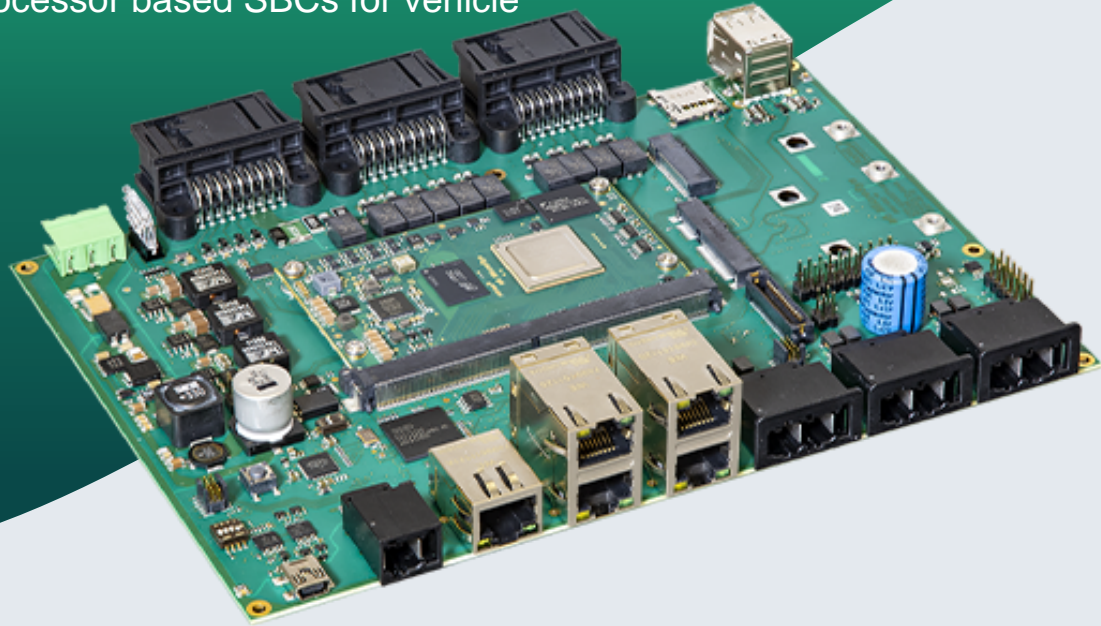


SBC Arm® Architecture

# miriac® SBC-S32G274A

NXP® S32G274A processor based SBCs for vehicle network computing



## Highlights

- 4 Arm® Cortex®-A53 cores
- 3 Arm® Cortex®-M7 lockstep cores for real-time applications
- Automotive Ethernet Switch SJA1110
- Time Sensitive Networking (TSN)
- Automotive Buses: CAN, FlexRay, LIN





## Product Description

The miriac® SBC-S32G274A Single Board Computer is based on NXP's S32G274A vehicle network processor. It integrates a miriac® MPX-S32G274 System on Module designed by MicroSys. The system combines numerous high speed Ethernet interfaces for automotive networking - provided by the SJA1110 automotive switch - with standard automotive busses like Flexray (2x), LIN (8x) or CAN (16x plus 2x CAN FD). It is a communication and compute thoroughbred for innovative automotive and industrial sensor fusion applications.



## Features

CPU	
Architecture:	Arm® Cortex®-A53
Processor:	NXP® S32G274A CPU: 4 Arm® Cortex®-A53 64-bit cores, 3 Arm® Cortex®-M7 dual-cores
DRAM:	4 GB 32-bit soldered LPDDR4 RAM at 1600MT/s
Memory	
Flash:	64 MB QSPI Flash
Flash Card:	Yes
Boot Flash:	Boot select: XSPI, eMMC or external SD card
eMMC:	16 GB
Ethernet	
1GbE:	1x
1000BASE-T1:	1x
100 Mb:	1x
100BASE-T1:	6x
TSN / IEEE 1588:	Yes
High Speed IO	
USB 2.0:	1x
miniUSB:	1x
Operating Condition	
Power Supply Voltage:	Single +12 V DC power input (+9 to +36 V)
Optional Power Supply Voltage:	Single DC power input (+6 V to +36 V)
RTC:	Yes
RTC-Buffer:	Supercap
Temperature:	0 °C to 70 °C
Mechanical	
Dimensions:	200 mm x 140 mm
Software / Additional	
Software Support:	- Linux  - VxWorks (on request)

