



Product Overview

The InstantWave NWH9200 11Mbps Wireless Outdoor Bridge Solution is a complete, easy-to-install, and easy-to-manage building-to-building connectivity package. It includes NDC's 11Mbps Wireless Outdoor Bridge and an integrated high-gain antenna in a weatherproof enclosure, mounting accessories, power adapter, power-over-Ethernet (PoE) injector, and weatherproof Ethernet and antenna cables. Able to deliver three to four times the bandwidth of a T1 line at a fraction of the operating cost, the NWH9200 relieves organizations of the need to contract with service providers for medium-distance links. This solution is ideal for cross-campus links and for connecting portable or temporary classrooms at distances up to 20 kilometers (12.5 miles). The NWH9200 provides all the interoperability, expandability, security, and manageability that modern high-performance wireless networks demand.

Key Features and Benefits

IEEE 802.11b Compliant

Complies with the IEEE 802.11b wireless networking standard, ensuring full interoperability with other 802.11b compliant products.

Superior Coverage and High Signal Quality

InstantWave's advanced radio-frequency technology and high-gain integrated antenna provide outstanding performance at data rates up to 11 Mbps and distances up to 20 kilometers (12.5 miles).

- Superior receiver sensitivity enhances pickup of weak data signals over greater distances
- Rugged design, proven in outdoor installations subject to high winds, heavy rain, and snow

Remote Configuration

Allows administrators to manage the bridge from anywhere on the network. All that is required is that the bridge be on the same logical IP subnet as the management station.

Comprehensive Network Management Tools

- Full-featured Windows-based SNMP software included - the InstantWave Management System (IWMS)
- Robust discovery mechanism:
 - Auto IP address assignment - the NWH9200 will automatically assign itself a new IP address should the DHCP server fail.
 - Bridge discovery - allows quick location of all InstantWave bridges for centralized management.
- Protocol filtering: saves bandwidth and increases security by preventing the bridge from transmitting specified protocols from the wired Ethernet LAN into the wireless zone.
- On-line firmware upgradability: allows the bridge's firmware to be upgraded via IWMS from a remote station without stopping the network.

- Trap server: with auto-notification, network administrators can easily monitor operating conditions and take preventive action to ensure maximum network uptime.
- DHCP client support: automatically obtains a new IP address from a DHCP server.
- Bulk configuration: automatically propagates configuration settings to multiple bridges on the same subnet .

Multi-level Security

- WEP (Wired Equivalent Privacy): 64- and 128-bit WEP encryption for secure wireless LAN data transmissions.
- SNMP access control: SNMP authentication prevents unauthorized tampering with bridge settings.

Antenna Alignment Monitoring

When using directional antennas for bridge-to-bridge links, manual alignment of the antennas for proper operation is a must. The NWH9200 performs intelligent antenna alignment monitoring for quick, convenient, and accurate alignment.

Integrated Antenna

Factory integration of the 18-dBi high-gain antenna and bridge circuit module in a weatherproof enclosure ensures ease of installation and many years of trouble-free operation.

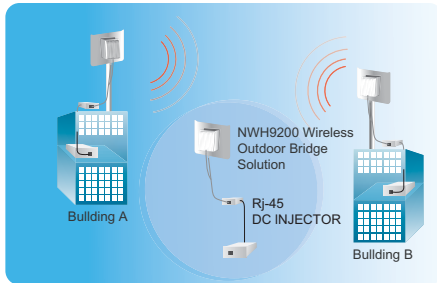
Full Outdoor Protection

The weatherproof housing, cables, and connectors will stand up to the harshest weather conditions, including high winds, heavy rain, and snow.

Power Over Ethernet

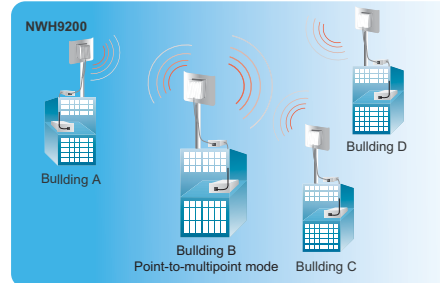
PoE carries both data and power to the bridge through a single Ethernet cable, eliminating the need for a separate power cable and making installation easier and more economical.

11Mbps Wireless Outdoor Bridge Application Scenarios



Point-to-point Mode

Bridges in point-to-point mode connect two networks in different locations through a single wireless link. This allows two widely separated sites to share resources, including a single high-speed connection to the Internet.



Point-to-multipoint Mode

A bridge in point-to-multipoint mode can connect three or more networks in scattered buildings through wireless links. This allows numerous sites in a wide area to share resources, including a single high-speed connection to the Internet.

Specifications

Standards Compliance	IEEE 802.11b
RF Spreading Method	Direct Sequence Spread Spectrum (DSSS)
Frequency Band	2.4 GHz
Transmission Power	38 dB (max.)
Transmission Rates	11, 5.5, 2, and 1 Mbps, with auto fallback
Receiver Characteristics	Sensitivity: -83 dBm
Security	64- and 128-bit WEP encryption; SNMP authentication for authorized access
Software Support	SNMP-based network management tools for Microsoft Windows included; features include MIB I and MIB II support, bridge discovery, protocol filtering, trap management, firmware upgrades.
Environmental Requirements	Operating Temperature: -20° to 70°C Storage Temperature: -30° to 80°C Humidity: 5% to 95%, non-condensing
Dimensions	263 X 263 X 85 mm (10.40 X 10.40 X 3.36 in.); net weight 2 kg
Bandwidth	45 degrees horizontal, 75 degrees vertical
Power	Input voltage 12V DC; external power adapter included (input voltage 100V to 240V AC)
NMS Operating Environments	Windows 98, Me, NT 4.0 (SP4 or above), 2000, XP
Transmission Range	Up to 20 km (12.5 miles) at 11 Mbps*
Package Contents	Outdoor bridge with integrated antenna and PoE module PoE DC injector and Ethernet cable Power adapter and cord Mounting kit and low-loss antenna cable Installation CD with user's guide and configuration/management software Quick installation guide
Warranty	One year, limited

*20-km (12.5-mile) range requires InstantWave 11-M bps Wireless Outdoor Bridge Solution units on both ends of the link.

*Data throughput can vary depending on several factors, including network traffic load and distance between bridges.

Product appearance and specifications are subject to change without notice.

National Datacomm Corporation

4F, No.24-2, Industry East 4th Road, Science Park
Hsin-Chu, Taiwan, R.O.C.

Tel: +886-3-5783966

Fax: +886-3-5777989

Email: sales@ndc.com.tw

NDC World Wide Web

www.ndclan.com

©2001 National Datacomm Corporation, Inc. All rights reserved.