# MPE CALCULATION

RF Exposure Requirements: 47 CFR § 1.1307(b)

RF Radiation Exposure Limits: 47 CFR § 1.1310

RF Radiation Exposure Guidelines: FCC OST/OET Bulletin Number 65 / 47 CFR

§ 2.1091

EUT Frequency Band: 2412 – 2462 MHz

Limits for General Population/Uncontrolled Exposure in the band of: 1500 –100,000 MHz

Power Density Limit: 1.0mW/ cm$^2$;

Equation: $S = PG / 4\pi R2$ or $R = \sqrt{PG / 4\pi S}$ Where, S = Power Density

P = Power Input to Antenna

G = Antenna Gain

R = distance to the center of radiated antenna

For Frequency 2412-2462MHz

Middle Channel (2437 MHz): Power = 17.60 dBm, Antenna Gain = 2 dBi, Prediction distance 20 cm

$S = 0.03631$ mW/cm$^2$

For Frequency 2422-2452MHz

Middle Channel (2437 MHz): Power = 15.91 dBm, Antenna Gain = 2 dBi, Prediction distance 20 cm

$S = 0.02461$ mW/cm$^2$

Result

The Above Result had shown that Device complied with 1.0 mW/cm2 Power density requirement for distance of 20 cm.