B6x | High-Capacity Links, Built for Real-World Networks

Unlicensed Point-to-Point Backhaul Radio

The Mimosa B6x is a high-performance unlicensed backhaul solution engineered for short- to medium-range links in the 5.15–6.425 GHz spectrum. Designed for flexibility and scale, its modular architecture supports N5-X twist-on antennas, enabling adaptable deployments across a wide range of environments. With up to 3.0 Gbps throughput, low latency, and advanced interference mitigation, the B6x delivers consistent performance where reliable connectivity matters most.

Multi-Gigabit Backhaul Performance

Up to 3.0 Gbps (IP) throughput with 320 MHz aggregate channel capacity, enabling high-capacity links for modern broadband demands.

GPS Sync for Scalable Networks

GPS-enabled Tx/Tx synchronization allows co-location of multiple radios, improving spectral efficiency and enabling cleaner frequency reuse as networks grow.

Flexible, Modular Deployment

Compatible with Mimosa N5-X twist-on antennas (12–30 dBi), allowing operators to tailor link performance based on distance and environment.

Simplified Network Visibility

Monitor link performance in real time through the Mimosa Management Platform, making it easy to identify issues and optimize network health.

Ideal Applications

Tower-to-Tower Backhaul

Extend network reach with high-capacity links between aggregation points.

Hybrid Fiber + Wireless Networks

Complement fiber deployments with flexible wireless links to accelerate rollout and reduce infrastructure costs.

Last-Mile Relay Links

Bridge gaps where fiber is impractical due to cost, terrain, or permitting challenges.

Rapid Deployment Scenarios

Quickly establish connectivity in underserved or hard-to-reach areas without waiting for trenching or permits.

Learn more at: mimosa.co/products/b6x

PERFORMANCE

Max Throughput:	Up to 3.0 Gbps IP aggregate UL/DL (3.4 Gbps PHY)
Wireless Protocols:	TDMA, TDMA-FD (future release), Auto-TDD
Low Latency:	<1 ms in Auto Mode (future release)

RADIO

Modulation:	4x4 MU-MIMO; OFDMA (future release) 1024QAM
Bandwidth:	Single or dual 160 MHz channels, 320 MHz aggregate channel capacity
Frequency Range:	5150–6425[1] MHz (restricted by country of operation)
Max Output Power:	24 dBm
Rx Sensitivity (MCS 0):	-84 dBm @ 160 MHz | -87 dBm @ 80 MHz | 91 dBm @ 40 MHz | -94 dBm @ 20 MHz

POWER

Max Power Consumption:	30 W
System Power Method:	PoE Port, or via the separate DC port
System Lightning & ESD Protection:	6 kV
PoE Power Supply:	Passive POE compliant, 48-56 V (PoE injector not included)

PHYSICAL

Dimensions:	Height: 290mm (11.4”) | Width: 167mm (6.6”) | Depth: 89mm (3.5”)
Weight:	1.7 kg (3.7 lbs)
RF Connector Type:	Mimosa N5-X twist-on
Enclosure Characteristics:	Die-cast aluminum
Mounting:	Requires two standard pole straps for mounting to 30 mm (1.2”) to 90mm Bracket with + - 20 degrees elevation adjustment is needed unless an L-Bracket is used. There is zero elevation adjustment.

ENVIRONMENTAL

Outdoor Ingress Protection Rating:	IP67
Operating Temperature:	-40°C to +55°C (-40°F to 131°F)
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
RoHS Compliance:	Yes
Safety:	(Pending)

FEATURES

Dual SFP+:	10 Gbps Fiber via SFP+ cage. Single or multi-mode compatibility. (SFP insert modules not included)
Gigabit Ethernet:	10/100/1000 BASE-T
Dual Link Operation:	Dual 2x2 radios operating with independent asymmetric channel and link auto-adaption for each radio channel pair; Automatic load balancing of traffic across 2 non-contiguous channels (4 total MIMO streams)
Management Services:	Mimosa Cloud, MMP; SNMPv2 & Syslog legacy monitoring; HTTPS; HTML 5 based Web UI
Smart Spectrum Management:	Active scan monitors/logs ongoing RF interference across channels (no service impact); Dynamic auto-optimization of channel and bandwidth use
Security:	128-bit AES PSK with hardware acceleration
QoS:	4 classes of QoS, with user configurable priority queuing, weighted fair queuing, MIR, CIR, and rate limiting
GPS Location:	GNSS-1 (GPS + GLONASS)
Collocation Synchronization:	1PPS GPS TX/RX synchronization for collocated co-channel radios; Adjust-able up/downstream bandwidth ratio
Part Number:	100-00116

1. 6 GHz operation subject to country regulations; not yet available in the U.S.

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- 2026-04-B6x.