



Alcatel-Lucent 4306 OmniAccess Switch

Installation Guide

Copyright

© 2009 Alcatel-Lucent. All rights reserved.
Specifications in this manual are subject to change without notice.
Originated in the USA.

Trademarks

AOS-W, Alcatel 4308, Alcatel 4324, Alcatel 6000, Alcatel 41, Alcatel 60/61/65, Alcatel 70, and Alcatel 80 are trademarks of Alcatel-Lucent in the United States and certain other countries.

Any other trademarks appearing in this manual are the property of their respective companies.

Legal Notice

The use of Alcatel-Lucent switching platforms and software, by all individuals or corporations, to terminate Cisco or Nortel VPN client devices constitutes complete acceptance of liability by that individual or corporation for this action and indemnifies, in full, Alcatel-Lucent from any and all legal actions that might be taken against it with respect to infringement of copyright on behalf of Cisco Systems or Nortel Networks."

	Preface.....	5
	General Overview	5
	Related Documentation.....	5
	Contacting Alcatel-Lucent.....	6
Chapter 1	Alcatel-Lucent 4306 Hardware Overview	7
	About the Alcatel-Lucent 4306 Switch.....	7
	Minimum Software Requirements	7
	Package Checklist.....	7
	Hardware Model Overview	8
	Front View	8
	ExpressCard Slot.....	8
	Port LEDs.....	8
	Rear View	9
	AC Power Socket	9
	10/100BaseT Ethernet Ports	9
	10/100/1000Base-T Gigabit Ethernet Port.....	9
	Serial Console Port.....	9
	Serial Console Port Adaptor	10
	USB Ports.....	10
	Media Eject Button	11
	LED Status Indicators.....	12
Chapter 2	Alcatel-Lucent 4306 Installation.....	13
	Installation	13
	Pre-Installation Requirements.....	13
	Physical Installation.....	13
	Tabletop Deployment	13
	Initial Setup and Network Connectivity.....	13
Appendix A	Specifications, Safety, & Compliance.....	15
	Specifications	15
	Physical Specifications	15
	Power Management Specifications	15
	Operating Specifications.....	15
	Storage Specifications.....	15
	Safety and Regulatory Compliance.....	16
	FCC Class B Device.....	16
	Proper Disposal of Alcatel-Lucent Equipment	16
	Waste of Electrical and Electronic Equipment	17
	European Union RoHS	17
	China RoHS	17

This preface includes the following information:

- An overview of the contents of this manual
- A list of related documentation for further reading
- Alcatel-Lucent support and service information

General Overview

- Chapter 1, “Alcatel-Lucent 4306 Hardware Overview” on page 7 provides a detailed hardware overview of the Alcatel-Lucent 4306.
- Chapter 2, “Alcatel-Lucent 4306 Installation” on page 13 provides rack mounting and installation instructions.
- Appendix A, “Specifications, Safety, & Compliance” on page 15 includes product technical specifications, safety, and regulatory compliance information.

Related Documentation

The following documentation are referred to in this guide and are considered components of the complete documentation set needed for a successful installation and management of an Alcatel-Lucent switch.

- *AOS-W Quick Start Guide*
- *AOS-W User Guide*
- *Alcatel-Lucent Mobility Management System User Guide*

Contacting Alcatel-Lucent

Table 1 *Contact Information*

Web Site Support	
Main Site	http://www.alcatel-lucent.com/enterprise
Support Site	https://service.esd.alcatel-lucent.com
Support Email	esd.support@alcatel-lucent.com

Table 2 *Contact Information*

Telephone Support	
North America	1-800-995-2696
Latin America	1-877-919-9526
Europe	+33 (0) 38 855 6929
Asia Pacific	+65 6240 8484
Worldwide	1-818-878-4507

About the Alcatel-Lucent 4306 Switch

The Alcatel-Lucent 4306 is an enterprise-class, wireless LAN switch. This switch connects, controls, and integrates wireless Access Points (APs) and Air Monitors (AMs) into a wired LAN system.

- Alcatel-Lucent 4306 Switch

The Alcatel-Lucent 4306 is capable of supporting up to 8 external, campus connected APs.

- 4306: no built-in external AP support; optional Alcatel-Lucent AP upgrade licenses are available.
- 4306-4: includes built-in campus connected AP support for up to 4 APs; optional Alcatel-Lucent AP upgrade licenses are available.



NOTE

Feature related AP licenses are counted independently and in addition to the Alcatel-Lucent AP upgrade licenses. Contact your Alcatel-Lucent sales representative for complete details regarding software licensing options and support capacity.

