

Appendix A

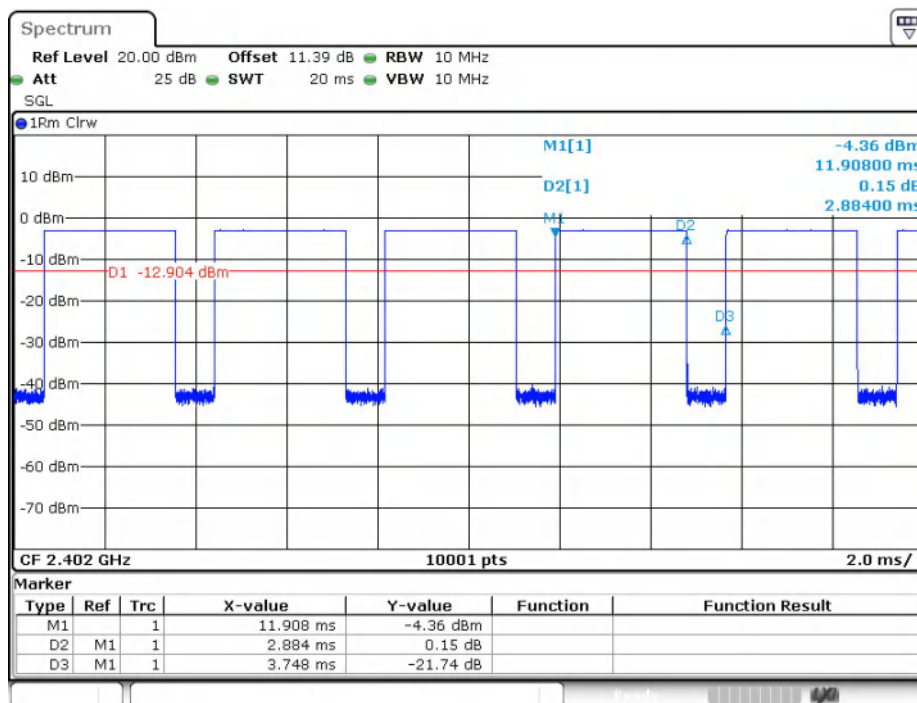
Report No.:	CISRR24090300901
FCC ID:	2BFQI-G61
Product Name:	keyboard
Model No.:	G61
Test Engineer:	Lucas Huang
Supervised by:	Rory Huang

1) Duty Cycle

Test Result

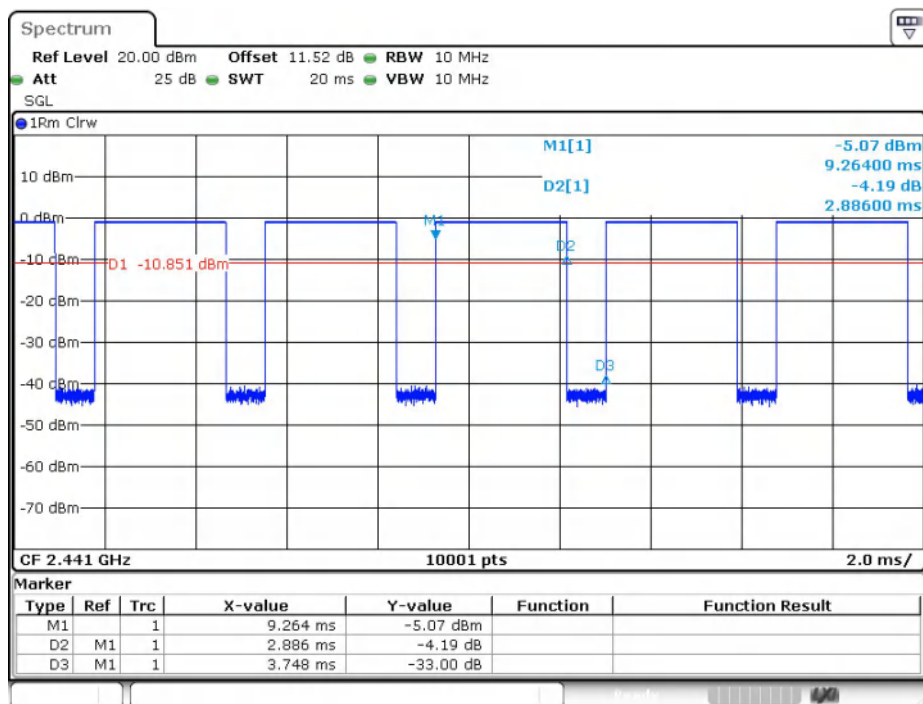
Modulation	Packets	Channel	On Time (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle (linear)	Duty Cycle Factor (dB)	1/T
GFSK	DH5	0	2.884	3.748	76.95	0.7695	1.1379	0.35
		39	2.886	3.748	77.00	0.7700	1.1351	0.35
		78	2.886	3.748	77.00	0.7700	1.1351	0.35
$\pi/4$ DQPSK	2-DH5	0	2.890	3.748	77.11	0.7711	1.1289	0.35
		39	2.890	3.748	77.11	0.7711	1.1289	0.35
		78	2.892	3.748	77.16	0.7716	1.1261	0.35

Test Graphs



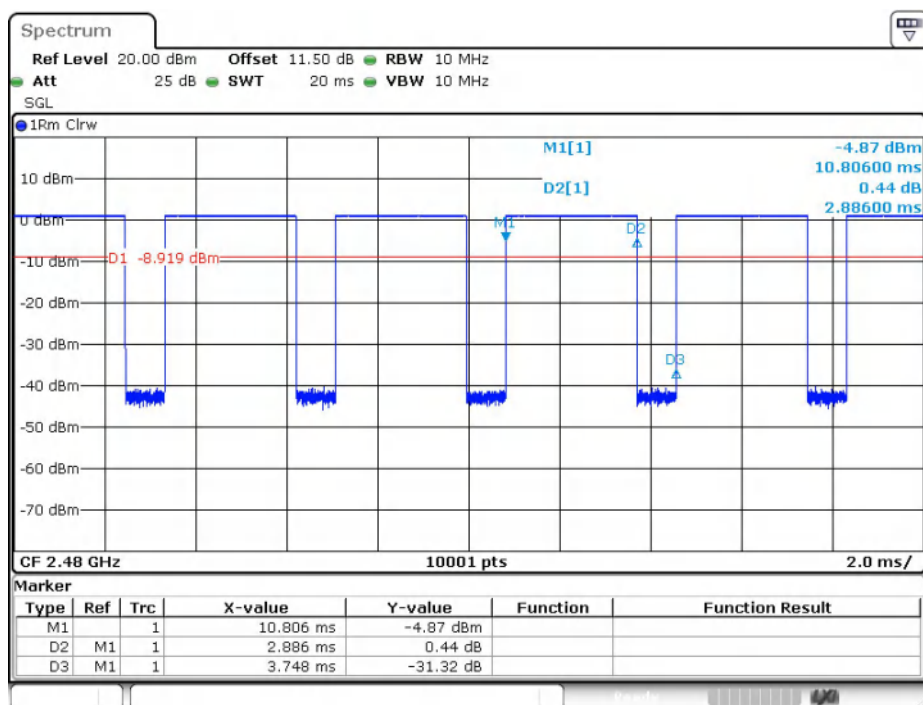
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GFSK(DH5)_Channel 0



