![Cambium Networks™]

ABOUT CAMBIUM NETWORKS

Cambium Networks is a leading global provider of wireless broadband solutions that connect the unconnected. Through its extensive portfolio of reliable, scalable and secure WiFi and wireless broadband point-to-point (PTP) and point-to-multipoint (PMP) platforms managed by cloud-based software, Cambium Networks makes it possible for all service providers; enterprises; governmental and military agencies; oil, gas and utility companies; Internet service providers; and public safety networks to build powerful communications networks, reach users from 200 kilometers across mountain tops down to the last meter to their devices and intelligently manage their infrastructure through end-to-end network visibility and actionable analytics. Headquartered outside Chicago and with R&D centers in the U.S. Ashburton, U.K. and Bangalore, India, Cambium Networks sells through a range of trusted global distributors. For more information,

visit:
www.cambiumnetworks.com
www.connectingtheunconnected.org

cnMedusa™

MASSIVE **MULTI-USER** MIMO CONNECTIVITY

PMP 450m

Cambium Networks™

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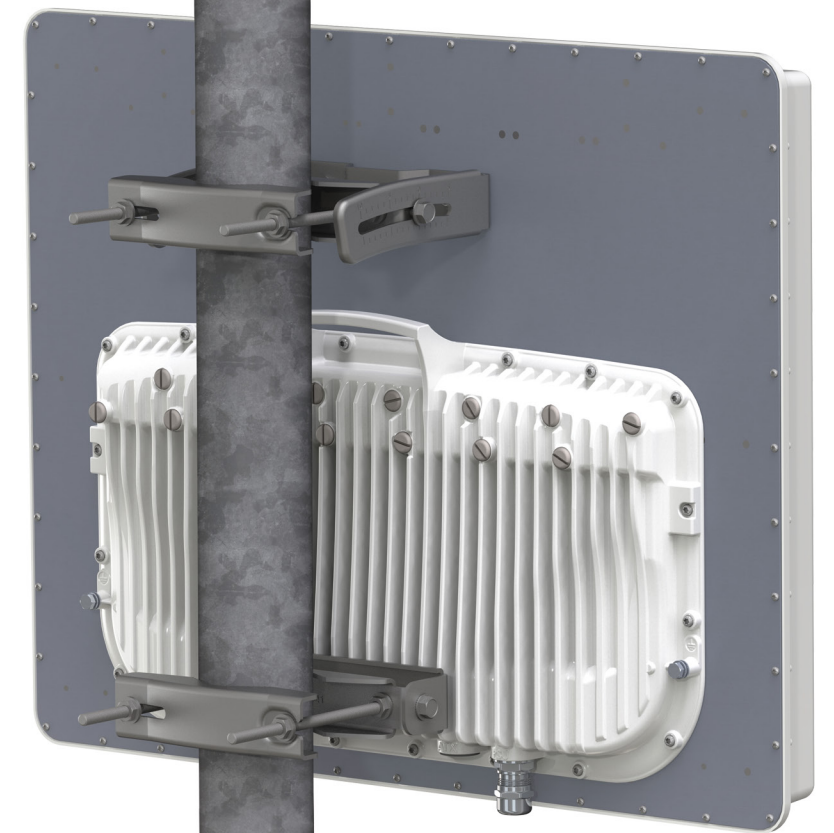Rolling Meadows, IL 60008 USA
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cnMedusa®

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MASSIVE MULTI-USER MIMO CONNECTIVITY

Demand for connectivity is at an all-time high and growing. Availability of spectrum is throttling networks as users demand higher bandwidth services. *cn*Medusa™ a first-of-its-kind technology in a fixed wireless broadband access platform that provides Massive Multi-User MIMO (Multiple-Input, Multiple-Output) technology in a commercially available cost-effective solution. Massive MU-MIMO technology delivers ground-breaking spectral efficiency in a highly integrated package, while being managed from a single pane of glass in the Cloud.

The PMP 450m Access Point (AP) with *cn*Medusa™ Massive MU-MIMO technology enables network operators to rapidly provide faster Internet connections to significantly more people, places, and things. *cn*Medusa™ will absolutely change the commercial wireless broadband industry.

ONE SIMPLE AP DEVICE TO INSTALL CHANGES EVERYTHING

FEATURES

Massive MU-MIMO – Combining Beamforming and multiple RF chains yields more than 3X throughput, (vs. PMP 450), to over 400 Mbps by changing only the AP hardware.

Integrated 90° sector antenna array - Leading Edge antenna innovation brings Smart Beamforming to the 450 platform, ZERO RF cables to connect or weatherproof.

Multiple RF chains – 14 x 14 MIMO system allows simultaneous communication to up to seven SMs.

Compatible with existing SM – Protect your investment and realize capacity upgrade without any field dispatches to subscriber sites.

Frequency Re-Use – Using the same 20 MHz channel, capacity enhancements are attained without any network changes, but resulting in vastly increased Spectral Efficiency.

Multiple I/O options – AUX port (second Ethernet port) with multiple functions allow for greater flexibility of deployment. A SFP port is also available for optical connection.

***Wideband radi*o –** One model to allow operation in all 5 GHz unlicensed bands.

THE INDUSTRY-LEADING PMP 450 PLATFORM

The PMP 450 platform provides Point-to-Point (PTP) and Point-to-Multipoint (PMP) high-performance, cost-effective wireless broadband connectivity for critical networks. Built on the Cambium Networks reputation for quality and reliability established in more than 10,000 networks in 150 countries, the system has a proven Mean Time Between Failure (MTBF) of more than 40 years.

Extreme Scalability – A single PMP 450m AP can support many subscribers, and many AP modules can be deployed in a tower location to maximize throughput.

OFDM Massive-MIMO – Future-proof your platform investment by using the PMP 450m to increase system capacity 3x or more by using unleashing *cn*Medusa™ technology.

High performance – Minimize self-interference and maintain consistent low latency to provide reliable connectivity for sensitive voice and video applications.

GPS synchronization – Maximize spectral efficiency and frequency re-use across the entire network to get the most total throughput in the minimum of total spectrum used.

Planning and Management
LINKPlanner network design

- Utilize LINKPlanner to model an existing sector, then swap the 450 or 450i AP for a 450m, and accurately predict the capacity enhancement to expect before investing any money in equipment or resources
- Design PTP backhaul and PMP distribution networks quickly and accurately model connectivity solutions.
- Verify path performance.
- Identify specific equipment at each location to speed ordering and installation.

cnMaestro™ Single Pane of Glass Network Management

- Bird's eye view of Field Area Network
- End-to-end performance and fault management
- Rapid on-boarding and provisioning of new nodes
- Ease of management and reporting
- Centralized firmware/software auditing and management