PTP 500 SOLUTIONS
AFFORDABLE WIRELESS CONNECTIVITY AND BACKHAUL FOR VIRTUALLY ALL PATH CONDITIONS

In today's global economy, you need the ability to respond quickly to changes in demand, staffing and resources. Having the right information at the right time is crucial to make informed, insightful decisions. Your communication network has to provide relevant information when you need it. However, meeting performance and environmental requirements within a tight budget can be a real challenge. Now you can deploy a solution that fits both your needs and budget with our Cambium Point-to-Point (PTP) 500 Solutions.

PROBLEMS ARE NO PROBLEM

PTP 500 Ethernet microwave radios are designed to give you the connectivity and backhaul you need to achieve your communication goals. In non-line-of-sight (NLOS), long-distance line-of-sight (LOS) and high-interference environments, over water and desert terrain, and through severe weather conditions, you can rely on our radios to transport your information quickly, reliably and securely.

GREAT CHOICE AND SCALABILITY

PTP 500 systems operate in the 5.4 and 5.8 GHz license-exempt bands and offer Integrated and Connectorized options.

- **Integrated:** Integrated models have dual built-in antennas and require no external antenna.
- **Connectorized:** Connectorized models can be equipped with external antennas, allowing you to connect over greater distances at a higher level of reliability and speed than comparable systems. They are perfect for long-distance hops or deep NLOS environments.

All PTP 500 systems start with a base model that provides up to 25 Mbps throughput capacity. At order time or anytime after ordering, you can upgrade your throughput capacity from 25 Mbps to 52 or 105 Mbps without a hardware change or costly tower climb. If you are not sure which capacity best fits your requirements, PTP 500 radios include a one-time, 60-day trial period at full capacity. This "try before you buy" opportunity lets you evaluate your throughput needs in real network-loading scenarios. Following the evaluation period, you can upgrade right away or plan your capacity increases over time.

PTP 500 radios average 239 years of projected elapsed time between equipment failures (Mean Time Between Failures or MTBF). Because they withstand the abuse of outdoor conditions, you can deploy our ruggedized radios wherever you need them. Plus, the systems offer selectable channel sizes and variable data rates.

KEY FEATURES

- 5.4 and 5.8 GHz license-exempt bands[1]
- Scalable throughput to 105 Mbps[2]
- Distances to 155 miles (250 km)
- Wind speeds to 202 mph (325 kph)
- Temperatures from -40° to 140° F (-40° to 60° C)

[1] Local regulations should be confirmed prior to system purchase.
[2] To determine actual throughput for a specific deployment, use our Cambium PTP LINKPlanner tool.

MARKET-LEADING TECHNOLOGY

Our unique combination of technologies enables PTP 500 solutions to reliably communicate in locations where comparable systems cannot even make a connection.

- **Multiple-Input, Multiple-Output (MIMO):** Transmits multiple signals to enable high performance and link availability
- *Intelligent* **Orthogonal Frequency Division Multiplexing (*i*-OFDM):** Sends transmissions over multiple frequencies, or sub-carriers, enabling high spectral efficiency, high resistance to multi-path interference and fading, and instant fade recovery.
- **Advanced Spectrum Management with *intelligent* Dynamic Frequency Selection (*i*-DFS):** Scans the band up to 400 times a second and automatically switches to the clearest channel to combat interference
- **Adaptive Modulation:** Dynamically up-shifts and down-shifts modulation as conditions change to ensure maximum throughput
- **Inherent Spatial Diversity:** Minimizes the effects of fading through the use of two or more vertically separated antennas – especially valuable for communications over water and desert
- **Time Division Duplex (TDD) Synchronization:** Synchronizes transmit and receive signals, allowing you to deploy multiple radios on a tower or rooftop with greatly reduced interference; our PTP-SYNC synchronization unit can be used as a timing reference.

ROBUST, MULTI-LAYERED SECURITY

To protect your wireless communications, PTP 500 solutions include:

- **Encryption:** PTP 500 radios include our proprietary air interface. Optionally, you can configure your system with FIPS-197 compliant 128-bit or 256-bit AES encryption.
- **Management Interface Protection:** HTTPS/TLS has been implemented on PTP 500 systems to protect the system's management interface. The radios also support installation of user-provided X.509 digital certificates. Simple Network Management Protocol (SNMP) version 3 adds security and remote configuration enhancements to SNMP. In certain cases a license key is required to implement these capabilities.
- **Identity and Event Management:** You can enable identity-based user accounts with configurable password rules to control user access to the radios. Remote Authentication Dial In User Service (RADIUS) can be used to remotely authenticate your users and their levels of access.

- **Auditing and Event Management:** Security and other events are logged locally and optionally can be sent to a centralized logging server using syslog.
- **Disaster Recovery:** Our "save and restore" feature lets you back up a radio's operating configuration file. Then, the file can be restored quickly and easily if a unit must be reset or replaced.
- **Vulnerability Management:** Using commercially available tools, we regularly scan PTP 500 systems for vulnerabilities and those that pose significant risk are resolved.

PUT PTP 500 TO WORK FOR YOU

PTP 500 solutions are excellent connectivity and backhaul options for organizations such as wireless Internet service providers (WISPs), government agencies, medical centers, schools and universities, and transportation companies. Typical applications include, but are not limited to:

- **Leased-Line Replacement:** Replace or supplement leased-line service to reduce or eliminate recurring fees and/or extend communications to a location where wired service is not available.
- **Network Redundancy:** Provide network redundancy for wired or fiber networks.
- **Radio Collocation:** Enable TDD synchronization to greatly reduce the self-interference that normally occurs between radios deployed on a tower or rooftop.
- **Cost-Effective Backhaul:** Affordably and reliably backhaul video from surveillance cameras to a dispatch or command center.
- **Remote Connectivity:** Support remote workers and facilities with reliable, secure and high-speed database access and collaborative communications.
- **Building-to-Building and Campus Connectivity:** Connect between buildings or connect buildings in a campus setting.

INSTALL AND OPERATE WITH EASE

With our industry-leading Cambium PTP LINKPlanner tool, you can predict and optimize system performance prior to purchase. Deployment-assistance features help installers complete a stress-free installation, typically within a day or two. Our intuitive graphical user interface greatly simplifies operations. Plus, you can easily manage the network using a standard web browser, your existing network management system, and/or our Wireless Manager, version 3.0 or higher.

PTP 500 Integrated

PTP 500 Connectorized

For more information, refer to the PTP 500 Specification Sheet.

Cambium Networks™

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