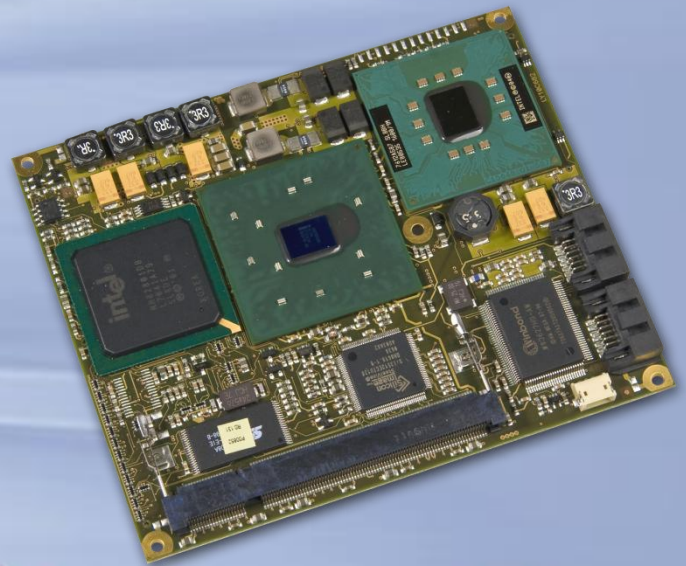


Product Sheet



ETX Family

Intel® Pentium® M/ Celeron® M Module



ET(e) modules provide the functionality of an Embedded PC on a standard ETX-sized module. ET(e) modules are fully compliant with the latest ETX specification.

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

The **MSC ETE PM8553/CM8553/CM8523** modules comply to the ETX specification 3.02 supporting dual SATA storage connectors on the module.

The design enables different variants of the Intel® Embedded Pentium® M and Celeron® M processors.

For evaluation and design-in of the ET(e) modules, various evaluation baseboards and application motherboards are available each providing the interface infrastructure for the ET(e) module and offering PC plug connectors for external connection.

Special Starter Kits for Windows CE® and Linux are available on request.

Features

- Intel® Pentium® M 1.4GHz up to 1.8GHz
- Intel® Celeron® M 600MHz, up to 1.3GHz
- Up to 1GB PC2700 DRAM (ECC possible)
- Dual SATA-150 interface on module
- Dual Enhanced IDE interface
- 10/100Base-T Ethernet interface
- Intel 855GME or 852GM Chipset with integrated Intel Extreme Graphics2 Controller (up to 32MB)
- LCD LVDS Interface (18 / 24 / 36 / 48 Bit)
- Resolution up to 1,600 x 1,200
- CRT Interface up to 2,048 x 1,536
- Dual Display Operation supported
- PCI-to-ISA Bridge
- Quad USB 2.0 interfaces
- AC'97 Audio interface
- IrDA 1.1 interface
- Dual serial interfaces (TTL)
- LPT (Uni/EPP/ECP)
- RTC (battery-buffered)
- System monitoring, watchdog
- ACPI Power Management including Suspend-to-RAM
- Fully ETX 3.02 compliant
- Windows® XP (embedded), Windows® CE and Linux supported

Product description (more options on request)	Order No.
MSC ETE-CM8523-CPU600-152000, Intel® ULV Celeron® M 600MHz, 852GM	32297
MSC ETE-CM8553-CPU1000-454000, Intel® Celeron® M ULV 373, 1.0GHz, 855GME	32299

Technical Data – MSC ETE-PM8553/CM8553/CM8523

Core Logic, Memory

CPU: Intel® Pentium® M 1.6GHz (1MB L2), Intel® Pentium® M LV738 (1.4GHz, 2MB L2), Intel® Pentium® M 745 (1.8GHz, 2MB L2)
Intel® ULV Celeron® M 600MHz (512kB L2), Intel® Celeron® M LV373 (1.0GHz, 512kB L2), Intel® Celeron® M 320 (1.3GHz, 512kB L2)

Chipset: Intel® 855GME or 852GM, ICH4

Memory: SO-DIMM socket for up to 1GB PC2700 DDR SDRAM (DDR333), ECC possible

Drives

SATA: 2 SATA-150 interfaces (connectors on module)

EIDE: 2 Enhanced IDE ports ATA/UDMA100

Floppy: Shared with parallel port

Standard Interfaces

Parallel: Uni/EPP/ECP (FDC shared)

Serial: 2x TTL

Infrared: IrDA 1.1

Keyboard/Mouse: PS/2

USB: 4x USB 2.0

Bus Interfaces

PCI: 32-bit standard interface

ISA: Standard ISA interface (PCI/ISA Bridge ITE 8888)

Serial Bus: I²C Bus, SMBus interface

Flat Panel / CRT Interface

Graphics Controller: Intel® Extreme Graphics2, (integrated in Intel® 855 GME/852GM chipset)

Video Memory: UMA, up to 32MB

LCD Interface: LVDS 18/24/36/48 Bit, max. resolution 1,600 x 1,200

CRT Interface: max. resolution 2,048 x 1,536

Miscellaneous

Watchdog Timer: creates system reset (programmable, 1s ... 255h)

Fan Supply: 3-pin header (5V)

Battery: external

System Monitoring: voltages, temperatures, fan

External Super-I/O: BIOS support SMSC FDC37C669 on base board

Sound Interface

AC'97 Audio Codec , Realtek ALC650

Bios

Type: Phoenix FirstBIOS Pro

Boot Options: Quick Boot, MultiBoot (FD, HD, CD, LAN, USB), boot without keyboard

Security: System and setup password, write protection for BIOS Flash

Power Management: ACPI

USB: USB legacy support (keyboard, mouse, storage)

Video: Video BIOS with flat panel detection (EDID/EPI)

Setup: Backup of CMOS data in NV memory

Power Supply

Power: +5V +/-10%

Power Consumption: 8W typ. (600MHz), 10W typ.(1.0GHz), 21W typ. (1.8GHz), 1.5W typ. (suspend)

Environment

Ambient Temperature: 0° .. 60°C (operating), -25° ... 85°C (storage)

Humidity: 20 ... 80% (operating), 5 ... 95% (storage, non cond.)

Mechanical

Dimensions: 95mm x 114mm x 12mm

Accessories

Heatspreaders: 95mm x 114mm x 2mm with through hole or threaded standoffs

Cooling: Active or passive heat sinks

Memory: SO-DIMMs from 256MB to 1 GB

Base Boards: Various formats (for evaluation and software development)

Display Kits: TFT displays with backlight inverter and cabling set from 15,24cm (640 x 480) up to 53,34cm (1,600 x 1,200)

Board Support Packages: Linux and Windows® CE supported

Certifications

UL Listing: UL File E254492



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