

## 13 100kHz Bandwidth of Frequency Band Edge Requirement

### 13.1 Test Standard and Limit

Test Standard	FCC Part15 C Section 15.247 (d)
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

EUT	Spectrum Analyzer
<i>6</i>	

### 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.

#### Report No: NCT24032167

### 13.4 Test Data

### Non-Hopping

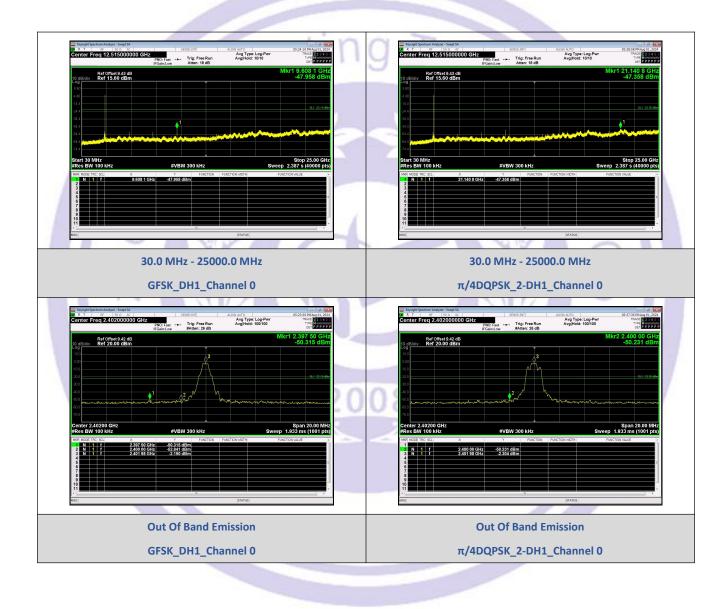
Modulation	Packet	Channel	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
		re	2397.50	-50.315	-22.19	-28.125	PASS
			2400.00	-52.841	-22.19	-30.651	PASS
GFSK	DH1		9608.10	-47.958	-22.19	-25.768	PASS
GESK	DHI	39	9763.55	-46.634	-22.88	-23.754	PASS
15	0	78	2483.50	-54.633	-22.76	-31.873	PASS
	2		21519.7	-46.947	-22.76	-24.186	PASS
		0	2400.00	-50.231	-22.3	-27.931	PASS
π/4DQPSK	2		21140.8	-47.358	-22.3	-25.058	PASS
	2-DH1	39	21202.0	-46.448	-22.89	-23.558	PASS
	-	78	2483.50	-53.428	-22.62	-30.808	PASS
			21581.5	-47.157	-22.62	-24.537	PASS
8DPSK	FIN	0	2400.00	-50.791	-22.17	-28.621	PASS
	5 6		21579.0	-47.240	-22.17	-25.070	PASS
	3-DH1	39	9763.55	-46.267	-22.79	-23.477	PASS
	5	78	2483.50	-53.114	-22.63	-30.484	PASS
			21135.8	-46. <mark>8</mark> 46	-22.63	-24.216	PASS

