



3VBA

ISA/PCI AGP Motherboard with Onboard
PCI IDE and Super Multi-I/O

TRADEMARK

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FEATURES

3VBA Features:

- 3VBA is based on the Mendocino Processor operating at 300 ~ 466MHz on PGA370. The board is configured by an ESSJ (Easy-Setting-Single-Jumper) to match your CPU clock speed.
- Designed with VIA Apollo Pro+ PCIsset.
- Supports up to 768MB of DRAM (minimum of 8 MB) on board (please see Section 3-2).
- 3VBA will support Error Checking and Correcting (ECC) when using parity SDRAM memory modules. This will detect multiple bit errors and correct 1-bit memory errors.
- Supports (1) 16 bit ISA slots, (4) 32 bit PCI slots, (1) AGP slot, (1) AMR slot and provides (2) independent high performance PCI IDE interfaces capable of supporting PIO Mode 3/4 and Ultra DMA 33/66 devices. The 3VBA supports (4) PCI Bus Master slots and a jumperless PCI INT# control scheme which reduces configuration confusion when plugging in PCI card(s).
- Supports ATAPI (e.g. CD-ROM) devices on both Primary and Secondary IDE interfaces.
- Designed with on chip Multi I/O: (1) floppy port, (1) parallel port (EPP, ECP), and (2) serial ports (16550 Fast UART).
Note: Japanese "Floppy 3 mode" is also supported
- Features Award Plug & Play BIOS. With Flash Memory you can always upgrade to the current BIOS as they are released. (<http://www.2themax.com/> please visit our Technical Support section for the latest updates)
- 3VBA utilizes a Lithium battery which provides environmental protection and longer battery life.

- Supports the (4) Universal Serial Bus (USB) Ports. The onboard VT82C686A chip provides the means for connecting PC peripherals such as; keyboards, joysticks, telephones, and modems.
- Built-in ATX 20-pin power supply connector.
- Software power-down when using Windows® 95/98.
- Supports ring-in feature (remote power-on through external modem, allows system to be turned on remotely).
- Resume by Alarm - Allows your system to turn on at a preselected time.
- Power Loss Recovery - In the event of a power outage your system will automatically turn itself back on without user intervention.
- Supports CPU Hardware sleep and SMM (System Management Mode).
- Supports Keyboard power ON function (KBPO).
- Built-in WOL (Wake-up On LAN) Connector.
- Built-in AC97 PCI Audio.

