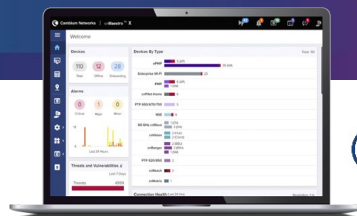# PMP 450b6

## Subscriber and Backhaul

### PMP 450b6 Quick Look

- Low-cost entry point into 6 GHz
- Re-banded PMP 450b radio to support 5.7 GHz to 6.3 GHz
- Capable of up to 300 Mbps aggregate in a 40 MHz channel

cnMaestro

### Key Features

- Gigabit Ethernet interface provides the maximum transfer rates to the device

- Available as a high-gain (24 dBi) integrated dish

- 3.5 mm audio jack allows direct connection of headphones for alignment without any adaptors

- Modified and recalibrated 450b to support nearly all of the newly released UNII-5 spectrum band (up to 6.3 GHz)

- New System on a Chip (SoC) enhances packet processing power more than 4x that of the 450 subscriber module (SM)

# PMP 450b6 Subscriber and Backhaul

| Radio Model Number | |
|---|---|
| **High-Gain** (radio only) | C060045C012A |
| **4-Pack High-Gain Assembly** | N050045D002A |
| | |

| Spectrum | |
|---|---|
| **Channel Spacing** | Configurable on 2.5 MHz increments |
| **Frequency Range** | 5725–6300 MHz |
| **Channel Width** | 5 MHz, 10 MHz, 15 MHz, 20 MHz, 30 MHz, or 40 MHz |

| Interface | |
|---|---|
| **MAC** (Media Access Control) **Layer** | Cambium Networks proprietary |
| **Physical Layer** | 2x2 MIMO OFDM |
| **Ethernet Interface** | 100/1000 BaseT, 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 |

| Security | |
|---|---|
| Encryption | FIPS-197 128-bit AES, 256-bit AES (requires optional license for attached access point) |

| Performance | |
|---|---|
| **PPS** | 50,000 |
| **ARQ** | Yes |

| Modulation Levels (Adaptive) | MCS | Signal-to-Noise Required (SNR in dB) |
|---|---|---|
| 2x | QPSK | 10 |
| 4x | 16QAM | 17 |
| 6x | 64QAM | 24 |
| 8x | 256QAM | 32 |

| | |
|---|---|
| **Ultimate Sensitivity** | -94 dBm |
| **Maximum Deployment Range** | Up to 64 km (40 mi) in point-to-multipoint (PMP) mode, up to 200 km (124 mi) in point-to-point (PTP) mode |
| **Latency** | 3–5 ms, typical |
| **GPS Synchronization** | Yes, synchronized by access point or via 3.5 mm port using cnPulse (for PTP mode) |
| **Quality of Service** | Diffserve QoS |

# PMP 450b6 Subscriber and Backhaul

| Physical | |
|---|---|
| **Antenna Accessories** | Optional radome: N000900L021A |
| **Surge Suppression** | EN 61000-4-5: 10x700 μs, 4 kV, EN 61000-4-2: ESD 30 kV contact / 30 kV air |
| **Mean Time Between Failure** | > 40 Years |
| **Environmental** | IP55, Optional glands to enhance to IP67 (N000000L135A) |
| **Wind Survival** | 200 kph (124 mph) |
| **Temperature / Humidity** | -40°C to 60°C (-40°F to 140°F), 0–100% non-condensing |
| **Weight** | 3.1 kg (7 lb) including mounting bracket |
| **Dimensions (HxWxD)** | Diameter 45 x 28 cm (17.8 in x 11.2 in) |
| **Pole Diameter Range** (w/included mount) | 2.5 cm to 7.6 cm (1 in to 3 in) ± 20 degrees mechanical tilt |
| **Power Consumption** | 9 W typical, 12 W peak |
| **Input Voltage** | 20–32 VDC |

| 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** | >25 dB |
| **Cross Polarization** | 15 dB |

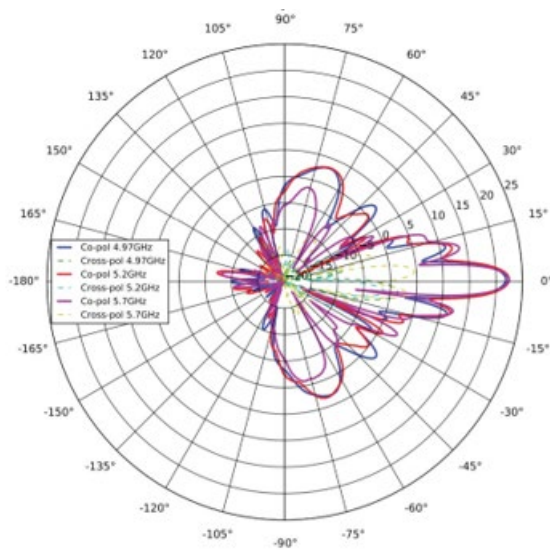| Link Budget | |
|---|---|
| **Transmit Power Range** | 54 dB dynamic range (to EIRP limit by region) (1 dB step) |
| **Maximum Transmit Power** | +27 dBm (MIMO, combined V+H) |
| **Power Control** | ATPC (Automatic Transmit Power Control) at system level; all subscribers implement ATPC |

