

OmniAccess 4302 WLAN Switch

Installation Guide

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Preface

This preface contains the following information:

- An overview of the chapters in this manual
- A list of related documentation for further reading
- Information about Alcatel OmniAccess support and service

Overview of this Manual

Audience:

Trained technicians responsible for installing the Alcatel OmniAccess 4302 WLAN Switch.

Organization:

Chapter 1, “[Overview](#)”—Describes the main features of this product, including physical diagrams.

Chapter 2, “[Installing the Chassis](#)”—Instructions for selecting a location for the system and attaching power.

Appendix A, “[Connector Pinouts](#)”—Describes interface, cable, and adapter specifications for system ports.

Appendix B, “[Specifications](#)”—Describes the system’s size, weight, storage and operating environment, and certifications for electromagnetic compliance and safety.

Related Documents

The following items are part of the complete documentation for the Alcatel OmniAccess system:

- *Alcatel OmniAccess 4302 WLAN Switch Installation Guide* (this manual)
- *AOS-W User Guide*
- Alcatel AP installation guide

Contacting Alcatel

To contact Alcatel, refer to the information below:

Address

26801 West Agoura Road
Calabasas, CA 91301

Phone

VOICE	(818) 880-3500
FAX	(818) 880-3505

Email

info@ind.alcatel.com

Website

<http://www.alcatel.com/enterprise/en/index.html>

Support

Phone:

US Toll Free:	(800) 995-2696
International:	(818) 878-4507

Email:

support@ind.alcatel.com

Website:

<http://eservice.ind.alcatel.com>

The Alcatel OmniAccess 4302 WLAN Switch is a wireless LAN (WLAN) switch that connects, controls, and integrates Alcatel Access Points (APs) and Air Monitors (AMs) into the wired LAN in branch offices, retail stores, and small businesses.



FIGURE 1-1 Alcatel OmniAccess 4302 WLAN Switch Front

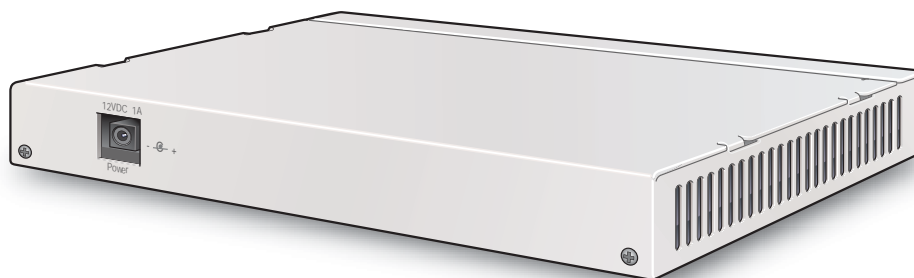


FIGURE 1-2 Alcatel OmniAccess 4302 WLAN Switch Rear

Features

Features of the Alcatel OmniAccess 4302 WLAN Switch include:

- One 10/100 Mbps Fast Ethernet (FE) wide area network (WAN) port.
- One 10/100/1000 Mbps Gigabit Ethernet (GE) local area network (LAN) port.

- Both ports automatically sense and negotiate speed, duplex, and MDI/MDX settings.
- One serial console port.
- Supports up to six APs.
- High-speed Layer-2/Layer-3 packet forwarding.
- High-performance packet processing provides value-added wireless services such as load balancing, rate limiting, self-healing, calibration, authentication, mobility, security, firewalls, encryption, and centralized monitoring and configuration for voice and data networking.
- Desktop chassis can be placed on a flat, stable surface.
- Optional 19-inch rack mount kit (Alcatel part number OAW-4302-RM-19) available.
- Firmware can be easily upgraded as future software releases are made available. You can install upgrades using TFTP.

System Overview

Figure 1-3 shows front and rear views of the Alcatel OmniAccess 4302 WLAN Switch.

