

Maximum Permissible Exposure Compliance Requirement

1. LIMITS

The limit for general population/uncontrolled exposures

Frequency	Power density(mW/cm ²)	Averaging time(minutes)
300MHz~1.5GHz	F/1500	30
1.5GHz~100GHz	1.0	30

Frequency(MHz)	Power density(mW/cm ²)	Averaging time(minutes)
2402	1.0	30
2441	1.0	30
2480	1.0	30

2. EUT RF Exposure

The Max Conducted Peak Output Power is 6.85dBm (4.84mW) in 2402MHz of GFSK;

The antenna gain of this antenna is 2dBi.

2dB logarithmic terms convert to numeric result is nearly 1.58.

According to the formula $S = \frac{PG}{4R^2\pi}$, we can calculate S which is MPE.

Now, R=20 cm, P=4.84mW, G=1.58;

$$\text{So, } S = \frac{PG}{4R^2\pi} = \frac{4.84 * 1.58}{4 * 400 * 3.14} = 0.00152 \text{ mW/cm}^2 < 1.0 \text{ mW/cm}^2$$

So the MPE comply the requirement.