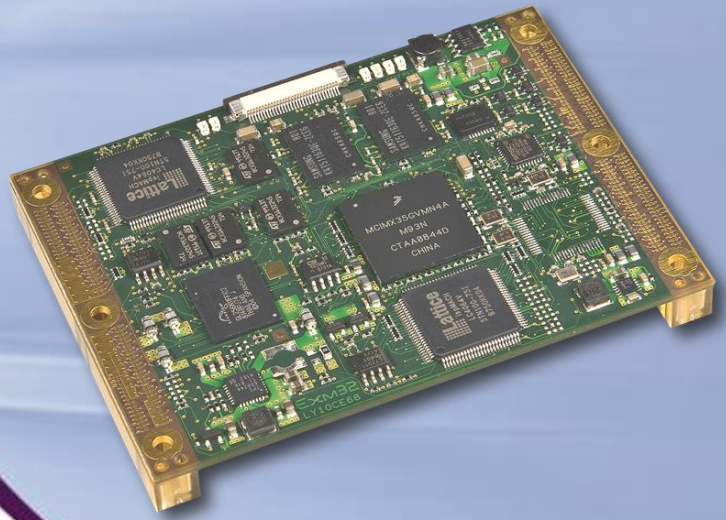


# Product Sheet



## EXM32 Family

### Freescale™ i.MX35 CPU Module

The **EXM32** system-on-module (SOM) standard was developed by MSC for use in challenging environments like industrial and automotive computing applications. EXM32 modules contain the rich feature set of a complete embedded computer and are connected to carrier boards via high-density elastomeric connectors. Expansion modules can add more I/O functionality being mounted easily on top of the CPU module. The compact and rugged EXM32 modules offer high computing power and are specified for the industrial temperature range.

The **EXM-IMX35** CPU module is fully compliant with the EXM32 standard and provides high computing performance at low power consumption in a wide temperature range.

It incorporates a high performance 533MHz Freescale i.MX35 processor, Flash memory, DDR2 SDRAM and an extensive set of interface controllers. Additionally the module gives access to all CPU features including the processor bus.

For evaluation and design-in of the EXM-IMX35 CPU module, development platforms and starter kits are available.

### Features

- Freescale i.MX35 ARM11™ CPU, up to 533 MHz
- Integrated Graphics LCD Controller with drawing accelerator and MPEG decoding hardware
- Up to 256MB DDR2 SDRAM
- Up to 64MB NOR Flash
- Up to 4 GB NAND Flash
- One 10/100 Base-T Ethernet interface
- Two I<sup>2</sup>C busses up to 400kbit/s
- Memory card interfaces, 2x CF, 1x SD/MMC
- Integrated audio interface AC97/I<sup>2</sup>S
- Two USB 2.0, one host, one OTG
- RTC
- 16 GPIO
- Hardware watchdog and reset functions
- 2x UART
- 2x CAN 2.0B
- 8 bit camera interface
- 1x MediaLocalBus/MLB 3-wire (MOST)
- ID EEPROM
- WinCE and Linux supported

Product description	Order numbers
Freescale i.MX35, 533MHz, 0MB NOR, 256MB NAND, 128MB DDR2, ext. temp.	MSC EXM-IMX35-LITE
Freescale i.MX35, 533MHz, 32MB NOR, 512MB NAND, 256MB DDR2, USB hub, ext. temp.	MSC EXM-IMX35-EVA
Freescale i.MX35, 533MHz, 64MB NOR, 512MB NAND, 256MB DDR2, USB hub, ext. temp.	MSC EXM-IMX35-FULL

## Technical Data – MSC EXM-IMX35

### Core Logic, Memory

**CPU:** CPU Freescale i.MX35, 533MHz, ARM11 Core

**RAM:** up to 256MB DDR2 SDRAM (soldered)

**Flash:** up to 64 MB NOR Flash, up to 4 GB NAND Flash

### Drives

**Memory Card:** 2x CompactFlash

**Interfaces:** 1x MMC/SD/SDIO card

### Standard Interfaces

**Serial:** 2x UART, (Tx/D, Rx/D, RTS & CTS)

**USB:** 2x USB 2.0, Host & OTG  
optional USB hub for expansion module support

### Bus Interfaces

**EXM32 Bus:** fully compliant to EXM32 specification;  
interfaces, GPIO and the CPU bus are available

### Flat Panel Interface

**Integrated Graphics :** Graphics Controller,  
resolution up to 800 x 600,  
LCD Interface 18/24-bit,  
OpenVG 1.0 hardware drawing acceleration,  
MPEG4 decoder

### LAN Interface

**Ethernet:** 1x 10/100Base-T Fast Ethernet,  
optional real time Ethernet with PHY IEEE1588

### Sound Interface

**Audio:** AC97 and I<sup>2</sup>S

### Additional Interfaces

**CAN:** 2x FlexCAN 2.0B

**Serial I/O:** 2x I<sup>2</sup>C, up to 400KBit/s, 1x SPI interface (2x SS#)

**Camera Interface:** 1x 8-bit BT.656

### Miscellaneous

**Real Time Clock:** battery buffered (battery on motherboard)

**ID EEPROM:** 2kbit on I<sup>2</sup>C Bus

**GPIO:** 8x In, 8x Out

### Operating Systems

**Windows® CE:** Starter Kit Image,  
Bootloader supporting:

- download image into Flash via CompactFlash or SD card

- launch downloaded image

optional: Windows® CE Board Support Package and Multimedia support available

**Linux:** Board Support Package

**QNX:** on request

### Power Supply

**Power:** 3.3V, 750mA active, 0.03W @ sleep

### Environment

**Ambient Temperature:**

-40°C ... + 85°C @ 533MHz operating (ext. temp. version),

-40°C ... + 125°C storage

**Humidity:** 10 ... 90% (operating)

### Mechanical

**Dimensions:** Length: 90 mm, Width: 65 mm, Height: max 9.1 mm  
(including connector)

**Cooling:** no active cooling or heat spreader required

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