# AXIS 540+/AXIS 560

# User's Guide

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# Regulatory Information

Safety Notices: take some time to read through the safety notices before installing the print server. Please observe all safety markings and instructions when using this product.
Observe "Important:" in the text to avoid operational impairment. Do not proceed until you have fully understood the implications.

Electromagnetic Compatibility (EMC)

USA
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. Shielded (STP) network cables must be used with this unit to ensure compliance with the class B limits.

Europe
This digital equipment fulfils the requirements for radiated emission according to limit B of EN55022, and the requirements for immunity according to EN55024 residential, commercial, and light industry. Compliance is not valid for unshielded network cables.

Japan
This is a class B product based on the standard of the Voluntary Control Council for Interference from Information Technology Equipment (VCCI). If this is used near a radio or television receiver in a domestic environment, it may cause radio interference. Install and use the equipment according to the instruction manual. Compliance is not valid for unshielded network cables.

Australia
This electronic device meets the requirements of the Radio communications (Electromagnetic Compatibility) Standard 1998 AS/NZS 3548. Compliance is not valid for unshielded network cables.

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Support Services: should you require technical assistance, please contact your Axis dealer. If your questions cannot be answered immediately, your Axis dealer will forward your queries through the appropriate channels to ensure you a rapid response. On the Internet you can find on-line manuals, technical support, software updates, application software, corporate information, etc.

Patent information: Axis AB has intellectual property rights relating to technology embodied in the product that is described in this document. In particular, and without limitation, these intellectual property rights may include one or more of the patents listed at http://www.axis.com/patent.htm and one or more additional patents or pending patent applications in the US and other countries.

## Before You Start

This guide applies to the AXIS 540+/AXIS 560 with firmware version **6.48** and higher. The following operating systems are covered in this guide:

- Windows 98, Windows Me, Windows NT, Windows 2000, Windows XP, Windows Server 2003
- Mac OS X
- UNIX/Linux

**Note:**

Installation instructions in this book cover the above operating systems over TCP/IP. See the **AXIS 540+/AXIS 560 User's Manual,** located on www.axis.com for installation instructions regarding

- Windows over NetBIOS/NetBEUI
- NetWare over IPX/SPX and TCP/IP
- MacOS over Appletalk

The instructions in this guide describe settings found in a **new** and **unconfigured AXIS 540+/AXIS 560** with firmware version **6.48** and higher. To reload the default parameters, you can perform a Factory Default, which will restore all settings to their default values. See *Using the Test Button* on page 27 for instructions.

## Hardware Inventory

Unpack and check all the items using the following check list. Contact your dealer if anything is missing or damaged. All packing materials are recyclable.

| Hardware | Model | Part number | Power Adapter |
|---|---|---|---|
| Axis Print Server | AXIS 560 | 0053-xxx-**02** | PS-H |
| | AXIS 540+ | 0058-xxx-**02** | PS-H |

| There are different versions of this product depending on the hardware platform. To determine which version you have, please check the product number located on the label on the print server: | |
|---|---|
| **AXIS 540+**<br>version 2 - 0058-xxx-02<br>version 1 - 0058-xxx-01 | **AXIS 560**<br>version 2 - 0053-xxx-02<br>version 1 - 0053-xxx-01 |

| Power Adapter | Model | PS-H Part No. |
|---|---|---|
| PS-H | Australia | 19111 |
| | Europe | 19108 |
| | Korea | 19112 |
| | UK | 19109 |
| | USA / Japan | 19110 |

| Media | Title | Part Number |
|---|---|---|
| CD | AXIS Network Product CD | rev 1.3 and up |
| Printed Material | AXIS 540+/AXIS 560 User's Guide | **rev 1.0 and higher** |

| Optional accessories (not included in package) | Description | Part Number |
|---|---|---|
| Cables | Parallel Printer Cable for AXIS 560 | 13360 |
| | Centronics to Mini Centronics Cable for AXIS 540+ | 16453 |
| | Parallel Printer Cable for AXIS 540+ | 13522 |

## Quick Overview

### Print Server Installation

Follow these steps in order to get your Axis print server up and running:

1. *Connect the Hardware*, 8

2. *Assign an IP address*, 9

3. *Make Network Printers available for printing*, 13

### Web-based Print Server Management

All Axis print servers contain an embedded web server that can be accessed with a standard web browser. The embedded web server provides access to configuration, information and management pages for the print server and the connected printer. Before you can use the embedded web server, the print server must be configured with an IP address. *See "Web-based Print Server Management" on page 25.*
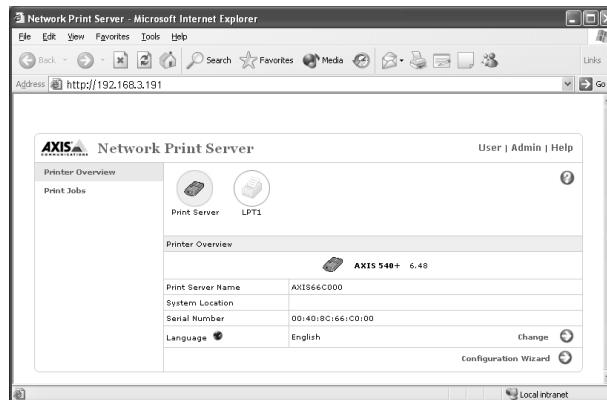


Axis Network Print Server Internal web page
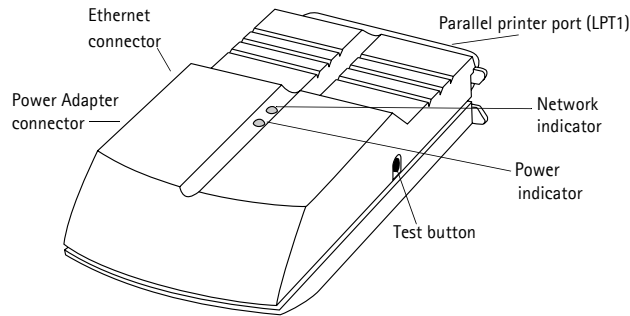
### Upgrading the Print Server's Firmware

The print server's *firmware** is stored in its Flash memory. Flash memory allows data to be erased and re-written, which is why you can install firmware updates in your print server as they become available. New firmware can simply be loaded into the print server via ftp or AXIS ThinWizard software, page 26.

