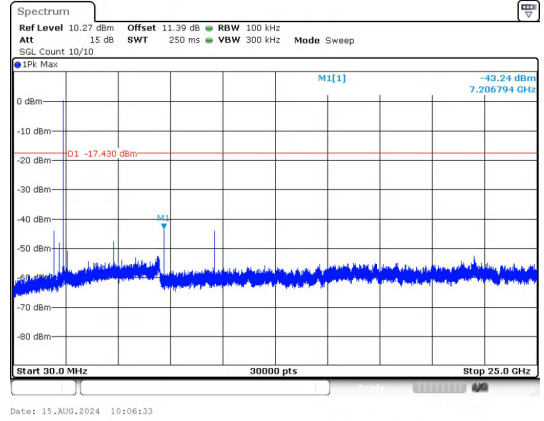
30.0 MHz - 25000.0 MHz
GFSK_DH5_Channel 78



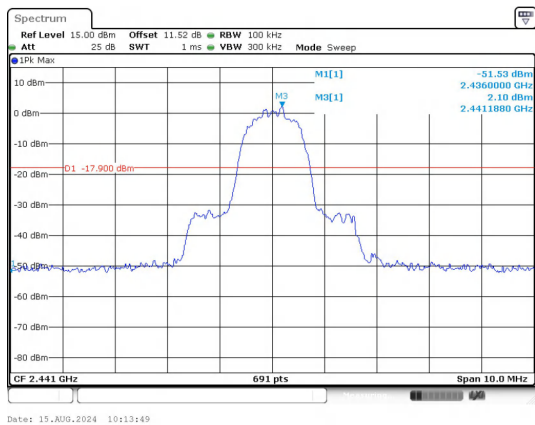
30.0 MHz - 25000.0 MHz
 $\pi/4$ DQPSK_2-DH5_Channel 78



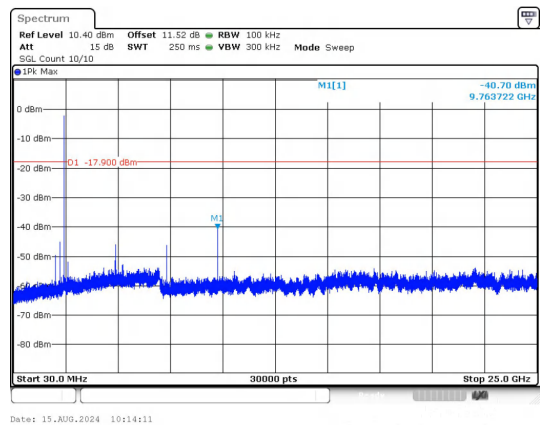
Out Of Band Emission
8DPSK_3-DH5_Channel 0



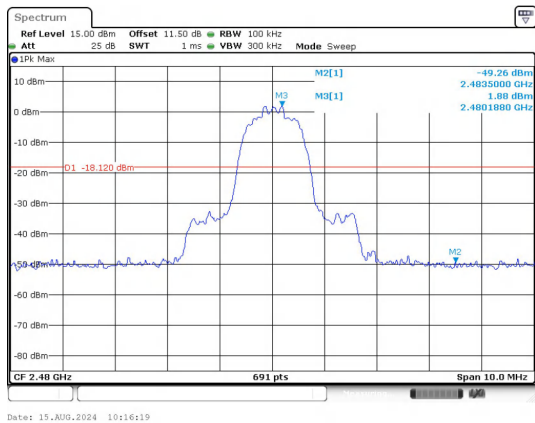
30.0 MHz - 25000.0 MHz
8DPSK_3-DH5_Channel 0



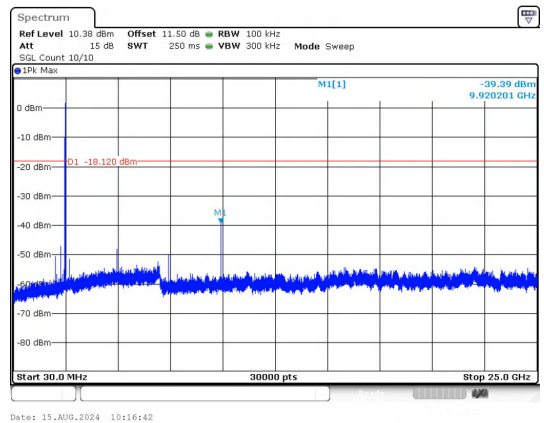
Out Of Band Emission
8DPSK_3-DH5_Channel 39