3VBA Detailed Layout

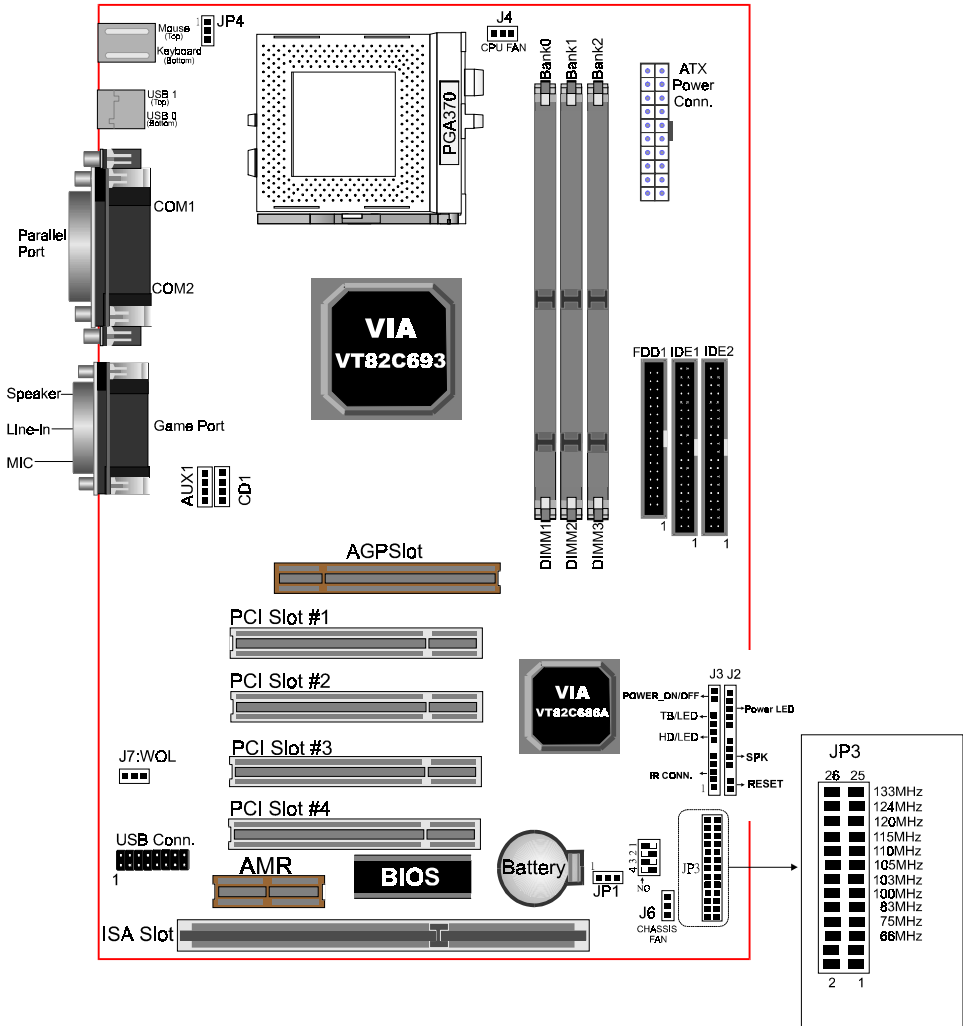


Figure 1

Easy Installation Procedure

Easy Installation Procedure

The following must be completed before powering on your new system:

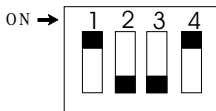
- Configure DIP Switch and Jumper to match your hardware**
- System memory Configuration**
- Device Connectors**

Configure DIP Switch

We design this motherboard with a DIP Switch to make your install fast and easy.

The following will describe all of the DIP Switch that you are required to set before moving on to step 2.

Note: *The DIP Switch as depicted as shown (Figure 1) in their correct physical orientation.*



SW1				CPU(MHz)		
1	2	3	4	Ratio	66MHz	100MHz
	ON	ON	ON	4X	266	400
	ON		ON	4.5X	300	450
		ON	ON	5X	333	*500
			ON	5.5X	366	*550
ON	ON	ON		6X	400	*600
ON	ON			6.5X	433	*650
ON		ON		7X	466	*700
ON				7.5X	*500	*750
	ON	ON		8X	*533	*800

*reserved

- JP1**
- | | | |
|---|---|--------------------------------|
| ■ | 1 | Clear COMS |
| ■ | 2 | |
| □ | 3 | <i>1-2 : Run Mode(default)</i> |
| □ | 3 | <i>2-3 : Clear CMOS</i> |

- JP4**
- | | | |
|---|---|---|
| ■ | 1 | Keyboard Power-ON Function Selection |
| ■ | 2 | |
| □ | 3 | <i>1-2 : Disabled</i> |
| □ | 3 | <i>2-3 : Enabled</i> |

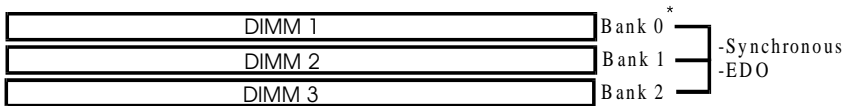
System Memory Configuration

Memory Layout

The 3VBA supports (3) 168-pin DIMMs (Dual In-line Memory Module). The DIMMs can be either EDO (Enhanced Data Out) or SDRAM (Synchronized DRAM).

- DIMM SDRAM may be 83MHz (12ns), 100MHz (10ns) or 125MHz (8ns) bus speed.
- If you use both 50ns and 60ns memory you must configure your BIOS to read 60ns.
- When using Synchronous DRAM we recommend using the 4 clock variety over the 2 clock.

Figure 2 and Table 1 show several possible memory configurations using both SIMM and DIMM.



