

TQMLS10xxA

Arm® Family



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

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

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 I²C
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)
Up to 64 GB eMMC
Quad SPI NOR: Up to 512 MB
EEPROM: 0/64-kbit
ECC protection

Other Real Time Clock (RTC)
Temperature sensor
CPU JTAG interface

Power supply 5 V

Ambient conditions Extended temperature range: -40°C...+85°C

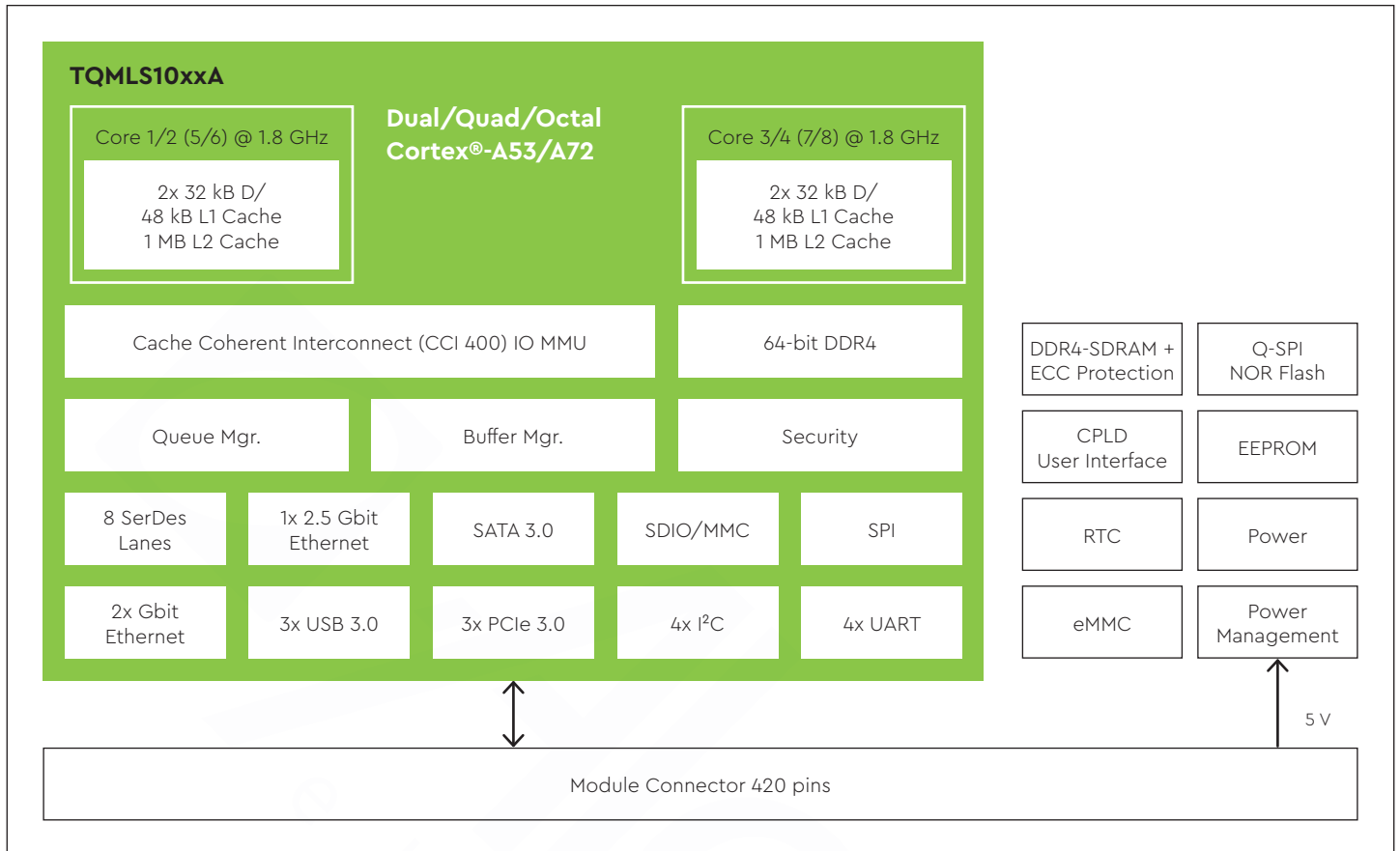
Dimensions 80 mm x 60 mm

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-AA LS1043/1.0 GHz, 64 MB QSPI NOR Flash, 8 GB eMMC, 1 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, 2 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, 2 GB DDR4+ ECC, 64 kB EEPROM, RTC, -40°C...+85°C

Other configurations on request

STKLS10xxA-AA STKLS10xxA (Eval Kit) mit TQMLS10xx-AA, LS10xxA/1.6 GHz, 2 GB DDR4, 128 MB QSPI NOR Flash, 8 GB eMMC, 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

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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