

PMP 450i Access Point

Cambium Networks industry-leading 450 platform includes the all new PMP 450i and PTP 450i radios. The 450i product platform is the most scalable industrial-grade wireless broadband solution available.

Key Features:

- **Ultra-wide band** radios support the entire band, whether in 5 GHz or 3 GHz. Advanced radio design improves transmit power and increases receive sensitivity.
- **Rugged metal enclosure** designed to meet IP-66 and IP-67 standards to withstand harsh environments. Optional ATEX/HAZLOC certified models available for hazardous deployments.
- **Dynamic Interference Filtering** to provide industry leading noise isolation for improved performance
- Updated FPGA and SoC architecture **triples the processing power** compared to PMP 450
- **Multifunction AUX port** allows for greater flexibility for deployment by adding a camera or other PoE directly.
- Option with new **Integrated 90 degree sector antenna** optimized for frequency re-use (>35 dB F/B), high gain, null fill and predictable performance.
- Now capable of **up to 300 Mbps per sector** in a 40 MHz channel.



| PRODUCT | | RoW | US | EU | DES only | IC |
|---------------------|-----------------------|--------------|--------------|--------------|--------------|--------------|
| 5 GHz Model Numbers | Connectorized | C050045A001A | C050045A002A | C050045A003A | C050045A004A | C050045A015A |
| | Integrated 90° sector | C050045A005B | C050045A006B | C050045A007B | C050045A008B | C050045A016B |
| 3 GHz Model Numbers | Connectorized | C030045A001A | C030045A001A | C030045A001A | C030045A003A | C030045A001A |
| | Integrated 90° sector | C030045A002A | C030045A002A | C030045A002A | C030045A004A | C030045A002A |

| SPECTRUM | | | |
|-----------------|--|--|---|
| Channel Spacing | Configurable on 2.5 MHz increments, 3 GHz customizable to 50 KHz | | |
| Frequency Range | 3 GHz : 3300 - 3900 MHz | | 5 GHz : 4900 - 5925 MHz |
| Channel Width | 5 MHz, 7 MHz, 10 MHz, 15 MHz, 20 MHz, 30 MHz or 40 MHz | | 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 | 100/1000BaseT, full duplex, rate auto negotiated (802.3 compliant) |
| Protocols Used | IPv4, UDP, TCP, IP, ICMP, Telnet, SNMP, HTTP, FTP |
| Network Management | HTTP, HTTPS, Telnet, FTP, SNMP v3 |
| MTU | 1700 bytes |
| VLAN | 802.1ad (DVLAN Q-inQ), 802.1Q with 802.1p priority, dynamic port VID |

PERFORMANCE

| | | | |
|------------------------------|--------------------------|---------------------------------------|--|
| Subscriber Per Sector | Up to 238 | | |
| 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 | |
| Maximum Deployment Range | Up to 40 miles (64 km) | | |
| Latency | 3 - 5 ms, typical | | |
| GPS Synchronization | Yes, via Autosync (CMM4) | | |
| Quality of Service | Diffserve QoS | | |

LINK BUDGET

| | | | |
|---------------------------|--|--|--|
| Integrated Sector Antenna | 90° Azimuth, 8° Elevation (3dB rolloff), 2° Electrical Downtilt, Dual polarity | | |
| Antenna Gain | 17 dBi ± 1 dBi integrated 90° sector or external | | |
| Transmit Power Range | 40 dB dynamic range (to EIRP limit by region) (1 dB step) | | |
| Maximum Transmit Power | +27 dBm combined output (+25 dBm combined for 3 GHz) | | |

PHYSICAL

5 GHz

3 GHz

| | | | |
|--------------------------------|---|---|--|
| Antenna Connection | 50 ohm, N-Type (Connectorized version only) | | |
| Surge Suppression (LPU fitted) | EN61000-4-5: 1.2us/50us, 500 V voltage waveform Recommended external surge suppressor: Cambium Networks Model # C000000L033A | | |
| Mean Time Between Failure | > 40 Years | | |
| Environmental | IP67, IP66 | | |
| Temperature / Humidity | -40°C to +60°C (-40°F to +140°F), 0-95% non-condensing | | |
| Weight | Connectorized | Approx. 2.0 kg (4.5 lbs) | Approx. 2.0 kg (4.5 lbs) |
| | Integrated | Approx. 6.8 kg (15 lbs) | Approx. 7 kg (15.5 lbs) |
| Wind Survival | Connectorized | 322 km/h (200 mi/h) | 322 km/h (200 mi/h) |
| | Integrated | 322 km/h (200 mi/h) | 322 km/h (200 mi/h) |
| Dimensions (HxWxD) | Connectorized | 26.0 x 13.4 x 6.4 cm (10.3" x 5.3" x 3.3") | 26.0 x 13.4 x 6.4 cm (10.3" x 5.3" x 3.3") |
| | Integrated | 59.5 x 15.7 x 15.5 cm (23.4" x 6.2" x 6.1") | 73.2 x 19.7 x 15 cm (28.8" x 7.8" x 5.9") |
| Power Consumption | 15 W typical, 25 W max, 55 W max with Aux port PoE out enabled | | |
| Input Voltage | 48-59 V DC, 802.3at compatible | | |

