

FCC Part 15 Subpart C Transmitter Certification

Direct Sequence Spread Spectrum Transmitter

Test Report

FCC ID: R7PCWE-WALL

FCC Rule Part: 15.247

ACS Report Number: 06-0096 - 15C

Manufacturer: Cellnet Technology, Inc.
Model: Cellnet Water Endpoint 6060 Remote

RF Exposure Information

General Information:

Applicant: Cellnet
 ACS Project: 06-0096
 FCC ID: R7PCWE-WALL
 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: 24.05dBm
 Maximum System EIRP: 26.15dBm
 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	24.05	0.61	254.10	2.1	1.622	20	0.082

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 (Intentional Radiators Only)

In accordance with FCC requirements of human exposure to radiofrequency fields, the radiating element shall be installed such that a minimum separation distance of 20cm is maintained from the general population."

Conclusion

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