

OmniAccess 4504, 4604, and 4704 WLAN Switch

Alcatel·Lucent 

Installation Guide

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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

Guide Overview

- [Chapter 1, “Hardware Overview” on page 7](#) provides a detailed hardware overview of the three OmniAccess WLAN Switches covered in this guide: the OAW-4504, the OAW-4604, and the OAW-4704.
- [Chapter 2, “Installation” on page 13](#) provides rack mounting and installation instructions.
- [Appendix A, “Specifications, Safety & Compliance” on page 17](#) includes product technical specifications and safety and regulatory compliance information.

Related Documents

The following documents are referred to in this guide and are considered components of the complete documentation set needed for successful installation and management of an OmniAccess WLAN Switch:

- *AOS-W Quick Start Guide*
- *AOS-W User Guide*
- *OmniVista Mobility Manager User Guide*

Contacting Alcatel-Lucent

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

Telephone Support	
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Europe	+33 (0) 38 855 6929
Asia Pacific	+65 6240 8484
Worldwide	1-818-878-4507

About the OmniAccess 4504, 4604, and 4704

The OmniAccess 4504, 4604, and 4704 are enterprise-class, wireless LAN switches. These switches connect, control, and intelligently integrate wireless Access Points (APs) and Air Monitors (AMs) into a wired LAN system.

Available base models:

- OmniAccess 4504 (OAW-4504)

The OAW-4504 is capable of supporting up to 32 campus connected APs. The following base models are available and can be upgraded by purchasing optional software licenses:

- OAW-4504-0: no built-in AP support; optional Alcatel-Lucent AP upgrade licenses available.
- OAW-4504-8: includes built-in campus connected AP support of up to 8 APs; additional Alcatel-Lucent AP upgrade licenses available.

- OmniAccess 4604 (OAW-4604)

The OAW-4604 is capable of supporting up to 64 campus connected APs. The following base models are available and can be upgraded by purchasing optional software licenses:

- OAW-4604-0: no built-in AP support; optional Alcatel-Lucent AP upgrade licenses available.
- OAW-4604-32: includes built-in campus connected AP support of up to 32 APs; additional Alcatel-Lucent AP upgrade licenses available.

- OmniAccess 4704 (OAW-4704)

The OAW-4704 is capable of supporting up to 128 campus connected APs. The following base models are available and can be upgraded by purchasing optional software licenses:

- OAW-4704-0: no built-in AP support; optional Alcatel-Lucent AP upgrade licenses available.
- OAW-4704-64: includes built-in campus connected AP support of up to 64 APs; additional Alcatel-Lucent AP upgrade licenses available.



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 OmniAccess 4504, 4604, and 4704 require AOS-W 3.2.0 or later.

AOS-W software builds prior to version 3.2.0 do not support the OmniAccess 4504, 4604, and 4704. If your network currently runs on a software build prior to 3.2.0, you must upgrade the software on your master and local switches to 3.2.0 or later prior to installing an OmniAccess 4504, 4604, or 4704 WLAN Switch in your existing network.



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 OmniAccess 4504, 4604, or 4704 WLAN Switch into your network, verify that the software version on your switch matches the rest of the 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

- OmniAccess 4504, 4604, or 4704 WLAN Switch
- AC Power Cord (country-specific)
- Rack Mount Brackets with Hardware (for rack mounting)
- Flat Serial Cable (RJ-45)
- Rubber Feet (for table top deployments)
- Serial Console Port Adaptor (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.



Optional accessories, such as SFP modules, are available for use with an OmniAccess 4504, 4604, or 4704 and are sold separately. Contact your Alcatel-Lucent sales representative for details and assistance.

