

TQMLS1028A

Arm® Family



HIGHLIGHTS

- ▶ 1x TSN Ethernet up to 2.5 Gbit
- ▶ 1x 4 Port TSN Ethernet Switch
- ▶ Graphics with 3D GPU and 4K support
- ▶ Extended temperature range
- ▶ Low power consumption
- ▶ Security functions

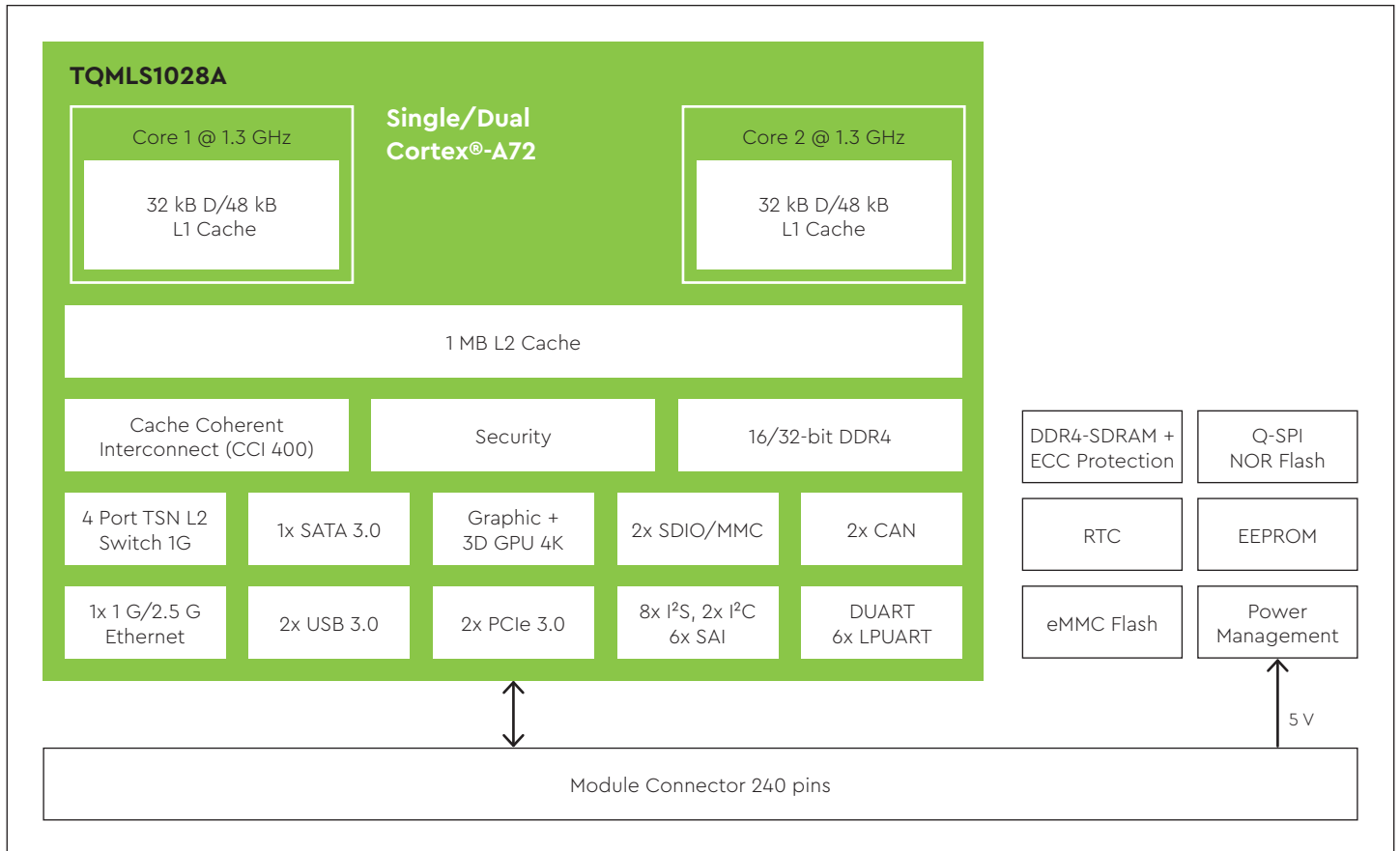
Embedded Cortex®-A72 module based on LS1028A with 4 Port TSN Gigabit Ethernet Switch for Real time demands.