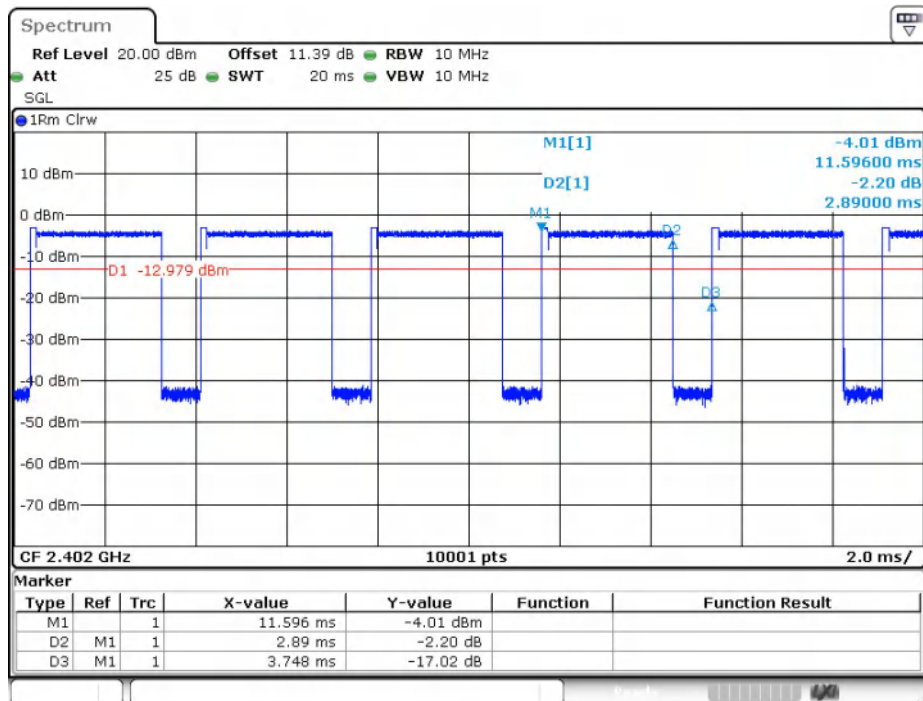
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GFSK(DH5)_Channel 39



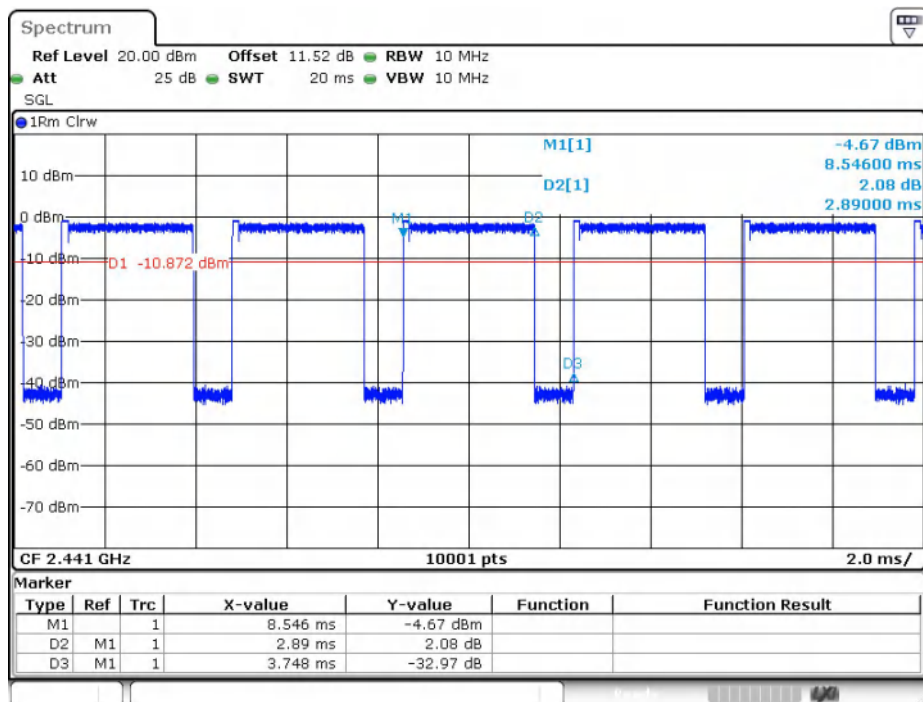
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GFSK(DH5)_Channel 78



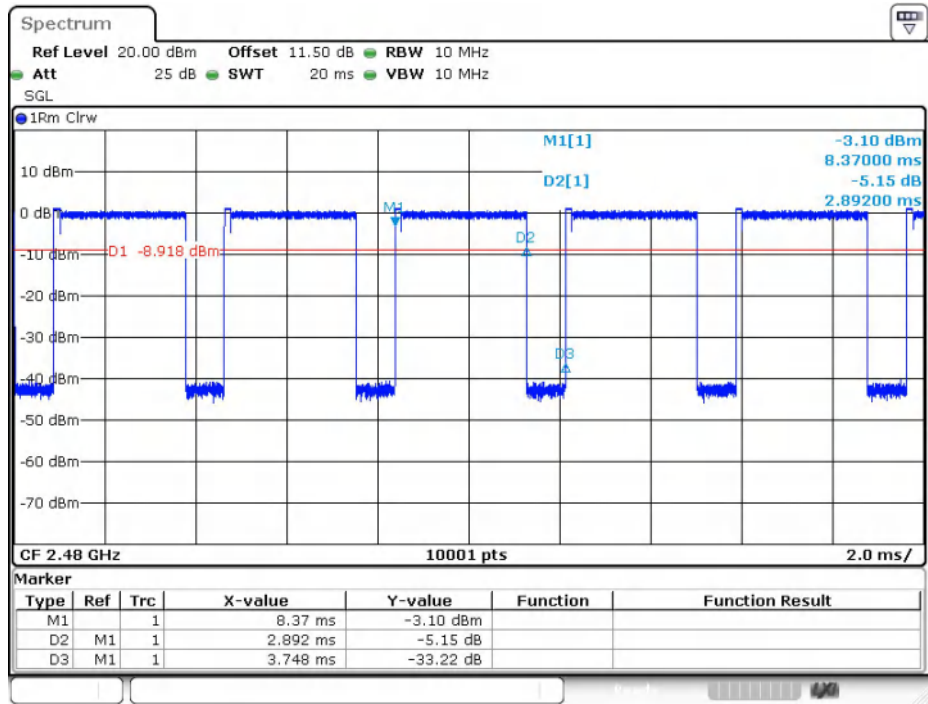
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$\pi/4$ DQPSK(2-DH5)_Channel 0



