

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)
5740	1.0	30
5840	1.0	30

2. EUT RF Exposure

The Max Conducted Peak Output Power is 18.32dBm (67.92mW) in channel 148 of 802.11a;

The EUT has two antennas. But in 802.11a mode, only one antenna is working.

16dB logarithmic terms convert to numeric result is nearly 39.81.

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

Now , R=20 cm, P=67.92mW, G=39.81;

$$\text{So, } S = \frac{PG}{4R^2\pi} = \frac{67.92 * 39.81}{4 * 400 * 3.14} = 0.54 \text{ mW/cm}^2 < 1 \text{ mW/cm}^2$$

So the MPE comply the requirement.