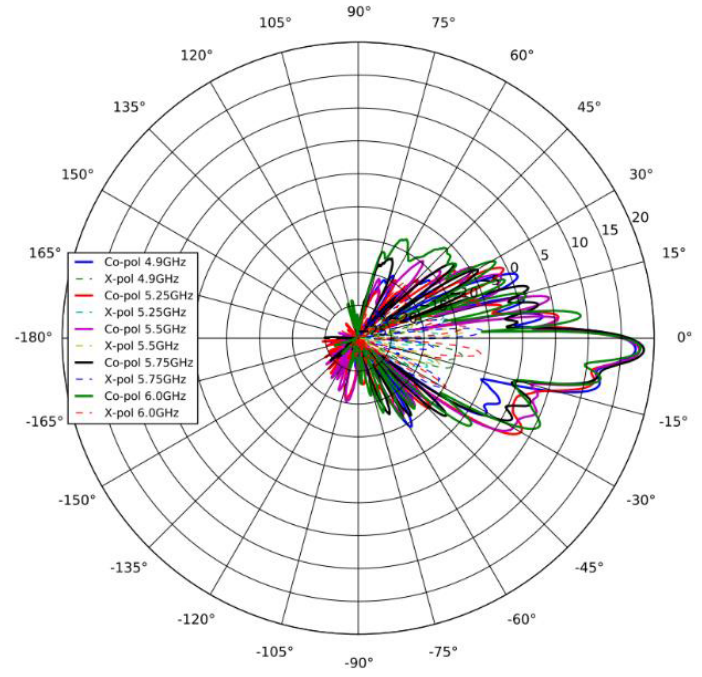
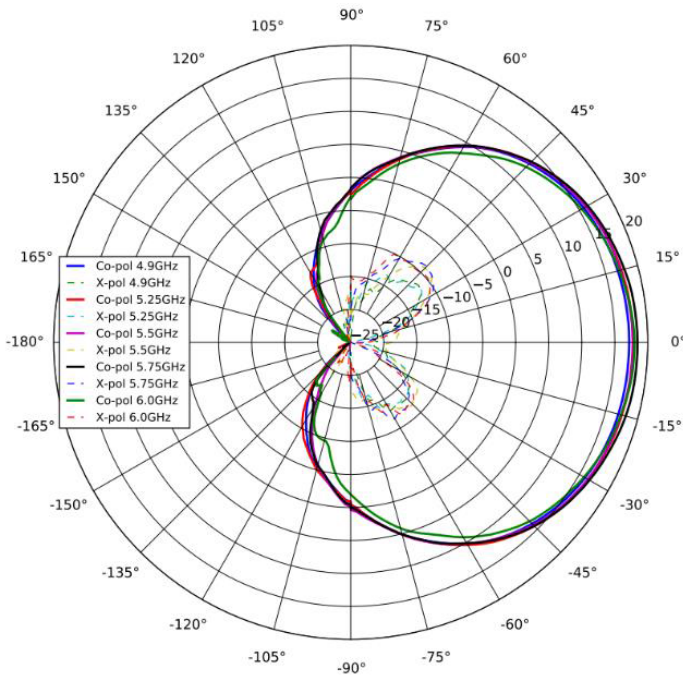
SECURITY

Encryption 56-bit DES, FIPS-197 128-bit AES

CERTIFICATIONS

| | | |
|-----------------|-----------------------------|---|
| Industry Canada | 109W-0028 (3 GHz) | 109A0-50450i (4.9, 5.2, 5.4, 5.8 GHz) |
| FCC ID | Z8H89FT0028 (3 GHz) | QWP-50450i (4.9, 5.1, 5.2, 5.4, 5.8 GHz) |
| CE | EN 302 326-2 v1.2.2 (3 GHz) | EN 301 893 v1.8.1 (5.4 GHz) EN 302 625 v1.1.1 (Broadband Disaster Relief, 4.9 GHz, 5.1 GHz) EN 302 502 v1.2.1 (5.8 GHz) |

5 GHz ANTENNA PATTERN FOR INTEGRATED SECTOR:



3 GHz ANTENNA PATTERN FOR INTEGRATED SECTOR:

