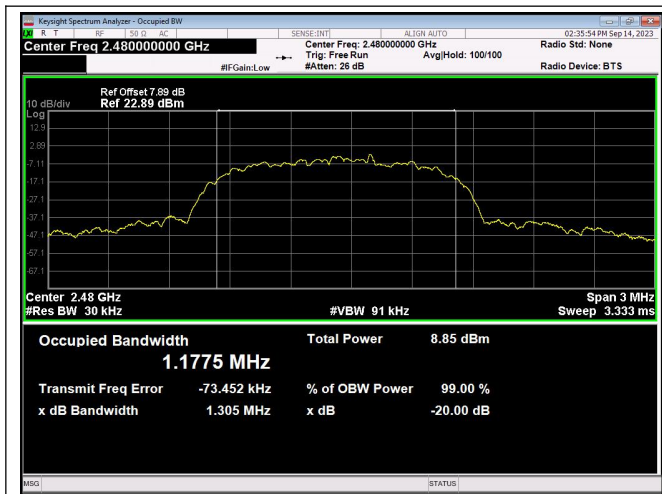
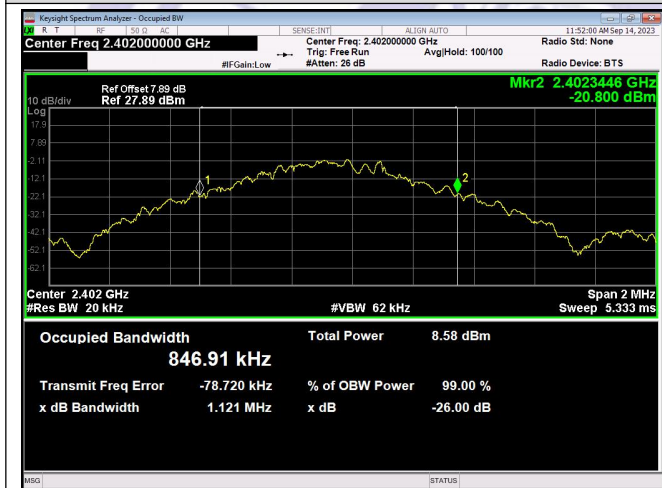
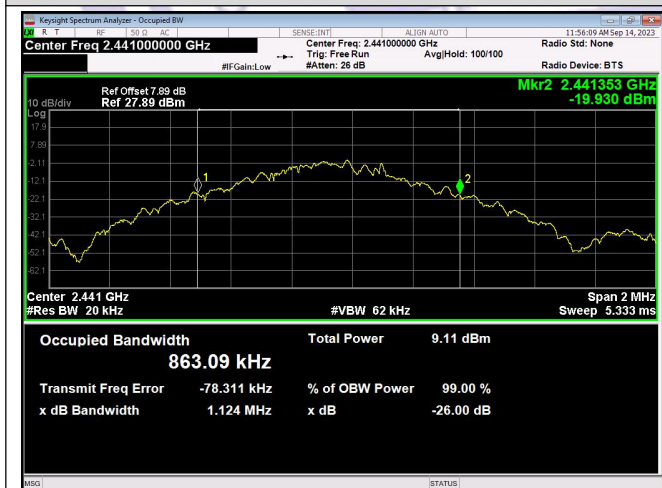




