

**Out Of Band Emission(Right)
GFSK_DH5_Channel Hopping**



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

Shenzhen UnionTrust Quality and Technology Co., Ltd.

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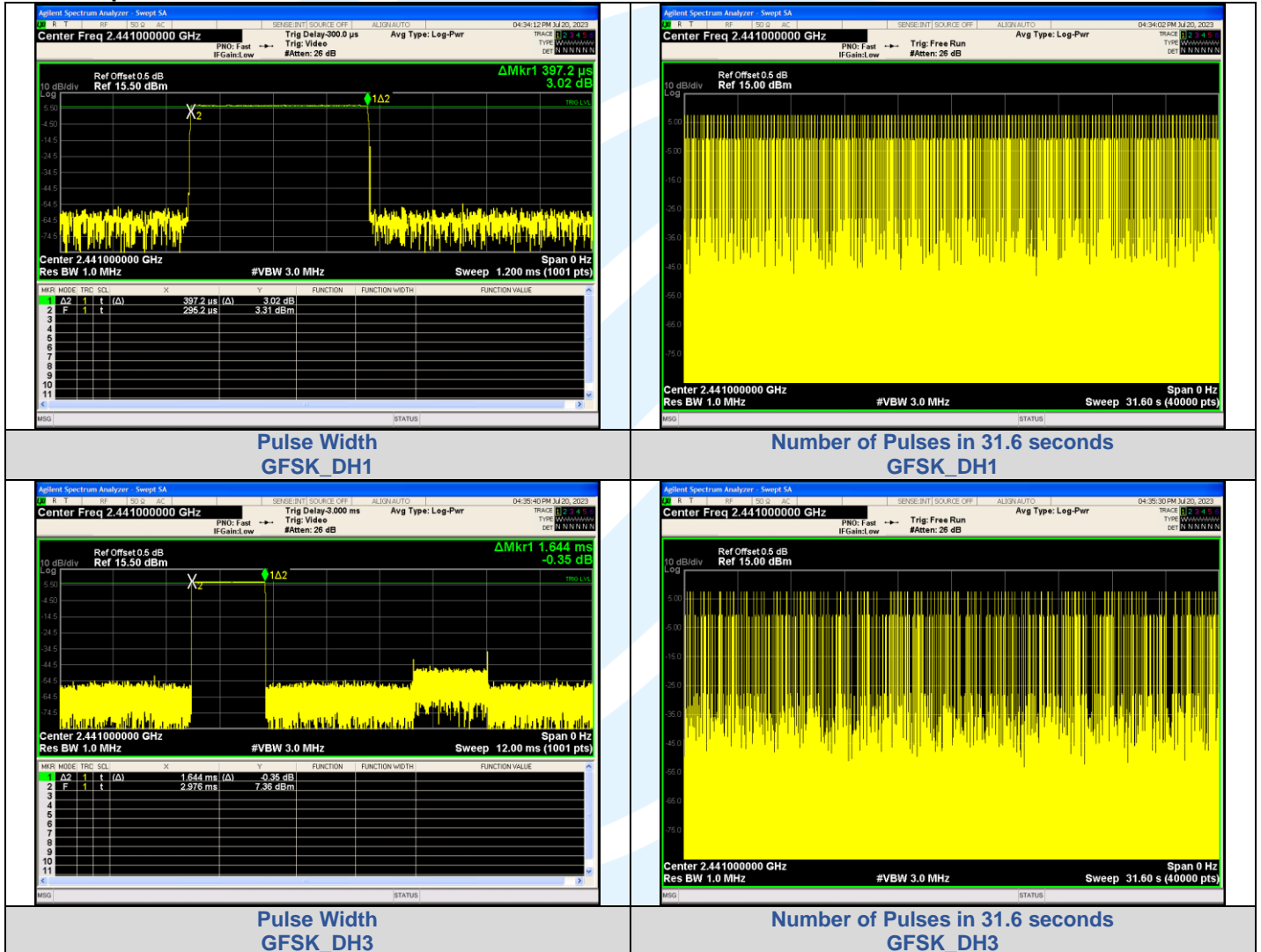
<http://www.uttlab.com>

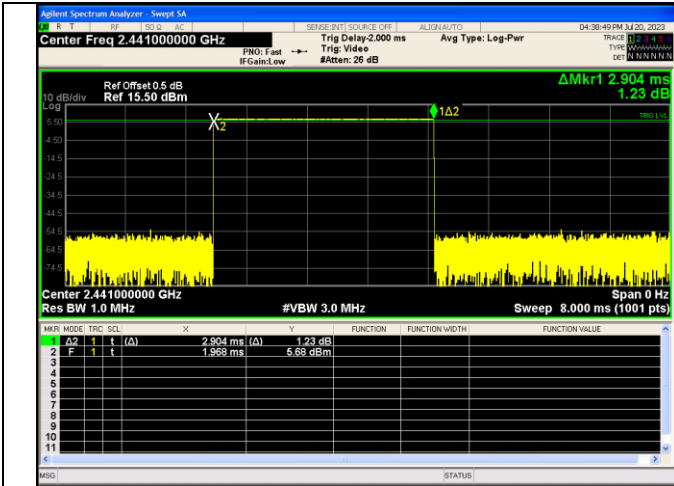
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A.4 DWELL TIME

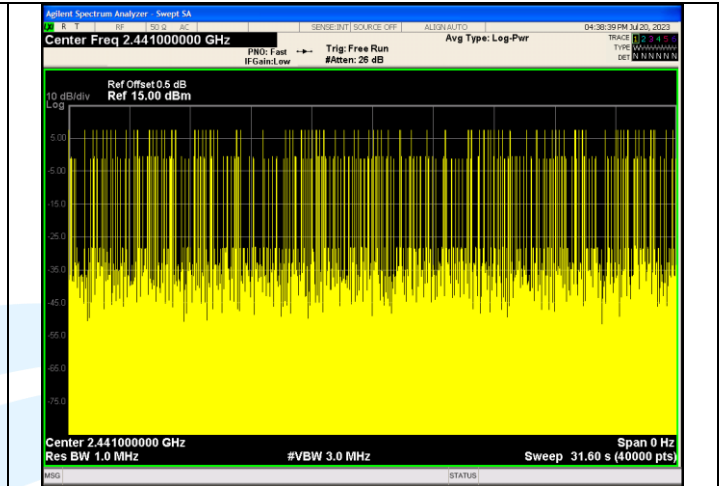
Modulation	Packet	Channel	Pulse Width (ms)	Number of Pulses in 31.6 seconds	Dwell Time (ms)	Limit (ms)	Result
GFSK	DH1	CH39 (2441MHz)	0.3972	319	126.71	< 400	PASS
	DH3		1.644	163	267.97		PASS
	DH5		2.904	100	290.4		PASS
π/4DQPSK	2-DH1		0.4068	319	129.77		PASS
	2-DH3		1.656	160	264.96		PASS
	2-DH5		2.896	114	330.14		PASS

