

# C6x | Advanced Flexibility, Exceptional Speed, Incredible Value

Unlicensed 6 GHz Radio with Modular Antennas for PTP and PTMP

The C6x radio delivers exceptional power and flexibility, featuring the modular N5-X family of directional antennas with five twist-on options (12, 16, 20, 25, and 30 dBi) to support a variety of deployment scenarios. With high-performance connectivity reaching speeds up to 2.0 Gbps in Point-to-Point (PTP) mode and 1.75 Gbps in Point-to-Multipoint (PTMP) mode, the C6x is built to meet the demands of modern networks. Advanced interference reduction technology ensures consistent performance, even in congested environments, while seamless integration with existing networks makes the C6x an ideal solution for versatile and challenging deployments.



5.15 – 6.425 GHz



1.75 Gbps PTMP



IP67



2.0 Gbps PTP

## INTEGRATED RADIO WITH MODULAR ANTENNAS

The C6x radio features a native 8 dBi gain antenna, which can be enhanced with Mimosa's modular twist-on N5-X antennas, offering 12, 16, 20, 25, and 30 dBi options. This innovative design combines the simplicity of an integrated radio with the flexibility to adapt to various deployment needs, delivering unlicensed point-to-point (up to 2.0 Gbps) and point-to-multipoint (up to 1.75 Gbps) connectivity.



From left to right: N5-X16, N5-X12, N5-X25, N5-X20, N5-X30

## INCREDIBLE SPEED AND PTMP SCALE

Previous OFDM technologies limited the scale of client deployments and the ability to deploy in dense, noisy areas. In PTMP client deployments, the C6x pairs together with new multi-user OFDMA scheduling and beamforming technologies on the A6 access point to enable subscriber scaling, advanced noise management, and access to the low-noise 6 GHz band.

## NOISE JUST MET ITS MATCH

The link reliability of the C6x starts with the high isolation design of the N5-X antennas—but there's so much more that's new. Leveraging OFDMA modulation, the C6x reduces in-band noise impact across the operating channel with dramatically smaller 2 MHz resource units (RU) sizes instead of legacy OFDM solutions, where any noise impacted the full channel.

## CARRIER GRADE

The C6x features a robust IP67-rated design that withstands harsh conditions. Built for carrier-grade performance, the C6x delivers advanced management via Mimosa Cloud and MMP for efficient network deployment, monitoring, and optimization. Cutting-edge RF noise-fighting and ensures dependable connectivity and ongoing software enhancements.

PERFORMANCE

Max Throughput:	PTP: 2.0 Gbps IP aggregate PTMP: 1.75 Gbps IP aggregate UL/DL (2402 Mbps PHY)
Wireless Protocols:	WiFi Interop; Auto-TDD (future release); PTMP TDMA (future release)
Modes:	PTP backhaul, PTMP client

RADIO

MIMO & Modulation:	2x2, PTMP MU-MIMO, OFDMA (future release), BPSK-1024QAM
Bandwidth:	20/40/80/160 MHz channels, tunable to 5 MHz increments
Frequency Range:	5150–6425 MHz (restricted by country of operation)
Max Output Power:	27 dBm
Rx Sensitivity (MCS 0):	-87 dBm @ 160 MHz   -90 dBm @ 80 MHz   -93 dBm @ 40 MHz   -96 dBm at 20 MHz

POWER

Max Power Consumption:	20 W
System Power Method:	Passive PoE
PoE Power Supply:	Compliant, 24 V (PoE injector not included)

PHYSICAL

Dimensions:	Height: 178mm (5")   Width: 113mm (4.5")   Depth: 67mm (2.6")
Weight:	0.7 kg (1.54 lbs)
RF Connector Type:	Mimosa N5-X twist-on
Enclosure Characteristics:	Die-cast aluminum, UV stabilized paint, with outdoor UV stable plastic radome lens
Mounting:	Dual-pole strap capable
Grounding:	Ground lug

## ENVIRONMENTAL

Outdoor Ingress Protection Rating:	IP67
Operating Temperature:	-40° C to + 55° C
Operating Humidity:	5 to 100% Condensing
Operating Altitude:	4,420 m (14,500') maximum
Shock and Vibration:	ETS 300-019-2-4 calss 4M5

## REGULATORY AND COMPLIANCE

Approvals:	FCC Part 15.407; IC RSS210; CE (RED, EMCD, VLD, RoHS); ETSI 301 893/302 502
RoHS Compliance:	Yes
Safety:	EN 62638-1

## FEATURES

Gigabit Ethernet:	10/100/1000-BASE-T
Management Services:	MMP support; SNMPv2c/v3; Syslog; HTTPS; HTML 5 based Web GUI; IPv4 and IPv6
Smart Spectrum Management:	Active scan monitors/logs ongoing RF interference across all channels (no service impact); Dynamic auto-optimization of channel and bandwidth use
Security:	AES; RADIUS; 802.1x authorization (future release)
QoS:	WiFi Interop Mode WMM; SRS mode supports 4 user configurable QoS levels supporting both CBW-FQ and PQ (future release)
VLAN:	Q-in-Q (future release), double tagging, management VLAN, PTMP per client VLAN
Part Number:	100-00111
Compatible PoE:	502-00030 PoE Injector 24V 30W SOLD SEPARATELY

Mimosa Networks, a wholly owned subsidiary 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. DS-2025-02-C6x.