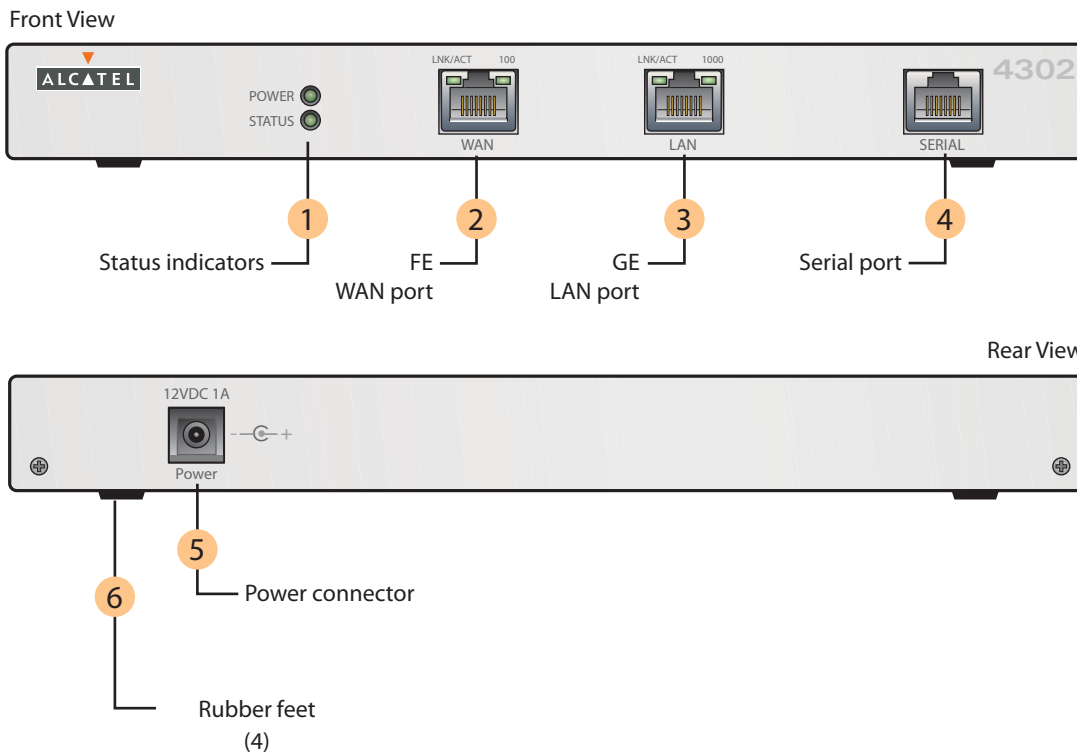


FIGURE 1-3 Alcatel OmniAccess 4302 WLAN Switch

1 System Indicator LEDs

The system LEDs, located on the front of the switch, display the status of system power and operation.

TABLE 1-1 System LEDs

LED	State	Description
Power	Green	WLAN Switch is powered on.
	Off	WLAN Switch is powered off.
Status	Green	WLAN Switch has booted and is functioning properly.
	Off	WLAN Switch is booting, loading software, or has failed.

NOTE: This LED remains off until you perform the initial setup described in the *Alcatel Quick Start Guide* (included in the Accessory Kit).

2 Fast Ethernet WAN Port

The Alcatel OmniAccess 4302 WLAN Switch provides one 10/100 Mbps Fast Ethernet (FE) port to connect to a WAN link. The FE port automatically senses and negotiates speed, duplex, and MDI/MDX settings.

From the WebUI and the CLI, this port address is **interface fastethernet 1/0**.

The port has two LEDs above the port: a LNK/ACT LED on the left and a 100 LED on the right. During operation, these LEDs provide the following information:

Status	Description
LNK/ACT LED	
Off	No Ethernet link on the port.
Green	An Ethernet link has been established on the port, but no data is currently being transmitted or received.
Flashing Green	The port is transmitting or receiving data. The flashing rate is fixed and is not proportional to your network activity.
100 LED	
Off	The Ethernet link speed is 10 Mbps.
Green	The Ethernet link speed is 100 Mbps.

Use a Category 5 (or better) UTP cable with RJ-45 connectors to connect to devices up to 100m (325 feet) away.

3 Gigabit Ethernet LAN Port

The Alcatel OmniAccess 4302 WLAN Switch provides one 10/100/1000 Mbps Gigabit Ethernet (GE) port for high-speed connection to the wired LAN. The GE port automatically senses and negotiates speed, duplex, and MDI/MDX settings.

