



A

# Tour of UP1 100 Board

## UP1 100 Quick Start Installation Guide



www.alpha-processor.com

51-0047-1A

**Fan Power Connectors**  
(Section F)  
Alpha 21264A  
Processor Fan Power

**Bus Connectors**  
(Section G)  
AGP (1 Slot)  
32-Bit PCI (3 Slots)

**Internal I/O Connectors**  
(Section F)  
Power Button  
Reset Button  
Keyboard Lock  
HDD Activity LED  
Power LED  
Speaker  
System Fan Power

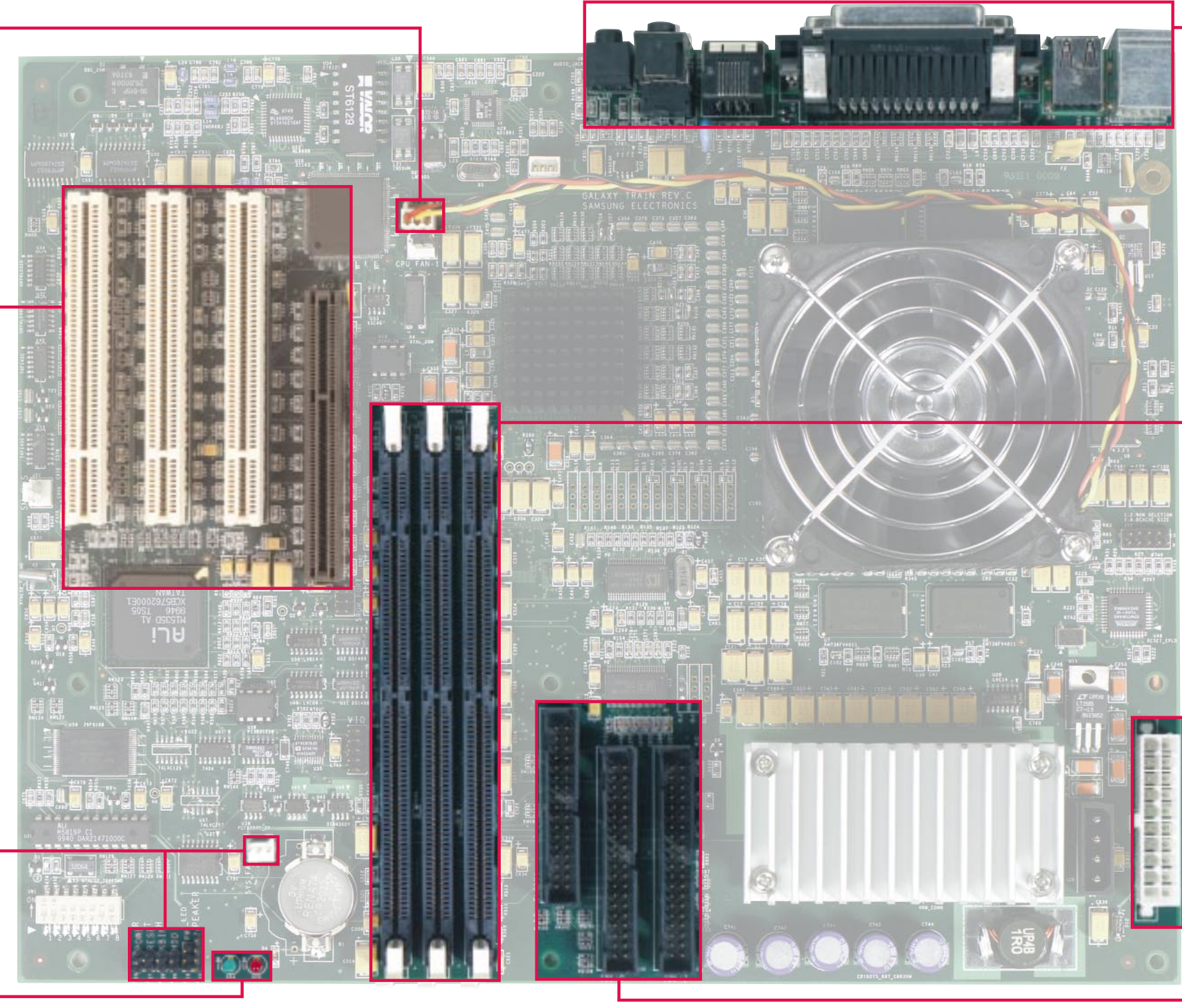
**System LEDs**

**Rear Panel I/O Connectors**  
(Section I)  
Keyboard & Mouse (stacked)  
Dual USB (stacked)  
Parallel  
Serial COM1  
Serial COM2  
LAN (Ethernet)  
Audio In/Out (stacked)  
MIC In

