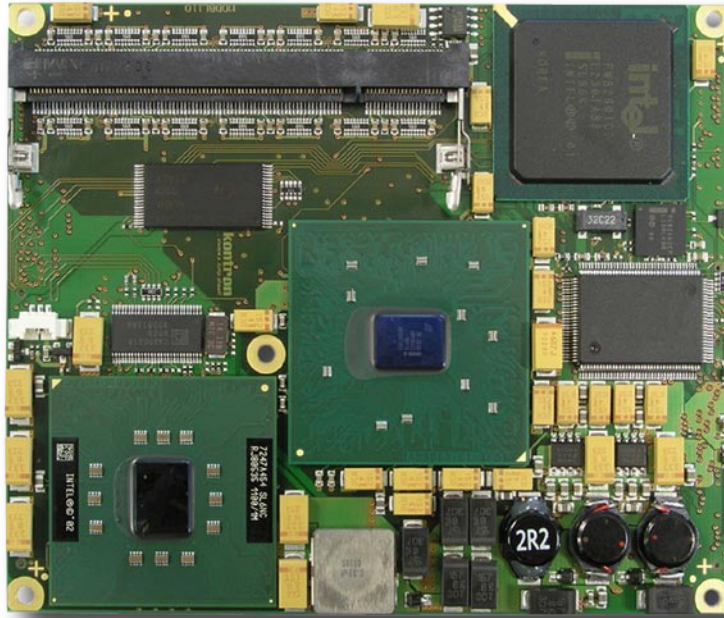




# ETX<sup>®</sup>-PM



original size

**ETX<sup>®</sup>**



- ▶ Intel<sup>®</sup> 82852GM/82855GME, Intel<sup>®</sup> ICH4
- ▶ Intel<sup>®</sup> Pentium<sup>®</sup> M Processors up to 1.8 GHz
- ▶ USB 2.0 and DDR-SDRAM up to 1 GByte
- ▶ Graphic resolution up to QXGA (2048x1536)

## Product Overview

The ETX®-PM products feature the Intel® Celeron® M Processor or Intel® Pentium® M Processor with the unique Enhanced Speed Step™ technology. The ETX®-PM modules offer supreme computing performance at extreme low power consumption. Supporting up to 1Gbyte of DDR-SO DIMM technology the memory bandwidth is no longer the performance bottleneck. The integrated Intel Extreme Graphics 2 video controller offers resolutions up to 2048x1536 pixel with 2D and 3D acceleration. The JILI display interface technology ensures automatic setting of the video controller parameters for the attached LCD panel. The 4 USB channels support USB 2.0 with full bandwidth for the coming generations of I/O devices. As all boards in the

ETX® product line the ETX®-PM is fully featured with PCI 2.1 bus, audio, ethernet, floppy/printer, IDE, serial ports and keyboard/mouse interfaces.

ETX® modules are like components, plugging into an application-specific baseboard. The ETX® modules supply the core CPU and memory subsystems together with sound, QXGA, Ethernet and standard PC I/O. They connect to the rest of the embedded system through highdensity, low profile, surface-mount connectors, which carry both ISA (future option) and PCI bus signals as well as dedicated I/O interfaces. ETX® modules are scalable and interchangeable, and they make possible the rapid development of semi-custom solutions for embedded applications.

## Technical Information

Processors	
Intel® Pentium® M processor up to 1.8 GHz	
Intel® Celeron® M processor up to 1.5 GHz	
Intel® processor with 800 MHz	
Chipset	
Intel® 82855GME, integrated graphics / Intel® ICH4	
Intel® 82852GM, integrated graphics / Intel® ICH4	
Memory	
Up to 1 GByte DDR-RAM (266/333/400 MHz)	
Cache	
up to 2MByte 2 <sup>nd</sup> Level	
Hard Disk	
2x ParallelATA	
Sound	
AC97, Codec Crystal CS4299	
Video Controller	
Intel® Extreme Graphics2 controller, graphics integrated in Intel® 82855GME/82852GM; Up to 64 MByte UMA Video RAM	