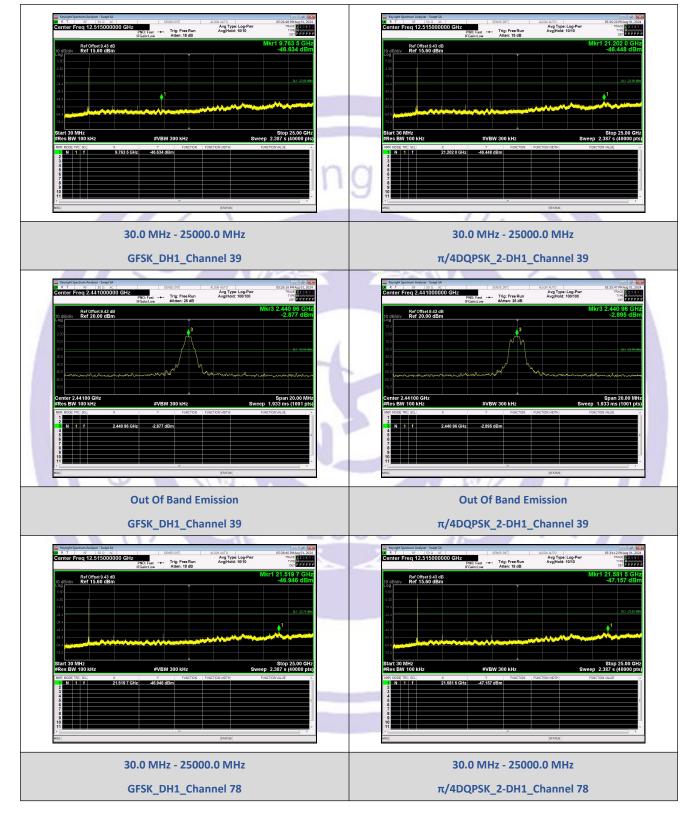
### Hoppina

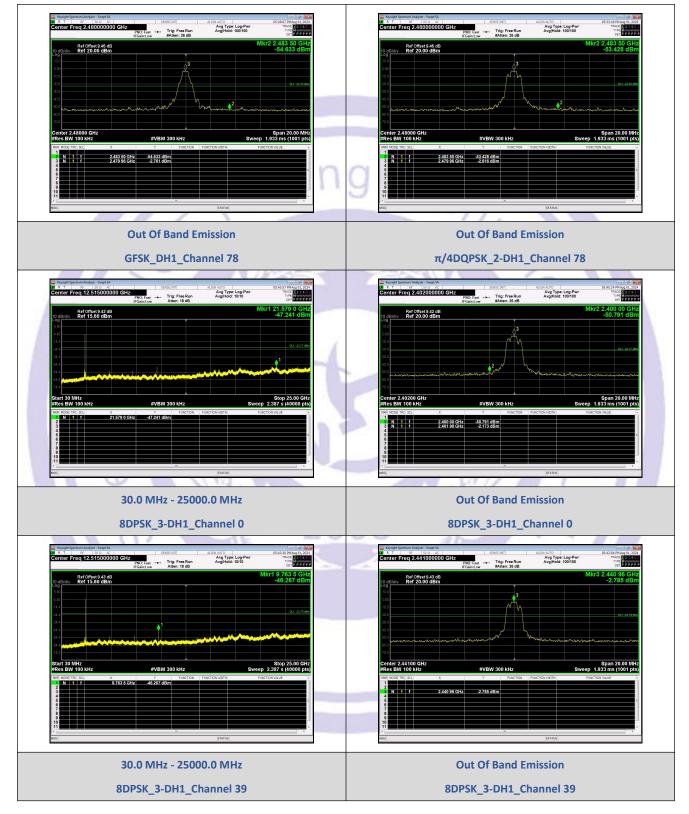
Modulation	Packet	Channel	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
		2397.96	-49.571	-22.24	-27.331	PASS	
GFSK	DH1		2400.00	-51.592	-22.24	-29.352	PASS
	Hopping	2483.50	-53.128	-22.46	-30.668	PASS	
π/4DQPSK	2-DH1		2391.86	-48.902	-22.24	-26.662	PASS
	2-011		2400.00	-51.686	-22.24	-29.446	PASS

