

# 1. Radio Frequency Exposure

## 1.1 Regulation

Section 1.1310 Radio-Frequency Radiation Exposure Limits, Table 1 (B). *See* also §1.1307(b)(1) of FCC Rules.

## 1.2 Classification

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

1. This equipment classification is not listed within Table 1 of Section 1.1307 and is not listed in Section 1.1307b(2).
2. The EUT is a fixed transmitter and is thus categorically exempt from routine environmental evaluation per Section 2.1093.

Included in the following section of this Test Report are calculations that determine that minimum distance from the transmitter antenna that will ensure an exposure limit at or below the guidelines given in Table Section 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 Radiofrequency Electromagnetic Fields".

## 1.3 Calculations

The EUT is intended to be permanently mounted on a light pole or a utility (telephone) pole (i.e. is intended for fixed installation use.)

Per Table 1 of Section 1.1310, the limit for General Population/Uncontrolled Exposure at 952 - 957 MHz is  $0.64 \text{ mW/cm}^2$ .

Per OET Bulletin 65, Edition 97-01, the formula for calculating power density is:  $S = P * G / 4\pi R^2$  with:

Power = +32.07 dBm = 1.611 mW

Gain of ¼ Wave Whip Antenna = 2.14 dBi or a numeric gain of 1.637

Therefore, solving for R gives a minimum safe distance of: 1.75 m.

The FCC specified maximum safe distance for fixed installation EUTs is 2 meters.

## 1.4 Conclusion

The EUT complies with the requirements of Table (B) limits for Maximum Permissible Exposure [MPE] for the general population uncontrolled exposure of Section 1.1310 of the FCC Regulations. The manufacturer has specified 2 m as the minimum safe distance in the EUT's User Manual.