mimosa

Datasheet

Unparalled Access

A5 Access Point

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 1.5 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
- **Wireless Protocols:** WiFi Interop, Mimosa GPS Sync (TDMA)**

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 – 6200 MHz restricted by country of operation ('new' 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:** 25W
- **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

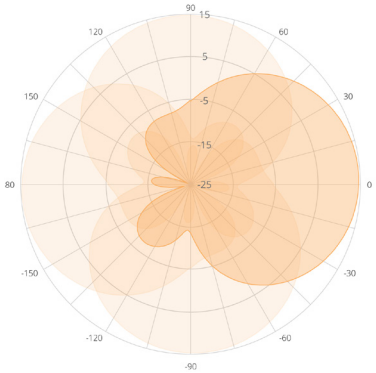
- **Gigabit Ethernet:** 10/100/1000-BASE-T
- **Multi-User MIMO**:** Device leverages beamforming to transmit to multiple clients simultaneously
- **Synchronization**:** GPS+GLONASS allows for network-wide sync and interference avoidance
- **Collocation**:** 1PPS GPS Tx/Rx synchronization for same tower 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

* 4.9 GHz uses 20 MHz channel widths
(US only, regulations vary by region)
** Enabled in future software release

360° Antenna Top Down View



14 dBi Azimuth Antenna Plot

Mimosa Networks is a leading provider of 5G Fixed wireless solutions creating new competition in the industry to close the connectivity gap. Mimosa access, backhaul, and client solutions enable broadband service providers to connect dense urban and hard-to-reach rural homes at a fraction of the cost of fiber. Mimosa's technology allows unprecedented levels of efficiency, enabling scarce spectrum to be concurrently shared across an entire network. Founded in 2012, Mimosa is VC-funded and deployed in over 130 countries worldwide.

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