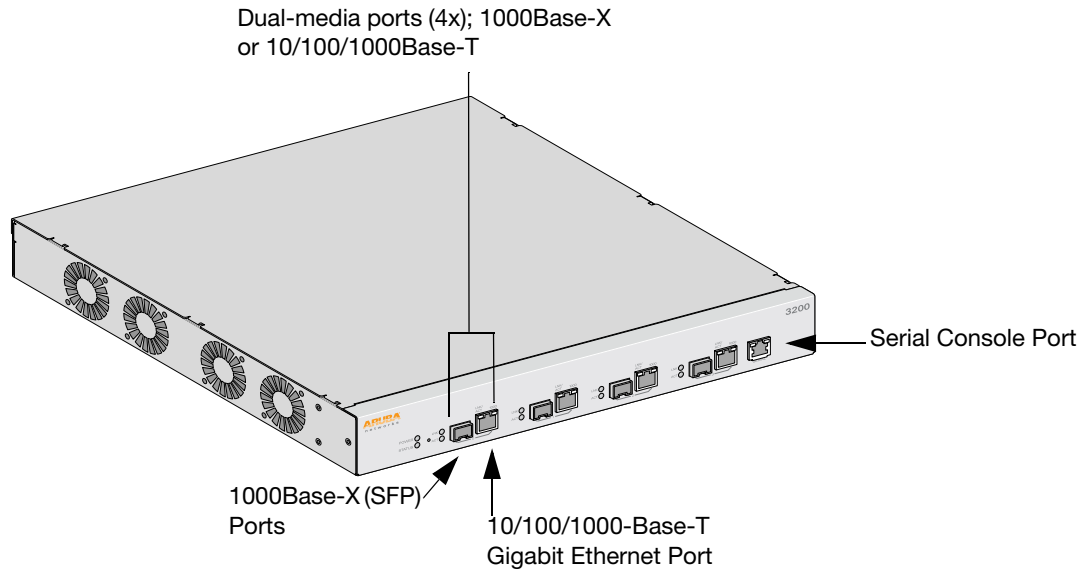
Hardware Model Overview



The physical hardware overview covers all three switches: the OmniAccess 4504, 4604, and 4704. The difference between the three switch models is dependent on the licensing level purchased, which is covered in [About the OmniAccess 4504, 4604, and 4704 on page 7](#). The switch model depicted in the illustrations throughout this section is the OAW-4504.

Front View

Figure 1 OmniAccess 4504, 4604, and 4704 Front View



Ports zero through three are dual-media ports and can utilize either the 1000Base-X or 10/100/1000Base-T connections provided. However, the 1000Base-X fiber connection has priority over the 10/100/1000Base-T copper connection. If a link is detected for the 1000Base-X interface, the 10/100/1000Base-T connection will be disabled.

1000Base-X (SFP) Ports

There are four 1000Base-X combination ports for fiber connectivity only and are intended for use with Alcatel-Lucent SFPs (mini-GBICs).

To purchase compatible SFP modules, contact your Alcatel-Lucent sales representative for details and assistance.

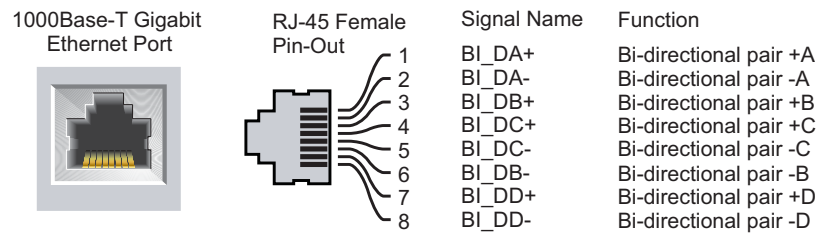


Alcatel-Lucent tests and supports Alcatel-Lucent optics within their switch systems. Third party optics are not tested or supported; therefore, Alcatel-Lucent does not guarantee proper functionality of third party optics when used in an Alcatel-Lucent system.

10/100/1000Base-T Gigabit Ethernet Ports

There are four 10/100/1000Base-T Gigabit Ethernet (RJ-45) ports. 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 2](#) 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.

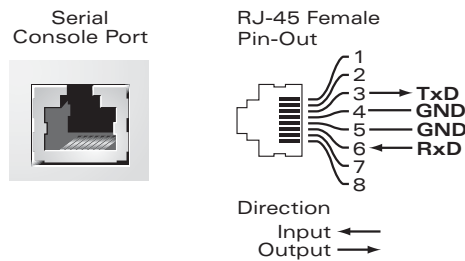
Figure 2 Gigabit Ethernet Port Pin-Out



Serial Console Port

A serial console port 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 3 Serial Console Port Pin-Out



Communication settings for the serial console port are indicated in [Table 1](#).

