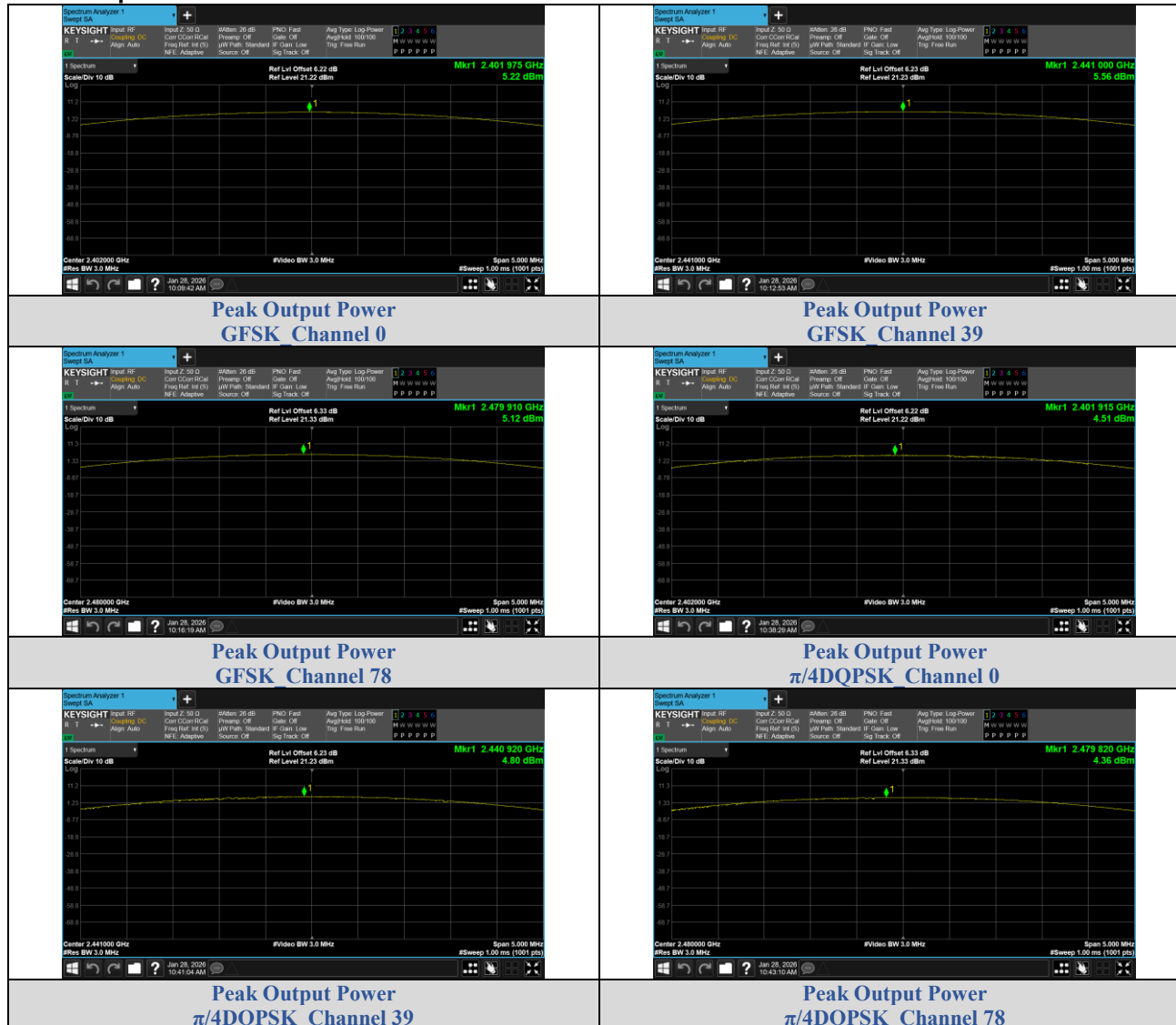


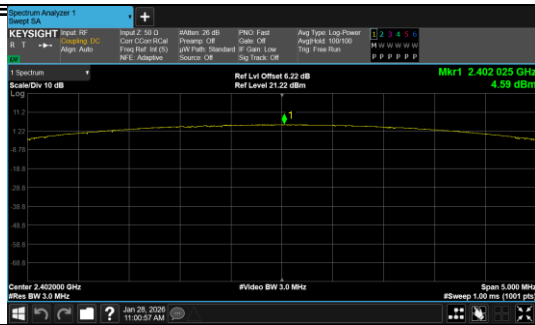
8 TEST RESULTS

8.1 CONDUCTED OUTPUT POWER Test Result

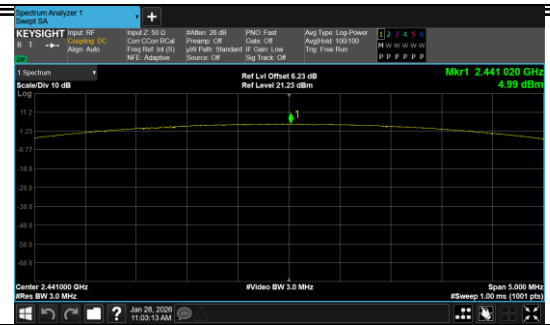
Modulation	Packet Type	Channel	Peak Output Power (dBm)	Peak Output Power (mW)	Limit (dBm)	Result
GFSK	DH5	0	5.22	3.33	≤21	PASS
		39	5.56	3.59		PASS
		78	5.12	3.25		PASS
$\pi/4$ DQPSK	2-DH5	0	4.51	2.82		PASS
		39	4.80	3.02		PASS
		78	4.36	2.73		PASS
8DPSK	3-DH5	0	4.59	2.87		PASS
		39	4.99	3.15		PASS
		78	4.45	2.79		PASS

