

MOTHERBOARD

# USER'S MANUAL



USER'S MANUAL

6G8001-2138-0400

# CV700A / CV702A

## 400MHz FSB / VGA / LAN / Sound

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**400MHz FSB . All-in-one**

**Sound . 3 LAN**

**SATA150 . ATA 33/66/100 . USB . IrDA . CF**

**Multi- LAN Board**

**NO.CV700A / CV702A**

**Release date: JUNE.25.2007**

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## Warning !

### 1. CF card & 2.5" HDD first boot issue

Due to the frequent update and change of Compact Flash card, it can't always work with 2.5" HDD at the same time. Users may try and get the test result.

### 2. Battery

Battery on board is consumables. Lex doesn't guarantee the life time of it.

### 3. Fanless solution with HDD

Please be aware of specification & limitation for HDD when fanless solution is implemented.

4. Lex will not give further notification if there is any change about the product information and the manual.

5. SATA does not support Hot SWAP

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## \* Hardware Notice Guide

1. Before installing the power supply with this motherboard, please attach the 12V/DC ( 4 pin connector ) of the adapter to motherboard first.  
After that, plug the adapter power to AC outlet.  
Always normally shut down the computer before you move the system unit or remove the power supply from the motherboard.  
Please unplug the 12V/DC ( 4 pin connector ) of the adapter from motherboard first.  
Then unplug the adapter from the AC outlet.  
Please refer to procedure from the photo 1
2. There will be high possibility to burn out the CPU if you change/ modify any parts of the CPU cooler.
3. Please wear wrist strap and attach it to a metal part of the system unit before handling a component.  
You can also touch an object that is of ground connection or with metal surface if you don't have wrist strap.
4. Please be careful when you handle this product. Pay attention to & don't touch the sharp-pointed components at the bottom PCB .
5. Please pay attention to this: Remove or change any components form the motherboard will VOID the warranty of the motherboard you purchased .
6. Before you install/remove any components or make any jumper setting on the motherboard, please make sure to disconnect the power first.  
( Please follow the instructions as of this guide )
7. Please only use single sided Mini PCI card, do not use the double sided Mini PCI card which is not suitable.
8. This does not support 16 bit mini PCI card
9. Please follow this instruction carefully when using the "POWERON after PWR-Fair" function.  
When the DC power adaptor runs out of power, unplug it from the DC current;  
when power returns plug it back in only after 5 seconds. If there is a power outage, unplug it from the AC current, when power returns plug it back in only after 30 seconds.  
Otherwise it will cause system locking or serious damage.

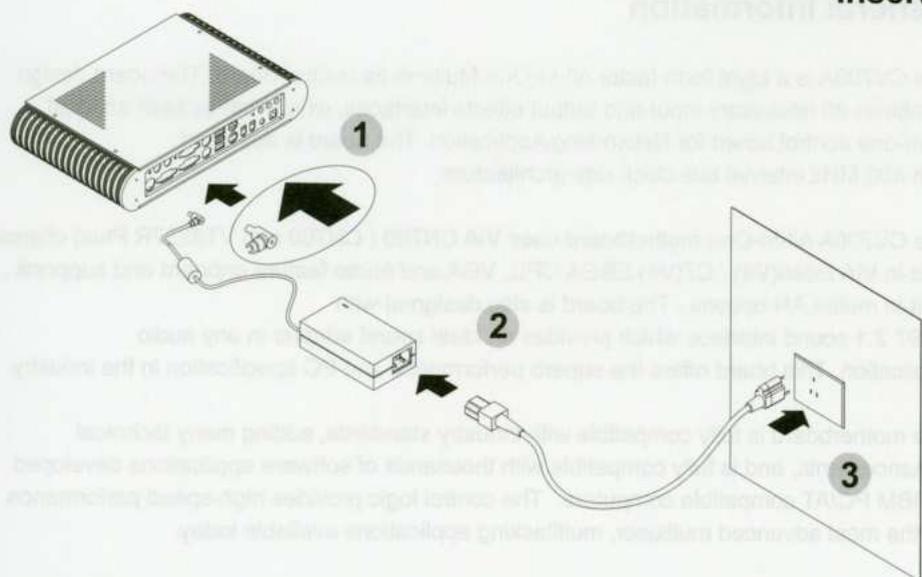
### Remark 1:

Always insert/unplug the 12V/DC ( 4 pin connector ) horizontally & directly from the motherboard.

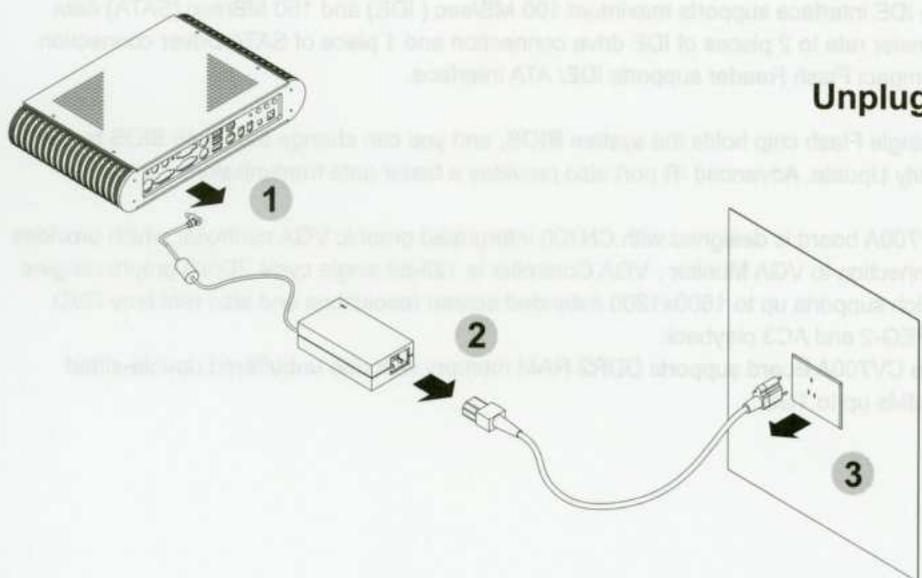
DO NOT twist the 12V/DC ( 4 pin connector ) gently, it is designed to fit snugly .

Moreover, erratic pull / push testing with the DC Jack might cause the unpredictable damage to the component & system unit.

## Photo 1



## Unplug



---

# Chapter-1

## General Information

The CV700A is a Light form factor All-In-One Multimedia control Board. The board design combines all necessary input and output effects interfaces, which makes itself an ideal all-in-one control board for Networking Application. The board is designed with 400 MHz internal bus clock rate architecture.

The CV700A All-In-One motherboard uses VIA CN700 ( CN700 and VT8237R Plus) chipset, built-in VIA Eden(V4) / C7(V4) EBGA CPU, VGA and Audio feature onboard and supports , built-in multi-LAN options . The board is also designed with AC97 2.1 sound interface which provides an ideal sound adapter in any audio application. This board offers the superb performance and PC specification in the industry.

The motherboard is fully compatible with industry standards, adding many technical enhancements, and is fully compatible with thousands of software applications developed for IBM PC/AT compatible computers. The control logic provides high-speed performance for the most advanced multiuser, multitasking applications available today.

With DMA33/66/100 and SATA150 access of mode 4 to IDE drive interface architecture, the IDE interface supports maximum 100 MB/sec ( IDE) and 150 MB/sec (SATA) data transfer rate to 2 pieces of IDE drive connection and 1 piece of SATA Driver connection. Compact Flash Reader supports IDE/ ATA interface.

A single Flash chip holds the system BIOS, and you can change the Flash BIOS by the Utility Update. Advanced IR port also provides a faster data transmission.

CV700A board is designed with CN700 intergrated graphic VGA controller which provides connection to VGA Monitor . VGA Controller is 128-bit single cycle 2D/3D graphic engine which supports up to 1600x1200 extended screen resolutions and also real time DVD MPEG-2 and AC3 playback.

The CV700A Board supports DDR2 RAM memory with one unbuffered double-sided DIMMs up to 1GB

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## 1-1 Major Feature

1. VIA Eden (V4) nano BGA2 500MHz CPU/ VIA C7 nano BGA2 1GHz CPU
2. VIA CN700 chipset (CN700 + VT8237R Plus)
3. One DDR2 400/533 DRAM unbuffered double-sided DIMMs up to 1GB
4. Dual channel master mode PCI support four IDE disk drives DMA 33/66/100 controller  
One Channle SATA 150 Connector
5. 400 MHz system clock support
6. Versatile storage device:
  - \* One 50-pin Compact Flash socket
  - \* One 40-pin DOM
  - \* One 2.5" HDD
  - \* One SATA HDD
7. On board CN700 graphic controller integrated graphics
8. On board multi-LAN option\*:
  - \* CV700A-3R ----3 x Realtek 8100C 10/100 Mb
  - \* CV700A-3G ----3 x Realtek 8110SC 10/100/1000 Mb
  - \* CV700A-3U ----3 x Intel 82541GI/PI/ER 10/100/1000 Mb
9. Compact Flash Reader Type I/II for IDE/ATA interface
10. Two serial RS232 Ports
11. One enhanced bi-directional parallel ports (SPP/ECP/EPP)
12. On board mini PS/2 Keyboard/Mouse connector
13. On board Sound, AC97 2.1
14. DC 12V-IN Power Adapter support

\*The models mentioned above are standard models currently.

The multi-LAN option might change due to customization.

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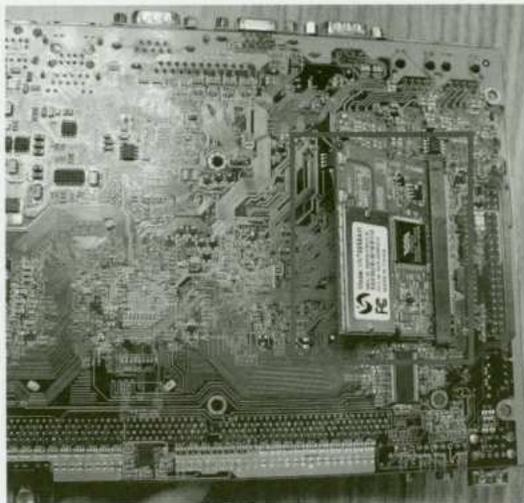
## 1-2 Specification

- 1.CPU:** VIA Eden (V4) nano BGA2 500 MHZ CPU / VIA C7 (V4) nano BGA2 1GHz CPU
- 2. Cache Memory:** Integrated full-speed 128KB L1/L2 cache
- 3.Chipset:** VIA CN700 (North:CN700 ;South:VT8237R Plus)
- 4. Memory:** One DIMM socket up to 1GB DDR2 400/533 DRAM
- 5. VGA:** CN700 integrated graphic controller ; support 128-bit 2D/3D display up to 1600x1200, memory sharable up to 64MB
- 6. I/O Chipset:** VIA VT1211IO
- 7. IDE:** four IDE disk drives; support DMA33/66/100 transfer rate up to 33/66/100 MB/sec  
SATA : 1 SATA disk drivers ; support SATA150 MB/sec
- 8. LAN:** \* CV700A-3R ---3 x Realtek 8100C 10/100 Mb ( Wake-On-Lan) for LAN1  
\* CV700A-3G ---3 x Realtek 8110SC 10/100/1000 Mb  
\* CV700A-3U ---3 x Intel 82541GI/PI/ER 10/100/1000 Mb
- 9. Storage devices:** \* One 50-pin Compact Flash socket  
\* One 40-pin DOM  
\* One 2.5" HDD  
\* One SATA HDD
- 10. Parallel Port:** 1 parallel port ; Support SPP/ECP/EPP
- 11. Serial Port:** Two serial ports ; Support RS-232
- 12. IR:** One IrDA TX/RX header
- 13. USB:** Support Six USB ports
- 14. Keyboard:** PS/2 6-pin Mini Din
- 15. Mouse:** PS/2 6-pin Mini Din
- 16. Sound:** AC97 2.1 Sound, full-duplex
- 17. BIOS:** Award BIOS version 6.1
- 18. Form Factor:** LIGHT Board, 200x150mm
- 19. Power:** DC12V-IN power Adapter input
- 21. Power Voltage:** +12V (11.4V to 12.6V)
- 22. Power Consumption:** Please refer to page 57

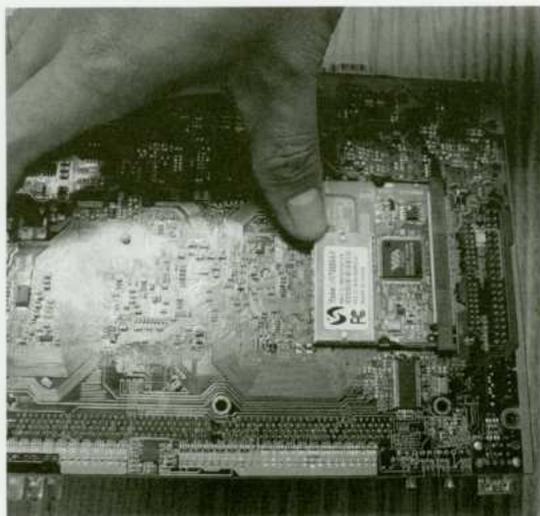
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## 1-3-1 Installing the Mini PCI card

1. Align the Mini PCI card with the connector at a 45 degree angle.

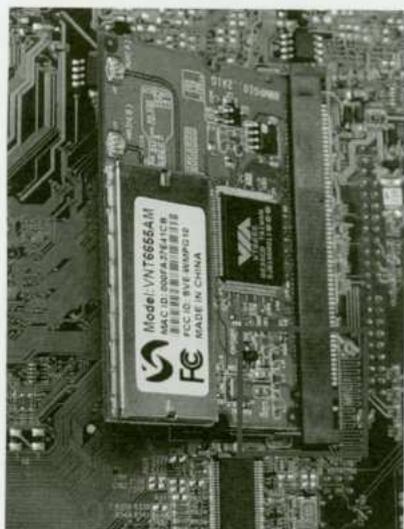


2. Press the Mini PCI into the connector until you hear a click.



Notices:

1. The connectors are designed to ensure the correct insertion. If you feel resistance, check the connectors & golden finger direction, and realign the card.



