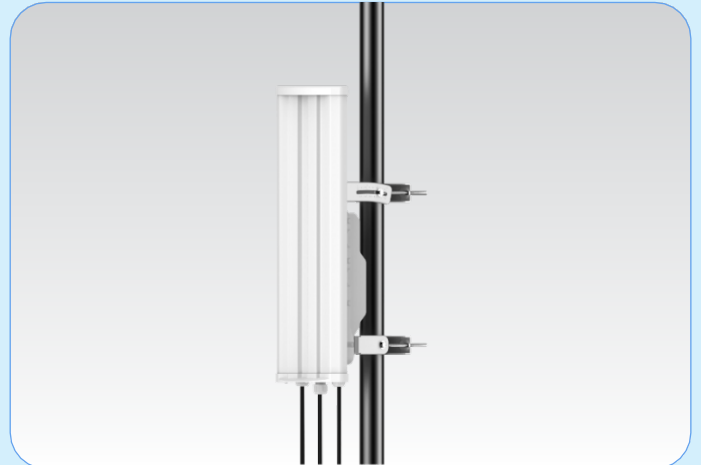


PMP 450v 4x4 Fixed Wireless Access Point

QUICK LOOK:

Deliver higher performance to business and residential locations while extending the life of deployed PMP 450 gear. Reduce churn and remain competitive by offering enhanced service plans by providing more bandwidth.

- Operates from 5.15 to 7.125 GHz
- Backward and Forward Compatible *and* Future proof
- 4x4 MIMO Access Point



5 GHz to 7 GHz support in same hardware

Easily stock and maintain a single SKU, maintain existing 5 GHz deployment and expand into 6 GHz

Backward *and* Forward compatibility

Leverage existing platform investment and migrate gracefully to next generation

Ultra-Wide-band support (up to 2x100 MHz channels)

Achieve a total capacity increase with more bandwidth to offer

Dual Sector Mode

Operate 2 carriers independently (i.e., one 5 GHz and one 6 GHz) with increased flexibility

Carrier Aggregation

Achieve flexibility in spectrum usage with two carriers on different bandwidths (e.g., when 5 GHz may be congested requiring smaller channels, and 6 GHz can utilize larger channels)

Model Numbers

	ROW	FCC	ISED	EU	No Encryption
Integrated 90 degree sector	C060045A401A	C060045A402A	C060045A403A	C060045A404A	C060045A405A

Spectrum

Channel Spacing	Configurable on 2.5 MHz increments
Frequency Range	5.150 GHz - 7.125 GHz
Channel Bandwidths	5, 10, 15, 20, 30, 40, 50*, 80, 100*, 120*, 150*, 160*, 200*

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Interface

MAC (Media Access Control) Layer	Cambium Networks proprietary
Physical Layer	2x2 MIMO OFDM
Ethernet Interface	100/1000BaseT, full duplex, rate auto negotiated (802.3 compliant)
Protocols Used	IPv4, IPv6, UDP, TCP/IP, ICMP, Telnet, SNMP, HTTP, FTP
Network Management	IPv4/IPv6 (dual stack), HTTP, HTTPS, Telnet, FTP, SNMPv2c and v3, Cambium Networks cnMaestro
MTU	1700 bytes
VLAN	802.1ad (DVLAN Q-inQ), 802.1Q with 802.1p priority, dynamic port VID

Performance

Subscribers Per Sector	Up to 238	
ARQ	Yes	
Modulation Levels (Adaptive)	MCS	Signal to Noise Required (SNR, in dB)
2x	QPSK	10
3x	8QAM	13
4x	16QAM	17
5x	32QAM	21
6x	64QAM	24
7x	128QAM	28
8x	256QAM	32
Maximum Deployment Range	Up to 40 miles (64 km)	
Latency	3-5 ms, typical	
GPS Synchronization	Yes, via embedded GPS, or Cambium Sync	
Quality of Service	Diffserve QoS	

Antenna

Integrated Sector Peak Gain	17 dBi ± 1 dBi integrated 90/120° sector
3 dB Beamwidth – Azimuth	± 45° (± 60° @ 6dB roll-off)
3 dB Beamwidth – Elevation	5° with null fill
Electrical Downtilt	2°
Polarization	Dual Linear, H+V
Front-to-Back Isolation	> 30 dB
Cross Polarization	15 dB
VSWR	2:1

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Link Budget

Maximum Transmit Power	+28 dBm (MIMO, Combined H+V) for 5 GHz, +20 dBm for 6 GHz (may be limited by regulations)
Maximum EIRP	+45 dBm combined output in 5 GHz, +37 dBm in 6 GHz (may be limited by regulations)
Power Control	ATPC (Automatic Transmit Power Control) at system level, all Subscribers implement ATPC

