ADTRAN

2020

Dual Radio 802.11ac Indoor Access Point

$ Low TCO	⌀ Zero-Touch	Gigabit	Wi-Fi	Open	SDN Enabled

Benefits

- Offers 100 percent cloud managed Wi-Fi without required subscriptions
- Provides integrated wireless intrusion detection system to proactively identify rogue access points and wireless attacks
- Greatly improves network performance with flexible concurrent dual-band Wi-Fi
- Supports zero-touch AP provisioning and zero IT setup in five minutes or less
- Leverages machine-learning-powered self-optimizing and healing technology
- Supports context-aware security and firewall for the highest level of security at the edge
- Offers seamless feature and service upgrades to match your unique needs and budget
- Supports WMM/802.11e and QoS for Enterprise-class voice over Wi-Fi
- Scale from a handful of APs to thousands across multiple locations and customers

Overview

ADTRAN's wireless portfolio includes a family of 802.11n and 802.11ac high-performance Access Points (APs) that are a perfect fit for enterprises of all sizes. This includes educational institutions, retail, hospitality, and healthcare providers who are looking to move their organizations to a pervasive mobility environment. ADTRAN APs are completely plug-and-play requiring no manual configuration and deliver optimal performance. Whether you want to add wireless to your office or deploy it across an entire campus, ADTRAN APs are designed to meet your needs.

Cost-Effective, High-Performance, Reliable Connectivity

The ADTRAN 2020 indoor 802.11ac AP offer cost-effective, enterprise-class performance with two transmit and two receive streams providing data rates up to 867 Mbps on the 5 GHz radio and 300 Mbps on the 2.4 GHz radio for a total of 1.2 Gbps. The ADTRAN 2020 AP includes four MIMO internal antennas with up to 6 dBi gain on the 5 GHz and 3 dBi gain on the 2.4 GHz.

The ADTRAN 2020 AP provides high performance, reliable coverage in medium density wireless environments such as classrooms, retail stores, hotel guest rooms and other medium traffic areas. It offers higher receive sensitivity on both the 2.4 GHz and 5 GHz radios to compensate for Bring Your Own Device (BYOD). Devices such as smartphones and tablets that have a fraction of the transmit power of

traditional laptops. The ADTRAN 2020 AP is fully functional with the power delivered by a single-port 802.3af PoE solution.

Flexible, Cloud-Managed Options

ADTRAN Enterprise-Class APs offer simple, robust, adaptable enterprise Wi-Fi connectivity and security without compromise. With ADTRAN Express, every AP is a starting point—enabling you to think big and start small. Leverage the power and simplicity of 100 percent cloud-managed Wi-Fi, "right sized", without a required subscriptions. Combine that with high performance, enterprise-class APs available at market disruptive pricing and machine-learning-powered self-organizing and healing technology – allowing you to get the network up and running quickly, keep it running smoothly and ensuring the best possible quality of experience.

Scale from a handful of APs to thousands across multiple locations and customers. Seamlessly upgrade to elevate the experience with Enhanced Support or upgrade to ADTRAN Elite including advanced features and unparalleled flexibility in deployment options. With ADTRAN enterprise-class Wi-Fi Solutions, you can create an experience to best fit the unique needs and budget of your organization.

ADTRAN Express

100 Percent Cloud-Managed IT

- No required subscriptions or licences
- No installation or management of on-premises controller or software

Powerful Enterprise-Class APs

- Available at market disruptive pricing 75 percent lower than typical enterprise-class APs and licences

Deployments Made Simple

- Zero-Touch AP Provisioning
  - APs automatically discover the cloud, download firmware, and configuration.
- Zero IT Setup
  - Enjoy a fully functional employee and guest network in 5 minutes or less with just a few wizard driven key strokes and mouse clicks
- Machine learning-powered Wi-Fi that just works
  - Self-optimising and healing technology
  - DynamicRF - Maximises performance and adapts to interference by learning about the RF spectrum and automatically adjusting optimal radio settings
  - DynamicSteering - Automatically steers clients to the best AP or radio within an AP to provide the best possible quality of experience, provides load balancing and prevents "sticky Wi-Fi clients"
  - DynamicMulticast - Prevents multicast traffic typically sent at low data rates from impacting overall performance by learning about traffic patterns and automatically adjusting optimal multicast settings

