

Appendix A

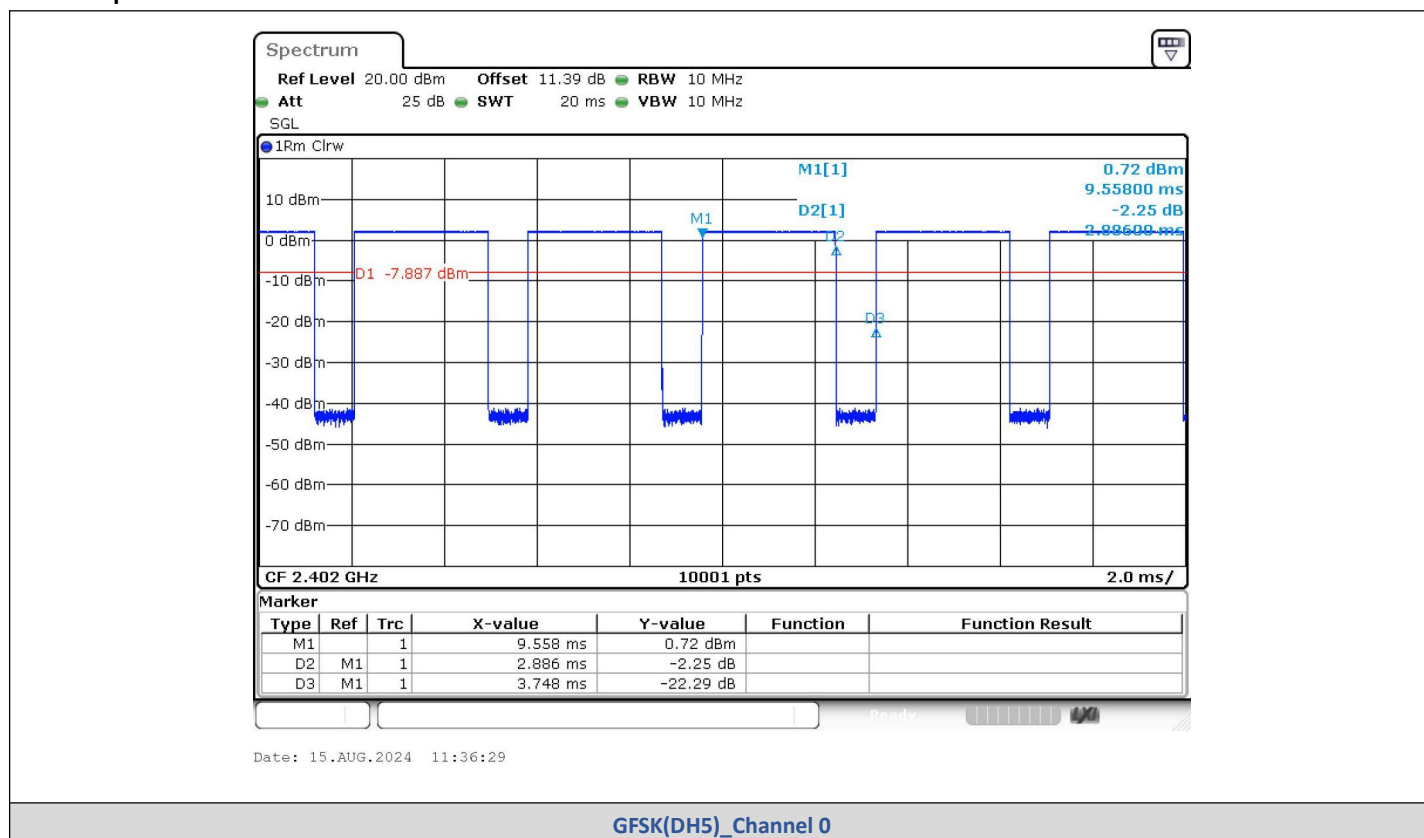
Report No.:	CISRR240813087
FCC ID:	2AQN2-V10S
Product Name:	Motorcycle Bluetooth intercom
Model No.:	V10S
Test Engineer:	Jimmy Huang
Supervised by:	Rory Huang

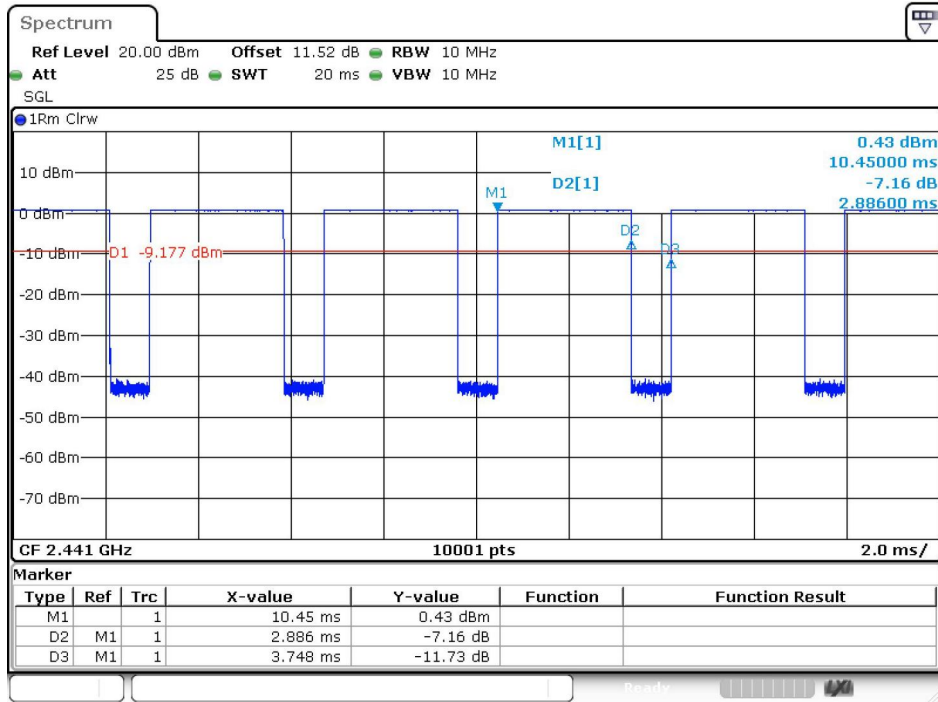
1) Duty Cycle

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	2.894	3.748	77.21	0.7721	1.1233	0.35

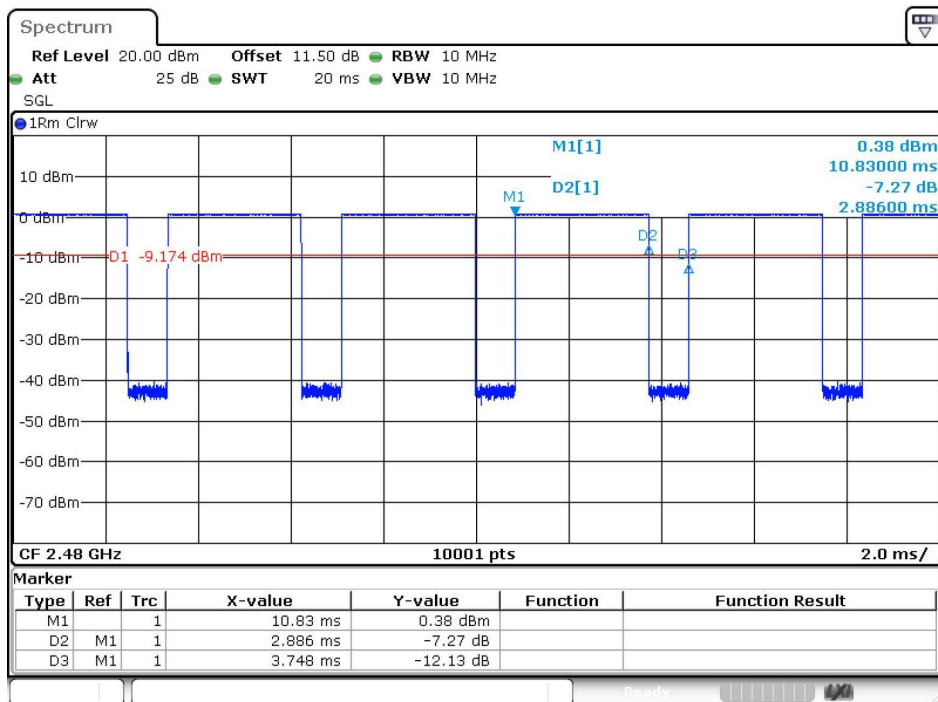
Test Graphs





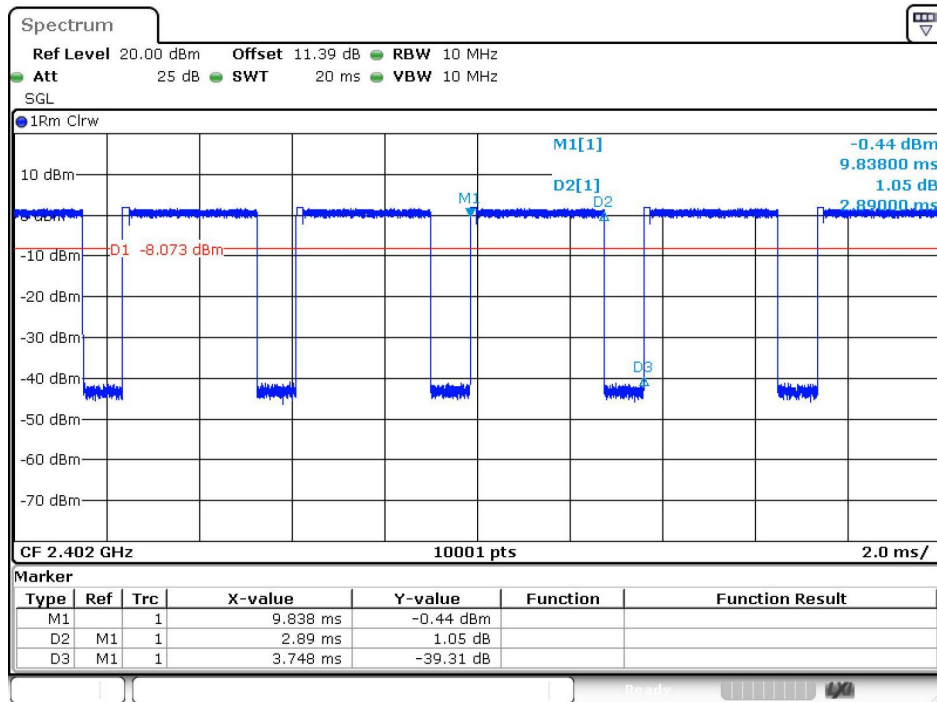
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GFSK(DH5)_Channel 39