**Memory Module Slots**  
(Section E)  
DIMMs (3 Slots)  
Minimum System: 64 Mbytes  
Maximum System: 768 Mbytes

**Power Connector**  
(Section G)  
ATX Power

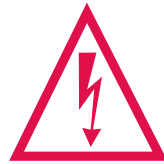
**Disk Port Connectors**  
(Section H)  
IDE (Primary Channel)  
IDE (Secondary Channel)  
Floppy Diskette



B

## Unpack & Set Up

The UP1 100 Kit from Alpha Processor, Inc. is a single processor system. It uses one Alpha 21264A Processor.



Remove the components carefully from their cartons and anti-static packaging bags. Always take appropriate electrostatic discharge safety measures when handling boards or modules.

Contents of the UP1 100 Kit are:

- Hardware**
  - UP1 100 Standard ATX Motherboard
- Documentation**
  - Installation Guide
  - Product Warranty Card
  - Read Me First Sheet
  - UP1 100 User Manual
- Software**
  - UP1 100 Installation Diskette

### Components

Prepare for the UP1 100 installation with the following components:

#### Level 1 - Required to Test UP1 100

- |   |  |                                    |
|---|--|------------------------------------|
| <input type="checkbox"/> Power Supply(s)            | <input type="checkbox"/> Memory Modules    | <input type="checkbox"/> Hard Disk |
| <input type="checkbox"/> Video Card                 | <input type="checkbox"/> Monitor           | <input type="checkbox"/> Speaker   |
| <input type="checkbox"/> Keyboard                   | <input type="checkbox"/> Mouse             |                                    |
| <input type="checkbox"/> Assorted Peripheral Cables | <input type="checkbox"/> Floppy Disk Drive |                                    |

#### + Level 2 - Required to Load Operating System

- |                                   |  |  |
|-----------------------------------|--|--|
| <input type="checkbox"/> CD Drive | <input type="checkbox"/> UP1 100 Installation Diskette | <input type="checkbox"/> Operating System CD |
|-----------------------------------|--|--|

C

## Enclosure Assembly

### Locate Chassis Features

- Identify the **nine** standard ATX mounting holes.



- Identify the ATX Core Design #6 I/O Shield.

The chassis shown is an Axxion Model DL-17, using the I/O shield RFIFS-D17DK (ATX Core Design #6).

