

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
2412	1.0	30
2437	1.0	30
2462	1.0	30
2480	1.0	30

2. EUT RF Exposure

The EUT has one RF module which is a 2.4G wifi module.

2.4G wifi module: The Max Conducted Peak Output Power is 24.48dBm (280.5mW) in channel 1 of 802.11n20; The antenna gain of this antenna 1 is 5dBi

5dB logarithmic terms convert to numeric result is nearly 3.16.

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

Now , R=20 cm, P=280.5mW, G=3.16

$$So, S = \frac{PG}{4R^2\pi} = \frac{280.5 * 3.16}{4 * 400 * 3.14} = 0.176 \text{ mW/cm}^2$$

So the MPE comply the requirement.