Unmatched Visibility and Insight

- Web-based HTML 5 admin interface enables centralized management of the WLAN from any device, anywhere in the world.
- Multi-tenanted tiered admin access allows support of multiple customers or sites on a single instance and provides administrators with permissions to just those sites and the resources within them
- Customizable dashboard Branding (Logo/Colors)
- Real-time and historical reporting and analytics dashboards
- Complete RESTful web services API for automation, orchestration and analytics

A Right-Sized Feature Set

- Focused on robust enterprise connectivity and security
- Seamless upgrades to ADTRAN Elite features and flexible deployment options

Context-Aware Security and Firewall

- Role-Based Access Control with L7 Device Fingerprinting allows you to define group policies based on multiple contexts including user credentials, device type, ownership of device (company owned or BYOD, location and schedule

Seamless Layer 2 Mobility

Every AP is a Starting Point

- Scale from a handful of APs to thousands across multiple locations and customers

Remote Site Survivability

- APs continue to function if the connection to the ADTRAN cloud goes down

Interactive Support Community

- Optional upgrades to enhanced support and extended warranty with advanced hardware replacement

ADTRAN Elite

Everything in Express +

- Includes everything in ADTRAN Express plus more

Advanced Features

- Advanced Guest Manager
- Advanced authentication methods
- Wireless Intrusion Detection (W-IDS)
- Heatmaps for RF planning and rogue AP location tracking
- Seamless Layer 3 mobility

Flexible Deployment Options

- ADTRAN cloud or yours

Enhanced Support and Extended Warranty

- Cloud and Support SLAs
- Advanced hardware replacement

Product Specifications

Interfaces

- One Auto-sensing, 10/100/1000Base-T, RJ-45 Connector

Antenna

- Four Internal MIMO Antennas with 6 dBi Gain on 5 GHz and 3 dBi gain on 2.4 GHz.

Radios

- 802.11a/n/ac and 802.11b/g/n
- Configurable for Sensor-mode RF Scanning
- DynamicRF (Radio Resource Management) for Automatic Channel, TX Power, and Neighbor Discovery
- Configurable Maximum Associated Clients per Radio
- Multicast/Broadcast to Unicast Conversion
- A-MPDU and A-MSDU Frame Aggregation
- HT20, HT40 (High Throughput) and VHT80 (Very High Throughput)
- *Max Transmit Power
  - **2.4 GHz:** 22 dBm   **5 GHz:** 23 dBm

Certifications

- Wi-Fi 802.11a/b/g/n/ac Certification

Mobility Services

- Eight SSIDs per Radio
- Support for Apple Bonjour Based Services (Airprint, Airplay), Apple CNA, and Microsoft NCSI
- Wireless Client Load Balancing
- Secure Fast Roaming with Opportunistic Key Caching (OKC)
- Seamless Layer 2 and Layer 3 Roaming
- High Availability

QOS for Voice, Data, and Video

- Smart Bandwidth Management (Incoming, Outgoing)
- WMM (802.11e)
- 802.1p or Differentiated Service Code Point (DSCP)
- WMM Power Save (U-APSD)

Security

- 802.1X Port-based Authentication
- Open System (WEP-64/128)
- Shared System (WEP-64/128)
- WPA/WPA2-Personal
- WPA/WPA2-Enterprise
- EAP-TTLS   EAP-PEAP   EAP-FAST
- EAP-TLS   EAP-SIM   EAP-AKA

Power

- 802.3af Compliant Power over Ethernet
- External 12V DC Power Adapter (Optional)

Mounting

- Wall/ceiling/T-bar Mount Kit Included
- Anti-Theft: Compatible with Kensington-style Locks

Environment

- **Operating:** 32° F to 104° F (0° C to 40° C)
- **Storage:** -4° F to 140° F (-20° C to 60° C)
- **Humidity:** 5% to 90% Typical

Physical

- **Dimensions:** DIA 6.3 in. (160 mm), H 1.5 in. (38 mm)
- **Weight:** .44 lbs (0.3 kg)