Test Graphs

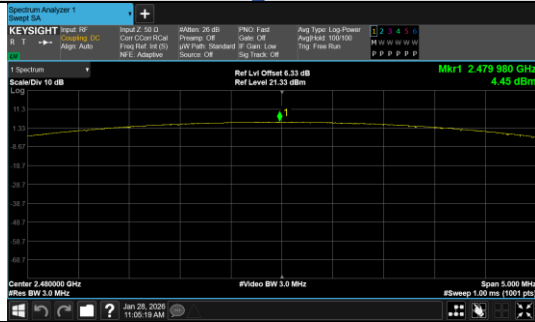




**Peak Output Power
8DPSK Channel 0**



**Peak Output Power
8DPSK Channel 39**

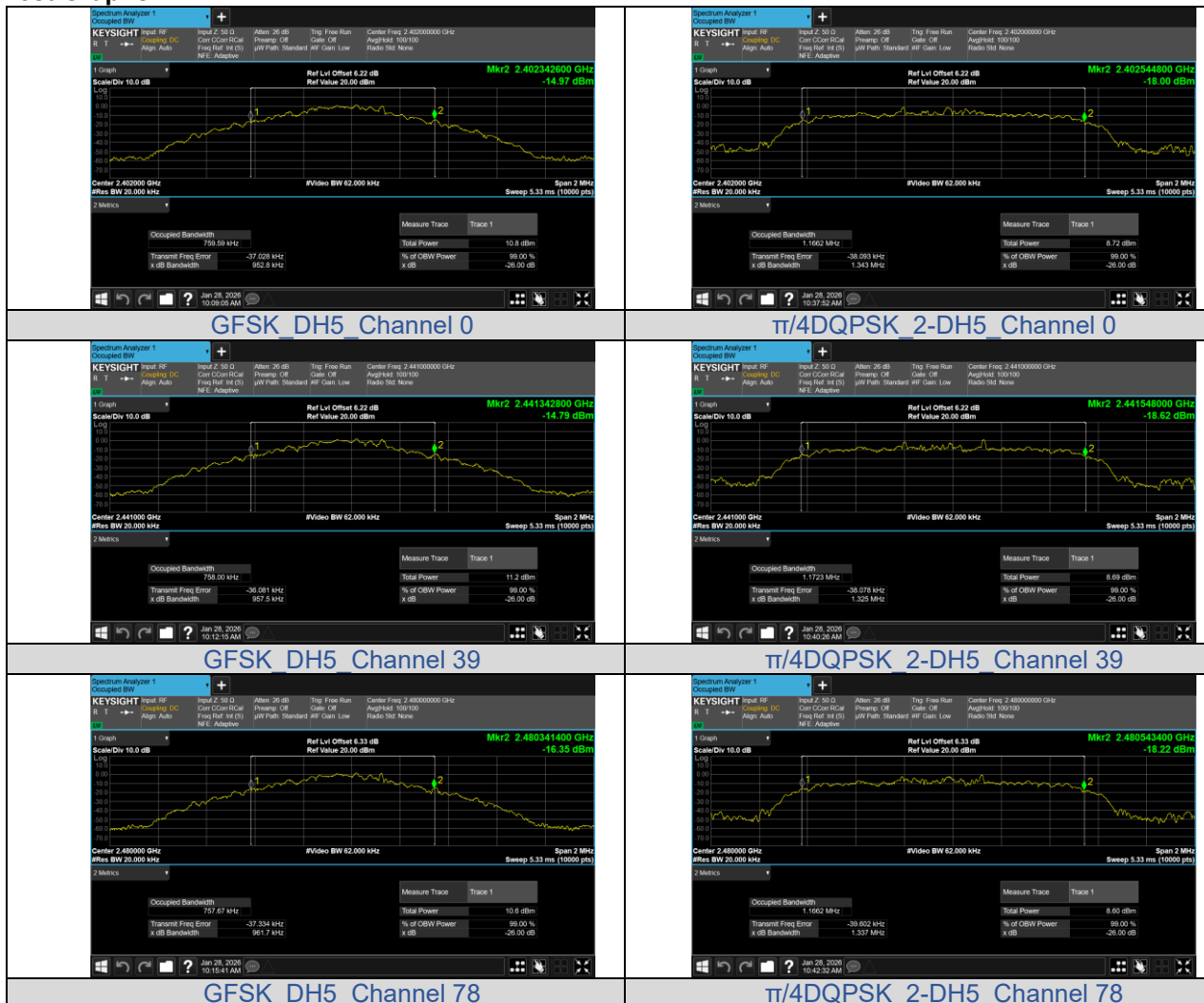


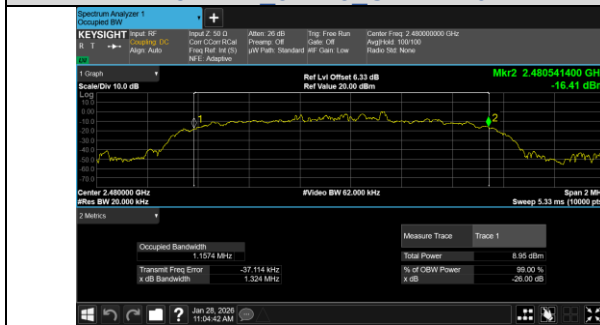
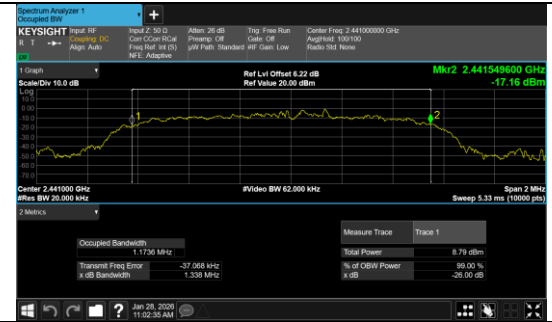
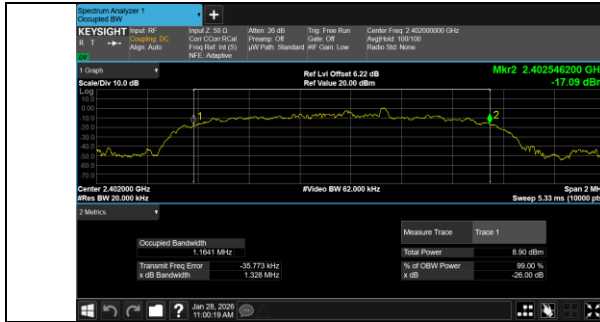
**Peak Output Power
8DPSK Channel 78**

8.2 99% BANDWIDTH Test Result

Modulation	Channel	Center Frequency (MHz)	99% BW (MHz)
GFSK	0	2402	0.75959
	39	2441	0.75800
	78	2480	0.75767
$\pi/4$ DQPSK	0	2402	1.1662
	39	2441	1.1723
	78	2480	1.1662
8DPSK	0	2402	1.1641
	39	2441	1.1736
	78	2480	1.1574