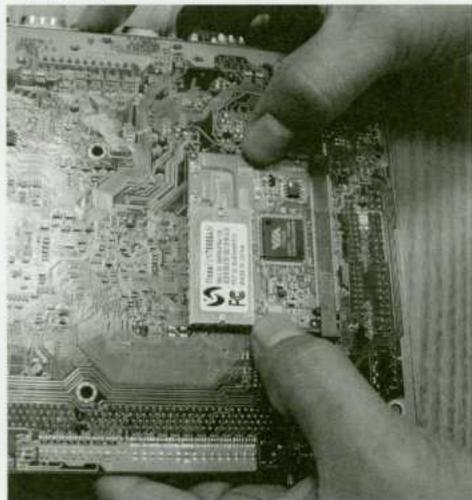
2. Make sure the retaining clips (on two sides of the slot) lock onto the notches of the card firmly.



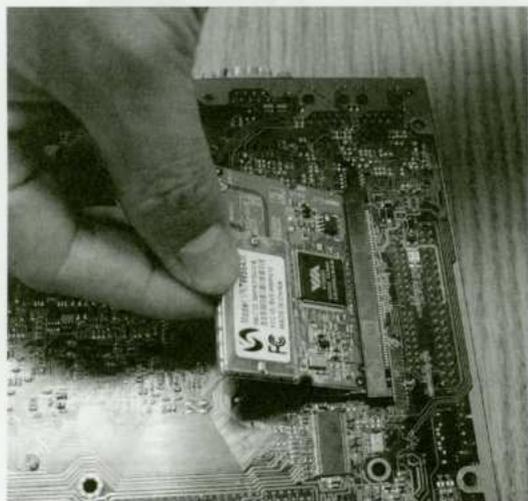
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### 1-3-1.1 Removing the Mini PCI card

1. Release the Mini PCI card by pulling outward the two retaining clips and the card pops up slightly.



2. Lift the mini PCI card out of its connector carefully.



## 1-4 Packing List\*

- ① CV700A Board
- ② DC 12V Power Adapter
- ③ One ATA 100 Flat Cable (2.54mm)
- ④ One slim IDE port flat Cable (2.00mm)
- ⑤ Power Cable
- ⑥ Utility CD Disk
- ⑦ User's Manual
- ⑧ SATA DATE Cable (optional)
- ⑨ SATA HDD Power Cable (optional)



\*The packing list above is for the users who purchase single motherboard. The users who purchase the board with chassis may refer to the packing list in the Assembly Guide.

Please contact with your dealer if any of these items is missing or damaged on delivery. And please keep all parts of the delivery package with packing materials in case if you need to deliver or store the product in the future.

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## Chapter-2

### Hardware Installation

This chapter provides the information how to install the hardware of CV700A. Please follow section 1-4, 2-1 and 2-2 to check the delivery package and unpack carefully. Please follow the jumper setting procedure.

#### 2-1 Unpacking Precaution

The CV700A board has been well packed with an anti-static bag to protect its sensitive components and circuitry from damage due to static electric discharge.

##### **NOTE!**

1. Do not touch the board or any other sensitive components without all necessary anti-static protection.
2. Please pay attention to the voltage limitation of DC-IN12 V  $\pm$  5 %.  
Overuse of DC-IN voltage limitation or change to another power adapter ( not provided with this system ) will VOID warranty.

You should follow these

steps to protect the board from the static electric discharge whenever you handle the board:

1. Ground yourself by a grounded wrist strap at all times when you handle the CV700A. Well secure the ALLIGATOR clip of the strap to the end of the shielded wire lead from a grounded object. Please put on and connect the strap before handling the CV700A for harmlessly discharge any static electricity through the strap.
2. Please use anti-static pad to put any components, parts, or tools on the pad whenever you work on them outside the computer. You may also use the anti-static bag instead of the pad. Please ask your local supplier for necessary parts on anti-static requirement.
3. Do not plug any connector or set any jumper when the power is on.

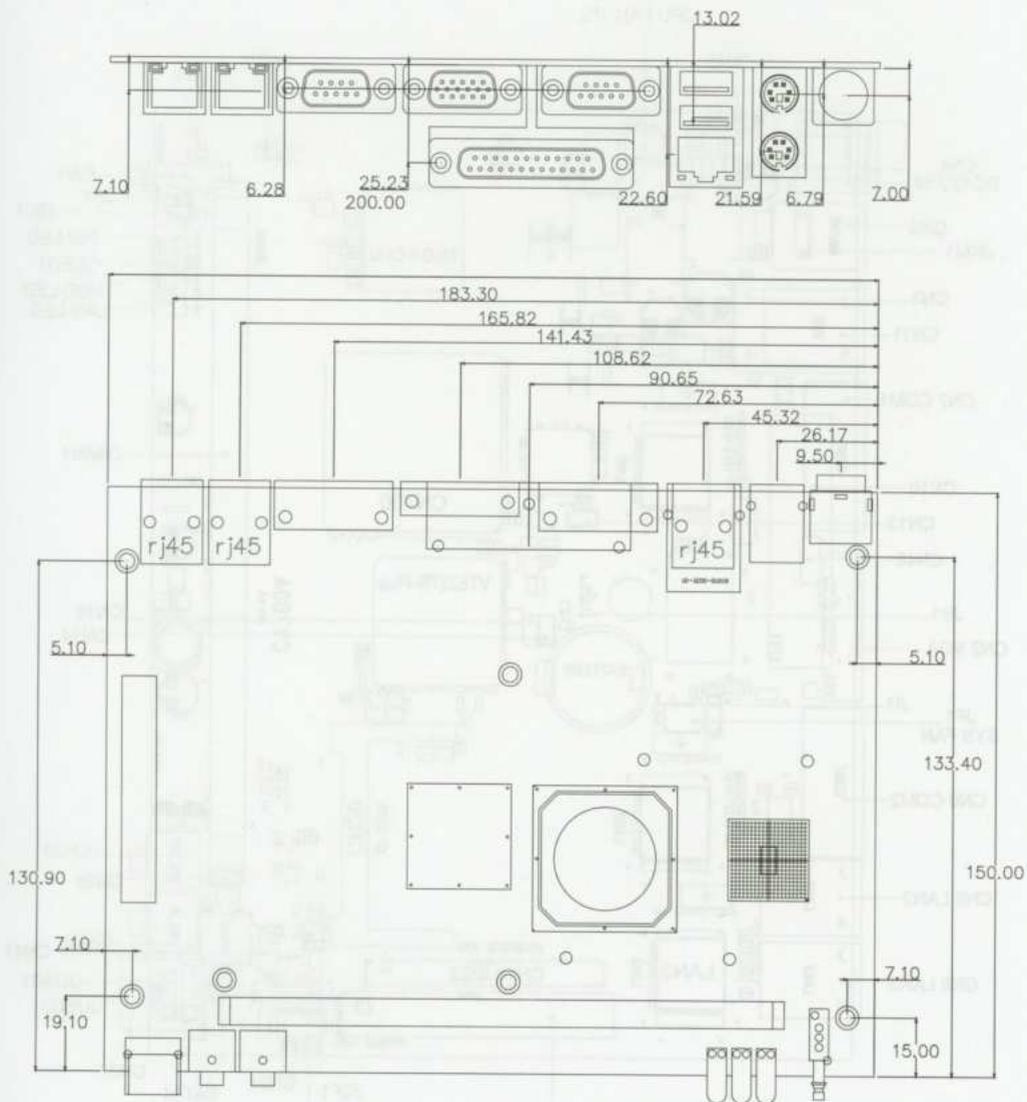
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## 2-2 Unpacking checkup

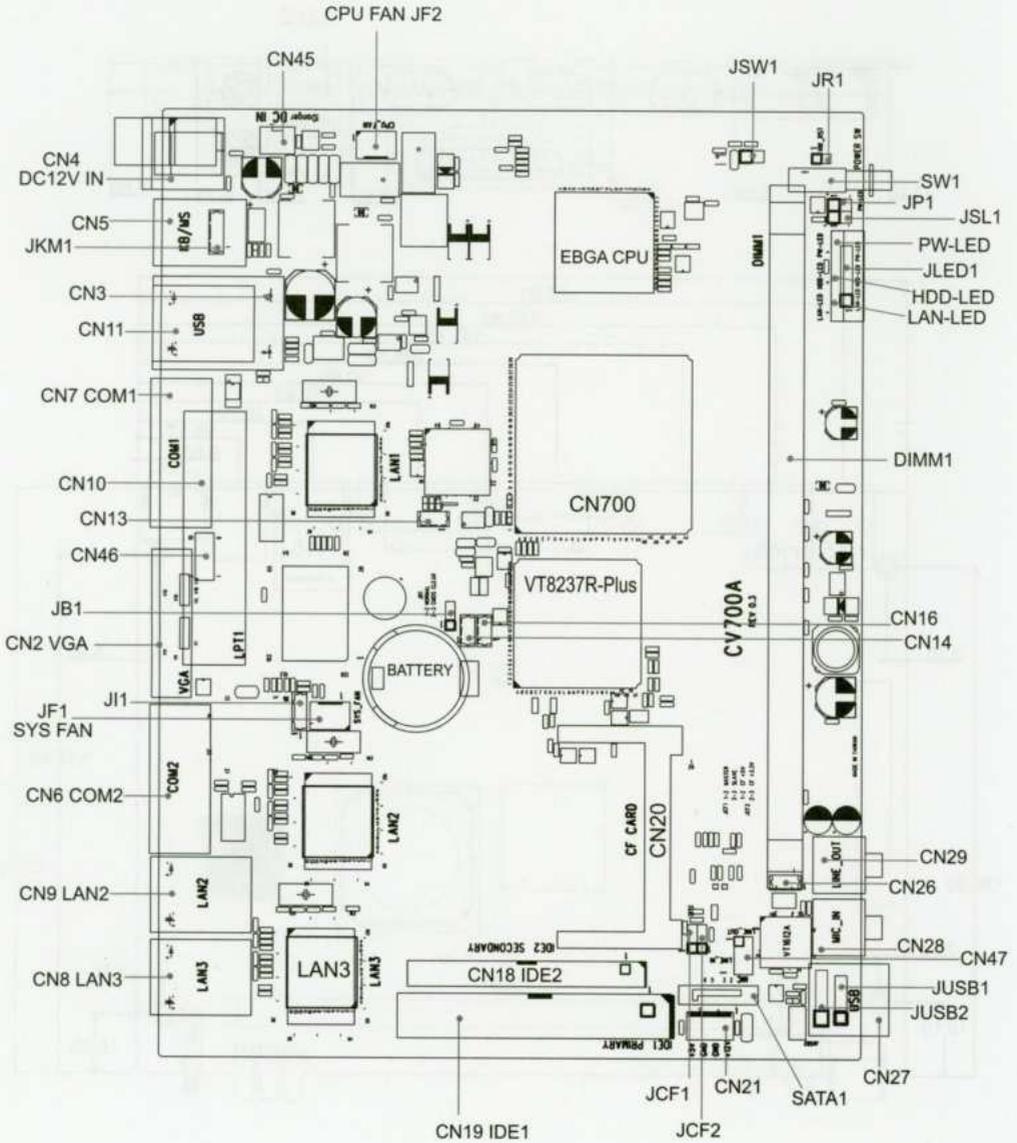
First of all, please follow all necessary steps of section 2.1 to protect CV700A from electricity discharge. With reference to section 1.3, please check the delivery package again with following steps:

1. Unpack the CV700A board and keep all packing material, manual and driver disc etc, do not dispose !
2. Is there any components lose or drops from the board? **DO NOT CONTINUE TO INSTALL THIS BOARD!CONTACT THE DEALER YOU PURCHASED THIS BOARD FROM, IMMEDIATELY.**
3. Is there any visible damage on the board? **DO NOT CONTINUE TO INSTALL THIS BOARD!CONTACT THE DEALER YOU PURCHASED THIS BOARD FROM, IMMEDIATELY.**
4. Check your optional parts (i.e. DDR2, CF etc.), all necessary jumpers setting to jumper pin-set, and CMOS setup correctly.  
Please also refer to all information of jumper settings in this manual.
5. Check your external devices (i.e. Add-On-Card, Driver Type etc.) for complete add-in or connection and CMOS setup correctly.  
Please also refer to all information of connector connection in this manual.
6. Please keep all necessary manual and driver disc in a good condition for future re-installation if you change your Operating System.

