

Industrially Hardened Point-to-Multipoint Wireless Ethernet Link

NW1/NW2















The NetWave® industrially hardened wireless Ethernet transmission link can be configured through the embedded User Interface as a Client or as an Access Point. This point-to-multipoint model allows multiple Ethernet endpoints to be connected to a central Access Point. Up to 15 endpoints can be linked to a central access point. The NW1 and NW2 support up to 95Mbps throughput using MIMO technology. The units can be powered by an IEEE 802.3af/at PoE compliant device or through the supplied power injection module. The NW1 is FCC certified for use in North America and the NW2 is ETSI, DFS and TPC certified for use in the European Union.

FEATURES

- > Lifetime Warranty
- > Up to 95Mbps Throughput
- > 802.11a/n Compliant
- > Distances up to 2 mi (FCC) or 2km (ETSI)
- > Powered by the included power injection module or by an IEEE802.3af PoE compliant device
- > 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
- > RF Spectrum Survey Tools
- > Antenna Alignment Tools
- > LED array displays unit operational status along with received signal strength
- > Optional Antenna Configurations Available

APPLICATIONS

- > Point to Multi-Point topologies whereby several Clients connect to one Access Point
- > 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

SPECIFICATIONS

Wireless Radio

EIRP NW1 (FCC): +35dBm or 45dBm with MAC-lock

enabled

NW2 (ETSI): +30dBm

RF Output +26dBm Rated Transmitter
Operational Frequency NW1: FCC UNII3 5745-5825MHz

NW2: 5500-5700MHz supporting 802.11h ETSI

DFS and TPC

Bandwidths 10, 20, and 40MHz

Standard Internal Antenna

Antenna Internal 19dBi Dual Polarized Directional

Gain 19dBi

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

IA870 Optional Internal Antenna

Antenna Internal 8dBi Dual Polarized Directional

Gain 8dBi

Azimuth 70° Horizontal/Vertical Elevation 30° Horizontal/Vertical

Connectors

10/100 Ethernet RJ-45, Sealed Cable Gland

LEDs Power On, Ethernet Link, Signal Strength,

LAN port, Reset

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 Voltage +24VDC @ 140mA

48VDC @ 70mA

Power Consumption 3.5W Max

PD Power IEEE802.3af PD compliant

Mechanical

Size (L × W × H) $10.0 \times 10.0 \times 3.4 \text{ in } (25.7 \times 25.7 \times 8.6 \text{ cm})$

Shipping Weight: <2lbs/0.9kg

Environmental

 MTBF
 >100,000 hours

 Operating Temp
 -40° C to +75° C

 Storage Temp
 -40° C to +85° C

 Relative Humidity
 5% to 95%

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

ORDERING INFORMATION

Part Number Description

NW1 Industrially Hardened Point-to-Multipoint Wireless Ethernet Link, Supports distances up to 2 mi/3.2 km, FCC certified for North America

NW2 Industrially Hardened Point-to-Multipoint Wireless Ethernet Link, Supports distances up to 2 km/1.25 mi, ETSI certified for European Union

Included Accessories Power Kit with Power Supply and Passive Power Injector

Mounting Hardware Kit

Options NWBKT - Articulating Wall or Pole Mounting Kit. Supports up to 3in/76mm diameter poles. (Sold Separately)

Add /IA870 for 8dBi/70° beamwidth internal antenna option (Recommended for multipoint Access Points. Extra charge, consult factory.)

Add /EXA for no internal antenna, with N-Type connections for External Antenna options

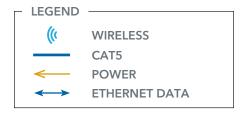
Add '/C' for Conformally Coated Circuit Boards (Extra charge, consult factory)





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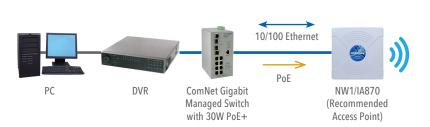
TYPICAL APPLICATION

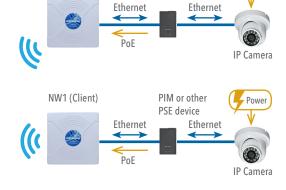


PIM or other

PSE device

Power





NW1 (Client)

