

Appendix A

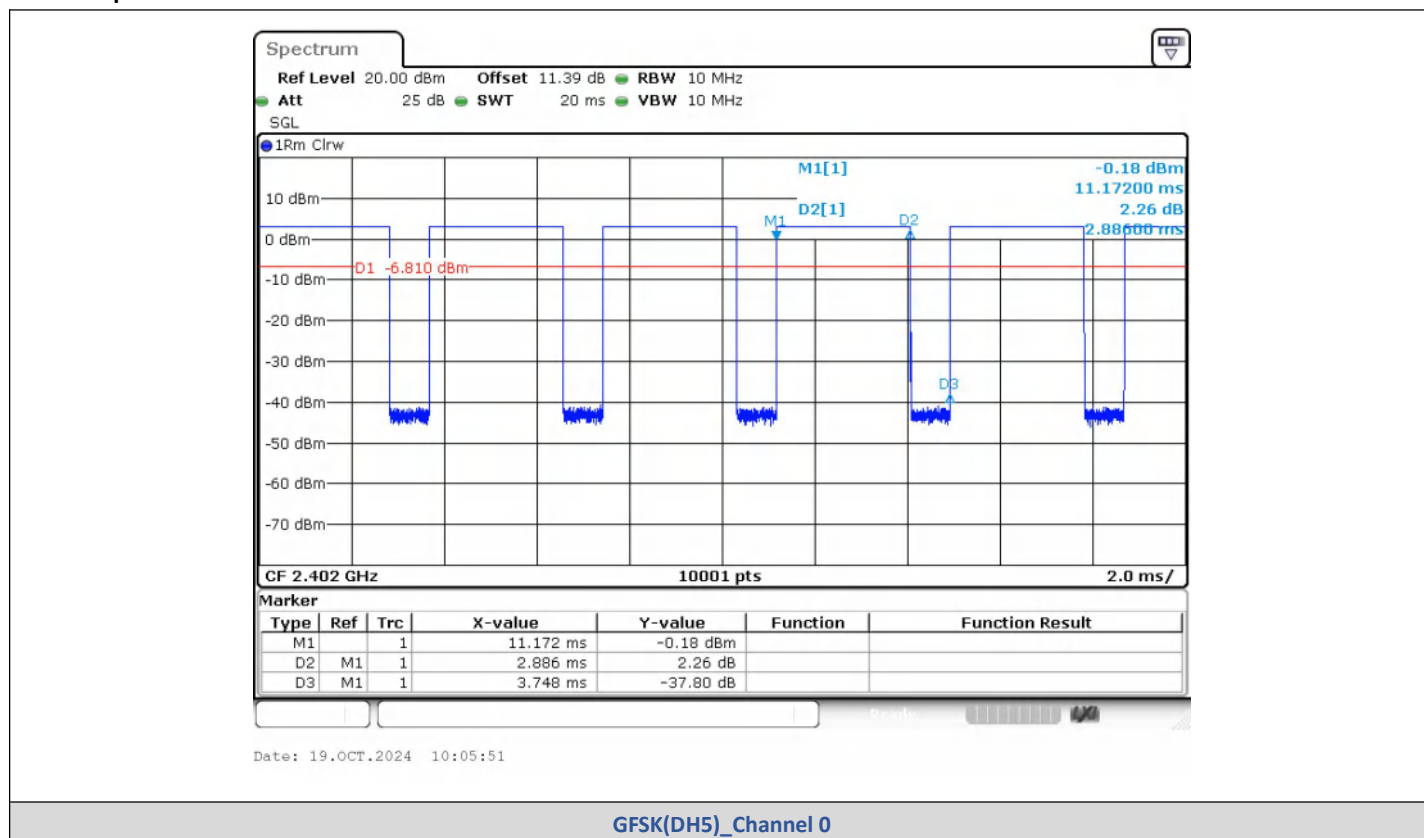
Report No.:	CISRR241014060
FCC ID:	2BLQK-A10PRO
Product Name:	Bluetooth headset
Model No.:	A10Pro
Test Engineer:	Mark Fu
Supervised by:	Rory Huang

