

Appendix A

Report No.:	CISRR231201003
FCC ID:	2A5VZ-YXGJKJYXGSF4
Product Name:	Bluetooth headset
Model No.:	F906
Test Engineer:	Lucas Huang
Supervised by:	Rory Huang

1) Conducted Peak Output Power

Test Result

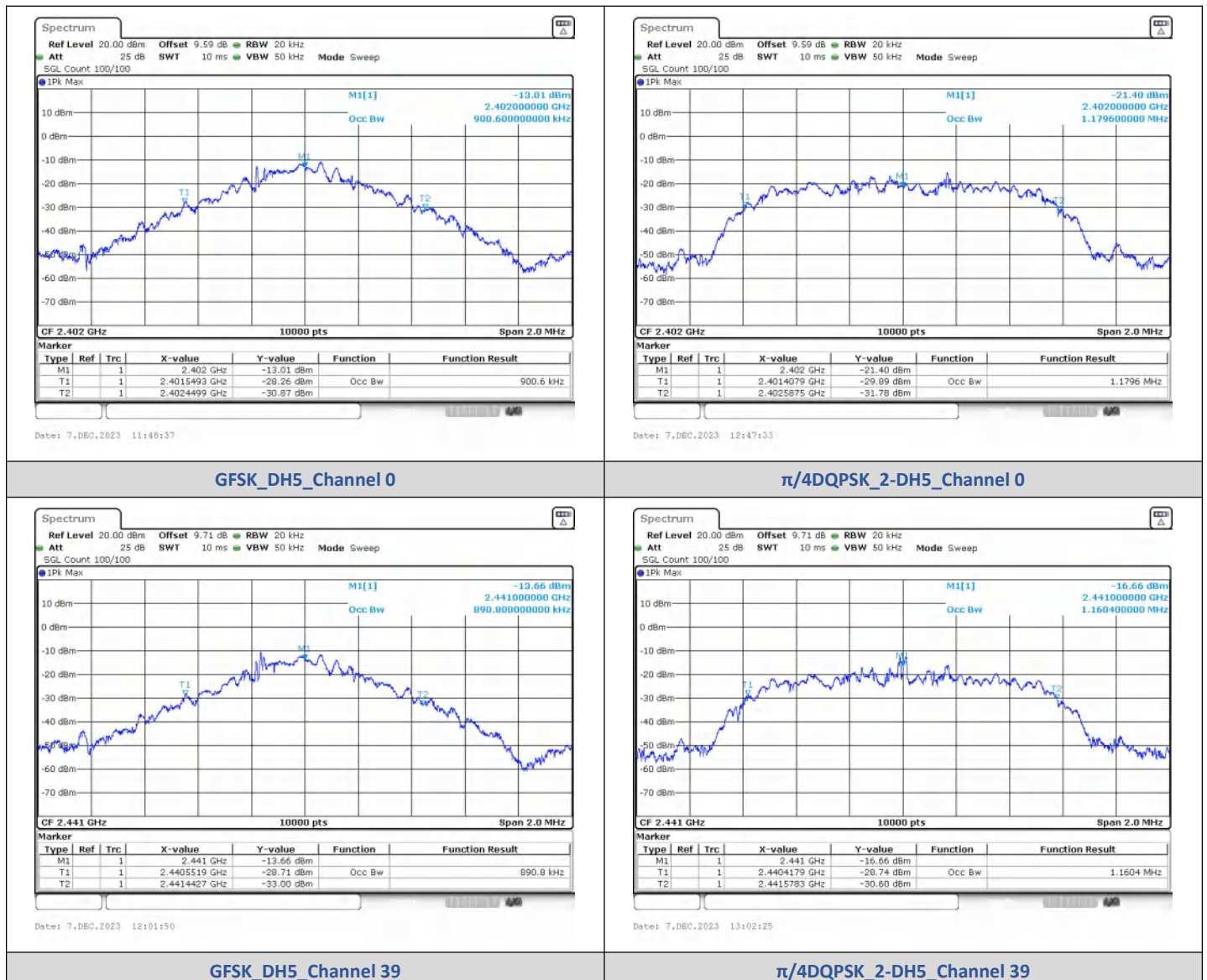
Modulation	Packet Type	Channel	Peak Output Power (dBm)	Peak Output Power (mW)	Limit (dBm)	Result
GFSK	DH5	0	-1.895	0.646	30	PASS
		39	-2.455	0.568		PASS
		78	-0.473	0.897		PASS
$\pi/4$ DQPSK	2-DH5	0	-1.895	0.646	20.97	PASS
		39	-2.447	0.569		PASS
		78	-0.570	0.877		PASS
8DPSK	3-DH5	0	-1.382	0.727		PASS
		39	-1.898	0.646		PASS
		78	-0.009	0.998		PASS

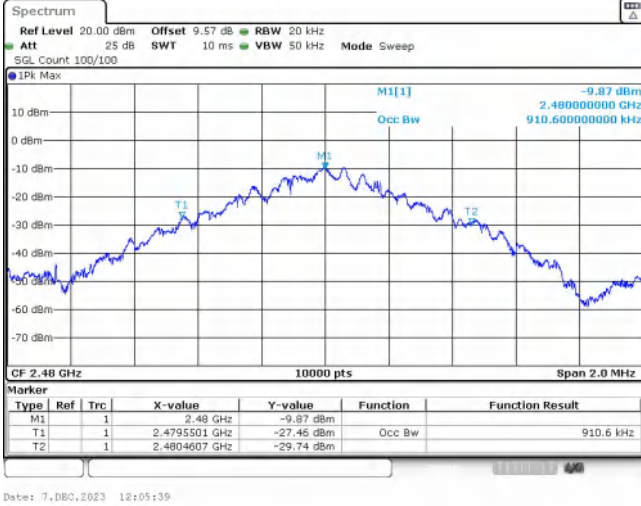
2) 99% Bandwidth

Test Result

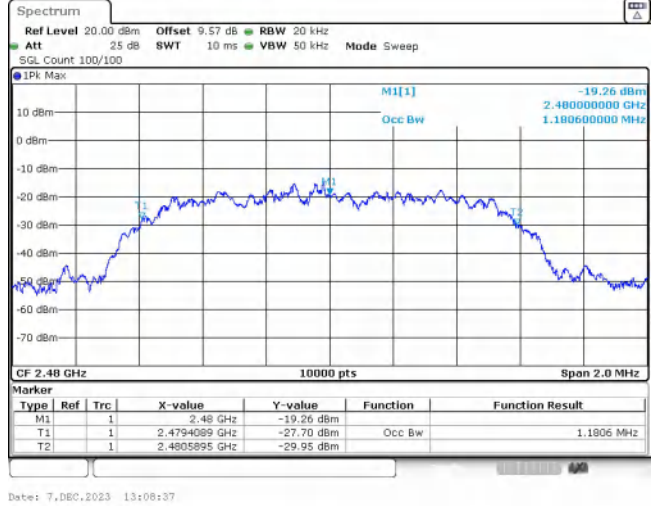
Modulation	Channel	99% BW (MHz)
GFSK	0	0.90060
	39	0.89080
	78	0.91060
π /4DQPSK	0	1.1800
	39	1.1600
	78	1.1810
8DPSK	0	1.1680
	39	1.1590
	78	1.1620

