

# MiniLink<sup>®</sup> Ethernet Series

## 5.3 / 5.8 GHz Wireless Ethernet System

### Product Features

- Transmits up to 20Mbps in standard mode and 40Mbps in turbo mode
- 9 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<sup>®</sup> Wireless Ethernet** system is a dual band wireless transmission system. It operates in the license free 5.3 and 5.8 GHz U-NII bands. 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 40 Mbps in turbo 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.



**WES modules** operate on channels 1 – 4 in the 5.3 GHz band and channels 5 – 9 in the 5.8 GHz band. Individual channels are selected via a rotary switch on the side of each module.

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



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# MiniLink® Ethernet Technical Specifications

## RF Modules

### RF SECTION

Power Output	250 mW ERP 5.3 GHz @ 2500 feet 400 mW ERP 5.8 GHz @ 2500+ feet
Transmitting Frequency	5.250 – 5.350 GHz (U-NII-2) 5.725 – 5.825 GHz (U-NII-3 / ISM)
Channel Capacity	9 non-overlapping channels 5.3 GHz Band - 5260, 5280, 5300, 5320 5.8 GHz Band - 5745, 5765, 5785, 5805, 5825
Modulation	OFDM
Polarization	Linear, horizontal or vertical
Data Throughput Rate	Up to 20 Mbps - standard mode Up to 40 Mbps – turbo mode (3 channels maximum)
FCC ID	NKRCM9

### MANAGEMENT

Interface	Proprietary, Ethernet 10/100 baseT
Frequency Selection	Rotary switch – channels 1 – 9
User ID/Password	Web browser interface
Turbo Mode	Web browser interface
IP Address	Web browser interface
WEP Encryption	Web browser interface

### 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 box (midspan standard)
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

### RANGE

Up to 2500 Feet	Integral patch antenna 5.3 & 5.8 GHz modules
Up to 2 Miles	Integral 6 x 6 12 dBi patch antenna – 5.3 GHz module only
Up to 4 Miles	Integral 6 x 6 17 dBi patch antenna – 5.8 GHz module only
Up to 30 Miles	RF module with integral patch antenna mounted in 25 dBi 18" dish on both ends

## Power Injection Module

### MECHANICAL

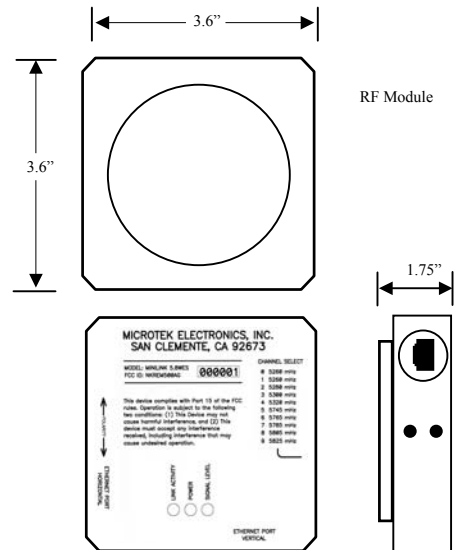
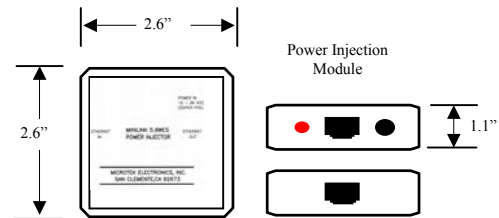
Physical	Plastic housing, not weatherproof
Dimensions	2.6" x 2.6" x 1.1"
Weight	2.5 oz
Interface	2 – RJ45 connectors

### POWER

Power Requirements	12 VDC 500 mA wall transformer supplied
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



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Each ML-WES5-2500 Kit includes:  
2 – RF Modules with integral patch antennas  
2 – Pole/wall mount brackets and hardware  
2 – PoE power injection modules with power supplies