C6 | Gigabit PTMP Client Radio

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

Gigabit PTMP Client with Integrated 4x4 Patch Array Antenna

The C6 is Mimosa's latest Point-to-Multipoint (PTMP) client radio, designed to tackle challenging connectivity scenarios. Equipped with a powerful 4x4 patch array integrated antenna supporting beamforming, the C6 supports four spatial streams and 8T8R chains in near-line-of-sight(nLOS) and non-line-of-sight (NLOS) scenarios. Ideal for deployments where standard line-of-sight (LOS) is obstructed by terrain or other obstacles, the C6 ensures reliable and high-performance connectivity. Leveraging the latest OFDM/OFDMA technology with support for the expanded 6 GHz spectrum, the C6 achieves ultra-low latency with speeds up to 2.5 Gbps, all the while incorporating advanced noise mitigation features for enhanced signal reliability.

INTEGRATED 4X4 ANTENNA RADIO

Mimosa's C6 radio brings ease of installation and simplicity with an integrated patch array antenna radio, supporting Near and Non-LOS deployments.

CARRIER GRADE

The C6's rugged IP67 design withstands harsh conditions, while carrier-grade management via Mimosa Cloud and MMP allows operators to easily deploy, manage and monitor their networks. With advanced noise-fighting features and support for the low-noise 6 GHz band, the C6 ensures reliable connectivity.

INCREDIBLE SPEED AND PTMP SCALE

In PTMP setups, the C6 pairs with the A6 access point's multi-user OFDM / OFDMA scheduling and beamforming to enable large-scale subscriber growth, advanced noise management, and access to the 6 GHz band.

NON-LINE OF SIGHT SUPPORT

LOS, Near-LoS (nLOS), and Non-LOS (NLOS) connectivity powered by:

- Integrated 4x4 patch array antenna supporting beamforming with interference suppression
- Beamforming at both the C6 (client) and A6 (AP) to mitigate Fresnel Zone obstructions
- Multipath processing of reflections and diffractions in NLOS scenarios
- AI-driven interference management (ACS) across space, time, frequency, and power domains

• 6 GHz availability varies by country regulations.

• Automatic Frequency Coordination (AFC) database support via firmware update, once formally approved by the FCC.

PERFORMANCE

Max Throughput:	2.5 Gbps Aggregate (DL+UL at the Wireless Interface)
Wireless Protocols:	Wi-Fi Interop; PTMP TDMA (future release)
Modes:	PTMP Client 2.5 Gbps

RADIO

MIMO & Modulation:	4 Spatial Streams, 8T8R, PTMP, MU-MIMO client support, BPSK-to-1024QAM with OFDM / OFDMA (future release)
Bandwidth:	20/40/80/160 MHz channels, tunable in 5 MHz increments
Frequency Range:	5150–6425 MHz (restricted by country of operation)
Max Output Power:	24 dBm

POWER

Max Power Consumption:	35 W
System Power Method:	50V PoE
System Lightning & ESD Protection:	6 KV
PoE Power Requirements:	Passive, 50 Vdc @ 700 mA

INTEGRATED ANTENNA

Gain:	14 dBi* *up to 20 dBi with software beamforming
Beamwidth:	90° Azimuth, 15° Elevation
Front-to-Back Ratio:	>30 dB
Cross-Polar Isolation:	>20 dB
Polarization:	Dual-linear XPIC

PHYSICAL

Dimensions:	215 mm (Height) x 275 mm (Width) x 80 mm (Depth)
Weight:	2.5 kg
Enclosure Characteristics:	Outdoor UV-stabilized, engineered polymer radome with integrated metal mounting
Mounting:	Dual pole strap capable
Grounding:	Ground lug

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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 300-019 2-4 class 4M5

REGULATORY AND COMPLIANCE [PENDING]

Approvals (Pending):	FCC Part 15.407; IC RSS210; CE (RED, EMCD, LVD, RoHS); ETSI 301 893/3020502
RoHS Compliance:	Yes
Safety(Pending):	EN 62638-1

FEATURES

Gigabit Ethernet:	100/100/1000-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:	AES; RADIUS; 802.1x authorization
VLAN:	Q-in-Q; double tagging, management VLAN, PTMP per client VLAN

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.

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