Table 1 Console Terminal Settings

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

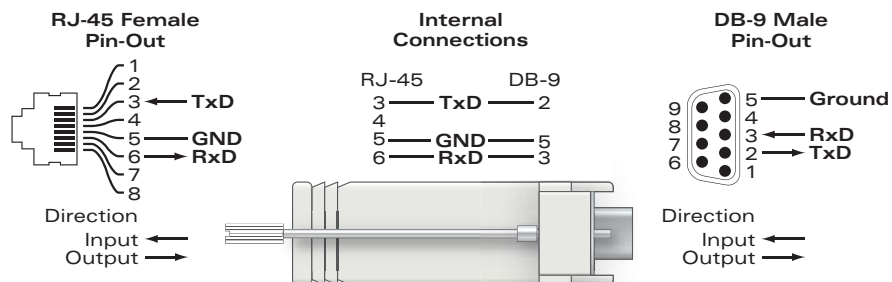


Do not connect an Access Point (AP) to the serial console port. The serial console port is compatible with only RS-232 devices. Non-RS-232 devices, such as APs, are not supported.

Serial Console Port Adaptor

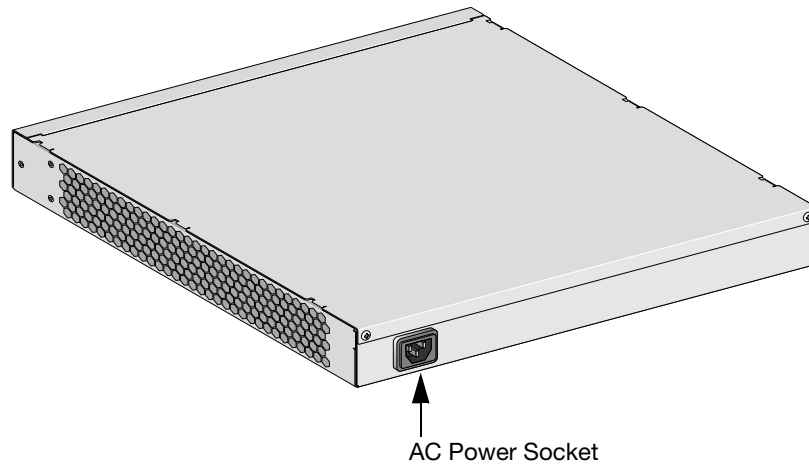
A modular adaptor can be used to convert the RJ-45 (female) connector to a DB9 (male) connector. Refer to [Figure 4](#) for complete details.

Figure 4 RJ-45 (female) to DB9 (male) Modular Adaptor Conversion



Rear View

Figure 5 OmniAccess 4504, 4604, and 4704 Rear View



AC Power Socket

The OmniAccess 4504, 4604, and 4704 support 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 Management Specifications](#) on page 17 for power specification details.

LED Status Indicators

Table 2 OmniAccess 4504, 4604, and 4704 LED Status Indicators

LED	Function	Indicator	Status
POWER	Input Power Status Indicator	On (Solid Green)	Power on
		Off	No power
STATUS	Module Status Indicator	On (Solid Green)	Device is operational
		On (Solid Red)	Device failed
		On (Solid Amber)	Device is loading software
		Off	No power
LNK 1000Base-X Ports	Link Status Indicator	On (Solid Green)	Link has been established
		Off	No link on port
ACT 1000Base-X ports	Activity Status Indicator	On (Blinking Green)	Port is transmitting or receiving data
		Off	No activity
LNK/ACT 10/100/1000Base-T Ports	Link/Activity Status Indicator	On (Solid Green)	Link has been established
		On (Blinking Green)	Port is transmitting or receiving data

Table 2 *OmniAccess 4504, 4604, and 4704 LED Status Indicators*

LED	Function	Indicator	Status
		Off	No link on port
1000 10/100/1000Base-T Ports	Interface Speed Indicator	On (Solid Green)	1000 Mbps interface speed in use
		Off	10/100 Mbps interface speed in use

Installation

Pre-Installation Requirements

The following tools and equipment are required for installation of an OmniAccess 4504, 4604, or 4704:

- Rack Mount Bracket (2x)
- 6-32 x 1/4" Phillips Flat Head Screws (6x, included with rack mount brackets)
- 12-24 x 5/8" Phillips Flat Head Screws (4x, 19-inch (48.26 cm) rack system mount screws)
- Suitable Screwdrivers for both screw types
- AC power cord (country-specific)