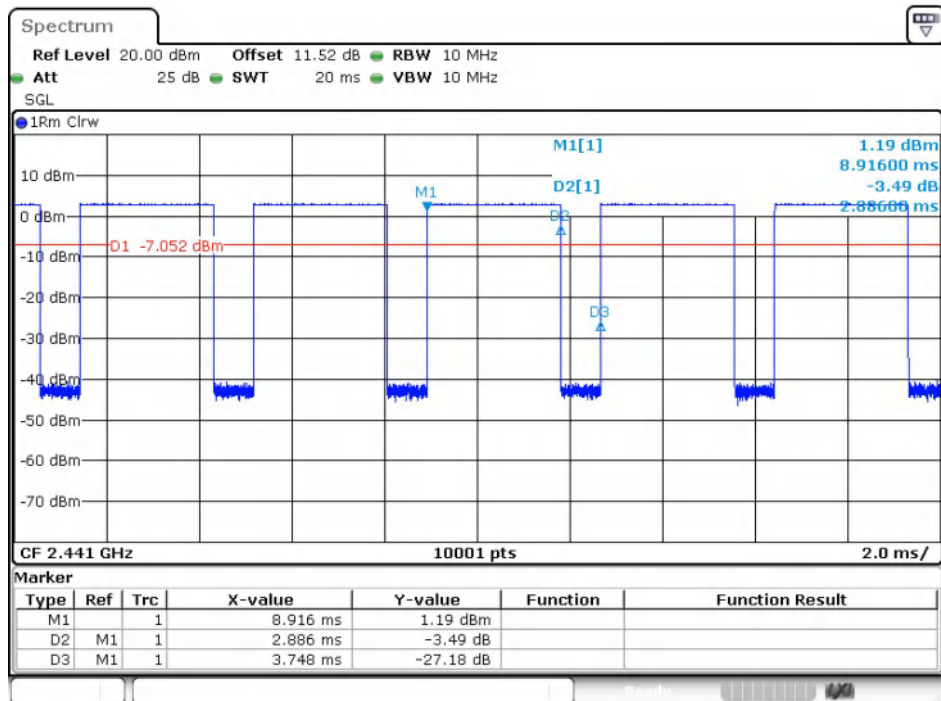
1) Duty Cycle

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

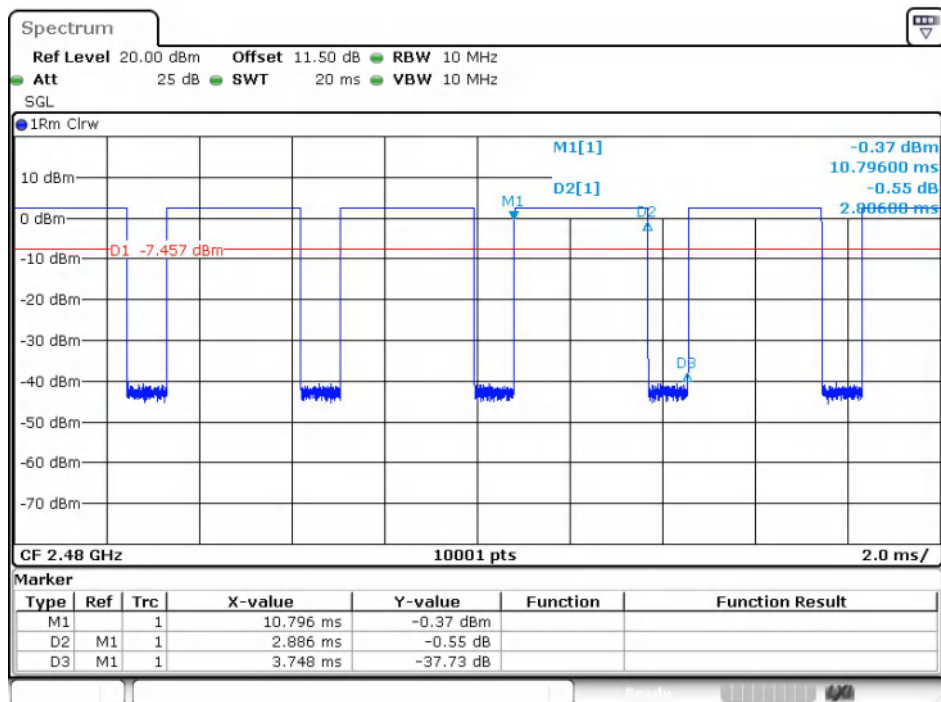
Test Graphs





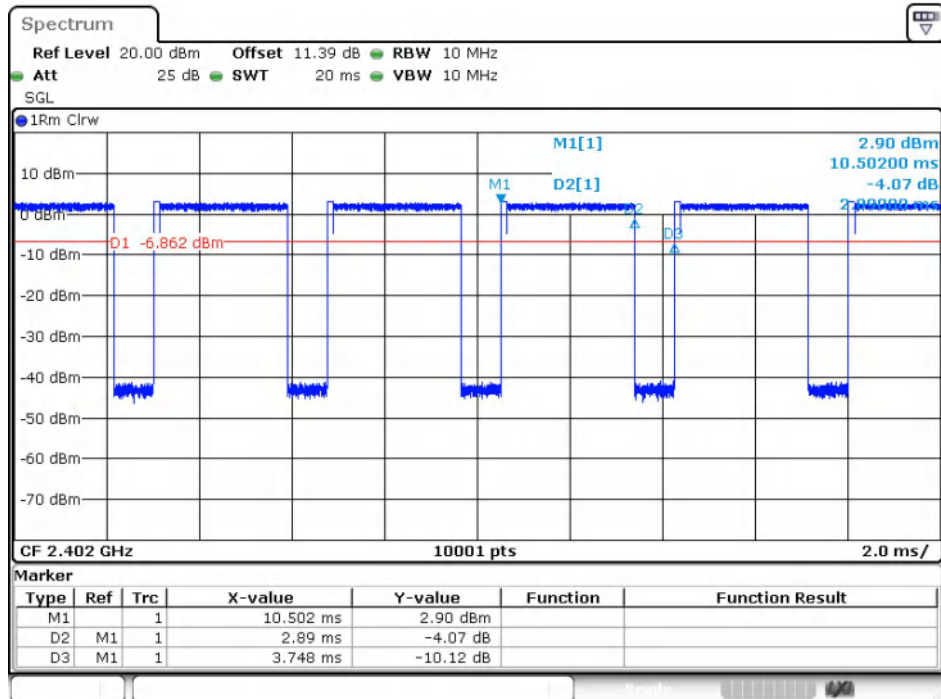
Date: 19.OCT.2024 10:20:05

GFSK(DH5)_Channel 39



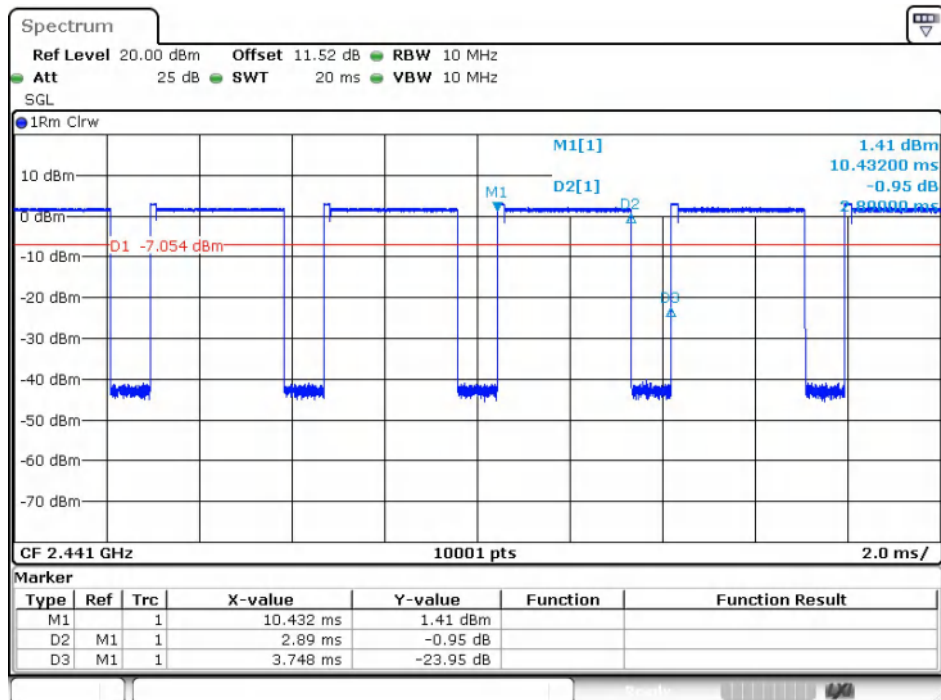
Date: 19.OCT.2024 10:22:29

GFSK(DH5)_Channel 78



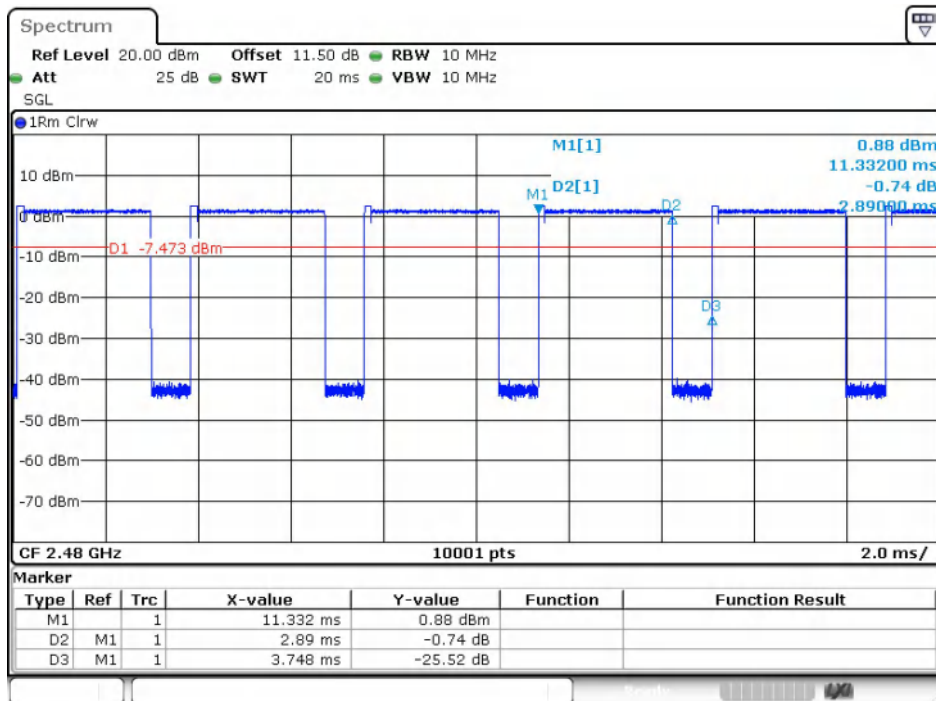
Date: 19.OCT.2024 10:25:02

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



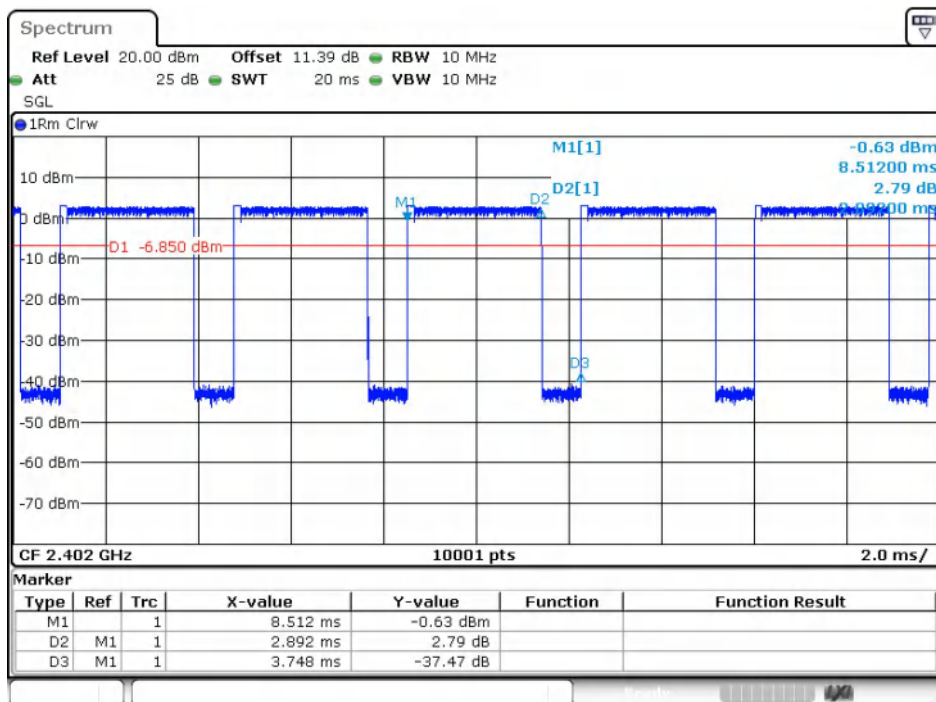
Date: 19.OCT.2024 10:34:21

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



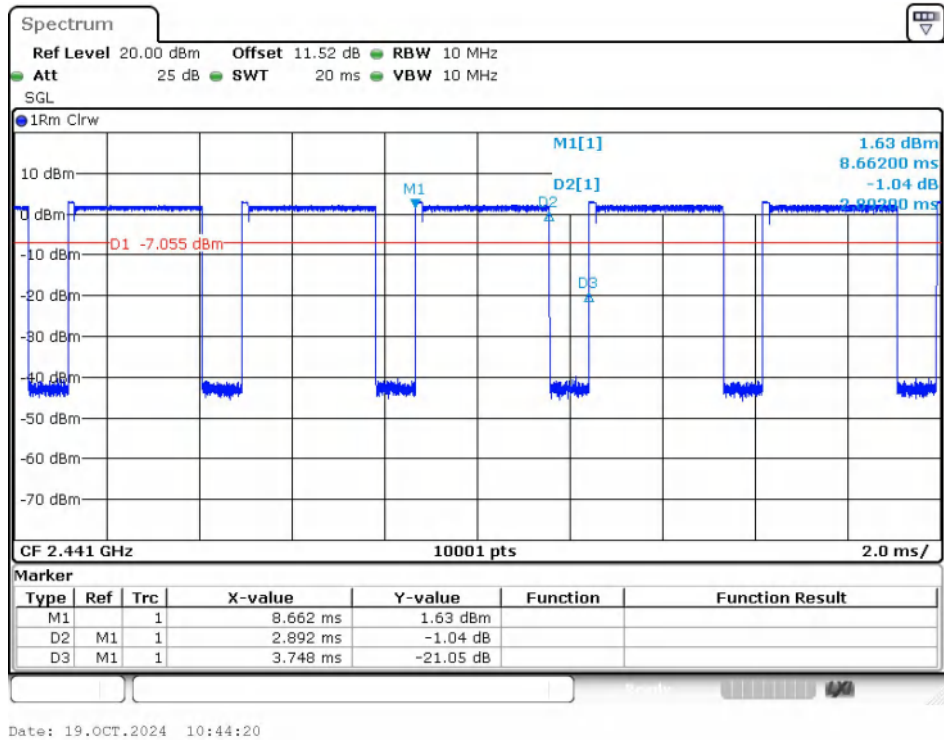
Date: 19.OCT.2024 10:36:06