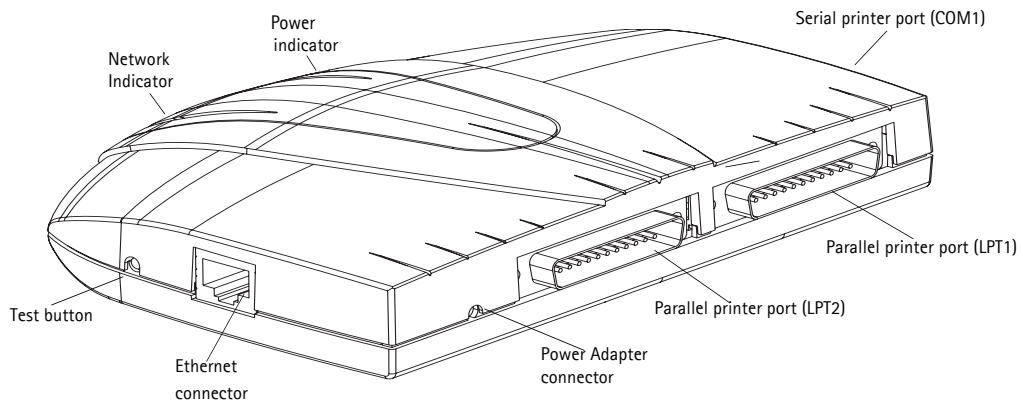> * Firmware is internal print server software that determines its functionality.

You can obtain all print server firmware free of charge from www.axis.com or your local dealer.

## Physical Description

### AXIS 540+

Ethernet connector

Parallel printer port (LPT1)

Power Adapter connector

Network indicator

Power indicator

Test button

### AXIS 560

Power indicator

Serial printer port (COM1)

Network Indicator

Parallel printer port (LPT1)

Parallel printer port (LPT2)

Test button

Ethernet connector

Power Adapter connector

### Backside label of print server

Serial number same as MAC/Ethernet address; e.g. 00408c181cf0 = 00-40-8c-18-1c-f0 (Windows) 00:40:8c:18:1c:f0 (Unix/Mac)

P/N:0171-001
S/N:00408c181cf0
PS Name:AXIS181cf0

This equipment complies with the requirements in Part 15 subpart B of FCC Rules for a Class A computing device       Made in EC SWEDEN
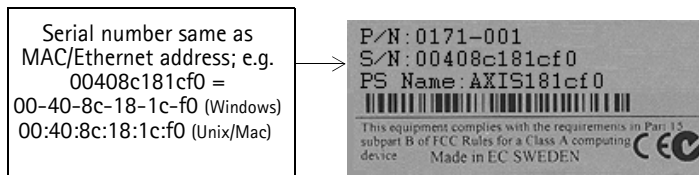
## 1. Connect the Hardware

1.  Make sure that the printer is switched <u>off</u> and that the Power Adapter is <u>disconnected</u> from the print server.

2.  Locate the serial number, found on the underside label of the print server, and write it down. *Example: S/N: 00408c181cf0*

3.  Connect the print server directly to the printer's printer port or use a printer cable.

4.  Connect the AXIS 540+/AXIS 560 to your network (Ethernet Connector), using a twisted pair RJ45 category 5 cable.

5.  Switch on the printer and make sure it is ready for use.

6.  Connect the Power Adapter to the print server. The Network Indicator will start flashing when the print server is correctly connected to the network.

7.  Wait 1 minute and press the test button once. A **test page** will be printed on the connected printer — keep it handy during the installation. The test page will show the print server's IP address, MAC address, firmware number, etc.

```
AXIS Network Print Server Test Page

Power-on time: 0 days, 1 hour, 2 min.
RAM size: 8.0 Mbyte
Flash size: 2.0 Mbyte

Default language: English

Printer at LPT1:
Manufacturer: Unknown
Command Sets: Unknown
Capabilities: No printer information.

Printer at USB1:
Manufacturer: Unknown
Command Sets: Unknown
Capabilities: No printer information.

Ethernet Auto Negotiation: 100 Mbps

Node address: 00:40:8c:18:1c:f0

TCP/IP: enabled
Internet address Default router Net mask
192.168.3.191    <automatic router>
```

Print server's IP address ⟶

Test page

## 2. Assign an IP address

### 2.1 Automatic IP address assignment

If you are working in a network with **automatic IP address assignment** (e.g. DHCP, RARP, BOOTP, Auto-IP)**,** your print server will obtain an IP address automatically when you connect it to the network.
You will find the **print server's IP address on the test page** you printed out on page 8,
**go to** *Verify access to the print server's web pages*, on page 12

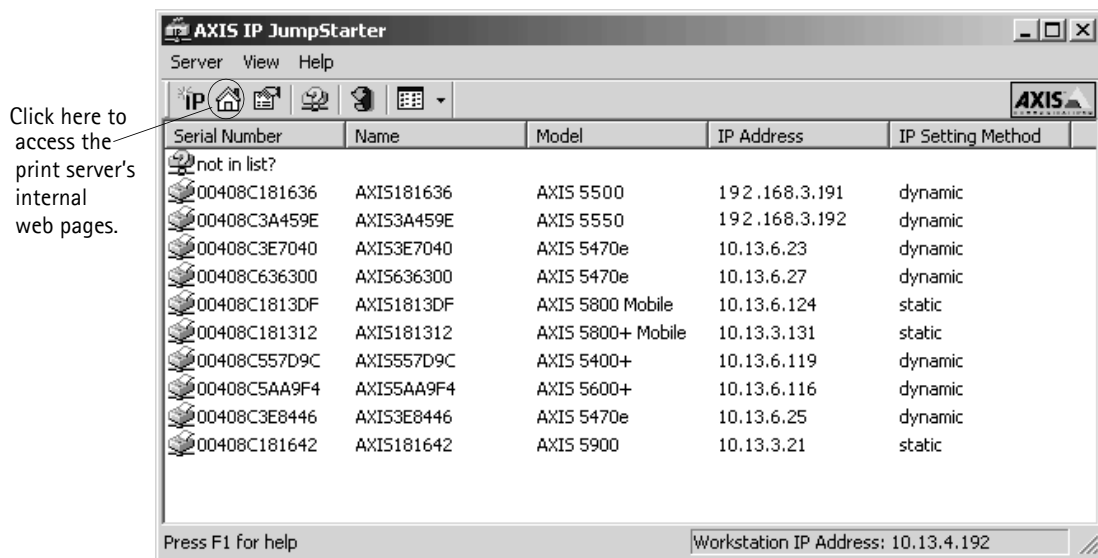### 2.2 Manual IP address assignment

If you wish to set the IP address **manually,** choose one of these methods:

- **AXIS IP JumpStarter** – Axis software that locates print servers on your network and allows you to assign an IP address to them. Recommended for small offices and local networks. Refer to *Set the IP address manually using AXIS IP JumpStarter software* on page 10 for instructions.

