miriac® ACU-LX2160A

The miriac® ACU-LX2160A Automation Control Unit is based on the miriac® MPX-LX2160A System-on-Module (SoM).

- 16 Arm® Cortex®-A72 64-bit cores up to 2.2 GHz
- 10x 1GbE
- Up to 64 GB DDR4 RAM
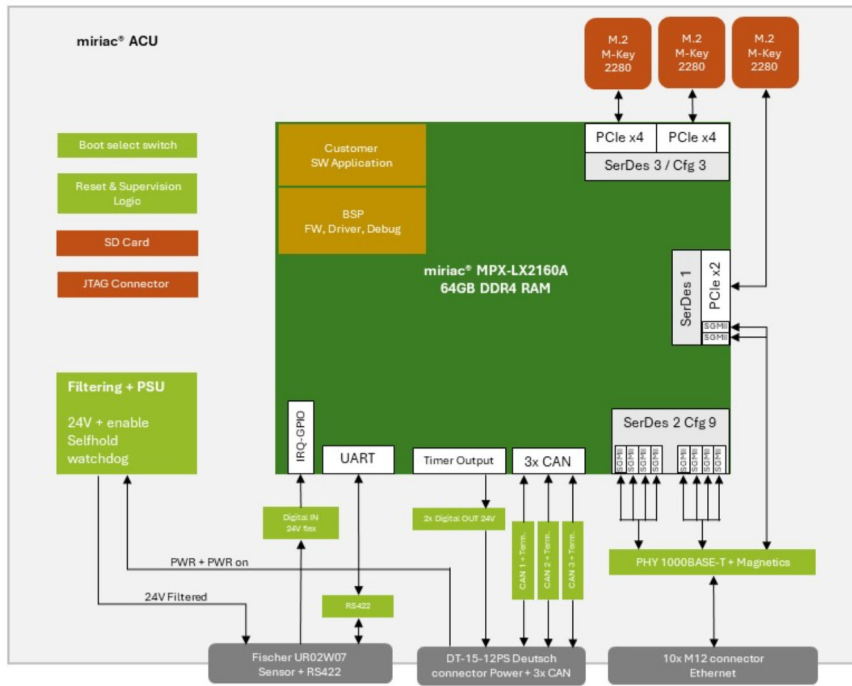- Temperature sensors, cooling controller, RTC, management engine

COMING SOON

The miriac® ACU-LX2160A Automation Control Unit is a high-end platform that integrates a MicroSys-designed carrier board and the miriac® MPX-LX2160A System-on-Module (SoM). It features NXP's powerful multicore communication processor with 16 Arm® Cortex®-A72 cores, running at up to 2.2 GHz. This commercial off-the-shelf (COTS) solution is ideal for applications requiring multi-sensor systems, highly computational power, and numerous high-speed I/Os. It is perfect for demanding use cases such as Data loggers, GPS Positioning Systems, Test and Measurement Equipment or Advanced Driver Assistance Systems (ADAS), especially in harsh environments.

Key functions of the system include processing sensor data via Ethernet and outputting control data to downstream units, enabling capabilities like environment perception, mission logic, and obstacle avoidance.

- Data loggers
- Test and Measurement Equipment
- Advanced Driver Assistance Systems (ADAS)
- GPS Positioning Systems
- AI via Hailo-8™

Please note with regard to the features shown below: **Technical changes reserved**

Block Diagrams −

Features −

CPU

Architecture	Arm® Cortex®-A72
Processor	NXP® Layerscape® LX2160A with 16 Arm® Cortex®-A72 64-bit cores up to 2.2 GHz
DRAM	• Up to 64 GB DDR4 RAM & optional ECC, up to 3200MT/sec • Up to 4 ranks using a combined design: discrete & SODIMM

Memory

Flash	Up to 2 Gb Octal SPI Flash at up to 200 MHz, double operation / golden image
Flash Card	Yes
Boot Flash	Boot select: XSPI, eMMC or external SD card
eMMC	8 GB

Ethernet

1GbE	10x

High Speed IO

PCIe	PCIe x8 & PCIe x4 (Gen3)

IO

PWM out	2x
UART	RS422

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CAN FD	3x
GPIOs	1x in

Operating Condition	
Conformity	CE
Power Supply Voltage	Single 12 V / 24V DC power input
RTC	Yes
RTC-Buffer	Supercap
Temperature	-40 °C to 70 °C

Mechanical	
Dimensions	365 mm x 300 mm

Software / Additional	
Software Support	- Linux - Others (on request)

Our standard product versions offer what we consider to be the optimum configuration in terms of performance, price, usage and TDP. The product features lists specify the maximum range of functions per interface. However, not all interfaces or functions are always available in parallel. Flexible SERDES multiplexing is one of the reasons for this. In addition, we provide multiple memory expansion options and are also happy to accommodate specific customer wishes. So do not hesitate to contact us directly to discuss your desired configuration.

Order Info —

Name	Code	Description	Status
miriac® ACU-LX2160A	tbd	miriac® ACU-LX2160A	coming soon

Take a look at related products

miriac® MPX-LX2160A