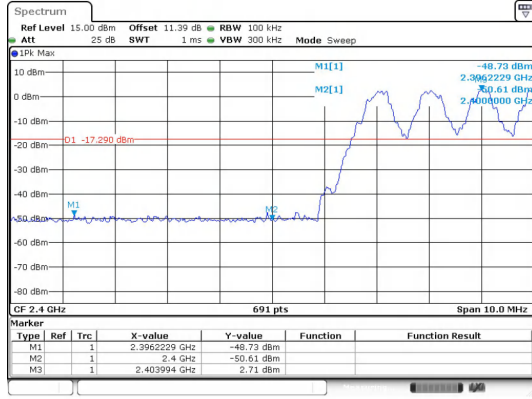
30.0 MHz - 25000.0 MHz
8DPSK_3-DH5_Channel 39



Out Of Band Emission
8DPSK_3-DH5_Channel 78

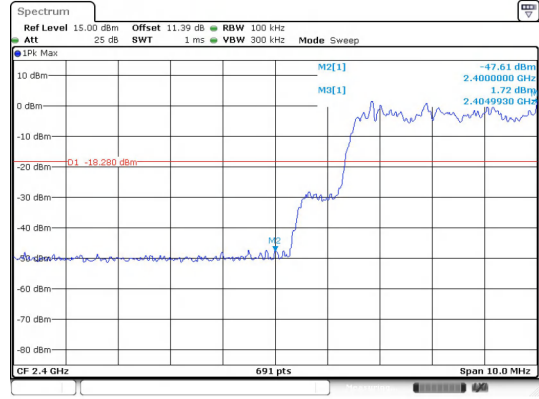


30.0 MHz - 25000.0 MHz
8DPSK_3-DH5_Channel 78



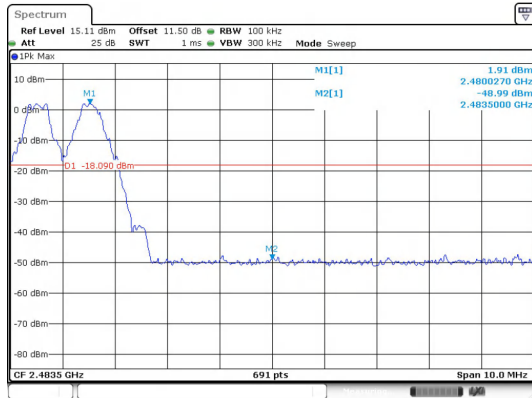
Date: 15.AUG.2024 09:13:08

Out Of Band Emission(Left)
GFSK_DH5_Channel Hopping



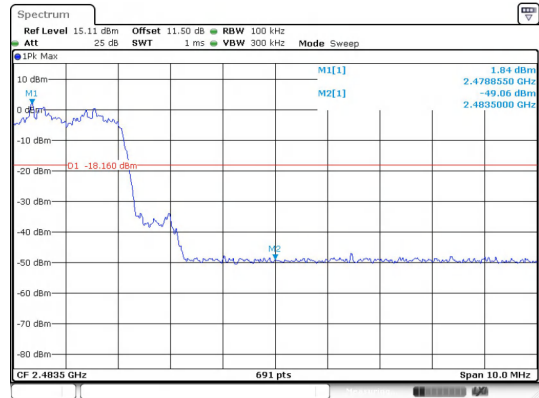
Date: 15.AUG.2024 09:15:15

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



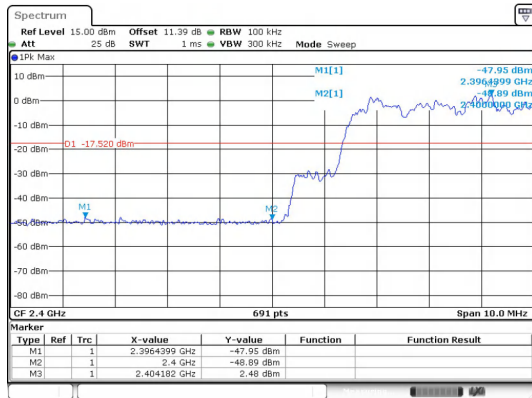
Date: 15.AUG.2024 09:13:132

Out Of Band Emission(Right)
GFSK_DH5_Channel Hopping



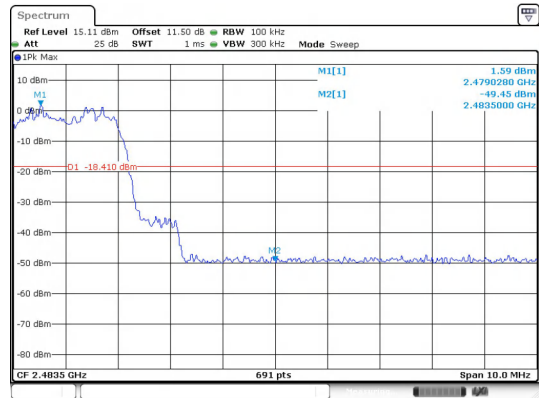
Date: 15.AUG.2024 09:15:119

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



Date: 15.AUG.2024 10:11:24

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



Date: 15.AUG.2024 10:11:50

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