Maximum Permissible Exposure (MPE) Compliance Statement, FCC Radio Frequency Exposure Limit 1.1310 Health Canada Safety Code 6

Spotcell 100 (CU)

The Spotcell 100 cellular amplifier customer unit 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 . This device complies with this limit at the following line of sight distances from the antenna element:

Spotcell 100 Customer Unit : 1.2cm

The analysis is provided below.

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

Maximum Antenna Gain = 3dBi
Maximum output power = 7.0dBm

S = 0.6 mW/cm^2
EIRP = 10dBm or 10mW
Therefore,
R= 1.15cm

This minimum safe distance for the general population of 1.2cm is always ensured due to the integral radome on the CU providing a separation of 1.37cm from the antenna at the center.

Analyses provided by,
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