

# MiniLink® Wireless Host/Access Point

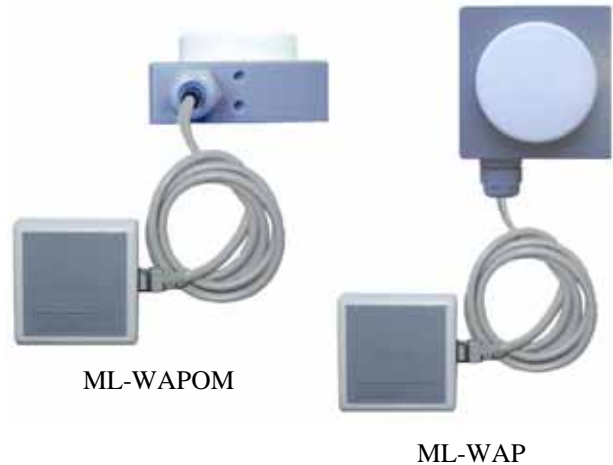
## Product Features

- Transmits actual throughput of 20Mbps in standard mode and 50Mbps in super mode up to 6 miles
- 8 user selectable channels, 802.11a technology, multiple Client SUs connectable per channel
- 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
- Designed to work with MicroTek's Wireless Client Subscriber Units and encoder/decoders
- Unique compact, rugged modular design for easy installation - plug and play operability

The **MiniLink® Wireless Host/Access Point (Host AP)** is a dual band wireless transmission module. It operates in the license free 5.3 and 5.8 GHz U-NII bands. Both the omni-directional ML-WAPOM and the directional ML-WAP host/access point modules can be connected to multiple MiniLink Wireless Client/Subscriber Units. A secure encryption method is used to prevent unauthorized access to the system.

The **MiniLink Host AP** is designed as a plug and play CAT5/Ethernet cable replacement device. Installing a system is as easy as mounting the Host AP at the receive location and then mounting and pointing the Client SU(s) at the Host AP from the remote location(s). Three LED indicators on the back of each module give power, link activity and signal level status.

The **MiniLink Host AP** transmits bi-directional data at 20 Mbps in standard mode and 50 Mbps in super mode. An easy to use web browser interface enables setup functions such as WEP encryption programming, turbo mode, setting IP addresses and User ID/Password changes.



The **MiniLink Host AP** operates on 3 non-overlapping channels in the 5.3 GHz band and 5 non-overlapping channels in the 5.8 GHz band. Individual channels are selected via a rotary switch on the side of each module.

The **MiniLink Wireless Host AP** 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 500 feet to 6 miles. In applications where it is not possible, cost effective or desirable to run a cable, wireless Ethernet systems 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® Wireless Host AP

## Technical Specifications

### RF Modules

#### RF SECTION

Power Output	1 W EIRP @ 5.3 GHz (maximum) 50 W EIRP @ 5.8 GHz (maximum)
Transmitting Frequency	5.250 – 5.350 GHz (U-NII-2) 5.725 – 5.825 GHz (U-NII-3 / ISM)
Channel Capacity	8 non-overlapping channels 5.3 GHz Band - 5280, 5300, 5320 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	Omni, 2.5 dBi Small patch, 7.5 dBi @ 5.3 GHz, 7.8 dBi @ 5.8 GHz 6x6 patch, 12.2 dBi @ 5.3 GHz, 16.7 dBi @ 5.8 GHz Small patch in 18" dish, 24 dBi @ 5.8 GHz
Beam Width	Omni - 360°, Small patch - 90°, 6x6 patch 24° & 18° dish - 8°
Data Throughput Rate	Up to 20 Mbps - std mode, 50+ Mbps - super mode (3 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 – 9
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 500 & 1000 Feet	Integral omni-directional patch antennas on both the Host AP WEM & Client SU WEM - 5.3 GHz - 500 ft, 5.8 GHz - 1000 ft
Up to 1300 & 2600 Feet	Integral omni-directional patch antenna on the Host AP WEM & integral directional patch antenna(s) on the Client SU WEM(s) - 5.3 GHz 1300 ft, 5.8 GHz - 2600 ft
Up to 2600 & 3900 Feet	Integral directional patch antenna on the Host AP WEM & Client SU WEM(s) - 5.3 GHz - 2600 ft, 5.8 GHz - 3900 ft
Up to 1 & 2 Miles	Integral directional patch antenna on the Host AP WEM & integral directional 6 x 6 13-dBi patch antenna(s) on the Client SU WEM(s) - 5.3GHz - 1 mile, 5.8 GHz - 2 miles
Up to 6 Miles	Integral directional patch antenna on the Host AP WEM & Client SU WEM(s) - Client SU WEM(s) mounted in 25 dBi dish antenna(s) 5.8 GHz only