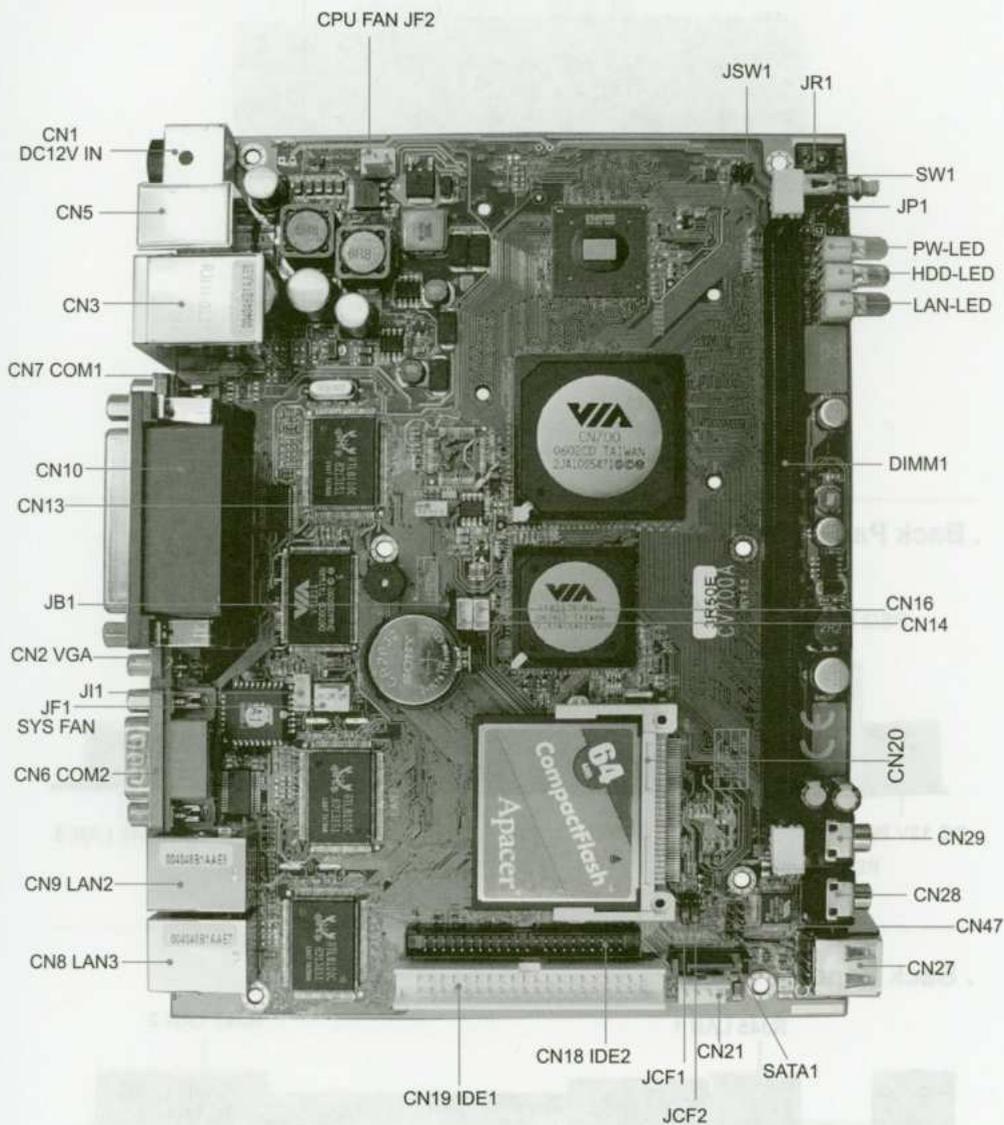
## 2-3 Dimension 200x150(mm)



## 2-4 Layout

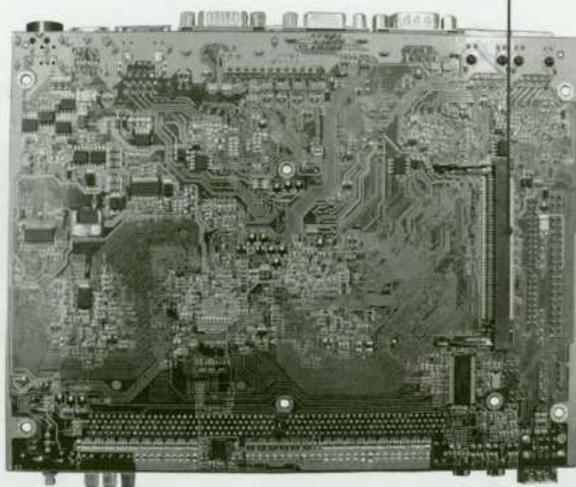


## 2-5 Diagram

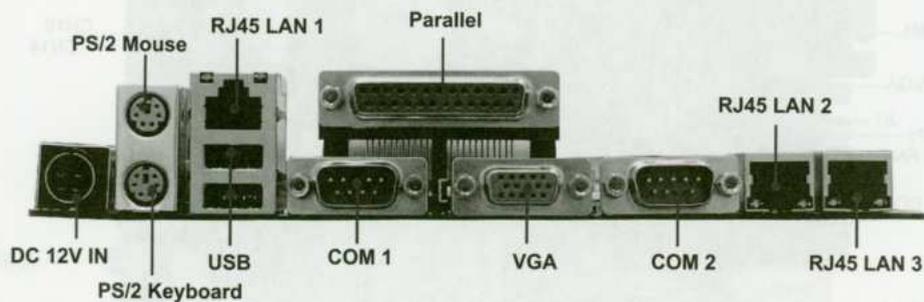


## 2-5-1 Bottom Side Diagram

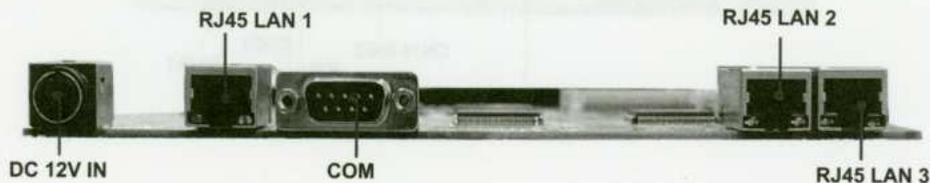
MPCI: Mini PCI Socket



### . Back Panel (CV700A)



### . Back Panel (CV702A)



## 2-6 Install Memory

This motherboard provides one 240-pin DUAL INLINE MEMORY MODULES (DIMM) socket for memory expansion available from minimum memory size of 256MB to maximum memory size of 1GB DDR2 RAM.

DDR2 clock supports: DDRII200, DDRII266

### Valid Memory Configurations

DIMM1	System Accept or Not	Total Memory
		Min. ~ Max.
DS/SS	Accept	256MB~1GB

DS: Double Sided DIMM

SS: Single Sided DIMM

#### NOTE!

Make sure the total installed memory does not exceed 1GB; otherwise, the system may hang during startup.

Install DDR RAM module oriented as Fig. 2.1.

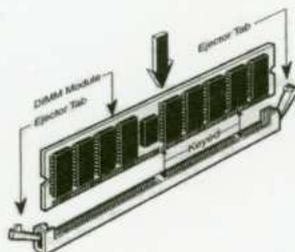
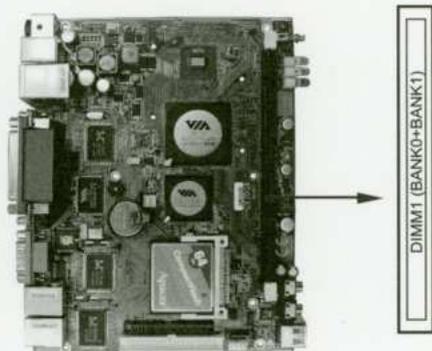


Figure 2.1

**NOTE!**

When you install DIMM module fully into the DIMM socket, the eject tab should be locked into the DIMM module very firmly and fit into its indentation on both sides.

**WARNING!**

2. Once you hear " Beep Beep Beep" sounds after turning on the power , please check if the DRAM is installed properly or not.

## 2-7 List of Jumpers

JB1: CMOS DATA SET

JCF1: CF card mast and slave select

JCF2: CF card Voltage select



## 2-8 Jumper Setting Description

A jumper is ON as a closed circuit with a plastic cap covering two pins. A jumper is OFF as an open circuit without the plastic cap. Some jumpers have three pins, labeled 1, 2, and 3. You could connect either pin 1 and 2 or 2 and 3.

The below figure 2.2 shows the examples of different jumper settings in this manual.

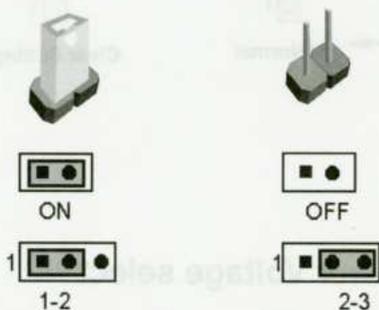


Figure 2.2

All jumpers already have its default setting with the plastic cap inserted as ON, or without the plastic cap as OFF. The default setting may be referred in this manual with a " \* " symbol .

## 2-9 CMOS Data Set

A battery must be used to retain the motherboard configuration in CMOS RAM. Close pin 1 and pin 2 of JB1 to store the CMOS data.

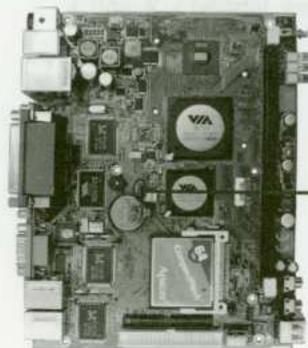
To clear the CMOS, follow the procedures below:

1. Turn off the system and unplug the AC power
2. Remove DC 12V power cable from DC 12V power connector
3. Locate JB1 and close pin 2-3 for a few seconds
4. Return to its normal setting by shorting pin 1-2
5. Connect DC 12V power cable back to DC 12V power connector

Note: Do not clear CMOS unless

1. **Troubleshooting**
2. **Forget password**
3. **You fail over-clocking system**

JB1	Description
*1-2	*Normal Set
2-3	CMOS Data clear



\*Normal



Clear Setting

## 2-10 JCF2 CF Card Power Voltage select

If you use CF card and HDD together, we suggest you use the jumper setup for +5V.

JCF2	Description
*1-2	*For CF CARD power voltage select +5V
2-3	For CF CARD power voltage select +3.3V



JCF2



+5V\*



3.3V

\* We use □ to refer to as pin 1

## 2-11 JCF1 CF Card Master and Slave selection

If you use CF card and HDD together, please set CF as Master and HDD as Slave.

JCF1	Description
*1-2	*CF Card use Master type
2-3	CF Card use Slave type



JCF1



Master\*



Slave

---

## Chapter-3

### Connection

This chapter provides all necessary information of the peripheral's connections, switches and indicators. Always power off the board before you install the peripherals.

