

TQMaRZG2x

Arm® Family



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

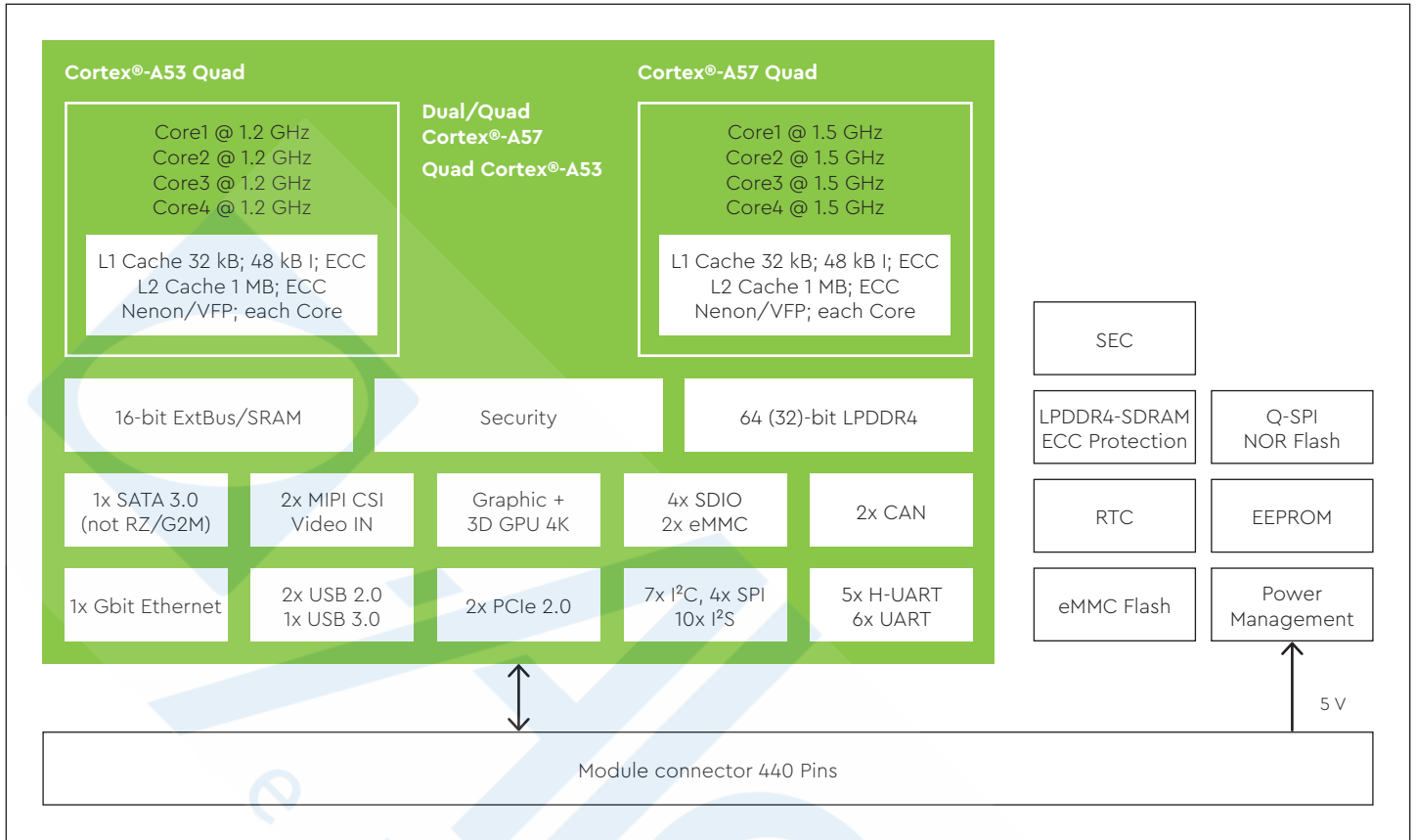
Embedded Cortex®-A53/A57 module based on RZ/G2 with enhanced performance and graphics properties.

TECHNICAL SPECIFICATION

CPU	RZ/G2N, RZ/G2M, RZ/G2H
Interfaces	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)
Periphery interfaces	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 ² S Up to 32 GPIO
Graphic	1x HDMI 2.0, 1x LVDS, 1x Digital RGB Camera: 2x MIPI CSI2

Memory	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
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	77 mm x 50 mm
Plug-in system	Board-to-board plug-in system 440 Pins 0.5 mm Pitch
Operating systems	Linux
Operating systems on request	QNX, Android

BLOCK DIAGRAM TQMARZG2X



ORDERING INFORMATION

TQMarZG2N-AA (Prototypes Q3/20) 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 (Prototypes Q3/20) 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 (Prototypes Q3/20) 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 (Prototypes Q3/20)

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.