

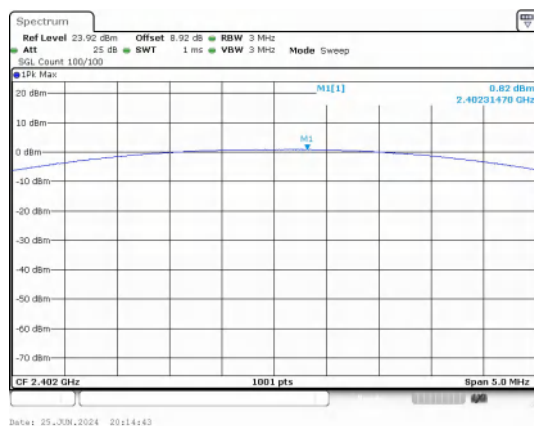
Appendix A

Report No.:	CISRR24070905401
FCC ID:	2BHK2-MRX1
Product Name:	MR Headset
Model No.:	MRX1
Test Engineer:	Lucas Huang
Supervised by:	Rory Huang

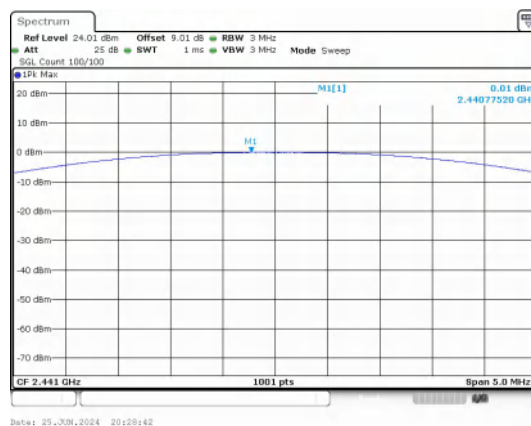
1) Conducted Peak Output Power

Test Result

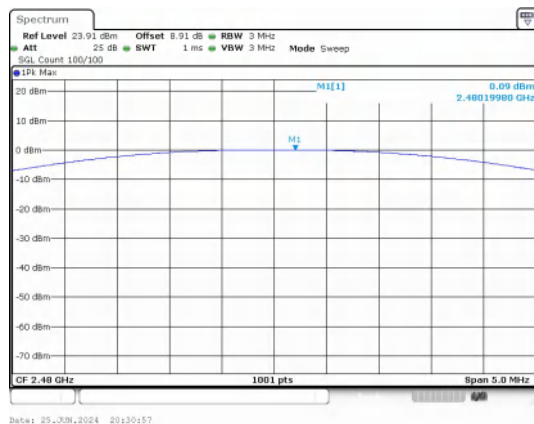
Modulation	Packet Type	Channel	Peak Output Power (dBm)	Peak Output Power (mW)	Limit (dBm)	Result
GFSK	DH5	0	0.82	1.21	30	PASS
		39	0.01	1.00		PASS
		78	0.09	1.02		PASS
$\pi/4$ DQPSK	2-DH5	0	1.22	1.32	20.97	PASS
		39	0.69	1.17		PASS
		78	0.67	1.17		PASS
8DPSK	3-DH5	0	1.46	1.40		PASS
		39	0.87	1.22		PASS
		78	0.83	1.21		PASS



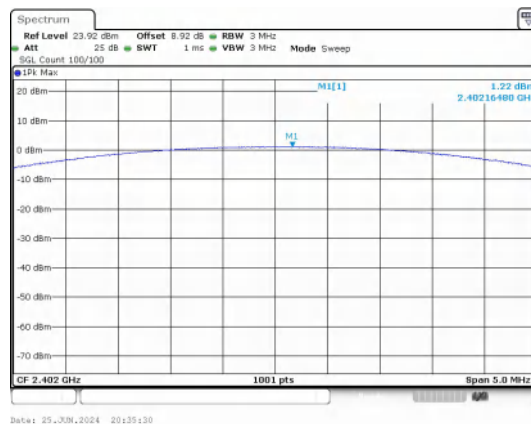
Peak Output Power
GFSK_Channel 0



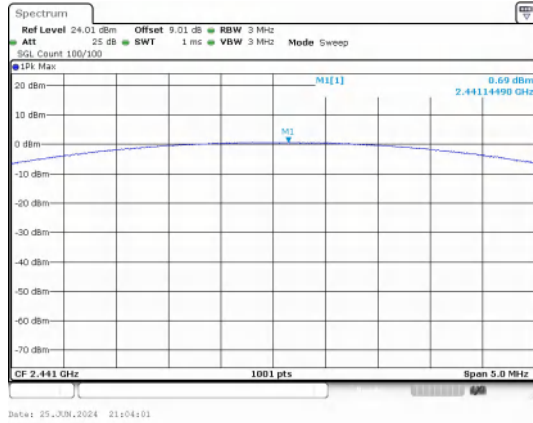
Peak Output Power
GFSK_Channel 39



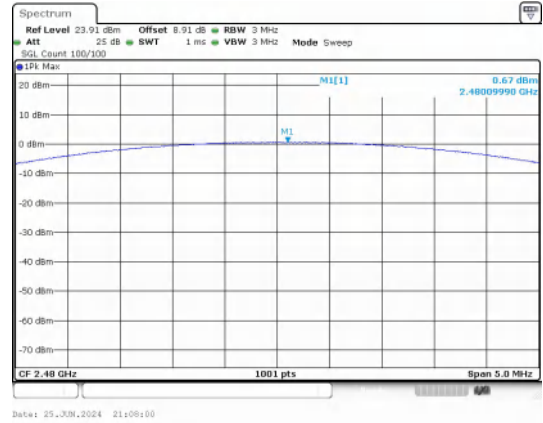
Peak Output Power
GFSK_Channel 78



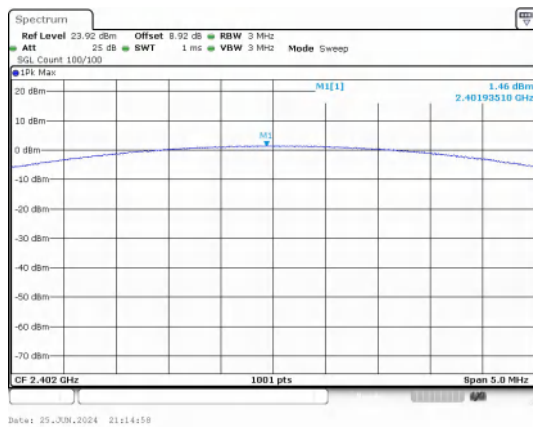
Peak Output Power
 $\pi/4$ DQPSK_Channel 0



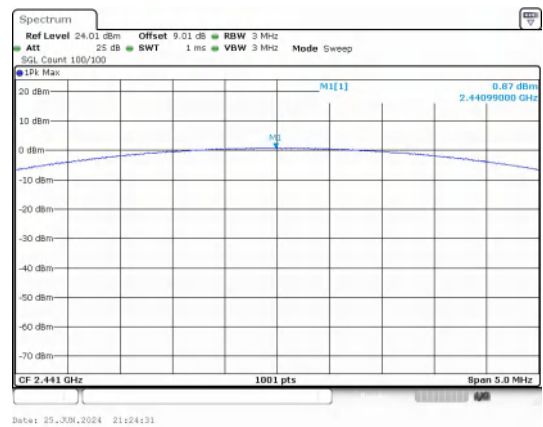
Peak Output Power
 $\pi/4$ DQPSK_Channel 39



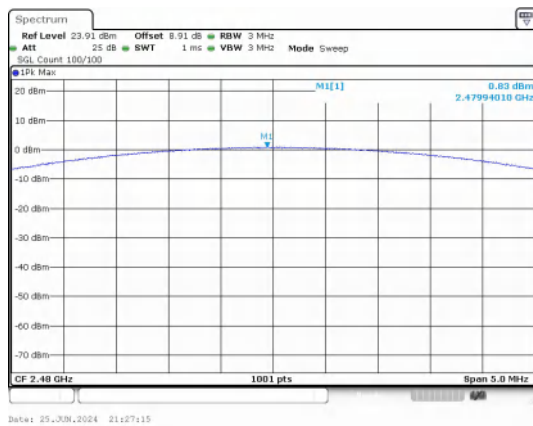
Peak Output Power
 $\pi/4$ DQPSK_Channel 78



Peak Output Power
8DPSK_Channel 0



Peak Output Power
8DPSK_Channel 39



Peak Output Power
8DPSK_Channel 78

2) 99% Bandwidth

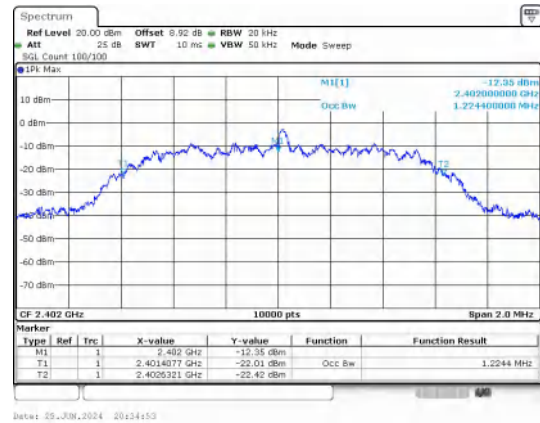
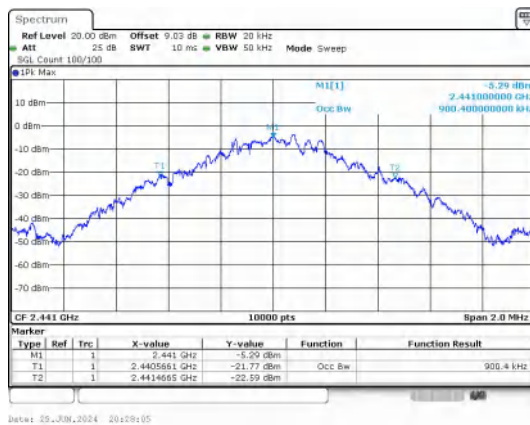
Test Result

Modulation	Channel	Center Frequency (MHz)	99% BW (MHz)
GFSK	0	2402	0.9026
	39	2441	0.9004
	78	2480	0.8866
$\pi/4$ DQPSK	0	2402	1.2240
	39	2441	1.2058
	78	2480	1.2064
8DPSK	0	2402	1.2225
	39	2441	1.2126
	78	2480	1.2110