#### 3-1 List of Connectors

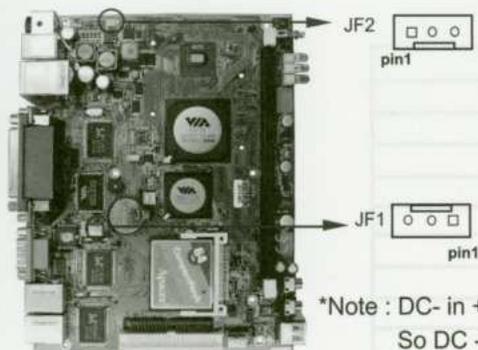
- CN1: DC 12V-IN DIN Connector  
CN4: DC 12V-IN Connector (Share to CN1)  
CN5: PS2 Keyboard /Mouse Connector  
JKM1: PS2 Keyboard /Mouse Connector (Share to CN5)  
CN3: USB port 0/1 and LAN1 RJ45 Connector(or CN11 single RJ45)  
CN7: COM1 port Connector  
CN2: VGA DB15 Connector  
CN46: VGA Header  
CN10: Printer (LPT)port  
CN6: COM2 port Connector  
CN9: LAN2 RJ45 Connector  
CN8: LAN3 RJ45 Connector  
CN19: IDE1 40 pin (2.54mm)Connector  
CN18: IDE2 44 pin (2.0mm)Connector  
CN20:CF 50 pin socket  
SATA1: S-ATA IDE 7pin Wafer  
CN14: USB port 2 connector  
CN16: USB port 3 connector  
CN27: USB port 4 connector  
JUSB1/JUSB2:USB 4/5 port connector  
CN29: Line out connector  
CN28 : Mic-in connector  
CN47: Line out /Line in/ Mic-in Header  
JF2: CPU FAN connector  
JF1: System FAN connector  
JI1: IR connector  
CN21: DC +5/+12V output connector  
CN26: I2C Bus connector  
CN13: TV out connector  
MPC11:Mini PCI socket  
JR1: Reset pin  
SW1 : System power switch  
JSW1 : System power switch pin header  
PW LED : System power LED or pin header  
JP1: System power LED pin header  
HD LED : Hard Disk LED or pin header  
LAN LED: LAN active LED

## 3-2 FAN Connector

CV700A provides one CPU fan connector and one system fan connector.

CPU Fan Connector- JF2

System FAN Connector-JF1



PIN NO.	Description
1	FAN Control ON/OFF
2	+12V
3	FAN speed Sensor

\*Note : DC- in +12V by switch to DC-out voltage +12V  
So DC -in need stable +12V input

## 3-3 IDE Connectors

There are two kinds of IDE connectors on this board, 40-pin and 44-pin. Each can support up to two IDE-interface devices. One standard 40-pin header daisy-chain driver connector provides as IDE1 with following pin assignment.

40 pins (2.54mm)-CN19(IDE 1)

This connector supports the provided IDE hard disk ribbon cable. After connecting the single plug end to motherboard, connect the two plugs at other end to your hard disk(s). If you install two hard disks, you must configure the second drive as Slave mode by setting its jumpers accordingly. Please refer to the documentation of your hard disk for the jumper settings.

### Note!

PIN 20 connector +5V of IDE 1 could provide the power of DOM

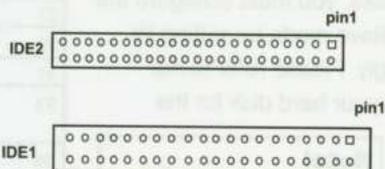
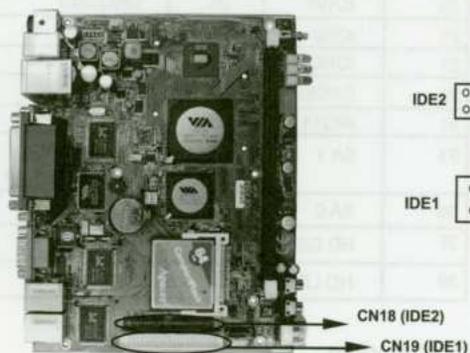
PIN NO.	Description	PIN NO.	Description
1	RESET#	2	GROUND
3	DATA7	4	DATA8
5	DATA6	6	DATA9
7	DATA5	8	DATA10
9	DATA4	10	DATA11
11	DATA3	12	DATA12
13	DATA2	14	DATA13
15	DATA1	16	DATA14
17	DATA0	18	DATA15
19	GROUND	20	+5V
21	DREQ	22	GROUND
23	IOW#	24	GROUND
25	IOR#	26	GROUND
27	IRDY	28	PULL DOWN
29	DACK#	30	GROUND
31	IRQ14	32	NC
33	SA 1	34	ATA 33/66/100 CABLE SELECT
35	SA 0	36	SA 2
37	HD CS0#	38	HD CS1#
39	HD LED	40	GROUND

Note: Pin20 is +5V power can use new type DOM module.

## 44 pins(2.0mm)-CN18 (IDE2)

This connector supports slim type 2.5" HDD. Follow the same procedure described for the primary IDE connector. You may also configure two hard disks as both Masters using one ribbon cable on the primary IDE connector and another ribbon cable on the secondary IDE connector. (See Appendix B)

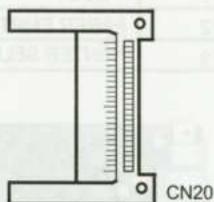
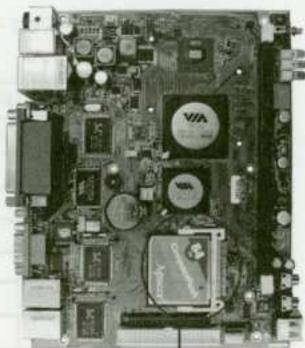
PIN NO.	Description	PIN NO.	Description
1	RESET#	2	GROUND
3	DATA7	4	DATA8
5	DATA6	6	DATA9
7	DATA5	8	DATA10
9	DATA4	10	DATA11
11	DATA3	12	DATA12
13	DATA2	14	DATA13
15	DATA1	16	DATA14
17	DATA0	18	DATA15
19	GROUND	20	KEY
21	DREQ	22	GROUND
23	IOW#	24	GROUND
25	IOR#	26	GROUND
27	IORDY	28	PULL DOWN
29	DACK#	30	GROUND
31	IRQ15	32	NC
33	SA 1	34	ATA 33/66/100 CABLE SELECT
35	SA 0	36	SA 2
37	HD CS0#	38	HD CS1#
39	HD LED	40	GROUND
41	+5V	42	+5V
43	GROUND	44	NC



### 3-4 Compact - Flash Memory Socket

C700A configures CompactFlash Storage Card in IDE mode. It will use IDE channel when CompactFlash card is plugged in. This socket supports CF Card Type I/II socket spec. CF Socket 50pin---CN20

PIN NO.	Description	PIN NO.	Description
1	GND	26	GND/-CD1
2	DATA3	27	DATA11
3	DATA4	28	DATA12
4	DATA5	29	DATA13
5	DATA6	30	DATA14
6	DATA7	31	DATA15
7	-CS0	32	-CS1
8	NC(A10)	33	GND/-VS1
9	-ATA_SEL	34	-IOR
10	NC(A9)	35	-IOW
11	NC(A8)	36	VCC/-WE(PH)
12	NC(A7)	37	INTR
13	VCC*	38	VCC*
14	NC(A6)	39	-CSEL
15	NC(A5)	40	NC(-VS2)
16	NC(A4)	41	RESET
17	NC(A3)	42	IORDY
18	SDA2	43	DREQ
19	SDA1	44	-DACK
20	SDA0	45	-DASP
21	DATA0	46	-PDIAG
22	DATA1	47	DATA8
23	DATA2	48	DATA9
24	NC/-IOCS16	49	DATA10
25	GND/-CD2	50	GND



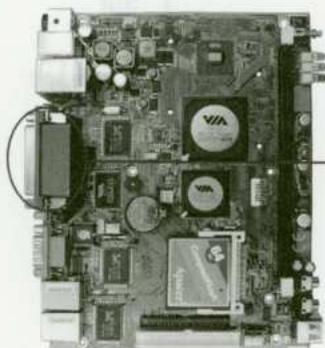
Note: Refer JCF1 /JCF2 Jumper set (CF socket share to IDE2)

### 3-5 Parallel Port Connector

Parallel Port connector is a D-type 25-pin female connector. The On-board Parallel Port can be disabled through the BIOS SETUP (see Chapter 4)

- CN10: Printer (LPT)Port ---CN10 D-SUB 25 PIN

PIN NO.	Description	PIN NO.	Description
1	STROBE#	14	AUTO FROM FEED#
2	DATA0	15	ERROR#
3	DATA1	16	INITIALIZE
4	DATA2	17	PRINTER SELECT LN#
5	DATA3	18	GROUND
6	DATA4	19	GROUND
7	DATA5	20	GROUND
8	DATA6	21	GROUND
9	DATA7	22	GROUND
10	ACKNOWLEDGE	23	GROUND
11	BUSY	24	GROUND
12	PARER EMPTY	25	GROUND
13	PRINTER SELECT		



CN10

### 3-6 Serial Port Connector

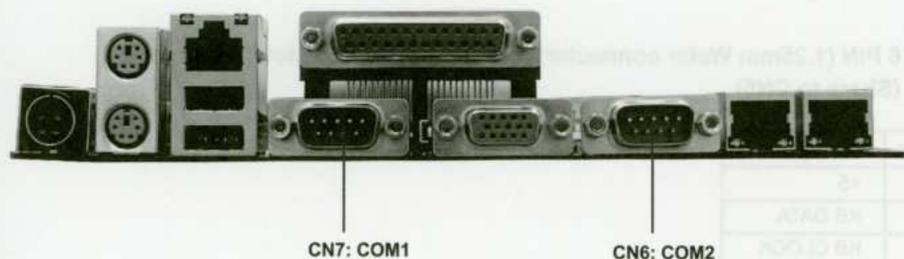
The CV700A board offers two high speed NSI6C550 compatible UARTS with Read/ Receive 16 byte FIFO serial ports. The serial ports are two DB-9 external connectors. The On-board serial port can be disabled through BIOS SETUP (see Chapter 4).

#### ● CN7: COM1 Connector D-SUB 9-Pin

PIN NO.	Description	PIN NO.	Description
1	DCD	6	DSR
2	RXD	7	RTS
3	TXD	8	CTS
4	DTR	9	RI
5	GND		

#### ● CN6: COM2 Connector D-SUB 9-pin

PIN NO.	Description	PIN NO.	Description
1	DCD	6	DSR
2	RXD	7	RTS
3	TXD	8	CTS
4	DTR	9	RI
5	GND		



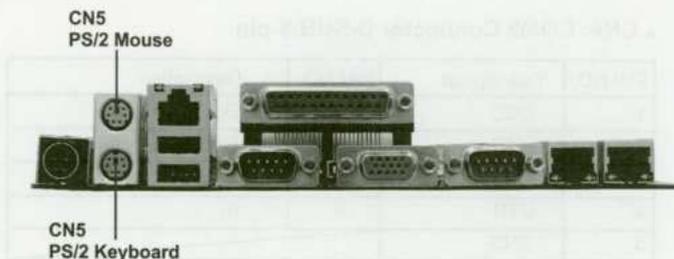
## 3-7 Keyboard and Mouse Connector

### CN5: PS2 Keyboard down side (Din 6 pin jack)

PIN NO.	Description
1	KB DATA
2	MS DATA
3	GND
4	+5V
5	KB CLOCK
6	MS CLOCK

### CN5: PS2 Mouse up side (Din 6 pin jack)

PIN NO.	Description
1	MS DATA
2	NC
3	GND
4	+5V
5	MS CLOCK
6	NC



### JKM1: 6 PIN (1.25mm Wafer connector) Internal Keyboard / Mouse Connector (Share to CN5)

PIN NO.	Description
1	+5
2	KB DATA
3	KB CLOCK
4	GND
5	MS DATA
6	MS CLOCK

## 3-8 USB Port/ Header

**CN3 (Down side) : USB 0/1port Type A Jack**

PIN NO.	Description
1	+5V
2	USB DATA 0/1-
3	USB DATA 0/1+
4	GND

**CN27: USB port 4 Type A jack**

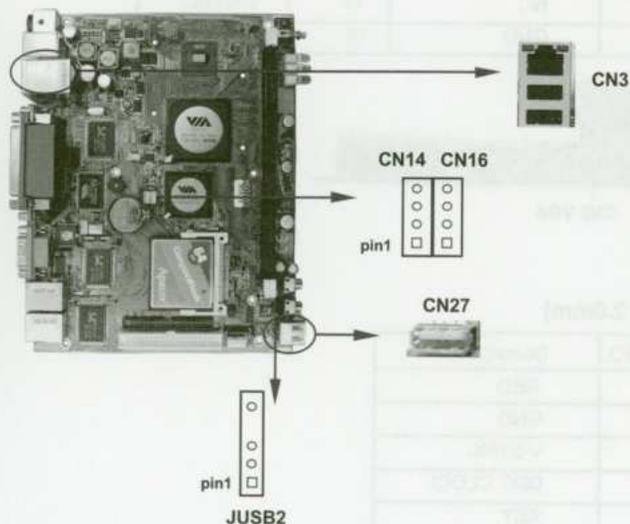
PIN NO.	Description
1	+5V
2	USB DATA 6-
3	USB DATA 6+
4	GND

