MPE Calculation

FCC ID: 2AI6D-X96

Remark: Average ≤ 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: **2412-2462** MHz Typical use distance: d ≥ 20 cm

Power density limit for mobile devices at 2.4 GHz: S ≤ 1 mW/cm^2

Maximum measured conducted power (Peak): $P_{conducted}$ = **16.38** dBm = 43.45 mW

Antenna Gain: G = **1.92** dBi = 1.56 on the linear scale

Calculation: $P_{radiated} = P_{conducted} + G_{linear}$ = 16.38 dBm + 1.92 dBi = 18.3 dBm = 67.61 mW

Power density S = $(P_{radiated}) / (4\pi \times d^2)$ = 67.61 / 5026 = 0.0135 mW/cm^2 < 1 => below limit

Frequency range: **2422-2452** MHz Typical use distance: d ≥ 20 cm

Power density limit for mobile devices at 2.4 GHz: S ≤ 1 mW/cm^2

Maximum measured conducted power (Peak): $P_{conducted}$ = **14.12** dBm = 25.82 mW

Antenna Gain: G = **1.92** dBi = 1.56 on the linear scale

Calculation: $P_{radiated} = P_{conducted} + G_{linear}$ = 14.12 dBm + 1.92 dBi = 16.04 dBm = 40.18 mW

Power density S = $(P_{radiated}) / (4\pi \times d^2)$ = 40.18 / 5026 = 0.0080 mW/cm^2 < 1 => below limit

OVER-ALL VERDICT ==> PASS