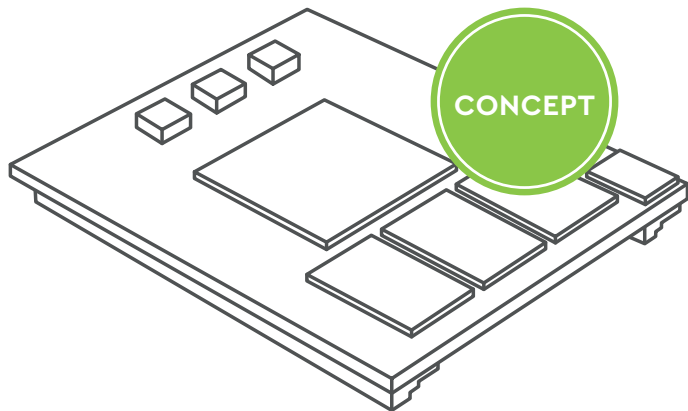


TQMa243xL

Arm® Family



HIGHLIGHTS

- ▶ 4x Real-time GBit Ethernet for Fieldbus
- ▶ Up to 2x CAN FD
- ▶ Integrated Cortex®-M4
- ▶ High-speed communication via 2x Gbit Ethernet, 1x USB 2.0 interface
- ▶ Low power consumption (typ. 1-2 W)
- ▶ Integrated security functions

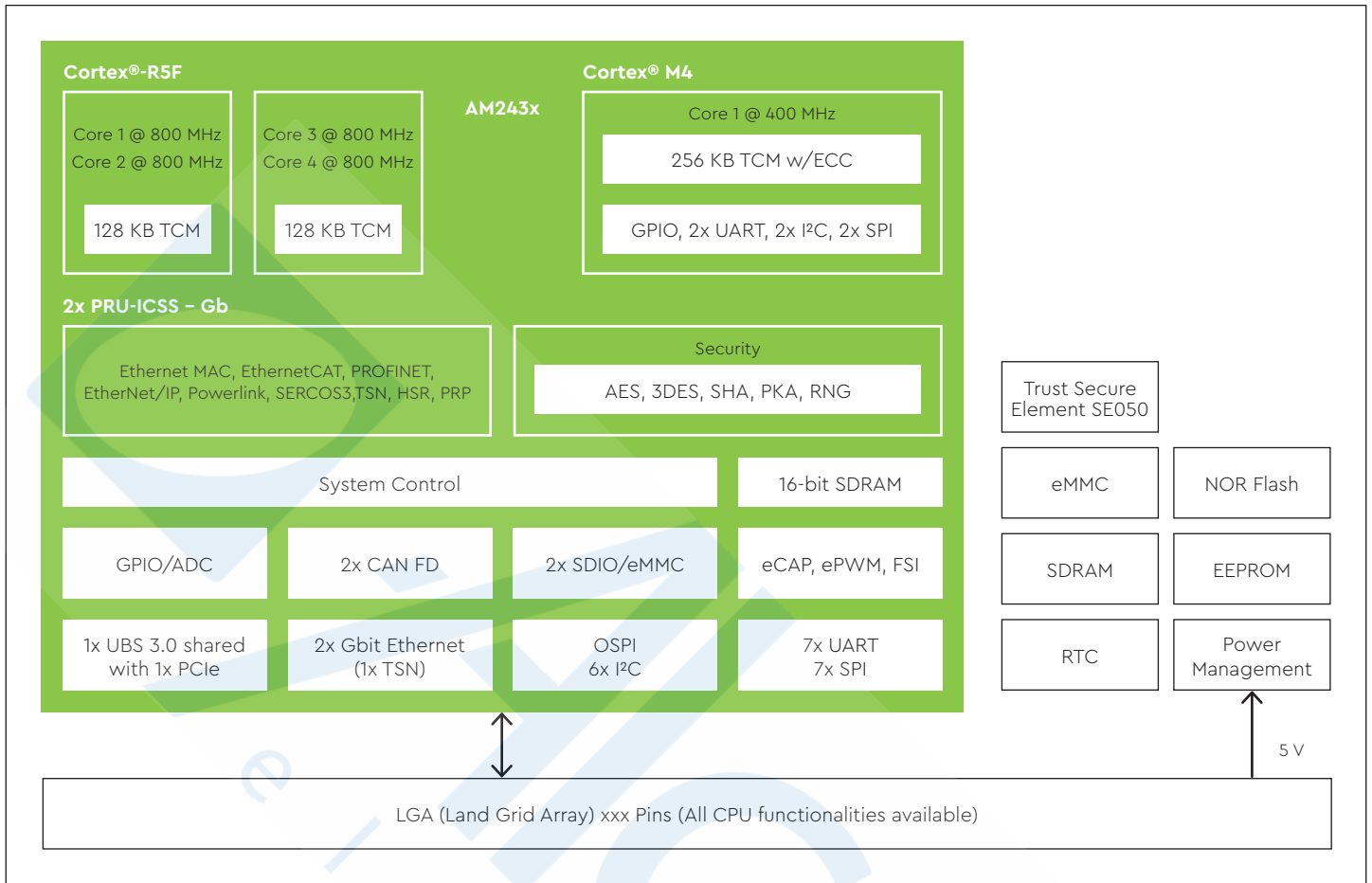
Embedded Cortex®-R5F module based on TI AM243x for headless Applications with Real-time demand.

