

Maximum Permissible Exposure (MPE) Compliance

BDA-SMR-.5/2W-70-A
FCC ID Q8KSMR2W70A

At the maximum operating frequency of 866MHz (Downlink) and 821MHz (Uplink) the MPE limit for the General Population/Uncontrolled Exposure is as follows: Downlink = 0.58mW/cm² (f/1500mW/cm²) and Uplink = 0.55mW/cm² (f/1500mW/cm²).

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 output power = 27dBm

Uplink Maximum output power = 18dBm

S = 0.58 mW/cm²

S = 0.55 mW/cm²

EIRP = 27dBm or .501W

EIRP = 18dBm or .063W

Therefore,

R= 8.3cm (Downlink)

R= 3.02cm (Uplink)

These are the minimum safe distances at the output of the BDA-SMR-.5/2W-70-A for the general population.