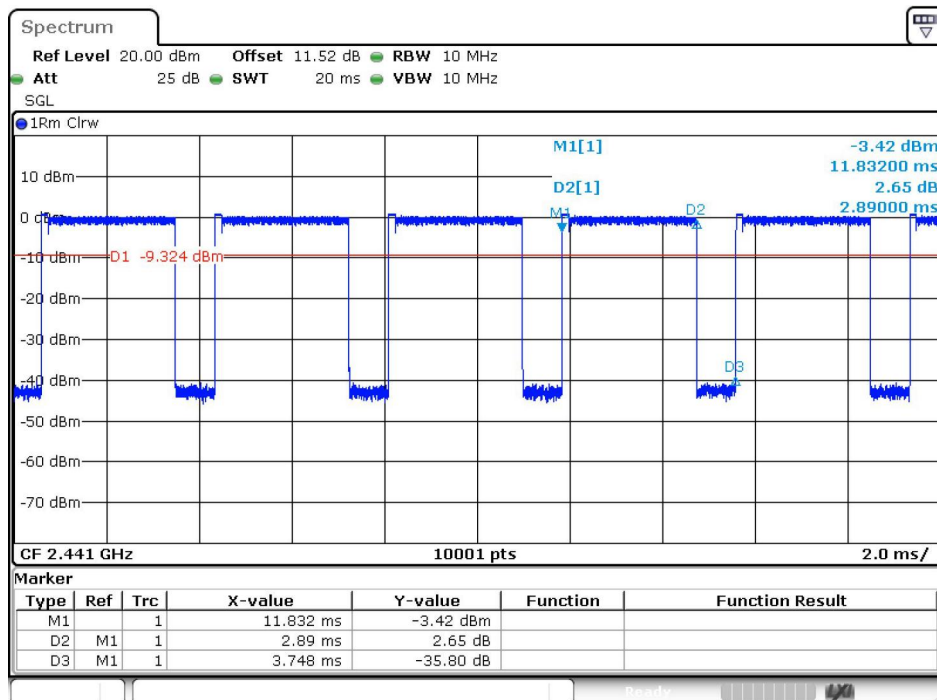
Date: 15.AUG.2024 11:54:20

GFSK(DH5)_Channel 78



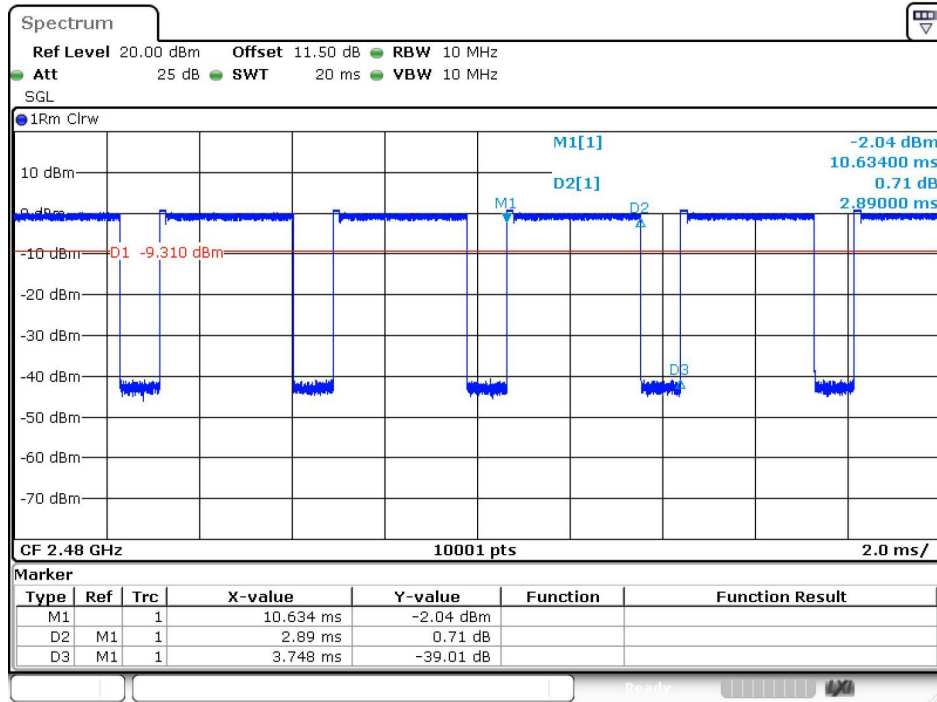
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$\pi/4$ QPSK(2-DH5)_Channel 0



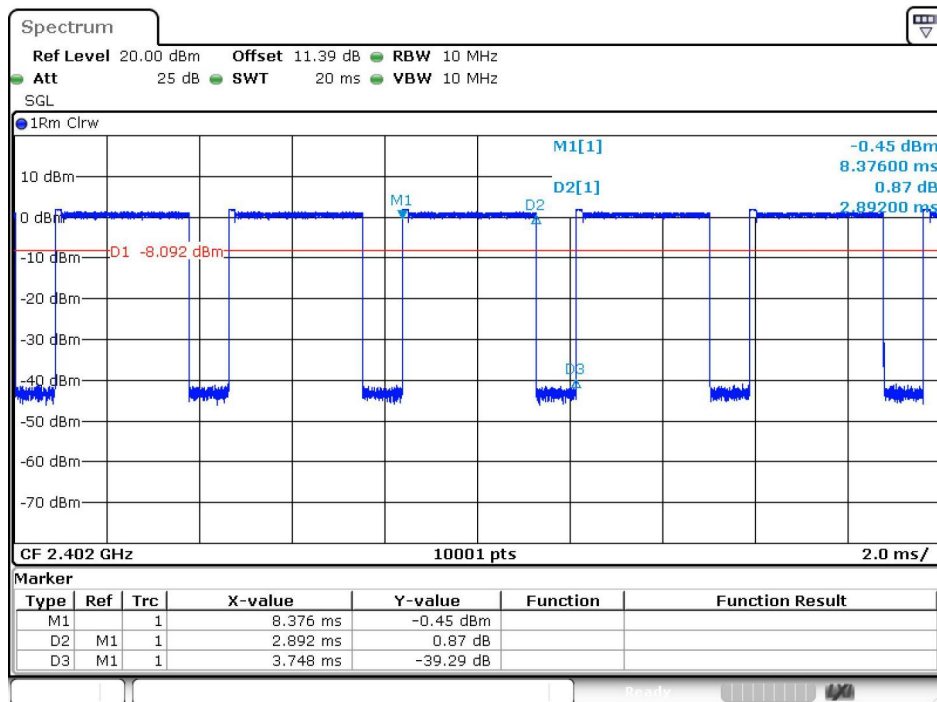
Date: 15.AUG.2024 14:09:26

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



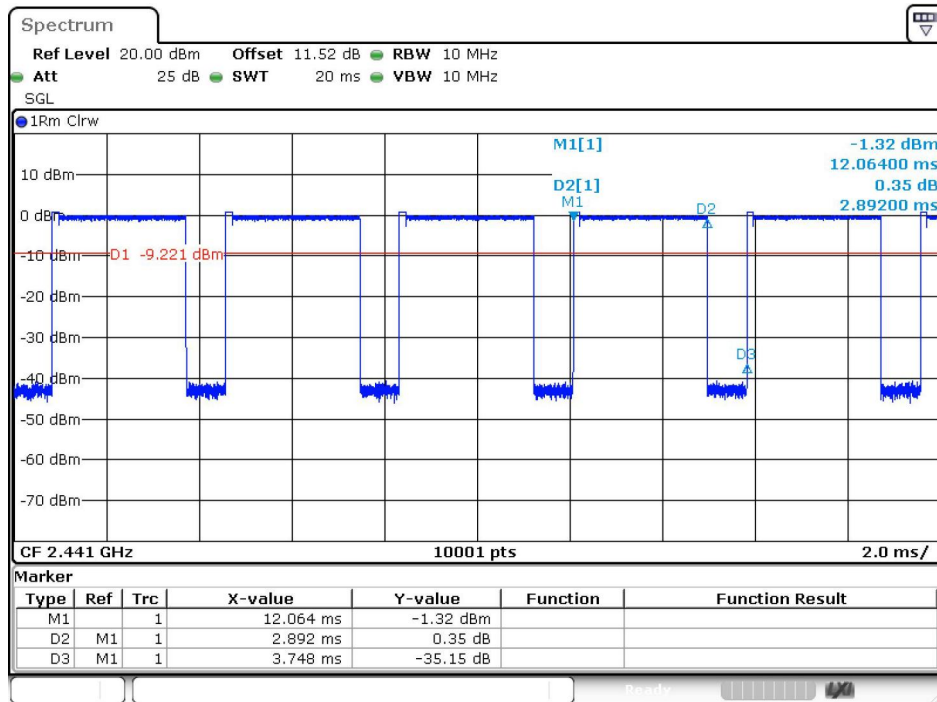
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$\pi/4$ DQPSK(2-DH5)_Channel 78