D

## Chassis Assembly

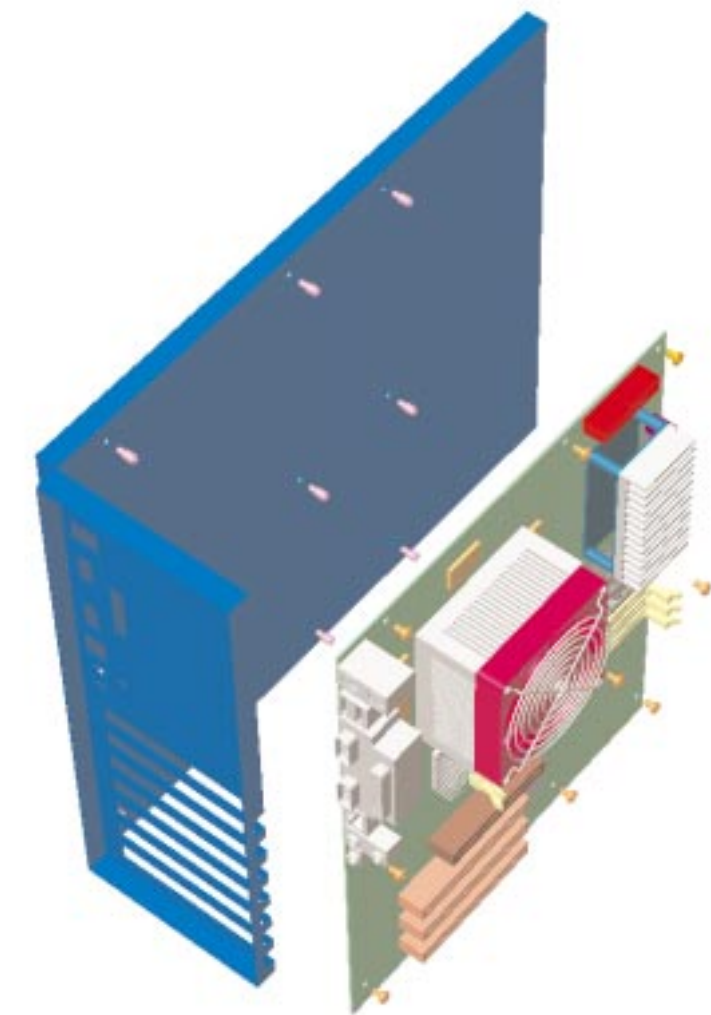
### Board Chassis Assembly

#### Requirements for attaching board to the chassis are:

- Fastening Hardware – Assorted standoffs, screws, and miscellaneous hardware supplied by chassis vendor
- Tools – Phillips head screwdriver, Flat head screwdriver, torque wrench

#### Use this mounting technique:

- Install I/O shield.
- Secure board to the chassis with the standoffs and screws supplied by the chassis vendor.



## Memory Configuration



The memory subsystem is composed of:

- Three (3) independent slots.
- Each slot accepts 168-pin, PC100 SDRAM Unbuffered SPD DIMMs.

Before installing DIMMs, carefully review the picture and guidelines shown to the right and below.

- 
- J4 - Slot 2 (populate second)
  - J3 - Slot 1 (populate first)
  - J2 - Slot 0 (populate last)



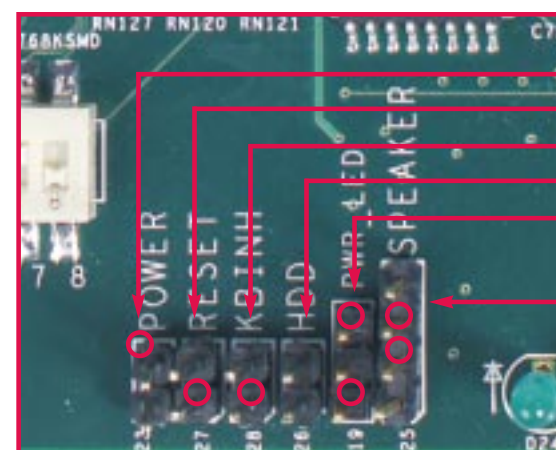
## Memory Guidelines

- DIMM size can be 64 MB, 128 MB, or 256 MB.
- Each slot can use different size DIMMs.
- Memory is supported in a size range between 64 MB (min) to 768 MB (max).

Total Memory	No. of DIMMs	Slot 1	Slot 2	Slot 0
64 MB	1	64 MB		
128 MB	1	128 MB		
128 MB	2	64 MB	64 MB	
256 MB	1	256 MB		
256 MB	2	128 MB	128 MB	
256 MB	3	128 MB	64 MB	64 MB
384 MB	2	256 MB	128 MB	
512 MB	2	256 MB	256 MB	
512 MB	3	256 MB	128 MB	128 MB
768 MB	3	256 MB	256 MB	256 MB

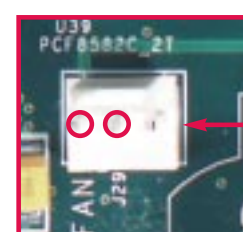
## Internal I/O Connections

Make the following connections using the appropriate cables:



Circle indicates ground.

- J23 Power Button Connector
- J27 Reset Button Connector
- J28 Keyboard Lock Cable Connector
- J26 Hard Disk Drive (HDD) Activity LED Connector
- J19 Power LED Connector
- J25 Speaker Cable Connector