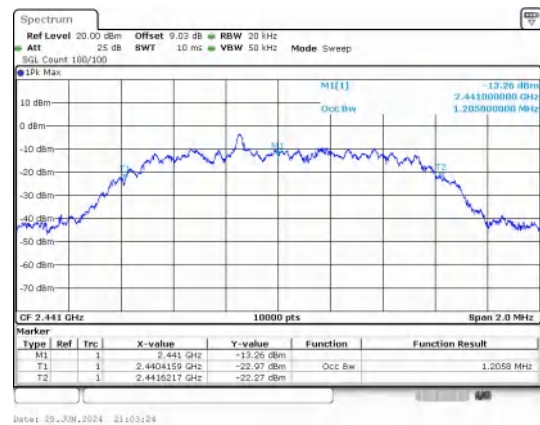
Test Graphs

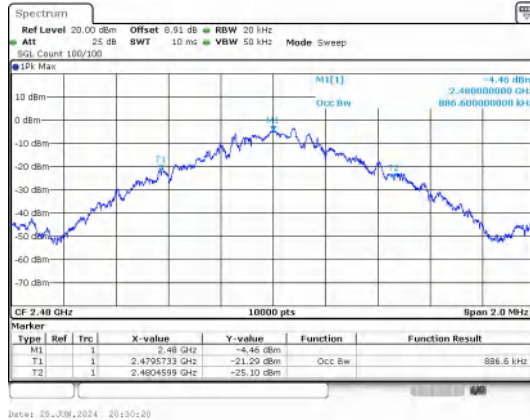


GFSK_DH5_Channel 0

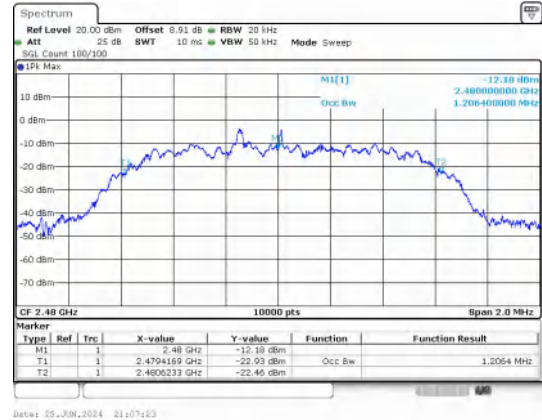

 $\pi/4$ DQPSK_2-DH5_Channel 0


GFSK_DH5_Channel 39

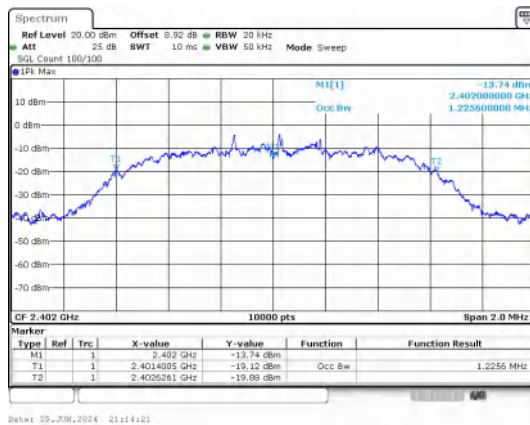

 $\pi/4$ DQPSK_2-DH5_Channel 39



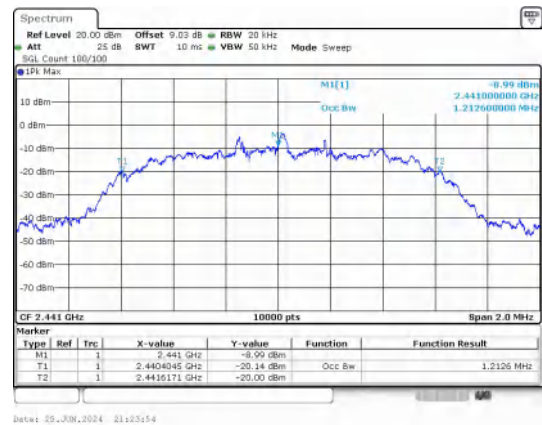
GFSK_DH5_Channel 78



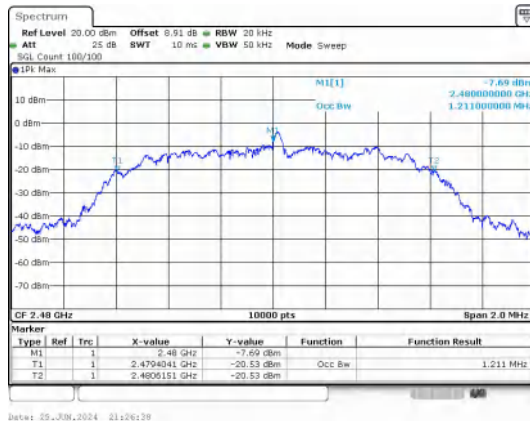
$\pi/4$ DQPSK_2-DH5_Channel 78



8DPSK_3-DH5_Channel 0



8DPSK_3-DH5_Channel 39



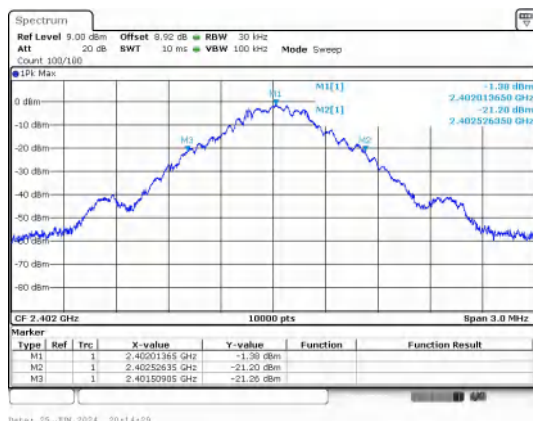
8DPSK_3-DH5_Channel 78

3) 20dB Bandwidth

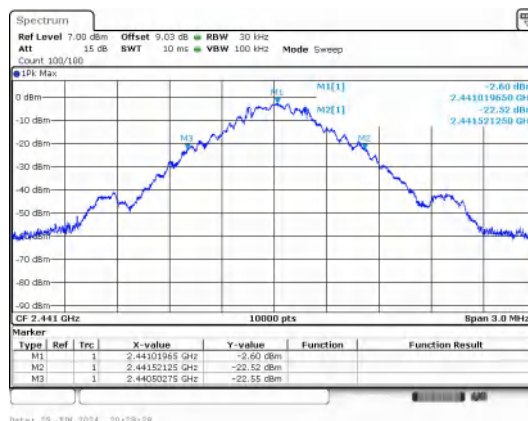
Test Result

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

Test Graphs



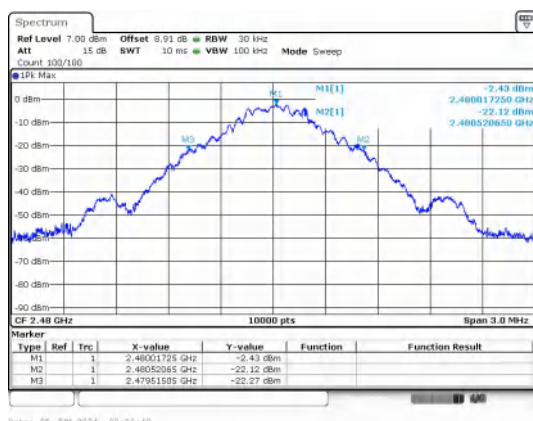
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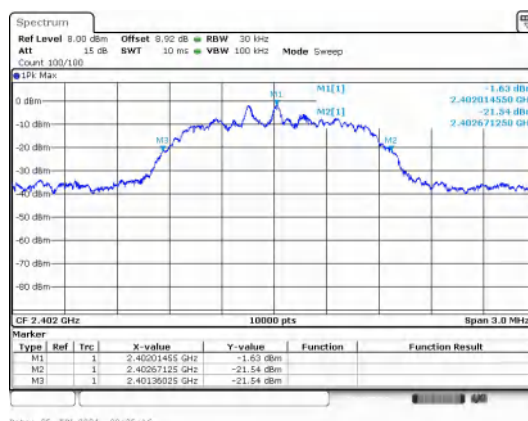
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GFSK_DH5_Channel 0

GFSK_DH5_Channel 39



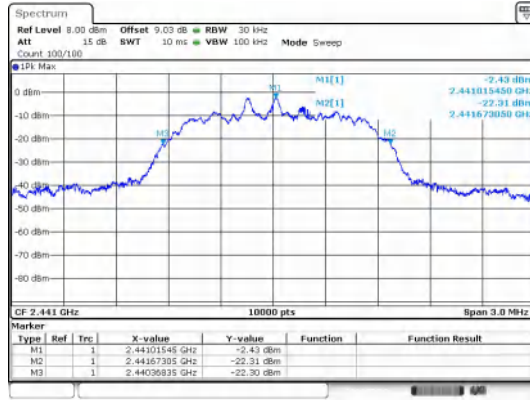
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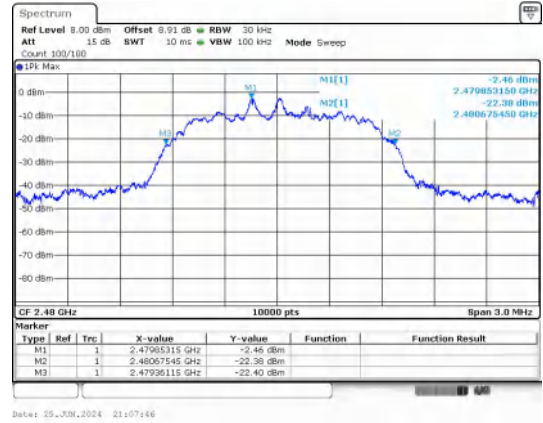
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GFSK_DH5_Channel 78

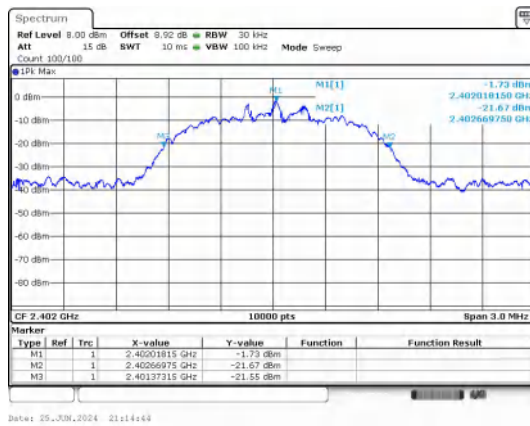
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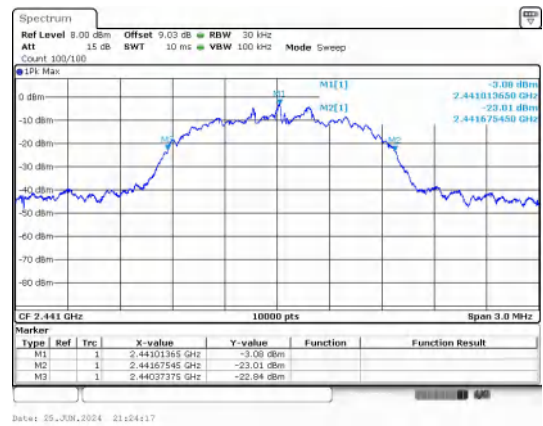
$\pi/4$ DQPSK_2-DH5_Channel 39



