ADTRAN®

Data Sheet

ADTRAN

810-AP

Wi-Fi Mesh Access Point

SDX Series

Open Architecture	Programmable	Mesh	Cloud	Analytics	Zero-Touch	Wi-Fi

Benefits

- Extends Wi-Fi coverage on the SDX 810 Ethernet Residential Gateway
- Greatly improves network performance with flexible concurrent dual-band Wi-Fi
- Optimized for multi-user homes via MU-MIMO technology
- Provides enterprise-class Wi-Fi functionality with Dynamic RF, Dynamic Steering, Dynamic Airtime, Dynamic Mesh, and Dynamic Mobility
- Leverages Artificial Intelligence (AI)/Machine Learning (ML) for Radio Resource Management (RRM) and band/client steering
- Supports Gigabit Broadband over Wi-Fi
- Supports self-forming and healing mesh technology
- Offers USB 2.0 interface for external devices
- Supports zero-touch deployment that allows for self-installation
- Functions as a low-cost gateway
- Automatically provides security updates and parental controls

Overview

Full Wi-Fi coverage with a fast connection has become an absolute requirement in today's homes and businesses.
Smartphones, tablets, streaming devices, and Wi-Fi-enabled smart-home devices are placing a tremendous strain on the home network. In addition, the emergence of Gigabit broadband offerings has exposed Wi-Fi as a potential bottleneck for delivering advertised speeds down to the device. Depending on the size of the home or business, having just a single Wi-Fi residential gateway may not provide adequate coverage and may result in dead spots. Service providers are starting to realize that their customers' quality of experience with their service is directly affected by Wi-Fi coverage and performance.

The Solution
The ADTRAN 810-AP Wi-Fi Mesh Access Point, a dual-band access point with 802.11ac Wave 2 4x4 MU-MIMO implementation, is designed to deliver near Gigabit throughput and extended coverage to make the fully wireless home a reality.

Better 802.11ac Performance with Beamforming
The ADTRAN 810-AP Wi-Fi Mesh Access Point incorporates MU-MIMO with beamforming technology to deliver a dramatic improvement in Wi-Fi 802.11ac/n performance, reliability, range, and coverage. MU-MIMO supports four simultaneous data streams and beamforming makes it possible to steer these data streams in the direction of associated clients, ensuring dedicated bandwidth to the wireless devices while simultaneously avoiding interference.

ADTRAN 810-AP

Deployments Made Simple—Self Healing Wi-Fi
Auto Provision, Auto Configure, Auto Optimize – Utilizes extensive, proven, dynamic enterprise-class technologies which dramatically improve residential Wi-Fi user experience

- Zero-touch Deployment: APs automatically discover, download firmware and download configuration.
- Dynamic RF Radio Resource Management (RRM)/ Self-Organizing Network (SON) technology: Automatically configures channels and transmit power settings based on RF environment and shuffles as necessary
- Dynamic Steering: Band/client steering, load balancing and sticky client prevention technology matches clients with the best radio in the best RG/Mesh AP to provide the client with the best possible Quality of Experience.
- Dynamic Airtime: Airtime Fairness prevents slow legacy clients (802.11a,b,g,n) from bogging down the network
- Dynamic Mesh: Forms with the touch of a button or simply plugging the Mesh AP into the LAN port of the RG temporarily and automatically configures the mesh and syncs configuration going forward. Leverages Dynamic RF to choose the best channel for the mesh.
- Dynamic Mobility: Continuous mobility and roaming throughout the home

Multi-use Functionality
ADTRAN 810-APs operate in conjunction with the ADTRAN 810-RGs to provide a whole home mesh Wi-Fi experience. This architecture provides the ultimate coverage for homes with multiple rooms. Alternatively, the ADTRAN 810-AP can be used as a low-cost gateway supporting LAN/WAN, ideal for smaller living spaces.

SDN Enabled
The ADTRAN SDX Series of next-generation, programmable network elements offers open, programmable APIs that natively integrate into any leading open-source SDN control and orchestration system. ADTRAN SDX Series solutions span from cloud edge to subscriber edge, expediting the deployment of fully automated Web-scale networks. Taking datacenter principles like SDN and NFV and applying them to the service providers' network is a necessity to compete against the competitive threat posed by cloud solution providers. ADTRAN is enabling this capability in current and next-generation platforms, so service providers are prepared when they are ready to make this transition.

Product Specifications

Ethernet Interfaces

- 10/100/1000Base-T Interfaces with RJ-45 Connectors
  - 1 WAN interface
  - 1 LAN interface
- Ethernet Port Auto Negotiation or Manual Configuration
- MDI/MDIX Automatically Sense

Ethernet Services

- Symmetric 1 Gbps Throughput
- 802.1D Bridging
- 802.1X Authentication

Gateway Features

(while in Routed/NAT mode)

- WAN Connection
- Point-to-Point Protocol over Ethernet (PPPoE)
- Dynamic Host Configuration Protocol (DHCP)
- Static
- DHCP Server for LAN Devices
- DNS Relay
- Network Address Translation (NAT)/Network Address Port Translation (NAPT)
- Port Forwarding
- Static Routing
- Access Control List (ACL)
- VPN Pass Thru for Point to Point Tunneling Protocol (PPTP), Layer 2 Tunneling Protocol (L2TP) and IP Security Protocol (IPSec)
- Firewall
- Application Layer Gateway (ALG)
- Demilitarized Zone (DMZ)
- Parental Control (Internet Access Scheduling)
- Dynamic Domain Name Server (DDNS)
- Network Time Protocol (NTP)
- Universal Plug and Play (uPnP)
- IGMP Proxy
- IPv6
  - Stateless Address Auto-configuration (SLAAC)
  - DHCPv6
  - PPPoEv6
  - DNSv6

WLAN Interface

- Compliant with IEEE 802.11 b/g/n/ac
- 2.4 GHz and 5.0 GHz
- MIMO 4x4
- Dual-Band Radios
  - 2.4 GHz 2x2
  - 802.11 b/g/n
  - 5.0 GHz 4x4
  - 802.11 n/ac
- 4x SSIDs per Radio
- 64 and 128 Bit Wireless Encryption Protocol (WEP) Support
- Push Button WPS
- Beamforming
- A-MPDU and A-MSDU Frame Aggregation
- HT20, HT40 (High-throughput) and VHT80 (Very high-throughput)
- Wi-Fi Mesh using SDX810-RGs

USB Interface

- 1 USB Host Interface
- Compliant with USB 2.0
- Network Storage
- Print Server

Dimensions

- 5.00" X 5.00" X 1.50"

Power Supply

- 12V (Feed via External AC/DC Adapter)
- Power Switch
- Power Consumption: 24W

Safety and EMI

- FCC Part 15 Class B
- UL/CSA 60950-1 Listed

Environmental Directive

- RoHS 2011/65/EU

LEDs

- Status
- Broadband
- 2.4G
- 5G
- WPS (Touch-sensitive)

ADTRAN 810-AP

Ordering Information

Equipment	Part No.
ADTRAN SDX 810-AP, Wi-Fi Mesh Access Point	1287860F1

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ADTRAN Certified Supplier
ISO 9001
ISO 14001
TL 9000

nsai
TL 9000
ISO 9000 QUALITY
ISO 14001 ENVIRONMENT

TL9000
TL19.1270