Total Memory	DIMM 1 (Bank 0)	DIMM 2 (Bank 1)	DIMM 3 (Bank 2)
= 256MB Maximum	EDO/SDRAM* 8MB, 16MB, 32MB, 64MB, 128MB, 256MB X 1	None	None
= 512MB Maximum	EDO/SDRAM* 8MB, 16MB, 32MB, 64MB, 128MB, 256MB X 1	EDO/SDRAM* 8MB, 16MB, 32MB, 64MB, 128MB, 256MB X 1	None
= 768MB Maximum	EDO/SDRAM* 8MB, 16MB, 32MB, 64MB, 128MB, 256MB X 1	EDO/SDRAM* 8MB, 16MB, 32MB, 64MB, 128MB, 256MB X 1	EDO/SDRAM* 8MB, 16MB, 32MB, 64MB, 128MB, 256MB X 1

* SDRAM only supports 8, 16, 32, 64, 128, 256MB DIMM modules.

Table 1

Device Connectors

Please install the motherboard into the chassis.

Now that your motherboard is installed you are ready to connect all your connections (figure 6).

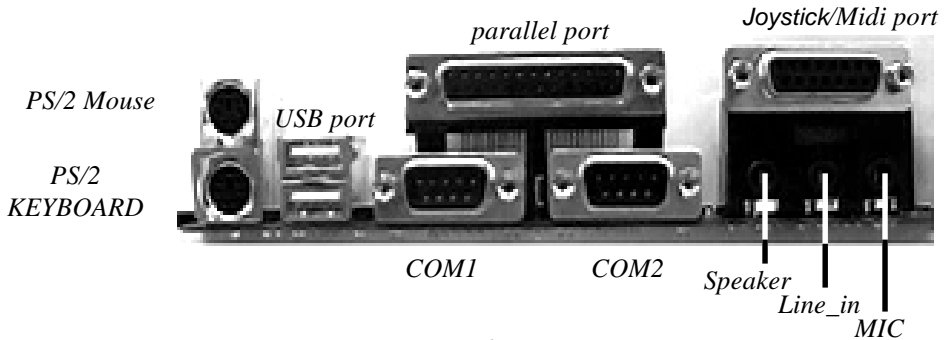




Figure 6


- J2:** Chassis Panel Connector
- Power LED, Speaker, Reset
- J3:** Turbo LED, HDD LED, IR Conn., Sleep/Power_ON
- J4:** CPU Fan Power
- A plug-in for the CPU Fan Power
- J6:** Chassis Fan Power
- A plug-in for the chassis Fan Power
- J7:** WOL Connector
- IDE1:** Primary IDE
- IDE2:** Secondary IDE
- FDD1:** Floppy Controller Connector
- PW1:** ATX Power Connector
- 20-pin power connector
- CD1:** CD Audio Connector
- AUX1:** AUX Audio Connector

Device Connectors (continued)


J2

1		<p>Power LED connector</p> <table border="0"> <tr> <td>1. Power LED(+)</td> <td>4. NC</td> </tr> <tr> <td>2. N/C</td> <td>5. GND</td> </tr> <tr> <td>3. GND</td> <td></td> </tr> </table>	1. Power LED(+)	4. NC	2. N/C	5. GND	3. GND	
1. Power LED(+)	4. NC							
2. N/C	5. GND							
3. GND								

1		<p>Speaker - Connect to the system's speaker for beeping</p> <table border="0"> <tr> <td>1. Speaker</td> <td>3. GND</td> </tr> <tr> <td>2. N/C</td> <td>4. GND</td> </tr> </table>	1. Speaker	3. GND	2. N/C	4. GND
1. Speaker	3. GND					
2. N/C	4. GND					


	<p>Reset - Closed to restart system.</p>
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J3

1		<p>IR Connector</p> <table border="0"> <tr> <td>1. VCC</td> <td>4. GND</td> </tr> <tr> <td>2. NC</td> <td>5. IRTX</td> </tr> <tr> <td>3. IRRX</td> <td></td> </tr> </table>	1. VCC	4. GND	2. NC	5. IRTX	3. IRRX	
1. VCC	4. GND							
2. NC	5. IRTX							
3. IRRX								

+		<p>IDE LED indicator - LED ON when Onboard PCI IDE Hard disks is activate</p>
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+		<p>Turbo LED indicator - LED ON when higher speed is selected</p>
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	<p>Power On/Off - This is connected to the power button on the case. Using the Soft-Off by Pwr-BTTN feature, you can choose either Instant Off (turns system off immediately), or 4 sec delay (you need to hold the button down for 4 seconds before the system turns off). When the system is in 4 sec delay mode, we has added a special feature to make the system go into suspend mode when the button is pressed momentarily.</p>
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