Test Graphs

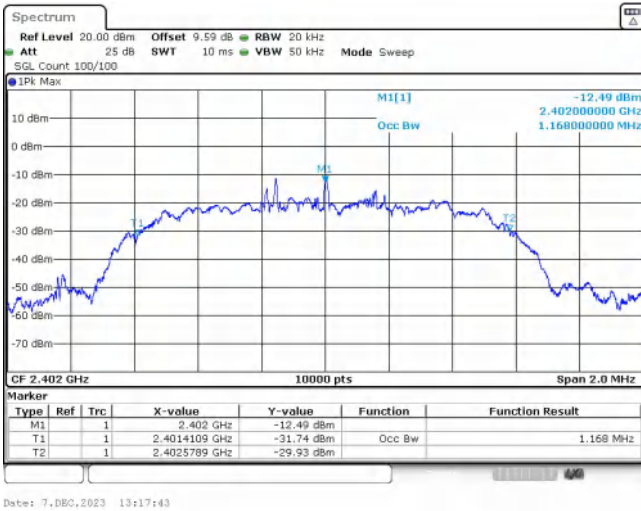




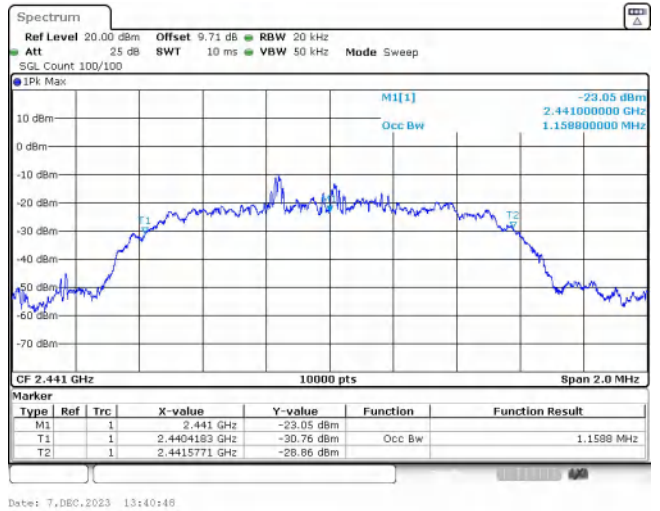
GFSK_DH5_Channel 78



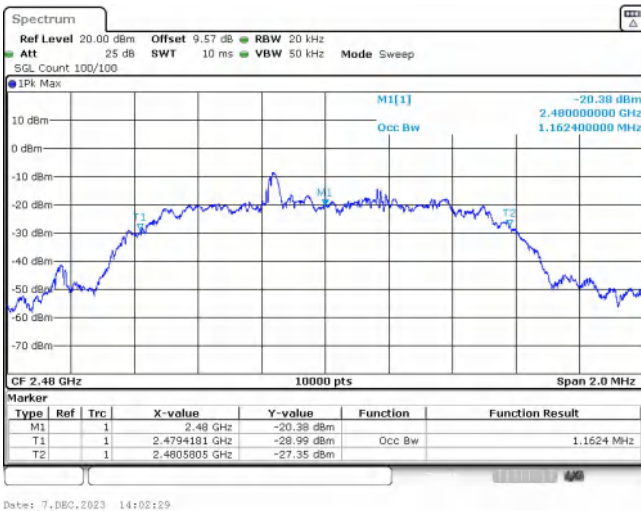
$\pi/4$ DQPSK_2-DH5_Channel 78



8DPSK_3-DH5_Channel 0



8DPSK_3-DH5_Channel 39



8DPSK_3-DH5_Channel 78

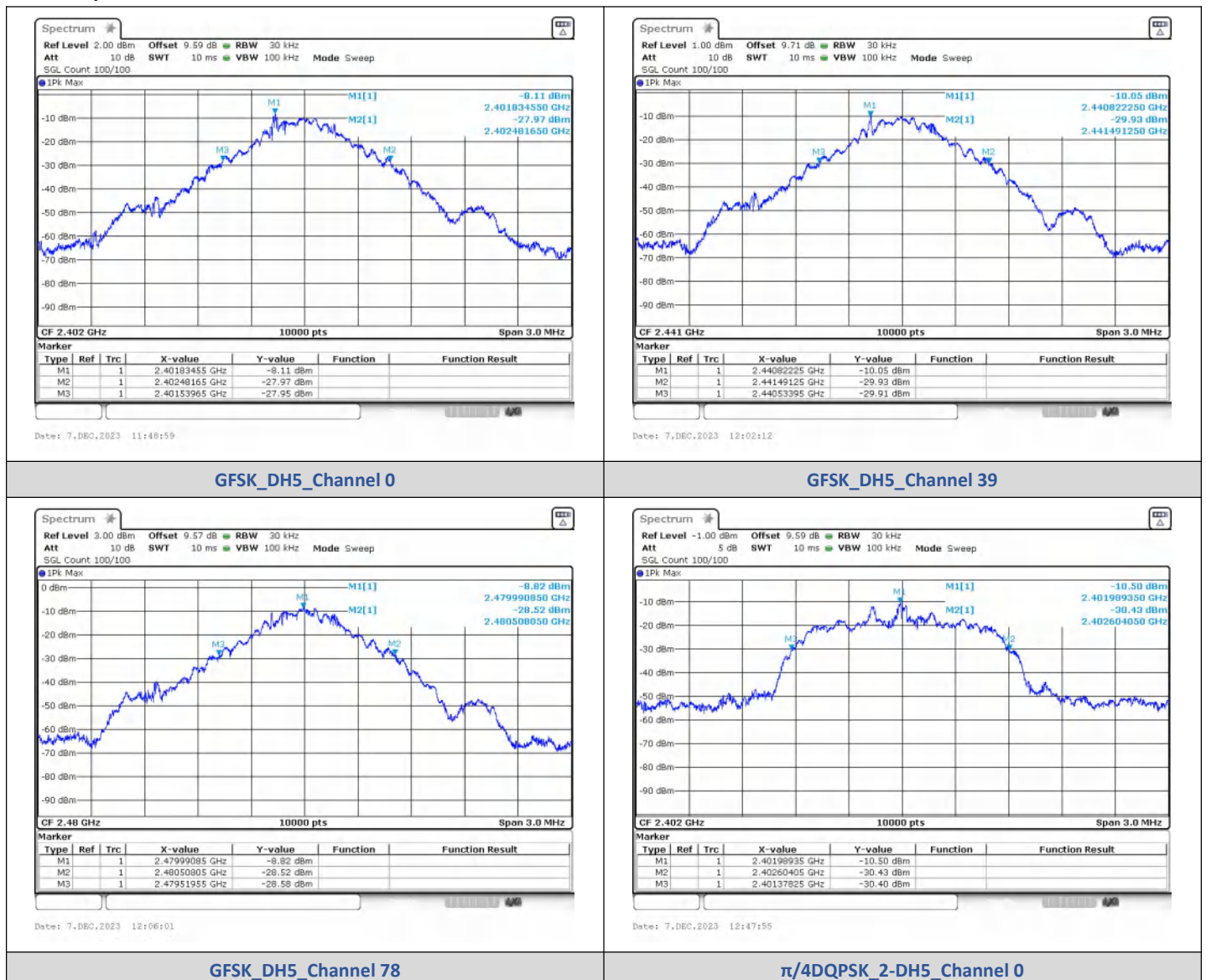
Void

3) 20dB Bandwidth

Test Result

Modulation	Channel	Center Frequency (MHz)	20 dB Bandwidth (MHz)
GFSK	0	2402 MHz	0.9400
	39	2441 MHz	0.9600
	78	2480 MHz	0.9900
$\pi/4$ DQPSK	0	2402 MHz	1.220
	39	2441 MHz	1.220
	78	2480 MHz	1.230
8DPSK	0	2402 MHz	1.190
	39	2441 MHz	1.190
	78	2480 MHz	1.200

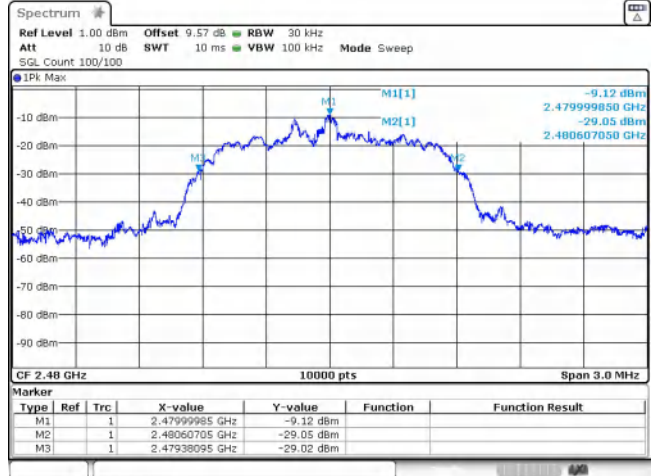
Test Graphs





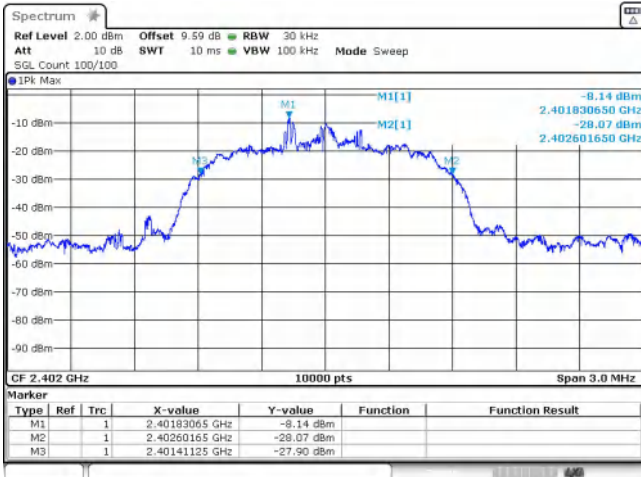
Date: 7,DEC,2023 13:02:47

$\pi/4$ DQPSK_2-DH5_Channel 39



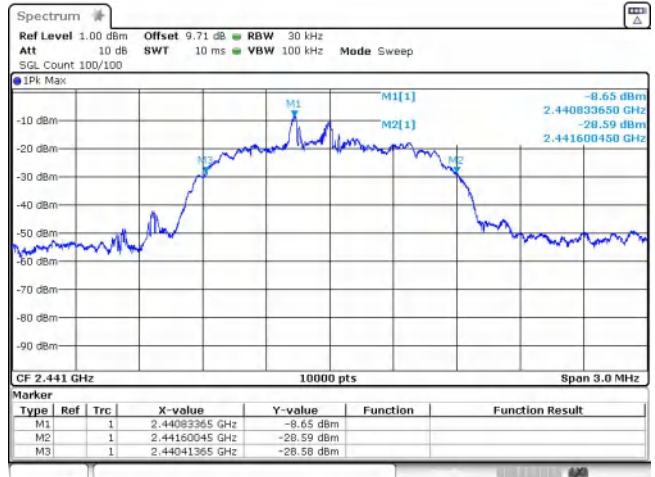
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$\pi/4$ DQPSK_2-DH5_Channel 78



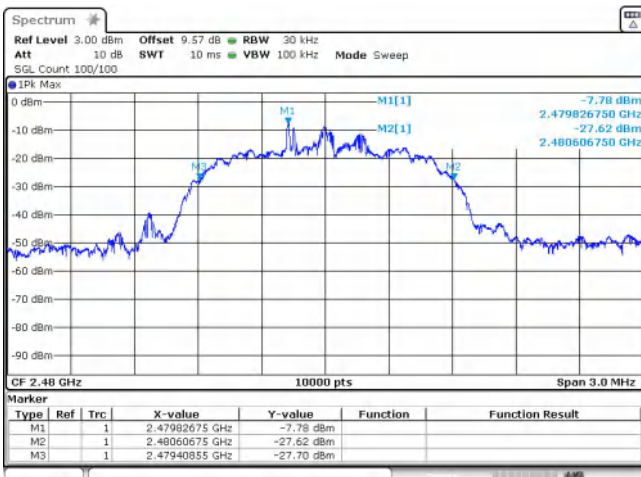
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8DPSK_3-DH5_Channel 0



Date: 7,DEC,2023 13:41:10

8DPSK_3-DH5_Channel 39



Date: 7,DEC,2023 14:02:51

8DPSK_3-DH5_Channel 78

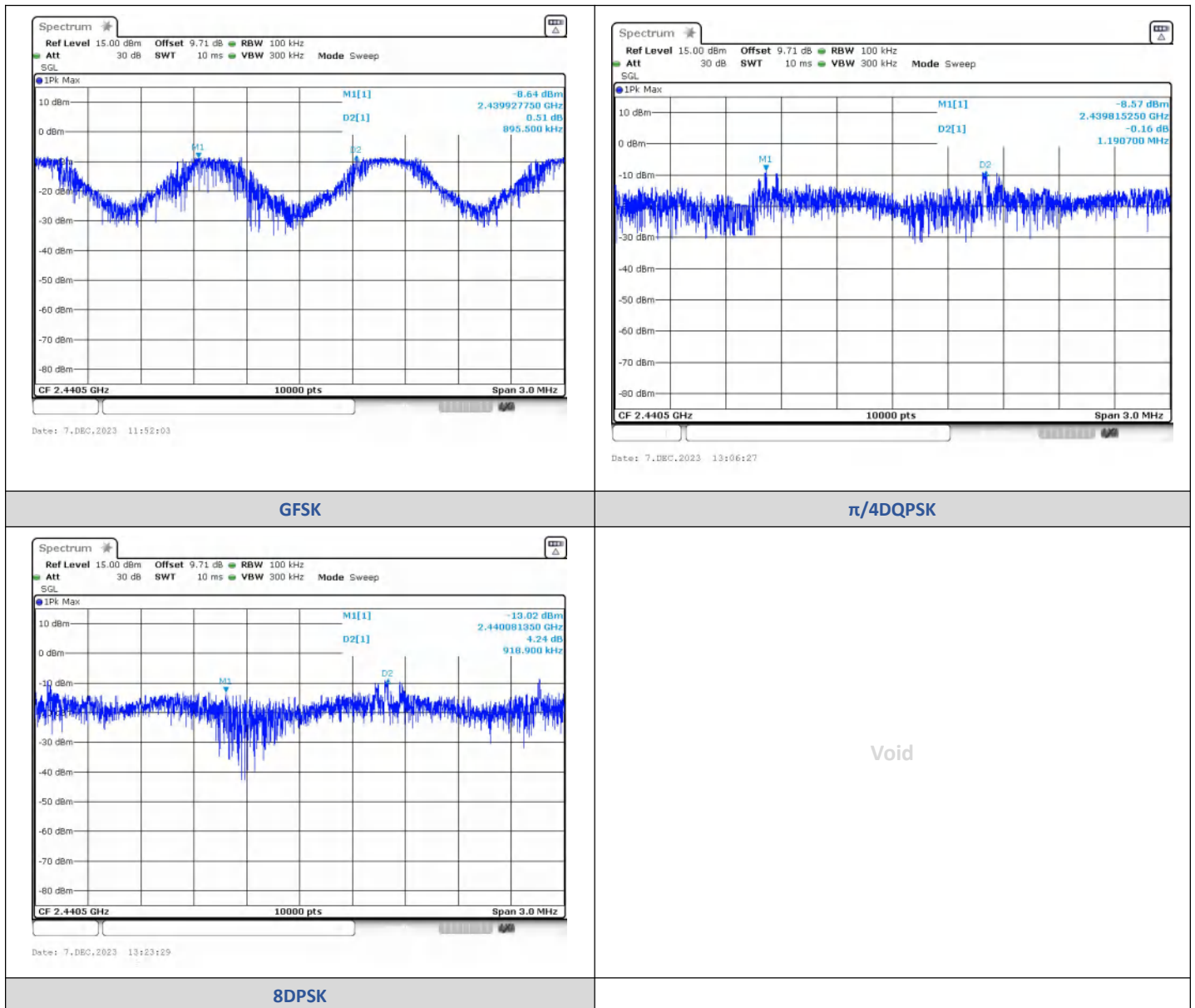
Void

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	2439.9277	2440.8232	0.8955	0.627	PASS
$\pi/4$ DQPSK	2-DH5	2439.8153	2441.006	1.1907	0.813	PASS
8DPSK	3-DH5	2440.0813	2441.0003	0.9189	0.793	PASS

