

# 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	5150–6425 MHz (restricted by country, mode or frequency 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 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
RF Connector Type	Mimosa N5-X twist-on
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 15.407; 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 & Sysloglegacy 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; Adjust- able 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.