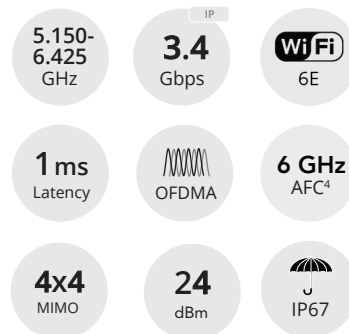
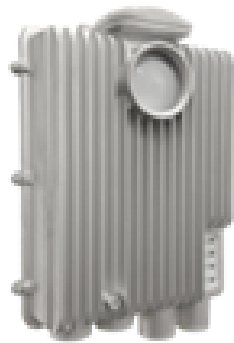


# High Capacity, Extreme Speed, and Super Value

## B6x Point-to-Point (PTP) Backhaul Radio 5.15–6.4 GHz



The Mimosa B6x is one of the industry's fastest unlicensed backhaul solutions. It's ideal for short to medium range relay and tower links, custom-engineered collocation, and unlicensed 5.15-6.4 GHz spectrum. It's modular, with the ability to connect N5-X compatible twist on antennas (dish—not included). With the latest in Wi-Fi 6E OFDMA technologies, and access to new 6 GHz bands<sup>1</sup>, the B6x achieves extremely low latency speeds of up to 3.4 Gbps and high reliability with new noise fighting features.

### Fast and Flexible

As one of the highest capacity, unlicensed PTP solutions in the industry, it delivers up to 3.4 Gbps (IP). 160 MHz of aggregate channel capacity and GPS Sync mode provide flexibility for performance.

### Quadruple Reliability

Unlicensed spectrum interference via custom-engineered multi-channel and auto-everything technology—as good as two smart links in one radio.

### Extended Frequency

Rise above the noise with extended frequency support from 5.15–6.4 GHz.

### Ultra Rugged

Carrier-grade IP67 design allows the B6x to withstand the harshest of environmental conditions.

### Easily Add New Links

The B6x is spectrum friendly. Unique, high-precision GPS Sync technology reuses the same channel network wide. Keep adding more capacity to more sites and waste less spectrum.

### Monitor With Ease

Assessing link health and identifying potential problems has never been easier. Links are instantly monitored from the Mimosa management platform.

## Technical Specifications

### Performance

- **Max Throughput:**  
Up to 3.4 Gbps IP aggregate UL/DL (4.3 Gbps PHY)
- **Wireless Protocols:**  
TDMA, TDMA-FD, Auto-TDD
- **Low Latency:**  
<1 ms in auto mode

### Radio

- **Modulation:**  
4x4 MU-MIMO; OFDMA 1024QAM
- **Bandwidth:**  
Single or dual 160 MHz channels, 320 MHz aggregate channel capacity
- **Frequency Range:** 5150–6425 MHz  
Restricted by country of operation
- **Max Output Power:** 24 dBm
- **Sensitivity (MCS 0):**
  - @ 1024 QAM -47 dBm
  - @ 160 MHz -50 dBm
  - @ 80 MHz -53 dBm
  - @ 40 MHz -56 dBm

### Power

- **Max Power Consumption:** 30 W
- **System Power Method:** Outdoor 48 VDC passive isolated PoE injector
- **System Lightning & ESD Protection:** 6 kV
- **PoE Power Supply:**  
Passive POE compliant, 48–56 V (PoE injector not included)

### Physical

- **Dimensions:**  
Height: 290 mm (11.4")  
Width: 167mm (6.6")  
Depth: 89mm (3.5")
- **Weight:** 1.7 kg (3.7 lbs)
- **RF Connector Type:** N5-X twist-on
- **Enclosure Characteristics:**  
Die-cast aluminum
- **Mounting:** Mounting bracket with +20° elevation adjustment; Requires 2 standard pole straps for mounting to 30 mm (1.18") to 90 mm (3.54") OD pipes

### 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:**  
(Pending - target Q1 2024)
- **RoHS Compliance:** Yes
- **Safety:** (Pending - target Q1 2024)