Minimum Software Requirements

The Alcatel-Lucent 4306 Switch requires AOS-W 3.4.0 or later.

AOS-W software builds prior to version 3.4.0 does not support the Alcatel-Lucent 4306 Switch. If your network currently runs a software build prior to 3.4.0, you must upgrade the software on your master and local switches to 3.4.0 or later prior to installing an Alcatel-Lucent 4306 Switch in your existing network.



NOTE

The master switch, its redundant master switch, and all of its local switches must run on the same code of AOS-W. Once you upgrade your network and install an Alcatel-Lucent 4306 Switch into your network, verify that the software version on your switch matches the rest of your network. If the code shipped on the switch is prior to the version that you upgraded your network to, you must upgrade the code on the switch to match the rest of the network.

Package Checklist

- Alcatel-Lucent 4306 Switch
- AC Power Cord (country-specific)
- Rubber Feet (for table top deployments)
- Flat Serial Cable (RJ-45)
- Serial Cable Port Adapter (RJ-45 to DB9)
- AOS-W Software Documentation CD
- AOS-W Quick Start Guide
- End User License Agreement (EULA)

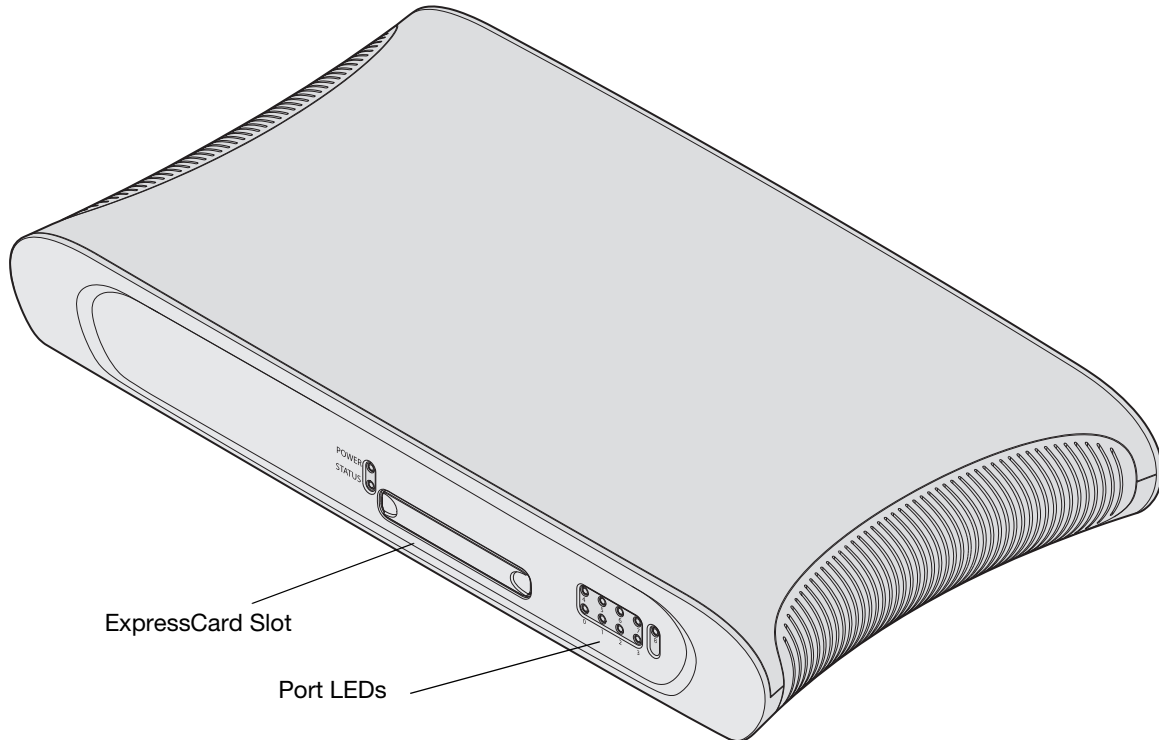


Inform your supplier if there are any incorrect, missing, or damaged parts. If possible, retain the carton, including the original packing materials. Use these materials to repack and return the unit to the supplier if needed.

