

# ePMP™ 1000 Integrated Radio

## 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



ePMP 1000 Integrated 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 2.4 GHz frequency spectrum, the new ePMP architecture 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.
- » **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

The Cambium Networks ePMP 1000 Integrated Radio provides more than 200 Mbps of real user throughput. Using 2x2 MIMO-OFDM technologies, ePMP deployments achieve industry leading data rates.

Utilizing GPS sync, the ePMP is an ideal fit for networks that require capacity and reliability for superior QoS in remote and underserved areas. This integrated PTP and PMP solution features an efficient GPS synchronized operational mode that permits highly scalable frequency reuse.

The ePMP 1000 Integrated 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	C024900P031A, C024900C031A
Spectrum	
CHANNEL SPACING	Configurable on 5 MHz increments
FREQUENCY RANGE	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, SNMPv2c, HTTPs, FTP
NETWORK MANAGEMENT	HTTPs, FTP, SNMPv2c
VLAN	802.1Q with 802.1p priority
Performance	
ARQ	Yes
NOMINAL RECEIVE SENSITIVITY (W/ FEC) @ 20MHZ CHANNEL	MCSI = -90 dBm to MCS15 = -62 dBm (per branch)
NOMINAL RECEIVE SENSITIVITY (W/ FEC) @ 40MHZ CHANNEL	MCSI = -87 dBm to MCS15 = -59 dBm (per branch)
MAXIMUM DEPLOYMENT RANGE @ 20 MHz CHANNEL	Up to 24 miles (up to 38 km)
MODULATION LEVELS (ADAPTIVE)	MCSI (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 Address, Broadcast, Multicast and Station Priority
Link Budget	
ANTENNA BEAM WIDTH	24° azimuth, 12° elevation
TRANSMIT POWER RANGE	-17 to +30 dBm (combined, to regional EIRP limit) (1 dB interval)
ANTENNA GAIN	12 dBi, integrated patch
MAXIMUM TRANSMIT POWER	30 dBm combined
Physical	
ANTENNA CONNECTION	Integrated patch antenna
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) with antenna
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)
Certifications	
FCCID	Z8H89FT0011
INDUSTRY CANADA CERT	109W-0011