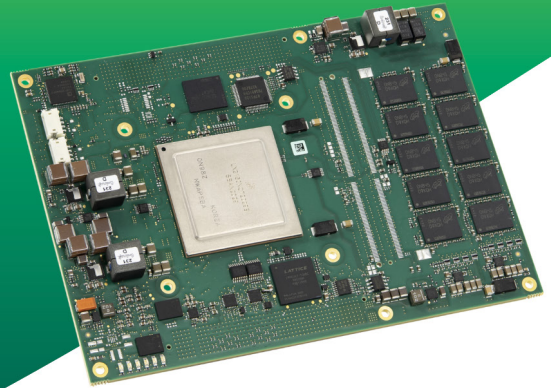


## miriac® MPX-LX2160A

MicroSys is adding to its successful range of Layerscape® modules with the high-end miriac® MPX-LX2160A.

- NXP® Layerscape® LX2160A with 16 Arm® Cortex®-A72 64-bit cores up to 2.2 GHz
- 24 SerDes lanes (PCIe Gen3 x8, 100 GbE/40 GbE/25 GbE/10 GbE, SATA)
- 2x DDR4 controllers (up to 3200 MT/s with ECC) support up to 128 GB DDR4 RAM, ECC
- Boot select: XSPI, eMMC or external SD card
- Single 5-12 V DC input supply voltage range



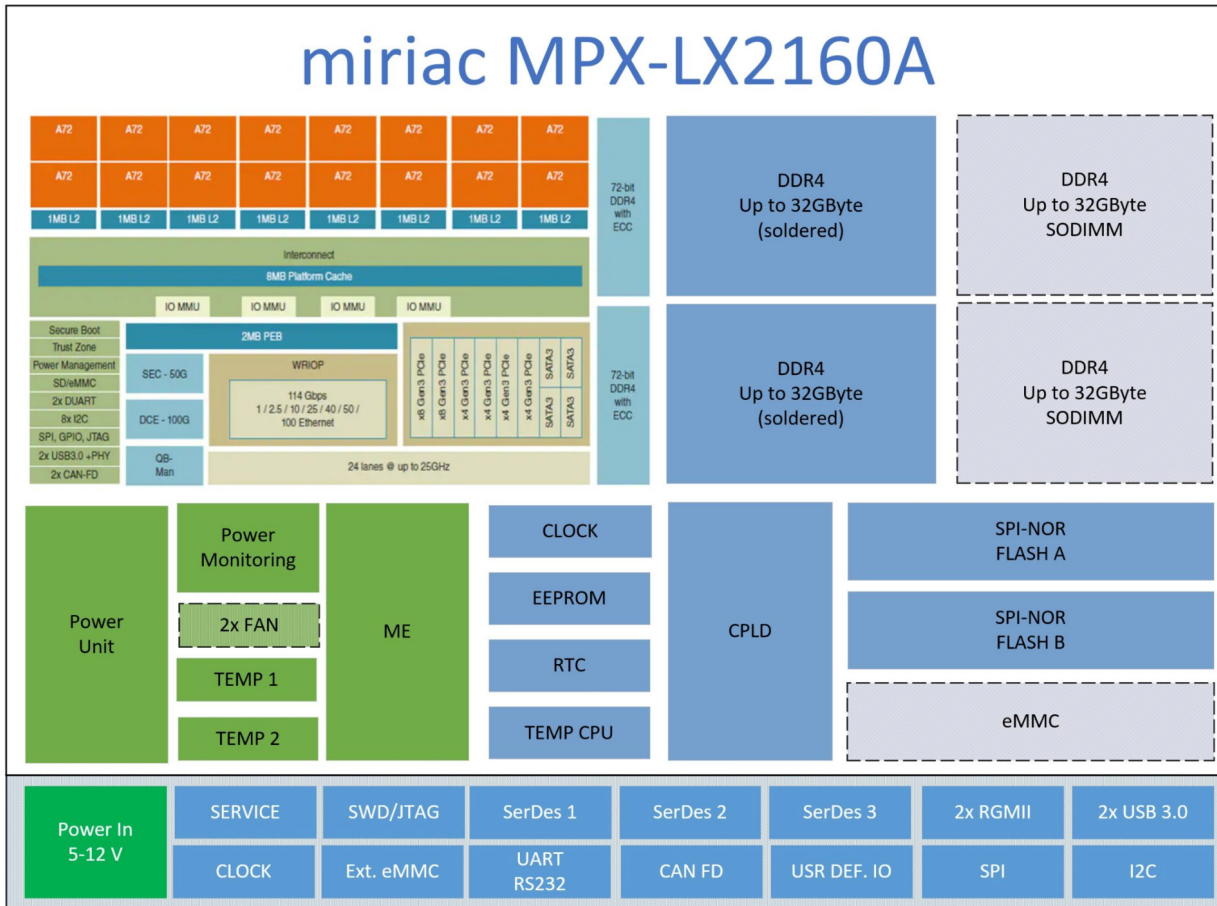
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### **Rugged edge server class SoM for high-end communication applications.**

