MPE Calculation

FCC ID: 2AETV-HGA760

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.

For WiFi 11b/g/n(HT20):

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): $P_{conducted}$ = **18.38** dBm = 68.87 mW

Antenna Gain: G = **7.0** dBi = 5.01 on the linear scale

Calculation: $P_{radiated} = P_{conducted} + G_{linear}$ = 18.38 dBm + 7 dBi = 25.38 dBm = 345.14 mW

Power density S = $(P_{radiated}) / (4\pi \times d^2)$ = 345.14 / 5026 = 0.0687 mW/cm^2 < 1 => below limit

For WiFi 11n(HT40):

Frequency range: **2452-2452** 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): $P_{conducted}$ = **12.63** dBm = 1 mW

Antenna Gain: G = **7.0** dBi = 5.01 on the linear scale

Calculation: $P_{radiated} = P_{conducted} + G_{linear}$ = 0 dBm + 7 dBi = 7 dBm = 5.01 mW

Power density S = $(P_{radiated}) / (4\pi \times d^2)$ = 5.01 / 5026 = 0.0010 mW/cm^2 < 1 => below limit