Agency Approvals

Electrical/Safety Compliance

- UL 1950   CSA 22.2
- IEC 60950   EN 60950

Radio Approvals

- FCC Part 15.247
- RSS-210 (Canada)
- EN 300.328 (Europe)
- AS/NZS 4771 (Australia & New Zealand)
- EMI and Susceptibility (Class A)
- FCC Part 15.107 and 15.109
- ICES-003 (Canada)
- EN 301.489-1 and -17 (Europe)
- AS/NZS 3548

Warranty

- Limited Lifetime Warranty

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* *Aggregate of chains. Max TX power may be limited by local regulatory domains (country) and band edge requirements.*

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Power and Sensitivity Tables

Maximum Aggregate Total Conducted Transmit Power
(May be limited by local regulatory domains (country) and band edge requirements)
2.4 GHz: 22 dBm 5 GHz: 23 dBm

	Max TX Power*		Receive Sensitivity*		Max TX Power*		Receive Sensitivity*
802.11b 2.4 GHz				**802.11n 5 GHz HT20**			
1 Mbps	22 dBm	1 Mbps	-95 dBm	MCS0/8	23 dBm	MCS0/8	-93 dBm
11 Mbps	22 dBm	11 Mbps	-90 dBm	MCS7/15	22 dBm	MCS7/15	-73 dBm
802.11g 2.4 GHz				**802.11n 5 GHz HT40**			
6 Mbps	22 dBm	6 Mbps	-92 dBm	MCS0/8	23 dBm	MCS0	-91 dBm
54 Mbps	19 dBm	54 Mbps	-76 dBm	MCS7/15	22 dBm	MCS9	-72 dBm
802.11n 2.4 GHz HT20				**802.11ac 5 GHz HT20**			
MCS0/8	21 dBm	MCS0/8	-91 dBm	MCS0	23 dBm	MCS0	-93 dBm
MCS7/15	18 dBm	MCS7/15	-72 dBm	MCS8	20 dBm	MCS8	-68 dBm
802.11n 2.4 GHz HT40				**802.11ac 5 GHz HT40**			
MCS0/8	20 dBm	MCS0/8	-87 dBm	MCS0	23 dBm	MCS0	-91 dBm
MCS7/15	18 dBm	MCS7/15	-71 dBm	MCS9	18 dBm	MCS9	-65 dBm
802.11a 5 GHz				**802.11ac 5 GHz VHT80**			
6 Mbps	23 dBm	6 Mbps	-91dBm	MCS0	23 dBm	MCS0	-87 dBm
54 Mbps	22 dBm	54 Mbps	-74 dBm	MCS9	18 dBm	MCS9	-61 dBm

