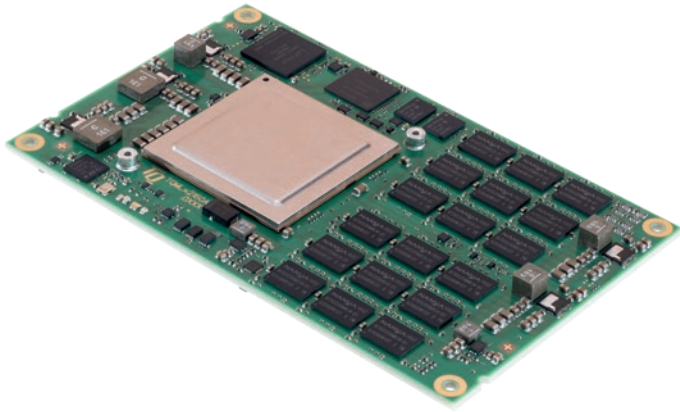


TQMLX2160A

Arm® Family



Embedded Cortex®-A72 module based on LX2160 with enhanced data and networking performance.

HIGHLIGHTS

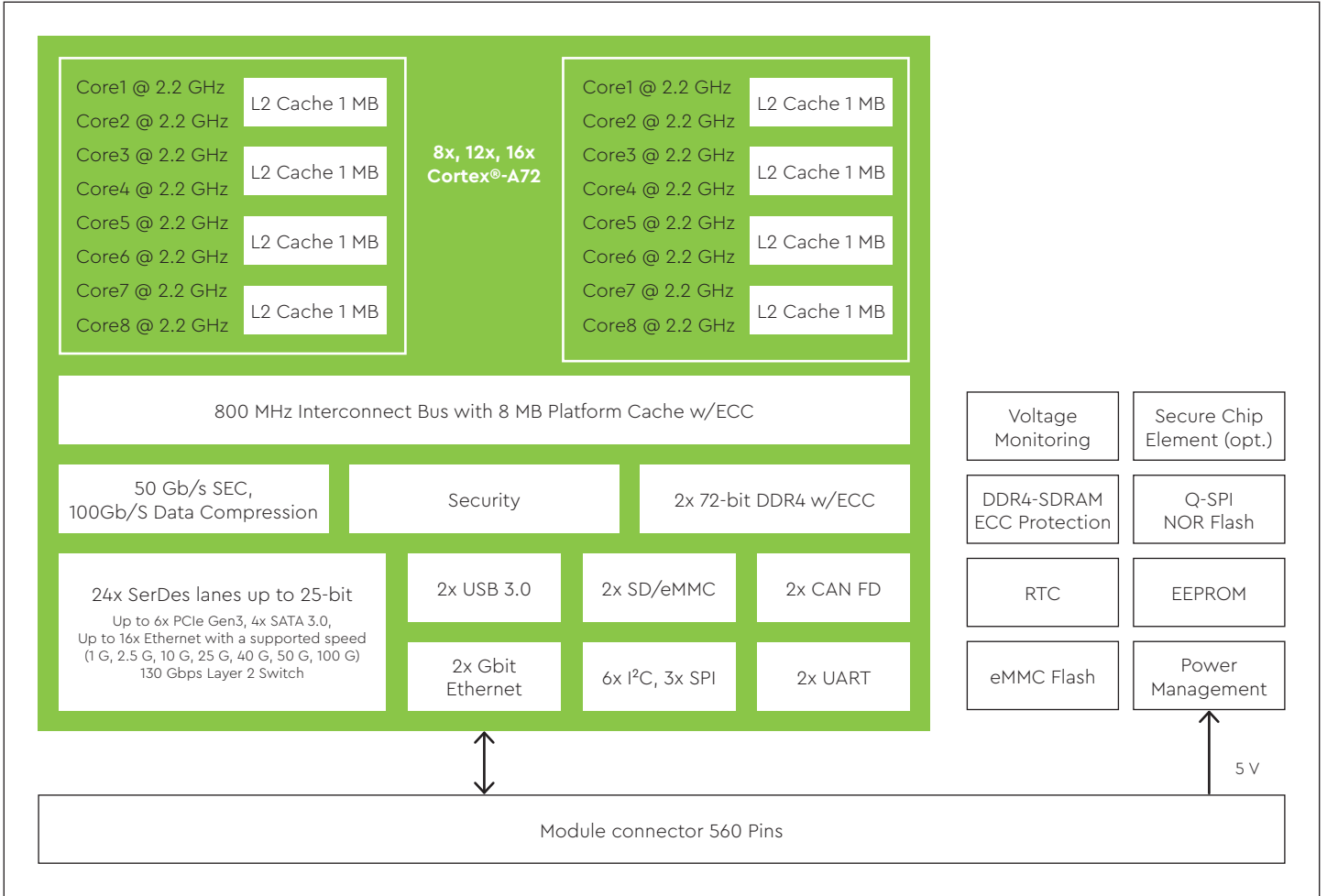
- ▶ 10G/100G Ethernet
- ▶ High-speed communication via 24x SerDes lanes
- ▶ DDR4 with ECC Support
- ▶ 100Gb/s Data Compression Engine
- ▶ 2x CAN FD, 2x USB 3.0, PCIe Gen3
- ▶ Integrated security functions