Date: 5.SEP.2024 21:29:14

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



Date: 5.SEP.2024 21:31:35

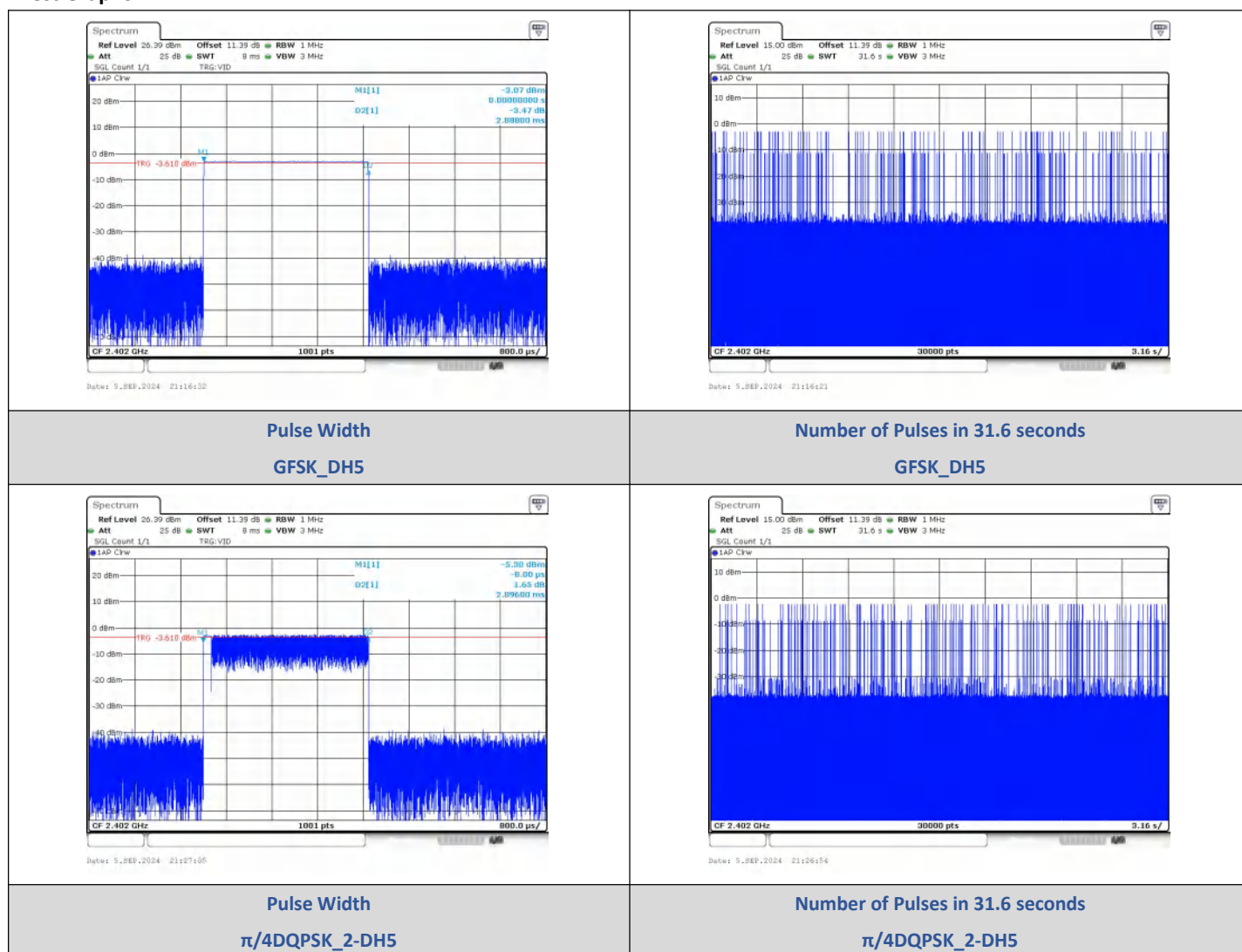
$\pi/4$ DQPSK(2-DH5)_Channel 78

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	2.888	99	285.91	< 400	PASS
$\pi/4$ DQPSK	2-DH5	(2402MHz)	2.896	109	315.66		PASS

