

Appendix A

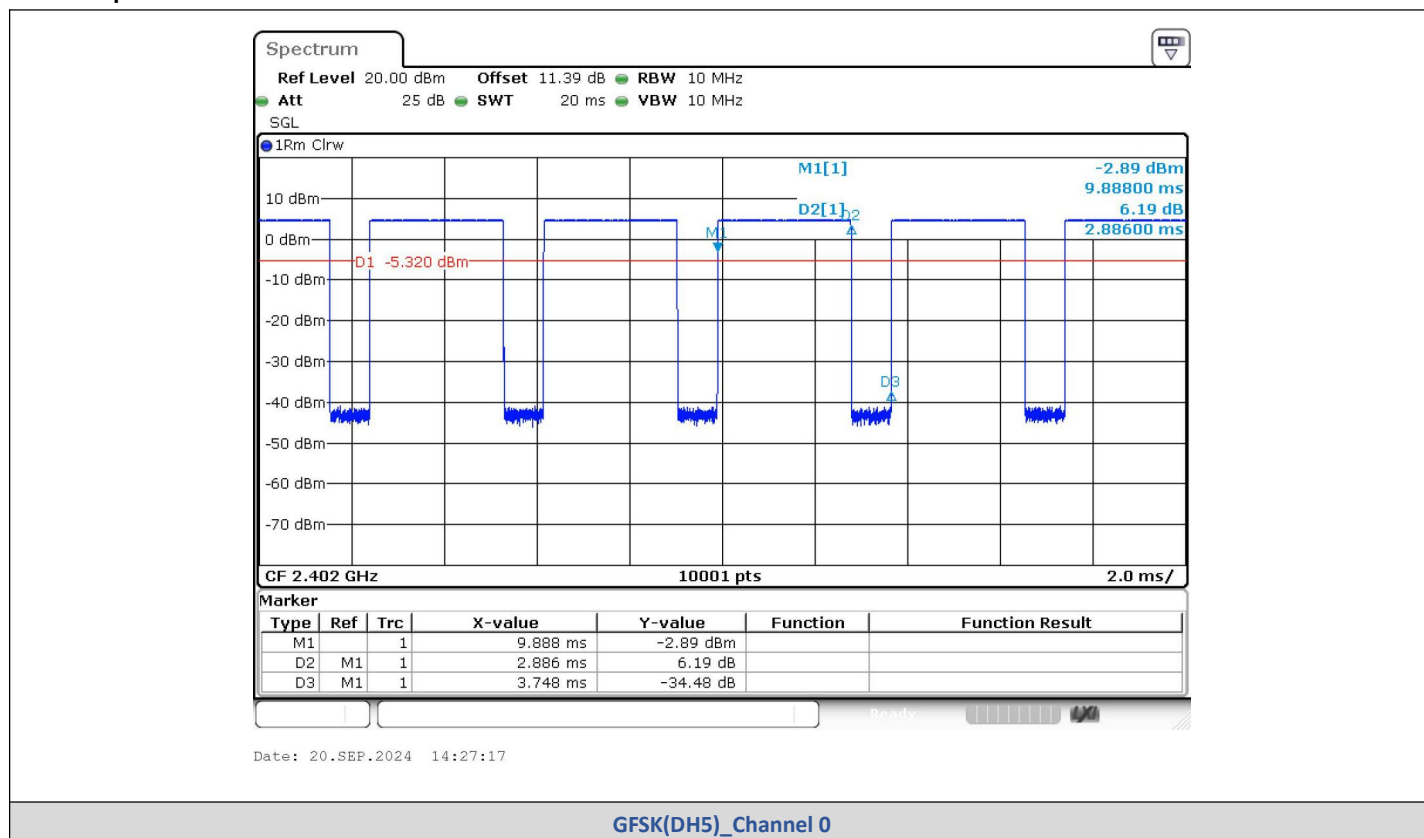
Report No.:	CISRR24091415001
FCC ID:	2AK4IMLT-FURY-K
Product Name:	Wireless Controller
Model No.:	MLT-FURY-K
Test Engineer:	Jimmy Huang
Supervised by:	Rory Huang

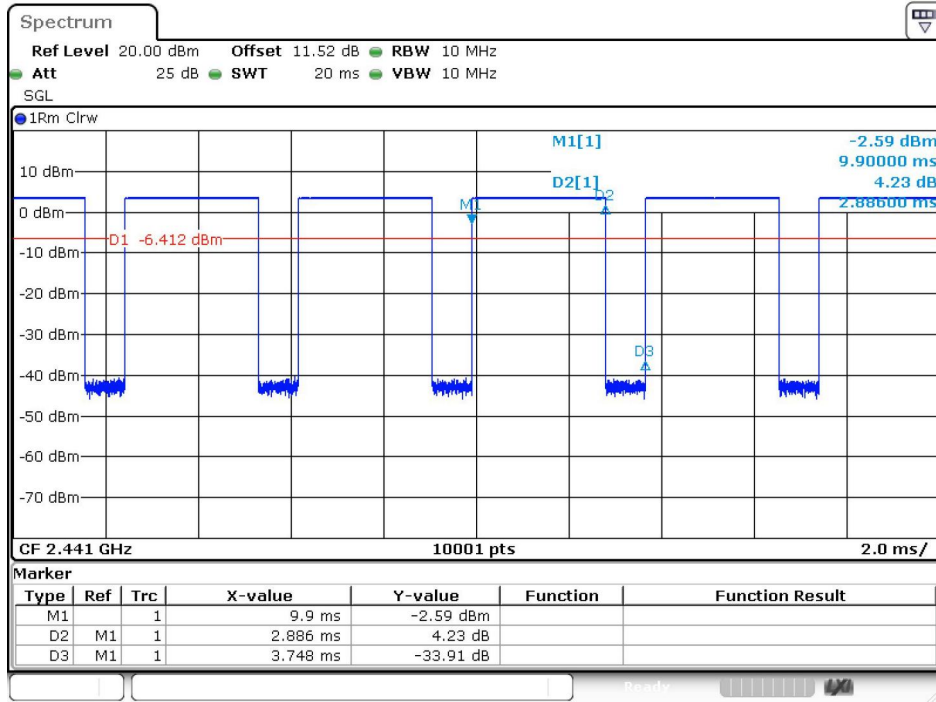
1) Duty Cycle

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	2.892	3.748	77.16	0.7716	1.1261	0.35
		39	2.892	3.748	77.16	0.7716	1.1261	0.35
		78	2.892	3.748	77.16	0.7716	1.1261	0.35

