esdEP Embedded Platform

Tailor-made DIN Rail Modules for Industrial Automation based on the CAN-CBX-CPU/A9

COTS Hardware Module and Customized Embedded Solution at once

- *Solutions to specific technical challenges as part of the product through custom software development*
- *Seamless integration thanks to communication stacks, software and hardware from a single source*
- *Ready-to-connect customer product as an order item with the developed software and configuration*

Decades of Experience in the Industrial Electronics Sector, including

- *Long-term industrial use thanks to reliable hardware design and many years of availability*
- *Maximum product performance through customized software development as a service*

Performance and Flexibility thanks to ARM Processor with integrated PRUs

- *Precise real-time communication in industrial Ethernet with PRU-ICSS*
- *Flexible implementation of gateway solutions between different industrial fieldbuses*

Customized Software Adaptation
For the CAN-CBX-CPU/A9, esd electronics places a high emphasis on individual software adaptation. This approach ensures that the module is precisely tailored to meet the specific requirements of each customer. By implementing exactly the functionalities and interfaces needed for the particular application, esd maximizes the efficiency and performance of the module in use.

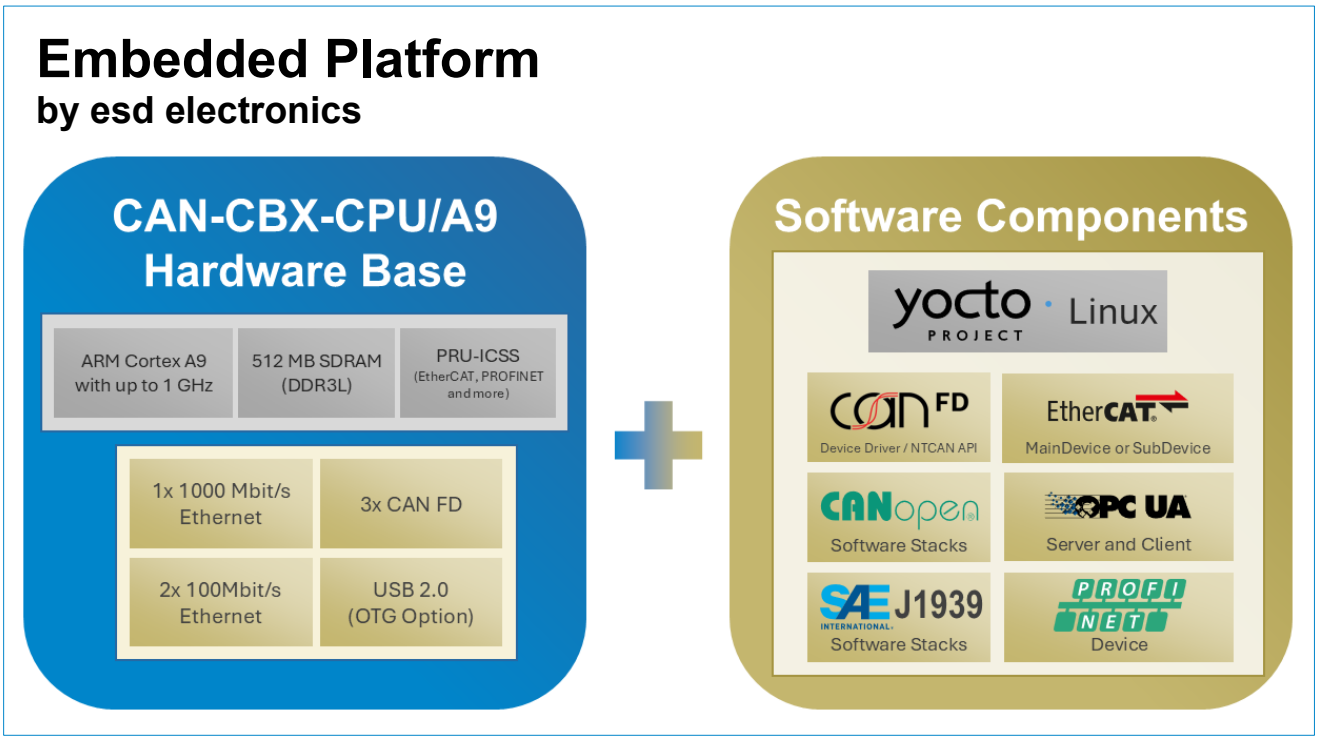
Close Collaboration with Customers
A key aspect of the service is collaborative development. esd electronics works closely with customers to develop an in-depth understanding of their specific requirements. This partnership enables the development of solutions that are precisely tailored to customer needs and deliver optimal results.

Integration Support
Following customer-specific software development, esd electronics supports its customers in integrating the CAN-CBX-CPU/A9 into their systems. This support includes technical advice and assistance with commissioning.

Long-term Support
Even after successful integration, esd electronics remains a reliable partner. The company provides continuous support for maintenance and software updates, as well as technical support for any challenges that may arise during operation.

Various Hardware Options
The CAN-CBX-CPU/A9 can be equipped according to customer requirements in series production. Available are up to 3 CAN FD interfaces, up to 2 Ethernet field bus interfaces with 100 Mbit/s for EtherCAT or PROFINET, 1 Ethernet interface with 1000 Mbit/s. There are also options for LIN available.

