

Cambium C050045A101A PMP 450m Medusa 5 GHz Integrated Access Point (ROW)

SKU: WIF-CB-00113

MPN: C050045A101A

Description

Cambium's release of the PMP 450m Medusa became arguably one of the most significant advances in multipoint wireless of the decade.

Designed as a drop-in replacement of legacy PMP 450 and 450i access points, the PMP 450m provides a serious network capacity increase in a matter of hours.

The 5 GHz PMP 450m uses its cnMedusa Massive MIMO technology (14T14R MU-MIMO) to deliver aggregate capacity of 1.2 Gb/s in a 40 MHz channel. The system provides an unmatched 60 b/Hz spectral efficiency supporting adaptive modulation up to 256QAM.

The system uses beamforming and beamsteering to isolate and track client radios, and establish 14 spatial streams to 7 simultaneous users resulting in exceptional performance in noisy RF environments.

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The Cambium Medusa PMP 450m allows your team to deliver exceptional data rates in highly dynamic environments such as in mining. The unit provides unmatched performance in the 5 GHz band.

With a MTBF of >40 years the unit is rock solid and unwavering throughout its lifecycle, just as engineers have come



Cambium Networks

Cambium Networks enables service providers; enterprises; governmental and military agencies; oil, gas and utility companies; Internet service providers; and public safety organizations to build powerful communications networks, reach users from 200 kilometers across mountain tops down to their devices, and intelligently manage their business Wi-Fi infrastructure through end-to-end network ...

Network Interfaces

Wireless Interfaces

| | | | |
|------------------|----------------------------|--------------------------|---------|
| Topology: | Point-to-Multipoint (P2MP) | Max. Clients: | 238 |
| Max. Throughput: | 1200 Mb/s | Latency: | 10 ms |
| Encryption: | AES-128 | Aggregate Channel Width: | 40 MHz |
| Transmit Power: | 29.7 dBm | Receive Sensitivity: | -94 dBm |
| Agg. Data Rate: | 1200 Mb/s | Agg. Channel Width: | 40 MHz |
| Beamforming: | 2DBF | | |

| Wireless Bands | Path Mode | Start Frequency | Stop Frequency | MIMO | Channel Width | Modulation | Max. Data Rate |
|----------------|-----------|-----------------|----------------|--------------|---------------|------------|----------------|
| 5 GHz | TDD | 5150 MHz | 5925 MHz | Massive MIMO | 40 MHz | 256QAM | 171 Mb/s |

Ethernet Interfaces

| Interface | Quantity | Function | Signalling | PoE Input | PoE Output |
|-------------|----------|---------------------|-----------------------|--------------|--------------|
| RJ45 Copper | 1 | Data & PoE | 100BASE-T, 1000BASE-T | 802.3at PoE+ | |
| RJ45 Copper | 1 | Aux with PoE Output | 100BASE-T, 1000BASE-T | | 802.3at PoE+ |

Antenna Specifications

Beamforming Array

| | | | |
|------------------|----------|------------------|-----------------|
| Start Frequency: | 4940 MHz | Polarisation: | Dual Pol (V, H) |
| Stop Frequency: | 5925 MHz | Input Impedance: | 50 |

Frequency Test Data

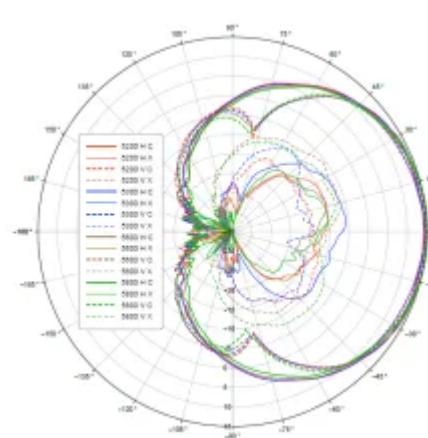
| Start Freq. | Stop Freq. | Peak Gain | Azimuth | Elevation |
|-------------|------------|-----------|---------|-----------|
| 4940 MHz | 5925 MHz | 15.3 dBi | 90° | 8° |

Polar Patterns

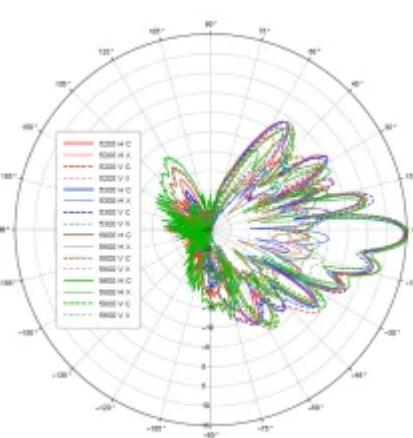
Start Frequency: 5200 MHz

Stop Frequency: 5800 MHz

Azimuth Polar Plot



Elevation Polar Plot



Physical Specification

| | | | |
|-----------------------------|-----------------|----------------------------|--------------------|
| Subtype: | Wireless Bridge | Dimensions: | 110 x 650 x 520 mm |
| Min. Operating Temperature: | -40 °C | Weight: | 14.2 kg |
| Max. Operating Temperature: | 60 °C | Materials: | Aluminium |
| Ingress Protection: | IP67 | Compliance/Certifications: | R-NZ |
| MTBF: | > 350000 h | RCM | |

Power Specifications

| | | | |
|-------------------|---------------------|----------------------|------|
| Max. Consumption: | 80 W | Typical Consumption: | 70 W |
| Power Options: | Power over Ethernet | | |

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