Test Graphs

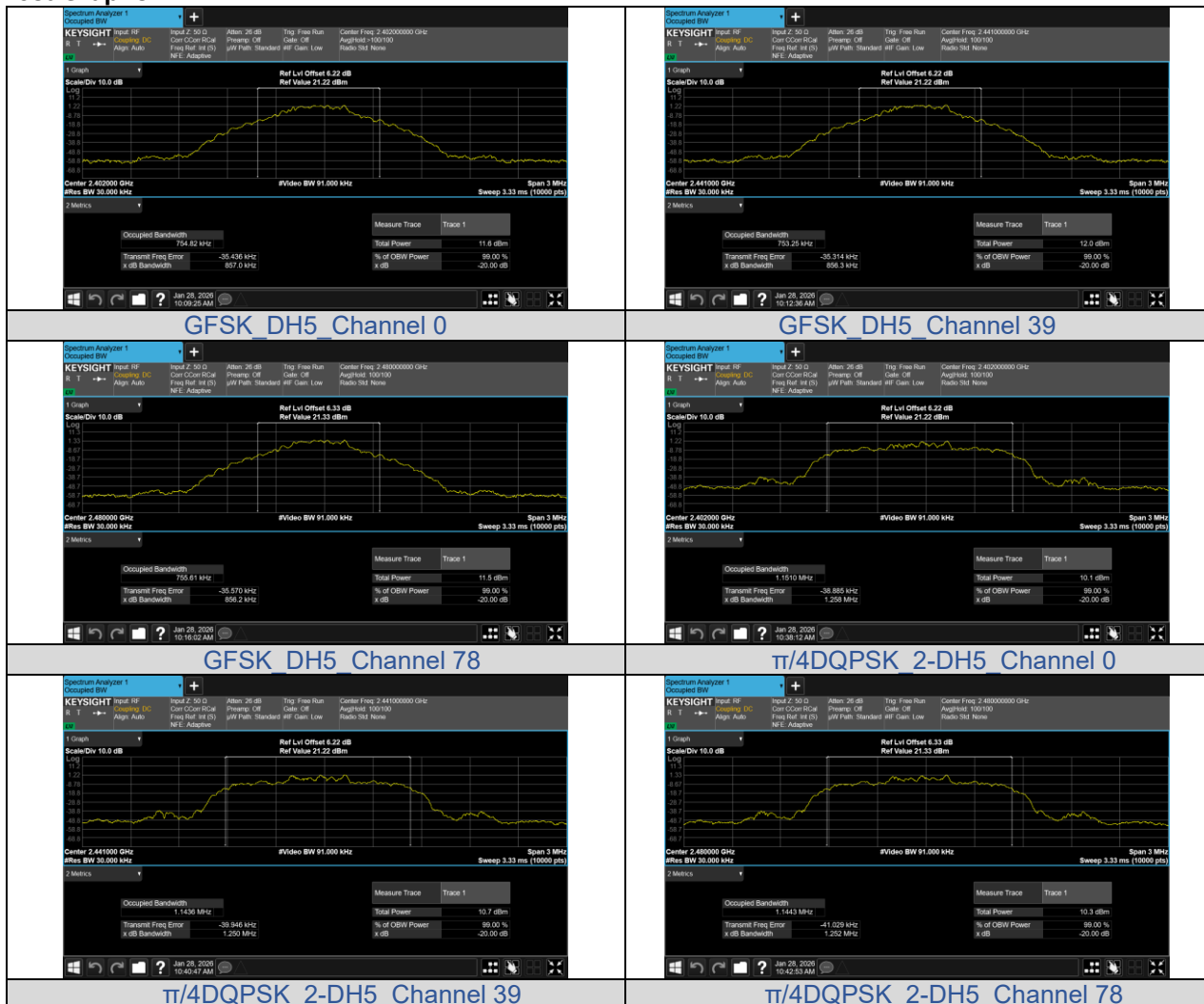


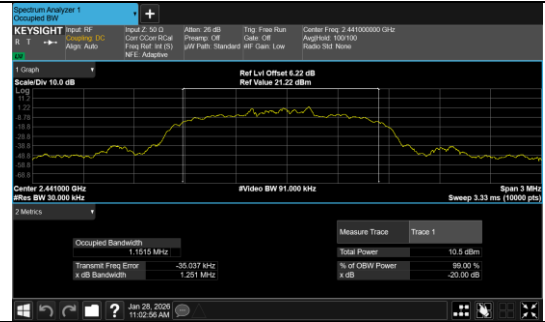
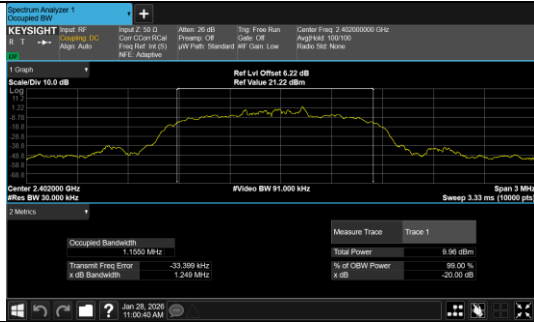


8.3 20dB BANDWIDTH Test Result

Modulation	Channel	Center Frequency (MHz)	20 dB Bandwidth (MHz)
GFSK	0	2402 MHz	0.8570
	39	2441 MHz	0.8563
	78	2480 MHz	0.8562
$\pi/4$ DQPSK	0	2402 MHz	1.258
	39	2441 MHz	1.250
	78	2480 MHz	1.252
8DPSK	0	2402 MHz	1.249
	39	2441 MHz	1.251
	78	2480 MHz	1.250