From the WebUI and the CLI, this port address is **interface gigabitethernet 1/1**.

The port has two LEDs above the port: a LNK/ACT LED on the left and a 1000 LED on the right. During operation, these LEDs provide the following information:

Status	Description
LNK/ACT LED	
Off	No Ethernet link on the port.
Green	An Ethernet link has been established on the port, but no data is currently being transmitted or received.
Flashing Green	The port is transmitting or receiving data. The flashing rate is fixed and is not proportional to your network activity.
1000 LED	
Off	The Ethernet link speed is 10 or 100 Mbps.
Green	The Ethernet link speed is 1000 Mbps.

Use a Category 5 (or better) UTP cable with RJ-45 connectors to connect to devices up to 100m (325 feet) away.

4 Serial Console Port

Use this port to connect a local management console. This connection is required to access the text-based Command-Line Interface (CLI) for initial configuration of the Alcatel OmniAccess 4302 WLAN Switch. The CLI can also be used for WLAN Switch management and troubleshooting.

The port accepts an RS-232 serial cable with an RJ-45 male connector. See [“Serial Console Port” on page 11](#) for port information.



CAUTION: Do not connect an AP to the serial console port. The serial port is designed to connect to RS-232-only devices. Connecting non-RS-232 devices such as an AP to the serial port will cause the WLAN Switch to fail and can cause damage.

5 Power Input Socket (on Rear)

The power input socket on the chassis rear panel accepts the DC connector from the power adapter (included) which connects to a power cord which you plug in to site power. For proper safety and performance, use the power cord shipped with the Alcatel OmniAccess 4302 WLAN Switch.

NOTE: Use the power adapter supplied with the Alcatel OmniAccess 4302 WLAN Switch. Do not substitute power adapters designed for other products as this may damage the device or the power adapter.

6 Rubber Mounting Feet

Four rubber mounting feet stabilize and prevent slippage for placing the Alcatel OmniAccess 4302 WLAN Switch on a flat surface. (The mounting feet are included but must be attached by the user.)

This chapter covers the following installation topics:

- “Pre-Installation Checklist”
- “Precautions”
- “Installation Requirements”
- “Connecting Power”
- “Verifying the Installation”

Pre-Installation Checklist

Inspect the package in which the Alcatel OmniAccess 4302 WLAN Switch was shipped to ensure you have the following components:

- Alcatel OmniAccess 4302 WLAN Switch
- Four rubber feet (included but not installed)
- Alcatel power adapter and country-appropriate power cord
- RS-232 serial cable with RJ-45 male connectors
- Alcatel serial adapter (included) to connect the serial cable to a terminal or PC with a DB-9 serial port
- Setup Map document
- *Software End User License Agreement* (EULA)
- *Quick Start Guide*
- *Alcatel OmniAccess 4302 WLAN Switch Installation Guide* (this manual)
- *Managing Software License* document
- Alcatel Documentation CD
- AOS-W Release Notes

Precautions



CAUTION: Never insert foreign objects into the chassis or any other component, even when the Alcatel OmniAccess 4302 WLAN Switch is unpowered or unplugged.

Power is fully disconnected from the Alcatel OmniAccess 4302 WLAN Switch by unplugging the power cord from the power outlet. For safety reasons, verify the power outlet and plug are within easy reach of the operator.

To minimize electrical hazard, keep water and other fluids away from the product.

Comply with electrical grounding standards.

Do not ship or store this product near strong electromagnetic, electrostatic, magnetic, or radioactive fields.

Do not disassemble the chassis. This product has no internal serviceable parts. When service or repair is needed, see [“Contacting Alcatel”](#) on [page x](#).

Installation Requirements

This section describes requirements for the installation of the Alcatel OmniAccess 4302 WLAN Switch.

Location

The Alcatel OmniAccess 4302 WLAN Switch, like other computing devices and office equipment, requires an “electronics friendly” environment. Because it can be mounted on any flat, stable surface, select a location where the power and network connections will not interfere with traffic and office activities.

Space

For proper air circulation, leave at least 10 cm (4 inches) clearance for the vents on the left and right of the chassis.

