Cambium Networks 450 platform increases performance with the addition of the 450b Subscriber and Backhaul Module.

**KEY FEATURES:**
- Ultra-wide band radios support the entire band, from 3.3 to 3.9 GHz.
- Gigabit Ethernet Interface provides the maximum transfer rates to the device.
- 3.5 mm audio jack allows direct connection of headphones without any adapters.
- CBRS CBSD Category B device
- New System on a Chip (SoC) enhances Packet Processing Power more than 4x that of the 450 SM.
- Capable of up to 300 Mbps aggregate in a 40 MHz channel.
- Backhaul radios can function as a Point-to-Point (PTP) link or as a Subscriber Module (SM), except for Global models.

**SPECIFICATIONS**

<table>
<thead>
<tr>
<th>PRODUCT</th>
<th>HIGH GAIN (20 dBi)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model Numbers</td>
<td>Global C030045B021A</td>
</tr>
<tr>
<td></td>
<td>No Encryption C030045B025A</td>
</tr>
<tr>
<td>4-pack Antenna Assembly</td>
<td>NO30045D001A</td>
</tr>
</tbody>
</table>

**SPECTRUM**
- Channel Spacing: Configurable to 500 KHz increments
- Frequency Range: 3300 - 3900 MHz
- Channel Width: 5 MHz, 7 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, 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-in-Q), 802.1Q with 802.1p priority, dynamic port VID
# SPECIFICATIONS

## SECURITY

**Encryption**
- FIPS-197 128-bit AES, 256-bit AES (optional)

## PERFORMANCE

**PPS**
- 50,000

**ARQ**
- Yes

<table>
<thead>
<tr>
<th>Modulation Levels (Adaptive)</th>
<th>MCS</th>
<th>Signal to Noise Required (SNR, in dB)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2X</td>
<td>QPSK</td>
<td>10</td>
</tr>
<tr>
<td>4X</td>
<td>16-QAM</td>
<td>17</td>
</tr>
<tr>
<td>6X</td>
<td>64-QAM</td>
<td>24</td>
</tr>
<tr>
<td>8X</td>
<td>256-QAM</td>
<td>32</td>
</tr>
</tbody>
</table>

- Ultimate Sensitivity: -94 dBm
- Maximum Deployment Range: Up to 40 miles (64 km)
- Latency: 3 - 5 ms, typical
- GPS Synchronization: Yes, synchronized by Access Point
- Quality of Service: Diffserve QoS

## LINK BUDGET

**Transmit Power Range**
- 22 dB dynamic range (to EIRP limit by region) (1 dB step)

**Maximum Transmit Power**
- +25 dBm (MIMO, combined V+H) (+23 dBm @ 256QAM)

## ANTENNA

**Integrated Antenna Peak Gain**
- 20 dBi

**3 dB Beamwidth - Azimuth**
- 7°

**3 dB Beamwidth - Elevation**
- 7°

**Polarization**
- Dual slant, ± 45

**Front-To-Back Isolation**
- >25 dB

**Cross Polarization**
- 15 dB

## PHYSICAL

**Antenna Accessories**
- Optional Radome: N000900L021A

**Surge Suppression**
- EN 61000-4-5: 10x700us, 4kV
- EN 61000-4-2: ESD 30kV contact / 30kV air

**Mean Time Between Failure**
- > 40 Years

**Environmental**
- IP 55

**Temperature / Humidity**
- -40°C to +60°C (-40°F to +140°F), 0-95% non-condensing

**Weight**
- 3.1 kg (7 lb.) (includes mounting bracket)

**Wind Survival**
- 200 km/hour (124 mi/hour)

**Dimensions (HxWxD) (including mount)**
- 45 cm diameter x 28 cm (17.8” diameter x 11.2”)

**Pole Diameter Range / Mechanical Tilt (w/ included mount)**

**Power Consumption**
- 12 W nominal, 15 W peak

**Input Voltage**
- 20 - 32 V DC

## CERTIFICATIONS

- **Canada (ISED)**: 109W-0053
- **FCC ID**: Z8H89FT0053
- **ETSI**: EN