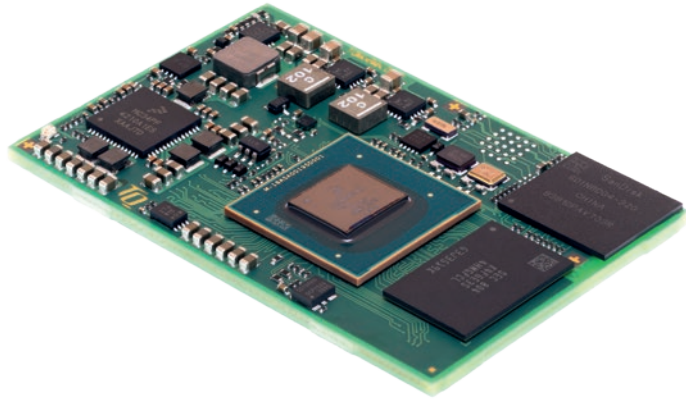


# TQMa8Mx

Arm® Family



## HIGHLIGHTS

- ▶ Graphic with VP9/4K HDR10 support
- ▶ High performant audio processing
- ▶ High-speed communication via 1x Gbit Ethernet, 2x PCIe and 2x USB 3.0 interface
- ▶ Low power consumption (typ. 4 W)
- ▶ Integrated 1x Cortex®-M4 Security CPU
- ▶ Integrated security functions

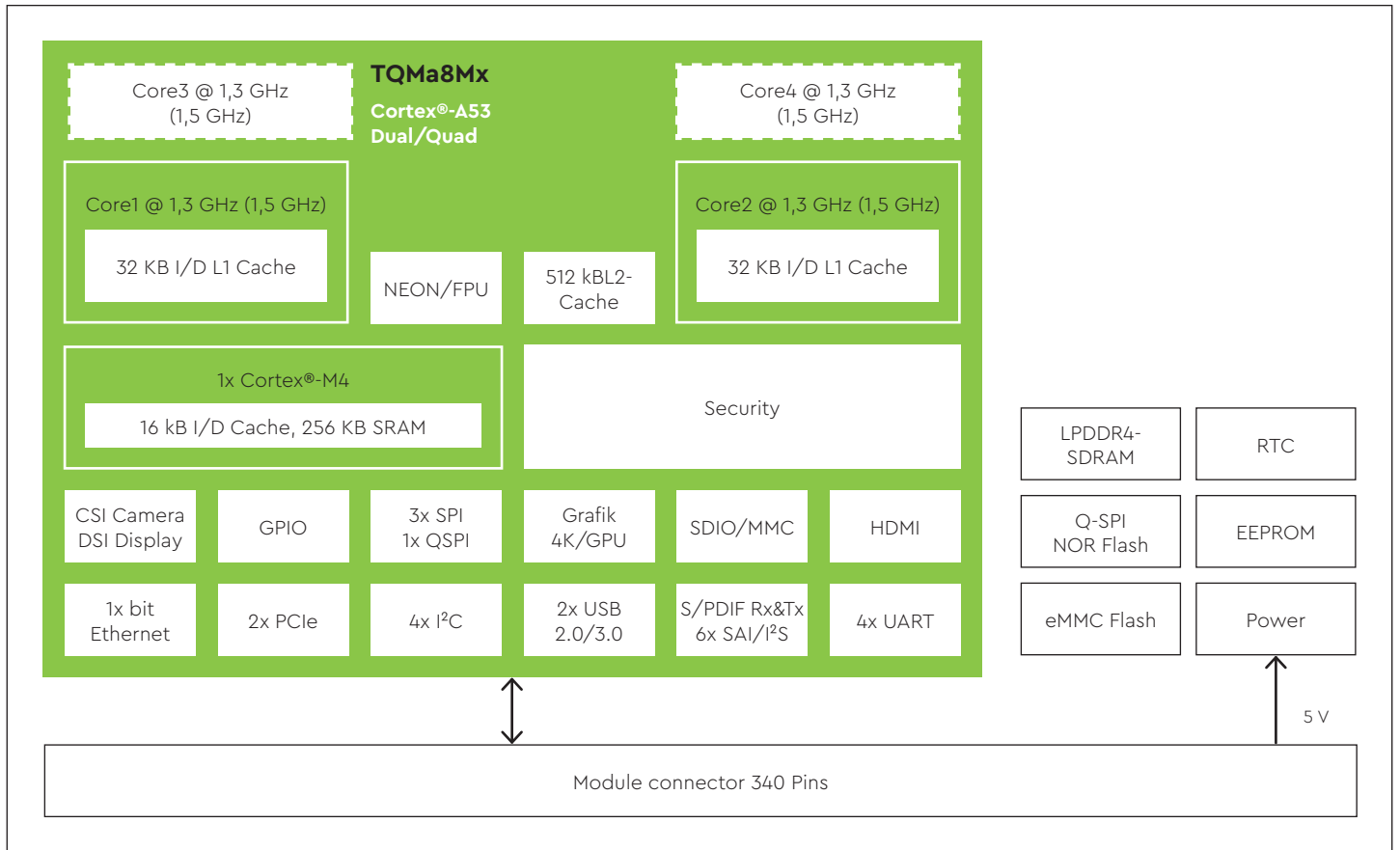
**Embedded Cortex®-A53 module based on i.MX8M with advanced audio and video features.**