### Power Injection Module

#### MECHANICAL

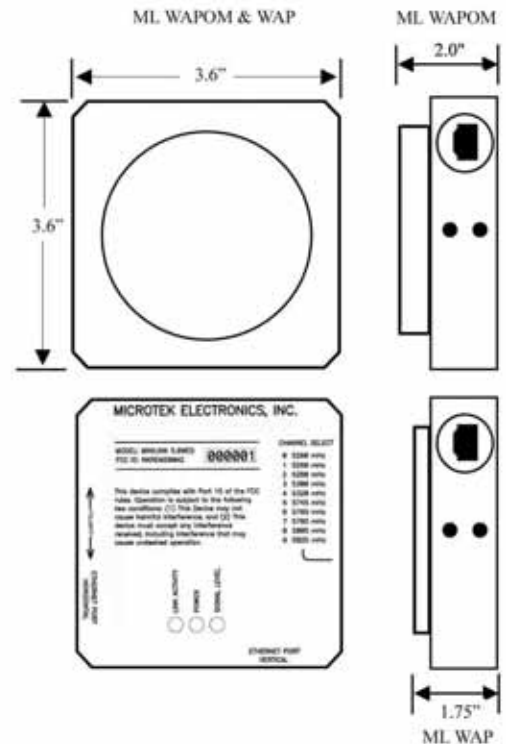
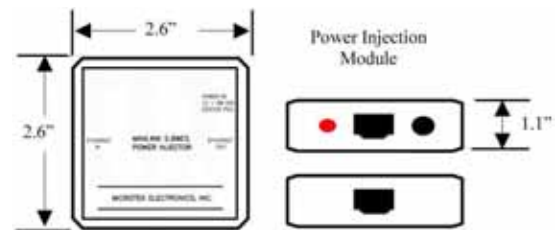
Physical	Plastic housing, not weatherproof
Dimensions	2.6" x 2.6" x 1.1"
Weight	2.5 oz
Interface	2 - RJ45 connectors

#### 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
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Each ML-WES Package 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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# MiniLink® Wireless Client/Subscriber Unit

## Product Features

- Transmits actual throughput of 20Mbps in standard mode and 50Mbps in super mode up to 6 miles
- 8 user selectable channels, 802.11a technology, multiple Client SUs connectable per channel
- 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
- Designed to work with MicroTek's Wireless Host Access Points and encoder/decoders
- Unique compact, rugged modular design for easy installation - plug and play operability

The **MiniLink® Wireless Client/Subscriber Unit (Client SU)** is a dual band wireless transmission module. It operates in the license free 5.3 and 5.8 GHz U-NII bands. Individual or multiple Client SUs can be connected to a MiniLink Wireless Access Point to provide end to end wireless connectivity. A secure encryption method is used to prevent unauthorized access to the system.

The **MiniLink Client SU** is designed as a plug and play CAT5/Ethernet cable replacement device. Installing a system is as easy as mounting the Client SU(s) at the remote location(s) and pointing it at a Host AP mounted at the monitoring location. Three LED indicators on the back of each module give power, link activity and signal level status.

The **MiniLink Client SU** transmits bi-directional data at 20 Mbps in standard mode and 50 Mbps in super mode. An easy to use web browser interface enables setup functions such as WEP encryption programming, turbo mode, setting IP addresses and User ID/Password changes.



The **MiniLink Client SU** operates on 3 non-overlapping channels in the 5.3 GHz band and 5 non-overlapping channels in the 5.8 GHz band. Individual channels are selected via a rotary switch on the side of each module.

The **MiniLink Wireless Client SU** 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 500 feet to 6 miles. In applications where it is not possible, cost effective or desirable to run a cable, wireless Ethernet systems are an ideal solution. Following are a few examples:

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# MiniLink® Client SU

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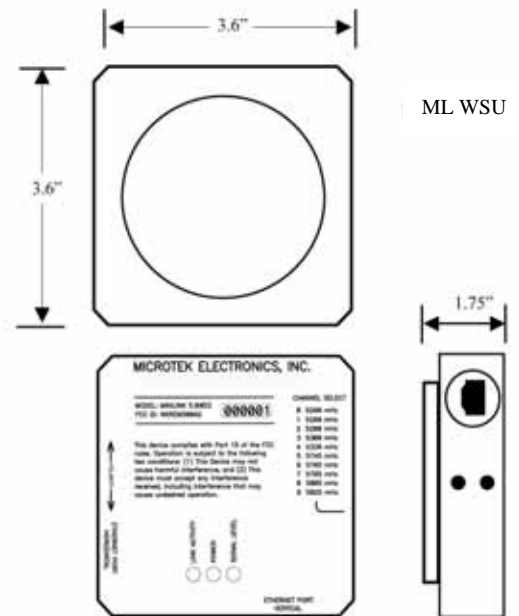
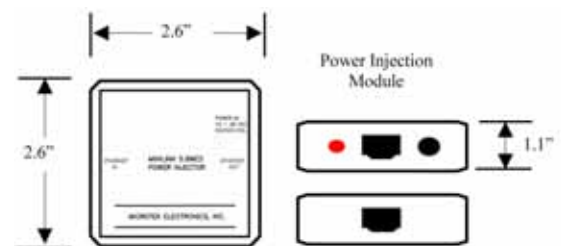
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