Test Graphs

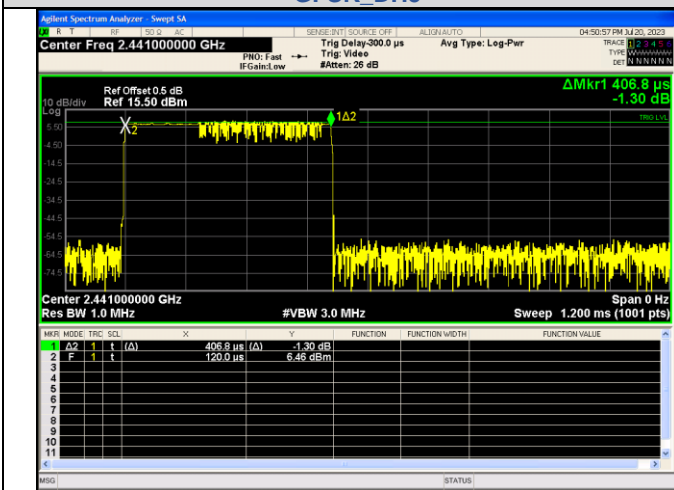




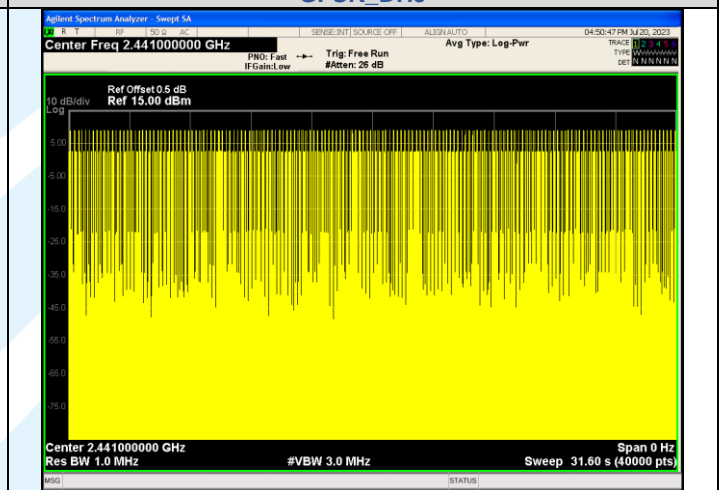
Pulse Width
GFSK_DH5



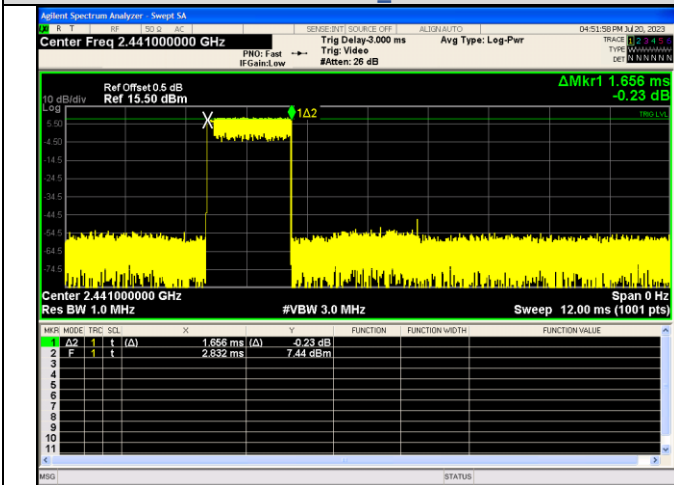
Number of Pulses in 31.6 seconds
GFSK_DH5



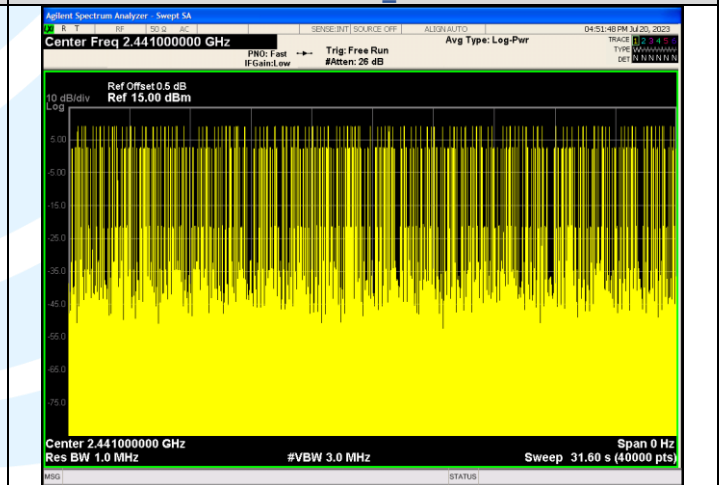
Pulse Width
 $\pi/4$ DQPSK_2-DH1



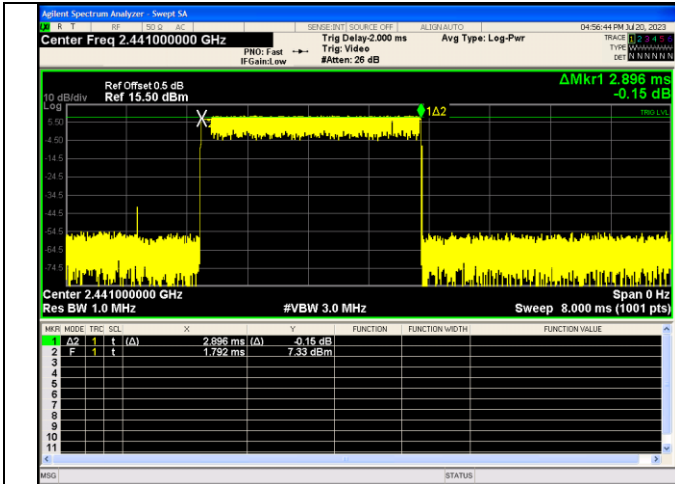
Number of Pulses in 31.6 seconds
 $\pi/4$ DQPSK_2-DH1



