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.