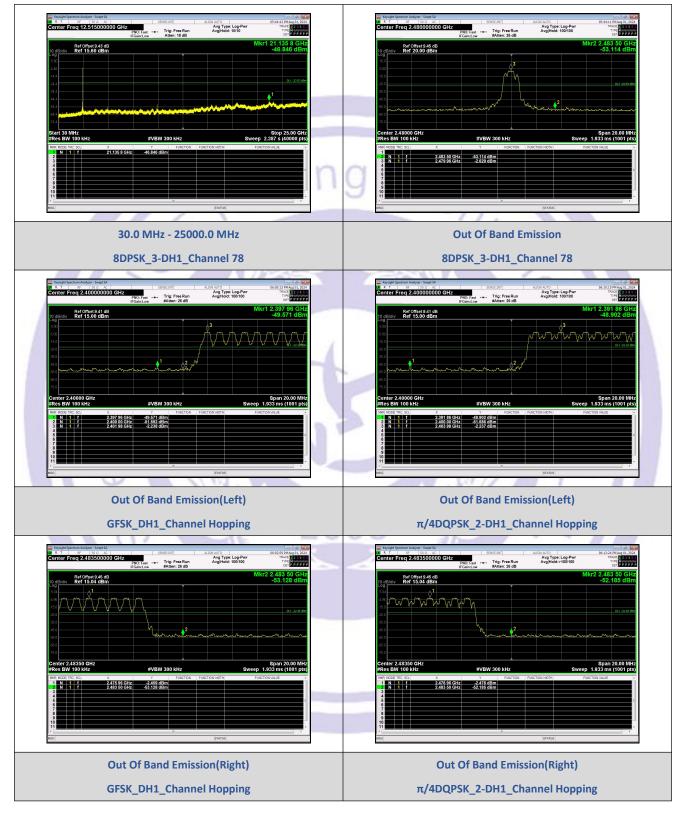
Hotline: 400-8868-419

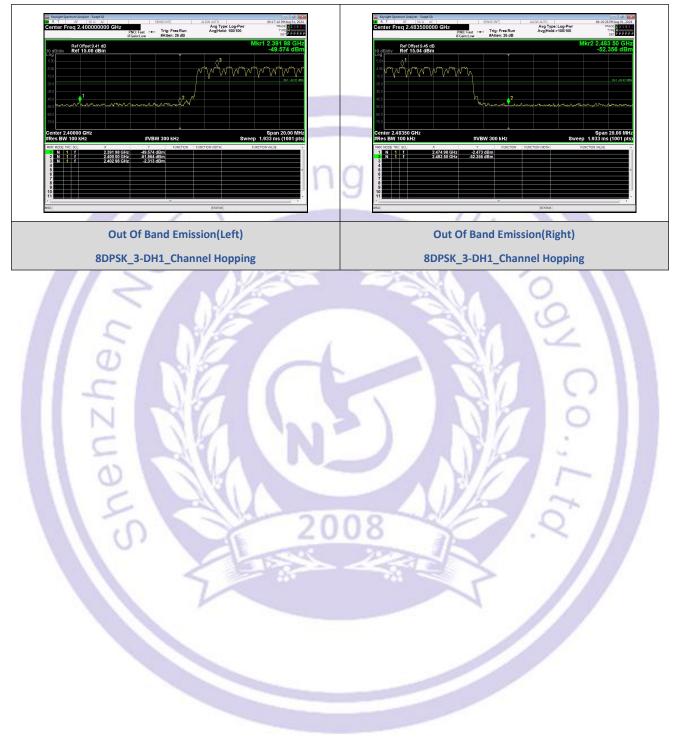
		2483.50	-52.185	-22.48	-29.705	PASS
		2391.98	-49.574	-22.31	-27.264	PASS
8DPSK 3-DH1	2400.00	-51.864	-22.31	-29.554	PASS	
	2483.50	-52.356	-22.47	-29.886	PASS	













## 14 Antenna Requirement

### 14.1 Test Standard and Requirement

Test Standard	
Test Standard	FCC Part15 Section 15.203 /247(c)
Requirement	<ol> <li>1) 15.203 requirement:</li> <li>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.</li> </ol>
	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 EUT antenna is an External antenna, and its antenna gain is 4.68dBi, which meets the standard requirements.



## **15 APPENDIX I -- TEST SETUP PHOTOGRAPH**

Please see the attachment for details.



## 16 APPENDIX II -- EUT PHOTOGRAPH

Please see the attachment for details.