Test Graphs

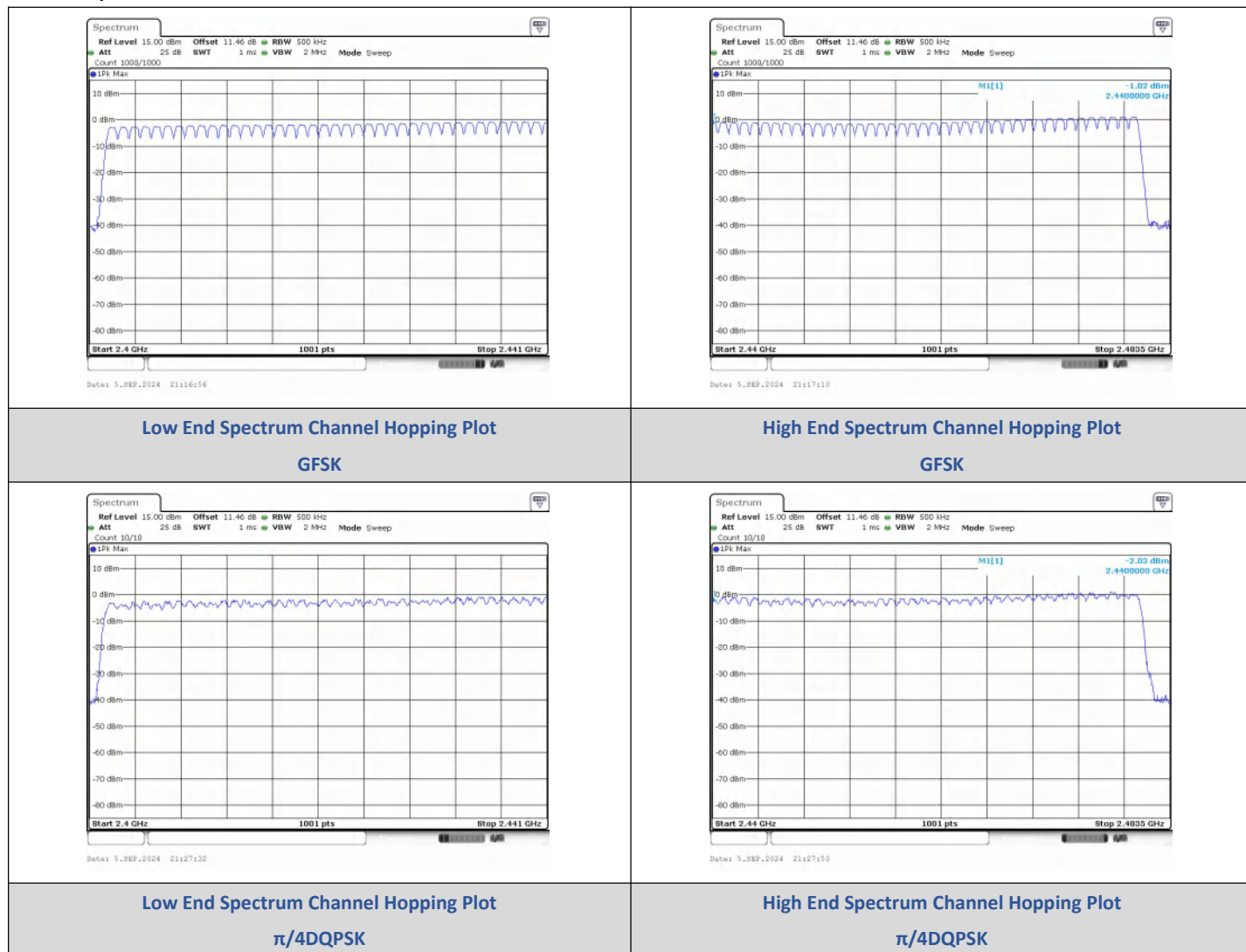


3) Number Of Hopping Channel

Test Result

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

Test Graphs

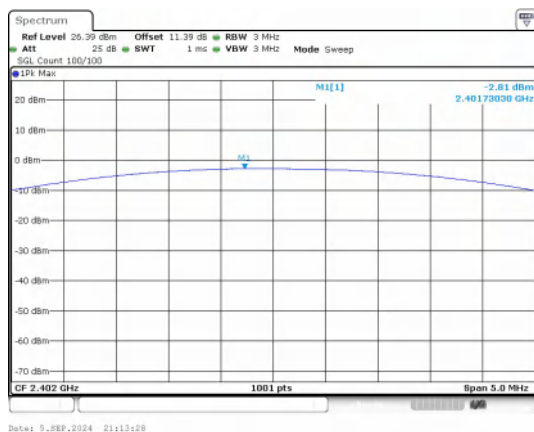


4) Conducted Peak Output Power

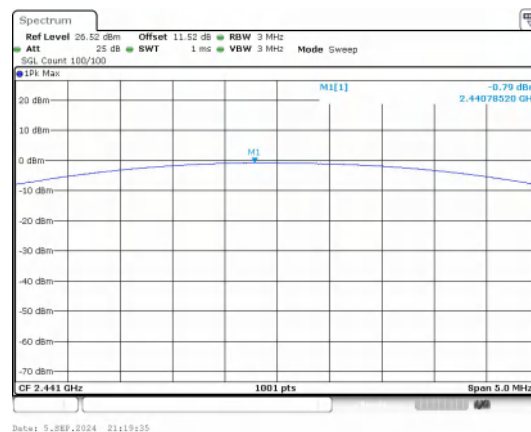
Test Result

Modulation	Packet Type	Channel	Peak Output Power (dBm)	Peak Output Power (mW)	Limit (dBm)	Result
GFSK	DH5	0	-2.81	0.52	≤30	PASS
		39	-0.79	0.83		PASS
		78	1.17	1.31		PASS
$\pi/4$ DQPSK	2-DH5	0	-2.08	0.62	≤20.97	PASS
		39	0.05	1.01		PASS
		78	1.79	1.51		PASS

