CompuLab

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Products

Computer-On-Module's
CM-X270
CM-X255
CM-iGLX
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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:

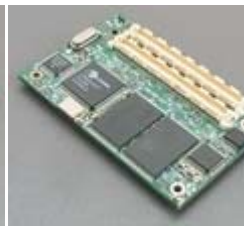
- CoM Comparison
- PC/104 Comparison
- Linux Support
- Evaluation Kits
- Industrial Temperature
- RoHS Compliance

CM-X270 Computer-On-Module


X270W Top


X270W Bottom


X270L Top


X270L Bottom

CM-X270 Highlights

- **Full-featured Computer-On-Module starting below $50 !**
- **Intel's XScale PXA270 CPU, up to 520 MHz, 32+32 KB cache, WMMX**
- **16 - 128 Mbyte SDRAM**
- **32 - 512 Mbyte Flash Disk**
- **WLAN / WiFi 802.11b Interface**
- **Extended graphics options:**
  - **Graphics controller integrated in PXA270 supporting STN and TFT panels with 800 x 600 max resolution**
  - **Optional 2700G Multimedia Accelerator - 1280 x 1024 max resolution, 8 MB frame buffer, 3D accelerator, MPEG-2 & MPEG-4 decoders.** (only with X270W)

  see LCD panel support
- **General purpose bus and optional PCI, LPC, AC97 busses**
- **Video Input Port**
- **PCMCIA controller**
- **Sound codec with speaker and microphone support**
- **Touchscreen Controller**
- **Slave and host USB ports, including keyboard and mouse support**
- **Serial ports, GPIO, hard-disk interface**

The CM-X270 is a small Compu designed to serve as a building applications. The CM-X270W h required to run operating syster Windows CE. Ready packages systems are available from Cor

The small size and low power c X270 allows its integration into applications, while its low price selection for cost-sensitive appl Intel's XScale architecture, the price/performance ratio significa any other platform.

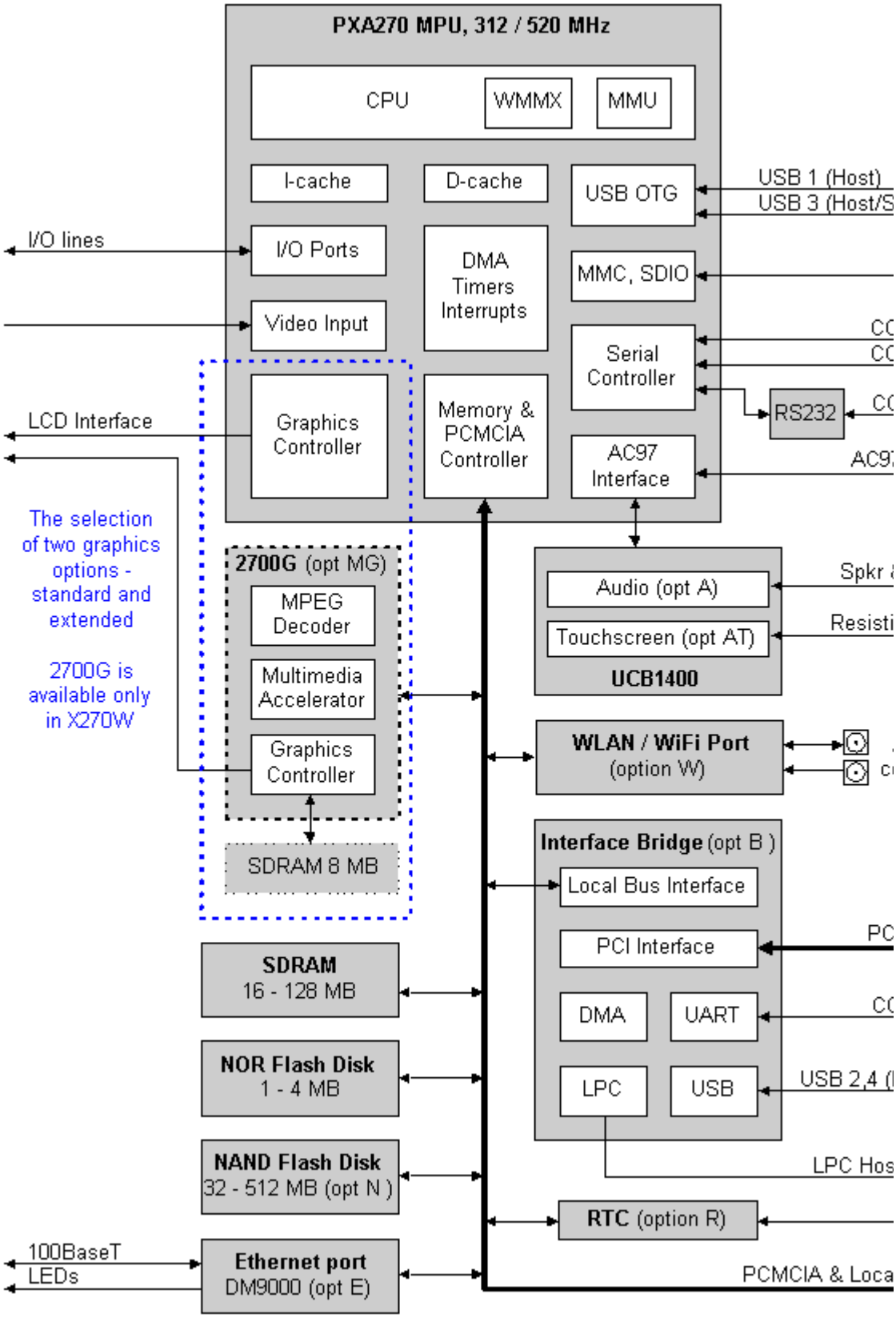
The feature set of the CM-X27C 32-bit CPU, SDRAM, Flash Dis peripherals. For embedded app provides a 32-bit PCI bus, 100M ports, general purpose I/O lines essential functions. An on-boar Accelerator enhances the featu XGA display resolution and MP decoders.

