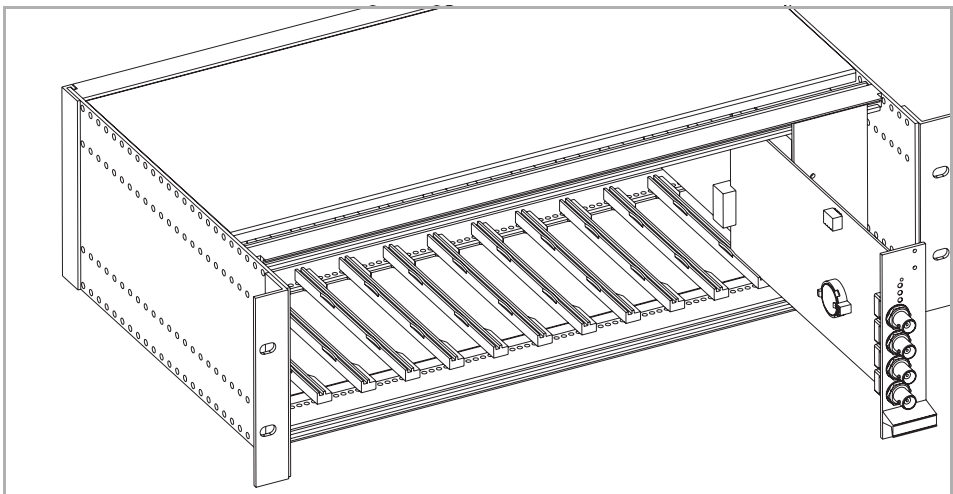


AXIS 240Q Blade - Rack Solution Installation Guide



2 About This Document

This document is an addendum to the AXIS 240Q Installation Guide and User's Manual. It includes instructions for installing the Axis Rack Mounted Video Server Solution on your network. Later versions of this document will be posted to the Axis Web site, as required.

Intellectual Property Rights – Axis AB has intellectual property rights relating to technology embodied in the product 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.

Legal Considerations – Camera surveillance can be prohibited by laws that vary from country to country. Check the laws in your local region before using this product for surveillance purposes.

Electromagnetic Compatibility (EMC) – This equipment generates, uses, and can radiate radio frequency energy, and if not installed and used in accordance with the instruction manual, may cause interference to radio communications. Shielded cables should be used to ensure compliance with EMC standards.

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. 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.

Canada – This Class B digital apparatus complies with Canadian ICES-003.

Europe – **CE** This digital equipment fulfills the requirements for radiated emission according to limit B of EN55022, and the requirements for immunity according to EN55024 residential, commercial, and light industry.

Japan – This is a class B product based on the standard of the Voluntary Control Council for Interference from Information Technology Equipment (VCCI). If 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

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 any technical assistance, please contact your Axis reseller. If your questions cannot be answered immediately, your reseller will forward your queries through the appropriate channels to ensure a rapid response. If you are connected to the Internet, you can:

- download user documentation and firmware updates
- find answers to resolved problems in the FAQ database. Search by product, category, or phrases
- report problems to Axis support staff by logging in to your private support area

Visit the Axis Support Web at www.axis.com/techsup

Battery Replacement – The Axis Rack Mounted Video Server Solution uses a 3.0V CR2032 Lithium battery as the power supply for its internal real-time clock (RTC). This battery will, under normal conditions, last for a minimum of 5 years. Low battery power affects the operation of the RTC, causing it to reset at every power-up. A log message will appear when battery replacement is required. The battery should not be replaced unless required! If the battery needs replacing, please observe the following points:

- Caution! Danger of explosion if battery is incorrectly replaced
- Replace only with the same or equivalent battery, as recommended by the manufacturer
- Dispose of used batteries according to the manufacturer's instructions

The Axis Video Server Rack will fit up to 12 rack mounted Axis Video Servers (Blade Servers). This installation guide describes the hardware installation of the Axis Rack Mounted Video Server Solution.

To set the IP address and install the video server on your network, please see the AXIS 240Q Installation Guide. For all other aspects of using the product, please see the User’s Manual.

Hardware Inventory

Please contact your dealer if anything is missing or damaged.

Qty	Item	Title/Variants
1	Video server	AXIS 240Q Blade Video Server
2	Connector	14-pin terminal connector block
1	Warranty Document	
1	Installation Guide	AXIS 240Q Installation Guide
1	CD	Documentation and software
1	This Document	AXIS 240Q Blade - Rack Solution Installation Guide

AXIS 240Q Blade Description

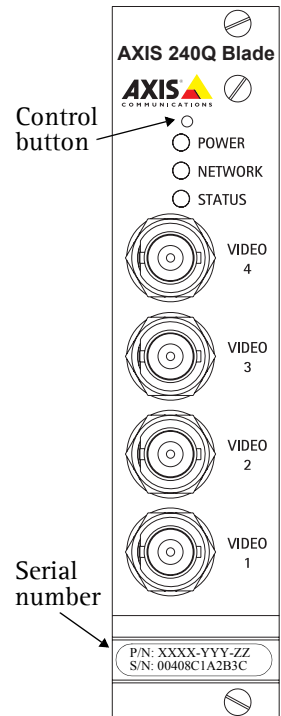
Read the following information to familiarize yourself with the AXIS 240Q Blade video server, making particular note of where the connectors and indicators are located:

Control Button

See the AXIS 240Q User’s Manual for information on using the control button.