**CN14 / CN16 : USB port 2/3 pin  
(1.25mm Wafer connector)**

PIN NO.	Description
1	+5V
2	USB DATA - 4/5
3	USB DATA + 4/5
4	GND

**JUSB1/JUSB2 USB 4/5 port  
5pin header (2.54mm)**

PIN NO.	Description
1	+5V
2	USB DATA 6/7-
3	USB DATA 6/7+
4	KEY
5	GND

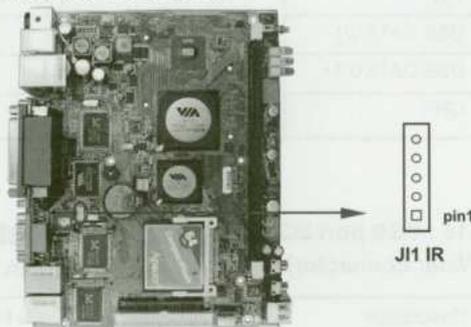


## 3-9 IR Connector

This built-in IR connector supports the optional wireless transmitting and receiving infrared module. It supports Infra-red Data Association (IrDA) and Amplitude Shift Keyed IR (ASKIR). You can configure the setting through the BIOS setup to use the IR function. (see Chapter 4)

- **J11: IR connector ---5pin (1.25mm Wafer connector)**  
IR : ASKIR / IRDA

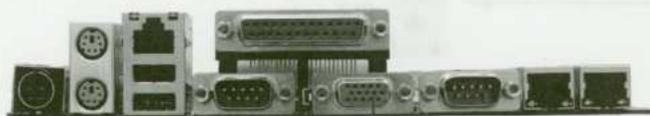
PIN NO.	Description
1	+5VSB
2	FIR
3	IRRX
4	GND
5	IRTX



## 3-10 VGA Connector

- **CN2: VGA DB15 Connector Up side (D SUB 15PIN)**

PIN NO.	Description	PIN NO.	Description	PIN NO.	Description
1	RED	6	GND	11	NC
2	GREEN	7	GND	12	DDC DATA
3	BULE	8	GND	13	H-SYNC
4	NC	9	NC	14	V-SYNC
5	GND	10	GND	15	DDC CLOCK



CN2 VGA

### 3-10.1 VGA Header

- **CN46 : VGA Header (2x5pin 2.0mm)**

PIN NO.	Description	PIN NO.	Description
1	BULE	2	RED
3	GREEN	4	GND
5	H-SYNC	6	V-SYNC
7	DDC DATA	8	DDC CLOCL
9	GND	10	KEY

## 3-11 LAN Port

The Fast Ethernet controller provides 32-bit performance, PCI bus master capability, and full compliance with IEEE 802.3 10/100Based-T specification.

For 10/100Base-T operation, please connect the network connection by plugging one end of the cable into the RJ-45 jack of the CN9,CN8 Connector.

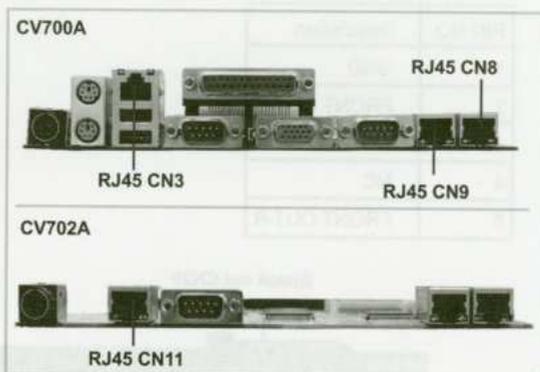
Besides 10/100 Base-T, CV700A can provide Giga LAN solution through CN9,CN8 once equipped with Intel 82541GI/PI/ER chipset.

- **CN3 (Up side) (or CN11 single RJ45-CV702A) :LAN1 Giga/100Mb Jack**

**CN9: LAN2 RJ45 Connector**

**CN8: LAN3 RJ45 Connector**

PIN NO.	Description	PIN NO.	Description
1	TD0-/TX+	5	TD2-/NC
2	TD0+/TX-	6	TD2+/RX-
3	TD1-/RX+	7	TD3-/NC
4	TD1+/NC	8	TD3+/NC



### LAN Led

RJ45 LAN1 Connector--- LED define Giga/100/10MB Conector

Back side connector	RED LED	ORANGE LED	GREEN LED
Indicate	GIGA LAN Link(light)	100Mb LAN Link(light)	10Mb LAN Link(light)
Fron side	LAN LED Header		
Indicate	LAN10/100/1000BT Actived (light)		

RJ45 LAN1 Connector--- LED define 10/100MB Conector

Back side connector	GREEN LED	GREEN LED
Link	ORANGE LED	ORANGE LED
Indicate	100Mb LAN Link(light)	10Mb LAN Link(light)
Fron side	LAN LED Header	
Indicate	LAN10/100BT Actived (light)	

## 3-12 Audio Port Connector

The CV700A has an on-board AC'97 3D sound interface. There are the connectors of LINE OUT, MIC-IN and CD-IN connectors.

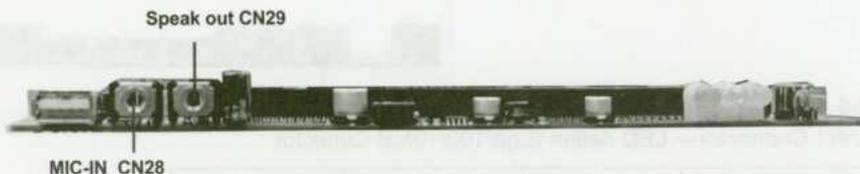
The MIC-IN Jack and CD-IN header are for audio sound input. The LINE-OUT connector is a 4-pin Jack for audio sound output.

- **CN29 (Phone Jack) -----Line-OUT**  
(3.5mm Phone jack or 5pin 2.54mm header)

PIN NO.	Description
1	GND
2	FRONT OUT-L
3	NC
4	NC
5	FRONT OUT-R

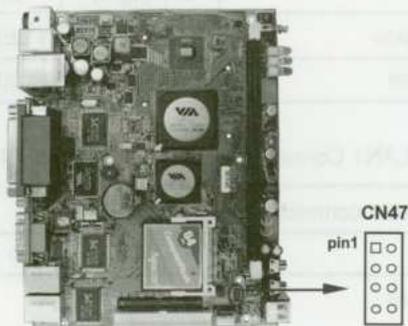
- **CN28 (Phone Jack) -----MIC-IN**  
(3.5mm Phone jack or 5pin 2.54mm header)

PIN NO.	Description
1	GND
2	MIC-PW
3	GND
4	NC
5	MIC-IN



- **CN47: Line-out / MIC-in Header (2x4pin 2.0mm Header)**

PIN NO.	Description	PIN NO.	Description
1	Line-out-R	2	Line-out-L
3	GND	4	GND
5	Line-in-R	6	Line-in-L
7	Mic-in	8	Mic-in



**Note:** If phone jack plunge into CN29 of the signal will disabled CN24 pin 1/2

### 3-13 DC 12V IN and DC out

- CN1: DC 12V-IN External Connector (4pin mini den connector)

PIN NO.	Description
1,2	+12V DC-IN
3,4	GND



- CN4: DC 12V-IN Internal Connector (4pin connector)  
( For option connector)

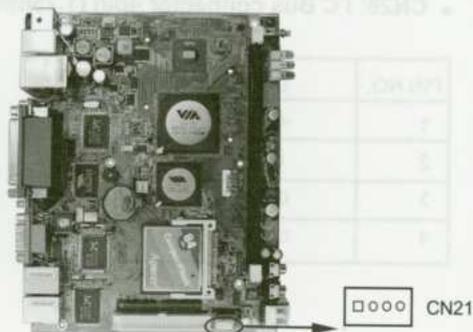
PIN NO.	Description
3,4	+12V DC-IN
1,2	GND

### 3-14 DC +5/+12V output connector

- CN21 : DC +5/+12V output connector(2.5mm Wafer)

PIN NO.	Description
1	+5V
2	GND
3	GND
4	+12V*

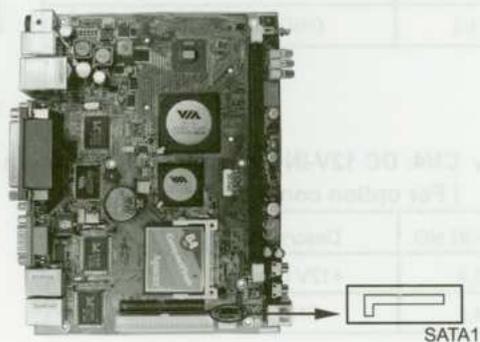
\* Note: DC in +12V by switch to DC-out voltage +12V  
So DC in need stable +12V input



## 3-15 Serial ATA

- SATA1: S-ATA IDE 7pin Wafer

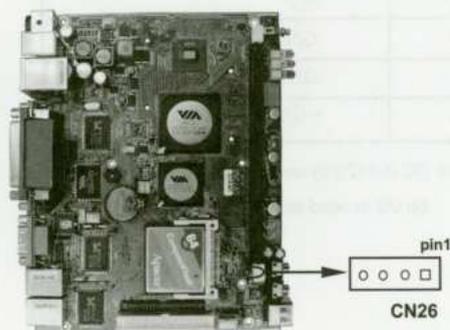
PIN NO.	Description
1	GND
2	DATA TX+
3	DATA TX-
4	GND
5	DATA RX-
6	DATA RX+
7	GND



## 3-16 I<sup>2</sup>C Bus Connector

- CN26: I<sup>2</sup>C Bus connector 4pin (1.25mm Wafer connector)

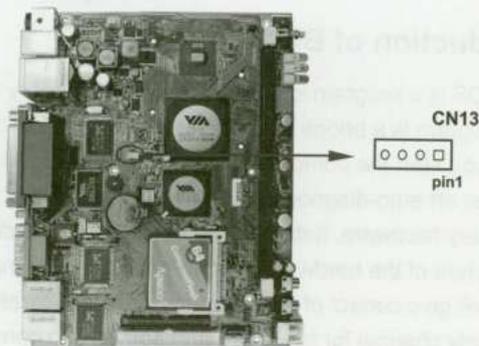
PIN NO.	Description
1	+3.3V
2	GND
3	I2C CLK
4	I2C DATA



### 3-17 TV-OUT Connector

**CN13 : TV-OUT S-VIDEO  
(4pin 1.25mm Wafer)**

PIN NO.	Description
1	LUMA-out
2	CHROMA-out
3	CVBS
4	GND



### 3-18 Front-Panel

• **JR1: System Reset key( 2.0mm pin header)**

• **Power switch: PW-ON--- SW1**

**JSW1: Power on switch**

Based on case design , there may be a power switch or a 2-pin header connected to the case-mounted power switch. It is used to power ON/OFF the system.

• **Power LED: PW-LED / JP1**

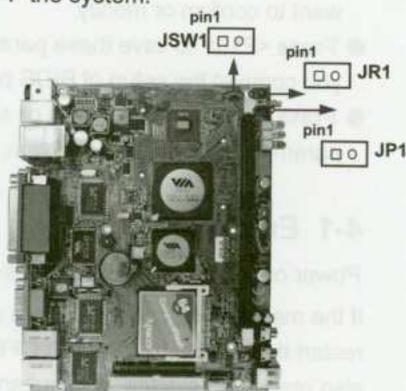
The Power LED is lit while the system power is on.

• **IDE Activity LED: HDD-LED**

HDD-LED shows the activity of the hard disk.

• **LAN LED Activity LED**

LAN1/ LAN2 LED shows the activity of network



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## Chapter 4

### Introduction of BIOS

The BIOS is a program located in the Flash Memory on the motherboard. This program is a bridge between motherboard and operating system. When you start the computer, the BIOS program gains control. The BIOS first operates an auto-diagnostic test called POST (Power on Self Test) for all the necessary hardware, it detects the entire hardware devices and configures the parameters of the hardware synchronization. After these tasks are completed, BIOS will give control of the computer back to operating system (OS). Since the BIOS is the only channel for hardware and software to communicate with, it is the key factor of system stability and of ensuring your system performance at best.

In the BIOS Setup main menu of Figure 4-1, you can see several options. We will explain these options in the following pages. First, let us see the function keys you may use here:

- Press <Esc> to quit the BIOS Setup.
- Press ↑↓←→ (up, down, left, right) to choose the option you want to confirm or modify.
- Press <F10> to save these parameters and to exit the BIOS Setup menu after you complete the setup of BIOS parameters.
- Press Page Up/Page Down or +/- keys to modify the BIOS parameters for the active option.

### 4-1 Enter Setup

Power on the computer and press <Del> immediately to enter Setup.

If the message disappears before your respond but you still wish to enter Setup, restart the system by turning it OFF then ON button on the system case. You may also restart the system by simultaneously pressing <Ctrl>, <Alt> and <Delete> keys. If you do not press the keys at the proper time and the system does not boot, an error message will display and you will be asked to

**Press <F1> to continue, <Ctrl-Alt-Esc> or <Del> to enter Setup**

---

## 4-2 Getting Help

### Main Menu

The on-line description of the highlighted setup function is displayed at the bottom of the screen.

### Status Page Setup Menu/ Option Page Setup Menu

Press F1 to pop up a small help window that describes the appropriate keys to use and the possible selections for the highlighted item.

To exit the Help Window, press <Esc>.