$\pi/4$ DQPSK_2-DH5_Channel 78



8DPSK_3-DH5_Channel 0



8DPSK_3-DH5_Channel 39



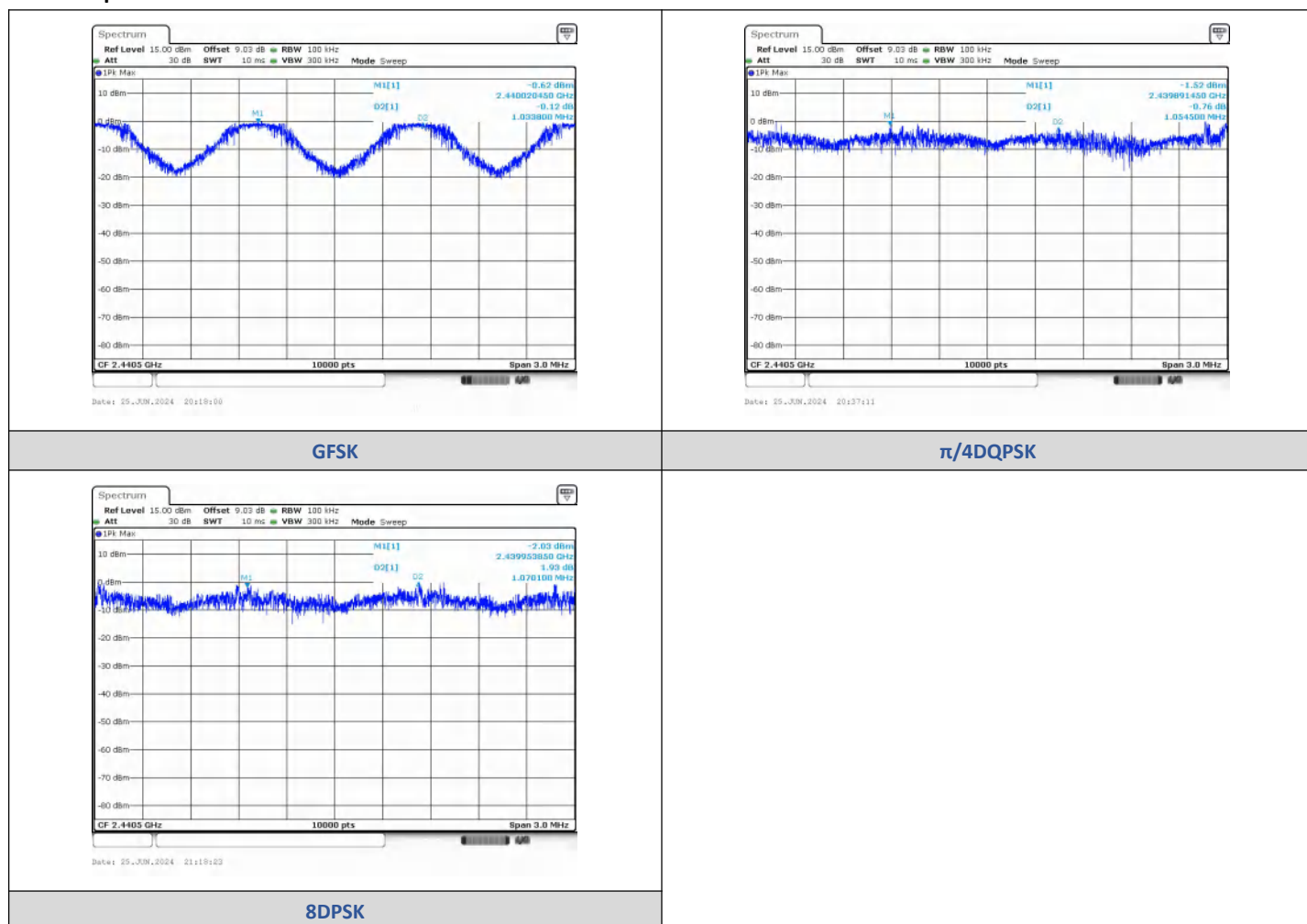
8DPSK_3-DH5_Channel 78

4) Carrier Frequencies Separation

Test Result

Modulation	Packet	Left Center frequency (MHz)	Right Center frequency (MHz)	Hopping Frequency Separation (MHz)	Limit (MHz)	Result
GFSK	DH5	2440.0204	2441.0543	1.0338	1.02	PASS
$\pi/4$ DQPSK	2-DH5	2439.8915	2440.9459	1.0545	0.873	PASS
8DPSK	3-DH5	2439.9538	2441.0239	1.0701	0.867	PASS

Test Graphs



5) Conducted Out Of Band Emission

Test Result

Non-Hopping

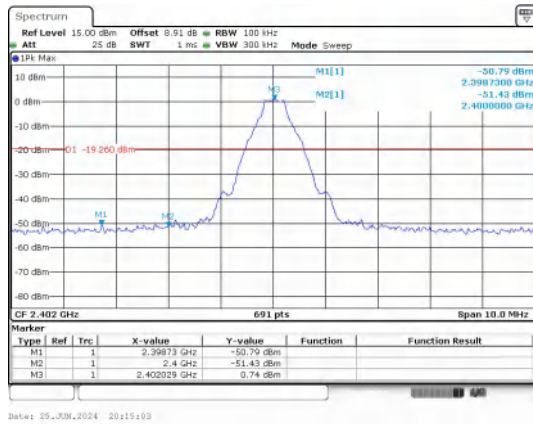
Modulation	Packet	Channel	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
GFSK	DH5	0	2398.73	-50.785	-19.26	-31.525	PASS
			2400.00	-51.433	-19.26	-32.173	PASS
			7206.00	-43.261	-19.26	-24.001	PASS
		39	9764.55	-43.354	-20.08	-23.274	PASS
		78	2483.50	-53.712	-20.09	-33.622	PASS
			9920.20	-40.551	-20.09	-20.461	PASS
$\pi/4$ DQPSK	2-DH5	0	2400.00	-47.897	-19.47	-28.427	PASS
			7205.96	-44.356	-19.47	-24.886	PASS
		39	9763.72	-42.317	-20.12	-22.197	PASS
		78	2483.50	-52.818	-20.15	-32.668	PASS
			9920.20	-40.901	-20.15	-20.751	PASS
8DPSK	3-DH5	0	2400.00	-48.726	-19.45	-29.276	PASS
			5172.57	-45.098	-19.45	-25.648	PASS
		39	9763.72	-42.655	-20.5	-22.155	PASS
		78	2483.50	-52.560	-20.51	-32.050	PASS
			9920.20	-40.961	-20.51	-20.451	PASS

Hopping

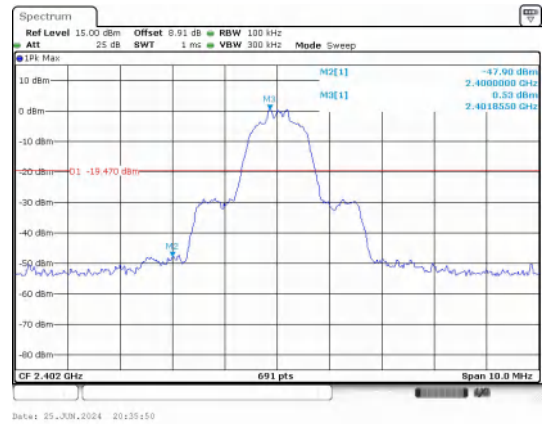
Modulation	Packet	Channel	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
GFSK	DH5	Hopping	2396.35	-50.296	-19.4	-30.896	PASS
			2400.00	-51.492	-19.4	-32.092	PASS
			2483.50	-51.105	-20.09	-31.015	PASS
			2395.15	-50.759	-19.25	-31.509	PASS
			2400.00	-50.775	-19.25	-31.525	PASS
			2483.50	-52.212	-20.14	-32.072	PASS
$\pi/4$ DQPSK	2-DH5		2400.00	-47.340	-19.14	-28.200	PASS
			2483.50	-52.405	-21.15	-31.255	PASS
			2400.00	-50.554	-19.53	-31.024	PASS
			2483.50	-50.920	-20.64	-30.280	PASS
8DPSK	3-DH5		2397.44	-50.760	-19.66	-31.100	PASS
			2400.00	-51.359	-19.66	-31.699	PASS
			2483.50	-52.443	-20.24	-32.203	PASS
			2395.05	-50.727	-19.45	-31.277	PASS
			2400.00	-52.474	-19.45	-33.024	PASS

			2483.50	-52.858	-20.56	-32.298	PASS
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Test Graphs



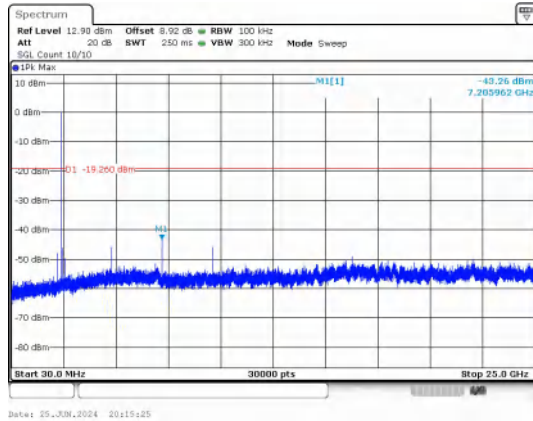
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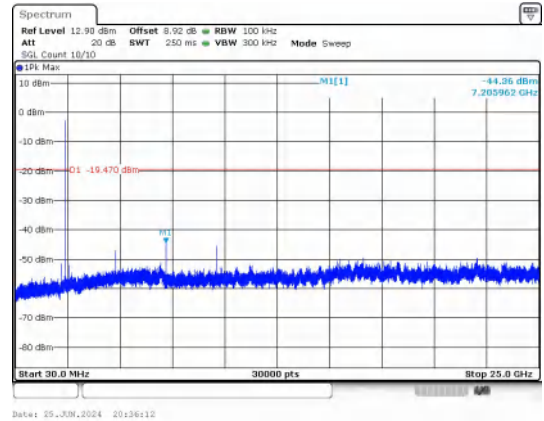
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Out Of Band Emission
GFSK_DH5_Channel 0

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



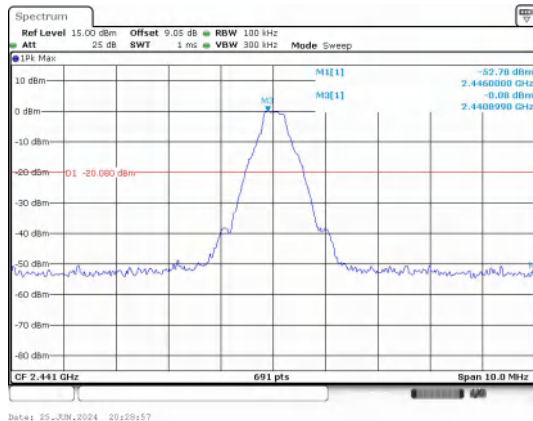
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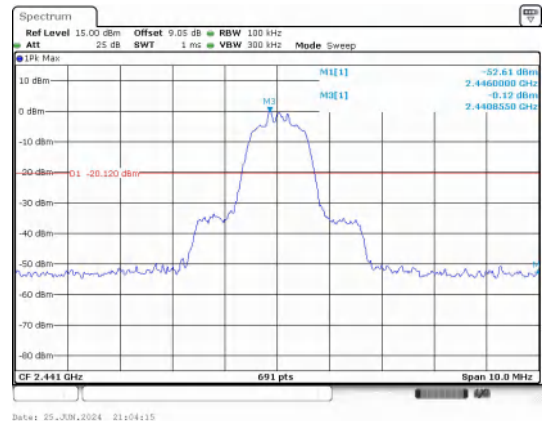
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30.0 MHz - 25000.0 MHz
GFSK_DH5_Channel 0

