iRU4438 RF Exposure

FCC Maximum Permissible Exposure (MPE) limits for equipment operating in the frequency range 1500 – 100,000 MHz is 1.0 mW/cm^2.

Following installation and commissioning, the safe distance from the antenna is the greater of:

20cm

Or

r cm, where r = √ (PG/4πS)

P: power input to antenna(s) in mW

G: numeric gain of antenna relative to isotropic radiator

S: power density in mW/cm2 = 1 mW/cm2

The device has four antenna ports, so safe distance from the antenna shall be the greater of:

20 cm or √ (4*PG/4πS)

Which gives

20 cm or √ (0.32*P*G) cm.

The iRU4438 is designed to be used with one of three standard antennas combinations:

- Four 2 dBi omni-directional antennas
- Two 9 dBi 2-port cross-polarised directional panel antennas
- Two 18 dBi 2-port cross-polarised directional panel antennas

These give the following safe distances from the unit:

Antenna gain	Safe distance (cm)
2 dBi	22.4
9 dBi	50.2
18 dBi	141.4