1 FCC Rules and Regulations Part 1.1307, 1.1310, 2.1091, 2.1093: RF EXPOSURES

The manufacturer does not specify or sale any antenna with the radio identified in this report.
The manufacturer applies for the Occupational/Control Exposure environment.

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

$$E(V/m) = \frac{\sqrt{30 \times P \times G}}{d}$$

Power density: $P_d\,(mW/cm^2) = \frac{E^2}{3770}$

The limit for general population/uncontrolled exposure applicable to Bystanders (at 440 MHz) = f(MHz)/1500 mW/cm^2 is applicable to bystanders.

2 MPE Calculation

Antennae: Typical land mobile antenna available on the market and commonly chosen by end-users for vehicle application with an antenna gain less than or equal 3 dBd.

Frequency [A] 440 MHz

Limit for General Population/Uncontrolled Environment (Bystanders) with a 50% duty factor: 0.59 mW/cm^2

SEPARATION DISTANCE:

Power[B]	(dBd) Antenna Gain[C]	
(Watt)	3	
	(in)	(cm)
41.7	54	136

Notes:
[A] = Distances are calculated for the largest (worst-case) separation distance
[B] = Conducted Output Power delivered to the antenna
[C] = Gains are compared to an ideal 1/2-wave dipole (0 dBd = 2.15 dBi)

Instructions will be placed in the user manual instructing installers and users to maintain the MPE distances during operation of the EUT. It is the responsibility of the licensee, when applying for a license, to demonstrate compliance with the FCC RF exposures requirements (MPE) using an antenna different from those specified by the manufacturer and reported on file at the FCC.