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

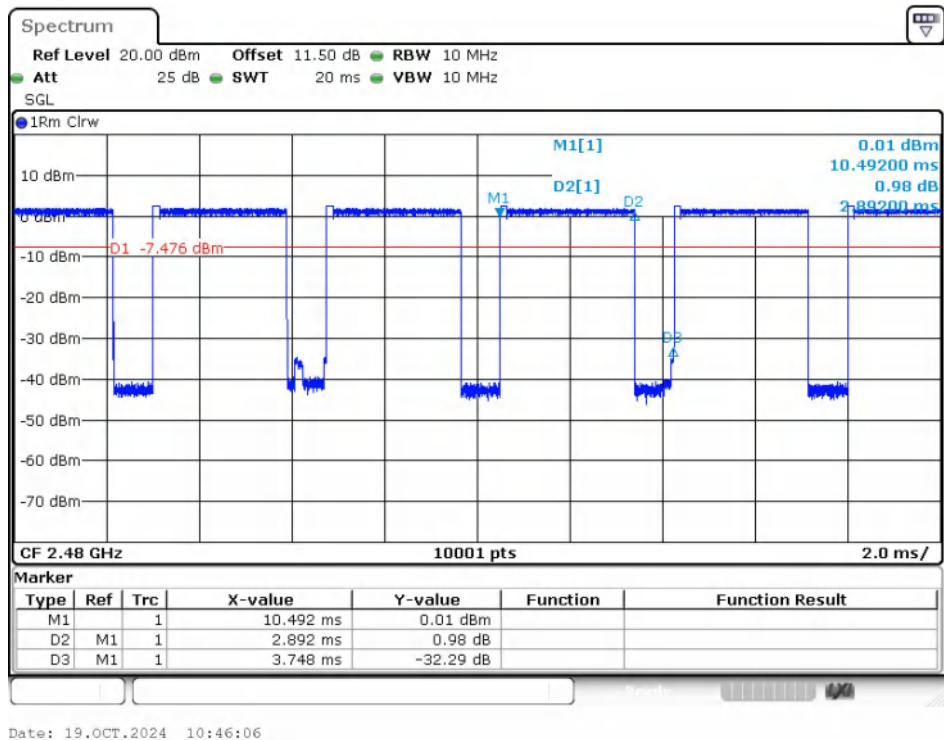


Date: 19.OCT.2024 10:38:02

8DPSK(3-DH5)_Channel 0



8DPSK(3-DH5)_Channel 39



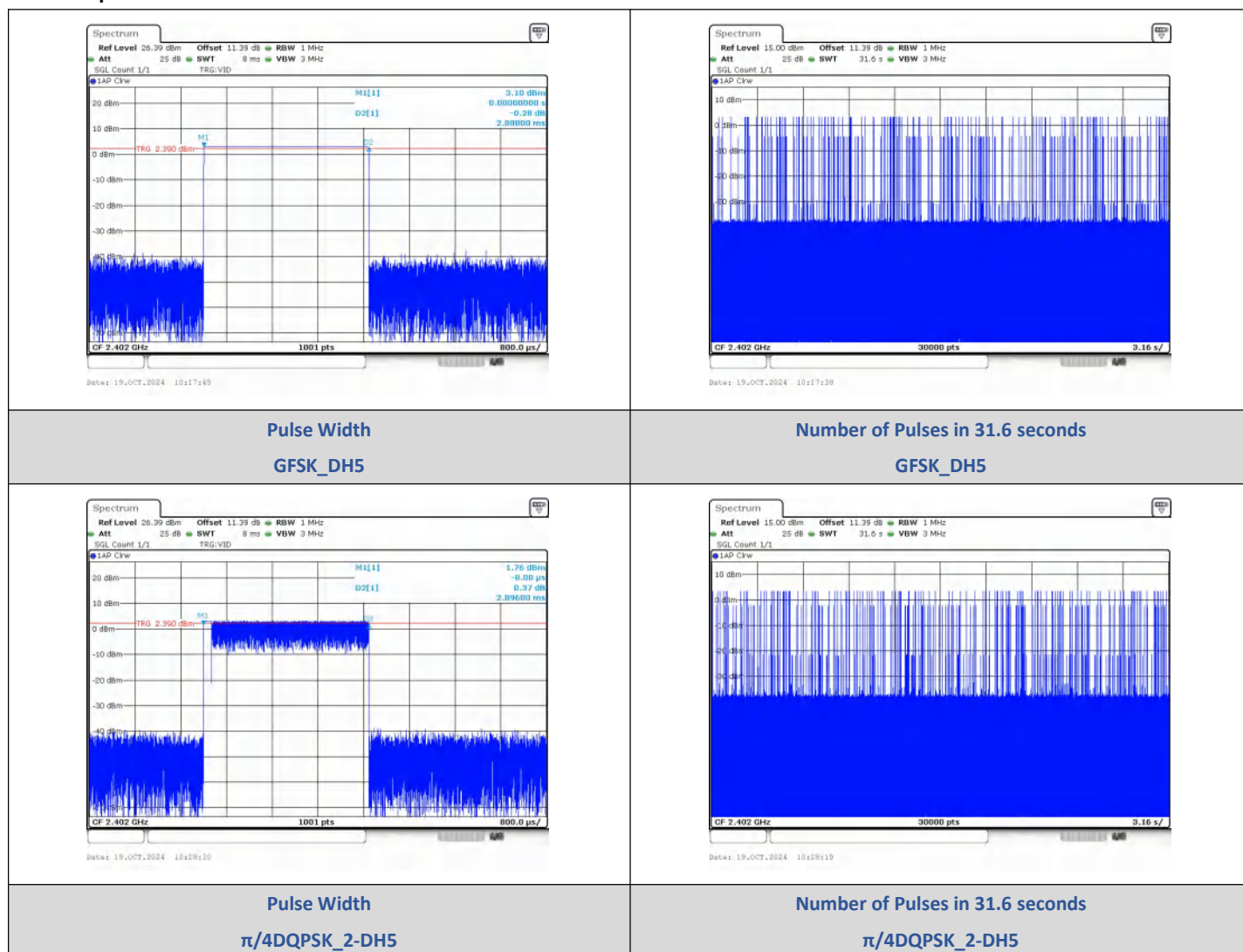
8DPSK(3-DH5)_Channel 78

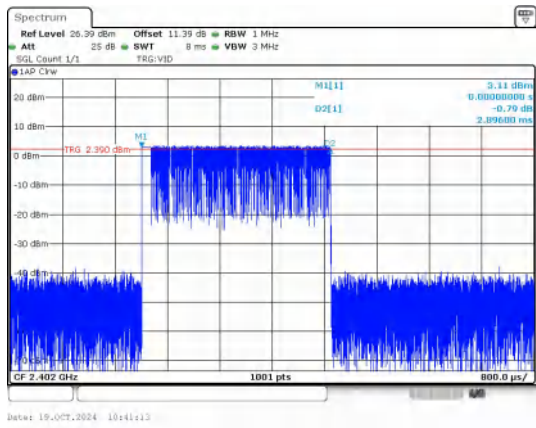
2) Dwell Time

Test Result

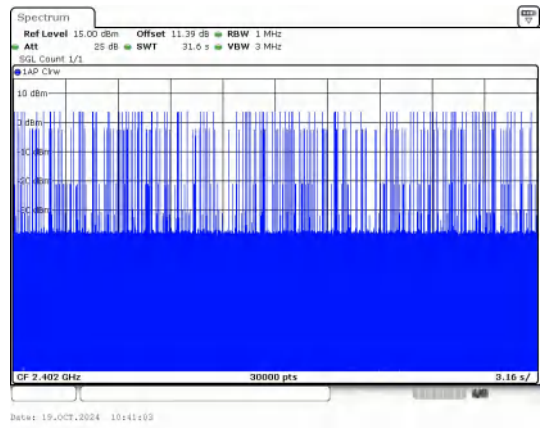
Modulation	Packet	Channel	Pulse Width (ms)	Number of Pulses in 31.6 seconds	Dwell Time (ms)	Limit (ms)	Result
GFSK	DH5	CH0 (2402MHz)	2.888	114	329.23	< 400	PASS
$\pi/4$ DQPSK	2-DH5		2.896	128	370.69		PASS
8DPSK	3-DH5		2.896	104	301.18		PASS

Test Graphs





Pulse Width
8DPSK_3-DH5



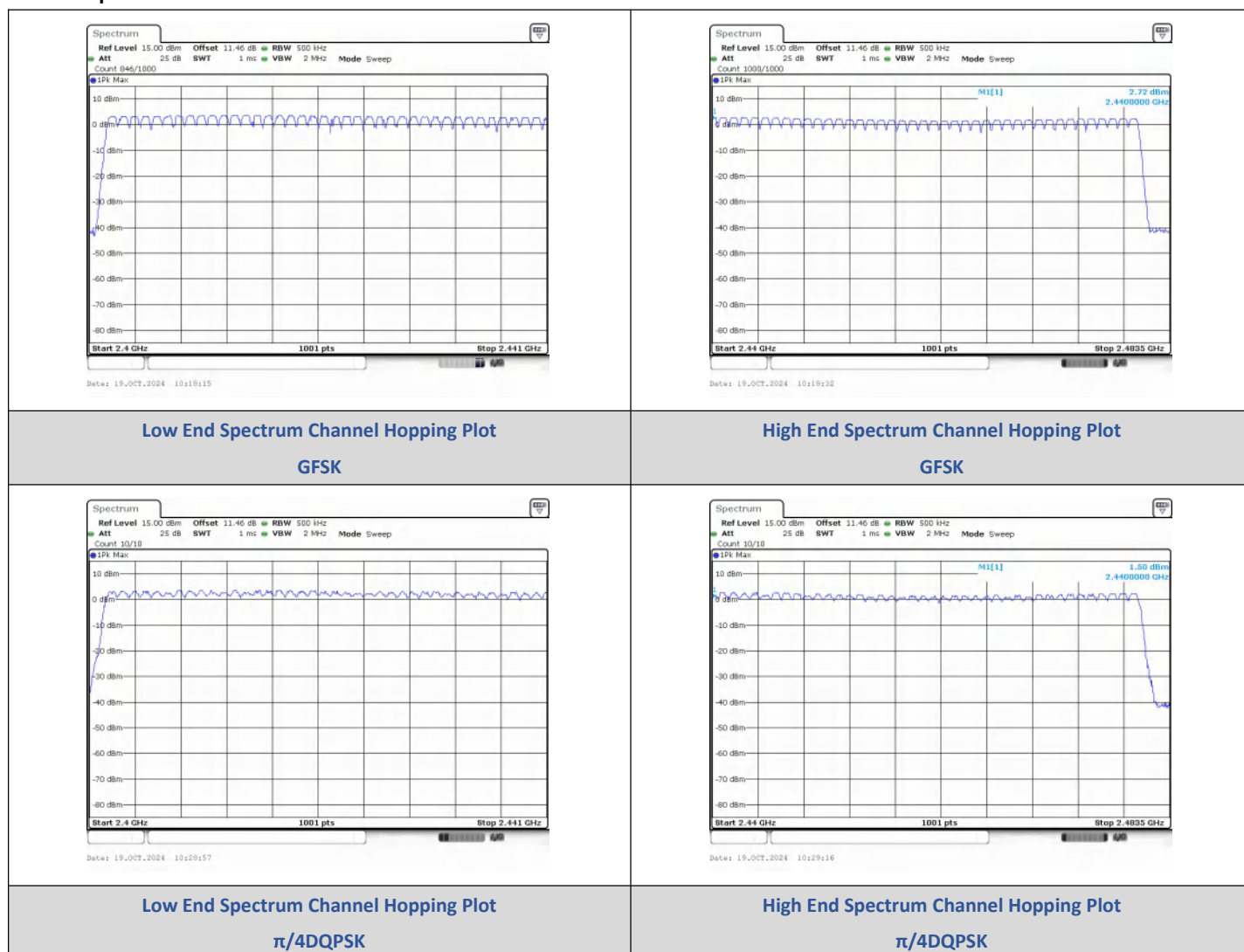
Number of Pulses in 31.6 seconds
8DPSK_3-DH5