Test Graphs



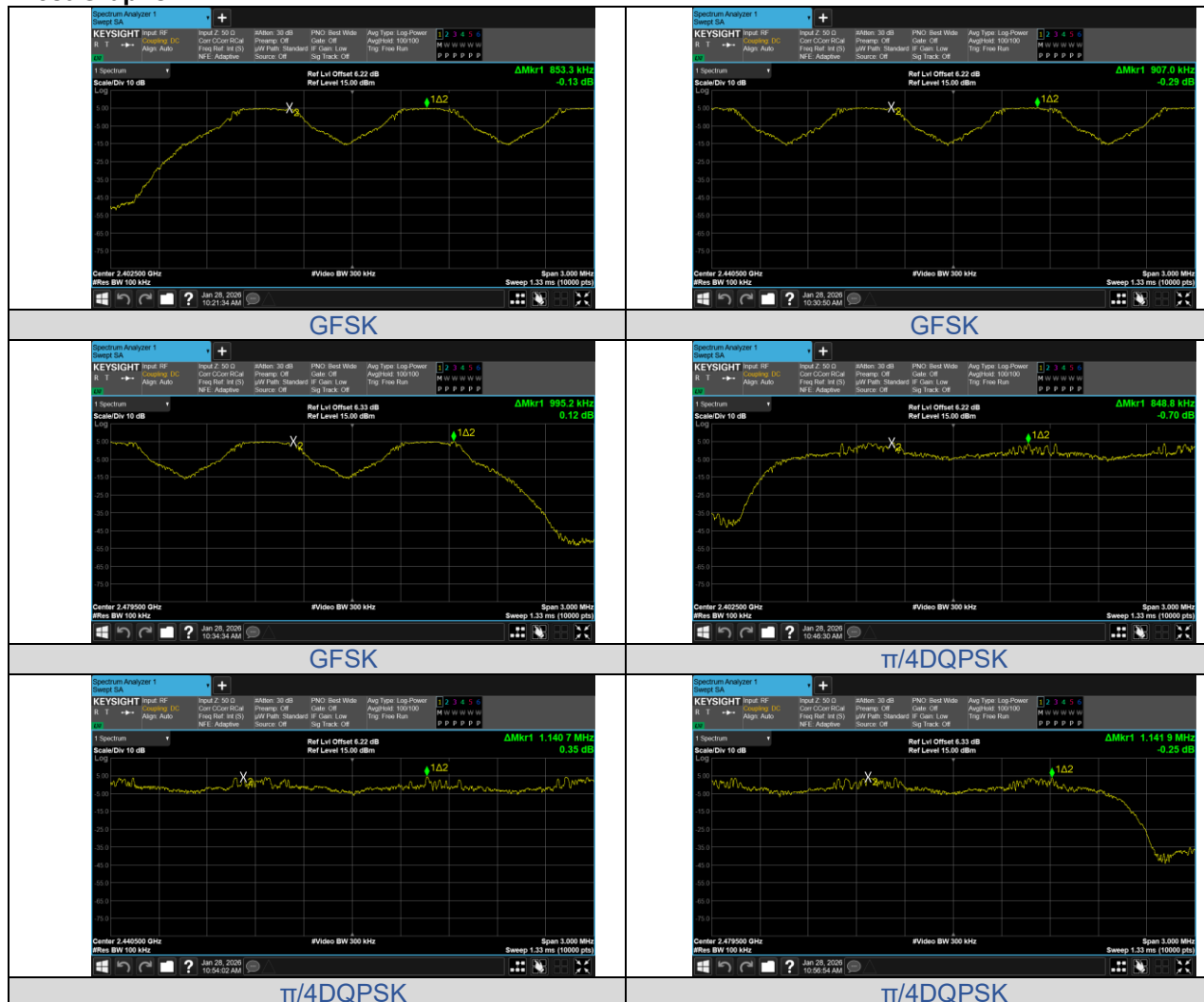


8.4 CARRIER FREQUENCIES SEPARATION

Test Result

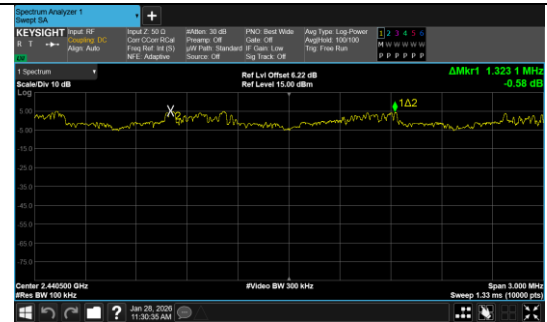
Modulation	Packet	Left Center frequency (MHz)	Right Center frequency (MHz)	Hopping Frequency Separation (MHz)	Limit (MHz)	Result
GFSK	DH5	2402.1122	2402.9655	0.8533	0.571	PASS
GFSK	DH5	2440.1173	2441.0243	0.9070	0.571	PASS
GFSK	DH5	2479.1362	2480.1314	0.9952	0.571	PASS
$\pi/4$ DQPSK	2-DH5	2402.1179	2402.9667	0.8488	0.839	PASS
$\pi/4$ DQPSK	2-DH5	2439.8242	2440.9649	1.1407	0.839	PASS
$\pi/4$ DQPSK	2-DH5	2478.9718	2480.1137	1.1419	0.839	PASS
8DPSK	3-DH5	2402.1227	2402.973	0.8503	0.834	PASS
8DPSK	3-DH5	2439.8032	2441.1263	1.3231	0.834	PASS
8DPSK	3-DH5	2479.1116	2480.1284	1.0168	0.834	PASS

Test Graphs

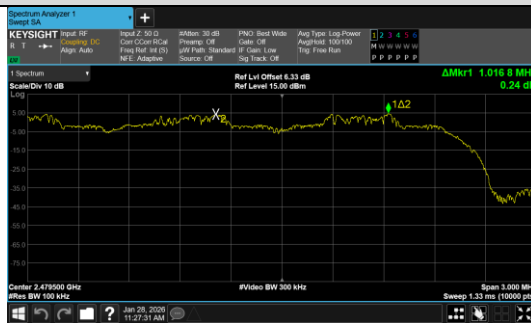




8DPSK



8DPSK



8DPSK

8.5 CONDUCTED SPURIOUS & BAND EDGE 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	2397.19	-55.257	-15.14	-40.117	PASS
			2400.00	-57.342	-15.14	-42.202	PASS
			23933.2	-60.011	-15.14	-44.871	PASS
		39	23873.2	-59.766	-14.84	-44.926	PASS
		78	2483.50	-56.592	-15.35	-41.242	PASS
			23714.7	-60.328	-15.35	-44.978	PASS
$\pi/4$ DQPSK	2-DH5	0	2400.00	-55.397	-15.78	-39.617	PASS
			23257.7	-59.734	-15.78	-43.954	PASS
		39	23729.7	-60.263	-15.34	-44.923	PASS
		78	2483.50	-57.001	-16.09	-40.911	PASS
			24230.9	-59.988	-16.09	-43.898	PASS
8DPSK	3-DH5	0	2400.00	-55.018	-15.76	-39.258	PASS
			23972.5	-59.831	-15.76	-44.071	PASS
		39	24877.7	-60.279	-15.22	-45.059	PASS
		78	2483.50	-57.786	-15.73	-42.056	PASS
			23572.3	-59.981	-15.73	-44.251	PASS