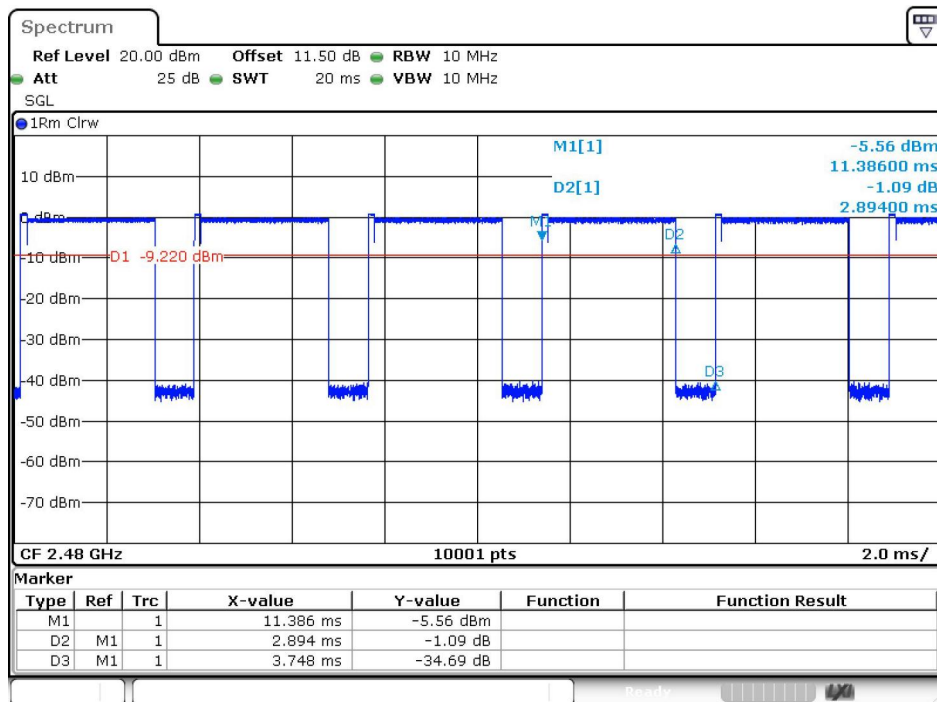
Date: 15.AUG.2024 14:31:17

8DPSK(3-DH5)_Channel 0



Date: 15.AUG.2024 14:37:38

8DPSK(3-DH5)_Channel 39



Date: 15.AUG.2024 14:39:58

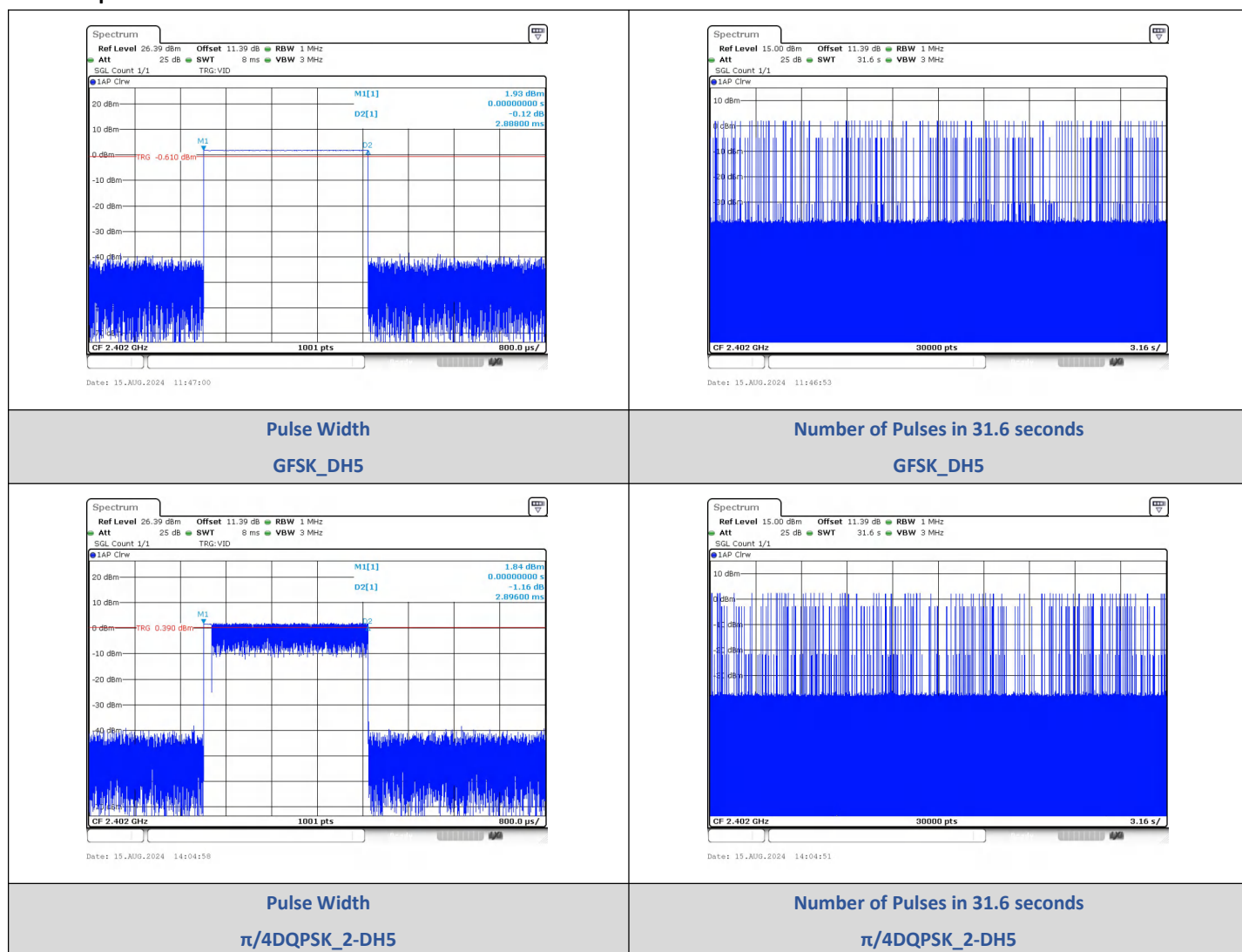
8DPSK(3-DH5)_Channel 78

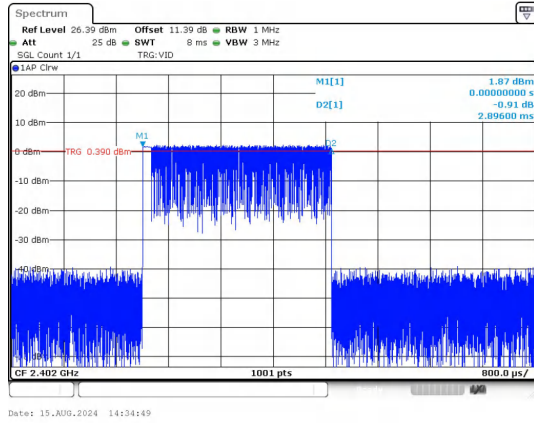
2) Dwell Time

Test Result

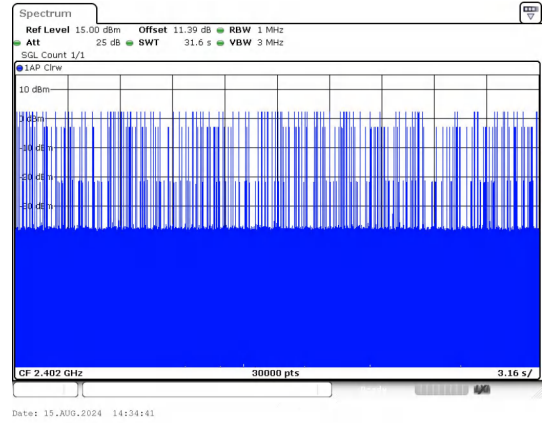
Modulation	Packet	Channel	Pulse Width (ms)	Number of Pulses in 31.6 seconds	Dwell Time (ms)	Limit (ms)	Result
GFSK	DH5	CH0 (2402MHz)	2.888	101	291.69	< 400	PASS
$\pi/4$ DQPSK	2-DH5		2.896	98	283.81		PASS
8DPSK	3-DH5		2.896	108	312.77		PASS

Test Graphs





Pulse Width
8DPSK_3-DH5



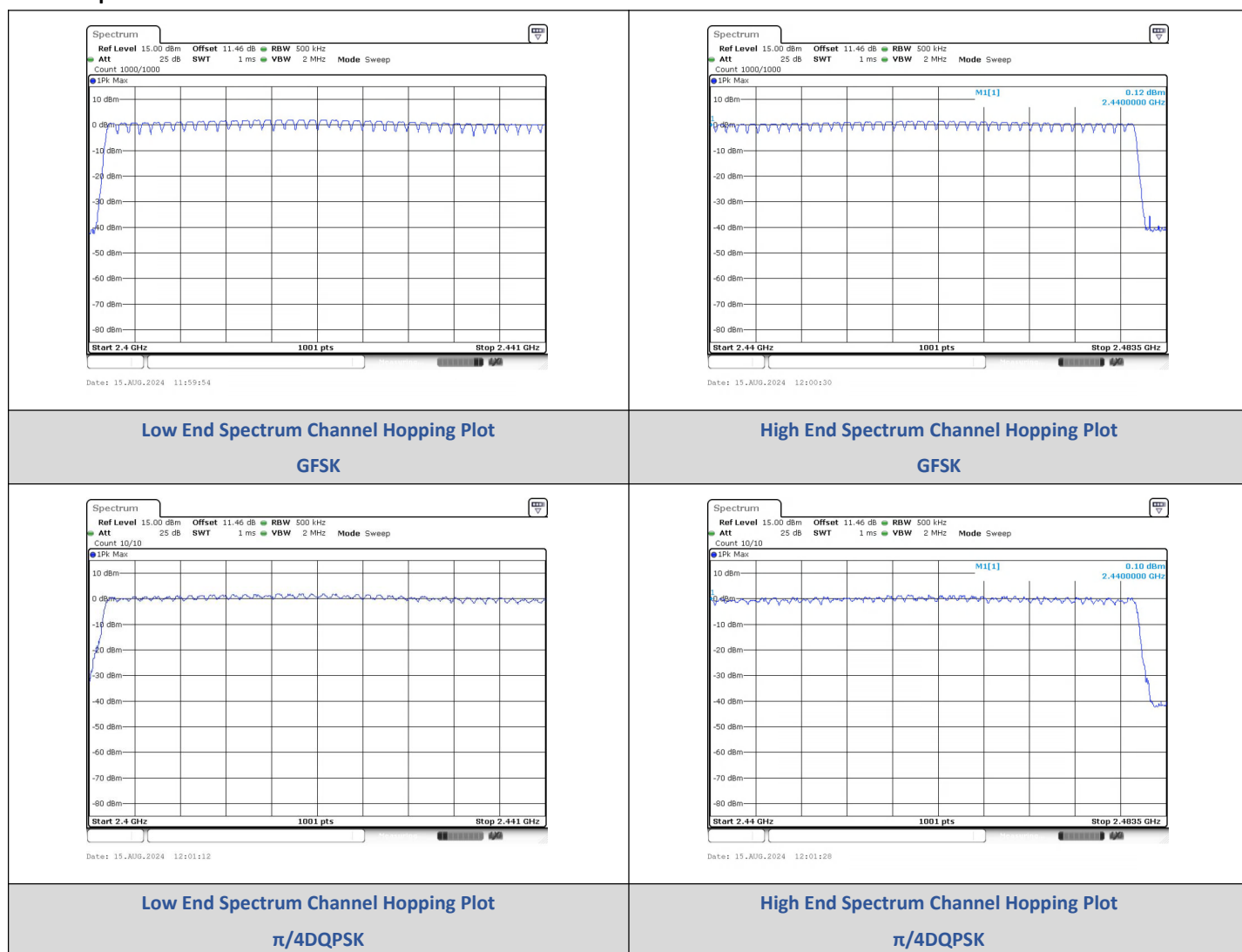
Number of Pulses in 31.6 seconds
8DPSK_3-DH5

