



The NetWave® NW7[E]/M environmentally hardened High Throughput (HT) wireless Ethernet transmission device can be configured through the embedded User Interface as a Client or as an Access Point. This single radio model was designed for high throughput point-to-point or multi-point applications and comes with an integrated 16dBi, 30° beamwidth antenna. The NW7[E]/M supports up to 240Mbps throughput using MIMO technology. The units can be powered by an 802.3af PoE compliant device or through a sold separately PoE injector. The NW7/M is FCC certified for use in North America and the NW7E/M is ETSI, DFS and TPC certified for use in the European Union. The NW7[E]/M is an ultra-small form factor addition to the ComNet NetWave product family.

## FEATURES

- › High throughput:
  - Up to 180 Mbps in one direction
  - Up to 240 Mbps total full duplex
- › IEEE802.3af PoE Compliant PD
- › 802.11a/n Compliant
- › Distances up to 2 mi (FCC) or 2km (ETSI)
- › Environmentally Hardened -40° to +70°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
- › Radio Internal Components covered by Lifetime Warranty.
- › Enclosure covered by Three Year Warranty.

## APPLICATIONS

- › High Throughput Back Haul Link for installations that require connecting to more than one Ethernet device
- › 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)
- › Multicast traffic-based video systems
- › 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

5GHz Wireless Radio

EIRP	NW7/M (FCC): Up to +36dBm for point to multipoint deployments, +46dBm for point to point deployments with MAC-lock feature enabled NW7E/M (ETSI): +30dBm
RF Output	30dBm 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

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

Gigabit 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 Power	42 to 57 VDC
Power Consumption	8W Max
PD Power	IEEE802.3af PD compliant

Mechanical

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

Environmental

MTBF	>100,000 hours
Operating Temp	-40° C to +70° 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

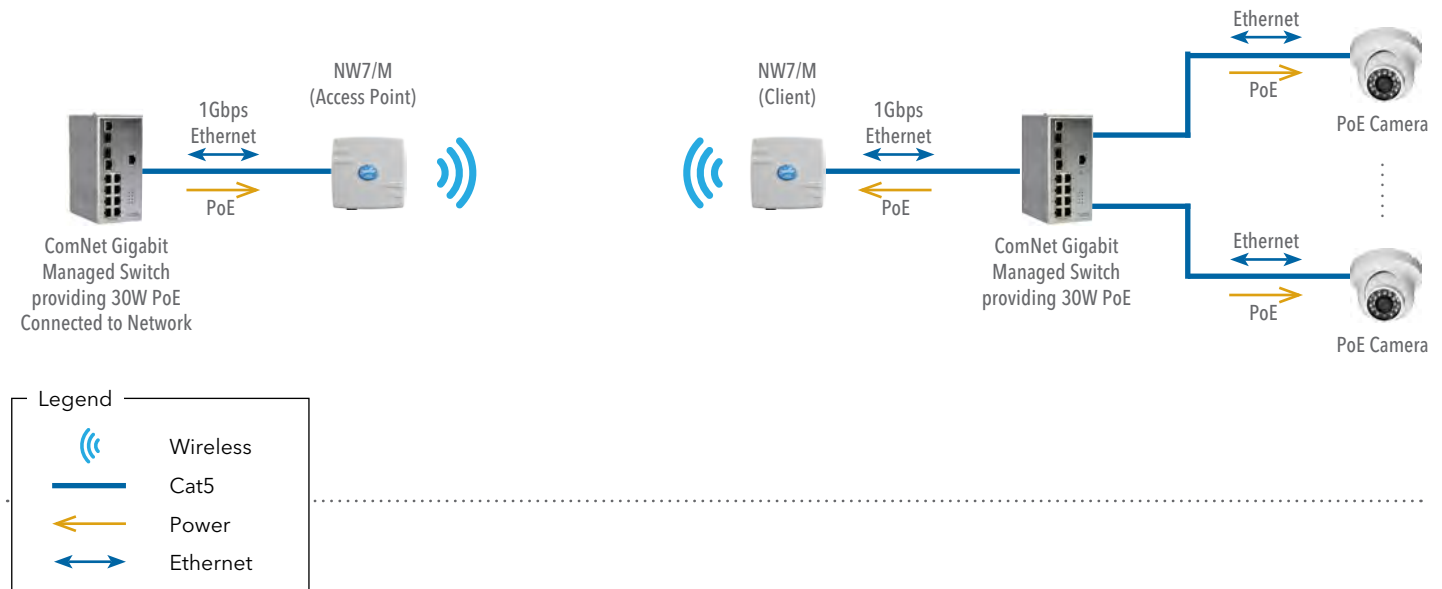
ORDERING INFORMATION

Part Number	Description
NW7/M	Individual Hardened Mini Single Radio, Gb Ethernet Port, internal 16dBi 30° beamwidth directional antenna, includes pole mounting assembly, Supports 802.3af PD PoE Power, FCC certified for use in NA Region
NW7E/M	Individual Hardened Mini Single Radio, Gb Ethernet Port, internal 16dBi 30° beamwidth directional antenna, includes pole mounting assembly, Supports 802.3af PD PoE Power, ETSI certified for use in EU Region
Included Accessories	Mounting Hardware Kit (For Pole Mounting Only)
Options	CNGE1IPS - 35W PoE Injector (sold separately) [1] Add suffix 'C' for Conformally Coated Circuit Boards to extend to condensation conditions (Extra charge, consult factory)

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

## TYPICAL APPLICATIONS

### High Throughput Point-to-Point Topology (Shown with PoE Cameras)



### Point-to-Point Topology (Shown with PoE Injector and Locally Powered Cameras)



TYPICAL APPLICATIONS (CONT'D)

Multiple Remote Camera Topologies

