

RF Exposure Compliance Requirements

Per 47 CFR 15.247 (b)(4), the EUT meets the requirement that it be operated in a manner that ensures the public is not exposed to radio frequency energy levels in excess of the Commission's guidelines (ref. 47 CFR 1.1307, 1.1310, and 2.1093. See also OET Bulletin 65, Supplement C).

The EUT will be used in personal computers and peripherals and can therefore be considered a portable transmitter per 47 CFR 2.1093. The EUT supports an integral connection of only one antenna, with no provision for an external antenna connection.

The MPE estimates are as follows:

Table 1 in 47 CFR 1.1310 defines the maximum permissible exposure (MPE) for the general population as $1\text{mW}/\text{cm}^2$. The distance from the EUT's transmitting antenna where the exposure level reaches the maximum permitted level is calculated using the general equation: $S = (PG)/4\pi R^2$.

Where:

S = power density ($1\text{ mW}/\text{cm}^2$ maximum permitted level)

P = power input to the antenna (1.17 mW)

G = linear power gain relative to an isotropic radiator (-1.5 dBi = numeric gain of 0.708)

R = distance to the center of the radiation of the antenna

Solving for R, the $1\text{ mW}/\text{cm}^2$ limit is reached 0.257 cm (0.101 in.) or closer to the transmitting antenna. Since the output power is well below the threshold of concern indicated in Bulletin 65 Supplement C and the MPE limits defined in Part 1 of the rules, therefore an RF exposure warning appears in the user manual.