Leave additional space in front and back of the chassis to access power cords, network cables, and indicator LEDs.

Limit Electromagnetic Interference

For best operation, keep the Alcatel OmniAccess 4302 WLAN Switch and all cords and cables at least 0.7 meters (2 feet) from fluorescent lighting fixtures, and 2 meters (6 feet) from photocopiers, radio transmitters, electric generators, and other sources of strong electromagnetic interference.

Alcatel recommends that you do not stack multiple Alcatel OmniAccess 4302 WLAN Switches or place other devices on the top of the unit. However, if you must stack devices, make sure that adequate space exists between units to allow for air flow to keep the Alcatel OmniAccess 4302 WLAN Switch within operation temperature limits. At a minimum, make sure the upper unit has its rubber feet attached.

Connecting Power

Use the power adapter supplied with the Alcatel OmniAccess 4302 WLAN Switch. Do not substitute power adapters designed for other products as this may damage the device or the power adapter.

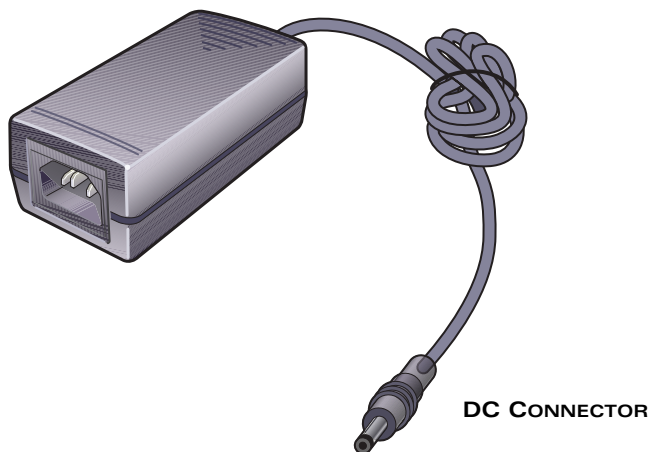


FIGURE 2-1 Power Adapter

To power the Alcatel OmniAccess 4302 WLAN Switch:

1. Insert the DC connector into the power port on the rear of the Alcatel OmniAccess 4302 WLAN Switch.
2. Connect the power cord to the power adapter and plug this into a standard grounded outlet.

NOTE: Alcatel ships a country appropriate cable with the Alcatel OmniAccess 4302 WLAN Switch. However, any power cord rated for the Alcatel OmniAccess 4302 WLAN Switch power consumption and which conforms to grounded electrical standards in the country where the product will be operated can be used (see [“Specifications” on page 13](#)).

Use of a power line conditioner or Uninterruptible Power Supply (UPS) can decrease or mitigate problems caused by power service fluctuations. Make sure that the output of any power shaping device is compatible with the Alcatel OmniAccess 4302 WLAN Switch power supply.

NOTE: Additional power adapters can be ordered separately.

Verifying the Installation

After the Alcatel OmniAccess 4302 WLAN Switch is installed and connected to power, verify the following:

1. Check that the system Power LED lights solid green immediately upon power up and remains solid green during and after bootup.

NOTE: The system Status LED remains off until you perform the initial setup.

For more information on LED behavior, see [“System Indicator LEDs” on page 4](#).

2. Connect appropriate network cables (see [“Fast Ethernet WAN Port” on page 4](#) and [“Gigabit Ethernet LAN Port” on page 5](#) for cable information).
3. Perform the initial setup as described in the *Alcatel Quick Start Guide* (which is included in the Accessory Kit).

This appendix describes connector pinouts for the serial port on the Alcatel OmniAccess 4302 WLAN Switch.

Serial Console Port

The serial console port is located on the front panel of the Alcatel OmniAccess 4302 WLAN Switch. This port is for connecting a local management console and can be used to access the text-based Command-Line Interface (CLI) to configure, manage, and troubleshoot the Alcatel OmniAccess 4302 WLAN Switch.



CAUTION: Do not connect Access Points to the serial console port. The serial port is designed to connect to RS-232-only devices. Non-RS-232 devices such as APs will cause the WLAN Switch to fail and can cause damage.