**Additional:**

- Others (on request)

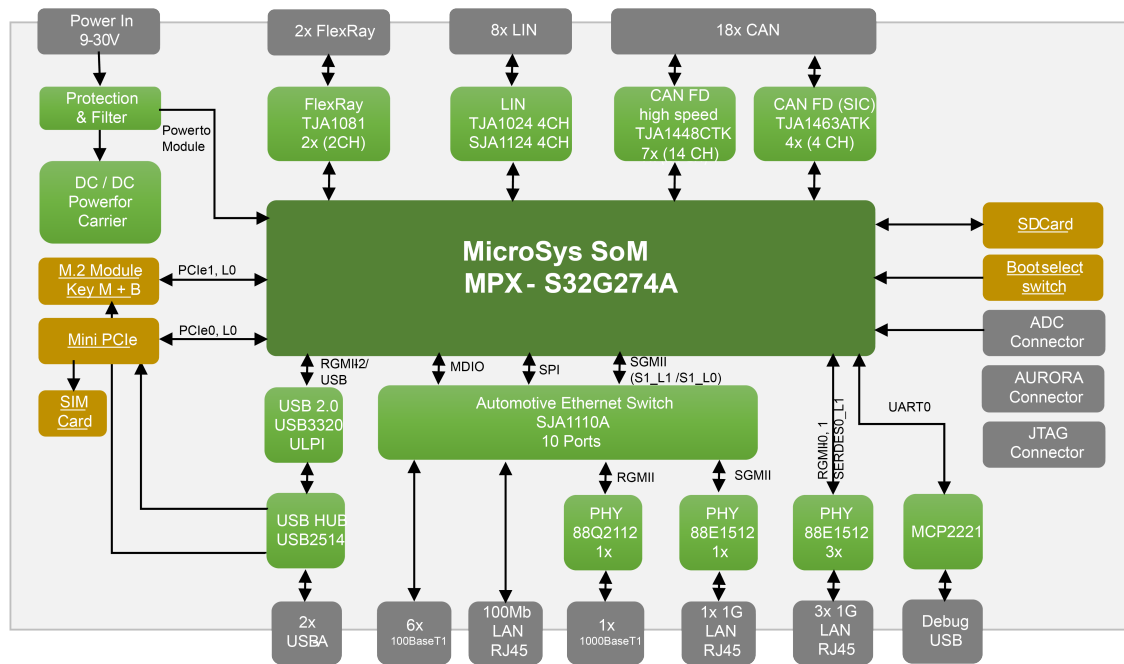
Development Kit for immediate start up; includes power supply, Linux pre-installed

**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-S32G2





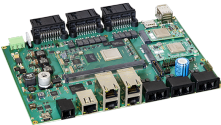

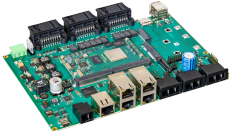


## Order Info

Name	Code	Description	Status
Development Kit basic for miriac® MPX-S32G274	859011	4 Arm® Cortex®-A53, 1.0 GHz, 4 GB LPDDR4 w ECC, 64 MB NOR Flash, 16 GB eMMC, 0 °C to 70 °C, w/o SEC	active



## Related Products

Name	Description	Image
miriac® MPX-S32G274A	Vehicle gateway platform with massive native CAN support	
miriac® AIP-S32G274A	High-performance embedded AI platforms	
miriac® AIP-S32G399A	High-performance embedded AI platforms	
miriac® MPX-S32G399A	MicroSys' 2nd Gen of System-on-Modules for vehicle networks based on the NXP® S32G399A processor	
miriac® SBC-S32G399A	NXP® S32G399A processor based SBCs for vehicle network computing	



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