

ReadyBoard™ 820

Pentium® M EPIC Single Board Computer
High I/O Bandwidth, Easy Interface



Features

- ACPI 2.0 power management
- Dual Ethernet – Gigabit and 10/100BaseT
- 4 USB 2.0
- 2 SATA ports

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Choose the Ampro by ADLINK™ ReadyBoard™ 820 for...

High volume, compact embedded applications that need high CPU performance and I/O bandwidth along with RoHS compliance.

Description

The Ampro by ADLINK™ ReadyBoard™ 820 SBC uses a high performance, low-power Centrino® processor. It includes Gigabit Ethernet, USB 2.0, SATA and high performance graphics in an easy to use EPIC form factor SBC.

Specifications

Core System

Choice of
–1.4GHz LV Pentium® M 738
–1.0GHz Celeron® M
Cache – 2MB Level 2
DRAM – 1GB DDR2 533 SODIMM
Chipset – Intel® 915GME/ICH6M
FSB – 400MHz
System Controllers – PC-compatible DMA and interrupt controllers and timers
Real Time Clock – Battery-backed RTC/CMOS
Enhanced Power Management with full support of ACPI 2.0
Watchdog Timer
Powerfail Reset –Triggers when input voltage drops below predetermined threshold

Bus Interface

PC/104

I/O

PATA –Single Ultra DMA 33/66/100 channel supports up to two devices
SATA – 2 devices
CompactFlash
Serial – 4 ports, 2 are RS-232/422/485
Parallel – EPP/ECP bidirectional port shared with floppy interface
Floppy – Supports 1 or 2 drives, shared with parallel port
USB – 4 USB 2.0 ports
Keyboard/Mouse – PS/2 interface
GPIO – 8
Audio – AC'97: Line-in, Line-out, Mic

Network Interface

Ethernet – One Intel® 82573V Gigabit port on PCIe x1 lane; one Intel® 82551QM 10/100BaseT port

Video Interface

Controller – Integrated Intel® 2D/3D engines
– Supports CRT and DVI display interfaces
– Supports Intel® DVM T 3.0 (Dynamic Video Memory Technology which allows maximum memory allocation support based on total system memory
– Supports 3.3V and 5V LVDS flat panels

Software & Development Tools

OS Support – Ampro by ADLINK™ Embedded Linux®, Windows® CE 5.0, XP, XPe
BIOS – AMI with ACPI 2.0

Mechanical

Size – 165.1x114.3mm (6.50x4.50"); EPIC form factor
Power Requirements (with 512MB RAM, 100% Loaded)
–1.4GHz 4.2A @ 5V
–1.0GHz 3.6A @ 5V
Temperature (100 LFM system air flow)
• Standard: 0°C to +60°C
• Extended: –20°C to +65°C
• Storage: –20°C to +75°C
Board Thickness – .062" (1.6mm)

Ordering Information

Model Number	Description/Configuration
RB4-820-R-21	ReadyBoard™ 820, 1.4GHz Pentium® M, dual Ethernet, no RAM
RB4-820-R-10	ReadyBoard™ 820, 1.0GHz Celeron® M, dual Ethernet, no RAM
RB4-820-L-21	1.4GHz QuickStart Kit (R-21 SBC, 1G RAM, cable kit, software, documentation)