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## Products **CM-i586 (586CORE) module**

**Mature product - not for new designs**

Computer-On-Module's

CM-X270

CM-X255

CM-iGLX

CM-F82

CM-i686M

CM-i686B

CM-iVCF

CM-i886  
(NFND)

CM-i586  
(NFND)

PC/104+ &  
ATX boards

SBC-X270

SBC-X255

SBC-i686

SBC-iVCF

SBC-i886  
(NFND)

ATX

### Related Topics:

- CoM

Comparison

- PC/104

Comparison

- Linux

Support

- Evaluation

Kits

- Industrial

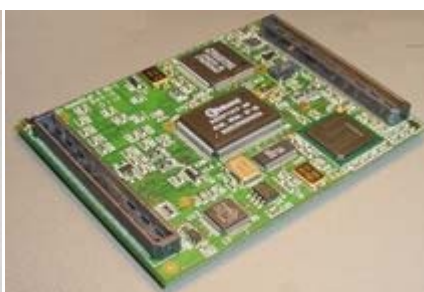
Temperature

- RoHS

Compliance



Top View



Bottom View

### CM-i586 Highlights

- Full-featured embedded PC
- 78 x 60 mm - credit card size
- AMD ElanSC520 CPU. Pentium™ class, 133 MHz, 16 KB cache, FPU
- PCI and ISA buses
- 16 - 64 Mbyte SDRAM
- 1 - 128 Mbyte Flash Disk on-board
- PC/AT system logic and peripherals
- Low power consumption
- USB port (optional)
- 2 to 4 COM ports, LPT port, I/O ports, hard and floppy disk controllers, PS2/AT Keyboard controller
- 10/100BaseT Ethernet port (optional)

**The CM-i586 module** is a tiny PC-compatible single board computer, designed to serve as a building block in embedded application design. The CM-i586 module has all the components needed to run operating systems such as DOS, Linux, VxWorks or Windows CE. Ready BIOS and O/S packages are available from CompuLab.

The CM-i586 is both small and inexpensive. Its 'credit card' size allows integration into hand-held and mobile applications, providing a powerful computer core. Its low price makes it an ideal selection for cost-sensitive applications.

The feature set of the CM-i586 module combines a Pentium-class CPU, PC/AT system logic and essential computing peripherals. For embedded applications, the CM-i586 provides a 32-bit PCI bus, 100Mbit Ethernet, 16C550-compatible UART's, 32 I/O lines and many other essential functions.

**Software support for the CM-i586 includes ready-to-run packages for:**

- \* [Linux](#)
- \* **Windows CE**
- \* **VxWorks**
- \* **DOS**

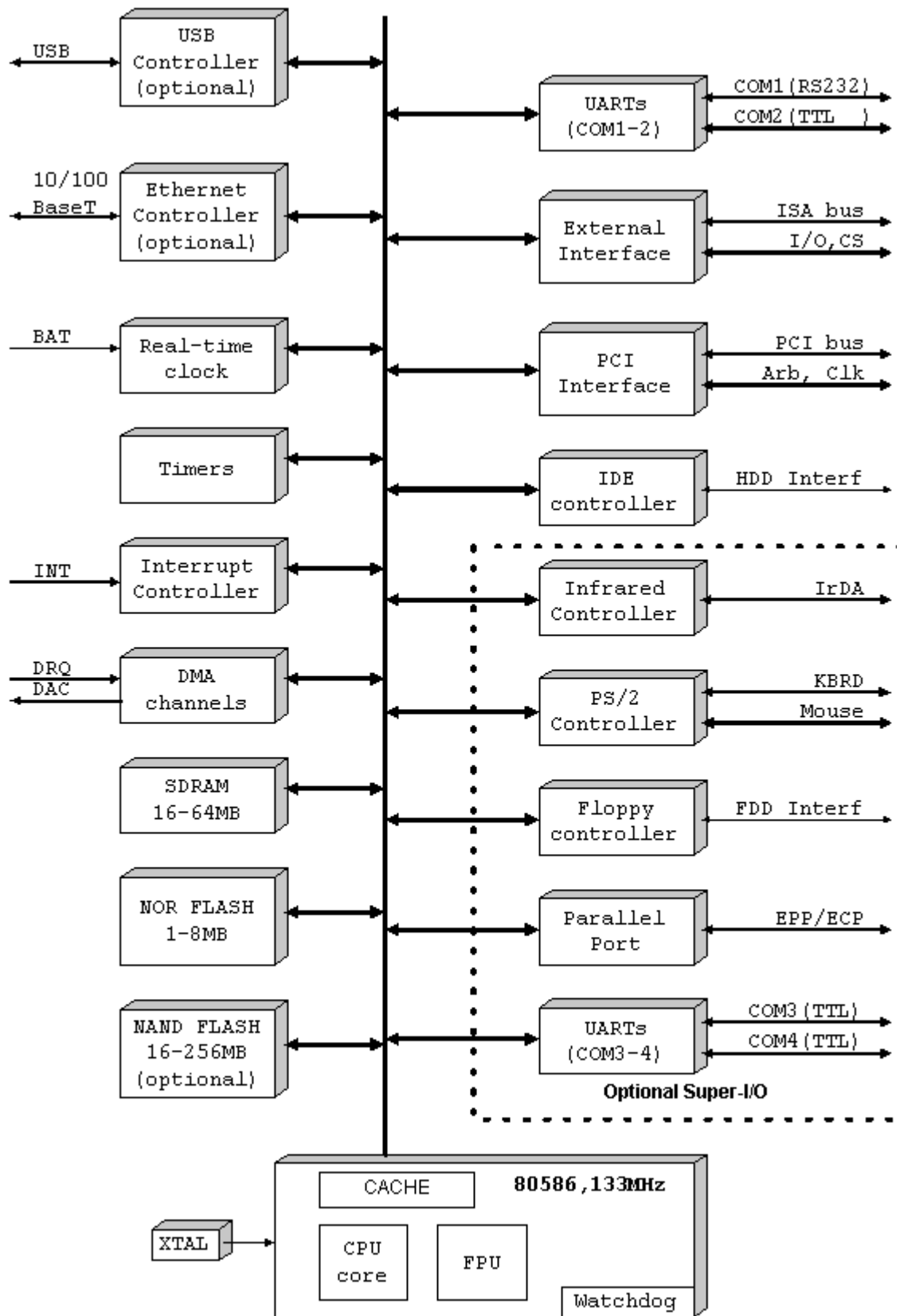
- **Embedded BIOS**
- **[SB-i586](#) - turns the CM-i586 module into a standard PC/104+ card**

