

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 4.87dBm (3.07mW) in 2402MHz of GFSK;

The antenna gain of this antenna is 1.57dBi.

1.57dB logarithmic terms convert to numeric result is nearly 1.44.

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

Now , R=20 cm, P=3.07mW, G=1.44;

$$\text{So, } S = \frac{PG}{4R^2\pi} = \frac{3.07 * 1.44}{4 * 400 * 3.14} = 0.00088 \text{ mW/cm}^2$$

So the MPE comply the requirement.