- **ARP/Ping** – use this alternative method to set the IP address for each print server individually. Refer to *Alternative method for setting the IP address manually: ARP/Ping* on page 11 for instructions.

- **AXIS ThinWizard** for Windows 2000, Windows XP and Windows Server 2003. AXIS ThinWizard is Axis software that assists in setting the IP address of <u>several print servers</u>. Recommended for large organizations and enterprise networks. Refer to *Managing multiple print servers with AXIS ThinWizard software*, on page 26

## 2.2.1 Set the IP address manually using AXIS IP JumpStarter software

AXIS IP JumpStarter software is used for locating print servers on your LAN and assigning IP addresses to them.

1.  Install AXIS IP JumpStarter. It is available free of charge on www.axis.com

2.  Select a print server from the serial number list in the IP JumpStarter dialog window. The serial number of the print server is displayed on the printed label on its backside and on the printed test page.

Click here to access the print server's internal web pages.

| Serial Number | Name | Model | IP Address | IP Setting Method |
|---|---|---|---|---|
| not in list? | | | | |
| 00408C181636 | AXIS181636 | AXIS 5500 | 192.168.3.191 | dynamic |
| 00408C3A459E | AXIS3A459E | AXIS 5550 | 192.168.3.192 | dynamic |
| 00408C3E7040 | AXIS3E7040 | AXIS 5470e | 10.13.6.23 | dynamic |
| 00408C636300 | AXIS636300 | AXIS 5470e | 10.13.6.27 | dynamic |
| 00408C1813DF | AXIS1813DF | AXIS 5800 Mobile | 10.13.6.124 | static |
| 00408C181312 | AXIS181312 | AXIS 5800+ Mobile | 10.13.3.131 | static |
| 00408C557D9C | AXIS557D9C | AXIS 5400+ | 10.13.6.119 | dynamic |
| 00408C5AA9F4 | AXIS5AA9F4 | AXIS 5600+ | 10.13.6.116 | dynamic |
| 00408C3E8446 | AXIS3E8446 | AXIS 5470e | 10.13.6.25 | dynamic |
| 00408C181642 | AXIS181642 | AXIS 5900 | 10.13.3.21 | static |

Press F1 for help                         Workstation IP Address: 10.13.4.192

3.  From the **Server** menu, select **Set IP Address**.

4.  Click the radio button that corresponds to your choice of IP setting method. You must define the **Subnet Mask** and **Default Gateway** when assigning a static IP address.

5.  Click **OK** to save your settings.

6.  Enter the server root password (by default set to **pass**), and click **OK**.

7.  The AXIS 540+/AXIS 560 will appear in the list with the assigned IP address.

8.  To verify that you have access to the print server's web pages, highlight the print server in the list and select **Server Home Page** from the **Server** menu.

**Note:**

If your print server does not appear in the serial number list, refer to the AXIS IP JumpStarter online help files!

## 2.2.2 Alternative method for setting the IP address manually: ARP/Ping

Refer to the appropriate section below to assign an IP address to your AXIS 540+/AXIS 560 using ARP/Ping:

### Windows

1.  Open a Command Prompt and enter the following commands:

| | *Syntax* | *Example* |
|---|---|---|
| 1. | arp –s <IP address> <Ethernet address> | arp –s 192.168.3.191 00-40-8c-18-1c-f0 |
| 2. | ping <IP address> | ping 192.168.3.191 |

2.  The host will return **reply from 192.168.3.191**, or a similar message. This indicates that the IP address has been set and that communication is established.

3.  Next, log in to the print server's web pages (page 12) and define the **Default Router** and **Subnet Mask** of your network: choose **Admin** | **Network Settings** | **Detailed View** | **TCP/IP**.
    *DHCP, Auto-IP, BOOTP and RARP (...Enabled) must first be set to No!*

### UNIX/Linux, Mac OS X

1.  Open a Terminal window and enter the following commands:

| | *Syntax* | *Example* |
|---|---|---|
| 1. | arp –s <IP address> <Ethernet address> temp | arp –s 192.168.3.191 00:40:8c:18:1c:f0 temp |
| 2. | ping <IP address> | ping 192.168.3.191 |

2.  The host will return **192.168.3.191 is alive,** or a similar message. This indicates that the address has been set and that communication is established.

3.  Next, log in to the print server's web pages (page 12) and define the **Default Router** and **Subnet Mask** of your network: choose **Admin** | **Network Settings** | **Detailed View** | **TCP/IP**.
    *DHCP, Auto-IP, BOOTP and RARP (...Enabled) must first be set to No!*

**Notes:**

- The Ethernet Address/MAC address is the same as the serial number, found on the print server's underside label. Enter the Ethernet Address in the same format as in the examples above.

- Setting the IP address with `arp` and `ping` is only possible during the first ten minutes after re-booting the print server. Re-boot the print server by disconnecting and then re-connecting its power supply.

- When you execute the `ping` command for the first time, you may experience a significantly longer response time than usual.

- You need root privileges on your UNIX/Linux and Mac system in order to execute the `arp` command (refer to the User's Manual for more information).

- Use the command `man arp` to get a list of arp commands in UNIX/Linux.

