



MOTOROLA WIRELESS BROADBAND

Point-to-Point 200 Series

Wireless Ethernet Bridges



High-Speed, Cost-Conscious Connectivity

Accelerate Throughput Affordably

Until now, many service providers, corporate enterprises and government agencies have been unable to supply high-speed wireless broadband connectivity to their subscribers and users because of obstacles that disrupted communications. With their constituents located in areas affected by foliage and buildings, connectivity options were typically limited to expensive and restrictive wireline solutions. In addition, budget constraints have imposed further challenges on organizations with small or declining budgets. Until now, the advantages of wireless broadband communications have been financially out of reach for many of these organizations.

Now Motorola's Point-to-Point Wireless Ethernet Bridges – PTP 200 Series – give organizations of all types, sizes and budgets cost-effective, reliable alternatives to reach around obstacles that partially block a path's radio line-of-sight (Fresnel zone) but leave the visual line-of-sight clear. The extremely low cost of ownership makes PTP 200 solutions affordable for even the most restricted budgets. Plus, the PTP 200's wireless capabilities allow data, voice and video communications to extend beyond the limits of a wired network.

Powerful OFDM Technology

With Orthogonal Frequency Division Multiplexing (OFDM) technology, the PTP 200 solutions provide resistance to interference and fading. The result is that PTP 200 solutions deliver exceptional performance in the presence of multi-path interference caused by buildings and other obstructions.

Models That Meet Your Needs

Incorporated into the Motorola Wireless Broadband portfolio, PTP 200 Series solutions include the following models to meet your specific wireless objectives, application requirements and path conditions.

- **PTP 54200 – 5.4 GHz Bridges:** Operating in the 5.4 GHz radio frequency (RF) band at Ethernet data rates up to 21 Mbps, PTP 54200 bridges are designed to securely and reliably transport your data, voice and video communications in near-line-of-sight (nLOS) and line-of-sight (LOS) environments. The PTP 54200 models are available in two versions: 56-bit Data Encryption Standard (DES) and 128-bit Advanced Encryption Standard (AES). These solutions are excellent choices for service providers, corporate enterprises and government agencies with limited budgets and challenging environmental conditions.
- **PTP 49200 – 4.9 GHz Bridges:** Designed for public safety applications in cities, towns and counties with extremely tight budgets, PTP 49200 bridges operate in the 4.9 GHz public safety band at data rates up to 21 Mbps and single-hop links of up to 15 miles (24 km). As with the PTP 54200, you can select a PTP 49200 version with 56-bit DES or 128-bit AES encryption. With OFDM technology, an extremely affordable investment cost and a low cost of ownership, these systems offer a superb option to meet rigorous public safety communication requirements.

Both the PTP 54200 and PTP 49200 bridges are available in Integrated and Connectorized versions. The Integrated systems have a built-in antenna, while the Connectorized models offer the gain advantage of external antennas. (Antennas are purchased separately.)



Typically, a PTP 200 system's performance results in increased productivity and lower cost-of-ownership.



Reliable, Secure Wireless Ethernet Bridges for near-Line-of-Sight and Line-of-Sight Environments

The various models within the PTP 200 family of solutions allow you to choose the wireless broadband system that best meets your application and environmental requirements. Then you can fine-tune your solution to achieve more speed and distance across noisy or obstructed paths.

GPS Synchronization

In addition to OFDM, all PTP 200 Series solutions are equipped with powerful GPS synchronization capabilities that significantly reduce self-interference, allowing network operators to:

- Collocate multiple radios on a tower or rooftop
- Collocate a PTP 200 backhaul link with an existing Motorola PMP or Canopy® network

Dynamic Frequency Selection (DFS)

Because the 5.4 GHz radio frequency band is shared with certain government radar systems, networks operating in this band must have DFS capabilities to detect radar and automatically switch to a non-interfering channel. The PTP 54200 meets these regulatory requirements with its built-in DFS capability.

End-to-End System Management

A simple network design allows PTP 200 systems to complement your existing network and integrate easily with web-based and SNMP-based management systems, as well as the Canopy® Prizm and CNUT (Canopy Network Update Tool) systems. The radios are exceptionally easy to install with built-in deployment assistance features that make installation quick and easy. PTP 200 systems are often deployed in a day or less, rather than weeks or months.