LVDS and CRT Resolutions	
LVDS up to UXGA (1600x1200), CRT up to QXGA (2048x1536)	
LVDS Panel Support	
Single and Dual Channel LVDS, 2x18/24 bit	
Ethernet	
10/100 MBit Ethernet, Intel® 82562ET	
USB	
4x USB 2.0	
Form Factor	
ETX® compliant	
95 x 114 mm	
Power Consumption	
typ. Idle 7,6 W @ Intel® Pentium® M processor 1,1 GHz, 5V	
Temperature (*)	
operation: 0° to 60°C, storage: -30° to 85°C	
Humidity	
operation: 10% to 90%, storage: 5% to 95% (non condensing)	
Other Features	
COM 1+2 (TTL signal), EPP/Floppy port shared	

(\*) Ask about extended temperature ranges

## Ordering Information

Article	Part.-No.	Description
ETX®-PM11	18008-0000-11-0	ETX® module with Intel® Pentium® M processor LV 1.1 GHz and Intel® 82855GME chipset
ETX®-PM14	18008-0000-14-2	ETX® module with Intel® Pentium® M processor LV 738 (1.4 GHz) and Intel® 82855GME chipset
ETX®-PM16	18008-0000-16-0	ETX® module with Intel® Pentium® M processor 1.6 GHz and Intel® 82855GME chipset
ETX®-PM18	18008-0000-18-2	ETX® module with Intel® Pentium® M processor 745 (1.8 GHz) and Intel® 82855GME chipset
ETX®-PM06C	18008-0000-06-1	ETX® module with Intel® Celeron® M processor ULV 600 MHz and Intel® 82855GME chipset
ETX®-PM06C/852	18008-0000-06-4	ETX® module with Intel® Celeron M Processor 600 MHz, 512 KB L2 and Intel® 82852GM chipset
ETX®-PM08C cacheless	18008-0000-08-3	ETX® module with Intel® Processor 800 MHz 0KB L2 and Intel® 82855GME chipset
ETX®-PM10C	18008-0000-10-1	ETX® module with Intel® Celeron® M processor ULV 373 (1.0 GHz) and Intel® 82855GME chipset
ETX®-PM13C	18008-0000-13-1	ETX® module with Intel® Celeron® M processor 1.3 GHz and Intel® 82855GME chipset
ETX®-PM15C	18008-0000-15-1	ETX® module with Intel® Celeron® M processor 370 (1.5 GHz), Intel® 82855GME chipset
ETX®-PM HSP	18008-0000-99-4	Heatspreader ETX®-PM, Threaded Hole Stand Off for boards from CE 3.X.X a. Intel® 82855GME chipset
ETX®-PM HSP	18008-0000-99-5	Heatspreader ETX®-PM, Through Hole Stand Off for boards from CE 3.X.X a. Intel® 82855GME chipset
DDR SODIMM 512	97007-5120-00-0	DDR SODIMM with 512 MB
DDR SODIMM 1 GB	97007-1024-00-0	DDR SODIMM with 1 GB

## Corporate Offices

### Europe, Middle East & Africa

Oskar-von-Miller-Str. 1  
85386 Eching/Munich  
Germany  
Tel.: +49 (0)8165/ 77 777  
Fax: +49 (0)8165/ 77 219  
sales@kontron.com

### North America

14118 Stowe Drive  
Poway, CA 92064-7147  
USA  
Tel.: +1 888 294 4558  
Fax: +1 858 677 0898  
sales@us.kontron.com

### Asia Pacific

17 Building,Block #1,ABP.  
188 Southern West 4th Ring Road  
Beijing 100070,P.R.China  
Tel.: + 86 10 63751188  
Fax: + 86 10 83682438  
kcn@kontron.cn

### Kontron Embedded Modules

Brunnwiesenstr. 16  
94469 Deggendorf  
Germany  
Tel.: +49 (0)991/ 370 24-100  
Fax: +49 (0)991/ 370 24-333  
sales@kontron.com