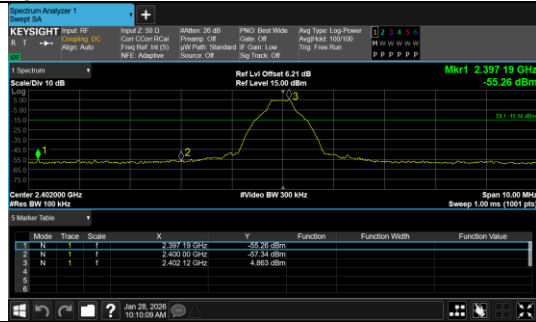
Note: input compensation coefficient (dB)= Cable Loss (dB)

Hopping

Modulation	Packet	Channel	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
GFSK	DH5	Hopping	2395.52	-55.854	-14.97	-40.884	PASS
			2400.00	-56.604	-14.97	-41.634	PASS
			2483.50	-57.769	-15.03	-42.739	PASS
π/4DQPSK	2-DH5		2400.00	-52.056	-16.36	-35.696	PASS
			2483.50	-57.957	-15.81	-42.147	PASS
8DPSK	3-DH5		2397.45	-52.698	-15.71	-36.988	PASS
			2400.00	-56.659	-15.71	-40.949	PASS
			2483.50	-56.898	-15.64	-41.258	PASS

Note: input compensation coefficient (dB)= Cable Loss (dB)

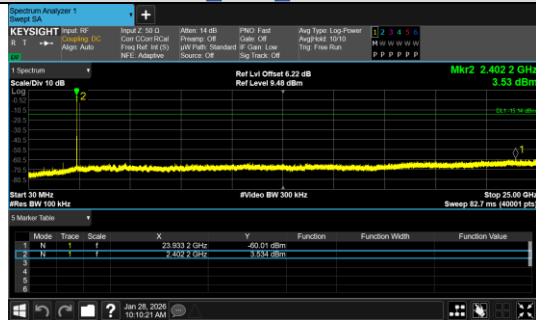
Test Graphs



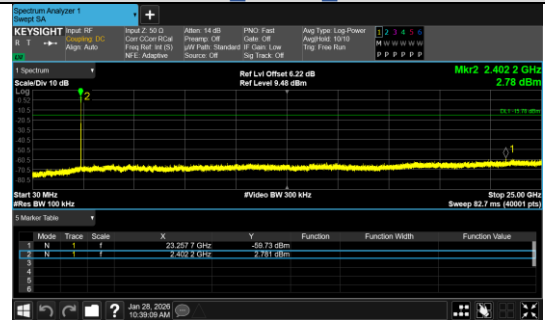
Out Of Band Emission
GFSK DH5 Channel 0



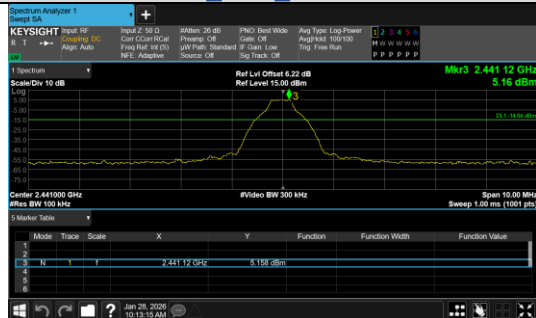
Out Of Band Emission
 $\pi/4$ DQPSK 2-DH5 Channel 0



30.0 MHz - 25000.0 MHz
GFSK DH5 Channel 0



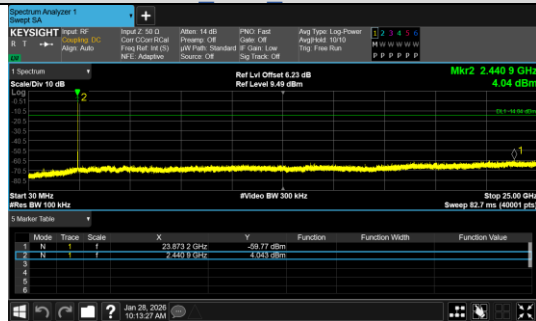
30.0 MHz - 25000.0 MHz
 $\pi/4$ DQPSK 2-DH5 Channel 0



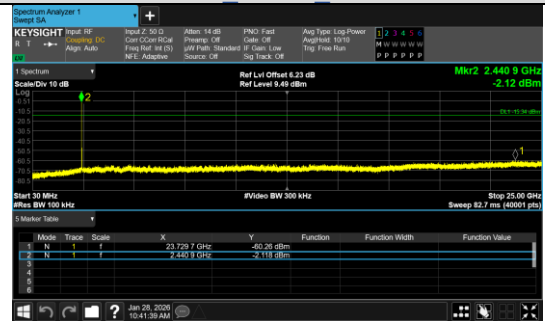
Out Of Band Emission
GFSK DH5 Channel 39



