mobile and embedded solutions

Product data sheet

INTRINSYC

CerfBoard 270 Developer's Kit for Linux

A low-cost high performance reference design for developing internet-based devices

Overview

Intrinsyc Software's Cerf™Board 270 was designed to meet RoHS Compliances (Restriction of Hazardous Materials) The Cerfboard 270 is a high-performance, low power design that is a perfect starting point for developing Internet devices. Begin your development right out of the box with a preloaded Linux v2.6.14 Kernel port and a cross compilation tool chain.

Features

The CerfBoard 270 is based on Intel® XScale® PXA270 application processor which provides peak performance along with extensive power management for energy conscious implementations. The CerfBoard 270 incorporates 2 CompactFlash® connectors that can be used to add Bluetooth, Wireless WAN support or additional memory as well as a Secure Digital™ / MultiMedia Card connector. The CerfBoard 270 also includes 10/100 Ethernet, 2 Serial Ports (COM1 – full serial RS232 support, COM2 – 3wire RS232 for debug), flexible digital I/O, a JTAG connector, dual stacked USB 2.0 host, USB 1.1 client & host support, a VGA LCD connector, a 4 wire resistive touch screen connector, and audio connectors.

The Linux kernel and file-system images are downloaded through Ethernet and written into flash by the bootloader, alternatively the kernel and file system can be programmed into flash through the JTAG connector.

Applications

The applications of the CerfBoard 270 are virtually limitless. The CerfBoard 270 provides an ideal starting point for developing embedded solutions for wireless computing, telematics, industrial automation and remote monitoring.

Examples of such embedded solutions include:

- Create a custom remote monitoring solution using a GSM/GPRS CompactFlash® card to transmit collected data or images from a USB camera. A solar cell could be used to re-charge an external battery, and the Real Time Clock could be used to periodically wake-up the CerfBoard and transmit the data.
- General and industrial control applications – the GPIO port or serial port could be used to interface and control equipment
- Create a custom wireless bridging solution using the two CompactFlash® slots (e.g.: 802.11 to GSM/GPRS)

Benefits

- **Customized Solutions**

  Intrinsyc Software's team delivers customized solutions and provides award winning system integration and product development services ranging from concept design and prototyping to production

- **Reduce risks, costs and time to market**

  Intrinsyc helps you reduce risk, costs and time-to-market through designs created and implemented by an experienced engineering team that understands embedded processor design and software.

  Intrinsyc designs are based on flexible Intel® XScale® reference platform and provides the ideal environment for creating high-end low power wireless or embedded solutions

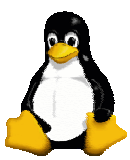
  Deliver successful solutions to market by leveraging Intrinsyc Software's years of product development expertise

Specifications

- Processor – PXA270 CPU, with scalable core voltage, and up to 524 MHz core speed (416 MHz standard)
- Memory – 64MB SDRAM, with low-power sleep mode (128MB option available), 32 MB Intel StrataFlash™
- LCD connector to support Sharp and Optrex displays (DF9B-31P-1V) LCD backlight inverter connector to support Microsemi LXM1623-05-41
- 2 CompactFlash slots – supports Type I and II cards, including IBM microdrive, memory cards, barcode readers, wireless modems, WiFi connectivity and Bluetooth cards.
- Secure Digital™ / MultiMedia Card slot – supports MMC cards for additional memory.
- Data Connectivity
  - Dual USB Host 2.0 with high-speed capability (driver to be added to BSP in later release)
  - USB 1.1 Client and Host
  - 10/100 Ethernet
  - Serial ports - debug and full-function, with DB9 connectors
  - Digital I/O connector on 2x10x100 connector
- Expansion connector – 16 bit data bus, address bus, camera interface, 4-wire UART, I2C
- Stereo out, mic in audio connectors
- Touch panel connector
- Battery-backed RTC on I2C
- EEPROM and FRAM on I2C
- CPU and CPLD JTAG connectors
- Ability to run from 5V to 12V input
- All peripherals have power control built-in, or have external power switch with appropriate protection devices. (power control driver to be added to BSP in later release)
- Dimensions:
  - PCB without connectors 108mm x 95mm
  - PCB with connectors 114mm x 106mm (approximate)

Each CerfBoard 270 kit includes:

- CerfBoard 270 (approximately 4.5” x 4.20”)
- 6v Power Supply, cabling, ESD wrist strap
- Development software CD that includes
  - Intrinsyc Software’s Linux distribution (Linux v2.6.14 kernel and i-Linux v5.1 file system based on the Familiar Distribution)
  - Board Support Package – a binary release of Intrinsyc Software drivers and components
  - Hardware and software documentation
- Intrinsyc Software license agreement & hardware warranty card.



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Locations

Head Office
700 West Pender Street
10th Floor
Vancouver BC
Canada V6C 1G8
Toll Free: 1 800 474 7644
Telephone: 604 801 6461
Facsimile: 604 801 6417

US Office
11130 NE 33rd Place
Suite 200
Bellevue WA
USA 98004
Telephone: 425 732 4950
Facsimile: 425 732 4901

European Office
Fountain House
Great Cornbow
Halesowen
West Midlands
UK B63 3BL
Telephone: + 44 121 501 6000
Facsimile: + 44 121 501 6035

Barbados Office
Pine Court
28 Pine Road
Belleville, St. Michael
Barbados
Telephone: 246 435 8600
Facsimile: 246 429 5143

www.intrinsyc.com

All specifications are subject to change without notice.