



15 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 General Population/Uncontrolled 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:

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

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

The limit for general population/uncontrolled exposure applicable to Bystanders (at 27.405 MHz) = $180/(f(\text{MHz}))^2$ in mW / cm^2

15.1 MPE CALCULATION

Antennae: Typical CB antenna available on the market and commonly chosen by end-users for vehicle application.

Frequency^A 27.405 MHz

Limit for General Population/Uncontrolled Environment (Bystanders): $0.24 mW / cm^2$

SEPARATION DISTANCE:

Power ^B (CW)	(dBi) Antenna Gain ^C		(dBi) Antenna Gain ^C	
	-4.5		2.15	
(Watt)	(in)	(cm)	(in)	(cm)
3.9	11	27	18	46
1.95 (50%) ^D	7	19	13	33

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)

^D = Source-base time-averaging duty factor = 50%

Instructions will be placed in the user manual instructing installers and users to maintain the MPE distances during operation of the EUT.