



The NetWave® NWK(1,2)[IC] Industrial Grade high performance point-to-point wireless radio kit is ideal for high capacity and scalable deployments where channel overlapping and interference typically cause our discounted competitors radios to become unstable. The wide range of channel spectrum widths available on the NWK(1,2)[IC] series of radios gives you the option of narrowing channel bandwidths as your network grows which will increase the number of non-overlapping channels and improve stability.

The NWK(1,2)[IC] comes standard with an integrated antenna and an IP67 rated impact resistant polycarbonate enclosure that is designed to survive the most extreme conditions. The NWK1 is FCC certified for use in the United States. The NWK2 is ETSI, DFS and TPC certified for use in the European Union. The NWK1IC is certified for use in Canada.

## 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
- › 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
- › Scalable - Narrow Channel 5 and 10 MHz Bandwidths will allow you to expand your WLAN without losing reliability by increasing the total number of non-overlapping channels
- › Firmware Upgrades Included Free for the life of the product
- › Installation and Configuration Trainings Available
- › Radio Internal Components covered by Lifetime Warranty.
- › Enclosures covered by Three Year Warranty.

## APPLICATIONS

- › High-Bandwidth Video Surveillance
- › Multipurpose Networks
- › ITS Applications

## SPECIFICATIONS

### 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                 |                                       |

### Wireless Radio

|                       |                                                                                                                                                                 |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| EIRP                  | NWK1 (FCC, IC): Up to +36 dBm for point to multipoint deployments, +49 dBm for point to point deployments with MAC-lock feature enabled<br>NWK2 (ETSI): +30 dBm |
| RF Output             | +30 dBm Rated Transmitter                                                                                                                                       |
| Operational Frequency | 5180 MHz – 5825 MHz, Region-dependent.<br>Not all frequencies are supported in all regions.<br>Contact ComNet for frequencies supported in your region.         |
| Bandwidths            | 5, 10, 20 and 40 MHz                                                                                                                                            |

### Standard Internal Antenna

|           |                                            |
|-----------|--------------------------------------------|
| Antenna   | Internal 20 dBi Dual Polarized Directional |
| Gain      | 20 dBi                                     |
| Azimuth   | 17° Horizontal/Vertical                    |
| Elevation | 17° Horizontal/Vertical                    |

### Connectors

|                  |                                  |
|------------------|----------------------------------|
| Gigabit Ethernet | Port 1 RJ-45, Sealed Cable Gland |
| 10/100 Ethernet  | Port 2 RJ-45, Sealed Cable Gland |

### Power

|                   |                                          |
|-------------------|------------------------------------------|
| Operating Voltage | 24 to 56 VDC                             |
| Power Consumption | 5 W Max                                  |
| PD Power          | IEEE802.3af/at pass-through PD compliant |
| PSE Power         | IEEE802.3af PSE compliant uplink         |

### Mechanical

|                  |                                         |
|------------------|-----------------------------------------|
| Indicating LEDs  | Power On Ethernet Link Signal Strength  |
| Size (L x W x H) | 10.6 x 10.6 x 2.9 in (27 x 27 x 7.5 cm) |
| Shipping Weight: | < 4.4 lb / 2 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 <sup>1</sup> |

### Warranty

|                     |          |
|---------------------|----------|
| Internal Components | Lifetime |
| Enclosure           | 3 Year   |

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



**Low Power Consumption**

## ORDERING INFORMATION

| Part Number          | Description                                                                                                                                        |
|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| NWK1                 | Industrially Hardened Narrow Bandwidth Wireless Radio Point-to-Point Kit, Supports distances up to 2 mi/3.2 km, FCC certified for North America    |
| NWK2                 | Industrially Hardened Narrow Bandwidth Wireless Radio Point-to-Point Kit, Supports distances up to 2 km/1.25 mi, ETSI certified for European Union |
| NWK1IC               | Industrially Hardened Narrow Bandwidth Wireless Radio Point-to-Point Kit, Supports distances up to 2 mi/3.2 km, IC certified for Canada            |
| Included Accessories | Pole Mounting Hardware Kit                                                                                                                         |
| Options              | [1] Add suffix 'IC' for Conformally Coated Circuit Boards to extend to condensation conditions (Extra charge, consult factory)                     |

## TYPICAL APPLICATION