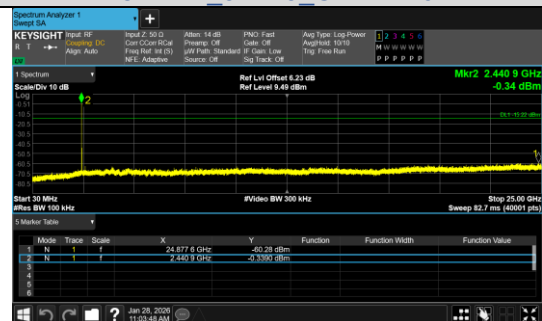
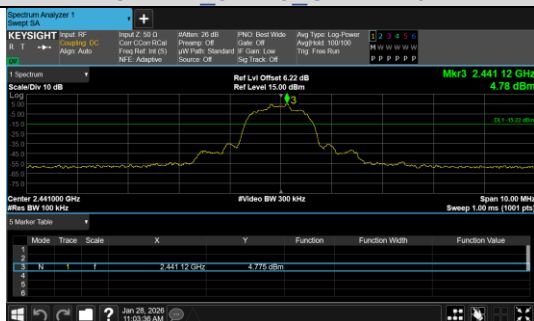
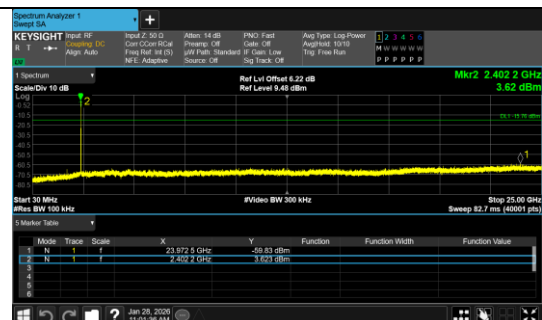
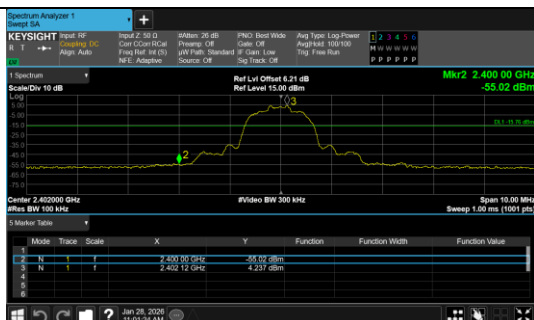
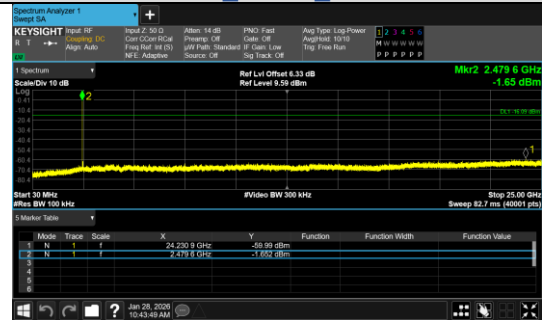
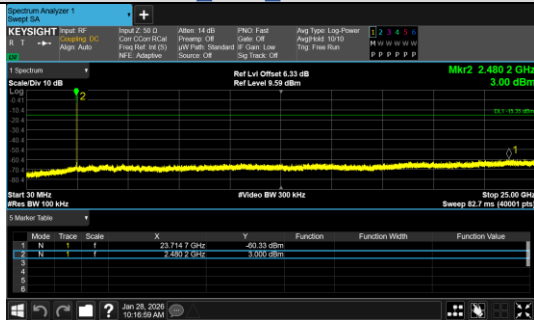
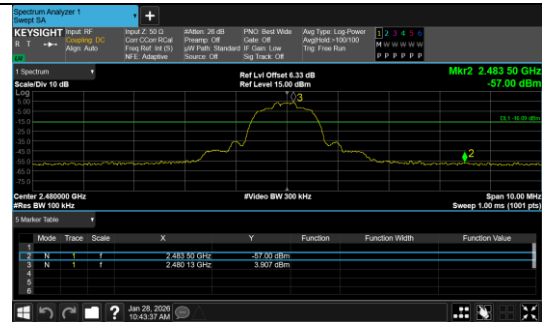
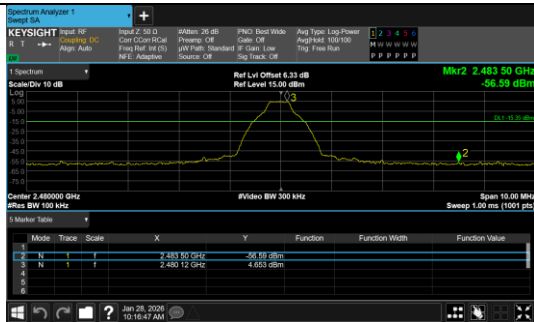
Out Of Band Emission
 $\pi/4$ DQPSK 2-DH5 Channel 39

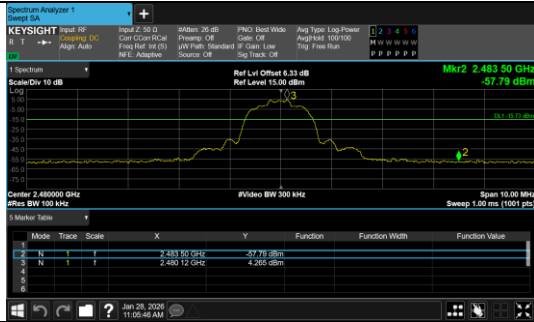


30.0 MHz - 25000.0 MHz
GFSK DH5 Channel 39

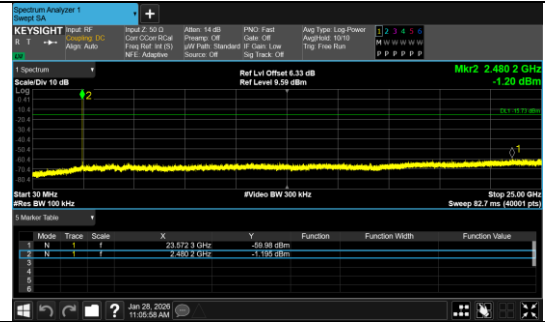


30.0 MHz - 25000.0 MHz
 $\pi/4$ DQPSK 2-DH5 Channel 39





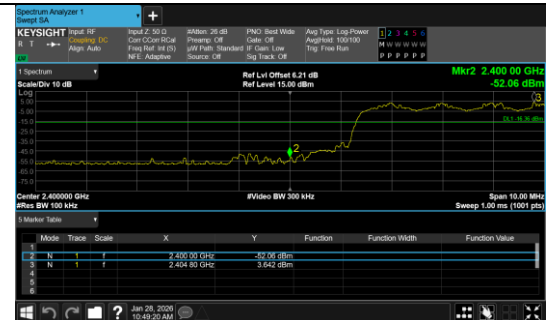
Out Of Band Emission
8DPSK 3-DH5 Channel 78



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



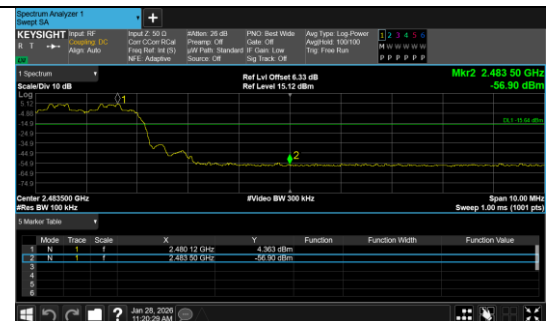
Out Of Band Emission(Right)
GFSK DH5 Channel Hopping