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



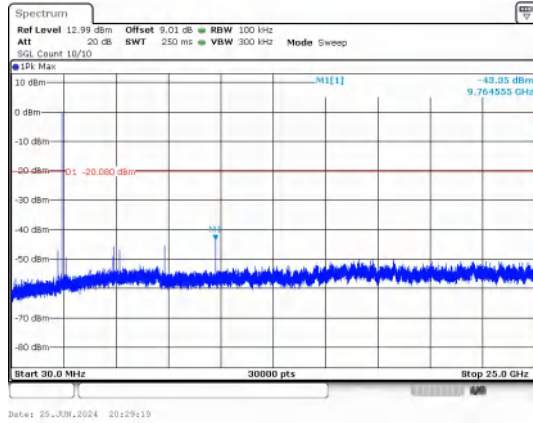
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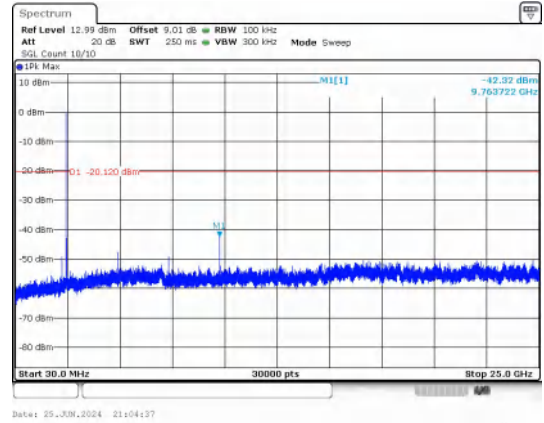
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Out Of Band Emission
GFSK_DH5_Channel 39

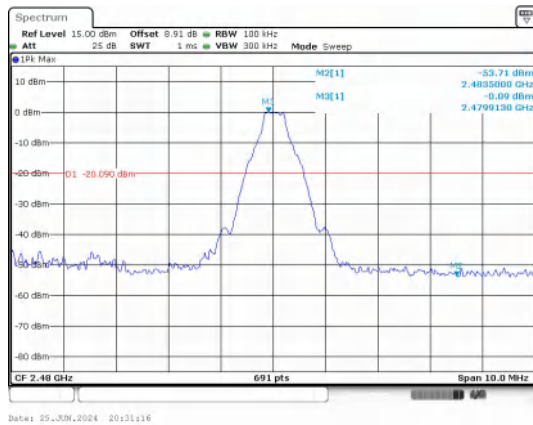
Out Of Band Emission
 $\pi/4$ DQPSK_2-DH5_Channel 39



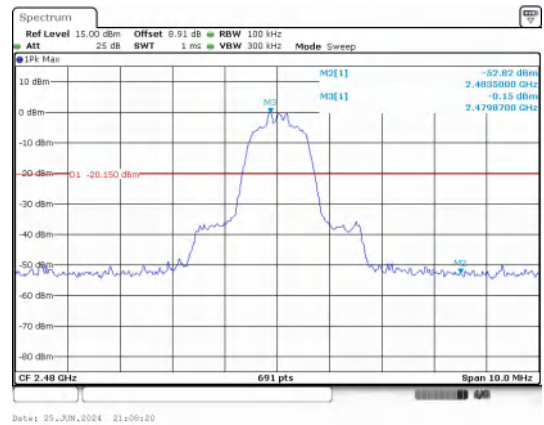
30.0 MHz - 25000.0 MHz
GFSK_DH5_Channel 39



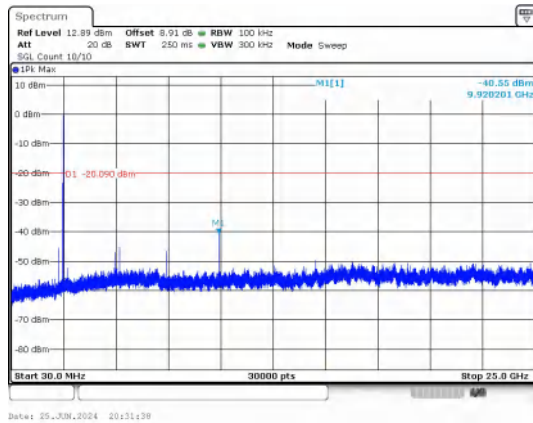
30.0 MHz - 25000.0 MHz
 $\pi/4$ DQPSK_2-DH5_Channel 39



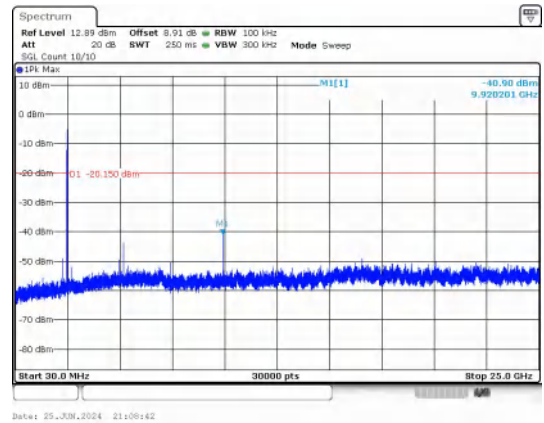
Out Of Band Emission
GFSK_DH5_Channel 78



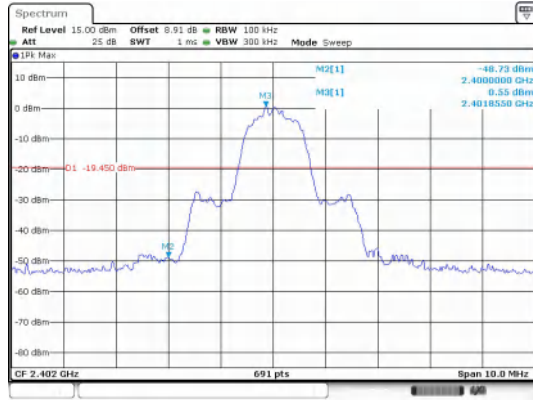
Out Of Band Emission
 $\pi/4$ DQPSK_2-DH5_Channel 78



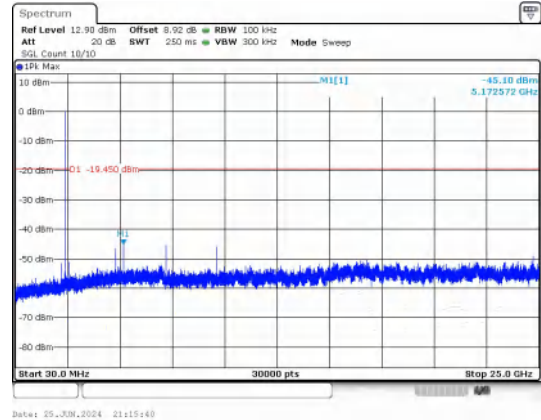
30.0 MHz - 25000.0 MHz
GFSK_DH5_Channel 78



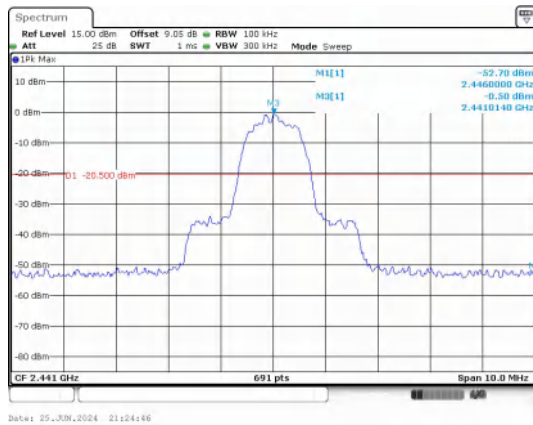
30.0 MHz - 25000.0 MHz
 $\pi/4$ DQPSK_2-DH5_Channel 78



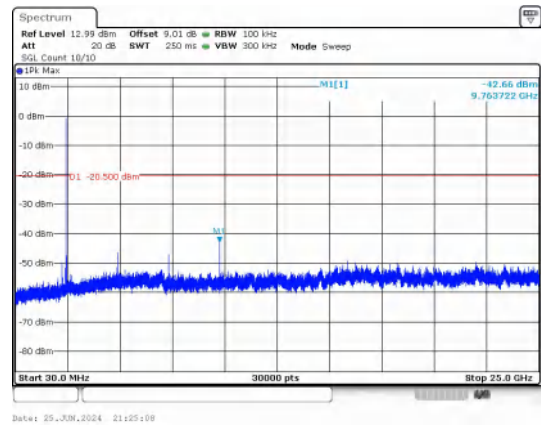
Out Of Band Emission
8DPSK_3-DH5_Channel 0



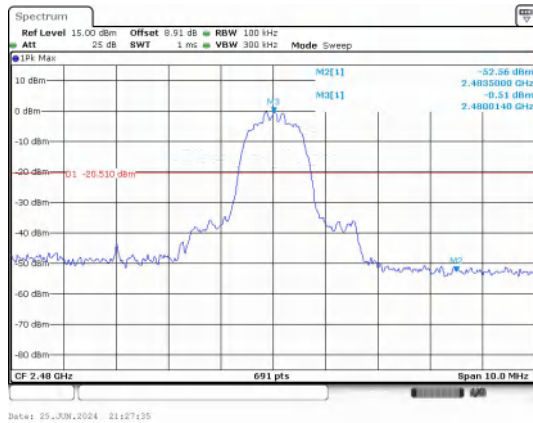
30.0 MHz - 25000.0 MHz
8DPSK_3-DH5_Channel 0



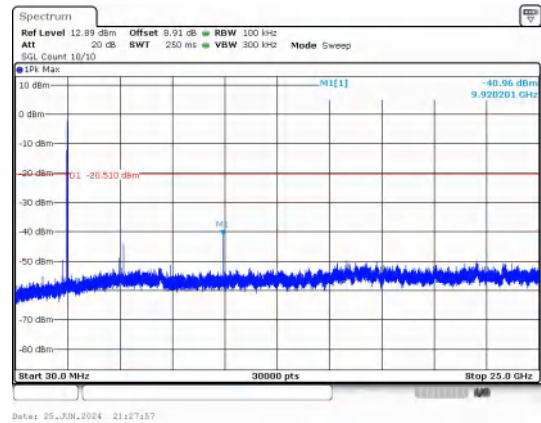
Out Of Band Emission
8DPSK_3-DH5_Channel 39