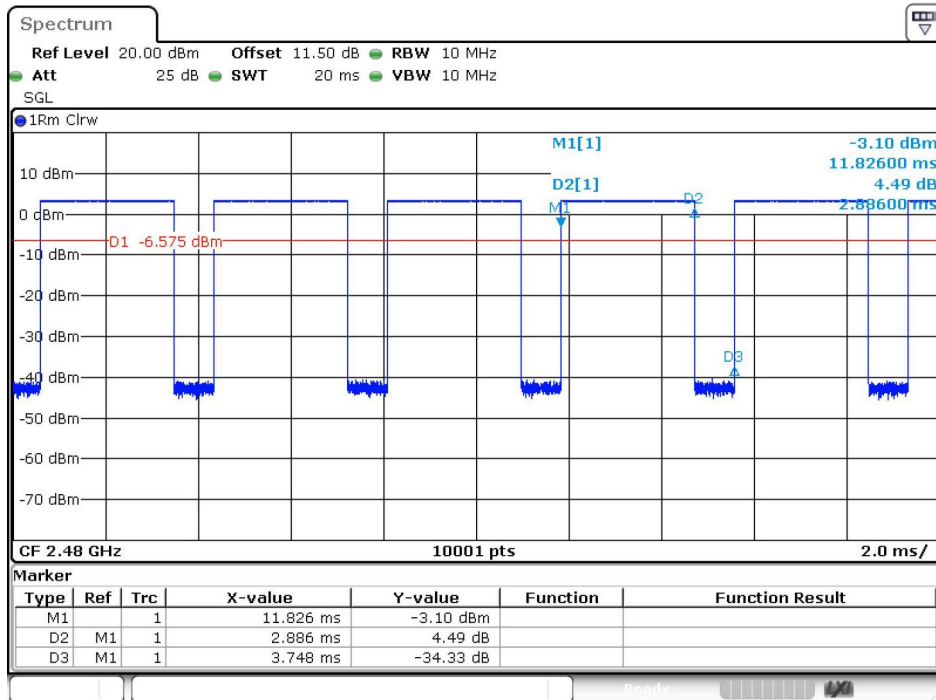
Test Graphs





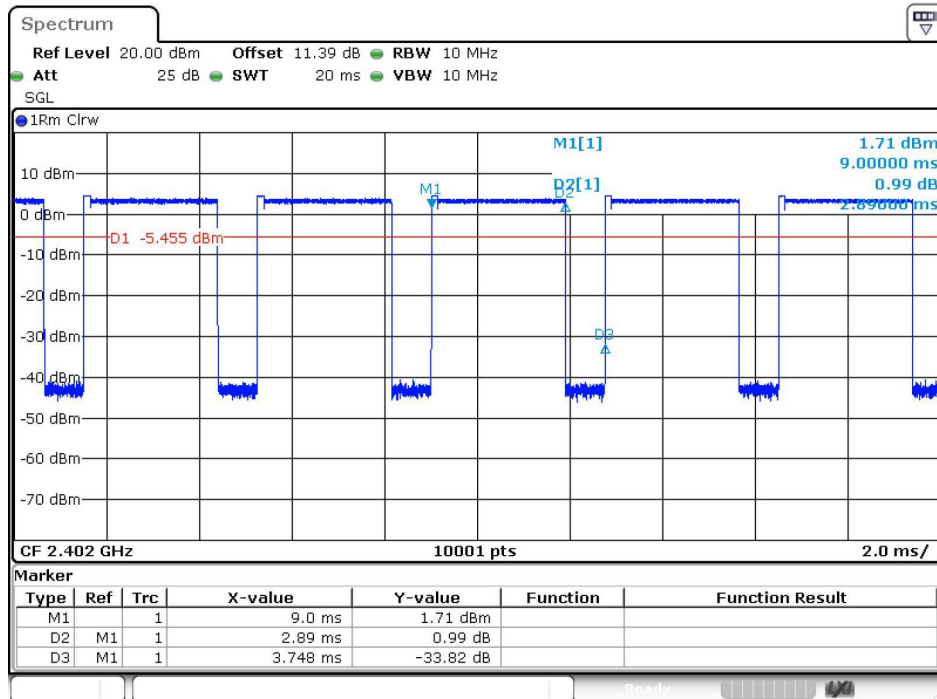
Date: 20.SEP.2024 14:34:54

GFSK(DH5)_Channel 39



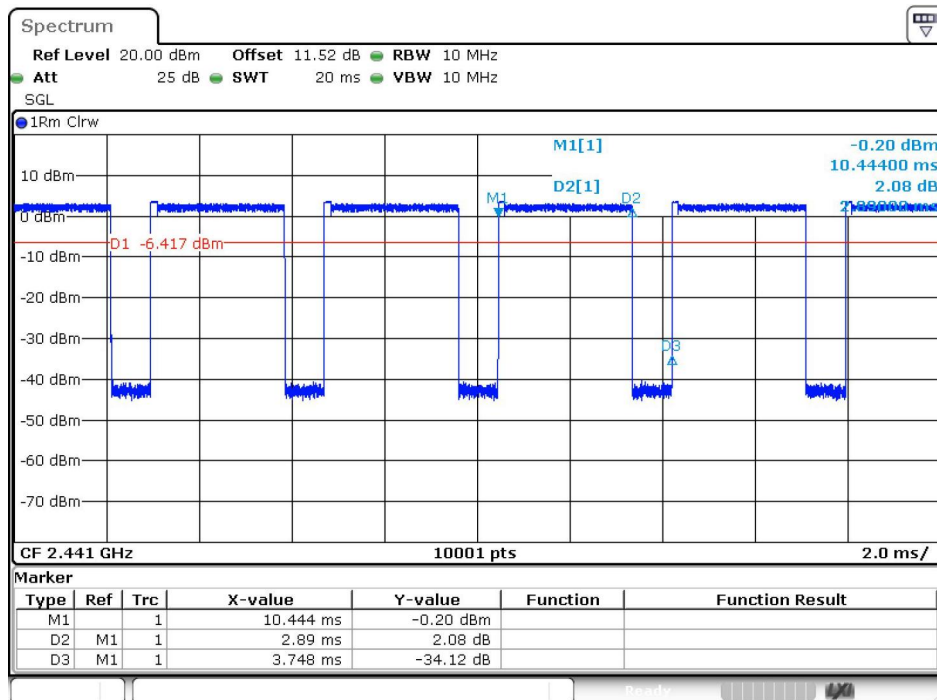
Date: 20.SEP.2024 14:37:21

GFSK(DH5)_Channel 78



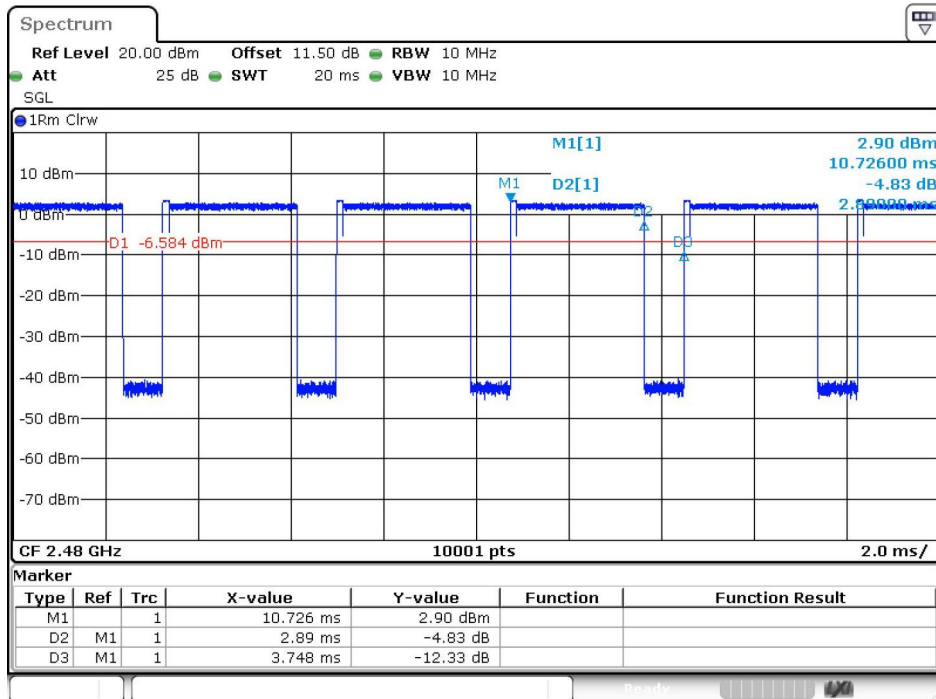
Date: 20.SEP.2024 14:39:48

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



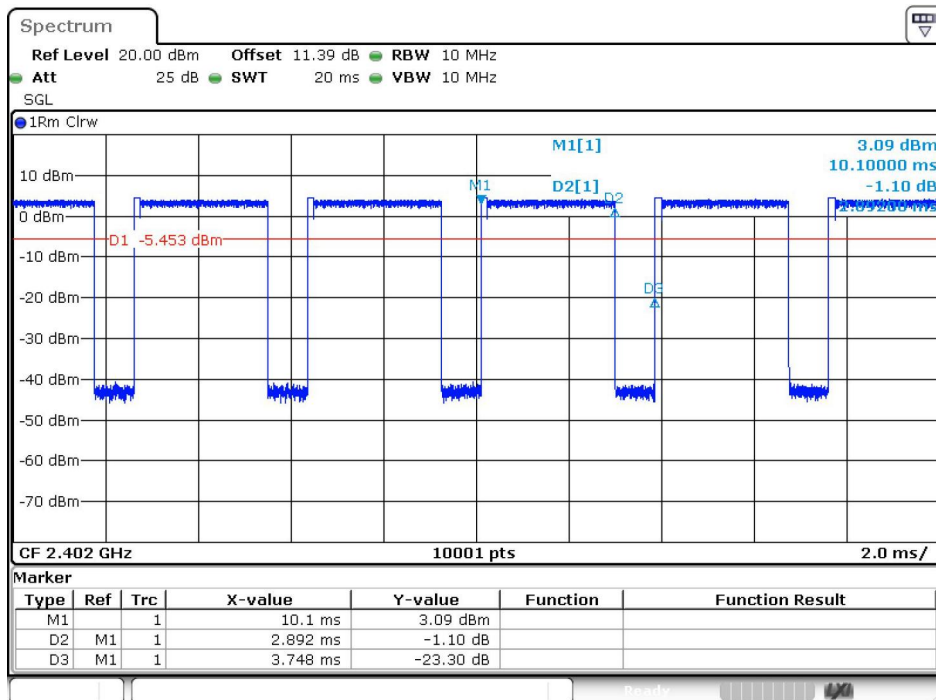
Date: 20.SEP.2024 14:47:10

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



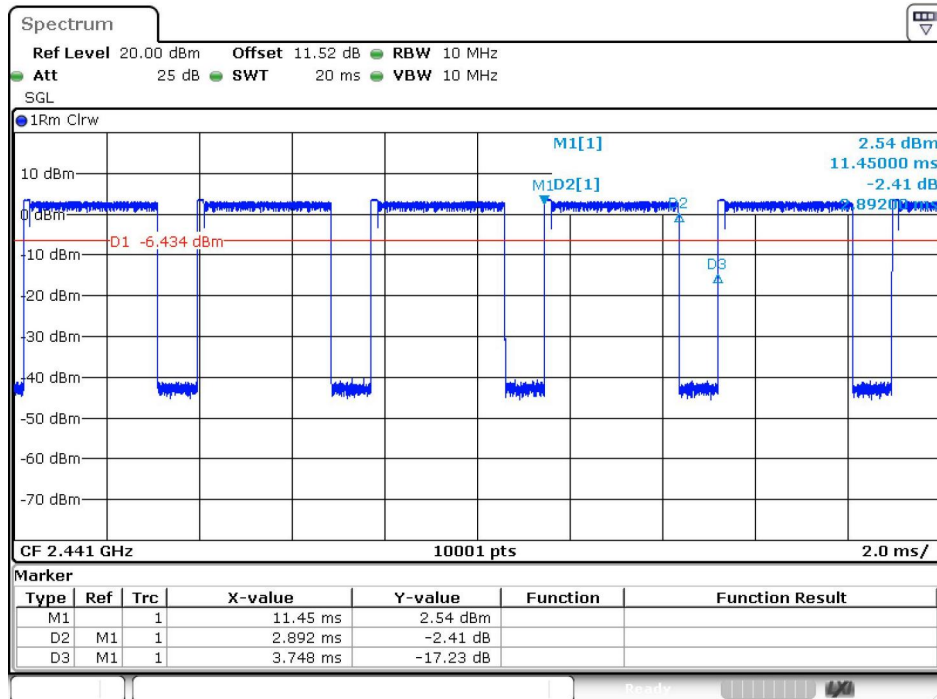
Date: 20.SEP.2024 14:49:30

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



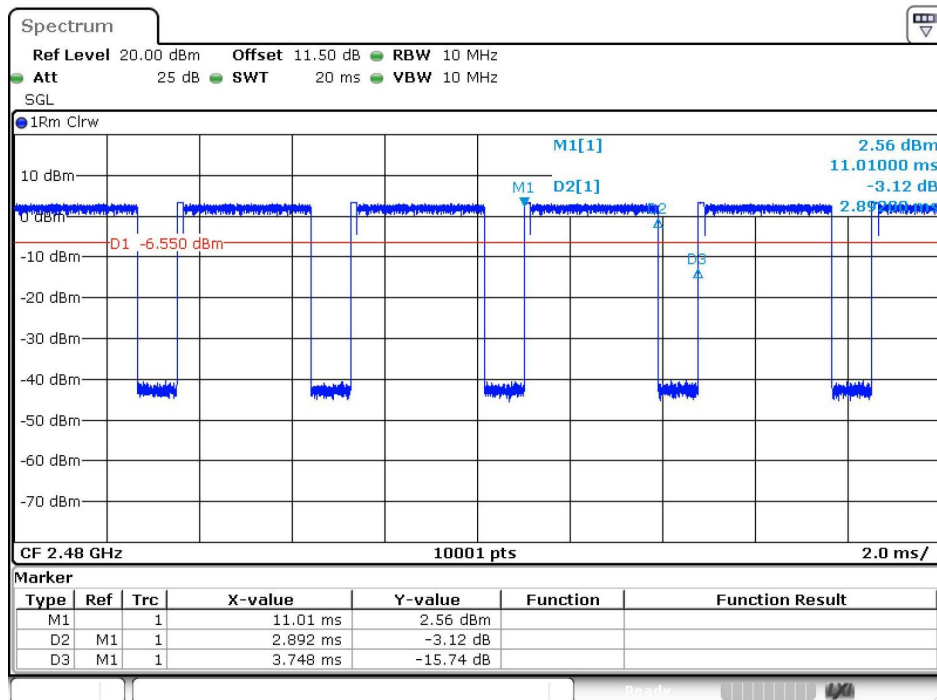