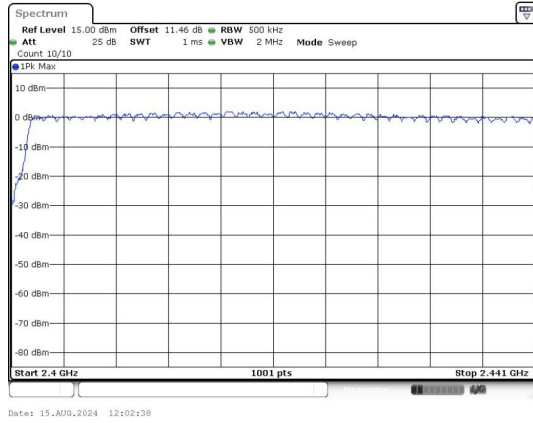
3) Number Of Hopping Channel

Test Result

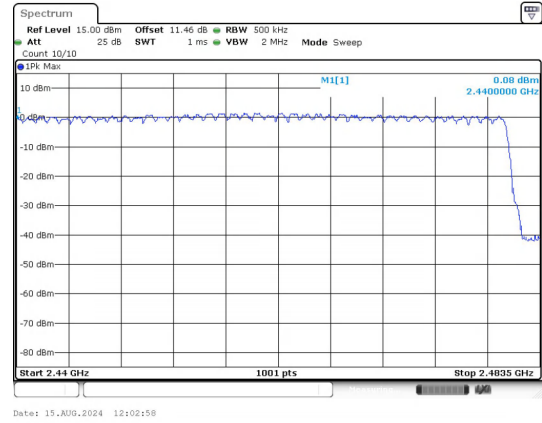
Modulation	Packet	Number of Hopping Channel	Limit	Result
GFSK	DH5	79	15	PASS
$\pi/4$ DQPSK	2-DH5	79	15	PASS
8DPSK	3-DH5	79	15	PASS

Test Graphs





Low End Spectrum Channel Hopping Plot
8DPSK



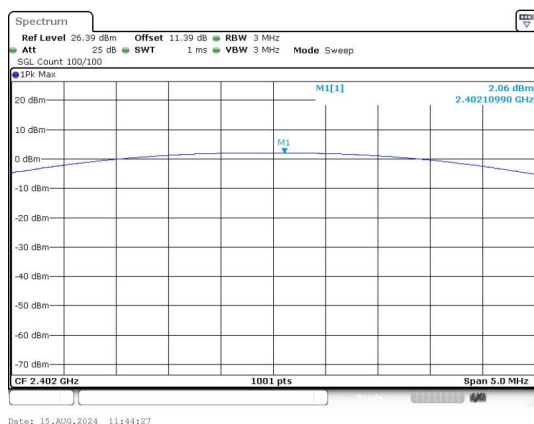
High End Spectrum Channel Hopping Plot
8DPSK

4) Conducted Peak Output Power

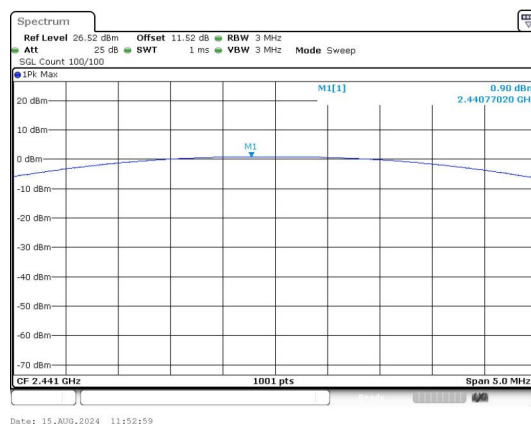
Test Result

Modulation	Packet Type	Channel	Peak Output Power (dBm)	Peak Output Power (mW)	Limit (dBm)	Result
GFSK	DH5	0	2.06	1.61	≤30	PASS
		39	0.90	1.23		PASS
		78	0.85	1.22		PASS
$\pi/4$ DQPSK	2-DH5	0	2.57	1.81	≤20.97	PASS
		39	1.38	1.38		PASS
		78	1.48	1.41		PASS
8DPSK	3-DH5	0	2.73	1.88		PASS
		39	1.66	1.47		PASS
		78	1.79	1.51		PASS

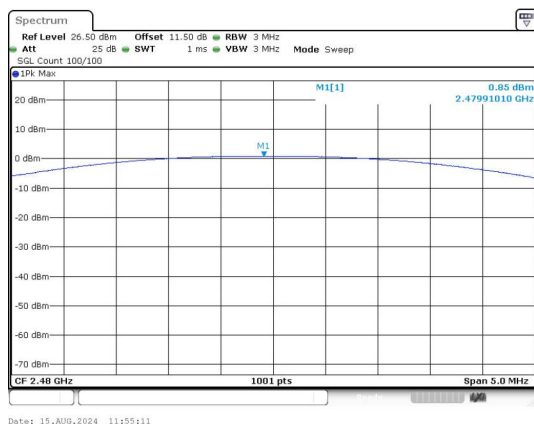
Test Graphs



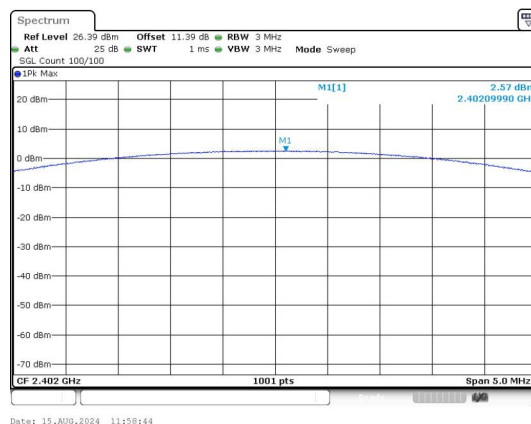
Peak Output Power
GFSK_Channel 0



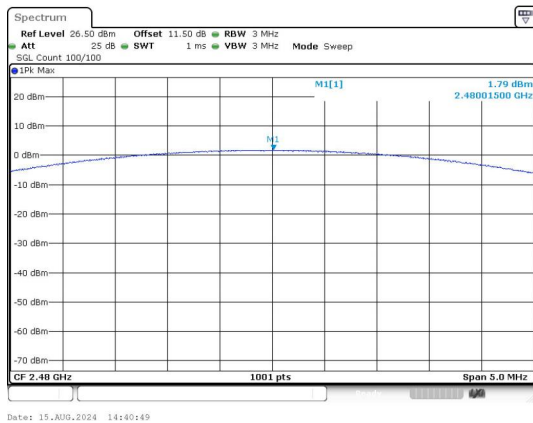
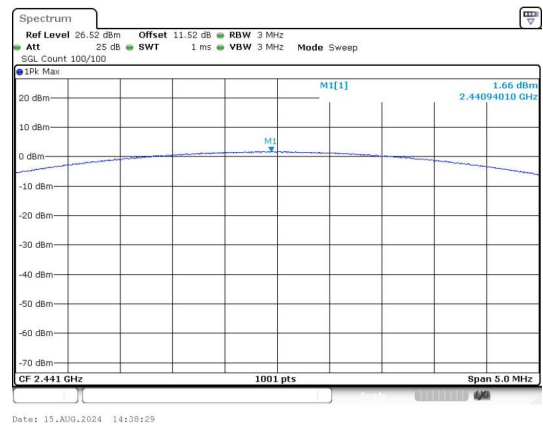
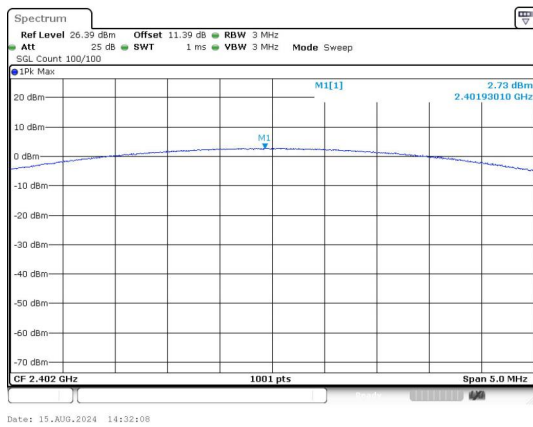
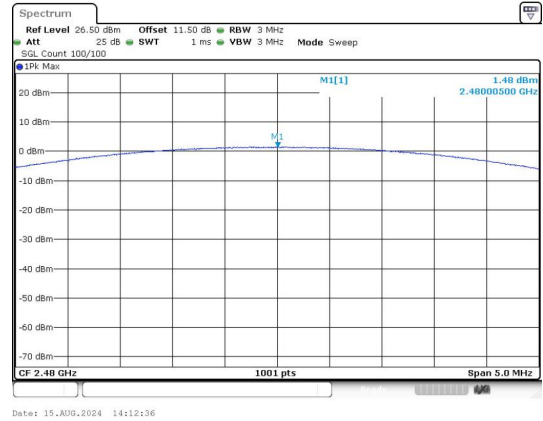
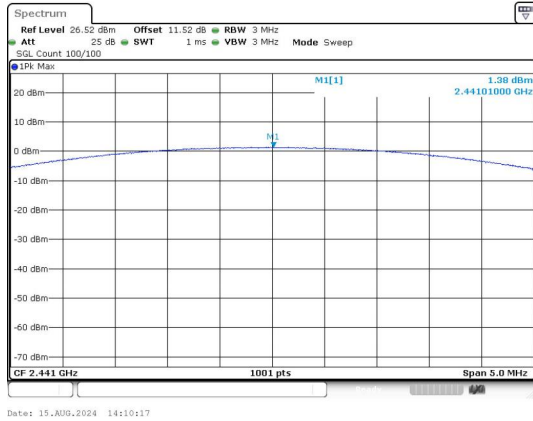
Peak Output Power
GFSK_Channel 39