Indicators

Network	Amber	Flashes for activity on a 10 Mbit/s network
	Green	Flashes for activity on a 100 Mbit/s network
	Red	Flashes rapid red for hardware error, together with the Status indicator
	None	No connection
Status	Green	Normal operation
	Amber	Flashes during reset to factory default or at firmware upgrade
	Red	Flashes rapid red for a hardware error, together with the Network indicator
Power	Green	Normal operation
	Amber	Flashes green/amber during upgrade



Top and bottom screws are used to secure the blade server in the rack

Video In

The AXIS 240Q accommodates up to 4 separate video sources (VIDEO 1 - VIDEO 4) simultaneously. Each supported video input is terminated using a coax/BNC connector. Physical connections made using 75 Ohm coaxial video cable have a recommended maximum length of 800 feet (250 meters).

Product Label

The S/N (serial number) is identical to the unit's MAC address, e.g. 00408C1A2B3C = 00-40-8C-1A-2B-3C.

P/N (part number) is the product model number.

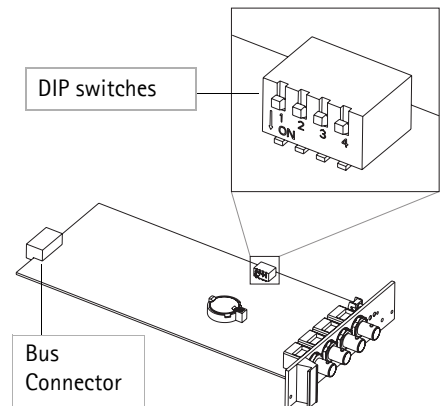
Bus Connector

Physical interface to the I/O Block Connector on the rack

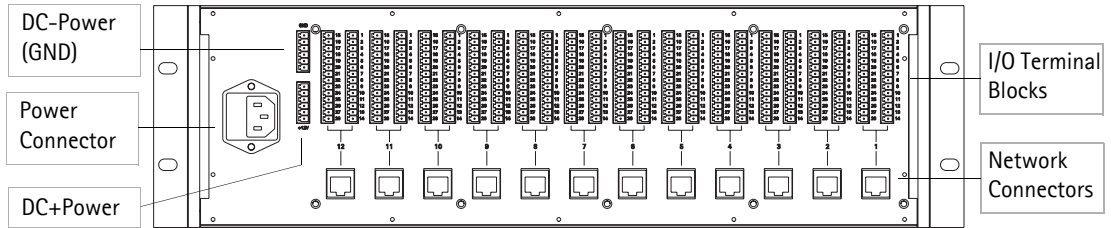
DIP Switches

Each video input has a corresponding line termination DIP switch.

- The AXIS 240Q is supplied with the line termination enabled for each video input; that is, with the DIP switches set to ON (down position).
- If the video signal is to be connected in parallel with other equipment, disable the input termination for that video source by setting the corresponding DIP switch to OFF (up position). Failure to do so can impair the picture quality.



Axis Video Server Rack



The I/O Terminal Block

The physical interface to a relay switch output and four digital photo-coupled inputs; also providing an RS-485 interface and an RS-232 serial connection.

Network Connector

Axis Blade video servers are designed for 10 Mbps Ethernet and 100 Mbps Fast Ethernet networks and connect via a standard RJ-45 connector.

DC + Power 12VDC Power (output)

This connector can drive the photo coupler inputs or other equipment, such as an IR-sensor. A maximum current (for all pins) of 1000mA can be sourced from the DC output.

