ePMP™ 1000 GPS Sync 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.

» **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 GPS Sync 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.

When deployed with a sector antenna, the ePMP 1000 GPS Sync Radio can be configured as a GPS Synchronized Access Point serving ePMP Integrated Radios configured as Subscriber Modules. When deployed with a high gain point to point antenna, the ePMP GPS Sync Radio can be configured to be a GPS Synchronized Backhaul Master, forming a PTP link with another ePMP Radio module.

Specifications

Product	
SALES MODEL NUMBER	5 GHz: C058900P112A/C058900A112A (US/FCC), C050900P013A/C050900A013A (EU), C050900P011A/C050900A011A (Other) 2.4 GHz: C024900P011A/C024900A011A
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	100/1000BaseT, rate auto negotiated (802.3af compliant)
POWERING METHODS SUPPORTED	30V PoE Supply (included), CMM3 & CMM4, 802.3af PoE Supply
PROTOCOLS USED	IPv4, UDP, TCP, IP, ICMP, SNMPv2c, HTTPs, FTP
NETWORK MANAGEMENT	HTTPs, FTP, SNMPv2c
VLAN	802.1Q with 802.1p priority
Performance	
SUBSCRIBERS PER SECTOR	Up to 120
ARQ	Yes
NOMINAL RECEIVE SENSITIVITY (W/ FEC) @ 20MHZ CHANNEL	MCS1 = -90 dBm to MCS15 = -62 dBm (per branch)
NOMINAL RECEIVE SENSITIVITY (W/ FEC) @ 40MHZ CHANNEL	MCS1 = -87 dBm to MCS15 = -59 dBm (per branch)
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)
GPS SYNCHRONIZATION	Yes, via Internal GPS, CMM3, or CMM4
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	
ANTENNA	Sector Antenna with 90° 3dB beam width available
TRANSMIT POWER RANGE	-17 to +30 dBm (combined, to regional EIRP limit) (1 dB interval)
Physical	
ANTENNA CONNECTION	50 ohm, RP (Reverse Polarity) SMA
SURGE SUPPRESSION	1 Joule Integrated
ENVIRONMENTAL	IP55
TEMPERATURE	-30°C to +60°C (-22°F to +140°F)
WEIGHT	5.1 kg (10 lbs) with antenna 0.52 kg (1.1 lbs) without antenna
WIND SURVIVAL	200 km/hour (120 mi/hour) with antenna
DIMENSIONS (H x W x D)	Radio: 26.9 x 11 x 7.7 cm (10.6 x 4.3 x 3.0 in) AAntenna (incl brackets): 80cm x 22.5cm x 24cm (31.5 x 8.9 x 9.4 in)
POWER CONSUMPTION (over 100m CAT5 cable)	10 W Maximum, 7.5 W Typical
INPUT VOLTAGE	23 to 56 V
Security	
ENCRYPTION	128-bit AES (CCMP mode)
Certifications	
FCCID	2.4 GHz: Z8H89FT0012 / 5 GHz : Z8H89FT0012
INDUSTRY CANADA CERT	2.4 GHz: 109W-0012 / 5 GHz : 109W-0012
CE	5 GHz: EN 302 502 v1.2.1 5 GHz: EN 301 893 v1.7.1