Date: 20.SEP.2024 14:52:05

8DPSK(3-DH5)_Channel 0



Date: 20.SEP.2024 14:59:52

8DPSK(3-DH5)_Channel 39



Date: 20.SEP.2024 15:02:18

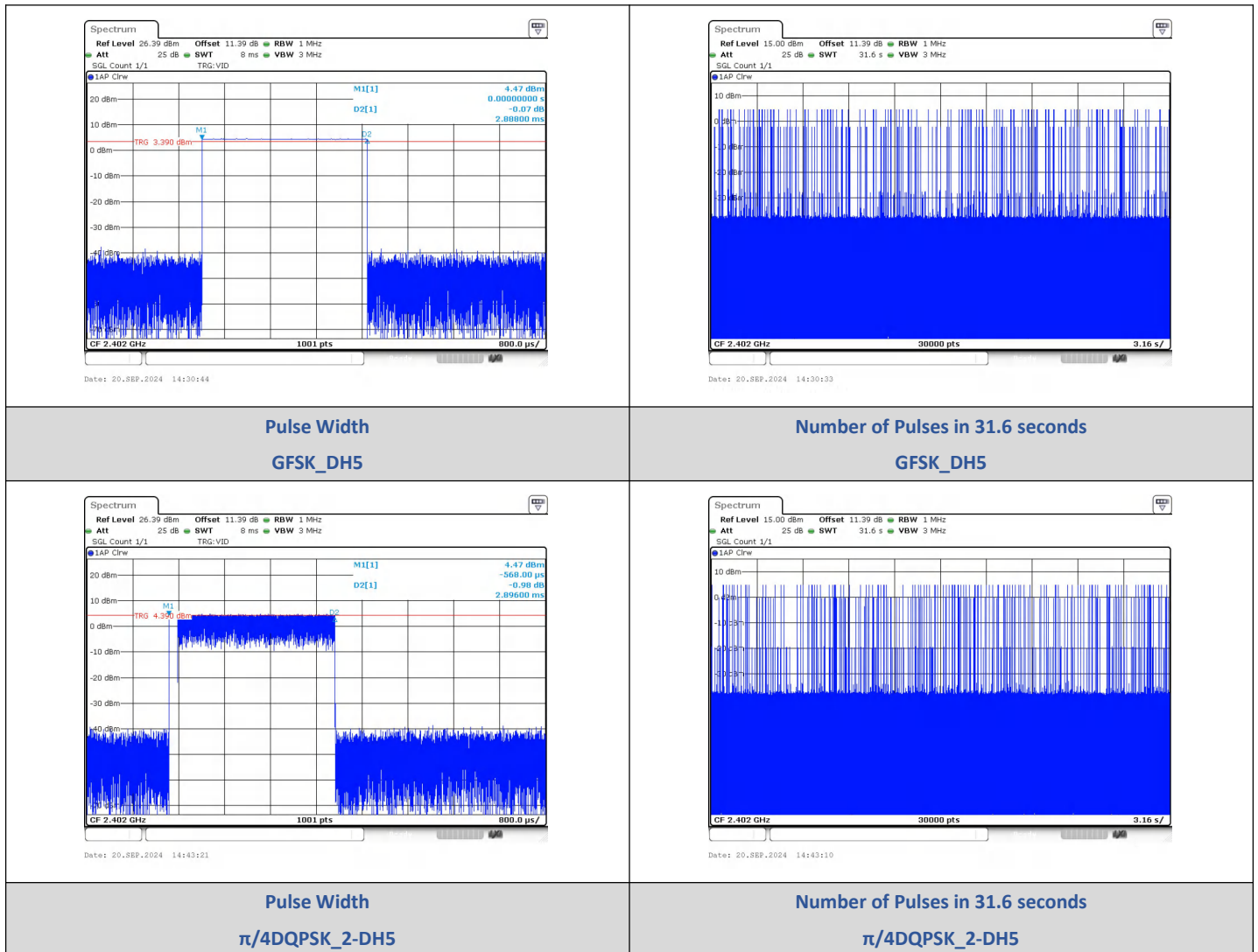
8DPSK(3-DH5)_Channel 78

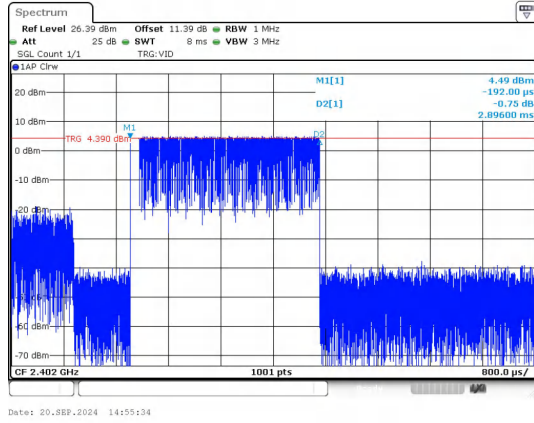
2) Dwell Time

Test Result

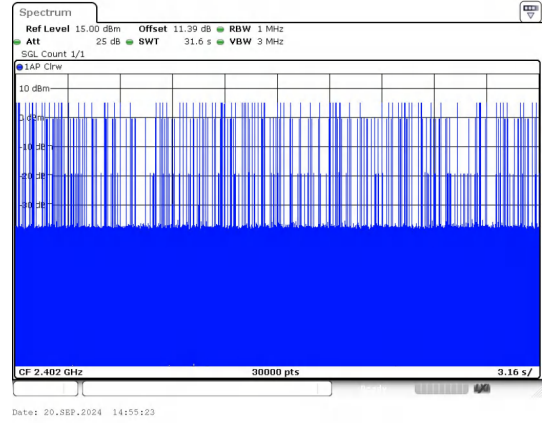
Modulation	Packet	Channel	Pulse Width (ms)	Number of Pulses in 31.6 seconds	Dwell Time (ms)	Limit (ms)	Result
GFSK	DH5	CH0 (2402MHz)	2.888	117	337.9	< 400	PASS
$\pi/4$ DQPSK	2-DH5		2.896	118	341.73		PASS
8DPSK	3-DH5		2.896	96	278.02		PASS

Test Graphs





Pulse Width
8DPSK_3-DH5



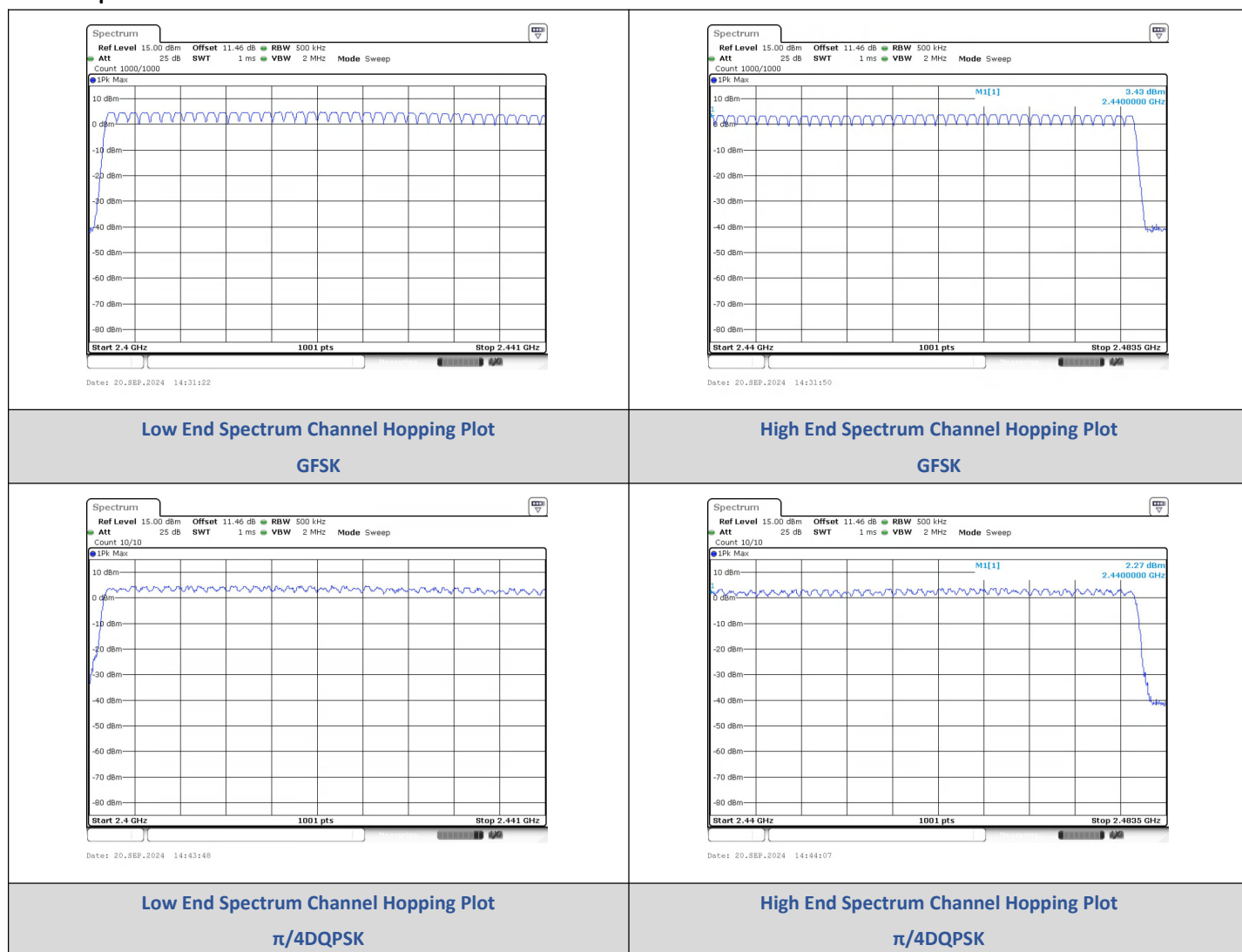
Number of Pulses in 31.6 seconds
8DPSK_3-DH5

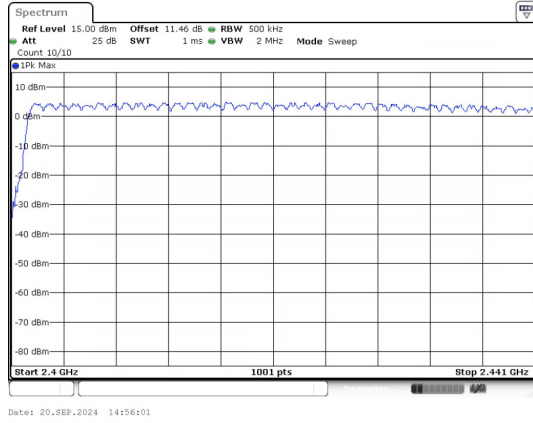
3) Number Of Hopping Channel

Test Result

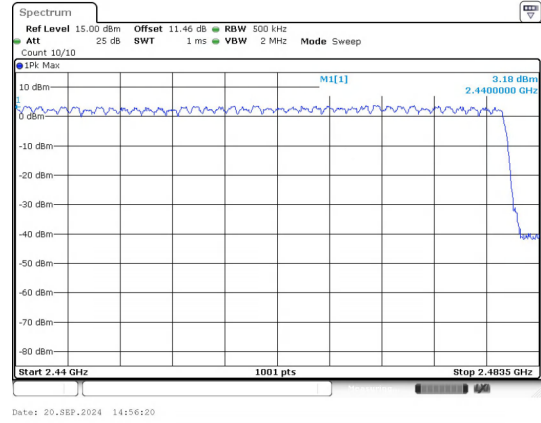
Modulation	Packet	Number of Hopping Channel	Limit	Result
GFSK	DH5	79	15	PASS
$\pi/4$ DQPSK	2-DH5	79	15	PASS
8DPSK	3-DH5	79	15	PASS

Test Graphs





Low End Spectrum Channel Hopping Plot
8DPSK



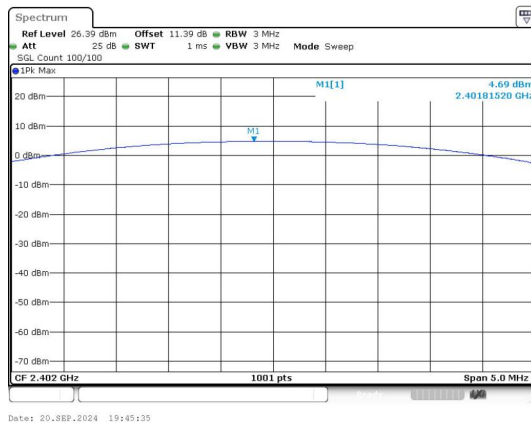
High End Spectrum Channel Hopping Plot
8DPSK

4) Conducted Peak Output Power

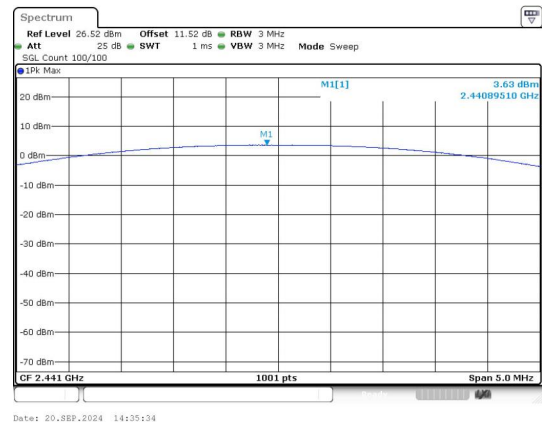
Test Result

Modulation	Packet Type	Channel	Peak Output Power (dBm)	Peak Output Power (mW)	Limit (dBm)	Result
GFSK	DH5	0	4.69	2.95	≤30	PASS
		39	3.61	2.31		PASS
		78	3.49	2.23		PASS
$\pi/4$ DQPSK	2-DH5	0	5.20	3.31	≤20.97	PASS
		39	4.28	2.68		PASS
		78	4.26	2.67		PASS
8DPSK	3-DH5	0	5.38	3.45		PASS
		39	4.49	2.81		PASS
		78	1.75	1.50		PASS

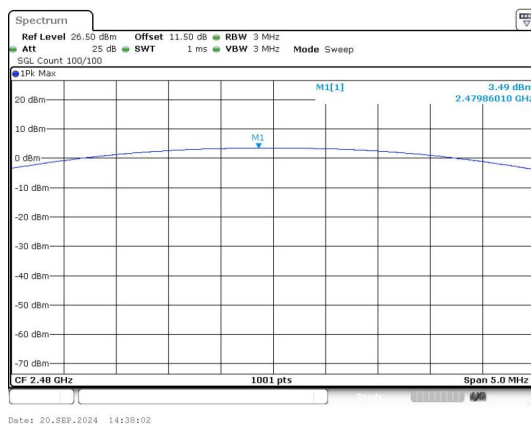
Test Graphs



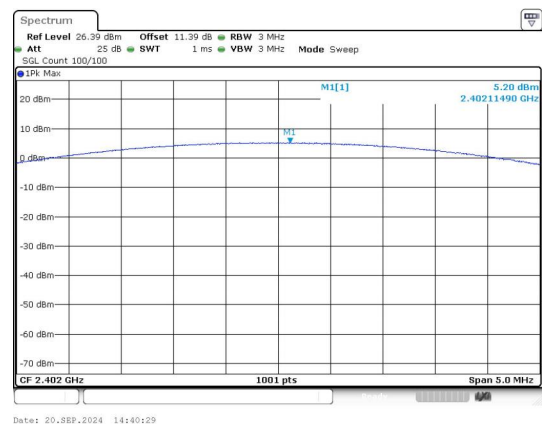
Peak Output Power
GFSK_Channel 0



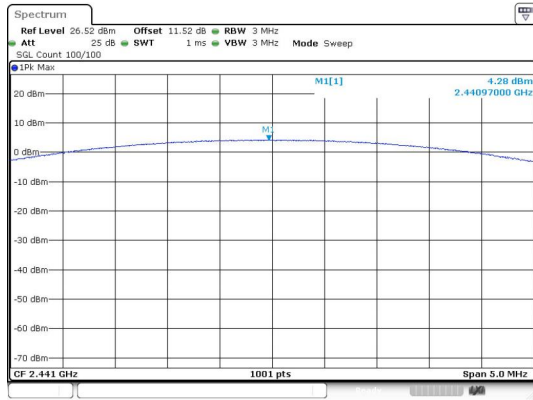
Peak Output Power
GFSK_Channel 39



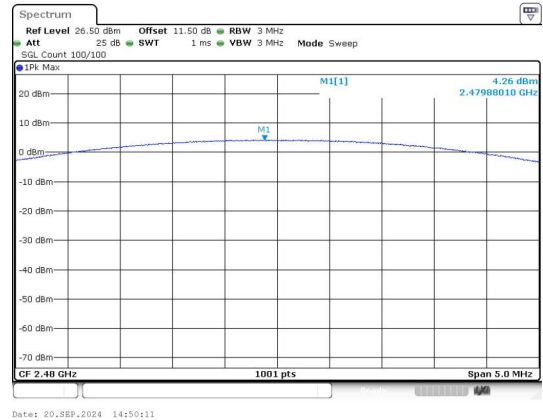
Peak Output Power
GFSK_Channel 78



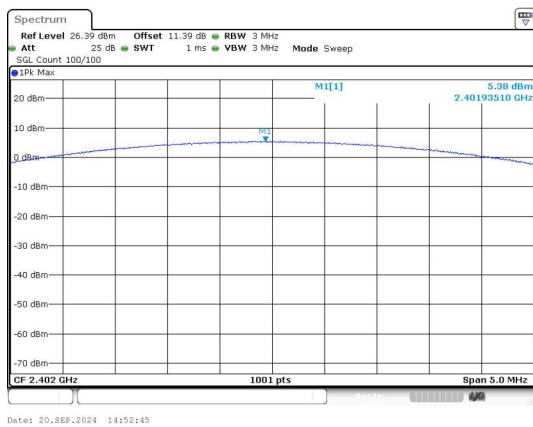
Peak Output Power
 $\pi/4$ DQPSK_Channel 0



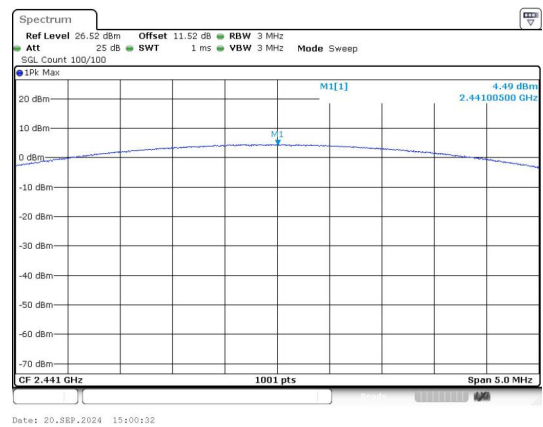
Peak Output Power
 $\pi/4$ DQPSK_Channel 39



