

4.10 Radiation exposure

The 3347W is a Wireless ADSL Router. It is desktop or wall-mounted device used with AC power adapter in mobile application, at least 20 cm from any body part of the user or near by persons.

The maximum conducted power is 20.0 dBm, antenna is fix-mounted, 3.75 dBi gain (maximum). Therefore, to comply with RF Exposure Requirement, the MPE is calculated. The maximum Peak EIRP calculated is 0.24 W. The Power Density can be calculated using the formula:

$$S = \text{EIRP} / 4\pi D^2$$

Where: S is Power Density in W/m²

D is the distance from the antenna.

In the table below, the calculated Power Density at different distances and MPE Limit for general population/uncontrolled exposure are presented.

Distance, m	Power density, W/m ²	MPE, W/m ²
0.05	7.6	10.0
0.10	1.9	10.0
0.15	0.85	10.0
0.20	0.45	10.0

As can be seen from the data, the MPE is well below the limit at 10 cm and more.