CompuLab

The Home of the World's Best Computer-On-Module's

Products

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

SBC-X270 Board

With CM-X270W & front panel

With CM-X270L & front panel

Without front panel

Bottom view

SBC-X270 Highlights

- **Single Board Computer implemented by combination of CM-X270 module and SB-X270 baseboard. Compatible with both X270W and X270L module version.**
- **Available in two form-factors:**

  - Standard PC/104+
  - PC/104+ with front panel
- **Price starting below $100**
- **Intel's XScale PXA270 CPU @ 520 MHz, 128 MB SDRAM, 512 MB Flash Disk**
- **WLAN / WiFi Interface** (available with CM-X270L)
- **VGA graphics controller with connectors for LCD panel and CRT monitor**
- **Optional 2700G Multimedia Accelerator including 1280 x 1024 graphics controller, 8 MB frame buffer, 3D accelerator, MPEG-2 & MPEG-4 decoders** (available with CM-X270W)
- **Video input and encoder**
- **PCI and Local Bus expansions in PC/104+ format**
- **COM1 - 4 with RS232 / RS485 / RS422 / TTL driver options**
- **Host and slave USB ports including keyboard & mouse support**
- **Touchscreen interface**
- **Hard disk interface**

The SBC-X270 is a standard P
single board computer. It is imp
module providing most of the fu
integrated wireless LAN (WiFi)
carrier board providing connect
additional functions. The rich fe
X270 is customizable accordin
performance targets of the use

The unique mechanical design
selecting between two popular
standard PC/104+ with header
with front panel connectors.

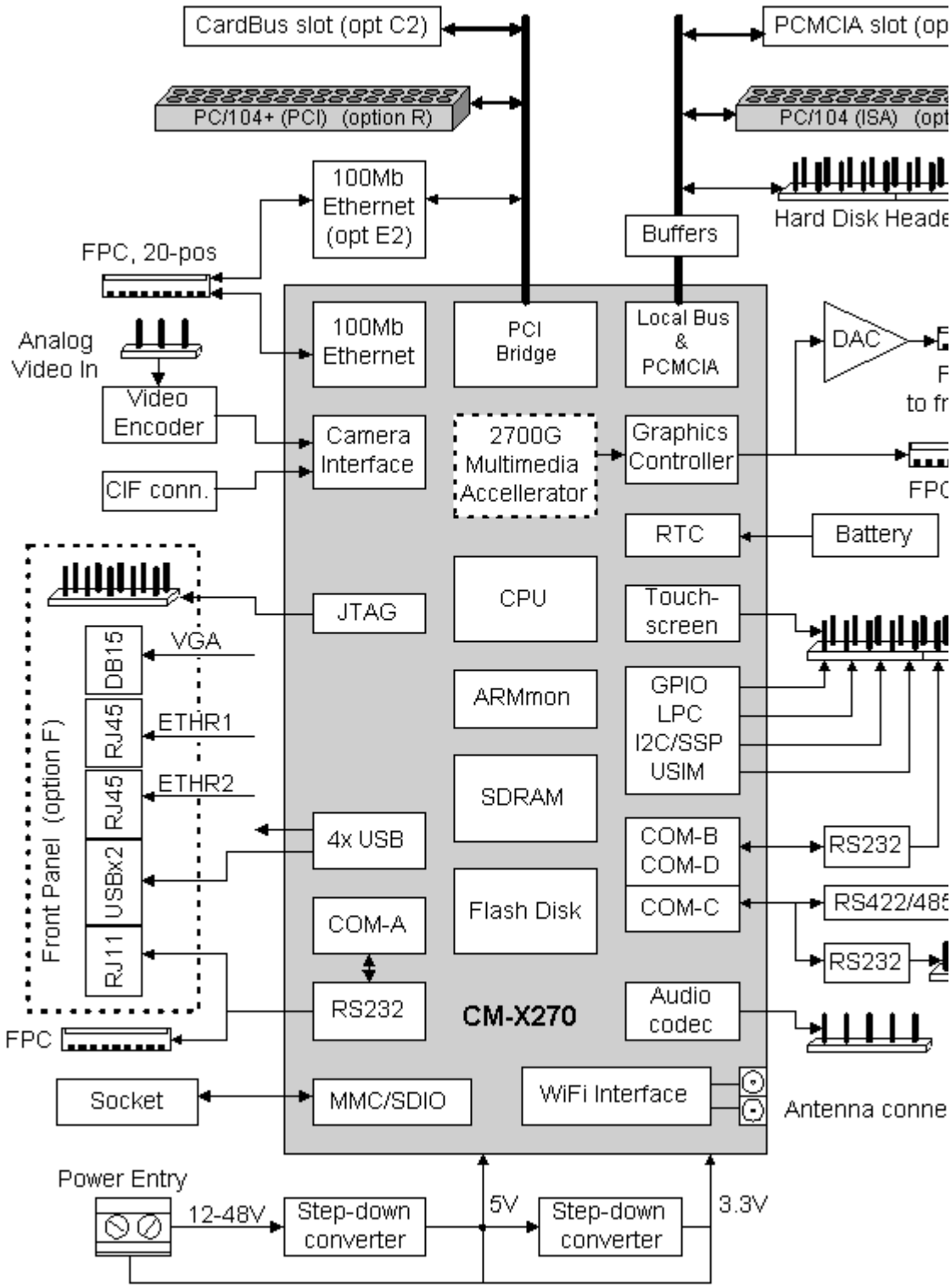
The SBC-X270 contains PC/10
connectors which open it to the
peripheral cards. Furthermore,
a electrical interface and slots f
and MMC/SDIO extension card
inserted and secured in the slo
mechanical means, extending t
capabilities such as a larger so
GSM modem.

