

# C6 | Non-Line-of-Sight Connectivity

Line-of-Sight, Near-Line-of-Sight and Non-Line-of Sight Operation

## Gigabit PTMP Client with Integrated 16 Element Patch Array Antenna

The Mimosa C6 is a high-performance PTMP client designed for near-line-of-sight (nLOS) and non-line-of-sight (NLOS) deployments. Built to overcome real-world obstacles like trees, buildings, and terrain, it delivers up to 2.5 Gbps with low latency and consistent reliability. With an integrated high-gain antenna and advanced signal processing, the C6 enables operators to connect subscribers in locations previously considered unreachable.



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### Built for NLOS & nLOS Environments

Maintain strong, reliable connections even when line-of-sight is obstructed by trees, buildings, or terrain.

### Integrated High-Gain Antenna

16-element patch array with beamforming simplifies installation while maximizing performance.

### Carrier-Grade, Field-Proven Design

IP67-rated enclosure with cloud-based management for reliable deployment and long-term operation.

### High-Speed Subscriber Connectivity

Up to 2.5 Gbps (at the wireless interface) with low latency, supporting demanding broadband applications.

### Advanced Signal Resilience

Handles reflections, diffractions, and interference to maintain stable connections in challenging conditions.

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## Ideal Applications

### Obstructed Subscriber Locations

Connect homes and businesses blocked by trees, buildings, or terrain where traditional LOS solutions fail.

### Difficult Rural Installations

Deliver broadband in areas with uneven terrain or limited tower placement options.

### Urban & Suburban Deployments

Navigate dense environments with reflections and partial obstructions.

### MDUs & Complex Environments

Reach subscribers in multi-dwelling units or behind structural barriers.

## PERFORMANCE

|                    |                                                      |
|--------------------|------------------------------------------------------|
| Max Throughput     | 2.5 Gbps Aggregate (DL+UL at the Wireless Interface) |
| Wireless Protocols | Wi-Fi Interop; PTMP TDMA                             |
| Modes              | PTMP client                                          |
| Part Number        | 100-60224-03                                         |

## RADIO

|                        |                                                                                  |
|------------------------|----------------------------------------------------------------------------------|
| MIMO & Modulation      | 4 Spatial Streams, 8T8R, PTMP, MU-MIMO client support, BPSK-to-1024QAM with OFDM |
| Bandwidth              | 20/40/80/160 MHz channels, tunable in 5 MHz increments                           |
| Frequency Range        | 5150–7125 MHz (HW/Chip supported and restricted by country of operation)         |
| Max Output Power       | 24 dBm                                                                           |
| Rx Sensitivity (MCS 0) | -90 dBm @ 80 MHz   -93 dBm @ 40 MHz   -96 dBm at 20 MHz                          |

## POWER

|                                   |                                    |
|-----------------------------------|------------------------------------|
| Max Power Consumption             | 20 W                               |
| System Power Method               | 50 V Passive PoE<br>P/N: 502-00022 |
| System Lightning & ESD Protection | 6 KV                               |
| PoE Power Requirements            | Passive, 50 Vdc @700 mA            |

## PHYSICAL

|                           |                                                                                 |
|---------------------------|---------------------------------------------------------------------------------|
| Dimensions                | Height: 215 mm x Width: 275 mm x Depth: 80 mm                                   |
| Weight                    | 1.5 kg                                                                          |
| Enclosure Characteristics | Outdoor UV-stabilized, engineered polymer radome with integrated metal mounting |
| Mounting                  | Mounting bracket with Elevation adjustment; Dual pole strap capable             |
| Grounding                 | Ground lug                                                                      |

## INTEGRATED ANTENNA

|                       |                            |
|-----------------------|----------------------------|
| Gain                  | 14 dBi                     |
| Beamwidth             | 90° Azimuth, 15° Elevation |
| Front-to-Back Ratio   | >30 dB                     |
| Cross Polar Isolation | >20 dB                     |
| Polarization          | Dual-linear slant-45       |

## REGULATORY AND COMPLIANCE

|                 |                                                                         |
|-----------------|-------------------------------------------------------------------------|
| Approvals       | FCC Part 15E; IC RSS210; CE (RED, EMCD,LVD, RoHS); ETSI 301 893/3020502 |
| RoHS Compliance | Yes                                                                     |
| Safety          | EN 62638-1                                                              |

**ENVIRONMENTAL**

|                                   |                                 |
|-----------------------------------|---------------------------------|
| Outdoor Ingress Protection Rating | IP67                            |
| Operating Temperature             | -40°C to +55°C (-40°F to 131°F) |
| Operating Humidity                | 5-100% Condensing               |
| Operating Altitude                | 4,420 m (14,500') maximum       |
| Shock and Vibration               | ETS 300-0192-4 class 4M5        |

**FEATURES**

|                             |                                                                                                                                                                      |
|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Gigabit Ethernet            | 10/100/1000-BASE-T Copper PoE                                                                                                                                        |
| Smart Spectrum Management   | Active scanning monitors/logs ongoing RF interference across all channels (no service impact) Dynamic auto-optimization / selection of channel and bandwidth and MCS |
| Security                    | WPA3; AES256; RADIUS; 802.1x authorization                                                                                                                           |
| VLAN                        | Q-in-Q; double tagging, management VLAN, PTMP per client VLAN                                                                                                        |
| Management Services         | Mimosa Cloud, MMP; SNMPv2/v3 & Syslog legacy monitoring; HTTPS; HTML 5 based Web UI                                                                                  |
| QoS                         | 4 classes of QoS, with user configurable priority queuing, weighted fair queuing, MIR, CIR, and rate limiting                                                        |
| GNSS:                       | GNSS-1 (GPS + GLONASS)                                                                                                                                               |
| Collocation Synchronization | 1PPS GPS TX/RX synchronization for collocated co-channel radios; Adjustable up/downstream bandwidth ratio                                                            |

Mimosa Networks, a division of Radisys, is the global technology leader in wireless broadband solutions, enabling service providers to connect dense urban and hard-to-reach rural homes at a fraction of the cost of fiber. Mimosa Networks was acquired in 2023 by Radisys, the global leader in open telecom solutions.