### Features

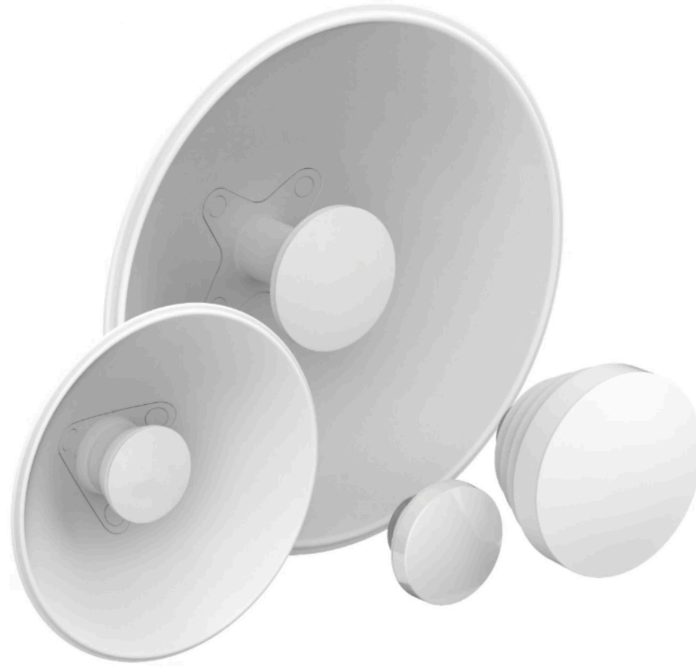
- **SFP+:** 10 Gbps Fiber via SFP+ cage (module not included)
- **Gigabit Ethernet:** 10/100/1000 BASE-T
- **Dual Link Operation:**  
Dual 2x2 radios operating with independent asymmetric channel and link auto-adaptation for each radio channel pair; Automatic load balancing of traffic across 2 non-contiguous 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



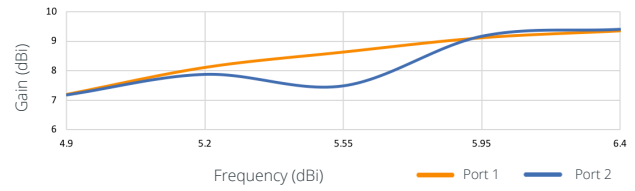
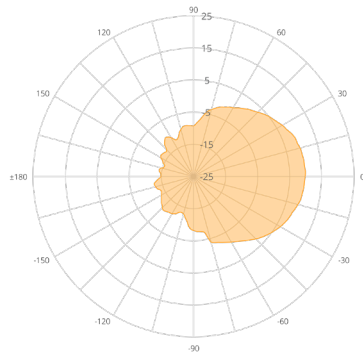
### N5-X Modular Antenna Options for the B6x

					
<b>Product</b>	B6x (Without antenna)	N5-X12 (horn)	N5-X16 (horn)	N5-X20 (dish)	N5-X25 (dish)
<b>Part Number</b>	100-00116	100-00086	100-00087	100-00088 - 2PK 100-00090 - 8PK	100-00091 - 8PK
<b>Gain</b>	8 dBi Native	12 dBi	16 dBi	20 dBi	25 dBi
<b>Polarization</b>	Dual-slant 45°	Dual-slant 45°	Dual-slant 45°	Dual-slant 45°	Dual-slant 45°
<b>Beamwidth, Symmetric (3 dB)</b>	58°	38°	22°	12°	8°
<b>Front-to-Back Ratio (min)</b>	21 dB	29 dB	50 dB	35 dB	40 dB
<b>Front-to-Side Ratio (min)</b>	21 dB	27 dB	43 dB	37 dB	> 45 d
<b>Weight</b>		0.16 kg (0.35 lbs)	0.61 kg (1.35 lbs)	0.77 kg (1.70 lbs)	0.98 kg (2.15 lbs)
<b>Dimensions</b>		Diameter: 76 mm (2.99") Depth: 67 mm (2.63")	Diameter: 160 mm (6.29") Depth: 116 mm (4.57")	Diameter: 270 mm (10.63") Depth: 83 mm (3.27")	Diameter: 429 mm (16.89") Depth: 116 mm (4.57")
<b>Mount</b>		Mimosa N5-X twist-on	Mimosa N5-X twist-on	Mimosa N5-X twist-on	Mimosa N5-X twist-on
<b>Wind Survivability</b>		200 km/h (125 mph)	200 km/h (125 mph)	200 km/h (125 mph)	200 km/h (125 mph)
<b>Wind Loading</b>		3.27 kg @ 160 km/h (7.20 lbs @ 100 mph)	5.13 kg @ 160 km/h (11.30 lbs @ 100 mph)	14.55 @ 160 km/h (32.07 lbs @ 100 mph)	36.26 kg @ 160 km/h (79.95 lbs @ 100 mph)

