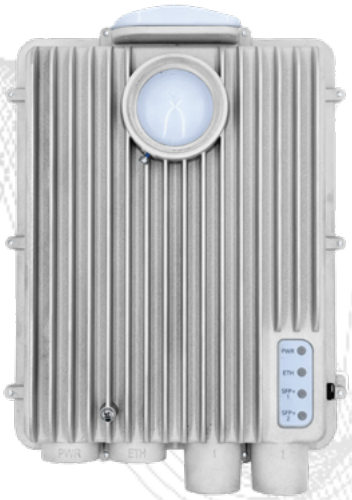
Datasheet | B6x

B6x | Reliable, Resilient, and Cost-Effective



Unlicensed Point-to-Point Backhaul Radio

The Mimosa B6x is a high-performance unlicensed backhaul solution, ideal for short- to medium-range relay and tower links in the 5.15-6.425 GHz spectrum. Its modular design supports N5-X compatible twist-on antennas (dish not included), offering deployment flexibility. Leveraging advanced wireless technology and access to the 6 GHz band, the B6x delivers low latency, speeds up to 3.0 Gbps, and enhanced reliability with innovative noise-mitigation features.

5.15 – 6.425 GHz

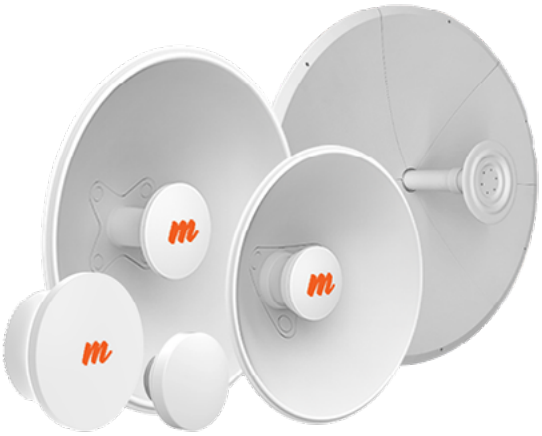
3.0 Gbps

IP67

4x4 MIMO

FAST AND FLEXIBLE:

Mimosa's B6x radio delivers up to 3.0 Gbps (IP) throughput when paired with Mimosa's modular N5-X twist-on antennas, providing 12, 16, 20, 25, and 30 dBi gain options for adaptable deployment configurations. Featuring 320 MHz aggregate channel capacity and GPS Sync mode, the B6x ensures optimal spectral efficiency and reliable backhaul performance, even in high-interference environments.



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

MONITOR WITH EASE:

Assessing link health and identifying potential problems has never been easier. Links are instantly monitored from Mimosa Management Platform.

GPS SYNC FOR RAPID EXPANSION:

GPS-enabled, Tx/Tx time-slot synchronization allows two or more Mimosa radios to be co-located.

ULTRA RUGGED, CARRIER-GRADE DESIGN:

Built for durability and efficiency, the B6x features a carrier-grade IP67-rated enclosure, ensuring reliable operation in extreme weather conditions. Engineered for high-performance backhaul, its robust design enhances network longevity and efficiency, making it an ideal solution for demanding outdoor deployments.

Need more information?
Get in touch with the Mimosa sales team
by visiting https://mimosa.co/contact-us

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:	27 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.

mimosa

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 class 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; Adjustable 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-2025-02-B6x.