Peak Output Power
GFSK_Channel 78



Peak Output Power
 $\pi/4$ DQPSK_Channel 0

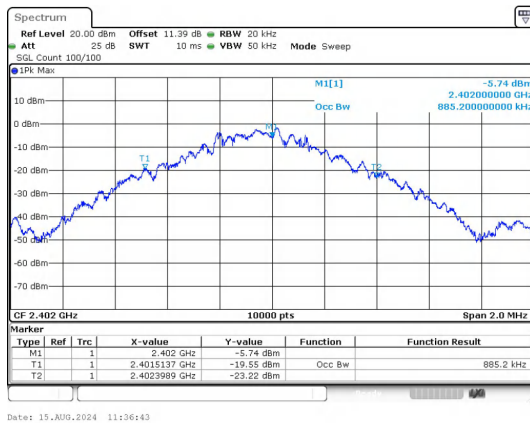


5) 99% Bandwidth

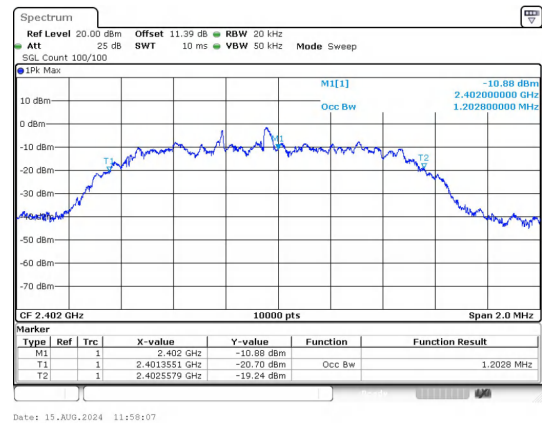
Test Result

Modulation	Channel	Center Frequency (MHz)	99% BW (MHz)
GFSK	0	2402	0.88520
	39	2441	0.90540
	78	2480	0.88260
$\pi/4$ DQPSK	0	2402	1.2028
	39	2441	1.2130
	78	2480	1.1974
8DPSK	0	2402	1.2148
	39	2441	1.2158
	78	2480	1.2098

Test Graphs

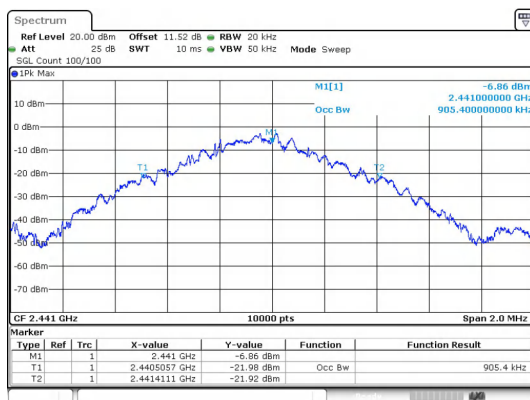


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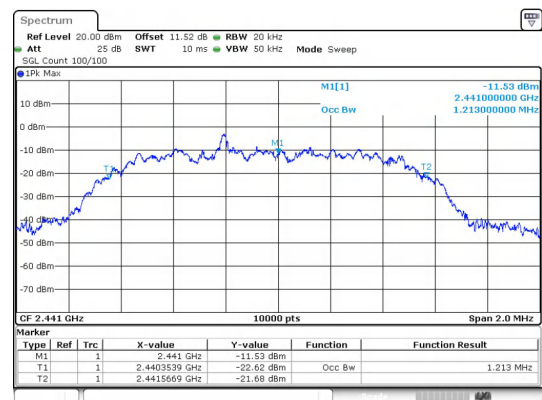


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GFSK_DH5_Channel 0

 $\pi/4$ DQPSK_2-DH5_Channel 0


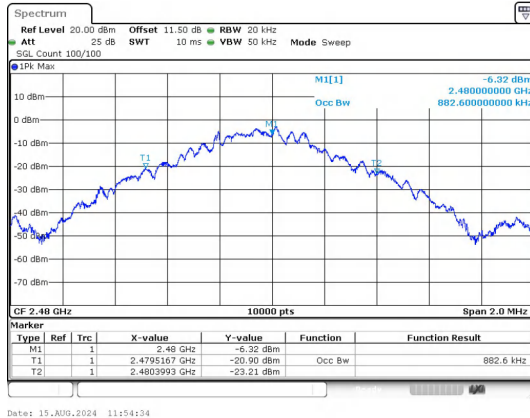
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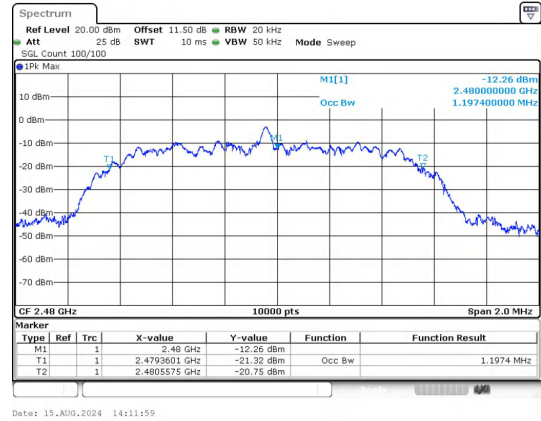
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GFSK_DH5_Channel 39

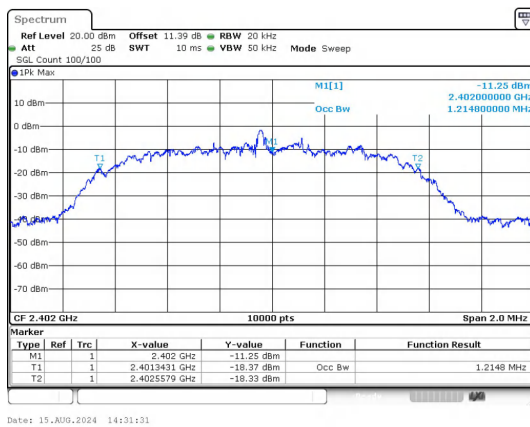
 $\pi/4$ DQPSK_2-DH5_Channel 39



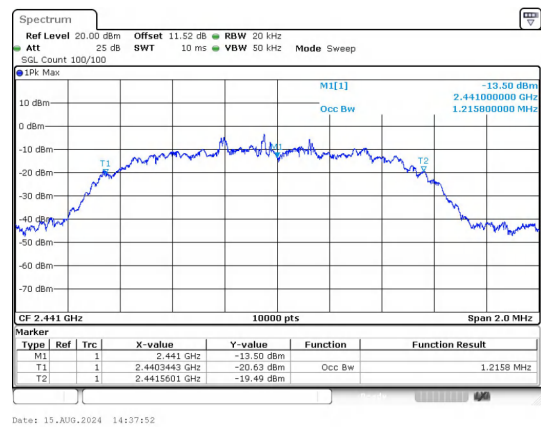
GFSK_DH5_Channel 78



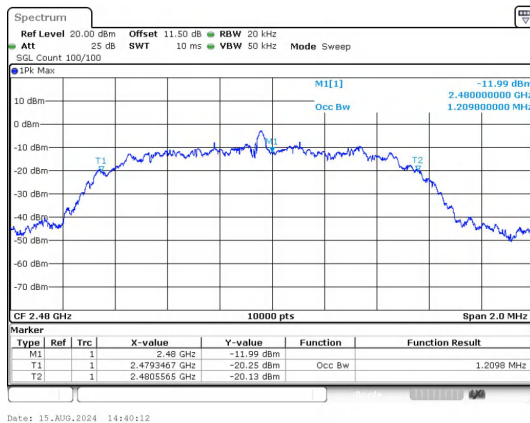
$\pi/4$ DQPSK_2-DH5_Channel 78



8DPSK_3-DH5_Channel 0



8DPSK_3-DH5_Channel 39



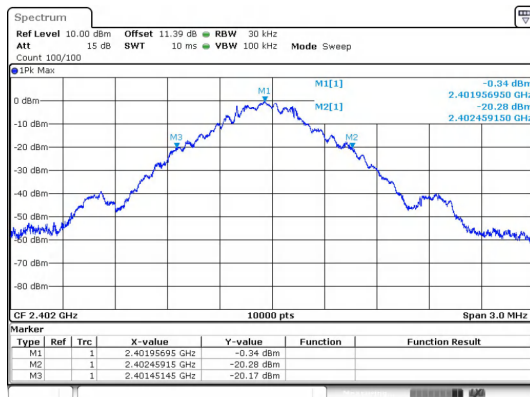
8DPSK_3-DH5_Channel 78

6) 20dB Bandwidth

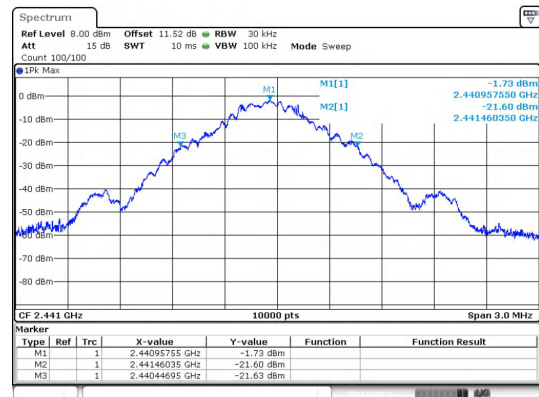
Test Result

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

Test Graphs



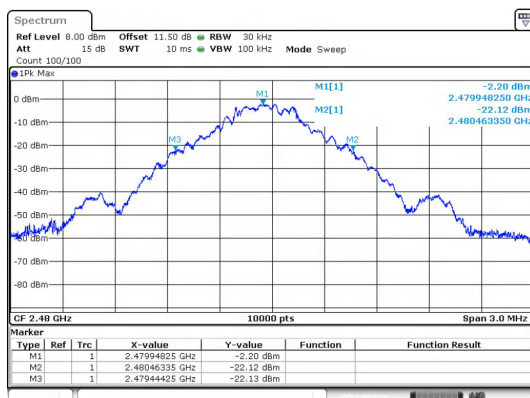
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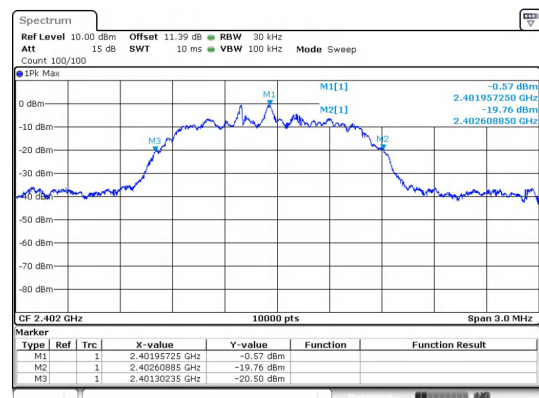
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GFSK_DH5_Channel 0

