

AT-TQ3600

ENTERPRISE-CLASS WIRELESS ACCESS POINT

The Allied Telesis AT-TQ3600 Enterprise-class Wireless Access Point features an IEEE 802.11n 3SS dual-band radio and embedded antenna, capable of 900Mbps throughput. It operates at both 2.4GHz and 5GHz frequencies.

The AT-TQ3600 is based on IEEE 802.11n, with three-spatial-stream Multiple Input and Multiple Output (MIMO) technology. This technology delivers speeds of up to nine times faster than that of IEEE 802.11a/g.

The AT-TQ3600 may operate either in standalone or companion mode with a wireless access controller, thereby meeting Enterprise business needs.

A centralized design allows lower-cost Wireless LAN (WLAN) upgrades, and reduces operating costs by making your network simple to configure and manage. A single point of management, based on a cluster control feature, allows you to easily manage all your network access points.


The Allied Telesis AT-TQ3600 with cluster management provides greatly enhanced performance levels, with:

- Simplified Plug and Play management with automatic channel assignment
- Control of end-to-end Quality of Service (QoS)
- Continuous and adaptive radio monitoring

The cluster control feature is also available when the device is in standalone mode because a master device may be elected as the main controller for provisioning, firmware upgrade, and dynamic RF coverage arrangement.

The AT-TQ3600 is equipped with advanced encryption and authentication IEEE 802.11i capabilities. It protects your WLAN by segmenting public and private access with multiple Basic Service Set Identifications (BSSIDs) and VLAN Tagging. Rogue access point detection provides the ability to detect unauthorized access points, thus preventing unauthorized entry to your wireless network.



The Allied Telesis AT-TQ3600 is easy to deploy in any location. Power may be provided via Power over Ethernet (IEEE 802.3af  PoE) or with an optional AC/DC power adapter. The Access Point is desktop, wall or ceiling mountable.



Key Features

Flexible management

The AT-TQ3600 can operate in either standalone or companion mode with a wireless access controller. This flexibility allows you to select the management approach that best fits your network.

For large scale network deployment, a wireless controller offers a single point of management for operation, administration, and maintenance of all your access points.

Clustering offers a single management point, which synchronizes provisioning for a group of access points. It also optimizes wireless coverage, due to dynamic channel selection among group members.

As a standalone access point, the AT-TQ3600 detects adjacent access points and acts promptly to prevent radio interference.

IEEE 802.11n technology

Advanced IEEE 802.11n technology provides a high-performance wireless link with improved bandwidth, efficiency, and robustness, and allows for backward compatibility with older IEEE 802.11a/b/g products. This high level of throughput and range performance supports multimedia applications such as high definition video streaming.

The MIMO system improves reliability and capacity, mitigating the fading effects of a multipath environment.

IEEE 802.11e Wireless Multimedia (WMM)

Quality of Service (QoS) on WLAN optimizes resource use and fulfills the requirements of video, voice, and data applications. Each of these applications creates different latency, bandwidth, and packet error rate needs, and QoS caters to each of these needs using data traffic prioritization.

IEEE 802.11i (security)

This feature set facilitates strong encryption, authentication, and key management strategies, guaranteeing data and system security. Besides Counter Mode with Cipher Block Chaining Message Authentication Code Protocol (CCMP), IEEE 802.1X key distribution via RADIUS controls access to your network.

Multiple-SSIDs and SSID-to-VLAN mapping

SSID enables wireless connectivity for client devices that are assigned different security policies. Mapping SSIDs to VLANs creates logical network separation, which differentiates between communication by application, functions, or user communities.

Dynamic VLANs

Dynamic VLANs allow VLANs to be dynamically assigned on a per-user (wireless client) basis. The Dynamic VLAN feature interacts with an external RADIUS server, so that user information is centralized in RADIUS for ease of management. It is not necessary to configure user information on APs.

The AT-TQ3600 also supports RADIUS server redundancy, via configuration of a secondary RADIUS server.