Test Graphs



5) Conducted Out Of Band Emission

Test Result

Non-Hopping

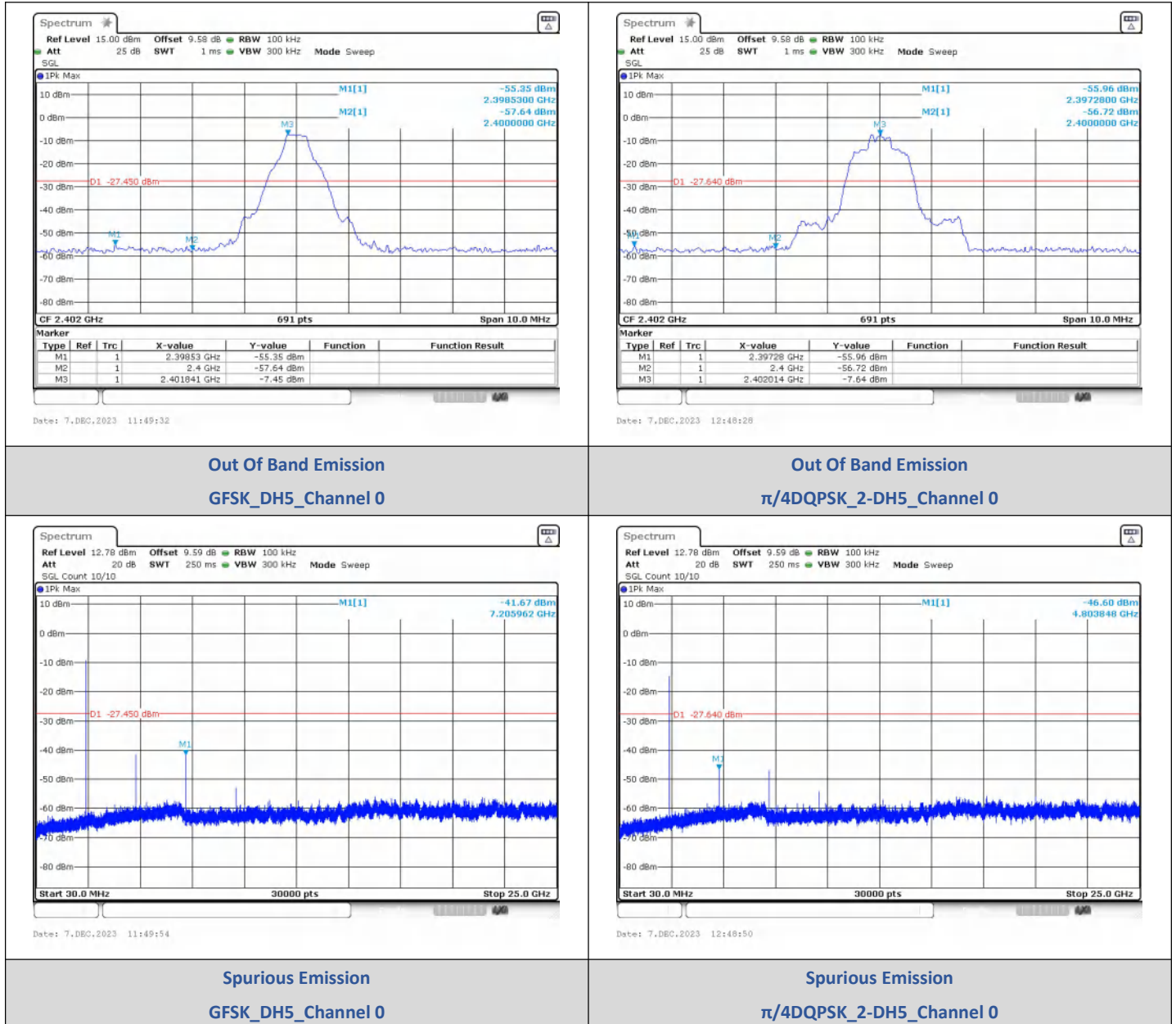
Modulation	Packet	Channel	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
GFSK	DH5	0	2400.00	-57.645	-27.45	-30.195	PASS
			2398.53	-55.346	-27.45	-27.896	PASS
			7206.00	-41.671	-27.45	-14.221	PASS
		39	4882.09	-38.835	-27.91	-10.925	PASS
		78	2483.50	-57.356	-26.04	-31.316	PASS
			4959.49	-39.063	-26.04	-13.023	PASS
$\pi/4$ DQPSK	2-DH5	0	2400.00	-56.724	-27.64	-29.084	PASS
			2397.28	-55.964	-27.64	-28.324	PASS
			4803.80	-46.601	-27.64	-18.961	PASS
		39	4882.09	-44.837	-28.76	-16.077	PASS
		78	2483.50	-57.275	-26.3	-30.975	PASS
			4960.33	-43.391	-26.3	-17.091	PASS
8DPSK	3-DH5	0	2400.00	-57.054	-27.3	-29.754	PASS
			2397.86	-55.900	-27.3	-28.600	PASS
			4804.70	-46.754	-27.3	-19.454	PASS
		39	4881.25	-38.313	-27.76	-10.553	PASS
		78	2483.50	-58.249	-25.93	-32.319	PASS
			4960.33	-38.919	-25.93	-12.989	PASS

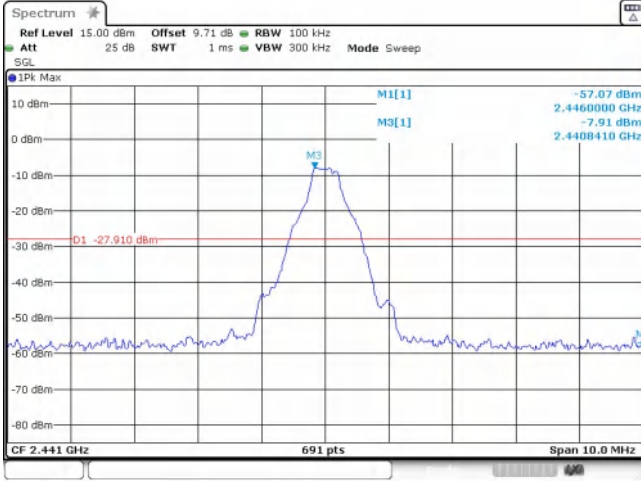
Hopping

Hopping							
Modulation	Packet	Channel	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
GFSK	DH5	Hopping	2395.44	-54.036	-27.39	-26.646	PASS
			2400.00	-56.019	-27.39	-28.629	PASS
			2483.50	-56.700	-26.19	-30.510	PASS
			2397.11	-54.987	-27.48	-27.507	PASS
			2400.00	-57.117	-27.48	-29.637	PASS
			2483.50	-55.664	-26.04	-29.624	PASS
$\pi/4$ DQPSK	2-DH5		2398.55	-54.516	-28.22	-26.296	PASS
			2400.00	-56.783	-28.22	-28.563	PASS
			2483.50	-56.343	-27.02	-29.323	PASS
			2397.99	-54.766	-27.43	-27.336	PASS
			2400.00	-56.847	-27.43	-29.417	PASS
			2483.50	-56.486	-26.38	-30.106	PASS
8DPSK	3-DH5		2396.99	-55.393	-27.26	-28.133	PASS
			2400.00	-57.336	-27.26	-30.076	PASS
			2483.50	-56.426	-26.21	-30.216	PASS

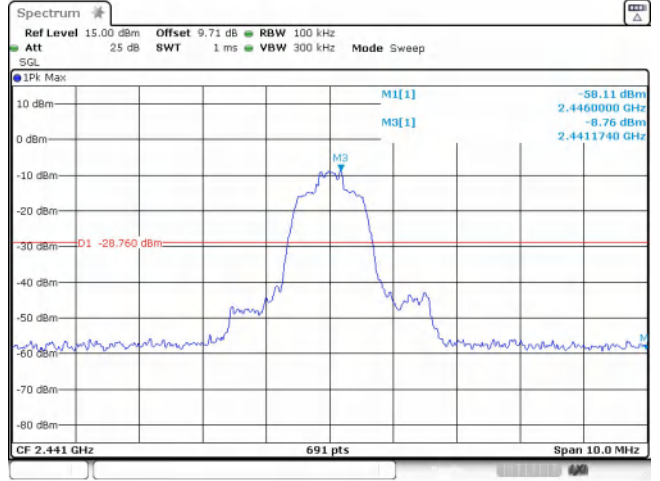
			2395.70	-54.779	-28.48	-26.299	PASS
			2400.00	-56.432	-28.48	-27.952	PASS
			2483.50	-55.739	-25.87	-29.869	PASS

Test Graphs





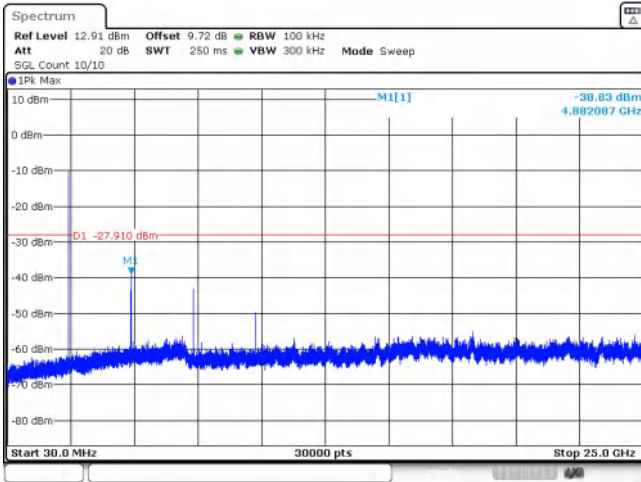
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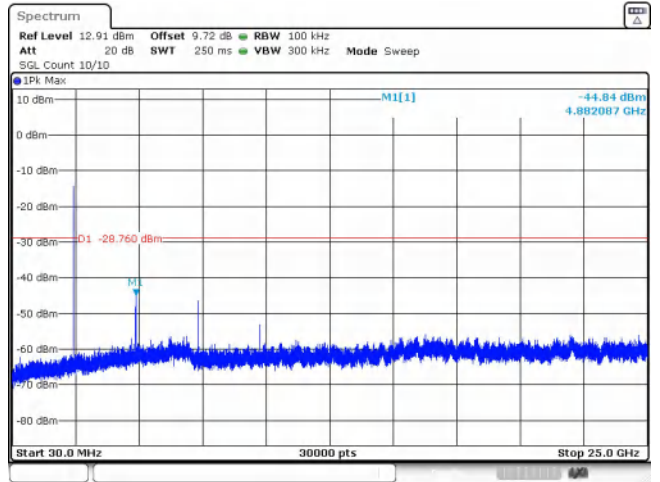
Date: 7.DEC.2023 13:03:15

Out Of Band Emission GFSK_DH5_Channel 39

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



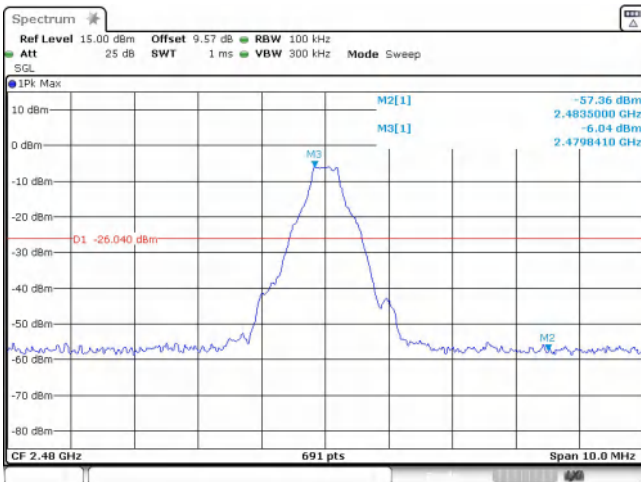
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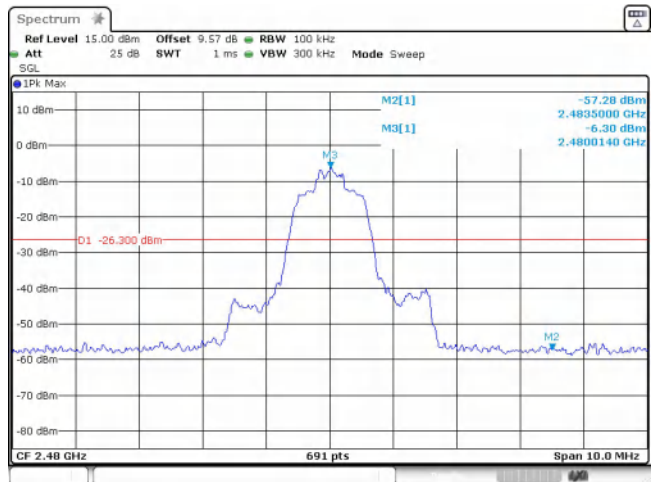
Date: 7.DEC.2023 13:03:36

