comnet
Communication Networks

netwave®

POWER SUPPLY	75° -40°	PD		10/100 ETHERNET
INCLUDED	HARDENED	802.3af/at	IP67	1

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

› IEEE802.11y US public safety compliance (FCC Region only)

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): +4dBm to +17dBm, or adjustable from +4 to 26dBm with MAC-lock enabled NW2 (ETSI): +30dBm
RF Output	+26dBm Rated Transmitter
Operational Frequency	NW1: FCC UNII3 4940 to 4990MHz 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 × 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 +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

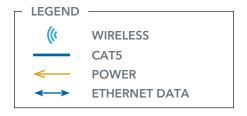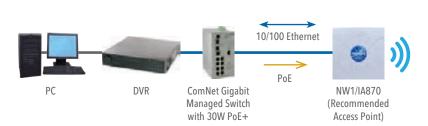| Part Number	Description
NW1	Industrially Hardened Point-to-Multipoint Wireless Ethernet Link, Supports distances up to 2 mi/3.2 km, FCC certified for North America
NW2	Industrially Hardened Point-to-Multipoint Wireless Ethernet Link, Supports distances up to 2 km/1.25 mi, ETSI certified for European 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)

AGENCY COMPLIANCE

FC PART 15 COMPLIANT   CE   RoHS COMPLIANT

Low Power Consumption

TYPICAL APPLICATION

LEGEND

((• WIRELESS

— CAT5

← POWER

↔ ETHERNET DATA

PC

DVR

ComNet Gigabit Managed Switch with 30W PoE+

10/100 Ethernet

PoE

NW1/IA870 (Recommended Access Point)

NW1 (Client) — PIM or other PSE device — Power — IP Camera
Ethernet / PoE / Ethernet

NW1 (Client) — PIM or other PSE device — Power — IP Camera
Ethernet / PoE / Ethernet

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30 May 2014