# RF Safety Exhibit

Revision: 01 Date: 09 Mar 2004

Equipment: VCom TR700B 700 MHz Transceiver

FCC ID: OPPTR700B

For radio transmitters in the 698 to 746 MHz band, paragraph 1.1310 limits maximum permissible exposure (MPE) to (f in MHz/1500) $mW/cm^2$ or 0.473 $mW/cm^2$ considering our lowest operating frequency of 710 MHz for uncontrolled environments.

The maximum safe distance from the antenna at which MPE is met or exceeded is calculated from the equation relating field strength in V/m, transmit power in Watts, transmit antenna gain, and separation distance in meters:

**Basis of calculations (FCC OET bulletin 65, 97-01, August 1997):**

Power Density [$W/m^2$]= EIRP [Watts]/(4*pi*(distance[m])^2)
Safe $Distance_{meters}$ for 0.473$mW/cm^2$ MPE = 0.1297*($EIRP_{Watts}$)^0.5

| **Transceiver Power** | | **Antenna Type** | **Antenna Gain** | **Safe Distance** |
|---|---|---|---|---|
| [Watts] | [dBm] | | [dBi] | [meters] |
| 0.25 | +24 | Yagi | 10 dBi | 0.206 |
| 0.25 | +24 | Flat planar array | 9 dBi | 0.183 |
| 0.25 | +24 | Window mount planar array | 7 dBi | 0.146 |

**Installation Requirements:**

The TR700B is used with a user-supplied antenna. A self-adhesive RF exposure label is supplied with each TR700B unit for the user to affix to their antenna. Installation of the TR700B and affixing of the RF exposure label to the antenna is described in the user manual, which is supplied with each TR700B. See section 2.2.2 on page 9 of "INSTALLATION AND OPERATION GUIDE FOR SYSTEM OPERATORS"

The following statement is included in the user manual and on the label to be attached to the antenna:

**"CAUTION: To comply with FCC RF exposure requirements in section 1.1307, a minimum separation distance of 1.5 meters is required between this antenna and all persons."**