Radio Frequency Hazard Information

As per Section 1.1310 mobile transmitters are required to be operated in a manner that ensures that the public is not exposed to RF energy levels in accordance with OST/OET Bulletin Number 65.

A minimum safe distance between the user / general public and the device has been calculated below.

In accordance with Section 1.1310 the Maximum Permissible Exposure (MPE) power density limit for the General Population / Uncontrolled Exposure of 0.73 mW/m^2 (1090/1500) has been applied.

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

E for MPE: $(1090/1500) = E^2/3770$
$E = \sqrt{(1090/1500)*3770}$
$E = \underline{52.5\ V/m}$

The minimum distance from the antenna at which the MPE is met is calculated from the equation relating field strength in V/m, transmit power in watts, transmit antenna gain and separation distance in metres:

The rated maximum power of this transmitter is 200 watts with a duty cycle of 0.1% which gives a mean power of 0.2 watts

In a typically mobile installation this transceiver would be used with a whip ¼ wave dipole type of antenna with a gain of 1.64.

$d = \sqrt{(30 * P * G) / E}$
$= \sqrt{(30 * 0.2 * 1.64) / 52.5}$
$= \underline{0.06 \text{ metres or } 6 \text{ cm}}$

The above calculations that this device will meet the MPE requirement for mobile devices providing a safe distance of at least 6 cm is provided.

A warning to this affect will need to be inserted in the equipment manual.

Result: Complies