

# Mini Industrially Hardened High Performance Wireless Kit for High Density Environments

NWK(1,2)[IC]/M

















The NetWave® NWK(1,2)[IC]/Mindustrially hardened wireless Ethernet transmission kit includes a Client and an Access Point. The NWK1[IC]/M and NWK2/M support up to 240 Mbps throughput using MIMO technology. The units can be powered by an IEEE 802.3af PoE compliant device or through an optional power injection module. The NWK1/M is FCC certified for use in North America, the NWK1IC/M is IC certified for use in Canada, and the NWK2/M is ETSI, DFS, and TPC certified for use in the European Union. This mini unit come in an ultra-small form factor that is a new addition to the ComNet NetWave product family.

## **FEATURES**

- Narrow Channel Spectrum Widths for large and noisy deployments
- > 5, 10, 20 and 40 Mhz Channel Bandwidth Support
- > Up to 240 Mbps Throughput
- > 802.11a/n Compliant
- > Distances up to 2 mi (FCC, IC) or 2km (ETSI)
- > IEEE802.3at PoE Compliant PD on port 1
- > IEEE802.3af power source (PSE) available on port 2
- > 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
- > 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**

- 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

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# **SPECIFICATIONS**

## Wireless Radio

EIRP NWK1[IC]/M (FCC, IC): Up to +36dBm for point

to multipoint deployments, +42dBm for point to point deployments with MAC-lock feature enabled

NWK2/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 5, 10, 20 and 40 MHz

## Standard Internal Antenna

Antenna Internal 16dBi Dual Polarized Directional

Gain 16dBi

Azimuth 30° Horizontal/Vertical Elevation 30° Horizontal/Vertical

#### **Connectors**

10/100/1000 Ethernet RJ-45, Sealed Cable Gland

Indicating LEDs Power On, Ethernet Link, Signal Strength

## **Software Features**

Addressing Static IP / DHCP Client / DHCP Server

SNMP V3

Dynamic DNS 802.1q VLAN support

Embedded Firewall QoS support

Ability to Assign Static Routes 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 24 to 56 VDC Power Consumption 5.5 W Max

PD Power IEEE802.3af PD compliant

#### Mechanical

Indicating LEDs Power On Ethernet Link Signal Strength Size (L  $\times$  W  $\times$  H) 7.4  $\times$  7.4  $\times$  2.2 in (18.5  $\times$  18.5  $\times$  5.6 cm)

Shipping Weight <7.7 lb / 3.5 kg

#### **Environmental**

 $\begin{array}{ll} \text{MTBF} & > 100,000 \text{ hours} \\ \text{Operating Temp} & -40^{\circ} \text{ C to } +75^{\circ} \text{ C} \\ \text{Storage Temp} & -40^{\circ} \text{ C to } +85^{\circ} \text{ C} \end{array}$ 

Relative Humidity 5% to 95%, non-condensing<sup>1</sup>

#### Warranty

Internal Components Lifetime Enclosure 3 Year





## ORDERING INFORMATION

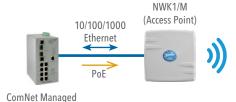
Part Number	Description
NWK1/M	Industrially Hardened Mini Point-to-Point Wireless Ethernet Kit, Supports distances up to 2 mi/3.2 km, FCC certified for North America
NWK2/M	Industrially Hardened Mini Point-to-Point Wireless Ethernet Kit, Supports distances up to 2 km/1.25 mi, ETSI certified for European Union
NWK1IC/M	Industrially Hardened Mini Point-to-Point Wireless Ethernet Kit, Supports distances up to 2 km/1.25 mi, IC certified for Canada
Included Accessories	Pole Mounting Hardware Kit
Options	[1] Add suffix '/C' for Conformally Coated Circuit Boards to extend to condensation conditions
(Extra charge,	PIM1 - Hardened 100 Mbps Power Injection Module supporting 24-48 VDC and 24 VAC Input

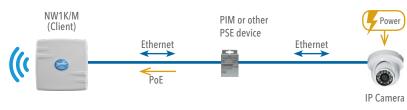
CWPOEIPS-15 - Commercial 15.4 W Midspan 100 Mbps Power Injection Module supporting 100-240 VAC and 48 VDC output

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

# **TYPICAL APPLICATION**

consult factory)









Switch with 30W PoE Connected to Network

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CNGE1IPS - Hardened 35 W Midspan 1 Gbps Power Injection Module for Passthrough PoE Applications supporting 90-264 VAC Input and 56 VDC Output