

**HIGH-DEFINITION
PROVING GROUND**

High-definition, 10,000 frame-per-second cameras capture ordnance detonation in minute detail. The PTP 600 transmits the video at high-definition speeds for instant analysis at a command post located more than 30 miles away.

**MULTIMEDIA
MANEUVERING**

War Game commanders must monitor and communicate with troops participating in highly coordinated maneuvers. The PTP 600 connects them with multimedia communications — voice, video and data — over long distances in real time.

**PRODUCT VERIFICATION
FLEXIBILITY**

PTP 600 flexibility allows for fast deployment of temporary networks for product verification testing, providing high-speed capture and long distance transmission of multimedia data to validate manufacturers' product claims.

TAMING THE CHALLENGES OF TEST RANGE CONNECTIVITY

For test range communications commanders and staff, the range is a formidable opponent. It has to be. After all, this is where you simulate in-theater operations from dense forest to open water to rugged terrain. On the range, real-time high-speed communications help commanders ensure that combat and logistics training is properly and safely conducted; that ordnance and program metrics and images are easily retrieved and analyzed; and that communications systems work flawlessly under harsh battlefield-like conditions. Effective test range communication networks help ensure that whatever is being tested is successful here, before it goes there.

PTP COMMUNICATIONS UMBRELLA

Today, on test ranges of every size and shape, point-to-point (PTP) wireless broadband systems are helping to overcome the communications challenges of test and training ranges... easily, effectively and cost-efficiently. The Cambium PTP 600 — the only PTP product on the U.S. Army UC-APL — is fast becoming a preferred solution for extending a reliable, high-speed communications umbrella over specific zones or the entire test range.

VERY FAR, VERY FAST

The Cambium PTP 600 leverages a heritage of military partnership and proven performance on the battlefield or on the range. The field-proven PTP 600 has provided high performance under adverse conditions of virtually every kind — from the frigid cold of Montana winters to the suffocating heat of Iraqi summers. The system is currently providing high performance wireless connectivity for a wide range of applications — from monitoring and directing maneuvers to capturing and backhauling test data, telemetry, even high definition video. The system is efficient in transporting a broad spectrum of traffic patterns from high resolution photographs to VoIP. The PTP 600 is highly effective over demanding terrain, whether a simple short hop or a long haul link of up to 125 miles.

NEUTRALIZING RF OBSTACLES

The PTP 600 provides reliable connectivity and performance under difficult RF conditions and extreme climates. It is proving itself every day on test ranges that cover thousands of square miles and contain serious man-made or natural path obstructions such as structures, dense foliage, dust clouds, salt fog, hills, rivers, lakes or other bodies of water. The Cambium PTP 600 is built to work in mission-critical test range environments where other systems can't.

ABOUT CAMBIUM NETWORKS

Cambium Networks, formerly part of Motorola Solutions, is an independent company providing world-class wireless broadband and microwave solutions for military, government, municipal and enterprise customers around the world. Cambium Networks currently has more than 3.2 million products deployed and provides reliable, secure, cost-effective connectivity in thousands of networks in over 150 countries.



THE CAMBIUM PTP 600: AT HOME ON THE TEST RANGE

The Cambium PTP 600 is designed to support our warfighters in whatever environments they find themselves in. When communications are mission-critical, when information must be delivered in real time, when connectivity is the most important lifeline, the PTP 600 has proven itself time and again on the test range and, most important, in-theater. What makes the PTP 600 so effective?

HIGH DATA RATES. The PTP 600 delivers throughput of up to 300 Mbps to meet demands for situation awareness and high-bandwidth applications such as video.

SYSTEM GAIN. The PTP 600's transmission power and receiver sensitivity translates to high system gain that provides the ability to transmit farther and faster with the smallest possible antenna, making the system easier to transport, install and align.

OFDM. The PTP 600's Orthogonal Frequency Division Multiplexing enables the system to handle multi-path environments, automatically and intelligently "learning" the environment to deliver the highest throughput and lowest latency.

MBSTC CODING. A Cambium exclusive, multi-beam space-time coding (MBSTC) adds RF diversity and multiplexing to the PTP 600's high gain OFDM, increasing performance.

ADAPTIVE MODULATION. With adaptive modulation, PTP 600 radios are able to automatically adjust to varying RF path conditions without user intervention.

INTELLIGENT DFS. Intelligent dynamic frequency selection (DFS) enables PTP 600 radios to automatically choose the channel with the least interference, and when necessary, to change channels without dropping communications.

SPECTRUM EFFICIENCY. The system is designed with exceptional spectrum efficiency, allowing PTP 600 radios to deliver a high data rate and make the most efficient use of a range commander's most important asset: available spectrum.

SPECTRUM FLEXIBILITY. The PTP 600 is U.S. Army spectrum-approved and available in NATO Band IV (4.4–5.0 GHz) as well as 2.5, 4.9 and 5 GHz for maximum frequency flexibility.

SPACE DIVERSITY. Because the PTP 600 is a MIMO radio, it can support two spatially diverse antennas, which can substantially improve performance over both long distances and water.

SECURITY. With FIPS 140-2 certification, the PTP 600 provides the high-levels of security crucial to the military and its communications networks. It is the only PTP technology that has earned inclusion on the UC-APL.

DURABILITY. Proven to rigorous testing standards, the PTP 600 has IP66 certification, and metrics that include Mean Time Before Failure (MTBF) of 441 years.

LOW POWER REQUIREMENTS. The PTP 600 radio draws very little power and works with a variety of power supplies — from generators to solar panels to vehicle power. Its low power requirements also help to reduce generator fuel consumption and cost.

THE CAMBIUM PTP 800

Cambium Networks offers a complete portfolio of versatile PTP wireless Ethernet bridges that are proven over more than 2.2 billion field hours. Our portfolio includes the IP-optimized PTP 800 for licensed frequencies. The PTP 800 is designed to provide the bandwidth, scalability and affordability needed for today's fast-evolving communications networks.

To learn more about how the Cambium PTP 600 can help you streamline test range and other I3MP-type communications modernization initiatives, contact your Cambium Networks representative, or visit us on the web at www.cambiumnetworks.com.

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