

MiniLink[®] Ethernet Series

5.8 GHz Wireless Ethernet Point to Point System

Product Features

- Transmits up to 20Mbps in standard mode and 50Mbps in super mode
- 5 user selectable channels, 802.11a technology
- Switch selectable setup with LED indicators for ease of operation
- Connects with standard Ethernet devices – DVRs, video servers, IP cameras, router/hubs, etc.
- Uses encrypted communication for secure transmission
- Transmits up to 30 miles
- Unique compact, rugged modular design for easy installation - plug and play operability



The **MiniLink[®] Wireless Ethernet** system is a dual band wireless transmission system. It operates in the license free 5.8 GHz band. The system consists of dual 802.11a RF modules. A secure encryption method is used to prevent unauthorized access to the system.

The **MiniLink Wireless Ethernet (WES)** system is designed as a plug and play CAT5/Ethernet cable replacement device. Installing the system is as easy as mounting the RF modules, pointing them at each other and connecting the power and Ethernet/CAT5 cables. Three LED indicators on the back of each module give power, link activity and signal level status.

The **WES** modules transmit bi-directional data at 20 Mbps in standard mode and 50 Mbps in super mode. Standard operation requires no computer programming. For advanced setup, such as WEP encryption programming, turbo mode, setting IP addresses and User ID/Password changes, the system employs an easy to use web browser interface.

The **MiniLink Wireless Ethernet** system enables a wide variety of IP cameras, DVRs, encoder/decoders and web servers to be used across wireless line-of-site links in ranges of 2500 feet to 30 miles. In applications where it is not possible, cost effective or desirable to run a cable, WES modules are an ideal solution. Following are a few examples:

- Security & Surveillance – School and Corporate Campuses, Warehouses, Retail, Manufacturing, Public Attractions, Ranches, Stables and Farms
- Intelligent Traffic Control Systems – Highways, Intersections, Parking Lots and Garages
- Homeland Security – Ports, Airports, Borders, Utilities, Parks and Monuments
- Government Agency and Military – Bases, Forward Deployment, Special Operations Teams
- Law Enforcement – Local and State Police, Bomb Squads, Search and Rescue Teams



MiniLink® Ethernet Point to Point

Technical Specifications

RF Modules

RF SECTION

Power Output	50 W EIRP @ 5.8 GHz (maximum)
Transmitting Frequency	5.725 – 5.825 GHz (U-NII-3 / ISM)
Channel Capacity	5 non-overlapping channels 5.8 GHz Band - 5745, 5765, 5785, 5805, 5825
Modulation	OFDM
Latency	<10 milliseconds
Receiver Sensitivity	-82 dBm for maximum data rate
Polarization	Linear, horizontal or vertical
Antenna Type & Gain	Small patch, 5.8 dBi @ 5.8 GHz 6x6 patch, 16.7 dBi @ 5.8 GHz Small patch in 18" dish, 24 dBi @ 5.8 GHz
Beam Width	Small patch - 90°, 6x6 patch 24° & 18" dish – 8°
Data Throughput Rate	Up to 20 Mbps - std mode, 50+ Mbps – super mode (2 channels maximum)
FCC ID	JRRWES
Industry Canada	4887A-WES

MANAGEMENT

Interface	10/100 Base T, half/full duplex, rate auto negotiated (802.3 compliant)
Frequency Selection	Rotary switch – channels 0 – 7
Web Browser Interface	User ID/Password, Super Mode, IP Address, WPA2 AES and WEP Encryption
Access Method	Time division duplexing/Time division multiple access (TTD/TDMA)
Protocols Used	IPV4, UDP, TCP, ICMP, Telnet, HTTP, FTP, SNMP
Network Management	HTTP

MECHANICAL

Physical	Environmental, sealed, billet aluminum, powder coated housing with UV stabilized PVC radome
Dimensions	3.6" x 3.6" x 1.75"
Weight	15.2 oz

POWER

Power Requirements	12 - 20 VDC @ 3 W (Reverse voltage protected)
Power Method	Power-over-Ethernet (PoE) via power injector module ("mid-span" compliant – pins 4,5 positive – pins 7,8 ground)
Connector	RJ45 – in and out of power injection box
Cable Specifications	100 Meters (328 Feet) on 24 AWG CAT-5 cable

ENVIRONMENTAL

Humidity	95% non-condensing
Operating Temperature	-20F to +150F

System Ranges

Up to 2600 feet	Integral directional patch antennas on both WEMs
Up to 2 Miles	Integral directional 6 x 6 patch antennas on both WEMs
Up to 12 Miles	Integral directional patch antenna mounted in dish and integral directional 6 x 6 patch on host side
Up to 30 Miles	Integral directional patch antennas on both WEMs mounted in dish antennas

Power Injection Module

MECHANICAL

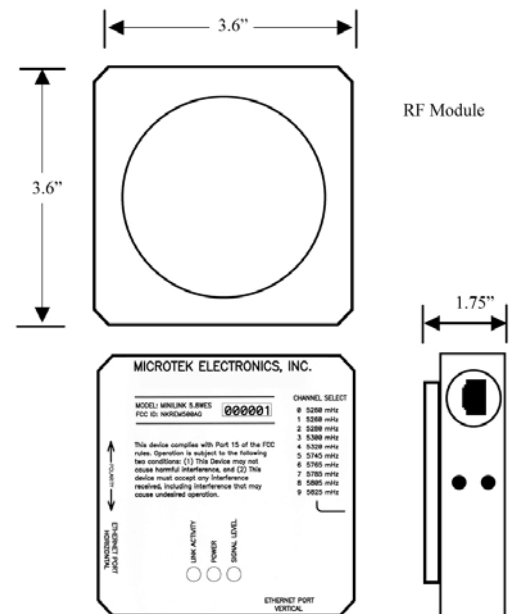
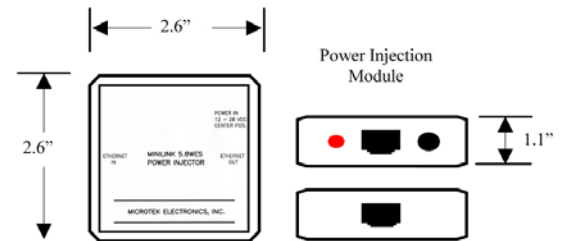
Physical	Plastic housing, not weatherproof
Dimensions	2.6" x 2.6" x 1.1"
Weight	2.5 oz
Interface	2 – RJ45 connectors

POWER

Power Requirements	12 VDC 500 mA (wall transformer supplied)
Power-over-Ethernet (PoE)	PoE "mid-span" compliant (pins 4,5 positive – pins 7,8 ground)
Indicator	LED - red
Connectors	DC Jack 2.5 mm x 5.5 mm center positive, 2 – RJ45

ENVIRONMENTAL

Humidity	95% non-condensing
Operating Temperature	-20F to +150F



Each ML-WES Kit includes:

- 2 – RF Modules with integral patch antennas
- 2 – Pole/wall mount brackets and hardware
- 2 – PoE power injection modules with power supplies



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your application evaluation.