For more information, see De page.

- **Sound I/O**
- **Single or dual 100 Mbps Ethernet ports**
- **PCMCIA, CardBus & MMC/SDIO slots**
- **RTC with lithium battery**
- **Switched power supply for telecom and automotive applications, 3.3V to 48V operating range**

Note: some of above specified features are optional

Block Diagram



SBC-X270 Features

The "SB Option" column specifies the P/N code of SB-X270 carrier board required to have the p
Option" column specifies the P/N code of CM-X270 required to have the particular feature. SBC
combination of features provided by the attached CM-X270 and the features implemented on th
particular feature, both the CM and SB options of that feature must be implemented.
"+" means that the feature is always available, regardless of P/N code.

Feature	Specification
CPU SDRAM Flash Disk	See Feature List of CM-X270 module
COM-A	Full modem controls, RS-232 levels, RJ11 or DB9 connector
COM-B	Rx/Tx , RS232 & TTL levels, on 100-mil header
COM-C	Full modem, RS 232/422/485 levels, standard 10-pin header
COM-D	Rx/TX, RS-232 & TTL levels, on 100-mil header
IrDA	SIR and FIR modes. Shared with COM-D
IDE	PIO mode. Derived from local bus. Standard 40-pin header
Ethernet	One or two 10/100BaseT Ethernet ports: 1. Module's port - DM9000, local bus interface 2. Baseboard port Realtek RTL8139 controller PCI interface RJ-45 connector and activity LED's provided in two options: - From baseboard's front panel - Through FPC and optional extension module
LCD Panel	STN and TFT panel support. 51-pos FPC connector for direct interface to cert panels
CRT Monitor	RGB signals are derived from the TFT interface by using DAC's. Interface thr DB15 on the front panel or through FPC and optional module
GPIO	9 to 14 lines, on common 100-mil header.
PCMCIA & CardBus	Slots with card guides, for card types I, II and III. Two options: - One slot for PCMCIA / CompactFlash (16-bit) card. - Two slots - for one PCMCIA and one CardBus (32-bit) cards
Host USB	Two (default) or four (with "B" option) Host ports, 12 Mbps. Header for Type-A connector. Two ports on front panel.
Slave USB	Slave port shared with USB3 host, 12 Mbps.
Touch Panel	UCB1400 controller for resistive panels, pins on 100-mil header
Sound I/O	Header for standard cable/connectors for Microphone (mono), Line input and Speakers (stereo)
PC104	Standard PC/104 connector. Signals are derived from CPU's local bus throug buffers. 20 bit address. No DMA Support.
PC104+	PCI bus through standard PC/104+ connector
RTC Battery	Real time clock operated from on-board lithium battery
LPC bus	LPC bus on common 100-mil header
WiFi Interf.	WLAN / WiFi including connectors, provided by CM-X270L

Electrical, Mechanical and Environmental Specifications

Supply Voltage	High efficiency switched power supply. Support of sleep mode. Three supply options: - Regulated 3.3V (valid only when module doesn't contain "A" option) - Regulated 5.0V - Unregulated 12V to 48V, for telecom and automotive applications
Power Consumption	2W to 5W in full activity, depending on CPU speed and selected featu Below 50mW in sleep mode
Dimensions	Without front panel - 96 x 91 mm With front panel - 111 x 91 mm Height ranges from 10 mm to 22 mm, depending on the connectors as

	includes the CM-X270 module.
Operation temp (case)	Commercial: 0º to 70º C Extended: -20º to 70º C Industrial: -40º to 85º C. Click for availability note
Storage temperature	-40º to 85º C
Relative humidity	10% to 90% (operation) 05% to 95% (storage)
Shock	50G / 20 ms
Vibration	20G / 0 - 600 Hz
MTBF	> 100,000 hours

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