Spurious Emissions GFSK_DH5_Channel 39

Spurious Emissions $\pi/4$ DQPSK_2-DH5_Channel 39



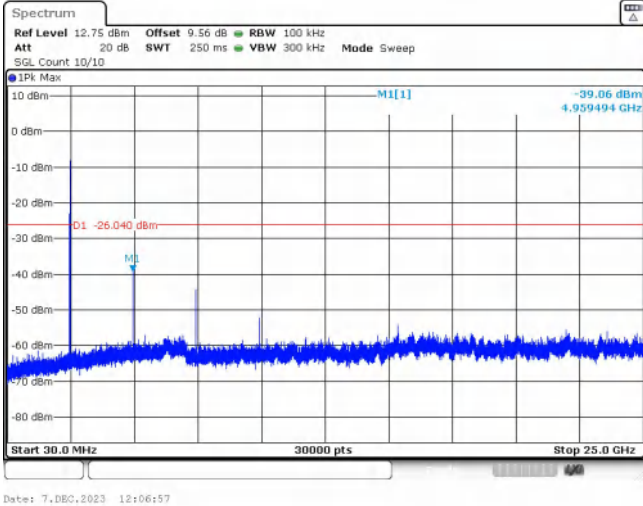
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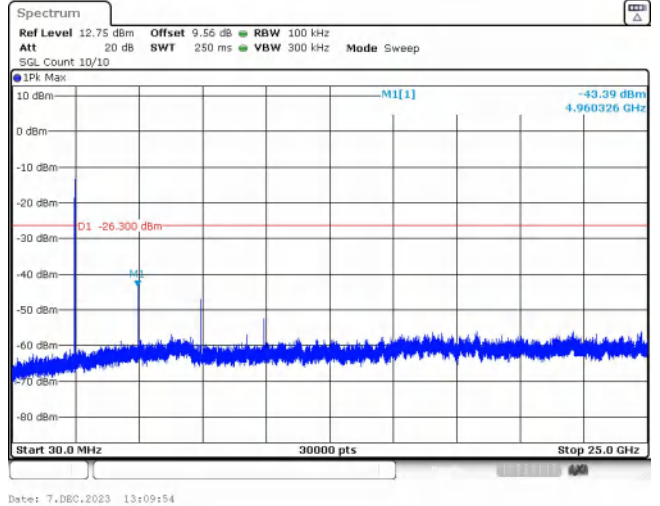
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Out Of Band Emission GFSK_DH5_Channel 78

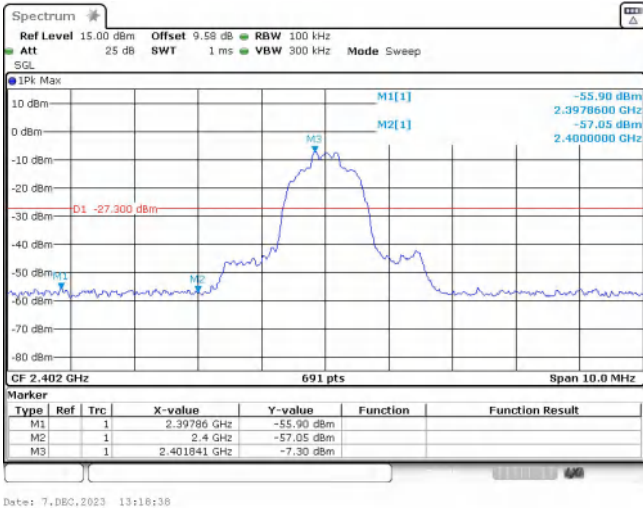
Out Of Band Emission $\pi/4$ DQPSK_2-DH5_Channel 78



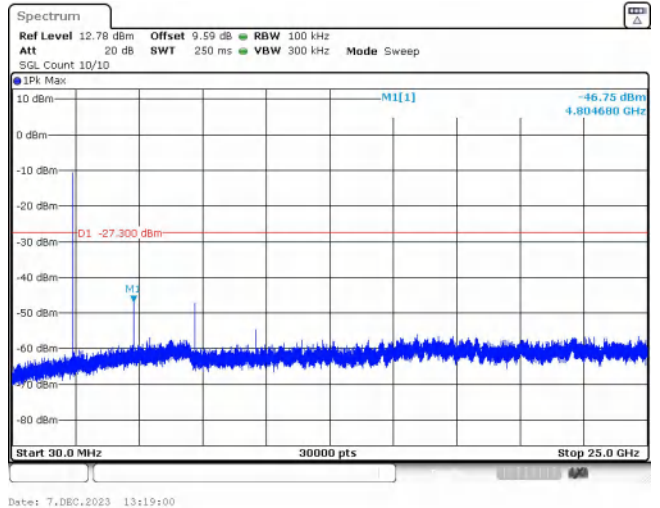
Spurious Emission
GFSK_DH5_Channel 78



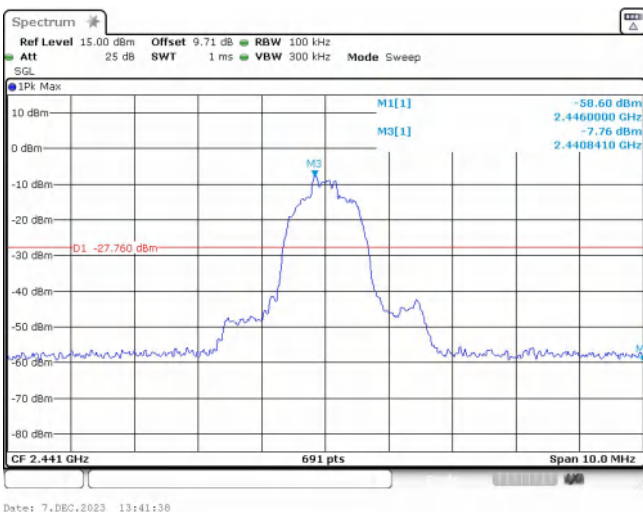
Spurious Emission
 $\pi/4$ QPSK_2-DH5_Channel 78



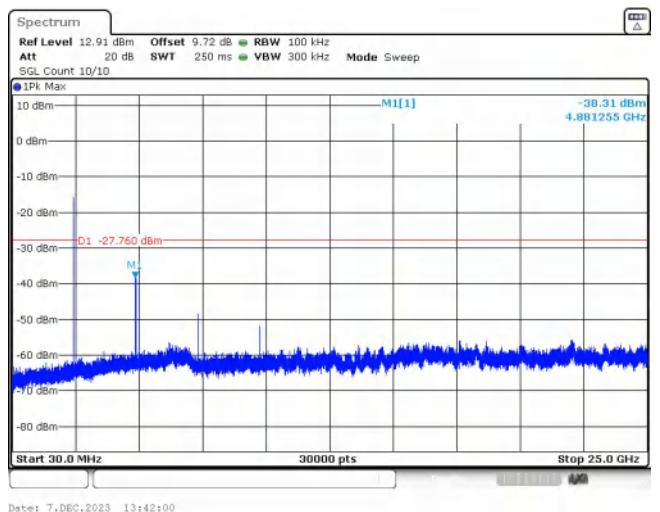
Out Of Band Emission
8DPSK_3-DH5_Channel 0



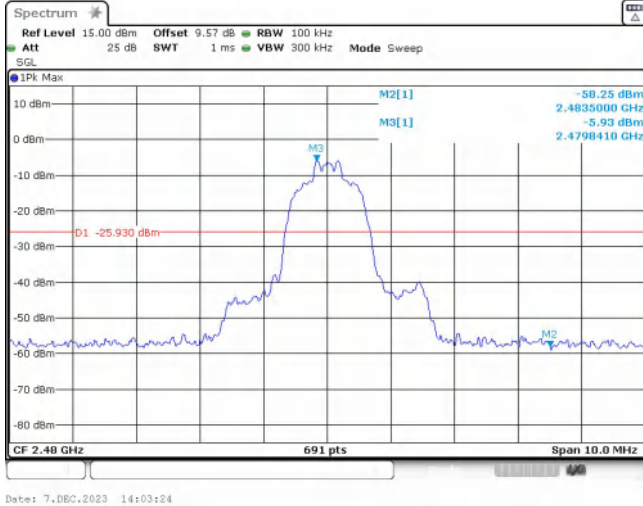
Spurious Emission
8DPSK_3-DH5_Channel 0



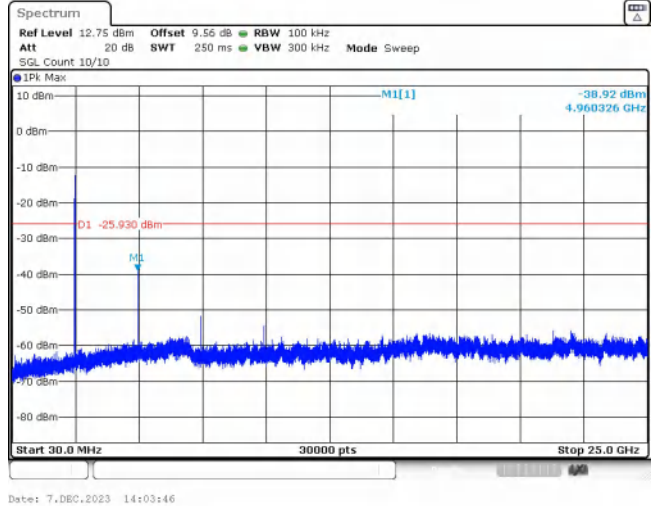
Out Of Band Emission
8DPSK_3-DH5_Channel 39



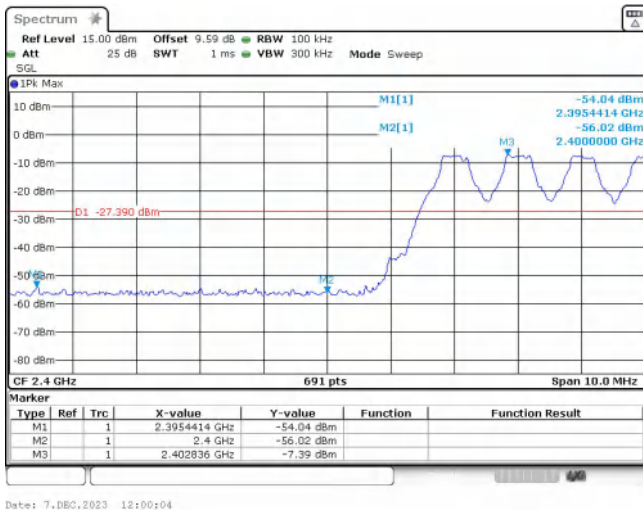
Spurious Emissions
8DPSK_3-DH5_Channel 39



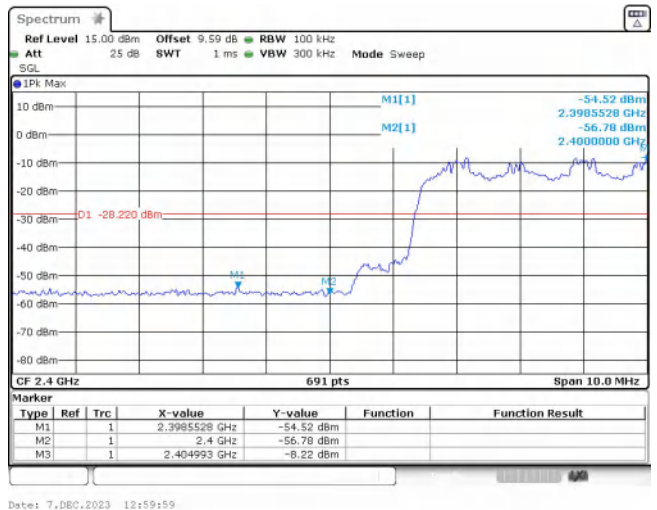
Out Of Band Emission
8DPSK_3-DH5_Channel 78



