Maximum Permissible Exposure

FCC ID: 2AJ3GRS-H4508AN-N-W

Applicable Standard

According to §l.1307(b), systems operating under the provisions of this section shall be operated in a manner that ensure that the public is not exposed to radio frequency energy level in excess of the Commission's guideline.

Remark: 1) **For 2.4G WIFI** The maximum output power for antenna is 15.40dBm (34.67mW) at 2437MHz, 2dBi antenna gain(with 1.58 numeric antenna gain.)

        For 2.4G WIFI The maximum output power for N20 antenna 1 is 13.98dBm (25.00mW) at 2437MHz, 2dBi antenna gain(with 1.58 numeric antenna gain.)

        For 2.4G WIFI The maximum output power for N20 antenna 2 is 12.86dBm (19.32mW) at 2437MHz, 2dBi antenna gain(with 1.58 numeric antenna gain.)

    2) For mobile or fixed location transmitters, no SAR consideration applied. The minimum separation generally be used is at least 20cm, even if the calculation indicate that the MPE distance would be lesser.

Calculation

Given $\quad E = \sqrt{\dfrac{30 \times P \times G}{d}} \quad \& \quad S = \dfrac{E^2}{3770}$

Where E = Field Strength in Volts / meter
           P = Power in Watts
           G = Numeric antenna gain
           d = Distance in meters
           S = Power Density in milliwatts / square centimeter

Substituting the MPE safe distance using d=20cm into above equation.

Yields: *S=0.000199*P*G*

Maximum Emissions Level					
Mode	Power(mW)	numeric antenna gain	Power density (mW/cm^2)	Limit (mW/cm^2)	Result
2.4G WIFI(MAX)	34.67	1.58	0.010901	1.0	
2.4G WIFI(S_1)	25.00	1.58	0.007861		PASS
2.4G WIFI(S_2)	19.32	1.58	0.006075		PASS

$S_1 + S_2 = 0.013936 \ mW/cm^2 < 1.0 \ mW/cm^2$

(For mobile or fixed location transmitters, the maximum power density is 1.0 mW/cm^2 even if the calculation indicates that the power density would be larger.)