## TECHNICAL SPECIFICATION

<b>CPU</b>	i.MX8M Dual, i.MX8M Quad Lite, i.MX8M Quad
<b>Interfaces</b>	Up to 1x Ethernet 10/100/1000 Mbit (IEEE 1588) Up to 1x USB 3.0 OTG interface Up to 1x USB 2.0 OTG interface Up to 4x UART
<b>Periphery interfaces</b>	1x SDIO/MMC Up to 4x I <sup>2</sup> C Up to 3x SPI Up to 2x QSPI Up to 6x I <sup>2</sup> S/SAI S/PDIF Rx & Tx 2x PCIe GPIO
<b>Graphic</b>	Monitor Interface (HDMI) DSI Display (MIPI DSI 4 lane) Up to 2x MIPI CSI2
<b>Memory</b>	LPDDR4-SDRAM: Up to 4 GB Quad SPI NOR: Up to 256 MB (TBD) Up to 64 GB eMMC Flash EEPROM: 0/64-kbit
<b>Other</b>	Real Time Clock (RTC) Temperature sensor CPU JTAG interface

<b>Power supply</b>	5 V
<b>Ambient conditions</b>	Standard temperature range: -25°C...+85°C Extended temperature range: -40°C...+85°C
<b>Dimensions</b>	55 mm x 36 mm
<b>Plug-in system</b>	Board-to-board plug-in system 340 pins
<b>Operating systems</b>	Linux
<b>Operating systems on request</b>	Android

## BLOCK DIAGRAM TQMa8MX



## ORDERING INFORMATION

<b>TQMa8MD-AA (Prototypes Q1/19)</b>	TQMa8MD-AA, i.MX8M Dual Cortex®-A53/1,3 GHz, 8 GB eMMC Flash, 1 GB LPDDR4, 64 kB EEPROM, RTC, -25°C...+85°C
<b>TQMa8MQ-AA (Prototypes Q1/19)</b>	TQMa8MQ-AA, i.MX8M Quad Cortex®-A53/1,3 GHz, 8 GB eMMC Flash, 1 GB LPDDR4, 64 kB EEPROM, RTC, -25°C...+85°C
<b>TQMa8MQL-AA (Prototypes Q1/19)</b>	TQMa8MQL-AA, i.MX8M Quad Lite Cortex®-A53/1,3 GHz, 8 GB eMMC Flash, 1 GB LPDDR4, 64 kB EEPROM, RTC, -25°C...+85°C

Other configurations on request

<b>STKa8Mx-AA (Prototypes Q1/19)</b>	STKa8Mx (Eval Kit) with TQMa8Mx-AA, i.MX8M/1,3 GHz, 1 GB LPDDR4, 8 GB eMMC Flash, 64 kB EEPROM, RTC, 2x USB 3.0 Host, 1x USB 2.0 OTG, 2x ETH 10/100/1000, 1x ePD, 1x LVDS/DSI, 1xHDMI, 2x MIPI CSI, 1x Mini PCIe + SIM, Module Signals on 2,54 mm PIN Header, Sound, RTC, Temperature sensor, Reset-Button, SD Card interface, Power Supply, 4 GB SD card, Cables
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<b>Starterkit STKa8Mx set</b>	The core of the STKa8Mx set is the TQMa8Mx module with a Dual/Quad Cortex®-A53 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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