



Features

- Intel® Atom™ N450 Power Optimized, 1.6GHz Processor
- Intel® Atom™ D510 Performance Optimized, Dual Core, 1.6GHz Processor
- Up to 2GB DDR2 667MHz Memory
- Onboard 10/100BASE-T Ethernet
- 4GB Solid State Storage
- Single Channel LVDS and VGA (1400 x 1050)



Choose Ampro by ADLINK™ ETX-PVR for...

Extreme Rugged environments that require ETX Computer-on-Modules with a wide range of power and performance capabilities, excellent legacy support and the latest I/O functionality.

Description

The Ampro by ADLINK™ ETX-PVR is an Extreme Rugged™ ETX Computer-on-Module that uses the power efficient single core Intel® Atom™ N450 processor or a performance optimized dual core Intel® Atom™ D510 processor and plugs directly into your custom baseboard. The ETX-PVR features Intel's SpeedStep and Hyper-Threading Technologies, provides legacy support for ISA, parallel and serial devices and the latest I/O including PCI, USB 2.0, SATA 3 Gb/s and onboard solid-state drive.

Specifications

Core System

CPU – Intel® Atom™ N450, 1.66GHz, 5.5 W (1 core/2 threads)
 – Intel® Atom™ D510, 1.66GHz, 13 W (2 cores/4 threads)
 – Intel® Atom™ D410, 1.66GHz, 10 W (1 core/2 threads)
 Cache – 1GB, 8-way L2 cache for D510 dual-core processor
 – 512KB, 8-way L2 cache for N450/D410 single-core processor
 DRAM – Up to 2GB Single Channel DDR2 667 SODIMM
 Chipset - Intel® ICH8M Chipset
 BIOS - AMI with CMOS backup in 8 Mbit SPI flash memory

Bus Interface

32-bit PCI at 33MHz, ISA, LPC, SMBus, I²C

I/O

IDE – Single Channel IDE
 SATA – Two devices
 USB - Four USB 2.0 Ports
 Storage: onboard SSD (4GB)
 LPT/Floppy
 Serial Ports - Two RS-232/422/485
 PS/2 Keyboard and Mouse
 Audio – ALC 262 High Definition Audio Codec

Network Interface

Ethernet - Intel® 82567V (10/100BASE-T) Ethernet Controller

Video Interface

Intel® GMA 3150, DirectX 9 compliant Pixel Shader v2.0
 Single Channel 18-bit LVDS (N450: 1280 x 800; D410, D510: 1366 x768)
 Analog VGA (N450: 1400 x 1050 @ 60Hz; D410, D510: 2048 x 1536 @ 60Hz)

Software & Development Tools

OS Support – Linux, Windows® CE 6.0, WES 2009 (XPe), VxWork 6.7, QNX 6.4*
 BIOS – AMI with ACPI 2.0
 *Note: Available upon request or contact us for more software support

Power Specifications

Input Power – AT mode (5V +/- 5%) and ATX mode
 Power States - Supports S0, S3, S4, S5

Mechanical and Environmental

Size – ETX® form factor 114 mm x 95 mm
 Board Thickness – 0.093" (2.36 mm)
 Temperature
 • Standard: -20°C to +70°C
 • Extended: -40°C to +85°C
 • Storage: -55°C to +85°C
 Humidity – 90% at 60°C
 Shock -
 • Non-operating: 50G peak-to-peak, 11ms duration, MIL-STD-202G Method 213B
 Vibration -
 • Operating: 11.95 Grms, 50-2000 Hz, each axis, MIL-STD-202G Method 214A

Ordering Information

Model Number	Description/Configuration
ETX-PVR-R-14	ETX-PVR Module with Intel® Atom™ N450 Single Core Processor at 1.6 GHz, 512KB L2 Cache, 18 bit LVDS, PCI, LPC, SSD
ETX-PVR-R-16	ETX-PVR Module with Intel® Atom™ D410 Single Core Processor at 1.6 GHz, 512KB L2 Cache, 18 bit LVDS, PCI, LPC, SSD
ETX-PVR-R-18	ETX-PVR Module with Intel® Atom™ D510 Dual Core Processor at 1.6 GHz, 1MB L2 Cache, 18 bit LVDS, PCI, LPC, SSD
ETX-PVR-L-14	ETX form factor starter kit for ETX-PVR-R-14 includes ETX-Proto Baseboard and HW/Kit, HTS-PVR-BT heatspreader and 1GB SODIMM. USB stick with BSP/drivers and manuals.
ETX-PVR-L-18	ETX form factor starter kit for ETX-PVR-R-18 includes ETX-Proto Baseboard and HW/Kit, THSF-PVR-BT active heatsink and 2GB SODIMM. USB stick with BSP/drivers and manuals.