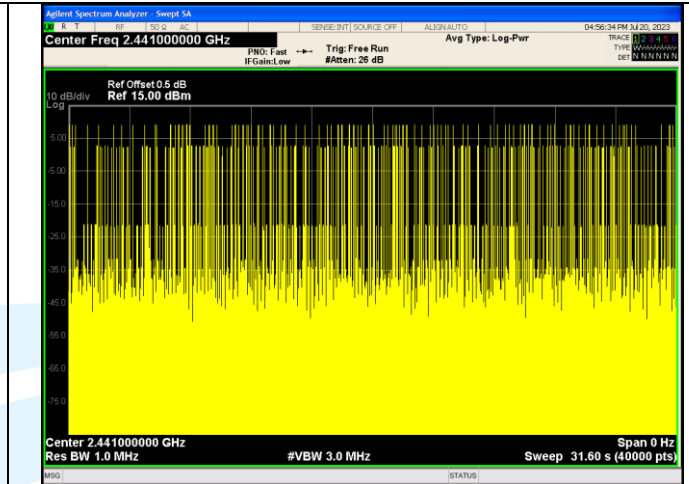
Pulse Width
 $\pi/4$ DQPSK_2-DH3



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

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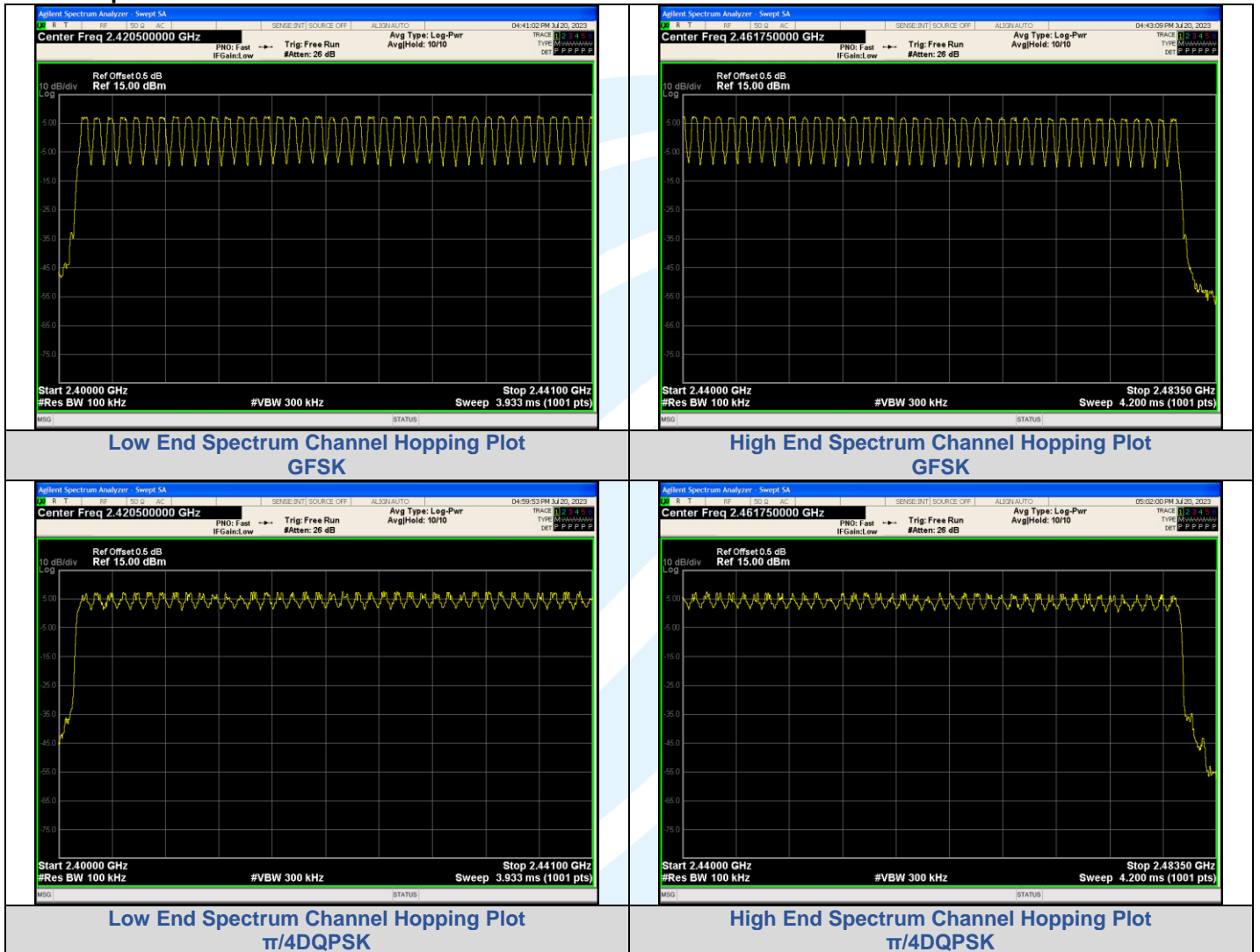
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A.5 NUMBER OF HOPPING CHANNEL

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

Test Graphs

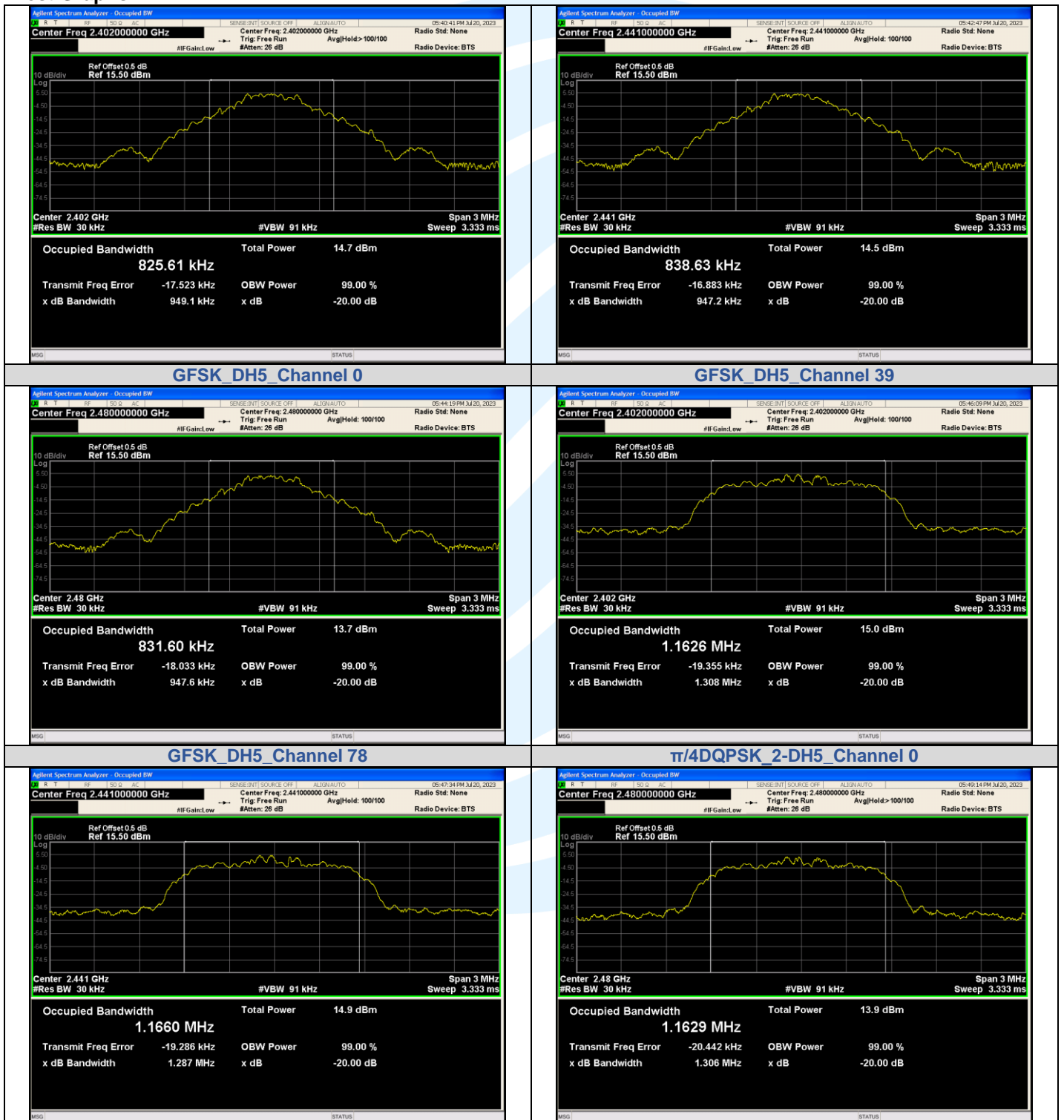


APPENDIX B RF TEST DATA_FOR RIGHT EAR

B.2 20DB BANDWIDTH

Modulation	Channel	Center Frequency (MHz)	20 dB Bandwidth (MHz)
GFSK	0	2402 MHz	0.9491
	39	2441 MHz	0.9472
	78	2480 MHz	0.9476
π /4DQPSK	0	2402 MHz	1.308
	39	2441 MHz	1.287
	78	2480 MHz	1.306