TECHNICAL SPECIFICATION

CPU	QorIQ Layerscape LS1028A, LS1018A, LS1027A, LS1017A,
Interfaces	1x 4 Port TSN Ethernet Switch up to 2.5 Gbit Up to 1x TSN Ethernet up to 2.5 Gbit Up to 1x Ethernet 1 Gbit Up to 2x USB 3.0 Up to 6x UART Up to 2x CAN
Periphery interfaces	Up to 2x SDIO/MMC Up to 8x I ² C Up to 2x SPI Up to 6x SAI Up to 1x SATA 3.0 Up to 2x PCIe 3.0
Graphic	4K LCD Controller with eDP/DP Phy 3D GPU
Memory	DDR4-SDRAM: Up to 8 GB ECC Protection (optional) eMMC: Up to 64GB Quad SPI NOR: Up to 512 MB EEPROM: 0/256 kbit

Other	Real Time Clock (RTC) Temperature sensor CPU JTAG Interface
Power supply	5 V
Ambient conditions	Extended temperature range: -40°C...+85°C
Dimensions	55 mm x 44 mm
Plug-in system	Board-to-board plug-in system 240 pins
Operating systems	Linux
Operating systems on request	other TBD

BLOCK DIAGRAM TQMLS1028A



ORDERING INFORMATION

TQMLS1028A-AA	TQMLS1028A ,with LS1028A Dual Cortex A72 / 1,3 GHz w/o Crypto, 64MB QSPI NOR Flash, 8GB eMMC, 2GB DDR4 with ECC, 256kB EEPROM, RTC, -40°C- +85°C
TQMLS1018A-AA	TQMLS1018A, with LS1018A Single Cortex A72 / 1,3 GHz w/o Crypto, 64MB QSPI NOR Flash, 8GB eMMC, 2GB DDR4 with ECC, 256kB EEPROM, RTC, -40°C- +85°C
TQMLS1027A-AA	TQMLS1027A, with LS1027A Dual Cortex A72 / 1,3 GHz w/o Crypto, 64MB QSPI NOR Flash, 8GB eMMC, 2GB DDR4 with ECC, 256kB EEPROM, RTC, -40°C- +85°C
TQMLS1017A-AA	TQMLS1017A, with LS1017A Single Cortex A72 / 1,3 GHz w/o Crypto, 64MB QSPI NOR Flash, 8GB eMMC, 2GB DDR4 with ECC, 256kB EEPROM, RTC, -40°C- +85°C
TQMLS1028A-AB	TQMLS1028A, with LS1028A Dual Cortex A72 / 1,3 GHz with Crypto + SE050, 64MB QSPI NOR Flash, 8GB eMMC, 2GB DDR4 with ECC, 256kB EEPROM, RTC, -40°C- +85°C

Other variants on request

STKLS1028A-AA	STKLS1028A (Eval Kit) with TQMLS1028AA or TQMLS101017A/Dual Cortex® A72/1.3 GHz, 2 GB DDR4 with ECC, 64 MB QSPI NOR Flash, 8 GB eMMC, 64 kB EEPROM, RTC, 2x CAN 2.0 B gtr., 2x USB 3.0 HOST, 1 x USB 3.0 OTG , 2x ETH 10/100/1000, 4x Gigabit Ethernet TSN Switch, 1x M.2 SATA, 1x Display Port, 1x Mini PCIe + SIM, Reset-Button, Micro SD-Interface, 1x USB Debug, Power Supply, SD-Card, Accessoires, Cable
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