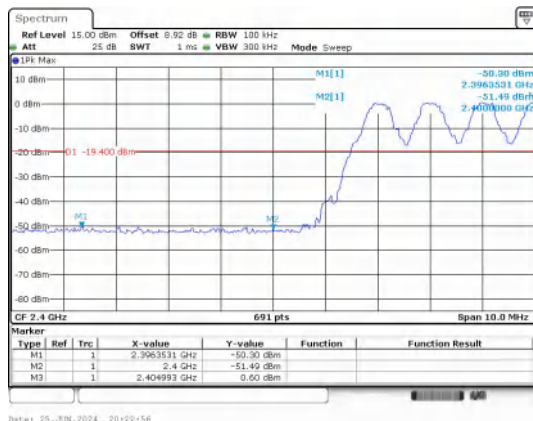
30.0 MHz - 25000.0 MHz
8DPSK_3-DH5_Channel 39



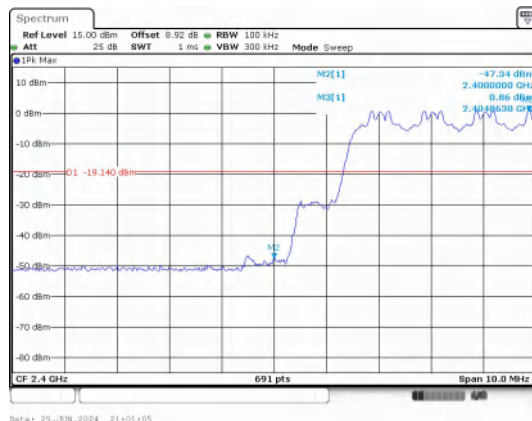
Out Of Band Emission
8DPSK_3-DH5_Channel 78



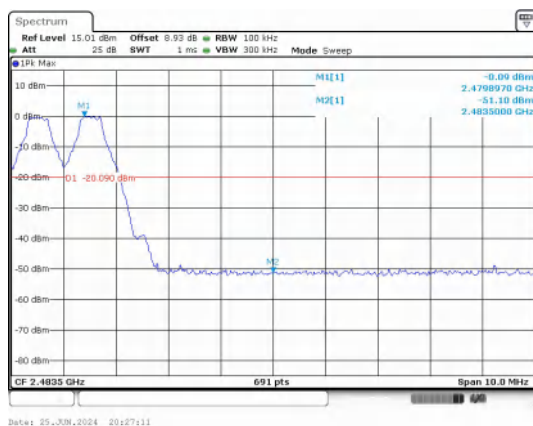
30.0 MHz - 25000.0 MHz
8DPSK_3-DH5_Channel 78



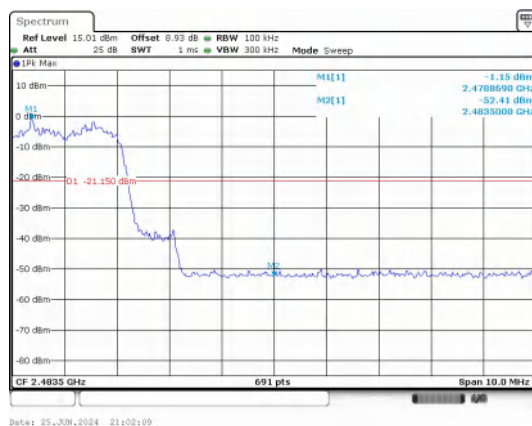
Out Of Band Emission(Left)
GFSK_DH5_Channel Hopping



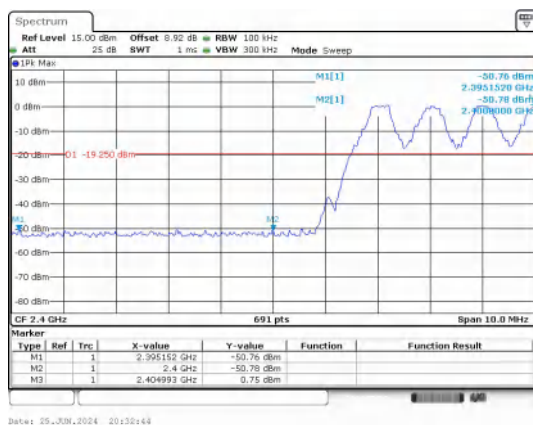
Out Of Band Emission(Left)
 $\pi/4$ DQPSK_2-DH5_Channel Hopping



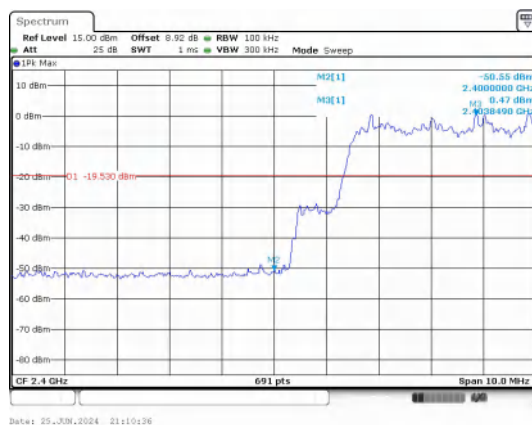
Out Of Band Emission(Right)
GFSK_DH5_Channel Hopping



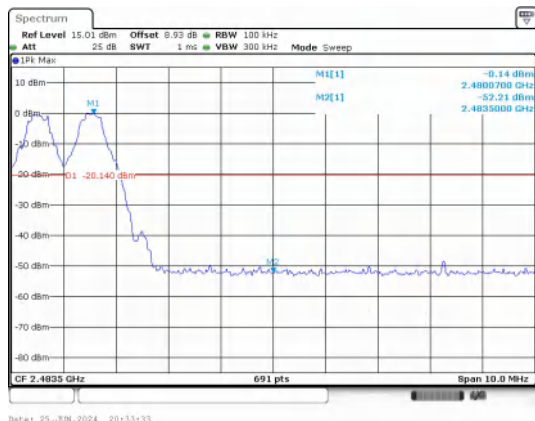
Out Of Band Emission(Right)
 $\pi/4$ DQPSK_2-DH5_Channel Hopping



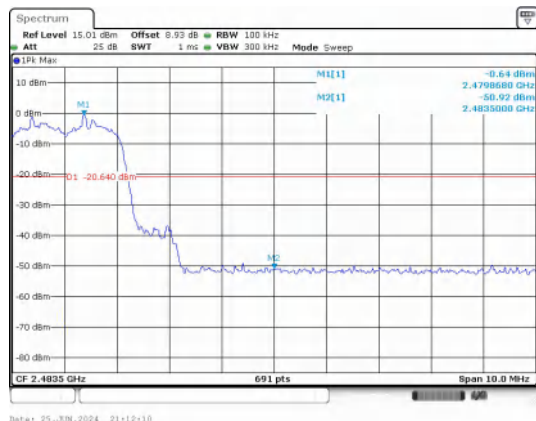
Out Of Band Emission(Left)
GFSK_DH5_Channel Hopping



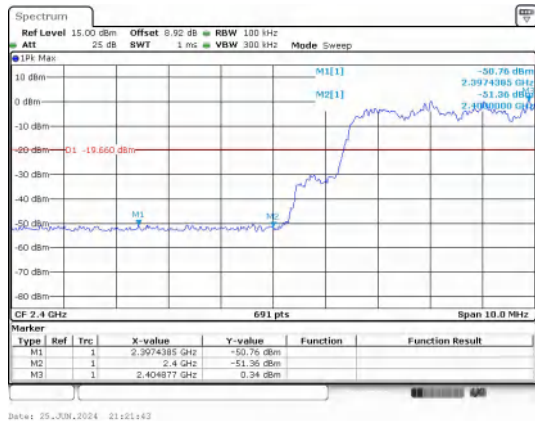
Out Of Band Emission(Left)
 $\pi/4$ DQPSK_2-DH5_Channel Hopping



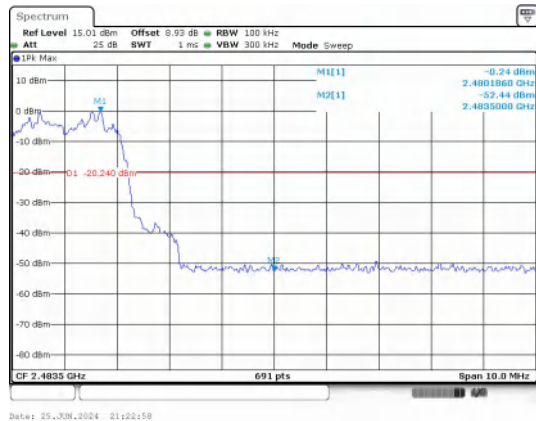
Out Of Band Emission(Right)
GFSK_DH5_Channel Hopping



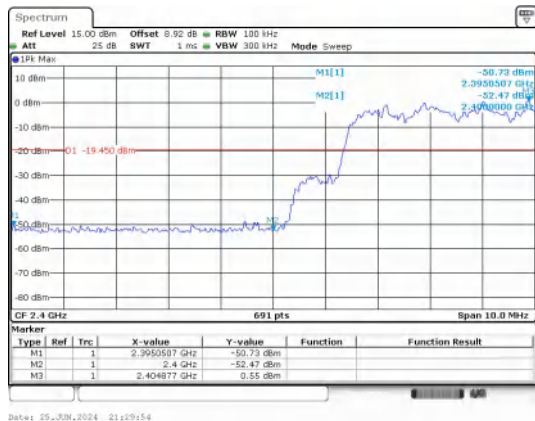
Out Of Band Emission(Right)
 $\pi/4$ DQPSK_2-DH5_Channel Hopping



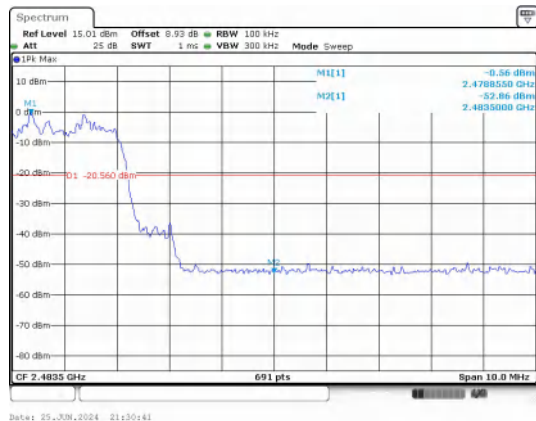
Out Of Band Emission(Left)
8DPSK_3-DH5_Channel Hopping



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



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



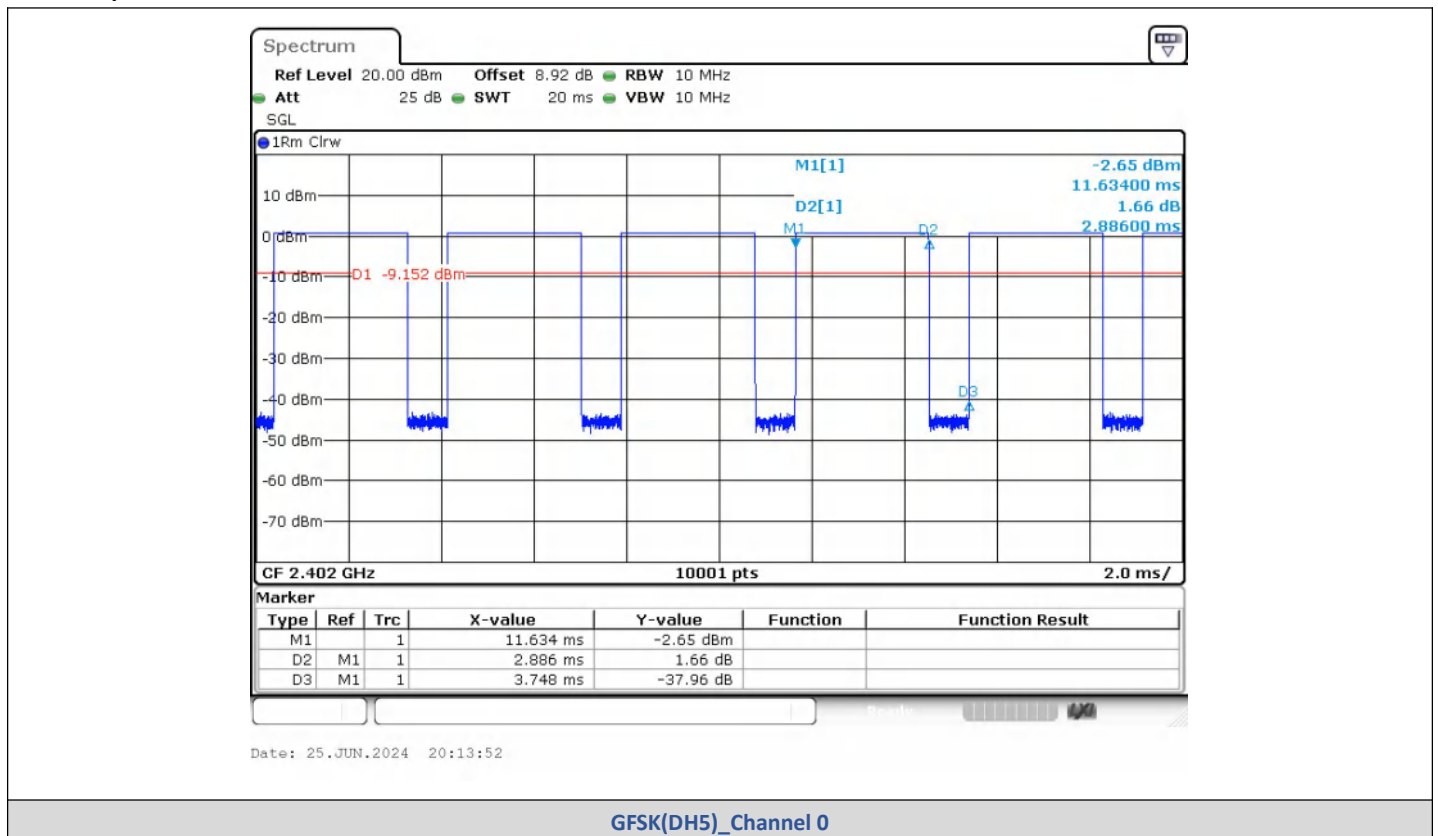
Out Of Band Emission(Right)
8DPSK_3-DH5_Channel Hopping

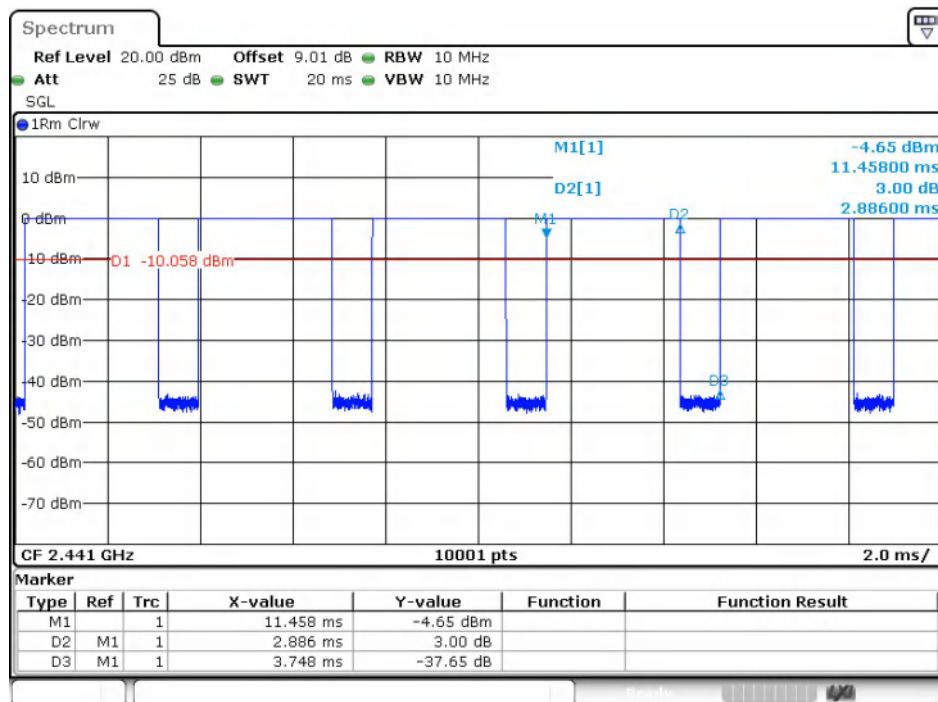
6) Duty Cycle

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	2.892	3.748	77.16	0.7716	1.1261	0.35
8DPSK	3-DH5	0	2.894	3.748	77.21	0.7721	1.1233	0.35
		39	2.894	3.748	77.21	0.7721	1.1233	0.35
		78	2.892	3.748	77.16	0.7716	1.1261	0.35

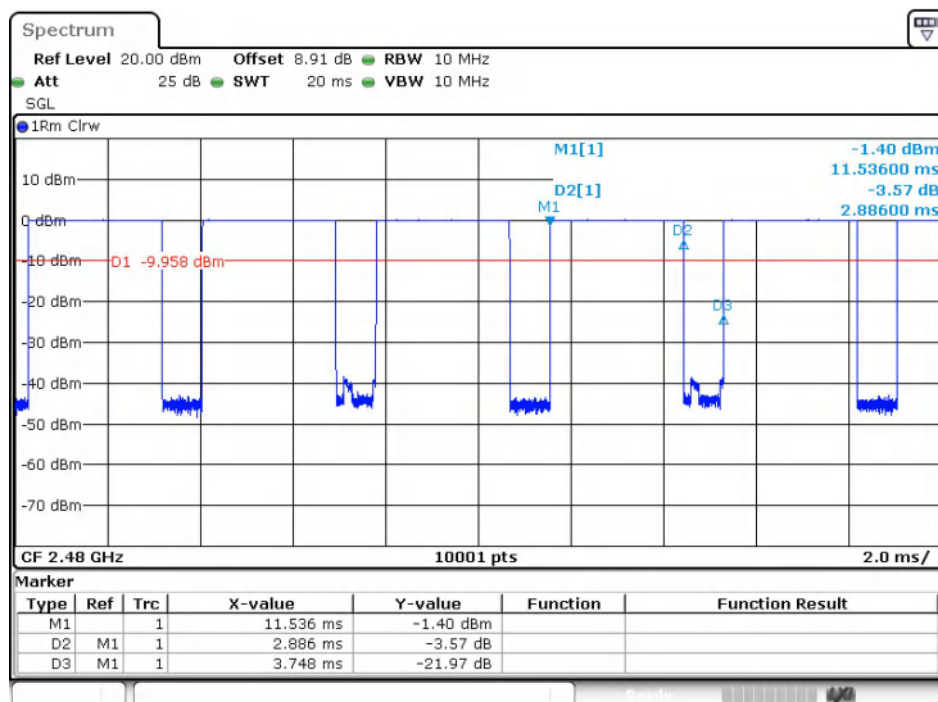
Test Graphs





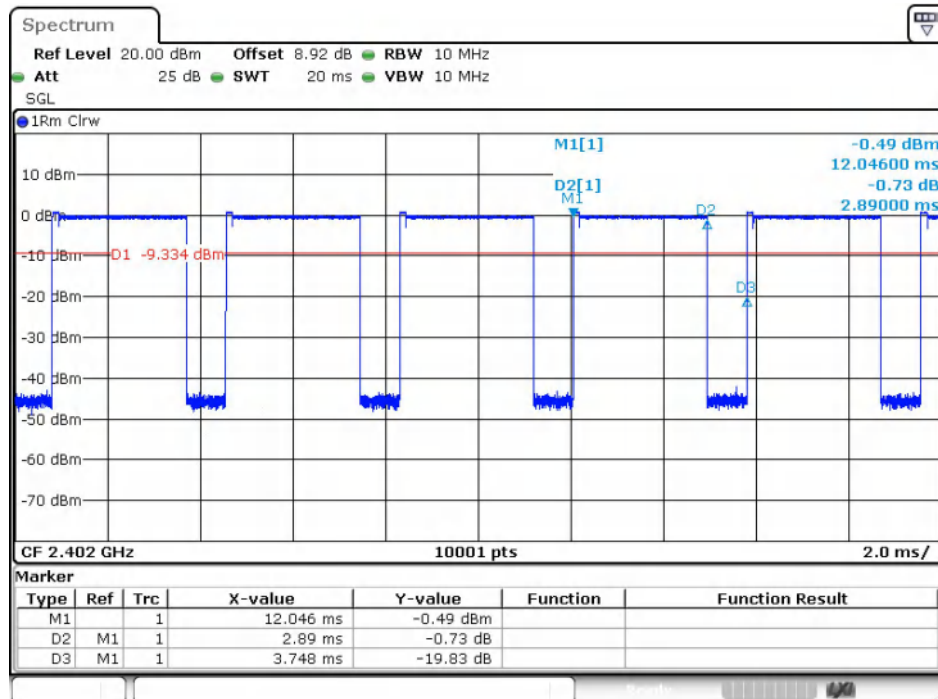
Date: 25.JUN.2024 20:27:51

GFSK(DH5)_Channel 39



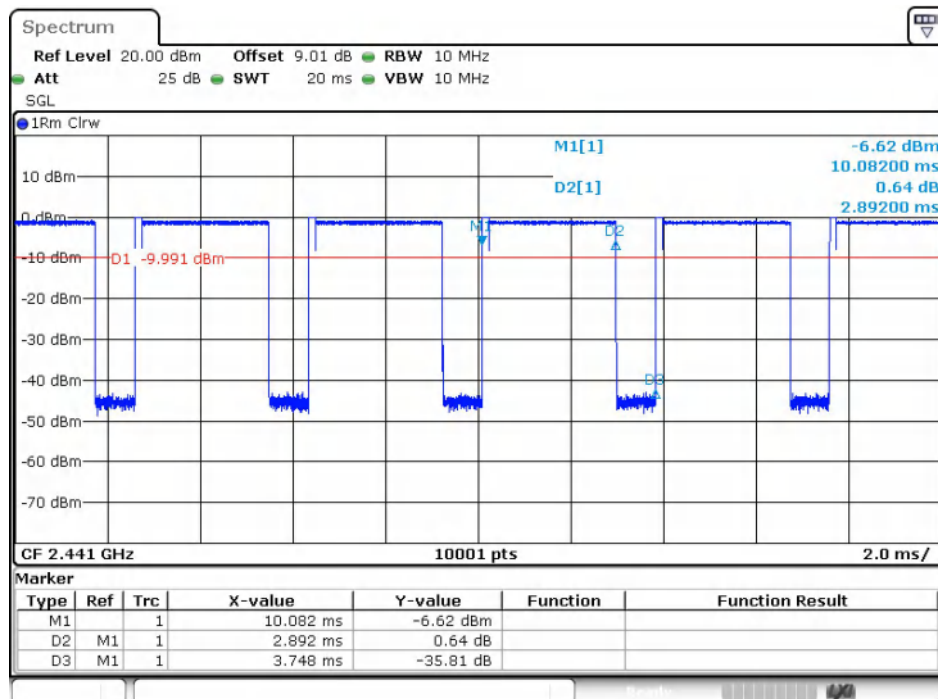
Date: 25.JUN.2024 20:30:05

GFSK(DH5)_Channel 78



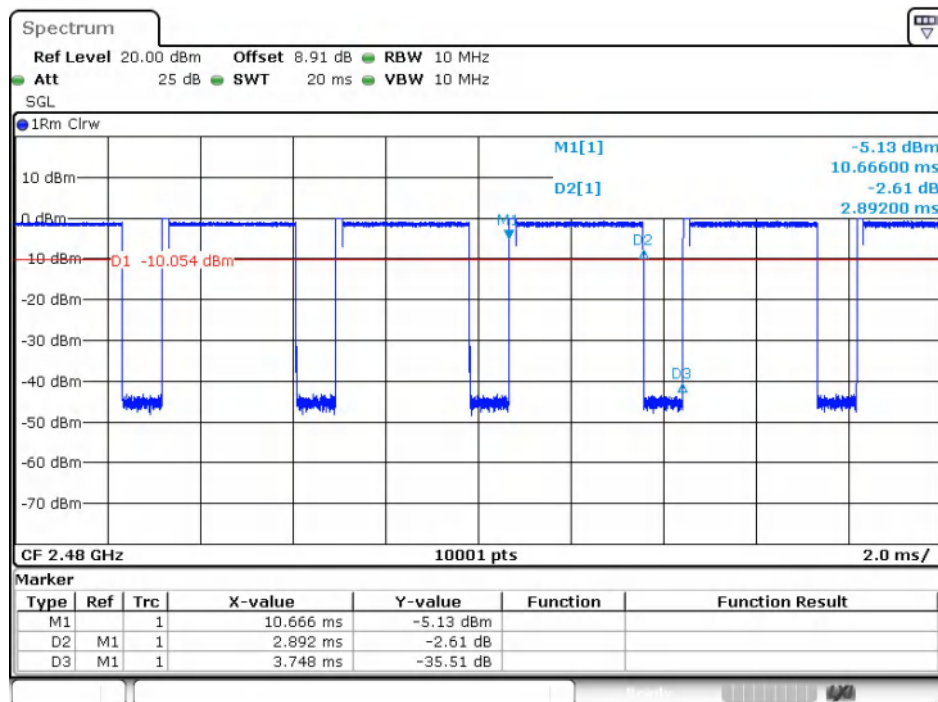
Date: 25.JUN.2024 20:34:39

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



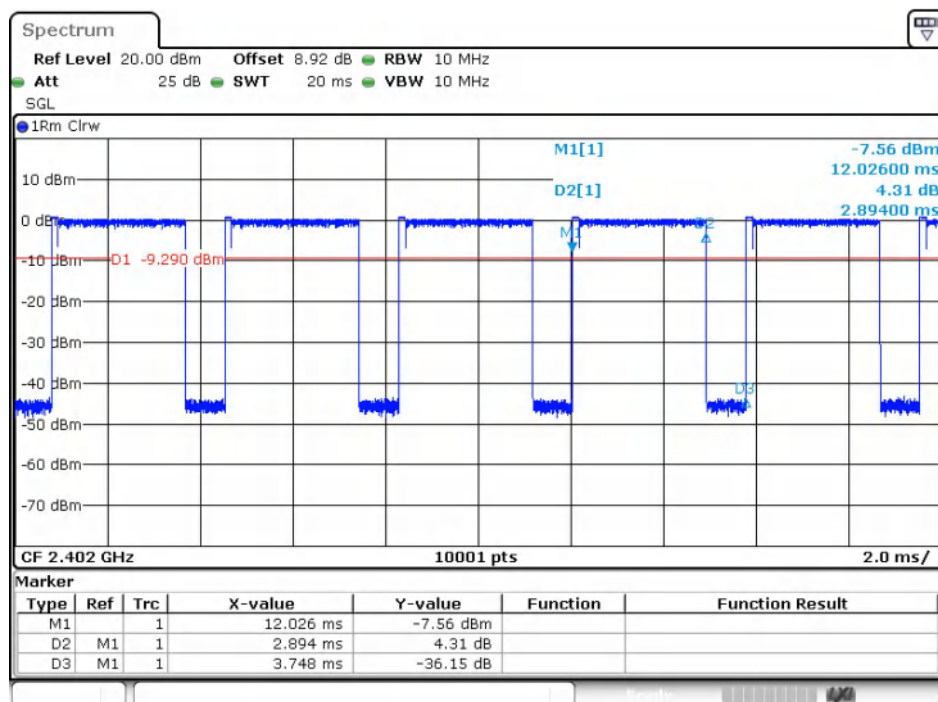
Date: 25.JUN.2024 21:03:09

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



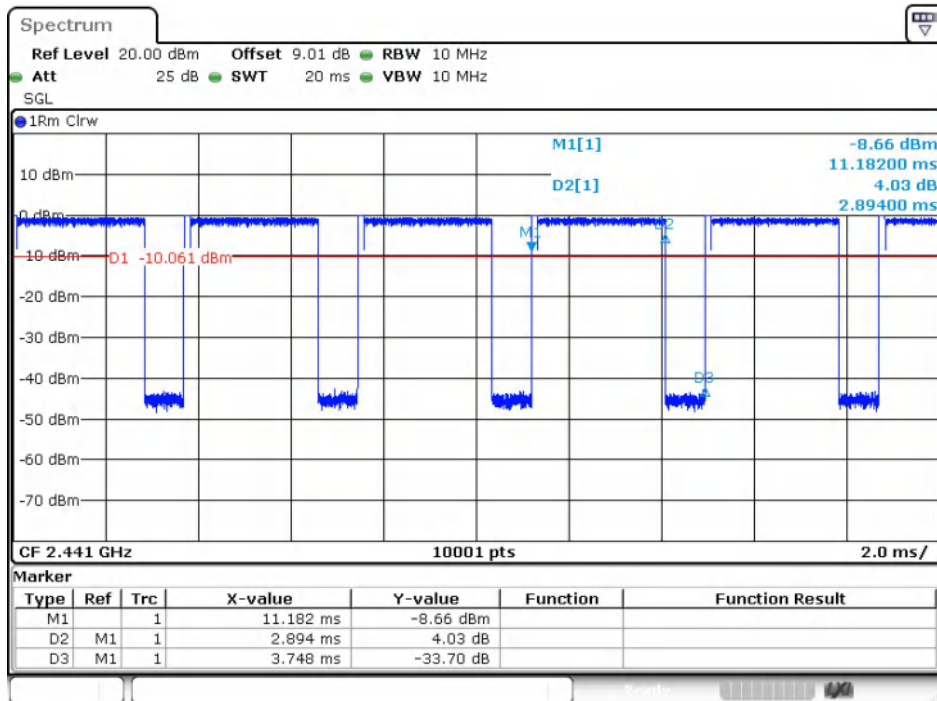
Date: 25.JUN.2024 21:07:09

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



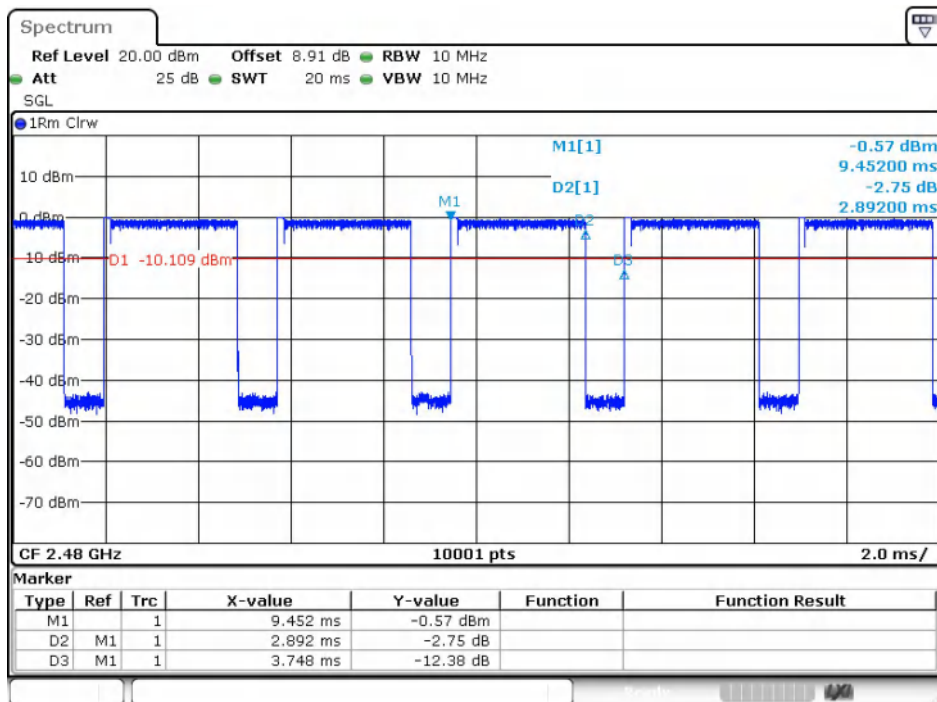
Date: 25.JUN.2024 21:14:07

8DPSK(3-DH5)_Channel 0



Date: 25.JUN.2024 21:23:40

8DPSK(3-DH5)_Channel 39



Date: 25.JUN.2024 21:26:24

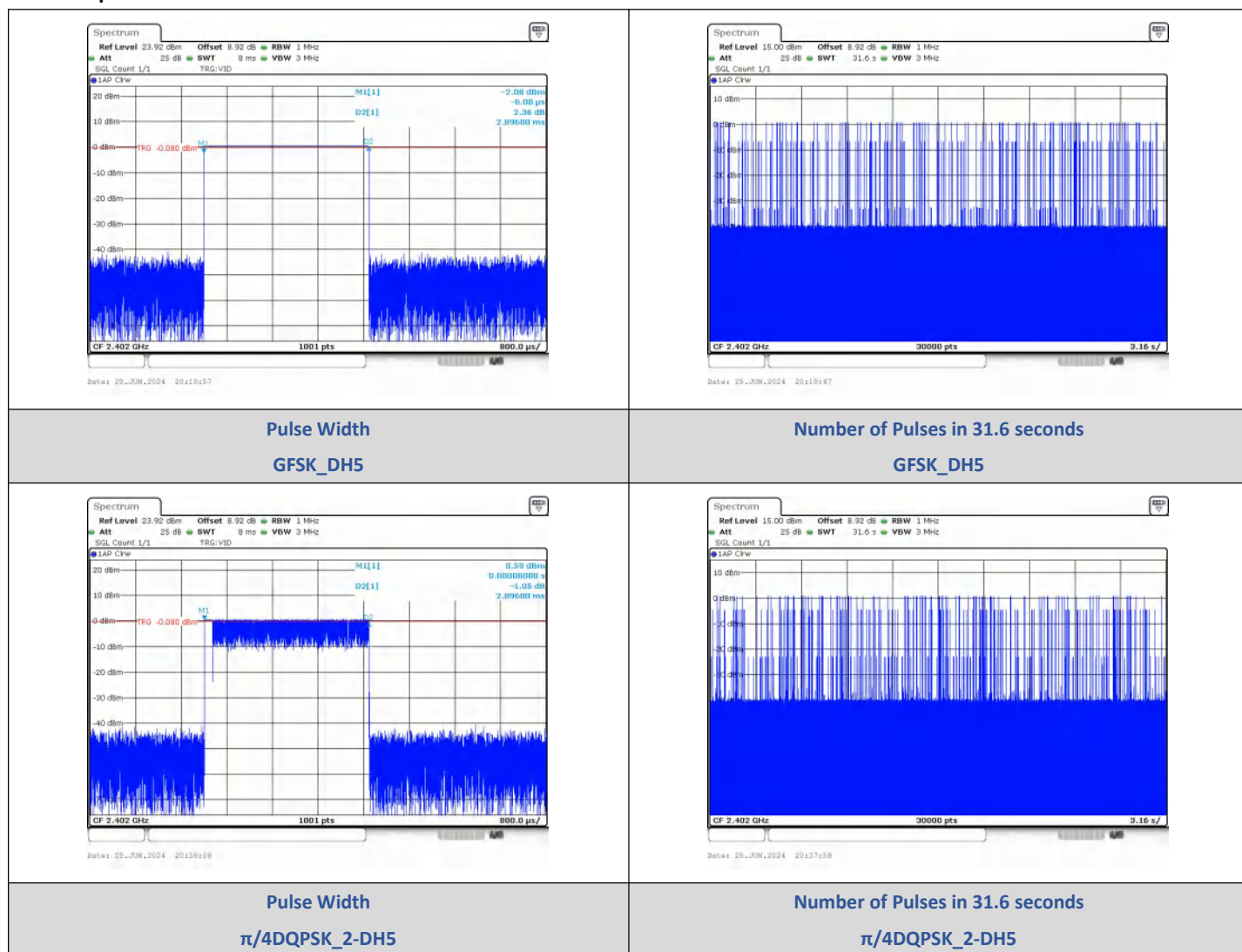
