



# PMP 450 Subscriber Module

Now available in 2.4 GHz as well as 5 GHz (dual band), 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 Subscriber Modules (SM).

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

#### MODEL NUMBER

4 Mbps: C054045C001A, C024045C001A, C054045C005A\*, C024045C005A\*  
 10 Mbps: C054045C002A, C024045C002A, C054045C006A\*, C024045C006A\*  
 20 Mbps: C054045C003A, C024045C003A, C054045C007A\*, C024045C007A\*  
 60 Mbps: C054045C004A, C024045C004A, C054045C008A\*, C024045C008A\*

### SPECTRUM

#### CHANNEL SPACING

Configurable on 2.5 MHz increments

#### FREQUENCY RANGE

5470 MHz - 5875 MHz  
 2400 MHz - 2483.5 MHz

#### CHANNEL WIDTH

5 MHz, 10 MHz or 20 MHz

### INTERFACE

#### PHYSICAL LAYER

2x2 MIMO OFDM

#### MAC (MEDIA ACCESS CONTROL) LAYER

Cambium Proprietary

#### ETHERNET INTERFACE

10/100BaseT, half/full duplex, rate auto negotiated (802.3 compliant)

#### PROTOCOLS USED

IPv4, UDP, TCP, IP, ICMP, Telnet, SNMP, HTTP, FTP

#### NETWORK MANAGEMENT

HTTP, Telnet, FTP, SNMP v2c

#### VLAN

802.1ad (DVLAN Q-inQ), 802.1Q with 802.1p priority, dynamic port VID

### PERFORMANCE

#### ARQ

Yes

#### NOMINAL RECEIVE SENSITIVITY (W/ FEC) @ 5 MHz CHANNEL

OFDM: 2X=-89, 4X=-82, 6X=-75

#### NOMINAL RECEIVE SENSITIVITY (W/ FEC) @ 10MHZ CHANNEL

OFDM: 2X=-86, 4X=-79, 6X=-72

#### NOMINAL RECEIVE SENSITIVITY (W/ FEC) @ 20MHZ CHANNEL

OFDM: 2X=-83, 4X=-76, 6X=-69

#### MODULATION LEVELS (ADAPTIVE)

OFDM: QPSK, 16-QAM, 64-QAM

#### MAXIMUM DEPLOYMENT RANGE

Up to 25 miles with reflector dish (5 GHz)  
 Up to 40 miles with reflector dish (2.4 GHz)

# SPECIFICATIONS

<b>LATENCY</b>	3 - 5 ms
<b>GPS SYNCHRONIZATION</b>	Yes, via CMM3, CMM4 or UGPS
<b>QUALITY OF SERVICE</b>	Diffserve QoS
<b>LINK BUDGET</b>	
<b>ANTENNA BEAM WIDTH</b>	55° azimuth, 55° elevation (both H&V)
<b>TRANSMIT POWER</b>	-30 to +22 dBm (combined, to EIRP limit by region) (1 dB interval)
<b>ANTENNA GAIN</b>	9 dBi H+V, integrated patch (5 GHz) 8 dBi Dual Slant, integrated patch (2.4 GHz)
<b>MAXIMUM TRANSMIT POWER</b>	22 dBm combined
<b>REFLECTOR GAIN</b>	+ 14 dBi
<b>LENS GAIN</b>	+8 dBi (with CLIP (Cassegrain Lens for Improved Performance), for 5 GHz only)
<b>PHYSICAL</b>	
<b>ANTENNA CONNECTION</b>	Integrated patch antenna
<b>MEAN TIME BETWEEN FAILURE</b>	> 40 Years
<b>ENVIRONMENTAL</b>	IP55
<b>TEMPERATURE</b>	-40°C to +55°C (-40°F to +131°F)
<b>WEIGHT</b>	0.45 kg (1 lb.)
<b>WIND SURVIVAL</b>	190 km/hour (118 mi/hour)
<b>DIMENSIONS (HxWxD)</b>	30 x 9 x 9 cm (11.75" x 3.4" x 3.4")
<b>MAXIMUM POWER CONSUMPTION</b>	12 W
<b>INPUT VOLTAGE</b>	24 to 30 V
<b>SECURITY</b>	
<b>ENCRYPTION</b>	56-bit DES, FIPS-197 128-bit AES
<b>CERTIFICATIONS</b>	
<b>CE</b>	EN 301 893 v1.6.1 (5.4 GHz) EN 302 502 v1.2.1 (5.8 GHz)
<b>INDUSTRY CANADA CERT</b>	109W-0001 (5.4, 5.8 GHz) 109W-0003 (2.4 GHz)
<b>FCC ID</b>	Z8H89FT0001 (5.4, 5.8 GHz) Z8H89FT0003 (2.4 GHz)

\*Connectorized Version