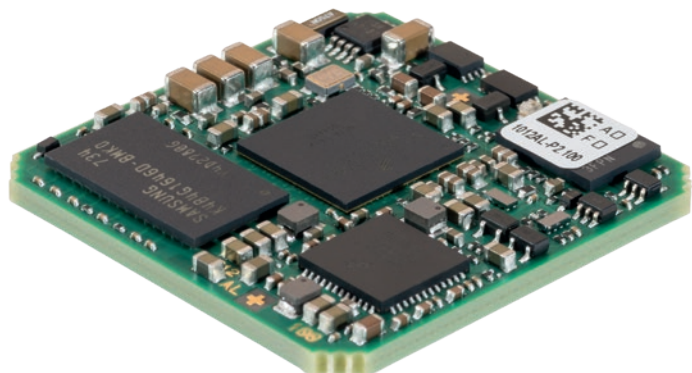


TQMLS1012AL

Arm® Family



Small embedded Cortex®-A53 module based on LS1012A with high speed interfaces and very low power consumption.

HIGHLIGHTS

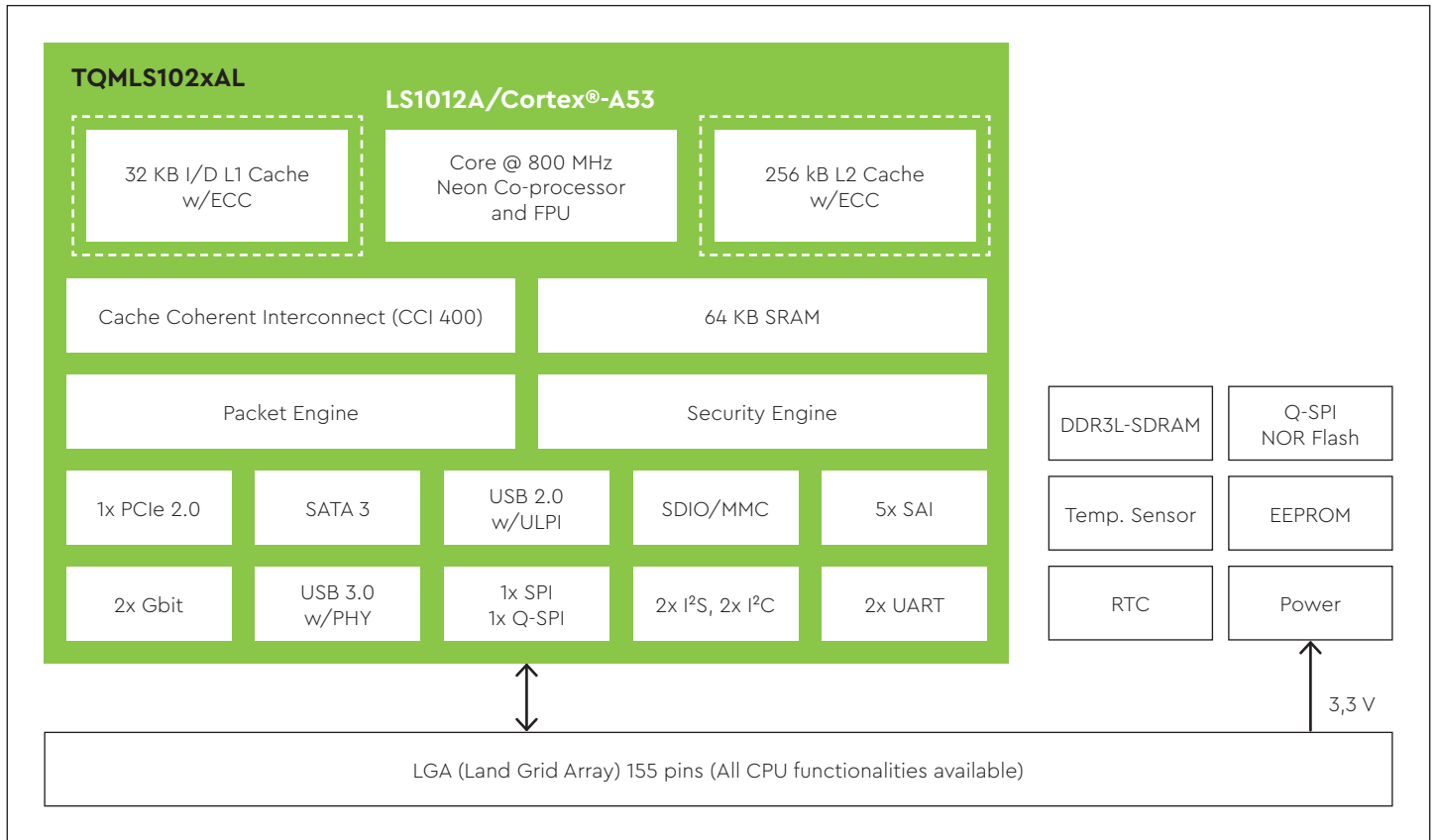
- ▶ Extended temperature range
- ▶ High-Speed communication via 2x Gbit Ethernet, 1x PCIe, 1x USB 3.0 and 1x SATA 3.0 interface
- ▶ Low power consumption (typ. 1 – 2 W)
- ▶ QorIQ Trust Architecture and Arm® TrustZone®
- ▶ Packet Acceleration Engine

TECHNICAL SPECIFICATION

CPU	QorIQ LS1012A
System interfaces	Up to 2x Ethernet 10/100/1000 Mbit 2.5 G N-BASE T 1x USB 2.0 high speed w/ULPI 1x USB 3.0 high speed w/PHY Up to 2x UART
Periphery interfaces	Up to 2x SDIO/MMC 3.0 Up to 1x I ² C Up to 1x SPI Up to 5x I ² S Up to 1x SATA 3.0 Up to 1x PCIe Up to 1x QSPI (NOR Flash)
Memory	DDR3L-SDRAM: Up to 1 GB Quad SPI NOR: Up to 256 MB EEPROM: 0/64-kbit

Other	Real Time Clock (RTC) Temperature sensor CPU JTAG interface
Power supply	3.3 V
Ambient conditions	Extended temperature range: -40°C...+85°C
Dimensions	31 mm x 31 mm
Plug-in system	LGA (Land Grid Array) 155 Pins
Operating systems	Linux

BLOCK DIAGRAM TQMLS1012AL



ORDERING INFORMATION

TQMLS1012AL-AA LS1012A, Cortex®-A53/800 MHz, 64 MB Q-SPI NOR Flash, 256 MB DDR3L, 64 kB EEPROM, RTC, -40°C...+85°C

TQMLS1012AL-AB LS1012A/800 MHz, 64 MB QSPI NOR Flash, 512 MB DDR3L, 64 kB EEPROM, RTC, -40°C- +85°C

Other configurations on request

STKLS1012AL-AA STKLS1012AL-AA, TQMLS1012A, Cortex®-A53/800 MHz, 64 MB Q-SPI NOR Flash, 512 MB DDR3L, 64 kB EEPROM, -20°C...+70°C, 2x USB 3.0, 5x ETH 10/100/1000, 2x Mini PCIe (1x only USB, SIM-Card), 1x SATA M.2, USB-Debug Interface, JTAG RTC, Temperature sensor, Reset-Button, SD-Card interface, Power Supply, 4 GB SD card, Cables

STKLS1012AL-SET The core of the STKLS1012AL set is the TQMLS1012AL module with Cortex®-A53 CPU. 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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