



The NetWave® NWK(1,2)[IC]/M industrially hardened wireless Ethernet transmission kit includes a Client and an Access Point. The NWK1[IC]/M and NWK2/M support up to 240 Mbps throughput using MIMO technology. The units can be powered by an IEEE 802.3af PoE compliant device or through an optional power injection module. The NWK1/M is FCC certified for use in North America, the NWK1IC/M is IC certified for use in Canada, and the NWK2/M is ETSI, DFS, and TPC certified for use in the European Union. This mini unit comes in an ultra-small form factor that is a new addition to the ComNet NetWave product family.

FEATURES

- › Narrow Channel Spectrum Widths for large and noisy deployments
- › 5, 10, 20 and 40 Mhz Channel Bandwidth Support
- › Up to 240 Mbps Throughput
- › 802.11a/n Compliant
- › Distances up to 2 mi (FCC, IC) or 2km (ETSI)
- › IEEE802.3at PoE Compliant PD on port 1
- › IEEE802.3af power source (PSE) available on port 2
- › 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
- › Radio Internal Components covered by Lifetime Warranty.
- › Enclosure covered by Three Year Warranty.

APPLICATIONS

- › 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	NWK1[IC]M (FCC, IC): Up to +36dBm for point to multipoint deployments, +42dBm for point to point deployments with MAC-lock feature enabled NWK2/M (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	5, 10, 20 and 40 MHz

Standard Internal Antenna

Antenna	Internal 16dBi Dual Polarized Directional
Gain	16dBi
Azimuth	30° Horizontal/Vertical
Elevation	30° Horizontal/Vertical

Connectors

10/100/1000 Ethernet	RJ-45, Sealed Cable Gland
Indicating LEDs	Power On, Ethernet Link, Signal Strength

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	

Power

Operating Voltage	24 to 56 VDC
Power Consumption	5.5 W Max
PD Power	IEEE802.3af PD compliant

Mechanical

Indicating LEDs	Power On	Ethernet Link	Signal Strength
Size (L x W x H)	7.4 x 7.4 x 2.2 in (18.5 x 18.5 x 5.6 cm)		
Shipping Weight	<7.7 lb / 3.5 kg		

Environmental

MTBF	>100,000 hours
Operating Temp	-40° C to +75° C
Storage Temp	-40° C to +85° C
Relative Humidity	5% to 95%, non-condensing ¹

Warranty

Internal Components	Lifetime
Enclosure	3 Year



ORDERING INFORMATION

Part Number	Description
NWK1/M	Industrially Hardened Mini Point-to-Point Wireless Ethernet Kit, Supports distances up to 2 mi/3.2 km, FCC certified for North America
NWK2/M	Industrially Hardened Mini Point-to-Point Wireless Ethernet Kit, Supports distances up to 2 km/1.25 mi, ETSI certified for European Union
NWK1C/M	Industrially Hardened Mini Point-to-Point Wireless Ethernet Kit, Supports distances up to 2 km/1.25 mi, IC certified for Canada
Included Accessories	Pole Mounting Hardware Kit
Options	[1] Add suffix '/C' for Conformally Coated Circuit Boards to extend to condensation conditions
(Extra charge, consult factory)	PIM1 - Hardened 100 Mbps Power Injection Module supporting 24-48 VDC and 24 VAC Input CWPOEIPS-15 - Commercial 15.4 W Midspan 100 Mbps Power Injection Module supporting 100-240 VAC and 48 VDC output CNGE1IPS - Hardened 35 W Midspan 1 Gbps Power Injection Module for Passthrough PoE Applications supporting 90-264 VAC Input and 56 VDC Output

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

TYPICAL APPLICATION