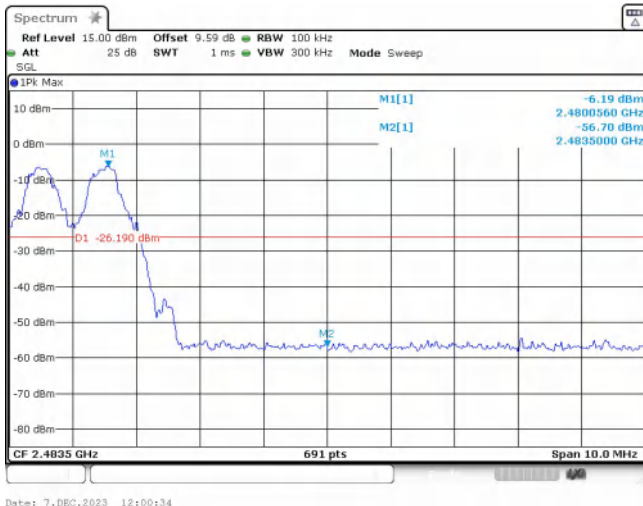
Spurious Emission
8DPSK_3-DH5_Channel 78



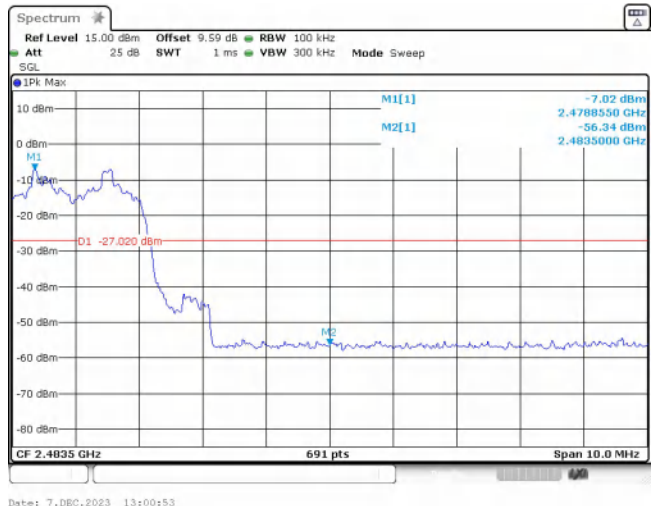
Out Of Band Emission(Left)
GFSK_DH5_Channel Hopping



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

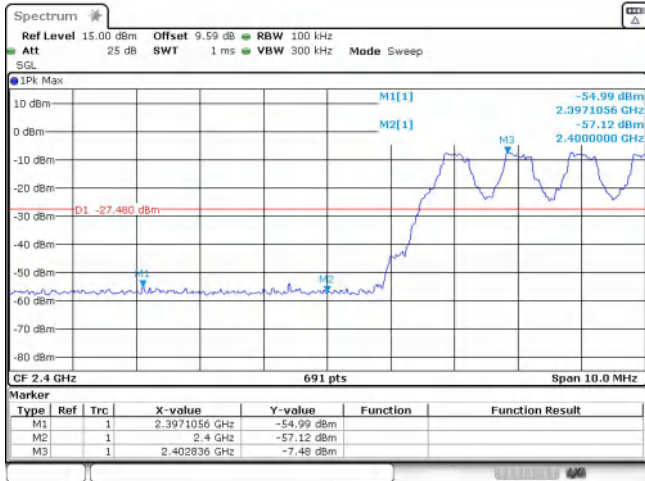


Out Of Band Emission(Right)



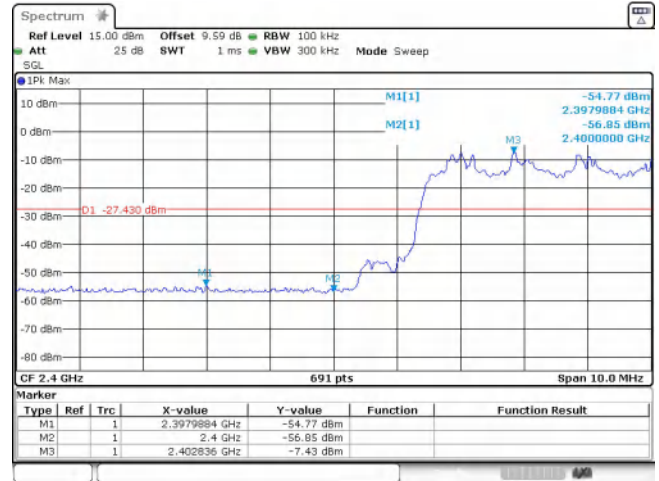
Out Of Band Emission(Right)

GFSK_DH5_Channel Hopping



Date: 7.DEC.2023 12:43:59

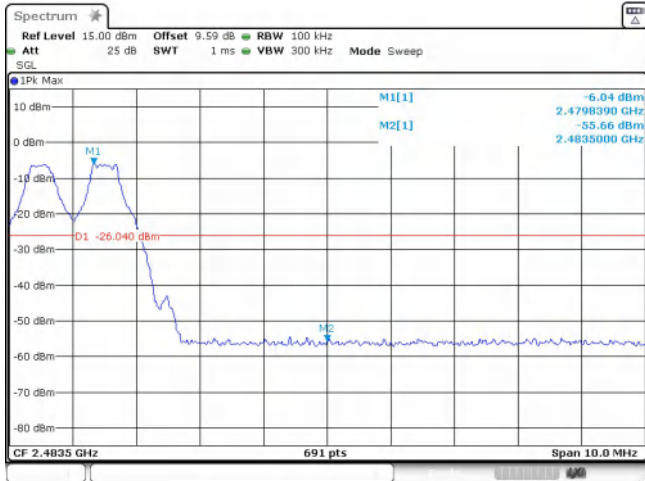
$\pi/4$ QPSK_2-DH5_Channel Hopping



Date: 7.DEC.2023 13:13:32

Out Of Band Emission(Left)

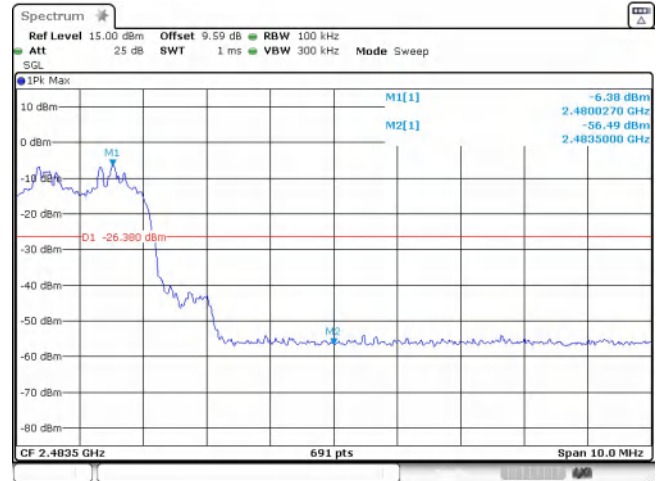
GFSK_DH5_Channel Hopping



Date: 7.DEC.2023 12:45:43

Out Of Band Emission(Left)

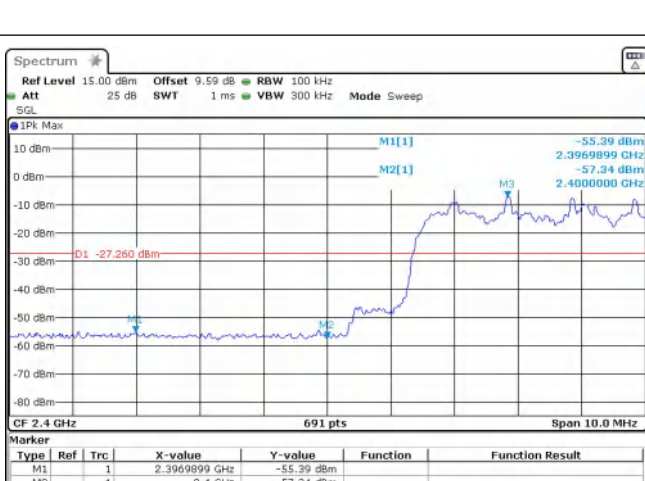
$\pi/4$ QPSK_2-DH5_Channel Hopping



Date: 7.DEC.2023 13:15:43

Out Of Band Emission(Right)

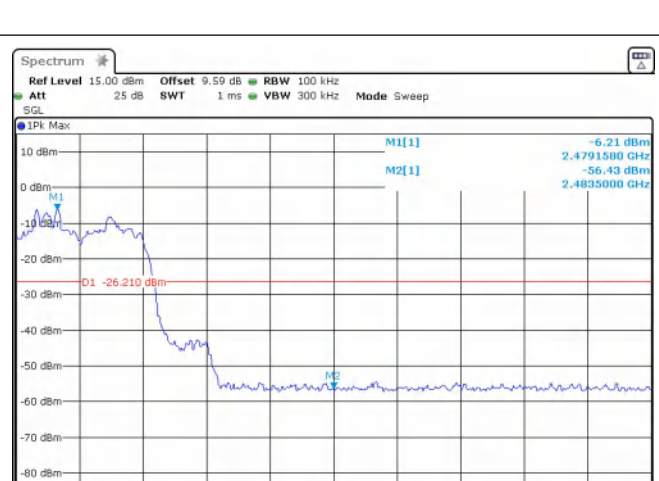
GFSK_DH5_Channel Hopping



Date: 7.DEC.2023 13:34:39

Out Of Band Emission(Right)

$\pi/4$ QPSK_2-DH5_Channel Hopping

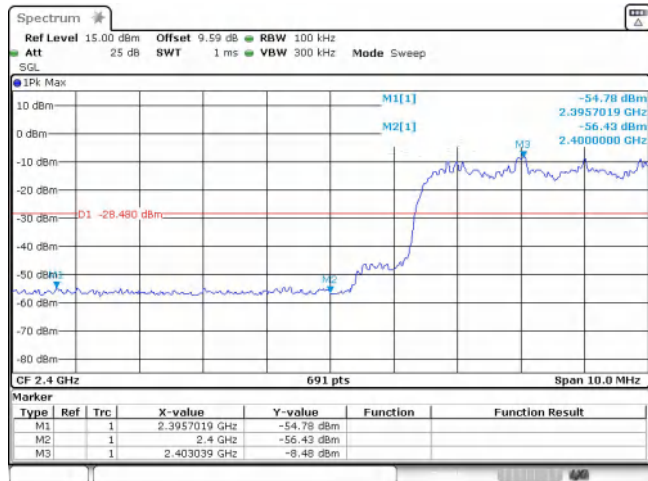


Date: 7.DEC.2023 13:36:08

Out Of Band Emission(Left)

Out Of Band Emission(Right)

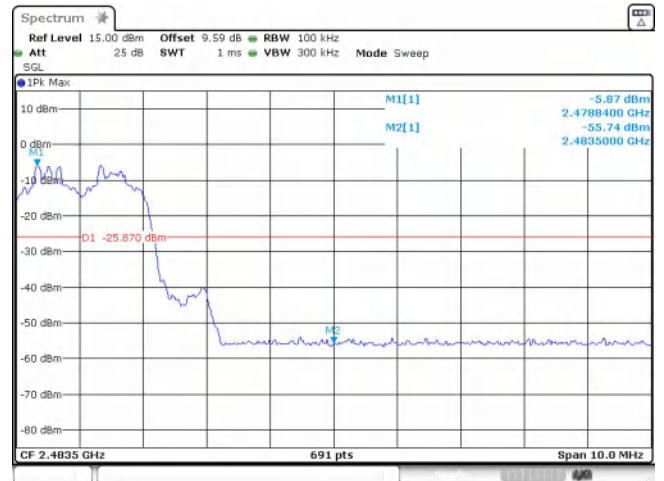
8DPSK_3-DH5_Channel Hopping



Out Of Band Emission(Left)

8DPSK_3-DH5_Channel Hopping

8DPSK_3-DH5_Channel Hopping



Out Of Band Emission(Right)