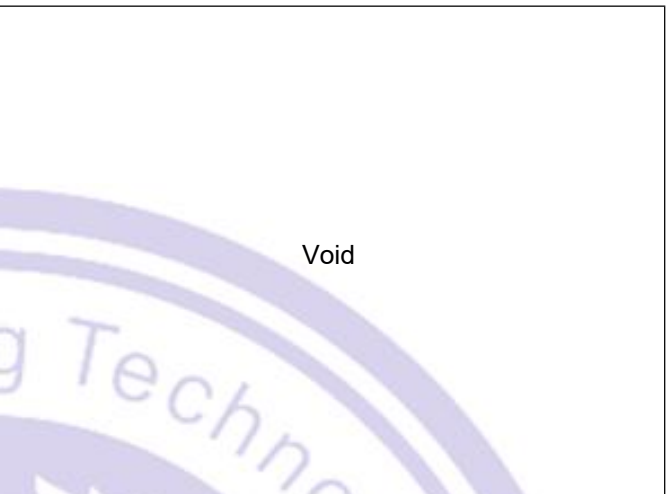
8DPSK_3-DH5_Channel 78



GFSK_DH5_Channel 0



GFSK_DH5_Channel 39

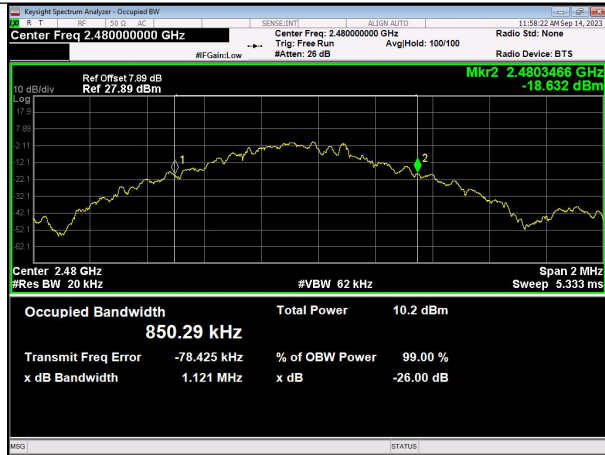


Void

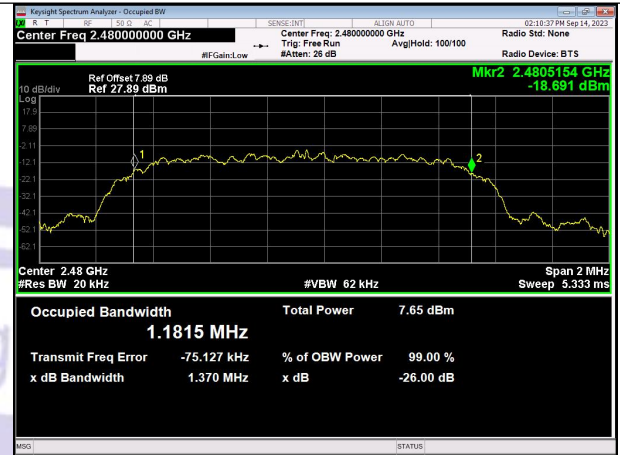
π/4DQPSK_2-DH5_Channel 0



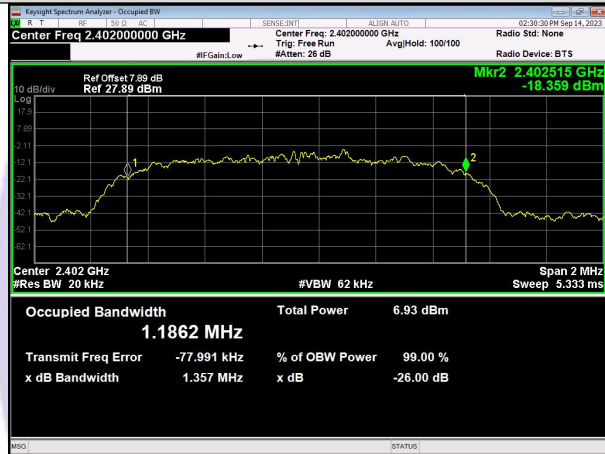
π/4DQPSK_2-DH5_Channel 39



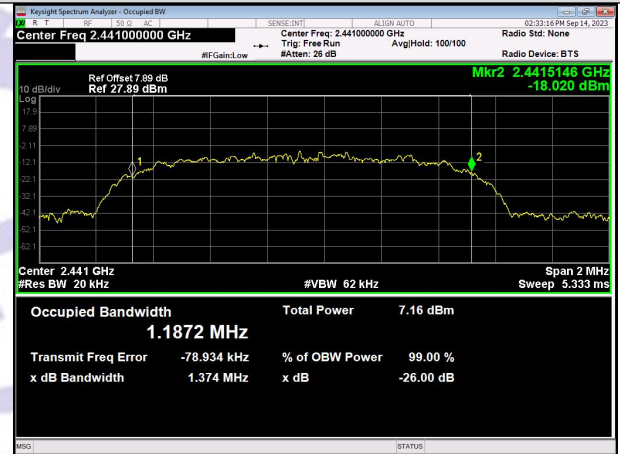
GFSK_DH5_Channel 78



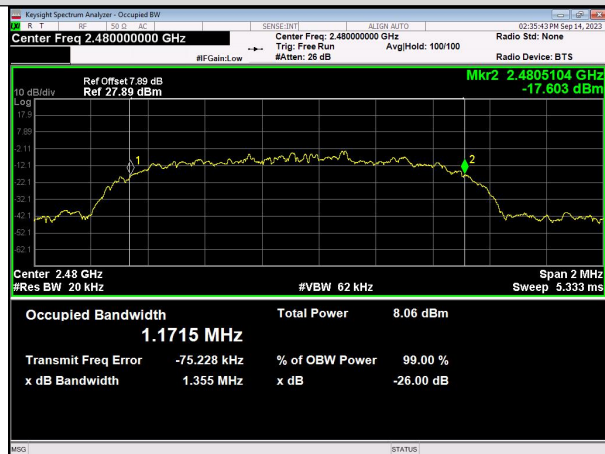
$\pi/4$ DQPSK_2-DH5_Channel 78



8DPSK_3-DH5_Channel 0



8DPSK_3-DH5_Channel 39



8DPSK_3-DH5_Channel 78

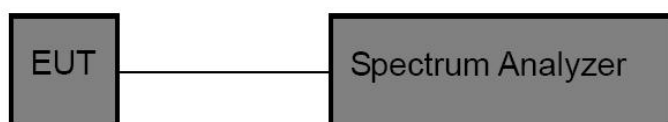
Void

10 Carrier Frequency Separation Test

10.1 Test Standard and Limit

Test Standard	FCC Part15 C Section 15.247 (a)(1) & RSS-247.5.1(4)
Test Limit	GFSK: 20dB bandwidth $\pi/4$ -DQPSK & 8DPSK: 0.025MHz or 2/3 of the 20dB bandwidth (whichever is greater)

