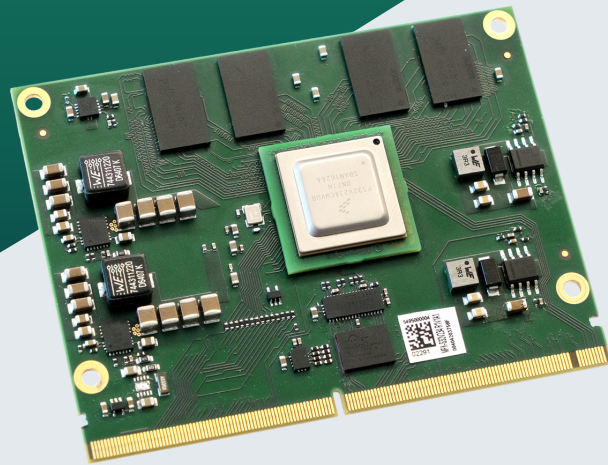


SoMs Arm® Architecture

miriac® MPX-S32V234

Vision and safety processor for compute intensive image processing applications



Highlights

- 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





Product Description

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
High Speed IO	
SerDes lanes:	8
PCIe:	PCIE Gen2 x1 (RC/EP)
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 70 °C
Mechanical	
Dimensions:	62 mm x 82 mm

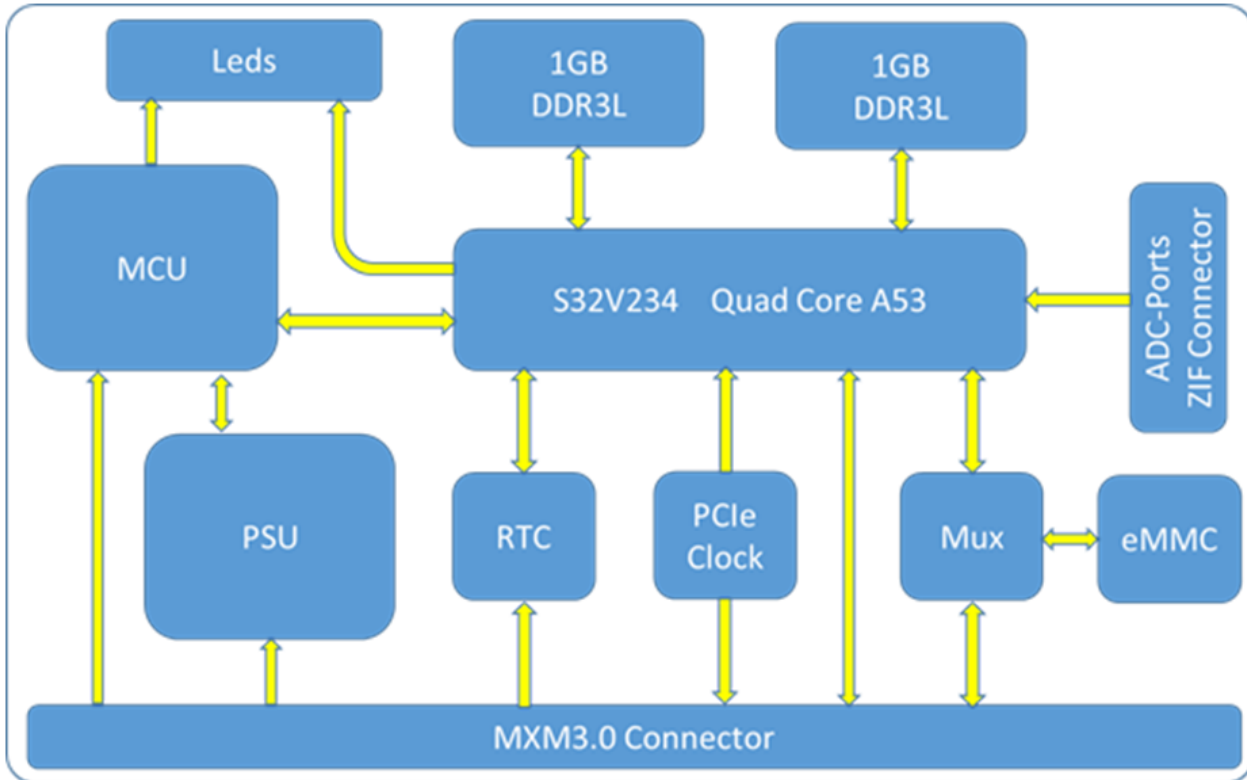
Connector Type:	MXM3.0
Software / Additional	
Additional:	<ul style="list-style-type: none"> - Image Cognition: 2x APEX2-CL Dual 32-bit array with 2x 32 compute units - Video encoder/decoder: H.264, 8/10/12-bit / H.264, 8/10/12-bit, JPEG, 8/12-bit, up to 4 streams - RCON/serial Boot switch - GPU Power disconnect option - Dev Kit available for immediate start, includes power supply, cables. Linux on SD card.

