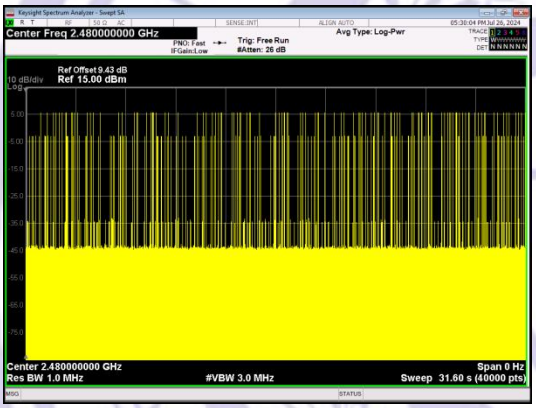
Number of Pulses in 31.6 seconds

GFSK_DH5

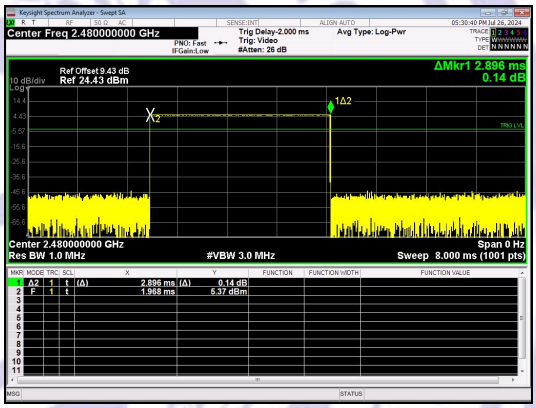
Pulse Width

GFSK_DH5



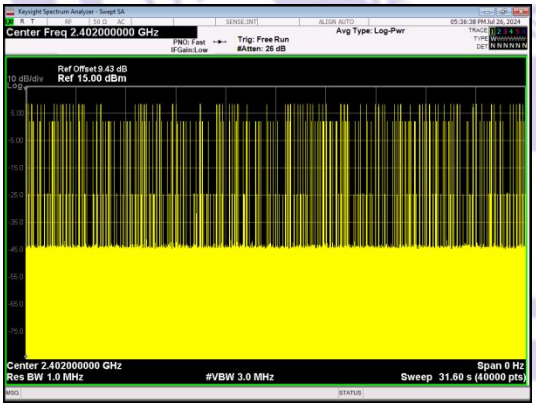
Number of Pulses in 31.6 seconds

GFSK_DH5



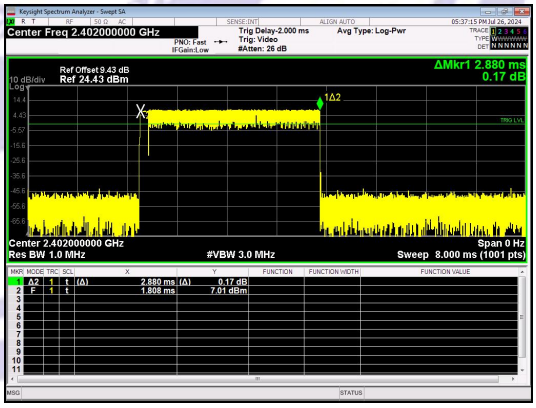
Pulse Width

GFSK_DH5



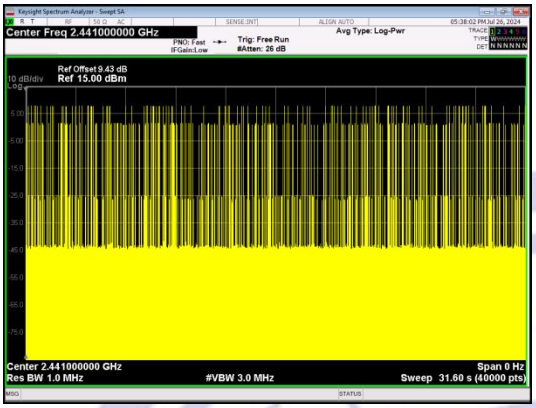
Number of Pulses in 31.6 seconds

π/4DQPSK_2-DH5



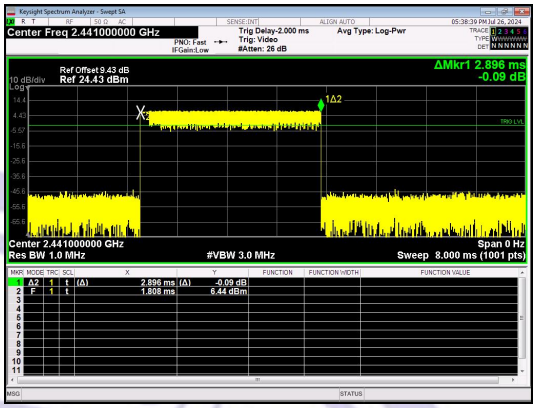
Pulse Width

π/4DQPSK_2-DH5



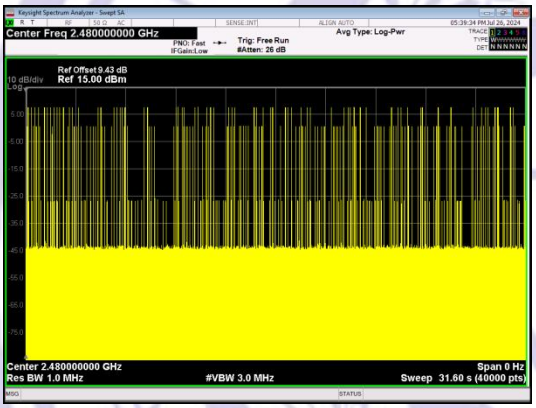
Number of Pulses in 31.6 seconds

π/4DQPSK_2-DH5



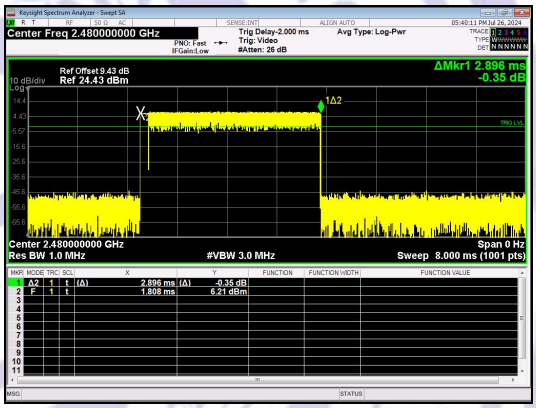
Pulse Width

π/4DQPSK_2-DH5



Number of Pulses in 31.6 seconds

π/4DQPSK_2-DH5

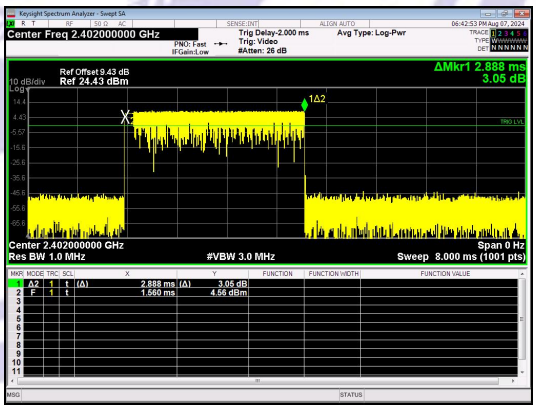


Pulse Width

π/4DQPSK_2-DH5

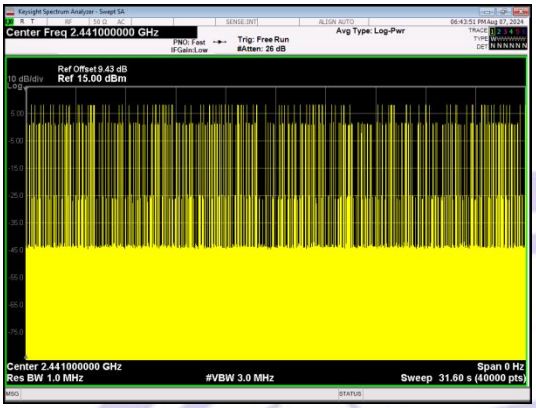
Number of Pulses in 31.6 seconds