\* Pentium is a registered trademark of Intel Corporation.

[See O/S Support Coverage Map](#)

For more information see [Developer Resources](#) page.

## CM-i586 Block Diagram



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### CM-i586 Feature List

<p><b>Common Features</b> (available in all configurations)</p>
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CPU	AMD ElanCS520, X86-compatible, Pentium class	
Speed	100, 133 MHz	
Address Space	512 MB	
Internal Bus	32-bit, 66 MHz	
External Bus	8,16,32-bit, 1 - 33 MHz	
Cache	16 Kbyte WB, WT	
JTAG Port	Yes	
DRAM	16 - 64 MB, SDRAM	
Program FLASH (NOR)	1 - 4 Mbytes, on-board reprogrammable	
Flash Disk (optional)	1 - 128 Mbytes	
I/O Tolerance	5-volt	
Buses	General Purpose (ISA) 16-bit, PCI -32-bit	
PCI Bus	Rev 2.2-compliant, 132 MB/s, Arbiter, Clock	
Dual DMA Controllers	Width	8 or 16 bit
	Total Number of Channels	4
	Clock rate	4, 8 or 16 MHz
Interrupt Controller	Dual, 8259-compatible	
Serial Port (UART)	COM1 (RS232), COM2 (TTL), 16550 compatible. (COM3-4 are optional, provided by Super-I/O)	
General Purpose I/O	32 lines (shared with other functions)	
Real time clock	146818A-compatible, including CMOS RAM	
Timers	8254-compatible	
IDE - Hard Disk Interface	PC/AT compatible	

<b>Super-I/O</b> (optional)	
Parallel Port	Bi-directional with EPP mode. ESD protection and filters included
UART's	COM3 and COM4 at TTL levels
Floppy Disk Controller	Supports two floppy drives directly, can be routed to parallel port pins
Keyboard Interface	AT, PS/2 or redirection from COM
Infrared (IrDA Port)	Up to 115Kbps in slow mode, up to 4Mbps in fast mode
Bus Interface	ISA

<b>ETHERNET Port</b> (optional)	
Controller	Intel 82559 or 82551, including MAC and PHY functions

Network Interface	10BaseT / 100BaseTx, Activity LED's
Bus Interface	PCI

<b>USB Controller</b> (optional)	
Controller	ScanLogic SL811HST
Speed	Dual 1.5 Mbit/sec or 12 Mbit/sec
Mode	Supports both Host and Peripheral modes
Bus Interface	ISA

<b>Electrical, Mechanical and Environmental Specifications</b>	
Supply Voltage	Single 3.3V or dual 3.3V / 5.0V (with Super-I/O or Sound)
Power consumption	1 - 4 Watt, depending on configuration
Dimensions	78 x 60 x 8 mm
Weight	25 - 30 gram, depending on configuration
MTBF	> 100,000 hours
Operation temperature (case)	Commercial: 0° to 70° C Extended: -20° to 70° C Industrial: -40° to 85° C. Click for <a href="#">availability note</a>
Storage temperature	-40° to 85° C
Relative humidity	10% to 90% (operation) 05% to 95% (storage)
Shock	50G / 20 ms
Vibration	20G / 0 - 600 Hz
Connector insertion / removal	50 cycles

**For more information see:**

- [CM-i586 Reference Guide](#)
- [Developer Resources](#)

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