FCC ID: QQ2-GAOFDM58

Subject: Environmental evaluation and Exposure limit according to FCC CFR 47 §15.247(b)(5) and §1.1307, §1.1310

Limit for power density for general population /uncontrolled exposure is
1 mW/cm² (for 5837MHz)

The Power density:

$$P \ (mW/cm^2) = P_T / 4\pi R^2 \qquad \text{where}$$

Distance Calculation For Point To Point

P_T is the maximum transmitted power, which is equal to the transmitter output power 25.36 dBm plus the maximum antenna gain 22 dBi, the maximum equivalent isotropically radiated power EIRP is:

$$P_T = P_R + \text{antenna gain} = 25.36 \ dBm + 22 dBi = 47.36 \ dBm = 54450 mW$$

The minimum safe distance "R" where RF exposure does not exceed FCC permitted limit is 17.5 cm.

$$R = sqrt \ (P_T / 1 \ mW/cm^2 \ *4\pi) = sqrt \ (54450/12.56) = 65.84 \ cm$$

For point to point system The actual Safety distance shall be Not less than 66 cm

Distance Calculation For Point To Multipoint

$$P_T = P_R + \text{antenna gain} = 14 \ dBm + 22 dBi = 36 \ dBm = 3981 mW$$
$$R = sqrt \ (P_T / 1 \ mW/cm^2 \ *4\pi) = sqrt \ (3981/12.56) = 17.8 \ cm$$

For point to multipoint system The actual Safety distance shall be Not less than 20 cm

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