



Excellence in Compliance Testing

Certification Exhibit

FCC ID: R7PWGRS4

FCC Rule Part: 15.247

ACS Report Number: 09-0421.W03.11.A

Manufacturer: Cellnet Technology Inc.
Model: Gridstream Wangate

RF Exposure

General Information:

Applicant: Cellnet Technology Inc.
 ACS Project: 09-0421
 Device Category: Mobile
 Environment: General Population/Uncontrolled Exposure

Technical Information:

Antenna Type: Omnidirectional Dipole
 Antenna Gain: 5.5dBi
 Maximum Transmitter Conducted Power: 29.79 dBm, 953mW
 Maximum System EIRP: 35.29 dBm, 3381 mW
 Exposure Conditions: Greater than 22 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)
902.3	29.77	0.60	948.42	5.5	3.548	22	0.553
904	29.79	0.60	952.80	5.5	3.548	22	0.556
915	29.76	0.61	946.24	5.5	3.548	22	0.552
927.8	29.75	0.62	944.06	5.5	3.548	22	0.551
927.9	29.75	0.62	944.06	5.5	3.548	22	0.551

Installation Guidelines

The installation manual should contain text similar to the following 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 22 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.