6 RF Exposure

Table 6-1 gives a summary of the expected radiation exposure levels versus distance from the transmitter antenna using equation (6-1). The maximum EIRP power in Table 5-2 is used in evaluation of the RF exposure level.

$$S = \frac{EIRP}{4\pi D^2} \quad (6\text{-}1)$$

where S is power density at distance D from the antenna. For near field, equation (6-1) could be used for "worst case" or conservative prediction[1].

Table 6–1. RF exposure level versus distance

Distance (cm)	10	50	100
Power density (mW/cm^2)	0.259	0.010	0.003

The transmission antenna shall be mounted on the roof of vehicle and it will be at least 1 meter apart from a driver who controls the transmitter through a display in the vehicle. Therefore, the RF exposure level will complies with the uncontrolled exposure environment defined by IEEE STD C95.1 requirement.

[1] FCC OET Bulletin, No. 65, Edition 97-01, "Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields", August 1997