

MPE Calculation (for Mobile Device)

FCC ID: ZKZ-33566

Power density limit for mobile devices at 2.4 GHz: $S \leq 1 \text{ mW/cm}^2$

Remark: Average \leq Peak, which means that calculating the power density applying Peak power is worst case. The worst case operation mode generating the highest power in each frequency range is taken for calculation.

Frequency range: 2402-2479MHz

Maximum measured conducted power (Peak): $P_{\text{conducted}} = 4.88 \text{ dBm}$

Antenna Gain: $G = 1 \text{ dBi}$

User distance: 20cm

Calculation: $P_{\text{radiated}} = P_{\text{conducted}} + G_{\text{linear}} = 4.88 \text{ dBm} + 1 \text{ dBi} = 5.88 \text{ dBm} = 3.87 \text{ mW}$

Power density $S = (P_{\text{radiated}}) / (4\pi \times d^2) = 3.87 / 5026 = 0.00077 \text{ mW/cm}^2$ which is below limit, PASS.