



## **DATA SHEET**

# 3Com<sup>®</sup> 11 Mbps Wireless LAN Building-to-Building Bridge

Long-range, cost-effective wireless connectivity between sites

# **Key Benefits**

#### **Top Performance**

The 3Com\* 11 Mbps Wireless LAN building-to-building bridge is based on IEEE 802.11b technology to ensure consistent top performance.\*

#### Flexibility

This bridge delivers both point-topoint and point-to-multipoint connections at various ranges, depending on which antenna you choose.

## Reliability

Support for dynamic rate shifting helps keep your network connections constantly available and reliable.

# Manageability

The simple-to-use management interface helps you manage all bridges from anywhere on the same subnet on the network, or use Telnet to remotely manage this bridge over the Internet.

#### Security

Support for 40- and 128-bit WEP encryption keeps network data and transmissions safe from a security breach. Plus, this bridge uses encapsulation techniques to help protect data.

## **Product Overview**

As part of our wireless LAN family, the 3Com 11 Mbps Wireless LAN building-to-building bridge provides reliable, high-performance connections between your hard-to-wire sites. Extend your network to previously hard-to-reach users without leasing data circuits or having to lay cables. Simply attach a bridge to your existing wired network and another to the new building. Connect multiple buildings, portable or temporary classrooms, and temporary networks. And if your company's network requirements or location change, the wireless building-to-building bridge can be easily relocated.

## **High Performance**

With a wireless 3Com building-to-building bridge, you get high-speed, long-range connections. In fact, you'll get throughput exceeding that of two dedicated T1 lines. Plus, you won't have to worry about expensive leased-line service that's actually slower than this wireless bridge.

#### Flexible Connections

With point-to-point and point-to-multipoint connectivity options, the 3Com wireless building-to-building bridge lets you transfer information between two buildings or multiple buildings across campus. What's more, you can choose the antenna option that best fits your needs—get transmissions up to 1300 meters with omni-directional antennas, and 4100 meters using sector panel antennas.

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

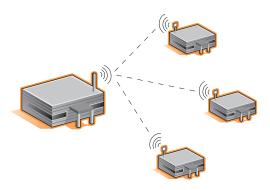


Figure 1. Point-to-multipoint connections from one to multiple buildings using omni-directional antennas.



Figure 2. Point-to-point connections from one building to another using sector panel antennas.

#### Simple Management

The easy-to-use graphical interface reduces management burdens.

Manage all of your bridges from anywhere on the same subnet, or do it over the Internet using telnet. Easily align antennas with real-time signal strength reporting and usage data. Plus, default settings make configuration simple—all you have to do is hook them up.

## **Complete Security**

When you choose the 3Com wireless building-to-building bridge, you don't have to worry about security. Support for both 40- and 128-bit WEP encryption lets users exchange information privately. Plus, our bridge uses a 3Com proprietary protocol to encapsulate data. This protocol ensures the wireless bridge will not interfere with VPN or other protocols—so your encrypted data passes right through.

#### **Cost Effective**

Now you can connect all of those hard-to-wire locations for less. With a 3Com building-to-building bridge, you don't have to worry about running expensive and tough-to-install leased lines or fiber-optic cabling. Just connect your wired LANs to wireless building-to-building bridges, or connect a remote building-to-building bridge to a 3Com 11 Mbps Wireless LAN Access Point 6000 or a 3Com AirConnect® Wireless LAN Access Point. In minutes, you've interconnected a remote site with the central site. Best yet, this hardware investment can pay for itself, when compared to the money you would have spent on leased-line service.

#### **One-Year Limited Warranty**

3Com warrants your wireless building-to-building bridge to be in good working order for one year while owned by the original end user.

#### **Customer Support**

Quick access to support information is available on 3Com's Web site at www.3com.com

# When to Buy

Our building-to-building bridge is ideal for organizations who:

- Are looking for a cost-effective alternative to leased lines.
- Don't want to invest in laying expensive and tough-to-install cables since their network requirements or location may change.
- Want a simple way to connect remote and hard-to-wire locations between office buildings that aren't already connected to one another, portable classrooms and cross-campus office buildings, and buildings separated by other structures such as bridges or freeways.

# Networking on a Tight Budget

Consider this hypothetical scenario: Jill, the principal of Fairmont High, is excited about the new addition to the school addition—three computer labs, 15 classrooms, and more. But that's two years off. Classrooms are bursting at the seams. More students are on the way. And 50 new computers need to be networked. Is it possible on the school's budget? Yes.

Using our building-to-building bridges, she turned one of three new portable classrooms into a computer lab and gave the others network access—without running cables. She connected one bridge to the school network and another to a 3Com 11 Mbps Wireless LAN Access Point 6000 in the portable computer lab. Now all of the new computers, including those in portable classrooms, have access to network resources and the Internet.

Just like you'd expect—a simply powerful solution from 3Com.

