

Express-ATR

COM Express™ Module with Intel® Atom™ Processor N270 and 945GSE / ICH7-M Chipset



Features

- Up to 2GB DDR2 memory
- True PICMG COM Express™ COM.0 compliance
- PCI Express, SATA II
- Optional 8GB Solid State Drive on IDE interface
- Single Channel 18-bit LVDS, VGA, TV-Out and SDVO
- Designed for Extreme Ruggedness - 50% thicker PCB
- Extended Operating Temperature -40°C to 80°C



Choose the Ampro by ADLINK™ Express-ATR for ...

Modular, feature-rich applications that require integrated graphics, wide temperature range operation, and shock and vibration resistance.

Description

The Ampro by ADLINK™ Express-ATR is a compact, high performance module featuring the Intel® Atom™ processor with Gigabit Ethernet and high performance I/O.

Specifications

Core System

CPU – Intel® Atom™ Processor N270 at 1.6GHz
– 512KB L2 cache

DRAM – Up to 2GB DDR2 533 SODIMM

Chipset – Intel® 945GSE/ICH7-M

FSB - 533MHz

System Controller - PC-compatible DMA and interrupt controllers and timers

Powerfail Reset - Triggers when key voltage drops below predetermined threshold

Bus Interface

3 PCI Express x1 lanes, PCI, and LPC

I/O

PATA - 1 channel IDE, supports optional SSD up to 8GB

SATA - 2 channels

USB - 8 USB 2.0 ports

Audio - High Definition Audio per COM.0 standard

GPIO - Eight general-purpose digital I/O pins

Network Interface

Ethernet: Intel® 82574 IT Gigabit Ethernet controller on PCIe x1

Video Interface

Intel® GMA 950

3D and 2D engine, HW rotation

Dual panel display with independent pipes, HDTV support, SDVO

CRT resolution up to QXGA

Single Channel 18-bit LVDS

Software & Development Tools

OS Support – ADLINX™, Embedded Linux®, Windows® CE 6.0, XP, XPe, VxWorks® 6.6, QNX® 6.4

BIOS – AMI with ACPI 2.0 including S0, S1, S3, S4, S5

Power Specifications

Input Power - AT mode (12 V) and ATX mode (12 V and 5 Vsb)

Power States - Supports S0, S1, S3, S4, S5

Power Consumption - 9 W typical (with Atom® N270 and 1 GB memory)

Mechanical and Environmental

Size - 95x95mm (3.7x3.7"); COM Express™ Type 2, compact form factor

Board Thickness – .093" (2.36mm)

Temperature (with adequate thermal solution and air flow)

- Standard: -20°C to +70°C

- Extended: -40°C to +80°C

- Storage: -55°C to +85°C

Humidity - Up to 90% at 60°C

Shock

- Non-operation: 50G peak-to-peak, 11ms duration, MIL-STD-202G Method 213B

Vibration

- Operation: 11.95 Grms, 50-2000 Hz, each axis, MIL-STD-202G Method 214A

Certifications - CE, FCC

Ordering Information

Modules

Model Number	Description/Configuration
Express-ATR-R-16	Express-ATR 1.6 GHz Intel® Atom™ N270 CPU, 512KB L2 Cache, PCI Express, PCI, LPC, SSD
Express-ATR-R-15	Express-ATR 1.6 GHz Intel® Atom™ N270 CPU, 512KB L2 Cache, PCI Express, PCI, LPC, without SSD
Express-ATR-L-16	Express-ATR-R16 QuickStart Kit, Board w/ 1GB DDR2 RAM, EBX Baseboard, Heatsink with Fan for Extreme Rugged Extended Temperature Installed, Documentation, Software, ATX Power Supply, RoHS
Express-ATR-L16	Express-ATR-R16 QuickStart Kit, Board w/ 1GB DDR2 RAM, ATX Baseboard, Heatsink with Fan for Extreme Rugged Extended Temperature Installed, Documentation, Software, ATX Power Supply, RoHS

Accessories

THS-ATR-BTL	Threaded Heatspreader for Express-ATR, RoHS
THSH-ATR-BTL	Threaded Heatsink for Express-ATR, RoHS
THSFH-ATR-BTL	Threaded Heatsink with Fan for Express-ATR, RoHS

Note: Available upon request. Contact us for additional processors and configurations support.