

Model No. A300: Industrial Managed Wireless-G AP/Bridge



Product Highlights

- ✓ **IEEE 802.11 b/g + WDS (Bridge & Repeater, Point-to-Point, Point-to-Multiple-Point)**
- ✓ **Dual IEEE 802.3af (PoE) compliant with Link Failover**
- ✓ **Multiple 8 B-SSID capability**
- ✓ **VLAN tag over WDS**
- ✓ **Business-class security and central management**
- ✓ **Metal case with IP50 compliance for industrial usage**
- ✓ **Anti-Static Electricity Grounding System**
- ✓ **Input Power by redundant 12 VDC input power or 48 VDC Dual Power-Over-Ethernet (IEEE 802.3af)**

Product Introduction

Aiming at the best performance/price ratio for both business and industrial applications, A300 is designed to be affordable yet fast, secured, robust, versatile and business class access point.

A300 is compliant with the latest wireless industrial security standards that are



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required in those tightly secured enterprise networking environments. Its Wireless Distribution System (WDS) feature allows for flexible extension of wireless coverage. The dual LAN ports can receive Power over Ethernet (PoE) and back up each other with failover redundancy function, giving A300 reliable connectivity. Its metal case is IP50 compliant; that means A300 is well suited to the WLAN deployment in industrial environments.

A300's easy-to-use web-based administrative interface make the configuration task and client management simple and straightforward. In addition, CLI and SNMP management interfaces are also supported by A300.

The built-in software interfaces of A300 allows for communicating with other types of network management servers. When managed by our backend controlling gateway, the A300 can further provide enhanced values in a well managed WLAN solution.

Key Features and Benefits

✓ **[High Speed IEEE 802.11 g and Backward Compatible with 802.11b](#)**

A300 is equipped with a high-speed IEEE 802.11g wireless network interface based on Atheros™ chipset, delivering reliable performance with maximum wireless transmission rates of up to 54Mbps. It is backward compatible with IEEE 802.11b standard.

✓ **[WDS Wireless Modes for Extending Wireless Coverage](#)**

To increase wireless network coverage, it is also able to create structural WDS (Bridge or Repeater) links connecting to other WDS-capable APs. WDS links can serve as A300's LAN connections to replace Ethernet ports, or simply bridge the wired side and the wireless side as a single network.

✓ **[Supporting IEEE 802.1p/1Q Quality Service and IEEE801.11e Wireless Multi-Media](#)**

For bandwidth thirsty multimedia applications like voice, audio and video, A300 supports IEEE 801.11e Wireless Multi-Media (WMM) and IEEE 802.1p/IEEE 802.1Q Quality of Service (QoS) tagging features.

✓ **[Capability of Client Isolation and Serving as Multiple Virtual APs](#)**



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Multiple-SSID capability is to use just one AP to simultaneously emulate up to 8 APs with different BSSIDs by utilizing the Atheros™'s virtual AP (VAP) technology and separate their packets by using different VLAN IDs. Hence, using one AP is able to act as if there are actually 4 different APs deployed in the same area. Client isolation, which is also supported by A300, keeps clients under an AP are isolated from each other.

✓ **Enterprise Class WLAN Security by Encryption and Client Authentication**

To protect data transmission over the air, A300 can be configured to filter out unauthorized wireless clients with its built-in MAC-based access control list or via a back-end RADIUS server by sending an authentication request when a client is trying to get connected to it. Additionally, A300 also has many advanced security options including 64/128 bit WEP, WPA/WPA2 with IEEE 802.1x or PSK (Pre-Shared Key). Other security features included are: Wireless LAN segmentation, Rouge AP detection, and Disable SSID Broadcast, and the option of station-isolation.

✓ **Multiple Administration Interfaces for Network Management**

A300 provides three types of administrative interfaces, web-based management interface, CLI, and SNMP to configure and manage network deployment.

✓ **Dual-PoE with Link Failover**

The IEEE 802.3af Power over Ethernet (PoE) compliant design eliminates the need for power sockets, allows installation of this device in areas where power outlets are not readily available to improve deployment flexibility, and provides standard based compatibility with other devices. In addition, A300 provides dual-PoE 10/100 Fast Ethernet ports with failover function for redundant connectivity.

