



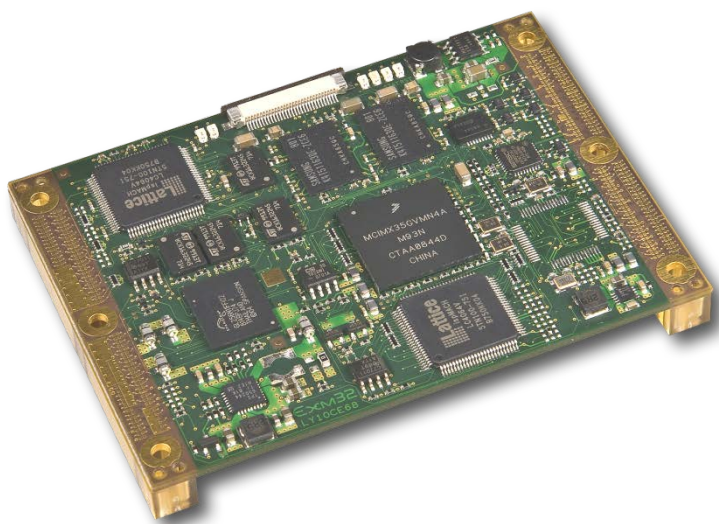
Product Sheet



EXM 32

MSC EXM-IMX35

Freescale™ i.MX35 CPU Module



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 I²C busses up to 400kbit/s
- Memory card interfaces, 2x CF, 1x SD/MMC
- Integrated audio interface AC'97/I²S
- 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



65 x 90



2.5 W



Entry / Mid

Description

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.

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 64MB NOR Flash, up to 4GB NAND Flash

Storage Interfaces

Memory Card Interfaces

2x CompactFlash

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

EXM 32 Bus

fully compliant to the EXM32 specification;

I/O interfaces, GPIO and the CPU bus are available

Display Interface

Integrated Graphics

Graphics controller, resolution up to 800 x 600,

LCD Interface 18/24-bit,

OpenVG 1.0 hardware drawing acceleration, MPEG4 decoder

Network Interface

Ethernet

1x 10/100Base-T Fast Ethernet,

optional real time Ethernet with PHY IEEE1588

Audio Interface

AC'97 and I²S

Additional Interfaces

CAN

2x CAN 2.0B

Serial I/O

2x I²C, 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 I²C Bus

GPIO

8x In, 8x Out

Operating Systems

Windows® CE

Starter Kit Image Windows® CE 6.0,

Bootloader supporting:

- download image into Flash via CompactFlash or SD card
- launch downloaded image

Windows® CE Board Support Package and Multimedia support

Linux

Board Support Package

QNX

Board Support Package QNX 6.x

Power Supply

Power

3.3V, 750mA, typical 2.5W,

0.03W in sleep mode

Environment

Ambient Temperature

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

-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

Order Reference – MSC EXM-IMX35

Order Number	Description	Reference
32471	Freescale i.MX35, 533MHz, 128MB DDR2, 16MB NOR, 256MB NAND, ext. temp	MSC EXM-IMX35-LITE
32473	Freescale i.MX35, 533MHz, 256MB DDR2, 32MB NOR, 512MB NAND, USB hub, ext. temp.	MSC EXM-IMX35-EVA

Accessories

Order Number	Description	Reference
	Expansion Modules	
32482	EXM32 Navigation and Communication Module "ECO" model Quad band 850/900/1800/1900 MHz GSM/GPRS; GPS Receiver; Dual Antenna Connector; Dual UART	MSC EXM-NAVCOM-EXT-STD00030002I
32502	Antenna kit including cables for EXM-NAVCOM navigation and Communication module. Dual antenna for GSM and GPS.	MSC EXM-ANTENNA-2
	Carrier Boards	
32490	Small form factor evaluation and development base board for EXM32 modules.	MSC EXM-MB-LITE2

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