

TQMLS10xxA

Arm® Family



HIGHLIGHTS

- ▶ 2x 10 Gbit Ethernet
- ▶ DDR4 + ECC protection
- ▶ High speed communication via 8x Gbit Ethernet, 3x PCIe and 3x USB 3.0 interface
- ▶ Extended temperature range
- ▶ Up to 8 Arm® Cortex®-A53 Cores
- ▶ QorIQ® Trust Architecture and Arm® TrustZone®
- ▶ Security functions

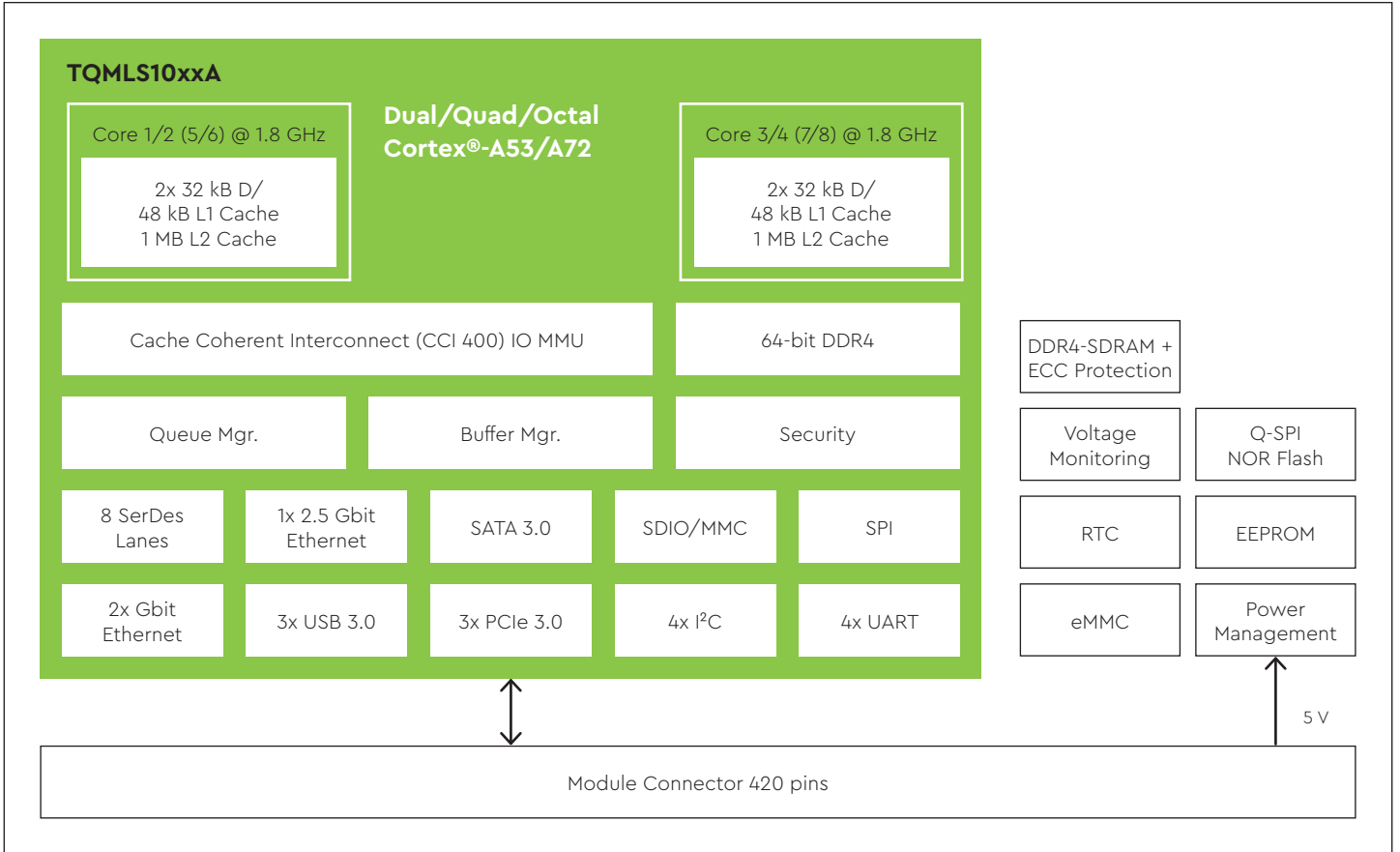
Embedded Cortex®-A53/A72 module based on LS102xA with 10 Gbit Ethernet interfaces for many network applications.

TECHNICAL SPECIFICATION

CPU	Layerscape LS1046A, LS1026A, LS1043A, LS1023A, LS1088A
System interfaces	Up to 2x Ethernet 10 Gbit (1x LS1043A) Up to 10x Ethernet 10/100/1000 Mbit Up to 3x USB 3.0 high speed HOST interface (2x LS1088A) Up to 4x UART
Periphery interfaces	Up to 1x SDIO/MMC Up to 4x I ² C Up to 1x SPI Up to 1x SATA 3.0 Up to 3x PCIe 3.0 (LS1043A PCIe 2.0)
Memory	DDR4-SDRAM: Up to 8 GB (LS1043A and LS1023A up to 4GB) ECC protection (optional) Up to 64 GB eMMC Quad SPI NOR: Up to 512 MB EEPROM: 0/64-kbit

Other	Real Time Clock (RTC) Temperature sensor CPU JTAG interface Voltage Monitoring
Power supply	5 V
Ambient conditions	Extended temperature range: -40°C...+85°C
Dimensions	80 mm x 60 mm
Plug-in system	Board-to-board plug-in system 420 pins
Operating systems	Linux
Operating systems on request	VxWorks, other TBD

BLOCK DIAGRAM TQMLS10XXA



ORDERING INFORMATION

TQMLS1043A-AB LS1043/1.0 GHz, 64 MB QSPI NOR Flash, 8 GB eMMC, 2 GB DDR4+ ECC, 64 kB EEPROM, RTC, -40°C...+85°C

TQMLS1046A-AA LS1046/1.8 GHz, 128 MB QSPI NOR Flash, 8 GB eMMC, 4 GB DDR4+ ECC, 64 kB EEPROM, RTC, -40°C...+85°C

TQMLS1088A-AA LS1088/1.4 GHz, 128 MB QSPI NOR Flash, 8 GB eMMC, 4 GB DDR4+ ECC, 64 kB EEPROM, RTC, -40°C...+85°C

Other configurations on request

STKLS10xxA-AA STKLS10xxA (Eval Kit) mit TQMLS10xx-AA, LS10xxA (Configuration depends on the selected module variant), RTC, 64 kB EEPROM, 1x RS232, 1x RS485, 1x SATA M.2, 1x CAN 2.0 B gtr., 3x USB 2.0 HOST, 1x USB 3.0 OTG, 10x ETH 10/100/1000, 2x ETH 10 Gbit, Temperatursensor, 1x PCIe, 2x Mini PCIe (1x SIM Card), Reset-Button, SD-Interface, Power Supply, SD-Card, Accessoires, Cable, Heatspreader, Heatsink

Starterkit STKLS10xxA set The core of the STKLS10xxA set is the TQMLS10xxA module with a Dual/Quad Cortex®-A72 and A53 CPU from NXP. The components contained in the starter kit constitute a modular system enabling you to develop your own product ideas. 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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