Quad-core Power Architecture® module with multiple I/O connectivity and strong computing performance at low power budget.

TECHNICAL SPECIFICATION

**CPU**
Quad T1042 Power Architecture® e5500 cores (64-bit)

**Interfaces**
- 5x Gbit Ethernet (with IEEE® 1588v2)
- 2x USB 2.0 High Speed Host/Device/OTG
- 2x SATA 2.0
- 4x PCIe, 2.0 Controller up to 5.0 Gbit/s according to PCI Express specification 2.0 as Root-Complex or Endpoint
- 4x I²C, max. 400 kHz
- 1x Integrated Flash Controller (IFC), 16-bit
- 1x eSPI Controller
- 2x DUART, max. 115 kBaud (RS232)
- Up to 32x GPIOs
- 2x TDM (via QUICC Engine)

**Graphics**
Display controller for TFT LCD displays (up to 24-bit RGB)

**Memory**
- DDR3L-SDRAM: up to 8 GB with ECC*
- NOR flash: up to 256 MB
- EEPROM: 32 KB
- eMMC (optional): up to 8 GB
- Simple expansion for example via MMC/SDHC, USB

**Other**
- Real Time Clock (RTC)
- Watchdog
- JTAG Interface
- Real-Time Debug Interface (Aurora)

**Power supply**
5 V

**Power consumption**
Typ. 6 W up to 8 W

**Ambient conditions**
- Standard temperature range: 0°C…+70°C
- Extended temperature range: -40°C…+85°C

**Dimensions**
74 mm x 54 mm

**Plug-in system**
Board-to-board plug-in system 360 Pins

**Operating systems**
- Linux

**Operating systems on request**
- PikeOSTM, Wind River Linux

*) Up to 4 GB with ECC for extended temperature range

HIGHLIGHTS
- Quad core up to 1400 MHz in 28 nm SOI for the best Performance/Watt ratio
- High-speed communication with up to 5x Gbit Ethernet, 4x PCIe and two USB 2.0 High Speed interfaces
- Dual SATA interfaces for data storage
- Easy function extensions via PCIe, eSPI, I²C and IFC (Local Bus)
- IEEE 1588 time synchronization in hardware
- Extremely compact module dimensions
- Display Interface Unit
TQMT1042

BLOCK DIAGRAM TQMT1042

ORDERING INFORMATION

TQMT1042-AA
TQ Minimodule with T1042 Quad Core CPU with up to 4x 1400 MHz, no Crypto, 2 GB DDR3 SDRAM, 128 MB NOR flash, 32 KB EEPROM, -40°C...+85°C
Further product variants on request

STKT1042-SET-AA

BASEBOARD

STKT104X
The baseboard STKT104X supports all modules of the type series TQMT104x and TQMT102x and represents an universal platform for evaluation and development of customer specific platforms for those modules.

Design support
At TQ you not only get first-class embedded systems – we also provide a series of benefits around the embedded module:
▶ Support in writing a technical specification for gathering the requirements of your application
▶ Support in selection of components up to Obsolescence management
▶ Circuit diagram review
▶ Software, especially Board Support Packages and Hardware close driver
▶ Starting-up of your baseboard
As system service provider TQ is able to take over the development, production and test of your baseboard. Therefore you get the whole tested unit from one hand.

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