Port & Adapter Pin Outs

The serial console port's RJ-45 female connector accepts an RS-232 serial cable with a male connector. Pinouts are shown in [Figure A-1](#):

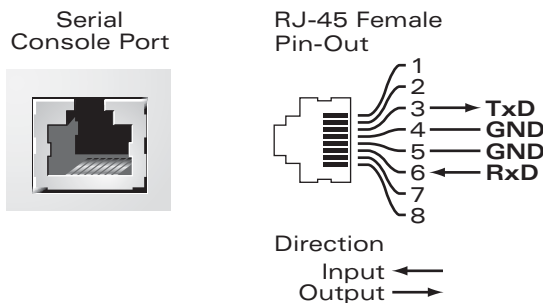


FIGURE A-1 Serial Port

To connect the required RS-232 serial cable to a terminal with a DB-9 male port, use the included adapter. Pin-outs are shown in [Figure A-2](#):

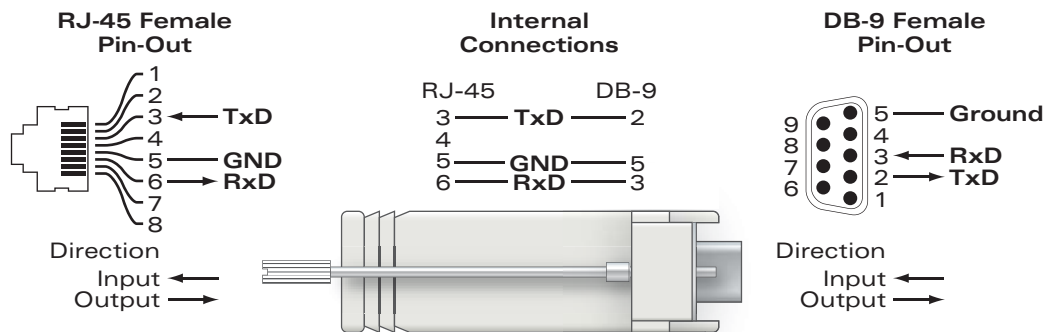


FIGURE A-2 Serial Port Adapter

Communications Settings

TABLE A-1 Console Terminal Settings

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

Physical

TABLE B-1 OmniAccess 4302 WLAN Switch Physical Specifications

Item	Specification
Physical Dimensions:	
Size	Height 2.79 cm (1.10 inches) Width 23.62 cm (9.30 inches) Depth 16.84 cm (6.63 inches)
Weight	.91 KG (2 lbs.)
Shipping Dimensions:	
Size	Height 7.62 cm (3.0 inches) Width 31.75 cm (12.5 inches) Depth 31.115 cm (12.25 inches)
Weight	2.041 KG (4.5 lbs)

Environmental

TABLE B-2 OmniAccess 4302 WLAN Switch Environmental Specifications

Item	Specification
Temperature	Operating: 0 to 40 °C (32 to 104 °F) Storage: 0 to 50 °C (32 to 122 °F)
Humidity	5% to 95% (non-condensing)
Altitude	Up to 3,048 m (10,000 feet)

TABLE B-3 AC-DC Power Adapter Environmental Specifications

Item	Specification
Temperature	Operating: 0 to 50 °C (32 to 122 °F) Storage: -20 to 60 °C (-4 to 140 °F)
Humidity	20% to 85% (non-condensing)
Altitude	Up to 3,048 m (10,000 feet)

Operational

TABLE B-4 OmniAccess 4302 WLAN Switch Operational Specifications

Item	Specification
Power	DC input voltage 12VDC DC input current 1A
Power Consumption	12 Watts, maximum
Standards	IEEE 802.1x, IEEE 802.3 10BASE-T, IEEE 802.3u 100BASE-TX, IEEE 802.3ab 1000BASE-T

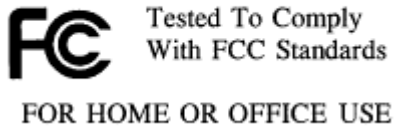
TABLE B-5 AC-DC Power Adapter Operational Specifications

Item	Specification
AC Input	AC input voltage 100 to 240VAC (auto-sensing) AC input current 1.1A RMS, maximum AC input frequency 47-63 Hz
DC Output	DC output voltage 12VDC DC output current 3A, maximum

Regulatory Compliance - WLAN Switch

United States

The following compliance statements apply for use of this product in the United States.



