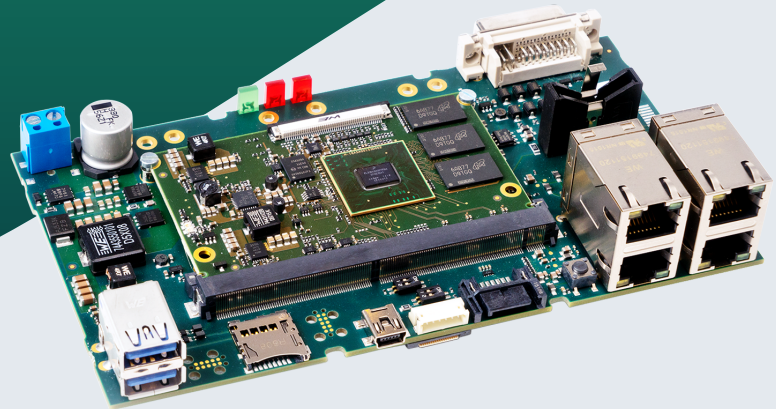


SBC Arm® Architecture

# miriac® SBC-LS1043A

Single Board Computer based on NXP® QorIQ® LS1043A



## Highlights

- Up to 4 GB 32-bit DDR4 ECC RAM at 1600 MTps
- Hybrid 32-bit mode to support legacy software
- Temperature sensor
- All on board supply voltages are monitored by a separate  $\mu$ -controller





## Product Description

The miriac® SBC-LS1043A Single Board Computer is a NXP® QorIQ® LS1043A quad core Arm® Cortex®-A53 based complete system solution by MicroSys. NXP's LS1043A and LS1023A (two cores) CPUs deliver greater than 10 Gbps of performance in a flexible I/O package supporting fan-less designs. This SoCs are purpose-built solutions for small-form-factor networking and industrial applications with BOM optimizations for economic low layer PCB, lower cost power supply and single clock design.



## Features

<b>CPU</b>	
Architecture:	Arm® Cortex®-A53
Processor:	NXP® QorIQ® LS1043A CPU: 4 Arm® Cortex®-A53 64-bit cores at up to 1.6 GHz core frequency
DRAM:	Up to 4 GB 32-bit DDR4 ECC RAM
<b>Memory</b>	
Flash:	Up to 2 GB SLC NAND Flash & up to 16 MB SPI Flash
Flash Card:	Yes
Boot Flash:	QSPI, SD/MMC, NAND Flash
<b>Ethernet</b>	
1GbE:	3x
<b>High Speed IO</b>	
USB 3.0:	2x
miniUSB:	1x debug
PCIe:	1x PCIe via extension connector, optional: 1x PCIe via edge card connector
SATA:	1x
<b>Operating Condition</b>	
Power Supply Voltage:	Single 9 to 24 V DC input supply voltage range
RTC:	Yes
RTC-Buffer:	CR2032 battery
Temperature:	0 °C to 70 °C
<b>Mechanical</b>	
Dimensions:	86 mm x 157 mm
<b>Software / Additional</b>	
Software Support:	- Linux - VxWorks (on request) - Others (on request)
Additional:	- Compatible variants available with QorIQ® LS1023A, LS1046A, LS1048A, LS1088A

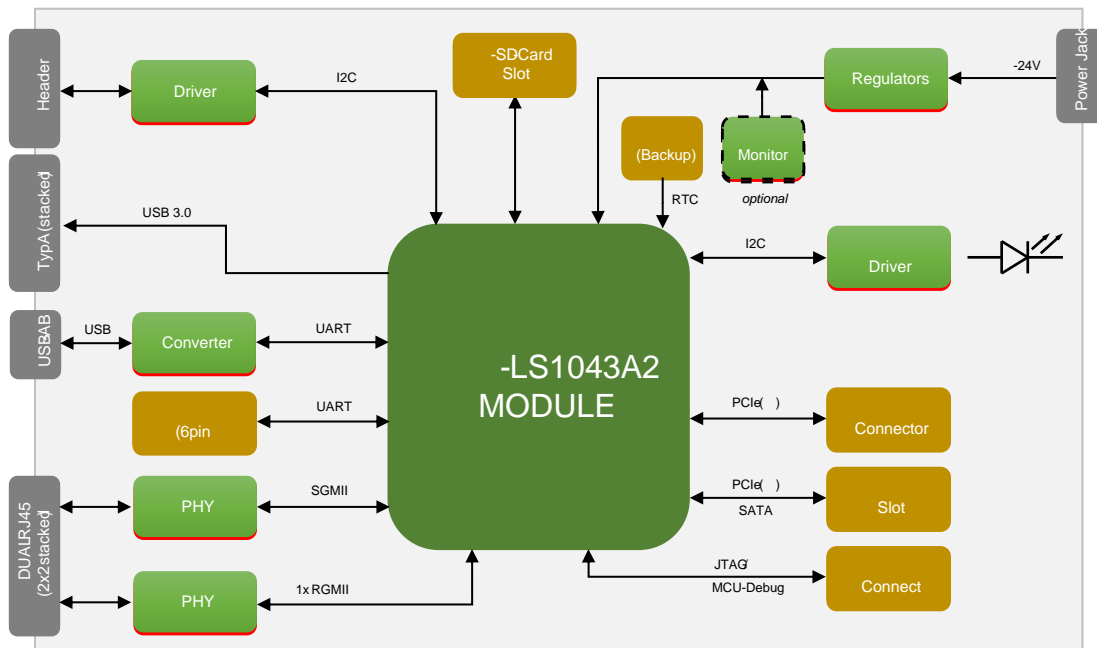
- Temperature sensor
- 4x RGB LED
- Dev Kit for immediate start up, e.g. power supply, cables (optional)

**General Note:**

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.



# Block Diagrams



SB@LS1043A2: Version 2.0:0201709-29

miriac® SBC-LS1043A





## Order Info

Name	Code	Description	Status
<a href="#">miriac® SBC-LS1043A Single Board Computer</a>	854201	LS1043A@1.4 GHz, 1 GB DDR4 RAM, 512 MB Flash memory	active
<a href="#">miriac® SBC-LS1043A Starter Kit</a>	855914	for MPX-LS1043A, incl. order# 855605 (1 GHz, 2 GB DDR4 (32-bit), 512 MB Flash), Carrier Board, Linux BSP, accessories	active
<a href="#">Development Kit pro for miriac® MPX-LS1043A2</a>	8564	<ul style="list-style-type: none"> <li>• <a href="#">miriac® MPX-LS1043A2</a></li> <li>• <a href="#">CRX06-TSN</a></li> <li>• incl.BSP and accessories</li> </ul>	active



## Related Products

Name	Description	Image
<a href="#">miriac® MPX-LS1043A</a>	Low-power module for price sensitive communication	
<a href="#">CRX06-TSN</a>	Carrier Boards	

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