

1. Radio Frequency exposure

1.1 Regulation

15.247(b4) Systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy levels in excess of the Commission's guidelines. See §1.1307(b)(1) of this Chapter.

1.2 Result

According to par 1.1307b(1), the EUT does not require an environmental evaluation.

1. This equipment classification is not present within table 1 of part 1.1307 and is not listed in section 1.1307b(2).
2. The EUT categorically exempt from routine environmental evaluation per section 2.1093.

Included are calculations that determine that minimum distance R from the transmitter antenna that will ensure an exposure limit at or below the guidelines given in table 1 of part 1.1310 for the general population. The formula for these calculations are taken from OET Bulletin 65, edition 97-01, August 1997; "Evaluating Compliance with FCC Guidelines for Human Exposure to Radio frequency Electromagnetic Fields".

1.3 CALCULATIONS

Per Table 1 of Section 1.1310 the limit for general population exposure at 2.4 GHz is 1.0 mW/cm^2

Per OET Bulletin 65, edition 97-01 the formula for calculating power density is:

$$S = P \cdot G / 4\pi R^2$$

with

Power = 25.6 dBm = 363 mW

Gain of Antenna: System = 10.4 dBi or a numeric gain of 11

therefore

Solving for R gives a minimum safe distance of 17.8 cm

1.4 CONCLUSION

Page 19 of the user manual instructs the installer to maintain at least a 2 meter separation between personal and the user.