10.2 Test Setup



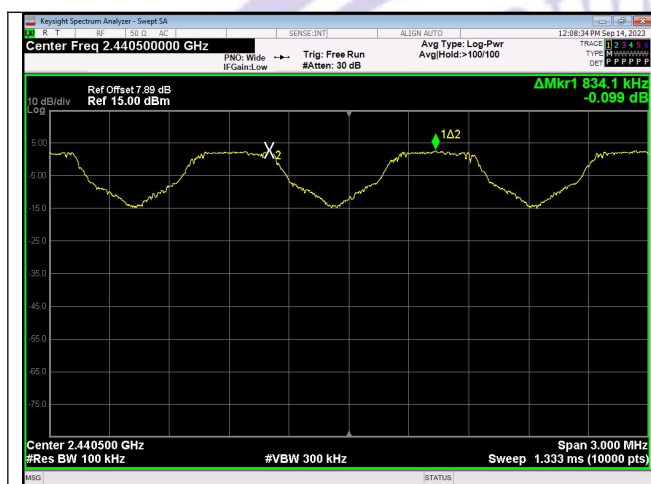
10.3 Test Procedure

The EUT must have its hopping function enabled. Using the following spectrum analyzer settings:

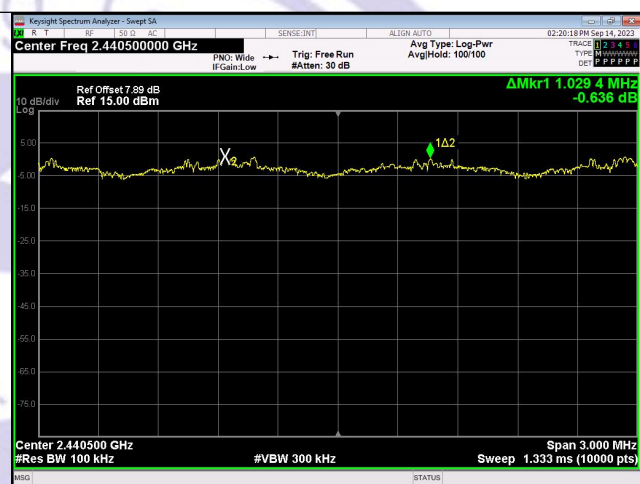
1. Span= Wide enough to capture the peaks of two adjacent channels
2. Set the RBW = 100 kHz.
3. Set the VBW = 300 kHz.
4. Sweep time = auto couple.
5. Detector function = peak.
6. Trace mode = max hold.
7. Allow trace to fully stabilize.

10.4 Test Data

Modulation	Separation (MHz)	Limit(MHz)	Result
GFSK	0.8341	0.639	PASS
$\pi/4$ -DQPSK	1.0294	0.882	PASS
8-DPSK	1.1527	0.875	PASS



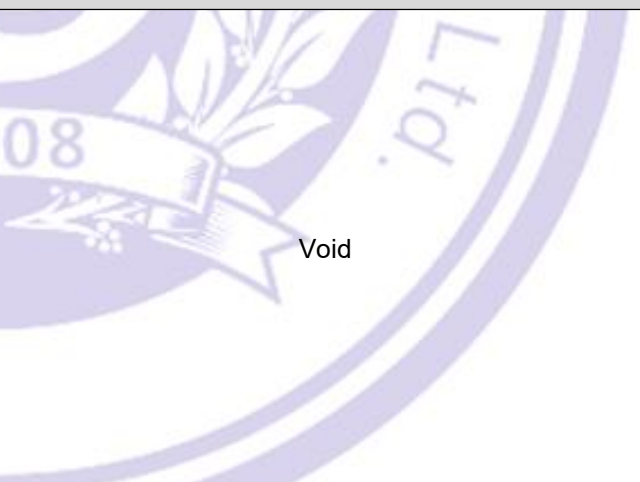
GFSK



$\pi/4$ DQPSK



8DPSK

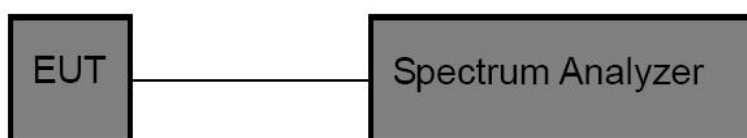


11 Number of Hopping Channel Test

11.1 Test Standard and Limit

Test Standard	FCC Part15 C Section 15.247 (a)(1) & RSS-247.5.1(4)
Test Limit	≥15 channels