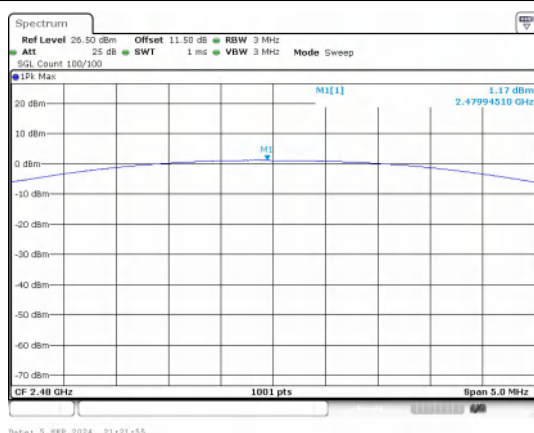
Test Graphs



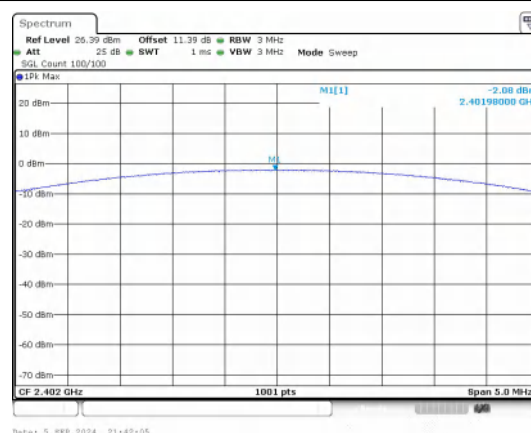
Peak Output Power
GFSK_Channel 0



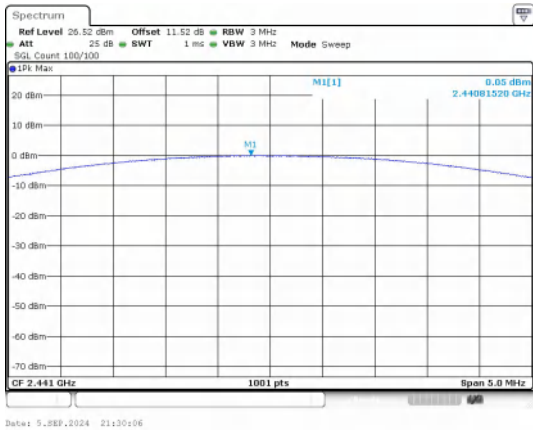
Peak Output Power
GFSK_Channel 39



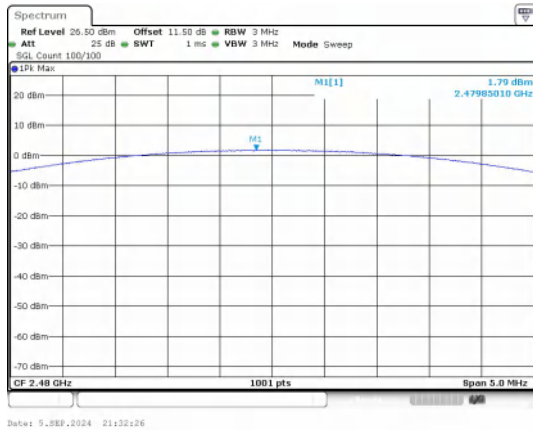
Peak Output Power
GFSK_Channel 78



Peak Output Power
 $\pi/4$ DQPSK_Channel 0



Peak Output Power
 $\pi/4$ DQPSK_Channel 39



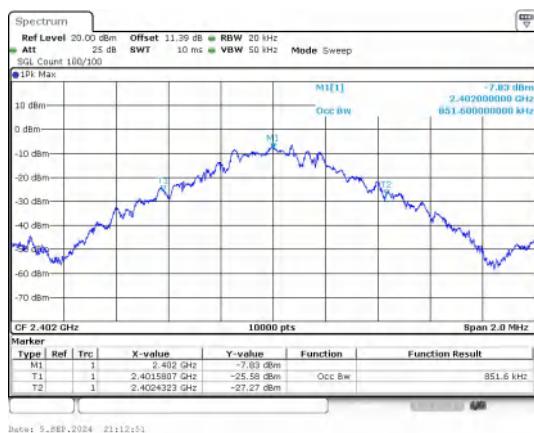
Peak Output Power
 $\pi/4$ DQPSK_Channel 78

5) 99% Bandwidth

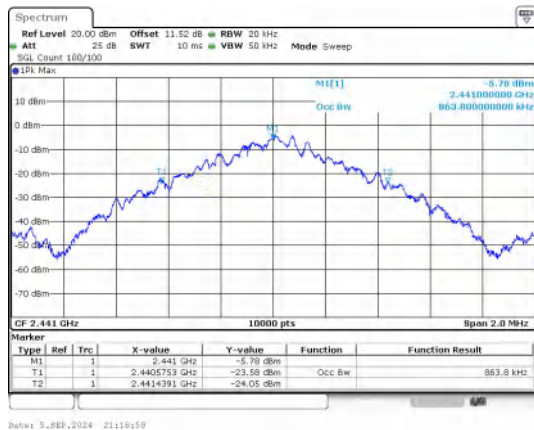
Test Result

Modulation	Channel	Center Frequency (MHz)	99% BW (MHz)
GFSK	0	2402	0.85160
	39	2441	0.86380
	78	2480	0.86400
$\pi/4$ DQPSK	0	2402	1.1830
	39	2441	1.1928
	78	2480	1.1912

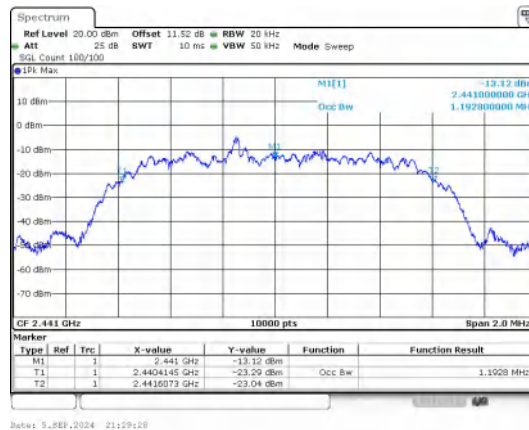
Test Graphs

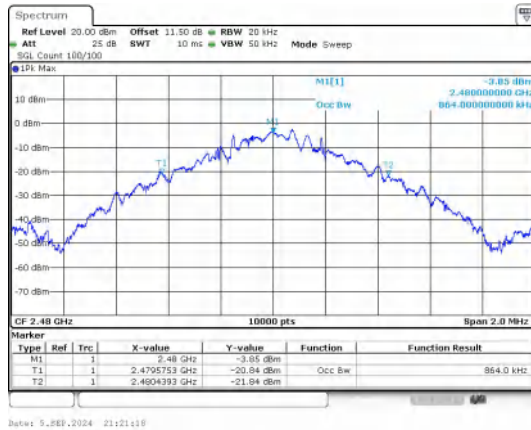


GFSK_DH5_Channel 0

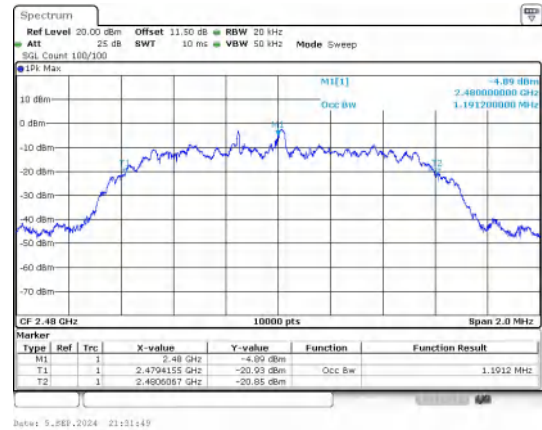

 $\pi/4$ DQPSK_2-DH5_Channel 0


GFSK_DH5_Channel 39


 $\pi/4$ DQPSK_2-DH5_Channel 39



GFSK_DH5_Channel 78



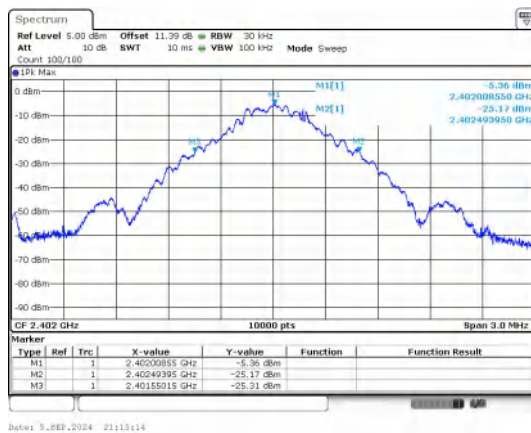
$\pi/4$ DQPSK_2-DH5_Channel 78

6) 20dB Bandwidth

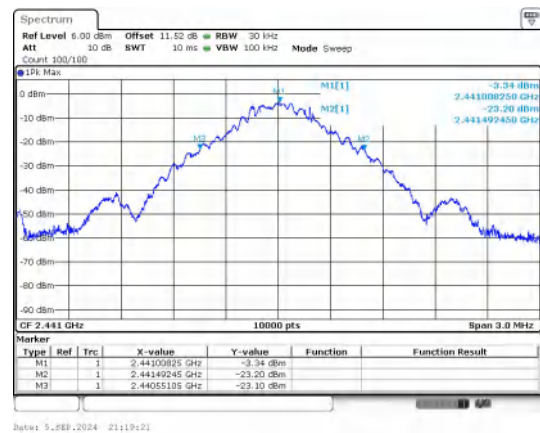
Test Result

Modulation	Channel	Center Frequency (MHz)	20 dB Bandwidth (MHz)
GFSK	0	2402 MHz	0.9400
	39	2441 MHz	0.9400
	78	2480 MHz	0.9500
$\pi/4$ DQPSK	0	2402 MHz	1.280
	39	2441 MHz	1.300
	78	2480 MHz	1.300

