FCC Part 15 Subpart C

Frequency Hopping
Spread Spectrum Transmitter

Certification Test Report

Appendix F

RF Exposure Information

Manufacturer: Neptune Technology Group

Model: R900-v2

Variants:
- ◊ Pit Mounted MIU with External Antenna
- ◊ Wall Mounted MIU with Integrated Antenna

FCC ID: P2SNTGSRFV2

ACS Report Number: 02-0177-15C

General Information:

Applicant:	Neptune Technology Group, Inc
ACS Project:	02-0177
FCC ID:	P2SNTGSRFV2
Device Category:	Mobile Device
Environment:	General Population/Uncontrolled Exposure

Technical Information:

Antenna Type:	Integrated folded dipole and External Patch
Antenna Gain:	-4 dBi integrated, -5dBi external
Transmitter Conducted Power:	18dBm or 63mW
Maximum System EIRP:	14dBm or 25mW with integrated antenna 13dBm or 20mW with external antenna
Operating Configuration:	Wall Mounted or mounted in a pit underground
Exposure Conditions:	Usually greater than 20cm from the population

MPE Calculation

The minimum separation distance is calculated as follows:

$$E(V/m) = \frac{\sqrt{30xPxG}}{d} \qquad \text{Power Density: } P_d = (mW/cm^2) = \frac{E^2}{3770}$$

MPE Distance

MPE Calculator for 900MHz Mobile Equipment Limits for General Population/Uncontrolled Exposure*					
Transmit Freq. (MHz)	**Radio Power (dBm)**	**Antenna Gain (dBi)**	**Sytem EIRP (mW)**	**MPE Limit (mW/cm2)**	**MPE Distance (cm)**
911	18	-4	25.12	0.61	1.10
911	18	-5	19.95	0.61	0.98

Installation Guidelines

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

"This equipment complies with the FCC RF radiation requirements for uncontrolled environments. To maintain compliance with these requirements, the antenna and any radiating elements should be installed to ensure 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 and any radiating structure and the general population.