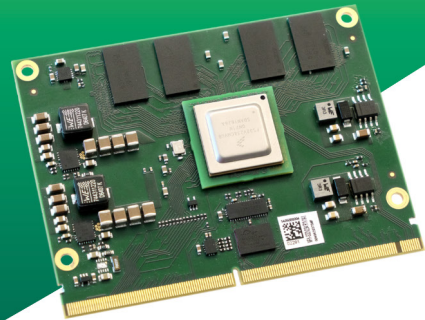


miriac® MPX-S32V234

The MPX-S32V234 is based on a vision processor with quad 64-bit Arm® Cortex®-A53 cores. It offers an image signal processor (ISP), a powerful 3D graphic processor unit (GPU), dual APEX-2 vision accelerators, automotive-grade reliability, functional safety & security capabilities.

- Up to dual 1 GB 32-bit ECC DDR3L RAM
- Image Cognition: 2x APEX2-CL Dual 32-bit array with 2x32 compute units
- Serial MIPI-CSI: 2x4 lanes, up to 1.5 Gbps
- Video encoder/decoder: H.264, 8/10/12-bit, JPEG, 8/12-bit, up to 4 streams

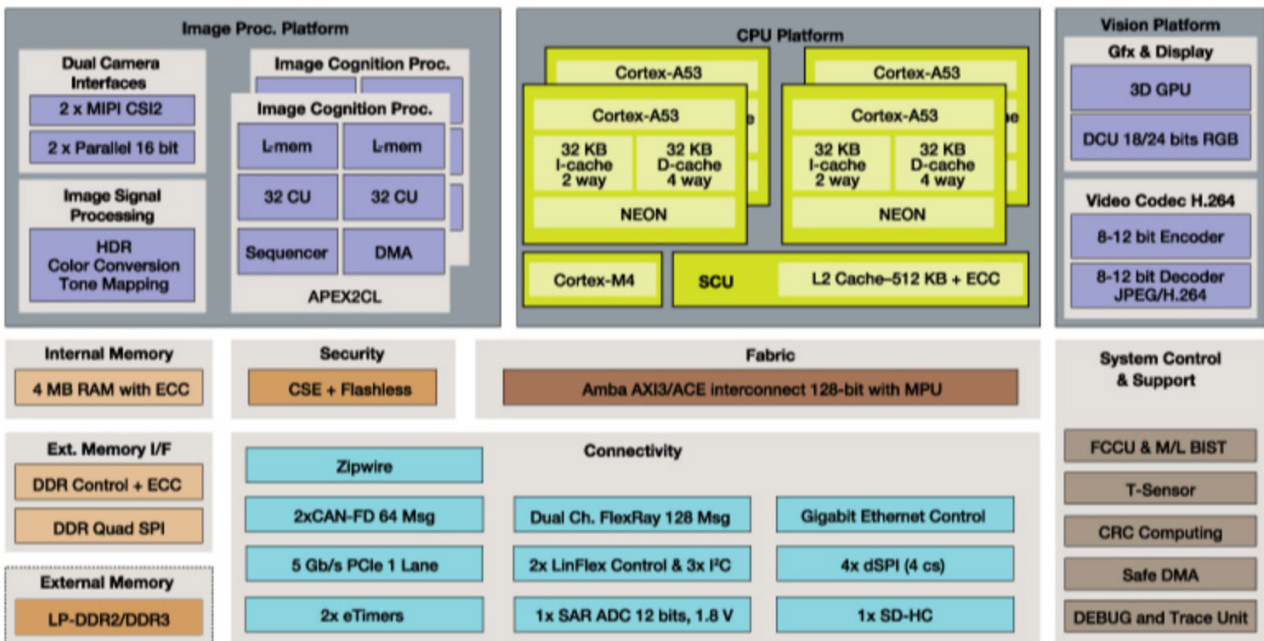
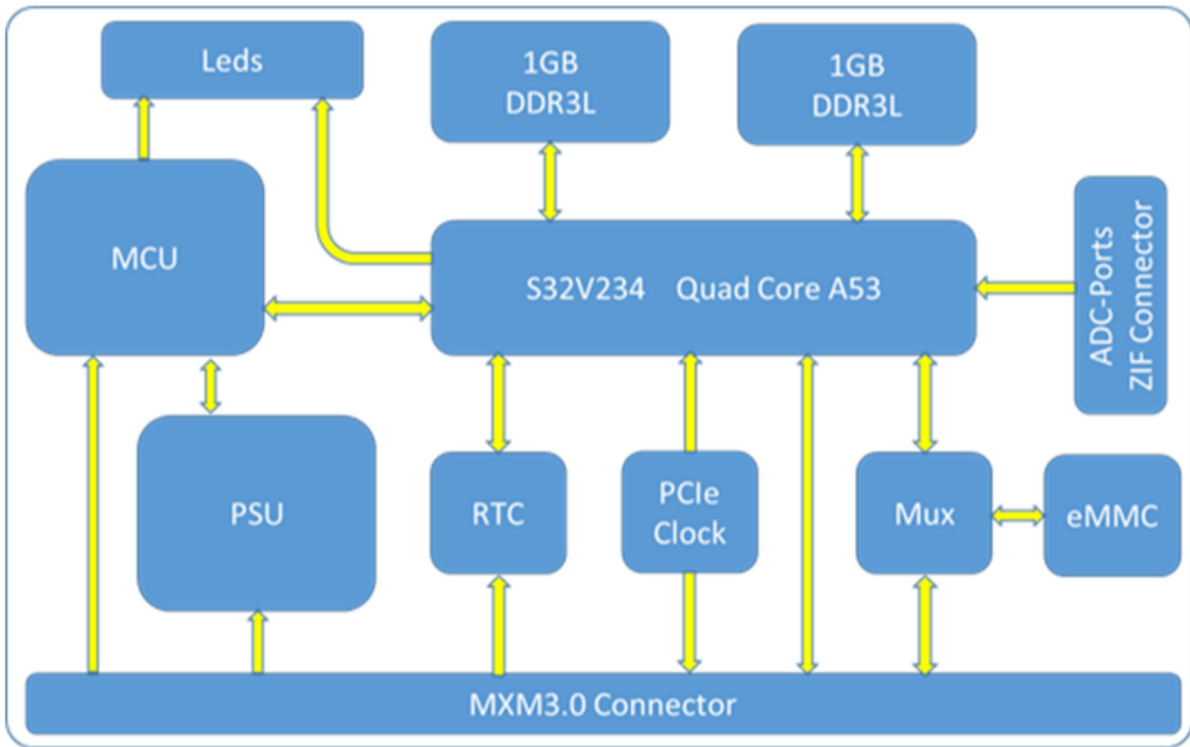