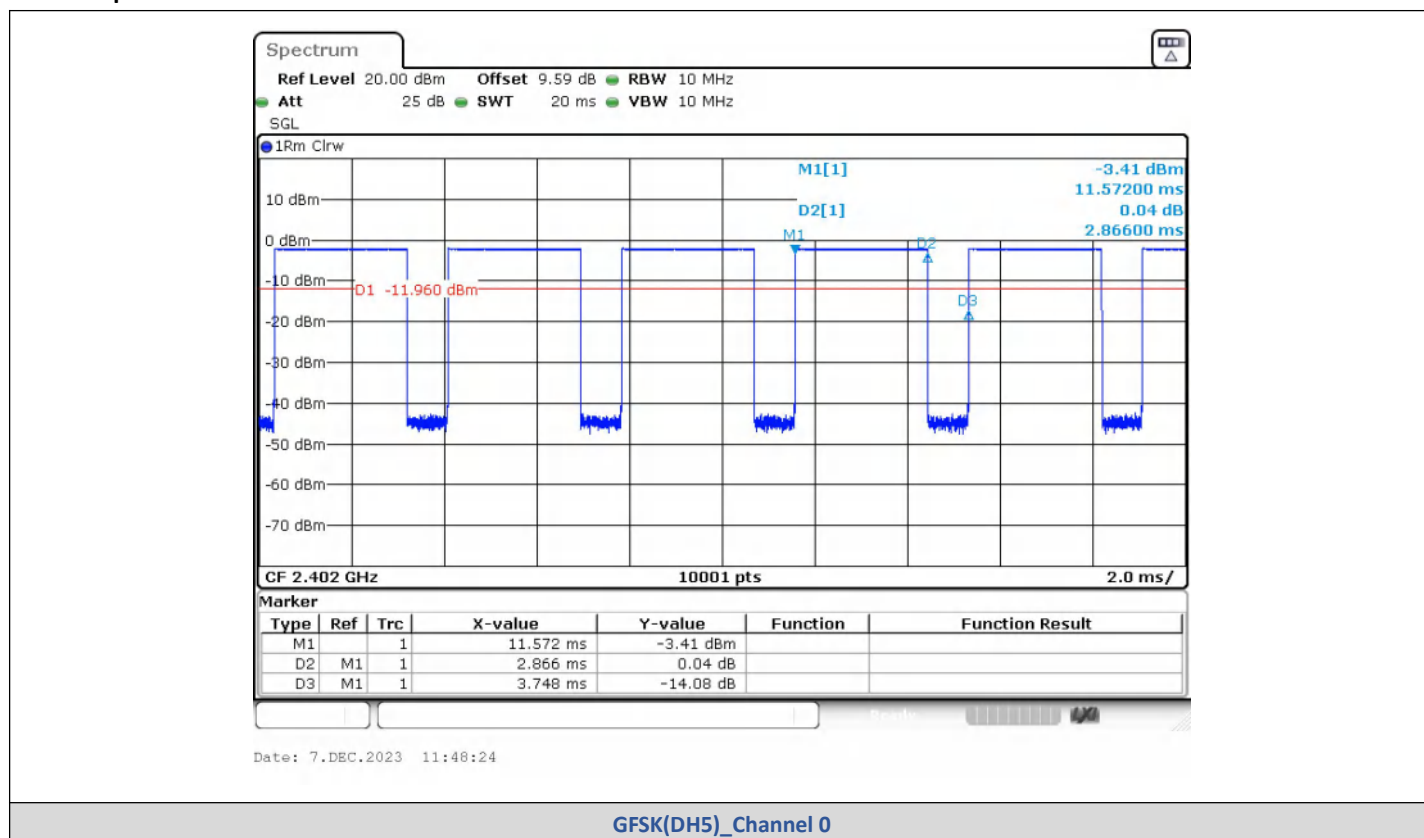
8DPSK_3-DH5_Channel Hopping

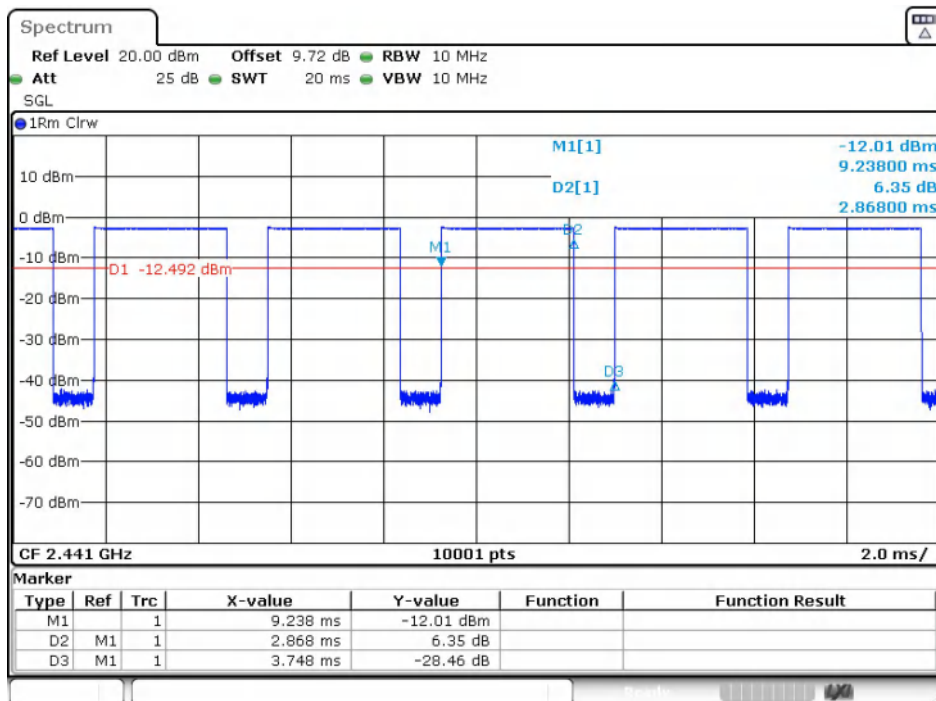
6) Duty Cycle

Test Result

Modulation	Packets	Channel	On Time (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle (linear)	Duty Cycle Factor (dB)	1/T
GFSK	DH5	0	2.866	3.748	76.47	0.7647	1.1651	0.35
		39	2.868	3.748	76.52	0.7652	1.1623	0.35
		78	2.866	3.748	76.47	0.7647	1.1651	0.35
$\pi/4$ DQPSK	2-DH5	0	2.873	3.740	76.80	0.7680	1.1464	0.35
		39	2.880	3.748	76.84	0.7684	1.1441	0.35
		78	2.880	3.748	76.84	0.7684	1.1441	0.35
8DPSK	3-DH5	0	2.880	3.748	76.84	0.7684	1.1441	0.35
		39	2.880	3.748	76.84	0.7684	1.1441	0.35
		78	2.880	3.748	76.84	0.7684	1.1441	0.35