## 4-3 The Main Menu

Once you enter Award BIOS CMOS Setup Utility, the Main Menu will appear on the screen. The Main Menu has fourteen setup functions and two exit choices.

Use arrow keys to select among these items. Press <Enter> to accept or enter the sub-menu.

### Phoenix-AwardBIOS CMOS Setup Utility

Standard CMOS Features	Frequency/Voltage Control
Advanced BIOS Features	Load Fail-Safe Defaults
Advanced Chipset Features	Load Optimized Defaults
Integrated Peripherals	Set Supervisor Password
Power Management Setup	Set User Password
PnP/PCI Configurations	Save & Exit Setup
PC Health Status	Exit Without Saving
Esc : Quit    F9 : Menu in BIOS    ↑ ↓ → ← : Select Item	
F10 : Save & Exit Setup	
Time, Date, Hard Disk Type...	

---

## **Standard CMOS Features**

This Menu is for basic system configurations.

## **Advanced BIOS Features**

This menu is to set the Advanced Features available in your system.

## **Advanced Chipset Features**

This menu is to change the values in the chipset registers and optimize your system performance.

## **Integrated Peripherals**

This menu is to specify your settings for integrated peripherals.

## **Power Management Setup**

This menu is to specify your settings for power management.

## **PnP/PCI configurations**

This entry appears if your system supports PnP/PCI.

## **PC Health Status**

This entry shows your PC health status.

## **Frequency/Voltage Control**

This menu is to specify your settings for Miscellaneous Control.

## **Load Optimized Defaults**

Use this menu to load the BIOS default values that are factory settings for optimal system operation performance. It is provided for the skillful users who want to push the motherboard to get better performance. The Optimized setting does not go through all the reliability and compatibility tests, it is verified only with limited configurations and loading (for example, a system that is equipped with only one VGA card and one DIMM). Do not use Optimized setting unless you fully understand the items in chipset setup menu.

## Load Standard Defaults

Use this menu to load the BIOS default values for the optimum system performance. Standard Defaults settings are relatively more reliable than Optimized Defaults. All the product verifications, compatibility test reports and manufacture quality controls are based on "Standard Defaults". We suggest you to use this setting for normal operation. "Standard Defaults" is not the slowest setting for this motherboard. If you need to verify an unstable problem, you may manually set the parameter in "Advanced Chipset Features" to get slower and safer setting.

## Set Supervisor/User Password

This menu is to set User and Supervisor Passwords.

## Save & Exit Setup

Save CMOS values modified to CMOS and exit setup.

## Exit Without Saving

Abandon all the CMOS values modified and exit setup.

## 4-4 Standard CMOS Features

The items in Standard CMOS Setup Menu are divided into several categories. Each category includes no, one or more than one setup items. Use the arrow keys to highlight the item and then use the <PgUp> or <PgDn> keys to select the value you want to modify with this item.

### Phoenix - AwardBIOS CMOS Setup Utility Standard CMOS Features

Date (mm:dd:yy)	May 5 2006	Item Help
Time (hh:mm:ss)	10 : 59 : 36	
▶ IDE Channel 0 Master	[ None ]	Menu Level >
▶ IDE Channel 0 Slave	[ None ]	
▶ IDE Channel 1 Master	[ None ]	
▶ IDE Channel 1 Slave	[ None ]	Change the day, moth,
▶ IDE Channel 2 Master	[ None ]	year and century
▶ IDE Channel 3 Master	[ None ]	
Video	[EGA/VGA]	
Halt On	[No Errors]	
Base Memory	640K	
Extended Memory	65472K	
Total Memory	1024K	
↑ ↓ → ←:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults		

## 4-5 Advanced BIOS Features

### Phoenix-AwardBIOS CMOS Setup Utility Advanced BIOS Features

		Item Help
Hard Disk Boot Priority	[Press Enter]	
Virus Warning	[Disabled]	
CPU L1 & L2 Cache	[Enabled]	
CPU L2 Cache ECC Checking	[Enabled]	
Quick Power On Self Test	[Enabled]	
First Boot Device	[USB-FDD]	Menu Level >
Second Boot Device	[Hard Disk]	
Third Boot Device	[CDROM]	
Boot Other Device	[Enabled]	
Boot Up NumLock Status	[On]	
Typematic Rate Setting	[Disabled]	Allows you to choose the VIRUS warning feature for IDE Hard Disk boot sector protection. If this function is enabled and someone attempt to write data into this area, BIOS will show a warning message on screen and alarm beep
X Typematic Rate (Chars/Sec)	[6]	
X Typematic Delay (Msec)	[250]	
Security Option	[Setup]	
OS Select For DRAM > 64MB	[Non - OS2]	
Video BIOS Shadow	[Enabled]	
Full Screen LOGO Show	[Enabled]	
Small Logo (EPA) Show	[Disabled]	
↑ ↓ → ← :Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults		

### Virus Warning

The VIRUS Warning feature can help you protect IDE Hard Disk boot sector. If this function is enabled, BIOS will show a warning message on screen and alarm beep when someone attempts to write data into this area without permission.

**Disabled** (default) No warning message appears when anything attempts to access the boot sector or hard disk partition table.

**Enabled** Activate automatically when the system boots up. The system will show the warning message if anything attempts to access the boot sector of hard disk partition table.

## 4-6 Advanced Chipset Features

The Advanced Chipset Features Setup option is used to change the values of the chipset registers. These registers control most of the system options in the computer.

### Phoenix- AwardBIOS CMOS Setup Utility Advanced Chipset Features

▶ DRAM Clock/Drive Control	[Press Enter]	Item Help
▶ AGP & P2P Bridge Control	[Press Enter]	
Memory Hole	[Disabled]	Menu Level >>
System BIOS Cacheable	[Enabled]	
Video RAM Cacheable	[Disabled]	
↑ ↓ → ← : Move   Enter : Select   +/- / PU / PD : Value   F10 : Save   ESC : Exit   F1 : General Help F5 : Previous Values   F6 : Fail-Safe Defaults   F7 : Optimized Defaults		

### 4-6-1 DRAM Clock/Drive Control

#### Phoenix- AwardBIOS CMOS Setup Utility DRAM Clock/Drive Control

Current FSB Frequency	100 MHz	Item Help	
Current DRAM Frequency	266 MHz		
DRAM Clock	[By SPD]	Menu Level >>	
DRAM Timing	[Auto By SPD]		
X SDRAM CAS Latency [DDR / DDR 2.5 / 4			
X Bank Interleave	Disabled		
x Precharge to Active <Trp>	4T		
x Active to Precharge <Tras>	07T		
x Active to CMD <Trcd>	4T		
x REF toACT / REF (Trfc)	21T		
X ACT(0) to ACT(1) (TRRD)	3T		
Read to Precharge (Trtp)	[2T]		
Write to Read CMD (Twtr)	[1T/2T]		
Write Recovery Time (Twr)	[4T]		
DRAM Command Rate	[2T Command]		
RDSAIT mode	[Auto]		
x RDSAIT selection	03		
↑ ↓ → ← : Move   Enter : Select   +/- / PU / PD : Value   F10 : Save   ESC : Exit   F1 : General Help F5 : Previous Values   F6 : Fail-Safe Defaults   F7 : Optimized Defaults			

The menu is to include settings for the chipset dependents features. These features are related to system performance. Make sure you fully understand the items contained in this menu before you change anything. You may change the parameter settings to improve system performance. However, it may make your system unstable if the setting is not correct for your system configuration.

## 4-6-2 AGP & P2P Bridge Control

Phoenix- AwardBIOS CMOS Setup Utility  
AGP & P2P Bridge Control

DRAM Clock/Drive Control [64M] AGP & P2P Bridge Control [Enabled]	Item Help
	Menu Level >>
↑ ↓ → ←:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults	

## 4-7 Integrated Peripherals

Phoenix- AwardBIOS CMOS Setup Utility  
Integrated Peripherals

▶ VIA OnChip IDE Device [Press Enter] ▶ VIA OnChip PCI Device [Press Enter] ▶ SuperIO Device [Press Enter]	Item Help
	Menu Level >>
↑ ↓ → ←:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults	

## 4-7-1 VIA OnChip IDE Device

Phoenix-AwardBIOS CMOS Setup Utility

VIA OnChip IDE Device

OnChip SATA	[Enabled]	Item Help
SATA Mode	[IDE]	
IDE DMA transfer	[Enabled]	Menu Level >>
OnChip IDE Channel0	[Enabled]	
OnChip IDE Channel1	[Enabled]	
IDE Prefetch Mode	[Enabled]	
Primary Master PIO	[Auto]	
Primary Slave PIO	[Auto]	
Secondary Master PIO	[Auto]	
Secondary Slave PIO	[Auto]	
Primary Master UDMA	[Auto]	
Primary Slave UDMA	[Auto]	
Secondary Master UDMA	[Auto]	
Secondary Slave UDMA	[Auto]	
IDE HDD Block Mode	[Enabled]	
↑ ↓ → ← : Move Enter : Select +/- / PU / PD : Value F10 : Save ESC : Exit F1 : General Help		
F5 : Previous Values F6 : Fail-Safe Defaults F7 : Optimized Defaults		

## 4-7-2 VIA OnChip PCI Device

Phoenix - AwardBIOS CMOS Setup Utility

VIA-3058 AC97 Audio	[Auto]	Item Help
OnChip USB Controller	[All Enabled]	
OnChip EHCI Controller	[Enabled]	Menu Level >>
USB Emulation	[ON]	
x USB Keyboard Support	Enabled	
x USB Mouse Support	Enabled	
↑ ↓ → ← : Move Enter : Select +/- / PU / PD : Value F10 : Save ESC : Exit F1 : General Help		
F5 : Previous Values F6 : Fail-Safe Defaults F7 : Optimized Defaults		

### VIA-3058 AC97 AUDIO

This item allows you to decide to enable/disable to support AC97 Audio.

## 4-7-3 Super IO Device

### Phoenix-AwardBIOS CMOS Setup Utility Super IO Device

Onboard Serial Port 1	[3F8/IRQ4]	Item Help
Onboard Serial Port 2	[2F8/IRQ3]	
Onboard Parallel Port	[378/IRQ7]	
X EPP Mode Select	EPP1.7	Menu Level >>
X ECP Mode Use DMA	3	

↑↓←→:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help  
F5:Previous Values F6: Fail-Safe Defaults F7:Optimized Defaults

## 4-8 Power Management Setup

The Power Management Setup allows you to configure your system to most effectively energy saving while operating in a manner consistent with your own style of computer use.

### Phoenix - AwardBIOS CMOS Setup Utility Power Management Setup

ACPI function	[Enabled]	Item Help
ACPI Suspend Type	S1(POS)	
Power Management Option	[User Define]	Menu Level ▶
HDD Power Down	[Disable]	
Suspend Mode	[Disable]	
Video Off Option	[Suspend -> Off]	
Video Off Method	[U/H SYNC+Blank]	
MODEM Use IRQ	[NA]	
Soft-Off by PWRBTN	[Instant-Off]	
Ac Loss Auto Restart	[Former-Sts]	
▶ IRQ/Event Activity Detect	[Press Enter]	

↑↓←→:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help  
F5: Previous Values F6: Fail-Safe Defaults F7: Optimized Defaults

### IRQ / Event Activity Detect

Please refer to section4-8-1

## 4-8-1 IRQ / Event Activity Detect

### Phoenix - AwardBIOS CMOS Setup Utility IRQ/Event Activity Detect

		Item Help
UGA	[OFF]	
LPT & COM	[LPT/COM]	
HDD & FDD	[ON]	
PCI Master	[OFF]	
PowerOn by PCI Card	[Disabled]	
Modem Ring Resume	[Disabled]	
RTC Alarm Resume	[Disabled]	
× Date (of Month)	[ 0]	
× Resume Time (hh:mm:ss)	0 : 0 : 0	
▶ IRQs Activity Monitoring	[Press Enter]	
		Menu Level ▶▶

↑↓←→: Move Enter: Select +/~/PU/PD: Value F10: Save ESC: Exit F1: General Help  
F5: Previous Values F6: Fail-Safe Defaults F7: Optimized Defaults

### IRQs Activity Monitoring

Please refer to section 4-8-1.1

## 4-8-1.1 IRQs Activity Monitoring

### Phoenix - AwardBIOS CMOS Setup Utility IRQs Activity Monitoring

		Item Help
Primary INTR	[ON]	
IRQ3 <COM 2>	[Enabled]	
IRQ4 <COM 1>	[Enabled]	
IRQ5 <LPT 2>	[Enabled]	
IRQ6 <Floppy Disk>	[Disabled]	
IRQ7 <LPT 1>	[Enabled]	
IRQ8 <RTC Alarm>	[Disabled]	
IRQ9 <IRQ2 Redir>	[Disabled]	
IRQ10 <Reserved>	[Disabled]	
IRQ11 <Reserved>	[Disabled]	
IRQ12 <PS/2 Mouse>	[Enabled]	
IRQ13 <Coprocessor>	[Enabled]	
IRQ14 <Hard Disk>	[Enabled]	
IRQ15 <Reserved>	[Disabled]	
		Menu Level ▶▶▶

↑↓←→: Move Enter: Select +/~/PU/PD: Value F10: Save ESC: Exit F1: General Help  
F5: Previous Values F6: Fail-Safe Defaults F7: Optimized Defaults

## 4-9 PnP / PCI Configuration Setup

This section describes how to configure the PCI bus system. PCI, or Personal Computer Interconnect, is a system which allows I/O devices to operate at the speed the CPU itself keeps when CPU communicates with its own special components. This section covers some very technical items and we strongly recommended that only experienced users should make any change to the default settings.

