

# ADLINK ATCA-6890 AdvancedTCA High Performance Single Board Computer

## Introduction

The ATCA-6890 is a single/dual processor based AdvancedTCA processor blade. Processors supported include single or dual 800MHz FSB Xeon and next generation Xeon processors up to 3.67GHz. This blade is intended to be used in AdvancedTCA compliant platforms. Peripherals include seven Gigabit Ethernet ports, Four USB 2.0 ports, two PMC sites, analog video, two parallel ATA ports, two Serial ATA ports, three serial ports, and two legacy PS/2 Keyboard/Mouse ports



## Key Features

- One or two Xeon and next generation Xeon processors
  - 3.2, 3.46, 3.5, 3.67GHz
  - 1MB L2 cache
  - Netburst Architecture
    - SSE2
    - Streaming SIMD2
  - Hyper-Threading
- MCH
  - Dual DDR II-400
  - 16GB maximum memory
  - Memory features
    - Memory mirroring which keeps a duplicate copy of data in the memory subsystem
    - Hardware memory scrubbing
    - Retry on uncorrectable memory errors
    - 4x SDDC for memory error detection and correction of any number of bit failures in a single x4 memory device.
- 6300ESB ICH
  - 64bit 33/66MHz PCI-X
  - 32bit 33MHz PCI
  - SATA
  - Four USB 2.0
- Four DDR II-400 240 pin DIMMs
- Two PMCs with
  - Two on private 64 bit 33/66/100/133MHz PCI-X bus
  - One supports Jn4/Pn4 to RTM
- 6 Gigabit Ethernet Data Ports
  - Four Fabric Interface
  - Two Base Interface
- One 10/100/1000Mbit management port (front panel)
- ATI RageXL Video
- Two serial ATA ports
- Optional on card mounted ATA hard drives

## Specifications

<b>CPU/ Chipset/ Memory</b>	CPU	Intel® Dual (LV) Xeon and next generation Xeon processors
	FSB	800MHz
	Chipset	Intel® E7520
	RAM	DDR II-400 up to 16GB
<b>Interconnection</b>	Base Interface	Dual 10/100/1000BASE-T Ethernet Ports
	Fabric Interface	Quad 1000BASE-SX Ethernet Ports
<b>I/O Interfaces</b>	PMC	Dual PCI-X 64bit 66/100/133MHz capable
	Video	Analog RGB, ATI® RageXL
	Ethernet	10/100/1000BASE-T Ethernet Port, Intel® 82540EM
	Serial ATA	Dual Channels, Intel® 6300ESB
	USB	Quad USB 2.0 Ports, Intel® 6300ESB
	Serial Ports	Three Ports, Intel® 6300ESB, ITE® IT8761E
	Super I/O	ITE® IT8761E
	IPMI controller	ATMEL® ATMEGA128L/ATMEGA8L
	Front Panel I/O	Dual PMC, Analog RGB, Dual USB 2.0 Ports, Gigabit Management, Dual Serial Ports

<b>Mechanical and Environmental</b>	Form Factor	1-slot (6HP), 8Ux 280mm x 1.2" pitch
	Power Consumption	Consumes <200W max.
	Temperature	0 to +60°C operating, -20 to +80°C non-operating
	Humidity	5% to 95% RH, non-condensed, operating, 5% to 90% RH, non-condensed, non-operating
	Vibration	0.5Grms@5-500Hz, operating (non-packaged) 1.88Grms@5-500Hz non-operating (packaged)
	Shock	Non-operating:15G
<b>Software Support</b>	DOS, Windows NT/98/2000/XP, Linux, VxWorks, others TBD	
<b>Compliance</b>	AdvancedTCA Specification PICMG 3.0 R1.0 PICMG 3.1 Ethernet/Fibre Channel over PICMG 3.0	
<b>Target Certifications</b>	FCC Class A,CE,UL,NEBS level 3 (design)	

## Block Diagram

