



The NetWave® NWK7[E] environmentally hardened High Throughput (HT) wireless Ethernet transmission kits are designed for high throughput point-to-point or multi-point applications. Each unit comes with an integrated 19dBi, 17° beamwidth antenna. The NW7[E] units support up to 240Mbps throughput using 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 NWK7 is FCC certified for use in North America and the NWK7E is ETSI, DFS and TPC certified for use in the European Union.

## FEATURES

- › High throughput:
  - Up to 180 Mbps in one direction
  - Up to 240 Mbps total full duplex
- › IEEE802.3at PoE Compliant PD
- › Over current protection and 3 layers of Ethernet surge suppression on the PD port
- › 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
- › 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	NW7 (FCC): +4dBm to +26dBm NW7E (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

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
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Power

Operating Power	42 to 57 VDC
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



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	

Mechanical

Indicating LEDs	Power On   Ethernet Link
	Signal Strength
Size (L × W × H)	10.0 × 10.0 × 3.4 in (25.7 × 25.7 × 8.6 cm)
Shipping Weight:	< 8.8 lb / 4 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

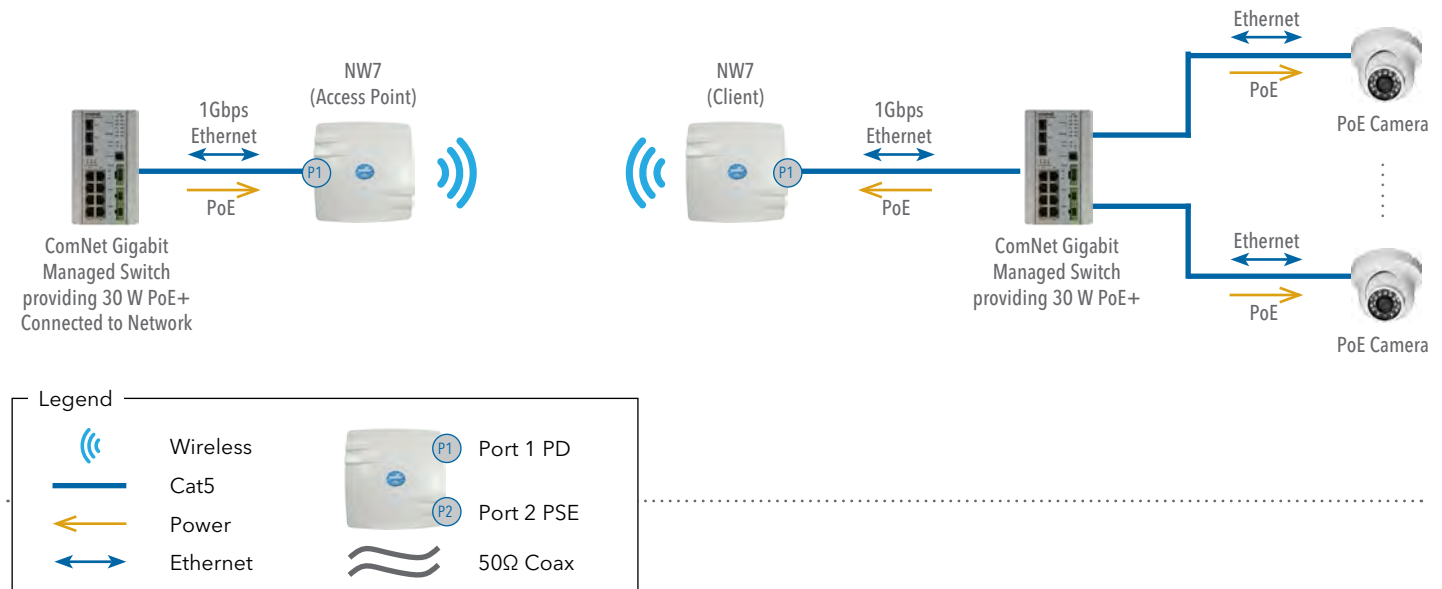
ORDERING INFORMATION

Part Number	Description
NWK7	Two Hardened Single Radios each with 2 of: 2 Gb Ethernet Ports, internal 19dBi 17° beamwidth directional antenna, includes pole mounting assembly, Port 1 Supports 802.3at <b>PD PoE Power</b> , Port 2 provides IEEE802.3at <b>PSE PoE Power</b> , FCC certified for use in NA Region
NWK7E	Two Hardened Single Radios each with 2 of: 2 Gb Ethernet Ports, internal 19dBi 17° beamwidth directional antenna, includes pole mounting assembly, Port 1 Supports 802.3at <b>PD PoE Power</b> , Port 2 provides IEEE802.3at <b>PSE PoE Power</b> , ETSI certified for use in EU Region
Included Accessories	Mounting Hardware Kit (For Pole Mounting Only)
Options	NWBKT - Articulating Wall or Pole Mounting Kit. Supports up to 3in/76mm diameter poles. (Sold Separately) [1] Add suffix 'C' for Conformally Coated Circuit Boards to extend to condensation conditions (Extra charge, consult factory) CNGE1IPS - 35W PoE Injector (sold separately)

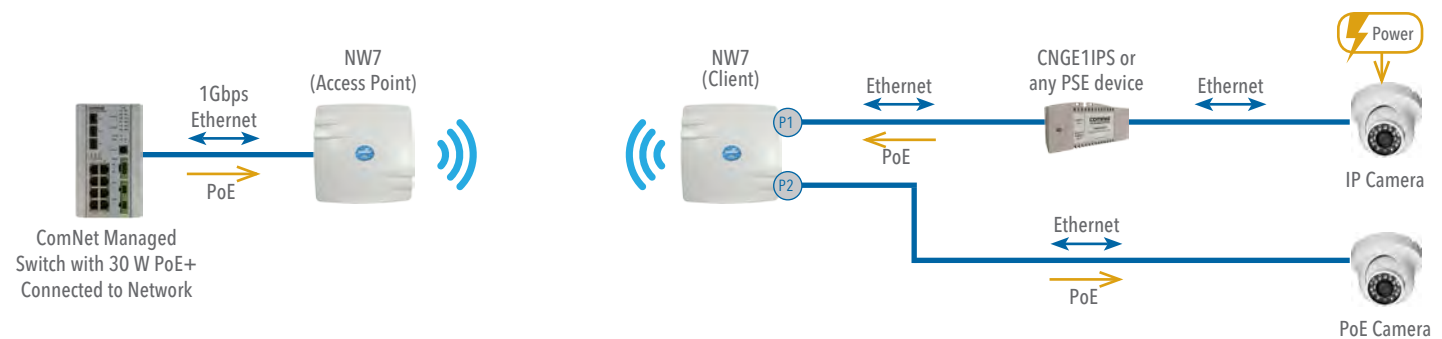
NOTE: In a continuing effort to improve and advance technology, product specifications are subject to change without notice.

## TYPICAL APPLICATIONS

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



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



TYPICAL APPLICATIONS (CONT'D)

Multiple Remote Camera Topologies

