

# STATEMENT ON EXPOSURE TO ELECTROMAGNETIC FIELDS

## EQUIPMENT

Type of equipment:	Wireless sensor unit
Brand name:	Creowave
Type / Model:	S7001, S7002
Manufacturer:	Creowave Oy
By request of:	Creowave Oy

## REQUIREMENT

CFR 47 §1.1310  
RSS-102 issue 5 (2014)

## CALCULATIONS

Highest output power to antenna is +20dBm  
With 4.8 dBi antenna gain<sup>4</sup> EIRP is 24.8 dBm or 302 mW

The manual recommends that the operator is not closer than (r) 20 cm to the transmitter's antenna.

A worst case calculation is as follows:

$$S = \frac{EIRP}{4 \times \pi \times r^2}$$

Maximum power density is

$$S = 0.302 / (4 \times \pi \times 0,2^2) = 0,60W/m^2 = 0,060 mW/cm^2$$

**Limit:**

CFR 47 §1.1310 (e) table 1 Limits for General Population/Uncontrolled Exposure:  $1\text{mW}/\text{cm}^2$

RSS-102 section 2.5.2: states that at or above 300 MHz and below 6 GHz and the source-based, time-averaged maximum e.i.r.p. of the device is equal to or less than  $1.31 \times 10^{-2} f^{0.6834} \text{ W}$  (adjusted for tune-up tolerance), where  $f$  is in MHz;

Maximum EIRP  $302 \text{ mW} < 2,67 \text{ W}$  at 2405 MHz

The requirements are fulfilled.

Intertek Semko AB, Radio& EMC

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