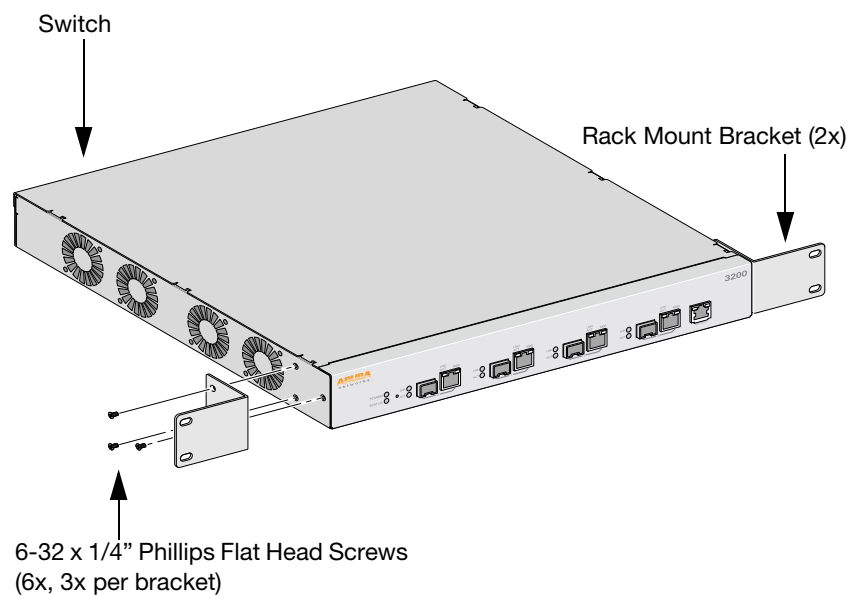
Physical Installation

Rack Mounting

To install an OmniAccess 4504, 4604, or 4704 switch into a 19-inch (48.26 cm) rack system:

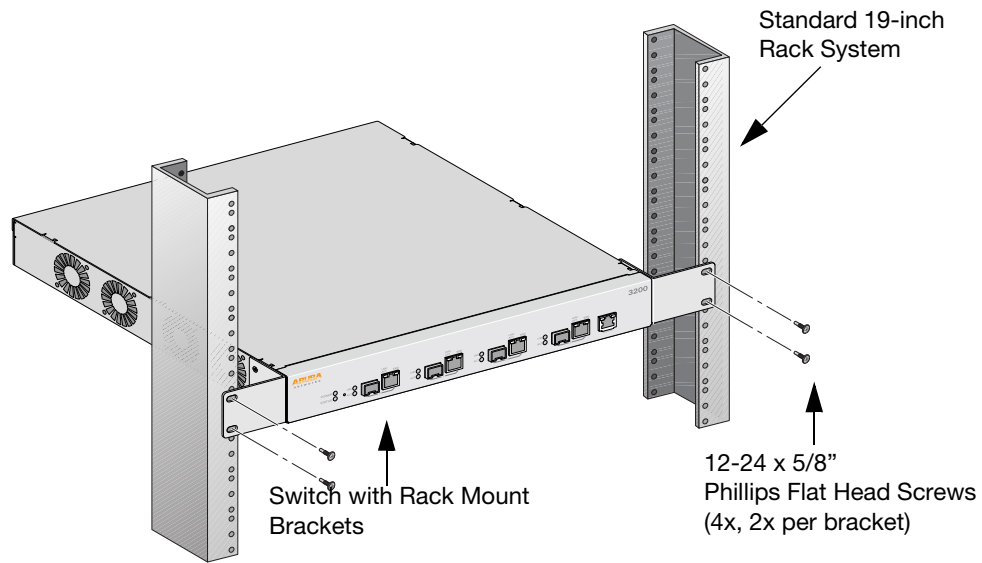
1. Place a rack mount bracket over the mounting holes on one side of the switch (see [Figure 1](#)).
2. Secure the bracket to the switch using three 6-32 x 1/4" phillips flat head screws and a suitable screwdriver (see [Figure 1](#)).
3. Repeat these steps on the opposite side of the switch.