Power Connector

Input power: 100-240 VAC, 50-60 Hz, 1.6A

The I/O Terminal Block

The AXIS 240Q Blade Video Server connects to an I/O terminal block used for transmitting data over multi-drop communication lines:

- RS-485 Pan/Tilt devices
- RS-232 Pan/Tilt devices
- External triggering (typically associated with CCTV equipment)

The AXIS 240Q Blade supports several Pan/Tilt device drivers, which are available from the Axis Web site at www.axis.com

Connector Pinout

The pinout for the I/O Terminal Block and the signaling details for each pin:

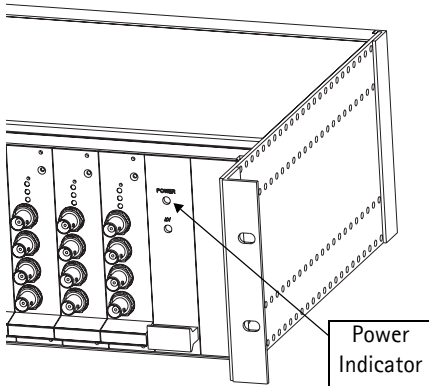
Pin	Function	Description
1	RS-232	RI
2	RS-232	CTS
3	RS-232	RTS
4	RS-232	DSR
5	GND	
6	RS-232	DTR
7	RS-232	TXD
8	RS-232	RXD
9	RS-232	CD
10	GND	
11	n/a	
12	n/a	
13	n/a	
14	n/a	

Pin	Function	Description
15	RS-485 - A (non-inverting)	A half-duplex RS-485 interface for controlling auxiliary equipment, e.g. PTZ devices.
16	RS-485 - B (inverting)	
17	Transistor Output 4	With a maximum load of 100mA and maximum voltage of 24V DC, this output has an open-collector NPN transistor with the emitter connected to GND. To use with an external relay, a diode must be connected in parallel with the load, for protection against voltage transients.
18	GND	
19	Transistor Output 3	See Transistor Output 4 above.
20	Transistor Output 2	See Transistor Output 4 above.
21	GND	
22	Transistor Output 1	See Transistor Output 4 above.
23	Digital Input 4	Connect to GND to activate, or leave floating (or unconnected) to deactivate
24	GND	
25	Digital Input 3	See Digital Input 4 above.
26	Digital Input 2	See Digital Input 4 above.
27	GND	
28	Digital Input 1	See Digital Input 4 above.

For compatible replacement connectors, contact <http://www.phoenixcontact.com>, quoting: MC1.5/14-ST-3.81 (art. no. 1803691).

For further information, please refer to the Unit Connections section in the AXIS 240Q User's Manual.

Connecting the video server to the rack



Please read through the instructions below before beginning the installation.

1. Connect the power cable to the power connector on the rack. Make sure that the green power indicator is lit.
2. Note the Serial number (S/N) on the front panel on the video server. You need to know this to set the IP address.

3. Referring to the AXIS 240Q Installation Guide, install the AXIS 240Q Blade on your network. Keep in mind the following details:
 - **Network** - connect the Ethernet cable to the Ethernet connector on the rack, in the position where the video server is to be connected.
 - **Power** - this is supplied via the bus connector. Slide the blade video server into the slot. Make sure the bus connector is securely connected to the I/O terminal block connector at the back of the rack. When repeating the installation procedure for each individual blade video server, simply disconnect the blade video server from the rack (i.e. do not disconnect the power cable).
 - Secure the video server to the rack using the screws on the front panel. The rack accommodates up to 12 Axis Blade Video Servers. To comply with EMC regulations, ensure that all empty slots are covered using the supplied cover plates.

AXIS 240Q Video Server User's Manual

The functionality of the AXIS 240Q Blade Video Server is the same as in the standalone version. For more information on how to use and configure the video server rack on your network, please refer to the AXIS 240Q Video Server User's Manual, available on the CD supplied with this product, or from the Axis Web site at www.axis.com

Technical Specifications

The following specifications are applicable for the complete Axis Rack Mounted Video Server Solution, i.e. an AXIS Video Server Rack with a mounted AXIS 240Q Blade Video Server.

Safety Approvals - EN60950

EMC Approvals -

- EN 55 024:1998 + A1
- EN 55 022:1998 + A1 (CISPR 22:1997 + A1) Class B
- EN 61000-3-2:2000
- EN 61000-3-3:1995 + A1
- VCCI:2002 Class B ITE (CISPR 22:1997 + A1:200, Class B)
- C-tick AS/NZS 3548
- FCC part 15, subpart B, Class B, demonstrated by compliance with EN 55022:1998 (CISPR 22:1997) Class B
- ICES-003

Metrics - Rack: Height: 5.2" (13.2 cm), Width: 19.0" (48.2 cm), Length: 11.8" (30.0 cm), Weight: 7.3 lb (3.3 kg).
Video Server: Height: 1.2" (3.1 cm), Width: 5.1" (12.9 cm), Length: 10.0" (25.5 cm), Weight: 0.5 lb (0.23 kg)

Power - Input Power: 100-240 VAC, 50-60 Hz, 1.6A

Operating Conditions - Temp: 40⁰ to 125⁰F (5⁰ to 50⁰C), Humidity: 20-80% RHG

All specifications are subject to change without prior notice.

Additional Technical Details

For additional technical details, see the **Technical Specifications** section in the AXIS 240Q User's Manual. The manual is available on the CD supplied with this product, or from the Axis Web site at www.axis.com