

TQMa67xx

Arm® Family



HIGHLIGHTS

- ▶ Quad / Dual Cortex A53 up to 1.4 GHz
- ▶ 3x Display LVDS, DSI & RGB
- ▶ Featuring AI, Vision ISP & 3D GPU
- ▶ High-speed communication via 2x Gbit Ethernet switch (TSN), 4 x CAN FD, 2x USB 2.0, Up to 1x USB 3.0 shared with PCIe
- ▶ Integrated security functions
- ▶ Low power consumption (3-5 Watt)

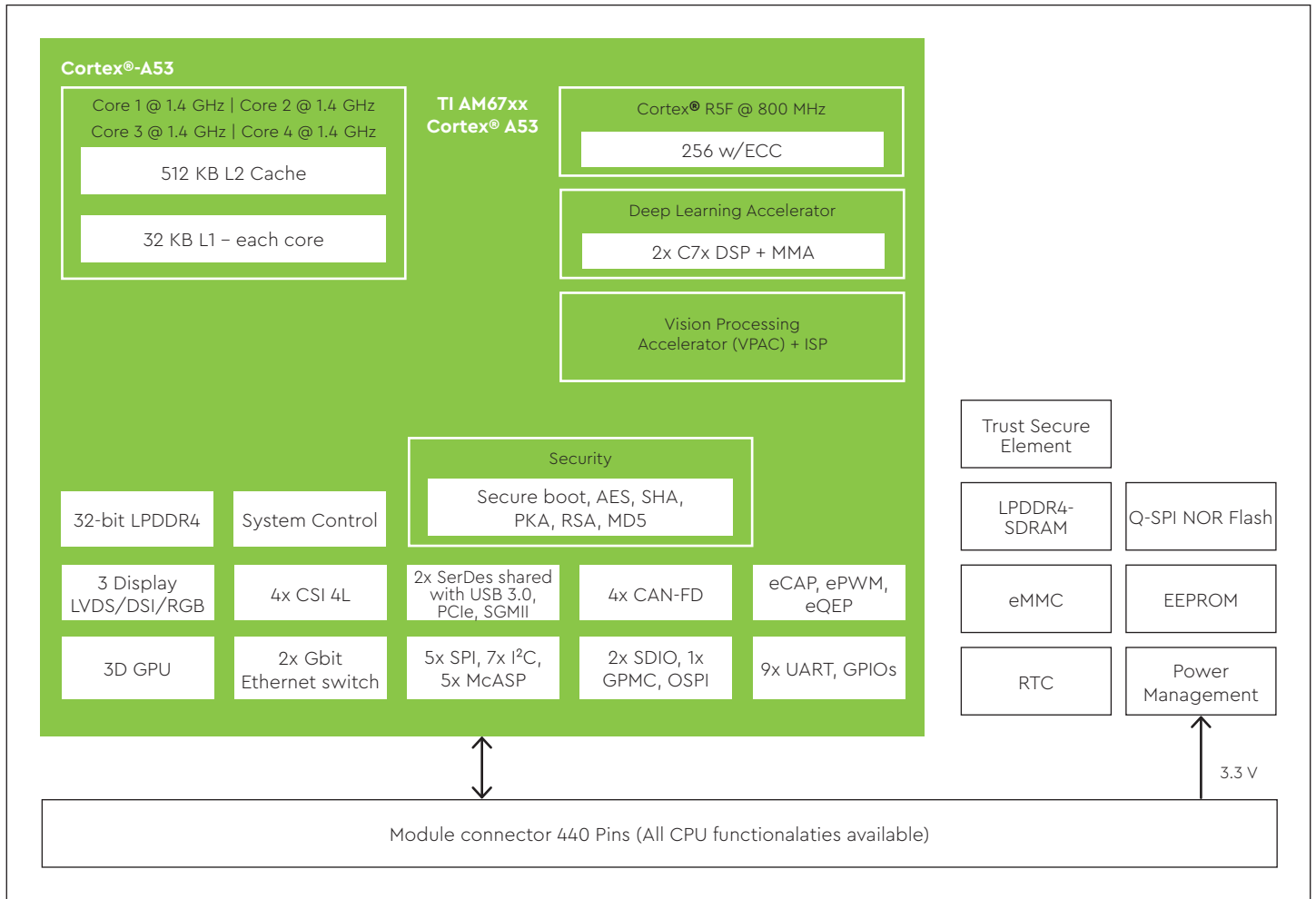
Embedded Cortex®-A53 module based on TI AM67xx with AI, Vision ISP and 3D GPU