Test Graphs



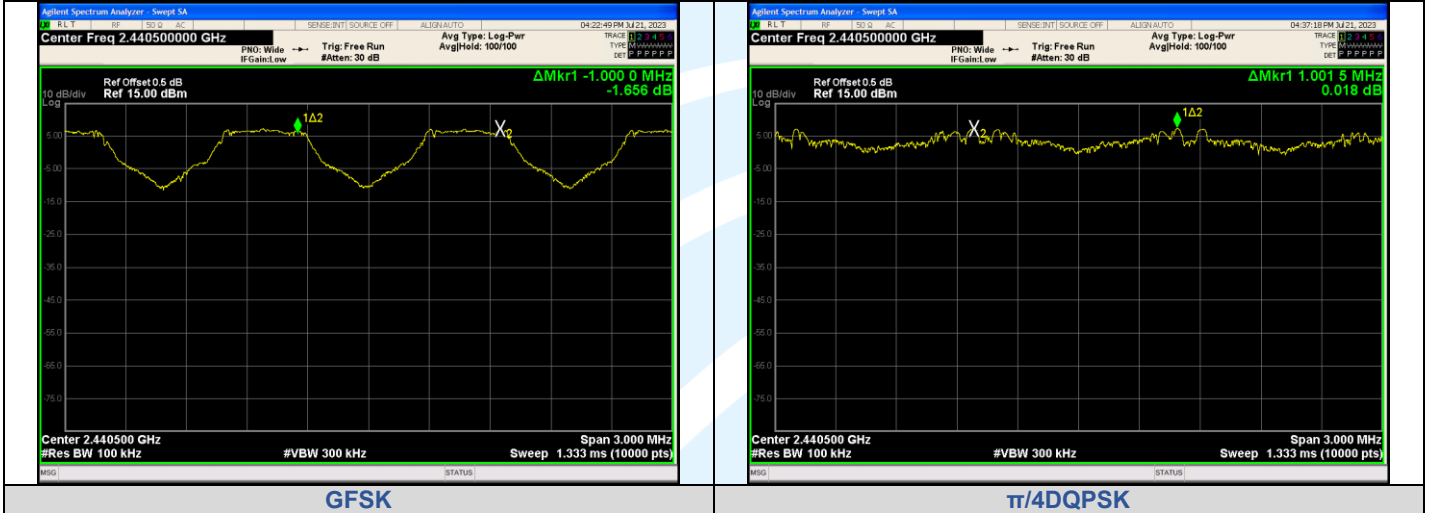
$\pi/4$ DQPSK_2-DH5_Channel 39

$\pi/4$ DQPSK_2-DH5_Channel 78

B.3 CARRIER FREQUENCIES SEPARATION

Modulation	Packet	Left Center frequency (MHz)	Right Center frequency (MHz)	Hopping Frequency Separation (MHz)	Limit (MHz)	Result
GFSK	DH5	2439.9784	2441.15	1.0000	0.631	PASS
$\pi/4$ DQPSK	2-DH5	2439.9844	2440.9859	1.0015	0.858	PASS

Test Graphs



B.4 CONDUCTED OUT OF BAND EMISSION

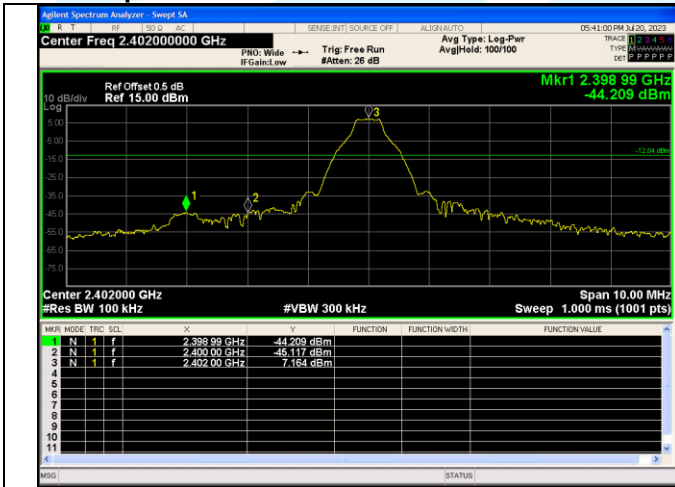
Non-Hopping

Modulation	Packet	Channel	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result	
GFSK	DH5	0	2400.00	-45.117	-12.84	-32.277	PASS	
			2398.99	-44.209	-12.84	-31.369	PASS	
			4803.80	-45.046	-12.84	-32.206	PASS	
		39	4881.79	-45.138	-12.81	-32.328	PASS	
			78	2483.50	-55.552	-13.7	-42	PASS
				4960.45	-48.367	-13.7	-34.667	PASS
π /4DQPSK	2-DH5	0	2400.00	-43.720	-12.82	-31	PASS	
			4803.76	-44.172	-12.82	-31.352	PASS	
		39	4882.42	-46.500	-12.86	-33.640	PASS	
		78	2483.50	-53.760	-13.71	-40	PASS	
			4959.83	-50.398	-13.71	-36.688	PASS	

Hopping

Modulation	Packet	Channel	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
GFSK	DH5	Hopping	2400.00	-44.621	-12.85	-31.771	PASS
			2483.50	-54.135	-13.72	-40.415	PASS
π /4DQPSK	2-DH5		2398.80	-45.761	-12.97	-32.791	PASS
			2400.00	-46.008	-12.97	-33.038	PASS
			2483.50	-52.798	-13.76	-39.038	PASS

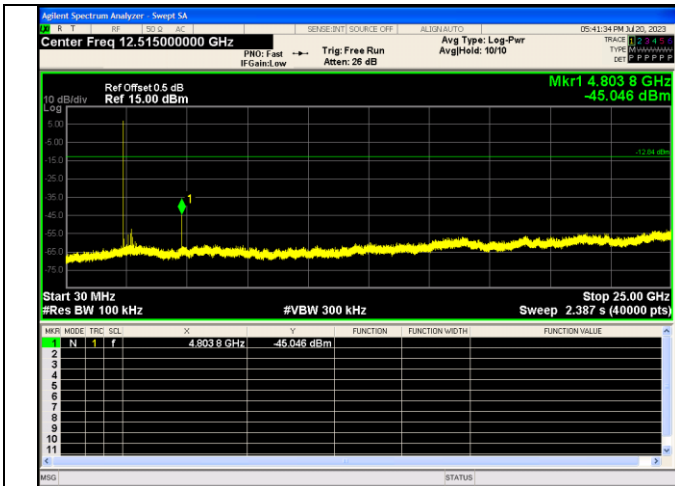
Test Graphs



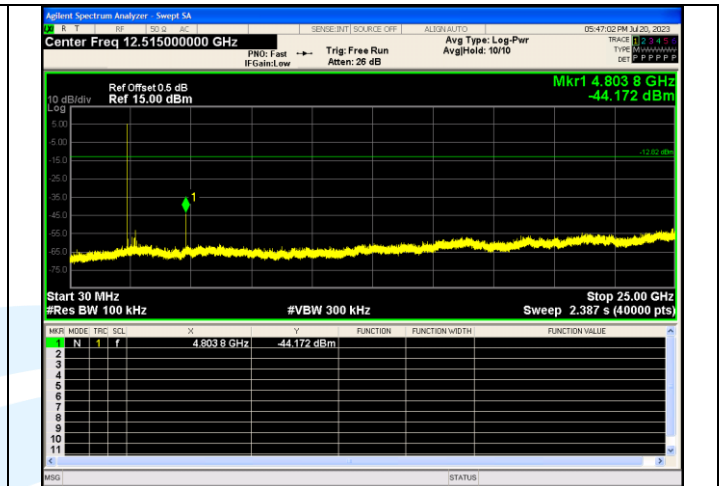
Out Of Band Emission
GFSK_DH5_Channel 0



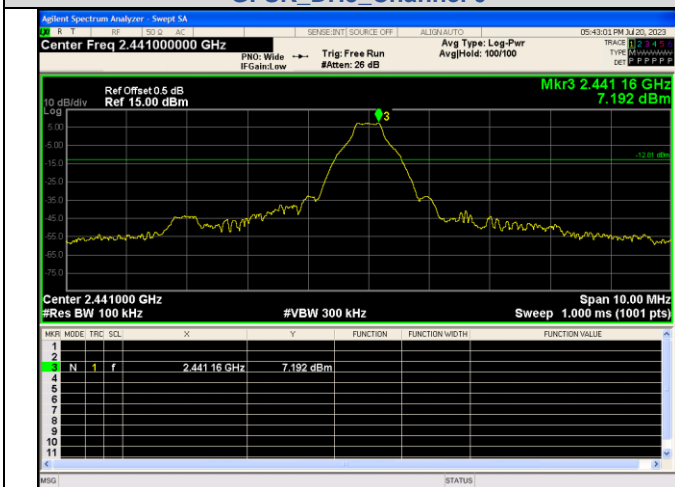
Out Of Band Emission
 π /4DQPSK_2-DH5_Channel 0