## 2.3 Verify access to the print server's web pages

Follow these instructions to **verify that the IP address has been set and that you can access the print server's web pages:**

1. Open a web browser (e.g. Internet Explorer, Netscape).

2. In the web browser's **Location/Address** field, enter the print server's IP address (displayed on the **test page** or manually configured) and press **Enter**.
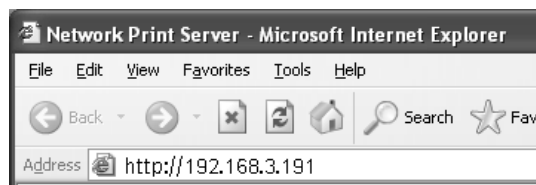
3. If the **Network Print Server** page appears in your web browser, the IP address has been set correctly. Proceed to *Make Network Printers available for printing*, on page 13.
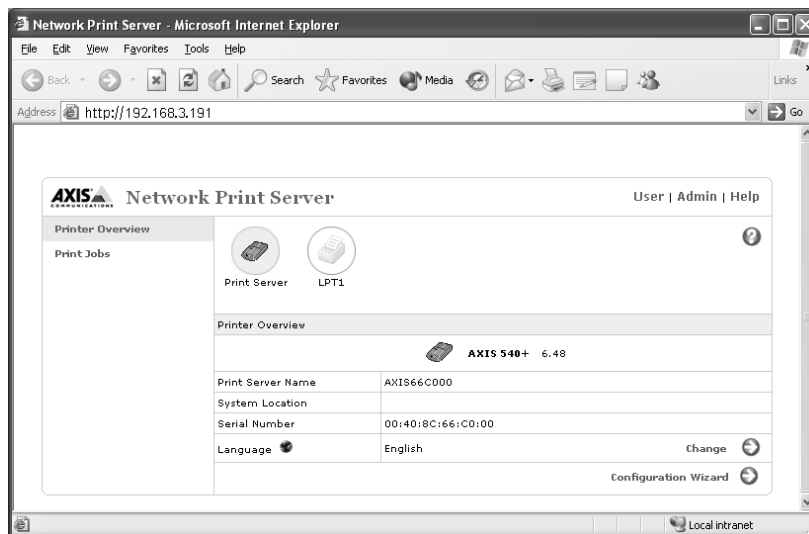
**Note:**

| Use a web browser with JavaScript support. |
| --- |

See *Web-based Print Server Management*, on page 25 for more information on the print server's internal web pages.

## 3. Make Network Printers available for printing

When you have assigned an IP address to your AXIS 540+/AXIS 560, proceed with making your network printer available for printing:

*Install Printers in Windows 2000/XP/Server 2003 and NT*, on page 13

*Install Printers in Windows 98 and Windows Me*, on page 18

*Install Printers in Mac OS X*, on page 22

*Install Printers in UNIX/Linux*, on page 20

**Note:**

For printing from other platforms and protocols, see the **AXIS 540+/AXIS 560 User's Manual on** www.axis.com

## 3.1 Install Printers in Windows 2000/XP/Server 2003 and NT

**Windows 2000/Windows XP/Windows Server 2003**
1.  **Windows XP/Windows Server 2003:**
    Go to **Start** | **Printers and Faxes** and click the **Add a Printer** icon to start the Add Printer Wizard. Click **Next.**

    **Windows 2000:**
    Go to **Start** | **Settings** | **Printers** and click the **Add Printer** icon to start the Add Printer Wizard. Click **Next.**

2.  In the wizard, select **Local Printer attached to this computer.** Make sure the **Automatically detect and install my Plug and Play printer** check box is <u>not</u> checked. Click **Next.**
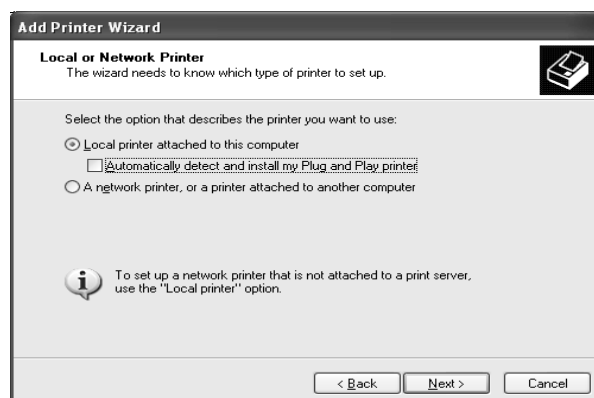
3.  Click the **Create a new port** radio button and select **Standard TCP/IP Port** from the list.
    Click **Next** and the **Add Standard TCP/IP Printer Port Wizard** starts. Click **Next**.
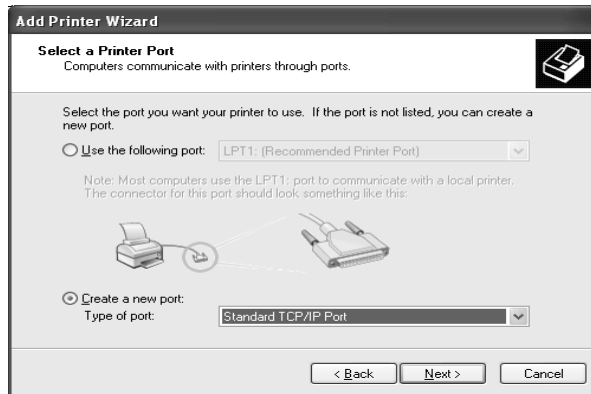


4.  Enter the IP address of the print server in the **Printer Name or IP Address** field
    *(Example: 192.168.3.191)*
    The **Port Name** field will be filled in automatically when you enter the IP address.
    *Optionally, add the port you want to use as a suffix: _LPT1, _LPT2 or _COM1*
    *(Example: 192.168.3.191_LPT1)* Click **Next**.
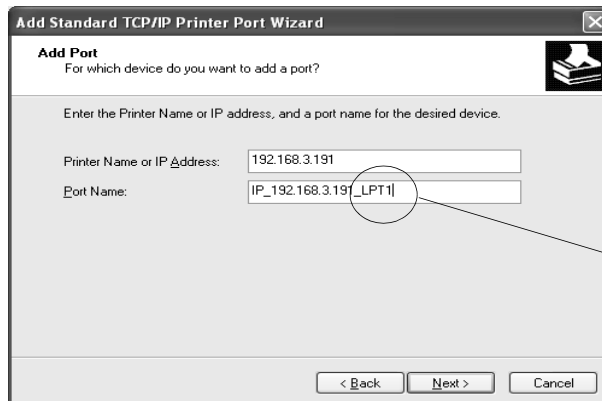
5. In the **Additional Port Information Required** window, select the **Device Port** you want to use; **LPT1**, **LPT2** or **COM1**. Click **Next** then **Finish**.
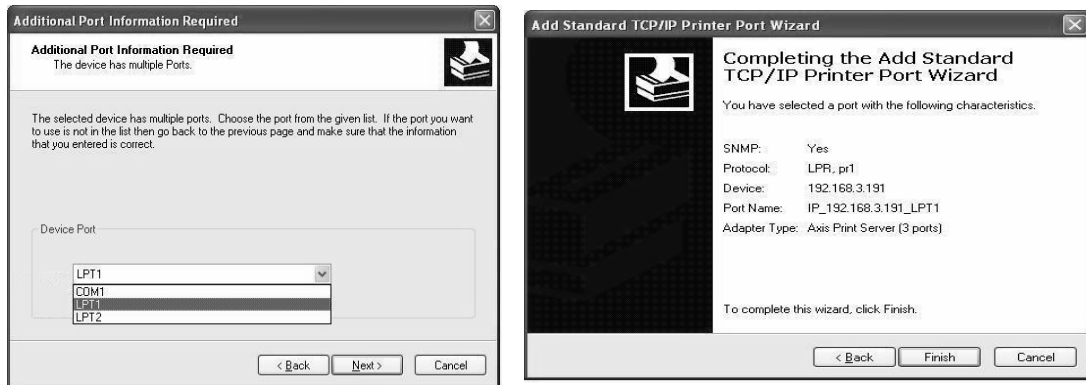
6. Select **Manufacturer and Printer** from the driver list. Click **Next**. If you already have the printer's driver installed, you will be asked whether to keep it or replace it.

