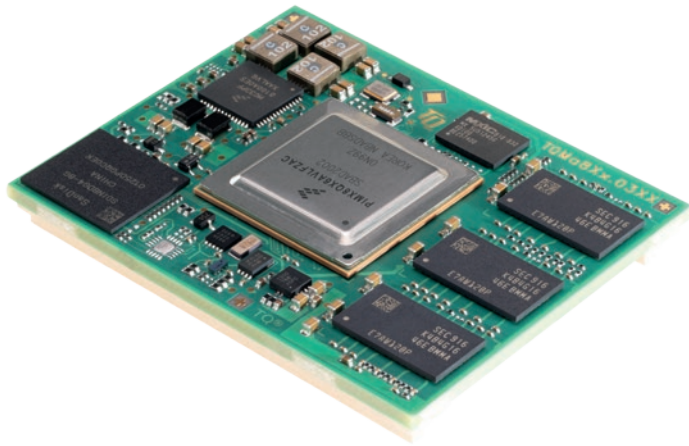


TQMa8Xx

Arm® Family



HIGHLIGHTS

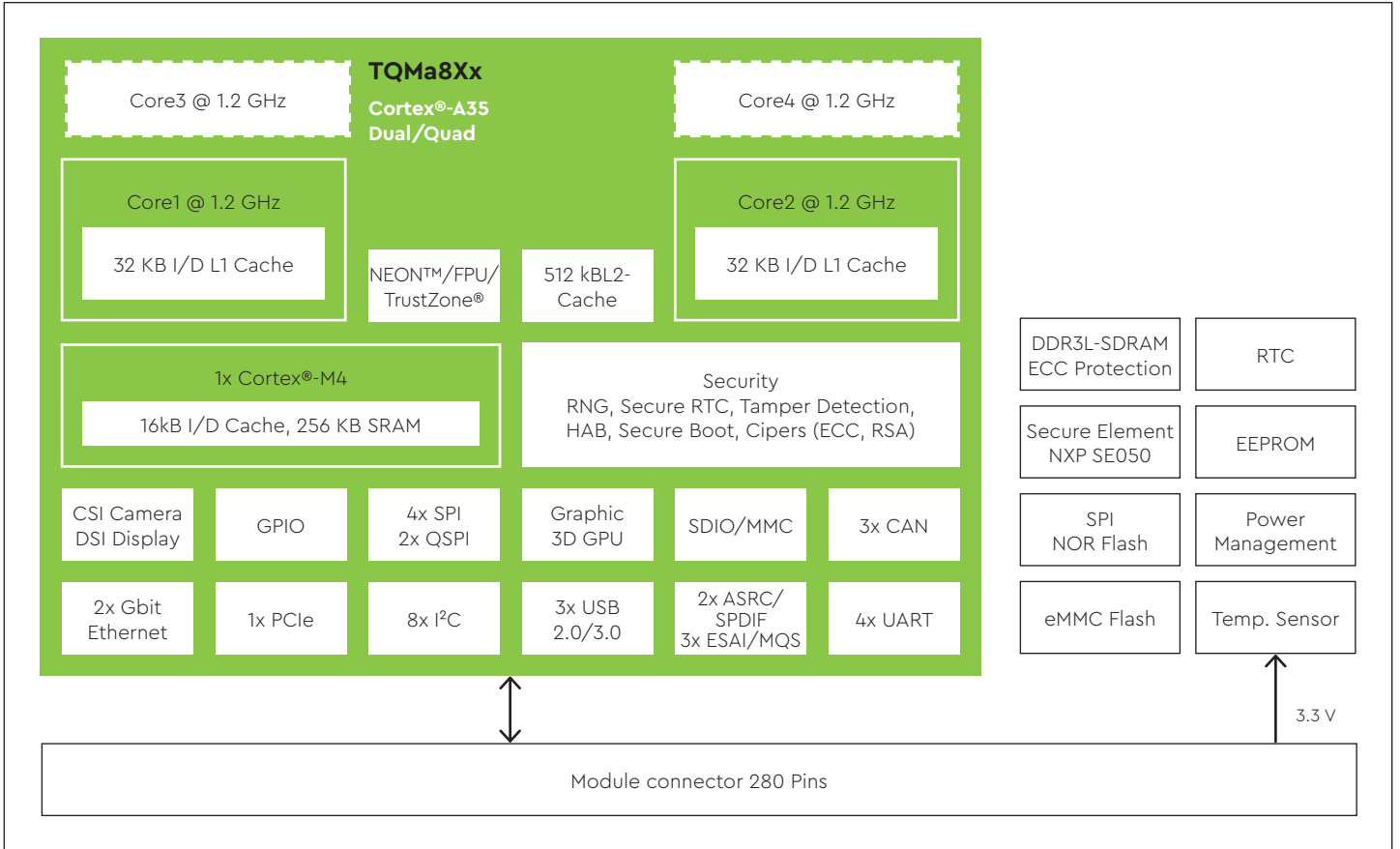
- ▶ Graphic with 3D GPU Support
- ▶ DSP for audio processing
- ▶ High-speed communication via 2x Gbit Ethernet, 1x PCIe and 1x USB 3.0
- ▶ Low power consumption (typ. 4 W)
- ▶ Integrated 1x Cortex® M4 CPU (Real Time/Security)
- ▶ 3x CAN FD
- ▶ Integrated security functions

