



The NetWave® NW7[E] 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 19dBi, 17° beamwidth antenna. The NW7[E] supports up to 240Mbps throughput using MIMO technology. The units can be powered by an 802.3af/at PoE compliant device or through a supplied power injection module with the second Ethernet port serving as an IEEE802.3at power source. The NW7 is FCC certified for use in North America and the NW7E 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
- › Lifetime Warranty
- › IEEE802.3at PoE Compliant PD and PSE
- › 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

## 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 +17dBm, adjustable from +4 to 26dBm with MAC-lock enabled NW7E (ETSI): +30dBm +26dBm Rated Transmitter
RF Output	
Operational Frequency	NW7: (FCC) UNII3 5745-5825MHz NW7E: (ETSI) 5500-5700MHz supporting 802.11h ETSI DFS and TPC
Bandwidths	10, 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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LEDs

Power On
Ethernet Link
Signal Strength
LAN port



Low Power Consumption

Software Features

Addressing	Static IP / DHCP Client / DHCP Server
SNMP	V2c
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	24VDC @ 175 mA 48VDC @ 87.5mA
Power Consumption	4.2W Max
PD Power	IEEE802.3af/at PD compliant
PSE Power	IEEE802.3at PSE compliant

Mechanical

Size (L × W × H)	10.0 × 10.0 × 3.4 in. (25.7 × 25.7 × 8.6 cm)
Shipping Weight:	<2lbs/0.9kg

Environmental

MTBF	>100,000 hours
Operating Temp	-40° C to +70° C
Storage Temp	-40° C to +85° C

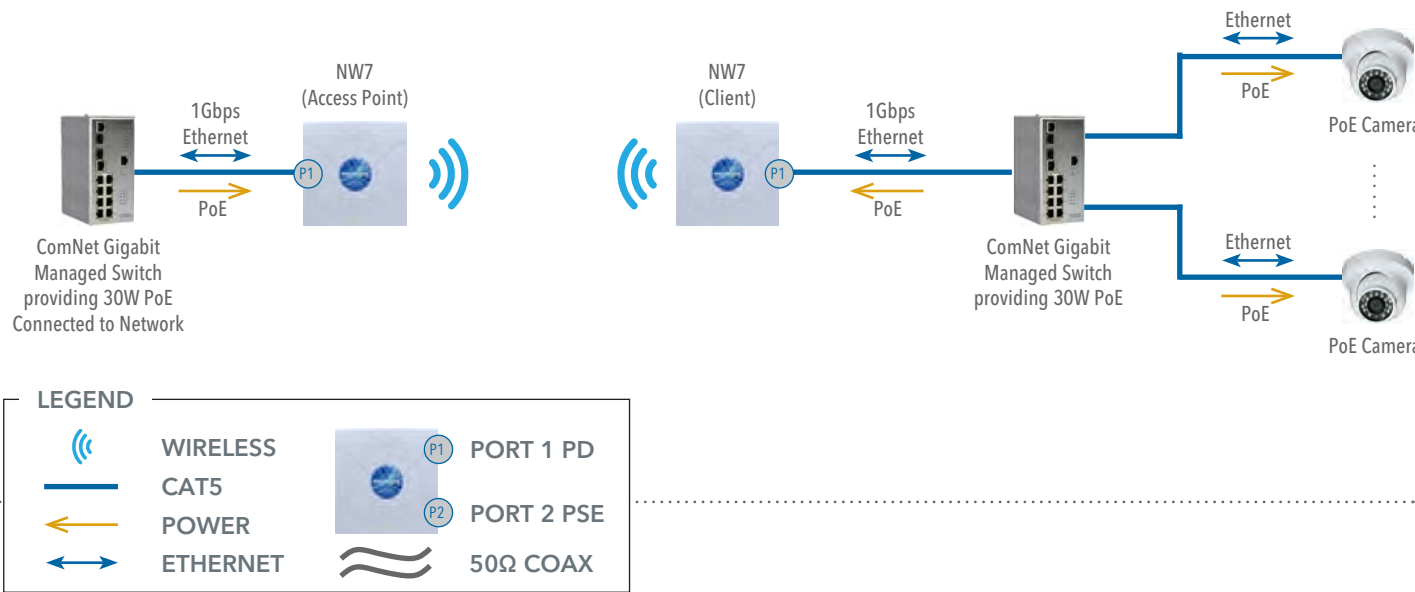
NOTE: In a continuing effort to improve and advance technology, product specifications are subject to change without notice.