NXP's flagship processor, the LX2160A, offers 16 Arm® Cortex®-A72 cores at 2.2GHz. In addition, the LX2160A offers 24 SerDes lanes (PCIe Gen3 x8, 100 GbE/40 GbE/25 GbE/10 GbE, SATA) and up to 128 GB DDR4 RAM driven by 2x DDR4 controllers (up to 3200 MT/s with ECC). This means that the MPX-LX2160A module is designed for applications that are highly compute-intensive and require numerous high-speed I/O.



# miriac MPX-LX2160A



## 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 128 GB DDR4 RAM & optional ECC, up to 3200MT/sec Up to 4 ranks using a combined design: discrete & SODIMM
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### Memory

Flash	Up to 2 Gb Octal SPI Flash at up to 200MHz, double operation / golden image
Flash Card	Interface for external SD card
Boot Flash	Boot select: XSPI, eMMC or external SD card
eMMC	Up to 256 GB, HS400, JEDEC 5.1 standard support

### Ethernet

100GbE	Yes
40GbE	Yes
25GbE	Yes
10 GbE	Yes

100BASE-T1 Yes

### High Speed IO

SerDes lanes 24 SerDes lanes (PCIe Gen3 x8, 100GbE/40GbE/25GbE/10GbE, SATA)

USB 3.0 2x

USB 2.0 Yes

PCIe PCIe Gen3 x8

SATA Yes

### IO

FlexSPI 1x

UART 2x

CAN FD 2x

I2C 2x

GPIOs Yes

JTAG Debug Interface Yes

### Security / Safety

Security Secure boot, trust zone

### Operating Condition

Power Supply Voltage Single 5 to 12 V DC input supply voltage range

Typical Power Consumption 25W

Power Management Yes

RTC PCF85263

Temperature 0 °C to 70 °C

Optional Extended Temperature -40 °C to +85 °C

### Mechanical

Dimensions 155 x 110 mm

Connector Type 2x high-speed/high-density open-pin-field connectors á 400 pins

## Software / Additional

Software Support	<ul style="list-style-type: none"><li>• Linux</li><li>• VxWorks (on request)</li><li>• Others (on request)</li></ul>
Additional	<ul style="list-style-type: none"><li>• Temperature sensors, cooling controller, RTC, Management Engine</li><li>• All I/O pins available on SEARAY™ Connectors</li><li>• Development Kit available for immediate start; includes power supply, cables; Linux on SD card</li></ul>

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® MPX-LX2160A	858402	16 Arm® Cortex®-A72, 2.0 GHz, 32 GB DDR4 w ECC, 16 MB NOR Flash, 512 MB NAND Flash, 32 GB eMMC, 0 °C to 70 °C, w SEC	active
Development Kit basic for miriac® MPX-LX2160A	8597	<ul style="list-style-type: none"><li>• miriac® MPX-LX2160A</li><li>• CRX08</li><li>• incl. BSP and accessories</li></ul>	active

## Take a look at related products