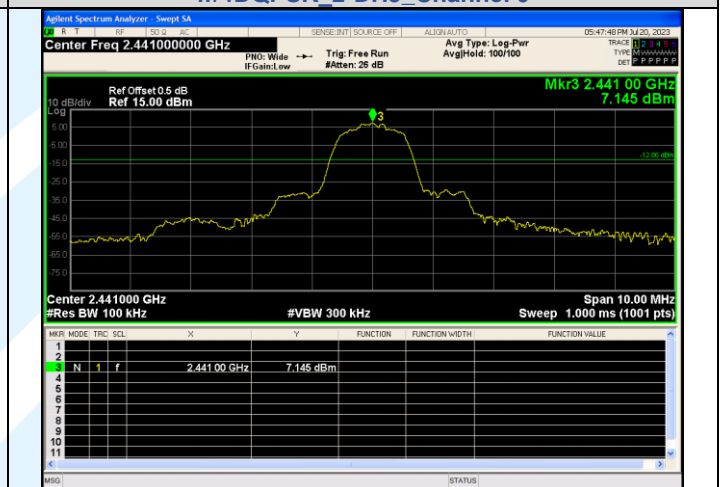
**Spurious Emission
GFSK_DH5_Channel 0**



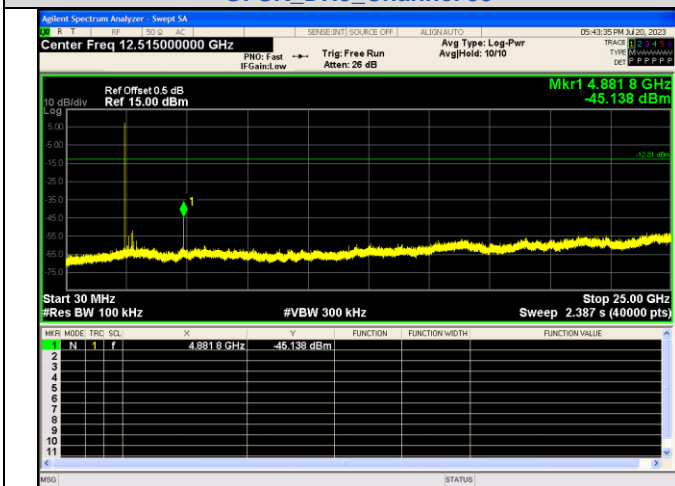
**Spurious Emission
 $\pi/4$ DQPSK_2-DH5_Channel 0**



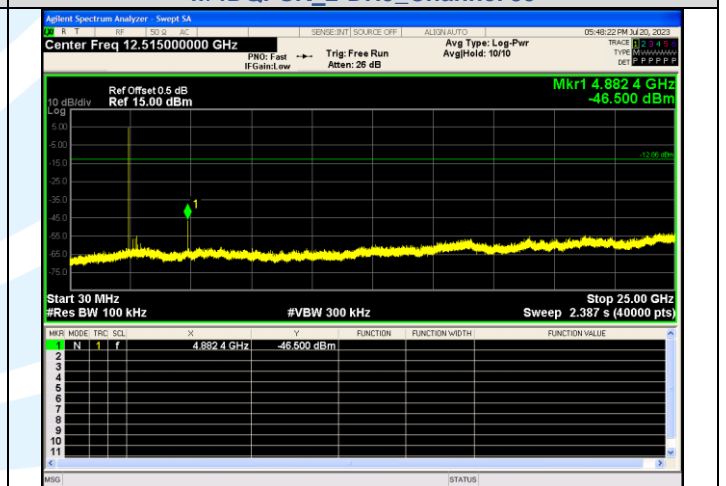
**Out Of Band Emission
GFSK_DH5_Channel 39**



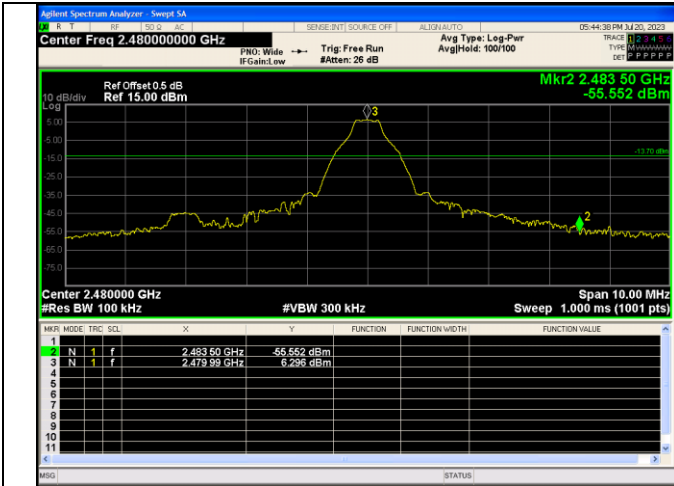
**Out Of Band Emission
 $\pi/4$ DQPSK_2-DH5_Channel 39**



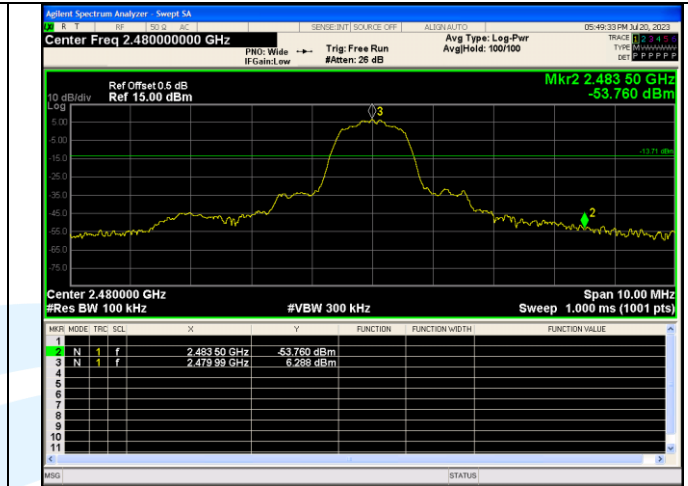
**Spurious Emissions
GFSK_DH5_Channel 39**



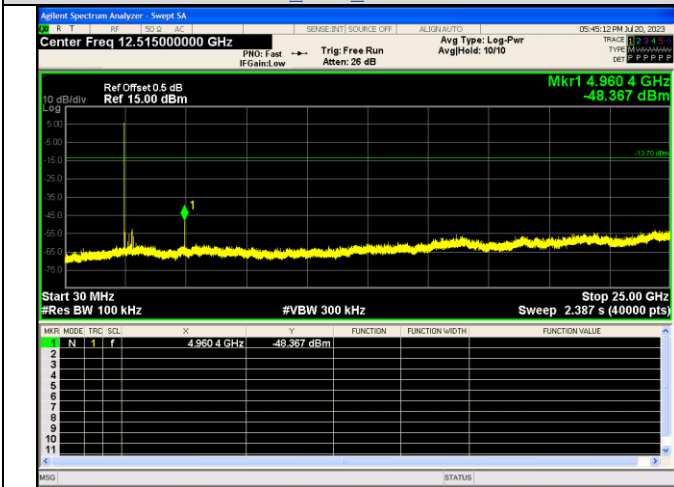
**Spurious Emissions
 $\pi/4$ DQPSK_2-DH5_Channel 39**



