

# TQMaRZG2x

Arm® Family



**Embedded Cortex®-A53/A57 module based on RZ/G2 with enhanced performance and graphics properties.**

## HIGHLIGHTS

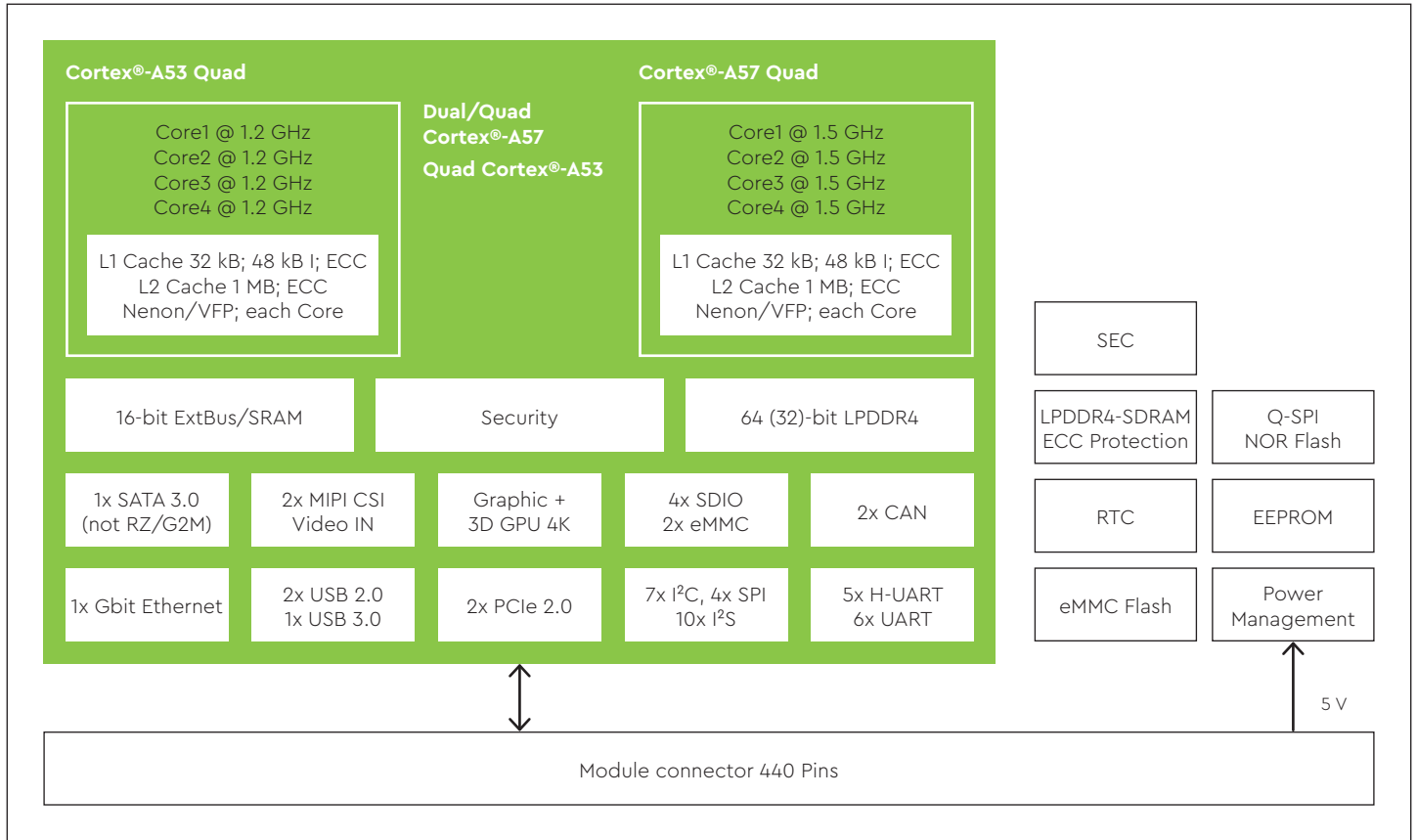
- ▶ Graphic with 4K Support/Quad Core
- ▶ LPDDR4 with ECC Support
- ▶ Highspeed communication via 1x Gbit Ethernet, 2x PCIe and 1x USB 3.0 interface
- ▶ Low power consumption (typ. 6 W)
- ▶ 2x CAN – FD
- ▶ Integrated security functions

## TECHNICAL SPECIFICATION

<b>CPU</b>	RZ/G2N, RZ/G2M, RZ/G2H
<b>Interfaces</b>	Up to 1x Ethernet 10/100/1000 Mbit Up to 1x USB 3.0 OTG interface Up to 2x USB 2.0 OTG interface Up to 6x UART Up to 5x H-UART Up to 2x CAN FD Up to 1x SATA (not RZ/G2M)
<b>Periphery interfaces</b>	Up to 4x SDIO/eMMC Up to 2x PCIe 2.0 Up to 7x I2C Up to 4x SPI Up to 1x QSPI Up to 10x I <sup>2</sup> S Up to 32 GPIO
<b>Graphic</b>	1x HDMI 2.0, 1x LVDS, 1x Digital RGB Camera: 2x MIPI CSI2

<b>Memory</b>	LPDDR4-SDRAM: Up to 8 GB (ECC Optional) Quad SPI NOR: Up to 512 MB eMMC Flash: Up to 64 GB 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>	77 mm x 50 mm
<b>Plug-in system</b>	Board-to-board plug-in system 440 Pins 0.5 mm Pitch
<b>Operating systems</b>	Linux
<b>Operating systems on request</b>	QNX, Android

## BLOCK DIAGRAM TQMARZG2X



## ORDERING INFORMATION

**TQMaRZG2N-AA** TQMaRZG2N-AA, Dual Cortex®-A57/1.5 GHz, 8 GB eMMC Flash, 2 GB LPDDR4 (ECC optional), 64 kB EEPROM, RTC, -25°C...+85°C

**TQMaRZG2M-AA** TQMaRZG2M-AA, Quad Cortex®-A53/1.2 GHz + Dual Cortex®-A57/1.5 GHz, 8 GB eMMC Flash, 2 GB LPDDR4 (ECC optional), 64 kB EEPROM, RTC, -25°C...+85°C

**TQMaRZG2H-AA** TQMaRZG2H-AA, Quad Cortex®-A53/1.2 GHz + Quad Cortex®-A57/1.5 GHz, 8 GB eMMC Flash, 2 GB LPDDR4 (ECC optional), 64 kB EEPROM, RTC, -25°C...+85°C

Other configurations on request

**STKaRZG2x-AA** STKaRZG2x (Eval Kit) with TQMaRZG2x-AA, Quad Cortex®-A53/1.2 GHz + 2x Cortex®-A57/1.5 GHz, 2 GB LPDDR4 (ECC optional), 8 GB eMMC Flash, 64 kB EEPROM, RTC, 2x CAN separated, 2x USB 3.0 HOST, 2x USB 2.0, 1x ETH 10/100/1000, 1x HDMI, 1x Digital RGB, 1x LVDS, 2x MIPI CSI, 1x Mini PCIe + SIM Card, 1x M.2 SATA/PCIe, Audio, Temperature sensor, Reset-Button, SD Card interface, Power Supply, 4 GB Micro SD Card, Cables

**Starterkit STKaRZG2x set** The core of the STKaRZG2x set is the TQMaRZG2x module with a Quad Cortex®-A53 CPU and a Dual A57 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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