Embedded Cortex®-A35 module based on i.MX8X with high computing power combined with high-speed interfaces.

TECHNICAL SPECIFICATION

CPU	Cortex®-A35 Technology i.MX8X Dual Plus i.MX8X Quad Plus	Memory	DDR3L-SDRAM: Up to 2 GB with ECC protection Quad SPI NOR: Up to 256 MB Up to 64 GB eMMC Flash EEPROM: 0/64-kbit
Interfaces	Up to 2x Ethernet 10/100/1000 Mbit Up to 1x USB 3.0 OTG interface Up to 2x USB 2.0 OTG interface Up to 4x UART Up to 3x CAN FD	Other	Real Time Clock (RTC) Secure Element SE050 (optional) Temperature sensor CPU JTAG interface
Periphery interfaces	1x SDIO/MMC 1x PCIe Up to 8x I ² C Up to 4x SPI Up to 2 Q-SPI Up to 2x SPDIF Up to 4x ESAI Up to 32 GPIO	Power supply	3.3 V
Graphic	Dual LVDS Interface / 2xMIPI DSI 1x MIPI CSI	Ambient conditions	Standard temperature range: -25°C...+85°C Extended temperature range: -40°C...+85°C
		Dimensions	55 mm x 44 mm
		Plug-in system	Board-to-board plug-in system 280 pins
		Operating systems	Linux, PikeOS
		Operating systems on request	QNX, Android

BLOCK DIAGRAM TQMa8XX



ORDERING INFORMATION

TQMa8XDP-AA	i.MX8X Dual Plus/typ 1.0 GHz/max 1.2 GHz, 8 GB eMMC Flash, 1 GB DDR3L w ECC, 64 kB EEPROM, RTC, -25°C...+85°
TQMa8XQP-AA	i.MX8X Quad Plus/typ 1.0 GHz/max 1.2 GHz, 8 GB eMMC Flash, 1 GB DDR3L w ECC, 64 kB EEPROM, RTC, -25°C...+85°
TQMa8XQP-AB	i.MX8X Quad Plus/typ 1.0 GHz/max 1.2 GHz, 8 GB eMMC Flash, 64 MB SPI NOR Flash, 1 GB DDR3L w ECC, 64 kB EEPROM, RTC, -40°C...+85°C

Other configurations on request

STKa8Xx-AA	STKa8Xx (Eval Kit) with TQMa8Xx-AA, i.MX8X/typ 1.0 GHz/max 1.2 GHz, 1 GB DDR3L w ECC, 8 GB eMMC Flash, 64 kB EEPROM, 1x RS232, 2x CAN FD separated, 1x USB 3.0 OTG, 4x USB 2.0 HOST, 2x ETH 10/100/1000, 1x HDMI/DP, 2x LVDS/DSI, 1x PCIe, RTC, Temperature sensor, Reset-Button, SD interface, Power Supply, 4 GB SD card, Cables
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Starterkit STK8Xx set The core of the STKa8Xx set is the TQMa8Xx module with a i.MX8X Cortex®-A35 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 a TQ display kit which is adjusted for a starter kit. 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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