

Attachment-4 RF Exposure

The specification of RF conducted output power is 15dBm, and the antenna gain is 5.2dBi. Therefore this applying product (FCC ID : ANO12P701X) is a low power wireless equipment with 20.2dBm(105mW).

According to the definition of FCC Part 2.1091, the applying equipment should be classified as a mobile device in that normal usage results in more than 20cm separation between user and antenna. And the Maximum Permissible Exposure(MPE) shown in 47 CFR 1.1310 is 1mW/cm² for 2.4GHz band.

Using the above values (RF power and MPE), the minimum distance(R) from the antenna for the allowed MPE limit is calculated with the following formula.

$$\frac{\text{RF emission power (105mW)}}{4 \pi R^2} \leq 1 \text{ mW/cm}^2 \Rightarrow R = 3 \text{ cm or more}$$

Namely, 3 cm is the minimum safety distance for human exposure to radio frequency(RF) electromagnetic energy from the antenna of this equipment.

Generally users operate this equipment with a sufficient distance greater than 20 cm from the antenna during a normal operation. Though a user can operate within 3 cm of distance, an extraordinary posture will be necessary. And there is no inevitability for the user to do so. Therefore the applying equipment fairly meets the RF exposure requirement under almost operation in ordinary state.