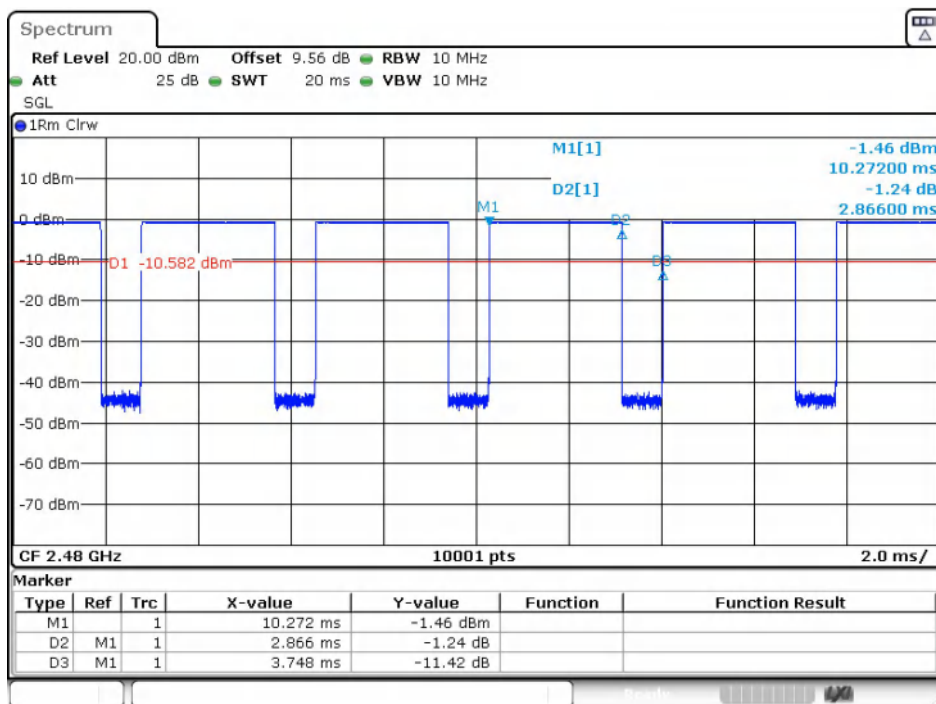
Test Graphs





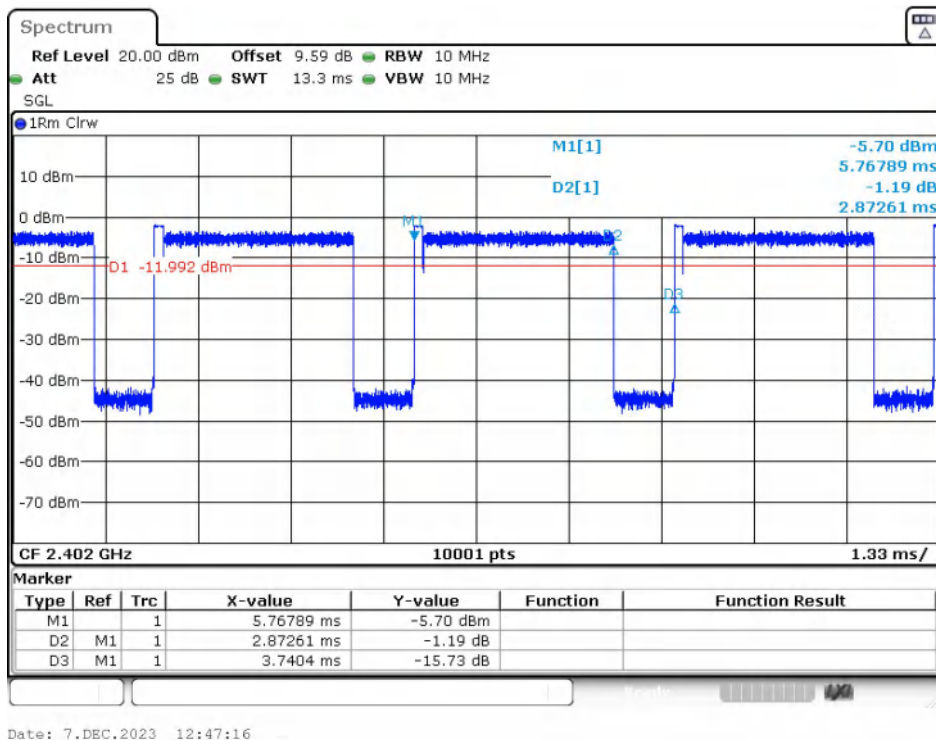
Date: 7.DEC.2023 12:01:36

GFSK(DH5)_Channel 39

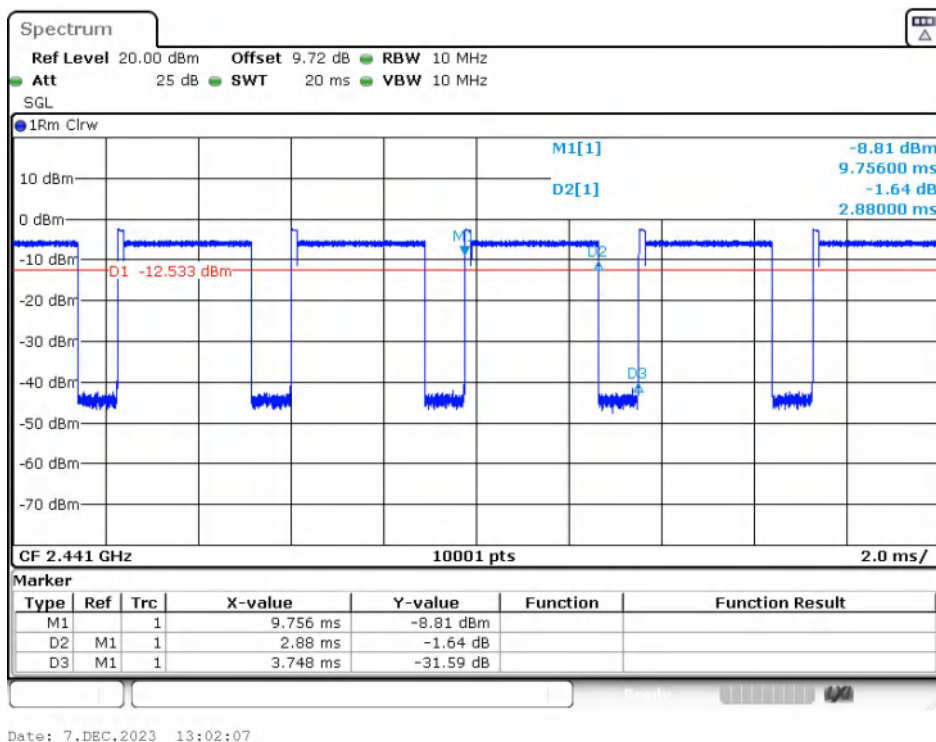


Date: 7.DEC.2023 12:05:25

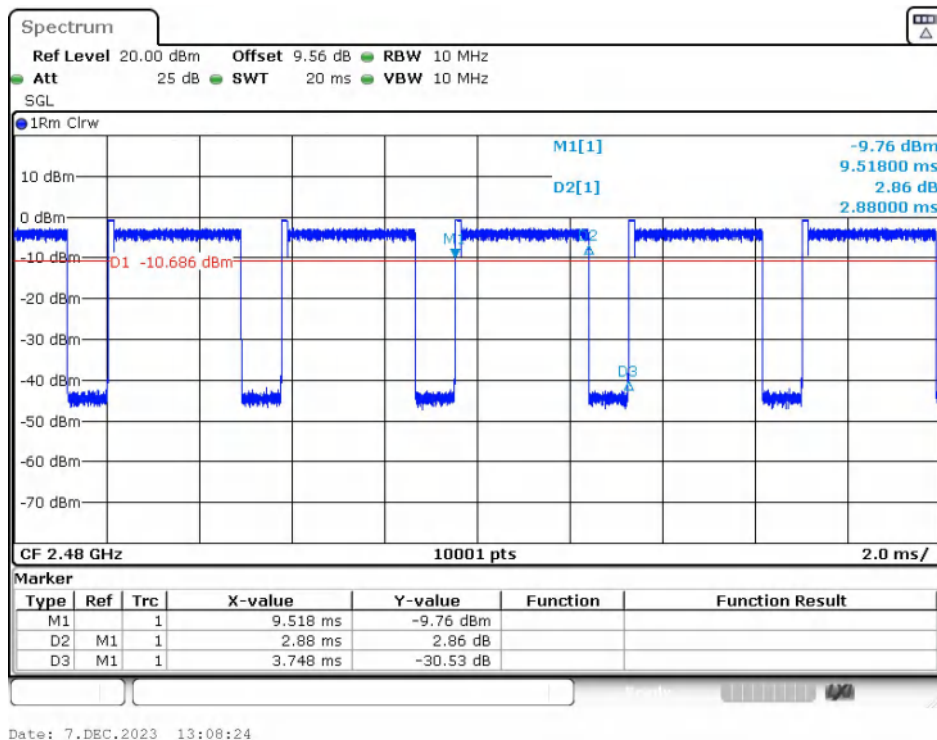
GFSK(DH5)_Channel 78



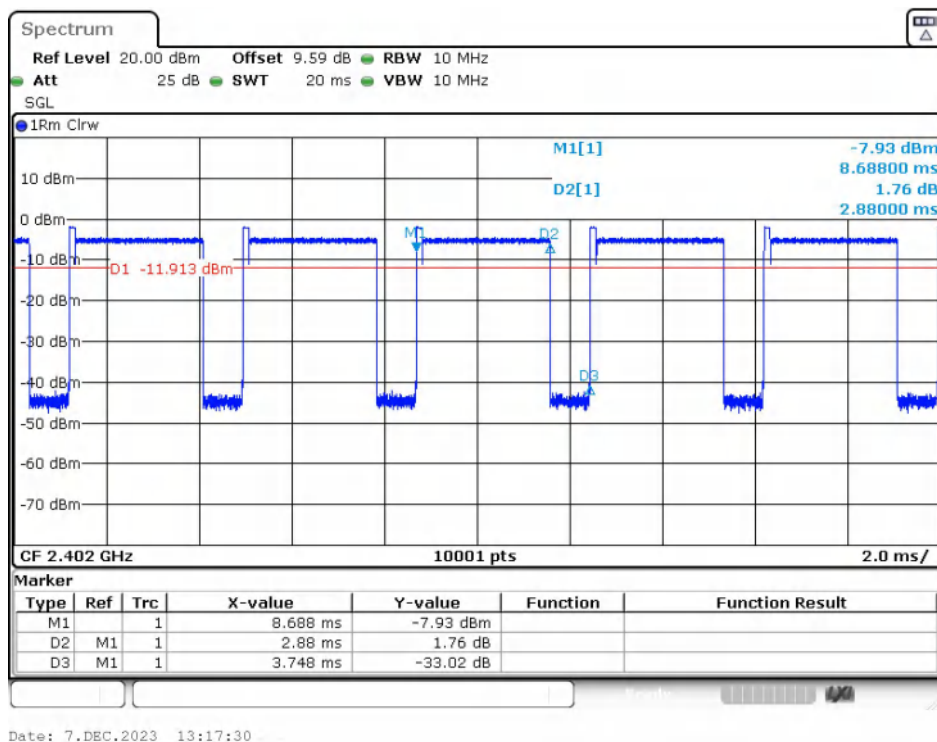
$\pi/4$ DQPSK(2-DH5)_Channel 0



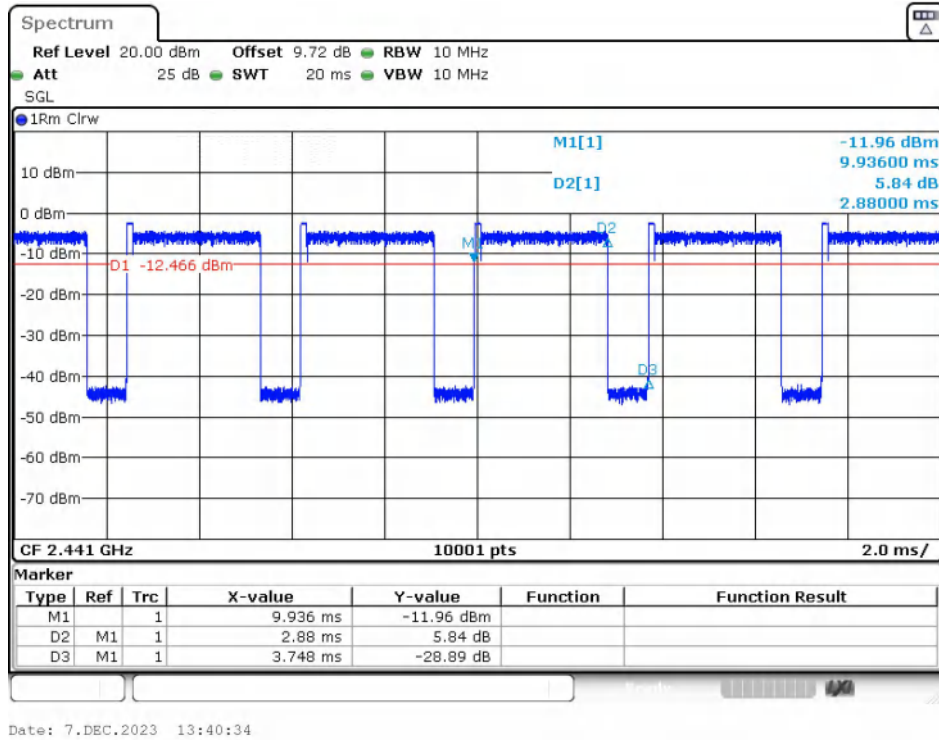
$\pi/4$ DQPSK(2-DH5)_Channel 39



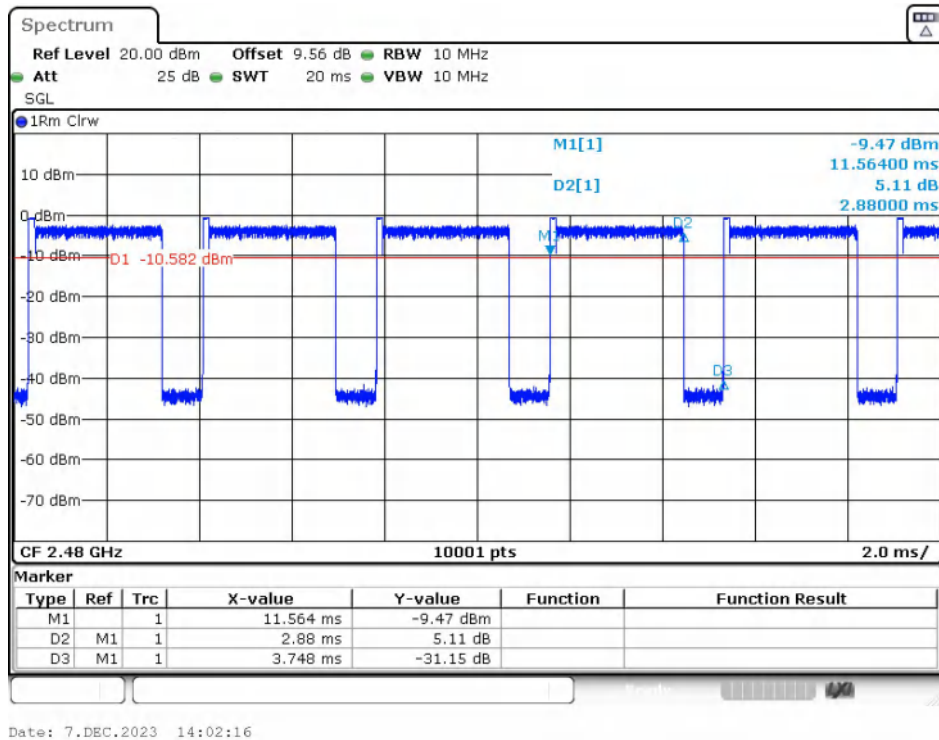
$\pi/4$ DQPSK(2-DH5)_Channel 78



8DPSK(3-DH5)_Channel 0



8DPSK(3-DH5)_Channel 39



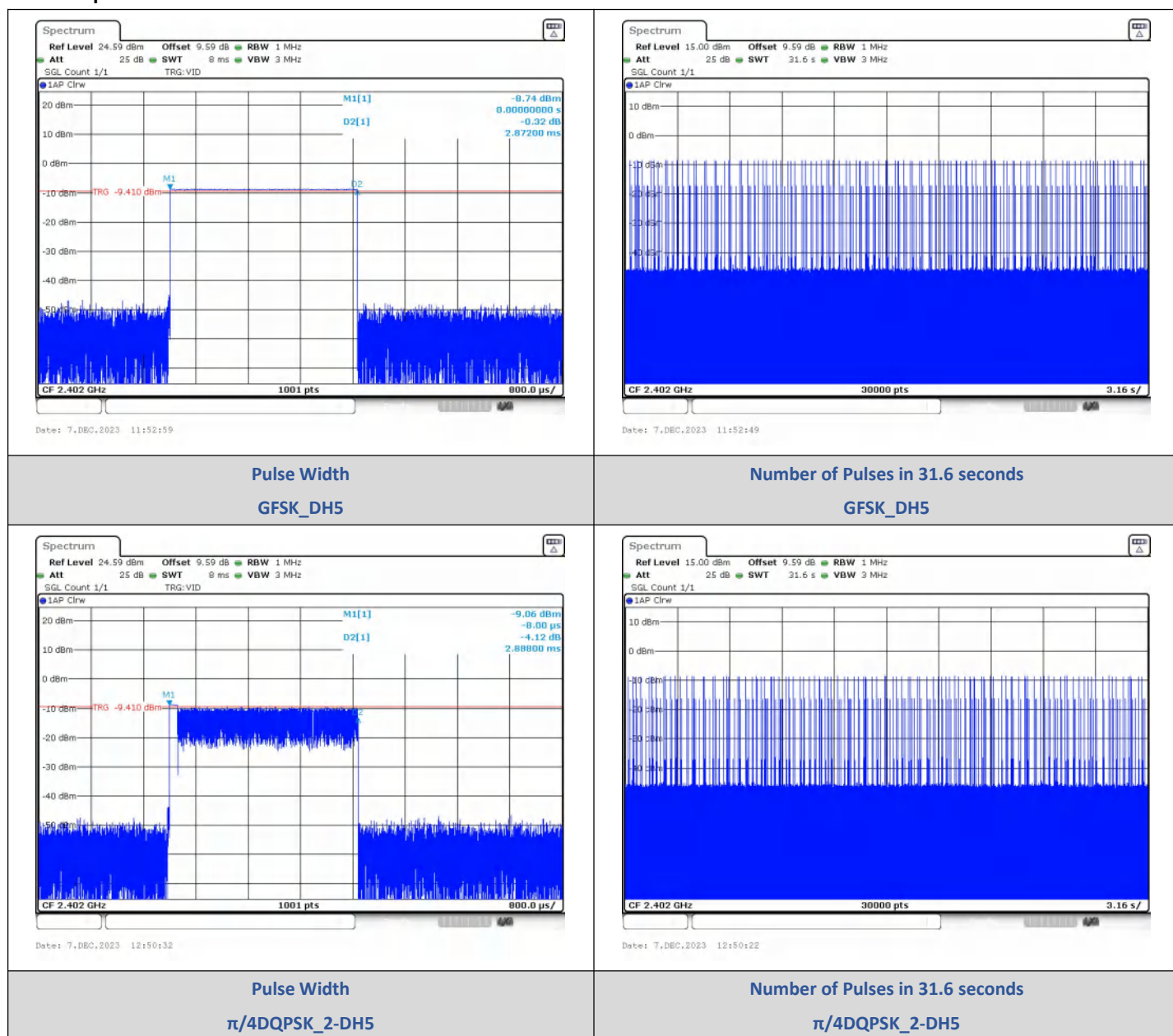
8DPSK(3-DH5)_Channel 78

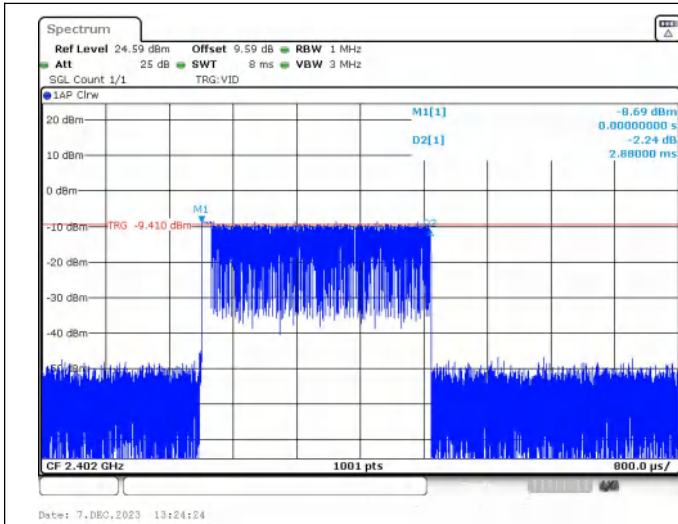
7) Dwell Time

Test Result

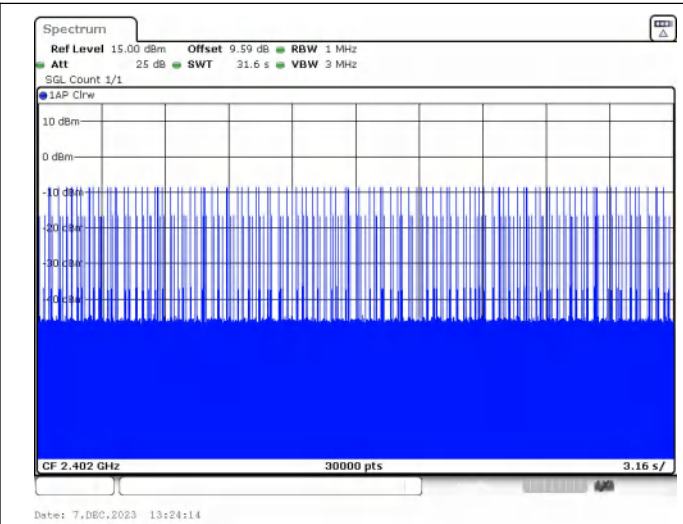