11.2 Test Setup



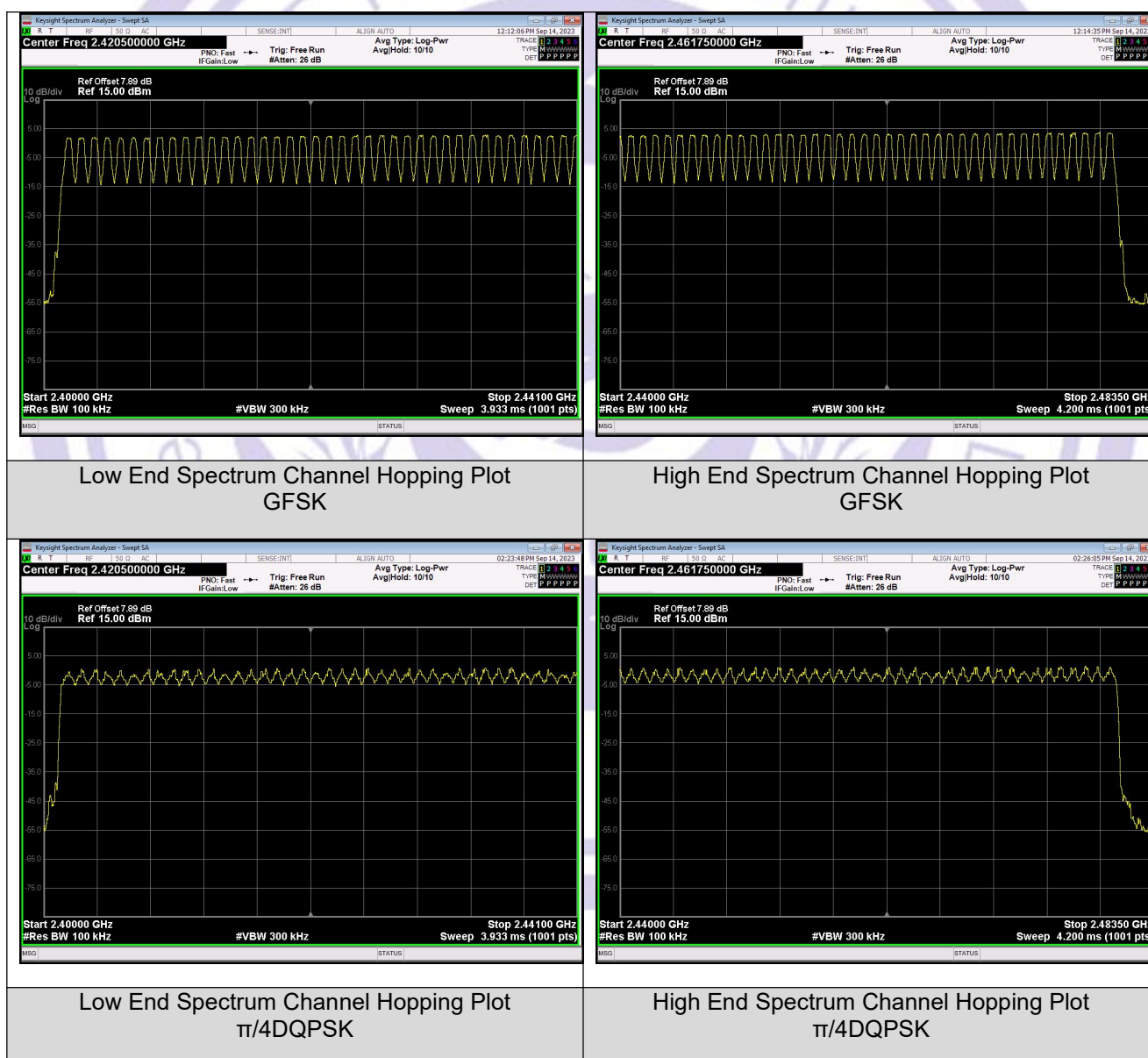
11.3 Test Procedure

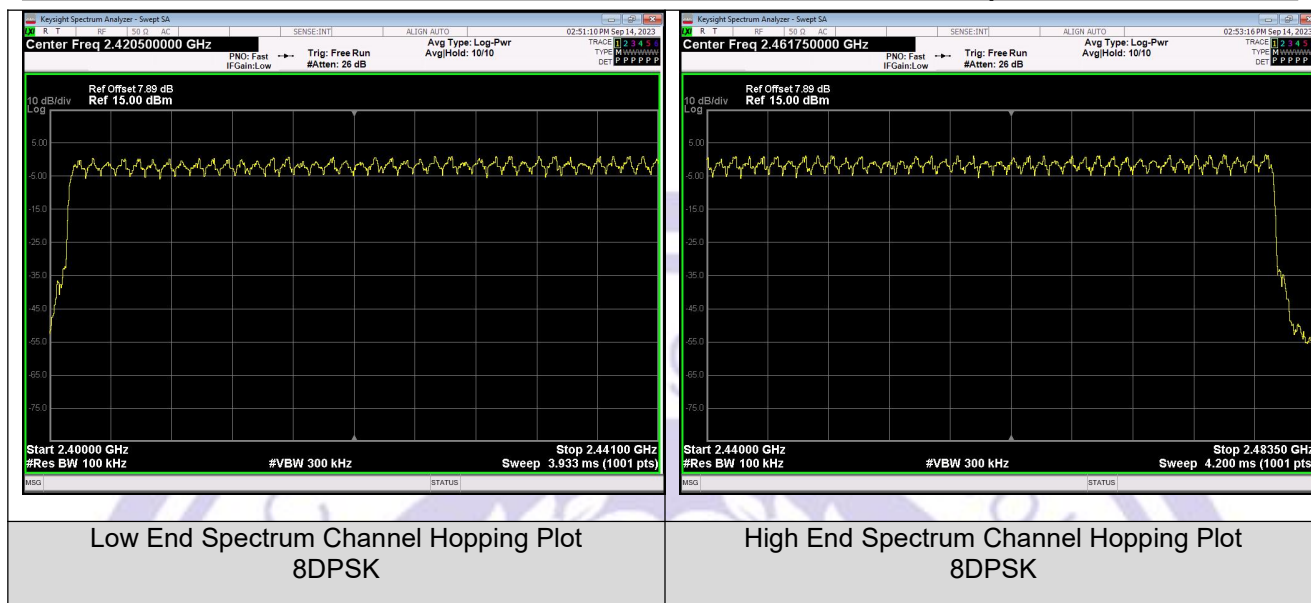
The EUT must have its hopping function enabled. Using the following spectrum analyzer setting:

1. Span= the frequency band of operation
2. Set the RBW = 100kHz.
3. Set the VBW = 300kHz.
4. Sweep time = auto couple.
5. Detector function = peak.
6. Trace mode = max hold.
7. Allow trace to fully stabilize.

