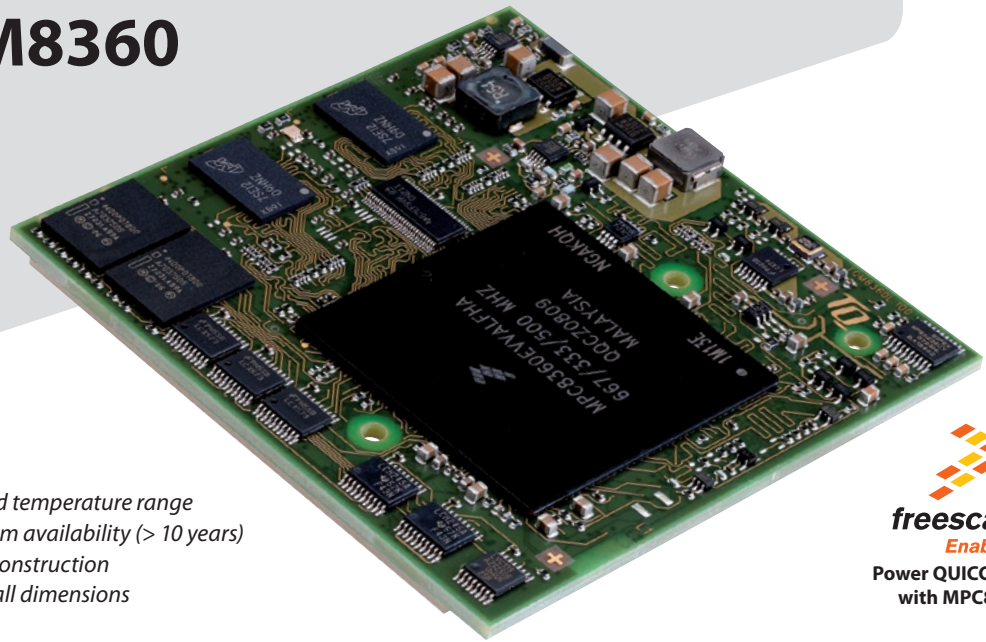




TQM8360



- ✓ Extended temperature range
- ✓ Long-term availability (> 10 years)
- ✓ Robust construction
- ✓ Very small dimensions



The communication expert with universal interfaces

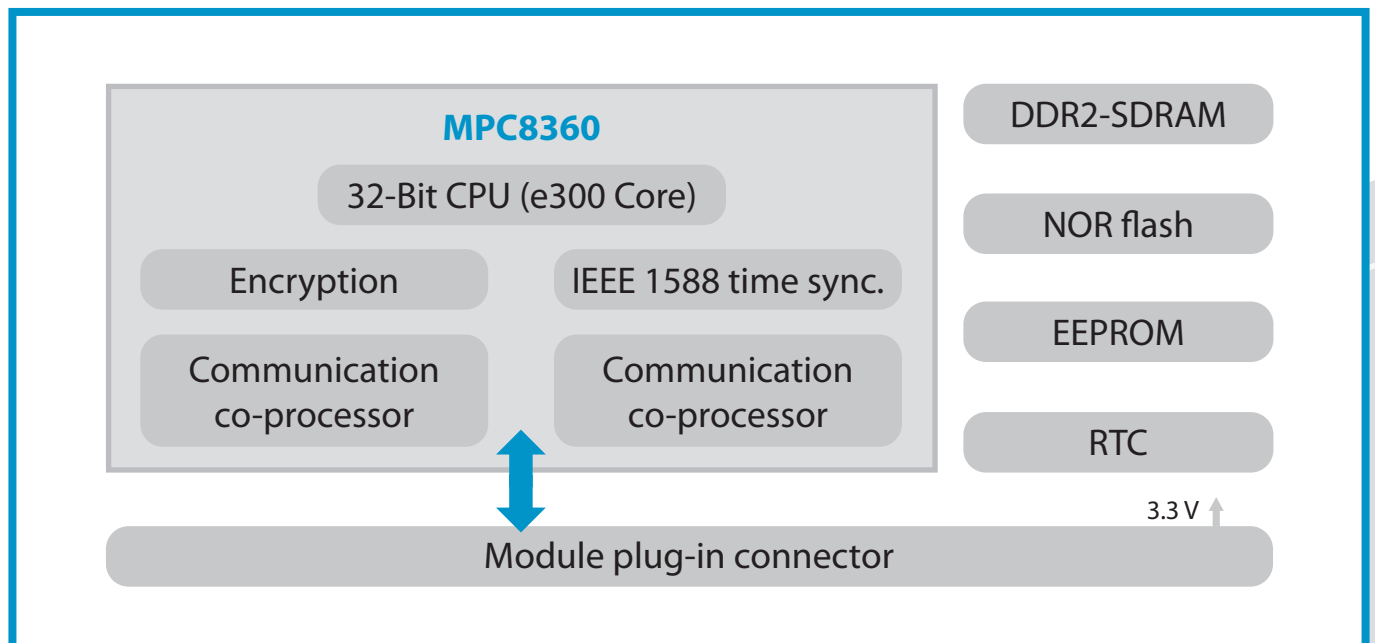
- Outstanding overall performance with Freescale's e300 core and two additional communication RISC processors
- Fast data processing
- High data transfer rates
- Encrypted data communication
- IEEE1588 time synchronisation in the hardware
- Low power consumption (typ. 6-7 W)

The TQ mini module TQM8360 is the latest and most versatile member of the PowerQUICC II Pro module family and supports almost all interfaces and protocols that are needed in typical applications these days, such as DSL and wireless infrastructure, routers and multi-functional firewalls.