Hardware Model Overview

Front View

Figure 1 Alcatel-Lucent 4306 Front View



ExpressCard Slot

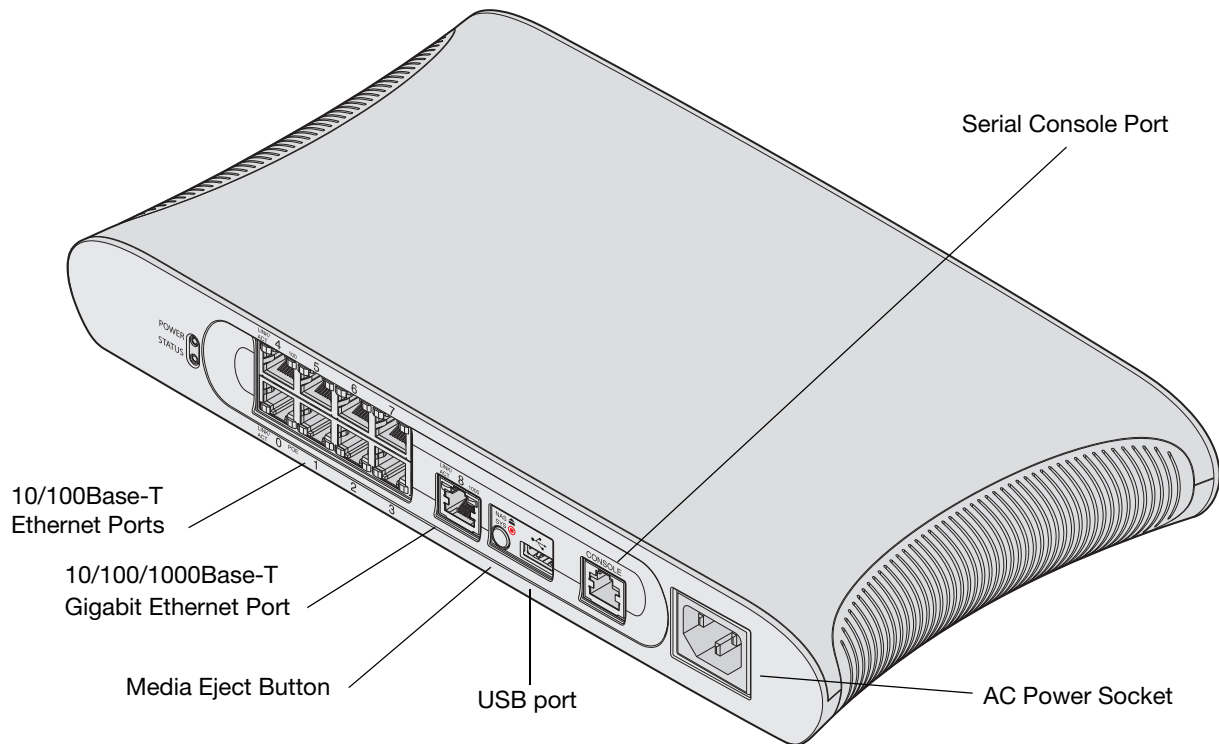
The Alcatel-Lucent 4306 is equipped with one ExpressCard slot.

Port LEDs

In non-rack deployments, the Alcatel-Lucent 4306 is placed with the front facing out. This allows the cables to be hidden and create a more aesthetically pleasing look. Therefore, a set of LEDs displaying link activity on the ports is placed on this side. For information about the behavior of these LEDs, see [Table 5](#).

Rear View

Figure 2 Alcatel-Lucent 4306 Series Rear View



AC Power Socket

The Alcatel-Lucent 4306 supports integrated AC powering and the AC power socket on the rear of the unit is for use with an AC power cord (country-specific). Refer to "Power Specifications" on page 17 for power specification details.

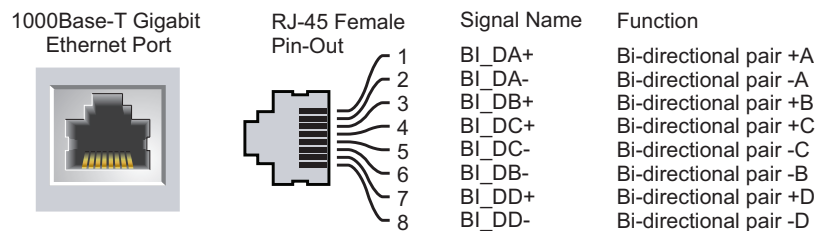
10/100BaseT Ethernet Ports

There are eight 10/100BaseT Ethernet ports on the Alcatel-Lucent 4306. Ports 0 through 3 support Power over Ethernet (PoE). Ports 4 through 7 do not support PoE and do not have a PoE LED. Instead, they have an LED labeled 100, which indicates interface speed. For information about LED behavior, see Table 5.

10/100/1000Base-T Gigabit Ethernet Port

There is one 10/100/1000Base-T Gigabit Ethernet (RJ-45) port on the Alcatel-Lucent 4306. Gigabit Ethernet uses all eight wires and each pair is used in a bi-directional fashion, meaning the same pairs are used for both data transmission and reception. Figure 3 illustrates the CAT-5 pin-out found on an RJ-45 connector. The CAT-5 pin-out pairs the following pins on a 10/100/1000Base-T Gigabit Ethernet port: 1/2, 3/6, 4/5, and 7/8.

