



# TQMa35

# Allroundtalent for many applications

The TQMa35 Minimodule, based on the Freescale i.MX35 processor, offers a balanced ratio between computing and graphic performance. The basis for this is an ARM11 core with up to 532 MHz.

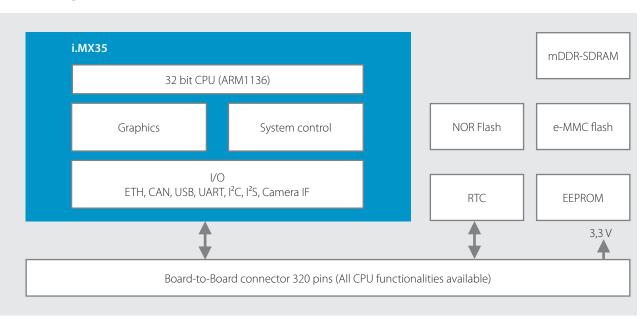
A large number of interfaces and module functions is implemented due to the high level of interface and function integration in the CPU. This allows the basic board to be developed easily and at low-cost.

All the processor's functional pins are on the module plug-in connector.

## The highlights:

- All CPU interfaces available
- Extended boot options (USB, SD card)
- Extended temperature range
- e-MMC flash
- Low power consumption (typ. 2-3W)
- Long-term availability
- IEC 61850 stack

## **Block diagram TQMa35**



## **Technical specification**

#### Microprocessor

MCIMX357DJQ5C / MCIMX353 DJQ5C / MCIMX357CJQ5C / MCIMX353 CJQ5C

#### **System interfaces**

1x Ethernet 10/100 Mbit

2x FlexCAN

3x UART

1x USB 2.0 high-speed HOST interface

1x USB full-speed OTG interface

## **Periphery interfaces**

WEIM Bus

Up to 2x SDIO/MMC

24 bit TFT interface (LVDS and TTL)

2x I<sup>2</sup>C

2x CSPI

 $1x SSI/I^2S$ 

1 wire

Camera I/F

#### Memory

mDDR-SDRAM: up to 512 MB NOR flash: up to 128 MB e-MMC: up to 32 GB EEPROM: 0 / 64 kbit

#### Other

Real Time Clock (RTC) Temperature sensor CPU JTAG Interface

## **Power supply**

3,3 V

#### **Ambient conditions**

Standard temperature range: 0°C...+70°C Extended temperature range: -30°C...+85°C (optional)

#### **Dimensions**

54 mm x 44 mm

#### Plug-in system

Board-to-board plug-in system (320 Pins) 2x120 + 1x80

#### **Operating systems**

WinCE 6.0, Linux (Kernel 2.6), QNX

## **Ordering information**

#### TQMa35-AA

TQMa35, i.MX353 / 532 MHz, 32 MB Flash, 128 MB mDDR, 64 kbit EEPROM, -30°C...+85°C

#### TQMa35-AB

TQMa35, i.MX353 / 532 MHz, 32 MB Flash, 256 MB mDDR, 2 GB e-MMC flash, 64 kbit EEPROM, -25°C...+85°C

#### STKa35-AB

STKa35 (Eval Kit) with TQMa35-AB, i.MX353 / 532 MHz, 32 MB NOR Flash, 256 MB mDDR, 2 GB e-MMC flash, 64 kbit EEPROM, 1x RS232, 1x RS485 ,GPIO 4xIN / 8xOUT, 2 x CAN 2.0B 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 800x480, 300cd, Touchpen, Cable set

#### Starter kit STKa35 set

The core of the STKa35 set is the TQMa35 with the i.MX35 CPU from Freescale. 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 the prepared combination of closed display unit and starter kit that are matched to each other. 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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