



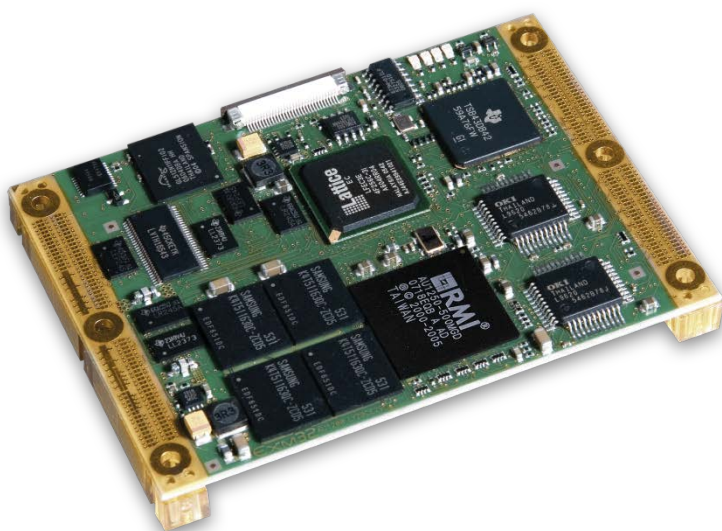
Product Sheet



EXM 32

MSC EXM-AU1250

RMI™ Alchemy™ Au1250™ Module



Features

- RMI™ Au1250 RISC 600MHz CPU with 32kB cache
- 256MB DDR2 SDRAM
- Up to 128MB NOR Flash
- Up to 512MB NAND Flash
- SD Card, CompactFlash and IDE support
- LCD graphics up to UXGA resolution
- MPEG 1/2/4, H.263, WMV and DivX video decoder
- 10/100 Base-T Ethernet interface
- USB 2.0 high-speed interface
- 2x CAN
- Serial interfaces
- BT.656 camera interface
- AC'97 / I2S audio interface
- RTC
- GPIO (16x)
- Processor bus accessible
- EXM32 compliant



65 x 90



3.0 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-AU1250** CPU module is fully compliant with the EXM32 standard and provides high-performance computing power and unique multimedia support (MPEG1/2/4, WMV and DIVX decoding) at extremely low power consumption.

It incorporates a high performance 32-bit MIPS CPU, 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-AU1250

Core Logic, Memory

CPU

very low power, high performance 32-bit MIPS32 core based RMI™ Au1250 RISC CPU, 500MHz (I-Temp), 600MHz (C-Temp), 16kB data and 16kB instruction cache

RAM

up to 256MB DDR2 SDRAM (soldered)

Flash

16, 32, 64 or 128MB NOR Flash (incl. boot area, soldered), up to 4GB NAND Flash (option)

Storage Interfaces

Memory Card Interfaces

2 x PCMCIA, CompactFlash or IDE
1 x MMC, SD, SDIO Card (4-bit)

Standard Interfaces

Serial

2 x UART

USB

2 x USB 2.0, 1 x host, 1 x host/client (OTG)

Bus Interfaces

EXM32 Bus

fully compliant to EXM32 specification;
I/O interfaces, GPIO and the CPU bus are available

Display Interface

Integrated Graphics

LCD TFT/STN UMA graphics controller, max. 2048 x 2048 pixel, 18-bit TTL I/F

Video Decoder / Multimedia

MPEG-1 (program streams), MPEG-2, MPEG-4, DivX, WMV

Network Interface

Ethernet

SMSC 91C111 10/100 Base-T Fast Ethernet controller

Audio Interface

AC'97 or I²S
SPDIF (option)

Additional Interfaces

CAN

2 x CAN 2.0B

Serial I/O

2 x I²C
2 x SPI

Camera Interface

1 x 8-bit BT.656

Miscellaneous

Real Time Clock

on I²C Bus

ID EEPROM

2kbit on I²C Bus

Operating Systems

Windows® CE

Starter Kit Image, Bootloader supporting:
- download image into Flash via CompactFlash
- launch downloaded image

Windows® CE Board Support Package and Multimedia support available

Linux

on request

Power Supply

Power

+3.3V, 900mA, typical 3.0 W,
0.18 W in sleep mode (maximum configuration)

Environment

Ambient Temperature

0° .. +70°C, operating, C-Temp (commercial) version,
-40° .. +85°C, operating, I-Temp (industrial) version
-40°C ... +85°C storage

Humidity

0 .. 95% (non condensing)

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-AU1250

| Order Number | Description | Reference |
|--------------|---|---------------------------------|
| 32476 | EXM32 AU1250-MED: RMI Au1250 500MHz, 128MB DDR2 SDRAM, 32MB NOR Flash, 128MB NAND Flash, Ethernet, USB, CAN, ext. temp. | MSC EXM-AU1250-CPU-500S6420FE2I |

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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