3VCA

A Celeron™ Socket 370 Processor based 4X AGP motherboard (133/100/66MHz)
Supports PC-133 SDRAM Module

6VBA2

A Pentium® II or Pentium® III Slot1 Processor based 4X AGP motherboard (133/100/66MHz)
Supports PC-133 SDRAM Module

Manual Revision 1.0
October 28, 1999

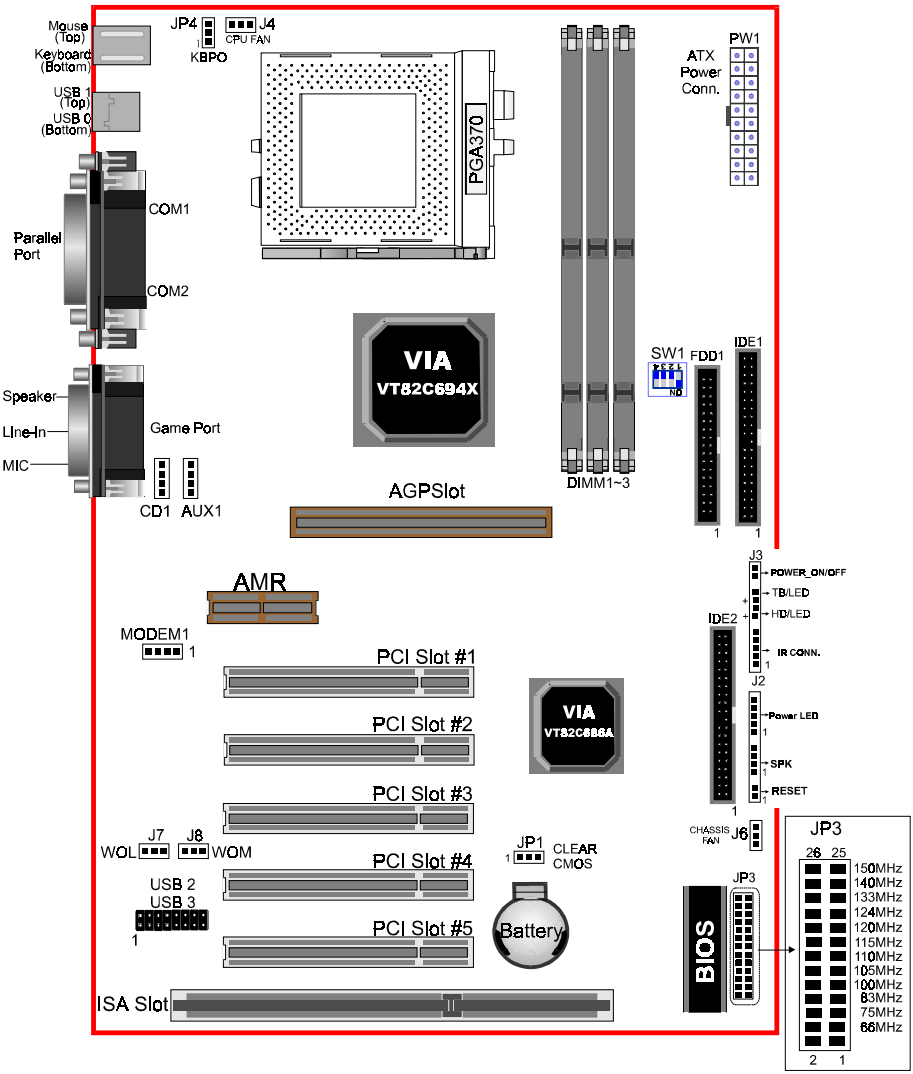
FEATURES

3VCA/6VBA2 Features:

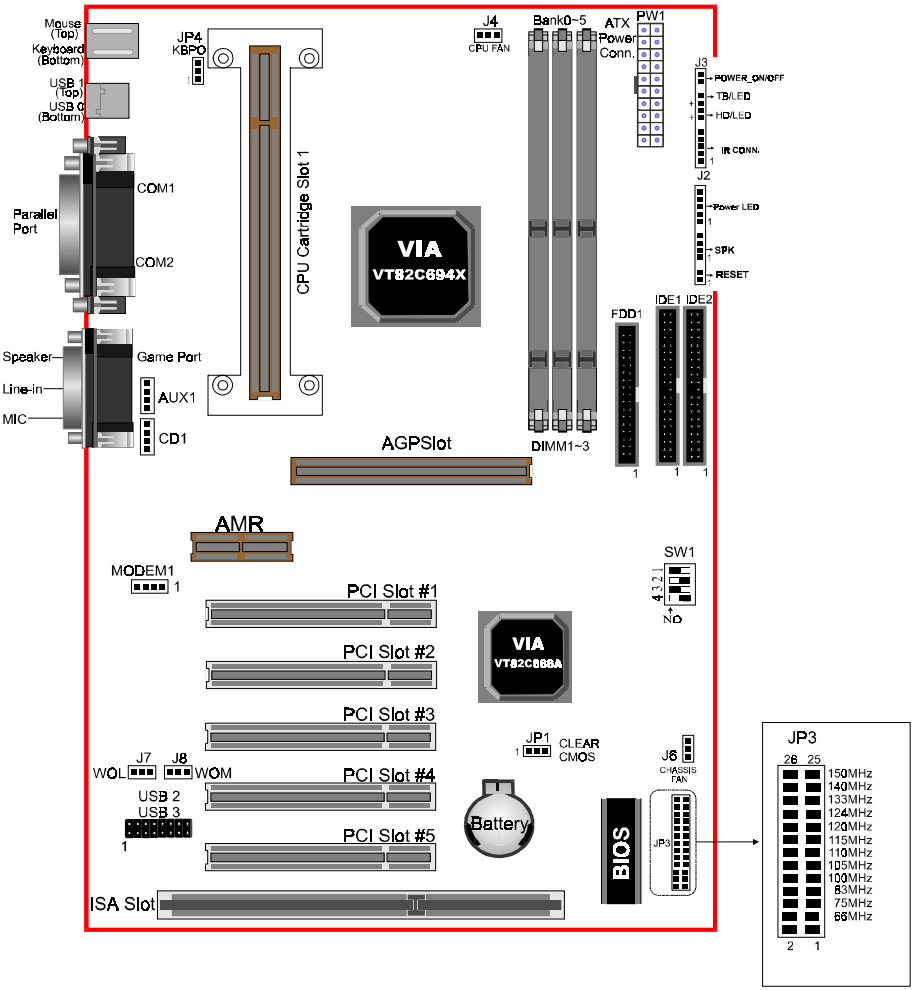
- 3VCA is based on the Intel CeleronTM Processor operating at 300 ~ 600MHz on PGA370. The board is configured by an ESSJ (Easy-Setting-Single-Jumper) to match your CPU clock speed.
- 6VBA2 is based on the Pentium® II/III Processor operating at 266 ~ 733MHz on Slot1. The board is configured by an ESSJ (Easy-Setting-Single-Jumper) to match your CPU clock speed.
- Designed with VIA Apollo Pro 133A PCIset.
- Supports up to 768MB of DRAM (minimum of 8 MB) on board (please see Section 3-2).
- 3VCA/6VBA2 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, (5) 32 bit PCI slots, (1) 4X 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 6VBA2 supports (5) 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).
- 3VCA/6VBA2 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 WOM (Wake-up On Modem) Connector.
- Built-in AC97 PCI Audio.

3VCA Detailed Layout



6VBA2 Detailed Layout



Easy Installation Procedure

Easy Installation Procedure

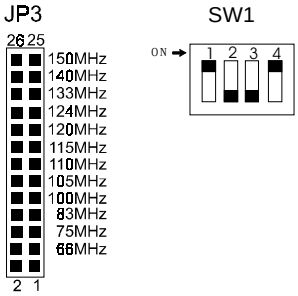
The following must be completed before powering on your new system:

Configured Jumpers
System memory Configuration
Device Connectors

Configure Jumpers

We design this motherboard with the fewest jumpers to make your installation fast and easy.