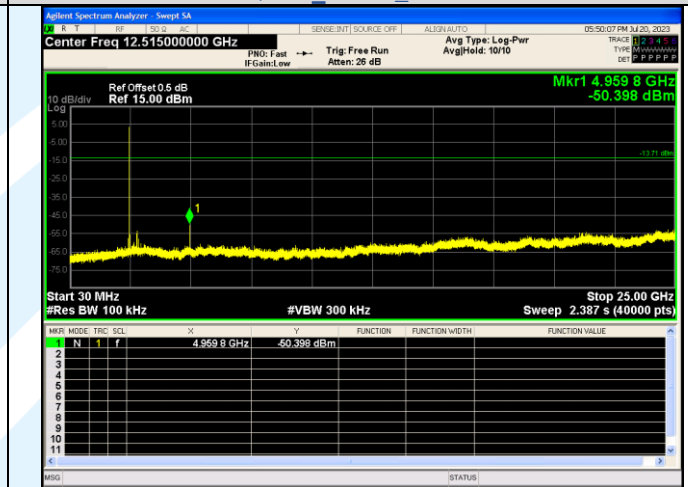
**Out Of Band Emission
GFSK_DH5_Channel 78**



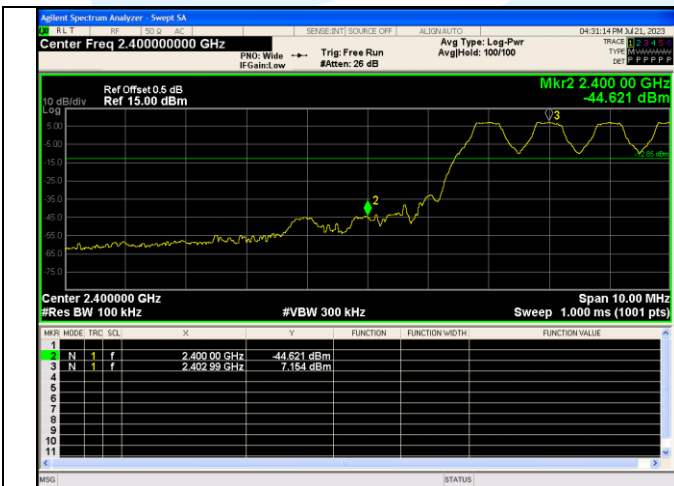
**Out Of Band Emission
 $\pi/4$ DQPSK_2-DH5_Channel 78**



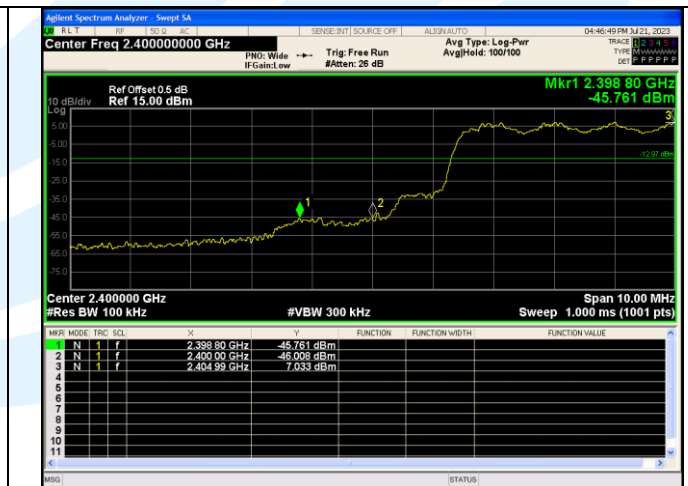
**Spurious Emission
GFSK_DH5_Channel 78**



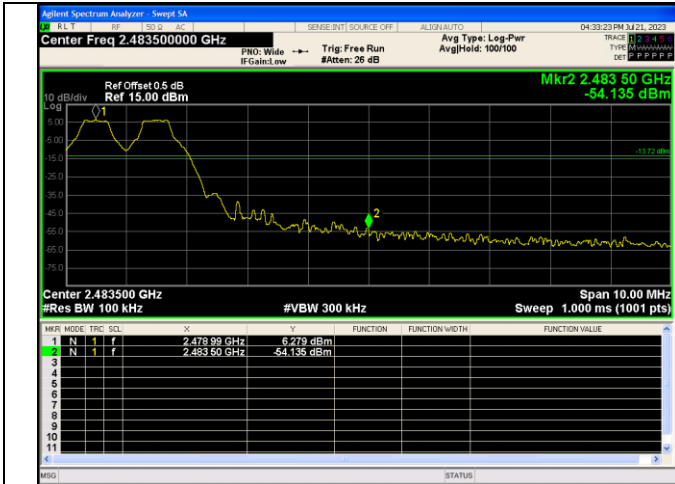
**Spurious Emission
 $\pi/4$ DQPSK_2-DH5_Channel 78**



**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**

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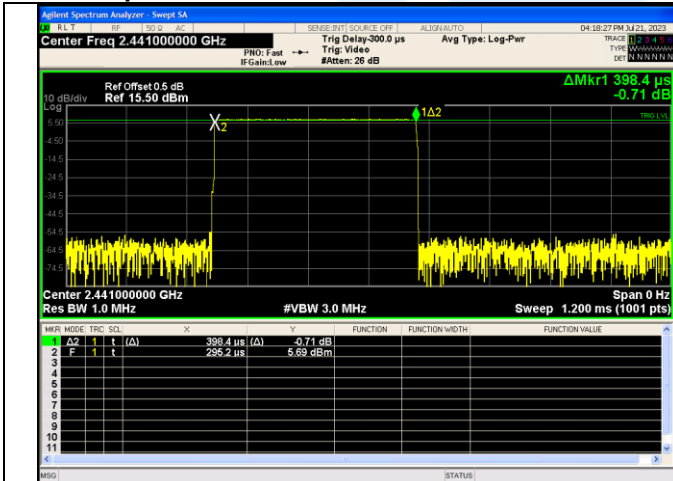
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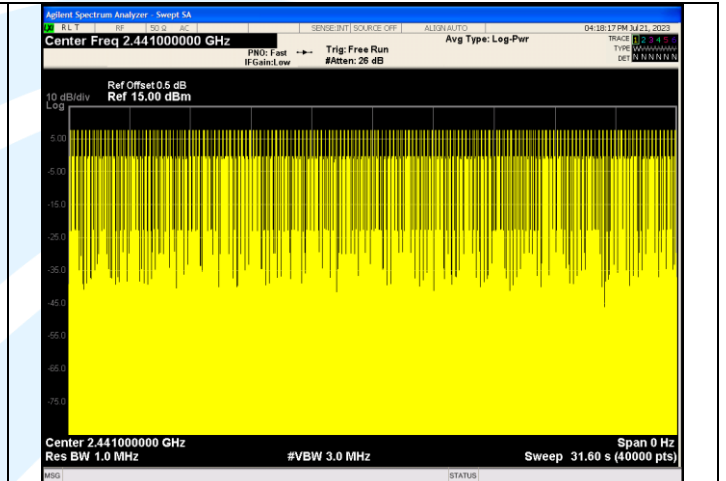
B.5 DWELL TIME

Modulation	Packet	Channel	Pulse Width (ms)	Number of Pulses in 31.6 seconds	Dwell Time (ms)	Limit (ms)	Result
GFSK	DH1	CH39 (2441MHz)	0.3984	313	124.7	< 400	PASS
	DH3		1.644	163	267.97		PASS
	DH5		2.912	114	331.97		PASS
π/4DQPSK	2-DH1		0.4068	313	127.33		PASS
	2-DH3		1.680	158	265.44		PASS
	2-DH5		2.912	111	323.23		PASS