GFSK_DH5_Channel 39



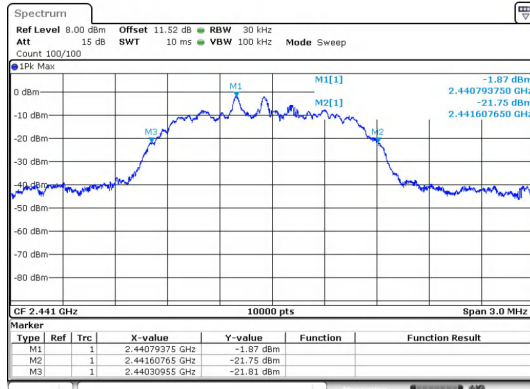
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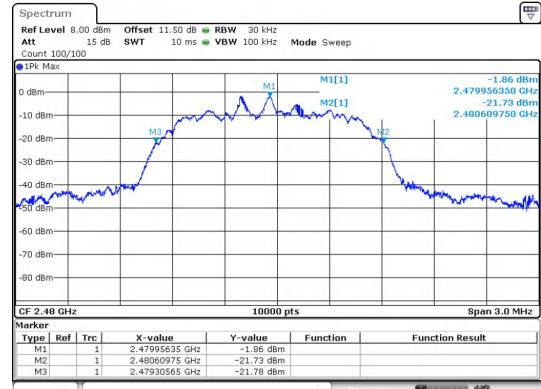
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GFSK_DH5_Channel 78

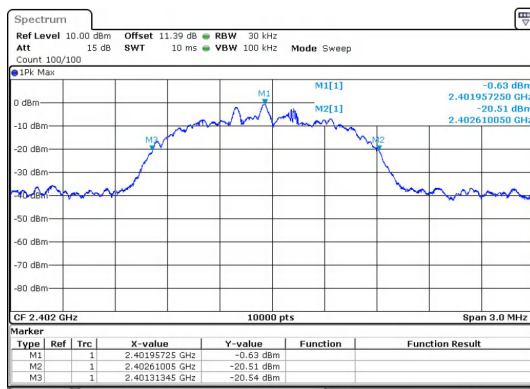
 $\pi/4$ DQPSK_2-DH5_Channel 0



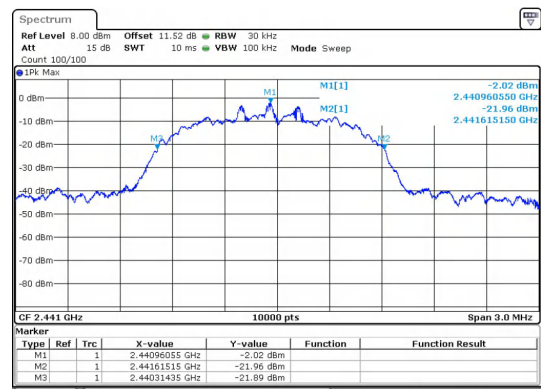
$\pi/4$ DQPSK_2-DH5_Channel 39



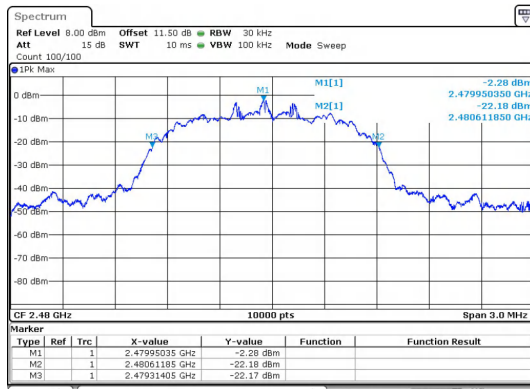
$\pi/4$ DQPSK_2-DH5_Channel 78



8DPSK_3-DH5_Channel 0



8DPSK_3-DH5_Channel 39



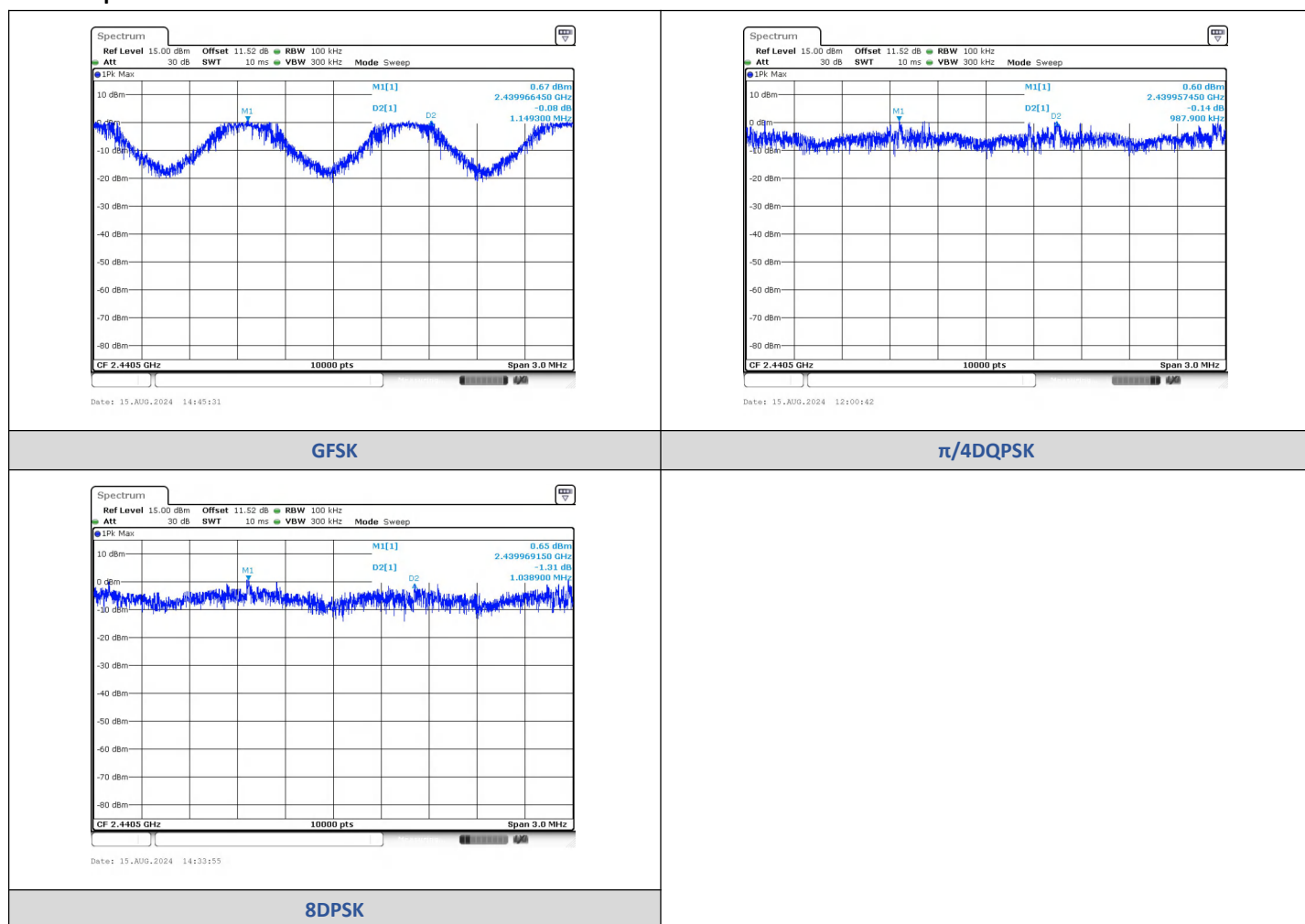
8DPSK_3-DH5_Channel 78

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	2439.9664	2441.1157	1.1493	1.020	PASS
$\pi/4$ DQPSK	2-DH5	2439.9574	2440.9453	0.9879	0.873	PASS
8DPSK	3-DH5	2439.9691	2441.008	1.0389	0.867	PASS

Test Graphs



8) Conducted Out Of Band Emission

Test Result

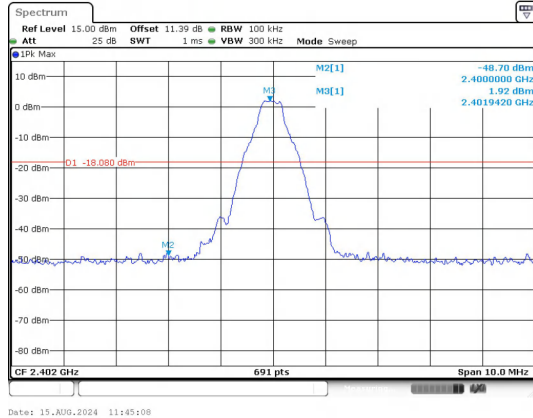
Non-Hopping

Modulation	Packet	Channel	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
GFSK	DH5	0	2400.00	-48.698	-18.08	-30.618	PASS
			7205.96	-39.981	-18.08	-21.901	PASS
		39	7322.49	-46.178	-19.28	-26.898	PASS
		78	2287.70	-44.832	-19.34	-25.492	PASS
			2483.50	-50.074	-19.34	-30.734	PASS
$\pi/4$ DQPSK	2-DH5	0	2400.00	-47.040	-18.23	-28.810	PASS
			7205.96	-42.881	-18.23	-24.651	PASS
		39	7322.49	-47.594	-19.48	-28.114	PASS
		78	2483.50	-51.385	-19.48	-31.905	PASS
			9920.20	-47.564	-19.48	-28.084	PASS
8DPSK	3-DH5	0	2397.02	-48.901	-18.17	-30.731	PASS
			2400.00	-50.041	-18.17	-31.871	PASS
			7206.00	-44.908	-18.17	-26.738	PASS
		39	7322.49	-48.539	-19.66	-28.879	PASS
		78	2287.70	-47.511	-19.45	-28.061	PASS
			2483.50	-50.542	-19.45	-31.092	PASS

