EMC Technologies Report Number: M081041_Cert_TDMA_ETHERMUX

Attachment 1

RF EXPOSURE INFORMATION

RADIO FREQUENCY EXPOSURE (HAZARD) INFORMATION

The EUT operating in the 3650 - 3675 MHz bands are required to be operated in a manner that ensures that the public is not exposed to RF energy levels in accordance with CFR 47, Section 1.1307(b)(1).

In accordance with Section 1.1310, the Maximum Permissible Exposure (MPE) limit for the General Population/Uncontrolled Exposure of 1.0 has been applied, i.e 1mW/cm^2.

Friis transmission formula: $Pd = (P*G) / (4*\pi*r^2)$
where: Pd = power density (mW/cm^2) = 1 mW/cm^2
P = power input to the antenna (mW)
G = antenna gain (numeric)
P*G = EIRP = 38.1 dBm = 6456.5 mW
r = distance to the center of radiation of the antenna (cm)

RF Exposure distance limit: $r = (P*G / 4*\pi*Pd)^{½}$ OR $r = (EIRP / 4*\pi*Pd)^{½}$
Therefore, $r = (6456.5 / 4*\pi)^{½}$ = 22.7 cm

Conclusions: Recommended minimum RF safety distance is 23 cm.