Maximum Permissible Exposure

Applicable Standard According to §1.1307(b)(5), systems operating under the provisions of this section shall be operated in a manner that ensure that the public is not exposed to radio frequency energy level in excess of the Commission's guideline.

For 2.4G WIFI

1) The maximum output power is 16.31 dBm (42.76mW) at 2412MHz, (with 1.67 numeric antenna gain.)

2) For mobile or fixed location transmitters, no SAR consideration applied. The minimum separation generally be used is at least 20cm, even if the calculation indicate that the MPE distance would belesser.

Calculation

Given $E = \frac{\sqrt{30 \times P \times G}}{d}$ & $S = \frac{E^2}{3770}$

Where E = *Field Strength in Volts / meter*
P = *Power in Watts*
G = *Numeric antenna gain*
d = *Distance in meters*
S = *Power Density in milliwatts / square centimeter*

Maximum Permissible Exposure
Output power=42.76mW，

Numeric Antenna gain=1.67 Substituting the MPE safe distance using d=20cm into above equation.

Yields:

*S=0.000199*P*G*

Where P=Power in mW G=Numeric antenna gain S=Power density in mW/cm²

Total Power density=0.0142 mW/cm²

FREQUENCY BAND (MHz)	MAX AVERAGE POWER (dBm)	ANTENNA GAIN (dBi)	DISTANCE (cm)	POWER DENSITY (mW/cm²)	LIMIT (mW/cm²)
2412-2462	16.31	2.24	20	0.0142	1.0

1. CLASSIFICATION

The antenna of this product, under normal use condition, is at least 20cm away from the body of the user. So, this device is classified as **Mobile Device**.

(For **Mobile Device***, the maximum power density is 1.0 mW/cm² the power density even if the calculation indicates that would be larger.)*

Conclusion: PASS