

6.4 Potential Health Hazard EM Radiation Level

This is a mobile device and the peak EIRP is 0.023 mW (see below). The output power is lower than $P_o = 60/f_{\text{(GHz)}} \text{ mW} = 24.19 \text{ mW}$ for $d < 2.5 \text{ cm}$ (general population category). Thus, a SAR measurement is not necessary. The power density at a distance of 20 cm from the device as calculated from FCC OET Bulletin 65.

$$\begin{aligned} \text{EIRP} &= 78.9 \text{ dBuV/m} - 95.2 \text{ dB(uV/m / mW)} = -16.3 \text{ dBm} = 0.023 \text{ mW} \\ S(\text{mW/cm}^2) &= \text{EIRP (mW)} / (4 \pi (20 \text{ cm})^2) = \mathbf{0.000005 \text{ mW/cm}^2} \end{aligned}$$