11.4 Test Data

Mode	Frequency (MHz)	Packet Type	Num of Hopping Frequencies		Verdict
			ANT1	Limit	
GFSK	HOPP	DH1	79	>=15	Pass
Pi/4DQPSK	HOPP	2DH1	79	>=15	Pass
8DPSK	HOPP	3DH1	79	>=15	Pass



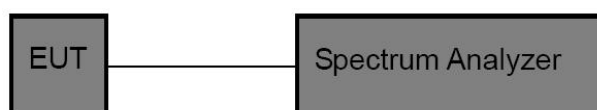


12 Dwell Time Test

12.1 Test Standard and Limit

Test Standard	FCC Part15 C Section 15.247 (a)(1) & RSS-247.5.1(4)
Test Limit	0.4 sec

12.2 Test Setup



12.3 Test Procedure

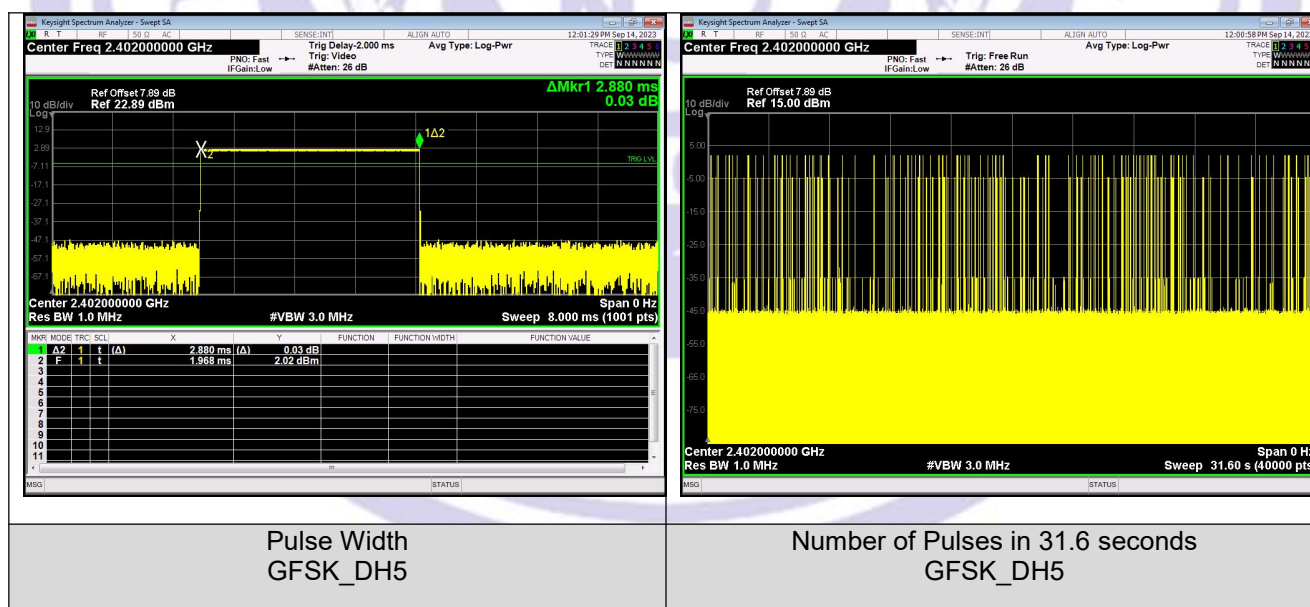
The EUT must have its hopping function enabled. Use the following spectrum analyzer settings:

1. Span= zero span, centered on a hopping channel
2. Set the RBW = 1 MHz.
3. Set the VBW = 3 MHz.
4. Sweep time = as necessary to capture the entire dwell time per hopping channel.
5. Detector function = peak.
6. Trace mode = max hold.
7. Allow trace to fully stabilize.