General Note:

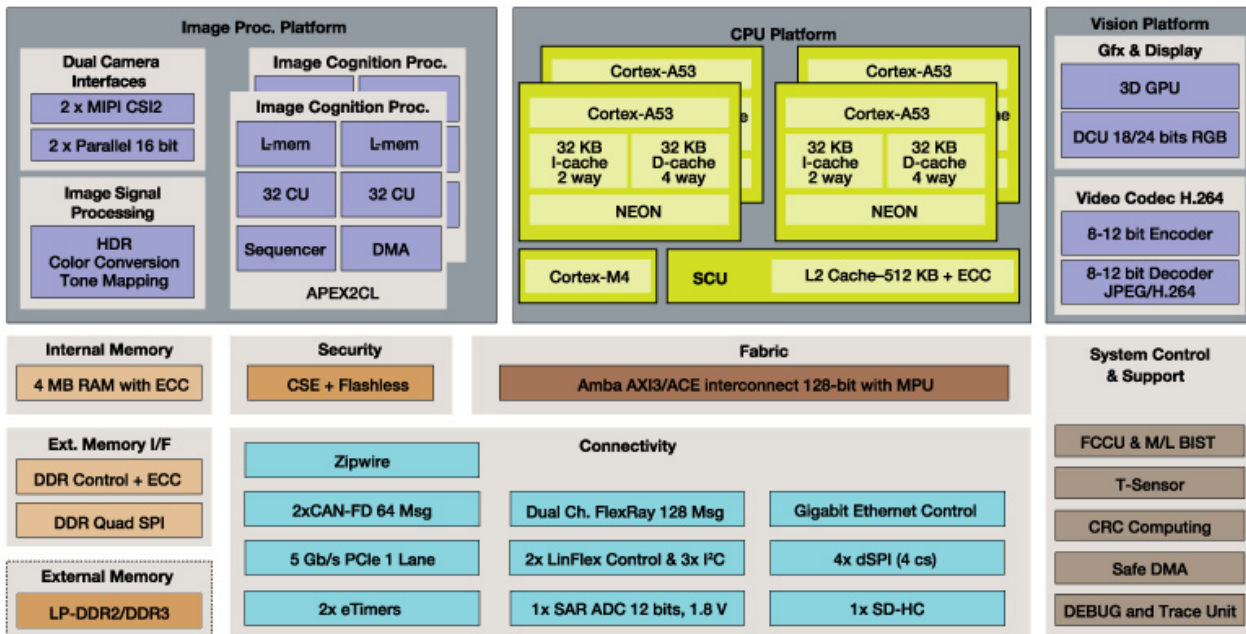
Our standard product versions offer what we consider to be the optimum configuration in terms of performance, price, usage and TDP. The product features lists specify the maximum range of functions per interface. However, not all interfaces or functions are always available in parallel. Flexible SERDES 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® MPX-S32V234



NXP® S32V234




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



Related Products

Name	Description	Image
miriac® SBC-S32V234		

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