ORDERING INFORMATION

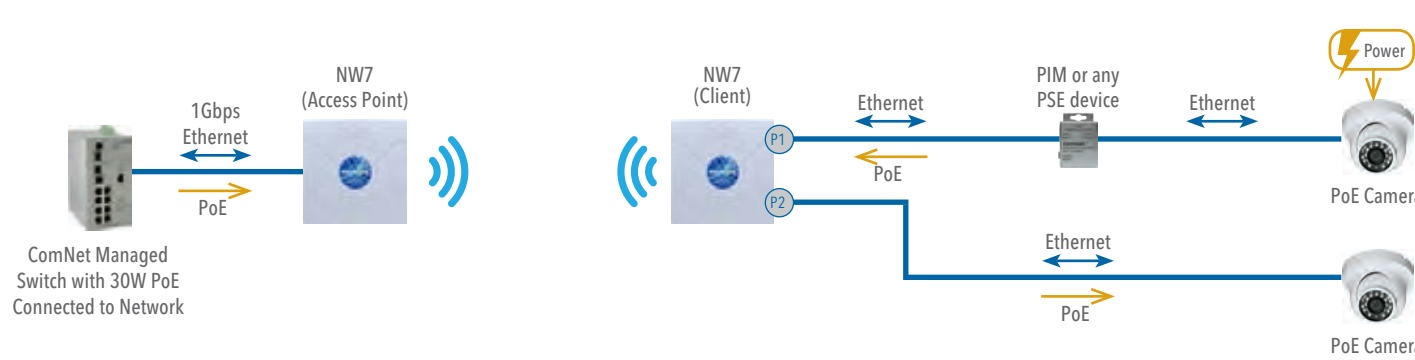
Part Number	Description
NW7	Individual Hardened Single Radio, Two Gb Ethernet Ports, One internal 19dBi 17° beamwidth directional antenna, includes power injection module, power supply and mounting assembly, Port 1 Supports 802.3at PD PoE Power, Port 2 provides IEEE802.3at PSE PoE Power, FCC certified for use in NA Region
NW7E	Individual Hardened Single Radio, Two Gb Ethernet Ports, One internal 19dBi 17° beamwidth directional antenna, includes power injection module, power supply and mounting assembly, Port 1 Supports 802.3at PD PoE Power, Port 2 provides IEEE802.3at PSE PoE Power, ETSI certified for use in EU Region
Included Accessories	Power Kit with Power Supply and Passive Power Injector Mounting Hardware Kit (For Pole Mounting Only)
Options	NWBKT - Articulating Wall or Pole Mounting Kit. Supports up to 3in/76mm diameter poles. (Sold Separately) Add /IA870 for 8dBi/70° Internal Antenna Add /EXA for no internal antenna, with N-Type connections for External Antenna options 24 VDC Recommended Power Supply (Part PS24-1A-DIN Not Included) 48 VDC Recommended Power Supply (Part PS48VDC-.84A Not Included)

TYPICAL APPLICATIONS

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

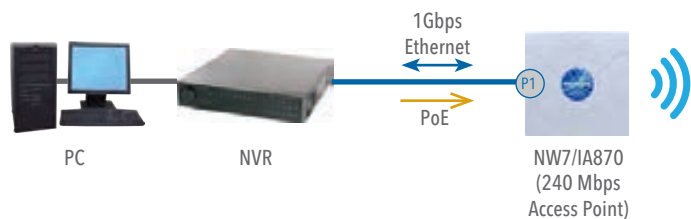


Point-to-Point Topology (Shown with 24VAC and PoE Powered Cameras)



## TYPICAL APPLICATIONS (CONT'D)

### Multiple Remote Camera Topologies



#### LEGEND

