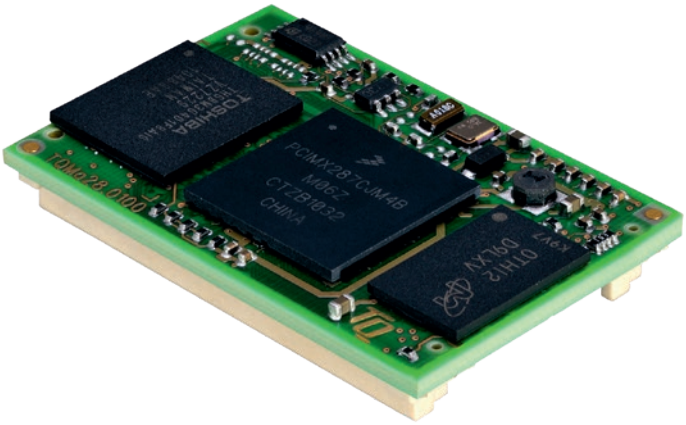
TQMa28

Arm® Family



HIGHLIGHTS

- Smallest Arm9™ module
- Low-cost due to highest level of integration
- Extended temperature range
- 2x IEEE1588 Ethernet (L2 Switch)
- Low power consumption (typ. 1 W)
- Long-term availability

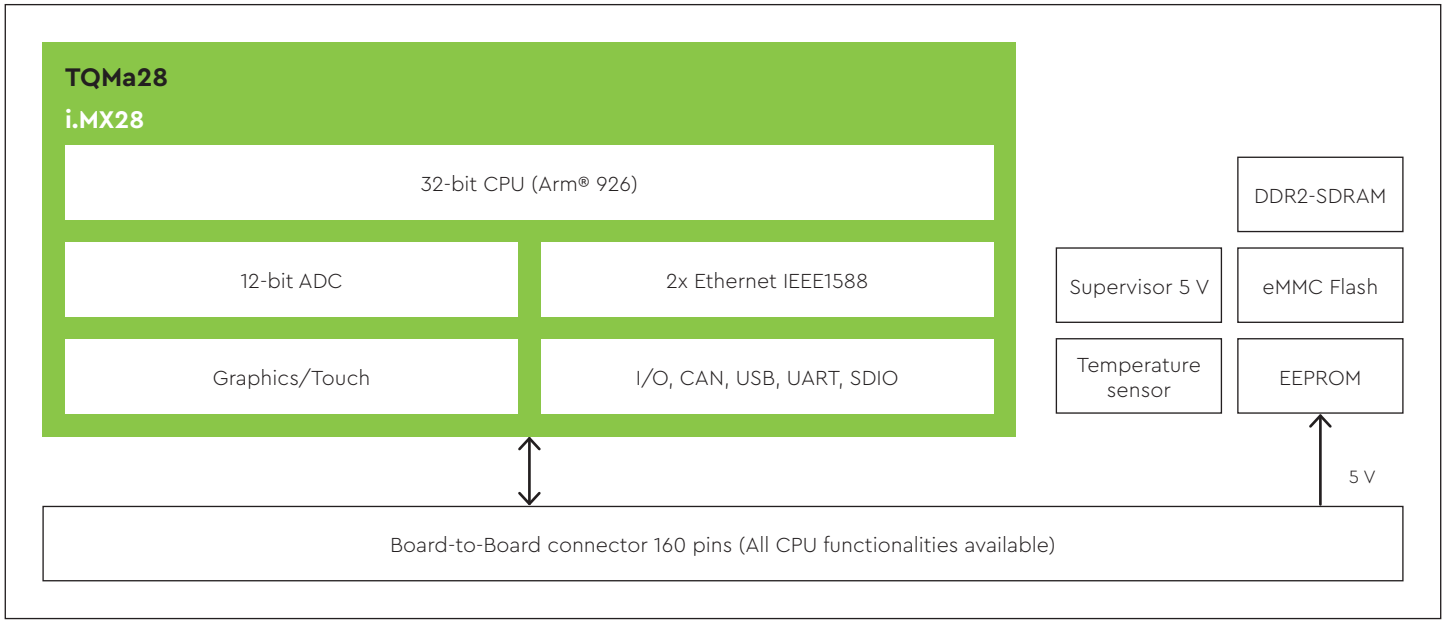
Smallest Arm9™ module based on i.MX28 with good graphics and computing power.

TECHNICAL SPECIFICATION

CPU	i.MX287 (450 MHz)
Interfaces	Up to 2x Ethernet 10/100 Mbit (L2 Switch) Up to 2x CAN 2.0 B Up to 5x UART 1x USB 2.0 high-speed HOST interface 1x USB 2.0 high-speed OTG interface 1x SDIO/MMC Up to 2x I2C Up to 2x I2S Up to 2x SPI GPIO Up to 8x 12-bit ADC channels Up to 8x PWM
Graphic	24-bit TFT Interface
Memory	DDR2-SDRAM: up to 256 MB eMMC flash: up to 16 GB EEPROM: 0/64-kbit
Other	Real Time Clock (RTC) Temperature sensor CPU JTAG Interface Supervisor 5 V
Power supply	5 V
Ambient conditions	Standard temperature range: -25°C...+85°C Extended temperature range: -40°C...+85°C

Plug-in system	Board-to-Board plug-in system (160 Pins) 2* 80
Operating systems	Linux, Win CE 6.0, QNX
Operating systems on request	VxWorks
Dimensions	26 mm x 40 mm

BLOCK DIAGRAM TQMA28



ORDERING INFORMATION

TQMa28-AA	i.MX287 @ 450 MHz, 128 MB DDR2, 8 GB eMMC flash, 64-kbit EEPROM, -25°C...+85°C
TQMa28-AC	i.MX287 @ 450MHz, 8 GB e-MMC, 128 MB DDR2, 64 kB EEPROM, Boot EEPROM, -40°C...+85°C
TQMa28-AD	i.MX287 @ 450MHz, 8 GB e-MMC, 128 MB DDR2, 64 kB EEPROM, Boot EEPROM, -25°C...+85°C
TQMa28-AE	i.MX287 @ 450MHz, 8 GB e-MMC, 128 MB DDR2, 64 kB EEPROM, Boot EEPROM, Supervisor 5V, -25°C...+85°C
TQMa28-AF	i.MX287 / 454MHz, 8GB eMMC-Flash, 256MB DDR2-SDRAM, 64kB EEPROM, Boot-EEPROM (-25 - +85°C)
	Other configurations on request
STKa28-AA	STKa28 (Eval Kit) with TQMa28-AA, i.MX287/450 MHz, 128 MB DDR2, 8 GB eMMC flash, 64-kbit EEPROM, 1x RS232, 1x RS485, GPIO 4x IN/ 8x OUT, 2x CAN 2.0 B isol., 2x USB 2.0 HOST, 2x ETH 10/100, Stereo Out, Mono Mic In, RTC, Temperature sensor, Reset button, SD interface, Power Supply, 2 GB SD card, Z-Modem Cable
STKDT070-AA	7" Touch-Display, WVGA 800 × 480, 300 cd, Touchpen, Cable set
Starter kit STKa28	The core of the STKa28 is the TQMa28 with an Arm9™ 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 a TQ display kit which is adjusted for a starter kit. To develop your own hardware you can use the certified and qualified circuit components of the starter kit in your own designs.

TQ-Systems GmbH
Mühlstraße 2 | Gut Delling | 82229 Seefeld | Germany
Tel.: +49 8153 9308–0 | info@tq-group.com | tq-group.com

tq-embedded.com

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