

**Maximum Permissible Exposure (MPE) Compliance
Statement, FCC Radio Frequency Exposure Limit 1.1310
Health Canada Safety Code 6**
MW FBDA-800AB-50W-DIV Fiber Optic Repeater System

The MW FBDA-800AB-50W-DIV Fiber Optic Repeater System has been tested and the performance characterized in accordance with the MPE requirements of FCC 47 CFR and RSS 102.

At the maximum operating frequency of 894MHz the MPE limit for the General Population/Uncontrolled Exposure is 0.6mW/cm^2 ($f/1500\text{mW/cm}^2$). This device complies with this limit at the following line of sight distances from the antenna element:

MW FBDA-800AB-50W-DIV : 51.5cm

The analysis is provided below.

Power Density (S) = $\text{EIRP}/(4\pi R^2)$, Therefore, $R \geq \sqrt{\text{EIRP}/S \times 4\pi}$
Using this calculation:

Maximum Antenna Gain = 3dBi
Maximum output power = 40dBm

$S = 0.6 \text{ mW/cm}^2$
 $\text{EIRP} = 43\text{dBm}$ or 20W (max. worst case)
Therefore,
 $R = 51.5\text{cm}$

This minimum safe distance for the general population of 51.5cm shall be stated in the installation & operators instruction manual under the RF Safety Exposure Warning Statement.

Analysis provided by,
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