



#### DATA SHEET

## 3Com® 11 Mbps Wireless LAN Building-to-Building Bridge

### Key Benefits

### Long-Range, Cost-Effective Wireless Connectivity Between Sites

#### Top Performance

The 3Com® 11 Mbps Wireless LAN building-to-building bridge is based on IEEE 802.11b technology. Packet transmissions occur at rates up to 11Mbps\*.

#### Flexibility

This bridge delivers both point-to-point 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.

Today, it's more important than ever to stay informed and productive. To achieve these things, you need to be consistently if not constantly connected to network resources, whether you're at school, work, or on the road. What makes this hard is finding a cost-effective solution. How do you offer flexible, high-performance network connections and still stay within budget? Simple. Choose 3Com Wireless LAN products.

Our 11 Mbps wireless LAN family of products gives you all the convenience of a wired network, without having to worry about tough-to-install cabling. When you choose a

#### 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.

wireless LAN from 3Com, your users have access to network resources and the Internet from locations such as conference rooms, classrooms, remote sites, public spaces, or while roaming across your corporate campus.

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 our wireless 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, our 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.

**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 our 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 our 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. 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.

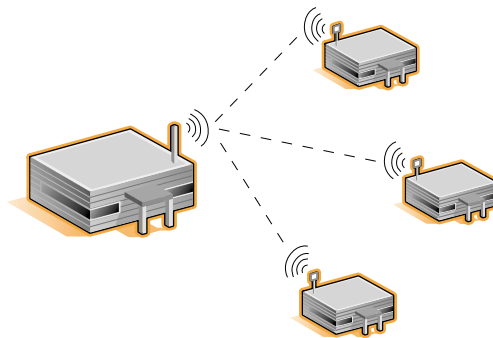


Figure 1. Point-to-multipoint connections from one to multiple buildings using omni-directional antennas.

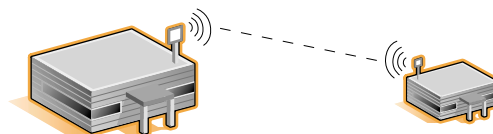


Figure 2. Point-to-point connections from one building to another using sector panel antennas.

**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.

**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](http://www.3com.com)

## Networking on a Tight Budget

Jill, a fictional principal for Fairmont High, is excited for 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 an access point 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 simple solution from 3Com.

## Product Features

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

## Specifications

<b>802.11b Data Rates Supported</b> 11, 5.5, 2, 1 Mbps	<b>Frequency Band</b> 2.4 GHz	<b>Antenna</b> Multiple antenna options let you ensure the optimal signal strength for your environment.
<b>Range</b> Transmit and receive information up to 4100 meters between wireless building-to-building bridges, depending on the antenna selected.	<b>Wireless Medium</b> DSSS	<b>Encryption</b> 40- and 128-bit WEP encryption, shared key
<b>Network Standard</b> IEEE 802.11b	<b>Media Access Protocol</b> CSMA/CA	<b>Security</b> VPN pass through
<b>Network Connection Type</b> 10BASE-T	<b>Modulation</b> DSSS	<b>LEDs</b> Power: green Wireless: green when associated; yellow when transmitting/receiving Ethernet: green when connected; yellow when activity is detected Alert: amber
<b>Network Architecture Types</b> Bridge 802.3 to 802.11b	<b>Operating Channels</b> 1 through 11 (U.S.)	<b>Serial:</b> green when RX; yellow when TX
<b>Number of Users/Bridge</b> Unlimited	<b>Receive Sensitivity</b> 11 Mb: -81 dBm 5.5 Mb: -84 dBm 2 Mb: -85 dBm 1 Mb: -87 dBm	
<b>Wireless Bridges/LAN</b> Unlimited	<b>Available Transmit Power Settings</b> 300 mw, typically	

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

## Specifications, continued

<p><b>Remote Configuration Support</b> GUI, Telnet</p> <p><b>Local Configuration</b> GUI, serial console</p> <p><b>Bridging Protocol</b> MAC layer encapsulation</p> <p><b>Dimensions</b> Length: 251 mm (9.9 in) Width: 157 mm (6.2 in) Thickness: 25 mm (1 in)</p>	<p><b>Safety Compliance</b> Canada, the U.S.: UL1950/CSA 22.2 Europe: CE Marked</p> <p><b>Radio/Electromagnetic Conformance Compliance</b> US: FCC Part 15B&amp;C Canada: Industry Canada RSS-210 European Community: ETS 300 328, ETS 300 826 Australia: C-Tick</p>	<p><b>Environmental Operating Ranges</b> Operating temperature: -20 to 55°C Storage temperature: -20 to 70°C Altitude: Up to 3 km. Humidity: 10 to 95% noncondensing</p> <p><b>Service and Support</b> One-year limited warranty</p>
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## Ordering Information

Product Name	For use in...	Order Number
<b>3Com® 11 Mbps Wireless LAN building-to-building bridge</b>	Canada/U.S.	3CRWE90096A
<b>Product Accessories</b>		
3Com 4 dBi omni-directional antenna, up to 2600 meters; point-to-multipoint	Canada/U.S.	3CWE490
3Com 8 dBi omni-directional antenna, up to 4100 meters; point-to-multipoint	Canada/U.S.	3CWE491
3Com 13 dBi sector panel antenna, up to 4100 meters; point-to-point	Canada/U.S.	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.	3CWE480
3Com 20-Foot Antenna Cable	Canada/U.S.	3CWE481
3Com 50-Foot Antenna Cable	Canada/U.S.	3CWE482

The 3Com 11 Mbps Wireless LAN building-to-building bridge complements these 3Com Wireless LAN products for simple, reliable, and secure connections:

- 3Com 11 Mbps Wireless LAN Access Point 6000
- 3Com 11 Mbps Wireless LAN PC Card with XJACK® antenna
- 3Com AirConnect® 11 Mbps Wireless LAN access point
- 3Com AirConnect 11 Mbps Wireless LAN PC Card
- 3Com AirConnect 11 Mbps Wireless LAN PCI card
- 3Com Ethernet Client bridge

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

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To learn more about 3Com products and services, visit [www.3com.com](http://www.3com.com). 3Com Corporation is publicly traded on Nasdaq under the symbol COMS.

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