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



SW1				CPU(MHz)			
1	2	3	4	Ratio	66MHz	100MHz	133MHz
ON		ON	ON	3X	200	300	400
ON			ON	3.5X	233	350	467
	ON	ON	ON	4X	266	400	533
	ON		ON	4.5X	300	450	600
		ON	ON	5X	333	500	667
			ON	5.5X	366	550	733
ON	ON	ON		6X	400	600	*800
ON	ON			6.5X	433	*650	*867
ON		ON		7X	466	*700	
ON				7.5X	500	*750	
	ON	ON		8X	*533	*800	

*reserved

JP1 ***Clear COMS***
1-2 : Normal(default)
2-3 : Clear CMOS

JP4 ***Keyboard Power-ON Function Selection***
1-2 : Disabled(default)
2-3 : Enabled

System Memory Configuration

Memory Layout

The 3VCA/6VBA2 supports (3) PC133 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.

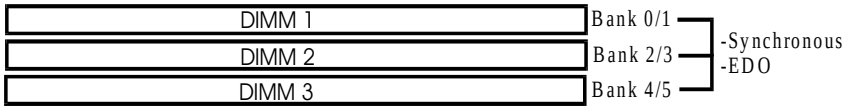


Figure 2

Total Memory	DIMM 1 (Bank 0/1)	DIMM 2 (Bank 2/3)	DIMM 3 (Bank 4/5)
= 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

Table 1

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

** We recommend to use PC100 Memory Module for bus speed between 66MHz and 100MHz and PC133 Memory for bus speed over 100MHz.*

** Using non-compliant memory with higher bus speed (over clocking) may severely compromise the integrity of the system.*

Device Connectors

Please install the motherboard into the chassis.

Now that your motherboard is installed you are ready to connect all your connections (figure 7).

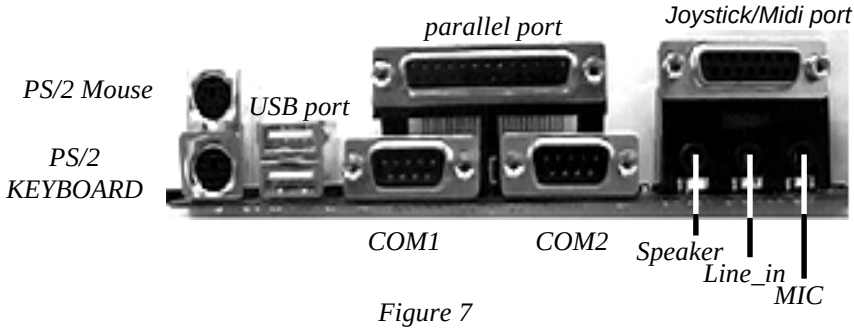


Figure 7

J2,J3: Chassis Panel Connector
- Power LED, Speaker, Reset, 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 (Wake On Lan) Connector

J8: WOM (Wake On Modem) Connector

IDE1: Primary IDE Connector

IDE2: Secondary IDE Connector

FDD1: Floppy Controller Connector

PW1: ATX Power Connector
- 20-pin power connector

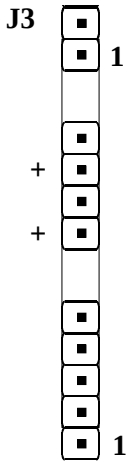
CD1: CD Audio Connector

AUX1: AUX Audio Connector

MODEM1: Telephony Connector
- Pin1(Audio_in), Pin2/Pin3(GND), Pin4(Mic-out to Modem)

Device Connectors (continued)

(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, there is a special feature to make the system to go into suspend mode when the button is pressed momentarily).



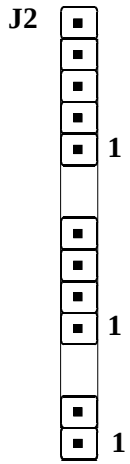
Power On/Off

Turbo LED indicator - LED ON when higher speed is selected

IDE LED indicator - LED ON when Onboard PCI IDE Hard disks is activate

IR Connector

1. VCC	4. GND
2. NC	5. IRTX
3. IRRX	



Power LED - Power LED connector

1. Power LED(+)	4. NC
2. N/C	5. GND
3. GND	

Speaker - Connect to the system's speaker for beeping

1. Speaker	3. GND
2. N/C	4. GND

Reset - Closed to restart system.