

TQMa8MxML

Arm® Family



Embedded Cortex®-A53 module based on i.MX8M Mini with enhanced Audio properties.

HIGHLIGHTS

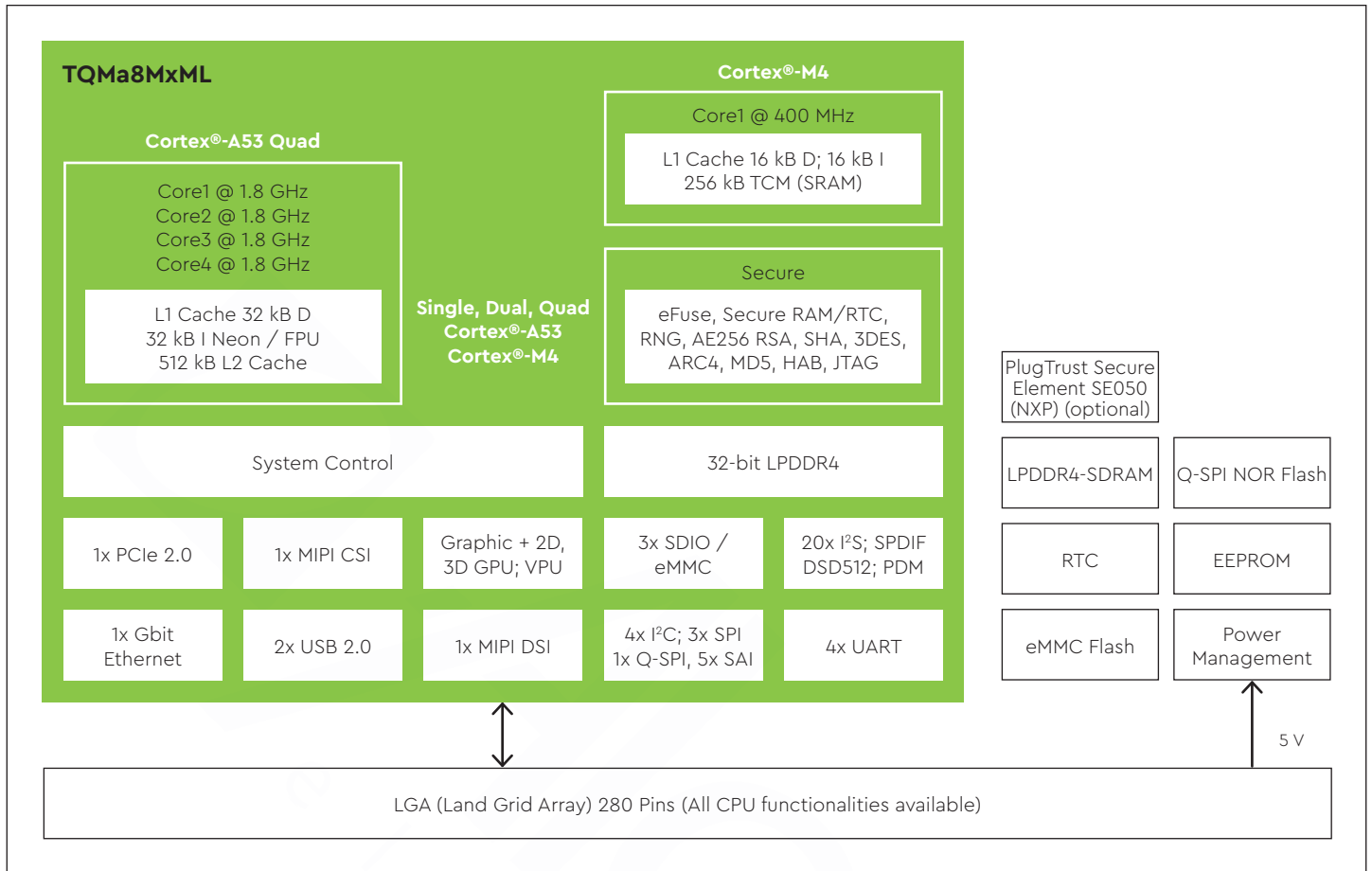
- ▶ Advanced Audio properties
- ▶ Integrated Cortex® M4
- ▶ High-speed communication via 1x Gbit Ethernet, 1x PCIe and 2x USB 2.0 interface
- ▶ Low power consumption (typ. 4 W)
- ▶ Integrated security functions

TECHNICAL SPECIFICATION

CPU	i.MX8M Mini Solo i.MX8M Mini Dual / Dual Lite i.MX8M Mini Quad / Quad Lite
Interfaces	Up to 1x Ethernet 10 / 100 / 1000 Mbit Up to 1x USB 2.0 OTG interface Up to 1x USB 2.0 Host interface Up to 4x UART
Periphery interfaces	Up to 3x SDIO / eMMC Up to 1x PCIe 2.0 Up to 4x I2C Up to 3x SPI Up to 1x QSPI Up to 20x I ² S Up to 5x SAI Up to 8x PDM Mic. Up to 1x SPDIF
Graphic	LCD Interface: 1x MIPI DSI; (4 Lanes) Camera: 1x MIPI CSI2 (4 Lanes)

Memory	LPDDR4-SDRAM: Up to 4 GB Quad SPI NOR: Up to 256 MB eMMC Flash: Up to 64 GB EEPROM: 0 / 64-kbit
Other	Real Time Clock (RTC) 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
Plug-in system	LGA (Land Grid Array) 280 pins
Operating systems	Linux
Operating systems on request	Android

BLOCK DIAGRAM TQMa8MxML



ORDERING INFORMATION

TQMa8MSML-AA	TQMa8MSML-AA, i.MX8M Mini Single Cortex®-A53/1.6 GHz, 8 GB eMMC Flash, 2 GB LPDDR4, 64 kB EEPROM, RTC, -25°C...+85°C
TQMa8MDML-AA	TQMa8MDML-AA, i.MX8M Mini Dual Cortex®-A53/1.6 GHz, 8 GB eMMC Flash, 2 GB LPDDR4, 64 kB EEPROM, RTC, -25°C...+85°C
TQMa8MQML-AA	TQMa8MQML-AA, i.MX8M Mini Quad Cortex®-A53/1.6 GHz, 8 GB eMMC Flash, 2 GB LPDDR4, 64 kB EEPROM, RTC, -25°C...+85°C
	Other configurations on request
STKa8MxML-AA	STKa8MxML (Eval Kit) with TQMa8MxML-AA, i.MX8M Mini Quad Cortex®-A53/1.6 GHz, 2 GB LPDDR4, 8 GB eMMC Flash, 64 kB EEPROM, RTC, 2x USB 2.0 HOST, 1x USB 2.0 OTG, 1x ETH 10/100/1000, 1x eDP, 1x LVDS, 1x MIPI CSI, 1x Mini PCIe + SIM Card, Audio, Temperature sensor, Reset-Button, SD Card interface, Power Supply, 4 GB SD card, Cables
Starterkit STKa8MxML set	The core of the STKa8MxML set is the TQMa8MxML module with a 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.