

FCC Part 15 Subpart C Transmitter Certification

Direct Sequence Spread Spectrum Transmitter

Test Report

FCC ID: R7PCWE-WALL2

FCC Rule Part: 15.247

ACS Report Number: 06-0327 - 15C

Manufacturer: Cellnet Technology, Inc.
Model: Cellnet Water Endpoint 6075 Remote

RF Exposure Information

General Information:

Applicant: Cellnet
 ACS Project: 06-0327
 FCC ID: R7PCWE-WALL2
 Device Category: Mobile
 Environment: General Population/Uncontrolled Exposure

Technical Information:

Antenna Type: Loop, integral to the PWB
 Antenna Gain: 2.1 dBi
 Transmitter Conducted Power: 22.34dBm
 Maximum System EIRP: 24.44dBm
 Operating Configuration: Fixed mounted
 Exposure Conditions: Greater than 20 centimeters

MPE Calculation

The Power Density (mW/cm²) is calculated as follows:

$$S = \frac{PG}{4\pi R^2}$$

Where:

- S = power density (in appropriate units, e.g. mW/cm²)
- P = power input to the antenna (in appropriate units, e.g., mW)
- G = power gain of the antenna in the direction of interest relative to an isotropic radiator
- R = distance to the center of radiation of the antenna (appropriate units, e.g., cm)

MPE Calculator for Mobile Equipment Limits for General Population/Uncontrolled Exposure*							
Transmit Frequency (MHz)	Radio Power (dBm)	Power Density Limit (mW/Cm2)	Radio Power (mW)	Antenna Gain (dBi)	Antenna Gain (mW eq.)	Distance (cm)	Power Density (mW/cm ²)
917.58	22.34	0.61	171.40	2.1	1.622	20	0.055

Installation Guidelines

The installation manual contains the following text advising how to install the equipment to maintain compliance with the FCC RF exposure requirements:

RF Exposure

In accordance with FCC requirements of human exposure to radio frequency fields, the radiating element shall be installed such that a minimum separation distance of 20 centimeters will be maintained.

Conclusion

This device complies with the MPE requirements by providing adequate separation between the device, any radiating structure and the general population.