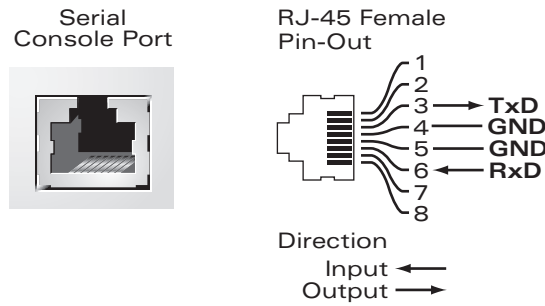
Figure 3 Gigabit Ethernet Port Pin-Out



Serial Console Port

A serial console port (see Figure 4) is provided for connection to a terminal, allowing for direct local management. The port's RJ-45 female connector accepts an RS-232 serial cable with a male connector.

Figure 4 Serial Console Port Pin-Out



Communication settings for the serial port are indicated in [Table 3](#).

Table 3 Console Terminal Settings

Baud Rate	Data Bits	Parity	Stop Bits	Flow Control
9600	8	None	1	None

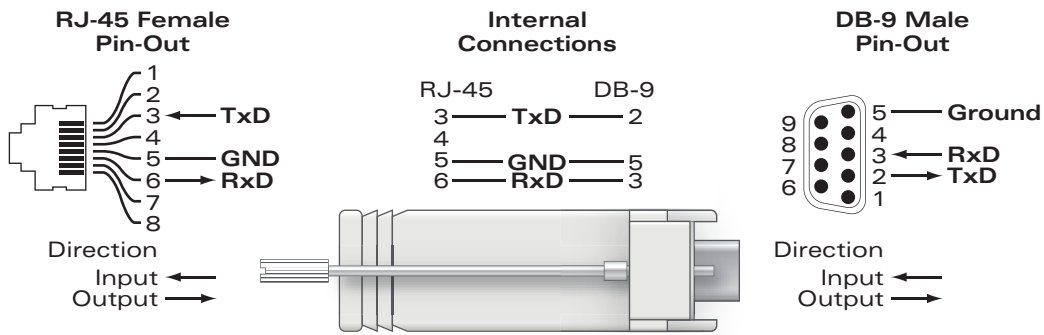


Do not connect an AP to the serial console port. The serial console port is compatible only with RS-232 devices. Non-RS-232 devices, such as APs, are not supported.

Serial Console Port Adaptor

A modular adaptor can be used to convert the RJ-45 (female) connector to a DB9 (male) connector. Refer to [Figure 5](#) for complete details.

Figure 5 RJ-45 (female) to DB9 (male) Modular Adaptor Conversion



USB Ports

The Alcatel-Lucent 4306 has one USB 2.0 interface. These interfaces allow the use of EVDO/HSPDA modem, flash or disk storage devices, or a printer

Media Eject Button

The Alcatel-Lucent 4306 is equipped with a media eject button, which allows users to eject storage devices safely and place the system in standby. Pushing the media eject button changes the state of the Alcatel-Lucent 4306; the table below describes the states and LED behaviors associated with use of the media eject button.

Table 4 Media Eject Button LED Behavior

Initial State	LED State	Action	Status LED	Function	LED Action Completed
NAS Media Operational	Green-solid	Press and hold media eject button for 1 to 5 seconds only	Amber-flashing	Un-mount all NAS media	Amber-solid
NAS Media Unmounted	Amber-solid	Press and hold media eject button for 1 to 5 seconds only	Amber-flashing	Mount all attached NAS devices, and return to fully functional operation	Green-solid
Operational	Green-solid	Press and hold media eject button for more than 5 seconds only	Red-flashing	Switch goes into Standby	Red-solid
Operating with NAS Media un-mounted	Amber-solid	Press and hold media eject button for more than 5 seconds only	Red-flashing	Switch goes into Standby	Red-solid
Standby	Red-solid	Press media eject button	Amber-flashing	Switch wake-up	Green-solid

