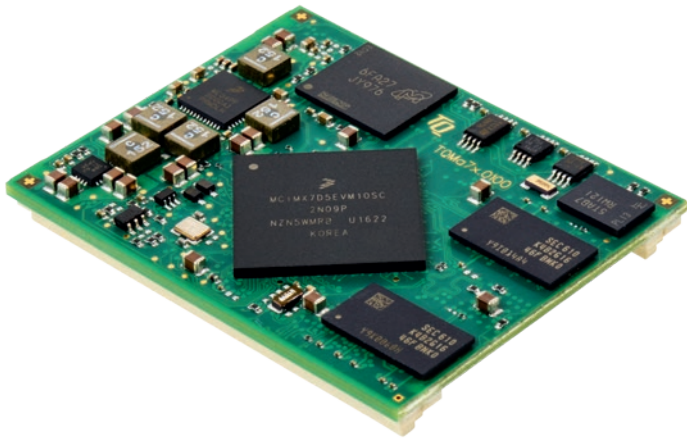


TQMa7x

Arm® Family



HIGHLIGHTS

- ▶ Graphic with full HD support
- ▶ Extended temperature range
- ▶ High-Speed communication via 2x Gbit Ethernet and 1x PCIe interface
- ▶ Low power consumption (typ. 2 W)
- ▶ Integrated Cortex® M4
- ▶ IEEE 1588 hardware support
- ▶ Security functions

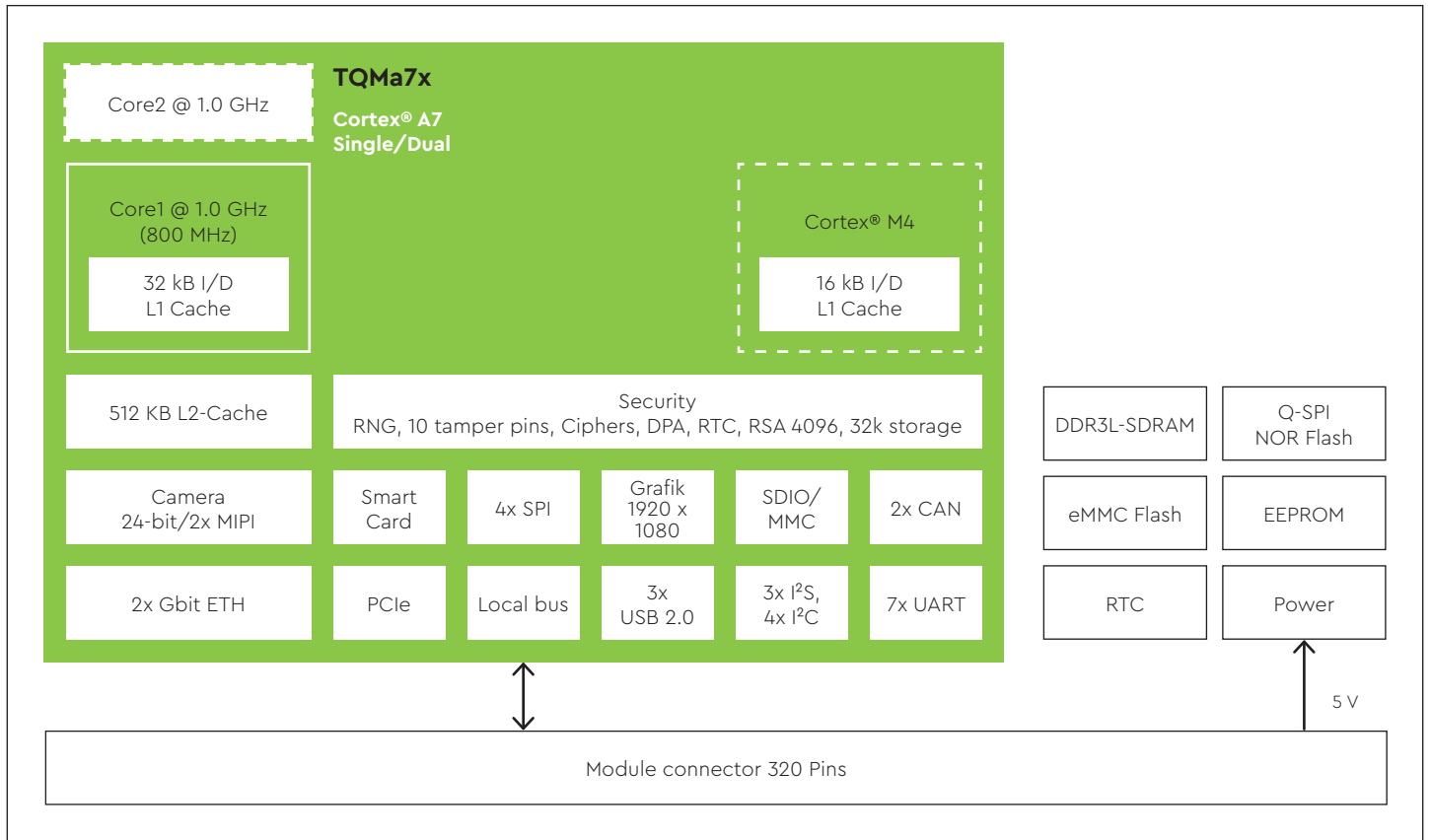
Security-oriented Dual Cortex® A7 module based on i.MX7 with integrated Cortex® M4 and smart card interface.

