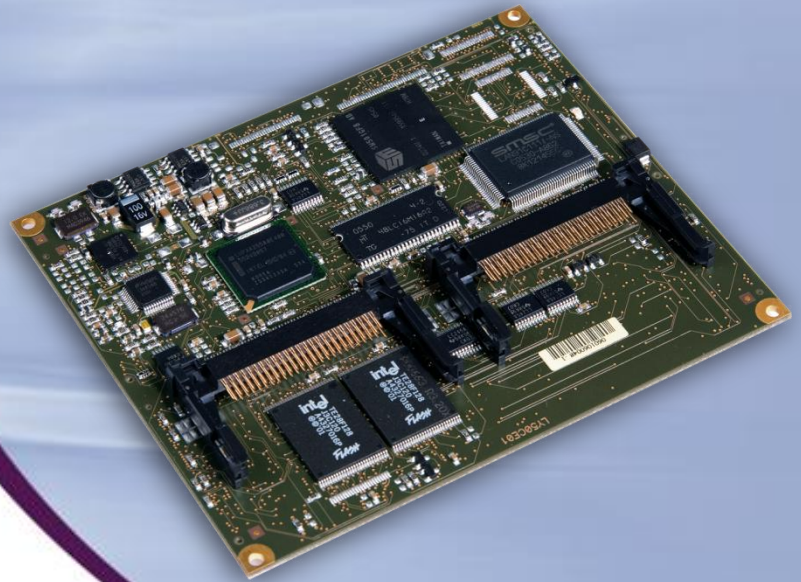


Product Sheet



ETX Family

XScale™ PXA 255 Module

ET(e) modules provide the functionality of an Embedded PC on a standard ETX®-sized module.

ET(e) modules are plugged onto an application-specific baseboard by high-density SMD connectors. The combination of a standardized CPU module and a baseboard designed for the specific requirements of the application enables a flexible, configurable system platform with scalable CPU performance.

The design supports the PXA255 Processor with XScale™ Technology and ARM v.5TE instruction set architecture and is ideally suited for low power requirements and diskless systems.

For evaluation and design-in of the ET(e) modules, various evaluation baseboards and application motherboards are available.

Starter Kits and Board Support Packages with Bootloader for Windows CE® are available.

Features

- XScale™ PXA255 Processor with 32KByte data and 32KByte instruction caches, 400MHz
- Up to 64MByte SDRAM soldered
- Up to 64MByte Linear Flash soldered
- Integrated LCD TFT/STN graphics
- Optional Silicon Motion SM501 graphics controller with integrated frame buffer, dual display capability
- 10/100Base-T Ethernet Interface
- ISA Bus (subset)
- Two Compact Flash Sockets
- USB, LPT, Serial, IrDA
- AC'97 Audio, RTC
- Industrial Temperature Range -40° ... +85° C
- ETX® 2.8 compliant (functional subset)
- Windows CE® supported, Linux support upon request

Product description (more options on request)	Order numbers
XScale PXA255 CPU at 400 MHz, 64 MB SDRAM, 32MB Linear Flash, LCD interface (LVDS), 1 CompactFlash socket	32150
XScale PXA255 CPU at 400 MHz, 64MB SDRAM, 32MB Linear Flash, additional graphics controller max. 1280x1024, LCD interface (TTL), 2 CompactFlash sockets	32121
XScale PXA255 CPU at 400 MHz, 64MB SDRAM, 32MB Linear Flash, additional graphics controller max. 1280x1024, LCD interface (LVDS), 2 CompactFlash sockets	32136

Technical Data – MSC ETE-XSC255

Core Logic, Memory

CPU: Low power, high performance 32-bit, XScale™ core-based PXA255 CPU (400MHz), 32kB data and 32kB instruction caches, 100MHz Memory Bus

RAM: 4, 16, 32 or 64 MB SDRAM (soldered)

Flash: 1 MB Boot-Flash or 16 / 32 / 64 MB Linear-Flash (soldered)

Drives

Compact Flash: 1 or 2 CompactFlash Sockets support Type 1 Memory-Cards and I/O-Cards (e.g. Ethernet, WLAN), Windows® CE driver support required

Standard Interfaces

LPT: IEEE1284 Controller: EPP/ECP/SPP (option)

Serial: 2 x TTL (integrated in PXA255)

Infrared: 1 x IrDA Tx/Rx Interface

USB: 1 x USB 1.1 12Mbit/s Client (PXA255),
2 x USB 2.0 12Mbit/s Host (CY7C67200)

Bus Interfaces

ISA: ISA Interface Subset: no DMA, single, Interrupt line to CPU

SM Bus: 2 x I²C Bus Interface

Flat Panel / CRT Interface

Integrated Graphics: LCD TFT/STN graphics integrated, max. 640 x 480 pixel, controller uses CPU memory (UMA)

Option: SM501 graphics controller 1.280 x 1.024 pixel, 8 MByte frame buffer integrated

Displays supported: 1 x 18-bit LVDS / TTL interface

Optional: SM501 graphics controller 1 x 18-bit TTL and CRT (VGA to SXGA) interface

Miscellaneous

Watchdog Timer: Creates system reset programmable via setup

RTC: on I²C Bus

ID_EEPROM: 2kbit

LAN Interface

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

Sound Interface

AC97 audio codec LM4548, Line-In, Line-Out, MIC

Bootloader

Download Image via Ethernet, Program Image into Flash, Launch downloaded Image, Launch Image from soldered Flash, Launch Image from CF Memory Card

Windows® CE

BSP: Board Support Package (optional)

OAL: XScale Kernel Files

BSP Drivers: Display XSC1BD LCD, XSC1BD Serial, XSC1BD Parallel, XSC1BD Compact Flash Card

Additional Drivers: Cypress CY7C67200 USB Host controller, SMSC LAN91C111 integrated, Ethernet Controller, SM501 Graphics Controller

Power Supply

Power: +5V +/-10%, max. 550 mA (Standard Version)

Environment

Ambient Temperature: : 0° ... 70° C (standard),
-40° ... 85° C (optional)

Humidity: 0 ... 95% (non condensing)

Mechanical

Dimensions: 95mm x 114mm x 12mm

Cooling: no heat spreader or active cooling required

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