

ePMP™ MP 3000 MicroPOP Access Point



The ePMP™ MP 3000 is Cambium Networks' MicroPOP solution for WISP's and Enterprise network operators. The MicroPOP MP3000, part of the ePMP portfolio, solves the need for injecting additional capacity where it is needed most as well as extending network coverage in a cost-effective, light-weight manner. For example, a WISP can expand coverage to a new sub-division or area of a village that wasn't previously reachable by the core ePMP network. Additionally, a WISP or enterprise operator may need to inject additional capacity to a small campus or enclave of buildings. The MP 3000 along with ePMP Subscriber Modules can also serve as a distribution network for wi-fi access points.

The MicroPOP MP 3000 is based on 802.11ac Wave 2 technology and can interoperate with any combination of up to 64 of the ePMP Force 300 series of subscriber modules (including Force 300-13, -13L, -16, -19, -19R and -25) as well as the Force 180/190/200 with backwards compatibility. Capacities of up to 600 Mbps are achievable with a range typically of one mile or 1.5 kilometers. The MP 3000 features an integrated omni antenna in a ruggedized IP67 enclosure.

MicroPOP APPLICATIONS:

- **Extend Coverage Areas:** deploy the MP 3000 in places unreachable by the main tower or to add adjacent coverage for new subscribers with lower overall density
- **Inject New Capacity:** deploy the MP 3000 to a set of customers demanding especially high capacity services
- **Backhaul for Outdoor Wi-Fi Access Points:** deploy the MP 3000 and ePMP Subscriber modules to create a hub-and-spoke backhaul for multiple wi-fi access points.

KEY SPECIFICATIONS:

- 2X2 MIMO support with peak throughput of 600 Mbps
- 256QAM-5/6, 80 MHz support
- Supports a wide frequency range: 4910 to 5950 MHz
- Supports up to 64 subscriber modules
- Integrated 9 dBi Dual-Polarity Omni-directional antenna
- Cloud or on-premises network management with cnMaestro

NOTE: the MP 3000 does not support GPS synchronization and does not have an integrated real-time spectrum analyzer.

SPECIFICATIONS

PRODUCT

Model/Part #	See table below for full set of Model and Part Numbers
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SPECTRUM

Channel Spacing	Configurable on 5 MHz increments
Frequency Range	5150 - 5875 MHz
Channel Width	20 40 80 MHz

INTERFACE

MAC (Media Access Control) Layer	Cambium Proprietary
Physical Layer	2X2 MIMO/OFDM
Ethernet Interfaced	100/1000BaseT, rate auto negotiated
Powering Methods Supported	802.3af or 802.3at Powered Device; 56VDC Passive PoE Injector (included)
Protocols Used	IPv4/IPv6, UDP, TCP, IP, ICMP, SNMPv2c, HTTPS, STP, SSH, IGMP Snooping
Network Management	HTTPS, SNMPv2c, SSH
VLAN	802.1Q with 802.1p priority

PERFORMANCE

RQ	Yes
Nominal Receive Sensitivity (w/FEC) @20 MHz Channel	MCS0 = -89 dBm to MCS8 (256 QAM-3/4) = -66 dBm (per chain)
Nominal Receive Sensitivity (w/FEC) @40 MHz Channel	MCS0 = -87 dBm to MCS9 (256QAM-5/6) = -64 dBm (per chain)
Nominal Receive Sensitivity (w/FEC) @80 MHz Channel	MCS0 = -84 dBm to MCS9 (256QAM-5/6) = -59 dBm (per chain)
Modulation Levels (Adaptive)	MCS0 (BPSK) to MCS 9 (256 QAM-5/6)
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, MIR/CIR* (CIR Support in future release)

LINK BUDGET

Antenna	Integrated dual-polarity 9 dBi omni-directional antenna
Transmit Power Range	0 to +29 dBm (combined, to regional EIRP limit) (1 dB interval)

PHYSICAL

Surge Suppression	1 Joule Integrated. C000000L033 56v Gigabit surge suppressor recommended for optimal surge protection.
Environmental	IP67
Temperature	-40F to +149F (-40C to +65C)
Power Consumption	13 Watts (Up to 15 Watts in extreme cold temperatures when heater is activated.)
Input Voltage	56 Volts Nominal (input range 41 to 59V)
Weight	.98 kg (2.15 lbs.) without bracket
Dimensions	73 x 289 x 210 mm (2.9 x 11.4 x 8.3 inches) without brackets

SPECIFICATIONS

SECURITY

Encryption	128 bit AES (CCMP mode)
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CERTIFICATIONS

FCCID	Z8H89FT0051
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INDUSTRY COUNTRY	109W-0051
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CE	See Cambium Website for Declaration of Conformity
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TABLE OF PART NUMBERS

PART NUMBER	DESCRIPTION
C050910 031	ePMP 5 GHz MP 3000 MicroPOP Radio (ROW) (no cord)
C050910 131	ePMP 5 GHz MP 3000 MicroPOP Radio (ROW) (US cord)
C058910 134	ePMP 5 GHz MP 3000 MicroPOP Radio (IC) (Canada/US cord)
C050910 231	ePMP 5 GHz MP 3000 MicroPOP Radio (ROW) (EU cord)
C050910 233	ePMP 5 GHz MP 3000 MicroPOP Radio (EU) (EU cord)
C050910 331	ePMP 5 GHz MP 3000 MicroPOP Radio (ROW) (UK cord)
C050910 333	ePMP 5 GHz MP 3000 MicroPOP Radio (EU) (UK cord)
C050910 431	ePMP 5 GHz MP 3000 MicroPOP Radio (ROW) (India cord)
C050910 432	ePMP 5 GHz MP 3000 MicroPOP Radio (India) (India Cord)
C050910 531	ePMP 5 GHz MP 3000 MicroPOP Radio (ROW) (China cord)
C050910 631	ePMP 5 GHz MP 3000 MicroPOP Radio (ROW) (Brazil cord)
C050910 731	ePMP 5 GHz MP 3000 MicroPOP Radio (ROW) (Argentina cord)
C050910 831	ePMP 5 GHz MP 3000 MicroPOP Radio (ROW) (NZ cord)
C050910 931	ePMP 5 GHz MP 3000 MicroPOP Radio (ROW) (South Africa cord)
C050910 Z31	ePMP 5 GHz MP 3000 MicroPOP Radio (ROW) (No PSU)
C058910 132	ePMP 5 GHz MP 3000 MicroPOP Radio (FCC) (US cord)