8DPSK_3-DH5



Pulse Width

8DPSK_3-DH5

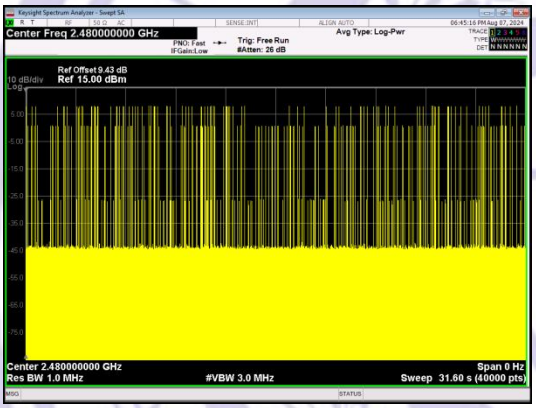


Number of Pulses in 31.6 seconds

8DPSK_3-DH5

Pulse Width

8DPSK_3-DH5



Number of Pulses in 31.6 seconds

8DPSK_3-DH5

Pulse Width

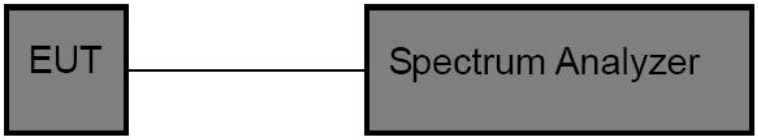
8DPSK_3-DH5

13 100kHz Bandwidth of Frequency Band Edge Requirement

13.1 Test Standard and Limit

Test Standard	FCC Part15 C Section 15.247 (d) & RSS-247 5.5
Test Limit	in any 100 kHz bandwidth outside the frequency bands in which the spread spectrum intentional radiator in operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power, In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in 15.209(a).

13.2 Test Setup



13.3 Test Procedure

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

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