8DPSK(3-DH5)_Channel 78

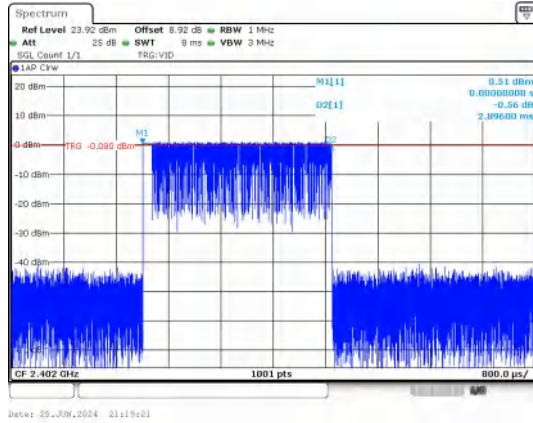
7) Dwell Time

Test Result

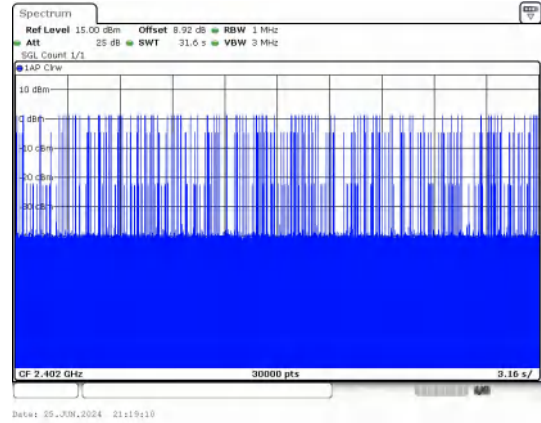
Modulation	Packet	Mode	Pulse Width (ms)	Number of Pulses in 31.6 seconds	Dwell Time (ms)	Limit (ms)	Result
GFSK	DH5	Hopping	2.896	111	321.46	< 400	PASS
$\pi/4$ DQPSK	2-DH5		2.896	105	304.08		PASS
8DPSK	3-DH5		2.896	109	315.66		PASS

Test Graphs





Pulse Width
8DPSK_3-DH5



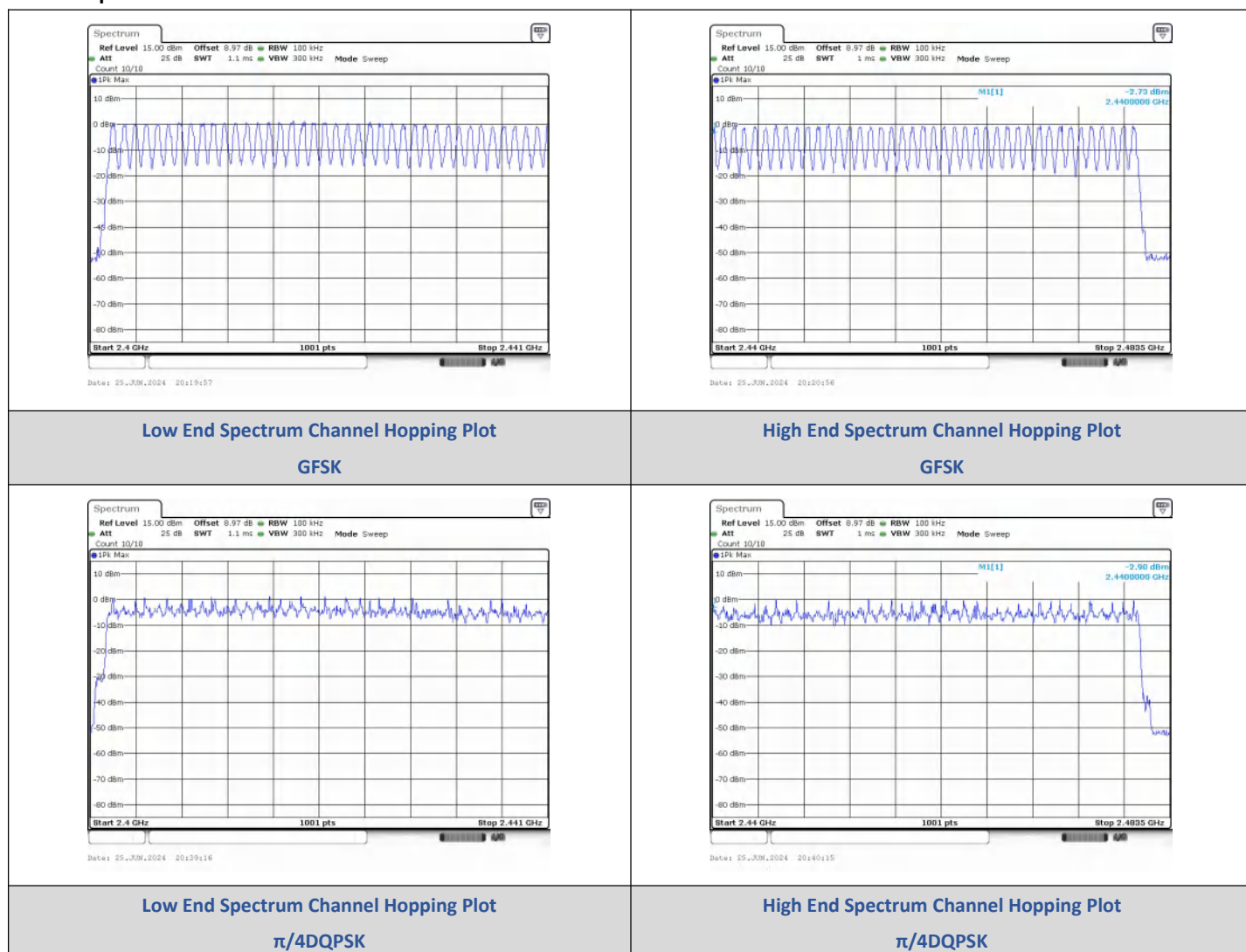
Number of Pulses in 31.6 seconds
8DPSK_3-DH5

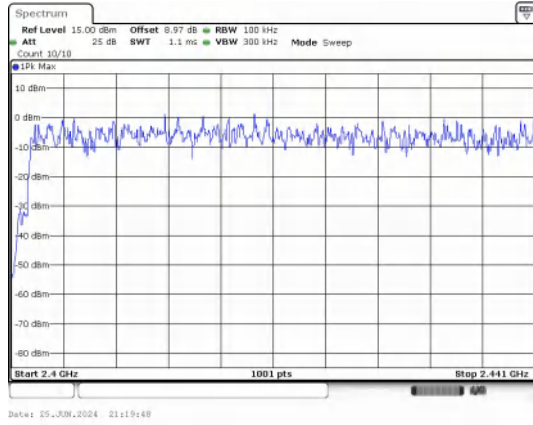
8) Number Of Hopping Channel

Test Result

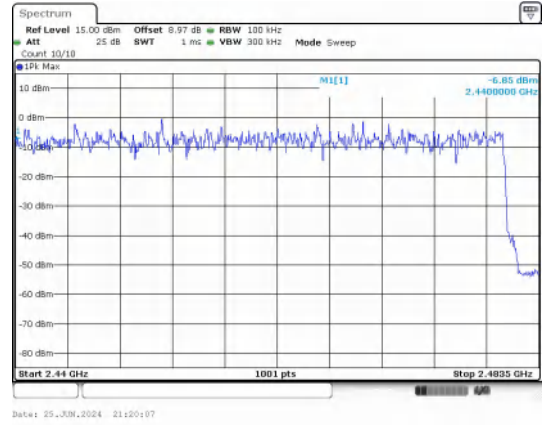
Modulation	Packet	Number of Hopping Channel	Limit	Result
GFSK	DH5	79	15	PASS
$\pi/4$ DQPSK	2-DH5	79	15	PASS
8DPSK	3-DH5	79	15	PASS

Test Graphs





Low End Spectrum Channel Hopping Plot
8DPSK



High End Spectrum Channel Hopping Plot
8DPSK