TQMa67xx

Arm® Family

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

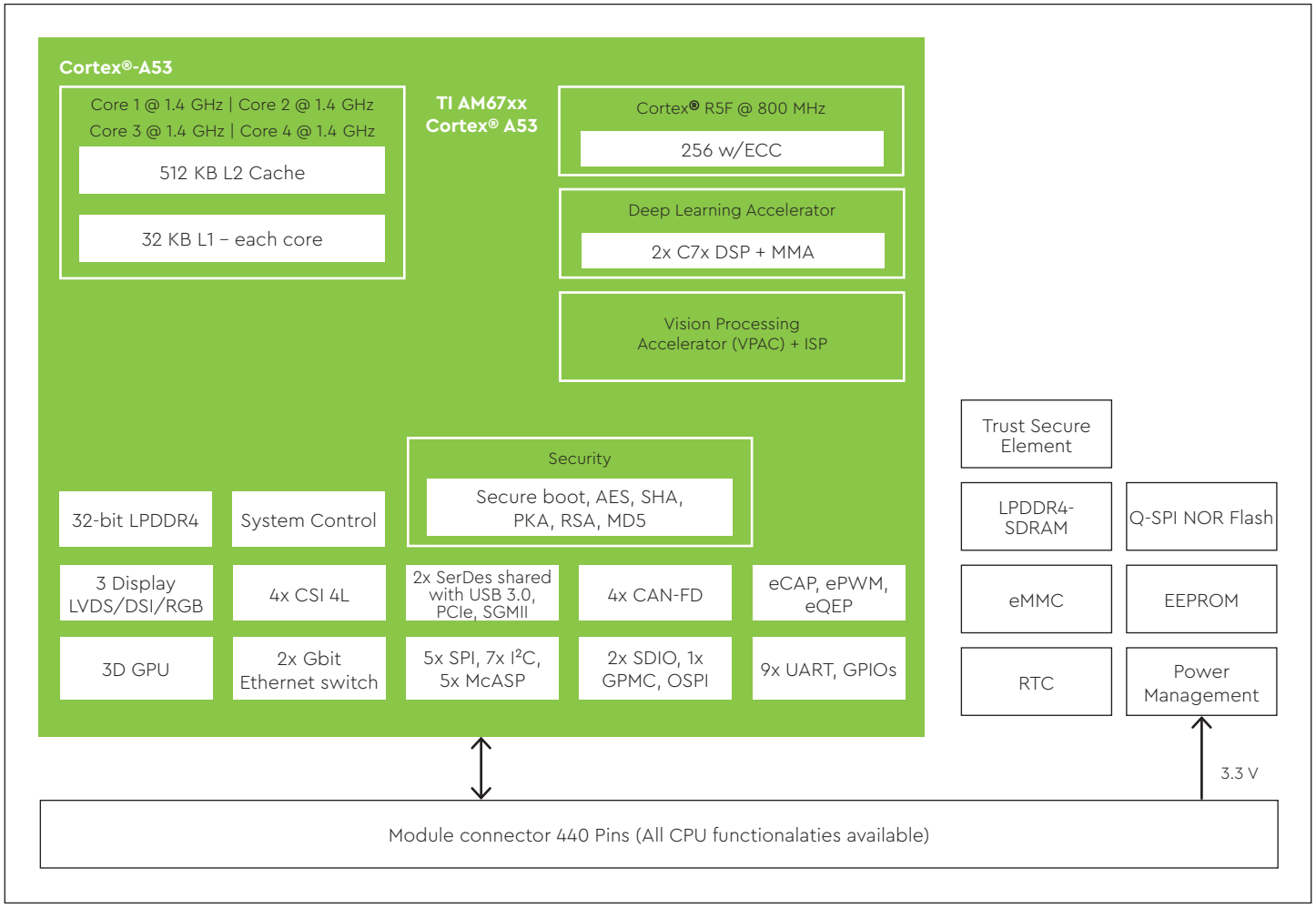
HIGHLIGHTS

- 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)

TECHNICAL SPECIFICATION

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 I²C 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: 4x 4L CSI RX, 1x 4L CSI TX
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
Other	Real Time Clock (RTC) Secure Element SE050 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	64 mm x 34 mm
Plug-in system	Board to board plug in system 440 pins, 0,5mm Pitch
Operating systems	Linux
Operating systems on request	(TBD)

BLOCK DIAGRAM TQMa67xx



ORDERING INFORMATION

TQMa67A94-AA	TQMa67A94-AA, Quad Cortex®- A53 / 1.4 GHz, Cortex®- R5 / 800 MHz, 4 GB LPDDR4, 8GB eMMC, 64 kB EEPROM, RTC, with AI, Vision ISP and 3D GPU, -25°C...+85°C
TQMa6754-AA	TQMa6754-AA, Quad Cortex®- A53 / 1.4 GHz, Cortex®- R5 / 800 MHz, 2 GB LPDDR4, 8GB eMMC, 64 kB EEPROM, RTC, -25°C...+85°C
TQMa6734-AA	TQMa6734-AA, Quad Cortex®- A53 / 1.4 GHz, Cortex®- R5 / 800 MHz, 1 GB LPDDR4, 8GB eMMC, 64 kB EEPROM, RTC, -25°C...+85°C
	Other configurations on request
STKa67xx	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
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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