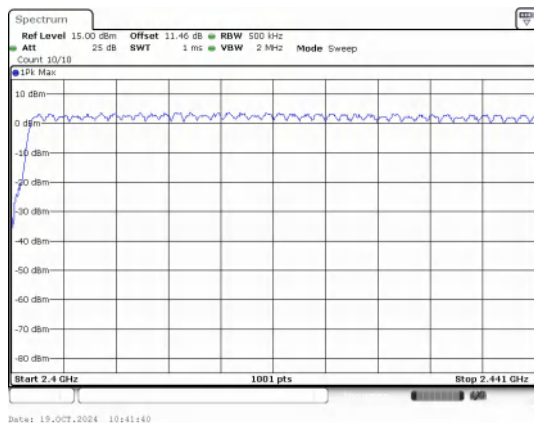
3) Number Of Hopping Channel

Test Result

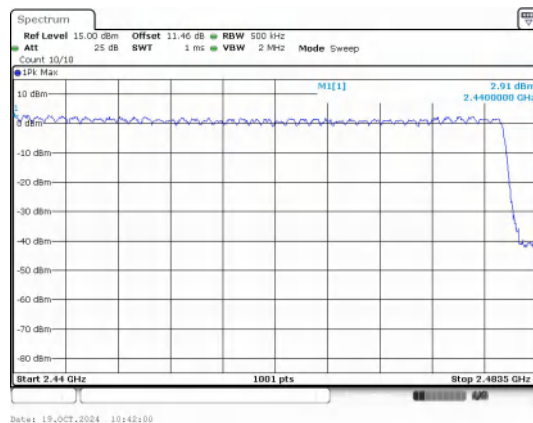
Modulation	Packet	Number of Hopping Channel	Limit	Result
GFSK	DH5	79	15	PASS
$\pi/4$ DQPSK	2-DH5	79	15	PASS
8DPSK	3-DH5	79	15	PASS

Test Graphs





Low End Spectrum Channel Hopping Plot
8DPSK



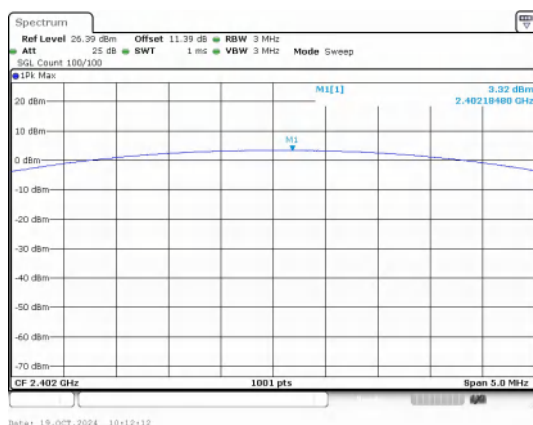
High End Spectrum Channel Hopping Plot
8DPSK

4) Conducted Peak Output Power

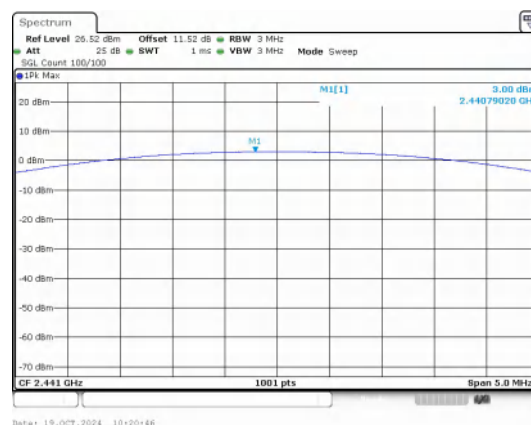
Test Result

Modulation	Packet Type	Channel	Peak Output Power (dBm)	Peak Output Power (mW)	Limit (dBm)	Result
GFSK	DH5	0	3.32	2.15	≤30	PASS
		39	3.00	1.99		PASS
		78	2.59	1.81		PASS
$\pi/4$ DQPSK	2-DH5	0	3.73	2.36	≤20.97	PASS
		39	3.65	2.32		PASS
		78	3.24	2.11		PASS
8DPSK	3-DH5	0	3.93	2.47		PASS
		39	3.88	2.44		PASS
		78	3.42	2.20		PASS

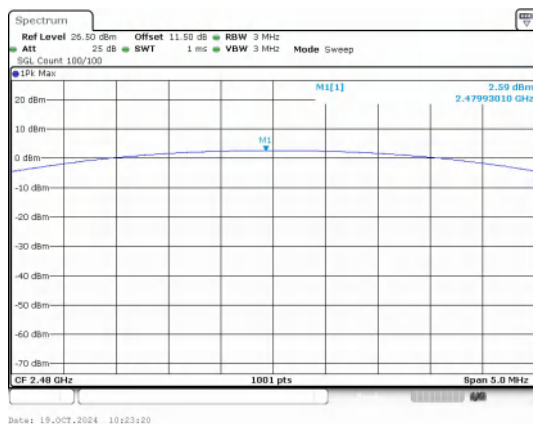
Test Graphs



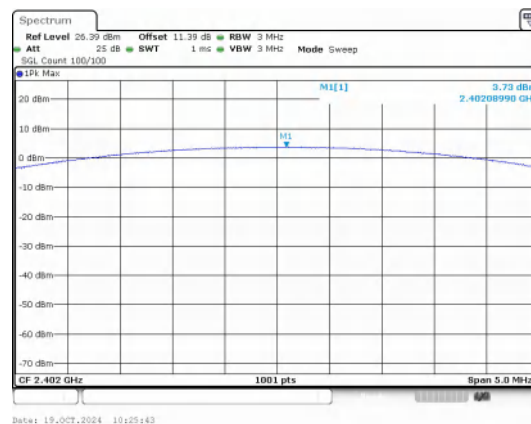
Peak Output Power
GFSK_Channel 0



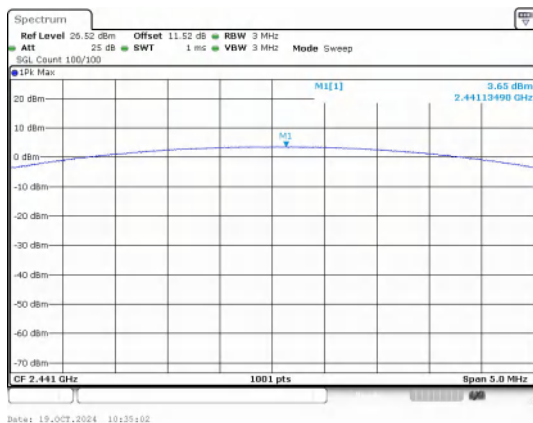
Peak Output Power
GFSK_Channel 39



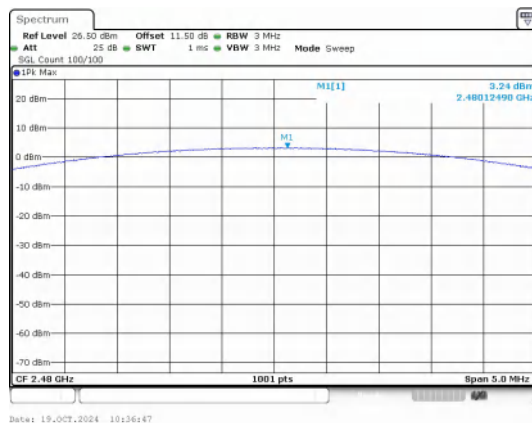
Peak Output Power
GFSK_Channel 78



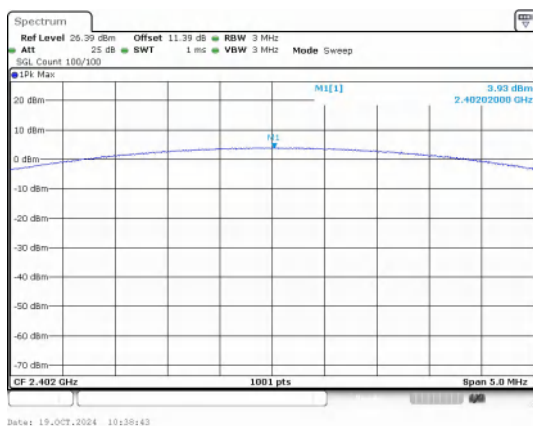
Peak Output Power
 $\pi/4$ DQPSK_Channel 0



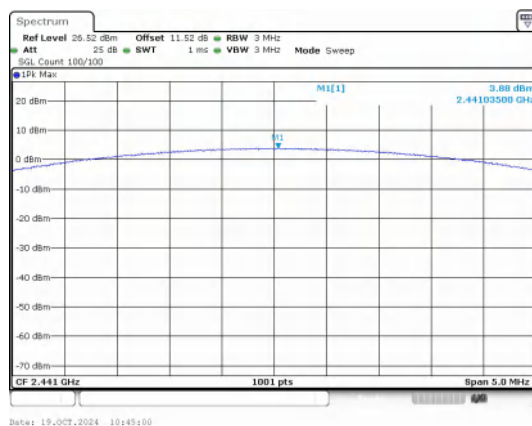
Peak Output Power
 $\pi/4$ DQPSK_Channel 39



