Section 15.247(i) – Radio Frequency Hazard Information

As per Section 15.247 (i) Spread spectrum transmitters operating in the 902 – 928 MHz band are required to be operated in a manner that ensures that the public is not exposed to RF energy levels in accordance with CFR 47, Section 1.1307(b)(1).

In accordance with this section, and also Section 2.1091, this device has been defined as a mobile device whereby a distance of 20 cm or greater can normally be maintained between the user and the device.

This transmitter would normally mounted at road level underneath parked vehicles.

In accordance with Section 1.1310 the Maximum Permissible Exposure (MPE) limits for the General Population / Uncontrolled Exposure of f/1500 have been applied.

The maximum distance from the antenna at which the 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 metres:

E, V/m = (√ (30 * P * G)) / d

Power density, $mW/cm^2 = E^2/3770$

E for MPE: $(921/1500) = E^2/3770$

$E = \sqrt{(921/1500)*3770}$

$E = \underline{48.1\ V/m}$

The maximum radiated power measured was +20.5 dBm or 0.1122 Watts

Therefore:

E = √ (30 * P * G) / d

d = √ (30 * P * G) / E

d = √ (30 * 0.1122) / 48.1

d = 0.038 m or 3.8 cm

In order to meet the MPE requirements a minimum safe distance of at least 20 cm will be required.

Result: Complies.