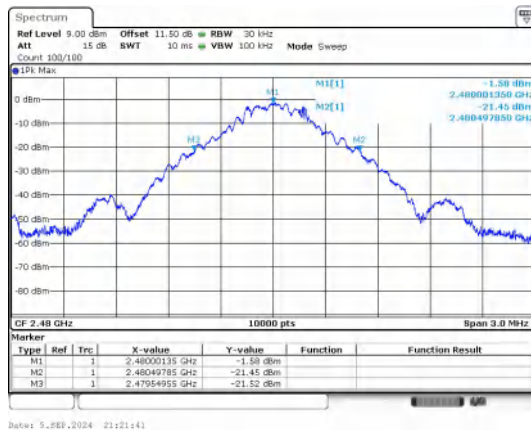
Test Graphs



GFSK_DH5_Channel 0

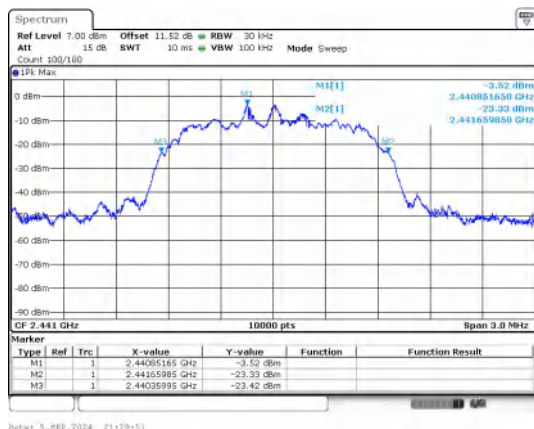


GFSK_DH5_Channel 39

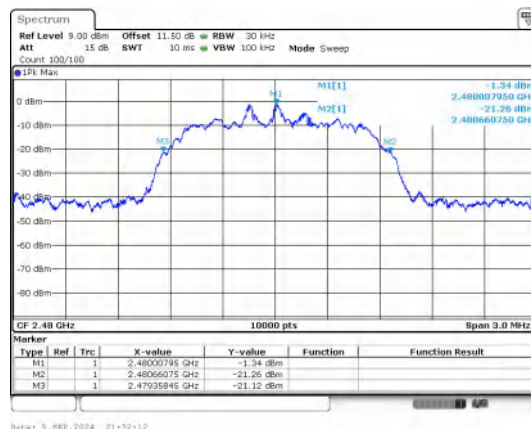


GFSK_DH5_Channel 78


 $\pi/4$ DQPSK_2-DH5_Channel 0



$\pi/4$ DQPSK_2-DH5_Channel 39



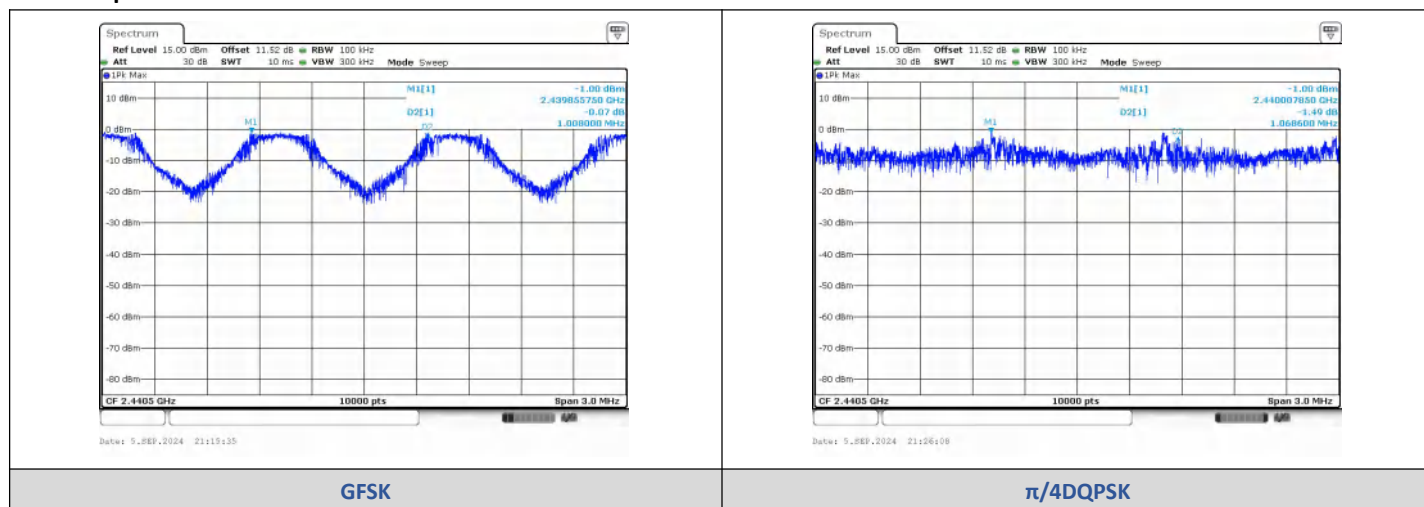
$\pi/4$ DQPSK_2-DH5_Channel 78

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	2439.8558	2440.8637	1.0080	0.950	PASS
$\pi/4$ DQPSK	2-DH5	2440.0078	2441.0765	1.0686	0.853	PASS

Test Graphs



8) Conducted Out Of Band Emission

Test Result

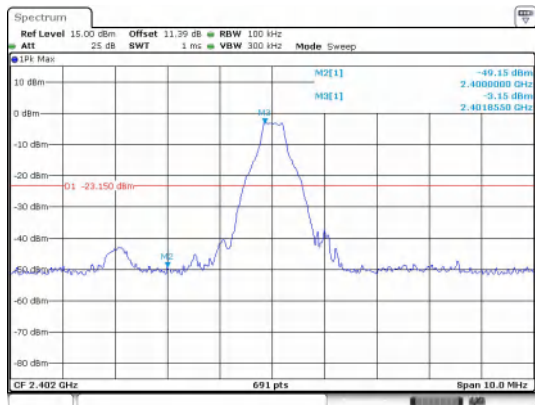
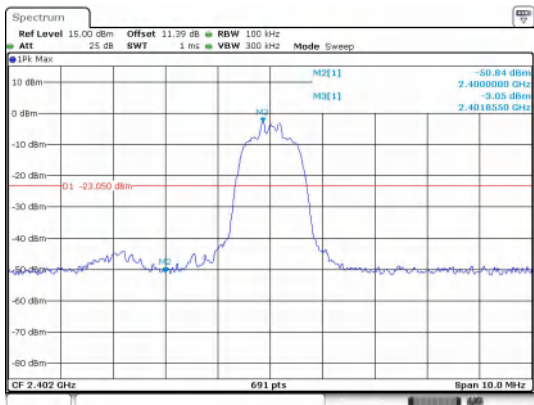
Non-Hopping