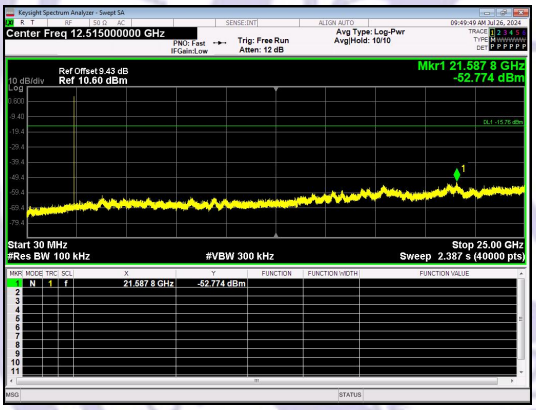
13.4 Test Data

Non-Hopping

Modulation	Packet	Channel	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
GFSK	DH1	0	2398.68	-52.328	-15.76	-36.568	PASS
			2400.00	-53.886	-15.76	-38.126	PASS
			21587.8	-52.774	-15.76	-37.014	PASS
		39	21577.2	-52.564	-16.14	-36.424	PASS
		78	2483.50	-55.264	-16.92	-38.344	PASS
			21124.6	-51.426	-16.92	-34.506	PASS
π/4DQPSK	2-DH1	0	2400.00	-52.750	-15.24	-37.510	PASS
			21149.5	-53.050	-15.24	-37.809	PASS
		39	21181.4	-52.733	-15.89	-36.843	PASS
		78	2483.50	-55.045	-15.58	-39.465	PASS
			24943.2	-53.722	-15.58	-38.142	PASS
8DPSK	3-DH1	0	2400.00	-53.056	-15.31	-37.746	PASS
			21599.0	-53.395	-15.31	-38.085	PASS
		39	21231.9	-53.477	-15.9	-37.577	PASS
		78	2483.50	-54.945	-16.09	-38.855	PASS
			21555.3	-53.032	-16.09	-36.942	PASS

