

# ePMP 1000 Connectorized Radio



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## VERTICAL MARKETS AND SOLUTIONS

### WIRELESS SERVICE PROVIDERS (WISPs)

- Rural Connectivity
- Municipal Connectivity
- Remote Office Connectivity
- Primary or Redundant Connectivity

### ENTERPRISES

- Video Surveillance Backhaul
- Site Monitoring
- LAN Extension
- Leased Line Replacement

**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.

The new ePMP platform, operating in 2.4 GHz and 5 GHz, is the most effective connectivity solution for reaching the under- and unconnected around the world.

## Main Differentiators

- » **INNOVATIVE GPS SYNC TECHNOLOGY** enables unparalleled spectrum efficiency. This allows for the configuration of more subscribers in your network while preserving consistency and quality of service in spectrum-constrained environments. GPS Sync leads directly to CAPEX and OPEX reductions, resulting in lower installation costs and maintenance, allowing your business to concentrate on growth and 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 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: C050900P013A /C050900A013A (EU), C058900P112A /C058900A112A (FCC), C050900P011A/ C050900A011A (ROW) 2.4 GHz: C024900P021A / C024900A021A
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## Spectrum

CHANNEL SPACING	Configurable on 5 MHz increments
FREQUENCY RANGE	5 GHz: 5150 – 5970 MHz (exact frequencies as allowed by local regulations) 2.4 GHz: 2402 – 2472 MHz
CHANNEL WIDTH	20 MHz or 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, SSH, SNMPv2c, HTTPs, FTP
NETWORK MANAGEMENT	HTTPs, SSH, FTP, SNMPv2c
VLAN	802.1Q with 802.1p priority

## Performance

ARQ	Yes
NOMINAL RECEIVE SENSITIVITY (W/ FEC) @ 20MHZ CHANNEL	MCS1 = -89 dBm to MCS15 = -66 dBm (per branch) NOMINAL RECEIVE
SENSITIVITY (W/ FEC) @ 40MHZ CHANNEL	MCS1 = -86 dBm to MCS15 = -63 dBm (per branch) MAXIMUM DEPLOYMENT
MODULATION LEVELS (ADAPTIVE)	MCS1 (QPSK 1/2) to MCS15 (64QAM 5/6)
LATENCY (nominal, roundtrip)	6 ms (Flexible Frame Mode) , 17 ms (GPS Sync Mode)
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