

## Maximum Permissible Exposure (MPE) Compliance

BDA-CELLB-2/2W-80-OCA  
FCC ID Q8KCELLB2W80CA

At the maximum operating frequency of 894MHz (Downlink) and 849MHz (Uplink) the MPE limit for the General Population/Uncontrolled Exposure is as follows: Downlink = 0.6mW/cm<sup>2</sup> (f/1500mW/cm<sup>2</sup>) and Uplink = 0.57mW/cm<sup>2</sup> (f/1500mW/cm<sup>2</sup>).

The analysis is provided below.

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

*From the above calculations, with:*

Downlink Maximum Antenna Gain = 2dBi  
Downlink Maximum output power = 26dBm

Uplink Maximum Antenna Gain = 11dBi  
Uplink Maximum output power = 26dBm

S = 0.6 mW/cm<sup>2</sup>  
EIRP = 28dBm or 0.631 W (worst case)

S = 0.57 mW/cm<sup>2</sup>  
EIRP = 37dBm or 5.01 W (worst case)

*Therefore,*  
R = 9.15cm (Downlink)

R = 25.75cm (Uplink)

These are the minimum safe distances for the general population for each antenna.