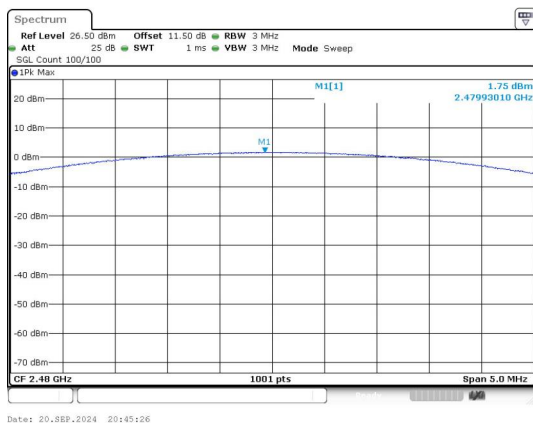
Peak Output Power
 $\pi/4$ DQPSK_Channel 78



Peak Output Power
8DPSK_Channel 0



Peak Output Power
8DPSK_Channel 39



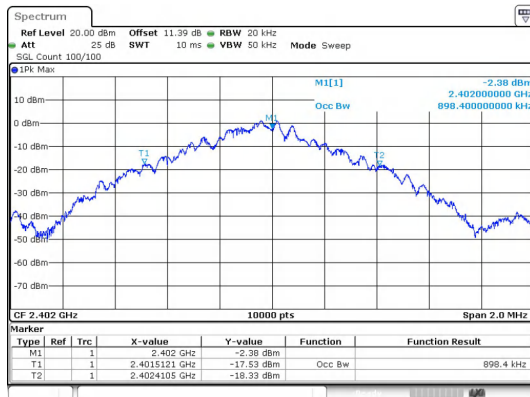
Peak Output Power
8DPSK_Channel 78

5) 99% Bandwidth

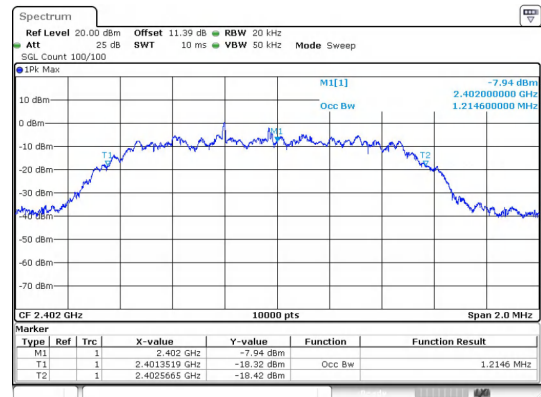
Test Result

Modulation	Channel	Center Frequency (MHz)	99% BW (MHz)
GFSK	0	2402	0.89840
	39	2441	0.88480
	78	2480	0.88340
$\pi/4$ DQPSK	0	2402	1.2146
	39	2441	1.1996
	78	2480	1.1940
8DPSK	0	2402	1.2114
	39	2441	1.2166
	78	2480	1.2028

Test Graphs

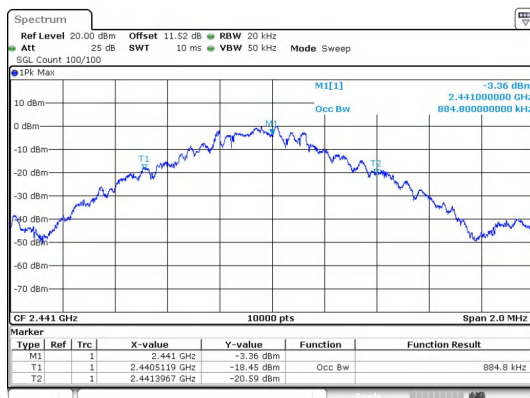


Date: 20.SEP.2024 14:27:131

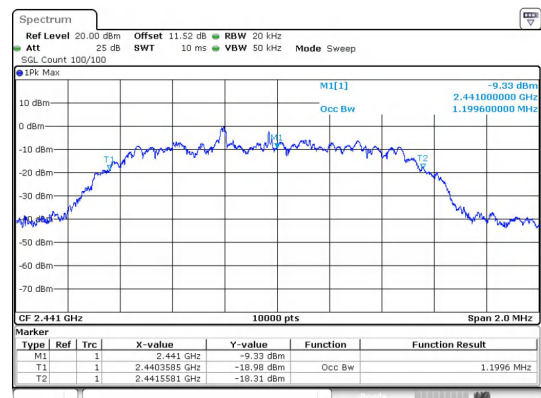


Date: 20.SEP.2024 14:40:102

GFSK_DH5_Channel 0

 $\pi/4$ DQPSK_2-DH5_Channel 0


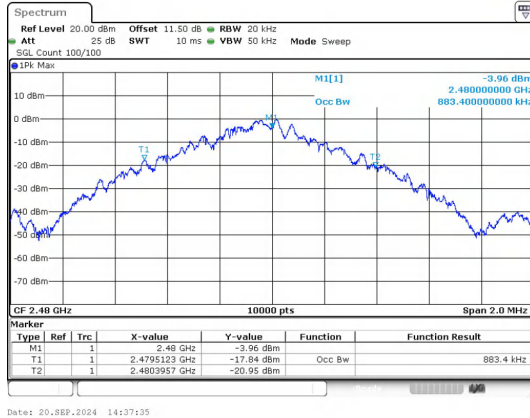
Date: 20.SEP.2024 14:35:108



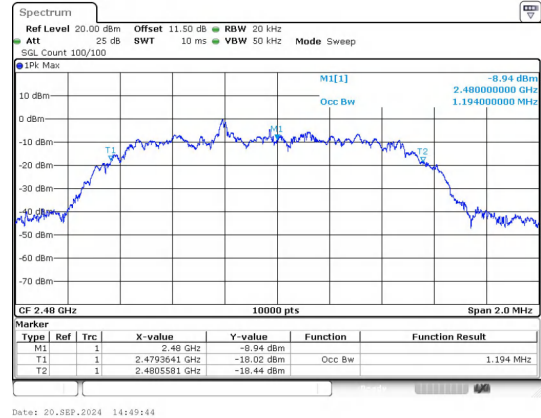
Date: 20.SEP.2024 14:47:124

GFSK_DH5_Channel 39

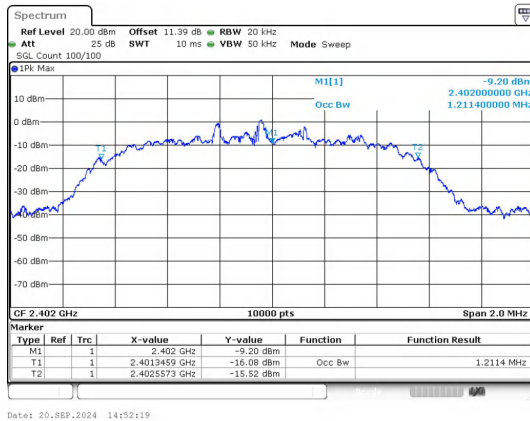
 $\pi/4$ DQPSK_2-DH5_Channel 39



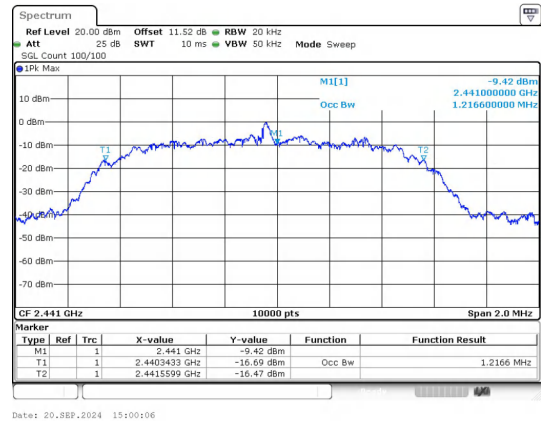
GFSK_DH5_Channel 78



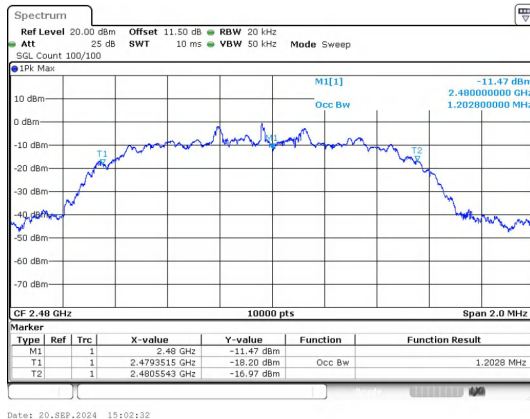
$\pi/4$ DQPSK_2-DH5_Channel 78



8DPSK_3-DH5_Channel 0



8DPSK_3-DH5_Channel 39



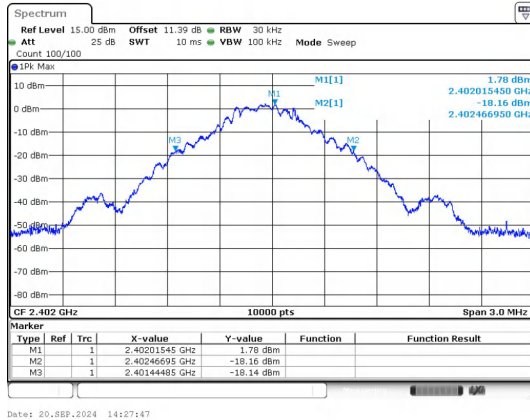
8DPSK_3-DH5_Channel 78

6) 20dB Bandwidth

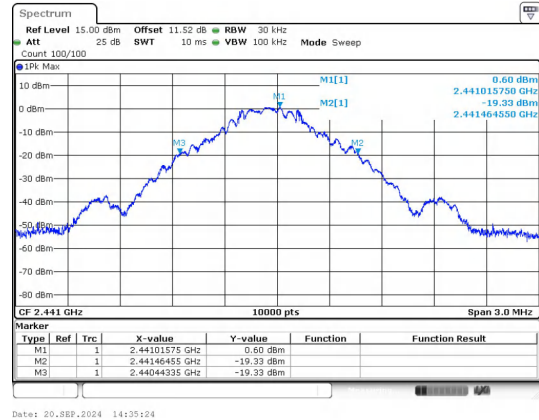
Test Result

Modulation	Channel	Center Frequency (MHz)	20 dB Bandwidth (MHz)
GFSK	0	2402 MHz	1.030
	39	2441 MHz	1.020
	78	2480 MHz	0.9900
$\pi/4$ DQPSK	0	2402 MHz	1.310
	39	2441 MHz	1.300
	78	2480 MHz	1.310
8DPSK	0	2402 MHz	1.300
	39	2441 MHz	1.300
	78	2480 MHz	1.300