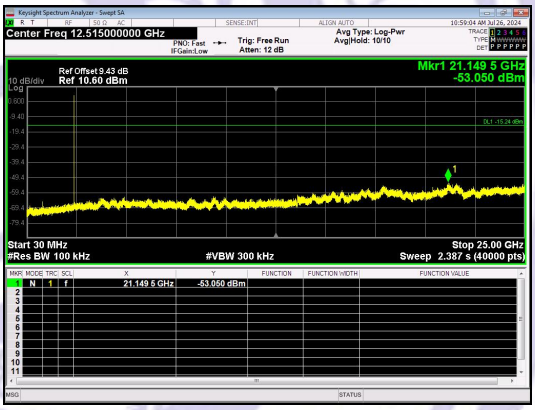
Hopping

Modulation	Packet	Channel	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
GFSK	DH1	Hopping	2391.26	-52.436	-13.45	-38.986	PASS
			2400.00	-52.629	-13.45	-39.179	PASS
			2483.50	-53.982	-14.06	-39.922	PASS
π/4DQPSK	2-DH1		2400.00	-52.437	-12.55	-39.887	PASS
			2483.50	-53.873	-13.2	-40.673	PASS
8DPSK	3-DH1		2400.00	-48.593	-12.46	-36.133	PASS
			2483.50	-53.771	-13.14	-40.631	PASS



