



POINT-TO-MULTIPOINT

Access583A 5.8/5.3 GHz Access Point

Dual-Band Broadband Wireless Access Point

FOR EXPORT ONLY. NOT FOR U.S.A.

POINT-TO-MULTIPOINT BROADBAND WIRELESS INTERNET ACCESS

The Access583A Access Point (AP) is an enterprise class, 10 Mbps, direct sequence, spread spectrum wireless transceiver that offers channels of operation in both the 5.8 and 5.3 GHz unlicensed bands. The AP supports up to 500 subscriber units, offers robust interference rejection (ARQ[±]) and also includes an integrated antenna and a comprehensive set of management and deployment tools.

Flexibility

- » The Access583A Access Point offers multiple channels of operation in both the license-exempt 5.8 GHz ISM and the 5.3 GHz U-NII bands. 20 MHz channels, coupled with dual polarity antennas, allow total co-location potential of up to 22 access points for a fully loaded cell site. Polarity and channel selection are software switchable.

Manageability Tools

- » The Access583A Access Point offers a host of management tools including site survey, automatic power leveling, receiver threshold, RF link test, and many other features designed to allow network operators to quickly and efficiently deploy and manage their Access5830 network.

Convenience

- » The Access583A Access Point provides multiple management interfaces including telnet, HTTP web browser, SNMP and FTP. Network operators can easily configure, manage and monitor the AP from remote locations.

Highlights

- Up to 10 Mbps usable subscriber throughput
- Up to 29 km range with external antenna
- Supports up to 500 subscribers per AP
- Dual polarity antenna, software switchable
- Internal and external antenna options

Durability, Ease of Installation

- » The Access583A Access Point is housed in a ruggedized, weatherproof enclosure and is powered via Power-over-Ethernet (PoE) to ensure easy installation and quick deployment.

Affordability

- » The Access583A Access Point allows network operators to expand their networks through collocation of multiple access points without the need for additional hardware or software. Additional subscribers can be added to each AP for maximum density without sacrificing quality of service.

Patented SMARTPolling™

The Access583A AP is equipped with SMARTPolling™, a powerful prioritization scheme designed to ensure the highest quality of service to active bandwidth subscribers. SMARTPolling™ allows the AP to dynamically and adaptively poll each SU efficiently favoring subscribers that are engaged in passing traffic, guaranteeing the lowest latency for those users.

Subscriber Unit Compatibility/Range Chart

| MODEL | PART NUMBER | ANTENNA | RANGE / FADE MARGIN | |
|-------------------------------|---------------|------------------------------------|-------------------------|-------------------------|
| Atlas FOX 5.8 GHz | M5580M-FSU | Integrated 8 dBi | 5 km / 10 dB | |
| FOX5800 5.8 GHz | M5800S-FSU | Integrated 15 dBi | 6 km / 10 dB | |
| FOX5310 5.3 GHz ^{††} | M5310S-FSU | Integrated 15 dBi | 7 km / 7 dB | |
| Access5830 Dual Band | M5830S-SU | Integrated 18 DBi | 9 km / 10 dB (5.8 GHz) | 8 km / 7 dB (5.3 GHz) |
| Access5830 Dual Band External | M5830S-SU-EXT | AD5830-23-D 23 dBi panel | 16 km / 10 dB (5.8 GHz) | 10 km / 10 dB (5.3 GHz) |
| Access5830 Dual Band External | M5830S-SU-EXT | SPD3-5.2T 30 dBi dish [†] | 29 km / 12 dB (5.8 GHz) | 22 km / 10 dB (5.3 GHz) |

[†] Available from Radiowaves (www.radiowavesinc.com) and Radiowaves distributors

| RADIO PARAMETERS | |
|---|---|
| Frequency of Operation | High Band (ISM Band): 5.725 GHz to 5.850 GHz Low Band (U-NII Band): 5.250 GHz to 5.350 GHz |
| Channels | High Band (ISM Band): 6 non-overlapping channels Low Band (U-NII Band): 5 non-overlapping channels |
| Modulation Format | Direct Sequence Spread Spectrum (DSSS) with RAKE |
| Certification/Compliance | FCC Part 15.247, 15.407 |
| Receiver Sensitivity (1E10 ⁻⁶ BER) | 1600 byte packets: 87 dBm [†] |
| EIRP Max | +36 dBm High Band; +33 dBm Low Band |
| DATA AND OPERATIONAL PARAMETERS | |
| Access Method | TDD with SmartPolling™ |
| User Data Throughout | 10 Mbps |
| Format | 10/100 Base T |
| Network Protocols | All IEEE 802.3/802.3u compliant protocols |
| Interference Rejection | ARQ [†] (Automatic Retransmit reQuest) |
| Configuration and Management | Telnet, SNMP, TFTP, HTTP |
| Upstream/Downstream Throughput | Dynamic, automatically adjusts to suit demand |
| Bandwidth Control | Committed Info Rate (CIR) and Maximum Info Rate (MIR) setting per subscriber unit |
| ANTENNA PARAMETERS | |
| Internal Antenna | Integrated 14 dBi 60° x 10° patch array dual polarized (HPOL/VPOL), software selectable |
| PHYSICAL INTERFACES | |
| Ethernet (via shielded RJ45) | 10/100 BaseT, auto-sense, auto-negotiate |
| Serial (via RJ11) | 9600 baud |
| Ethernet Packet | Up to 1600 byte long packets (supports VLAN/VPN pass through) |
| POWER PARAMETERS | |
| Power Method | Power-over-Ethernet (PoE) via DC voltage injected at PoE J-box |
| Voltage Input Limits into Radio | 10.5 VDC – 24 VDC |
| Power Supply | 230 VAC to 24 VDC Universal |
| PoE Cat-5 Max Cable Length | 100 meters on 24 AWG STP Cat-5 cable |
| Power / Current Draw | 575 mA (13.8 W); 1 Amp when heater is on (24 W) |
| PHYSICAL AND ENVIRONMENTAL | |
| Radio Enclosure | All-weather, powder coated, cast aluminum with polycarbonate radome |
| Temperature Range | -40° to 60° C (-40° to 140° F) |
| NEMA Rating | NEMA 4 |
| Radio Dimensions | 12.5" x 8" x 2.75" |
| Radio Weight | 4 lbs. |
| User Interfaces | RJ45 (shielded) and RJ11 |

^{††} Not licensed for use in the U.S.A. Legal regulations for wireless communications vary from region to region—users are responsible for complying with their region's regulations.

[†] ARQ available as a free firmware upgrade; must be loaded on AP and SU.