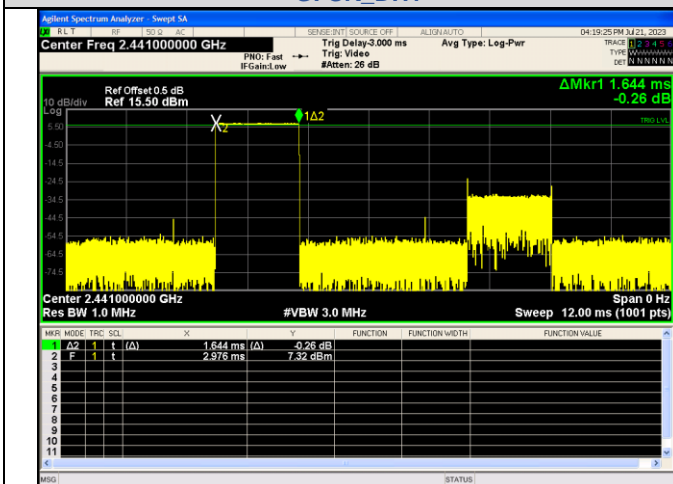
Test Graphs



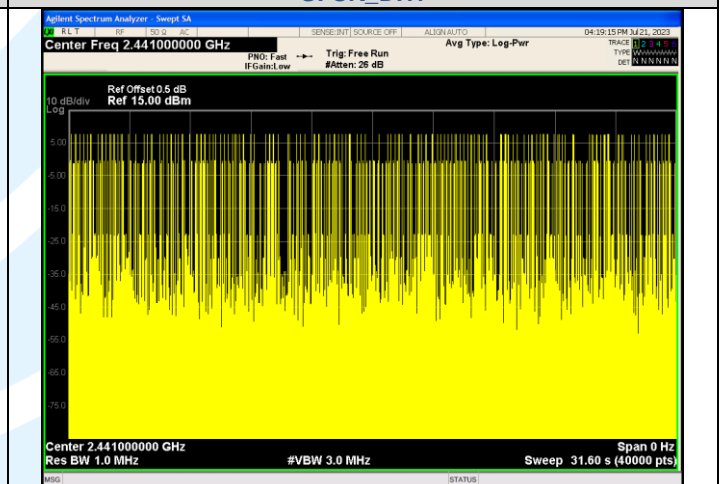
Pulse Width
GFSK_DH1



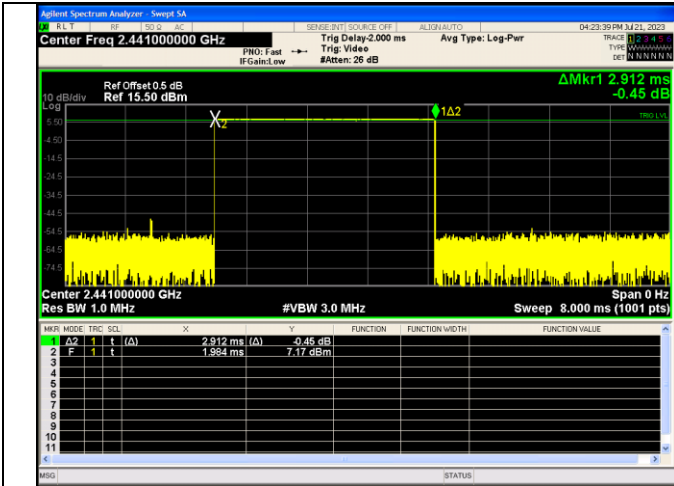
Number of Pulses in 31.6 seconds
GFSK_DH1



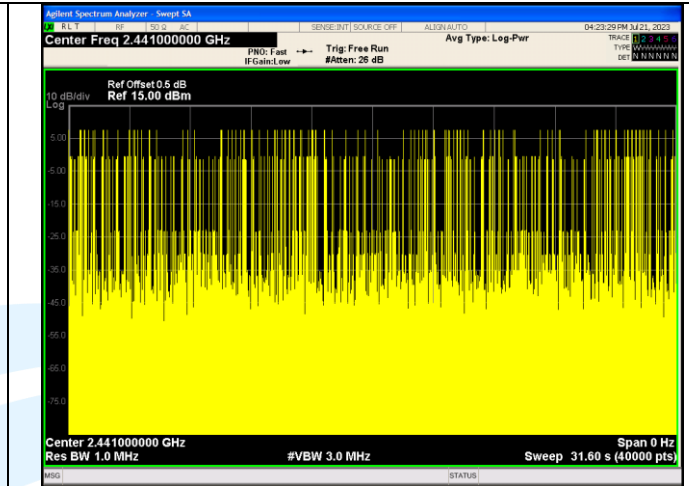
Pulse Width
GFSK_DH3



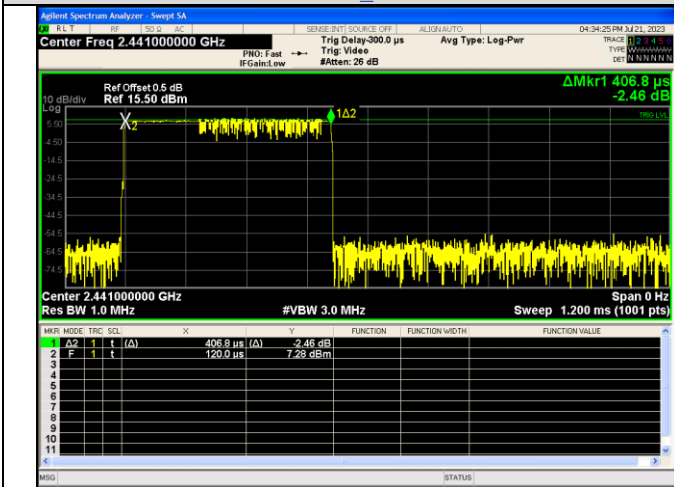
Number of Pulses in 31.6 seconds
GFSK_DH3



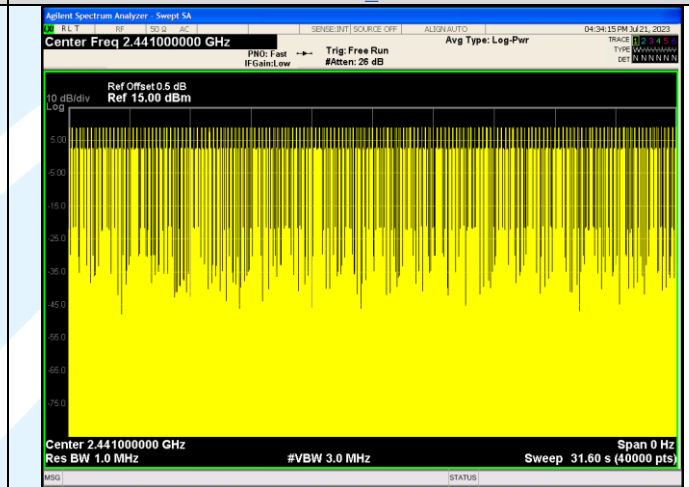
**Pulse Width
GFSK_DH5**



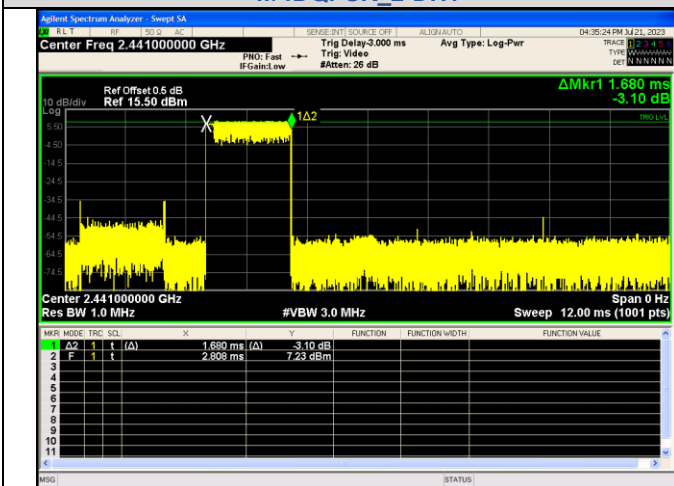
**Number of Pulses in 31.6 seconds
GFSK_DH5**