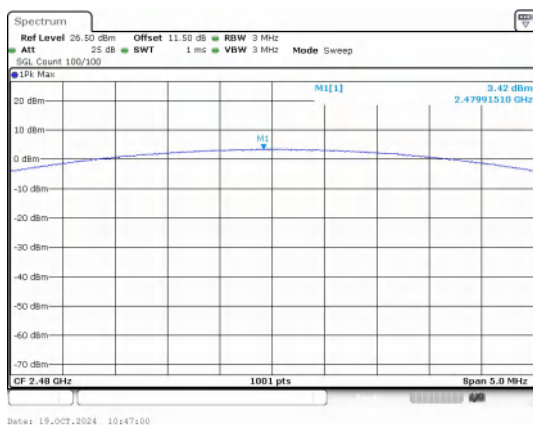
Peak Output Power
 $\pi/4$ DQPSK_Channel 78



Peak Output Power
8DPSK_Channel 0



Peak Output Power
8DPSK_Channel 39



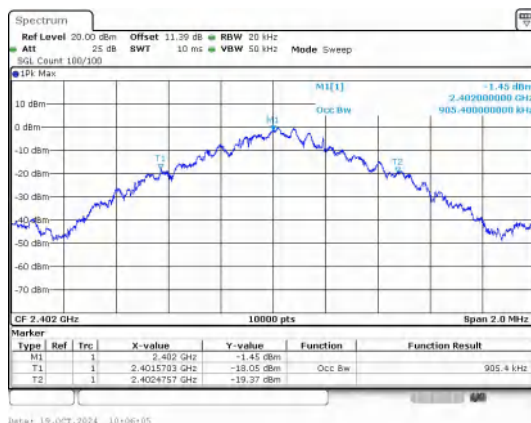
Peak Output Power
8DPSK_Channel 78

5) 99% Bandwidth

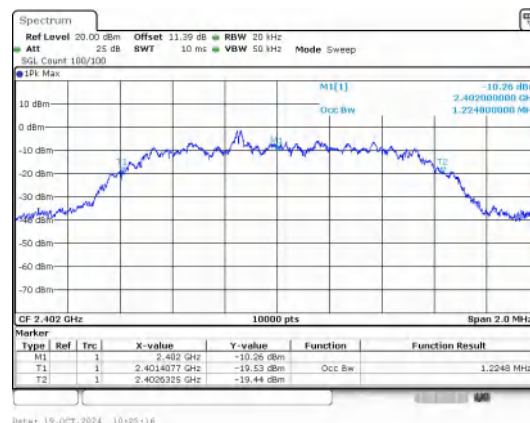
Test Result

Modulation	Channel	Center Frequency (MHz)	99% BW (MHz)
GFSK	0	2402	0.90540
	39	2441	0.89920
	78	2480	0.88940
$\pi/4$ DQPSK	0	2402	1.2248
	39	2441	1.2092
	78	2480	1.2050
8DPSK	0	2402	1.2164
	39	2441	1.2114
	78	2480	1.2176

Test Graphs

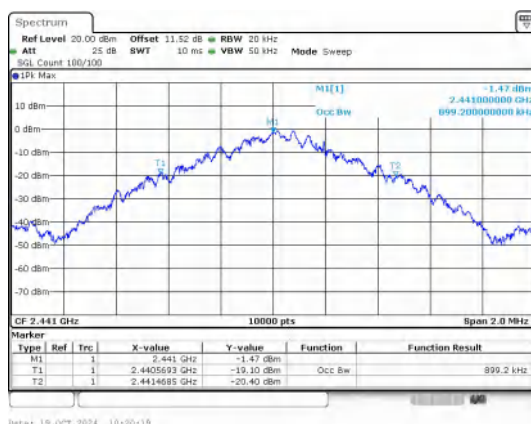


Date: 19-OCT-2024 10:10:05

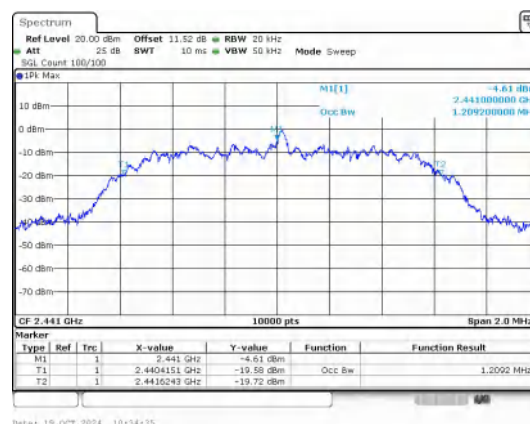


Date: 19-OCT-2024 10:10:16

GFSK_DH5_Channel 0

 $\pi/4$ DQPSK_2-DH5_Channel 0


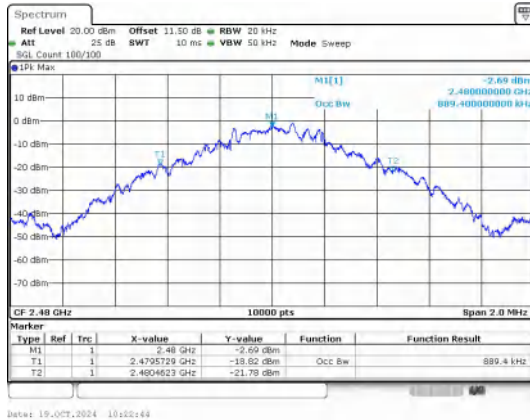
Date: 19-OCT-2024 10:10:19



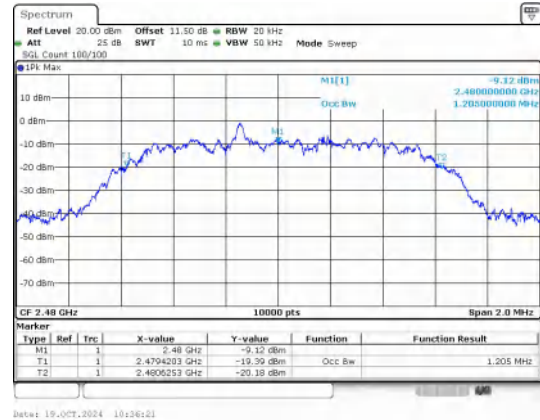
Date: 19-OCT-2024 10:10:35

GFSK_DH5_Channel 39

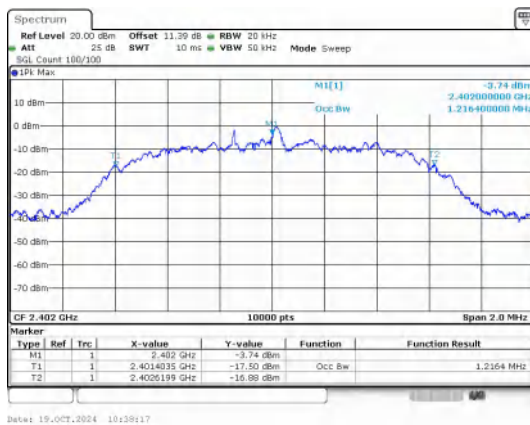
 $\pi/4$ DQPSK_2-DH5_Channel 39



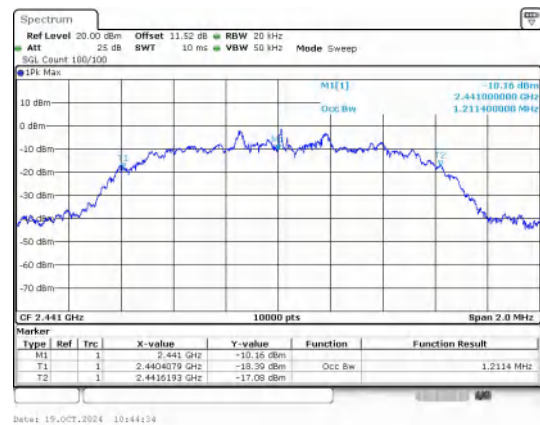
GFSK_DH5_Channel 78



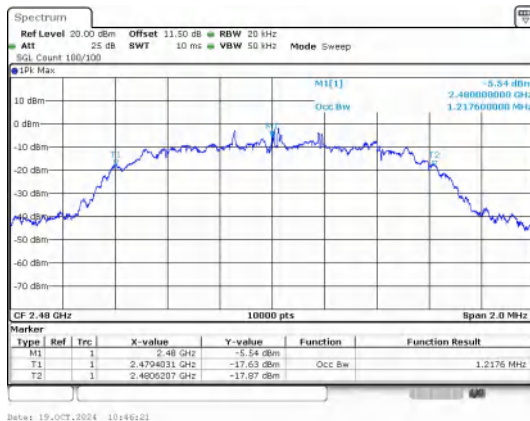
$\pi/4$ DQPSK_2-DH5_Channel 78



8DPSK_3-DH5_Channel 0



8DPSK_3-DH5_Channel 39



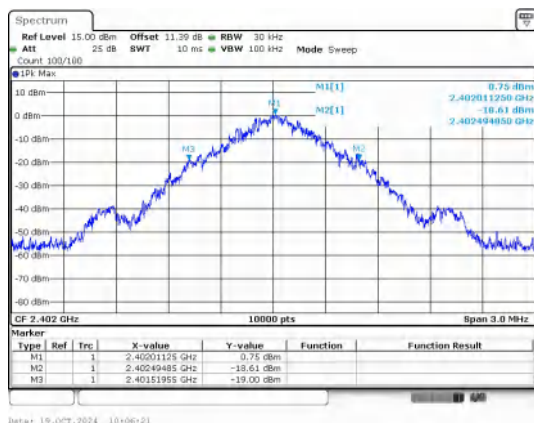
8DPSK_3-DH5_Channel 78

6) 20dB Bandwidth

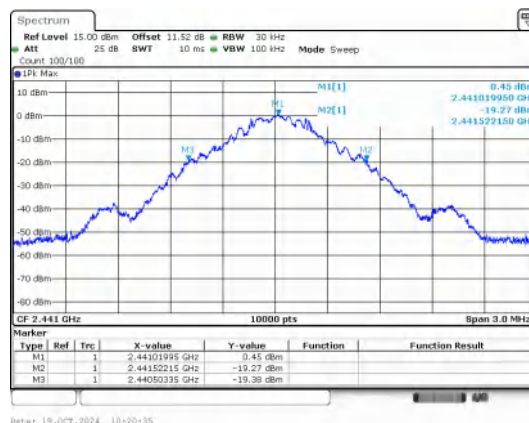
Test Result

Modulation	Channel	Center Frequency (MHz)	20 dB Bandwidth (MHz)
GFSK	0	2402 MHz	0.9700
	39	2441 MHz	1.020
	78	2480 MHz	1.020
$\pi/4$ DQPSK	0	2402 MHz	1.320
	39	2441 MHz	1.310
	78	2480 MHz	1.320
8DPSK	0	2402 MHz	1.300
	39	2441 MHz	1.300
	78	2480 MHz	1.300