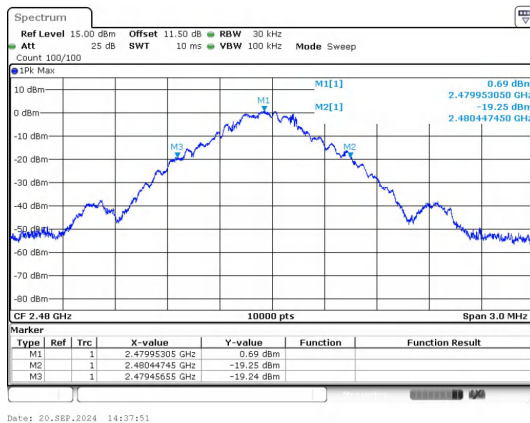
Test Graphs



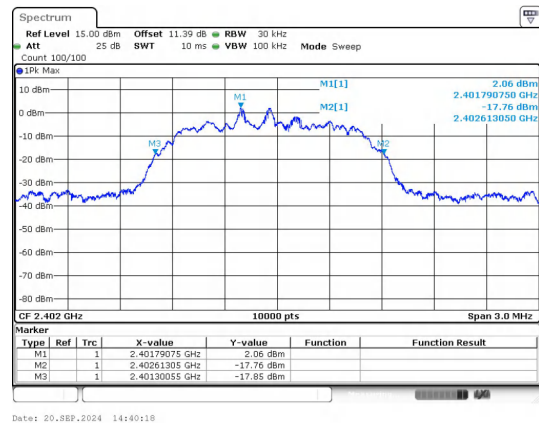
GFSK_DH5_Channel 0

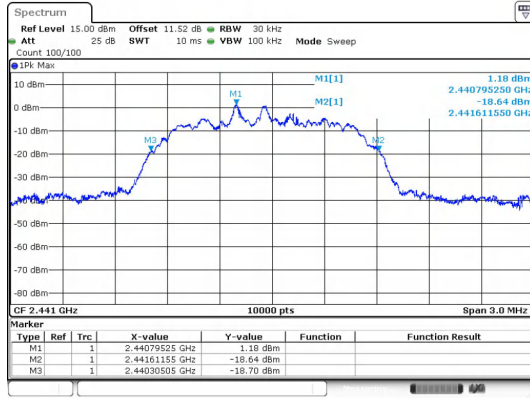


GFSK_DH5_Channel 39

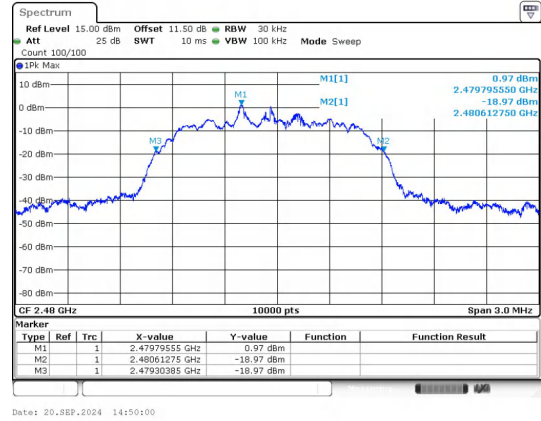


GFSK_DH5_Channel 78

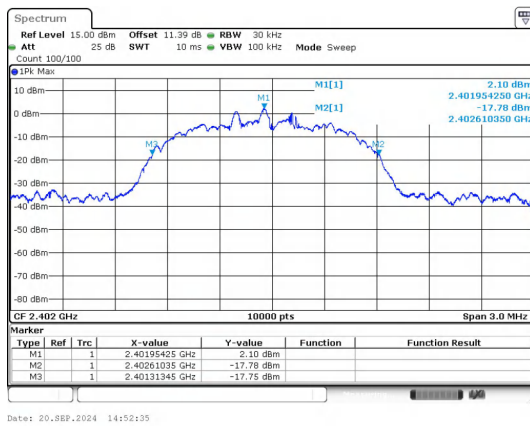

 $\pi/4$ DQPSK_2-DH5_Channel 0



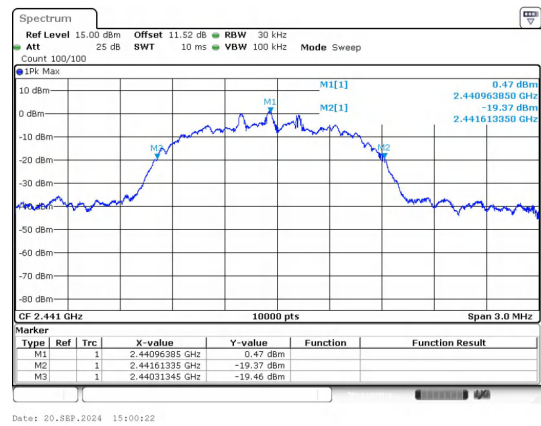
$\pi/4$ DQPSK_2-DH5_Channel 39



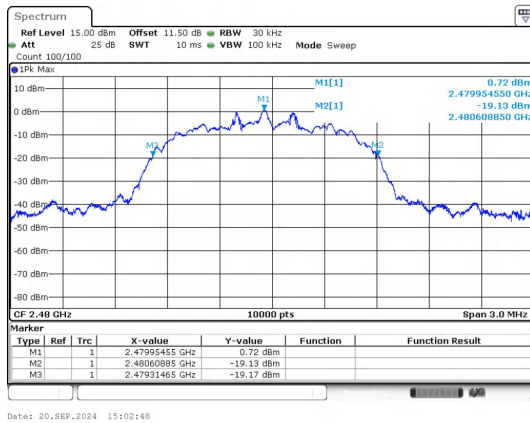
$\pi/4$ DQPSK_2-DH5_Channel 78



8DPSK_3-DH5_Channel 0



8DPSK_3-DH5_Channel 39



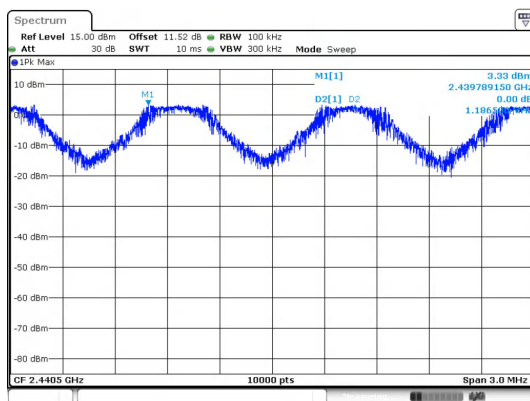
8DPSK_3-DH5_Channel 78

7) Carrier Frequencies Separation

Test Result

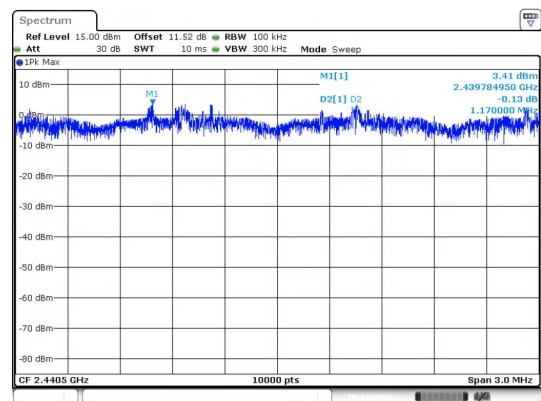
Modulation	Packet	Left Center frequency (MHz)	Right Center frequency (MHz)	Hopping Frequency Separation (MHz)	Limit (MHz)	Result
GFSK	DH5	2439.7892	2440.9756	1.1865	1.030	PASS
$\pi/4$ DQPSK	2-DH5	2439.785	2440.9549	1.1700	0.873	PASS
8DPSK	3-DH5	2439.9118	2441.0774	1.1655	0.867	PASS

Test Graphs

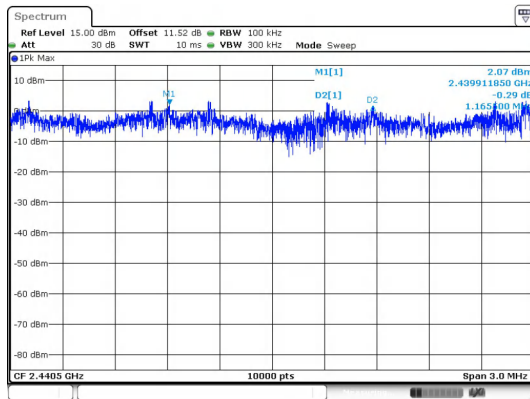


Date: 20.SEP.2024 14:29:46

GFSK



Date: 20.SEP.2024 14:42:23

 $\pi/4$ DQPSK


Date: 20.SEP.2024 14:54:37

8DPSK

8) Conducted Out Of Band Emission

Test Result

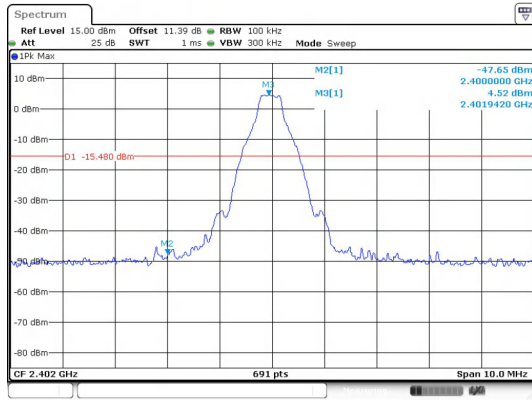
Non-Hopping

Modulation	Packet	Channel	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
GFSK	DH5	0	2400.00	-47.645	-15.48	-32.165	PASS
			7206.79	-38.341	-15.48	-22.861	PASS
		39	7323.32	-43.141	-16.57	-26.571	PASS
		78	2287.70	-42.297	-16.62	-25.677	PASS
			2483.50	-48.453	-16.62	-31.833	PASS
$\pi/4$ DQPSK	2-DH5	0	2400.00	-47.270	-15.46	-31.810	PASS
			7205.96	-39.215	-15.46	-23.755	PASS
		39	7322.49	-46.467	-16.48	-29.987	PASS
		78	2483.50	-50.797	-16.67	-34.127	PASS
			9920.20	-45.675	-16.67	-29.005	PASS
8DPSK	3-DH5	0	2400.00	-45.246	-15.54	-29.706	PASS
			7205.96	-40.526	-15.54	-24.986	PASS
		39	2249.42	-44.478	-16.55	-27.928	PASS
		78	2483.50	-49.717	-19.24	-30.477	PASS
			9920.20	-37.921	-19.24	-18.681	PASS