*Aggregate of Chains

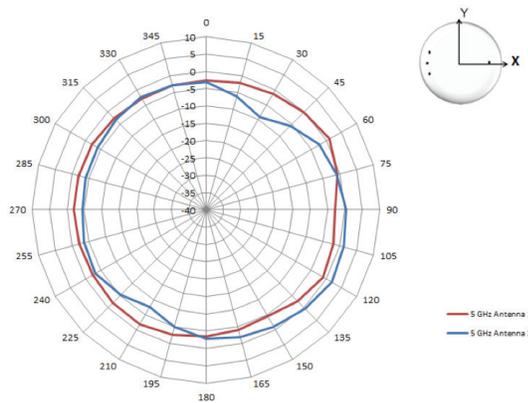## Antenna Patterns

2.4 GHz (3 dBi)
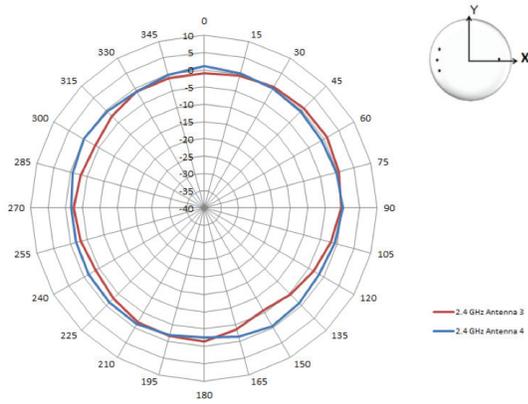
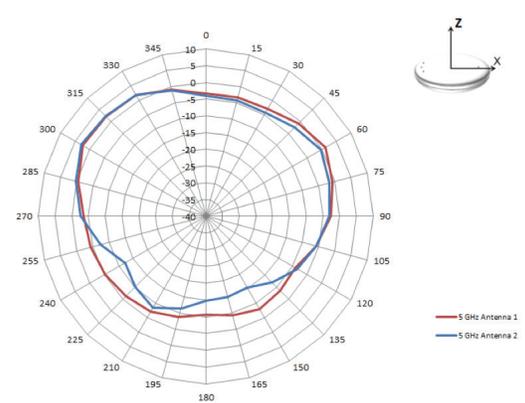**Horizontal or Azimuth (Top View)**
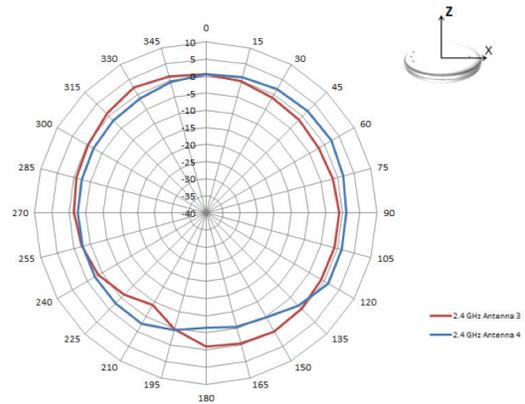
Elevation (Side View)

5 GHz (6 dBi)

Horizontal or Azimuth (Top View)

Elevation (Side View)

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Ordering Information

1. Choose Your Access Point

Equipment	Part No.
ADTRAN BSAP 2020: 802.11a/b/g/n/ac, 2x2:2, four internal MIMO antennas	1700945F1

2. Choose Your Accessories

Equipment	Part No.
802.3af Compliant PoE Injector for ADTRAN BSAP 2020	1700926F1
AC/DC Power Adapter for ADTRAN BSAP 2020	1700928F1

3. Upgrade to Enhanced Support/Extended Warranty

Warranty Option	Part No.
Phone Support	
ProCare 1 Year Basic Maintenance for one Access Point for use with Elite On-Premises Perpetual Licence or upgrading Express Cloud from community support.	1100AMWIF1M1T1
ProCare 3 Year Basic Maintenance for one Access Point for use with Elite On-Premises Perpetual Licence or upgrading Express Cloud from community support.	1100AMWIF1M1T3
Phone Support and Advanced Hardware Replacement	
ProCare 1 Year NBD Remote Maintenance for one Access Point for use with Elite On-Premises Perpetual Licence or upgrading Express Cloud from community support. Includes support and next business day advanced Hardware replacement.	1100AMWIF1M2T1
ProCare 3 Year NBD Remote Maintenance for one Access Point for use with Elite On-Premises Perpetual Licence or upgrading Express Cloud from community support. Includes support and next business day advanced Hardware replacement.	1100AMWIF1M2T3

4. Upgrade to Elite

Elite Option	Part No.
Elite Cloud	
Elite one Year Subscription for one Access Point. Includes: Elite Cloud, ProCare Support, software/firmware updates, next business day advanced hardware replacement	1100MSPH200112
Elite three Year Subscription for one Access Point. Includes: Elite Cloud, ProCare Support, software/firmware updates, next business day advanced hardware replacement	1100MSPH200136
Elite five Year Subscription for one Access Point. Includes: Elite Cloud, ProCare Support, software/firmware updates, next business day advanced hardware replacement	1100MSPH200160
Elite On-Premises (Requires ProCare Support from Step 2 above)	
Elite On-Premises Perpetual License for one Access Point. Requires ProCare support.	1951901G1

ADTRAN

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ADTRAN Certified Supplier
nsai
ISO 9001
ISO 14001
TL 9000

TL9000
TL19.1270

TL 9000
TELECOMMUNICATIONS
ISO 9000 QUALITY
ISO 14001 ENVIRONMENT