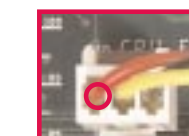


- J29 System Fan Power Connector



- J18 ATX Power

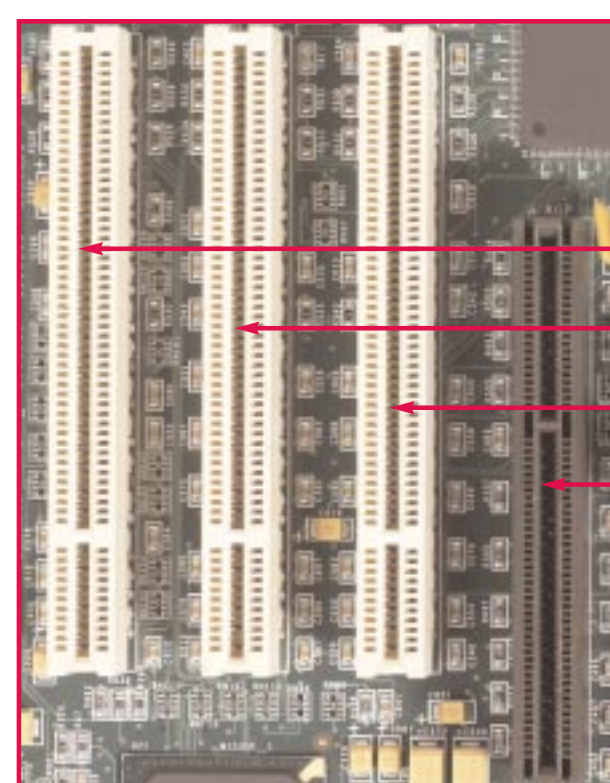
## Fan Power Connections



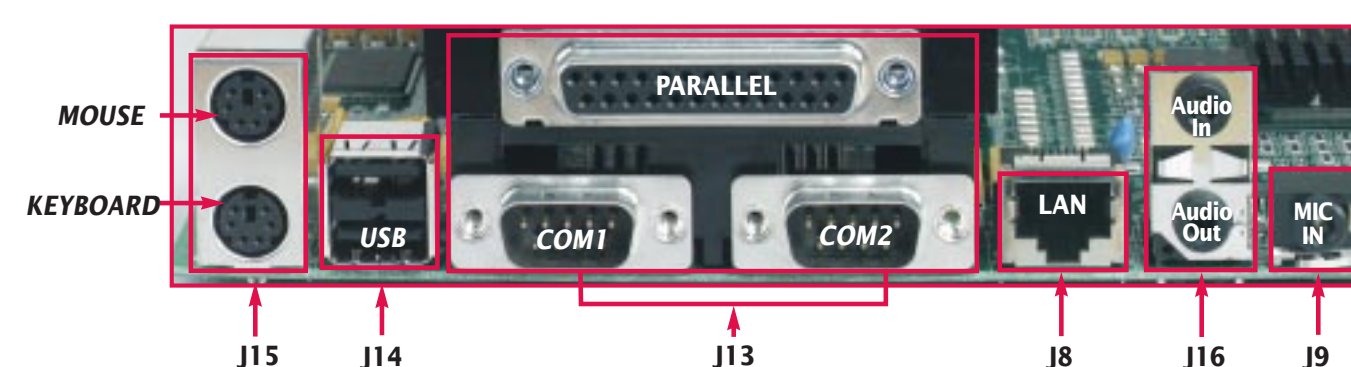
- J30 Alpha 21264A Processor Fan Power

## Bus Connections

Use the following slots for access to PCI and AGP bus support.



- J5 32-Bit PCI (Slot 0)
- J6 32-Bit PCI (Slot 1)
- J7 32-Bit PCI (Slot 2)
- J1 AGP



- MOUSE
- KEYBOARD
- J15
- J14
- J13
- J8
- J16
- J9

## Initial System Test

Follow this procedure to confirm the proper installation of the UP1100 System:

1. Ensure that all cables are seated properly.
2. Plug enclosure into power source.
3. Turn on enclosure power.

Your console screen will list the initialization messages.

The following command line prompt will appear:

>>>

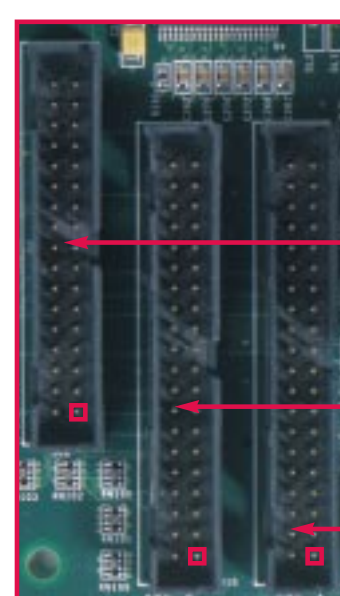
**Note:** If the command line prompt does not appear, refer to the **UP1100 User Manual P/N 51-0048-0A**, for troubleshooting information.

## Disk Port Connections

Use sockets J10, J11, and J12 to connect various disk peripheral devices.



- J17 CD Audio In



- J12 Floppy Diskette Drive Connector
- J10 IDE Primary Channel Connector
- J11 IDE Secondary Channel Connector

Square indicates Pin 1.

## Power Down Technique

To power down a UP1100 system, press the Power switch and hold it for at least five (5) seconds.

## Reference Materials

For procedures on booting the UP1100 and other information, refer to the **UP1100 User Manual (P/N 51-0048-0A)**.

A copy of the manual is available from our website: <http://www.alpha-processor.com>

Also, refer to the AlphaLinux website: <http://www.alphalinux.org>