



# PMP 450 Access Point

The Cambium Networks Point-to-Multipoint (PMP) 450 Access Point (AP) can provide more than 90 Mbps throughput and will be interoperable with PMP 430 and PMP 100 Series Subscriber Modules (SM). Service providers with an installed base of PMP 100 subscribers can migrate to new high-throughput PMP 450 modules to enhance overall capacity; allowing more users and/or higher rate plans.

Utilizing 2x2 MIMO-OFDM technology, new deployments can take advantage of Cambium Networks proprietary feature set, while achieving data rates higher than 90 Mbps. From the available synchronization options to its diverse feature set, the PMP 450 provides flexible deployment options that make it a good fit for high capacity, high reliability networks.

Cambium Networks provides exceptional wireless broadband connectivity solutions. With more than 3 million modules deployed in thousands of networks around the world, Cambium solutions are proven to provide cost effective, reliable data, voice and video connectivity.

## SPECIFICATIONS

PRODUCT	
<b>MODEL NUMBER</b>	C054045A001A, C054045A002A
SPECTRUM	
<b>CHANNEL SPACING</b>	Configurable on 5 MHz increments
<b>FREQUENCY RANGE</b>	5470 - 5875 MHz
<b>CHANNEL WIDTH</b>	10 MHz (OFDM-only mode)* or 20 MHz
INTERFACE	
<b>MAC (MEDIA ACCESS CONTROL) LAYER</b>	Cambium Proprietary
<b>PHYSICAL LAYER</b>	2x2 MIMO OFDM, FSK*
<b>ETHERNET INTERFACE</b>	10/100BaseT, half/full duplex, rate auto negotiated (802.3 compliant)
<b>PROTOCOLS USED</b>	IPv4, UDP, TCP, IP, ICMP, Telnet, SNMP, HTTP, FTP
<b>NETWORK MANAGEMENT</b>	HTTP, Telnet, FTP, SNMP v2c
<b>VLAN</b>	802.1ad (DVLAN Q-inQ), 802.1Q with 802.1p priority, dynamic port VID
PERFORMANCE	
<b>SUBSCRIBERS PER SECTOR</b>	Up to 200*
<b>ARQ</b>	Yes
<b>NOMINAL RECEIVE SENSITIVITY (W/ FEC) @ 10MHZ CHANNEL</b>	OFDM: 2X=-86, 4X=-79, 6X=-72
<b>NOMINAL RECEIVE SENSITIVITY (W/ FEC) @ 20MHZ CHANNEL</b>	OFDM: 2X=-83, 4X=-76, 6X=-69 FSK*: 1X=-85, 2X=-80
<b>MAXIMUM DEPLOYMENT RANGE</b>	Up to 25 miles
<b>MODULATION LEVELS (ADAPTIVE)</b>	OFDM: QPSK, 16-QAM, 64-QAM (MIMO-B) FSK*: 1X=2-Level FSK, 2X=4-Level FSK
<b>LATENCY</b>	3 - 5 ms
<b>GPS SYNCHRONIZATION</b>	Yes, via CMM3, CMM4 or UGPS
<b>QUALITY OF SERVICE</b>	Diffserve QoS

# SPECIFICATIONS

## LINK BUDGET

<b>ANTENNA BEAM WIDTH</b>	60° (H+V+FSK patch) or 90° sectors are available
<b>TRANSMIT POWER</b>	OFDM: -30 to +22 dBm (combined, to EIRP limit by region) (1 dB interval) FSK: -30 to +23 dBm (1 dB interval)
<b>ANTENNA GAIN</b>	17 dBi H+V, 9 dBi FSK patch (with 60° sector antenna) 17 dBi H+V (with 90° sector antenna)
<b>MAXIMUM TRANSMIT POWER</b>	22 dBm combined OFDM, 23 dBm FSK*

## PHYSICAL

### PHYSICAL

<b>ANTENNA CONNECTION</b>	50 ohm, N-type (Dual Polarization OFDM), FSK V-Pol
<b>SURGE SUPPRESSION</b>	1 Joule Integrated
<b>MEAN TIME BETWEEN FAILURE</b>	> 40 Years
<b>ENVIRONMENTAL</b>	IP67
<b>TEMPERATURE</b>	-40°C to +55°C (-40°F to +131°F)
<b>WEIGHT</b>	5.9 kg (13 lbs) with antenna 2.5 kg (5.5 lbs) without antenna
<b>WIND SURVIVAL</b>	190 km/hour (118 mi/hour)
<b>DIMENSIONS (HxWxD)</b>	Radio: 27x21x7 cm (10.6"x8.3"x2.8") Antenna: 51x13x7.3 cm (20.2"x 5.1" x 2.9")
<b>MAXIMUM POWER CONSUMPTION</b>	18 W
<b>INPUT VOLTAGE</b>	24 to 30 V

## SECURITY

<b>ENCRYPTION</b>	56-bit DES, FIPS-197 128-bit AES*
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## CERTIFICATIONS

<b>FCC ID</b>	Z8H89FT0002 (5.4 GHz Grant in future release)
<b>INDUSTRY CANADA CERT</b>	109W-0002
<b>CE</b>	TBD*

\*Planned Future Release