### Phoenix - AwardBIOS CMOS Setup Utility PnP/PCI Configurations

		Item Help
PNP OS Installed	[No]	
Reset Configuration Data	[Disabled]	
Resources Controlled By	[Auto<ESCD>]	Menu Level ▶
× IRQ Resources	[Press Enter]	Select Yes if you are using a Plug and Play capable operating system Select No if you need the BIOS to configure non-boot devices
PCI/UGA Palette Snoop	[Disabled]	
Assign IRQ For UGA	[Enabled]	
Assign IRQ For USB	[Enabled]	

↑↓←→: Move Enter: Select +/-/PU/PD: Value F10: Save ESC: Exit F1: General Help  
F5: Previous Values F6: Fail-Safe Defaults F7: Optimized Defaults

### Resource Controlled By

The Award Plug and Play BIOS can automatically configure all of the boot and Plug and Play compatible devices. However, this capability means absolutely nothing unless you are using a Plug and Play operating system such as Windows 95/98. If you set this field to "manual", choose a specific resource by going into each sub menu that follows this field (a sub menu is preceded by a ">").

The settings are Auto (ESCD) or Manual.

### IRQ Resources

When resources are controlled manually, each system interrupt is assigned a type, depending on the type of device using the interrupt.

### PCI/VGA Palette Snoop

Leave this field at Disabled. The settings are Enabled or Disabled.

## 4-10 PC Health Status

This section shows the status of your CPU, Fan, and overall system.

This is only available when there is Hardware Monitor function onboard.

Phoenix - AwardBIOS CMOS Setup Utility		Item Help
PC Health Status		Menu Level ▶
Current CPU Temp	39°C / 102°F	
Current System Temp	46°C / 114°F	
Current Fan 1 Speed	0 RPM	
Current Fan 2 Speed	0 RPM	
+12V	12.196 V	
+5V	5.085 V	
3.3V	3.277 V	
CPU Vcore	0.981 V	
Internal Vcc	3.281 V	

↑↓←→: Move    Enter: Select    +/~/PU/PD: Value    F10: Save    ESC: Exit    F1: General Help  
F5: Previous Values    F6: Fail-Safe Defaults    F7: Optimized Defaults

### Show PC Health in Post

During Enabled, it displays information list below. The choice is either Enabled or Disabled

**Current CPU Temperature/Current System Temp/Current FAN1,FAN2 Speed/  
Vcore/3.3V/+5V/+12V**

This will show the CPU/FAN/System voltage chart and FAN Speed

## 4-11 Frequency/Voltage Control

This section is to set CPU Frequency Control.

### Phoenix-AwardBIOS CMOS Setup Utility Frequency/Voltage Control

Auto Detect PCI Clk Spread Spectrum	[Disabled] [Disabled]	Item Help
		Menu Level >
← →:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults		

#### Auto Detect DIMM/PCI Clock

This item allows you to enable or disable Auto Detect DIMM/PCI Clock.  
The settings are Enabled or Disabled.

#### Spread Spectrum

This item allows you to set the CPU Host/PCI clock Spread Spectrum.  
The choice are Disabled or Enabled.

## 4-12 Load Fail-Safe/Optimized Defaults

#### Load Standard Defaults

When you press <Enter> on this item, you get a confirmation dialog box with a message similar to:

Load Standard Defaults (Y/N)? N

Press <Y> to load the BIOS default values for the most stable system operation and minimal performance.

#### Load Optimized Defaults

When you press <Enter> on this item, you get a confirmation dialog box with a message similar to:

Load Optimized Defaults (Y/N)? N

Press <Y> to load the default values that are factory settings for optimal system operation performance.

---

## 4-13 Set Supervisor/ User Password

You can set supervisor password, user password, or both. The differences are:

**Supervisor password:** You can enter the setup menus and change the options.

**User password:** You can enter the setup menus but do not have the right to change the options. When you select this function, the following message will appear at the center of the screen to assist you in creating a password.

### ENTER PASSWORD:

Type the password, up to eight characters in length, and press <Enter>. The password typed will clear any previous password from CMOS memory. You will be asked to confirm the password. Type the password again and press <Enter>. You may also press <Esc> to abort the selection without entering password.

To disable a password, just press <Enter> when you are prompted to enter the password. A message will confirm if you want to disable the password. Once the password is disabled, the system will boot and you can enter Setup menus freely.

### PASSWORD DISABLED.

When a password has been enabled, you have to enter it every time before you enter the Setup. This prevents an unauthorized person from changing any part of your system configuration.

Additionally, when a password is enabled, you can also have the BIOS to request a password at every time when your system is rebooted. This would prevent the unauthorized user.

You can determine if the password is required within the BIOS Features Setup Menu and its Security option. If the Security option is set to "System", the password will be required both at boot and at entry to Setup. If set to "Setup", the password is required only at the entry to Setup.

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## Chapter 5

### DRIVER INSTALLATION

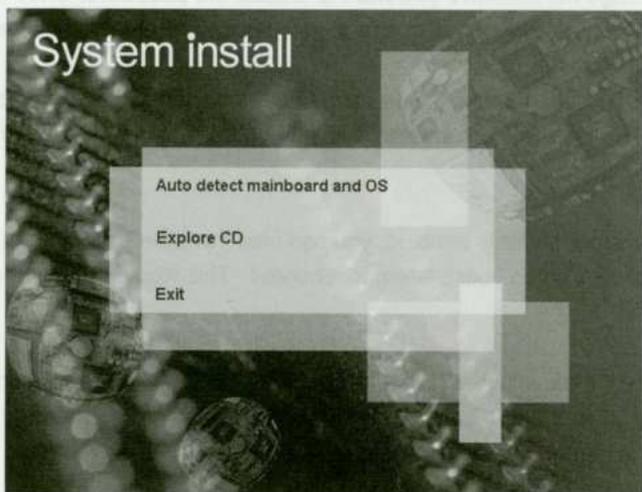
There is a SYSTEM INSTALL CD disk in the package. This CD has all the drivers you need and some free application programs and utility programs. In addition, this CD also includes an auto-detect software which can tell you which hardware is installed and which driver is needed so that your system can function properly.

We call this auto detect software SYSTEM INSTALL.

### SYSTEM INSTALL Supports WINDOWS

#### 98/98SE/ME/2000/XP

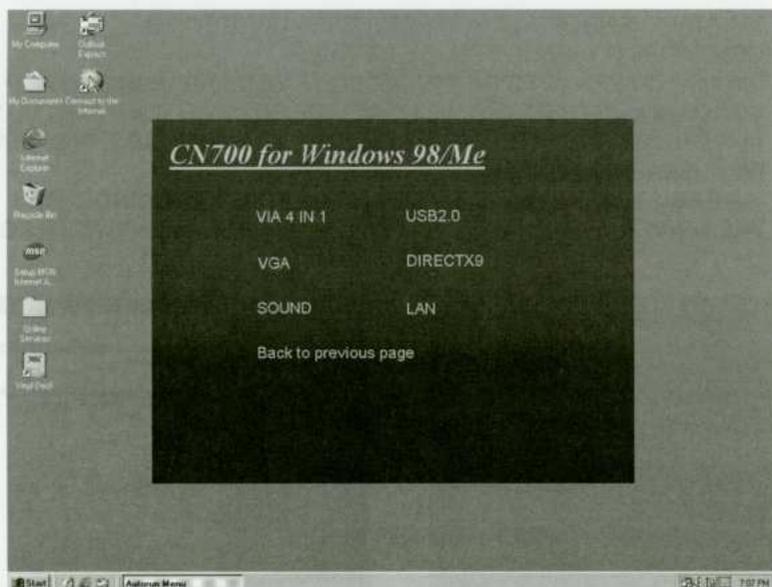
Insert the CD into your CD-ROM drive and the SYSTEM INSTALL Menu should appear as below. If the menu does not appear, double-click MY COMPUTER and double-click CD-ROM drive or click START, click RUN, and type X:\AUTORUN.EXE (assuming X is your CD-ROM drive).



From **MAGIC INSTALL MENU** you may make 3 selections:

- 1 . Auto detect main board and OS Into auto install driver Menu
- 2 . Explore CD to explore the contents of the CD
- 3 . EXIT to exit from SYSTEM INSTALL menu

## Auto install driver Menu

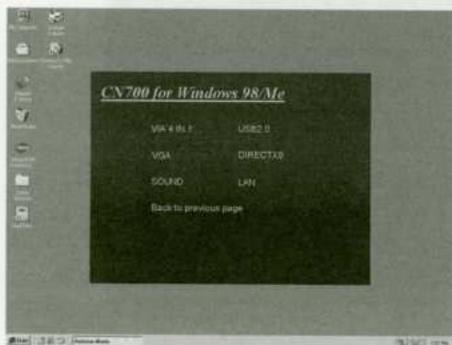


1. VIA 4 IN 1      install VIA IDE/AGP/IRQ ROUTING/INF driver
2. VGA            install on-board VGA driver
3. SOUND         install AC97 Audio Codec Installing driver
4. USB2.0        install VIA USB2.0 hardware Installing driver
5. LAN            to LAN install driver readme file
6. DIRECTX9      To install DirectX9 driver readme file
7. OTHERS        To PenMount 6000 install driver readme file

Note: PenMount 6000 DRIVER IS TO BE INSTALLED UNDER WIN 2000/XP ONLY.  
Each selection is illustrated as below:

## 5-1 VIA 4 IN 1 Install VIA IDE/AGP/ INF Driver

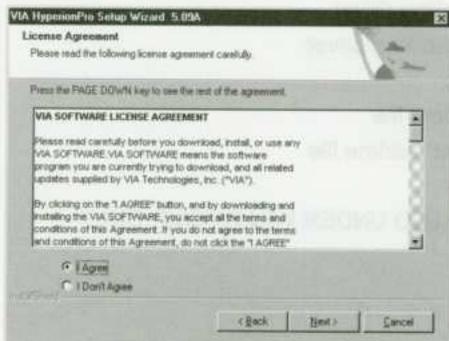
- IDE :** VIA ATAPI VENDOR SUPPORT DRIVER IS USED TO FIX COMPATIBILITY ISSUE FOR IDE DEVICES.
- AGP:** VIA AGP DRIVER IS TO BE INSTALLED. IF YOU ARE USING AN AGP VGA CARD, VIAGART.VXD WILL PROVIDE SERVICE ROUTINES TO YOUR VGA DRIVER AND INTERFACE DIRECTLY TO HARDWARE, PROVIDING FAST GRAPHIC ACCESS.
- INF :** VIA REGISTRY DRIVER IS TO BE INSTALLED UNDER WINDOWS. THE DRIVER WILL ENABLE VIA POWER MANAGERMENT CONTROLLER.



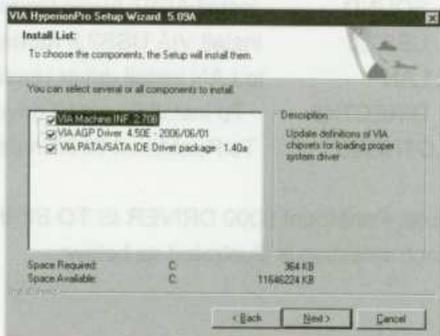
1. Click VIA 4 IN 1 when System Install MENU appears.



