



“ DWL-1500 Bridge with 2dB gain removable antennas. These antennas can be replaced with higher gain antennas for a larger transmission range. A Power Over Ethernet Base Unit (shown next to the DWL-1500) inserts DC voltage into the unused wires of the Cat. 5 Ethernet cable. This Base Unit connects to the wall electrical outlet through an AC power adapter.

”

Wireless LAN Indoor Bridge With Power Over Ethernet

The DWL-1500 is an IEEE 802.11b wireless LAN Indoor Bridge for with built-in Power Over Ethernet. The device bridges two or more IEEE 802.11b wireless LANs together. It extends the effective communication range of the network by providing connection among wireless users in different LANs. An IEEE 802.3af Power Over Ethernet is built into this bridge to provide easy installation for the wireless network.

Indoors Bridge

The DWL-1500 connects wireless local area networks together via a 2.4GHz IEEE 802.11b wireless interface. It listens to all data traffic on all its interface and maintains a MAC address database. MAC address information is updated dynamically.

When necessary, the DWL-1500 uses the Address Resolution Protocol (ARP) to match IP addresses to MAC addresses and stores ARP information in its database as well.

Access Control

The DWL-1500 uses filters to limit the wireless devices that associate with it and the data packets that are forwarded through it. Filters can provide a degree of security and improve network performance by eliminating

broadcast/multicast packets from the radio network.

The ACL (Access Control List) contains the MAC address of every wireless device allowed to associate with the DWL-1500. This prevents unauthorized access to network resources.

The DWL-1500 can discriminate based on the destination address of packets it handles by maintaining a list of disallowed destinations. This can improve efficiency by eliminating unnecessary transmission of data packets.

The type of packet forwarded through the DWL-1500 can be controlled using a filter. Filtering out unnecessary frames can improve overall network performance.

Features

- Data transfer rates of up to 11 Mbps in optimal conditions
- Effective range of up to 300 feet (100 meters) indoors
- 10BASE-T Ethernet port interface for bridging Wireless LAN to an Ethernet LAN
- Seamless roaming for notebook computers, wireless PCs, and other computers equipped with Wireless LAN
- Built-in diagnostics including a power-up self-check
- Firmware can be upgraded easily in the field
- 64-bit and 128-bit data encryption
- SNMP support
- DHCP support (client)
- Optional Short RF preamble
- USB configuration
- Reliable DC power over existing Category 5 cabling cuts costs and adds convenience.
- Protects from possible damages due to power surges.
- Power Over Ethernet / Base Unit Adapter provides electrical power to places where a power outlet is inaccessible.

DWL-1500

Technical Specifications

2.4GHz Wireless LAN Bridge

DWL-1500 Wireless Bridge with Power Over Ethernet

Wireless LAN

- IEEE 802.11b

Ethernet

- IEEE 802.3
- IEEE 802.1d

Protocol

- TCP/IP
- IPX/SPX
- NETBUI

Network Management

- Configuration Utility via USB port
- SNMP (AP MIB, trap)
- DHCP

RF Technology

- Direct Sequence Spread Spectrum

Spreading

- 11-chip Barker Sequence

Modulation Schemes

- DQPSK, DBPSK and CCK

Operating Frequency

- 2400 ~ 2497MHz ISM band

Channel Numbers

- IEEE 802.11b compliant
- 11 channels for United States
- 13 channels for Europe Countries
- 14 channels for Japan

Data Rate

- 11Mbps with fall back rates of 5.5, 2, and 1Mbps

Media Access Protocol

- CSMA/CA with ACK

Data Security

- IEEE standard 40-bit and 128-bit WEP

Transmitter Output Power

- Typical 12.5dBm

Receiver Sensitivity

- Typical -84dBm for 11Mbps @ 8% PER (Packet Error Rate)
- Typical -90dBm for 2Mbps @ 8% PER (Packet Error Rate)

Antenna Type

- Dual dipole antennas with 2dB gain

Operating Voltage

- 5VDC +/- 10%

Current Consumption

- Max. 550mA at transmit mode
- Max. 450mA at receive mode

Interface

- 10Base-T: RJ45 (UTP)
- 3 LED indicators for Ethernet connection, Air link and Power
- USB: B Type Connector

Power Source

- Via Ethernet (with POE base unit) or
- Via 15V/DC Power adaptor (w/o POE base unit)

Dimension

- 8.75 x 5.5 x 1.65 inches

Power Over Ethernet (POE) Base Unit Adapter

LAN in Connector

- Type RJ-45

LAN out Connector

- Type RJ-45
- Data line: Pair 1 - pin 1 & pin2
Pair 2 - pin 3 & pin6
- Power line: +Vcc - pin5 & pin7
-Gnd. - pin4 & pin8