7. Click **Next**. Supply a name for the printer and choose whether you want to make it your default printer. Click **Next**.
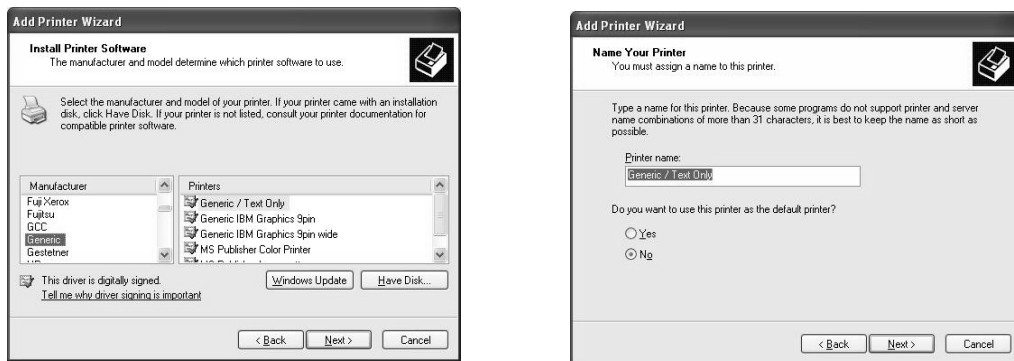
8.  Choose whether you want to share the printer with other network users, print a test page, etc. Select the appropriate radio button and click **Next** and **Finish**.
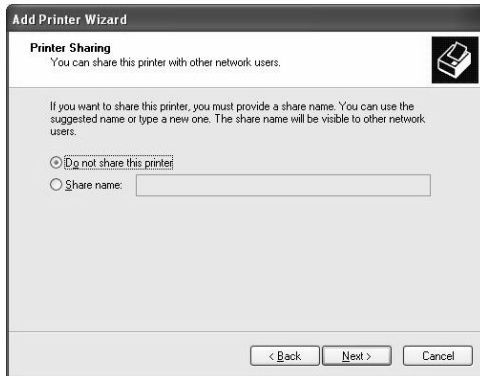
9.  Print a test page to verify your installation. You have now completed the installation.

**Install Printers in Windows NT 4:**

1. Go to **Start** | **Settings** | **Printers** | **Add Printer**. Select **My Computer** and click **Next**.

2. From the **Available Ports** list, choose the appropriate printer port, which will appear as the IP address or host name of the print server. If it doesn't appear in the list, click **Add Port**.
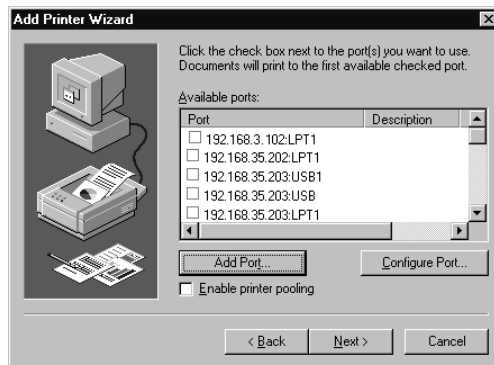


3. Choose **LPR Port** from **Available Printer Ports** and click **New Port**.

*Tip:*
*If the LPR Port doesn't appear, install the Windows TCP/IP Printing Service, delivered with the Windows NT4 OS.*
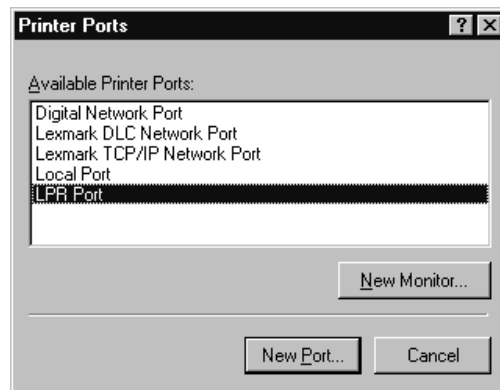


4. Type the print server's IP address (or host name) in the field **Name or address of server providing lpd** *(IP address example: 192.168.3.191)*. Enter which port to use in the field **Name of printer or print queue on that server** *(Example: LPT1)*. Click **OK** and then **Close**.
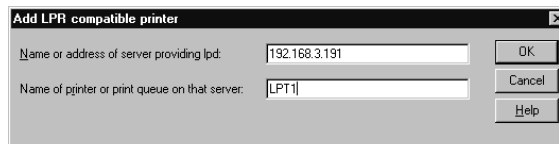


5. The added print server will now appear in the **Available Ports** list. Click **Next**, choose a driver and finish the installation as usual.

## 3.2 Install Printers in Windows 98 and Windows Me

**AXIS Print Monitor** is the recommended tool to use for network printing in Windows 98 and Windows Me. Follow the instructions below to use the standard Windows method (TCP/IP over LPR) with AXIS Print Monitor.

**Note:**

AXIS Print Monitor must be installed on all printing clients.

1.  Install AXIS PrintMonitor on all workstations that will print via the Axis print server. AXIS PrintMonitor is available free of charge on www.axis.com

2.  Next, start the Windows Add Printer Wizard: select **Settings | Printers** from the **Start** menu and double-click the **Add Printer** icon.

