

# ePMP™ 1000 Connectorized Radio

**Wireless service providers and enterprises need reliable, high-quality broadband connectivity that can be rapidly deployed and expanded.** The ePMP architecture provides highly scalable broadband access solution that will allow you to build and expand your network with a faster return on investment. Cambium Networks' radios deliver bandwidth-intensive services such as VoIP, video and data to end users in multiple vertical markets, with high performance and exceptional reliability.

Using the 5 GHz frequency spectrum, the new ePMP architecture is the most effective connectivity solution for reaching the under- and unconnected around the world.



ePMP 1000 Connectorized Radio

## Main Differentiators

- » **GROWTH AND SCALABILITY** offer wireless service providers the opportunity to expand the reach of their networks into underserved areas. The ePMP 1000 delivers high capacity and reliable connectivity right from the start. As a provider's business grows, it can expand its network while ensuring resiliency and increasing profitability.
- » **QUALITY OF SERVICE (QOS)** allows you to confidently offer triple play services - VoIP (Voice over IP), video and data. Providing your customers with excellent service quality ensures their continued loyalty and transforms them into advocates, helping WISPs and enterprises expand their business.
- » **CAMBIUM NETWORKS' PROVEN RELIABILITY** has created an unsurpassed connectivity standard in many industries that depend on fixed wireless broadband. Our products undergo rigorous testing and are made from high-quality components.

## Powerful Features

Cambium Networks' ePMP 1000 Connectorized Radio provides more than 150 Mbps of real user throughput. Using 2x2 MIMO-OFDM technologies, ePMP deployments achieve industry leading data rates.

The ePMP 1000 Connectorized Radio has the flexibility to connect to a variety of external antennas such as 90 and 120 degree sector, omni and high-gain panel or dish antennas. This versatility allows service providers to configure their network using high gain antennas to satisfy the most challenging environments.

The ePMP 1000 Connectorized Radio can be configured as a Subscriber Module, an unsynchronized Access Point or a Backhaul radio. This radio will function as a client (slave) to an ePMP GPS Synchronized Radio in either a PMP or PTP deployment forming a GPS Synchronized solution.

## Product

MODEL NUMBER	5 GHz: C050900P023A /C050900A023A (EU), C058900P122A/C058900A122A (FCC), C050900P021A/C050900A021A (ROW) 2.4 GHz: C024900P021A / C024900A021A
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## Spectrum

CHANNEL SPACING	Configurable on 5 MHz increments
FREQUENCY RANGE	5 GHz: 4910 – 5970 MHz (exact frequencies as allowed by local regulations) 2.4 GHz: 2402 – 2472 MHz
CHANNEL WIDTH	5   10   20   40 MHz

## Interface

MAC (MEDIA ACCESS CONTROL) LAYER	Cambium Proprietary
PHYSICAL LAYER	2x2 MIMO/OFDM
ETHERNET INTERFACE	100 BaseT, Cambium PoE (V+ = pins 7 & 8, Return = pins 4 & 5)
PROTOCOLS USED	IPv4, UDP, TCP, IP, ICMP, SNMPv2c, HTTPs, STP, SSH, IGMP Snooping
NETWORK MANAGEMENT	HTTPs, SNMPv2c, SSH
VLAN	802.1Q with 802.1p priority

## Performance

ARQ	Yes
NOMINAL RECEIVE SENSITIVITY (W/ FEC) @ 20MHZ CHANNEL	MCS0 = -93 dBm to MCS15 = -69 dBm (per branch)
NOMINAL SENSITIVITY (W/ FEC) @ 40MHZ CHANNEL	MCS0 = -90 dBm to MCS15 = -66 dBm (per branch)
MODULATION LEVELS (ADAPTIVE)	MCS0 (BPSK) to MCS15 (64QAM 5/6)
QUALITY OF SERVICE	Three level priority (Voice, High, Low) with packet classification by DSCP, COS, VLAN ID, IP & MAC Addr, Broadcast, Multicast and Station Priority

## Link Budget

TRANSMIT POWER RANGE	-17 to +30 dBm (combined, to regional EIRP limit) (1 dB interval)
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## Physical

ANTENNA CONNECTION	50 ohm, RP (Reverse Polarity) SMA (2)
SURGE SUPPRESSION	1 Joule Integrated
ENVIRONMENTAL	IP55
TEMPERATURE	-30°C to +60°C (-22°F to +140°F)
WEIGHT	0.49 kg (1.1 lb.)
WIND SURVIVAL	145 km/hour (90 mi/hour) when mounted on ePMP Sector Antennas
DIMENSIONS (H x W x D)	29.1 x 14.5 x 8.3 cm (11.4 x 5.7 x 3.3 in)
POWER CONSUMPTION	7 W Maximum, 5 W Typical
INPUT VOLTAGE	10 to 30 V

## Security

ENCRYPTION	128-bit AES (CCMP mode)
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## Certifications

FCCID	2.4 GHz: Z8H89FT0011 / 5 GHz : Z8H89FT0006
INDUSTRY CANADA CERT	2.4 GHz: 109W-0011 / 5 GHz : 109W-0006
CE	5 GHz: EN 302 502 v1.2.1 5 GHz: EN 301 893 v1.7.1