An integrated WLAN (WiFi) inte 802.11b industry standard wirel CM-X270 is the first and only C implementing this essential feat

The standardized CAMI ("Comp Module Interface") connectors c allow interchangeability with oth Module's available from Compu flexibility required in a dynamic application requirements can ch

• **100 Mbps Ethernet port** • **Very low standby and active power consumption** • **Two size options: 66 x 44 mm (X270L) or 68 x 58 mm (X270W)** • **Interchangeable with other modules via CAMI connectors** • **SB-X270 - turns the CM-X270W module into a PC/104+ single board computer** **For more information, see Developer Resources page**	See O/S Support Coverage Ma

Block Diagram



CM-X270 Features

"Option" column specifies the configuration code required to have the particular feature.
"+" means that the feature is available always.

CPU, Memory and Busses

Feature	Specifications
CPU	Intel XScale PXA270, 312 / 520 MHz, WMMX 32 KB I-cache and 32 KB D-cache, WB, 128 MB address space DMA and Interrupt controllers, Timers
RAM	16 - 128 MB, SDRAM, 100 MHz, 32-bit
NOR Flash	1 - 4 Mbytes
NAND Flash Disk	32 - 512 Mbytes
I/O Tolerance	Local Bus - 3.3V, PCI - 5V
External local bus	16-bit, variable rate up to 100 MHz
AC97 bus	AC97 / AMC97 Rev 2.1 compliant
PCI bus	32-bit, 2.1-compliant, 132 MB/s, arbiter for 4 masters
LPC bus	Host, 33 MHz, Intel LPC v1.0 compatible
JTAG Interface	Available

Peripherals

Feature	Specifications
Standard Graphics Controller	4/8/18 bit color, TFT / STN, resolution up to 800 x 600 x 16, frame bu SDRAM
Extended Graphics & Multimedia Controller	2700G chipset, TFT panels support, resolution up to 1280 x 1024 x 1 MB frame buffer, MPEG-2 & MPEG-4 decoders @30 fps. Available o X270W
Video Input Port	Direct camera sensor support, max resolution 2048 x 2048. 30 fps @ 320x240, 15 fps @640x480
USB	Two Host/Slave ports, 12 Mbps, 24-endpoints, OHCI v1.1 Additional two Host ports, 12 Mbps, OHCI v1.0 compliant
Serial Ports (UARTs)	Up to 4 UART ports, 16550 compatible, max 921 kbps COM-A - RS232, full modem COM-B - TTL, Rx/Tx COM-C - TTL, partial modem COM-D - TTL, Rx/Tx
General Purpose I/O	5 dedicated lines plus about 40 lines shared with other functions. Car as interrupt inputs.
Hard Disk Interface	IDE, PIO mode
Keyboard & mouse	USB or redirection from COM port
Ethernet	Davicom DM9000 MAC & PHY, 10/100BaseT, Activity LED's
Audio codec	Crystal CS4299 or Phillips UCB1400, AC97 interface, mono microph line input and 25 mW output for active speakers
Touchscreen ctrl.	A part of the UCB1400 codec chip. Supports resistive touch panels.
PCMCIA controller	Direct support for 1st slot, hooks for 2nd slot, 8/16 bit interface
RTC	Real Time Clock, powered by external lithium battery
WLAN / WiFi Interface	Implements 802.11b wireless connectivity standard Supports Node to Access Point and Multi-Node (w/o access point) m connection. (but cannot act as Access Point) Philips BGW200 chipset, 11 Mbps, 2.4 GHz band. Single or dual antenna options. Supports antenna diversity for increa

	stability. Currently available in CM-X270L only.

Electrical, Mechanical and Environmental Specifications

Supply Voltage	Single 3.3V or dual 3.3V / 5.0V (for "A" option)
Active power consumption	0.2 - 2 W, depending on configuration and CPU sp
Standby/Sleep consumption	20 - 100 mW, depending on configuration and moc
Dimensions	X270L - 66 x 44 x 7 mm, X270W - 68 x 58 x 7 mm
Weight	X270L - 25 gram, X270W - 35 gram
MTBF	> 100,000 hours
Operation temperature (case)	Commercial: 0^o to 70^o C Extended: -20^o to 70^o C Industrial: -40^o to 85^o C. Click for availability not
Storage temperature	-40^o to 85^o C
Relative humidity	10% to 90% (operation) 05% to 95% (storage)
Shock	50G / 20 ms
Vibration	20G / 0 - 600 Hz
Connectors	3 x 140 pin, 0.6 mm
Connector insertion / removal	50 cycles

For more information see:
- CM-X270 Reference Guide
- Developer Resources

Contact