3.  After clicking **Next** in the first dialog, the Wizard asks you to select between **Local Printer** and **Network Printer**. You must select **Local Printer** as the print server emulates a local printer port. Click **Next**.

4.  Choose the appropriate print driver for your printer. If the desired print driver already appears within the displayed **Manufacturers and printers** lists, highlight your selection, click **Next** and proceed directly to step 7. It is only necessary to perform steps 5- 6 if your printer does not feature in the model list.

5.  Click the **Have Disk...** button. Insert the printer driver diskette/CD into the appropriate disk drive of your computer.

6.  Select the type of printer you want to install from the diskette/CD and click **Next**.

7.  If you already have the printer's driver installed, you will be asked whether to keep it or to replace it.

8.  Select the Printers@TCP/IP Port and click **Next**.

9.  Enter an appropriate name for your printer and choose whether you want it to be the default printer. Click **Next**.

10. In the next window, do <u>not</u> order a Test Page to be written, just click **Finish**.

11. The printer you have defined will now be displayed in the Printers Folder. Right-click the printer object and select **Properties**.

12. Click the **Details** tab within the **Properties** page and then click **Add Port** to display the available monitors.

13. Click the radio button "other". Select **AXIS Port** and then click **OK**.

14. Select **LPR (TCP/IP)** as your choice of protocol and click **OK**.

15. Enter the IP address or host name of your print server *(Example: 192.168.3.191)*
    In the **Logical Printer Name** field, enter the port you wish to use; **LPT1, LPT2** or **COM1**. Click
    **OK**.

16. The TCP/IP port will then be added automatically to the list of available ports. Click **Apply** and
    **OK**.

17. You may now configure the port, as described below. The Axis Printer Port is now installed.

## Configure the Port (optional):

1. Select **Settings** | **Printers** from the **Start** menu and highlight the printer you wish to
   configure. Select **File** | **Properties** | **Details** and click **Port Settings**.

2. Choose whether error condition pop-up messages are to be displayed by checking the box in
   the **Configure AXIS Ports** dialog. Define the frequency at which the error messages should be
   displayed after retry. Click **OK**.

**Note:**

Even if the desired printer is available in the Manufacturers and Printers lists, you are
advised to use the print driver provided with the printer. This assures you of the latest driver
software.

If you need additional information, refer to the **AXIS 540+/AXIS 560 User's Manual** on
www.axis.com

Proceed to *Print Server Management and Configuration* on page 24 for information on supported
management and configuration tools.

## 3.3 Install Printers in UNIX/Linux

The following printing tools are recommended for **lpd** printer configuration:

| Operating system | Recommended printing tool | Instructions |
|---|---|---|
| AIX | SMIT | Type the command `smit` in a Terminal window, then click Print Spooling. |
| Debian | printtool | Type the command `printtool` in a Terminal window to start the graphical version. |
| HP UX | Sam | Type the command `sam` in a Terminal window, click Printers and Plotters and then click Actions and Add_Remote Printer/Plotter. |
| Red Hat | printconf | - Type the command `printconf-gui` in a Terminal window to start the graphical version.<br>- For a text-based application where the X Window System isn't installed, log in as root and type the command `/usr/sbin/printconf-tui` from a shell prompt. |
| Solaris 9 | Printer Administrator | Type the command `/usr/sadm/admin/bin/printmgr` in a Terminal window. |
| SuSE | YaST2 | From the Desktop, select YaST2 \| In Yast Control Center \| Hardware \| Edit Printers |

**AXIS axinstall script**

The *axinstall* script is an installation and management utility for Axis print servers that supports lpd, ftp, PROS A and PROS B print methods. For more advanced printing functionality, use the PROS filter or named pipe methods.

With this installation script, the printer connected to the print server will appear as though it is directly connected to the host print spooler. If you want to integrate your AXIS 540+/AXIS 560 into your host spooler, you can use the Axis installation script *axinstall,* or perform a manual integration.

Follow these instructions to download axinstall to your host:

1. Open a Terminal window and log in to the AXIS 540+/AXIS 560 by typing:

```
ftp <IP address> or ftp <host name>
```

2. Enter **root** as the default user id and **pass** as the default Administrator password.

3.  Enter the following command to download the *axinstall* script (make sure you use the ASCII transfer mode):

```
get axinstall
```

4.  Exit from the ftp program and enter the following command to install the AXIS 540+/AXIS 560 using the *axinstall* script. Follow the instructions that appear when the script has started.

```
sh axinstall (or sh ./axinstall depending on your system)
```

**Note:**

- LPRng is not supported by *axinstall*

- You need root privileges on your UNIX/Linux in order to run *axinstall*

- PROS is a protocol developed by Axis Communications. It comes in two versions;
  *named pipe* (PROS A) and *filter* (PROS B).

If you need additional instructions, please refer to the **AXIS 540+/AXIS 560 User's Manual** which is available on www.axis.com

Proceed to *Print Server Management and Configuration* on page 24 for information on supported management and configuration tools.

## 3.4 Install Printers in Mac OS X

This section describes setting up your AXIS 540+/AXIS 560 for printing in the Macintosh environment (Mac OS X).

### AppleTalk Printing (MacOSX)

**Note:**

For installation on an older Mac OS, refer to the User's Manual on www.axis.com

1. Start **Print Center** (from **Go** | **Applications** | **Utilities** | **Print Center**)

2. Select **Printers** | **Add Printer...**

3. From the **Printer List** dialog, select **AppleTalk**.

4. Now, the port (or ports) of your AXIS 540+/AXIS 560 will appear in the list of available printers. Each port is shown as <host name>_<port>.
   *Example: AXIS181cf0_LPT1*
   Select the print server port you want to use.

5. Select an appropriate printer driver for your printer from the **Printer Model** drop-down list. If it is not available in the list, select **Generic**. You can also browse for a printer driver on your computer or network by selecting **Other...** from the list.

6. Click **Add** to complete the installation.

If you need additional instructions, please refer to the **AXIS 540+/AXIS 560 User's Manual** on www.axis.com

Proceed to *Print Server Management and Configuration* on page 24 for information on supported management and configuration tools.