PoE - IEEE 802.3af conformance

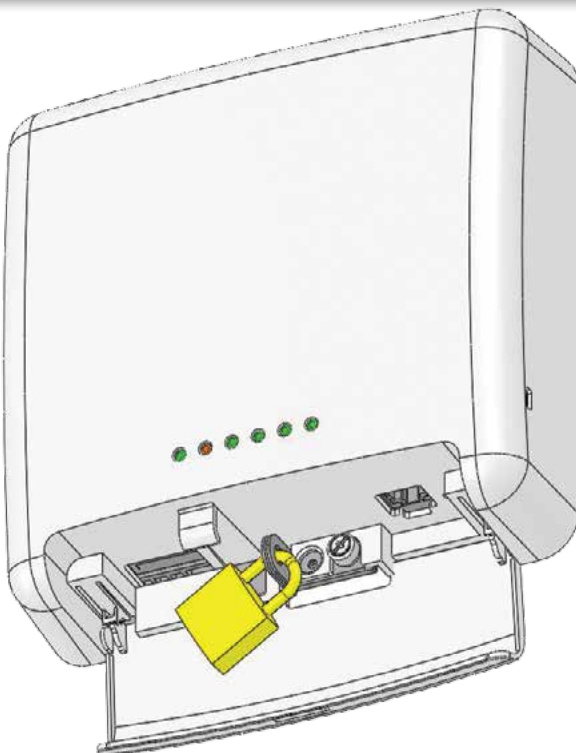
AT-TQ3600 conforms to the IEEE 802.3af standard. This enables simplified deployment, lower installation costs, and centralized power management capabilities for critical network devices.

Graphical User Interface

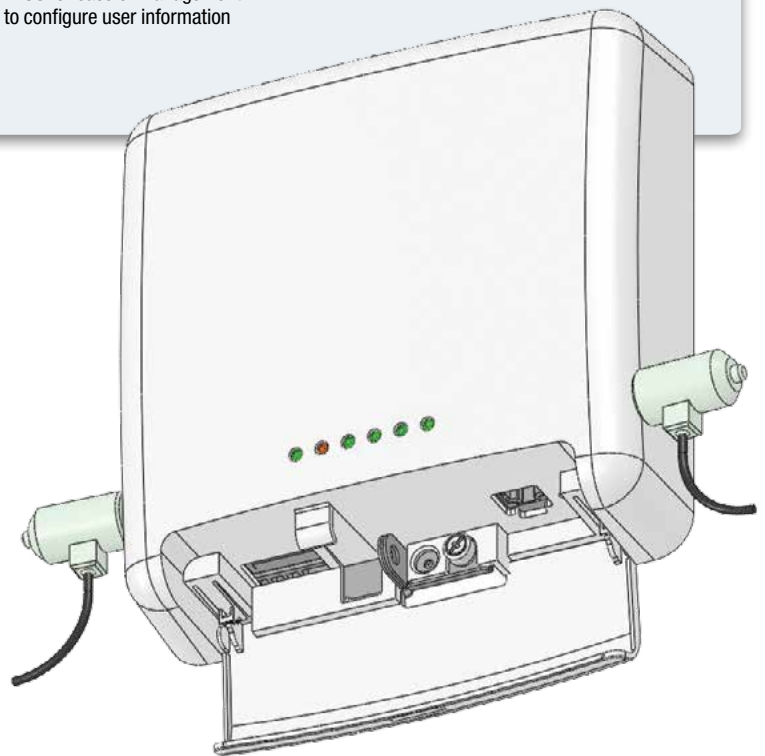
The Web-based user interface is user-friendly and intuitive, minimizing training needs.

Mounting options

As well as simple desktop installation, the AT-TQ3600 includes a kit for wall and ceiling mounting. A Kensington lock or padlock are suitable for anti-theft security.



AT-TQ3600 wall mount with padlock



AT-TQ3600 wall mount with Kensington lock

AT-TQ3600 | Enterprise-class IEEE 802.11n Wireless Access Point

Specifications

Management

- Centralized management via:
 - » Allied Telesis Unified Wireless Controller
 - » Clustering (up to 16 members)
 - » Standalone access point
- Graphical User Interface (HTTP, HTTPS)
- Simple Network Management Protocol (SNMPv1, v2c)
- Extended MIB set

Bridging

- VLAN tagging (up to 4094 VLANs)

Security

- Authentication, authorization and accounting:
 - » 128-bit hardware-accelerated AES encryption/decryption
 - » IEEE 802.1x authentication
 - » WPA/TKIP, WPA2/CCMP
 - » Extensible Authentication Protocol (EAP)
 - » Protected Extensible Authentication Protocol (PEAP)
 - » IEEE 802.1X RADIUS support
 - » Layer 2 - Layer 4 ACLs
 - » IEEE 802.1X dynamic VLAN assignment
 - » Rogue AP detection

Utilities

- DHCP client
- DNS client
- NTP client
- File transfer
- Logging
- Statistic information gathering