# **Product Features**

Fast data transfer rates	Allow bridging speeds much faster than leased-line service.
Excellent range with antenna options	Provide wireless links up to 1300 meters using omni-directional antennas, and 4100 meters using sector panel antennas.
Point-to-point and point-to-multipoint support	Lets users transfer information between two buildings or multiple buildings across the campus.
Dynamic rate shifting	Keeps network connections available and reliable by automatically determining transfer rates based on signal strength and environmental conditions.
MAC layer encapsulation	Ensures LAN protocols are transparent to the user. Secures data over the wireless link
40- and 128-bit WEP encryption	Allow users to exchange information in full privacy.
Transparent to VPN protocols	Enables encrypted data to pass without interception.
GUI management interface	Helps you to manage all bridges from any- where on the same subnet—also displays signal strength monitoring and usage data.
Remote management	Allows IT administrators to manage the bridge remotely, using the Internet and Telnet.
Firmware upgradeable design	Provides convenient local and remote firmware updates from anywhere on the same subnet, reducing IT workload and helping to lower total cost of ownership.
Protocol independent	Supports all networking protocols, including TCP/IP, IPX, and more.

## 3COM® 11 MBPS WIRELESS LAN BUILDING-TO-BUILDING BRIDGE

# **Specifications**

802.11b Data Rates Supported

11, 5.5, 2, 1 Mbps

Range

Transmit and receive information up to 4100 meters between wireless building-to-building bridges, depending on the antenna selected.

**Network Standard** 

IEEE 802.11b

Network Connection Type 10BASE-T

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Network Architecture Types Bridge 802.3 to 802.11b

Number of Users/Bridge Unlimited

Wireless Bridges/LAN

Unlimited

Frequency Band 2.4 GHz

Wireless Medium

DSSS

Media Access Protocol

CSMA/CA

Modulation DSSS

**Operating Channels** 

1 through 11 (U.S.), 1 through 13 (Worldwide)

Receive Sensitivity

11 Mb: -81 dBm 5.5 Mb: -84 dBm 2 Mb: -85 dBm

1 Mb: -87 dBm

Settings 300 mw, typically

**Available Transmit Power** 

Antenna

Multiple antenna options let you ensure the optimal signal strength for your environment.

Encryption

40- and 128-bit WEP encryption, shared key

Security

VPN pass through

LEDs

Power: green Wireless: green when associated; yellow when transmitting/receiving Ethernet: green when

connected; yellow when activity is detected

Alert: amber

Serial: green when RX; yellow

when TX

Remote Configuration Support

GUI, Telnet

**Local Configuration** 

GUI, serial console

**Bridging Protocol** 

MAC layer encapsulation

Dimensions

Length: 251 mm (9.9 in) Width: 157 mm (6.2 in) Thickness: 25 mm (1 in)

Safety Compliance

Canada, the U.S.: UL1950/CSA 22.2 Europe: CE Marked

Radio/Electromagnetic Conformance Compliance

US: FCC Part 15B&C Canada: Industry Canada RSS-210

European Community: ETS 300

328, ETS 300 826 Australia: C-Tick

Environmental Operating Ranges

Operating temperature:

-20 to 55°C

Storage temperature: -20 to 70°C

Altitude: Up to 3 km. Humidity: 10 to 95% noncondensing

Service and Support One-year limited warranty

# Ordering Information

Product Name	For use in**	Order Number
3Com® 11 Mbps Wireless LAN building-to-building bridge	Canada, U.S.	3CRWE90096A
	Australia, New Zealand, Hong Kong, Singapore	3CRWE90096A-A1
	Europe, Latin America	3CRWE9006A-E1

Product Accessories	For use in**	Order Number
3Com 4 dBi omni-directional antenna, up to 2600 meters; point-to-multipoint	Canada, U.S., Australia, New Zealand, Hong Kong, Singapore, Europe, Latin America	3CWE490
3Com 8 dBi omni-directional antenna, up to 4100 meters; point-to-multipoint	Canada, U.S., Australia, New Zealand, Hong Kong, Singapore, Europe, Latin America	3CWE491
3Com 13 dBi sector panel antenna, up to 4100 meters; point-to-point	Canada, U.S., Australia, New Zealand, Hong Kong, Singapore, Europe, Latin America	3CWE495
3Com 18 dBi sector panel antenna, up to 4100 meters (typically paired with 50 ft cable accessory); point-to-point	Canada, U.S.	3CWE496
3Com 6-Foot Antenna Cable	Canada, U.S., Australia, New Zealand, Hong Kong, Singapore, Europe, Latin America	3CWE480
3Com 20-Foot Antenna Cable	Canada, U.S., Australia, New Zealand, Hong Kong, Singapore, Europe, Latin America	3CWE481
3Com 50-Foot Antenna Cable	Canada, U.S., Australia, New Zealand, Hong Kong, Singapore, Europe, Latin America	3CWE482
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To learn more about 3Com products and services, visit www.3com.com. 3Com Corporation is publicly traded on Nasdaq under the symbol COMS.

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<sup>\*\*</sup>If your region isn't listed, contact your local 3Com Sales office for the availability date.