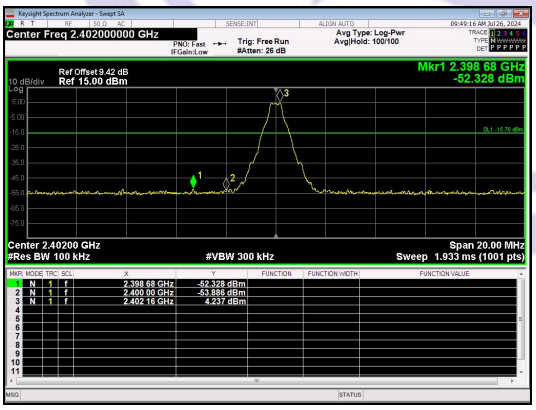
30.0 MHz - 25000.0 MHz

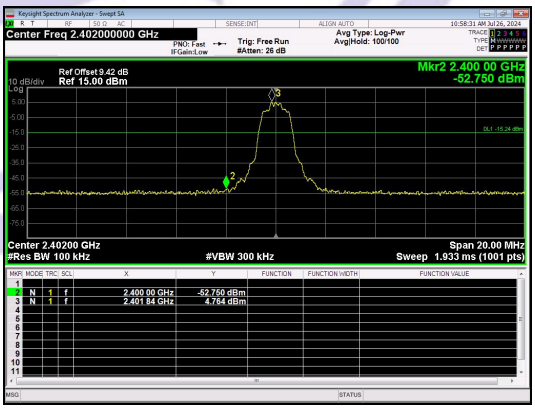
GFSK_DH1_Channel 0

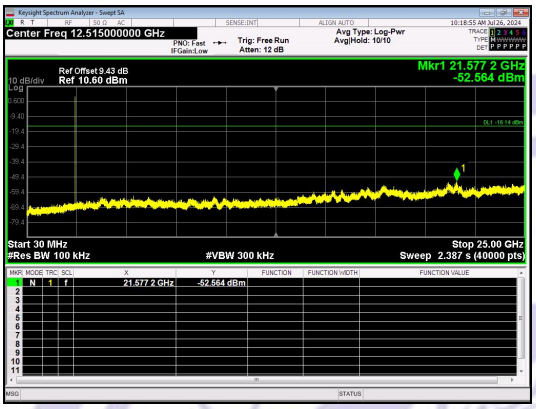
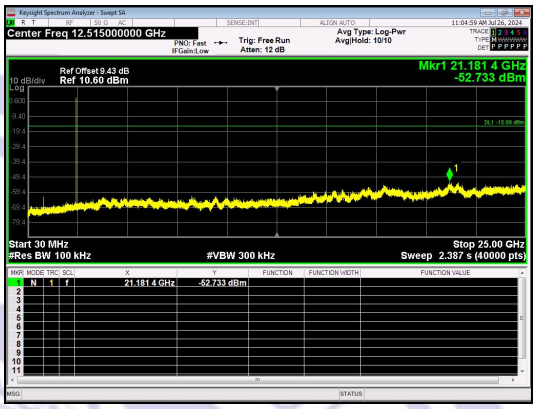
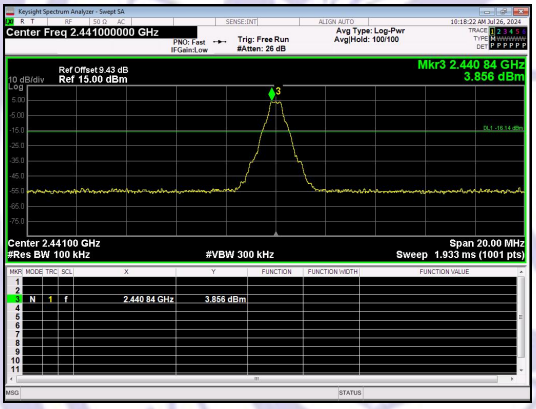
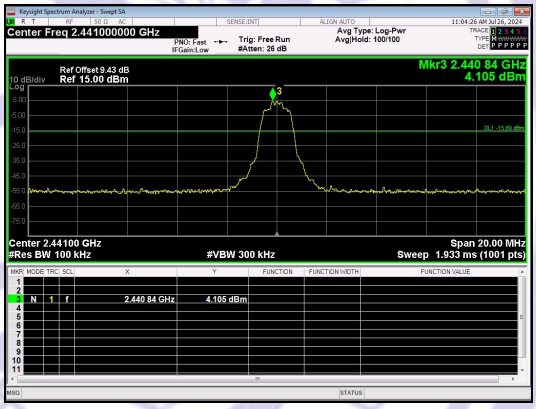
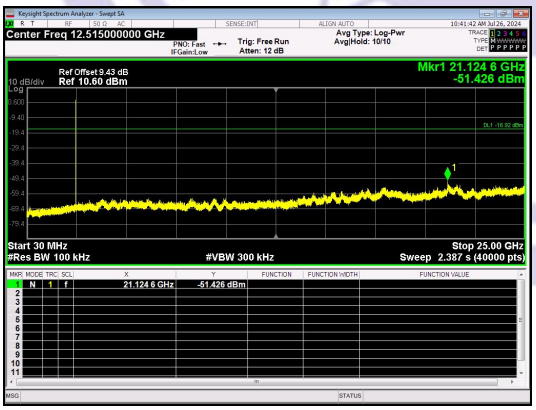
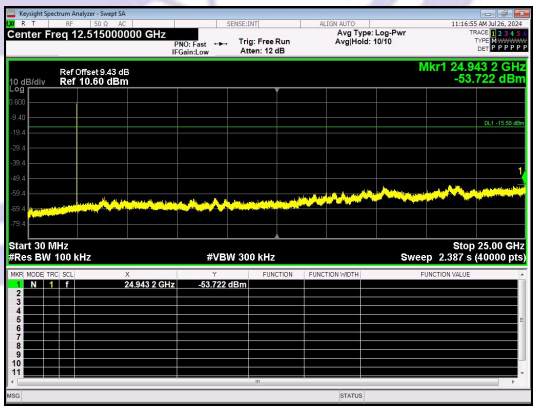


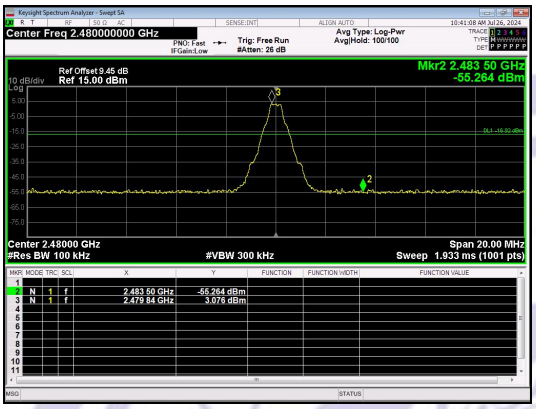
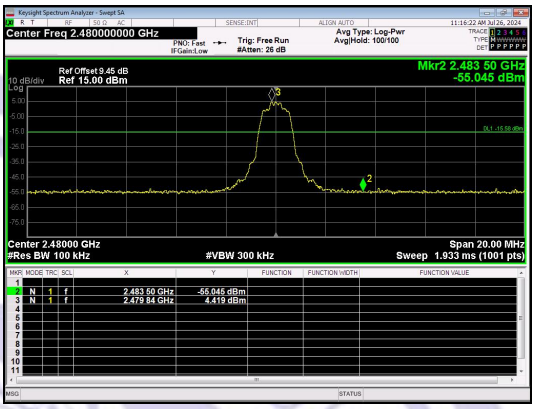
30.0 MHz - 25000.0 MHz