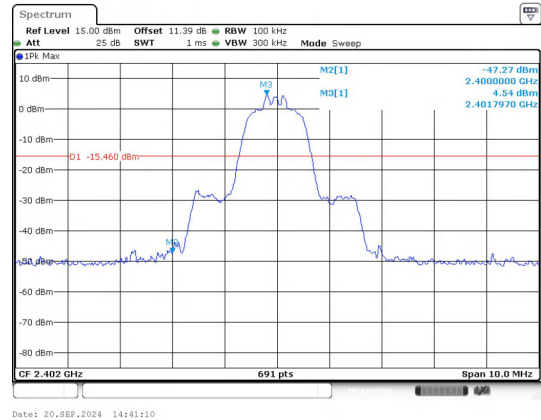
Hopping

Modulation	Packet	Channel	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
GFSK	DH5	Hopping	2398.28	-48.083	-15.65	-32.433	PASS
			2400.00	-48.575	-15.65	-32.925	PASS
			2483.50	-48.676	-16.95	-31.726	PASS
$\pi/4$ DQPSK	2-DH5		2398.83	-47.865	-15.7	-32.165	PASS
			2400.00	-49.362	-15.7	-33.662	PASS
			2483.50	-50.455	-17.22	-33.235	PASS
8DPSK	3-DH5		2397.38	-48.484	-16.1	-32.384	PASS
			2400.00	-49.621	-16.1	-33.521	PASS
			2483.50	-49.175	-17.08	-32.095	PASS

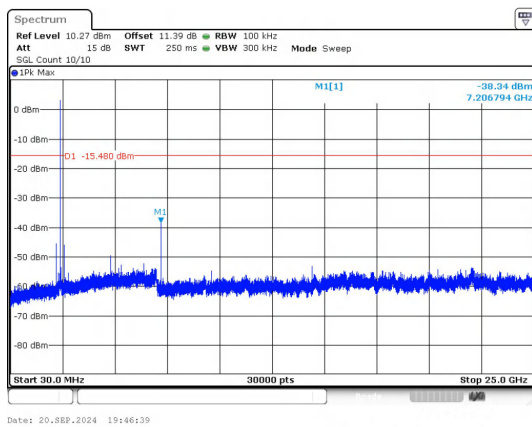
Test Graphs



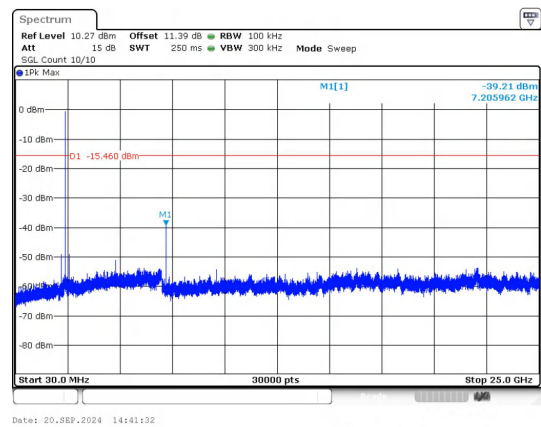
Out Of Band Emission
GFSK_DH5_Channel 0



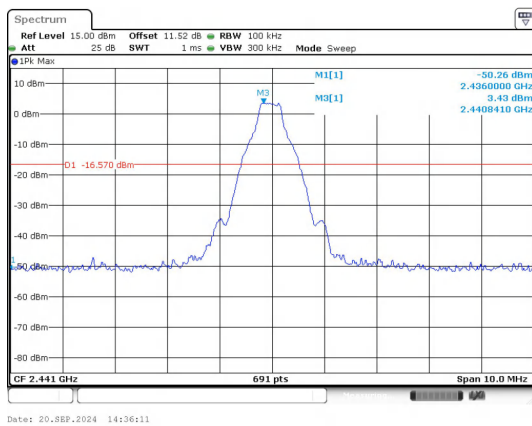
Out Of Band Emission
 $\pi/4$ QPSK_2-DH5_Channel 0



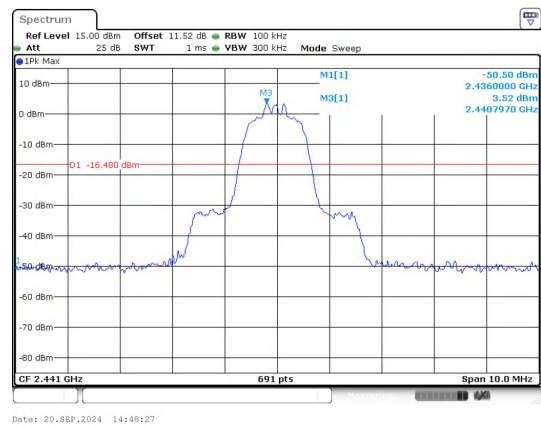
30.0 MHz - 25000.0 MHz
GFSK_DH5_Channel 0



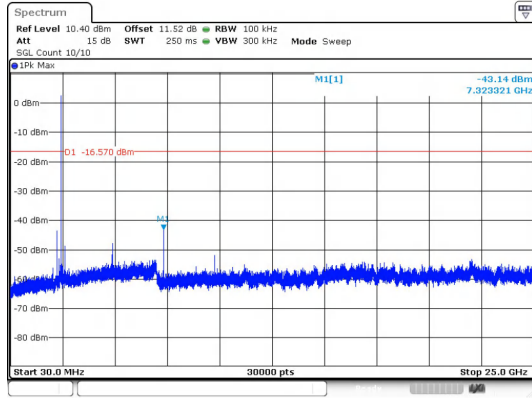
30.0 MHz - 25000.0 MHz
 $\pi/4$ QPSK_2-DH5_Channel 0



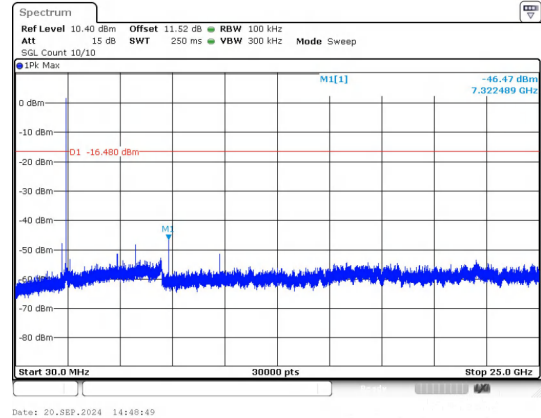
Out Of Band Emission
GFSK_DH5_Channel 39



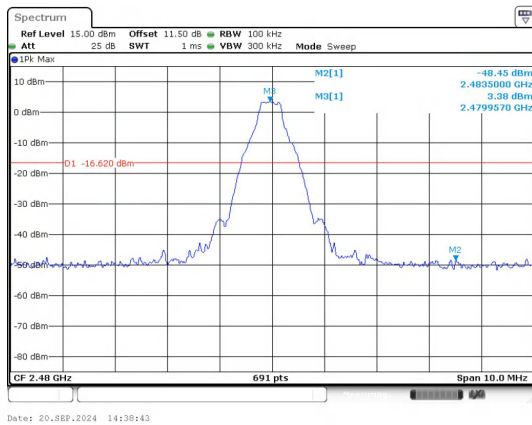
Out Of Band Emission
 $\pi/4$ QPSK_2-DH5_Channel 39



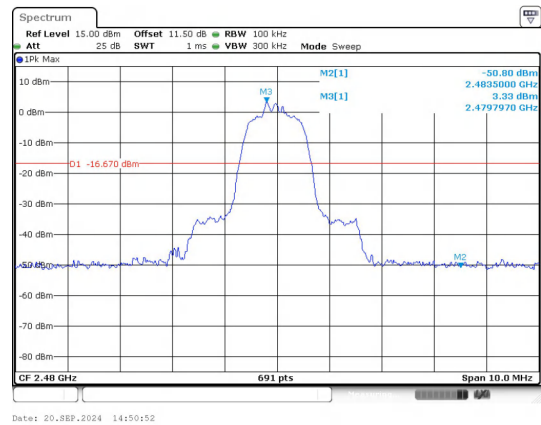
30.0 MHz - 25000.0 MHz
GFSK_DH5_Channel 39



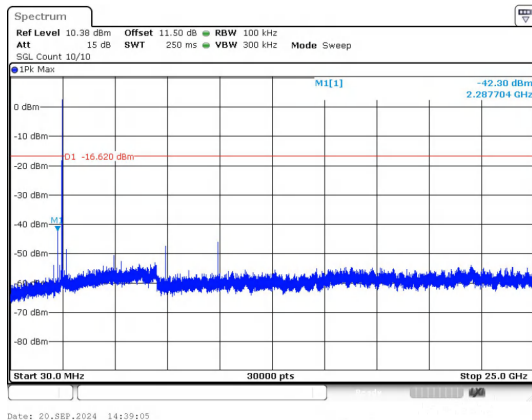
30.0 MHz - 25000.0 MHz
 $\pi/4$ DQPSK_2-DH5_Channel 39



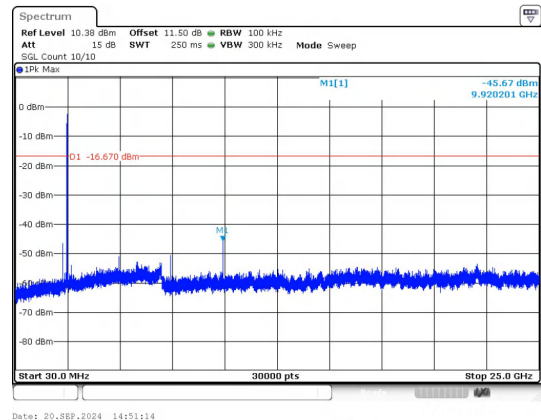
Out Of Band Emission
GFSK_DH5_Channel 78