Wireless

- IEEE 802.11a/b/g
- IEEE 802.11n - 3x3:3 MIMO
- IEEE 802.11d
- IEEE 802.11e (WMM)
- IEEE 802.11h (DFS/TPC)
- IEEE 802.11i (enhanced security)
 - » WPA/WPA2-Personal
 - » WPA/WPA2-Enterprise
- Extensible Authentication Protocol (EAP):
 - » 3rd Generation Authentication and Key Agreement (EAP-AKA)
 - » Flexible Authentication via Secure Tunneling (EAP-FAST)
 - » GSM Subscriber Identity (EAP-SIM)
 - » Transport Layer Security (EAP-TLS)
 - » Tunneled Transport Layer Security (EAP-TTLS/MSCHAPv2)
 - » Protected Extensible Authentication Protocol (PEAP)
 - » Generic Token Card (PEAPv0/EAP-MSCHAPv2)
 - » Microsoft CHAP v2 (PEAPv1/EAP-GTC)

Regulatory domain compliance

- Operating mode:
 - » Access point (up to 200 clients)
 - » Wireless Distribution System
- Enhanced auto channel selection, with periodical refresh
- SSID hiding/ignoring
- Multiple SSID (up to 16 per port)
- VLAN to SSID mapping
- Extended Service Set (ESS)
- User scan list
- Advanced wireless interface tuning:
 - » Beacon period
 - » Client isolation
 - » Client max association
 - » IEEE 802.11b fall-back control
 - » IEEE 802.11n guard interval
 - » Short radio preamble
 - » Short slot time

Advanced wireless service via UWC:

- » Captive portal
 - » Dynamic channel planning
 - » Dynamic RF coverage optimization
 - » Plug and Play support (authentication and configuration)
 - » Standalone fallback
 - » Wireless IDS
- Media access protocol
- » CSMA/CA with ACK architecture 32-bit MAC

Compliance

Certificates

- CE
- EAC
- FCC
- IC
- KC
- RCM
- TUV-T
- Wi-Fi CERTIFIED (ID: WFA16969)

ElectroMagnetic Compatibility

- EN 301 489-1
- EN 301 489-17
- EN 55022, Class B
- EN 55024
- EN 61000-3-2, Class A
- EN 61000-3-3
- EN 61000-4-2
- EN 61000-4-3
- EN 61000-4-4
- EN 61000-4-5
- EN 61000-4-6
- EN 61000-4-11
- AS/NZS CISPR 22, Class B
- FCC 47 CFR Part 15, Subpart B
- ICES-003

Medical (EMC)

- EN 60601-1-2
- CISPR 11

Radio Equipment

- EN 300 328
- EN 301 893
- AS/NZS 4268
- FCC 47 CFR Part 15, Subpart C
- FCC 47 CFR Part 15, Subpart E
- FCC part 2
- RSS-210
- RSS-Gen
- RSS-102

Safety

- CSA C22.2 No. 60950-1
- EN 60950-1
- IEC 60950-1
- UL 60950-1

Technical Specifications

MTBF

- 75,000 hours
- Telcordia SR332

Power Characteristics

- PoE
 - » Input voltage: IEEE 802.3af (Class 3)
 - » Max. consumption: 13W
- AC/DC power adapter
 - » Rated input voltage: AC 100–240 V
 - » Input voltage range: AC 90–264 V
 - » Rated frequency: 50/60 Hz
 - » Rated input current: .30A
 - » Max. input current*: .25A
 - » Max. consumption: 13W
 - » Avg. consumption: 9.2W

Environmental Specifications

- Operating temperature: 0° to 45°C (32° to 113°F)
 - powered by means of PoE
 - 0° to 40°C (32° to 104°F)
 - powered by means of PSU
- Storage temperature: 20° to 70°C (-4° to 158°F)
- Operating humidity: 80% relative, non-condensing
- Storage humidity: 90% relative, non-condensing

Physical Specifications

- Dimensions (W x D x H): 20 cm x 20 cm x 6.6 cm (7.87 in x 7.87 in x 2.59 in)
- Weight: 1.2 Kg (2.64 lbs)
- Case: Plastic enclosure

Interfaces

Wired

- Ethernet
 - Standard: IEEE 802.3 (10T)
 - IEEE 802.3u (100TX)
 - IEEE 802.3ab (1000T)
- Ports: 1
- Connector: RJ-45 female