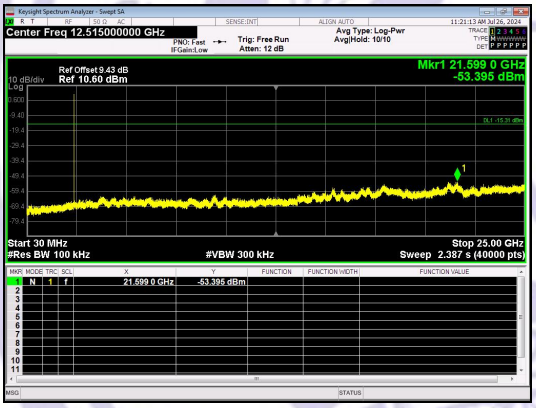
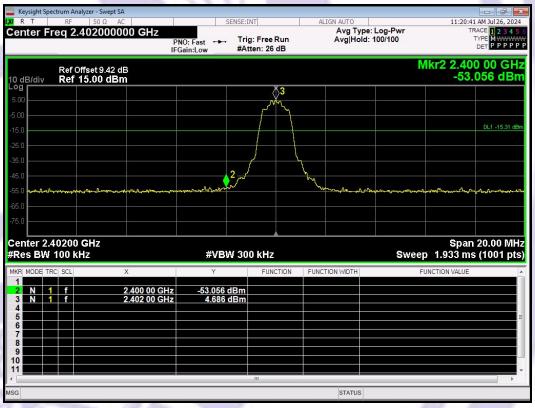
π/4DQPSK_2-DH1_Channel 0

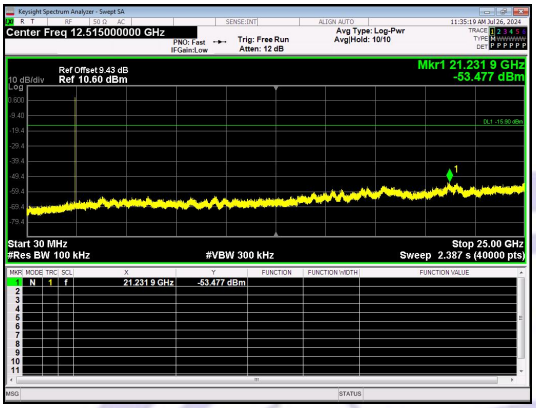




Out Of Band Emission GFSK_DH1_Channel 0	Out Of Band Emission π/4DQPSK_2-DH1_Channel 0
	
30.0 MHz - 25000.0 MHz **GFSK_DH1_Channel 39**	**30.0 MHz - 25000.0 MHz** **π/4DQPSK_2-DH1_Channel 39**
	
Out Of Band Emission **GFSK_DH1_Channel 39**	**Out Of Band Emission** **π/4DQPSK_2-DH1_Channel 39**
	

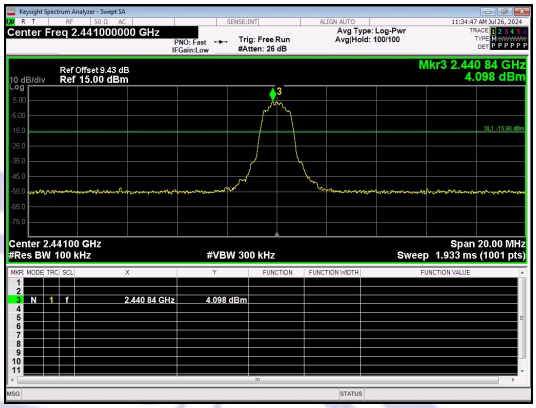
30.0 MHz - 25000.0 MHz GFSK_DH1_Channel 78	30.0 MHz - 25000.0 MHz π/4DQPSK_2-DH1_Channel 78
	
