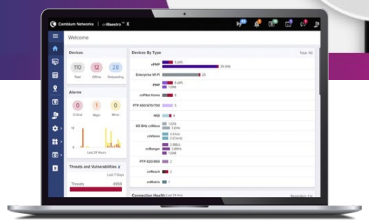
PMP 450v 2x2 Fixed Wireless Subscriber Module & PTP Backhaul

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
- 2x2 MIMO subscriber module
- Can be deployed as point-to-point (PTP) backhaul link*

cnMaestro



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
Integrated 2x2 High-Gain Dish	Subscriber Module	C060045C201A	C060045C201A	C060045C201A	C060045C201A
	Backhaul	C060045B201A*	C060045B202A*	C060045B203A*	C060045B205A*

Spectrum

Channel Spacing	Configurable on 2.5 MHz increments
Frequency Range	5.150 GHz–7.125 GHz
Component Carrier Bandwidths	5, 10, 15, 20, 30, 40
Total Occupied Bandwidth	Up to 120 MHz*

*Future release

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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

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	24 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, separately purchased part number N060045D201A
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	1.2 kg (2.6 lb) radio only, 4.0 kg (8.8 lb) with dish & 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)	469 mm diameter x 364 mm depth (18.5 in diameter x 14.3 in depth)
Power Consumption	25W typical, 35W max – Recommended Power Supply, C000000L141A
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)

Certifications

ISED Canada	109W-0083
FCC ID	Z8H89FT0083
CE	TBD

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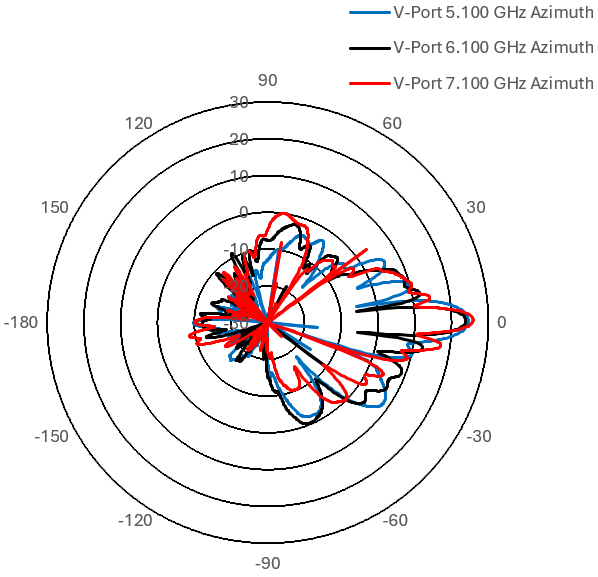
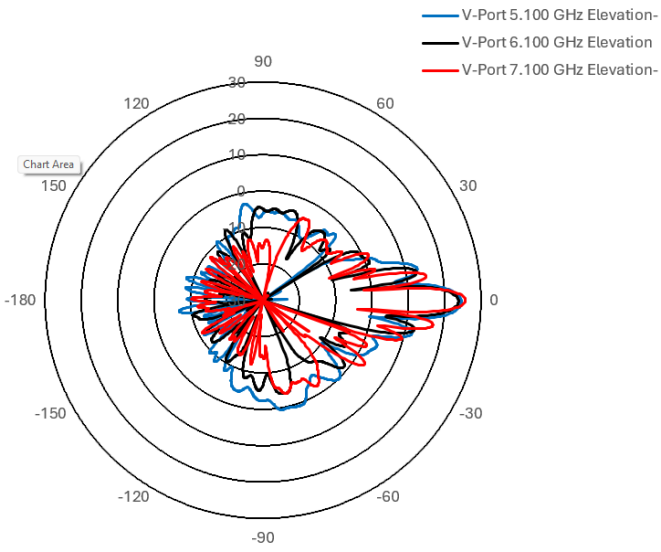
Antenna Patterns

Azimuth



Elevation



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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.

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