TECHNICAL SPECIFICATION

CPU	LX2160, LX2120, LX2080
Interfaces	Up to 2x Ethernet 10/100/1000 Mbit Up to 2x 40/50/100 G-Ethernet Up to 16x 1/2.5/10/25 G-Ethernet Up to 2x USB 3.0 OTG interface Up to 2x UART Up to 2x CAN FD Up to 4x SATA 3.0
Periphery interfaces	Up to 2x SDIO/eMMC Up to 6x PCIe Gen3 (up to 24 lanes) Up to 6x I2C Up to 3x SPI Up to 1x QSPI (8-bit) Up to 32 GPIO
Memory	DDR4-SDRAM: Up to 64 GB Quad SPI NOR: Up to 512 MB eMMC Flash: Up to 64 GB EEPROM: 0/64-kbit

Other	Real Time Clock (RTC) Temperature sensor CPU JTAG interface Voltage Monitoring
Power supply	5 V
Ambient conditions	Standard temperature range: -25°C...+85°C Extended temperature range: -40°C...+85°C
Dimensions	126 mm x 78 mm
Plug-in system	Board-to-board plug-in system 560 pins 0.5 mm Pitch
Operating systems	Linux
Operating systems on request	VxWorks

BLOCK DIAGRAM TQMLX2160A



ORDERING INFORMATION

TQMLX2160A-AA (Prototypes Q2/2020) TQMLX2160A-AA, 16 Cortex®-A72/2.2 GHz, 8 GB eMMC Flash, 128 MB QSPI NOR, 32 GB DDR4, + ECC, 64 kB EEPROM, RTC, -40°C...+85°C

TQMLX2120A-AA (Prototypes Q2/2020) TQMLX2120A-AA, 12 Cortex®-A72/2.2 GHz, 8 GB eMMC Flash, 128 MB QSPI NOR, 32 GB DDR4, + ECC, 64 kB EEPROM, RTC, -40°C...+85°C

TQMLX2080A-AA (Prototypes Q2/2020) TQMLX2080A-AA, 8 Cortex®-A72/2.2 GHz, 8 GB eMMC Flash, 128 MB QSPI NOR, 32 GB DDR4, + ECC, 64 kB EEPROM, RTC, -40°C...+85°C

Other configurations on request

STKLX2160A-AA (Prototypes Q2/2020) STKLX2160A (Eval Kit) with TQMLX2160A-AA, 16x Cortex®-A72/2.2 GHz, 32 GB DDR4, + ECC, 8 GB eMMC Flash, 64 kB EEPROM, RTC, 2x CAN FD separated, 2x USB 3.0 HOST, 10x ETH 10/100/1000, 2x 10 Gbit Ethernet, 1x 100 Gbit Ethernet, 2x PCIe Gen3 (x4), 1x Mini PCIe + SIM Card, 1x M.2 SATA, 1x SATA 2.5", 1x SD-Card, Temperature sensor, Reset-Button, Power Supply, 8 GB SD Card, Cables, Heatspreader, Heatsink

Starterkit STKLX2160A set The core of the STKaLX2160A set is the TQMLX2160A module with 16x Cortex®-A72 CPU. The components contained in the starter kit constitute a modular system enabling you to develop your own product ideas. Development of ultra-high speed interfaces can be started immediately by using the prepared combination of starter kit and available software. To develop your own hardware you can use the certified and qualified circuit components of the starter kit in your own designs.

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