2. Click NEXT when VIA Service Pack Wizard appears.

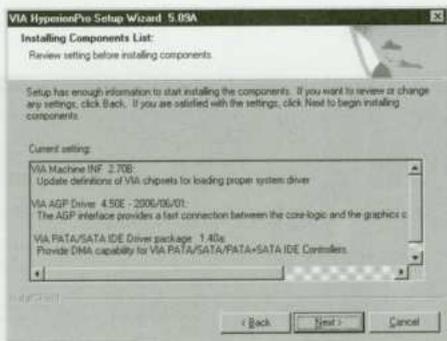


3. License Agreement. Click NEXT.

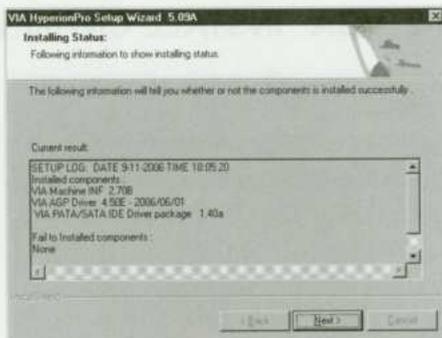


4. Choose all the drivers. Click NEXT.

**Note: VIA AGP Driver IS TO BE INSTALLED UNDER WIN98 ONLY.**



5. Installing Components List. Click NEXT.



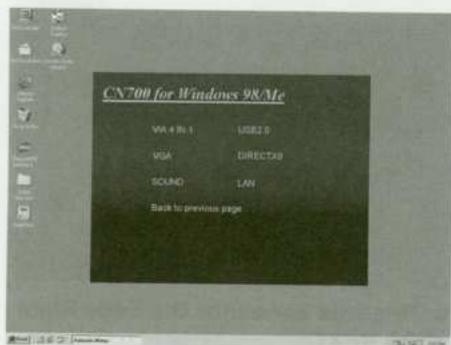
6. This is to announce the Copy Right. Click NEXT.



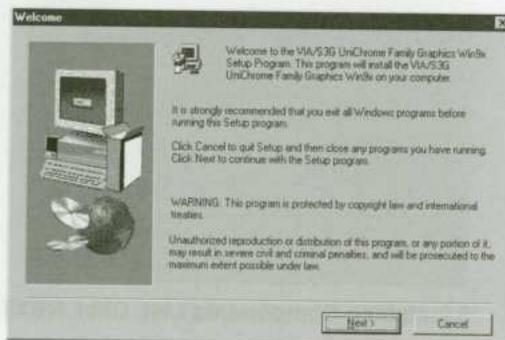
7. Click Finish to restart computer.

**NOTE: SYSTEM INSTALL will auto detect file path  
X:\driver\VIA\CN700\4IN1\setup.exe  
This driver supports WINDOWS 95/98/98SE/NT4.0/2000/XP**

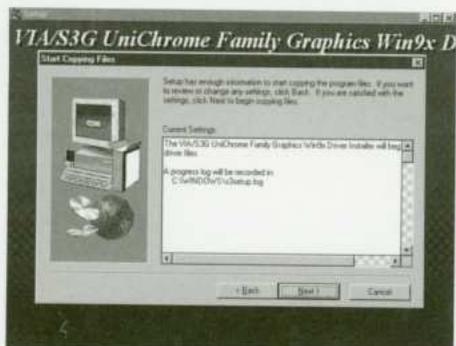
## 5-2 VGA INSTALL CN700 VGA Driver



1. Click VGA when System Install MENU appears.



2. Click NEXT when VIA/S3 CN700 Driver Setup appears.



3. This VIA/S3 CN700 Driver install will begin copying the driver files. Click NEXT.

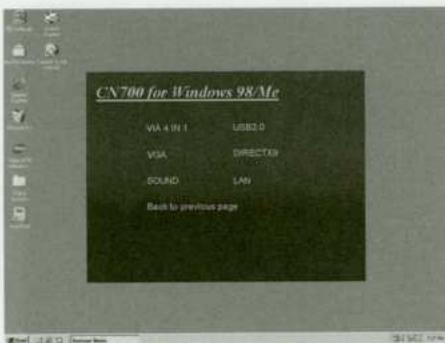


4. Click FINISH to Restart Computer.

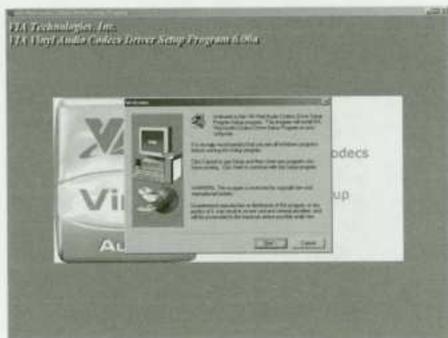
Note: When you install driver, the "Hardware Installation" dialog in Windows XP will appear, click "continue Anyway".

NOTE: The path of the file  
For WINDOWS 98/98SE/ME  
X:\driver\VIA\CN700\VGA\WIN98me\SETUP.EXE  
For WINDOWS 2000/XP  
X:\driver\VIA\CN700\VGA\WIN2KXP\SETUP.EXE

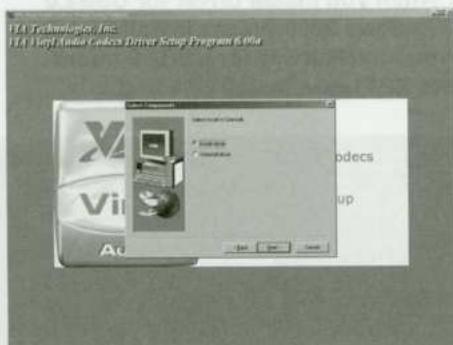
## 5-3 SOUND Install VIA Audio Codec Driver for VIA



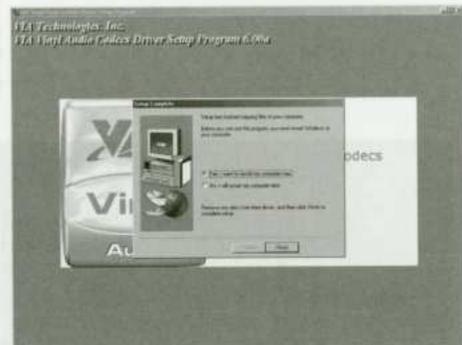
1. Click **SOUND** when System Install MENU appears.



2. Click **NEXT** install VIA AC97 Audio Driver



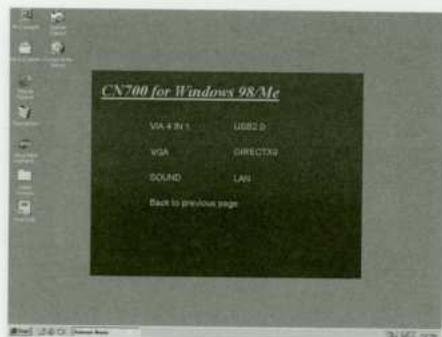
3. Click **NEXT** install VIA AC97 Audio Driver



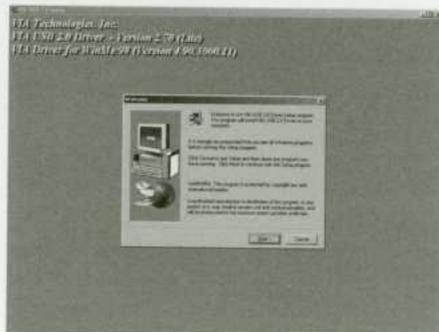
4. Click **FINISH** to Restart Computer.

**NOTE:** The path of the file  
For WIN98/ME/2K\XP  
X:\driver\vial\viaudio\setup.exe

## 5-4 USB2.0 install VIA USB2.0 Installing driver

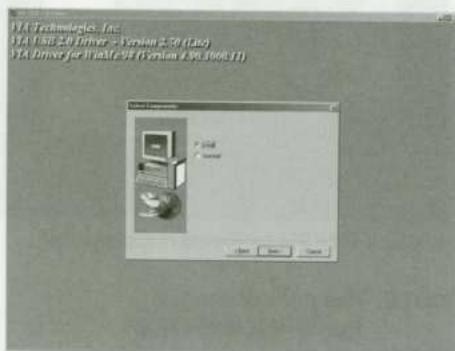


1. Click USB2.0 when System Install MENU appears.

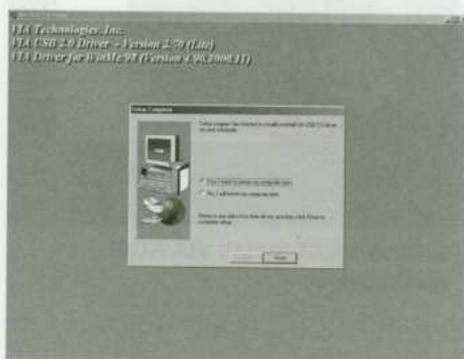


2. Click NEXT install USB2.0 Driver

**NOTE:** When you install driver for USB2.0 under Windows 2000. Please install SP4 first. When you install driver for USB2.0 under Windows XP. Please install SP1 first.



3. Click NEXT install VIA USB2.0 Driver



4. Click FINISH to Restart Computer.

**NOTE:** The path of the file  
For WIN98/ME/2K\XP  
x:\driver\vial\CN700\USB20\setup.exe

## 5-5 HOW TO DISABLE ON-BOARD SOUND

Enter BIOS SETUP. Choose INTEGRATE PERIPHERALS. Choose On-Chip Device FUNCTION. Choose " AC97 Audio Disable " on-board sound function by pressing PAGE DOWN KEY to Disable.

## 5-6 HOW TO UPDATE BIOS

In DOS Mode

- STEP 1. Prepare a boot disc. (you may make one by clicking START, clicking RUN, typing SYS A: , and clicking OK)
- STEP 2. Copy utility program to your boot disc. You may copy it from DRIVER CD X:\Diver\bios\AWDFLASH.EXE or download it from our web site.
- STEP 3. Copy the latest BIOS for CV700A from our web site to your boot disc.
- STEP 4. Insert your boot disc into A:

Start the computer and type "Awdflash A:\CV700Axxx.BIN/SN/PY/CC/R"  
CV700Axxx.BIN is the file name of the latest BIOS. It may be CV700AA1.BIN or CV700AA2.BIN

SN means don't save the current BIOS data

PY means renew the current BIOS data

CC means clear the current CMOS data

R means restart computer

- STEP 5. Press ENTER and the BIOS will be updated, computer will restart automatically.

## Appendix A: Power Consumption Test

### Condition

Item	Spec
CPU	V4 - C7 1GHz
DDR RAM	DDR2 533/1GB
Operating System	Windows XPP/SP2
Test Program	3D Mark 2001SE
HDD 3.5"	Standard HDD
HDD 2.5"	Slim Type HDD
Mini PCI Card	Wireless LAN IEEE802.11g

### Test Result for reference !

Hard Disk	Stand by	Start up		Operation	Shut down
		Maximum	Stable	Maximum	Maximum
Standard HDD	0.10A	2.53A	1.51A	2.12A	1.89A
Slim Type HDD	0.10A	1.51A	1.04A	1.67A	1.43A

The power consumption depends on your device choice!

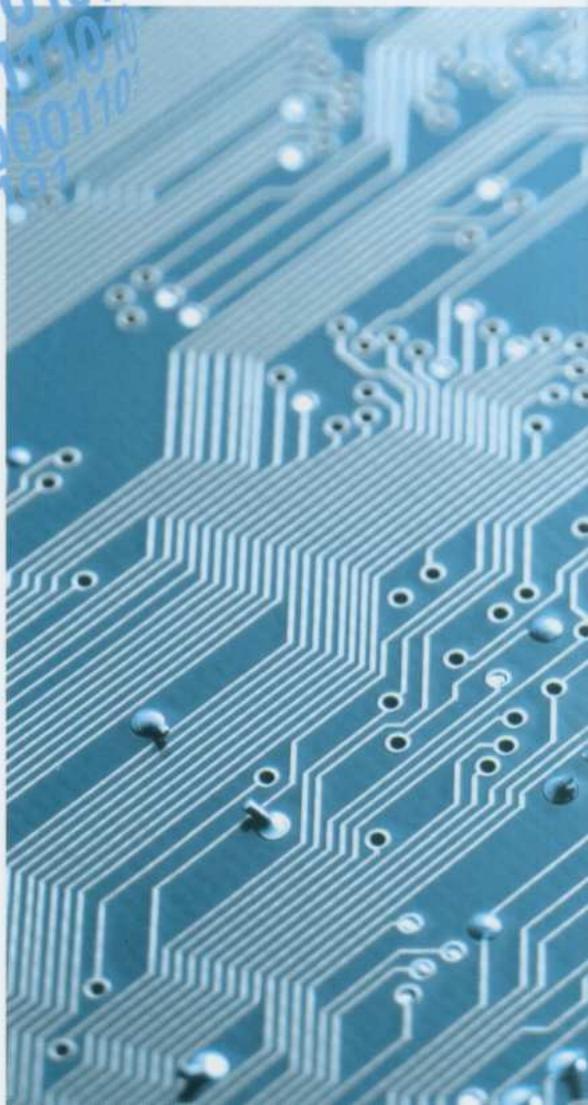
## Appendix B: Resolution list

640 x 480 x ( 256 / 16bit / 32bit )
800 x 600 x ( 256 / 16bit / 32bit )
1024 x 768 x ( 256 / 16bit / 32bit )
1280 x 1024 x ( 256 / 16bit / 32bit )
1366 x 768 x ( 256 / 16bit / 32bit )
1600 x 1200 x ( 256 / 16bit / 32bit )

MOTHERBOARD

**USER'S MANUAL**

7010101  
11000011010  
000011101010  
110000111010  
1010100011010  
0101



6G8001-2138-0400