Various Software Options
A Yocto-Linux repository maintained by esd is used as the software basis. esd offers a variety of proven software stacks for this basis. These include CANopen, EtherCAT MainDevice & SubDevice, ARINC 825 and J1939.



esdEP Embedded Platform provides a flexible, industry-grade embedded platform based on the CAN-CBX-CPU/A9. With tailored software adaptation and seamless integration, it enables a wide range of solutions for real-time communication, control, and data logging – backed by long-term lifecycle management and series production by esd electronics.

File: esdEP_CAN-CBX-CPU-A9_Datasheet_en_1.0.docx *Rev.: 1.0 • Date: 2025-02-27*

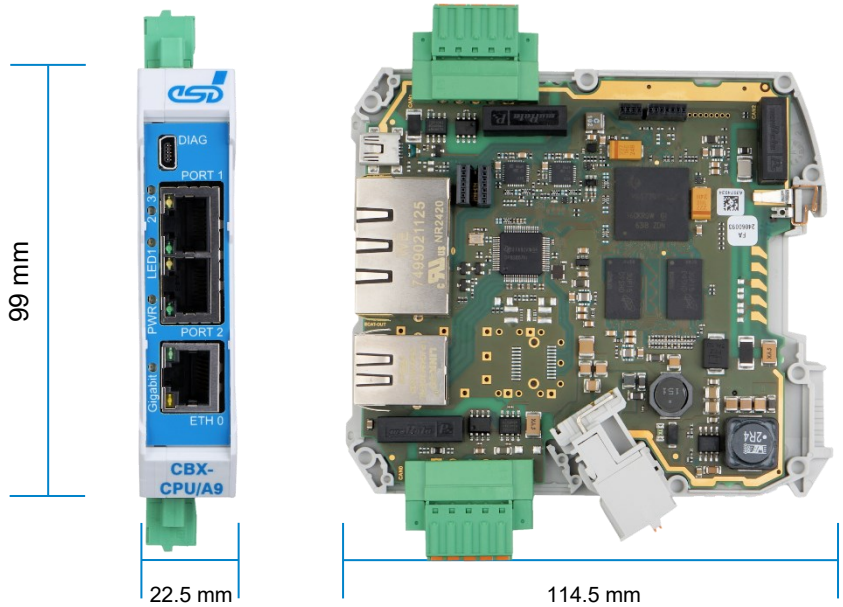
esd electronics gmbh
Vahrenwalder Str. 207
30165 Hannover / Germany
Phone: +49 (0) 511 3 72 98-0
Fax: +49 (0) 511 3 72 98-68
E-mail: info@esd.eu

esdEP Embedded Platform

Tailor-made DIN Rail Modules for Industrial Automation based on the CAN-CBX-CPU/A9

Hardware Base – CAN-CBX-CPU/A9

A suggested hardware foundation of 'esdEP Embedded Platform' is the CAN-CBX-CPU/A9, featuring a powerful ARM Cortex-A9 processor with PRU-ICSS for real-time communication. Designed for industrial applications, it offers flexible connectivity with multiple CAN FD and Ethernet interfaces, ensuring reliable performance in demanding environments.



Technical Specifications:

Processing Unit System:	
MCU	*Sitara™ ARM® Cortex®-A9 32-Bit RISC Processor With Processing Speed up to 1000 MHz*
Memory (RAM)	*512 MB DDR3L SDRAM*
Flash	
Interfaces:	
CAN	*Up to 3x CAN FD as Option*
Ethernet	*1x 10/100/1000 Mbit/s*
Industrial Fieldbus (as options)	*Ethernet 2x 10/100 Mbit/s, EtherCAT MainDevice & SubDevice, PROFINET IO Device, Ethernet/IP Device, CANopen, LIN*

General:	
Power supply voltage	*24 V ± 5%; I_{typ} = 120 mA*
Ambient temperature	*0 °C … +55 °C*
Dimensions	*22.5 mm x 99 mm x 114.5 mm*
Weight	*130 g*

Order Information:		
Hardware		*Order No.*
CAN-CBX-CPU/A9-21CFD-IFB-RJ45	*3x CAN FD, 2x 100 Mbit/s, 1x 1000 Mbit/s*	*C.3073.03*

esdEP Embedded Platform – Optimized Hardware and Tailored Software from a Single Source
The CAN-CBX-CPU/A9 hardware is always offered in combination with customized software development and adaptation. This ensures that each solution is precisely tailored to the customer's specific requirements, providing seamless integration and optimal performance in industrial applications. The esd electronics sales team is happy to assist with any inquiries and supports customers from the initial idea to the final product with expert consulting and implementation

With 'esdEP Embedded Platform,' you benefit from a seamlessly integrated hardware and software platform, long-term availability, and tailored functionality—ensuring a future-proof, efficient, and reliable solution for your industrial applications.

Contact our sales team at sales@esd.eu to discuss your requirements. We are happy to support you from the initial concept to the final product!

esd electronics gmbh
Vahrenwalder Str. 207
30165 Hannover / Germany
Phone: +49 (0) 511 3 72 98-0
Fax: +49 (0) 511 3 72 98-68
E-mail: info@esd.eu