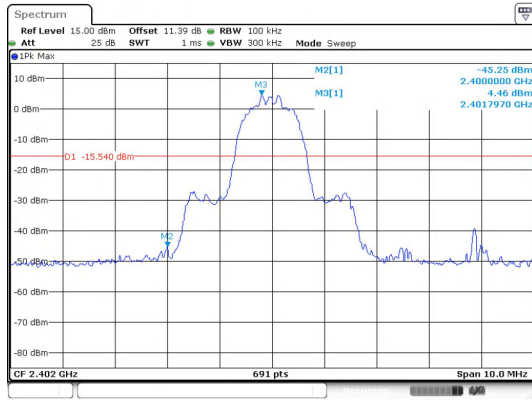
Out Of Band Emission
 $\pi/4$ DQPSK_2-DH5_Channel 78



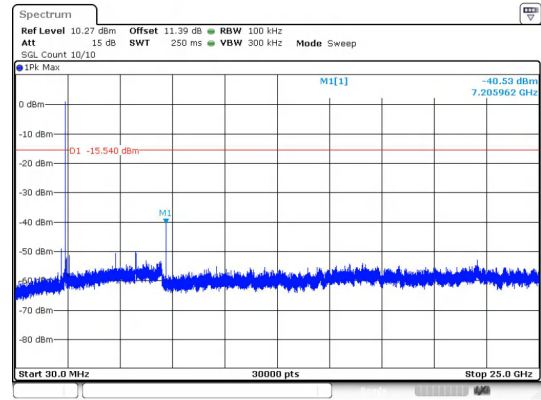
30.0 MHz - 25000.0 MHz
GFSK_DH5_Channel 78



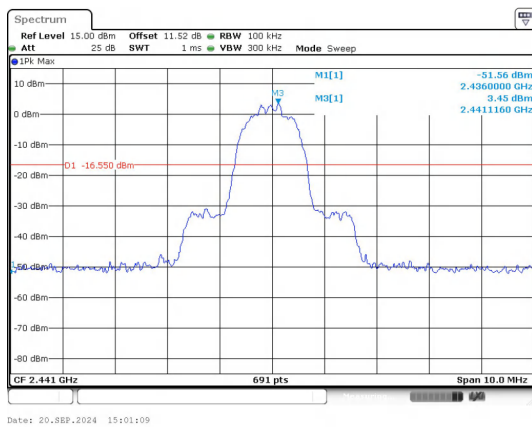
30.0 MHz - 25000.0 MHz
 $\pi/4$ DQPSK_2-DH5_Channel 78



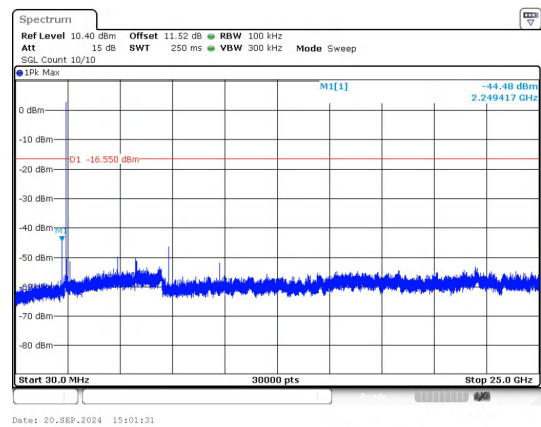
Out Of Band Emission
8DPSK_3-DH5_Channel 0



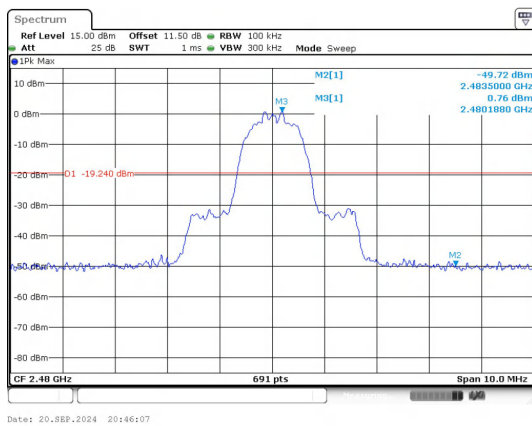
30.0 MHz - 25000.0 MHz
8DPSK_3-DH5_Channel 0



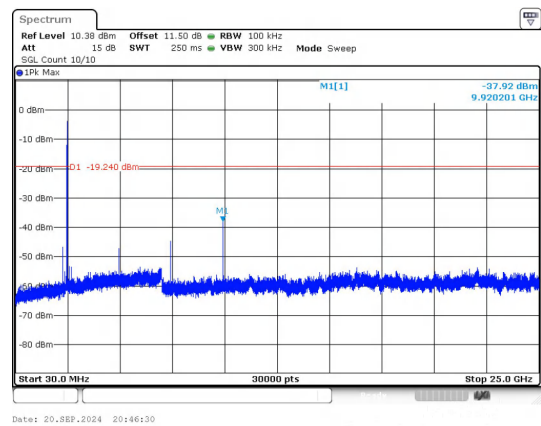
Out Of Band Emission
8DPSK_3-DH5_Channel 39



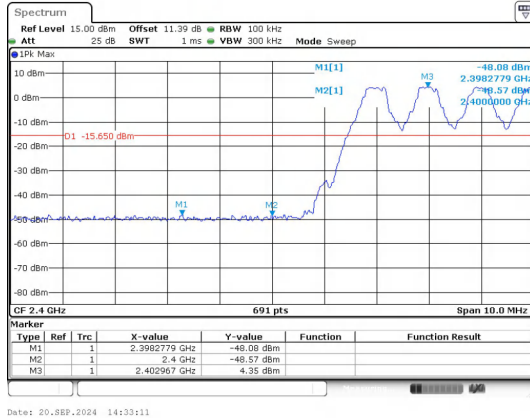
30.0 MHz - 25000.0 MHz
8DPSK_3-DH5_Channel 39



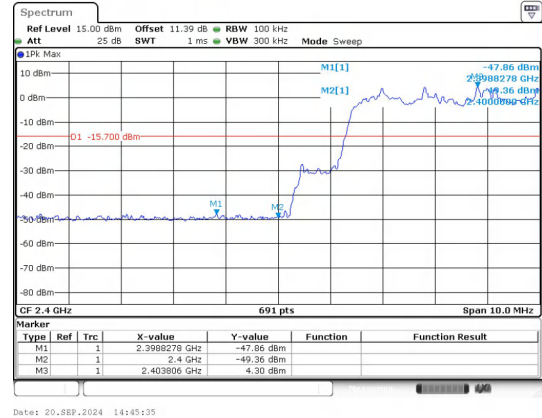
Out Of Band Emission
8DPSK_3-DH5_Channel 78



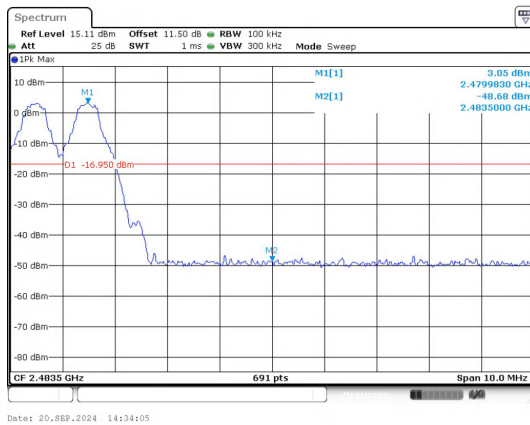
30.0 MHz - 25000.0 MHz
8DPSK_3-DH5_Channel 78



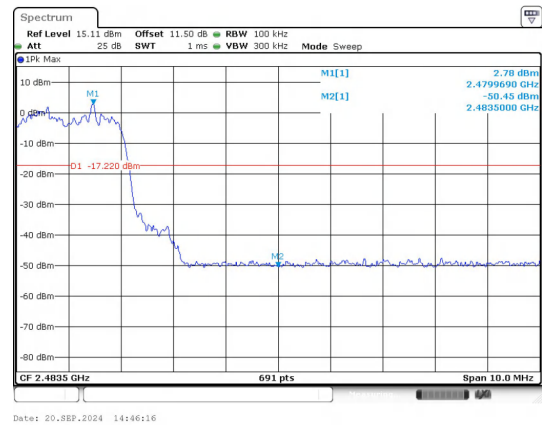
Out Of Band Emission(Left)
GFSK_DH5_Channel Hopping



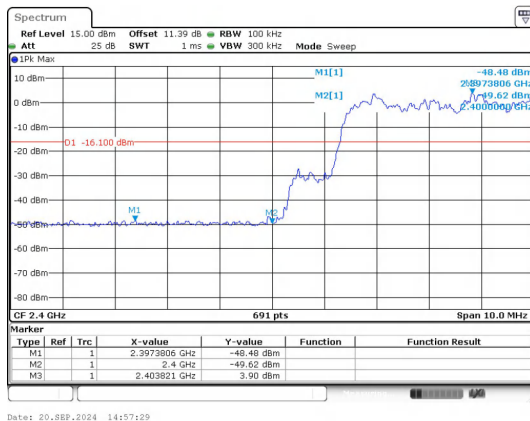
Out Of Band Emission(Left)
 $\pi/4$ DQPSK_2-DH5_Channel Hopping



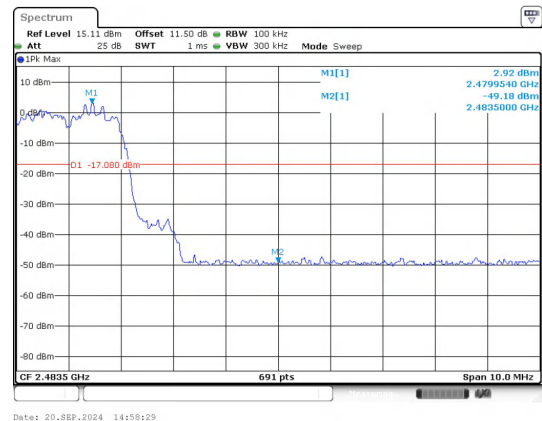
Out Of Band Emission(Right)
GFSK_DH5_Channel Hopping



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



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



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