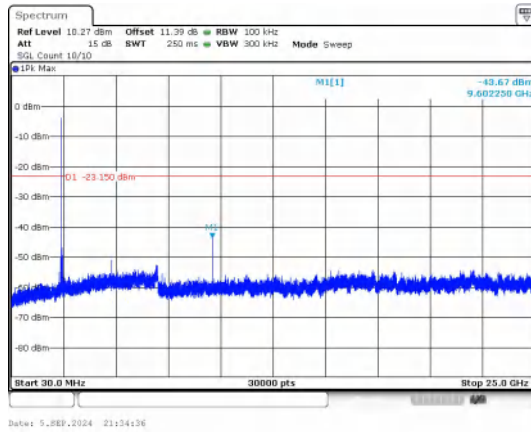
Modulation	Packet	Channel	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
		0	2400.00	-49.154	-23.15	-26.004	PASS
			9602.20	-43.667	-23.15	-20.517	PASS
		39	9757.90	-40.285	-20.99	-19.295	PASS
		78	2483.50	-46.042	-19.01	-27.032	PASS
			9914.37	-41.595	-19.01	-22.585	PASS
		0	2400.00	-50.845	-23.05	-27.795	PASS
			9602.20	-43.844	-23.05	-20.794	PASS
		39	9757.90	-40.280	-20.85	-19.430	PASS
		78	2483.50	-48.719	-18.93	-29.789	PASS
			9914.37	-41.401	-18.93	-22.471	PASS

Hopping

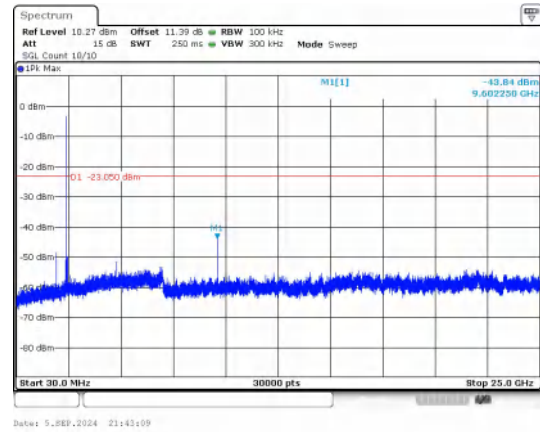
Modulation	Packet	Channel	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
GFSK	DH5	Hopping	2400.00	-45.047	-23.1	-21.947	PASS
			2483.50	-48.728	-19.31	-29.418	PASS
$\pi/4$ DQPSK	2-DH5		2400.00	-45.661	-22.78	-22.881	PASS
			2483.50	-49.865	-19.48	-30.385	PASS

Test Graphs

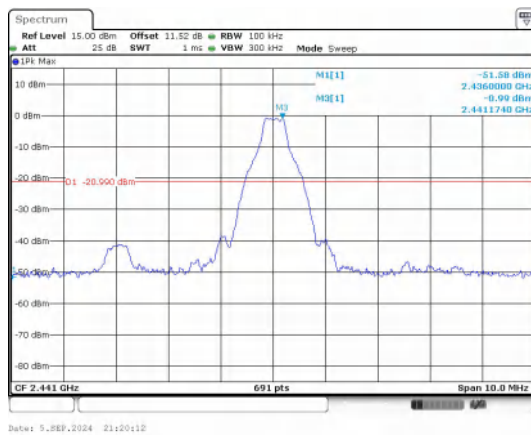
 Out Of Band Emission GFSK_DH5_Channel 0	 Out Of Band Emission $\pi/4$DQPSK_2-DH5_Channel 0
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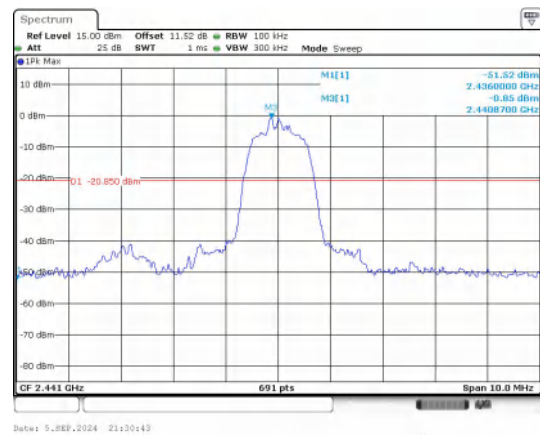
30.0 MHz - 25000.0 MHz
GFSK_DH5_Channel 0



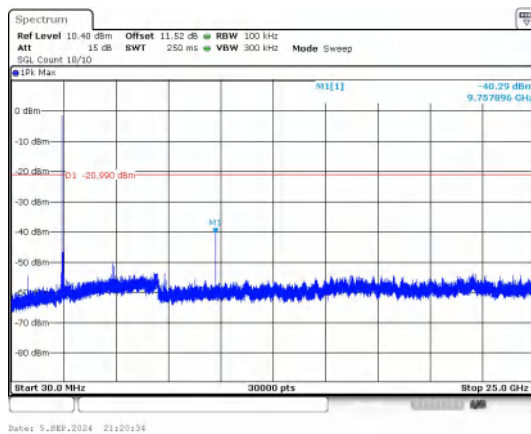
30.0 MHz - 25000.0 MHz
 $\pi/4$ DQPSK_2-DH5_Channel 0



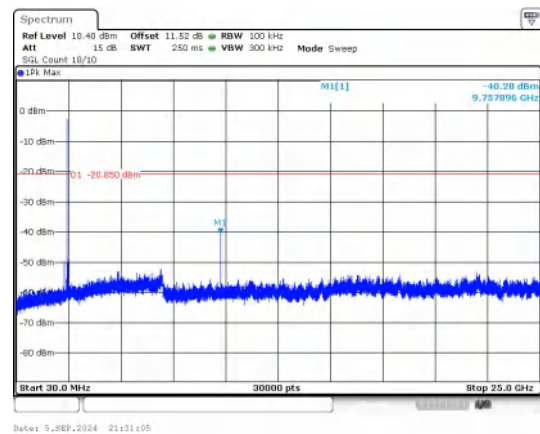
Out Of Band Emission
GFSK_DH5_Channel 39