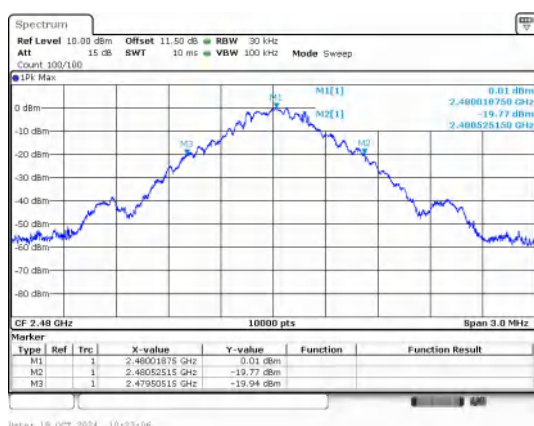
Test Graphs



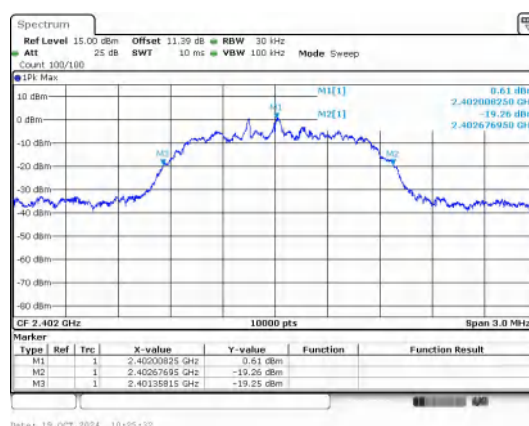
GFSK_DH5_Channel 0



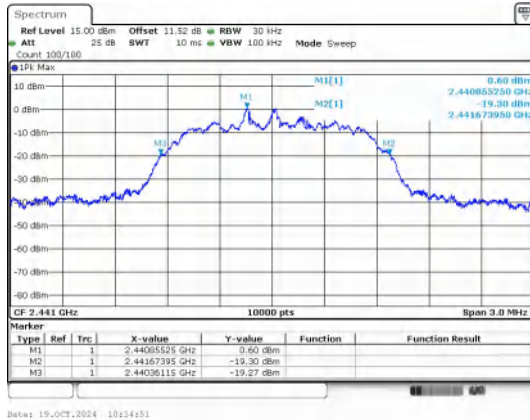
GFSK_DH5_Channel 39



GFSK_DH5_Channel 78



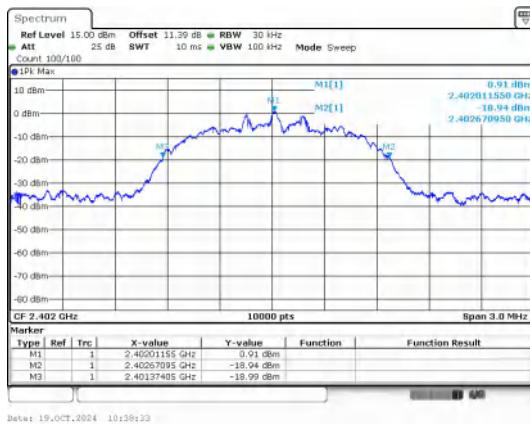
$\pi/4$ DQPSK_2-DH5_Channel 0



$\pi/4$ DQPSK_2-DH5_Channel 39



$\pi/4$ DQPSK_2-DH5_Channel 78



8DPSK_3-DH5_Channel 0



8DPSK_3-DH5_Channel 39



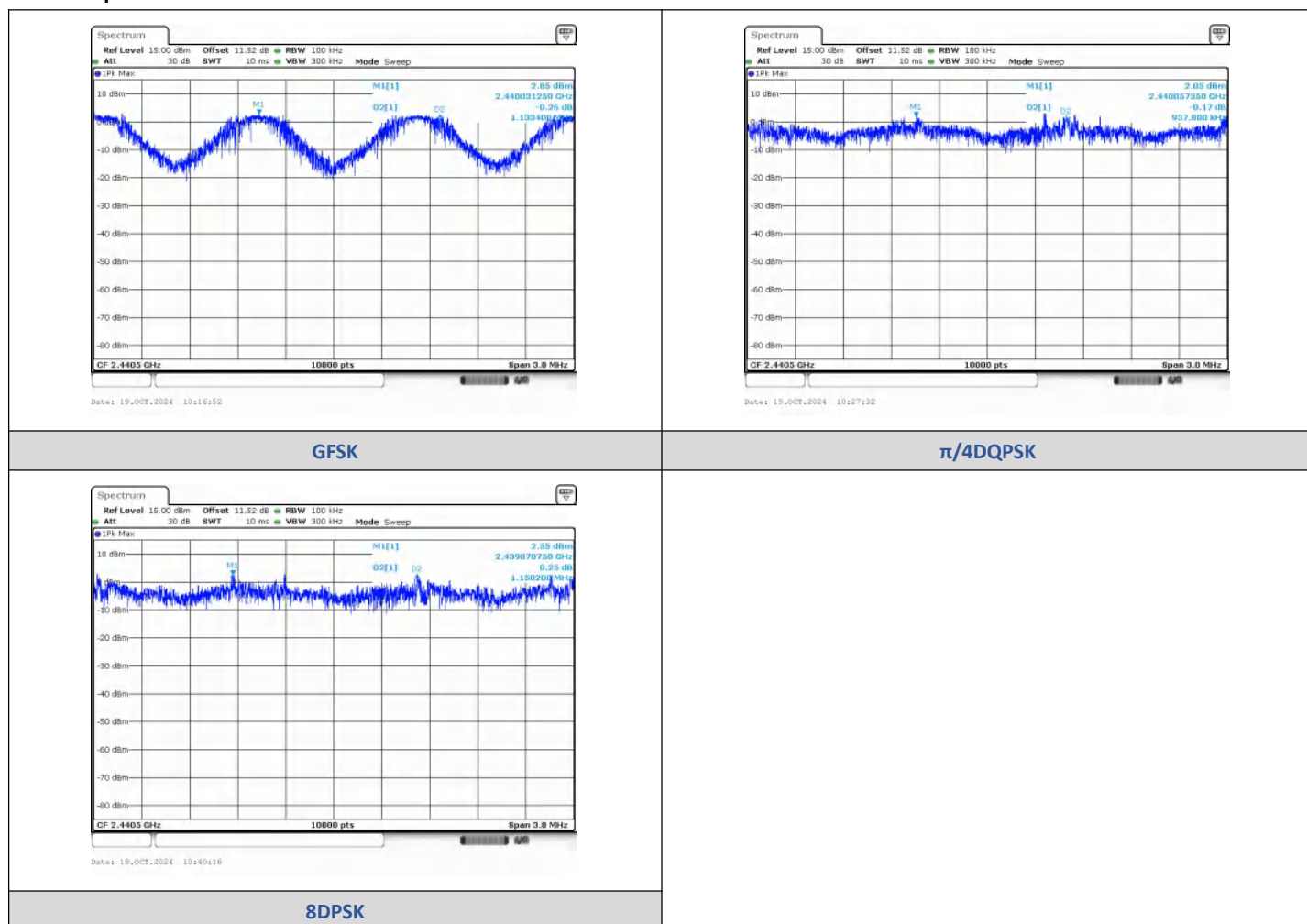
8DPSK_3-DH5_Channel 78

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	2440.0312	2441.1647	1.1334	1.02	PASS
$\pi/4$ QPSK	2-DH5	2440.0574	2440.9952	0.9378	0.88	PASS
8DPSK	3-DH5	2439.8708	2441.021	1.1502	0.867	PASS

Test Graphs



8) Conducted Out Of Band Emission

Test Result

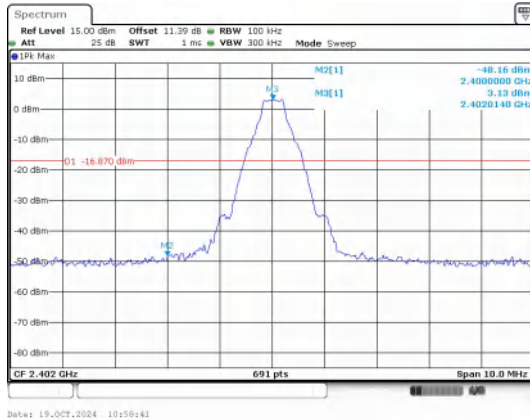
Non-Hopping

Modulation	Packet	Channel	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
GFSK	DH5	0	1958.93	-39.761	-16.87	-22.891	PASS
			2400.00	-48.156	-16.87	-31.286	PASS
		39	9763.72	-40.929	-17.12	-23.809	PASS
		78	2483.50	-50.103	-17.56	-32.543	PASS
			9920.20	-40.704	-17.56	-23.144	PASS
$\pi/4$ DQPSK	2-DH5	0	2400.00	-45.349	-16.98	-28.369	PASS
			7205.96	-42.450	-16.98	-25.470	PASS
		39	9763.72	-40.312	-17.13	-23.182	PASS
		78	2483.50	-49.875	-17.55	-32.325	PASS
			9920.20	-40.727	-17.55	-23.177	PASS
8DPSK	3-DH5	0	2400.00	-44.692	-17.04	-27.652	PASS
			7205.96	-44.491	-17.04	-27.451	PASS
		39	9763.72	-40.004	-17.19	-22.814	PASS
		78	2483.50	-50.333	-17.56	-32.773	PASS
			9920.20	-41.015	-17.56	-23.455	PASS