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Vision and safety processor for compute intensive image processing applications

The NXP® S32V230 family is designed to support computation-intensive applications for image processing. The S32V234, as part of the S32V230 family, is a high-performance automotive processor designed to support safe computation-intensive applications in the area of vision and sensor fusion.





Features

CPU

Architecture

Arm® Cortex®-A53

Processor

- NXP® S32V234 CPU:
- Quad Arm® Cortex®-A53 cores at up to 1.3 GHz core frequency
 - 1x Cortex® M4 Core for real time processing

DRAM

Up to dual 1 GB 32-bit ECC DDR3L RAM

Memory

Flash Card	USHDC: 2x 8-bit
Boot Flash	eMMC or external SD card

Graphic

Graphics Controller	Yes
LCD Interface	24-bit
HDMI Interface	Yes
Camera Input	Yes

Ethernet

1GbE	1x
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High Speed IO

SerDes lanes	8
PCIe	PCIE Gen2 x1 (RC/EP)

IO

UART	2x
CAN FD	2x
I2C	3x
GPIOs	Yes
JTAG Debug Interface	Yes

Security / Safety

Security	Security & Encryption: CSE-FL & AES-128
Safety	FCCU and FCCU output supervision unit

Operating Condition

Power Supply Voltage	Single +12 V DC power input (+/-25%)
Typical Power Consumption	4,8 W
Power Management	Yes
RTC	PCF85263
Temperature	0 °C to 70 °C
Optional Extended Temperature	-40 °C to +85 °C

Mechanical

Dimensions 62 mm x 82 mm

Connector Type MXM3.0

Software / Additional

- Additional
- Image Cognition: 2x APEX2-CL Dual 32-bit array with 2x 32 compute units
 - Video encoder/decoder: H.264, 8/10/12-bit / H.264, 8/10/12-bit, JPEG, 8/12-bit, up to 4 streams
 - RCON/serial Boot switch
 - GPU Power disconnect option
 - Dev Kit available for immediate start, includes power supply, cables. Linux on SD card.

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-S32V234	854901	4 Arm Cortex® A53, 1.0 GHz, 1 GB DDR3L w ECC, 0° to 70° C, w/o SEC	active
Development Kit basic for miriac® MPX-S32V234	8557	<ul style="list-style-type: none">• miriac® MPX-S32V234• CRX-S32G• incl. BSP and accessories	active

Take a look at related products