Out Of Band Emission(Right)
 $\pi/4$ DQPSK 2-DH5 Channel Hopping



Out Of Band Emission(Left)
8DPSK 3-DH5 Channel Hopping



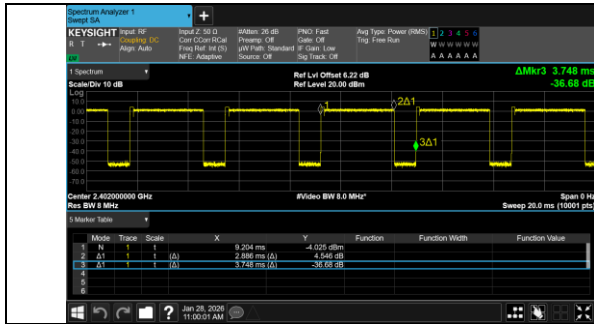
Out Of Band Emission(Right)
8DPSK 3-DH5 Channel Hopping

8.6 DUTY CYCLE Test Result

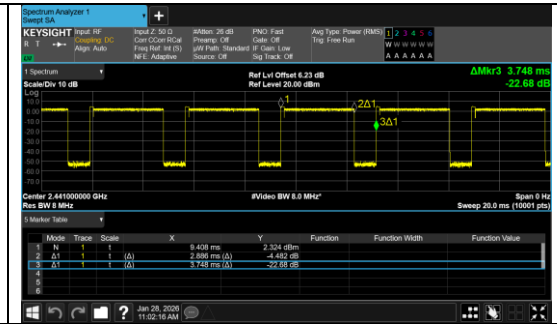
Modulation	Packets	Channel	On Time (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle (linear)	Duty Cycle Factor (dB)	1/T
GFSK	DH5	0	2.880	3.748	76.84	0.7684	1.1441	0.3472
		39	2.880	3.748	76.84	0.7684	1.1441	0.3472
		78	2.880	3.748	76.84	0.7684	1.1441	0.3472
$\pi/4$ DQPSK	2-DH5	0	2.884	3.748	76.95	0.7695	1.1379	0.3467
		39	2.884	3.748	76.95	0.7695	1.1379	0.3467
		78	2.884	3.748	76.95	0.7695	1.1379	0.3467
8DPSK	3-DH5	0	2.886	3.748	77.00	0.7700	1.1351	0.3465
		39	2.886	3.748	77.00	0.7700	1.1351	0.3465
		78	2.886	3.748	77.00	0.7700	1.1351	0.3465

Test Graphs

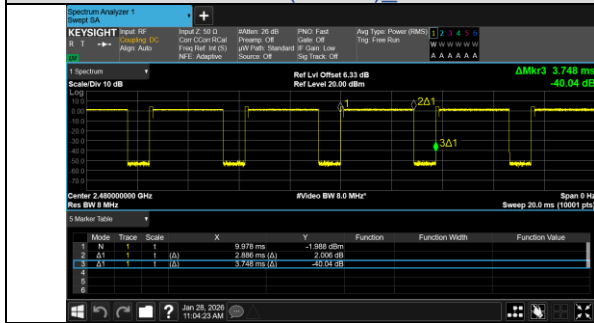




8DPSK(3-DH5) Channel 0



8DPSK(3-DH5) Channel 39



8DPSK(3-DH5) Channel 78

8.7 DWELL TIME Test Result

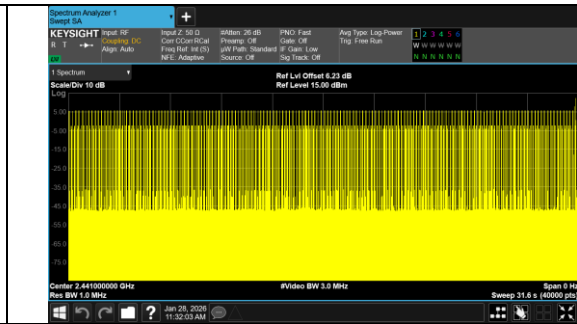
Modulation	Packet	Channel	Pulse Width (ms)	Number of Pulses in 31.6 seconds	Dwell Time (ms)	Limit (ms)	Result
GFSK	DH1	Hopping	0.3756	315	118.314	< 400	PASS
	DH3		1.632	125	204		PASS
	DH5		2.880	89	256.32		PASS
$\pi/4$ DQPSK	2-DH1		0.3840	312	119.808		PASS
	2-DH3		1.632	129	210.528		PASS
	2-DH5		2.880	95	273.6		PASS
8DPSK	3-DH1		0.3840	313	120.192		PASS
	3-DH3		1.632	127	207.264		PASS
	3-DH5		2.896	91	263.536		PASS

Note: Dwell time=Pulse time(ms)*Number of Pulses in 31.6 seconds

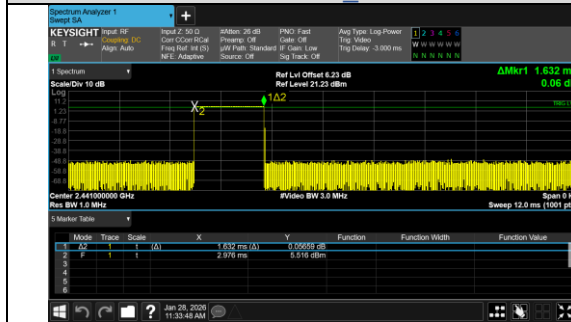
Test Graphs



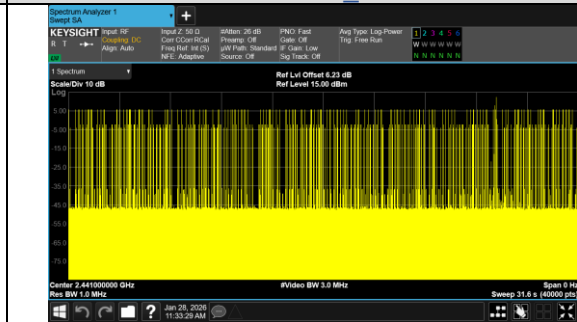
Pulse Width
GFSK_DH1



Number of Pulses in 31.6 seconds
GFSK_DH1



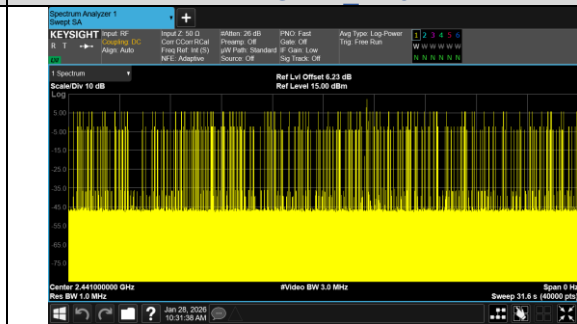
Pulse Width
GFSK_DH3



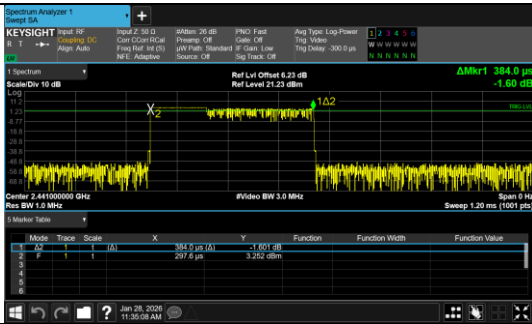
Number of Pulses in 31.6 seconds
GFSK_DH3