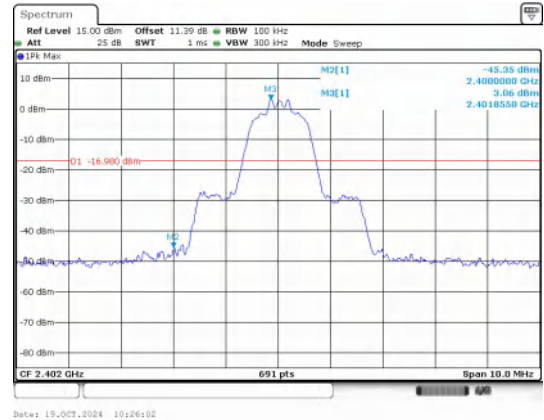
Hopping

Modulation	Packet	Channel	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
GFSK	DH5	Hopping	2398.05	-48.877	-17.25	-31.627	PASS
			2400.00	-50.182	-17.25	-32.932	PASS
			2483.50	-49.420	-17.79	-31.630	PASS
$\pi/4$ DQPSK	2-DH5		2397.11	-48.407	-18.89	-29.517	PASS
			2400.00	-50.979	-18.89	-32.089	PASS
			2483.50	-48.397	-17.59	-30.807	PASS
8DPSK	3-DH5		2397.00	-48.372	-16.94	-31.432	PASS
			2400.00	-49.923	-16.94	-32.983	PASS
			2483.50	-49.983	-19.38	-30.603	PASS

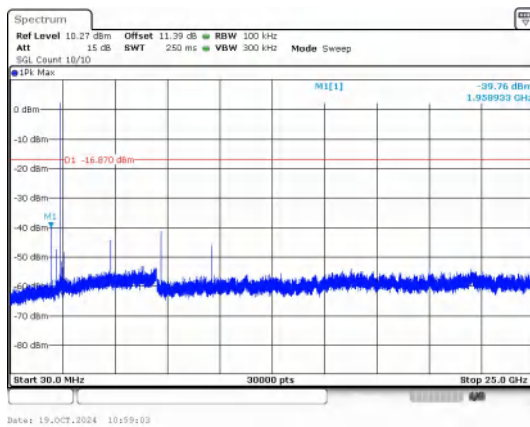
Test Graphs



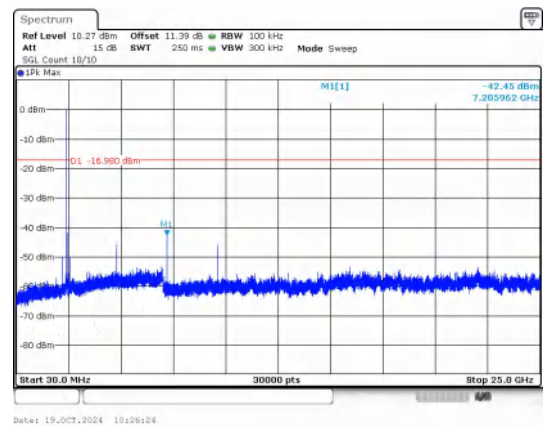
Out Of Band Emission
GFSK_DH5_Channel 0



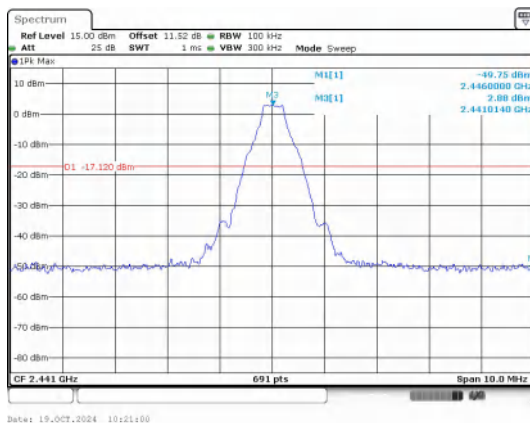
Out Of Band Emission
 $\pi/4$ QPSK_2-DH5_Channel 0



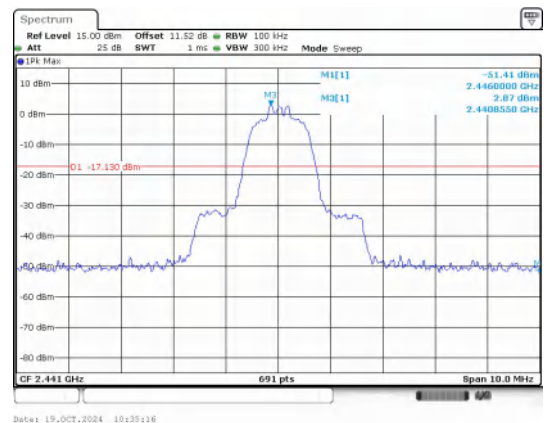
30.0 MHz - 25000.0 MHz
GFSK_DH5_Channel 0



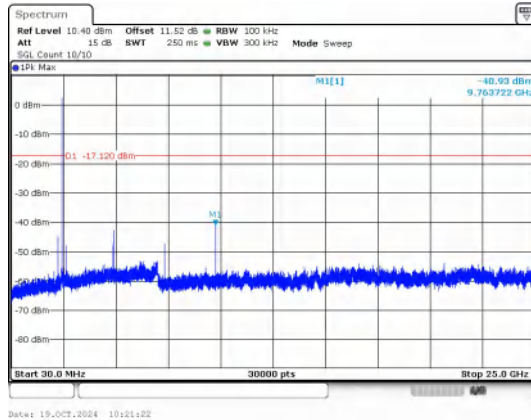
30.0 MHz - 25000.0 MHz
 $\pi/4$ QPSK_2-DH5_Channel 0



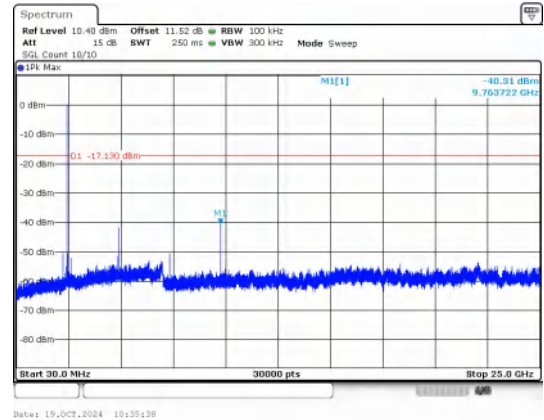
Out Of Band Emission
GFSK_DH5_Channel 39



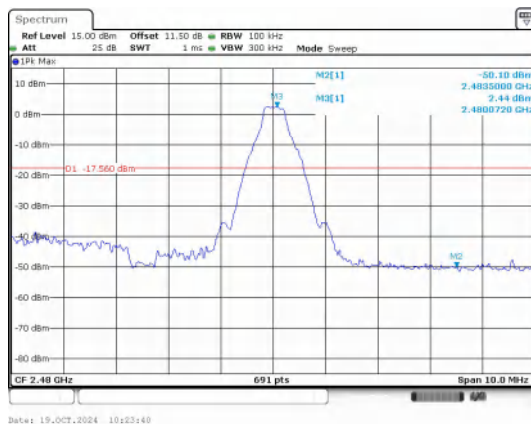
Out Of Band Emission
 $\pi/4$ QPSK_2-DH5_Channel 39



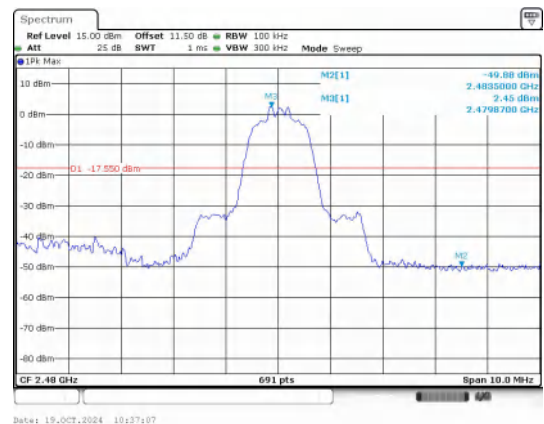
30.0 MHz - 25000.0 MHz
GFSK_DH5_Channel 39



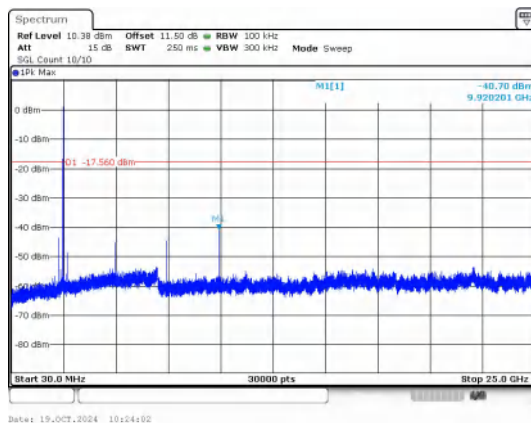
30.0 MHz - 25000.0 MHz
 $\pi/4$ DQPSK_2-DH5_Channel 39



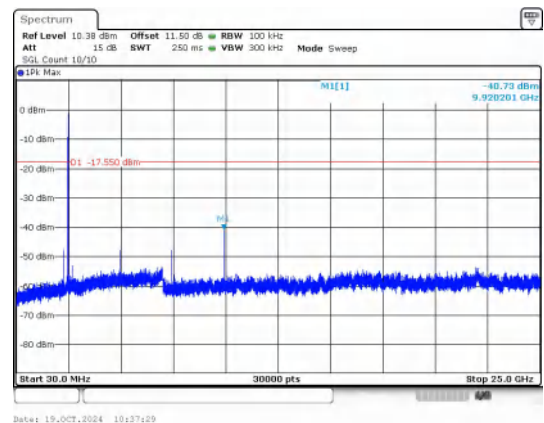
Out Of Band Emission
GFSK_DH5_Channel 78



