

PMP 450v 4x4 Fixed Wireless Subscriber Module & PTP Backhaul

PMP 450v SM Quick Look

Deliver high performance to business and residential locations. Reduce churn and remain competitive by offering enhanced service plans by providing more bandwidth.

- Operates from 5.15 GHz to 7.125 GHz
- 4x4 subscriber module with carrier aggregation
- Can be deployed as point-to-point (PTP) backhaul link



5 GHz to 7 GHz Support in Same Hardware

Easily stock and maintain a single SKU.

Ultra-Wide-Band Support (Up to 3 x 40 MHz Channels*)

Achieve a total capacity increase with more bandwidth to offer.

Frequency Flexibility

Achieve flexibility in spectrum usage with 5 GHz or 6 GHz frequency bands.

Model Numbers**

		ROW	FCC	ISED	No Encryption
4x4 Radio	Subscriber Module	C060045C401A	C060045C401A	C060045C401A	C060045C401A
	Backhaul	C060045B401A	C060045B402A	C060045B403A	C060045B405A
High-Gain Dish Mechanical Assembly		N060045D401A	N060045D401A	N060045D401A	N060045D401A
GPS Active Antenna	For 6 GHz Operation		N000045L003A	N000045L003A	

Spectrum

Channel Spacing Configurable on 2.5 MHz increments

Frequency Range 5.150 GHz–7.125 GHz

Total Occupied Bandwidth Up to 120 MHz*

*Future release

**Note that model numbers ending in "A" are equivalent in form, fit and function, but were produced in a different factory.

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Interface

MAC (Media Access Control) Layer	Cambium Networks proprietary
Input/Output	Main Ethernet port, SFP port, 3.5mm TRRS port
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

Packets Per Sector	100,000	
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
Ultimate Sensitivity	-94 dBm	
Maximum Deployment Range	Up to 40 mi (64 km), in PMP mode, up to 124 mi (200 km) in PTP mode	
Latency	3–5 ms, typical	
GPS Synchronization	Yes, via embedded GPS	
Quality of Service	Diffserve QoS	

Antenna

Integrated Antenna Peak Gain	22 dBi
3 dB Beamwidth – Azimuth	7°
3 dB Beamwidth – Elevation	7°
Polarization	Dual Linear, H+V
Front-to-Back Isolation	>30 dB (>25 dB at sector edge)
Cross Polarization	15 dB
VSWR	<2

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Link Budget

Maximum Transmit Power	+28 dBm (MIMO, combined H+V) for 5 GHz, +20 dBm for 6 GHz
Maximum EIRP	+50 dBm combined output (may be limited by regulations) for 5 GHz, +44 dBm for 6 GHz
Power Control	ATPC (Automatic Transmit Power Control) at system level, all subscribers implement ATPC

Physical

Antenna Connection	N/A - Integrated dish antenna
Surge Suppression	EN 61000-4-5: 10x700 µs, 6 kV, EN 61000-4-2: ESD 8 kV contact / 15 kV air Recommended external surge suppressor: Cambium Model # C000000L033A
Mean Time Between Failure	>40 Years
Dust and Water Ingress Protection Rating	IP67, IP66
Temperature / Humidity	-40°C to +60°C (-40°F to +140°F), 0%–95% condensing
Weight	4.5 kg (9.9 lb), 6.5 kg (14.3 lb) with bracket
Wind Survival	200 kph (124 mph)
Vibration	IEC60068-2-64:2008 Random Vibration Test ESTN EN 300 019-2-4 V2.3.1
Dimensions (Diameter x Depth)	462 mm diameter x 264 mm depth (18.1 in diameter x 10.4 in depth)
Power Consumption	45W typical, 55W max – Recommended Power Supply, C000000L141A
Input Voltage	48-59 VDC, 802.3bt type 4 class 8 (also accepts passive PoE)

Security

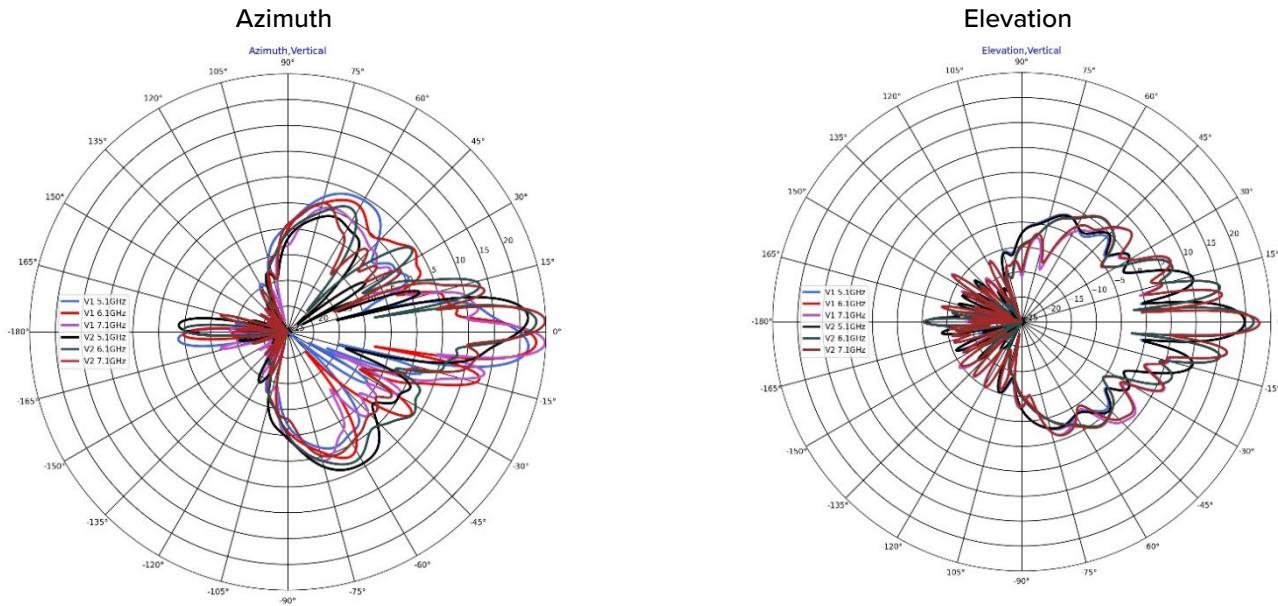
Encryption	FIPS-197 128-bit AES, 256-bit AES (requires optional license)
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Certifications

ISED Canada	109W-0082
FCC ID	Z8H89FT0082
CE	TBD

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Antenna Patterns



ABOUT CAMBIUM NETWORKS

Cambium Networks enables service providers, enterprises, industrial organizations, and governments to deliver exceptional digital experiences and device connectivity with compelling economics. Our ONE Network platform simplifies management of Cambium Networks' wired and wireless broadband and network edge technologies. Our customers can focus more resources on managing their business rather than the network. We make connectivity that just works.