TECHNICAL SPECIFICATION

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| CPU | AM67Ax, AM67Dx, AM67x |
| Interfaces | Up to 2x Gbit-Ethernet switch (TSN) Up to 1x USB 2.0 interface Up to 4x CAN FD Up to 9x UART Up to 2x SerDes shared with PCIe, USB 3.0 or SGMII |
| Periphery interfaces | Up to 2x SDIO Up to 7x I ² C Up to 5x SPI Up to 1x GPMC Up to 1x OSPI Up to 3x PWM 5x McASP (Audio) |
| Graphic | 1x LVDS 1x RGB (24 bit) 1x DSI 3D GPU (8G FLOPFS) Camera: 1x CSI (Rx 4x4L, Tx 1x4L) |
| Memory | LPDDR4: Up to 8 GB NOR: Up to 256 MB (TBD) eMMC: Up to 128 GB (256 GB 3D NAND) EEPROM: 0/64-kbit |

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| Other | Real Time Clock (RTC) Secure Element SE050 Temperature sensor CPU JTAG interface |
| Power supply | 3.3 V |
| Ambient conditions | Standard temperature range: -25°C...+85°C Extended temperature range: -40°C...+85°C |
| Dimensions | 64 mm x 34 mm |
| Plug-in system | Board to board plug in system 440 pins |
| Operating systems | Linux |
| Operating systems on request | (TBD) |

BLOCK DIAGRAM TQMa67xx



ORDERING INFORMATION

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|---------------------|---|
| TQMa67A94-AA | TQMa67A94-AA, Quad Cortex®- A53 / 1.4 GHz, Cortex®- R5 / 800 MHz, 4 GB LPDDR4, 64 kB EEPROM, RTC, with AI, Vision ISP and 3D GPU, -40°C...+85°C |
| TQMa67D94-AA | TQMa67D94-AA, Quad Cortex®- A53 / 1.4 GHz, Cortex®- R5 / 800 MHz, 4 GB LPDDR4, 64 kB EEPROM, RTC, with Vision ISP and 3D GPU, -40°C...+85°C |
| TQMa6734-AA | TQMa6734-AA, Quad Cortex®- A53 / 1.4 GHz, Cortex®- R5 / 800 MHz, 4 GB LPDDR4, 64 kB EEPROM, RTC, -40°C...+85°C |

Other configurations on request

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| STKa67xx (Prototypes Q1/2025) | STKa67xx (Eval Kit) with TQMa67xx-PROTO, Quad Cortex®- A53 / 1,4GHz, Cortex®- R5 / 800MHz, 64 MB NOR Flash, 4GB SDRAM, 64 kB EEPROM, RTC, 1x ETH 10/100/1000, 2x 1000 Base-T1 (SPE), 2x CAN FD, 1x USB 2.0 OTG, 1x USB Debug, 2x USB3.0., Audio, 1x Displayport, IOT & WLAN Module, 1x CSI Kamera, GPIOs (4x 24V_IN, 4x 24V_OUT, 2x AI_IN), Pinheader (GPIOs, SPI, I2C), Reset-Button, mikro SD Card interface, Power Supply, 4 GB SD card, Cables |
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| Starterkit STKa67xx set | The core of the STKa67xx set is the TQMa67xx 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. 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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