DC Power Connector

- 2 pin latching power jack

Power Source

- 15V/DC 1.2A Power adapter

Dimension

- 3.0 x 2.0 x 1.0 inches

Ordering Information

DWL-1500 Wireless Bridge with Power Over Ethernet

D-Link®

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Point-to-Point Bridging

Connecting Two Wired Ethernet LANs Together Through DWL-1500 Bridges

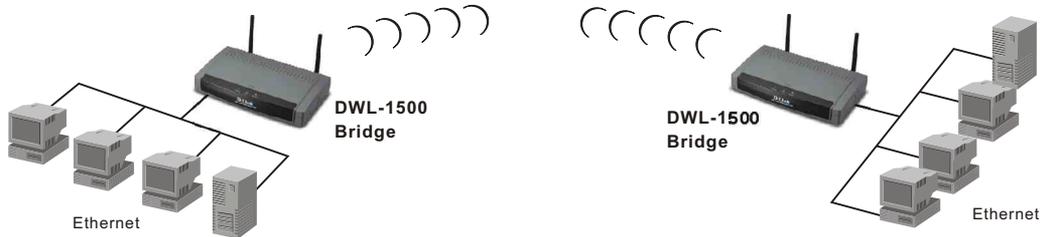


Figure 1

Point-to-Multi-Point Bridging

Connecting Multiple Wired Ethernet LANs Together Through DWL-1500 Bridges

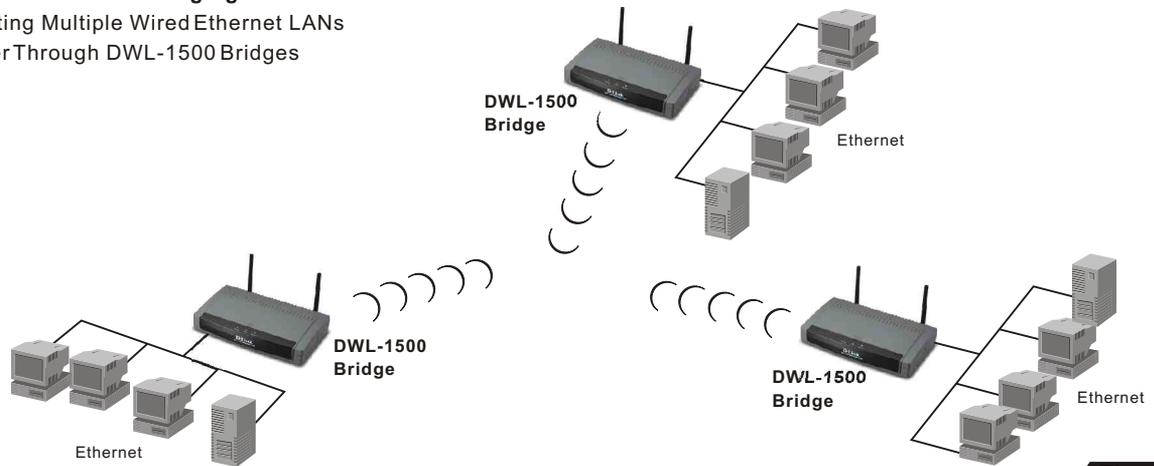


Figure 2

Point-to-Multi-Point Bridging

Connecting Multiple Wireless LANs Together Through DWL-1500 Bridges

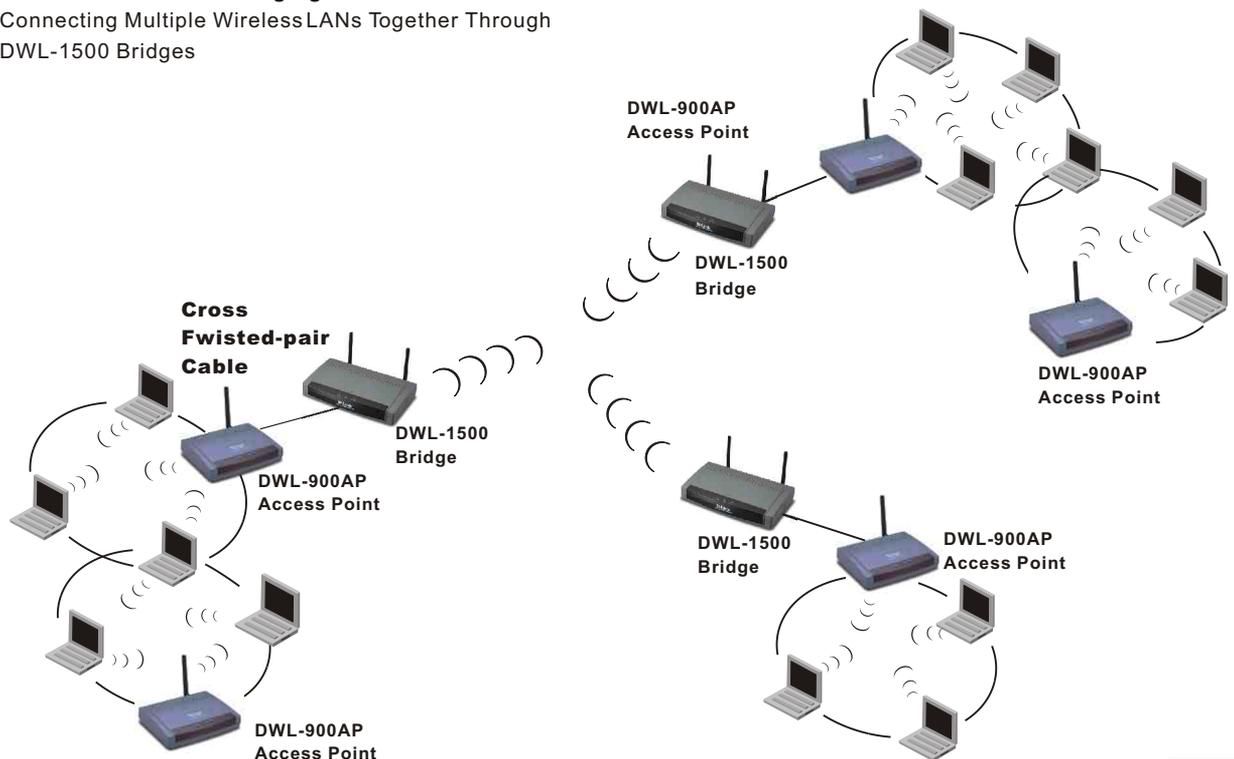


Figure 3