



Shown with NWADA1 antenna  
(sold separately)

The NetWave® industrially hardened narrow bandwidth dual wireless radio is used for redundant ring and drop & repeat topologies when used with an external antenna. Radio 1 is a 19dBi 17° internal antenna while radio 2 has dual N-Female connectors for an external 5GHz antenna. The wide range of channel spectrum widths available on the NW10DR series of radios gives you the option of using wide channel widths for high throughput deployments that have little interference and noise while the narrow channel widths will increase the number of available non overlapping channels and improve stability in crowded RF environments but decrease maximum throughput. The NW10DR is FCC certified for use in North America.

## 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 miles
- › 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
- › Radio Internal Components covered by Lifetime Warranty.
- › Enclosure covered by Three Year Warranty.

## APPLICATIONS

- › Installations that require redundant ring or linear drop and repeat topologies
- › Large deployments where there is significant channel overlapping causing interference
- › 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

### 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	NW10DR (FCC): Up to +36 dBm for point to multipoint deployments, +49 dBm for point to point deployments with MAC-lock feature enabled NW10DRE (ETSI): ETSI Unit Not Available
RF Output	+30 dBm Rated Transmitter
Operational Frequency	5180 MHz – 5825 MHz, 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 19 dBi Dual Polarized Directional
Gain	19 dBi
Azimuth	17° Horizontal/Vertical
Elevation	17° Horizontal/Vertical

### Connectors

10/100 Ethernet	Port 2 RJ-45, Sealed Cable Gland
Gigabit Ethernet	Port 1 RJ-45, Sealed Cable Gland
External Antenna (Radio 2)	2 × N-Type 50 ohm

### Power

Operating Voltage	42 to 57 VDC
Power Consumption	5 W Max
PD Power	IEEE802.3af/at PD compliant
PSE Power	IEEE802.3af PSE compliant

### Mechanical

Indicating LEDs	Power On Ethernet Link Signal Strength
Size (L × W × H)	10.6 × 10.6 × 2.9 in (27 × 27 × 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



 Low Power Consumption

## ORDERING INFORMATION

Part Number	Description
NW10DR	Industrially Hardened Dual Radio Narrow Bandwidth Wireless Bridge, Supports distances up to 2 mi/3.2 km, FCC certified for North America
Included Accessories	Pole Mounting Hardware Kit
Compatible External Antennas	NWAVBSA1 - Dual Polarization Variable Beamwidth Sector Antenna for NetWave Wireless Ethernet Devices (Sold Separately) NWADA1 - Dual Polarization 4.9-5.8GHz 19dBi 17 degree Beamwidth Antenna for NetWave Wireless Ethernet Devices (Sold Separately) NWAODA1 - External Omni Directional Dual Band Antenna for NetWave Wireless Ethernet Devices (Sold Separately)
Options	NWBKT - Articulating Wall or Pole Mounting Kit. Supports up to 3in/76mm diameter poles. (Sold Separately) PIM1 - Hardened Power Injection Module supporting 24-48V DC and 24VAC Input, Includes 24V 12W power supply Add suffix /BB for Internal Battery Backup supporting up to 15 minutes of operation depending unit configuration [1] Add suffix 'C' for Conformally Coated Circuit Boards to extend to condensation conditions (Extra charge, consult factory)

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

## TYPICAL APPLICATION