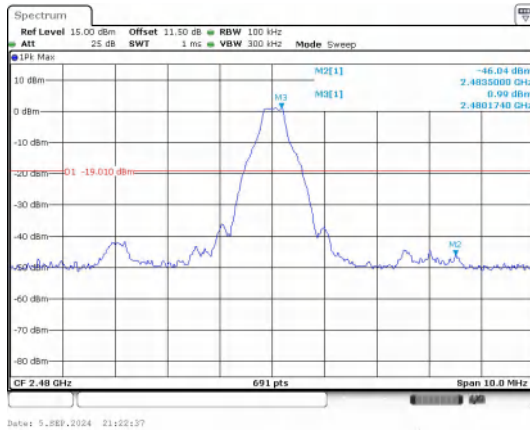
Out Of Band Emission
 $\pi/4$ DQPSK_2-DH5_Channel 39



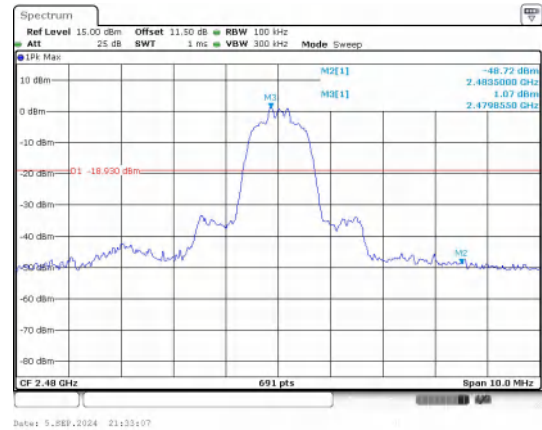
30.0 MHz - 25000.0 MHz
GFSK_DH5_Channel 39



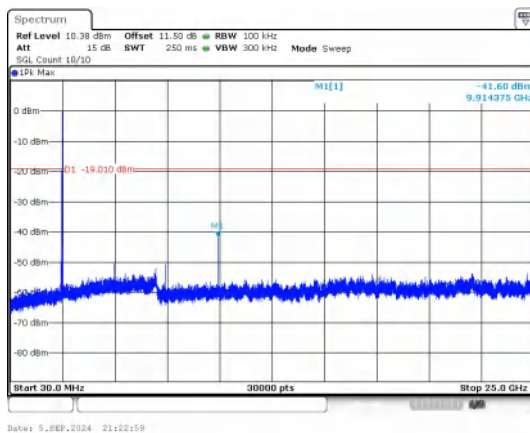
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 $\pi/4$ DQPSK_2-DH5_Channel 39



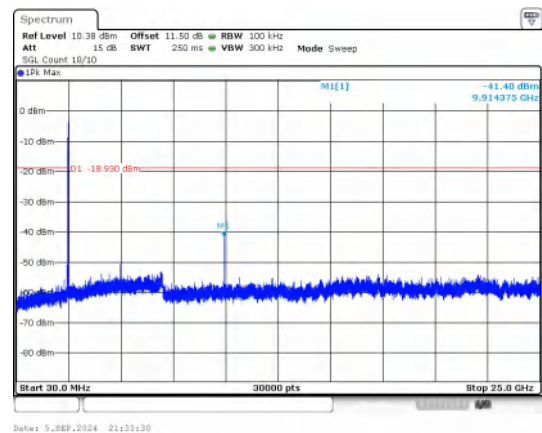
Out Of Band Emission
GFSK_DH5_Channel 78



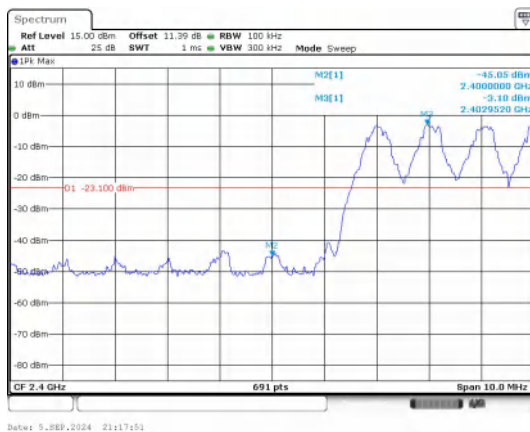
Out Of Band Emission
 $\pi/4$ DQPSK_2-DH5_Channel 78



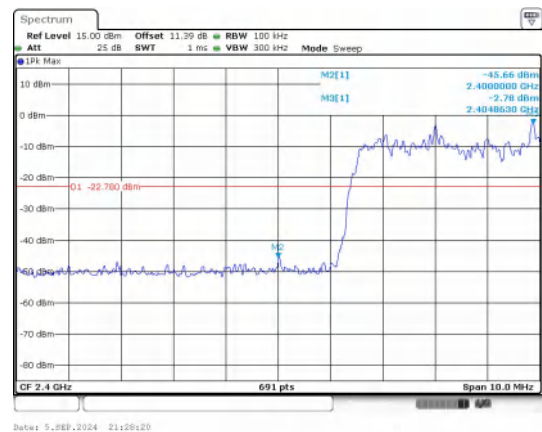
30.0 MHz - 25000.0 MHz
GFSK_DH5_Channel 78



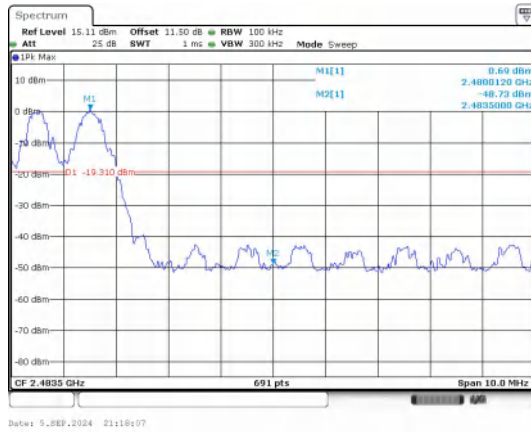
30.0 MHz - 25000.0 MHz
 $\pi/4$ DQPSK_2-DH5_Channel 78



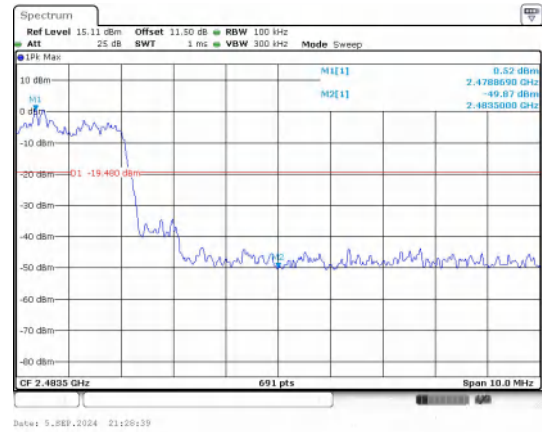
Out Of Band Emission(Left)
GFSK_DH5_Channel Hopping



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