



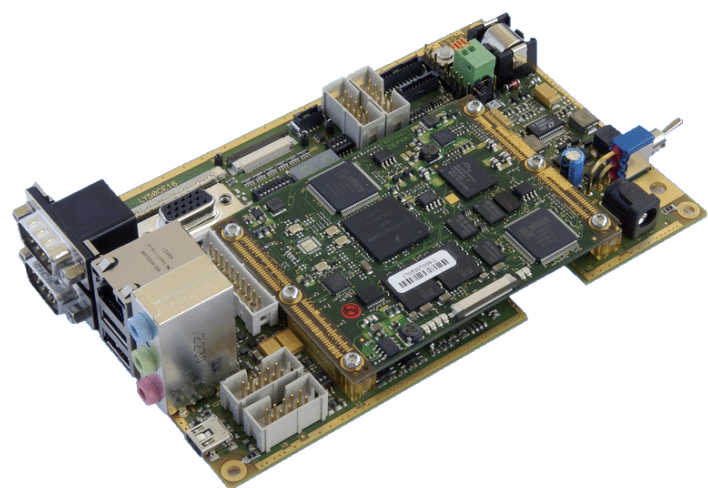
Product Sheet



EXM 32

MSC EXM-SK-MBL2-IMX35/AU1250

Starterkit



Features

- Evaluation System for Windows CE, Linux or QNX
- Very low power consumption
- Robust and rugged hardware
- Small footprint Eurocard size 160x100 mm
- Usable as full development environment with BSP on enclosed Resource-CD
- CRT and/or TFT Graphics (TTL und LVDS)
- 10/100Base-T Ethernet
- 4-wire resistive Touch Controller
- USB, CAN, RS232, TTL serial
- MMC/SD Card socket
- GPIO and Test I/O
- External 12V power supply included

Description

EXM32 modules are compact, robust embedded computing modules conforming to the EXM32 standard. The CPU modules contain the rich feature set of a complete embedded computer and connect 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.

MSC developed the EXM32 system-on-module (SOM) standard for use in challenging environments like industrial and automotive computing applications. The rugged modules are offering high computing power and are specified for the industrial temperature range.

The EXM32 Starter Kits contain everything necessary to get a Windows® CE, QNX® or Linux evaluation environment for EXM32 modules working very quickly.

The main components are the EXM32 Motherboard LITE2 and an EXM32 CPU module (e.g. IMX35 or AU1250).

The EXM32 Motherboard LITE2 provides a perfect evaluation platform for EXM32 modules. It incorporates all interfaces and connectors to operate an EXM32 CPU module.

For enhanced requirements MSC also offers I/O modules and even a more sophisticated Development Platform using the larger EXM32 Motherboard.

To fully support our customers, we also can provide engineering services for developing custom carrier boards.

Technical Data – MSC EXM32 Starterkit

Communication and Data Interfaces

Ethernet: 10/100 BaseT (RJ-45)

USB: 2x USB Host

CAN: 2x CAN 2.0B (10-pin header)

Serial: 2 x RS232 (9pin DSUB)
2 x RS232, 2x TTL serial (10pin header)

MMC/SD Card: Cardholder with 8 bit interface

CRT Interface: Analog VGA (15pin HDSUB)

LCD Interface: TTL (31pin FPC), Backlight Supply Connector (5 VDC)

LVDS Interface: ST430 connector (30pin FPC, 1.0mm)

Touch Interface: 4-wire (4-pin ERNI)

Test I/O: 8x LED, 8x DIP switch

GPIO: 8x in, 8x out on 20pin header

Power Supply

Power: 5 – 15V Input, max. 3.5A, External wall-plug power supply 12V is included

Environment

Ambient Temperature: 0° C ... +70° C (operating)

Humidity : 0 .. 95% (non condensing)

Mechanical

Dimensions: 160 mm x 100 mm (Eurocard Size)

Optional Accessories

I/O Modules:

EXM32 Navigation and Communication Module, optional antenna set (see data sheet of the EXM32 Navigation Module for details)

LCD Display Kit:

8.4" VGA TFT (NEC NL6448BC26-09), inverter and cable set

Supported CPU Modules

MSC EXM32-SH7760 :

The SH7760 CPU module provides high-performance computing power at extremely low power consumption. It incorporates a high performance 32-bit RISC CPU, Flash memory, SDRAM and an extensive set of interface controllers (see MSC EXM32-SH7760 data sheet for details).

MSC EXM32-AU1250 :

The AU1250 CPU Module provides high-performance computing power and unique multimedia support (MPEG1/2/4, WMV and DIVX decoding) at extremely low power consumption and wide temperature range. It incorporates a high performance 32-bit MIPS CPU, Flash memory, DDR2 SDRAM and an extensive set of interface controllers (see MSC EXM32-AU1250 data sheet for details).

Operating System / HW driver support

Communication and Data Interfaces

MSC EXM32-IMX35 :

Windows CE 6.0:

Driver support for most functions of the EXM32 hardware is available

Linux

Driver support for most functions of the EXM32 hardware is available

QNX 6.3:

Driver support for most functions of the EXM32 hardware is available

MSC EXM32-AU1250:

Windows CE 6.0:

Driver support for most functions of the EXM32 hardware is available

Linux

Driver support for most functions of the EXM32 hardware is available

Order Reference – MSC EXM32 Starter Kit

| Product | Description |
|-------------------------------------|---|
| MSC EXM-IMX35-SK-MBL2-WINCE-KIT001 | EXM32 IMX35 WinCE Starter Kit for analog monitors and/or LCD |
| MSC EXM-IMX35-SK-MBL2-QNX-KIT001 | EXM32 IMX35 QNX Starter Kit for analog monitors and/or LCD |
| MSC EXM-IMX35-SK-MBL2-LINUX-KIT001 | EXM32 IMX35 Linux Starter Kit for analog monitors and/or LCD |
| MSC EXM-AU1250-SK-MBL2-WINCE-KIT001 | EXM32 AU1250 WinCE Starter Kit incl. 8.4" VGA LCD Display Kit |
| MSC EXM-AU1250-SK-MBL2-LINUX-KIT001 | EXM32 AU1250 Linux Starter Kit incl. 8.4" VGA LCD Display Kit |

Accessories

| Accessories | Description |
|----------------------------|--|
| MSC EXM-NAVCOM-003 | EXM32 Navigation and Communication Module (GPS/GSM/GPRS) |
| MSC EXM-NAVCOM-004 | EXM32 Navigation and Communication Module (GPS/UMTS/HSDPA) |
| MSC EXM-ANTENNA-2 | EXM32 Antenna Kit for Navigation Module (GPS/GSM/GPRS) |
| MSC EXM-ANTENNA-3 | EXM32 Antenna Kit for Navigation Module (GPS/UMTS/HSDPA) |
| MSC EXM-LCD-NL6448-8.4-TTL | EXM32 LCD Display Kit, 8.4" VGA TFT |
| MSC EXM-DEBUGADAPTOR | EXM32 Debug Adaptor |

Note

The Navigation and Communication Module fits on top of each EXM32 CPU module and can be used for GPS/GSM/GPRS functions or alternative for GPS/UMTS/HSDPA)

The LCD Display Kit comes prepared for direct connection to the EXM32 Motherboard LITE and allows to display VGA resolution screen output on the 8.4-inches full-color TFT panel included.

The Debug Adaptor is required to connect a Debugger (e.g. Lauterbach) to any EXM32 CPU module.

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