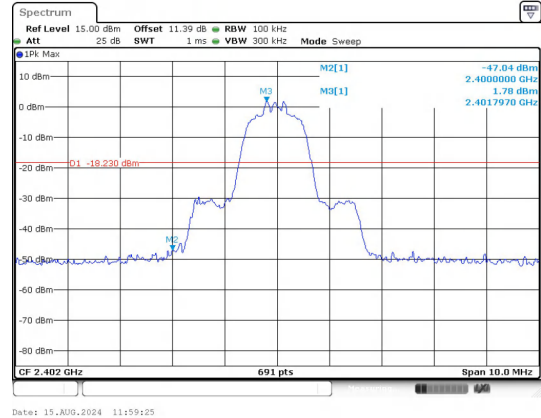
Hopping

Modulation	Packet	Channel	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
GFSK	DH5	Hopping	2398.91	-48.419	-18.13	-30.289	PASS
			2400.00	-49.922	-18.13	-31.792	PASS
			2483.50	-49.957	-19.25	-30.707	PASS
$\pi/4$ DQPSK	2-DH5		2395.25	-48.374	-18.45	-29.924	PASS
			2400.00	-50.094	-18.45	-31.644	PASS
			2483.50	-50.497	-19.48	-31.017	PASS
8DPSK	3-DH5		2395.28	-48.480	-18.9	-29.580	PASS
			2400.00	-49.825	-18.9	-30.925	PASS
			2483.50	-49.933	-19.82	-30.113	PASS

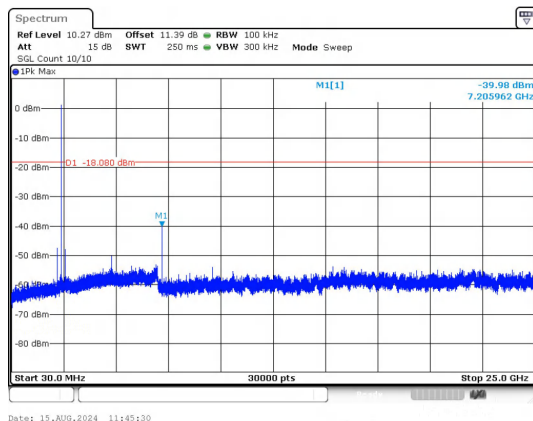
Test Graphs



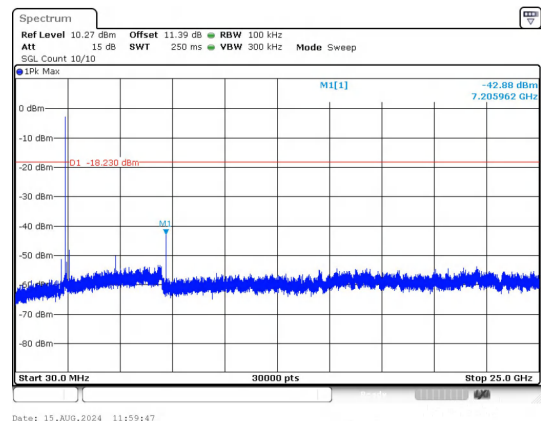
Out Of Band Emission
GFSK_DH5_Channel 0



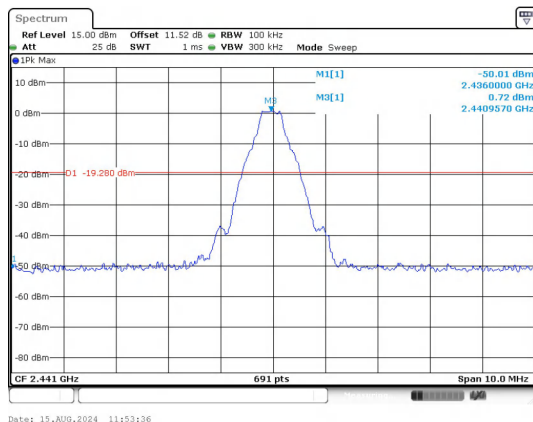
Out Of Band Emission
 $\pi/4$ DQPSK_2-DH5_Channel 0



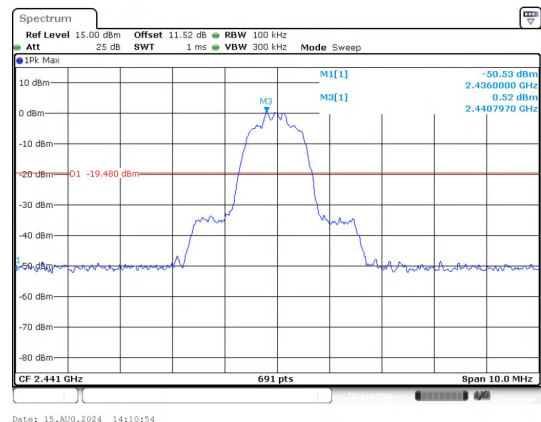
30.0 MHz - 25000.0 MHz
GFSK_DH5_Channel 0



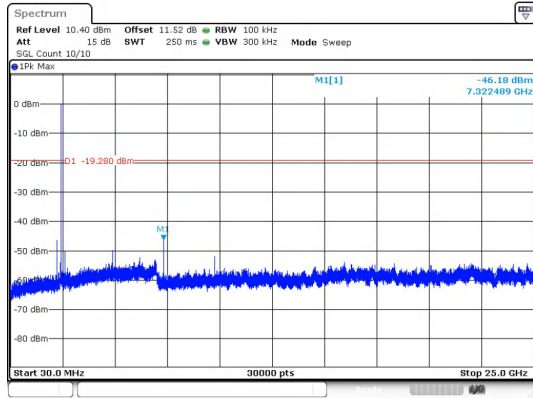
30.0 MHz - 25000.0 MHz
 $\pi/4$ DQPSK_2-DH5_Channel 0



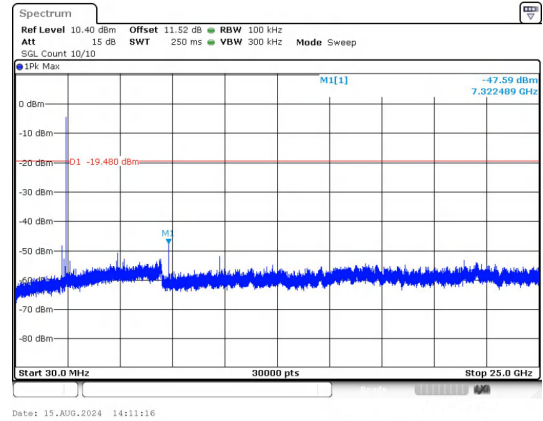
Out Of Band Emission
GFSK_DH5_Channel 39



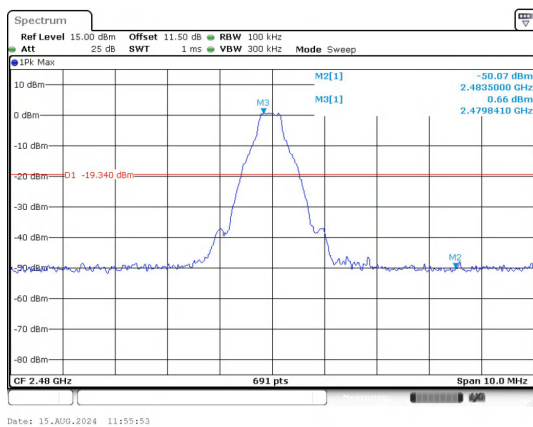
Out Of Band Emission
 $\pi/4$ DQPSK_2-DH5_Channel 39



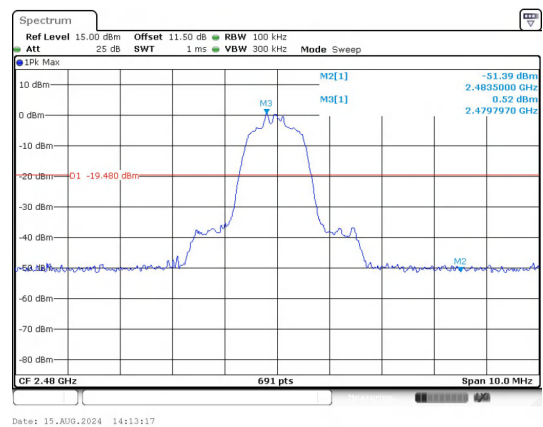
30.0 MHz - 25000.0 MHz
GFSK_DH5_Channel 39



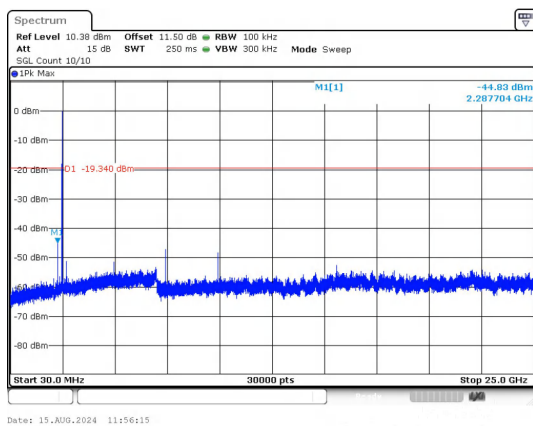
30.0 MHz - 25000.0 MHz
 $\pi/4$ DQPSK_2-DH5_Channel 39



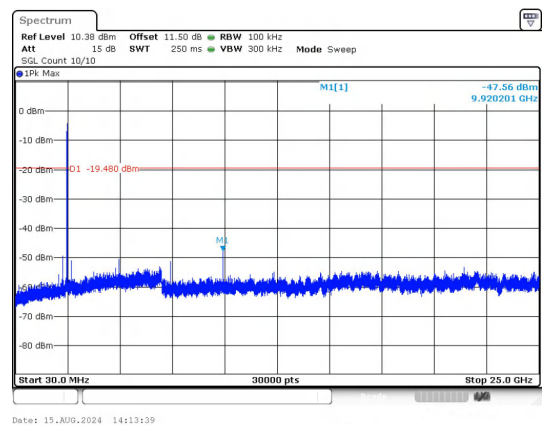
Out Of Band Emission
GFSK_DH5_Channel 78