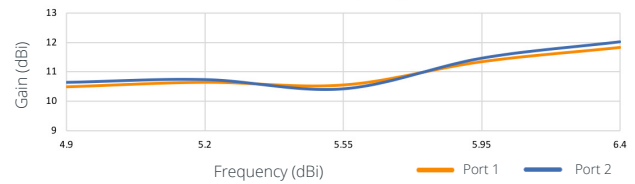
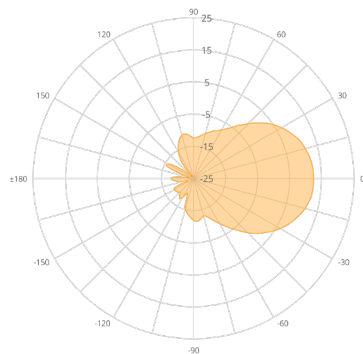
## Polar Plots and Gain Across Frequencies



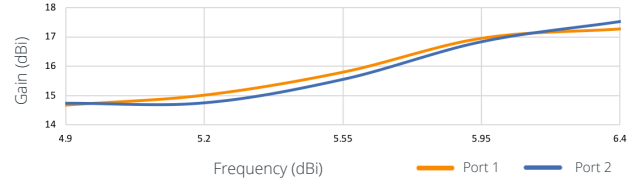
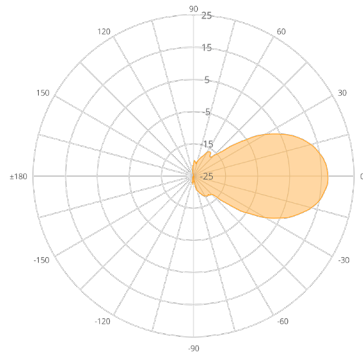
Native,  
Built-In (8 dBi)



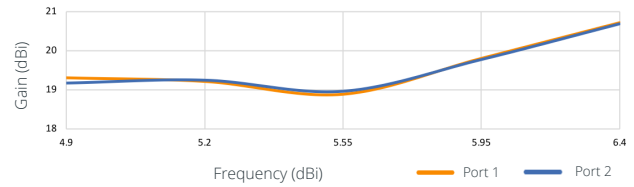
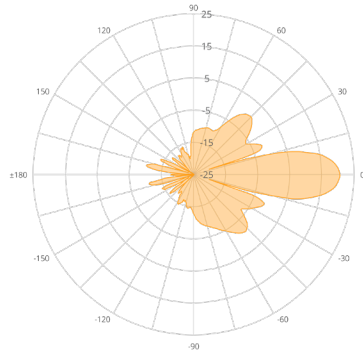
N5-X12 (12 dBi)



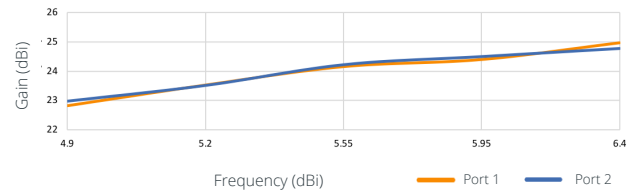
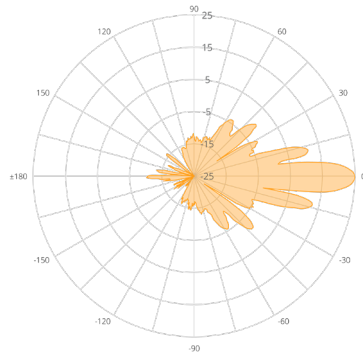
N5-X16 (16 dBi)



N5-X20 (20 dBi)



N5-X25 (25 dBi)



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.