✓ **Antenna Diversity & Field Replaceable Antenna**

The antenna diversity design enhances the connection reliability to improve data transmission capability. A300 has two detachable high-gain antennas for optimal wireless coverage. The detachable antenna design provides flexibility to meet customer demands for optimal high-gain replacement in specific environments.



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✓ **IP50 Compliant**

Enclosed in an IP50 compliant metal chassis, the A300 is durable in harsh and dusty industrial environments.

✓ **Installation**

DIN-RAIL (Optional) or Wall Mount ability

A300 Software Specifications

Wireless Standard

IEEE 802.11b (up to 11Mbps)

IEEE 802.11g (up to 54Mbps)

Frequency band: 2.4GHz

Wireless Architecture Mode:

AP mode

WDS mode (Repeater / Bridge)

Wireless Operating Channels:

802.11g EU ESIT(13), US FCC(11), Japan TELEC(CCK14, OFDM13)

Wireless Signal Management

Transmission power settings: High, Medium, or Low

Channel selection: Manual or Auto

No of associated clients per AP: 32

Setting for max no of associated clients: Yes

No of BSSID (Virtual AP): 8

Setting network policy based on BSSID: Yes

Preamble settings: Short/Long

Setting for 802.11b or 802.11g only

Setting for transmission speed

Setting for max no of wireless re-transmission

System Administration

Web-based administration

Command Line Interface (CLI)

SNMP v2

Event Log

Syslog



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Statistics

Configuration backup and restore

One-button-click to restore factory default settings

Firmware upgrade

AP load balancing based on the number of associated terminals

Viewing wireless clients' status and managing wireless clients

Capable of kicking out specified clients

Capable of performing RADIUS Accounting and Accounting Update

WLAN Security & User Authentication

Station L2 client isolation

WEP 64/128/156

EAP-TLS + Dynamic WEP

EAP-TTLS + Dynamic WEP

PEAP / MS-PEAP + Dynamic WEP

WPA (PSK + TKIP)

WPA (802.1x certification + TKIP)

802.11i WPA2 (PSK + CCMP / AES)

802.11i WPA2 (802.1x certification + CCMP / AES)

Setting for TKIP / CCMP / AES key's refreshing period

Hidden ESSID support

Setting for "Deny ANY" connection request

MAC Address filtering (MAC ACL)

MAC authentication with RADIUS servers

Max no of registered RADIUS servers: 2

IEEE 802.11 mixed mode support open and shared key authentication

VLAN assignment on BSSID

Rogue AP Detection

Support VLAN tag over WDS

QoS and Wireless Multi-Media (WMM) Capability

DiffServ /TOS

IEEE 802.1p /COS

IEEE 802.1Q Tag VLAN priority Control

IEEE 801.11e WMM

Handover & Roaming

IEEE 802.11f IAPP

IEEE 802.11i Preauth (PMKSA Cache)



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L2 Handover

Built-in servers & client interfaces to other servers

DHCP client

DNS client

HTTP/HTTPS server

TELNET server

SSH server

Syslog client

RADIUS client

SNMP v1/v2 read & write client

A300 Hardware Specifications	
Base Platform	AR2317
Clock Speed	180 MHz
Wireless Radio	802.11bg
Serial Port	1 * DB9
Reset Switch Built-in	Push-button momentary contact switch
Standards Conformance	IEEE 802.3 / IEEE 802.3u
Ethernet Configuration	10/100BASE-TX auto-negotiation Ethernet port x 2 (RJ-45 connector) Auto MDI/MDI-X enabled , IEEE802.3af Power Over Ethernet Compatible , Auto Fail over
SDRAM	On board : 16 Mbytes
Flash	On board : 4 Mbytes
Built-In LED Indicators	1x Power, 2x LAN, 1x WLAN
Wireless Specifications	
Network Standards Conformance	IEEE802.11 b /g compliant
Data Transfer Rate	IEEE802.11b : 1 / 2 / 5.5 / 11Mbps (auto sensing) IEEE802.11g : 6 / 9 / 12 / 18 / 24 / 36 / 48 / 54(auto sensing)
Frequency Range	IEEE802.11b/g : 2.412 ~ 2.462GHz (USA) 2.412 ~ 2.484GHz (Japan) 2.412 ~ 2.472 GHz (Europe ETSI) 2.457 ~ 2.462 GHz (Spain)