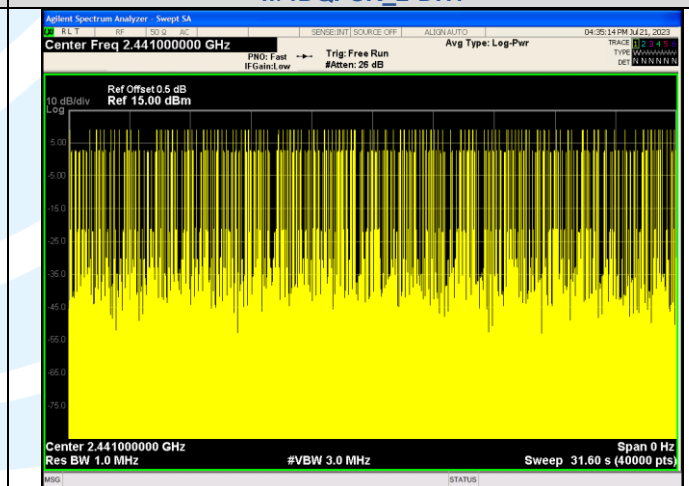
**Pulse Width
 $\pi/4$ DQPSK_2-DH1**



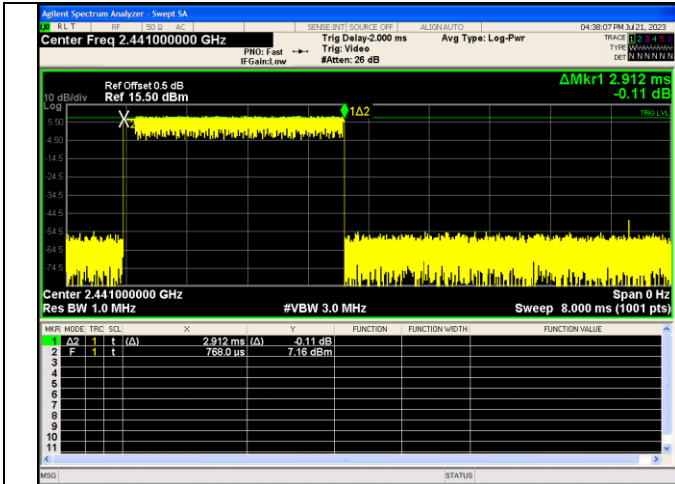
**Number of Pulses in 31.6 seconds
 $\pi/4$ DQPSK_2-DH1**



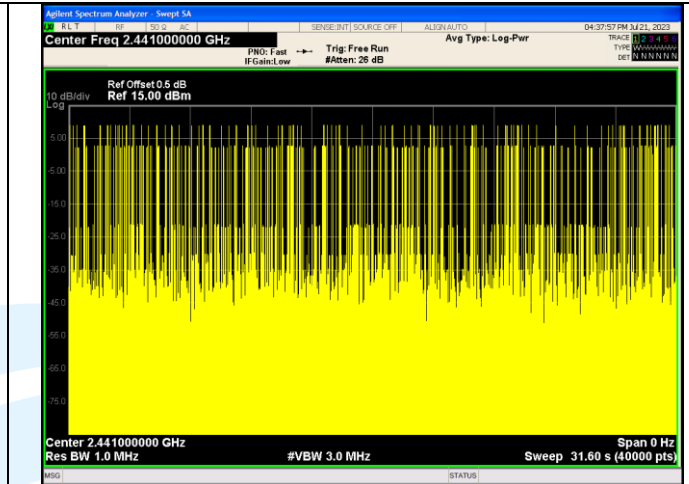
**Pulse Width
 $\pi/4$ DQPSK_2-DH3**



**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

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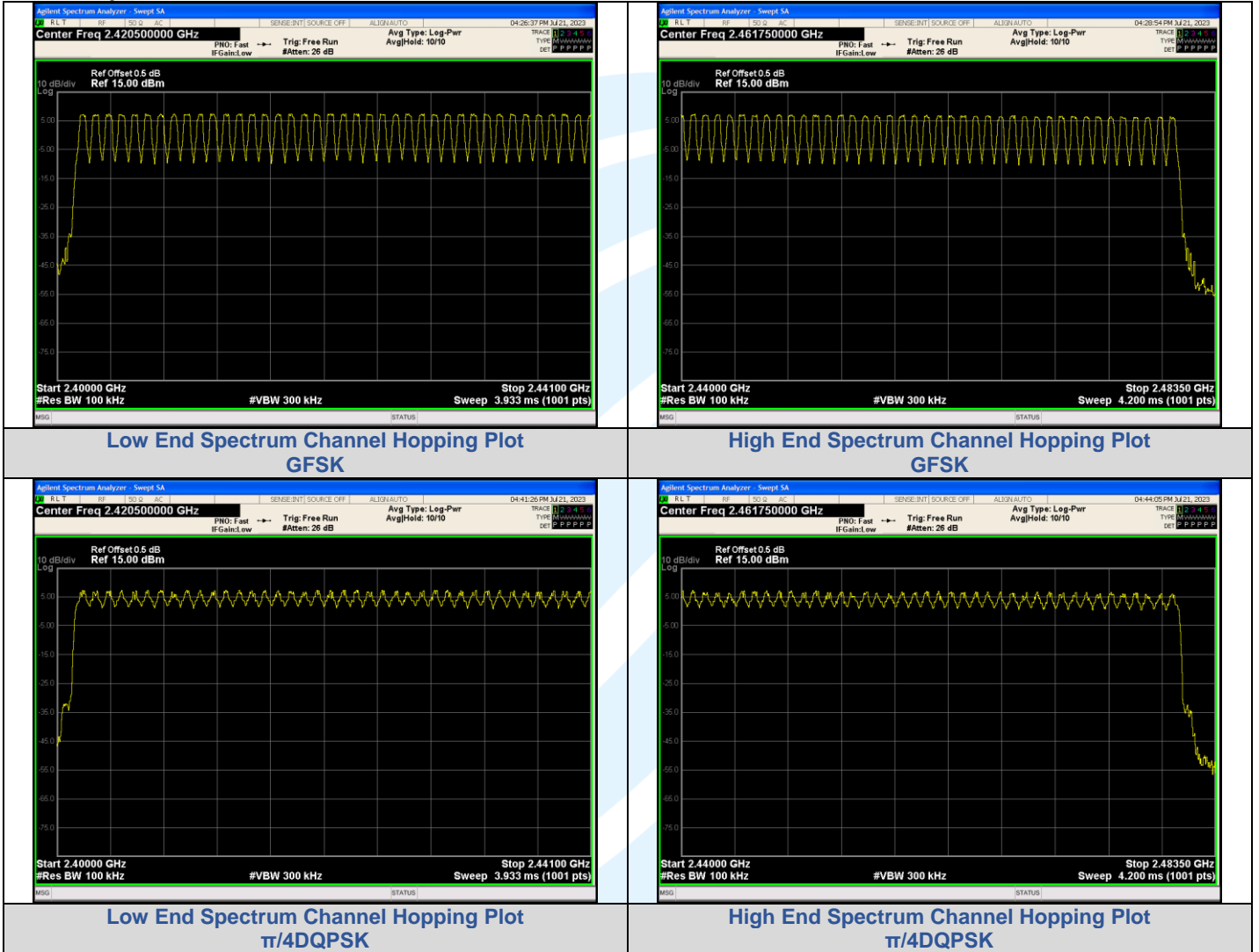
<http://www.uttlab.com>

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B.6 NUMBER OF HOPPING CHANNEL

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

Test Graphs



APPENDIX 1 PHOTOS OF TEST SETUP

See test photos attached in Appendix 1 for the actual connections between Product and support equipment.

APPENDIX 2 PHOTOS OF EUT CONSTRUCTIONAL DETAILS

Refer to Appendix 2 for EUT external and internal photos.

*** End of Report ***

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