## IP Printing (MacOSX)

1.  From the **Apple** menu, select **Go** | **Applications** | **Utilities** and start the **Print Center**.

2.  Click **Add** in the **Printer List**.

3.  Select **IP Printing** from the top drop-down menu.

4.  In the **Printer's Address** field, enter the print server's IP address or DNS name.

5.  Making sure the **Use default queue on server** checkbox is unchecked, and enter **LPT1, LPT2 or COM1** in the **Queue name** field:
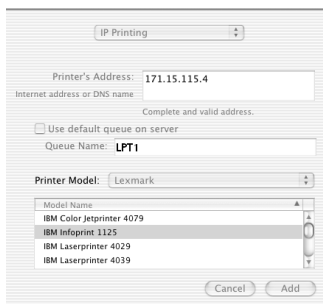


6.  From the **Printer Model** drop-down list, select the printer manufacturer and model. Click **Add**.

7.  Your newly added printer will appear in the **Printer List** as the default printer (bold). Test the installation by printing a test page.

If you need additional instructions, please refer to the **AXIS 540+/AXIS 560 User's Manual** on www.axis.com

Proceed to *Print Server Management and Configuration* on page 24 for information on supported management and configuration tools.

## 4. Print Server Management and Configuration

The following table shows the management and configuration tools that are available for the AXIS 540+/AXIS 560.

| Protocol | Operating System | Configuration/Management method |
|---|---|---|
| TCP/IP | Windows 98<br>Windows Me<br>Windows NT<br>Windows 2000<br>Windows XP<br>Windows Server 2003<br>UNIX/Linux<br>Mac OS X | Web browser*, AXIS ThinWizard**, FTP, Telnet |
| IPX/SPX | NetWare | AXIS NetPilot, Novell Utilities |
| NetBIOS/NetBEUI | Windows 98<br>Windows Me<br>Windows NT<br>Windows 2000 | AXIS NetPilot |

* Described in this guide. See the AXIS 540+/AXIS 560 User's Manual for all other protocols, operating systems and tools.
** AXIS ThinWizard 3.0 is Windows 2000, Windows XP and Windows Server 2003 compatible.

## 4.1 Web-based Print Server Management

Follow the instructions below to access the built-in Web pages of your AXIS 540+/AXIS 560.

1.  Enter the print server's IP address (or host name) in the **Location** or **Address** field of your web browser *(Example: http://192.168.3.191)* and press **Enter.**
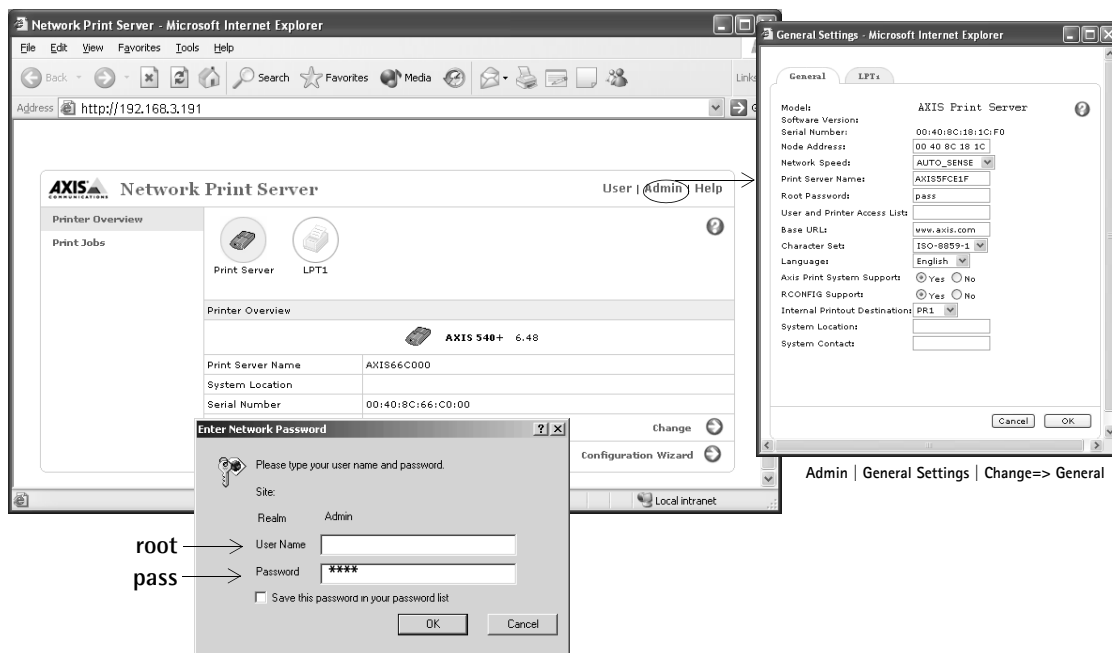


The AXIS 540+ Web interface

2.  The **Printer Overview** page will appear. Click the **Admin** button to access the Administration Web pages.

3.  You may be prompted for a password, enter the default user name **root** and the default password **pass**. Click **OK**.

    **Notes:**

    - It is highly recommended that you change the default password to prevent unauthorized access to the print server's configuration pages. This is done from **Admin** | **General Settings => Change**. Go to the **Root Password** field.
    - Use a Web browser with JavaScript support and make sure Java is enabled.

## 4.2 Managing multiple print servers with AXIS ThinWizard software

AXIS ThinWizard software allows you to manage and upgrade **multiple** Axis products. You can find, install, monitor, configure and upgrade your Axis print servers remotely in any TCP/IP network using a standard web browser. AXIS ThinWizard 3.0 and higher is Windows 2000, Windows XP and Windows Server 2003 compatible.

### Install AXIS ThinWizard:
AXIS ThinWizard software is available free of charge on www.axis.com. Install AXIS ThinWizard on a designated computer on your network. When you want to use AXIS ThinWizard for management purposes, you can access it via any standard web browser. To install, follow the instructions in the Installation Wizard. During the installation, you will be asked to enter a **user id** and a **password**, these will be used when logging in to AXIS ThinWizard, please take a note of them.

### How to use AXIS ThinWizard:
1. Start a web browser on a computer in your network.

2. Enter the IP address (or host name) of the computer where you installed AXIS ThinWizard.

3. Enter the user id and password, specified during the installation of AXIS ThinWizard (see above) and click the **Log in** button.