Physical

Antenna Connection	N/A - Integrated Sector antenna
Surge Suppression	EN 61000-4-5: 10x700 μ s, 6 kV, EN 61000-4-2: ESD 8 kV contact / 15 kV air Recommended external surge suppressor: Cambium Networks Model # C000000L033A
Mean Time Between Failure	> 40 Years
Dust and Water Ingress Protection Rating	IP55
Temperature / Humidity	-40°C to +60°C (-40°F to +140°F), 0-100% condensing
Weight	6.3 kg (13.9 lbs), 9.1 kg (20 lbs) with bracket
Wind Survival	200 kph (124 mph)
Vibration	NEMA TS2 Section 2.1.9 and Section 2.2.3
Shock	NEMA TS2 Section 2.1.10 and Section 2.2.4
External Icing	NEMA 250-2003 Section 5.6
Dimensions (H x W x D)	673 x 222 x 134 mm (26.5 x 8.75 x 5.3 in.)
Power Consumption	45W Typical, 55W Max, Using Aux port PoE for another device will increase power draw
Input Voltage	48-59 VDC, 802.3bt type 4 class 8 (also accepting passive PoE)

Security

Encryption	FIPS-197 128-bit AES, 256-bit AES (Requires Optional License)
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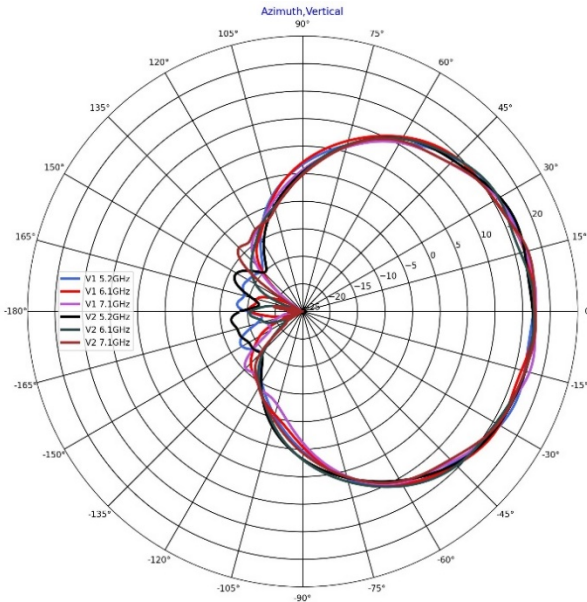
Certifications

ISED Canada	109W-0081
FCC ID	Z8H89FT0081
CE	EN 301 893 V2.1.1 EN 302 502 V2.1.1

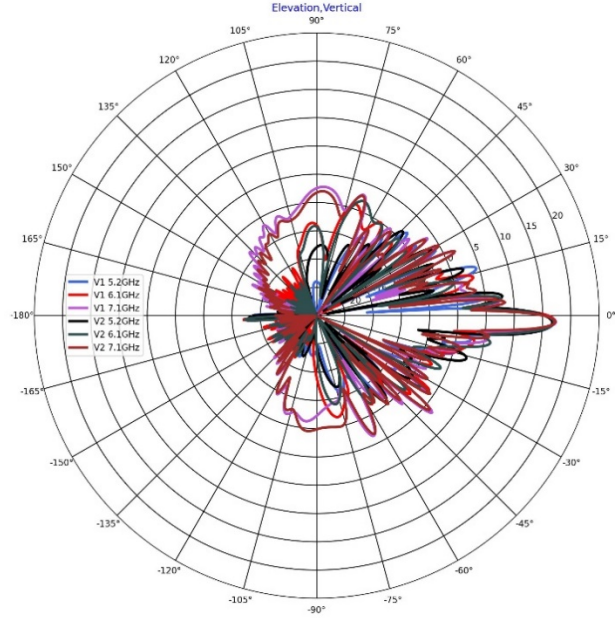
PMP 450v 4x4 Fixed Wireless Access Point

Antenna Pattern

Azimuth



Elevation



ABOUT CAMBIUM NETWORKS

Cambium Networks empowers millions of people with wireless connectivity worldwide. Its wireless portfolio is used by commercial and government network operators as well as broadband service providers to connect people, places and things. With a single network architecture spanning fixed wireless and Wi-Fi, Cambium Networks enables operators to achieve maximum performance with minimal spectrum. End-to-end cloud management transforms networks into dynamic environments that evolve to meet changing needs with minimal physical human intervention. Cambium Networks empowers a growing ecosystem of partners who design and deliver gigabit wireless solutions that just work.