An absolute innovation in embedded Power Architecture™ processors is support for the IEEE1588 time synchronisation protocol on a hardware basis. Many spatially separated real-time clocks that are connected with each other via Ethernet can now be synchronised for time-synchronous control of printing machines.

The module provides up to 8x 10/100Mbit Ethernet and up to 2x Gbit Ethernet which means that applications with high volumes of data and gateway applications can be easily implemented.

Block diagram TQM8360



TQM8360

Technical specifications TQM8360

Microprocessor

MPC8360E with e300 core, 32-bit, 266 to 667 MHz, 32 KB / 32 KB I/D cache, double-precision FPU

Communication co-processors (QUICC Engines)

2x 32-bit RISC controller, up to 500 MHz
8x Unified Communication Controller (UCC)
1x Multichannel Communication Controller (MCC)

Communication interfaces

8x MII/RMII Interface
2x GMII/RGMII/TBI/RTBI interface
2x UTOPIA/POS interface
8x TDM interface
2x SPI
1x USB 1.1

Communication protocols

10/100/1000 Mbit Ethernet
ATM SAR (AAL5, AAL2, AAL1, AAL0, TM 4.0 CBR, VBR, UBR Traffic Types)
Invers Multiplexing for ATM (IMA)
POS
HDLC, Multichannel
Multilink, Multiclass PPP
UART
BISYNC

System interfaces

1x PCI 32-Bit, 33/66 MHz
1x local bus 32 bit, up to 133 MHz
2x UART (RS232)
Up to 212 GPIOs

Encryption (Security Engine)

Public key execution (RSA und Diffie-Hellman)
Data encryption standard execution (DES und 3DES)
Advanced encryption standard (AES) execution
ARC-4 execution (RC4-compatible algorithm)
Message digest execution (SHA, MD5, HMAC)
Random number generation (RNG)

Memory

DDR2-SDRAM: up to 1 GB
NOR-flash: 16 to 128 MB
EEPROM: 32KB

Other

Real Time Clock (RTC)
JTAG Interface

Power supply

3,3 V, typ. 6-7 W

Ambient conditions

Standard temperature range: 0°C ... +70°C
Extended temperature range: -40°C ... +85°C (optional)

Dimensions

77 mm x 75 mm

Plug-in system

Module plug-in connectors, 0,8 mm grid, 500 pins

Operating systems

Linux (supported)
VxWorks, Neutrino (on request)

Starterkit STK85xxNG

The STK85xxNG supports all modules in the TQM83xx and TQM85xx series and is a universal platform for evaluating and developing customer-specific platforms for these modules. The STK85xxNG is especially characterised by the use of an FPGA. With the FPGA it is possible to route the different module/pin functionalities to standard interfaces. Special interface requirements can be implemented quickly and easily with flexible interfaces (Flexifaces®).

Ordering information

TQM8360-AA

TQ Minimodule with MPC8360E with 667 MHz, Security Engine, 512 MB DDR2 SDRAM, 64 MB NOR flash, 32KB EEPROM

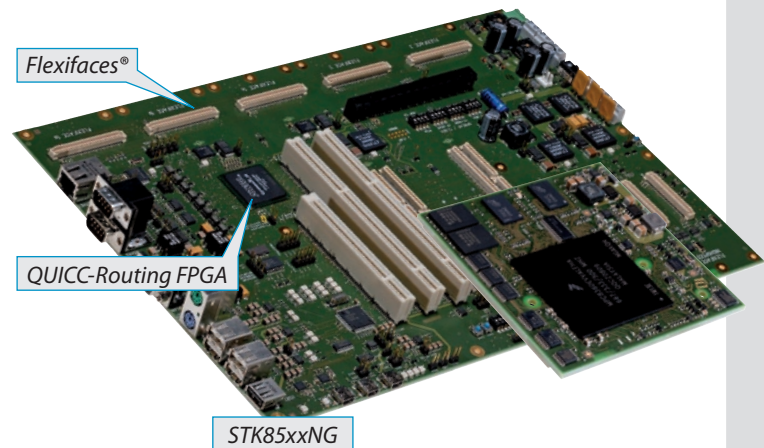
STK8360NG-Set

Ready to start with TQ Minimodule TQM8360-AA, STK85xxNG, Flexifaces, accessories and documentation

Accessories

Module remover, cooling kits

Quicklink: www.tq-components.de/en/TQM8360



TQ-Components GmbH
Mühlstr. 2, Gut Delling
82229 Seefeld
Phone: +49 8153 9308-0
Fax: +49 8153 9308-134
info@tq-components.com
www.tq-group.com

TQ components