FCC Part 24
Transmitter Certification

Test Report

FCC ID: DNY0A1EKLNK1900

FCC Rule Part: CFR 47 Part 24 Subpart E

ACS Report Number: 05-0458-24H

Manufacturer: EMS Wireless
Equipment Type: PCS Fiber-optic RF Distribution Remote Unit
Model: EkoLink II 1900

RF Exposure

General Information:

Applicant:	EMS Wireless
ACS Project:	05-0458
FCC ID:	DNY0A1EKLNK1900
Device Category:	Fixed
Exposure Conditions:	Uncontrolled/General Population

Technical Information:

Antenna Type:	Omni-Directional
Antenna Gain Maximum:	3dBi
Max Transmitter Output Power:	20.94dBm
Max System EIRP:	23.94dBm / 0.248W
Operating Configuration:	Fixed
Exposure Conditions:	> 20cm

MPE Calculation

The Power Density (mW/cm^2) 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)

Calculations were performed at the frequencies with the highest output power as determined during testing.

Maximum Permissible Exposure (MPE) 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)
1960.1	20.94	1.00	124.17	3	1.995	20	0.049

Installation Guidelines

End-users and installers must be provided with antenna installation instructions and transmitter operating conditions for satisfying RF exposure compliance.

Conclusion

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