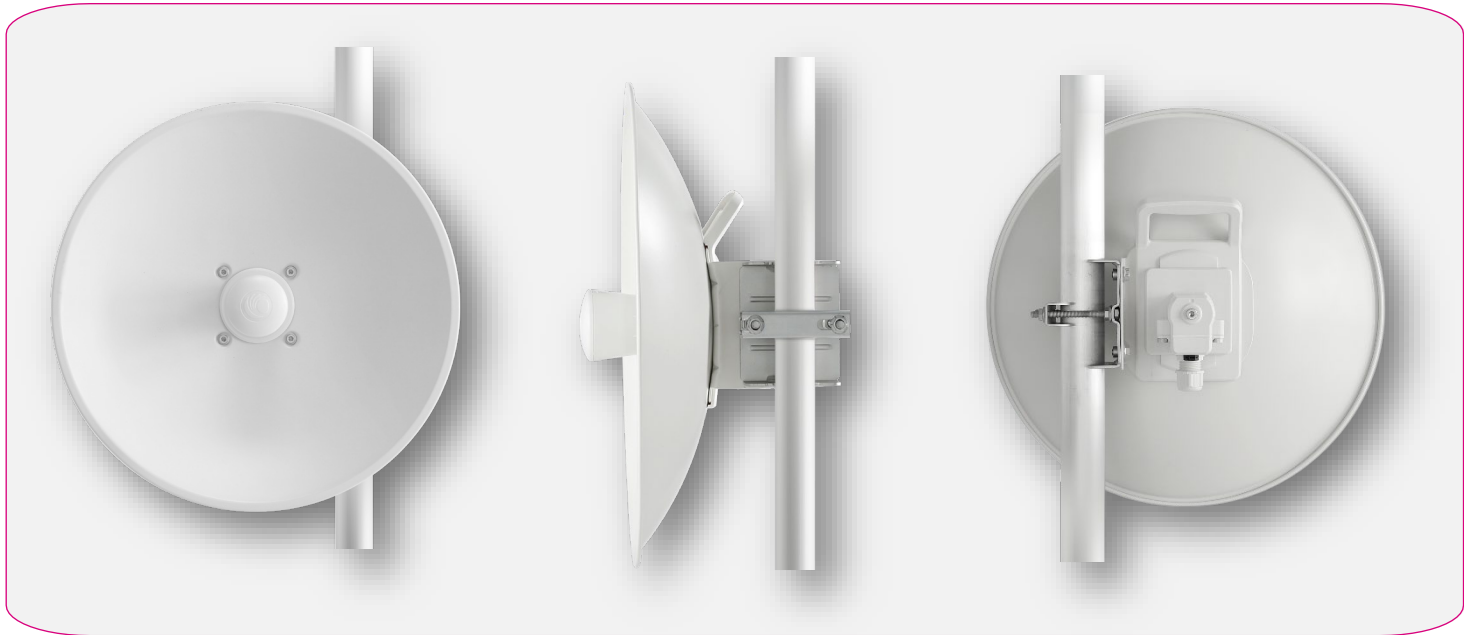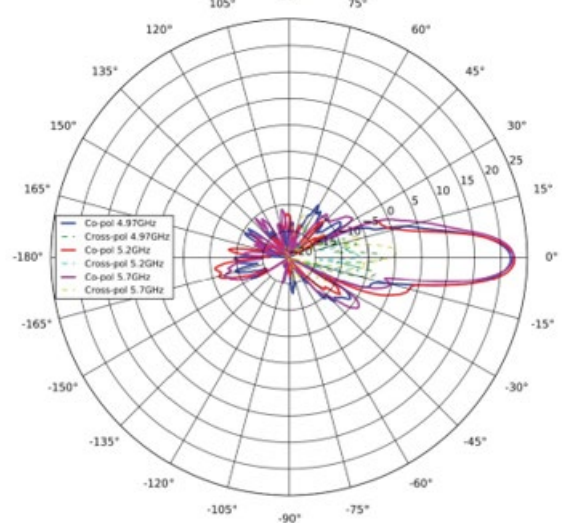| Certifications | |
|---|---|
| **ISED Canada** | 109W-0084 |
| **FCC ID** | Z8H89FT0084 |
| **ETSI** | EN 301 893 v2.1.1 EN 302 502 v2.1.1 |

# PMP 450b6 Subscriber and Backhaul

## Antenna Patterns

### Azimuth, Vertical



### Elevation, Vertical





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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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