Modulation	Packet	Channel	Pulse Width (ms)	Number of Pulses in 31.6 seconds	Dwell Time (ms)	Limit (ms)	Result
GFSK	DH5	CH0 (2402MHz)	2.872	106	304.43	< 400	PASS
$\pi/4$ DQPSK	2-DH5		2.888	106	306.13		PASS
8DPSK	3-DH5		2.880	105	302.4		PASS

Test Graphs





Pulse Width
8DPSK_3-DH5



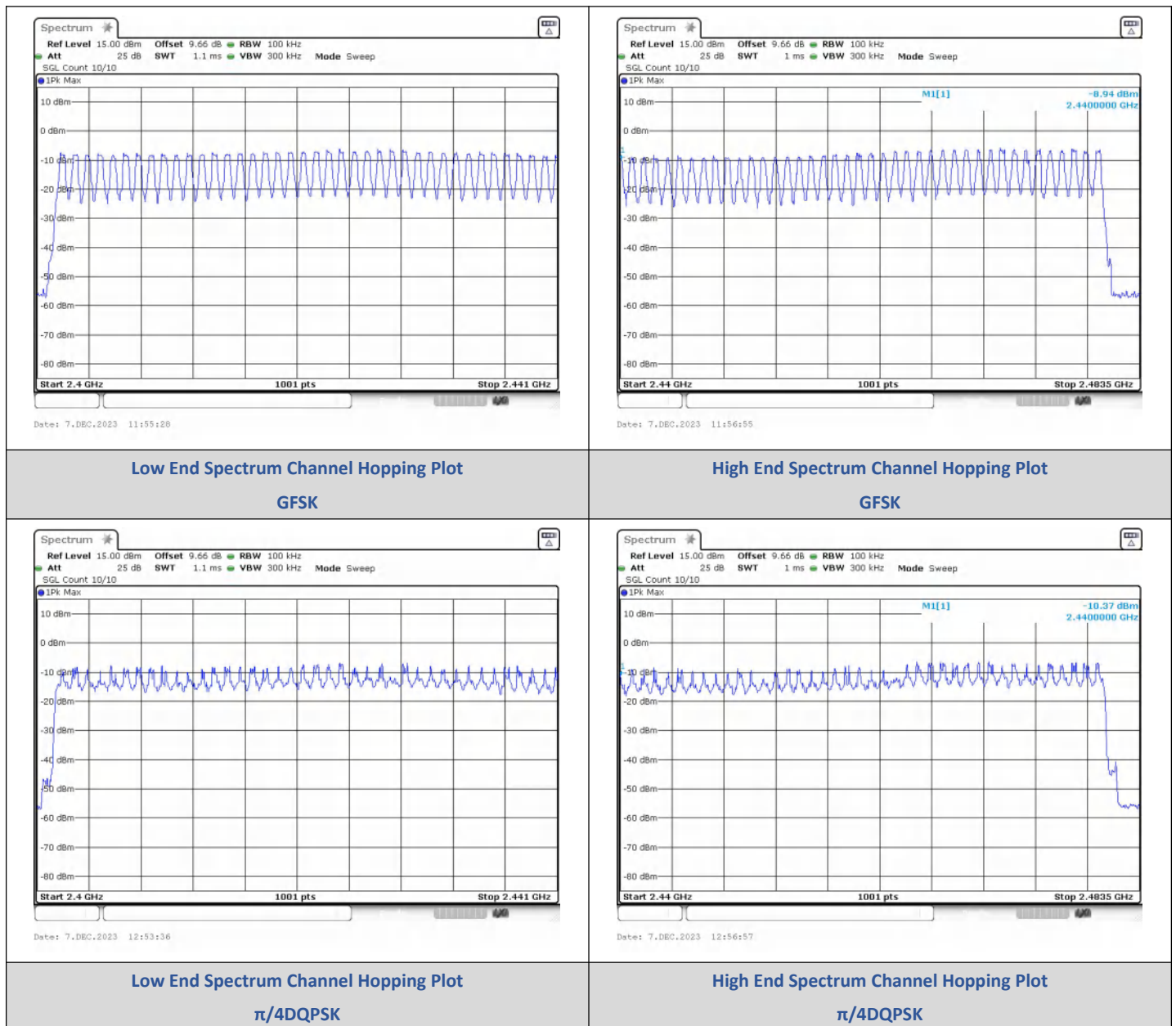
Number of Pulses in 31.6 seconds
8DPSK_3-DH5

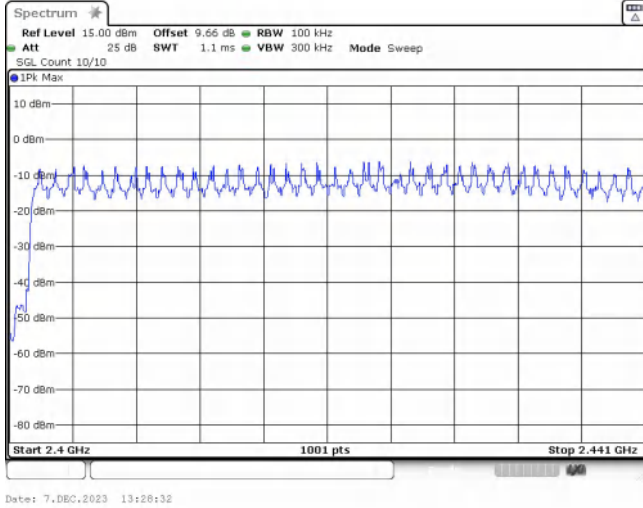
8) Number Of Hopping Channel

Test Result

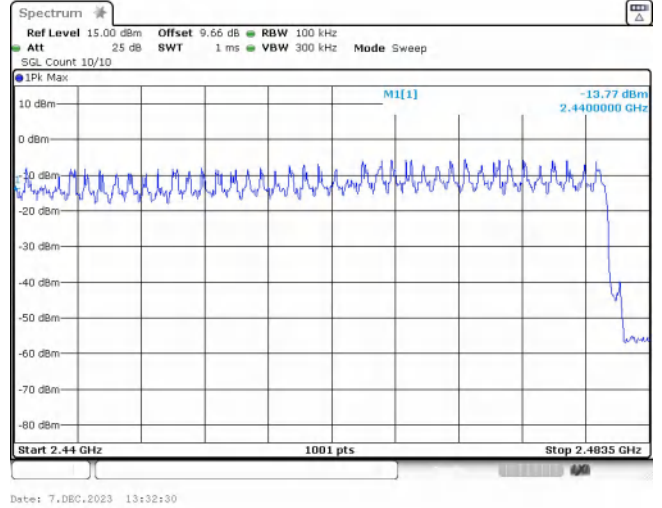
Modulation	Packet	Number of Hopping Channel	Limit	Result
GFSK	DH5	79	15	PASS
$\pi/4$ DQPSK	2-DH5	79	15	PASS
8DPSK	3-DH5	79	15	PASS

Test Graphs





Low End Spectrum Channel Hopping Plot
8DPSK



High End Spectrum Channel Hopping Plot
8DPSK