TECHNICAL SPECIFICATION

| | |
|-----------------------------|--|
| CPU | AM2434 – AM2431 |
| Interfaces | Up to 2x Gbit-Ethernet Up to 4x Real-time Gbit Ethernet (PRU) Up to 1x USB 2.0 interface Up to 2x CAN FD Up to 1x SerDes (PCIe/USB 3.0) Up to 9x UART |
| Periphery interfaces | Up to 2x SDIO Up to 6x I2C Up to 7x MCSPI Up to 1x OSPI or QSPI Up to 1x ADC Up to 9x PWM |
| Memory | SDRAM: Up to 2 GB NOR: Up to 256 MB (TBD) eMMC: Up to 64 GB (TBD) EEPROM: 0/64-kbit |

| | |
|---------------------------|--|
| Other | Real Time Clock (RTC) Secure Element SE050 Temperature sensor CPU JTAG interface |
| Power supply | 5 V |
| Ambient conditions | Standard temperature range: -25°C...+85°C Extended temperature range: -40°C...+85°C |
| Dimensions | 38 mm x 38 mm (TBD) |
| Plug-in system | LGA (Land Grid Array) xxx pins (TBD) |
| Operating systems | Real-time Operating System (TBD) |

BLOCK DIAGRAM TQMA243XL



ORDERING INFORMATION

TQMa2434L-AA

TQMa2434L-AA, 2x Dual Cortex®-R5F/800 MHz, Cortex®-M4/400 MHz, 64 MB NOR Flash, 1 GB SDRAM, 64 kB EEPROM, RTC, -40°C...+85°C

Other configurations on request

**STKaX4xxL-AA
(Prototypes Q3/2021)**

STKaX4xxL (Eval Kit) with TQMax4xxL-AA, 2x Dual Cortex®-R5F/800 MHz, Cortex®-M4/400 MHz, 64 MB NOR Flash, 1 GB SDRAM, 64 kB EEPROM, RTC, 1x USB 2.0 OTG, 2x ETH 10/100/1000 (PRU), 1x ETH 10/100/1000, 2x CAN FD, 1x Temperature sensor, GPIOs (4x 24V_IN, 4x 24V_OUT, 4x AI_IN), Reset-Button, SD Card interface, Power Supply, 4 GB SD card, Cables

**Starterkit
STKaX4xxL set**

The core of the STKaX4xxL set is the TQMax4xxL module with a R5F 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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