12.4 Test Data

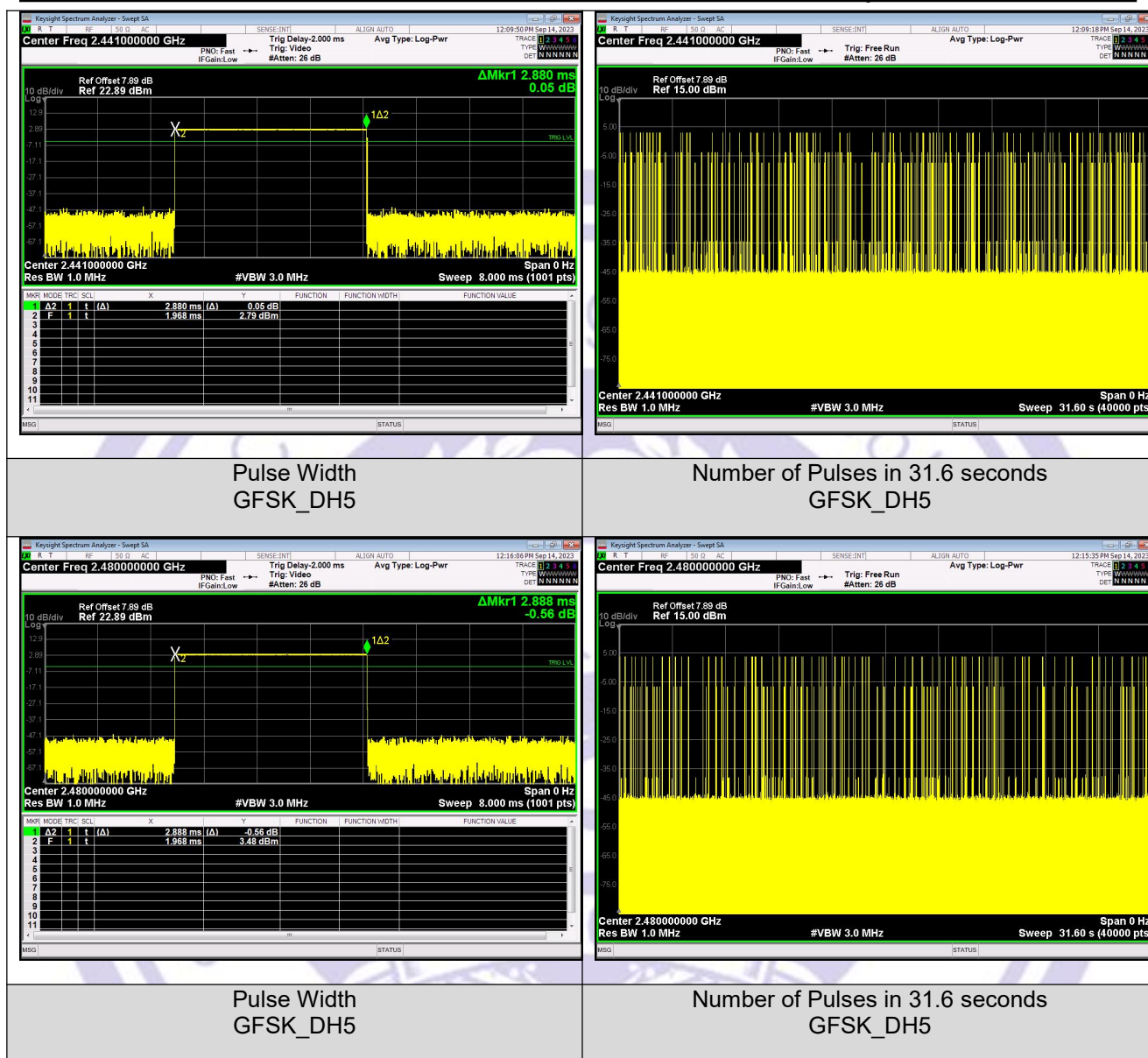
Modulation	Packet	Channel	Pulse Width (ms)	Number of Pulses in 31.6 seconds	Dwell Time (ms)	Limit (ms)	Result
GFSK	DH5	CH0 (2402MHz)	2.880	124	357.12	< 400	PASS
	DH5	CH39 (2441MHz)	2.880	110	316.8		PASS
	DH5	CH78 (2480MHz)	2.888	108	311.9		PASS
$\pi/4$ DQPSK	2-DH5	CH0 (2402MHz)	2.880	106	305.28		PASS
	2-DH5	CH39 (2441MHz)	2.880	109	313.92		PASS
	2-DH5	CH78 (2480MHz)	2.880	113	325.44		PASS
8DPSK	3-DH5	CH0 (2402MHz)	2.880	102	293.76		PASS
	3-DH5	CH39 (2441MHz)	2.880	105	302.4		PASS
	3-DH5	CH78 (2480MHz)	2.880	96	276.48		PASS

