mimosa by Airspan

Datasheet

# Unparalled Access

## A5 Point-to-Multipoint Access Point

4.9–6.4 GHz*

The Mimosa A5 access point delivers cutting-edge multipoint technology for service providers to affordably deliver the industry's first scalable, gigabit, wireless broadband network.

### Fiber Speed Access

Capable of delivering the speed business users and consumers need at a fraction of the cost of delivering fiber-to-the-premise.

### Network-Wide Cloud Control

Mimosa Cloud makes deployment a breeze, interacting with devices network-wide to proactively assist the A5 to optimize network and subscriber experience for the best performance and capacity management.

### Working Above the Noise

Advanced auto-gain control techniques automatically squelch out underlying interference with only 10 dB of operating margin required to deliver incredible client performance.

### Compact and Fast

With up to 1.0 Gbps of total capacity, the A5 is the industry's fastest multipoint solution in a tiny form factor, making suburban rooftop or urban installation a fast, easy and discrete solution.

### Network Scalability Perfected

Unique integrated, high-precision GPS Sync technology allows every deployed device to be collaboratively synchronized across the network, allowing easy channel reuse to save spectrum network-wide.

# Technical Specifications

## Performance

- **Max Throughput:** Up to 1.0 Gbps IP (1.7 Gbps PHY)
- **Client Capacity:** 100 clients (WiFi Interop); 44 clients (SRS)
- **Wireless Protocols:** WiFi Interop; Spectrum Reuse Synchronization (SRS)

## Radio

- **MIMO & Modulation:** 4x4:4 MIMO OFDM up to 256-QAM
- **Bandwidth******:** 20/40/80 MHz channels tunable in 5 MHz increments for GPS Sync; Tunable to standard WiFi channels for WiFi Interop
- **Frequency Range:** 4900–6400 MHz* restricted by country of operation (US/FCC 5600–5650 support)
- **Max Output Power:** 30 dBm
- **Sensitivity ( MCS 0 ):** -87 dBm @ 80 MHz; -90 dBm @ 40 MHz; -93 dBm @ 20 MHz

## Antenna

- **Gain:** A5-18: 18 dBi; A5-14: 14 dBi
- **Beamwidth ( 3 dB ):** 70° azimuth
- **Electrical Downtilt:** A5-18: 4°; A5-14: none
- **Front-to-Back Ratio:** >30 dB
- **Cross-Polar Isolation:** >20 dB or greater
- **Polarization:** Circular, 4 alternating panels

## Physical

- **Dimensions:**
  18 dBi: 668 mm (26.29") height
  14 dBi: 314 mm (12.36") height
  142.44 mm (5.61") width
- **Weight:**
  18 dBi: 2.73 kg (6 lbs)
  14 dBi: 1.75 kg (3.85 lbs)
- **Enclosure Characteristics:** Outdoor UV-stabilized engineered polymer
- **Wind Survivability:** 200 km/h (125 mph)
- **Wind Loading:**
  18 dBi: 16.03 kg @ 160 km/h
  35.34 lbs @ 100 mph
  14 dBi: 7.72 kg @ 160 km/h
  17.03 lbs @ 100 mph
- **Mounting:** Dual pole strap feed points integrated into metal base with integrated curvature for contact with mounting poles

## Power

- **Max Power Consumption:** 25 W
- **System Power Method:** 802.3 at compliant
- **System Lightning & ESD Protection:** 6 kV
- **PoE Power Supply:** 802.3at and Passive POE compliant, 48-56 V Power over Ethernet supply with IEC61000-4-5 surge protection

## 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 & Vibration:** ETS 300-019-2-4 class 4M5

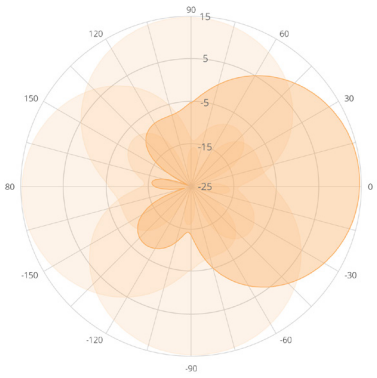
## Features

- **Gigabit Ethernet:** 10/100/1000-BASE-T
- **Synchronization:** GPS+GLONASS allows for network-wide sync and interference avoidance
- **Collocation:** 1PPS GPS Tx/Rx synchronization for same tower collocation and channel reuse
- **Network Processing**: Advanced AP control for capacity and subscriber management
- **Management Services:** Mimosa cloud monitoring and management SNMPv2 & Syslog legacy monitoring; HTTPS; HTML 5-based Web UI; 2.4 GHz 802.11b/g/n radio for local management access
- **Smart Spectrum Management:** Active scan monitors/logs ongoing RF interference across channels (no service impact) ; Dynamic auto-optimization of channel and bandwidth use
- **Security:** WPA2 PSK & Enterprise 802.1x; Radius provisioning, COA, DM; 128-bit AES with hardware acceleration
- **VLANs:** Per subscriber VLAN; Q-in-Q, triple tagging; Management VLAN
- **QoS:** Supports 4 pre-configured QoS levels
- **GPS Location:** GNSS1 (GPS + GLONASS)
- **Traffic Shaping:** Per CPE UL/DL commit and maximum rate shaping
- **Access Control List:** Permit, deny, and remark layer 2 and layer 3 traffic flows

## Regulatory + Compliance

- **Approvals:** FCC Part 15.407 and Part 90Y, IC RSS210 and RSS111, CE, ETSI 301 893/302 502
- **RoHS Compliance:** Yes
- **Safety:** UL/EC/EN/ 60950-1 + CSA-22.2

360° Antenna Top Down View




14 dBi Azimuth Antenna Plot

*A5/A5c extended frequency, above 6.2 GHz, requires P/N 100-000xx-01

**4.9 GHz uses 20 MHz channel widths (US only, regulations vary by region)

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.



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