POINT-TO-MULTIPOINT

Access5830™ 5.8 GHz Access Point

Broadband Wireless Base Station

POINT-TO-MULTIPOINT BROADBAND WIRELESS INTERNET ACCESS

The Access5830™ Access Point (AP) is an enterprise-class wireless base station that offers 10 Mbps, direct sequence, and spread spectrum. It operates in the license-exempt 5.8 GHz band in multiple channels. This fully weatherized outdoor unit utilizes Trango's SMARTPolling™ technology to efficiently deliver bandwidth to up to 500 subscriber units (SU) and includes a comprehensive set of management and deployment tools. The Access5830™ AP is available in two versions, one with an integrated antenna and one with an external antenna connector.

Convenient Management & Configuration Features

- Easily configure, manage, and monitor from remote locations
- Remote & local management via Telnet, SNMP, TFTP, and HTTP
- Site survey, automatic power leveling, receiver threshold, RF link test, and many other features

Durability, Ease of Installation

- Fully weatherized outdoor units are designed for harsh outdoor environments and operate from -40° to +140° F
- Powered using Power-over-Ethernet (PoE) ensuring ease of installation and quick deployment

Operational Flexibility

- 6 channels of operation in the license-exempt 5.8 GHz ISM band
- Multiple channels, all user-selectable, non-overlapping and programmable, coupled with software switchable dual polarity antennas, empowers the administrator with maximum flexibility and permits quick changes to channel assignments to minimize susceptibility to interference. This allows maximum colocation potential for multiple access points.

Highlights

- Up to 10 Mbps usable subscriber throughput
- Up to 18-mile range with external antenna
- Supports up to 500 subscribers per AP
- Dual polarity antenna, software switchable
- Internal and external antenna options

Affordability

- The Access5830™ 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.

Antenna Versatility

- INT model features built-in dual-polarity panel antenna
- EXT model features two connectors for external antenna
- All models feature software-selectable antenna polarity (H/V)

Patented SMARTPolling™

The Access5830™ 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.

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Subscriber Unit Compatibility/Range Chart

ACCESS POINT / ANTENNA	SU PART #	SU MODEL	SU ANTENNA, GAIN	RANGE / FADE MARGIN
M5830S-AP-60 with 14 dBi integrated patch antenna	M5580S-FSU	Atlas FOX 5.8 GHz	Integrated, 8 dBi	2 miles / 10 dB
			External dish, AD5800-25, 25 dBi	10 miles / 14 dB
	M5800S-FSU	FOX5800 5.8 GHz	Integrated, 15 dBi	4 miles / 10dB
	M5830S-SU	Access5830 Dual Band	Integrated, 18 dBi	6 miles / 10 dB
	M5830S-SU-EXT	Access5830 Dual Band External	External patch, AD5830-23-D, 23 dBi	10 miles / 10dB
			External dish, SPD3-5.2T 30 dBi dish*	18 miles / 12 dB
Range chart for M5830S-AP-EXT dependent upon antenna selection.				

* Available from Radiowaves (www.radiowavesinc.com) and Radiowaves distributors.

Specifications

RADIO PARAMETERS	
Frequency of Operation	5725 MHz to 5850 MHz (ISM Band)
Channels	6 non-overlapping channels, software selectable
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: -83 dBm, 64 byte packets: -87 dBm
ANTENNA OPTIONS	
M5830S-AP-60	Integrated patch, 14 dBi, dual polarized, 60° x 10° beamwidth
M5830S-AP-EXT External Antenna Options (FCC Certified Models)	Sector antenna, 16 dBi, dual polarized, 90° x 8° beamwidth (Radiowaves part #SEC-55D-90-16) Sector antenna, 16 dBi, horizontally polarized, 120° x 8° beamwidth (Pacfic Wireless part #SAH58-120-16) Omni antenna, 12 dBi, vertically polarized, 360° x 7° beamwidth (Pacfic Wireless part #OD58-12)
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
Configuration and Management	Telnet, SNMP, TFTP, HTTP
Upstream/Downstream Throughput	Dynamic, automatically adjusts to suit demand
Bandwidth Control	Committed Info Rate (CIR) and Maxiumum Info Rate (MIR) setting per subscriber unit
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
Standard Power Supply	120 VAC to 24 VDC adapter
PoE Cat-5 Max Cable Length	300 feet on 24 AWG STP Cat-5 cable
Power	13.4 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

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