Test Plots



Pulse Width
GFSK_DH5

Number of Pulses in 31.6 seconds
GFSK_DH5

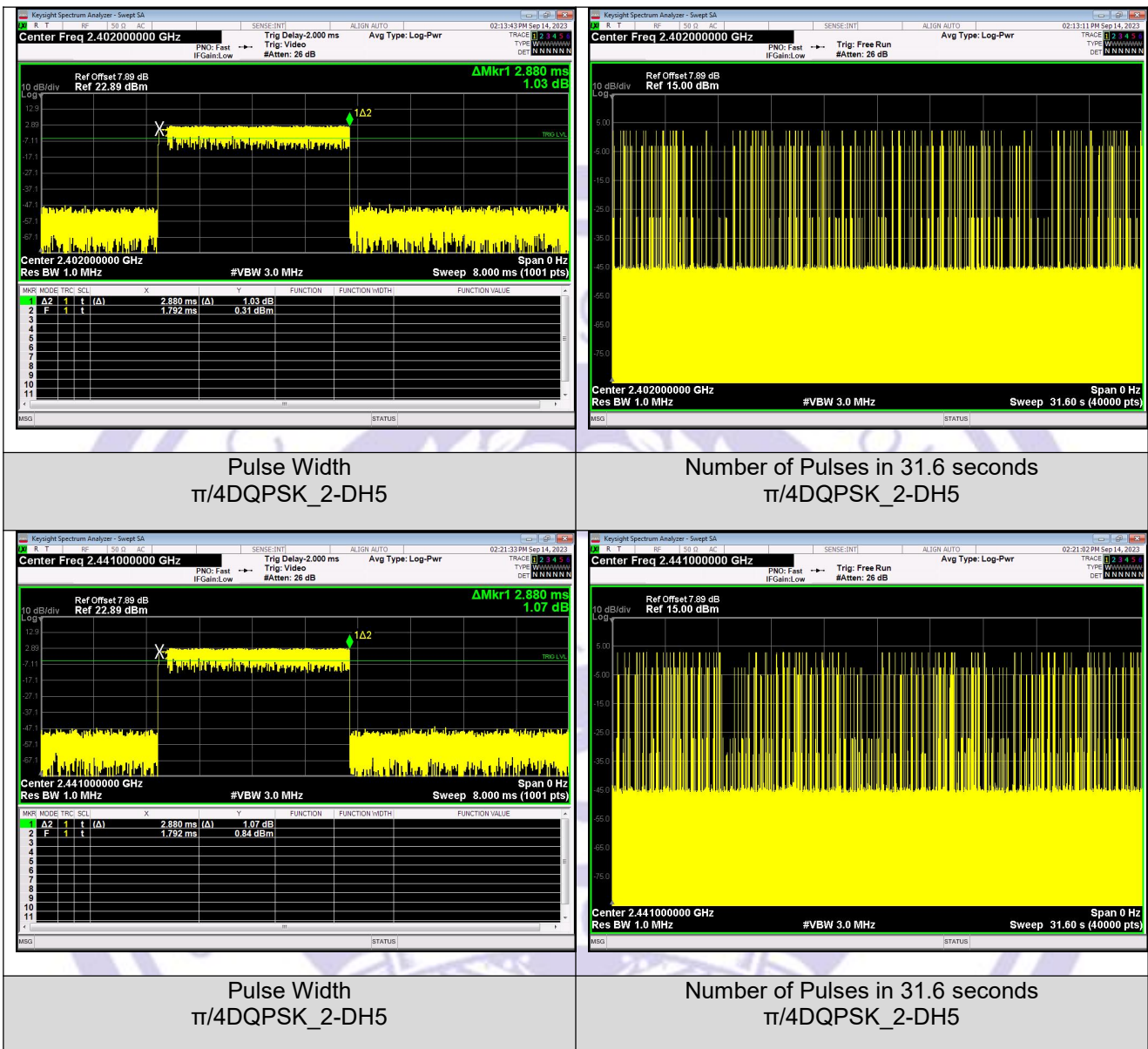


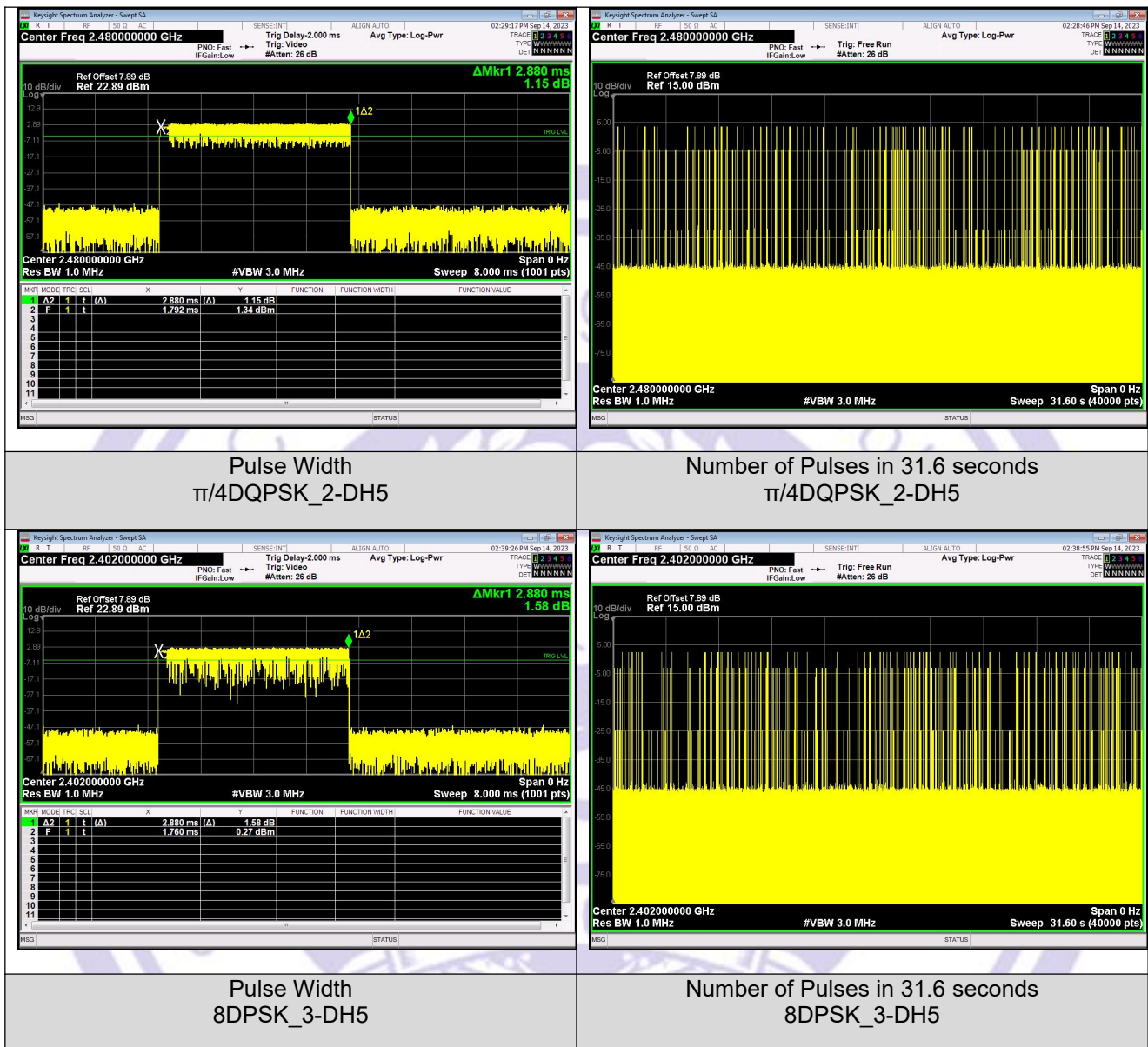
Pulse Width
GFSK_DH5

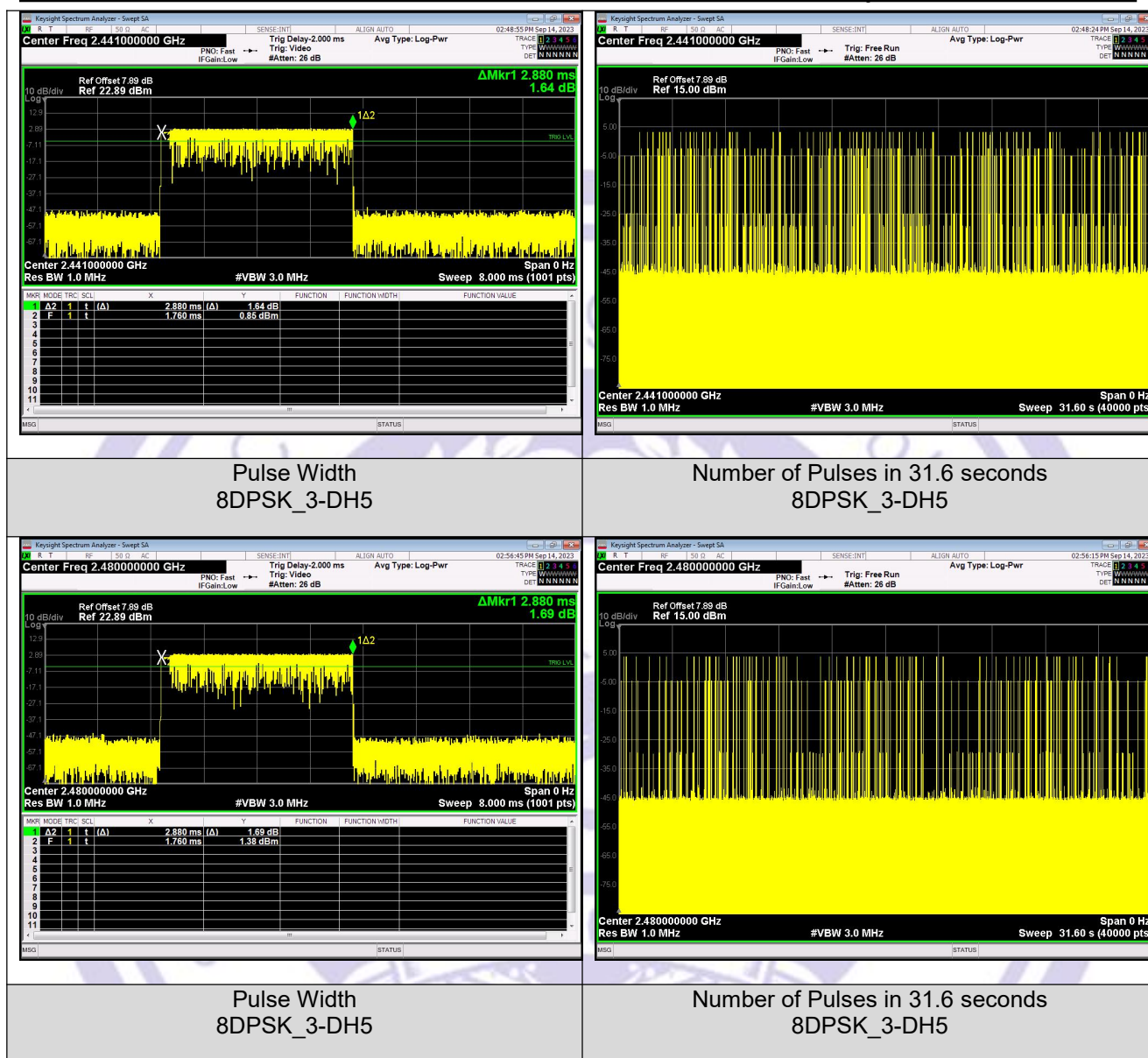
Number of Pulses in 31.6 seconds
GFSK_DH5

Pulse Width
GFSK_DH5

Number of Pulses in 31.6 seconds
GFSK_DH5







Pulse Width
8DPSK_3-DH5

Number of Pulses in 31.6 seconds
8DPSK_3-DH5

Pulse Width
8DPSK_3-DH5

Number of Pulses in 31.6 seconds
8DPSK_3-DH5