FCC - Class B

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 in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This product is UL Listed (UL60950)

Canada

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus as set out in the interference-causing equipment standard entitled "Digital Apparatus," ICES-003 of the Department of Communications.

Cet appareil numérique respecte les limites de bruits radioélectriques applicables aux appareils numériques de Classe B prescrites dans la norme sur le matériel brouilleur: "Appareils Numériques," NMB-003 édictée par le ministère des Communications.

This product complies with CAN/CSA C22.2 No 60950 standards.

Europe



WARNING: This is a Class B product. In a domestic environment, this product may cause radio interference in which case the user may be required to take adequate measures.



Approvals and/or Certifications

The CE marking applied to this product indicates that Alcatel is in conformance with the applicable Directives of the European Union pertaining to this product

- Directive 73/23/EEC, Low voltage equipment
- Directive 89/336/EEC (92/31/EEC), Electromagnetic compatibility.
- Directive 2006/96/EC Hazardous Substances and Disposal

And in accordance with the following standards:

- Electromagnetic Compatibility EN55022, EN55024, EN61000-3-2, EN61000-3-3
- Electrical Safety EN60950

A full declaration, defining the relevant Directives and referenced standards can be obtained from your local Alcatel Representative.

Japan

VCCI - Class B

この装置は、情報処理装置等電波障害自主規制協議会（VCCI）の基準に基づくクラスB情報技術装置です。この装置は、家庭環境で使用することを目的としていますが、この装置がラジオやテレビジョン受信機に近接して使用されると受信障害を引き起こすことがあります。

取り扱い説明書に従って正しい取り扱いをして下さい。

Korea

Class B Equipment (Household purpose info/telecommunication equipment)

As this equipment has undergone EMC registration for household purpose, this product can be used in any area including residential area.

B급 기기 (가정용 정보통신기기)

이 기기는 가정용으로 전자파적합등록을 한 기기로서
주거지역에서는 물론 모든지역에서 사용할 수 있습니다.

Australia/New Zealand

This product complies with AS/NZS CISPR 22 Class B standards.

Rest of World

This product complies with CISPR 22 Class B standards.

Regulatory Compliance - Power Adapter

Use only the approved AC adapter with the Alcatel OmniAccess 4302 WLAN Switch. This power adapter is approved for the following:

- US, Canada (cULus, FCC marks)
- Europe (CE mark)
- Germany (GS mark)
- Scandinavia (SEMKO mark)
- China (CCC mark)
- Japan (PSE mark)
- Korea (eK mark)
- Mexico (NOM mark)
- Australia, New Zealand (c-tick mark)
- Argentina (S mark)
- Taiwan (BSMI mark)
- Rest of World (CB report)

Lithium Battery Safety Notice

This product contains a lithium battery which is replaceable only by a trained technician.



CAUTION: The lithium battery may explode if it is incorrectly replaced. A trained technician should replace the battery with the same or equivalent type battery recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.

Hazardous Substances and Proper Disposal



This product at end of life is subject to separate collection and treatment in the EU Member States, Norway, and Switzerland and therefore is marked with the symbol shown at the left. Treatment applied at end of life of these products in these countries shall comply with the applicable national laws implementing Directive 2002/96/EC on Waste of Electrical and Electronic Equipment (WEEE).

The WEEE Directive 2002/96/EC and RoHS (Restriction of Hazardous Substances) Directive 2002/95/EC sets collection, recycling and recovery targets for various categories of electrical products and their waste.

The Restriction on Hazardous Substances Directive (RoHS) (2002/95/EC), which accompanies the WEEE Directive, bans the use of heavy metals and brominated flame-retardants in the manufacture of electrical and electronic equipment. Specifically, restricted materials under the RoHS Directive are Lead (including Solder used in PCB's), Cadmium, Mercury, Hexavalent Chromium, and Bromine.

Alcatel declares compliance with the European Union (EU) WEEE Directive (2002/96/EC). For more information on WEEE, refer to:

<http://www.dti.gov.uk/sustainability/weee/>

Notes