LED Status Indicators

Table 5 Alcatel-Lucent 4306 LED Status Indicators

LED	Label	Function	Indicator	Status
Power	POWER	Input Power Status Indicator	On (Solid Green)	Power on
			Off	No Power
Status	STATUS	Module Status Indicator	On (Solid Green)	Device is operational
			On (Solid Red)	Device failed or is in Standby
			On (Solid Amber)	Device is loading software
			Off	No power
10/100/1000Base-T Port	LNK/ACT	Link/Activity Status Indicator	On (Solid Green)	Link has been established
			On (Flashing Green)	Port is transmitting or receiving data
			Off	No link on port
	1000	Interface Speed	On (Solid Green)	1000 Mbps
			Off	10/100 Mbps
10/100Base-T Ports	LINK/ACT	Link/Activity Status Indicator	On (Solid Green)	Link has been established
			On (Flashing Green)	Port is transmitting or receiving data
			Off	No link on port
	PoE	PoE Status Indicator	On (Solid Green)	PoE is being provided
			On (Solid Amber)	The attached device has requested PoE, but PoE is not being provided by the port
			Off	PoE is not being provided
	100	Interface Speed	On (Solid Green)	100 Mbps
			Off	10 Mbps

Installation

Pre-Installation Requirements

The following tools and equipment are required for installation of an Alcatel-Lucent 4306 switch.

- AC Power Cord (country-specific)

Physical Installation

Tabletop Deployment

To deploy an Alcatel-Lucent 4306 switch on a flat surface, such as a tabletop:

1. Insert the four rubber mounting feet to the bottom of the unit.
2. Place the unit on a hard flat surface.

Initial Setup and Network Connectivity

Once the physical installation is complete, run the initial setup on the switch to configure the IP address and other basic system information. For complete details and instructions, refer to the *AOS-W Quick Start Guide* for the software version installed on your switch.

Specifications

Physical Specifications

Device Dimensions :

- Height 1.75" (45 mm)
- Width 12.6" (320 mm)
- Depth 6.8" (173 mm)

Power Management Specifications

- AC Input Voltage: 100-240 V, Universal Input
- AC Input Frequency: 50-60 Hz
- Maximum power consumption: 115 Watts
- Power over Ethernet total capacity: 78 Watts
- Power over Ethernet capacity per port: 19.5 Watts

Operating Specifications

- Operating Temperature Range: 0°C to 40°C (32°F to 104°F)
- Operating Humidity Range: 5% to 95% (RH), non-condensing

Storage Specifications

- Storage Temperature Range: 0°C to 50°C (32°F to 122°F)
- Storage Humidity Range: 5% to 95% (RH), non-condensing

Safety and Regulatory Compliance

Alcatel-Lucent provides a multi-language document containing country specific restrictions and additional safety and regulatory information for all Alcatel-Lucent hardware products. The *Alcatel-Lucent Safety and Regulatory Addendum* can be viewed or downloaded from the following location: <https://service.esd.alcatel-lucent.com>.



Use of controls or adjustments of performance or procedures other than those specified in this manual may result in hazardous radiation exposure.

This product complies with 21 CFR Chapter 1, Subchapter J, Part 1040.10, and IEC 60825-1: 1993, A1: 1997, A2: 2001, IEC 60825-2: 2000.

For continued compliance with the above laser safety standards, only approved Class 1 modules from our approved vendors should be installed in Alcatel-Lucent products.

FCC Class B Device

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

- FCC Part 15 Class B
- EN 55022 Class B
- EN 55024
- IEC/EN 60950
- CE Marking
- cTUVus Marked
- CB Scheme Certified

For a complete list of Country Specific Regulations please speak with your Alcatel-Lucent Representative .

Proper Disposal of Alcatel-Lucent Equipment

For the most current information on Global Environmental Compliance and Alcatel-Lucent products please see our website at <http://www.alcatel-lucent.com/enterprise>.

Waste of Electrical and Electronic Equipment



Alcatel-Lucent products at end of life are subject to separate collection and treatment in the EU Member States, Norway, and Switzerland and therefore are marked with the symbol shown at the left (crossed-out wheeled bin). The treatment applied at end of life of these products in these countries shall comply with the applicable national laws of countries implementing Directive 2002/96EC on Waste of Electrical and Electronic Equipment (WEEE).

European Union RoHS



Alcatel-Lucent products also comply with the EU Restriction of Hazardous Substances Directive 2002/95/EC (RoHS). EU RoHS restricts the use of specific hazardous materials in the manufacture of electrical and electronic equipment. Specifically, restricted materials under the RoHS Directive are Lead (including Solder used in printed circuit assemblies), Cadmium, Mercury, Hexavalent Chromium, and Bromine. Some Alcatel-Lucent products are subject to the exemptions listed in RoHS Directive Annex 7 (Lead in solder used in printed circuit assemblies). Products and packaging will be marked with the “RoHS” label shown at the left indicating conformance to this Directive.

China RoHS



Alcatel-Lucent products also comply with China environmental declaration requirements and are labeled with the “EFUP e” label shown at the left.