Console

- Standard: RS232
- Ports: 1
- Connector: RJ-45 female

Wireless

- WLAN
 - Standard: IEEE 802.11a/n
 - Ports: 1

WLAN

- Standard: IEEE802.11b/g/n
- Ports: 1

Embedded Antennas

- Omni-directional
 - Frequency range: 2,400 ~ 2,500 MHz
 - Max. peak gain: 4.7 dBi

- Omni-directional
 - Frequency range: 4,900 ~ 5,825 MHz
 - Max. peak gain: 7.4 dBi

AT-TQ3600 | Enterprise-class IEEE 802.11n Wireless Access Point

Radio Characteristics

IEEE 802.11a	IEEE 802.11a/n	IEEE 802.11b	IEEE 802.11g	IEEE 802.11g/n
FREQUENCY RANGE				
5.15GHz ~ 5.85GHz		2.4GHz ~ 2.4835GHz		
MODULATION TECHNIQUE				
OFDM (BPSK, QPSK, 16QAM, 64QAM)		DSSS (DBPSK, DQPSK, CCK)	OFDM (BPSK, QPSK, 16-QAM, 64-QAM)	
OUTPUT POWER¹				
15 dBm @ 6Mbps 15 dBm @ 54Mbps	20MHz: 15 dBm @ MCS0/8/16 15 dBm @ MCS7/15/23 40MHz: 15 dBm @ MCS0/8/16 15 dBm @ MCS7/15/23	16.5 dBm @ 1Mbps 16.5 dBm @ 11Mbps	15 dBm @ 6Mbps 15 dBm @ 54Mbps	20MHz: 15 dBm @ MCS0/8/16 15 dBm @ MCS7/15/23 40MHz: 15 dBm @ MCS0/8/16 15 dBm @ MCS7/15/23
RECEIVE SENSITIVITY				
-82 dBm @ 6Mbps -81 dBm @ 9Mbps -79 dBm @ 12Mbps -77 dBm @ 18Mbps -74 dBm @ 24Mbps -70 dBm @ 36Mbps -66 dBm @ 48Mbps -65 dBm @ 54Mbps	20MHz: -82 dBm @ MCS0/8/16 -64 dBm @ MCS7/15/23 40MHz: -79 dBm @ MCS0/8/16 -61 dBm @ MCS7/15/23	-80 dBm @ 1Mbps -80 dBm @ 2Mbps -76 dBm @ 5.5Mbps -76 dBm @ 11bps	-82 dBm @ 6Mbps -81 dBm @ 9Mbps -79 dBm @ 12Mbps -77 dBm @ 18Mbps -74 dBm @ 24Mbps -70 dBm @ 36Mbps -66 dBm @ 48Mbps -65 dBm @ 54Mbps	20MHz: -82 dBm @ MCS0/8/16 -64 dBm @ MCS7/15/23 40MHz: -79 dBm @ MCS0/8/16 -61 dBm @ MCS7/15/23
DATA RATES				
54, 48, 36, 24, 18, 12, 9, 6Mbps, auto-fallback	@ 400GI, 20MHz: 3Nss: ≤ 216.6Mbps @ 400GI, 40MHz: 3Nss: ≤ 450.0Mbps @ 800GI, 20MHz: 3Nss: ≤ 195.0Mbps @ 800GI, 40MHz: 3Nss: ≤ 405.0Mbps	11, 5.5, 2, 1Mbps	54, 48, 36, 24, 18, 12, 9, 6Mbps, auto-fallback	@ 400GI, 20MHz: 3Nss: ≤ 216.6Mbps @ 400GI, 40MHz: 3Nss: ≤ 450.0Mbps @ 800GI, 20MHz: 3Nss: ≤ 195.0Mbps @ 800GI, 40MHz: 3Nss: ≤ 405.0Mbps

¹ Output power is the maximum signal level delivered by the radio. The signal level is automatically limited in accordance to the selected regulatory domain.

Ordering Information

AT-TQ3600-xx

Enterprise-class Wireless Access Point with IEEE 802.11n dual-band radios and embedded antenna

Where xx =

- [none] Regulatory Domain: Worldwide (except United States and Canada)
- 01 Regulatory Domain: United States and Canada
- Reserved

Related Products

AT-UWC

Wireless LAN Controller for enterprises

AT-TQ2450

Enterprise-class Wireless Access Point with IEEE 802.11n dual-band radios

AT-TQ0091

AC/DC power adapter for AT-TQ3600



the solution : the network

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