

# EMC Technologies (NZ) Ltd

Test Report No **081208.2**

Report date: 16 February 2009

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## 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  $0.2 \text{ mW/m}^2$  or  $27.5 \text{ V/m}$  has been applied.

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 rate power of this transmitter is 6.5 watts which has been measured to be 5.9 watts.

In a typically mobile installation this transceiver would be used with a whip  $\frac{1}{4}$  wave dipole type of antenna with a gain of 1.64.

$$\begin{aligned} d &= \sqrt{(30 * P * G) / E} \\ &= \sqrt{(30 * 6.5 * 1.64) / 27.5} \\ &= \underline{0.65 \text{ metres or } 65 \text{ cm}} \end{aligned}$$

The above calculations that this device will meet the MPE requirement for mobile devices providing a safe distance of at least 65 cm is provided.

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

**Result:** Complies