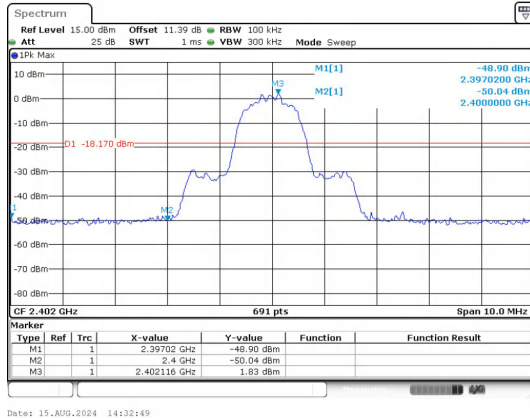
Out Of Band Emission
 $\pi/4$ DQPSK_2-DH5_Channel 78



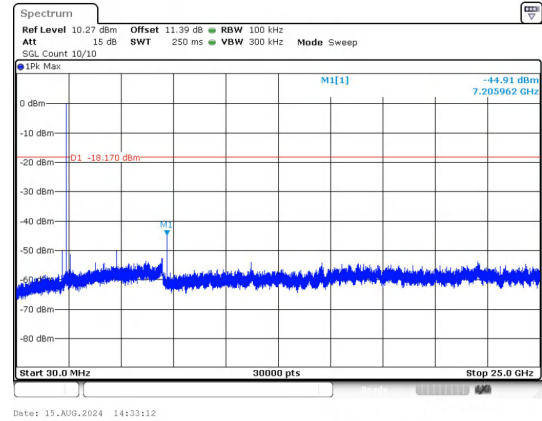
30.0 MHz - 25000.0 MHz
GFSK_DH5_Channel 78



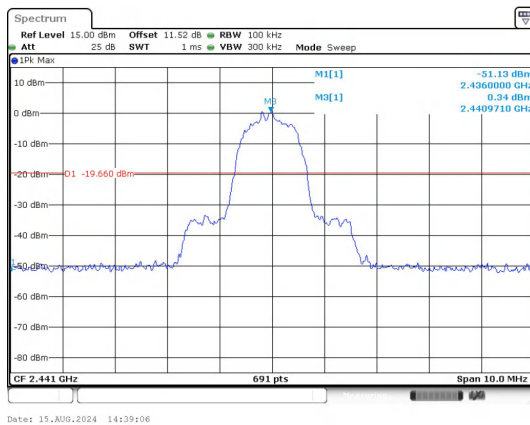
30.0 MHz - 25000.0 MHz
 $\pi/4$ DQPSK_2-DH5_Channel 78



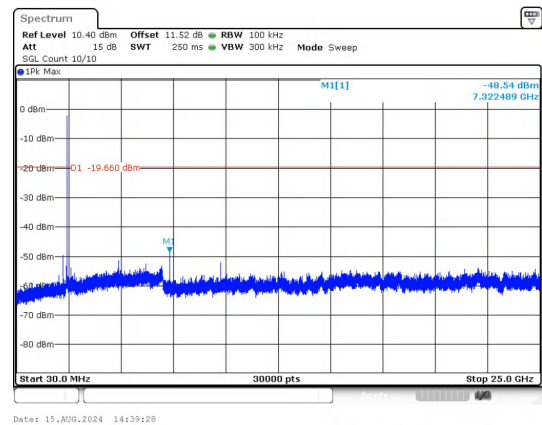
Out Of Band Emission
8DPSK_3-DH5_Channel 0



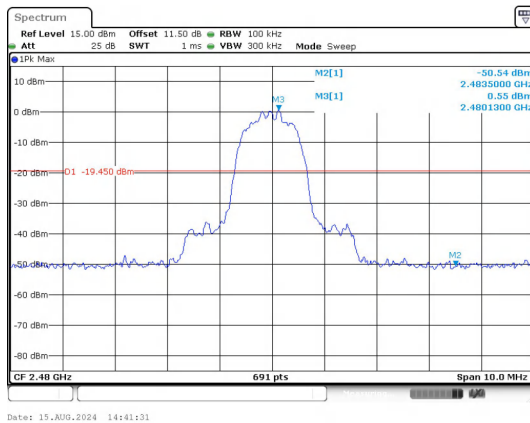
30.0 MHz - 25000.0 MHz
8DPSK_3-DH5_Channel 0



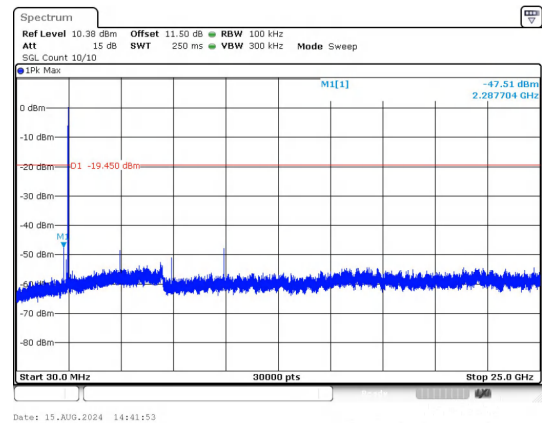
Out Of Band Emission
8DPSK_3-DH5_Channel 39



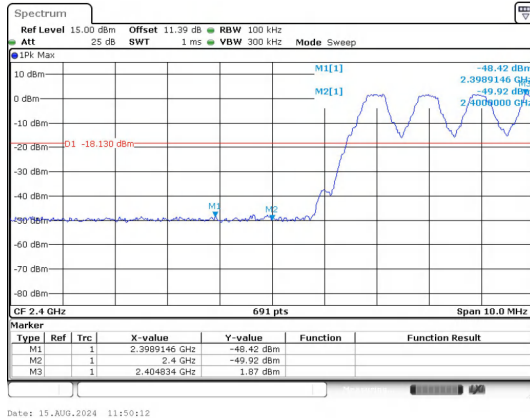
30.0 MHz - 25000.0 MHz
8DPSK_3-DH5_Channel 39



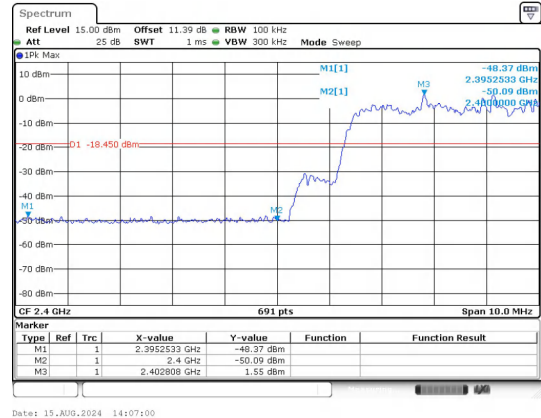
Out Of Band Emission
8DPSK_3-DH5_Channel 78



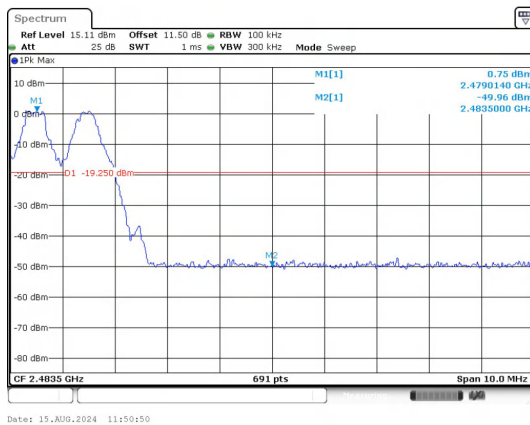
30.0 MHz - 25000.0 MHz
8DPSK_3-DH5_Channel 78



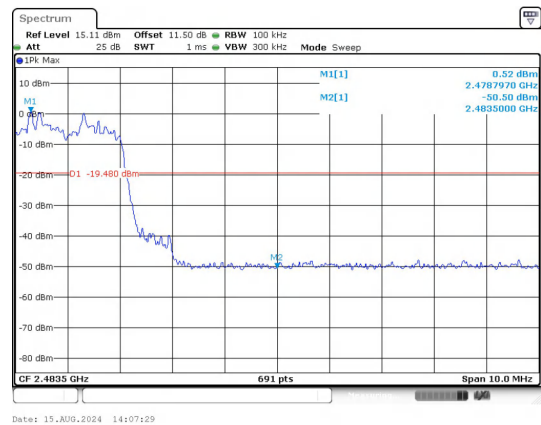
Out Of Band Emission(Left)
GFSK_DH5_Channel Hopping



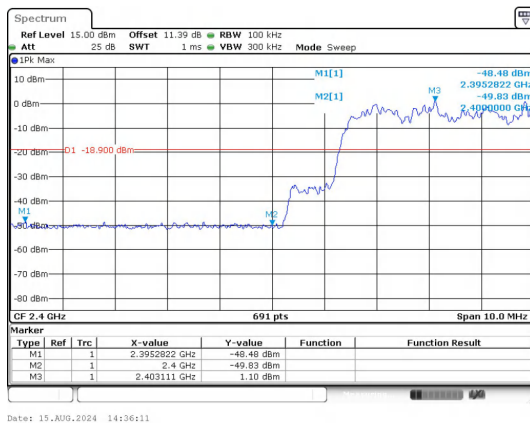
Out Of Band Emission(Left)
 $\pi/4$ DQPSK_2-DH5_Channel Hopping



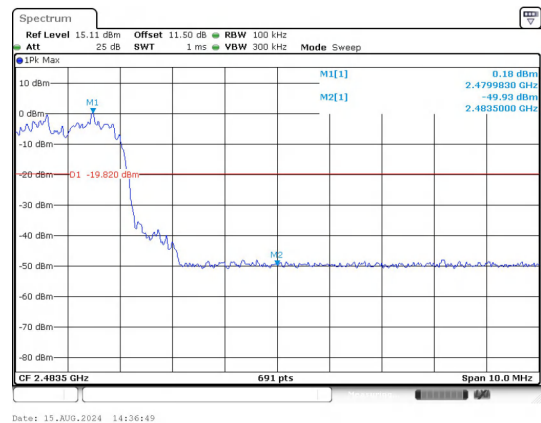
Out Of Band Emission(Right)
GFSK_DH5_Channel Hopping



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