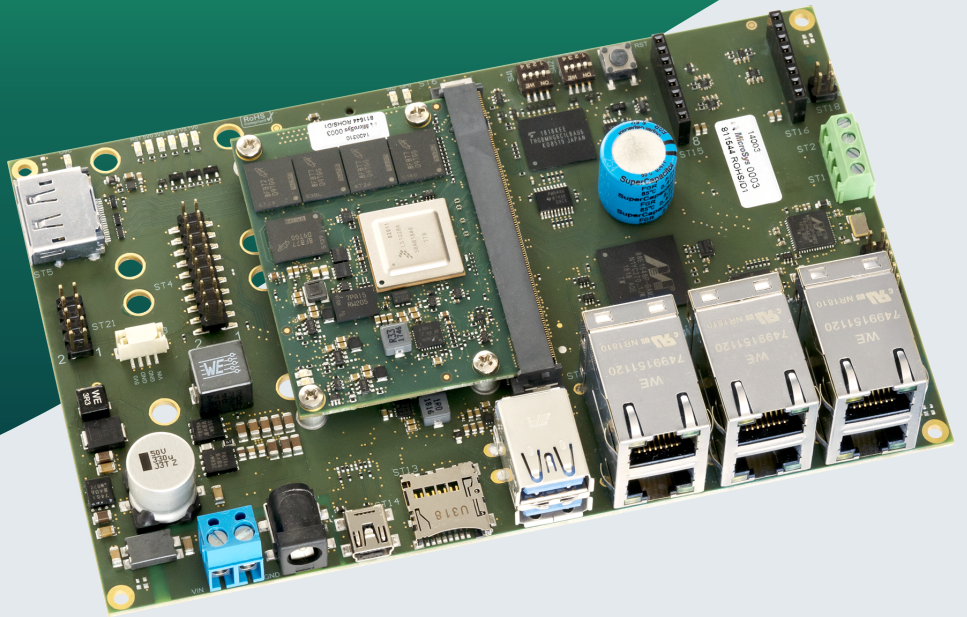


SBC Arm® Architecture

# miriac® SBC-LS1028A-TSN

Single Board Computer based on NXP® QorIQ® LS1028A CPU



## Highlights

- 1x Ethernet Port 10/100/1000 Base-T
- 5x Ethernet Ports 10/100/1000 Base-T with TSN support
- NXP® QorIQ® LS1028A CPU: two Arm® Cortex®-A72 32/64-bit cores
- Display Port
- ECC memory, rich I/O infrastructure and CAN-FD interfaces





## Product Description

Preliminary information, subject to change: The miriac® SBC-LS1028A-TSN platform is the combination of a miriac LS-1028A System on Module and the carrier board CRX07. The miriac® SBC-LS1028A-TSN platform combines a rich I/O infrastructure, high compute power, high speed communication interfaces with the upcoming requirement of secure real time communication over Ethernet based on TSN (Time Sensitive Networking) on a small board footprint. The integrated graphic interface complements the system functionality for versatile applications.



## Features

<b>CPU</b>	
Architecture:	Arm® Cortex®-A72
Processor:	NXP® QorIQ® LS1028A CPU: 2 Arm® Cortex®-A72 64-bit cores at up to 1.5 GHz core frequency
DRAM:	Up to 4 GB 32-bit DDR4 ECC RAM 1600 MT/s
<b>Memory</b>	
Flash:	Up to 256 MB Serial NOR Flash & up to 4 GB Serial NAND Flash
Flash Card:	Yes
Boot Flash:	SDHC, eMMC, XSPI, NAND Flash
eMMC:	8 GB
<b>Graphic</b>	
HDMI Interface:	1x DisplayPort
<b>Ethernet</b>	
TSN / IEEE 1588:	5x Gbit Eth. With TSN support on RJ45
<b>High Speed IO</b>	
USB 3.0:	2x
miniUSB:	1x debug
µUSB:	1x debug
<b>Operating Condition</b>	
Power Supply Voltage:	Single 9 to 24 V DC input supply voltage range
RTC:	Yes
RTC-Buffer:	Supercap
Temperature:	0 °C to 70 °C
Optional Extended Temperature:	-40 °C to 85 °C
<b>Mechanical</b>	
Dimensions:	160 mm x 100 mm
<b>Software / Additional</b>	
Software Support:	- Linux
	- VxWorks (on request)
	- Others (on request)

**Additional:**

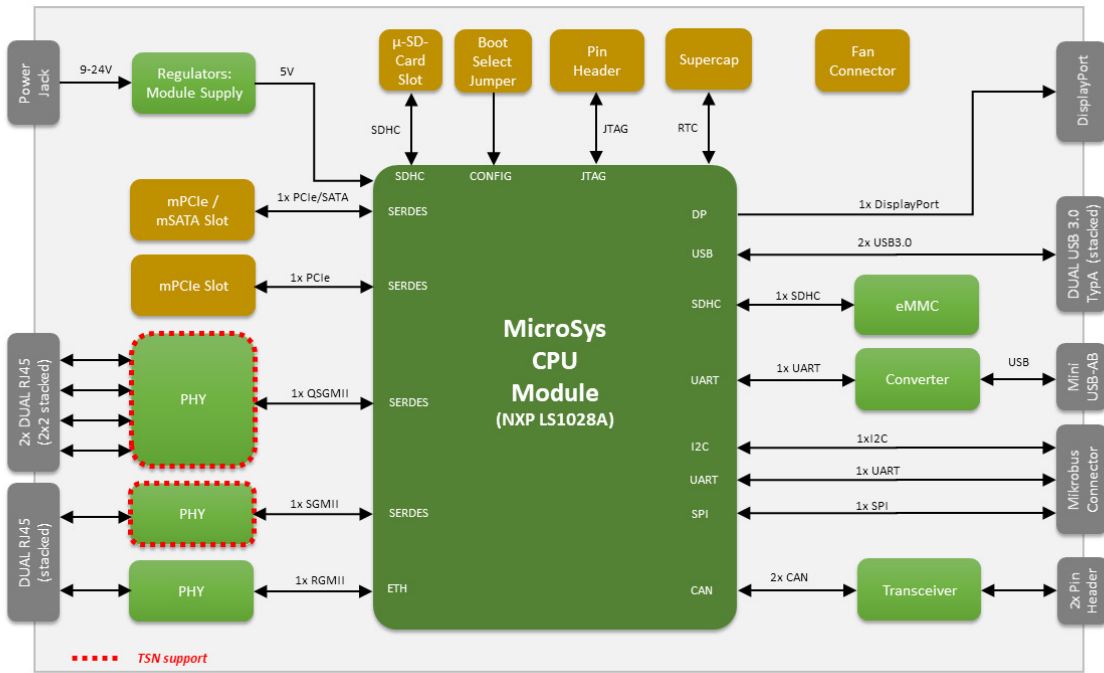
- Status LEDs
- Watchdog
- Reset button
- Boot mode DIP switch
- FAN connector (12V / 5V)
- Compatible variants available with QorIQ LS1018A
- Temperature sensor

**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



miriac® SBC-LS1028A




## Order Info

Name	Code	Description	Status
Development Kit basic for miriac® MPX-LS1028A	8576	<ul style="list-style-type: none"><li>• <a href="#">miriac® MPX-LS1028A</a></li><li>• <a href="#">CRX07-TSN</a></li><li>• incl.BSP and accessories</li></ul>	active



## Related Products

Name	Description	Image
<a href="#">miriac® MPX-LS1028A</a>	Compact SoM with TSN, security engine and HMI	

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