

# Ultra-High Throughput, Impact-Resistant Hardened Wireless Ethernet Kit

NWK9[E]

















The NetWave® NWK9[E] ultra-high throughput, impact-resistant hardened wireless Ethernet transmission kit comes preconfigured with one Client and one Access Point. This single radio model was designed for high throughput point-to-point applications and comes with an integrated 19dBi, 17° beamwidth antenna. The NWK9[E] supports up to 500 Mbps throughput using 802.11ac MIMO technology. The units can be powered by an 802.3af/at PoE compliant device or through a sold-separately PoE injector with the second Ethernet port serving as an IEEE802.3at power source. The NWK9 is FCC certified for use in North America and the NWK9E is ETSI, DFS and TPC certified for use in the European Union.

#### **FEATURES**

- > Up to 500 Mbps throughput
- > Sturdy cast aluminum enclosure
- > IEEE802.3at PoE Compliant PD
- Over current protection and 3 layers of Ethernet surge suppression on the PD port
- > 802.11ac Compliant
- > Distances up to 2 mi (FCC) or 2 km (ETSI)
- > Distances up to 4 mi (FCC) with MAC Lock enabled
- > 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
- > Ideal for PoE Camera connectivity
- 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 NW9 (FCC): +49dBm for point to point

deployments with MAC-lock feature enabled

NW9E (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 10, 20, 40, and 80MHz

**Internal Antenna** 

Antenna Internal 19dBi Dual Polarized Directional

Gain 19dBi

Azimuth 17° Horizontal/Vertical Elevation 17° Horizontal/Vertical

**Connectors** 

Gigabit Ethernet 2 × RJ-45, Sealed Cable Gland

**Software Features** 

Addressing Static IP / DHCP Client / DHCP Server

SNMP V3
Spanning Tree Protocol support

Telnet Server Syslog

802.1x Port-Based Network Access Control

NTP Client

User-Configurable Watchdog and Auto-Reboot Mechanism Multi-Level Configuration and Monitoring Login Accounts

**User Configurable Long Range Parameters** 

**Power** 

Operating Power 48 to 57 VDC @ 170 mA

Power Consumption 8 W Max (with no PD load connected to port 2)

PD Power IEEE802.3af/at PD compliant PSE Power IEEE802.3at PSE compliant

Mechanical

Indicating LEDs Power On Ethernet Link Signal Strength Size (L  $\times$  W  $\times$  H) 10.27  $\times$  10.27  $\times$  1.38 in (26.1  $\times$  26.1  $\times$  3.5 cm)

Shipping Weight: <11 lb / 5 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





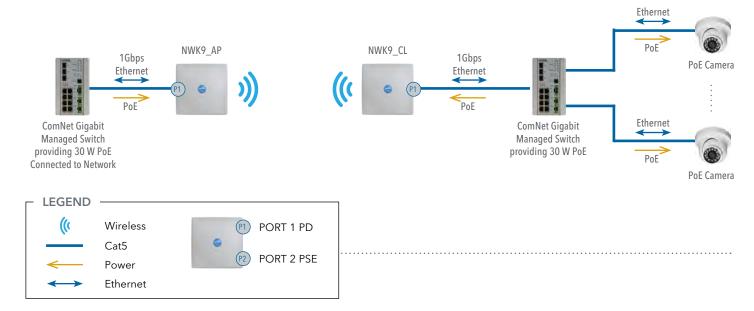
### **ORDERING INFORMATION**

Part Number	Description
NWK9	Hardened Radio Kit with one Access Point (NWK9_AP) and one Client (NWK9_CL), FCC certified for use in NA Region
NWK9E	Hardened Radio Kit with one Access Point (NWK9_AP) and one Client (NWK9_CL), 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)

NOTE: 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 PoE Powered Cameras)

