

SBC Arm® Architecture

# miriac® SBC-S32V234

The miriac® SBC-S32V234 Single Board Computer based on the NXP® S32V234 Arm® Vehicle Network Processors family for compute intensive image processing applications.



### Highlights



- MIPI CSI, the most widely used camera interface in the mobile industry
- up to dual 1 GB 32-bit ECC DDR3L RAM
- HDMI Display interface
- Safety: FCCU and FCCU output supervision unit
- Video encoder/decoder: H.264, 8/10/12-bit / H.264, 8/10/12-bit, JPEG, 8/12-bit, up to 4 streams

NXP Gold Partner



## **Product Description**

The miriac® SBC-S32V234 single board computer is a perfect embedded platform for environment recognition and detection. The system is an excellent means for rapid prototyping purposes or might be applied even for production use.



### **Features**

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CPU	
Architecture:	Arm® Cortex®-A53
Processor:	NXP® S32V234 CPU: Quad Arm® Cortex®-A53 cores at up to 1.3 GHz core frequency
DRAM:	1x Cortex®-M4 Core for real time processing Up to dual 1 GB 32-bit ECC DDR3L RAM
Memory	Op to dual 1 GB 32-bit ECC DDR3E RAIN
Flash Card:	Yes
Boot Flash:	eMMC or external SD card. dual boot mode dipswitch
eMMC:	16 GB
Graphic	10 00
HDMI Interface:	1x
Camera Input:	2x MIPI-CSI camera interface connector, 2x 5 V/12 V supply
Ethernet	
1GbE:	1x
High Speed IO	
μUSB:	1x
Operating Condition	
Power Supply Voltage:	Single +12 V DC power input (+9 to +15 V)
RTC:	Yes
RTC-Buffer:	Supercap
Temperature:	0 °C to 70 °C
Mechanical	
Dimensions:	126 mm x 93 mm
Software / Additional	
Additional:	- Four user LEDs
	- Four system state LEDs
	- Reset switch
	- Polarity & overvoltage protection,
	- On/Off power switch

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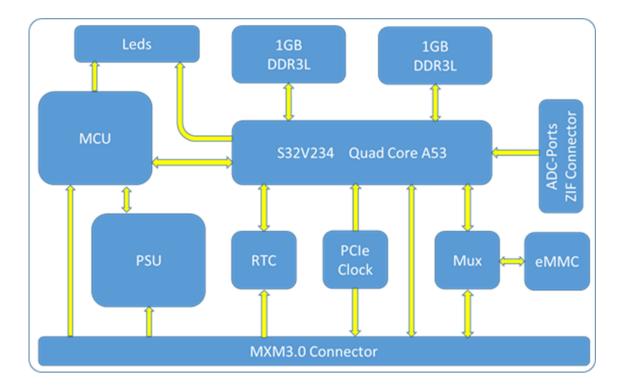
#### - 2x 5 V/12 V fan connectors

#### **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 <a href="contact us">contact us</a>, directly to discuss your desired configuration.

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# **Block Diagrams**



miriac® SBC-S32V2

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Name	Code	Description	Status
miriac® MPX-S32V234	854901	with NXP® S32V234@1 GHz CPU, up to 2x 1 GB DDR3L RAM	active
Development Kit basic for miriac® MPX-S32V234	8557	<ul> <li>miriac® MPX-S32V234</li> <li>CRX-S32V</li> <li>incl.BSP and accessories</li> </ul>	active



## **Related Products**

Name	Description	Image
miriac® MPX-S32V234	Vision and safety processor for compute intensive image processing applications	





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