

AXIS Device Server Platform and AXIS Developer Board LX

For Product Deployment of Embedded Linux Applications

Customers developing their own embedded Linux applications for the AXIS ETRAX 100LX platform have two options for taking a product to market: either design and manufacture their own hardware, or use the AXIS Device Server Platform. The most appropriate option will be dependent upon volume and the type of application that is being developed.

A complete 'ready-to-use' product

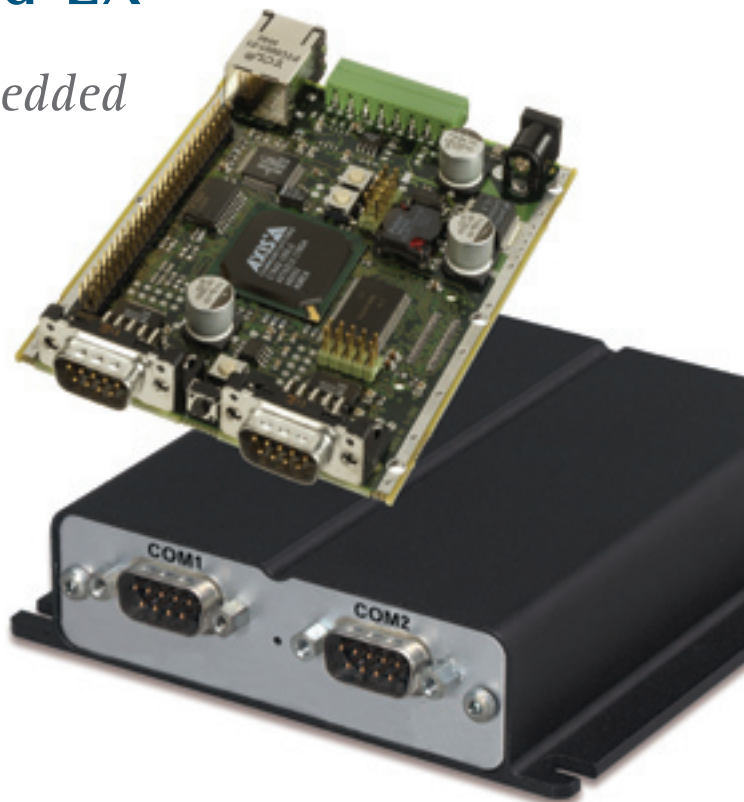
Supplied as a single printed circuit board, or packaged within a durable aluminium casing, the AXIS Device Server Platform is equipped with external connectors for 100 MBit Ethernet, COM1, COM2, and RS-485 connection. It is also equipped with internal connectors that accommodate two parallel ports and an additional serial port. Wrapped in a black aluminum casing with side plates, the AXIS Device Server Platform is compliant with immunity, emission and safety standards, and is ready for immediate deployment.

Simplify production improves time to market

The Device Server Platform is shipped as a ready-to-use device, which means that you don't need to spend any time on hardware development, authority approval testing, or purchasing and programming Ethernet addresses. Once your application is completed, the software is easily flash-loaded to the Device Server Platform, using FTP (File Transfer Protocol). You are free to completely customize all software, including the Linux kernel.

About the AXIS ETRAX 100LX Chip

This 'system-on-a-chip' network device is designed specifically for embedded Linux developers and includes an on-board 100 MHz 32-bit RISC CPU, cache and MMU, 10/100 full duplex Ethernet controller, SDRAM, Flash and controllers for many I/O interfaces.



Partnership Development

Axis is committed to open-source development and fully supporting its customers. Advanced technical support is available, as well as open discussion forums to facilitate good communication between the wide range of ETRAX system developers. Reference designs are available upon request.

- Programmable Device Server with Linux 2.4
- 100 MIPS performance
- Full source code available
- Certified for industrial use

Technical Overview

- Product-ready device server platform based on the AXIS ETRAX 100LX chip. The product ships with Linux pre-installed and an Ethernet address pre-programmed. Full source code is available for all applications and drivers

Ethernet Network Connection

- Physical network connection on 10BaseT Ethernet or 100BaseTX Fast Ethernet networks using RJ45 twisted pair cable (Category 5 shielded or unshielded twisted pair cable). Note: Shielded cable is recommended for industrial environments

Serial Connection

- Two RS232 serial ports: terminated with 9 pin MALE D-SUB connectors, both ports support RXD, TXD, RTS, CTS, DSR, DTR, RI and CD at baud rates up to 115200 bps
- One additional serial port is located on pin headers on the board and may be used for debugging

Pinout:			
1	CD	Carrier detect	(Input)
2	RxD	Receive Data	(Input)
3	TxD	Transmit Data	(Output)
4	DTR	Data Terminal Ready	(Output)
5	GND	Ground	
6	DSR	Data Set Ready	(Input)
7	RTS	Request To Send	(Output)
8	CTS	Clear To Send	(Input)
9	RI	Ring Indicator	(Input)

RS485/422 Terminal Block

- One RS485/422 serial port: supported on a single screw terminal block. Supports baud rates up to 1843200 bps

Pinout:	
1	AC Power
2	AC Power
3	GND
4	RS422 GND Connected to GND through 100 ohm resistor
5	RX/TX-A Use pin 5 and 6 for 2-wire RS-485
6	RX/TX-B Use pin 5 and 6 for 2-wire RS-485
7	TX-
8	TX+

Parallel ports & General purpose I/O

- On the board is located two parallel ports on pin headers. They can be used both as parallel ports or as general purpose control inputs or outputs

Application Flash-loading

- The customer's Linux application can be flash loaded to the Device Server Platform over the network using FTP (File Transfer Protocol)

Operating Environment

- Temperature: +5°C to +50°C
- Humidity: 8-80% RHG, non-condensing

Hardware

- CPU: 32 bit RISC processor (ETRAX 100LX)
- Flash memory: 4 Mbytes
2-2.5 Mbytes available for your applications
- RAM: 8 Mbytes

Power Supply

- Power: 9-24 VAC (or DC), 6 VA, via external power supply (included) or on screw terminal block
- Power consumption typically between 2.5 VA and 3.5 VA

Product Warranty

- A one-year warranty is included

The specifications below are appropriate to the AXIS Device Server Platform (supplied with aluminium casing) only

Mechanical Design

- A stable aluminum casing that can be conveniently mounted on a wall

Metrics

- Height: 27 mm Width: 112 mm
Length: 110 mm
- Weight: 320 g

Product Identification

- Sticker label on the underside, which identifies the unit as an AXIS Device Server Platform and also identifies the Ethernet address of the unit

Approvals*

- AXIS Device Server Platform fulfills both industrial and light industrial/commercial EMC standards for both emission and immunity
- Immunity Standards:
EN 55024:1998
EN 50082-1:1997
EN 61000-6-2:1999
- Emission Standards:
EN 55022:1994 (CISPR 22:1993 + A1:1995 + A2:1996) Class B + A1:1995 + A2:1997
FCC Part 15, Subpart B, Class A
FCC Part 15, Subpart B, Class B
AS/NZS3548 (C-Tick)
- Safety:
EN 60950, UL, CSA

*The approvals are made with the aluminum casing and cannot be guaranteed when the PCB is not mounted in a similar box



For more information, visit: developer.axis.com

www.axis.com