4. The first time you use ThinWizard, set the **Preferences** to reflect your network environment. Select a network group from the list on the **Manage Network** page. If the list is empty, you must first create a group. Click the **Network Groups** tab and follow the instructions.
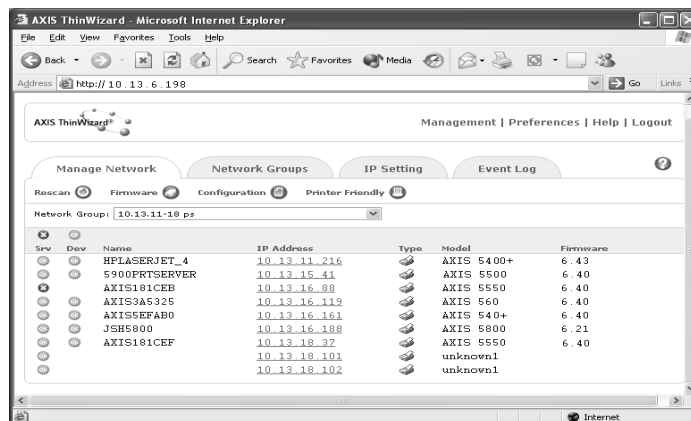


Caution!

The following parameters must be enabled in the print server's web interface for AXIS ThinWizard to function properly:

- **FTP**: click Admin| Network Settings| Detailed view | TCP/IP | FTP Enabled => Yes.
- **SNMP**: click Admin | Network Settings | Detailed View | SNMPv1 Enabled => Yes.

These parameters are **enabled** by default in the print server.

## 4.3  Using the Test Button

The following operations can be performed by pressing the test button on the print server in different sequences.

**Print a Test Page:**
– Press the test button **once** to print a test page.

**Print a Parameter List:**
– Press the test button **twice** to print a list of all parameters.

**Perform a Factory Default:**
1.  Remove the external power supply to switch off the print server.

2.  Press and hold down the test button, while you reconnect the external power supply.

3.  Continue to hold down the test button until the network indicator remains constantly lit. This should take about 20 seconds.

4.  Restart the print server by disconnecting and reconnecting the external power supply.

**Important!**

> For print servers with firmware version 6.43 and higher, a Factory Default will reset all AXIS 540+/AXIS 560 parameters and settings to their default values and erase all configuration.

## Technical Specifications

**Supported Printers:**

All printers **except host-based printers** (also known as GDI, PPA or Windows-based printers).

**Supported Systems:**

*Microsoft Windows:*

Windows NT4, Windows 98, Windows Me, Windows 2000, Windows XP, Windows Server 2003.
Print Methods: NetBEUI, LPR, Raw TCP.

*Novell NetWare:*

NetWare 3.11, 3.12, 4.10, 4.11, 5 and above. Supports bindery emulation and NDS. Up to 16 bindery file servers and 96 print queues are served. Supports user messages. NDPS supported by versions 4.11 and above.
Print Methods: NDPS, RPRINTER/NPRINTER, PSERVER.

*Additional Systems:*

All computers supporting the TCP/IP suite of protocols, including BSD systems: BSD 4.2, 4.3, 4.4, SunOS4 (SOLARIS 1.x), DEC Ultrix etc.

*System V systems:*

R3, R4, AT&T.Interactive, SCO, SUNOS5 (Solaris 2.x), HP-UX, Silicon Graphics IRIX, DEC Alpha OSF/1, IBM AIX, BULL (BOS, AIX), Linux.

*Apple EtherTalk:*

Print Method: AppleTalk Phase 2.

*WWW:*

Netscape Communicator 4.7 and above, Internet Explorer 4.0 and above, Mozilla 1.0 and above.

**Supported Protocols:**

*Windows :*

NetBIOS/NetBEUI, WINS, DNS/DHCP, LPR, Raw TCP.

*NetWare:*

IPX/SPX, SAP, RIP, RIP2, OSPF, NLSP, and NCP (extended with NDS), TCP/IP, UDP, NLSP, DIAG, LIP.

*TCP/IP:*

DNS/DHCP, BOOTP, ARP, RARP, DHCP, ICMP, IGMP, TCP/IP, UDP, HTTP, LDP, FTP, Telnet, Reverse Telnet, PROS.

*Apple EtherTalk:*

AAPR, ATP, DDP, NBP, PAP, RTMP, ZIP.

*NetWare:*

Encrypted passwords, NetWare Packet Signature Level 1, 2, 3.

*UNIX/Linux:*

Root password (default user = **root**, default password = **pass**), User access list and printer access.

**Network Management:**

Print server/job/printer status presentation and management via NWAdmin/PCONSOLE.
AXIS ThinWizard for monitoring, configuration and firmware upgrade.

**Available languages in print server's web interface:**

English, French, German, Italian, Japanese, Spanish.

**Network Connection:**

All standard Ethernet networks: RJ-45 connector (Category 5 or 6, sheilded twisted pair cable) for 10 baseT Ethernet with full duplex. Supports IEEE802.2, IEEE802.3, SNAP and Ethernet II frame types simultaneously.

**Logical Printers:**

Logical printer ports can be programmed to perform auto ASCII-to-PostScript conversion, string before and after job, string substitution, alternative output and character set conversion.

**Printer Ports:**

• AXIS 540+: Parallel port: One 36-pin Centronics connector. Highspeed IEEE 1284 compliant with ECP support and throughput of 1 MB/sec.

• AXIS 560: Parallel port: Two 25-pin DSUB connector. Highspeed IEEE 1284 compliant with ECP support and throughput of 1 MB/sec.
Serial port: 9-pin DSUB connector, RS-232, XON/ XOFF or RTS/CTS, data rates up to 115.200 baud

**Power Consumption:**

AXIS 540+: Maximum 3W

AXIS 560: Maximum 5W
Power provided by Power Adapter type PS-H: 5.1V DC 2000 mA

**Dimensions:**

*Height x Width x Depth*

AXIS 540+: 1.1in (27 mm), 2.2in (56 mm), 4.7in (118 mm)

AXIS 560: 1.1in (29 mm), 6.3in (160 mm), 5.1in (129 mm)

*Weight*

AXIS 540+: 0.22 lb (100g)

AXIS 560: 0.64 lb (280g)

**Environmental:**

*Temperature:*

40 – 105 °F (5 – 40 °C)

**Safety:**

EN 60950, approved power supplies for all countries.

**Hardware**

32-bit 100 MHz AXIS ETRAX 100 LX RISC Controller, 2 MB Flash memory, 8 MB RAM.

**Front Panel**

2 LED indicators for Power and Network.

Test button for information printouts.

All specifications are subject to change without prior notice.