Out Of Band Emission GFSK_DH1_Channel 78	Out Of Band Emission π/4DQPSK_2-DH1_Channel 78

	
30.0 MHz - 25000.0 MHz 8DPSK_3-DH1_Channel 0	Out Of Band Emission 8DPSK_3-DH1_Channel 0



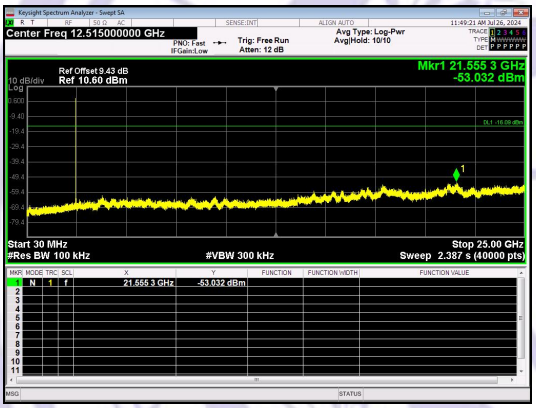
30.0 MHz - 25000.0 MHz

8DPSK_3-DH1_Channel 39



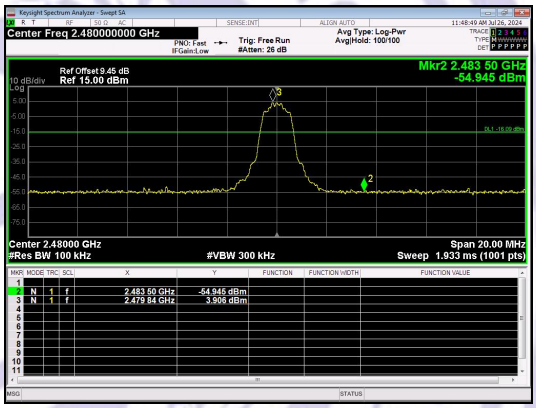
Out Of Band Emission

8DPSK_3-DH1_Channel 39



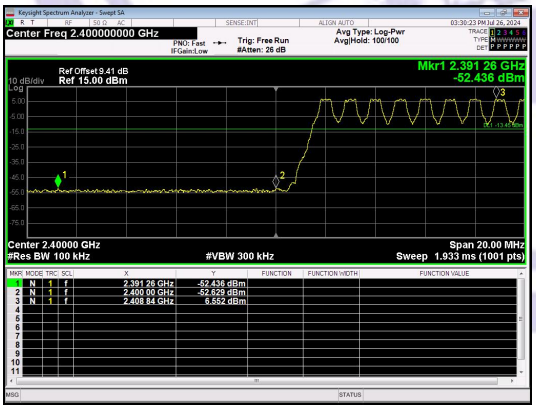
30.0 MHz - 25000.0 MHz

8DPSK_3-DH1_Channel 78

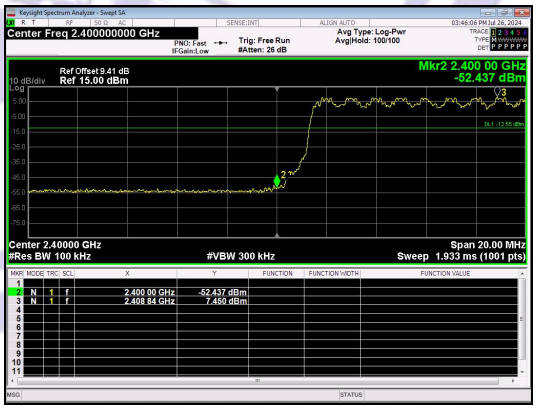


Out Of Band Emission

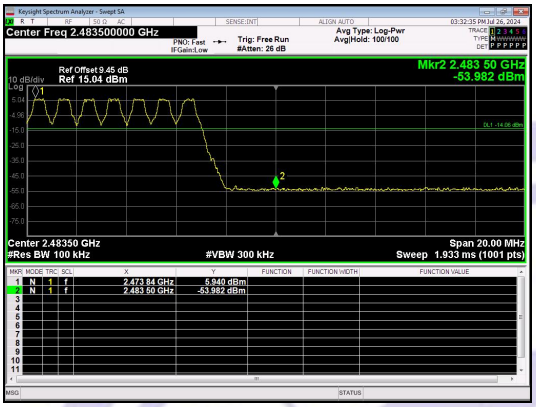
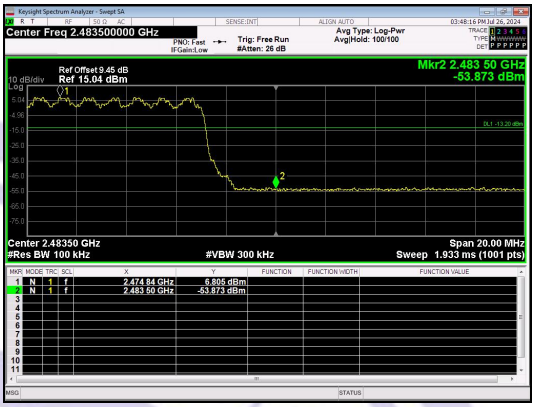
8DPSK_3-DH1_Channel 78

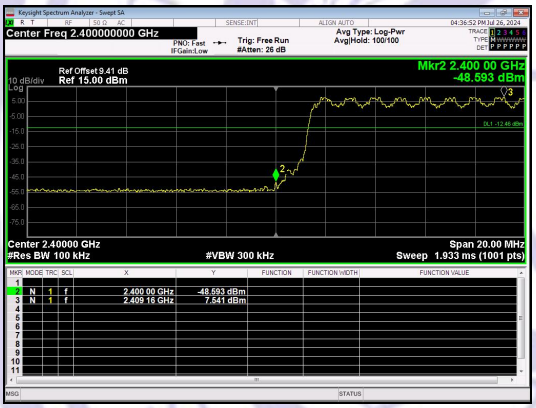
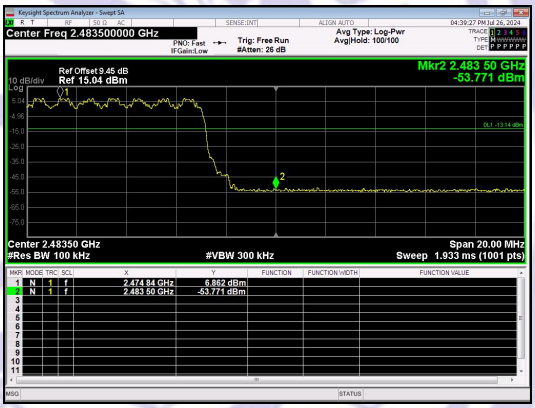


Out Of Band Emission(Left)



Out Of Band Emission(Left)

GFSK_DH1_Channel Hopping	π/4DQPSK_2-DH1_Channel Hopping
	
Out Of Band Emission(Right) GFSK_DH1_Channel Hopping	Out Of Band Emission(Right) π/4DQPSK_2-DH1_Channel Hopping

	
Out Of Band Emission(Left) 8DPSK_3-DH1_Channel Hopping	Out Of Band Emission(Right) 8DPSK_3-DH1_Channel Hopping

14 Antenna Requirement

14.1 Test Standard and Requirement

Test Standard	FCC Part15 Section 15.203 /247(c)
Requirement	1) 15.203 requirement: An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited. 2) 15.247(c) (1)(i) requirement: Systems operating in the 2400-2483.5 MHz band that is used exclusively for fixed. Point-to-point operations may employ transmitting antennas with directional gain greater than 6dBi provided the maximum conducted output power of the intentional radiator is reduced by 1 dB for every 3 dB that the directional gain of the antenna exceeds 6 dBi.

14.2 Antenna Connected Construction

The antenna is PCB Antenna which permanently attached, and the best case gain of the antenna is -2.23dBi. It complies with the standard requirement.

15 APPENDIX I -- TEST SETUP PHOTOGRAPH

Please see the attachment for details.

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16 APPENDIX II -- EUT PHOTOGRAPH

Please see the attachment for details.

---------- End of Report ----------

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