Productivity Payoff

PTP 200 Series solutions are often the most cost-effective option when you consider:

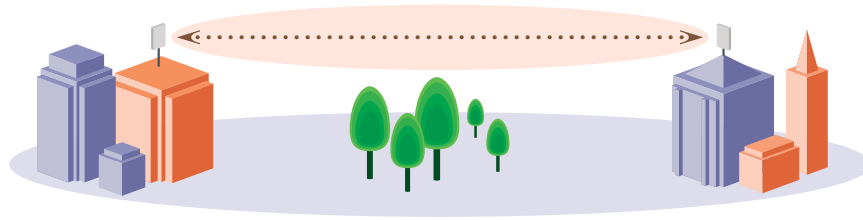
- The business impact from being able to connect in an area that was previously inaccessible
- The economic impact from being able to deploy network extensions quickly while saving on the labor and material costs of laying cable
- The revenue gains from adding new subscribers or users without expensive and time-consuming network build-outs
- The productivity gained by providing IP connectivity to buildings not served by broadband or fiber communications
- The ability to meet growing bandwidth requirements for applications such as multimedia, video surveillance or voice-over-IP
- The ability to backhaul more local loops using a single link

Put PTP 200 Bridges to Work for You

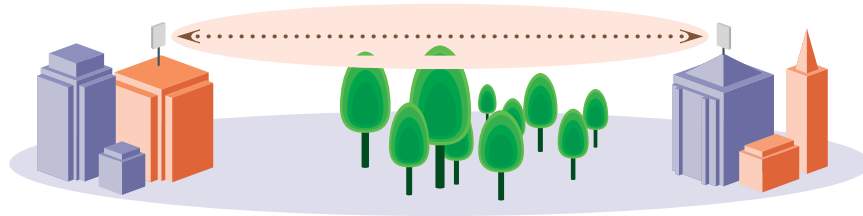
PTP 200 solutions offer wireless broadband advantages to serve a wide variety of organizations and applications.

- **Service Providers:** PTP 200 solutions can help you increase your customer base and revenues by extending your network to reach customers in remote and underserved areas, by offering wireless broadband services to new and existing subscribers and by backhauling traffic from multiple access points to a point of presence.
- **Enterprises:** Now you can support ever-increasing bandwidth requirements in environments where wired networks are too expensive or impossible to implement, while boosting productivity for business-critical applications.

Line-of-Sight (LOS) – Both visual line-of-sight and radio line-of-sight (Fresnel zone) are clear.



Near-Line-of-Sight (nLOS) – Clear visual line-of-sight, but Fresnel zone is obstructed.



- **Vertical Markets:** Whether linking networks between buildings, linking networks in a campus environment, educating students in remote locations, sharing patient X-rays and digital images, or backhauling traffic, PTP 200 Series radios offer reliable connectivity for multiple applications in a variety of markets, including transportation, hospitality, healthcare and education.
- **4.9 GHz License Holders:** For public safety agencies as well as local and county governments with 4.9 GHz licenses, PTP 49200 bridges can enable high-speed Internet access to vital information; backhaul traffic from Motorola Point-to-Multipoint systems, Mesh nodes and 4.9 GHz hot spots; extend video surveillance capabilities; and provide bandwidth for Voice-over-IP (VoIP) and multimedia, while staying within strict budgetary guidelines.

Motorola Wireless Broadband

Motorola's comprehensive portfolio of reliable and cost-effective wireless broadband solutions together with our WLAN solutions provide and extend coverage both indoors and outdoors. The Motorola Wireless Broadband portfolio offers high-speed Point-to-Point, Point-to-Multipoint, Mesh, Wi-Fi and WiMAX networks that support data, voice and video communications, enabling a broad range of fixed and mobile applications for public and private systems. With Motorola's innovative software solutions, customers can design, deploy and manage a broadband network, maximizing uptime and reliability while lowering installation costs.

Additional Information

For more information on Motorola's PTP 200 Series bridges, refer to the PTP 54200 Specification Sheet and the PTP 49200 Data and Specification Sheets.



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