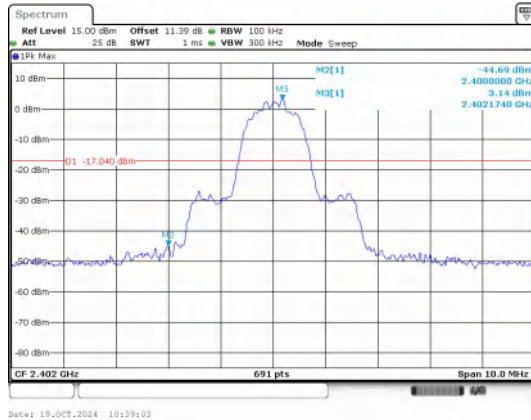
Out Of Band Emission
 $\pi/4$ DQPSK_2-DH5_Channel 78



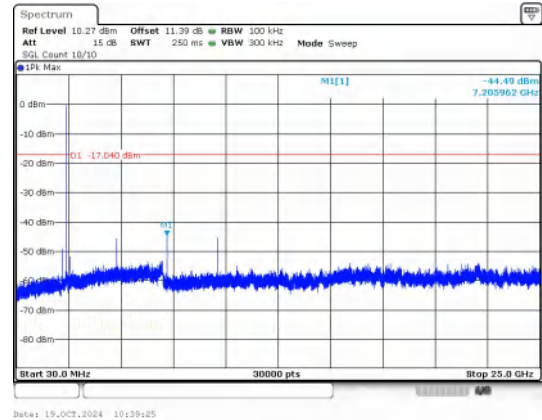
30.0 MHz - 25000.0 MHz
GFSK_DH5_Channel 78



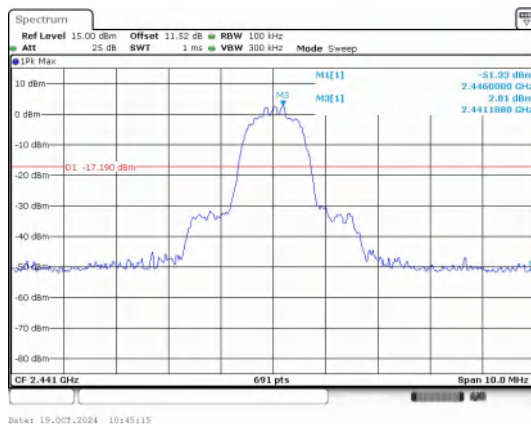
30.0 MHz - 25000.0 MHz
 $\pi/4$ DQPSK_2-DH5_Channel 78



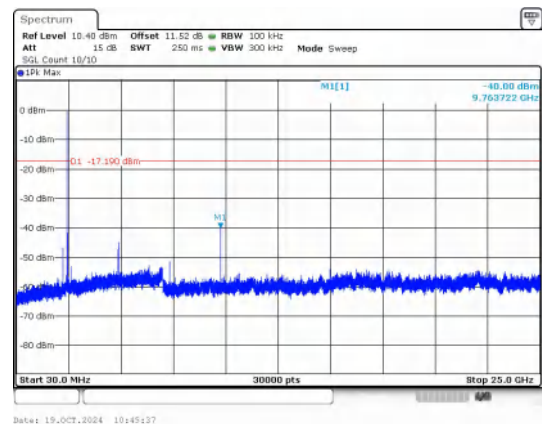
Out Of Band Emission
8DPSK_3-DH5_Channel 0



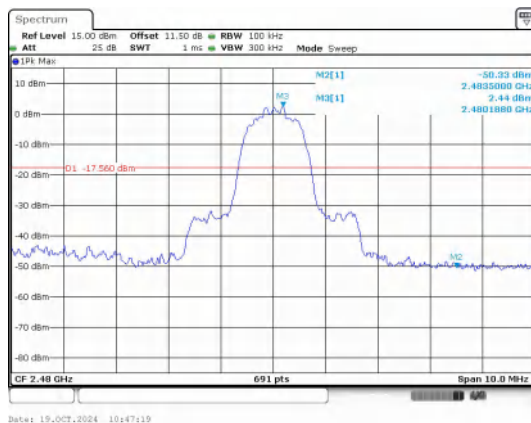
30.0 MHz - 25000.0 MHz
8DPSK_3-DH5_Channel 0



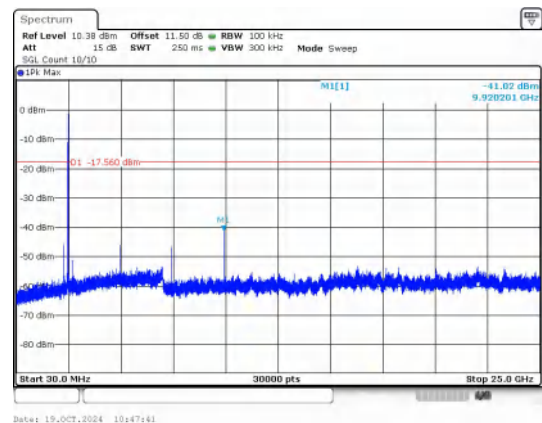
Out Of Band Emission
8DPSK_3-DH5_Channel 39



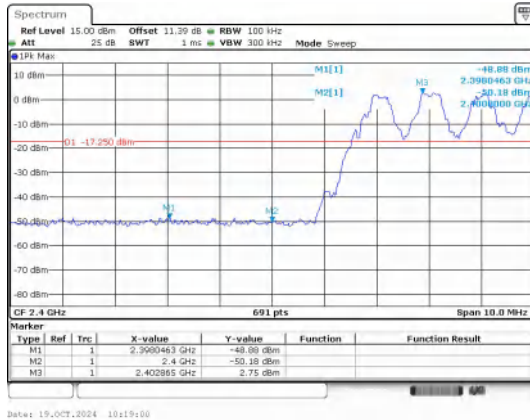
30.0 MHz - 25000.0 MHz
8DPSK_3-DH5_Channel 39



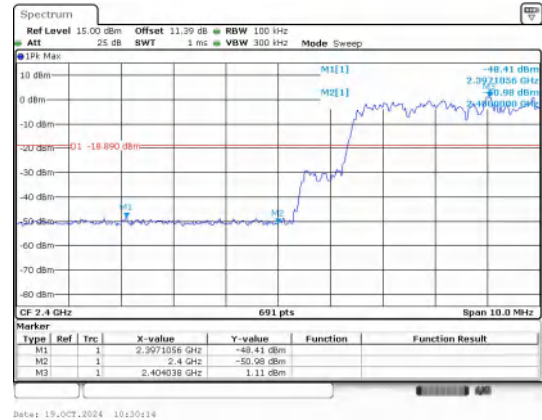
Out Of Band Emission
8DPSK_3-DH5_Channel 78



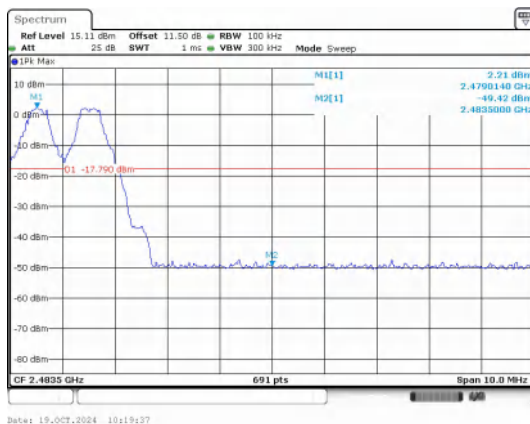
30.0 MHz - 25000.0 MHz
8DPSK_3-DH5_Channel 78



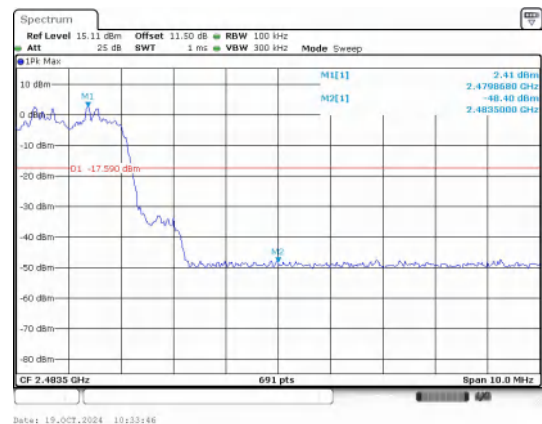
Out Of Band Emission(Left)
GFSK_DH5_Channel Hopping



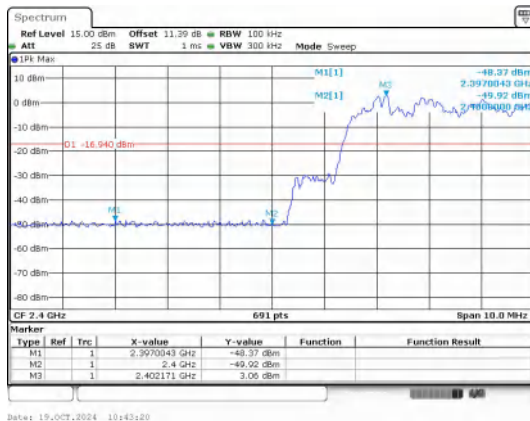
Out Of Band Emission(Left)
 $\pi/4$ DQPSK_2-DH5_Channel Hopping



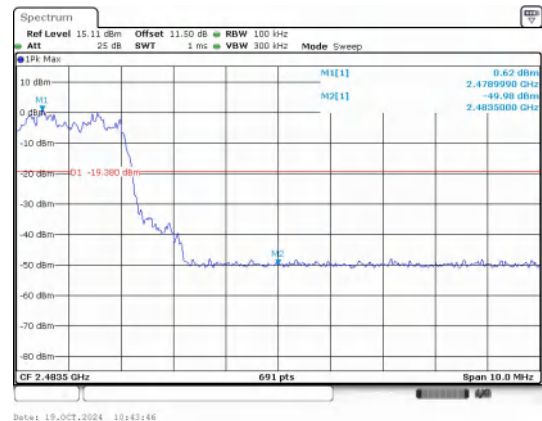
Out Of Band Emission(Right)
GFSK_DH5_Channel Hopping



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