

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

Network operators are challenged to deliver reliable connectivity in overcrowded RF environments. As available spectrum becomes more congested, having the right broadband access solution that allows network operators to deliver efficient quality cost effectively, is vital for all types of deployments.

Maximize network performance using ePMP software with eFortify[™] and eCommand[™] features and tools. eFortify enhances the performance of the ePMP 1000 in high noise environments. eCommand provides a suite of management features and tools to assist network operators in planning, provisioning and monitoring of their network. The ePMP 1000 Integrated Radio is a compact and powerful platform that can operate as an Access Point, Subscriber Module or PTP radio. When configured to operate as a Subscriber Module or PTP Radio, its gain can be enhanced by the ePMP 1000 Reflector Dish.

Available in both 5 GHz and 2.4 GHz frequency bands the platform delivers high performance and reliable broadband connectivity to customers, with services such as VoIP, video and data. The ePMP 1000 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.

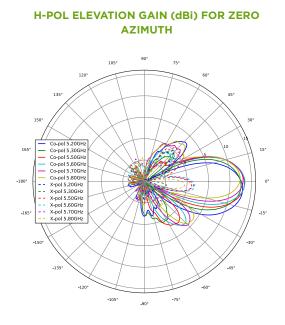
The ePMP 1000 Integrated Radio can be configured as a Subscriber Module, an unsynchronized Access Point or a Backhaul radio. This radio will function as a client (slave) to an ePMP GPS Synchronized Radio in either a PMP or PTP deployment forming a GPS Synchronized solution.

Specifications

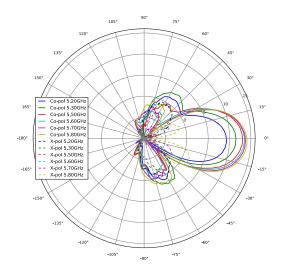
Product MODEL NUMBER 5 GHz: C059900P33A/C059900C132A (US/FCC), C059900P033A/C059900C033A (EU), C059900P031A/C059900C031A (Other) 2.4 GHz: XXXXX Spectrum CHANNEL SPACING CHANNEL SPACING Configurable on 5 MHz increments FREQUENCY RANGE 5 GHz: 5150 - 5970 MHz (exact frequencies as allowed by local regulations) 2.4 GHz: 242 - 2472 MHz CHANNEL WIDTH 20 MHz or 40 MHz Interface Cambium Proprietary 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, SIMPV2c, HTTPS, FTP NETWORK MANAGEMENT HTTPS, FTP, SIMPV2c VLAN 802.10 with 802.10 priority Performance ARQ NOMINAL RECEIVE SENSITIVITY (W/ FEC) @ 20MHZ CHANNEL MCS15 = -62 dBm (per branch) NOMINAL RECEIVE SENSITIVITY (W/ FEC) @ 40MHZ CHANNEL MCS15 = -59 dBm to MCS15 = -59 dBm (per branch) MODULATION LEVELS (ADAPTIVE) MCS1 (QPSK 1/2) to MCS15 640AM 5/6) LATENCY (nominal, roundtrip) 6 ms (Flexible Frame Mode), 17 ms (GPS Sync Mode) QUALITY OF SERVICE Three level priority (Vioice, High, Low) with packet classification by DSCP, COS,	
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ANTENNA INTEGRATED GAIN 5 GHz: integrated	
2.4 GHz: integrated	
MAXIMUM TRANSMIT POWER 2.4/5 GHz : 30 dBm combined (subject to regional regulatory restrictions)	
Physical	
ANTENNA CONNECTION Integrated antenna	
SURGE SUPPRESSION 1 Joule Integrated	
ENVIRONMENTAL IP55	
-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 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	

PARAMETER	2.4 GHz SPECIFICATION	5 GHz SPECIFICATION
FREQUENCY RANGE	2400 - 2480 MHZ	5150 – 5970 MHz
ANTENNA TYPE	INTEGRATED	INTEGRATED
TYPICAL GAIN	11 dBi	14 dBi
3dB BEAMWIDTH-AZIMUTH	65°	30°
3dB BEAMWIDTH-ELEVATION	30°	20°
POLARIZATION(S)	DUAL LINEAR, H/ V	DUAL LINEAR, H/ V
FRONT-TO-BACK ISOLATION	> 20 dB	>20 dB
CROSS POLARIZATION	15 dB	15 dB

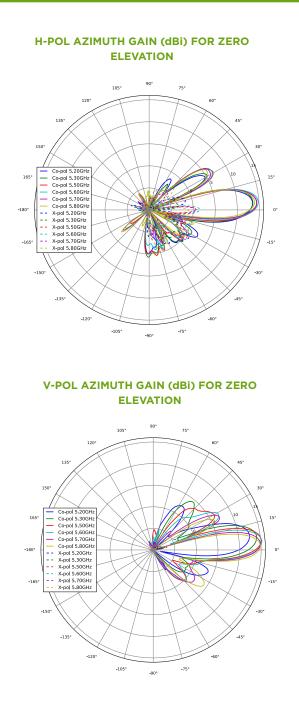
ePMP 1000 5 GHz Integrated Antenna Azimuth Patterns



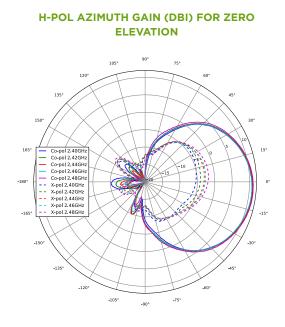




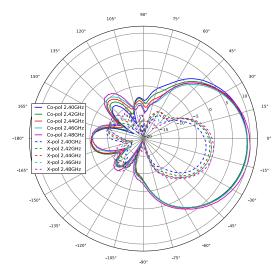
ePMP 1000 5 GHz Integrated Antenna Elevation Patterns



ePMP 1000 2.4 GHz Integrated Antenna Azimuth Patterns







ePMP 1000 2.4 GHz Integrated Antenna Elevation Patterns

