



The NetWave® industrially hardened wireless Ethernet transmission link can be configured through the embedded User Interface as a Client or as an Access Point. This point-to-multipoint model allows multiple Ethernet endpoints to be connected to a central Access Point. Up to 15 endpoints can be linked to a central access point. The NW1/M and NW2/M support up to 95Mbps throughput using MIMO technology. The units can be powered by an IEEE 802.3af PoE compliant device or through the supplied power injection module. The NW1/M is FCC certified for use in North America and the NW2/M is ETSI, DFS and TPC certified for use in the European Union. These links are an ultra-small form factor addition to the ComNet NetWave product family.

## FEATURES

- › Up to 95Mbps Throughput
- › 802.11a/n Compliant
- › Distances up to 2 mi (FCC) or 2 km (ETSI)
- › Powered by the included power injection module or by an IEEE802.3af PoE compliant device
- › Environmentally Hardened -40° to +75°C
- › Meets class IP67 dust and water immersion protection standards
- › ETSI Standards (EU Region only):
  - DFS Dynamic Frequency Selection
  - TPC Transmit Power Control
- › Secure transmission: WPA2 - AES or TKIP encryption
- › ComNet Antenna alignment feature eases installation and setup
- › RF Spectrum Survey Tools
- › Antenna Alignment Tools
- › LED array displays unit operational status along with received signal strength
- › Optional Antenna Configurations Available
- › Radio Internal Components covered by Lifetime Warranty.
- › Enclosure covered by Three Year Warranty.

## APPLICATIONS

- › Point to Multi-Point topologies whereby several Clients connect to one Access Point
- › Simple to deploy and cost-effective alternative to physical connections to Ethernet edge equipment
- › Integration of Ethernet where right-of-way issues mandate wireless communications
- › ITS traffic signalization networks and Video Detection Systems (VDS)
- › ITS roadside and city center CCTV surveillance, and surveillance of high-value or mission-critical assets
- › Wireless communications in manufacturing, petrochemical refineries, wastewater treatment facilities, and other industrial automation and control applications operating in harsh or out-of-plant environments
- › Electrical substation video and perimeter surveillance

## SPECIFICATIONS

### Wireless Radio

EIRP	NW1/M (FCC): Up to +36dBm for point to multipoint deployments, +42dBm for point to point deployments with MAC-lock feature enabled NW2/M (ETSI): +30dBm
RF Output	+26dBm Rated Transmitter
Operational Frequency	5180MHz – 5825MHz, Region-dependent. Not all frequencies are supported in all regions. Contact ComNet for frequencies supported in your region.
Bandwidths	20 and 40MHz

### Standard Internal Antenna

Antenna	Internal 16dBi Dual Polarized Directional
Gain	16dBi
Azimuth	30° Horizontal/Vertical
Elevation	30° Horizontal/Vertical

### IA870 Optional Internal Antenna

Antenna	Internal 8dBi Dual Polarized Directional
Gain	8dBi
Azimuth	70° Horizontal/Vertical
Elevation	30° Horizontal/Vertical

### Connectors

10/100 Ethernet	RJ-45, Sealed Cable Gland
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### Software Features

Addressing	Static IP / DHCP Client / DHCP Server
SNMP	V3
Telnet Server	Syslog
Dynamic DNS	802.1q VLAN support
Embedded Firewall	QoS support
Ability to Assign Static Routes	NTP Client
Spanning Tree Protocol support	
802.1x Port-Based Network Access Control	
User-Configurable Watchdog and Auto-Reboot Mechanism	
Multi-Level Configuration and Monitoring Login Accounts	
User Configurable Long Range Parameters	

### Power

Operating Voltage	42 to 57 VDC
Power Consumption	5.5 W Max
PD Power	IEEE802.3af PD compliant

### Mechanical

Indicating LEDs	Power On	Ethernet Link	Signal Strength
Size (L × W × H)	7.4 × 7.4 × 2.2 in (18.5 × 18.5 × 5.6 cm)		
Shipping Weight:	<3.9 lb / 1.75 kg		

### Environmental

MTBF	>100,000 hours
Operating Temp	-40° C to +75° C
Storage Temp	-40° C to +85° C
Relative Humidity	5% to 95%, non-condensing <sup>1</sup>

### Warranty

Internal Components	Lifetime
Enclosure	3 Year



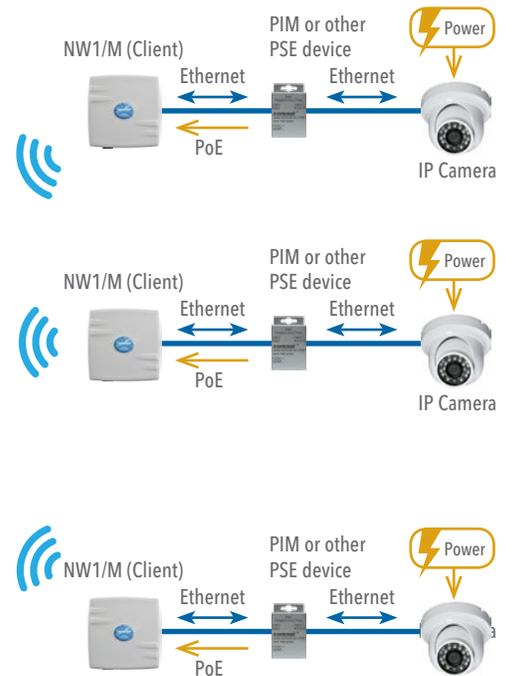
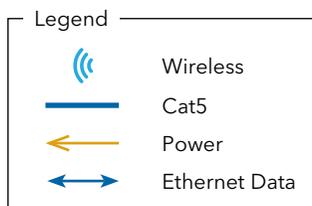
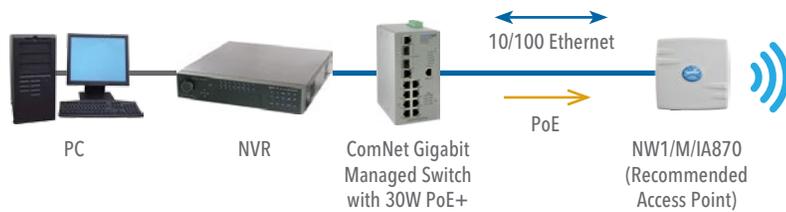
## ORDERING INFORMATION

Part Number	Description
NW1/M	Industrially Hardened Mini Point-to-Multipoint Wireless Ethernet Unit, Supports distances up to 2 mi/3.2 km, FCC certified for North America
NW2/M	Industrially Hardened Mini Point-to-Multipoint Wireless Ethernet Unit, Supports distances up to 2 km/1.25 mi, ETSI certified for European Union
Included Accessories	Power Kit with Power Supply and Passive Power Injector Pole Mounting Hardware Kit
Options	Add /IA870 for 8dBi/70° beamwidth internal antenna option (Recommended for multipoint Access Points. Extra charge, consult factory.) [1] Add suffix /C for Conformally Coated Circuit Boards to extend to condensation conditions (Extra charge, consult factory)

NOTE: In a continuing effort to improve and advance technology, product specifications are subject to change without notice.

TYPICAL APPLICATION

Point-to-Multipoint Topology



Point-to-Point Topology Utilizing Dual Ports

