mimosa by Airspan

Datasheet

Gigabit Backhaul Made Easy

B5 Point-to-Point Backhaul Radio

5.15–5.87 GHz

The Mimosa B5 backhaul radio is, hands down, the easiest to use and highest capacity unlicensed 5 GHz backhaul solution for short and mid-range link applications. It's ideal for collocation applications, relay sites, and building-to-building settings.

Incredibly Fast and Flexible

Recognized as the fastest unlicensed backhaul in the industry. Extensive bandwidth control options, low latency, reserved bandwidth, and GPS sync mode mean peak performance.

Monitor with Ease

Assessing link health and identifying potential problems has never been easier. Links are instantly monitored by our Mimosa Cloud service with rich data collection and analysis.

Ultra Rugged

Carrier-grade IP67 design allows the B5 to withstand the harshest of environmental conditions.

Just Mount and Go

The integrated, high-gain antenna and super easy quick mount lets you install in minutes.

Easily Add New Links

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.

Double Reliability

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

Technical Specifications

Performance

- **Max Throughput:** Up to 1.5 Gbps IP aggregate UL/DL (1.7 Gbps PHY)
- **Low Latency:** <1 ms in Auto Mode
- **Wireless Protocols:** TDMA, TDMA-FD, Auto-TDMA

Radio

- **MIMO & Modulation:** 4x4:4 MIMO OFDM up to 256QAM
- **Bandwidth:** Single or Dual 20/40/80 MHz channels
- **Frequency Range:** 5150–5875 MHz restricted by country of operation (*new* US/FCC 5600–5650 support)
- **Max Output Power:** 30 dBm (2-stream), 27 dBm (4-stream)
- **Sensitivity (MCS 0):**
  -87 dBm @ 80 MHz
  -90 dBm @ 40 MHz
  -93 dBm @ 20 MHz

Antenna

- **Gain:** 25 dBi
- **Beamwidth (3dB):** 8° (HPOL and VPOL)
- **Elevation Adjust:** ±20° mechanical adjust
- **Front-to-Back Ratio:** >30 dB
- **Cross-Polar Isolation:** >20 dB
- **Polarization:** Dual-linear (horizontal & vertical)

Power

- **Max Power Consumption:** 20 W
- **System Power Method:** 48 V DC 802.3 at compliant power injectors
- **System Lightning & ESD Protection:** 6 kV
- **PoE Power Supply:** Passive POE compliant, 48-56 V Power over Ethernet supply with IEC61000-4-5 surge protection

Physical

- **Dimensions:** Diameter - 442 mm (17.4"); Depth - 362 mm (14.3") with bracket
- **Weight:** 4.9 kg (10.8 lbs) with bracket
- **Enclosure Characteristics:**
  Single enclosure with radome
  Outdoor UV stabilized plastic
  Painted steel bracket plate
- **Wind Survivability:** 200 km/h (125 mph)
- **Wind Loading:** 39 kg @ 160 km/h (86 lbs @ 100 mph)
- **Mounting:** Pole mounting kit included for 30mm (1.18") to 90mm (3.54") OD pipes

Environmental

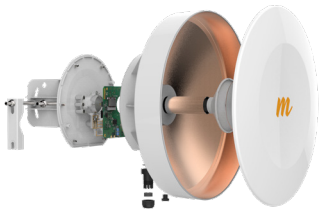
- **Outdoor Ingress Protection Rating:** IP67
- **Operating Temperature:** -40°C to +55°C (-40°F to 131°F)
- **Operating Humidity:** 5 to 100% condensing
- **Operating Altitude:** 4,420 m (14,500') max
- **Shock & Vibration:** ETS 300-019-2-4 class 4M5

Features

- **Gigabit Ethernet:** 10/100/1000-BASE-T
- **Dual Link Operation:** 2 independent dual-stream radios operating on non-contiguous frequencies;
  Automatic load balancing of traffic across 4 total MIMO streams with individual stream encoding up to 256 QAM
- **Management Services:** Mimosa cloud monitoring and management; SNMPv2 & Syslog legacy monitoring; HTTPS; HTML 5 based Web UI;
  (2.4 GHz WiFi management module no longer available as of February 2021)
- **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:** Supports 4 pre-configured QoS levels
- **GPS Location:** GNSS-1 (GPS + GLONASS)
- **Collocation Synchronization:** 1PPS GPS TX/RX synchronization for collocated co-channel radios; Adjustable up/downstream bandwidth ratio

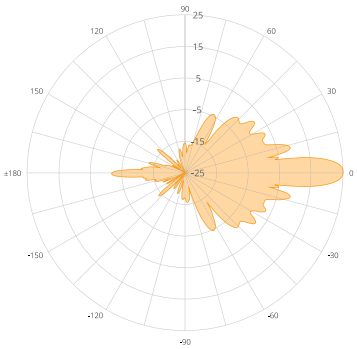
Regulatory + Compliance

- **Approvals:** FCC Part 15.407, IC RSS210, CE, ETSI 301 893/302 502
- **RoHS Compliance:** Yes
- **Safety:** UL/EC/EN/ 60950-1 + CSA-22.2



B5 Backhaul

B5: 6 Dish Collocation



B5 Polar Plot

Mimosa Networks, a division of Airspan, 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 2018 by Airspan, the leading vendor of 4G/5G LTE small cells and backhaul technologies.

mimosa by Airspan