Figure 1 *Rack Mount Brackets*



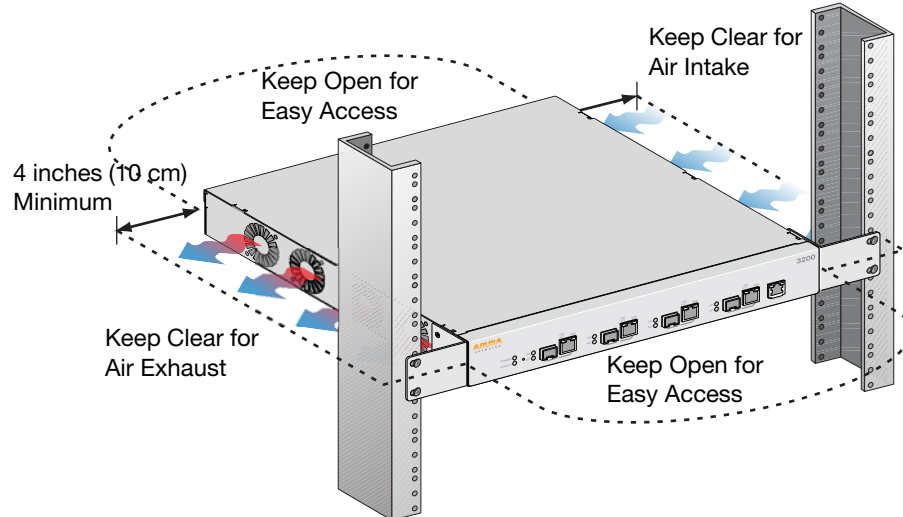
4. Mount the switch within your organization's rack system using four 12-24 x 5/8" phillips flat head screws and a suitable screwdriver (see [Figure 2](#)).

Figure 2 Rack Mount Installation



5. Leave a minimum of four inches (10 cm) of space on the left and right side of the unit for proper air flow and ventilation (see [Figure 3](#)).
6. Leave additional space in the front and back of the unit to access power cords, network cables, and LED status indicators (see [Figure 3](#)).

Figure 3 Air Flow Requirements



7. Connect the AC power cord (country-specific) to the rear of the unit.
8. Plug the opposite end of the power cord into an electrical outlet to power on the switch.



NOTE

OmniAccess 4504, 4604, and 4704 switches do not have a switch for turning power to the unit on or off. Power to the unit is controlled by connecting or disconnecting the plug on the power cord to or from an electrical outlet.

Tabletop Deployment

To deploy an OmniAccess 4504, 4604, or 4704 switch on a flat surface, such as a tabletop:

1. Insert the four, rubber mounting feet into the bottom of the unit and place the unit on a flat, hard 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.

Removal

To remove an OmniAccess 4504, 4604, or 4704 switch from a 19-inch (48.26 cm) rack system:

1. Disconnect power to the switch by unplugging the power cord from the electrical outlet.
2. Loosen and remove the four rack system mount screws securing the switch to your organization's rack system.
3. Remove the switch from the rack system.

Specifications

Physical Specifications

- Device Dimensions (without rack mount brackets) (HxWxD):
 - All Models: 1.75" x 13.8" x 11.7"
 - All Models: 44 mm x 351 mm x 297 mm

Device Weight (with rack mount brackets):

- OAW-4504: 7.1 lbs/3.2 kgs
- OAW-4604/OAW-4704: 7.4 lbs/3.4 kgs
- Shipping Dimensions (HxWxD):
 - All Models: 6.5" x 18.2" x 16.5"
 - All Models: 165 mm x 462 mm x 419 mm
- Shipping Weight:
 - OAW-4504: 9.4 lbs/4.3 kgs
 - OAW-4604/OAW-4704: 9.7 lbs/4.4 kgs

Power Management Specifications

Power Consumption

- OAW-4504: 35 W maximum
- OAW-4604: 45 W maximum
- OAW-4704: 60 W maximum

Power Specifications (AC Input Requirements)

- OAW-4504:
 - AC Input Voltage: 90-264 V~, Universal Input
 - AC Input Current: 1.5 A
 - AC Input Frequency: 47-63 Hz
- OAW-4604/OAW-4704:
 - AC Input Voltage: 90-264 V~, Universal Input
 - AC Input Current: 2.2 A
 - AC Input Frequency: 47-63 Hz

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% - 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.

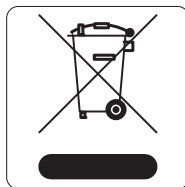
FCC Class A Device

This equipment has been tested and found to comply with the limits for a Class A 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.

Proper Disposal of Alcatel-Lucent Equipment

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

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 wheellie 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.