TECHNICAL SPECIFICATION

CPU	i.Mx7S, i.Mx7D
Interfaces	Up to 2x Ethernet 10/100/1000 Mbit Up to 2x CAN Up to 2x USB 2.0 high speed OTG Up to 1x USB 2.0 high speed HOST Up to 7x UART
Periphery interfaces	Up to 3x SDIO/MMC Up to 4x I ² C Up to 4x SPI Up to 3x I ² S Up to 1x Smart Card Up to 1x PCIe
Graphic	LCD Interface (24-bit RGB) Up to 2 Camera Sensor Interface (24-bit/MIPI)
Memory	DDR3L-SDRAM: Up to 2 GB Quad SPI NOR: Up to 256 MB Up to 32 GB eMMC flash EEPROM: 0/64-kbit
Other	Integrated Cortex® M4 Real Time Clock (RTC) Temperature sensor CPU JTAG Interface
Power supply	5 V

Ambient conditions	Standard temperature range: -20°C...+85°C
Dimensions	55 mm x 44 mm
Plug-in system	Board-to-board plug-in system 320 pins
Operating systems	Linux
Operating systems on request	VxWorks, QNX, WIN EC 2013

BLOCK DIAGRAM TQMA7X



ORDERING INFORMATION

TQMa7S-AA	i.MX7S, 800 MHz, 8 GB eMMC, Flash, 512 MB DDR3L, 64 kB EEPROM, RTC, -20°C...+85°C
TQMa7S-AB	i.MX7S, 800MHz, 8GB eMMC-Flash, 64 MB SPI NOR-Flash, 512MB DDR3L-SDRAM, 64kB EEPROM, RTC, -20°C...+85°C
TQMa7D-AA	i.MX7D, 1,0 GHz, 8 GB eMMC Flash, 512 MB DDR3L, 64 kB EEPROM, RTC, -20°C...+85°C
TQMa7D-AB	i.MX7D, 1 GHz, 8GB eMMC-Flash, 64 MB SPI NOR-Flash, 1GB DDR3L-SDRAM, 64kB EEPROM, RTC, -20°C...+85°C

Other configurations on request

STKa7x-AA	STKa7x (Eval Kit) with TQMa7x-AA, Dual Cortex® A7/1,0 GHz, 512 MB DDR3L, 8 GB eMMC Flash, 64 kB EEPROM, RTC, 1x RS232, 1x RS485, 2x CAN 2.0 B separated, 3x USB 2.0 HOST, 1x USB 2.0 OTG, 2x ETH 10/100/1000, LCD Port, 1x HDMI, LVDS, 1x Mini PCIe, RTC, Temperature sensor, Reset-Button, SD interface, Power supply, 4 GB SD card, Cables
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Starterkit STKa7x set The core of the STKa7x set is the TQMa7x module with a Dual Cortex® A7 CPU. The components contained in the starter kit constitute a modular system enabling you to develop your own product ideas. Development of graphic interfaces can be started immediately using the prepared combination of closed display unit and starter kit that are matched to each other. 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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