Pulse Width
GFSK_DH5



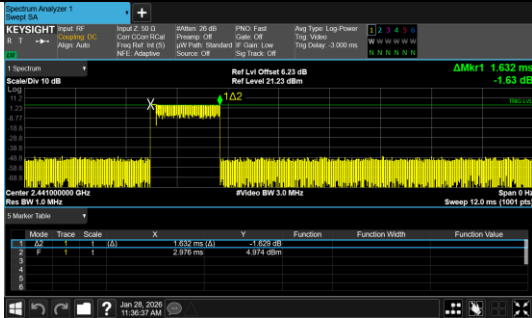
Number of Pulses in 31.6 seconds
GFSK_DH5



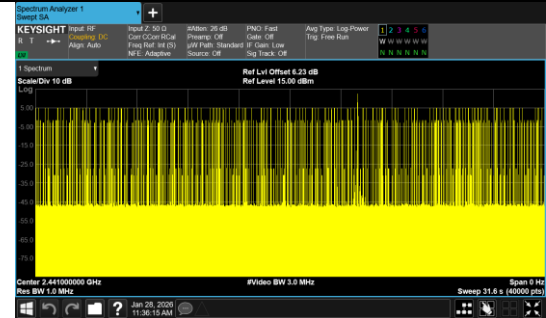
Pulse Width
 $\pi/4$ DQPSK_2-DH1



Number of Pulses in 31.6 seconds
 $\pi/4$ DQPSK_2-DH1



Pulse Width
 $\pi/4$ DQPSK_2-DH3



Number of Pulses in 31.6 seconds
 $\pi/4$ DQPSK_2-DH3



Pulse Width
 $\pi/4$ DQPSK_2-DH5



Number of Pulses in 31.6 seconds
 $\pi/4$ DQPSK_2-DH5



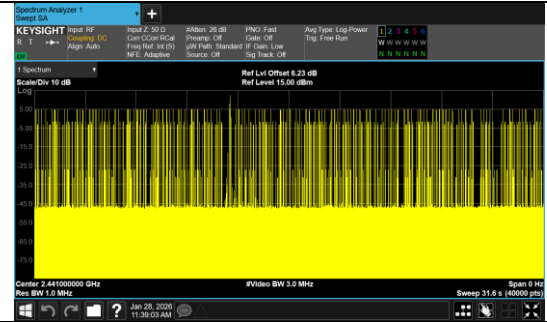
Pulse Width
8DPSK_3-DH1



Number of Pulses in 31.6 seconds
8DPSK_3-DH1



Pulse Width
8DPSK 3-DH3



Number of Pulses in 31.6 seconds
8DPSK 3-DH3



Pulse Width
8DPSK 3-DH5



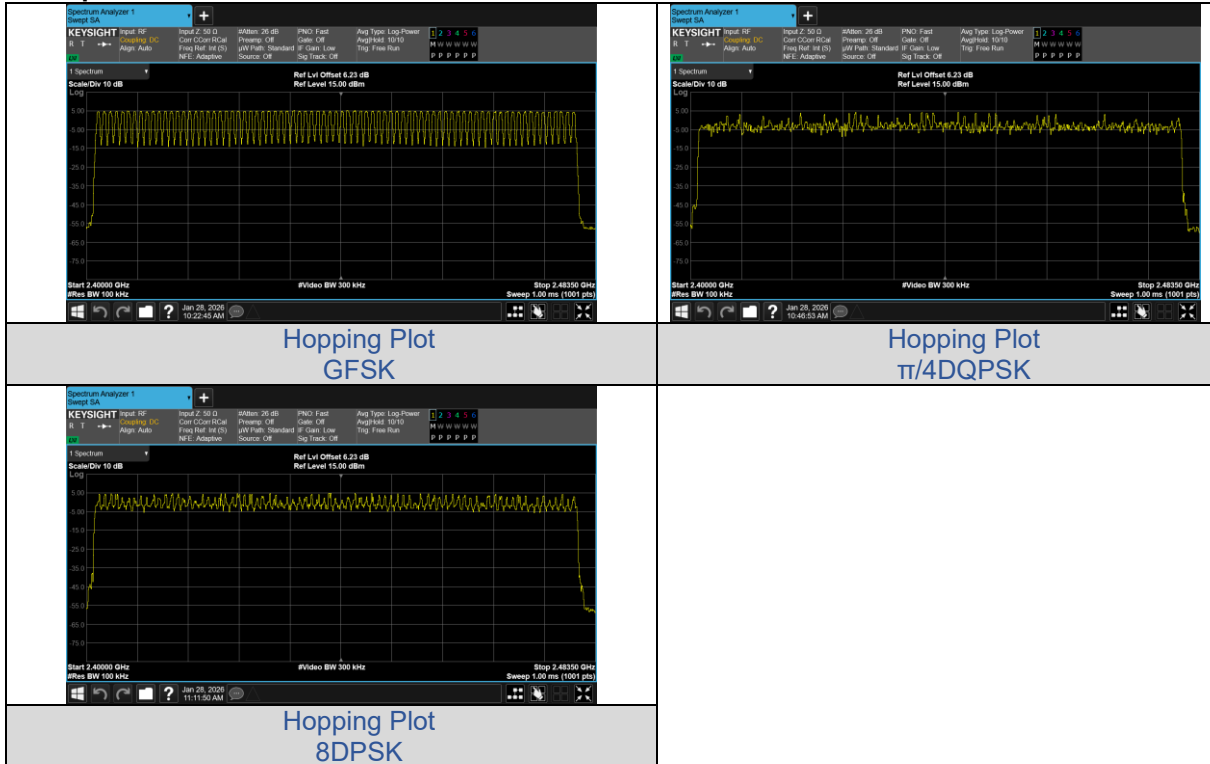
Number of Pulses in 31.6 seconds
8DPSK 3-DH5

8.8 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



END OF REPORT